

Sigma is the Single Source for Investigation & Remediation Services

SOLUTIONS TAILORED TO FIT CLIENT NEEDS

Sigma dovetails cost-effective site investigations with client-oriented remediation services. Our site investigation activities establish the nature and magnitude of impacts in the subsurface environment and determine the fate and transport of contaminants. Our geologists, hydrogeologists, and engineers evaluate subsurface conditions and recommend response strategies based on and consistent with planned land use.

Essentially, we determine the client goals, define the environmental problem, and develop a cost-efficient and effective solution. Our general investigation approach includes:

- ▶ Estimating the potential cost
- ▶ Establishing a timeline and milestones
- ▶ Conducting record reviews
- ▶ Conducting historic information searches
- ▶ Collecting data
- ▶ Analyzing the data
- ▶ Feasibility analysis (fate and transport modeling, natural attenuation trend analysis, microbial and nutrient analysis, biodegradation rate studies, risk assessments, bench scale and pilot testing, life-cycle analysis)
- ▶ Reporting and remedial action evaluations

REMEDIAL METHODS

Sigma utilizes numerous tools to remediate a site:

- ▶ Intrinsic bioremediation (natural attenuation)
- ▶ Enhanced bioremediation (*in situ* injection, biosparging)
- ▶ Engineered mechanical remediation systems (air sparging, dual extraction)
- ▶ Innovative remediation techniques (onsite thin spreading, site capping)
- ▶ Excavation



Services to fit your schedule and budget.

Sigma owns its Geoprobe™ equipment, so our personnel are ready when you need them -- with little to no lead time.

CLOSURE STRATEGIES

Sigma utilizes many approaches to obtain case closure. In some cases, implementing a remediation system or excavation activities reduces existing contaminant concentrations to below applicable regulatory standards and allows for unconditional case closure. In other cases, Sigma uses site-specific data to illustrate that case closure is warranted and further project expense is unnecessary. Sigma is an industry leader at implementing natural attenuation as a closure strategy.

Sigma will tailor your Investigation & Remediation strategy to consider:

- Reimbursement & Grant Programs
- Voluntary Party Liability Exemption Programs
- Closure Strategies

CONTACT SIGMA TODAY FOR YOUR REMEDIATION NEEDS

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THE  **SIGMA**
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