

ASSESSMENT / RESTORATION

HSW has had extensive experience in all aspects of the characterization and clean-up of subsurface contamination at RCRA, CERCLA, TSCA, and Brownfield sites. This work has included the following:

- Determination and complete characterization of groundwater and soil contamination;
- Design, implementation, and maintenance of restoration systems;
- Design and implementation of groundwater and surface water monitoring programs;
- Preparation of permit applications for transfer stations, Class III landfills, NPDES discharges, Title V & Non-Title V air emission discharges, PTOW discharges, RCRA facility operating & closure, industrial and municipal water use, and others ;
- Performance of statistical trend analyses of water-quality and water-level data sets;
- Preacquisition site assessments (Phase I and II ESAs); and
- Expert testimony in litigation cases.



RESTORATION TECHNIQUES

- Pump & Treat (Complex Configurations - Horizontal and Vertical)
- SCADA Systems, Computerized Control & Data Acquisition
- Soil Vapor and Dual Phase Extraction
- Bioventing/Bioremediation/Air Sparging
- Multi-Phase Heating
- Excavation/Disposal
- Product Removal
- Thermal Treatment or Incineration
- Soil Washing
- Zero Valent Iron
- Carbon Adsorption
- Effluent Reuse - Manufacturing
- Metals Precipitation
- Photolytic Destruction of AST Off Gas
- Infiltration Gallery
- Spray Irrigation
- Discharge to Sanitary/Storm Sewer
- Monitored Natural Attenuation
- Risk-Based Corrective Actions
- Risk Assessment (ASRL)

