

MICHAEL WRIGHT, PG, PGP, GC

Education

BS – Geophysics, University of Texas at Austin, 1985

MS – Environmental Management, University of San Francisco, 1994



Michael Wright

Professional Licenses

Professional Geologist – California (No. 6924)

Professional Geophysicist – California (No. 1030)

Professional Hydrogeologist – Washington (No. 1876)

General Contractor – California (No. 571638)

Specialty Certifications

OSHA Health and Safety 29 CFR 1910.120

OSHA Hazard Recognition EM 385-1-1

Construction Quality Management for Contractors – USACE/NAVFAC

Professional Affiliations

Bay Area Geophysical Society

Groundwater Resources Association

National Ground Water Association

Board of Directors – Bennett Ridge Mutual Water Company, Santa Rosa, California

Professional Experience

Mr. Wright has 35 years of progressive, professional experience, with proven strengths in technical consulting, program management, project management, and business operations. He provides information, resources, and solutions to government and private sector clients in the areas of environmental management, construction management, natural resource assessment, regulatory compliance, risk management, Brownfields development, geophysical investigations, hydrogeology, claim investigations, vapor intrusion/mitigation, remedial investigations, feasibility studies, risk assessment, remedial technology/corrective action, cost recovery/cost analysis and cost allocation, and health and safety. Mr. Wright is skilled in technical report writing and presentations, business development and sales, and public relations/risk communications associated with mergers and acquisitions, site development, chemical/industrial operations, and insurance claims.

His project experience is summarized below.

Confidential Client, NJ. Reviewed historical documentation and developed a soil and groundwater investigation plan to characterize the magnitude and extent of per- and polyfluoroalkyl substances (PFAS) contamination in the area. Also developed mitigation plans to protect groundwater users from exposure. Calculated costs for investigation and mitigation activities over a 30-year lifecycle.

Confidential Client, NJ. Reviewed historical documentation and prepared chemical fate and transport calculations to estimate the quantity (mass) of specific compounds of concern discharged into the Passaic River from various sources. Results were used to allocate costs to potentially responsible parties.

Manufacturing Company, Portland, OR. Managed soil and groundwater sampling data validation, and 3D groundwater flow model development and reporting tasks. Contributed to the groundwater flow model report that detailed the three-dimensional nature of groundwater flow and groundwater/surface-water interactions, and characterized contaminant migration pathways, sources, and receptors in the areas of interest.

U.S. EPA Region 9, Multiple Sites (CA, HI, and NV), and U.S. EPA Region 10, Multiple Sites (AK, ID, OR, and WA). Provided oversight and senior level review of work products prepared for EPA Regional Oversight Contract (ROC9 and ROC10) and ESO contracts regarding CERCLA and RCRA activities at active, closing, or former federal facilities, including Base Realignment and Closure (BRAC) installations, Formerly Used Defense Sites (FUDS), and Formerly Used Site Remedial Action Program (FUSRAP) sites.

U.S. Department of Defense, Concord Naval Weapons Station, CA. Working under DOD NAVFAC contract, conducted soil and groundwater investigations at Guam Way and IR Site 29 areas to characterize subsurface conditions associated with historical releases chlorinated hydrocarbons. Installed groundwater monitoring wells using DPT, HSA, and then the sonic drilling method to further delineate trichloroethylene (TCE) impact laterally and vertically to depths of 220 feet. Managed groundwater remediation consisting of in situ injection of patented EHC-L additives and KB-1 bacteria. Properties part of BRAC transferring land for private development.

U.S. Department of Defense, Alameda Air Station, Mare Island Shipyard, CA. Working under DOD NAVFAC contract, conducted soil and groundwater investigations to characterize subsurface conditions associated with historical releases of chlorinated hydrocarbons. Property was part of BRAC transferring land for private development.

Developers, Sonoma County, CA. Designed and performed numerous Water Availability Studies to determine suitability of proposed commercial development projects within Cumulative Impact Areas in accordance with recent county operating permit requirements.

Contractors, Sonoma County, CA. Provided technical guidance to contractors conducting private residential property cleanup resulting from Northern California October 2017 fire storm.

Law Firm, Salt Lake City, UT. Served as expert for multiparty complaint regarding alleged construction defects at condominium development. Reviewed construction documents and inspected the site. Provided information to defendant's attorneys that allowed them to reduce exposure from \$1.5M to less than \$25K.

Insurance Company, National. Investigated and managed pollution liability, professional liability, and product liability claims filed for reported losses associated with environmental and construction issues occurring at locations throughout the U.S. Performed claim investigations and prepared reports identifying cause-of-loss, cost-to-date, cost-to-complete, and mitigation and subrogation options. Maintained communications with claimants, the insured, and other stakeholders. Provided payment recommendations based on cost documentation review and reasonable and necessary cost determinations. Prepared detailed claim investigation reports with supporting documentation presenting information for liability and coverage determinations and to set financial reserves.

Manufacturing Company, Los Angeles, CA. Served 10 years (2004 to 2015) as Project Manager of groundwater investigation regarding a historical release of solvents at former metal fabrication facility. Activities included design and installation of multiple-depth groundwater monitoring wells using sonic drilling methods, cone penetrometer testing, and hydropunch sampling, and conducting semiannual groundwater monitoring using the low-flow sampling method at wells situated on and off site. Designed and conducted aquifer pumping tests and developed a 3D fate and transport model using Modflow and MT3D. Completed a feasibility study and interim remedial action plan. Liaison with stakeholders including the RWQCB, Los Angeles Region.

Developer, Statewide Locations, CA. Provided critical services for acquisition and development of Brownfields properties for affordable housing projects located throughout California. Conducted environmental assessments, environmental investigations, and site remediation. Assessed potential human health risks and ecological risks for conditions in soil, water, and air. Identified, quantified, and managed hazardous materials and hazardous waste prior to and during construction. Liaison with regulatory agencies (RWQCB, DTSC AQMD, etc.) to represent client's business interests. Brownfield sites located in Oakland, Clearlake, Crescent City, Susanville, Linda, Delano, Rohnert Park, Yuba City, Tehachapi, San Jose, Elk Grove, Stockton, El Centro, and Los Angeles.

Developer, Los Angeles, CA. Conducted environmental assessment leading to Brownfields acquisition and development of large apartment complex built on steep hillside initially covered with foundry slag. Prepared workplans, obtained permits from the County of Los Angeles, and conducted soil and groundwater investigations that characterized the nature and extent of contamination at the site. Used 3D statistical data imaging program to illustrate the location and extent of lead in soil, and to determine the location and quantity of nonhazardous waste, California hazardous waste, and RCRA waste. Also demolished old on-site buildings managing the asbestos and lead-based paint materials. Prepared soil management and health and safety plans for contractors. Prepared final reports that allowed for grading permit and construction. Liaison with regulatory agencies.

Developer, Richmond, CA. Conducted environmental site assessments, building condition surveys, and seismic analysis at former Pixar Studios, State of California Crime Laboratory, and at a historical bank building in San Rafael, CA. Identified environmental and building liabilities, and estimated current and future costs.

Insurance Company, Northern California. Investigation of a \$10M environmental claim submitted for discovery of unknown pollution conditions encountered during an ongoing residential and commercial development at a former industrial manufacturing property. Reviewed investigation and remediation reports, development plans, and consultant and contractor contracts. Conducted detailed evaluation of claimed costs and supporting documentation, and allocated costs to specific pollution conditions and coverage categories.

Insurance Company, Sacramento, CA. Investigated claim regarding the presence of lead in soil encountered during \$84M expansion of the Crocker Art Museum. Determined that lead was released from multiple sources, including lead-based paint and aurally distributed lead (most notably from leaded gasoline emissions). Prepared and submitted detailed report for liability and coverage determinations.

Insurance Company, Leona Sulfur Mine, Oakland, CA. Investigated site conditions regarding a landslide and failure of remediation cap at abandoned mine in Oakland Hills. Evaluated acid mine drainage conditions to explain causes of alleged pollution conditions in nearby creek that discharges into San Francisco Bay. Prepared report that addressed causes of failure and liability. Pollution liability claim dismissed.

Hospital, St. Helena, CA. Hospital emergency generator fuel line leaked releasing diesel into storm water system that discharged oily water on hillside above the Napa River. Established incident command operation for emergency response to control release and conduct immediate cleanup activities. Prepared workplans and conducted investigations to define the extent of contamination and risk to sensitive receptors. Conducted remediation consisting of soil removal, installation of groundwater monitoring wells, free product removal, biological treatment, and periodic groundwater monitoring. Prepared reports and obtained regulatory case closure from Napa County and San Francisco Bay Area RWQCB.

Insurance Company, Haines, AK. Release of various petroleum products at petroleum storage site discharged into stream catalogued as anadromous fish system with waterfowl and terrestrial mammal habitat. Conducted claim investigation to determine cause and origin of the releases, including site history. Conducted on-site subsurface investigations to characterize the nature and extent of the contamination. Evaluated the effectiveness of water treatment system. Prepared investigation report that identified critical information for liability determinations. Worked with outside counsel to complete settlement negotiation.

Insurance Company, Redwood Valley, CA. Investigation and remediation of fuel tanker spill at gasoline station in Mendocino County. Conducted soil sampling and installation of groundwater monitoring wells. Prepared workplan and implemented quarterly monitoring program. Obtained regulatory case closure from North Coast RWQCB and Mendocino County Environmental Health.

Insurance Company, Magnolia, AR. Investigated pollution claims regarding several crude oil pipeline releases that occurred at different times over several years, each discharging to soil and a creek to varying degrees. Conducted document reviews, soil and groundwater sampling, and forensic hydrocarbon testing; monitored site cleanup operations; and delineated pre- and post-release conditions. Prepared a claim investigation report that documented the timing, nature, and extent of the releases. Information in the claim investigation report was used to effectively resolve insurance coverage concerns and to allocate investigation and cleanup costs to various responsible parties.

Law Firm, Humboldt County Landfill, Eureka, CA. A landslide released burn ash that accumulated from historical burn dump operations into a stream/watershed. Conducted investigation to determine the history of site, and the nature, extent, and location of the releases. Prepared investigation report with extensive supporting documentation that identified critical information for liability and coverage determinations.

Homestake Mine, Napa County, CA. Provided field services and technical consultation regarding the implementation and completion of mine closure, as part of the site reclamation program. Identified contaminated areas and extent of impacts. Managed removal actions, and contaminated soil profiling to minimize quantity of materials removed from the site for off-site disposal. Reported to Napa County Environmental Health and San Francisco RWQCB, and successfully completed regulatory site closure requirements.

Surety Bond Company, San Francisco, CA. Performed cost to complete analysis of four multimillion-dollar public infrastructure projects affected by electrical contractor's failing performance and financial condition. Projects included University of California building upgrades and seismic retrofits, and Caltrain station and track upgrades for high-speed commuter rail system between San Francisco and San Jose.

Construction Company, Santa Clara, CA. Performed a hazardous materials inventory at a 400,000-square-foot former computer manufacturing facility. Identified the location and quantities of hazardous materials, including asbestos, lead paint, PCBs, mercury, CFCs, and various chemicals.

Prepared a Risk Management Plan for use during planned building demolition and site redevelopment. Evaluated storm sewer outfall capacity; obtained permit to discharge 250K gallons of water to on-site storm sewer.

Finance Company and Petroleum Company Portfolios, National. Managed a team performing environmental assessments and property condition surveys properties located throughout the U.S. as part of commercial property/business acquisition/refinancing and for several hundred retail gasoline stations properties as part of business divestiture. For both projects, evaluated environmental conditions and regulatory compliance status at located throughout the U.S. Ranked sites according to risk criteria. Summarized outstanding environmental liabilities and prepared action plans for further analysis of environmental liabilities associated with highest risk sites. Managed Phase II investigations at high-risk sites. Reported results to corporate representatives.

GE Capital, National. Conducted Phase I and II environmental site assessments for property transactions and refinancing throughout North America.

Insurance Company, Hercules, CA. Management and settlement of a \$9M environmental pollution insurance claim associated with remediation of a former petroleum refinery situated along San Pablo Bay. Evaluated claimed charges against reasonable and necessary criteria and compliance with contract specifications. Evaluations include review of engineering documents and reports for remediation of soil and groundwater contamination. Evaluations of site investigation/remediation costs and risk-based closure against reasonable and necessary criteria included a detailed review and analysis of applied engineering methodology and the associated costs. Information presented to stakeholders and legal counsel led to effective settlement of the claim.

Insurance Company, Emeryville, CA. Management, mediation, and litigation support services for an \$11M environmental insurance claim associated with the construction of \$200M shopping center development. Project included contaminated soil and groundwater characterization and on-site waste activities. Monitored project through completion, and analyzed project events and costs, site conditions, and allegations. Prepared cost analysis and defended payment recommendations for \$4.5M settlement.

Insurance Company, San Diego, CA. Reviewed claimed costs submitted by a developer in charge of a large construction project on former Department of Defense property. The developer encountered contaminated soil (burn ash) that required remediation and reportedly delayed the construction schedule. Analyzed scope of work and deliverables associated with \$7.5M in claimed costs. Performed detailed cost analysis and delivered payment recommendations.

U.S. Corps of Engineers, Lincoln, CA. Performed 48-channel seismic survey at former Titan Missile Facility to support groundwater study. Drilled and logged two 150-foot continuous cores into granite bedrock, and performed down-hole velocity survey.

Residential Development, Benicia, CA. Performed magnetometer and EM-61 surveys and identified unexploded ordinance at former Naval Artillery training grounds developed as residential neighborhood's greenbelt area.

Union Railroad, Roseville, CA. During railyard development, identified the presence of unexploded ordinance buried in trenches after 1972 train explosions.

Bureau of Reclamation, Eugene, OR. Conducted 24 channel seismic refraction and resistivity surveys at the proposed Elk River Dam site. Constructed structural cross sections to estimate the volume of soil excavation required to expose bedrock basalt.

Los Angeles, CA. Designed and performed geophysical surveys to identify abandoned (former refinery) underground oil pipelines in a downtown residential neighborhood. Results supported client's cost recovery efforts.

Eldorado National Forest, CA. Conducted 48 channel seismic refraction survey to delineate the depth and volume of the slide material.

Caltrans, San Francisco, CA. Performed vibration-monitoring survey as part of pile driving feasibility study for Bay Bridge retrofit project, facilitating construction of new Bay Bridge section from Oakland to Treasure Island. Also conducted geophysical surveys throughout downtown San Francisco for street, bridge, and overpass seismic retrofits.

COGNIS, Santa Rosa, CA. Member of the TERRAMET® Business Development Group, focused on development of innovative environmental technology, from pilot- to full-scale operations. Site Manager for full-scale TERRAMET® operations at the Twin Cities Army Ammunition Plant (TCAAP) in Minneapolis, MN. The TCAAP project was the first process overseen by the U.S. EPA to successfully remove lead from soil. TCAAP soil excavation included removal of unexploded ordinance (UXO). Managed treatability study for remediation of mine waste discharged at government-owned copper mine in Peru. Prepared feasibility studies regarding the application of a patented, solvent extraction-based process, CYANOMET®, which used a liquid ion exchange reagent to detoxify heap leach pads at gold and copper mines.

Henkel North America, Hamilton, Ontario. Managed decommissioning and site restoration project for 4 years at former chemical manufacturing facility. Developed and implemented decommissioning and cleanup strategy to address regulatory and public concerns regarding the historical discharge of chlorinated solvents. Cleanup program included health and safety, site characterization (drilling, sampling, geophysics, cone penetrometer testing, pumping tests, analytical and numerical modeling), risk assessment (human health and ecological), treatability studies, feasibility study, remedial action, and public relations program. Remedial action included soil vapor extraction, excavation, and groundwater recovery and treatment. Served as Corporate Technical Advisor and Chairman of the Steering Committee. Reported directly to Corporate Advisory Committee and to various regulatory agencies and stakeholder groups. Presented with Corporate "Environmental Leadership" Award.

Manufacturing Company, Kankakee, IL. Managed hydrogeological investigation for chlorinated solvents at chemical manufacturing plant. The subsurface investigation included installation of groundwater monitoring wells in fractured bedrock, groundwater sampling and monitoring, and cone penetrometer testing. Reported directly to corporate officers. Findings reported to the Illinois EPA. Designed and implemented annual groundwater monitoring program.

Manufacturing Company, Brooklyn, NY, Lockhaven, PA, Hartford CT, Saugus, MA, Tucson, AZ, and Aurora, IL. Managed environmental liability issues related to major business acquisition and purchase of operating chemical manufacturing facilities. Sites required environmental testing, facility decontamination, subsurface remediation for soil and groundwater contamination, and subsequent facility modifications. Coordinated with corporate officers, attorneys, and regulatory agencies to expedite business and property transfers.

Phelps Dodge Copper Mine, Morenci, AZ. Performed investigation to characterize subsurface conditions at proposed location of a reagent storage/distribution facility. Reported findings to stakeholders.

Manufacturing Company, Van Nuys, CA. Designed and conducted RCRA Corrective Measures Study for former manufacturing facility. Used numerical models (SESOIL and VLEACH) to evaluate potential for chlorinated hydrocarbons in soil to impact groundwater. Summarized review of all existing project reports and correspondence, prepared comprehensive database with sampling and analytical data, managed human health risk assessment, developed site cleanup requirements, determined appropriate corrective action, and reported to California DTSC.

Port of Los Angeles, CA. Decommissioning and demolition of waterfront manufacturing site. Removed large above-ground storage tanks and conducted environmental investigation to characterize environmental conditions in soil and groundwater beneath the site. Prepared closure plan for removal of soil containing lead and mercury. Managed soil removal and conducted confirmation sampling. Prepared closure report and obtained regulatory closure through Port of Los Angeles Environmental Management Division.

Real Estate Company, Livermore, CA. Designed, conducted, and documented Remedial Investigation and Feasibility Study, including risk assessment and public relations program, following the U.S. EPA's National Contingency Plan guidelines. Provided technical support for legal counsel for CERCLA cost recovery program. Conducted pilot test and subsequent installation/operation of a soil vapor extraction and air sparging system. Reported to client's attorney and to San Francisco Bay Area AQMD and RWQCB.

Sacramento, CA. Performed site investigation to characterize petroleum hydrocarbon impact to soil and groundwater caused by leaking underground storage tank (LUST) at a commercial bakery. Installed/sampled groundwater monitoring wells, prepared quarterly reports for regulatory review, and installed, permitted, and operated soil vapor extraction system (SVE), including a thermal catalytic oxidation treatment unit. Reported to the Central Valley RWQCB and AQMD.

UST Removals and Regulatory Site Closures, San Francisco and Los Angeles, CA, and Honolulu, HI. Planned and managed underground storage tank (UST) removal projects in downtown locations. Obtained permits, developed workplan, hired and managed subcontractors, and negotiated regulatory closure.

U.S. Department of Defense, CA. Performed subsurface investigations using seismic and electromagnetic methods at numerous military bases, including The Presidio of San Francisco, Travis AFB, Naval Ship Yard in San Diego, Port Hueneme Shipyard, and many more. Also conducted utility and UST surveys using magnetometer, ground penetrating radar, and electromagnetic line locating methods.

City and County of San Francisco, CA. Performed seismic refraction surveys to characterize subsurface conditions in landslide areas affecting roads at Hetch Hetchy Reservoir in Yosemite National Park.

City of South San Francisco, CA. Performed geophysical surveys at Oyster Point Landfill. Also conducted geophysical surveys to characterize landfill materials in San Rafael, Berkeley, and Sonoma County.

Publications and Presentations

Restoration of a PCE-Contaminated Aquifer using Soil Vapor Extraction with Air Sparging, Master's Thesis, University of San Francisco, 1994.