

ASX: ADC



Technical Presentation | June 2023

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ACDC Corporate Strategy



Building a mine-to-market critical metals company with heavy mineral sand (HMS) assets and proprietary rare earth element (REE) processing technology.

Secure supply of critical metals is essential for the energy transition. Through an innovative business model, ACDC can play a pivotal role.



Mineral Sands Projects





- Mineral sands assets all located in western Victoria on the edge of the Murray Basin mineral sands district
- Projects all close to current or historic mineral sands operations
- Clear access and wide roadside verges for low impact exploration
- Over 12,500 metres drilled since ACDC inception

Project	Tenement Number	Holes completed	Metres completed
Goschen Central	EL5278	141	6,965
Watchem	EL7642	78	3,530
Douglas	EL7544	43	2,116
TOTAL		262	12,611

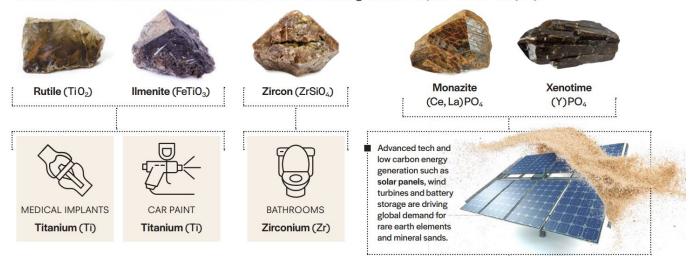
The ACDC Opportunity - value



- ACDC strategy is to value-add through REE downstream processing
- Exclusive partnership with Medallion Resources for extraction technology
- The 'Medallion Monazite Process' (MMP) targets energy and waste efficient REE cracking. Developed over 6 years.
- Monazite typically contains 50-60% REE by weight and is consistently enriched in the most critical REEs that are essential for high strength permanent magnets
- Allows ACDC to separate marketable magnet metal products from its own, or third party monazite sources

Product suite from **heavy mineral sand** assets

Mineral sands Rutile, ilmenite, zircon and monazite are the building blocks of objects we use everyday.



One mine. Thousands of products Source: Minerals Council of Australia







Goschen Central Project

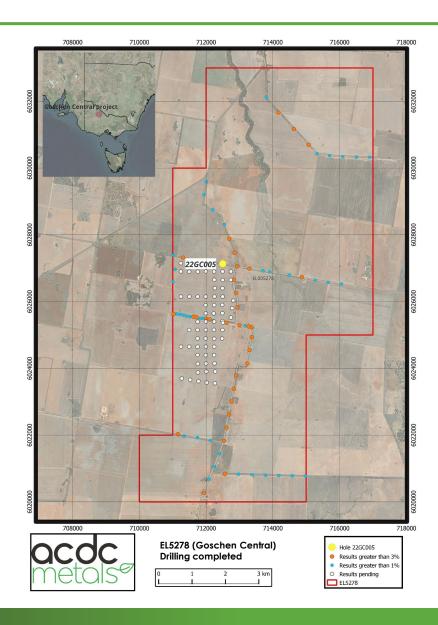


ACDC Metals' most advanced project

Extensive historical drilling by CRAE in 1980's & 1990's

7,000 metres drilled by ACDC Metals since acquisition

- ✓ Over 140 holes covering project area
- ✓ Discovery drilling Assays & mineralogy received
- ✓ In-fill drilling Assays & mineralogy expect Q2 2023
- ✓ Maiden resource expected H2 2023
- ✓ Metallurgical characterisation under way.
- ✓ PFS level testwork in H2 2023





Watchem Projects

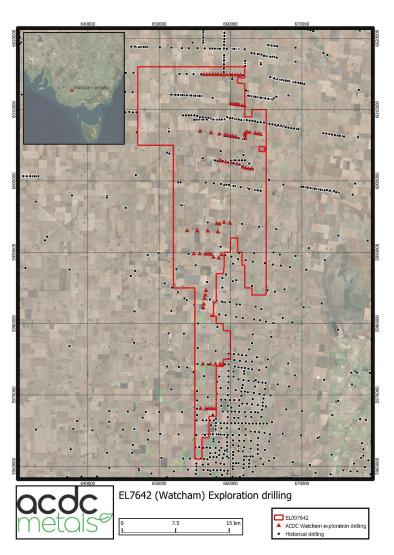


Extensive historical drilling by CRAE

Strandline Style Mineralisation

3,500 metres drilled at EL7642 since ACDC acquisition

- Over 75 holes covering project area
- ✓ Assays expected in Q2 2023







Douglas Projects

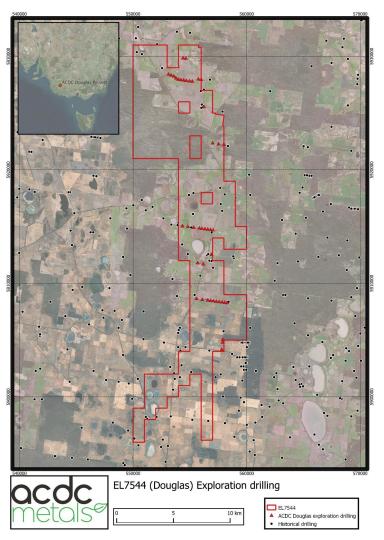


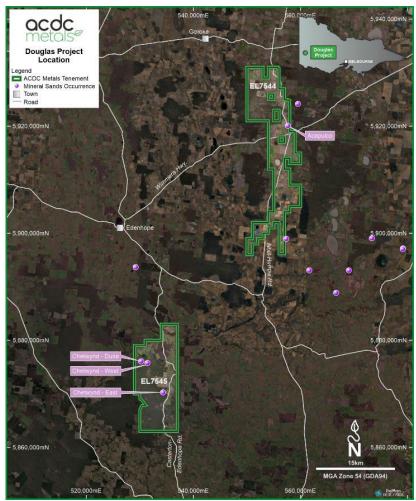
Extensive historical drilling by CRAE

Strandline Style Mineralisation

2,000 metres drilled at EL7544 since ACDC acquisition

- ✓ Over 40 holes covering project area
- ✓ Assays expected in Q3 2023



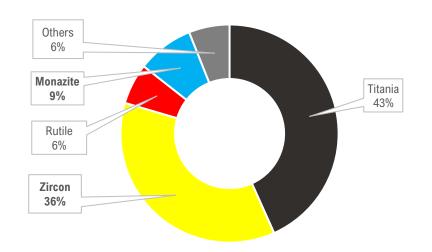


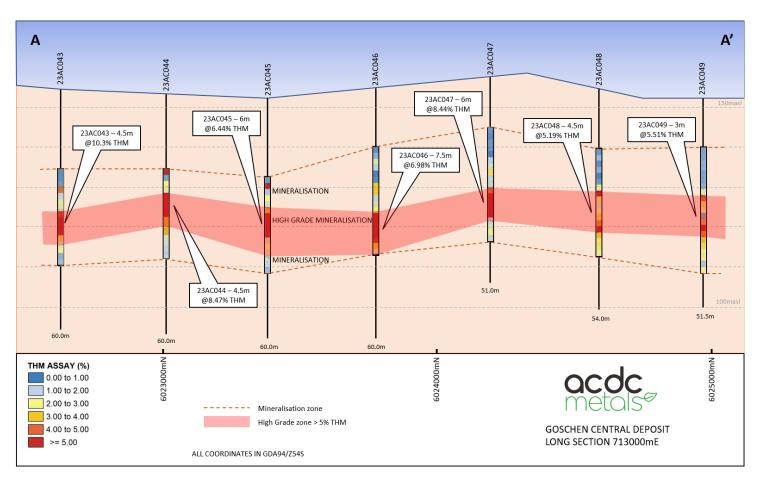


Goschen Central Project – Maiden Drilling Highlights



- Multiple high grade intersections 5-10% THM
- Large mineralised footprint delineated
- Initial mineralogy reports exceptional grades:
 - >93% HMS assemblage considered 'valuable'
 - High value Zircon and Monazite grades well above average for Murray Basin
 - Expanded sampling process currently in progress





Mineralogy from 22GC005 34m, refer ASX announcement 13 June, 2023

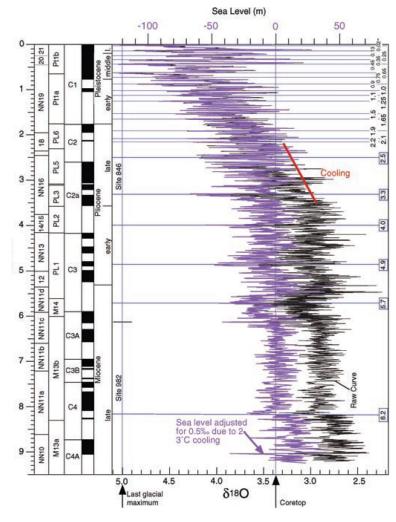
For full drill details refer ASX announcement 6 June, 2023



Global Sea Level



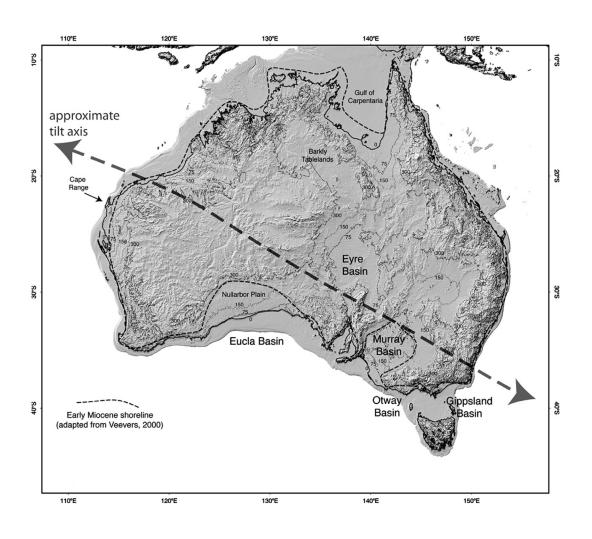
- Sea level estimate from the last 9ma based on Oxygen isotope data from Miller et al.
 2005.
- Peak estimate above current levels ~ 50m.
- Doesn't account for current RL seen in Murray Basin mineral sands deposits.
- Goschen Central sits at ~100m RL.
- There must be a tectonic element.



Last 9ma of sea level estimates from Miller et al. 2005

Australia is Headed North and Tilting





From Sandiford 2007;

- Australia is tilting (to the north) along an axis from approximately Merimbula to Port Hedland.
- This is due to the collision with the Pacific plate to the north.
- Some of this effect is apparent in the Murray Basin.
- Estimated eustatic maximum ~6ma.



Wave Energy is Important In Mineral Sands



"Incoming wave energy is greater than outgoing wave energy"

The Murravian Gulf



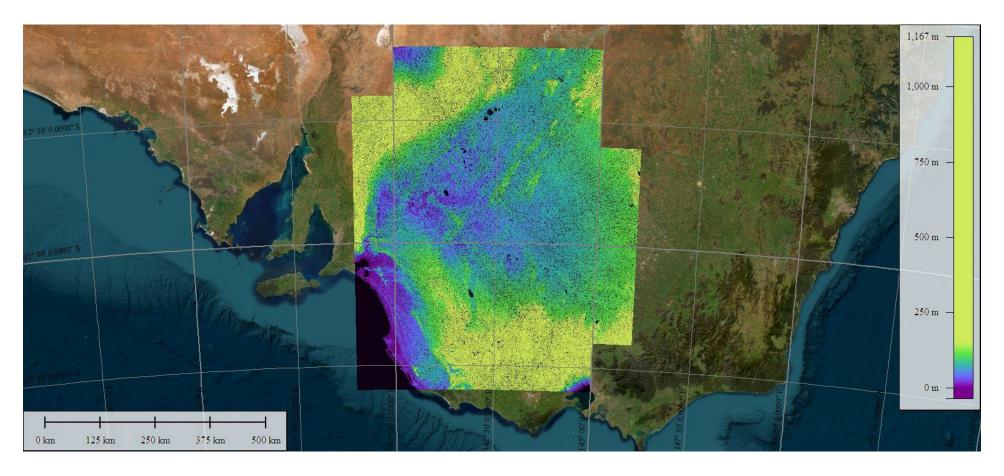
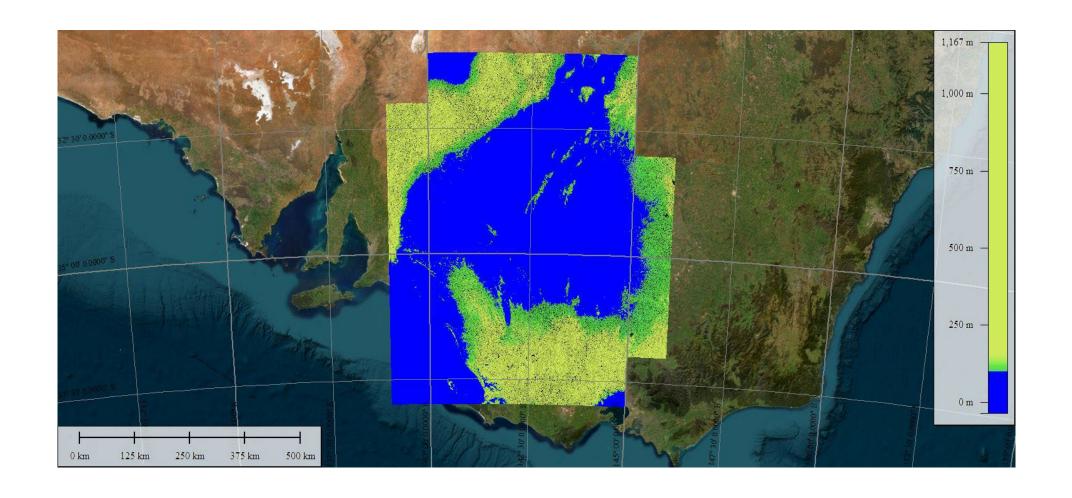


Image of South Eastern Australia overlain with the SRTM terrain model, colour stretch 0-150m.



The Murravian Gulf – Flooded to 100m

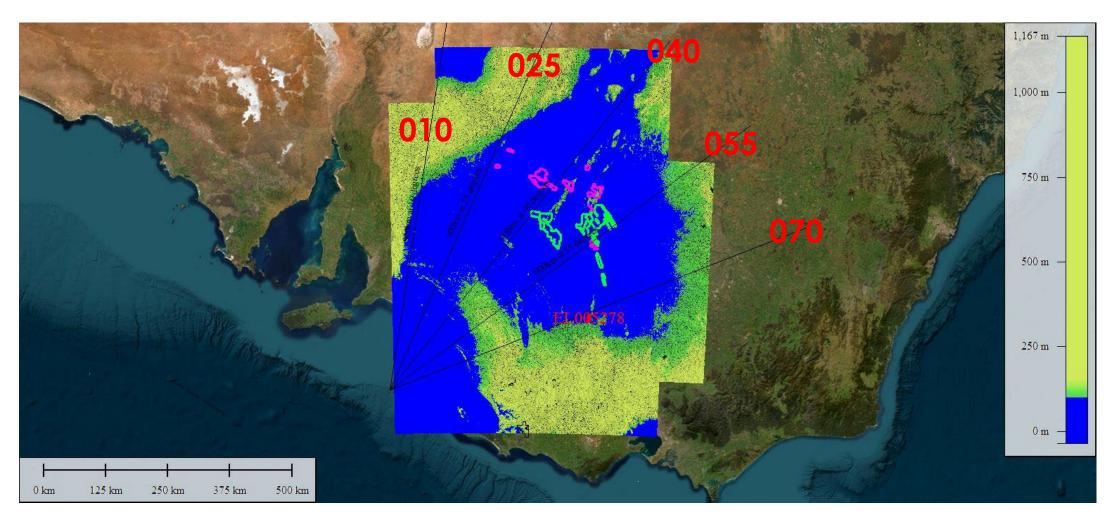






Location of Mineral Sands Deposits in the Murray Basin





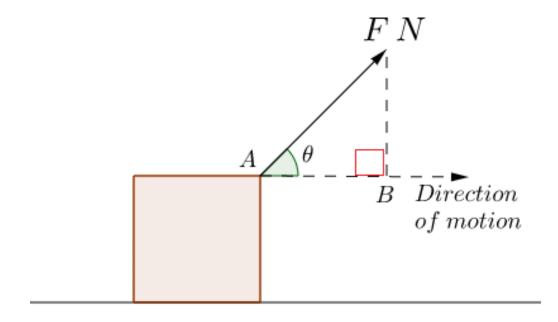
Major Mineral sands company tenure shown in purple and green.



From the Physicists.....



Fcosθ



Energy Reduction as we Increase Angle



$$\cos 15 = 0.966$$

$$\cos 30 = 0.866$$

$$\cos 45 = 0.707$$

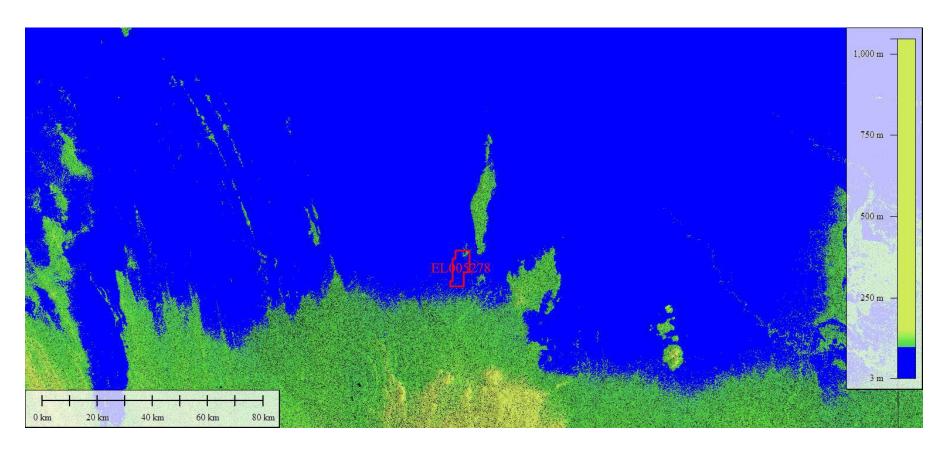
Wave energy decreases as we increase angle from the prevailing swell direction.

30% decrease in wave energy at 30 degrees from prevailing swell direction.

How does Goschen central fit in?



- SRTM digital terrain model flooded to 100m.
- EL005278 is situated in a 'pocket' at the edge of the Murravian gulf.





Deposit formation model

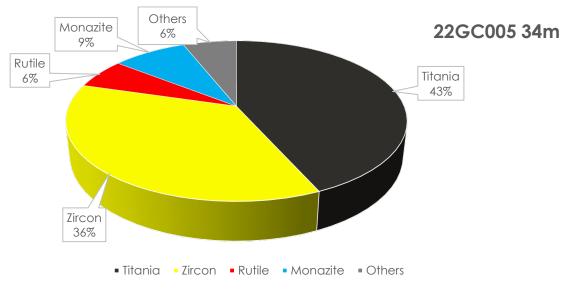


- Long wavelength swells from the Southern ocean hit the Murray Gulf and increase in amplitude.
- These high energy swells entered the Murravian Gulf at ~040 degrees.
- Most of the strandline mineral sands projects sit +-15 degrees from 040.
- Goschen Central sits in a different position to the 'traditional' heavy mineral deposits of the Murray Basin.

Mineralogy



- First mineralogical results were exceptional (see ASX announcement 13/06/23 "Mineralogical Study Highlights Goschen Central as Exceptional Mineral Sands Project").
- Extremely high value mineralogy.
- Note only 6% 'Other'.
- Very low 'trash' minerals.
- Why?

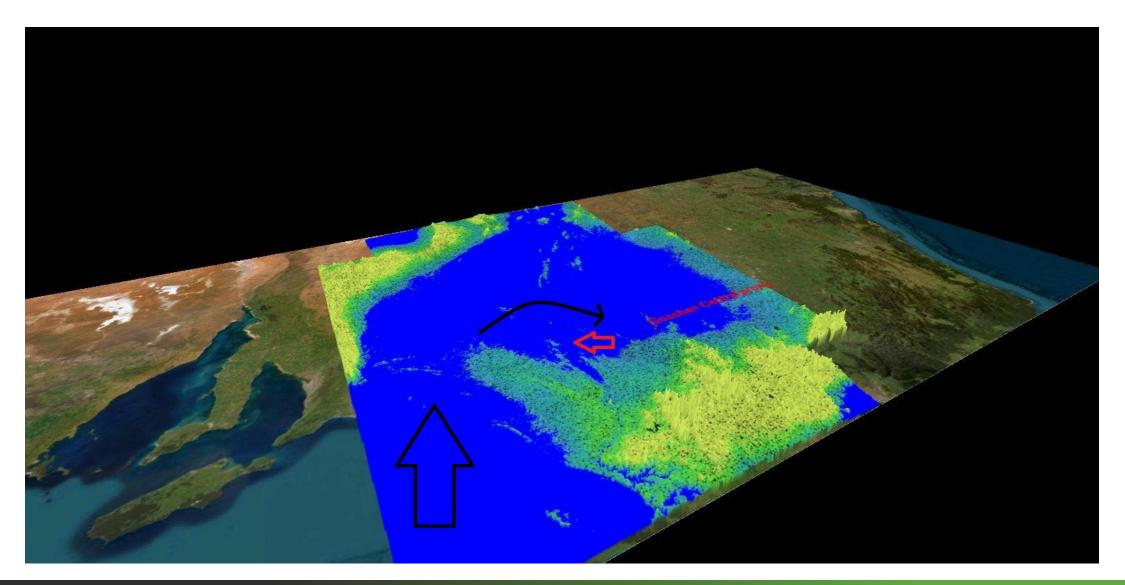


Mineralogy from 22GC005 34m, refer ASX announcement 13 June, 2023



Goschen Central Concentration Mechanism

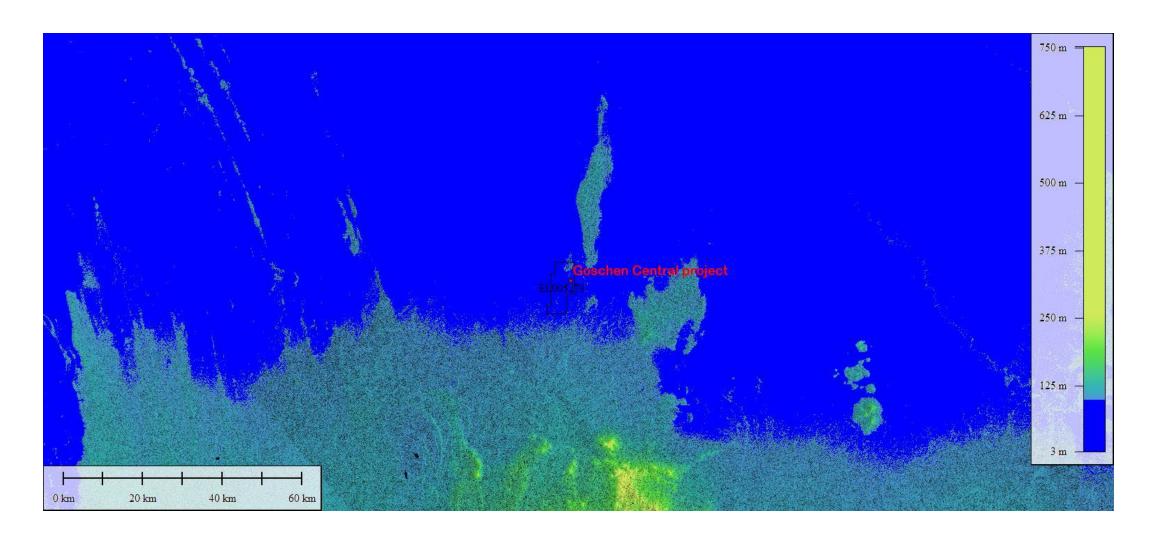






Goschen Central Concentration Mechanism







Why do we have exceptional mineralogy?



- 1. Proximity to source rocks. Deposit area underlain by Devonian grantitic plutons (Gretgrix, Cannie, Toort).
- 2. High value mineralogy within the source rocks (Monazite, Zircon, Rutile).
- 3. A trap position sitting at the edge of the basin high value minerals can't move elsewhere.

What next?



- ✓ Over 140 holes covering project area
- ✓ Discovery drilling Assays & mineralogy received
- ✓ In-fill drilling Assays & mineralogy expect Q2 2023
- ✓ Maiden resource expected H2 2023
- Metallurgical characterisation under way.
- ✓ PFS level testwork in H2 2023

References



Miller, K., Mountain, G., Wright, J., Browning, J., 2011. A 180-Million-Year Record of Sea Level and Ice Volume Variations from Continental Margin and Deep-Sea Isotopic Records. Oceanography 24, 40–53. https://doi.org/10.5670/oceanog.2011.26

Sandiford, M., 2007. The tilting continent: A new constraint on the dynamic topographic field from Australia. Earth Planet. Sci. Lett. 261, 152–163. https://doi.org/10.1016/j.epsl.2007.06.023