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North West Regional Group, Geological Society Contaminated Land Group and ICE NW Geotechnical Group

Joint Meeting

Thursday 13th December 2018

Soil Vapour Risk Assessment – Reducing Uncertainties in the Assessment of Inhalation Health Risks

By Paloma Montes

Soil vapour assessment is considered to represent a refined assessment of vapour transport from a soil or groundwater contaminant source by decreasing the number of partitioning assumptions required for modelling vapour migration from impacted soil or groundwater. The measured soil vapour concentrations are considered to provide greater certainty and less conservatism than the soil and groundwater source data. Conservative inhalation health risk assessments based on soil and groundwater only could lead to unnecessary remedial measures and incorrect perception of the actual risk.

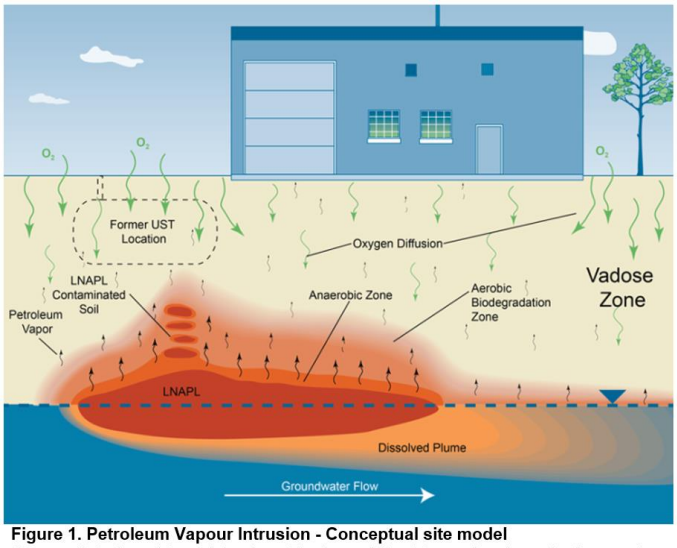

Figure 1. Petroleum Vapour Intrusion - Conceptual site model
Source: Petroleum Vapor Intrusion - Fundamentals of Screening, Investigation, and Management, ITRC 2014

The Society of Brownfield Risk Assessment (SoBRA) held a workshop on Vapour Intrusion in June 2017. It was concluded that an improvement of general practice within the contaminated land industry was required in relation to the assessment of potential inhalation health risks at sites where there was a credible source and pathway.

***CPD**: These events may be considered for contributing to a recognised Continuing professional Development (CPD) scheme as part of personal development. Delegates should check their individual scheme requirements.*
requirements.

This talk will provide an insight on vapour intrusion conceptualisation, factors to consider in the design of soil vapour investigations and available sampling techniques and factors to consider. The outcome of the 2017 SoBRA workshop and work conducted by the SoBRA Sub-group to date will also be outlined.

Paloma Montes is a contaminated land professional specialising in risk assessment with over 10 years' experience in Spain, Australia and the U.K. Paloma has a sound knowledge of transport modelling and risk assessment software, as well as international guidelines and standards for the assessment of environmental risks. She is part of WSP's Risk Assessment team that is responsible for the derivation of soil, groundwater and soil vapour generic assessment criteria and also forms part of the SoBRA Subgroup on Vapour Intrusion.

Paloma has specialised in the assessment and management of environmental and human health risks, chemical toxicity assessment, chemical fate and transport modelling for a wide range of contaminated sites and industrial facilities. Her experience includes ground investigation design, including soil vapour investigation.

SoBRA
The Society of Brownfield Risk Assessment

Food from 6pm
Lecture starts promptly at 6.30pm
Venue: The Centre Birchwood Park, Warrington , WA3 6YN Tel: 01925 282 940
http://www.thecentreatbirchwoodpark.co.uk/location.aspx

Organised Jointly by the North West group of the Geological Society of London (GSL), the Contaminated Land Group of the GSL and the ICE NW Geotechnical Group.
For further information contact the group secretary, Catherine Kenny at: Geologicalsociety.northwest@gmail.com