

**Joseph Duminuco, P.G.**  
**Executive Vice President/Principal Hydrogeologist**  
**Director of Site Investigation and Remediation Services**

**TECHNICAL SPECIALTIES**

Mr. Duminuco provides environmental consulting services and strategic planning, focusing on the use of innovative solutions. He is Roux's Director of Site Investigation and Remediation Services, encompassing focused efforts within the Brownfields Redevelopment, Industrial Services, and Petroleum-Energy practice areas. He specializes in investigation and remediation of soil, groundwater, and vapor at commercial and industrial sites, including Brownfield Redevelopment projects.

**EXPERIENCE SUMMARY**

Thirty-four years of experience: Director of Site Investigation and Remediation Services, Executive Vice President, Brownfields Practice Area Leader, Vice President, Office Manager, Principal, Senior, and Project Hydrogeologist at Roux; Staff Hydrogeologist at Geraghty & Miller; and Geologist at Mueser Rutledge Consulting Engineers.

**CREDENTIALS**

M.S. in Geology, Wright State University, 1990  
B.S. in Geology, Hofstra University, 1983  
Licensed Professional Geologist, NY (License No. 000119)  
NYCOER Turbo Training Certified Professional  
Advisory Council Hofstra University NSF GEOPaths Grant

**PRESENTATIONS**

Incentives: Programs and Lessons. 2018 Environmental Law Forum – New Jersey State Bar Association; Cape May, NJ; June 2018.  
Environmental Law in Real Estate Transactions – Working with Technical Professionals. Hofstra University Law School; January 13, 2013.  
Duminuco J., Coyle F., Property Redevelopment and Brownfield Sites. Proceedings of the 11th Annual Environmental Law Conference; ISBA Conference; May 2012.  
Transactions and the Environment: Contaminated Property Issues in Real Estate and Corporate Matters. New York State Bar Association; Tarrytown, NY; June 2006.

**KEY PROJECTS**

- Principal-in-Charge of multiple dry cleaner remediation project takeovers:
  - Brooklyn, Bronx and Long Island, New York – NYSDEC BCP and Inactive Hazardous Waste Sites
  - Bernardsville, New Jersey – LSRP Program
  - Enfield, Connecticut – LEP Program

Sites included a mixed use multifamily affordable housing neighborhood retail complex, a healthcare facility, and multiple retail shopping centers. Impacts included soil, groundwater (bedrock and overburden), surface water, soil vapor, indoor air, and building material contamination from chlorinated VOCs from the former

dry cleaner operations. Activities included historical research, re-delineation of contaminant source areas, negotiations with regulatory agencies, and remediation including hot spot soil removal, AS/SVE, in situ groundwater treatment, and negative pressure approaches (SSDS) for vapor mitigation in the existing buildings.

- Principal-in-Charge of a multi-phase RI/FS at a PCB and diesel fuel-contaminated railroad yard in New York City. The Site is on the State Superfund list because PCBs were detected in soil, groundwater, hydrocarbon plume, sewer water, and sewer sediment. Responsibilities included preparation of work plans; delineation of PCB hot spots with immunoassays; sewer investigation including pump outs, monitoring, flow measurements, and video surveys prior to abandonment; investigation and remediation of numerous USTs including gasoline, solvents, and fuel oils; support of construction activities; report preparation; negotiations with the NYSDEC and NYSDOH; participation in public meetings; and implementation of interim remedial measures to mitigate the PCB-contaminated hydrocarbon plume; interim remedial measures to mitigate PCB, PAH, and lead-contaminated soil hot spots; and agency acceptance of alternate cleanup levels for site soils that resulted in savings of over \$80 million.
- Principal-in-Charge of a NYSDEC remediation of a property adjacent to a dry-cleaning solvent distribution facility in Brooklyn, New York. The Site was a former freight railyard, and offloading spillage on-site and migration from the off-site solvent facility resulted in significant soil, groundwater, and vapor contamination with chlorinated VOCs. The Site was developed into multifamily units with first floor retail use and the remedy consisted of soil hot spot removal, a physical barrier to limit on-site migration, a permeable reactive wall to eliminate off-site migration, hotspot in situ injections, and a sub-slab depressurization system. The Site contained an E-Designation which was satisfied through the NYCOER simultaneously with the BCP process. Roux was awarded the Big Apple Brownfield Award for Innovation based on our successful cleanup approach.
- Principal-in-Charge of a NYSDEC remediation of a former paint and varnish factory located in Queens, NY. The project also required a RCRA-compliant facility closure of the 4-story manufacturing facility. Historical site operations adversely impacted the subsurface including a LNAPL plume, in addition to petroleum hydrocarbon impacts to the soil and groundwater. Roux completed a RI at the Site which characterized the nature and extent of the impacts. The remedial action included a large excavation that required SOE and was completed under a tent due to odor concerns, multiple ISCO injections, UST

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removal/abandonment, installation of a LNAPL recovery system, and installation of an SSDS. Additionally, Roux provided oversight of RCRA closure activities at the Site, which included emptying, cleaning, and scrapping 65 ASTs/vessels; decontaminating the ceilings, walls, and floors of the Paint Factory Building; and collection of compliance samples.

- Principal-in-Charge of a NYSDEC remediation of a former MGP site in Brooklyn, NY. The project consisted of negotiations with the NYSDEC and Roux limited remediation to former gasholders filled with coal tar, soil hot spots with mobile coal tar, and perimeter containment of coal tar. All the remaining soil at the Site was impacted with MGP waste and most of the Site was underlain by liquid coal tar. Roux negotiated use of institutional/engineering controls to allow significant contamination to remain in place. A sub-slab depressurization system and vapor barrier was installed to address the mobile coal tar left below the new retail building.
- Principal-in-Charge of a NYSDEC remediation at a site in White Plains, NY, spanning 4.5 acres with a variety of former uses including automotive service/repair and multiple dry cleaners. The Site has both chlorinated and petroleum hydrocarbon impacts to the soil and groundwater. The remedy will consist of a site cover system, soil hot spot removals, in situ chemical oxidation for groundwater contamination, and installation of a sub-slab depressurization system.
- Principal-in-Charge of a multi-year quarterly monitoring and reporting program at a municipal landfill complex on Long Island, NY. The complex consists of multiple landfills, leachate containment systems, and leachate holding tanks. The project involves the collection of water level and water quality data from dozens of monitoring wells, sampling of leachate containment systems, coordination with contract laboratory, data validation, data evaluation, and report preparation.
- Principal-in-Charge of a former wire and conduit manufacturer (former NYS Inactive Hazardous Waste Site) remediation on Long Island, NY. The Site was accepted into the NYSDEC BCP to support additional remediation and future redevelopment. Activities completed included compiling, reviewing, extracting, and summarizing numerous historical environmental reports prepared for the Site; interacting with the NYSDEC, USEPA, and NCDOH; completing a supplemental soil investigation (including extensive use of XRF Technology as metals are the compound of concern); and a groundwater investigation (water is over 100 feet deep).
- Principal-in-Charge of a multi-phased NYSDEC remediation of a former Defense Site on Long Island,

NY. The investigation included determining the nature and extent of chlorinated VOCs in soil, groundwater, and vapor-phase contamination on-site and off-site. Utilized a risk assessment to argue the level of residual contamination allowed to remain on-site with an intended residential future use. Remedial alternatives were selected in accordance with future development plans and institutional/engineering controls were proposed to limit cleanup costs. Successfully argued the technical impracticability of remediation of the heavily contaminated deeper aquifer beneath the site and off-site.

- Principal-in-Charge of an interior remediation of a PCB, metals, and hydrocarbon-contaminated wire and cable manufacturing facility in Westchester County, NY into use as a movie studio. Activities included delineation and characterization of building surfaces, design of a remediation program, and interim cleanups to allow studio use as the project progressed.
- Principal-in-Charge of environmental support of the construction of a cogeneration facility in Brooklyn, NY. The project consisted of construction oversight; environmental compliance monitoring; asbestos and lead paint abatement oversight; data evaluation and report preparation; soil, offshore sediment, and sewer effluent sampling; PCB-contaminated material remediation; preparation of a waste handling and disposal plan; and permitting.
- Principal-in-Charge of the reclamation of a 460-acre abandoned sand mine on Long Island, NY. The project involved an extensive investigation, UST, and PCB remediation; removal and proper disposal of numerous tanks, drums, abandoned vehicles and transformers; and participation in contentious public meetings. The Site was redeveloped into a golf course and a senior care facility. Principal-in-Charge of the 45-acre development of a state-of-the-art sports arena and commercial/retail complex at an existing sports venue on Long Island, NY. Responsibilities include: Phase I and Phase II ESAs, EIS support, and Waste Characterization sampling design and implementation.
- Principal-in-Charge for a NYSDEC remediation of a former retail service station site in Staten Island, NY. There is soil, groundwater, and vapor contamination from petroleum-related constituents in the vicinity of the former gasoline piping and pump island (the petroleum source area), as well as historic fill across the entire Site. The remedy, described in the Remedial Action Work Plan prepared by Roux, will consist of a sheet pile containment wall around the petroleum source area, a Site Cover System across the entire Site comprised of concrete building slab/walkways, asphalt parking areas and limited landscaped areas, and site-wide a sub-slab depressurization system to prevent vapor intrusion into

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the proposed retail building and off-site migration of impacted soil vapor.

- Principal-in-Charge of investigation and remediation of a catastrophic heating oil release for a commercial office building in Brooklyn, NY. All work was performed under the oversight of the NYSDEC Spills Group and time was of the essence for the initial response as the heating season was fast approaching. Roux performed free product delineation and remediation and indoor air monitoring at adjacent buildings. Site closure was obtained from the NYSDEC.
- Principal-in-Charge of an investigation at a PCB and solvent-contaminated transformer manufacturing/repair facility in North Carolina. Responsibilities included preparation of a work plan and oversight of the project which consists of soil borings and sampling, immunoassay testing, monitoring well installation, groundwater sampling, report preparation, and remedial alternatives evaluation.
- Principal-in-Charge of an NPL Superfund Site in Delaware. Responsibilities include ongoing performance monitoring of a groundwater extraction system. The remedial system was installed to capture a chlorinated solvent plume emanating from a former PVC manufacturing facility. In addition, prepared and implemented an RI work plan for a USEPA-required off-site investigation of adjacent chemical manufacturing facilities and a large petroleum refinery. Also included DNAPL investigation and deep aquifer study.
- Principal-in-Charge of a NJDEP-ECRA and ISRA investigation and cleanup involving groundwater and soil contamination at a pesticide formulation and distribution facility in New Jersey. Responsibilities include delineating the nature and extent of the off-site contaminant plume; determining groundwater flow patterns in a two-aquifer system; using a three-dimensional computer model to determine proper location for extraction and injection wells; and preparing work plans and summary reports for NJDEP-required additional delineation of the nature and extent of on-site soil contamination.
- Principal-in-Charge of a project to support the construction of a high-speed rail program. Performed Phase I and II Environmental Site Assessments as part of due diligence at three major railyards. Prepared reports and presentations regarding environmental conditions to regulatory agencies and the design-build consortium. Performed pre-construction sampling and hot spot remediation programs. Also, prepared environmental contingency plans for construction contractors to follow.
- Project Director of all UST investigative and remedial work performed at service station sites in New England for a major oil company. Responsibilities included preparation and negotiation of work orders; coordination

of monitoring and sampling; communication with client, regulator, and site owner contacts; management of technical aspects of all projects; strategy evaluation with client; administration of all contracts; and operation and maintenance of remediation systems to mitigate UST releases which included groundwater pump and treat, product recovery, and soil venting systems.

- Project Coordinator of multi-year environmental consulting contracts with Amtrak and New Jersey Transit. Responsibilities include contract negotiations, workload/resource distribution, compliance with contract requirements including utilization of M/WBE contractors, client-staff liaison, adherence to budgets and schedules, and overall quality assurance. The remedy will likely consist of hot spot removals, a site cover system and a sub-slab depressurization system.
- Principal-in-Charge of the redevelopment of an entire city block into a mix of public and private open space with community gardens, 655 mixed-income residential units, and community services containing three multi-use buildings in Harlem, NY. The buildings will be certified to Passive House standards. Responsibilities include: Phase I and II ESAs, RAPs, waste characterization sampling design, and reporting to the NYCDEP. Subsequently, the project was entered as two separate NYSDEC BCP sites. Activities have included BCP Application, preparation and implementation of a RIWP, preparation and implementation of an IRM Work Plan, preparation of a combined RIR/RAWP, and implementation of CAMP and soil/fill excavation oversight and management.
- Principal-in-Charge of the redevelopment of a waterfront site that includes two high-rise mixed-use affordable/senior living residential towers in Queens, NY. Additionally, the development includes ground floor retail, community facility public spaces and two piers extending into the East River. The two towers were entered as separate NYSDEC BCP sites and are immediately adjacent to the Newtown Creek Federal Superfund Site. Activities have included BCP Application, preparation and implementation of a RIWP, preparation of a combined RIR/RAWP, and implementation of CAMP and soil/fill excavation oversight and management.
- Principal-in-Charge of the redevelopment of a former garage and auto repair operation and a manufacturing facility on two adjacent lots into a multi-story single-family residence in lower Manhattan, NY. The Site contains an E-Designation and as such is going through the NYCOER VCP. Roux completed a Phase I ESA, an RI, a RAWP, a waste characterization plan, and is providing oversight of waste management, UST removals, and CAMP.

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- Principal-in-Charge of a mixed-use (public school and residential) Brownfield redevelopment in lower Manhattan, NY. Project consisted of a Phase I and a Phase II ESA to satisfy NYCDEP requirements. Due to the presence of contaminated historic fill, Roux performed in situ waste characterization to assist in the development of NYCDEP-required plans. In addition, Roux provided oversight of the waste removal, completion of waste manifests, and full-time CAMP during all soil moving activities. Roux provided support to the excavation contractor when two previously unknown USTs were discovered during excavation activities.
- Principal-in-Charge of a retail and commercial redevelopment in the Bronx, NY. The Site contained a NYCDEP E-Designation due to a previous on-site service station UST release. In addition, a previous Phase I and Phase II ESA identified a former dry cleaner with a chlorinated VOC release. Roux performed a focused Phase II ESA at the dry cleaner and determined the chlorinated solvent release was not a hazard. Roux obtained closure under the NYSDEC Spills group and the Site was redeveloped with a restaurant, a pharmacy, and reuse of a former supermarket.
- Principal-in-Charge of the redevelopment and expansion of an automobile dealer/service center in New York, NY into the US Flagship dealer for a major European luxury car manufacturer. Supported the client and legal team during lease negotiations. Worked closely with the NYCOER to address NYCDEP "E" designation. Coordination with the NYCOER to implement remedial investigation and develop a Site Materials Management Plan as part of the expansion. Also, worked closely with the NYSDEC to address an on-site spill, as well as coordinate efforts to evaluate whether a 19,000-gallon dielectric fluid release by others impacted the Site.
- Principal-in-Charge of an 80-acre redevelopment in Yonkers, NY. Work included Phase I and Phase II investigations, asbestos surveys and abatement support, and response to a free product impact from an adjacent landowner. Coordinated with the NYSDEC and responsible party to address contamination issue and not impact the client's construction schedule.
- Principal-in-Charge for the redevelopment of properties in the Bronx and Brooklyn, New York into supportive housing. Worked closely with NYCDEP to address "E" designation. Coordination with NYCDEP to implement remedial investigation and develop RAP/CHASP as part of the redevelopment. Also performed an ASTM VEC to address vapor concerns.
- Principal-in-Charge for a property transfer support project at a heavily contaminated (chlorinated volatile organic compounds from an adjacent dry cleaner and on-site MGP waste) distribution facility in the Bronx, NY. The Site was a former MGP being handled under the VCP, in addition to an open petroleum spill under the regional spills group. Roux performed a Phase I for the buyer, a Phase II and remedial cost estimate for the owner, and negotiated with the buyer's consultant and the NYSDEC to limit the scope of the investigation and cleanup.
- Principal-in-Charge of a mixed use (residential, retail, commercial) Brownfield redevelopment in the Bronx, NY. Project consisted of a Phase I and Phase II ESA to satisfy NYCDEP requirements. The media investigated included soil, groundwater, soil vapor, and building materials. During the Phase II ESA, Roux performed preliminary in situ waste characterization.
- Principal-in-Charge of multiple retail developments in Harlem, NY. Work included Phase I and Phase II investigations to satisfy the NYCDEP and lender requirements. Lead-based paint and asbestos surveys were performed as part of due diligence. Extensive asbestos issues were identified in building materials and soil backfill.
- Principal-in-Charge of a fast-paced property transfer environmental assessment at an electronics manufacturing facility contaminated with metals and solvents in Bridgeport, CT. The project consisted of the development and implementation of a detailed field sampling plan within a one-week time frame, including indoor and outdoor soil sampling and monitoring well installation; groundwater and sewer effluent sampling; asbestos survey and asbestos sampling; and a tidal influence assessment. Data was evaluated and a summary report was prepared within one week and a remedial alternatives evaluation and cost estimate was prepared in less than one week.
- Principal-in-Charge of the 45-acre development of a state-of-the-art sports arena and commercial/retail complex at an existing sports venue on Long Island, NY. Responsibilities include: Phase I and Phase II ESAs, EIS support, and Waste Characterization sampling design and implementation.
- Principal-in-Charge for the completion of Phase I and Phase II Environmental Site Assessment activities associated with a proposed mixed-use redevelopment located in Westchester, NY waterfront. Work included management of subsurface investigation activities to characterize soil conditions, and working closely with the client's architects and construction contractors to integrate the proposed site remediation into the project development plan (including evaluating multiple potential disposal scenarios). Site contaminants included hydrocarbons (including free-product plume from former USTs) and historic fill constituents.