

Case Study – Remediation Innovation Award Winners

Remediation of a housing estate in Leftwich built in 1994 on landfilled ground was sparked by the deaths of two 18-month-old children from acute myeloid leukaemia (AML).



**Remediation Innovation Award Winners
Prestige Air Technology**

Consultants undertook site investigation works for the local authority. No links have been identified between ground contamination and the deaths, but background testing for VOCs (in particular, benzene) that might be linked to AML is ongoing on a precautionary basis. The consultants did however report high concentrations of methane and carbon dioxide and the site owner appointed a contractor to design and oversee remediation. The primary focus of the works was to define the degree to which the houses were vulnerable to gas emissions, eliminate this risk, and provide a high level of confidence to residents that the houses were safe.

Although the houses had been designed to resist the ingress of ground gases by including vented subfloor voids and gas resistant membranes, the application of tracer gas testing by Prestige Air showed the membrane to be ineffective. The membranes in all 24 houses were replaced by Prestige Air, following which further testing demonstrated the new membranes to be fully sealed and certification was issued. The tracer gas technique was shown to be far superior to simple visual inspection, as undertaken by the contractor who had laid the original membrane.