

Supplementary Data Readme for:

Comparison of two closed-path cavity based spectrometers for measuring
air-water CO₂ and CH₄ fluxes by eddy covariance

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Processed hourly eddy covariance fluxes can be found in the supplementary of this paper. Raw data files at 10 Hz are very large (tens of gigabytes) and currently not archived in an online database. Please contact us directly if you are interested in the raw data and we would be very happy to share them. There are two tab-delimited text files that tabulate the processed hourly data used in this paper: *Met and Physical Fluxes.txt* and *Gas Fluxes.txt*. In both files, missing data are denoted by NaN.

The data columns are described below.

For *Met and Physical Fluxes.txt*

MonthDayYear_TimeUTC:	Beginning time of an hourly interval
Wdir_deg:	Wind direction in degrees
Wspd_m_s:	Wind speed in m s ⁻¹
U10n_m_s:	10-m neutral wind speed in m s ⁻¹
Tair_C:	Air temperature in °C
SST_C_L4:	Near surface temperature at L4 buoy in °C
Sal_L4:	Near surface salinity at L4 buoy in °C
Pres_mbar:	Atmospheric pressure in mbar
RH_percent:	Relative humidity in %
ustar_m_s:	Eddy covariance u* in m s ⁻¹
CD10n_45_80:	10-m neutral drag coefficient from eddy covariance u*
Hsb_EC_45_80:	Eddy covariance sensible heat flux (W m ⁻²)
Hsb_pred_45_80:	Predicted bulk sensible heat flux (W m ⁻²)
Hlb_pred_45_80:	Predicted bulk latent heat flux (W m ⁻²)

For *Gas Fluxes.txt*

MonthDayYear_TimeUTC:	Beginning time of an hourly interval
CO2_dry_Flux_Picarro:	Dry CO ₂ flux from the Picarro in mmol m ⁻² day ⁻¹
CO2_dry_Flux_LGR:	'Dry' CO ₂ flux from the LGR in mmol m ⁻² day ⁻¹
CO2_Flux_LGR:	Ambient CO ₂ flux from the LGR in mmol m ⁻² day ⁻¹
CH4_dry_Flux_Picarro:	Dry CH ₄ flux from the Picarro in mmol m ⁻² day ⁻¹
CH4_dry_Flux_LGR:	'Dry' CH ₄ flux from the LGR in mmol m ⁻² day ⁻¹
CH4_Flux_LGR:	Ambient CH ₄ flux from the LGR in mmol m ⁻² day ⁻¹
H2O_Flux_LGR_lag3s:	H ₂ O flux from the LGR in mmol m ⁻² day ⁻¹ at a lag time of ~3 s (optimal lag time for CO ₂ /CH ₄)
H2O_Flux_LGR_lag20s:	H ₂ O flux from the LGR in mmol m ⁻² day ⁻¹ at a lag time of ~20 s (optimal lag time for H ₂ O)