Title: Carlsbad Caverns National Park Air Quality Study 2019

Abstract: Carlsbad Caverns National Park in southeastern New Mexico is adjacent to the Permian Basin, one of the most productive oil and gas regions in the country. The 2019 Carlsbad Caverns Air Quality Study (CarCavAQS) was designed to examine the influence of regional sources, including urban emissions, oil and gas development, wildfires, and soil dust on air quality in the park. Field measurements of aerosols, trace gases, and deposition were conducted from 25 July through 5 September 2019.

This data set includes fine particle and gas precursor measurements from Carlsbad Caverns National Park. The study was designed to examine the influence of regional sources, including urban emissions, oil and gas development, wildfires, and soil dust on air quality in the park. Field measurements of aerosols, trace gases and deposition were conducted from 25 July through 5 September 2019.

Contact:

Jeffrey L. Collett, Jr.

Project PI

Jeffrey.collett@colostate.edu

License information or restrictions placed on the data – The material is open access and distributed under the terms and conditions of the Creative Commons Public Domain "No rights reserved" (https://creativecommons.org/share-your-work/public-domain/cc0/).

Recommended data citation – Sullivan, A. P., Naimie, L. E., Benedict, K. B., Prenni, A. J., Sive, B. C., Fischer, E. V., Pollack, I., Collett, J., & Schichtel, B. A. (2022). Carlsbad Caverns National Park Air Quality Study 2019 [dataset]. Colorado State University. Libraries. http://dx.doi.org/10.25675/10217/235481

Associated article citation – Lillian E. Naimie, Amy P. Sullivan, K. B. Benedict, Anthony J. Prenni, B. C. Sive, Bret A. Schichtel, Emily V. Fischer, Ilana Pollack & Jeffrey Collett (2022) PM2.5 in Carlsbad Caverns National Park: composition, sources, and visibility impacts, Journal of the Air & Waste Management Association, DOI: 10.1080/10962247.2022.2081634

Format of data files - .csv, .xlsx

Location where data were collected – Carlsbad Caverns National Park

Time period during which data were collected – 2019-07-25 - 2019-09-05

File Information

This data set includes 1 Excel (.xlsx) files, 10 Comma-delimited (.csv) files, and 8 ReadMe (.pdf) files, including this file. For details about each data file, please see the associated documentation file:

Data file(s)	Documentation file
CAVE2019_Aethalometer_final.csv	CAVE_Aethalometer_ReadMe.pdf
CAVE2019_NOxyPAN_R1_final_data.xlsx	CAVE_NOxyPAN_ReadMe.pdf

CAVE_NOxyPAN_R1_final_data_1-	
hour_average_NOxyPAN.csv	
CAVE_NOxyPAN_R1_final_data_10-	
min_average_NOxy.csv	
CAVE_NOxyPAN_R1_final_data_10-	
min_Collected_PAN.csv	
CAVE_NOxyPAN_R1_final_data_1-	
min_unflagged_NOxy_data.csv	
CAVE2019_Picarro_final.csv	CAVE_Picarro_ReadMe.pdf
CAVE2019_PILS-TOC_Data_with_LOD.csv	CAVE_PILS-TOC_ReadMe.pdf
CAVE2019_PILS-IC_Data_with_LOD.csv	CAVE_PILS-IC_ReadMe.pdf
CAVE2019_TEOM_final.csv	CAVE_TEOM_ReadMe.pdf
CAVE2019_URG_final.csv	CAVE_URG_ReadMe.pdf