

**EDUCATION**

1972, Bachelors in Chemistry, University of California at Irvine  
1986, Masters in Chemistry, California Polytechnic University at Pomona

**AWARDS AND COMMENDATIONS**

California Water Environment Association, Crystal Crucible award  
California Water Environment Association, Laboratory Committee Chair  
California Water Environment Association, San Francisco Bay section, Quality Assurance Person of the year  
US Department of Justice, Commendation

**CURRENT POSITION**

Currently President/Owner of William Ray Consulting, LLC a laboratory compliance consulting business formed in 2010

**PRIOR POSITIONS**

1973—1981, Jacob's Laboratories (formerly Pomeroy, Johnston and Bailey). Initially a bench chemist, rose to Laboratory Director.  
1981—1985, California Regional Water Quality Control Board, Colorado River Region. Sole operator of the Board's laboratory. Also conducted laboratory audits of permitted facility laboratories.  
1985-1995, Department of Health Services, Sanitation and Radiation Laboratory and the Environmental Laboratory Accreditation Program. Bench chemist in the Sanitation and Radiation Laboratory. Lead assessor for ELAP.  
1995 to 2013, State Water Resources Control Board. Manage the Board's quality management program.

**EXPERIENCES (TOTAL OF 49+ YEARS)**

19 years of quality assurance program management.  
15 years of laboratory bench experience conducting environmental testing for bacteria, physical properties, general chemistry, and metals.  
8 years radiochemical bench experience and 3 years theoretical and practical upper division coursework  
12 years of assessor experience.  
8 years laboratory compliance consulting  
2 years as temporary lab director (three 8-month periods for three separate clients)

**TNI RELATED EXPERIENCES (TOTAL OF 9+ YEARS)**

Member of the Laboratory Accreditation (LASEC) and Quality Systems Committees  
Associate member of the Radiochemical and LAB committees  
Basic Assessor training plus refresher training  
Radiochemical Assessor training  
Gap analyses and document creation relative to TNI standards

**PUBLICATIONS**

"Legally Defensible", Water Environment Laboratory Solutions, v16, issue 4, August/September, 2009  
"Twin Time Bombs in the Proposed Methods Update Rule", Water Environment Laboratory Solutions, v18, issue 2, April/May, 2011  
"The J flag doesn't Mean 'Junk'", Water Environment Laboratory Solutions, v18, issue 3, June, July, 2011  
"Neither Here nor There" A discussion on the final language of 40CFR Part 136.7, Water Environment Laboratory Solutions, v19, Issue 5, October, November, 2012

**TRAINING GIVEN (NOT A COMPLETE LIST)**

"Field Sampling and Analysis", November 2015  
"Understanding Data Qualifiers", April 2016  
"Review of ELAP Standards", October and November 2016  
"Best Available Practices for Implementing TNI Standards", October 2018 through March 2019

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