

# Remediation

## Multi-Phase Extraction Phase 2 – Northern Italy.

Following the successful operation of the 1<sup>st</sup> phase of works Ecologia was appointed to design, manufacture and install a Multi-Phase extraction system at a chemicals facility in Northern Italy to treat soils and groundwater at another part of the site. The remediation contracting was undertaken by Ecologia following investigation and overall design by various consultants.

Multi-Phase Extraction (MPE) is a technique for removing liquids and vapour from the subsurface utilising the same extraction well. The MPE technique employed for the second phase of works used down hole pumps and vapour extraction of the wells and also vapour extraction from dedicated SVE wells installed into the vadose zone.

The equipment was fully designed and built at our workshops in Kent including the design and manufacture of the control panel and telemetry system as well as the design and manufacture of the automated total volatile organic compound (TVOC) detection device.



The equipment is fully ATEX compliant and designed to be easy to use by site staff following training.

The MPE system is extracting from 10 pumps and a total of 16 SVE wells.

The design, manufacture and installation of the system was undertaken within a lump sum contract and was completed on time and within budget.