

The Study Case #5 – ReSoil[®]-Military in Poček, SLOVENIA

Information of site owner/site provider

- General Staff of the Slovenian Armed Forces, Ministry of Defense of the Republic of Slovenia
- Source of funding: Ministry of Defence of the Republic of Slovenia & Slovenian Research and Innovation Agency under Grant V1-2280

Objective

Pilot-scale trial of reclamation of central military shooting range/polygon in Slovenia

Contaminated site characterization

- Remediation of **brown carbonate soil** that developed on the limestone, contaminated with 500 - 7100 mg kg⁻¹ Pb, 70 – 1200 mg kg⁻¹ Cu, 3 mg kg⁻¹ Cd, 35 mg kg⁻¹ As, and 30-310 mg kg⁻¹ Sb
- pH: 7.1

Remediation results

- 89% Pb, 73% Cu, 48% Cd, 32% As, and 15% Sb were removed
- Soil properties and functions as natural substrate were preserved



Site description

The Poček military training ground, located in the karst field in Postojna is the central military training area of the Slovenian army, which is of strategic importance for the country's defense system. Various more demanding military trainings are held at the Poček military training ground. In the past, especially during the former Yugoslavia, intensive shooting exercises took place at the Bile military shooting range. The main component of bullets is lead (Pb), which can make up more than 90% of the total mass. In addition to Pb, the bullets contain a significant amount of copper (Cu), cadmium (Cd), antimony (Sb), and arsenic (As).

ReSoil[®] REMEDIATION EFFICIENCY

Initial metal concentration



Reduction of metal and metalloid concentration

