

## SOPHIA 1:100,000 SHEET

Enhancement descriptions for airborne magnetics. NOTE: because the gridded data incorporated surveys having N-S and E-W flight line directions the decorrugation process was not performed on the data prior to enhancement.

- Slide 1 : Greyscale, raw magnetics with histogram-normalised stretch and 0.1% clip.
- Slide 2 : Greyscale, 0.1% clip with space variant contrast stretch - a non-linear local enhancement (analogous to AGC) to accentuate subtle detail in areas of low amplitude.
- Slide 3 : Greyscale, 0.1% clip with a first derivative approximation (NW-SE gradient) performed by convolving the image with a directional edge detecting template.
- Slide 4 : Greyscale, 0.1% clip with a first derivative approximation (E-W gradient) performed by convolving the image with a directional edge detecting template.
- Slide 5 : Greyscale, 0.1% clip featuring a space variant contrast stretch and shading with vertical illumination.
- Slide 6 : Greyscale, 0.1% clip with a high pass frequency filter using a 10km cutoff. High frequency magnetic anomalies usually caused by shallow magnetic rocks are highlighted.
- Slide 7 : Greyscale, 0.1% clip shadowgram with NW illumination and 50° sun elevation.
- Slide 8 : Greyscale, 0.1% clip shadowgram with E illumination and 50° sun elevation.
- Slide 9 : Pseudocoloured, raw magnetics with 0.1% clip linear contrast stretch.
- Slide 10: Pseudocoloured, 0.1% clip with upward continuation to 1,000 metres. This filter has the effect of simulating measurements taken 1,000 metres above ground level. The result is to attenuate anomalies and is more pronounced for high than low frequency anomalies.
- Slide 11: Pseudocoloured, 0.1% clip with downward continuation to 50 metres. This filter simulates measurements taken 50 metres above ground level. It has more influence on high than low frequency components and effectively sharpens their appearance.
- Slide 12: Pseudocoloured, 0.1% clip shadowgram with NW illumination and 50° sun elevation. (MISSING)
- Slide 13: Pseudocoloured, 0.1% clip shadowgram with N illumination and 50° sun elevation.
- Slide 14: Pseudocoloured, 0.1% clip shadowgram with NE illumination and 50° sun elevation.