

Journal Articles

Ekstrand A.L., Webley P.W., Garay M.J., Dehn J., Prakash A., Nelson D.L., Dean K.G., and Steensen T. (2013) A multi-sensor plume height analysis of the 2009 Redoubt eruption. *Journal of Volcanology and Geothermal Research*, 259, 170-184, doi: <http://dx.doi.org/10.1016/j.jvolgeores.2012.09.008> (STI-5889), June 1. Available at www.sciencedirect.com/science/article/pii/S0377027312002843.

Meeting Presentations and Conference Proceedings

Ekstrand A.L., Haderman M.D., Chan A.C., Dye T.S., White J.E., and Parajon G. (2015) WebDMS: a real-time environmental data management system. Poster presented at the *2015 AGU Fall Meeting, San Francisco, CA, December 14*, Sonoma Technology, Inc., Petaluma, CA, and the U.S. Environmental Protection Agency, Research Triangle Park, NC. STI-6335.

Brown S.G., Vaughn D.L., Ekstrand A.L., Du Y., and Roberts P.T. (2015) Black carbon trends at a landfill on the edge of Los Angeles: local and regional impacts. Poster presented at the *11th International Conference on Carbonaceous Particles in the Atmosphere, August 10-13, Berkeley, CA*. STI-6309.

McCarthy M., Ekstrand A., Huang S., and Penfold B. (2015) Oil Sands ambient air monitoring network evaluation: analysis results. Webinar presented to Alberta Environment and Sustainable Resource Development, Edmonton, AB, Canada, April 16, by Sonoma Technology, Inc., Petaluma, CA. STI-914049-6241.

McCarthy M., Ekstrand A., O'Brien T., and Penfold B. (2015) Peace River network evaluation: analysis results webinar. Presented to Alberta Energy Regulator, Edmonton, AB, Canada, April 15, by Sonoma Technology, Inc., Petaluma, CA. STI-915001-6236.

McCarthy M., Ekstrand A., O'Brien T., and Penfold B. (2015) Calgary Region Airshed Zone network evaluation. Webinar presented to the Calgary Region Airshed Zone, Edmonton, AB, March 11, by Sonoma Technology, Inc., Petaluma, CA. STI-915007-6214.

McCarthy M., Ekstrand A., O'Brien T., and Penfold B. (2015) Peace River network evaluation: conceptual model webinar. Presented to Alberta Energy Regulator, Edmonton, AB, February 11, by Sonoma Technology, Inc., Petaluma, CA. STI-915001-6193.

McCarthy M., Ekstrand A., Huang S., and Penfold B. (2014) Oil sands ambient air monitoring network evaluation: conceptual model webinar. Presented to Alberta Environment and Sustainable Resource Development, Edmonton, AB, November 19, 2014, by Sonoma Technology, Inc., Petaluma, CA. STI 914049-6123.

McCarthy M., Ekstrand A., Huang S., and Penfold B. (2014) Oil sands ambient air monitoring network evaluation: data verification webinar. Webinar presented to Alberta Environment and Sustainable Resource Development, October 16, by Sonoma Technology, Inc., Petaluma, CA. STI-914049-6093.

Brown S.G., Ekstrand A., Zahn P.H., and Hafner H.R. (2014) Wintertime 2013-2014 ozone levels in Uintah Basin. Presented at the Ute Tribal Offices, Fort Duchesne, UT, October 1. STI-910505-6072.

McCarthy M., Penfold B., Lorentz K., O'Brien T., and Ekstrand A. (2014) Florida network assessment results webinar. Presented to the Florida Department of Environmental Protection, June 5, by Sonoma Technology, Inc., Petaluma, CA. STI-914024-5988.

- Drury S.A., Russell A.R., DeWinter J.L., Ekstrand A.L., and Lorentz K.A. (2014) AFTEERS: Automated Fuels Treatment Effectiveness Evaluation Using Remote Sensing Information. Poster presented at the *Large Wildland Fires Conference, Missoula, Montana, May 20*. STI-5900.
- McCarthy M., Penfold B., Lorentz K.A., and Ekstrand A. (2014) Florida network assessment: conceptual model webinar. Presented to the Florida Department of Environmental Protection, May 8, by Sonoma Technology, Inc., Petaluma, CA. STI-914024-5966.
- McCarthy M., Penfold B., Ekstrand A., and O'Brien T. (2014) Alberta's North Saskatchewan region analysis results. Webinar presented to Alberta Environment and Sustainable Resources Development, Edmonton, AB, March 3, by Sonoma Technology, Inc., Petaluma, CA. STI-914001-5922.
- McCarthy M., Penfold B., Ekstrand A., and O'Brien T. (2014) Alberta's North Saskatchewan region conceptual model webinar. Webinar presented to Alberta Environment and Sustainable Resources Development, Edmonton, AB, January 30, by Sonoma Technology, Inc., Petaluma, CA. STI-914001-5899.
- Russell A.R., Drury S.A., DeWinter J.L., Ekstrand A.L., and Lorentz K.A. (2013) Automated fuels treatment effectiveness evaluation using remote-sensing information. Poster presented at the *American Geophysical Union Fall Meeting, San Francisco, CA, December 9-13*, by Sonoma Technology, Inc., Petaluma, CA. STI-5732.
- Penfold B., Ekstrand A., Lorentz K., and McCarthy M. (2013) Fort Air Partnership: Scotford 2 ambient air monitoring station relocation scenario output. Webinar presented to the Fort Air Partnership Technical Working Group by Sonoma Technology, Inc., STI-913048-5764, November 21.
- McCarthy M., Penfold B., and Ekstrand A. (2013) Alberta's South Saskatchewan region analysis results webinar. Presented to the Alberta Environment and Sustainable Resources Department, Edmonton, Alberta, November 4, by Sonoma Technology, Inc., Petaluma, CA. STI-913051-5821.
- McCarthy M., Penfold B., Ekstrand A., and Lorentz K. (2013) Alberta's South Saskatchewan Region conceptual model webinar. Presented to Alberta Environment and Sustainable Resources Development, September 22, by Sonoma Technology, Inc., Petaluma, CA. STI-913051-5752.
- McCarthy M., Ekstrand A., and Penfold B. (2013) PAZA conceptual model webinar. Presented to the Peace Airshed Zone Association Technical Working Group, Grande Prairie, Alberta, Canada, June 12, by Sonoma Technology, Inc., Petaluma, CA. (STI-913032-5682).
- McCarthy M.C., Ekstrand A., Minor H., and Penfold B. (2013) Stakeholder webinar. Presented to Alberta Environment and Sustainable Resources Development, Edmonton, Alberta, Canada, March 22, by Sonoma Technology, Inc., Petaluma, CA. (STI-913014-5616).
- McCarthy M., Ekstrand A., and Penfold B. (2013) Analysis results. Presented to Alberta Environment and Sustainable Resources Development, Edmonton, Alberta, Canada, February 8, by Sonoma Technology, Inc., Petaluma, CA. (STI-912055-5591).
- Ekstrand A.L., Webley P.W., Garay M.J., Dehn J., Prakash A., Nelson D.L., Dean K.G., and Steensen T. (2011) Application of MISR data for analyzing volcanic plumes in the North Pacific. Poster presented at the *MISR Data User's Symposium, Pasadena, CA, December 13-14*.

- Ekstrand A.L., Webley P.W., Garay M.J., Dehn J., Prakash A., Nelson D.L., Dean K.G., and Steensen T. (2011) Application of MISR data for analyzing volcanic plumes in the North Pacific. Abstract #NH53A-1719. Poster presented at the *AGU Fall Meeting, San Francisco, CA, December 5-9*.
- Manzanares A.D., Ekstrand A.L., Rougvie J.R., Sorensen S.S., and Rose T.R. (2011) Replacement mechanisms in altered arc volcanic rocks: cathodoluminescence of the Inyo Mountains volcanic complex, eastern California. Abstract #29-16. Poster presented at the *GSA Annual Meeting, Minneapolis, MN, October 9-12*.
- Ekstrand A.L. (2011) A satellite-based multi-sensor analysis of volcanic plume height in the North Pacific. Presented at the *Western Region Space Grant Director's Meeting, Fairbanks, AK, August 25-27*.
- Ekstrand A.L., Webley P., Dehn J., Nelson D. L., Garay M.J., and Dean K.G. (2010) Plume height analysis of the 2009 Redoubt eruption: A comparison of MISR, AVHRR, and MODIS data. Abstract #NH43A-1492. Poster presented at the *AGU Fall Meeting, San Francisco, CA, December 13-17*.
- Ekstrand A.L., Dean K.G., Webley P., and Dehn J. (2009) Plume height analysis of two major Alaskan eruptions: implications for operational use of satellite data. Abstract #V31A-1945. Poster presented at the *AGU Fall Meeting, San Francisco, CA, December 14-18*.
- Dean K.G., Ekstrand A.L., and Webley P. (2009) Satellite observations of volcanic clouds from the eruption of Redoubt volcano, Alaska, 2009. Abstract #V43A-2210. Poster presented at the *AGU Fall Meeting, San Francisco, CA, December 14-18*.
- Ekstrand A., and Enkhbaatar T. (2007) Petrogenesis of quaternary basalts in southern Hangay Mountains, Central Mongolia: mantle source and melt evolution. Twentieth Annual Keck Research Symposium in Geology Proceedings. *Poster presented at the Keck Geology Consortium Annual Symposium, Wooster, OH*. Available on the Internet at <http://keckgeology.org/files/pdf/symvol/20th/mongolia/ekstrand.pdf>.
- Ekstrand A.L., Jordan B.T., and Rougvie J.R. (2007) Petrogenesis of quaternary basalts in the southern Hangay Mountains, Central Mongolia: mantle source and melt evolution. Abstract #143-15. Poster presented at the *GSA Annual Meeting, Denver, CO, October 18-31*.

Formal Reports

- Drury S.A., Graham A., Ekstrand A., and Huang S. (2015) Nevada Tahoe fuel modeling. Final report prepared for the North Lake Tahoe Fire District, Incline Village, NV, by Sonoma Technology, Inc., Petaluma, CA, STI-914031-6412-FR, December 11.
- Graham A.R., Dye T.S., MacDonald C.P., Ekstrand A.L., and Roberts P.T. (2015) PM sensor characterization study. Technical memorandum prepared for the Electric Power Research Institute by Sonoma Technology, Inc., STI-914058-6307-TM, July 24.
- McCarthy M.C., Ekstrand A.L., O'Brien T.E., Huang S., and Penfold B.M. (2015) Assessment of ambient air monitoring in the Oil Sands area of Alberta. Final report prepared for Alberta Environmental Monitoring, Evaluation, and Reporting Agency, Edmonton, Alberta, Canada, by Sonoma Technology, Inc., Petaluma, CA, STI-914049-6283-FR, June 25.

- McCarthy M.C., Ekstrand A.L., O'Brien T.E., and Penfold B.M. (2015) Peace River air monitoring network assessment. Final report prepared for Alberta Energy Regulator, Edmonton, AB, Canada, by Sonoma Technology, Inc., Petaluma, CA, 915001-6257-FR, May.
- Ekstrand A.L., Du Y., Brown S.G., Vaughn D.L., and Roberts P.T. (2015) Seventh annual report of ambient air quality monitoring at Sunshine Canyon Landfill and Van Gogh Elementary School: a seven-year summary (November 22, 2007–November 21, 2014). Report prepared for the Planning Department, City of Los Angeles, and Los Angeles County Department of Regional Planning by Sonoma Technology, Inc., Petaluma, CA, STI-914037-6226-AR, March 30.
- McCarthy M.C., Ekstrand A.L., O'Brien T., and Penfold B.M. (2015) Calgary Regional Airshed Zone (CRAZ) Network Assessment. Technical memorandum prepared for the Calgary Regional Airshed Zone by Sonoma Technology, Inc., Petaluma, CA, STI-915007-6227-TM, March.
- Huang S., Craig K., Ekstrand A., Brown S., and DeWinter J. (2015) Regional peak ozone and ozone transport analysis for the Mojave Desert air basin and surrounding areas. Technical memorandum prepared for the Mojave Desert Air Quality Management District, Victorville, CA, by Sonoma Technology, Inc., Petaluma, CA, STI-914078-6192-TM, February 16.
- McCarthy M., Ekstrand A., Huang S., and Penfold B. (2014) Summary of data available for the assessment of ambient air monitoring in the oil sands area of Alberta. Technical memorandum prepared for the Alberta Environment and Sustainable Resource Development by Sonoma Technology, Inc., Petaluma, CA, STI-914049-6088-TM, October 13.
- McCarthy M.C., Penfold B.M., Ekstrand A.L., Lorentz K.A., and O'Brien T.E. (2014) Florida air monitoring network assessment and optimization study. Final report prepared for the Florida Department of Environmental Protection, Tallahassee, FL, by Sonoma Technology, Inc., Petaluma, CA, STI-914024-6009-FR, June 30.
- McCarthy M.C., Penfold B.M., Ekstrand A.L., and O'Brien T.E. (2014) Ambient air monitoring network assessment of the North Saskatchewan Region. Final report prepared for the Alberta Ministry of Environment and Sustainable Resource Development by Sonoma Technology, Inc., Petaluma, CA, STI-914001-5933-FR, March 28.
- Brown S., Du Y., Ekstrand A., Vaughn D., and Roberts P.T. (2014) Sixth annual report of ambient air quality monitoring at Sunshine Canyon Landfill and Van Gogh Elementary School: a six-year summary November 22, 2007–November 21, 2013. Report prepared for the Los Angeles County Department of Regional Planning, Los Angeles, CA by Sonoma Technology, Inc., Petaluma, CA, STI-910038-5907-FR, February 21.
- Alrick D., Ekstrand A., Hafner H., and Russell A. (2013) State of Arizona exceptional event documentation for the statewide event of April 8–9, 2013. Final report prepared for the Arizona Department of Environmental Quality, Phoenix, AZ, by Sonoma Technology, Inc., Petaluma, CA, STI-913056-5896-FR, February 3.
- McCarthy M., Penfold B., Ekstrand A., and O'Brien T. (2014) Ambient air monitoring network assessment of the South Saskatchewan Region. Final report prepared for the Alberta Ministry of Environment and Sustainable Resource Development, Calgary, Alberta, Canada, by Sonoma Technology, Inc., Petaluma, CA, STI-913051-5854-FR2, January.

- Alrick D., Ekstrand A., Hafner H., and Russell A. (2013, 2014) State of Arizona exceptional event documentation for the Rillito PM₁₀ Nonattainment Area. Final reports prepared for the Arizona Department of Environmental Quality, Phoenix, AZ, by Sonoma Technology, Inc., Petaluma, CA. Events of February 19, 2011, STI-913056-5936-FR; May 2, 2011, STI-913056-5842-FR; November 4, 2011, STI-913056-5852-FR; October 4, 2011, STI-913056-5855-FR; May 9, 2012, STI-913056-5858-FR; May 23, 2012, STI-913056-5861-FR; May 3, 2013, STI-913056-5876-FR; and July 2, 2013, STI-913056-5880-FR.
- McCarthy M.C., Penfold B.M., and Ekstrand A.L. (2013) Scotford 2 ambient air monitoring station relocation. Final report prepared for the Fort Air Partnership, Fort Saskatchewan, Alberta, Canada, by Sonoma Technology, Inc., Petaluma, CA, STI-913048-5771-FR, December 6.
- McCarthy M.C., Penfold B.M., Ekstrand A.L., and O'Brien T.E. (2013) Network evaluation of the Peace Airshed Zone Association. Final report prepared for the Peace Airshed Zone Association, Grande Prairie, Alberta, by Sonoma Technology, Petaluma, CA, STI-913032-5747-FR, October 28.
- Alrick D., Ekstrand A., Hafner H., Pasch A., and Russell A. (2013) State of Arizona exceptional event documentation for the Yuma County PM₁₀ Nonattainment Area. Final reports prepared for the Arizona Department of Environmental Quality, Phoenix, AZ, by Sonoma Technology, Inc., Petaluma, CA. Events of April 11, 2012, STI-913082-5659-FR; May 25-26, 2012, STI-913083-5668-FR; August 12-13, 2012, STI-913084-5678-FR; August 15, 2012, STI-913085-5680-FR; August 28, 2011, STI-913080-5632-FR; and November 8-9, 2012, STI-913086-5690-FR.
- Alrick D.M., Ekstrand A.L., Hafner H.R., Pasch A.N., and Russell A.R. (2013) State of Arizona exceptional event documentation for the Bullhead City PM₁₀ maintenance area. Final reports prepared for the Arizona Department of Environmental Quality, Phoenix, AZ, by Sonoma Technology, Petaluma, CA. Events of August 15, 2012, STI-913089-5691-FR; and August 19, 2011, STI-913088-5657-FR.
- Alrick D., Ekstrand A., Hafner H., O'Brien, T., and Russell A. (2013) State of Arizona exceptional event documentation for the Yuma County PM₁₀ Nonattainment Area. Final reports prepared for the Arizona Department of Environmental Quality, Phoenix, AZ, by Sonoma Technology, Inc., Petaluma, CA. Events of July 4, 2013, STI-913056-5822-FR; and July 10, 2013, STI-913056-5816-FR.
- Pasch A., Alrick D., Ekstrand A., Hafner H., and Russell A. (2013) State of Arizona exceptional event documentation for the Yuma County PM₁₀ Nonattainment Area. Final reports prepared for the Arizona Department of Environmental Quality, Phoenix, AZ, by Sonoma Technology, Inc., Petaluma, CA. Events of March 6, 2012, STI-913080-5648-FR; and January 10, 2013, STI-913087-5696-FR.
- Bai S., Eisinger D., Niemeier D., Timoshek A., Ekstrand A., and Du Y. (2013) Greenhouse gas analysis protocol for transportation projects. Final report prepared for the California Department of Transportation, Sacramento, CA, by Sonoma Technology, Inc., Petaluma, CA, and the UC Davis Department of Civil and Environmental Engineering, Davis, CA, STI-909102-3987, May 13.
- McCarthy M.C., Ekstrand A.L., Penfold B.M., Minor H.A., and O'Brien T.E. (2013) Network assessment of the Edmonton Capital Region. Prepared for Alberta Environment and Sustainable Resource Development, Edmonton, Alberta, by Sonoma Technology, Inc., Petaluma, CA, STI-912055-5601-FR, March 28.
- Alrick D.M., Ekstrand A.L., Gordon B.J., Hafner H.R., MacDonald C.P., Minor H.A., and Russell A.R. (2012, 2013) State of Arizona exceptional event documentation for the Phoenix PM₁₀ nonattainment area. Final reports prepared for the Arizona Department of Environmental Quality, Phoenix, AZ, by Sonoma

Technology, Petaluma, CA. Events of August 18, 2011, STI-912090-5545; September 2, 2011, STI-912091-5546-FR; November 4, 2011, STI-912033-5547-FR; July 11, 2012, STI-912095-5568-FR; August 11, 2012, STI-912096-FR; August 14, 2012, STI-912097-5571-FR; and September 6, 2012, STI-912098-5572-FR.