

June 16, 2025

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 – May 2025

Enclosed is the PAS Dashboard Report for the month of **May 2025**.

Continuous Monitoring – Crescent Heights, Brooks – Meadow Place, Hanna and Raymond Airpointer Monitoring Stations

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

Continuous Monitoring Instrumentation Uptime Summary:

The PM_{2.5} analyzer at Raymond failed on May 23. Analyzer was removed and taken to the Calgary shop for repair. Returned to service May 28, with an uptime of 83.9%. **Reference #441816.**

AAAQO/G Exceedance Summary:

There were no exceedances of the AAAQO/G in May.

If you have any questions, please contact the WSP office at 403-519-8480.

X *Patrick Andersen*

Patrick Andersen, B.Sc.
WSP AQM Data Specialist

X 

Lenin Flores
Project Manager

May 2025 Monthly Ambient Air Quality Summary

May-25 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 ₂ (ppb)	172	48	8	Crescent Heights	0.0	0.0	0	0	0	0.4	May-05 08:00	0.1	May-03	98.9	May-27
NO (ppb)					0.9	0.0				35.0	May-28 07:00	2.9	May-14	98.9	May-27
NO ₂ (ppb)	159				3.5	0.0	0			33.5	May-31 05:00	7.6	May-14	98.9	May-27
NO _x (ppb)					4.5	0.0				62.0	May-31 05:00	10.5	May-14	98.9	May-27
O ₃ (ppb)	76				38.1	4.4	0			70.7	May-03 16:00	49.0	May-03	98.9	May-27
CO (ppm)					0.1	0.1				0.3	May-30 07:00	0.2	May-30	98.9	May-27
CO 8-Hour (ppm)	5				-	0.1	0			0.2	May-30 12:00	-	-	99.6	-
THC (ppm)					2.1	1.9				2.5	May-28 03:00	2.2	May-28	98.9	May-27
PM _{2.5} (µg/m ³)	80	29			5.8	0.8	0	0		71.4	May-30 07:00	19.1	May-30	98.9	May-27
ET (°C)					15.8	0.3				33.0	May-31 17:00	25.9	May-29	98.9	-
RH (%)					47.9	8.8				100.0	May-18 12:00	92.0	May-18	98.9	-
GSR (W/m ²)					266.3	0.0				945.7	May-31 13:00	370.1	May-29	98.9	-
WSPD (km/h)					2.6	0.4				30.1	May-08 10:00	16.0	May-08	98.9	08/11/24
WDIR					SW									98.9	

Pollutant (units)	Analyzer			Notes
	Make		Model	
SO ₂	TEI		43i-TLE	Logger offline May 14, 15, 21, 28, and 29 for a total of 8 hours for updates.
NO/NO ₂ /NO _x	TEI		42i	
O ₃	TECO		49i	
CO	TEI		48i-TLE	
THC	TECO		51C-LT	
PM _{2.5}	API		T640	
ET/RH	RMYoung		41382VC	
GSR	Pyranometer		PY45774	
WS/WD	RMYoung		5305	

May-25 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 Meadowplace	0.3	0.0				18.1	May-28 06:00	3.0	May-28	100.0	May-26
NO ₂ (ppb)	159				3.4	0.4	0			24.1	May-28 04:00	8.4	May-28	100.0	May-26
NO _x (ppb)					3.6	0.3				37.3	May-28 07:00	11.3	May-28	100.0	May-26
O ₃ (ppb)	76				37.6	0.9	0			70.0	May-03 17:00	45.8	May-08	99.9	May-26
PM _{2.5} (µg/m ³)	80	29			6.2	1.5	0	0		32.6	May-30 08:00	15.4	May-30	100.0	May-26
ET (°C)					14.0	-0.6				32.6	May-31 18:00	22.6	May-29	100.0	-
RH (%)					56.3	14.4				100.0	May-14 03:00	88.7	May-18	100.0	-
WSPD (km/h)					2.1	0.1				36.2	May-08 08:00	19.5	May-15	100.0	27/11/24
WDIR					SSW										100.0

Pollutant (units)	Analyzer			Notes
	Make		Model	
NO/NO ₂ /NO _x	TEI		42iQ	
O ₃	TEI		49iQ	Manual span check May 16.
PM _{2.5}	API		T640	
ET/RH	CS		HC2-S3	
WS/WD	RMYoung		5305	

May-25				Palliser Airshed Society				Maximum Recorded Values							
Pollutant (units)		Objectives		Station	Monthly Average	1-Hour Minimum	Exceedence			1-hr		24-hr / 8-hr			
		1-hr	24-hr				30-day	1-hr	24-hr	30-day	Conc	Day	Conc		
NO (ppb)				Hanna Airpointer	0.8	0.0				9.3	May-28 07:00	1.8	May-28	100.0	May-29
NO ₂ (ppb)	159				2.5	0.0	0			25.7	May-28 05:00	7.3	May-28	100.0	May-29
NO _x (ppb)					3.3	0.0				31.8	May-28 05:00	9.0	May-28	100.0	May-29
O ₃ (ppb)	76				36.3	2.4	0			65.8	May-03 16:00	48.5	May-03	99.1	May-30
PM _{2.5} (µg/m³)	80	29			5.3	0.8	0	0		69.8	May-31 22:00	19.1	May-12	99.9	May-30
ET (°C)					13.3	1.9				31.3	May-29 16:00	21.9	May-29	100.0	-
RH (%)					54.7	11.0				97.9	May-24 06:00	88.4	May-21	100.0	-
WSPD (km/h)					2.2	0.0				18.9	May-26 11:00	10.5	May-26	100.0	-
WDIR					ESE										100.0

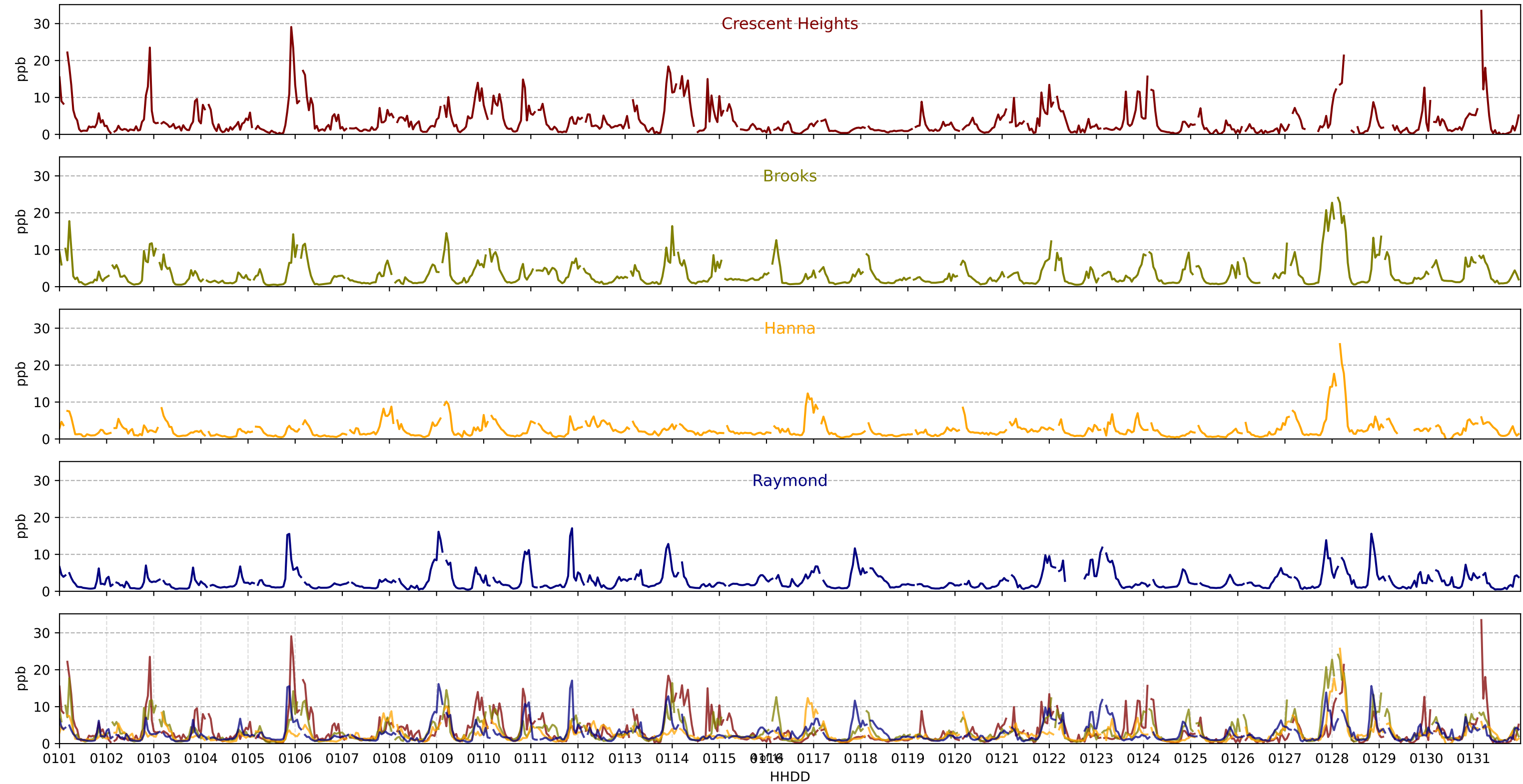
Pollutant (units)	Analyzer			Notes
	Make		Model	
NO/NO ₂ /NO _x	Airpointer API		200e	
O ₃	Airpointer API		400e	Analyzer offline during NO _x calibration May 29.
PM _{2.5}	Sharp		5030	Analyzer check May 22.
ET/RH	CS		HC2-S3	
WS/WD	RMYoung		5305	

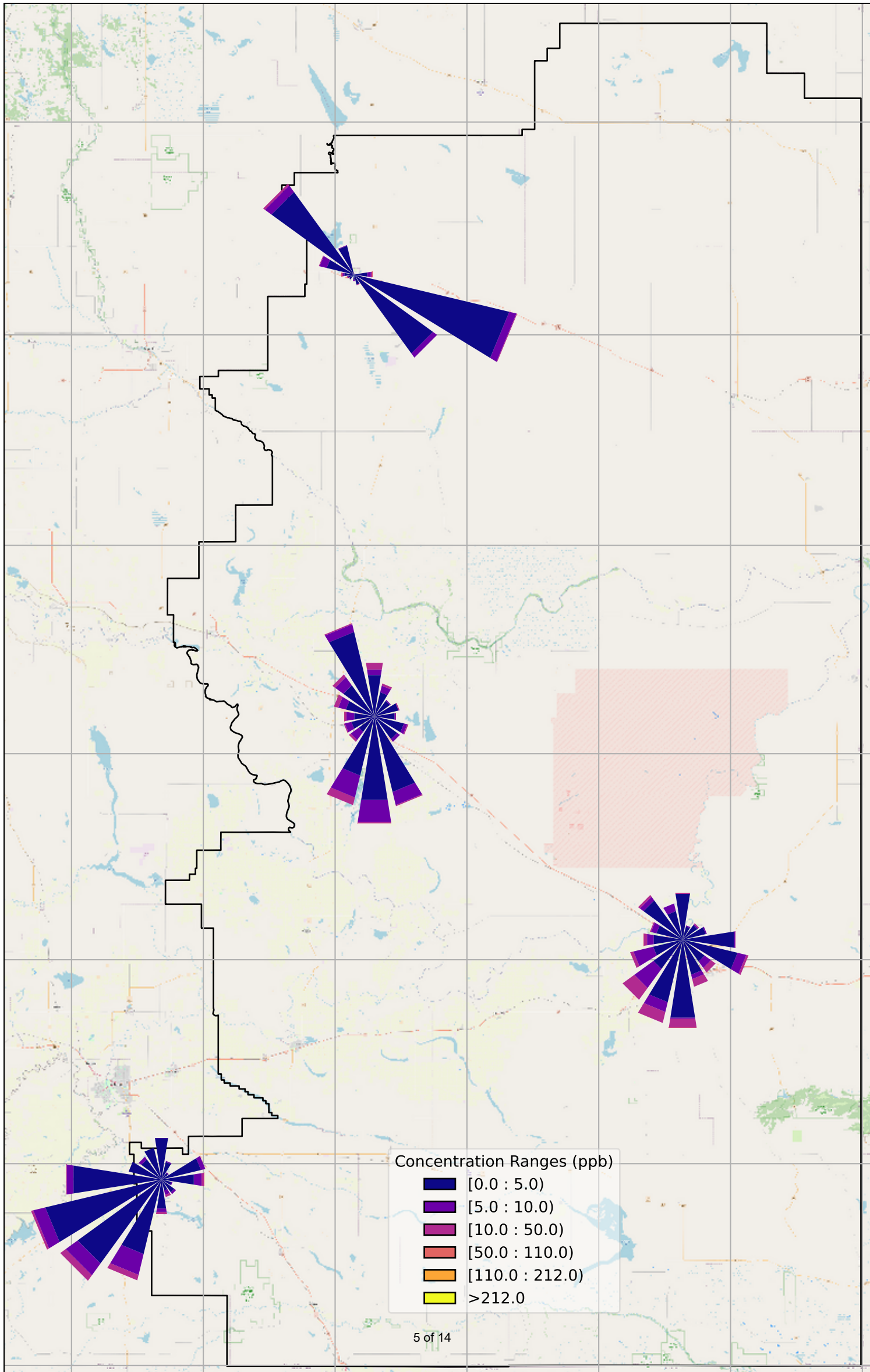
May-25				Palliser Airshed Society				Maximum Recorded Values							
Pollutant (units)		Objectives		Station	Monthly Average	1-Hour Minimum	Exceedence		1-hr		24-hr / 8-hr		Operational Time (%)	Calibration Date	
		1-hr	24-hr				30-day	1-hr	24-hr	30-day	Conc	Day			Conc
NO (ppb)				Raymond Airpointer	0.3	0.0				10.0	May-22 08:00	0.9	May-09	100.0	May-22
NO ₂ (ppb)	159				2.8	0.4	0			17.1	May-11 22:00	5.0	May-28	100.0	May-22
NO _x (ppb)					3.1	0.5				21.5	May-09 02:00	5.7	May-28	100.0	May-22
O ₃ (ppb)	76				34.8	1.8	0			58.4	May-03 16:00	44.7	May-03	100.0	May-22
PM _{2.5} (µg/m³)	80	29			3.9	0.0	0	0		54.8	May-30 10:00	9.7	May-30	83.9	May-22
ET (°C)					13.7	-0.1				32.1	May-31 15:00	22.9	May-31	100.0	-
RH (%)					54.2	13.1				100.0	May-16 02:00	91.7	May-15	100.0	-
WSPD (km/h)					4.1	0.1				24.1	May-11 03:00	14.4	May-20	100.0	-
WDIR					W									100.0	-

Pollutant (units)	Analyzer			Notes
	Make		Model	
NO/NO ₂ /NO _x	Airpointer API		200e	
O ₃	Airpointer API		400e	
PM _{2.5}	Sharp		5030	Analyzer failed May 23 and was removed for repair. Analyzer returned to service May 28.
ET/RH	Vaisala		WXT520	
WS/WD	Vaisala		WXT520	

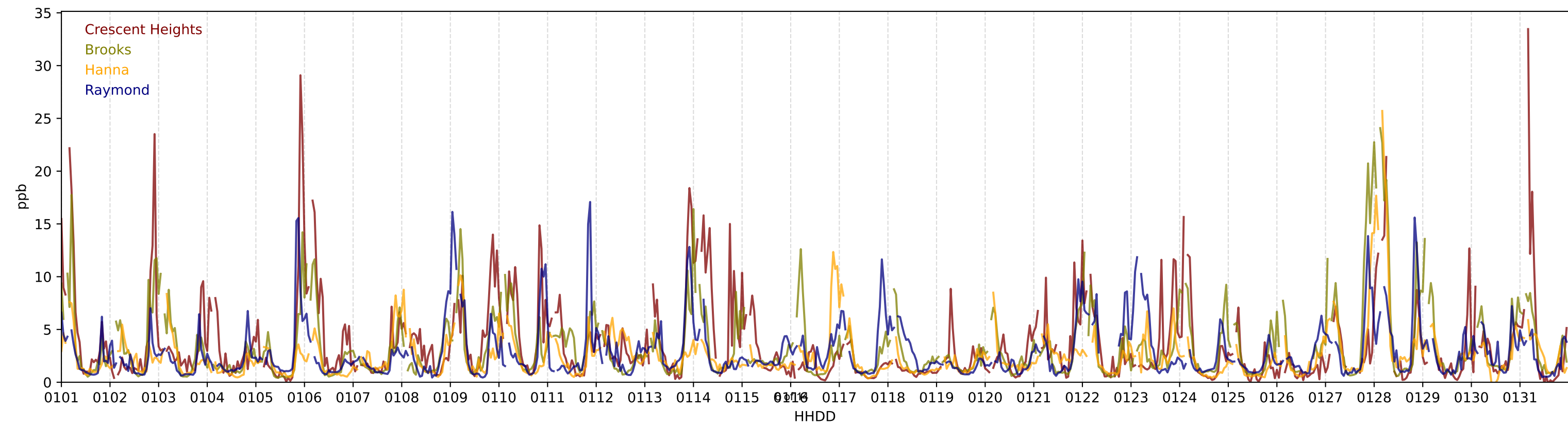
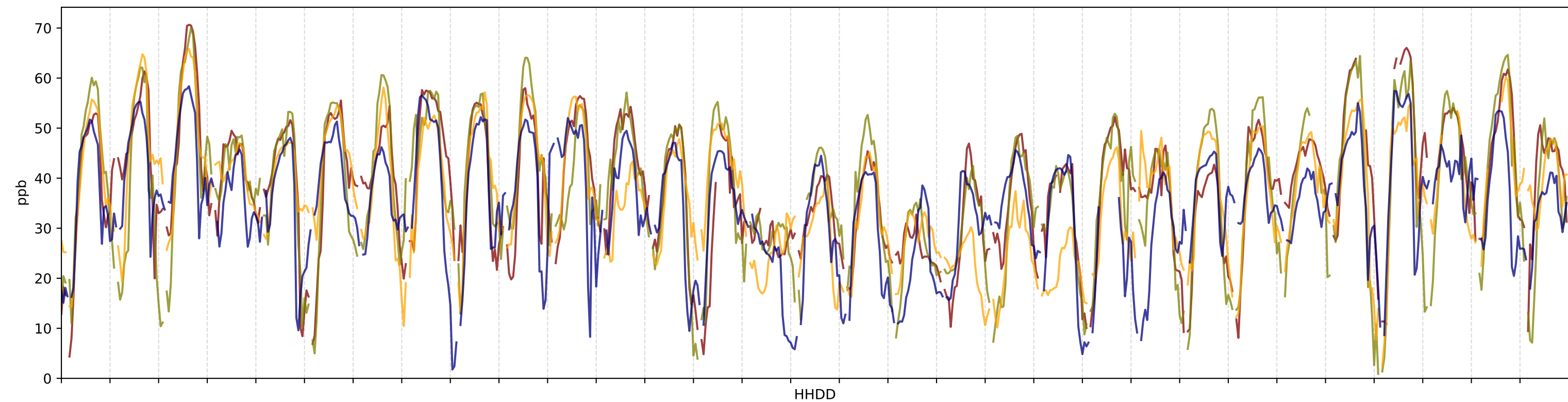
May 2025 NO₂

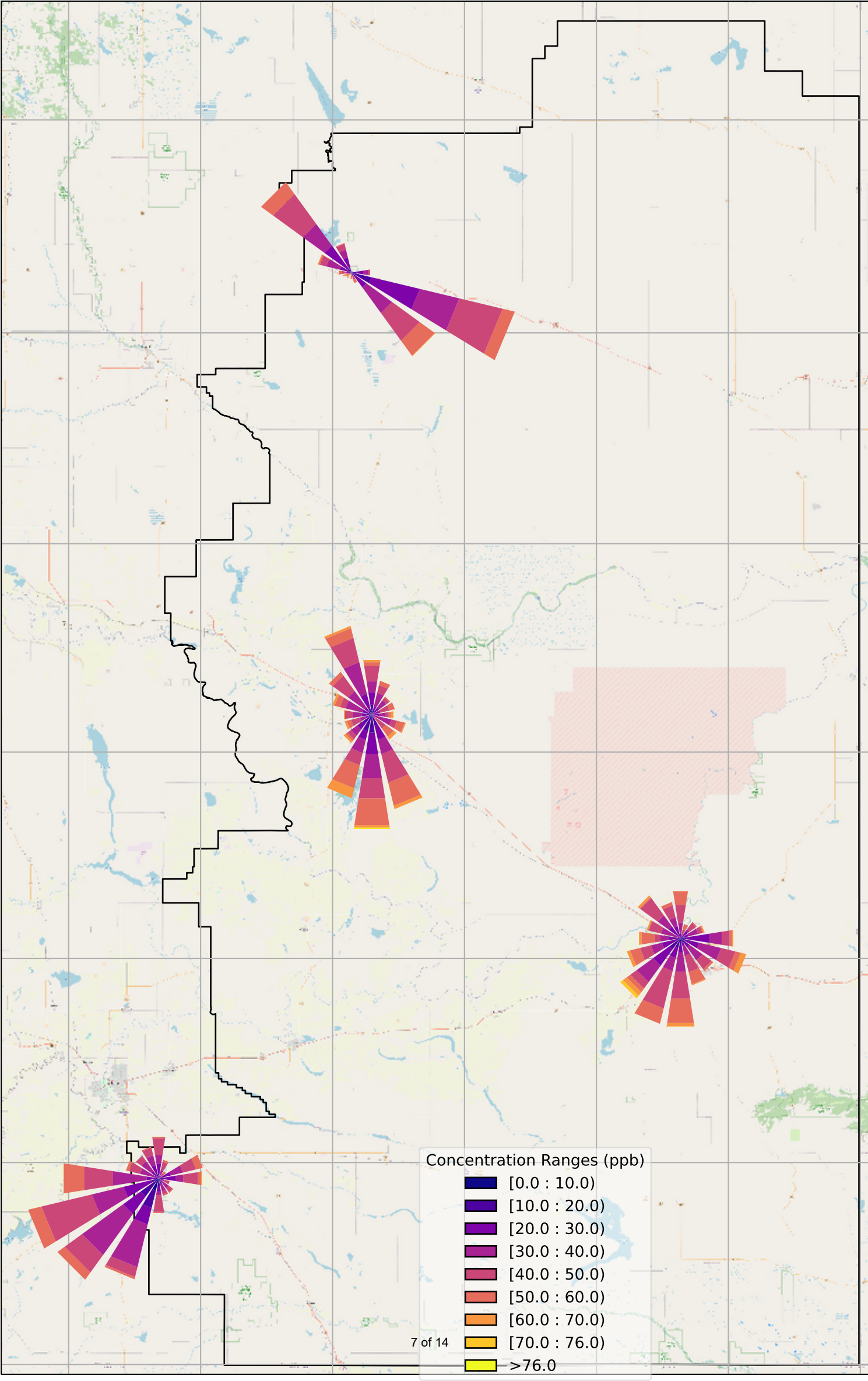
NO₂ AAAQO = 172 ppb





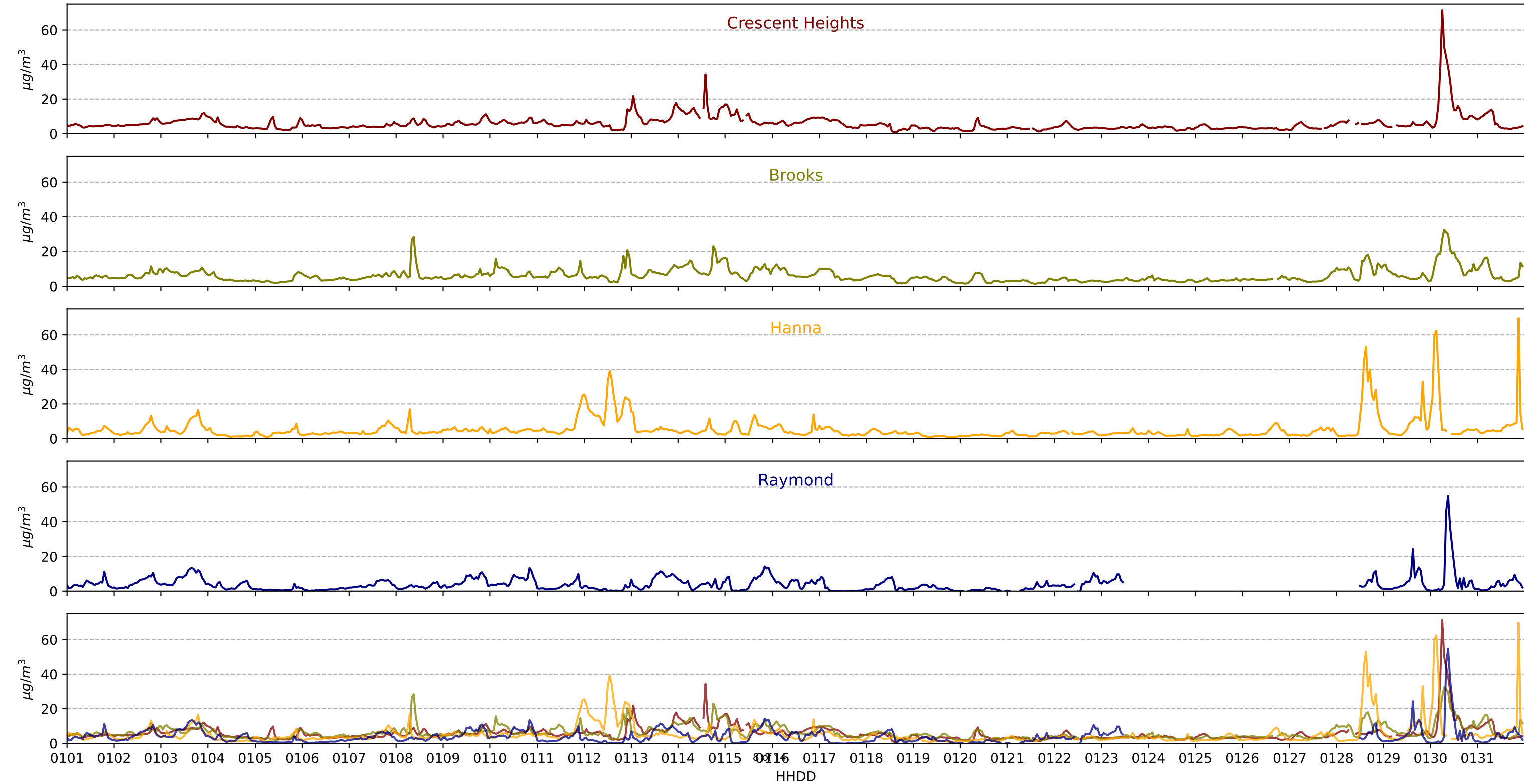
May 2025 O₃ vs NO₂

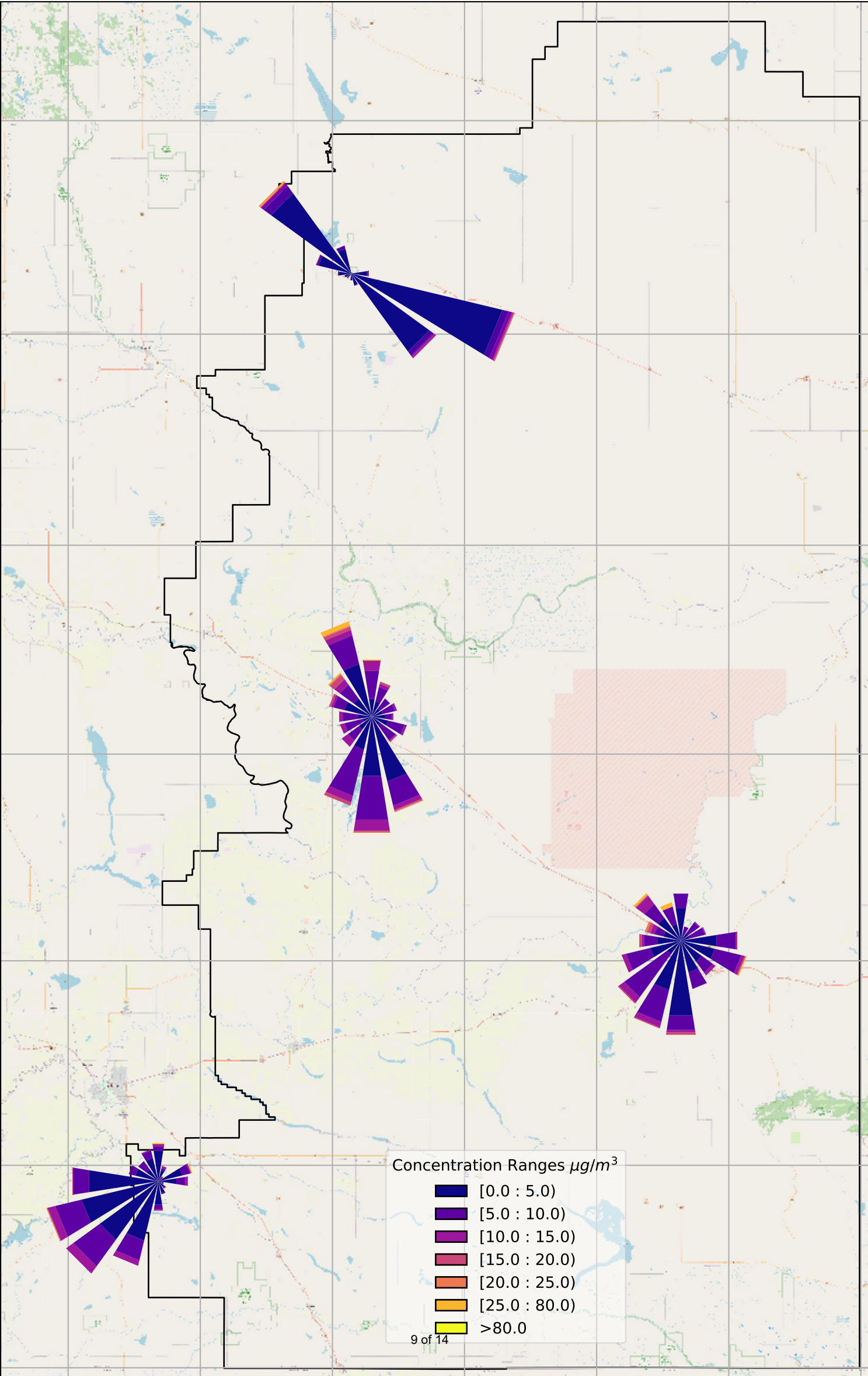




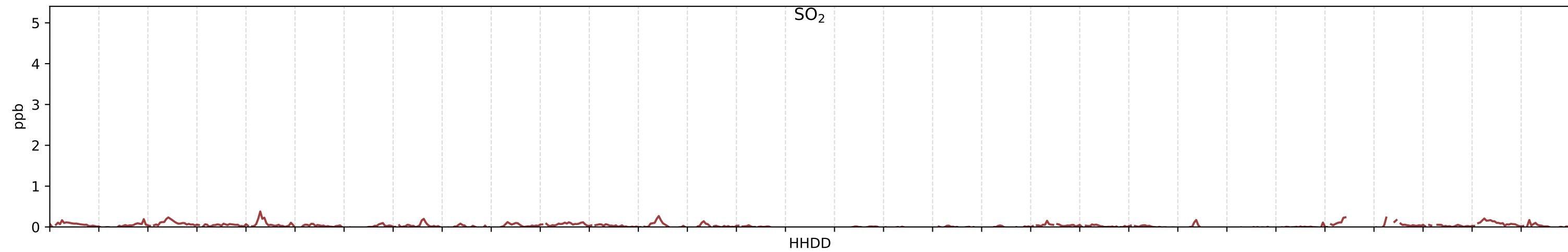
May 2025 PM_{2.5}

PM_{2.5} AAAQG = 80 $\mu\text{g}/\text{m}^3$





SO₂ AAAQO = 172 ppb



CO AAAQO = 13 ppm

