

3rd October 2024 ACLCA Member Bi-Monthly Meeting Presentation

Presenters:

- **Aidan Marsh, Senior Principal Core Environmental Projects &**
- **Hailey Murphy (Nee Spry), Principal Environmental Scientist Contaminated Land Auditor (Qld) Contaminated Land Auditor (Qld) Easterly Point Environmental**

Presentation 1: Aidan Marsh - Multiple Lines of Evidence Approach to Ground Gas Assessment and Remediation.

Background

- Background – Cranbourne, Gorebridge, SEQ class action site, Loscoe
- Differences between vapour and gas.
 - Acute v chronic
 - Big rooms and small rooms/ cupboards more important than zoning and building use?
- Drivers? Real risk, political, financial, social
- How do the tools work?

Risk Assessment

- Consider how the data was collected and limitations of instruments
- CSM.
- Bores, flux box, surface emissions, indoor.
- What are bores actually measuring and can flow occur? Negative and positive/ ground pressure/ water / baro pumping / sealed and unsealed surfaces.
- Benefits then of continuous monitoring to iron out the above variables.. maybe. Can be complicated and rarely get a straightforward answer. Hence, back to CSM and multiple lines approach..
- What were GSV originally intended for? 50 mm standpipe. The difference between a HGFR, GSV and a CS.
- Application of GSVs for lateral migration.
- Water influence

Mitigation

- Components – Ventilation systems and membranes.
- Gas Protection tables and point scoring method in 8485 and then NSW guidance for ventilation performance are based on good and very good performance, created over 30 years ago in the UK... How is Australian construction with slab on ground, ground beams relatable to this?
- Construction Quality Assurance in the Australian context.
- What does the verification of Australian systems tell us?



Aidan is based in Brisbane with over 30 years of experience in environmental assessment and remediation, especially in the landfill/land development sector. He has a background in commercial landfill gas operations on landfill projects across Australia and internationally covering all aspects of landfill investigation, risk management, design, installation, operation, and aftercare.

Presentation 2: Hailey Murphy - An overview of expectations from an auditor perspective when undertaken ground gas investigations, including:

*CSMs for ground gas investigations

*Understanding your ground gas data and guidelines

*SMPs and GG controls

*SQPs, auditors and support experts. Know your technical limits and responsibilities.

Hailey is a principal environmental scientist and contaminated land auditor (Qld), with almost 20 years' experience in the contaminated land industry. Hailey specialises in the review and assessment of contaminated land investigations and has been involved with various high-profile ground gas projects in Queensland and NSW.