

Journal Articles

- Schill S., McEwan R.S., Moffet R., Marrero J., MacDonald C., and Winegar E. (2022) Real-world application of open-path UV-DOAS, TDL, and FT-IR spectroscopy for air quality monitoring at industrial facilities. *Spectroscopy*, 37(S11), 18–22, (STI-7736), November 1. Available at <https://www.spectroscopyonline.com/view/real-world-application-of-open-path-uv-doas-tdl-and-ft-ir-spectroscopy-for-air-quality-monitoring-at-industrial-facilities>.
- Schill S.R., Burrows S.M., Hasenecz E.S., Stone E.A., and Bertram T.H. (2018) The impact of divalent cations on the enrichment of soluble saccharides in primary sea spray aerosol. *Atmosphere*, 9(12), 476. Available at <https://www.mdpi.com/2073-4433/9/12/476>.
- Stokes M.D., Deane G., Collins D.B., Cappa C., Bertram T., Dommer A., Schill S., Forestieri S., and Survillo M. (2016) A miniature Marine Aerosol Reference Tank (miniMART) as a compact breaking wave analogue. *Atmos. Meas. Tech.*, 9(9), 4257–4267. Available at <https://www.atmos-meas-tech.net/9/4257/2016/>.
- Schill S.R., Collins D.B., Lee C., Morris H.S., Novak G.A., Prather K.A., Quinn P.K., Sultana C.M., Tivanski A.V., Zimmermann K., Cappa C.D., and Bertram T.H. (2015) The impact of aerosol particle mixing state on the hygroscopicity of sea spray aerosol. *ACS Central Science*, 1(3), 132–141, June. Available at <https://doi.org/10.1021/acscentsci.5b00174>.
- Arenas K.J.L., Schill S.R., Malla A., and Hudson P.K. (2012) Deliquescence phase transition measurements by quartz crystal microbalance frequency shifts. *The Journal of Physical Chemistry A*, 116(29), 7658–7667, July. Available at <https://doi.org/10.1021/jp3016722>.

Meeting Presentations and Conference Proceedings

- MacDonald C.P., Schill S.R., and Hafner H.R. (2023) PAMS Ceilometer Overview; PAMS Surface Meteorology. Webinar presented for The Lake Michigan Air Directors Consortium (LADCO), September, by Sonoma Technology, Petaluma, CA. STI-7988, 7989.
- Hafner H.R., DeWinter J., McClure C.D., Schill S.R., and Meyer C. (2023) VOC Data Validation Training Welcome and Overview; VOC Data Validation Training PAMS Program Overview. Webinar presented for The Lake Michigan Air Directors Consortium (LADCO), September, by Sonoma Technology, Petaluma, CA. STI-7971, 7972.
- Schill S., Marrero J., Moffet R., McEwan S., and McDonald C. (2022) Complementary and emerging techniques for fenceline monitoring. Presentation given at the *Air Sensors International Conference, Pasadena, CA, May 13, 2022*, by Sonoma Technology, Petaluma, CA. STI-7623.
- Winegar E., Macdonald C.P., and Schill S.R. (2022) Evolution and growth of industrial fenceline monitoring. Presentation given at the *4C Conference, Austin, TX, April 7*, by Sonoma Technology, Petaluma, CA. STI-7665.
- Winegar E., MacDonald C.P., and Schill S.R. (2022) Practical signal detection theory: combining rule-based and human factor-based data validation for fenceline data to ensure high trust and reliability.

Presentation given at the *4C Conference, Austin, TX, April 7*, by Sonoma Technology, Petaluma, CA. STI-7664.

Marrero J.E., Schill S.R., and MacDonald C.P. (2022) Lessons learned from two years of refinery fenceline monitoring in California. Presentation given at the *Air & Waste Management Association Measurements Conference, San Diego, CA, March 9*, by Sonoma Technology, Petaluma, CA. STI-7694.

Schill S.R. and MacDonald C.P. (2021) Complementary techniques for industrial fenceline monitoring. Presentation given at the *4C Health/Safety/Environmental Conference, Austin, TX, August 19*, by Sonoma Technology, Petaluma, CA. STI-7559.

Marrero J.E., Schill S.R., Winegar E., and MacDonald C.P. (2021) Facility engagement in community monitoring: building bridges and protecting your future. Presentation given at the *4C Health/Safety/Environmental Conference, Austin, TX, August 19*, by Sonoma Technology, Petaluma, CA. STI-7560.

Schill S.R., and Hafner H. (2021) PAMS meteorology upper-air and surface measurements. Webinar presented for The Lake Michigan Air Directors Consortium (LADCO) VOC data validation and analysis training, May 26 and June 9, by Sonoma Technology, Inc., Petaluma, CA. STI-921030-7532.

Formal Reports

Marrero J.E., Schill S.R., and Tai A.Y.-C. (2023) Tesoro Refining & Marketing Company, LLC (A Subsidiary of Marathon Petroleum Corporation) Rule 1180 Fenceline Monitoring Q2 Report: April 2023–June 2023. Quarterly report prepared for Tesoro Refining & Marketing Company, LLC, Los Angeles Refinery, Carson, CA, by Sonoma Technology, Petaluma, CA, STI-7961, August 22.

Scarborough C.R., Schill S., and Moffet R. (2023) Chevron El Segundo Q2 Report: April - June 2023. Quarterly report prepared for Chevron Products Company, El Segundo, CA by Sonoma Technology, Petaluma, CA, STI-7975, August 21.

Marrero J.E., Schill S.R., and King D. (2023) Tesoro Refining & Marketing Company, LLC, Martinez Renewable Fuels Facility Rule 12-15 Fenceline Monitoring Q2 Report: April – June 2023. Quarterly report prepared for Tesoro Refining & Marketing Company, LLC, Martinez Renewable Fuels Facility, Martinez, CA by Sonoma Technology, Petaluma, CA, STI-7965, August 18.

Marrero J.E., Schill S.R., Tai A.Y.-C., and Chaveste M. (2023) Kern Energy Rule 4460 Fenceline Monitoring Q2 Report: April-June 2023. Quarterly report prepared for Kern Energy, Bakersfield, CA by Sonoma Technology, Petaluma, CA, STI-7958, August 11.

Marrero J., Schill S.R., and Coughlin J. (2023) Tesoro Refining & Marketing Company, LLC (a subsidiary of Marathon Petroleum Corporation) rule 1180 fenceline monitoring Q1 report: January 2023–March 2023. Quarterly report prepared for Tesoro Refining and Marketing Company, LLC, Carson, CA, by Sonoma Technology, Petaluma, CA, STI-7918, May.

Marrero J.E., Schill S.R., and King D. (2023) Tesoro Refining & Marketing Company, LLC Marathon Renewable Fuels Facility rule 12-15 fenceline monitoring Q1 report: January – March 2023. Quarterly

report prepared for Tesoro Refining & Marketing Company, LLC, a subsidiary of Marathon Petroleum Corporation, Marathon, CA by Sonoma Technology, Petaluma, CA, STI-923012-7920, May.

Anderson A.F. and Schill S.R. (2023) Chevron Richmond Q1 Report: January-March 2023. Quarterly report prepared for Chevron Products Company, Richmond, CA by Sonoma Technology, Petaluma, CA, STI-922004-7914, May.

Marrero J.E., Schill S.R., Tai A.Y.C. and Chaveste M. (2023) Kern Energy Rule 4460 Fenceline Monitoring Q1 Report: January – March 2023. Prepared for Kern Oil & Refining Co., Bakersfield, CA, by Sonoma Technology, Inc., Petaluma, CA, STI-923013-7903, May.

Scarborough C.R. and Schill S.R. (2023) Chevron El Segundo Q1 Report: January-March 2022. Quarterly report prepared for Chevron Products Company, El Segundo, CA by Sonoma Technology, Petaluma, CA, STI-922004-7917, May 25.

Marrero J.E., Schill S.R., and King D. (2023) Tesoro Refining & Marketing Company, LLC Marathon Renewable Fuels Facility rule 12-15 fenceline monitoring Q4 report: October – December 2022. Quarterly report prepared for Tesoro Refining & Marketing Company, LLC, a subsidiary of Marathon Petroleum Corporation, Marathon, CA by Sonoma Technology, Petaluma, CA, STI-923012-7877, February 28.

Schill S.R. and Gostic C. Phillips 66 Los Angeles Refinery – Wilmington Facility rule 1180 fenceline monitoring Q4 report: October 2022 – December 2022. Quarterly report prepared for Phillips 66 Los Angeles Refinery, Wilmington, CA by Sonoma Technology, Petaluma, CA, STI-923015-7870, February 22

Schill S.R. and Gostic C. (2023) Phillips 66 Los Angeles Refinery – Carson Facility rule 1180 fenceline monitoring Q4 report: October 2022 – December 2022. Quarterly report prepared for Phillips 66 Los Angeles Refinery, Carson, CA by Sonoma Technology, Petaluma, CA, STI-923015-7871, February 22.

Scarborough C.R. and Schill S.R. (2023) Chevron El Segundo Q4 Report: October-December 2022. Quarterly report prepared for Chevron Products Company, El Segundo, CA by Sonoma Technology, Petaluma, CA, STI-922004-7867, February 21.

Anderson A.F. and Schill S.R. (2023) Chevron Richmond Q4 Report: October-December 2022. Quarterly report prepared for Chevron Products Company, Richmond, CA by Sonoma Technology, Petaluma, CA, STI-922004-7869, February.

Marrero J.E., Schill S.R., and Chaveste M. (2023) Kern Oil & Refining Co. Rule 4460 Fenceline Monitoring Q4 Report: October – December 2022. Prepared for Kern Oil & Refining Co., Bakersfield, CA, by Sonoma Technology, Inc., Petaluma, CA, STI-923013-7853, February 10.

Marrero J., Schill S.R., and Scarborough C. (2022) Tesoro Refining & Marketing Company, LLC (a subsidiary of Marathon Petroleum Corporation) rule 1180 fenceline monitoring Q2 report: April 2022–June 2022. Quarterly report prepared for Tesoro Refining and Marketing Company, LLC, Carson, CA, by Sonoma Technology, Petaluma, CA, August 29.

- Marrero J.E., Schill S.R., and Gostic C. (2022) Tesoro Refining & Marketing Co., LLC Marathon renewable fuels facility rule 12-15 fenceline monitoring Q3 report: July – September 2022. Quarterly report prepared for Tesoro Refining & Marketing Company, LLC, Martinez, CA by Sonoma Technology, Petaluma, CA, STI-921012-7821, November 30.
- Marrero J.E., Schill S.R., Scarborough C., and Coughlin J. (2022) Tesoro Refining & Marketing Company, LLC (a subsidiary of Marathon Petroleum Corporation) rule 1180 fenceline monitoring Q3 report: July 2022–September 2022. Quarterly report prepared for Tesoro Refining & Marketing Company LLC, Martinez, CA by Sonoma Technology, Petaluma, CA, STI-922018-7817, November 21.
- Schill S.R. and Gostic C. (2022) Phillips 66 Los Angeles Refinery - Carson Facility Rule 1180 Fenceline Monitoring Q3 Report: July 2022 - September 2022. Quarterly report prepared for Phillips 66 Los Angeles Refinery, Carson, CA by Sonoma Technology, Petaluma, CA, STI-922015-7809, November.
- Schill S.R. and Gostic C. (2022) Phillips 66 Los Angeles Refinery - Wilmington Facility Rule 1180 Fenceline Monitoring Q3 Report: July 2022 - September 2022. Quarterly report prepared for Phillips 66 Los Angeles Refinery, Wilmington, CA by Sonoma Technology, Petaluma, CA, STI-922015-7810, November.
- Anderson A.F. and Schill S.R. (2022) Chevron Richmond Q3 Report: July-September 2022. Quarterly report prepared for Chevron Products Company, Richmond, CA by Sonoma Technology, Petaluma, CA, STI-922004-7816, November.
- Scarborough C.R. and Schill S.R. (2022) Chevron El Segundo Q3 Report: July-September 2022. Quarterly report prepared for Chevron Products Company, El Segundo, CA by Sonoma Technology, Petaluma, CA, STI-922004-7818, November.
- Marrero J.E., Schill S.R., and Chaveste M. (2022) Kern Energy Rule 4460 Fenceline Monitoring Q3 Report: July - September 2022. Quarterly report prepared for Kern Energy, Bakersfield, CA by Sonoma Technology, Petaluma, CA, STI-921070-7808, October.
- Scarborough C.R. and Schill S.R. (2022) Chevron Richmond Q2 Report: April-June 2022. Quarterly report Prepared for Chevron Products Company, Richmond, CA by Sonoma Technology, Petaluma, CA, STI-922011-7282, August 26.
- Scarborough C.R. and Schill S.R. (2022) Chevron El Segundo Q2 Report: April-June 2022 Quarterly report prepared for Chevron Products Company, El Segundo, CA, by Sonoma Technology, Petaluma, CA, STI-922004-7775, August 26.
- Marrero J.E., Schill S.R., and Kramer S. (2022) Kern Oil & Refining Co. Rule 4460 Fenceline Monitoring Q2 Report: April – June 2022. Prepared for Kern Oil & Refining Co., Bakersfield, CA, by Sonoma Technology, Inc., Petaluma, CA, STI-921070-7757, June 29.
- Moffet R.C., Marrero J.E., Schill S.R., and MacDonald C.P. (2022) Fenceline air monitoring plan and quality assurance project plan for BAAQMD Rule 12-15, 2022 update. Prepared for Chevron Refinery, Richmond, CA, by Sonoma Technology, Inc., Petaluma, CA, STI-922008-7170, June 1.

Moffet R.C., Marrero J.E., Schill S.R., and MacDonald C.P. (2022) Martinez Refinery air monitoring plan and quality assurance project plan, 2022 update. Prepared for Tesoro Refining & Marketing Co., Martinez, CA, by Sonoma Technology, Inc., Petaluma, CA, STI-921012-7028, June 1

Moffet R.C., Marrero J.E., Schill S.R., and MacDonald C.P. (2022) Air monitoring plan and quality assurance project plan for the Valero Refinery in Benicia, California, 2022 update. Prepared for Valero Benicia Refinery, Benicia, CA, by Sonoma Technology, Inc., Petaluma, CA, STI-922002-6990, June 1.

Marrero J.E., Schill S.R., and Gostic C. (2022) Tesoro Refining & Marketing Company, LLC (A subsidiary of Marathon Petroleum Corporation) Rule 12-15 Fenceline Monitoring Q1 Report: January-March 2022. Quarterly report Prepared for Tesoro Refining & Marketing Company LLC, Martinez, CA, by Sonoma Technology, Petaluma, CA, STI-921021-7729, May 30.

Marrero J.E., Schill S.R., and Scarborough C. (2022) Tesoro Refining & Marketing Company, LLC (A Subsidiary of Marathon Petroleum Corporation) Rule 1180 Fenceline Monitoring Q1 Report: January 2022–March 2022. Quarterly report Prepared for Tesoro Refining & Marketing Company LLC, Carson, CA, by Sonoma Technology, Petaluma, CA, STI-921021-7728, May 24.

Schill S.R. (2022) Chevron Richmond Q1 Report: January-March 2022. Quarterly report Prepared for Chevron Products Company, Richmond, CA by Sonoma Technology, Petaluma, CA, STI-922011-7726, May.

Scarborough C.R. and Schill S.R. (2022) Chevron El Segundo Q1 Report: January-March 2022 Quarterly report prepared for Chevron Products Company, El Segundo, CA, by Sonoma Technology, Petaluma, CA, STI-922004-7724, May 18.

Marrero J.E. and Schill S.R. (2022) Kern Oil & Refining Co. rule 4460 fenceline monitoring Q1 report: January-March 2022 Quarterly report prepared for Kern Oil & Refining Co., Bakersfield, CA, by Sonoma Technology, Petaluma, CA, STI-921070-7718, April 28.

Marrero J.E., Schill S.R., and Roberts P.T. (2022) Tesoro Refining & Marketing Company, LLC (a subsidiary of Marathon Petroleum Corporation) Rule 1180 Fenceline Monitoring Q4 Report: October 2021–December 2021 Final report prepared for Tesoro Refining & Marketing Company, LLC, a subsidiary of Marathon Petroleum Corporation, Los Angeles Refinery, Carson, CA by Sonoma Technology, Petaluma, CA, STI-921012-7, February 28.

Marrero J.E. and Schill S.R. (2022) Tesoro Refining & Marketing Co., LLC (A subsidiary of Marathon Petroleum Corporation) Rule 12-15 Fenceline Monitoring Q4 Report: October-December 2021 Final report prepared for Tesoro Refining & Marketing Company LLC, a subsidiary of Marathon Petroleum Corporation Martinez Refinery, Martinez, CA by Sonoma Technology, Petaluma, CA, STI-921012-7680, February 28.

Schill S.R. and Moffet R.C. (2022) Chevron El Segundo Q4 Report: October-December 2021 Final report prepared for Chevron Products Company, El Segundo, CA by Sonoma Technology, Inc., Petaluma, CA, STI-921008-7679, February 25.

Schill S. (2022) Chevron Richmond Q4 Report: October-December 2021. Final report prepared for Chevron Richmond, Richmond, CA by Sonoma Technology, Inc. Petaluma, CA, STI-921005-7677, February 23.

Schill S. and Hafner H. (2021) Standard operating procedure for the Teledyne Model 640X real-time continuous PM monitor. 921013-7516-SOP.

Schill S.R. and Moffet R.C. (2021) Chevron El Segundo Q3 Report: July-September 2021. Final report prepared for Chevron El Segundo, El Segundo, CA, by Sonoma Technology, Inc., Petaluma, CA, STI-921008-7635, November.

Schill S.R. (2021) Chevron Richmond Q3 report: July-September 2021. Final report prepared for Chevron Richmond, Richmond, CA, by Sonoma Technology, Inc., Petaluma, CA, STI-921005-7634, November.

Schill S.R. (2021) Chevron Richmond Q2 report: April-June 2021. Final report prepared for Chevron Richmond, Richmond, CA, by Sonoma Technology, Inc., Petaluma, CA, STI-921005-7590, August.

Marrero J.E. and Schill S.R. (2021) Rule 12-15 Fenceline Monitoring quarterly reports. Prepared for Tesoro Refining & Marketing Company, LLC (a subsidiary of Marathon Petroleum Corporation), Martinez Refinery by Sonoma Technology, Inc., Petaluma, CA, STI-919037-7536, 7593, and 7633, January-March, April-June, and July-September.

Marrero J.E. and Schill S.R. (2021) Standard operating procedure for high-volume polyurethane foam substrate sampling. Standard Operating Procedure prepared for Imperial County Air Pollution Control District, El Centro, CA by Sonoma Technology, Inc., Petaluma, CA, STI-921031-7543, June.

Marrero J.E., Schill S.R., and Roberts P.T. (2021) Rule 1180 Fenceline Monitoring quarterly reports. Prepared for Tesoro Los Angeles Refining & Marketing Company, LLC (a subsidiary of Marathon Petroleum Corporation), Los Angeles Refinery by Sonoma Technology, Inc., Petaluma, CA, STI-919035-7537 and 7594, January-March and April-June.

Schill S.R. (2021) Chevron Richmond Q1 report: January-March 2021. Final report prepared for Chevron Products Company, Richmond, CA by Sonoma Technology, Petaluma, CA, STI-921005-7533, May 28.

Schill S.R. and Moffet R.C. (2021) Chevron El Segundo Q1 report: January-March 2021. Final report prepared for Chevron Products Company, El Segundo, CA by Sonoma Technology, Petaluma, CA, STI-921008-7535, May.

Schill S. and Hafner H. (2021) Feasibility analysis for monitoring in Nogales, Sonora, Mexico. Technical memorandum prepared for the Arizona Department of Environmental Quality, by Sonoma Technology, Inc., STI-921013-7497, January 29.

Schill S.R. (2021) Chevron Richmond Q4 report: September-December 2020. Final report prepared for Chevron Products Company, Richmond, CA by Sonoma Technology, Petaluma, CA, STI-921005-7511, February 23.

Schill S.R. and Moffet R.C. (2020-2021) Chevron El Segundo quarterly reports: January-March, April-June, July-September, and October-December 2020. Prepared for Chevron Products Company, El Segundo,

CA, by Sonoma Technology, Petaluma, CA, STI-920006-7425, 7435, 7468, and 7505, August 28, September 24, November 27, and February 16.

Marrero J.E. and Schill S.R. (2020) Rule 12-15 Fenceline Monitoring quarterly reports. Prepared for Tesoro Refining & Marketing Company, LLC (a subsidiary of Marathon Petroleum Corporation), Martinez Refinery by Sonoma Technology, Inc., Petaluma, CA, STI-919037-7448, 7450, 7476, and 7512, January-March, April-June, July-September, and October-December.

Marrero J.E., Schill S.R., and Roberts P.T. (2020) Rule 1180 Fenceline Monitoring quarterly reports. Prepared for Tesoro Los Angeles Refining & Marketing Company, LLC (a subsidiary of Marathon Petroleum Corporation), Los Angeles Refinery by Sonoma Technology, Inc., Petaluma, CA, STI-919035-7436, 7467, and 7509, April-June, July-September, October-December.

Moffet R., Marrero J., Schill S., and Roberts P. (2020) Fenceline Monitoring plan and Quality Assurance Project Plan for BAAQMD Rule 12-15. Prepared for Chevron Refinery, Richmond, CA, by Sonoma Technology, Inc., Petaluma, CA, STI-919042-7170, October 29.

Marrero J.E., Schill S.R., and Roberts P.T. (2020) Rule 1180 Fenceline Monitoring Q2 report: April-June 2020. Quarterly report prepared for Tesoro Los Angeles Refining & Marketing Company, LLC (a subsidiary of Marathon Petroleum Corporation), Los Angeles Refinery, by Sonoma Technology, Inc., Petaluma, CA, STI-919035-7436, September 25.