

Geno Mammini, R.G.
Senior Project Hydrogeologist

Expertise

Water Resources
Hydrogeology
Public Supply Wells
Recharge (Siting and Enhancement)
Regulatory Compliance

Academic Background

B.S., Geology, California State University - Sonoma,
2000

Registrations

Registered Geologist: Arizona Registration No. 49075
(2008)

Licensed Geologist: Washington Registration No. 2903 (2011)



Certifications

Certified Environmental Manager: Nevada Registration No. 1939 (2005)

Professional Experience

Mr. Mammini joined Clear Creek Associates in June 2006. As a Senior Project Hydrogeologist with Clear Creek Associates, Mr. Mammini is responsible for managing hydrogeologic projects including groundwater investigations and conducting hydrologic studies for groundwater supplies. Mr. Mammini has managed the design and construction of numerous public supply wells, ASR wells, vadose zone injection wells, and groundwater recharge basins. Mr. Mammini has also conducted studies to enhance performance of recharge facilities and has given presentations on recharge enhancements and recharge siting considerations.

Representative Projects

Recharge Projects

Confidential Mining Client, Arizona

Conducted multiple field pilot recharge tests in support of remediation activities, data analysis, and report writing.

City of Chandler, Arizona, Tumbleweed Recharge and Recovery Site

Managed the design, installation, and testing of two high capacity ASR wells at the Tumbleweed site.

Town of Gilbert, Arizona

Managed USF/APP permitting modification at multiple vadose zone recharge facilities. Developed monitoring and contingency plans and designed replacement point of compliance wells. Additional activities included the redevelopment of two vadose zone wells for the Town's Municipal Facility and a basin infiltration enhancement pilot test for the Town's South Recharge Facility.



Metro Water District, Marana, Arizona

Basin recharge enhancement evaluation for the Avra Valley Recharge Project (AVRP) Facility.

City of Peoria, Arizona

Performance evaluation of two recharge basins at the City's Beardsley Road Facility. The project included detailed hydrogeologic investigation, pilot testing of recommended solutions, implementation and construction management of full scale remedy, and oversight of final testing. Design, construction management, and infiltration testing of a new basin at the Beardsley Facility were also performed. Additional activities for the City included the installation and testing of two vadose zone recharge wells for the City's Vistancia Facility.

City of Phoenix, Arizona, Cave Creek Water Reclamation Facility

Conducted a vadose zone well evaluation project for seven operational wells at the facility. The project included a determination of the causes leading to premature failure of the vadose zone injection wells, development of remedies to rehabilitate existing wells, and development of a new VZ well design for future VZ wells at the site.

City of Surprise, Arizona

Management of the installation and testing of five vadose zone recharge wells to recharge reclaimed water produced from the City's Special Planning Area-2 (SPA-2) Facility. Managed permitting issues associated with the existing APP for the facility.

Water Resource Projects

California Baptist University, Riverside, California

Management of a replacement supply well for the University.

First Solar Alpine Project, Palmdale, California

Management of multiple well assessments for several agricultural and domestic wells, and the installation and testing of a replacement well for the Alpine site.

City of Mesa, Arizona

Management of the design, installation, and testing of three new municipal supply wells - Desert Wells DW-18, DW-21, and DW-22.

The Pulte Group, Inc.

Performed an arsenic evaluation of a public water supply well in an area with naturally occurring arsenic and fluoride impacts. Evaluation included a spinner log analysis, depth specific sampling, and an assessment of additional nearby wells to develop potential blending scenarios. Additional projects for the Pulte Group include the field management of multiple water supply wells throughout the greater Phoenix area.

Environmental Projects

Abbott Nutrition, Casa Grande, Arizona

Management of weekly, monthly and quarterly compliance soil, groundwater, and wastewater sampling activities.



Confidential Mining Client, Arizona

Conducted pilot field geochemical and hydrochemical testing in support of remediation activities, data analysis, and report writing. Management of a groundwater investigation consisting of drilling coordination and oversight, construction management of numerous monitoring wells, soil and groundwater sample collection for chemical analyses, data analysis, and report generation.

Hexcel Corporation, RCRA Remediation, Kent, Washington

Management of a groundwater investigation as part of a Focused Remedial Action Plan. Drilling coordination and oversight, soil and groundwater sample collection for chemical analyses, data analysis, and report generation.

Phoenix-Goodyear Airport North Superfund Site, Goodyear, AZ. (City of Litchfield Park and City of Avondale)

Continued technical review for the City of Litchfield Park and the City of Avondale on issues related to the Phoenix-Goodyear North Superfund Site. Key aspects of the technical review include the on-going groundwater investigation and remediation of TCE and perchlorate impacted groundwater, including the scope and effectiveness of the existing groundwater remedy, the scope and design of additional response actions to protect municipal water supplies, response actions to address vertical cross-contamination of multiple aquifers via conduit wells, and plume containment and long-term remedy optimization.

Former Romac Environmental Technologies Facility, Gila River Indian Community, Arizona

Project Manager for an RCRA corrective action for TCE and PCE impacted groundwater at a former TSDF facility. Multiple groundwater and soil vapor investigations have been performed to delineate the impacts of PCE and TCE to soil and groundwater from historical operations at the facility. A Current Conditions Report was prepared to support the RCRA closure and a Conceptual Site Model was developed to document the extent of contamination and potential pathways. Providing on-going technical support to develop and evaluate potential corrective actions for impacted groundwater.

The Pulte Group – Phase I ESA and Cleanup of Hazardous and Non-hazardous Wastes, Wickenburg, Arizona

Investigated several Recognized Environmental Concerns (RECs) previously identified and provided oversight for the removal of abandoned material and waste at the site including buildings, trailers, a cattle dip tank, fencing, concrete irrigation laterals, wood debris and miscellaneous debris. Waste segregation, profiling, and removal activities were conducted during site cleanup activities. Unknown chemicals were characterized and segregated for disposal. The work was completed as part of a property exchange between the Pulte Group and the Sierra Club.

The Pulte Group - Wildcat Shooting Range Characterization and Remediation

Evaluation of existing soil characterization data for lead impacted soils at the shooting range. Developed a field sampling grid and composite sampling strategy prior to conducting the soil sampling. The results were used to prepare the estimated volume of impacted soil necessary for removal to achieve the remediation goal. Provided oversight of the remediation contractor and verification sampling services for the metals stabilization, removal, and disposal of impacted soils.

Prior to joining Clear Creek Associates, Mr. Mammini worked at Cambria Environmental Technology, Inc. (now CRA), Kleinfelder, Inc., and Miller Brooks Environmental from 2000 to 2006. Mr. Mammini participated in numerous environmental projects throughout the southwest U.S. including soil and groundwater investigations, soil and groundwater remedial activities, and environmental site assessments.

Relevant projects include:



Shell Oil Product US

Numerous UST site investigations throughout Arizona, California, and Nevada.

Exxon/Mobil Oil Corporation

Numerous UST site investigations throughout Arizona.

ADEQ Park/Euclid WQARF Site

Groundwater sampling, data analysis, and reporting. Performed monthly groundwater sampling of multiple sentinel wells and University of Arizona production wells

ADEQ Lust Site, Capital Gas, Holbrook, AZ

Mr. Mammini supervised soil excavation and sampling activities, insitu chemical oxidation applications, and groundwater monitoring well installation and sampling activities.

ADEQ Lust Site, Jack's Place, Holbrook, AZ

Mr. Mammini performed insitu chemical oxidation applications, hydrogen peroxide well injections, and groundwater monitoring well sampling activities.

ADEQ Lust Site, Navajo Inn, Holbrook, AZ

Mr. Mammini performed insitu chemical oxidation applications, hydrogen peroxide well injections, and groundwater monitoring well sampling activities.

Arizona Army National Guard, Papago Military Reserve

Mr. Mammini performed hydrogen peroxide injection treatments and groundwater monitoring and sampling.

Sonoma Fire Department

Performed multiple UST site investigations and performed data analysis.

Presentations

Mammini, G. 2008, *Building a Better Vadose Zone Well*. 24th Annual Tri-State Seminar-on-the-River, September 2008.

Mammini, G., 2010, *GW Recharge: Tips for Siting, Design, and O&M*. 26th Annual Tri-State Seminar-on-the-River, September 2010.

Mammini, G., 2012, *Water Well Rehabilitation*. 28th Annual Tri-State Seminar-on-the-River, September 2012.

