



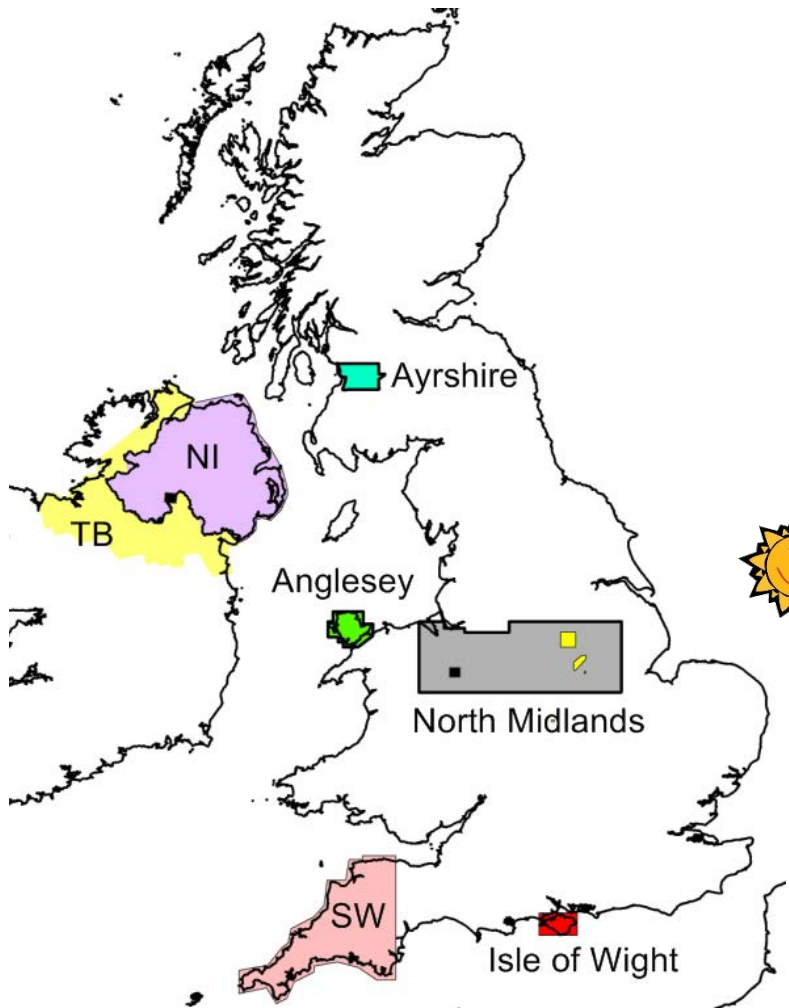
# TELLIUS

## South West



the preliminary airborne geophysical data

[ the data remains preliminary until **ALL** data are acquired and final processing (noise reduction and levelling) is applied]



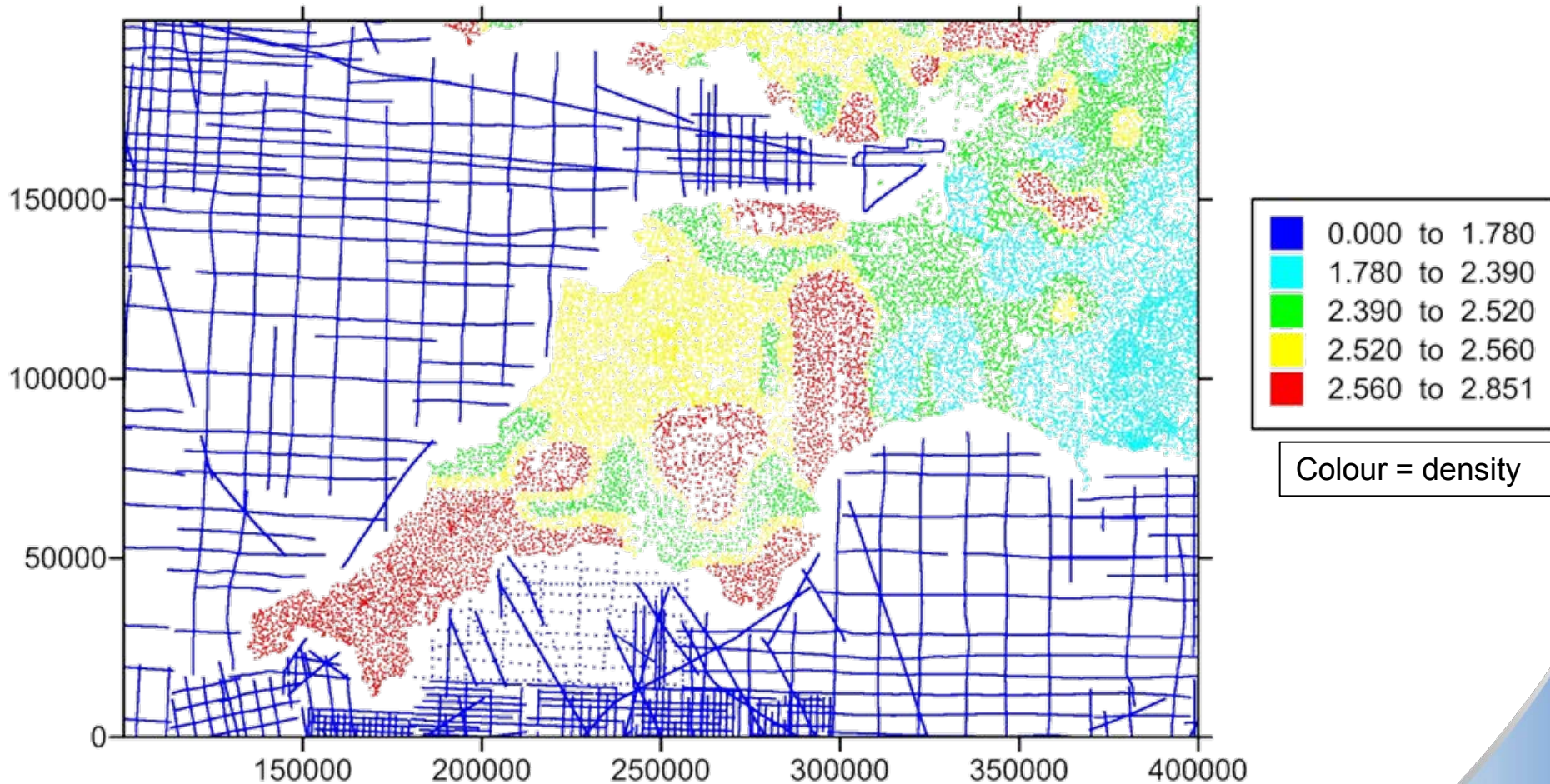
Survey Plan is for 60,000 line-km of magnetic and radiometric (gamma-ray) data

High-resolution airborne in the UK uses:

- 200 m flight line (N-S) separations
- ~80 m flying height (rural, CAA)



# Gravity data points in UK baseline dataset (onshore + marine)

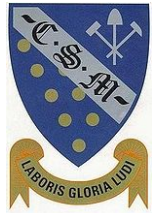
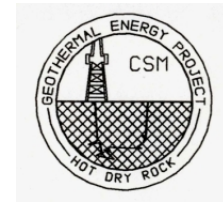
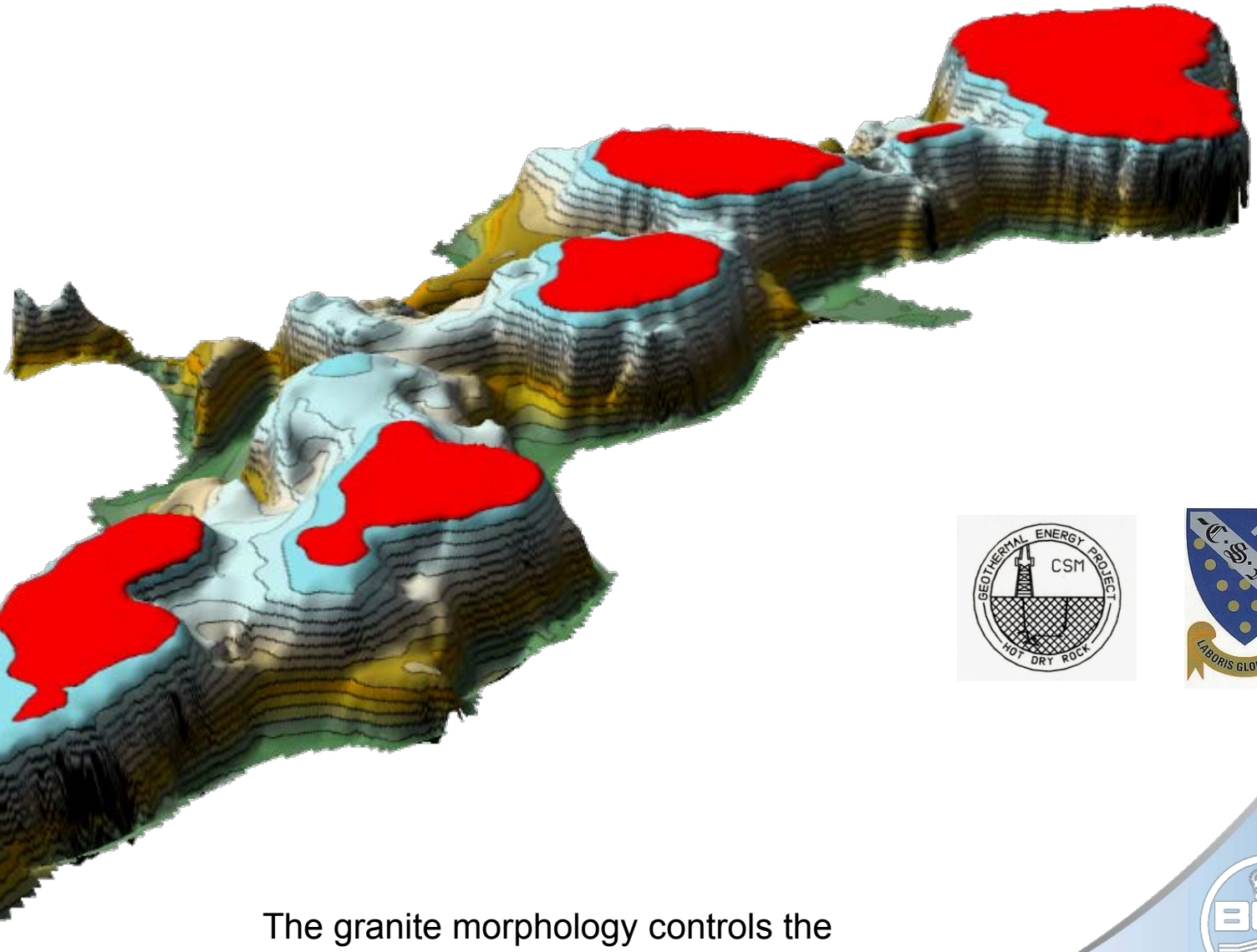
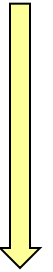




# Subsurface geometry of SW granite batholith (outcrop in red)

3D model developed by CSM using baseline gravity data

8 km



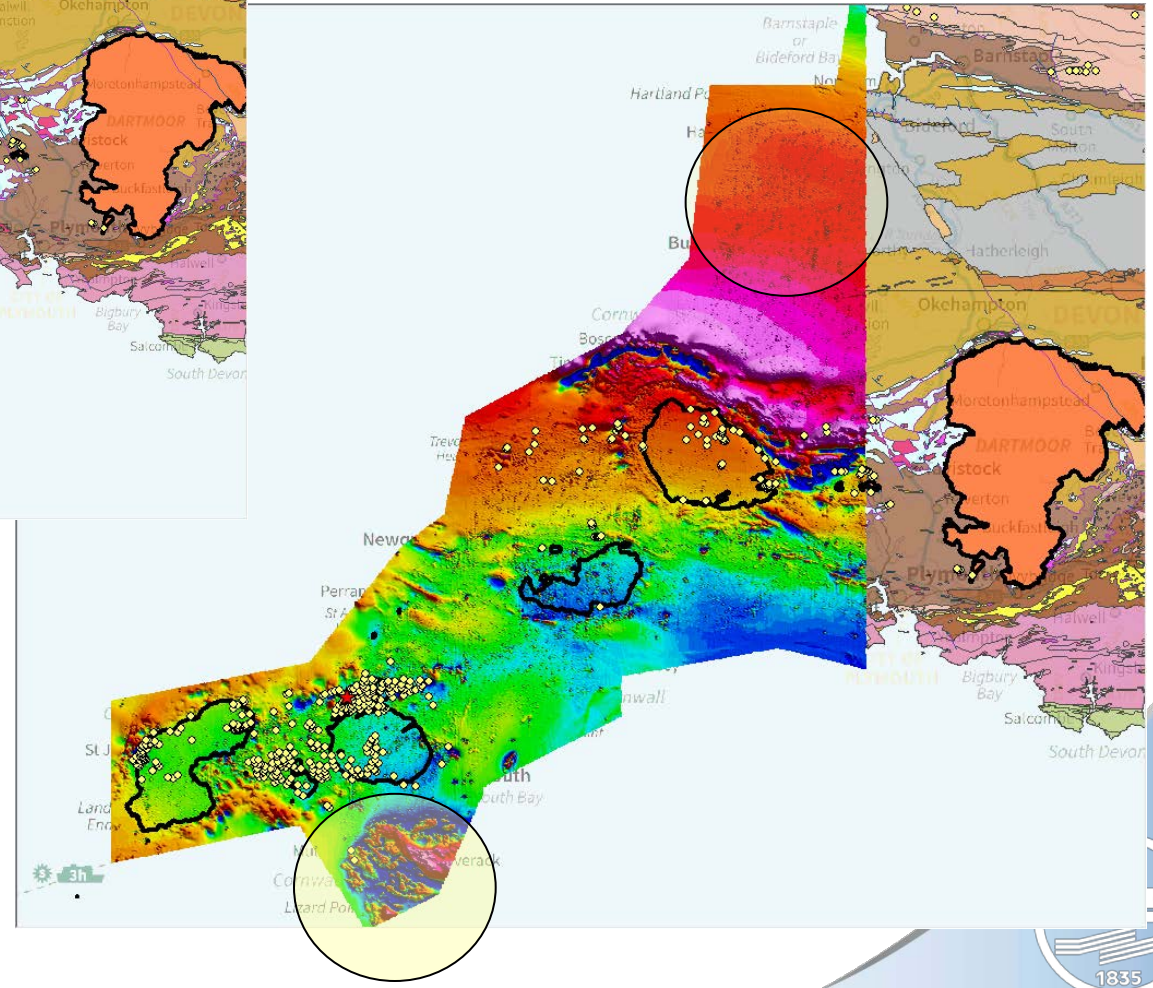
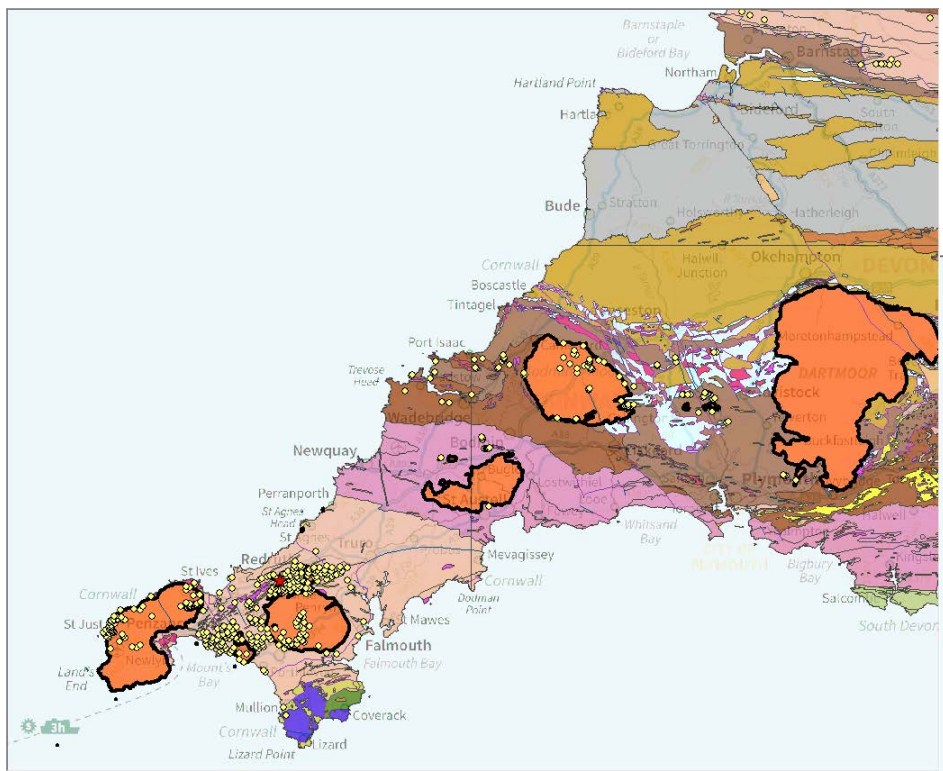
The granite morphology controls the geophysical responses at the regional scale



Magnetic gradiometer triaxial system (3 magnetometers, wingtips and tail)



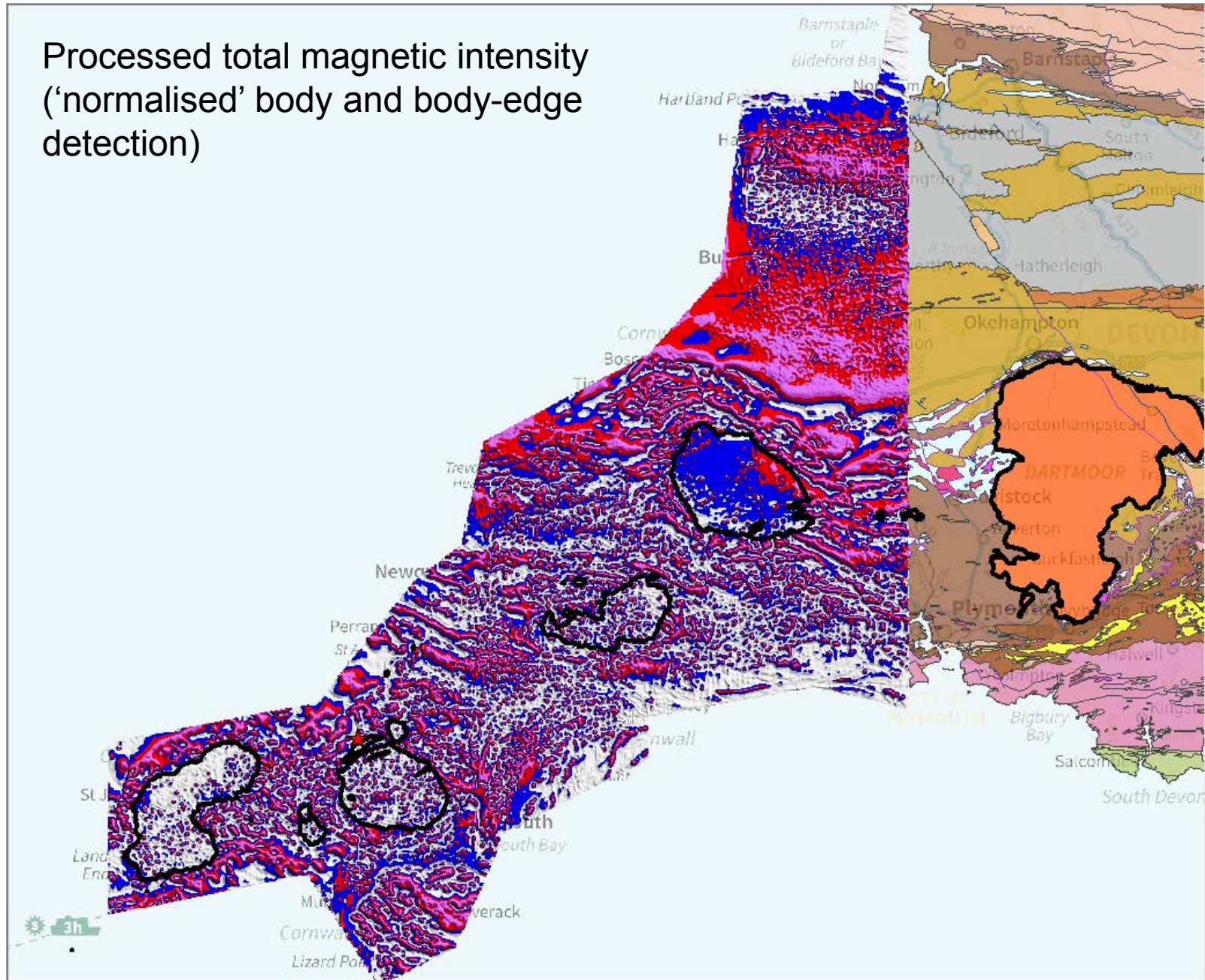
Total magnetic intensity  
Preliminary data.  
Granite outcrop in black



1:250k bedrock geology  
With points from  
BRITPIT METALS (595  
entries, South Crofty  
active)



Processed total magnetic intensity  
(‘normalised’ body and body-edge  
detection)



Radiometric data provide ground concentrations of:

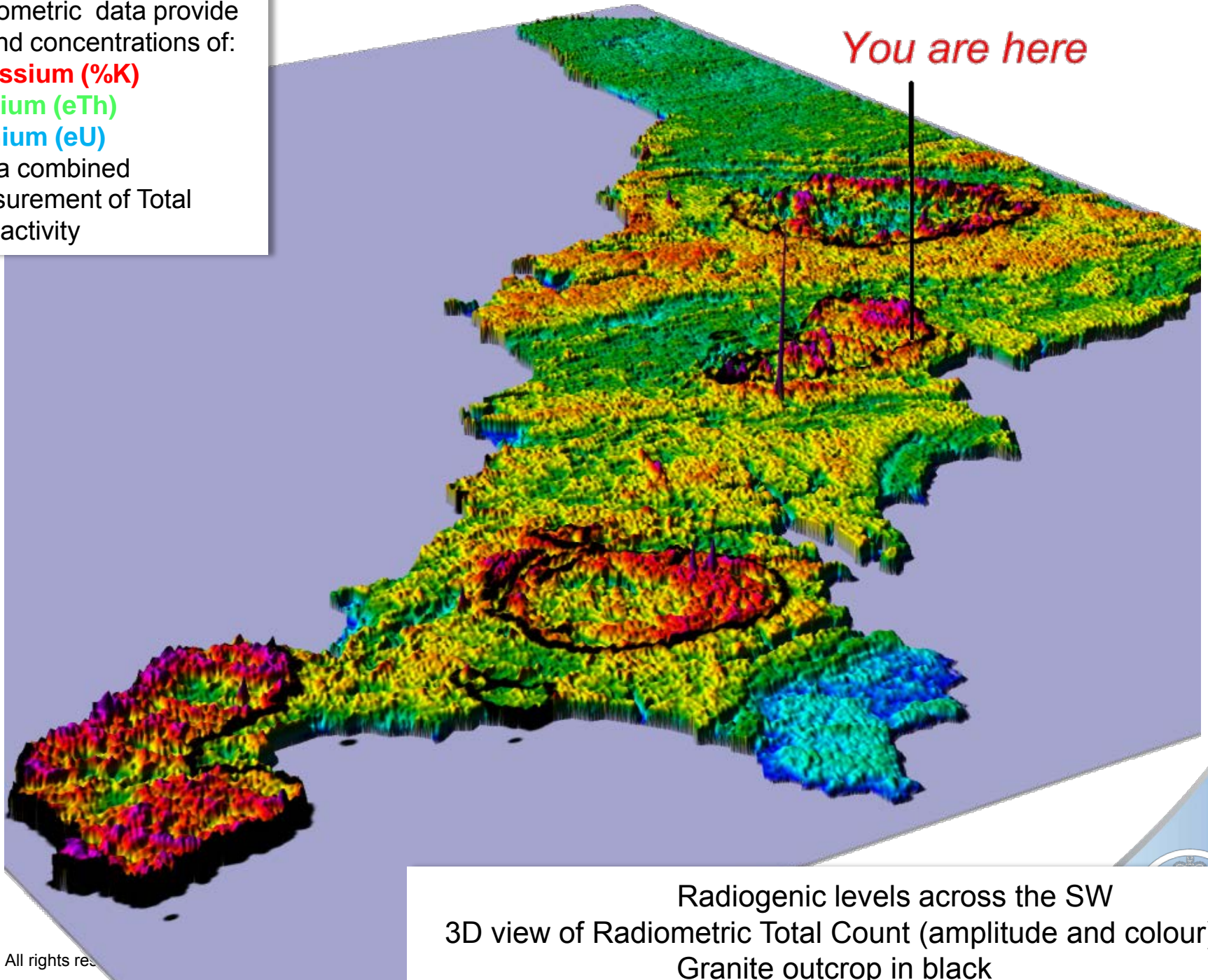
**Potassium (%K)**

**Thorium (eTh)**

**Uranium (eU)**

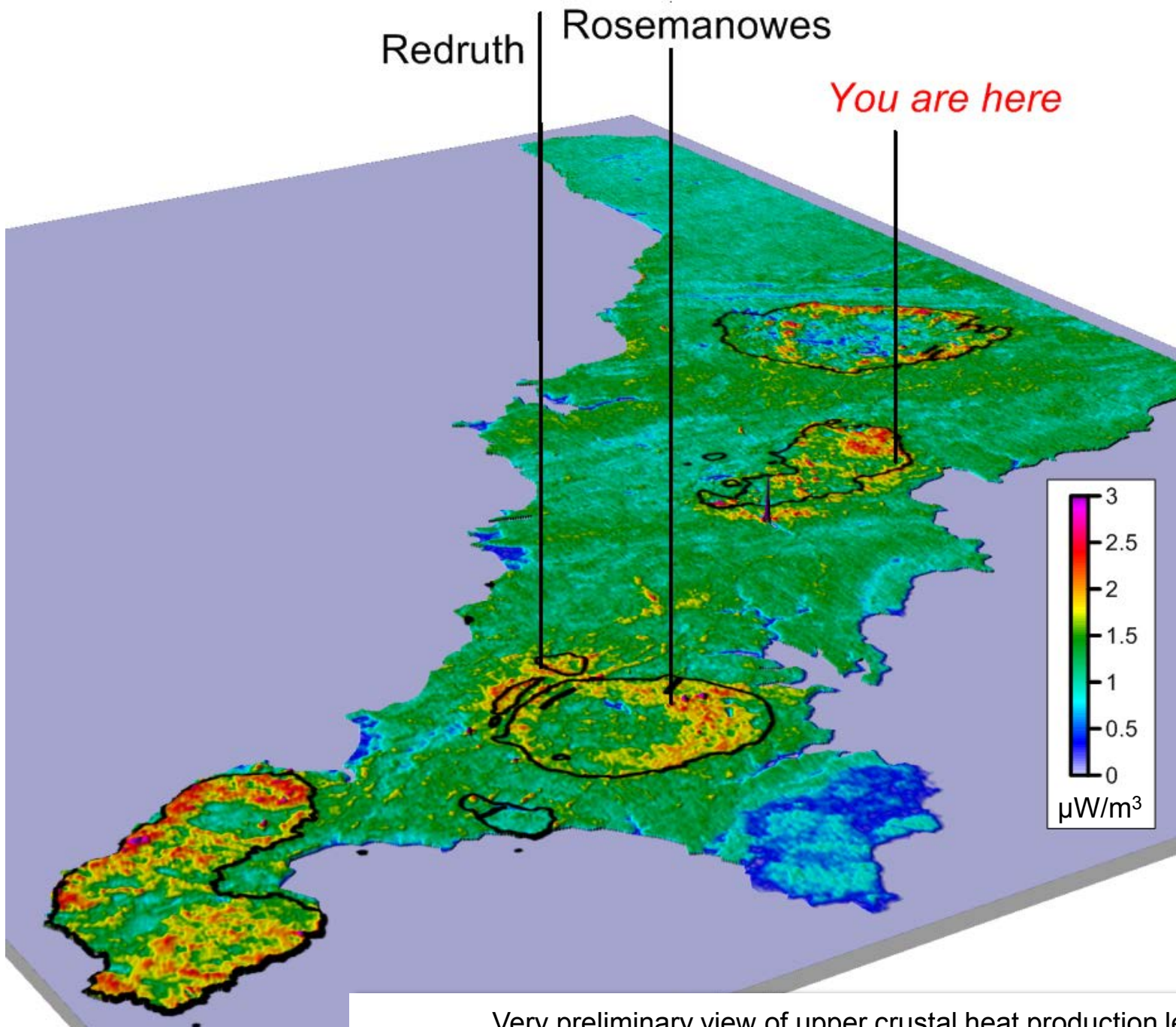
And a combined measurement of Total radioactivity

*You are here*



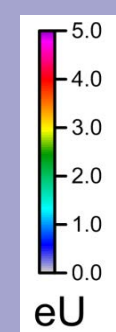
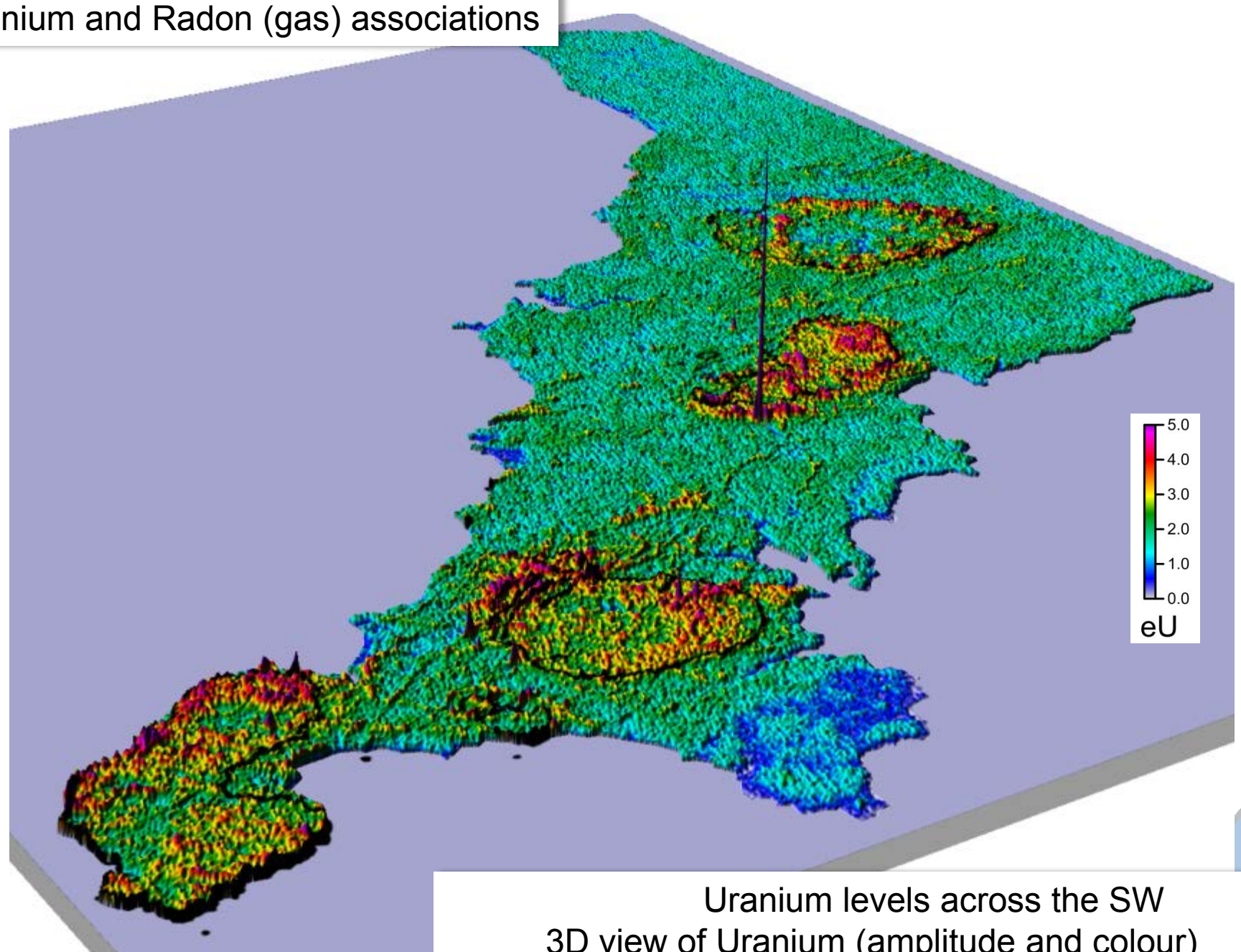
Radiogenic levels across the SW  
3D view of Radiometric Total Count (amplitude and colour).  
Granite outcrop in black





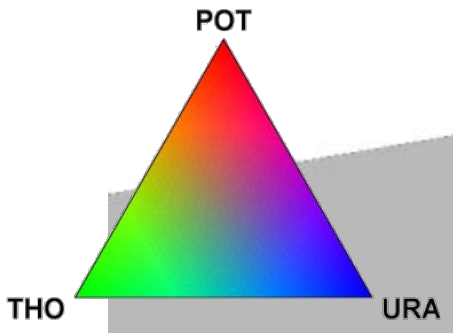
Very preliminary view of upper crustal heat production levels  
3D view (amplitude and colour). Granite outcrop in black

# Uranium and Radon (gas) associations



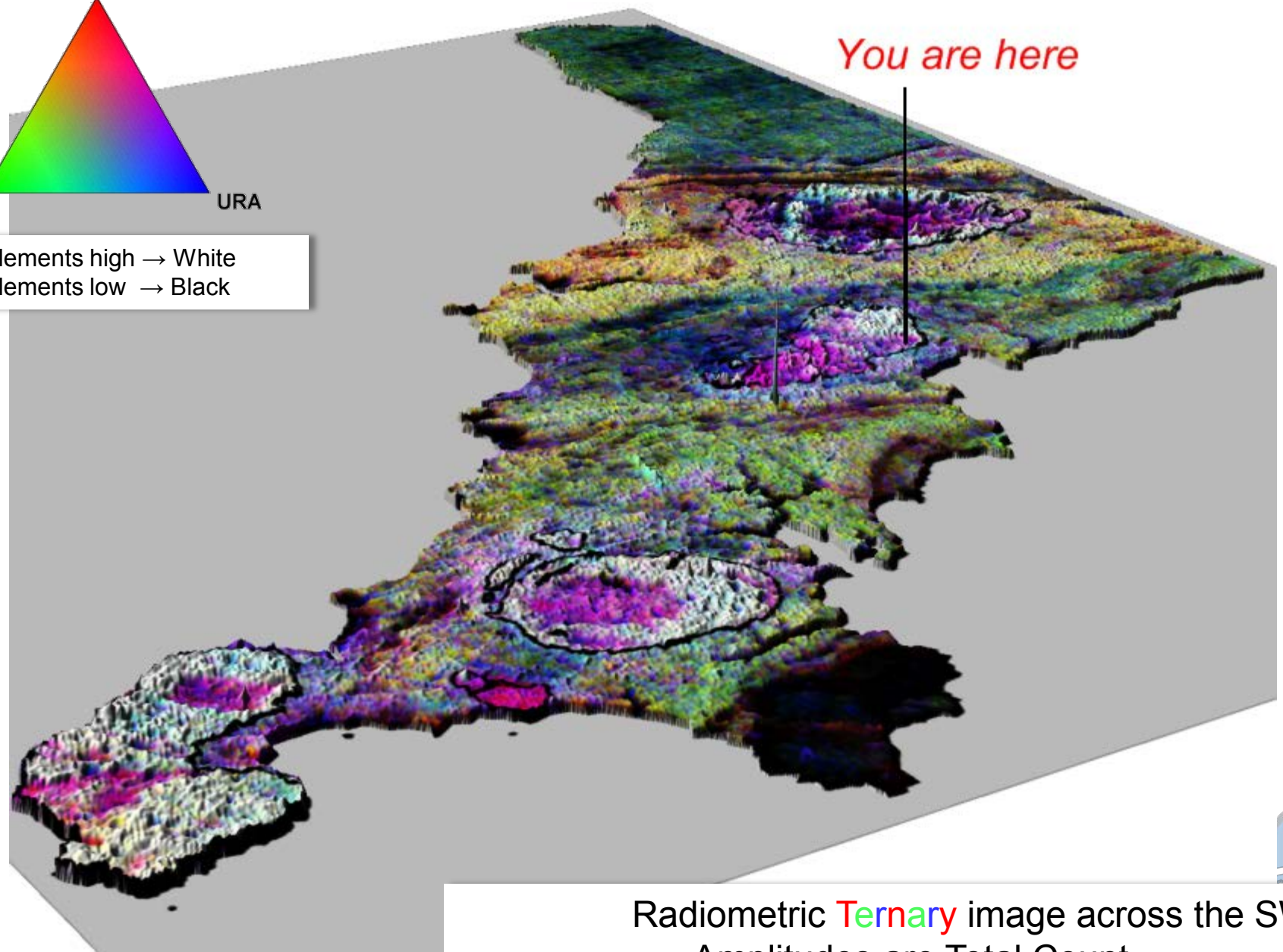
Uranium levels across the SW  
3D view of Uranium (amplitude and colour)  
Granite outcrop in black



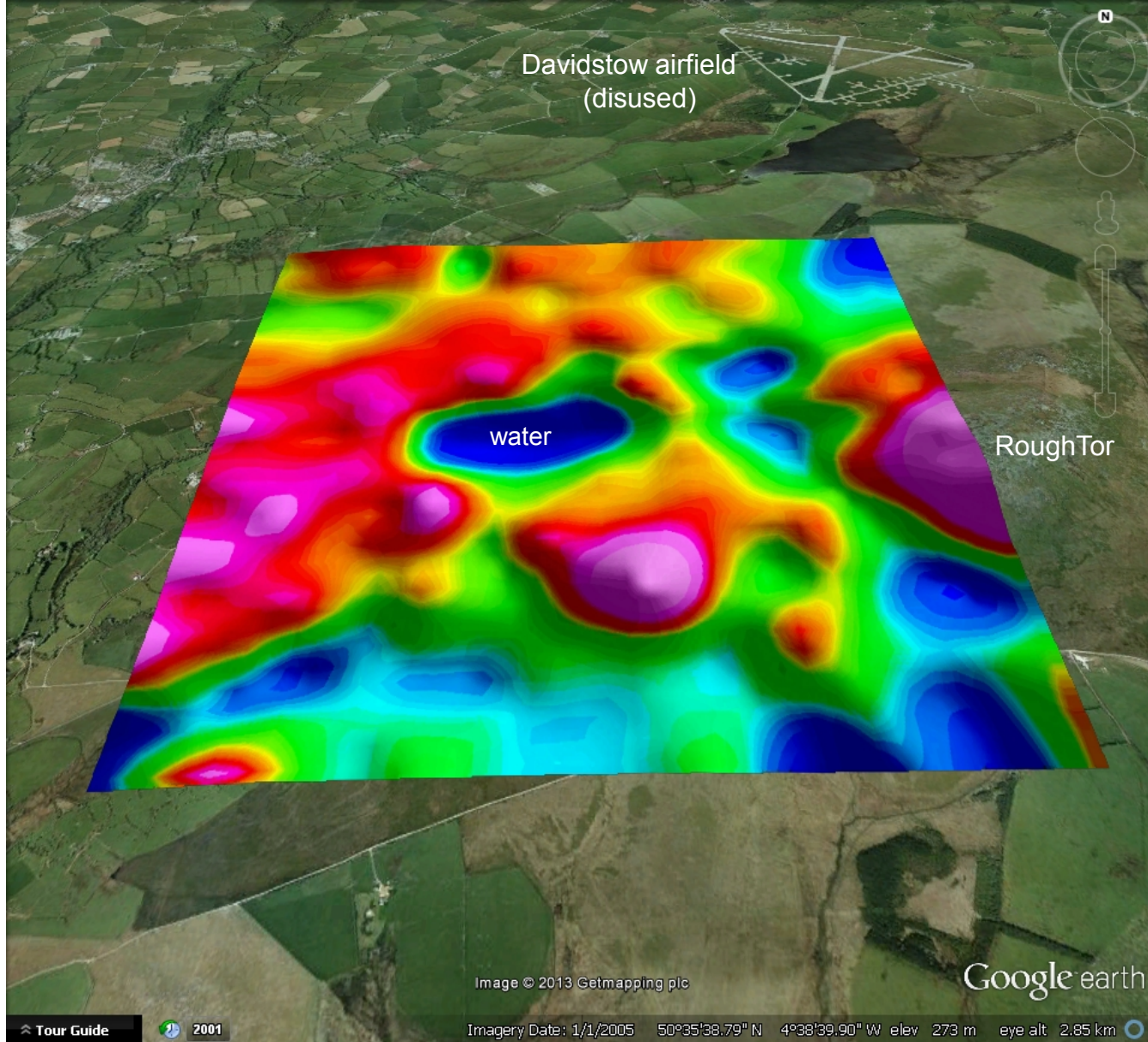


all elements high → White  
 all elements low → Black

*You are here*

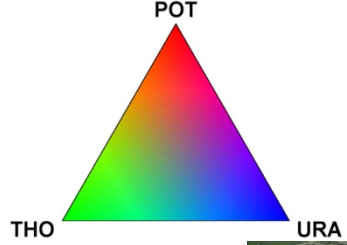


Radiometric Ternary image across the SW  
 Amplitudes are Total Count  
 Granite outcrop in black

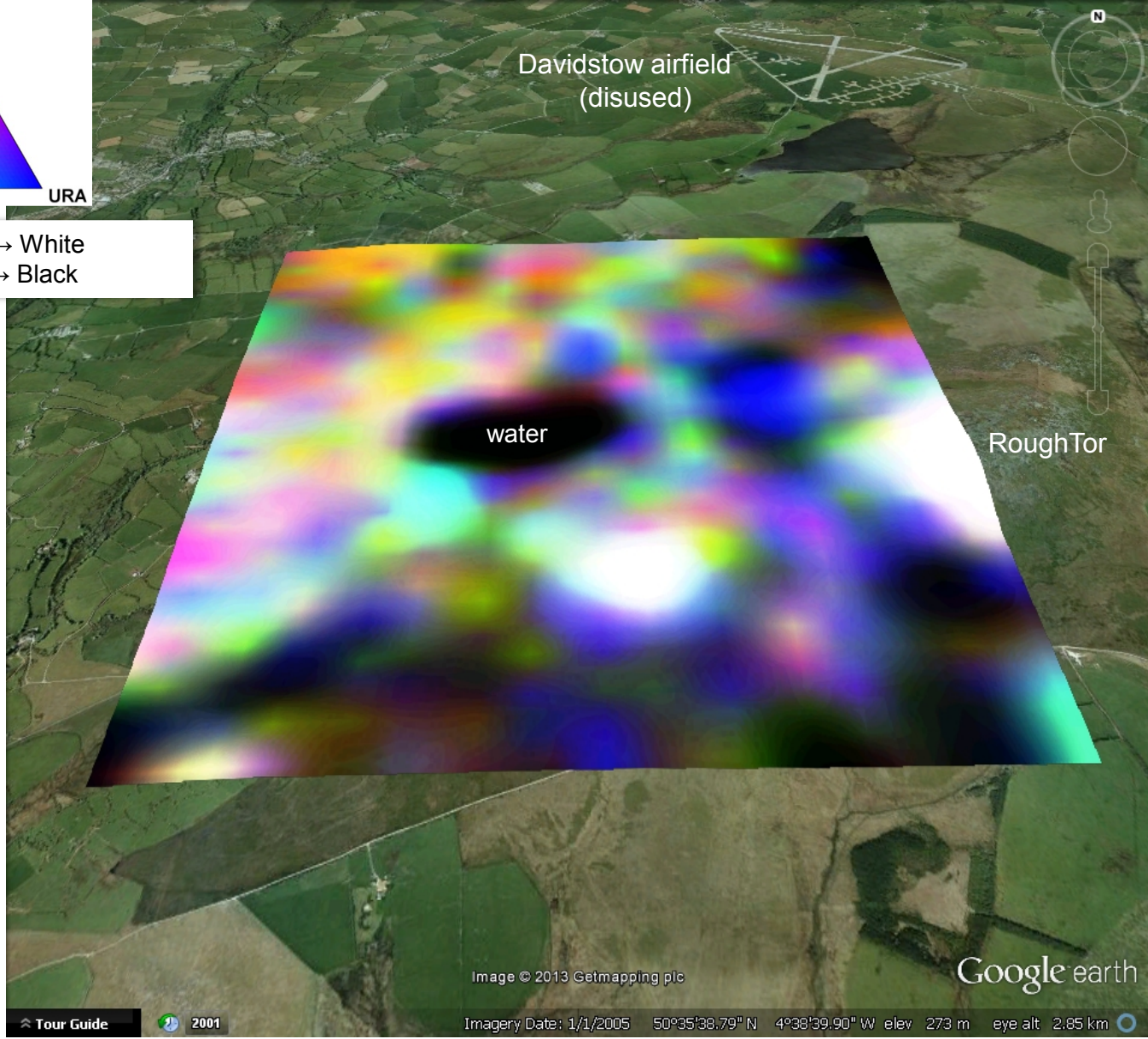


3 x 3 km area of Bodmin Moor. Radiometric Total Count crossing China Clay workings (Watergate) and onto Rough Tor, in the east





all elements high → White  
 all elements low → Black



3 x 3 km area of Bodmin Moor. Radiometric Ternary crossing China Clay workings (Watergate) and onto Rough Tor, in the east





*Thanks for your attention*

