



# Peace Airshed Zone Association

## Ambient Air Monitoring Network Summary

### Ambient Air Quality Monitoring Program

### 2025 Annual Report

#### VERSION CONTROL

Version	Date	Issue Type	Filename	Description
V1.0	14-Mar 2026	Draft	2025 PAZA Annual report draft2.pdf	Issued for review
V1.1	29-Mar 2026	Final	2025 PAZA Annual Report.pdf	Issued for submission

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March 31, 2025

Alberta Environmental Protection  
4th Floor, Oxbridge Place  
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Edmonton, Alberta T5K 2J6

Subject: **Peace Airshed Zone Association (PAZA)  
2025 Annual Ambient Air Quality Monitoring Report**

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Please find enclosed the PAZA Ambient Air Quality Monitoring Network Report for 2025.  
The representative of the Person Responsible for this monitoring program is:

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PAZA has retained the services of WSP Canada Inc. to conduct continuous ambient monitoring and Dr. Kevin McCullum to provide data validation and reporting.  
This report is submitted by PAZA on behalf of the industrial member companies to satisfy the requirements of the facility Operating Approvals listed in Table A.  
The annual summary report includes the operational summaries and hourly continuous monitoring results. This report was prepared by Dr. Kevin McCullum and reviewed by Mandeep Dhaliwal.

**Continuous Monitoring:**

Detailed Annual Summaries are included in the report for the following stations:

- Henry Pirker (Grande Prairie)
- Smoky Heights
- Beaverlodge
- Valleyview
- Dunes
- Milner
- Fox Creek
- Happy Valley

**Table A. PAZA members with Facility Operating Approvals**

<b>Company</b>	<b>Facility</b>	<b>LSD</b>	<b>EPEA Approval No.</b>
Advantage Oil & Gas Ltd.	Glacier	05-02-076-13-W6	00262479-00-00
Alberta Power (2000) Ltd. (an ATCO company)	Sturgeon	SW-06-069-21-W5	00010283-02-02
ATCO Power Canada	Poplar Hill	11-19-073-08-W6	00067774-01-01
ATCO Power Canada	Valleyview	SW-06-069-21-W5	00147709-01-01
AltaGas Ltd.	Pouce Coupe	03-03-081-13-W6	00247673-00-00
	Gordondale	02-26-068-25-W5	00287474-00-00
Apache Canada Ltd.	House Mountain	01-08-070-10-W5	00010137-02-02
ARC Resources Ltd.	ARC Ante Creek	02-26-068-25-W5	00266694-01-00
Birchcliff Energy Ltd.	Pouce Coupe	03-22-078-12-W6	00252529-00-00
Canadian Natural Resources Limited	Bonanza	11-25-081-11-W6	00000029-01-00
	Progress/Gordondale	01-01-077-10-W6	00010036-02-00
	Gold Creek	13-26-067-05-W6	00010446-02-00
	Teepee Creek	SE-2-074-04-W6	00001635-02-00
	Sturgeon/Valleyview	02-02-069-22-W5	00001633-02-00
Canfor Forest Products	Grande Prairie	SW-23-071-06-W6	00152645-01-00
Conocophillips Canada Energy Partnership	Wembley	06-19-073-08-W6	00000212-01-00
Encana Corporation	Sexsmith	04-08-075-07-W6	00010002-01-00
Enerplus Resources	Pouce Coupe	SW-06-069-21-W5	00001464-02-03
Exshaw Oil Corporation	Spirit River	03-10-077-07-W6	00344521-00-00
Grande Prairie Generation Inc.	Northern Prairie Power Project	04-19-073-08-W6	00238762-00-00
Inception Exploration Ltd.	Gold Creek	03-26-069-05-W6	00335317-00-02
KANATA Energy Group Ltd.	Valhalla	13-21-076-09-W6	00017620-02-02
Long Run Exploration	Eaglesham	01-25-076-01-W6	00241532-00-00
	Kakut	14-12-075-03-W6	00248469-00-00
	Donnelly	06-01-077-21-W5	00000087-02-00
	Puskwaskau	03-26-074-01-W6	00017524-01-00
Longview Oil Corp.	Sunset House	06-22-070-20-W5	00138884-01-00
Milner Power Limited Partnership	H.R. Milner thermal electric power plant	SE-15-058-08-W6	00009814-03-03
NorthRiver Midstream Inc.	Fourth Creek	16-11-082-09-W6	00000263-01-00
	Gordondale	11-26-079-09-W6	00011495-01-01
	Pouce Coupe/Bonanza	03-23-080-13-W6	00070203-01-01
Pembina Pipeline Corporation	Kakwa River	08-13-063-05 W6	00335342-01-00
Penn West Petroleum Ltd.	Tangent	13-29-080-23-W5	00001746-02-00
	Pouce Coupe	16-07-078-11-W6	00000614-01-00
Petrus Resources	Rycroft	08-25-077-06-W6	00011351-02-00
	Spirit River	08-34-077-06-W6	00011096-02-00
Strathcona Resources Ltd.	Jayar Sour Gas Processing Plant	06-08-062-03 W6	03612040-00-00
Suncor Energy Inc.	Progress	07-22-078-09-W6	00011428-02-00
Tidewater Midstream and Infrastructure Ltd.	Pipestone Sour Gas Plant	NW-35-70-9 W6	00403309-00-00
Veresen Energy	Hythe Brainard	11-18-074-12-W6	00010910-02-00
Weyerhaeuser Canada	Grande Prairie Pulp and Wood Plant	01-14-070-05-W6	00000113-02-00

**Concentrations in excess of the Clean Air Regulations 2025 Summary:**

- 9, 30-min TRS readings above 5 ppb (TRS AAAQG)
- 718, one-hour PM<sub>2.5</sub> reading above 80 µg/m<sup>3</sup> (PM<sub>2.5</sub> AAAQG)
- 125, 24-hour PM<sub>2.5</sub> reading above 29 µg/m<sup>3</sup> (PM<sub>2.5</sub> AAAQG)
- 12, 30-day SO<sub>2</sub> readings above 11ppb (SO<sub>2</sub> AAAQG)
  - There were also two duplicates that were also above the monthly AAAQG
- 2, annual SO<sub>2</sub> readings above 8ppb (SO<sub>2</sub> AAAQG)
- 2, 30-day dustfall readings above the industrial AAAQG (158mg/100cm<sup>2</sup>/30d)
- 1, 30-day dustfall readings above the residential AAAQG (53mg/100cm<sup>2</sup>/30d)

**Summary of readings above 30-minute TRS (AAAQG of 5 ppb), whole year is shown:**

Reference Number	Station	Pollutant	Date	From MST	To MST	Average ppb	WS km/h	WD degrees
<i>e-reported</i>	Happy Valley	TRS	14-Feb-25	20:00	20:30	6.6	3.5	203
<i>e-reported</i>	Happy Valley	TRS	20-Mar-25	20:00	20:30	10.0	11.6	221
<i>e-reported</i>	Happy Valley	TRS	02-Apr-25	19:30	20:00	8.0	2.0	207
<i>e-reported</i>	Happy Valley	TRS	17-Apr-25	23:30	0:00	5.7	1.7	225
<i>e-reported</i>	Happy Valley	TRS	18-May-25	3:00	3:30	7.4	2.0	200
<i>e-reported</i>	Happy Valley	TRS	03-Nov-25	16:30	17:00	6.9	5.8	214
<i>e-reported</i>	Happy Valley	TRS	03-Nov-25	17:30	18:00	5.6	12.0	216
<i>e-reported</i>	Smoky Heights	TRS	17-Jul-25	4:30	5:00	5.5	0.9	191
<i>e-reported</i>	Smoky Heights	TRS	29-Aug-25	5:00	5:30	5.2	2.0	180

**Summary of readings above one-hour PM<sub>2.5</sub> (AAAQG of 80 µg/m<sup>3</sup>):**

Reference Number	Station	Pollutant	Date	From MST	To MST	Average µg/m <sup>3</sup>	WS km/h	WD degrees
-	Beaverlodge	PM <sub>2.5</sub>	29-May-25	12:00	13:00	97.9	26.5	288
-	Beaverlodge	PM <sub>2.5</sub>	29-May-25	13:00	14:00	82.2	24.8	298
-	Beaverlodge	PM <sub>2.5</sub>	29-May-25	15:00	16:00	229.7	14.3	274
442625	Beaverlodge	PM <sub>2.5</sub>	02-Jun-25	4:00	5:00	148.1	8.4	269
442625	Beaverlodge	PM <sub>2.5</sub>	02-Jun-25	5:00	6:00	138	0.6	269
442625	Beaverlodge	PM <sub>2.5</sub>	03-Jun-25	7:00	8:00	145.4	9.6	302
442625	Beaverlodge	PM <sub>2.5</sub>	03-Jun-25	13:00	14:00	108.1	4.3	193
442625	Beaverlodge	PM <sub>2.5</sub>	03-Jun-25	16:00	17:00	89.8	4.6	255
442625	Beaverlodge	PM <sub>2.5</sub>	03-Jun-25	17:00	18:00	112.3	6.9	205
442625	Beaverlodge	PM <sub>2.5</sub>	03-Jun-25	18:00	19:00	104.6	9.7	157
442625	Beaverlodge	PM <sub>2.5</sub>	03-Jun-25	19:00	20:00	100.3	9.4	139
442625	Beaverlodge	PM <sub>2.5</sub>	03-Jun-25	20:00	21:00	100.1	9.9	120
442625	Beaverlodge	PM <sub>2.5</sub>	03-Jun-25	21:00	22:00	107.8	8	81
442625	Beaverlodge	PM <sub>2.5</sub>	03-Jun-25	22:00	23:00	86.4	6.9	86
442625	Beaverlodge	PM <sub>2.5</sub>	06-Jun-25	16:00	17:00	82.4	35.1	278
442625	Beaverlodge	PM <sub>2.5</sub>	06-Jun-25	17:00	18:00	84	31.9	281
442625	Beaverlodge	PM <sub>2.5</sub>	06-Jun-25	21:00	22:00	99	6.4	333
442625	Beaverlodge	PM <sub>2.5</sub>	06-Jun-25	22:00	23:00	114.2	4.8	299
442625	Beaverlodge	PM <sub>2.5</sub>	06-Jun-25	23:00	0:00	105.3	1.5	15
442625	Beaverlodge	PM <sub>2.5</sub>	07-Jun-25	0:00	1:00	247.7	6.9	301
442625	Beaverlodge	PM <sub>2.5</sub>	07-Jun-25	1:00	2:00	385.5	5.5	310
442625	Beaverlodge	PM <sub>2.5</sub>	07-Jun-25	2:00	3:00	553.1	8.5	327
442625	Beaverlodge	PM <sub>2.5</sub>	07-Jun-25	3:00	4:00	415.8	10.8	324
442625	Beaverlodge	PM <sub>2.5</sub>	07-Jun-25	4:00	5:00	337.7	7.4	319
442625	Beaverlodge	PM <sub>2.5</sub>	07-Jun-25	5:00	6:00	354.5	7.7	329
442625	Beaverlodge	PM <sub>2.5</sub>	07-Jun-25	6:00	7:00	298.6	3.7	307

Reference Number	Station	Pollutant	Date	From MST	To MST	Average $\mu\text{g}/\text{m}^3$	WS km/h	WD degrees
442625	Beaverlodge	PM <sub>2.5</sub>	07-Jun-25	7:00	8:00	338.1	5.1	269
442625	Beaverlodge	PM <sub>2.5</sub>	07-Jun-25	8:00	9:00	316.2	6.1	244
442625	Beaverlodge	PM <sub>2.5</sub>	07-Jun-25	9:00	10:00	170.5	9.4	282
442625	Beaverlodge	PM <sub>2.5</sub>	07-Jun-25	10:00	11:00	185.1	13.4	305
442625	Beaverlodge	PM <sub>2.5</sub>	07-Jun-25	15:00	16:00	87.8	12.5	328
442625	Beaverlodge	PM <sub>2.5</sub>	08-Jun-25	1:00	2:00	99.4	2.8	145
442625	Beaverlodge	PM <sub>2.5</sub>	08-Jun-25	2:00	3:00	112.3	4.1	115
442625	Beaverlodge	PM <sub>2.5</sub>	08-Jun-25	3:00	4:00	122.9	3.4	97
442625	Beaverlodge	PM <sub>2.5</sub>	08-Jun-25	4:00	5:00	115.8	3.9	79
442625	Beaverlodge	PM <sub>2.5</sub>	08-Jun-25	5:00	6:00	84	2.2	115
442625	Beaverlodge	PM <sub>2.5</sub>	08-Jun-25	23:00	0:00	202	17.2	269
442625	Beaverlodge	PM <sub>2.5</sub>	09-Jun-25	0:00	1:00	186.9	19.6	283
442625	Beaverlodge	PM <sub>2.5</sub>	09-Jun-25	1:00	2:00	290.3	6.4	228
442625	Beaverlodge	PM <sub>2.5</sub>	09-Jun-25	7:00	8:00	195.9	14.3	293
442625	Beaverlodge	PM <sub>2.5</sub>	09-Jun-25	8:00	9:00	124.8	25.1	276
442625	Beaverlodge	PM <sub>2.5</sub>	09-Jun-25	9:00	10:00	143.2	25.5	278
442625	Beaverlodge	PM <sub>2.5</sub>	09-Jun-25	10:00	11:00	131.1	23	290
442625	Beaverlodge	PM <sub>2.5</sub>	09-Jun-25	11:00	12:00	130.6	21.6	302
442625	Beaverlodge	PM <sub>2.5</sub>	09-Jun-25	12:00	13:00	152	25.5	283
442625	Beaverlodge	PM <sub>2.5</sub>	09-Jun-25	13:00	14:00	222.9	27.3	283
442625	Beaverlodge	PM <sub>2.5</sub>	09-Jun-25	14:00	15:00	370.5	25.1	293
442625	Beaverlodge	PM <sub>2.5</sub>	09-Jun-25	15:00	16:00	188.1	25	292
442625	Beaverlodge	PM <sub>2.5</sub>	09-Jun-25	16:00	17:00	151.1	24.1	299
442625	Beaverlodge	PM <sub>2.5</sub>	09-Jun-25	17:00	18:00	107.7	19.8	301
442625	Beaverlodge	PM <sub>2.5</sub>	09-Jun-25	23:00	0:00	89.1	4.5	68
442625	Beaverlodge	PM <sub>2.5</sub>	10-Jun-25	0:00	1:00	108.8	5.3	39
442625	Beaverlodge	PM <sub>2.5</sub>	10-Jun-25	1:00	2:00	111.6	7.2	18
442625	Beaverlodge	PM <sub>2.5</sub>	10-Jun-25	2:00	3:00	117	8.1	22
442625	Beaverlodge	PM <sub>2.5</sub>	10-Jun-25	3:00	4:00	162.3	11.9	18
442625	Beaverlodge	PM <sub>2.5</sub>	10-Jun-25	4:00	5:00	192.3	10.7	20
442625	Beaverlodge	PM <sub>2.5</sub>	10-Jun-25	5:00	6:00	184.9	7.4	334
442625	Beaverlodge	PM <sub>2.5</sub>	10-Jun-25	6:00	7:00	192.1	4.9	330
442625	Beaverlodge	PM <sub>2.5</sub>	10-Jun-25	7:00	8:00	213.8	3.9	340
442625	Beaverlodge	PM <sub>2.5</sub>	10-Jun-25	8:00	9:00	236.4	5.1	324
442625	Beaverlodge	PM <sub>2.5</sub>	10-Jun-25	9:00	10:00	345.3	5	10
442625	Beaverlodge	PM <sub>2.5</sub>	10-Jun-25	10:00	11:00	350.6	6.3	19
442625	Beaverlodge	PM <sub>2.5</sub>	10-Jun-25	11:00	12:00	321.7	8.3	40
442625	Beaverlodge	PM <sub>2.5</sub>	10-Jun-25	12:00	13:00	303.3	7.6	49
442625	Beaverlodge	PM <sub>2.5</sub>	10-Jun-25	13:00	14:00	176.4	6.7	8
442625	Beaverlodge	PM <sub>2.5</sub>	10-Jun-25	14:00	15:00	134.7	8	341
442625	Beaverlodge	PM <sub>2.5</sub>	10-Jun-25	15:00	16:00	133	8.8	341
442625	Beaverlodge	PM <sub>2.5</sub>	10-Jun-25	16:00	17:00	140.2	11.6	6
442625	Beaverlodge	PM <sub>2.5</sub>	10-Jun-25	17:00	18:00	215.4	14.3	21
442625	Beaverlodge	PM <sub>2.5</sub>	10-Jun-25	18:00	19:00	203.5	11.5	21
442625	Beaverlodge	PM <sub>2.5</sub>	10-Jun-25	19:00	20:00	188.3	7.6	37
442625	Beaverlodge	PM <sub>2.5</sub>	10-Jun-25	20:00	21:00	187.7	5.8	33
442625	Beaverlodge	PM <sub>2.5</sub>	10-Jun-25	21:00	22:00	194.1	6.9	43
442625	Beaverlodge	PM <sub>2.5</sub>	10-Jun-25	22:00	23:00	157.8	6	47
442625	Beaverlodge	PM <sub>2.5</sub>	10-Jun-25	23:00	0:00	155.5	5.2	53
442625	Beaverlodge	PM <sub>2.5</sub>	11-Jun-25	0:00	1:00	170.2	1	336
442625	Beaverlodge	PM <sub>2.5</sub>	11-Jun-25	1:00	2:00	136.1	8.2	30
442625	Beaverlodge	PM <sub>2.5</sub>	11-Jun-25	2:00	3:00	156.1	6.6	35
442625	Beaverlodge	PM <sub>2.5</sub>	11-Jun-25	3:00	4:00	155.9	5.8	52

Reference Number	Station	Pollutant	Date	From MST	To MST	Average $\mu\text{g}/\text{m}^3$	WS km/h	WD degrees
442625	Beaverlodge	PM <sub>2.5</sub>	11-Jun-25	4:00	5:00	80.7	1.7	167
442625	Beaverlodge	PM <sub>2.5</sub>	11-Jun-25	5:00	6:00	92	2.7	183
442625	Beaverlodge	PM <sub>2.5</sub>	12-Jun-25	0:00	1:00	146.2	22.2	79
442625	Beaverlodge	PM <sub>2.5</sub>	12-Jun-25	1:00	2:00	162.4	23.8	83
442625	Beaverlodge	PM <sub>2.5</sub>	12-Jun-25	2:00	3:00	129.7	21.3	84
442625	Beaverlodge	PM <sub>2.5</sub>	12-Jun-25	3:00	4:00	101.8	21.5	82
444808	Beaverlodge	PM <sub>2.5</sub>	31-Aug-25	10:00	11:00	106.3	15.9	258
444808	Beaverlodge	PM <sub>2.5</sub>	31-Aug-25	11:00	12:00	149.7	1.5	324
444808	Beaverlodge	PM <sub>2.5</sub>	31-Aug-25	12:00	13:00	126	12.8	10
444808	Beaverlodge	PM <sub>2.5</sub>	31-Aug-25	16:00	17:00	104.5	7.7	243
444808	Beaverlodge	PM <sub>2.5</sub>	31-Aug-25	17:00	18:00	129.5	7.9	223
444808	Beaverlodge	PM <sub>2.5</sub>	31-Aug-25	18:00	19:00	131.2	9.3	234
444808	Beaverlodge	PM <sub>2.5</sub>	31-Aug-25	19:00	20:00	155	10.6	261
444808	Beaverlodge	PM <sub>2.5</sub>	31-Aug-25	20:00	21:00	202.5	10.6	281
444808	Beaverlodge	PM <sub>2.5</sub>	31-Aug-25	21:00	22:00	234.7	10.3	282
444808	Beaverlodge	PM <sub>2.5</sub>	31-Aug-25	22:00	23:00	240.6	12.9	275
444808	Beaverlodge	PM <sub>2.5</sub>	31-Aug-25	22:59	23:59	260.6	7.8	268
446079	Beaverlodge	PM <sub>2.5</sub>	01-Sep-25	0:00	1:00	247.9	3.2	283
446079	Beaverlodge	PM <sub>2.5</sub>	01-Sep-25	1:00	2:00	228.8	7	327
446079	Beaverlodge	PM <sub>2.5</sub>	01-Sep-25	2:00	3:00	240.9	3.6	25
446079	Beaverlodge	PM <sub>2.5</sub>	01-Sep-25	3:00	4:00	248.4	4.2	249
446079	Beaverlodge	PM <sub>2.5</sub>	01-Sep-25	4:00	5:00	240	11.6	290
446079	Beaverlodge	PM <sub>2.5</sub>	01-Sep-25	5:00	6:00	196.6	10.1	344
446079	Beaverlodge	PM <sub>2.5</sub>	01-Sep-25	6:00	7:00	183.2	17.8	326
446079	Beaverlodge	PM <sub>2.5</sub>	01-Sep-25	7:00	8:00	233.7	10.2	359
446079	Beaverlodge	PM <sub>2.5</sub>	01-Sep-25	8:00	9:00	212.5	8.5	7
446079	Beaverlodge	PM <sub>2.5</sub>	01-Sep-25	9:00	10:00	197.4	6.8	353
446079	Beaverlodge	PM <sub>2.5</sub>	01-Sep-25	10:00	11:00	196.5	10.5	49
446079	Beaverlodge	PM <sub>2.5</sub>	01-Sep-25	11:00	12:00	136.9	18.3	88
446079	Beaverlodge	PM <sub>2.5</sub>	01-Sep-25	12:00	13:00	113.6	18.7	85
446079	Beaverlodge	PM <sub>2.5</sub>	01-Sep-25	13:00	14:00	112.7	16.4	78
446079	Beaverlodge	PM <sub>2.5</sub>	01-Sep-25	14:00	15:00	129.6	1.6	115
446079	Beaverlodge	PM <sub>2.5</sub>	01-Sep-25	15:00	16:00	139.8	10.6	267
446079	Beaverlodge	PM <sub>2.5</sub>	01-Sep-25	16:00	17:00	132.2	10.6	254
446079	Beaverlodge	PM <sub>2.5</sub>	01-Sep-25	17:00	18:00	127.3	9.7	250
446079	Beaverlodge	PM <sub>2.5</sub>	01-Sep-25	18:00	19:00	121.5	10.1	257
446079	Beaverlodge	PM <sub>2.5</sub>	01-Sep-25	19:00	20:00	96.3	8.9	288
446079	Beaverlodge	PM <sub>2.5</sub>	01-Sep-25	20:00	21:00	93.3	10.4	270
446079	Beaverlodge	PM <sub>2.5</sub>	01-Sep-25	21:00	22:00	81.3	6.9	282
446079	Beaverlodge	PM <sub>2.5</sub>	02-Sep-25	11:00	12:00	112	14.4	8
446079	Beaverlodge	PM <sub>2.5</sub>	02-Sep-25	12:00	13:00	140.2	11.8	11
446079	Beaverlodge	PM <sub>2.5</sub>	02-Sep-25	13:00	14:00	135.8	10.8	9
446079	Beaverlodge	PM <sub>2.5</sub>	02-Sep-25	14:00	15:00	110.3	10.4	5
446079	Beaverlodge	PM <sub>2.5</sub>	02-Sep-25	15:00	16:00	87.5	10.7	5
446079	Beaverlodge	PM <sub>2.5</sub>	03-Sep-25	22:00	23:00	92.7	14.4	329
446079	Beaverlodge	PM <sub>2.5</sub>	03-Sep-25	23:00	0:00	104.8	13.9	330
446079	Beaverlodge	PM <sub>2.5</sub>	04-Sep-25	0:00	1:00	127.9	12.1	315
446079	Beaverlodge	PM <sub>2.5</sub>	11-Sep-25	18:00	19:00	150.2	9.9	198
446079	Beaverlodge	PM <sub>2.5</sub>	11-Sep-25	19:00	20:00	125.6	8.1	95
446079	Beaverlodge	PM <sub>2.5</sub>	11-Sep-25	20:00	21:00	105.7	7.1	207
446079	Beaverlodge	PM <sub>2.5</sub>	11-Sep-25	21:00	22:00	110.9	2.4	81
446079	Beaverlodge	PM <sub>2.5</sub>	11-Sep-25	22:00	23:00	101.1	5	276
446079	Beaverlodge	PM <sub>2.5</sub>	11-Sep-25	23:00	0:00	96.1	5.9	274

Reference Number	Station	Pollutant	Date	From MST	To MST	Average $\mu\text{g}/\text{m}^3$	WS km/h	WD degrees
446079	Beaverlodge	PM <sub>2.5</sub>	12-Sep-25	0:00	1:00	94.5	3.5	261
446079	Beaverlodge	PM <sub>2.5</sub>	12-Sep-25	1:00	2:00	87.9	1.6	329
446079	Beaverlodge	PM <sub>2.5</sub>	12-Sep-25	2:00	3:00	93.1	1.6	158
446079	Beaverlodge	PM <sub>2.5</sub>	12-Sep-25	3:00	4:00	95.8	0.5	212
446079	Beaverlodge	PM <sub>2.5</sub>	12-Sep-25	4:00	5:00	95.9	1.1	91
446079	Beaverlodge	PM <sub>2.5</sub>	12-Sep-25	5:00	6:00	94.1	2.2	78
446079	Beaverlodge	PM <sub>2.5</sub>	12-Sep-25	6:00	7:00	92.5	2.4	48
446079	Beaverlodge	PM <sub>2.5</sub>	12-Sep-25	7:00	8:00	95.6	2.9	74
446079	Beaverlodge	PM <sub>2.5</sub>	12-Sep-25	8:00	9:00	95	2.2	141
446079	Beaverlodge	PM <sub>2.5</sub>	12-Sep-25	9:00	10:00	91.4	2.9	172
-	Dunes	PM <sub>2.5</sub>	29-May-25	13:00	14:00	84.7	9	297
-	Dunes	PM <sub>2.5</sub>	29-May-25	14:00	15:00	84.4	5.6	309
442626	Dunes	PM <sub>2.5</sub>	03-Jun-25	13:00	14:00	101.6	7.9	34
442626	Dunes	PM <sub>2.5</sub>	07-Jun-25	3:00	4:00	162	0.9	294
442626	Dunes	PM <sub>2.5</sub>	07-Jun-25	4:00	5:00	208.3	0.4	302
442626	Dunes	PM <sub>2.5</sub>	07-Jun-25	5:00	6:00	192.9	0.8	255
442626	Dunes	PM <sub>2.5</sub>	07-Jun-25	6:00	7:00	215.3	1.9	251
442626	Dunes	PM <sub>2.5</sub>	07-Jun-25	7:00	8:00	189.5	3.5	298
442626	Dunes	PM <sub>2.5</sub>	07-Jun-25	8:00	9:00	126.8	3.6	305
442626	Dunes	PM <sub>2.5</sub>	07-Jun-25	9:00	10:00	82.3	3.3	302
442626	Dunes	PM <sub>2.5</sub>	09-Jun-25	14:00	15:00	126	11.4	312
442626	Dunes	PM <sub>2.5</sub>	09-Jun-25	15:00	16:00	183.3	10.3	313
442626	Dunes	PM <sub>2.5</sub>	09-Jun-25	16:00	17:00	121.3	9.6	308
442626	Dunes	PM <sub>2.5</sub>	09-Jun-25	17:00	18:00	92.1	8.3	318
442626	Dunes	PM <sub>2.5</sub>	10-Jun-25	6:00	7:00	88.6	0.8	310
442626	Dunes	PM <sub>2.5</sub>	10-Jun-25	7:00	8:00	117.4	2.3	292
442626	Dunes	PM <sub>2.5</sub>	10-Jun-25	8:00	9:00	141.7	1.8	273
442626	Dunes	PM <sub>2.5</sub>	10-Jun-25	9:00	10:00	162	2.1	233
442626	Dunes	PM <sub>2.5</sub>	10-Jun-25	10:00	11:00	187.4	1.9	336
442626	Dunes	PM <sub>2.5</sub>	10-Jun-25	11:00	12:00	194.6	2	341
442626	Dunes	PM <sub>2.5</sub>	10-Jun-25	12:00	13:00	206.9	2.7	333
442626	Dunes	PM <sub>2.5</sub>	10-Jun-25	13:00	14:00	177.5	3.8	18
442626	Dunes	PM <sub>2.5</sub>	10-Jun-25	14:00	15:00	102.7	5.6	341
442626	Dunes	PM <sub>2.5</sub>	10-Jun-25	15:00	16:00	115.7	5.1	340
442626	Dunes	PM <sub>2.5</sub>	10-Jun-25	16:00	17:00	137.2	7.6	24
442626	Dunes	PM <sub>2.5</sub>	10-Jun-25	17:00	18:00	143.2	7.6	25
442626	Dunes	PM <sub>2.5</sub>	10-Jun-25	18:00	19:00	198.9	6.3	36
442626	Dunes	PM <sub>2.5</sub>	10-Jun-25	19:00	20:00	174.2	4.7	46
442626	Dunes	PM <sub>2.5</sub>	10-Jun-25	20:00	21:00	142.7	0.5	52
442626	Dunes	PM <sub>2.5</sub>	10-Jun-25	21:00	22:00	131.6	0.4	294
442626	Dunes	PM <sub>2.5</sub>	10-Jun-25	22:00	23:00	110.5	0.5	252
442626	Dunes	PM <sub>2.5</sub>	10-Jun-25	23:00	0:00	93.6	0.4	209
442626	Dunes	PM <sub>2.5</sub>	11-Jun-25	0:00	1:00	89.1	0.7	331
442626	Dunes	PM <sub>2.5</sub>	11-Jun-25	1:00	2:00	93.1	0.3	262
442626	Dunes	PM <sub>2.5</sub>	11-Jun-25	2:00	3:00	94.6	0.4	296
442626	Dunes	PM <sub>2.5</sub>	11-Jun-25	3:00	4:00	91.4	0.4	248
442626	Dunes	PM <sub>2.5</sub>	11-Jun-25	4:00	5:00	88.6	0.3	240
442626	Dunes	PM <sub>2.5</sub>	11-Jun-25	5:00	6:00	87.1	0.1	335
442626	Dunes	PM <sub>2.5</sub>	11-Jun-25	23:00	0:00	104.8	4.8	78
442626	Dunes	PM <sub>2.5</sub>	12-Jun-25	0:00	1:00	127.4	4.3	75
442626	Dunes	PM <sub>2.5</sub>	12-Jun-25	1:00	2:00	113.7	4.8	70
442626	Dunes	PM <sub>2.5</sub>	12-Jun-25	2:00	3:00	83.2	4.8	79
444809	Dunes	PM <sub>2.5</sub>	31-Aug-25	9:00	10:00	311.7	2.6	103

Reference Number	Station	Pollutant	Date	From MST	To MST	Average $\mu\text{g}/\text{m}^3$	WS km/h	WD degrees
444809	Dunes	PM <sub>2.5</sub>	31-Aug-25	10:00	11:00	216.3	2.3	166
444809	Dunes	PM <sub>2.5</sub>	31-Aug-25	11:00	12:00	282.1	2.5	149
444809	Dunes	PM <sub>2.5</sub>	31-Aug-25	12:00	13:00	248.4	2.2	166
444809	Dunes	PM <sub>2.5</sub>	31-Aug-25	13:00	14:00	173.3	3.2	193
444809	Dunes	PM <sub>2.5</sub>	31-Aug-25	14:00	15:00	156.6	3.6	96
444809	Dunes	PM <sub>2.5</sub>	31-Aug-25	15:00	16:00	108.5	4.1	124
444809	Dunes	PM <sub>2.5</sub>	31-Aug-25	16:00	17:00	94	4.7	97
444809	Dunes	PM <sub>2.5</sub>	31-Aug-25	17:00	18:00	118.9	6.3	106
444809	Dunes	PM <sub>2.5</sub>	31-Aug-25	18:00	19:00	156.7	4.3	110
444809	Dunes	PM <sub>2.5</sub>	31-Aug-25	19:00	20:00	139.8	1.8	90
444809	Dunes	PM <sub>2.5</sub>	31-Aug-25	20:00	21:00	138.7	0.7	64
444809	Dunes	PM <sub>2.5</sub>	31-Aug-25	21:00	22:00	146.1	1.4	41
444809	Dunes	PM <sub>2.5</sub>	31-Aug-25	22:00	23:00	157.2	0.6	10
444809	Dunes	PM <sub>2.5</sub>	31-Aug-25	23:00	0:00	171.8	0.4	42
446080	Dunes	PM <sub>2.5</sub>	02-Sep-25	13:00	14:00	80.2	4.4	173
446080	Dunes	PM <sub>2.5</sub>	02-Sep-25	14:00	15:00	88.9	5.2	160
436940	Fox Creek	PM <sub>2.5</sub>	18-Jan-25	11:00	12:00	148.7	7.4	137
436940	Fox Creek	PM <sub>2.5</sub>	18-Jan-25	12:00	13:00	222.7	6.7	139
436940	Fox Creek	PM <sub>2.5</sub>	18-Jan-25	16:00	17:00	132.3	5.2	146
436940	Fox Creek	PM <sub>2.5</sub>	18-Jan-25	17:00	18:00	171.3	6	158
436940	Fox Creek	PM <sub>2.5</sub>	18-Jan-25	18:00	19:00	114.5	5.1	162
436940	Fox Creek	PM <sub>2.5</sub>	18-Jan-25	19:00	20:00	148.1	4.7	160
436940	Fox Creek	PM <sub>2.5</sub>	18-Jan-25	20:00	21:00	172	3.8	171
436940	Fox Creek	PM <sub>2.5</sub>	18-Jan-25	21:00	22:00	117.7	3.7	160
437148	Fox Creek	PM <sub>2.5</sub>	25-Jan-25	19:00	20:00	424.4	1.5	156
437148	Fox Creek	PM <sub>2.5</sub>	25-Jan-25	20:00	21:00	530.5	2.1	160
437148	Fox Creek	PM <sub>2.5</sub>	25-Jan-25	21:00	22:00	492.2	3.5	160
437148	Fox Creek	PM <sub>2.5</sub>	25-Jan-25	22:00	23:00	194.5	2.3	177
437168	Fox Creek	PM <sub>2.5</sub>	26-Jan-25	23:00	0:00	199.1	3.3	185
437168	Fox Creek	PM <sub>2.5</sub>	26-Jan-25	0:00	1:00	345.7	3	184
437168	Fox Creek	PM <sub>2.5</sub>	26-Jan-25	1:00	2:00	252.9	3.9	196
437168	Fox Creek	PM <sub>2.5</sub>	26-Jan-25	2:00	3:00	530	5.4	226
437168	Fox Creek	PM <sub>2.5</sub>	26-Jan-25	3:00	4:00	225	5.8	215
437168	Fox Creek	PM <sub>2.5</sub>	26-Jan-25	7:00	8:00	82.8	4.3	175
437192	Fox Creek	PM <sub>2.5</sub>	27-Jan-25	8:00	9:00	95.1	1.6	215
437192	Fox Creek	PM <sub>2.5</sub>	27-Jan-25	9:00	10:00	307.8	5.3	194
437266	Fox Creek	PM <sub>2.5</sub>	28-Jan-25	5:00	6:00	145.9	1.1	152
437266	Fox Creek	PM <sub>2.5</sub>	28-Jan-25	6:00	7:00	222.4	1.1	168
437266	Fox Creek	PM <sub>2.5</sub>	28-Jan-25	7:00	8:00	169.6	1.1	154
437266	Fox Creek	PM <sub>2.5</sub>	28-Jan-25	8:00	9:00	154.6	1.2	182
437266	Fox Creek	PM <sub>2.5</sub>	28-Jan-25	9:00	10:00	85.5	1	216
437604	Fox Creek	PM <sub>2.5</sub>	10-Feb-25	21:00	22:00	296	0.6	197
437604	Fox Creek	PM <sub>2.5</sub>	10-Feb-25	22:00	23:00	209.8	1.2	248
437635	Fox Creek	PM <sub>2.5</sub>	11-Feb-25	21:00	22:00	136.8	0.5	246
437635	Fox Creek	PM <sub>2.5</sub>	11-Feb-25	22:00	23:00	119.3	0.5	266
437635	Fox Creek	PM <sub>2.5</sub>	11-Feb-25	23:00	0:00	174.7	0.5	202
437635	Fox Creek	PM <sub>2.5</sub>	12-Feb-25	0:00	1:00	127.4	0.5	195
437635	Fox Creek	PM <sub>2.5</sub>	12-Feb-25	1:00	2:00	84.1	0.7	198
437718	Fox Creek	PM <sub>2.5</sub>	14-Feb-25	22:00	23:00	91.1	1	268
437718	Fox Creek	PM <sub>2.5</sub>	14-Feb-25	23:00	0:00	93.4	0.3	268
437733	Fox Creek	PM <sub>2.5</sub>	15-Feb-25	0:00	1:00	124	0.5	258
437733	Fox Creek	PM <sub>2.5</sub>	15-Feb-25	1:00	2:00	88.1	1	194
442627	Fox Creek	PM <sub>2.5</sub>	09-Jun-25	18:00	19:00	121	11.6	357

Reference Number	Station	Pollutant	Date	From MST	To MST	Average $\mu\text{g}/\text{m}^3$	WS km/h	WD degrees
442627	Fox Creek	PM <sub>2.5</sub>	09-Jun-25	19:00	20:00	185.6	9.2	355
442627	Fox Creek	PM <sub>2.5</sub>	09-Jun-25	20:00	21:00	126	3.5	322
442627	Fox Creek	PM <sub>2.5</sub>	09-Jun-25	21:00	22:00	113.5	1.2	293
442627	Fox Creek	PM <sub>2.5</sub>	09-Jun-25	22:00	23:00	101.3	1.3	231
442627	Fox Creek	PM <sub>2.5</sub>	09-Jun-25	23:00	0:00	99.9	2.6	181
442627	Fox Creek	PM <sub>2.5</sub>	10-Jun-25	0:00	1:00	98.2	1.8	208
442627	Fox Creek	PM <sub>2.5</sub>	10-Jun-25	1:00	2:00	91.3	2.3	179
442627	Fox Creek	PM <sub>2.5</sub>	10-Jun-25	6:00	7:00	83.1	0.7	150
442627	Fox Creek	PM <sub>2.5</sub>	10-Jun-25	12:00	13:00	82.2	8.7	29
442627	Fox Creek	PM <sub>2.5</sub>	10-Jun-25	14:00	15:00	82.4	9.9	19
442627	Fox Creek	PM <sub>2.5</sub>	10-Jun-25	15:00	16:00	114.5	9.2	11
442627	Fox Creek	PM <sub>2.5</sub>	10-Jun-25	16:00	17:00	125.1	7.7	10
442627	Fox Creek	PM <sub>2.5</sub>	10-Jun-25	17:00	18:00	137.5	7.8	24
442627	Fox Creek	PM <sub>2.5</sub>	10-Jun-25	18:00	19:00	165	7.2	37
442627	Fox Creek	PM <sub>2.5</sub>	10-Jun-25	19:00	20:00	173.2	4.3	32
442627	Fox Creek	PM <sub>2.5</sub>	10-Jun-25	20:00	21:00	180.3	1.4	340
442627	Fox Creek	PM <sub>2.5</sub>	10-Jun-25	21:00	22:00	174.2	1.4	230
442627	Fox Creek	PM <sub>2.5</sub>	10-Jun-25	22:00	23:00	163.2	2	187
442627	Fox Creek	PM <sub>2.5</sub>	10-Jun-25	23:00	0:00	157.8	1.9	191
442627	Fox Creek	PM <sub>2.5</sub>	11-Jun-25	0:00	1:00	151.1	2.1	181
442627	Fox Creek	PM <sub>2.5</sub>	11-Jun-25	1:00	2:00	150.3	2.1	187
442627	Fox Creek	PM <sub>2.5</sub>	11-Jun-25	2:00	3:00	141.5	2	203
442627	Fox Creek	PM <sub>2.5</sub>	11-Jun-25	3:00	4:00	140.5	1.4	180
442627	Fox Creek	PM <sub>2.5</sub>	11-Jun-25	4:00	5:00	136.8	1.8	220
442627	Fox Creek	PM <sub>2.5</sub>	11-Jun-25	5:00	6:00	132.7	1.9	196
442627	Fox Creek	PM <sub>2.5</sub>	11-Jun-25	6:00	7:00	132.6	2.3	203
442627	Fox Creek	PM <sub>2.5</sub>	11-Jun-25	7:00	8:00	132.2	1	198
442627	Fox Creek	PM <sub>2.5</sub>	11-Jun-25	8:00	9:00	89.8	6	149
444810	Fox Creek	PM <sub>2.5</sub>	31-Aug-25	8:00	9:00	174.9	4.6	305
444810	Fox Creek	PM <sub>2.5</sub>	31-Aug-25	9:00	10:00	323.5	6.4	313
444810	Fox Creek	PM <sub>2.5</sub>	31-Aug-25	10:00	11:00	269.8	6.3	296
444810	Fox Creek	PM <sub>2.5</sub>	31-Aug-25	11:00	12:00	192.1	5.2	321
444810	Fox Creek	PM <sub>2.5</sub>	31-Aug-25	12:00	13:00	236.4	5.8	349
444810	Fox Creek	PM <sub>2.5</sub>	31-Aug-25	13:00	14:00	280.8	5.5	32
444810	Fox Creek	PM <sub>2.5</sub>	31-Aug-25	14:00	15:00	300	5.1	23
444810	Fox Creek	PM <sub>2.5</sub>	31-Aug-25	15:00	16:00	234.6	3.9	5
444810	Fox Creek	PM <sub>2.5</sub>	31-Aug-25	16:00	17:00	260.9	3.6	31
444810	Fox Creek	PM <sub>2.5</sub>	31-Aug-25	17:00	18:00	204.7	2.7	72
444810	Fox Creek	PM <sub>2.5</sub>	31-Aug-25	18:00	19:00	194.9	1.3	276
444810	Fox Creek	PM <sub>2.5</sub>	31-Aug-25	19:00	20:00	190.7	1.3	234
444810	Fox Creek	PM <sub>2.5</sub>	31-Aug-25	20:00	21:00	188.1	1.9	182
444810	Fox Creek	PM <sub>2.5</sub>	31-Aug-25	21:00	22:00	181.4	2.9	170
444810	Fox Creek	PM <sub>2.5</sub>	31-Aug-25	22:00	23:00	193.3	2.7	174
444810	Fox Creek	PM <sub>2.5</sub>	31-Aug-25	23:00	0:00	183.4	2.9	165
446081	Fox Creek	PM <sub>2.5</sub>	01-Sep-25	0:00	1:00	172.5	4.2	161
446081	Fox Creek	PM <sub>2.5</sub>	01-Sep-25	1:00	2:00	175.5	5.1	161
446081	Fox Creek	PM <sub>2.5</sub>	01-Sep-25	2:00	3:00	181.2	5.1	165
446081	Fox Creek	PM <sub>2.5</sub>	01-Sep-25	3:00	4:00	180.1	3.8	185
446081	Fox Creek	PM <sub>2.5</sub>	01-Sep-25	4:00	5:00	181.8	2.9	160
446081	Fox Creek	PM <sub>2.5</sub>	01-Sep-25	5:00	6:00	180.4	4.3	162
446081	Fox Creek	PM <sub>2.5</sub>	01-Sep-25	6:00	7:00	152.4	3.2	184
446081	Fox Creek	PM <sub>2.5</sub>	01-Sep-25	7:00	8:00	105.9	1.1	197
446081	Fox Creek	PM <sub>2.5</sub>	01-Sep-25	8:00	9:00	109.5	4.3	334

Reference Number	Station	Pollutant	Date	From MST	To MST	Average $\mu\text{g}/\text{m}^3$	WS km/h	WD degrees
446081	Fox Creek	PM <sub>2.5</sub>	01-Sep-25	9:00	10:00	128.4	5.6	298
446081	Fox Creek	PM <sub>2.5</sub>	01-Sep-25	10:00	11:00	139.5	5.7	332
446081	Fox Creek	PM <sub>2.5</sub>	01-Sep-25	11:00	12:00	150	5.3	338
446081	Fox Creek	PM <sub>2.5</sub>	01-Sep-25	12:00	13:00	152.2	5.8	357
446081	Fox Creek	PM <sub>2.5</sub>	01-Sep-25	13:00	14:00	162.8	7.7	14
446081	Fox Creek	PM <sub>2.5</sub>	01-Sep-25	14:00	15:00	167.3	4.9	345
446081	Fox Creek	PM <sub>2.5</sub>	01-Sep-25	15:00	16:00	170.2	4	340
446081	Fox Creek	PM <sub>2.5</sub>	01-Sep-25	16:00	17:00	172.6	4.9	350
446081	Fox Creek	PM <sub>2.5</sub>	01-Sep-25	17:00	18:00	172.2	3.2	339
446081	Fox Creek	PM <sub>2.5</sub>	01-Sep-25	18:00	19:00	154.4	2.4	336
446081	Fox Creek	PM <sub>2.5</sub>	01-Sep-25	19:00	20:00	149.1	1.8	187
446081	Fox Creek	PM <sub>2.5</sub>	01-Sep-25	20:00	21:00	154.3	2.4	99
446081	Fox Creek	PM <sub>2.5</sub>	01-Sep-25	21:00	22:00	153.3	6.4	151
446081	Fox Creek	PM <sub>2.5</sub>	01-Sep-25	22:00	23:00	141.5	7.3	153
446081	Fox Creek	PM <sub>2.5</sub>	01-Sep-25	23:00	0:00	120.6	8	144
446081	Fox Creek	PM <sub>2.5</sub>	02-Sep-25	0:00	1:00	115.4	5.1	150
446081	Fox Creek	PM <sub>2.5</sub>	02-Sep-25	1:00	2:00	94.5	5	148
446081	Fox Creek	PM <sub>2.5</sub>	02-Sep-25	10:00	11:00	84.1	6.2	119
446081	Fox Creek	PM <sub>2.5</sub>	02-Sep-25	11:00	12:00	94.7	2.6	194
446081	Fox Creek	PM <sub>2.5</sub>	02-Sep-25	12:00	13:00	102.6	5.1	137
446081	Fox Creek	PM <sub>2.5</sub>	02-Sep-25	13:00	14:00	95.2	6.1	126
446081	Fox Creek	PM <sub>2.5</sub>	02-Sep-25	14:00	15:00	88.2	8	128
446081	Fox Creek	PM <sub>2.5</sub>	02-Sep-25	15:00	16:00	80.8	7.6	136
446081	Fox Creek	PM <sub>2.5</sub>	04-Sep-25	5:00	6:00	83.5	1.7	327
446081	Fox Creek	PM <sub>2.5</sub>	04-Sep-25	6:00	7:00	81.3	1.2	228
446081	Fox Creek	PM <sub>2.5</sub>	12-Sep-25	8:00	9:00	83.5	2.2	166
446081	Fox Creek	PM <sub>2.5</sub>	12-Sep-25	9:00	10:00	103.5	2.7	194
446081	Fox Creek	PM <sub>2.5</sub>	12-Sep-25	10:00	11:00	103.5	2.6	288
446081	Fox Creek	PM <sub>2.5</sub>	12-Sep-25	11:00	12:00	93.4	4.3	319
446081	Fox Creek	PM <sub>2.5</sub>	12-Sep-25	17:00	18:00	83.7	1.5	317
446081	Fox Creek	PM <sub>2.5</sub>	13-Sep-25	8:00	9:00	81	2	165
446081	Fox Creek	PM <sub>2.5</sub>	13-Sep-25	9:00	10:00	80.3	2.6	163
439262	Happy Valley	PM <sub>2.5</sub>	04-Apr-25	5:00	6:00	85	11.1	265
439262	Happy Valley	PM <sub>2.5</sub>	04-Apr-25	6:00	7:00	127.3	13.3	257
439995	Happy Valley	PM <sub>2.5</sub>	24-Apr-25	3:00	4:00	111.6	7.1	252
439995	Happy Valley	PM <sub>2.5</sub>	24-Apr-25	7:00	8:00	96.4	1	95
440028	Happy Valley	PM <sub>2.5</sub>	25-Apr-25	5:00	6:00	108.4	5.7	246
440331	Happy Valley	PM <sub>2.5</sub>	02-May-25	5:00	6:00	85	2.2	195
-	Happy Valley	PM <sub>2.5</sub>	12-May-25	1:00	2:00	130.9	4.2	251
-	Happy Valley	PM <sub>2.5</sub>	12-May-25	23:00	0:00	84.7	2.6	230
442628	Happy Valley	PM <sub>2.5</sub>	03-Jun-25	6:00	7:00	98.8	3.1	16
442628	Happy Valley	PM <sub>2.5</sub>	03-Jun-25	7:00	8:00	105.8	10.2	24
442628	Happy Valley	PM <sub>2.5</sub>	03-Jun-25	8:00	9:00	91.7	6.5	15
442628	Happy Valley	PM <sub>2.5</sub>	03-Jun-25	9:00	10:00	104.9	4.5	323
442628	Happy Valley	PM <sub>2.5</sub>	03-Jun-25	10:00	11:00	84.2	5.7	319
442628	Happy Valley	PM <sub>2.5</sub>	03-Jun-25	12:00	13:00	101.5	8.6	18
442628	Happy Valley	PM <sub>2.5</sub>	03-Jun-25	13:00	14:00	108.9	4.8	355
442628	Happy Valley	PM <sub>2.5</sub>	03-Jun-25	14:00	15:00	101.9	5.3	301
442628	Happy Valley	PM <sub>2.5</sub>	03-Jun-25	15:00	16:00	103.5	9.1	301
442628	Happy Valley	PM <sub>2.5</sub>	03-Jun-25	16:00	17:00	95.7	8.4	284
442628	Happy Valley	PM <sub>2.5</sub>	03-Jun-25	17:00	18:00	100.3	2.2	108
442628	Happy Valley	PM <sub>2.5</sub>	03-Jun-25	18:00	19:00	86.5	9.7	166
442628	Happy Valley	PM <sub>2.5</sub>	03-Jun-25	21:00	22:00	83.6	3.3	180

Reference Number	Station	Pollutant	Date	From MST	To MST	Average $\mu\text{g}/\text{m}^3$	WS km/h	WD degrees
442628	Happy Valley	PM <sub>2.5</sub>	03-Jun-25	22:00	23:00	106.2	9.8	194
442628	Happy Valley	PM <sub>2.5</sub>	03-Jun-25	23:00	0:00	101.7	15.9	197
442628	Happy Valley	PM <sub>2.5</sub>	04-Jun-25	0:00	1:00	84.3	20.9	194
442628	Happy Valley	PM <sub>2.5</sub>	06-Jun-25	22:00	23:00	149.8	9.7	268
442628	Happy Valley	PM <sub>2.5</sub>	06-Jun-25	23:00	0:00	178.6	11.8	262
442628	Happy Valley	PM <sub>2.5</sub>	07-Jun-25	0:00	1:00	203.6	11.7	265
442628	Happy Valley	PM <sub>2.5</sub>	07-Jun-25	1:00	2:00	135.7	10.3	269
442628	Happy Valley	PM <sub>2.5</sub>	07-Jun-25	2:00	3:00	126.4	9.2	264
442628	Happy Valley	PM <sub>2.5</sub>	07-Jun-25	3:00	4:00	129.5	11.1	263
442628	Happy Valley	PM <sub>2.5</sub>	07-Jun-25	4:00	5:00	130.7	10.7	264
442628	Happy Valley	PM <sub>2.5</sub>	07-Jun-25	5:00	6:00	97.3	10.9	267
442628	Happy Valley	PM <sub>2.5</sub>	07-Jun-25	6:00	7:00	92.1	9.9	265
442628	Happy Valley	PM <sub>2.5</sub>	08-Jun-25	2:00	3:00	85.1	30.5	201
442628	Happy Valley	PM <sub>2.5</sub>	08-Jun-25	3:00	4:00	111.5	16.9	213
442628	Happy Valley	PM <sub>2.5</sub>	08-Jun-25	4:00	5:00	106.2	10.4	251
442628	Happy Valley	PM <sub>2.5</sub>	08-Jun-25	11:00	12:00	93.3	12.9	231
442628	Happy Valley	PM <sub>2.5</sub>	08-Jun-25	12:00	13:00	94.1	14.1	220
442628	Happy Valley	PM <sub>2.5</sub>	09-Jun-25	19:00	20:00	130	12.3	20
442628	Happy Valley	PM <sub>2.5</sub>	09-Jun-25	20:00	21:00	142.6	5.1	27
442628	Happy Valley	PM <sub>2.5</sub>	09-Jun-25	21:00	22:00	230.9	1.2	283
442628	Happy Valley	PM <sub>2.5</sub>	09-Jun-25	22:00	23:00	175.5	3.1	249
442628	Happy Valley	PM <sub>2.5</sub>	09-Jun-25	23:00	0:00	182	4.2	259
442628	Happy Valley	PM <sub>2.5</sub>	10-Jun-25	0:00	1:00	194.2	6	276
442628	Happy Valley	PM <sub>2.5</sub>	10-Jun-25	1:00	2:00	230.2	4.6	260
442628	Happy Valley	PM <sub>2.5</sub>	10-Jun-25	2:00	3:00	187.3	4.2	253
442628	Happy Valley	PM <sub>2.5</sub>	10-Jun-25	3:00	4:00	229.1	5.4	257
442628	Happy Valley	PM <sub>2.5</sub>	10-Jun-25	4:00	5:00	257.7	8.5	268
442628	Happy Valley	PM <sub>2.5</sub>	10-Jun-25	5:00	6:00	318.9	9.3	260
442628	Happy Valley	PM <sub>2.5</sub>	10-Jun-25	6:00	7:00	329	7.6	261
442628	Happy Valley	PM <sub>2.5</sub>	10-Jun-25	7:00	8:00	425.6	8.1	263
442628	Happy Valley	PM <sub>2.5</sub>	10-Jun-25	8:00	9:00	596.9	8	272
442628	Happy Valley	PM <sub>2.5</sub>	10-Jun-25	9:00	10:00	421.9	8.7	268
442628	Happy Valley	PM <sub>2.5</sub>	10-Jun-25	10:00	11:00	379.7	8.8	278
442628	Happy Valley	PM <sub>2.5</sub>	10-Jun-25	11:00	12:00	303.8	8.7	326
442628	Happy Valley	PM <sub>2.5</sub>	10-Jun-25	12:00	13:00	439.4	8.1	349
442628	Happy Valley	PM <sub>2.5</sub>	10-Jun-25	13:00	14:00	480.4	9.3	332
442628	Happy Valley	PM <sub>2.5</sub>	10-Jun-25	14:00	15:00	294.8	11.1	10
442628	Happy Valley	PM <sub>2.5</sub>	10-Jun-25	15:00	16:00	278.6	9.9	7
442628	Happy Valley	PM <sub>2.5</sub>	10-Jun-25	16:00	17:00	285.7	5.5	345
442628	Happy Valley	PM <sub>2.5</sub>	10-Jun-25	17:00	18:00	198.4	2.2	315
442628	Happy Valley	PM <sub>2.5</sub>	10-Jun-25	18:00	19:00	153.3	2.6	300
442628	Happy Valley	PM <sub>2.5</sub>	10-Jun-25	19:00	20:00	119.2	6.2	17
442628	Happy Valley	PM <sub>2.5</sub>	10-Jun-25	20:00	21:00	88.7	5.2	41
442628	Happy Valley	PM <sub>2.5</sub>	12-Jun-25	1:00	2:00	115.1	11.2	72
442628	Happy Valley	PM <sub>2.5</sub>	12-Jun-25	2:00	3:00	234.1	8.9	69
442628	Happy Valley	PM <sub>2.5</sub>	12-Jun-25	3:00	4:00	209.1	8.9	54
442628	Happy Valley	PM <sub>2.5</sub>	12-Jun-25	4:00	5:00	167.8	8.9	62
442628	Happy Valley	PM <sub>2.5</sub>	12-Jun-25	5:00	6:00	127.6	11.1	77
442628	Happy Valley	PM <sub>2.5</sub>	12-Jun-25	6:00	7:00	92.7	14.6	76
443707	Happy Valley	PM <sub>2.5</sub>	15-Jul-25	6:00	7:00	148.7	0.5	212
443707	Happy Valley	PM <sub>2.5</sub>	17-Jul-25	5:00	6:00	131.3	10.7	269
444811	Happy Valley	PM <sub>2.5</sub>	31-Aug-25	6:00	7:00	134.9	2.6	262
444811	Happy Valley	PM <sub>2.5</sub>	31-Aug-25	7:00	8:00	223.9	1.5	146

Reference Number	Station	Pollutant	Date	From MST	To MST	Average $\mu\text{g}/\text{m}^3$	WS km/h	WD degrees
444811	Happy Valley	PM <sub>2.5</sub>	31-Aug-25	8:00	9:00	368.9	4.9	101
444811	Happy Valley	PM <sub>2.5</sub>	31-Aug-25	9:00	10:00	432	8.8	104
444811	Happy Valley	PM <sub>2.5</sub>	31-Aug-25	10:00	11:00	419.5	6.1	113
444811	Happy Valley	PM <sub>2.5</sub>	31-Aug-25	11:00	12:00	385.5	5.4	69
444811	Happy Valley	PM <sub>2.5</sub>	31-Aug-25	12:00	13:00	374.1	5.8	37
444811	Happy Valley	PM <sub>2.5</sub>	31-Aug-25	13:00	14:00	374	11.9	48
444811	Happy Valley	PM <sub>2.5</sub>	31-Aug-25	14:00	15:00	351.2	10.6	86
444811	Happy Valley	PM <sub>2.5</sub>	31-Aug-25	15:00	16:00	319.5	12.2	96
444811	Happy Valley	PM <sub>2.5</sub>	31-Aug-25	16:00	17:00	284.6	14.8	94
444811	Happy Valley	PM <sub>2.5</sub>	31-Aug-25	17:00	18:00	287.2	18.1	88
444811	Happy Valley	PM <sub>2.5</sub>	31-Aug-25	18:00	19:00	294.2	14.2	88
444811	Happy Valley	PM <sub>2.5</sub>	31-Aug-25	19:00	20:00	306.4	7.3	100
444811	Happy Valley	PM <sub>2.5</sub>	31-Aug-25	20:00	21:00	340.5	11.3	133
444811	Happy Valley	PM <sub>2.5</sub>	31-Aug-25	21:00	22:00	298.3	11.6	118
444811	Happy Valley	PM <sub>2.5</sub>	31-Aug-25	22:00	23:00	274	3.9	124
444811	Happy Valley	PM <sub>2.5</sub>	31-Aug-25	23:00	0:00	220	4.1	232
446082	Happy Valley	PM <sub>2.5</sub>	01-Sep-25	0:00	1:00	235.9	2.4	270
446082	Happy Valley	PM <sub>2.5</sub>	01-Sep-25	1:00	2:00	253.6	5.3	336
446082	Happy Valley	PM <sub>2.5</sub>	01-Sep-25	2:00	3:00	264.4	4.7	297
446082	Happy Valley	PM <sub>2.5</sub>	01-Sep-25	3:00	4:00	267.4	4.5	269
446082	Happy Valley	PM <sub>2.5</sub>	01-Sep-25	4:00	5:00	267.2	4.5	255
446082	Happy Valley	PM <sub>2.5</sub>	01-Sep-25	5:00	6:00	281.9	1.8	329
446082	Happy Valley	PM <sub>2.5</sub>	01-Sep-25	6:00	7:00	282.8	2.2	288
446082	Happy Valley	PM <sub>2.5</sub>	01-Sep-25	7:00	8:00	274.7	6.2	99
446082	Happy Valley	PM <sub>2.5</sub>	01-Sep-25	8:00	9:00	240.9	4.2	87
446082	Happy Valley	PM <sub>2.5</sub>	01-Sep-25	9:00	10:00	207	11.7	67
446082	Happy Valley	PM <sub>2.5</sub>	01-Sep-25	10:00	11:00	189.3	12.8	63
446082	Happy Valley	PM <sub>2.5</sub>	01-Sep-25	11:00	12:00	162.6	12.4	54
446082	Happy Valley	PM <sub>2.5</sub>	01-Sep-25	12:00	13:00	145.1	11.6	29
446082	Happy Valley	PM <sub>2.5</sub>	01-Sep-25	13:00	14:00	125.1	8.8	47
446082	Happy Valley	PM <sub>2.5</sub>	01-Sep-25	14:00	15:00	109.2	10.1	53
446082	Happy Valley	PM <sub>2.5</sub>	01-Sep-25	15:00	16:00	106.4	11.9	51
446082	Happy Valley	PM <sub>2.5</sub>	01-Sep-25	16:00	17:00	91.1	12.5	80
446082	Happy Valley	PM <sub>2.5</sub>	01-Sep-25	17:00	18:00	103.7	15.2	74
446082	Happy Valley	PM <sub>2.5</sub>	01-Sep-25	18:00	19:00	94	15.2	76
446082	Happy Valley	PM <sub>2.5</sub>	01-Sep-25	19:00	20:00	89.8	12.9	98
446082	Happy Valley	PM <sub>2.5</sub>	01-Sep-25	21:00	22:00	87.5	7.9	116
446082	Happy Valley	PM <sub>2.5</sub>	02-Sep-25	13:00	14:00	87.3	12.1	105
446082	Happy Valley	PM <sub>2.5</sub>	02-Sep-25	14:00	15:00	84.2	10.2	179
446082	Happy Valley	PM <sub>2.5</sub>	02-Sep-25	17:00	18:00	83.6	6.6	201
446082	Happy Valley	PM <sub>2.5</sub>	02-Sep-25	18:00	19:00	84.5	6.3	175
446082	Happy Valley	PM <sub>2.5</sub>	02-Sep-25	19:00	20:00	83.6	4.4	178
446082	Happy Valley	PM <sub>2.5</sub>	03-Sep-25	20:00	21:00	92.7	24.8	20
446082	Happy Valley	PM <sub>2.5</sub>	03-Sep-25	21:00	22:00	110	22	25
446082	Happy Valley	PM <sub>2.5</sub>	03-Sep-25	22:00	23:00	128.6	23.6	35
446082	Happy Valley	PM <sub>2.5</sub>	03-Sep-25	23:00	0:00	90.1	17.9	51
446082	Happy Valley	PM <sub>2.5</sub>	04-Sep-25	1:00	2:00	83.9	5.5	139
446082	Happy Valley	PM <sub>2.5</sub>	04-Sep-25	6:00	7:00	97.5	1.3	130
446082	Happy Valley	PM <sub>2.5</sub>	04-Sep-25	7:00	8:00	123.4	8	141
446082	Happy Valley	PM <sub>2.5</sub>	06-Sep-25	18:00	19:00	204.4	4.2	142
446082	Happy Valley	PM <sub>2.5</sub>	11-Sep-25	21:00	22:00	98.2	4.5	228
446082	Happy Valley	PM <sub>2.5</sub>	11-Sep-25	22:00	23:00	99.7	9.4	257
446082	Happy Valley	PM <sub>2.5</sub>	11-Sep-25	23:00	0:00	91.4	7.4	246

Reference Number	Station	Pollutant	Date	From MST	To MST	Average $\mu\text{g}/\text{m}^3$	WS km/h	WD degrees
446082	Happy Valley	PM <sub>2.5</sub>	12-Sep-25	0:00	1:00	86.4	11	254
446082	Happy Valley	PM <sub>2.5</sub>	13-Sep-25	21:00	22:00	88.7	1.7	93
-	Happy Valley	PM <sub>2.5</sub>	14-Oct-25	17:00	18:00	97.6	4.9	116
-	Henry Pirker	PM <sub>2.5</sub>	29-May-25	14:00	15:00	137.8	14.9	293
442629	Henry Pirker	PM <sub>2.5</sub>	03-Jun-25	8:00	9:00	93.9	3.9	300
442629	Henry Pirker	PM <sub>2.5</sub>	03-Jun-25	11:00	12:00	125.5	5.9	45
442629	Henry Pirker	PM <sub>2.5</sub>	03-Jun-25	12:00	13:00	128.3	6.1	47
442629	Henry Pirker	PM <sub>2.5</sub>	03-Jun-25	13:00	14:00	99.2	5.2	10
442629	Henry Pirker	PM <sub>2.5</sub>	03-Jun-25	14:00	15:00	87.5	4.4	292
442629	Henry Pirker	PM <sub>2.5</sub>	03-Jun-25	19:00	20:00	80.9	2.8	206
442629	Henry Pirker	PM <sub>2.5</sub>	03-Jun-25	20:00	21:00	95.9	5.5	162
442629	Henry Pirker	PM <sub>2.5</sub>	07-Jun-25	2:00	3:00	82.3	3.1	332
442629	Henry Pirker	PM <sub>2.5</sub>	07-Jun-25	3:00	4:00	111.3	2.6	300
442629	Henry Pirker	PM <sub>2.5</sub>	07-Jun-25	4:00	5:00	156.7	2.4	294
442629	Henry Pirker	PM <sub>2.5</sub>	07-Jun-25	5:00	6:00	204.6	3	271
442629	Henry Pirker	PM <sub>2.5</sub>	07-Jun-25	6:00	7:00	257	2.3	227
442629	Henry Pirker	PM <sub>2.5</sub>	07-Jun-25	7:00	8:00	228.2	3.3	245
442629	Henry Pirker	PM <sub>2.5</sub>	07-Jun-25	8:00	9:00	100	6.9	295
442629	Henry Pirker	PM <sub>2.5</sub>	08-Jun-25	2:00	3:00	81.4	3.1	153
442629	Henry Pirker	PM <sub>2.5</sub>	08-Jun-25	3:00	4:00	86.4	3.9	153
442629	Henry Pirker	PM <sub>2.5</sub>	08-Jun-25	4:00	5:00	93.2	3.3	151
442629	Henry Pirker	PM <sub>2.5</sub>	08-Jun-25	5:00	6:00	94.3	3.3	157
442629	Henry Pirker	PM <sub>2.5</sub>	08-Jun-25	6:00	7:00	94.3	3.2	154
442629	Henry Pirker	PM <sub>2.5</sub>	08-Jun-25	7:00	8:00	83.2	3.3	161
442629	Henry Pirker	PM <sub>2.5</sub>	08-Jun-25	23:00	0:00	197.1	11	285
442629	Henry Pirker	PM <sub>2.5</sub>	09-Jun-25	0:00	1:00	323.7	8	278
442629	Henry Pirker	PM <sub>2.5</sub>	09-Jun-25	1:00	2:00	266.2	8.2	271
442629	Henry Pirker	PM <sub>2.5</sub>	09-Jun-25	2:00	3:00	233.5	6.1	272
442629	Henry Pirker	PM <sub>2.5</sub>	09-Jun-25	3:00	4:00	114.9	7.5	282
442629	Henry Pirker	PM <sub>2.5</sub>	09-Jun-25	7:00	8:00	107.5	18.2	290
442629	Henry Pirker	PM <sub>2.5</sub>	09-Jun-25	11:00	12:00	105.2	19.3	295
442629	Henry Pirker	PM <sub>2.5</sub>	09-Jun-25	12:00	13:00	85	17.5	293
442629	Henry Pirker	PM <sub>2.5</sub>	09-Jun-25	13:00	14:00	137.4	21.4	293
442629	Henry Pirker	PM <sub>2.5</sub>	09-Jun-25	14:00	15:00	218.1	19.9	293
442629	Henry Pirker	PM <sub>2.5</sub>	09-Jun-25	15:00	16:00	170.3	19	294
442629	Henry Pirker	PM <sub>2.5</sub>	09-Jun-25	16:00	17:00	127.7	19.1	281
442629	Henry Pirker	PM <sub>2.5</sub>	10-Jun-25	2:00	3:00	102.4	3.6	350
442629	Henry Pirker	PM <sub>2.5</sub>	10-Jun-25	3:00	4:00	158.8	3.1	332
442629	Henry Pirker	PM <sub>2.5</sub>	10-Jun-25	4:00	5:00	136.3	2.5	320
442629	Henry Pirker	PM <sub>2.5</sub>	10-Jun-25	5:00	6:00	135.5	0.8	310
442629	Henry Pirker	PM <sub>2.5</sub>	10-Jun-25	6:00	7:00	145	1.2	300
442629	Henry Pirker	PM <sub>2.5</sub>	10-Jun-25	7:00	8:00	174.8	5	312
442629	Henry Pirker	PM <sub>2.5</sub>	10-Jun-25	8:00	9:00	255	4	312
442629	Henry Pirker	PM <sub>2.5</sub>	10-Jun-25	9:00	10:00	268.5	1.1	348
442629	Henry Pirker	PM <sub>2.5</sub>	10-Jun-25	10:00	11:00	262.4	1.6	347
442629	Henry Pirker	PM <sub>2.5</sub>	10-Jun-25	11:00	12:00	292.3	2.5	16
442629	Henry Pirker	PM <sub>2.5</sub>	10-Jun-25	12:00	13:00	257.4	2.6	22
442629	Henry Pirker	PM <sub>2.5</sub>	10-Jun-25	13:00	14:00	190.1	3.3	298
442629	Henry Pirker	PM <sub>2.5</sub>	10-Jun-25	14:00	15:00	200.3	8.3	328
442629	Henry Pirker	PM <sub>2.5</sub>	10-Jun-25	15:00	16:00	193.7	9	348
442629	Henry Pirker	PM <sub>2.5</sub>	10-Jun-25	16:00	17:00	176.3	7.3	0
442629	Henry Pirker	PM <sub>2.5</sub>	10-Jun-25	17:00	18:00	221.6	6.8	9
442629	Henry Pirker	PM <sub>2.5</sub>	10-Jun-25	18:00	19:00	272.7	5.9	51

Reference Number	Station	Pollutant	Date	From MST	To MST	Average $\mu\text{g}/\text{m}^3$	WS km/h	WD degrees
442629	Henry Pirker	PM <sub>2.5</sub>	10-Jun-25	19:00	20:00	273.2	4.5	27
442629	Henry Pirker	PM <sub>2.5</sub>	10-Jun-25	20:00	21:00	261.9	1.6	42
442629	Henry Pirker	PM <sub>2.5</sub>	10-Jun-25	21:00	22:00	181.2	0.4	130
442629	Henry Pirker	PM <sub>2.5</sub>	10-Jun-25	22:00	23:00	154.5	0.3	94
442629	Henry Pirker	PM <sub>2.5</sub>	10-Jun-25	23:00	0:00	161.3	0.5	317
442629	Henry Pirker	PM <sub>2.5</sub>	11-Jun-25	0:00	1:00	200.1	1.1	330
442629	Henry Pirker	PM <sub>2.5</sub>	11-Jun-25	1:00	2:00	170.8	1.8	16
442629	Henry Pirker	PM <sub>2.5</sub>	11-Jun-25	2:00	3:00	147.5	1	14
442629	Henry Pirker	PM <sub>2.5</sub>	11-Jun-25	3:00	4:00	98.3	0.5	346
442629	Henry Pirker	PM <sub>2.5</sub>	11-Jun-25	23:00	0:00	133.1	11.4	82
442629	Henry Pirker	PM <sub>2.5</sub>	12-Jun-25	0:00	1:00	158.4	9.8	78
442629	Henry Pirker	PM <sub>2.5</sub>	12-Jun-25	1:00	2:00	132	8.7	71
442629	Henry Pirker	PM <sub>2.5</sub>	12-Jun-25	2:00	3:00	111.9	9.8	78
442629	Henry Pirker	PM <sub>2.5</sub>	12-Jun-25	3:00	4:00	89.1	8.3	68
444812	Henry Pirker	PM <sub>2.5</sub>	31-Aug-25	9:00	10:00	358	2.5	131
444812	Henry Pirker	PM <sub>2.5</sub>	31-Aug-25	10:00	11:00	385.2	2.7	183
444812	Henry Pirker	PM <sub>2.5</sub>	31-Aug-25	11:00	12:00	406.6	3	174
444812	Henry Pirker	PM <sub>2.5</sub>	31-Aug-25	12:00	13:00	366.1	4	147
444812	Henry Pirker	PM <sub>2.5</sub>	31-Aug-25	13:00	14:00	251.5	2.6	142
444812	Henry Pirker	PM <sub>2.5</sub>	31-Aug-25	14:00	15:00	185.5	2.5	127
444812	Henry Pirker	PM <sub>2.5</sub>	31-Aug-25	15:00	16:00	153.1	5.4	142
444812	Henry Pirker	PM <sub>2.5</sub>	31-Aug-25	16:00	17:00	152.3	5.5	112
444812	Henry Pirker	PM <sub>2.5</sub>	31-Aug-25	17:00	18:00	165.4	8.2	112
444812	Henry Pirker	PM <sub>2.5</sub>	31-Aug-25	18:00	19:00	195.4	6.3	113
444812	Henry Pirker	PM <sub>2.5</sub>	31-Aug-25	19:00	20:00	215.1	5.6	96
444812	Henry Pirker	PM <sub>2.5</sub>	31-Aug-25	20:00	21:00	200.5	6.2	82
444812	Henry Pirker	PM <sub>2.5</sub>	31-Aug-25	21:00	22:00	231.5	7.5	84
444812	Henry Pirker	PM <sub>2.5</sub>	31-Aug-25	22:00	23:00	255	6.3	81
444812	Henry Pirker	PM <sub>2.5</sub>	31-Aug-25	23:00	0:00	277.5	5.2	87
446078	Henry Pirker	PM <sub>2.5</sub>	01-Sep-25	0:00	1:00	275.7	3.4	108
446078	Henry Pirker	PM <sub>2.5</sub>	01-Sep-25	1:00	2:00	271.5	2.2	324
446078	Henry Pirker	PM <sub>2.5</sub>	01-Sep-25	2:00	3:00	272	3.1	298
446078	Henry Pirker	PM <sub>2.5</sub>	01-Sep-25	3:00	4:00	279.7	3.2	328
446078	Henry Pirker	PM <sub>2.5</sub>	01-Sep-25	4:00	5:00	273.6	2.9	308
446078	Henry Pirker	PM <sub>2.5</sub>	01-Sep-25	5:00	6:00	269.2	4	331
446078	Henry Pirker	PM <sub>2.5</sub>	01-Sep-25	6:00	7:00	268.2	2.7	323
446078	Henry Pirker	PM <sub>2.5</sub>	01-Sep-25	7:00	8:00	223	4.4	10
446078	Henry Pirker	PM <sub>2.5</sub>	01-Sep-25	8:00	9:00	142.9	5.2	19
446078	Henry Pirker	PM <sub>2.5</sub>	01-Sep-25	9:00	10:00	124.6	3.7	38
446078	Henry Pirker	PM <sub>2.5</sub>	01-Sep-25	10:00	11:00	127.6	4.6	65
446078	Henry Pirker	PM <sub>2.5</sub>	01-Sep-25	11:00	12:00	129.9	6.6	76
446078	Henry Pirker	PM <sub>2.5</sub>	01-Sep-25	12:00	13:00	134.1	6.8	66
446078	Henry Pirker	PM <sub>2.5</sub>	01-Sep-25	13:00	14:00	120.3	5.5	81
446078	Henry Pirker	PM <sub>2.5</sub>	01-Sep-25	14:00	15:00	117.1	5.5	92
446078	Henry Pirker	PM <sub>2.5</sub>	01-Sep-25	15:00	16:00	111.5	4.7	101
446078	Henry Pirker	PM <sub>2.5</sub>	01-Sep-25	16:00	17:00	99.1	5.3	80
446078	Henry Pirker	PM <sub>2.5</sub>	01-Sep-25	18:00	19:00	87.2	6	47
446078	Henry Pirker	PM <sub>2.5</sub>	01-Sep-25	20:00	21:00	80.2	7	75
446078	Henry Pirker	PM <sub>2.5</sub>	02-Sep-25	13:00	14:00	107.5	5.9	160
446078	Henry Pirker	PM <sub>2.5</sub>	02-Sep-25	14:00	15:00	110	6.9	152
446078	Henry Pirker	PM <sub>2.5</sub>	02-Sep-25	15:00	16:00	96.2	7.8	159
446078	Henry Pirker	PM <sub>2.5</sub>	02-Sep-25	19:00	20:00	81.1	4.5	113
446078	Henry Pirker	PM <sub>2.5</sub>	02-Sep-25	20:00	21:00	81.1	4.5	119

Reference Number	Station	Pollutant	Date	From MST	To MST	Average $\mu\text{g}/\text{m}^3$	WS km/h	WD degrees
446078	Henry Pirker	PM <sub>2.5</sub>	03-Sep-25	23:00	0:00	109.7	7	54
446078	Henry Pirker	PM <sub>2.5</sub>	09-Sep-25	7:00	8:00	82.6	3.6	215
446078	Henry Pirker	PM <sub>2.5</sub>	09-Sep-25	8:00	9:00	84.5	3.2	204
446078	Henry Pirker	PM <sub>2.5</sub>	09-Sep-25	9:00	10:00	88.6	4.3	222
446078	Henry Pirker	PM <sub>2.5</sub>	09-Sep-25	10:00	11:00	80.2	4.1	218
446078	Henry Pirker	PM <sub>2.5</sub>	12-Sep-25	7:00	8:00	100.1	3.9	167
446078	Henry Pirker	PM <sub>2.5</sub>	12-Sep-25	8:00	9:00	107.1	3.4	207
446078	Henry Pirker	PM <sub>2.5</sub>	12-Sep-25	9:00	10:00	107	4.9	221
446078	Henry Pirker	PM <sub>2.5</sub>	12-Sep-25	10:00	11:00	99.8	4.4	221
446078	Henry Pirker	PM <sub>2.5</sub>	12-Sep-25	11:00	12:00	95.3	5.1	176
446078	Henry Pirker	PM <sub>2.5</sub>	12-Sep-25	12:00	13:00	91.7	6.9	173
446078	Henry Pirker	PM <sub>2.5</sub>	12-Sep-25	13:00	14:00	81.9	6.4	169
442630	Milner	PM <sub>2.5</sub>	07-Jun-25	21:00	22:00	83	4.2	16
442630	Milner	PM <sub>2.5</sub>	07-Jun-25	22:00	23:00	80.5	3.8	29
442630	Milner	PM <sub>2.5</sub>	10-Jun-25	17:00	18:00	93.6	9.1	63
442630	Milner	PM <sub>2.5</sub>	10-Jun-25	18:00	19:00	106.9	7.6	54
442630	Milner	PM <sub>2.5</sub>	10-Jun-25	19:00	20:00	113.3	6.7	51
442630	Milner	PM <sub>2.5</sub>	10-Jun-25	20:00	21:00	135.8	3.8	40
442630	Milner	PM <sub>2.5</sub>	10-Jun-25	21:00	22:00	163.2	3.6	23
442630	Milner	PM <sub>2.5</sub>	10-Jun-25	22:00	23:00	157.7	2.8	18
442630	Milner	PM <sub>2.5</sub>	10-Jun-25	23:00	0:00	150.5	3.9	39
442630	Milner	PM <sub>2.5</sub>	11-Jun-25	0:00	1:00	144.7	0.9	25
442630	Milner	PM <sub>2.5</sub>	11-Jun-25	1:00	2:00	150.4	1.7	30
442630	Milner	PM <sub>2.5</sub>	11-Jun-25	2:00	3:00	146.9	1.3	52
442630	Milner	PM <sub>2.5</sub>	11-Jun-25	3:00	4:00	147.8	3.2	38
442630	Milner	PM <sub>2.5</sub>	11-Jun-25	4:00	5:00	149.3	0.7	338
442630	Milner	PM <sub>2.5</sub>	11-Jun-25	5:00	6:00	147.7	0.4	295
442630	Milner	PM <sub>2.5</sub>	11-Jun-25	6:00	7:00	138.2	1.1	63
442630	Milner	PM <sub>2.5</sub>	11-Jun-25	7:00	8:00	139.9	1.1	134
442630	Milner	PM <sub>2.5</sub>	11-Jun-25	8:00	9:00	135.4	1.6	150
442630	Milner	PM <sub>2.5</sub>	11-Jun-25	9:00	10:00	146.7	2.2	128
442630	Milner	PM <sub>2.5</sub>	11-Jun-25	10:00	11:00	138.3	4.2	86
442630	Milner	PM <sub>2.5</sub>	11-Jun-25	11:00	12:00	117.8	7.7	60
442630	Milner	PM <sub>2.5</sub>	11-Jun-25	12:00	13:00	109.9	7.8	59
442630	Milner	PM <sub>2.5</sub>	11-Jun-25	13:00	14:00	95.5	10.1	61
442630	Milner	PM <sub>2.5</sub>	11-Jun-25	14:00	15:00	82.2	10.6	59
446083	Milner	PM <sub>2.5</sub>	01-Sep-25	15:00	16:00	98.5	10.3	58
446083	Milner	PM <sub>2.5</sub>	01-Sep-25	16:00	17:00	114.9	8.1	61
446083	Milner	PM <sub>2.5</sub>	01-Sep-25	17:00	18:00	122.2	5.8	59
446083	Milner	PM <sub>2.5</sub>	01-Sep-25	18:00	19:00	125.7	3.8	57
446083	Milner	PM <sub>2.5</sub>	01-Sep-25	19:00	20:00	126.6	1.9	78
446083	Milner	PM <sub>2.5</sub>	01-Sep-25	20:00	21:00	130	1.1	72
446083	Milner	PM <sub>2.5</sub>	01-Sep-25	21:00	22:00	138.4	3.5	41
446083	Milner	PM <sub>2.5</sub>	01-Sep-25	22:00	23:00	139.2	5.2	44
446083	Milner	PM <sub>2.5</sub>	01-Sep-25	23:00	0:00	139.6	2.7	46
446083	Milner	PM <sub>2.5</sub>	02-Sep-25	0:00	1:00	142.9	0	352
446083	Milner	PM <sub>2.5</sub>	02-Sep-25	1:00	2:00	142.4	0.1	294
446083	Milner	PM <sub>2.5</sub>	02-Sep-25	2:00	3:00	141.4	1	274
446083	Milner	PM <sub>2.5</sub>	02-Sep-25	3:00	4:00	134.2	0.1	276
446083	Milner	PM <sub>2.5</sub>	02-Sep-25	4:00	5:00	133.5	0	293
446083	Milner	PM <sub>2.5</sub>	02-Sep-25	5:00	6:00	132.8	0	298
446083	Milner	PM <sub>2.5</sub>	02-Sep-25	6:00	7:00	134.4	0.1	260
446083	Milner	PM <sub>2.5</sub>	02-Sep-25	7:00	8:00	128.5	0	221

Reference Number	Station	Pollutant	Date	From MST	To MST	Average $\mu\text{g}/\text{m}^3$	WS km/h	WD degrees
446083	Milner	PM <sub>2.5</sub>	02-Sep-25	8:00	9:00	117.2	0	162
446083	Milner	PM <sub>2.5</sub>	02-Sep-25	9:00	10:00	103.4	0.1	189
446083	Milner	PM <sub>2.5</sub>	02-Sep-25	10:00	11:00	90	1.2	175
446083	Milner	PM <sub>2.5</sub>	02-Sep-25	11:00	12:00	84.3	3.5	182
446083	Milner	PM <sub>2.5</sub>	11-Sep-25	17:00	18:00	110.6	10.1	245
446083	Milner	PM <sub>2.5</sub>	11-Sep-25	18:00	19:00	113.1	8.7	249
446083	Milner	PM <sub>2.5</sub>	11-Sep-25	19:00	20:00	122.2	11.1	255
446083	Milner	PM <sub>2.5</sub>	11-Sep-25	20:00	21:00	119.1	6.6	252
446083	Milner	PM <sub>2.5</sub>	11-Sep-25	21:00	22:00	120.5	3.8	288
446083	Milner	PM <sub>2.5</sub>	11-Sep-25	22:00	23:00	125.4	2.7	275
446083	Milner	PM <sub>2.5</sub>	11-Sep-25	23:00	0:00	134	3	277
446083	Milner	PM <sub>2.5</sub>	12-Sep-25	0:00	1:00	132.8	4.2	282
446083	Milner	PM <sub>2.5</sub>	12-Sep-25	1:00	2:00	131.5	3.1	285
446083	Milner	PM <sub>2.5</sub>	12-Sep-25	2:00	3:00	128.4	2.6	280
446083	Milner	PM <sub>2.5</sub>	12-Sep-25	3:00	4:00	120.9	3.7	282
446083	Milner	PM <sub>2.5</sub>	12-Sep-25	4:00	5:00	117.7	4.4	278
446083	Milner	PM <sub>2.5</sub>	12-Sep-25	5:00	6:00	117	1.8	271
446083	Milner	PM <sub>2.5</sub>	12-Sep-25	6:00	7:00	115.9	3	269
446083	Milner	PM <sub>2.5</sub>	12-Sep-25	7:00	8:00	113.6	3.4	259
446083	Milner	PM <sub>2.5</sub>	12-Sep-25	8:00	9:00	108.7	3.1	247
446083	Milner	PM <sub>2.5</sub>	12-Sep-25	9:00	10:00	96.6	4.7	243
446083	Milner	PM <sub>2.5</sub>	12-Sep-25	10:00	11:00	87.9	5.8	255
446083	Milner	PM <sub>2.5</sub>	12-Sep-25	11:00	12:00	82.8	5.9	247
446083	Milner	PM <sub>2.5</sub>	12-Sep-25	12:00	13:00	81.7	6.5	253
440427	Smoky Heights	PM <sub>2.5</sub>	05-May-25	21:00	22:00	80.3	13.7	264
-	Smoky Heights	PM <sub>2.5</sub>	09-May-25	21:00	22:00	86.8	10.1	251
441315	Smoky Heights	PM <sub>2.5</sub>	23-May-25	16:00	17:00	118.8	8.1	355
441315	Smoky Heights	PM <sub>2.5</sub>	23-May-25	19:00	20:00	105.5	12	321
442631	Smoky Heights	PM <sub>2.5</sub>	03-Jun-25	2:00	3:00	80.2	7.2	91
442631	Smoky Heights	PM <sub>2.5</sub>	03-Jun-25	11:00	12:00	81.2	3.1	266
442631	Smoky Heights	PM <sub>2.5</sub>	05-Jun-25	10:00	11:00	158.1	27.1	257
442631	Smoky Heights	PM <sub>2.5</sub>	05-Jun-25	11:00	12:00	127.8	24.9	252
442631	Smoky Heights	PM <sub>2.5</sub>	07-Jun-25	3:00	4:00	83.9	6.7	82
442631	Smoky Heights	PM <sub>2.5</sub>	07-Jun-25	4:00	5:00	82.9	7.3	91
442631	Smoky Heights	PM <sub>2.5</sub>	07-Jun-25	5:00	6:00	81.9	7	121
442631	Smoky Heights	PM <sub>2.5</sub>	08-Jun-25	20:00	21:00	114.6	5	37
442631	Smoky Heights	PM <sub>2.5</sub>	09-Jun-25	16:00	17:00	94.4	14.7	5
442631	Smoky Heights	PM <sub>2.5</sub>	09-Jun-25	20:00	21:00	87.1	15.6	309
442631	Smoky Heights	PM <sub>2.5</sub>	09-Jun-25	21:00	22:00	90.4	9	312
442631	Smoky Heights	PM <sub>2.5</sub>	09-Jun-25	22:00	23:00	97.5	4.7	341
442631	Smoky Heights	PM <sub>2.5</sub>	09-Jun-25	23:00	0:00	83.4	1.8	330
442631	Smoky Heights	PM <sub>2.5</sub>	10-Jun-25	0:00	1:00	154	2.3	329
442631	Smoky Heights	PM <sub>2.5</sub>	10-Jun-25	1:00	2:00	184.6	6.7	359
442631	Smoky Heights	PM <sub>2.5</sub>	10-Jun-25	2:00	3:00	188.9	7.5	4
442631	Smoky Heights	PM <sub>2.5</sub>	10-Jun-25	3:00	4:00	172.6	7.8	354
442631	Smoky Heights	PM <sub>2.5</sub>	10-Jun-25	4:00	5:00	177.4	5.8	353
442631	Smoky Heights	PM <sub>2.5</sub>	10-Jun-25	5:00	6:00	182	0.6	80
442631	Smoky Heights	PM <sub>2.5</sub>	10-Jun-25	6:00	7:00	196	2.2	240
442631	Smoky Heights	PM <sub>2.5</sub>	10-Jun-25	7:00	8:00	183.6	1	151
442631	Smoky Heights	PM <sub>2.5</sub>	10-Jun-25	8:00	9:00	241.3	4.8	4
442631	Smoky Heights	PM <sub>2.5</sub>	10-Jun-25	9:00	10:00	265.3	5.4	5
442631	Smoky Heights	PM <sub>2.5</sub>	10-Jun-25	10:00	11:00	205	5.6	8
442631	Smoky Heights	PM <sub>2.5</sub>	10-Jun-25	11:00	12:00	101.4	10	338

Reference Number	Station	Pollutant	Date	From MST	To MST	Average $\mu\text{g}/\text{m}^3$	WS km/h	WD degrees
442631	Smoky Heights	PM <sub>2.5</sub>	10-Jun-25	12:00	13:00	124.4	3.8	183
442631	Smoky Heights	PM <sub>2.5</sub>	10-Jun-25	13:00	14:00	129.5	10.5	203
442631	Smoky Heights	PM <sub>2.5</sub>	10-Jun-25	14:00	15:00	173.5	10.5	201
442631	Smoky Heights	PM <sub>2.5</sub>	10-Jun-25	15:00	16:00	187.9	9.5	211
442631	Smoky Heights	PM <sub>2.5</sub>	10-Jun-25	16:00	17:00	201.9	9	224
442631	Smoky Heights	PM <sub>2.5</sub>	10-Jun-25	17:00	18:00	175.1	10.1	207
442631	Smoky Heights	PM <sub>2.5</sub>	10-Jun-25	18:00	19:00	86.6	10.9	195
442631	Smoky Heights	PM <sub>2.5</sub>	10-Jun-25	20:00	21:00	92.6	15.6	190
442631	Smoky Heights	PM <sub>2.5</sub>	10-Jun-25	21:00	22:00	100.4	9.9	198
442631	Smoky Heights	PM <sub>2.5</sub>	10-Jun-25	22:00	23:00	103.1	2.3	173
442631	Smoky Heights	PM <sub>2.5</sub>	10-Jun-25	23:00	0:00	93.8	3.8	355
442631	Smoky Heights	PM <sub>2.5</sub>	11-Jun-25	22:00	23:00	166.4	17.1	125
442631	Smoky Heights	PM <sub>2.5</sub>	11-Jun-25	23:00	0:00	214.7	17	131
442631	Smoky Heights	PM <sub>2.5</sub>	12-Jun-25	0:00	1:00	179.1	14.8	139
442631	Smoky Heights	PM <sub>2.5</sub>	12-Jun-25	1:00	2:00	186	11.3	149
442631	Smoky Heights	PM <sub>2.5</sub>	12-Jun-25	2:00	3:00	132.3	10.8	141
442631	Smoky Heights	PM <sub>2.5</sub>	12-Jun-25	3:00	4:00	82.8	11	132
444493	Smoky Heights	PM <sub>2.5</sub>	30-Jul-25	6:00	7:00	83.4	14	97
444493	Smoky Heights	PM <sub>2.5</sub>	30-Jul-25	21:00	22:00	92.1	4.9	349
445955	Smoky Heights	PM <sub>2.5</sub>	01-Aug-25	10:00	11:00	84	4	20
445955	Smoky Heights	PM <sub>2.5</sub>	01-Aug-25	11:00	12:00	92.6	8	20
445955	Smoky Heights	PM <sub>2.5</sub>	01-Aug-25	12:00	13:00	107.8	7.3	48
445955	Smoky Heights	PM <sub>2.5</sub>	01-Aug-25	13:00	14:00	109.4	5.3	146
445955	Smoky Heights	PM <sub>2.5</sub>	01-Aug-25	14:00	15:00	120.3	3.1	46
445955	Smoky Heights	PM <sub>2.5</sub>	01-Aug-25	15:00	16:00	161.5	7	169
445955	Smoky Heights	PM <sub>2.5</sub>	01-Aug-25	16:00	17:00	148.1	6	323
445955	Smoky Heights	PM <sub>2.5</sub>	01-Aug-25	17:00	18:00	97	7.5	323
445955	Smoky Heights	PM <sub>2.5</sub>	01-Aug-25	20:00	21:00	96.3	7.7	327
445955	Smoky Heights	PM <sub>2.5</sub>	01-Aug-25	21:00	22:00	92.2	6.9	335
445955	Smoky Heights	PM <sub>2.5</sub>	01-Aug-25	22:00	23:00	83	14.8	117
445955	Smoky Heights	PM <sub>2.5</sub>	02-Aug-25	19:00	20:00	123.9	6.3	302
445955	Smoky Heights	PM <sub>2.5</sub>	05-Aug-25	19:00	20:00	114.3	0.7	300
445955	Smoky Heights	PM <sub>2.5</sub>	05-Aug-25	20:00	21:00	190	5.1	354
445955	Smoky Heights	PM <sub>2.5</sub>	05-Aug-25	21:00	22:00	187.8	3.8	359
445955	Smoky Heights	PM <sub>2.5</sub>	06-Aug-25	2:00	3:00	85	1.9	285
445955	Smoky Heights	PM <sub>2.5</sub>	10-Aug-25	11:00	12:00	102.5	40.3	268
445955	Smoky Heights	PM <sub>2.5</sub>	10-Aug-25	12:00	13:00	109.2	34.7	270
445955	Smoky Heights	PM <sub>2.5</sub>	27-Aug-25	19:00	20:00	82.3	3.8	192
446084	Smoky Heights	PM <sub>2.5</sub>	03-Sep-25	11:00	12:00	83.8	14	311
446084	Smoky Heights	PM <sub>2.5</sub>	03-Sep-25	12:00	13:00	103.8	18	320
446084	Smoky Heights	PM <sub>2.5</sub>	03-Sep-25	13:00	14:00	89.5	18.2	331
446084	Smoky Heights	PM <sub>2.5</sub>	03-Sep-25	14:00	15:00	80.6	19.1	323
446084	Smoky Heights	PM <sub>2.5</sub>	03-Sep-25	20:00	21:00	91.5	18.5	28
446084	Smoky Heights	PM <sub>2.5</sub>	03-Sep-25	21:00	22:00	90.2	14	30
446084	Smoky Heights	PM <sub>2.5</sub>	03-Sep-25	22:00	23:00	95.8	15.6	27
446084	Smoky Heights	PM <sub>2.5</sub>	08-Sep-25	21:00	22:00	107.4	3.4	245
446084	Smoky Heights	PM <sub>2.5</sub>	09-Sep-25	18:00	19:00	102.8	5.3	264
446084	Smoky Heights	PM <sub>2.5</sub>	11-Sep-25	19:00	20:00	104.1	3.6	249
446084	Smoky Heights	PM <sub>2.5</sub>	11-Sep-25	20:00	21:00	124.2	4.8	260
446084	Smoky Heights	PM <sub>2.5</sub>	12-Sep-25	21:00	22:00	180	6.5	272
446084	Smoky Heights	PM <sub>2.5</sub>	19-Sep-25	18:00	19:00	104.8	7.9	181
446084	Smoky Heights	PM <sub>2.5</sub>	19-Sep-25	19:00	20:00	110.3	5.3	233
447878	Smoky Heights	PM <sub>2.5</sub>	19-Nov-25	20:00	21:00	138	1.8	285

Reference Number	Station	Pollutant	Date	From MST	To MST	Average $\mu\text{g}/\text{m}^3$	WS km/h	WD degrees
447878	Smoky Heights	PM <sub>2.5</sub>	19-Nov-25	21:00	22:00	151.9	3.1	342
447878	Smoky Heights	PM <sub>2.5</sub>	19-Nov-25	22:00	23:00	145.7	3.1	11
447878	Smoky Heights	PM <sub>2.5</sub>	19-Nov-25	23:00	0:00	322.6	2.4	323

**Summary of readings above 24-hr PM<sub>2.5</sub> (AAAQO of 29  $\mu\text{g}/\text{m}^3$ ):**

Reference Number	Station	Pollutant	Date	Average $\mu\text{g}/\text{m}^3$	WS km/h	WD degrees
442625	Beaverlodge	PM <sub>2.5</sub>	02-Jun-25	29.6	13.7	260
442625	Beaverlodge	PM <sub>2.5</sub>	03-Jun-25	64.6	6.9	111
442625	Beaverlodge	PM <sub>2.5</sub>	06-Jun-25	31.6	23.2	269
442625	Beaverlodge	PM <sub>2.5</sub>	07-Jun-25	181.3	9.3	321
442625	Beaverlodge	PM <sub>2.5</sub>	08-Jun-25	43.4	21.3	254
442625	Beaverlodge	PM <sub>2.5</sub>	09-Jun-25	112.1	16.1	290
442625	Beaverlodge	PM <sub>2.5</sub>	10-Jun-25	196.9	7.7	16
442625	Beaverlodge	PM <sub>2.5</sub>	11-Jun-25	64	17.2	77
442625	Beaverlodge	PM <sub>2.5</sub>	12-Jun-25	40.8	20.8	78
442625	Beaverlodge	PM <sub>2.5</sub>	21-Jun-25	32.9	9.5	28
444808	Beaverlodge	PM <sub>2.5</sub>	31-Aug-25	90.3	11	2
446079	Beaverlodge	PM <sub>2.5</sub>	01-Sep-25	159.8	9.8	320
446079	Beaverlodge	PM <sub>2.5</sub>	02-Sep-25	75.4	7.7	15
446079	Beaverlodge	PM <sub>2.5</sub>	03-Sep-25	45.8	12.8	5
446079	Beaverlodge	PM <sub>2.5</sub>	04-Sep-25	35.4	10.5	250
446079	Beaverlodge	PM <sub>2.5</sub>	06-Sep-25	29.6	4.8	50
446079	Beaverlodge	PM <sub>2.5</sub>	07-Sep-25	39.6	11.6	133
446079	Beaverlodge	PM <sub>2.5</sub>	08-Sep-25	31.2	7.5	2
446079	Beaverlodge	PM <sub>2.5</sub>	11-Sep-25	45.9	6.3	3
446079	Beaverlodge	PM <sub>2.5</sub>	12-Sep-25	71.5	5.1	235
448138	Beaverlodge	PM <sub>2.5</sub>	29-Nov-25	30.1	6.3	34
442626	Dunes	PM <sub>2.5</sub>	03-Jun-25	32.8	3.7	274
442626	Dunes	PM <sub>2.5</sub>	07-Jun-25	73.7	3.6	311
442626	Dunes	PM <sub>2.5</sub>	08-Jun-25	30.2	4.7	247
442626	Dunes	PM <sub>2.5</sub>	09-Jun-25	47.2	5.7	306
442626	Dunes	PM <sub>2.5</sub>	10-Jun-25	122.2	2.5	359
442626	Dunes	PM <sub>2.5</sub>	11-Jun-25	50.2	5.2	82
442626	Dunes	PM <sub>2.5</sub>	12-Jun-25	34.8	5	74
444809	Dunes	PM <sub>2.5</sub>	31-Aug-25	113.4	2	122
446080	Dunes	PM <sub>2.5</sub>	02-Sep-25	44.9	2.2	168
446080	Dunes	PM <sub>2.5</sub>	07-Sep-25	32.3	2.4	283
446080	Dunes	PM <sub>2.5</sub>	12-Sep-25	50.3	1.8	167
446080	Dunes	PM <sub>2.5</sub>	13-Sep-25	43.8	1.7	84
448139	Dunes	PM <sub>2.5</sub>	29-Nov-25	29.7	1.1	307
436940	Fox Creek	PM <sub>2.5</sub>	18-Jan-25	63.7	4.1	162
437148	Fox Creek	PM <sub>2.5</sub>	25-Jan-25	82.6	4.8	256
437168	Fox Creek	PM <sub>2.5</sub>	26-Jan-25	79.8	5.5	266
437266	Fox Creek	PM <sub>2.5</sub>	28-Jan-25	38.9	5.2	303
437733	Fox Creek	PM <sub>2.5</sub>	15-Feb-25	30.8	1.9	106
442627	Fox Creek	PM <sub>2.5</sub>	07-Jun-25	44.1	6.8	324
442627	Fox Creek	PM <sub>2.5</sub>	09-Jun-25	36.3	8.3	315
442627	Fox Creek	PM <sub>2.5</sub>	10-Jun-25	104.5	4.6	26
442627	Fox Creek	PM <sub>2.5</sub>	11-Jun-25	93.6	7.3	135
444810	Fox Creek	PM <sub>2.5</sub>	31-Aug-25	154.7	3.1	325
446081	Fox Creek	PM <sub>2.5</sub>	01-Sep-25	155.3	4.6	133
446081	Fox Creek	PM <sub>2.5</sub>	02-Sep-25	72.9	6.4	144

Reference Number	Station	Pollutant	Date	Average $\mu\text{g}/\text{m}^3$	WS km/h	WD degrees
446081	Fox Creek	PM <sub>2.5</sub>	03-Sep-25	46.5	6.9	308
446081	Fox Creek	PM <sub>2.5</sub>	04-Sep-25	43.2	3.2	35
446081	Fox Creek	PM <sub>2.5</sub>	08-Sep-25	29.9	2.2	143
446081	Fox Creek	PM <sub>2.5</sub>	09-Sep-25	39.8	2.4	184
446081	Fox Creek	PM <sub>2.5</sub>	11-Sep-25	34.7	2.8	174
446081	Fox Creek	PM <sub>2.5</sub>	12-Sep-25	65.7	2.6	221
446081	Fox Creek	PM <sub>2.5</sub>	13-Sep-25	52.1	4	154
442628	Happy Valley	PM <sub>2.5</sub>	03-Jun-25	73.7	6.7	282
442628	Happy Valley	PM <sub>2.5</sub>	07-Jun-25	72.7	12.5	275
442628	Happy Valley	PM <sub>2.5</sub>	08-Jun-25	37	17.8	244
442628	Happy Valley	PM <sub>2.5</sub>	09-Jun-25	53.6	15.3	284
442628	Happy Valley	PM <sub>2.5</sub>	10-Jun-25	266.8	6.6	298
442628	Happy Valley	PM <sub>2.5</sub>	12-Jun-25	55.9	19.4	88
442628	Happy Valley	PM <sub>2.5</sub>	13-Jun-25	29.1	12.9	56
442628	Happy Valley	PM <sub>2.5</sub>	22-Jun-25	29.8	8.4	346
443707	Happy Valley	PM <sub>2.5</sub>	15-Jul-25	30.4	7.6	176
444811	Happy Valley	PM <sub>2.5</sub>	31-Aug-25	242.6	8	93
446082	Happy Valley	PM <sub>2.5</sub>	01-Sep-25	170.6	8.5	71
446082	Happy Valley	PM <sub>2.5</sub>	02-Sep-25	69	9	178
446082	Happy Valley	PM <sub>2.5</sub>	03-Sep-25	54.9	17.7	303
446082	Happy Valley	PM <sub>2.5</sub>	04-Sep-25	37.7	9	130
446082	Happy Valley	PM <sub>2.5</sub>	05-Sep-25	29.7	7.8	94
446082	Happy Valley	PM <sub>2.5</sub>	06-Sep-25	42	3.5	296
446082	Happy Valley	PM <sub>2.5</sub>	07-Sep-25	43.9	8	268
446082	Happy Valley	PM <sub>2.5</sub>	08-Sep-25	45.3	8.2	120
442629	Henry Pirker	PM <sub>2.5</sub>	03-Jun-25	58.3	5.2	272
442629	Henry Pirker	PM <sub>2.5</sub>	07-Jun-25	79.8	7.6	306
442629	Henry Pirker	PM <sub>2.5</sub>	08-Jun-25	43.4	10.7	248
442629	Henry Pirker	PM <sub>2.5</sub>	09-Jun-25	94.6	12.5	294
442629	Henry Pirker	PM <sub>2.5</sub>	10-Jun-25	192.7	3.3	349
442629	Henry Pirker	PM <sub>2.5</sub>	11-Jun-25	63.2	8.2	83
442629	Henry Pirker	PM <sub>2.5</sub>	12-Jun-25	37.3	9.1	76
442629	Henry Pirker	PM <sub>2.5</sub>	22-Jun-25	31.6	3.9	275
444812	Henry Pirker	PM <sub>2.5</sub>	31-Aug-25	163.7	4	101
446078	Henry Pirker	PM <sub>2.5</sub>	01-Sep-25	156.8	4.6	55
446078	Henry Pirker	PM <sub>2.5</sub>	02-Sep-25	69.2	3.6	143
446078	Henry Pirker	PM <sub>2.5</sub>	03-Sep-25	48.5	10.1	324
446078	Henry Pirker	PM <sub>2.5</sub>	04-Sep-25	32.2	6.2	94
446078	Henry Pirker	PM <sub>2.5</sub>	06-Sep-25	29.3	2.7	187
446078	Henry Pirker	PM <sub>2.5</sub>	07-Sep-25	37.2	4.1	326
446078	Henry Pirker	PM <sub>2.5</sub>	08-Sep-25	35.9	3.1	153
446078	Henry Pirker	PM <sub>2.5</sub>	09-Sep-25	35.3	7	251
442630	Milner	PM <sub>2.5</sub>	07-Jun-25	31	2.6	349
442630	Milner	PM <sub>2.5</sub>	10-Jun-25	49	4.2	61
442630	Milner	PM <sub>2.5</sub>	11-Jun-25	107.2	5.9	58
442630	Milner	PM <sub>2.5</sub>	12-Jun-25	39.7	4.7	59
446083	Milner	PM <sub>2.5</sub>	01-Sep-25	60.2	4.8	56
446083	Milner	PM <sub>2.5</sub>	02-Sep-25	83	1.5	106
446083	Milner	PM <sub>2.5</sub>	03-Sep-25	33.4	3.3	227
446083	Milner	PM <sub>2.5</sub>	04-Sep-25	46.9	3.6	58
446083	Milner	PM <sub>2.5</sub>	08-Sep-25	32.5	2.2	252
446083	Milner	PM <sub>2.5</sub>	09-Sep-25	52.6	3.5	252
446083	Milner	PM <sub>2.5</sub>	10-Sep-25	36.9	2.7	243
446083	Milner	PM <sub>2.5</sub>	11-Sep-25	75.5	4.5	241

Reference Number	Station	Pollutant	Date	Average $\mu\text{g}/\text{m}^3$	WS km/h	WD degrees
446083	Milner	PM <sub>2.5</sub>	12-Sep-25	90.3	3.7	261
446083	Milner	PM <sub>2.5</sub>	13-Sep-25	38.6	3.5	264
441315	Smoky Heights	PM <sub>2.5</sub>	23-May-25	30	8	342
442631	Smoky Heights	PM <sub>2.5</sub>	03-Jun-25	49.4	5.3	267
442631	Smoky Heights	PM <sub>2.5</sub>	07-Jun-25	48	11.1	8
442631	Smoky Heights	PM <sub>2.5</sub>	08-Jun-25	32.9	14.6	244
442631	Smoky Heights	PM <sub>2.5</sub>	09-Jun-25	30.7	10.7	336
442631	Smoky Heights	PM <sub>2.5</sub>	10-Jun-25	158.4	7.1	223
442631	Smoky Heights	PM <sub>2.5</sub>	11-Jun-25	39.9	12.2	105
442631	Smoky Heights	PM <sub>2.5</sub>	12-Jun-25	34.1	14.9	130
444493	Smoky Heights	PM <sub>2.5</sub>	30-Jul-25	30.7	7.8	71
445955	Smoky Heights	PM <sub>2.5</sub>	01-Aug-25	58.8	6.6	19
445955	Smoky Heights	PM <sub>2.5</sub>	05-Aug-25	29.1	6.8	235
445955	Smoky Heights	PM <sub>2.5</sub>	06-Aug-25	34.9	4.3	316
446084	Smoky Heights	PM <sub>2.5</sub>	06-Sep-25	29.6	7	209
446084	Smoky Heights	PM <sub>2.5</sub>	08-Sep-25	35.6	4.6	188
446084	Smoky Heights	PM <sub>2.5</sub>	09-Sep-25	32.7	10.6	245
446084	Smoky Heights	PM <sub>2.5</sub>	12-Sep-25	55	6.1	200
446084	Smoky Heights	PM <sub>2.5</sub>	13-Sep-25	37.1	4.8	36
447878	Smoky Heights	PM <sub>2.5</sub>	19-Nov-25	34.6	5.5	223
448170	Smoky Heights	PM <sub>2.5</sub>	30-Nov-25	35.1	5.1	220

**Summary of readings above the SO<sub>2</sub> monthly AAAQO (11ppb):**

reference	Site	Pollutant	Date	Average ppb
438055	Kakwa 3	SO <sub>2</sub> Passive	Jan-25	21.1
439842	Kakwa 3	SO <sub>2</sub> Passive	Mar-25	12.7
439842	Kakwa 3 duplicate	SO <sub>2</sub> Passive	Mar-25	12.1
440945	Kakwa 3	SO <sub>2</sub> Passive	Apr-25	35.8
440946	Kakwa 4	SO <sub>2</sub> Passive	Apr-25	13.7
442194	Kakwa 3	SO <sub>2</sub> Passive	May-25	16.6
442195	Kakwa 4	SO <sub>2</sub> Passive	May-25	12.3
443162	Kakwa 3	SO <sub>2</sub> Passive	Jun-25	36.0
443163	Kakwa 4	SO <sub>2</sub> Passive	Jun-25	19.9
444489	Kakwa 3	SO <sub>2</sub> Passive	Jul-25	21.6
444489	Kakwa 3 duplicate	SO <sub>2</sub> Passive	Jul-25	21.9
444488	Kakwa 4	SO <sub>2</sub> Passive	Jul-25	12.9
445646	Kakwa 3	SO <sub>2</sub> Passive	Aug-25	31.7
445648	Kakwa 4	SO <sub>2</sub> Passive	Aug-25	11.1

**Summary of readings above the SO<sub>2</sub> annual AAAQO (8ppb):**

reference	Site	Pollutant	Date	Average ppb
	Kakwa 3	SO <sub>2</sub> Passive	2025	16.7
	Kakwa 4	SO <sub>2</sub> Passive	2025	9.5

**Summary of readings above the industrial dustfall monthly AAAQG (158mg/100cm<sup>2</sup>/30d)**

reference	Site	Pollutant	Date	Average mg/100cm <sup>2</sup> /30d
438054	Milner Pipeline	Total Dustfall	January	163.4
448799	Milner Pipeline	Total Dustfall	November	271.3

### Summary of readings above the industrial dustfall monthly AAAQG (53mg/100cm<sup>2</sup>/30d)

reference	Site	Pollutant	Date	Average mg/100cm <sup>2</sup> /30d
	Milner Wanyandie	Total Dustfall	September	70.6

#### Operational times less than 90 percent:

- **January:** The THC analyzer at Henry Pirker failed, attempts to repair was not successful, the analyzer was then removed (s/n:1151980005) and spare installed (s/n:0722DR0790), with Jan 3 as the install calibration; then on Jan 19 the THC analyzer flatlined due to pump failure, Jan 31 pump was sourced and analyzer repaired but left to stabilize and calibrated Feb 1, this resulted in <75% uptime for month (49.9% operational uptime). Reference #438053
- **November:** The Henry Pirker station in Grande Prairie was <90% operational during the month. Nov 20-21, vandalism cut power to station (16hrs removed); Nov 27-30, vandalism cut power again to station, equipment removed to prevent further damage (96hrs removed); Operational uptime <90%, reference number 448140.
- **December:** The Henry Pirker station in Grande Prairie was primarily shut down over the month of December. The only exception was Solar Radiation and Wind Speed / Direction. This downtime stems from November when vandals cut power to station twice so equipment was removed to prevent further damage (reference number 448140).

#### Air Incidents

- **January and February:** Localized burning was taking place near Fox Creek station resulting in the elevated particulate readings through the months
- **May through September:** Wildfires caused elevated smoke (particulate matter) in the region through the month

#### Deviations from Authorized Monitoring Methods

None to report

#### Data deletions or resubmissions since monthly reports submitted.

None to report

#### Missed calibrations.

None to report

#### AEPA Audits in 2025.

Six of the eight stations in the PAZA network were audited between July 7, 2025 and July 11, 2025. Happy Valley and Milner stations were not audited. All audited stations passed

#### Passive Monitoring

Passive samples were analyzed by Bureau Veritas Laboratories

624 passive sulphur dioxide samples collected over 12 months (525 verified readings) at 52 sites in PAZA

- Minimum annual average was 0.1ppb collected at Gift Lake

- Maximum annual average was 16.7ppb collected at Kakwa 3
  - Kakwa 3 + Kakwa 4 annual averages were 16.7 and 9.5 respectively, both above the annual AAAQO for SO<sub>2</sub> (8ppb)
- Maximum overall monthly average was 36.0ppb in June 2025 (12 months exceeded the monthly AAAQO for SO<sub>2</sub> (11ppb) at both Kakwa 3 and Kakwa 4

36 passive ozone samples collected over 12 months at 3 sites in PAZA

- Minimum annual average was 33.0ppb collected at Crooked Creek
- Maximum annual average was 41.1ppb collected at Bay Tree
- Maximum overall monthly average was 45.2ppb at Bay Tree in April 2025

576 passive nitrogen dioxide samples collected over 12 months (542 verified readings) at 48 sites in PAZA

- Minimum annual average was 0.4ppb collected at East Prairie
- Maximum annual average was 5.0ppb collected at Jayar5 Camp
- Maximum overall monthly value was 10.7ppb at Grande Prairie in December 2025

204 passive hydrogen sulphide samples collected over 12 months (177 verified readings) at 17 sites in PAZA

- Minimum annual average was 0.01ppb collected at Jayar1 Plant, Kakwa1, Kakwa2, and Kakwa4
- Maximum annual average was 0.45ppb collected at Gordondale (only 2 valid samples in year)
- Maximum overall monthly average was 0.68ppb at Jayar5 Camp in January 2025

### Dustfall Monitoring


Dustfall samples were analyzed by Bureau Veritas Laboratories

59 dustfall samples collected over 12 months at 5 sites in PAZA

- Minimum annual average was 3.4 mg/100cm<sup>2</sup>/30day collected at Milner Bridge
- Maximum annual average was 120.9 mg/100cm<sup>2</sup>/30day collected at Milner Pipeline
- Maximum monthly average was 271.3 mg/100cm<sup>2</sup>/30day collected at Milner Pipeline in November 2025

There were three monthly events above the AAQGs for dustfall, one was based on the residential and recreational area and two based on the commercial and industrial area during 2025.

I certify that I have reviewed and verified this report and that the information is complete, accurate and representative of the monitoring results, reporting timeframe and the specified analysis, summarization, and reporting requirements.



Mandeep Dhaliwal, B.Sc., P.Chem.

Program Manager

## 1 Summary of Key Parameters monitored in 2025

The PAZA air monitoring network in 2025 includes a continuous monitoring network and a passive network. The continuous monitoring network contains eight air monitoring stations. The following table identifies the parameters that have been monitored within the network in 2025.

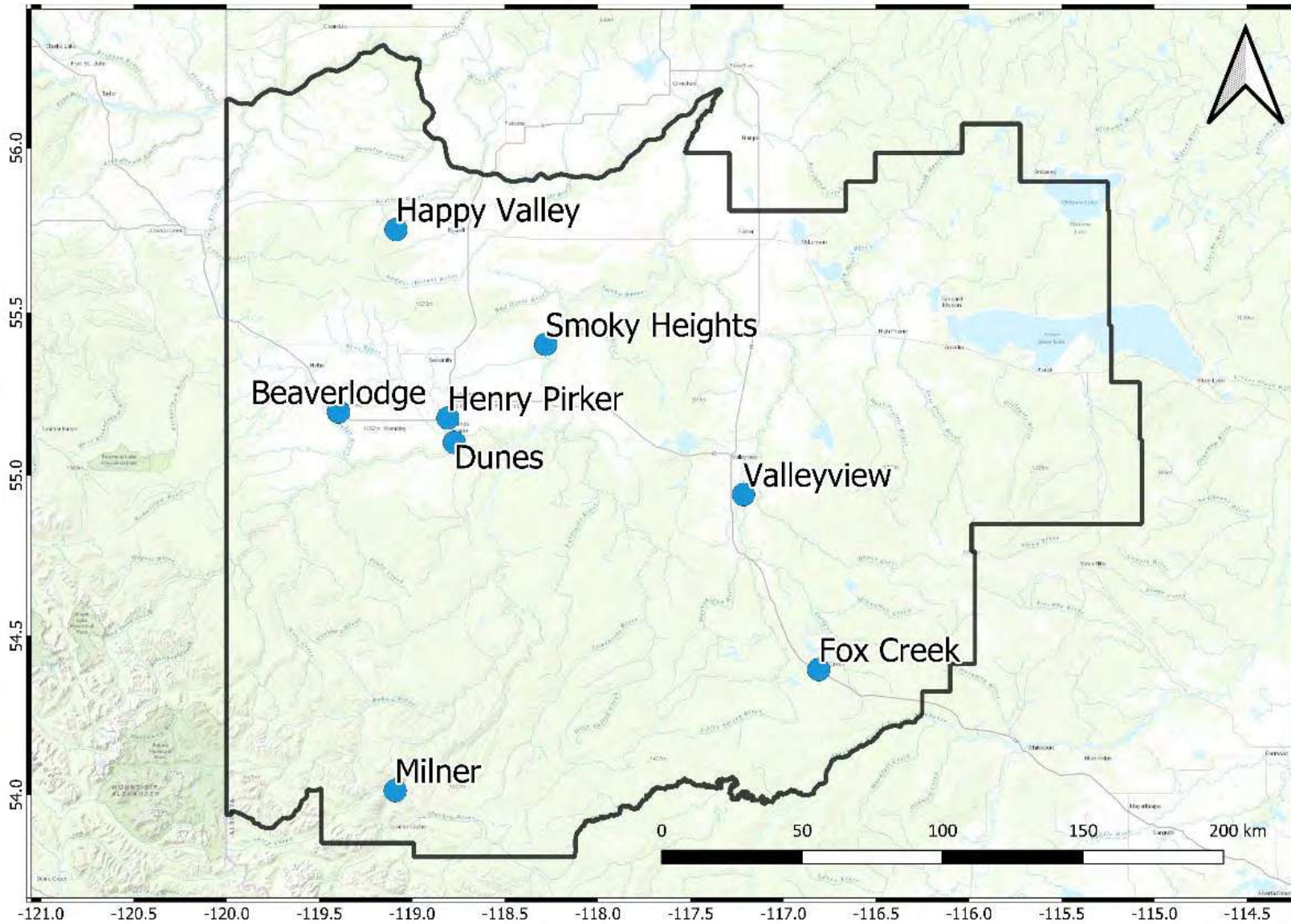
The continuous air monitoring stations in this report measured the following parameters in 2025:

Station Name	SO <sub>2</sub>	H <sub>2</sub> S / TRS	NO / NO <sub>2</sub> / NO <sub>x</sub>	O <sub>3</sub>	CO	THC / CH <sub>4</sub> / NMHC	PM <sub>2.5</sub>	ET / SR	RH	WS / WD
	Sulphur Dioxide	Hydrogen Sulphide / Total Reduced Sulphur	Nitric Oxide / Nitrogen Dioxide / Nitrogen Oxides	Ozone	Carbon Monoxide	Total Hydrocarbons / Methane / Nonmethane Hydrocarbons	Fine Particulate Matter	Temperature / Solar Radiation	Relative Humidity	Wind Speed / Wind Direction
Beaverlodge	SO <sub>2</sub>		NO / NO <sub>2</sub> / NO <sub>x</sub>	O <sub>3</sub>			PM <sub>2.5</sub>	ET	RH	WS / WD
Dunes	SO <sub>2</sub>	TRS					PM <sub>2.5</sub>	ET	RH	WS / WD
Fox Creek	SO <sub>2</sub>	H <sub>2</sub> S	NO / NO <sub>2</sub> / NO <sub>x</sub>	O <sub>3</sub>			PM <sub>2.5</sub>	ET		WS / WD
Henry Pirker	SO <sub>2</sub>	H <sub>2</sub> S	NO / NO <sub>2</sub> / NO <sub>x</sub>	O <sub>3</sub>	CO	THC / CH <sub>4</sub> / NMHC	PM <sub>2.5</sub>	ET + SR	RH	WS / WD
Milner			NO / NO <sub>2</sub> / NO <sub>x</sub>				PM <sub>2.5</sub>			WS / WD
Happy Valley	SO <sub>2</sub>	TRS	NO / NO <sub>2</sub> / NO <sub>x</sub>	O <sub>3</sub>		THC (CH <sub>4</sub> / NMHC)	PM <sub>2.5</sub>	ET		WS / WD
Smoky Heights	SO <sub>2</sub>	TRS					PM <sub>2.5</sub>	ET		WS / WD
Valleyview	SO <sub>2</sub>	H <sub>2</sub> S						ET	RH	WS / WD

Note the Happy Valley brought in methane and non-methane hydrocarbons in June 2025

The following figure illustrates the location of the monitoring stations.

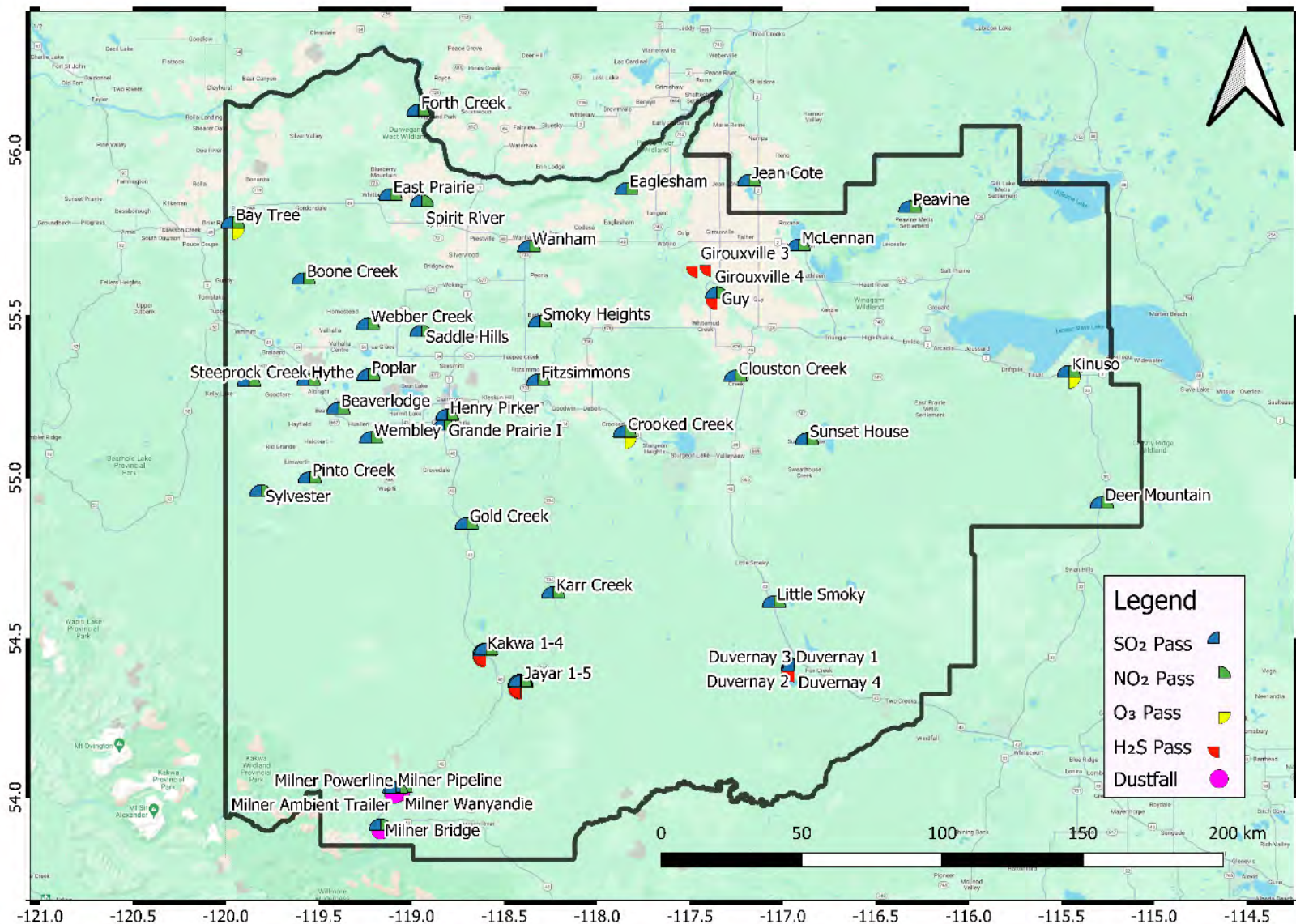
## 1.1 Map of PAZA Continuous Stations in 2025



The PAZA Passive monitoring network in 2025 included collection of NO<sub>2</sub>, SO<sub>2</sub>, O<sub>3</sub>, H<sub>2</sub>S and dustfall at 56 sites located throughout the region, the following table highlights what is collected at each site and the figure illustrates the locations of the monitoring sites.

Site	SO <sub>2</sub>	O <sub>3</sub>	NO <sub>2</sub>	H <sub>2</sub> S	Dustfall
Silver Valley	0.3	-	0.8	-	
Bay Tree	0.2	34.4	0.6	-	
Forth Creek	0.2	-	1.2	-	
Gordondale	-	-	-	0.45	
Boone Creek	0.5	-	0.9	-	
Steepprock Creek	0.4	-	0.7	-	
Spirit River	0.4	-	1.7	-	
Woking	0.4	-	0.8	-	
Webber Creek	0.3	-	1.8	-	
Hythe	0.5	-	1.4	-	
Sylvester	0.2	-	0.5	-	
Beaverlodge	0.6	-	2.1	-	
Poplar	0.9	-	2.1	-	
Saddle Hills	0.3	-	0.6	-	
Wanham	0.3	-	0.7	-	
Eaglesham	0.2	-	1.4	-	
Wembley	0.5	-	2.5	-	
Pinto Creek	0.3	-	0.7	-	
Grande Prairie I	0.6	-	4.7	-	
Smoky Heights	0.4	-	1.2	-	
Gold Creek	0.3	-	2.3	-	
Jean Cote	0.2	-	1.3	-	
Guy	0.2	-	1.2	0.16	
Crooked Creek	0.2	33.0	1.5	-	
Clouston Creek	0.2	-	1.1	-	
McLennan	0.2	-	1.3	-	
Valleyview	0.2	-	0.9	-	
Sunset House	0.2	-	0.7	-	
Peavine	0.2	-	0.6	-	
Gift Lake	0.1	-	1.2	-	
Little Smoky	0.2	-	1.9	-	
Kinuso	0.1	34.2	0.6	-	
Deer Mountain	0.1	-	0.6	-	
Henry Pirker	0.4	-	4.9	-	
East Prairie	0.2	-	0.4	-	
Javar1 Plant	0.5	-	1.9	0.01	
Javar2 14-8	0.8	-	3.0	0.18	
Javar3 Bone Yard	1.2	-	1.9	0.15	
Javar4 7-8 or 8-8 Pad	0.7	-	2.4	0.10	
Javar5 Camp	0.7	-	5.0	0.35	
Girouxville 3	-	-	-	0.37	
Girouxville 4	-	-	-	0.33	
Duvernay 1	0.6	-	-	0.11	
Duvernay 2	0.5	-	-	0.13	
Duvernay 3	0.8	-	-	0.19	
Duvernay 4	1.0	-	-	0.18	
Milner Pipeline	0.3	-	1.6	-	91.0
Milner Bridge	0.4	-	1.2	-	10.3
Milner Wanyandie	0.2	-	1.0	-	45.2
Milner Ambient Trailer	0.2	-	1.8	-	-
Milner Powerline	0.3	-	2.6	-	36.8
Milner Waste Pond	-	-	-	-	68.6
Kakwa 1	0.4	-	1.9	0.01	
Kakwa 2	2.6	-	2.1	0.01	
Kakwa 3	16.7	-	3.0	0.29	
Kakwa 4	9.5	-	3.4	0.01	

## 1.2 Map of PAZA Passive Stations in 2025



## 2 PAZA Key Parameters - 2025 Summary

### 2.1 Sulphur Dioxide (SO<sub>2</sub>) 2025 Summary

Station	Parameter	Annual Average	Maximum Values				Operational Time (%)	Valid Time (%)	Readings above AAAQO & AAAQG					
			24-hr	Date	1-hr	Date			30-min	1-hr	8-hr	24-hr	30-d	Annual
Beverlodge	Sulphur Dioxide SO <sub>2</sub> measured in ppb	0.7	7.1	Nov 29	19.0	Dec 13 21:00	99.5%	94.8%		0		0	0	0
Dunes		0.5	2.8	Dec 10	27.5	Dec 10 13:00	99.1%	94.4%		0		0	0	0
Fox Creek		0.4	11.4	May 02	96.7	May 02 08:00	99.8%	95.1%		0		0	0	0
Happy Valley		0.4	3.2	Dec 11	27.4	Dec 08 13:00	99.7%	94.9%		0		0	0	0
Henry Pirker		0.3	4.2	Feb 05	20.2	Jul 26 11:00	98.6%	94.0%		0		0	0	0
Smoky Heights		0.4	2.7	Dec 11	19.6	Jun 05 01:00	99.3%	94.6%		0		0	0	0
Valleyview		0.1	0.9	Dec 24	5.4	Aug 25 13:00	100.0%	95.3%		0		0	0	0

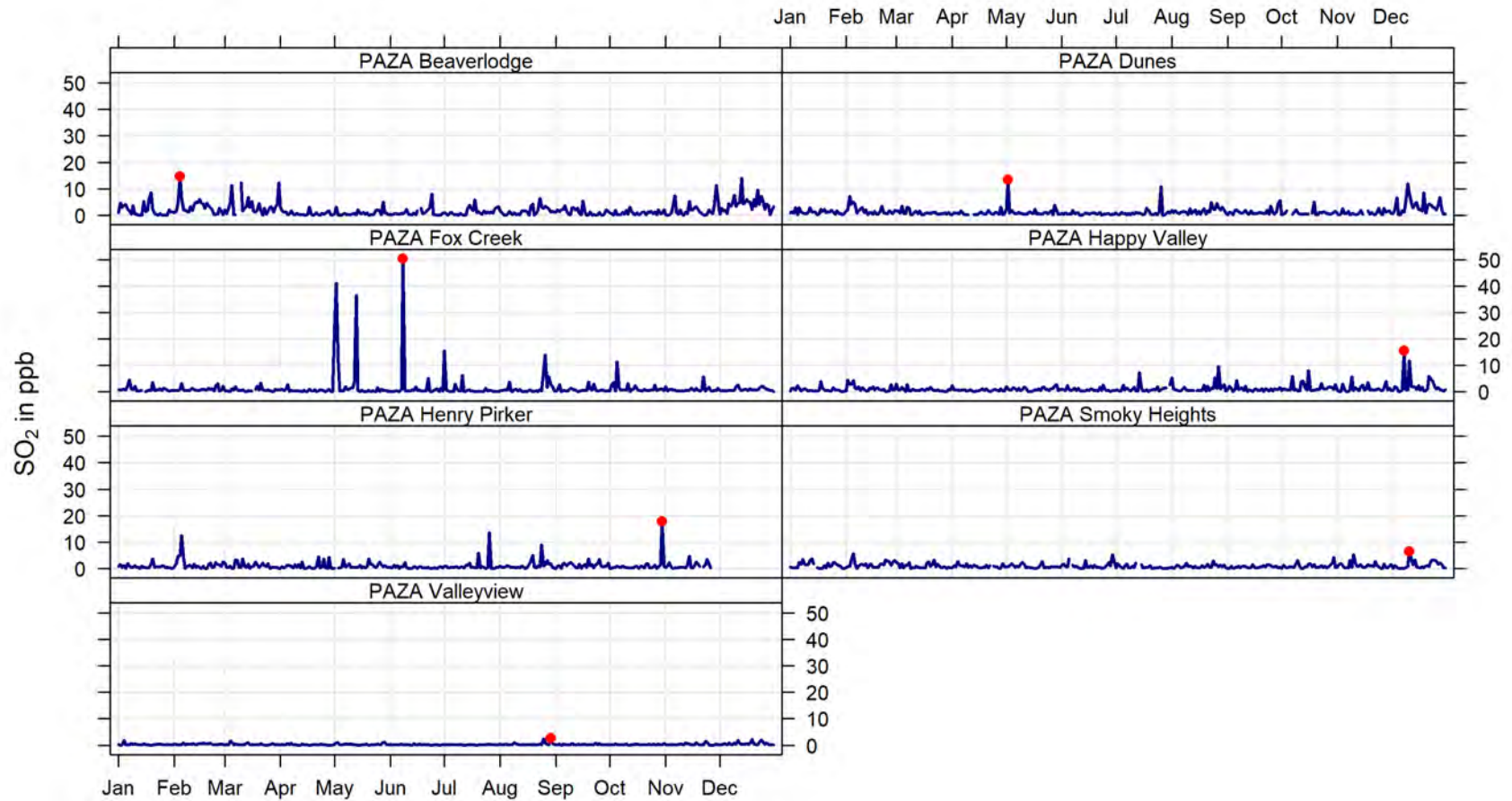
Sulphur dioxide (SO<sub>2</sub>) concentrations across the monitoring network remained very low throughout the 2025 period. Annual average concentrations ranged from 0.1 ppb at Valleyview to 0.7 ppb at Beaverlodge, with most stations reporting annual averages between 0.3 and 0.5 ppb, indicating generally low regional background concentrations.

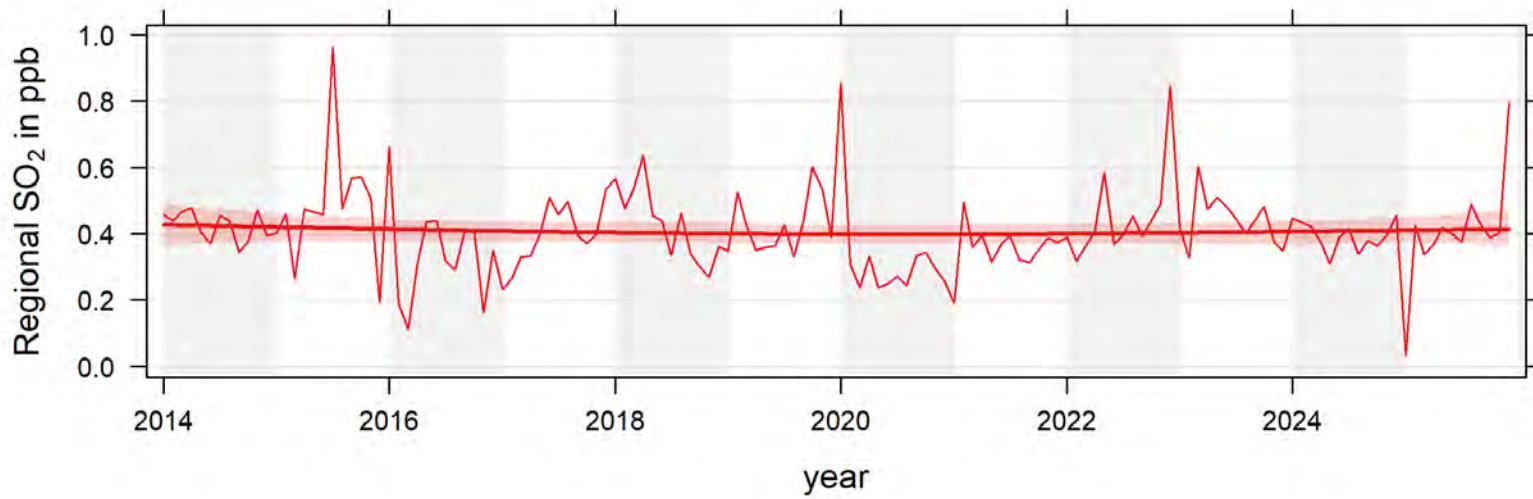
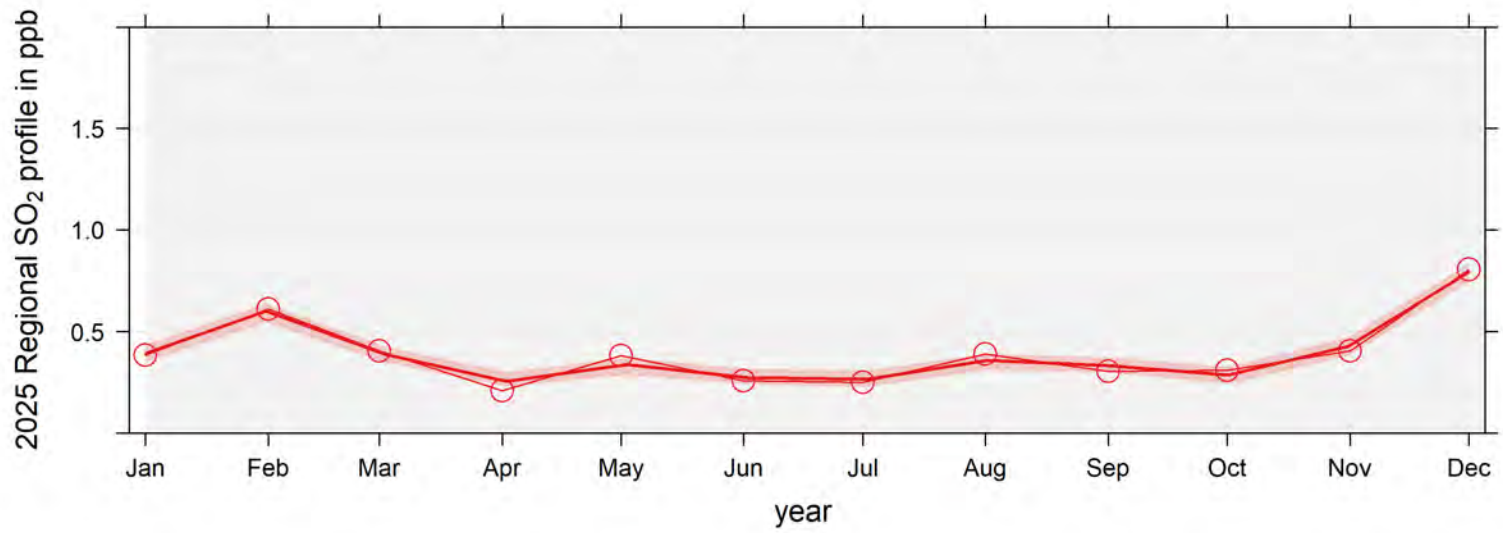
Maximum hourly concentrations varied across the network but remained moderate and short-lived. The highest hourly value recorded during the year was 96.7 ppb at Fox Creek on May 2, 2025, while most stations recorded maximum hourly values between 5 and 30 ppb. Maximum 24-hour concentrations ranged from 0.9 ppb at Valleyview to 11.4 ppb at Fox Creek, with most stations recording daily maximums below 5 ppb. No exceedances of the AAAQO were recorded during the monitoring period.

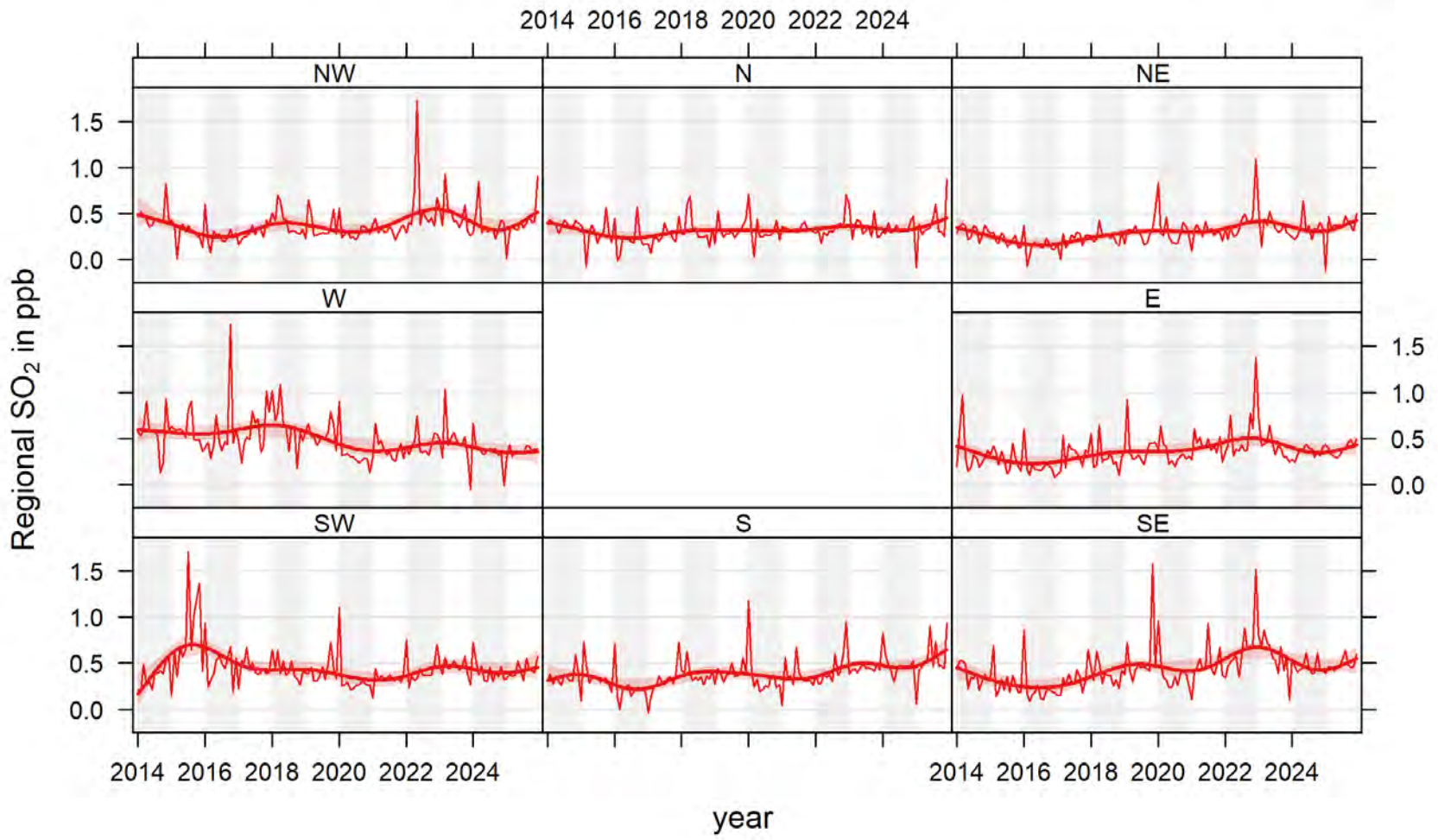
The 2025 daily 95th percentile profiles indicate generally stable SO<sub>2</sub> concentrations throughout the year, with minor increases during late fall and winter months. These seasonal increases are consistent with reduced atmospheric mixing conditions and periods of increased combustion-related emissions. Concentration spikes were observed occasionally at individual stations, particularly at Fox Creek and Henry Pirker, but these events were short duration and did not influence the overall annual averages.

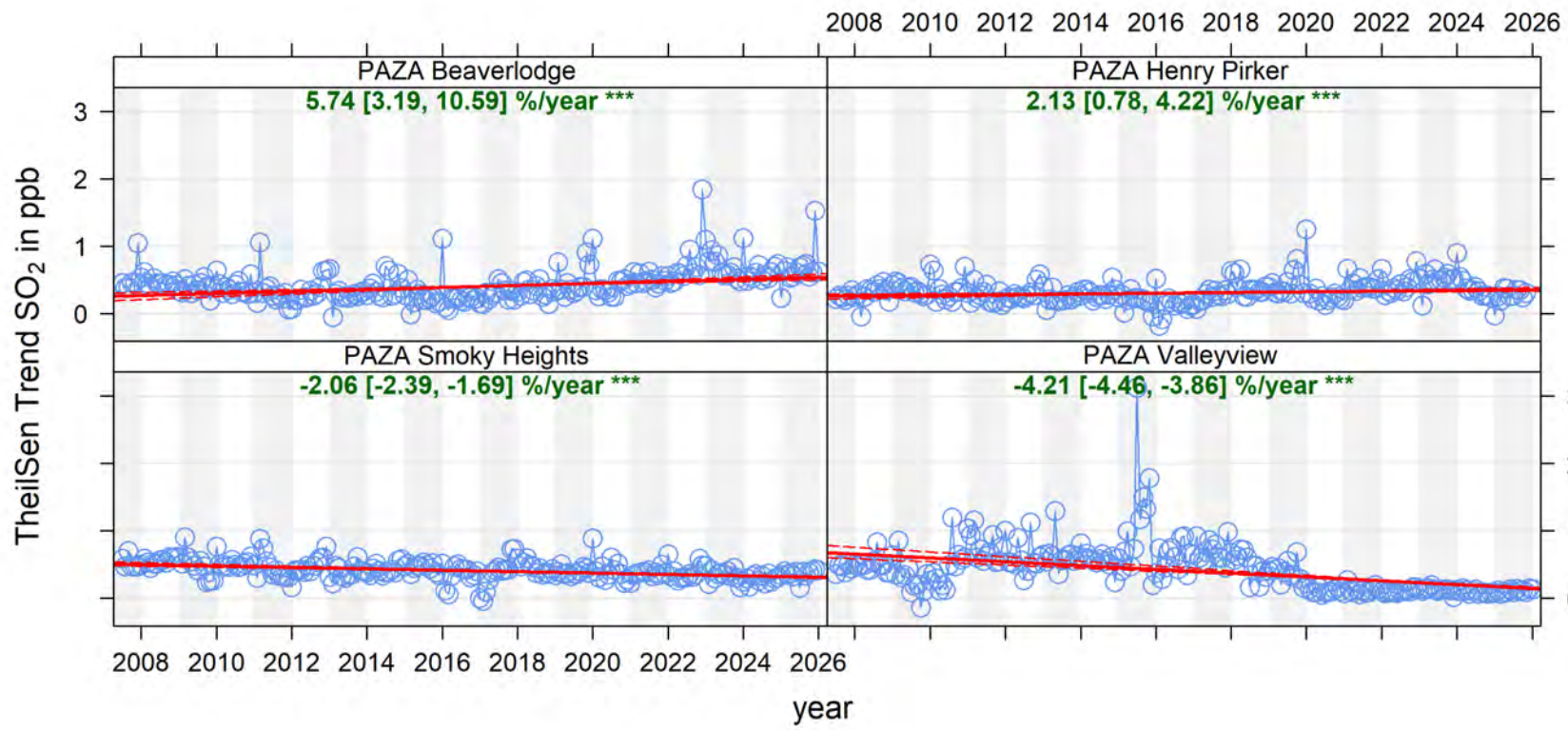
Long-term historical profiles indicate that regional SO<sub>2</sub> concentrations have remained consistently low over the past decade, generally below 1 ppb across the airshed. Theil-Sen trend analysis indicates statistically significant increasing trends at Beaverlodge and Henry Pirker, suggesting gradual increases from very low baseline concentrations, while Smoky Heights and Valleyview show statistically significant decreasing trends over the monitoring period. Despite these site-specific trends, overall regional SO<sub>2</sub> levels remain low and well below provincial objectives.

## 2025 Daily 95th percentile Concentration Readings at Peace Airshed Zone Association









## 2.2 Hydrogen Sulphide (H<sub>2</sub>S) 2025 Summary

Station	Parameter	Annual Average	Maximum Values				Operational Time (%)	Valid Time (%)	Readings above AAAQO & AAAQG					
			24-hr	Date	1-hr	Date			30-min	1-hr	8-hr	24-hr	30-d	Annual
Fox Creek	Hydrogen Sulphide H <sub>2</sub> S measured in ppb	0.2	0.7	Feb 10	6.4	Nov 21 10:00	98.8%	94.0%		0		0		
Henry Pirker		0.2	0.9	May 09	6.7	May 09 04:00	98.1%	93.4%		0		0		
Valleyview		0.1	0.8	Aug 31	1.5	Aug 31 11:00	99.9%	95.1%		0		0		

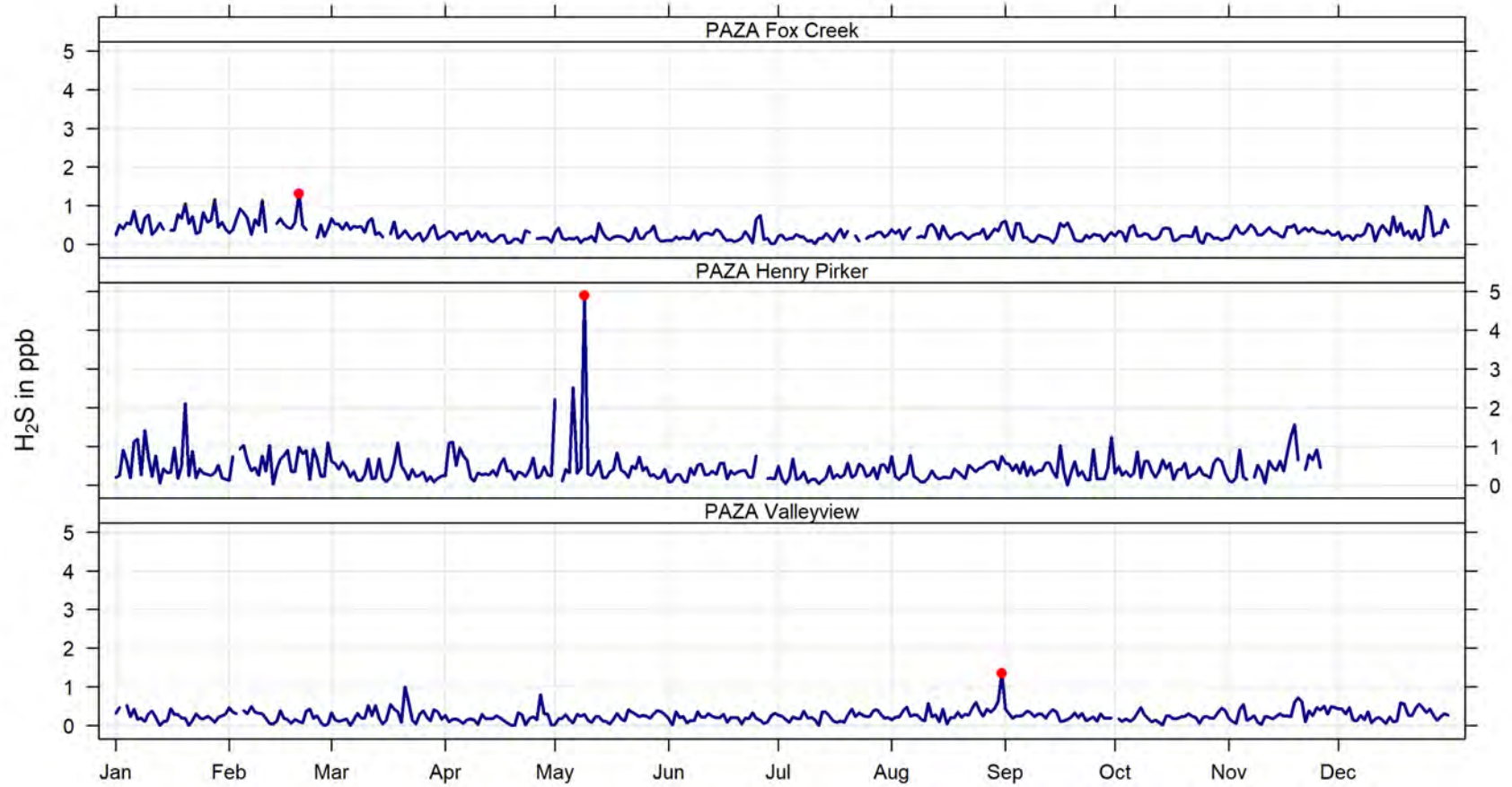
Hydrogen sulphide (H<sub>2</sub>S) concentrations across the monitoring network remained very low during the 2025 monitoring period. Annual average concentrations were similar across the monitoring stations, ranging from 0.1 ppb at Valleyview to 0.2 ppb at Fox Creek and Henry Pirker, indicating generally stable regional background concentrations.

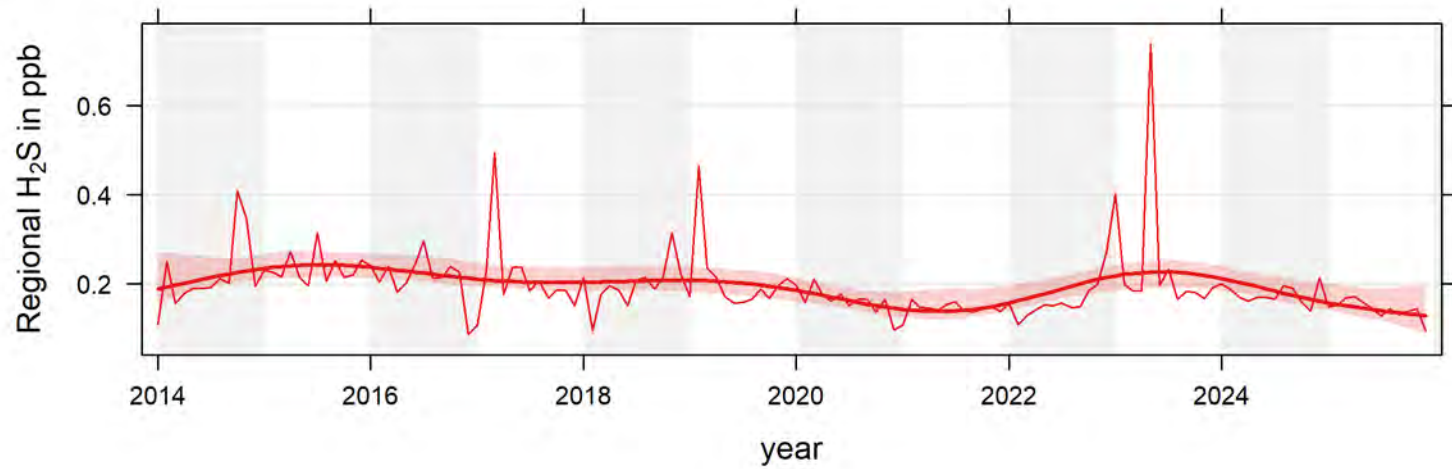
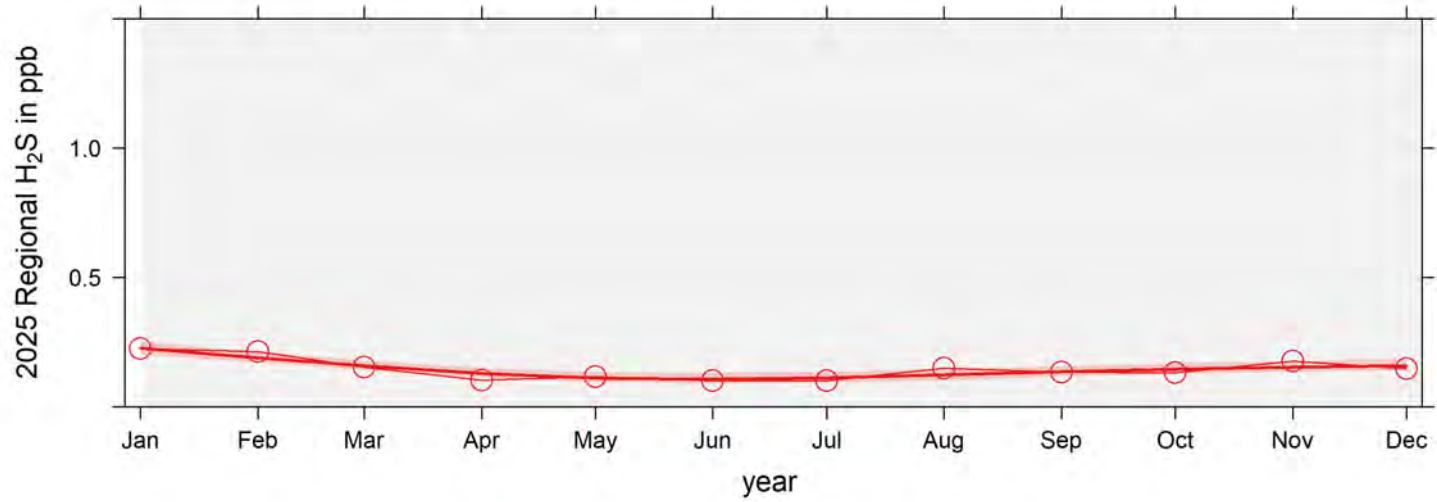
Maximum hourly concentrations remained low and short-lived. The highest hourly value recorded during the year was 6.7 ppb at Henry Pirker on May 9, 2025, while Fox Creek recorded a maximum hourly concentration of 6.4 ppb on November 21, 2025. Valleyview showed considerably lower peak concentrations, with a maximum hourly value of 1.5 ppb. Maximum 24-hour concentrations ranged from 0.7 ppb at Fox Creek to 0.9 ppb at Henry Pirker, with all values remaining well below AAAQO. No exceedances were recorded during the monitoring period.

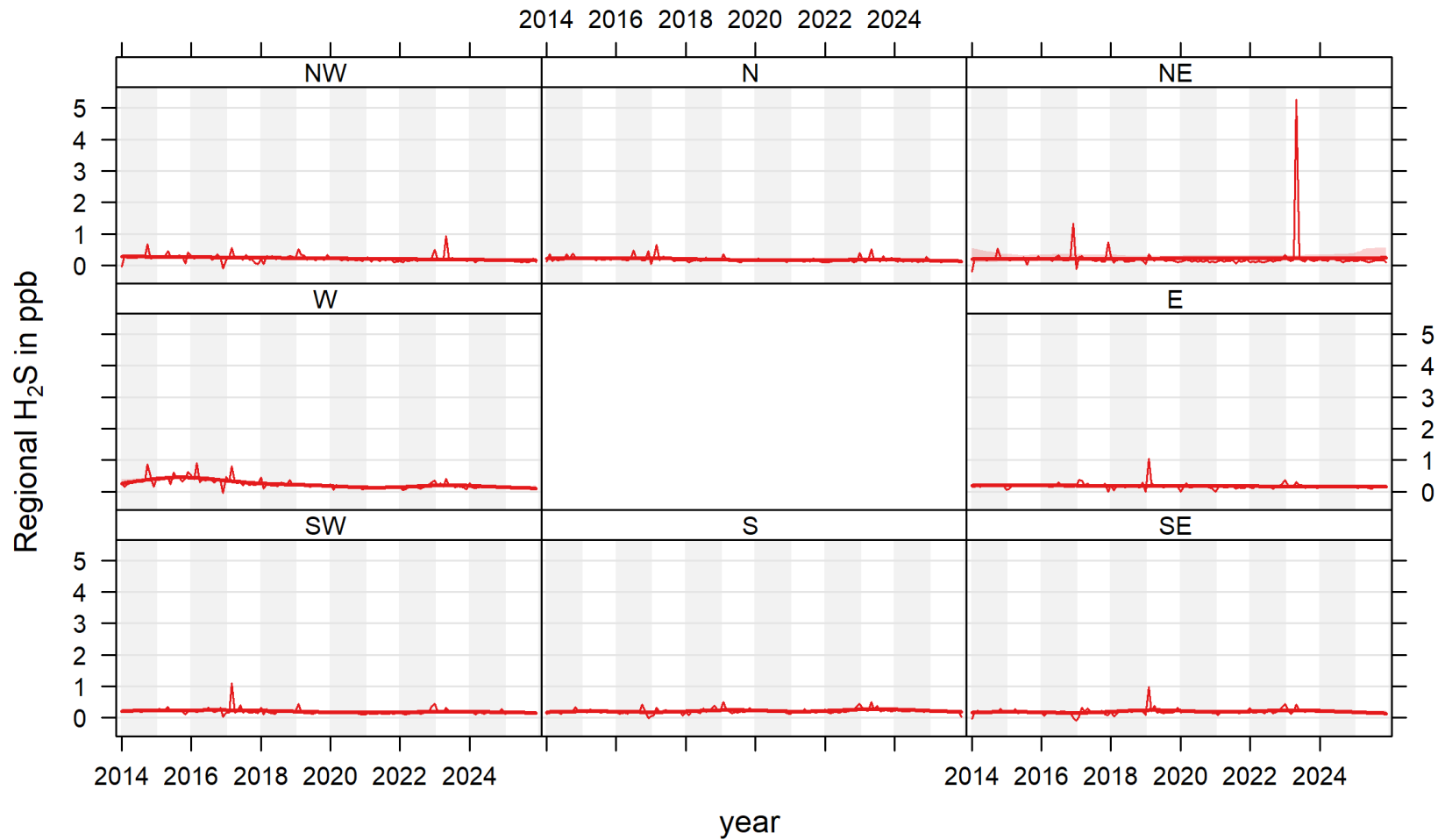
The 2025 daily 95th percentile concentration profiles indicate relatively stable H<sub>2</sub>S levels throughout the year, with minor variability between stations. Short-term concentration spikes occurred occasionally, most notably at Henry Pirker in early May, but these events were brief and did not significantly influence the overall annual concentration patterns.

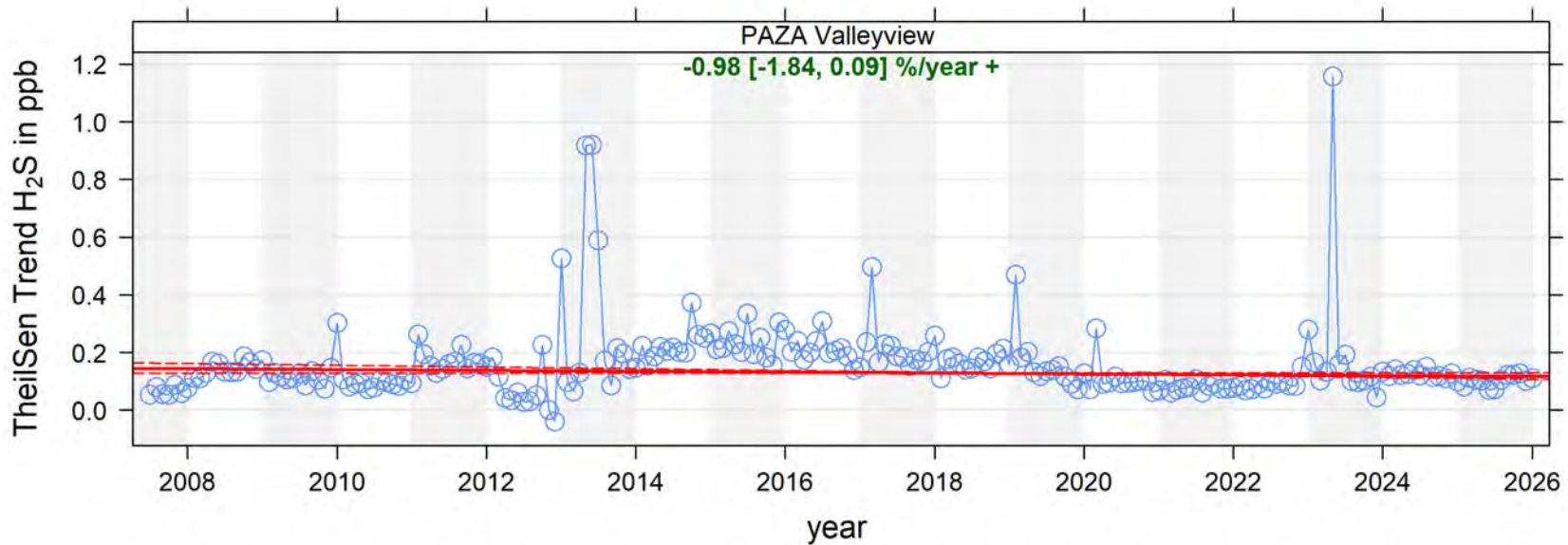
Historical regional profiles show that H<sub>2</sub>S concentrations across the airshed have remained consistently low over the past decade, typically between 0.1 and 0.3 ppb. Long-term trend analysis suggests slight declines in regional concentrations over time, with the Valleyview station indicating a weak decreasing trend based on the Theil–Sen analysis, while other stations show relatively stable long-term behaviour.

## 2025 Daily 95th percentile Concentration Readings at Peace Airshed Zone Association









### 2.3 Total Reduced Sulphur (TRS) 2025 Summary

Station	Parameter	Annual Average	Maximum Values				Operational Time (%)	Valid Time (%)	Readings above AAAQO & AAAQG					
			24-hr	Date	1-hr	Date			30-min	1-hr	8-hr	24-hr	30-d	Annual
Dunes	Total Reduced Sulphur TRS measured in ppb	0.5	1.2	Nov 29	3.9	Dec 30 06:00	98.7%	94.0%	0					
Happy Valley		0.4	1.1	Aug 31	5.3	Mar 20 21:00	99.6%	94.8%	7					
Smoky Heights		0.2	0.8	Aug 27	4.6	Aug 29 06:00	99.2%	94.4%	2					

Total Reduced Sulphur (TRS) concentrations remained low during 2025. Annual average concentrations ranged from 0.2 ppb at Smoky Heights to 0.5 ppb at Dunes, indicating generally low regional sulphur compound levels. Maximum 1-hour concentrations recorded during the year ranged from 3.9 ppb at Dunes to 5.3 ppb at Happy Valley, with these events occurring as short-duration spikes rather than sustained elevated concentrations. Data availability was high across the monitoring network, with valid data capture exceeding 94% at all stations, indicating reliable instrument performance throughout the reporting period. Evaluation of exceedances of the AAAQG indicates that only short-term 30-

minute guideline exceedances were observed with seven occurrences at Happy Valley and two occurrences at Smoky Heights, while no exceedances were recorded at the Dunes station.

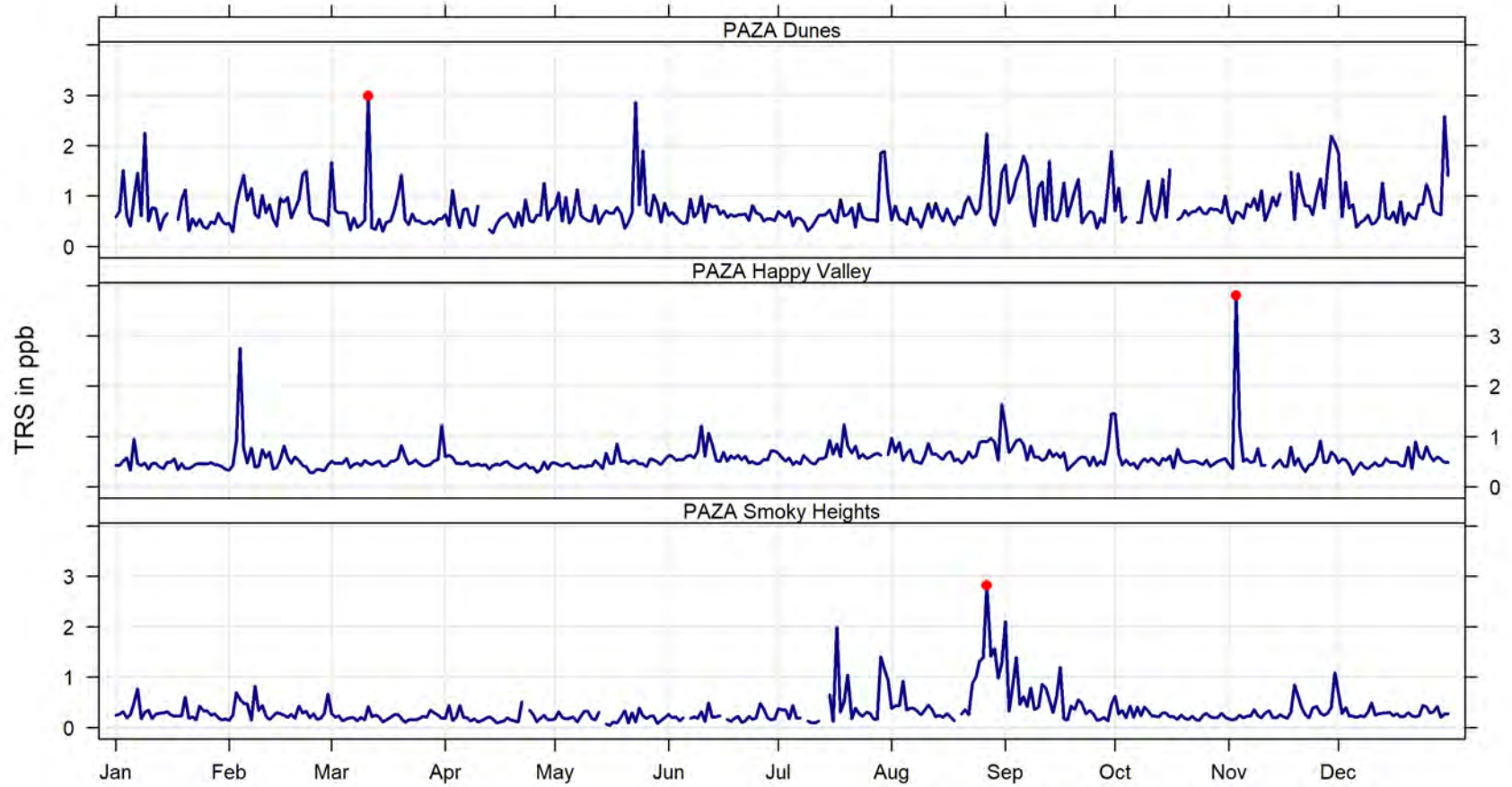
Daily 95th percentile concentration analysis shows that TRS levels remained relatively stable throughout the year, with occasional episodic increases primarily during late summer and autumn. These short-term increases can be influenced by localized emission events combined with meteorological conditions such as low wind speeds or atmospheric stability that temporarily limit dispersion. Overall, the daily variability observed across the monitoring sites remained within the range historically observed in the airshed.

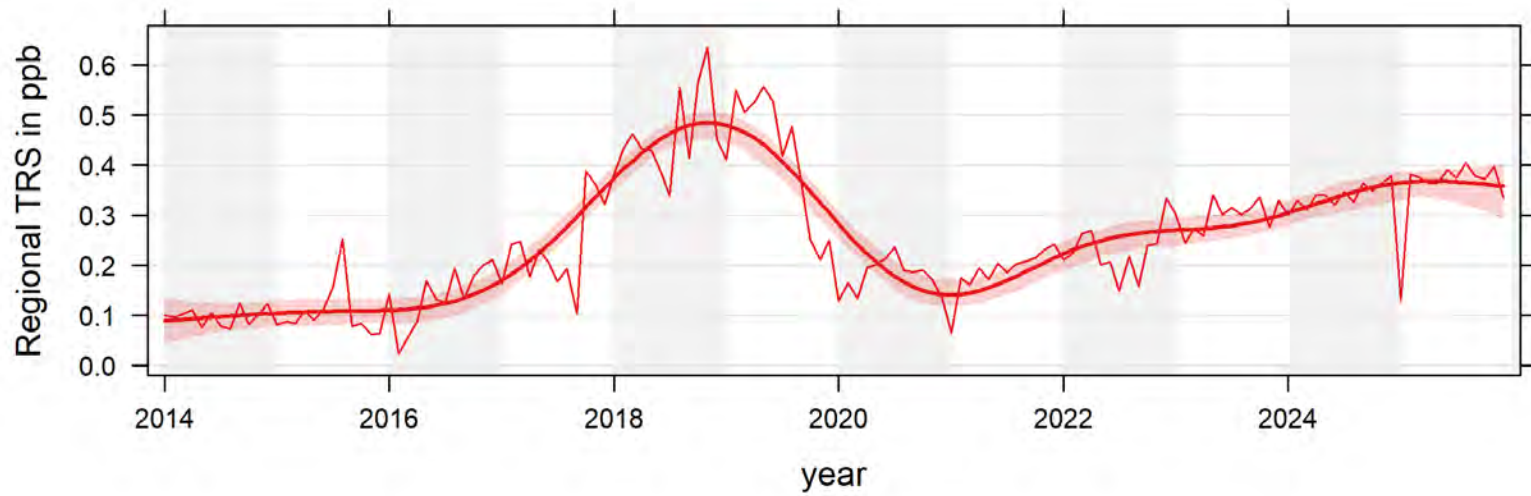
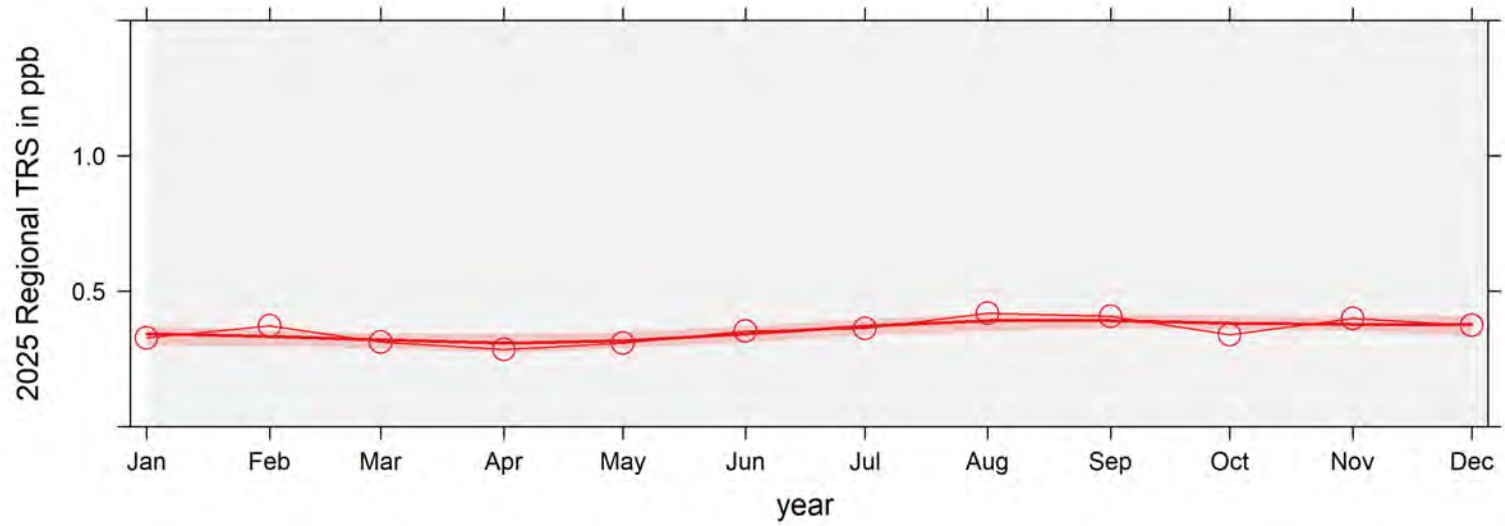
Regional monthly averages for 2025 indicate that TRS concentrations fluctuated modestly throughout the year, generally ranging between approximately 0.3 and 0.4 ppb. A slight increase was observed during the late summer period, which is consistent with seasonal meteorological conditions that can influence atmospheric mixing and transport of sulphur compounds. Long-term trend analysis using the Theil-Sen estimator indicates that TRS concentrations at the Smoky Heights station have declined at an estimated rate of approximately -2.48% per year, and this trend is statistically significant.

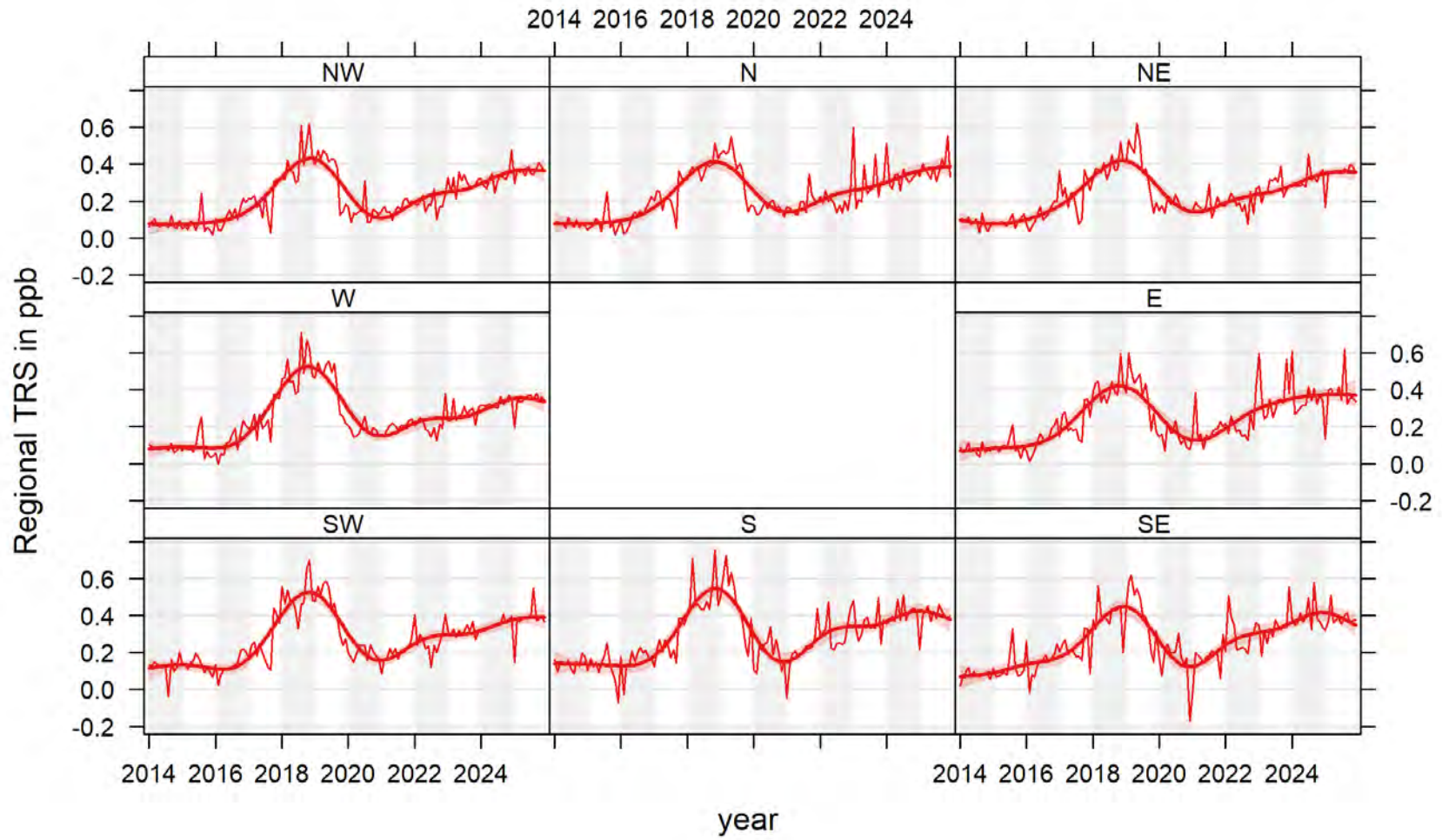
Regional trend analysis across the airshed shows that TRS concentrations increased moderately between approximately 2014 and 2019, declined through 2021, and have gradually increased again in recent years, although overall levels remain relatively low and within the historical range observed across the monitoring network. Directional analysis indicates that elevated TRS concentrations are most commonly associated with air masses arriving from the south, southwest, and west sectors, suggesting that emission sources influencing sulphur concentrations within the airshed are most likely located within these directional corridors relative to the monitoring stations.

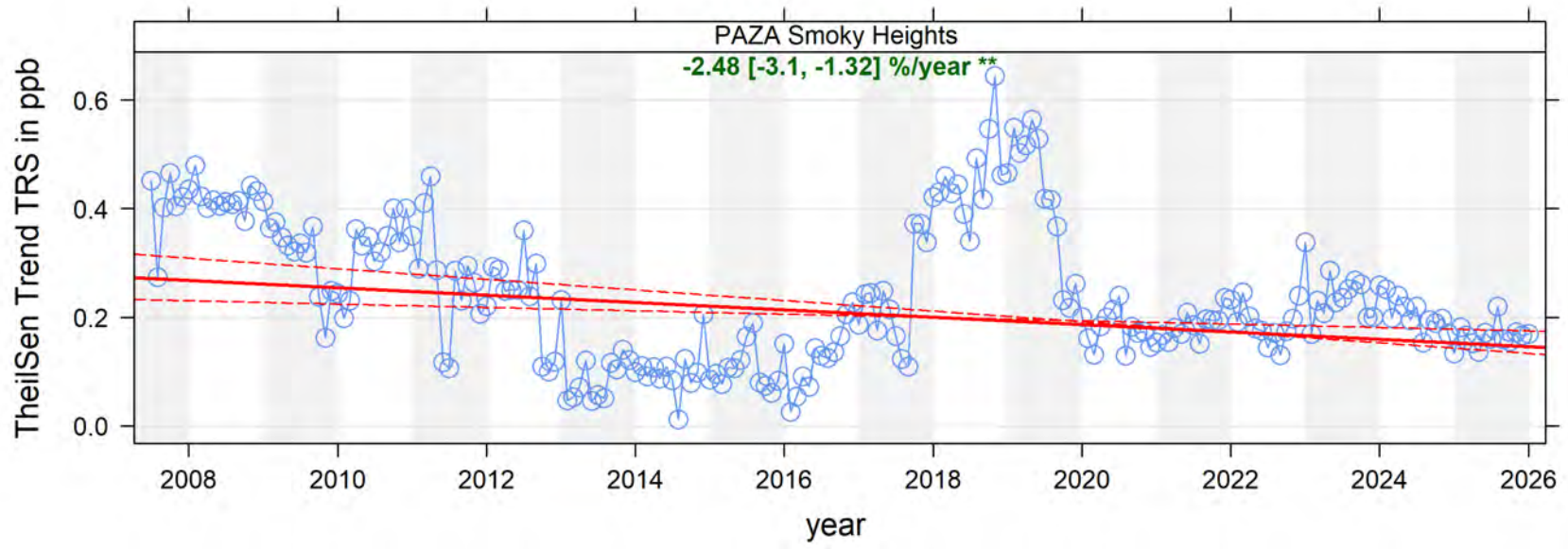
Overall, TRS concentrations within the Peace Airshed Zone Association monitoring network remain low, with limited short-term exceedances and a generally stable long-term pattern, indicating that regional sulphur emissions continue to be effectively managed within the airshed.

## 2025 Daily 95th percentile Concentration Readings at Peace Airshed Zone Association









## 2.4 Nitrogen Dioxide (NO<sub>2</sub>) 2025 Summary

Station	Parameter	Annual Average	Maximum Values				Operational Time (%)	Valid Time (%)	Readings above AAAQO & AAAQG						
			24-hr	Date	1-hr	Date			30-min	1-hr	8-hr	24-hr	30-d	Annual	
Beverlodge	Nitric Oxide NO measured in ppb	0.7	9.0	Feb 17	63.8	Feb 04 11:00	99.0%	94.1%							
Fox Creek		7.0	50.9	Feb 20	159.8	Feb 20 11:00	99.7%	94.8%							
Happy Valley		0.5	6.3	May 19	38.5	May 28 06:00	98.9%	94.0%							
Henry Pirker		3.3	47.7	Jan 06	115.9	Nov 04 11:00	98.2%	93.4%							
Milner		0.8	7.7	Jan 05	32.5	Dec 18 13:00	99.1%	94.2%							
Beverlodge	Nitrogen Dioxide NO <sub>2</sub> measured in ppb	4.2	20.7	Feb 17	44.6	Feb 04 07:00	99.0%	94.1%		0					0
Fox Creek		8.1	26.3	Feb 20	55.7	Feb 20 08:00	99.7%	94.8%		0					0
Happy Valley		2.7	10.5	Jun 10	25.6	Jun 03 01:00	98.9%	94.0%		0					0
Henry Pirker		8.6	30.5	Jan 07	54.3	Feb 20 19:00	98.2%	93.4%		0					0
Milner		2.8	13.9	Dec 20	28.9	Dec 20 02:00	99.1%	94.2%		0					0
Beverlodge	Nitrogen Oxides NO <sub>x</sub> measured in ppb	4.9	29.8	Feb 17	101.9	Feb 04 07:00	99.0%	94.1%							
Fox Creek		15.4	77.4	Feb 20	212.6	Feb 20 08:00	99.7%	94.8%							
Happy Valley		3.2	15.5	Jan 06	57.4	May 28 06:00	98.9%	94.0%							
Henry Pirker		12.0	74.9	Jan 06	159.4	Jan 07 13:00	98.2%	93.4%							
Milner		3.6	21.4	Jan 05	56.2	Mar 23 10:00	99.1%	94.2%							

Nitrogen oxide compounds, including nitric oxide (NO), nitrogen dioxide (NO<sub>2</sub>), and total oxides of nitrogen (NO<sub>x</sub>), were monitored at five stations within the network during 2025. Annual average concentrations varied among stations, reflecting differences in local emission sources and atmospheric dispersion patterns. Annual mean nitric oxide concentrations ranged from 0.5 ppb at Happy Valley to 7.0 ppb at Fox Creek, while annual nitrogen dioxide concentrations ranged from 2.7 ppb at Happy Valley to 8.6 ppb at Henry Pirker. Total oxides of nitrogen (NO<sub>x</sub>) annual averages ranged from 3.2 ppb at Happy Valley to 15.4 ppb at Fox Creek.

Maximum short-term concentrations occurred intermittently throughout the year and were typically associated with brief episodes rather than sustained elevated concentrations. The highest hourly NO concentration recorded during 2025 was 159.8 ppb at Fox Creek on February 20, while the highest hourly NO<sub>2</sub> concentration was 55.7 ppb at Fox Creek on February 20. Maximum hourly NO<sub>x</sub> concentrations reached 212.6 ppb at Fox Creek, again during February. These short-duration events are consistent with localized combustion-related emissions combined with meteorological conditions that temporarily limit atmospheric dispersion.

Data capture across the monitoring network remained high during 2025, with operational time exceeding 98% and valid data capture exceeding 93% at all monitoring stations, indicating reliable instrument performance throughout the reporting period.

Evaluation against the AAAQO indicates that no exceedances of the 1-hour nitrogen dioxide objective or annual objective were recorded at any station during 2025.

Daily 95th percentile nitrogen dioxide concentrations indicate typical variability throughout the year, with higher concentrations generally observed during the winter months and lower concentrations during late spring and summer. This seasonal pattern is consistent with reduced atmospheric mixing and increased combustion emissions during colder months, as well as enhanced dispersion during warmer periods.

Regional monthly averages for nitrogen dioxide in 2025 show a declining trend from winter through mid-summer followed by a gradual increase into late autumn and early winter, reflecting the seasonal influence of atmospheric stability and emission patterns associated with heating demand and transportation activity.

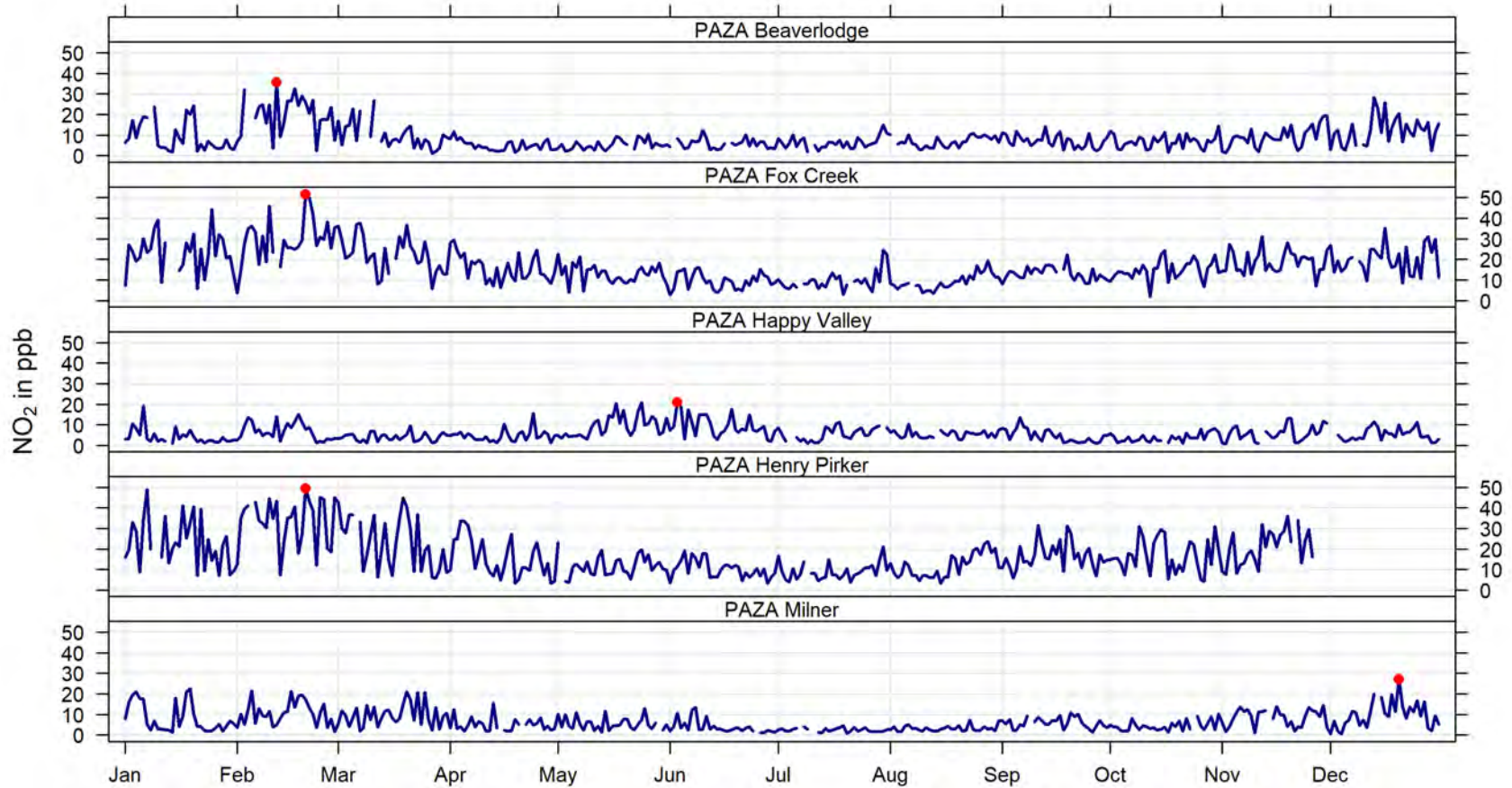
Long-term trend analysis using the Theil-Sen estimator indicates differing trends among stations. At the Beaverlodge station, nitrogen dioxide concentrations show a statistically significant increasing trend of approximately 0.65% per year, while the Henry Pirker station shows a statistically significant decreasing trend of approximately -0.62% per year. These site-specific trends likely reflect differences in nearby emission sources and local atmospheric conditions.

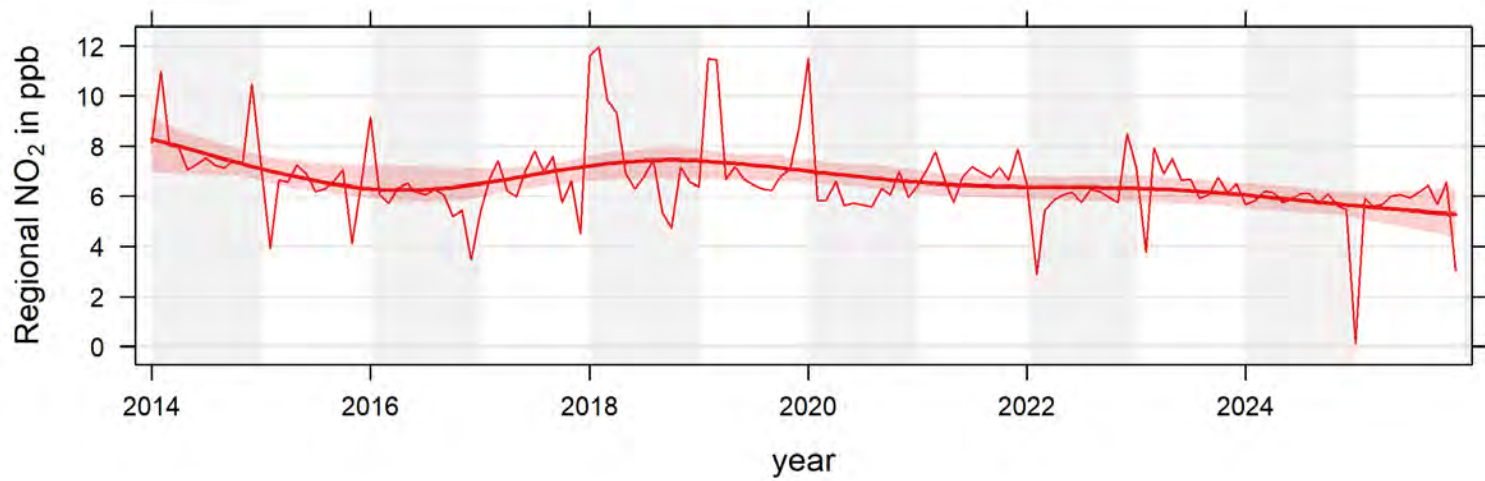
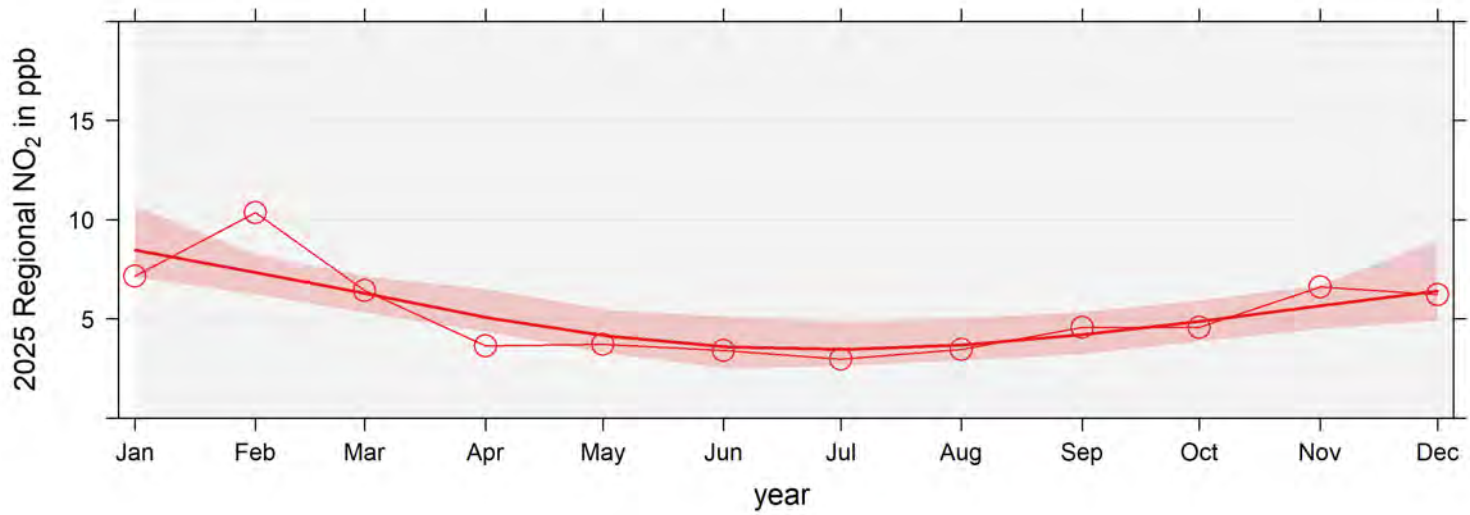
Regional trend analysis across the airshed indicates that nitrogen dioxide concentrations have remained relatively stable over the past decade, with periodic fluctuations reflecting variations in emission activity and meteorological conditions.

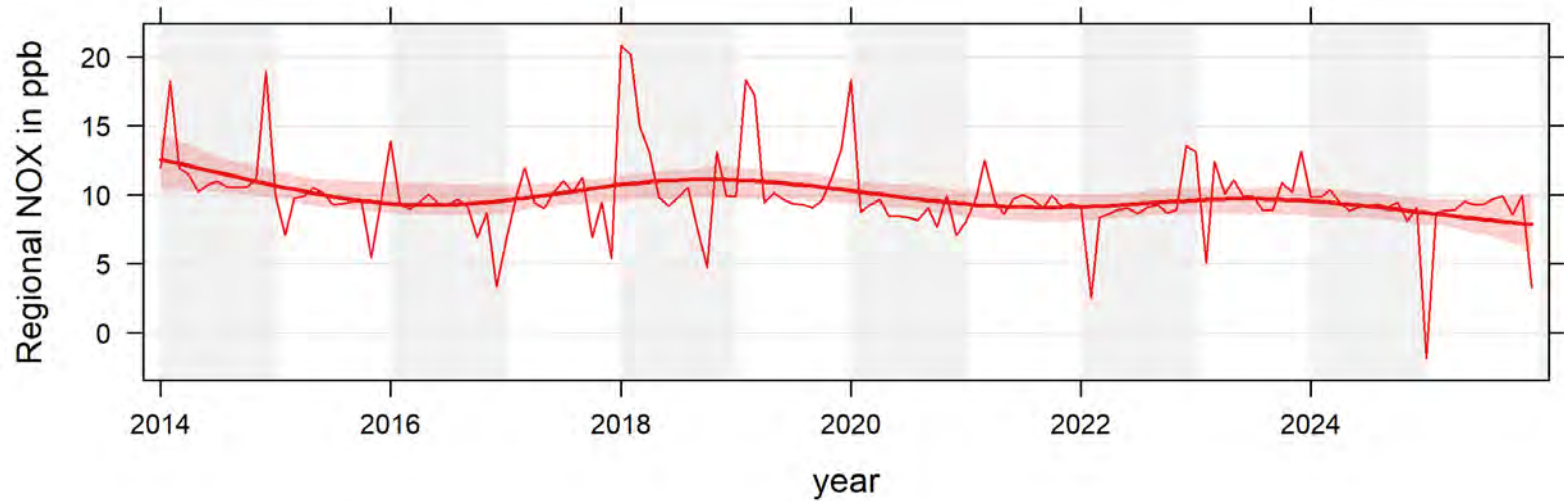
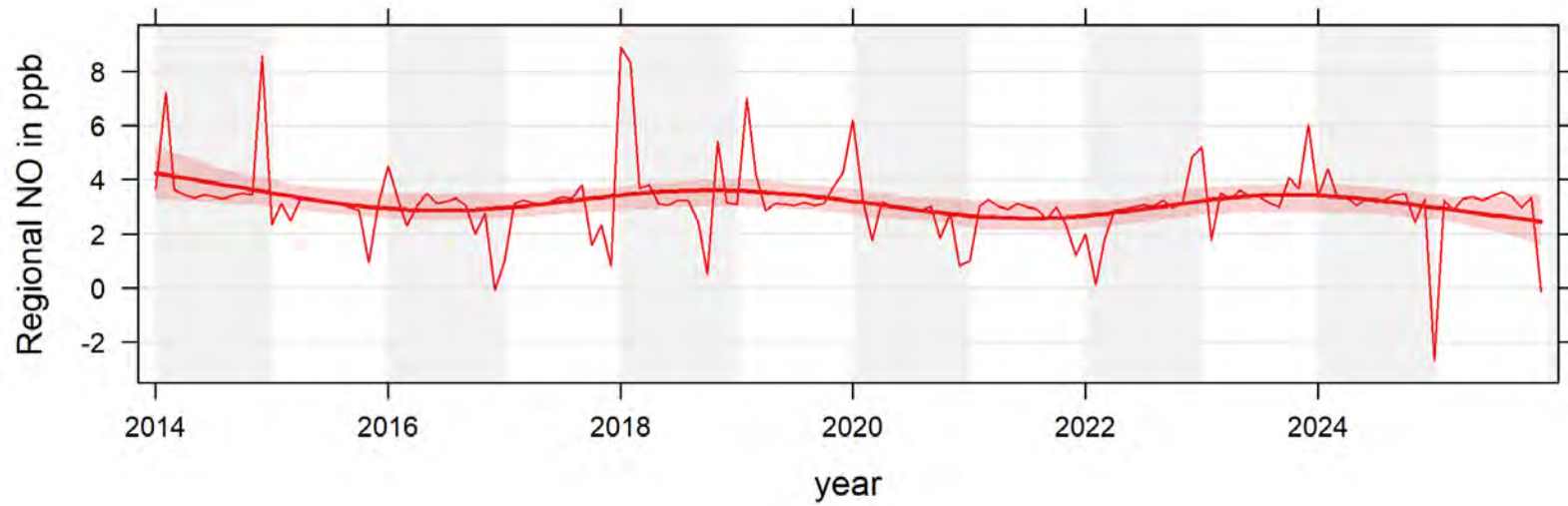
Wind-directional analysis suggests that elevated nitrogen dioxide concentrations are most frequently associated with air masses arriving from the southern and southeastern sectors, indicating that emission sources influencing nitrogen oxide levels within the airshed are likely located within these directional corridors relative to the monitoring stations.

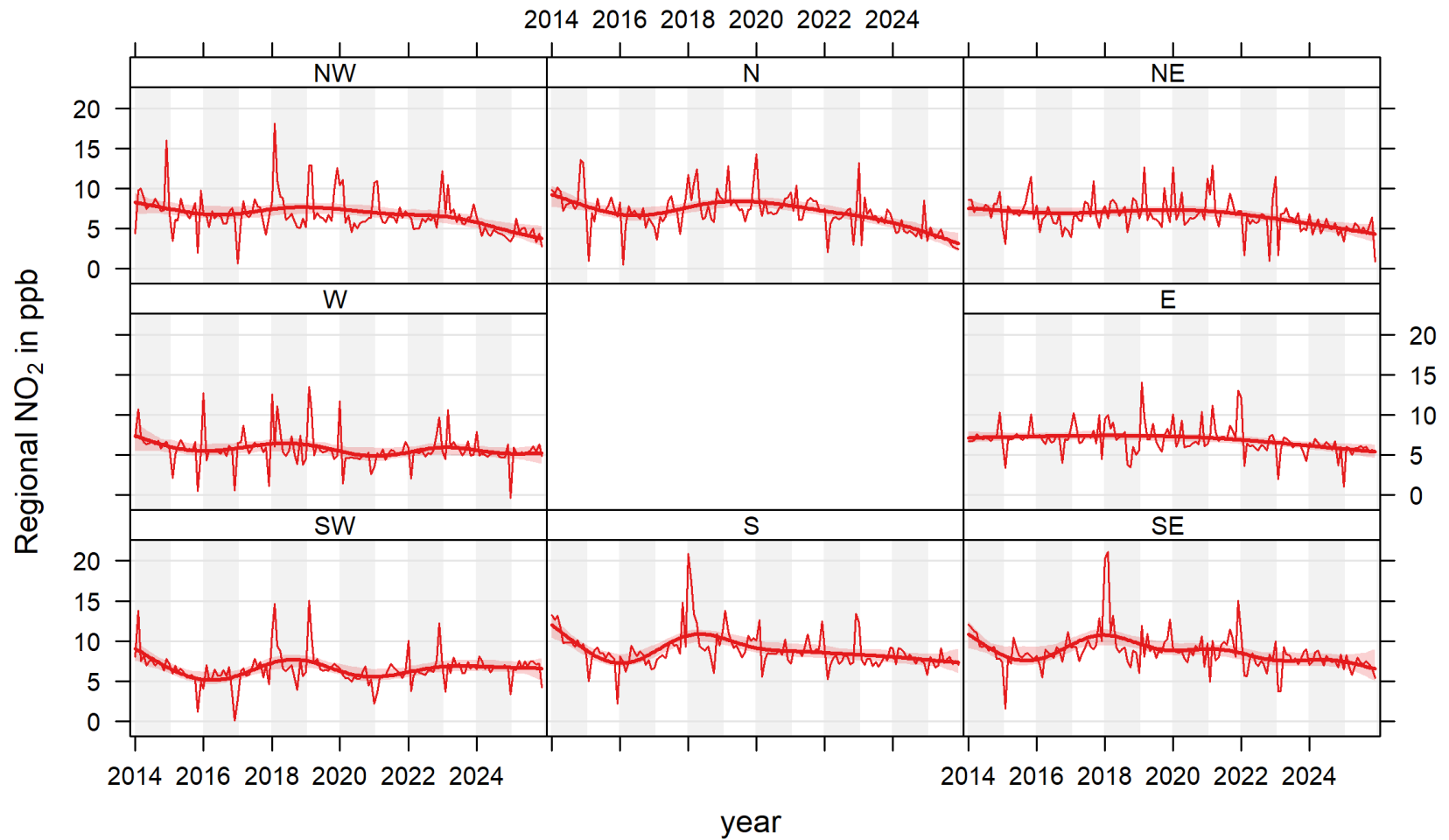
Overall, nitrogen oxide concentrations within the monitoring network remain well below provincial objectives, with stable long-term trends and limited short-term variability within the region.

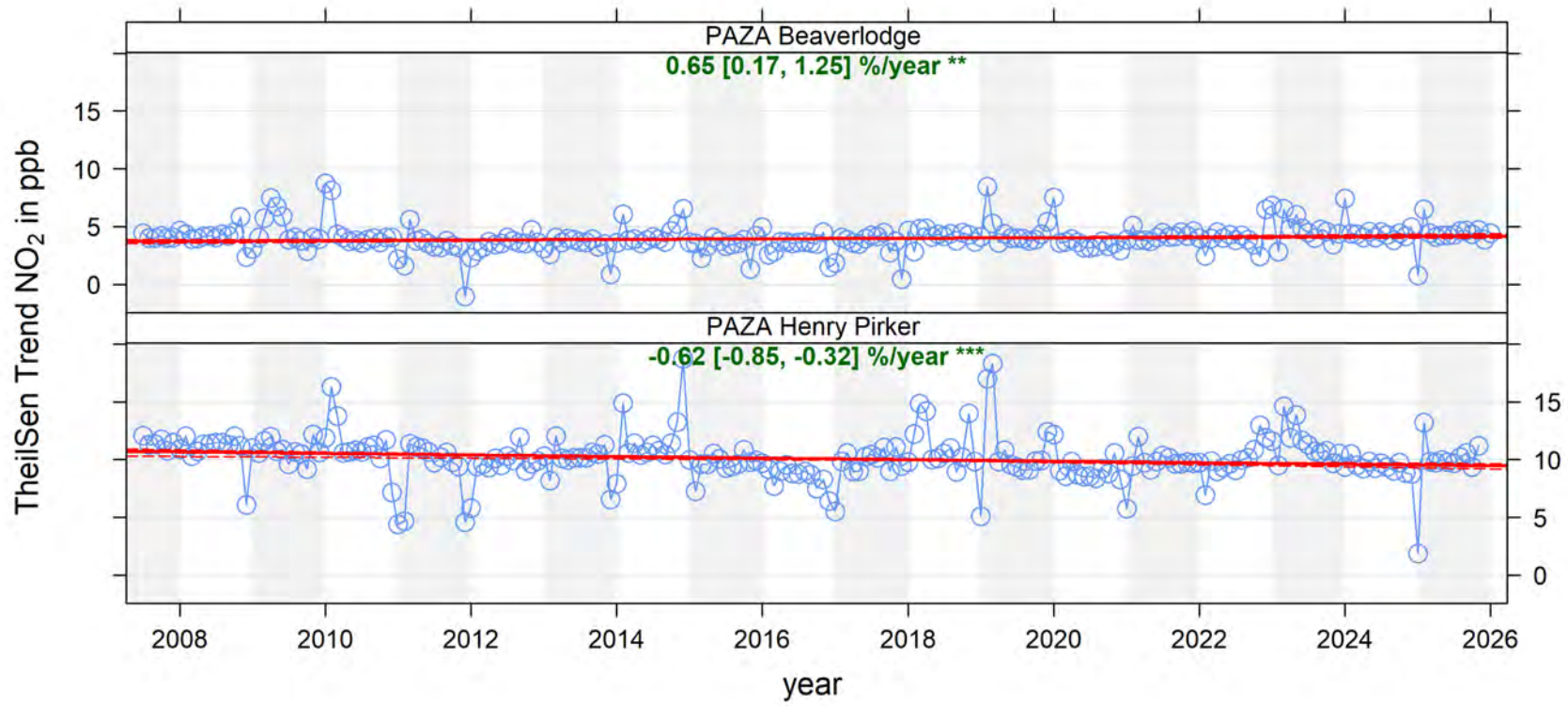
## 2025 Daily 95th percentile Concentration Readings at Peace Airshed Zone Association











## 2.5 Ozone (O<sub>3</sub>) 2025 Summary

Station	Parameter	Annual Average	Maximum Values				Operational Time (%)	Valid Time (%)	Readings above AAAQO & AAAQG						
			24-hr	Date	1-hr	Date			30-min	1-hr	8-hr	24-hr	30-d	Annual	
Beverlodge	O <sub>3</sub> measured in ppb	28.8	45.7	May 02	62.3	May 02 18:00	99.4%	94.8%		0					
Fox Creek		22.9	43.1	May 02	59.4	May 02 15:00	98.7%	94.0%		0					
Happy Valley		29.8	46.2	May 02	61.4	Aug 29 13:00	99.1%	94.5%		0					
Henry Pirker		25.2	43.4	May 03	66.4	Jul 31 13:00	98.6%	94.0%		0					

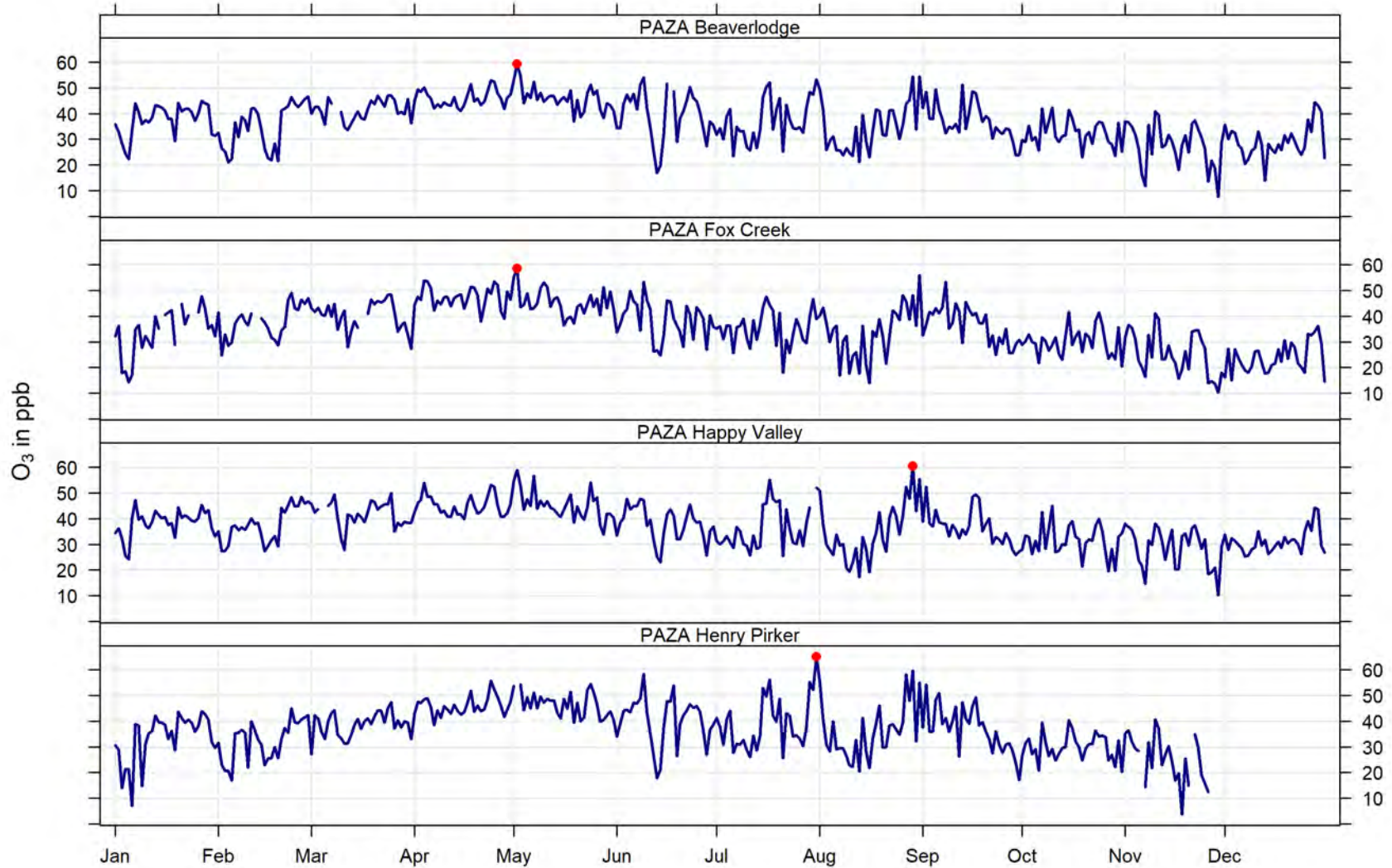
The regional profile for ozone shows the expected seasonal pattern, with concentrations increasing through late winter and spring, peaking in April - May, and then gradually declining into late autumn, with the lowest monthly regional values occurring in November. This seasonal behaviour is consistent with photochemical ozone formation and regional transport patterns. In 2025, annual average ozone concentrations ranged from 22.9 ppb at Fox Creek to 29.8 ppb at Happy Valley.

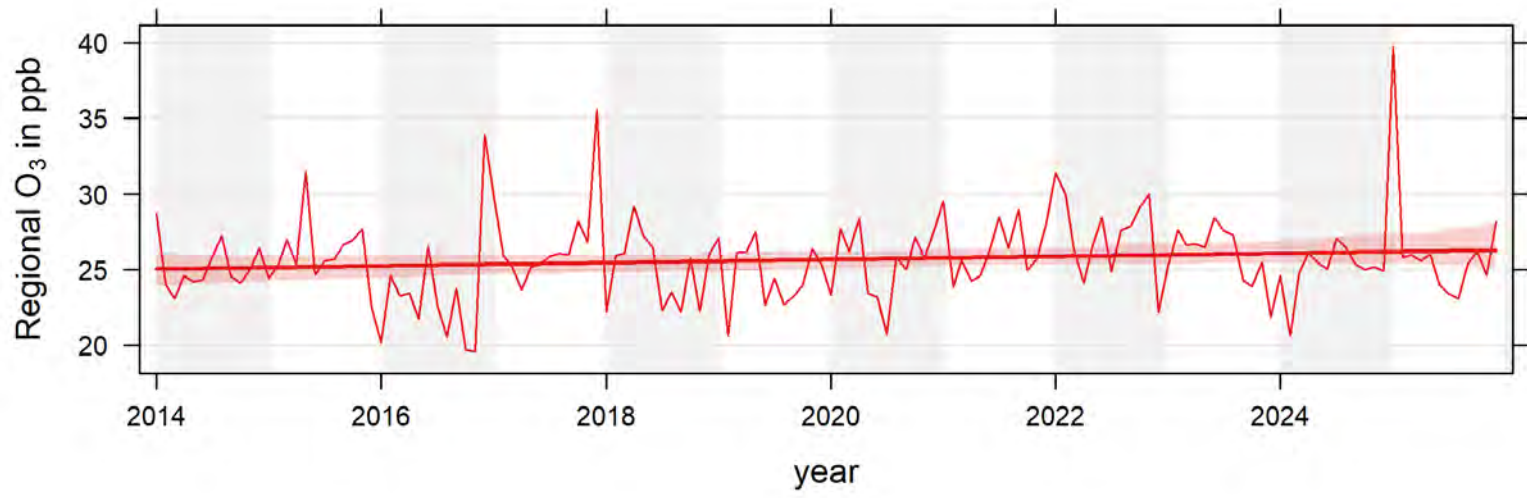
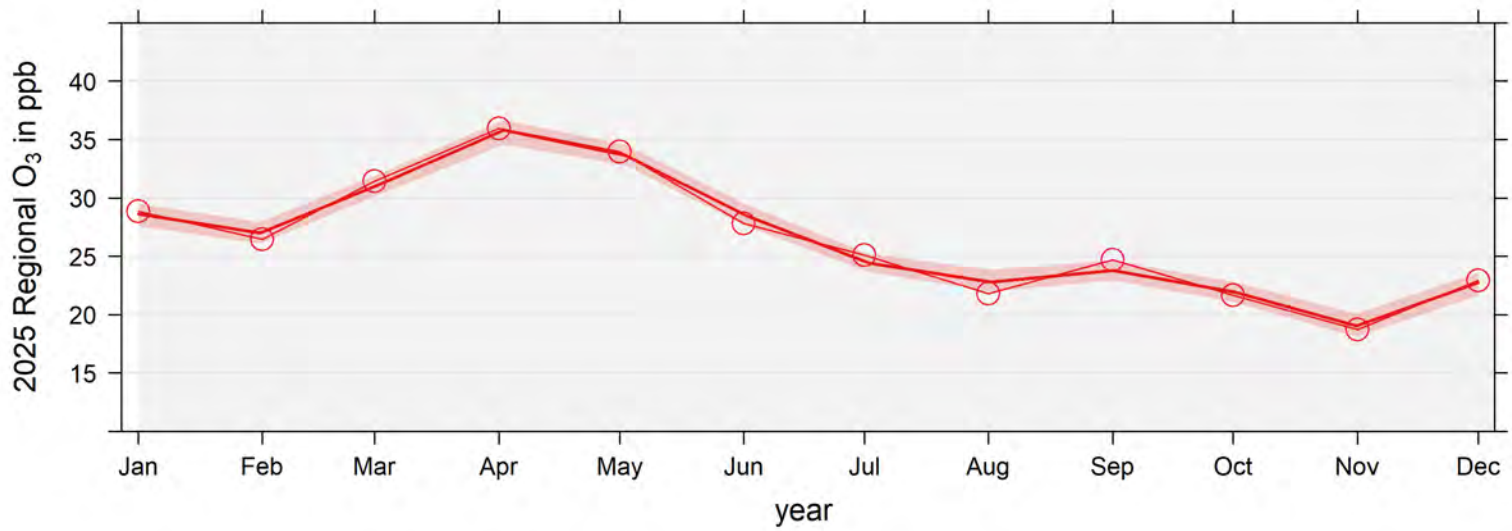
Overall maximum trends for 2025 (daily 95th percentiles) showed similar behaviour among the four monitoring stations, with the strongest periods occurring during spring and late summer. Maximum 24-hour concentrations ranged from 43.1 ppb at Fox Creek to 46.2 ppb at Happy Valley, with Beaverlodge and Henry Pirker showing similar values of 45.7 ppb and 43.4 ppb, respectively. Maximum 1-hour concentrations ranged from 59.4 ppb at Fox Creek to 66.4 ppb at Henry Pirker. Beaverlodge and Fox Creek both recorded their annual maximums on May 2, Happy Valley reached its hourly maximum on August 29, and Henry Pirker recorded the highest hourly value in the network on July 31. Despite these short-term peaks, no exceedances of the AAAQO were recorded for ozone in 2025.

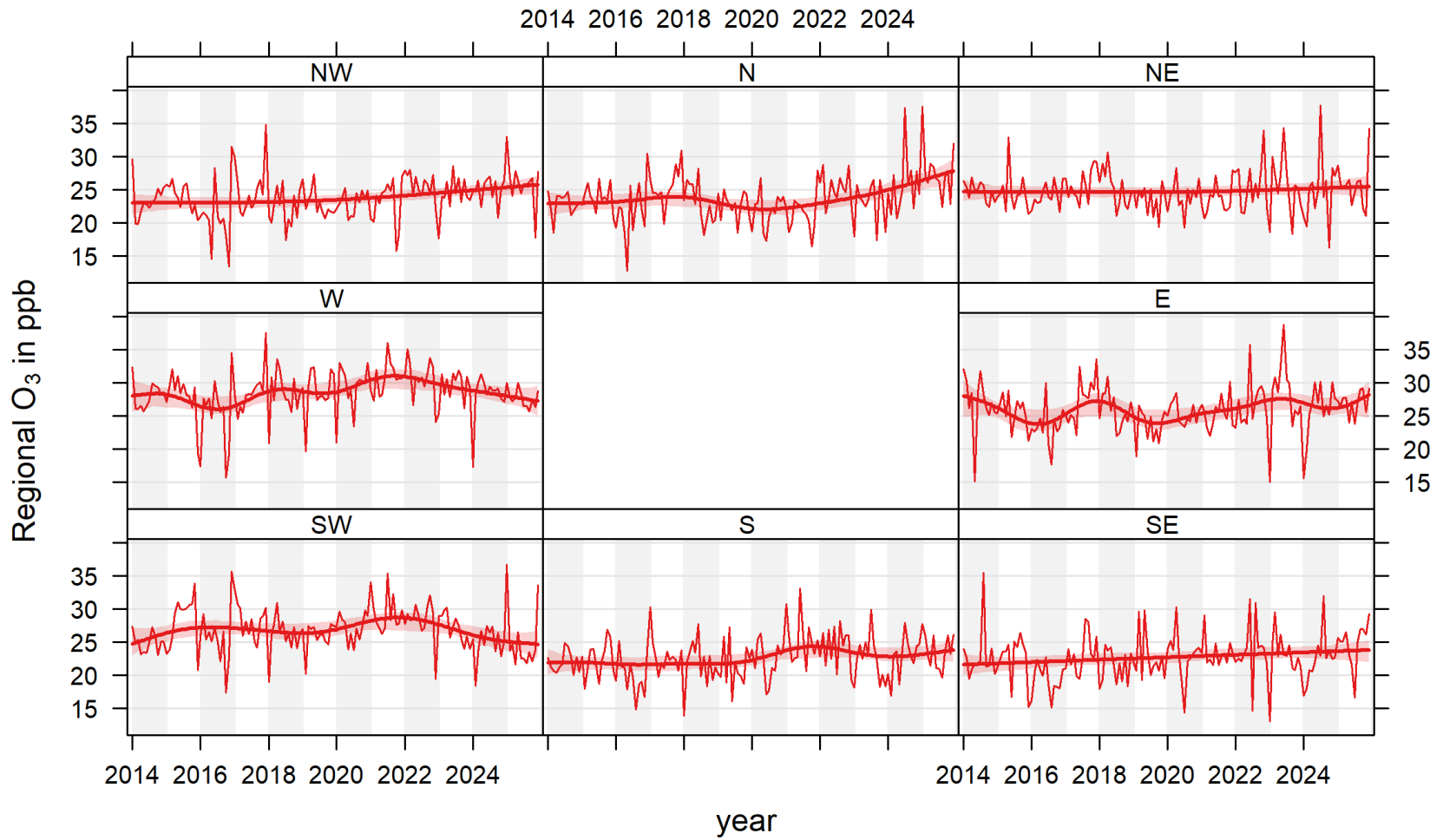
The long-term trend figures suggest that ozone concentrations across the region have been generally stable to slightly increasing over time. At Beaverlodge, the Theil-Sen trend of -0.12% per year was not statistically significant, indicating little meaningful long-term change. At Henry Pirker, the trend was +0.21% per year and was statistically significant, suggesting a small long-term increase in ozone at that station. The regional historical profile also supports this interpretation, showing modest year-to-year variability but no sharp long-term shift. Directional trend plots indicate some sector-specific variation, but overall the regional ozone signal remains fairly consistent and characteristic of a pollutant influenced strongly by broader atmospheric chemistry and transport rather than only local source effects.

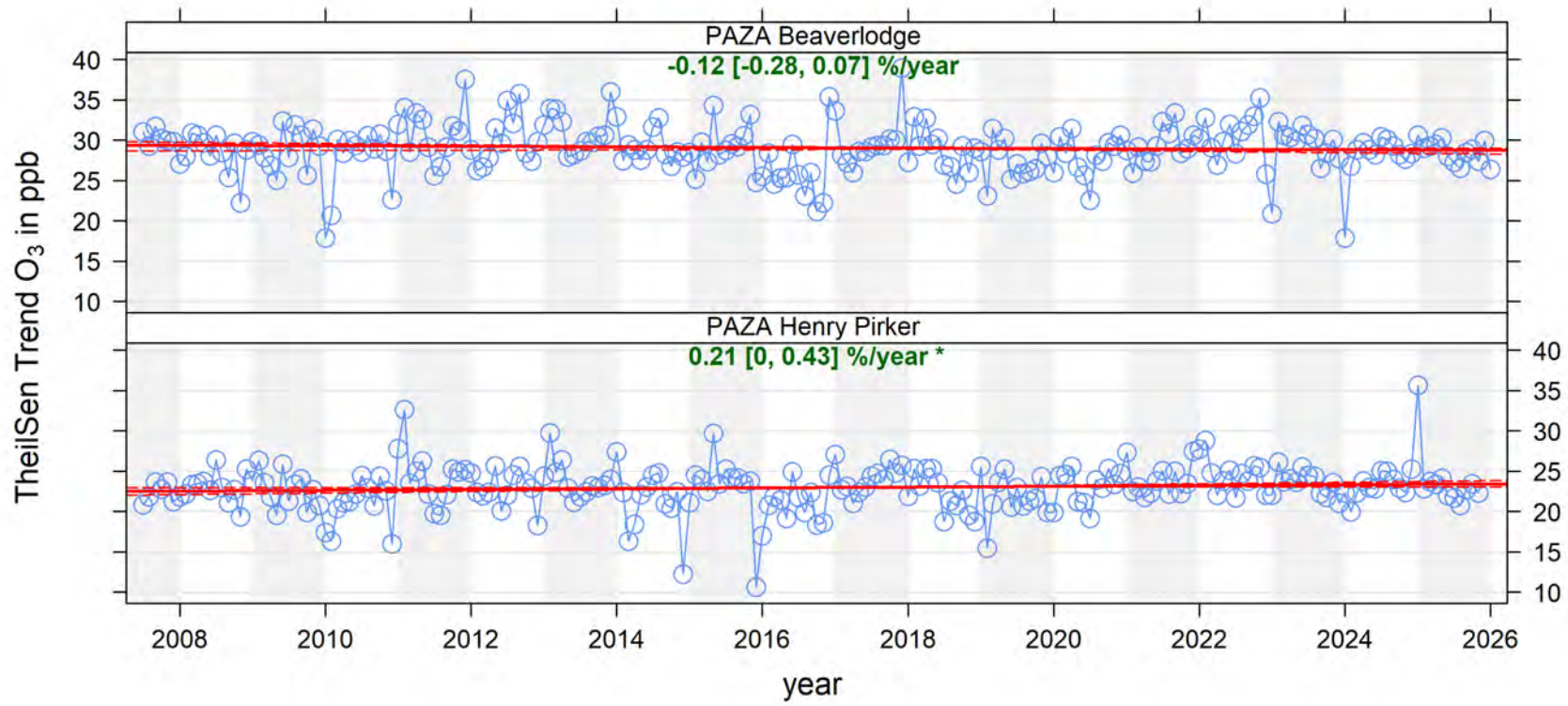
Overall, ozone concentrations remained moderate, regionally consistent, and well below applicable objectives in 2025, with the annual pattern and long-term behaviour matching what would typically be expected for rural and regional ozone monitoring stations.

## 2025 Daily 95th percentile Concentration Readings at Peace Airshed Zone Association









## 2.6 Total Hydrocarbons (THC / CH<sub>4</sub> / NMHC) 2025 Summary

Station	Parameter	Annual Average	Maximum Values				Operational Time (%)	Valid Time (%)	Readings above AAAQO & AAAQG					
			24-hr	Date	1-hr	Date			30-min	1-hr	8-hr	24-hr	30-d	Annual
Happy Valley	Total Hydrocarbons	2.06	2.6	Nov 29	7.7	Dec 02 15:00	97.7%	93.0%						
Henry Pirker	THC measured in ppm	2.27	3.1	Nov 12	6.4	Nov 12 06:00	90.5%	85.9%						
Happy Valley	Methane	2.04	2.5	Nov 29	3.6	Nov 29 06:00	96.7%	53.7%						
Henry Pirker	CH <sub>4</sub> measured in ppm	2.29	3.0	Nov 12	6.4	Nov 12 06:00	90.5%	86.0%						
Happy Valley	Non Methane Hydrocarbons	0.01	0.3	Dec 02	5.6	Dec 02 15:00	96.7%	53.7%						
Henry Pirker	NMHC measured in ppm	0.01	0.3	Jun 06	2.8	Jun 06 10:00	90.5%	86.0%						

If Valid Time is <75%, annual average is not valid, and shown for reference only

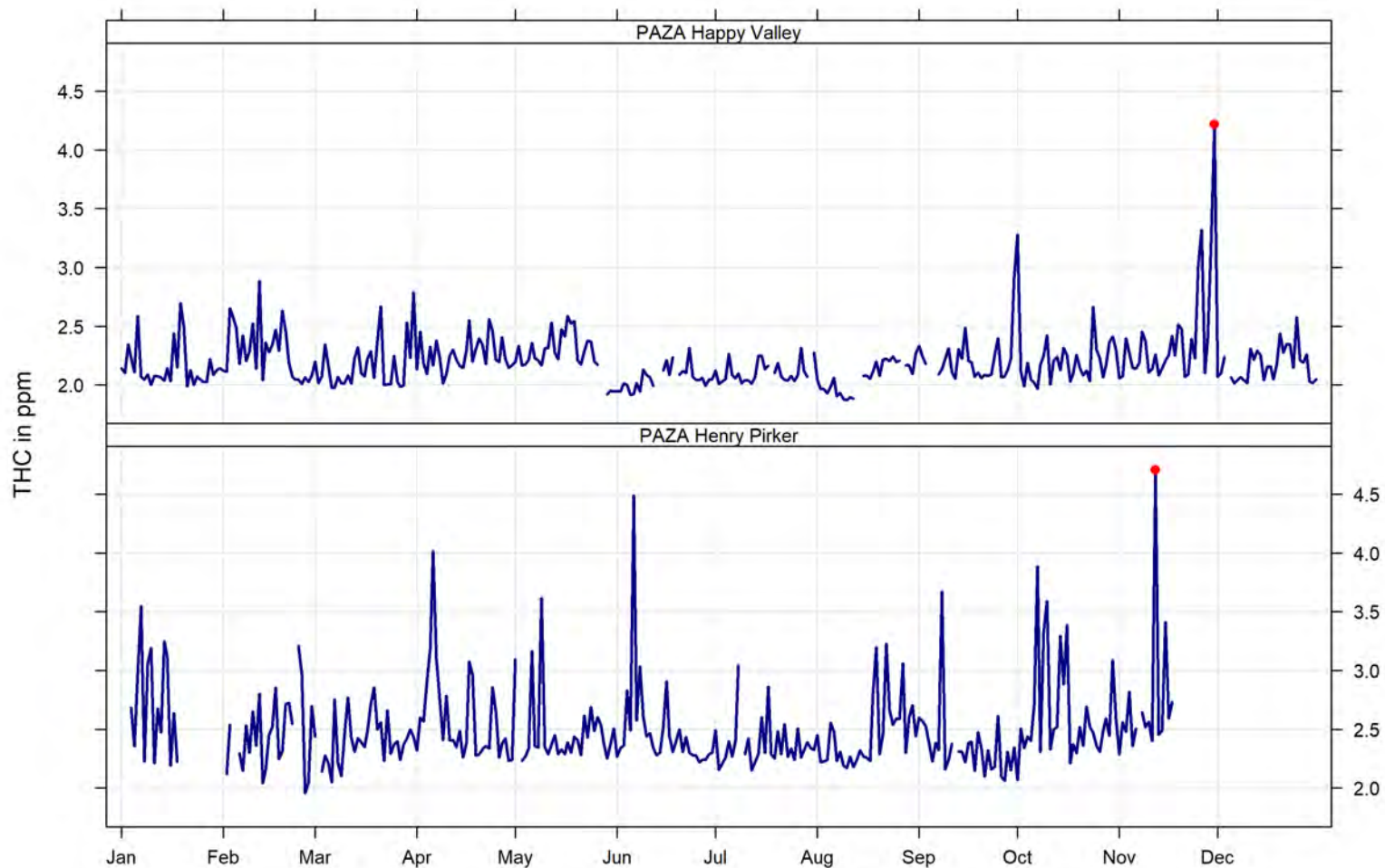
Total hydrocarbons (THC), methane (CH<sub>4</sub>), and non-methane hydrocarbons (NMHC) were measured at the Happy Valley and Henry Pirker monitoring stations in 2025. Hydrocarbon measurements provide insight into regional emissions associated with natural gas production, fugitive emissions, and other hydrocarbon sources common to the region. Annual average THC concentrations were 2.06 ppm at Happy Valley and 2.27 ppm at Henry Pirker. Maximum 24-hour THC concentrations were 2.6 ppm at Happy Valley (November 29) and 3.1 ppm at Henry Pirker (November 12), while the highest 1-hour concentrations reached 7.7 ppm at Happy Valley on December 2 and 6.4 ppm at Henry Pirker on November 12. These short-term peaks represent isolated events and are typical of episodic hydrocarbon releases or localized source influences.

For methane (CH<sub>4</sub>), the annual average concentration at Henry Pirker was 2.29 ppm, while the Happy Valley annual average (2.04 ppm) is shown for reference only due to insufficient valid data (53.7%). Maximum hourly methane concentrations reached 6.4 ppm at Henry Pirker on November 12 and 3.6 ppm at Happy Valley on November 29. The 2025 daily 95th percentile profiles indicate generally stable methane concentrations throughout the year, with occasional short-term spikes, particularly during late autumn. Measured non-methane hydrocarbons (NMHC) remained very low at both stations, with reported annual averages of approximately 0.01 ppm. Similar to methane, the Happy Valley annual value is presented for reference only due to the limited valid data capture in 2025. Short-term NMHC peaks were observed periodically during the year, including a maximum hourly value of 5.6 ppm at Happy Valley on December 2 and 2.8 ppm at Henry Pirker on June 6, reflecting brief episodic hydrocarbon events.

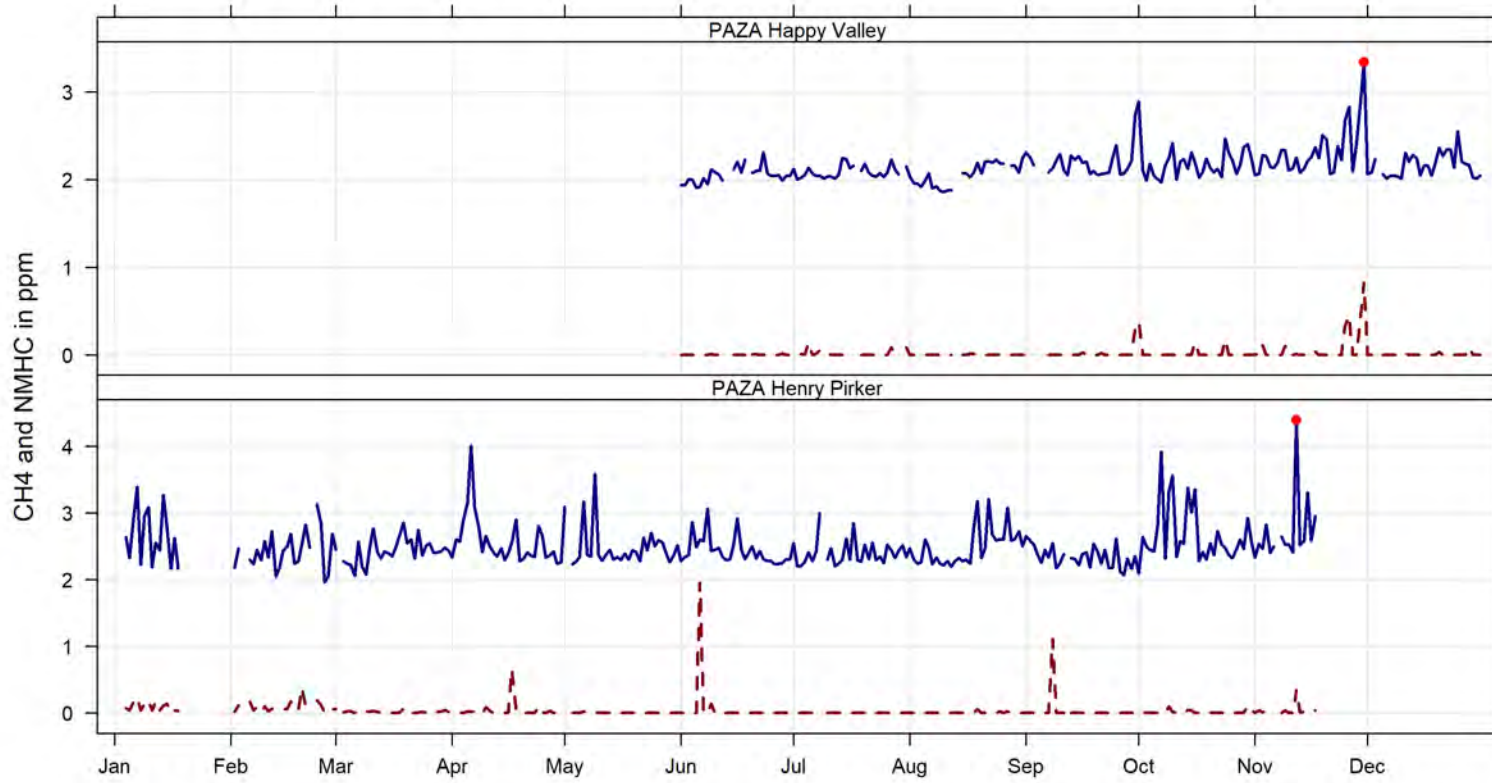
Long-term trend analysis indicates that methane concentrations at Henry Pirker have increased slightly over the monitoring record, with a statistically significant Theil–Sen trend of +1.02% per year. In contrast, total hydrocarbon concentrations show only a small increasing trend of +0.18% per year, suggesting relatively stable long-term conditions with modest variability driven by episodic emissions. Directional trend analysis indicates that increases in methane are observed across multiple wind sectors, suggesting a broader regional influence rather than a single dominant source direction.

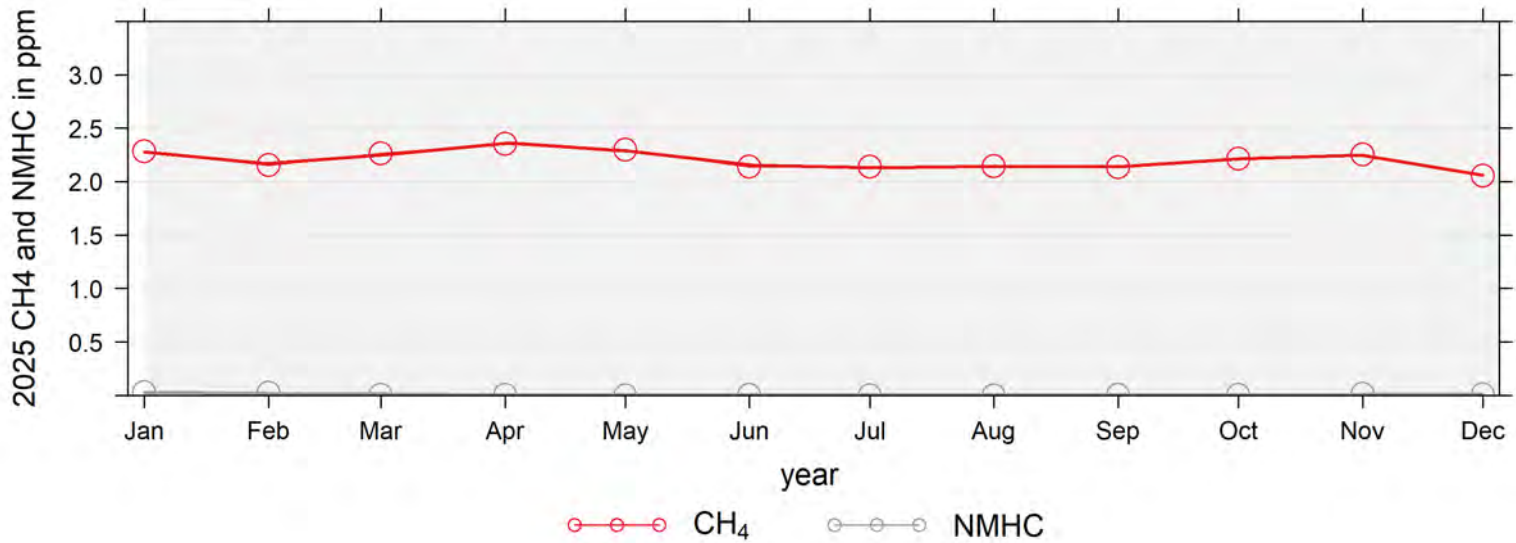
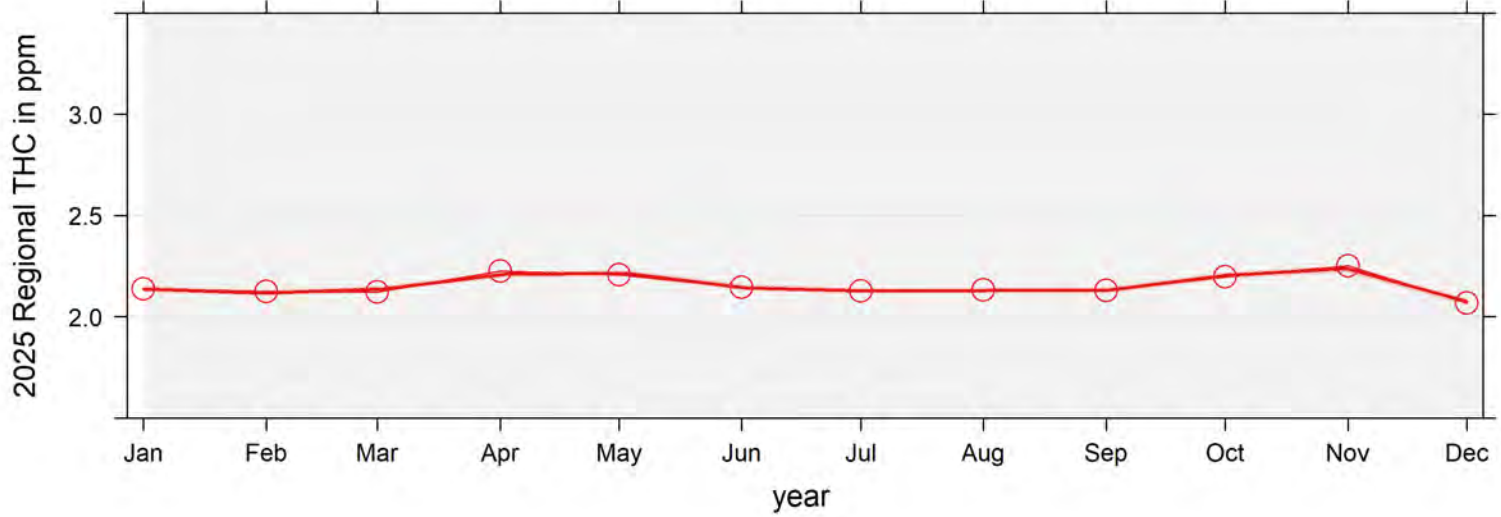
Overall, hydrocarbon concentrations within the region remained relatively stable in 2025, with occasional short-duration spikes consistent with episodic hydrocarbon releases typical of hydrocarbon-producing regions. Data completeness limitations at Happy Valley should be considered when interpreting annual averages for methane and non-methane hydrocarbons.

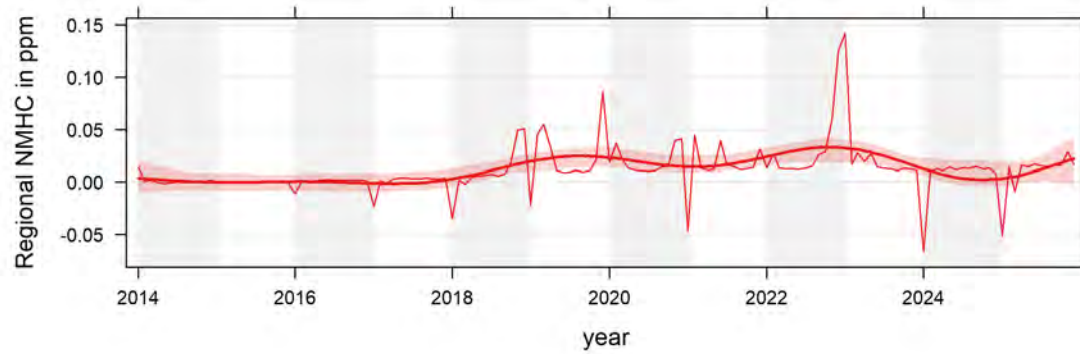
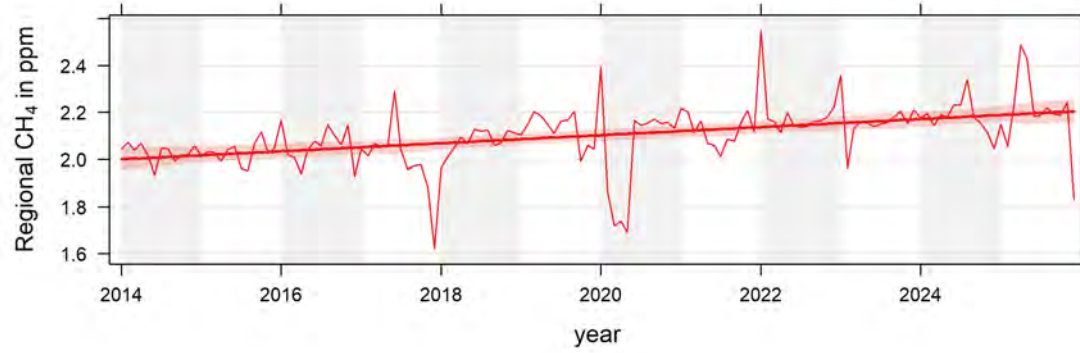
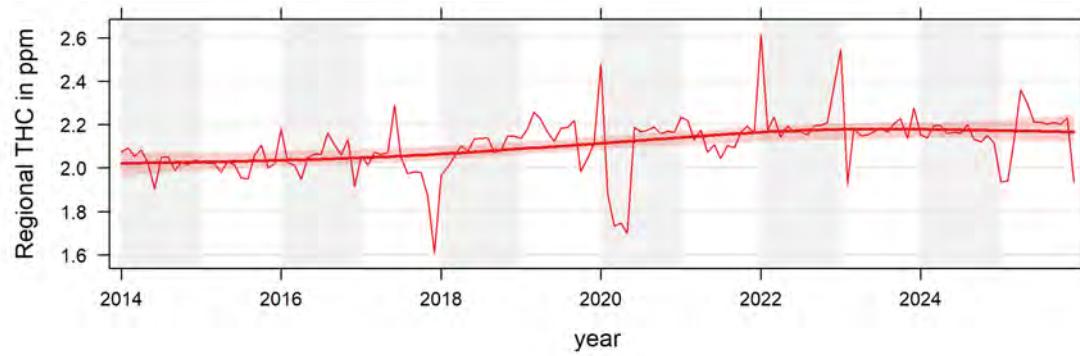
2025 Daily 95th percentile Concentration Readings at Peace Airshed Zone Association

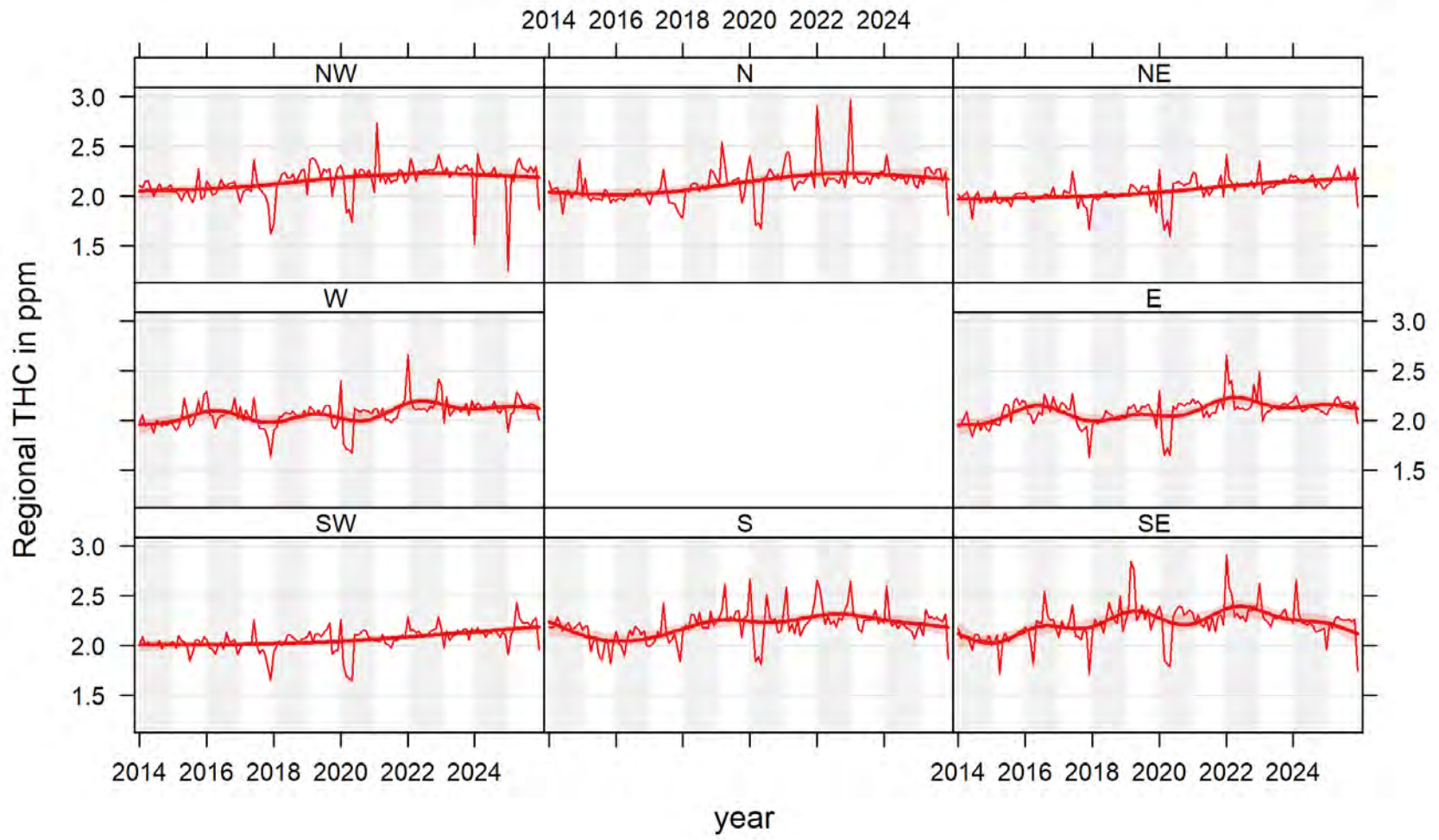


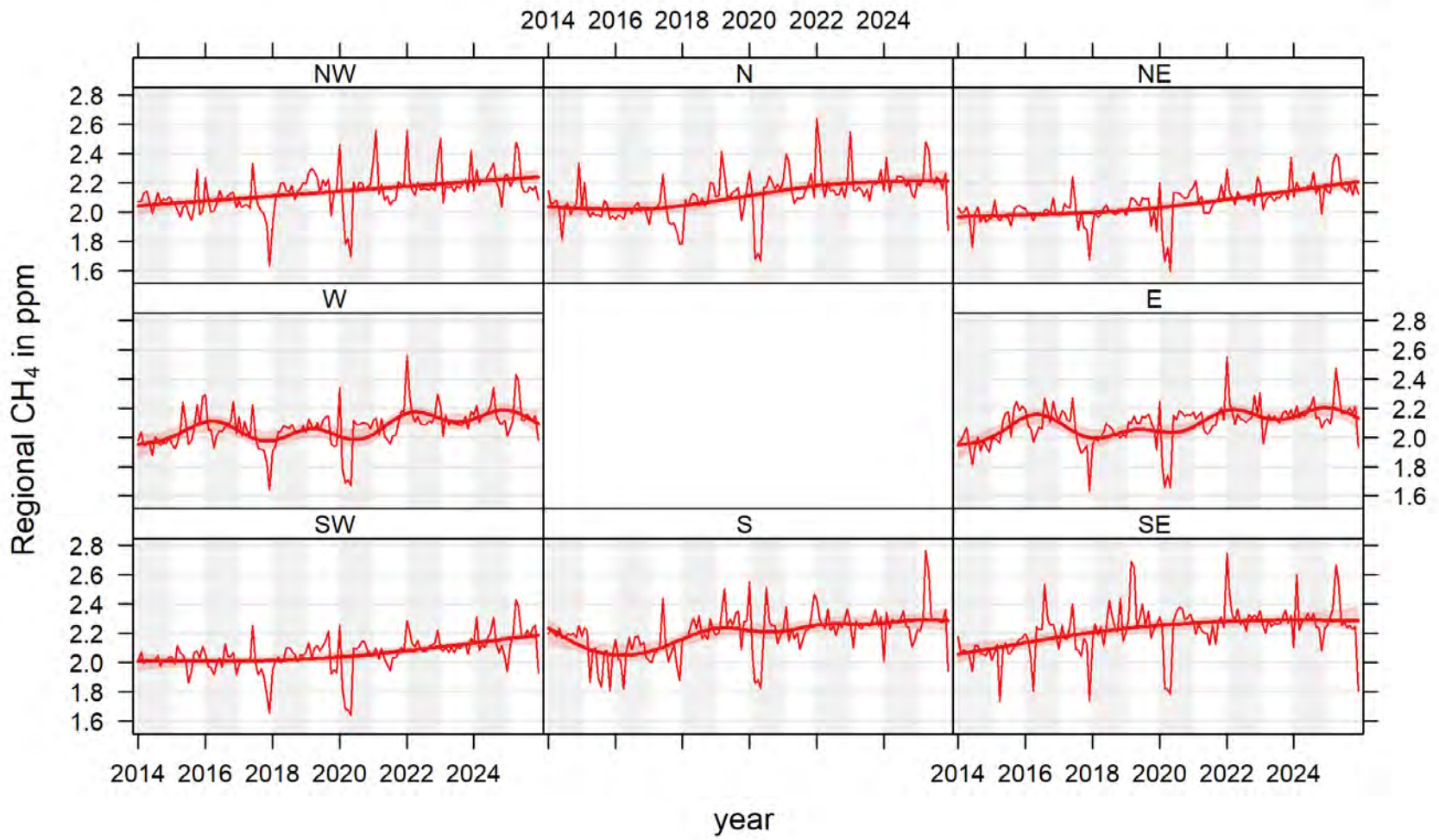
## 2025 Daily 95th percentile Concentration Readings at Peace Airshed Zone Association

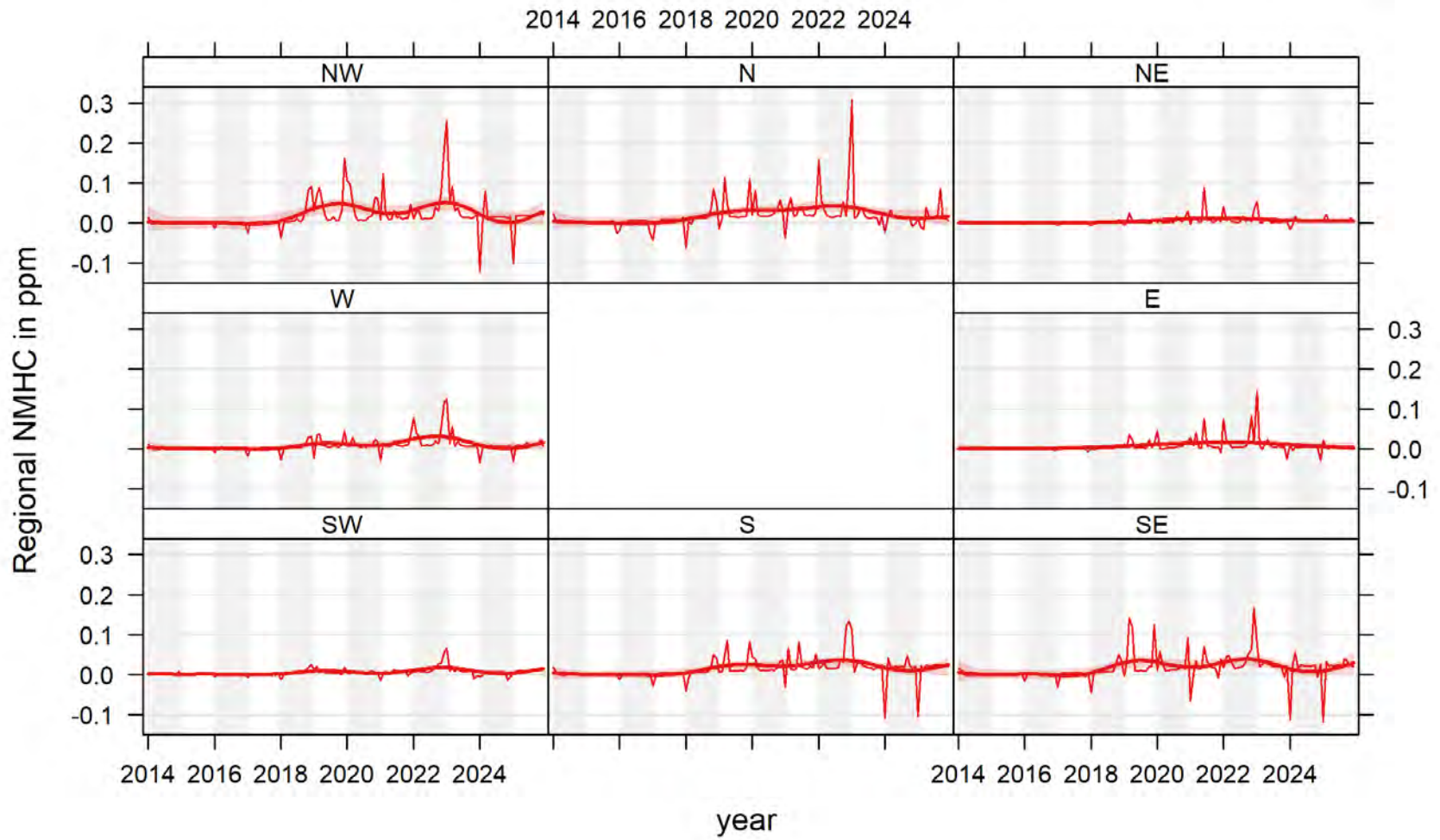


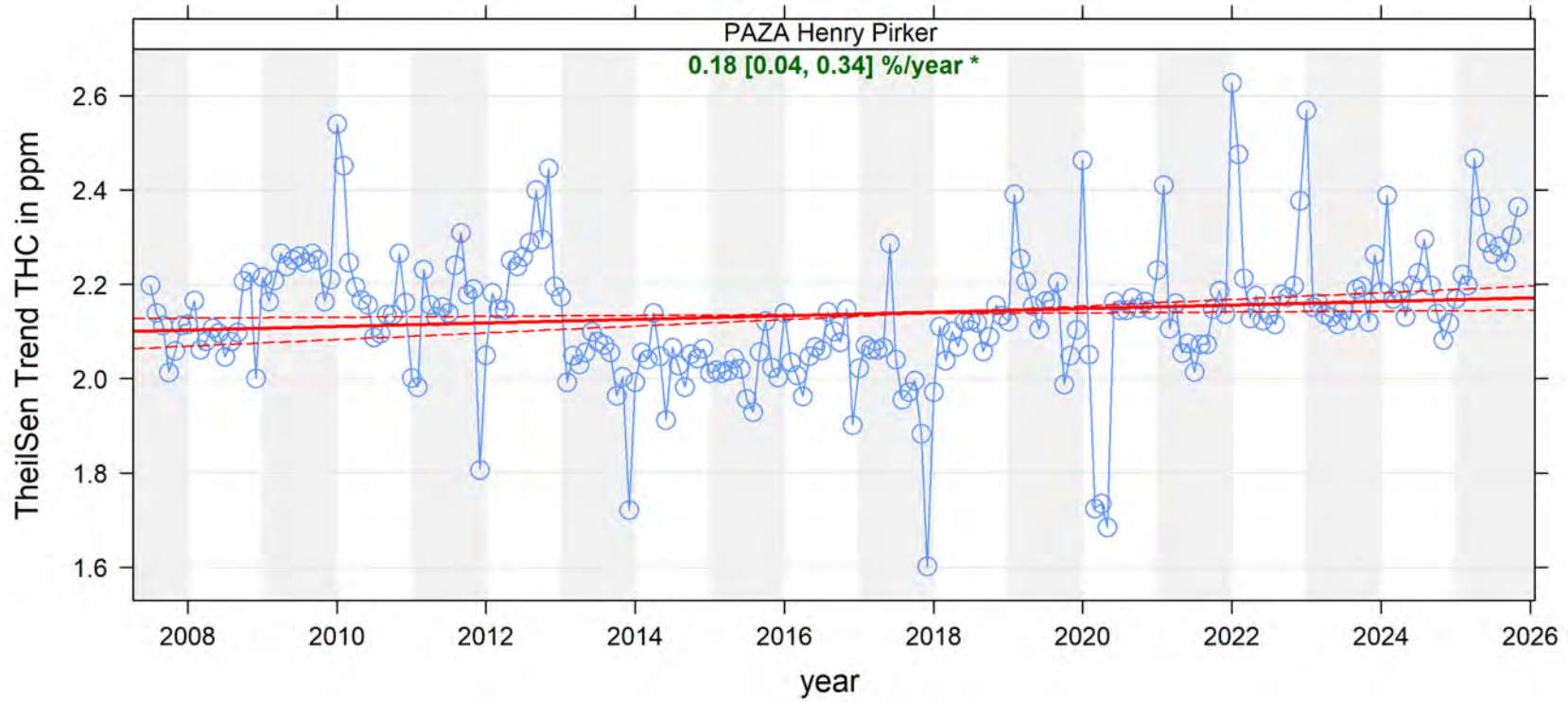


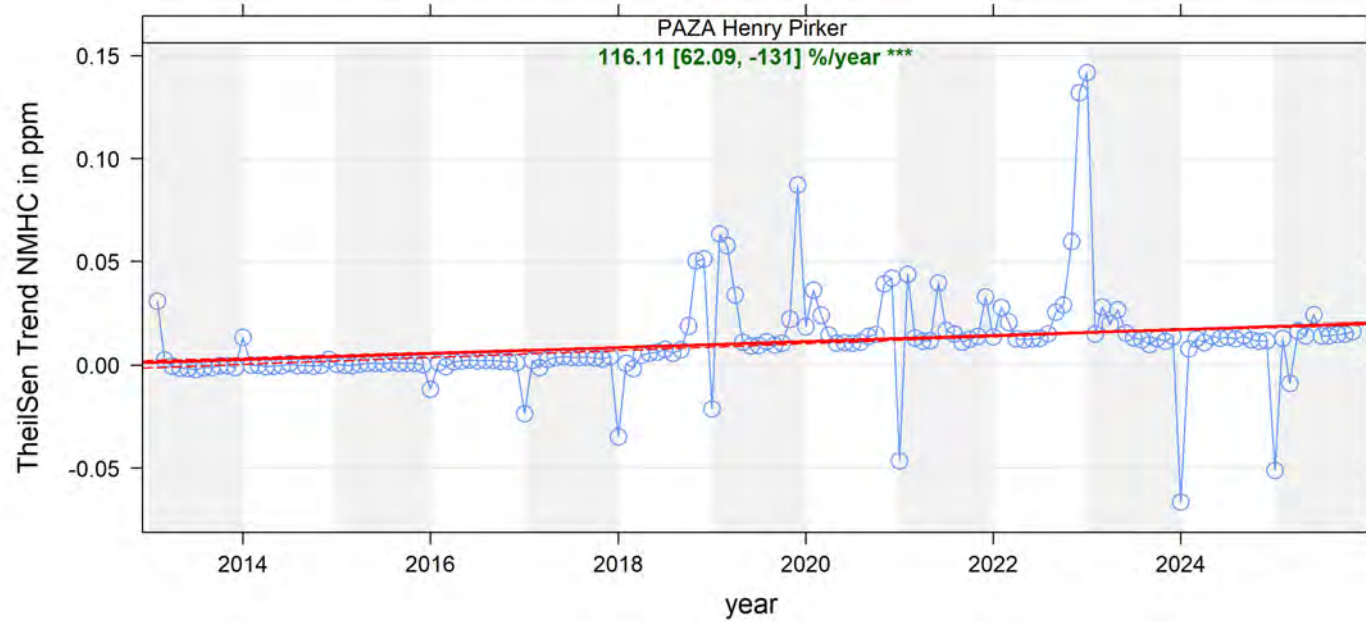
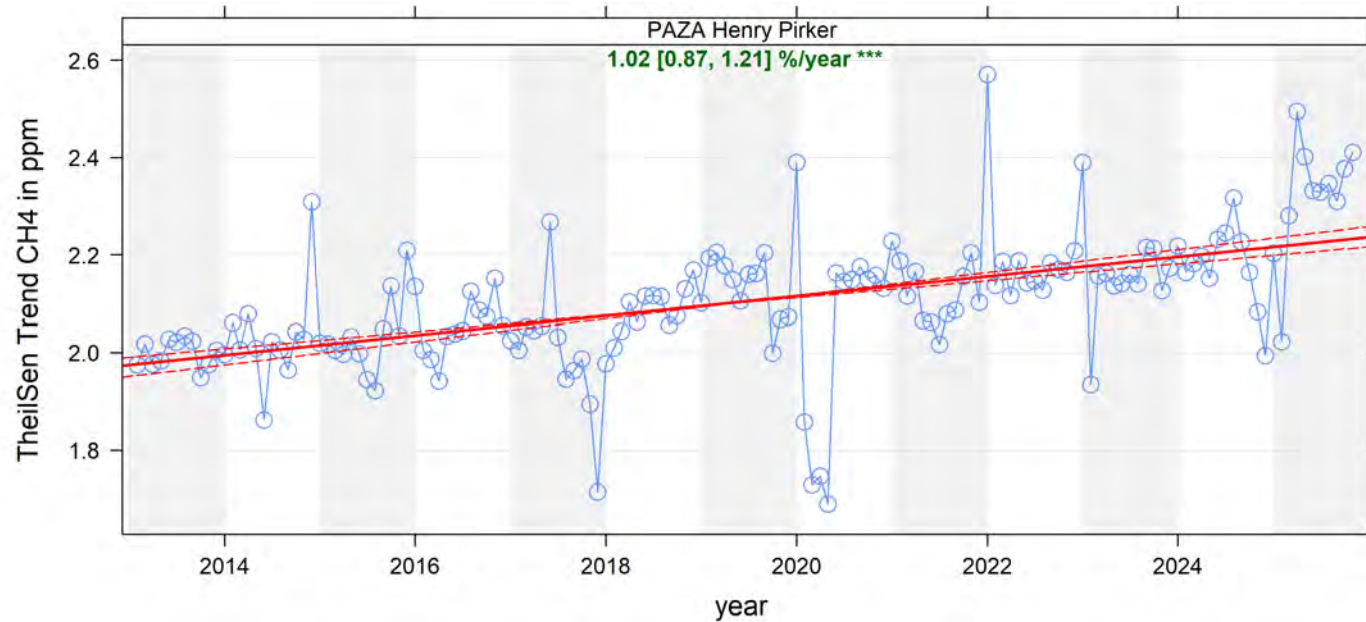












## 2.7 Carbon Monoxide (CO) 2025 Summary

Station	Parameter	Annual Average	Maximum Values				Operational Time (%)	Valid Time (%)	Readings above AAAQO & AAAQG					
			24-hr	Date	1-hr	Date			30-min	1-hr	8-hr	24-hr	30-d	Annual
Henry Pirker	Carbon Monoxide CO measured in ppm	0.2	0.7	Jun 10	1.4	Jun 09 02:00	97.6%	93.0%		0	0			

Carbon monoxide (CO) was monitored only at the Henry Pirker station during 2025. Carbon monoxide is a product of incomplete combustion and is commonly associated with combustion sources such as vehicle traffic, industrial activities, and equipment operation. In 2025, the annual average CO concentration at Henry Pirker was 0.2 ppm. The maximum 24-hour concentration was 0.7 ppm, which occurred on June 10, while the maximum 1-hour concentration reached 1.4 ppm on June 9 at 02:00. These values are low and consistent with concentrations typically observed at rural monitoring locations with limited nearby combustion sources. No exceedances of the AAAQO were recorded during the year.

The 2025 daily 95th percentile profile indicates generally stable carbon monoxide concentrations throughout the year, with most values ranging between approximately 0.1 and 0.4 ppm. Occasional short-term spikes were observed, including a notable peak in early June corresponding to the annual maximum hourly concentration and wildfire influence in the region. Additional minor increases occurred periodically during late summer and autumn, also correlating with wildfire influence.

Long-term trend analysis indicates that carbon monoxide concentrations at Henry Pirker have remained generally stable over the monitoring period. The Theil–Sen trend estimate of +0.27% per year is not statistically significant, indicating that while some year-to-year variability is present, there is no clear long-term increasing or decreasing trend in CO concentrations. Directional trend plots show similar behaviour across most wind sectors, suggesting that regional background conditions and dispersed combustion sources likely influence observed concentrations rather than a single dominant source direction.

Overall, carbon monoxide concentrations remained low, stable, and well below provincial objectives in 2025, reflecting the limited influence of major combustion sources near the monitoring location.

## 2.8 Particulate Matter (PM<sub>2.5</sub>) 2025 Summary

Station	Parameter	Annual Average	Maximum Values				Operational Time (%)	Valid Time (%)	Readings above AAAQO & AAAQG					
			24-hr	Date	1-hr	Date			30-min	1-hr	8-hr	24-hr	30-d	Annual
Beverlodge	Particulate Matter PM <sub>2.5</sub> measured in µg/m <sup>3</sup>	8.7	196.9	Jun 10	553.1	Jun 07 03:00	99.5%	99.3%		142		22		
Dunes		6.3	122.2	Jun 10	311.7	Aug 31 10:00	98.9%	98.5%		59		13		
Fox Creek		9.6	155.3	Sep 01	530.5	Jan 25 21:00	99.3%	99.1%		122		19		
Happy Valley		9.8	266.8	Jun 10	596.9	Jun 10 09:00	99.9%	99.7%		130		19		
Henry Pirker		9.5	192.7	Jun 10	406.6	Aug 31 12:00	98.6%	98.4%		115		19		
Milner		6.4	107.2	Jun 11	163.2	Jun 10 22:00	99.2%	98.9%		65		14		
Smoky Heights		8.1	158.4	Jun 10	322.6	Nov 20 00:00	97.8%	97.5%		85		19		

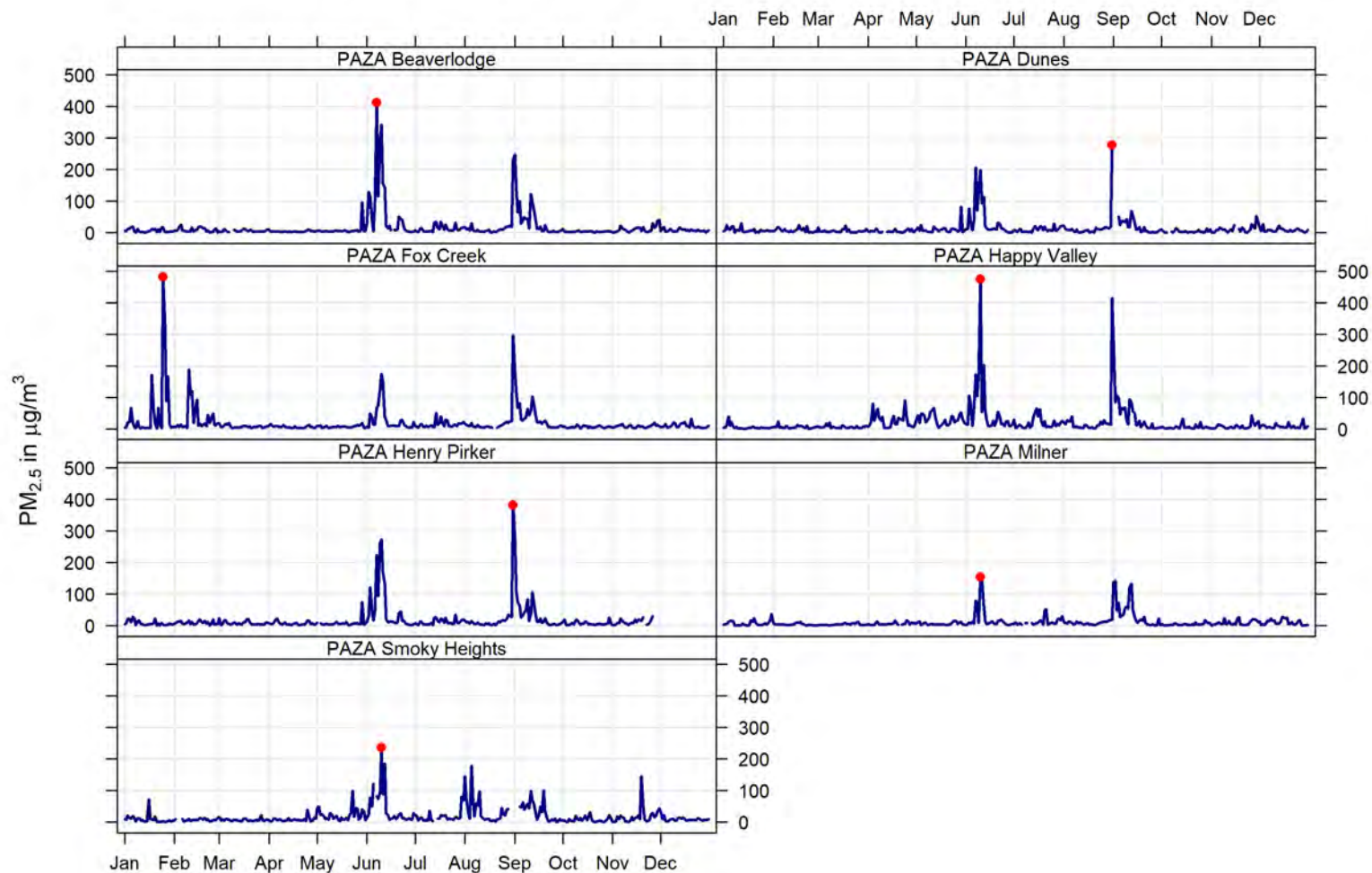
Fine particulate matter (PM<sub>2.5</sub>) was monitored at seven stations across the region in 2025. Fine particulate matter can originate from combustion processes, industrial activities, residential heating, and natural sources such as wildfires and windblown dust. Annual average PM<sub>2.5</sub> concentrations across the network ranged from 6.3 µg/m<sup>3</sup> at Dunes to 9.8 µg/m<sup>3</sup> at Happy Valley, with most stations reporting annual averages between 8 and 10 µg/m<sup>3</sup>, indicating relatively consistent regional background concentrations. The highest 24-hour concentrations were recorded during early summer wildfire episodes, with values ranging from 107.2 µg/m<sup>3</sup> at Milner to 266.8 µg/m<sup>3</sup> at Happy Valley, most commonly occurring around June 10–11 across the monitoring network. Maximum 1-hour concentrations were substantially higher during these short-duration events, reaching 553.1 µg/m<sup>3</sup> at Beaverlodge, 596.9 µg/m<sup>3</sup> at Happy Valley, and 530.5 µg/m<sup>3</sup> at Fox Creek. These peaks represent brief episodic particulate events (smoke from fires) rather than sustained elevated concentrations.

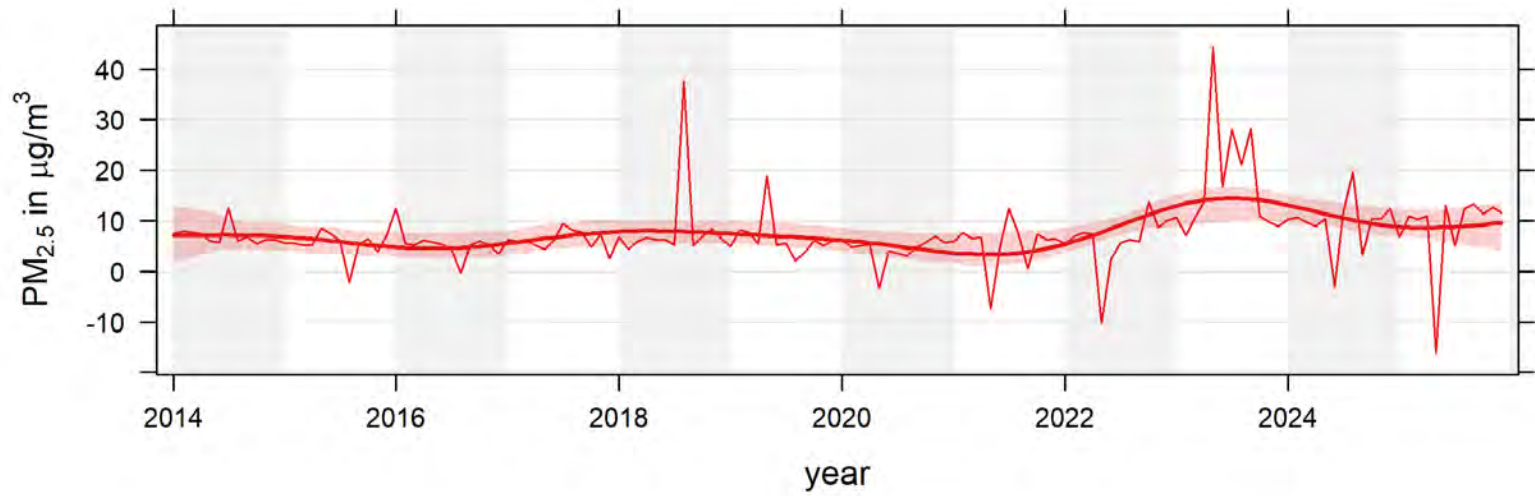
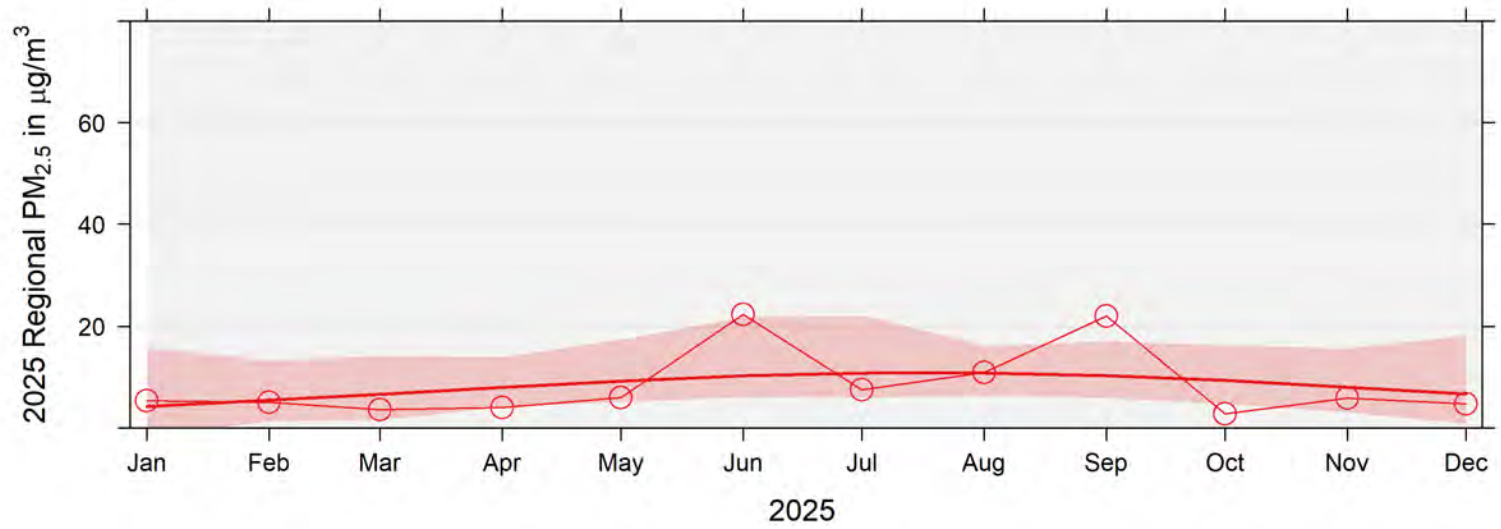
The 2025 daily 95th percentile profiles show that PM<sub>2.5</sub> concentrations remained relatively low through winter and early spring before increasing sharply in June, when the highest concentrations were observed across most stations. Additional elevated concentrations were recorded in late summer and early autumn, which is consistent with seasonal influences of wildfire smoke transport, agricultural activity, or other regional particulate sources. Outside of these episodic periods, daily PM<sub>2.5</sub> concentrations remained generally below 15 µg/m<sup>3</sup> at most sites. Exceedances of the AAAQO and AAAQG were recorded at all stations during 2025. The number of 1-hour exceedances ranged from 59 at Dunes to 142 at Beaverlodge, while 24-hour exceedances ranged from 13 to 22 across the network. These exceedances were primarily associated with the short-duration wildfire events observed during early summer and late summer periods.

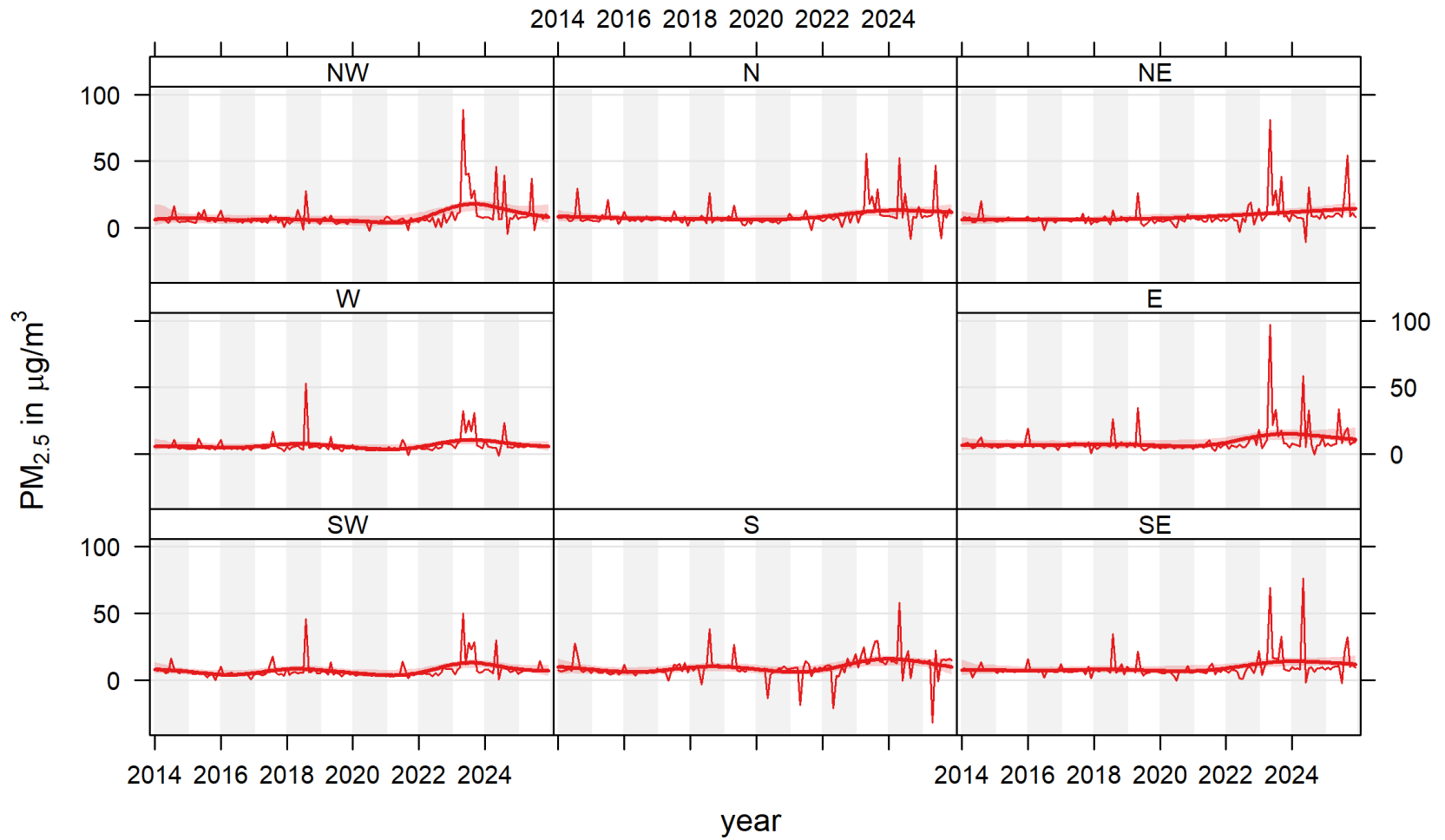
Long-term trend analysis indicates that PM<sub>2.5</sub> concentrations have shown increasing trends at several monitoring stations. Statistically significant increases were observed at Henry Pirker (+6.17% per year) and Smoky Heights (+10.61% per year), while Beaverlodge showed a smaller but statistically significant increase of +1.88% per year. These trends likely reflect a combination of regional factors, including episodic wildfire smoke influence, changing land use, and variations in regional emission sources. Directional trend analysis suggests that elevated particulate concentrations are observed across multiple wind sectors, indicating that regional transport and widespread emission sources contribute to observed PM<sub>2.5</sub> levels.

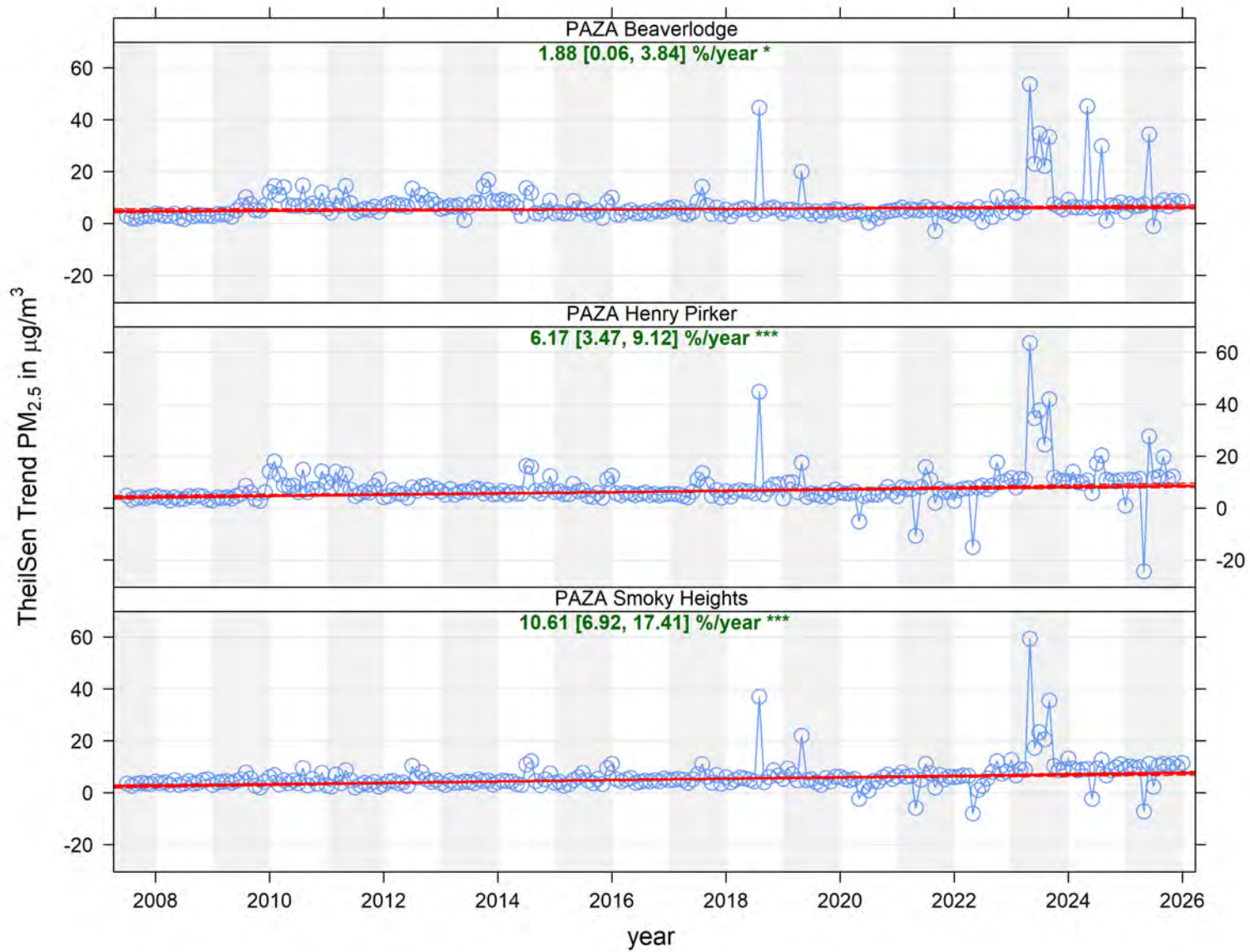
Overall, PM<sub>2.5</sub> concentrations in 2025 were generally low during background conditions but influenced by several episodic particulate events, particularly during early summer and late summer periods. While annual averages remain relatively modest, the increasing long-term trends observed at several stations highlight the continued importance of monitoring particulate matter across the region.

2025 Daily 95th percentile Concentration Readings at Peace Airshed Zone Association



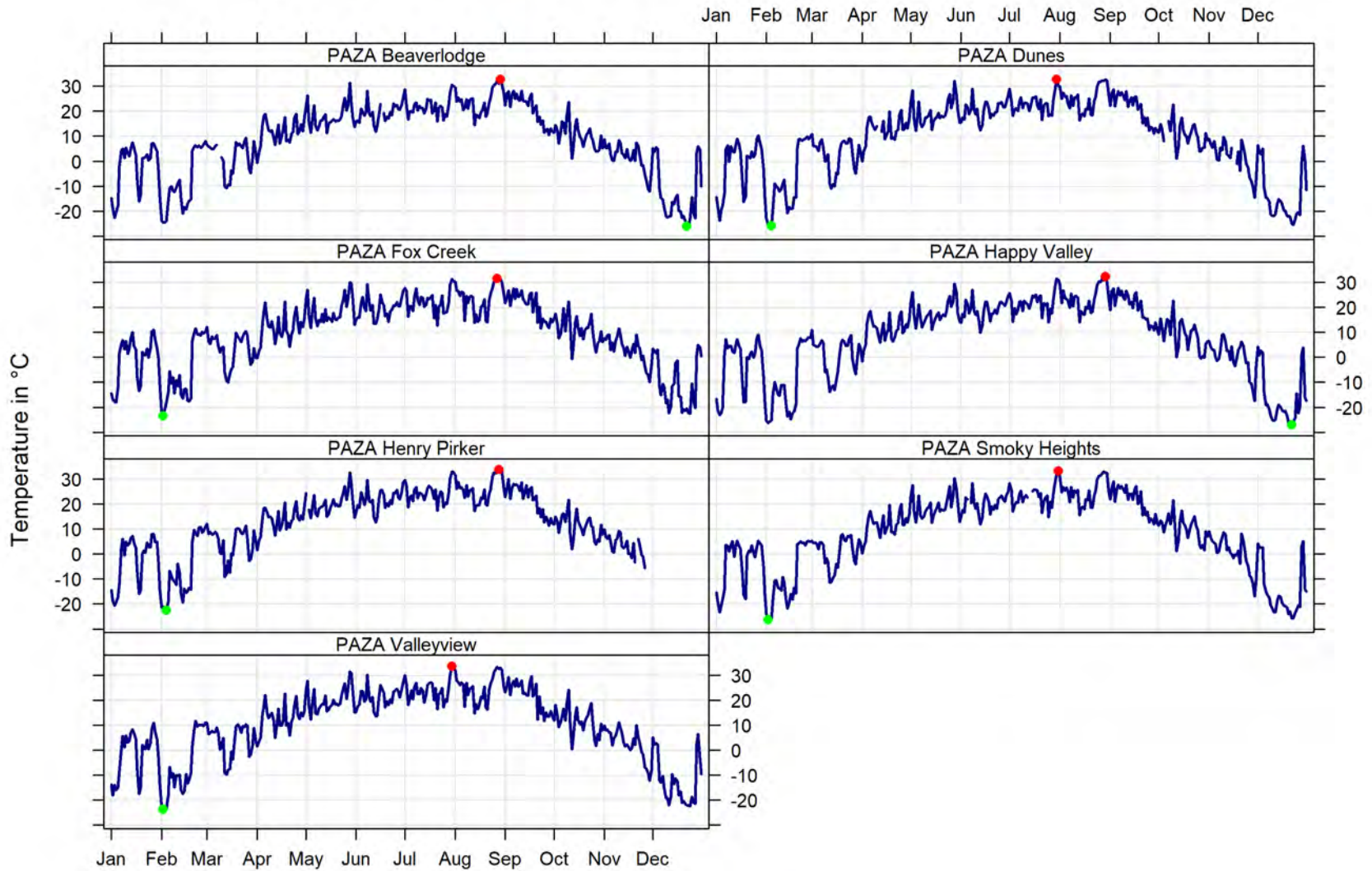


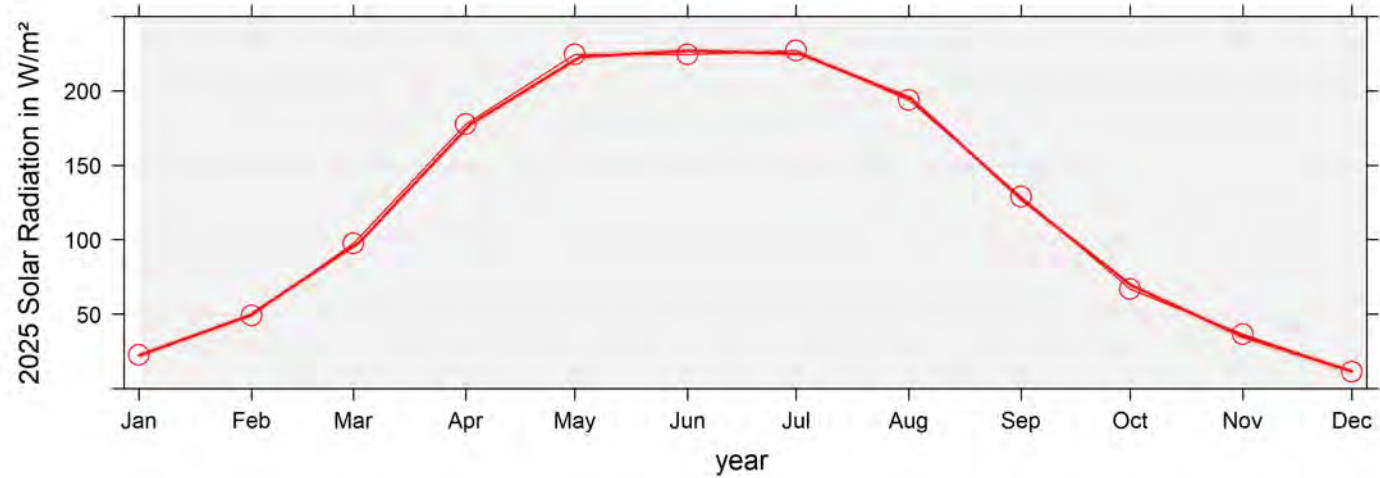
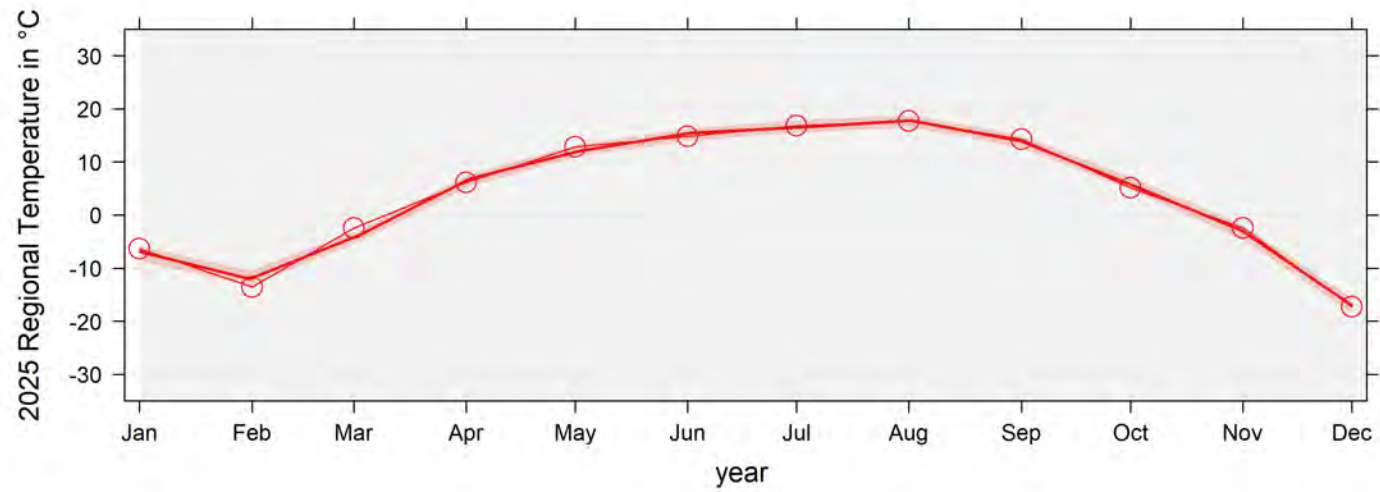




## 2.9 Meteorology 2025 Summary

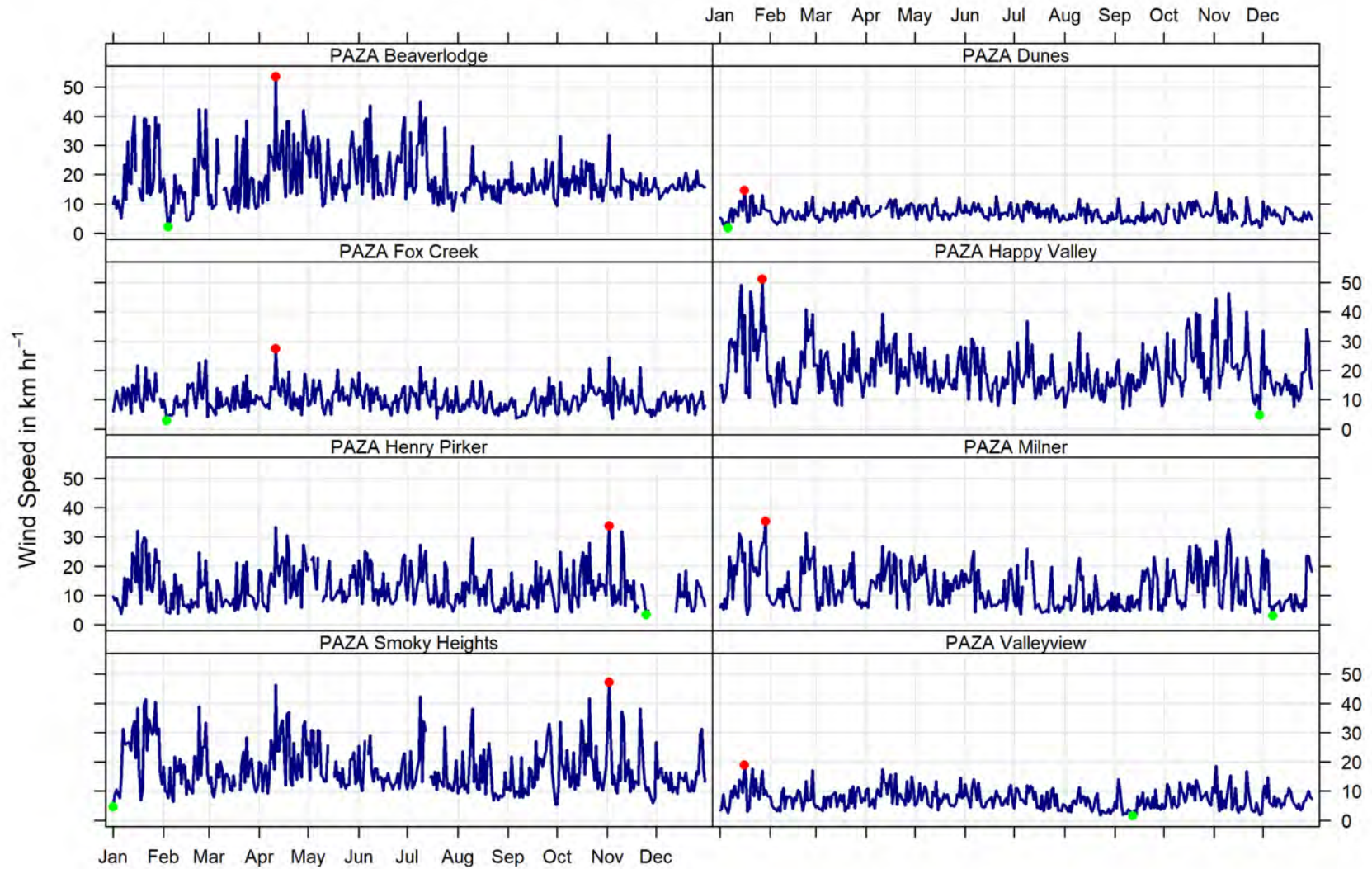
### 2025 Daily 95th percentile Temperature Readings at Peace Airshed Zone Association

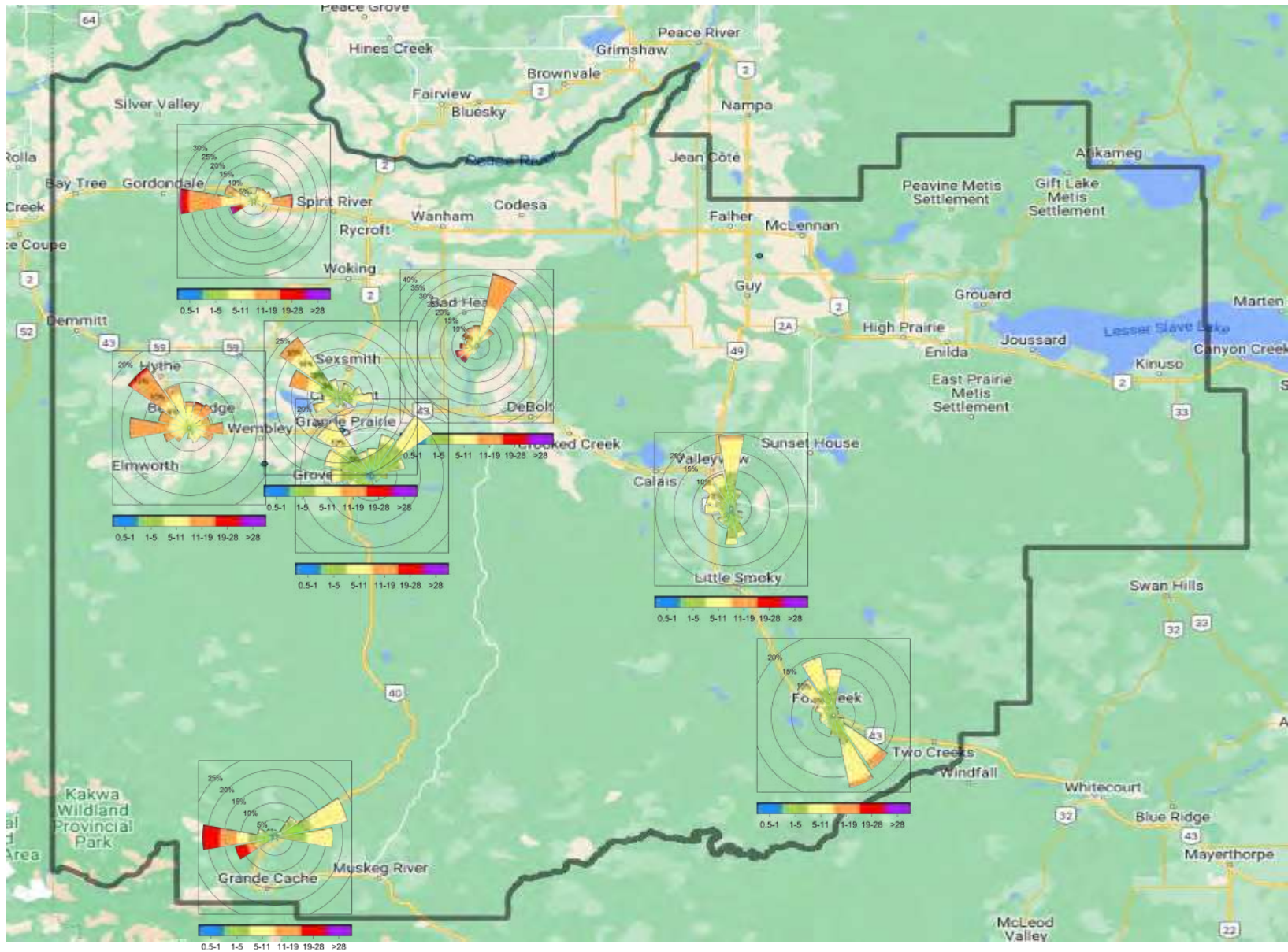




## 2.10 Wind Profile 2025 Summary

### 2025 Daily 95th percentile Wind Speed Readings at Peace Airshed Zone Association



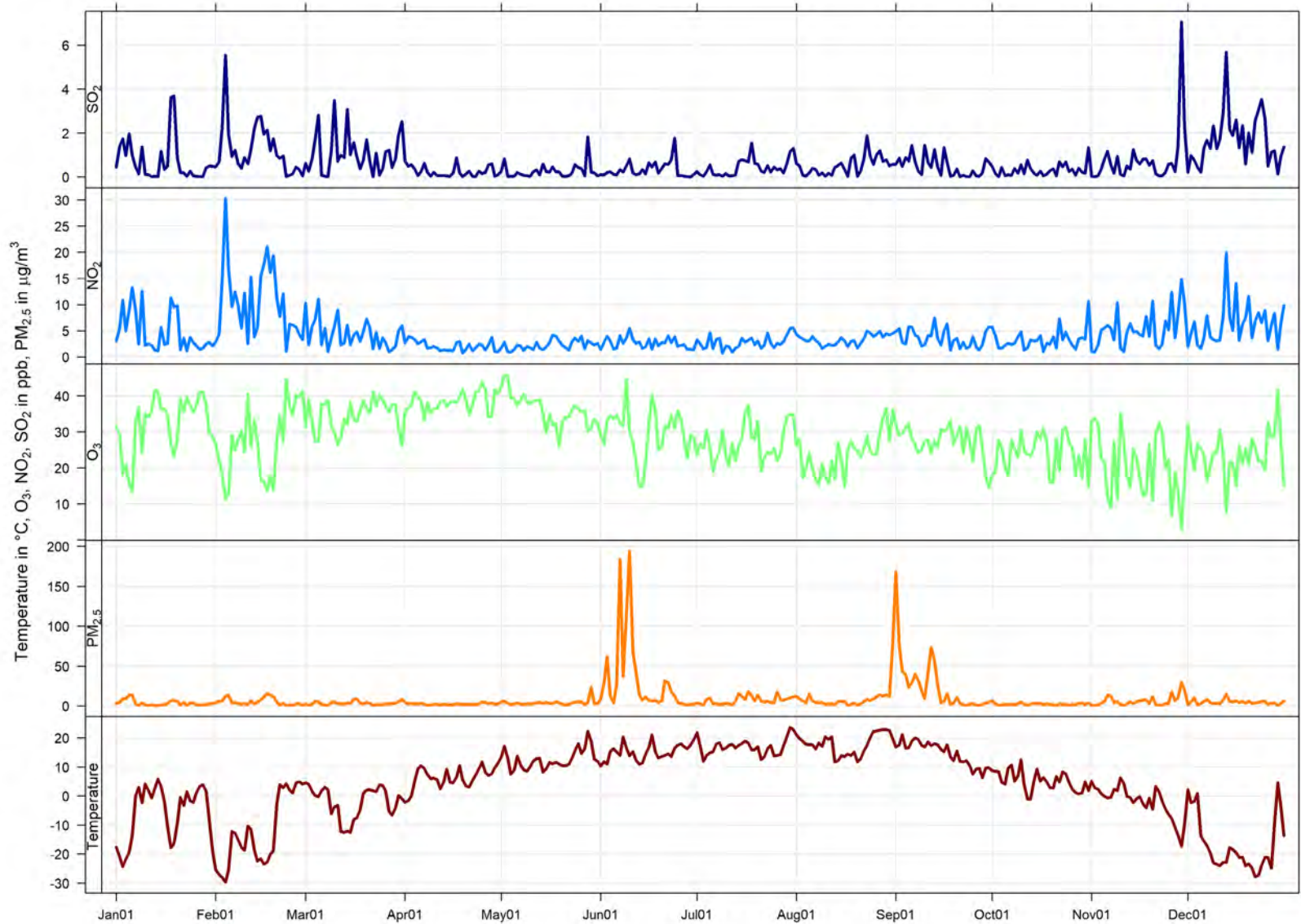


### 3 Beaverlodge Key Parameters - Continuous Monitoring Data - 2025 Summary

Beaverlodge Key Parameters - Continuous Monitoring Data - 2025 Summary

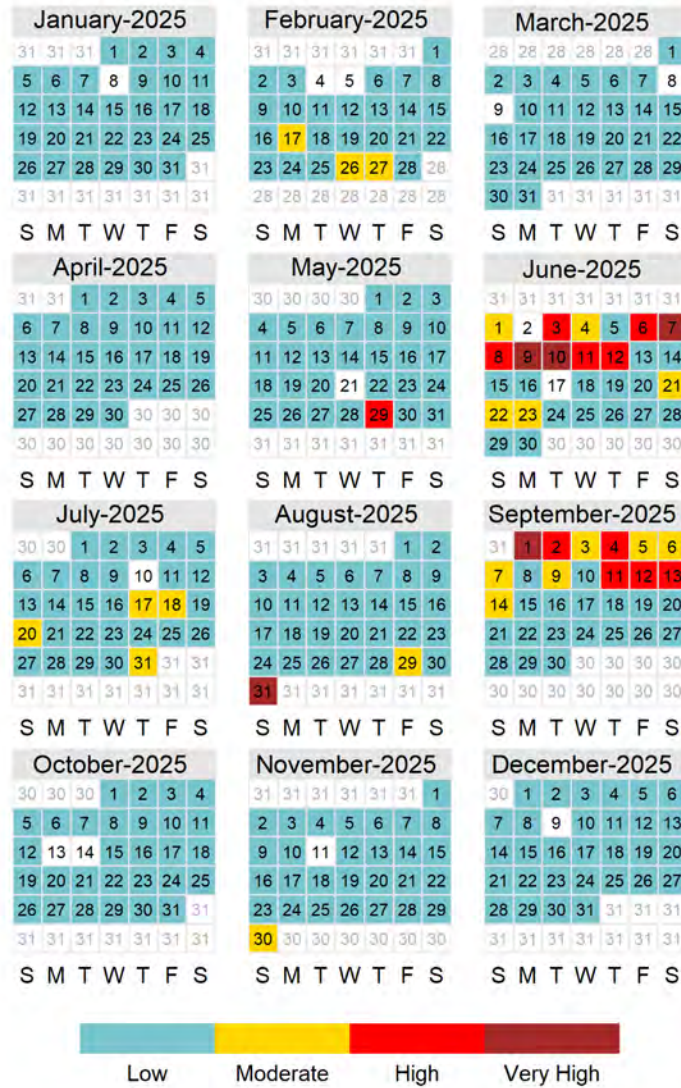
	Parameter	Average	Maximum Values			Operational Time (%)	Valid Time (%)	Readings above AAAQO & AAAQG				
			24-hr	Date	1-hr			Date	1-hr	24-hr	30-d	Annual
<b>Beaverlodge Station</b>	Sulphur Dioxide SO <sub>2</sub> measured in ppb	0.7	7.1	Nov 29	19.0	Dec 13 21:00	99.5%	94.8%	0	0	0	0
	Nitrogen Dioxide NO <sub>2</sub> measured in ppb	4.2	20.7	Feb 17	44.6	Feb 04 07:00	99.0%	94.1%	0	-	-	0
	Nitrogen Oxides NO <sub>x</sub> measured in ppb	4.9	29.8	Feb 17	101.9	Feb 04 07:00	99.0%	94.1%	-	-	-	-
	Nitric Oxide NO measured in ppb	0.7	9.0	Feb 17	63.8	Feb 04 11:00	99.0%	94.1%	-	-	-	-
	Ozone O <sub>3</sub> measured in ppb	28.8	45.7	May 02	62.3	May 02 18:00	99.4%	94.8%	0	-	-	-
	Particulate Matter PM <sub>2.5</sub> measured in µg/m <sup>3</sup>	8.7	196.9	Jun 10	553.1	Jun 07 03:00	99.5%	99.3%	142	22	-	-

2025 Daily Concentration Readings at Beaverlodge



### 3.1 Beaverlodge AQHI Calendar Plot for 2025

#### Hourly Maximum AQHI for 2025 at Beaverlodge



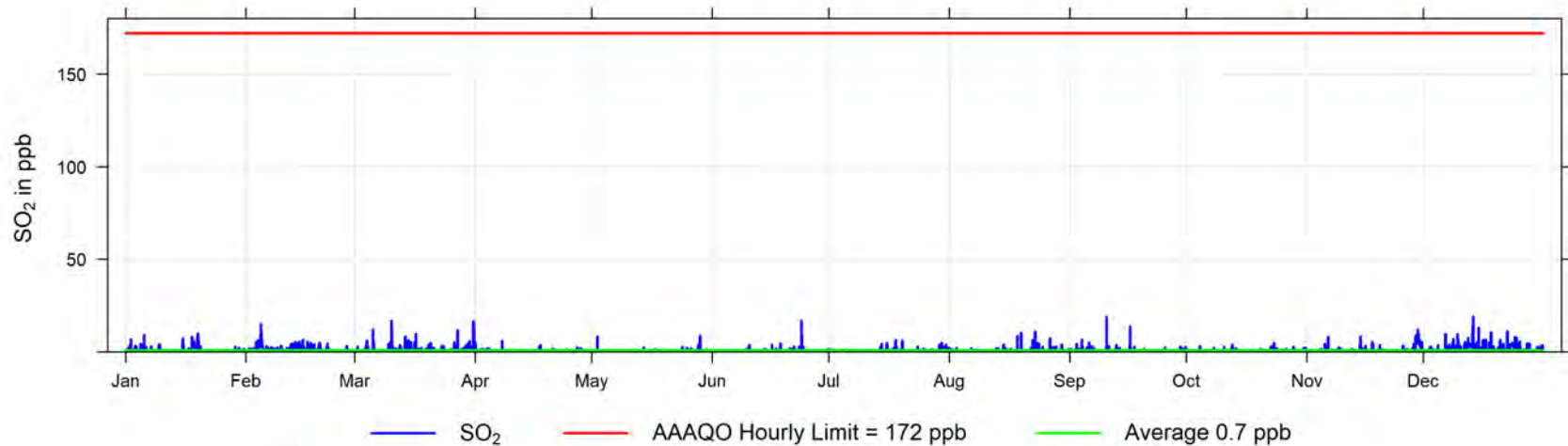
### 3.2 Sulphur Dioxide (SO<sub>2</sub>) - Beaverlodge 2025 Summary

**Sulphur Dioxide (SO<sub>2</sub>) Frequency Distribution at Beaverlodge**

Month	Valid Hours	% of Readings in Concentration Range						Monthly Average (ppb)	MAXIMUM VALUES				Operational time (%)	Valid time (%)	Reportable Incidents		
		0 to 1 (ppb)	1 to 5 (ppb)	5 to 10 (ppb)	10 to 57 (ppb)	57 to 172 (ppb)	> 172 (ppb)		24-hr (ppb)	Date	1-hr (ppb)	Date			30-d 11 ppb	24-hr 48 ppb	1-hr 172 ppb
January 2025	709	80.0%	17.8%	2.3%	0.0%	0.0%	0.0%	0.7	3.7	Jan 19	10.0	Jan 19 15:00	100.0%	95.3%	0	0	0
February 2025	640	60.6%	37.0%	1.9%	0.5%	0.0%	0.0%	1.2	5.7	Feb 04	15.0	Feb 04 22:00	100.0%	95.2%	0	0	0
March 2025	682	69.6%	26.7%	2.5%	1.2%	0.0%	0.0%	1.1	3.5	Mar 10	16.8	Mar 10 12:00	96.4%	91.7%	0	0	0
April 2025	687	94.2%	5.7%	0.1%	0.0%	0.0%	0.0%	0.2	0.9	Apr 17	5.7	Apr 07 23:00	100.0%	95.4%	0	0	0
May 2025	707	94.9%	4.7%	0.4%	0.0%	0.0%	0.0%	0.3	1.9	May 28	8.4	May 28 21:00	99.9%	95.0%	0	0	0
June 2025	671	94.0%	5.5%	0.3%	0.1%	0.0%	0.0%	0.3	1.5	Jun 23	16.8	Jun 24 00:00	97.8%	93.2%	0	0	0
July 2025	708	89.4%	10.2%	0.4%	0.0%	0.0%	0.0%	0.4	1.5	Jul 18	6.3	Jul 18 06:00	99.7%	95.2%	0	0	0
August 2025	708	88.1%	10.7%	0.8%	0.3%	0.0%	0.0%	0.5	1.9	Aug 23	11.0	Aug 23 03:00	99.9%	95.2%	0	0	0
September 2025	686	86.6%	12.7%	0.4%	0.3%	0.0%	0.0%	0.5	1.6	Sep 10	18.7	Sep 10 12:00	100.0%	95.3%	0	0	0
October 2025	709	91.0%	9.0%	0.0%	0.0%	0.0%	0.0%	0.3	1.3	Oct 31	4.7	Oct 23 14:00	100.0%	95.3%	0	0	0
November 2025	686	81.6%	14.6%	3.4%	0.4%	0.0%	0.0%	0.8	7.1	Nov 29	12.3	Nov 29 14:00	100.0%	95.3%	0	0	0
December 2025	709	50.9%	44.1%	3.8%	1.1%	0.0%	0.0%	1.7	5.6	Dec 13	19.0	Dec 13 21:00	100.0%	95.3%	0	0	0
<b>Annual</b>	<b>8302</b>	<b>81.8%</b>	<b>16.6%</b>	<b>1.4%</b>	<b>0.3%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.7</b>	<b>7.1</b>	<b>MAXIMUM VALUES</b>		<b>99.5%</b>	<b>94.8%</b>	<b>0</b>	<b>0</b>	<b>0</b>	

AAAQO Objectives: Annual: 8ppb, 30-Day: 11ppb, 24-Hr: 48ppb, 1-Hr: 172ppb

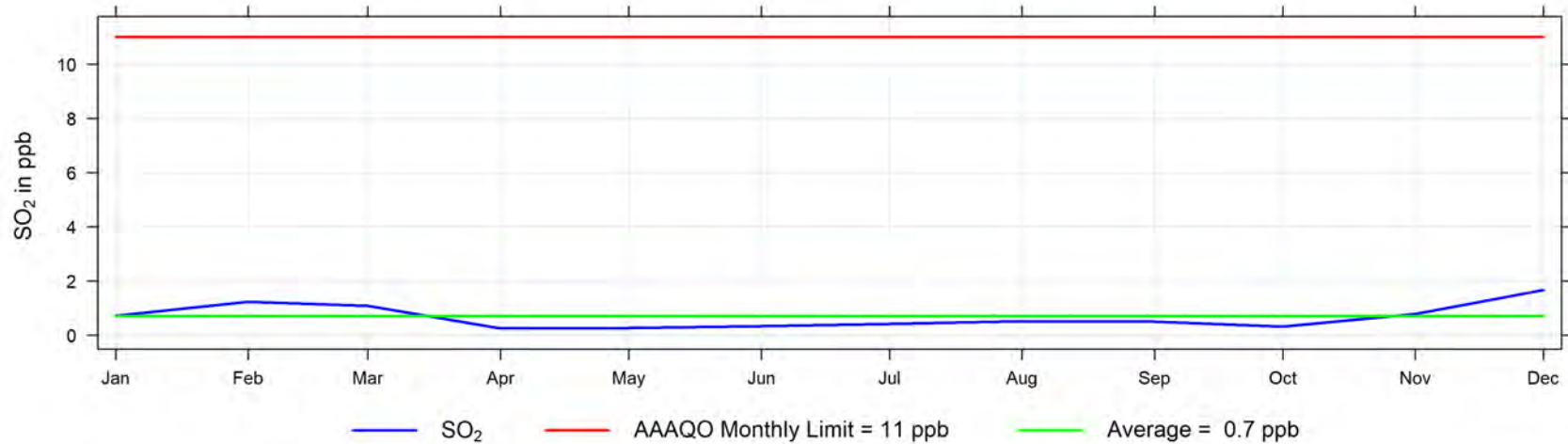
2025 Hourly Concentration Readings of SO<sub>2</sub> (in ppb) at Beaverlodge

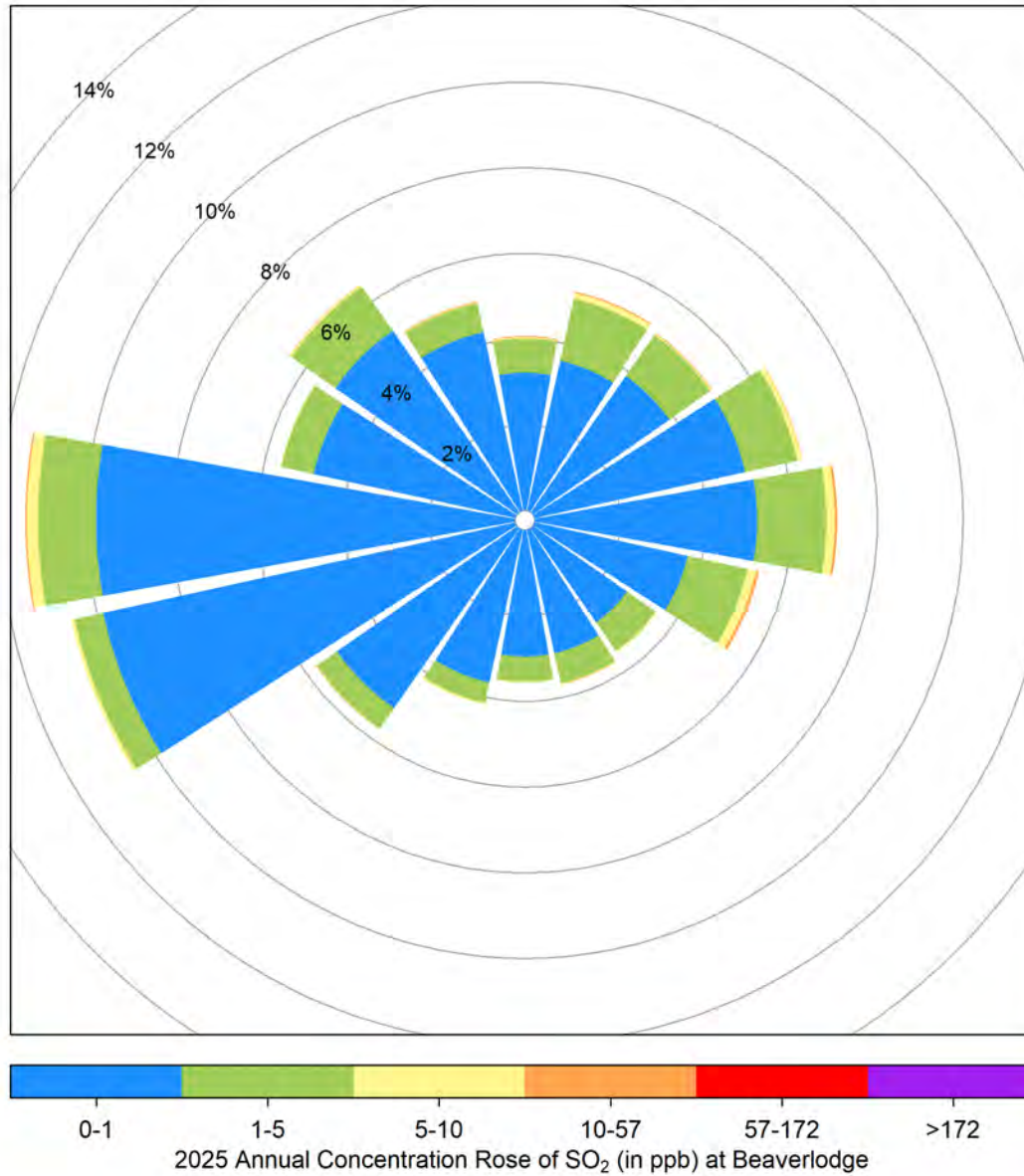


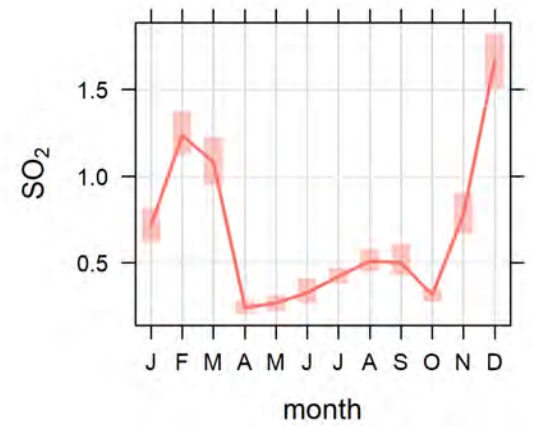
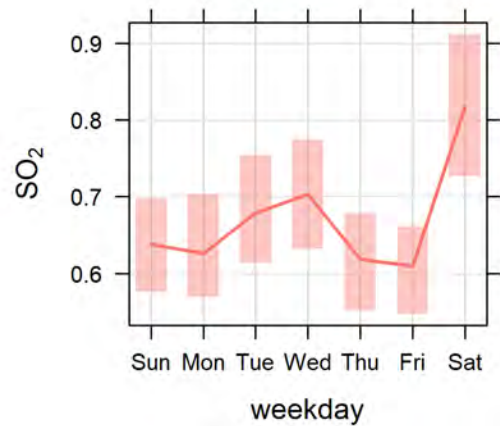
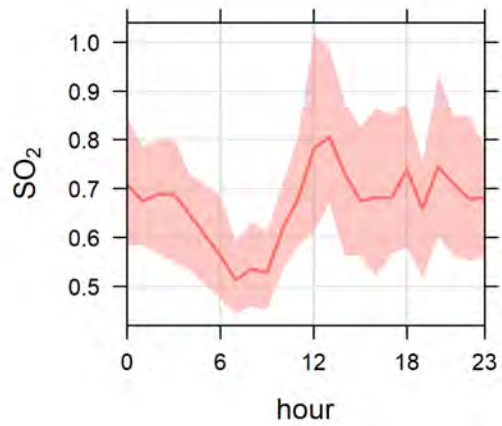
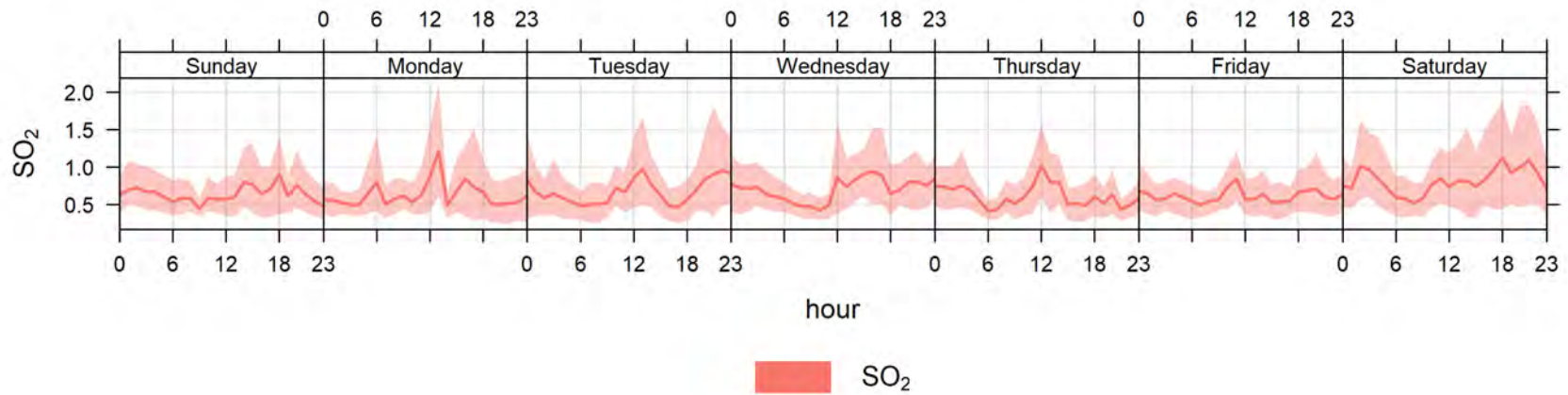
2025 Daily Concentration Readings of SO<sub>2</sub> (in ppb) at Beaverlodge



2025 Monthly Concentration Readings of SO<sub>2</sub> (in ppb) at Beaverlodge

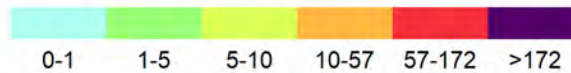
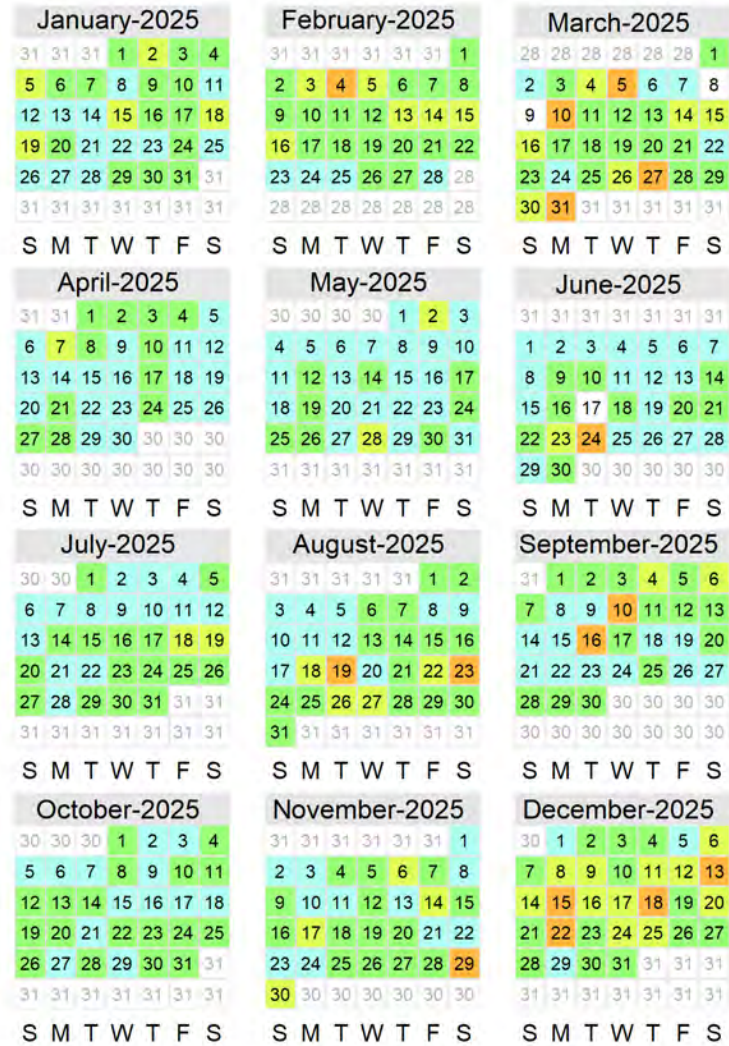






mean and 95% confidence interval in mean

## Hourly Maximum SO<sub>2</sub> (in ppb) for 2025 at Beaverlodge



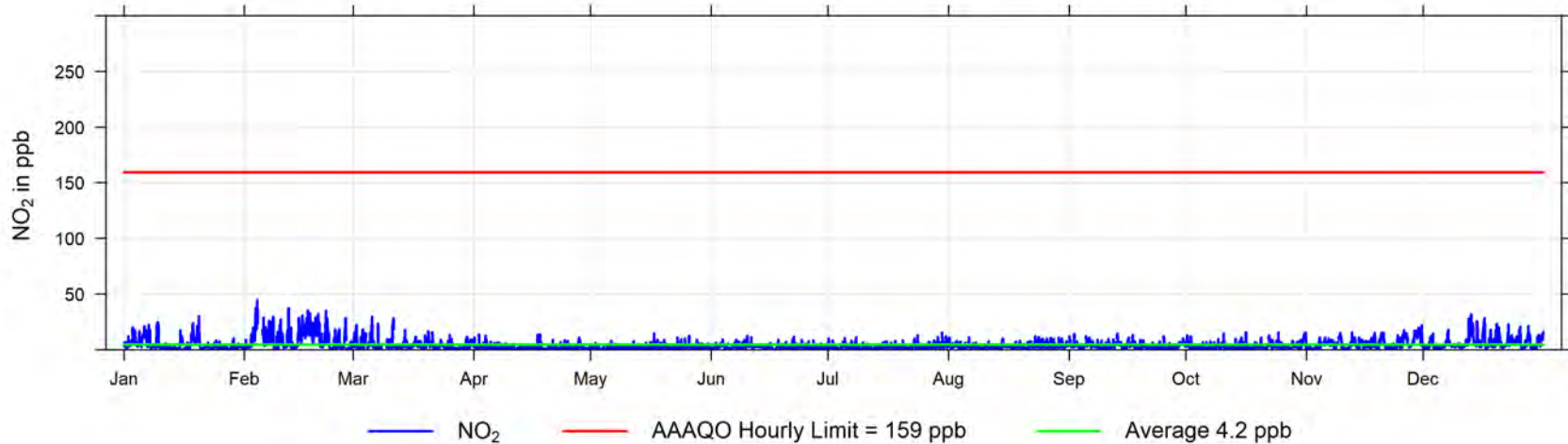
### 3.3 Nitrogen Dioxide (NO<sub>2</sub>) - Beaverlodge 2025 Summary

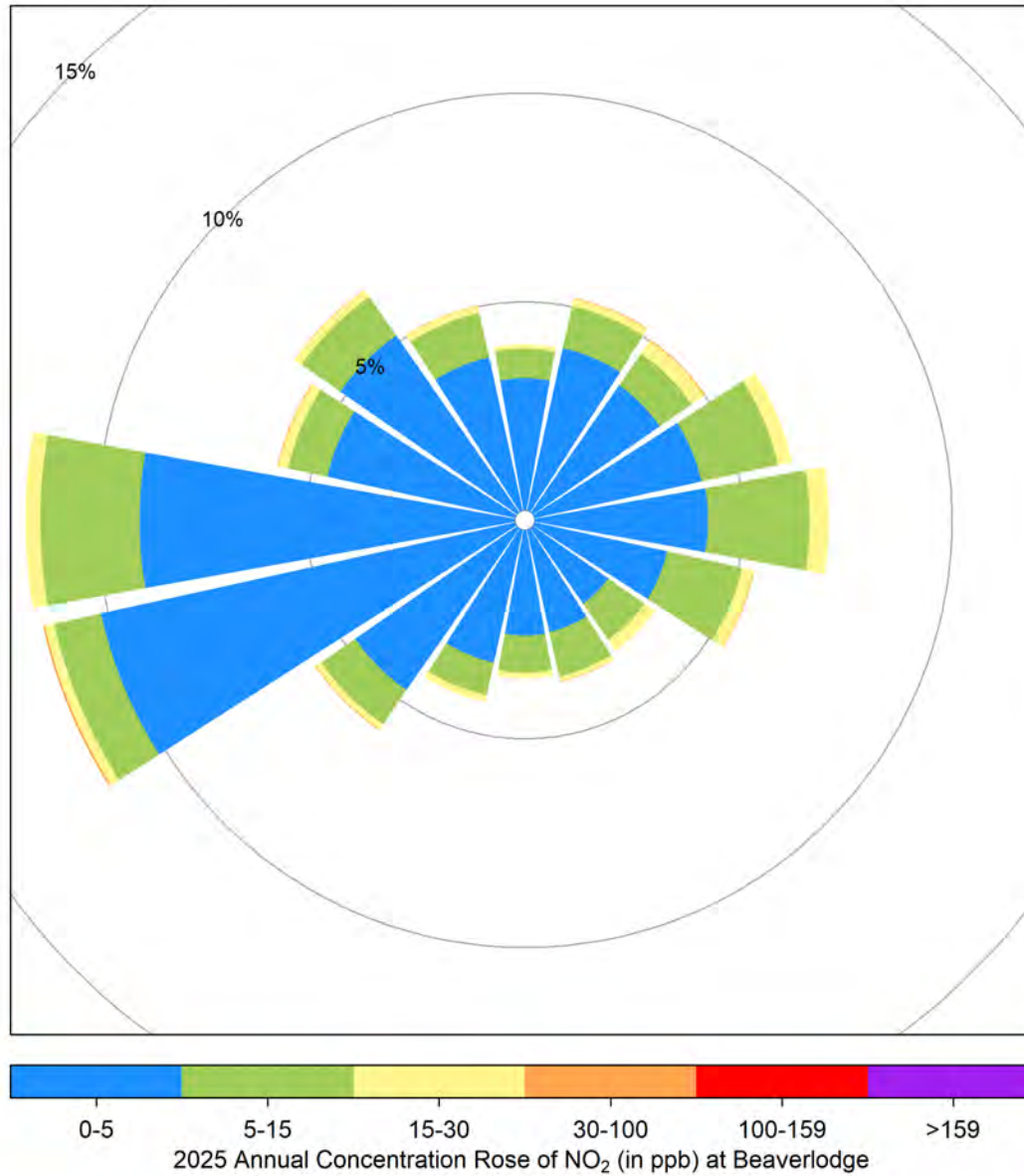
**Nitrogen Dioxide (NO<sub>2</sub>) Frequency Distribution at Beaverlodge**

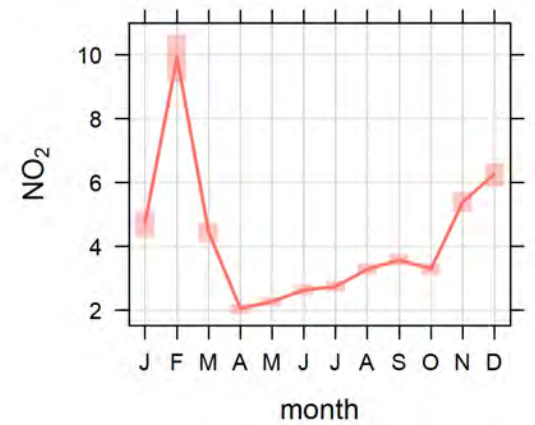
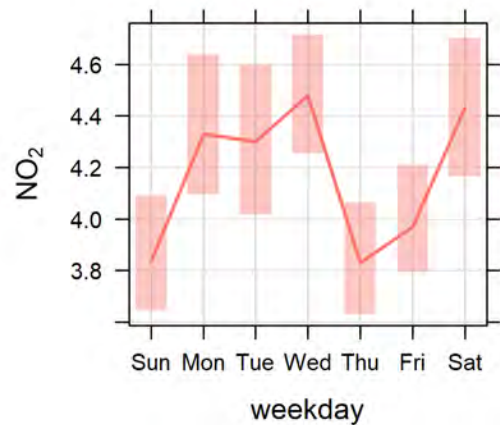
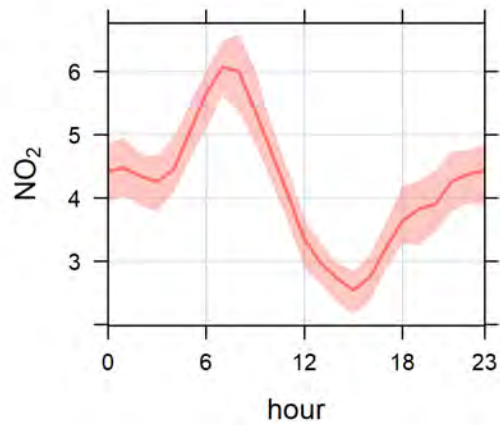
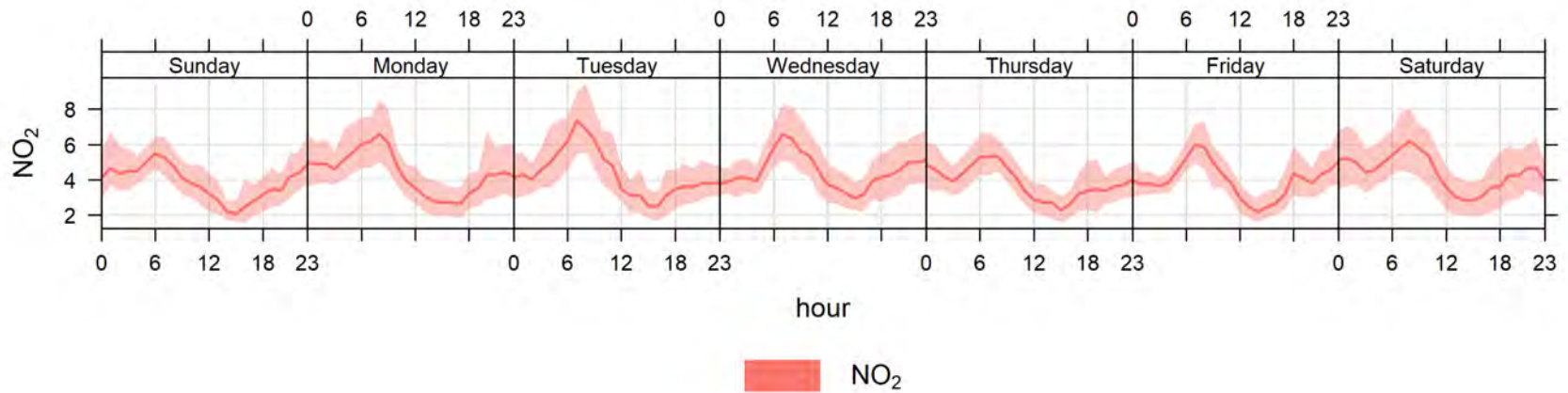
Month	Valid Hours	% of Readings in Concentration Range						Monthly Average (ppb)	MAXIMUM VALUES				Operational time (%)	Valid time (%)	Reportable Incidents 1-hr 159 ppb
		0 to 5 (ppb)	5 to 15 (ppb)	15 to 30 (ppb)	30 to 100 (ppb)	100 to 159 (ppb)	> 159 (ppb)		24-hr (ppb)	Date	1-hr (ppb)	Date			
January 2025	707	71.3%	20.7%	7.9%	0.1%	0.0%	0.0%	4.7	13.1	Jan 09	30.0	Jan 20 06:00	100.0%	95.0%	0
February 2025	616	42.2%	29.5%	25.6%	2.6%	0.0%	0.0%	9.9	20.7	Feb 17	44.6	Feb 04 07:00	96.3%	91.7%	0
March 2025	674	68.8%	27.2%	4.0%	0.0%	0.0%	0.0%	4.5	11.1	Mar 05	29.5	Mar 05 19:00	95.3%	90.6%	0
April 2025	685	90.4%	9.6%	0.0%	0.0%	0.0%	0.0%	2.0	4.1	Apr 03	13.8	Apr 18 00:00	100.0%	95.1%	0
May 2025	705	90.8%	9.2%	0.0%	0.0%	0.0%	0.0%	2.3	4.0	May 17	14.5	May 17 07:00	100.0%	94.8%	0
June 2025	669	87.9%	12.1%	0.0%	0.0%	0.0%	0.0%	2.6	5.5	Jun 10	12.6	Jun 10 08:00	97.8%	92.9%	0
July 2025	702	85.2%	14.5%	0.3%	0.0%	0.0%	0.0%	2.8	5.6	Jul 31	15.2	Jul 30 08:00	99.2%	94.4%	0
August 2025	703	80.8%	19.2%	0.0%	0.0%	0.0%	0.0%	3.3	5.0	Aug 27	12.1	Aug 23 06:00	99.6%	94.5%	0
September 2025	685	74.6%	25.4%	0.0%	0.0%	0.0%	0.0%	3.6	7.4	Sep 13	14.6	Sep 13 11:00	100.0%	95.1%	0
October 2025	706	80.2%	19.4%	0.4%	0.0%	0.0%	0.0%	3.3	10.3	Oct 31	15.7	Oct 24 20:00	99.5%	94.9%	0
November 2025	685	58.5%	37.8%	3.6%	0.0%	0.0%	0.0%	5.4	14.9	Nov 29	21.8	Nov 30 16:00	100.0%	95.1%	0
December 2025	706	56.4%	34.6%	8.9%	0.1%	0.0%	0.0%	6.3	19.4	Dec 13	31.5	Dec 13 09:00	100.0%	94.9%	0
<b>Annual</b>	<b>8243</b>	<b>73.9%</b>	<b>21.6%</b>	<b>4.2%</b>	<b>0.2%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>4.2</b>	<b>20.7</b>	<b>MAXIMUM VALUES</b>		<b>99.0%</b>	<b>94.1%</b>	<b>0</b>	

AAAQO Objectives: Annual: 24ppb, 1-Hr: 159ppb

**2025 Hourly Concentration Readings of NO<sub>2</sub> (in ppb) at Beaverlodge**

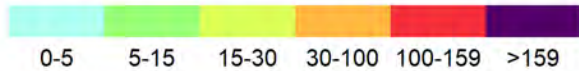
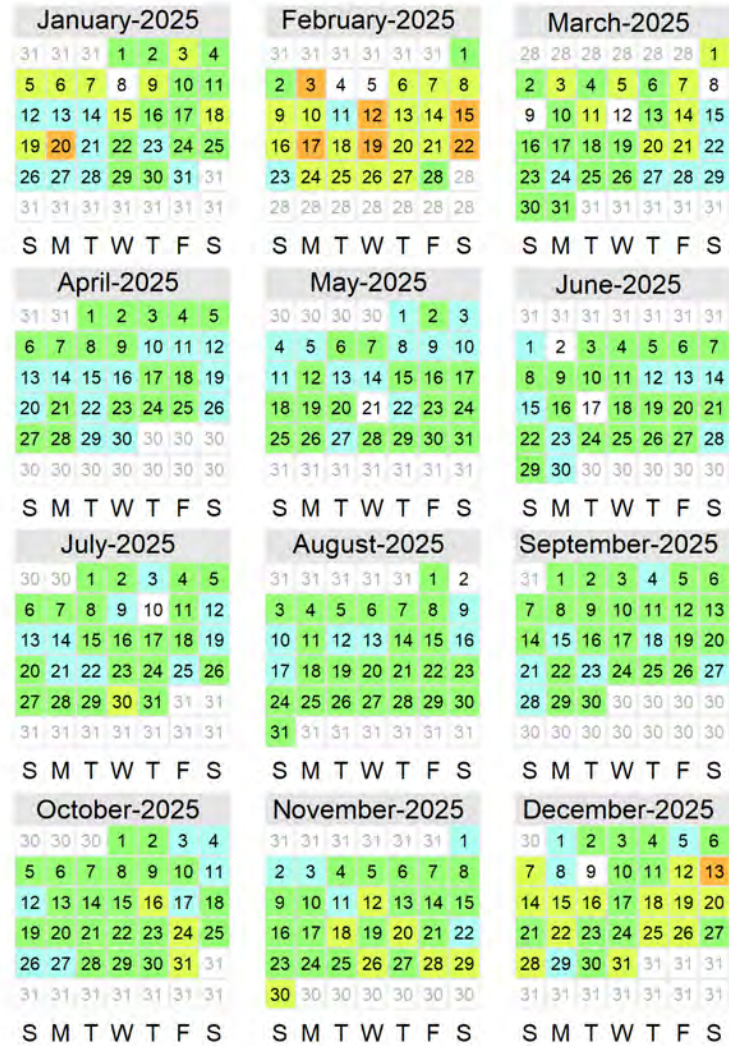






mean and 95% confidence interval in mean

## Hourly Maximum NO<sub>2</sub> (in ppb) for 2025 at Beaverlodge



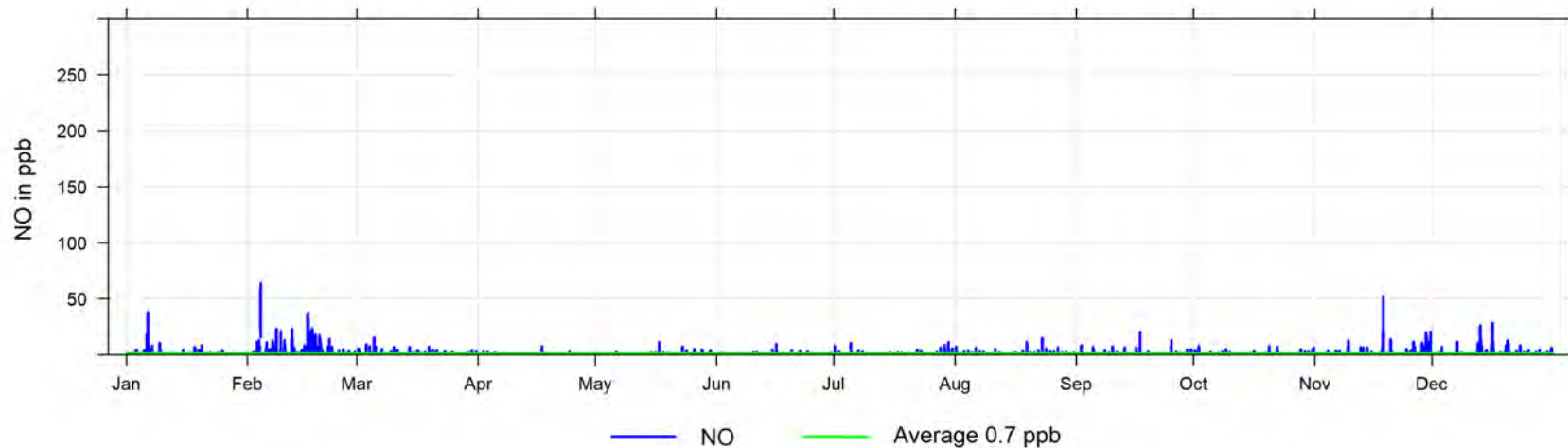
### 3.4 Nitric Oxide (NO) - Beaverlodge 2025 Summary

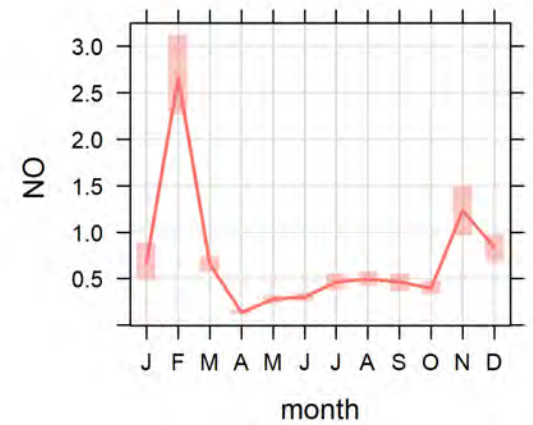
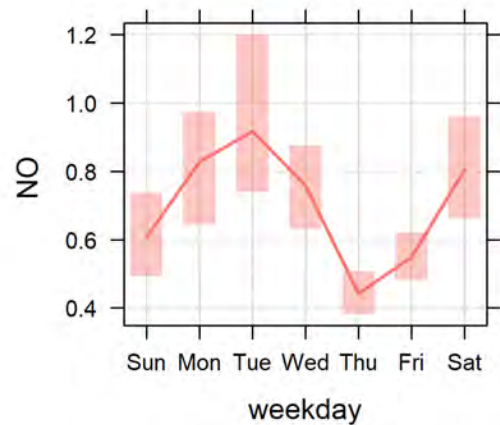
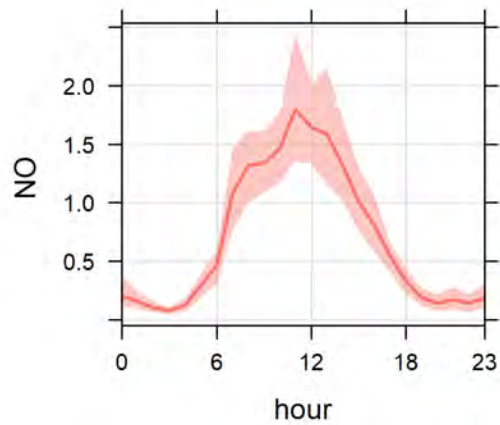
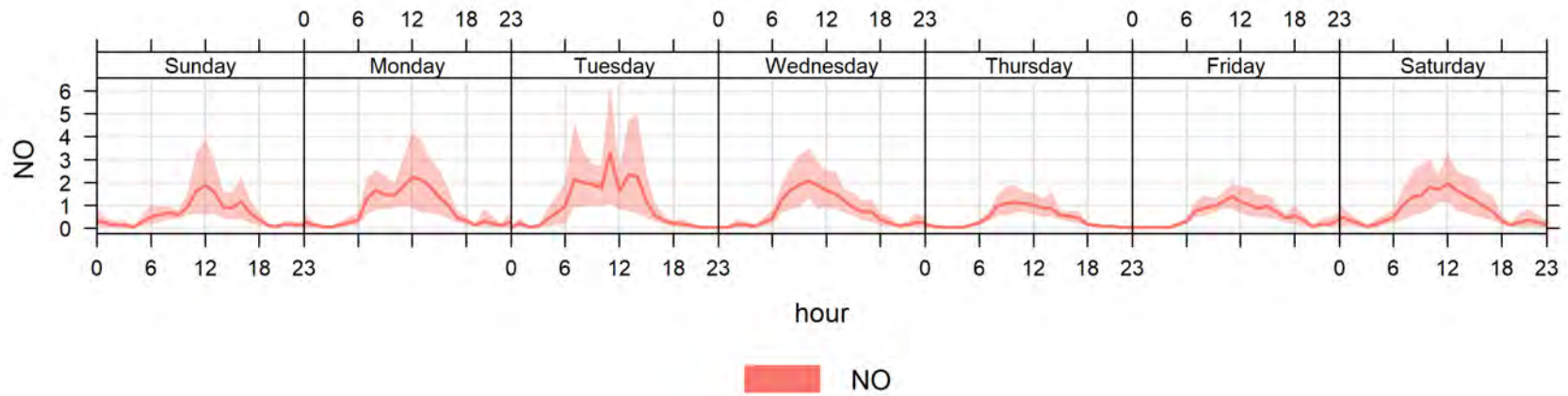
**Nitric Oxide (NO) Frequency Distribution at Beaverlodge**

Month	Valid Hours	% of Readings in Concentration Range						Monthly Average (ppb)	24-hr (ppb)	MAXIMUM VALUES		Operational time (%)	Valid time (%)	
		0 to 5 (ppb)	5 to 15 (ppb)	15 to 30 (ppb)	30 to 100 (ppb)	100 to 159 (ppb)	> 159 (ppb)			Date	1-hr (ppb)			Date
January 2025	707	97.3%	1.8%	0.6%	0.3%	0.0%	0.0%	0.7	8.0	Jan 06	38.2	Jan 06 13:00	100.0%	95.0%
February 2025	616	84.3%	12.2%	2.6%	1.0%	0.0%	0.0%	2.7	9.0	Feb 17	63.8	Feb 04 11:00	96.3%	91.7%
March 2025	674	98.4%	1.5%	0.1%	0.0%	0.0%	0.0%	0.7	2.6	Mar 05	15.4	Mar 05 10:00	95.3%	90.6%
April 2025	685	99.9%	0.1%	0.0%	0.0%	0.0%	0.0%	0.1	0.4	Apr 17	7.6	Apr 17 08:00	100.0%	95.1%
May 2025	705	99.4%	0.6%	0.0%	0.0%	0.0%	0.0%	0.3	1.0	May 17	11.4	May 17 07:00	100.0%	94.8%
June 2025	669	99.7%	0.3%	0.0%	0.0%	0.0%	0.0%	0.3	1.4	Jun 16	9.8	Jun 16 07:00	97.8%	92.9%
July 2025	702	98.6%	1.4%	0.0%	0.0%	0.0%	0.0%	0.5	1.6	Jul 05	11.4	Jul 30 08:00	99.2%	94.4%
August 2025	703	98.4%	1.6%	0.0%	0.0%	0.0%	0.0%	0.5	1.9	Aug 23	14.7	Aug 23 08:00	99.6%	94.5%
September 2025	685	98.1%	1.8%	0.1%	0.0%	0.0%	0.0%	0.5	2.0	Sep 17	20.8	Sep 17 09:00	100.0%	95.1%
October 2025	706	98.4%	1.6%	0.0%	0.0%	0.0%	0.0%	0.4	1.9	Oct 31	8.1	Oct 20 09:00	99.5%	94.9%
November 2025	685	92.8%	5.7%	1.2%	0.3%	0.0%	0.0%	1.2	7.9	Nov 29	52.2	Nov 18 13:00	100.0%	95.1%
December 2025	706	95.9%	3.5%	0.6%	0.0%	0.0%	0.0%	0.8	6.1	Dec 13	28.3	Dec 16 14:00	100.0%	94.9%
<b>Annual</b>	<b>8243</b>	<b>96.8%</b>	<b>2.7%</b>	<b>0.4%</b>	<b>0.1%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.7</b>	<b>9.0</b>	<b>MAXIMUM VALUES</b>		<b>99.0%</b>	<b>94.1%</b>	

AAAQO Objectives: none

2025 Hourly Concentration Readings of NO (in ppb) at Beaverlodge





mean and 95% confidence interval in mean

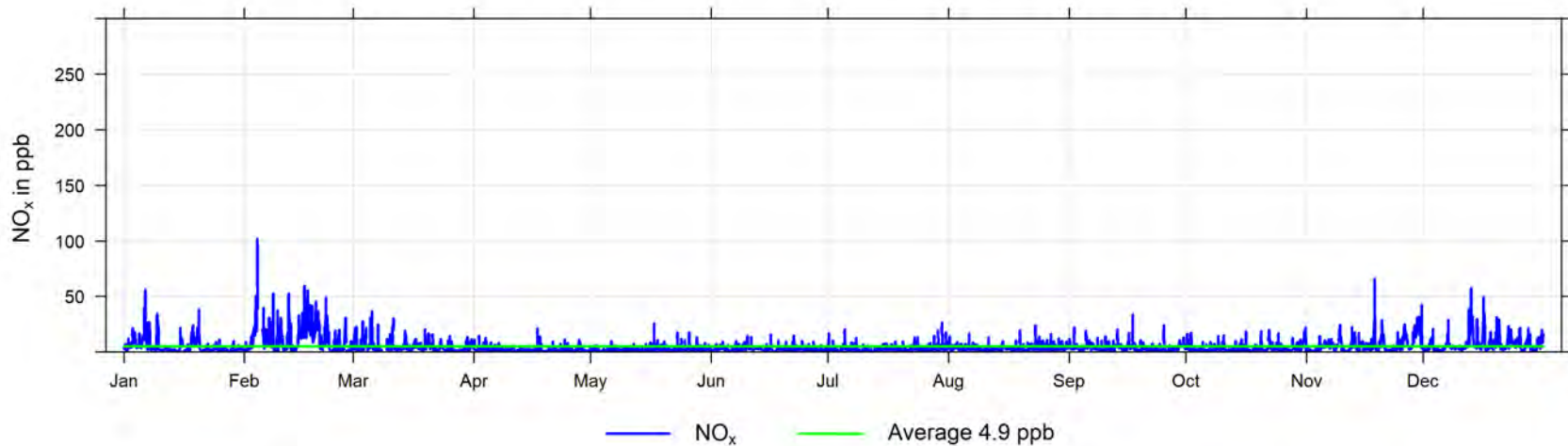
### 3.5 Oxides of Nitrogen (NO<sub>x</sub>) - Beaverlodge 2025 Summary

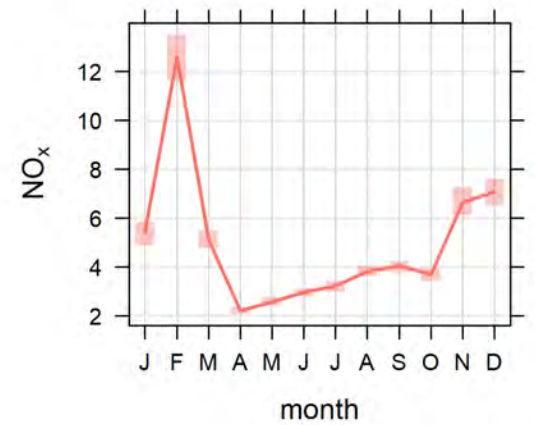
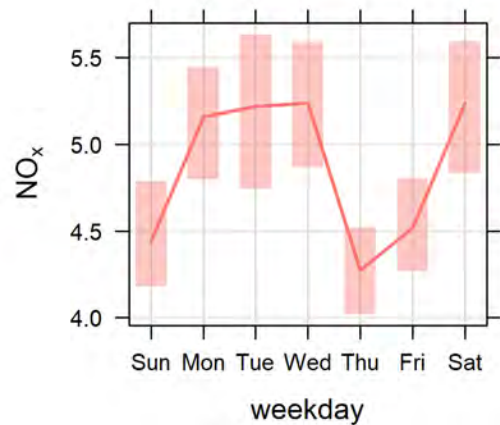
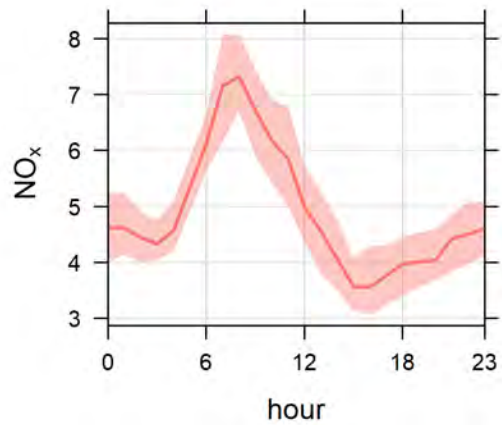
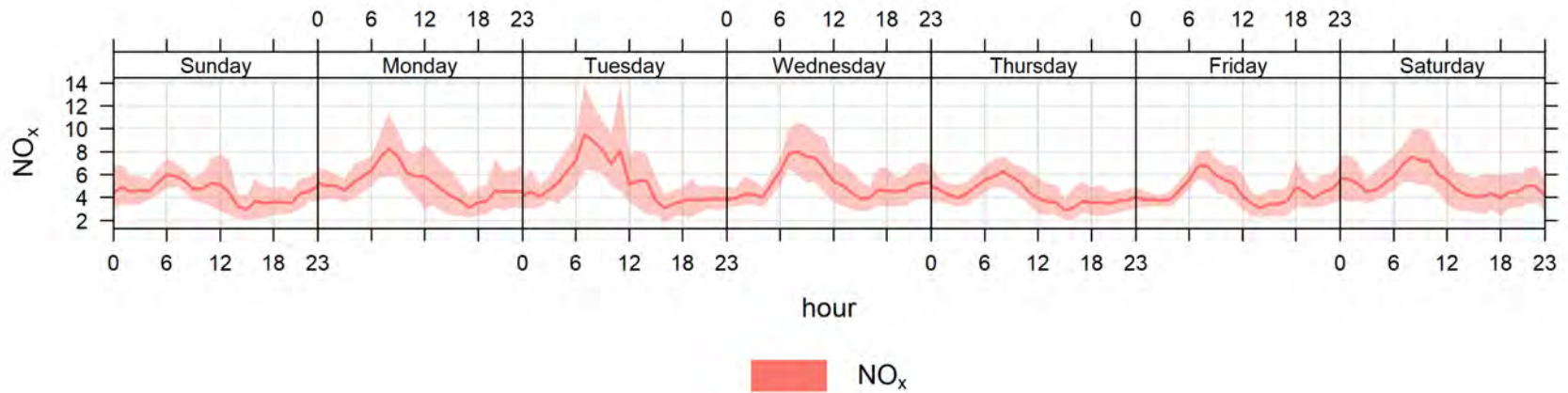
**Nitrogen Oxides (NO<sub>x</sub>) Frequency Distribution at Beaverlodge**

Month	Valid Hours	% of Readings in Concentration Range						Monthly Average (ppb)	MAXIMUM VALUES				Operational time (%)	Valid time (%)
		0 to 5 (ppb)	5 to 15 (ppb)	15 to 30 (ppb)	30 to 100 (ppb)	100 to 159 (ppb)	> 159 (ppb)		24-hr (ppb)	Date	1-hr (ppb)	Date		
January 2025	707	69.6%	20.8%	8.6%	1.0%	0.0%	0.0%	5.4	20.8	Jan 06	56.0	Jan 06 13:00	100.0%	95.0%
February 2025	616	39.6%	25.5%	26.3%	8.4%	0.2%	0.0%	12.6	29.8	Feb 17	101.9	Feb 04 07:00	96.3%	91.7%
March 2025	674	64.7%	29.7%	5.2%	0.4%	0.0%	0.0%	5.1	13.7	Mar 05	36.7	Mar 05 19:00	95.3%	90.6%
April 2025	685	89.1%	10.8%	0.1%	0.0%	0.0%	0.0%	2.2	4.4	Apr 03	21.1	Apr 17 08:00	100.0%	95.1%
May 2025	705	87.7%	11.8%	0.6%	0.0%	0.0%	0.0%	2.6	5.0	May 17	25.9	May 17 07:00	100.0%	94.8%
June 2025	669	85.8%	14.1%	0.1%	0.0%	0.0%	0.0%	3.0	5.8	Jun 10	15.8	Jun 16 07:00	97.8%	92.9%
July 2025	702	81.8%	16.7%	1.6%	0.0%	0.0%	0.0%	3.2	6.9	Jul 30	26.6	Jul 30 08:00	99.2%	94.4%
August 2025	703	75.7%	23.3%	1.0%	0.0%	0.0%	0.0%	3.8	6.8	Aug 23	24.1	Aug 23 08:00	99.6%	94.5%
September 2025	685	71.7%	26.4%	1.8%	0.1%	0.0%	0.0%	4.0	8.6	Sep 13	34.0	Sep 17 09:00	100.0%	95.1%
October 2025	706	78.5%	18.8%	2.7%	0.0%	0.0%	0.0%	3.7	12.2	Oct 31	22.1	Oct 31 19:00	99.5%	94.9%
November 2025	685	56.4%	33.1%	9.5%	1.0%	0.0%	0.0%	6.6	22.8	Nov 29	66.1	Nov 18 13:00	100.0%	95.1%
December 2025	706	53.1%	35.7%	9.5%	1.7%	0.0%	0.0%	7.1	25.5	Dec 13	57.3	Dec 13 09:00	100.0%	94.9%
<b>Annual</b>	<b>8243</b>	<b>71.1%</b>	<b>22.2%</b>	<b>5.6%</b>	<b>1.1%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>4.9</b>	<b>MAXIMUM VALUES</b>				<b>99.0%</b>	<b>94.1%</b>

AAAQO Objectives: none

2025 Hourly Concentration Readings of NO<sub>x</sub> (in ppb) at Beaverlodge





mean and 95% confidence interval in mean

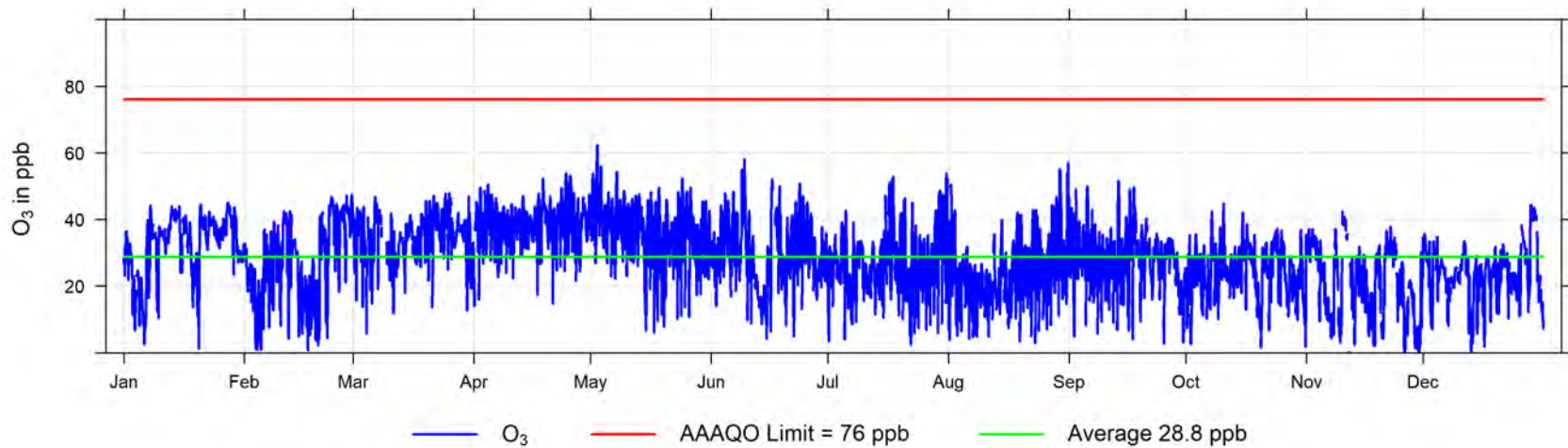
### 3.6 Ozone (O<sub>3</sub>) - Beaverlodge 2025 Summary

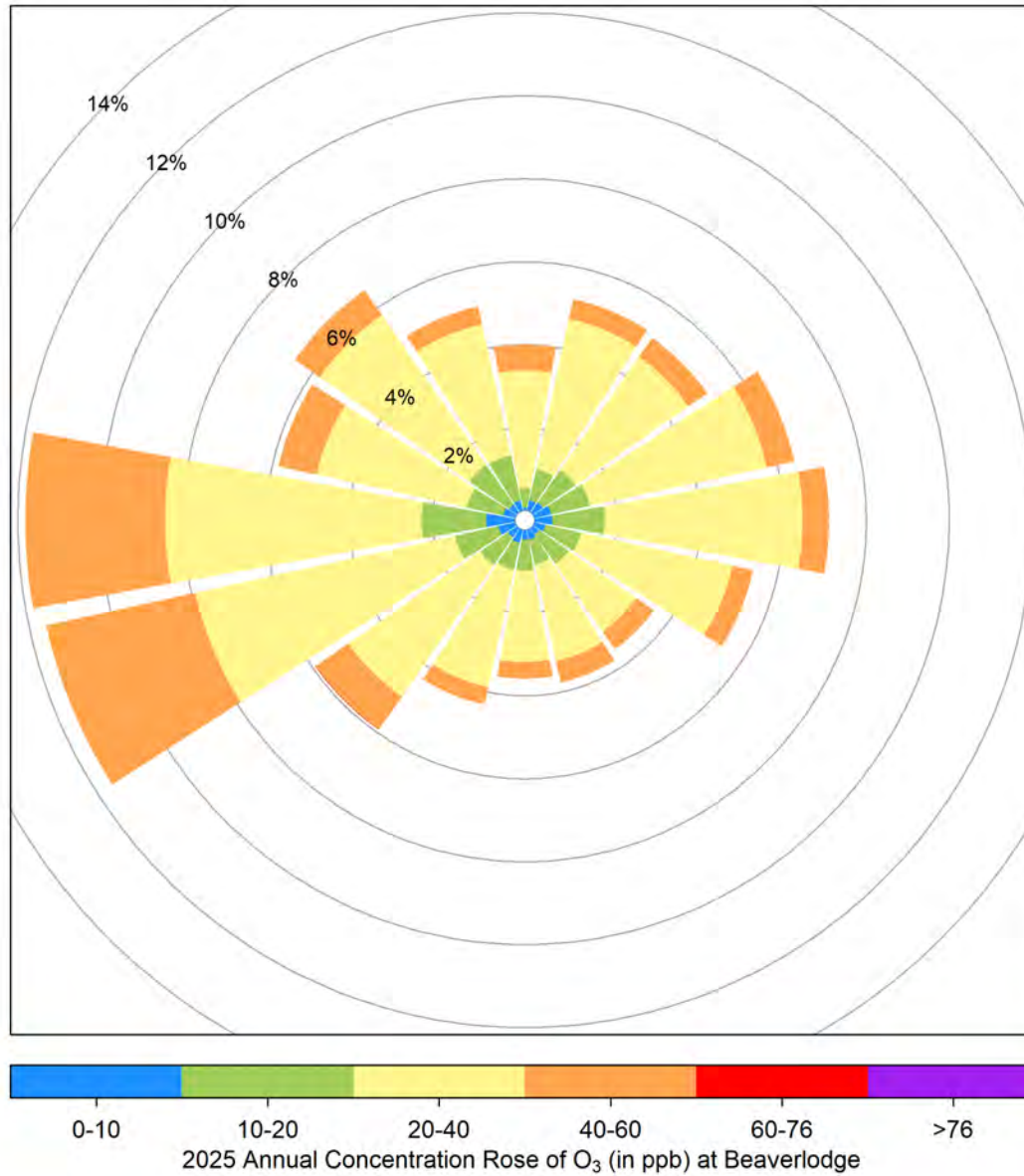
Ozone (O<sub>3</sub>) Frequency Distribution at Beaverlodge

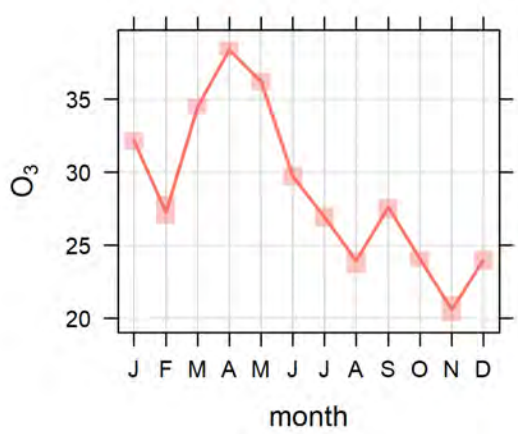
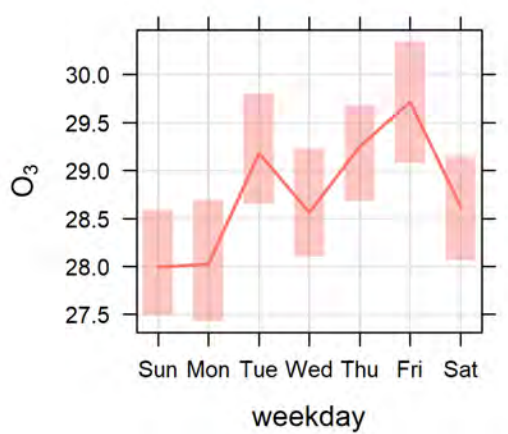
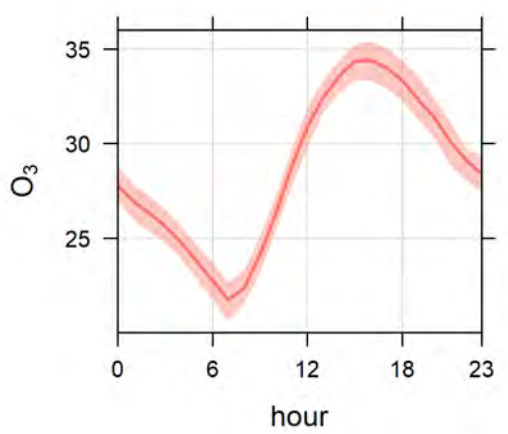
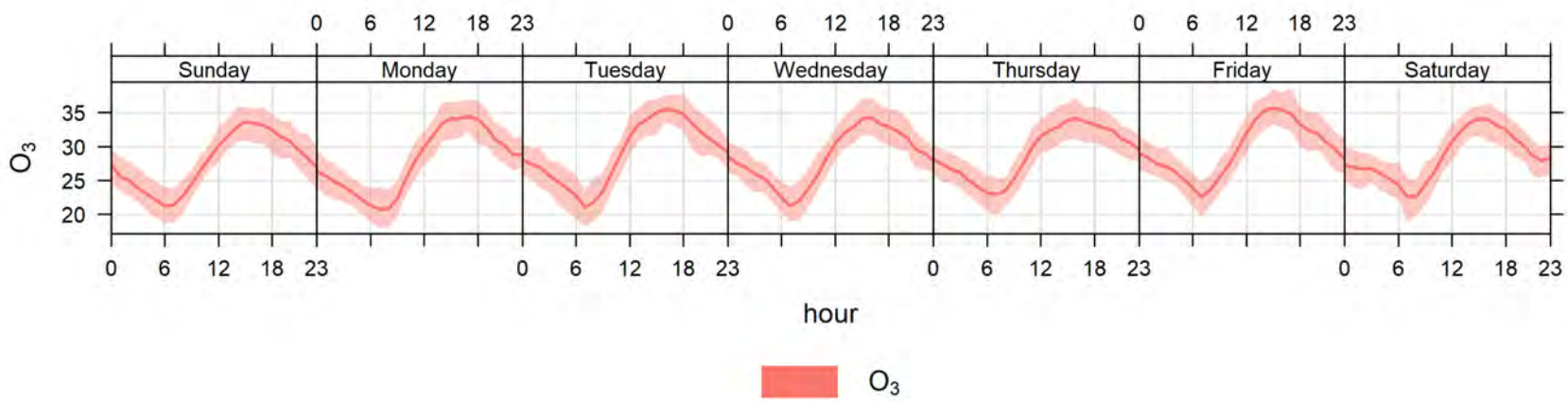
Month	Valid Hours	% of Readings in Concentration Range						Monthly Average (ppb)	MAXIMUM VALUES				Operational time (%)	Valid time (%)	Reportable Incidents 1-hr 76 ppb
		0 to 10 (ppb)	10 to 20 (ppb)	20 to 40 (ppb)	40 to 60 (ppb)	60 to 76 (ppb)	> 76 (ppb)		24-hr (ppb)	Date	1-hr (ppb)	Date			
January 2025	709	3.1%	9.3%	67.6%	20.0%	0.0%	0.0%	32.2	41.8	Jan 13	45.1	Jan 27 18:00	100.0%	95.3%	0
February 2025	641	8.9%	20.1%	51.5%	19.5%	0.0%	0.0%	27.2	44.7	Feb 23	47.6	Feb 28 15:00	100.0%	95.4%	0
March 2025	683	0.1%	3.8%	74.4%	21.7%	0.0%	0.0%	34.5	41.2	Mar 22	47.9	Mar 25 16:00	96.4%	91.8%	0
April 2025	687	0.0%	0.9%	53.0%	46.1%	0.0%	0.0%	38.4	43.9	Apr 25	53.9	Apr 24 16:00	100.0%	95.4%	0
May 2025	709	0.6%	4.8%	57.7%	36.8%	0.1%	0.0%	36.2	45.7	May 02	62.3	May 02 18:00	100.0%	95.3%	0
June 2025	671	2.2%	13.6%	66.3%	17.9%	0.0%	0.0%	29.7	44.0	Jun 09	58.0	Jun 09 14:00	97.8%	93.2%	0
July 2025	705	4.1%	20.7%	63.3%	11.9%	0.0%	0.0%	26.9	38.0	Jul 17	53.9	Jul 31 13:00	99.3%	94.8%	0
August 2025	709	8.3%	30.0%	51.9%	9.7%	0.0%	0.0%	23.9	37.1	Aug 31	56.9	Aug 31 18:00	99.9%	95.3%	0
September 2025	687	4.1%	14.3%	75.4%	6.3%	0.0%	0.0%	27.6	32.6	Sep 18	51.7	Sep 13 17:00	100.0%	95.4%	0
October 2025	710	3.9%	23.8%	71.3%	1.0%	0.0%	0.0%	24.1	30.9	Oct 24	44.8	Oct 10 17:00	100.0%	95.4%	0
November 2025	686	21.4%	23.9%	53.9%	0.7%	0.0%	0.0%	20.6	36.5	Nov 10	42.3	Nov 10 07:00	100.0%	95.3%	0
December 2025	710	5.8%	21.4%	68.2%	4.6%	0.0%	0.0%	23.9	41.7	Dec 29	44.4	Dec 28 18:00	100.0%	95.4%	0
<b>Annual</b>	<b>8307</b>	<b>5.2%</b>	<b>15.6%</b>	<b>62.9%</b>	<b>16.4%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>28.8</b>	<b>45.7</b>	<b>MAXIMUM VALUES</b>		<b>99.4%</b>	<b>94.8%</b>	<b>0</b>	

AAAQO Objectives: 1-Hr: 76ppb

2025 Hourly Concentration Readings of O<sub>3</sub> (in ppb) at Beaverlodge

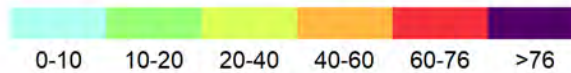
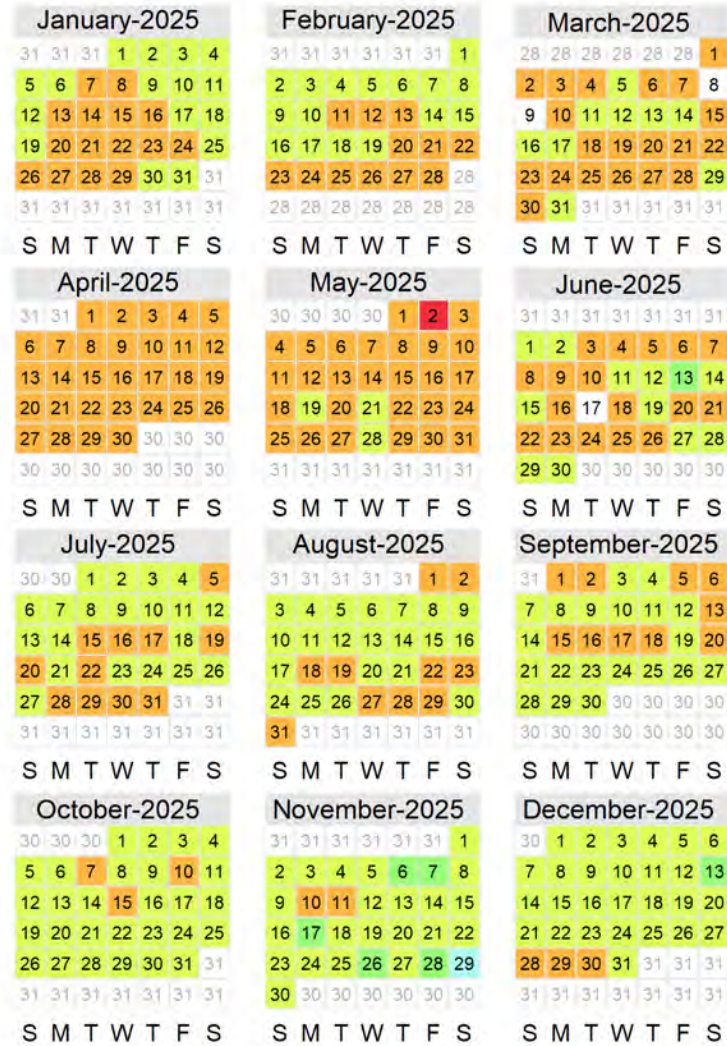






mean and 95% confidence interval in mean

## Hourly Maximum O<sub>3</sub> (in ppb) for 2025 at Beaverlodge



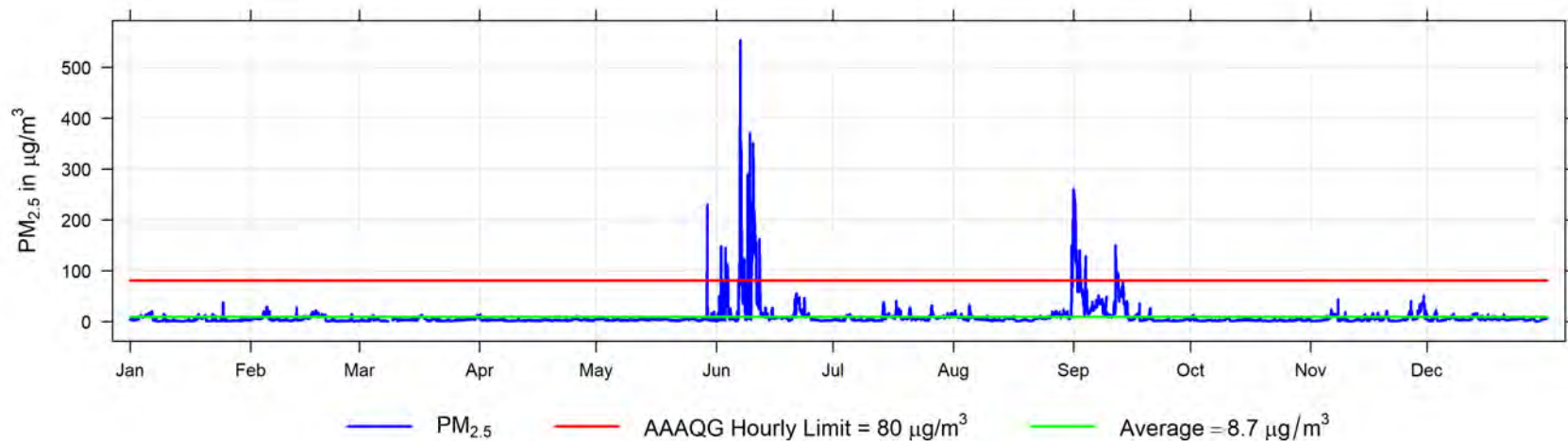
### 3.7 Particulate Matter (PM<sub>2.5</sub>) - Beaverlodge 2025 Summary

Particulate Matter (PM<sub>2.5</sub>) Frequency Distribution at Beaverlodge

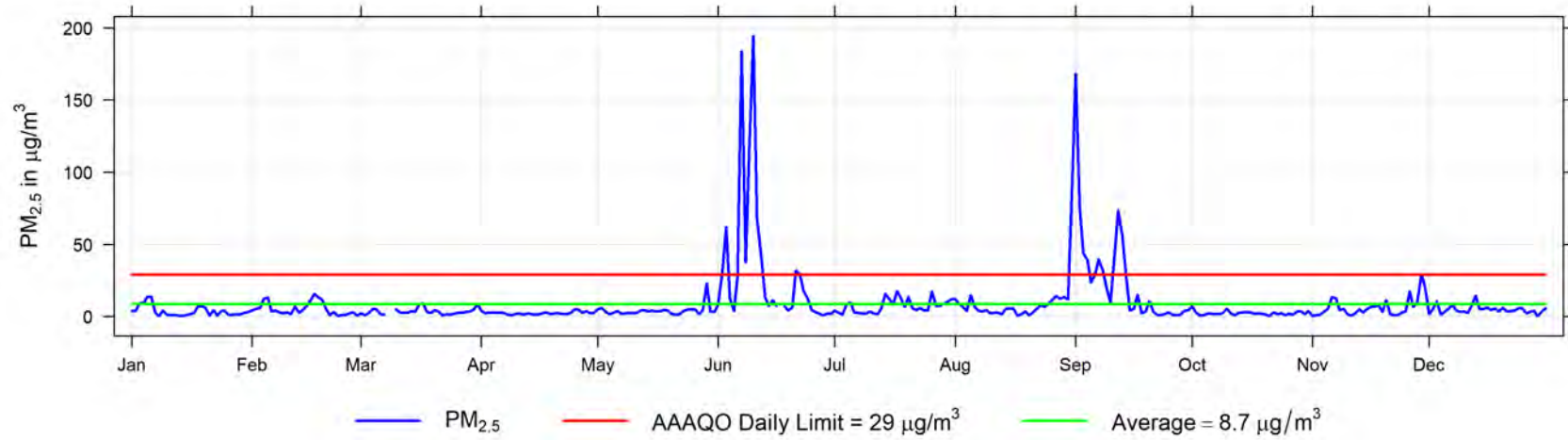
Month	Valid Hours	% of Readings in Concentration Range						Monthly Average (µg/m <sup>3</sup> )	MAXIMUM VALUES				Operational time (%)	Valid time (%)	Reportable Incidents	
		0 to 5 (µg/m <sup>3</sup> )	5 to 15 (µg/m <sup>3</sup> )	15 to 30 (µg/m <sup>3</sup> )	30 to 50 (µg/m <sup>3</sup> )	50 to 80 (µg/m <sup>3</sup> )	> 80 (µg/m <sup>3</sup> )		24-hr (µg/m <sup>3</sup> )	Date	1-hr (µg/m <sup>3</sup> )	Date			24-hr 29 µg/m <sup>3</sup>	1-hr 80 µg/m <sup>3</sup>
January 2025	743	75.0%	21.4%	3.5%	0.1%	0.0%	0.0%	3.7	13.7	Jan 05	37.2	Jan 24 23:00	100.0%	99.9%	0	0
February 2025	671	59.3%	33.4%	7.3%	0.0%	0.0%	0.0%	5.4	15.6	Feb 17	28.8	Feb 05 04:00	100.0%	99.9%	0	0
March 2025	716	78.5%	21.5%	0.0%	0.0%	0.0%	0.0%	3.5	9.0	Mar 17	13.5	Mar 04 11:00	96.4%	96.2%	0	0
April 2025	719	95.3%	4.7%	0.0%	0.0%	0.0%	0.0%	2.5	5.3	Apr 25	14.0	Apr 01 04:00	100.0%	99.9%	0	0
May 2025	741	81.6%	17.4%	0.5%	0.0%	0.0%	0.4%	4.1	22.6	May 29	229.7	May 29 16:00	99.9%	99.6%	0	3
June 2025	700	35.9%	30.3%	10.7%	7.3%	4.1%	11.7%	32.3	196.9	Jun 10	553.1	Jun 07 03:00	97.8%	97.2%	10	82
July 2025	742	45.8%	45.0%	7.4%	1.8%	0.0%	0.0%	7.2	18.5	Jul 17	40.8	Jul 17 08:00	99.9%	99.7%	0	0
August 2025	741	45.5%	45.3%	6.9%	0.4%	0.4%	1.5%	9.2	90.3	Aug 31	260.6	Sep 01 00:00	99.9%	99.6%	1	11
September 2025	718	41.9%	17.5%	12.3%	13.1%	8.8%	6.4%	24.4	159.8	Sep 01	248.4	Sep 01 04:00	100.0%	99.7%	10	46
October 2025	743	93.3%	6.7%	0.0%	0.0%	0.0%	0.0%	2.3	6.8	Oct 01	13.4	Oct 01 21:00	100.0%	99.9%	0	0
November 2025	720	60.4%	28.1%	8.2%	3.2%	0.1%	0.0%	6.6	30.1	Nov 29	51.5	Nov 30 03:00	100.0%	100.0%	1	0
December 2025	742	63.6%	32.9%	3.5%	0.0%	0.0%	0.0%	4.9	14.4	Dec 13	22.6	Dec 03 07:00	100.0%	99.7%	0	0
<b>Annual</b>	<b>8696</b>	<b>64.7%</b>	<b>25.4%</b>	<b>5.0%</b>	<b>2.2%</b>	<b>1.1%</b>	<b>1.7%</b>	<b>8.7</b>	<b>196.9</b>	<b>Jun 10</b>	<b>553.1</b>	<b>Jun 07 03:00</b>	<b>99.5%</b>	<b>99.3%</b>	<b>22</b>	<b>142</b>

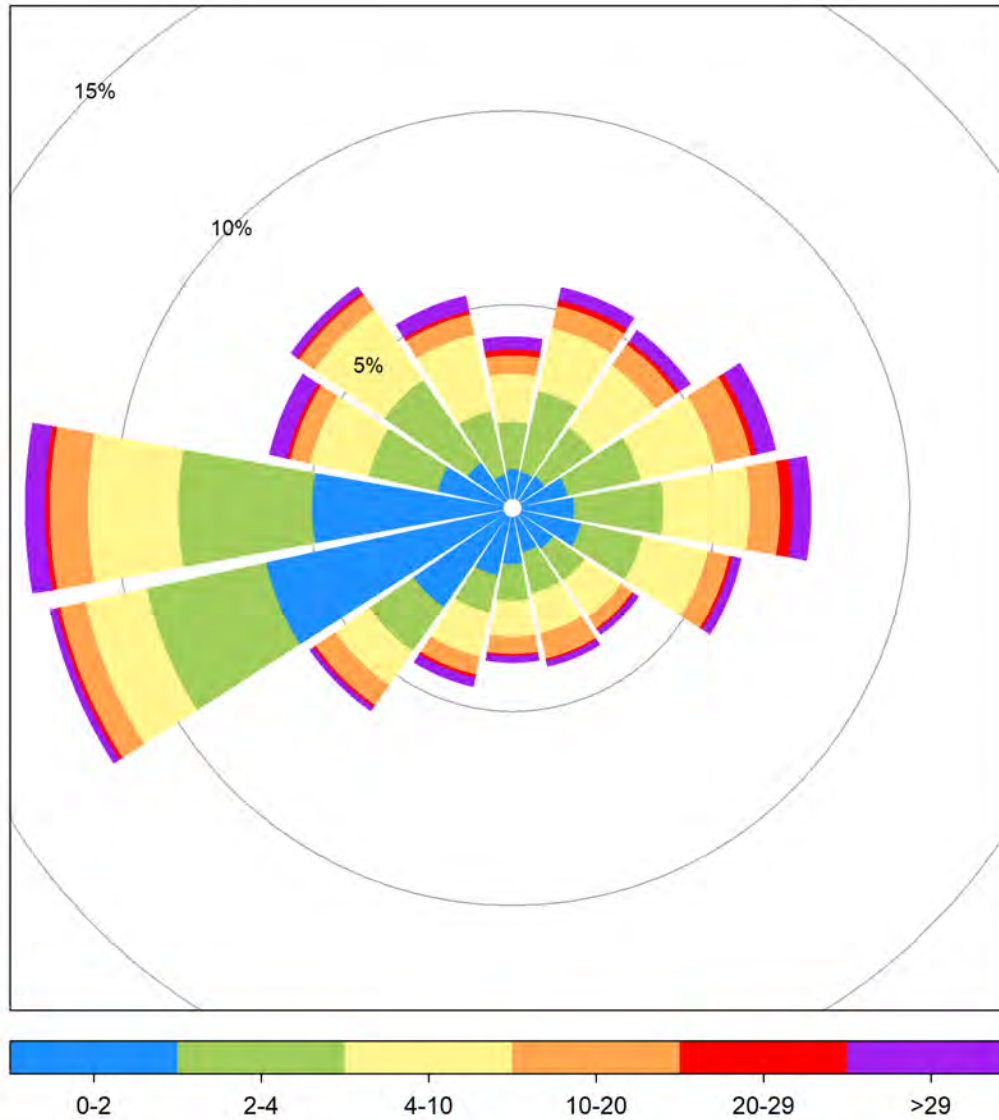
AAAQO Objectives: 24-Hr: 29 µg/m<sup>3</sup>, AAAQO Guideline: 1-Hr: 80 µg/m<sup>3</sup>

2025 Hourly Concentration Readings of PM<sub>2.5</sub> in µg/m<sup>3</sup> at Beaverlodge

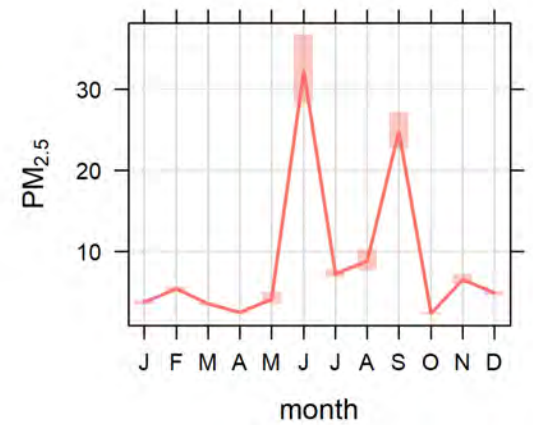
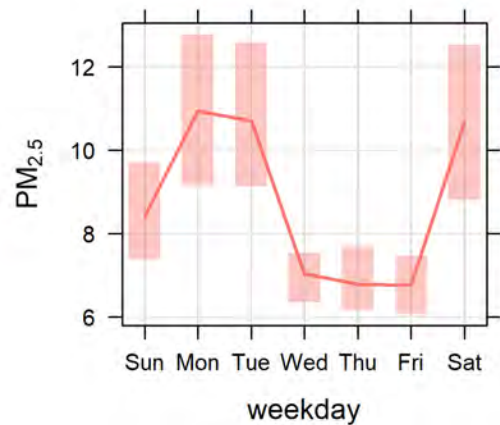
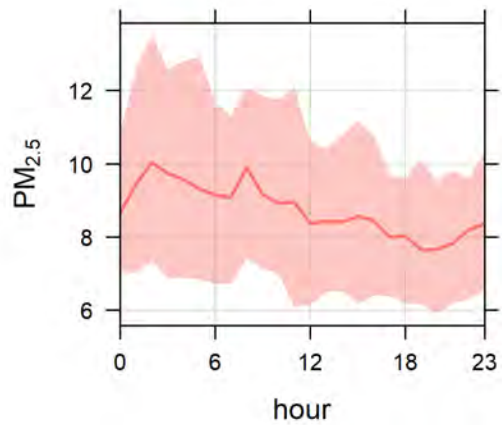
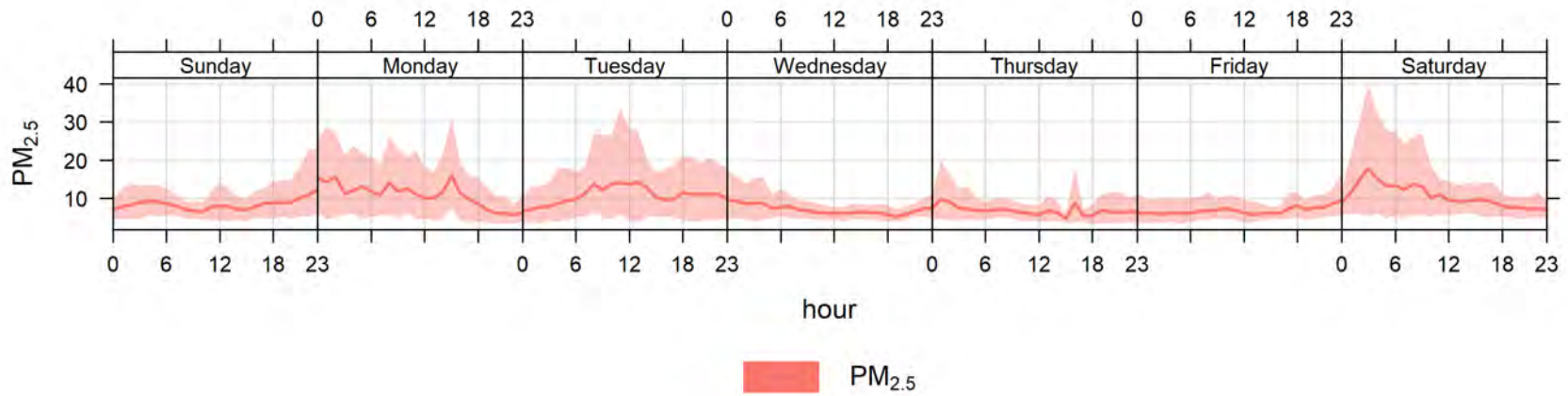


2025 Daily Concentration Readings of PM<sub>2.5</sub> in µg/m<sup>3</sup> at Beaverlodge



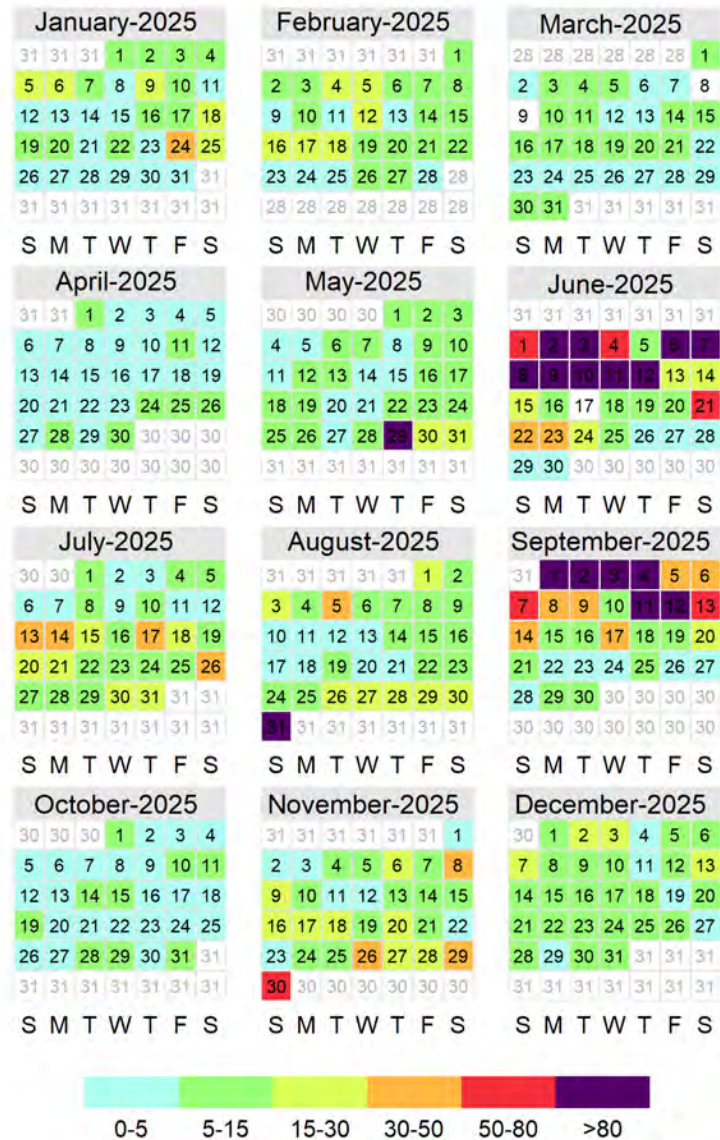


2025 Annual Concentration Readings of PM<sub>2.5</sub> in µg/m<sup>3</sup> at Beaverlodge



mean and 95% confidence interval in mean

## Hourly Maximum PM<sub>2.5</sub> (in $\mu\text{g}/\text{m}^3$ ) for 2025 at Beaverlodge

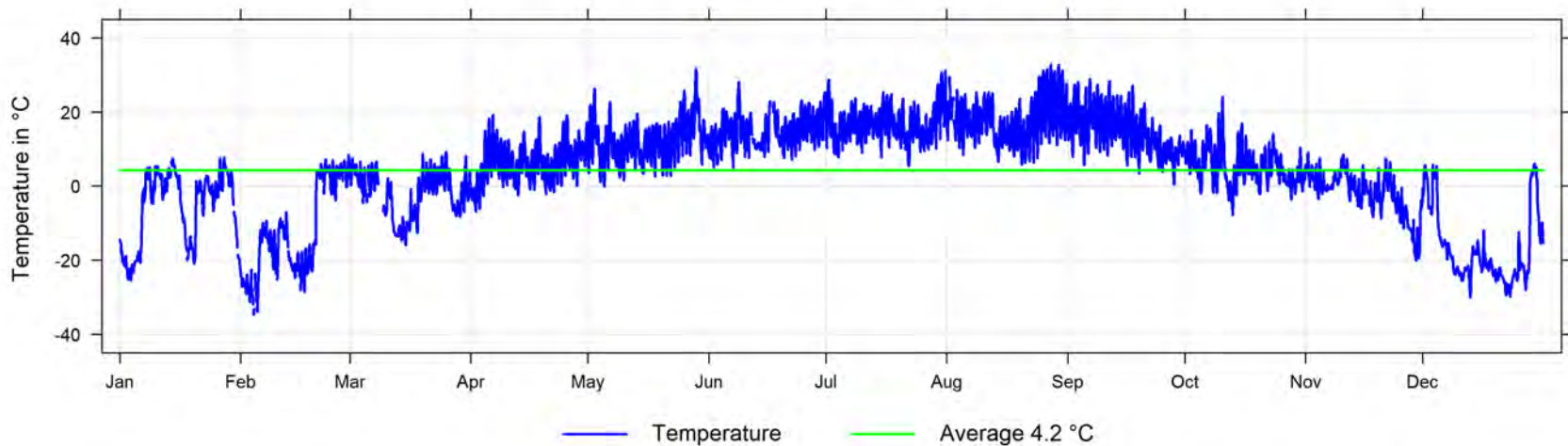


### 3.8 Temperature (ET) - Beaverlodge 2025 Summary

Temperature (ET) Frequency Distribution at Beaverlodge

Month	Valid Hours	Monthly Average (°C)	Maximum Values			Minimum Values			Operational time (%)	Valid time (%)			
			24-hr (°C)	Date	1-hr (°C)	Date	24-hr (°C)	Date			1-hr (°C)	Date	
January 2025	713	-5.8	5.9	Jan 14	7.8	Jan 27 18:00	-24.2	Jan 03	-25.5	Jan 03 19:00	95.8%	95.8%	
February 2025	641	-12.6	4.8	Feb 27	8.4	Feb 28 16:00	-29.6	Feb 04	-34.7	Feb 04 09:00	95.4%	95.4%	
March 2025	709	-2.1	4.5	Mar 01	9.4	Mar 25 17:00	-12.5	Mar 13	-15.9	Mar 15 07:00	95.3%	95.3%	
April 2025	720	6.3	11.7	Apr 25	19.2	Apr 06 17:00	-2.3	Apr 01	-6.9	Apr 02 07:00	100.0%	100.0%	
May 2025	743	12.5	22.6	May 28	31.6	May 28 17:00	7.4	May 04	0.0	May 05 06:00	99.6%	99.6%	
June 2025	671	15.0	20.5	Jun 08	28.2	Jun 08 16:00	10.3	Jun 01	4.9	Jun 07 06:00	93.2%	93.2%	
July 2025	713	16.9	23.7	Jul 30	31.2	Jul 31 15:00	11.9	Jul 03	5.5	Jul 22 07:00	96.0%	96.0%	
August 2025	739	17.8	22.9	Aug 29	33.0	Aug 27 18:00	11.5	Aug 13	5.8	Aug 20 06:00	99.3%	99.3%	
September 2025	720	14.7	21.0	Sep 03	29.1	Sep 06 17:00	6.5	Sep 28	0.4	Sep 28 07:00	100.0%	100.0%	
October 2025	744	5.2	12.7	Oct 10	24.2	Oct 10 17:00	-1.2	Oct 12	-7.7	Oct 13 08:00	100.0%	100.0%	
November 2025	720	-1.9	6.3	Nov 10	9.1	Nov 01 15:00	-17.3	Nov 29	-20.2	Nov 29 07:00	100.0%	100.0%	
December 2025	744	-16.9	4.5	Dec 29	6.0	Dec 29 17:00	-27.8	Dec 22	-30.1	Dec 13 06:00	100.0%	100.0%	
		<b>AVERAGE</b>	<b>MAXIMUM VALUES</b>			<b>MINIMUM VALUES</b>							
		8577	4.2	23.7	Jul 30	33.0	Aug 27 18:00	-29.6	Feb 04	-34.7	Feb 04 09:00	97.9%	97.9%

2025 Hourly Temperature Readings (in °C) at Beaverlodge

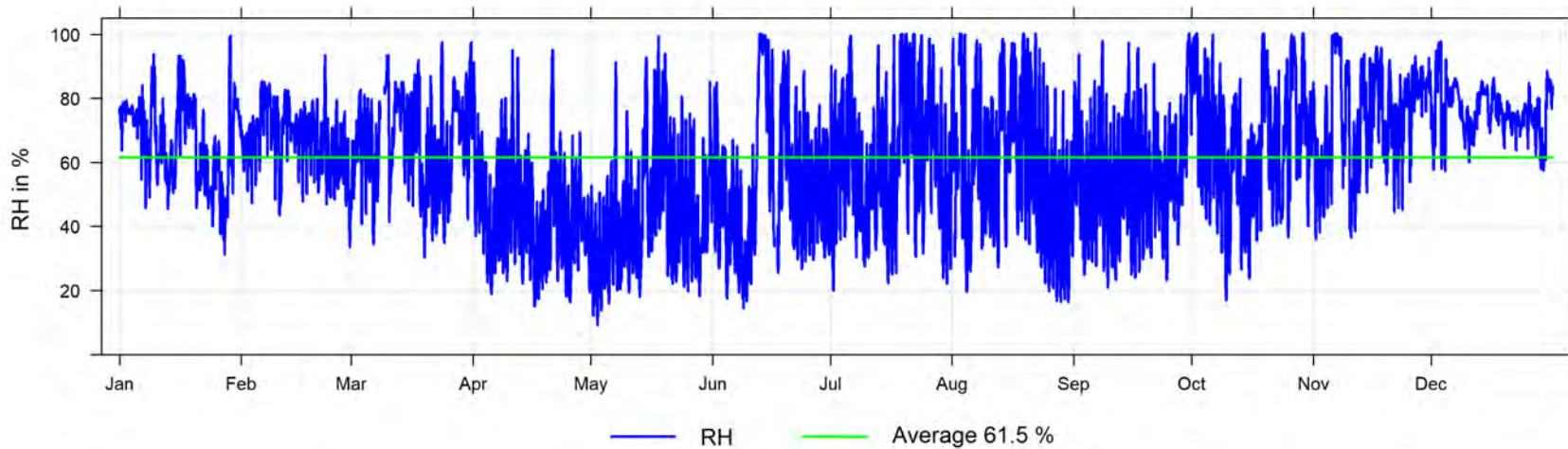


### 3.9 Relative Humidity (RH) - Beaverlodge 2025 Summary

**Relative Humidity (RH) Frequency Distribution at Beaverlodge**

Month	Valid Hours	Monthly Average (%)	Maximum Values				Operational time (%)	Valid time (%)	
			24-hr (%)	Date	1-hr (%)	Date			
January 2025	744	67.0	83.1	Jan 09	99.6	Jan 29 07:00	100.0%	100.0%	
February 2025	672	67.2	80.6	Feb 06	93.6	Feb 22 08:00	100.0%	100.0%	
March 2025	717	66.5	83.3	Mar 31	97.5	Mar 31 12:00	96.4%	96.4%	
April 2025	720	44.5	67.7	Apr 21	95.3	Apr 21 07:00	100.0%	100.0%	
May 2025	742	44.6	70.2	May 19	99.4	May 18 06:00	99.7%	99.7%	
June 2025	704	53.8	97.9	Jun 13	100.1	Jun 13 04:00	97.8%	97.8%	
July 2025	744	61.4	84.1	Jul 21	100.1	Jul 22 07:00	100.0%	100.0%	
August 2025	741	59.4	90.5	Aug 16	100.2	Aug 22 06:00	99.6%	99.6%	
September 2025	720	56.7	89.5	Sep 30	100.2	Sep 30 08:00	100.0%	100.0%	
October 2025	744	66.4	91.2	Oct 01	100.3	Oct 29 07:00	100.0%	100.0%	
November 2025	720	74.5	98.8	Nov 06	100.2	Nov 06 10:00	100.0%	100.0%	
December 2025	744	76.1	88.8	Dec 02	97.8	Dec 03 12:00	100.0%	100.0%	
		<b>AVERAGE</b>	<b>MAXIMUM VALUES</b>						
		8712	61.5	98.8	Nov 06	100.3	Oct 29 07:00	99.5%	99.5%

2025 Hourly Readings of Relative Humidity (in %) at Beaverlodge

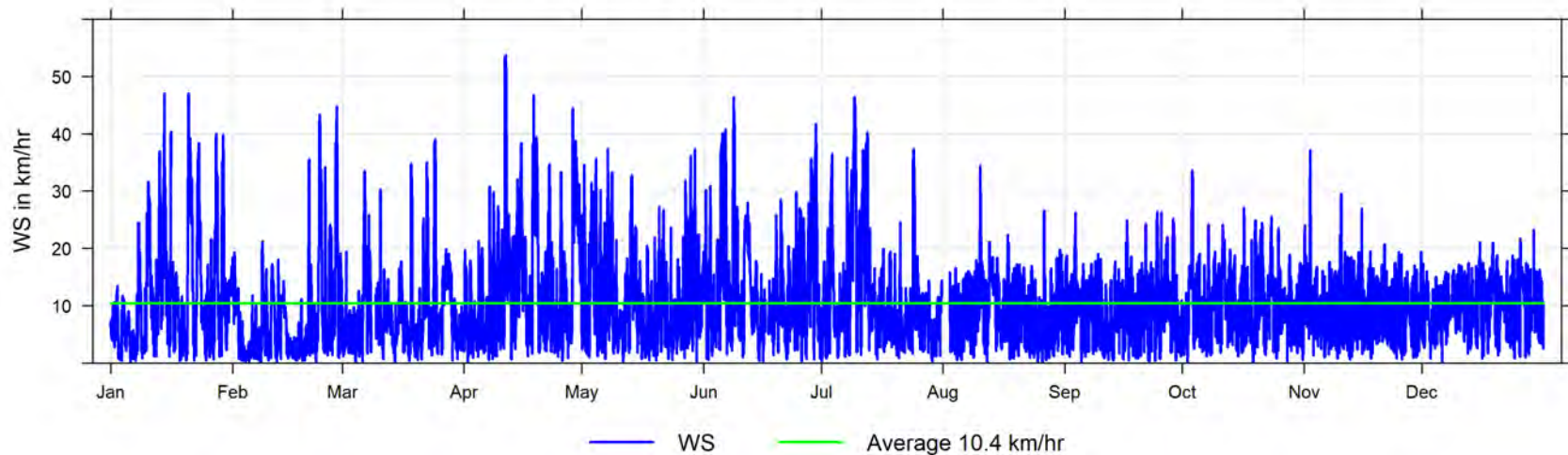


### 3.10 Wind Speed and Wind Direction (WS and WD) - Beaverlodge 2025 Summary

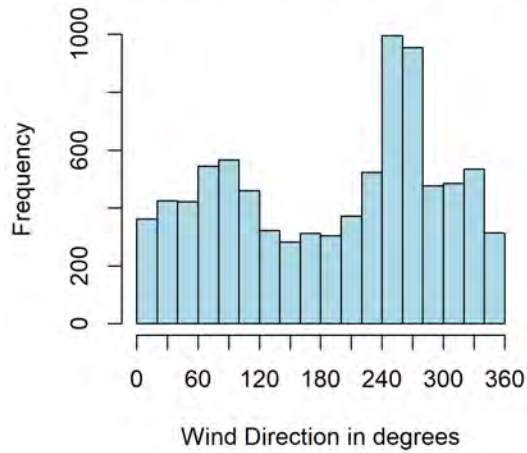
Wind Speed Frequency Distribution at Beaverlodge

Month	Valid Hours	% of Readings in Concentration Range						Monthly Average (km/hr)	24-hr (km/hr)	MAXIMUM VALUES		Operational time (%)	Valid time (%)	
		Calm	0.5 to 5 (km/hr)	5 to 11 (km/hr)	11 to 19 (km/hr)	19 to 28 (km/hr)	>28 (km/hr)			Date	1-hr Date (km/hr)			
January 2025	736	1.1%	28.5%	30.6%	20.8%	8.6%	10.5%	11.7	26.8	Jan 21	47.1	Jan 20 20:00	100.0%	100.0%
February 2025	672	2.2%	51.5%	23.8%	14.3%	4.5%	3.7%	7.6	26.3	Feb 23	44.8	Feb 27 14:00	100.0%	100.0%
March 2025	717	1.0%	32.6%	41.0%	18.0%	3.3%	4.0%	8.9	21.2	Mar 24	39.0	Mar 24 16:00	96.4%	96.4%
April 2025	720	0.3%	26.9%	23.8%	20.8%	17.8%	10.4%	13.6	30.2	Apr 29	53.7	Apr 11 15:00	100.0%	100.0%
May 2025	743	0.5%	27.3%	29.1%	24.6%	12.9%	5.5%	11.4	22.6	May 03	37.4	May 07 15:00	99.7%	99.7%
June 2025	704	0.4%	16.1%	36.6%	22.7%	14.9%	9.2%	13.3	25.4	Jun 05	46.4	Jun 08 17:00	97.8%	97.8%
July 2025	736	0.4%	22.4%	41.8%	20.2%	6.5%	8.6%	11.3	33.9	Jul 09	46.4	Jul 09 11:00	100.0%	100.0%
August 2025	703	0.4%	31.6%	33.7%	32.0%	1.8%	0.4%	8.7	15.7	Aug 10	34.4	Aug 10 13:00	99.6%	99.6%
September 2025	720	1.0%	28.9%	36.7%	28.5%	5.0%	0.0%	8.9	13.2	Sep 28	26.4	Sep 24 15:00	100.0%	100.0%
October 2025	744	0.4%	21.4%	39.4%	32.1%	5.8%	0.9%	10.1	18.2	Oct 03	33.6	Oct 03 11:00	100.0%	100.0%
November 2025	720	0.0%	22.6%	42.1%	31.8%	2.8%	0.7%	9.4	15.8	Nov 02	37.2	Nov 02 14:00	100.0%	100.0%
December 2025	744	0.1%	14.8%	44.5%	39.4%	1.2%	0.0%	9.9	15.3	Dec 26	23.2	Dec 29 13:00	100.0%	100.0%
<b>Annual</b>	<b>8659</b>	<b>0.7%</b>	<b>27.1%</b>	<b>35.3%</b>	<b>25.4%</b>	<b>7.1%</b>	<b>4.5%</b>	<b>10.4</b>	<b>33.9</b>	<b>MAXIMUM VALUES</b>		<b>99.5%</b>	<b>99.5%</b>	

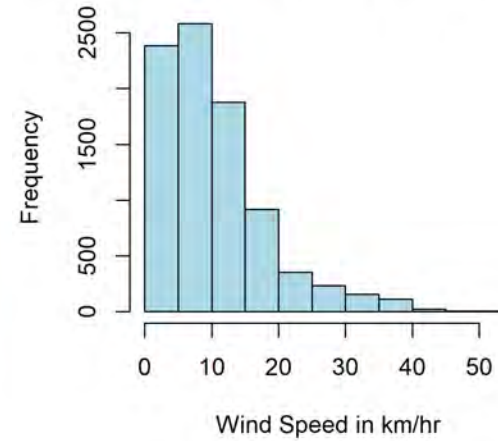
2025 Hourly Readings of Wind Speed (in km/hr) at Beaverlodge



**2025 Wind Direction Histogram**

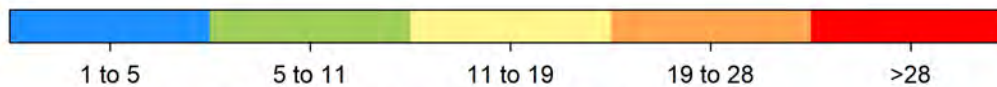
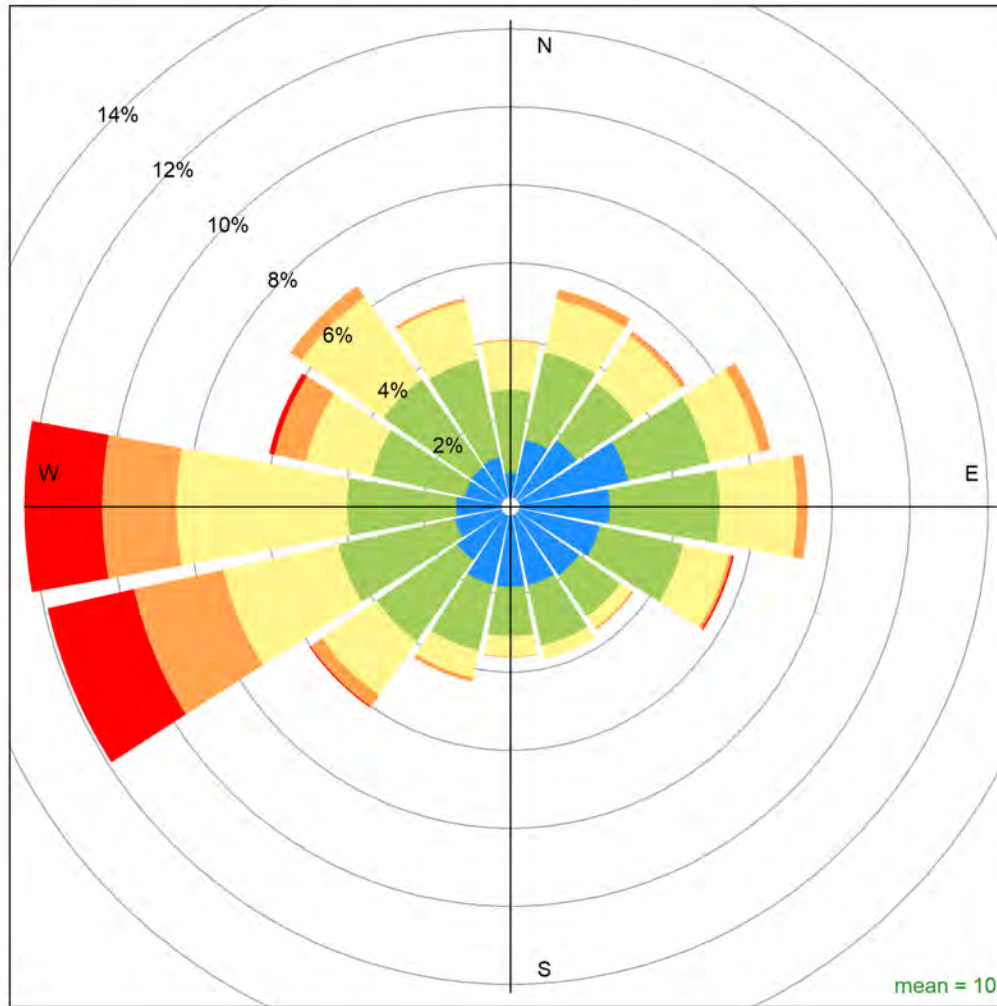


**2025 Wind Speed Histogram**



**Wind Speed and Wind Direction Frequency Distribution at Beaverlodge**

Direction	Number of Readings	% of wind speed range						Total %
		Calm (<0.5 (km/hr)	0.5 to 5 (km/hr)	5 to 11 (km/hr)	11 to 19 (km/hr)	19 to 28 (km/hr)	>28 (km/hr)	
N	363	0.1%	0.7%	2.1%	1.3%	0.0%	0.0%	4.2%
NNE	485	0.0%	1.6%	2.3%	1.4%	0.3%	0.0%	5.6%
NE	465	0.0%	1.9%	1.8%	1.5%	0.1%	0.0%	5.4%
ENE	583	0.0%	3.0%	2.1%	1.3%	0.3%	0.0%	6.7%
E	648	0.0%	2.4%	2.8%	2.0%	0.3%	0.0%	7.5%
ESE	503	0.0%	2.3%	2.2%	1.2%	0.1%	0.0%	5.8%
SE	325	0.1%	2.0%	1.3%	0.4%	0.1%	0.0%	3.8%
SSE	342	0.0%	2.0%	1.6%	0.4%	0.0%	0.0%	3.9%
S	325	0.1%	1.9%	1.3%	0.5%	0.0%	0.0%	3.8%
SSW	389	0.0%	1.9%	1.7%	0.7%	0.1%	0.0%	4.5%
SW	532	0.1%	1.5%	2.5%	1.7%	0.4%	0.0%	6.1%
WSW	1038	0.0%	1.3%	3.1%	3.0%	2.3%	2.3%	12.0%
W	1070	0.1%	1.2%	2.8%	4.4%	1.9%	2.0%	12.4%
WNW	540	0.1%	1.0%	2.4%	1.7%	0.8%	0.1%	6.2%
NW	586	0.0%	1.1%	2.7%	2.6%	0.3%	0.0%	6.8%
NNW	465	0.0%	1.2%	2.6%	1.5%	0.1%	0.0%	5.4%
<b>Total</b>	<b>8659</b>	<b>0.6%</b>	<b>26.9%</b>	<b>35.3%</b>	<b>25.5%</b>	<b>7.1%</b>	<b>4.5%</b>	<b>100.0%</b>



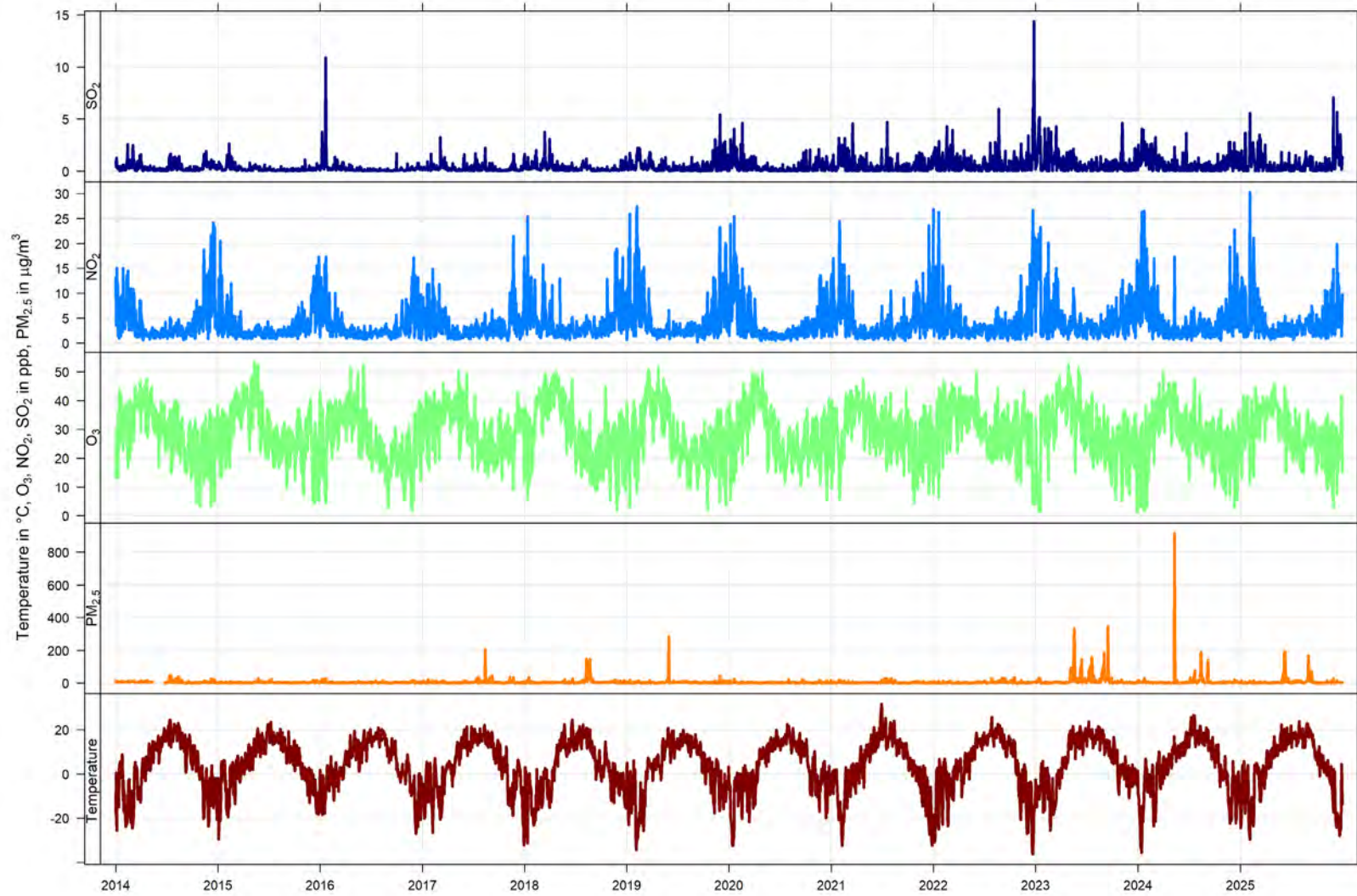
Beaverlodge 2025 Wind Rose, wind speed in km/hr

**Calms (<1km/hr) = 2.3 %**

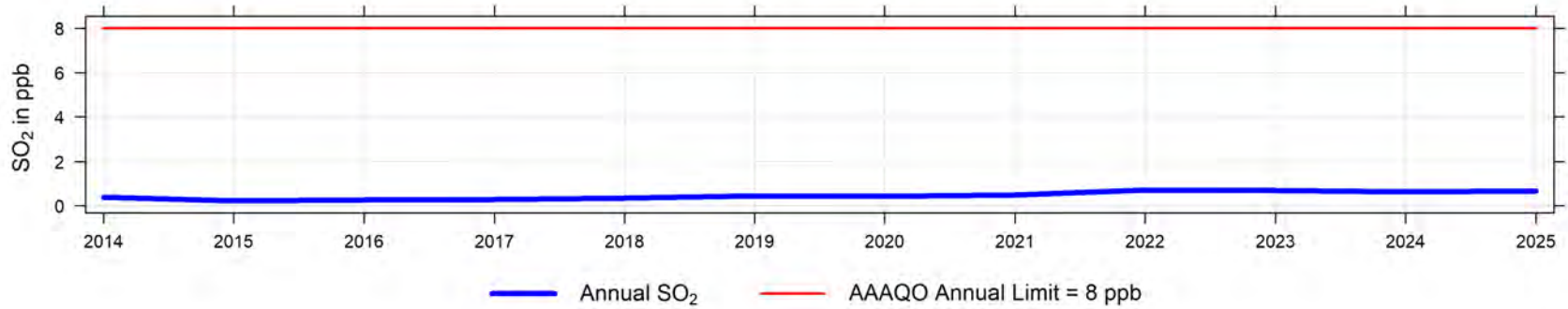
### 3.11 Beaverlodge Annual Trends, 2014 to 2025

The following pages include historical annual charts collected between 2014 and 2025 at the Beaverlodge Station.

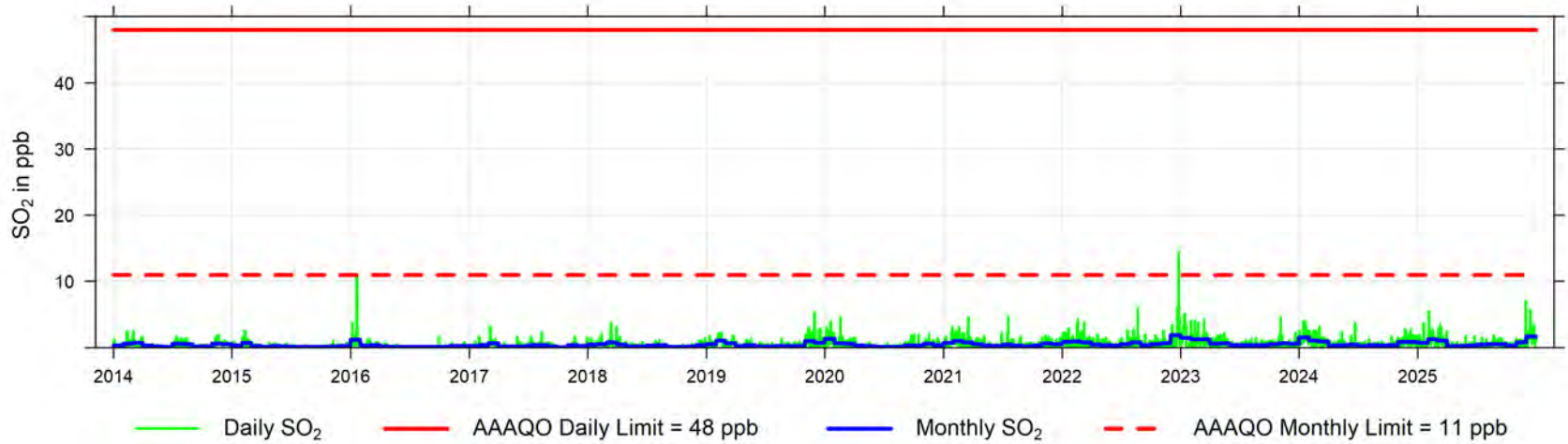
2014 to 2025 Daily Concentration Readings at Beaverlodge



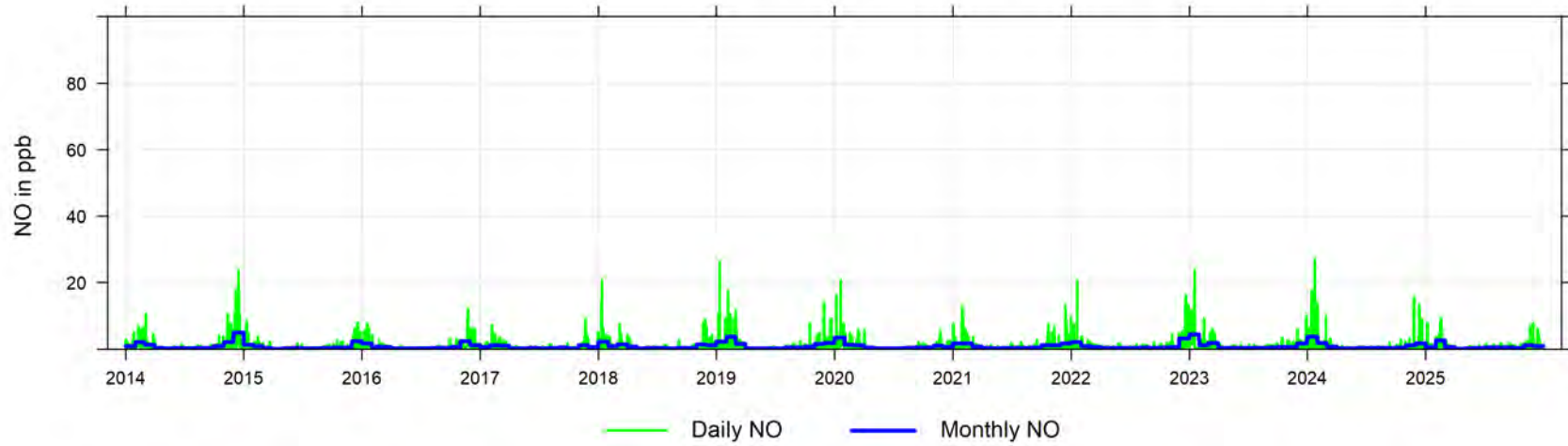
Years 2014 to 2025 Annual Concentration Readings of SO<sub>2</sub> (in ppb) at Beaverlodge



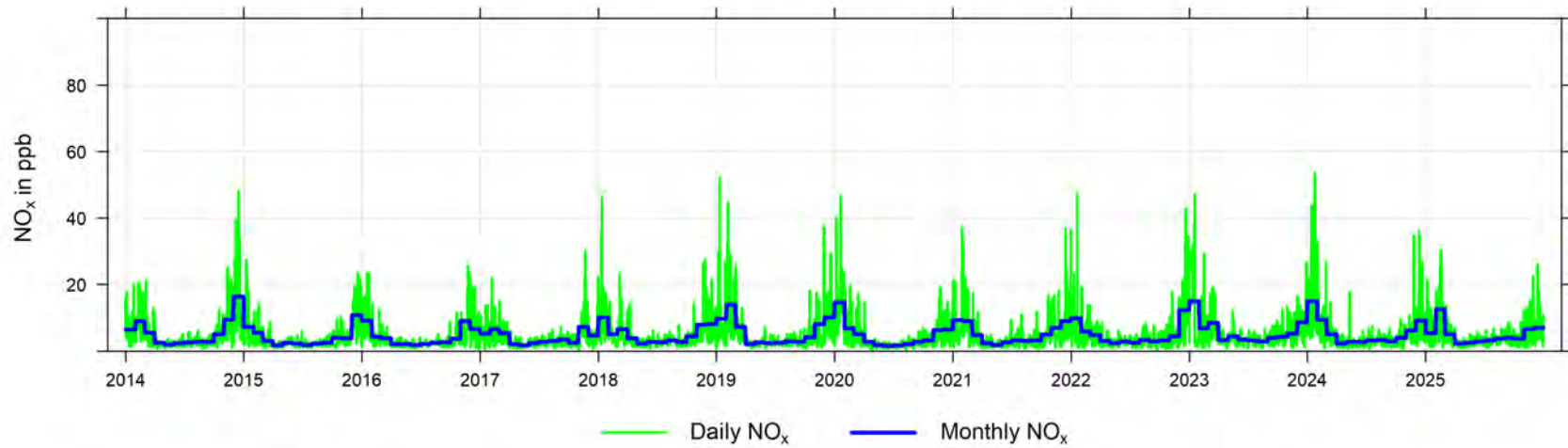
Years 2014 to 2025 Concentration Readings of SO<sub>2</sub> (in ppb) at Beaverlodge



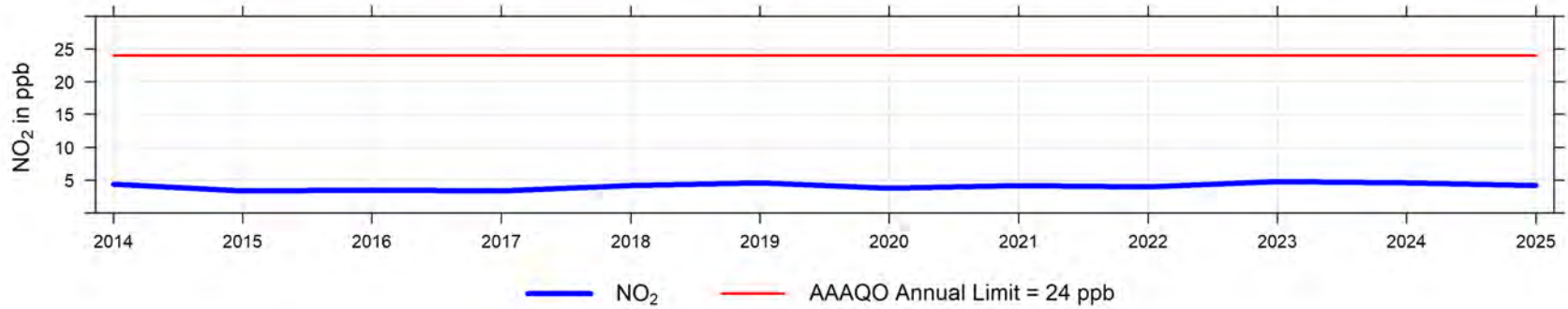
Years 2014 to 2025 Concentration Readings of NO (in ppb) at Beaverlodge



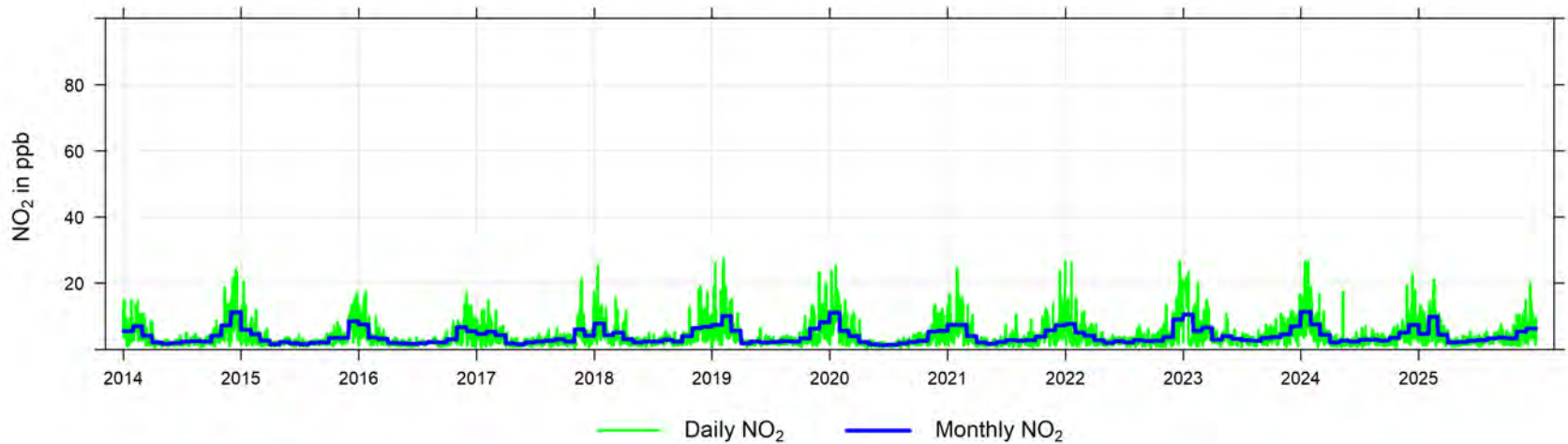
Years 2014 to 2025 Concentration Readings of NO<sub>x</sub> (in ppb) at Beaverlodge



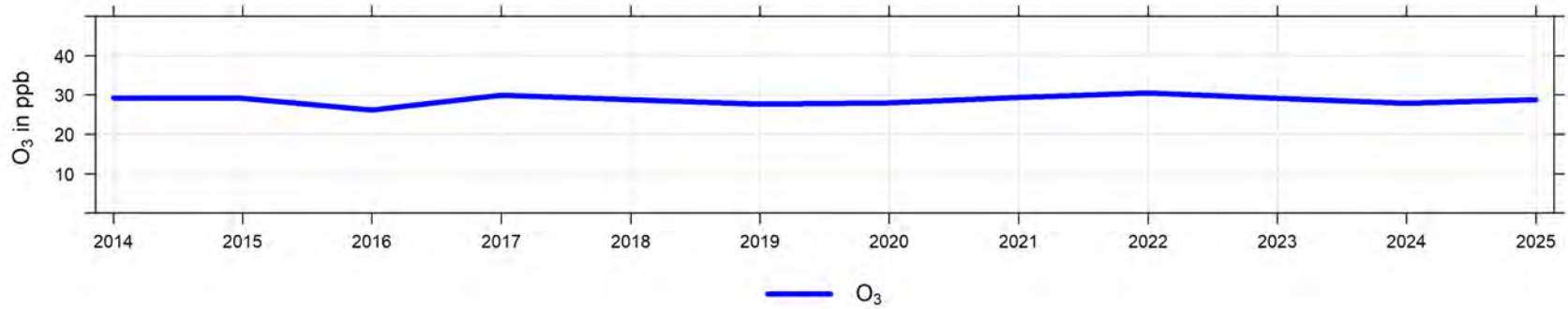
Years 2014 to 2025 Annual Concentration Readings of NO<sub>2</sub> (in ppb) at Beaverlodge



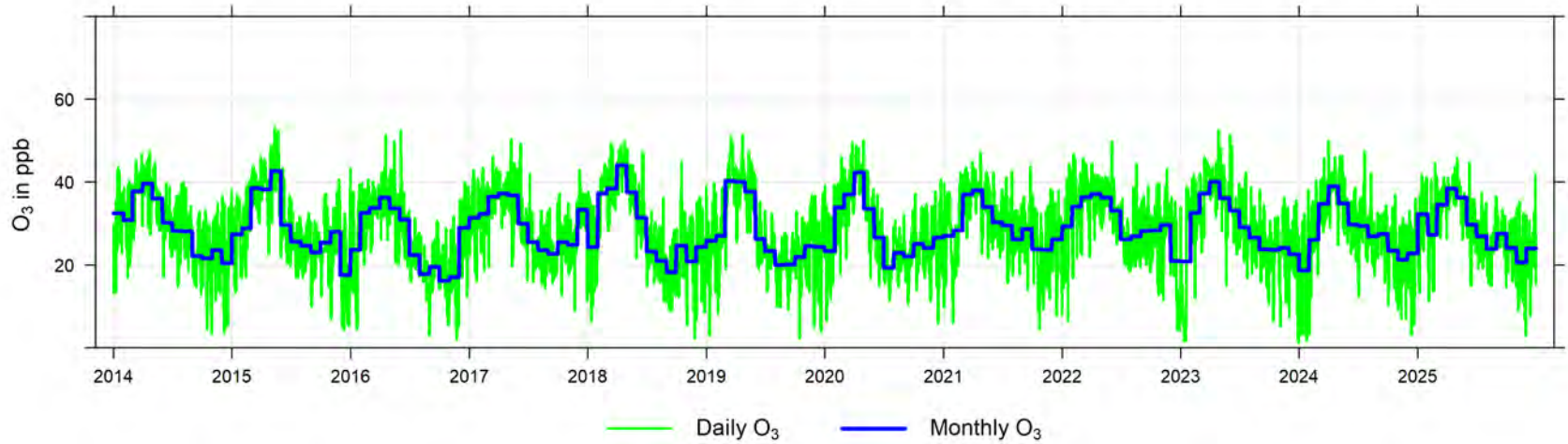
Years 2014 to 2025 Concentration Readings of NO<sub>2</sub> (in ppb) at Beaverlodge



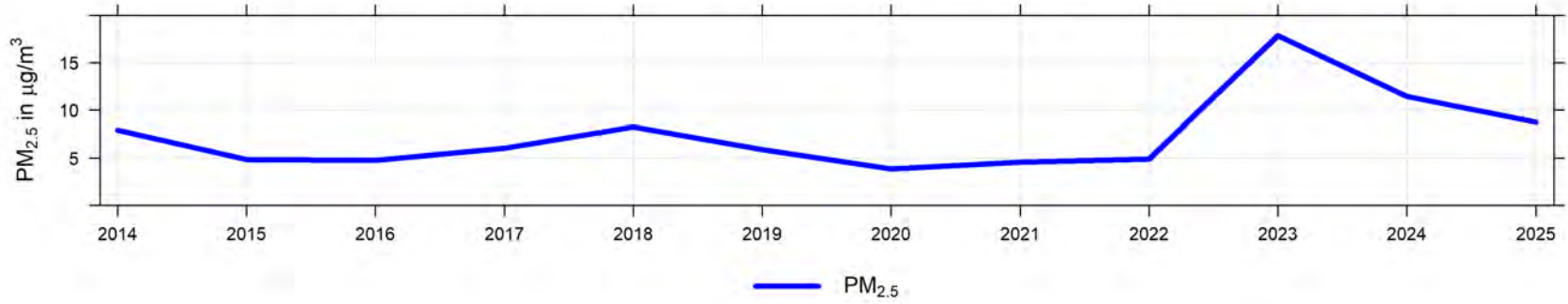
Years 2014 to 2025 Annual Concentration Readings of O<sub>3</sub> (in ppb) at Beaverlodge



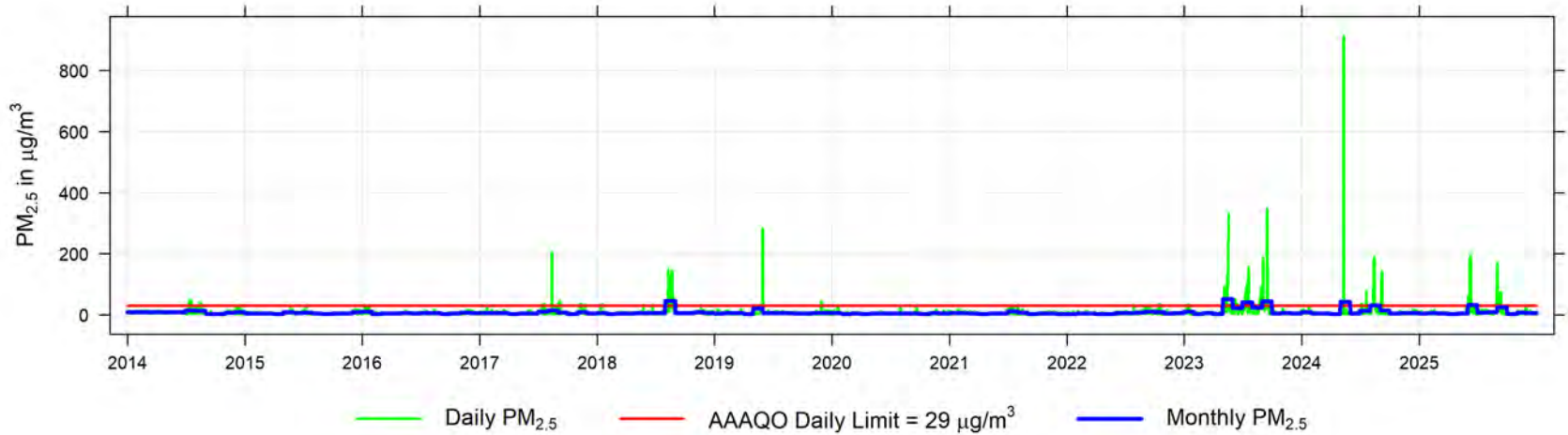
Years 2014 to 2025 Concentration Readings of O<sub>3</sub> (in ppb) at Beaverlodge



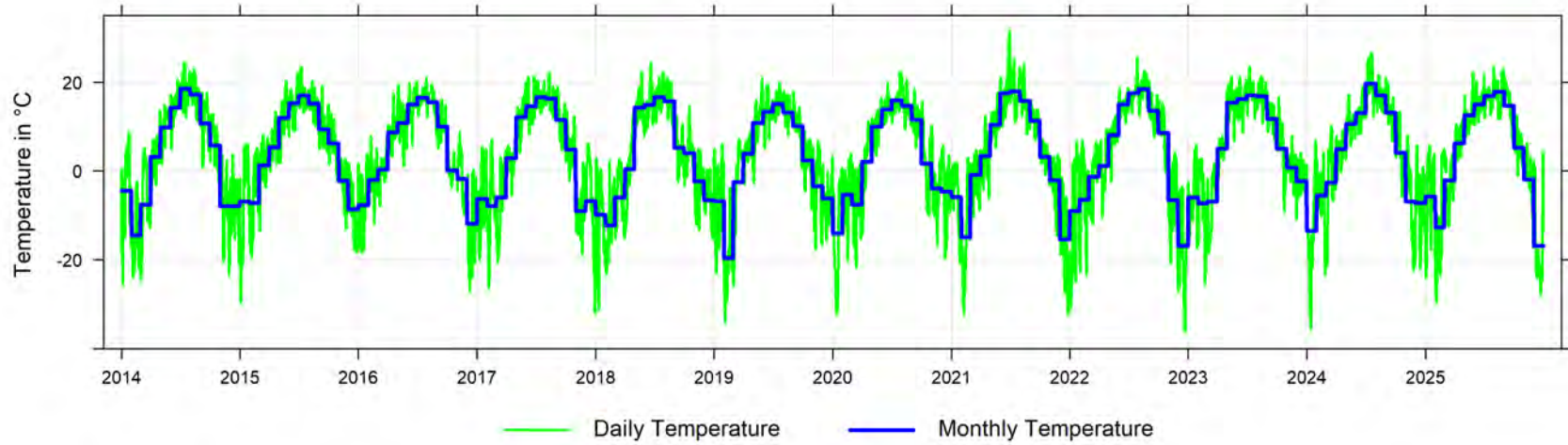
2014 to 2025 Annual Concentration Readings of PM<sub>2.5</sub> in µg/m<sup>3</sup> at Beaverlodge



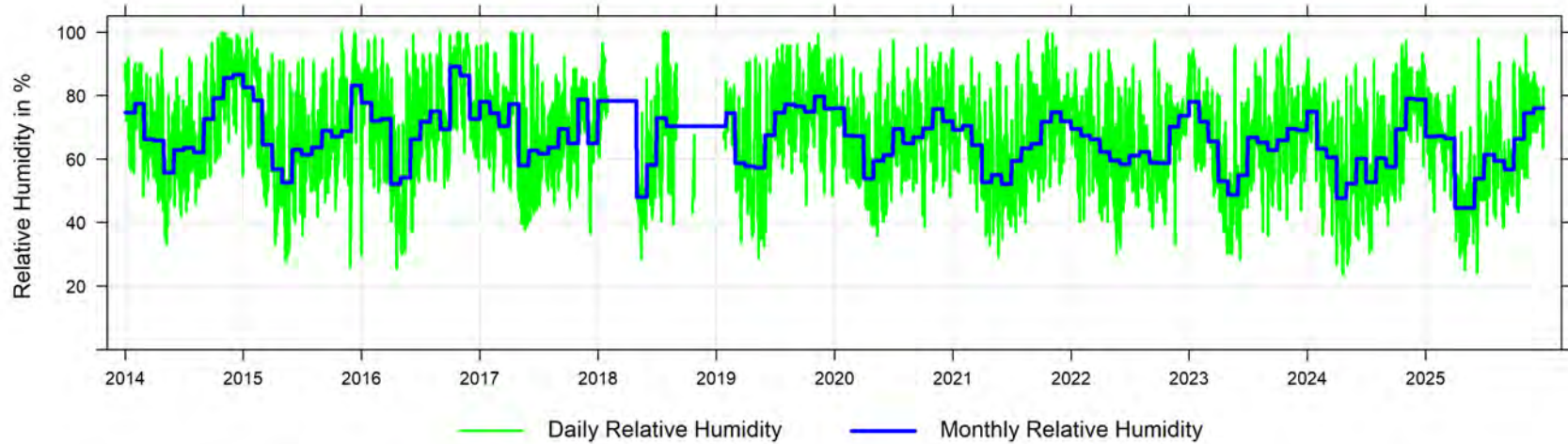
Years 2014 to 2025 Concentration Readings of PM<sub>2.5</sub> in µg/m<sup>3</sup> at Beaverlodge



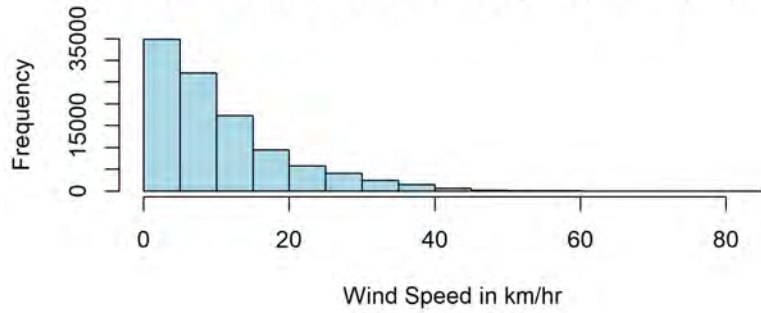
Years 2014 to 2025 Temperature Readings (in °C) at Beaverlodge



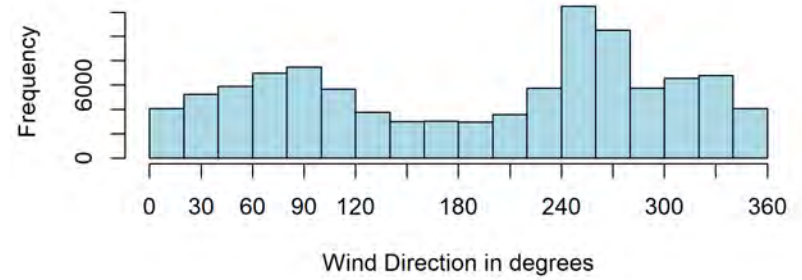
Years 2014 to 2025 Relative Humidity Readings (in %) at Beaverlodge



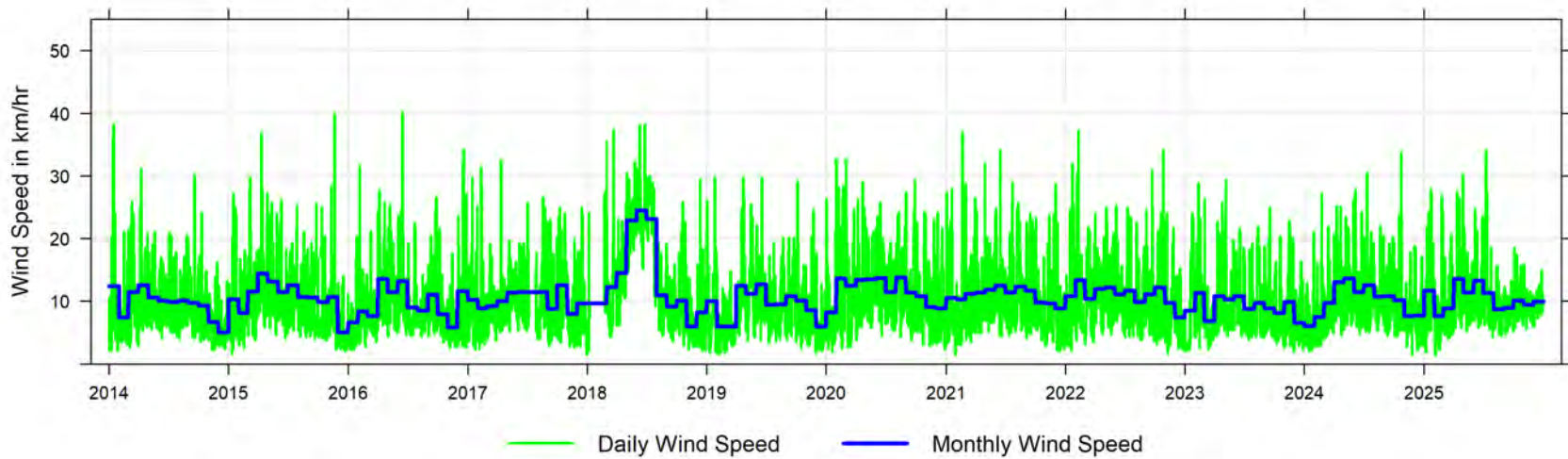
**Years 2014 to 2025 Wind Speed Histogram**

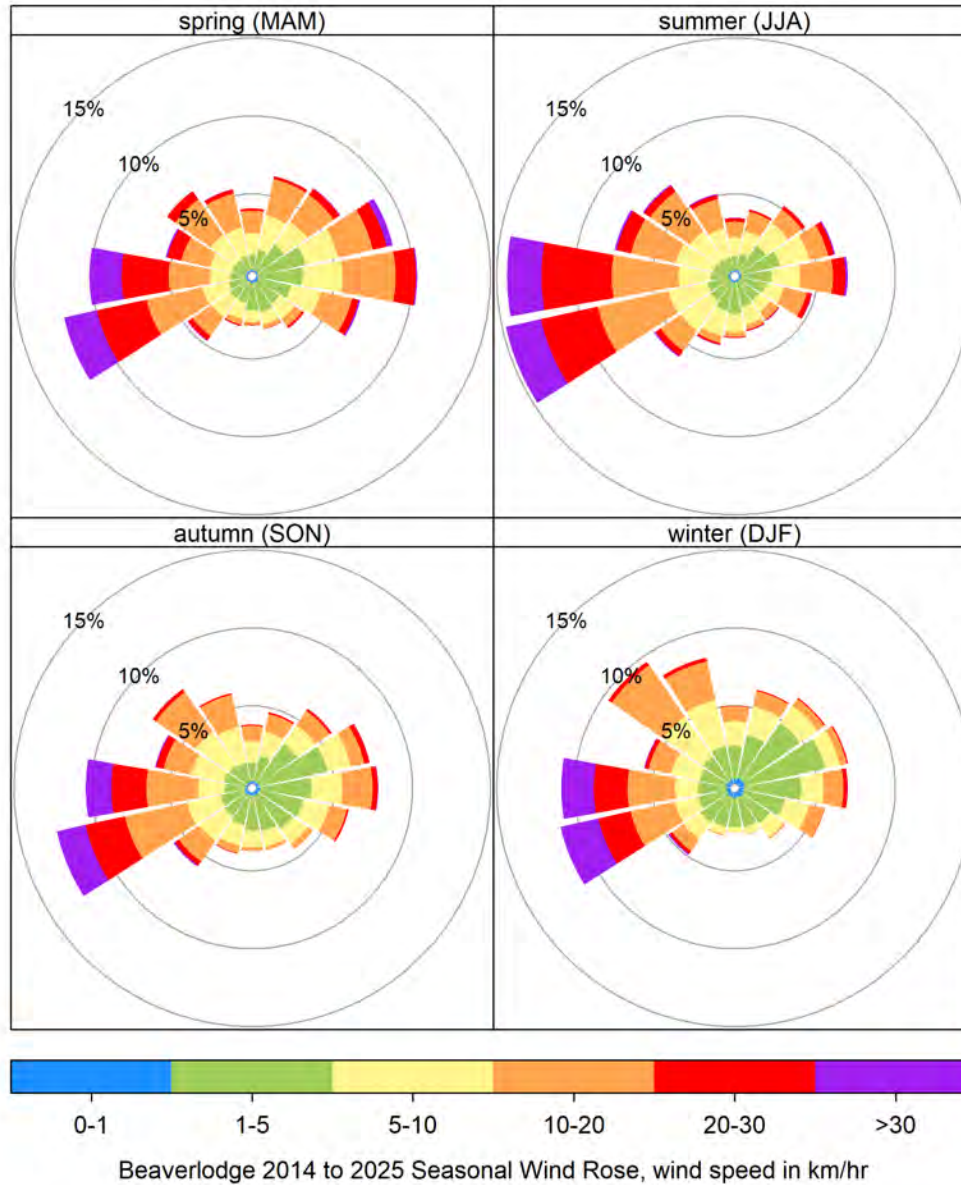


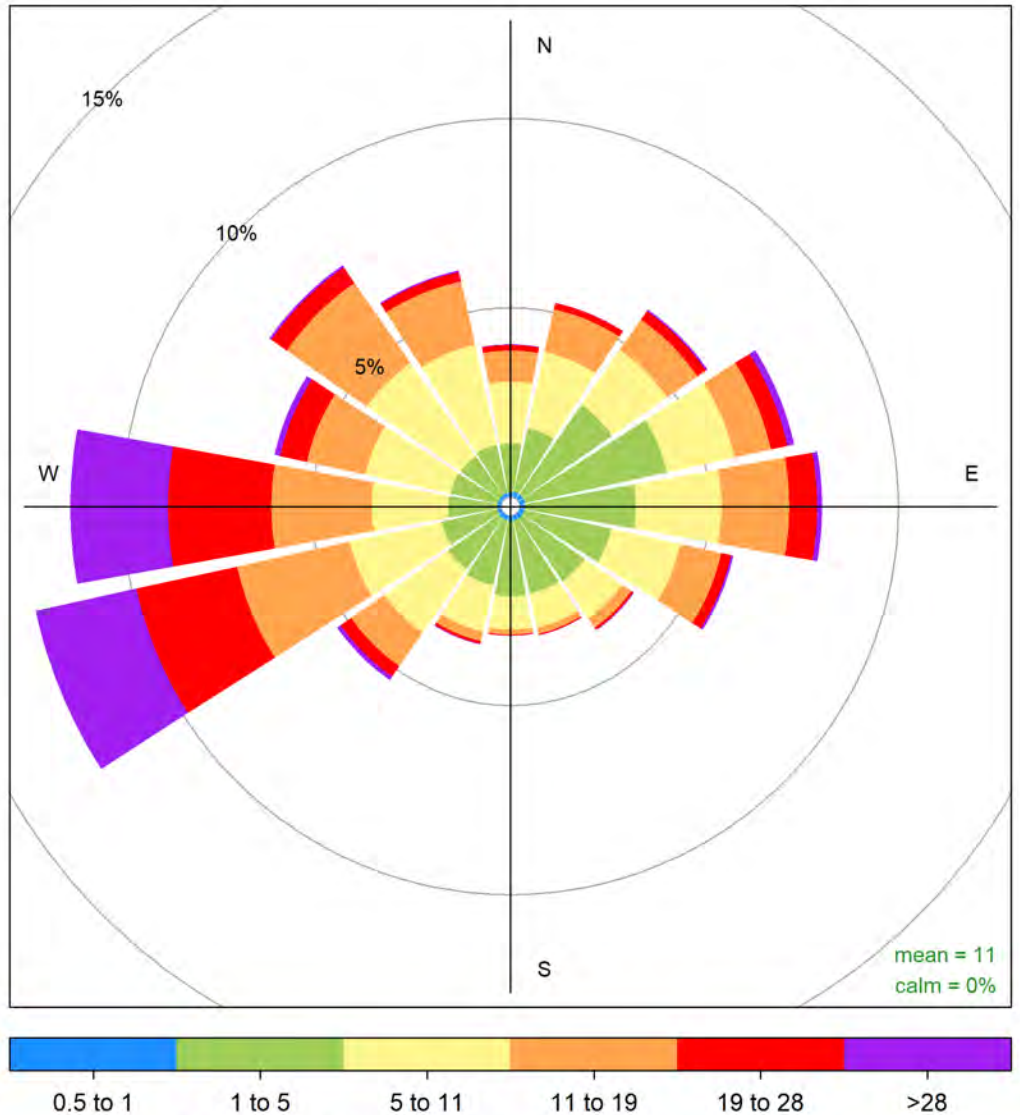
**Years 2014 to 2025 Wind Direction Histogram**



**Years 2014 to 2025 Wind Speed Readings (in km/hr) at Beaverlodge**







Beaverlodge 2014 to 2025 Wind Rose, wind speed in km/hr  
**Frequency of counts by wind direction (%)**

#### 4 Dunes Key Parameters - Continuous Monitoring Data - 2025 Summary

Dunes Key Parameters - Continuous Monitoring Data - 2025 Summary

Dunes Station	Parameter	Average	Maximum Values			Operational Time (%)	Valid Time (%)	Readings above AAAQO & AAAQG					
			24-hr	Date	1-hr			Date	30-min	1-hr	24-hr	30-d	Annual
			Sulphur Dioxide SO <sub>2</sub> measured in ppb	0.5	2.8			Dec 10	27.5	Dec 10 13:00	99.1%	94.4%	-
Total Reduced Sulphur TRS measured in ppb	0.5	1.2	Nov 29	3.9	Dec 30 06:00	98.7%	94.0%	0	0	0	-	-	
Particulate Matter PM <sub>2.5</sub> measured in µg/m <sup>3</sup>	6.3	122.2	Jun 10	311.7	Aug 31 10:00	98.9%	98.5%	-	59	13	-	-	

2025 Daily Concentration Readings at Dunes



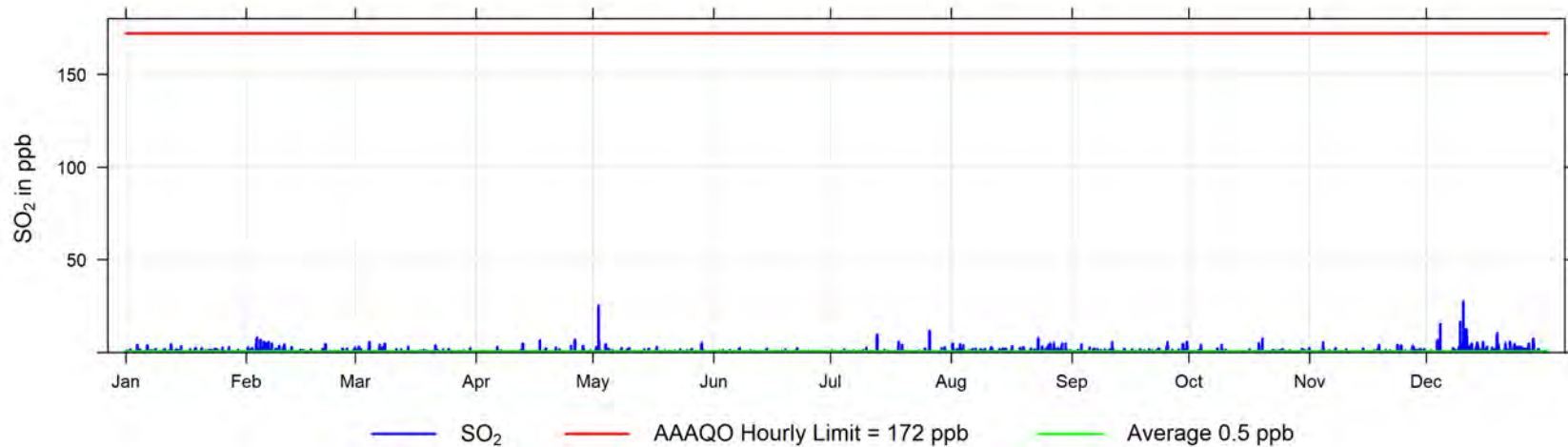
## 4.1 Sulphur Dioxide (SO<sub>2</sub>) - Dunes 2025 Summary

**Sulphur Dioxide (SO<sub>2</sub>) Frequency Distribution at Dunes**

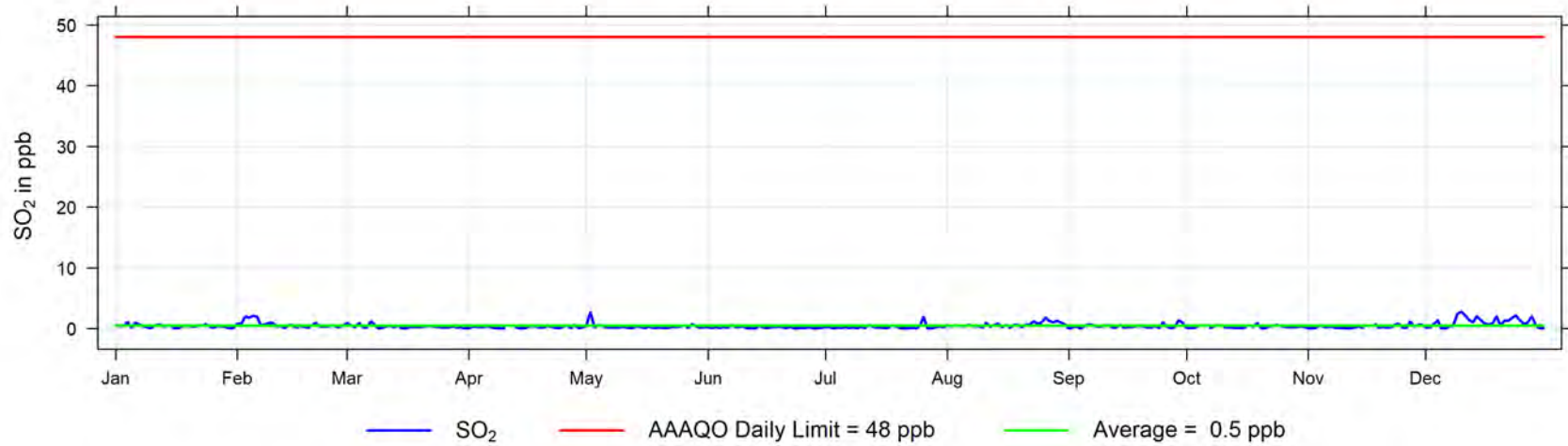
Month	Valid Hours	% of Readings in Concentration Range						Monthly Average (ppb)	MAXIMUM VALUES				Operational time (%)	Valid time (%)	Reportable Incidents		
		0 to 1 (ppb)	1 to 5 (ppb)	5 to 10 (ppb)	10 to 57 (ppb)	57 to 172 (ppb)	> 172 (ppb)		24-hr (ppb)	Date	1-hr (ppb)	Date			30-d 11 ppb	24-hr 48 ppb	1-hr 172 ppb
January 2025	710	89.0%	11.0%	0.0%	0.0%	0.0%	0.0%	0.4	1.0	Jan 06	4.4	Jan 12 16:00	100.0%	95.4%	0	0	0
February 2025	640	80.6%	18.4%	0.9%	0.0%	0.0%	0.0%	0.7	2.1	Feb 05	7.9	Feb 03 17:00	100.0%	95.2%	0	0	0
March 2025	710	91.8%	8.0%	0.1%	0.0%	0.0%	0.0%	0.4	1.3	Mar 07	5.6	Mar 04 14:00	100.0%	95.4%	0	0	0
April 2025	665	96.2%	3.5%	0.3%	0.0%	0.0%	0.0%	0.3	0.6	Apr 28	6.7	Apr 26 08:00	96.9%	92.4%	0	0	0
May 2025	707	93.9%	5.5%	0.3%	0.3%	0.0%	0.0%	0.4	2.7	May 02	25.5	May 02 10:00	99.7%	95.0%	0	0	0
June 2025	686	97.5%	2.5%	0.0%	0.0%	0.0%	0.0%	0.2	0.6	Jun 07	2.4	Jun 22 10:00	100.0%	95.3%	0	0	0
July 2025	708	95.5%	3.8%	0.3%	0.4%	0.0%	0.0%	0.3	2.0	Jul 26	11.6	Jul 26 11:00	99.7%	95.2%	0	0	0
August 2025	708	83.2%	16.5%	0.3%	0.0%	0.0%	0.0%	0.7	1.7	Aug 26	7.7	Aug 23 08:00	100.0%	95.2%	0	0	0
September 2025	686	89.4%	10.1%	0.6%	0.0%	0.0%	0.0%	0.4	1.4	Sep 29	5.8	Sep 30 13:00	100.0%	95.3%	0	0	0
October 2025	681	95.2%	4.6%	0.3%	0.0%	0.0%	0.0%	0.3	0.7	Oct 19	7.4	Oct 19 22:00	96.4%	91.5%	0	0	0
November 2025	662	90.3%	9.5%	0.2%	0.0%	0.0%	0.0%	0.3	1.2	Nov 27	5.7	Nov 04 12:00	96.7%	91.9%	0	0	0
December 2025	709	67.8%	29.2%	2.1%	0.8%	0.0%	0.0%	1.1	2.8	Dec 10	27.5	Dec 10 13:00	100.0%	95.3%	0	0	0
<b>Annual</b>	<b>8272</b>	<b>89.2%</b>	<b>10.2%</b>	<b>0.4%</b>	<b>0.1%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.5</b>	<b>2.8</b>	<b>MAXIMUM VALUES</b>		<b>99.1%</b>	<b>94.4%</b>	<b>0</b>	<b>0</b>	<b>0</b>	

AAAQO Objectives: Annual: 8ppb, 30-Day: 11ppb, 24-Hr: 48ppb, 1-Hr: 172ppb

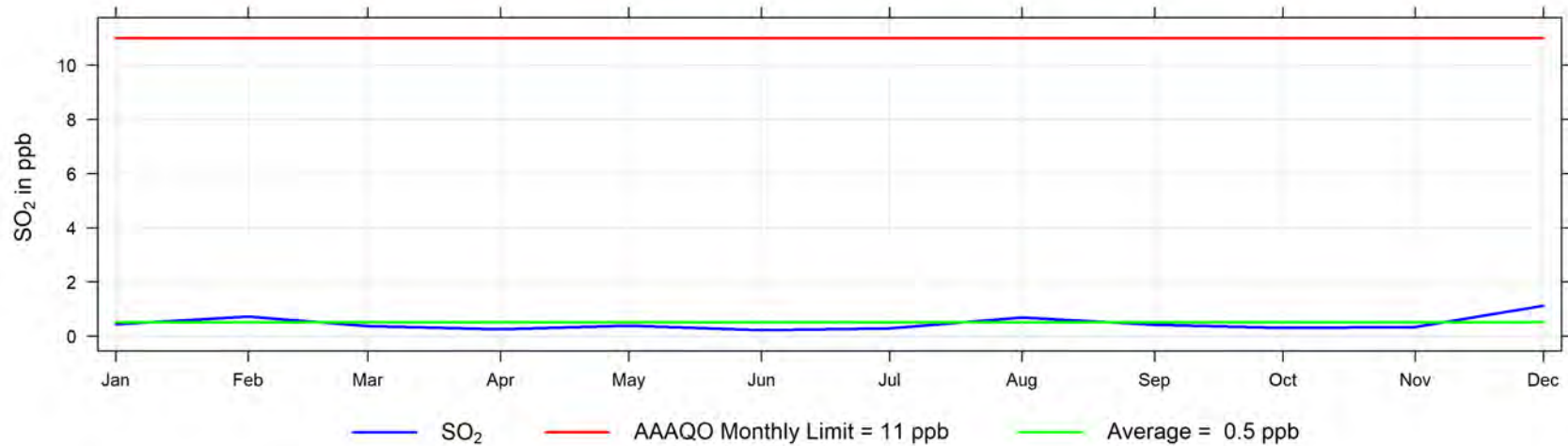
2025 Hourly Concentration Readings of SO<sub>2</sub> (in ppb) at Dunes

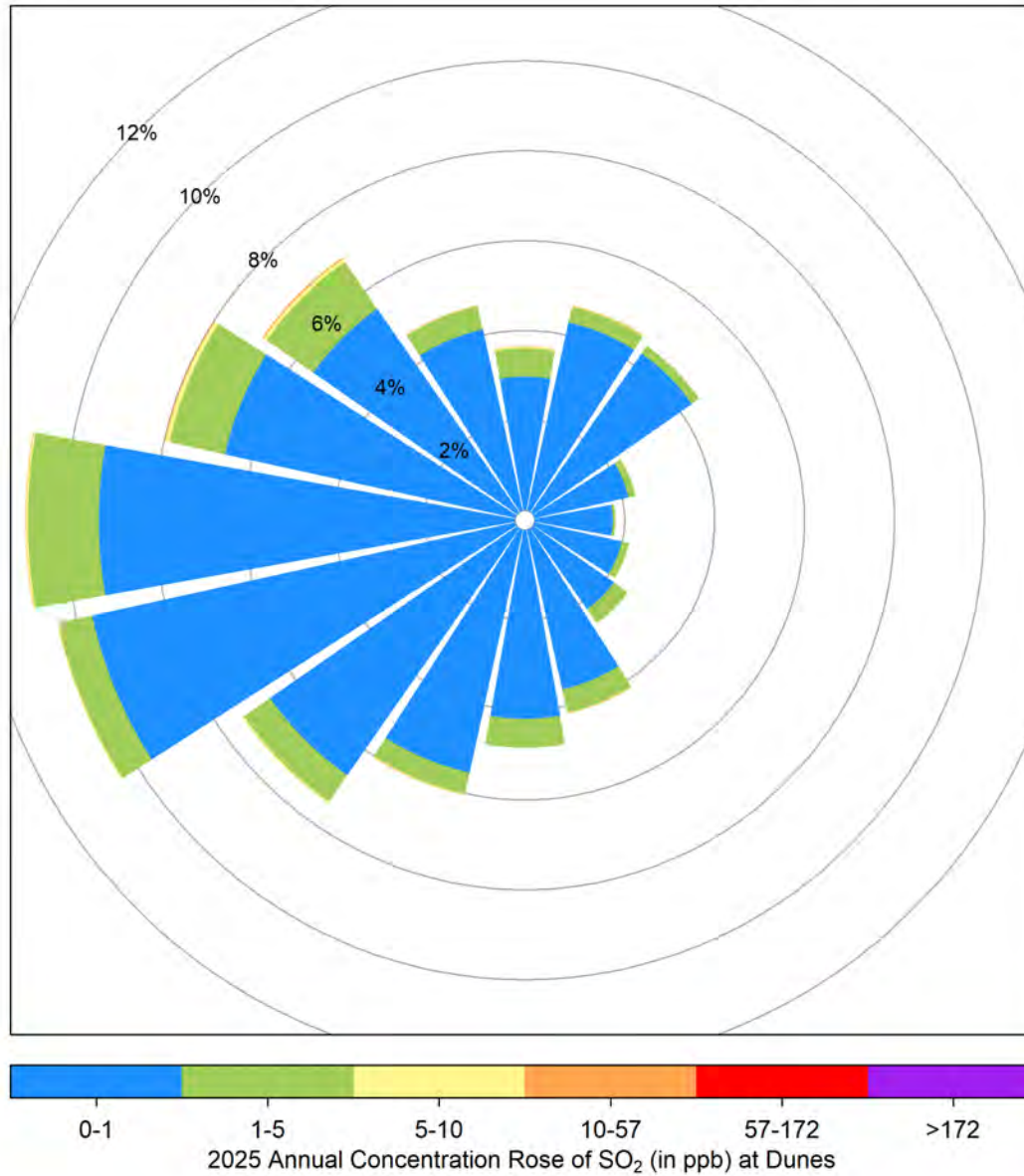


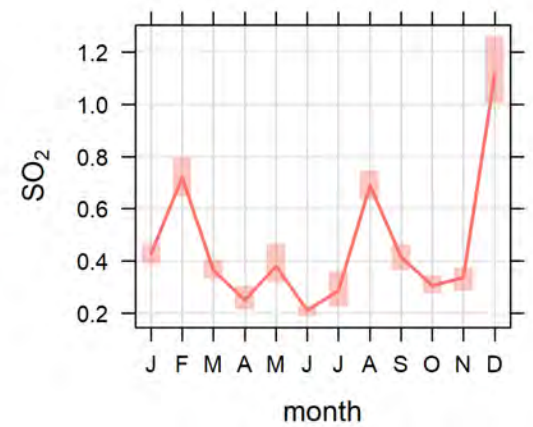
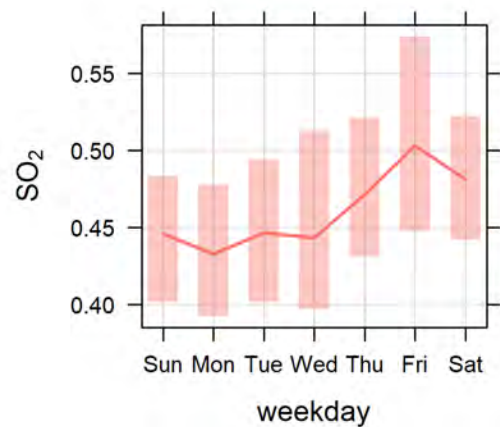
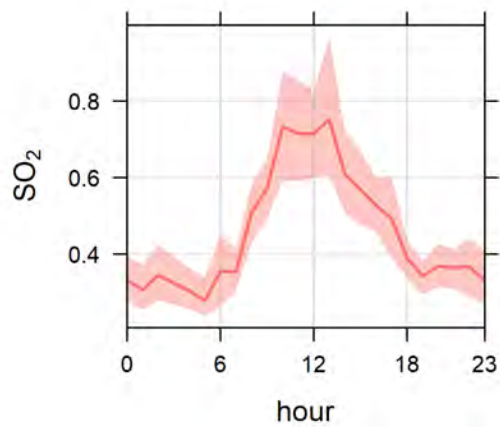
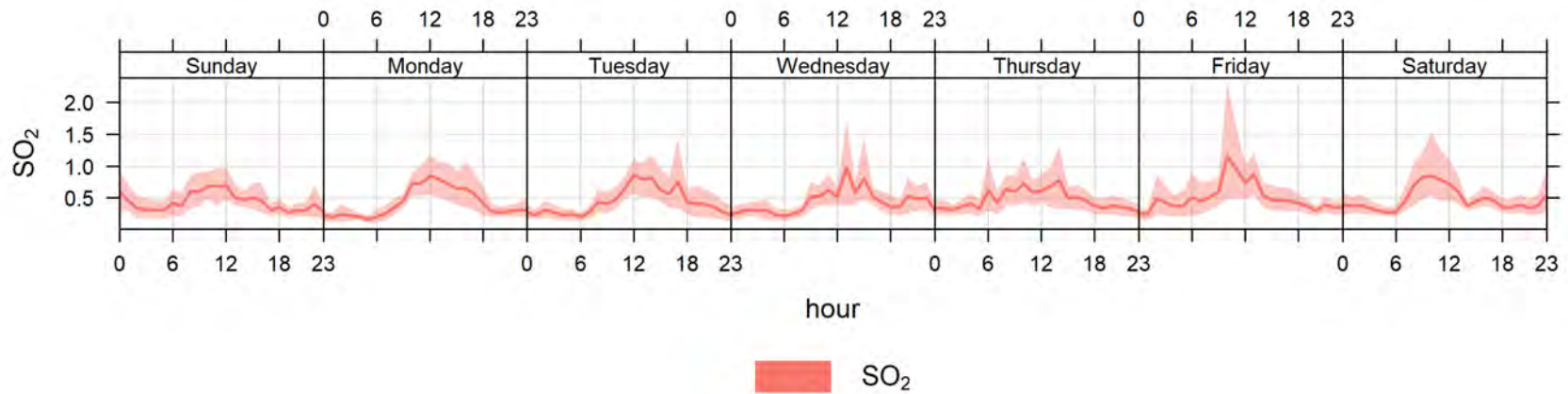
2025 Daily Concentration Readings of SO<sub>2</sub> (in ppb) at Dunes



2025 Monthly Concentration Readings of SO<sub>2</sub> (in ppb) at Dunes

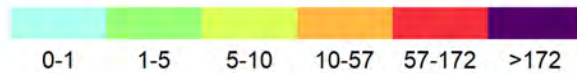
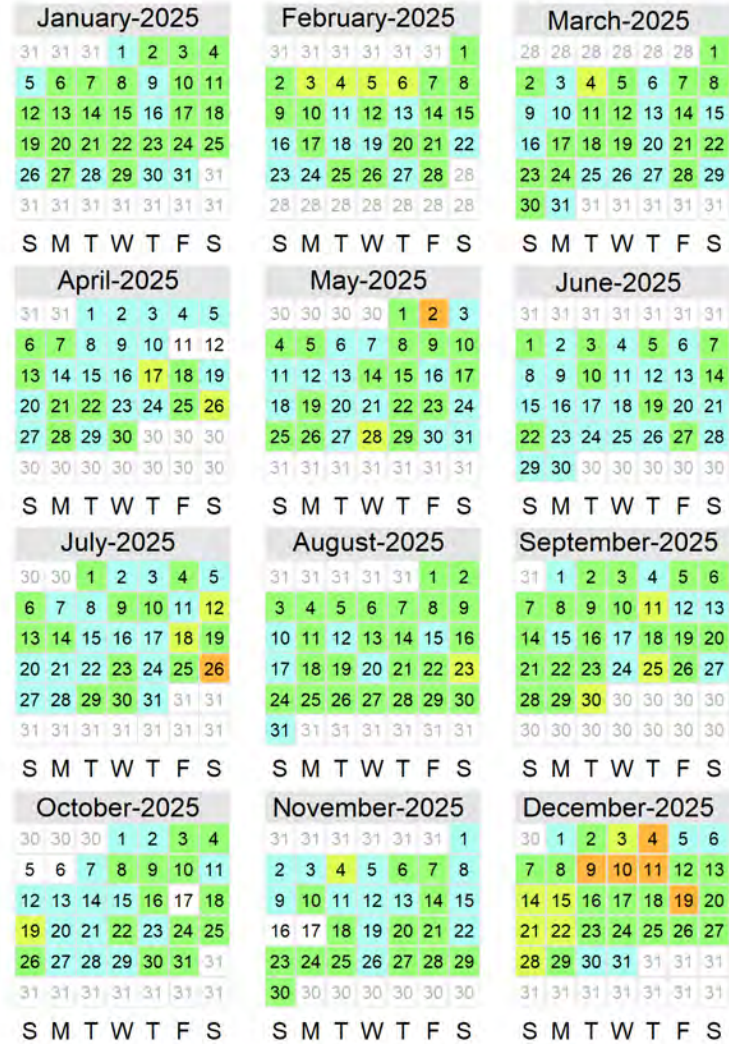






mean and 95% confidence interval in mean

## Hourly Maximum SO<sub>2</sub> (in ppb) for 2025 at Dunes



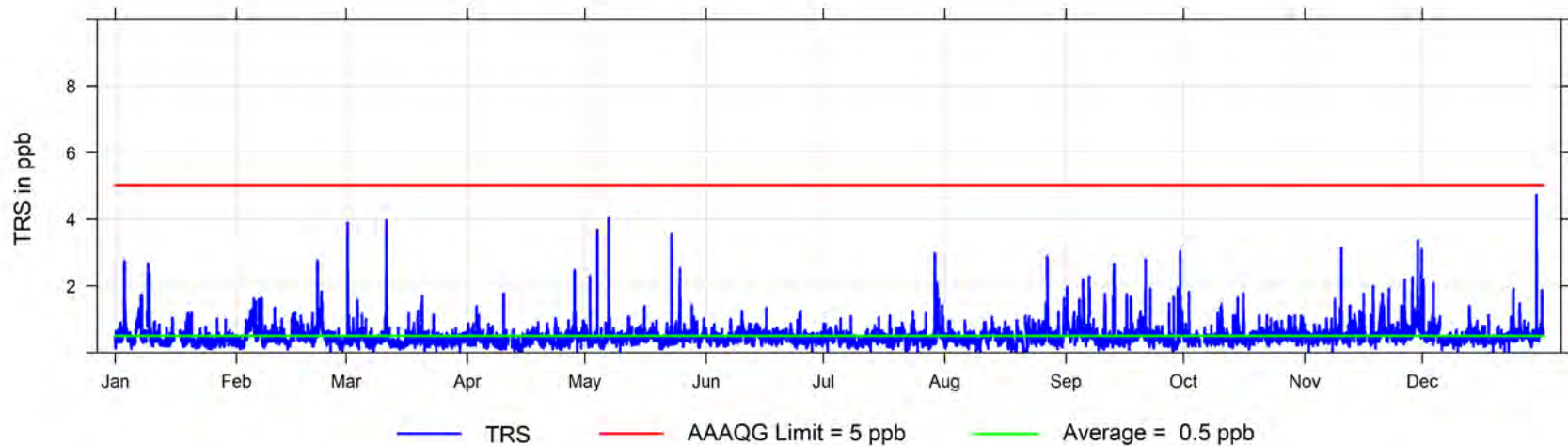
## 4.2 Total Reduced Sulphur (TRS) - Dunes 2025 Summary

**Total Reduced Sulphur (TRS) Frequency Distribution at Dunes**

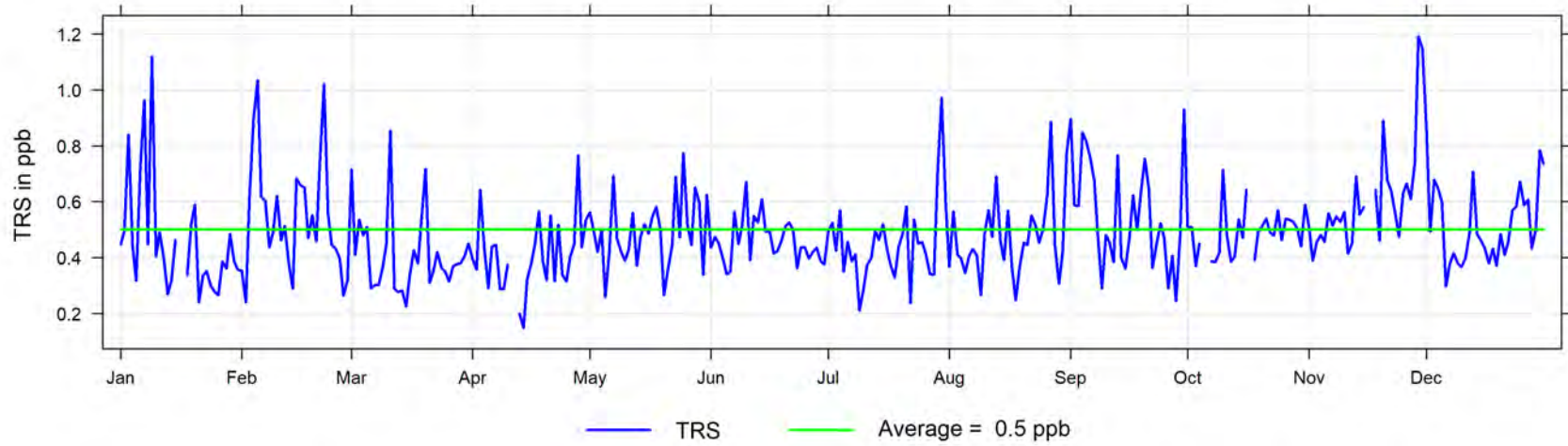
Month	Valid Hours	% of Readings in Concentration Range						Monthly Average (ppb)	MAXIMUM VALUES				Operational time (%)	Valid time (%)	e-Report 30min 5 ppb
		0 to 1 (ppb)	1 to 3 (ppb)	3 to 5 (ppb)	5 to 8 (ppb)	8 to 10 (ppb)	> 10 (ppb)		24-hr (ppb)	Date	1-hr (ppb)	Date			
January 2025	675	95.9%	4.1%	0.0%	0.0%	0.0%	0.0%	0.4	1.1	Jan 09	2.5	Jan 09 10:00	95.3%	90.7%	0
February 2025	640	93.0%	7.0%	0.0%	0.0%	0.0%	0.0%	0.5	1.0	Feb 05	2.5	Feb 21 18:00	100.0%	95.2%	0
March 2025	709	97.3%	2.4%	0.3%	0.0%	0.0%	0.0%	0.4	0.9	Mar 11	3.3	Mar 11 09:00	100.0%	95.3%	0
April 2025	664	98.9%	1.1%	0.0%	0.0%	0.0%	0.0%	0.4	0.8	Apr 28	1.9	Apr 28 10:00	96.8%	92.2%	0
May 2025	707	97.5%	2.3%	0.3%	0.0%	0.0%	0.0%	0.5	0.8	May 25	3.4	May 23 06:00	99.7%	95.0%	0
June 2025	686	99.3%	0.7%	0.0%	0.0%	0.0%	0.0%	0.5	0.7	Jun 10	1.2	Jun 10 04:00	100.0%	95.3%	0
July 2025	707	97.7%	2.3%	0.0%	0.0%	0.0%	0.0%	0.4	1.0	Jul 30	2.3	Jul 29 12:00	99.7%	95.0%	0
August 2025	705	97.7%	2.3%	0.0%	0.0%	0.0%	0.0%	0.5	0.9	Aug 27	2.8	Aug 27 05:00	99.6%	94.8%	0
September 2025	687	92.0%	8.0%	0.0%	0.0%	0.0%	0.0%	0.5	0.9	Sep 30	2.9	Sep 30 04:00	100.0%	95.4%	0
October 2025	679	97.2%	2.8%	0.0%	0.0%	0.0%	0.0%	0.5	0.7	Oct 10	1.7	Oct 02 10:00	96.4%	91.3%	0
November 2025	663	91.0%	9.0%	0.0%	0.0%	0.0%	0.0%	0.6	1.2	Nov 29	3.0	Nov 29 22:00	96.7%	92.1%	0
December 2025	709	96.3%	3.5%	0.1%	0.0%	0.0%	0.0%	0.5	0.8	Dec 01	3.9	Dec 30 06:00	100.0%	95.3%	0
<b>Annual</b>	<b>8231</b>	<b>96.1%</b>	<b>3.8%</b>	<b>0.1%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.5</b>	<b>1.2</b>	<b>Nov 29</b>	<b>3.9</b>	<b>Dec 30 06:00</b>	<b>98.7%</b>	<b>94.0%</b>	<b>0</b>

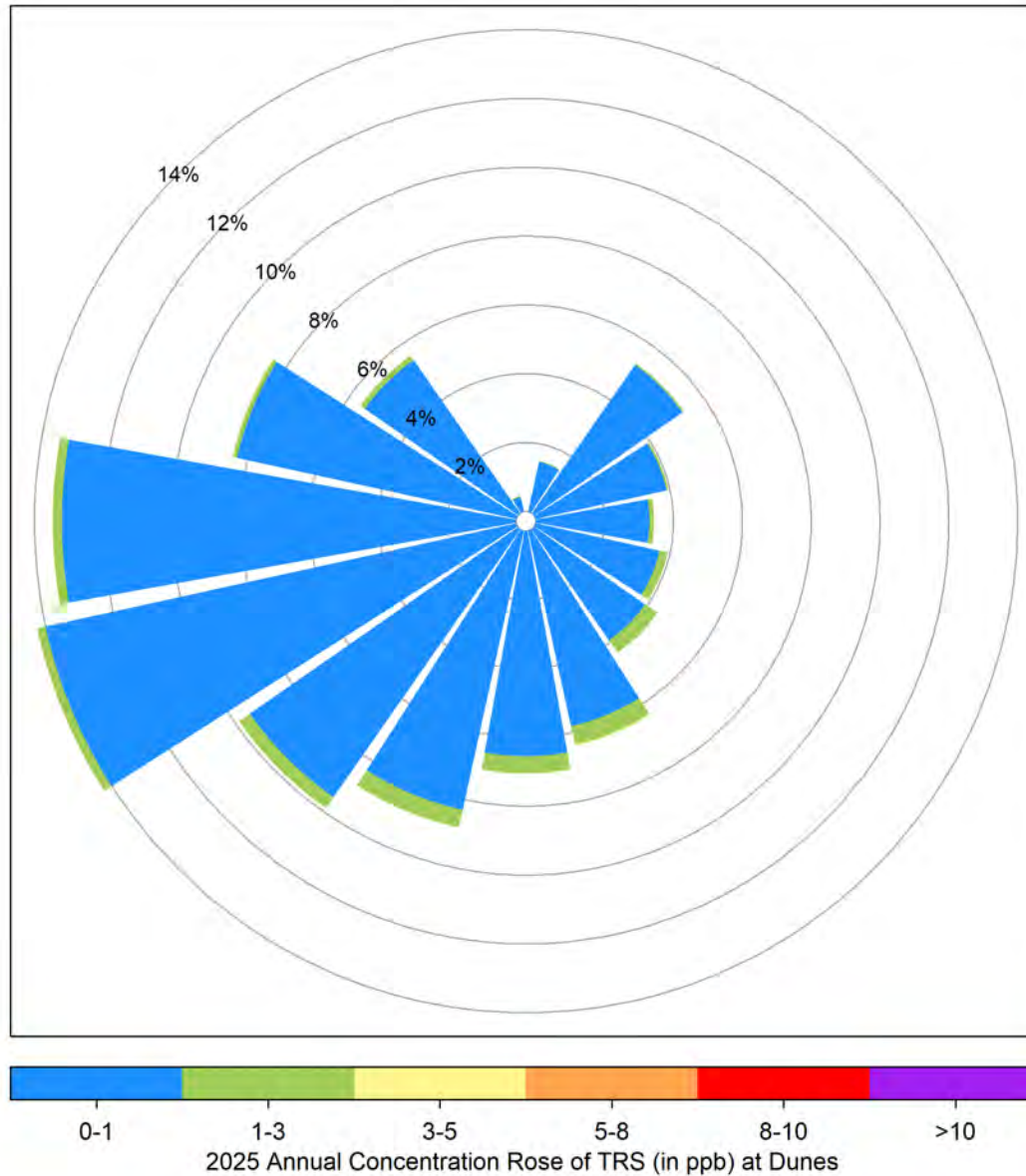
AAAQG TRS: 30min: 5ppb

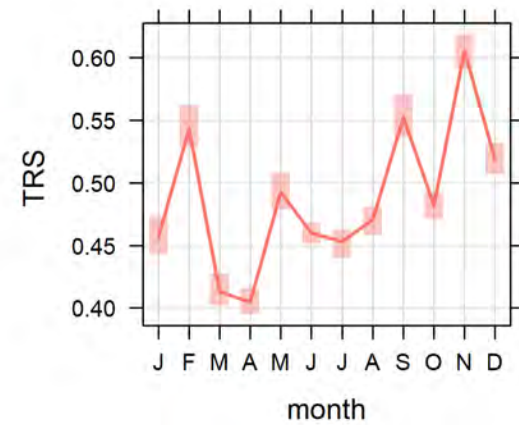
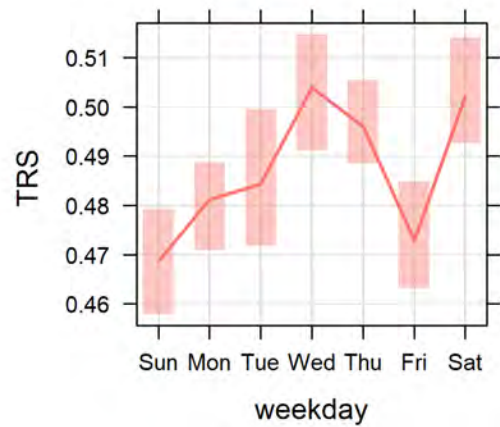
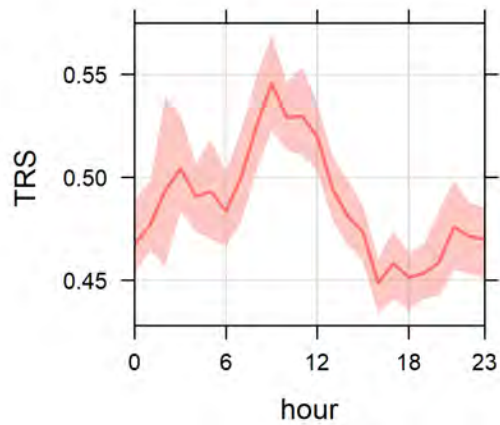
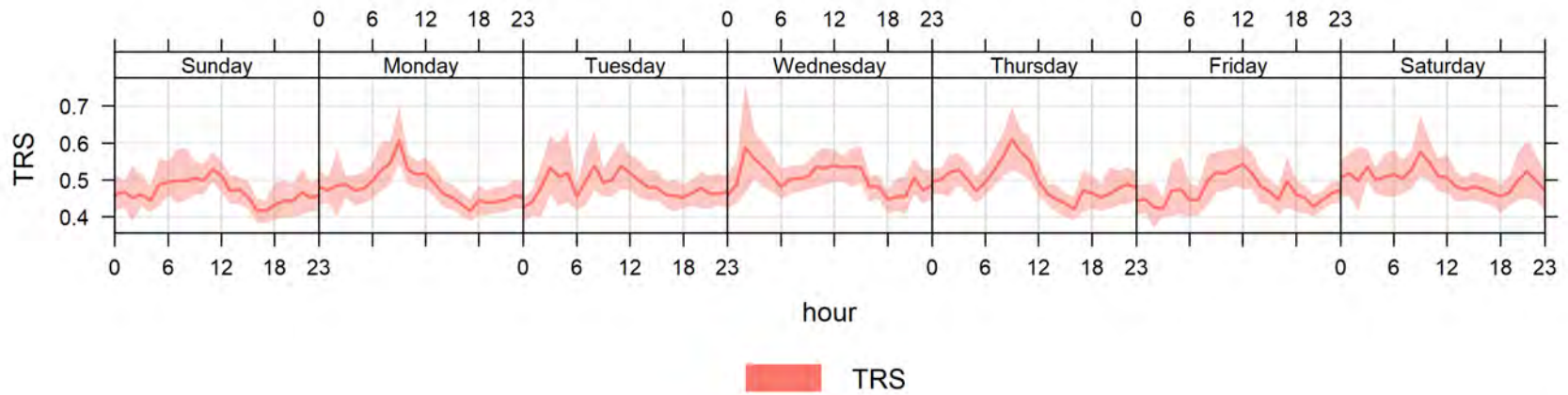
2025 30 min Concentration Readings of TRS (in ppb) at Dunes



2025 Daily Concentration Readings of TRS (in ppb) at Dunes

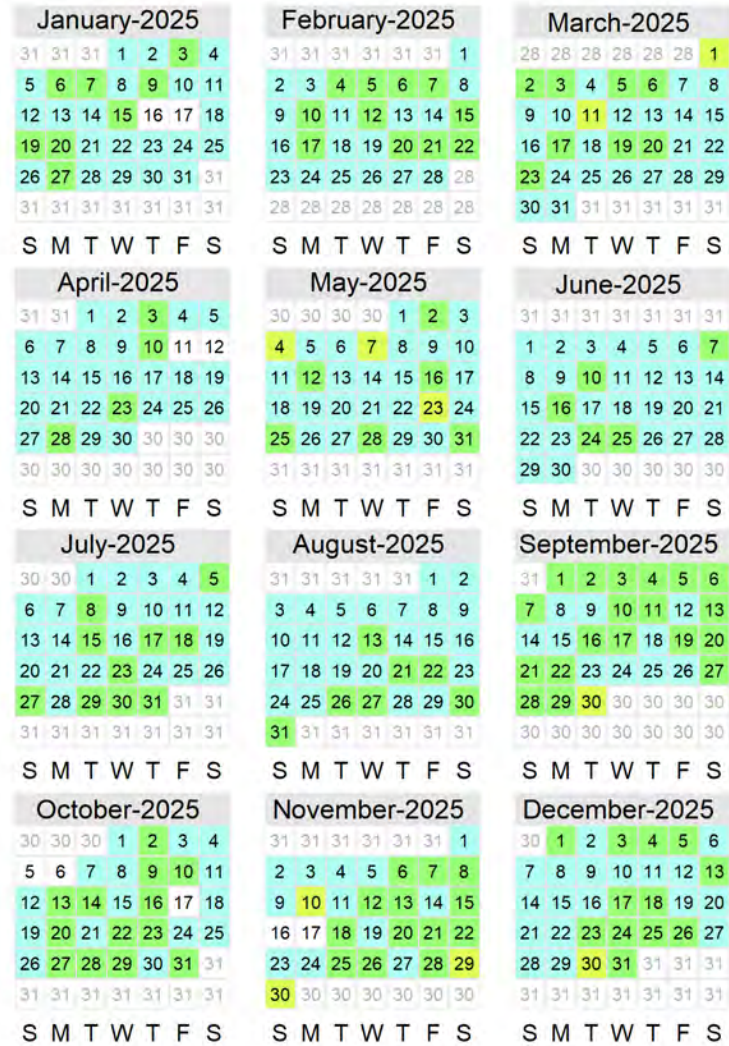






mean and 95% confidence interval in mean

## Hourly Maximum TRS (in ppb) for 2025 at Dunes



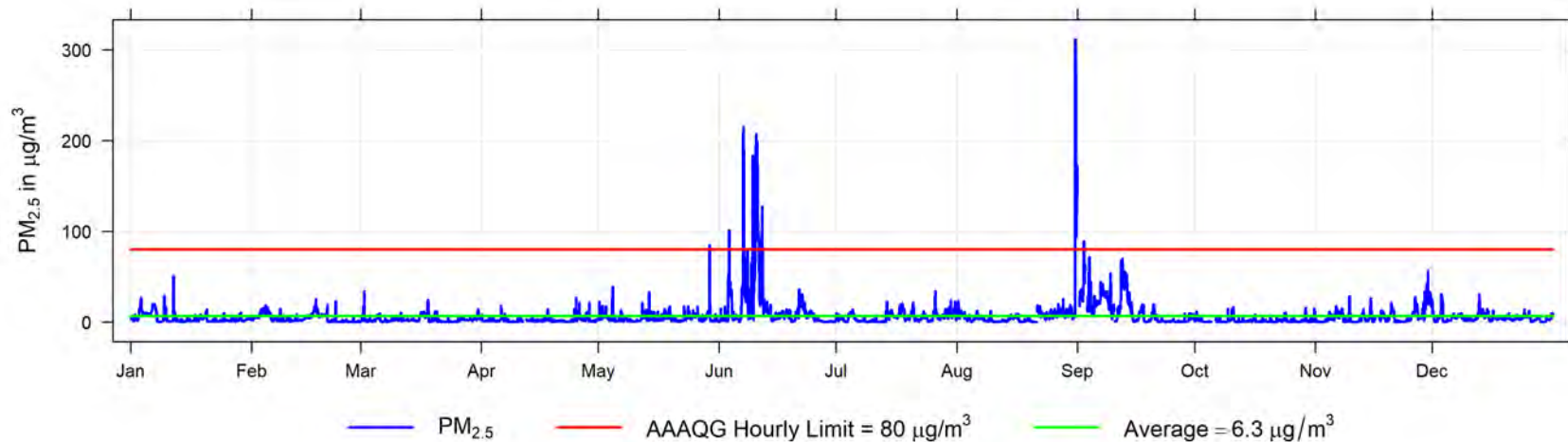
### 4.3 Particulate Matter (PM<sub>2.5</sub>) - Dunes 2025 Summary

**Particulate Matter (PM<sub>2.5</sub>) Frequency Distribution at Dunes**

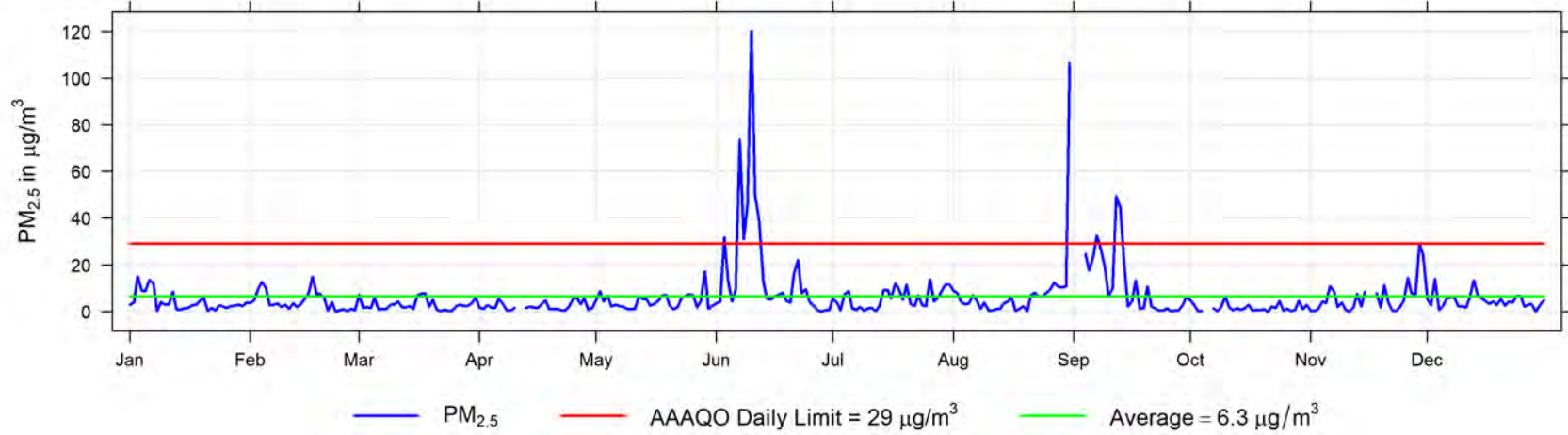
Month	Valid Hours	% of Readings in Concentration Range						Monthly Average (µg/m <sup>3</sup> )	MAXIMUM VALUES				Operational time (%)	Valid time (%)	Reportable Incidents	
		0 to 5 (µg/m <sup>3</sup> )	5 to 15 (µg/m <sup>3</sup> )	15 to 30 (µg/m <sup>3</sup> )	30 to 50 (µg/m <sup>3</sup> )	50 to 80 (µg/m <sup>3</sup> )	> 80 (µg/m <sup>3</sup> )		24-hr (µg/m <sup>3</sup> )	Date	1-hr (µg/m <sup>3</sup> )	Date			24-hr 29 µg/m <sup>3</sup>	1-hr 80 µg/m <sup>3</sup>
January 2025	742	73.3%	21.3%	5.0%	0.3%	0.1%	0.0%	4.1	15.3	Jan 03	50.7	Jan 12 00:00	100.0%	99.7%	0	0
February 2025	666	66.7%	30.0%	3.3%	0.0%	0.0%	0.0%	4.2	14.9	Feb 17	25.7	Feb 17 14:00	99.4%	99.1%	0	0
March 2025	742	84.1%	14.6%	1.2%	0.1%	0.0%	0.0%	2.8	7.6	Mar 18	34.3	Mar 01 23:00	100.0%	99.7%	0	0
April 2025	696	89.8%	9.6%	0.6%	0.0%	0.0%	0.0%	2.2	5.9	Apr 26	27.0	Apr 25 08:00	96.9%	96.7%	0	0
May 2025	739	70.2%	27.1%	2.0%	0.3%	0.1%	0.3%	4.4	16.9	May 29	84.7	May 29 14:00	99.7%	99.3%	0	2
June 2025	718	43.5%	29.5%	11.1%	7.4%	2.9%	5.6%	18.1	122.2	Jun 10	215.3	Jun 07 07:00	100.0%	99.7%	7	40
July 2025	740	54.9%	40.0%	5.0%	0.1%	0.0%	0.0%	5.5	13.6	Jul 26	34.0	Jul 26 12:00	99.7%	99.5%	0	0
August 2025	740	55.3%	38.5%	4.1%	0.0%	0.1%	2.0%	8.6	113.4	Aug 31	311.7	Aug 31 10:00	100.0%	99.5%	1	15
September 2025	699	45.2%	19.7%	19.7%	9.9%	5.2%	0.3%	13.6	50.3	Sep 12	88.9	Sep 02 15:00	97.4%	97.1%	4	2
October 2025	716	90.6%	8.9%	0.4%	0.0%	0.0%	0.0%	1.6	6.7	Oct 10	16.3	Oct 10 22:00	96.4%	96.2%	0	0
November 2025	693	63.2%	26.0%	8.4%	2.2%	0.3%	0.0%	6.0	29.7	Nov 29	56.3	Nov 29 22:00	96.7%	96.3%	1	0
December 2025	742	67.0%	30.6%	2.2%	0.3%	0.0%	0.0%	4.5	13.6	Dec 03	31.2	Dec 03 08:00	100.0%	99.7%	0	0
<b>Annual</b>	<b>8633</b>	<b>67.0%</b>	<b>24.7%</b>	<b>5.2%</b>	<b>1.7%</b>	<b>0.7%</b>	<b>0.7%</b>	<b>6.3</b>	<b>122.2</b>	<b>Jun 10</b>	<b>311.7</b>	<b>Aug 31 10:00</b>	<b>98.9%</b>	<b>98.5%</b>	<b>13</b>	<b>59</b>

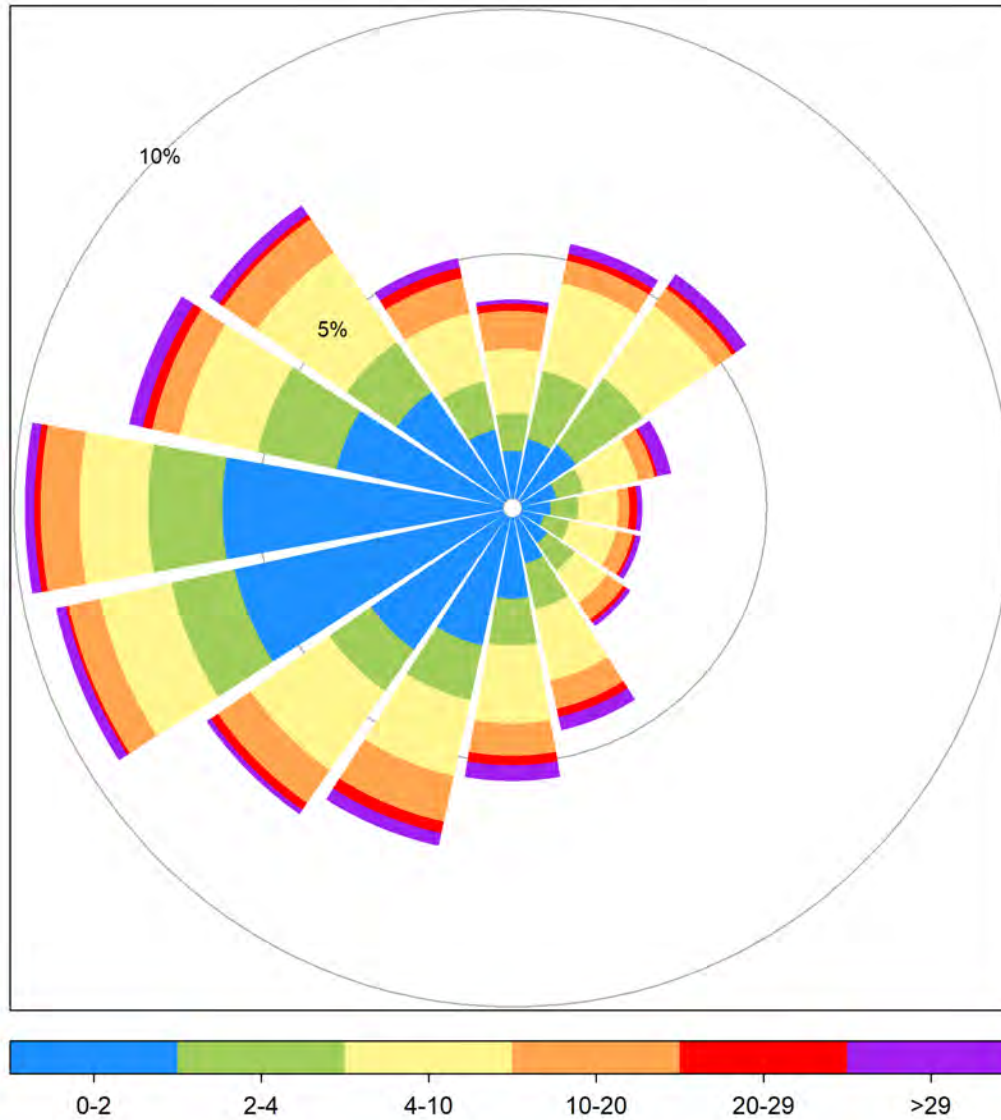
AAAQO Objectives: 24-Hr: 29 µg/m<sup>3</sup>, AAAQG Guideline: 1-Hr: 80 µg/m<sup>3</sup>

2025 Hourly Concentration Readings of PM<sub>2.5</sub> in µg/m<sup>3</sup> at Dunes

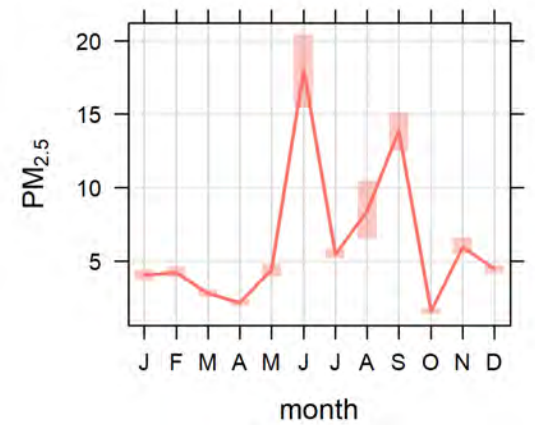
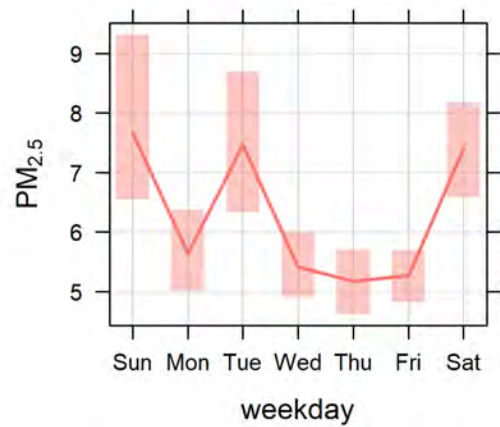
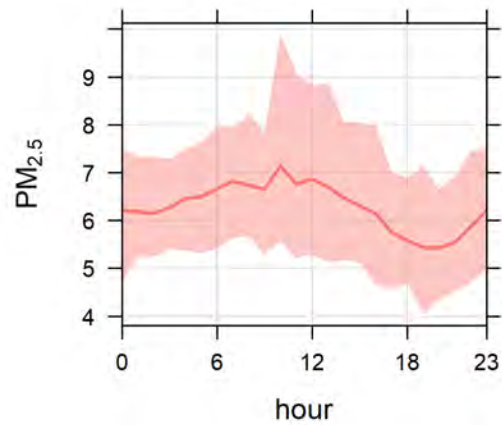
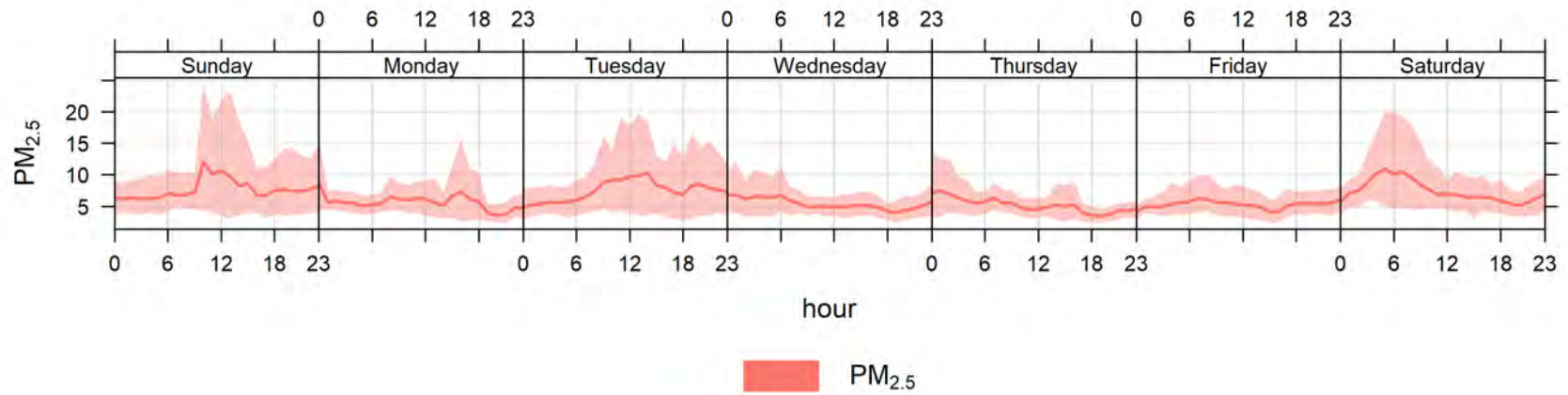


2025 Daily Concentration Readings of PM<sub>2.5</sub> in  $\mu\text{g}/\text{m}^3$  at Dunes



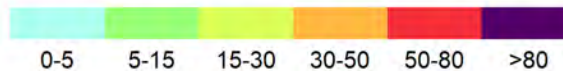
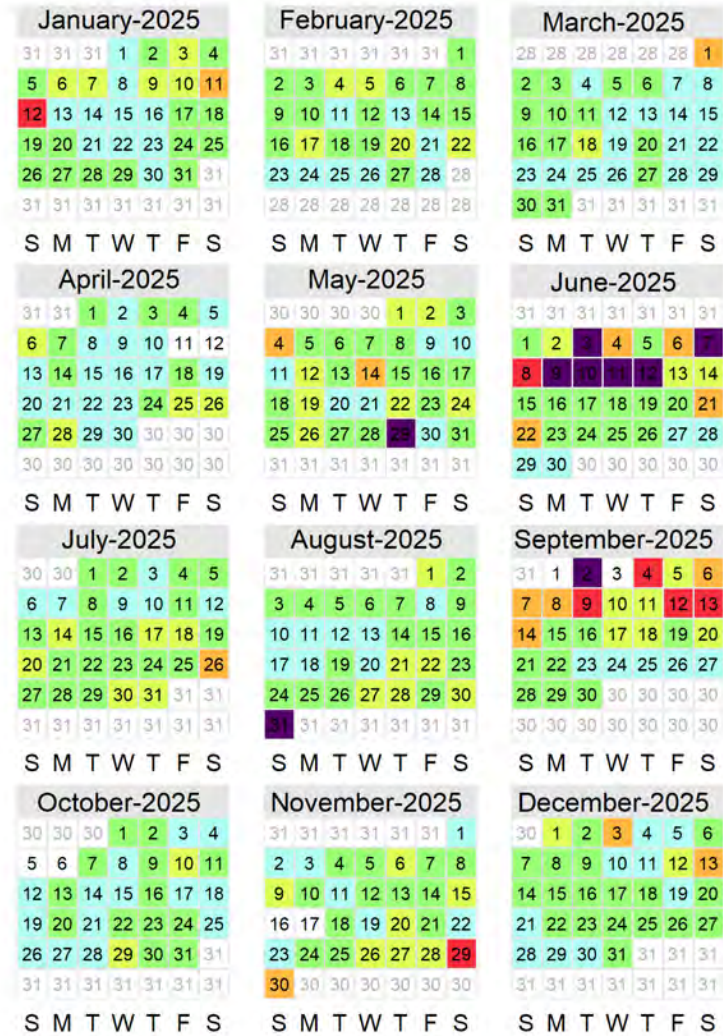


2025 Annual Concentration Readings of PM<sub>2.5</sub> in µg/m<sup>3</sup> at Dunes



mean and 95% confidence interval in mean

## Hourly Maximum PM<sub>2.5</sub> (in µg/m<sup>3</sup>) for 2025 at Dunes

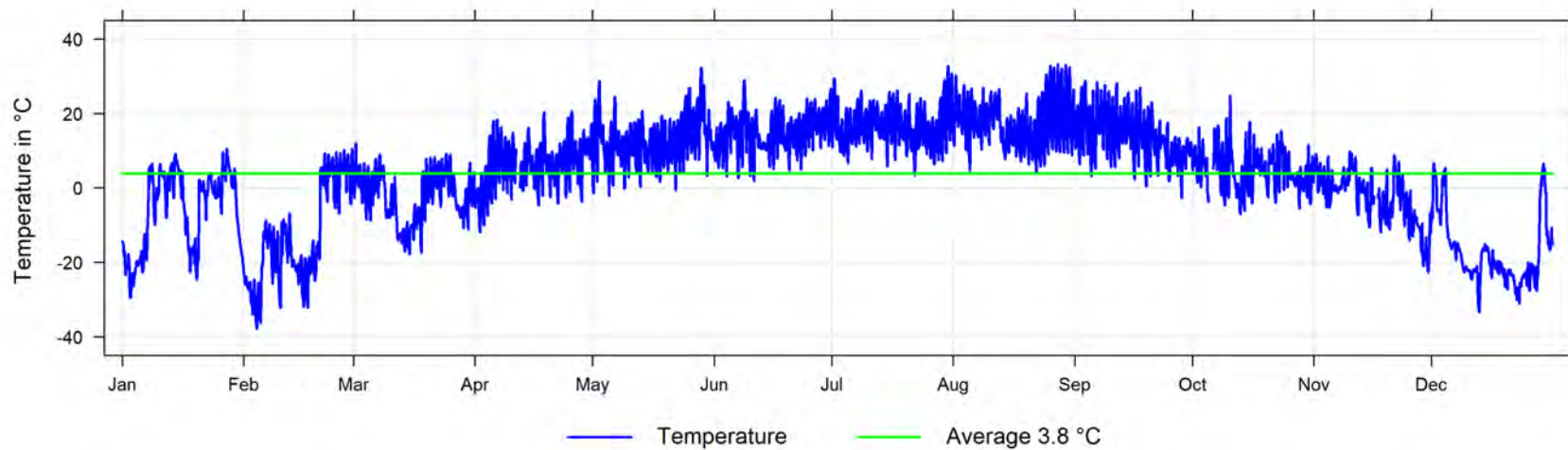


#### 4.4 Temperature (ET) - Dunes 2025 Summary

Temperature (ET) Frequency Distribution at Dunes

Month	Valid Hours	Monthly Average (°C)	Maximum Values			Minimum Values			Operational time (%)	Valid time (%)			
			24-hr (°C)	Date	1-hr (°C)	Date	24-hr (°C)	Date			1-hr (°C)	Date	
January 2025	744	-6.2	6.3	Jan 27	10.6	Jan 27 16:00	-26.5	Jan 03	-29.5	Jan 03 01:00	100.0%	100.0%	
February 2025	672	-13.6	6.6	Feb 26	10.6	Feb 28 16:00	-32.7	Feb 04	-37.8	Feb 04 09:00	100.0%	100.0%	
March 2025	744	-2.4	5.0	Mar 24	12.0	Mar 01 15:00	-13.1	Mar 14	-17.8	Mar 15 07:00	100.0%	100.0%	
April 2025	698	6.3	11.8	Apr 30	20.6	Apr 25 15:00	-3.6	Apr 02	-12.0	Apr 02 07:00	96.9%	96.9%	
May 2025	742	12.9	22.6	May 28	32.4	May 28 17:00	9.0	May 04	-2.2	May 05 06:00	99.7%	99.7%	
June 2025	720	14.9	19.6	Jun 08	29.0	Jun 08 17:00	10.2	Jun 01	1.9	Jun 11 04:00	100.0%	100.0%	
July 2025	744	16.7	21.7	Jul 30	32.9	Jul 30 17:00	12.2	Jul 21	3.5	Jul 22 06:00	100.0%	100.0%	
August 2025	744	17.7	21.8	Aug 12	33.3	Aug 27 17:00	12.3	Aug 21	3.7	Aug 22 06:00	100.0%	100.0%	
September 2025	720	13.9	19.8	Sep 03	28.8	Sep 03 16:00	6.1	Sep 28	-2.8	Sep 28 07:00	100.0%	100.0%	
October 2025	717	4.8	9.6	Oct 07	24.8	Oct 10 16:00	-1.7	Oct 13	-7.0	Oct 13 07:00	96.4%	96.4%	
November 2025	696	-2.9	7.3	Nov 10	9.7	Nov 10 04:00	-17.9	Nov 29	-22.6	Nov 30 03:00	96.7%	96.7%	
December 2025	744	-17.3	3.6	Dec 29	6.7	Dec 01 15:00	-27.3	Dec 22	-33.4	Dec 13 05:00	100.0%	100.0%	
		<b>AVERAGE</b>	<b>MAXIMUM VALUES</b>			<b>MINIMUM VALUES</b>							
		8685	3.8	22.6	May 28	33.3	Aug 27 17:00	-32.7	Feb 04	-37.8	Feb 04 09:00	99.1%	99.1%

2025 Hourly Temperature Readings (in °C) at Dunes

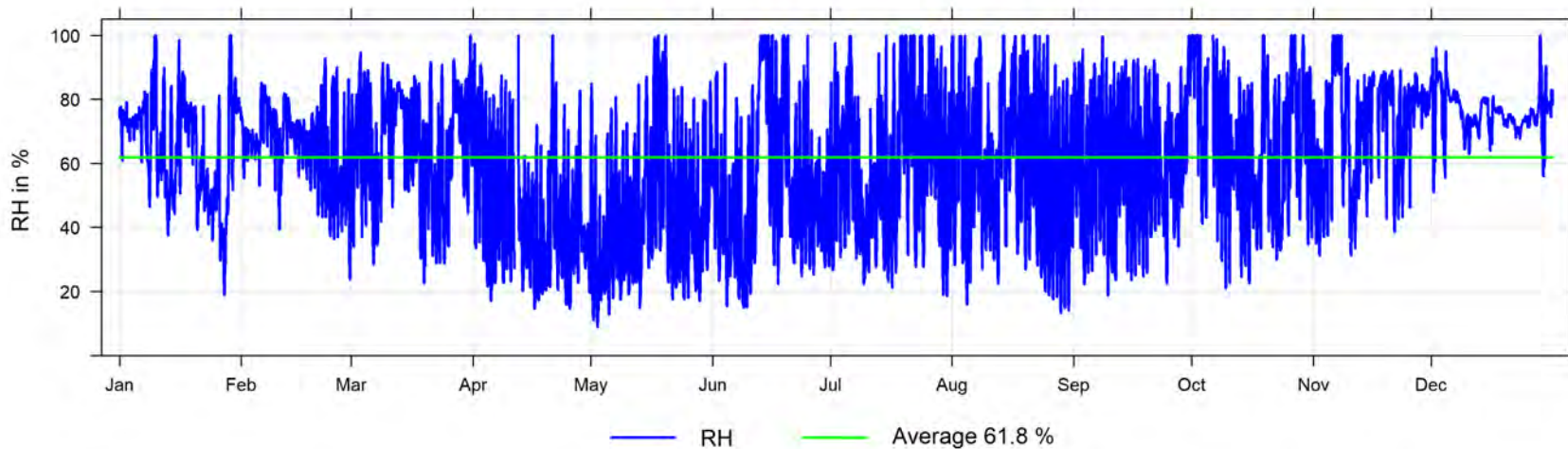


#### 4.5 Relative Humidity (RH) - Dunes 2025 Summary

**Relative Humidity (RH) Frequency Distribution at Dunes**

Month	Valid Hours	Monthly Average (%)	Maximum Values			Operational time (%)	Valid time (%)		
			24-hr (%)	Date	1-hr (%)			Date	
January 2025	744	65.6	86.7	Jan 09	99.9	Jan 10 01:00	100.0%	100.0%	
February 2025	672	65.9	80.4	Feb 06	92.8	Feb 22 09:00	100.0%	100.0%	
March 2025	744	66.6	84.0	Mar 27	99.9	Mar 31 08:00	100.0%	100.0%	
April 2025	698	45.5	68.4	Apr 02	99.9	Apr 12 13:00	96.9%	96.9%	
May 2025	742	45.8	76.9	May 19	99.9	May 18 05:00	99.7%	99.7%	
June 2025	720	54.5	96.9	Jun 13	99.9	Jun 13 07:00	100.0%	100.0%	
July 2025	744	61.0	83.8	Jul 19	99.9	Jul 15 06:00	100.0%	100.0%	
August 2025	744	60.6	84.6	Aug 16	99.9	Aug 14 02:00	100.0%	100.0%	
September 2025	720	61.7	93.7	Sep 30	99.9	Sep 30 06:00	100.0%	100.0%	
October 2025	717	66.5	95.4	Oct 01	99.9	Oct 01 01:00	96.4%	96.4%	
November 2025	696	72.0	96.0	Nov 07	99.9	Nov 05 23:00	96.7%	96.7%	
December 2025	744	75.8	86.3	Dec 02	99.9	Dec 28 18:00	100.0%	100.0%	
		<b>AVERAGE</b>	<b>MAXIMUM VALUES</b>						
		8685	61.8	96.9	Jun 13	99.9	Jan 10 01:00	99.1%	99.1%

2025 Hourly Readings of Relative Humidity (in %) at Dunes

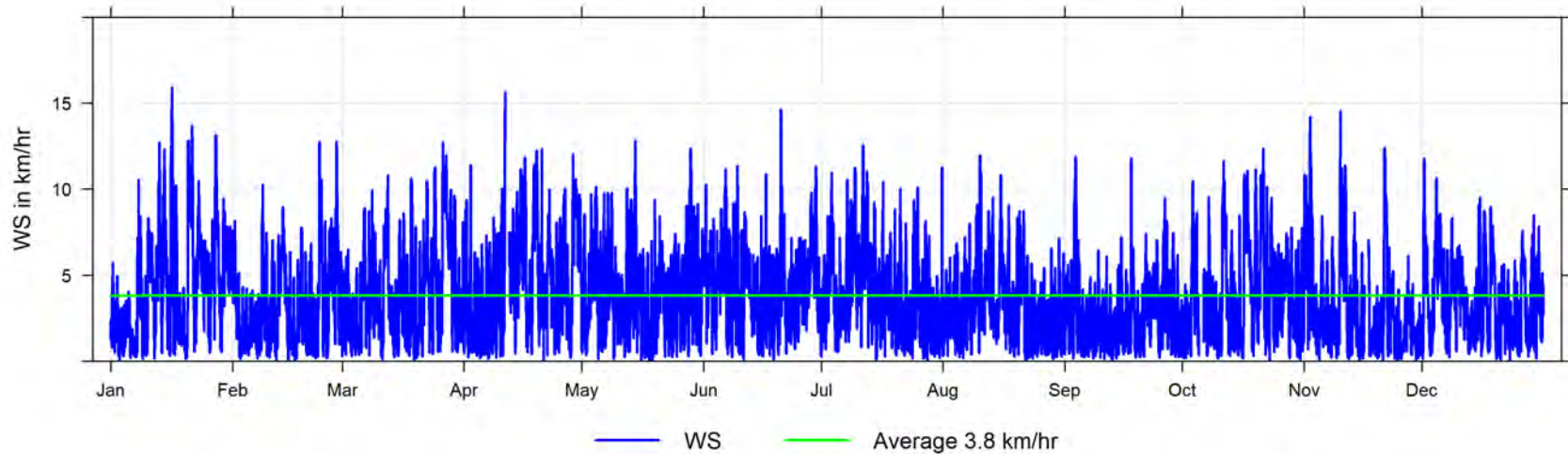


## 4.6 Wind Speed and Wind Direction (WS and WD) - Dunes 2025 Summary

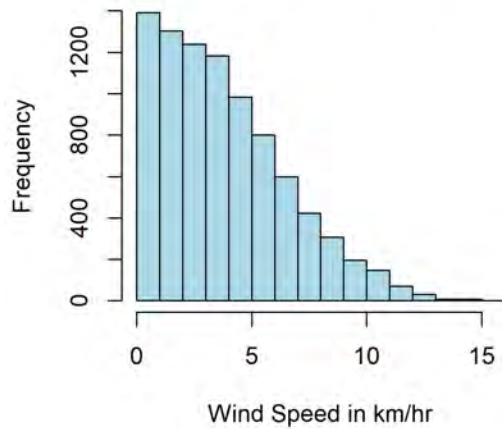
**Wind Speed Frequency Distribution at Dunes**

Month	Valid Hours	Calm	% of Readings in Concentration Range					Monthly Average (km/hr)	MAXIMUM VALUES				Operational time (%)	Valid time (%)
			0.5 to 5 (km/hr)	5 to 11 (km/hr)	11 to 19 (km/hr)	19 to 28 (km/hr)	>28 (km/hr)		24-hr (km/hr)	Date	1-hr (km/hr)	Date		
January 2025	744	5.2%	54.8%	36.2%	3.8%	0.0%	0.0%	4.5	9.9	Jan 21	15.9	Jan 16 14:00	100.0%	100.0%
February 2025	672	8.2%	67.1%	23.8%	0.9%	0.0%	0.0%	3.3	8.1	Feb 23	12.8	Feb 27 12:00	100.0%	100.0%
March 2025	744	4.3%	63.0%	30.8%	1.9%	0.0%	0.0%	4.1	9.0	Mar 27	12.7	Mar 26 15:00	100.0%	100.0%
April 2025	698	5.2%	50.1%	42.1%	2.6%	0.0%	0.0%	4.8	8.8	Apr 29	15.6	Apr 11 13:00	96.9%	96.9%
May 2025	742	5.8%	60.9%	32.3%	0.9%	0.0%	0.0%	4.0	7.0	May 04	12.8	May 14 15:00	99.7%	99.7%
June 2025	720	4.3%	57.1%	37.8%	0.8%	0.0%	0.0%	4.4	7.2	Jun 06	14.7	Jun 20 17:00	100.0%	100.0%
July 2025	744	5.9%	65.1%	28.2%	0.8%	0.0%	0.0%	3.9	8.0	Jul 09	12.6	Jul 11 16:00	100.0%	100.0%
August 2025	744	7.1%	71.2%	21.4%	0.3%	0.0%	0.0%	3.3	6.3	Aug 10	12.0	Aug 10 11:00	100.0%	100.0%
September 2025	720	9.6%	76.7%	13.1%	0.7%	0.0%	0.0%	2.8	6.1	Sep 03	11.9	Sep 03 19:00	100.0%	100.0%
October 2025	717	5.3%	62.5%	31.2%	1.0%	0.0%	0.0%	4.0	8.1	Oct 17	12.4	Oct 21 15:00	96.4%	96.4%
November 2025	696	9.5%	70.0%	18.0%	2.6%	0.0%	0.0%	3.2	8.4	Nov 10	14.5	Nov 10 07:00	96.7%	96.7%
December 2025	744	3.9%	69.8%	26.1%	0.3%	0.0%	0.0%	3.6	6.2	Dec 04	11.8	Dec 01 15:00	100.0%	100.0%
<b>Annual</b>	<b>8685</b>	<b>6.2%</b>	<b>64.0%</b>	<b>28.4%</b>	<b>1.4%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>3.8</b>	<b>9.9</b>	<b>Jan 21</b>	<b>15.9</b>	<b>Jan 16 14:00</b>	<b>99.1%</b>	<b>99.1%</b>

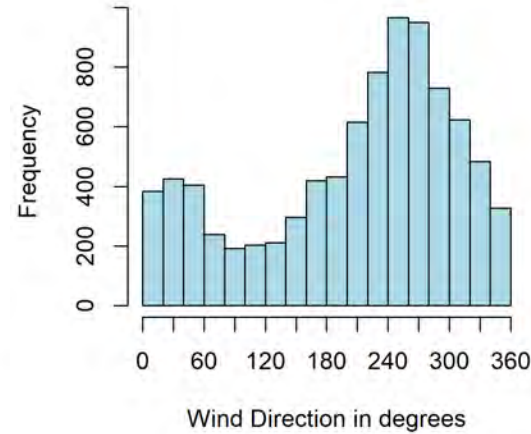
**2025 Hourly Readings of Wind Speed (in km/hr) at Dunes**



**2025 Wind Speed Histogram**

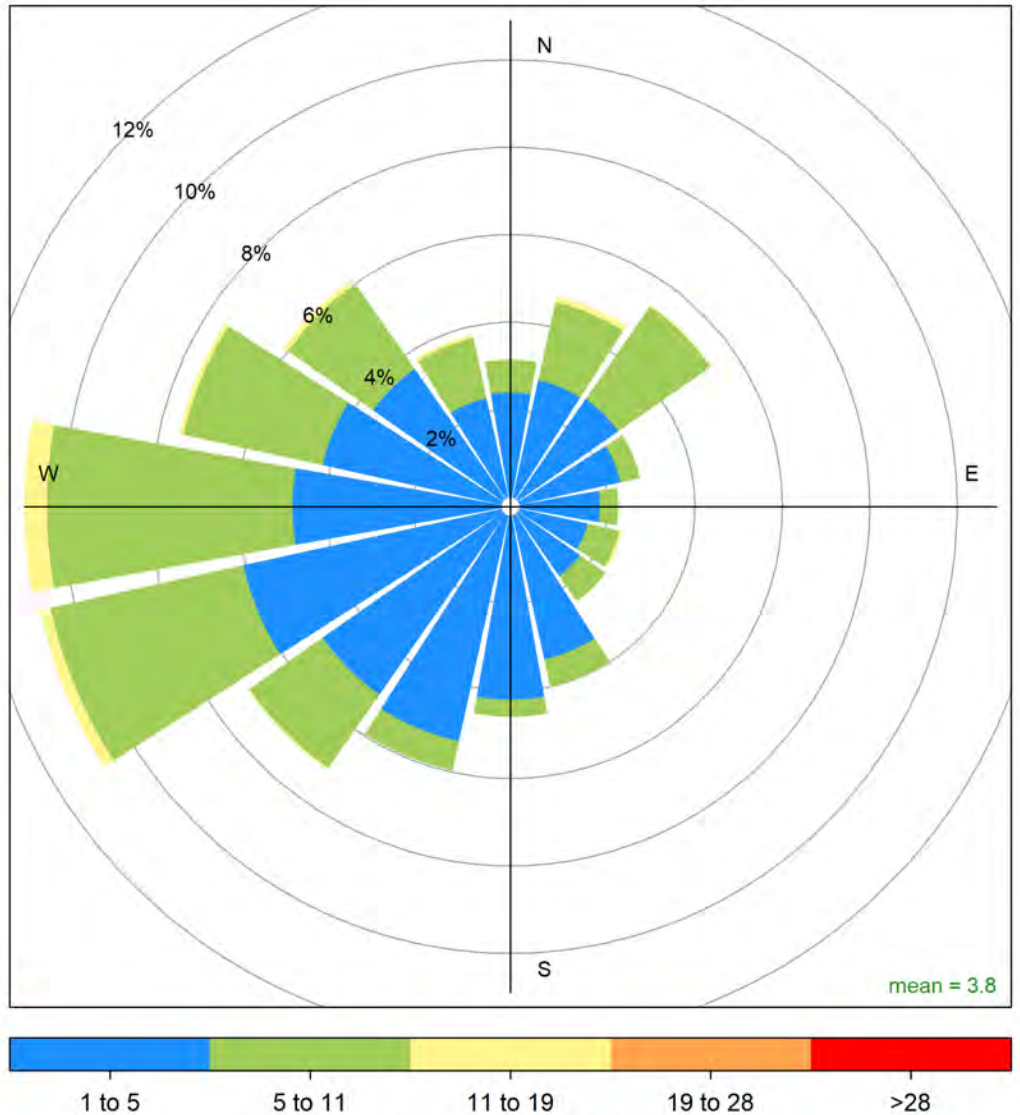


**2025 Wind Direction Histogram**



**Wind Speed and Wind Direction Frequency Distribution at Dunes**

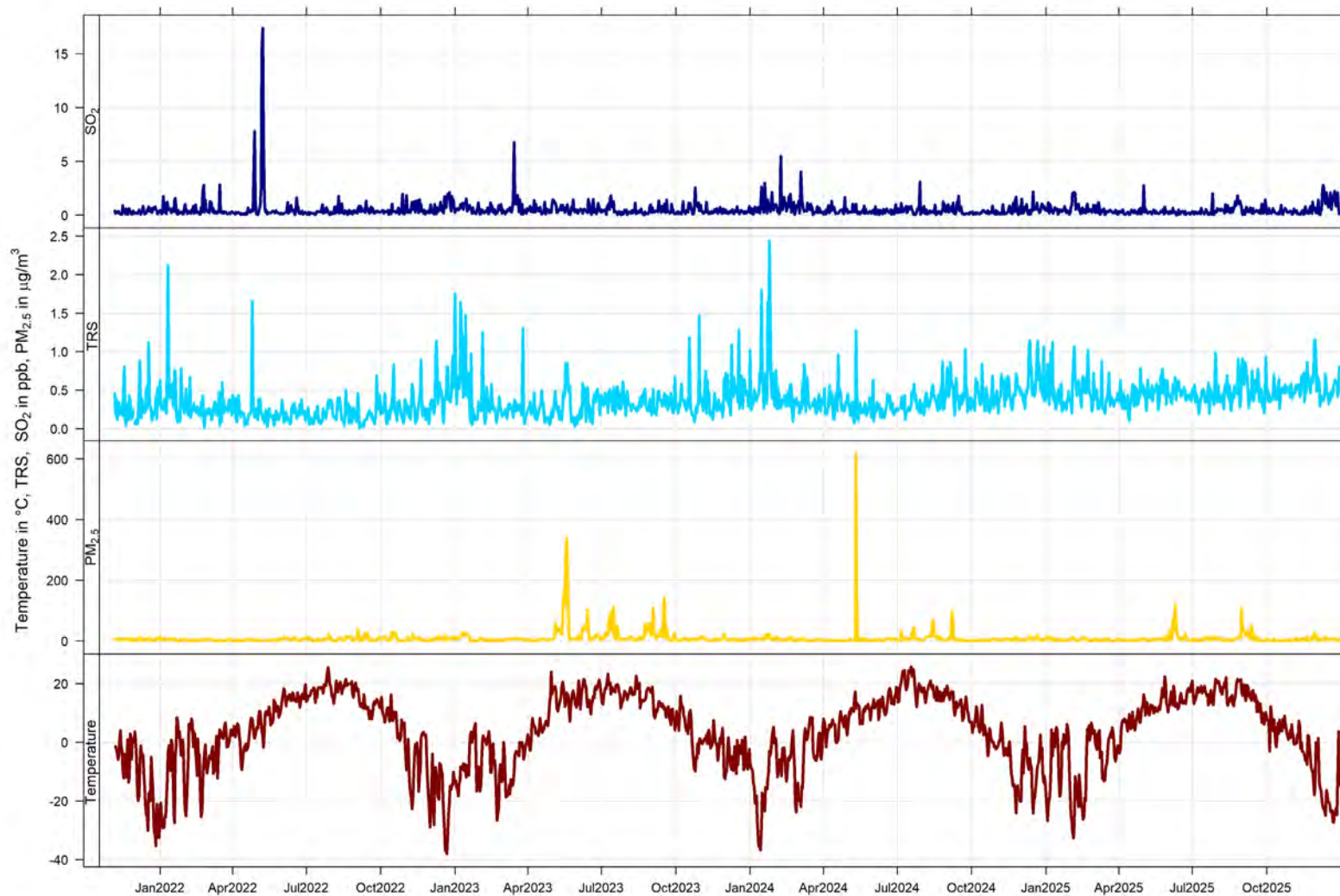
Direction	Number of Readings	% of wind speed range						Total %
		Calm (<0.5) (km/hr)	0.5 to 5 (km/hr)	5 to 11 (km/hr)	11 to 19 (km/hr)	19 to 28 (km/hr)	>28 (km/hr)	
N	368	0.3%	3.1%	0.7%	0.0%	0.0%	0.0%	4.2%
NNE	472	0.3%	3.2%	1.8%	0.1%	0.0%	0.0%	5.4%
NE	501	0.2%	3.0%	2.6%	0.0%	0.0%	0.0%	5.8%
ENE	277	0.1%	2.6%	0.5%	0.0%	0.0%	0.0%	3.2%
E	219	0.1%	2.0%	0.4%	0.0%	0.0%	0.0%	2.5%
ESE	225	0.1%	1.7%	0.7%	0.1%	0.0%	0.0%	2.6%
SE	242	0.2%	1.9%	0.7%	0.0%	0.0%	0.0%	2.8%
SSE	391	0.2%	3.6%	0.6%	0.0%	0.0%	0.0%	4.5%
S	478	0.3%	4.8%	0.4%	0.0%	0.0%	0.0%	5.5%
SSW	653	0.4%	6.4%	0.7%	0.0%	0.0%	0.0%	7.5%
SW	777	0.6%	6.3%	2.0%	0.0%	0.0%	0.0%	8.9%
WSW	1076	0.9%	6.8%	4.5%	0.3%	0.0%	0.0%	12.4%
W	1077	0.8%	5.5%	5.6%	0.5%	0.0%	0.0%	12.4%
WNW	792	0.7%	5.1%	3.3%	0.1%	0.0%	0.0%	9.1%
NW	674	0.5%	4.7%	2.4%	0.1%	0.0%	0.0%	7.8%
NNW	463	0.5%	3.3%	1.4%	0.1%	0.0%	0.0%	5.3%
<b>Total</b>	<b>8685</b>	<b>6.2%</b>	<b>64.0%</b>	<b>28.4%</b>	<b>1.4%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>100.0%</b>



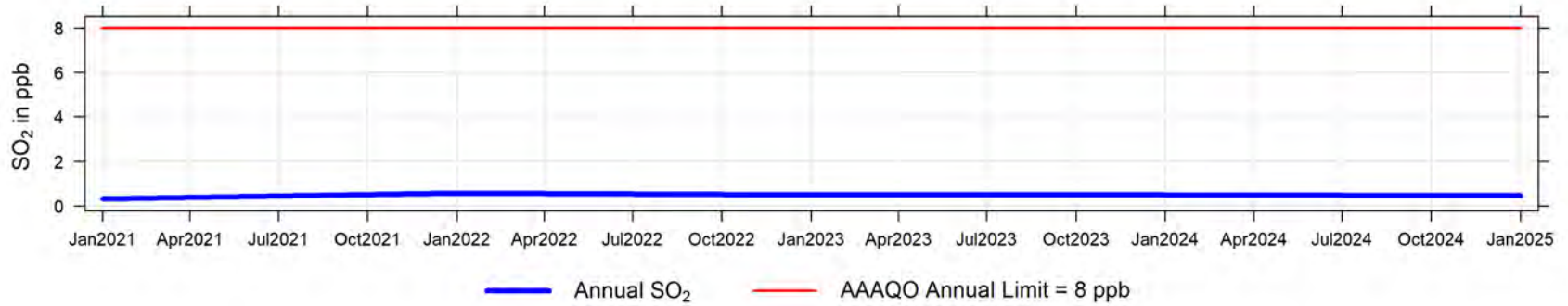
Dunes 2025 Wind Rose, wind speed in km/hr  
**Calms (<1km/hr) = 15.9 %**

## 4.7 Dune Annual Trends, 2021 to 2025

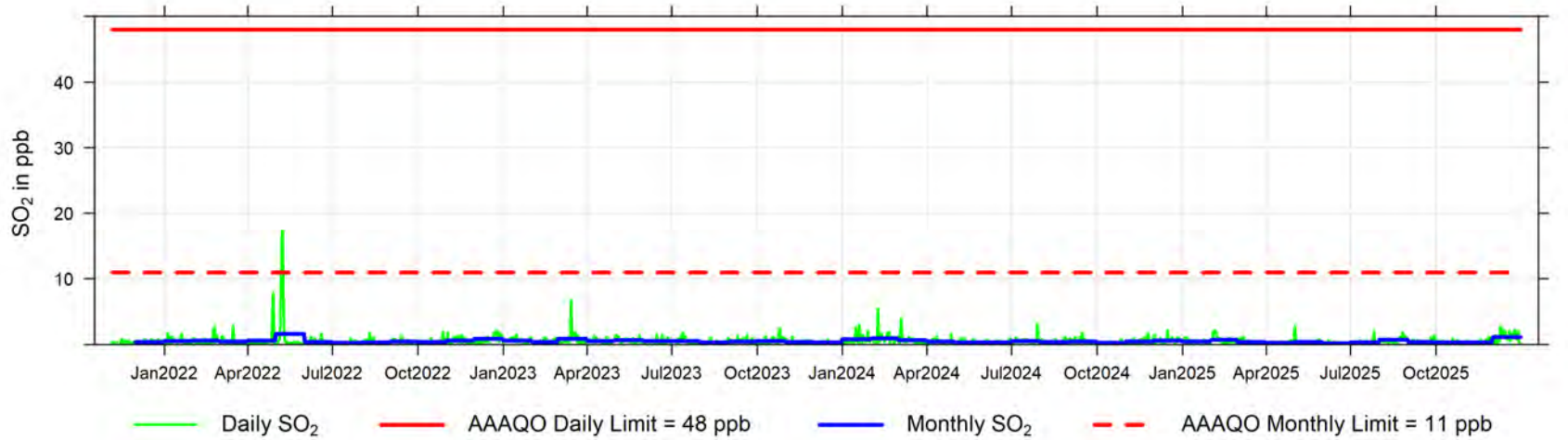
The following pages include historical annual charts collected between 2021 and 2025 at the Dune Station.  
2021 to 2025 Daily Concentration Readings at Dunes



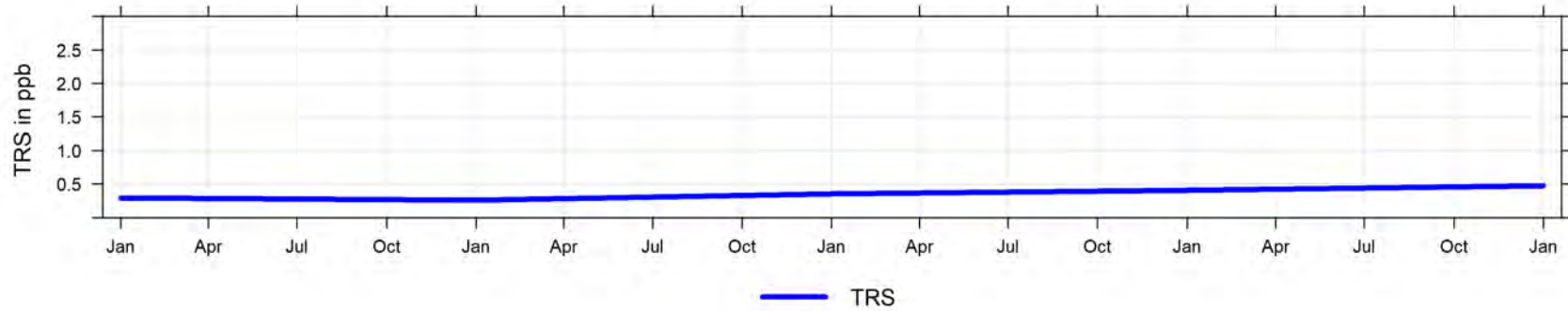
Years 2021 to 2025 Annual Concentration Readings of SO<sub>2</sub> (in ppb) at Dunes



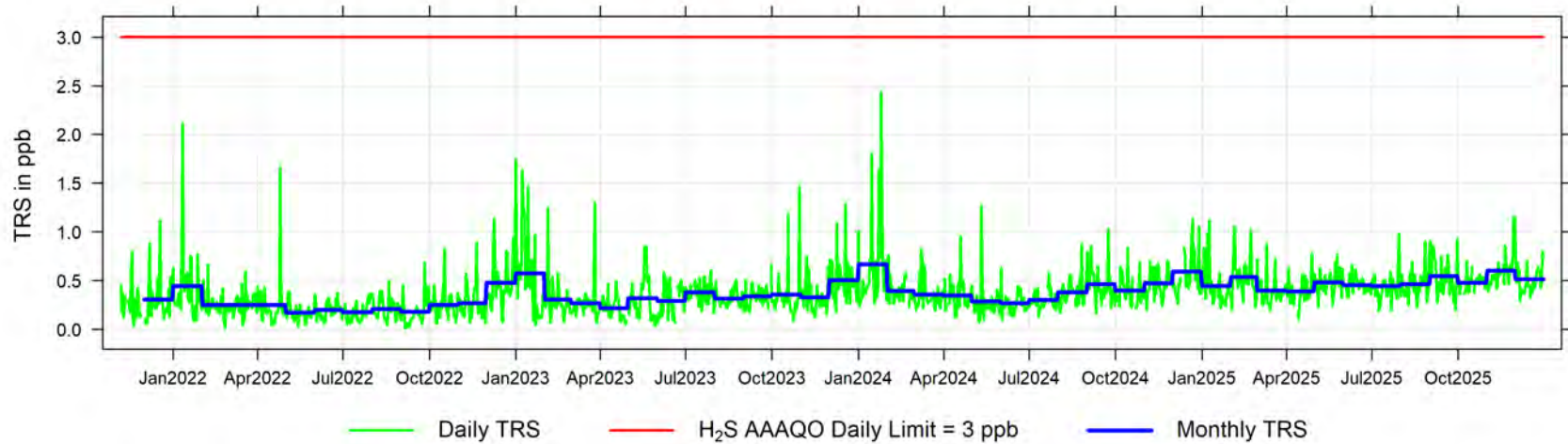
Years 2021 to 2025 Concentration Readings of SO<sub>2</sub> (in ppb) at Dunes



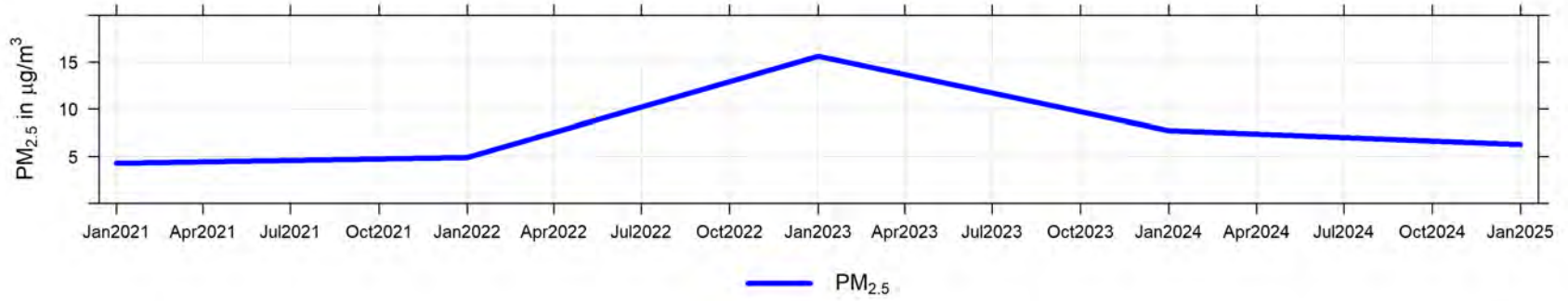
Years 2025 Annual Concentration Readings of TRS (in ppb) at Dunes



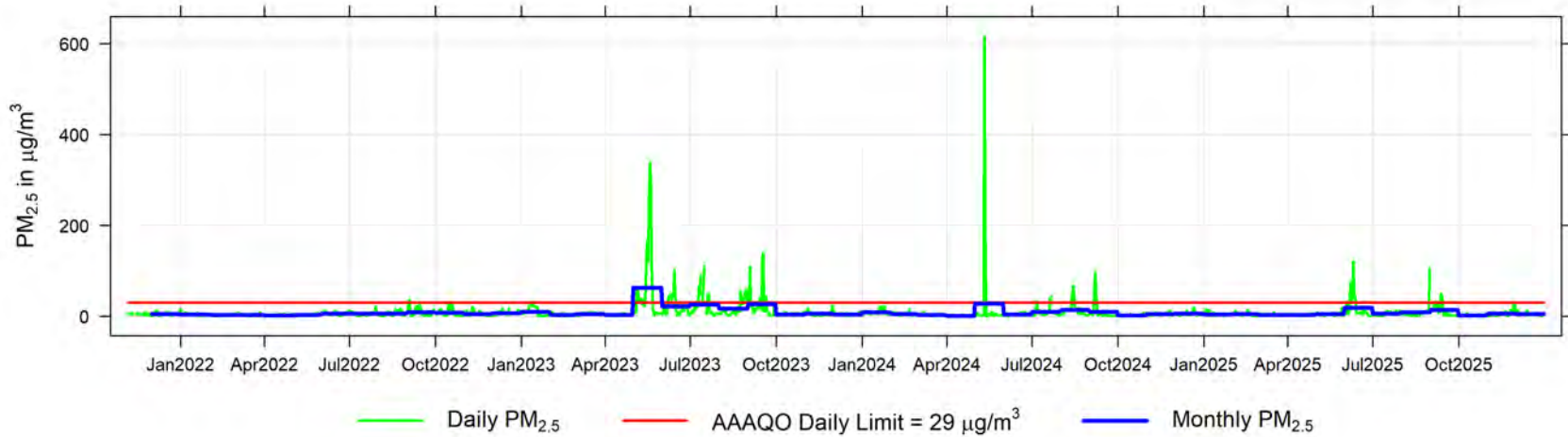
Years 2021 to 2025 Concentration Readings of TRS (in ppb) at Dunes



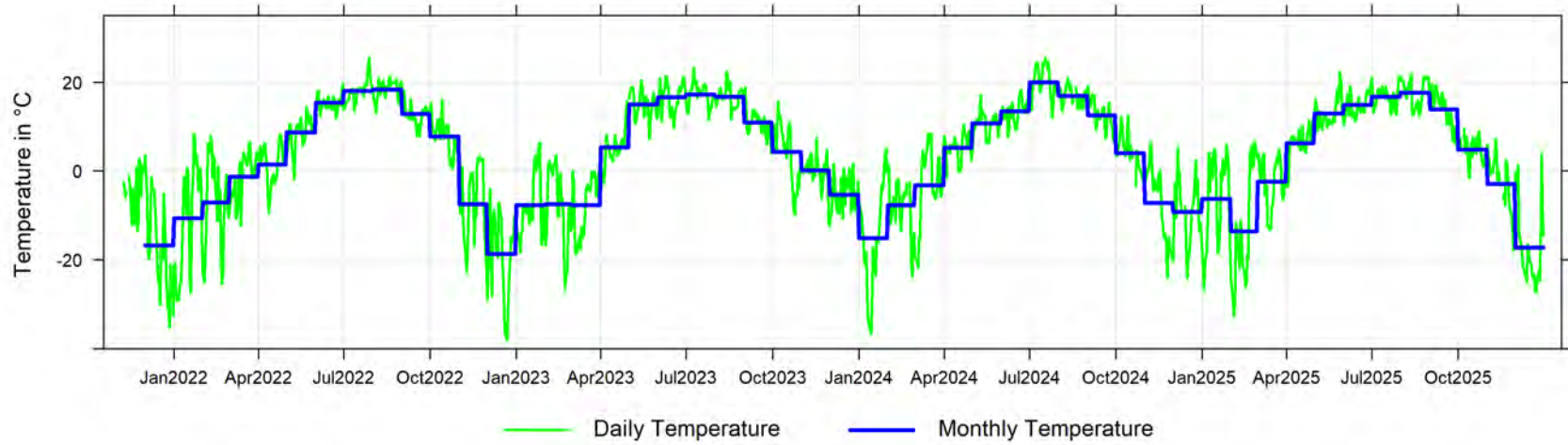
2021 to 2025 Annual Concentration Readings of PM<sub>2.5</sub> in µg/m<sup>3</sup> at Dunes



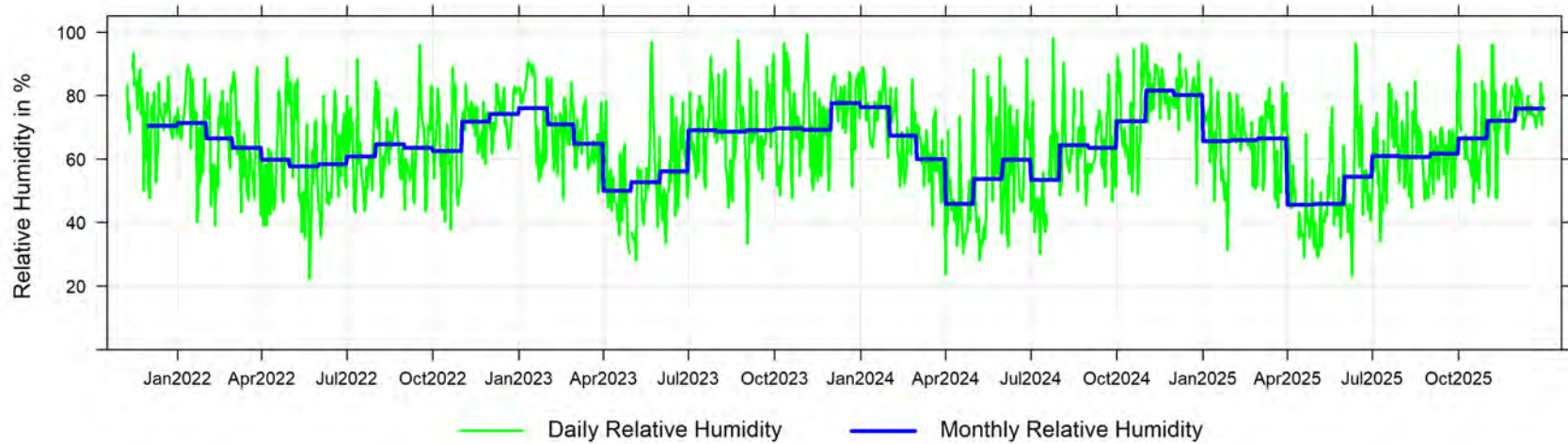
Years 2021 to 2025 Concentration Readings of PM<sub>2.5</sub> in µg/m<sup>3</sup> at Dunes



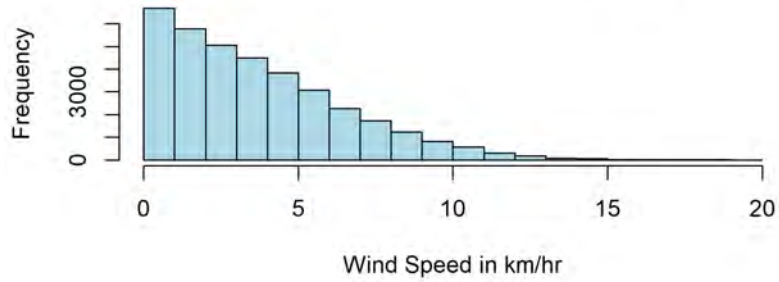
Years 2021 to 2025 Temperature Readings (in °C) at Dunes



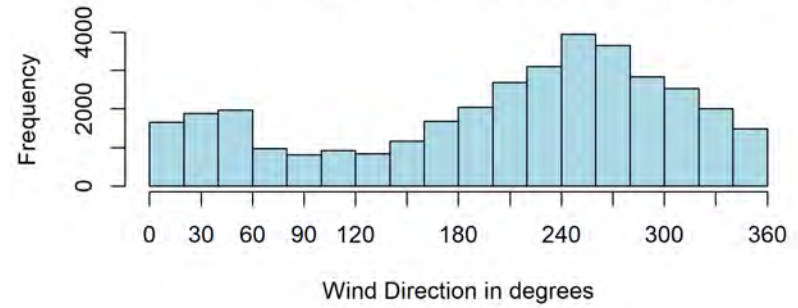
Years 2021 to 2025 Relative Humidity Readings (in %) at Dunes



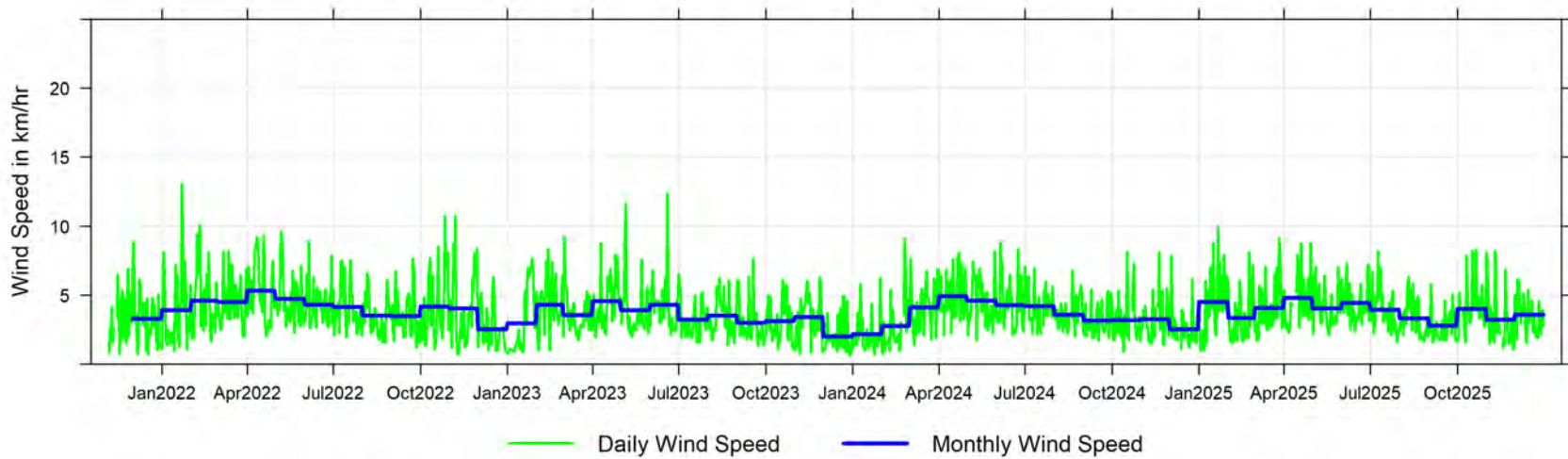
**Years 2021 to 2025 Wind Speed Histogram**

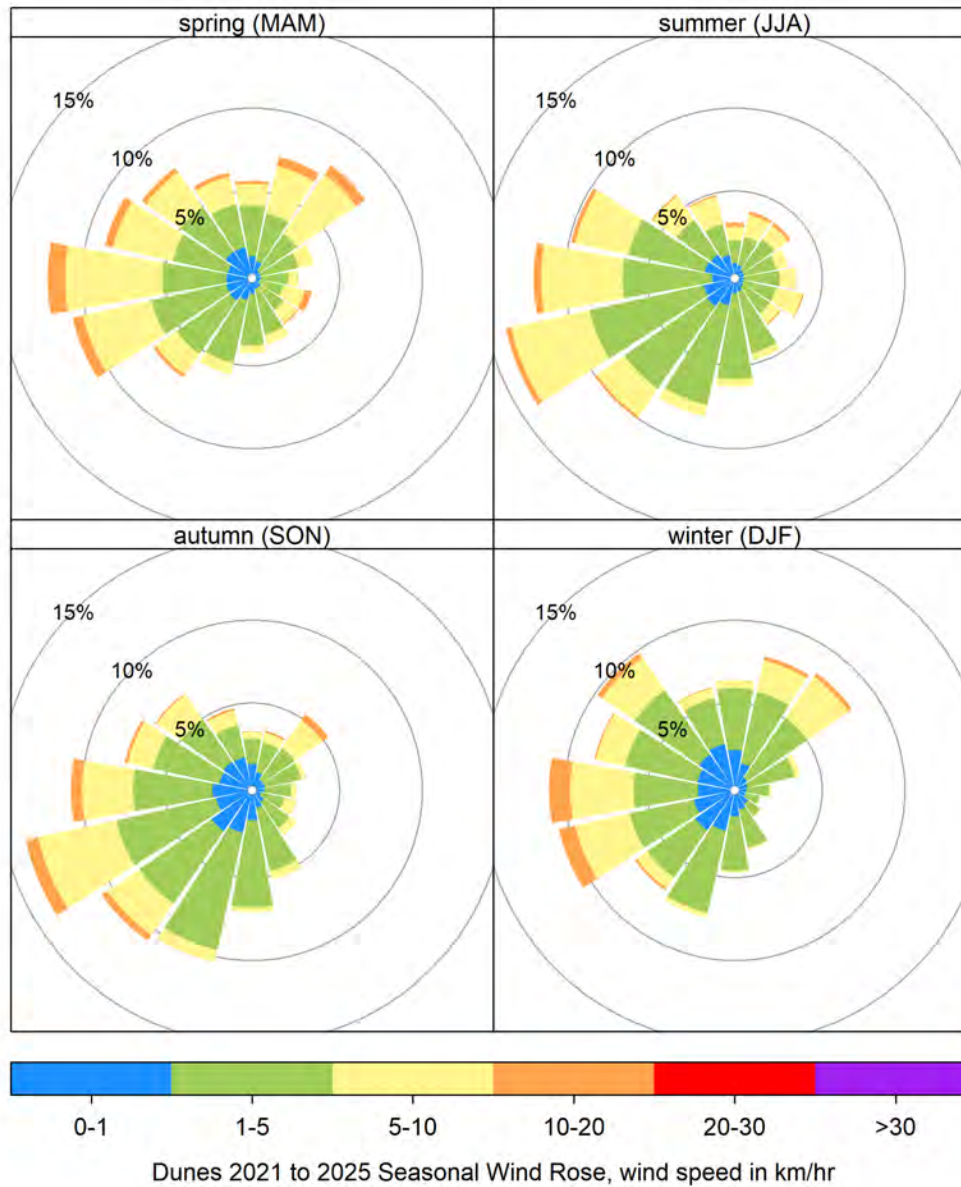


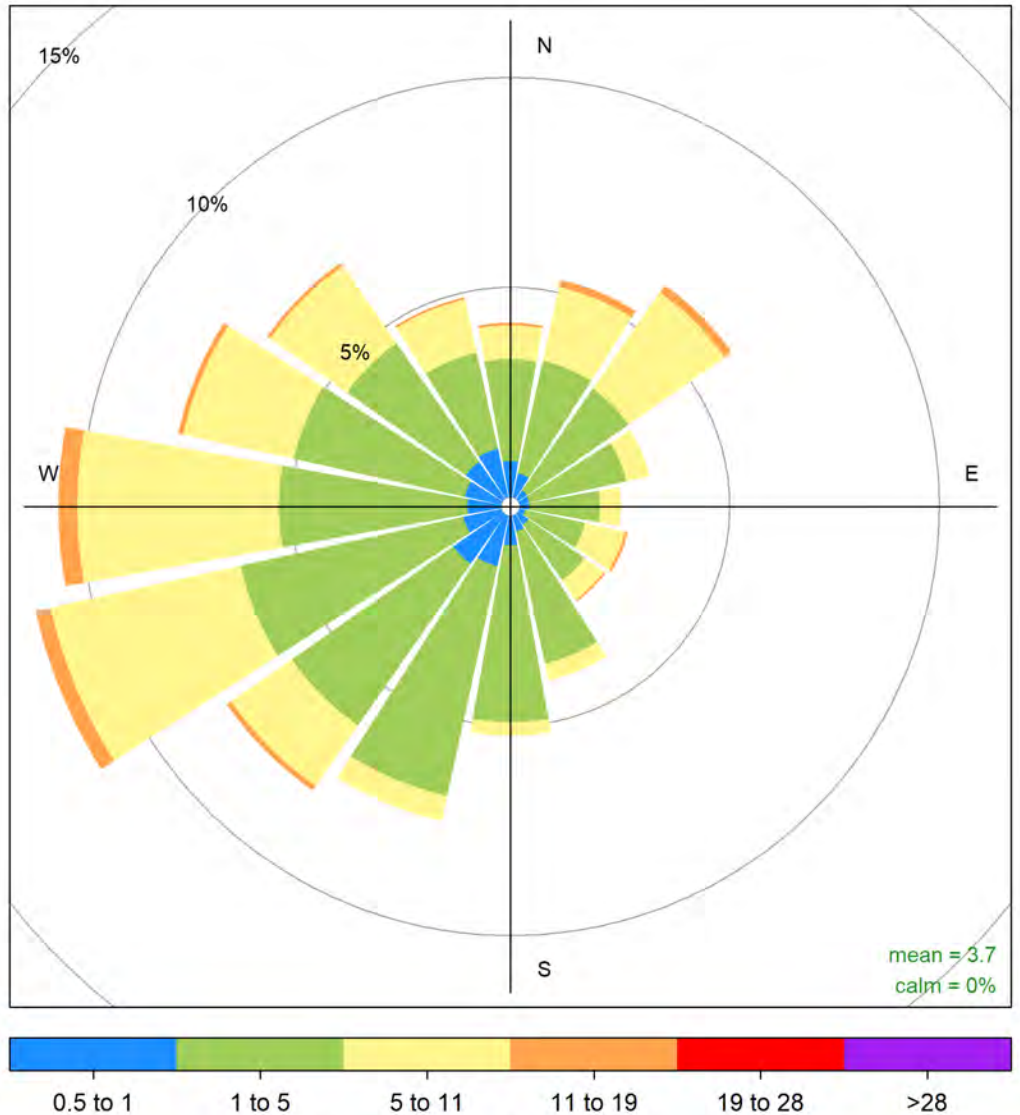
**Years 2021 to 2025 Wind Direction Histogram**



**Years 2021 to 2025 Wind Speed Readings (in km/hr) at Dunes**







Dunes 2021 to 2025 Wind Rose, wind speed in km/hr  
**Frequency of counts by wind direction (%)**