SOUTH WEST HUB
CARBON CAPTURE STORAGE

Research Projects

Research Projects in Harvey

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Research Projects

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2 projects in the field:

- UWA Passive Seismic
- Curtin Magnetotelluric (MT) project

THE UNIVERSITY OF WESTERN AUSTRALIA

1 project proposed:

- Curtin nested 3D Seismic

Curtin University

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Curtin MT Project

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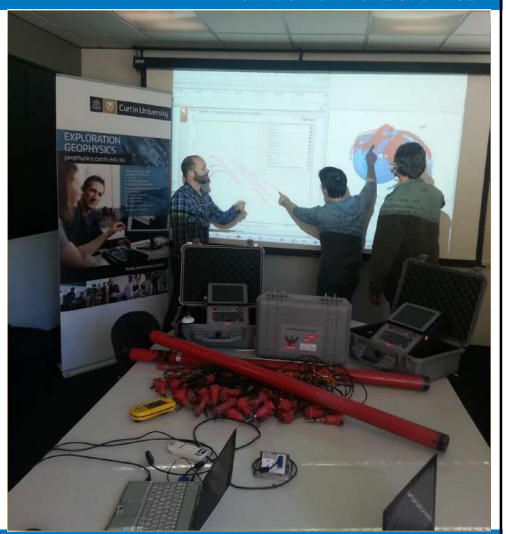
- Electromagnetics (EM) is one of the few methods able to resolve electrical conductivity throughout large volumes of earth

- Electrical / EM methods are the only methods for recovering changes in electrical conductivity throughout volumes of earth.

Project objective:

Develop techniques for purposeful application of EM methods for geological storage of CO2.



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Curtin MT Project

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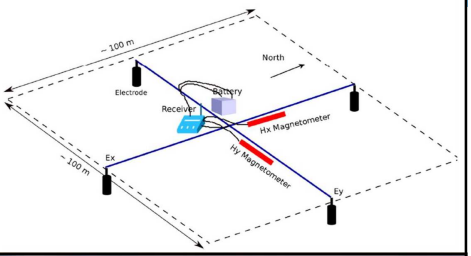
- Conducted on selected sites along Riverdale Rd
- Locations flexible
- Deployment is temporary and has minimal footprint
- Phase 1 complete, Phase 2 – waiting on equipment



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UWA Passive Seismic

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- Initial station deployed at St Anne's in 2014
- Additional station installed at Harvey 4 site in 2015
- Additional 5 stations deployed in 2016
- 2 stations to follow outside the Harvey area

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Recent Earthquake

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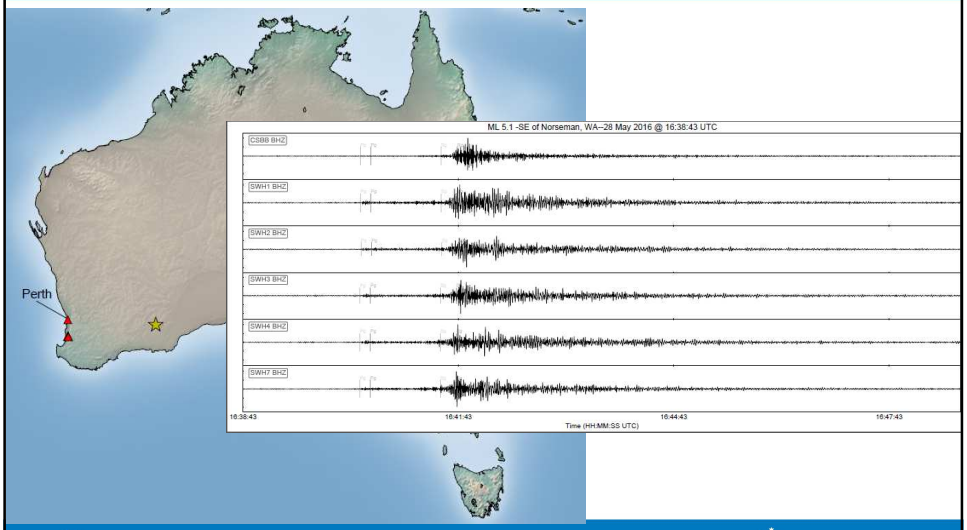

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Curtin Nested 3D

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- A nested survey around Harvey 4 completed in 2015
- Proposed around Harvey 3
- Objective: to increase understanding of faults and reduce uncertainties
- Is a Curtin research project, but additional information will be of interest for the South West Hub

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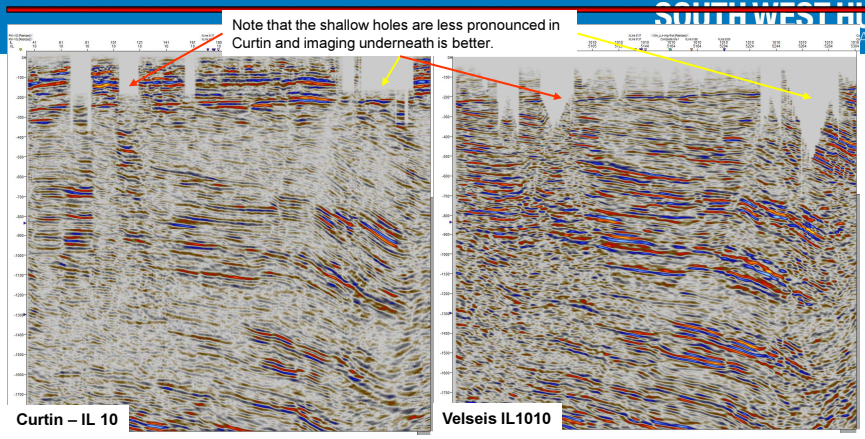
Curtin vs Velseis processing



Curtin data are:

- more laterally continuous and also maintains amplitude continuity with less blotchy amplitudes;
- is higher frequency;
- the shallow holes due to the acquisition problem are less pronounced and images better underneath.

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IEA GHG Summer School

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- Global program for students and young professionals working or interested in CCS
- Held in Perth in November 2015
- Site visit to Harvey to see research projects

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Passive Seismic Demonstration

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MT Demonstration

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Old Coast Rd Brewery

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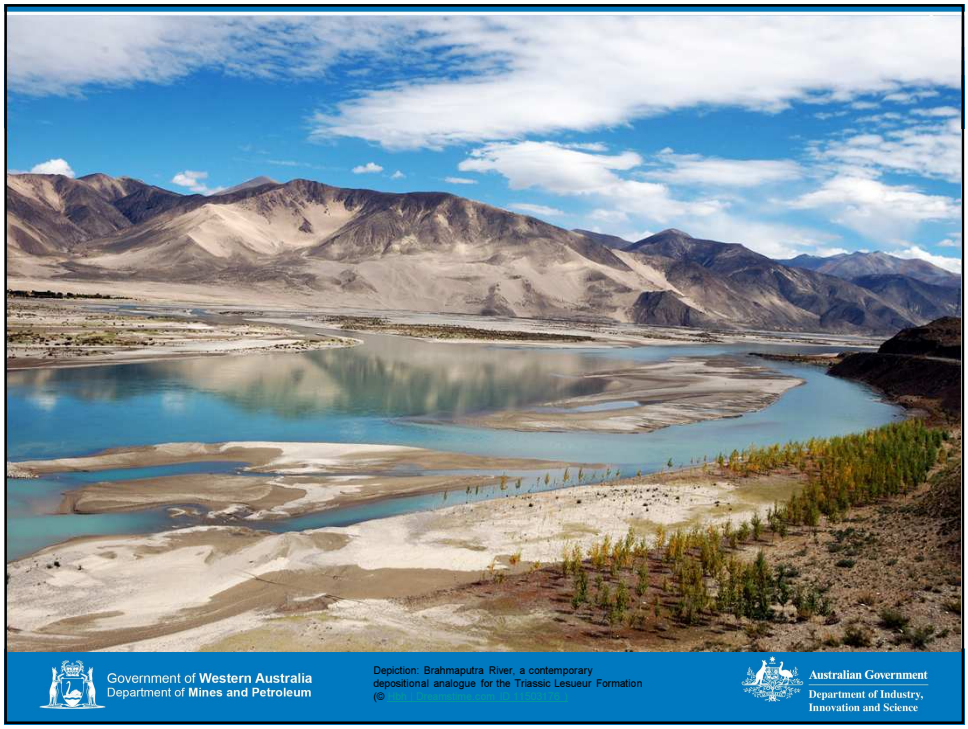
Thank You



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Depiction: Brahmaputra River, a contemporary depositional analogue for the Triassic Lesueur Formation (© [illegible])

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