

ENVIRONMENTAL NEWS

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SPECIAL POINTS OF INTEREST:

- TerraQuest staff
- Proactive compliance saves money and reduces liability
- Drilling services reduce costs and expedite assessment
- Vandalism and Terrorism risk

TEAM TERRAQUEST

Welcome to the first installment of Environmental News. We hope that you will find this quarterly newsletter helpful.

Many of our clients have not had the chance to visit our office in Carrboro, NC or to meet all of the staff. Therefore, we would like to introduce you to staff you may not have met and learn about how they are working for you.

You have most likely met or spoken with Michael Brown and Jonathan Grubbs. Both are co-owners of TerraQuest and are licensed geologists. Michael and Jonathan work on all phases of projects with particular focus on corrective action and groundwater modeling.

Anyone that has called the of-

office or has needed a trust fund application prepared has surely spoken with Jill Ballentine. Jill is responsible for keeping our daily activities straight and managing clients' reimbursement requests.

Ryan Kerins is a project manager and assists with site assessments and corrective action projects. A significant portion of our field activities are performed by environmental scientist Jayson Kilcoyne and environmental technician Nick Perry. Jayson oversees a majority of the drilling operations and assists with various field sampling activities and reporting requirements. Nick primarily oversees the operation and maintenance of the remediation systems.

Brandi Miss is the newest addition to the staff and is an administrative assistant. Brandi assists Jill and other staff with various functions.



TerraQuest office in Carrboro, NC.

ENVIRONMENTAL GOVERNANCE

Environmental governance deals with environmental compliance and where a company stands within that framework. An article by Richard MacLean entitled "The Three Levels of Environmental Governance," March 2003 Environmental Protection Magazine provided the framework. According to

Mr. MacLean, there are three levels of environmental governance or compliance. Actually, there are four levels if you include level zero. Level zero is the highest risk level because environmental issues are not addressed until they are a problem. An example of level zero would be allowing a site with

known or suspected contamination to sit without addressing the contaminants while there are nearby potential receptors such as potable wells, surface water bodies, or other properties.

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ENVIRONMENTAL GOVERNANCE (CONTINUED)

Level one is also a high risk category because a company is only working on complying with requirements. This is a reactive level with little emphasis on future planning. Level two is considered a low risk level with the company's primary objective being risk reduction. Level three is considered minimal risk with the primary objective being future positioning.

Companies that operate at

level two or three examine their portfolio of sites and determine a course of action to mitigate their environmental responsibilities, thus reducing their environmental liabilities. The cost of level two and three compliance cannot simply be bottom-lined, as it does not consider costs saved by avoiding potential third party liability actions.

Companies that want to mini-

mize future liabilities don't have to undertake actions at all sites at once. First, they should identify potential problem sites through an internal compliance audit and proceed with actions at those sites.

Identifying and quantifying risks associated with contaminated sites should be as integral to one's business as insurance or retirement planning.



Geoprobe Model 66DT

DIRECT PUSH AND DRILLING SERVICES

For most clients, you have undoubtedly seen the high costs associated with drilling and laboratory services on invoices. TerraQuest has always sought out quality services from various vendors, but they come at a price. Subcontracted services comprise over 50% of environmental assessment and cleanup costs. In an effort to reduce these costs and still provide quality ser-

vices, TerraQuest has recently purchased a Geoprobe model 66DT to perform direct push and drilling.

What is direct push? Direct push is a drilling technology whereby a probe is driven into the ground to collect samples by applying impacts to the rod. This technology is widely recognized around the world and endorsed by the EPA as a means of expediting

site characterization while reducing costs.

There are some limitations to direct push technology. It does not work with bedrock or very consolidated soils. For those drilling activities, subcontracted services will continue to be utilized. If you would like to see a demonstration, please call us.

“expediting site characterization while reducing costs”.

BUYING AND SELLING PROPERTY

When it comes to buying or selling real estate, do you really know what you are getting into? Don't feel bad, many people don't.

Prior to purchasing property, a Transaction Screen or Phase I Audit is often conducted to identify potential recognized environmental concerns.

Most people would not think of performing these same tasks prior to selling a property. Why would you perform an audit to potentially uncover a problem on a property you want to sell? The answer—to reduce your liability. Just because the buyer does not conduct an audit does not mean that they pur-

chase the property and all the problems. If, during the course of development, contamination is discovered, the seller could be held liable.

Always consult an attorney and environmental consultant prior to purchasing or selling property.



Environmental audits are important for buying and selling properties.

WATER QUALITY REPORT

The United Nations Educational Scientific and Cultural Organization (UNESCO) recently issued a report that rated nations according to their water quality. UNESCO ranked 122 nations in the report.

The United States ranked 12th out of 122. Rankings were based upon water quality and the nation's commitment to improving water quality.

The top five positions went to Finland, Canada, New Zealand, United Kingdom, and Japan. Belgium took the last spot with the worst water quality.

The report went on to state that 2 million tons of waste is dumped every day into rivers, lakes, and streams. Furthermore, an estimated 2 billion to 7 billion people will be faced with water scarcity by the middle of the century.

Water is a natural resource that we mostly take for granted. It wasn't that long ago that the logging industry realized that it may take tens or hundreds of years to replace logged out areas. Consider that groundwater takes hundreds to thousands of years to replace.

(Taken in part from an article appearing in the May 2003 issue of Waterwell Journal)



Surface water contaminated with diesel fuel.

PETROLEUM CLEANUPS WILL CONTINUE FOR YEARS

Since 1993, I have heard that petroleum cleanups would be finished in a few years. By that, I mean that the program would be terminated. Did anyone really think that all of the upgrades and remediation would be complete by 1998? There were a lot of incentives to completing the necessary upgrades prior to 1998 and beginning assessment, but many decided to either wait

until the last minute or stop operations all together. Prior to 1998, cleanups were primarily driven by regulatory standards. Since 1998, cleanups are driven by risk based regulatory standards. These standards allow more contaminants to remain in place at lower risk sites.

In 1996, the State required work to stop on sites ranked C, D, or E (a primitive risk

based scale). All of those sites will be required to be ranked under the new system and appropriate actions taken. In addition to those sites and new releases, there are an unknown number of unregistered underground storage tanks throughout North Carolina. Clearly, petroleum cleanups will be around for many years.

(Michael Brown)

“Clearly, petroleum cleanups will be around for many years.”

COMMUNITY SERVICE ACTIVITIES

TerraQuest is actively involved in several community service projects involving environmental assessments and cleanups. The two most recent projects involve St. Thomas More Catholic Church and Zebulon Baptist Church. For the St. Thomas More project located in Chapel Hill, NC, TerraQuest is

providing financial assistance to the church for the assessment and remediation of a leaking underground storage tank.

TerraQuest has recently completed the assessment and remediation of contaminants from another leaking underground storage tank at Zebulon Baptist Church. For

that project, TerraQuest donated a portion of the proceeds from the job to the construction of a new fellowship hall on the site.

In addition to the church projects, TerraQuest has also performed Phase I audits at no cost for Habitat for Humanity.



Community service activities are important to TerraQuest.

www.terraquestpc.com

**TERRAQUEST ENVIRONMENTAL
CONSULTANTS, P.C.**

401 W. Weaver Street
Carrboro, NC 27510

Phone: 919-932-1590

Fax: 919-932-1594

Email: mjbrown@terraquestpc.com



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VANDALISM AND TERRORISM RISK REDUCTION

Since September 11, 2001, there has been an increased demand for reducing the risk associated with terrorist acts. Costs of additional security measures and rising insurance have added additional financial burdens to many industries. While acts of terrorism have taken the spotlight, there has been little thought to reducing risks associated with acts of vandalism.

On December 29, 2002, approximately 700 gallons of off-road diesel fuel was released from an aboveground

storage tank at a construction site in Raleigh, NC. The release was caused by vandals that had activated the nozzle on the tank and placed it on the ground. The diesel fuel impacted approximately 1,000 tons of soil and eventually flowed into Lake Raleigh before being recovered. The responsible party thought they were saving money by having a remotely monitored tank onsite. The cost of the cleanup far outweighed any savings realized with the remote tank. In addition, because the release

was from an aboveground storage tank, the release was not eligible for reimbursement from the leaking underground storage tank fund. Acts of vandalism were also not covered by the responsible parties' insurance carrier.

Industries should evaluate the potential threat to their facility from acts of vandalism and terrorism to minimize future liability.

TerraQuest Environmental Consultants, P.C. is a full service environmental consulting firm located in Carrboro, NC. We specialize in the assessment and remediation of various types of facilities.

If you have questions regarding our services, please feel free to contact us at (919) 932-1590 or visit our website at www.terraquestpc.com



TerraQuest personnel placing sorbent pads along the edge of Lake Raleigh to contain the release.