

Statement of Qualifications



Unleashing the Power of Green for Earth-Friendly Products & Services



Green Earth Naturally

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Mission Statement

Green Earth Naturally, LLC (GEN) provides sound, economical and permanent solutions to environmental problems using today's most effective and innovative technologies for the benefit of our commercial and government clients. Our services and products are designed to clean the Earth of pollutants using green products to the fullest extent practicable to sustain the environment for future generations. We will use a client centered approach to build business relationships by acquiring a thorough understanding of our client's needs. We will prepare a beneficial, cost effective work plan which meets regulatory requirements and client objectives that minimize environmental liabilities. We will deliver on what we promise - on time and within budget.

Company Profile

Green Earth Naturally is a newly formed Limited Liability Company that has brought together a staff of engineers, environmental technical specialists, geologists, microbiologists, and chemists with over 125 years combined experience in the energy and environmental fields. GEN meets the Woman Owned Business requirement and is registered with the Small Business Administration (SBA) and through the Commonwealth of Virginia as a Disadvantaged Minority Business Entity (DMBE). GEN is included in this listing as a Small Woman and Minority (SWAM) Certification No. 671865. All required information has been submitted and our status meets the criteria for inclusion.

GEN is comprised of three complementary divisions which include EarthNet, EarthCleans and Clean Air Technologies. EarthNet is a leading provider of environmental and management consulting, engineering and technical services with offices in Roanoke, VA, Richmond, VA and Raleigh, NC. EarthCleans is GEN's innovative development group that produces and distributes a line of Earth friendly (green) products. EarthCleans manufactures all natural "green" products for waste treatment, odor control, remedial solutions for clean-up, cleaning and disinfection, and beneficial reuse of waste. Clean Air Technologies, our energy conservation division, develops, manufactures and distributes fuel additives for reducing hydrocarbon, NO_x and SO_x emissions, and increasing energy output. This division specializes in fuel additives for burning fossil fuels more efficiently, and cleaner/alternative energy sources including wind, geothermal and biomass.

Environmental Services

Site Investigations

The EarthNet environmental assessors are highly qualified individuals with experience with State, local, federal, commercial, and industrial environmentally related projects.

Phase I and Phase II Environmental Site Assessments

EarthNet staff has performed numerous Phase I Environmental Site Assessments (ESA) in accordance with American Society for Testing and Materials (ASTM) Standards. Typical Phase I Reports generated by EarthNet include information as required by the ASTM standard such as information gathered from site reconnaissance, interviews with current and past site owners or operators, physical setting information (i.e. geology, topography, soils), information on storage tanks, hazardous substances, site history, and results from an environmental database review. If information obtained from the database review warrants, EarthNet will conduct regulatory file reviews and recover site-specific information from necessary agencies. EarthNet will evaluate the information presented in the Phase I report and the risks associated with any Recognized Environmental Conditions (RECs) and recommend a Phase II Site Assessment if warranted.

Phase II Environmental Site Assessments vary based on site conditions and client objectives. Phase II ESAs may include sampling of materials in or around an existing structure on the property to determine if those materials contain hazardous substances. Surface or subsurface soil or groundwater sampling may also be warranted to determine if there has been any impact on the property from current or historic uses of the property or from surrounding properties. EarthNet staff has extensive experience in determining the most effective and efficient sampling methods and locations to determine if impact has occurred.

Environmental Impact Report

Environmental Impact Reports produced by EarthNet will address six major components. These will include:

- The scope and location of the project;
- The environmental impact of the project including the impact on wildlife habitat;
- Adverse effects that cannot be avoided if the project is undertaken;
- Measures proposed to minimize the impact of the footprint of the project;
- Alternatives to the proposed construction;
- Irreversible environmental changes which would be involved in the project.

An example of our approach is as follows:

EarthNet staff will gain a thorough understanding of the project, its design and purpose prior to beginning the Environmental Impact Report. EarthNet will begin by conducting an investigation into the history of the subject site and its surrounding area. Current site conditions as well as proposed construction and their impact on the environment will be presented. A discussion of client funds available, approved, or budgeted to acquire property or construct a building, the location, general building description and proposed usage for this structure, as well as, reason for acquisition will also be included.

Significant long-term losses or impacts to resources and wildlife are presented for the project. This includes changes in the landscape as well as natural and physical features of the land and how those changes will impact other nearby properties. EarthNet will analyze the direct, indirect and cumulative environmental impact of the project on natural resources such as rivers, lakes and streams, as well as natural habitats such as wetlands, forests and other unique terrestrial habitats.

EarthNet will discuss alternatives for the project, or portions thereof, which may reduce the overall environmental impact of the project. Alternatives may include changing the site for the project if the

impact is severe or simply changing the design of a building to reduce the impact to an acceptable level. Alternatives may not be required if the environmental impact of the project is negligible.

Finally, EarthNet will discuss ways to minimize the environmental impact of the project through building design, landscaping, energy conservation, waste minimization, pollution prevention, recycling and other earth friendly techniques. EarthNet will also discuss whether or not irreversible environmental changes will be made due to the project including impacts on air and water quality, changes in water flow in rivers and streams as well as changes in scenic view areas.

Site Characterization

EarthNet views site characterization as a critical step in the process of identifying environmental issues and providing clear solutions for our clients. EarthNet typically performs site characterization in accordance with ASTM Standards relating to Environmental Site Characterization and in accordance with state and/or federal regulations where applicable.

EarthNet researches and gathers background information to provide a thorough understanding of site conditions and designs an effective work plan. A phased, media-specific approach is used to characterize environmental areas of concern at the site. This approach enables a cost-effective evaluation of subsurface conditions with respect to potential areas of concern. Using this approach, soil quality is initially characterized to determine if chemicals of concern pose a threat to groundwater and necessitate groundwater characterization.

The overall objective of EarthNet's site characterization is geared toward first determining whether risk-based remedial approaches can be taken. This is determined by gathering chemical-specific environmental quality data, along with site-specific hydrogeologic information. Typically included is testing for the presence, or lack thereof, of parameters indicative of natural attenuation processes to help determine the relative tendency for fugitive chemicals to degrade in the site environment. Review of site-specific data in combination with our experience, knowledge and resources for new and innovative technologies allows us to determine the most cost-effective alternatives to address site conditions.

Our field staff consists of experienced, quality-oriented scientists who understand the importance and critical value of sample collection under strict quality assurance and quality control protocols. Each staff professional is trained in-house and in the field, through direct supervisory oversight, on proper environmental media sampling as well as sample handling, sample identification and labeling and chain-of-custody documentation.

Site Remediation

EarthNet has the knowledge and experience to undertake any size remediation project, at any level of involvement. We have a proven track record of successful performance at all types of sites, including contaminated soils, sediments and groundwater, pits, ponds, lagoons, underground storage tanks and Brownfield sites.

EarthNet's integrated site remediation solutions minimize costs because they are site specific, technically defensible, and based on technologies that optimize the cost-effectiveness of the cleanup process. Our risk

assessment experts help establish priorities, negotiate cleanup levels, and reduce risks as an integrated component of the remediation team.

Soil and Groundwater Remediation

EarthNet has extensive experience with numerous soil and groundwater remediation techniques, including soil vapor extraction, air-sparging, dual-phase vacuum extraction, bioremediation, thermal incineration, bioventing, and pump and treat. When soil and/or groundwater remediation is warranted, EarthNet will design an appropriate site remediation plan. Our knowledge of the regulations, experience with and knowledge of remediation techniques and state of the art remediation equipment, and our ability to blend these elements together into a custom remedial approach for each site, helps to ensure that you receive the best possible solution.

Bioremediation

Bioremediation is the use of microbes to degrade environmental contaminants from wastewater, groundwater, air and soil. Bioremediation is the method of choice for in-situ treatment when treatment time is not critical, when available monies for clean-up are limited, and where removal is not feasible. It can be utilized in conjunction with vapor extraction and other technologies, once initial abatement activities have been completed.

Each individual site is assessed for the level of contamination and plume delineation. A remediation plan is then developed for the clean-up of the site. Bioremediation can be done on-site with removal of soils for treatment, or it can be done in-situ without removing soil. In-situ remediation involves installation of wells for extraction of water, if groundwater is impacted and injection wells for addition of microbes and nutrients.

In in-situ bioremediation, GEN uses a bioslurry of a proprietary consortium of bacteria and nutrients that are injected into permanently installed injection wells.

The dominant bacteria consortium used for the remediation include:

Pseudomonas putida

Corynebacterium aquaticum

Arthrobacter crystallopoiestes

Bacillus species

Alcaligenes xylosoxydans

Ochrobactrum anthropi

Pseudomonas alcaligenes

Actinomyces

These bacteria, along with several other species, are grown specifically to degrade the target contaminants. In order for the bacteria to successfully metabolize organic contaminants, it is critical that the groundwater contains all of the necessary nutrients to accommodate the bacterial growth. Nutrients added to the groundwater are in the form of ammonia nitrogen, nitrate, and ortho-phosphate. Selected vitamins and micronutrients are also added to stimulate growth. A proprietary blend of these nutrients and vitamins is developed to maximize the metabolic process of the consortium to degrade the target contaminants at each site.

The nutrient requirements are stoichiometrically balanced as follows:

The equation that demonstrates the chemical requirements for biological treatment is derived from the combination of the half reaction associated with bacteria systems. A balanced chemical reaction for the given biological conversion is useful in obtaining a mass balance. This equation is generally written as follows:

$$R = f_s R_c + f_e R_e - R_d$$

Where

R_c = the half reaction for the synthesis of bacteria cells

R_e = the half reaction for the electron acceptor

R_d = the half reaction for the electron donor

f_s = the portion of the electron donor used for the cell synthesis

f_e = the portion of the electron donor used for the cell energy

Based on this equation, and the limits of the Underground Injection Permit (UIC) obtained for this remediation technology, nitrate addition is limited to ten parts per million (ppm).

Approximately 5,000 gallons of active bioslurry will be injected either monthly or quarterly depending on the site. Based on analytical data received from the site, the bioslurry is injected into the injection points at approximately ten pounds of pressure, based on flow rates and hydrogeologic conditions at each site. The metered injection of the bioslurry into each injection point is based on current groundwater analytical data.

Bioinjection events initially begin on a monthly schedule. Monthly events are completed for one quarter to obtain a net positive gain for the nitrogen concentrations available to the bacteria consortium. Bioinjection events are then performed at the site on a once-per-quarter basis. Analytical data indicate that although once-per-quarter bioinjection events are effective at metabolizing the target contaminants, nitrogen concentrations may be very low to non-existent prior to the next bioinjection event.

Metals Remediation

Green Earth Naturally staff invented, developed, and tested a remarkably effective metals remediation technology, using a specialized byproduct derived from burning coal, trade named SulfiTech. SulfiTech is a patented (US Patent # 6,476,287 and 6,680,039) additive which reduces the leachability of lead and other heavy metals in foundry sands, soil, and other materials. SulfiTech-treated materials can be handled as non-hazardous once treated, dramatically reducing transportation and disposal costs compared to disposal of hazardous materials. SulfiTech also treats metal-impacted materials at a lower cost than other conventional treatment chemicals such as phosphates and cement.

SulfiTech has been successfully used to treat hazardous foundry sand and cores, battery cracking plant residues, lead-based paint residues, soils at shooting ranges and scrap yards, etc.

The US Army Corps of Engineers tested SulfiTech against other conventional lead treatment materials as part of a system designed to reduce lead leachability and mobility on shooting ranges. SulfiTech outperformed all other tested treatment technologies, meeting or exceeded the threshold criteria for a successful test. SulfiTech was also less expensive to use than the other technologies. The results of the test are publicly available as USACOE document ERDC-TR-07-14.

Typical SulfiTech addition rates run between 3% and 6% by weight. SulfiTech can be delivered in bulk, stored in bulk bins, does not have a tendency to bridge, and meters well. It does not solidify on contact with moisture, nor is it corrosive to treatment and storage equipment.

When used as a treatment system for materials to be left in-situ, SulfiTech has a decided advantage over other treatment systems. Typical treatment systems such as phosphates and cement react with water and solidify or wash out of the waste, so any metals which might become leachable at a later date will not have active treatment materials present to react with. Unlike other technologies, SulfiTech has very low solubility in water, and is not water-reactive, so, over time, you can be assured that metals in SulfiTech-treated materials will not begin to leach out.

M-U-D-D-S (MICROBIAL UNDERWATER DELIVERY AND DEGRADATION SYSTEM)

This system was developed to aid in the cleaning of sands and sediments in rivers, harbors, and ponds without dredging these materials which causes release of the contaminants into the ecological system and resulting eco-imbalance.

“Sediment particles of mineral and organic matter accumulate in coastal waters as the result of physical, chemical, and biological processes, both natural and anthropogenic. Human activities can affect marine sediments by accelerating the rate of accumulation and introducing contamination. Many chemical contaminants have an affinity for fine-grained sediment particles. Contaminated sediments are widespread in U.S. coastal waters and have potentially far-reaching consequences to both public health and the environment (National Research Council [NRC], 1989a).”

Industries that discharge wastes into waterways, dense populations that discharge sewage, automobile emissions, and other waste-generating activities, or remote sources, such as stormwater runoff and suburban or agricultural effluents containing heavy metals, oil, pesticides, and fertilizers are other causative sources for contamination. Contaminants deposited from the atmosphere can be carried from sources even further away.

Chemical contaminants associated with sediments can be considered toxic when they adversely affect living organisms. Submerged contaminated sediments may be in intimate contact with aquatic biota that may be affected adversely by, or serve as carriers of, contamination. In this way, contaminants pose a potential risk to coastal ecosystems and, primarily through consumption of fish and shellfish, to human health.

Management of contaminated sediments is a complicated problem.¹ At the technical level, controlling input is difficult because of the multiplicity of sources, and the wide dispersion of sediments by hydrodynamic and biological processes tends to expand the scope of cleanup operations. Proper management of contaminated sediments is becoming more complicated because environmental concerns hinder the removal of sediments from economically critical shipping lanes and because growing numbers of contaminated sites are being identified for remediation.

MUDDS is one solution for in-situ cleanup of these contaminated sediments. The system consists of three elements:

1. A computer design program to determine the fate of a solid diatomaceous earth capsule in existing currents and other stream conditions. The flow of the river and weight of the pellet is used to determine the ideal location to “release” the pellets to get them in the area to be treated.
2. A system of pellets or capsules of diatomaceous earth that serve as “bug motels”. Microbes tend to like to adhere to surfaces to grow. Because of this tendency, selected microbes tend to enter the pores and the surface spaces to adhere. The selected organisms are grown in fermenters and then at harvest time, pellets of diatomaceous earth are added. The porous nature of these pellets allows a good resting place for the microbe. Within seconds the fermentor broth is clear and the selected microbes are allowed contact with pellets of diatomaceous earth, which has lots of surface area due to their porous nature. These pellets are then scattered by computer modeling to allow them to come to rest where the contamination is identified. Once located on the water floor, the microbes will migrate out of their “motels” when they get hungry.
3. The microbes are the third element. These microbes have been selected to degrade specific waste contaminants from petroleum to chlorinated compounds. In addition they are selected for motility or the ability to move from the motel through the mud. They are also selected for chemotaxis or the ability to be attracted by the contaminant to allow movement from the motel to the site of contamination. Lastly they are selected for specific site conditions like brackish to salt water and temperature and oxygen extremes.

These motels then decay and serve as a source of growth promoters for the microbes themselves. Alternative methods for treatment of metals is also being researched for a similar delivery into high moisture environment.

Aboveground and Underground Storage Tank Services

EarthNet can assist with all environmental related aspects of Underground or Aboveground Storage Tanks. Underground Storage Tank (UST) and Aboveground Storage Tank (AST) management has been an integral part of EarthNet’s services since the inception of our company. EarthNet staff has conducted numerous UST and AST investigations and closures, including sites with storage capacities ranging between 275 gallons to 120,000 gallons. EarthNet is capable of applying a wide variety of innovative technologies to assess the extent of hydrocarbon impact within a single field event.

Tank Closure

EarthNet can assist with all related aspects of Underground or Aboveground Storage Tank Closures. EarthNet staff has conducted numerous UST and AST closures, including sites with storage capacities ranging between 275 gallons to 120,000 gallons. Upon completion of tank closure/removal, a report is submitted to the regulatory agency for review and determination of the necessity of additional services.

Release Investigations/Site Characterization Report

EarthNet can assist with all aspects of follow-up investigations as required by the regulatory agency once a release has been identified. Site investigations assist in the determining the extent of the release at a site and the necessity of additional characterization/investigation or remedial efforts. The site investigation process generally includes the installation of soil borings which are converted into monitoring wells which are used to characterize the subsurface soil and water quality. With the installation of monitoring wells the direction and rate of ground-water flow can be determined. Additionally, during the investigation process the risk to human health and the environment is evaluated along with the need for formal corrective action.

Risk Based Corrective Action Plans

EarthNet can assist with all aspects of Corrective Action Plan (CAP) preparation as required by the regulatory agency once a formal risk has been identified which requires remedial efforts. During the CAP preparation process the risk to human health and the environment is fully evaluated along with the development of a site specific remedial approach which is both cost effective, time sensitive and best suited for the particular site.

Trust Fund Program Administration

EarthNet has extensive experience working with the Virginia Petroleum Storage Tank Fund (VPSTF) and is accustomed to working on assignment of payment directly from the fund once the deductible for the site has been met. The familiarity of the consultant with the VPSTF procedures ensures eligibility and maximizing the cost recovered for each site.

Regulatory Compliance Services

Petroleum Spill Plans

EarthNet has provided Spill Prevention, Control and Countermeasures (SPCC) plans as well as Oil Discharge Contingency Plans (ODCP) for bulk oil storage facilities within the Commonwealth of Virginia. EarthNet develops site specific spill plans that meet the requirements of Title 40, *Code of Federal Regulations*, Part 112 (40 CFR part 112). EarthNet's spill plans meet the Federal Regulations and Virginia Administrative Code 9 VAC 25-91-10. EarthNet also provides updates to existing plans to conform to the requirements of the Virginia Code.

EarthNet begins by conducting an in depth site visit and reviewing existing documents and procedures. EarthNet then conducts research for the site and surrounding areas concerning natural habitats, wildlife, vegetation, streams and rivers as well as historic significance of the area. EarthNet then details the measures that are already in place at the facility and makes recommendations of changes that need to be incorporated in order to be in compliance at the facility.

Hazardous Waste Management

EarthNet offers Hazardous Waste Disposal services including waste manifesting and transportation and disposal of hazardous waste products at a certified Treatment, Storage and Disposal facility. EarthNet can provide characterization services of waste streams to determine the proper waste designation. Additionally, EarthNet can assist in acquiring an EPA identification number for the facility if not already in place.

Indoor Air Quality

EarthNet provides a wide range of indoor air quality (IAQ) services including asbestos, lead-based paint, mold and others. The scope of any IAQ Assessment is to identify conditions, if any, which may be adversely affecting the quality of the air. The IAQ report generated by EarthNet begins with an Executive Summary page and transitions in to the details of the IAQ study, discusses findings and conclusions that were drawn and offers recommendations for correcting adverse conditions at the site.

Asbestos Services

Accurate and reliable building inspections and surveys for asbestos-containing materials (ACM) are carried out in accordance with local, state and federal regulations by EarthNet's certified and highly trained staff that possesses a comprehensive knowledge in identifying asbestos uses and locations in buildings. EarthNet also develops Asbestos Building Demolition Surveys, which are required prior to the demolition or renovation of affected buildings. EarthNet coordinates scheduling with building managers to ensure that samples are collected in a discrete and safe manner so as to minimize damage to building materials and limit disruption of functional spaces, activities, and/or occupants. Results of surveys are presented and tailored to suit the client's needs. These results can be utilized by the client to make sound, cost-effective decisions relative to the management of asbestos-containing materials.

EarthNet offers third-party oversight and management for the abatement of all asbestos-containing materials warranting removal. EarthNet works with the abatement contractor, an asbestos supervisor and all regulatory agencies to oversee the entire process and ensure the proper and careful removal of the asbestos, and provides clearance sampling thereby reducing your liability.

Mold Services

Mold and fungi are a natural part of our ecosystem. Fungi include yeasts, molds, mildews and mushrooms. Mold, a subset of fungi, reproduces by producing tiny spores that are transported by floating through the air and are invisible to the naked eye, reportedly like very tiny dandelions in the summer breeze. EarthNet has experts in addressing molds (fungi) issues. Certain strains of molds can cause symptoms ranging from watery eyes or sneezing to internal bleeding and toxic effects. Molds have a different effect on every individual; therefore, EarthNet considers the amplification of mold in the indoor environment to be a pollutant and should be addressed accordingly.

EarthNet has conducted numerous mold sampling events, full surveys, remediation work plan preparation, remediation and remediation oversight, and clearance sampling to ensure effectiveness of remediation activities for residences.

Lead-Based Paint Services

Lead-Based Paint was utilized for residential, commercial, and industrial applications prior to 1978 when it was banned from residential and child occupied building usages because of potential exposure to the children. EarthNet has experts in addressing lead-based paint issues as well as other sources of lead exposure. EarthNet has conducted numerous lead-based paint services including; Visual Paint Screenings, Lead-Based Paint Screening, Lead-Based Paint HUD Surveys, Lead Hazard Screening, Water Sampling, Dust Sampling, Soil Sampling, Full Lead Risk Assessments, Abatement Specifications, and Management Plans for residential buildings built before the early 1980's as well as for businesses, industries, churches, schools, and hospitals.

EarthNet offers third-party oversight and management for the abatement of all lead-based paint warranting removal. EarthNet works with the abatement contractor, a lead supervisor and all regulatory agencies to oversee the entire process and ensure the proper and careful removal of the lead-based paint, and provides clearance sampling thereby reducing your liability.

VOCs

Volatile organic compounds are organic chemicals that have high enough vapor pressures to volatilize/vaporize under normal conditions and enter the atmosphere. Organic chemicals are widely used as ingredients in household products and can be released from cleaning supplies, building materials, furniture and flooring and even crafting materials.

Volatile organic compounds (VOCs) are emitted as gases from certain solids or liquids. VOCs include a variety of chemicals, some of which may have short-term and long-term adverse health effects. Concentrations of many VOCs are consistently higher indoors (up to ten times higher) than outdoors. VOCs are emitted by a wide array of products numbering in the thousands. Examples include: paints and lacquers, paint strippers, cleaning supplies, pesticides, building materials and furnishings, office equipment such as copiers and printers, correction fluids and carbonless copy paper, graphics and craft materials including glues and adhesives, permanent markers, and photographic solutions.

Other Environmental Services

Wastewater Discharge Management

EarthNet can provide services for the preparation of permits and regulatory assistance on sites where a discharge of waste water is deemed necessary. This includes the preparation of the initial permit application for the site, through the management and testing of the outfall(s) permitted in this process.

RCRA Site Management

Modern hazardous waste regulations in the U.S. began with the Resource Conservation and Recovery Act (RCRA) which was enacted in 1976. The primary contribution of RCRA was to create a "cradle to grave" system of record keeping for hazardous wastes. Hazardous wastes must be tracked from the time they are generated until their final disposition.

RCRA's record keeping system helps to track the life cycle of hazardous waste and reduces the amount of hazardous waste illegally disposed. EarthNet can provide assistance in all aspects of the RCRA requirements including the reporting and management of waste materials along with the monitoring of classified hazardous waste management unit (HWMUs).

CERCLA Site Management

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), was enacted in 1980. The primary contribution of CERCLA was to create a "Superfund" and provided for the clean-up and remediation of closed and abandoned hazardous waste sites. EarthNet has experience and can assist with the promulgation of activities as a result of compliance issues in this arena. The CERCLA removal efforts and Superfund are designated to address sites that present immediate risk to human health or the environment and are sites that require immediate actions to be protective to the environment.

VRP Services

The purpose of the Voluntary Remediation Program (VRP) is to encourage hazardous substance cleanups that might not otherwise take place. The VRP is a Virginia based program that is a streamlined mechanism for site owners or operators to voluntarily address contamination at sites with concurrence from the Virginia Department of Environmental Quality. These sites are addressed in similar fashion as the federally driven Brownfield program and ultimately try to accomplish the reutilization of previously used industrial and commercial sites. EarthNet can provide assistance through the entire process including the initial VRP application through site characterization with the ultimate goal of satisfactorily completing the program requirements and acquiring a Certificate of Satisfactory Completion.

Brownfield Services

Brownfields are land previously used for industrial purposes or certain commercial uses. The land may be contaminated by low concentrations of hazardous waste or pollution, and has the potential to be reused once it is cleaned up. Land that is more severely contaminated and has high concentrations of hazardous waste or pollution, such as a Superfund site, does not fall under the Brownfield classification. EarthNet can provide you with assistance on potential site selection, acquisition of Brownfield grants and cleanup of such properties in order to successfully reutilize these blighted properties.

LEED Certification Consulting

Our bioremediation products, mold resistant coatings, and all natural cleaning products meet or exceed LEED® (Leadership in Energy and Environmental Design) Green Building standards. Our goal is to provide services to protect and improve the quality of life through responsible resource management, an all green product line, and a sound infrastructure for rapid delivery. We have a reputation for innovation

in the global design and construction industry. We are home to some of the best minds in the country, including nationally renowned subject matter experts. Whether we are contemplating the restoration of our environment or helping to build and maintain an Earth friendly Green Building, we are thinking of clear sustainable solutions to resource management and infrastructure challenges.

Green Building Construction Management

As a contractor, consultant, manufacturer, and construction management firm committed to the LEED® certification process, GEN has a proven track record of providing our clients with the best green construction possible. Our firm's commitment to sustainable, environmentally conscious construction is paramount to our corporate philosophy of environmental responsibility. We understand that sustainable design is the future, and that is why we utilize only green building practices. We have done extensive research in order to establish the most comprehensive use of green building strategies and design while continuing to track budgets and managing projects efficiently.

Green Products

Cleaners & Disinfectants

The **BIOFLAVX™** products are blends of all natural bioflavonoids and saponins from plants with anti-microbial properties, natural detergents, and organic acids. It is non-corrosive, non-hazardous and all natural. It has been tested against a wide range of bacterial, viruses, fungi and protozoa. All the ingredients have been approved by GRAS (Generally Recognized As Safe) standards for food contact. **BIOFLAVX™** acts by disrupting proteins and lipids in cell walls and organelles. It can also inactivate enzymes needed for replication or metabolism in cellular functions.

BIOFLAVX SC™ is a unique all natural surface cleaner that is derived from plants. It can be sprayed or fogged onto surfaces or wiped on surfaces. It has been used in animal habitats (floors, litter, and walls), equipment, tables, tools, sinks, toilets, boot washes, and egg washes. The disinfectant is mixed with surfactants for easier cleansing action.

BIOFLAVX HC™ is a liquid, all natural product used for the cleaning of fruits, vegetables, meats and nuts to rid them of E. coli, Salmonella, Staphylococcus, Listeria and other microbes. It also extends the shelf life of these products by preventing harmful bacteria from growing. Harvest Cleanz kills these organisms common to food poisoning after 30 second exposure time.

Feed or Water Additives

BIOFLAVX AVT™ is an anti-viral treatment that was originally developed for the battle against H5N1 (avian influenza) but has been shown to be effective against a number of viruses, as well as, several other microbial agents. This material is formulated without any surfactants and is fed in drinking water at 750 ppm or sprayed in the air for poultry to breathe into air sacs. This can be used as a preventative application or in infected flocks.

BIOFLAVX PGE™ is fed through drinking water to destroy microbes in the gut and is effective against viruses, bacterial, and fungus. It has a citrus taste and enhances the taste of water. There are also vitamins

added that enhance the immune system against outside disease by increasing the overall health of the animal.

ECOCAL™ is a patent-pending feed additive that reduces ammonia emissions from manure or litter. Ammonia emission reductions of 60%-80% are commonly observed when EcoCal is fed to poultry.

Reducing ammonia levels inside the housing facility improves animal health and productivity. In poultry, improved feed conversion, laying rates and weight gain, and reductions in mortality have been noted when EcoCal was fed.

EcoCal comes in two formulations. One formulation is specifically blended to be used in rations fed to egg-laying hens of all types, and partially replaces limestone or oyster shell in the ration. The second formulation can be used in rations fed to egg-laying hens as well as poultry raised for meat, and partially replaces salt in the diet.

Both formulations have undergone rigorous and extensive testing by GEN researchers as well as researchers at Iowa State University, Purdue University, University of Maryland, and Pennsylvania State University. EcoCal has been tested on millions of birds in commercial production settings since its initial development.

Waste Digestion & Odor Control

BIOFLAVX DISRUPT™ is an all natural product used in animal housing to control odors, bacteria, fungus, moisture, viruses and parasites. It is composed of a cationic exchange clay that adheres and binds moisture and an all-natural disinfectant that reduces microbials in litter and on surfaces. There are also organic acids, Vitamin C and essential oils for keeping the animal coat healthier.

BIODIGEST™ is a dry, all natural biological solution for composting, odor control and reduction of solids in lagoons and other waste receptacles. The product consists of enzymes, microbes, plant extracts, growth stimulators and vitamins. BioDigest can be adapted for specific applications, including composting facilities, poultry houses and swine barns, beef and cattle farms, meat processing plants, grease traps, Waste Water Treatment Plants (WWTP), Kennels and animal shelters. BioDigest has also been successfully used to degrade fibrous waste and vegetation into compost, animal carcasses into feed additives and solids into water.

BIODIGEST GT™ is a liquid or dry grease trap product for restaurants, meat processing plants, grocery stores, universities, WWTP or anywhere fats, oils and grease are problematic. BioDigest GT prevents or reduces pump outs of grease traps and lines. One University reported no build-up in lines after 3 years when borescoping their lines. Previously, the same lines were cleaned 2-3 times per year.

BIODIGEST WWTP™ improves the biological and physical process in wastewater plants. It is an all natural, organic mixture of nutrients to stimulate endogenous organisms and those in BioDigest. Biological treatment of wastewater is used primarily to remove biodegradable organic substances (colloidal or dissolved). Nitrogen and Phosphorus can also be removed by biological treatment. It is designed for specific contaminants like phenols, oils and greases, feathers, and for odor control, sludge reduction, improved COD and BOD and other problems at all levels of treatment.

BLOC™ is an all natural Biological Liquid Odor Control concentrated blend of surfactants, microbes that produce cellulase, amylase, keratinase, proteinase and lipase. BLOC reduces odors 95% within 3 days of application to reduce ammonia, amines, sulfides, phenols and organic acids. Effective in poultry houses, swine buildings manure handling equipment, composting, processing plants, landfills, municipal waste plants and port-a-potties.

SEPTROL™ is a liquid blend of microbes, enzymes, and BLOC to reduce odors and solids in waste streams like septic tanks, RVs, boats and port-a-Potties. It reduces odors and degrades tissue and human waste to prevent pumping and clogging of lines.

WATER DRAGON™ is a liquid blend of enzymes and microbes used for treatment of water for recreational, aquaculture and decorative applications. Water Dragon helps prevent algae blooms and reduces solid build-up. In aquaculture applications, it can be used in conjunction with BioFlavX to keep water clean for healthier fish and shrimp.

Remediation Products

QBIOM™ is a specially designed cleaner for remediation of mold contamination on surfaces, equipment and in air. This product is applied after the physical removal of mold spores by HEPA vacuuming. QBioM is effective against commonly tested molds including Stachybotrys.

PETRO™ is a liquid or dry blend of microbes selected and adapted to degrade organic compounds. There are species of both petroleum degraders from components of benzene to heavy oil components and crude oils. Additionally, there are specifically adapted microbes in stock to degrade chlorinated solvents, phenolics, and many other specific chemicals.

BRPOmega is a liquid soil washing material which helps with odors and removes adhered contaminants from soil particles.

BRPOxyPlus adds oxygen into the environment to provide a slow release of oxygen enabling aerobic organisms to provide rapid degradation of the contaminants. Heavy concentration of OxyPlus can also oxidize the contaminant quickly to increase degradation rates.

PetroClean™ is a liquid blend of detergents and microbes to wash soil free of organic contaminants and then begin the degradation of petroleum that is left after soil washing.

Biological Pesticides

BLOC PLUS™ is a biological pesticide that is an all natural blend of essential oils and microbials to kill or repel common pests like mites, beetles, flies, bed bugs, and ants. Essential oils combine to attack the outer coverings of some insects or to repel a number of species of insect. Species specific microbial agents are being developed to kill the larvae of certain species while being totally non-harmful to humans and mammals.

Coatings and Nanotechnology

What exactly are nanoscience and nanotechnology? Nanoscience is defined as the study of phenomena and the manipulation of materials at the atomic, molecular and macromolecular scales, where properties differ significantly from those at a larger scale. The recognition that at the nanoscale the properties of materials change significantly is important and emphasizes the need to consider size in the assessment of risk-benefits of the use of these materials in food and food-related products. Nanotechnology involves the design, production and application of structures, devices and systems by controlling the shape and size at the nanometre scale.

Nanoscience and nanotechnology are about understanding and engineering materials at the molecular or atomic level. The term 'nano' is derived from the Greek word for dwarf. To put things in perspective a nanometre (nm) is one-billionth of a metre, or approximately one hundred thousandth of the width of a human hair. Nanoscience and nanotechnology are generally concerned with materials that are 10s nm in size or less. At this size range the behavior of materials begins to change.

Making materials smaller does not just lead to an increase in compactness, preciseness, or refinement of the structure and properties of the materials, it leads at the nanoscale to significant changes in properties. Most people will be familiar with the opaque nature of the filler particles of titanium dioxide. However, nanoparticles of titanium dioxide are transparent, suggesting novel uses in transparent sunscreens, food packaging or plastic food containers. Silver nanoparticles can be incorporated into bandages and provide an antibacterial action, but larger silver particles are far less effective.

TEFLOX REPEL S ® has been specially developed to make various mineral floor materials like ceramic tiles, flagstones, terra cotta and various unpolished and honed types of natural stone grime,

grease, oil and water repellent. Dirt is no longer absorbed into the surface and can be removed using a neutral or slightly alkaline cleaner, but always rinse well with water.

TEFLOX REPEL W ® has been specially developed to make various wooden surfaces such as parquet, furniture, panels, etc. made of every type of untreated wood grime, grease, oil and water repellent. Dirt is no longer absorbed into the surface and can be removed using a neutral or slightly alkaline cleaner, but always rinse well with water.

TEFLOX REPEL F is a high grade transparent impregnated product, based on nano technology. It is for application on porous wooden surfaces like beams, panels, planks, shelves and furniture that will not be walked on. Water and oil will no longer be absorbed by the wood and algae and moss will find it more difficult to grow.

TEFLOX REPEL PTFE has been developed for use on all metal or coated finishes. While wax, silicone polishes and other coating protectors only protect finishes for so long because they barely permeate the surface, Nano P.T.F.E. Coating protects finishes for year after year. This is because during a treatment with Nano P.T.F.E. Coating, a layer of Nano P.T.F.E. Coating is applied either by hand or with the use of a special polishing machine, whereby its molecules penetrate evenly and deeply into the pores of the finish. Thus, the surface becomes extremely smooth so that dirt gets no chance to attach itself to the coating. This also goes, for instance, for insects, bird droppings, resin from trees and other pollutants that normally have disastrous effects on surfaces.

PHB DE-ICING is specially designed for a fast and effective way to prevent slippery stairs, entrances, footpaths, etc. Because this product produces heat when it dissolves, the defrosting process of the ice happens much more quickly. This product works 30 times faster than salt or grit, it melts 150 times its own weight and will work in temperatures up to -20°C where salt is only effective to temperatures of -4°C. It will also prevent the treated surface from refreezing for 24 to 48 hours and can be used as a preventative measure.

CLEAN A&M is a very strong cleaning product with a low pH for the removal of atmospheric and mineral pollution, like stains of rust, Iron Phosphate, artificial fertilizers and salts.

STAPOREX is a neutral cleaning crème with preserving properties. It is applied for the removal of touch pollution and stains on stainless steel, porcelain, tiles, painted metals, plastic, Formica, glass, etc. Staporex is perfectly suitable to "renew" (by chemicals or mechanically) affected metal and glass. It is also used in the food industry to remove old hardened proteins.

MUSCODEL is an effective maintenance product that is perfectly geared to the needs and requirements of employees of cleaning companies. It easily and quickly removes algae, lichen and moss on all types of possible surfaces like dry wall, synthetic frames and doors, wood, concrete, natural stone etc. Moreover, it is safe to use and does not cause vapor damage.

WCC S-573 is a clear, fire retardant coating with a fungicide that was specially created for use when mold resistance is required. WCC S-573 is a non-toxic, water based product that can be used on both interior and exterior surfaces, wood, canvas, paper, metals, sheet rock, brick, cement, etc. It has been tested in accordance with ASTM methods for Surface Burning Characteristics of Building Materials and for the Resistance of Growth of Mold.

Material treated with WCC S-573 was exposed in a high moisture environment in the presence of high mold spore of various species. Most coatings are tested at four (4) weeks for the presence of mold

growing on the surface. WCC S-573 was tested for a total of 18 weeks and there was still no mold growing on the surface.

WCC S-573 can be applied to surfaces by spraying, brushing, rolling or even dipping the materials into the product. Depending on the porosity, texture of the surface and the mil thickness, one gallon can cover as much as 400 square feet of surface area.

OptiFuel™ Products

The **OptiFuel™** products are made using a patent pending combination of proprietary catalysts in a solvent carrier that is added to fossil fuels to improve combustion efficiency and reduce emissions of compounds that adversely affect the environment through acid rain and greenhouse gas formation.

OptiDiesel™ is generally used in diesel engines in vehicles, generators, fire pumps, etc. by adding 1 fluid ounce of **OptiDiesel™** per 30 gallons of tank capacity for the initial fill up. During each subsequent fill up, add 1 fluid ounce of **OptiDiesel™** per 30 gallons of fuel added.

OptiPetrol™ is generally used in gasoline engines by adding 1 fluid ounce of **OptiPetrol™** per 30 gallons of tank capacity for the initial fill up. During each subsequent fill up, add 1 fluid ounce of **OptiPetrol™** per 30 gallons of fuel added.

OptiHoHO™ is generally used in home heating oil tanks and industrial boilers by adding 1 fluid ounce of **OptiHoHO™** per 30 gallons of tank capacity for the initial fill up. During each subsequent fill up, add 1 fluid ounce of **OptiHoHO™** per 30 gallons of fuel added.

OptiCoal™ is generally used on coal or other biofuels to reduce Carbon Monoxide (CO), Nitrogen Oxides (NOx), and Sulfur Oxides (SOx). **OptiCoal™** can be used as a catalyst in a carrier and sprayed on the fuel or it can be used as a dry catalyst mixture. **OptiCoal™** should be added at a rate of 1 pint (240 ml) per ton of fuel.

Certificate of Insurance

Presently, Green Earth Naturally has \$5 million in coverage for product liability, professional liability and general liability and \$1 million in workers' compensation insurance. If any subcontractors are necessary, the subcontractor will have sufficient insurance coverage. GEN further certifies that the contractor and any subcontractors will maintain this insurance coverage during the entire term of the contract and that all insurance coverage will be provided by insurance companies authorized to sell insurance in Virginia by the Virginia State Corporation Commission.

APPENDIX I

EarthNet Representative Projects

**CORRECTIVE ACTION PLAN IMPLEMENTATION
OIL COMPANY
ROCKY MOUNT, VIRGINIA**

At the request of the Virginia Department of Environmental Quality (VDEQ), a Corrective Action Plan (CAP) and CAP Addendum (CAPA) were prepared for the facility located in Rocky Mount, (Franklin County) Virginia. The need for the CAP and CAPA was based upon actual risk to human health and the environment as a result of dissolved-phase impact to the ground water in the site vicinity. Prior to preceding to Corrective Action numerous activities were conducted at the site during the investigative process including the installation of 24 monitoring wells, pilot test studies, ground-water Fate and Transport evaluations, comprehensive risk and remediation assessments and geophysical investigations. Based on the finding of these studies corrective action was deemed necessary.

Therefore, the Corrective Action Plan was implemented during the period of August through December 2008 when the in-ground components of the remediation system were installed. This included the installation of the shallow zone and deep zone recovery points along with multiple horizontal road bores. A pre-fabricated remediation system trailer consisting of a liquid ring dual-phase extraction system, which recovers vapor and ground water from the three shallow zone recovery wells supplemented with a ground-water pump and treat component for deep zone recovery wells was brought on-line on January 5, 2009.

Since start-up of the ground-water remediation system occurred, a total of over 300,000 gallons of petroleum contaminated ground-water has been recovered, treated and discharged at the site. The discharge from the system is a permitted discharge under the VDEQ General VPDES Permit for Discharges from Petroleum Contaminated sites.

In accordance with VDEQ, continued remediation system Operation and Maintenance is on-going until the arrival of a municipal water line for the site vicinity. The contamination resulting from the subject site is actually what promulgated the discussion and agreement for the municipal water supply becoming available for the site vicinity.

Client:	Oil Company
Period of Performance:	08/08 – 02/09
Contract Value:	\$200,000
Key Personnel:	James Oyler, Derek Cooper

**SITE CHARACTERIZATION REPORTING, MONITORING AND ALTERNATE
WATER SUPPLY
OIL COMPANY
STEWARTSVILLE, VIRGINIA**

The Virginia Department of Environmental Quality (VDEQ) requested the facility to conduct site investigation activities as a result of a suspected release from an underground storage tank (UST) system discovered during a due diligence investigation as part of a property transfer. During routine Geoprobe drilling activities being conducted at the site, elevated levels of total petroleum hydrocarbons (TPH) were encountered thus resulting in the VDEQ request for a Site Characterization Report (SCR) and subsequent addendums.

Activities conducted at the site during the SCR and addendums included the installation of soil borings which were converted to monitoring wells. Ground-water wells were installed utilizing both hollow-stem auger and air rotary drilling techniques. For the bedrock wells, the wells were cased into competent rock and grouted in an effort to seal off the shallow zone. During the installation of the soil borings/monitoring wells both soil samples and ground-water samples were collected and analyzed for characterizing the horizontal and vertical extent of the petroleum contamination at the site. Upon completion of the monitoring well installations, the top of casing elevations, hydraulic conductivity, hydraulic gradient and ground-water flow direction were all performed in an effort to evaluate the site conditions. At this point, contamination has been mostly defined. However, based upon the actual risk to human health and the environment and the ground-water Fate and Transport evaluation additional activities were deemed necessary.

Additionally, during the investigation, nearby sensitive receptors including supply wells and surface waters were sampled and analyzed for the presence of petroleum contamination. Multiple supply wells were identified to have been impacted as a result of the release at the site. For the short-term, the VDEQ provided carbon filtration units (CFUs) to the impacted residences at the site. For the long-term several options were evaluated.

Based on the location of the site vicinity to available public water, a municipal water line for the site vicinity was negotiated and is currently under construction.

Client:	Oil Company
Period of Performance:	07/08 – 04/09
Contract Value:	\$150,000
Key Personnel:	James Oyler, Derek Cooper

**WASTE WATER TREATMENT PLANT FILTER MEDIA REMEDIATION
PROCTORS CREEK WASTEWATER TREATMENT PLANT
CHESTERFIELD COUNTY, VIRGINIA**

EarthNet performed a bacterial assessment and remediation of nine large filter cells at the Proctors Creek Waste Water Treatment Plant in Chesterfield, Virginia. The cells contained collectively over 4 million pounds of contaminated filter media material.

EarthNet examined the county provided documents which set forth the proposed scope of work. Water filled the chambers, the media could not be seen, and it could not be determined how much filter media was lost due to backwashing. The filter media consisted of 3 layers of material including anthracite coal, sand, and gravel of various sizes. The original construction had three distinct layers of material. The material had become mixed with other debris and vegetation and small trees growing in each of the nine chambers.

EarthNet developed a procedure to wet and pump using high suction capacity specialty guzzler trucks. EarthNet designed and assembled suction piping, then using our own labor pumped filter media into awaiting guzzler trucks. Productivity rates achieved pump out rates of filter media exceeding 1.6 cubic feet per second. Transportation and disposal was managed and coordinated by EarthNet as part of our scope of work. The project took 90 days to complete and met with many unknowns and obstacles prior to completion. There was considerable sediment and sludge buildup on top of and mixed into the filter media contributing to quantities found. There were 30 days during which there was no-water due to the plant shutting down a large section of the main water supply line. With the cooperation of the general contractor and wastewater treatment plant management EarthNet overcame these obstacles and finished the project with minimal schedule impact.

Client: Triad Demolition
Period of Performance: 4/08 – 8/08
Contract Value: \$102,000
Key Personnel: Kevin Pittman, William Hrank

**PHASE I ENVIRONMENTAL SITE ASSESSMENT
ROANOKE REGIONAL AIRPORT COMMISSION
ROANOKE, VIRGINIA**

EarthNet performed a Phase I Environmental Site Assessment (Phase I ESA) on three parcels collectively located at Countryside Road, Roanoke, Virginia. These properties include three city parcels that are currently part of a public golf course. EarthNet performed the assessment to comply with the contract between EarthNet and Roanoke Regional Airport Commission (RRAC).

The Phase I ESA was performed in general conformance with ASTM E 1527-05, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (the Practice). The purpose of the Practice is to define good commercial practice for conducting an environmental site assessment and as such, the Practice is intended to permit the user to satisfy one of the requirements to qualify the innocent landowner, contiguous property owner, or bona fide prospective purchaser limitations on CERCLA liability known as Landowner Liability Protections or LLPs. The goal of the process established by the Practice is to identify recognized environmental conditions in connection with the properties.

EarthNet identified uses of surrounding properties that included residential properties to the north and west, commercial property and the Roanoke Regional Airfield to the east, and residential properties and an apartment community to the south.

Findings:

Products and compounds that are now regulated or banned by the Environmental Protection Agency (EPA) may have been used prior to their regulated or banned status. EarthNet considers this a Recognized Environmental Concern (REC).

A fuel station near the site has an open file showing a Leaking Underground Storage Tank (LUST). This establishment is located up-gradient to the West of the subject property. Considering the general direction of the flow of groundwater to the East, the existence of a possible on-site receptor of constituents of concern in the form of a stream, and the location of this site to the subject site and the current open status of this LUST file, EarthNet considers this site to be an REC.

Client: Roanoke Regional Airport Commission

Period of Performance: 3/08 – 5/08

Contract Value: \$3,200

Key Personnel: Kevin Pittman, William Hrank

**ENVIRONMENTAL ASSESSMENT & SPCC PLAN
OIL COMPANY
ROANOKE, VIRGINIA**

A letter from the Virginia Department of Environmental Quality (DEQ) was received by the facility on November 26, 2007. During a compliance inspection, the DEQ inspector found deficiencies in the AST tank farm, record keeping, and physical plant situations that were in need of correction and an out of date SPCC plan.

During the EarthNet pre-proposal site visit, we observed several environmental concerns that appeared to be in need of correction. Many of the DEQ observations were a result of poor housekeeping, some of the DEQ concerns appeared to be easily corrected and some were corrected by the site manager at the time of our visit. Various dike systems were in use as a means to contain spills. Some oil staining was observed and some containment systems appeared to have served their useful life.

EarthNet's work included environmental compliance assessment activities needed to document the exact nature of the facility problems observed by DEQ and recommend compliant solutions or corrective measures to the physical facility to satisfy the DEQ site audit. Additionally the work scope also included writing two SPCC Plans for two facilities that are compliant with DEQ. EarthNet also made recommendations for the facility's ongoing environmental compliance.

Client:	Oil Company
Period of Performance:	03/08 – 05/08
Contract Value:	\$3,200
Key Personnel:	Janet Murphy, William Hrank

**PRE-DEMOLITION & PRE RENOVATION ASBESTOS SURVEY
EIGHT FORMER TOBACCO WAREHOUSE BUILDINGS
TRIAD DEMOLITION
RICHMOND, VIRGINIA**

EarthNet performed a pre-demolition asbestos survey on eight former tobacco warehouse buildings using our Virginia Licensed Asbestos inspector. The sampling survey was conducted over the course of two days, where EarthNet collected a total of 117 Presumed Asbestos Containing Material (PACM) samples from 56 homogenous locations. The survey results provided estimated PACM quantities where the inspector used his best professional judgment in assuming the quantities of unseen PACM as well. Estimated values were due to barriers such as brick walls and concrete.

Friable Asbestos material found was in the form of caulk found on a roof sky-light. It appears that approximately 3 feet of caulk was used to make a repair. The caulk was sporadically found on ridges and pane edges of one of the triangular shaped roof sky-lights. Non-Friable Asbestos was found in gray putty-like caulk material used to seal the gap between the building wall and the vent units on all buildings surveyed. Friable asbestos is a term used to describe any asbestos-containing material that, when dry, can be easily crumbled or pulverized to powder by hand. Material that contains more than 1% asbestos and is determined friable by the inspector is considered to be Regulated Asbestos-Containing Material (RACM). Material that contains more than 1% asbestos and is determined non-friable by the inspector is considered to be Asbestos-Containing Material (ACM).

The report was not an abatement specification and therefore did not show exact locations of areas needing asbestos removal. It only shows sample points and defined homogeneous areas.

Client:	Triad Demolition
Period of Performance:	2/08 – 3/08
Contract Value:	\$4,765
Key Personnel:	Kevin Pittman, William Hrank

**SITE CHARACTERIZATION REPORT AND ADDENDUM
OIL COMPANY
LYNCHBURG, VIRGINIA**

The Virginia Department of Environmental Quality (VDEQ) requested the facility to conduct site investigation activities as a result of a suspected release from an underground storage tank (UST) system. During routine line replacement activities being conducted at the site, elevated levels of total petroleum hydrocarbons (TPH) were encountered thus resulting in the VDEQ request for a Site Characterization Report (SCR) and subsequent addendums.

Activities conducted at the site during the SCR and addendums included the installation of soil borings which were converted to monitoring wells. During the installation of the soil borings/monitoring wells both soil samples and ground-water samples were collected and analyzed for characterizing the horizontal and vertical extent of the petroleum contamination at the site. Upon completion of the monitoring well installations, the top of casing elevations, hydraulic conductivity, hydraulic gradient and ground-water flow direction were all performed in an effort to evaluate the site conditions.

At this point, contamination in the shallow aquifer has been mostly defined and one monitoring well has had free-phase (gasoline) petroleum product present at thicknesses of up to 3.5 feet. Due to the presence of free-phase petroleum product remedial efforts including the use of aggressive fluid vapor recovery events (AFVR) and manual free product recovery have been conducted to recover as much of the free product as possible until a long-term solution is determined.

In an effort to evaluate risk to nearby sensitive receptors, a Fate and Transport model was conducted to determine the extent of impact to the closest sensitive receptor which was a series of unnamed tributaries. Based on the model results, it did not appear that the unnamed tributaries would result in any impact from the release at the subject site.

Additional monitoring incorporated with remedial efforts are currently being conducted to address the presence of the free-phase petroleum product.

Client:	Oil Company
Period of Performance:	07/08 – 02/09
Contract Value:	\$40,000
Key Personnel:	James Oyler, Derek Cooper

**PRE-RENOVATION ASBESTOS SURVEY
COMMERCIAL BUILDING
ROANOKE, VIRGINIA**

EarthNet performed a pre-renovation asbestos survey on a seven-story building with a basement using Virginia Licensed Asbestos inspectors. The comprehensive survey was conducted over the course of 7 days, where EarthNet collected a total of 224 homogeneous materials. A total of 600 sample layers were analyzed for the survey. Survey results provided estimated quantities of the materials based on the inspector's best professional judgment.

Both Friable and Non-Friable Asbestos-Containing Materials (ACMs) were found during the comprehensive survey. Friable asbestos is a term used to describe any ACM that when dry, can be easily crumbled or pulverized to powder by hand pressure. Material's that contain more than 1% asbestos are considered to be an ACM.

The report was not an abatement specification and therefore did not show exact locations of all areas needing asbestos removal. The comprehensive survey identified sample locations and defined homogeneous areas.

Client:	Building Owner
Period of Performance:	10/08 – 12/08
Contract Value:	\$8,000
Key Personnel:	James Oyler, Derek Cooper

APPENDIX II

Other Representative Projects

**PETROLEUM SERVICES
NATIONAL PETROLEUM COMPANY
VIRGINIA SITES**

Provided services ranging from initial UST removals and upgrades to providing complete environmental assessments including Site Characterization Reports (SCRs) and Corrective Action Plans (CAPs). These activities were conducted in response to the 1998 underground storage tank requirement by the Environmental Protection Agency (EPA). During the three year period from 1997 through 2000 a total of over 70 sites were evaluated for this client.

Client: National Petroleum Company
Period of Performance: 1997 – 2002
Contract Value: \$5,000,000
Key Personnel: James Oyler

**PETROLEUM SERVICES
NATIONAL PETROLEUM COMPANY
VIRGINIA SITES**

Provided services ranging from initial UST removals to providing complete environmental assessments including Site Characterization Report (SCRs) and Corrective Action Plans (CAPs). These activities were conducted from 1999 through 2008 related to underground storage tank concerns. During the period from 1999 through 2008 a total of approximately 30 sites were evaluated for this client.

Client: National Petroleum Company
Period of Performance: 1999 to 2008
Contract Value: \$2,000,000
Key Personnel: James Oyler

**MUNNITIONS FACILITY
VIRGINIA**

Provided environmental services from site assessment to site clean-up. These activities were conducted from 1992 through 1998 for environmental-related concerns. Additionally, during the period 70,000 drums with remnants of explosives were cleaned and recycled.

Client: Industry
Period of Performance: 2004 to 2008
Contract Value: \$1,500,000
Key Personnel: James Oyler

**PETROLEUM SERVICES
REGIONAL PETROLEUM COMPANY
VIRGINIA SITES**

Provided services ranging from initial UST removals to providing complete environmental assessments including Site Characterization Reports (SCRs) and Corrective Action Plans (CAPs). These activities were conducted from 1994 through 2009 related to petroleum-related concerns. During the period from 1999 through 2009 a total of approximately 60 sites were evaluated for this client.

Additionally for this client SPCC/ODCP Plans were prepared for compliance related issues at specific facilities. Spill response and clean-up services were provided for this company when the need for such services was required.

Client: Regional Petroleum Company

Period of Performance: 1994 to 2009

Contract Value: \$1,500,000

Key Personnel: James Oyler

**CLASS 1 RAILROAD
SOUTHEASTERN U.S.**

Provided services ranging from environmental compliance audits, UST removals, and complete environmental assessments of facilities. The investigations included Site Characterization Reports (SCRs) and Corrective Action Plans (CAPs). These activities were conducted from 1992 through 2002 related to various environmental-related concerns. During the period from 1992 through 2002 a total of approximately 40 sites were evaluated for this client.

As part of remediation and clean-up, bioremediation along with other remedial technologies were used for accomplishing endpoints and were approved by the various states where such activities occurred.

Additionally for this client SPCC/ODCP Plans were prepared for compliance related issues at specific facilities. Spill response and clean-up services were provided for this company when the need for such services was required at shop and facilities in addition to major train derailments.

Finally, numerous facilities had not handled waste related issues at their individual locations and hundreds of drums and containers throughout their system were evaluated and disposed of properly.

Client: Railroad

Period of Performance: 1992 to 2002

Contract Value: \$4,000,000

Key Personnel: James Oyler

**CLASS 1 RAILROAD
SOUTHEASTERN U.S.**

Provided services ranging from environmental compliance audits, UST removals, and complete environmental assessments of facilities. The investigations included preliminary site assessments, Site Characterization Reports (SCRs) and Corrective Action Plans (CAPs). These activities were conducted from 1992 through 2002 related to environmental concerns. During the period from 1992 through 2002 a total of approximately 30 sites were evaluated for this client.

As part of remediation and clean-up, bioremediation along with other remedial technologies were used for accomplishing endpoints and were approved by the various states where such activities occurred.

Spill response and clean-up services were provided for this company when the need for such services was required at shop and facilities in addition to major train derailments.

Client: Railroad
Period of Performance: 1992 to 1998
Contract Value: \$2,000,000
Key Personnel: James Oyler

**STATE REGULATORY AGENCY
PETROLEUM SITES
VIRGINIA**

Provided complete environmental services from spill response to site clean-up. The funding for this project was directly from the EPA and was for "State Lead" sites where no viable existing company/entity remained for providing site cleanups. Provided complete services ranging from initial UST/AST removals, environmental site assessments (ESAs), Site Characterization Reports (SCRs) and Corrective Action Plans (CAPs). These activities were conducted from 2004 through 2008 related to petroleum-related concerns. During the period from 2004 through 2008 a total of approximately 50 sites were evaluated for this client.

Client: State Regulatory Agency
Period of Performance: 2004 to 2008
Contract Value: \$2,000,000
Key Personnel: James Oyler

F-15 CRASH VIRGINIA

Provided environmental services for site clean-up related to the crash of an F-15 jet. This clean-up was conducted in 2002. During the clean-up various areas with jet fuel and plane parts were cleaned-up and all materials were disposed of properly. Additionally, due to the volume of fuel lost and the proximity to drinking water wells continued evaluation was required for some time to ensure impact would not result.

Client: Federal Agency

Period of Performance: 2004 to 2008

Contract Value: \$200,000

Key Personnel: James Oyler

FORMER TEXTILE FACILITY VIRGINIA

Provided complete environmental services from initial environmental site assessments (organics, asbestos, lead and mold) through final site clean-up for re-development. During the initial assessment the discovery of PCBs, asbestos and chlorinated solvents resulted in the need for additional abatement and clean-up. Oversaw and managed the PCB clean-up under the EPA Self-Implementing Clean-up Program. Provided oversight for abatement and provided clearance testing for the removal of asbestos-containing materials (ACMs). These activities were conducted from 2002 through 2008 for environmental-related concerns.

Client: Former Textile Facility

Period of Performance: 2002 to 2008

Contract Value: \$1,800,000

Key Personnel: James Oyler

Deborah Oyler with Global Chemical and Environmental Directions

Hungary, 2000: Designed and implemented a system for clean-up of a river that had been receiving human waste for years. The government wanted to make this into a park setting for the people to swim and picnic beside. The initial portion was successful and the project was put on hold until funding was acquired.

Chongqing, China 2003: Designed a system for creating a greenway on the Yantze River tributary. This section of river was to be turned into a greenway for tourist and to improve the quality of life of the people. This project included water purification to recreational standards and use of recycled products.

Martinsville, VA 2000: This project designed a self-sufficient “condo” style community that could be self-sustaining by recycling water for reuse, cleaning air for reuse, generating power from waste and using all recycled products for construction.

Washington, DC 2002: Designing of a “Green” house to include geothermal heating and cooling, recycled brick for exterior walls from contaminated soils. Decking was recycled plastic, flooring was recycled wood and renewable bamboo.

Recycled wash water system from truck washing for reuse. Involved several methods to remove dirt and surfactants, oils and grease to reuse water.

Multiple bioremediation clean-ups of petroleum products for Norfolk and Southern Railroad, CSX railways, gasoline stations, and furnishing microbes for several bioremedial clean-up companies. This includes solvents and petroleum products.

Design a system for cleaning biosolids from a waste facility in Aarhus Denmark to remove residual petroleum, metals, and other contaminants. The facility was then able to use the solids for fertilizer.

Development of microbial products for remediation of spills, chemicals, oil and grease degradation, biological pesticides and herbicides and all green cleaners.

Design and build treatment centers to compost waste and debris for fertilizer and for energy (methane) production. Using waste products like manure, dead animals, solid waste and wood waste produce a stream that has been used to improve yields in production and in plant health. Rose Acres Farms, Brookside Agra, etc

Designed alternative green methods to treat drinking water for removal of metals and organics, as well as, removal of harmful microorganisms. In China and in Denmark.

Worked as a subcontractor in a dredging operation in NJ to remove sediment to keep port open for shipments. Developed a system to clean the sediment prior to dredging to minimize or prevent the effects on the Ecosystem

Carroll Hale with Rose Acres

Involved with a program where wastewater and septic tank effluent from an egg processing plant was diverted through a man-made wetland to reduce levels of Chemical Oxygen Demand (COD), Biochemical Oxygen Demand (BOD) and nitrogen (as ammonia, nitrates, and nitrites). The man-made wetlands used a combination of gravel and plants (rushes, bamboo, etc.) in a lined lagoon to effect a mixed aerobic/anaerobic treatment of the wastewater. The man-made wetlands were designed in such a way as to keep the surface of the water being treated, below the surface of the gravel. Because there was no standing water, mosquitoes and other pests were unable to use the wetlands as a breeding ground, but birds and other animals flourished among the vegetation.

Involved with a program where wastewater lagoon effluent was subjected to ceramic microfiltration prior to being treated so it could be used as drinking water on a poultry farm.

Involved in a program where well water containing moderate levels of organics was subjected to ozone treatment/disinfection prior to being used as drinking water on a poultry farm. Ozone was selected for use on that farm for two main reasons. The first reason was to reduce adverse environmental effects arising from the release of chlorine to the environment. The second was to reduce the potential for formation of carcinogenic trihalomethanes, which can arise from the reaction of chlorine and organics in water. Not having to handle dangerous chlorine-containing chemicals improved worker safety on the farm, as well.

Involved in a project where wastewater was treated to reduce nitrogen and phosphorus content through the use of algae as a biofilter. The algae grew on rotating barrels containing large quantities of a commercial aquarium filter media (called "bioballs"). The barrels rested partially in the water, and air pumped underneath one side of the barrels caused them to rotate, effecting aerobic treatment of the wastewater. Halogen lights were suspended over each barrel so that, even at night, the algae would continue to grow, thus removing unwanted nutrients from the wastewater.

APPENDIX III

Key Personnel

S. Deborah Oyler President & CEO

Ms. S. Deborah Oyler is Owner and President of Green Earth Naturally, LLC. Ms. Oyler has a BA degree in Biology from the University of Virginia. She continued her studies and received a Medical Technology degree from Duke University, a Master of Science Degree in Microbiology from the Medical College of Virginia, an MBA from Mount St. Mary's College/Virginia Tech and has completed all of the course work for a PhD in Microbiology and Immunology at the Medical College of Virginia. She has also studied Fermentation Technology and Genetic Engineering at the Illinois Institute of Technology and Fermentation Technology and Enzyme Technology at MIT.

Ms. Oyler continues research, field application, and development on the enzymatic activity of bacterial sanitary products, producing bioremediation and waste treatment products, managing bioremedial field activities and developing other types of products for remediation efforts. Prior to starting her own company she held the position as Vice President of Envirotech Mid-Atlantic, an Environmental Consulting and Laboratory Company located in Blacksburg, Virginia.

Ms. Oyler had extensive experience in setting up and managing both medical and environmental testing laboratories when she started her own business, Environmental Directions, in Roanoke, Virginia in 1991. Ms. Oyler put her environmental and laboratory experience to work completing Environmental Site Assessments, Site Characterizations, and Remediation Specifications; then performing site clean-ups.

Because of her desire to have a positive effect on the environment, Ms. Oyler opened a second business to explore her Research and Development opportunities. Because of her research, Ms. Oyler went on to develop a new carrier system for solid substrate bacterial growth. In addition, Ms. Oyler developed a fuel additive to reduce exhaust emissions in fossil fuels and improve fuel efficiency and several all natural products used in; bioremediation of petroleum hydrocarbons; remediation of biological substances; digestion of waste in agriculture; digestion of solids in lagoons and grease traps; odor control; boosting immune status of animals; and optimizing digestion in animals among others. As a result, Ms. Oyler has authored multiple patents in fuel additives, emission reduction, and fuel efficiency, microbial products, and delivery systems.

Ms. Oyler's passion continues to be in the laboratory with Research and Development of new products. As Owner and President of Green Earth Naturally, she continues to develop and market all natural products in the United States and internationally. Products manufactured by subsidiary companies EarthCleans and Clean Air Technologies are being used in Canada, Europe and Asia and are currently being marketed to several other regions. In addition, Ms. Oyler continues to operate the environmental services division of her company, EarthNet.

Ms. Oyler has also served as a Professor of Biology, Chemistry, Anatomy & Physiology, Microbiology and Ethics at several colleges in Virginia. She is an active member of the Chamber of Commerce, Professional Women's Resources, International Association of Environmental Testing Laboratories, and the American Society of Microbiologists. She continues to serve her community by working with the City's Economic Development Authority, serving her church as Technical Director and assisting local colleges and technical schools with environmental projects whenever possible.

William S. Hrank, CGFM, RFC®, MBA
Vice President – EarthNet, Richmond

Mr. William Hrank is a Bradley University graduate with a BS degree in Industrial Engineering and holds an MBA from Southern Illinois University. He is the Vice President and Sr. Engineer of the Richmond Environmental Consulting Division for EarthNet. He has 30 years experience managing multi-million dollar environmental consulting, engineering, and remediation projects.

Mr. Hrank has conducted environmental regulatory compliance audits as well as pre-sale and post-acquisition environmental audits to determine existing environmental liabilities and regulatory compliance.

As Vice President of EarthNet, Richmond, Mr. Hrank is responsible for overall business management of the Environmental Consulting Division in Richmond. He has direct oversight of all project managers and field technicians in the Richmond office as well as ultimate approval of all projects completed within his office. For larger projects that require mutual cooperation between all of the divisions, Mr. Hrank manages and coordinates the initial proposal effort then directs the specific aspects of the project, reviews the procedures to be implemented and the protocols required.

Previously Mr. Hrank was Regional Director responsible for the closure, environmental decontamination and dismantling of two chemical manufacturing plants in Gary, Indiana and Carteret, New Jersey. Through the use of natural limestone for the treatment and beneficial reuse of this 100 year old chemical manufacturing plant in New Jersey, he designed, installed, and successfully implemented and operated a passive in situ groundwater treatment system.

Mr. Hrank has conducted numerous in-depth historic structures investigations, followed by the management of full architectural and engineering services for rehabilitation, restoration and conservation projects. He has cultivated strong working relationships with a variety of talented specialized contractors, builders and artisans with demonstrated experience in construction, rehabilitation and restoration work. Recent clients include the environmental management assessment of the east wing of the White House, investigation and upgrade of Air Force One Underground Storage Fuel Tanks at Andrews Air Force Base, environmental assessment for the renovation of the State Capitol of Virginia, and permitting regulatory lead for the re-building of a Brownfield site at Mercury Plaza, Hampton, VA. He was senior technical consultant for the redevelopment of Spotsylvania Town Center managing the environmental investigations, remediation, wetlands work as well as environmental investigations and permitting for a new road working through local regulatory agencies, Virginia DEQ, and the US Army Corps of Engineers.

Mr. Hrank is an experienced government contracts negotiator, has LEED experience, and is an experienced speaker on the subjects of Teaming / Partnering / Contracting in the federal sector. He has prepared and negotiated numerous teaming and partnering agreements. Utilizing a broad and comprehensive background in the field of government acquisition, he provides insight and management guidance to business managers into contracting with small businesses and federal government agencies in the management and investigation of Brownfield sites, and Base Realignment and Closure (BRAC) sites. He has extensive environmental experience with the Department of Defense BRAC, DERA, FUDS programs.

Mr. Hrank has been a Department of Energy (DOE) expert witness and co-author of the final report regarding remediation of alpha/beta radiation found in FDA regulated plant process water. He led the technical team that discovered and perfected the 'green' process for decontamination of groundwater containing low levels of alpha and beta radiation down stream from a DOE facility and has published Environmental Mitigation papers on the safe 'green' treatment of alpha and beta contaminated groundwater.

James D. Oyler
Vice President - EarthNet, Roanoke

Mr. James Oyler is a Ferrum College graduate with a BS degree in Biology. He is the Vice President of the Roanoke Environmental Consulting Division for EarthNet.

Mr. Oyler has over 19 years experience managing multi-million dollar environmental consulting, engineering, and remediation projects. His experience includes a variety of environmental investigations in regions of widely varying geologic conditions throughout the eastern U.S. Skills include all aspects of field investigations, analysis of data, regulatory and scientific research, preparation of reports to present data and conclusions, negotiating with regulatory agencies, and preparation of proposals and cost estimates.

As Vice President of EarthNet, Roanoke, Mr. Oyler is responsible for overall business development of the Environmental Consulting Division in Roanoke. He has direct oversight of all project managers and field technicians in the Roanoke office as well as ultimate approval of all projects completed within his office. For larger projects that require mutual cooperation between all of the divisions, Mr. Oyler provides technical oversight of the project, reviews the procedures to be implemented and the protocols required for the project.

Mr. Oyler has managed and provided technical and financial oversight for a multi-year, multi-million dollar contract with the Virginia Department of Environmental Quality (VDEQ) for petroleum-related sites throughout Virginia. He also served on the committee that was responsible for revamping and implementing the new rates and procedures for the Virginia Petroleum Program. The committee included participation by select environmental consultants, VDEQ personnel and financial experts.

Mr. Oyler has worked on and conducted a wide variety of environmental-related projects throughout his years in the industry. He has managed and performed hundreds of Phase I and Phase II Environmental Site Assessments and Phase III Site Remediation Projects. The technologies that have been used for petroleum remediation include bioremediation, vacuum extraction, pump and treat systems, land farming, in-ground injection of biological agents, contaminant removal with surfactants and over-excavation with disposal at both landfills and incineration facilities.

Mr. Oyler is a Virginia licensed asbestos inspector and has managed hundreds of asbestos related projects including asbestos surveys, asbestos abatement plans and specifications, and contract management assistance during abatement. He has managed both mobile and stationary analytical laboratories for the analysis of metals, pesticides, petroleum hydrocarbons and other inorganic constituents. He has also managed drum storage facilities that have had thousands of drums. Activities included obtaining facility identification numbers; sampling and profiling the materials; oversight of over-packing activities; compliance evaluations; and handled manifesting the materials.

E. Carroll Hale III

Director of Research & Development

Mr. Carroll Hale is a graduate of Eastern Kentucky University with a B.S. degree in Forensic Science and a minor in Physical Anthropology. He is the Director of Research and Development for Green Earth Naturally.

Mr. Hale has 20 years of work experience in the environmental field, having been an analytical/quality control chemist; environmental regulatory official; researcher; inventor; and technical environmental consultant. As Director of Research & Development at Green Earth Naturally, his duties include finding ways to improve current products marketed by EarthCleanz and Clean Air Technologies as well as developing and implementing new technologies to be used in remediation and for the betterment of our environment.

Mr. Hale has expertise in organic and inorganic laboratory analytical data validation and quality control procedures; treatment, storage, and disposal of industrial solid and hazardous wastes; animal agricultural emission reduction technologies and practices; and state and federal regulations in the areas of air emissions and solid/hazardous wastes, including Clean Air Act, Resource Conservation and Recovery Act, Emergency Planning and Community Right-To-Know Act, and Comprehensive Environmental Response, Compensation, and Liability Act. He is a past member of the Association of State and Territorial Solid Waste Management Officials, and served in a technical capacity as an industry representative to the United Egg Producer's Environmental Science Panel.

Mr. Hale has overseen waste remediation operations ranging in size from single dumpsters to several thousand tons; acted as technical environmental resource and liaison between industrial clients and state/federal environmental officials; and administered laboratory services contracts issued by state environmental agencies. He has also performed and overseen research and development activities beginning with problem identification and ending with commercialization of products derived from that research.

As a result, Mr. Hale has multiple intellectual properties in the areas of hazardous waste treatment and reduction of gaseous emissions from animal agricultural facilities. He has also authored and presented numerous technical papers detailing the results of his research at technical seminars worldwide, and is author or co-author of several papers published in peer-reviewed journals.

Janet M. Murphy Operations Manager

Ms. Janet M. Murphy received a BS degree in Environmental Engineering from Kennedy Western University. She is the Operations Manager for Green Earth Naturally, LLC located in Roanoke, Virginia.

Ms. Murphy is a senior level professional with over 15 years experience as a Risk Manager and Environmental Specialist in the industrial sector. As Operations Manager, she is responsible for the coordination and communications between 2 remote locations and the Corporate Headquarters in Roanoke, Virginia. Additional responsibilities include production management for EarthClearnz and Clean Air Technologies; assisting with open projects, project research and business development for EarthNet; and general operations of Green Earth Naturally, LLC.

Ms. Murphy has worked on a wide variety of environmental projects in both Virginia and North Carolina. These include Phase I and Phase II Environmental Site Assessments, environmental remediation projects, tank removals and several projects with Virginia's Voluntary Remediation Program. She has also worked extensively with air quality regulations including the Clean Air Act, Title V Certifications and closing Title V facilities.

Ms. Murphy has managed and been responsible for the storage and removal of hazardous waste activities for multiple sites. Activities included sampling and profiling the materials; oversight of over-packing activities; manifesting of the materials; and conducting compliance inspections and required documentation for Resource Conservation and Recovery Act (RCRA) Large Quantity Generator Facilities. Facilitated closure of RCRA regulated Large Quantity Generator-Waste Management Units under the VRP.

In her role as Risk Manager and Environmental Specialist, Ms. Murphy gained extensive experience interfacing with multiple regulatory agencies (local, state and federal). Ms. Murphy has served on the Local Emergency Planning Committee (LEPC) for Pulaski County; the Action Committee for the Environment (ACE) for Virginia; and the American Home Furnishings Alliance Safety and Environmental Action Committees. Ms. Murphy has also collaborated with the US Occupational Safety and Health Administration (OSHA), the North Carolina Department of Labor, North Carolina State University and The American Furniture Manufacturer's Association to develop a Voluntary Ergonomics Guideline for the Furniture Industry.

Kevin M. Pittman

Environmental Scientist

Mr. Kevin M. Pittman received a BS degree in Biology from Radford University. He is the Senior Project Manager and Environmental Professional at the Richmond Environmental Consulting Division for EarthNet.

Mr. Pittman has more than 6 years experience performing a full range of Environmental Assessments and inspections. He is proficient in site characterizations, groundwater and soil samplings, asbestos, lead paint, mercury evaluation and geotechnical lab and field work. Mr. Pittman performs diverse engineering, technical and project functions on large projects, serves as primary contact for clients, and manages projects to meet client requirements in accordance with scope, budget, and schedules. In addition, he provides engineering/scientific consultation and technical support to our clients.

Mr. Pittman has demonstrated the ability to apply a broad knowledge of CERCLA, RCRA, IAQ, UST and other environmental regulations, principles, practices, and procedures in the successful completion of projects. He has the ability to search for pertinent facts and data, analyze and evaluate information, and form accurate conclusions. He also has the ability to apply principles of logical or scientific thinking to a wide range of intellectual and practical problems.

As an experienced Industrial Hygienist in mold and IAQ, environmental compliance, assessments, and remediation, Mr. Pittman has conducted several mold assessments, abatements, and quality assurance inspections for hospitals, public schools, and the private sector throughout Virginia and Maryland. Mr. Pittman's ability to express conclusions and results in clear and concise manner, both in written and oral reports, makes communication extremely easy.

Mr. Pittman has extensive experience working with federal and state government agencies as well as the industrial and private sector. In his career, he has worked for the White House at the Executive Office Building in Washington D.C., aided in the clean-up of New Orleans after Katrina, planned and executed the improvement of indoor air quality for a Department of Agriculture facility in North Carolina, and conducted the environmental assessments for the renovation of The US Federal Courthouse in Richmond, Virginia.

Derek S. Cooper

Senior Project Manager

Mr. Derek S. Cooper received a BS degree in Geology with a specialty in Engineering Geology from Radford University. He is the Senior Project Manager at the Roanoke Environmental Consulting Division for EarthNet.

Mr. Cooper has more than 10 years experience managing environmental projects such as home heating oil tank clean ups, gasoline/diesel cleanups, jet fuel cleanups, mold-inspections, work plans, and remediation clearance evaluations, lead-screenings, HUD inspections, and clearance sampling, asbestos-inspections, all while meeting project schedules and budgets. He has extensive experience in managing, planning and performing a variety of environmental investigations in regions of widely varying geologic conditions throughout the eastern U.S. Skills include all aspects of field investigations, analysis of data, regulatory and scientific research, preparation of reports to present data and conclusions, negotiating with regulatory agencies, and preparation of proposals and cost estimates.

Mr. Cooper is a Virginia licensed asbestos inspector and has performed hundreds of asbestos surveys. Mr. Cooper is also a Virginia licensed lead inspector and risk assessor and has performed a variety of lead services including Lead screenings, surveys, soil and water sampling as well dust hazard and full risk assessments. In addition, Mr. Cooper is an American Indoor Air Quality Council – Certified Microbial Consultant and has performed numerous mold inspections as well as preparation of mold work plans and post remediation clearance evaluations. Each of these services has been performed at residential, commercial, and industrial sites.

Mr. Cooper has performed and managed multiple construction materials inspections. These inspections range from geotechnical borings, earthwork, retaining wall, dam, concrete, steel and EFIS inspections during the construction process as well as institute testing. Mr. Cooper has also performed and managed residential Historic renovation projects from inception to completion with all appropriate south-west historic review board approval.

In his management of environmental remediation projects, Mr. Cooper has gained extensive experience interfacing with regulatory agencies (local and state), insurance agencies, contractors, realtors, bankers, etc. Some of the technologies that have been used include bioremediation, vacuum extraction, pump and treat systems, contaminant removal with surfactants and over-excavation with disposal at both landfills and incineration facilities.