

TIG Report for AGEG Meeting # 5, 20 – 21 November 2008

1. TIG #1: Land Access – See: http://www.pir.sa.gov.au/geothermal/ageg/technical_interest_groups/group_1

2. TIG Leader(s) names with affiliation and email address:

Mike Malavazos	PIRSA	malavazos.michael@saugov.sa.ov.au
Barry Goldstein	PIRSA	goldstein.barry@saugov.sa.ov.au

3. TIG Members names with affiliation

Barry Goldstein	PIRSA
Michael Malavazos	PIRSA
Roy Baria	Consultant
Betina Bendall	Petratherm
Beverley Bower	WA DoIR
Chris Bromley	NZ GNS
David Dewhurst	CSIRO
Mike Griffith	University of Adelaide
Mark Jaksa	University of Adelaide
Rob Jeffrey	CSIRO
Mark Leonard	Geoscience Australia
David Love	PIRSA
Cameron Morelli	University of Adelaide
Maryie Platt	WA DoIR
Trent Venables	QDME
Doone Wyborn	Geodynamics

4. Scope of TIG #1 - Land Access Issues

Objective: Geothermal operations are planned and implemented in ways that attain sustainable compatibility with multiple land use, so that targeted and actual outcomes meet stakeholders expectations, and land access for geothermal is maximised.

List of sub-TIG Topics

Key issues to be addressed by TIG #1 (Land Access Issues) include but not limited to:

- Licensing requirements	- Activity approval requirements and processes
- Induced seismicity	- Stakeholder consultation processes including communication strategies
- Emissions (steam, radon, greenhouse gases, etc)	- Land owner notifications
- Water handling	- Heritage and Native Title
- Management of effluents	- Environmental Impact Research / Statements
- Landscape rehabilitation	- Recommendations to TIG #3 (Policy Forum) for AGEA to take up with Governments

What's not (and why)?

Recommendations pertaining to land access policies direct to governments, except where AGEA agrees this direct engagement between AGEG TIG #1 and government(s). This will sustain AGEA's imprimatur to speak for industry

5. Lessons learnt

What has worked well? Induced seismicity research and protocols have thus far avoided 'show stoppers' experienced elsewhere; provide guidance to operators; and gained respect for the sector's management of key land access issues.

What can work better?

- Better feedback loops e.g. improve the content of the AGEG's web-pages (FAQ sheets to enable communication strategies)
- Attain more clarity as to the differences between Native Title from heritage protection issues.

Ideas for improving performance:

- Set priorities and plans in lieu of an ad hoc approach to TIG #1 research and initiatives

6. Initiatives

Complete: Induced seismicity protocols researched, developed and published

In Progress: Radon gas FAQ Sheet

Planned: Beef-up AGEG web-page contents and develop additional FAQ Sheet for priority Land Access issues. Add links to relevant international web-based information

7. Tabulation of projects

Theme	Project Name	Summary of key project objectives, Key Contact and Links to Details	Research Partners
AGEG TIG 1 Land Access	Induced seismicity in the Cooper Basin	<p>Establish the compatibility (or otherwise) of fracture stimulation of granite hot rock reservoirs with existing land users and infrastructure, Habanero project near Innamincka in the South Australian Cooper Basin by Suzanne Hunt & Cameron Morelli, 2006, <i>Cooper Basin HDR hazard evaluation: Predictive modelling of local stress changes due to HFR geothermal energy operations in South Australia, Report Book 2006/16</i></p> <p>This project has benefited from peer review invited via both the websites of both the AGEG and the IEA's Geothermal implementing Agreement. The draft forms are available for download from: http://www.iea-gia.org/documents/InducedSeismicityReportSHuntDraftOctober2006Malvazos4Jan07.pdf http://www.pir.sa.gov.au/geothermal/ageg/current_research.</p>	<ul style="list-style-type: none"> ◆ U Adel (Hunt & Morelli) ◆ Geodynamics (Wyborn) ◆ PIRSA (Malavazos & Love)
AGEG TIG 1 Land Access	Protocols for the management of induced seismicity	<p>Leverage on Hunt & Morelli (2006) and establish protocols for the assessment of potential induced seismicity risks associated fracture stimulation during the development of Engineered Geothermal Systems.</p> <p>This is undertaken by Cameron Morelli (2008) for the AGEG's TIG #1 under the project title, <i>Analysis of Induced Seismicity Risks due to Engineered Geothermal System, Operations in South Australia</i>.</p> <p>Preliminary findings were published at the 2008 AGEG-AGEA Australian Geothermal Energy Conference under the title, <i>Analysis & management of seismic risks associated with engineered geothermal system operations in South Australia</i> by Cameron Morelli and Michael Malavazos.</p>	<ul style="list-style-type: none"> ◆ U Adel (Morelli) ◆ PIRSA (Malavazos, & Love)
AGEG TIG 1 Land Access	FAQ Sheet – Radon Gas Emissions	<p>A FAQ sheet will be developed to define potential risks associated radon (and other NORM Issues) relating to the production of geothermal reservoirs. This follows Geoscience Australia's July 2007 assessment of the risk of radioactivity associated with circulation in deep hot rock geothermal systems.</p> <p>The Fact sheet will be completed and submitted for peer review by December 2008.</p>	<ul style="list-style-type: none"> ◆ U Adel (Ashman & Battye) ◆ Geoscience Australia (Budd) ◆ PIRSA (Malavazos, Hill & Long)