

PROJECT AT A GLANCE

DATE	PROJECT TITLE	LOCATION
May 2019	Remediation at Grangemouth	Grangemouth
PROJECT VALUE	CLIENT	COUNTRY
£200,000	Commercially Confidential	Scotland

REMEDICATION OF A FORMER CHEMICAL WORKS



DISCIPLINE:

CONTAMINATED LAND, REMEDIATION

PROJECT DESCRIPTION

TerraConsult (TCL) was commissioned to carry out a site investigation and the remediation of a 2 hectare site in Grangemouth, which is being redeveloped as a new waste to energy facility. TCL prepared and implemented a remediation strategy, verified the works and secured regulatory approval.

The site characterisation investigations commenced in 2017 on disused land within an active chemical works site. This identified an area as being heavily contaminated by petroleum hydrocarbons, VOCs and SVOCs including DNAPL. A second phase of investigations in 2018 further characterised the site, enabling a detailed quantitative risk assessment to be undertaken and a remediation strategy to be produced.

OUR ROLE

Following regulatory approval of the remediation strategy TCL were contracted to carry out the remediation works, which commenced in January 2019. This included the drilling of 355 remediation wells and a further 12 groundwater verification monitoring boreholes. On completion of the drilling works, Dual Phase Vapour Extraction was undertaken remove 84,000L of groundwater and volatile / semi-volatile organic compounds from the remediation wells. The extracted organic compounds were treated with a GAC filter system and the liquids disposed of off-site. Extraction was carried out over a 9 week period after which 800 doses of Chemox solution were injected into the remediation wells.

Verification of the remediation works comprised baseline and post completion groundwater monitoring, and the calculation of source mass removal through groundwater/vapour extraction and chemical destruction by Chemox. The remediation works resulted in the betterment of the groundwater conditions. The period from commencing installation of 355 remedial wells to gain regulatory sign off was only 17.5 weeks.