



# PROFESSIONAL PROFILE



## Adam H. Love, PhD

### Vice President | Principal Scientist

### Director of Risk Management and Litigation Services

#### EXPERIENCE SUMMARY

Over twenty-five years of experience in environmental science/engineering, use of forensic signatures to determine source and timing of contamination, and contaminant assessment, transport, remediation, and apportionment/allocation.

- Roux, Board of Directors, 2020-Present; Director of Risk Management and Litigation Services 2020-Present; Vice President 2016-Present, Litigation Practice Group Leader 2016-2020; Principal Scientist, 2013-Present.
- Johnson Wright Inc., Principal Scientist, Environmental Forensics Practice Leader 2009-2013.
- Lawrence Livermore National Laboratory, Principal Investigator/Scientist, Forensic Science Center, 2002-2009.
- California Department of Health Services. Drinking Water Program/Technical Programs Branch, Standards and Technology Unit Staff, 2000-2002.
- University of California, Berkeley, Graduate Student Researcher/Instructor, 1996-2002.
- Franklin & Marshall College, Undergraduate Researcher/Laboratory Teaching Assistant, 1994-1996.

#### CONTACT INFORMATION

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#### EDUCATION

Post Doctorate, Forensic  
Science Center, Lawrence  
Livermore National  
Laboratory, 2004

PhD, Environmental  
Engineering, University of  
California at Berkeley, 2002

MS, Material Science and  
Mineral Engineering –  
Hydrogeology, University of  
California at Berkeley, 1998

BA, Geoscience, Franklin &  
Marshall College, 1996

#### TECHNICAL SPECIALTIES

Dr. Love directs Roux's Risk Management and Litigation Services while providing forensic litigation support and expert witness services to clients throughout the United States on environmental litigation, environmental insurance coverage, product liability, and toxic tort related matters. Dr. Love's experience includes strategic and technical analysis and guidance spanning numerous complex groundwater, soil, sediment, soil vapor and air contaminated sites, including assessments of human health and ecological risk. He has also provided technical analyses related to public policy for state legislative actions and federal advisory panels on a range of proposed environmental laws, regulations, and policy implementation.

Dr. Love's areas of expertise include:

- Environmental forensics (identifying sources and timing of chemical releases).
- Chemical/isotopic fingerprinting.
- Contaminant transport/fate in sediments, soils, water, groundwater, and air.
- Divisibility and apportionment or allocation of contamination among PRPs.
- Human (i.e., Toxic tort claims and Prop 65) and ecological exposure and risk assessment.
- Assessment of impacts from petroleum (crude oil, diesel, and gasoline), solvents (i.e. PCE, TCE, TCA, 1,4-dioxane), pesticides, PCBs, PAHs, PFAS, radionuclides, and metals.
- Assessment of potential risks posed by emerging contaminants.
- Source water identification, quantity, and quality evaluations.
- Environmental site characterization and remediation.

Dr. Love's expertise has been developed through a unique variety of university, municipal and private party technical consulting work. His capabilities often utilize the use of advanced models and analytic methods to understand and interpret chemical characterization, transport, and fate for a range of potential exposure scenarios. By employing multiple lines of scientific evidence, when available, analyses that couple field measurements, fate and transport calculations, and historical operations/documents provide the bases for opinions and results that are both technically credible and internally consistent.

## REPRESENTATIVE PROJECTS

### Per- and Polyfluorinated Alkyl Substances (PFAS)

- **Commercial Airport, California.** Perform AFFF site investigation in response to regulatory agency order for groundwater and potential source area soil assessment. Perform historical research to identify airport activities that could have resulted in PFAS releases.
- **Municipality, California.** Review existing site investigation data and advise on strategies for investigation and cleanup of PFAS released from a closed military base related to AFFF usage.
- **Private Developer, California.** Review Phase II site assessment data and advise on costs of further investigation and cleanup of PFAS related to AFFF usage at former fight fighting training location.
- **Chromium-plating facility, California.** Perform site investigation in response to regulatory agency order for groundwater and potential source area soil assessment.
- **Mid-size industrial, New York.** Sampled and evaluated groundwater impacts to determine the source(s), extent, and magnitude of PFAS concentrations in groundwater related to AFFF resulting from historic facility fire.
- **Closed Landfill, New York.** Sampled and evaluated groundwater and leachate impacts in response to NYSDEC order.
- **Small Industrial Facility, New Jersey.** Perform site assessment and remediation of PFAS chemical related to historic 3M operations for completion of property transaction.
- **Small Industrial Facility, New Jersey.** Perform site assessment and remediation of PFAS chemical related to ongoing operations as directed by NJDEP order.
- **Wastewater Treatment Plant, New Jersey.** Evaluate composition and magnitude of PFAS in effluent relative to NJPDES discharge limits. Used data to identify industrial sources discharging PFAS to WWTP.
- **Large Industrial Client, Nationally.** Testifying Expert in PFAS MDL cases as testifying expert.
- **Large Industrial Client, Internationally.** Develop forensic signatures database related to historic inventory of PFAS containing products used internationally. Evaluate the ability of the forensic signatures to provide useful data for determining source, timing, and/or relative contributions to co-mingled groundwater plumes.

### Sediment Contamination Reconstruction

- **Fox River Superfund Site, Wisconsin.** Expert Witness. Prepared an Expert Report evaluating the technical bases for a

range of methodologies used to allocate contribution of polychlorinated biphenyls (PCB) to contaminated sediments. Performed fate and transport analyses as the basis for allocation to estimate mass contributions from various PRPs.

- **Kalamazoo River Superfund Site, Michigan.** Evaluated the annual total suspended solid (TSS) discharges from 14 facilities to the Kalamazoo River sediments over the 25+ year relevant period of applicable discharges. Allocated TSS discharges to generator facility when secondary facility was used for wastewater treatment. Evaluated changes in facility TSS treatment efficiency and relative TSS contributions throughout the relevant period.
- **Passaic River (Diamond Alkali) Superfund Site, New Jersey.** Expert Witness. Evaluated available historical data, performed fate and transport analyses, and developed a detailed understanding of facility operations to support the facility designation of de minimis status.
- **Lower Duwamish Waterway and Harbor Island, Washington.** Evaluated available historical data, performed fate and transport analyses, and developed a detailed understanding of facility operations to support the assessment of the allocation of COC contribution.
- **Gowanus Canal Superfund Site, New York.** Expert Witness. Evaluated available historical data, performed fate and transport analyses, and developed a detailed understanding of facility operations to support the facility designation of de minimis status.
- **San Diego Harbor, California.** Expert Witness. Evaluated available historical data, performed fate and transport analyses, and developed a detailed understanding of facility operations to support an Expert Report that evaluated potential metals, PCBs, and petroleum releases from the Silvergate Power Plant.
- **San Francisco Bay, California.** Collected sediment cores from Naval Air Station Alameda and performed isotopic and chemical analyses that enabled reconstruction of historical sediment contamination.

### Industrial

- **Manufacturing Facilities, California.** Provided litigation support based on fate and transport analysis related to timing of groundwater contamination resulting from multiple potential PCE, TCE, TCA and 1,4-dioxane releases to groundwater managed by Orange County Water District. Additional chemical fingerprinting analysis was performed to distinguish on-site versus off-site contributions of chlorinated solvents and their degradation products to the associated groundwater plumes.

- **Industrial Facility, Arizona.** Expert Witness. Provided litigation support based on fate and transport analysis related to source and timing of groundwater contamination resulting from potential PCE, TCE, and TCA sources.
- **Former Military Facility, California.** Expert Witness. Evaluated claimed cleanup actions and costs related to site investigation and remediation of a former military site.
- **Former Military Facility, Kansas.** Expert Witness. Evaluated claimed cleanup actions and costs related to site investigation and remediation of a former military site.
- **Aerospace Facility, California.** Expert Witness. Evaluated available historical data, performed fate and transport analyses, and developed a detailed understanding of facility operations that provide the technical basis for assessing contribution of PCE, TCE, and TCA from various operations.
- **Transportation Spill, California.** Expert Witness. Prepared an Expert Report evaluating the potential ecological impact of an ink spill into a local river.
- **Former Military Facility, California.** Performed site investigation of soil and groundwater at a former military site to determine the extent and magnitude of historical solvents and petroleum releases in order to inform remedial strategy. Obtained regulatory closure under low-threat closure criteria.
- **Trichloropropane (1,2,3-TCP), California.** Evaluated potential sources of trichloropropane groundwater contamination in drinking water wells.

## Drycleaners

- **Pleasanton, California.** Evaluated site conditions and advised on investigation and remediation strategy. Developed conceptual site model. Developed strategy for regulatory interactions.
- **Santa Barbara, California.** Expert Witness. Prepared an Expert Report assessing sources of PCE contamination to soil and groundwater contamination, including drycleaner discharges into sewer system and releases at adjacent sites. Rebuttal Expert Report also assessed the expected remedial costs for PCE contamination at and emanating from the site.
- **San Jose, California.** Expert Witness. Prepared an Expert Declaration regarding the potential sources of PCE contamination to soil and groundwater contamination and the divisibility of the contamination from the potential sources.
- **Napa, California.** Expert Witness. Prepared an Expert Declaration regarding the potential sources of PCE contamination to soil and groundwater contamination.

- **Davis, California.** Expert Witness. Prepared an Expert Report regarding the potential sources of PCE contamination of groundwater.
- **Numerous Sites, Nationally.** Evaluation of the source, timing, and/or contribution from multiple PRPs to comingled PCE plumes from drycleaner sites related to environmental insurance claims.

## Heavy Metals

- **Battery Recycling Facility, California.** Expert. Evaluated available historical emissions/capacity data, performed fate and transport analyses, and assessed the extent and magnitude of lead and other heavy metals contamination in soils surrounding the Exide Technologies lead battery recycling facility. Worked together with lead regulatory agency to develop interior/exterior assessment and remediation protocols. Analyzed reported results of community blood lead data.
- **Steel Manufacturing Facility, California.** Expert Witness. Evaluated available historical operations, soil lead and arsenic data, and chemical signatures of steel manufacturing from soils within and adjacent to the historic steel manufacturing facility.
- **Facility and Regulatory Assessments of Hexavalent Chromium, California.** Evaluated how changes in regulatory rules and enforcement would impact facilities in Los Angeles County. Created inventory of facilities in LA County that emitted hexavalent chromium. Evaluated alternative technology to using hexavalent chromium for metal plating.
- **GIS Database of Potential Hexavalent Chromium Sources, California.** Using knowledge of industrial processes combined with industrial compliance and reporting documentation, developed a GIS database of potential hexavalent sources for a Southern California county.
- **Naturally-Occurring Hexavalent Chromium in Drinking Water, California.** Expert Witness. Assessed potential industrial sources and naturally occurring sources of hexavalent chromium to a municipal drinking water distribution system.
- **Hexavalent Chromium Air Emissions from a Metal Plating Facility, California.** Expert Witness. Modeled hexavalent chromium emissions from multiple sources of hexavalent chromium in an industrial area, including a metal-plating facility. The model was calibrated and validated using actual air sampling data. Determined the extent and magnitude of emissions target facility and the relative contribution compared to other nearby sources.
- **Metal Recycling Facility, California.** Assessed facility compliance with DTSC hazardous waste regulations. Negotiated with DTSC on behalf of client. Developed plan for

hazardous waste treatment/disposal that meets DTSC requirements.

- **Mixed Industrial Region, Indiana.** Evaluated historical operations, soil lead and arsenic data, and chemical signatures of potential industrial sources with locations on and adjacent to the historic industrial manufacturing facilities.
- **Metal Plating Facility, Indiana.** Expert Witness. Prepared an Expert Report regarding the evaluation of a claimed environmental release and associated costs that occurred during an electrical fire at a metal plating facility.
- **Metal Plating Facility, California.** Expert Witness. Prepared an Expert Declaration regarding the evaluation of the various former site operations that potentially contributed to site contamination.
- **Mineral Processing Facility, California.** Expert Witness. Prepared an Expert Report regarding the contribution of an accidental elemental mercury spill at the Searles Valley Minerals Operations Inc. site to the overall historic site contamination. Analyzed invoices and categorized cleanup costs into emergency spill costs vs. soil remediation activities.

## Petroleum

- **Petroleum Transfer Facility, California.** Expert Witness. Prepared an Expert Report assessing the release of gasoline, diesel fuel, and crude oil over 50+ years into the soil and sediment of Avila Beach, CA. Identified the source and timing of the historical contamination and the nature of the releases using multiple lines of scientific forensic techniques. Performed fate, transport and degradation analysis of gasoline, diesel fuel, and crude oil to determine the divisibility of “sudden and accidental” releases from frequent releases related to facility operations.
- **Pipeline Release, California.** Expert Witness. Performed technical evaluation of historical operations, extent and magnitude of impacts, and fate and transport pathways to develop model for an allocation of contribution among multiple pipeline companies, sewer operator, and oil recycling facility.
- **Pipeline Release, Oklahoma.** Expert Witness. Performed technical evaluation of extent and magnitude of impacts, fate and transport pathways, and bioremediation potential. Documented site cleanup activities were consistent with State of Oklahoma’s process for regulatory closure.
- **Retail Gasoline Stations, Colorado.** Expert Witness. Performed fate, transport, and degradation analysis of gasoline to determine the timing of gasoline releases. Prepared an Expert Report regarding the release of gasoline from 80+ fueling facilities throughout the state.

- **Crude Oil Refinery, California.** Expert Witness. Performed evaluation of timing of release and source of contamination related to historical refinery operations.
- **Used Oil System Collection and Recycling, California.** Expert Witness. Developed a report for the State of California on how to improve the state’s used oil recycling program. Provided testimony to CA State legislature on proposed used oil recycling incentive bills. Key technical contributor to stakeholder discussion on ongoing CalRecycle efforts for additional used oil recycling improvement.
- **Retail Gasoline Station, Maryland.** Expert Witness. Performed evaluation of timing of release and source of contamination impacting nearby groundwater. Evaluated contaminant contributions from adjacent property and both current and former owner/operator.
- **Underground Fuel Oil Tank, New York.** Expert Witness. Performed evaluation of timing of release and source of contamination for fuel oil impacting groundwater.
- **Long Island Sound, New York.** Expert Witness. Evaluated if the released liquid was an oil, as per Oil Pollution Act of 1990 (OPA 90).
- **Timing of Petroleum Release, Numerous States.** Performed fate, transport and degradation analysis of gasoline and fuel oil to determine the timing of releases at 200+ gasoline station and fuel oil sites related to environmental insurance claims.

## Landfills

- **Groundwater solvent plume, California.** Expert Witness. Evaluated the available operation information, site investigation data, and performed fate and transport analysis to determine the source, timing, and number of release events at landfill operating for over 50 years.
- **Multi-COC Contamination, New Jersey.** Evaluated the available operation information, site investigation data, and performed fate and transport analysis to determine the divisibility of the COC contamination among PRPs.
- **Multi-COC Contamination, Washington.** Evaluated the available operation information, site investigation data, and performed fate and transport analysis to determine the divisibility of the COC contamination among PRPs.

## Radionuclides

- **Radionuclide-containing Products Manufacturing, Pennsylvania.** Expert Witness. Evaluated available historical data, performed fate and transport analyses, and developed a detailed understanding of facility operations at the Safety Light Superfund Site that provided the technical basis for recommendations to DOJ on a feasible strategy for and potential allocation of arranger liability. Site contaminated with

numerous radionuclides (tritium [H-3], strontium [Sr-90], cesium [Cs-137], and radium [Ra-226]).

- **Release of Radionuclides from Testing Equipment, Oklahoma.** Evaluated whether the response actions taken were reasonable and necessary related to the investigation and remediation of a cesium [Cs-137] release.
- **Radionuclide Labeling Facility, California.** Sampled tree rings in the vicinity of a Lawrence Berkeley National Laboratory stack that emitted tritium [H-3] and analyzed tree rings in order to reconstruct facility emission for >50 years.

### Pesticides

- **Atrazine, Nationally.** Provided expert litigation support regarding the fate and transport of atrazine, timing of release, and potential impacts to drinking water sources.
- **Glyphosate, California.** Expert Witness. Provided deposition and trial testimony regarding the source of glyphosate contamination causing property damage on an adjacent parcel of land based on atmospheric transport, technology dispersal capability, site conditions, and impact patterns on parcel.
- **Chlordane, California.** Site investigation of chlordane impacts. Evaluate potential human health risk and appropriate cleanup remedy. Implement remedy under regulatory supervision.
- **Chlordane, Kansas.** Expert Witness. Opined on the reasonableness and necessity of the proposed cleanup at a BRAC military site.

### Human Exposure and Risk Assessment

- **Roundup MDL, Nationally.** Expert Witness. Evaluated the scientific basis of the claim that exposure to glyphosate and/or formulated product causes non-Hodgkin's lymphoma.
- **Chemical Vapor Exposure, Washington.** Expert Witness. Evaluated the source of chemical vapors and the potential for downwind vapor exposure to workers.
- **School District Astroturf, California.** Collected astroturf samples and conducted consumer product testing to provide data which supported the assessment of potential exposure pathways and human health risk assessment for children, workers, and recreational users.
- **Caustic Liquid Exposure, Michigan.** Expert Witness. Evaluated potential sources of caustic chemical liquids that resulted in worker skin burns.

- **Proposition 65 Phthalates, California.** Collected consumer product samples and conducted consumer product testing to determine potential consumer exposure pathways and magnitude.
- **Proposition 65 Heavy Metals, California.** Evaluated lead data and developed a testing and evaluation plan to determine levels of naturally occurring metals in identified food products.

### Explosive and Fire Assessment

- **Forensic Explosive Evaluation, California.** Expert Witness. Collected field samples and evaluated chemical and operational information to determine the likely cause of an explosion event at an industrial facility.
- **Forensic Deflagration Evaluation, California.** Expert Witness. Evaluated field reports, inventory, and operational information to determine the likely contributing causes of a deflagration event that occurred in a transportation vehicle.

### ADDITIONAL AREAS OF EXPERTISE AND EXPERIENCE

#### Weapons of Mass Destruction Preparation and Response

- Provide technical guidance and operational plan reviews for responding to WMD events. Technical guidance includes emergency response, site characterization, WMD forensics, site remediation, fate and transport, site closure. Co-led team in development of DHS/EPA Federal facility restoration guidance document for critical infrastructure.

#### Development of Chemical/Isotopic Signatures/Fingerprints

- Develop and validate new chemical/isotopic fingerprint strategies as well as utilize peer-reviewed techniques. Experienced with numerous approaches: intended chemical markers and additives, chemical component ratios, degradation analysis, isotope analysis, biomarkers, isomers/congener analysis.

#### Chemical Fate and Transport Modeling

- Conducts analyses using a variety of industry-accepted approaches, including analytic solutions and numerical models MODFLOW, MT3D, AERMOD; HYDRUS, BIOCHLOR, CAMEO/ALOHA, CALPUFF, HPAC. Determines aqueous and/or atmospheric plume migration exposure duration and magnitude.

## PUBLICATIONS

- Shapero, A.; Keck, A.; Love, A.H. (2023) "Background Influence of PM2.5 in Dallas–Fort Worth Area and Recommendations for Source Apportionment" *Air*. 1(4):258-278.
- Shapero, A.; Keck, S.; Goswami, E.; Love, A.H. (2023) Comment on "Impacts of Sugarcane Fires on Air Quality and Public Health in South Florida". *Environmental Health Perspectives*. 131(2):28001.
- Shapero, A.; Keck, S.; Goswami, E.; Love, A.H. (2023) Supplemental Analyses for Comment on "Impacts of Sugarcane Fires on Air Quality and Public Health in South Florida". Preprints. <https://www.preprints.org/manuscript/202302.0503/v1>
- Gihl, C.; Miller, M.; Taylor, M.; Love, A.H. (2023) Charging Ahead: Understanding the Potential Risks and Management Options for Battery Systems. *Environmental Claims Journal*. 35(1):1-16.
- Love, A.H.; Zdon, A.; Fraga, N.; Cohen, B.; Palacios Mejia, M.; Maxwell, R.; Parker, S.S. (2022) Statistical Evaluation of the Similarity of Characteristics in Springs of the California Desert, USA. *Frontiers in Environmental Science*.
- Zdon, A. and Love, A.H. (2020) Groundwater forensics approach for differentiating local and regional springs in arid Eastern California, USA. *Environmental Forensics*. 22(1-2):302-314.
- Boston, C; Love, A.H.; Keck, S. (2022) How the Scientific Community Studies Causation. In *Toxic Exposure and Disease: Perspectives from the Scientific, Regulatory and Legal Communities On Causation*. *The Journal of Science and Law*. 10(1), 1-17.
- Wespstead, B.; Adams, J.B.; Gerbig, C.; Love, A.H. (2020) Dry Cleaner Releases and Forensic Considerations. *Environmental Claims Journal*. 33(1): 7-27.
- Ram, N.M.; Schneider, M.W.; Gerbig, C.A.; Nevins, N.; Love, A.H. (2019) Allocating Cleanup Costs Among Potentially Responsible Parties. *Remediation*. 30:33-45.
- Zdon, A.; Rainville, K.; Buckmaster, N.; Parmenter, S.; Love, A.H. (2019) Identification of Source Water Mixing in the Fish Slough Spring Complex, Mono County, California, USA. *Hydrology*. 6, 26.
- Love, A.H. and Zdon, A. (2018) Use of Radiocarbon Ages to Narrow Groundwater Recharge Estimates in the Southeastern Mojave Desert, USA. *Hydrology*. 5(3):51.
- Boston, C; Love, A.H. (2018) Understanding the Uncertainty with Unregulated Contaminants. *American Bar Association. Environmental & Energy Litigation Committee Newsletter*. Spring 2018. 2(3):9-16.
- Zdon, A.; Davisson, M.L.; Love, A.H. (2018) Understanding the source of water for selected springs within Mojave Trails National Monument, California. *Environmental Forensics*. 19(2), 99-111.
- Baumann, J.; Oliver, D.H.; Dorrance, L.R; Love, A.H. (2018) Approaches to Reduce Conflict when Insuring the Environmental Cleanup of Closed Military Bases Intended for Redevelopment, *Environmental Claims Journal*. 30(2): 188-199.
- Dorrance, L.R.; Kellogg, S.; Love, A.H. (2017) What You Should Know About Per- and Polyfluoroalkyl Substances (PFAS) for Environmental Claims. *Environmental Claims Journal*, 29(4): 290-304.
- Zdon, A.; Davisson, M.L.; Love, A.H. (2015) Testing the Established Hydrogeologic Model of Source Water to the Amargosa River Basin, Inyo and San Bernardino Counties, California. *Environmental Forensics*. 16(4).
- Shelley, T.M.; Love, A.H. (2015) A Question of Proof: Using Isotope Analysis and Chemical Fingerprinting to Identify the Source of Contamination. *Environmental Claims Journal*, 27(3): 264-275.
- Kuo, I-Feng; Grant, C.; Gee, R.; Chinn, S.; Love, A.H. (2012) Determination of the Surface Effects on Sarin Degradation The *Journal of Physical Chemistry C*. 116 (17), 9631–9635.
- Campell, C.G.; Kirvel, R.D.; Love, A.H.; Raber, E. (2012) Decontamination After a Release of B. anthracis Spores. *Biosecurity and bioterrorism: biodefense strategy, practice, and science* 10(1):108-22.
- Love, A.H.; Bailey, C.G.; Hanna, M.L.; Hok, S; Vu, A.K.; Reutter, D.J.; Raber, E. (2011) Efficacy of Liquid and Foam Decontamination Techniques for Chemical Warfare Agents on Indoor Surfaces. *J. Hazardous Materials*. 196; 115–122.
- Watson, A; Hall, L; Raber, E; Hauschild, V.D.; Dolislagerd, F.; Love, A.H.; Hanna, M.L. (2011) Developing Health-Based Pre-Planning Clearance Goals for Airport Remediation Following Chemical Terrorist Attack: Introduction and Key Assessment Considerations. *Human and Ecological Risk Assessment: An International Journal*, 17(1): 2. 56.
- Watson, A; Dolislagerd, F.; Raber, E; Hall, L; Hauschild, V.D.; Love, A.H. (2011) Developing Health-Based Pre-Planning Clearance Goals for Airport Remediation Following a Chemical Terrorist Attack: Decision Criteria for Multipathway Exposure Routes. *Human and Ecological Risk Assessment: An International Journal*, 17(1): 57. 121.
- Campbell C.J., Love A.H. (2008) Monitoring Water Resources for Threats to Water Security. *New Topics in Water Resources Research and Management*. Henrik M. Andreassen (Ed.). Nova Science Publishers, Inc. pp. 195-235.
- Ramkumar, S.; Love, A.H.; Sata, U.R.; Kendall, R.J. (2008) Next-Generation Nonparticulate Dry Nonwoven Pad for Chemical Warfare Agent Decontamination. *Ind. Eng. Chem. Res.* 47: 9889-9895.
- Love, A.H. (2008) Determining Important Parameters Related to Cyanobacterial Alkaloid Toxin Exposure. *Advances in Experimental Medicine and Biology*. Hudnell, H. Kenneth (Ed.). 619:453-464.

Loui, A., Ratto, T.V., Wilson, T.S., McCall, S.K., Mukerjee, E.V., Love, A.H., Hart, B.R. (2008) Chemical vapor discrimination using a compact and low-power array of piezoresistive microcantilevers. *The Analyst*. 133(5): 608. 615.

M.R. Johnson, J.G. Reynolds, Love, A.H. (2008) Improving Used Oil Recycling in California. Contractor Report to the California Integrated Waste Management Board. California Environmental Protection Agency. May 2008. Publication #610-08-008.

Love, A.H., M.L. Hanna, P.R. Coronado, J.G. Reynolds (2005) Engineering surface functions groups on silica aerogel for enhanced cleanup of organics from produced water. *Separation Science*. 40:311-320.

Vogel, J.; Love, A.H. (2005) Quantitating Isotopic Molecular Labels with Accelerator Mass Spectrometry. *Methods in Enzymology* 402:402-22.

Love, A.H., J.R. Hunt, Vogel, J.S., J.P. Knezovich. (2004) Improving Tritium Exposure Reconstructions Using Accelerator Mass Spectrometry. *Analytical and Bioanalytical Chemistry*. 379(2): 198-203.

Love, A.H., Vance, A.L., Reynolds, J.G., Davisson, M.L. (2004) Investigating the affinities and persistence of VX nerve agent in environmental matrices. *Chemosphere*. 57: 1257-1264.

Love, A.H., B.K. Esser, J.R. Hunt. (2003) Reconstructing Contaminant Deposition in a San Francisco Bay Marina. *Journal of Environmental Engineering*. 129 (7):659.

Love, A.H., J.R. Hunt, J.P. Knezovich. (2003) Use of Carbon-14 and Tritium in Tree Rings to Reconstruct Tritium Exposure at Lawrence Berkeley National Laboratory. *Environmental Science and Technology*. 37 (19): 4330.

Love, A.H.; J.R. Hunt; M.L. Roberts; J.R. Southon, M.L. Chiarappa-Zucca; K.H. Dingley. (2002) Use of Tritium Accelerator Mass Spectrometry for Tree Ring Analysis. *Environmental Science & Technology*. 36(13):2848-2852.

Chiarappa-Zucca, M.L.; Dingley, K.H.; Roberts, M.L.; Love, A.H. (2002) Sample Preparation for Quantitation of Tritium by Accelerator Mass Spectrometry. *Analytical Chemistry* 74(24):6285-90.

Roberts, M.L.; Hamm, R.W.; Dingley, K.H.; Love, A.H. (2000) A compact tritium AMS system. *Nuclear Instruments and Methods in Physics Research Section B Beam Interactions with Materials and Atoms* 172(1-4):262-267.

## PATENTS

Systems and methods for generation of hydrogen peroxide vapor. United States Patent 08899556

Stabilizing Griess reagent for explosives detection. United States Application 20070065944

## PROFESSIONAL AFFILIATIONS

Advisory Council – Department of Civil and Environmental Engineering, University of California at Berkeley.

Editorial Board – *Journal of Environmental Forensics*

International Society of Environmental Forensics

American Chemical Society (ACS), Member #2301067

Organization for the Prohibition of Chemical Weapons US Analysis Team at Lawrence Livermore National Laboratory, 2004-2009



## EXPERT APPEARANCES AND REPORTS

- Short Creek Capital, LLC et al. v. MFA Incorporated. United States District Court for the Western District of Missouri. Case No. 3:22-cv-05021-WBG. Deposition February 16, 2023. Phase I Divisibility Trial Testimony October 2, 2023. Phase II Damages and Allocation Trial Testimony December 11, 2023. Expert Report. Supplemental Report.
- Emhart Industries, Inc. v. New England Container Company et al. and Emhart Industries, Inc. v. U.S. Air Force et al. In the District Court of Rhode Island. Case No. 06-218-S Consolidated. Deposition December 6, 2023. Expert Report.
- Michele Baker et al. v. Saint-Gobain Performance Plastics Corp., et al. United States District Court, Northern District of New York. Civ No. 1:16-CV-917 (LEK/DJS). Class Certification Phase Deposition Expert Report. November 20, 2020. Liability Phase Deposition November 29, 2023. Supplemental Expert Report.
- BTI 2014 LLC v. PricewaterhouseCoopers LLP et al. In the High Court of Justice, Business and Property Courts of England and Wales. Claim No. HC-2014-000954. Expert Report.
- Ross Johnson and Fern Johnson v. City of Rapid City, and the Rapid City Landfill. 7th Judicial District, Pennington County, South Dakota No. 51CIV23-000257. Expert Memorandum.
- Stephen Gordon v. Aggregate Industries – Northeast Region, Inc. Superior Court. Commonwealth of Massachusetts. Civil Action No. 2181-CV-01432. Deposition July 28, 2023. Expert Report.
- In re: Roundup Products Liability Litigation Wave 6 Evaluation of General Causation for non-Hodgkin Lymphoma (NHL). MDL No. 2741. 16-MD-2741-VC. Expert Report.
- David R. Hill and Kellie Ann Hull, and Oilfield Disposal Services, LLC, v. JP Energy Marketing LLC and Blueknight Energy Partners, LP. District Court of Love County. State of Oklahoma. Case No. CJ-2017-17. Oklahoma Corporation Commission Hearing Testimony July 21, 2023. Affidavit. Expert Report.
- Daniel Anderson v. Monsanto Company, Case No. 22AC-CC00968; Kimmy Draeger and Brenda Draeger v. Monsanto Company, Case No. 22AC-CC00137; Valorie Gunther v. Monsanto Company, Case No. 22AC-CC00965; Marty Hay and Lory Hay v. Monsanto Company, Case No. 22AC-CC00043. Circuit Court of Cole County. State of Missouri. Expert Report.
- San Bernardino County v. The Insurance Company of the State of Pennsylvania. United States District Court Central District of California. Case No. 5:21-cv-01978-PSG-JEM. Expert Report. Rebuttal Report. Deposition April 20, 2023.
- Weston Solutions, Inc. v. LANXESS Solutions, U.S. American Arbitration Association Arbitration. Case No. 01-19-0004-6183. Arbitration March 7, 2023. Deposition July 5, 2022.
- In re: Roundup Products Liability Litigation in re: Wave 5. MDL No. 2741. 16-MD-2741-VC. Expert Report.
- Camden County Municipal Utilities Authority v. ResinTech. Notice of Administrative Penalty Assessment, Industrial Discharge Permit No. 2899-CRI-1. Administrative Hearing. Expert Report.
- Stratford Holdings, LLC, v. Foot Locker Retail, Inc., et al. United States District Court for the Western District of Oklahoma. Case No. CIV-12-722-HE. Expert Report
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