

## Chemical Fixation of Greasy Ash Waste using RemBind™

Ziltek was contracted by Flinders University to design a treatment process for the remediation of approximately 500m<sup>3</sup> of greasy ash waste. The waste was stored at the Southern Waste ResourceCo (SWR) landfill site and treated within the specialised undercover waste soil treatment facility located in McLaren Vale, South Australia.

The waste contained grease and soda ash and was classified as exceeding Low Level Contaminated Waste (LLCW) due to the presence of Total Petroleum Hydrocarbons (TPH) at concentrations well above the maximum disposal threshold of 10,000 mg/kg.

Previous efforts to reduce TPH concentrations below LLCW criteria using bioremediation methods proved to be unsuccessful due to the high salt and alkaline characteristics of the soda ash for this project.

Ziltek recommended a chemical fixation reagent RemBind to bind the TPH in the waste to prevent leaching. RemBind contains an activated carbon component which binds strongly to organic contaminants including TPH and Poly Aromatic Hydrocarbons (PAH).

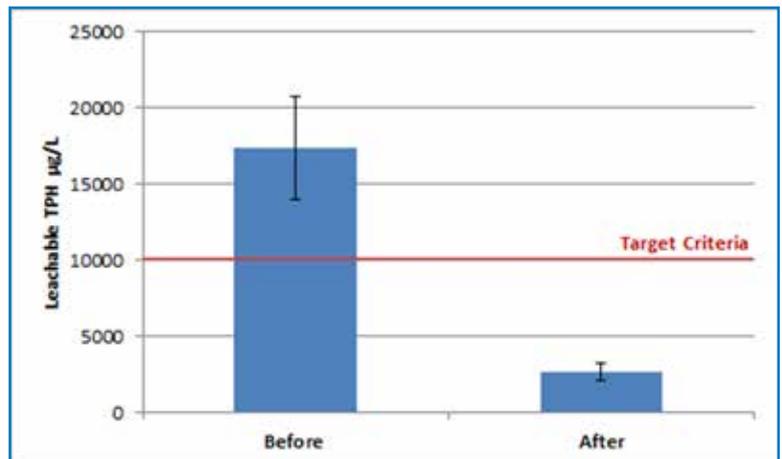
Based on a review of fresh and marine water guidelines and New South Wales service station guidelines, Ziltek derived a TPH leachability criteria of 10mg/L which was subsequently accepted by the South Australian EPA.

Full-scale treatment involved a single pass addition of RemBind. Treated samples were sent to a NATA-accredited laboratory for independent validation. All samples returned leachable TPH concentrations below the target criteria and the soil was appropriately disposed to landfill.

***“The RemBind product provided a practical solution for the effective treatment of greasy ash waste and achieved the desired treatment outcome for the appropriate disposal of the waste to landfill.***

***Use of the RemBind product provided SWR an alternative treatment methodology to that of bioremediation to manage this uncommon waste stream”.***

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