



Department of Environmental Conservation's Air Monitoring Program Community-Based Air Monitoring Project

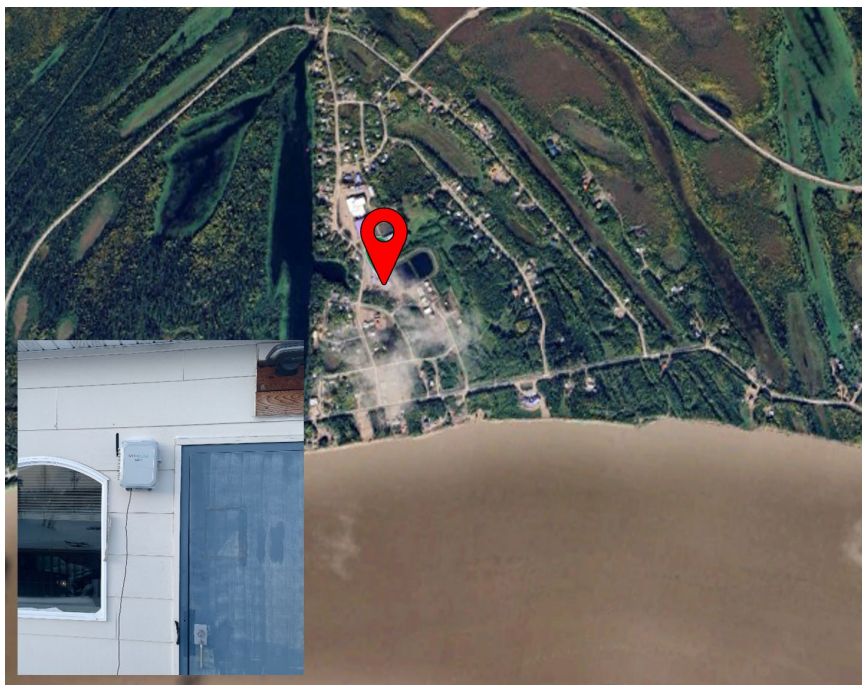
2024-25 Winter Season Air Quality Report for Louden Tribe Galena, Alaska

The QuantAQ MODULAIR™ sensor in Galena (64.7443° N, 156.8764° W) was installed on 9/27/2023.

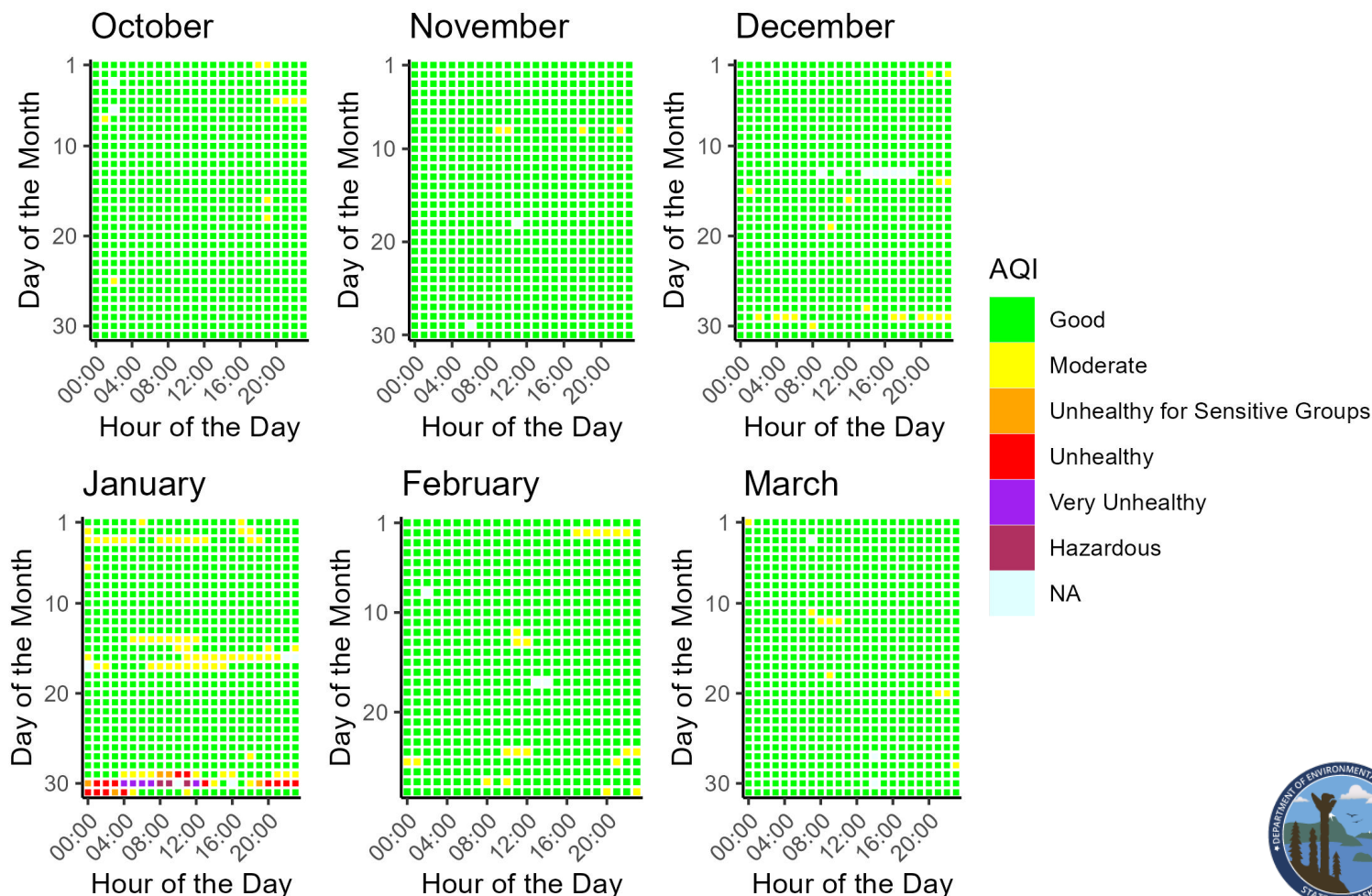
The sensor measures for carbon monoxide (CO), ozone (O₃), nitrogen oxide (NO), nitrogen dioxide (NO₂), particulate matter (PM_{2.5} and PM₁₀), temperature (°C), and relative humidity (RH). Data is collected every minute and is then processed into hourly averages.

The sensor in Galena has run well since its installation in September of 2023; there have been no physical issues with the sensor.

This data report covers the date range of October 1, 2024, to March 31, 2025.

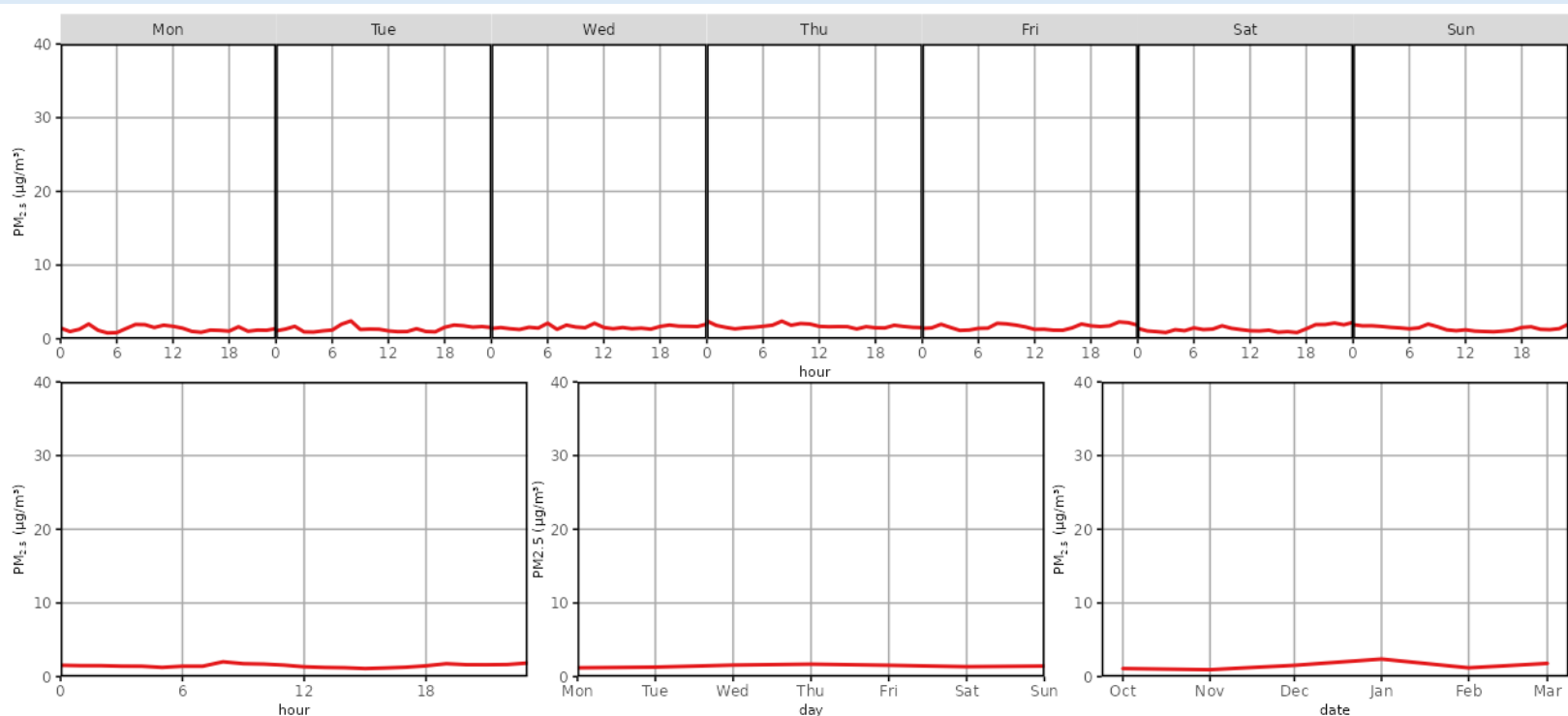


Daily PM_{2.5} Air Quality Index (AQI) for October 1, 2024 – March 31, 2025



2024-25 Winter Season Air Quality Report for Louden Tribe - Galena

Median PM_{2.5} Concentrations for October 1, 2024 – March 31, 2025



Descriptive Statistics of Air Pollutants*

Parameter	1-hr PM _{2.5} (µg/m³)	24-hr PM _{2.5} (µg/m³)	1-hr PM ₁₀ (µg/m³)**	24-hr PM ₁₀ (µg/m³)**	1-hr O ₃ (ppb)	1-hr NO ₂ (ppb)	1-hr NO (ppb)	1-hr CO (ppb)
Min	0.01	0.32	0.10	0.64	10.68	3.28	1.39	0.20
Mean	3.16	2.48	50.27	6.22	31.85	18.38	4.99	0.28
1 st Max	340.90	20.96	25931.90	47.95	50.78	39.35	72.41	0.70
2 nd Max	290.69	20.12	25770.70	31.39	50.49	39.08	71.55	0.70

Data Discussion

Galena's PM_{2.5} ambient air quality for the winter 2024-25 season fell mostly in the “good” range of the Air Quality Index (AQI; more information about AQI is provided on page 3), with very brief periods each month reporting in the “moderate” AQI range. January experienced an extreme temperature inversion that trapped pollutants at ground level for just under 24 hours, resulting in AQI levels reaching into the “hazardous” range for several hours. Pollutant concentrations dropped quickly back into the “good” AQI range when the temperatures rose by midday January 31st. Diurnal patterns show little variability of PM_{2.5} concentrations across different days of the week. From October to March, January showed the most significant spike of PM_{2.5} during the temperature inversion.

* These statistics are based on preliminary data readings and are intended to provide a brief overview of sensor activity. Finalized data may be obtained upon request and through our annual statistical reports. Data from the community sensor network is non-regulatory and not comparable to the EPA's National Ambient Air Quality Standards (NAAQS; more information about the EPA NAAQS is provided on page 3).

** PM₁₀ particle sensors are influenced by weather events such as fog and snow due to hygroscopic effects, creating false maximum values that do not pose health risks.



Resources



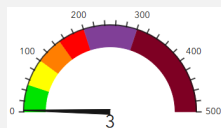
[Alaska Department of Environmental Conservation](#)



[EPA NAAQS Information](#)



[Air Quality Index \(AQI\) Basics](#)



[Real-Time AQI Data](#)



Data Access

To access historical data for your community's sensor, please email a request to:
AMQA-Data-Request@alaska.gov . Data will be provided in Excel or .csv format.

Questions or Comments?

Please contact us!

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