

December 11, 2023

**Lorna Morishita**

Executive Director of Palliser Airshed Society  
PO Box 23121 Medicine Hat Mall  
Medicine Hat AB T1B 4C7

**RE: Palliser Airshed Society (PAS) Ambient Air Monitoring Report – November 2023**

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Enclosed is the PAS Dashboard Report for the month of **November 2023**.

**Continuous Monitoring – Crescent Heights, Brooks, Taber Monitoring Stations**

Included in this report are: Monthly Air Monitoring Summary Table, Station Issue Summary, Station Summary Graphs and Station Wind Roses.

**Crescent Heights Station:**

- ◆ All analyzers and instruments at the Crescent Heights Station were greater than 90% operational for the month of November.
- ◆ There were no exceedances of the AAAQO/G in November.

**Brooks Station:**

- ◆ All analyzers and instruments at the Brooks Station were greater than 90% operational for the month of November.
- ◆ There were no exceedances of the AAAQO/G in November.

**Taber Station:**

- ◆ All analyzers and instruments at the Taber Station were greater than 90% operational for the month of November.
- ◆ There were no exceedances of the AAAQO/G in November.

If you have any questions, please contact the WSP office at 780.401.1356.

**X** *Patrick Andersen*

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Patrick Andersen, B.Sc.  
WSP AQM Data Specialist

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Lenin Flores  
AQM Project Manager

# November 2023 Monthly Ambient Air Quality Summary

Nov-23				Palliser Airshed Society			Maximum Recorded Values									
Pollutant (units)	Objectives			Station	Monthly Average	1-Hour Minimum	Exceedence			1-hr		24-hr / 8-hr		Operational Time (%)	Calibration Date	
	1-hr	24-hr	30-day				1-hr	24-hr	30-day	Conc	Day	Conc	Day			
SO <sub>2</sub> (ppb)	172	48	8	Crescent Heights	0.1	0.0	0	0	0	1.3	Nov-09 17:00	0.5	Nov-09	99.4	Nov-10	
NO (ppb)					2.6	0.0					67.2	Nov-03 22:00	8.6	Nov-03	99.7	Nov-09
NO <sub>2</sub> (ppb)	159				7.2	1.0	0				28.7	Nov-20 19:00	15.0	Nov-01	99.7	Nov-09
NO <sub>x</sub> (ppb)					9.8	1.2					90.9	Nov-03 22:00	22.3	Nov-02	99.7	Nov-09
O <sub>3</sub> (ppb)	76				20.9	0.1	0				43.3	Nov-06 15:00	31.9	Nov-11	99.7	Nov-09
CO (ppm)					0.2	0.1					0.4	Nov-03 23:00	0.2	Nov-03	99.9	Nov-22
CO 8-Hour (ppm)	5				-	0.1	0				0.3	Nov-04 01:00	-	-	100.0	-
THC (ppm)					2.2	1.9					3.1	Nov-03 01:00	2.6	Nov-03	99.6	Nov-10
PM <sub>2.5</sub> (µg/m <sup>3</sup> )	80	29			4.4	0.2	0	0			41.4	Nov-02 18:00	22.0	Nov-03	100.0	Oct-18
ET (°C)					2.6	-9.6					16.2	Nov-13 16:00	9.5	Nov-13	100.0	-
RH (%)					67.6	17.6					100.1	Nov-07 18:00	95.5	Nov-07	100.0	-
GSR (W/m <sup>2</sup> )					57.4	0.0					431.5	Nov-01 12:00	99.6	Nov-01	100.0	-
WSPD (km/h)					7.3	0.2					44.6	Nov-11 15:00	25.7	Nov-11	100.0	-
WDIR					WSW										100.0	-

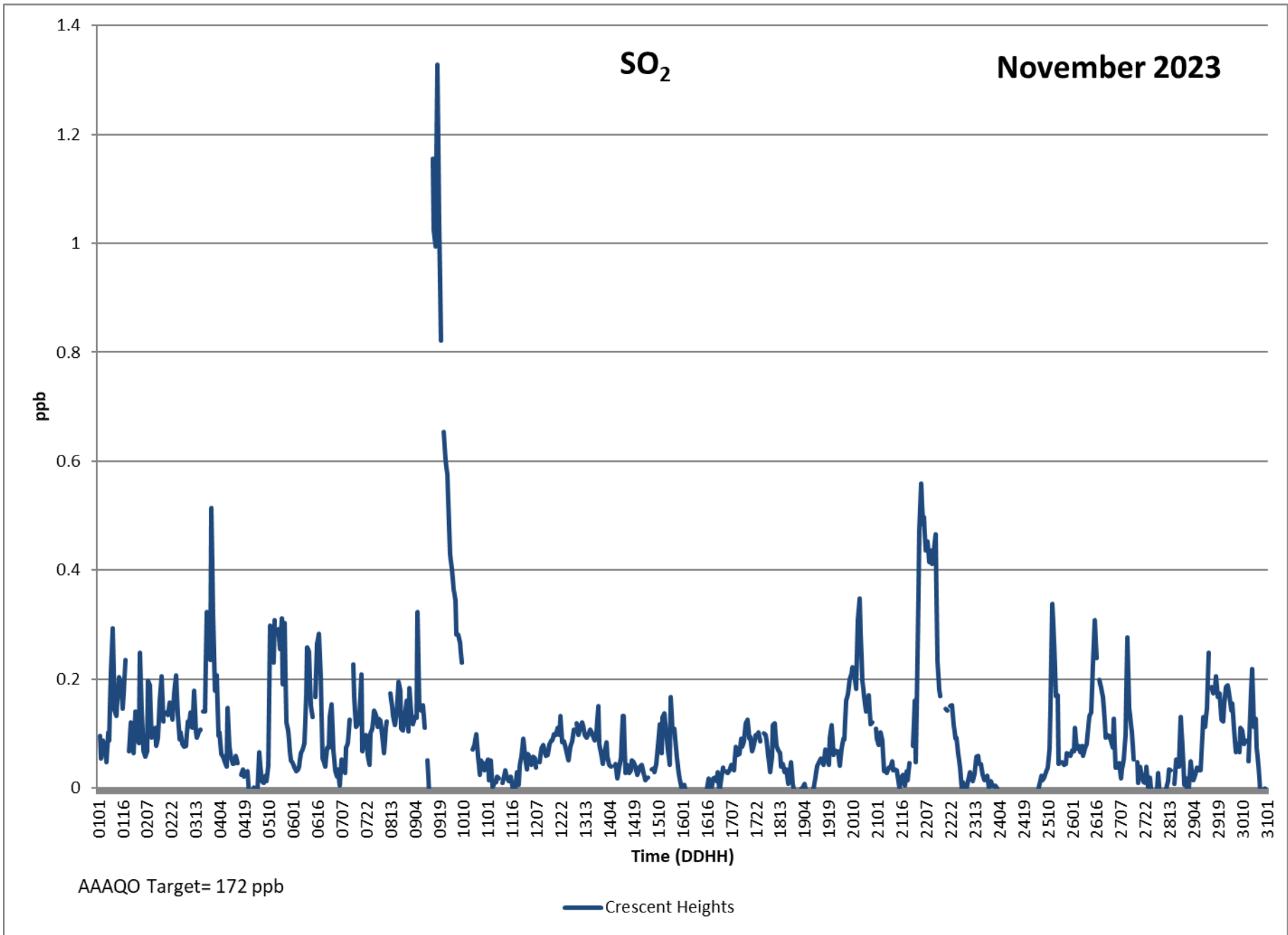
Pollutant (units)	Analyzer			Notes
	Make		Model	
SO <sub>2</sub>	TEI		43i	Analyzer data capture offline during Nov 9 calibrations. Manual span triggered November 22.
NO/NO <sub>2</sub> /NO <sub>x</sub>	TEI		42i	Manual span triggered November 22.
O <sub>3</sub>	TECO		49i	Manual span triggered November 22.
CO	TEI		48i-TLE	Analyzer data capture offline during Nov 9 calibrations. Manual span triggered November 22.
THC	TECO		51C-LT	Analyzer data capture offline during Nov 9 calibrations. Manual span triggered November 22.
PM <sub>2.5</sub>	SHARP		5030	
ET/RH	RMYoung		41382VC	
GSR	EPPLEY			
WS/WD	RMYoung		5305-10	

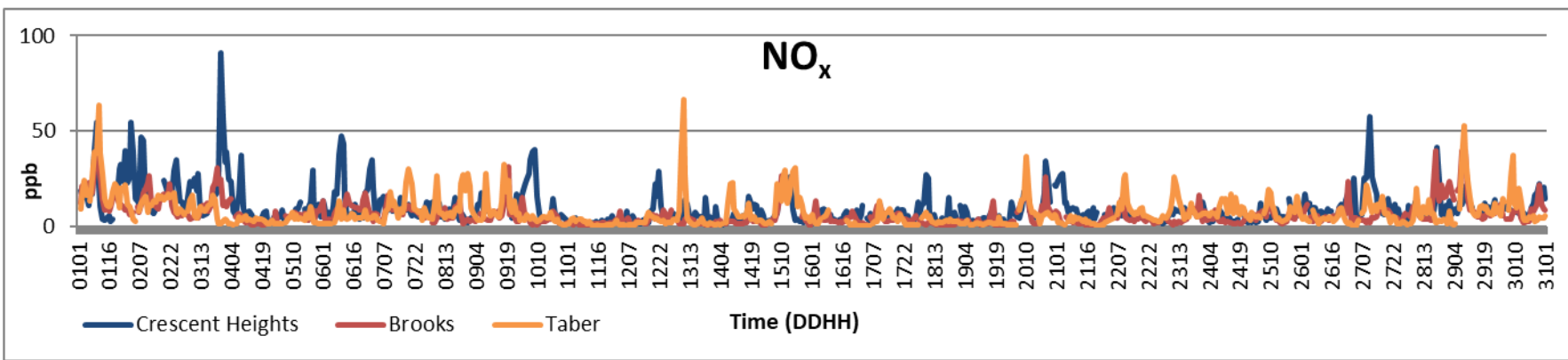
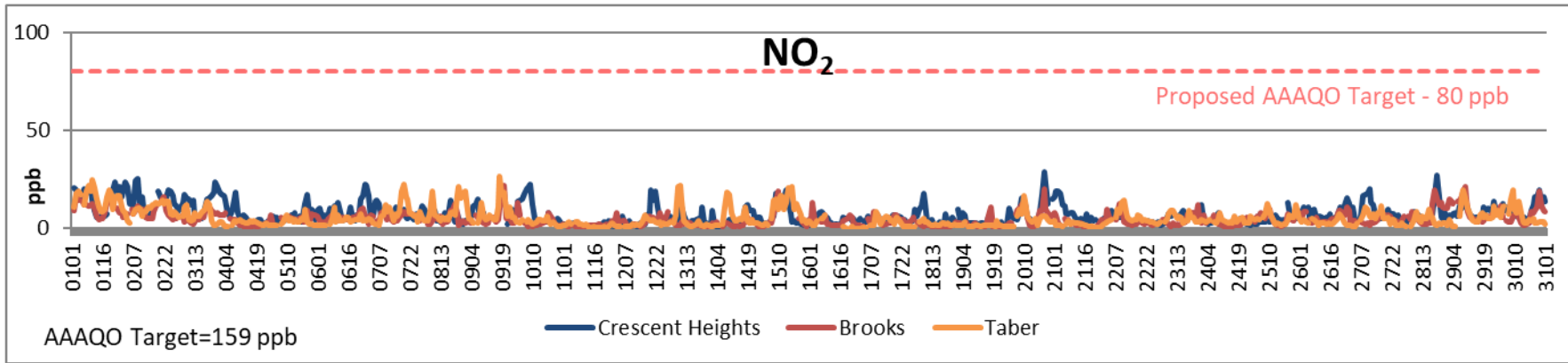
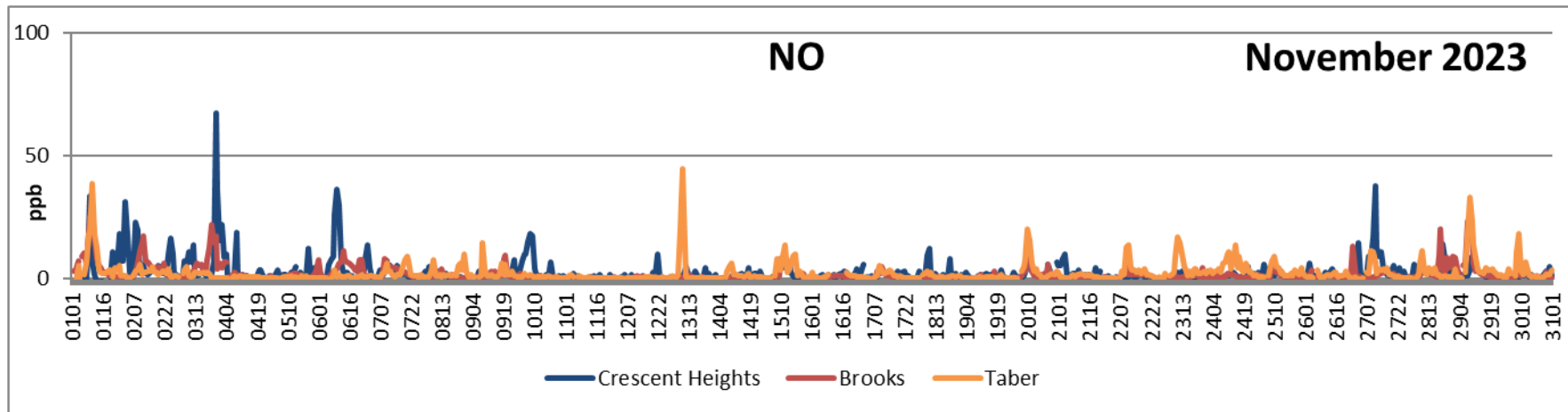
Nov-23				Palliser Airshed Society			Maximum Recorded Values									
Pollutant (units)	Objectives			Station	Monthly Average	1-Hour Minimum	Exceedence			1-hr		24-hr / 8-hr		Operational Time (%)	Calibration Date	
	1-hr	24-hr	30-day				1-hr	24-hr	30-day	Conc	Day	Conc	Day			
NO (ppb)				Taber	2.2	0.0				44.8	Nov-13 09:00	6.7	Nov-01	100.0	Nov-16	
NO <sub>2</sub> (ppb)	159				5.2	0.0	0				26.5	Nov-09 17:00	15.4	Nov-01	100.0	Nov-16
NO <sub>x</sub> (ppb)					7.4	0.4					66.8	Nov-13 09:00	21.9	Nov-01	100.0	Nov-16
O <sub>3</sub> (ppb)	76				23.8	1.2	0				41.9	Nov-13 14:00	35.5	Nov-21	100.0	Nov-16
PM <sub>2.5</sub> (µg/m <sup>3</sup> )	80	29			6.4	0.4	0	0			42.4	Nov-28 17:00	20.8	Nov-01	100.0	Oct-17
ET (°C)					3.0	-7.1					16.6	Nov-13 14:00	9.4	Nov-05	100.0	-
RH (%)					62.0	16.2					100.0	Nov-15 22:00	88.5	Nov-23	100.0	-
WSPD (km/h)					6.7	0.2					45.8	Nov-11 16:00	18.9	Nov-11	100.0	-
WDIR					WSW										100.0	-

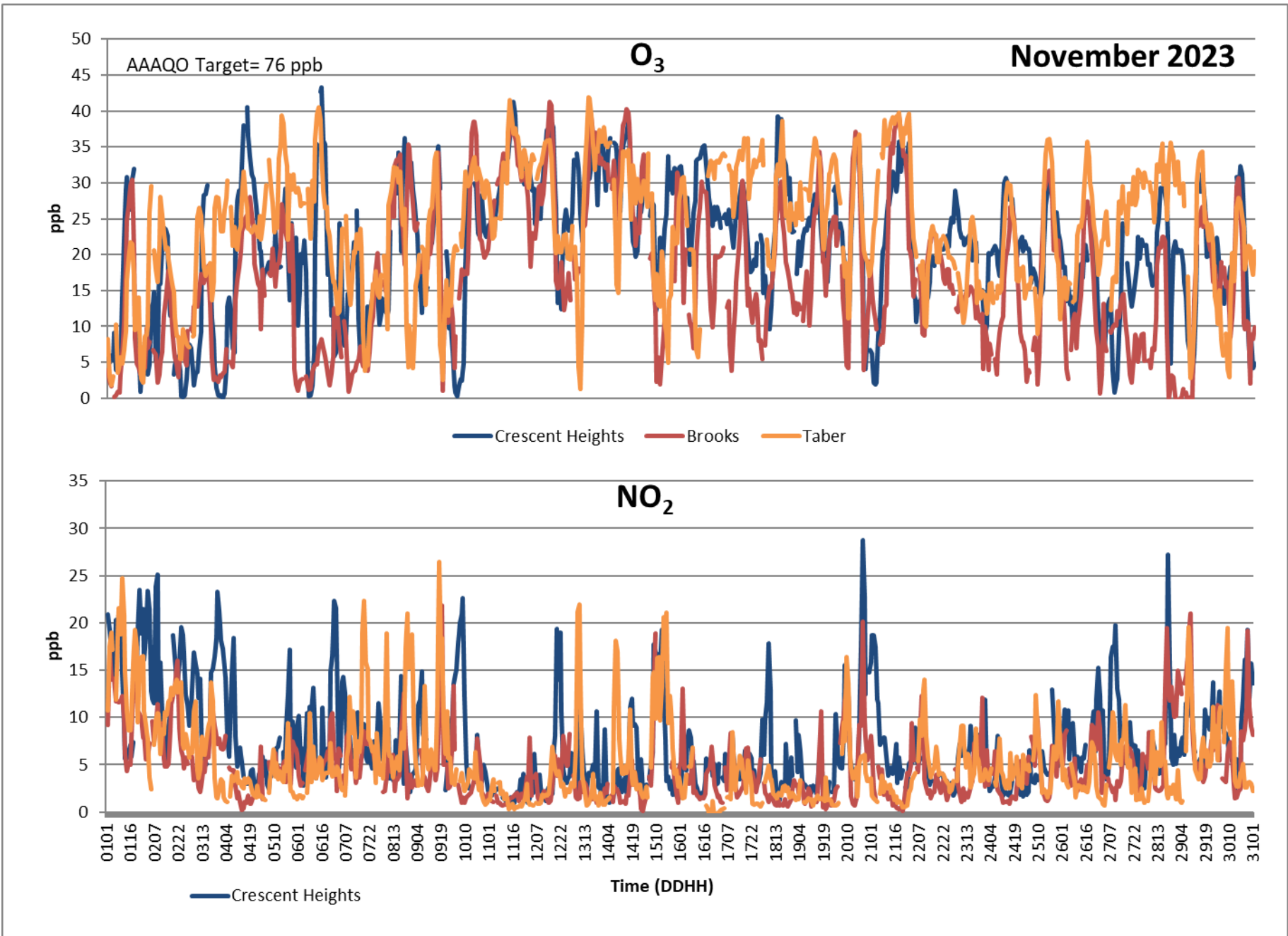
Pollutant (units)	Analyzer			Notes
	Make		Model	
NO/NO <sub>2</sub> /NO <sub>x</sub>	API		42i	
O <sub>3</sub>	API		T400	
PM <sub>2.5</sub>	SHARP		5030	
ET/RH	Vaisala		WXT520	
WS/WD	Vaisala		WXT520	

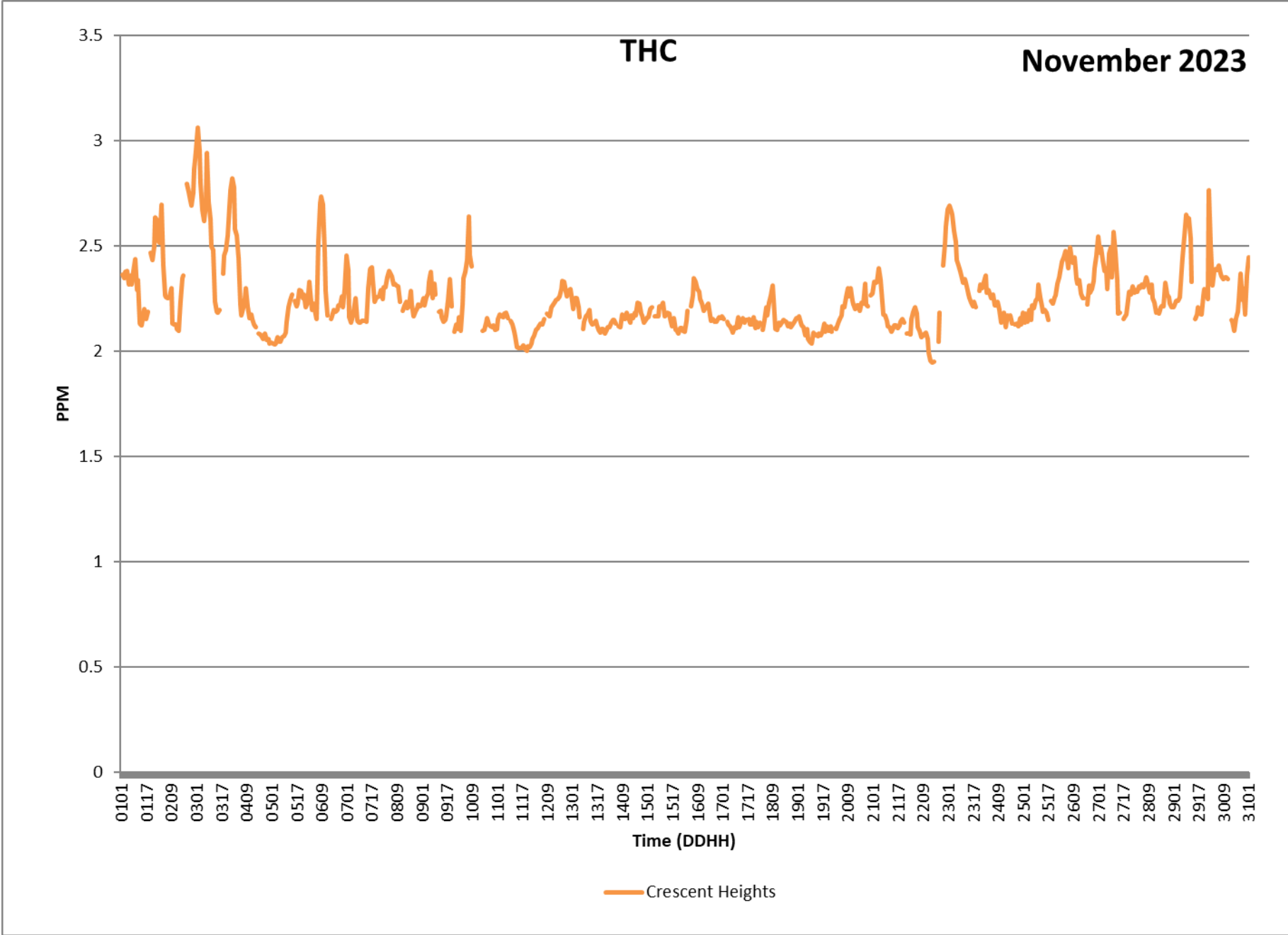
Nov-23				Palliser Airshed Society									Maximum Recorded Values					
Pollutant (units)	Objectives			Station	Monthly Average	1-Hour Minimum	Exceedence			1-hr		24-hr / 8-hr		Operational Time (%)	Calibration Date			
	1-hr	24-hr	30-day				1-hr	24-hr	30-day	Conc	Day	Conc	Day					
NO (ppb)				Brooks	1.7	0.0				27.0	Nov-01 10:00	6.9	Nov-01	100.0	Nov-15			
NO <sub>2</sub> (ppb)	159				4.7	0.1	0			21.8	Nov-09 19:00	10.4	Nov-01	100.0	Nov-15			
NO <sub>x</sub> (ppb)					6.4	0.2				39.9	Nov-29 07:00	17.3	Nov-01	100.0	Nov-15			
O <sub>3</sub> (ppb)	76				17.0	0.0	0			41.3	Nov-12 14:00	32.1	Nov-11	100.0	Nov-15			
PM <sub>2.5</sub> (µg/m <sup>3</sup> )	80	29			5.7	0.3	0	0		39.8	Nov-02 07:00	25.5	Nov-02	100.0	Oct-20			
ET (°C)					0.5	-10.9				15.6	Nov-13 15:00	6.0	Nov-11	100.0	-			
RH (%)					64.8	15.8				87.2	Nov-06 19:00	84.8	Nov-06	100.0	-			
WSPD (km/h)					3.5	0.1				38.4	Nov-11 12:00	21.4	Nov-11	100.0	-			
WDIR					SW									100.0	-			

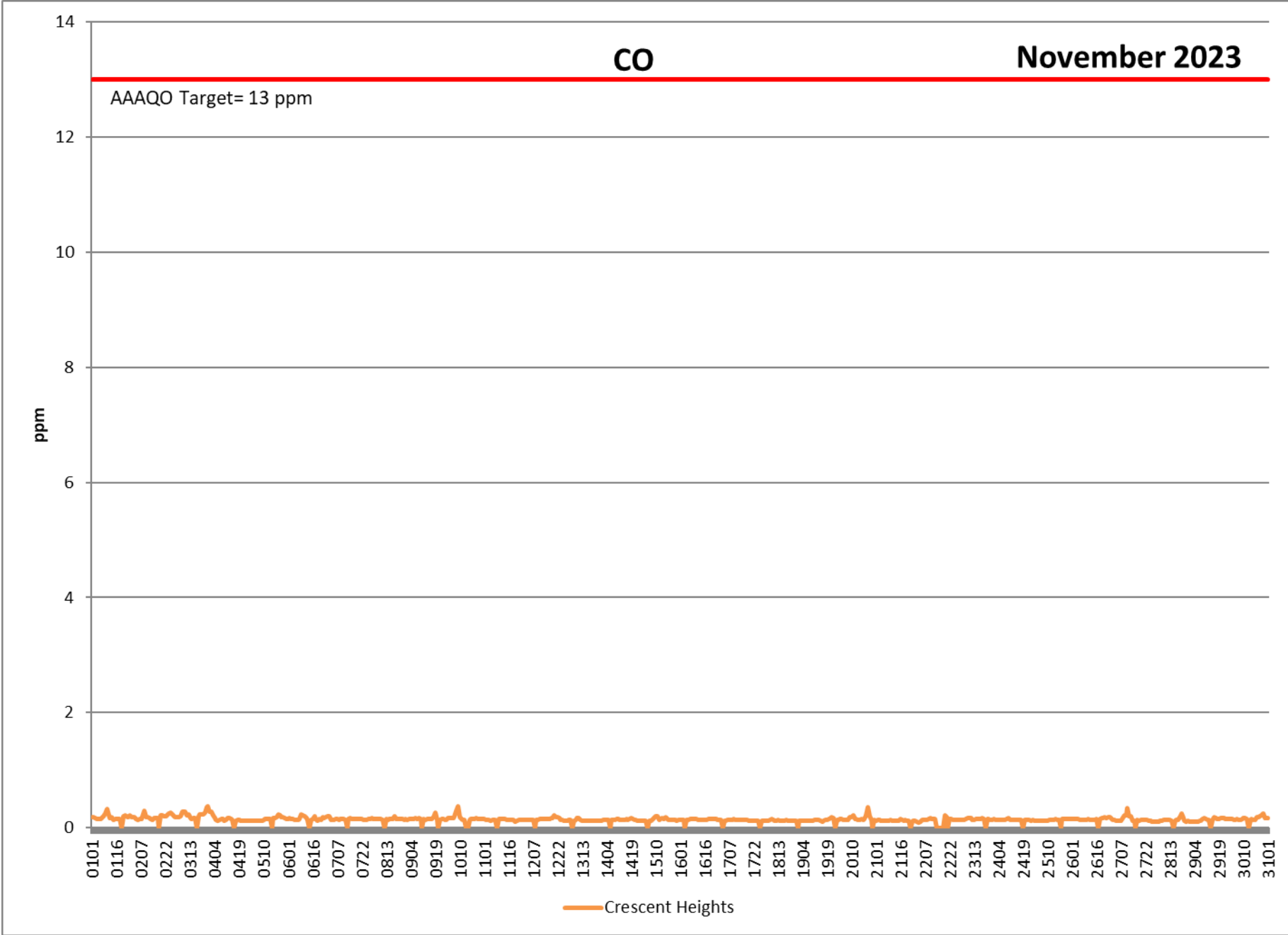
Pollutant (units)	Analyzer			Notes
	Make		Model	
NO/NO <sub>2</sub> /NO <sub>x</sub>	API		42i	
O <sub>3</sub>	API		T400	
PM <sub>2.5</sub>	SHARP		5030	
ET/RH	Vaisala		WXT520	
WS/WD	Vaisala		WXT520	



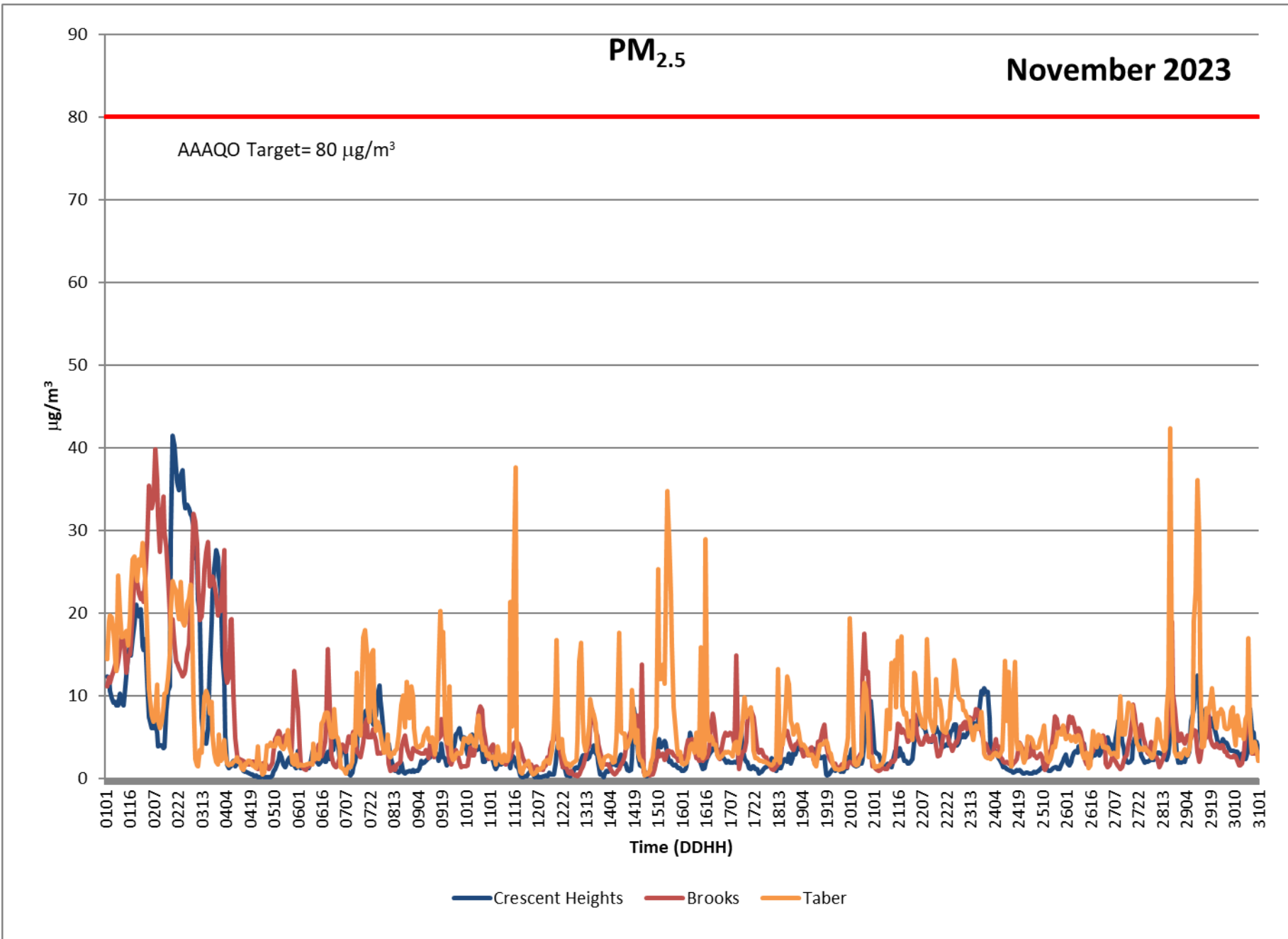


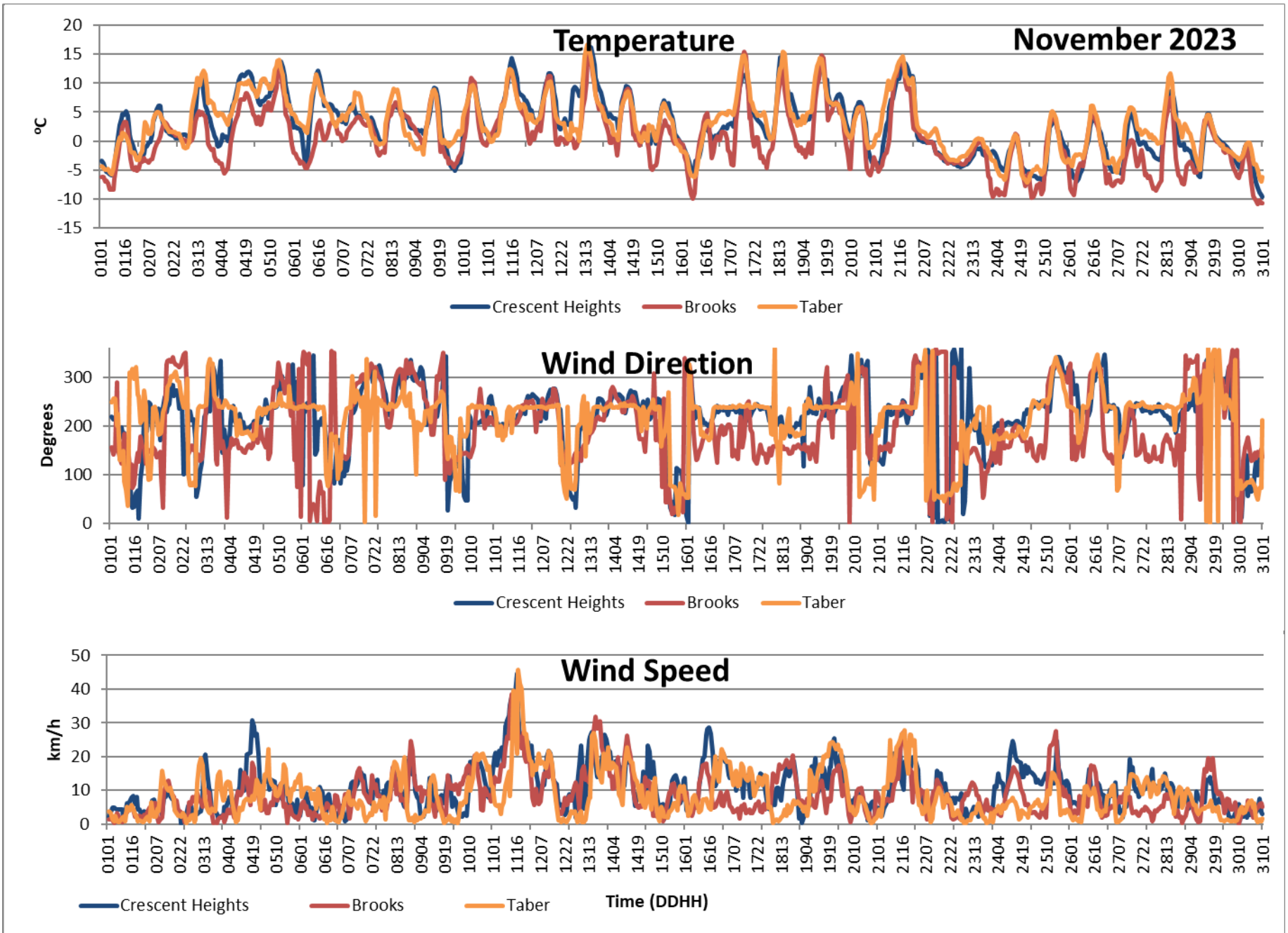


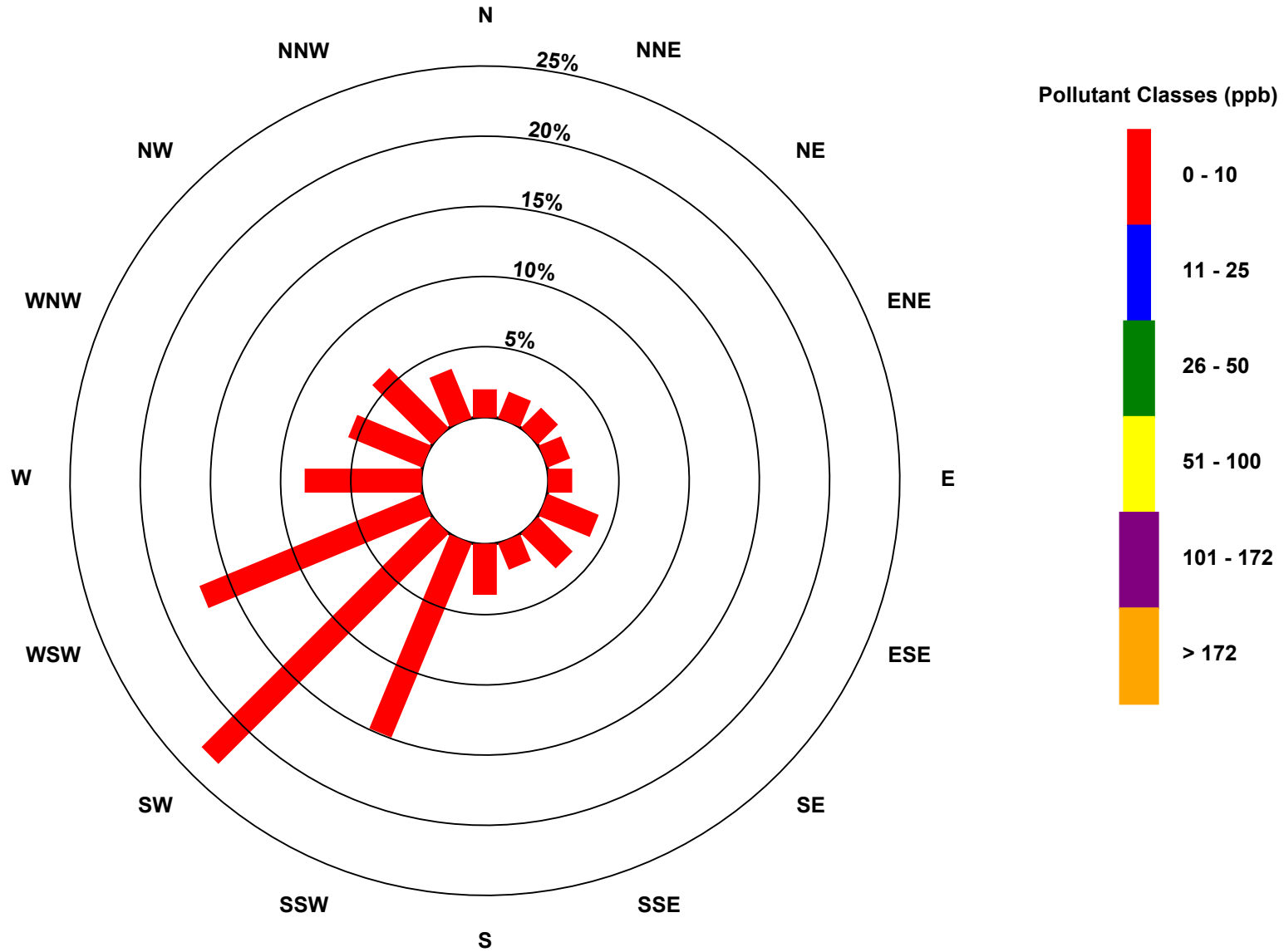


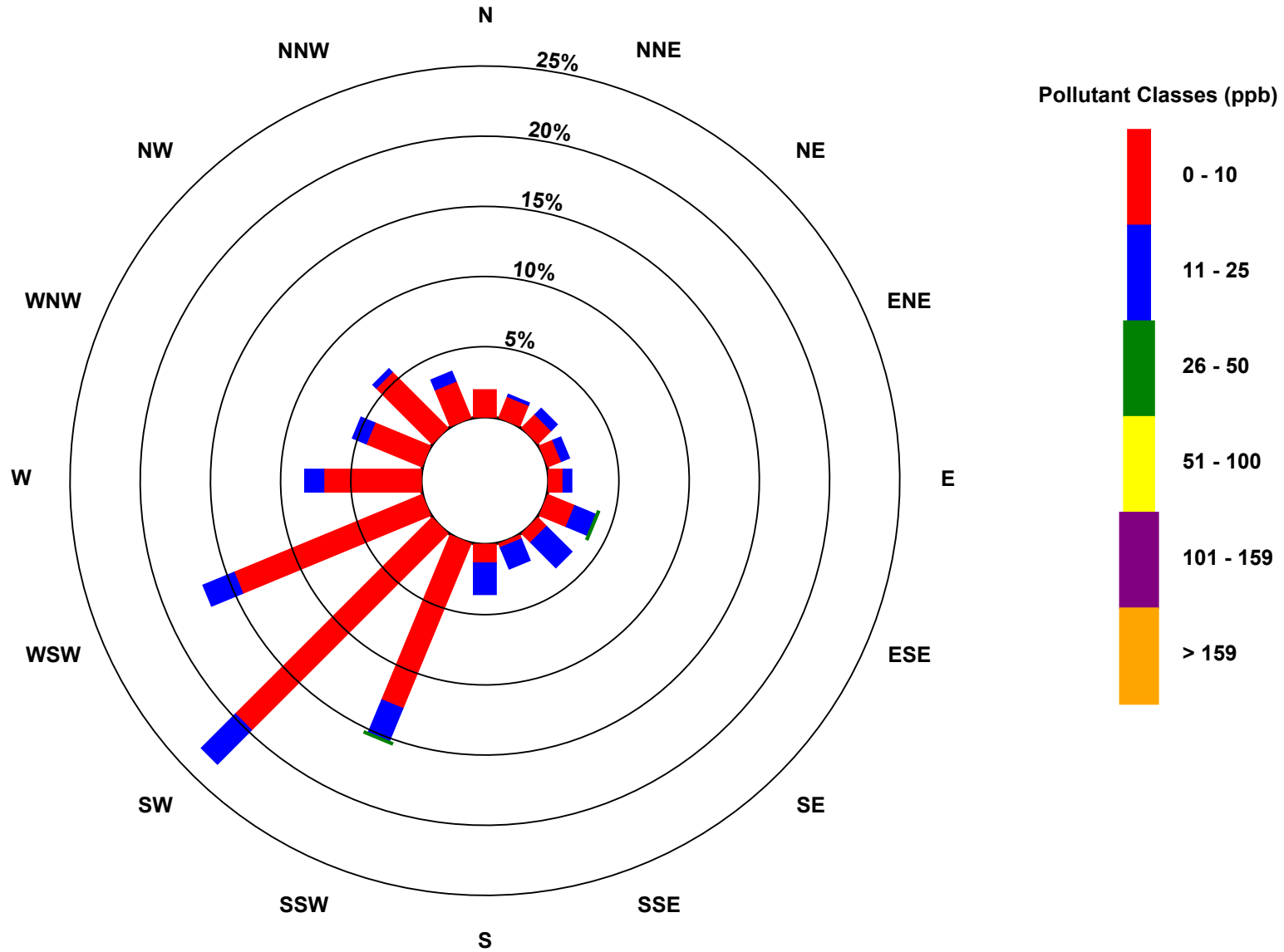


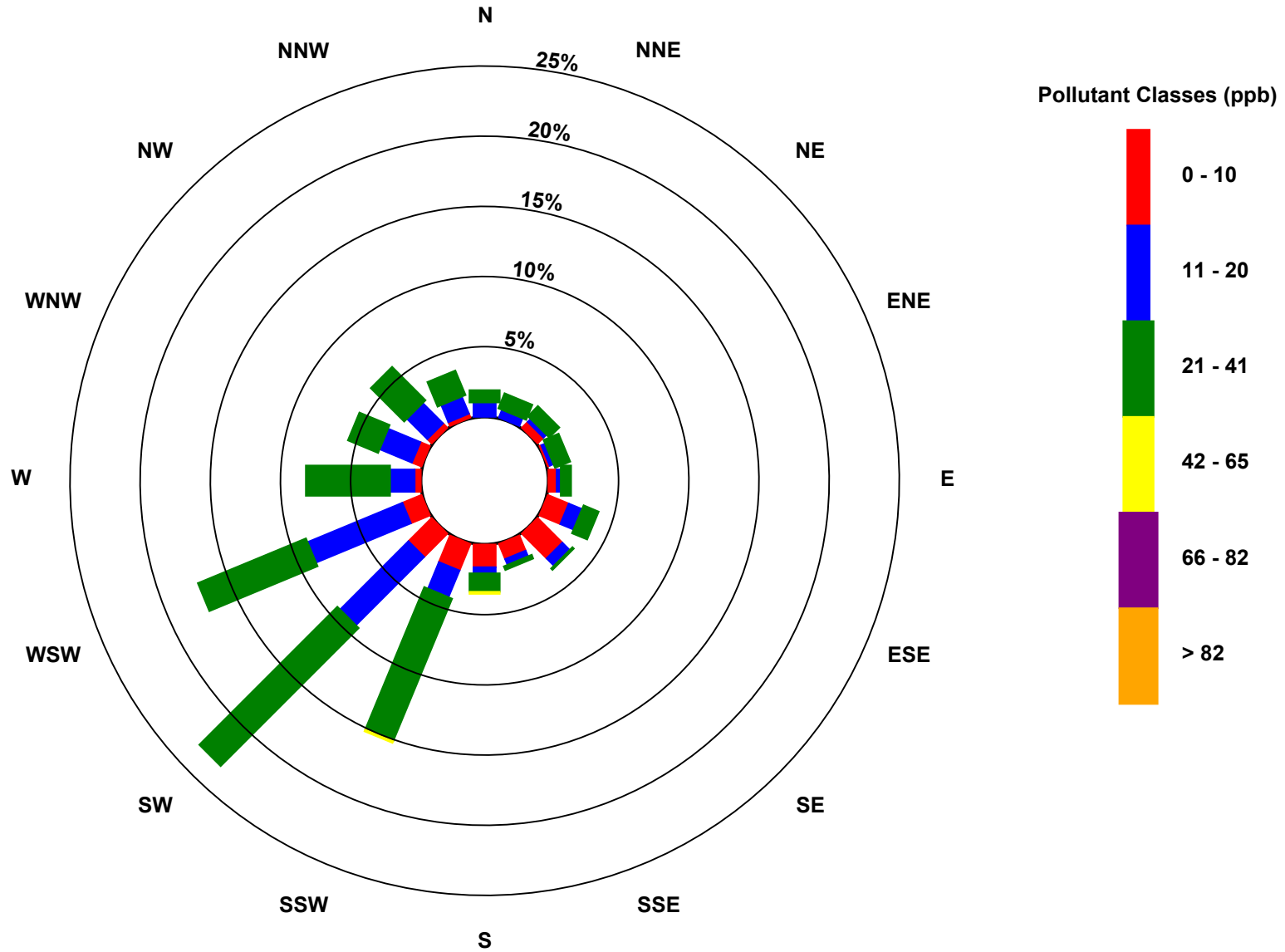


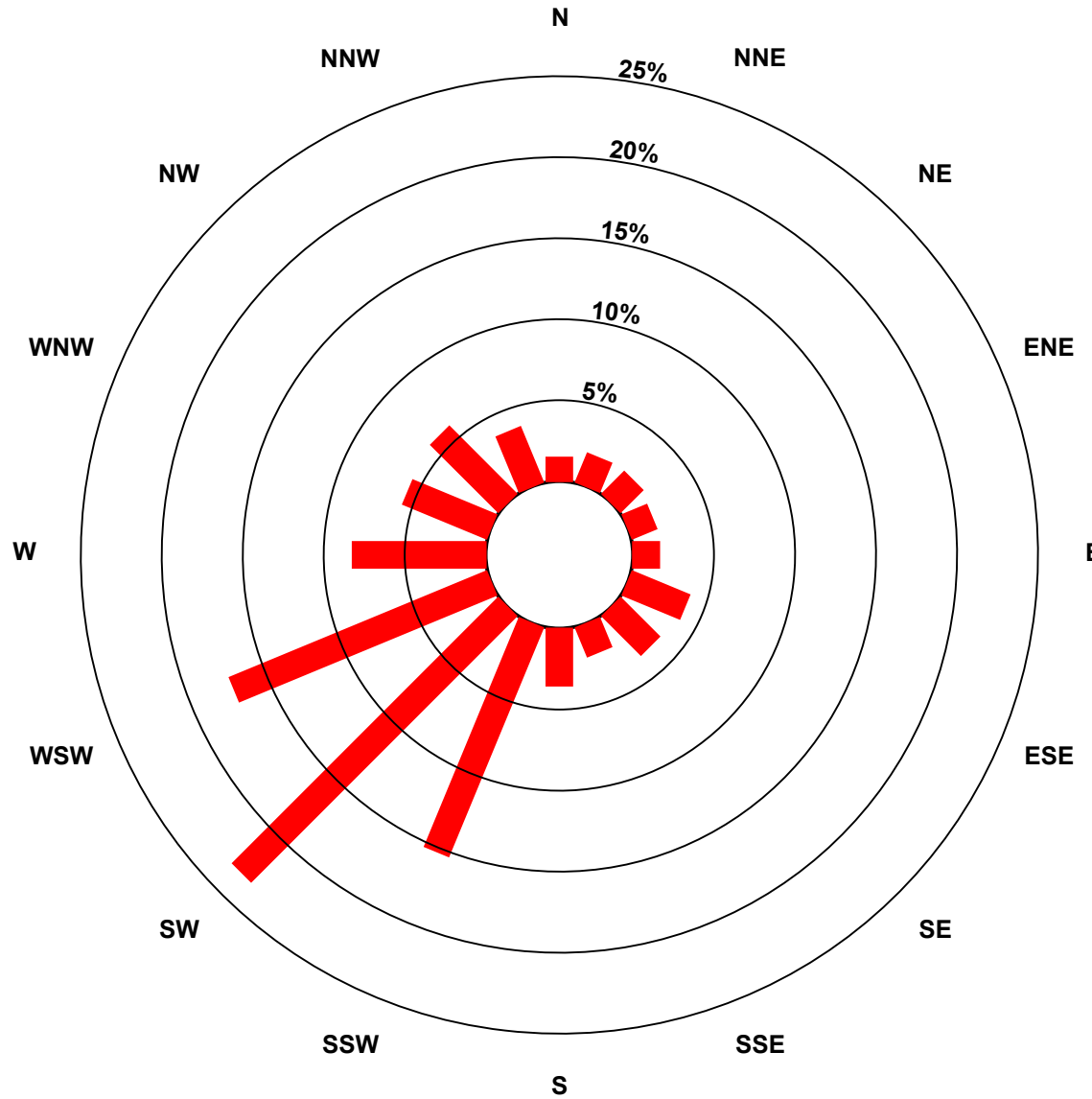




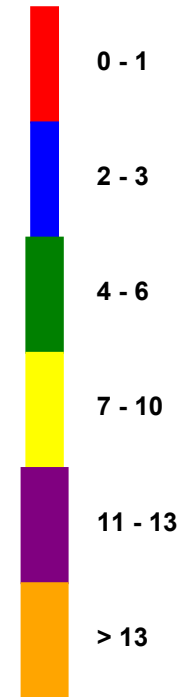






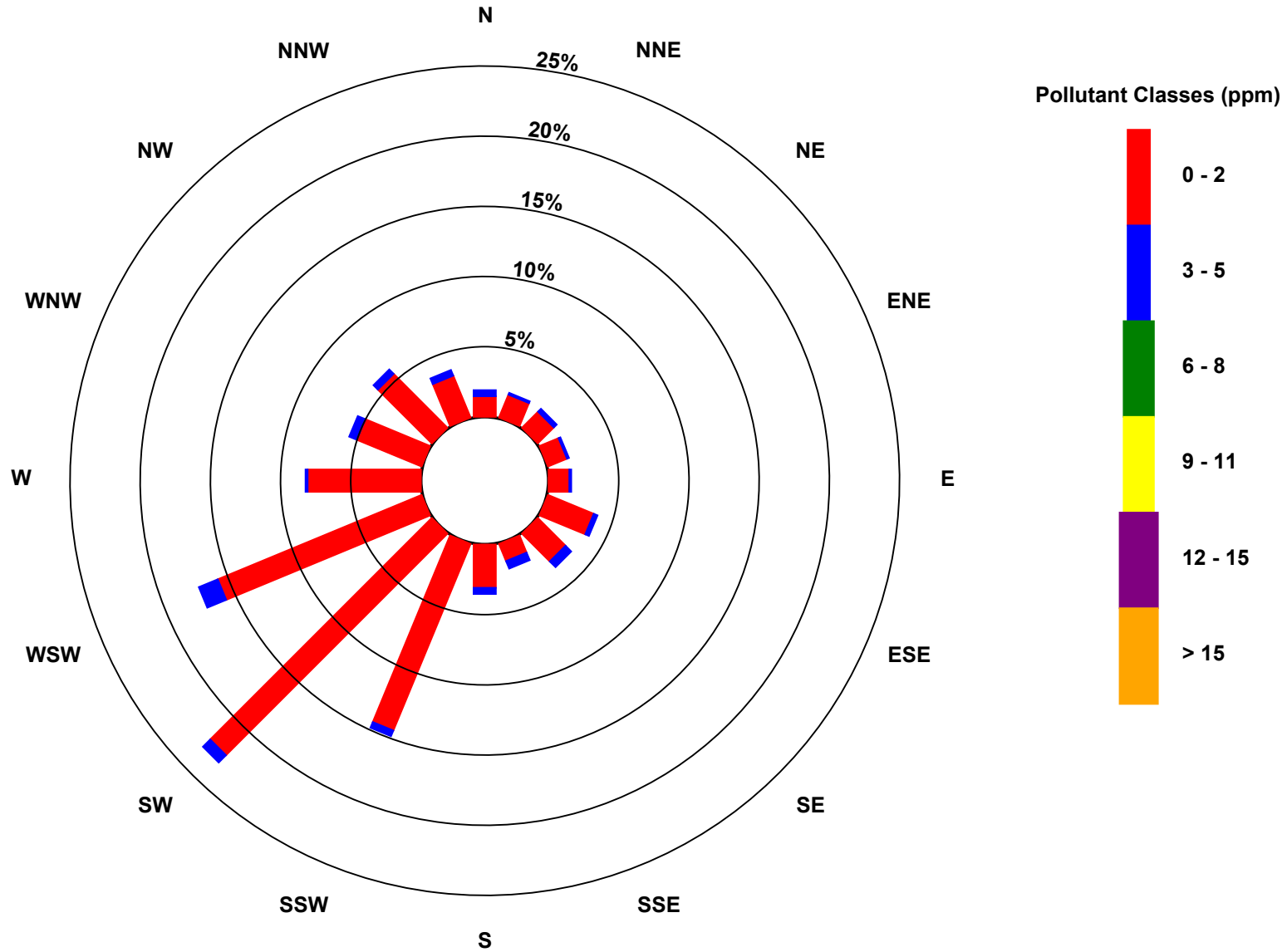


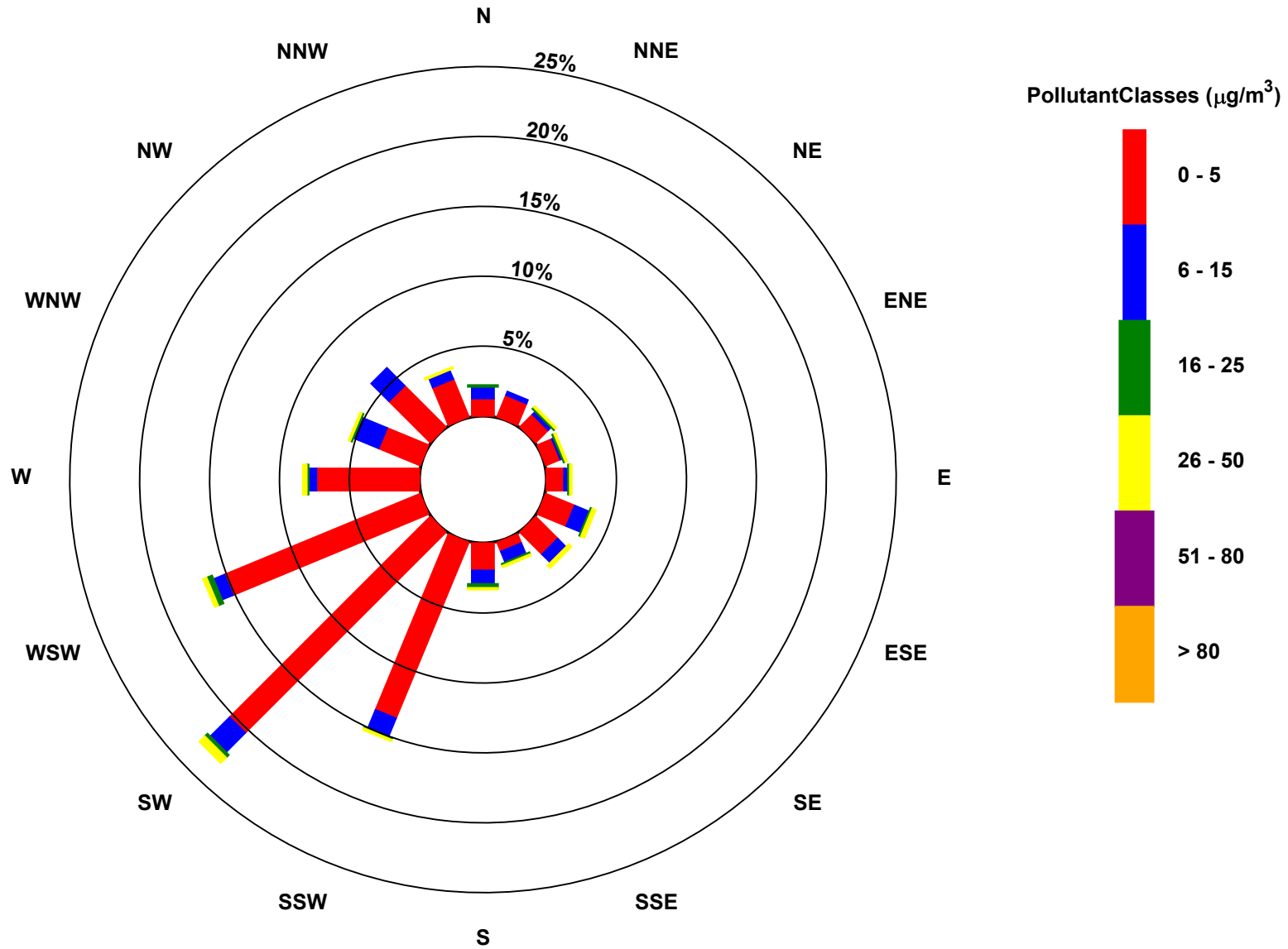
Pollutant Classes (ppm)



**Palliser - Crescent Heights  
Pollutant Rose**

**Total Hydrocarbon (THC) - ppm  
November 2023**







**Palliser - Crescent Heights  
Wind Rose**

**Wind Speed (WS) - kph  
November 2023**

