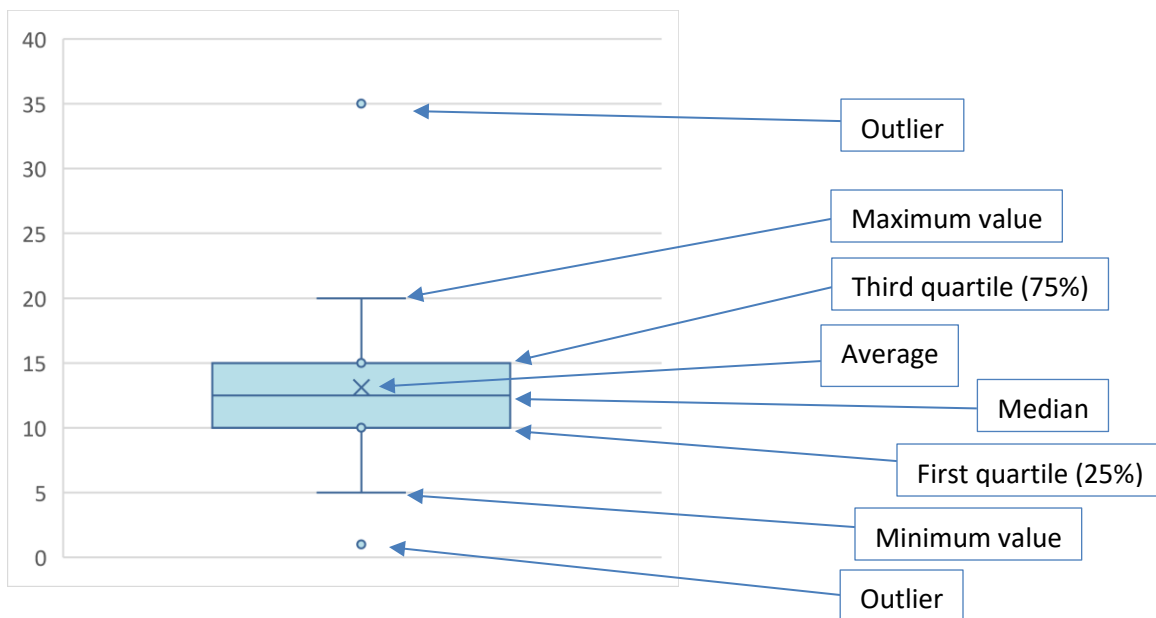# Georgia EPD Ethylene Oxide Data Study
Quality-Assured Data through 04/28/21

The following information is a summary of the ethylene oxide data collected and quality assured to date. During the course of this study, we discovered that some canisters in which samples are collected are biasing the results high, so the results from these canisters are flagged. In consultation with EPA, we are including both the graphs that use all of the data, as well as a second set of graphs without the flagged data due to potential bias from the canister used to collect the data. For more details on the sampling, please refer to the EPD Ethylene Oxide Monitoring Plan.
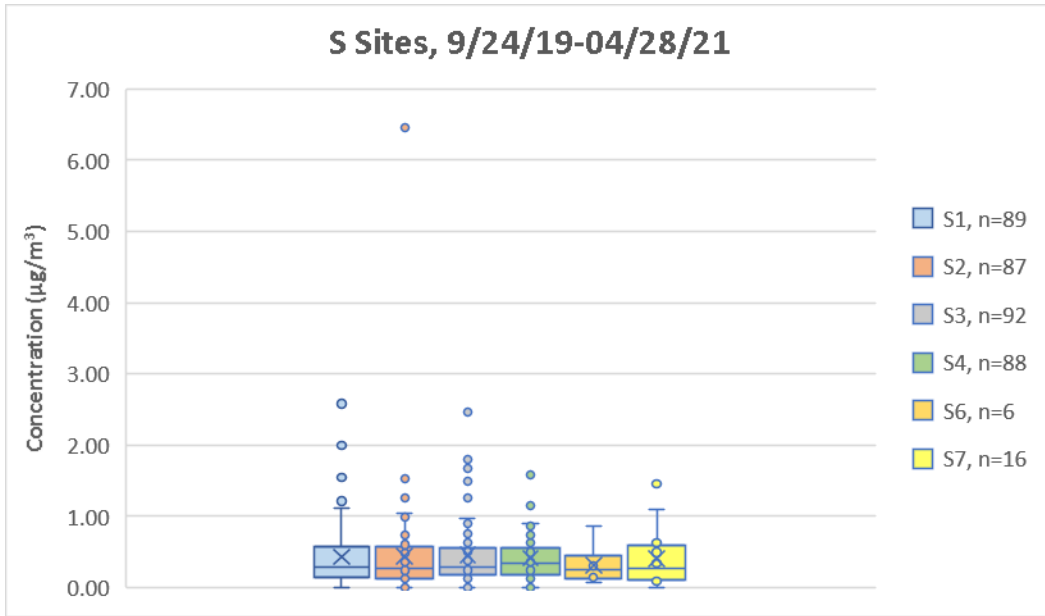
The following graphs illustrate a comparison of all data points collected for each of the sites and then for all sites, and the month-to-month average result for each site, with concentrations in micrograms per cubic meter (the $\mu g/m^3$), respectively. As the graphs are viewed, please note:

- the range on each graph will differ depending on the dataset
- the General Coffee site collects samples every other time that data is collected at the other sites (once every 12 days, instead of once every 6 days)
- the spatial samples are monitored less frequently
- 'n' stands for number of samples
- 'S Sites' are sites located in Smyrna/Atlanta/Cobb County area
- 'C Sites' are sites located in Covington area
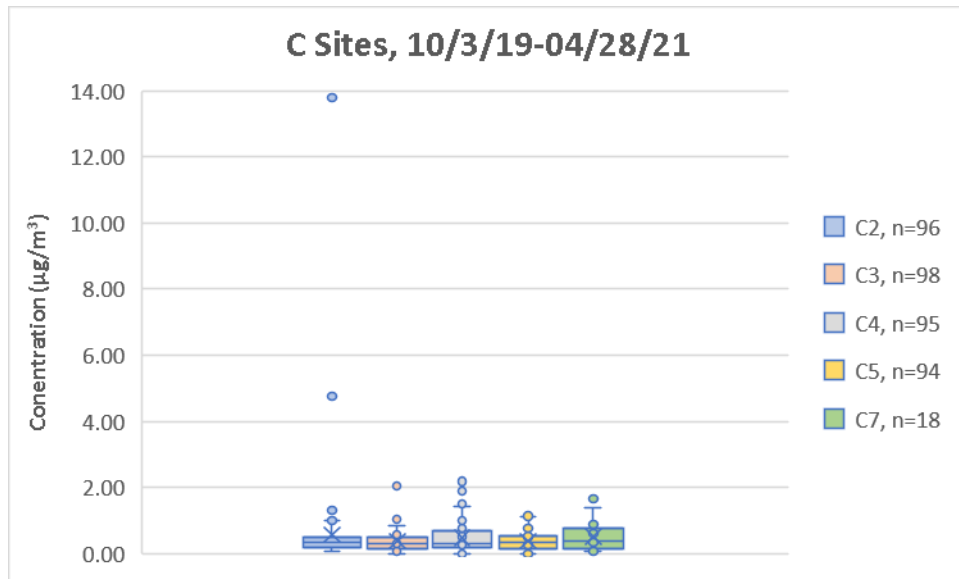- 'F Sites' are sites located in Fulton County area

The box and whisker plots show the breadth of all the data points included in the dataset. The following is a diagram showing the basic parts to the box and whisker plot.
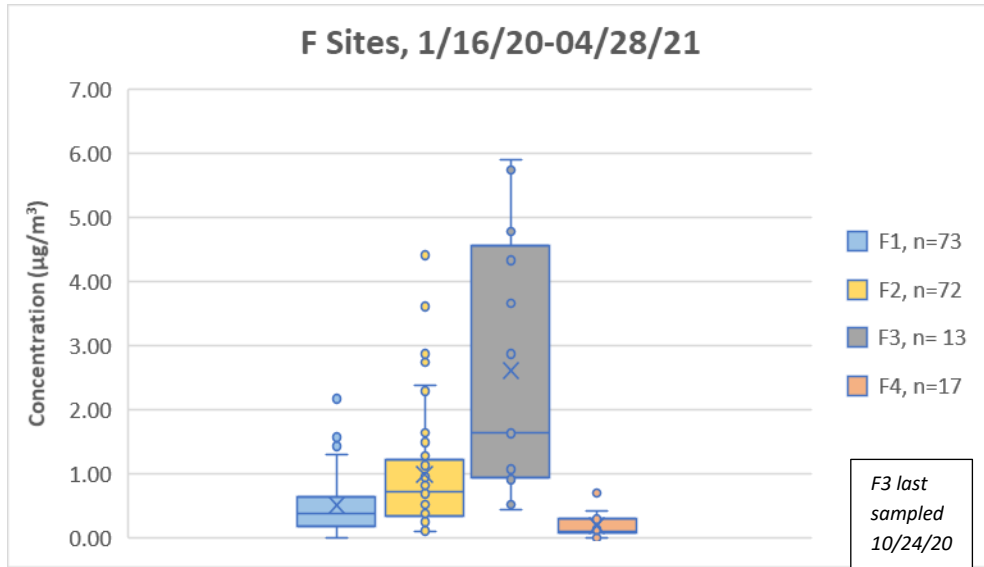
"S" Sites are Located Near Sterigenics, Cobb County

S Sites, 9/24/19-04/28/21

Legend:
- S1, n=89
- S2, n=87
- S3, n=92
- S4, n=88
- S6, n=6
- S7, n=16

Y-axis: Concentration (µg/m³), scale 0.00 to 7.00

"C" Sites are Located Near BD Covington, Newton County

C Sites, 10/3/19-04/28/21

Legend:
- C2, n=96
- C3, n=98
- C4, n=95
- C5, n=94
- C7, n=18

Y-axis: Conentration (µg/m³), scale 0.00 to 14.00

"F" Sites are Located Near Sterilization Services of GA, Fulton County

F Sites, 1/16/20-04/28/21

F1, n=73
F2, n=72
F3, n= 13
F4, n=17

F3 last sampled 10/24/20

South DeKalb and General Coffee are 'Background' Sites

South DeKalb and General Coffee, 8/13/19-4/28/21

SD, n=102
GC, n=44
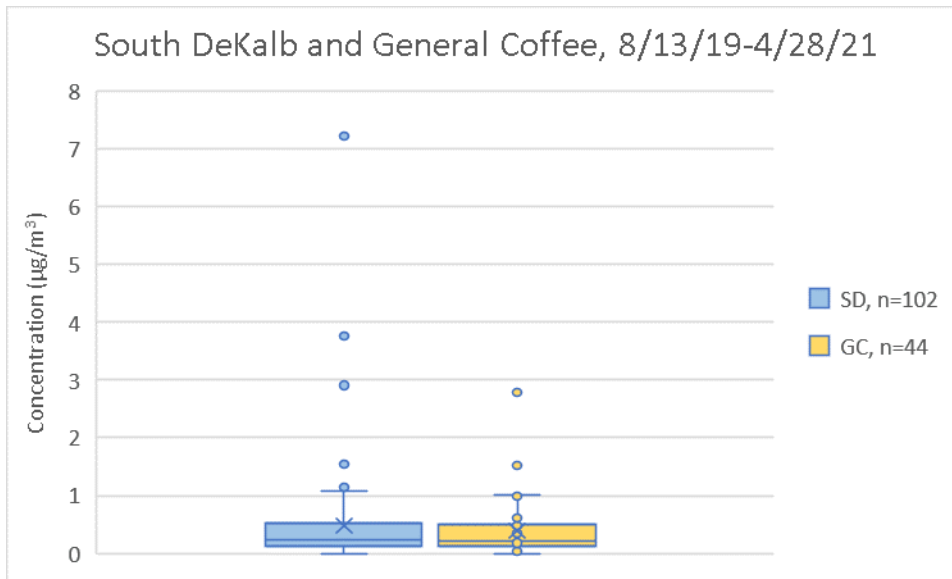
All Quality-Assured Data through April 28, 2021 (all sites)

Ethylene Oxide Data September 24, 2019-April 28, 2021

F3 last sampled 10/24/20

Data Study Site Averages

Cobb · Coffee · South DeKalb · NR-285 · Covington · Fulton

Average Level of EtO (µg/m³)
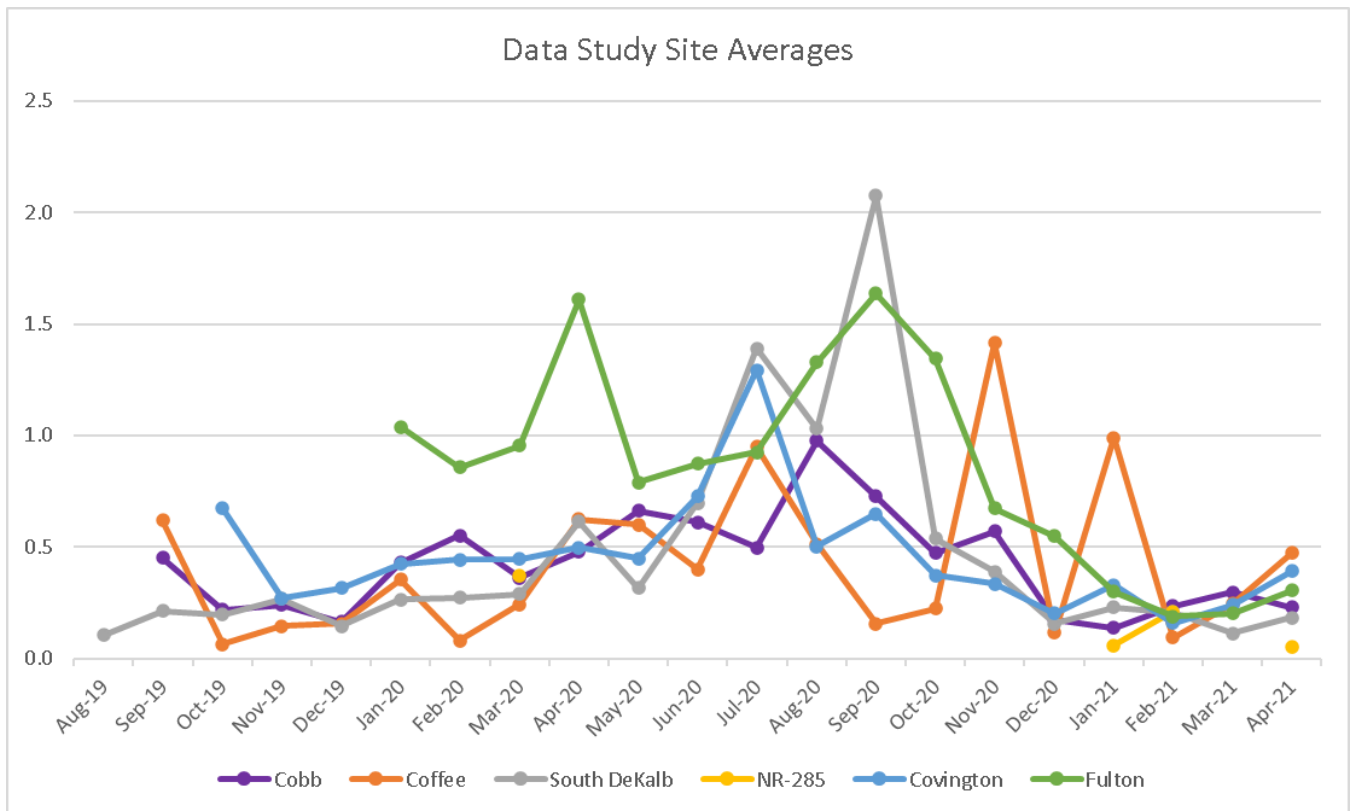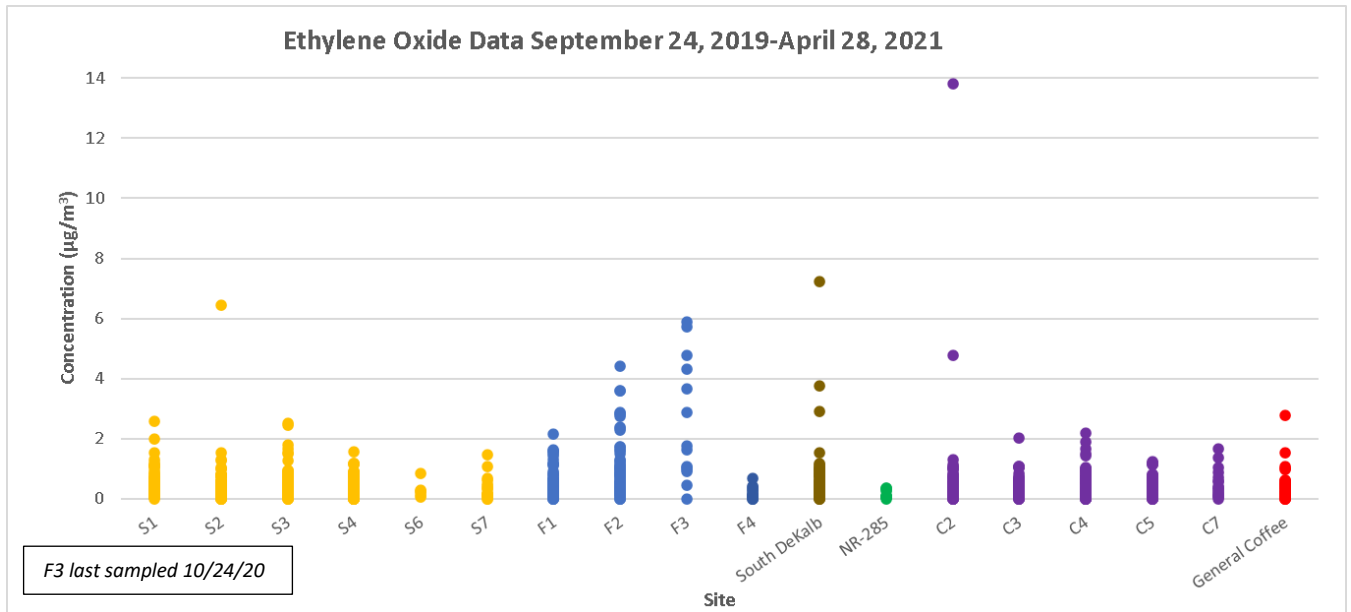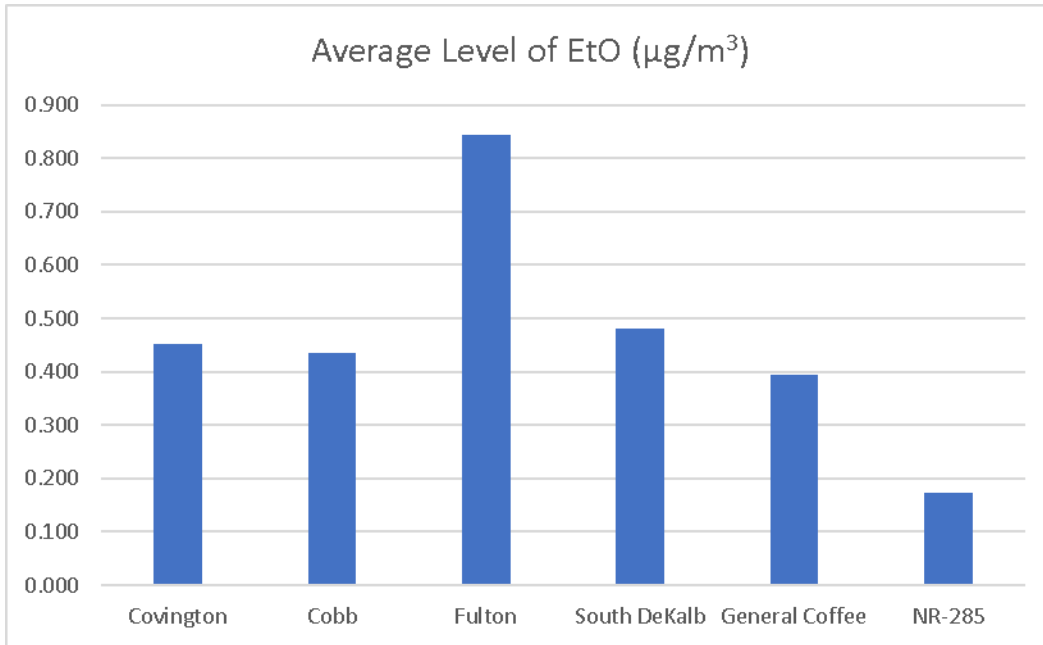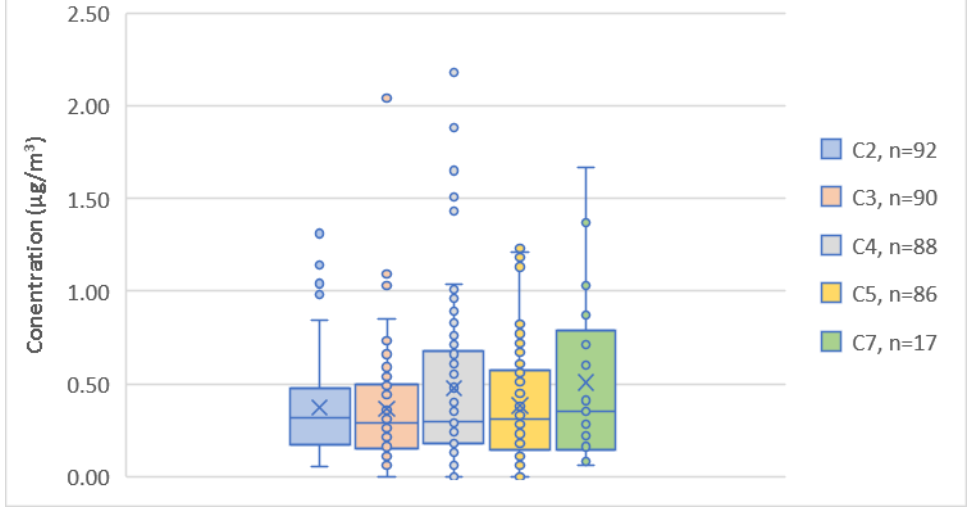
The following graphs do not include the flagged data due to potential bias from the canister used to collect the data (*).

*S Sites, 9/24/19-04/28/21

*C Sites, 10/3/19-04/28/21

Concentration (µg/m³)

- C2, n=92
- C3, n=90
- C4, n=88
- C5, n=86
- C7, n=17

*F Sites, 1/16/20-04/28/21

Concentration (µg/m³)

- F1, n=69
- F2, n=63
- F3, n= 12
- F4, n=15

F3 last sampled 10/24/20

*South DeKalb and General Coffee, 8/13/19-4/28/21

Concentration (µg/m³)

SD, n=87
GC, n=38

*Ethylene Oxide Data September 24, 2019-April 28, 2021

Concentration (µg/m³)

F3 last sampled 10/24/20

Site

S1 S2 S3 S4 S6 S7 F1 F2 F3 F4 South DeKalb NR-28S C2 C3 C4 C5 C7 General Coffee

*Data Study Site Averages

*Average Level of EtO (µg/m³)