ROUX



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EDUCATION

BA, Biological Sciences, University of Delaware, Newark, Delaware, 1999.

PROFESSIONAL LICENSES

Licensed Site Remediation Professional, New Jersey (License No. 627589) New York State Professional Geologist (License No. 000437) NJDEP UST Certification Program-Subsurface Evaluator (License No. 239024)

PROFESSIONAL PROFILE

Robert Kovacs, LSRP, PG

Principal Scientist

EXPERIENCE SUMMARY

Twenty-four years of experience: Principal, Senior, Project, Staff and Staff Assistant Environmental Scientist at Roux, Islandia, New York.

TECHNICAL SPECIALTIES

Design, implementation and management of Environmental Site Assessments, Remedial Investigations, Remedial Actions, and Construction Support at Brownfield Redevelopment, Transportation, and Industrial sites; Development of innovative cost-saving project strategies and skilful regulatory agency negotiations; Characterization and decommissioning of Industrial Manufacturing facilities; Roux Corporate QA/QC Officer.

REPRESENTATIVE PROJECTS

Lendlease Java Street Waterfront Redevelopment - Greenpoint, New York. Principal-in-Charge for this large redevelopment project located on the waterfront in Greenpoint, New York. This 2.6-acre site is being redeveloped into a mixed-use development, including a residential tower with 800 residential units, retail space, and a shoreline esplanade with NYC Ferry terminal access. Work on this project has included due diligence support, involving the completion of a Phase I and Phase II ESA, NYSDEC BCP application, preparation of a Remedial Investigation Report and Remedial Action Work Plan, as well as supporting Lendlease in negotiation with NYSDEC to maximize soil reuse, site preparation and tangible tax credits. Work also included implementing an extensive In-situ Waste Characterization program, including PFAS investigation, negotiating soil reuse, and developing and implementing a complex remedial design program and community air monitoring program. The remedy for the site included design of a Sub-Slab Depressurization System (SSDS) to mitigate vapors beneath the future building, as well as negotiation with NYSDEC and NYCOER to ensure 421a schedule requirements were achieved. As part of this work, soil borings, monitoring wells, piezometers, and soil vapor monitoring points were installed, and hydrogeologic cross sections were prepared. Additionally, the tidal influence of the East River on site groundwater was studied, and a benthic sediment investigation was conducted in the East River.

This project will achieve the highest green and sustainable standards, and includes a massive, closed loop geothermal system to provide heating and cooling. Once complete, this allelectric project will be the largest residential project in New York State to use a geothermal exchange system. Components of this system include, in part, a well field of over 320 vertical geothermal wells drilled down to a depth of approximately 500 feet below land surface. Roux is providing several critical roles on this project with respect to construction of this massive geothermal system.

 Amtrak Sunnyside Yard State Superfund Site, Queens, New York. Principal-in-Charge for multiple projects to support investigation and remediation activities at this State Superfund site. Mr. Kovacs was responsible for overseeing activities in all six Operable Units (OUs), including unsaturated and saturated soil, groundwater, separate-phase hydrocarbon, soil vapor and on-site sewer system. His responsibilities on these projects included PFAS investigations; UST removals; characterizing subsurface conditions, including soil (collected hundreds of soil samples to characterize the 130+ acre active railyard), as well as characterizing a 250,000-gallon PCB-contaminated separate-phase hydrocarbon plume. Additionally, he was responsible for overseeing the design and implementation of remediation activities, including soil excavation and offsite disposal, removal and abandonment of USTs ranging in sizes up to 17,000 gallons, demolition of contaminated buildings and infrastructure, and installation and operation of a dual phase high vacuum



extraction (DPVE) system to recover PCB-contaminated separate-phase hydrocarbon through a network of over 40 recovery wells. Due to the highly volatile nature of the separatephase hydrocarbon and the urban setting of this site, extensive emissions and odor engineering controls were used when excavating and managing soil and product. Additionally, extensive Community Air Monitoring was completed during all phases of work. Mr. Kovacs was also responsible for interaction with all regulatory agencies, as well as preparing and/or reviewing all major project reports and deliverables.

- Amtrak Infrastructure Construction Projects. Principal-in-Charge of several large infrastructure upgrade projects for Amtrak, including the Next Generation Acela Ready Track project, the Amtrak Airo support projects, Security Enhancement project, and Water Main Upgrade projects. Mr. Kovacs is serving as Project Principal, and is involved in the planning, site characterization (including PFAS evaluations), construction oversight, and regulatory agency coordination associated with these projects. These projects include substantial soil and sewer sediments characterization and management components, including management of characteristically hazardous soils and management of freeproduct impacts. Additionally, these projects include large community air monitoring programs, as required by NYSDEC. Roux has been successful in integrating these environmental requirements into these construction projects with minimal impact to the construction team's schedule.
- Pharmaceutical Manufacturing Facility, Brooklyn, New
 York. Project Manager/Project Principal for environmental
 work associated with the seven-block former manufacturing
 plant. This Site included a former 700,000 square foot
 manufacturing plant, as well as several other former industrial
 facilities with operations starting as far back as the 1850s.
 Responsibilities included UST removals; the design and
 completion of multiple phases of subsurface investigations to
 characterize soil and groundwater quality, as well as soil vapor.
 Contaminants included hydrocarbons, benzene, PCBs, and
 heavy metals, including lead, mercury, and arsenic. Work
 included development and preparation of investigation and
 remediation work plans, coordination and management of field
 investigations, including the

installation of shallow and deep monitoring wells and soil borings using sonic drilling methods, completion of a geophysical survey, collection of groundwater samples, and management of remediation activities. Remediation activities included soil excavation, UST removals, and the installation of a soil vapor extraction and air sparging system. Work was completed under several different regulatory agencies, including NYSDEC and NYCOER. Also provided presentations to school authorities, including the NYC DOE, to communicate the progress of the project and to educate administrators regarding the Site's environmental issues.

- Industrial Warehouse Development Bayshore, New York. Principal-in-Charge for a 350,000 square foot industrial warehouse development located in Bayshore, Long Island, NY. As part of the project an initial Phase II investigation and PFAS evaluation was completed at this industrial site that contains a large former landfill. Roux successfully enrolled this site in the NYSDEC BCP and is currently developing the remedy for the site. Major remedial elements include an extensive Sub-Slab Depressurization System (SSDS) system to manage highly elevated methane vapor from the former landfill, as well as the management of large quantities of soil for disposal and reuse.
- Affordable Housing Development Bronx, New York. Principal- in-Charge for the redevelopment of a former US Postal Service Fleet Maintenance facility located in the south Bronx. This site will be redeveloped into a 100% affordable housing complex. I was retained to complete all initial due diligence activities, including PFAS investigation, and to evaluate possible NYSDEC BCP eligibility. Once determined the site is a good candidate for the BCP, we prepared a BCP Application, and all required reporting. We also ensured that the site met 421a schedule requirements throughout the development and implementation of an Interim Remedial Measures (IRM) Plan. Full scale remediation is currently underway, including the remediation of hazardous soils, removal of USTs, and removal of multiple hydraulic lifts. Responsibilities also included design of a Sub-Slab Depressurization System (SSDS) to mitigate vapors beneath the future building.
- Chlorinated Solvent Remediation Parsippany-Troy Hills, New Jersey. Principal-in-Charge for the Remedial Investigation and Remedial Action implementation associated with a former dry cleaner release located in Parsippany-Troy Hills, New Jersey. We were retained by one of the largest real estate developers in the United States to complete this project. Soil, groundwater, and subsurface vapor were impacted with chlorinated VOCs as a result of the former dry cleaner operations. Responsibilities included the design and management of a Supplemental RI that included the installation of soil borings, monitoring wells and the completion of groundwater vertical profiling. Additionally, Mr. Kovacs was responsible for the design, implementation, and management of an extensive groundwater remediation injection program in which approximately 200,000 pounds of Zero-Valent Iron (ZVI) and 2,500 gallons of Emulsified Vegetable Oil (EVO) were injected into the subsurface using pneumatic fracturing. Initial post-treatment results show over 95 percent reduction in concentrations of chlorinated VOCs in groundwater. Furthermore, he was responsible for the design,



installation, and operation of a SVE system to address impacted vadose zone soil.

- Brookfield Hudson Exchange West Jersey City, New Jersey. Principal-in-Charge and LSRP for the first three towers as part of this mixed-income development near the Jersey City waterfront. Overall, this project will include 11 residential towers. To date, two towers are completed, and one is under construction. I am LSRP of record for: Phase 1A (625,000 square foot, 35-story tower), Phase 1B (432 unit, 35-story tower), and Phase 2 (60-story tower, with 802 Units and ShopRite supermarket planned for the second floor). Responsibilities included all initial site investigation, remedial design, and remedial implementation. Additionally, I was responsible for all compliance with NJDEP requirements, including preparation and certification of all reports, preparation of Remedial Action Permits, issuance of RAOs, and implementation of all post remedial activities and reporting.
- Residential/Commercial Redevelopment Brooklyn, New York. Principal-in-Charge for a mixed-use development located in Red Hook, NY. Completed Phase II investigation and designed and implemented several Interim Remedial Measures. Also advised client on the most advantageous regulatory pathway to implement the redevelopment project. We are currently in the process of submitting a BCP Application to NYSDEC.
- Chlorinated Solvent Release Bernardsville, New Jersey. Principal-in-Charge for the investigation of an extensive chlorinated solvent plume emanating from a former dry cleaner site. Contamination from this site has migrated far off site in groundwater, and has potentially impacted nearby surface water. Work includes installation of soil borings and monitoring wells to characterize contamination in soil, perched water, groundwater in the deep unconsolidated aquifer zone, as well as groundwater in the weathered bedrock matrix and bedrock matrix. Further, contamination from the Site is co-mingled with contamination from other solvent release sites, complicating NJDEP negotiations and investigation/remedial requirements. Mr. Kovacs serves as the LSRP of record for this project.
- UST Spill Site Brooklyn, New York. Principal-in-Charge for the investigation of a Spill in Williamsburg, Brooklyn, New York.
 M. Kovacs lead the project team in successfully demonstrating to NYSDEC's Spills Group that impacts to a deep groundwater zone beneath the client's site were a result of offsite contamination migrating onsite from a nearby active gasoline station (not a result of the client's former industrial operations). Impacts included the presence of several feet of free-product in a deep groundwater zone. Furthermore, he was successful in getting the client's Spill Case closed, saving the client from additional investigation activities, and what will likely be a

multi-million-dollar remediation to address free-product beneath a semi- confining clay zone.

- Former Vehicle Maintenance Facility Parlin, New Jersey. • Project Manager for the removal of (2) waste oil USTs, a subsurface oil water separator, piping, and remediation of associated petroleum contaminated soil at a former vehicle maintenance facility in Parlin, New Jersey. Roux was retained by one of the largest real estate developers in the United States to complete this project. This remediation was completed to allow for a new, national tenant to occupy this retail space. As part of this work, it was determined that a historic release occurred from the OWS, triggering a RI for petroleum-related VOCs and chlorinated VOCs in soil. Mr. Kovacs was also responsible for the development and implementation of the Remedial Action for the Site, which included excavation and offsite soil disposal. SESOIL modeling was also utilized to demonstrate groundwater (approximately 100 feet deep) was not impacted by the shallow soil contamination. As part of this project, he took a lead role in preparing the SI Report, RI Report, RAW, RAR, Receptor Evaluation, and the Unrestricted Use RAO.
- NJ Transit Active Bus Facility, New Jersey. Project Principal for the completion of a RI at an active bus garage located in Fairview, New Jersey for a major transit agency. Responsibilities included the delineation of a free-product plume, characterization of soil and groundwater quality, report preparation, and correspondence with the NJDEP. Moreover, Mr. Kovacs was responsible for implementing free-product Interim Remedial Measure efforts. Currently, he is finalizing the RI report for the Site, and managing the Remedial Action design, and supporting the LSRP in meeting all NJDEP administrative requirements.
- Residential Hi-Rise Development Manhattan, New York.
 Principal-in-Charge for a redevelopment site in mid-town
 Manhattan working for a private developer who is building a mixed-use retail/commercial tower. Work included a Phase I
 ESA and Phase II ESA. As part of the Phase II shallow bedrock was identified in portions of the site, and an LNAPL plume was identified in the overburden soils. Responsibilities included bedrock evaluation, LNAPL recovery utilizing multiple different techniques. Responsibilities also included construction support, health and safety support, management of all soil excavated and transported off site, and the design of a Sub-Slab Depressurization System (SSDS) to mitigate vapors in the vadose zone beneath the new building structure that were emanating from groundwater.
- Ship Dry Dock Facility Hoboken, New Jersey. Project Manager for the completion of a Preliminary Assessment and Site Investigation (PA/SI) at an active ship dry dock facility in



Hoboken, New Jersey. Responsible for the coordination and management of field investigation activities, which included soil, groundwater, and sediment sampling, as well as the preparation of a PA and SI report. This work was completed on behalf of a potential buyer of the property who planned to redevelop this site into a New York City ferry terminal.

- BICC Cables Yonkers, New York. Project Manager for the investigation and remediation of the interior and subsurface soils of a former cable manufacturing facility located in Yonkers, New York to be redeveloped into a movie studio.
 Responsibilities included the completion of several large-scale investigations, including the collection of wipe, soil and building material samples to characterize PCB and lead impacts at this 200,000+ square foot facility Additional tasks included oversight of the remediation of interior surfaces using several different methods for the removal of PCBs and lead, and remediation of a sub-surface drainage trench and process water system. Further work included the preparation of a Remedial Investigation report and a Feasibility Study report for submittal to the NYSDEC.
- Amtrak Electrical Substation Rahway, New Jersey. Project Manager for the RI and RA design and implementation at an active electrical substation in Rahway, New Jersey for a national passenger railroad agency. Responsibilities included completing an RI to delineate PCBs in soil, and the management of free- product recovery programs. Further, Mr. Kovacs was responsible for managing the RA at the Site, which included soil excavation and offsite disposal, and free- product recovery. As part of this project, he supported the Site LSRP and took a lead role in preparing the Supplemental RI Report, RAW, RAR, Receptor Evaluation, and the Unrestricted Use RAO. Additionally, he assisted the LSRP in satisfying all NJDEP administrative requirements, including preparation of forms, public notifications, and submittal of fees.
- Echo Bay Redevelopment New Rochelle, New York. Project Manager for the completion of Phase I and Phase II Environmental Site Assessment activities associated with a proposed mixed-use redevelopment located in Westchester, New York. Work included management of subsurface investigation activities to characterize soil conditions, and working closely with 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.
- Former Dry Cleaner Ramsey, New Jersey. Project manager for the SI, RI, and vapor intrusion investigation at a former dry cleaner in Ramsey, New Jersey. Responsibilities included

managing and coordinating field investigations, preparing remedial cost estimates for redevelopment, and preparation of reports and satisfying NJDEP Administration requirements. This work is being done to support redevelopment of the Site for a large, national fitness center tenant.

- Former Service Station Patterson, New Jersey. Project Manager for the implementation of a groundwater remediation injection program to address petroleum contamination at a former service station located in Paterson, New Jersey for a major transit agency. Responsibilities included implementation of a PA and SI to further investigate chlorinated VOCs at this Site. As part of this project, Mr. Kovacs took a lead role in preparing reports and the Permit-by-Rule Request, as well as assisting in satisfying all NJDEP administrative requirements.
- NJ Transit Active Railyard Roxbury Township, New Jersey. Project manager for the investigation of a diesel release at an active railyard in. This release was caused by a faulty underground pipe located in the locomotive fueling area. The diesel release resulted in a free-product plume, groundwater impacts, and impacts to a subsurface drainage culvert and a nearby lake. Responsibilities included the development and coordination of a field investigation program, coordination of routine gauging and free-product recovery events, correspondence with NJDEP, and preparation of a baseline ecological evaluation. Additionally, Mr. Kovacs supported the Site LSRP in meeting all NJDEP administrative requirements.

Facility Demolition/Decommissioning

Former Pharmaceutical Manufacturing Facility Decommissioning, Brooklyn, New York. Project Manager for the interior decontamination and decommissioning of a 700,000+ square foot former manufacturing facility located in Brooklyn, New York to allow for redevelopment of the building for commercial, retail, and light industrial use, and use as a movie studio, and for local food businesses. This redevelopment has earned significant positive press, as it is considered a highly beneficial reuse for the community. This project included the development of decontamination and decommissioning work plan, technical support of bidding process, and full time onsite engineering support of the entire project.

Decontamination and decommissioning activities included removal/cleaning of hundreds of air handling units and dust collector units impacted with manufacturing dusts and residues, as well as thousands of feet of intricate vacuum, ventilation, and dust collection lines. This project also included the removal of concrete impacted with metals, PCBs, and/or VOCs, selective interior demolition, and decontamination of former laboratory, milling, compounding, blending, and packaging areas, as well as asbestos abatement. At the



conclusion of this project, a Final Report was prepared, documenting in detail the extensive work completed and the work plan objectives were achieved.

- Former Pharmaceutical Manufacturing Facility Demolition, Brooklyn, New York. Project Manager for the demolition of two former manufacturing buildings in Brooklyn, New York. Both buildings were impacted with hazardous levels of PCBs, mercury, and lead. Responsibilities included in situ waste characterization of building materials, oversight of hazardous waste removal, completion of waste manifests, and full-time Community Air Monitoring during all demolition activities. Additionally, Roux Associates performed daily inspections and monitoring to ensure the protection of a nearby elementary school and prepared a completion report at the conclusion of the project.
- PCB Building Material Remediation. Principal-in-Charge for the investigation and TSCA remediation of PCB containing paint in a former manufacturing area. This location (approximately 2,000 square feet in area, and two stories in height) was found to contain PCBs in the paint matrix at concentrations as high as 10,000 parts per million. The underlying building material (brick, concrete, and terra cotta) was also found to be impacted with PCBs from the paint. Responsibilities included preparation of a Self-Implementing Notification and Alternative Decontamination Methods and Verification Sampling Work Plan to remediate the PCBs under the TSCA regulatory framework. This project also included providing field oversight of the PCB remediation, completion of the extensive verification sampling program of the underlying porous building material, and collection of confirmation air samples and confirmation wipe

samples outside of the exclusion zone to confirm proper function of all critical barriers. Following the successful completion of the project, a Final Report was prepared and submitted to USEPA documenting the entire project in detail.

Expert/Insurance Litigation Support

- Consulting Fact Witness for an insurance litigation claim where insured was seeking to be reimbursed for more than \$15 million of previous environmental investigation/remediation costs. Mr. Kovacs responsibilities included a formal deposition and testifying in US District Federal Court – Eastern District of New York. Case resulted in favorable ruling for our client.
- Consulting expert for a PRP to the Gowanus Canal Superfund Site, Brooklyn, New York. Evaluated all RI data, performed fate and transport analysis, and evaluation of historic site operations to support facility *de minimis* status.

PROFESSIONAL TRAININGS

OSHA 40-Hour Health and Safety Course (29 CFR 1910.120)

OSHA 8-Hour Health and Safety Refresher Course (29 CFR 1910.120)

PUBLICATIONS

- Significant Acceleration of Time Frame to Closure via Transition from Long-Term Biological Treatment to ZVI/EVO Injection, Kovacs, R., Senh, S., Silverstein, W., Moss, D., Kelley, R., Proceedings of the Tenth International Conference on Remediation of Chlorinated and Recalcitrant Compounds, 2016.
- Strategy to Overcome Sub-Slab Depressurization System Design and Operational Challenges in an Existing Building With Sensitive Tenant Use, Henke, R., Kovacs, R., Kaiser, D., Proceedings of the Twelfth International Conference on Remediation of Chlorinated and Recalcitrant Compounds, 2022.