

TECHNICAL SPECIALTIES

Design, implementation, and management of Remedial Investigations and Remedial Actions for sites in regulatory programs including the United States Environmental Protection Agency Superfund Program, the New York State Brownfield Cleanup Program, and the New York City Office of Environmental Remediation Voluntary Cleanup Program; Management of due diligence Phase I and Phase II Environmental Site Assessments; Preparation and management of Brownfield Cleanup Program Applications, Remedial Investigation Work Plans, Remedial Investigation Reports, Remedial Action Work Plans, and Final Engineering Reports; Investigation and evaluation of petroleum, chlorinated solvent and per- and poly fluoroalkyl substances (PFAS)-related contamination; Management of large-scale soil excavation projects including demolition, waste characterization, and construction activities.

EXPERIENCE SUMMARY

Nine years of experience: Senior Scientist I, Project Scientist, Staff Scientist, and Staff Assistant Scientist, Roux, Islandia, New York.

CREDENTIALS

B.S., Earth and Environmental Science, Lehigh University, 2014

B.A. Biology, Lehigh University, 2014

OSHA 40-hour HAZWOPER Training, 2014

OSHA 8-HOUR Refresher Training, Certificate Current

OSHA 30-hour Construction Safety Training, 2019

New York State Builders Association 4-Hour Stormwater Training, 2016

First Aid and CPR Certified

Loss Prevention System (LPS) Awareness, 8-Hour Certified

Transit Worker Identification Credential Card Holder

Metro North Railroad Contractor Safety and Security Training

NJTransit Contractor Safety and Security Training

AMTRAK Contractor Safety and Security Training

KEY PROJECTS

- Project manager for the Remedial Investigation and Remedial Action implementation associated with former dry cleaner and gas station releases at a 65,000 square foot property in the Bronx, New York. The site was enrolled in the New York State Brownfield Cleanup Program (NYS BCP) and successfully achieved a Track 4 Clean-Up. Responsibilities included the design and management of a Remedial Investigation. As part of this work, soil borings, monitoring wells, and soil vapor monitoring points were installed, and hydrogeologic cross sections were prepared. Additionally as part of this project, a Remedial Action Work Plan, Final Engineering Report, Fact Sheets, and Monthly Reports were prepared in accordance with New York State Department of Environmental Conservation (NYSDEC) requirements. Current redevelopment

plans include a mixed-use development with parking and limited landscaping.

- Project manager for a site enrolled in the NYSDEC BCP with chlorinated solvent contamination is sub-slab vapor and indoor air. Technical responsibilities included design and management of the Remedial Investigation and Interim Remedial Measure (IRM). The IRM included the design of a sub-slab depressurization system within the footprint of the existing site building. Following completion of the IRM, the site will be occupied by an educational facility for children with special needs.
- Project Manager providing technical strategy/consulting on behalf of a potential responsible party (PRP) participating in a Federal Superfund Remedial Investigation/Feasibility Study (RI/FS) at an industrial waterway in Brooklyn, New York. Technical responsibilities include historical file review, litigation support, and public relations strategy development. Project management responsibilities include management of annual budget exceeding \$1 million, management of various technical subcontractors on behalf of client and routine communication with litigation team.
- Project Manager for the preparation and implementation of an extensive Phase II Environmental Site Assessment Work Plan at a former ink ribbon and carbon manufacturer in Glen Cove, New York on behalf of a prospective purchaser. The Phase II ESA included groundwater, soil, and soil vapor sampling to investigate the potential presence of contamination at the Site associated with its historical industrial operations and listing as a State Superfund Site.
- Project manager of redevelopment project in New York City. The project consists of the demolition of an existing hotel located over an active commuter rail terminal and the excavation of soil/bedrock to allow for foundation installation. Environmental considerations on the project include site assessment, remediation design and oversight, soil characterization for offsite disposal. Coordinated with NYCDEP, Metropolitan Transit Authority, Metro North Railroad and other project stakeholders concerning community protection and monitoring concerns.
- Project manager responsible for the preparation and field implementation of a soil characterization work plan and a chlorinated solvent delineation work plan for a former Manufactured Gas Plant (MGP) site in Brooklyn, New York. The operation of the MGP led to contamination of subsurface soil and groundwater by coal tar, a byproduct of the gas manufacturing process, and as a result, the NYSDEC issued a Record of Decision specifying the required remedy for the Site. The remedy will include soil excavation and offsite thermal treatment, a sheet pile barrier wall, a vapor barrier and basement ventilation system. A comprehensive air monitoring program was

conducted due to the concerns over coal tar residue emissions and odors on the surrounding community.

- Project Manager for an inactive solid waste landfill site in upstate New York that was investigated under the NYSDEC Inactive Landfill Initiative. Responsibilities included management of a groundwater investigation to examine the potential presence of per- and poly fluoroalkyl substances (PFAS) contamination.
- Project support for ongoing large and complex mixed-use development of a 92-acre Site located in Syosset, New York. The site was accepted into the New York State BCP and has an extensive environmental history, including former use as a wire and conduit manufacturer (former NYS Inactive Hazardous Waste Site), former landfill (currently a Federal Superfund Site), and town DPW facility. Activities completed included compiling numerous historical environmental reports prepared for the site; interacting with NYSDEC, USEPA, NCDOH; completing a supplemental soil investigation (including extensive use of XRF Technology, as metals are the compound of concern); conducting a groundwater investigation (water is over 100 feet deep); and managing a Remedial Investigation that included a groundwater investigation to evaluate the potential presence of per- and poly fluoroalkyl substances (PFAS) contamination.
- Project Manager for the redevelopment of a 2.7-acre site in the South Ozone Park region of Queens, New York. The project was enrolled in the NYC OER Voluntary Cleanup Program (VCP) to address an E-designation on the property. During construction, over 35,000 CY of soil was transferred through the Clean Soil Bank, and the Site is on track to obtain a Track 1 Cleanup. When constructed, the project will be the first vertical logistics facility to serve the JFK Market.
- Project Manager for the redevelopment of a strip mall in East Orange, New Jersey that contained seven former and one operating dry cleaner, three former fueling stations, and a former automotive repair shop. Project scope included completing a New Jersey specific Preliminary Assessment and Site Investigation, assessing indoor air and IECs, and preparing and implementing a Remedial Investigation Work Plan and Remedial Action Work Plan.
- Project Manager for the redevelopment of a 3.1-acre site in the St. George region of Staten Island, New York. The project was enrolled in the NYC OER VCP, which transferred over 20,000 CY of soil through the Clean Soil Bank and will obtain a Track 1 Cleanup. When constructed, the project will include 62,000 sq ft of retail space, 109 residential apartments, a 180-room hotel, 125,000 sq ft of subgrade parking, and four rehabilitated historic U.S. Lighthouse Depot buildings.
- Project Manager for a site in the NYSDEC Spills Program in Brooklyn, New York. Responsibilities

included a remedial investigation to delineate the nature and extent of the subsurface contamination; implementing an *in situ* chemical oxidation injection program utilizing RegenOx™ oxidant compound, which was injected into 28 injection points throughout the site; and designing and managing a hot spot excavation remedial measure to remove the source area that served as a continuing source of groundwater contamination.

- Project Manager for a high-end residential redevelopment project in Mineola, New York. Responsibilities included designing and implementing an *in situ* waste characterization program, excavation support, and the closure and abandonment of 10 Class V drywell structures. The drywell abandonment was conducted in accordance with the USEPA Underground Injection Control Program as administered by USEPA Region 2 and the Nassau County Department of Health (NCDOH). The project involved coordination with the client, the client's on-site subcontractor, the NCDOH, and the USEPA to successfully complete the job. A work plan and summary report were prepared to satisfy NCDOH and USEPA's requirements and obtain a No Further Action Letter.
- Project Manager for a high-end residential redevelopment project in New Rochelle, New York. Responsibilities included designing and implementing an *in situ* waste characterization program and excavation support. Despite being outside of the five boroughs of New York City, the Site was allowed to transfer soil through the NYCOER Clean Soil Bank. Responsibilities included coordination with the client, the client's on-site subcontractor to successfully complete the job.
- Project Manager of a site investigation project in Lynbrook, New York immediately downgradient of a 11.5-acre cemetery. Evaluated source of contaminants as a result of cemetery operations and historical site use including a manufactured gas plant and former dry cleaner. Collected soil, soil vapor, and groundwater samples to support delineation of pesticides and herbicides suspected to be emanating from the cemetery.
- Project Manager for the remediation of four drywell structures at a former pharmaceutical facility in Hauppauge, New York. The drywell remediation project was conducted in accordance with the Suffolk County Article XII requirements and entailed coordination with Suffolk County Department of Health Services (SCDHS). This project was unique in that the drywell sediment characterization and remediation work had to be completed within one month of receiving preliminary characterization data from SCDHS, with a threat of monetary penalty if this schedule was exceeded. The remediation and Remediation Summary Report were completed in the timeframe specified by SCDHS.

- Project Manager for the on-going site management of a redevelopment project in Corona, Queens, New York. The Site formerly operated as an automobile dealership and was accepted into the NYSDEC Brownfield Cleanup Program. A conditional Track 1 Cleanup was successfully completed at the Site in 2015, and the Site is now subject to a Site Management Plan (SMP). The final remedial design and SMP include a vapor barrier, active ventilation systems in the proposed sub-grade parking levels, and biannual groundwater monitoring to address the remaining CVOC contamination in regional groundwater.
- Project Manager and support to Expert Witness for a case on behalf of a PRP (Defendant) at a former landfill in upstate New York. The site is in the state superfund program and contained waste from Love Canal. Downgradient receptors include a residential community. The case involves the evaluation of mass contribution of specific chemicals, timing of disposal, and cost allocation. Complaint Index No. E161116/2017; Supreme Court of the State of New York, Niagara County.
- Support to Expert Witness for an on-going case between a major insurance carrier and a large multi-national chemical manufacturer. Case involved categorizing past costs of 12 chemical sites across the country. Assisted in the preparation of the expert report on behalf of the insurance carrier (Defendant). Complaint No. 84 Civ. 1968 (JSR); U.S. District Court, Southern District of New York.
- Field Manager responsible for implementation of a Remedial Investigation Work Plan (RIWP) and Waste Characterization Sampling Plan at a 2.98-acre NYS BCP site containing chlorinated solvents, heavy metals, and petroleum compounds in soil, soil vapor, and groundwater over one city block in Astoria, New York. Responsibilities included soil and soil vapor sampling in addition to groundwater sampling for emerging contaminants (1,4-dioxane and PFAS).
- Field Manager for a site in the NYS BCP that also required a RCRA compliant facility closure. The site is a former paint factory located in Long Island City, New York. Due diligence environmental investigations determined historical site operations adversely impacted the subsurface, including a LNAPL plume in addition to petroleum hydrocarbon impacts to the soil and groundwater. Responsibilities included: 1) oversight of RCRA closure activities at the site that included emptying, cleaning, and scrapping 65 ASTs/vessels, decontaminating approximately 30,000 square feet of hazardous waste storage areas within the Paint Factory Building and collecting compliance samples, and 2) oversight of implementation of the RAWP, which included a large excavation requiring SOE and completion under a tent due to odor concerns, multiple ISCO injections, removal/ abandonment of USTs with a total capacity of over 200,000 gallons, and installation of a LNAPL recovery system.
- Sampling team leader tasked with the rapid assessment of soils outside 40 residential and sensitive-use properties located near the former battery recycling facility in Vernon, California. Lead emissions from the former facility are suspected of affecting surface and near-surface soils in surrounding areas as a result of aerial deposition. Responsibilities included conducting soil sample screening on each property at up to 15 locations on lawn areas, bare soils, garden areas, play areas, and roof drip-zones using an X-ray fluorescence (XRF) analyzer to submit the two largest sampling areas for confirmatory laboratory analysis.
- Field manager in charge of Pre-Design Investigation and Waste Characterization sampling event for a New York State BCP project in Brooklyn, New York. The site is an auto dealership with petroleum and chlorinated solvent contamination in soil and groundwater.
- Field Manager for aquifer tests completed at a closed landfill in Holtsville, New York. Field tasks included monitoring groundwater levels with a network of *In Situ* LevelTrolls during a step-drawdown test and during a constant-rate pump test. Aquifer test data were subsequently used to determine hydrogeologic parameters of the aquifer beneath the Site using AQTESOLV software and various methods of analyses.
- Field Manager for a site in the NYCOER VCP. The site is a former gas station located in Manhattan, New York. Historical site operations adversely affected the subsurface through petroleum hydrocarbon impacts. Responsibilities included implementing a Community Air Monitoring Program (CAMP); managing soils including transportation and disposal; collecting soil samples; and maintaining communication between subcontractors and Roux office support.
- Performed numerous Phase I and II Environmental Site Assessments for due diligence in connection with property transfers for the New York Metropolitan Area.
- Remedial construction manager responsible for soil excavation and waste removal oversight for development in Staten Island, New York. Responsibilities include oversight excavation, organization, and proper handling of waste manifests; performing Stormwater Pollution Prevention Plan (SWPPP) inspections; ensuring compliance with the Site Management Plan; health and safety oversight; and reporting NYCDEP and NYSDEC inspections to the client.
- Field Manager responsible for the implementation of a CAMP during excavation and disposal activities at multiple locations in Manhattan and Queens, New York. Ms. Henke monitored airborne dust and VOCs that were potentially generated by remedial action work activities and reviewed the collected data for exceedances of the New York State Department of Health (NYSDOH) guidelines.

- Site Safety Officer for various remedial investigation sites. Responsibilities include preparation of health and safety plans (HASPs), job safety analysis (JSA) documents development and review, on-site safety meeting management, safety document preparation (Lessons Learned, Near Loss, Field Audits, etc.), and planning/executing corrective actions.
- Assisted in the implementation of a large-scale waste characterization program and remedial investigation for a major redevelopment project in Flushing, New York that is enrolled in NYCOER VCP and E-designation programs. The project included the coordination and oversight of an *in situ* waste characterization sampling of over 450,000 tons of soil and delineating a NYSDEC spill site within the project footprint.
- Assisted in bi-annual soil vapor monitoring round to surveil the largest subsurface free-product plume in North America at a former fuel and oil distribution terminal in Brooklyn, New York. Activities included the collection of soil vapor and ambient air samples from on-site and off-site monitoring wells using EPA method TO-15.

CONFERENCES, PUBLICATIONS AND PRESENTATIONS

- G. Buermann, R. Henke, K. Olear, and A. Scholtz. Reckoning with Microplastics: The Looming Challenges, Pitfalls, and Uncertainties. 36th Environmental & Emerging Claim Manager Association Annual Conference (EECMA). April 21, 2022.
- J. Rohrer and R. Henke. Microplastics: California and Beyond?: NGWA Problematic Groundwater Contaminants: More Than PFAS Forum. May 27, 2021.