



Gib Fates, P.G.

Principal Geologist/Vice President

Areas of Expertise

Project/Program Management,
Strategy Development, and QA/QC
Site Characterization and Remedial
Investigations
Water Quality and Hydrogeologic
Investigations

Years of Experience

With URS: 20 Years
With Other Firms: 4 Years

Education

MS/Geology/1985/Univeristy of
California, Los Angeles
BA/Geological Sciences/1980/
Hampshire College

Registration/Certification

Registered Geologist/CA/No. 6321

Overview

Mr. Fates is a California Professional Geologist with 23 years combined professional experience in the consulting and scientific applications of geosciences, including groundwater, hazardous waste, and geologic/geotechnical investigations. He provides environmental consulting services to a diverse range of clients in the oil & gas, industrial/manufacturing, land development, insurance, legal, municipal, and federal market sectors. Mr. Fates is a Vice President and Manager of the Assessment, Remediation & Geosciences Group for URS Corporation's Santa Barbara, California office.

Project Specific Experience

Oil & Gas Facilities Investigations

- Project manager for supplemental soil and groundwater investigations within a neighborhood of residential properties underlain by petroleum-affected soils related to former oil field operations in the Santa Maria valley. Investigations involve completion of numerous hollow-stem auger, direct-push, and hand auger borings and groundwater monitoring wells in very limited access areas. Field activities and are being conducted with the utmost sensitivity to confidentiality, homeowner protection, and public/worker site safety issues.
- Program manager overseeing the assessment and remediation of over 30 abandoned oil field drilling sumps in northern Santa Barbara County, California. Work included subsurface characterization, surface vapor flux emission studies, human health risk assessment, waste volume and cleanup cost estimating and remediation feasibility studies. Bench- and field-scale treatability studies were also conducted to demonstrate the feasibility of stabilizing the oil field waste materials for beneficial reuse. Investigations were conducted under the scrutiny of multiple local, as well as state regulatory agencies and were successfully completed under tight schedules imposed by third-party owners and developers.
- Program manager for assessment of soil and groundwater conditions, potential asbestos-containing and lead-containing building materials and sensitive species surveys at inactive crude oil bulk storage terminals and pipeline pump stations in Kern County, California. Additional activities completed include decommissioning, abandonment and scraping/recycling of multiple large (55,000 bbl) above-ground storage tanks and distribution piping in preparation for property divestiture.
- Evaluated potential for groundwater quality degradation from unlined produced water impoundments in an operating oilfield in western Kern County, California. A conceptual site model was developed from deep oil well data and used to predict potential migration pathways and threats to beneficial uses of groundwater and presented to the California Regional Water Quality Control Board. Based upon the



analysis and arguments presented, continued operation of the impoundments was approved.

- Performed environmental due diligence evaluations and remediation cost estimates to support acquisition of oil & gas facilities. Evaluations included oil, natural gas and fuel transfer, storage and processing facilities at three coastal facilities used in support of offshore oil production operations in the Santa Barbara Channel. Issues of concern included soil and groundwater contamination by petroleum hydrocarbons, PCBs, and metals and well as abandoned waste disposal areas. Information was used by buyer to quantify financial risk and assist in negotiating transfer of environmental liability upon purchase.
- Managed site characterization studies and groundwater monitoring and remediation programs at sites contaminated by fuel hydrocarbon releases from leaking underground storage tanks in Los Angeles and Santa Barbara counties, California. Tasks included subsurface investigations and contaminant source identification, aquifer testing, routine groundwater monitoring and reporting, NPDES permitting, review of conceptual and final treatment system design, and groundwater treatment system efficiency and effluent compliance monitoring and reporting.

RI/FS and CERCLA Investigations

- Project manager for multi-million dollar RI/FS being conducted at an approximately 250-acre inactive Class I hazardous waste landfill in Santa Barbara County, California under Consent Order from the U.S. EPA Region 9. Soil and groundwater impacts have resulted from historical operation of unlined hazardous waste disposal facilities, including five landfills, dozens of surface impoundments, waste disposal trenches, spreading areas, and underground injection wells. Hazardous wastes present at the site include PCBs, pesticides, industrial solvents, acid and caustic wastes, heavy metals, plating wastes, and oil field wastes. Work is being conducted by a team of companies, each responsible for completion of specific investigation tasks. Specific URS responsibilities include assisting in work plan preparation and agency comment responses, implementation of the soil, sediment and surface water sampling and analysis program, involving over 700 environmental samples, and coordination and management of interim reporting efforts for the team. URS also provides overall on-site management and coordination of all field efforts conducted by other companies on the investigation team.
- Principal investigator for a multi-million dollar RI/FS at a 300-acre former chemical plant/synthetic rubber manufacturing plant in Los Angeles County, conducted under Consent Order from the U.S. EPA Region 9. Principal responsibilities included the direction and oversight of all work performed by a team of project-dedicated scientists involved in characterizing soil, air and groundwater conditions. Technical challenges included the presence of near-pure benzene product trapped beneath the groundwater table, complex multi-aquifer hydrostratigraphy, and multiple coalescing groundwater contaminant



plumes. Groundwater conditions were monitored on a quarterly basis in over 100 wells completed in multiple zones. The groundwater Record of Decision included designation of the first Technical Impracticability Waiver within EPA Region 9.

General Hazardous Waste Investigations

- Prepared site characterization, waste characterization and surface water characterization work plans for an inactive metals recycling facility located in a sensitive coastal/estuarine setting in Oxnard, California. At issue is the nature and extent of impacts resulting from historical operation of an approximately 25-acre waste disposal area containing an estimated 500,000 cubic yards of insoluble metal salts, ammonia and radiological wastes. Work plan preparation was conducted under very tight schedules in response to Consent Decree and Cleanup and Abatement Order from the California Regional Water Quality Control Board. Work plan preparation involved extensive negotiation with Regional Board staff, as well as the California Department of Health Services Radiologic Health Branch, and the National Oceanic and Atmospheric Administration. Implementation of work at the site has been delayed due to bankruptcy proceedings, but is anticipated to begin during 2005.
- Program manager for multiple environmental assessment and remediation projects for independent power producers in California and Arizona. Provided coordination, senior oversight and program QA/QC in the identification and quantification of environmental liabilities associated with properties planned for development of power-generating and transmission facilities. Properties evaluated included oil & gas fields and pipeline corridors, industrial, mining and agricultural lands. Completed due diligence reviews, Phase I and II assessments, developed remediation strategies and costs, and performed remediation of petroleum hydrocarbon, metals and pesticide impacts.
- Characterized the nature and significance of residual pesticides in soils at former agricultural properties planned for high density residential development in Ventura and Santa Barbara counties, California. Characterization data were used in conjunction with site development plans to evaluate potential exposure pathways and human health risks for the planned developments. Potential exposure risks were mitigated through proper development planning and soil management practices, in some cases eliminating the need for soil corrective actions.
- Managed site characterization investigations at numerous former manufacturing and industrial facilities within southern California, including former manufactured gas plants, an abandoned die casting and injection molding facility, and other heavy industrial/manufacturing facilities. Contaminants of concern included PAHs, fuel hydrocarbons, volatile aromatic compounds, heavy petroleum hydrocarbons, PCBs, metals, and phenolic compounds. Successful remedial actions included statistically-based selective excavation coupled with on-site thermal desorption, as well as conventional mass excavation techniques.



- Directed various site characterization studies to evaluate petroleum hydrocarbon and lead soil contamination in rail yards and industrial properties in southern California and Nevada. Tasks included developing and conducting sampling programs, supervising soils excavation and related remedial efforts, performing field screening analyses and confirmatory sampling, and reporting efforts.
- Managed numerous Phase I Environmental Site Assessments and environmental due diligence evaluations for commercial and industrial properties, oil & gas facilities and proposed power generating facilities throughout southern California and Arizona.

Landfill Investigations

- Conducted hydrogeologic assessment of a closed municipal solid waste landfill in Simi Valley, California. Investigations were conducted in accordance with Subtitle D of the Code of Federal Regulations and Title 27 of the California Code of Regulations in response to revised Waste Discharge Requirements from the California Regional Water Quality Control Board. Tasks included installation of piezometers and monitoring wells, sampling and analysis of groundwater monitoring points, groundwater flow and contaminant transport modeling, and development of a groundwater monitoring system and evaluation monitoring program. Additional services included a slope stability analysis of the landfill toe buttress, preparation of new storm water pollution prevention and storm water monitoring plans, preparation of annual reports and consultation regarding landfill gas, surface drainage and landfill cover conditions.
- Program manager for Operation and Maintenance (O&M) activities at an approximately 250-acre inactive Class I hazardous waste landfill in Santa Barbara County, California. Responsible for management of \$1.3 million annual contract and overall quality of work performed by six full-time staff involved in daily site activities, including O&M of groundwater and leachate collection and treatment facilities, surface water and treated liquids impoundments, and hazardous waste landfill caps. Additional staff duties include coordinating hazardous waste collection, management and shipping, field engineering and construction of storm water control and retention facilities, and implementing routine erosion control measures.
- Principal Investigator for an Engineering Evaluation/Cost Analysis (EE/CA) at an inactive Class I hazardous waste landfill in Santa Barbara County, California under Consent Order from the U.S. EPA Region 9. Chemicals present at the site include PCBs, pesticides, industrial solvents, acid wastes, heavy metals, plating wastes and oil field wastes. The project included regulatory negotiations, work plan preparation and field investigations to acquire those remaining physical and chemical data necessary to allow completion of human health and ecological risk assessments, and assist in design of in-situ closure of four unlined hazardous waste landfills by capping.
- Conducted a hydrostratigraphic characterization of an inactive 157-acre Class II landfill in Carson, California. Work was conducted under a



Consent Decree from the California Department of Toxic Substances Control. Work included redefinition of site hydrostratigraphy through collection of deep, continuous soil core and downhole geophysical profiles through multiple aquifers, installation of deep, cased monitoring wells, aquifer testing and groundwater monitoring. The project was successful in demonstrating that deep drinking water aquifers had not been impacted by landfill-related contaminants present in shallower zones, effectively releasing our client's liability for cleanup. Prepared Remedial Action Plan (RAP) involving only periodic groundwater monitoring to demonstrate continued absence of impact to deep groundwater resources, and coordinated presentation of the RAP to public stakeholders.

- Conducted post-closure operation & maintenance tasks at a closed 33-acre RCRA landfill at the Naval Base Ventura County, in Port Hueneme, California. Tasks included conducting quarterly groundwater monitoring, landfill cap and drainage system inspections and maintenance, and gas vent monitoring.

Surface Water and Groundwater Quality Investigations

- Conducted an assessment of surface water and groundwater quality in support of an EIR for a 15-year expansion of an existing municipal solid waste landfill located within coastal Santa Barbara County, California. Work included evaluation of historical organic and inorganic surface water quality data collected from throughout the landfill watershed to assess the potential for landfill-related contamination and evaluate overall compliance with operating permits. This sensitive project was conducted under intense public scrutiny and involved numerous public presentations to the California Regional Water Quality Control Board, the California Integrated Waste Management Board, and the Santa Barbara County Board of Supervisors.
- Conducted assessments of bacterial contamination within a coastal watershed and near-shore ocean environments in Santa Barbara and Ventura counties, California. Projects included evaluation of existing water quality bacteria data and the design and implementation of additional sampling and analysis program to identify the source species responsible for the observed bacterial contamination using ribosomal DNA typing analysis. The study was conceived and conducted jointly by a variety county agencies, including public works, harbor department and health agencies, as well as academic institutions and members of the local community and environmental action committees. Findings provided information to help focus mitigating measures upon those individual species found to be responsible of majority of bacterial loading.
- Completed hydrogeologic assessments of groundwater basins in the central Mojave Desert and the Los Angeles basin. Tasks included evaluation of surface and subsurface geologic conditions, surface water and groundwater conditions, and temporal and spatial variation of groundwater quality and use.



Geologic/Geotechnical Investigations

- Performed geologic hazards and fault-risk evaluations for commercial and residential developments proposed in proximity to known or suspected active faults within portions of Los Angeles and Riverside counties, California. Fault zones investigated included the Newport-Inglewood, the San Jacinto, and the Banning-South Branch San Andreas. Building setback zones were established based upon the distribution, orientation and nature of faulting observed in trench excavations. Investigations were conducted in accordance with the State of California's Alquist-Priolo Special Studies Zone Act (1972).
- Participated in an extensive interdisciplinary field investigation to evaluate the regional seismicity and recency of surface faulting within a 100-mile radius of a proposed liquefied natural gas plant in south-central Alaska. Tasks included aerial photographic analysis, extensive helicopter-assisted reconnaissance and geologic mapping of glacial deposits and deformed bedrock terrain, soil chronology investigations, exploratory trench logging, and structural and geomorphic interpretation.
- Conducted cliff and stream bank erosion study for hilltop residential development in Santa Barbara County, California. Tasks included evaluating and mapping surface drainage control devices, areas of uncontrolled surface runoff, accelerated erosion and cliff retreat, and potentially threatened structures. Recommendations for drainage improvements and measures to minimize continued erosion were presented.

Specialized Training

- 40-hour Health & Safety Training
- 16-hour Supervisor's Health & Safety Training
- Annual 8-hour Refresher Health & Safety Training
- First Aid and CPR Training
- Certificate Program in Negotiation, Mediation and Conflict Resolution, University of California, Santa Barbara (in progress)

Chronology

2000 to present: URS Corporation, Santa Barbara, CA.

1987-2000: Dames & Moore, Los Angeles and Santa Barbara, CA.

1985-1987: Lockwood-Singh & Associates, Los Angeles and San Diego, CA.

1980-1982: U.S. Geological Survey, Branch of Field Geochemistry and Petrology, Menlo Park, CA.

Contact Information

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