



Review of Recent CASA Quarterly Data Updates

Prepared for:

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Prepared by:

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CASA Quarterly Data Updates



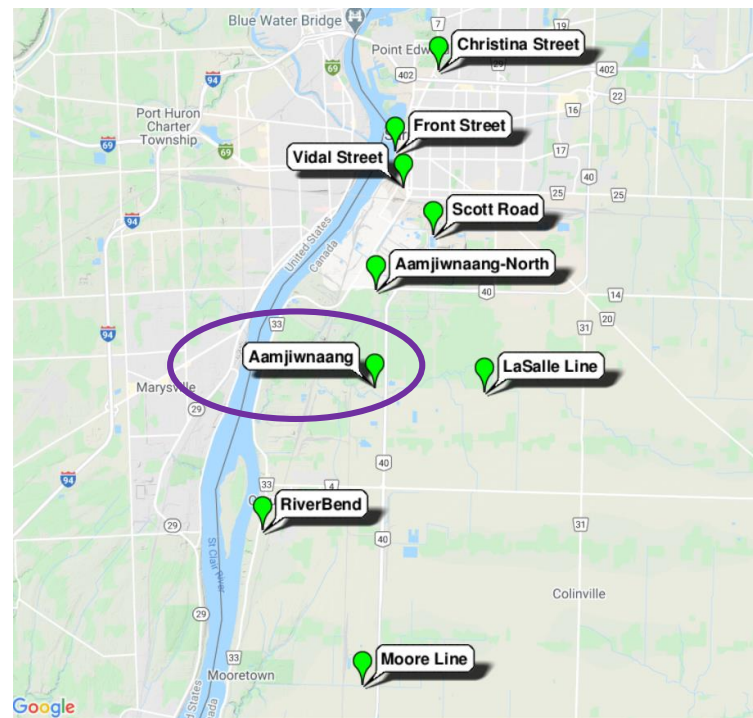
- Non-continuous data:
 - Several CASA stations monitor total suspended particulate and metals, polycyclic aromatic hydrocarbons, and volatile organic compounds on an every 6-day or 12-basis (“non-continuous data”).
 - These results are posted to CASA on a quarterly basis, as laboratory results become available.
- Temporary air monitoring stations:
 - The ministry has two temporary air monitoring stations (Airpointers) that measure pollutant concentrations on an hourly basis (sulphur dioxide, fine particulate matter, volatile organic compounds including benzene, and wind speed and wind direction).
 - Sulphur dioxide, fine particulate matter, and wind speed and wind direction measured at these stations can now be viewed in near-real time on CASA. The ministry verifies the data, including benzene, and posts updated results throughout the year.
- Updated data was posted to the CASA website in June 2020 and September 2020.

Polycyclic Aromatic Hydrocarbons



- Samples are taken once every 12 days at the Aamjiwnaang station
- 24-hour benzo[a]pyrene AAQC: 0.05 ng/m³

Station	Aamjiwnaang
Timeframe	Oct 2019 – Jun 2020
# of Samples	23
# of 24-Hour Exceedances	8
% of 24-Hour Exceedances	35%

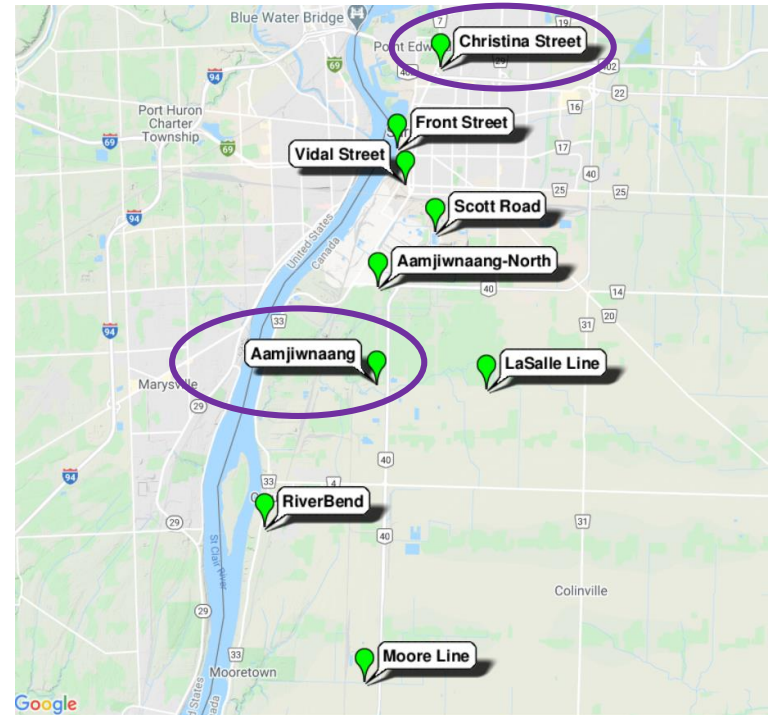


Volatile Organic Compounds - Canister



- Canister samples are taken once every 6 days at the Aamjiwnaang and Christina Street stations
- Analysed for 109 compounds
- Benzene results summarised below
- 24-hour benzene AAQC: $2.3 \mu\text{g}/\text{m}^3$

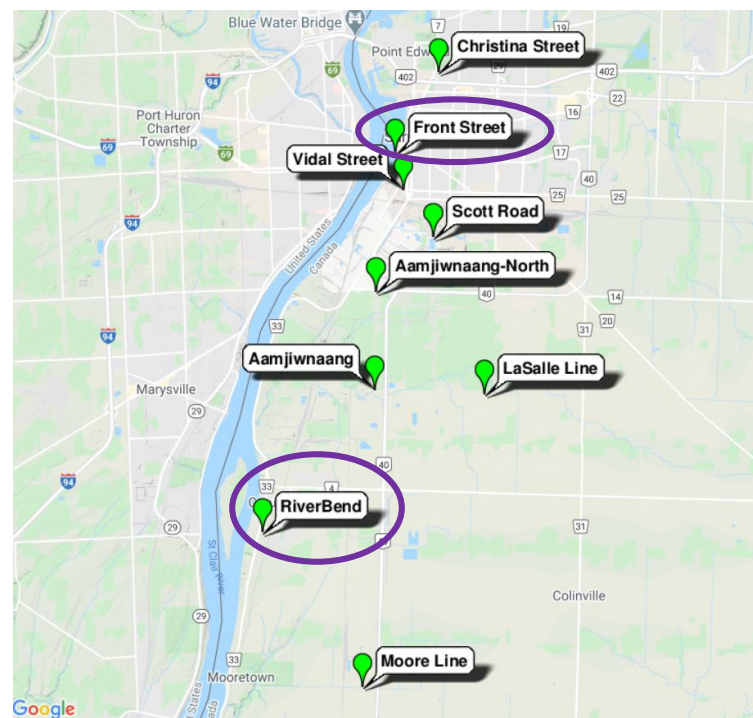
Station	Aamjiwnaang	Christina Street
Timeframe	January – December 2018	
# of Samples	48	39
# of 24-Hour Exceedances	5	1
% of 24-hr Exceedances	10%	2%



Volatile Organic Compounds - Canister



- Canister samples taken once every 12 days at the Front Street and Riverbend stations
- Analysed for 65 compounds
- Benzene results summarised below
- 24-hour benzene AAQC: $2.3 \mu\text{g}/\text{m}^3$



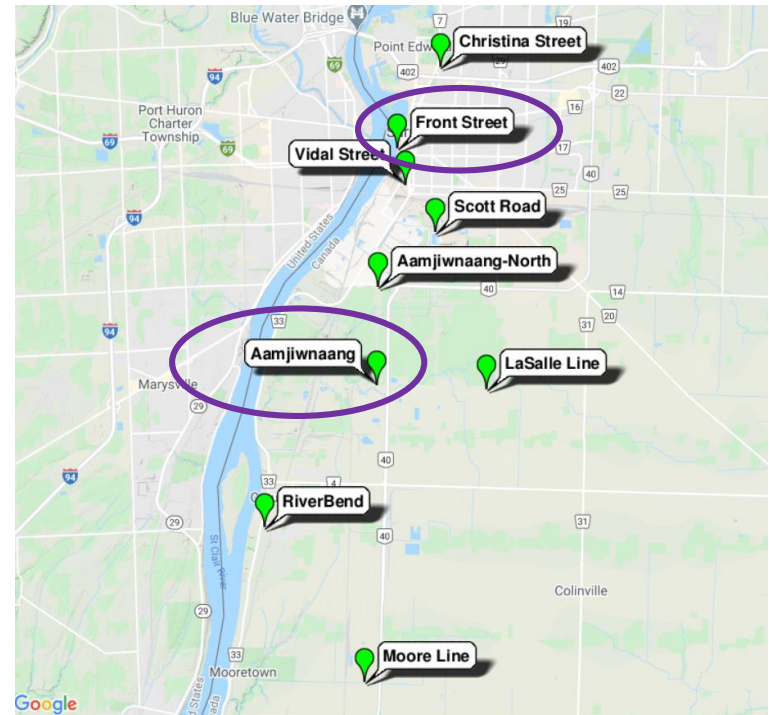
Station	Front Street	Riverbend
Timeframe	December 2019 – July 2020	
# of Samples	27	27
# of 24-Hour Exceedances	1	0
% of 24-hr Exceedances	4%	0%

Total Suspended Particulate and Metals



- Samples taken once every 6 days at the Aamjiwnaang and Front Street stations
- 24-hour total suspended particulate AAQC: $120 \mu\text{g}/\text{m}^3$

Station	Aamjiwnaang	Front Street
Timeframe	August 2019 – January 2020	
# of Samples	30	30
# of 24-Hour Exceedances	0	0
% of 24-Hour Exceedances	0%	0%

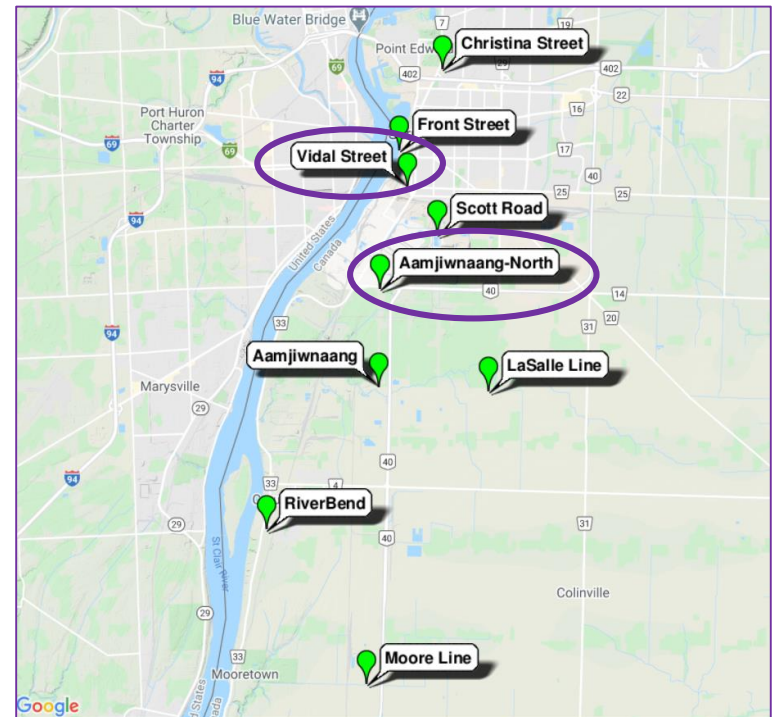


Temporary Stations – Sulphur Dioxide



- Measured on an hourly basis; can be viewed in near-real time on CASA website
- 1-hour AAQC: 40 ppb
- Annual AAQC: 4 ppb

Station	Aamjiwnaang North	Vidal Street
Timeframe	May 2019 – May 2020	Nov 2019 – May 2020
# of 1-Hour Exceedances	89	119
% of 1-Hour Exceedances	1%	3%

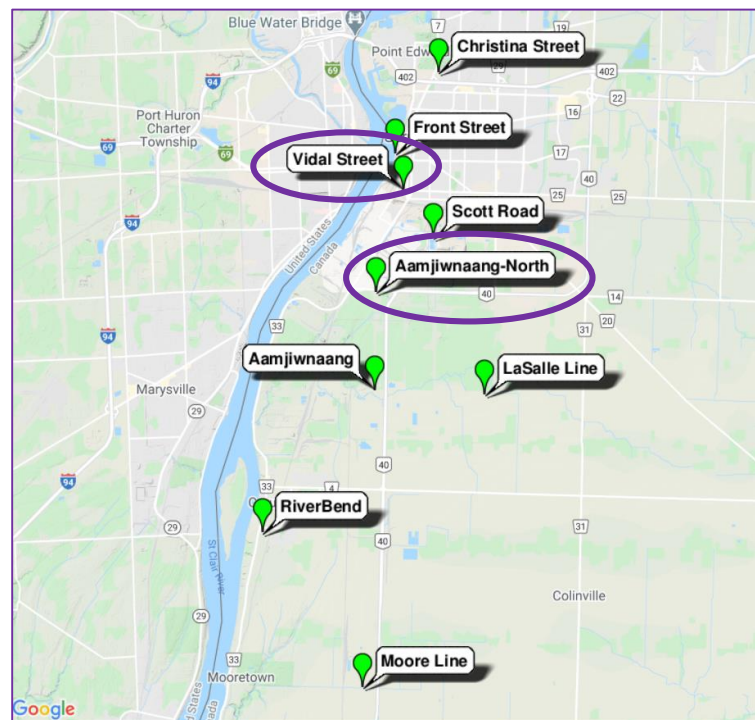


Temporary Stations – Benzene



- Measured on an hourly basis; ministry verifies and finalizes data
- Annual AAQC: $0.45 \mu\text{g}/\text{m}^3$
- Data from the temporary air monitors helped inform ministry actions

Station	Aamjiwnaang North	Vidal Street
Timeframe	May 2019 – May 2020	Nov 2019 – May 2020 ¹
Average concentration ($\mu\text{g}/\text{m}^3$)	$5.5 \mu\text{g}/\text{m}^3$	$1.1 \mu\text{g}/\text{m}^3$
¹ Six month timeframe – exercise caution in comparing results to annual AAQC		



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Thank you!