

SETTING THE BAR IN BIOREMEDIATION

ETEC ADVANCED BIOREMEDIATION SOLUTIONS



Visit ETECLLC.COM
Contact Us: Info@ETECLLC.COM

WHY ETEC

Our Pedigree

ETEC, LLC has been delivering successful environmental remediation results throughout the US since 1992, during which our solutions have helped set industry standards for effective in situ bioremediation of petroleum and chlorinated solvent releases. By utilizing our proprietary designs, systems, and products, ETEC delivers effective results in the remediation of severely contaminated soil and groundwater.

The Challenges We Tackle For You

In situ remediation is a difficult proposition even under the best of circumstances. Treatment challenges include the varying physical and chemical characteristics of the target contaminants, the mass of contaminants present, and the inherent heterogeneities of the subsurface. More simply put, the ultimate challenge of any in situ remediation system is to obtain (and maintain) physical contact with the contaminated soil and groundwater so the biological treatment processes can occur.

Whether you are evaluating aerobic/anaerobic oxidative bioremediation, reductive dechlorination, or in situ chemical oxidation (ISCO), the success of that process will depend on how effectively the biological enhancements, substrates, or oxidants can be delivered throughout the subsurface. ETEC offers a full line of specialized turnkey equipment platforms that can be applied as a stand-alone remediation systems or coupled with other remediation technologies (i.e. dual-phase extraction, pump-and-treat, AS/SVE) for fast effective site cleanup and closure.

Our Commitment To You

With ETEC, you are never alone on a project. From the planning stages through site closure, our engineers and staff utilize their extensive remediation experience to analyze data and provide recommendations for achieving site goals. In every case, ETEC goes the extra mile to make sure that your project is successful.

Driven By Innovation

As the future unfolds, ETEC will maintain its innovative spirit, refining and improving upon the processes it uses for achieving reliable, efficient cleanups. Our focus will remain on core fundamental approaches to remediation, with efficient delivery and contact as the emphasis. No matter what your site conditions demand, ETEC is there with a full and flexible range of remedial alternatives designed to minimize overall costs and reduce remediation timeframes. Visit www.ETECLLC.com for product information and case studies.



YEARS OF BIOREMEDIATION EXCELLENCE



TURNKEY RECIRCULATION SYSTEMS & EQUIPMENT

CUSTOMIZED TO FIT YOUR SITE NEEDS
FOR LEASE OR PURCHASE

ISD™ In-Situ Delivery System

- Reductive Remediation
- Soluble Amendment Delivery
- General Recirculation
(PFAs/PFOs, Product Recovery, Hydraulic Control, ETC...)

DO-IT™ System

- Dissolved Oxygen Injection
(30-40 PPM)
- Oxidative Remediation
- Soluble Amendment Delivery
- Dissolved Oxygen Injection

Mobile Systems

- Episodic Treatment
- Pilot testing
- Surfactant Flushing, Direct Push Injections, Permanent Well Injections



PRODUCTS FOR SOIL & GROUNDWATER REMEDIATION

ETEC produces biological amendments to stimulate and accelerate the degradation of petroleum hydrocarbons, chlorinated solvents and more. Additional information is available at www.etecllc.com

AEROBIC-OXIDATIVE PRODUCTS

PetroBacTM

CBNTM

ANAEROBIC-REDUCTIVE PRODUCTS

CarBstrateTM

NutriChlorTM

BIODEGRADABLE SURFACTANT

PetroSolvTM

MINERAL SEQUESTRATION

FeSolvTM

100%

Soluble, nutrient amended products that include active cultures, enzyme enhancements, surfactants, macro- and micro- nutrients (nitrogen, phosphorous, potassium, B-vitamins) that support oxidative or reductive bioremediation.

Some of the most common contaminants ETEC's products treat include: gasoline/BTEX, MTBE, diesel fuel, heating oil, naphthalene's, aviation fuel, JP-4, JP-5, JP-8, PCE, TCE, cis-DCE, Vinyl Chloride, PCP, carbon tetrachloride, nitrates, and certain heavy metals.



WHY RECIRCULATION

THE KEY ADVANTAGES OF GROUNDWATER RECIRCULATION



Constant and appropriate delivery of bioremediation products to support accelerated biological degradation of contaminants.



Continuous movement of the injected treatment water through the contaminated soil and groundwater for optimum contact with dissolved and adsorbed contaminants.



Control the distribution of amended groundwater to specific zones throughout the target area and establish hydraulic control while inducing localized groundwater gradients.

- ✓ Direct Hydraulic Influence and Capture
- ✓ Contact through preferential and less preferential flow paths
- ✓ Facilitate "MASS BALANCE" – more efficient amendment delivery
- ✓ Shorter Remedial Timeframes for COMPLETE cleanup (1-3 years)
- ✓ Protects Downgradient Receptors
- ✓ Mitigates pH Shifts
- ✓ Depth is not a limitation
- ✓ Remediate under Roads/Buildings
- ✓ Retrofit P&T/MPE Systems – may utilize existing infrastructure
- ✓ Programmable Automation = Focused Delivery



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OUR COMMITMENT

A commitment to excellence.

Based in the Northwest, with offices strategically located throughout the US, ETEC, LLC is a nationwide environmental services provider dedicated to delivering innovative, cost-effective solutions to environmental problems - all using a range of today's most advanced treatment technologies. Our mission is to improve existing remediation processes through the development of practical, effective remedial solutions focused on delivery that save our clients both time and money. We make it a priority to establish open, honest, long-term working relationships while ensuring that every project is completed to the highest possible standards.

Innovation you can believe in.

Even under the best of circumstances, remediation is a difficult proposition. Choosing between the wide range of remedial technologies and service providers can be a daunting task for any environmental professional. With new technologies being constantly developed, new research being published, and new products released, identifying the technology best-suited for your site is not always clear. That's why having a knowledgeable, highly-experienced partner you can trust throughout the process is key.

Unlike many other firms, ETEC has dedicated itself to bridging the gap between the latest academic research and practical field application. Our engineering staff spends hours reviewing the latest research to find out which application is most effective, tests the process in the laboratory and finally works to find the best way to implement the solution in the field.

With ETEC, you are never alone on a project. From the planning stage to site closure, our staff utilizes its extensive remediation experience to analyze data, provide recommendations for modification, and implement any changes in the field. In every case, ETEC goes the extra mile to make sure that your project is successful.

The result is an uncommon level of earned confidence and true client satisfaction.

EXPERTISE - CREATIVITY - PRECISION - EXECUTION
CLIENT FIRST



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