

MODULE 2: REGIONAL ASSESSMENT OF CO₂ GEOLOGICAL STORAGE SITES



DR BARRY BRADSHAW

This 1 day course will provide geologists working in the CCS industry with training in undertaking regional assessments of CO₂ Geological Storage Sites. The course focuses on the workflow used by CGSS in regional assessments such as the Queensland CO₂ Geological Storage Atlas. An emphasis is placed on using reservoir-seal intervals as the fundamental evaluation unit, the importance of the migration-assisted storage mechanism for large-scale CO₂ geological storage, and using conservative theoretical storage capacity estimates to underpin regional assessments.

Course participants are taken through a series of exercises using real data sets to evaluate a hypothetical storage project in onshore Queensland. These exercises provide participants with hands-on experience in the key assessment steps, including: screening potentially prospective basins; mapping storage areas and reservoir fairways; and estimating theoretical storage capacity for migration-assisted storage and depleted field storage.

The course is designed for geologists that have completed Module 1 (Introduction & Overview of CO₂ Geological Storage). Course participants should have some familiarity with petroleum data sets and sedimentary geology.

Course Content

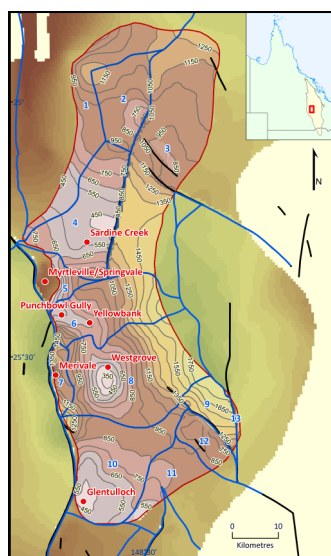
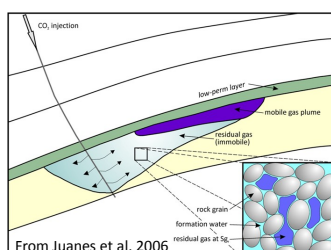
Lectures

1. CGSS workflow
2. Screening Prospective Basin Areas (Exercise 1)
2. Mapping Storage Areas (Exercise 2)

- Maximum Potential Storage Area Concept
 - Importance of Reservoir Fairways
 - Drainage Cells
3. Estimating Storage capacity (Exercise 3)
- Pore Volume x 'E' Approach – Pitfalls
 - MAS/RGS Method
 - Depleted Fields

CO₂ Geological Storage Site Assessment Exercises

1. Basin Ranking
2. Storage Area Mapping
3. Estimating Storage Capacity (Migration Assisted Storage & Depleted Fields)



Dr Barry Bradshaw has 18 years experience in basin studies from Australia and North America applied to oil and gas exploration, sediment-hosted mineral systems, and CO₂ capture and storage. Since 2008, Barry has worked as a consultant for GGSS and CGSS where he was project leader for the Queensland CO₂ Geological Storage Atlas, and has provided geological assessments and technical advice on several proposed geological storage projects. Between 1999 and 2002, he was part of the GEODISC team that assessed the geological storage potential of Australia's sedimentary basins. From 2002 until 2008, he led several projects at Geoscience Australia that assessed the petroleum potential of frontier basins in Australia.

For further information and course costing please contact:

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