## STATEMENT OF QUALIFICATIONS



1008 College Blvd. Lawrence, KS 66049

785.550.6474

www.hydro-logic.com

don@hydro-logic.com

May 2007

## Introduction



### **Mission Statement**

The mission of Hydro-LOGIC, Inc. (HLI) is **to provide each customer with the highest quality of professional environmental support services**. We are proud to offer today's best value-added, cost-effective services in the environmental industry. HLI's strives to respond effectively to the needs of each of our clients. We pledge to apply state-of-the-art exploration, analytical, and remedial technologies to all of our work.

## **History and Background**

HLI offers professional environmental support services, specializing in hydraulic Direct-Push soil/groundwater sampling coupled with onsite laboratory analyses. HLI maintains a multidisciplinary team of scientists whose expertise includes geology, hydrogeology, geochemistry, chemistry, quality assurance, and regulatory compliance. Each professional is 40-hour trained in accordance with 29 CFR 1910.120 requirements for hazardous waste site operations, maintains yearly eight-hour refresher certification, and participates in HLI's annual medical monitoring program. HLI is certified by the U.S. Small Business Administration as an 8(a) small, disadvantaged, woman-owned business enterprise (DBE/WBE). HLI holds full general, professional, and pollution liability insurance coverage.

HLI provides superior, dependable, and defensible data that meet the stringent demands of the environmental industry. Since its incorporation in 1993, HLI has grown steadily, averaging 125 to 150 project sites per year. These projects have ranged from small, single-day assessments to complex site characterization studies that required many months to complete. HLI's client base has increased rapidly because we provide our customers unparalleled service. We afford confidence and peace of mind to our clients because of HLI's extensive technical and regulatory experience.

## **Management Philosophy**

HLI was founded to provide soil and groundwater sampling systems and quality mobile workstations that are staffed by highly trained geologists and chemists. HLI has perfected **Rapid Site Assessment (RSA) as a cost-effective alternative** to traditional, time-consuming site investigations. This resourceful process **interprets "real-time" data and makes "real-time" field decisions**, thereby reducing redundant project activities and saving our customers time and money. Our professional staff of scientists will provide the most useful and highest quality data possible. We pledge to furnish superior field services by applying our staff's extensive knowledge and hands-on experience.

# Hydro-LOGIC is centrally located in the continental United States

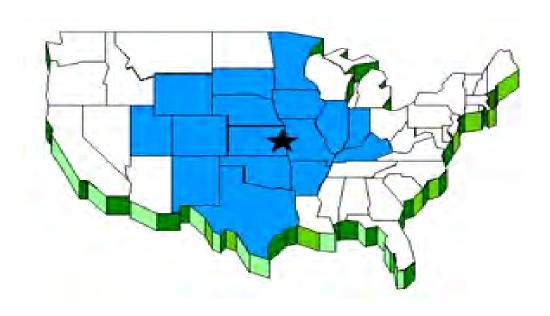
## Hydro-LOGIC, Inc.

**Corporate Office** 

1008 College Blvd. Lawrence, KS 66049 785.550.6474

www.hydro-logic.com

don@hydro-logic.com www.hydro-logic.com



<sup>\*</sup>Blue shading denotes that HLI has performed work in that state.

## **Representative Clients**

HLI has developed and maintained excellent working relationships with all of our valued customers. These customers include federal and state agencies, municipal governments, industrial manufacturers, architects, environmental engineers, civil engineers, environmental property assessors, remediation contractors, lawyers, real estate agencies, gasoline marketing companies, and property developers.

### PARTIAL LIST OF CLIENTS

### A/E Firms and Consultants

Applied EcoSystems

Arcadis - Geraghty & Miller

Bay West, Inc.

Black & Veatch

Burns & McDonnell

Camp Dresser & McKee (CDM)

CH2M Hill Engineering

Dames & Moore / Woodward-Clyde

Delta Environmental

**Dressler Engineers** 

EarthTech, Inc.

EnecoTech Inc.

**ESE** 

GeoSystems Engineering

Golder Associates

GZA GeoEnvironmental

I.T. Corporation

**Jacobs Engineering** 

Leggette, Brashears & Graham, Inc.

Montgomery Watson

**OPTECH** 

Professional Service Industries (PSI)

**RADIAN International** 

Weston

Rust Infrastructure

**SCS** 

**SECOR** 

Terranext

The Environmental Company

Thermo-RETEC

URS Greiner / Woodward-Clyde

### **Government Agencies**

City of Sugar Creek, Missouri

Iowa Department of Natural Resources

Kansas Department of Health and Environment

Minnesota Department of Health

Missouri Department of Natural Resources

Nebraska Department of Environmental Quality

U.S. Environmental Protection Agency

U.S. Federal Aviation Administration

U.S. Army Corps of Engineers

### **Industry**

**AMOCO** 

**ARMCO Industries** 

**BNSF Railroad** 

Deffenbaugh Industries

**Farmland Industries** 

Hardee's Food Systems, Inc.

Honeywell International, Inc.

Phillips Pipeline Company

**PRAXAIR Corporation** 

Proctor & Gamble

Sinclair Oil Corporation

Texaco Refining and Marketing Company

Union Carbide

Williams Pipeline Company

Wire Rope Corporation of America

## **Environmental Services**



### **Services Offered**

- Soil core sampling at continuous or discrete sampling intervals
- Groundwater surveys, to depths exceeding 100 feet
- Small-diameter monitoring wells and piezometers
- Soil conductivity logging
- Installing remedial wells conducting pilot studies
- Aquifer testing (Slug tests and pump tests)
- Oxygen Release Compound (ORC®) injection
- Hydrogen Release Compound (HRC®) injection
- Mobile analytical laboratories, GC's, EPA purge and trap, 10-Port autosamplers (EPA methods in SW-846)
- HLI's laboratories meet the most stringent laboratory QA/QC requirements
- Data validation and QA/QC consulting
- HLI provides professionals with college degrees for field support
- Remediation tests (Sparging, SVE, BioVent and dual phase extraction testing)
- AutoCAD® drawings (Isopach, gradient, and site base maps, modeling, soil and monitoring well logs)
- BOD, dissolved oxygen, conductivity, and pH laboratory analyses









## **Direct-Push Services**



### **Probe Construction**

HLI operates direct-push probing units mounted on ¾-ton 4x4 pickup trucks capable of standard and off-road use. Each probing unit is designed to efficiently collect soil-gas, soil core, or groundwater samples to depths greater than 100 feet. Two of HLI's probing units are

equipped with rotary drive systems used for flight or hollow-stem auger drilling. HLI operates these units to install permanent monitoring wells or for drilling through hard-resistant frost layers or caliche zones. HLI is also able to provide ATV-type probing units for tight, indoor or otherwise limited-access locations.

Each probing unit is equipped with a selfcontained high-pressure spraying system for equipment decontamination. Under most lowhazard conditions, we use clean, water-filled



and Safety Plans.



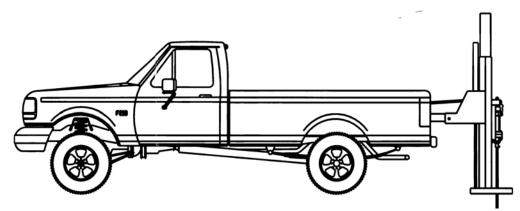
five-gallon buckets for decontamination. Each rig is also fitted with vacuum/volume system to extract soil-gas and groundwater samples from the subsurface. Furthermore, each probing unit carries a complete set of tooling with multiple back-ups to enable our field crews to immediately respond to any changes to the anticipated scope of services. All of HLI's trucks contain firstaid kits, fire extinguishers, and cellular phones to augment site-specific Health

HLI's direct-push probes are designed specifically for environmental applications. In this regard, the units normally are capable of producing 300 to 400 feet per day of continuous

soil samples, providing multiple data points for a thorough site characterization. Our probing units are environmentally "correct" because they contain no grease fittings or petroleum-based lubricated surfaces. This is accomplished by using self-lubricating ultra-high density molecular weight (UHMW) plastic wear plates for each moving function of the unit.



### **Small-Diameter Direct-Push Wells**



HLI is a front runner in small-diameter micro monitoring well applications and installations utilizing direct-push methodology. A decade ago, costly four-inch stainless steel monitoring wells were the industry standard, these, in turn, were replaced by more economical two-inch PVC wells. Now, the most cost-effective and innovative process is to install one-inch PVC monitoring wells, which is HLI's specialty. Samples collected from smaller-diameter wells are generally more representative of actual site conditions because well-installation activities cause the least disturbance to the underlying aquifer.

HLI was the first company in Kansas to obtain regulatory approval to install one-inch diameter monitoring wells! Regulators with the State of Missouri approved and filmed HLI's installation of one-inch diameter air sparging wells. HLI is your "Logical Choice" for consultant advice concerning the uses and regulations of small-diameter wells.

Small-diameter wells are the cost-conscience solutions for temporary and permanent monitor/ remediation wells. They are inexpensive to install and generate little or no costly investigative derived waste (IDW). Because our probe holes are small, wells installed using the direct-push methodology cause significantly less disturbance to both the surface and subsurface. This minimizes the potential for cross-contamination of an aquifer due to traditional auger drilling.

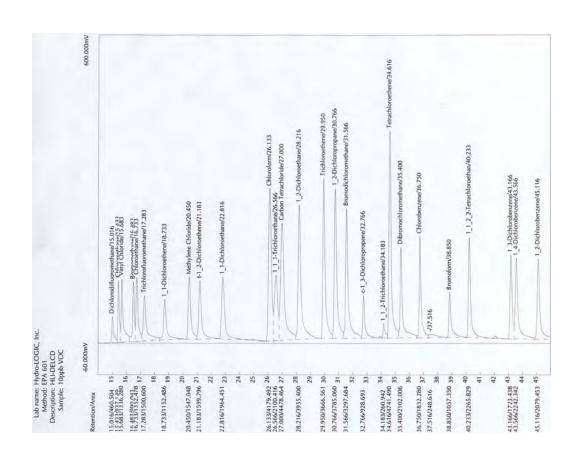


## **Direct-Push Units and Equipment**

HLI uses a complete line of Geoprobe® tools in addition to our own innovative, customized equipment. We specialize in original methods for soil, groundwater, and soil-gas sampling, and small-diameter well installations.



## **Analytical Services**



## **Analytical Services**

HLI owns and operates state-of-the-art, trailer-mounted mobile laboratories. Each temperature-controlled laboratory arrives at your site replete with electrical hookups, generator, sink, hooded exhaust system, and networked computers. HLI's

trailer-mounted laboratories are setup onsite in convenient locations away from probing activities, which minimizes interference and contamination and increases analytical production. Each lab provides sufficient room for clients to discuss analytical data with the onduty chemist; to use a computer workstation; or simply to take refreshing break in climate-controlled atmosphere. HLI's mobile



labs, once established onsite, efficiently provide defensible data that rivals most fixed-grade laboratories.

Our mobile laboratories are designed to analyze samples using a full spectrum of USEPA-approved analytical methods, which include sample temperature, dissolved oxygen (DO), pH, conductivity, halogenated and non-halogenated volatile organic



laboratories.

(BTEX. compounds GRO. & VOCs), DRO, aromatic volatile organic compounds, polynuclear aromatic hydrocarbons, phenols, PCBs, and pesticides and herbicides in soil, water, and soil-gas matrices. HLI provides trained, certified chemists who generate full-scale QA/QC -- as outlined by the SW-846 USEPA -creating data as defensible as any produced by costly timeconsuming, fixed-grade

## **Laboratory Equipment and Performance**

- Hewlett Packard model 5890 GC equipped with PID, FID, and XSD detectors. XSD is the latest technology from Hewlett Packard / OI Analytical for the determination of halogenated hydrocarbons (USEPA 501, 601, and 8021b)
- SRI model 8610 GCs equipped with PID, FID, NPD, DELCD, and ECD detectors
- USEPA purge and trap 10- and 16-port autosampler, heated split/splitless injection port, solid phase microextraction, and thermal soil desorption units
- Analyses of air, water, soil, gas, and waste samples with required QA/QC following USEPA SW-846 guidelines, which include matrix spikes, surrogates, control samples, continuing calibration checks, blanks, and duplicates. Hydro-LOGIC, Inc. also offers emergency response sampling and analysis
- Participation and highest ranking in the ASTM performance evaluation for total aromatics by GC/MS. Participation in Water Proficiency Testing Program
- Aid in remediation phases by confirmation of closure samples, delineating soil and groundwater impact areas, effluent discharge analysis, and monitoring progress of bioremediation treatment cells and landfarms
- Comprehensive data validation by experienced chemists, for all types of projects
- Computer workstation for clients, in a temperature controlled environment, complete with AutoCAD®, spreadsheets, word processing, laser printer, and fax



## **Miscellaneous Services**



### **Remediation Pilot Studies and Services**

HLI has helped our clients to design and implement a variety of remediation programs to mitigate or eliminate soil, groundwater, or surface water contamination. Cleanup methodologies ranging from simple product recovery to complex bioremediation systems have been utilized to obtain cleanup levels that meet our customer's needs and regulatory agency requirements. HLI will assist your engineers and hydrogeologists to develop pilot studies that address your most difficult remedial design problems. HLI is experienced implementing pilot test alternatives within a wide variety of subsurface conditions. Additionally, when HLI's mobile laboratories are stationed onsite they furnish a convenient workstation for these studies. HLI's laboratories provide "real-time" data to evaluate contaminate recovery efficiencies and to address field modifications in order to ensure optimal pilot test performance.

Remedial solutions utilized by HLI include:



- Groundwater Extraction for Pump-and-Treat or Plume Containment
- Soil Vapor Extraction
- Dual Groundwater and Vapor Extraction
- ✓ Dual Air Sparge/Vapor Extraction
- Contaminated Soil Excavation and Land Farming
- Contamination Migration Barriers
- In Situ Bioremediation
- Soil Stabilization and/or Solidification
- ✓ ORC® Injection and Installation
- ✓ Pilot Study Observation Wells
- Recovery/Extraction Well Installation
- System Operation and Maintenance

## **Project Experience**



## **Selected Project Experience**

Client: U.S. Army Corps of Engineers; Omaha, Nebraska

**Project:** Remedial Pilot Study of a former Atlas missile silo impacted with

TCE and other degradation, volatile, or organic products

Project Description: HLI performed a feasibility study for the potential use of a primary HRC remediation method to be used at approximately 80 different Atlas sites throughout Nebraska. HLI installed monitoring wells and collected soil and groundwater samples for the evaluation of microbial colonies that could be enhanced by the introduction of Hydrogen as a fuel source for their proliferation. Our company also performed the injection of Hydrogen Release Compound (HRC) and monitored groundwater concentration over a two-month period. HLI provided a progress report to the U.S. Army Corps of Engineers. Following the pilot study, HLI developed work plans and diagrams for additional field activities based on the positive results of the pilot study. The company remobilized to the site to perform additional monitoring well installations, soil and groundwater sampling, and HRC injections.

**Client:** Woodward - Clyde Federal Services

**Project:** Former Naval Ammunitions Depot, Soil-Gas Survey; Hastings,

Nebraska

**Project Description:** This project consisted of collection and onsite analysis of soil-gas samples for chlorinated solvents and BTEX constituents. Sampling also included horizontal delineation and vertical profiling. At minimum, four sample intervals per hole were used for vertical profiling at depths down to 45 feet below ground surface. Using the gas chromatography setup, all soil-gas samples were analyzed by injecting a 30cc sample volume into the USEPA purge and trap system. This allowed our chemist to obtain detection limits below one part per billion, by volume (1 ppbV). Previously, other site investigators used headspace analyses and were unable to obtain detection limits below 15 ppbV. HLI used Level II type QA/QC analysis. This consisted of analyzing blanks, duplicates, and calibration verifications at the rate of 10% of the entire sample compliment. Blank recoveries did not exceed the minimum detection limit, and all calibration checks fell within the required 15% maximum variance from the original calibration curve.

**Client:** Geotechnical Services, Inc.

**Project:** RCRA Landfill Investigation; Omaha, Nebraska

**Project Description:** Using direct-push technology, HLI collected soil gas to be tested for volatile organic compounds at more than 200 locations. Soil-gas samples were collected below the landfill cap. By utilizing multiple Gas Chromatographs and HLI's highly experienced geologists, the daily sample collection and analyses rate averaged from 30 to 35 locations per day. The samples were analyzed onsite for 64 volatile compounds, using a mobile laboratory following SW-846 Level III requirements and QA/QC objectives. The project was completed ahead of schedule and more than 25% below the projected budget. The NDEQ managers as well as the USEPA Region VII accepted all data and QA/QC without comment.

**Client:** Phillips Pipe Line Company

**Project:** Petroleum Hydrocarbon Investigations, Natural Attenuation and

Remediation, Midwest U.S. - Ongoing

**Project Description:** This ongoing project consists of soil, groundwater, soil-gas sampling, monitoring well installation, onsite analytical services, site monitoring, and product abatement services. Other tasks include; vapor point, well point, and small-diameter monitoring well installation. The soil and groundwater investigations were performed to determine optimal placement of permanent monitoring wells. These tasks are consistently performed on time and under budget.

Client: ECOVA / AMOCO

**Project:** Former Petroleum Refinery RI/FS, Missouri

**Project Description:** This project consisted of collecting soil-gas samples from a residential area surrounding the facility, collecting continuous soil cores, and performing groundwater sampling. HLI installed stainless-steel groundwater implants at locations that did not produce groundwater during sampling. After 24 to 48 hours, the groundwater accumulated within the implants was sampled. All samples were analyzed onsite using EPA SW-846 Method 8020 in HLI's mobile laboratory. HLI completed our field investigation ahead of schedule and within budget. QA/QC required surrogate spikes, matrix spike/matrix spike duplicates, and submittal of fixed-laboratory confirmation samples. All field data produced by HLI (sampling and analytical) over the 35-day project was accepted by the USEPA Region VII office.

Client: Roy F. Weston

**Project:** Soil-Gas Sampling and Onsite Analytical Services for the Nebraska

Department of Environmental Quality (NDEQ), Nebraska

**Project Description:** HLI collected and analyzed more than 400 soil-gas samples at eight sites in Nebraska using direct-push hydraulic sampling rigs with HLI's mobile lab services onsite. The collected samples were analyzed for aromatic and chlorinated VOCs by EPA SW-846 Method 8021. Strict QA/QC procedures were followed to obtain separation of target compounds. HLI was the first contractor to furnish the NDEQ with laboratory grade instrumentation and "Level III" USEPA QA/QC field data. Our client estimated that HLI's team of geologists and chemists completed the project in half the allocated time, needed fewer data points, and completed the project significantly below NDEQ's budget estimate.

Client: Radian International

**Project:** Direct-Push Well Installation, Lake City Army Ammunition Plant,

Independence, MO

Project Description: HLI installed direct-push monitoring wells as part of a Remedial Feasibility Study (RFS) at the Lake City Army Ammunition Plant. HLI assisted in the development of an innovative technology for installation of RFS pilot study monitoring and extraction wells. One-inch diameter PVC monitoring wells were installed as temporary observation points used to monitor groundwater during a dual-phase extraction pilot study. HLI's skilled direct-push probing crew completed 10 thirty-foot deep, 1-inch diameter PVC wells in one day's time. Significant savings of both time and disposal costs were achieved because HLI's direct-push drilling does not generate contaminated soil auger cuttings. Missouri Department of Natural Resources (MDNR) representatives videotaped HLI's field operations. The MDNR uses this videotape as a guide for promulgation of regulations governing small-diameter well installation.

HLI abandoned 40 wells at the facility in accordance with MDNR well-abandonment standards. HLI also completed State Abandonment Certification for facility wells installed by a non-licensed drilling contractor. In addition, as a Missouri Certified Pump Installer, HLI provided oversight during quarterly groundwater sampling events.

Client: Confidential

**Project:** RCRA Metals and VOC Investigation, Monitoring Well Network

Design, Kansas

**Project Description:** HLI conducted Preliminary Metals Assessment (PMA), which included soil, surface-water, and groundwater sampling. HLI developed a site Remedial Action Plan (RAP) based on the PMA results that entailed excavation and off-site disposal of metals-impacted media from the facility. These remedial services enabled the site to be granted final closure by the state regulatory agency.

Significant levels of volatile organic compounds (VOCs) were detected in the groundwater beneath the site. Subsequently, HLI was contracted to conduct an assessment of the extent of groundwater VOC impact. Approximately 40 groundwater samples were collected from test holes advanced at the site. These samples were analyzed onsite by HLI's chemist in our mobile laboratory. HLI scientists used this data to design the site's network of 1-inch diameter compliance monitoring wells.

HLI was the first company in the State of Kansas to obtain regulatory approval to install 1-inch diameter monitoring wells because of our extensive knowledge and experience. Our client estimated that HLI's innovative techniques saved \$40,000 compared to using other conventional drilling methods. These savings do not include the costs associated with collection, treatment and disposal of soil cuttings and decontamination water generated during standard auger drilling activities.

Client: SECOR

**Project:** Soil, Groundwater, and Soil-Gas Sampling, Volatile Organic and

Chlorinated Compound (VOC) Investigation, Kansas

**Project Description:** HLI collected more than 150 soil, soil-gas, and groundwater samples utilizing a hydraulically driven subsurface sampling unit. Installed nests of small-diameter monitoring wells (1-inch PVC) to collect groundwater in two potentially contaminated aquifers. Samples were field analyzed for discrete compounds related to past site activities. For this investigation, HLI's mobile laboratory was equipped with a PID/FID Gas Chromatograph and Electrolytic Conductivity Detector. All QA/QC, Health and Safety Plans, and work schedules were strictly adhered to during field activities. Because of HLI's superior performance, our contract was extended to include second, third, and fourth phases.

Client: Kansas Department of Health and Environment

**Project:** Petroleum Hydrocarbon Groundwater Surveys for State of

Kansas/UST Release Trust Fund, Kansas

**Project Description:** HLI performed groundwater collection and onsite analyses for BTEX constituents for the Kansas Department of Health and Environment (KDHE) at 68 sites using HLI's direct-push sampling rigs in conjunction with our mobile laboratories. The surveys were conducted to determine the horizontal extent of hydrocarbon-impacted groundwater at each site. Survey activities consisted of advancing 12 to 15 probes per site and collecting groundwater samples. This data was then used in the placement of permanent monitoring wells. Using these technologies, HLI submitted to our client, analytical data and QA/QC reports within days of completing our field activities.

**Client:** Geraghty & Miller, Inc.

**Project:** Groundwater Site Investigation for Chlorinated Solvents and BTEX

Constituents, Missouri

**Project Description:** This project consisted of collection and onsite analysis of groundwater samples for the full list of chlorinated solvents and aromatic constituents by EPA SW-846 Method 8021. Sampling included horizontal delineation and vertical profiling. At a minimum, four sample intervals per hole were used for vertical profiling. Groundwater samples were collected at an average depth of 85 feet. HLI achieved an average penetration rate of 450 feet per day with a single day maximum of 753 feet! Onsite laboratory analyses required basic (Level I) QA/QC. This consisted of analyzing blanks, duplicates, and calibration verifications at the rate of 10% of the entire sample complement. Blank recoveries did not exceed the minimum detection limit and all calibration checks fell within the required original calibration curve maximum variance.

Client: Camp Dresser & McKee, Inc.

**Project:** Gilbert Mosley SuperFund Site; Wichita, Kansas

**Project Description:** This project consisted of the installation and development of 13 well clusters. Each well cluster contained a shallow and deep well at approximately 20 feet and 40 feet, respectively. All wells consisted of 1-inch schedule 40 PVC screens (0.010 slot) and riser. HLI was the first company approved by the Kansas Department of Health and Environment (KDHE) to install 1-inch wells for permanent monitoring. HLI used innovative techniques such as 2.125-inch hollow stem rods with stainless-steel anchor points to eliminate soil cuttings and minimize the generation of development water. A 10-foot thick surface seal was incorporated at each well, keeping in compliance with KDHE specifications. Well completion included 7-inch flush-mount manways and three feet above-grade protectors within a 2'x4' concrete pad.

**Client:** Black & Veatch Corp.

**Project:** SuperFund Site, Minnesota

**Project Description:** This project consisted of advancing more than 3,755 feet of direct-push borings, utilizing a hydraulically driven subsurface sampling unit, for soil and multilevel groundwater sampling. HLI's probing unit was also used for auguring through frozen surface materials during extremely cold weather. Concrete samples were collected following a grid within a drip pad. Angle bore holes were advanced surrounding the drip pad. Continuous soil samples were collected to groundwater onsite. HLI advanced vertical profiling test holes off-site, along right-of-ways surrounding the facility. Vertical profiling consisted of continuous soil sampling to groundwater, which was 20 feet to 45 feet below ground surface (bgs) and the collection of groundwater samples at client-selected intervals to depths about 75 ft bgs. HLI extracted up to 13 liters of groundwater from each interval (previous probing contractors were unable to obtain these volumes of groundwater at these depths). Following the investigation, all test holes were pressure grouted from the bottom to ground surface.

**Client:** Jacobs Engineering Group

**Project:** DPT Characterization FTA-2, Chanute AFB, Rantoul, IL

**Project Description:** HLI performed a direct-push (Geoprobe®-type) site characterization at area FTA-2, in support of Jacobs Engineering Group (Jacobs) Remedial Action Contract # F41624-94-D-8118 with the Air Force Center for Environmental Excellence (AFCEE). The project consisted of advancing 40 test holes within area FTA-2 to approximately 10 feet to 15 feet below ground surface (bgs). These test holes were used to evaluate subsurface conditions within the area of concern. The purpose of this phase of the investigation was to assess the impact of previous site activities on the surrounding surface and subsurface soils. Data collected from the test holes was used to delineate vadose-zone contaminant distribution and concentration. HLI installed several temporary piezometers to approximately 15 feet bgs to measure static water levels and to monitor for the presence of free product. All activities were performed in accordance with the Jacob's Statement of Work and the Health and Safety Plan prepared in support of their AFCEE contract.

Client: Golder & Associates, Inc.

Project: Kansas Water District Public Water Well Location Investigation,

Northeastern Kansas

**Project Description:** This project consisted of performing soil conductivity logging to identify changes in subsurface lithology. The goal of the four-week project was to identify water bearing gravel zones capable of producing water at a rate of at least 100 gallons per minute to supply a public drinking water system. HLI logged and recorded soil conductivity readings in "real time." Our conductivity data was correlated with discrete soil sampling throughout the region. HLI developed several thousand feet of conductivity logs that were ultimately used to identify a contaminate-free water supply for the local community.

Client: OPTECH, Inc.

**Project:** 139<sup>™</sup> Wing of the Missouri Air National Guard, St. Joseph, Missouri

**Project Description:** This 10-day project consisted of advancing 82 direct-push (Geoprobe®-type) test holes, collecting soil, soil-gas, and groundwater samples and analyzing them onsite, in compliance with applicable Missouri Department of Natural Resources (MDNR) and Missouri Air National Guard (MANG) guidelines. Using HLI's mobile laboratory, 159 samples were analyzed for halogenated and non-halogentaed volatile organic compounds by USEPA Method 8021. All onsite analyses and field reports were completed within 24 hours of sample collection. A comprehensive data package and summary report were submitted to OPTECH within 10 days following completion of field activities.

## Résumés

### Don Dulaney, RG - President / Senior Geologist

**EDUCATION:** B.S., Geology, Eastern Illinois University, 1985

**EXPERIENCE:** Started in 1985

Registered Professional Geologist - KS, WY, and MO

**SPECIALTIES:** Assessment of facilities containing USTs/ASTs, remediation of volatile organic

compound releases, proposal and technical report preparation, conceptual remediation plan development, oversight of complex drilling conditions, underground storage tank (UST) removal activities and soil-gas, soil, and groundwater surveys. Excels as liaison to clients,

contractors, and public agency representatives.

#### President / Senior Geologist Hydro-LOGIC, Inc.

Responsibilities include corporate management, marketing, projects management, technical analyses for environmental assessment, design and implementation of groundwater remediation and soil-gas venting systems. Manages; monitoring and recovery well design, well installation, geologic aquifer testing, field personnel, sampling, data analyses, mobile laboratory operations and preparation of environmental assessment and remediation reports.

#### **RELEVANT EXPERIENCE** 1989 - 1993

#### Regional Manager / Senior Geologist

Responsibilities included; corporate management, marketing, projects management, technical analyses for environmental assessment, design and implementation of groundwater and soil venting systems. Managed; monitoring and recovery well design, geologic aquifer testing, field personnel, well installation, sampling, data analyses, mobile laboratory operations and preparation of environmental assessment and remediation reports.

#### **Project Geologist**

Managed multiple assessments and remediation projects, designed and installed groundwater and soil-gas venting systems; health & safety officer; prepared phase II environmental site assessment and UST closure reports. Properties assessed and/or remediated include retail gas stations, petroleum pipeline, petroleum production and storage facilities, landfills, railyards and other industrial facilities.

#### Staff Geologist

Field Geologist for hydrogeologic/geotechnical assessments throughout the Midwest. Supervised assessment activities. Logged subsurface characteristics during drilling activities conducted at landfills, highway development projects, sports complexes, and high-rise building structures. Installed and monitored groundwater/soil-gas remediation systems. These included groundwater extraction and treatment in conjunction with soil-gas venting systems. Participated in groundwater sampling events for PCBs and heavy-metals constituents at an Army small-arms ammunition production facility.

#### Sole Proprietor-Geological Consultant, Based in Southern Illinois

Consulting geologist engaged in oil and gas exploration and development, water flood design programs, deep well installation for secondary recovery of crude petroleum hydrocarbons, mining projects, reclamation geology, uranium/gold/silver assessments, and environmental impact studies in Illinois, California, Colorado, Utah, Nevada, and Kentucky. Analyzed, installed, monitoring wells, and grout curtains in compliance with RCRA regulations and state reimbursement programs. Acted as corporate Secretary/Treasurer for Motor Fuels, Inc. during quarterly stockholder meetings.

#### **ADDITIONAL TRAINING**

- Seminar on Comprehensive Gas Chromatography, (October 2000) KC, MO
- Seminar on the Third National Symposium on Aquifer Restoration of Volatile Organic Compounds and Ground-Water Monitoring, (May 1983) Columbus, Ohio
- ★ RCRA Groundwater Monitoring Seminar Series
- Seminar on S.F. 362 and Rules filed August 30, 1991, SCR Iowa UST Financial Responsibility Program, Des Moines, Iowa
- Seminar on the Suggested Practices for the Design and Installation of Groundwater Monitoring Wells, USEPA, Kansas City, Kansas
- OSHA approved Comprehensive Health and Safety Training (OSHA Standard 1910.120 (e))
- → OSHA approved 8-hour Supervisory/Management Hazardous Waste Operations Course (29 CFR 1910.120 and 121)
- Annual OSHA Approved Comprehensive Health and Safety 8-hour Refresher Training (OSHA Standard 1910.120 (e))
- Federal and State regulations CERCLA, TSCA, RCRA, CWA and UST programs (IL, IA, MO, CO, NE, OK, KS, AR, WA, and WY)
- Proficient with OVM, TIP, Hnu photoionization detectors, OWS, MMC, and ORS oil/water interface probes, LEL calibrators, explosimeters, oxygen meters, and multiple dataloggers and transducers
- Proficient in the use of Gas Chromatography, Infra-red Spectrometery and Atomic Absorption Spectrometer equipment

#### **AFFILIATIONS**

- Mid-America Association of Environmental Professionals-Board Member
- ★ National Water Well Association
- ★ National Groundwater Association