The Study Case #11 – ReSoil®-Urban in Homecourt, FRANCE

Information of site owner/site provider

- Microhumus, 18 rue d'Alsace, 54140 Jarville la Malgrange, France
- Source of funding: EU HORIZON-RIA, grant agreement No. 101112723

Objective

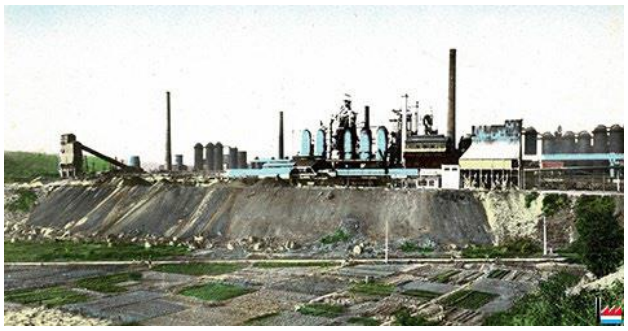
ReSoil® technology appraisal under the EU Horizon ARAGORN project. ARAGORN assesses its sustainability, contaminant removal effectiveness, and environmental remediation viability.

Contaminated site characterization

- Remediation of multi-contaminated soil with 140 mg kg^{-1} Pb, 610 mg kg^{-1} Zn, 8.0 mg kg^{-1} Cd, 4210 mg kg^{-1} Mn, 130 mg kg^{-1} As, 15 mg kg^{-1} Hg and 16 PAHs with < 2000 mg kg^{-1}
- pH: 7.8

Remediation results

- 47% Pb, 16% Zn, 41% Cd, 40% Mn, 14% As and 7% Hg were removed



Source: GISFI - Scientific Interest Group on Industrial Wastelands (University of Lorraine, BRGM, INERIS) - Research Center for Soil Pollution and Remediation and Microhumus

Site description

The former Homécourt coke plant, 20 km west of Metz in Lorraine, operated from 1922 to the 1980s, producing up to 350,000 tons of coke annually. Covering 32 hectares near urban areas, the site underwent remediation in 2003. Soil samples were collected from the former plant and a nearby Cambisol agricultural field.

ReSoil® REMEDIATION EFFICIENCY

Initial metal concentration

Pb	Zn	Cd	Mn	As	Hg
140 mg kg^{-1}	610 mg kg^{-1}	8.0 mg kg^{-1}	4210 mg kg^{-1}	130 mg kg^{-1}	15 mg kg^{-1}

Reduction in metal concentration