OHI Engineering, Inc.
Engineers and Environmental Scientists

Douglas C. Morrison
Senior Project Manager

Education

University of New Hampshire, B.S. Geology, 1981
University of Colorado, Graduate Studies in Geology, 1982

Certifications

Certified OSHA 40 Hour Hazardous Waste Site Operations (CFR 1910.120)
Certified 8 Hour Site Supervisor (CFR 1910.120)
Certified OSHA Level A, B (CFR 1910.120)
Certified OSHA Confined Space (CFR 1910.120)
Certified for use of Portable Gas Chromatograph, 1994

Affiliations

Massachusetts Licensed Site Professional Organization, Associate Member
Massachusetts Association of Land Surveyors and Civil Engineers
American Congress on Surveying and Mapping
National Water Well Association

Qualifications

Mr. Morrison has over thirty years experience on environmental engineering projects and construction/remediation projects throughout the continental United States. Mr. Morrison serves as a Senior Project Manager for OHI Engineering, Inc. He is responsible for the coordination and management of on-site project operations for sites being investigated under the MCP regulations, including assessment, field sampling investigations and remedial design and implementation and construction. Mr. Morrison also has many years in the survey/engineering field with a fundamental command on surveying principals as they apply to construction and remedial issues on the projects he has managed.

His project experience includes assessment and geotechnical/construction management for major pipeline utilities, commercial, industrial and private petroleum related spills and releases, including bulk fuel oil storage facilities and retail gasoline stations. Mr. Morrison's duties involve the coordination and supervision of field investigation, sampling, Immediate Response Actions, Release Abatement Measures and remedial activities for waste disposal sites managed under the MCP in Massachusetts and under waste site cleanup regulations in all New England states. He has demonstrated his knowledge of the Massachusetts Contingency Plan (MCP) requirements by preparing Response Action Outcome Statements, Phase I through Phase V reports, Release Abatement Measures, and the filing of Activity and Use Limitations. Mr. Morrison has significant experience in completing Hazardous Waste Site cleanup operations in New York, New Jersey, Kentucky and Florida, serving as the on-site project manager for large-scale remedial projects.

Project Experience

Fibersense Technology Corporation - Boeing Corporation
Mr. Morrison served as the Project Manager for the assessment and design phase on the following project and due to the confidence the client gained in the preliminary phase was awarded the Construction Management oversight for the testing laboratory construction.

Fibersense Technology Corporation is a subcontractor to the Boeing Corporation. Boeing Corporation contracted with Fibersense to develop and manufacture Inertial Measurement Units (IMUs) and Inertial Reference Units (IRUs). Fibersense integrates these components into their gyro production for the National Missile Defense System and most recently for the next generation of targeting satellites being implemented for global security.

The assessment provided a geophysical baseline of the subsurface environment, correlating the natural "noise" conditions of the site, as they would relate to gyro testing and production and construction of the instrument foundation pier. The geotechnical investigation determined the depth of the overburden, depth to bedrock and profile of the bedrock surface for pier construction methods and design. The investigation included a geophysical survey of the site to confirm the Site's natural sensitivity in relation to interference from highways, high-speed commuter train systems, the foundation of the building and other relevant factors.

A 20 foot long by 13 foot wide and seven foot deep excavation was manually chiseled and hand excavated out of bedrock utilizing airhammers and rock splitting tools. The instrument foundation pier was then hand built within extremely close allowable tolerances in four separate concrete pours, all of which were reinforced with steel rebar. Specially designed vibration isolation barriers were part of the construction process, and provided the ability to dampen the natural background "noise" of the Site. Post construction testing indicated that the instrument foundation pier was successfully constructed within very restrictive tolerances.

Once the testing piers were certified, he managed the construction phase for the new testing laboratory. Management included the coordination with the Fibersense engineers and approved subcontractors for the completion of the testing facility. Currently there are approximately 15 piers in the country that are constructed to the specifications of the Fibersense pier.

Former Solid Waste Dumpsite
Project Manager for an extensive Geotechical subsurface investigation at a State listed solid waste dumpsite. Project involved delineation of concrete reinforced fill material as placed within the native organic depositional environment. Historically, the site had many excavation/fill events with the concrete waste material being mixed with former lake deposits consisting of organics/peat and timbers. Due to the difficult drilling conditions, a variety of techniques were used to accomplish the project design goals.

The end result of the geotechnical phase was a foundation design with a variety of cost saving options for development of the property as a high-rise condominium complex.

Due to a variety of techniques used at the site to delineate the subsurface environment, substantial construction cost savings were implemented in the design-phase to reengineer the fill material as a structural base for foundation construction.

Major Petroleum Bulk Storage Facilities
Mr. Morrison served as the Project Geologist responsible for the coordination and management of project operations for major oil company retail facilities and active bulk terminals in eastern Massachusetts and Rhode Island. Responsibilities have included design of monitoring well placement and construction; well log and soil interpretation, water quality sampling and monitoring; aquifer evaluation; data control and graphics preparation for detailed waste site disposal and hydrogeologic investigation reports. Mr. Morrison has been involved in all aspects of remedial system design from soil vent and sparging tests to aquifer pump tests and final implementation, as well as subcontractor coordination of the associated remedial systems.

Mr. Morrison has been responsible for the project management of underground storage tank (UST) removal operations throughout New York, Massachusetts, Rhode Island, and Vermont. His duties on these projects included the coordination of subcontractors, and supervision of field operations, data collection and management of the preparation of final closure reports for submittal to appropriate state regulators.

Mr. Morrison has played a critical role in the performance of comprehensive hydrogeologic investigations and environmental site assessments for major national oil companies to assess the presence and evaluate the extent of petroleum hydrocarbon contamination. Duties on these projects included identifying and evaluating possible source areas, and identifying potential receptors of migrating contamination. Site history research and environmental assessment activities at these sites have included: review of current and historic property use; the characterization of subsurface soil; development of site-specific media sampling plans; preparation of the design and supervision of the installation of groundwater monitoring wells; soil and groundwater sampling; sample handling and coordination of appropriate laboratory analyses.

Comprehensive Environmental Site Investigations - Fuel Oil Terminal
Mr. Morrison served as the Project Geologist for a comprehensive site assessment at a major New England fuel oil terminal. His responsibilities included the coordination and implementation of all on-site field activities for petroleum plume delineation. The investigation included the installation of 38 groundwater monitoring wells (both in bedrock and in overburden), performance of test pits, and implementation of extensive soil gas surveys with mobile lab gas chromatography (GC) analyses. The project also involved the decommissioning and excavation/removal of over 500 miles of underground petroleum pipelines on terminal property and along rights of ways. Other investigation duties included: surface water and soil sampling; complete site survey and data collection for map preparation; bedrock mapping and fracture trace analyses; extensive file and record reviews of both state and federal records; preparation of groundwater contour, bedrock, and subsurface utility plans (both historic and current), surficial topography maps and contaminant isopleth maps.

Site Remediation, Camden, New Jersey

Mr. Morrison served as the Project Geologist/Construction Manager for soil/remediation of an impacted site in Camden, New Jersey. The project involved the excavation, treatment and disposal of approximately 32,000 tons of impacted soil. Mr. Morrison coordinated all aspects of the engineering of the project for thermal destruction of the soils, resulting in reduced permitting requirements when compared to on-site treatment. The use of the off-site treatment facility resulted in a cost savings of approximately $250,000 when compared to methods proposed by other consultants involved in the project. The project had been in litigation since 1984 and implementing strategic methodology and management approach enabled site closure under NJDEPE regulations.