

# Mining & Metals



# SAMCO

Separation from the ordinary

## PROJECT BRIEF

**Superfund Site Achieves US EPA Compliance, Cuts Project Time and Costs with Innovative SAMCO Groundwater Treatment Plant Design**

### PROJECT OVERVIEW

Challenged to meet the terms of a United States Environmental Protection Agency (US EPA) consent order, a Kansas Superfund site looked to SAMCO for a groundwater treatment solution to achieve compliance on a rapid time line and limited budget.

### OBJECTIVE

Deliver scalable groundwater treatment plant (GWTP) design to reduce contaminants per compliance standards, including:

- Reduction of hexavalent chromium levels to < 17 ppb
- Reduction of total chromium concentration to < 100 ppb

### SCOPE OF SERVICE

SAMCO provided design and engineering services, conducting treatability studies, project estimation, concept development, and delivery of custom GWTP plans.

### CHALLENGES

- Stringent US EPA discharge limits
- Limited budget
- Tight compliance deadline

### SOLUTION

Working closely with a US EPA-contracted engineering firm, SAMCO developed and delivered scalable GWTP plans designed to remove chrome contaminants resulting from metal working activity at the client's Superfund site. The GWTP design proposed SAMCO's signature skid-mounted modular design to reduce overall project execution time by 50% and cut project costs by 30%. Incorporating specialized ion exchange (IX) resins, combined on- and off-site regenerable IX processes, programmable logic controls (PLC), and remote telemetry, the concept design reduced costs associated with operations and maintenance for maximum return on investment.

### TECHNOLOGY

Plant design concept included:

- On- and off-site regenerable IX units
- Equalization tanks
- Precipitation/clarification units
- Effluent and influent pumps
- Sludge handling/filter press
- PLC controls

## OVERVIEW

### Industry

Mining & Metals

### Location

Kansas, US

### Objective

Treat Superfund site groundwater per stringent US EPA compliance standards

### Solution

900 GPM Groundwater Treatment Plant Concept

Need help bringing your groundwater to industry compliance standards? Is water purity an issue? Contact us today at [SamcoTech.com](http://SamcoTech.com) • [askengineers@samcotech.com](mailto:askengineers@samcotech.com) • (716) 743 9000