Bioremediation of Hydrocarbon Contaminated Soils – Dundee

**The Client:** Dundee City Council

**The Challenge:** Approximately 2,800 m³ of hydrocarbon impacted soil was stockpiled at the rear of Marchbanks Recycling Depot in Dundee. Soil analysis indicated that soils were contaminated with heavy end hydrocarbons.

**The Solution:** Bioremediation was identified as the most appropriate form of remediation in order to achieve compliance for safe disposal.

Solutions Ltd acted as the principle contractor for this bioremediation project. Contaminated materials were excavated from the stockpile and screened for large and non-biodegradable materials using an Allu bucket attached to a twenty tonne 360 excavator prior to forming the windrows. The oversized screened material was sorted and placed into appropriate skips i.e. timber, concrete for recycling.

The excavated contaminated material was then placed into three windrows which were lined underneath with polythene sheeting. This polythene sheeting was put in place to prevent cross-contamination of the ground beneath the windrows. Windrows were then covered to prevent rain penetration.

During the construction of the windrows samples were collected to assess the nutrient status, pH, and indigenous microbial and degrader populations of the soil in order to identify any constraints to bioremediation. Regular monitoring of the windrows was carried out for the duration of the works. The windrows were ‘turned’ using an Allu bucket at intervals determined from data taken during monitoring visits, this allowed the soils to be aerated and chemically amended to enhance the bioremediation process.

**Duration:** 15 months