



**Eric Hanis, PG**

**President/Principal Geologist**

[eric@hanisconsulting.com](mailto:eric@hanisconsulting.com)

## Background

Mr. Hanis has been providing environmental consulting services since 2001 with a focus on bedrock and groundwater contamination. He takes innovative approaches to tackle sophisticated environmental challenges and delivers cost-effective strategies. With his background in in-situ remediation technologies paired with his geological expertise, he has improved the effectiveness of many previously installed remediation systems.

## Technical Specialties

Bedrock Investigation and Characterization  
Fractured Bedrock Remediation  
Surface and Borehole Geophysics  
Groundwater Characterization  
Statistical Evaluations  
Environmental Due Diligence

Hydrogeological Interpretations  
Design and Operation of Remediation Systems  
Remediation Optimization  
Groundwater Flow and Transport Modeling  
Litigation and Insurance Claim Support  
Expert Opinion and Testimony

## Licenses and Certifications

Licensed Professional Geologist, Illinois (#196.001233)  
Certified Class K Wastewater Treatment Operator, Illinois  
Certified Class B Wastewater Treatment Operator, Indiana

## Education

BS, Earth Science, Grand Valley State University  
MS, Geology, Northern Illinois University (expected 2018)

## Organizations

Interstate Technical and Regulatory Council (ITRC) - Team Member  
– Characterization and Remediation in Fractured Rock  
National Groundwater Association – Member

## Organizations (cont'd)

DuPage County Bar Association – Affiliate Member  
Illinois State Bar Association – Environmental Law Section Council

## Awards

2015 Team of the Year Award – ITRC Characterization and Remediation in Fractured Rock Team

## Key Project Experience

### Due Diligence and Litigation Support

Managed and prepared various Phase I Assessments, Phase II Investigations, and Environmental Transaction Screenings for attorney and development clients.

Provided support for document and project review in support of litigation, insurance claims, and expert opinion. Support included technical feasibility, remedial option, and cost review. Prepared expert opinions on remediation feasibility, investigation adequacy, and project costs.

### Fractured Bedrock

Aid in the development of national guidance with the Interstate Technical and Regulatory Council for the “Characterization and Remediation in Fractured Rock” team.

Coordinated reporting for the investigation and developed remediation objectives for fractured bedrock and groundwater at multiple sites.

Performed transmissivity profiling with FLUTe™ liners, rock outcrop field mapping, down-hole geophysical investigation as well as traditional rock coring and soil borings.

Designed and managed large supplemental site investigations in overburden and bedrock at a former manufactured gas plant (MGP) site in Illinois. Managed the on-site investigation activities which included redirecting a river to perform investigation activities within the riverbed.

Managed groundwater and bedrock aspects of large complex sites including statistical evaluations, background determinations and exclusions, co-mingled solvent plume identification, groundwater trending, plume stability, groundwater/surface water interactions, and technical impracticability discussions.

Management of a complex, consent order driven railcar facility site in Ohio. The site includes multiple areas of concern, contamination from diesel, chlorinated solvents, and 1,4-dioxane, and fractured bedrock impacts.

## Site Investigation

Performed a sediment and soil investigation for a former MGP and creosote Superfund site on a frozen bay of Lake Superior using hollow stem auger. Oversaw various geophysical surveys of the site to identify timbers and other obstructions in the bay to assist with remedial design. Supported the remedial design team with geotechnical and hydrogeological evaluations.

Assisted with supplemental site investigation activities performed at the site which consisted of drilling, well installation, laser induced fluorescence (LIF) probing and soil/groundwater sampling activities.

Assisted with the investigation of the Chicago River sediments and riverbed using LIF technology and borings adjacent to two former MGP sites. The purpose of the investigation was to determine possible impacts to the riverbed from the associated sites. Work was performed on a spud barge that positioned over grid points using the Global Positioning System and other positioning techniques.

Performed hydrogeologic interpretations in complex urban environment that included a filled-in slip for the Chicago River and large sewers (man-made pathways). Characterized and evaluated fractured bedrock and related MGP impacts underneath a residential condominium.

Performed quality and technical reviews and led groundwater investigations and reporting for several former MGP sites in Illinois. Developed groundwater sampling procedures and trained staff. Designed various monitoring and extraction wells for specialized purposes and oversaw project-critical field assignments.

Managed site investigation activities and remediation objectives development for an active propane distribution facility in Rockford, IL.

## Remediation and Feasibility Testing

Oversaw the operation and maintenance of a dual-phase vacuum extraction groundwater remediation system at a trucking company facility in Fremont, Indiana. Prepared monthly monitoring reports for submission to Indiana Department of Environmental Management. Provided technical support to technicians for normal operations and maintenance, performed troubleshooting and repairs for more complicated problems, and performed system inspections and audits to ensure proper operation and quality assurance.

Developed and performed a multi-phase pilot study to determine the extractability of coal tar from subsurface soils and fractured bedrock and testing different enhancement technologies.

Assisted with the design, execution and data analysis/interpretation of numerous successful pilot and feasibility tests incorporating RemOx chemical stabilization, soil vapor extraction, air sparging,

pump and treat and total fluids recovery technologies. The data was evaluated and corrective action plans/strategies were developed and implemented using the most cost-effective technology.

Managed the monitored natural attenuation (MNA) phase of a Superfund site for a former manufactured gas and coke plant. Prepared annual monitoring reports and an MNA baseline report. Analyzed temporal mass reduction. Coordinated with USEPA and other stakeholders.

Aided in the overall field management of in-situ remediation system installations in addition to large excavation remediation sites. Responsibilities included managing air emissions, logistics, and specification compliance; production scheduling and forecasting; identifying and managing scope changes; safety oversight; and communication with management and stakeholders. Included the preparation of weekly and monthly production and activity summaries, as well as schedule and Gantt chart updates. Managed multiple subcontractors from multiple trades.

### Permitting and Compliance

Provided support in preparing annual hazardous waste reports for a major nationwide retailer.

Performed permitting for several remediation systems. Most systems required minor source air permits for atmospheric discharge and the use of thermal and catalytic oxidizers. Assisted with permitting efforts for NPDES permits for water treatment systems in Illinois.

Prepared Excel-based spreadsheet financial model to more accurately determine environmental liability based on hydrogeological and system factors for fueling systems at airports across the nation. Ultimately reduced the airline's environmental reserve to more accurately reflect the associated risk.

Prepared permit applications for investigation and remediation activities include COE, IDNR and other agency permits for redirecting a river to perform investigation activities within the riverbed, NPDES permits for wastewater and process water discharge, as well as permits for remediation discharges air discharges. Includes preparation of Storm Water Pollution Prevention Plans (SWPPP) and Soil Erosion and Sediment Control Plans.

### Petroleum Impacted Sites

Supported all aspects of site investigation and remediation for petroleum related sites, including work plan preparation, report and budget preparation, cost estimating, contractor oversight and management, groundwater, air, and soil sampling, excavation and construction oversight, LIF and cone penetrometer investigation, remediation system operator training, underground storage tank removals, enhanced fluid recovery remediation events, TACO evaluations and modeling, and site investigations within Illinois, Iowa, Michigan, Missouri and Wisconsin.