



JAMES GRIBI, R.G.

EDUCATION

B.S., Geology, San Diego State University, 1979
Groundwater remediation and contaminant fate and transport modeling courses,
University of California, Berkeley Extension Program, 1990 and 1992

REGISTRATION AND CERTIFICATION

Registered Geologist, California and Oregon
Health and safety training (40 hours) and annual updates (8 hours)

EXPERIENCE OVERVIEW

Mr. Gribi has more than seventeen years of experience applying his geological expertise to the investigation, evaluation, and remediation of soil and groundwater contamination. Projects have included soil boring investigations, groundwater investigations, aquifer testing, and geophysical testing, and use of the state-of-the-art remediation technologies.

Soil and Groundwater Remediation: Mr. Gribi has managed and/or supervised the design, construction, and implementation of numerous remediation pilot tests and full-scale projects throughout the Bay Area and the West. Remediation methods have included excavation and either onsite treatment or offsite disposal, soil vapor extraction, air sparging, ozone injection, groundwater extraction, in-situ bioremediation, in-situ application of electron acceptors, and passive and active free product removal.

Soil Boring Investigations: Mr. Gribi has managed and/or supervised numerous soil boring investigations on a wide variety of sites throughout the Bay Area and the West. Drilling methods have included hand auger, direct-push coring, solid stem auger, hollow stem auger, Cone Penetrometer (CPT), and air and mud rotary. Several investigations have been conducted in unusual or difficult locations, such as inside active industrial buildings, in basements, or on busy city streets.

Groundwater Investigations: Mr. Gribi has managed and/or supervised the installation of numerous groundwater monitoring wells of all types on hundreds of sites throughout the Bay Area and the West. Drilling methods used have included hand auger, direct push, hollow stem auger, air rotary, and mud rotary. Well depths have ranged from near surface to over one thousand feet, and well types have included not only standard slotted PVC wells, but also welded steel piped wells and pre-packed horizontal wells. Groundwater sampling methods have included all varieties, from hand bailing to micro purging to submersible pumping.



Aquifer Testing: Mr. Gribi has conducted numerous aquifer tests, including single well and multiple-well pump tests, laboratory evaluations of porosity and water content, percolation tests, and tracer tests. Pump test methods have ranged from single well slug tests (Bouwer and Rice method) to multiple-well pumping tests (Jacob distance drawdown method, Cooper and Jacob time drawdown method). Field measurements have included both simple hand measurements to more sophisticated pressure transducers and data loggers, and data evaluations have been conducted by both analogue and digital methods.

Geophysical Testing: Mr. Gribi has directed several projects where geophysical data was collected and evaluated to assess subsurface conditions. Geophysical projects have involved the use of ground penetrating radar (GPR) and other electromagnetic tools to locate varied structures, such as tanks or drums. More sophisticated geophysical surveys have been conducted using resistivity, gamma ray, and neutron radiation tools in open borings to assess subsurface geologic and hydrologic conditions.

REPRESENTATIVE PROJECTS AND RESPONSIBILITIES

The following are brief summaries for several projects that Mr. Gribi has directed or for which he has had lead responsibility.

- **Soil and Groundwater Remediation; Union City, California.** At this private-sector clients site, Mr. Gribi conducted a pilot-scale soil vapor extraction test and developed criteria that he used to design, construct, and operate the full-scale unit. He prepared reports on the pilot test and the proposed design and submitted them to the regulatory agencies in support of applications for permits. He secured all equipment and performed initial system shakedown and optimization and subsequent system monitoring and performance evaluation (which is ongoing). Mr. Gribi is also monitoring the performance of the *in-situ* bioremediation system being used at the site.
- **UST Site Characterization, Feasibility Studies, and Remediation, Lafayette, California.** Conducted a comprehensive soil and ground water investigation that delineated a gasoline-impacted soil and ground water plume that had migrated beneath an adjacent building at shallow depths. Based on these results, we conducted a two-week vapor extraction pilot test that indicated that vapor extraction was the most viable remedial option for shallow soils beneath the site. Installed a 170-foot long horizontal vapor extraction at four feet in depth beneath the adjacent building. Conducted remediation and confirmation groundwater monitoring at the site, and site closure is expected in the near future.



- **UST Site Characterization and Remediation, Mountain View, California.** Mr. Gribi conducted site characterization that included soil boring investigations, installation and sampling of groundwater monitoring wells, and completion of groundwater aquifer (pump) testing. Also completed a short-term dual-phase extraction pilot test for this MTBE-impacted site. Based on these results, dual-phase (groundwater and vapor) extraction remediation was conducted over a two-month period in 2001. Hydrocarbon mass removal estimates indicated removal of over 90 percent of recoverable hydrocarbon plume mass. Mr. Gribi is currently conducting confirmation groundwater monitoring, and regulatory closure is expected in soon.
- **Groundwater Assessment and Remediation, Commercial Building, San Francisco, California.** Conducted a remedial investigation at a diesel UST site located in a basement parking garage in downtown San Francisco. The remedial investigation revealed the presence of approximately one foot of diesel product floating on the ground water surface. Negotiated closure requirements with regulatory agencies to include removal of free product and monitoring of downgradient ground water quality. Installed, operated, and maintained a free product recovery system in the basement parking garage. Regulatory site closure has been granted for this site..
- **Site Investigation Oversight, Santa Rosa, California.** Mr. Gribi provided third-party oversight of a field investigation that was being conducted by a property owner who was accusing one of its former tenants of responsibility for alleged soil and groundwater contamination. The property owner was directing the investigation. Representing the accused tenant, Mr. Gribi documented field activities and provided an independent assessment of the data and the findings. He prepared an oversight report and provided critical review comments on the site investigation report prepared by the environmental consultant serving the property owner.
- **Phase I & II ESA and UST Site Closure Activities, Emeryville, California.** Mr. Gribi conducted a Phase I ESA for this former sugar products facility that spanned three city blocks in Emeryville. Reviewed Phase II ESA results conducted by other consultants, and, for one of the parcels, conducted extensive soil and groundwater characterization relative to chlorinated solvents in groundwater. Also conducted soil and groundwater investigations relative to a former leaking USTs on another of the parcels, and negotiated regulatory closure requirements for this UST site. Conducted risk assessment activities for three separate site parcels, and obtained regulatory closure for two of the parcels. Also assisted in negotiations relative to regulatory approval for planned residential development of one of the site parcels.



- **Stormwater Management Issues, Wood Treatment Facility, Jasper, Oregon.** Mr. Gribi prepared a Spill Prevention Control and Countermeasure Plan (SPCCP) and a Stormwater Pollution Control Plan (SWPCP) for this facility. Also conducted a Preliminary Groundwater Assessment (PGA), and based on results of the PGA, conducted a Hydrologic Characterization for the facility. The Hydrologic Investigation included the drilling and sampling of eight investigative borings, collection of wetlands benthic sediment samples, and collection of stormwater channel soil samples. Results from these investigative activities indicated no significant impacts from CCA (copper, chromium, and arsenic) treatment activities.
- **Cleaning Products Facility Investigation and Remediation, Oakland, California.** Conducted a CPT/hydropunch investigation at this former cleaning products facility where tetrachloroethene (PCE) had been handled in bulk. Results indicated significant soil impacts, but only local shallow groundwater impacts. Conducted soil excavation in PCE source areas installed shallow, intermediate, and deep groundwater monitoring wells. Also conducted detailed groundwater aquifer testing to assess groundwater flow capabilities in the deep sand aquifer. Based on results of these activities, it appears that regulatory closure will be possible after one to two years of quarterly groundwater monitoring.
- **Soil Bioremediation Project, Eugene, Oregon.** Conducted soil sampling and laboratory analysis of a 1,800-cubic yard hydrocarbon-impacted soil stockpile. Laboratory results showed that: (1) the soil was impacted with diesel-range hydrocarbons only; and (2) approximately 90% of the soil was below the DEQ Level 2 Soil Matrix Cleanup Level. Mr. Gribi negotiated with DEQ to allow onsite burial and covering of the "clean" 90% of soil, and continued onsite treatment of the remaining 10% of "dirty" soil.
- **UST Site Remediation, Former ARCO Gas Station, Oakland, California.** Directed the removal and overexcavation of underground storage tanks (USTs) and hydraulic lift areas so that client could obtain Alameda County approval that no additional soil remediation would be required. This was necessary so client could sell the property to a large chain retail store with plans to build a new store at the site. Subsurface soils were sampled at strategic locations to prove that the overexcavation activities were effective. After submitting a report of findings, Alameda County issued a partial closure letter, which allowed the sale of the property to close escrow. After conducting five quarters of ground water monitoring, Alameda County granted final site closure.



- **UST Soil Remediation and Closure, Trucking Distributor, Carpinteria, California.** Coordinated removal and documentation of one gasoline/diesel UST. Subsequent overexcavation and soil boring investigation activities revealed that gasoline and diesel constituents had been remediated, but that motor oil-range hydrocarbons were still present in subsurface soils. Utilized historical records and chromatographic evidence to prove that the motor oil-range hydrocarbons resulted from the importation of hydrocarbon-tainted soils from a nearby roadcut which contained tar seeps. Based on these results, Santa Barbara County granted regulatory site closure.
- **Phase I ESA, Solvent Recycling Facility, Whittier, California.** Reviewed Cal-EPA files and Los Angeles County files to assess environmental liability associated with operation of a solvent and oil recycling and storage facility. The Phase I ESA revealed significant levels of chlorinated hydrocarbons in soil and ground water beneath the site. In addition, file reviews and interviews revealed that civil and possible criminal penalties were pending against the TSD operator for numerous violations of state and federal hazardous waste statutes. Based on these results, our client decided not to foreclose on this property.
- **Phase I and Phase II ESA, Metal Recycling Facility, Oakland, California.** A Phase I Environmental Site Assessment of a metal recycling facility was conducted for a lending institution. The results of the Phase I ESA indicated that past and present uses of the project site have not had an adverse impact on the project site environment. However, potential offsite environmental risks included: (1) An underground fuel storage tank located in the sidewalk adjacent to the project site; and (2) The presence of a commercial laundry on a contiguous parcel in the 1930s and 1940s. Based on these results, a Phase II ESA was conducted, which consisted of drilling and sampling two soil borings on the project site. Laboratory analysis of soil and ground water samples indicated that naphtha, a cleaning solvent commonly used in the dry cleaning business in the past, had impacted soil and ground water beneath the project site. These results were useful to the client in limiting their liability pursuant to a delinquent loan on the property.