



Waterhole Magnetic Modelling

Moline Project, Pine Creek

GDA94, MGA Z53

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3rd November 2017

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Waterhole – Magnetics



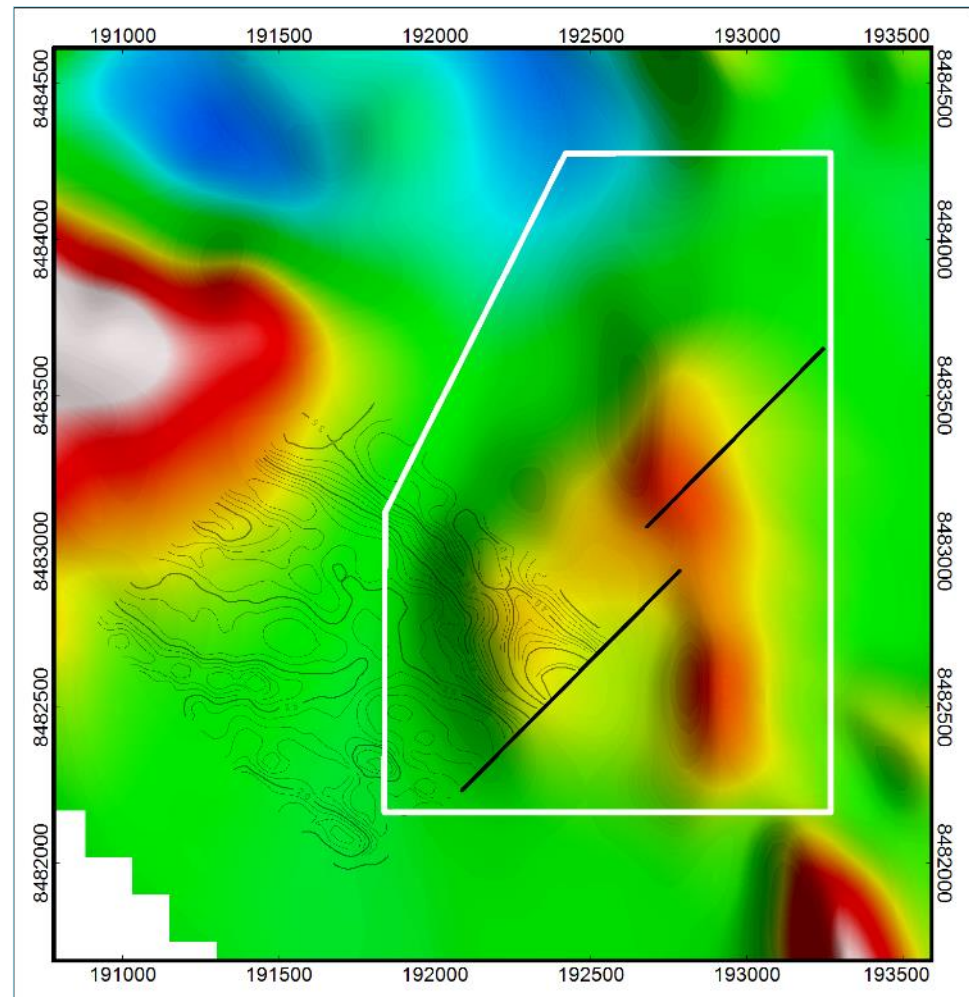
Subtle magnetic feature.

Magnetics from 2011 VTEM survey:

Line spacing - 200m

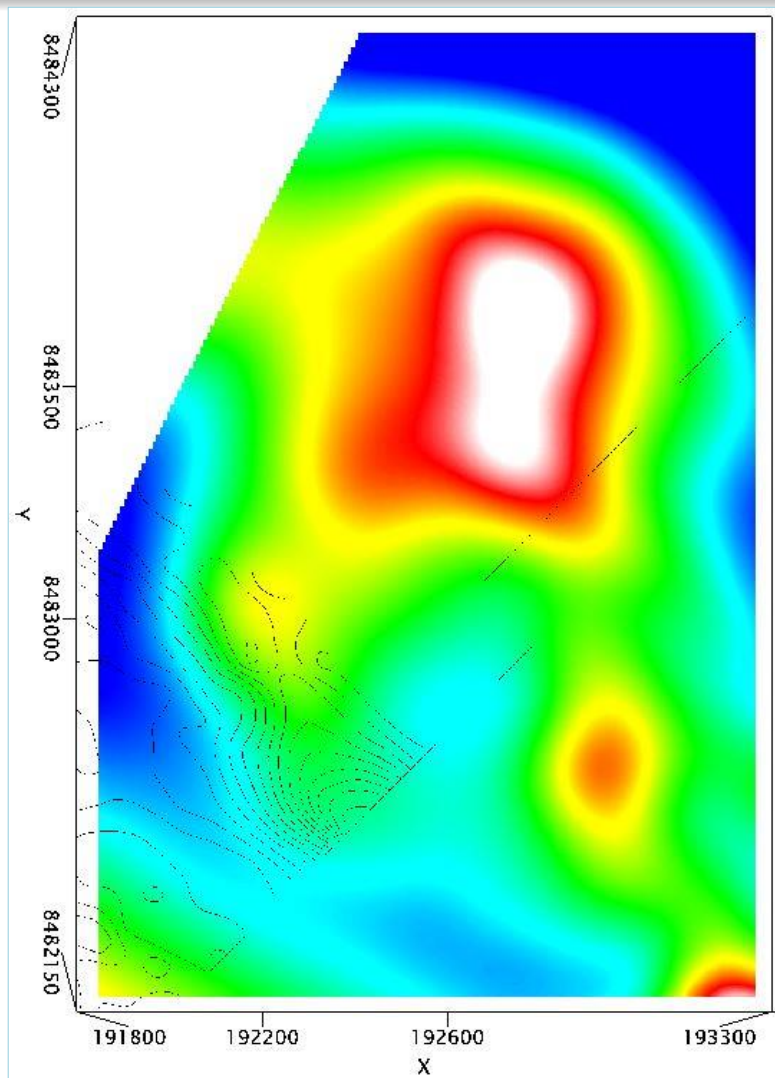
Line orientation – 046-226°

Sensor terrain clearance - 70m

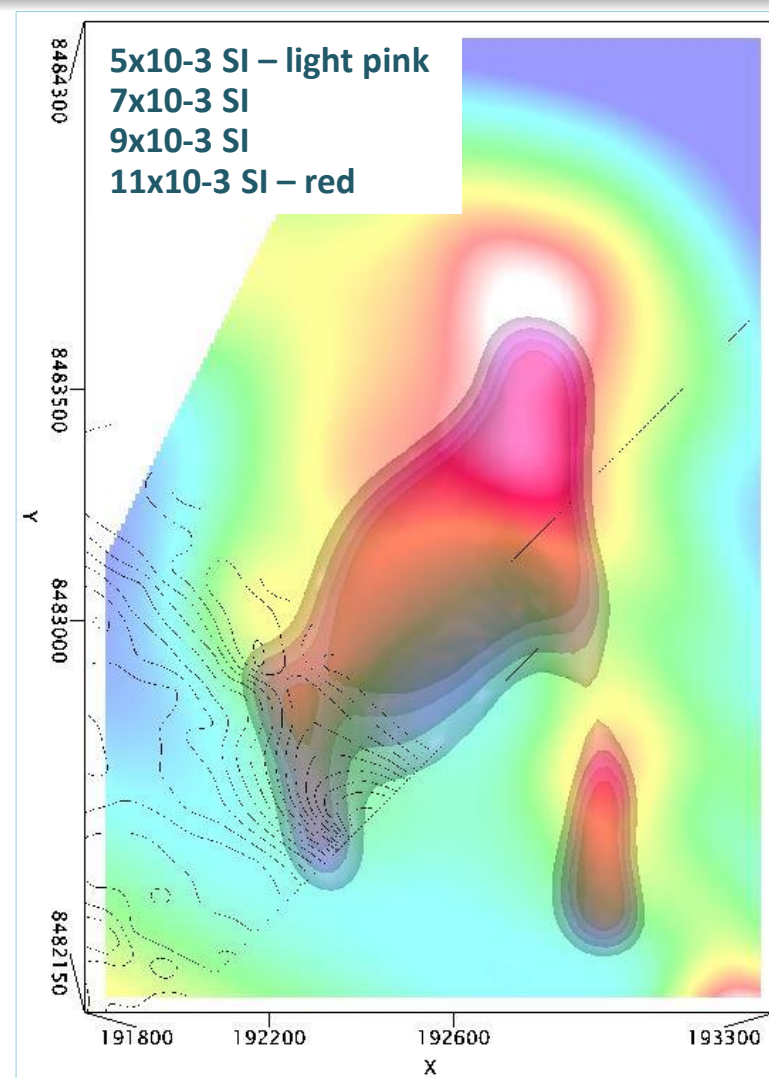


Waterhole RTP magnetics with inversion area (white) and gradient IP chargeability contours and 2DIP lines.

Waterhole – Magnetic Inversion

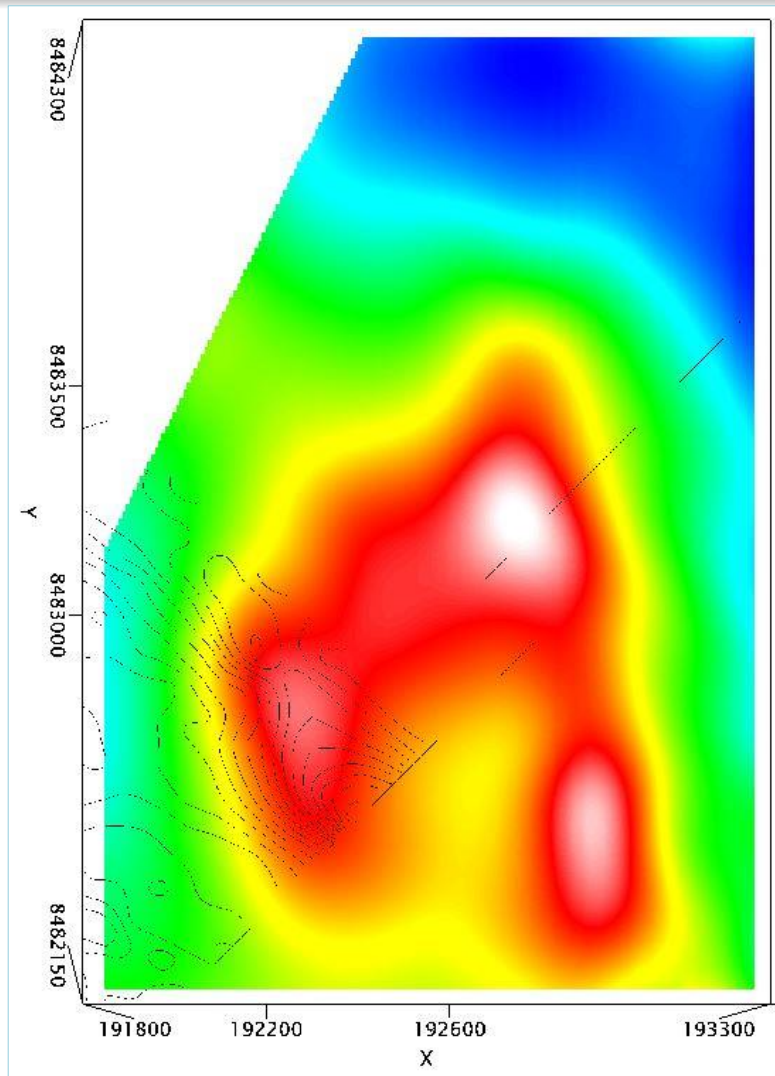


Residual TMI magnetics.

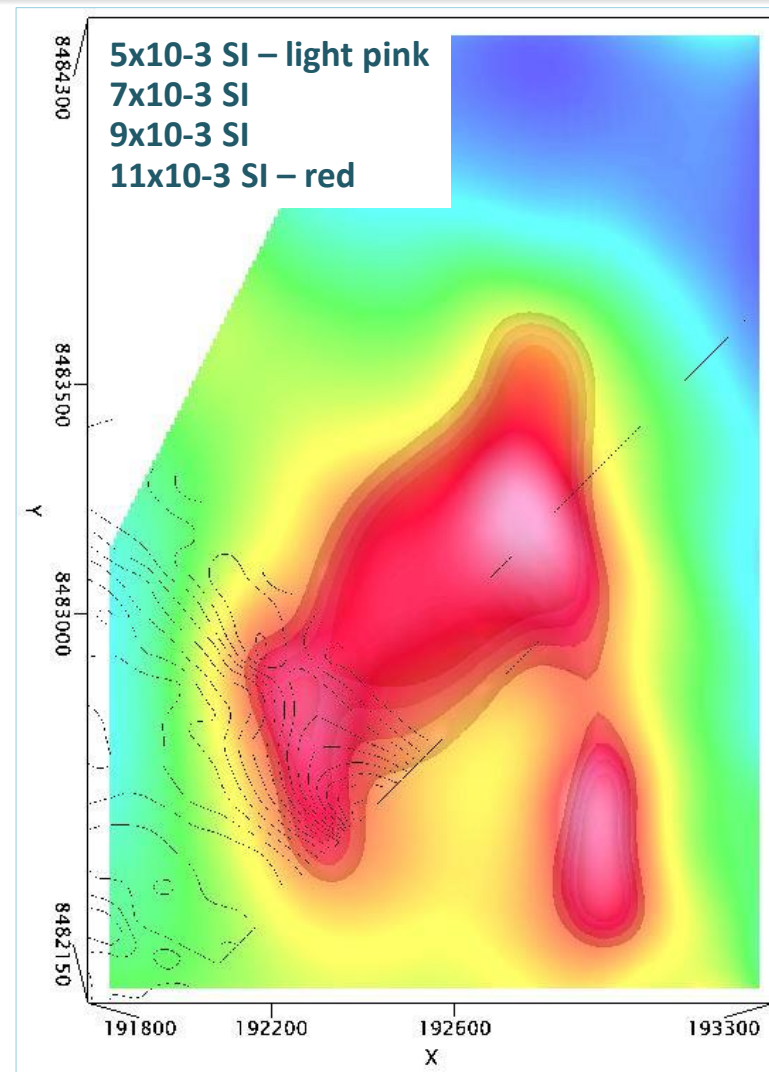


Residual TMI magnetics with isosurfaces of susceptibility underneath.

Waterhole – Magnetic Inversion

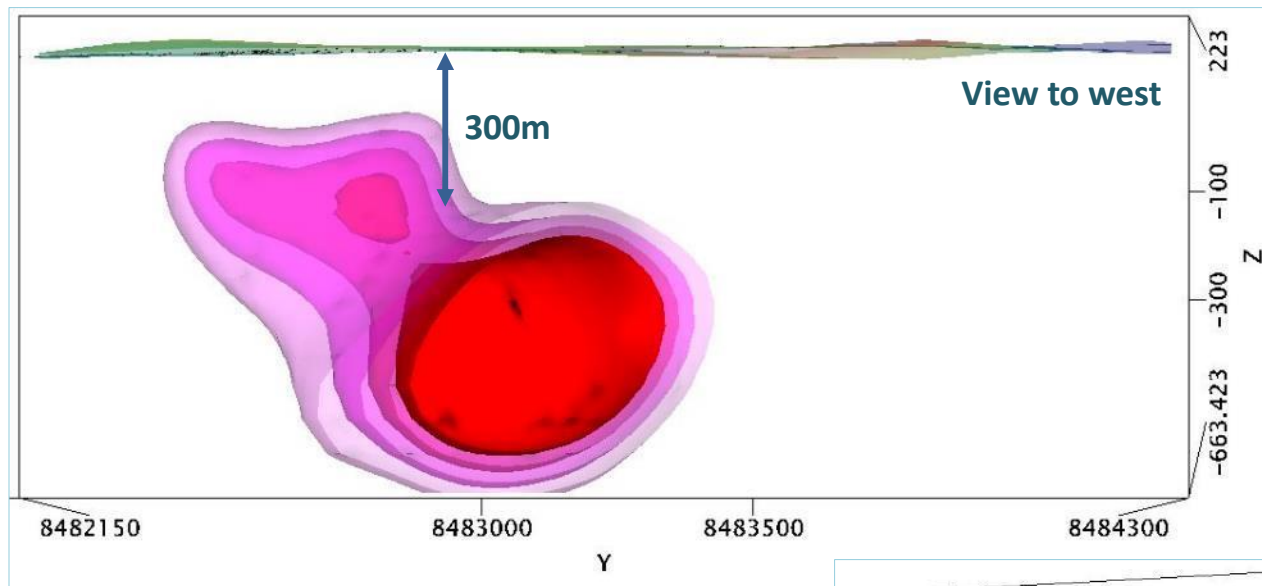


Residual RTP magnetics.



Residual RTP magnetics with isosurfaces of susceptibility underneath.

Waterhole – Magnetic Inversion



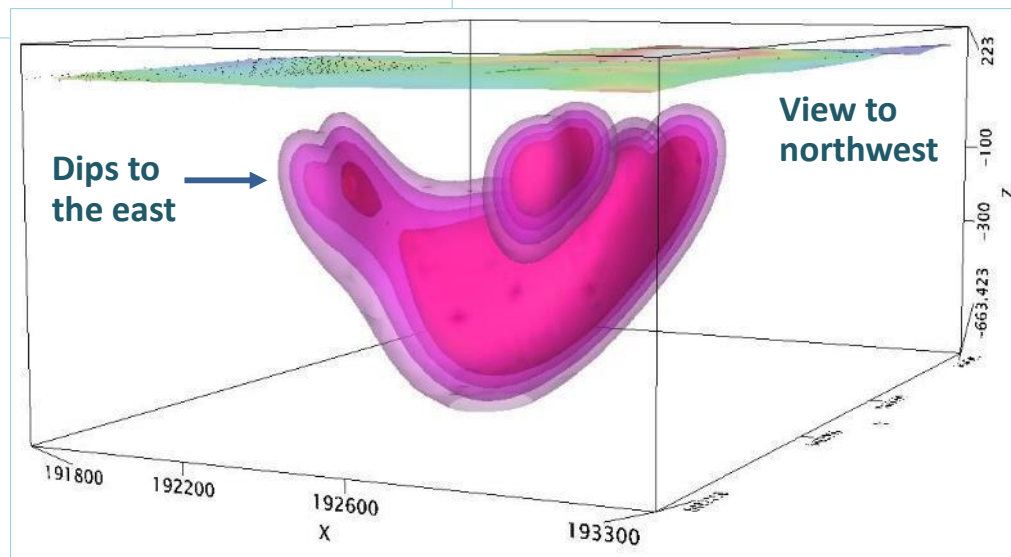
Isosurfaces of susceptibility.

5×10^{-3} SI – light pink

7×10^{-3} SI

9×10^{-3} SI

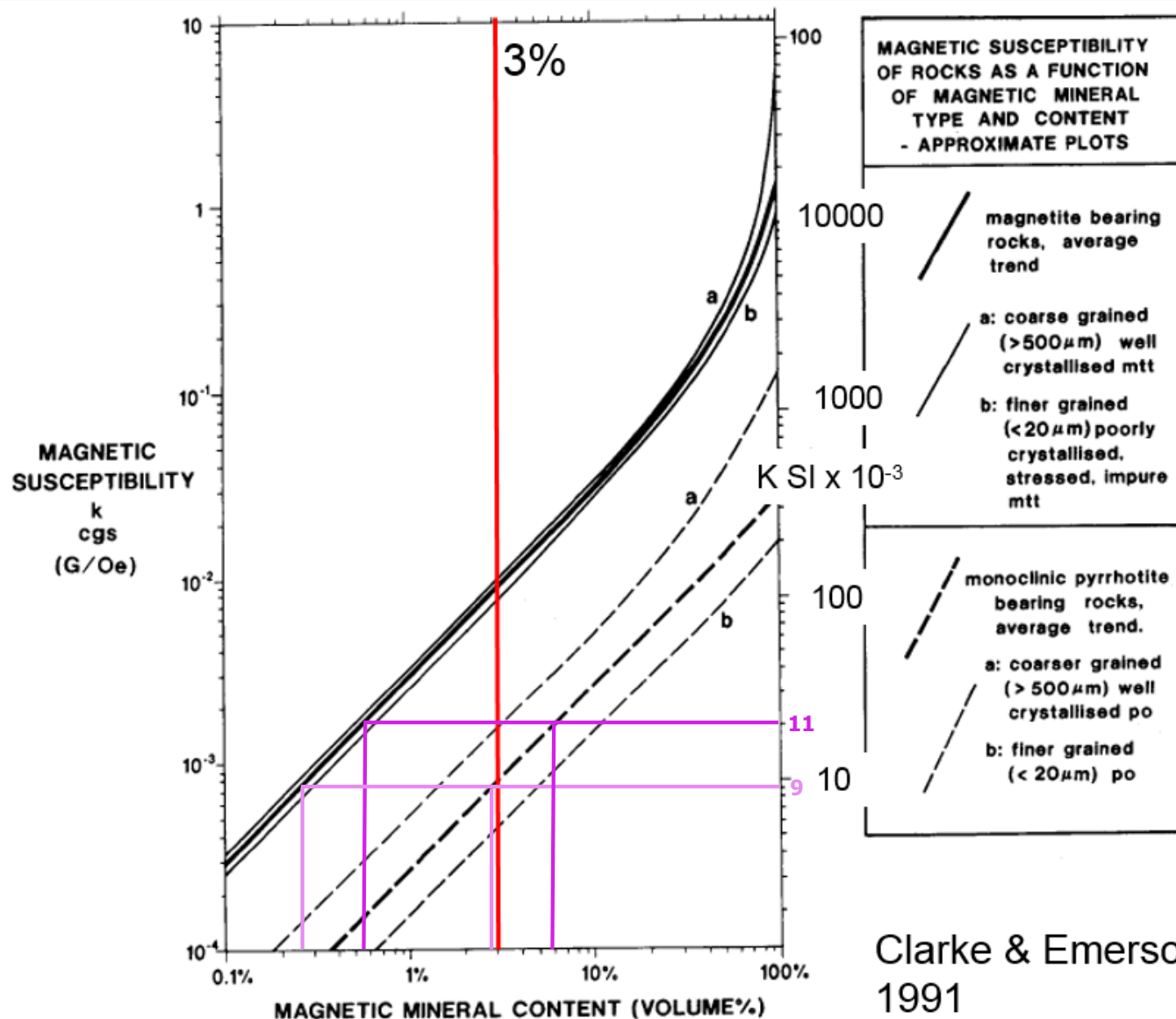
11×10^{-3} SI – red



Susceptibility & Magnetite %



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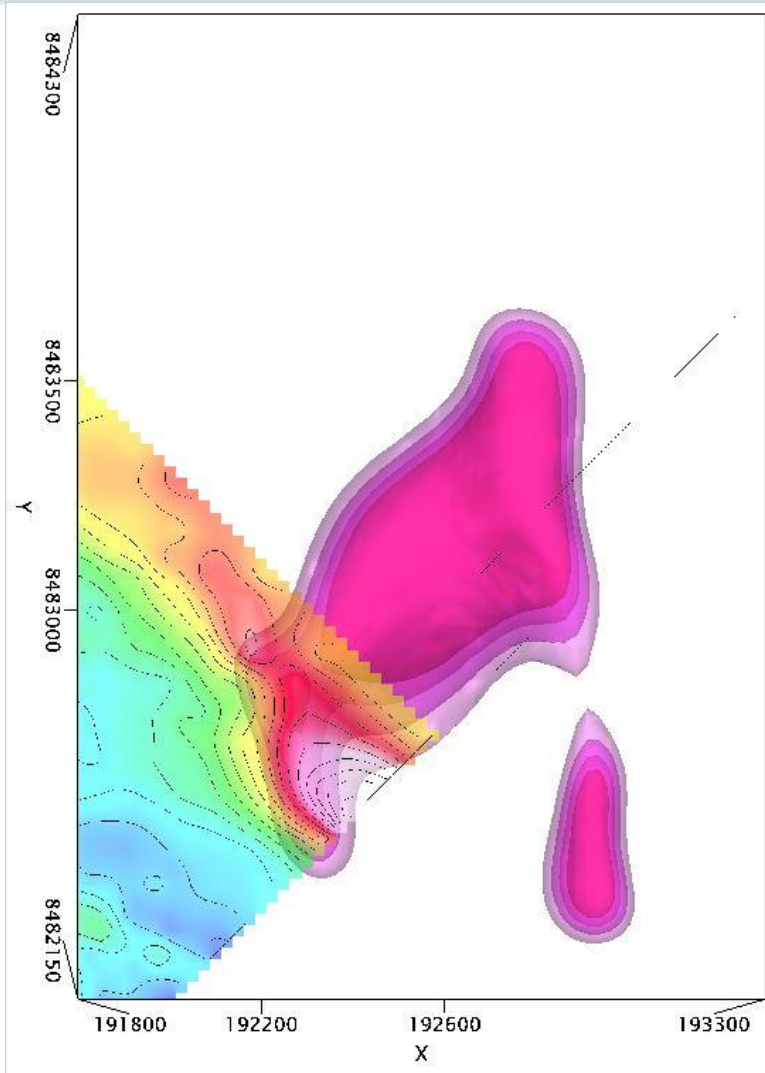


Clarke & Emerson
1991

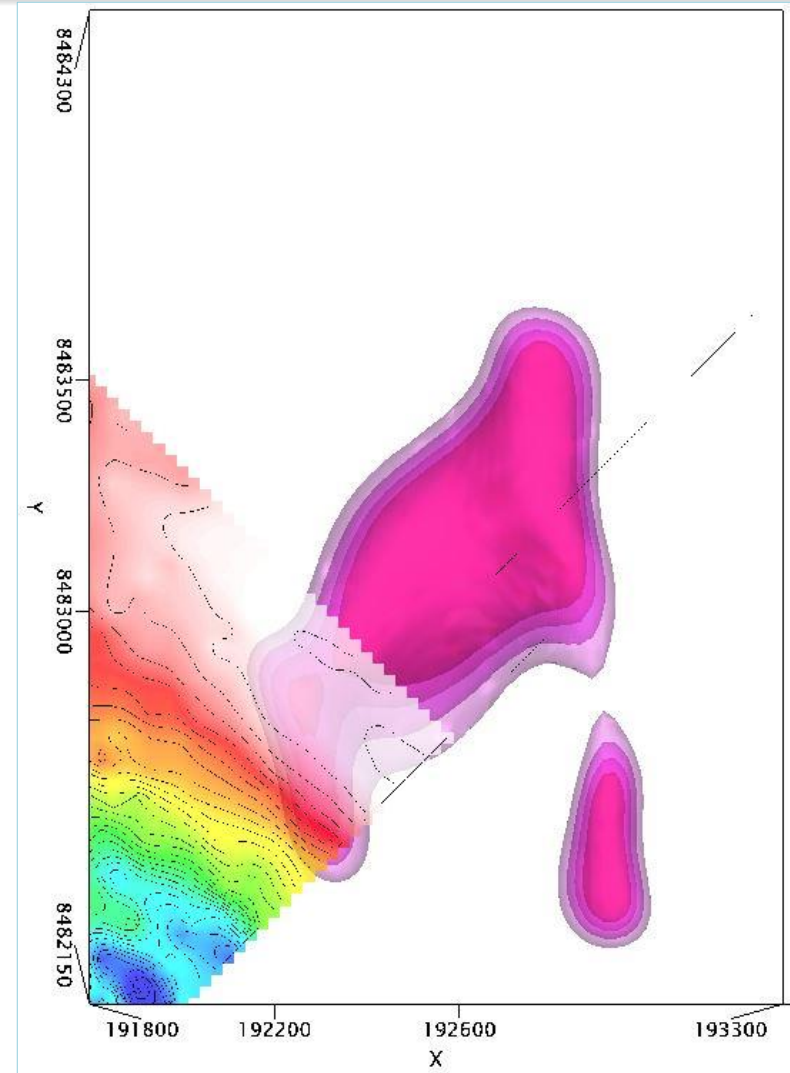
Waterhole – Magnetic Inversion



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Isosurfaces of susceptibility
with gradient IP chargeability.

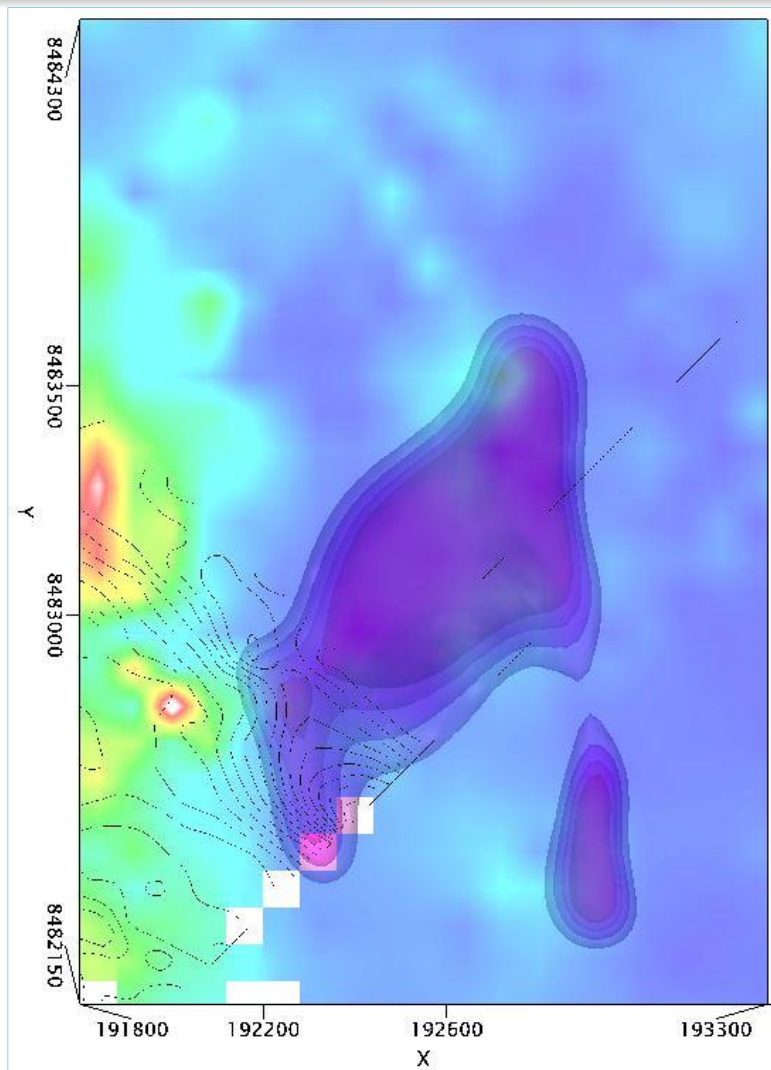


Isosurfaces of susceptibility with
gradient IP apparent resistivity.

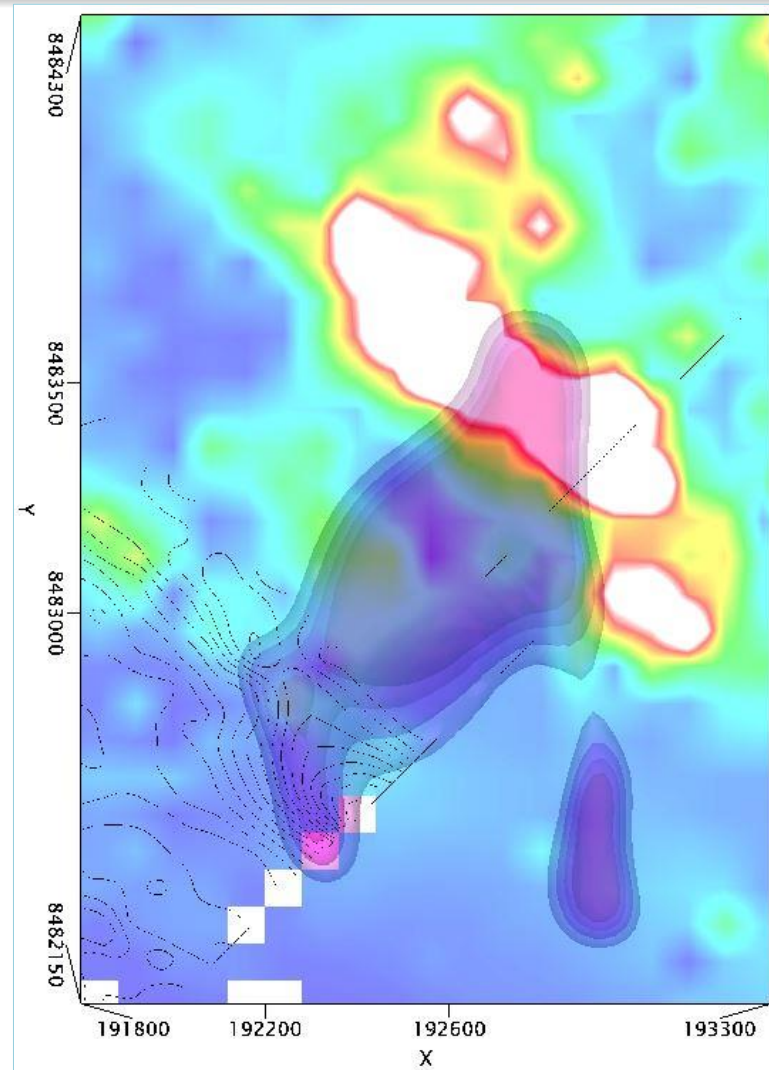
Waterhole – Magnetic Inversion



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**Isosurfaces of susceptibility
with Zn geochemistry.**

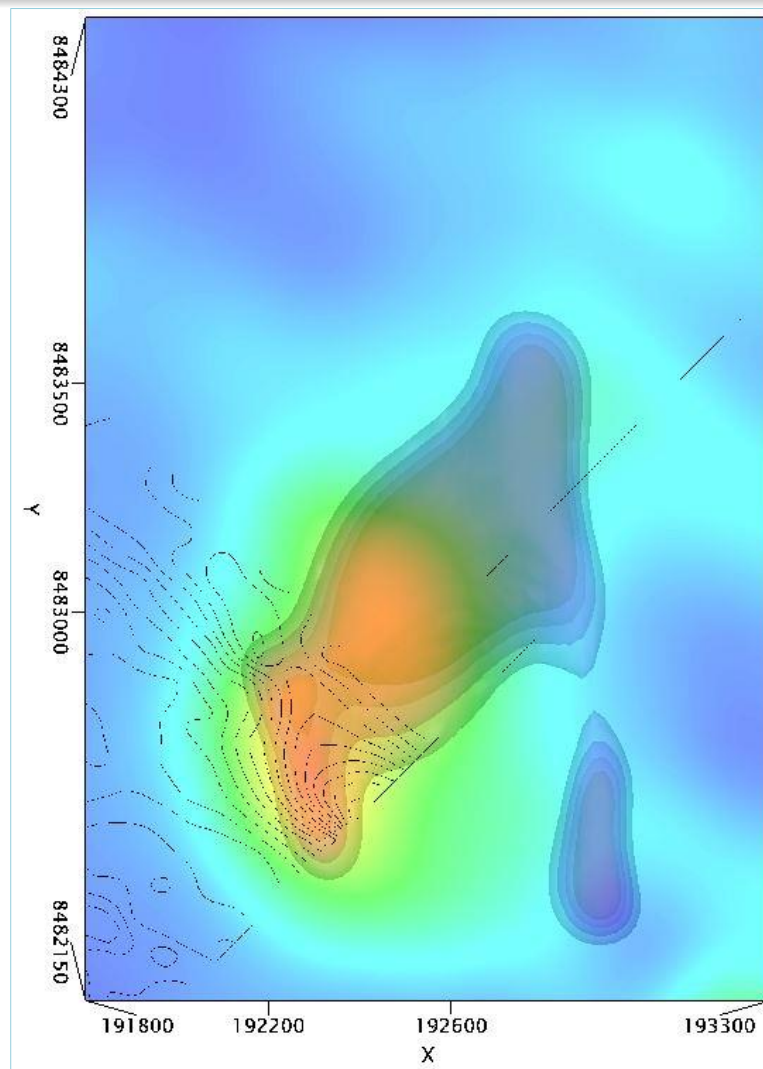


**Isosurfaces of susceptibility
with As geochemistry.**

Waterhole – Magnetic Inversion



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**Isosurfaces of susceptibility
with VTEM tau.**

Waterhole – Conclusions



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There is a weakly magnetic body at the Waterhole prospect that coincides with a chargeability and conductive high.

The magnetic body has a depth to centre of ~300m.

Susceptibility feature interpreted to be +3% pyrrhotite equivalent.

It may have an association with a stronger magnetic feature to the northeast.



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