In-Situ Anaerobic Biodegradation

Terra Vac (UK) Ltd and Buckingham Group

Terra Vac (UK) Ltd was asked by Buckingham Group Contracting, one of the fastest growing Land Regeneration, Construction and Rail Contractors in the UK, to remediate the site of a residential development, for Bellway Homes, in Staffordshire.

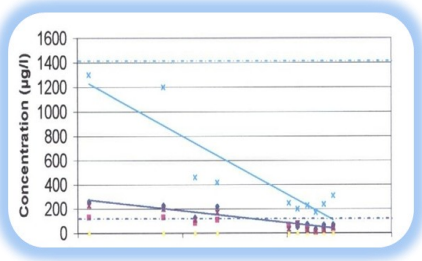
Terra Vac (UK) Ltd was invited to clean up the contaminated groundwater beneath the sports ground of a former rubber manufacturing facility in Burton Upon Trent.

Part of the previous manufacturing process involved the use of the industrial solvent chlorinated hydrocarbons. Solvents had spilled or leaked from drains at the former factory causing a plume of contaminated groundwater spanning an area in excess of 5,000 m^2 and to depths greater than 6m below ground level.

The residential development was to be completed within a strict timescale and Terra Vac (UK) Ltd only had a short window in which to undertake remedial works. Due to the short treatment timeframe available Terra Vac (UK) Ltd utilised in-situ bioremedial techniques.

A total of 60 injection points were drilled across the identified plume area into which Hydrogen Release Compound (HRC) was injected. The slow release Hydrogen molecules enhanced the anaerobic biological activity and allowed the beneficial bacteria to multiply, accelerating the degradation of the chlorinated hydrocarbons.

By taking advantage of the short installation window and opting for a bio augmentation process, Terra Vac (UK) Ltd achieved the required reduction in contaminant concentrations during the construction programme, without disturbing the main contractor.



A further period of six months validation monitoring confirmed that target criteria had been successfully achieved.

Terra Vac (UK) Ltd
Unit 4
Willowbridge Way
Whitwood
Castleford
West Yorkshire
WF10 5NP

Tel: 01977 556637
Fax: 01977 557587
mail@terravac.co.uk
www.terravac.co.uk