John H. Kramer, PhD

Sonora Division Manager/Senior Hydrogeologist – Senior Scientist

Statement of Position

Manager responsible for division strategic planning, personnel, operational budgets, CEQA/NEPA documentation and senior peer review, provide technical expertise on groundwater and vadose zone processes, fate and transport of subsurface contaminants, remediation, liner leakage evaluation and alternative evaporative cap design evaluation, waste discharge permit negotiations and compliance expertise.

Areas of Expertise

Oversee preparation of CEQA documentation, groundwater quality evaluation and remediation: plan; design and install groundwater monitoring wells, write and perform groundwater sampling and analysis plans; oversee data collection and groundwater quality sampling; evaluate laboratory QA/QC reports; design and evaluate compacted soil liners and geomembrane barriers; supervise geotechnical soils investigations and reports for construction, manage materials testing programs for soils (design specifications, compaction, etc.), oversee preparation of Construction Quality Assurance plans, oversee implementation of construction quality control projects and concrete/welding/fireproofing special inspections.

Industries Served

- Development
- Mining
- Agriculture
- Public Works (Schools)

Registration/Certification

- Certified Hydrogeologist -State of California No. 182
- Professional Geologist-State of California No. 4882

Representative Experience

Dr. Kramer has 25 years of experience in geological science and mapping. Specifically, his expertise includes:

- CEQA/NEPA Compliance
- Permit compliance services for discharges of liquid and solid wastes to lands in California, stormwater pollution prevention, and mine waste reclassifications;
- Environmental Site Assessments (Phase I and Phase II), Risk Assessments
- Hydrogeologic evaluations of groundwater availability in fractured rock terrain.
- Subsurface investigations and remediation of soil and groundwater for many contaminant types;
- Vadose zone hydrology for monitoring soil moisture at waste management units, and evaluating environmental risks from soil contamination;
- Initial Studies, Mitigated Negative Declaration and Environmental Impact Reports;
- Systems integration for digital field mapping and data collection;
- Presentations to the public, professional organizations, clients, and regulatory agencies. (Dr. Kramer has taught numerous short courses for professional peers, and chaired technical sessions on advanced earth technologies at national professional meetings. A list of published abstracts, peer-reviewed articles, book chapters and presentations is available upon request);
- Public service, a former trustee of the Vallecito Union School District and a former city planning commissioner.

Dr. Kramer came to Condor from the Vadose Zone Research Laboratory at the University of California Santa Barbara where he invented a vadose zone monitoring system having wick layer enhancement (U.S. Patent No. 5,272,910). He served as peer-reviewer for the Nuclear Regulatory Commission and consulted to DOE at Hanford and Rocky Flats. Dr. Kramer is co-author of the U.S.G.S. Gothic Geologic Quadrangle Map (GQ-1689). Since joining Condor he has focused his professional geologic work on the Sierra Nevada and adjoining terrain. In addition to management and technical project duties, Dr. Kramer integrates Condor client services with the latest applicable science and advanced technology.

CONDOR

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Sonora Division Manager/Senior Hydrogeologist – Senior Scientist

Special Training

- Hazwoper Training – 40-hour and annual 8-hour refreshers OSHA – 29 CFR 1910-120
- 8-hour annual mine safety training MSHA, U.S. Department of Labor
- Nuclear safety

Professional Organizations

Am. Geophys. Union
Am. Soc. Test. Mat.
Groundwater Res. Assoc.
Geol. Soc. Am.
Nat. Ground Water Assoc.
Calif. Onsite Wastewater Association

Education

MS - Geochemistry
PhD - Interdisciplinary - Geology, Geography and Environmental Engineering

Software Knowledge

Microsoft Office Applications
PenMap/GeoMapper®
ArcVoewArcPad®

Selected Projects

- Alpine County: Bear Creek EIR
- Foster Farms: Biological Reduction Plant Negative Declaration
- Moffat and Nichol: Pine Mountain Lake dredging project Initial Study and Mitigated Negative Declaration
- CCWD: Groundwater monitoring program designs, reporting and MRP compliance at six waste discharge sights at municipal treatment works, (17 wells)
- The Ranch Sewer Maintenance District (Sacramento County): Waste Discharge negotiations, groundwater plan, and compliance monitoring (12 wells)
- City of Stockton: Groundwater well installation, Hydrogeological Analysis of Regional Sewage Treatment Plant fro BPTC, and compliance monitoring (18 wells)
- City of Hughson: Municipal Treatment Plant Hydrogeologic Evaluation and discharge compliance monitoring (10 wells)
- City of Livingston: Industrial Wastewater Treatment Plant groundwater monitoring plan and compliance (11 wells)
- CCC: Hydrogeologic Analysis of Susanville CCC and High Desert Prison Spray Discharge Fields (18 wells), deep monitoring well design and installation, groundwater sampling and analysis plan
- CDCR: Mule Creek State Prison Groundwater Monitoring Plan, well design and installation, sampling and analysis plan (10 wells)
- CDCR: Chuckawalla Valley State Prison, Agronomic Effluent Management Program, groundwater monitoring plan, well installation. (3 wells)
- Foster Farms: Numerous sites including Livingston Reclamation Fields, Cedar Hatchery, Manure Storage Facility, and UST sites; Reports of Waste Discharge, groundwater degradation analyses, liner leakage evaluations, alternative liner designs.

Professional History

1994 – Present Condor Earth Technologies, Inc.
Senior Hydrogeologist – Project Manager for subsurface investigations and regulatory compliance.

1992 – 1994 Arcadis/Geraghty and Miller
Principal Scientist - Project management and technical review for vadose zone study at a nuclear weapons facility, Environmental Site Assessment (ESA), PCE contamination, underground storage tanks, neutron probe monitoring at landfills.

1988 – 1992 Vadose Zone Research Lab, UCSB
Staff Researcher – Conducted EPA-sponsored research, conducted laboratory and field experiments, lectured.

1973 – 1988 Sobek Expeditions, Angels Camp, CA
Expedition Geologist and Project Manager

CONDOR

Publications and Presentations

Publications

2001 Rutledge, David, John Kramer and Jack Gnipp. Advances in Real Time GPS Monitoring of Landslides, Volcanoes and Structures. 10th FIG International Symposium on Deformation Measurements. March 19-22, Orange, California,

2000 John H. Kramer and George Ball. Calibrating Computerized Landscapes with Digital Mapping, GPS, and Digital Photography for Internet Distribution. Poster. Geological Society of America Annual Meeting, Reno NV.

2000 John H. Kramer and David Rutledge. Advances in Real-Time Deformation Monitoring for Landslides, Volcanoes ands Structures (abstract). Program with Abstracts V43(4): 97. Association of Engineering Geologists 43rd Annual Meeting, San Jose California. Also submitted to Environmental and Engineering Geoscience.

2000 John H. Kramer. Digital Mapping Systems for Field Data Collection. In Proceedings: Digital Mapping Techniques '00 A Workshop Sponsored by the American Association of State Geologists and the USGS, May 17-20 - Lexington, KY, http://pubs.usgs.gov/openfile/of00-325/kramer.html.

2000, John H. Kramer and Robert Hoagland. Dewatering Strategies to Reduce Environmental Risk at Clay-lined Tailings Ponds. Proceedings: Tailings Dam 2000, a Joint Specialty Conference of the Association of State Dam Safety Officials and the U.S. Committee on Large Dams, March 28 - Las Vegas, NV.

2000, John H. Kramer, Erin Mutch and George Ball. Geographic Information Systems (GIS). In Standard Handbook Of Environmental Science, Health and Technology, McGraw-Hill, New York, pp.8.99-9.105.

2000, John H. Kramer. Neutron Probes.). In Standard Handbook Of Environmental Science, Health and Technology, McGraw-Hill, New York, pp.11.113-11.123.

1999, John H. Kramer. Computerized Field Mapping for the New Millenium. Abstracts with Programs Geological Society of America, Annual Meeting Denver, Colorado, V.31, October 1999

1998, John H. Kramer. Advances in Digital Field Mapping. Abstracts with Programs, V.30(7), October, 1998. Abstracts with Programs Geological Society of America, Annual Meeting Toronto, Ontario, Canada. October 26-29, 1998.

1998, Brimhall, George, Nunnelley, G., Hillman, B., Kramer, J. Direct Digital Field Mapping using pen-based PC computers supported by differential global positioning systems and laser range finders. Abstracts with Programs Geological Society of America, Annual Meeting Toronto, Ontario, Canada. October 26-29, 1998.

1997, John H. Kramer. Future: Geologic Mapping as a Digital Art. Abstr. Geological Society of America, Annual Meeting Salt lake City, UT. October 18-24, 1997

1997, John H. Kramer and John Pradenas, Explore Remote Possibilities- Dedicated and Programmable Data Loggers are Popular Monitoring Tools. *International Groundwater Technology*. 3(2):16-19.

1997, John H. Kramer, Pete Dohms, Review of ASTM Standards on Ground Water and Vadose Zone Investigations: Drilling, Sampling, Well Installation and Abandonment Procedures, *EOS*, 78(3):23. American Geophysical Union, Washington, D.C.

1997, John H. Kramer, Tom Lockhart, Mark Ankeny and Jeffrey Forbes, Managing Nitrate in Groundwater Impacted by Human and Animal Wastes, in : Proceedings of the California Plant and Soil Conference, California Chapter of the American Society of Agronomy and the California Fertilizer Association.

1996, John H. Kramer, Vadose Zone Monitoring Methods. *Waste Business Magazine*, 7(1):24-27.

Publications and Presentations continued

Publications continued

1996, John H. Kramer. Landfill Vadose Zone Monitoring Strategies. *International Groundwater Technology*. 2(1):14-24.

1996, John H. Kramer and Stephen J. Cullen. Soil Bioventilation and Modeling of Airflow in Soil. Manual of Environmental Microbiology. American Society of Microbiology, ASM Press, Washington D.C., pp 746-752.

1996, ASTM Draft Standard Test Method for Logging *in situ* Moisture Content and Density of Soil and Rock by the Nuclear Method in Horizontal, Slanted and Vertical Access Tubes. Co-author with Eric Dunlap, ASTM Philadelphia, PA..

1995, Lockhart, T.R., J.H. Kramer, R.C. Dixon. Real-Time Mapping Systems Enhance Data Gathering and Productivity in Precision Agriculture. In: Agronomy Abstracts, Proceedings 87th Annual Meeting American Society of Agronomy, Crop Science Society of America, Soil Science Society of America, St. Louis, Missouri, October 29-November 3, 1995: 59.

1995, Kramer, John H. and Thomas Lockhart. *Real-Time Mapping Systems Enhance Data Gathering and Productivity in Precision Agriculture: A software Demonstration*. In: Agronomy Abstracts, Proceedings 87th Annual Meeting American Society of Agronomy, Crop Science Society of America, Soil Science Society of America, St. Louis, Missouri, October 29-November 3, 1995: 67.

1995, Stephen J. Cullen, John H. Kramer, Jon R. Luellen. A Systematic Approach To Designing A Multiphase Unsaturated Zone Monitoring Network. *Ground Water Monitoring and Remediation*, . 15 (3): 124-135.

1994, John H. Kramer. *Vadose Zone Monitoring Strategies Employing Horizontal Neutron Moisture Logging*, Ph.D. Dissertation, University of California Santa Barbara.

1994, John H. Kramer and Stephen J. Cullen. A Review Of Vadose Zone Flow and Transport Models, in *Handbook of Vadose Zone Characterization and Monitoring*, Editors, Lorne G. Wilson, Stephen J. Cullen, Lorne G. Everett, Lewis Publishers, Chelsea, MI.

1994, John H. Kramer and Barry Keller. Understanding the Geologic Framework of the Vadose Zone and Its Effect on Storage and Transmission of Fluids, in *Handbook of Vadose Zone Characterization and Monitoring*, Editors, Lorne G. Wilson, Stephen J. Cullen, Lorne G. Everett, Lewis Publishers, Chelsea, MI.

1994, John H. Kramer, Stephen J. Cullen, and Lorne G. Everett. Vadose zone Monitoring with the Neutron Moisture Probe, in *Handbook of Vadose Zone Characterization and Monitoring*, Editors, Lorne G. Wilson, Stephen J. Cullen, Lorne G. Everett, Lewis Publishers, Chelsea, MI

1994, Stephen J. Cullen, John H. Kramer, Lorne G. Everett and Lawrence Eccles. Is Ground Water Monitoring Illogical, in *Handbook of Vadose Zone Characterization and Monitoring*, Editors, Lorne G. Wilson, Stephen J. Cullen, Lorne G. Everett, Lewis Publishers, Chelsea, MI

1994, Cullen, S.J., John H. Kramer, and Jon R. Luellen. Risk-based approach to the design of a vadose zone monitoring system for a solid waste landfill. In: *Proceedings, 1994 Air and Waste Management Association Annual Meeting, Cincinatti, Ohio*, Air and Waste Management Association, Pittsburg.

1994, Cullen, Stephen J., John H. Kramer, and Randy T. Ogg. A systematic approach to Designing a Multiphase Unsaturated Zone Monitoring Network. In: G. Gambolati (ed.), *Proceedings of the International Symposium on Advanced Methods for Groundwater Pollution Control, May 1994, Udine, Italy.* Published by the International Center for Mechanical Sciences, Udine, Italy.

1994, Phillip E. Gagnard, T.-C Jim Yeh, Rajesh, Amado Guzman, and John H. Kramer. Simulation of the Wicking Effect in a Two-Layer Soil Liner System. *Waste Management Research.*

Publications and Presentations continued
Publications continued

1993, Everett, Lorne G., John H. Kramer, Stephen J. Cullen, Vadose Zone Monitoring System Having Wick Layer Enhancement, U.S. Patent #5,272,910.

1993, John H. Kramer, P. E. Gagnard, S. J. Cullen. Wick Layer-Enhanced Vadose Zone Monitoring, (Abstract). AGU 1993 Fall Meeting Dec.6-10, 1993. Published as a supplement to *EOS, Transactions*, American Geophysical Union, Washington D.C.

1993, John H. Kramer, Reply to "Discussion of 'Vadose Zone Monitoring with the Neutron Moisture Probe' by Michael Williams." *Ground Water Monitoring Review*, 13(1), 161.

1992, John H. Kramer, Stephen J. Cullen, Lorne G. Everett. Vadose Zone Monitoring with the Neutron Moisture Probe, *Ground Water Monitoring Review*, 12 (3), 177-187 (Invited Paper).

1992, Lorne G. Everett, Stephen J. Cullen, and John H. Kramer, Direct and indirect pore liquid monitoring in the vadose zone, Technologies for Environmental Cleanup: Soil and Groundwater, Secretariat EUROCOURSES, Joint Research Centre 1-21020 ISPRA (Varese) Italy.

1992, John H. Kramer, Application of Neutron Probes to Environmental Monitoring (Abstract). In: *Proceedings of the Pacific Division American Association for the Advancement of Science Annual Meeting*, University of California Santa Barbara.

1992, Stephen J. Cullen, John H. Kramer, Lorne G. Everett and Lawrence Eccles. Is Ground Water Monitoring Illogical? *Ground Water Monitoring Review*, 12 (3), 177-187 (Invited Paper).

1991, John H. Kramer, Lorne G. Everett and Stephen J. Cullen, Innovative Vadose Zone Monitoring at a Landfill Using the Neutron Probe; *Proceedings of the 1991 Outdoor Action Conference, NWWA 5th Outdoor Action Conference*, Las Vegas, NV.

1991, D.L. Gaskill, F.E. Mutschler, John H. Kramer, John A. Thomas, and Stephen G. Zahony, Geologic Map of the Gothic Quadrangle, Gunnison Co., CO; Map GQ-1689, U.S. Geological Survey Geologic Quadrangle.

1990, John H. Kramer, Lorne G. Everett, Lawrence A. Eccles, and David Blakely, Contamination Investigations Using Neutron Moderation In Grouted Boreholes - a Cost Effective Technique, : in *Minimizing Risk to the Hydrologic Environment*, Alexander Zaporozec, Editor, Kendall/Hunt Publishing Company, Dubuque, IL, p.234-242.

1990, John H. Kramer, Lorne G. Everett, and Lawrence A. Eccles, Effects of well construction materials on neutron probe readings with implications for vadose zone monitoring strategies, : in *Proceedings of 4th Annual Outdoor Action Conference on Aquifer Restoration, Groundwater Monitoring and Geophysical Methods*, NWWA, Dublin, OH.

1988, John H. Kramer, Electromagnetic VLF Surveys: A Primer; in *California Mining Journal*, v.57, n.11, p.64-68.

1984, John H. Kramer, Electromagnetic VLF Surveys; in *California Mining Journal*, v.53, n.12, p.19.

1977, John H. Kramer, Petrology of the Mt Owen Stock, Gunnison County, Colorado: The Genesis of K-feldspar Phenocrysts in Porphyritic Rocks. Unpublished Masters Thesis, Penn State University.

1972, Bruce Aitken, John H. Kramer, Mel Kuntz, Processes leading to compositional and textural variations in stocks, dikes, and sills of the Ruby Range, Gunnison County, CO.; in *GSA Abstracts w/ Programs*. v.4, n.7, p.431.

Publications and Presentations continued
Presentations, Workshops and Short Courses

2000, Lecture: **Technical Advances in Field Data Collection and Mapping.** Second Annual Symposium on Progress in Digital Mapping sponsored by Earth Resources Center Digital Mapping Lab, U.C. Berkeley, November 17, Berkeley, California.

2000, Poster Presentation.. **Calibrating Computerized Landscapes with Digital Mapping, GPS, and Digital Photography for Internet Distribution.** Geological Society of America Annual Meeting, Novemebr 16, Reno NV.

2000, Oral Presentation: **Advances in real-time Deformation Monitoring for Landslides, Volcanoes ands Structures.** Association of Engineering Geologists 43rd Annual Meeting, September 26 - San Jose California.

2000, Oral presentation: **Dewatering Strategies to Reduce Environmental Risk at Clay-lined Tailings Ponds.** Presented at Tailings dam 2000, a Joint Specialty Conference of the Association of State Dam Safety Officials and the U.S. Committee on Large Dams, March 28 - Las Vegas, NV.

2000, Oral presentation: **Precise Automated Monitoring for Deformation of Dams Using the Global Positioning System (GPS).** Presented at Tailings dam 2000, a Joint Specialty Conference of the Association of State Dam Safety Officials and the U.S. Committee on Large Dams, March 28 - Las Vegas, NV.

2000, **GIS Field Data Collection.** Presented at the 2000 ESRI Business Partner Conference Workshop on ArcPad. March 12-14 - Palm Springs, CA.

1999, Lecture: **Digital Field Data Collection Tools.** Digital Mapping Workshop Following the GSA Cordileran Section Meeting, June 5 – Earth Resources Center, University of California, Berkeley

1999, Short Course: **Capturing GIS Data Using GPS.** University of California Riverside Extension Programs in GIS, February 22, 1999.

1998, Short Course: **Buck Rogers, Field Geologist: 21st Century Electronic Wizardry for Mapping and Field Data Collection.** Toronto, October 25, Geological Society of America Continuing Education Course, taught with Todd Fitzgibbon, USGS.

1998, Workshop: **GPS for Secondary Curriculum.** Earth and Space Science Technology Education Project (ESSTEP) organized by the Geological Society of America; Cypress College, Cypress, CA, July 6-8, 1998; and Boulder, CO, July27-29, 1998.

1998, Short Course: **Desktop GIS and Remote Sensing Techniques and Technologies for Environmental Hydrogeology**, Denver, CO, June 15-17, NGWA Workshop, taught with Steve Scott, Neven Kresic and others.

1997, Short Course; **Buck Rogers, Field Geologist: 21st Century Electronic Wizardry for Mapping and Field Data Collection.** Salt Lake City, UT, October 19, Geological Society of America Continuing Education Course, taught with Todd Fitzgibbon, USGS.

1997, Workshop: **Buck Rogers, Project Manager: Satellite and Laser Technologies for Computerized Mapping and GIS Data Collection Part I and Part II**, Las Vegas, NV, April 1-3, 1997, NGWA 11th Annual Outdoor Action Conference.

1996, Short Course: **Geographic Information Systems (GIS) and Computerized Field Data Entry**, Burlington, VT, August 21-23, 1996, offered through E^3 Environmental Education Enterprises, Columbus, OH, taught with Milovan Beljin.

1996, Short Course: **PenMap Level I Users Certification Class**, Columbia College, Columbia, CA , May 31-June1, 1996.

Publications and Presentations continued

Presentations, Workshops and Short Courses continued

1996, Workshop: **Mapping the Future: New Technologies for Computerized Mapping and GIS Data Collection Part I and Part II**, Las Vegas, NV, May 13-15, NGWA 10th Annual Outdoor Action Conference.

1996, Invited Reviewer at Field Inspection Conference, Field Testing Plan for Unsaturated Zone Monitoring and Field Studies, University of Arizona, Maricopa Agricultural Research Facility. U.S. March 5, 1996. Nuclear Regulatory Commission RS-RES-94-040.

1996, Short Course: **PenMap Level I Users Certification Class**, Columbia College, Columbia, CA, January 7-8, 1996.

1995, Short Course: **Geographic Information Systems (GIS) and Computerized Field Data Entry**, Austin Texas, December 6-8, 1995, offered through E^3 Environmental Education Enterprises, Columbus, Ohio

1995, Short Course: **PenMap Users Certification Class**, Columbia Community College, Sonora, California, June 7-9,1995.

1995, Workshop: **Expedited Site Characterization and Enhanced Project Management with Real-Time Computerized Mapping, Part I and Part II**, Las Vegas, NV, April 30-May 1, NGWA 9th Annual Outdoor Action Conference.

1995, Presentation: **Horizontal Neutron Moisture Monitoring For Performance Assessment of Engineered Barriers at Waste Facilities, and Engineered Wick Enhancements for Monitoring Unsaturated Soil or Fill**, Vadose Zone Workshop, Environmental Technical Services, Westinghouse Hanford Company.

1993, Short Course: **Vadose Zone Hydrology, soil physics, application of vadose zone monitoring techniques, and computer models appropriate to estimating fate of contaminants in the vadose zone**, California Department of Toxic Substances Control, Sacramento, CA. (Invited speaker).

1992, Short Course: EPA-Sponsored training for workers at DOE Rocky Flats Plant. lectures at(1) **Hydrogeologic controls of contaminant movement in the vadose zone**, (2) **Application of indirect monitoring techniques to vadose zone monitoring problems**, October 12-15.

1992, Institute for Crustal Studies Seminar Series, UCSB: **Issues in Vadose Zone Monitoring Network design: Problems and Promising Practical Solutions.**

1992-91, Workshop: **Field demonstration of neutron soil moisture logging, lysimetry and other monitoring techniques**, NGWA Outdoor Action Conference, Las Vegas, NV. May 9-13, 1992; May 13-16,1991

1991, Three invited presentations at Rocky Flats Plant DOE facility: **Vadose Zone Monitoring Sampling and Remediation, September** 17-19, (1) Hydrogeologic Parameters Pertinent to Vadose Zone Monitoring, (2) Neutron Probe Monitoring: Principles and Practices, (3) Neutron Probe Monitoring: Case Studies and Innovative Monitoring Strategies.

1991, Short Course: **Groundwater Basics and Monitoring Network Design**, for Innovations '91, two 2-day technical training sessions August 1-2 and 8-9, sponsored by Brainard-Kilman Company.

1991, Presentation: **Hydrogeologic parameters pertinent to vadose zone characterization at the Vandenberg AFB, CA**, Underground Storage Tank Geographic Information System Training Program.

1990, Presentation: **Proactive Post-Closure Vadose Zone Monitoring Strategy Using Neutron Logs;** Western Regional Meeting of the Association of Solid Waste Management Professional, GRCDA, Silver Spring, MD.