

May 27, 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 – April 2025

Enclosed is the PAS Dashboard Report for the month of **April 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:

There were no uptimes less than 90% in April.

AAAQO/G Exceedance Summary:

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

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

April 2025 Monthly Ambient Air Quality Summary

Apr-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	0.3	Apr-19 11:00	0.1	Apr-27	100.0	Apr-16			
NO (ppb)					1.0	0.0				28.5	Apr-24 07:00	4.9	Apr-24	100.0	Apr-16			
NO ₂ (ppb)	159				4.0	0.3	0			25.9	Apr-03 00:00	7.8	Apr-24	100.0	Apr-16			
NO _x (ppb)					5.0	0.5				45.4	Apr-24 07:00	12.7	Apr-24	100.0	Apr-16			
O ₃ (ppb)	76				35.3	1.2	0			57.2	Apr-24 16:00	43.3	Apr-11	100.0	Apr-16			
CO (ppm)					0.1	0.1				0.3	Apr-24 08:00	0.2	Apr-16	100.0	Apr-16			
CO 8-Hour (ppm)	5				-	0.1	0			0.2	Apr-24 10:00	-	-	100.0	-			
THC (ppm)					2.2	2.0				2.9	Apr-13 09:00	2.3	Apr-04	100.0	Apr-16			
PM _{2.5} (µg/m³)	80	29			4.2	0.6	0	0		12.0	Apr-10 21:00	6.7	Apr-10	100.0	Apr-16			
ET (°C)					8.1	-5.7				23.4	Apr-07 16:00	15.3	Apr-11	100.0	-			
RH (%)					53.4	12.3				100.0	Apr-02 10:00	89.8	Apr-21	100.0	-			
GSR (W/m²)					218.0	0.0				898.2	Apr-23 12:00	309.9	Apr-28	100.0	-			
WSPD (km/h)					1.7	0.3				37.8	Apr-12 22:00	14.1	Apr-19	100.0	08/11/24			
WDIR					WNW										100.0			

Pollutant (units)	Analyzer			Notes
	Make		Model	
SO ₂	TEI		43i-TLE	
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	

Apr-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	0.4	0.0				16.4	Apr-24 07:00	2.2	Apr-24	99.4	Apr-15		
NO ₂ (ppb)	159				3.0	0.1	0			23.2	Apr-18 00:00	5.9	Apr-17	99.4	Apr-15		
NO _x (ppb)					3.3	0.0				30.4	Apr-24 05:00	8.0	Apr-24	99.4	Apr-15		
O ₃ (ppb)	76				34.1	0.1	0			57.6	Apr-24 15:00	42.1	Apr-11	99.9	Apr-15		
PM _{2.5} (µg/m³)	80	29			4.0	0.3	0	0		12.1	Apr-10 19:00	6.3	Apr-10	100.0	Apr-15		
ET (°C)					6.6	-7.5				21.7	Apr-07 14:00	13.3	Apr-11	100.0	-		
RH (%)					59.8	14.8				100.0	Apr-02 09:00	93.3	Apr-21	100.0	-		
WSPD (km/h)					1.5	0.3				39.3	Apr-12 21:00	21.2	Apr-25	100.0	27/11/24		
WDIR					NNW										100.0		

Pollutant (units)	Analyzer			Notes
	Make		Model	
NO/NO ₂ /NO _x	TEI		42iQ	NOx cylinder replaced April 16. Analyzer check April 17.
O ₃	TEI		49iQ	Manual span check April 7.
PM _{2.5}	API		T640	
ET/RH	CS		HC2-S3	
WS/WD	RMYoung		5305	

Apr-25 Palliser Airshed Society										Maximum Recorded Values				Operational Time (%)	Calibration Date
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	Day		
NO (ppb)				Hanna Airpointer	1.1	0.0				12.1	Apr-06 07:00	2.5	Apr-06	100.0	Apr-24
NO ₂ (ppb)	159				3.0	0.4	0			22.1	Apr-06 06:00	5.8	Apr-06	100.0	Apr-24
NO _x (ppb)					4.1	0.6				32.3	Apr-06 06:00	8.3	Apr-06	100.0	Apr-24
O ₃ (ppb)	76				35.3	3.8	0			56.6	Apr-26 18:00	40.9	Apr-25	99.3	Apr-24
PM _{2.5} (µg/m³)	80	29			3.3	0.1	0	0		15.9	Apr-02 01:00	6.8	Apr-23	99.6	Apr-24
ET (°C)					6.1	-8.8				21.2	Apr-07 15:00	11.6	Apr-11	100.0	-
RH (%)					56.3	16.3				96.1	Apr-02 02:00	80.2	Apr-08	100.0	-
WSPD (km/h)					0.3	0.0				17.9	Apr-25 17:00	10.8	Apr-25	100.0	-
WDIR					SSE									100.0	-

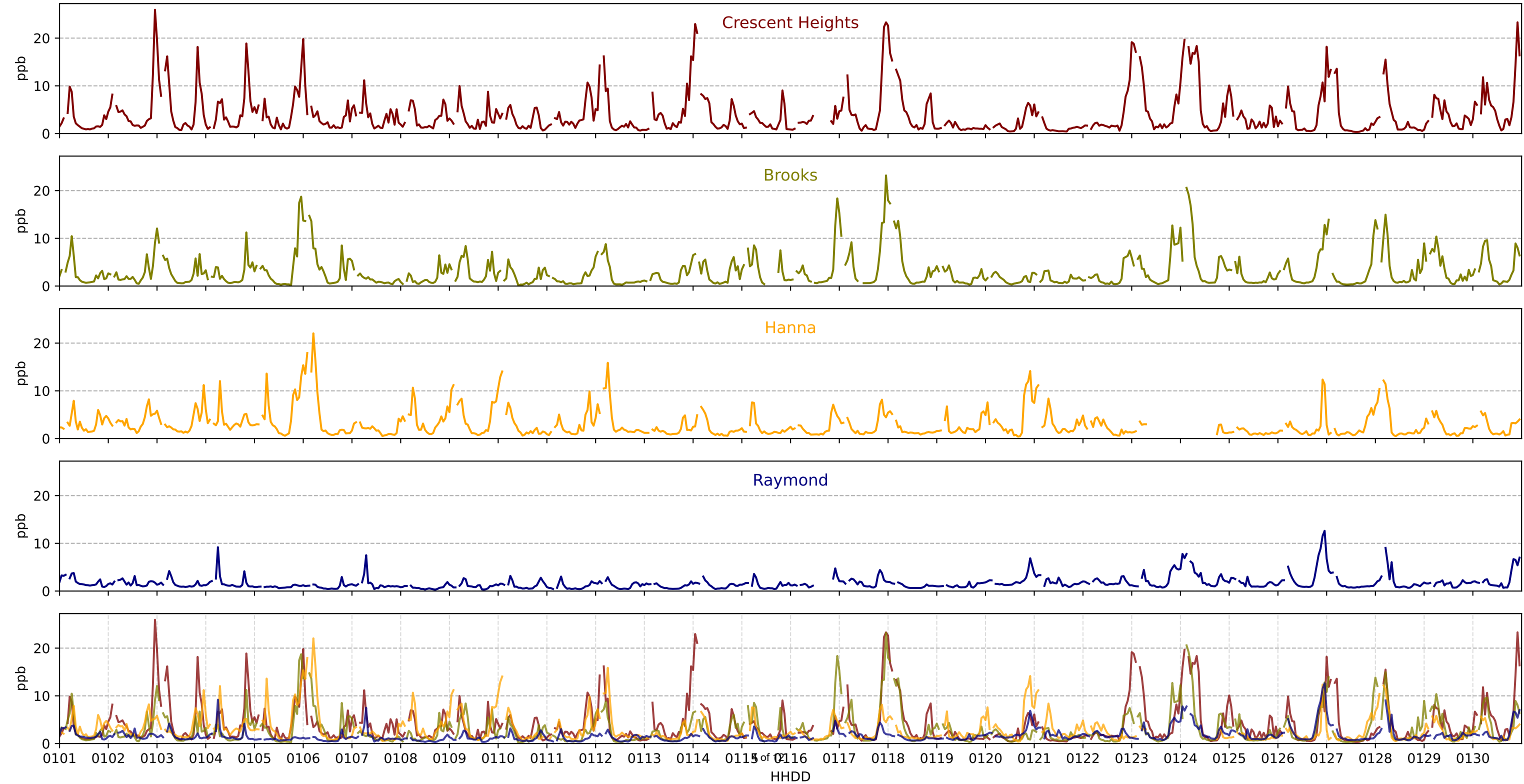
Pollutant (units)	Analyzer			Notes
	Make		Model	
NO/NO ₂ /NO _x	Airpointer API		200e	Routine maintenance performed April 23, analyzer allowed to stabilize and calibrated April 24.
O ₃	Airpointer API		400e	Analyzer offline during NO _x removal calibration April 23.
PM _{2.5}	Sharp		5030	Analyzer check April 23.
ET/RH	CS		HC2-S3	
WS/WD	RMYoung		5305	

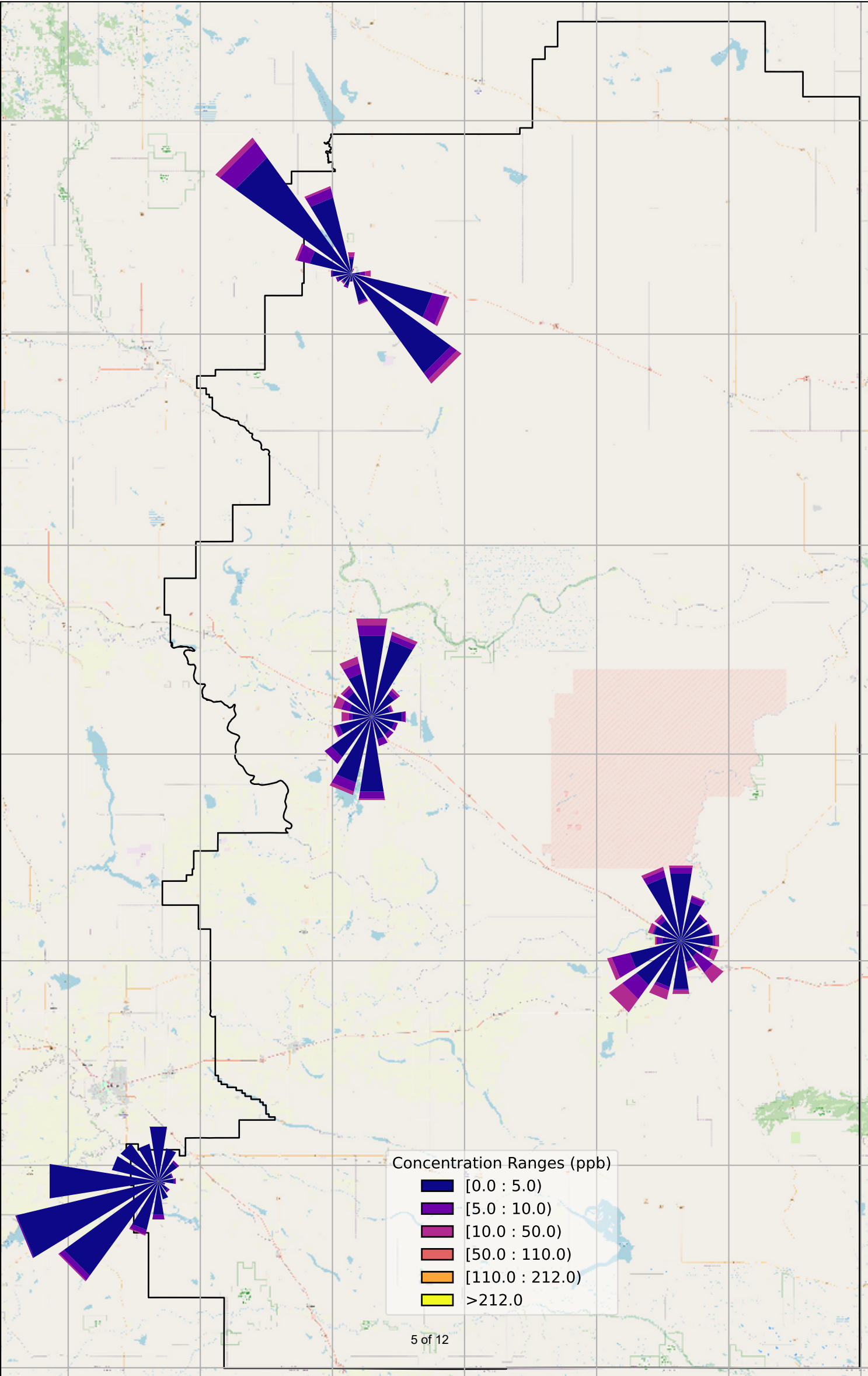
Apr-25 Palliser Airshed Society										Maximum Recorded Values					
Pollutant (units)	Objectives			Station	Monthly Average	1-Hour Minimum	Exceedence			1-hr		24-hr / 8-hr			
	1-hr	24-hr	30-day				1-hr	24-hr	30-day	Conc	Day	Conc	Day		
NO (ppb)				Raymond Airpointer	0.2	0.0				7.5	Apr-07 08:00	0.5	Apr-07	100.0	Apr-16
NO ₂ (ppb)	159				1.6	0.3	0			12.6	Apr-27 00:00	3.4	Apr-26	100.0	Apr-16
NO _x (ppb)					1.9	0.4				15.1	Apr-07 08:00	3.8	Apr-26	100.0	Apr-16
O ₃ (ppb)	76				35.8	4.4	0			54.4	Apr-12 15:00	45.4	Apr-11	100.0	Apr-16
PM _{2.5} (µg/m³)	80	29			3.9	0.0	0	0		24.8	Apr-10 12:00	10.7	Apr-10	91.4	Apr-04
ET (°C)					6.7	-8.2				20.2	Apr-15 17:00	13.5	Apr-15	100.0	-
RH (%)					55.7	14.0				100.0	Apr-03 03:00	89.3	Apr-20	100.0	-
WSPD (km/h)					1.7	0.0				9.8	Apr-08 13:00	5.3	Apr-08	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	Sample tape broke April 2, replaced April 4. Analyzer checked during April 16 calibrations.
ET/RH	Vaisala		WXT520	
WS/WD	Vaisala		WXT520	

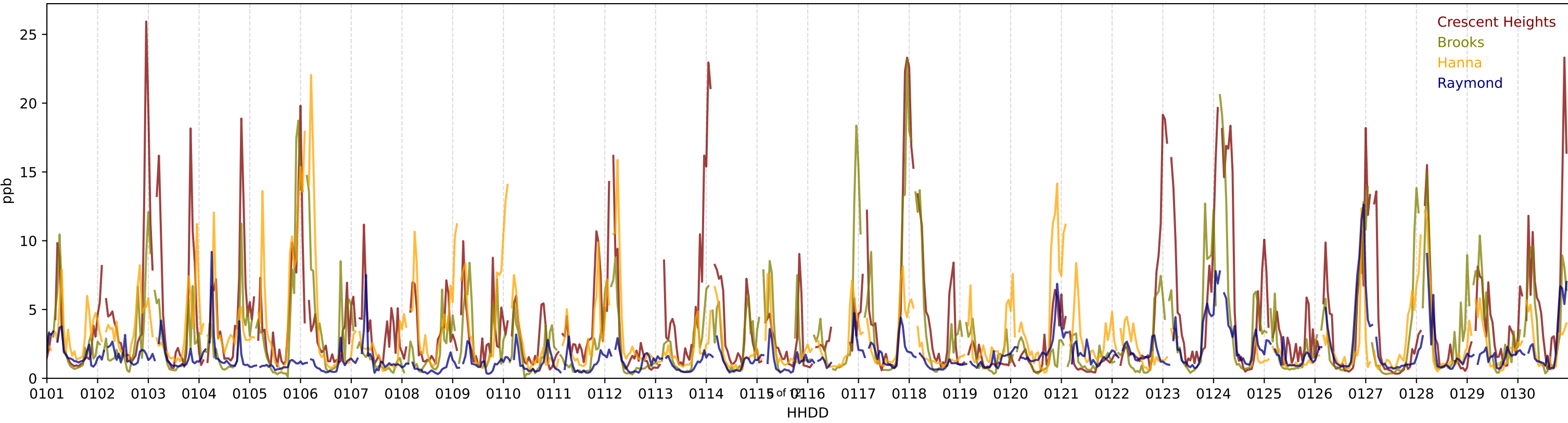
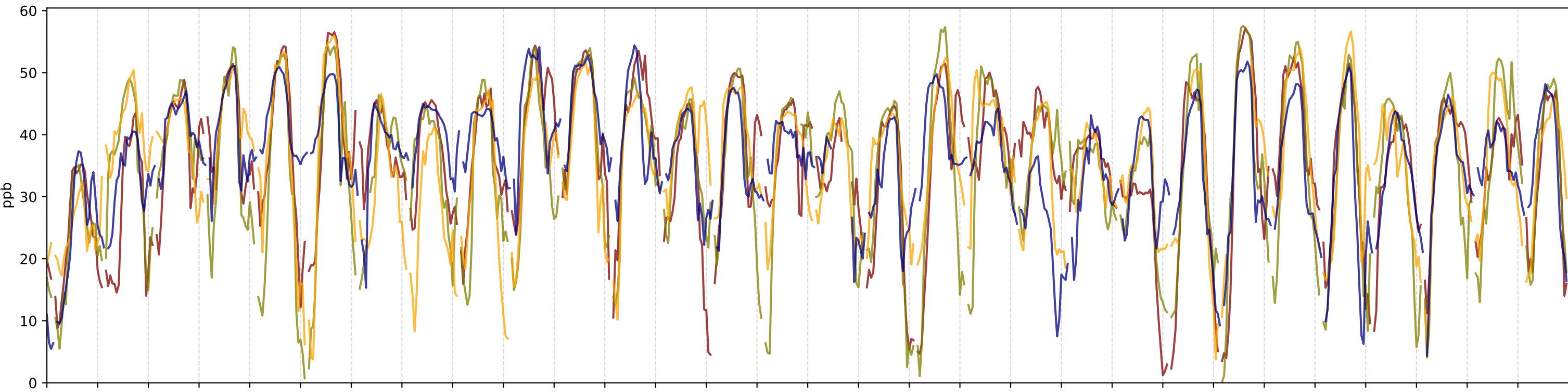
April 2025 NO₂

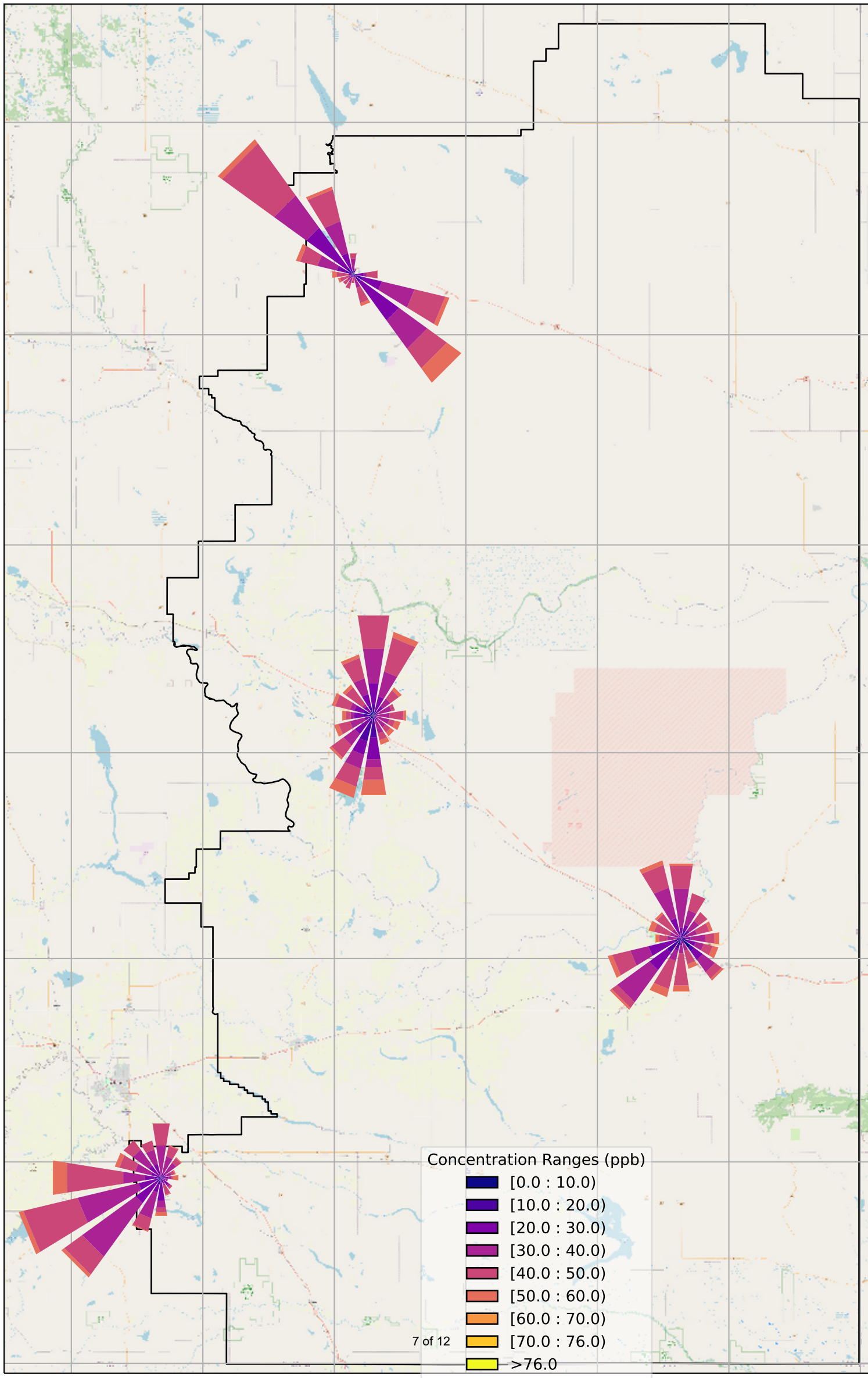
NO₂ AAAQO = 172 ppb





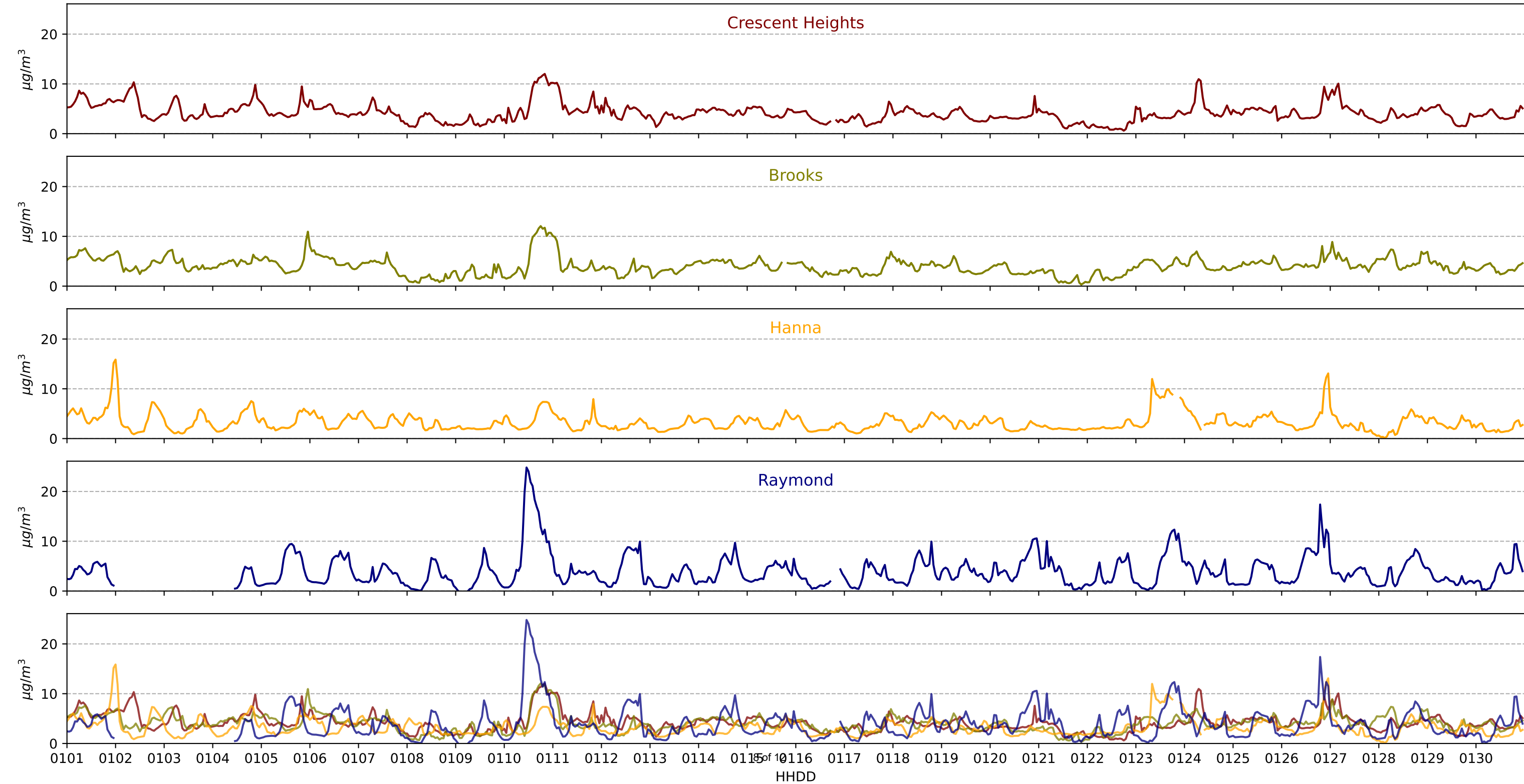
April 2025 O₃ vs NO₂



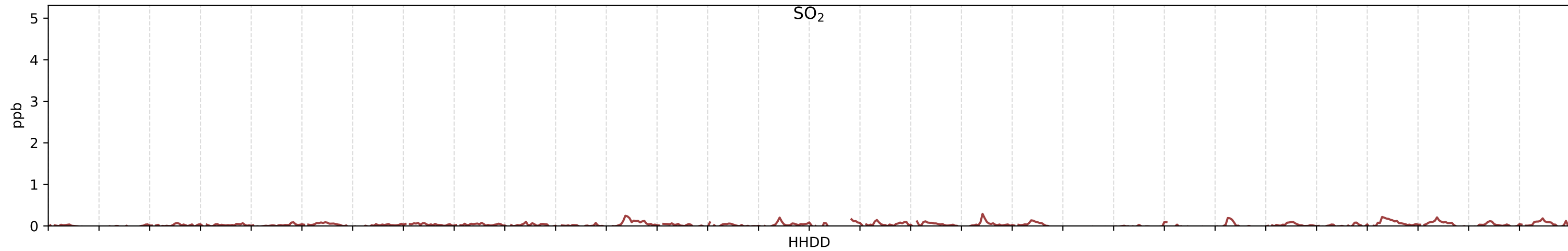


April 2025 PM_{2.5}

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



SO₂ AAAQO = 172 ppb



CO AAAQO = 13 ppm

