

October 23, 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 – September 2025

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

Continuous Monitoring – Crescent Heights, Brooks – Meadowplace, 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 operational times less than 90% in September.

AAAQO/G Exceedance Summary:

There were 20 exceedances of the 1-hour and 10 exceedances of the 24-hour AAAQO/G for PM_{2.5} (80/29 µg/m³) in September. All exceedances are attributed to wildfire smoke.

Station Name	Date	Start Time	End Time	1-Hour PM _{2.5} Concentration	Wind Direction	Wind Speed	Reference Number
		(MST)	(MST)	(µg/m ³)		(km/h)	
Hanna (Airpointer)	01-Sep-25	20:00	21:00	104	ESE	1.7	*
Hanna (Airpointer)	01-Sep-25	21:00	22:00	98	SE	1.3	*
Hanna (Airpointer)	01-Sep-25	22:00	23:00	85	ESE	0.2	*
Hanna (Airpointer)	01-Sep-25	23:00	00:00	80	SE	0.8	*
Brooks - Meadowplace	02-Sep-25	01:00	02:00	94	N	12.8	*
Brooks - Meadowplace	02-Sep-25	02:00	03:00	137	N	12.9	*
Brooks - Meadowplace	02-Sep-25	03:00	04:00	129	NNW	10.3	*
Brooks - Meadowplace	02-Sep-25	04:00	05:00	120	N	12.6	*
Brooks - Meadowplace	02-Sep-25	05:00	06:00	109	N	12.5	*
Raymond (Airpointer)	02-Sep-25	05:00	06:00	111	WSW	7.4	*
Brooks - Meadowplace	02-Sep-25	06:00	07:00	91	NNE	14.8	*
Crescent Heights	02-Sep-25	06:00	07:00	92	NNW	3.4	*
Raymond (Airpointer)	02-Sep-25	06:00	07:00	134	WSW	6.9	*
Crescent Heights	02-Sep-25	07:00	08:00	85	NNE	6.7	*
Raymond (Airpointer)	02-Sep-25	07:00	08:00	124	W	8.5	*
Crescent Heights	02-Sep-25	08:00	09:00	92	NE	9.2	*
Raymond (Airpointer)	02-Sep-25	08:00	09:00	111	WNW	7.6	*
Raymond (Airpointer)	02-Sep-25	09:00	10:00	97	NW	6.5	*
Raymond (Airpointer)	02-Sep-25	10:00	11:00	94	NNW	7.3	*
Raymond (Airpointer)	02-Sep-25	11:00	12:00	87	N	8.4	*

Station Name	Date	24-Hour PM _{2.5} Concentration (µg/m ³)	Wind Direction	Wind Speed (km/h)	Reference Number
Hanna (Airpointer)	01-Sep-25	41	SSE	0.9	444837
Brooks - Meadowplace	02-Sep-25	67	NE	8.4	444832
Crescent Heights	02-Sep-25	49	ENE	7.9	444834
Raymond (Airpointer)	02-Sep-25	66	NW	2.6	444835
Brooks - Meadowplace	03-Sep-25	44	SW	7.7	444832
Crescent Heights	03-Sep-25	35	SW	4.3	444834
Raymond (Airpointer)	03-Sep-25	45	W	1.3	444835
Brooks - Meadowplace	04-Sep-25	32	N	16.9	444832
Raymond (Airpointer)	04-Sep-25	33	NW	3.8	444835
Brooks - Meadowplace	09-Sep-25	29	S	7.0	444832

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

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Patrick Andersen

Patrick Andersen, B.Sc.
WSP AQM Data Specialist

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Lenin Flores
Project Manager

September 2025 Monthly Ambient Air Quality Summary

Sep-25	Palliser Airshed Society								Maximum Recorded Values							
							1-hr		24-hr / 8-hr							
Pollutant (units)		Objectives		Station	Monthly Average	1-Hour Minimum	Exceedence			Conc	Day	Conc	Day	Operational Time (%)	Calibration Date	
		1-hr	24-hr				30-day	1-hr	24-hr							30-day
SO ₂ (ppb)		172	48	8	Crescent Heights	0.1	0.0	0	0	0	1.6	Sep-08 06:00	0.5	Sep-08	99.9	Sep-25
NO (ppb)						1.3	0.0				26.9	Sep-19 06:00	4.3	Sep-19	100.0	Sep-24
NO ₂ (ppb)		159				3.5	0.0	0			22.5	Sep-08 21:00	9.3	Sep-08	100.0	Sep-24
NO _x (ppb)						4.8	0.0				43.5	Sep-12 06:00	10.2	Sep-08	100.0	Sep-24
O ₃ (ppb)		76				30.1	1.4	0			56.5	Sep-20 17:00	41.7	Sep-21	100.0	Sep-25
CO (ppm)						0.2	0.1				0.6	Sep-02 09:00	0.4	Sep-02	99.9	Sep-24
CO 8-Hour (ppm)		5				-	0.1	0			0.6	Sep-02 14:00	-	-	100.0	-
THC (ppm)						2.1	1.9				3.3	Sep-25 09:00	2.2	Sep-08	100.0	Sep-24
PM _{2.5} (µg/m ³)		80	29			14.2	1.4	3	2		91.7	Sep-02 07:00	48.6	Sep-02	100.0	Sep-24
ET (°C)						18.5	3.5				32.8	Sep-01 18:00	23.1	Sep-01	100.0	-
RH (%)						46.4	11.1				100.0	Sep-11 06:00	61.4	Sep-03	100.0	-
GSR (W/m ²)						188.7	0.0				771.1	Sep-05 13:00	252.8	Sep-05	100.0	-
WSPD (km/h)						1.8	0.0				26.4	Sep-04 07:00	17.0	Sep-21	100.0	25/09/25
WDIR						WSW									100.0	

Pollutant (units)	Analyzer			Notes
	Make		Model	
SO ₂	TEI		43i-TLE	Manual span check September 24.
NO/NO ₂ /NO _x	TEI		42i	
O ₃	TECO		49i	
CO	TEI		48i-TLE	Manual span check September 25.
THC	TECO		51C-LT	
PM _{2.5}	API		T640	
ET/RH	RMYoung		41382VC	
GSR	Pyranometer		PY45774	
WS/WD	RMYoung		5305	

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				8.4	Sep-19 08:00	1.5	Sep-05	99.9	Sep-25	
NO ₂ (ppb)	159				3.8	0.2	0				20.6	Sep-09 21:00	6.5	Sep-08	99.9	Sep-25
NO _x (ppb)					3.9	0.0					21.7	Sep-09 21:00	7.1	Sep-19	99.9	Sep-25
O ₃ (ppb)	76				30.4	1.6	0				59.6	Sep-20 17:00	41.0	Sep-21	99.9	Sep-25
PM _{2.5} (µg/m ³)	80	29			18.9	1.5	6	4			136.7	Sep-02 03:00	66.5	Sep-02	99.9	Sep-25
ET (°C)					16.7	2.8					31.0	Sep-01 16:00	22.3	Sep-01	99.9	-
RH (%)					56.5	14.7					99.7	Sep-19 07:00	73.4	Sep-10	99.9	-
WSPD (km/h)					2.3	0.2					31.4	Sep-25 12:00	16.9	Sep-04	99.9	27/11/24
WDIR					SSW										99.9	

Pollutant (units)	Analyzer			Notes
	Make		Model	
NO/NO ₂ /NO _x	TEI		42iQ	Logger offline for 1 hour September 10 for updates.
O ₃	TEI		49iQ	
PM _{2.5}	API		T640	
ET/RH	CS		HC2-S3	
WS/WD	RMYoung		5305	

Sep-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)				Hanna Airpointer	0.6	0.0				23.3	Sep-27 08:00	1.8	Sep-27	100.0	Sep-25	
NO ₂ (ppb)		159				2.3	0.0	0			19.6	Sep-27 08:00	4.2	Sep-30	100.0	Sep-25
NO _x (ppb)						2.8	0.0				42.9	Sep-27 08:00	5.3	Sep-30	100.0	Sep-25
O ₃ (ppb)		76				31.0	3.7	0			54.2	Sep-24 17:00	38.9	Sep-12	99.0	Sep-26
PM _{2.5} (µg/m ³)		80	29			11.4	0.1	4	1		104.1	Sep-01 21:00	41.4	Sep-01	100.0	Sep-26
ET (°C)						16.4	4.0				29.8	Sep-01 16:00	20.7	Sep-01	100.0	-
RH (%)						51.6	15.5				95.4	Sep-14 05:00	66.8	Sep-15	100.0	-
WSPD (km/h)						1.5	0.0				16.3	Sep-25 11:00	9.4	Sep-29	100.0	26/09/25
WDIR						ESE									100.0	

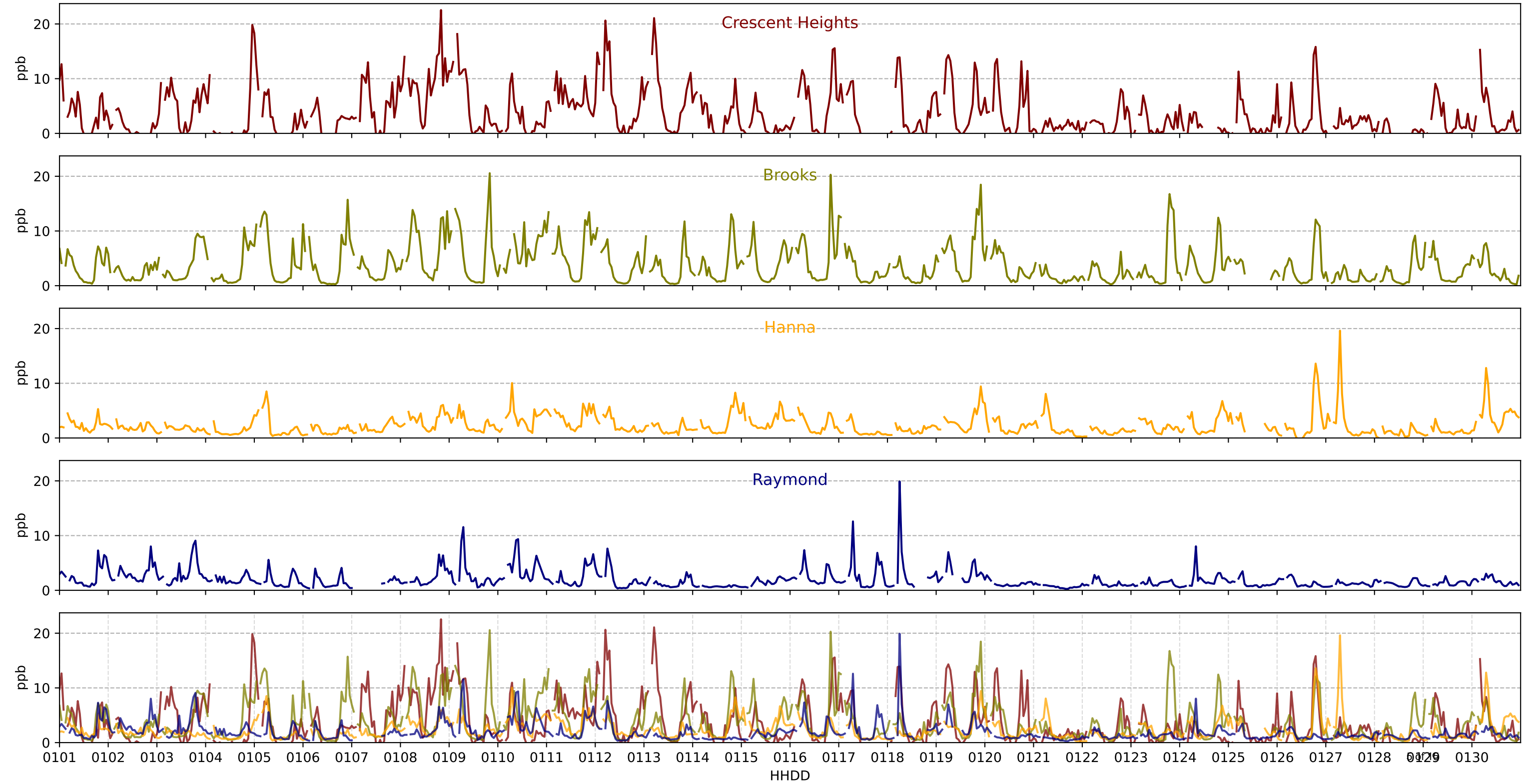
Pollutant (units)	Analyzer			Notes
	Make		Model	
NO/NO ₂ /NO _x	Airpointer API		200e	
O ₃	Airpointer API		400e	Analyzer offline during September 25 NOx calibration.
PM _{2.5}	Sharp		5030	
ET/RH	CS		HC2-S3	
WSWD	RMYoung		5305	

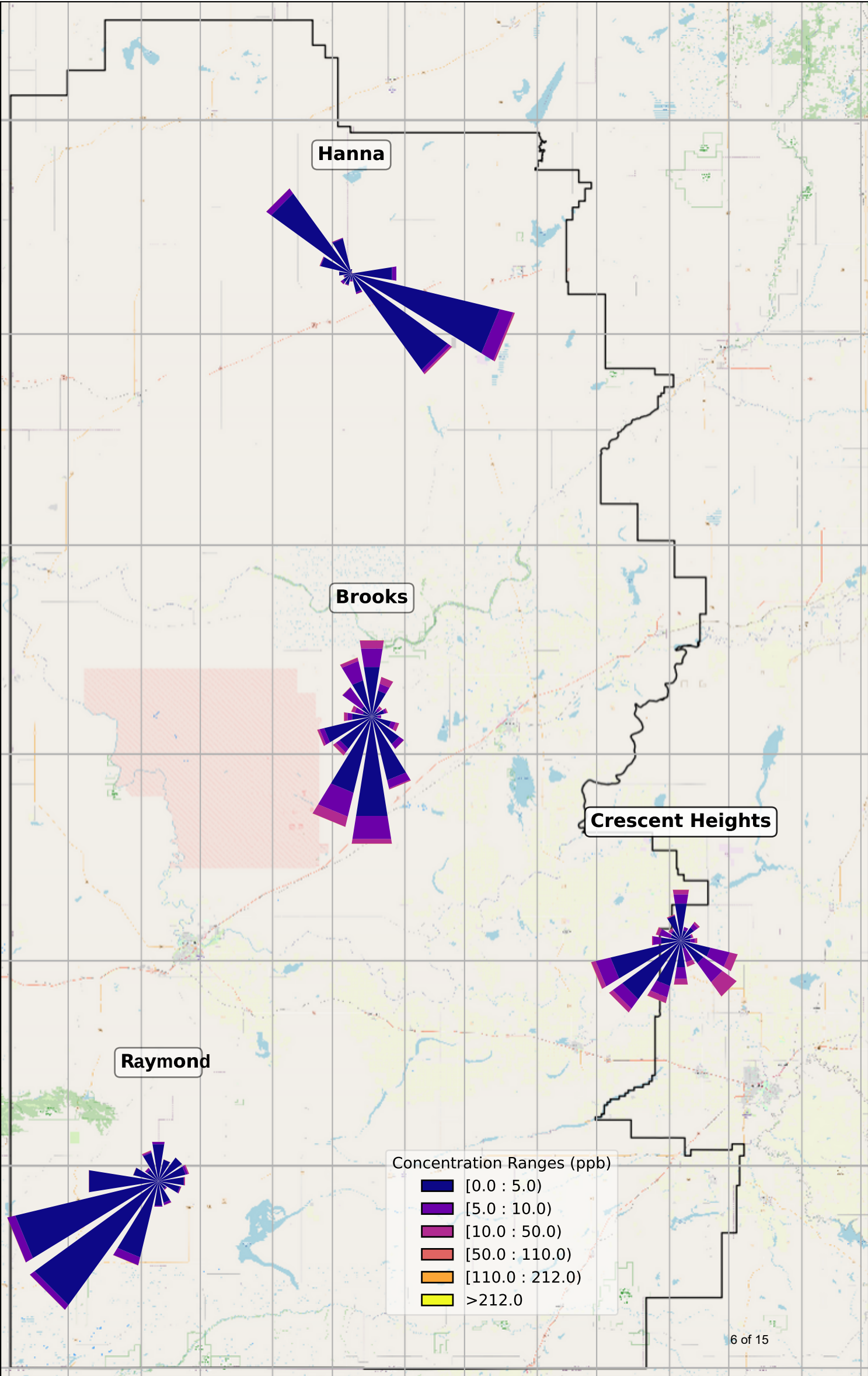
Sep-25				Palliser Airshed Society				Maximum Recorded Values							
Pollutant (units)		Objectives		Station	Monthly Average	1-Hour Minimum	Exceedence		1-hr		24-hr / 8-hr		Operational Time (%)	Calibration Date	
		1-hr	24-hr				30-day	1-hr	24-hr	30-day	Conc	Day			Conc
NO (ppb)				Raymond Airpointer	0.4	0.0				29.7	Sep-18 07:00	1.9	Sep-17	97.5	Sep-18
NO ₂ (ppb)	159				1.9	0.2	0			19.9	Sep-18 07:00	3.8	Sep-10	97.5	Sep-18
NO _x (ppb)					2.3	0.3				49.6	Sep-18 07:00	5.3	Sep-10	97.5	Sep-18
O ₃ (ppb)	76				30.6	3.9	0			51.8	Sep-08 15:00	41.6	Sep-14	97.2	Sep-19
PM _{2.5} (µg/m³)	80	29			14.4	0.0	7	3		134.2	Sep-02 07:00	65.9	Sep-02	96.7	Sep-19
ET (°C)					16.8	2.5				30.8	Sep-01 16:00	20.4	Sep-29	98.2	-
RH (%)					54.4	13.6				100.0	Sep-05 04:00	74.6	Sep-10	98.2	-
WSPD (km/h)					3.7	0.1				25.0	Sep-21 14:00	15.2	Sep-21	98.2	-
WDIR					WSW									98.2	-

Pollutant (units)	Analyzer			Notes
	Make		Model	
NO/NO ₂ /NO _x	Airpointer API		200e	Power outage September 7.
O ₃	Airpointer API		400e	Analyzer offline during September 19 O3 calibration.
PM _{2.5}	Sharp		5030	Analyzer logging offline during September 18 NOx calibration.
ET/RH	Vaisala		WXT520	
WSWD	Vaisala		WXT520	

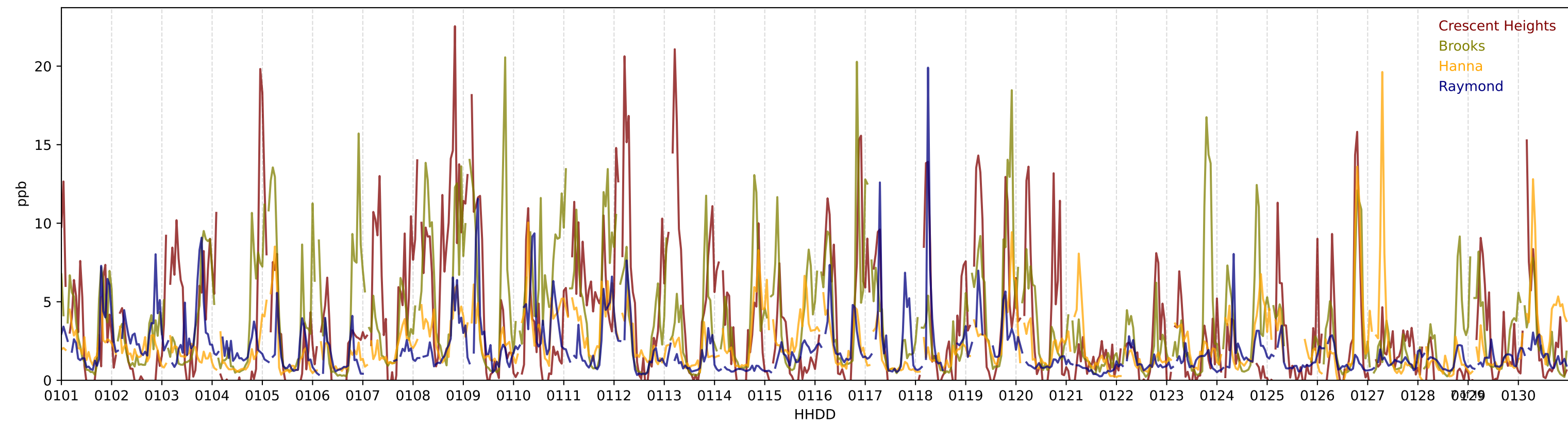
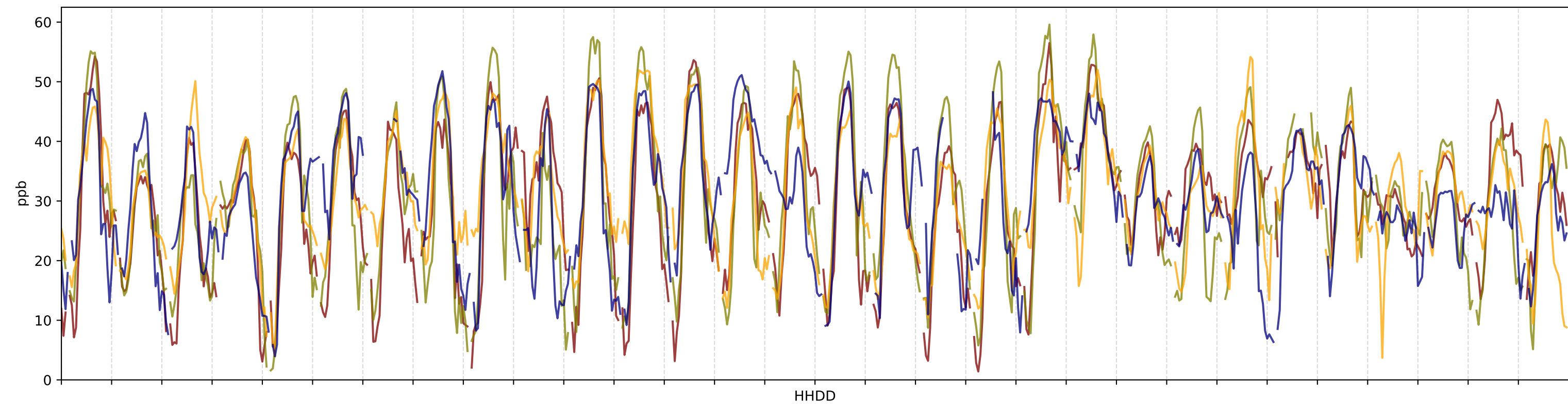
September 2025 NO₂

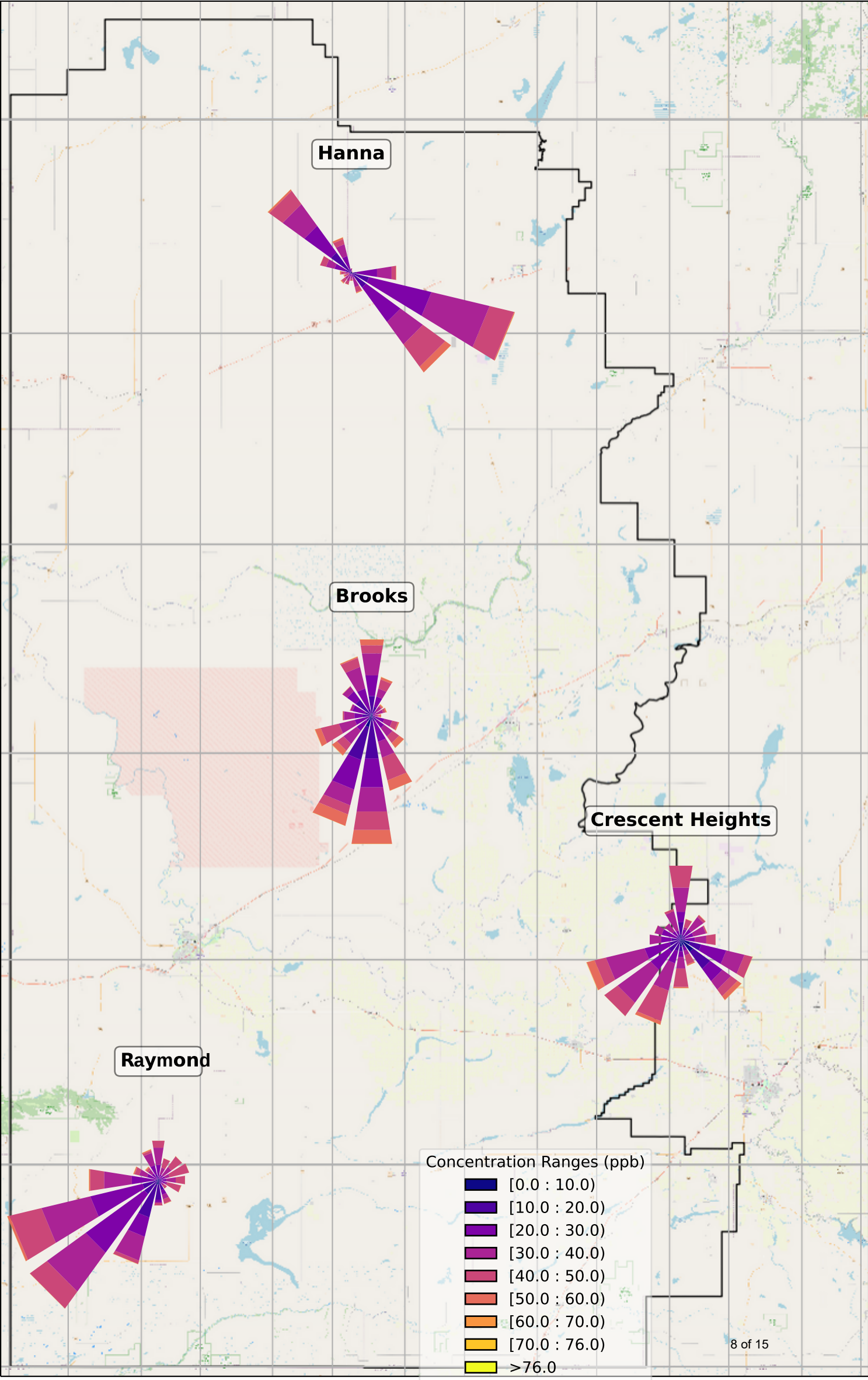
NO₂ AAAQO = 172 ppb





September 2025 O₃ vs NO₂





September 2025 PM_{2.5}

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

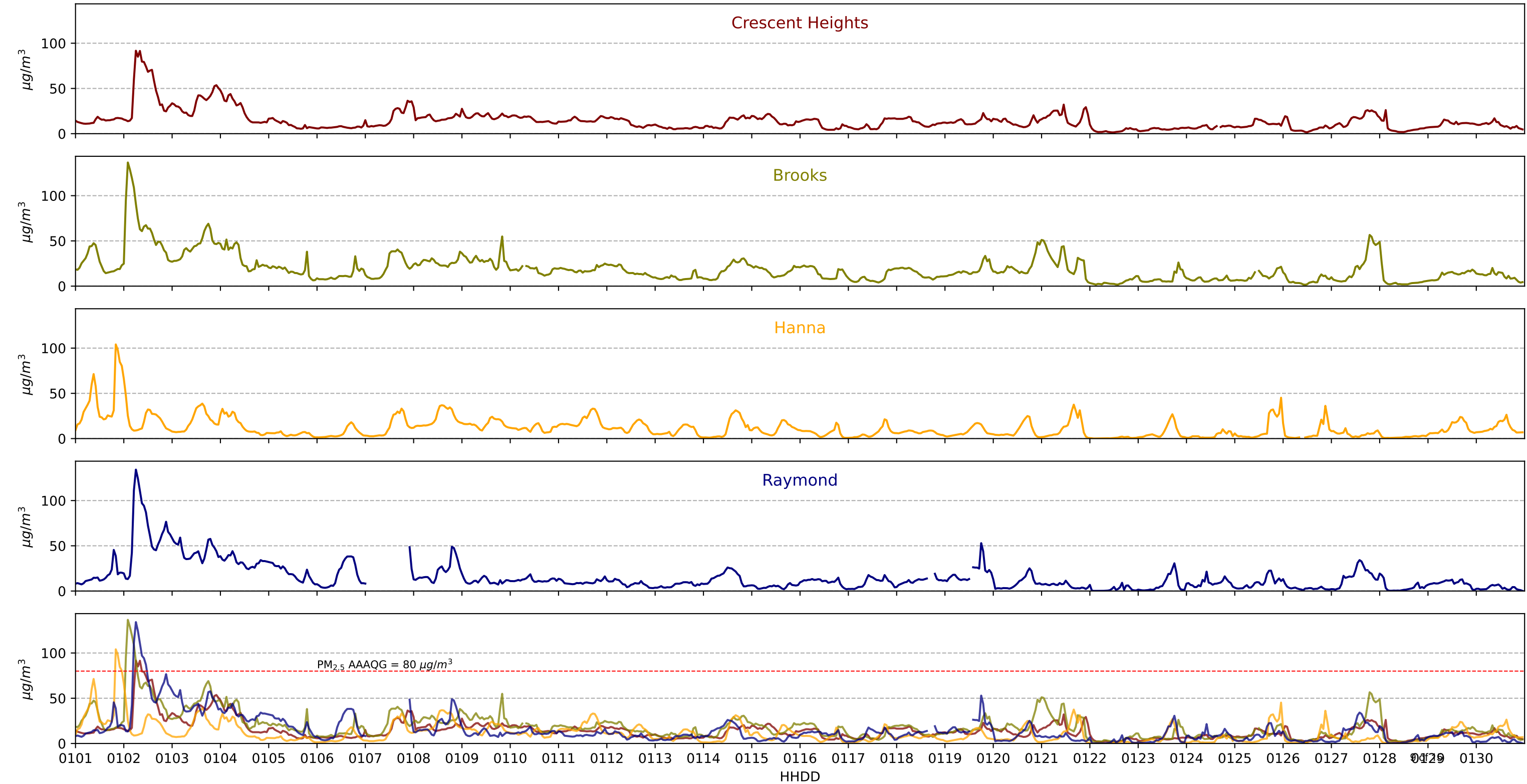
Crescent Heights

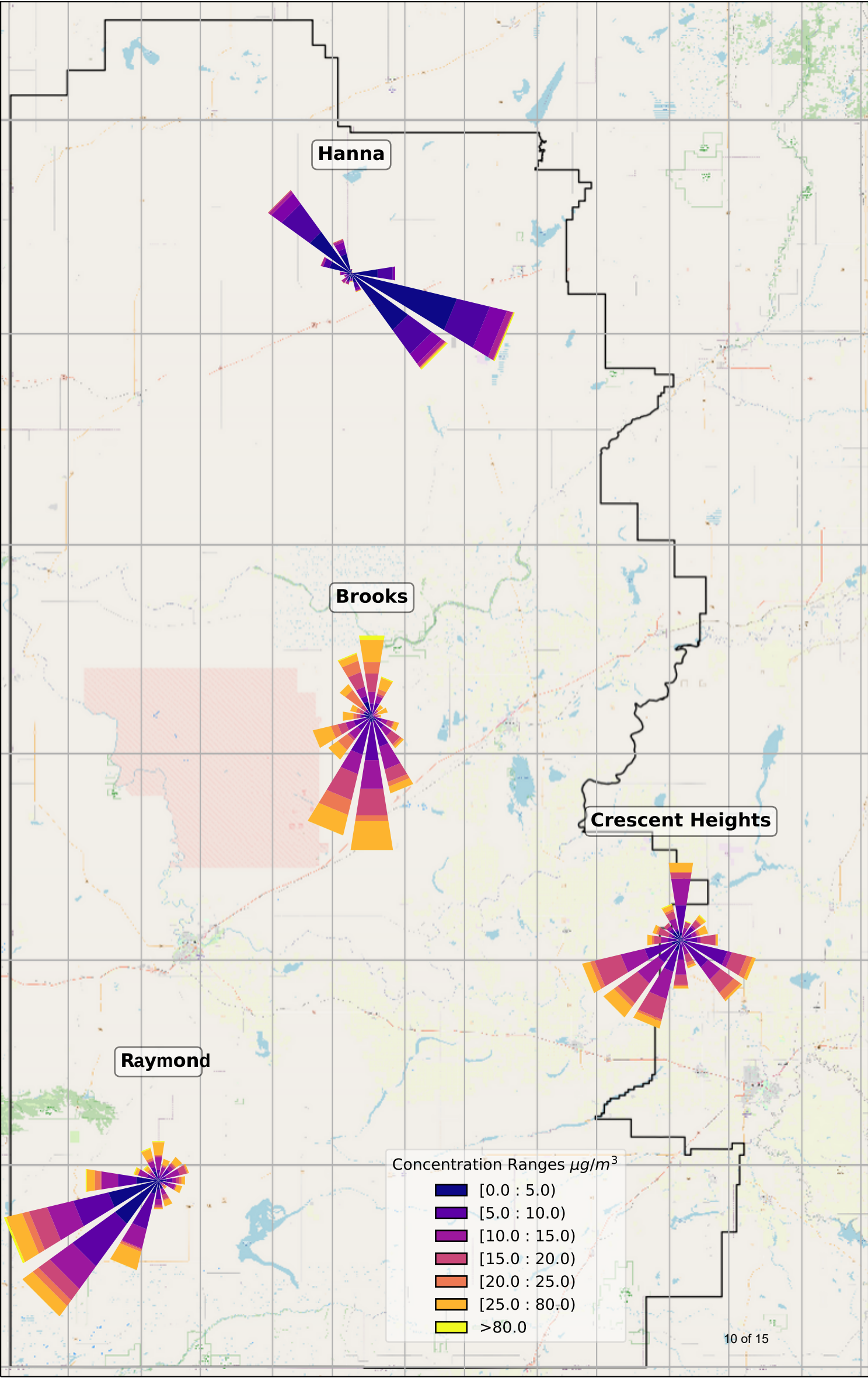
Brooks

Hanna

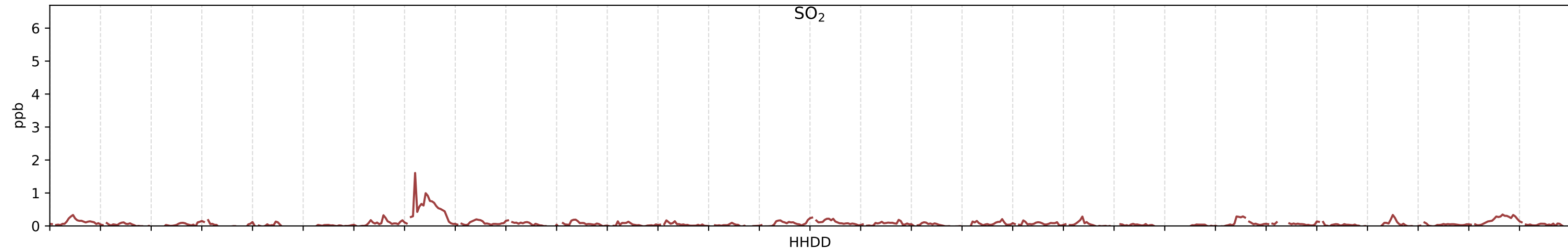
Raymond

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

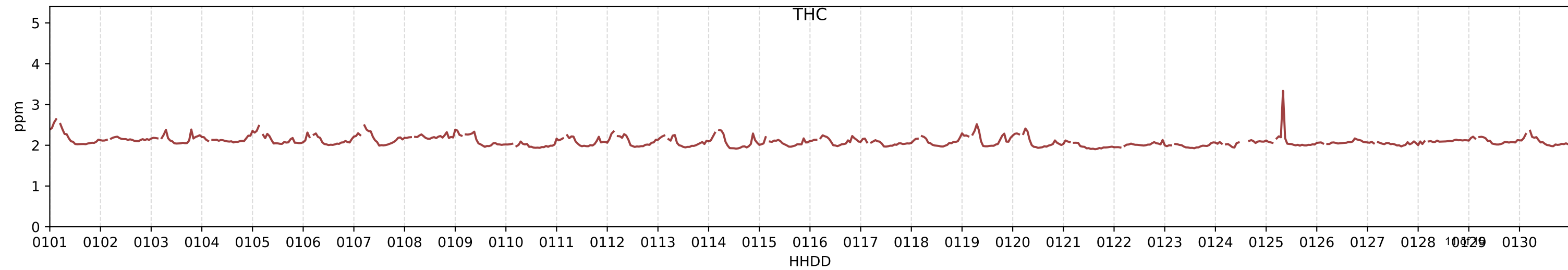
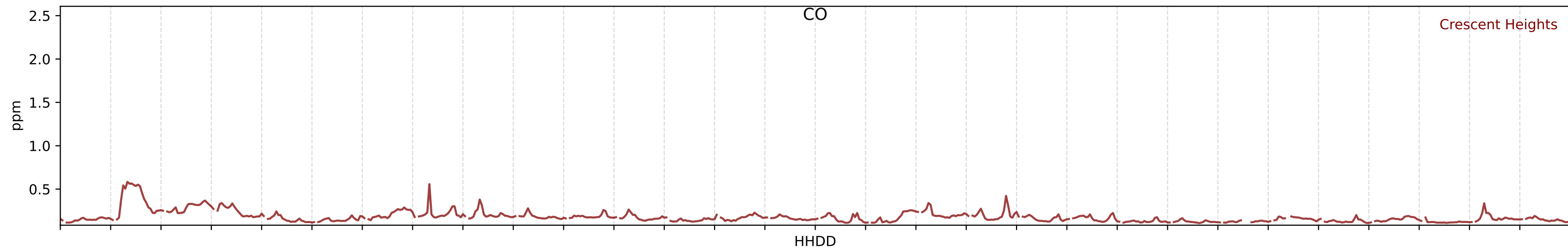




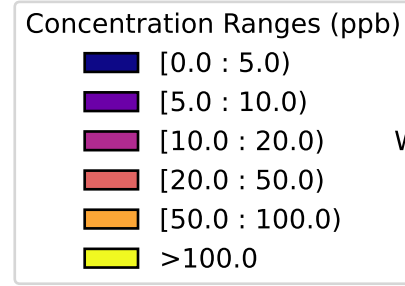
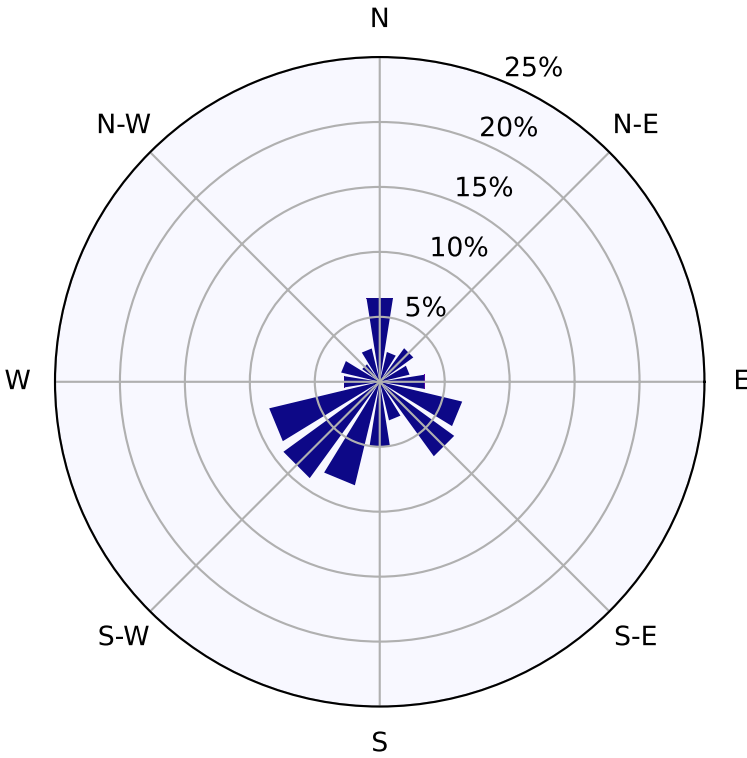
SO₂ AAAQO = 172 ppb



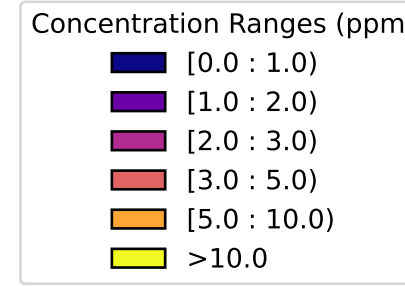
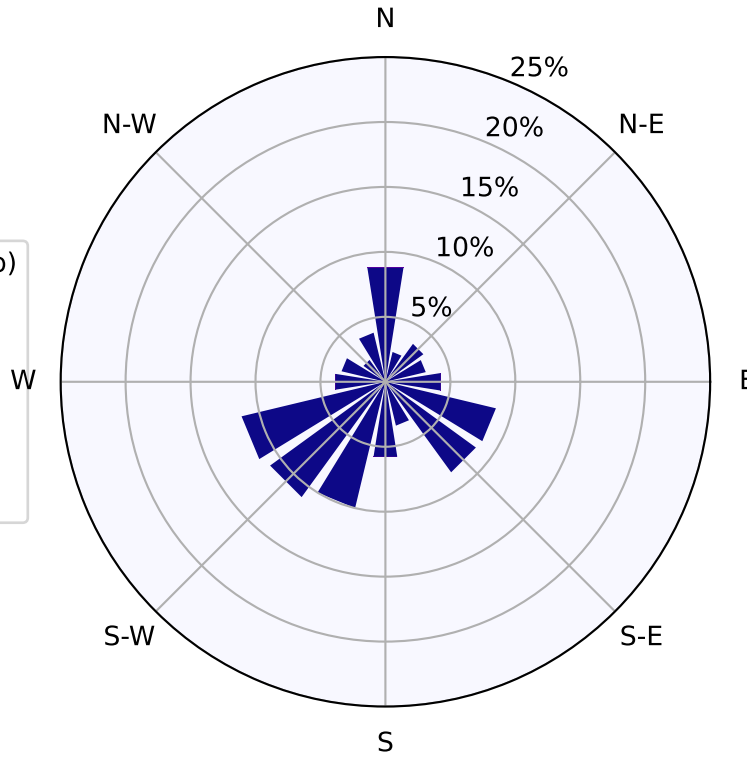
CO AAAQO = 13 ppm



Crescent Heights SO₂



Crescent Heights CO



Crescent Heights THC

