

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 – August 2025

Enclosed is the PAS Dashboard Report for the month of **August 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 August.

AAAQO/G Exceedance Summary:

There were 9 exceedances of the 1-hour and 2 exceedances of the 24-hour AAAQO/G for PM_{2.5} (80/29 µg/m³) in August. 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)	
Crescent Heights	09-Aug-25	10:00	11:00	95	NNW	11.1	*
Crescent Heights	09-Aug-25	11:00	12:00	118	NNW	14.5	*
Crescent Heights	09-Aug-25	12:00	13:00	132	N	15.7	*
Crescent Heights	09-Aug-25	13:00	14:00	121	NNW	11.8	*
Crescent Heights	09-Aug-25	14:00	15:00	157	NW	9.7	*
Crescent Heights	09-Aug-25	15:00	16:00	131	WNW	9.3	*
Raymond (Airpointer)	13-Aug-25	16:00	17:00	192	WNW	15.5	*
Raymond (Airpointer)	26-Aug-25	18:00	19:00	98	E	1.1	*
Raymond (Airpointer)	26-Aug-25	19:00	20:00	92	SW	1.3	*

Station Name	Date	24-Hour PM _{2.5} Concentration	Wind Direction	Wind Speed	Reference Number
		(µg/m ³)		(km/h)	
Brooks - Meadowplace	09-Aug-25	33	NNW	8.0	445503
Crescent Heights	09-Aug-25	57	NW	8.9	445502

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

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Lenin Flores
Project Manager

August 2025 Monthly Ambient Air Quality Summary

Aug-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	0.1	0.0	0	0	0	1.2	Aug-11 08:00	0.2	Aug-11	99.9	Aug-27
NO (ppb)					0.8	0.0				10.9	Aug-12 07:00	1.9	Aug-12	100.0	Aug-26
NO ₂ (ppb)	159				2.3	0.0	0			25.6	Aug-18 22:00	4.5	Aug-18	100.0	Aug-26
NO _x (ppb)					3.1	0.0				32.0	Aug-18 22:00	6.0	Aug-25	100.0	Aug-26
O ₃ (ppb)	76				26.6	1.3	0			52.7	Aug-19 16:00	36.4	Aug-20	100.0	Aug-27
CO (ppm)					0.1	0.1				0.9	Aug-09 15:00	0.4	Aug-09	99.9	Aug-26
CO 8-Hour (ppm)	5				-	0.1	0			0.7	Aug-09 17:00	-	-	100.0	-
THC (ppm)					2.0	1.8				2.4	Aug-19 04:00	2.2	Aug-27	100.0	Aug-26
PM _{2.5} (µg/m ³)	80	29			8.3	1.6	6	1		156.5	Aug-09 15:00	56.8	Aug-09	100.0	Aug-26
ET (°C)					20.7	8.2				34.7	Aug-13 14:00	24.2	Aug-13	100.0	-
RH (%)					60.5	14.2				100.0	Aug-03 03:00	94.9	Aug-08	100.0	-
GSR (W/m ²)					238.6	0.0				866.2	Aug-05 13:00	292.7	Aug-13	100.0	-
WSPD (km/h)					1.9	0.0				31.2	Aug-20 19:00	10.9	Aug-13	100.0	08/11/24
WDIR					WSW										100.0

Pollutant (units)	Analyzer			Notes
	Make		Model	
SO ₂	TEI		43i-TLE	Manual span check August 26.
NO/NO ₂ /NO _x	TEI		42i	
O ₃	TECO		49i	
CO	TEI		48i-TLE	Manual span check August 27.
THC	TECO		51C-LT	
PM _{2.5}	API		T640	
ET/RH	RMYoung		41382VC	
GSR	Pyranometer		PY45774	
WS/WD	RMYoung		5305	

Aug-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				7.1	Aug-23 07:00	0.8	Aug-23	99.6	Aug-19
NO ₂ (ppb)	159				2.7	0.0	0			13.6	Aug-27 00:00	4.4	Aug-31	99.6	Aug-19
NO _x (ppb)					2.8	0.0				18.8	Aug-28 07:00	4.8	Aug-31	99.6	Aug-19
O ₃ (ppb)	76				26.2	1.2	0			54.6	Aug-31 15:00	33.2	Aug-02	99.6	Aug-19
PM _{2.5} (µg/m³)	80	29			8.7	1.9	0	1		66.2	Aug-09 12:00	32.6	Aug-09	99.6	Aug-19
ET (°C)					19.1	7.1				32.0	Aug-26 16:00	22.3	Aug-27	99.6	-
RH (%)					67.7	15.9				100.0	Aug-04 05:00	90.8	Aug-03	96.6	-
WSPD (km/h)					2.3	0.3				30.1	Aug-16 15:00	14.9	Aug-13	96.4	27/11/24
WDIR					WNW										96.4

Pollutant (units)	Analyzer			Notes
	Make		Model	
NO/NO ₂ /NO _x	TEI		42iQ	Logger offline for 1 hour August 6 for updates. Power outage for 2 hours August 24.
O ₃	TEI		49iQ	
PM _{2.5}	API		T640	
ET/RH	CS		HC2-S3	Data logging offline August 24-25 after power outage, no RH data collected during this period.
WS/WD	RMYoung		5305	Data logging offline August 24-25 after power outage, no wind data collected during this period.

Aug-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)				Hanna Airpointer	0.5	0.0				6.9	Aug-05 06:00	1.6	Aug-05	98.8	Aug-20
NO ₂ (ppb)	159				1.6	0.0	0			9.4	Aug-28 21:00	2.6	Aug-28	98.8	Aug-20
NO _x (ppb)					2.1	0.2				12.5	Aug-05 06:00	4.2	Aug-05	98.8	Aug-20
O ₃ (ppb)	76				26.1	0.8	0			50.0	Aug-02 15:00	35.6	Aug-02	98.0	Aug-21
PM _{2.5} (µg/m ³)	80	29			5.4	0.0	0	0		38.1	Aug-09 10:00	17.3	Aug-09	98.8	Aug-21
ET (°C)					18.8	8.1				31.6	Aug-26 17:00	23.0	Aug-27	98.8	-
RH (%)					63.3	18.6				96.3	Aug-03 11:00	89.5	Aug-03	98.8	-
WSPD (km/h)					0.1	0.0				15.3	Aug-15 16:00	8.1	Aug-15	98.8	-
WDIR					WSW									98.8	-

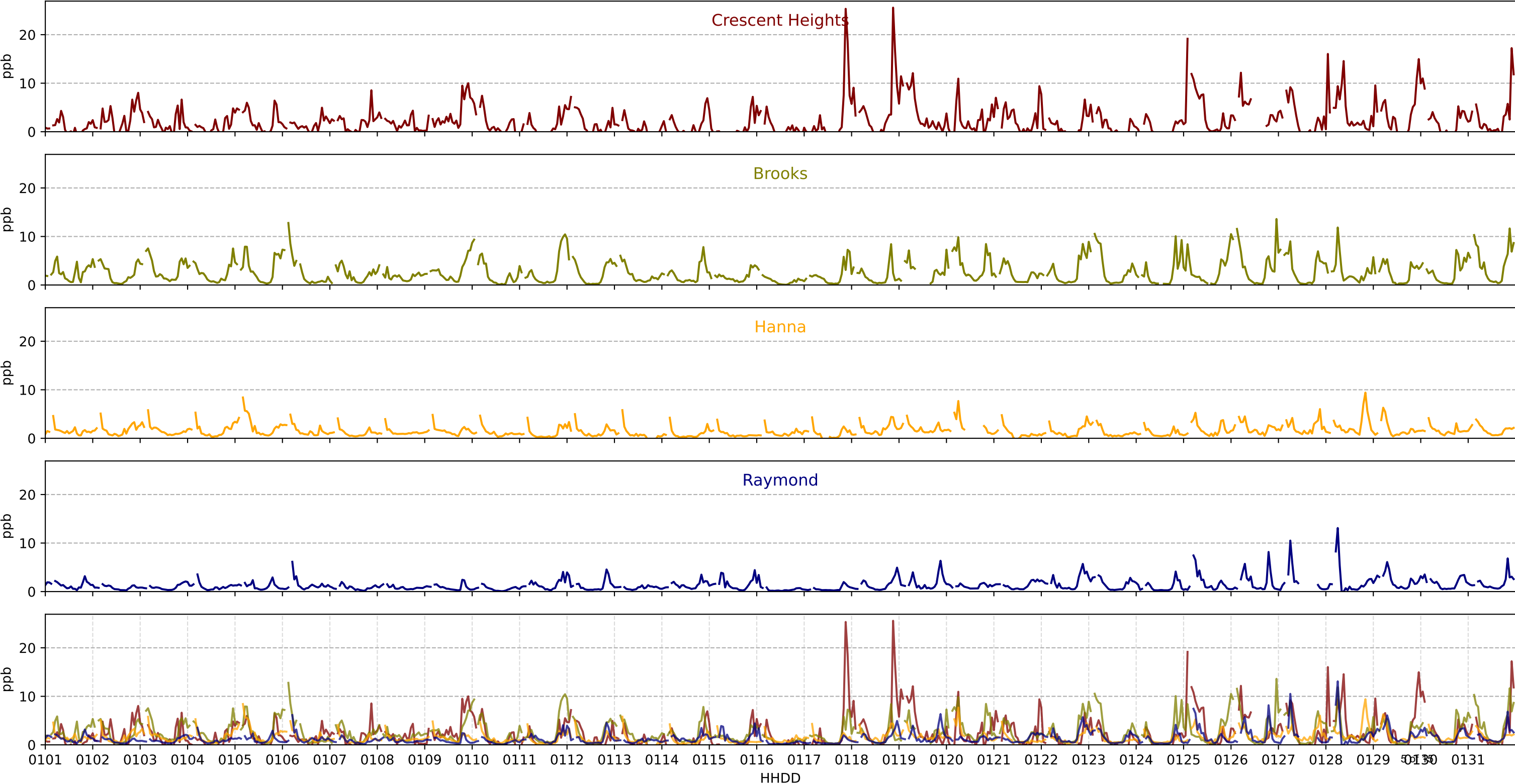
Pollutant (units)	Analyzer			Notes
	Make		Model	
NO/NO ₂ /NO _x	Airpointer API		200e	Power outages August 13 and 17.
O ₃	Airpointer API		400e	Analyzer offline during August 20 NO _x calibration.
PM _{2.5}	Sharp		5030	
ET/RH	CS		HC2-S3	
WSWD	RMYoung		5305	

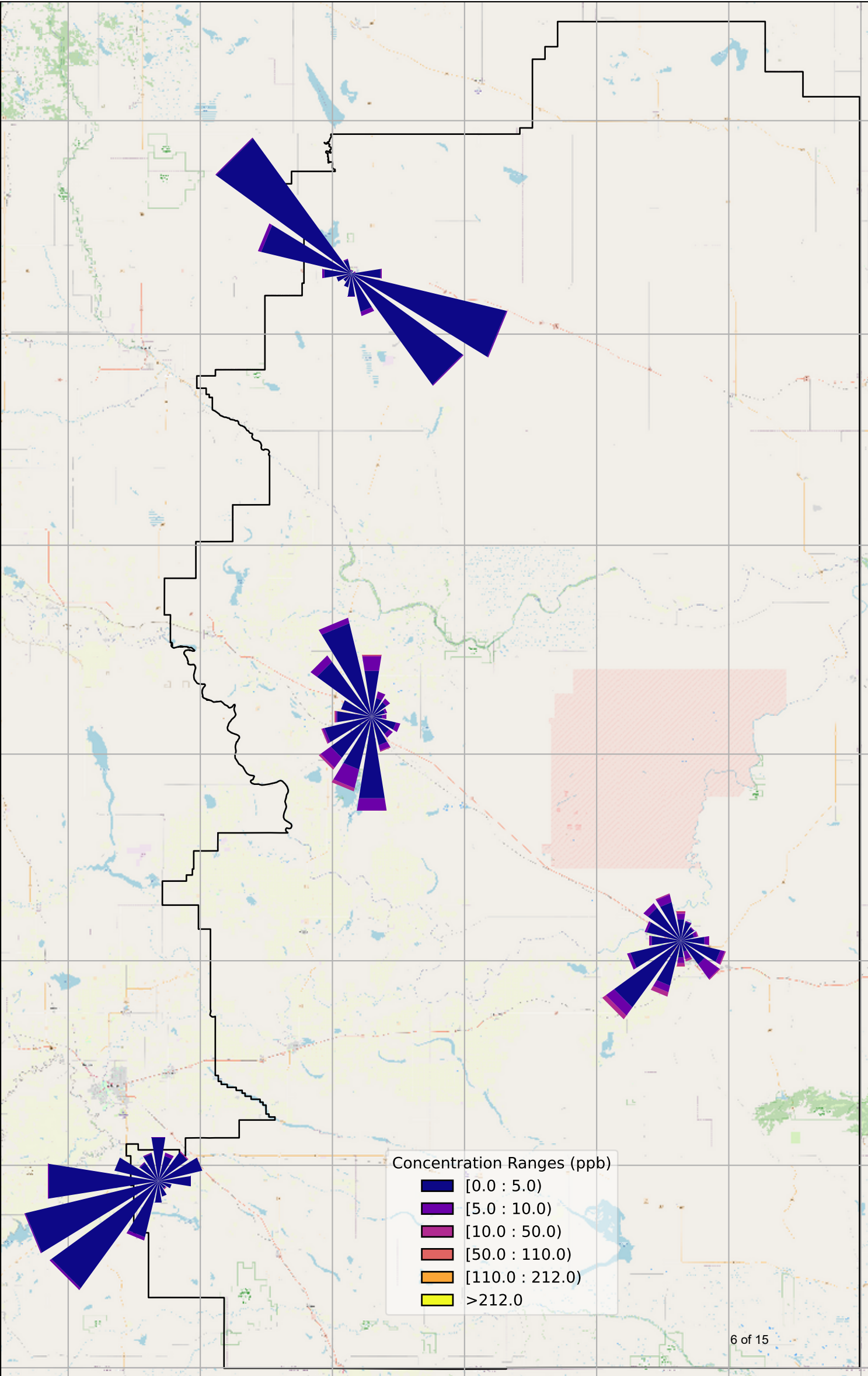
Aug-25				Palliser Airshed Society				Maximum Recorded Values							
Pollutant (units)		Objectives		Station	Monthly Average	1-Hour Minimum	Exceedence			1-hr		24-hr / 8-hr		Operational Time (%)	Calibration Date
		1-hr	24-hr				30-day	1-hr	24-hr	30-day	Conc	Day	Conc		
NO (ppb)				Raymond Airpointer	0.3	0.0				16.4	Aug-28 07:00	1.4	Aug-28	100.0	Aug-27
NO ₂ (ppb)	159				1.3	0.0	0			13.1	Aug-28 07:00	2.2	Aug-29	100.0	Aug-27
NO _x (ppb)					1.6	0.0				29.5	Aug-28 07:00	3.4	Aug-28	100.0	Aug-27
O ₃ (ppb)	76				27.1	3.9	0			48.0	Aug-31 14:00	35.8	Aug-20	99.1	Aug-28
PM _{2.5} (µg/m ³)	80	29			6.3	0.0	3	0		192.1	Aug-13 17:00	17.3	Aug-13	100.0	Aug-27
ET (°C)					18.9	6.3				32.0	Aug-26 16:00	22.8	Aug-26	100.0	-
RH (%)					59.0	15.7				99.6	Aug-30 06:00	83.9	Aug-08	100.0	-
WSPD (km/h)					3.3	0.1				22.8	Aug-16 14:00	10.9	Aug-13	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	Analyzer offline during August 27 NO _x calibration.
PM _{2.5}	Sharp		5030	
ET/RH	Vaisala		WXT520	
WSWD	Vaisala		WXT520	

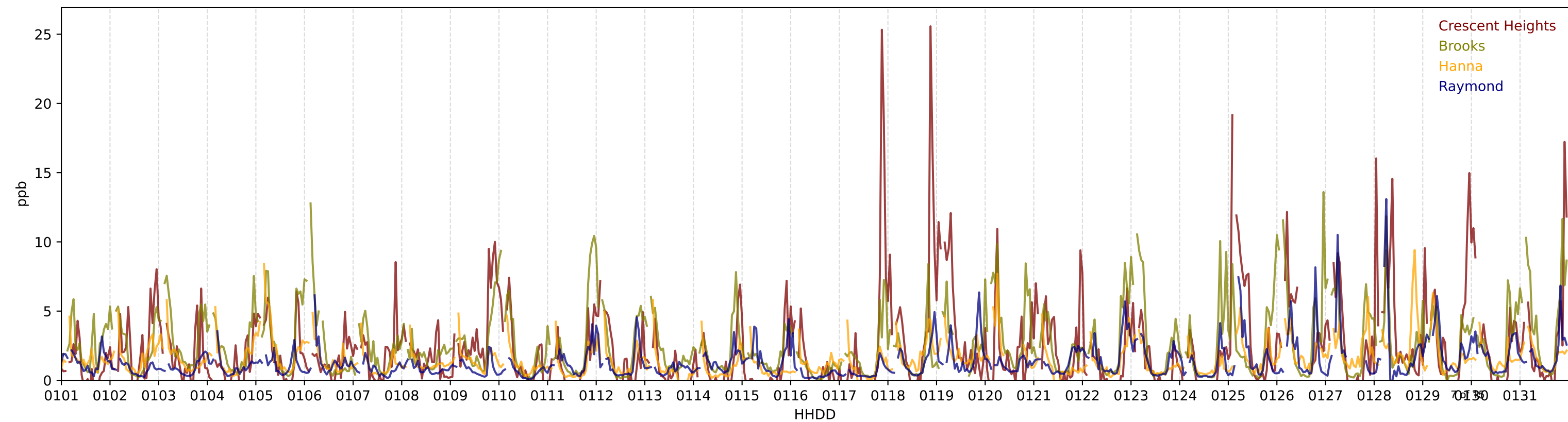
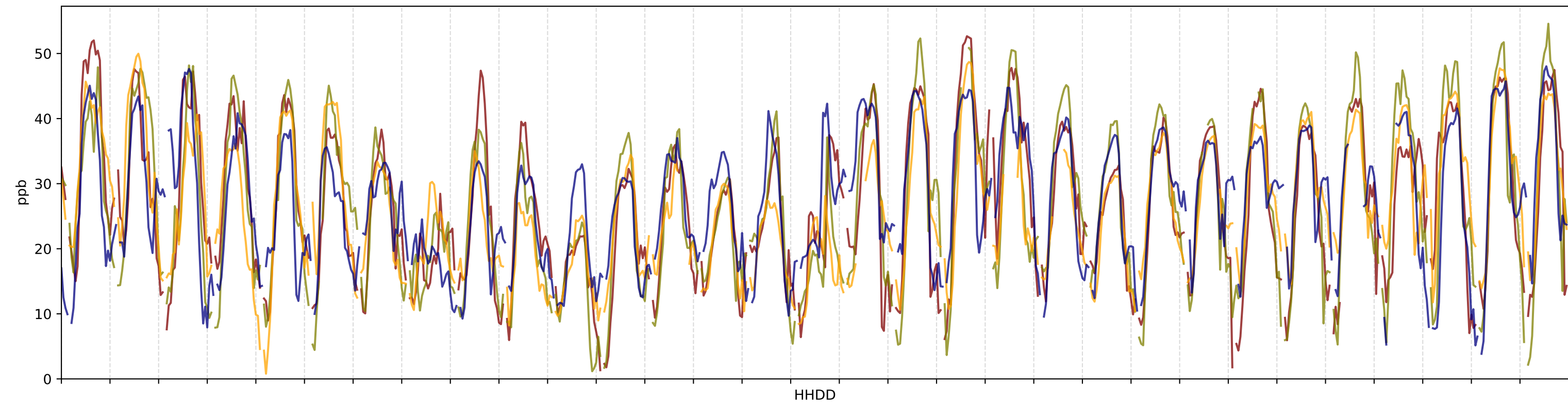
August 2025 NO₂

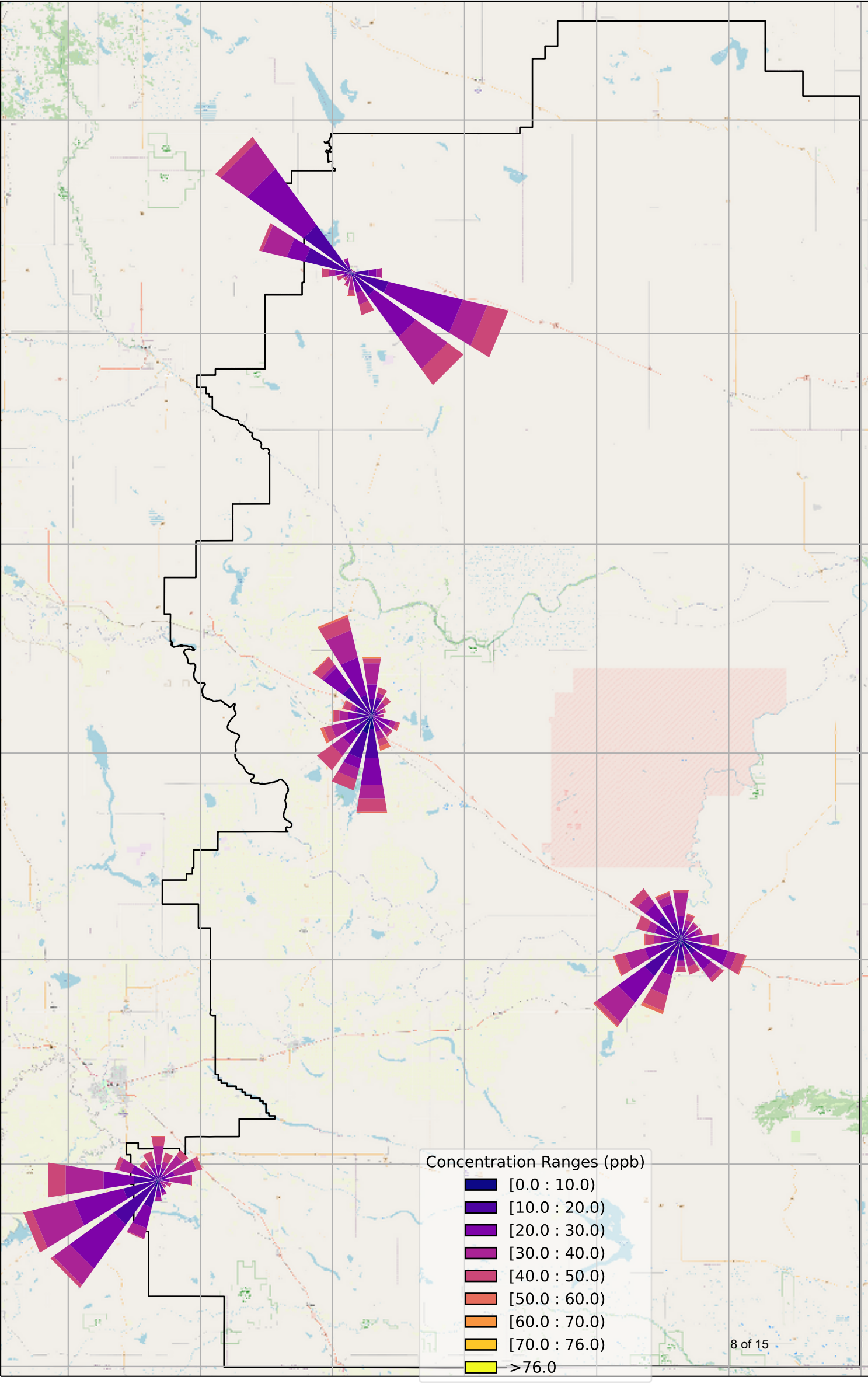
NO₂ AAAQO = 172 ppb





August 2025 O₃ vs NO₂





August 2025 PM_{2.5}

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

Crescent Heights

Brooks

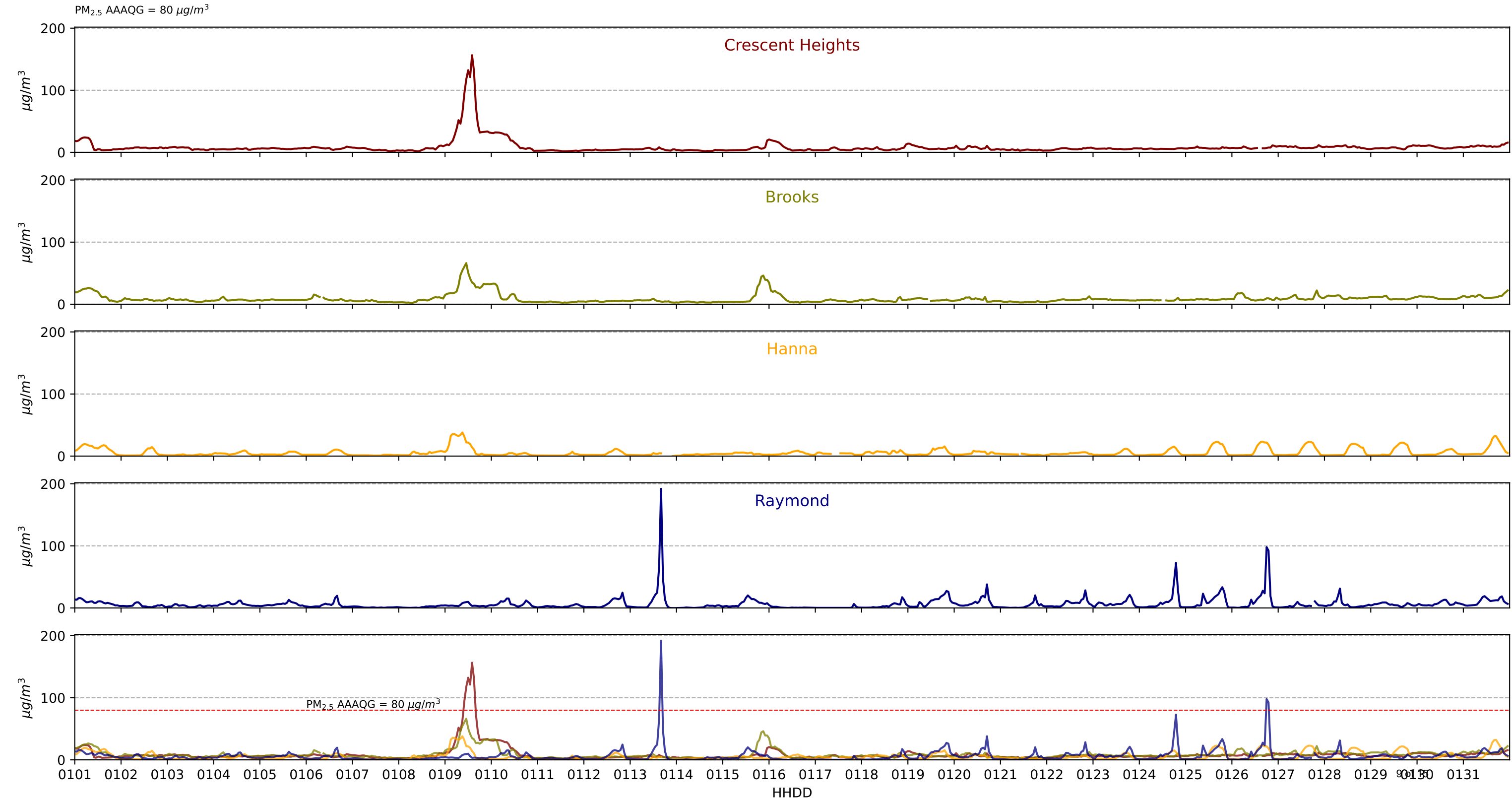
Hanna

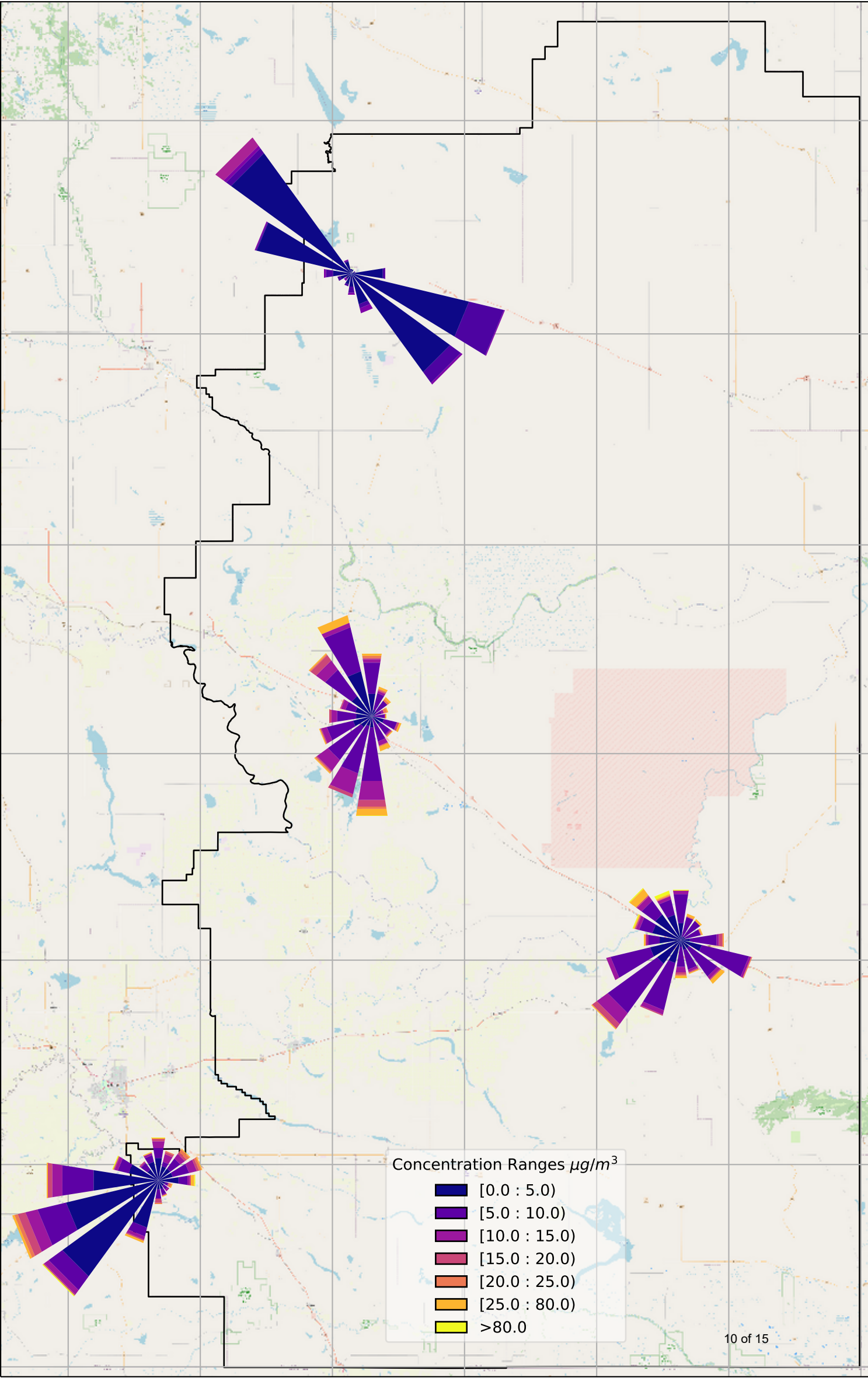
Raymond

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

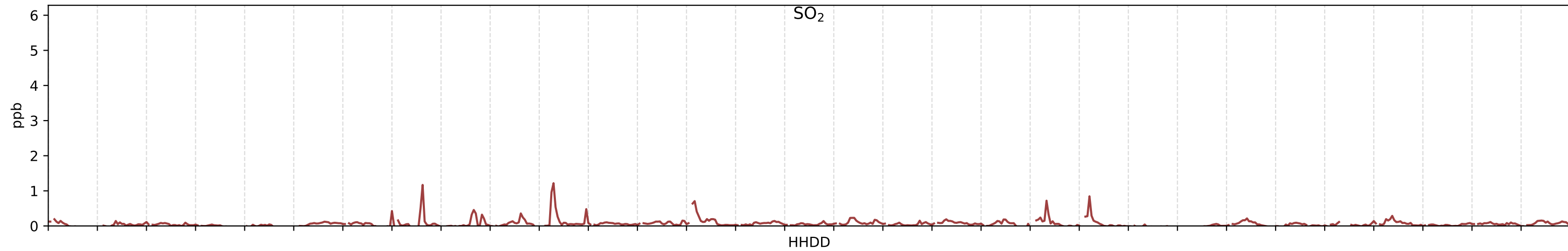
0130

HHDD





SO₂ AAAQO = 172 ppb



CO AAAQO = 13 ppm

