

## **Russell W. Long, Research Chemist, in EPA's National Exposure Research Laboratory**

Exposure Methods and Measurements Division

[Mailing Address](#)

[long.russell@epa.gov](mailto:long.russell@epa.gov)

**Area of Expertise:** Russell's research involves the development and evaluation of high-time resolution methods for gas phase criteria pollutants with emphasis currently placed on methods for ozone and 'true' nitrogen dioxide. His other research areas include: high-time resolution determination and speciation of fine particulate matter and its gaseous precursors; and determination of total reactive oxides of nitrogen and its speciated components in support of the proposed NO<sub>x</sub>/SO<sub>x</sub> secondary standard.

### **Select Publications:**

Delbert J. Eatough, Brett D. Grover, Woods R. Woolwine, Norman L. Eatough, Kimberly A. Prather, Laura Shields, Xueying Qin, Kerri Denkenberger, Russell W. Long and Robert Farber, "Source apportionment of 1-hr semi-continuous data during the 2005 Study of Organic Aerosols in Riverside (SOAR) using positive matrix factorization." *Atmospheric Environment*, 2008, 42 2706-2719

Jaron C. Hansen, Woods R. Woolwine III, Brittney L. Bates, Jared M. Clark, Roman Y. Kuprov, Puspak Mukherjee, Jacolin A. Murray, Michael A. Simmons, Mark F. Waite, Norman, L. Eatough, Delbert J. Eatough, Russell Long & Brett D. Grover, "Semicontinuous PM<sub>2.5</sub> and PM<sub>10</sub> Mass and Composition Measurements in Lindon, Utah, during Winter 2007" *J. Air & Waste Manage. Assoc.*, 2010, 60:346–355

FRM - Reference Method for the Determination of the Total Oxides of Nitrogen Component of the Indicator for Dry Deposition of Oxides of Sulfur and Nitrogen from the Atmosphere - prepared reviewed, and submitted to OAQPS for inclusion in the FRM docket, July 12, 2011 (NPR).

FRM - Reference Method for the Determination of the Particulate Sulfate Component of the Indicator for Dry Deposition of Oxides of Sulfur and Nitrogen from the Atmosphere - prepared reviewed, and submitted to OAQPS for inclusion in the FRM docket, July 12, 2011 (NPR).

FRM - Reference Method for the Determination of the Sulfur Dioxide Component of the Indicator for Dry Deposition of Oxides of Sulfur and Nitrogen from the Atmosphere - prepared reviewed, and submitted to OAQPS for inclusion in the FRM docket, July 12, 2011 (NPR).

EPA Report - EPA/600/1-11/002 - Federal Reference Methods for NO<sub>y</sub> and p-SO<sub>4</sub> for the New Combined NO<sub>x</sub> and SO<sub>x</sub> Secondary NAAQS, January 20, 2011

View more research publications by [Russell Long](#).

**Education:**

- Ph.D., Analytical Chemistry, Brigham Young University, 2002
- B.S., Chemistry, Southern Utah University, 1998

**Professional Experience:**

- Research Chemist (GS-1320-13), United States Environmental Protection Agency, Research Triangle Park, NC January 2006-present
- Physical Scientist (GS-1301-12), United States Environmental Protection Agency, Research Triangle Park, NC December 2002-January 2006
- Research Assistant, Department of Chemistry and Biochemistry, Brigham Young University, January 1999-December 2002
- Teaching Assistant, Department of Chemistry and Biochemistry, Brigham Young University, August 1998-January 1999