Peace Airshed Zone Association

Ambient Air Monitoring Network Summary

Ambient Air Quality Monitoring Program

Monthly Report

March 2025

April 30, 2025

Alberta Environment and Protected Areas
11th Floor, Oxbridge Place
9820-106 Street
Edmonton Alberta T5K 2J6

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

Please find enclosed the PAZA Ambient Air Quality Monitoring Network Report for the month of March 2025.

The representative of the Person Responsible for this monitoring program is:

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This report was prepared by Dr. Kevin McCullum, P.Eng., and reviewed by Mandeep Dhaliwal. PAZA has retained the services of WSP Canada Inc. to conduct continuous ambient monitoring and Dr. Kevin McCullum, P.Eng. 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 monthly summary report includes the operational summaries and hourly continuous monitoring and monthly passive results. The Milner station is being reported under the PAZA Monthly report.

Continuous Monitoring:

Eight (8) Stations including Henry Pirker (Grande Prairie), Dunes, Smoky Heights, Beaverlodge, Valleyview, Fox Creek, Happy Valley-Portable and Milner.
Detailed Summaries are included in the report.

Calibration and Data Submission:

Monthly report, hourly data and calibration reports for March 2025 were submitted to the ETS data system.

Table A. PAZA members with Facility Operating Approvals

Company	Facility	LSD	EPEA Approval No.
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 (Maximum Levels) Regulation:

- There was one, 30min reading above TRS AAAQG (5ppb)
- There was a duplicate SO_2 passive above the 30day SO_2 AAAQO (11ppb)

One-30min reading above the TRS AAAQG (5ppb) recorded as follows:

Site	reference	Pollutant	Date	From MST	To MST	Average Ppb	WS km/hr	WD degrees
Happy Valley	*e-reported*	TRS	20-Mar-25	20:00	20:30	10.0	11.6	221

Reading above the SO_2 monthly AAAQO (11ppb) recorded as:

Site	reference	Pollutant	Date	Average ppb
Kakwa 3	**439842**	SO_2 Passive	March 2025	12.7
Kakwa 3 duplicate	**439842**	SO_2 Passive	March 2025	12.1

Operational times less than 90 percent

- All instruments in the network were in operation >90% during the month.

Air Incidents

None were reported.

Deviations from Authorized Monitoring Methods

None were reported.

Passive Monitoring

- 54 Stations throughout the PAZA zone
  - Passive sample analyses were performed by Bureau Veritas Laboratories

There were 19 duplicates sampled in the month of March:

- Eight SO_2 duplicates located at Steeprock Creek, Woking, Gift Lake, Little Smoky, Duvernay 4, Kakwa 3, Milner Powerline, Jayar5 Camp
  - RPD ranging from 0% to 67% (one fail at Milner Powerline (0.1 and 0.2ppb results)
  - Kakwa 3 duplicate were both above the AAAQO of 11ppb for the month
- One O_3 duplicate at Kinuso
  - RPD of 12% (no fail)
- Seven NO_2 duplicates at Forth Creek, Pinto Creek, Jean Cote, McLennan, Kakwa 4, Milner Pipeline, Jayar2 14-8
  - RPD ranging from 0% to 99% (one fail at McLennan (0.2 and 0.1 ppb results)
- Three H_2S duplicates at Duvernay 4, Kakwa 1, Jayar1 Plant
  - RPD ranging from 0% to 25% (no fails)

Dustfall Monitoring

- Five Stations collected Total Dustfall and Fixed Dustfall
- Total dustfall ranged from 9.3 to 54.4 mg/100cm^2/30day
- RPD was 10 to 13% (no fails)

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

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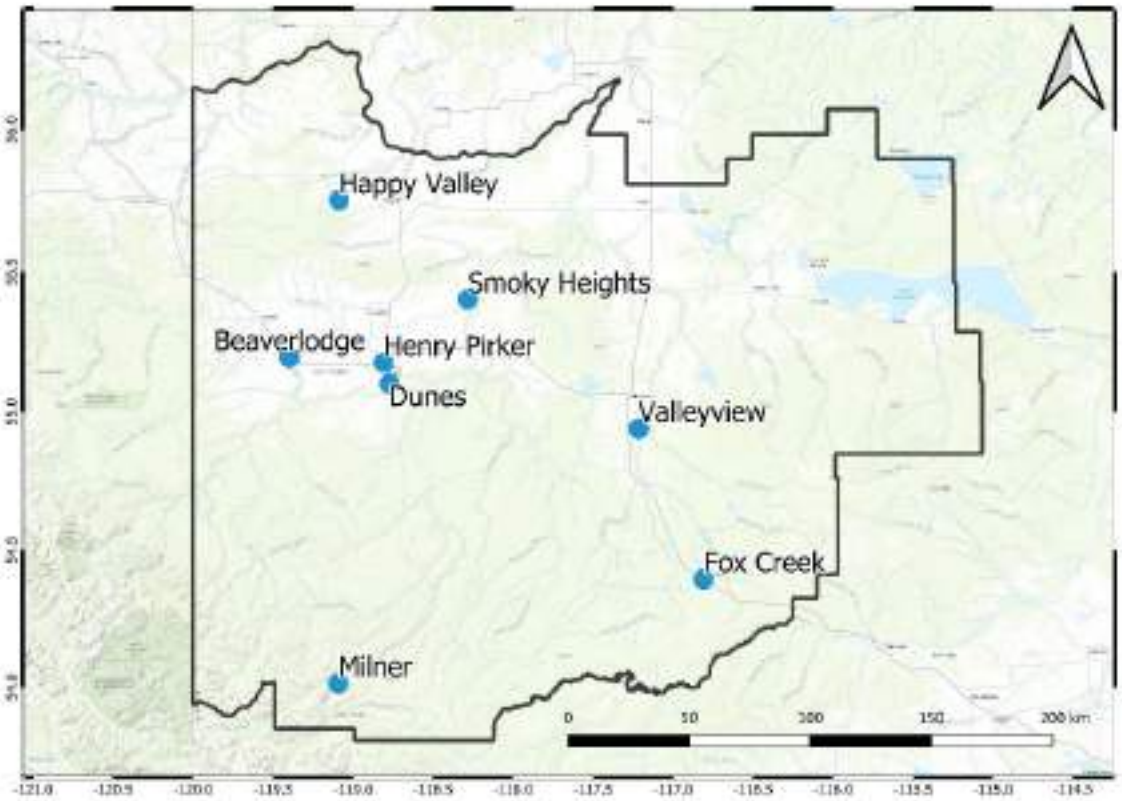
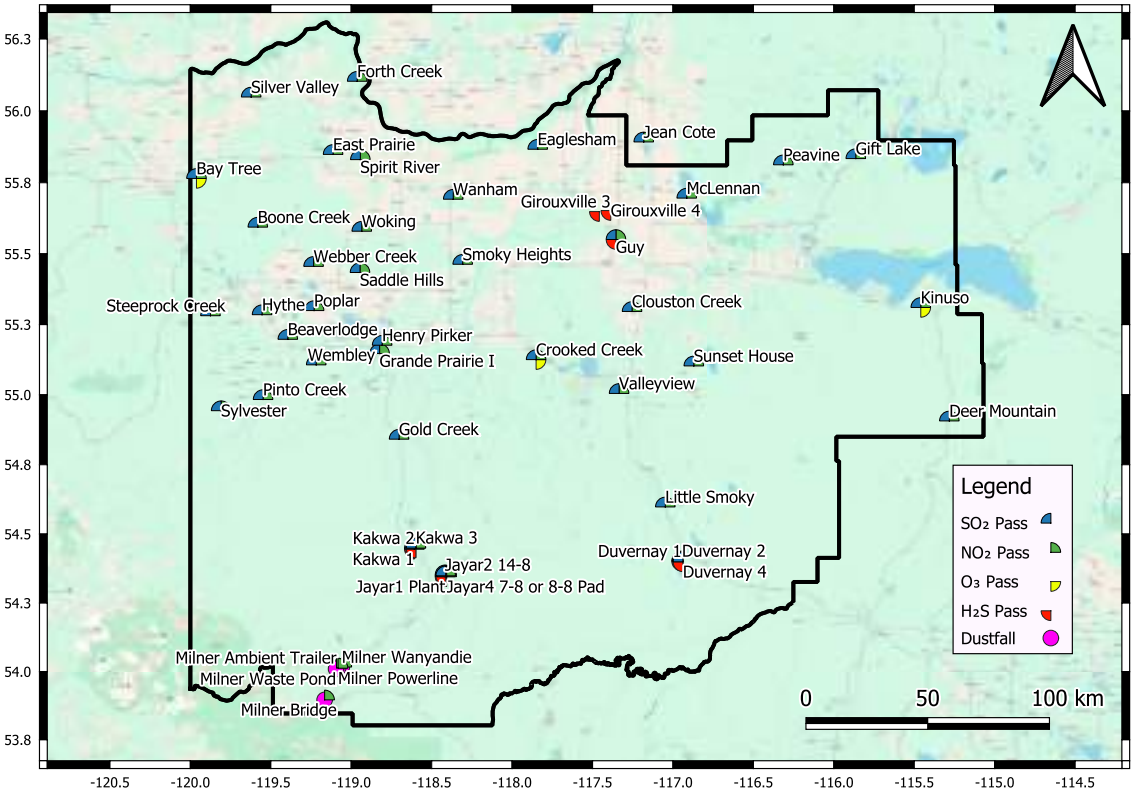
PAZA Continuous Monitoring Station Locations



PAZA Passive Monitoring Station Locations



1 March 2025 Monthly Station Summaries

The following summaries are for the equipment and data results from the continuous ambient work

1.1 Beaverlodge Air Monitoring Station

PAZA - March 2025 Beaverlodge Station Report

Parameter	March Average	Minimum	Valid	Operational	1-hour Max	1-hour Objective	1-hour Max Day and Time	24-hour Max	24-hour Objective	24-hour Max Day	Exceedance 1hr	Exceedance 8hr	Exceedance 24hr	Exceedance 30d	Calibration Date
NO (ppb)	0.7	0.0	90.6%	95.3%	15.4	-	Mar-05 10:00	2.8	-	Mar-05	-	-	-	-	Mar 04, 2025
NO_2 (ppb)	4.5	0.5	90.6%	95.3%	29.5	159	Mar-05 19:00	11.1	-	Mar-05	0	-	-	-	Mar 04, 2025
NO_x (ppb)	5.1	0.6	90.6%	95.3%	36.7	-	Mar-05 19:00	13.7	-	Mar-05	-	-	-	-	Mar 04, 2025
O_3 (ppb)	34.5	5.8	91.8%	96.4%	47.9	78	Mar-25 16:00	41.2	-	Mar-22	0	-	-	-	Mar 04, 2025
$PM_{2.5}$ (µg/m³)	3.5	0.1	90.2%	96.4%	13.5	80	Mar-04 11:00	9.0	29	Mar-17	0	-	0	-	Mar 05, 2025
SO_2 (ppb)	1.1	0.0	91.7%	96.4%	16.8	172	Mar-10 12:00	3.5	48	Mar-10	0	-	0	0	Mar 05, 2025

	Average	Minimum	Valid	Operational	Maximum
Temp (°C)	-2.1	-15.9	95.3%	95.3%	9.4
RH (%)	88.5	30.4	96.4%	96.4%	97.5
WS (km/hr)	8.9	0.1	96.4%	96.4%	39.0
WD (deg)	340	0.8	96.4%	96.4%	359.8

Note: Valid hours must be greater than 75%
Operational hours must be greater than 90%

Average Wind Direction: 340 NNW

Update Summary:

Parameter	Make	Model	Equipment summary
$NO/NO_2/NO_x$	Thermo	42iQ	Mar 8-9, loss of communications, 27hrs; Mar 11 span failed, second span ran and passed (1hr), Mar 12 span failed, second span ran and failed, onsite calibration check passed and linear (18hr span loss, 6hrs maintenance for calibration)
O_3	Thermo	49iQ	Mar 8-9, loss of communications, 27hrs
$PM_{2.5}$	API	T640	Mar 8-9, loss of communications, 27hrs
SO_2	Thermo	43i-TLE	Mar 8-9, loss of communications, 27hrs
Met Equip	MetOne	50.5	Mar 8-9, loss of communications, 27hrs; Mar 1-5, for FT, daily drop removed every day 08:21-08:43 (5hrs), Mar 5 probe replaced with spare (3hrs), corrected temperature issue

1.2 Dunes Air Monitoring Station

PAZA - March 2025 Dunes Station Report

Parameter	March Average	Minimum	Valid	Operational	30min / 1-hour Max	30min / 1-hour Objective	30min / 1-hour Max Day and Time	24-hour Max	24-hour Objective	24-hour Max Day	Exceedance 1hr	Exceedance 8hr	Exceedance 24hr	Exceedance 30d	Calibration Date
$PM_{2.5}$ (µg/m³)	2.8	0.0	99.7%	100.0%	34.3	80	Mar-01 23:00	7.6	29	Mar-18	0	-	0	-	Mar-07-2025
SO_2 (ppb)	0.4	0.0	95.4%	100.0%	5.6	172	Mar-04 14:00	1.3	48	Mar-07	0	-	0	0	Mar-07-2025
TRS (ppb)	0.4	0.0	95.3%	100.0%	4.0	5	Mar-11 07:30	0.9	3	Mar-11	0	-	0	-	Mar-07-2025

	Average	Minimum	Valid	Operational	Maximum
Temp (°C)	-2.4	-17.8	100.0%	100.0%	12.0
RH (%)	88.6	12.5	100.0%	100.0%	99.9
WS (km/hr)	4.1	0.1	100.0%	100.0%	12.7
WD (deg)	358	0.4	100.0%	100.0%	359.9

Note: Valid hours must be greater than 75%
Operational hours must be greater than 90%

Average Wind Direction: 358 N

Update Summary:

Parameter	Make	Model	Equipment summary
$PM_{2.5}$	Thermo	SHARP 5030	No Operational issues noted during the month
SO_2	Thermo	43i	No Operational issues noted during the month
TRS	Thermo	43i	No Operational issues noted during the month
Met Equip	GI/RMYoung	MetPak/RMY86004	No Operational issues noted during the month

1.3 Grande Prairie - Henry Pirker Air Monitoring Station

PAZA - March 2025 Henry Pirker Station Report

Parameter	March Average	Minimum	Valid	Operational	1-hour Max	1-hour Objective	1-hour Max Day and Time	8-hour / 24-hour Max	8-hour / 24-hour Objective	8-hour / 24-hour Max Day	Exceedance 1hr	Exceedance 8hr	Exceedance 24hr	Exceedance 30d	Calibration Date
NO (ppb)	3.7	0.0	95.0%	100.0%	89.0	-	Mar-19 10:00	24.0	-	Mar-19	-	-	-	-	Mar 06, 2025
NO_2 (ppb)	11.6	1.5	95.0%	100.0%	46.9	159	Mar-19 06:00	29.8	-	Mar-19	0	-	-	-	Mar 06, 2025
NO_x (ppb)	15.3	1.8	95.0%	100.0%	130.6	-	Mar-19 10:00	54.0	-	Mar-19	-	-	-	-	Mar 06, 2025
O_3 (ppb)	28.4	0.3	95.3%	100.0%	48.2	76	Mar-25 16:00	38.7	-	Mar-22	0	-	-	-	Mar 06, 2025
$PM_{2.5}$ (µg/m³)	5.1	0.2	99.7%	100.0%	38.7	80	Mar-01 23:00	11.4	29	Mar-01	0	-	0	-	Mar 07, 2025
SO_2 (ppb)	0.5	0.0	95.3%	100.0%	6.5	172	Mar-11 11:00	1.2	48	Mar-07	0	-	0	0	Mar 07, 2025
H_2S (ppb)	0.2	0.0	95.3%	100.0%	1.5	10	Mar-19 10:00	0.5	3	Mar-19	0	-	0	-	Mar 07, 2025
CH_4 (ppm)	2.3	1.8	94.2%	98.9%	3.1	-	Mar-19 22:00	2.5	-	Mar-19	-	-	-	-	Mar 10, 2025
THC (ppm)	2.2	1.8	94.2%	98.9%	3.1	-	Mar-19 22:00	2.5	-	Mar-19	-	-	-	-	Mar 10, 2025
NMHC (ppm)	0.0	0.0	94.2%	98.9%	0.8	-	Mar-07 12:00	0.0	-	Mar-07	-	-	-	-	Mar 10, 2025
CO (ppm)	0.2	0.1	95.3%	100.0%	0.8	13	Mar-19 06:00	0.4	5	Mar-01	0	0	-	-	Mar 10, 2025

	Average	Minimum	Valid	Operational	Maximum				
Temp (°C)	-1.7	-18.3	100.0%	100.0%	12.5				Dec 12, 2024
RH (%)	82.7	30.9	100.0%	100.0%	84.8				Dec 12, 2024
SR (W/m²)	97.3	0.0	100.0%	100.0%	577.5				Dec 12, 2024
WS (km/hr)	5.5	0.3	100.0%	100.0%	25.0				Dec 12, 2024
WD (deg)	314	1.1	100.0%	100.0%	358.8	Average Wind Direction	314	NW	Dec 12, 2024

Note: Valid hours must be greater than 75%
Operational hours must be greater than 90%

Update Summary:

Parameter	Make	Model	Equipment summary
$NO/NO_2/NO_x$	Thermo	42i	No operational issues noted during the month
O_3	TECO	49i	No operational issues noted during the month
$PM_{2.5}$	API	T640	No operational issues noted during the month
SO_2	Thermo	43i-TLE	No operational issues noted during the month
H_2S	TEI	450i	No operational issues noted during the month
THC/CH_4/NMHC	TEI	55i	Mar 2, 8hrs of data fell below 1.8ppm (background) and removed
CO	Thermo	48i-TLE	No operational issues noted during the month
Met Equip	MetOne	50.5	No operational issues noted during the month

1.4 Smoky Heights Air Monitoring Station

PAZA - March 2025 Smoky Heights Station Report

Parameter	March Average	Minimum	Valid	Operational	10min / 1-hour Max	10min / 1-hour Objective	10min / 1-hour Max Day and Time	24-hour Max	24-hour Objective	24-hour Max Day	Exceedance 1hr	Exceedance 8hr	Exceedance 24hr	Exceedance 30d	Calibration Date
$PM_{2.5}$ (µg/m³)	3.6	0.3	99.7%	100.0%	30.7	80	Mar-27 16:00	8.3	29	Mar-16	0	-	0	-	Mar 11, 2025
SO_2 (ppb)	0.4	0.0	95.3%	100.0%	4.5	172	Mar-01 18:00	1.3	48	Mar-01	0	-	0	0	Mar 11, 2025
TRS (ppb)	0.1	0.0	95.3%	100.0%	0.6	5	Mar-28 22:00	0.3	3	Mar-28	0	-	0	-	Mar 11, 2025

	Average	Minimum	Valid	Operational	Maximum				
Temp (°C)	-3.1	-18.5	100.0%	100.0%	9.5				
WS (km/hr)	9.7	0.4	96.1%	96.1%	50.0				Oct 10, 2024
WD (deg)	310	0.7	96.1%	96.1%	360.0	Average Wind Direction	310	WNW	Oct 10, 2024

Note: Valid hours must be greater than 75%
Operational hours must be greater than 90%

Update Summary:

Parameter	Make	Model	Equipment summary
$PM_{2.5}$	Sharp	5030	No operational issues noted during the month
SO_2	TECO	43i	No operational issues noted during the month
TRS	TEI	43I APSAA	No operational issues noted during the month
Met Equip	MetOne	50.5	Mar 18-19, wind sensor frozen, Mar 19, tower lowered to clear ice and snow, 28hrs removed, 1hr maintenance

1.5 Valleyview Air Monitoring Station

PAZA - March 2025 Valleyview Station Report

Parameter	March Average	Minimum	Valid	Operational	1-hour Max	1-hour Objective	1-hour Max Day and Time	24-hour Max	24-hour Objective	24-hour Max Day	Exceedance 1hr	Exceedance 8hr	Exceedance 24hr	Exceedance 30d	Calibration Date
SO_2 (ppb)	0.1	0.0	95.4%	100.0%	2.2	172	Mar-04 17:00	0.4	48	Mar-14	0	-	0	0	Mar 11, 2025
H_2S (ppb)	0.1	0.0	95.2%	100.0%	1.5	10	Mar-21 08:00	0.3	3	Mar-18	0	-	0	-	Mar 11, 2025

	Average	Minimum	Valid	Operational	Maximum
Temp (°C)	-2.3	-21.3	100.0%	100.0%	12.0
RH (%)	71.0	25.4	100.0%	100.0%	99.9
WS (km/hr)	5.9	0.0	100.0%	100.0%	13.4
WD (deg)	333	0.1	100.0%	100.0%	360.0

Note: Valid hours must be greater than 75%
Operational hours must be greater than 90%

Average Wind Direction	333	NW

Update Summary:

Parameter	Make	Model	Equipment summary
SO_2	TEI	43i-APSCB	No operational issues noted during the month
H_2S	TEI	450i-APHAA / 43C	No operational issues noted during the month
Met Equip	RMYoung	RMW8000H	No operational issues noted during the month

1.6 Fox Creek Air Monitoring Station

PAZA - March 2025 Fox Creek Station Report

Parameter	March Average	Minimum	Valid	Operational	1-hour Max	1-hour Objective	1-hour Max Day and Time	8-hour / 24-hour Max	8-hour / 24-hour Objective	8-hour / 24-hour Max Day	Exceedance 1hr	Exceedance 8hr	Exceedance 24hr	Exceedance 30d	Calibration Date
NO (ppb)	7.6	0.0	94.8%	99.9%	96.6	-	Mar-18 06:00	19.9	-	Mar-01	-	-	-	-	Mar 18, 2025
NO_2 (ppb)	10.4	0.5	94.8%	99.9%	43.9	159	Mar-07 07:00	19.9	-	Mar-01	0	-	-	-	Mar 18, 2025
NO_x (ppb)	18.2	0.6	94.8%	99.9%	128.2	-	Mar-18 06:00	40.1	-	Mar-01	-	-	-	-	Mar 18, 2025
O_3 (ppb)	26.9	0.5	93.2%	97.9%	49.2	76	Mar-24 19:00	34.8	-	Mar-24	0	-	-	-	Mar 18, 2025
$PM_{2.5}$ (µg/m³)	4.4	0.4	99.7%	100.0%	30.8	80	Mar-01 19:00	8.4	29	Mar-05	0	-	0	-	Mar 18, 2025
SO_2 (ppb)	0.3	0.0	94.8%	99.7%	5.0	172	Mar-21 20:00	0.8	48	Mar-19	0	-	0	0	Mar 18, 2025
H_2S (ppb)	0.2	0.0	94.5%	99.9%	1.4	10	Mar-16 11:00	0.4	3	Mar-01	0	-	0	-	Mar 18, 2025

	Average	Minimum	Valid	Operational	Maximum
Temp (°C)	-1.9	-16.7	100.0%	100.0%	12.9
WS (km/hr)	5.5	0.1	100.0%	100.0%	18.0
WD (deg)	170	0.2	100.0%	100.0%	359.7

Note: Valid hours must be greater than 75%
Operational hours must be greater than 90%

Average Wind Direction	170	S

Update Summary:

Parameter	Make	Model	Equipment summary
$NO/NO_2/NO_x$	Thermo	42iQ	Mar 4, unusual spike reading with both SO_2 and nitrogen analyzer, removed as invalid (1hr)
O_3	TECO	49c / 49i	Mar 15, failed daily span, manual AIC performed to verify which also failed (1hr); Mar 16, failed daily span, removal calibration performed (49c, sn6097116240), removal passed (no additional data removed); March 17 install calibration of spare 49i (sn1153630156), data overnight removed (13hrs invalid, 2hrs maintenance)
$PM_{2.5}$	API	T640	No operational issues noted during the month
SO_2	TEI	43i-TLE	Mar 4, unusual spike reading with both SO_2 and nitrogen analyzer, removed as invalid (1hr); Mar 16, during calibration of other equipment a spike occurred which was deemed invalid (1hr)
H_2S	TEI	450i	Mar 15, manual AIC performed to verify O3 (both connected to same relay), (1hr)
Met Equip	MetOne	50.5	No operational issues noted during the month

1.7 Happy Valley Air Monitoring Station

PAZA - March 2025 Happy Valley Station Report

Parameter	March Average	Minimum	Valid	30min / 1-hour Operational	Max	Objective	Day and Time	24-hour Max	Objective	Max Day	Exceedance 1hr	8hr	24hr	30d	Calibration Date
NO (ppb)	0.3	0.0	94.4%	99.2%	5.2	-	Mar-04 09:00	0.8	-	Mar-21	-	-	-	-	Mar 04, 2025
NO_2 (ppb)	2.0	0.3	94.4%	99.2%	10.1	159	Mar-25 21:00	3.8	-	Mar-21	0	-	-	-	Mar 04, 2025
NO_x (ppb)	2.3	0.4	94.4%	99.2%	11.8	-	Mar-13 08:00	4.7	-	Mar-21	-	-	-	-	Mar 04, 2025
O_3 (ppb)	38.3	10.4	89.4%	93.8%	50.3	78	Mar-25 17:00	44.5	-	Mar-07	0	-	-	-	Mar 04, 2025
$PM_{2.5}$ (µg/m³)	3.4	0.2	99.9%	100.0%	26.4	80	Mar-31 07:00	8.1	29	Mar-18	0	-	0	-	Mar 04, 2025
SO_2 (ppb)	0.3	0.0	95.0%	99.7%	5.5	172	Mar-30 02:00	0.9	48	Mar-04	0	-	0	0	Mar 04, 2025
TRS (ppb)	0.4	0.1	95.0%	99.7%	16.0	5	March 20, 20:00	0.7	3	Mar-20	1	-	0	-	Mar 05, 2025
THC (ppm)	2.0	1.9	94.9%	99.7%	3.2	-	Mar-31 07:00	2.2	-	Mar-31	-	-	-	-	Mar 05, 2025

	Average	Minimum	Valid	Operational	Maximum
Temp (°C)	-3.5	-19.2	100.0%	100.0%	11.3
WS (km/hr)	12.1	0.2	100.0%	100.0%	31.9
WD (deg)	246	1.8	100.0%	100.0%	359.9

Note: Valid hours must be greater than 75%
Operational hours must be greater than 90%

Average Wind Direction	246	WSW

Update Summary:

Parameter	Make	Model	Equipment summary
$NO/NO_2/NO_x$	TEI	42i	Mar 5, nitrogen high point & GPT used for ozone calibration (2hrs); Mar 12, remote AIC triggered to check ozone, all instruments run (2hrs); Mar 13, nitrogen high point & GPT used for ozone calibration (2hrs)
O_3	TEI	49i	Mar 4 removal calibration performed failed, data from good span on Mar 4 to calibration removed as invalid (19hrs); Mar 5 install calibration (swap of 49i (sn1536801556) with API T400 (sn7067), data overnight removed as invalid (17hrs removed, 10hrs maintenance); Mar 12 span failed, additional AIC run which also failed (2hrs), Mar 13 span failed, calibration performed showed linear response and all within tolerance (no data removed, following calibration spans were stable (4hrs)
$PM_{2.5}$	API	T640	No operational issues noted in the month
SO_2	TEI	43i	Mar 12, remote AIC triggered to check ozone, all instruments run (2hrs maintenance)
TRS	TEI	43i	Mar 12, AIC triggered to check ozone, all instruments run (2hrs maintenance), 1x30min reading above AAQO
THC	TEI	55i / 51i-LT	Mar 12, remote AIC triggered to check ozone, all instruments run (2hrs maintenance)
Met Equip	MetOne	SO.5	No operational issues noted in the month

1.8 Milner Air Monitoring Station

PAZA - March 2025 Milner Station Report

Parameter	March Average	Minimum	Valid	Operational	1-hour Max	Objective	Max Day and Time	24-hour Max	Objective	Max Day	Exceedance 1hr	8hr	24hr	30d	Calibration Date
NO (ppb)	1.1	0.0	95.2%	100.0%	29.1	-	Mar-23 10:00	2.8	-	Mar-25	-	-	-	-	Mar 12, 2025
NO_2 (ppb)	3.7	0.0	95.2%	100.0%	27.1	159	Mar-23 10:00	7.0	-	Mar-20	0	-	-	-	Mar 12, 2025
NO_x (ppb)	4.8	0.0	95.2%	100.0%	56.2	-	Mar-23 10:00	9.3	-	Mar-20	-	-	-	-	Mar 12, 2025
$PM_{2.5}$ (µg/m³)	2.4	0.2	99.6%	100.0%	10.9	80	Mar-25 08:00	5.4	29	Mar-26	0	-	0	-	Mar 12, 2025

	Average	Minimum	Valid	Operational	Maximum
WS (km/hr)	6.2	0.0	100.0%	100.0%	25.1
WD (deg)	252	1.6	100.0%	100.0%	359.0

Note: Valid hours must be greater than 75%
Operational hours must be greater than 90%

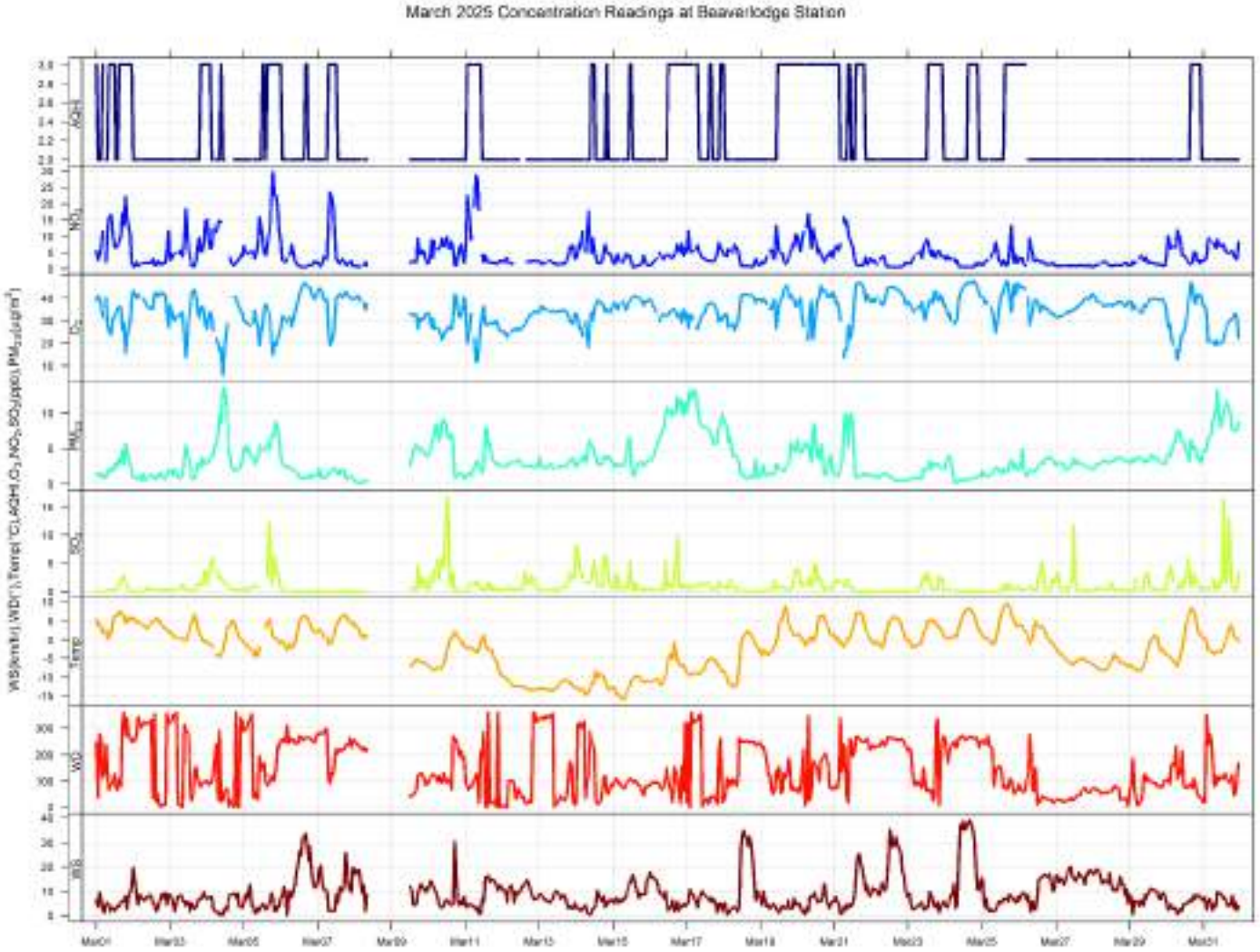
Average Wind Direction	252	WSW

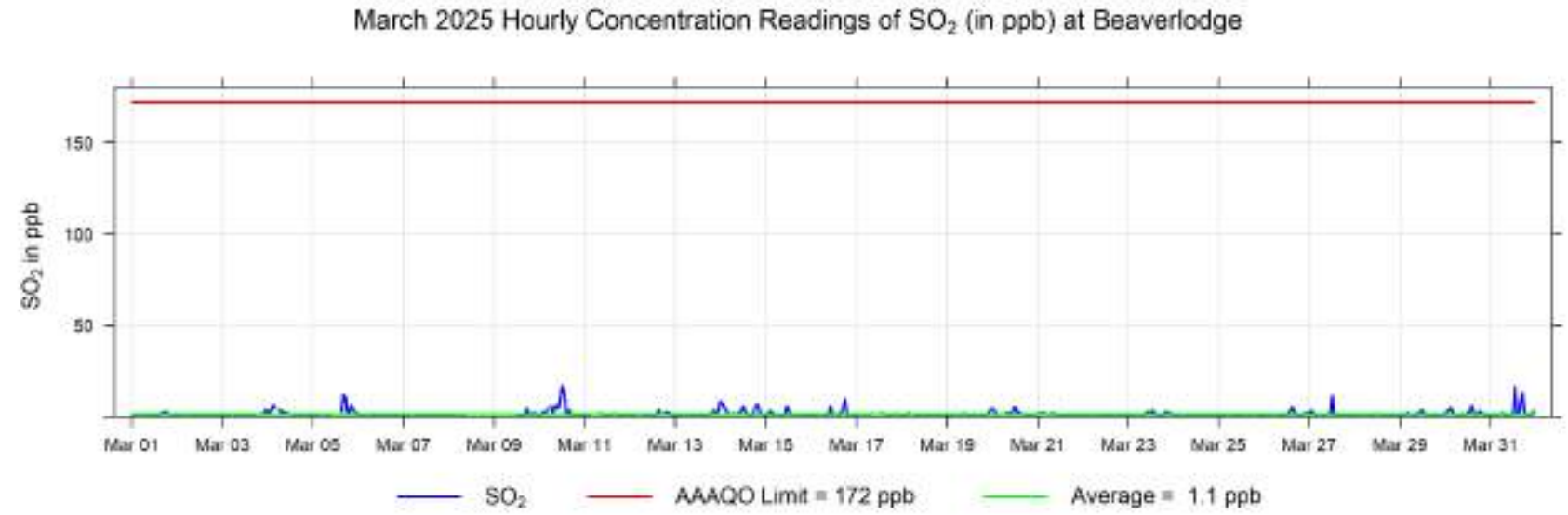
Update Summary:

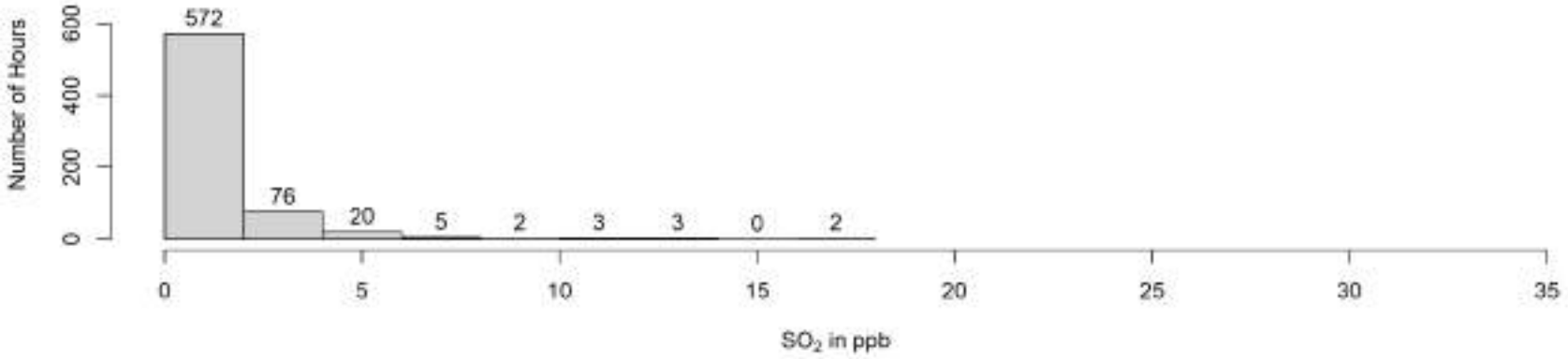
Parameter	Make	Model	Equipment summary
$NO/NO_2/NO_x$	Thermo	42i	No Operational issues noted
$PM_{2.5}$	API	T640	No Operational issues noted
Met Equip	MetOne	SO.5	No Operational issues noted

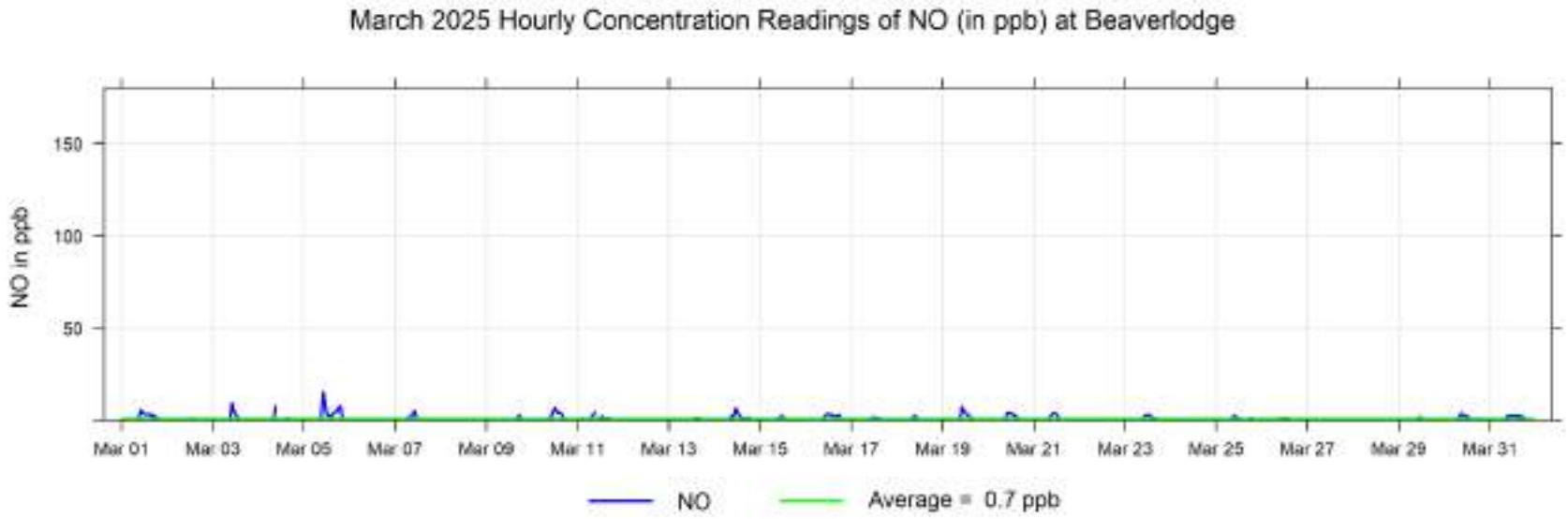
2 Beaverlodge Charts

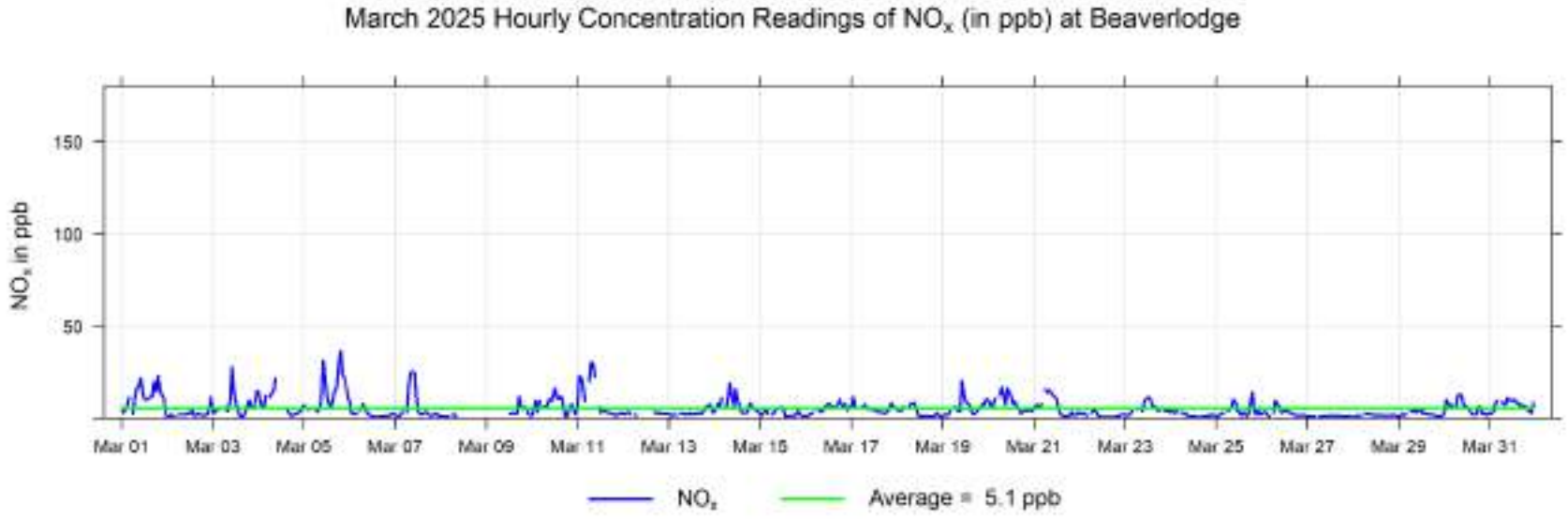
The following pages include the charts and histograms for Beaverlodge Station

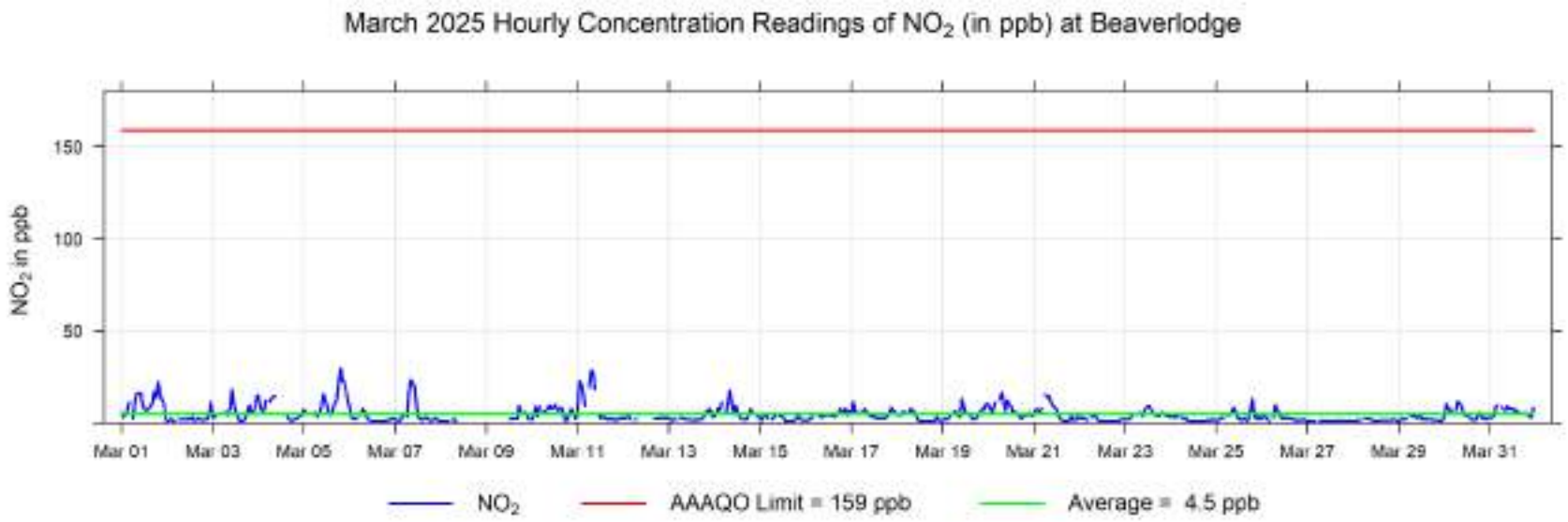


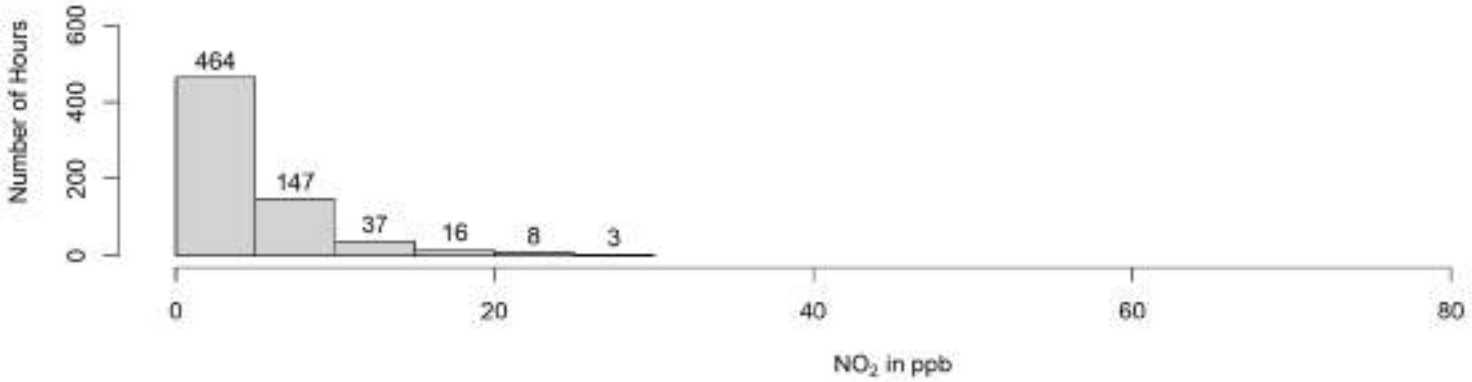

March 2025 Hourly Concentration Readings of SO_2 (in ppb) at Beaverlodge
SO_2 in ppb
150
100
50
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
SO_2
AAAQO Limit = 172 ppb
Average = 1.1 ppb

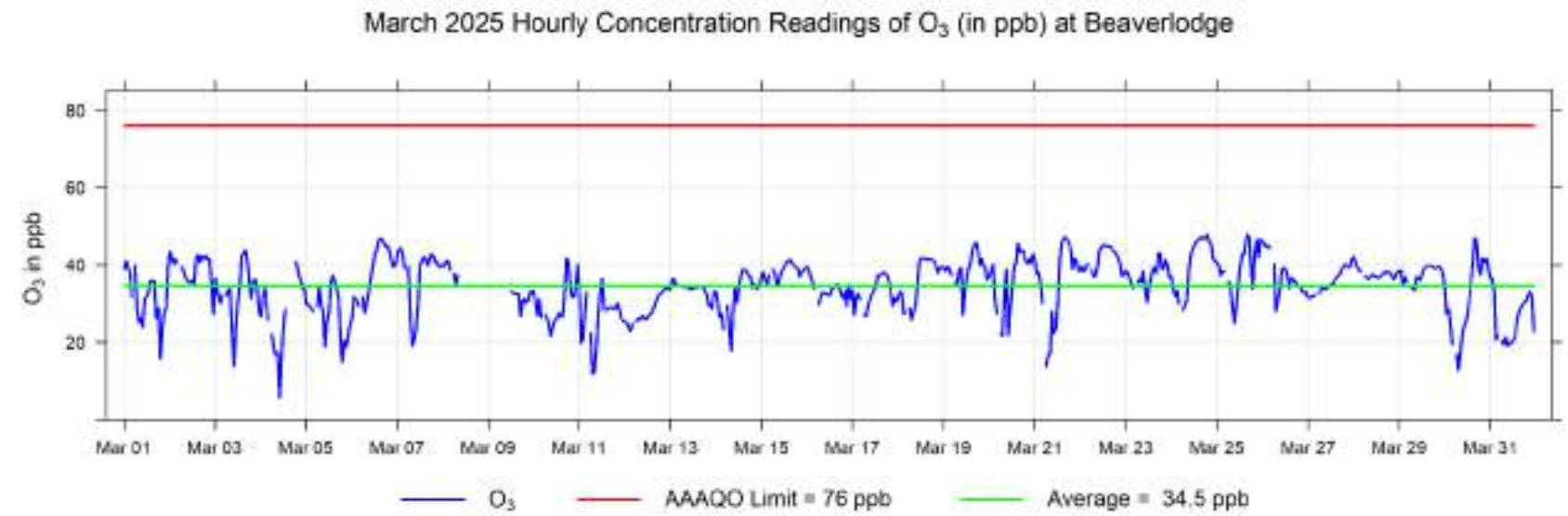

Number of Hours
0
200
400
600
572
76
20
5
2
3
3
0
2
0
5
10
15
20
25
30
35
SO_2 in ppb

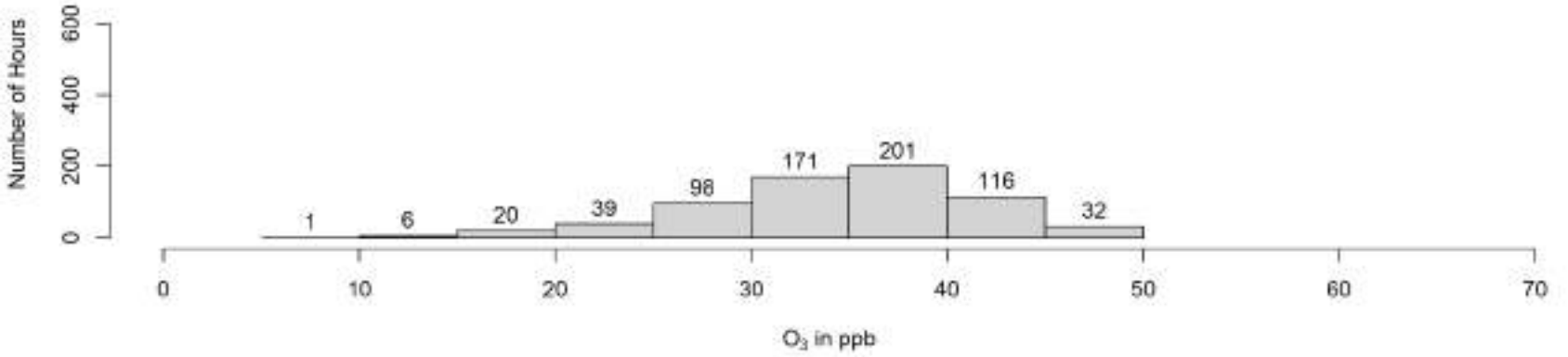

March 2025 Hourly Concentration Readings of NO (in ppb) at Beaverlodge
NO in ppb
150
100
50
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
NO
Average = 0.7 ppb

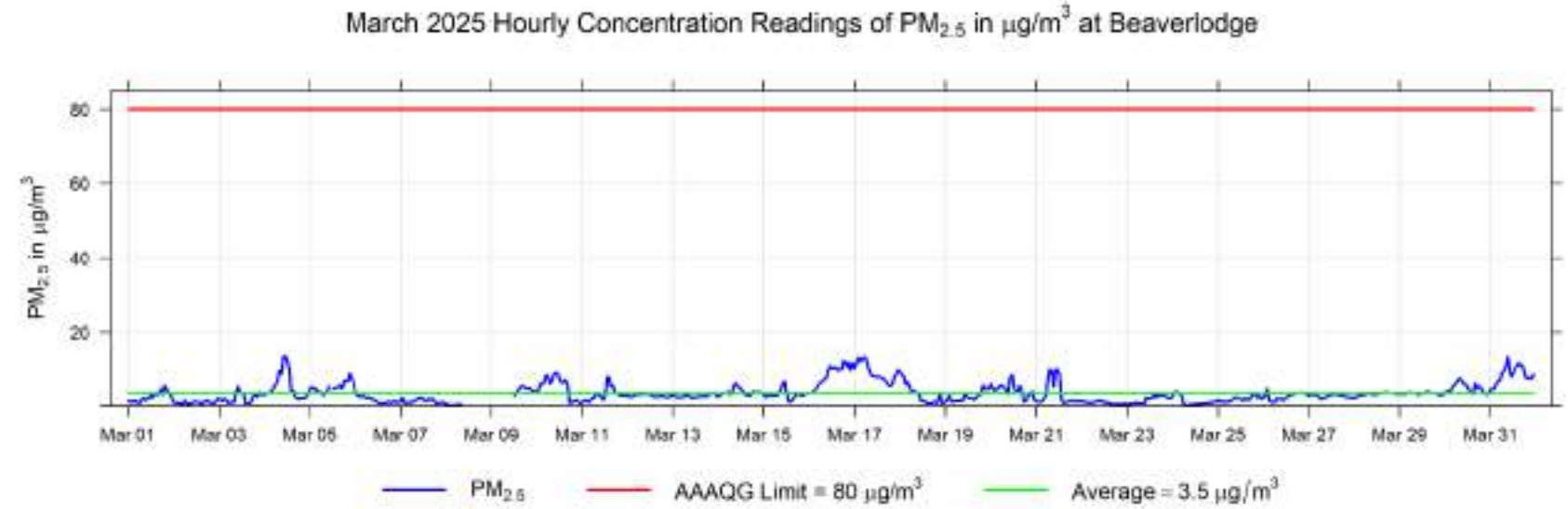

March 2025 Hourly Concentration Readings of NOx (in ppb) at Beaverlodge
NOx in ppb
150
100
50
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
NOx
Average = 5.1 ppb

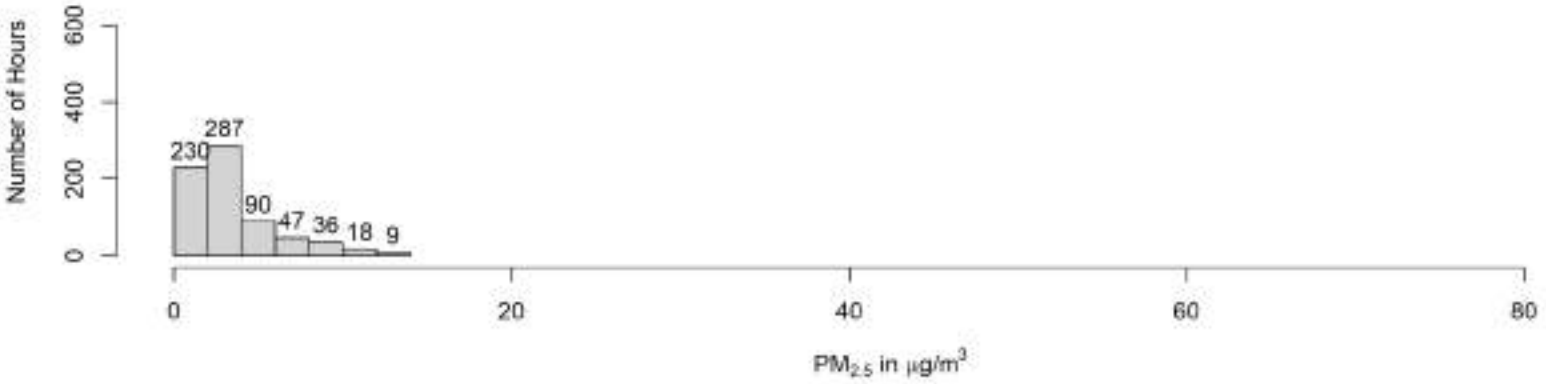

March 2025 Hourly Concentration Readings of NO2 (in ppb) at Beaverlodge
NO2 in ppb
150
100
50
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
NO2
AAAQO Limit = 159 ppb
Average = 4.5 ppb

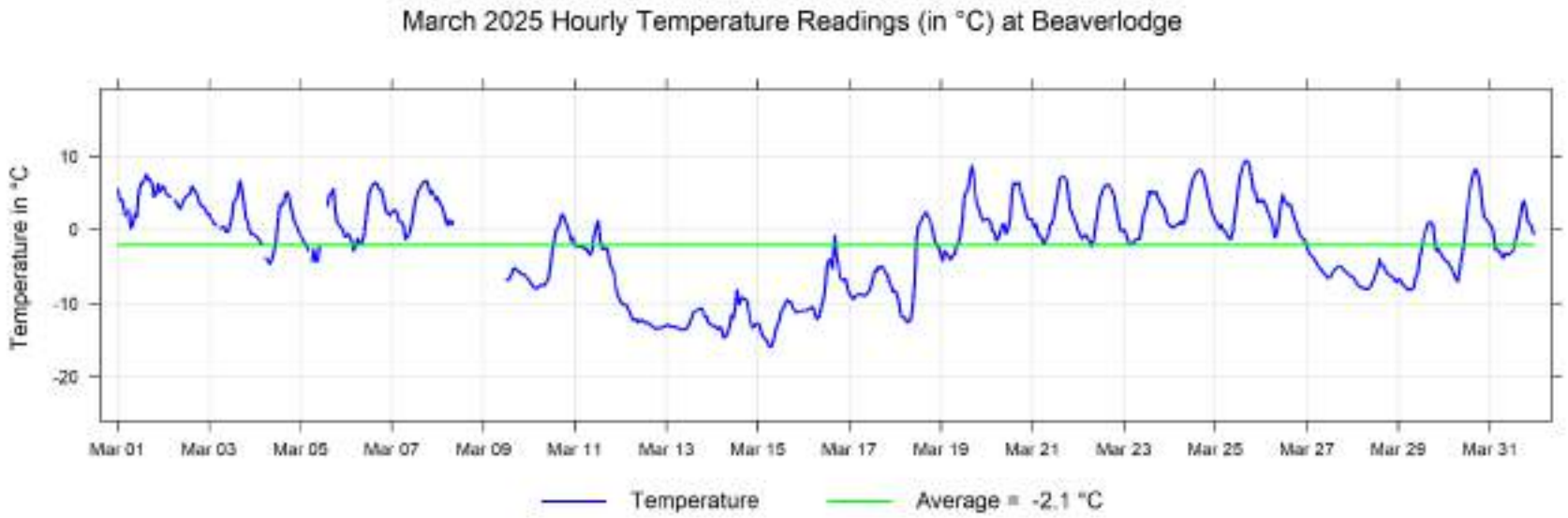

Number of Hours
0
200
400
600
464
147
37
16
8
3
0
20
40
60
80
NO2 in ppb

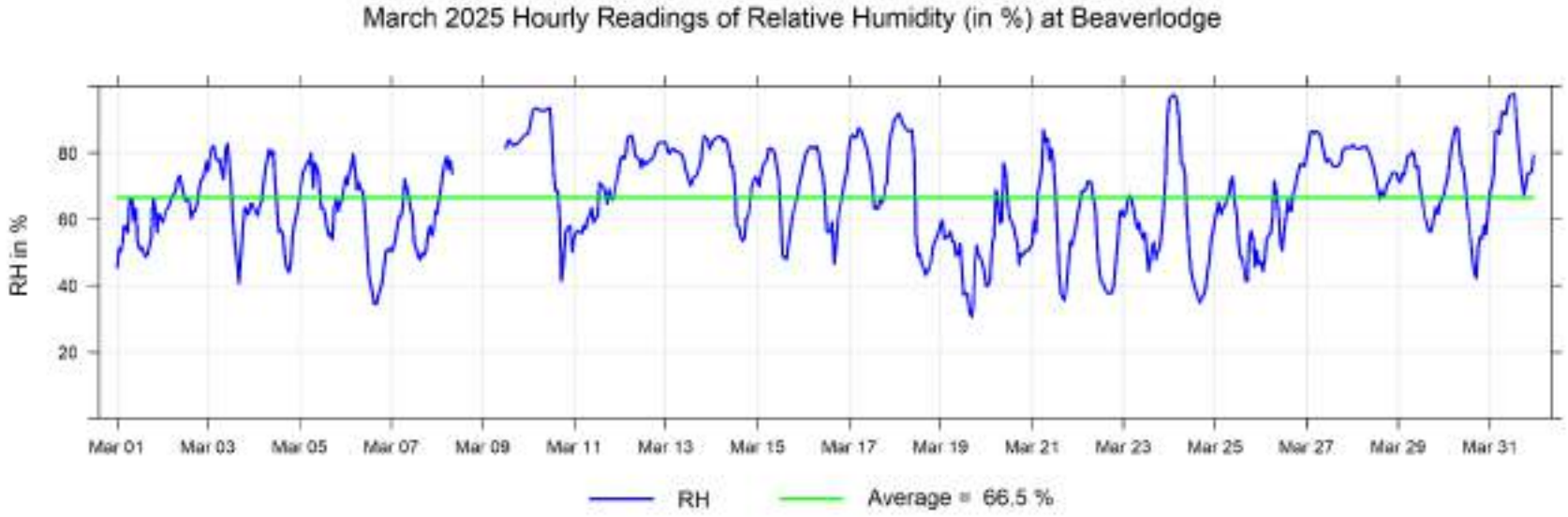

March 2025 Hourly Concentration Readings of O_3 (in ppb) at Beaverlodge
O_3 in ppb
80
60
40
20
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
O_3
AAAQO Limit = 76 ppb
Average = 34.5 ppb

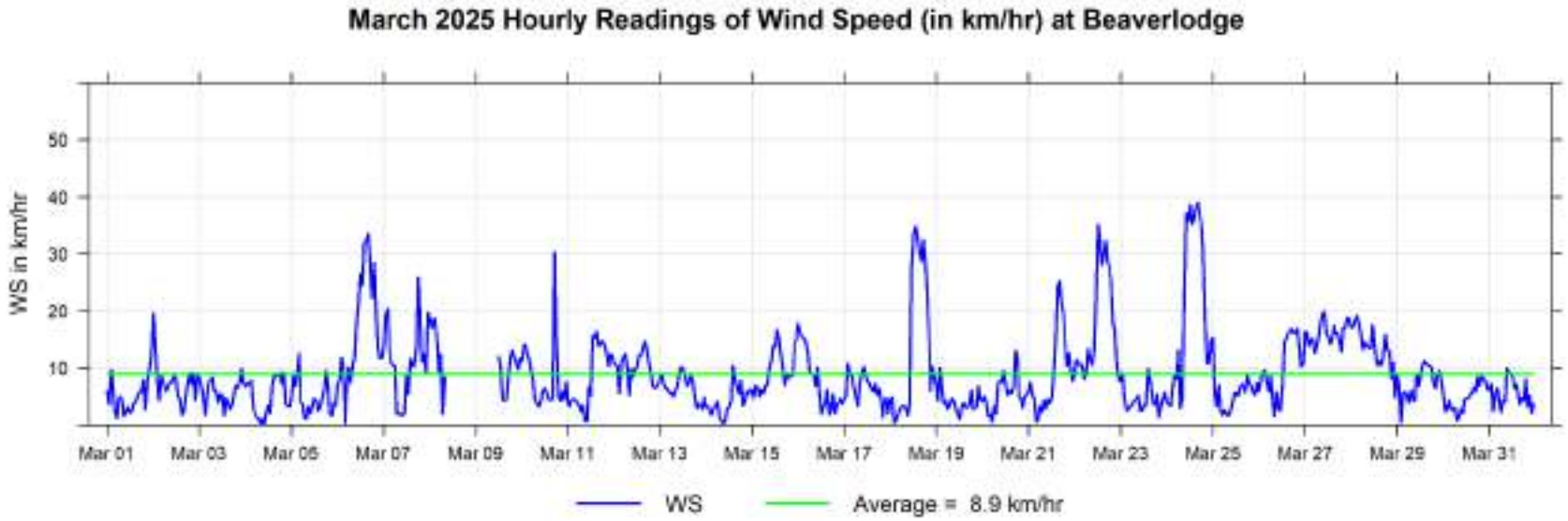

Number of Hours
0
200
400
600
1
6
20
39
98
171
201
116
32
0
10
20
30
40
50
60
70
O_3 in ppb

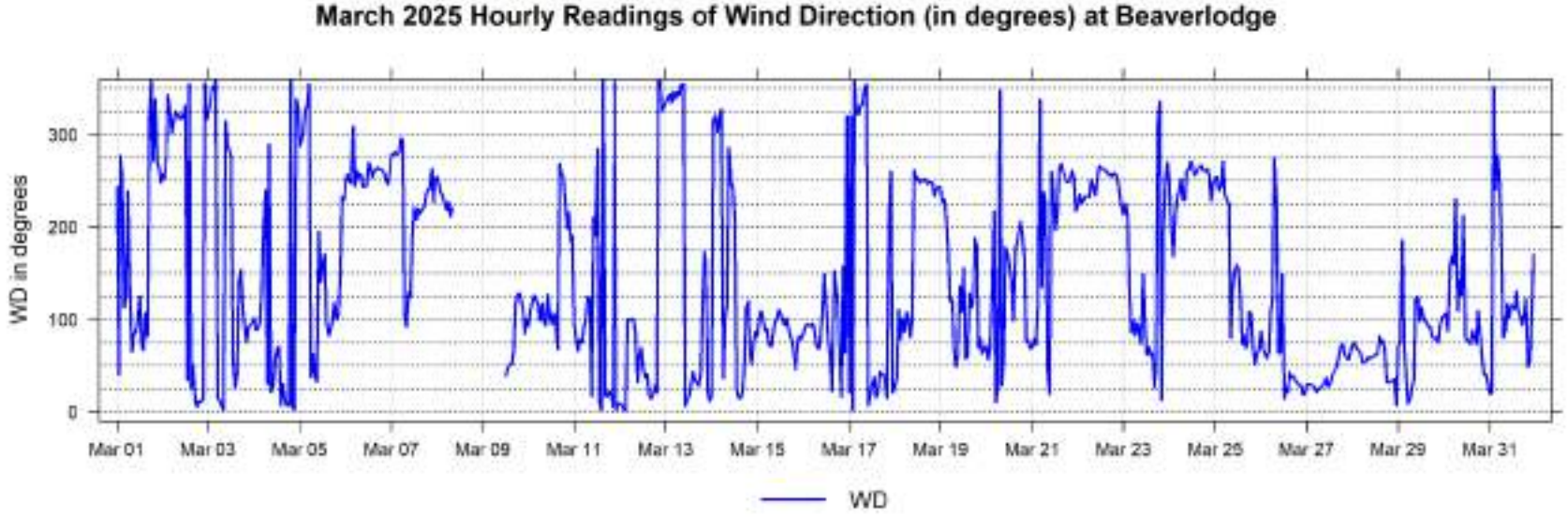

March 2025 Hourly Concentration Readings of PM2.5 in µg/m3 at Beaverlodge
PM2.5 in µg/m3
80
60
40
20
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
PM2.5
AAAQG Limit = 80 µg/m3
Average = 3.5 µg/m3

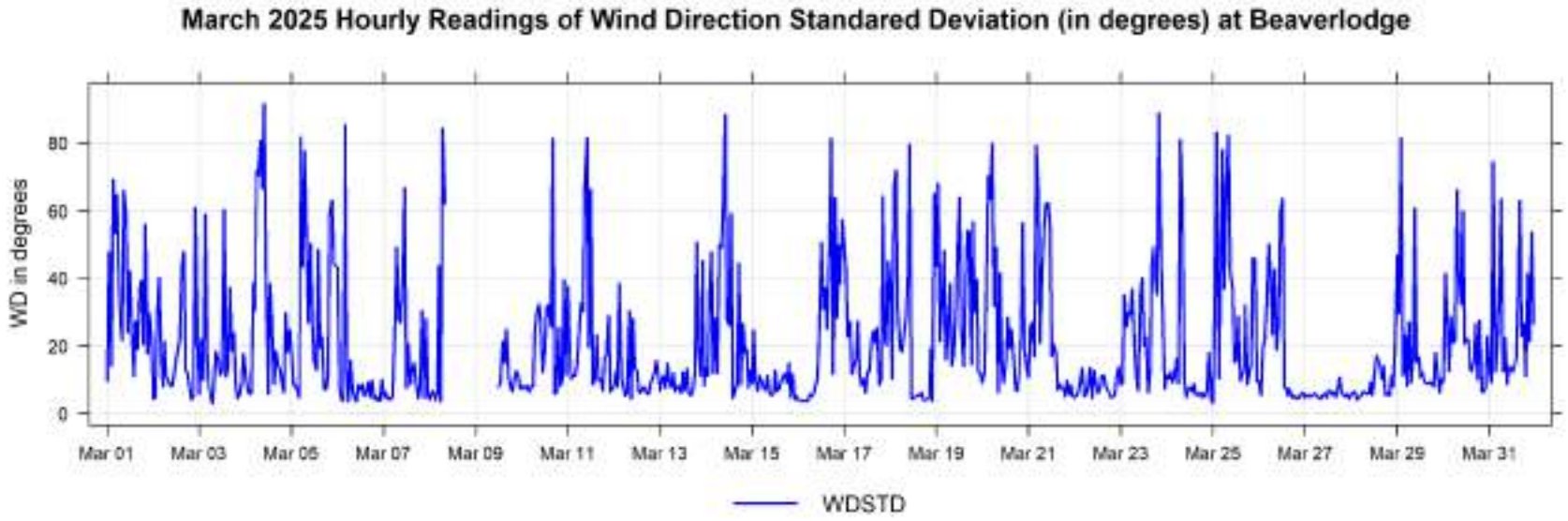

Number of Hours
0
200
400
600
230
287
90
47
36
18
9
0
20
40
60
80
PM2.5 in µg/m3

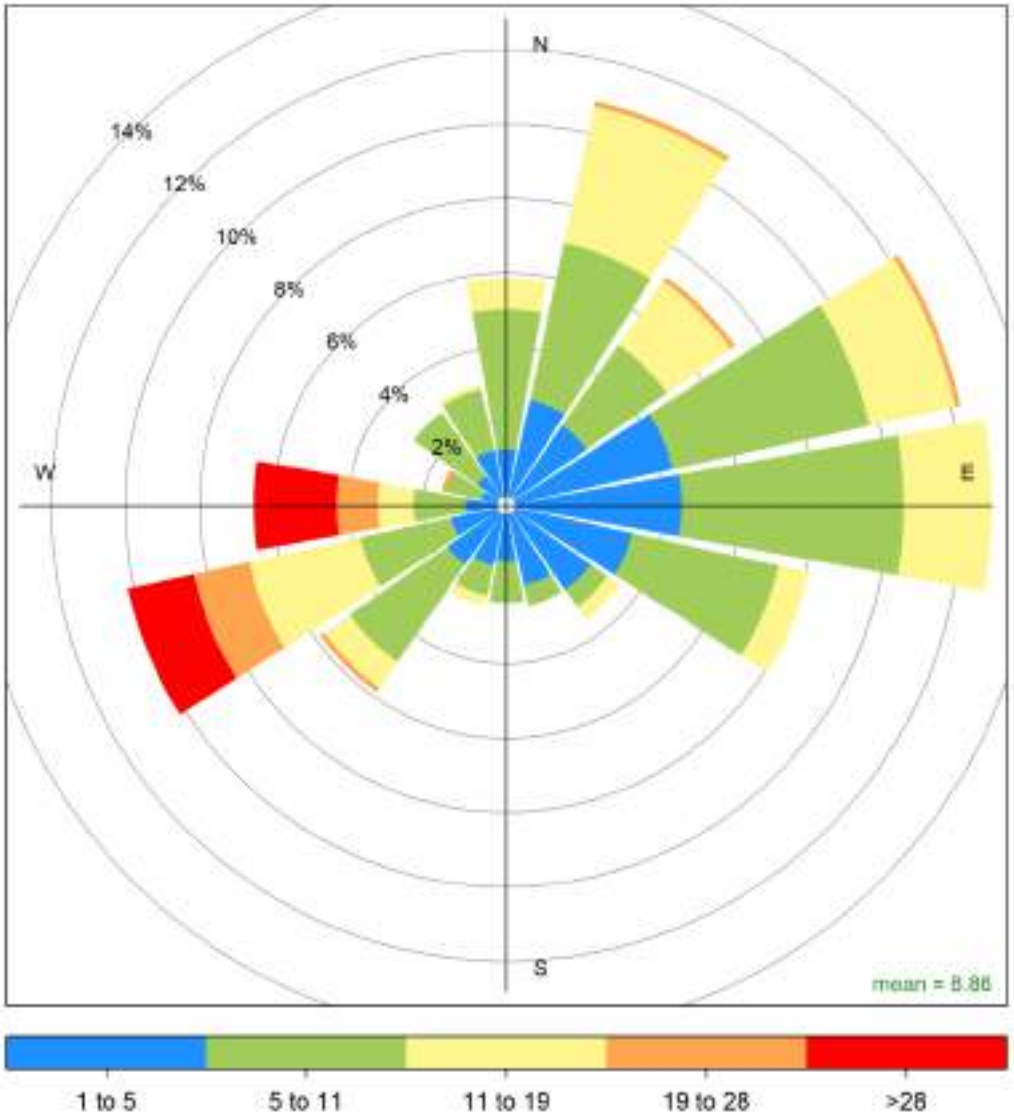

March 2025 Hourly Temperature Readings (in °C) at Beaverlodge
Temperature in °C
10
0
-10
-20
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
Temperature
Average = -2.1 °C


March 2025 Hourly Readings of Relative Humidity (in %) at Beaverlodge
RH in %
80
60
40
20
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
RH
Average = 66.5 %


March 2025 Hourly Readings of Wind Speed (in km/hr) at Beaverlodge
WS in km/hr
50
40
30
20
10
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
WS
Average = 8.9 km/hr


March 2025 Hourly Readings of Wind Direction (in degrees) at Beaverlodge
WD in degrees
300
200
100
0
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
WD


March 2025 Hourly Readings of Wind Direction Standared Deviation (in degrees) at Beaverlodge
WD in degrees
0
20
40
60
80
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
WDSTD

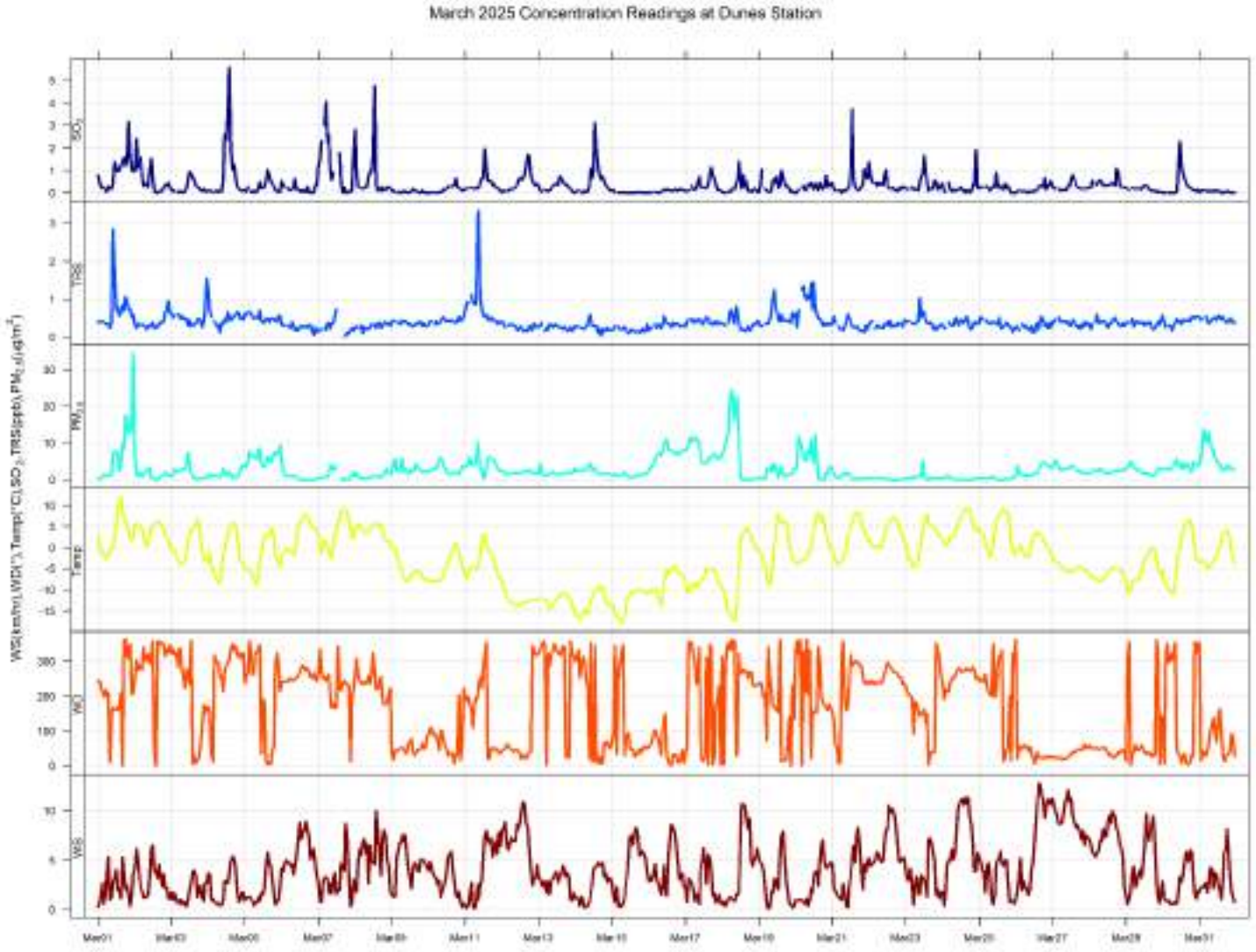


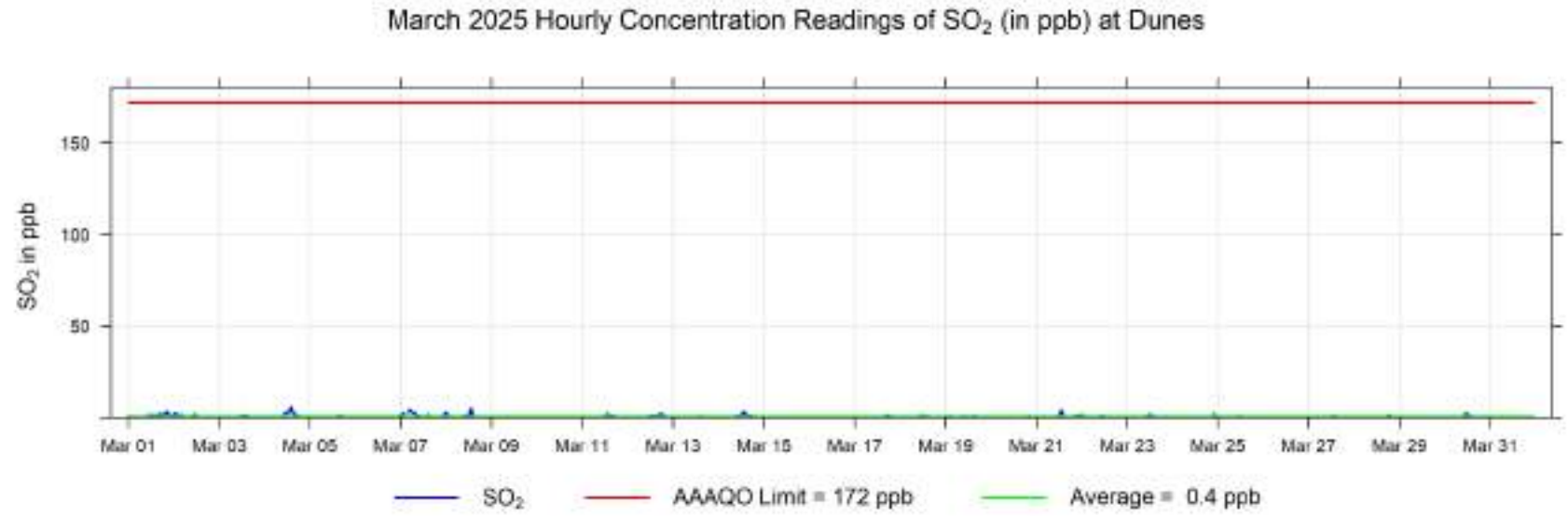
Beaverlodge March 2025 Wind Rose, wind speed in km/hr

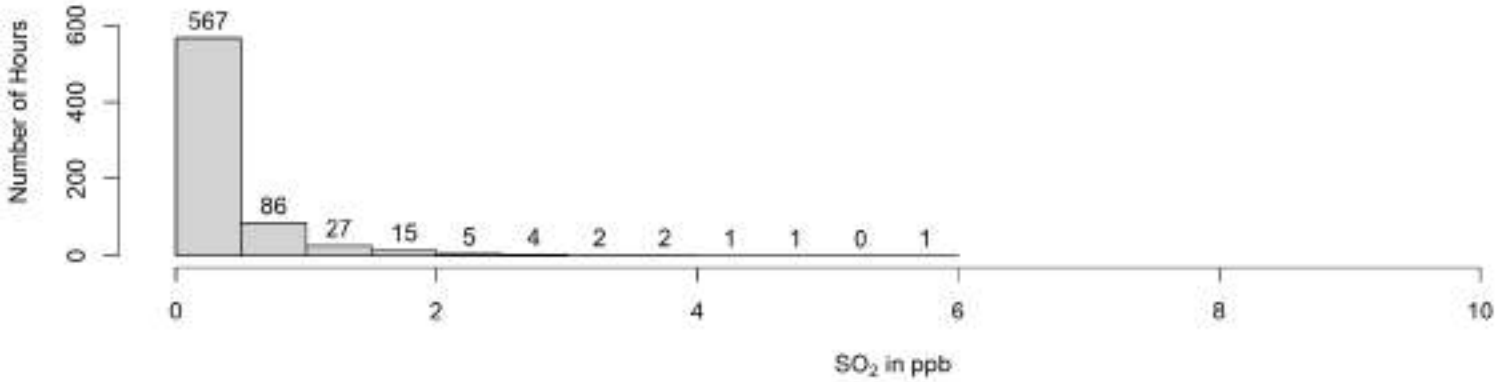
Calms (<1km/hr) = 2.1 %

3 Dunes Charts

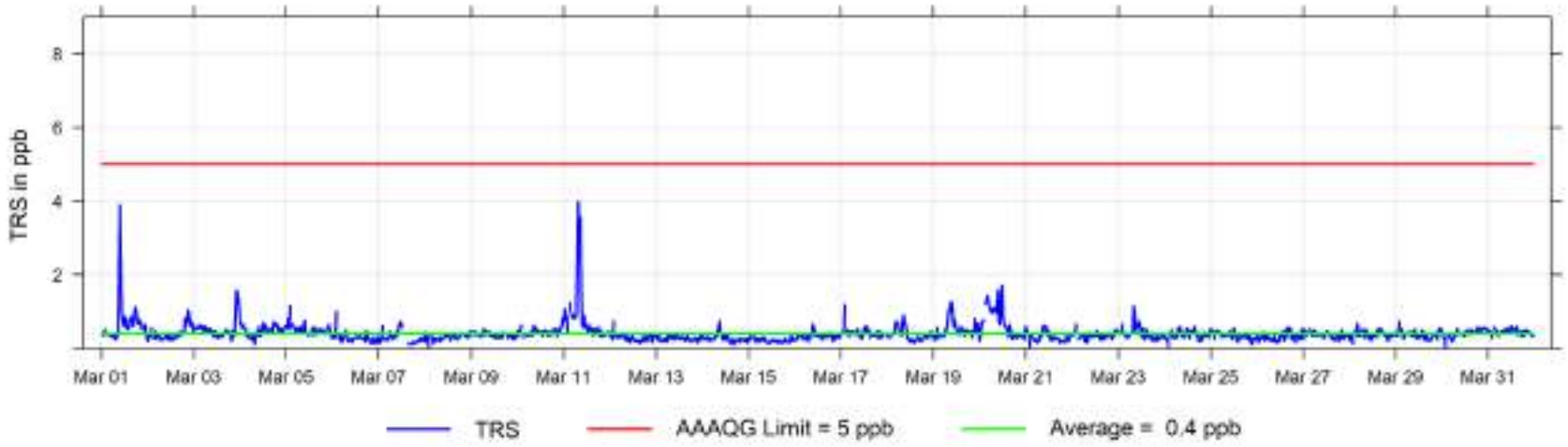
The following pages include the charts and histograms for Dunes Station



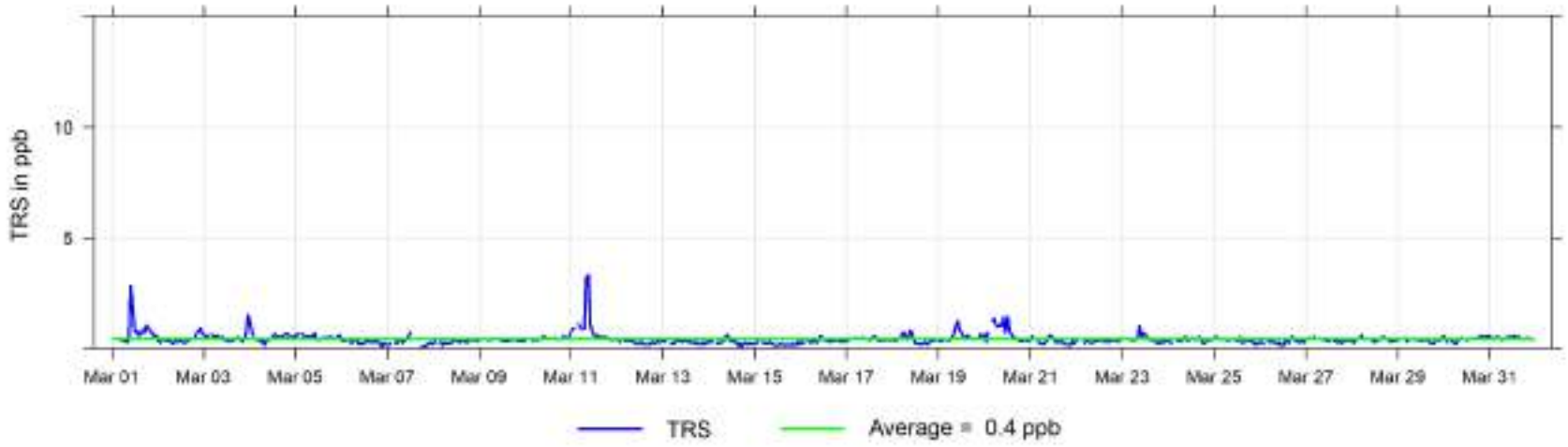

March 2025 Hourly Concentration Readings of SO_2 (in ppb) at Dunes
SO_2 in ppb
150
100
50
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
SO_2
AAAQO Limit = 172 ppb
Average = 0.4 ppb

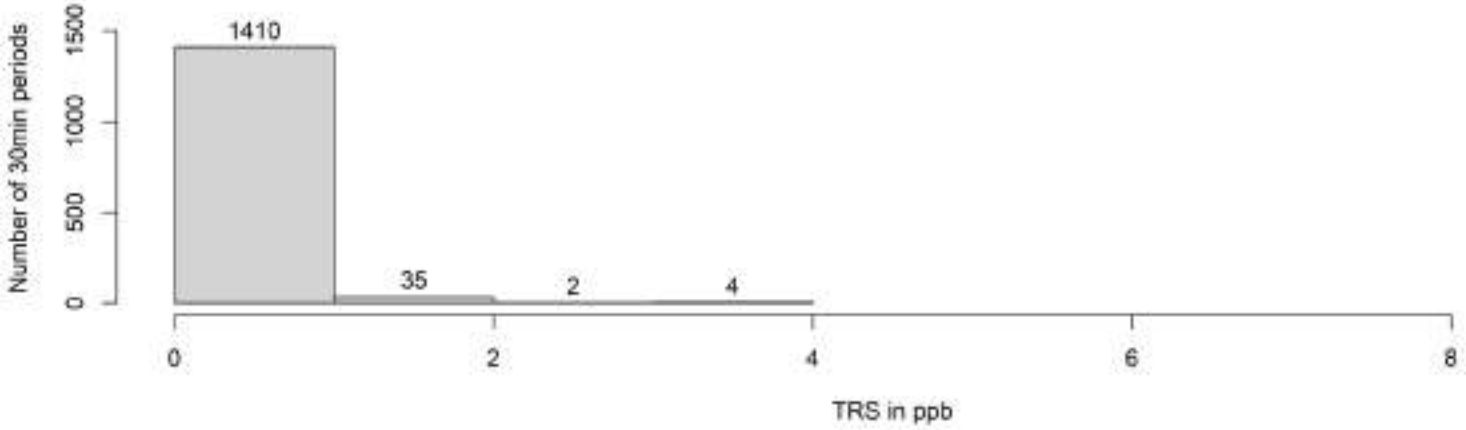

Number of Hours
0
200
400
600
567
86
27
15
5
4
2
2
1
1
0
1
0
2
4
6
8
10
SO_2 in ppb

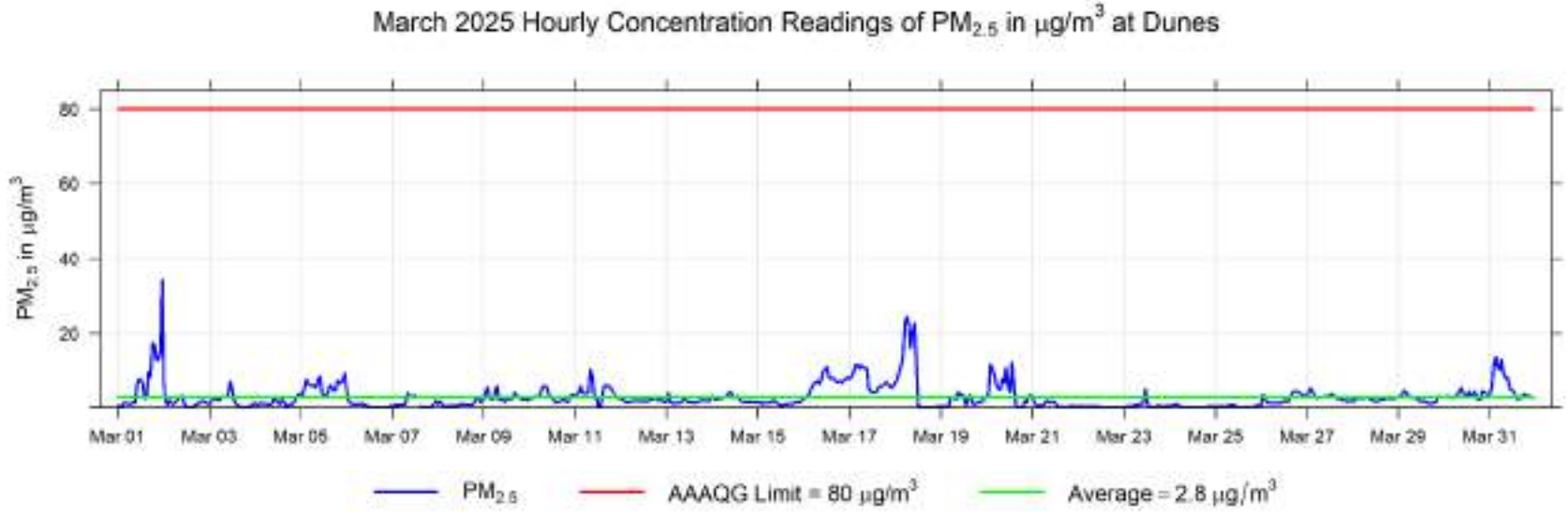
March 2025 30 min Concentration Readings of TRS (in ppb) at Dunes

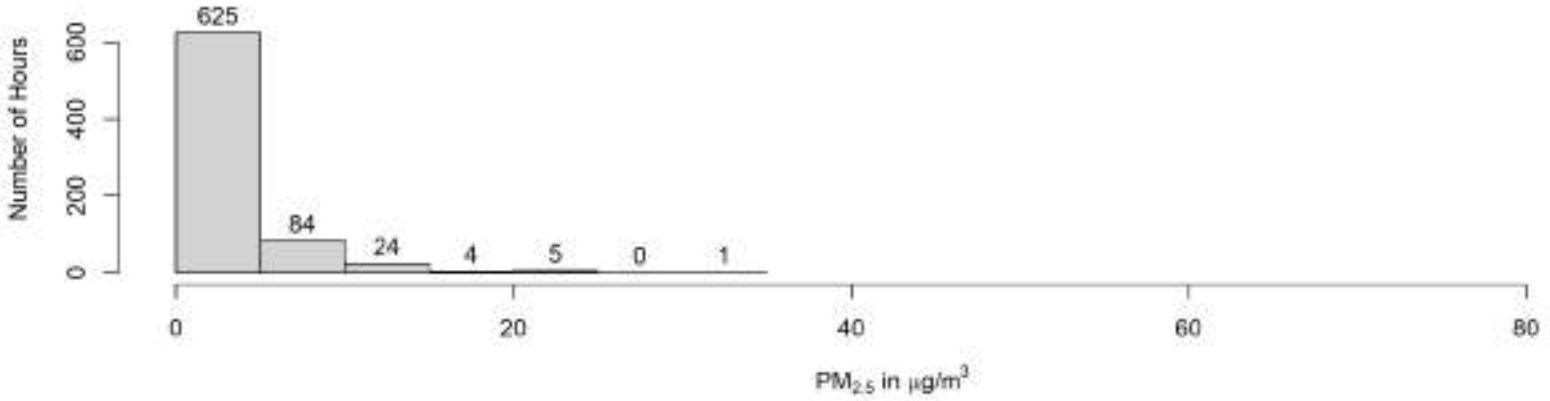


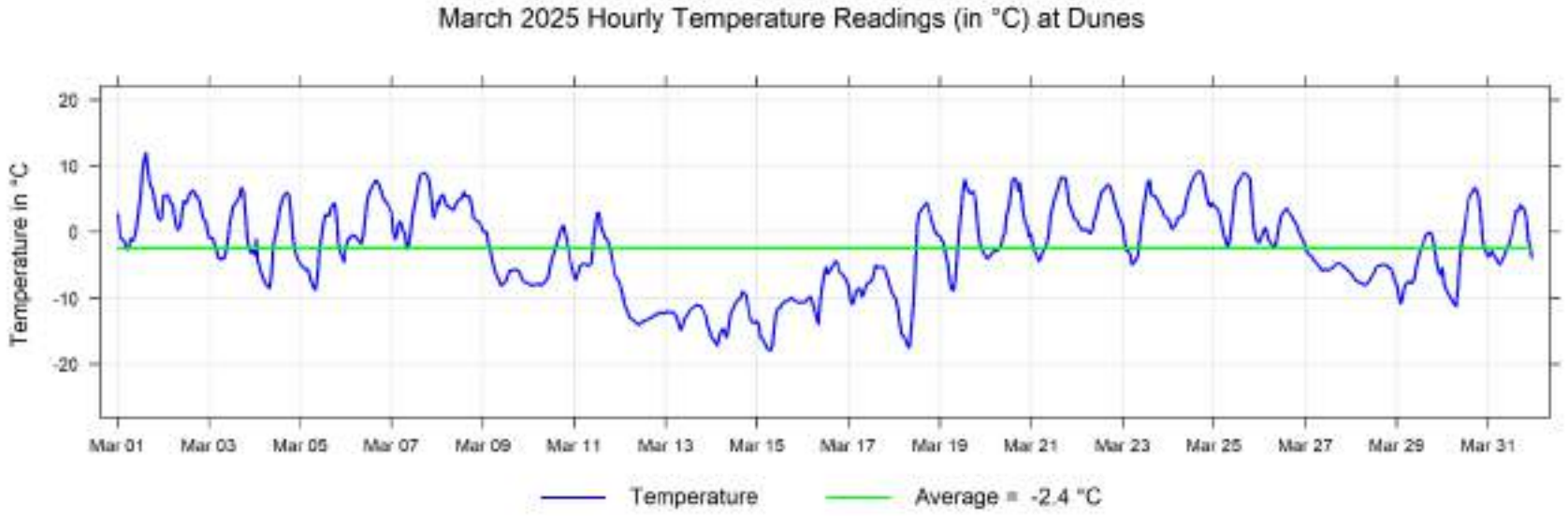
March 2025 Hourly Concentration Readings of TRS (in ppb) at Dunes



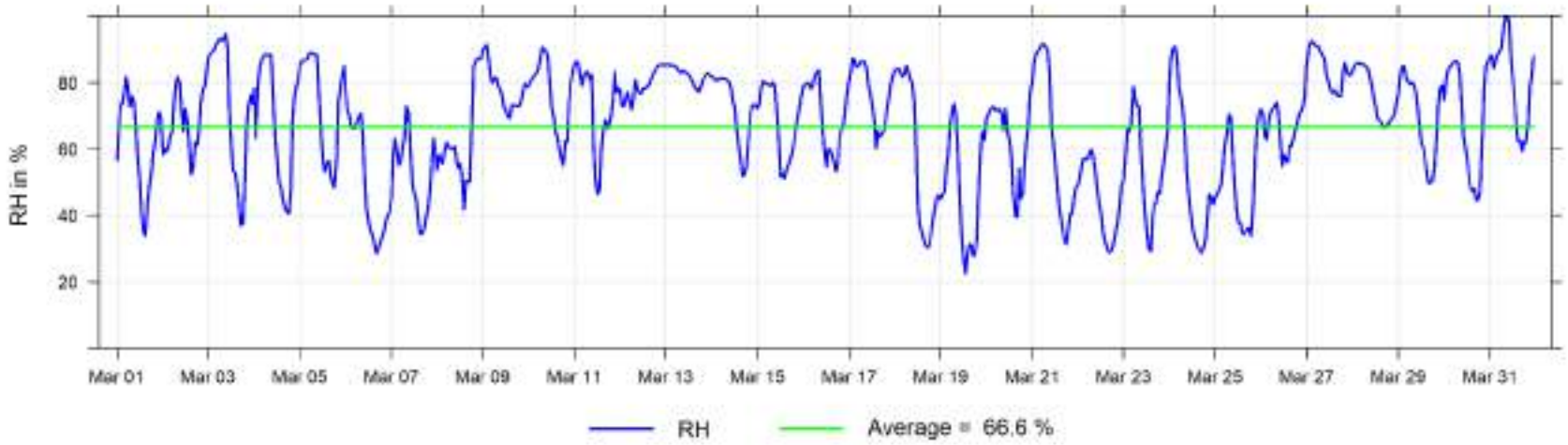

Number of 30min periods
0
500
1000
1500
1410
35
2
4
0
2
4
6
8
TRS in ppb


March 2025 Hourly Concentration Readings of PM2.5 in µg/m3 at Dunes
PM2.5 in µg/m3
0
20
40
60
80
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
PM2.5
AAAQG Limit = 80 µg/m3
Average = 2.8 µg/m3

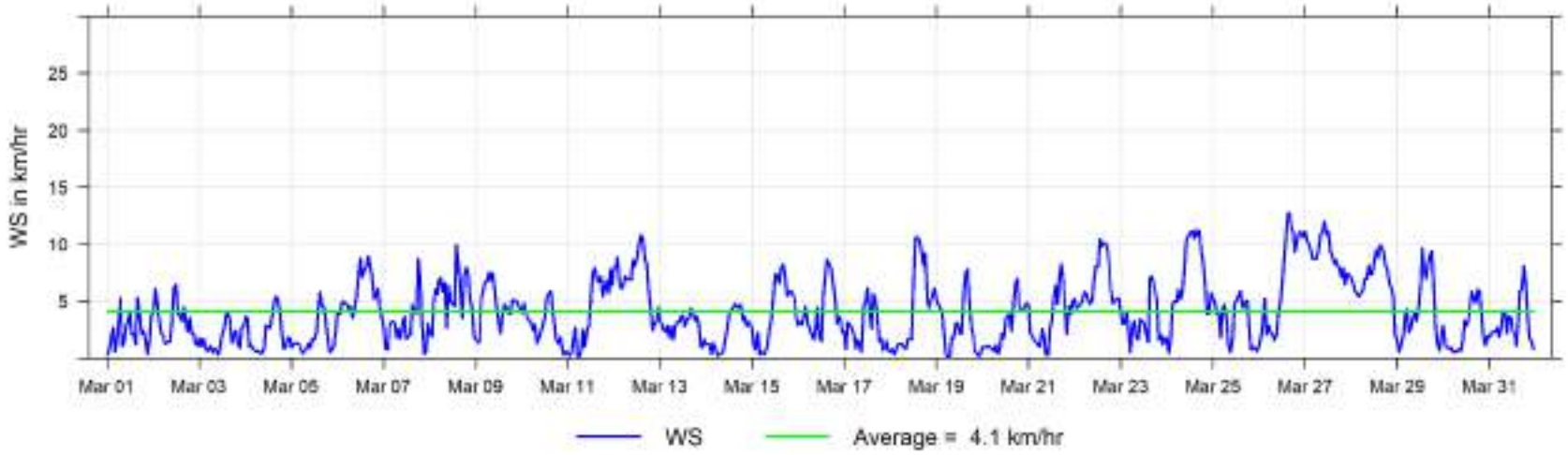

Number of Hours
0
200
400
600
625
84
24
4
5
0
1
0
20
40
60
80
PM2.5 in µg/m3

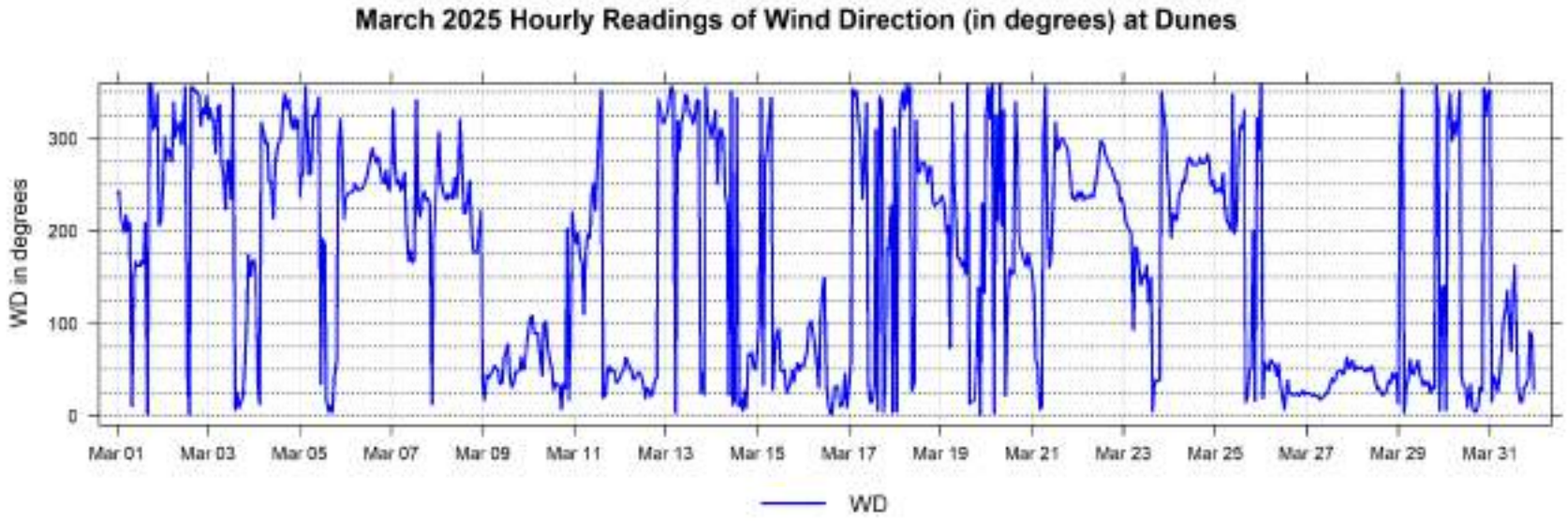

March 2025 Hourly Temperature Readings (in °C) at Dunes
Temperature in °C
20
10
0
-10
-20
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
Temperature
Average = -2.4 °C

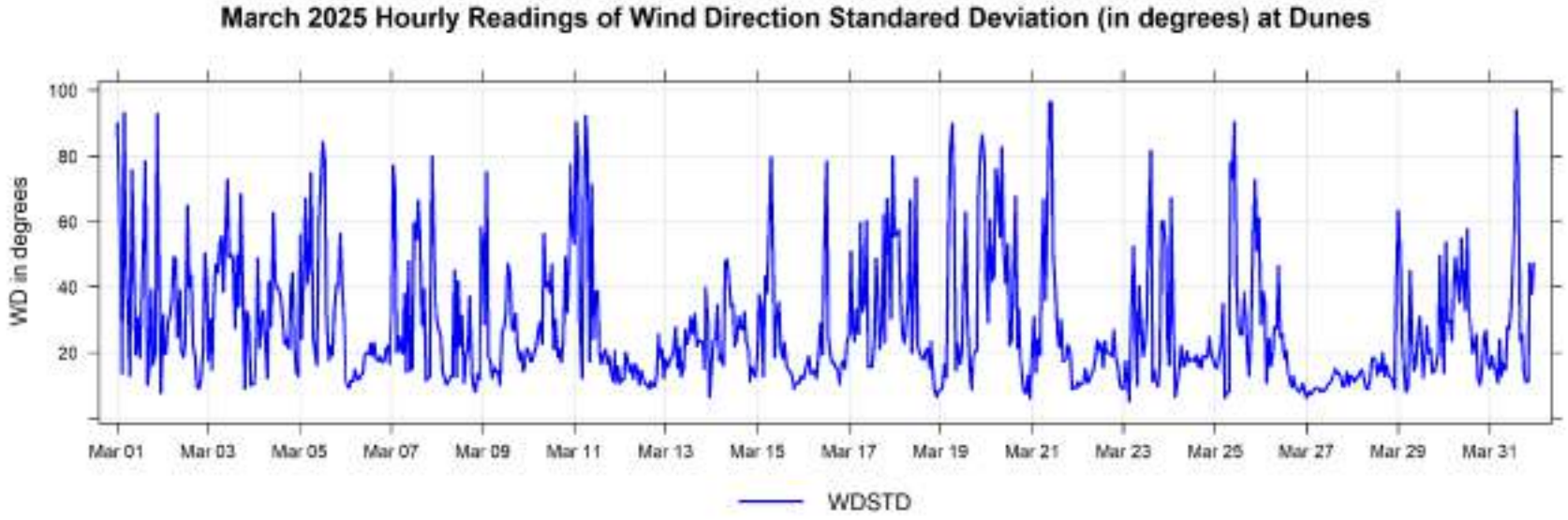
March 2025 Hourly Readings of Relative Humidity (in %) at Dunes

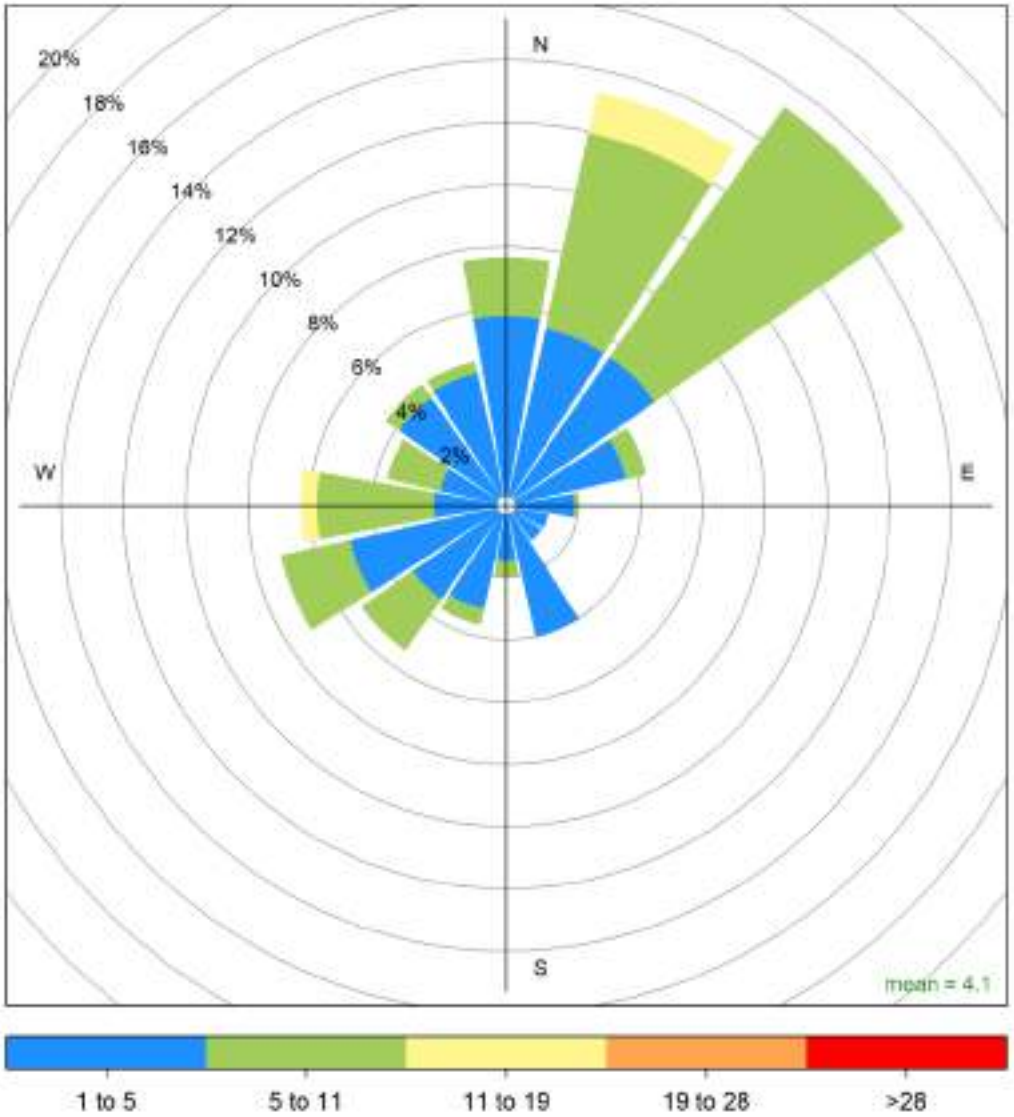


March 2025 Hourly Readings of Wind Speed (in km/hr) at Dunes




March 2025 Hourly Readings of Wind Direction (in degrees) at Dunes
WD in degrees
0
100
200
300
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
WD


March 2025 Hourly Readings of Wind Direction Standared Deviation (in degrees) at Dunes
WD in degrees
20
40
60
80
100
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
WDSTD

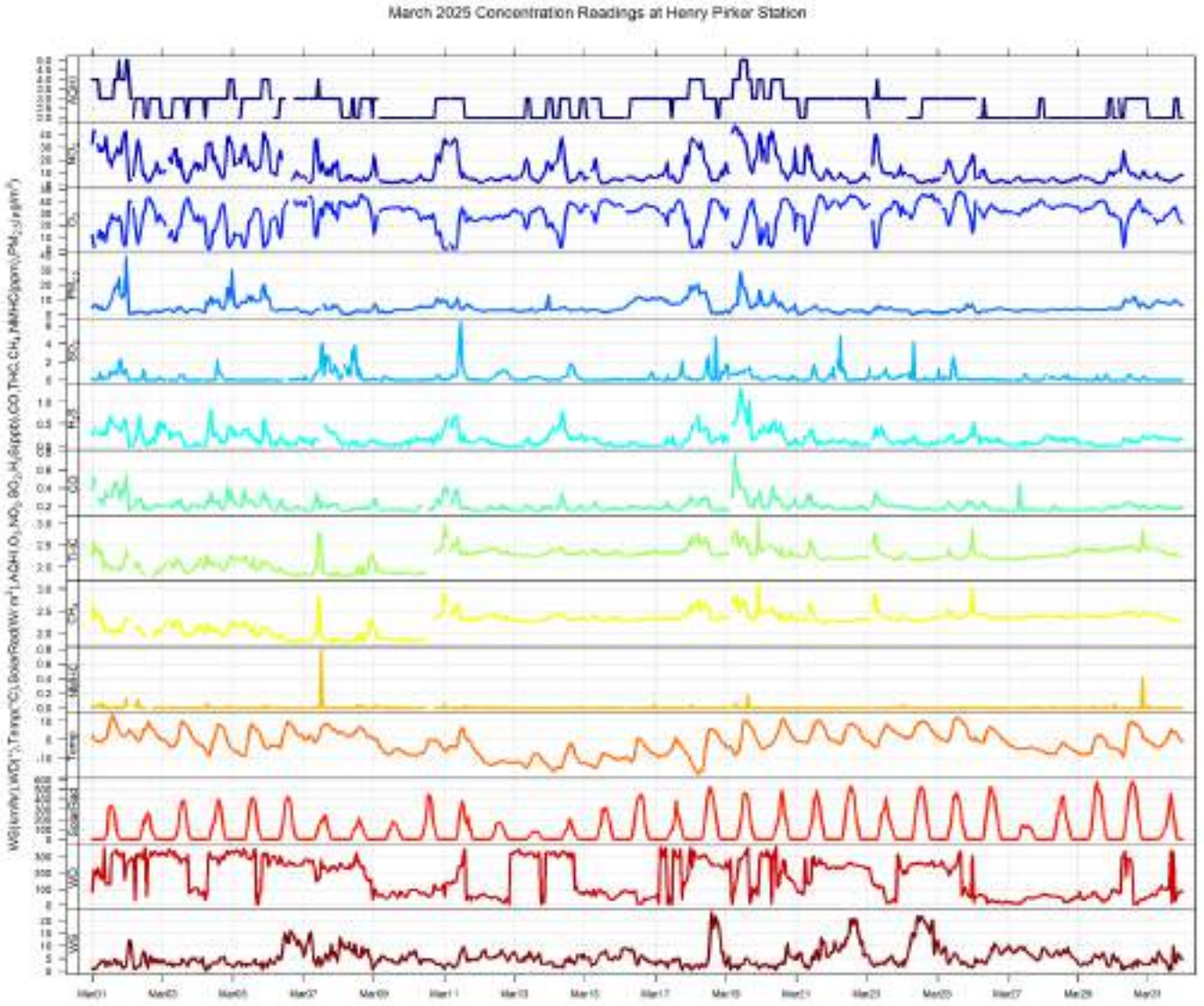


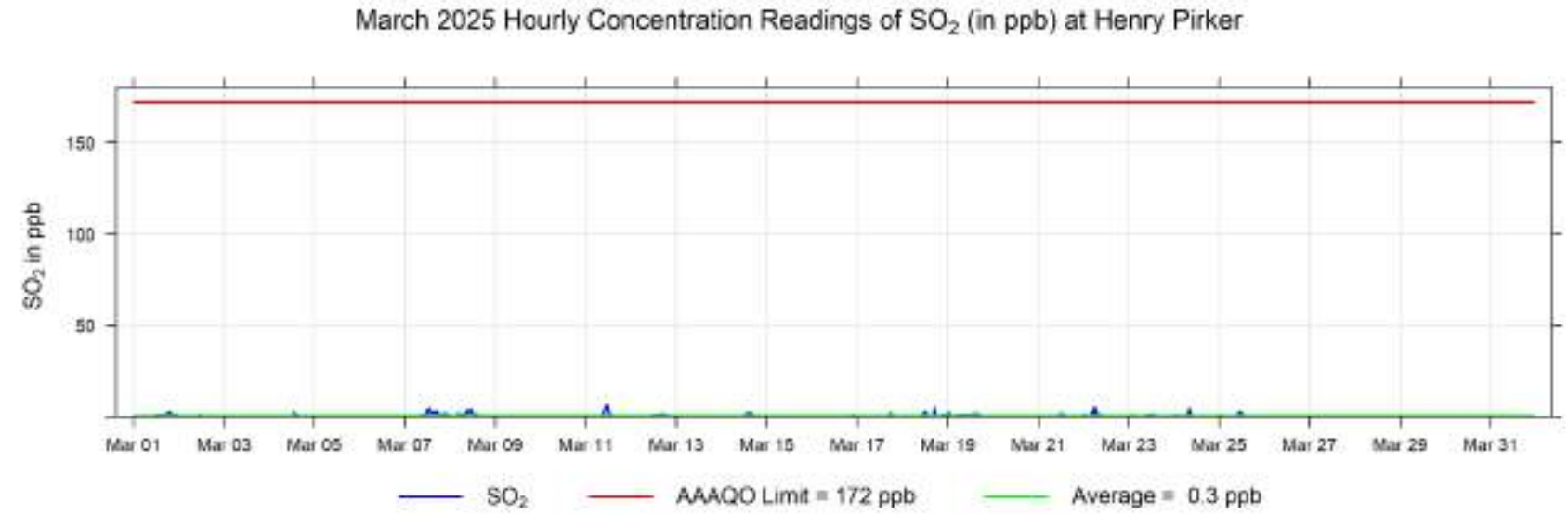
Dunes March 2025 Wind Rose, wind speed in km/hr

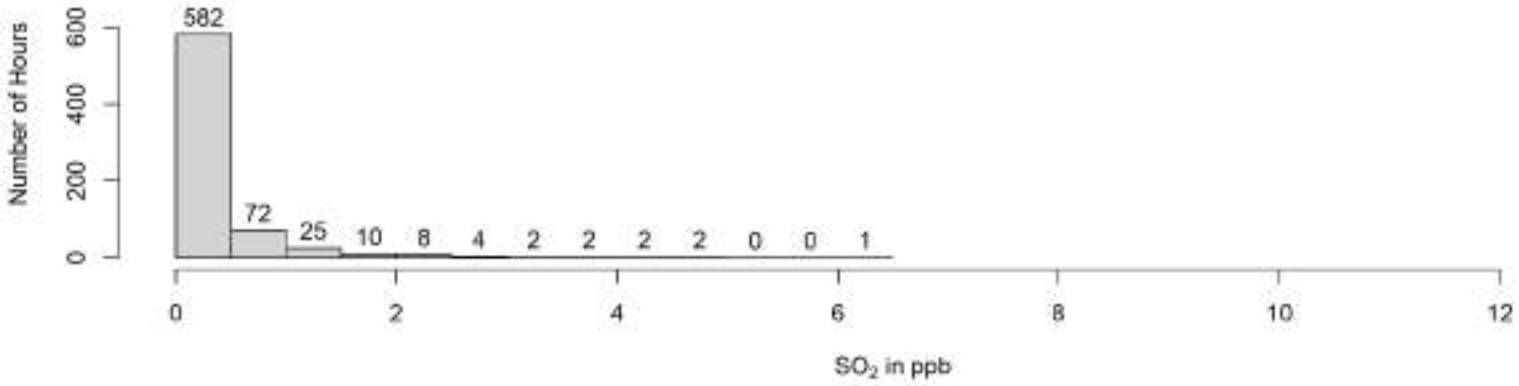
Calms (<1km/hr) = 14.4 %

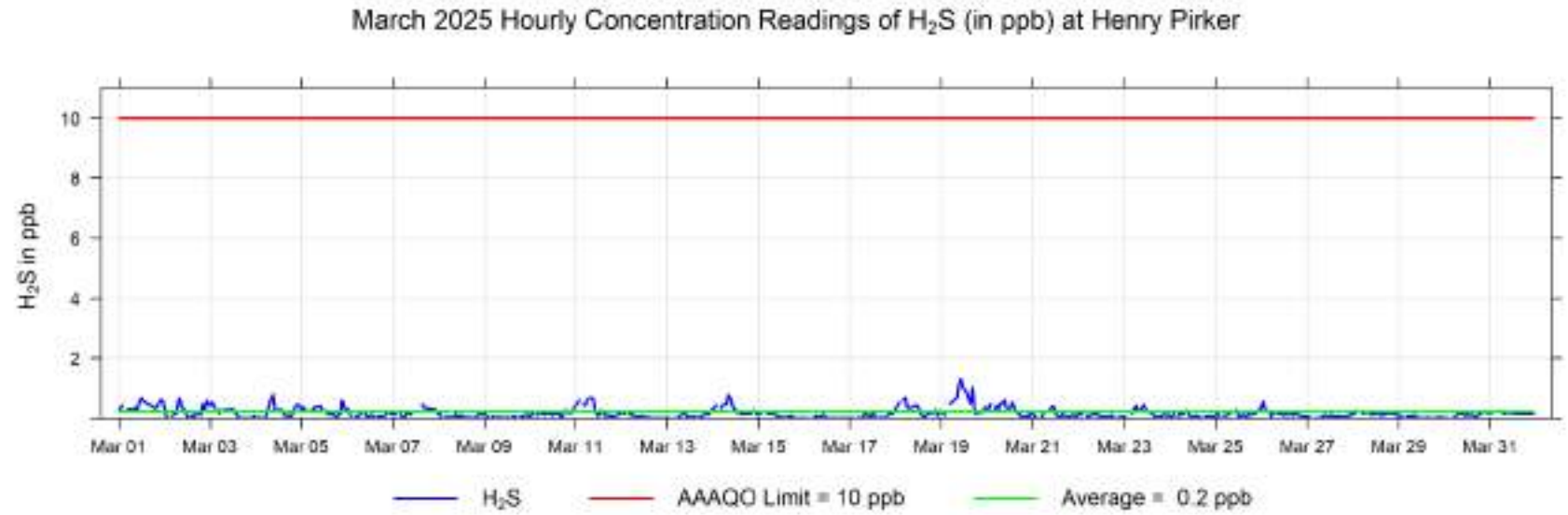
4 Grande Prairie - Henry Pirker Charts

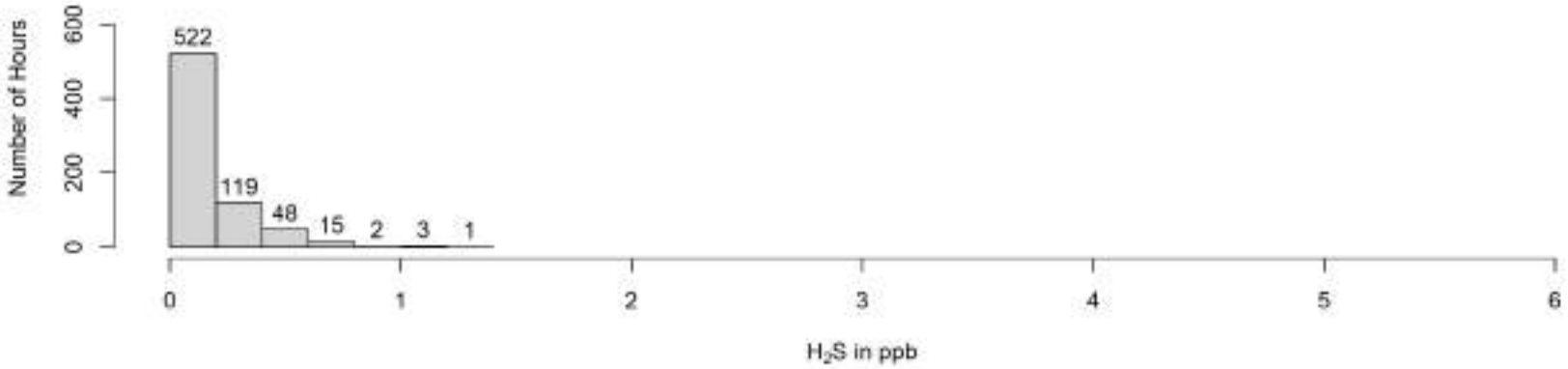
The following pages include the charts and histograms for Henry Pirker Station in Grande Prairie



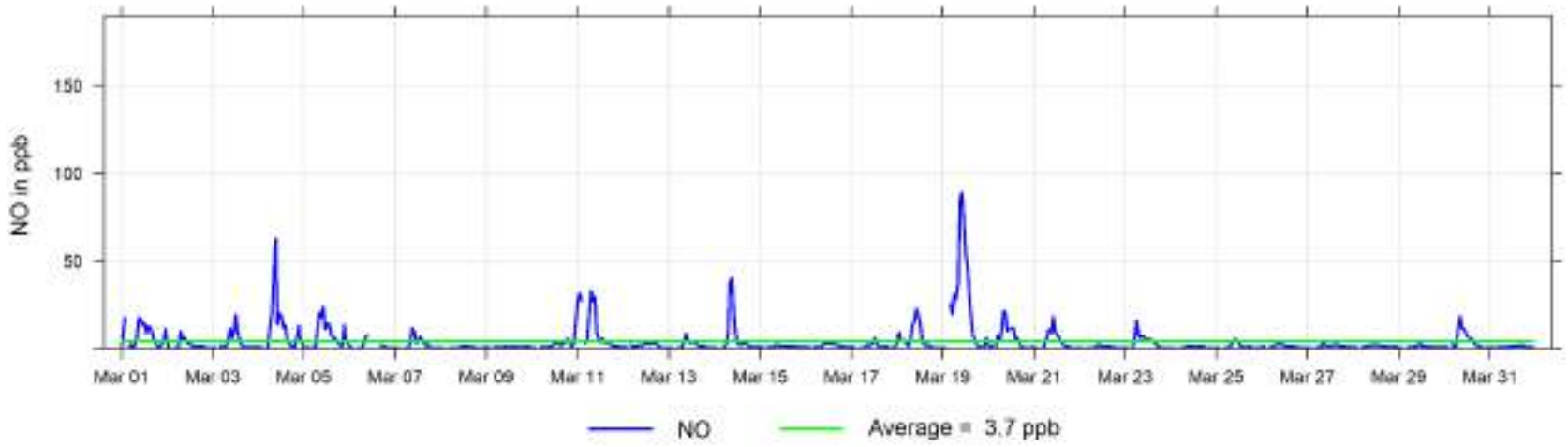

March 2025 Hourly Concentration Readings of SO_2 (in ppb) at Henry Pirker
SO_2 in ppb
150
100
50
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
SO_2
AAAQO Limit = 172 ppb
Average = 0.3 ppb


Number of Hours
0
200
400
600
582
72
25
10
8
4
2
2
2
2
0
0
1
0
2
4
6
8
10
12
SO_2 in ppb

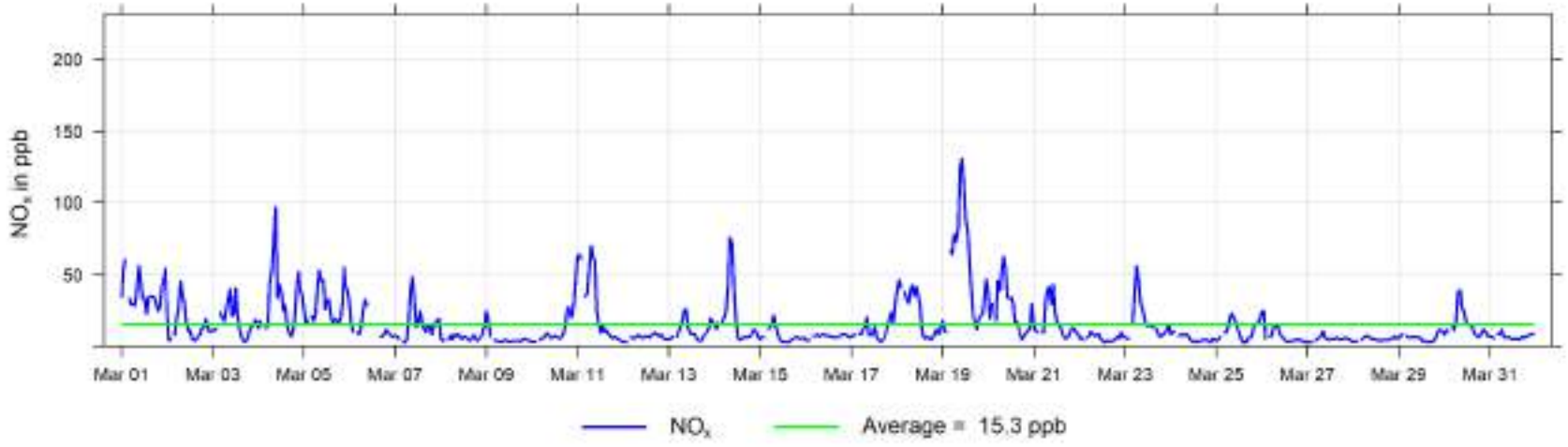

March 2025 Hourly Concentration Readings of H2S (in ppb) at Henry Pirker
H2S in ppb
10
8
6
4
2
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
H2S
AAAQO Limit = 10 ppb
Average = 0.2 ppb

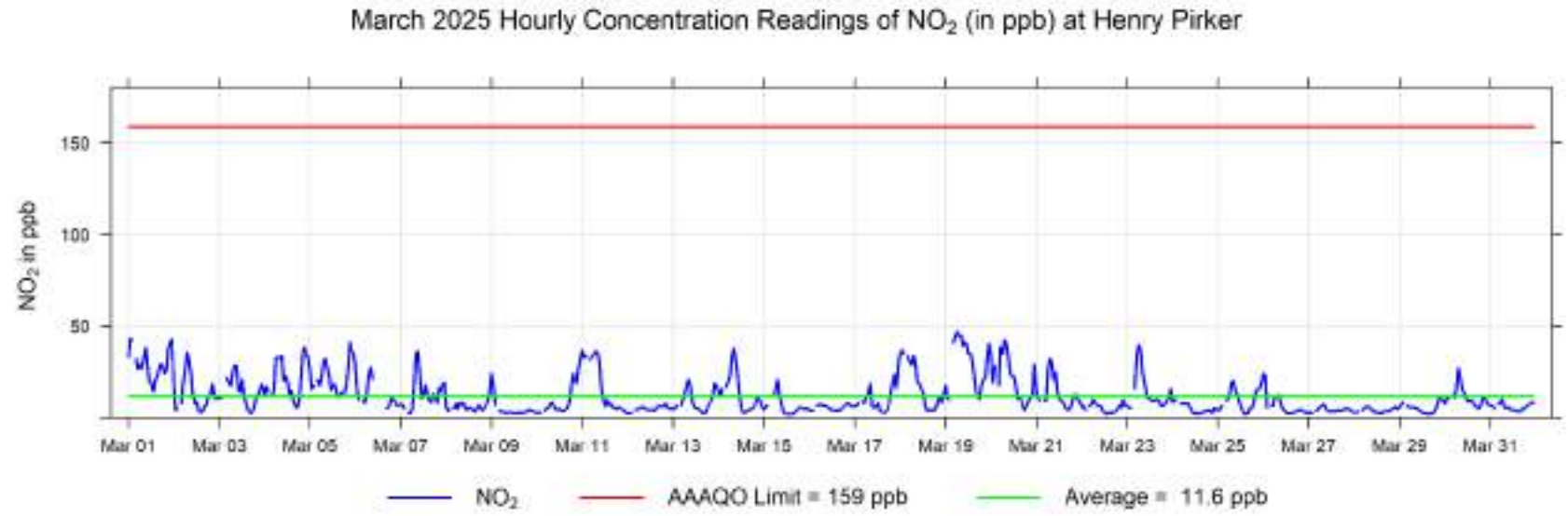

Number of Hours
0
200
400
600
522
119
48
15
2
3
1
0
1
2
3
4
5
6
H2S in ppb

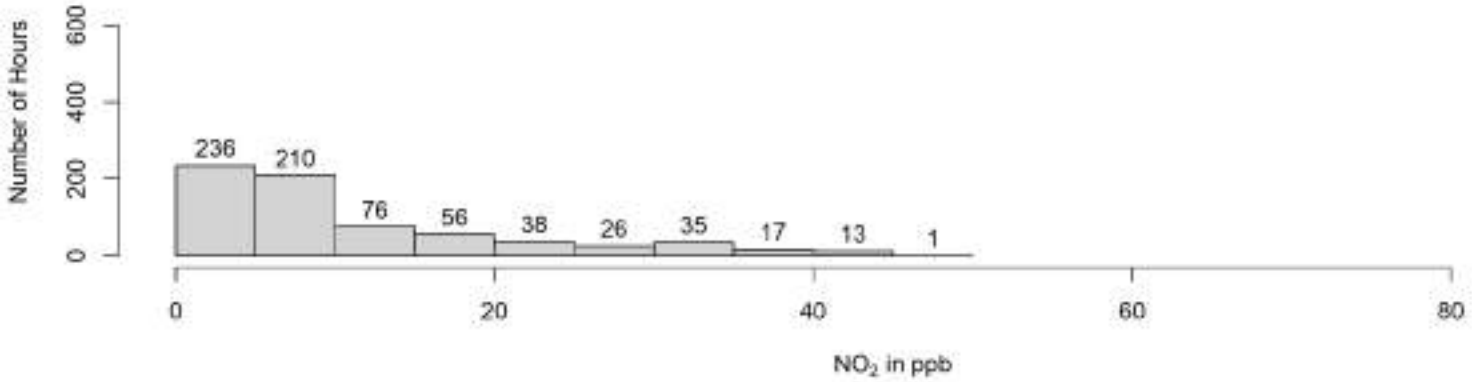
March 2025 Hourly Concentration Readings of NO (in ppb) at Henry Pirker

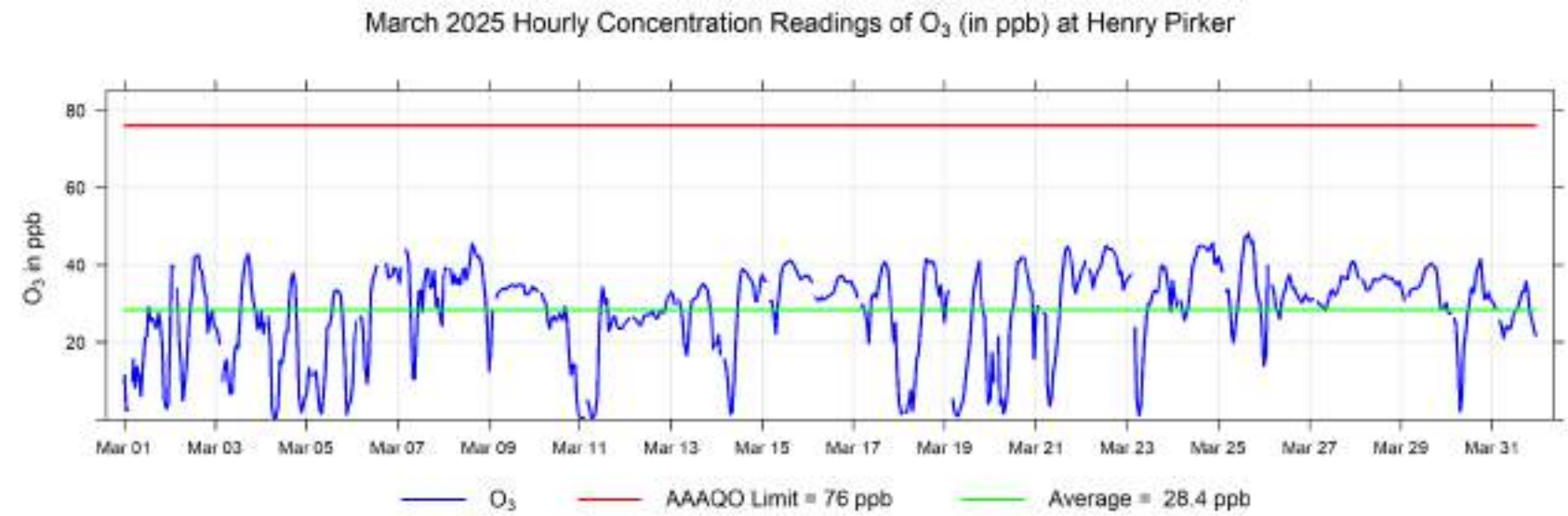


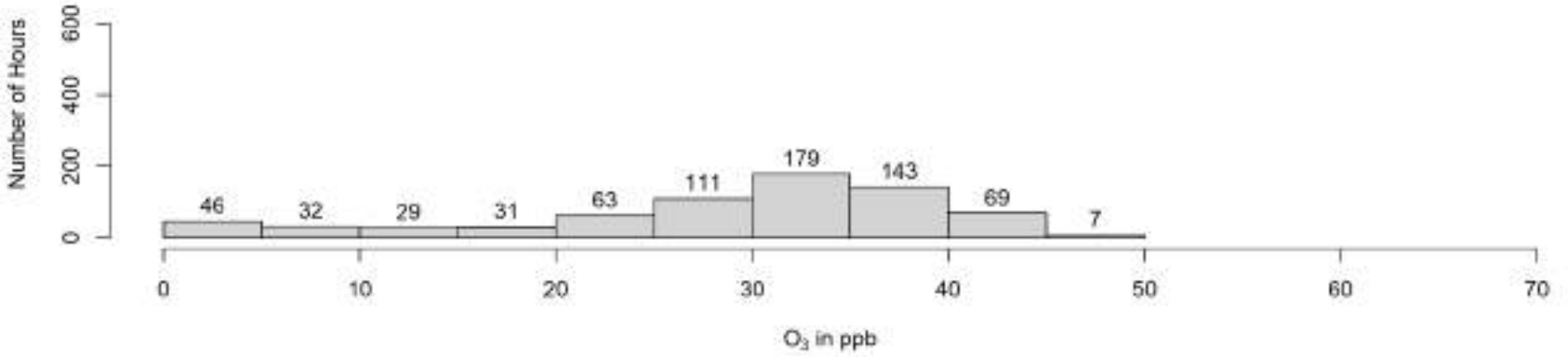
March 2025 Hourly Concentration Readings of NO_x (in ppb) at Henry Pirker

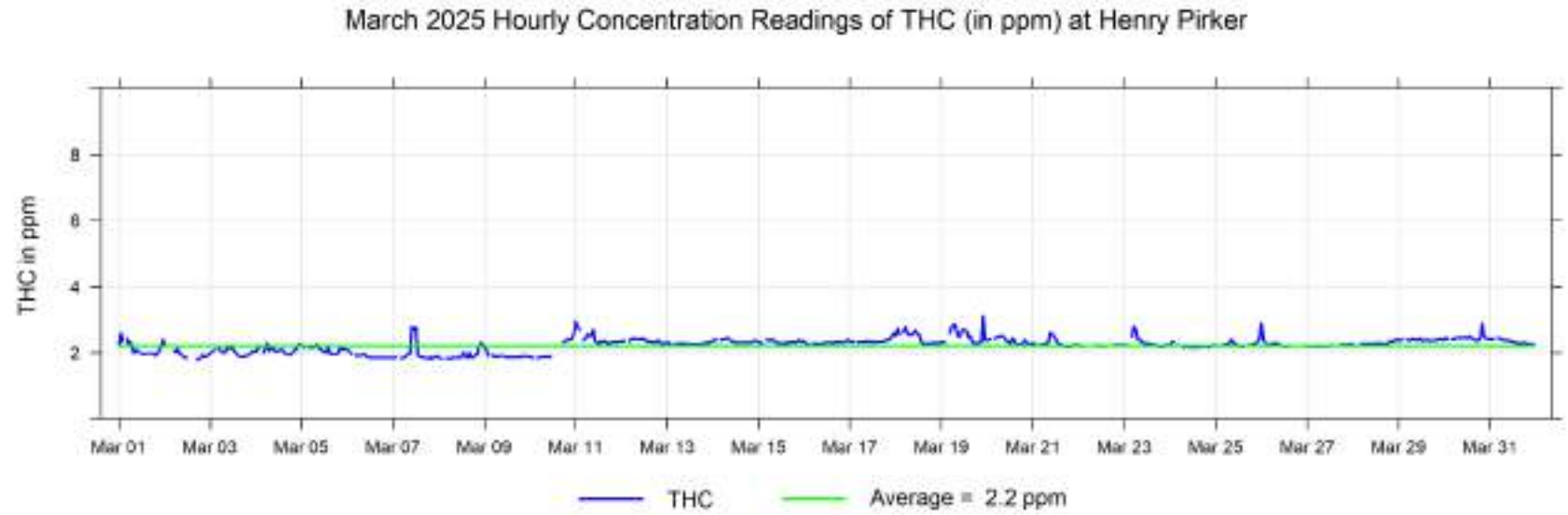


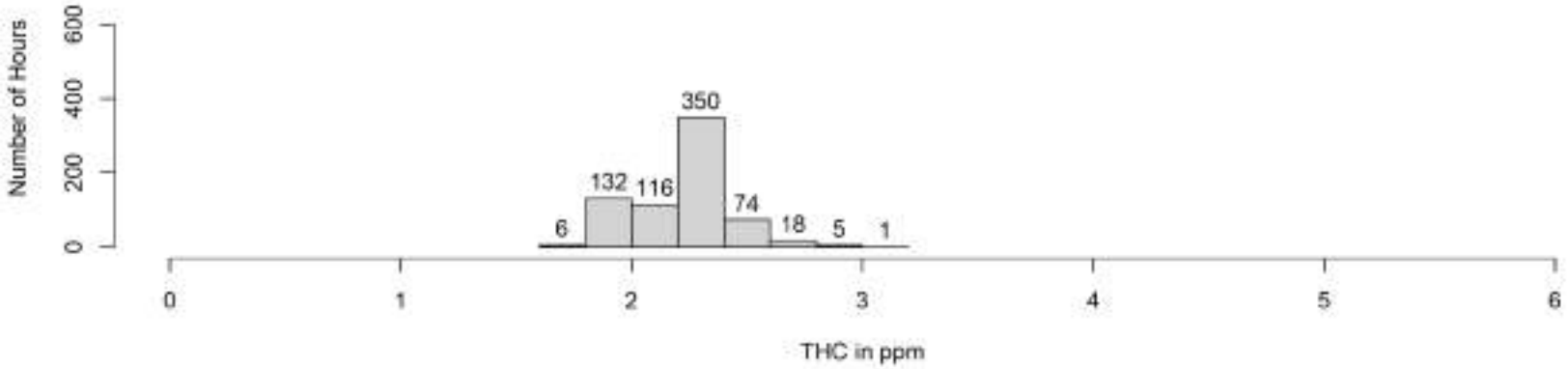

March 2025 Hourly Concentration Readings of NO2 (in ppb) at Henry Pirker
NO2 in ppb
150
100
50
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
NO2
AAAQO Limit = 159 ppb
Average = 11.6 ppb

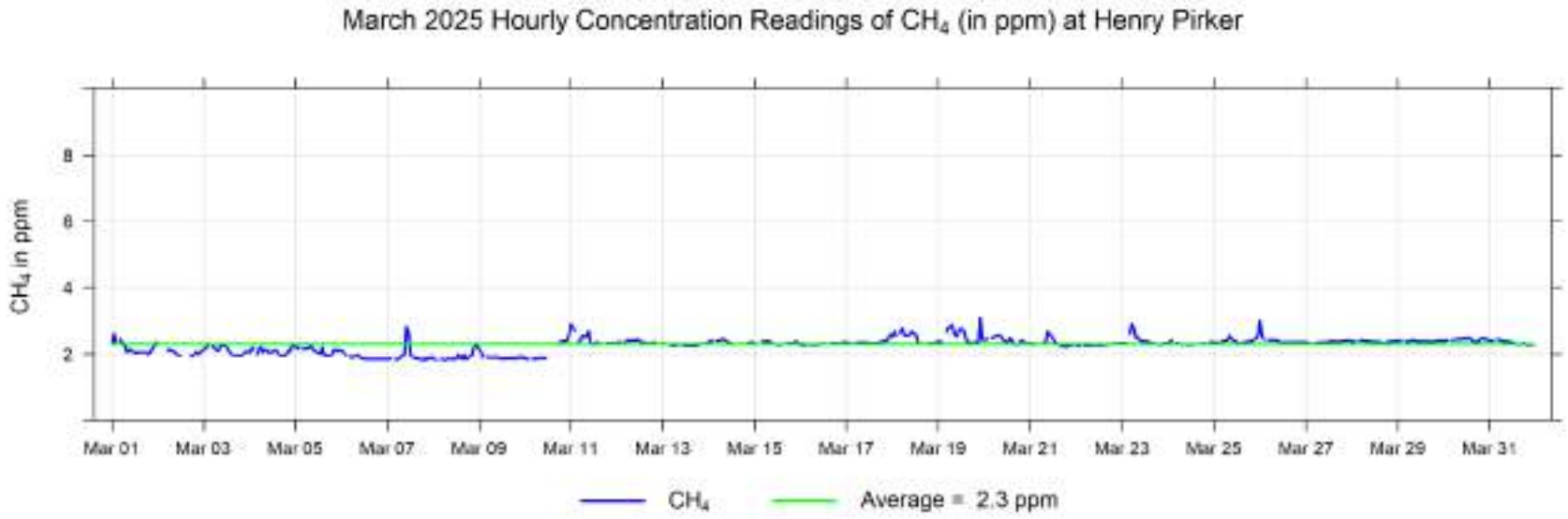

Number of Hours
0
200
400
600
236
210
76
56
38
26
35
17
13
1
0
20
40
60
80
NO2 in ppb

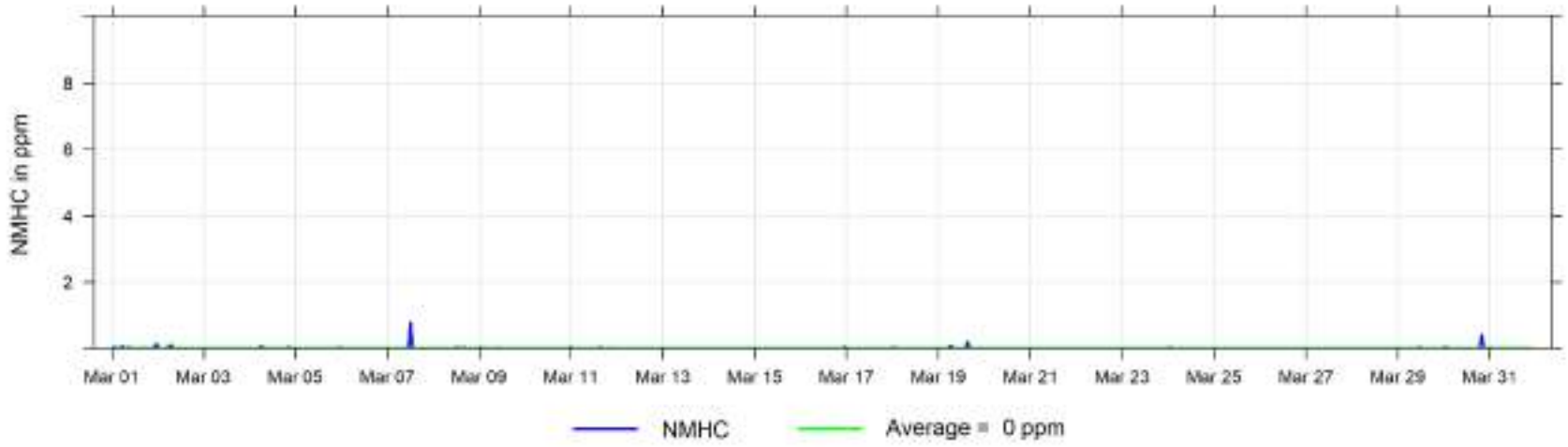

March 2025 Hourly Concentration Readings of O_3 (in ppb) at Henry Pirker
O_3 in ppb
80
60
40
20
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
O_3
AAAQO Limit = 76 ppb
Average = 28.4 ppb

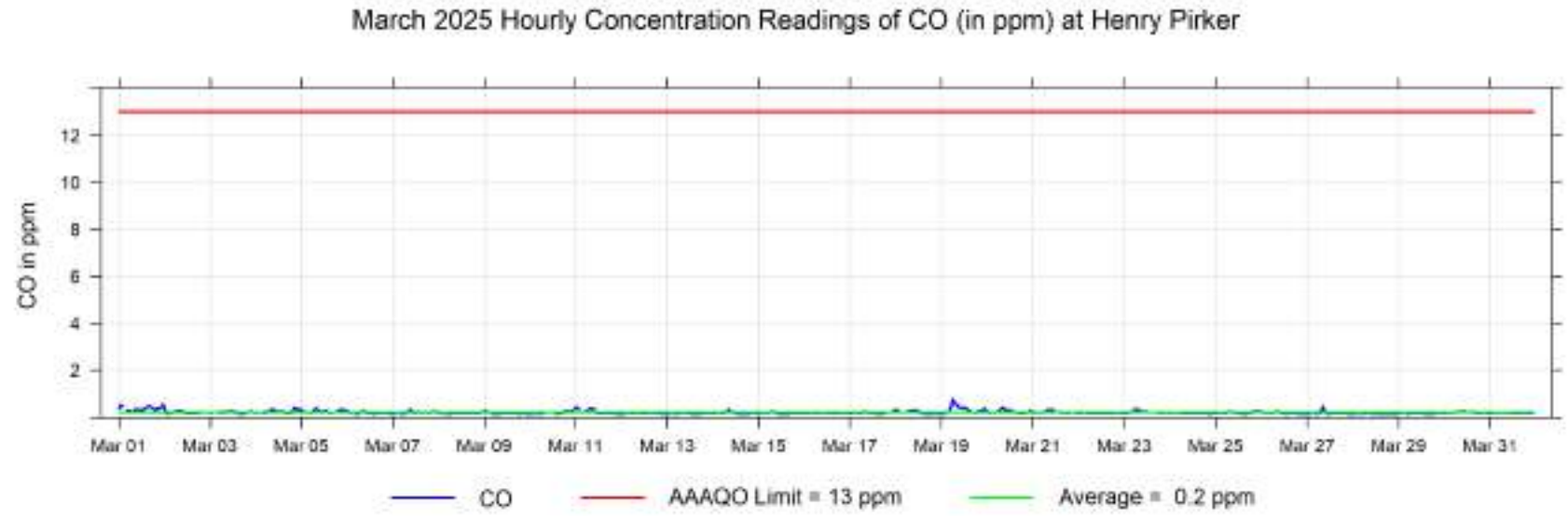

Number of Hours
0
200
400
600
46
32
29
31
63
111
179
143
69
7
0
10
20
30
40
50
60
70
O_3 in ppb

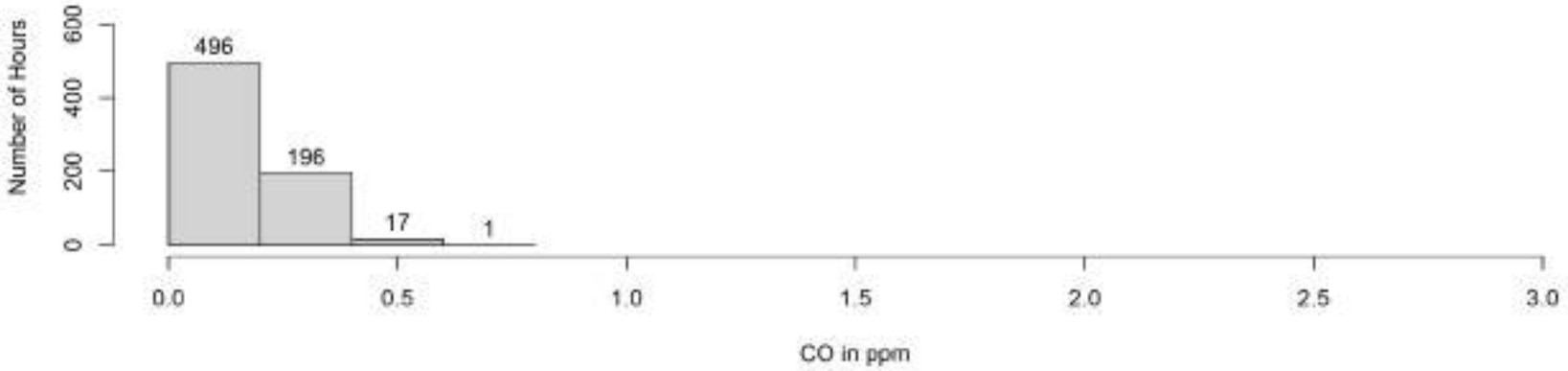

March 2025 Hourly Concentration Readings of THC (in ppm) at Henry Pirker
THC in ppm
8
6
4
2
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
THC
Average = 2.2 ppm

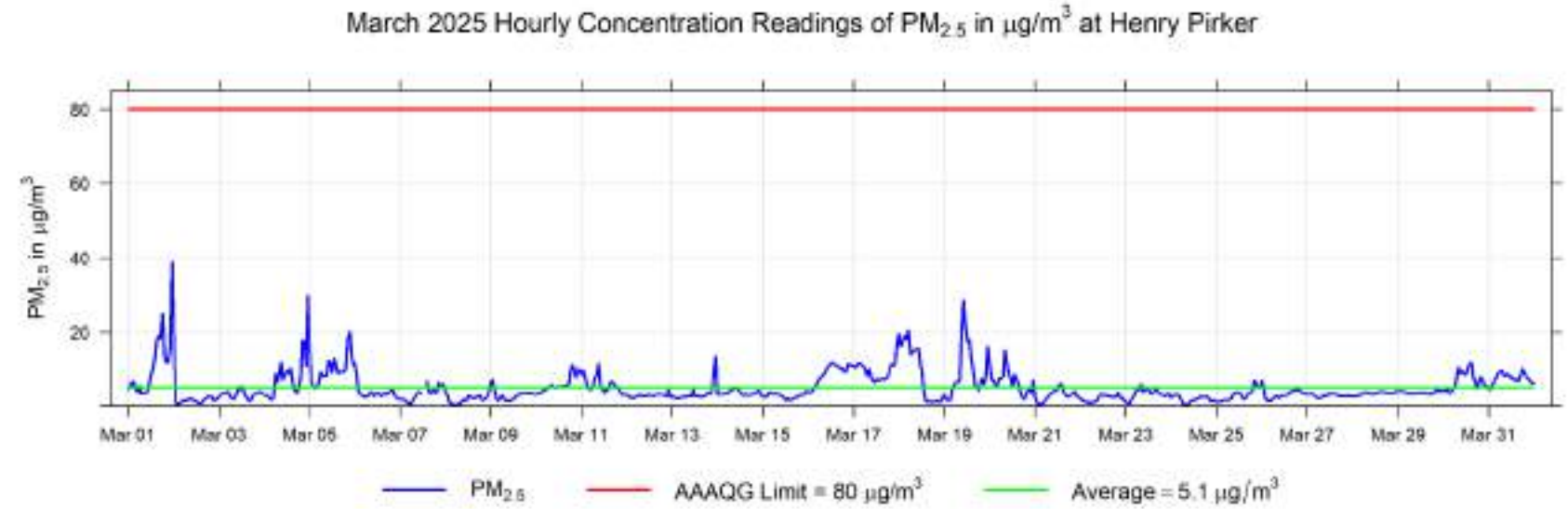

Number of Hours
0
200
400
600
6
132
116
350
74
18
5
1
0
1
2
3
4
5
6
THC in ppm

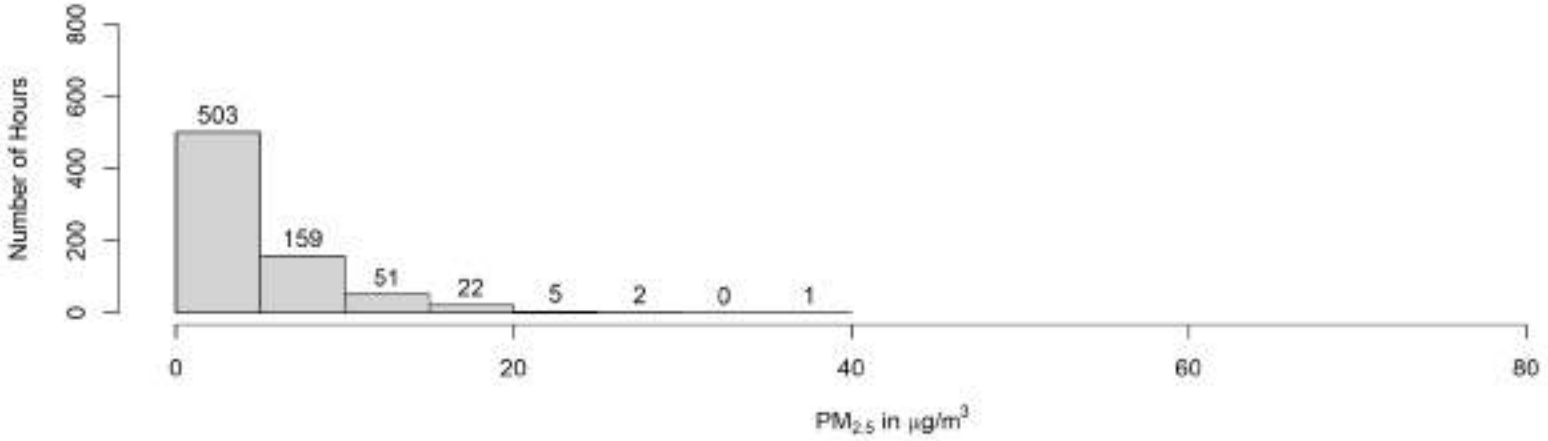

March 2025 Hourly Concentration Readings of CH_4 (in ppm) at Henry Pirker
CH_4 in ppm
2
4
6
8
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
CH_4
Average = 2.3 ppm


March 2025 Hourly Concentration Readings of NMHC (in ppm) at Henry Pirker
NMHC in ppm
2
4
6
8
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
NMHC
Average = 0 ppm

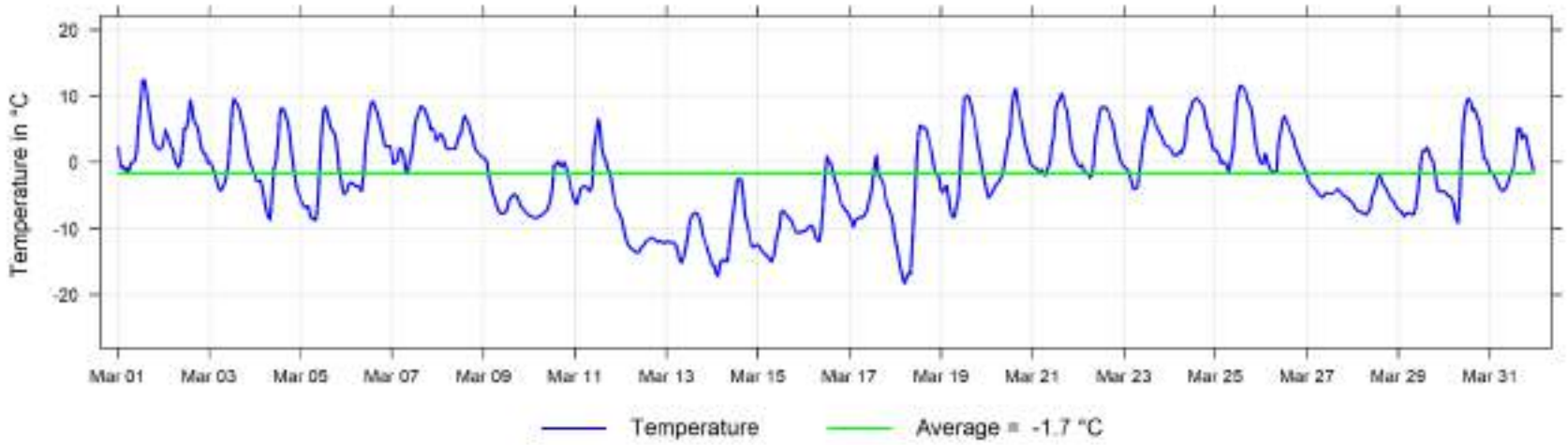

March 2025 Hourly Concentration Readings of CO (in ppm) at Henry Pirker
CO in ppm
12
10
8
6
4
2
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
CO
AAAQO Limit = 13 ppm
Average = 0.2 ppm


Number of Hours
0
200
400
600
496
196
17
1
0.0
0.5
1.0
1.5
2.0
2.5
3.0
CO in ppm

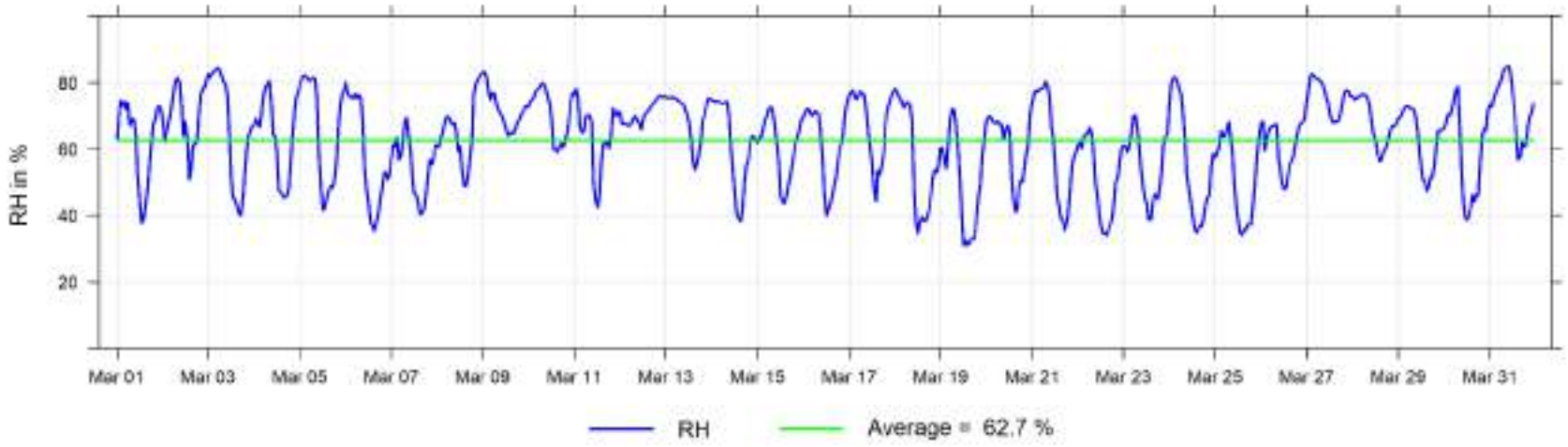

March 2025 Hourly Concentration Readings of PM2.5 in µg/m3 at Henry Pirker
PM2.5 in µg/m3
0
20
40
60
80
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
PM2.5
AAAQG Limit = 80 µg/m3
Average = 5.1 µg/m3


Number of Hours
0
200
400
600
800
503
159
51
22
5
2
0
1
0
20
40
60
80
PM2.5 in µg/m3

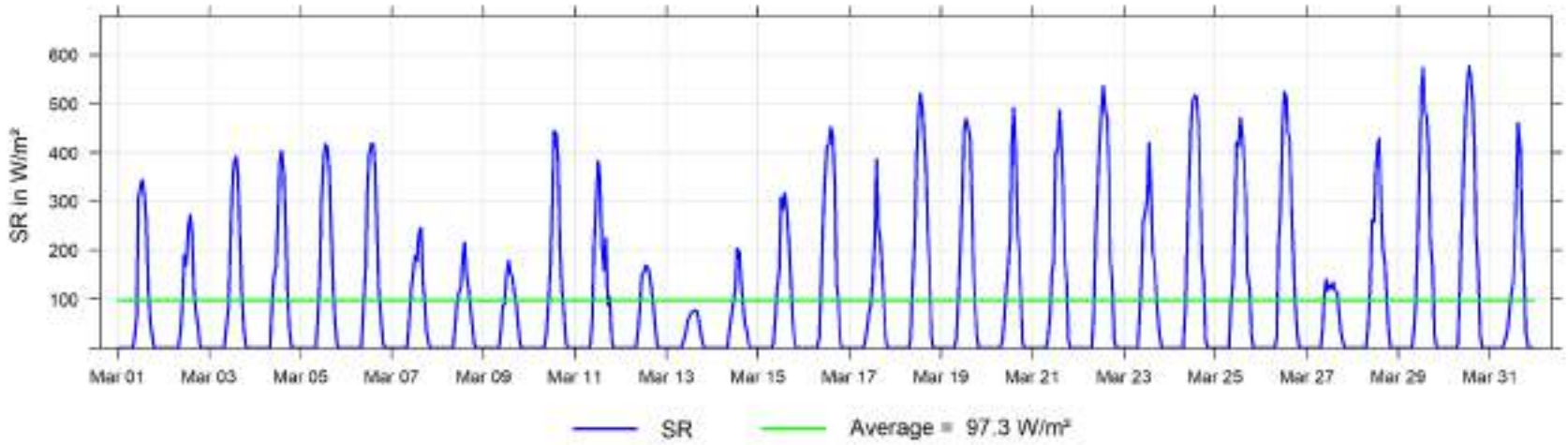
March 2025 Hourly Temperature Readings (in °C) at Henry Pirker



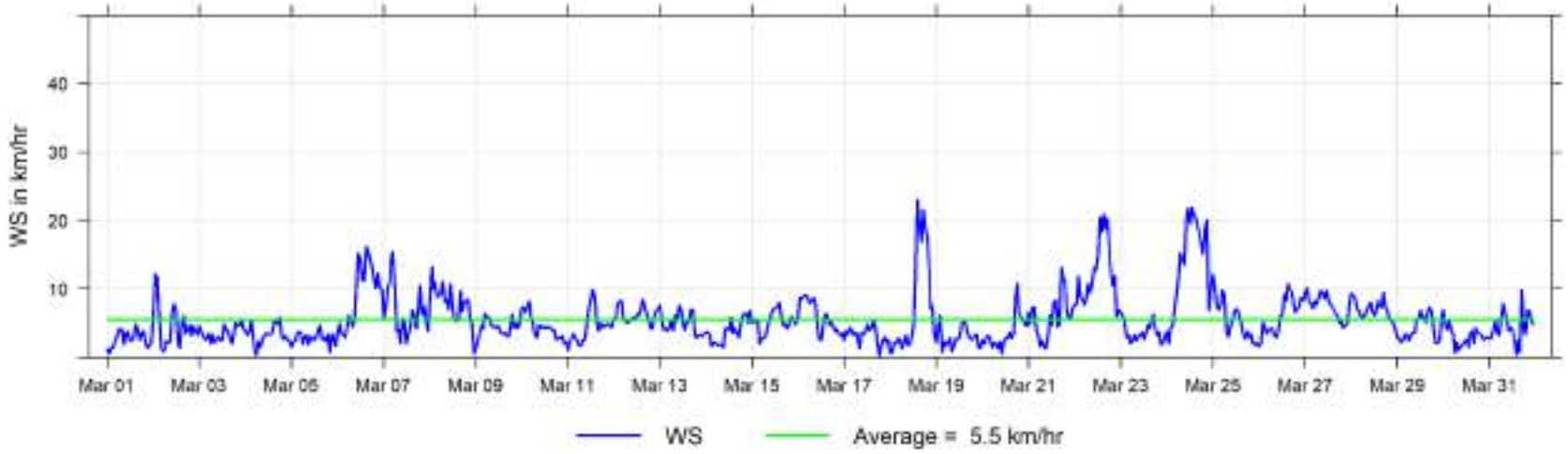
March 2025 Hourly Readings of Relative Humidity (in %) at Henry Pirker

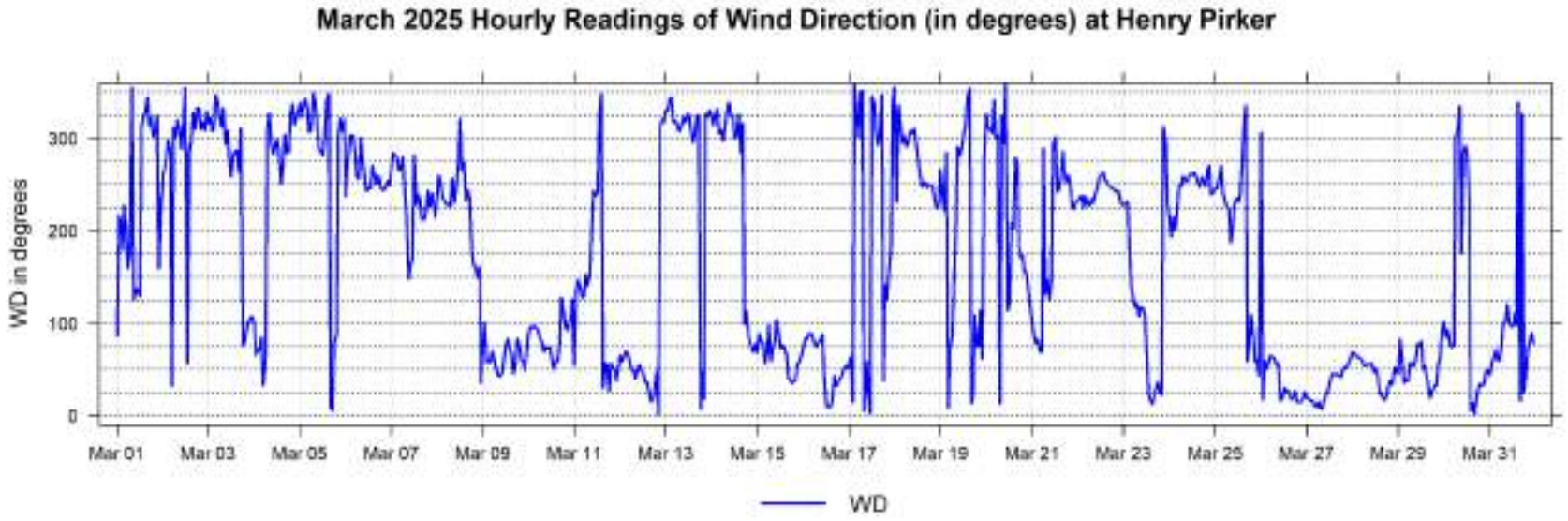


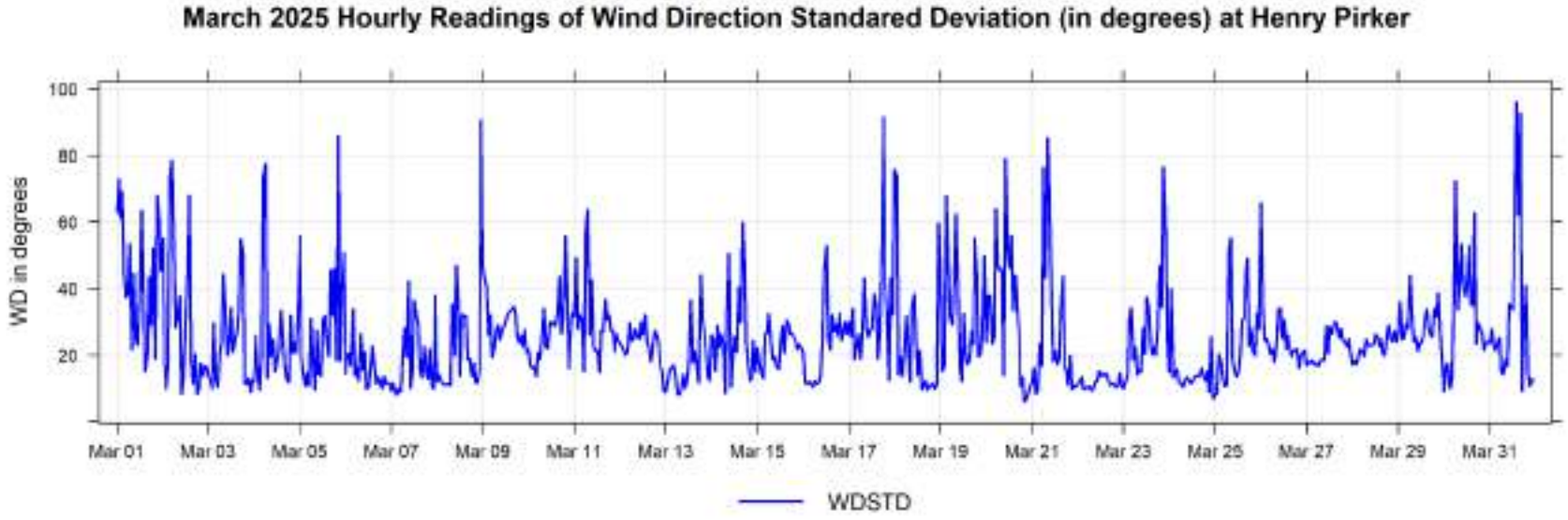
March 2025 Hourly Readings of Solar Radiation (in W/m²) at Henry Pirker

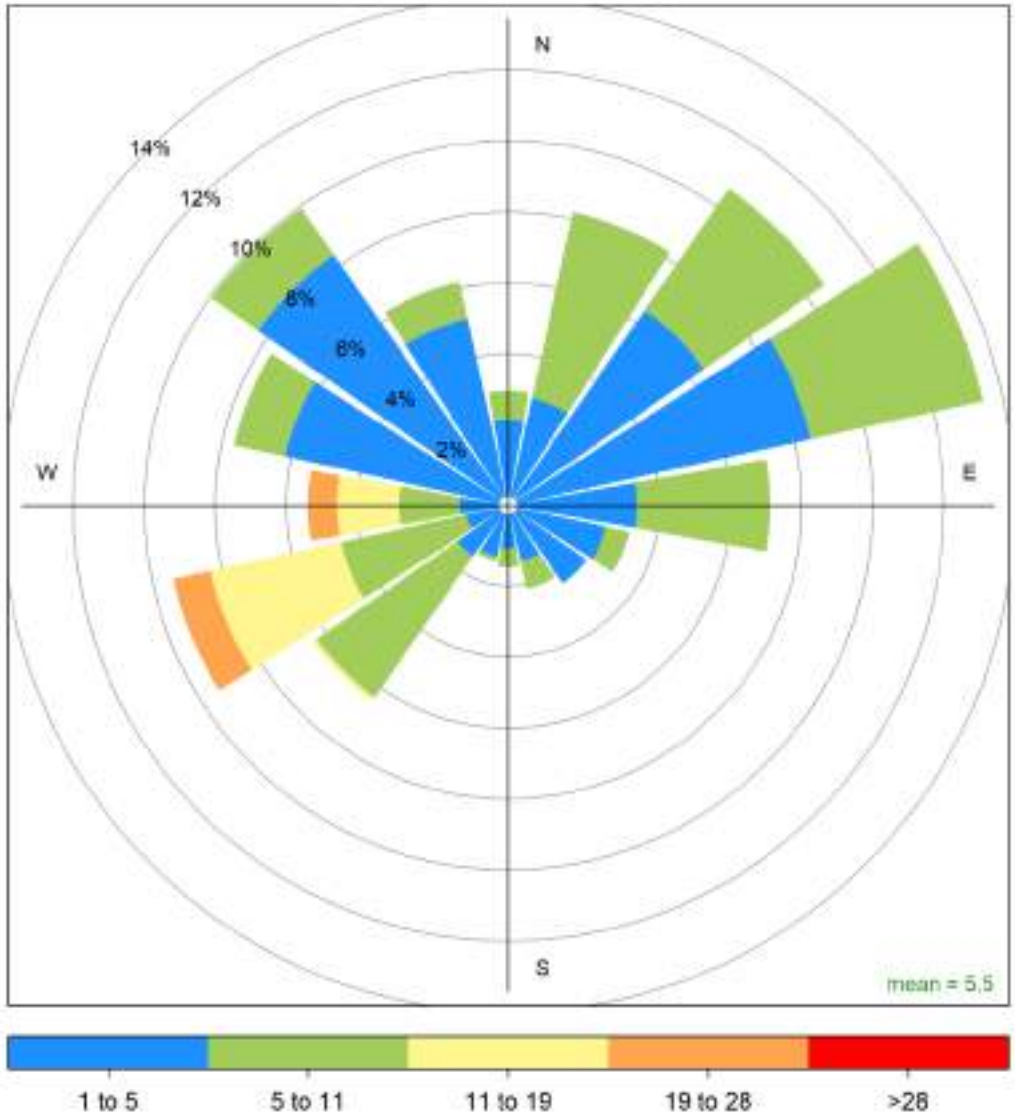


March 2025 Hourly Readings of Wind Speed (in km/hr) at Henry Pirker




March 2025 Hourly Readings of Wind Direction (in degrees) at Henry Pirker
WD in degrees
0
100
200
300
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
WD


March 2025 Hourly Readings of Wind Direction Standared Deviation (in degrees) at Henry Pirker
WD in degrees
20
40
60
80
100
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
WDSTD

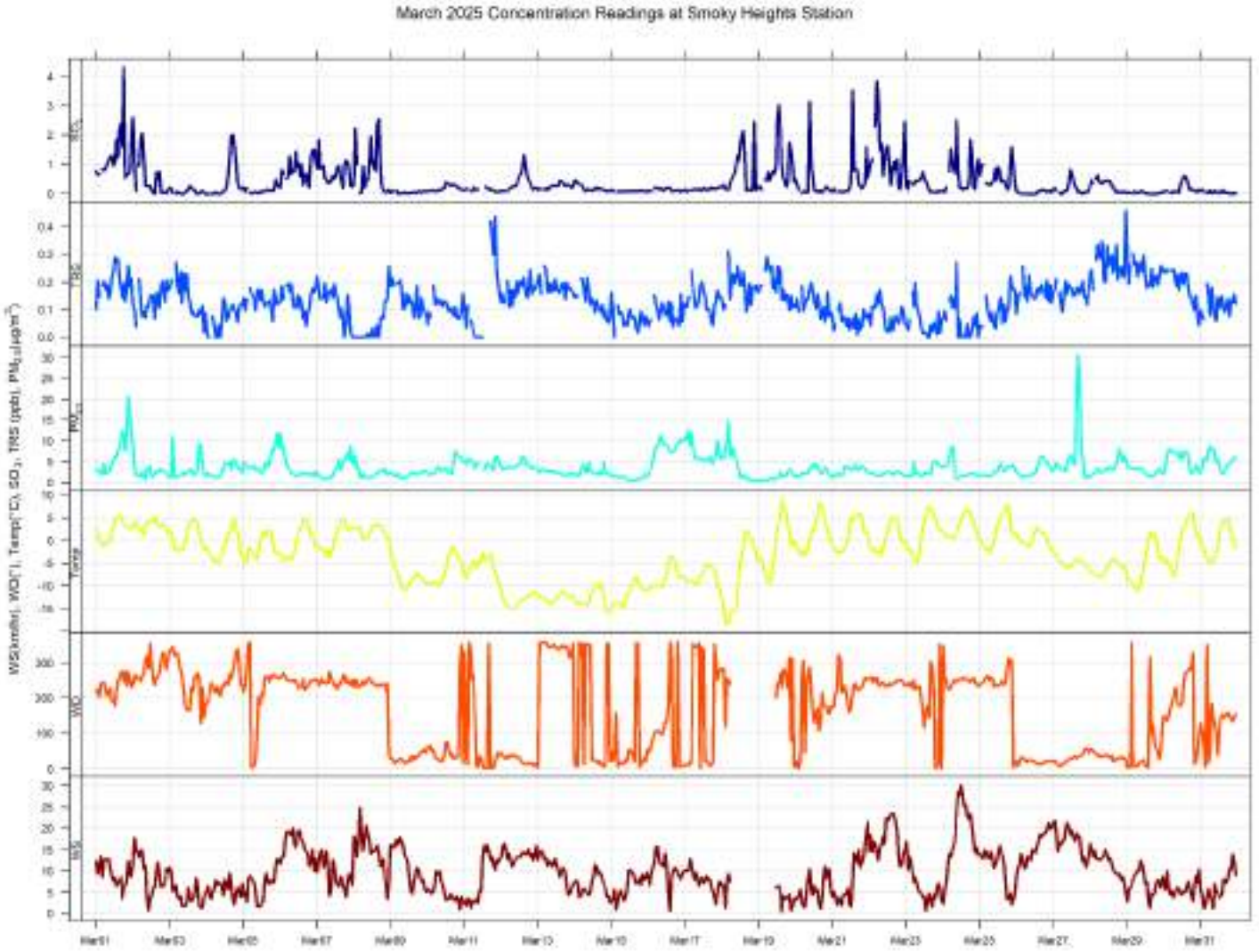


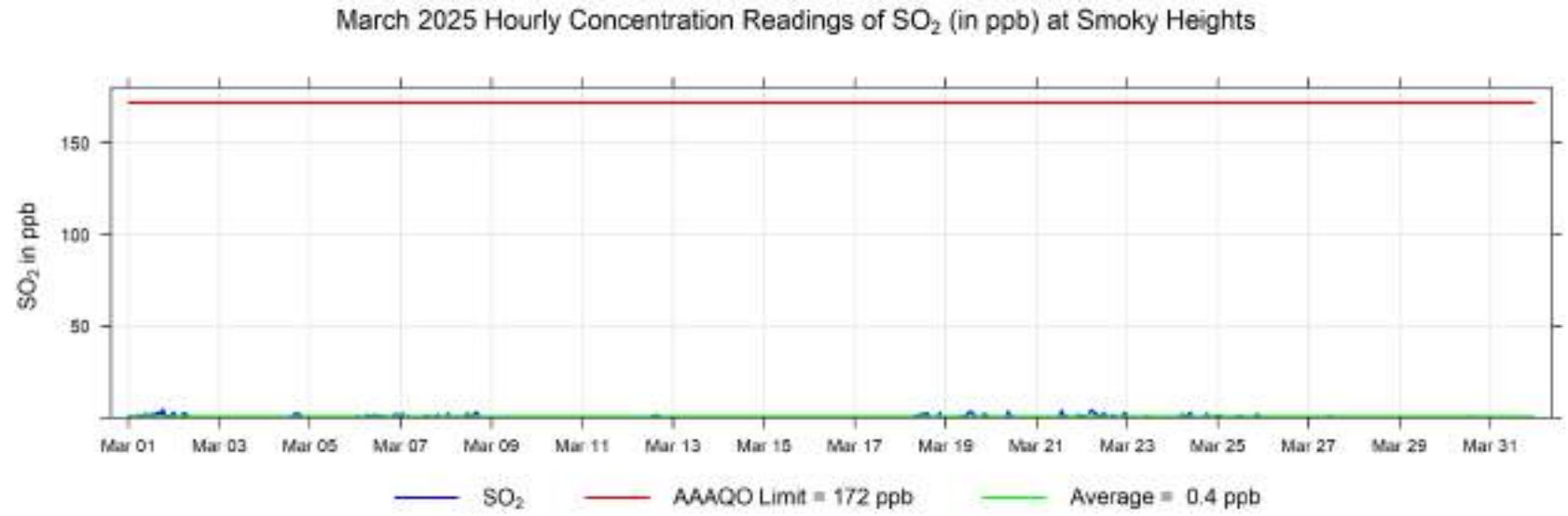
Henry Pirker March 2025 Wind Rose, wind speed in km/hr

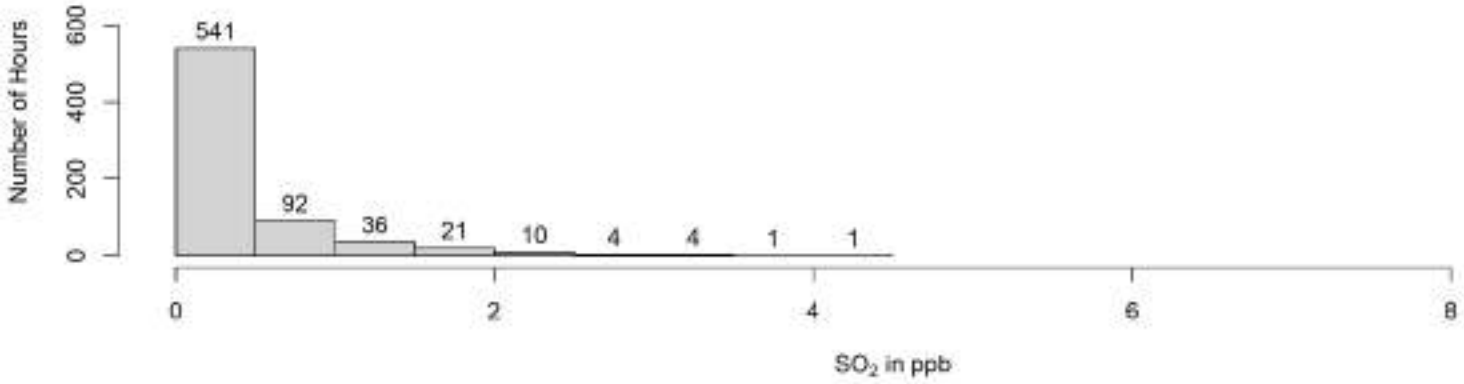
Calms (<1km/hr) = 2.1 %

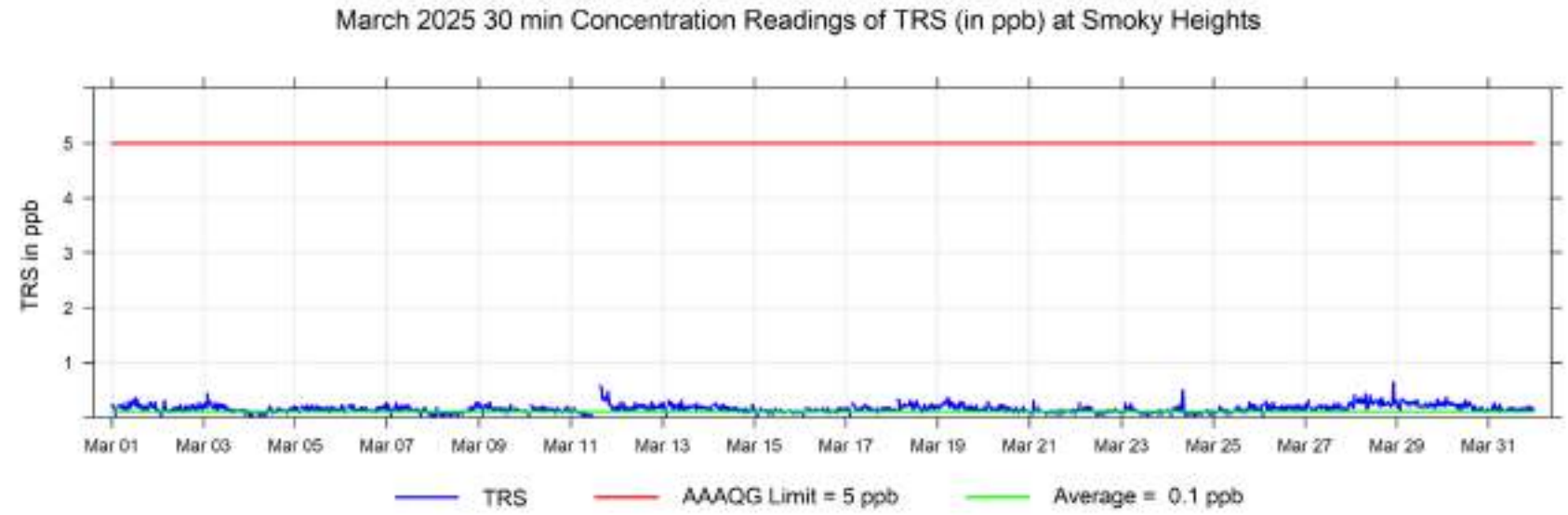
5 Smoky Heights Charts

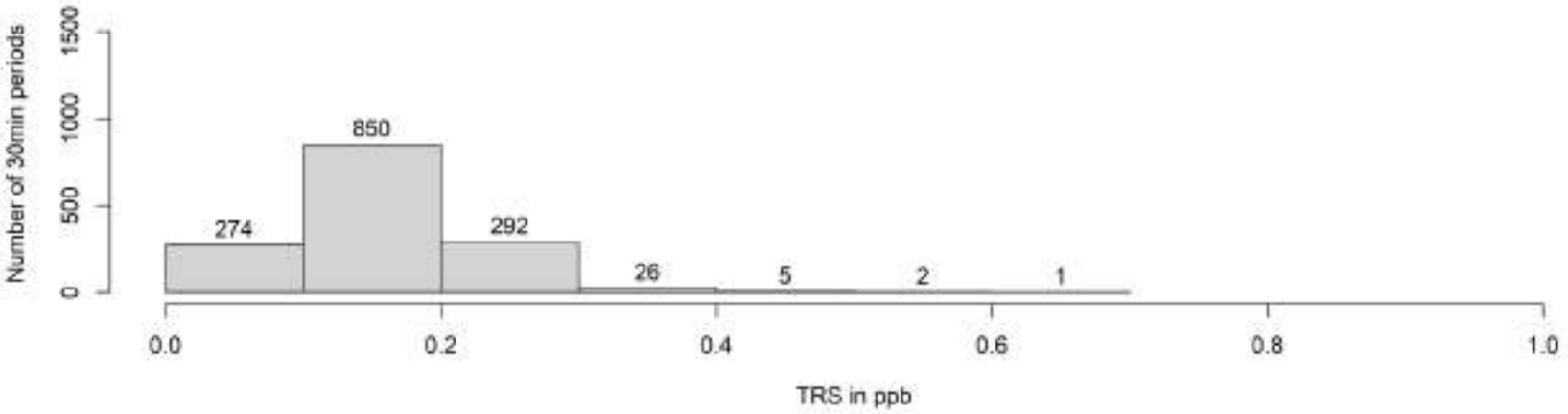
The following pages include the charts and histograms for Smoky Heights Station

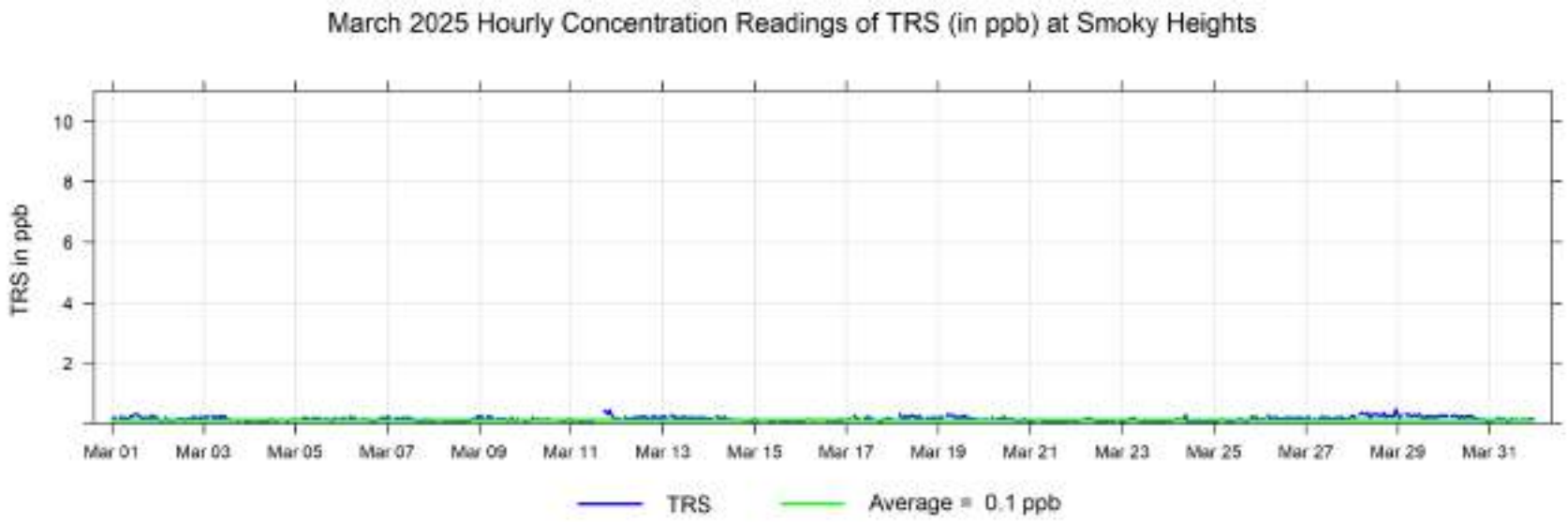


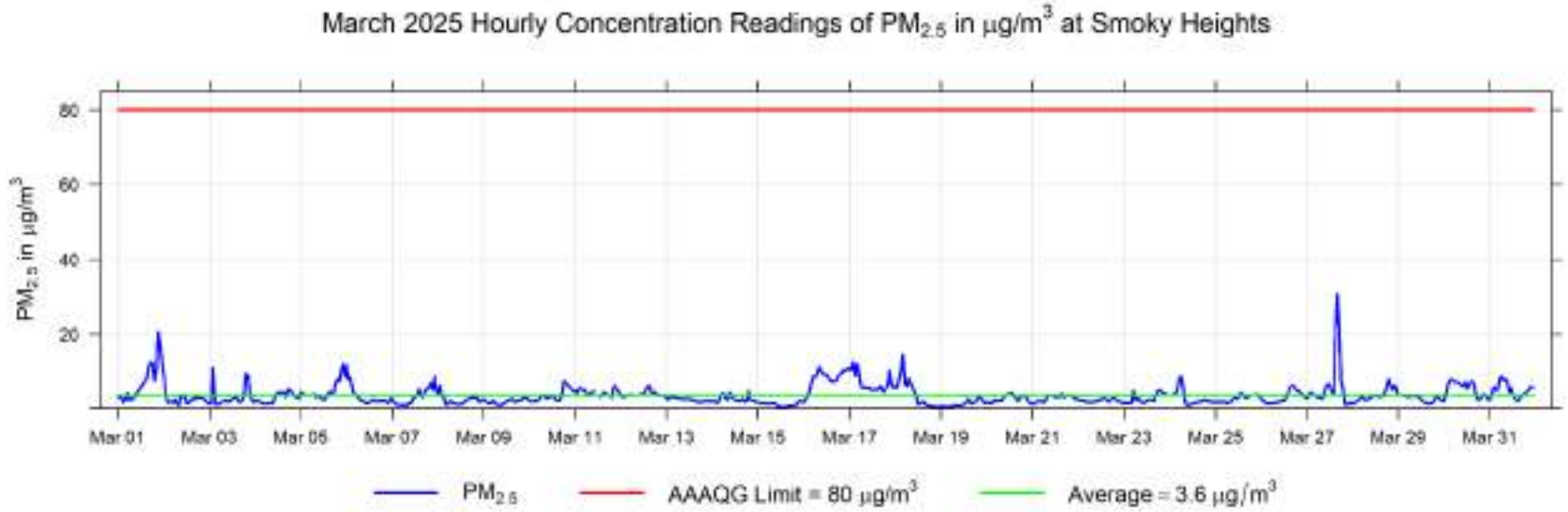

March 2025 Hourly Concentration Readings of SO_2 (in ppb) at Smoky Heights
SO_2 in ppb
150
100
50
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
SO_2
AAAQO Limit = 172 ppb
Average = 0.4 ppb

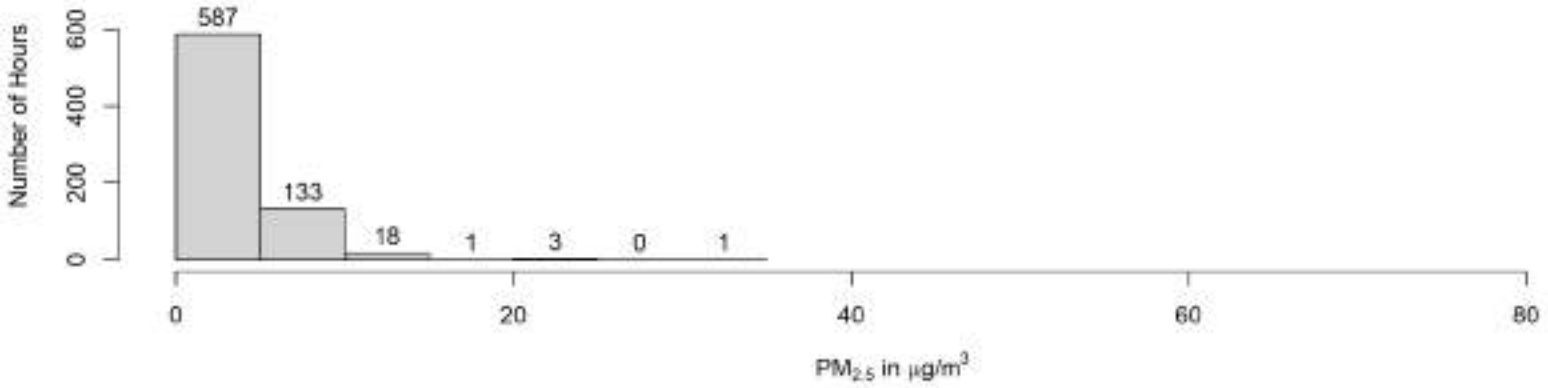

Number of Hours
0
200
400
600
541
92
36
21
10
4
4
1
1
0
2
4
6
8
SO_2 in ppb

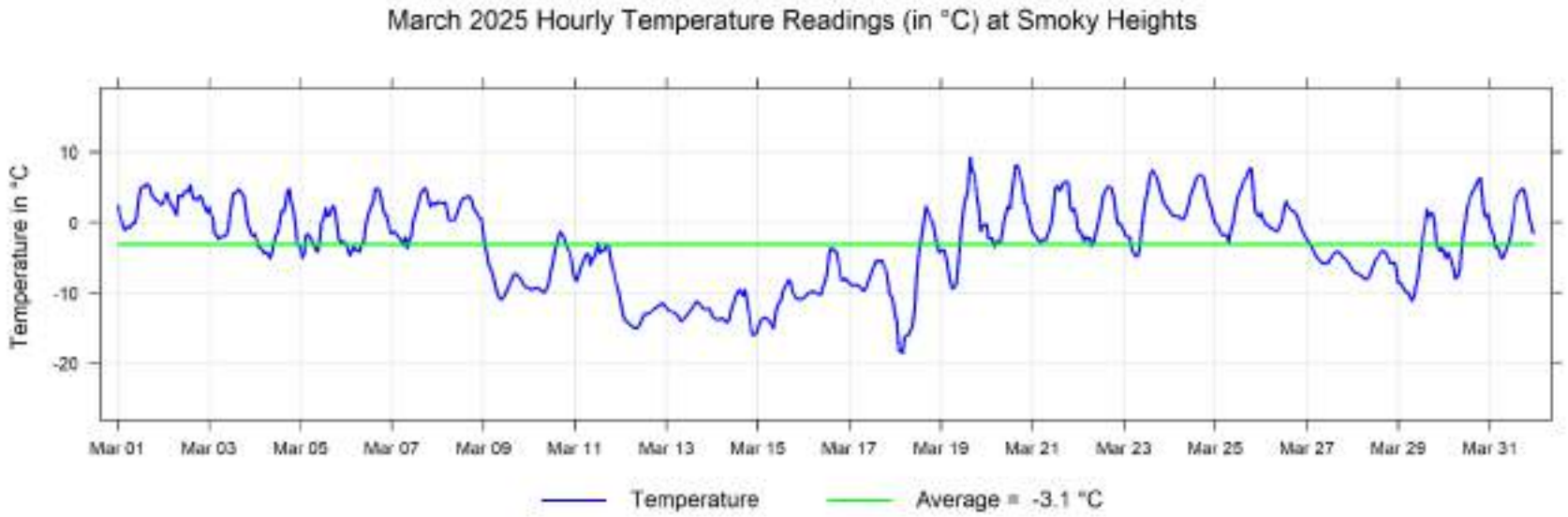

March 2025 30 min Concentration Readings of TRS (in ppb) at Smoky Heights
TRS in ppb
1
2
3
4
5
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
TRS
AAAQG Limit = 5 ppb
Average = 0.1 ppb

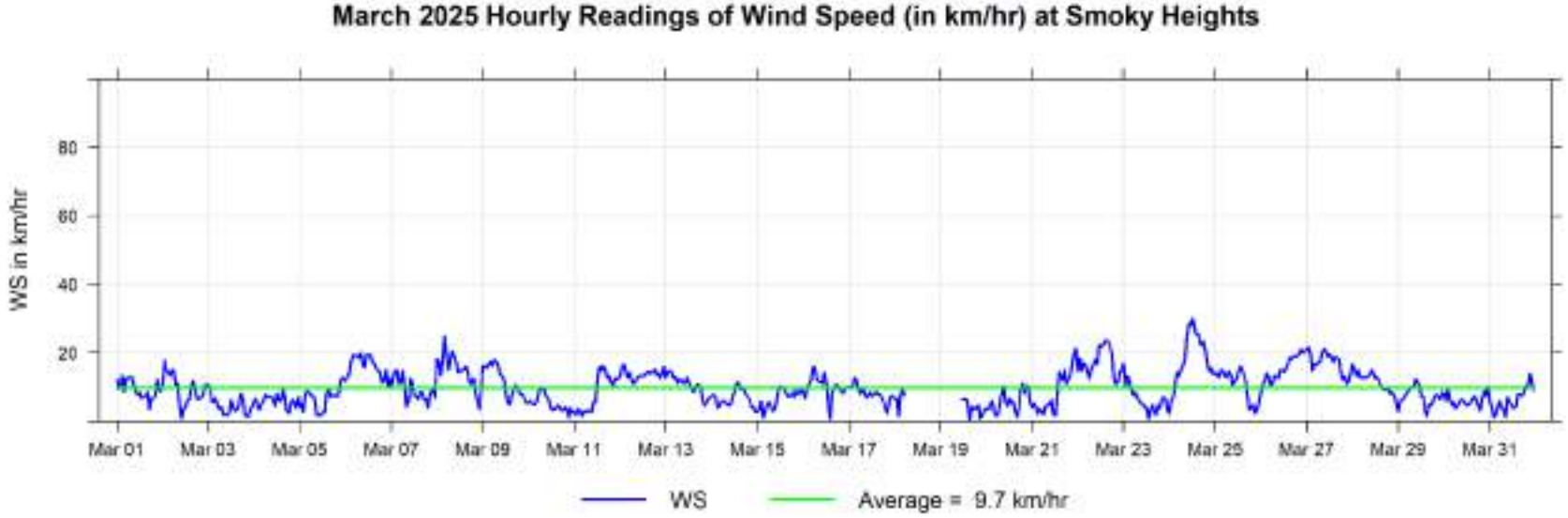

Number of 30min periods
0
500
1000
1500
274
850
292
26
5
2
1
0.0
0.2
0.4
0.6
0.8
1.0
TRS in ppb

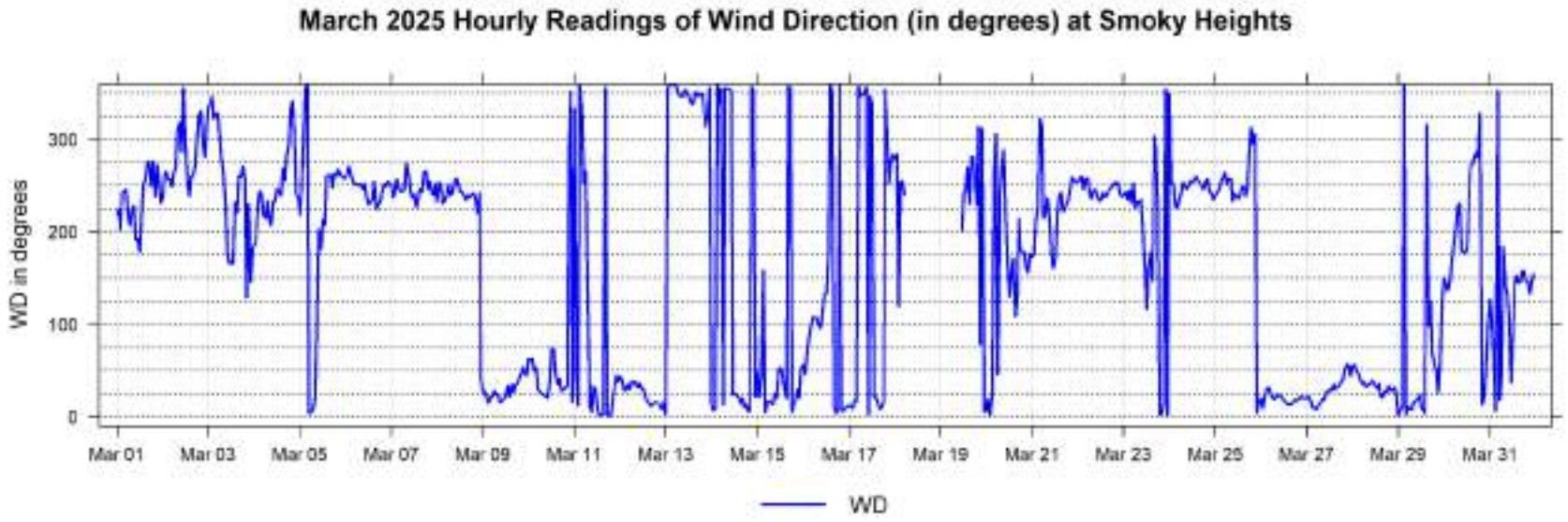

March 2025 Hourly Concentration Readings of TRS (in ppb) at Smoky Heights
TRS in ppb
10
8
6
4
2
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
TRS
Average = 0.1 ppb

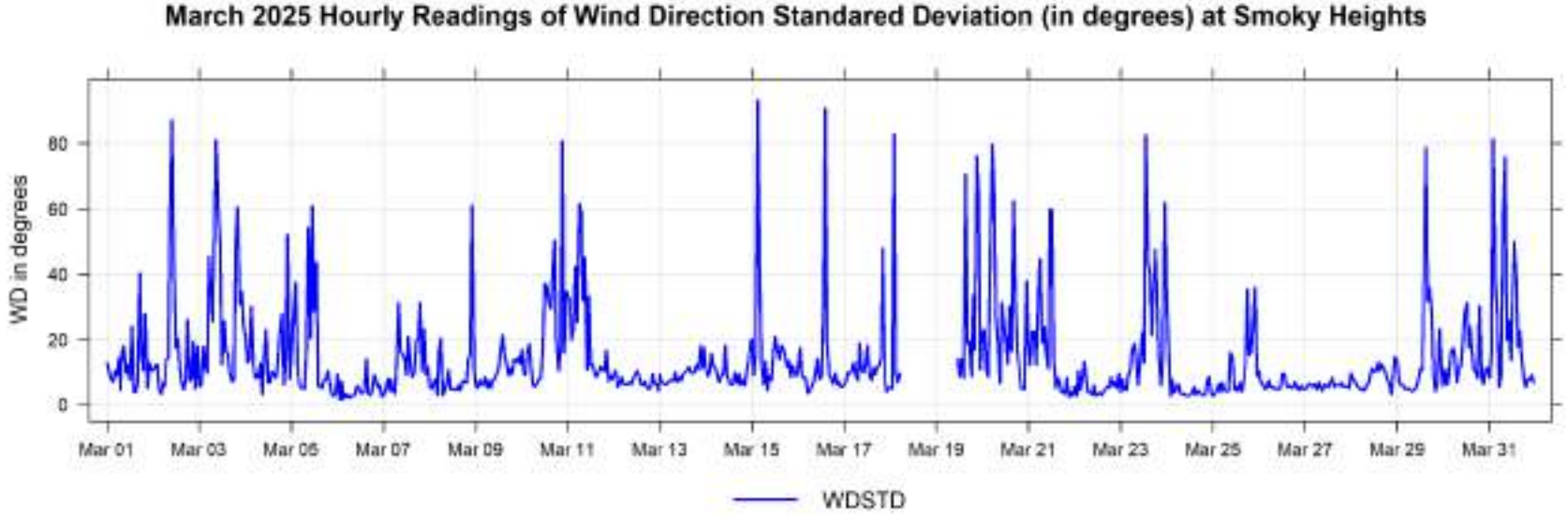

March 2025 Hourly Concentration Readings of PM2.5 in µg/m3 at Smoky Heights
PM2.5 in µg/m3
0
20
40
60
80
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
PM2.5
AAAQG Limit = 80 µg/m3
Average = 3.6 µg/m3

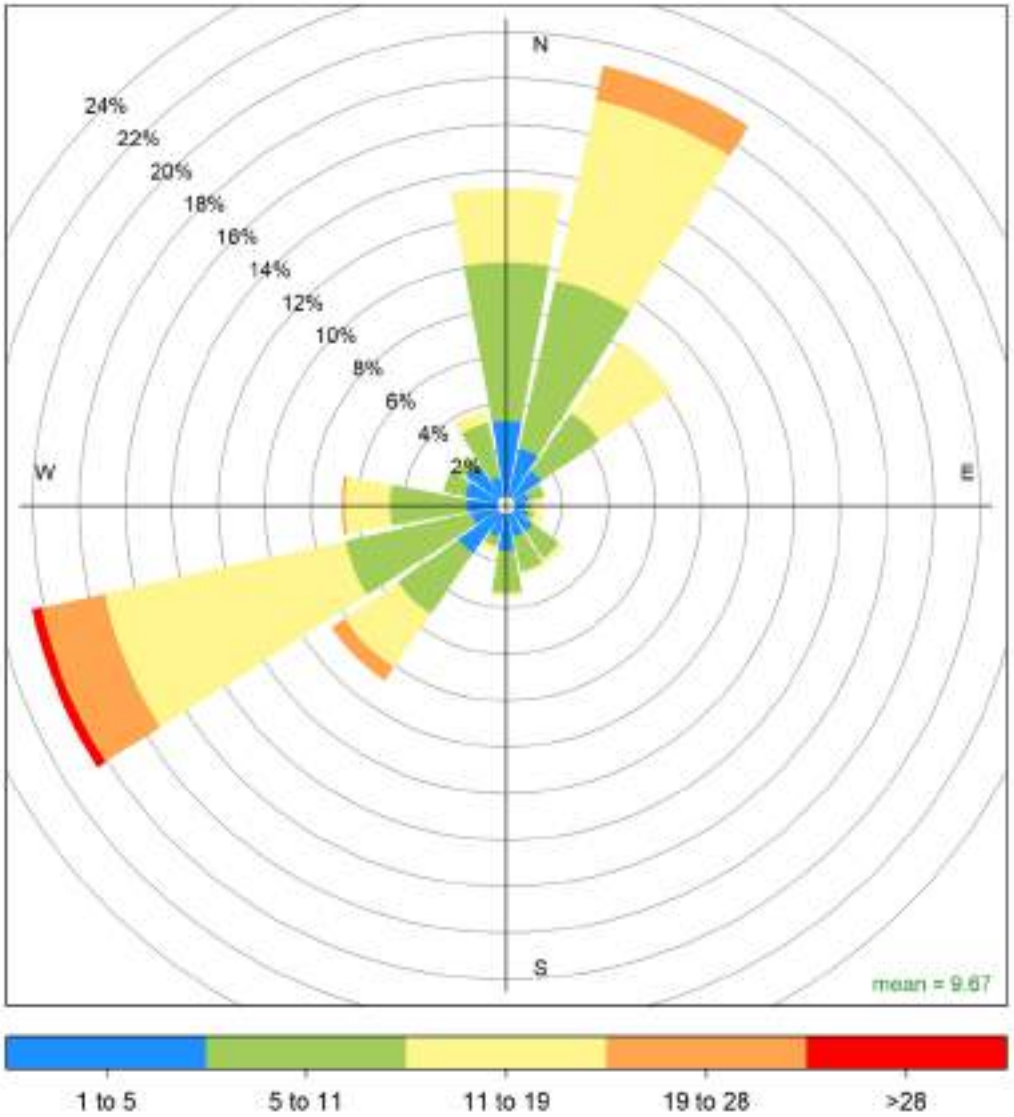

Number of Hours
0
200
400
600
587
133
18
1
3
0
1
0
20
40
60
80
PM2.5 in µg/m3


March 2025 Hourly Temperature Readings (in °C) at Smoky Heights
Temperature in °C
10
0
-10
-20
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
Temperature
Average = -3.1 °C


March 2025 Hourly Readings of Wind Speed (in km/hr) at Smoky Heights
WS in km/hr
80
60
40
20
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
WS
Average = 9.7 km/hr


March 2025 Hourly Readings of Wind Direction (in degrees) at Smoky Heights
WD in degrees
0
100
200
300
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
WD


March 2025 Hourly Readings of Wind Direction Standared Deviation (in degrees) at Smoky Heights
WD in degrees
0
20
40
60
80
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
WDSTD

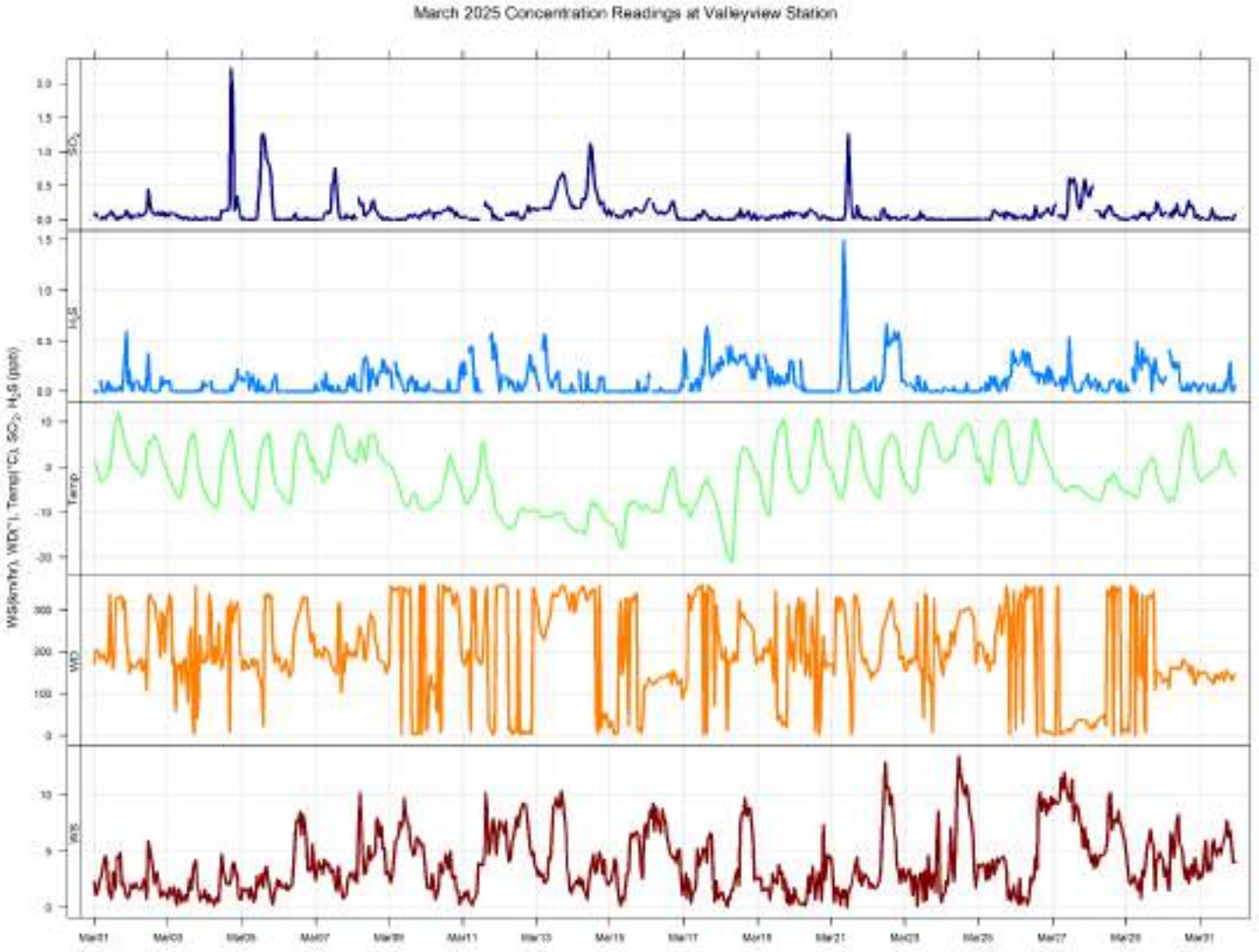


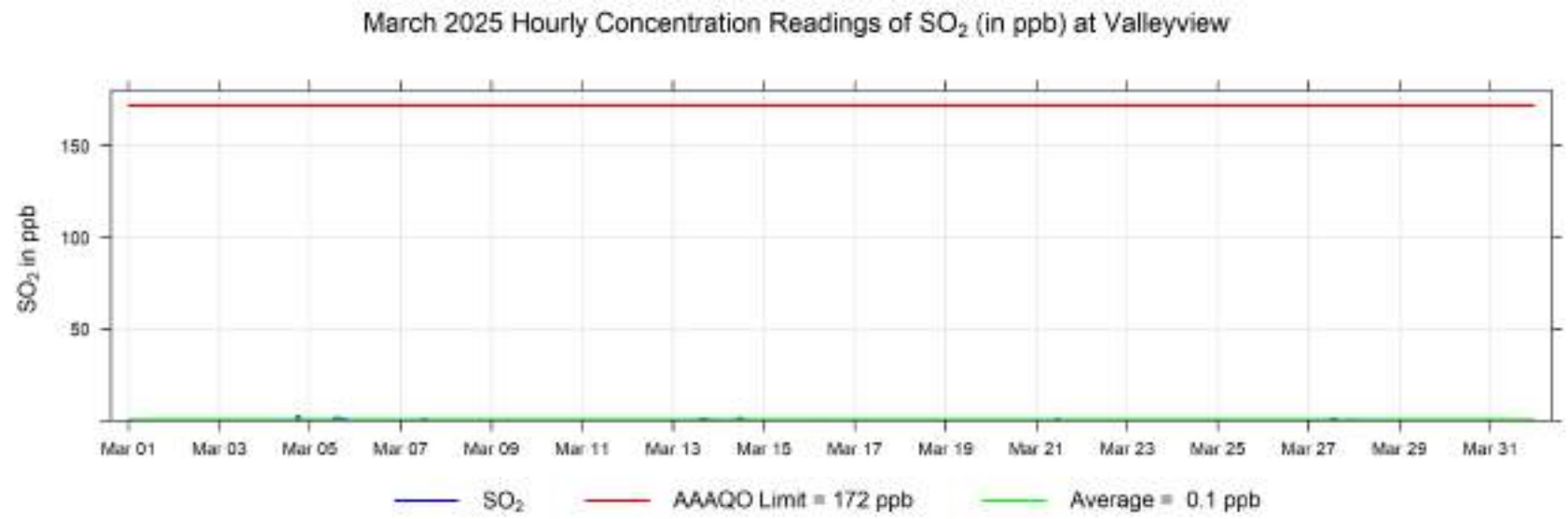
Smoky Heights March 2025 Wind Rose, wind speed in km/hr

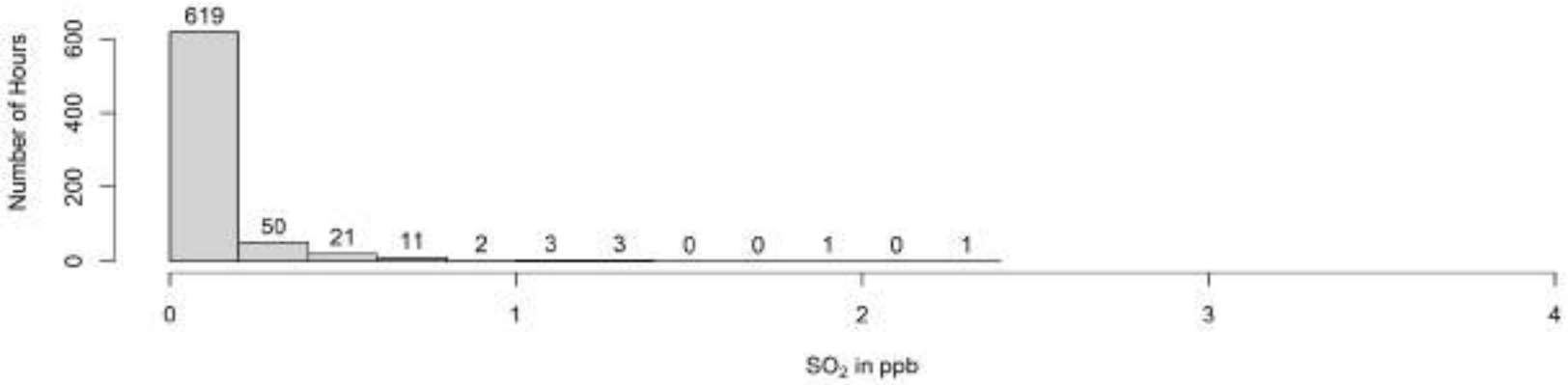
Calms (<1km/hr) = 1 %

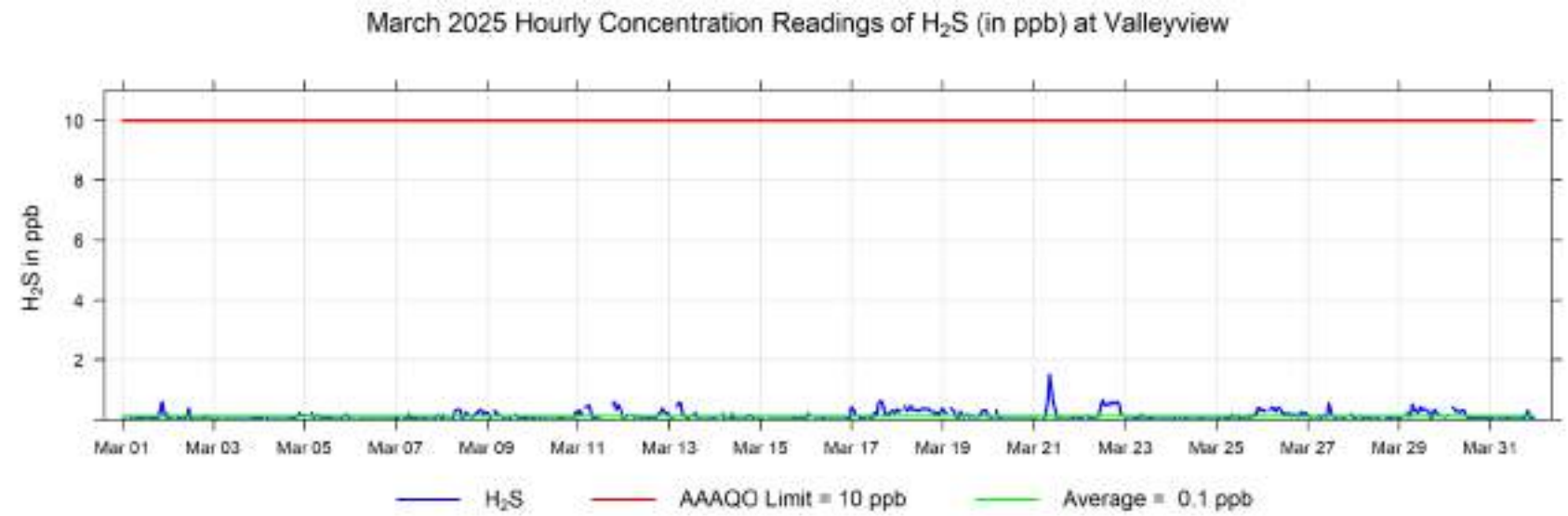
6 Valleyview Charts

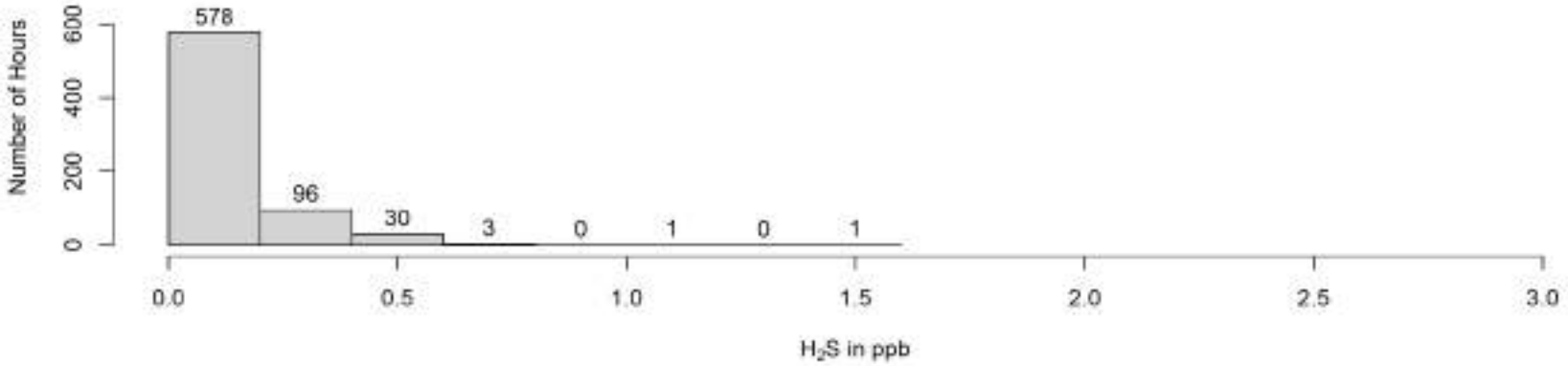
The following pages include the charts and histograms for Valleyview Station

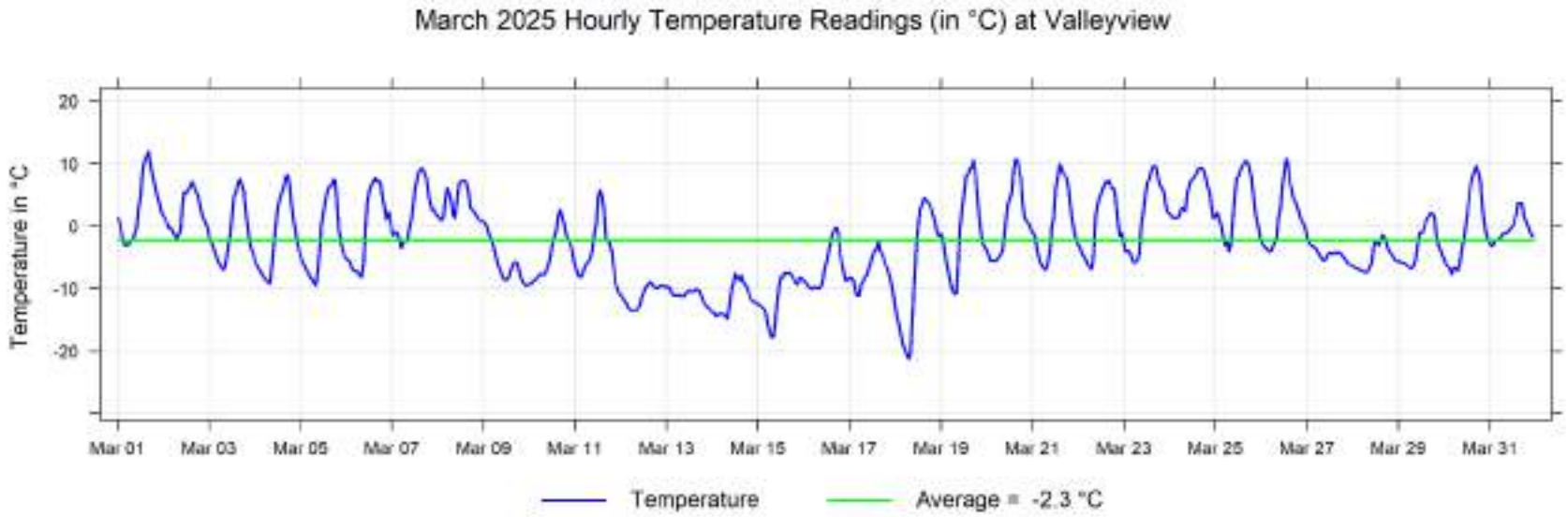


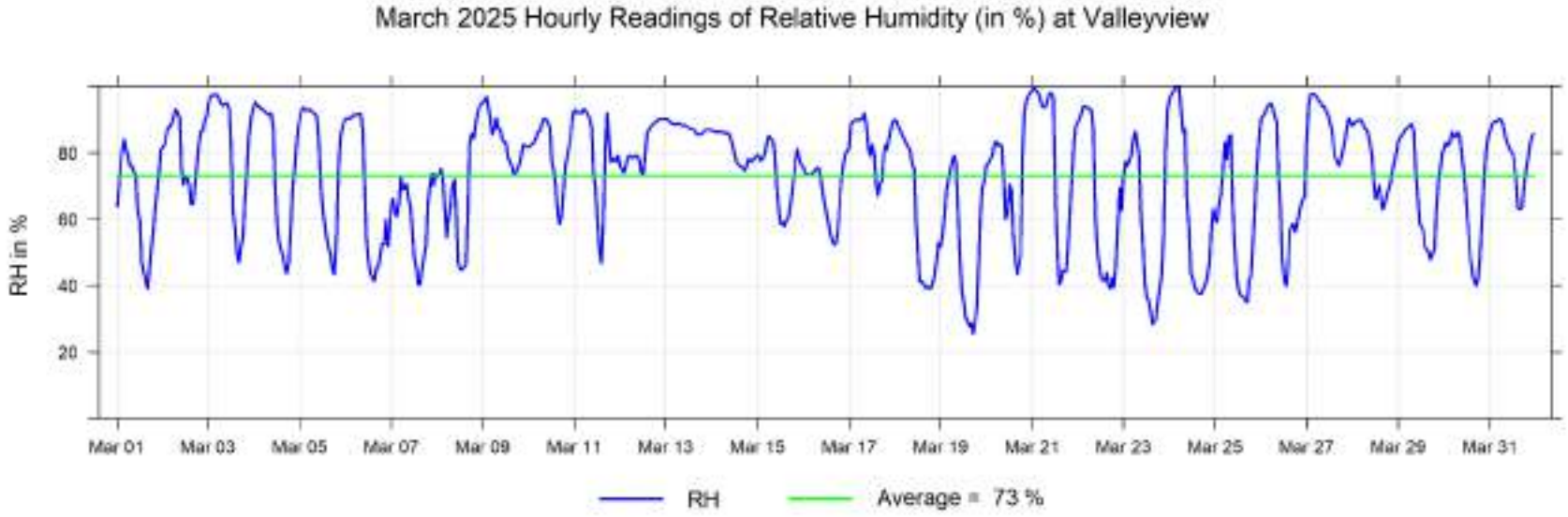

March 2025 Hourly Concentration Readings of SO_2 (in ppb) at Valleyview
SO_2 in ppb
150
100
50
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
SO_2
AAAQO Limit = 172 ppb
Average = 0.1 ppb

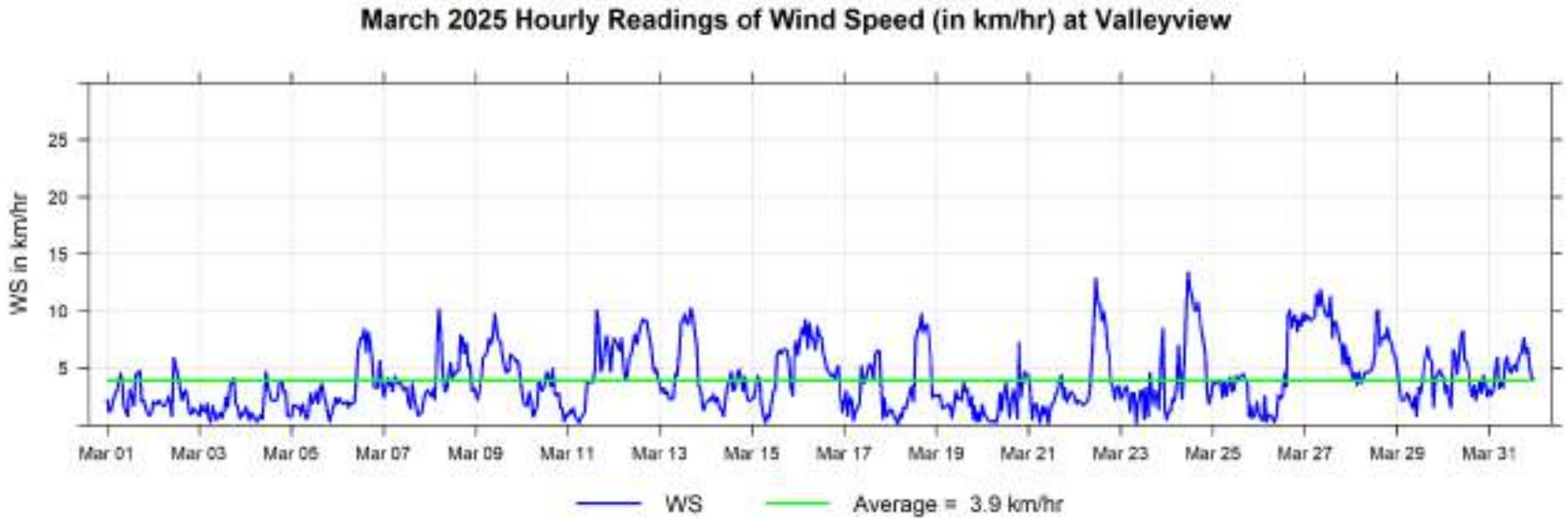

Number of Hours
0
200
400
600
619
50
21
11
2
3
3
0
0
1
0
1
0
1
2
3
4
SO_2 in ppb

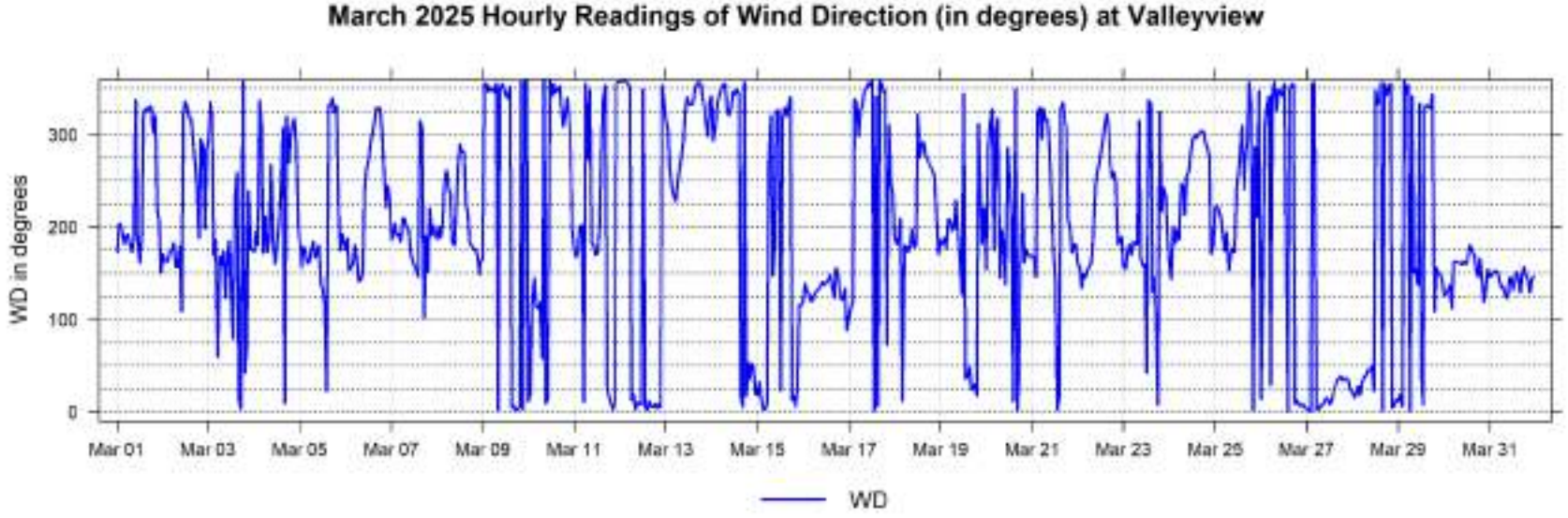

March 2025 Hourly Concentration Readings of H2S (in ppb) at Valleyview
H2S in ppb
10
8
6
4
2
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
H2S
AAAQO Limit = 10 ppb
Average = 0.1 ppb

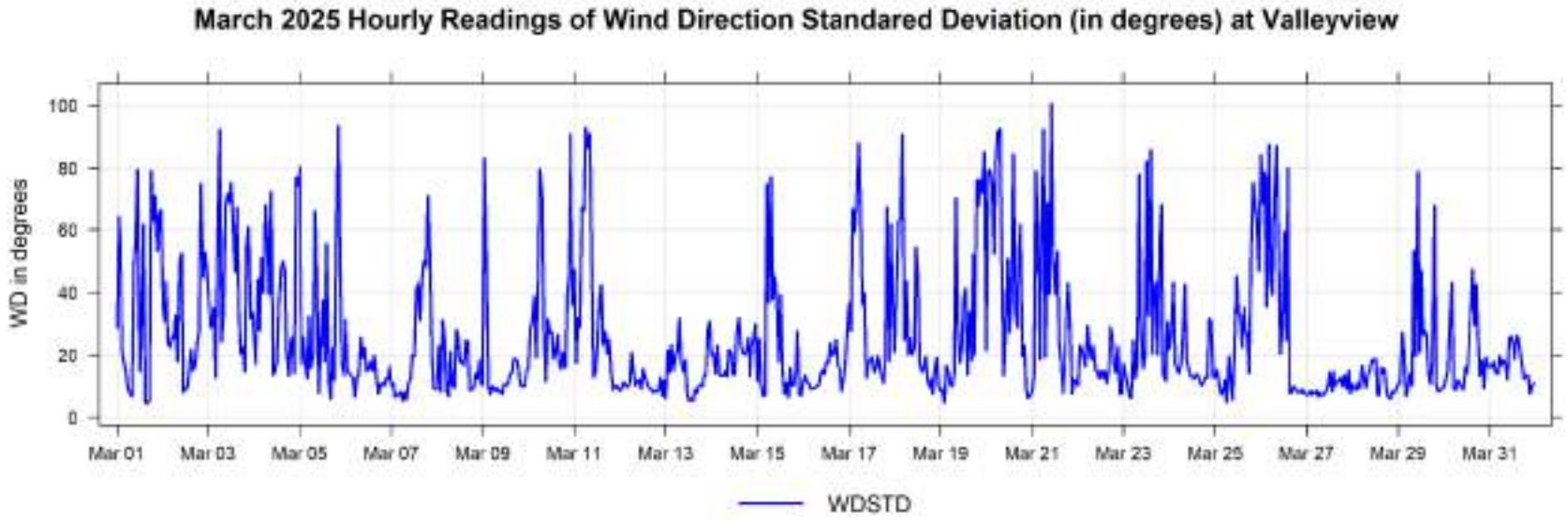

Number of Hours
0
200
400
600
578
96
30
3
0
1
0
1
0.0
0.5
1.0
1.5
2.0
2.5
3.0
H2S in ppb

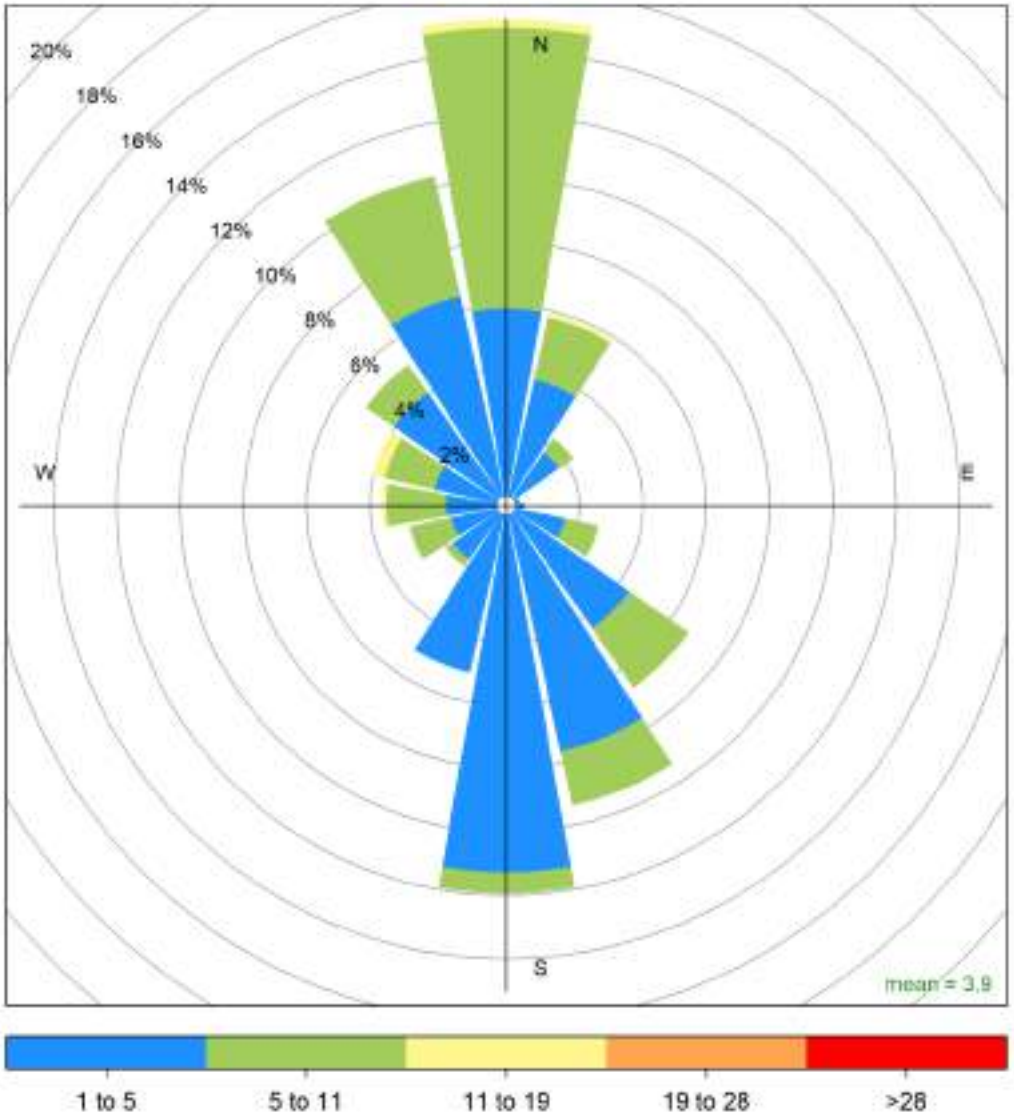

March 2025 Hourly Temperature Readings (in °C) at Valleyview
Temperature in °C
20
10
0
-10
-20
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
Temperature
Average = -2.3 °C


March 2025 Hourly Readings of Relative Humidity (in %) at Valleyview
RH in %
80
60
40
20
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
RH
Average = 73 %


March 2025 Hourly Readings of Wind Speed (in km/hr) at Valleyview
WS in km/hr
25
20
15
10
5
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
WS
Average = 3.9 km/hr


March 2025 Hourly Readings of Wind Direction (in degrees) at Valleyview
WD in degrees
300
200
100
0
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
WD


March 2025 Hourly Readings of Wind Direction Standared Deviation (in degrees) at Valleyview
WD in degrees
100
80
60
40
20
0
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
WDSTD

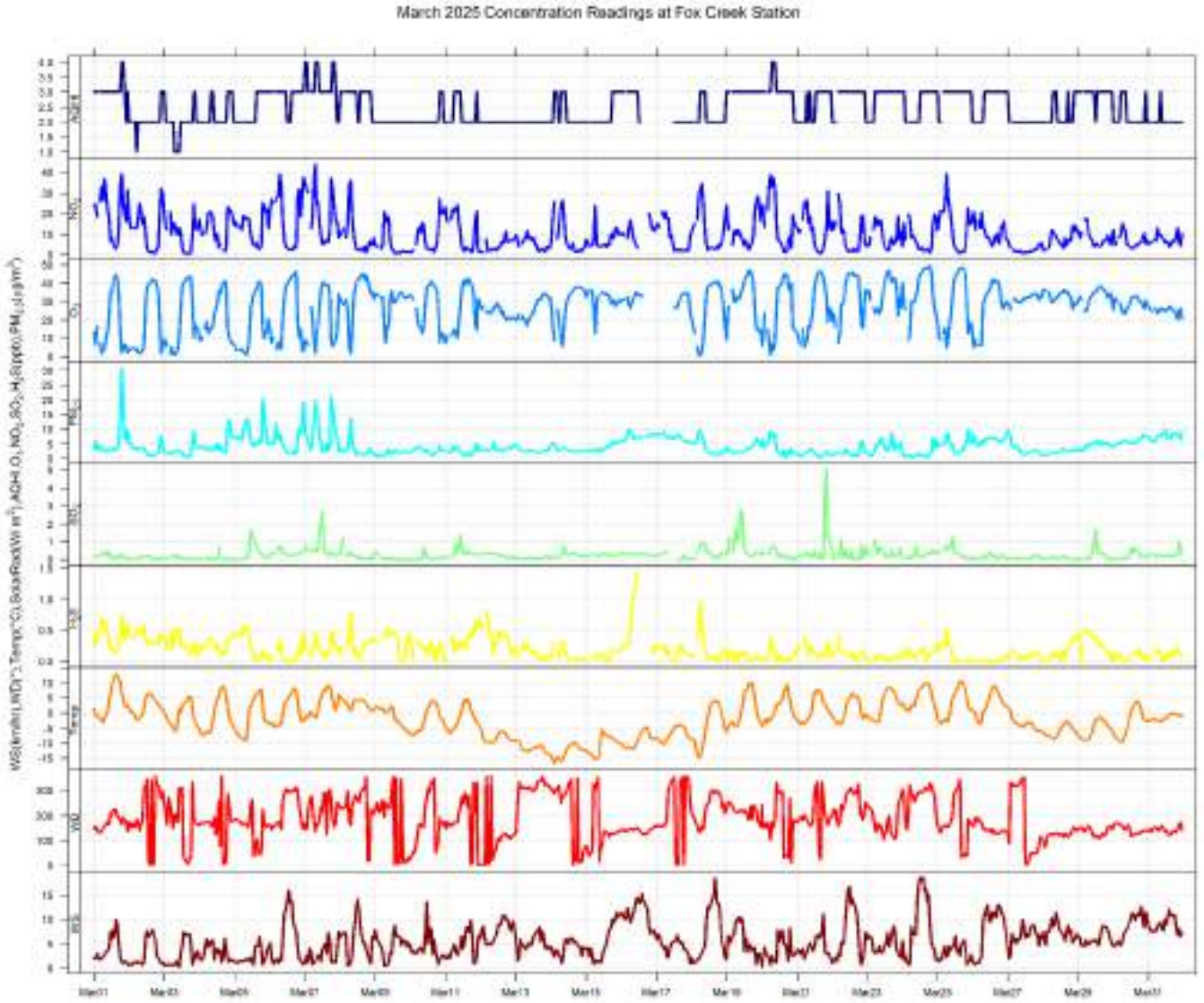


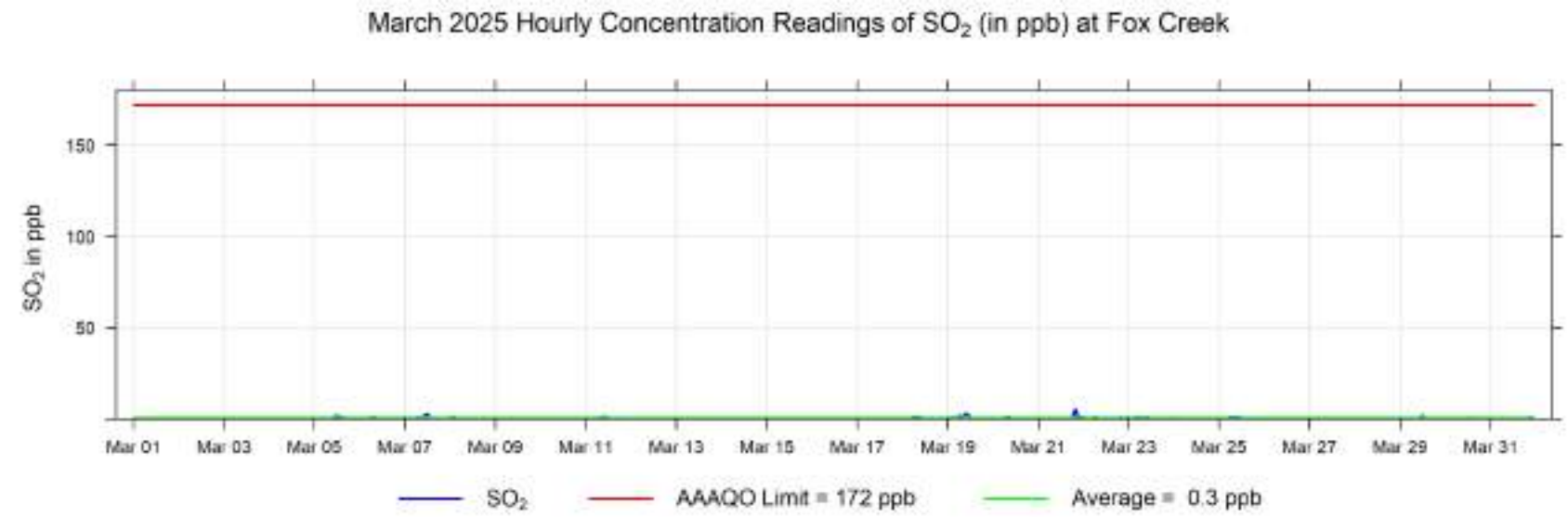
Valleyview March 2025 Wind Rose, wind speed in km/hr

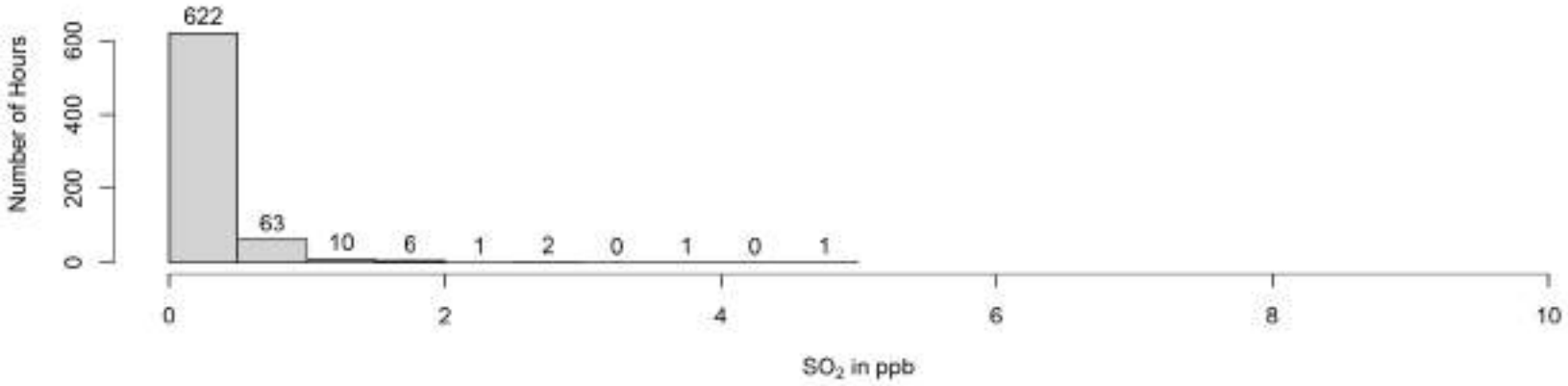
Calms (<1km/hr) = 12.5 %

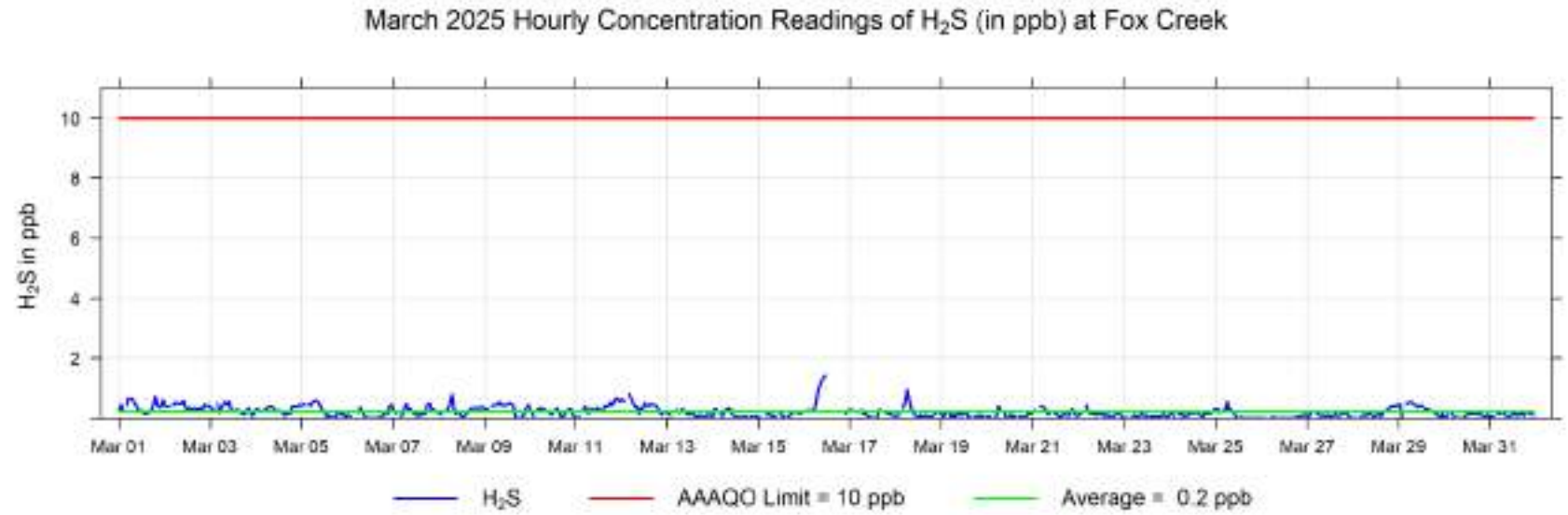
7 Fox Creek Charts

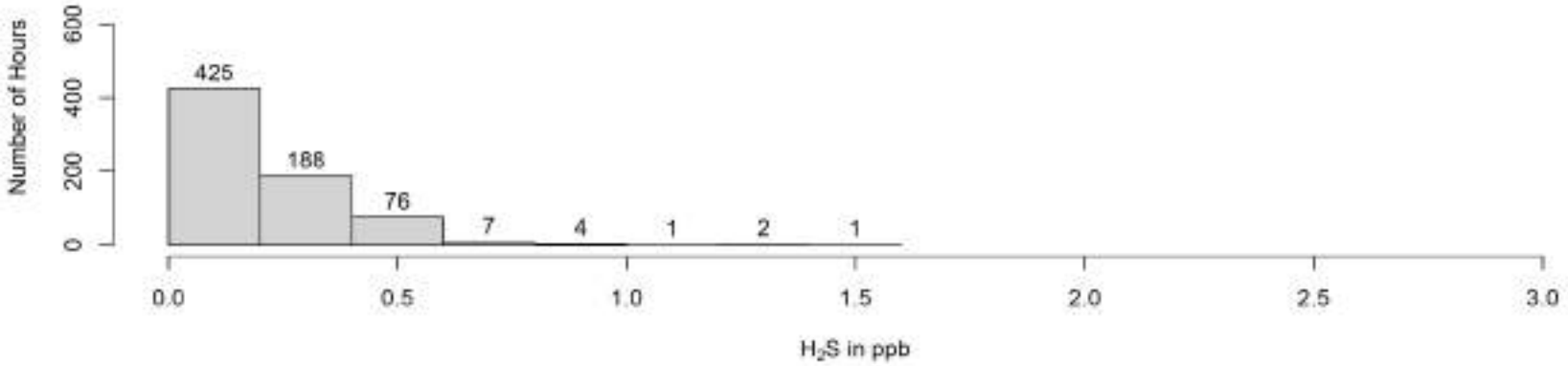
The following pages include the charts and histograms for Fox Creek Station



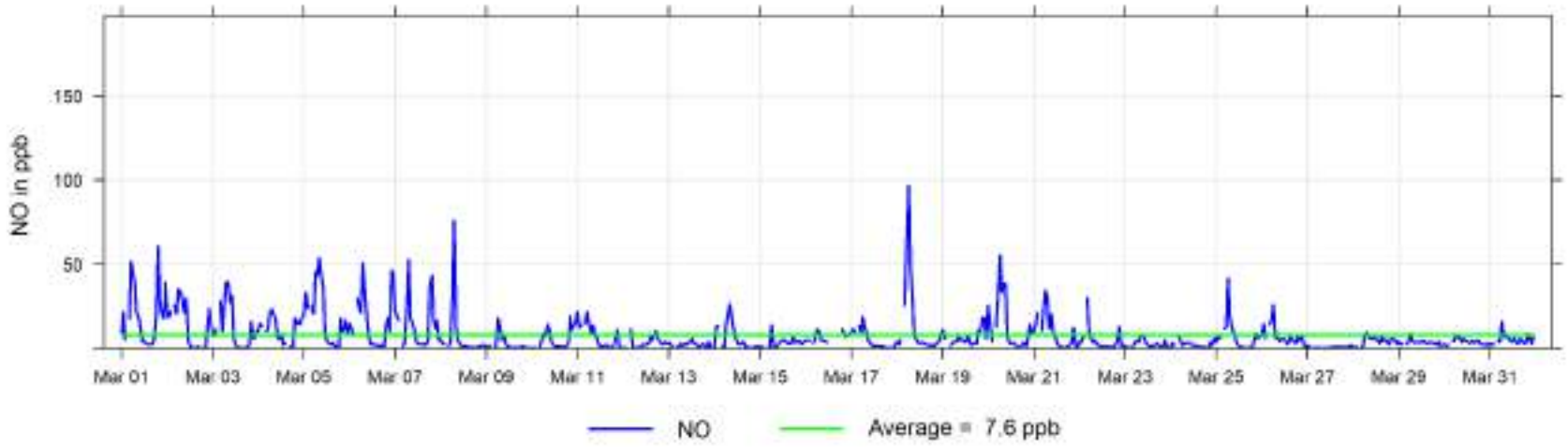

March 2025 Hourly Concentration Readings of SO_2 (in ppb) at Fox Creek
SO_2 in ppb
150
100
50
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
SO_2
AAAQO Limit = 172 ppb
Average = 0.3 ppb


Number of Hours
0
200
400
600
622
63
10
6
1
2
0
1
0
1
0
2
4
6
8
10
SO_2 in ppb

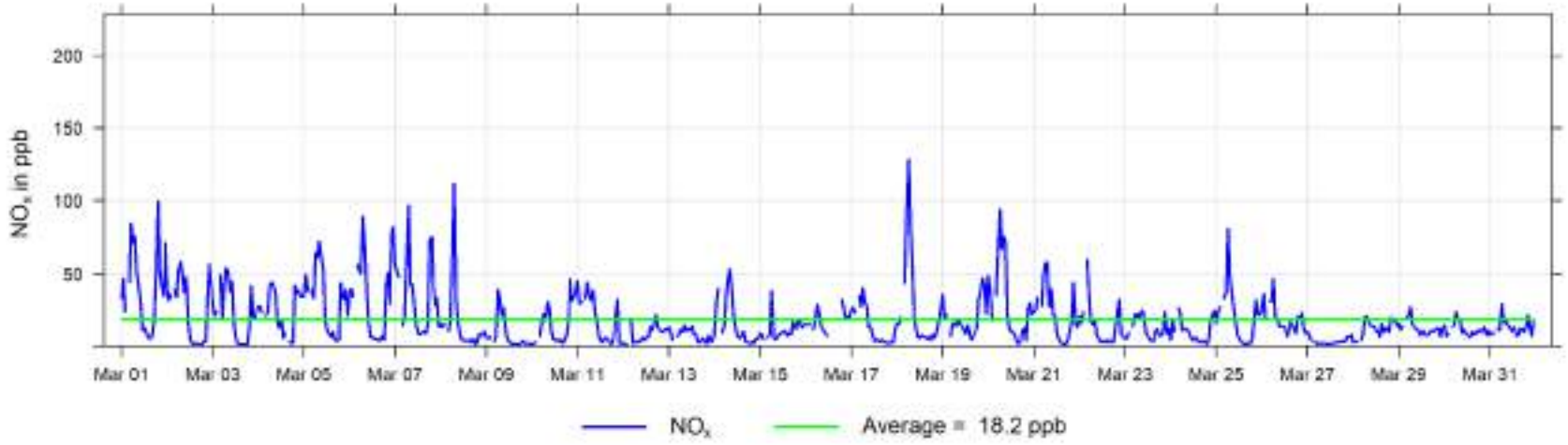

March 2025 Hourly Concentration Readings of H2S (in ppb) at Fox Creek
H2S in ppb
10
8
6
4
2
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
H2S
AAAQO Limit = 10 ppb
Average = 0.2 ppb

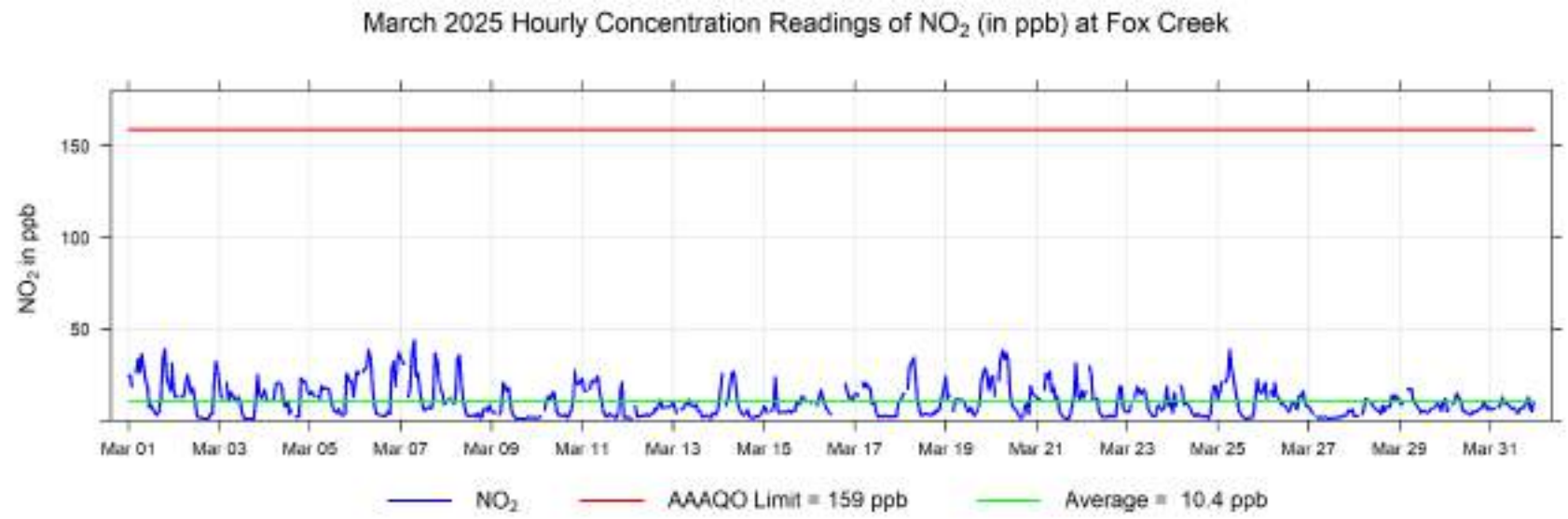

Number of Hours
0
200
400
600
425
188
76
7
4
1
2
1
0.0
0.5
1.0
1.5
2.0
2.5
3.0
H2S in ppb

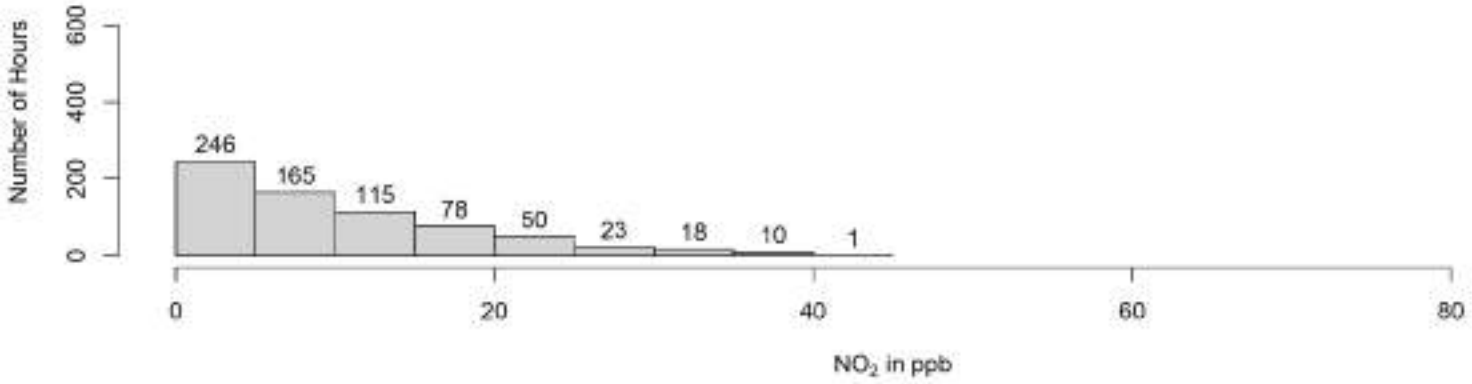
March 2025 Hourly Concentration Readings of NO (in ppb) at Fox Creek

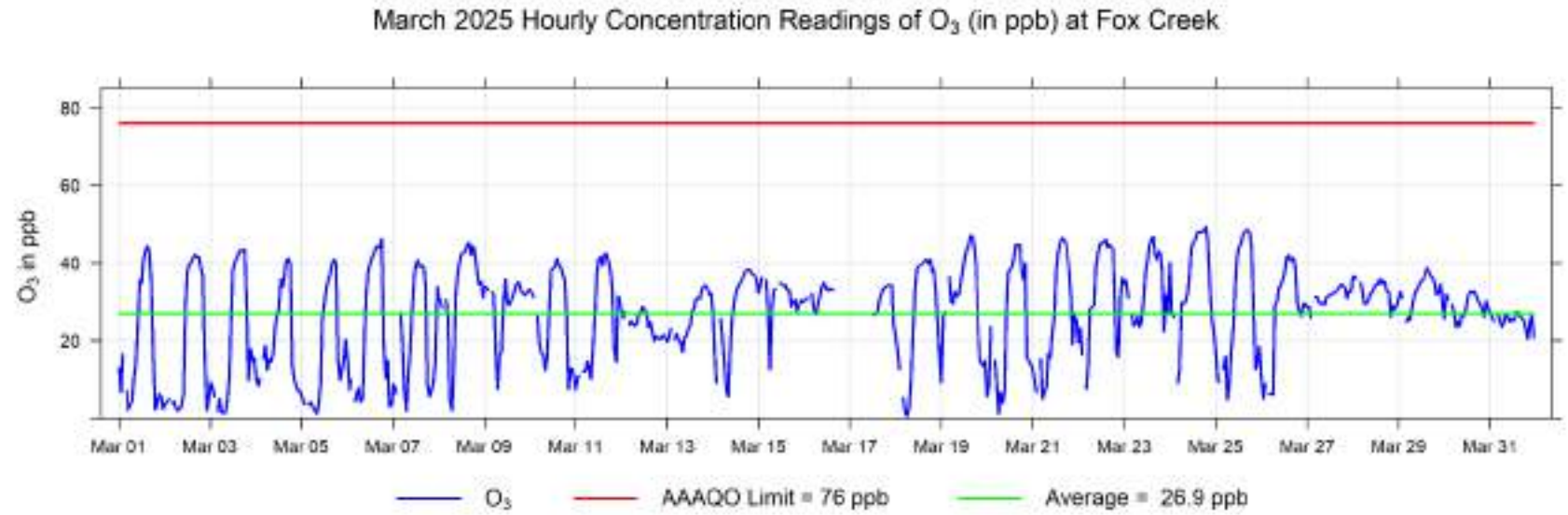


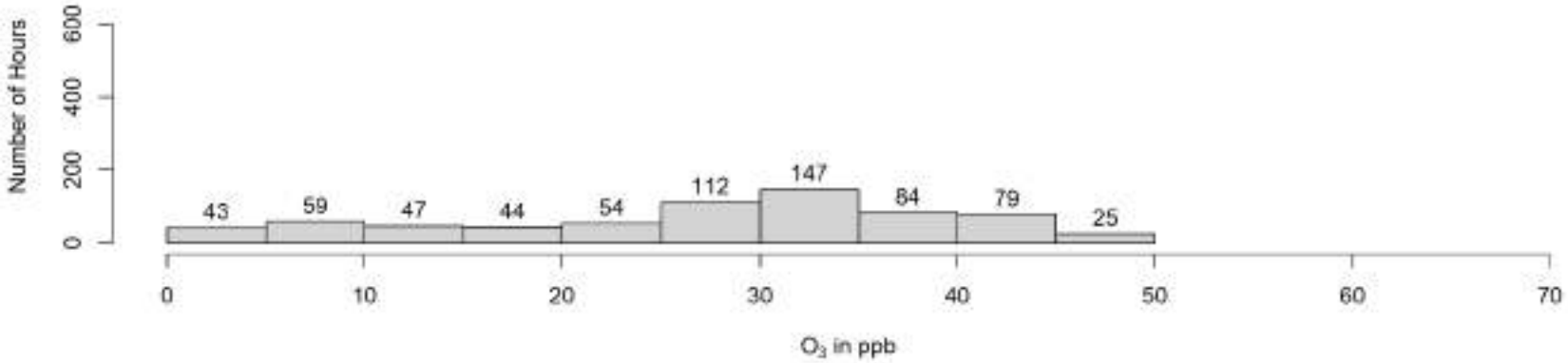
March 2025 Hourly Concentration Readings of NO_x (in ppb) at Fox Creek

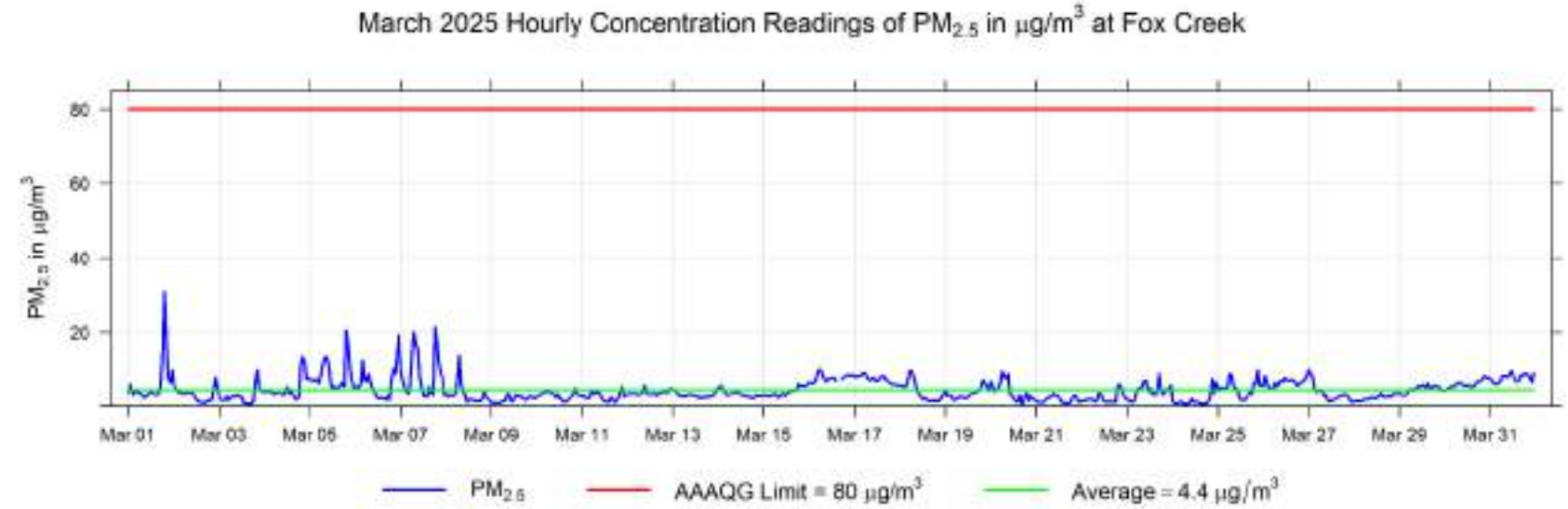


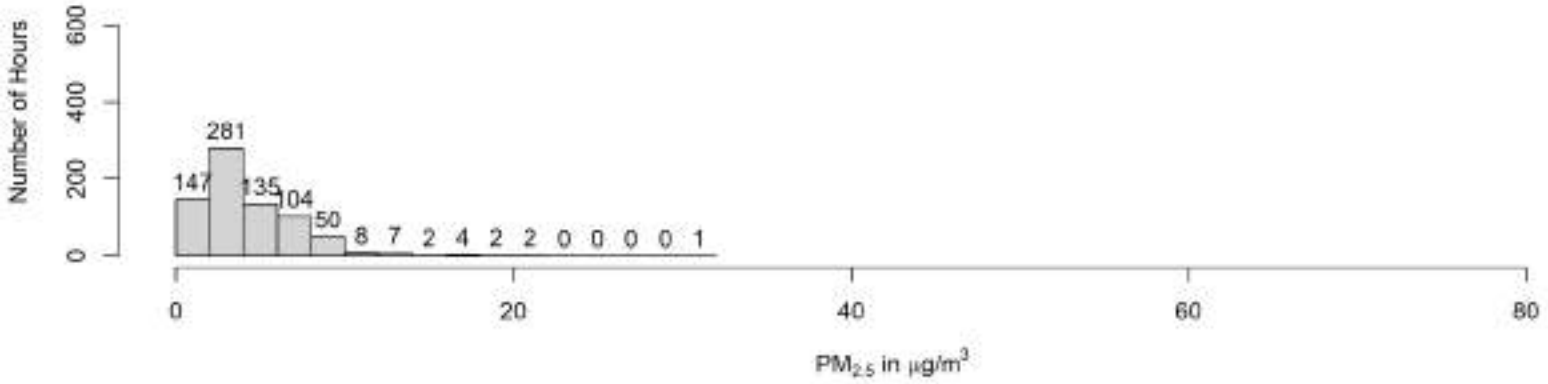

March 2025 Hourly Concentration Readings of NO2 (in ppb) at Fox Creek
NO2 in ppb
150
100
50
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
NO2
AAAQO Limit = 159 ppb
Average = 10.4 ppb


Number of Hours
0
200
400
600
246
165
115
78
50
23
18
10
1
0
20
40
60
80
NO2 in ppb

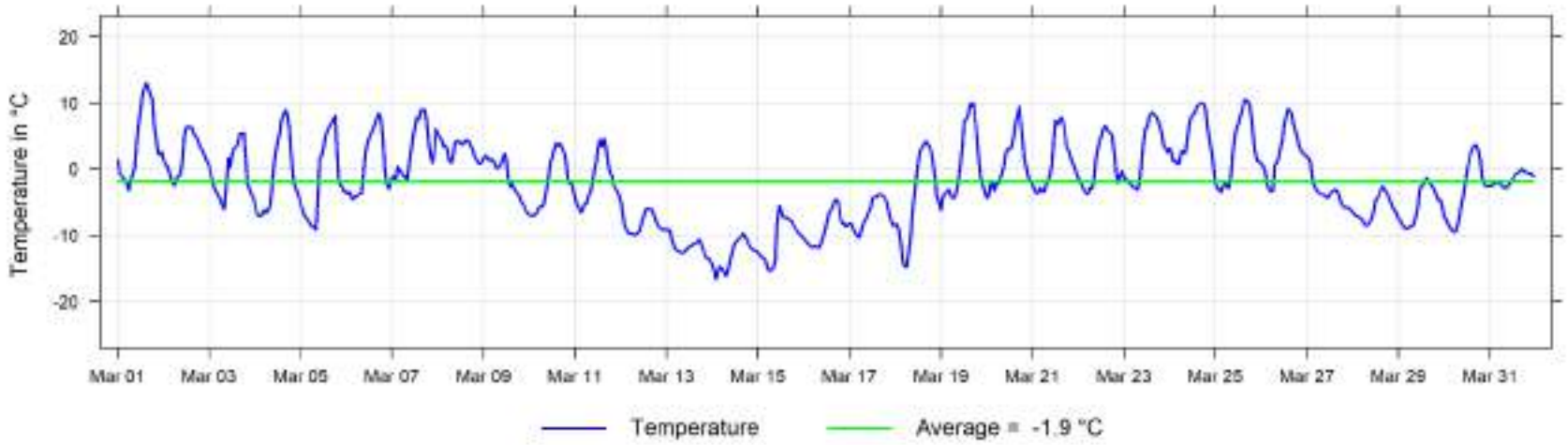

March 2025 Hourly Concentration Readings of O_3 (in ppb) at Fox Creek
O_3 in ppb
80
60
40
20
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
O_3
AAAQO Limit = 76 ppb
Average = 26.9 ppb


Number of Hours
0
200
400
600
43
59
47
44
54
112
147
84
79
25
0
10
20
30
40
50
60
70
O_3 in ppb

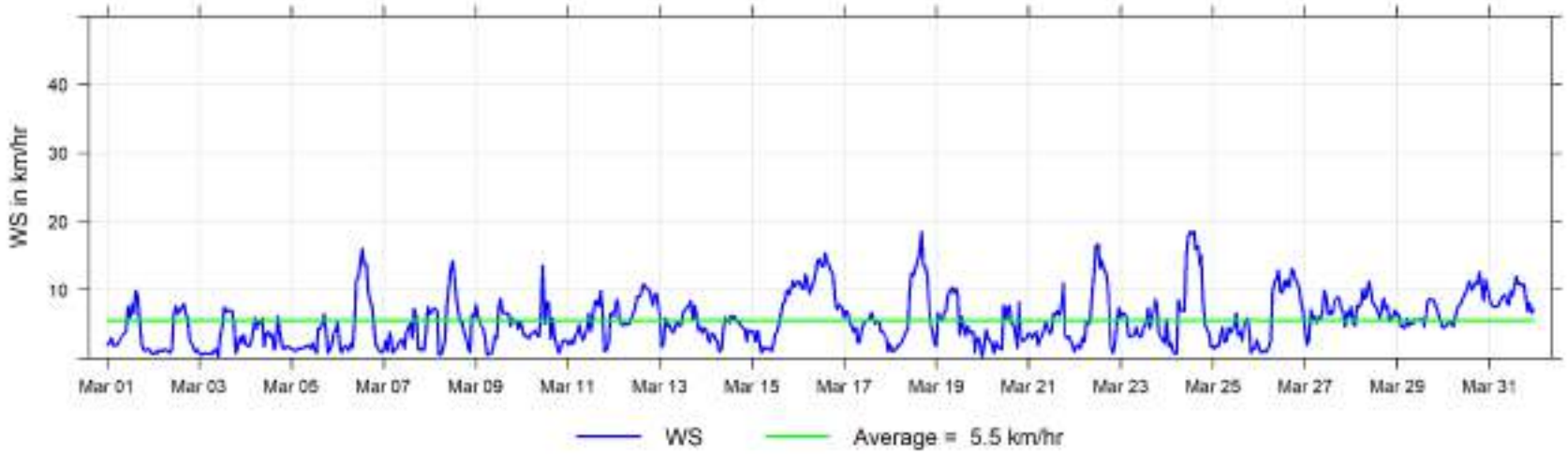

March 2025 Hourly Concentration Readings of PM2.5 in µg/m3 at Fox Creek
PM2.5 in µg/m3
0
20
40
60
80
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
PM2.5
AAAQG Limit = 80 µg/m3
Average = 4.4 µg/m3

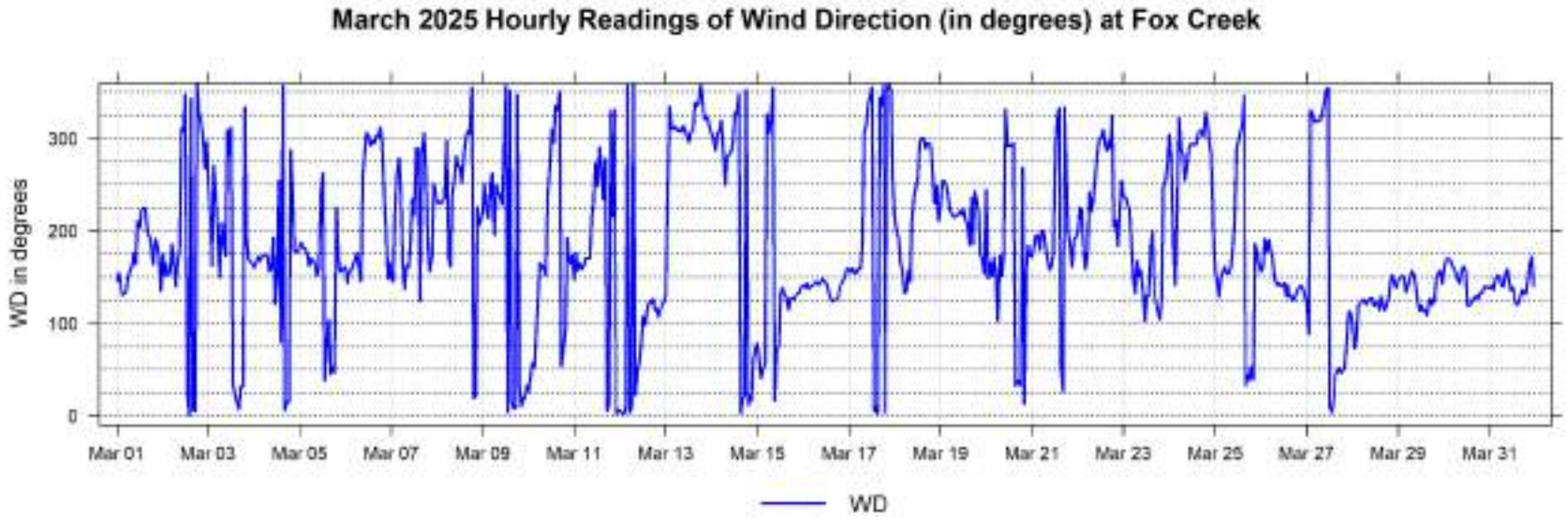

Number of Hours
0
200
400
600
147
281
135
104
50
8
7
2
4
2
2
0
0
0
0
1
0
20
40
60
80
PM2.5 in µg/m3

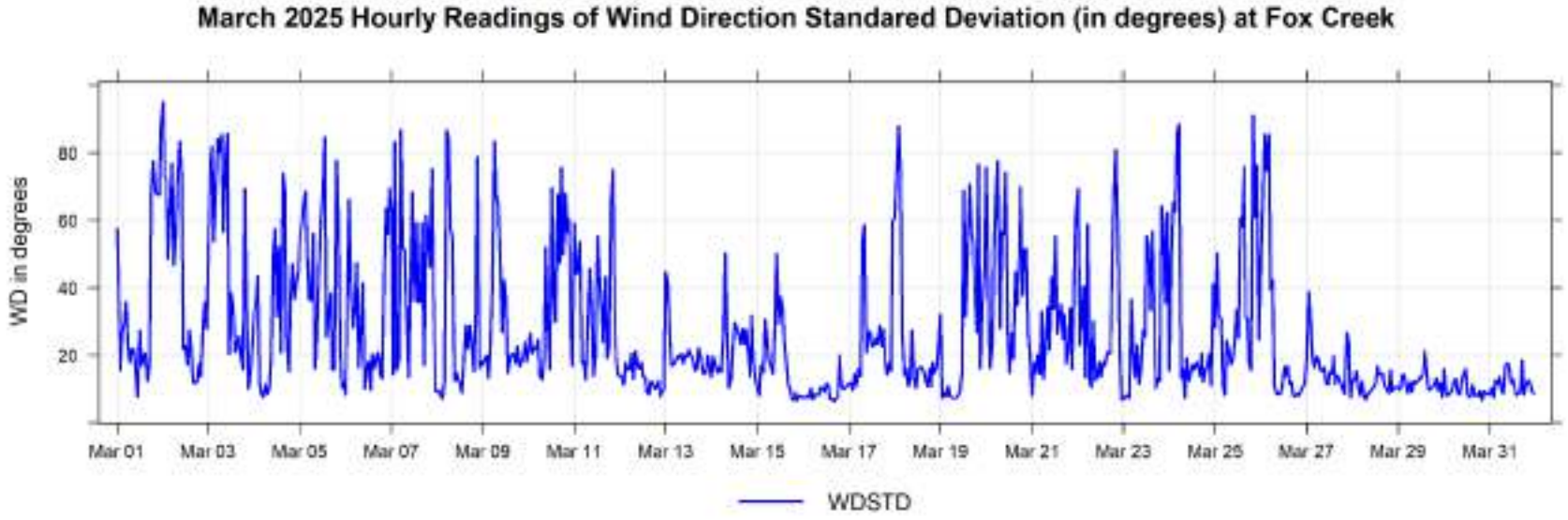
March 2025 Hourly Temperature Readings (in °C) at Fox Creek

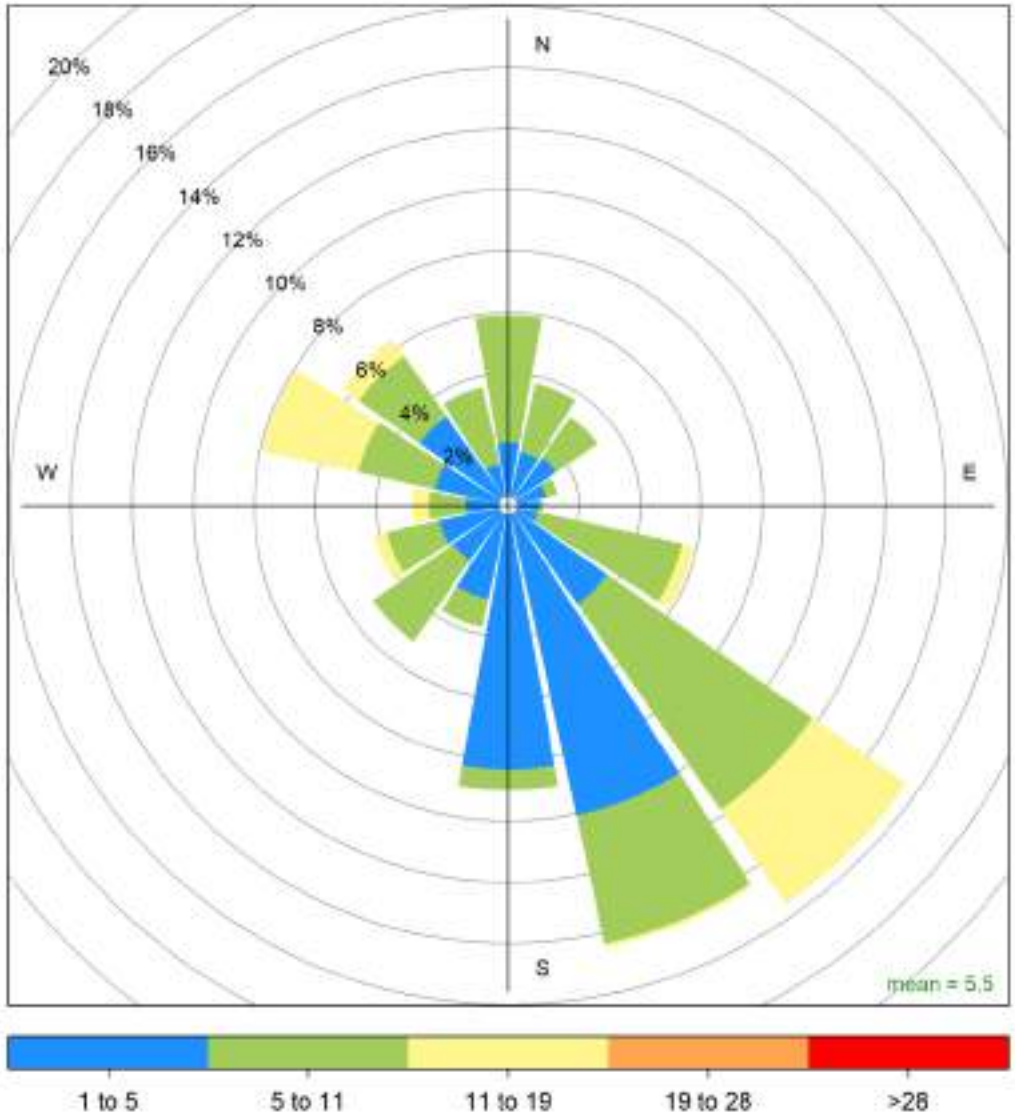


March 2025 Hourly Readings of Wind Speed (in km/hr) at Fox Creek




March 2025 Hourly Readings of Wind Direction (in degrees) at Fox Creek
WD in degrees
0
100
200
300
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
WD


March 2025 Hourly Readings of Wind Direction Standared Deviation (in degrees) at Fox Creek
WD in degrees
20
40
60
80
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
WDSTD

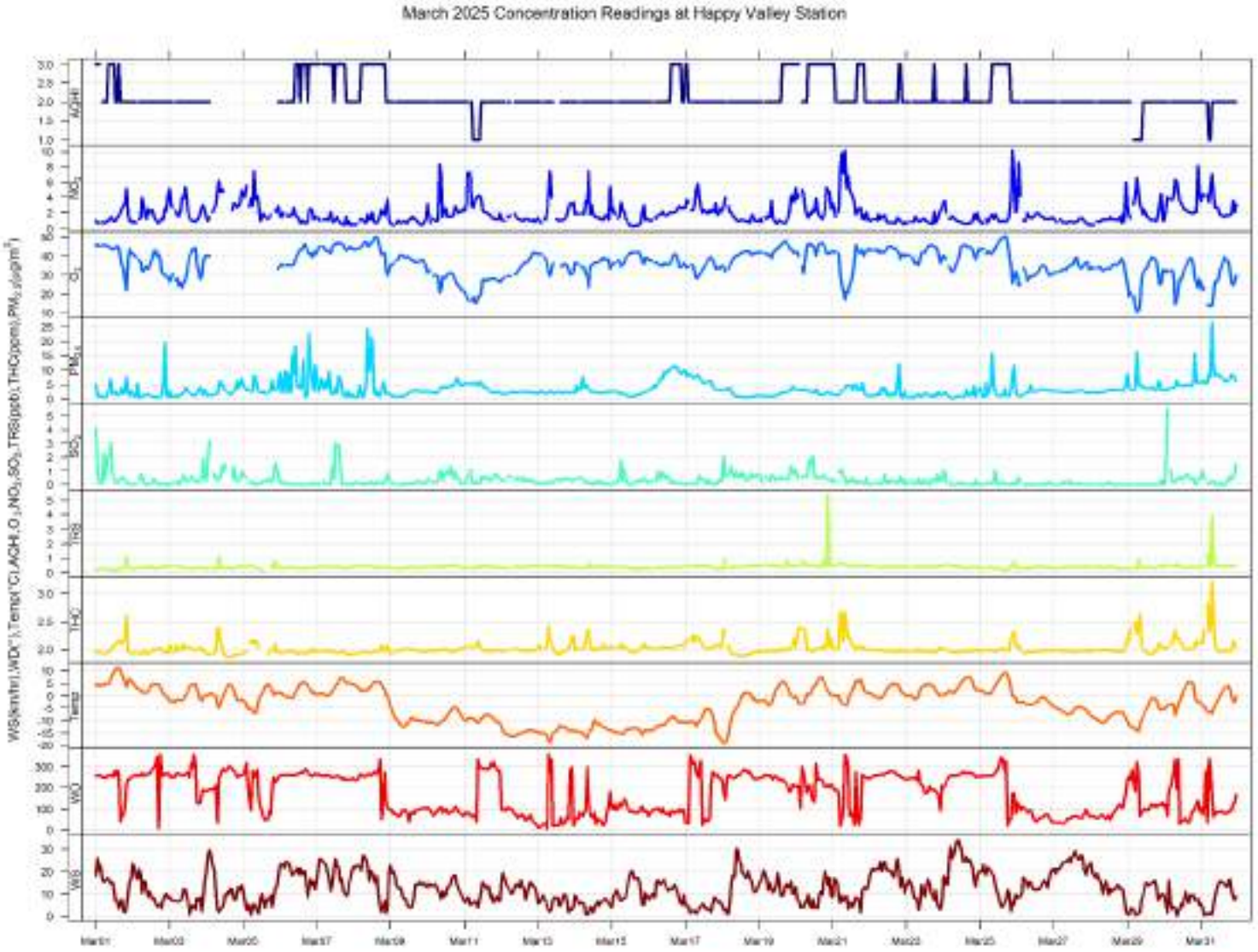


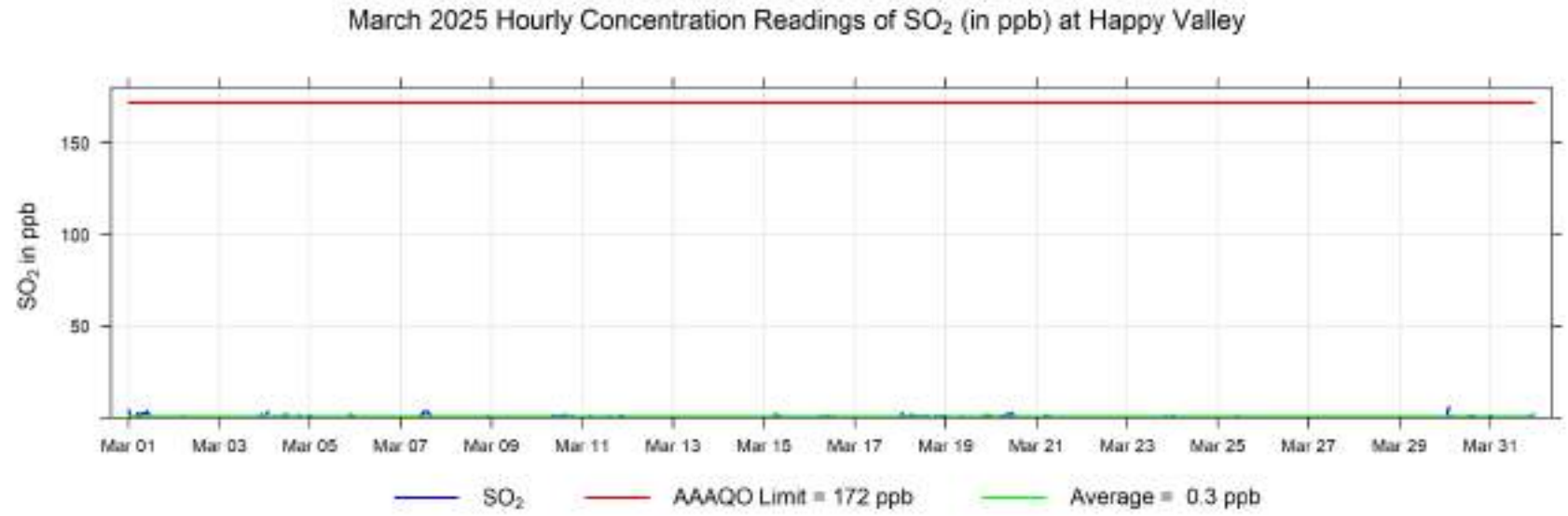
Fox Creek March 2025 Wind Rose, wind speed in km/hr

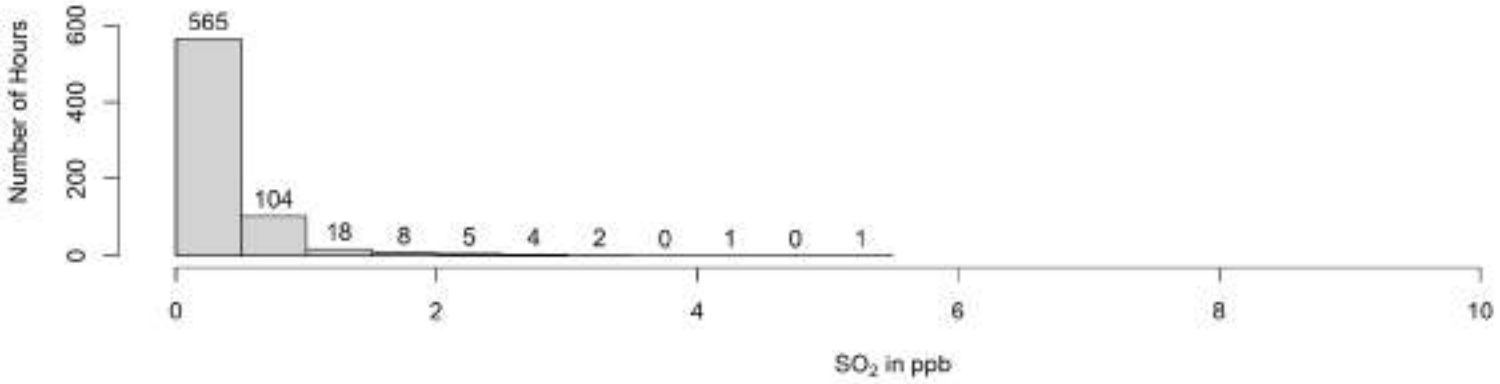
Calms (<1km/hr) = 6.3 %

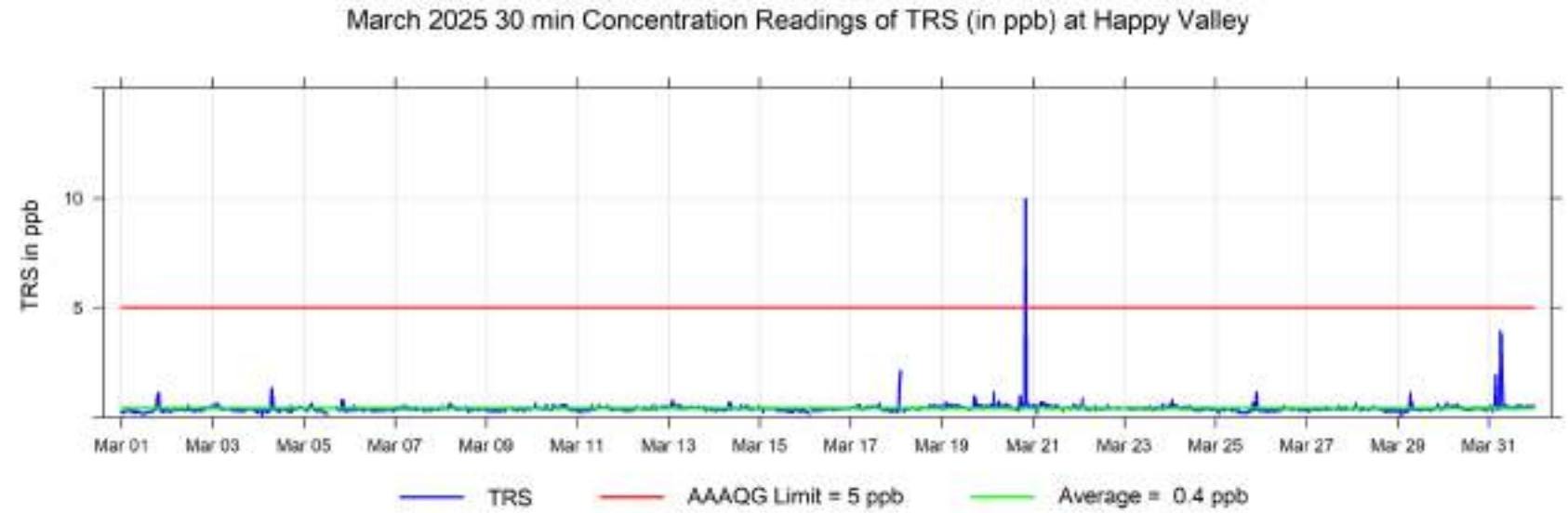
8 Happy Valley (Portable) Charts

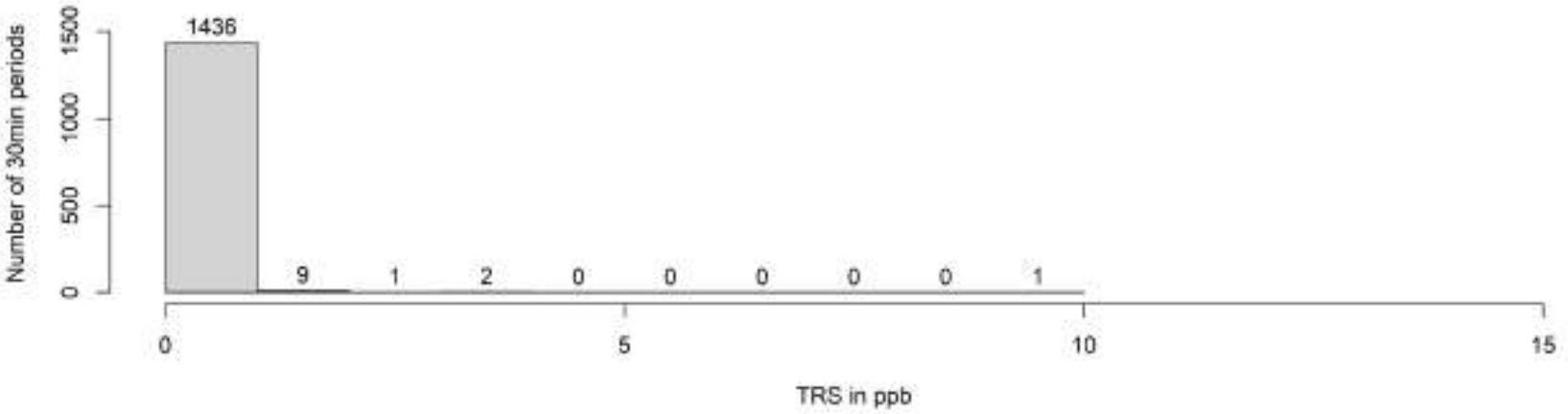
The following pages include the charts and histograms for Happy Valley Portable Station

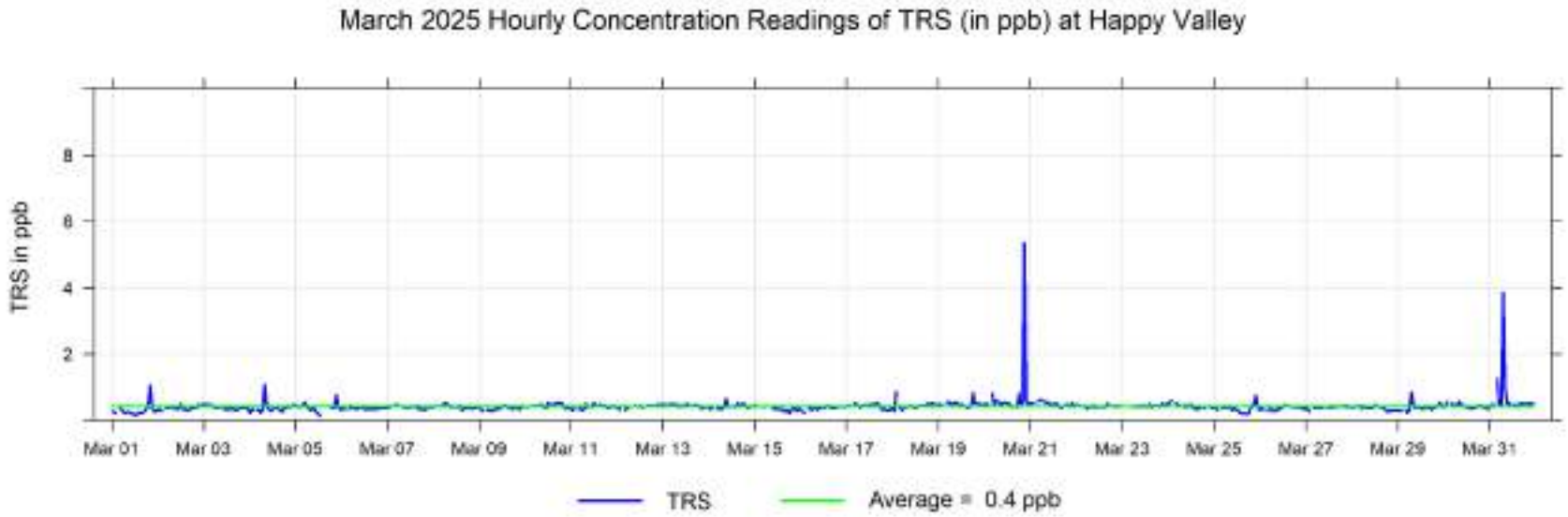


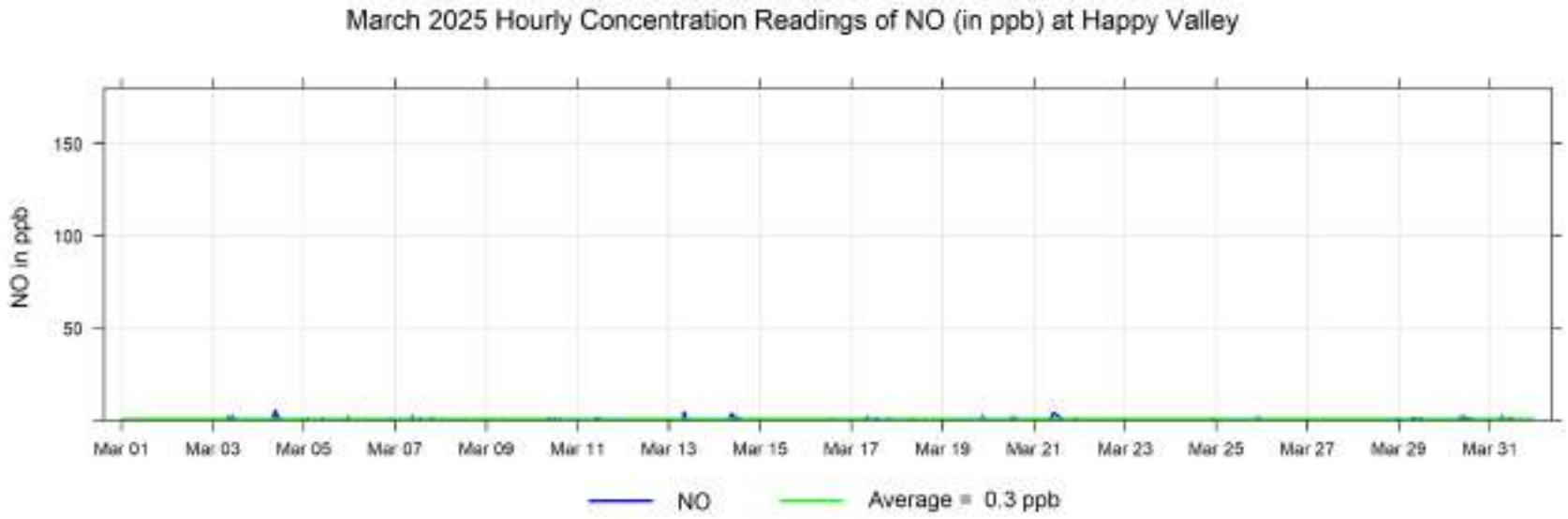

March 2025 Hourly Concentration Readings of SO_2 (in ppb) at Happy Valley
SO_2 in ppb
150
100
50
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
SO_2
AAAQO Limit = 172 ppb
Average = 0.3 ppb

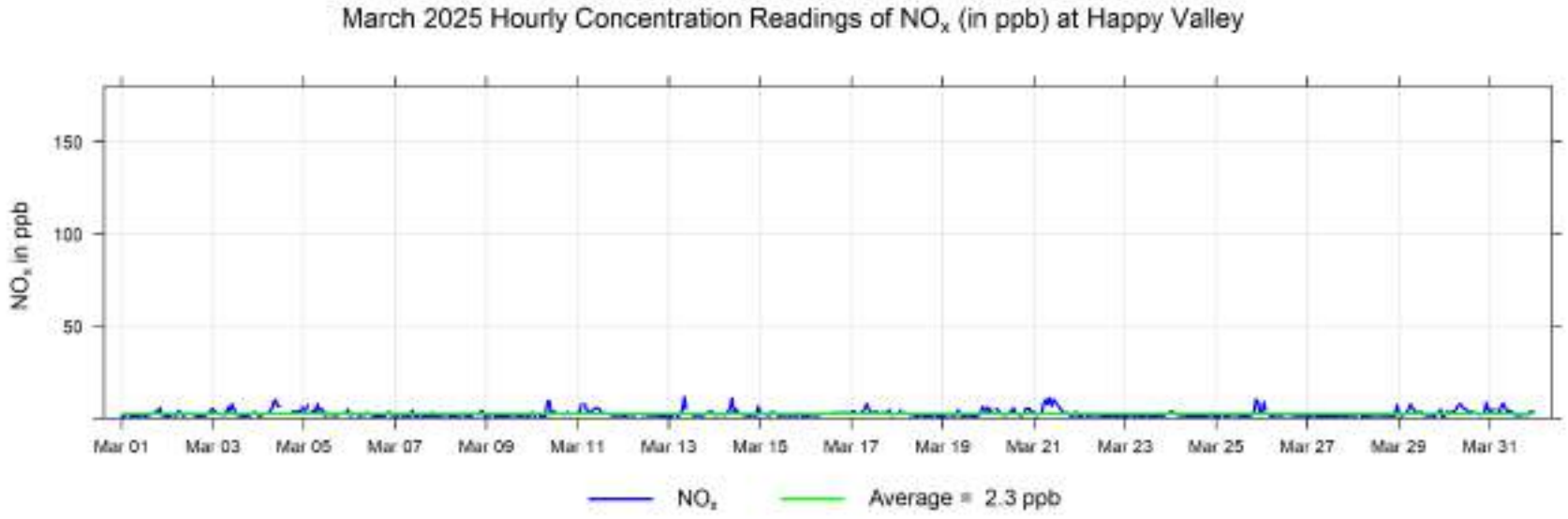

Number of Hours
0
200
400
600
565
104
18
8
5
4
2
0
1
0
1
0
2
4
6
8
10
SO_2 in ppb

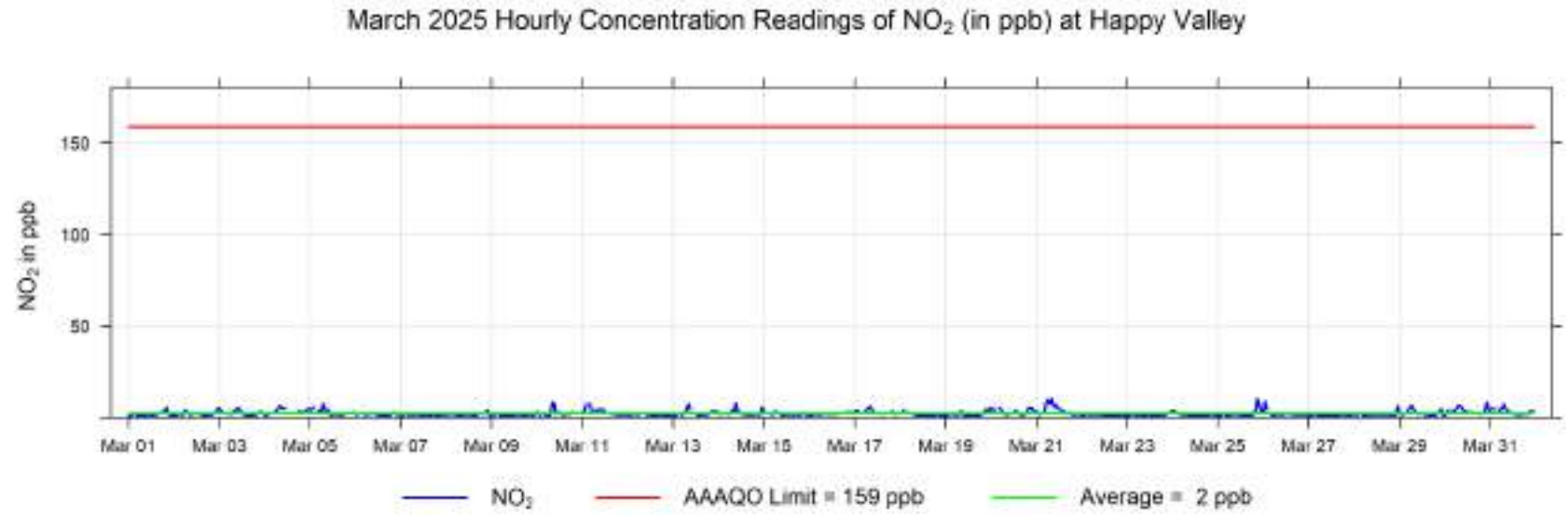

March 2025 30 min Concentration Readings of TRS (in ppb) at Happy Valley
TRS in ppb
10
5
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
TRS
AAAQG Limit = 5 ppb
Average = 0.4 ppb

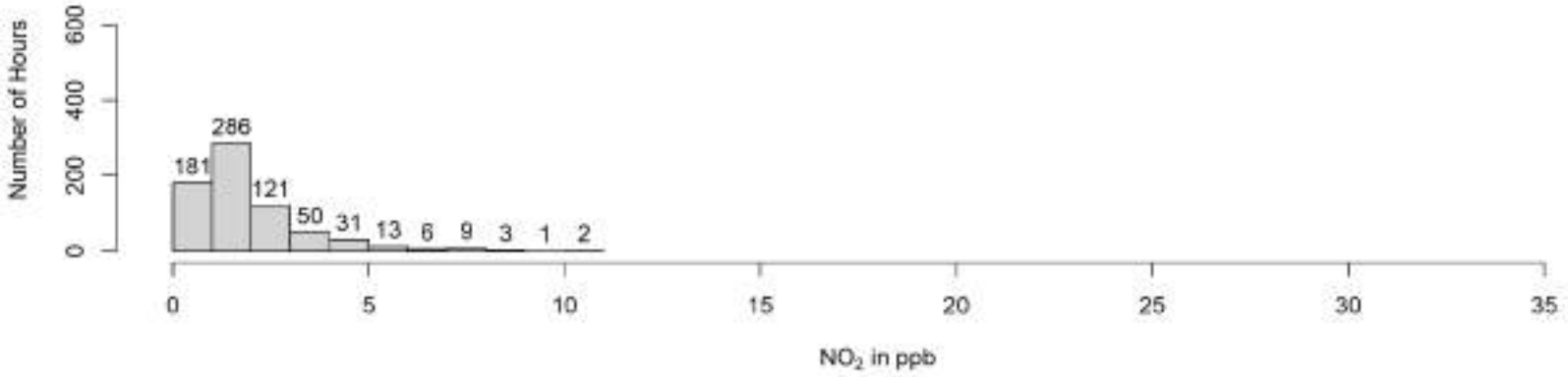

Number of 30min periods
0
500
1000
1500
1436
9
1
2
0
0
0
0
0
1
0
5
10
15
TRS in ppb

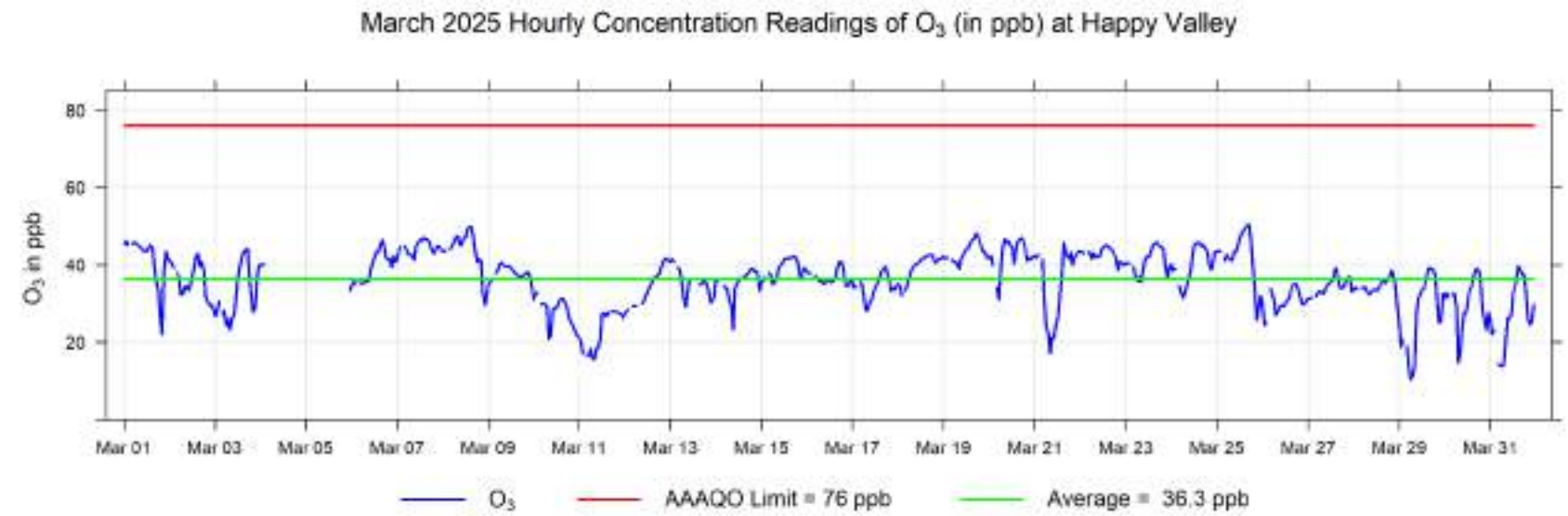

March 2025 Hourly Concentration Readings of TRS (in ppb) at Happy Valley
TRS in ppb
8
6
4
2
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
TRS
Average = 0.4 ppb

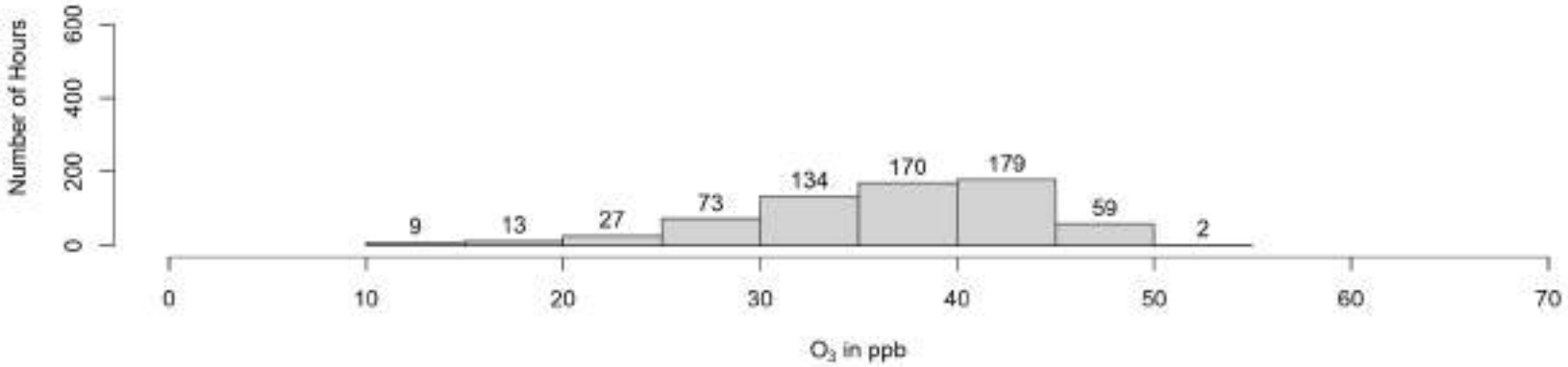

March 2025 Hourly Concentration Readings of NO (in ppb) at Happy Valley
NO in ppb
150
100
50
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
NO
Average = 0.3 ppb

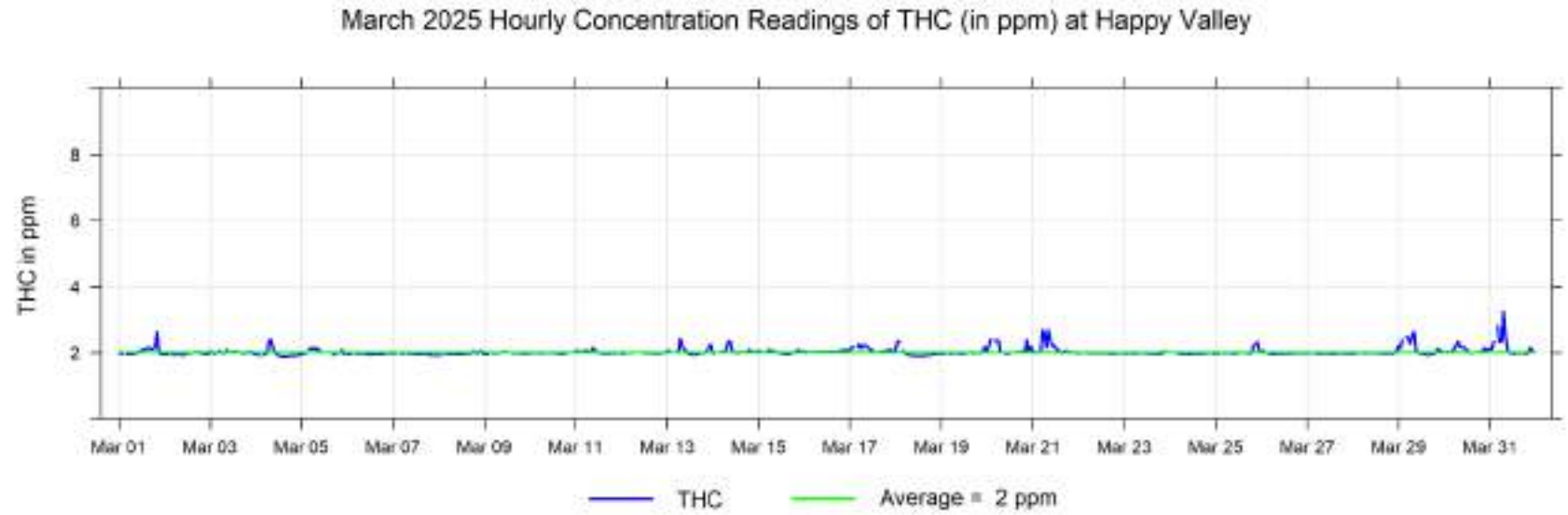

March 2025 Hourly Concentration Readings of NOx (in ppb) at Happy Valley
NOx in ppb
150
100
50
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
NOx
Average = 2.3 ppb

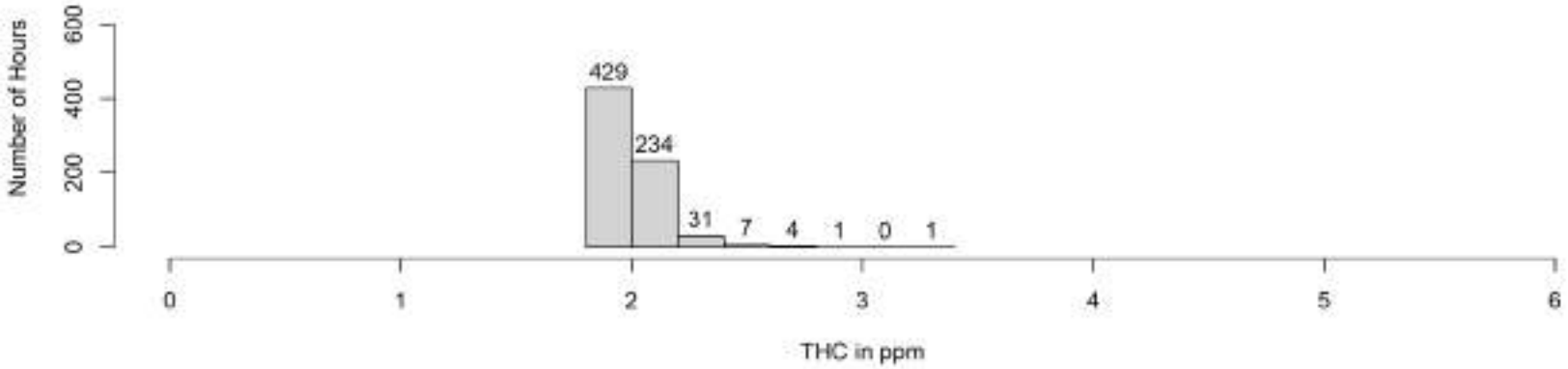

March 2025 Hourly Concentration Readings of NO2 (in ppb) at Happy Valley
NO2 in ppb
150
100
50
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
NO2
AAAQO Limit = 159 ppb
Average = 2 ppb

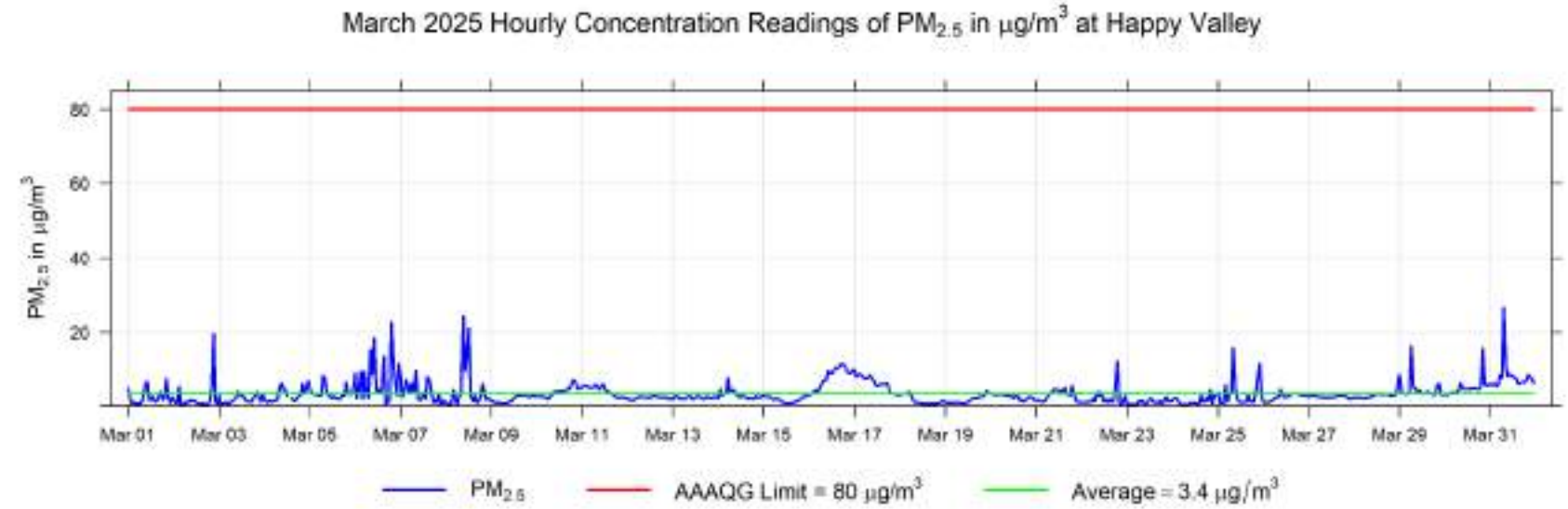

Number of Hours
0
200
400
600
181
286
121
50
31
13
6
9
3
1
2
0
5
10
15
20
25
30
35
NO2 in ppb

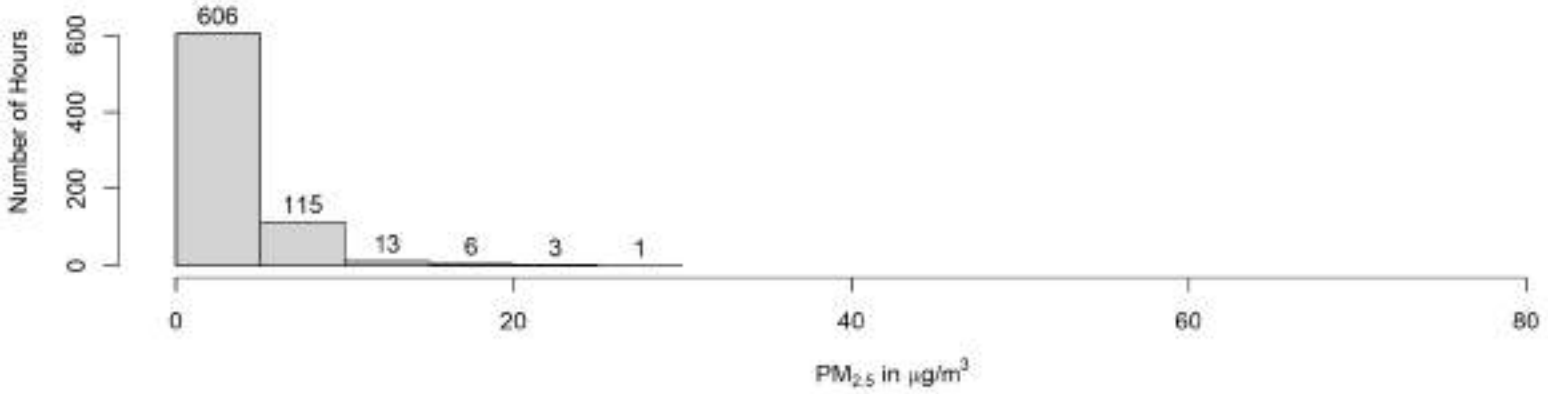

March 2025 Hourly Concentration Readings of O_3 (in ppb) at Happy Valley
O_3 in ppb
80
60
40
20
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
O_3
AAAQO Limit = 76 ppb
Average = 36.3 ppb

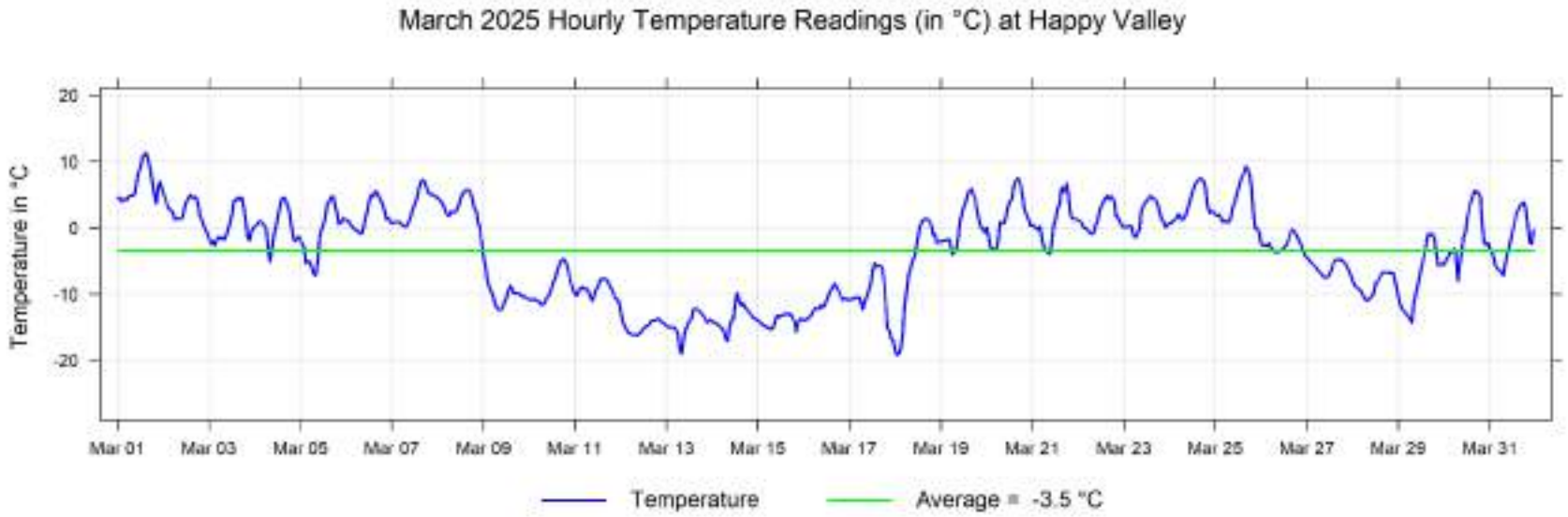

Number of Hours
0
200
400
600
9
13
27
73
134
170
179
59
2
0
10
20
30
40
50
60
70
O_3 in ppb

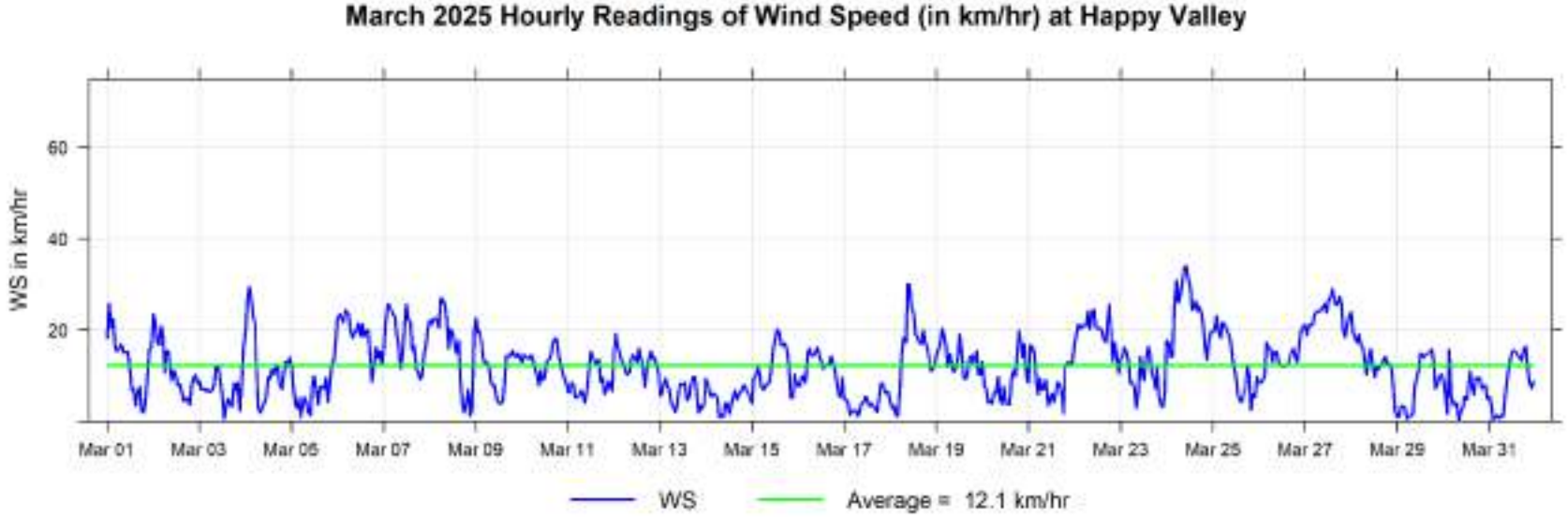

March 2025 Hourly Concentration Readings of THC (in ppm) at Happy Valley
THC in ppm
8
6
4
2
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
THC
Average = 2 ppm

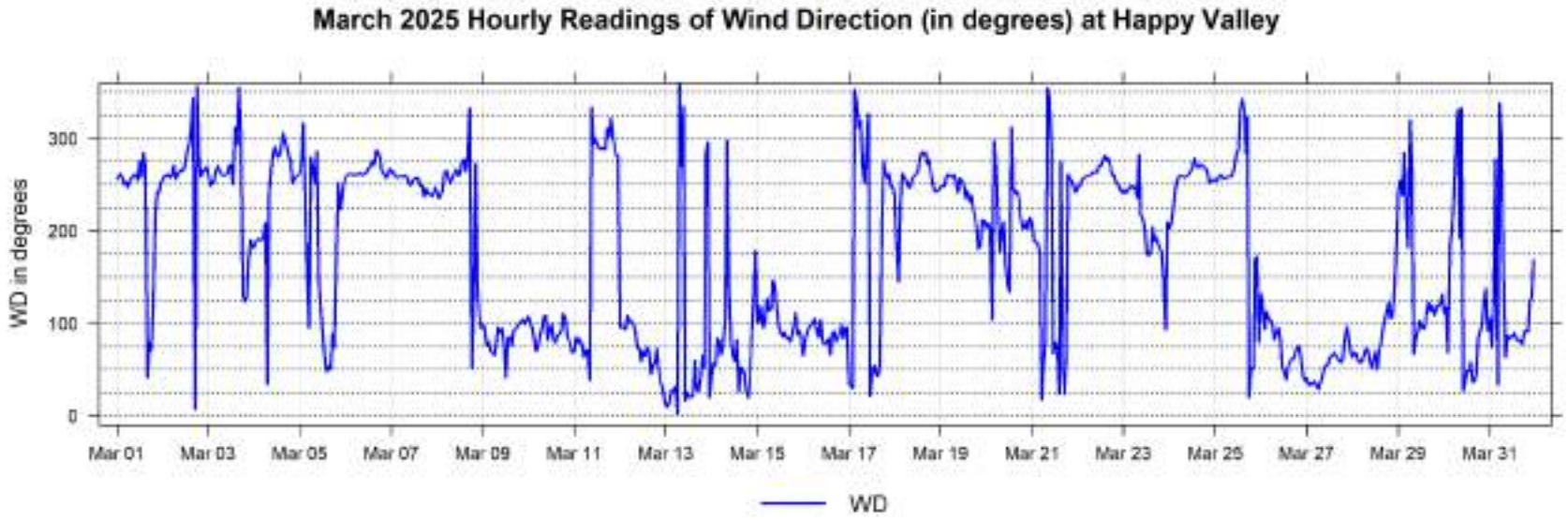

Number of Hours
0
200
400
600
429
234
31
7
4
1
0
1
0
1
2
3
4
5
6
THC in ppm

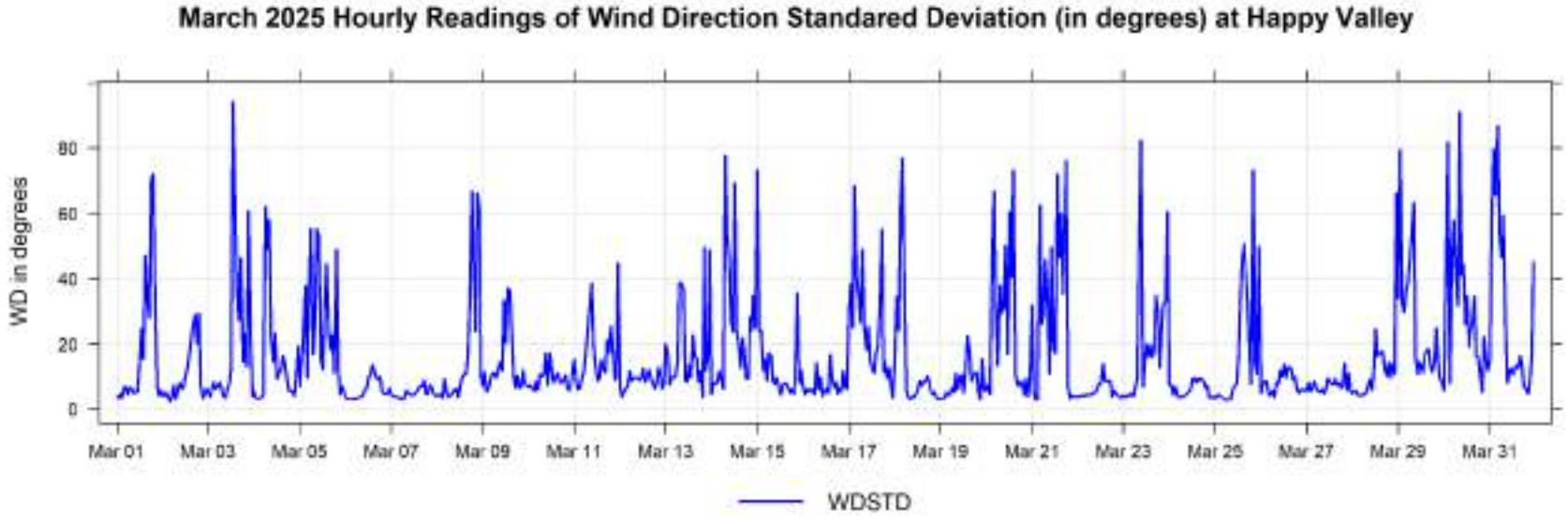

March 2025 Hourly Concentration Readings of PM2.5 in µg/m3 at Happy Valley
PM2.5 in µg/m3
0
20
40
60
80
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
PM2.5
AAAQG Limit = 80 µg/m3
Average = 3.4 µg/m3

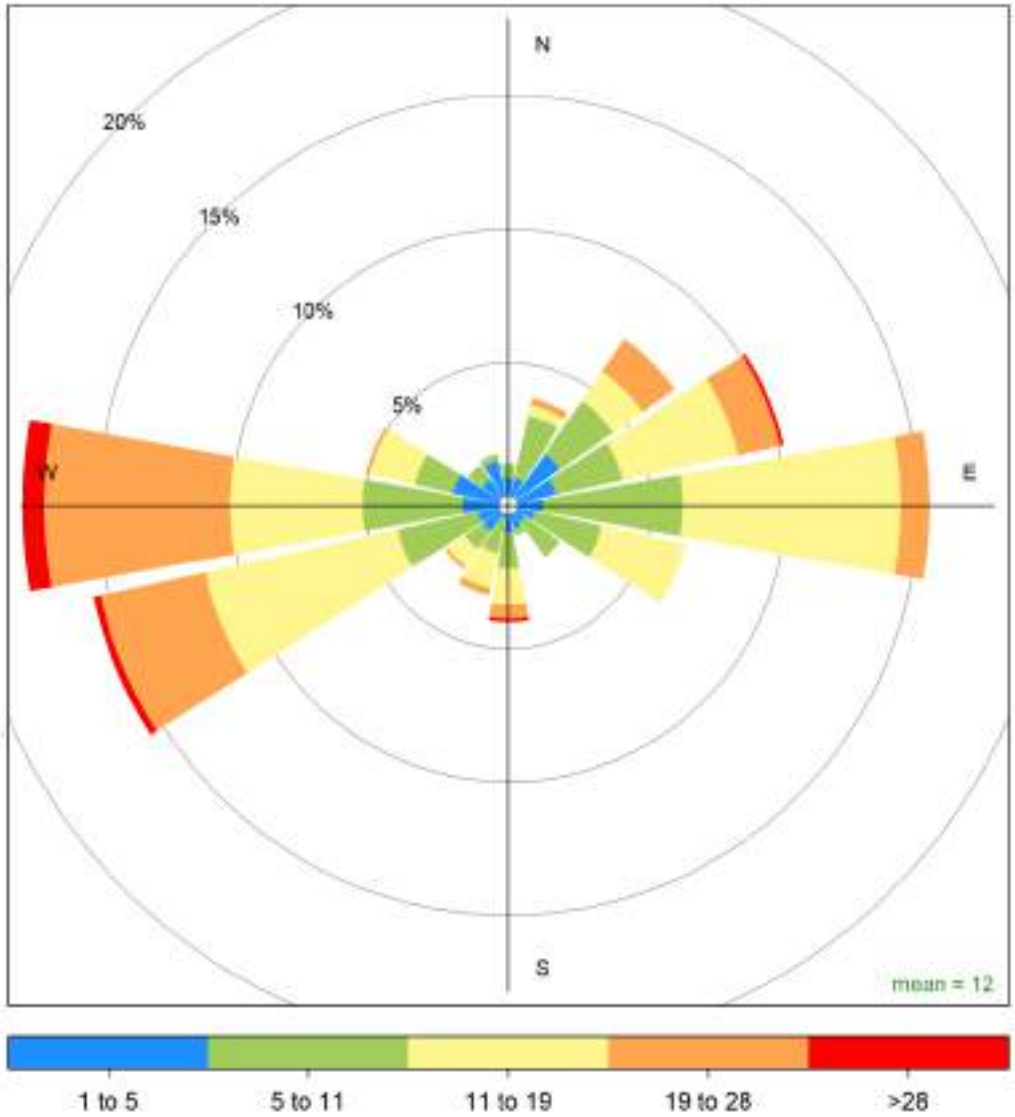

Number of Hours
0
200
400
600
606
115
13
6
3
1
0
20
40
60
80
PM2.5 in µg/m3


March 2025 Hourly Temperature Readings (in °C) at Happy Valley
Temperature in °C
20
10
0
-10
-20
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
Temperature
Average = -3.5 °C


March 2025 Hourly Readings of Wind Speed (in km/hr) at Happy Valley
WS in km/hr
60
40
20
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
WS
Average = 12.1 km/hr


March 2025 Hourly Readings of Wind Direction (in degrees) at Happy Valley
WD in degrees
0
100
200
300
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
WD


March 2025 Hourly Readings of Wind Direction Standared Deviation (in degrees) at Happy Valley
WD in degrees
0
20
40
60
80
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
WDSTD

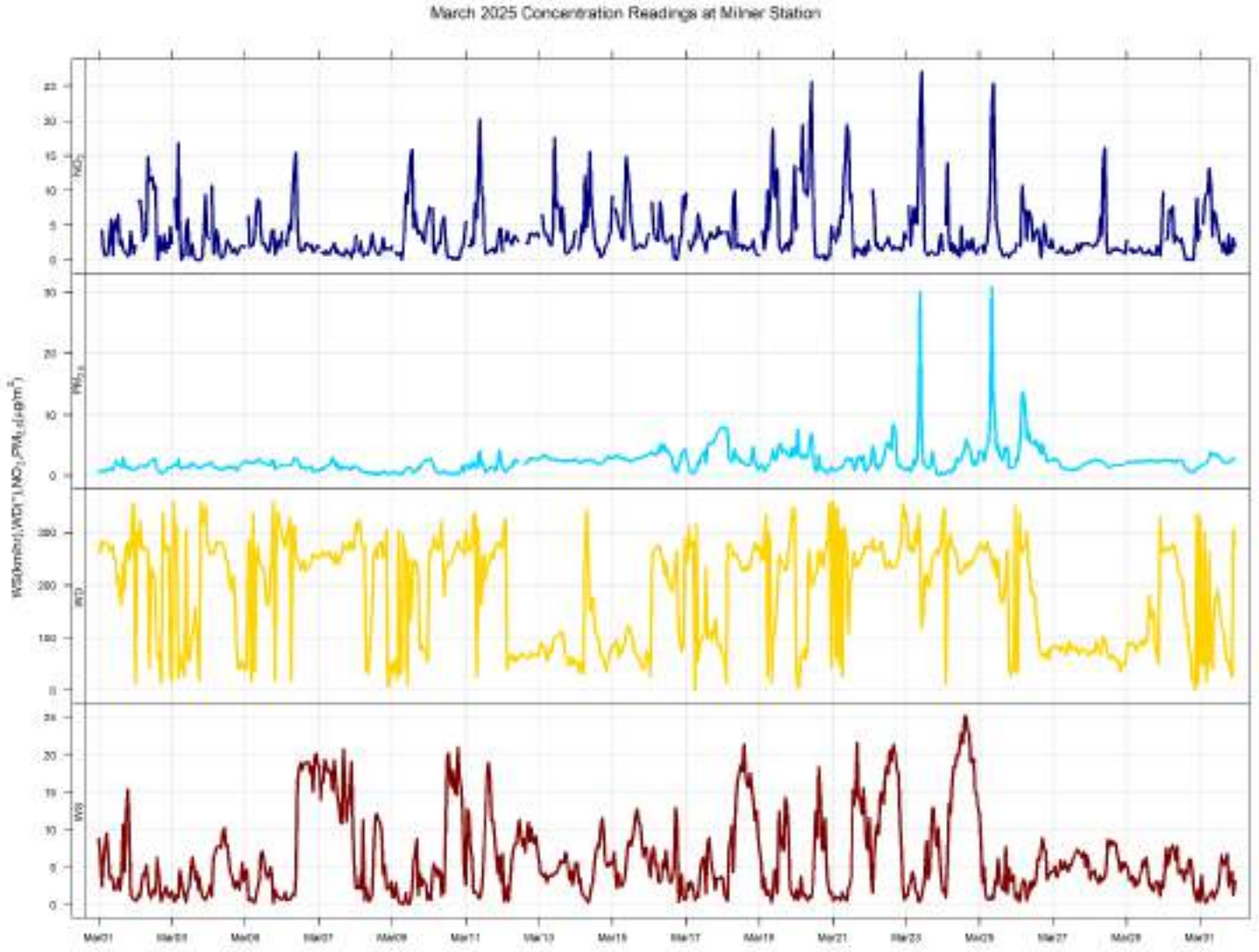


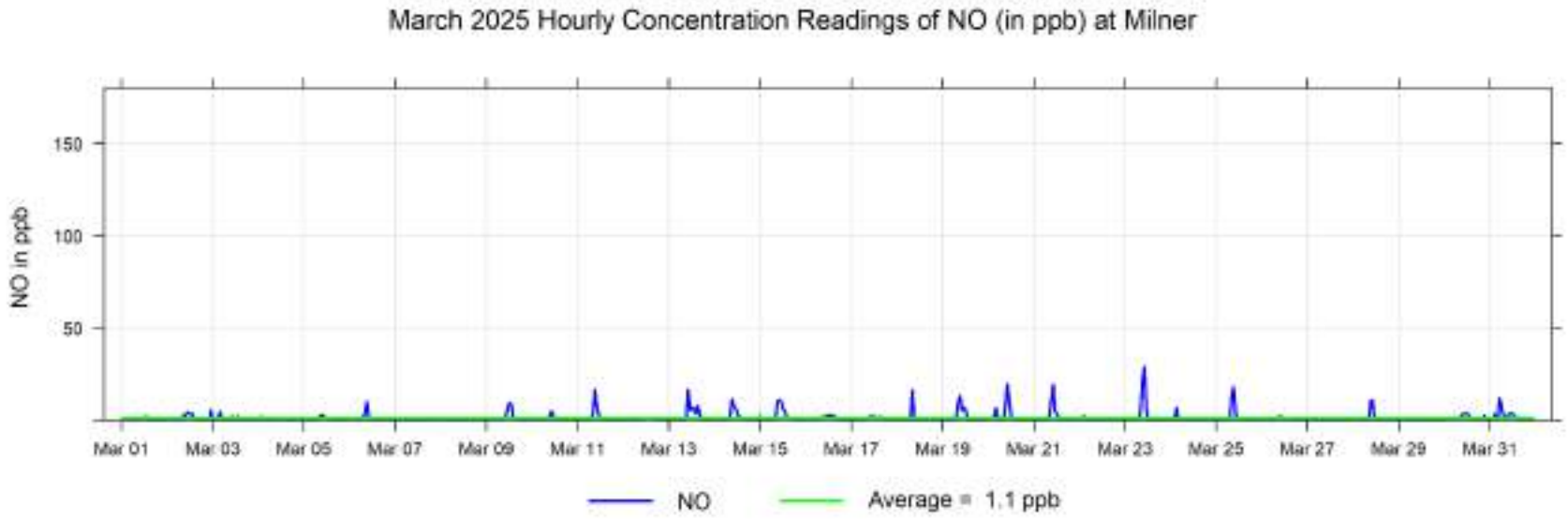
Happy Valley March 2025 Wind Rose, wind speed in km/hr

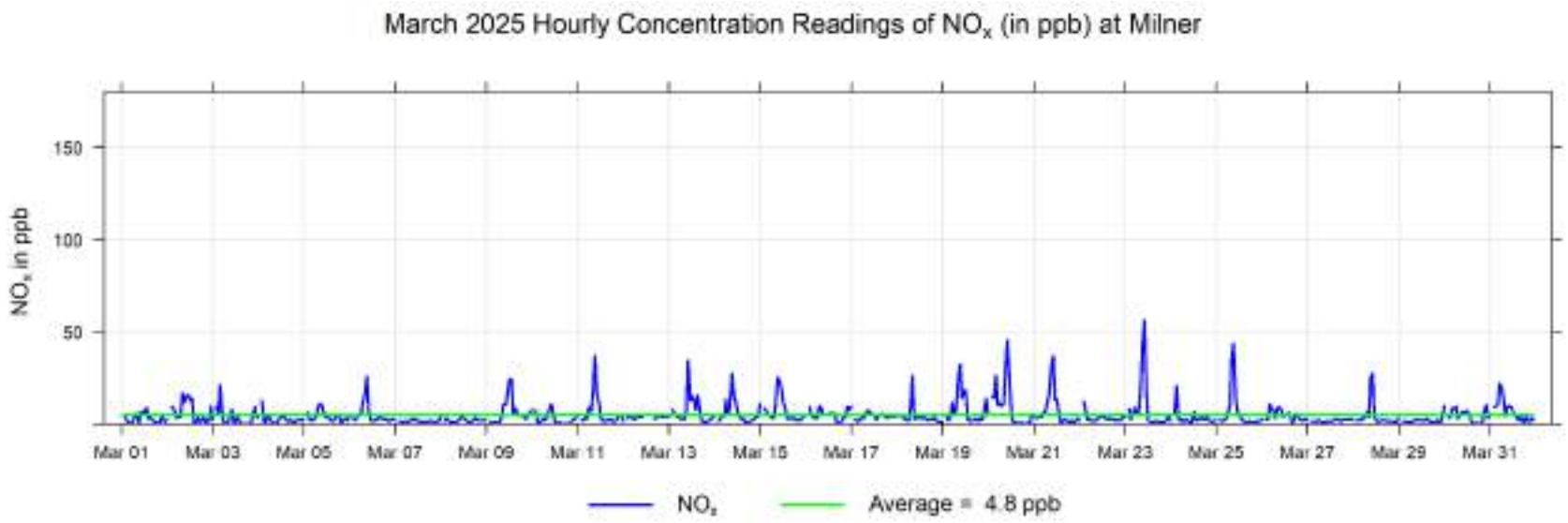
Calms (<1km/hr) = 1.6 %

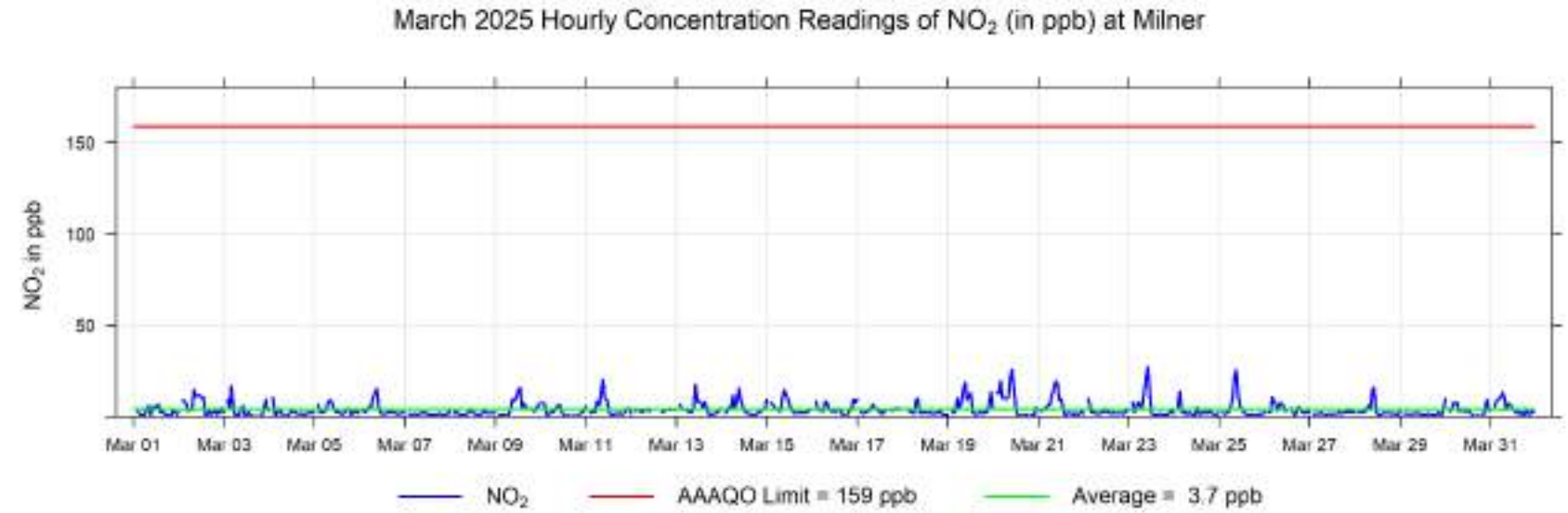
9 Milner Charts

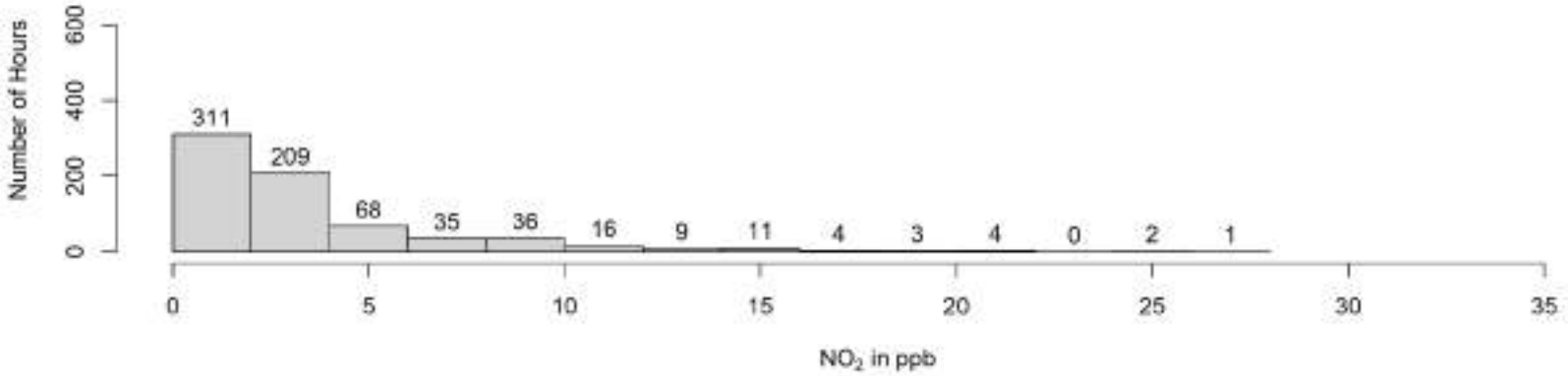
The following pages include the charts and histograms for Milner Station

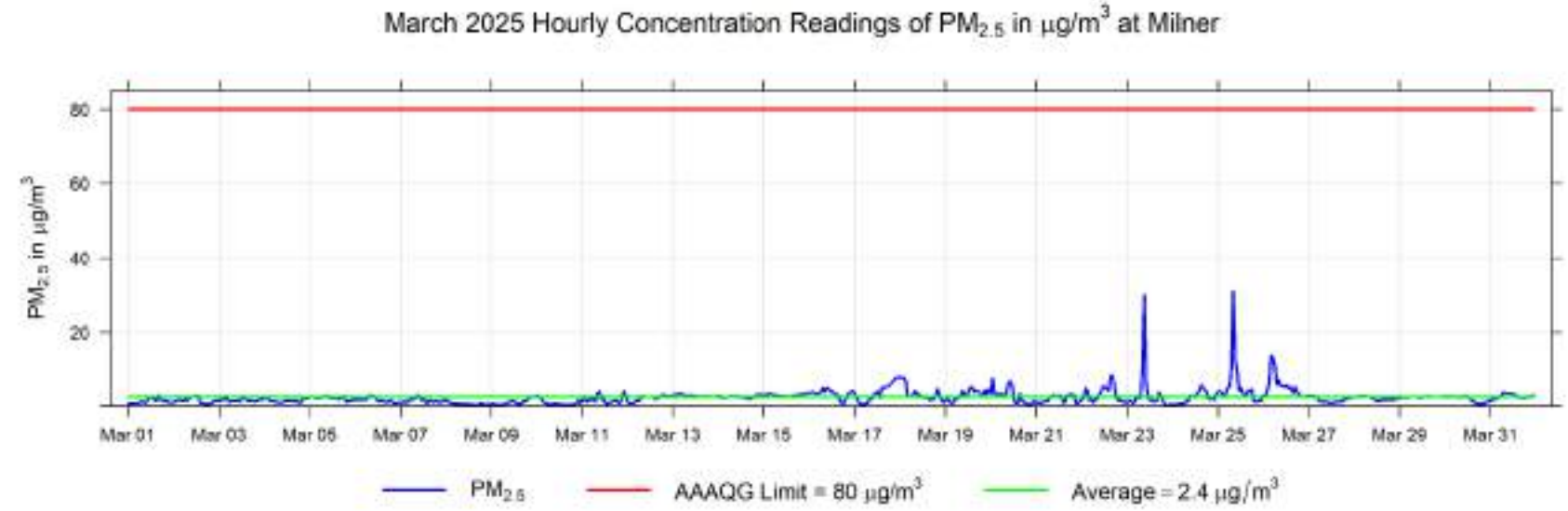


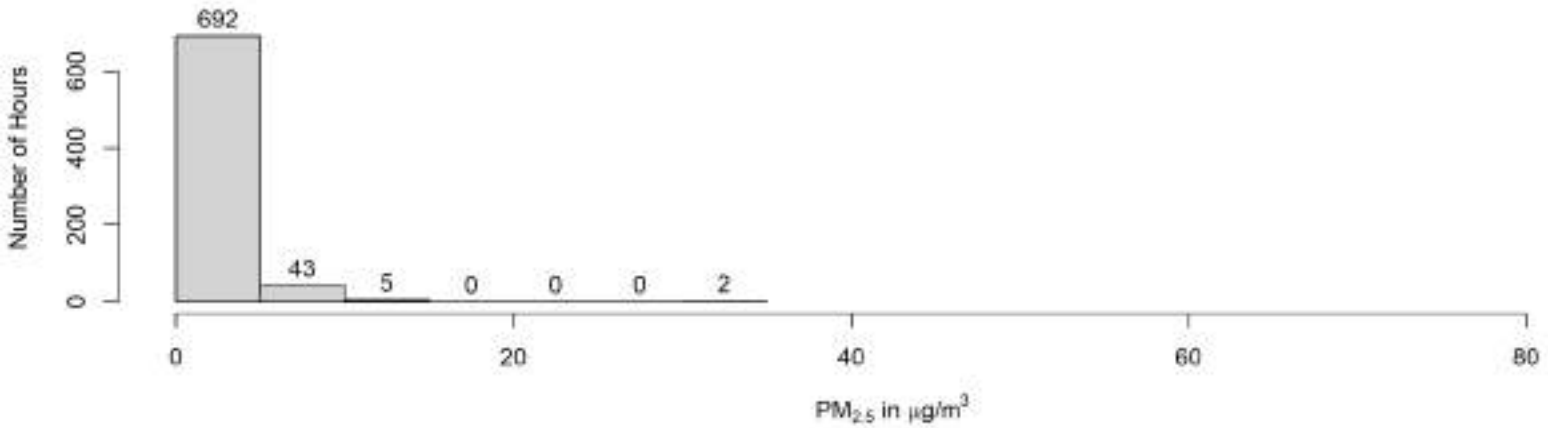

March 2025 Hourly Concentration Readings of NO (in ppb) at Milner
NO in ppb
150
100
50
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
NO
Average = 1.1 ppb

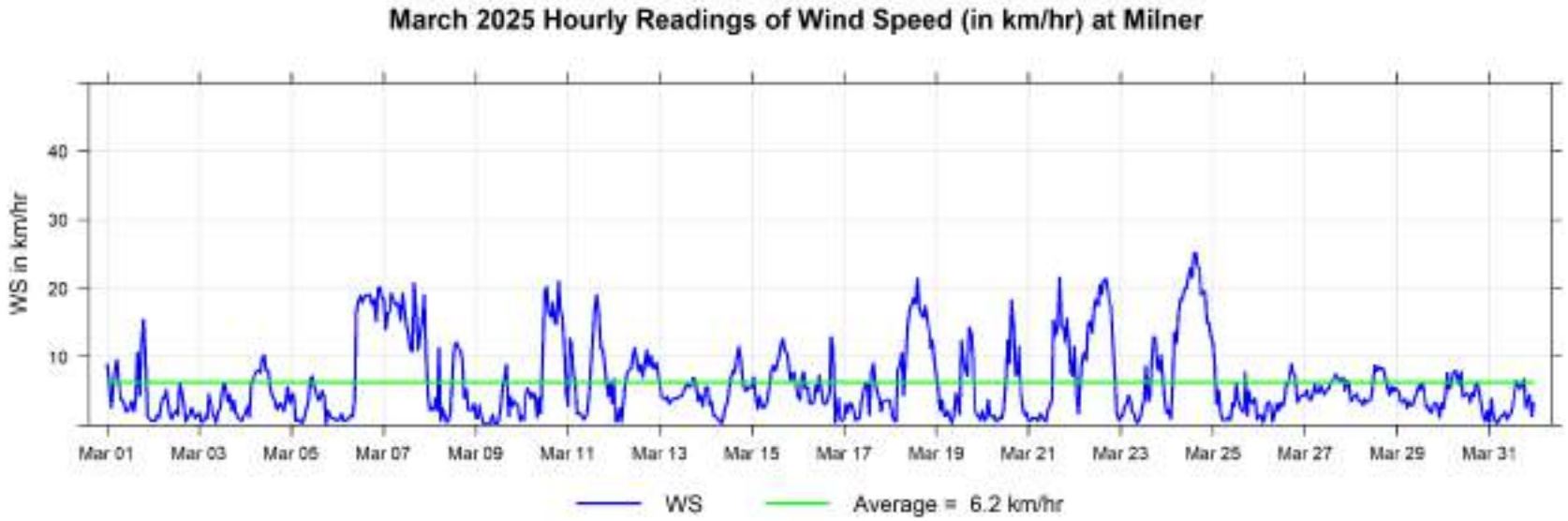

March 2025 Hourly Concentration Readings of NOx (in ppb) at Milner
NOx in ppb
150
100
50
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
NOx
Average = 4.8 ppb

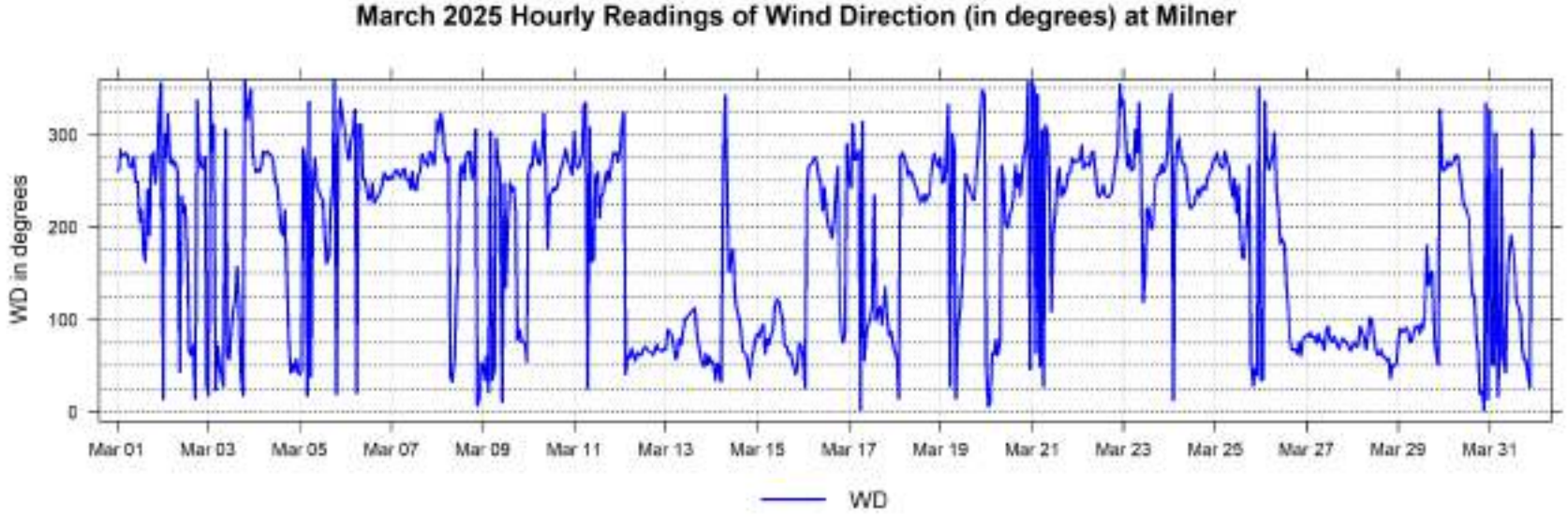

March 2025 Hourly Concentration Readings of NO_2 (in ppb) at Milner
NO_2 in ppb
150
100
50
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
NO_2
AAAQO Limit = 159 ppb
Average = 3.7 ppb

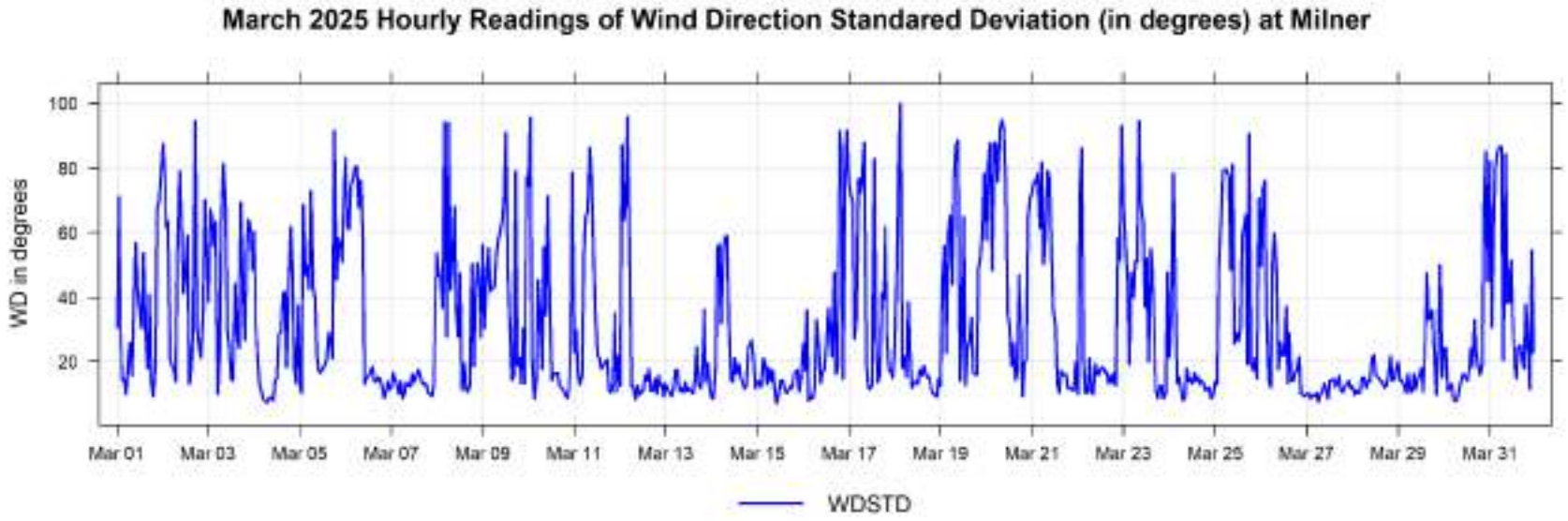

Number of Hours
0
200
400
600
311
209
68
35
36
16
9
11
4
3
4
0
2
1
0
5
10
15
20
25
30
35
NO_2 in ppb


March 2025 Hourly Concentration Readings of PM2.5 in µg/m3 at Milner
PM2.5 in µg/m3
80
60
40
20
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
PM2.5
AAAQG Limit = 80 µg/m3
Average = 2.4 µg/m3


Number of Hours
0
200
400
600
692
43
5
0
0
0
2
0
20
40
60
80
PM2.5 in µg/m3


March 2025 Hourly Readings of Wind Speed (in km/hr) at Milner
WS in km/hr
40
30
20
10
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
WS
Average = 6.2 km/hr

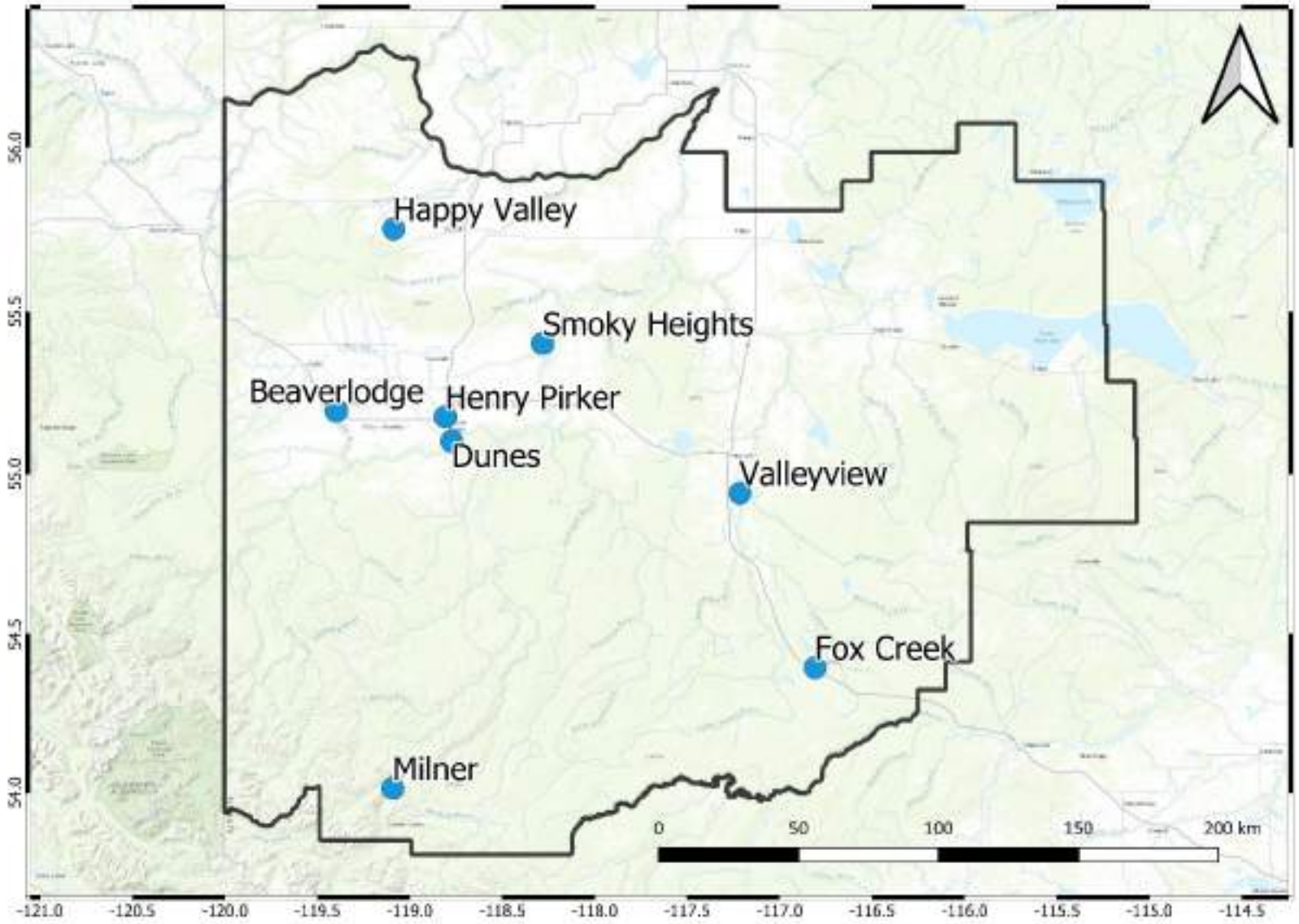

March 2025 Hourly Readings of Wind Direction (in degrees) at Milner
WD in degrees
300
200
100
0
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
WD


March 2025 Hourly Readings of Wind Direction Standared Deviation (in degrees) at Milner
WD in degrees
100
80
60
40
20
Mar 01
Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
Mar 15
Mar 17
Mar 19
Mar 21
Mar 23
Mar 25
Mar 27
Mar 29
Mar 31
WDSTD

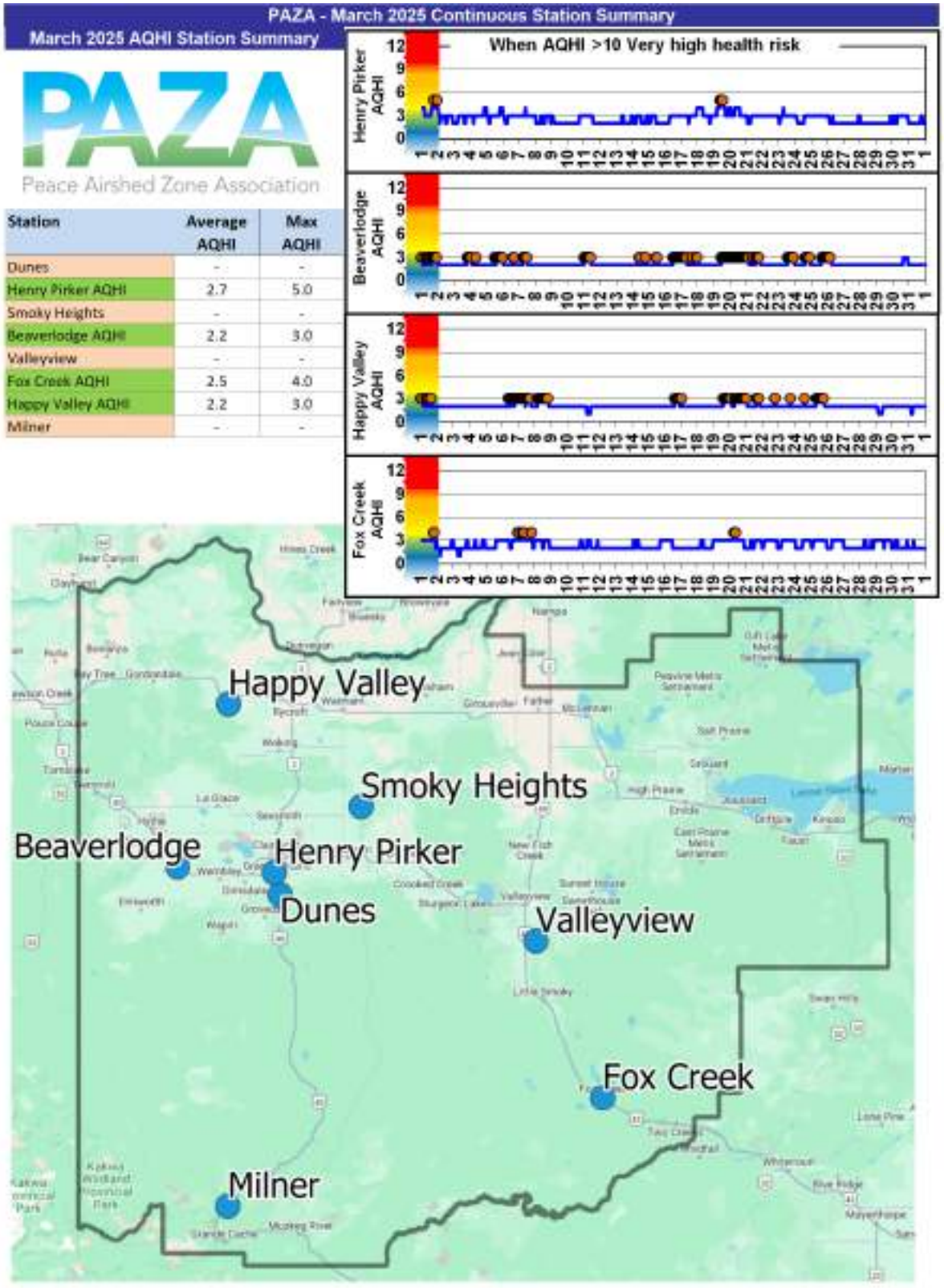
Milner March 2025 Wind Rose, wind speed in km/hr

Calms (<1km/hr) = 12.2 %

10 Concentration Summaries and Roses for PAZA

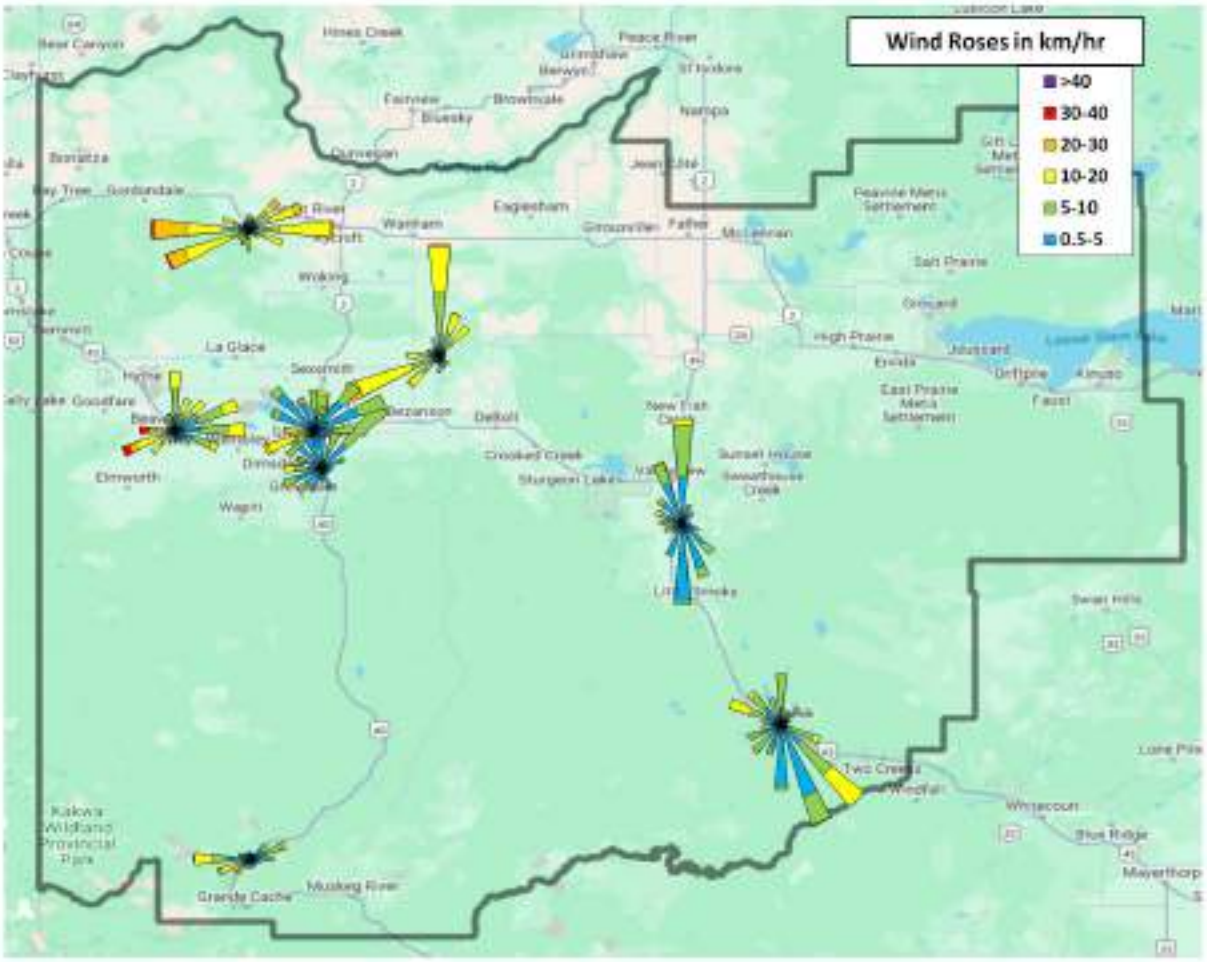


10.1 Air Quality Health Index (AQHI) Plots



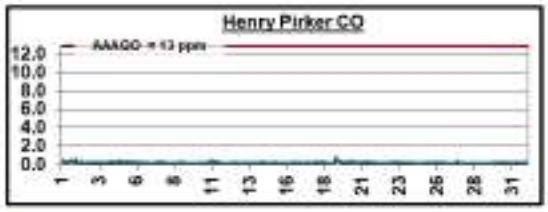
Station	Average AQHI	Max AQHI
Dunes	-	-
Henry Pirker AQHI	2.7	5.0
Smoky Heights	-	-
Beaverlodge AQHI	2.2	3.0
Valleyview	-	-
Fox Creek AQHI	2.5	4.0
Happy Valley AQHI	2.2	3.0
Milner	-	-

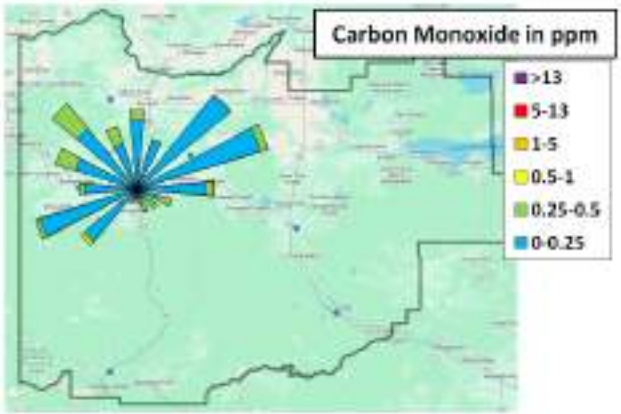
10.2 Wind Roses



10.3 Carbon Monoxide (CO) Plots

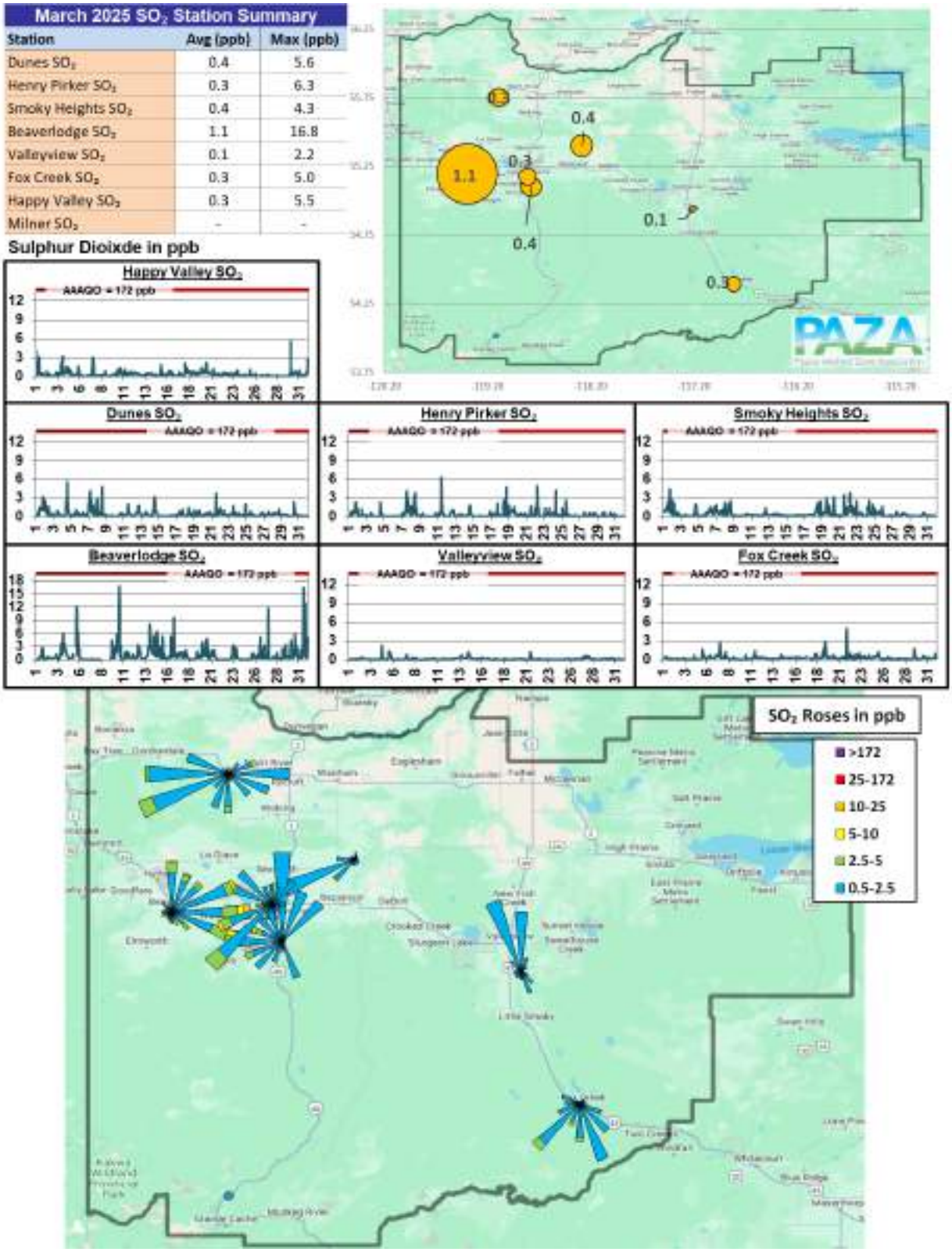
March 2025 CO Station Summary		
Station	Avg (ppm)	Max (ppm)
Henry Pirker CO	0.20	0.78





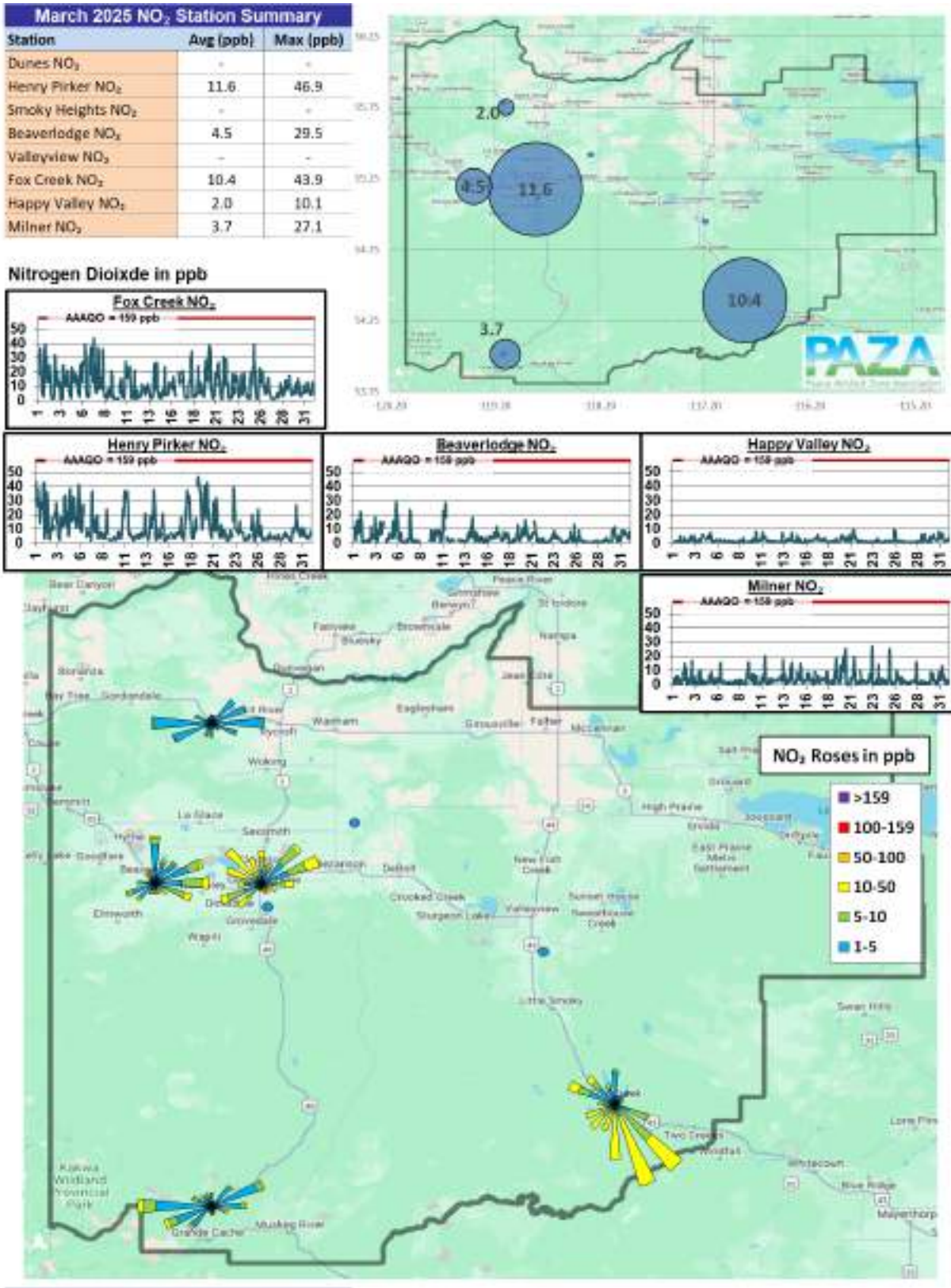
10.4 Sulphur Dioxide (SO_2) Plots

March 2025 SO_2 Station Summary		
Station	Avg (ppb)	Max (ppb)
Dunes SO_2	0.4	5.6
Henry Pirker SO_2	0.3	6.3
Smoky Heights SO_2	0.4	4.3
Beaverlodge SO_2	1.1	16.8
Valleyview SO_2	0.1	2.2
Fox Creek SO_2	0.3	5.0
Happy Valley SO_2	0.3	5.5
Milner SO_2	-	-



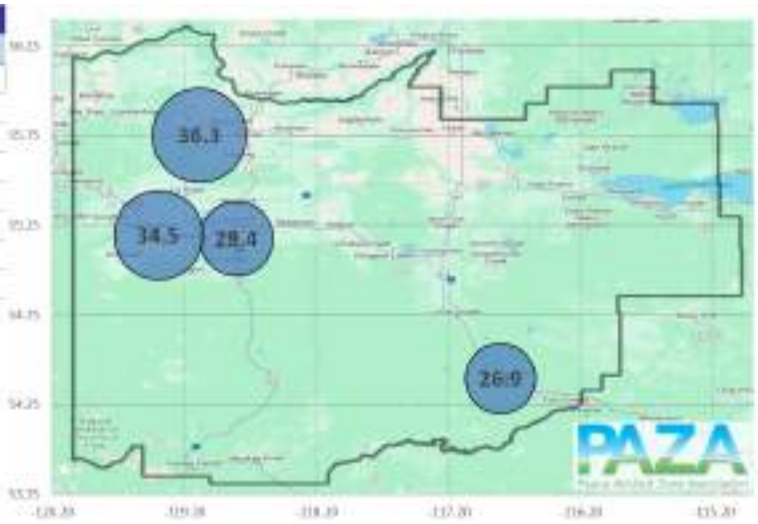
10.5 Nitrogen Dioxide (NO_2) Plots

March 2025 NO_2 Station Summary		
Station	Avg (ppb)	Max (ppb)
Dunes NO_2	-	-
Henry Pirker NO_2	11.6	46.9
Smoky Heights NO_2	-	-
Beaverlodge NO_2	4.5	29.5
Valleyview NO_2	-	-
Fox Creek NO_2	10.4	43.9
Happy Valley NO_2	2.0	10.1
Milner NO_2	3.7	27.1

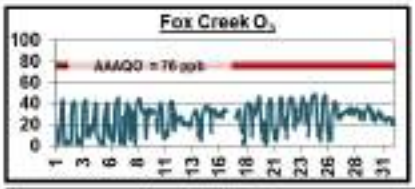


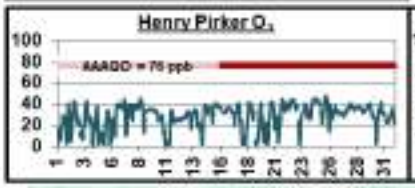
10.6 Ozone (O_3) Plots

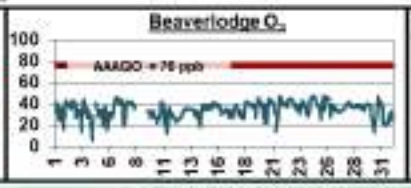
March 2025 O_3 Station Summary		
Station	Avg (ppb)	Max (ppb)
Dunes O_3	-	-
Henry Pirker O_3	28.4	48.2
Smoky Heights O_3	-	-
Beaverlodge O_3	34.5	47.9
Valleyview O_3	-	-
Fox Creek O_3	26.9	49.2
Happy Valley O_3	36.3	50.3
Milner O_3	-	-

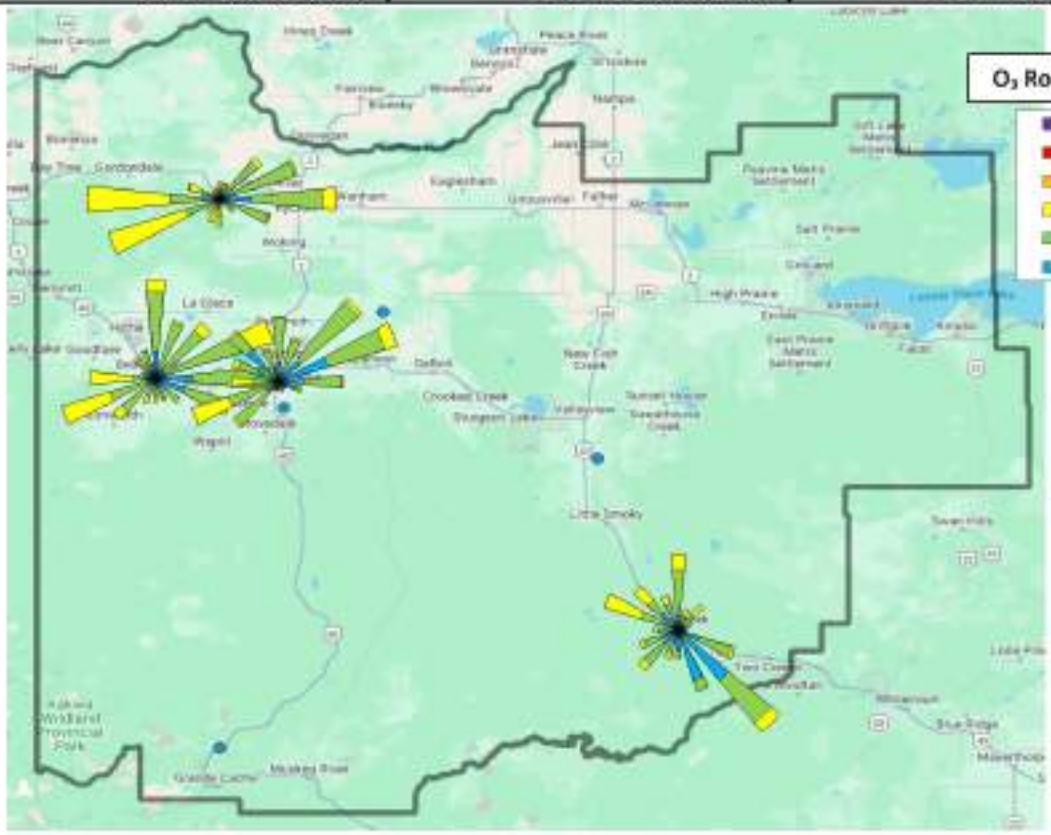


Ozone in ppb

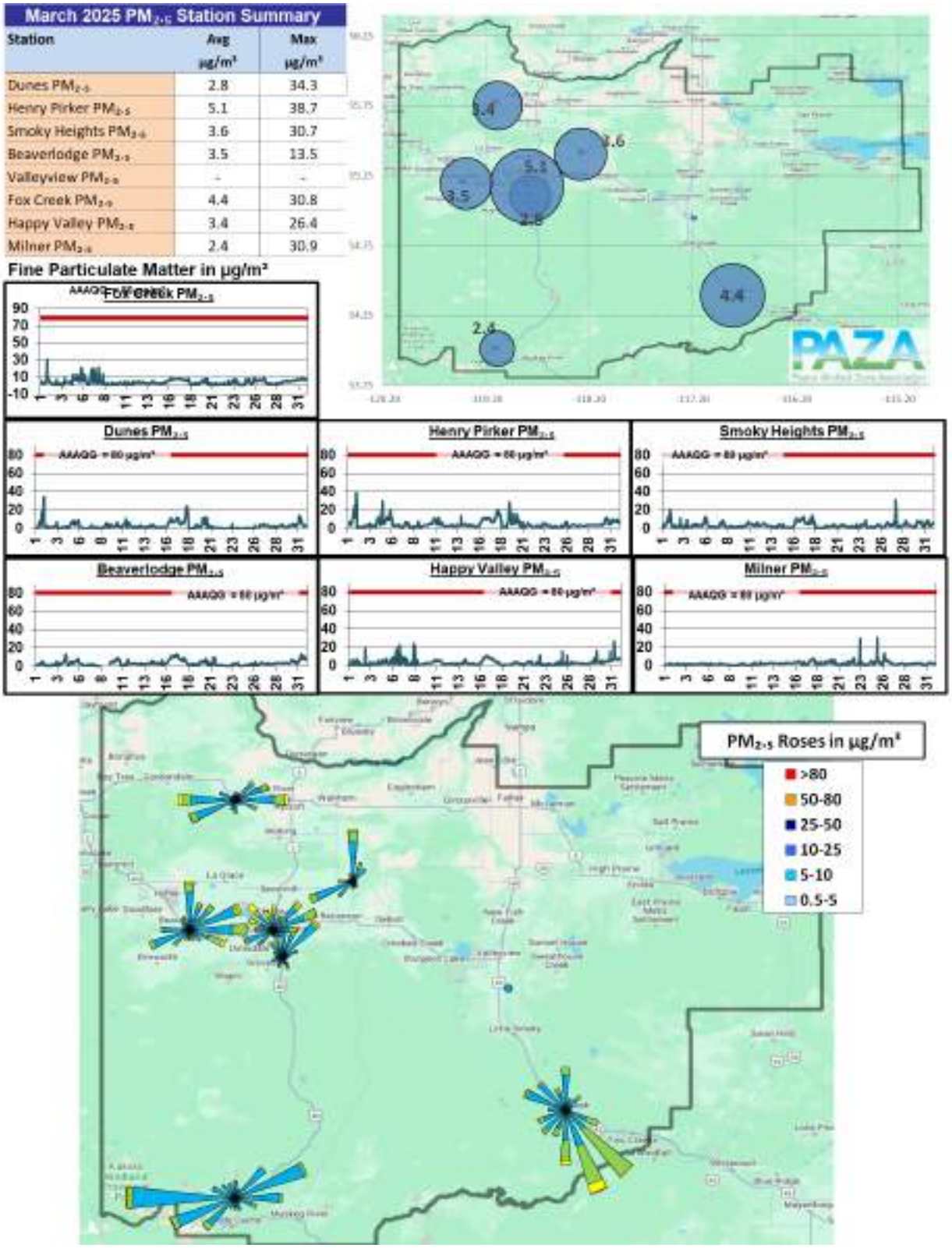






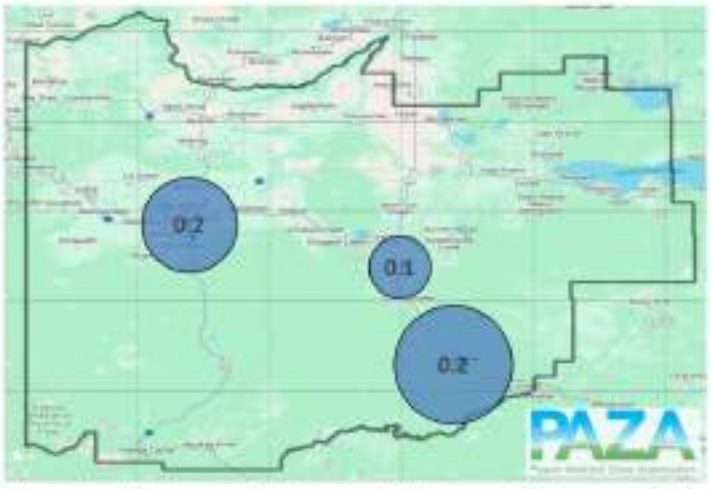


10.7 Fine Particulate Matter ($PM_{2.5}$) Plots

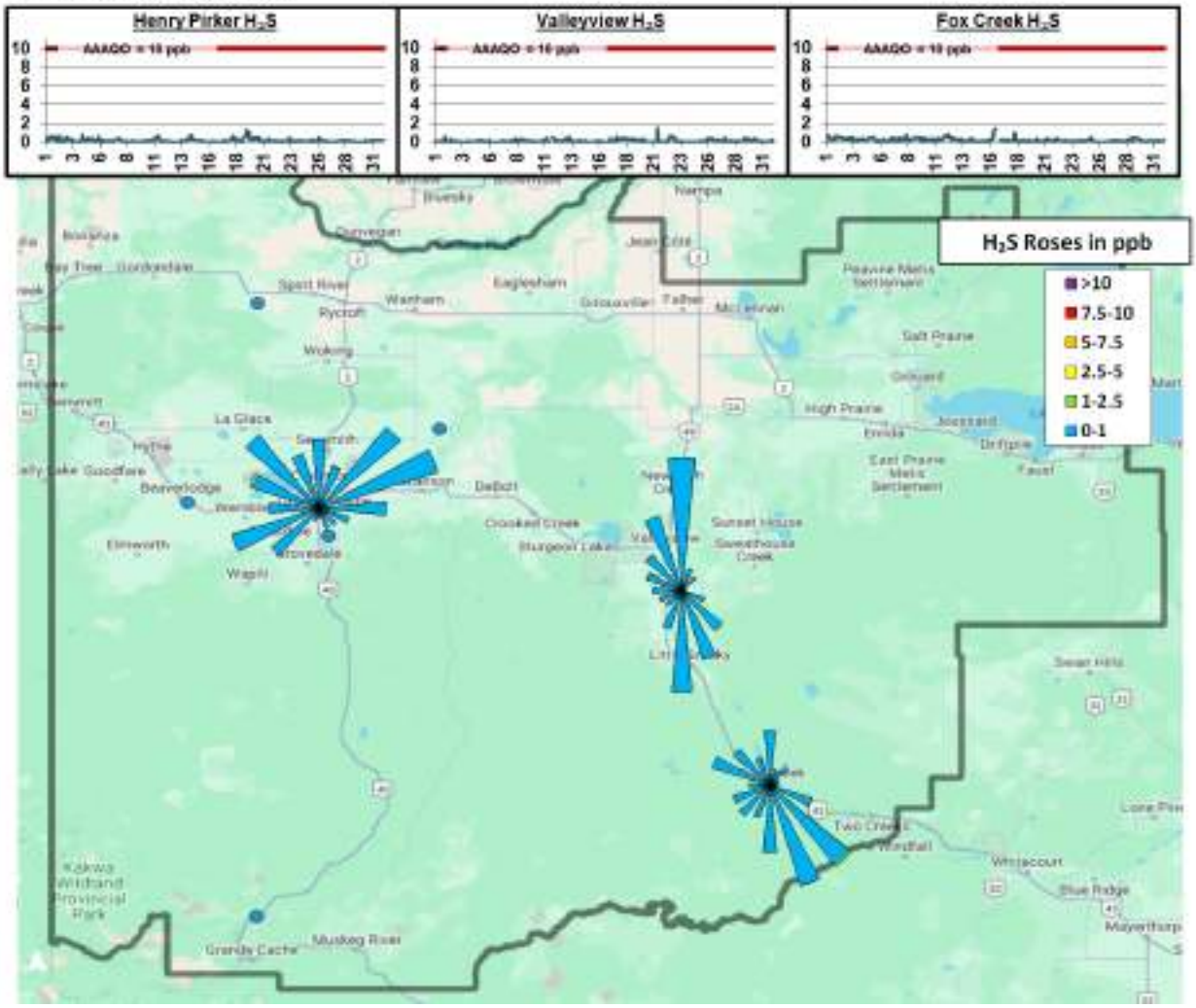


10.8 Hydrogen Sulphide (H_2S) Plots

March 2025 H_2S Station Summary		
Station	Avg (ppb)	Max (ppb)
Dunes H_2S	-	-
Henry Pirker H_2S	0.2	1.3
Smoky Heights H_2S	-	-
Beaverlodge H_2S	-	-
Valleyview H_2S	0.1	1.5
Fox Creek H_2S	0.2	1.4
Happy Valley H_2S	-	-
Milner H_2S	-	-

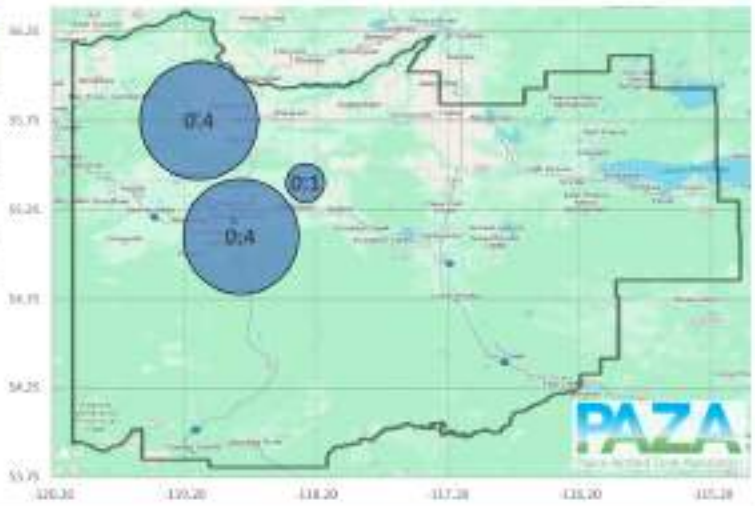


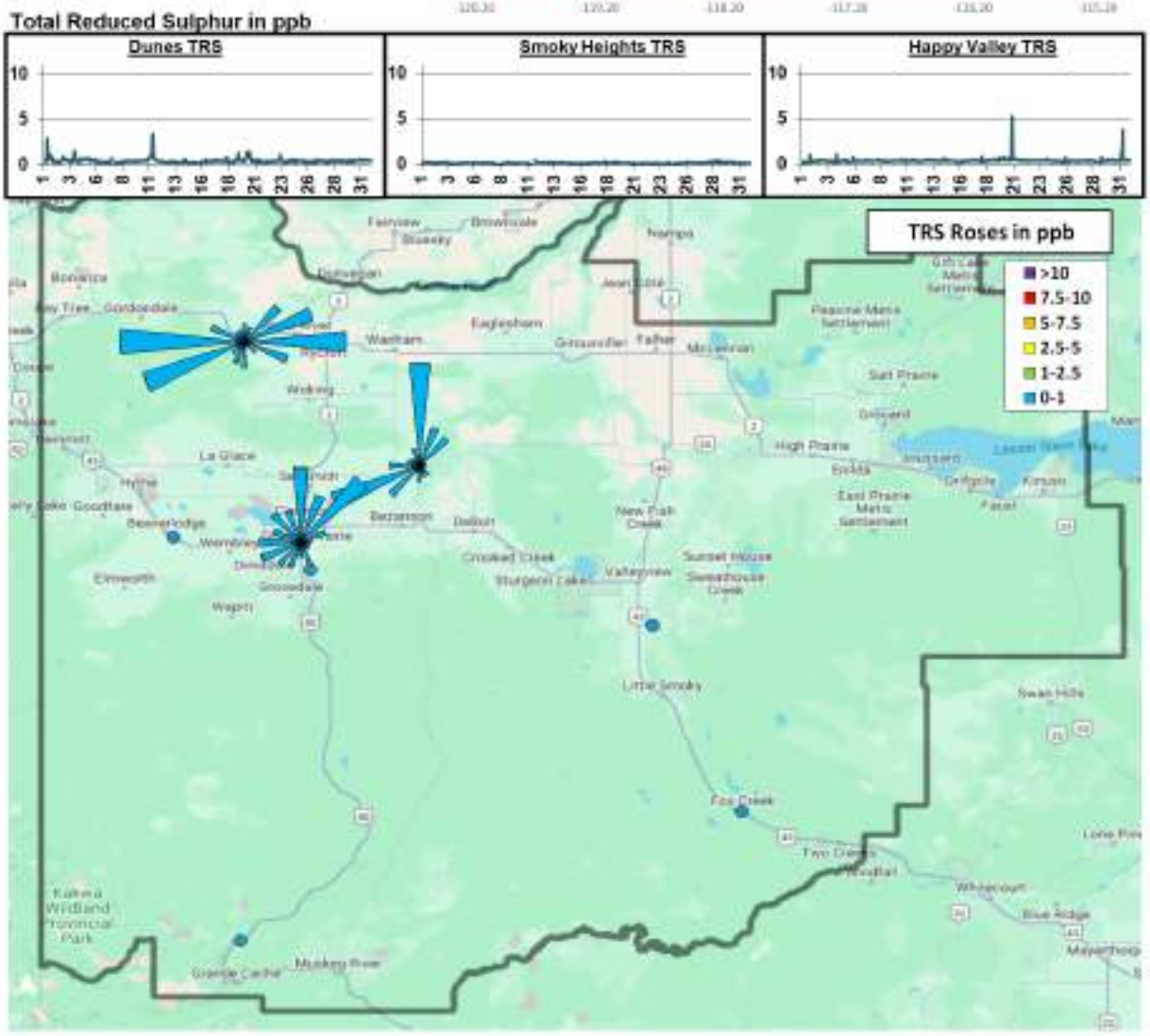
Hydrogen Sulphide in ppb



10.9 Total Reduced Sulphur (TRS) Plots

March 2025 TRS Station Summary		
Station	Avg (ppb)	Max (ppb)
Dunes TRS	0.4	3.3
Henry Pirker TRS	-	-
Smoky Heights TRS	0.1	0.5
Beaverlodge TRS	-	-
Valleyview TRS	-	-
Fox Creek TRS	-	-
Happy Valley TRS	0.4	5.3
Milner TRS	-	-

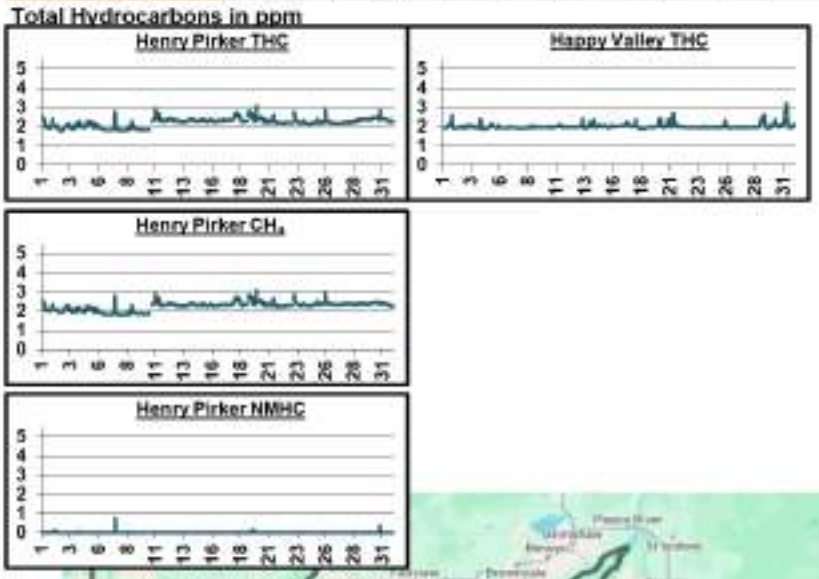




10.10 Total Hydrocarbon (THC) Plots

March 2025 THC Station Summary

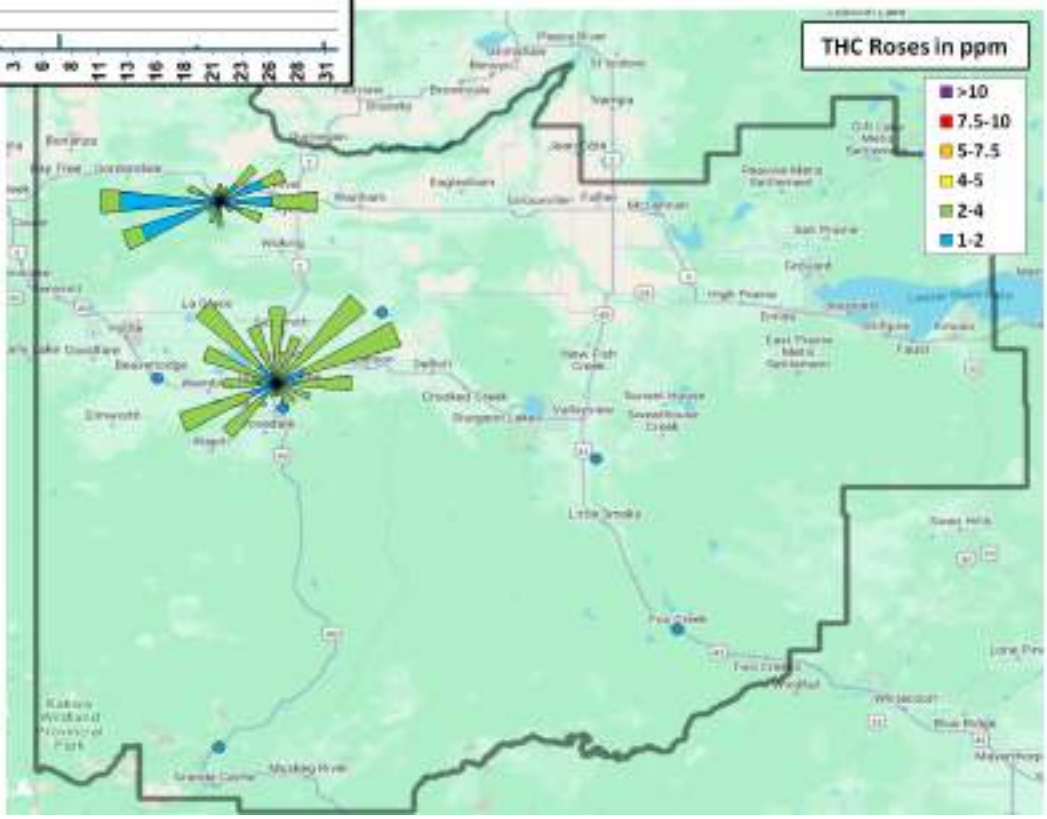
Station	Total Hydrocarbons		Methane		Non-Methane HCs	
	Avg (ppm)	Max (ppm)	Avg (ppm)	Max (ppm)	Avg (ppm)	Max (ppm)
Dunes THC	-	-	-	-	-	-
Henry Pirker THC	2.2	3.1	2.3	3.1	0.00	0.78
Smoky Heights THC	-	-	-	-	-	-
Beaverlodge THC	-	-	-	-	-	-
Valleyview THC	-	-	-	-	-	-
Fox Creek THC	-	-	-	-	-	-
Happy Valley THC	2.0	3.2	-	-	-	-



Total Hydrocarbons (THC)

Methane (CH_4)

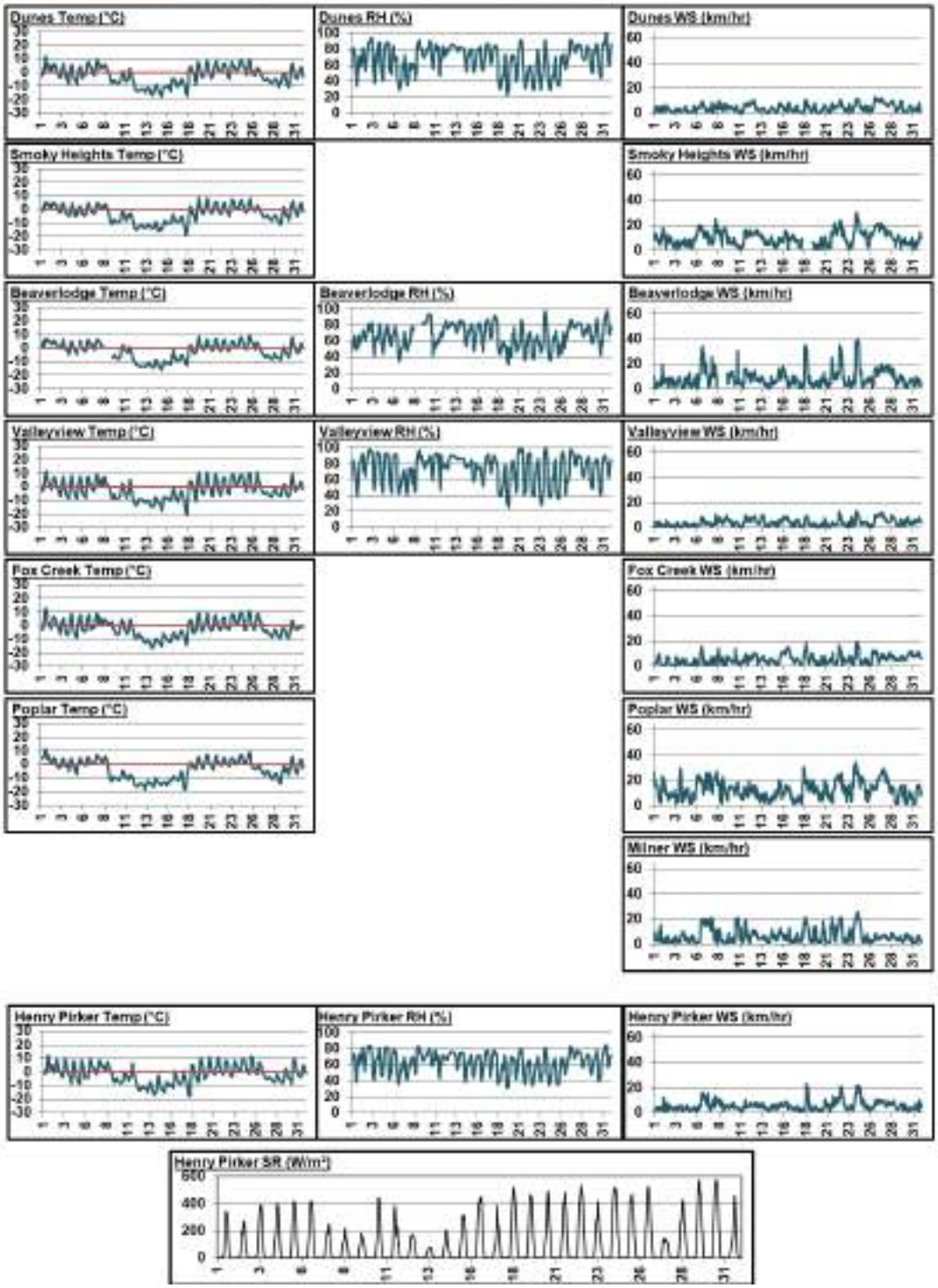
Non-Methane Hydrocarbons (NMHC)



10.11 Meteorology Summary

March 2025 Meterological Summary						
Station	Temp (°C)	RH (%)	SR (W/m²)	WS (km/hr)	WD (deg)	WD
Dunes	-2.4	66.6	-	4.1	358	N
Henry Pirker	-1.7	62.7	97.3	5.5	314	NW
Smoky Heights	-3.1	-	-	9.7	310	NW
Beaverlodge	-2.1	66.5	-	8.9	346	NNW
Valleyview	-2.3	73.0	-	3.9	333	NNW
Fox Creek	-1.9	-	-	5.5	170	WSW
Happy Valley	-3.5	-	-	12.1	246	WSW
Milner	-	-	-	6.2	252	WSW

Temp (°C) Outside Temperature
RH (%) Relative Humidity
SR (W/m²) Solar Radiation
WS (km/hr) Wind Speed
WD (deg) Wind Direction
WD Wind Direction



11 Passive Monitoring Data

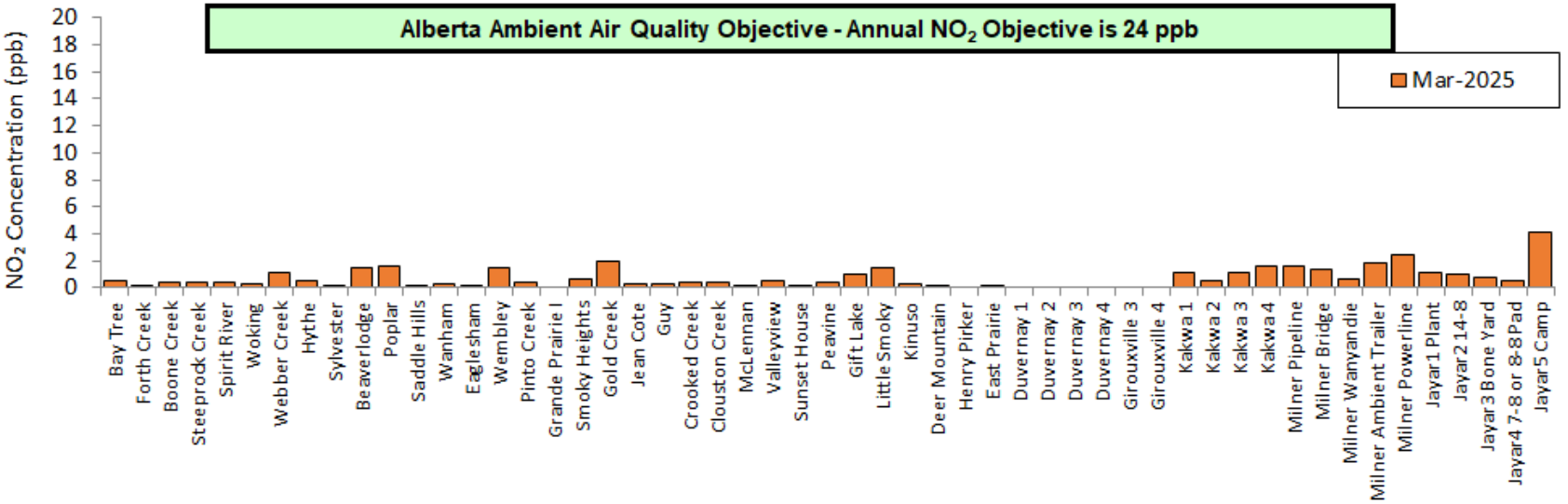
Peace Airshed Zone Association - PAZA Passive Stations for March 2025

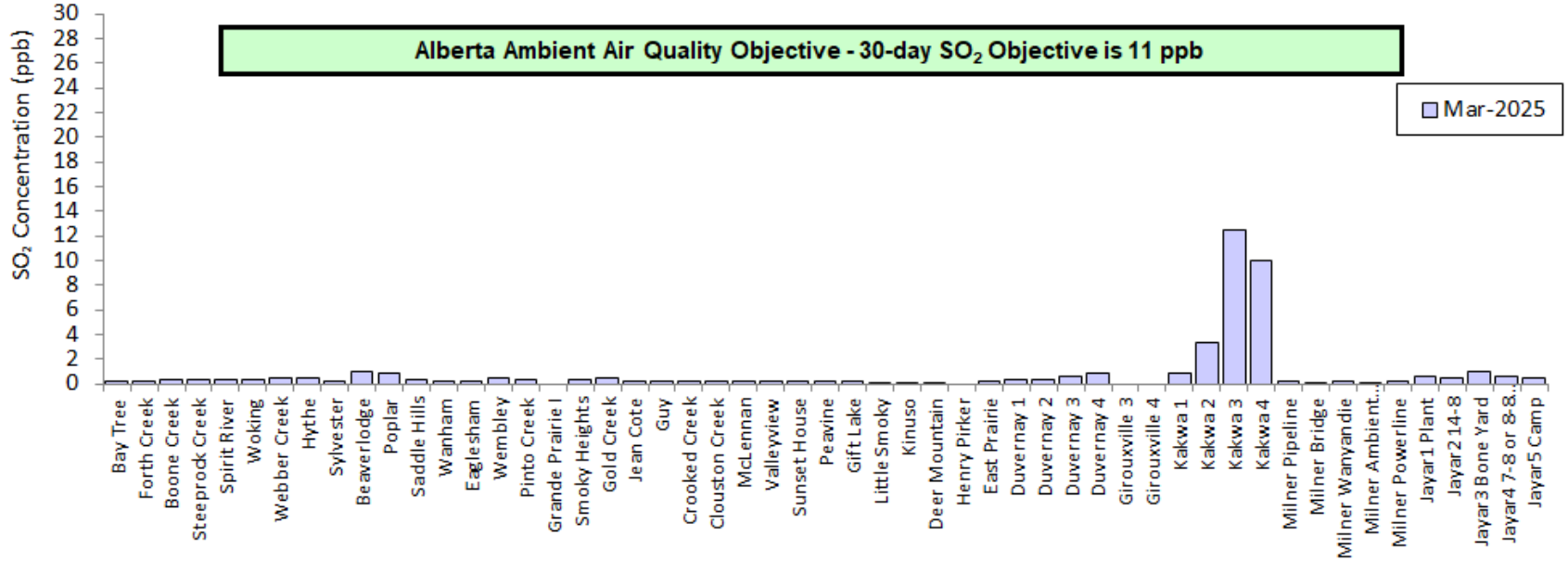
Station Number	Station Name	SO2 ppb	O3 ppb	NO2 ppb	H2S ppb	LSD
Duplicates						
3a	Forth Creek			**0.2**		04-13-082-07 W6M
3b	Forth Creek			**0.2**		
7a	Steeprock Creek	**0.3**				09-35-072-13 W6M
7b	Steeprock Creek	**0.4**				
10a	Woking	**0.3**				01-13-076-07 W6M
10b	Woking	**0.3**				
25a	Pinto Creek			**0.4**		04-24-069-11 W6M
25b	Pinto Creek			**0.4**		
35a	Jean Cote			**0.3**		12-35-079-21 W5M
35b	Jean Cote			**0.3**		
36a	Guy					03-04-076-22 W5M
36b	Guy					
40a	McLennan			**0.2**		03-29-077-19 W5M
40b	McLennan			**0.1**		
45a	Gift Lake	**0.2**				10-07-079-12 W5M
45b	Gift Lake	**0.2**				
46a	Little Smoky	**0.1**				12-01-065-21 W5M
46b	Little Smoky	**0.1**				
47a	Kinuso		**47.2**			12-10-073-10 W5M
47b	Kinuso		**41.9**			
D4a	Duvernay 4	**0.8**			**0.17**	04-33-062-20 W5M
D4b	Duvernay 4	**0.8**			**0.17**	
K4a	Kakwa 4			**1.3**		06-18-063-04 W6M
K4b	Kakwa 4			**1.9**		
K3a	Kakwa 3	**12.7**				12-18-063-04 W6M
K3b	Kakwa 3	**12.1**				
K1a	Kakwa 1				**0.07**	01-13-063-05 W6M
K1b	Kakwa 1				**0.07**	
M9Aa	Milner Pipeline			**1.7**		12-14-058-08 W6M
M9Ab	Milner Pipeline			**1.5**		
M10a	Milner Powerline	**0.1**				06-14-058-08 W6M
M10b	Milner Powerline	**0.2**				
J2Da	Jayar2 14-8			**1.0**		07-08-062-03 W6M
J2Db	Jayar2 14-8			**0.9**		
J5Da	Jayar5 Camp	**0.5**				11-08-062-03 W6M
J5Db	Jayar5 Camp	**0.5**				
J1Da	Jayar1 Plant				**0.14**	06-08-062-03 W6M
J1Db	Jayar1 Plant				**0.18**	

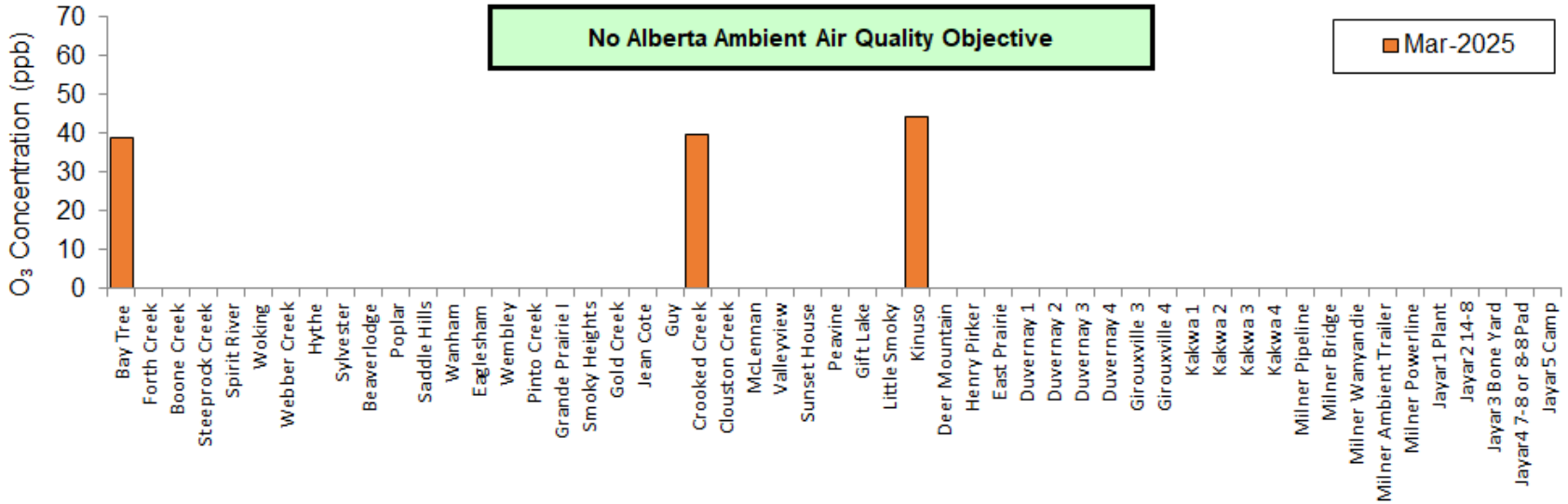
Station Number	Station Name	SO2 ppb	O3 ppb	NO2 ppb	H2S ppb	LSD
1	Silver Valley	0.2	-	0.5	-	08-27-081-11 W6M
2	Bay Tree	0.3	39.0	0.5	-	13-16-078-13 W6M
3	Forth Creek	0.2	-	0.2	-	04-13-082-07 W6M
5	Boone Creek	0.4	-	0.4	-	01-23-076-11 W6M
7	Steeprock Creek	0.3	-	0.3	-	09-35-072-13 W6M
9	Spirit River	0.3	-	0.5	-	08-12-079-07 W6M
10	Woking	0.3	-	0.3	-	01-13-076-07 W6M
11	Webber Creek	0.4	-	1.1	-	09-36-074-09 W6M
12	Hythe	0.5	-	0.5	-	14-36-072-11 W6M
14	Sylvester	0.2	-	0.2	-	08-06-069-12 W6M
16	Beaverlodge	1.0	-	1.5	-	15-36-071-10 W6M
17	Poplar	0.8	-	1.6	-	13-06-073-08 W6M
18	Saddle Hills	0.4	-	0.1	-	04-25-074-07 W6M
19	Wanham	0.3	-	0.3	-	16-22-077-03 W6M
21	Eaglesham	0.2	-	0.2	-	16-21-079-25 W5M
24	Wembley	0.5	-	1.5	-	12-31-070-08 W6M
25	Pinto Creek	0.3	-	0.4	-	04-24-069-11 W6M
27	Grande Prairie I	-	-	-	-	08-15-071-06 W6M
29	Smoky Heights	0.4	-	0.7	-	04-06-075-02 W6M
32	Gold Creek	0.4	-	2.0	-	06-33-067-05 W6M
35	Jean Cote	0.2	-	0.3	-	12-35-079-21 W5M
36	Guy	0.2	-	0.3	0.1	03-04-076-22 W5M
37	Crooked Creek	0.2	39.7	0.4	-	16-01-071-26 W5M
39	Clouston Creek	0.2	-	0.4	-	12-01-073-22 W5M
40	McLennan	0.2	-	0.1	-	03-29-077-19 W5M
41	Valleyview	0.2	-	0.5	-	09-30-069-22 W5M
42	Sunset House	0.2	-	0.2	-	05-32-070-19 W5M
44	Peavine	0.2	-	0.3	-	03-05-079-15 W5M
45	Gift Lake	0.2	-	1.0	-	10-07-079-12 W5M
46	Little Smoky	0.1	-	1.5	-	12-01-065-21 W5M
47	Kinuso	0.1	44.6	0.3	-	12-10-073-10 W5M
48	Deer Mountain	0.1	-	0.2	-	15-22-068-09 W5M
49	Henry Pirker	-	-	-	-	17-26-071-06 W6M
50	East Prairie	0.2	-	0.1	-	11-13-079-08 W6M
D1	Duvernay 1	0.4	-	-	0.09	04-33-062-20 W5M
D2	Duvernay 2	0.4	-	-	0.09	04-33-062-20 W5M
D3	Duvernay 3	0.7	-	-	0.12	04-33-062-20 W5M
D4	Duvernay 4	0.8	-	-	0.17	04-33-062-20 W5M
G3	Girouxville 3	-	-	-	0.34	14-02-077-23 W5M
G4	Girouxville 4	-	-	-	0.22	04-08-077-22 W5M
K1	Kakwa 1	0.9	-	1.1	0.07	01-13-063-05 W6M
K2	Kakwa 2	3.3	-	0.5	0.07	08-13-063-05 W6M
K3	Kakwa 3	12.4	-	1.1	0.41	12-18-063-04 W6M
K4	Kakwa 4	10.0	-	1.6	0.07	06-18-063-04 W6M
M1	Milner Pipeline	0.2	-	1.6	-	12-14-058-08 W6M
M2	Milner Bridge	0.1	-	1.3	-	08-06-057-08 W6M
M3	Milner Wanyandie	0.2	-	0.6	-	11-13-058-08 W6M
M4	Milner Ambient Trailer	0.1	-	1.8	-	09-15-058-08 W6M
M5	Milner Powerline	0.2	-	2.4	-	06-14-058-08 W6M
J1	Jayar1 Plant	0.6	-	1.1	0.16	06-08-062-03 W6M
J2	Jayar2 14-8	0.5	-	1.0	0.14	07-08-062-03 W6M
J3	Jayar3 Bone Yard	1.0	-	0.7	0.09	14-08-062-03 W6M
J4	Jayar4 7-8 or 8-8 Pad	0.6	-	0.5	0.06	10-08-062-03 W6M
J5	Jayar5 Camp	0.5	-	4.1	0.24	11-08-062-03 W6M

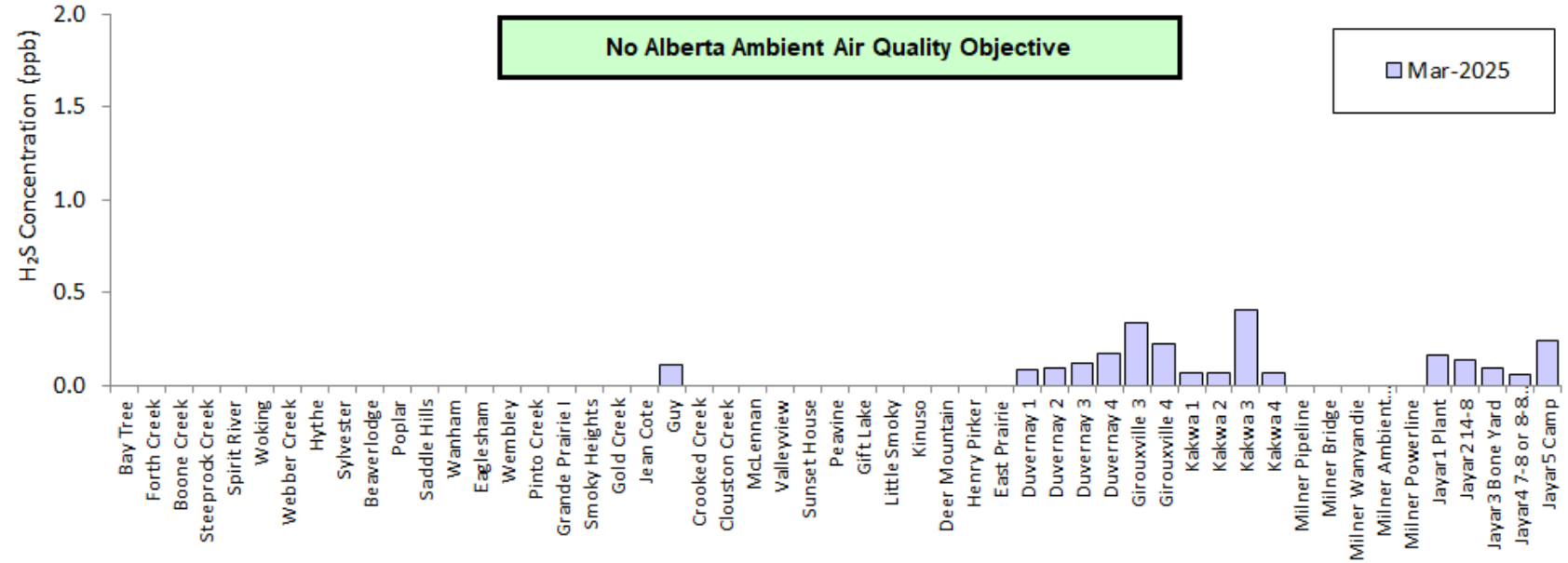
Passive Summary for March 2025

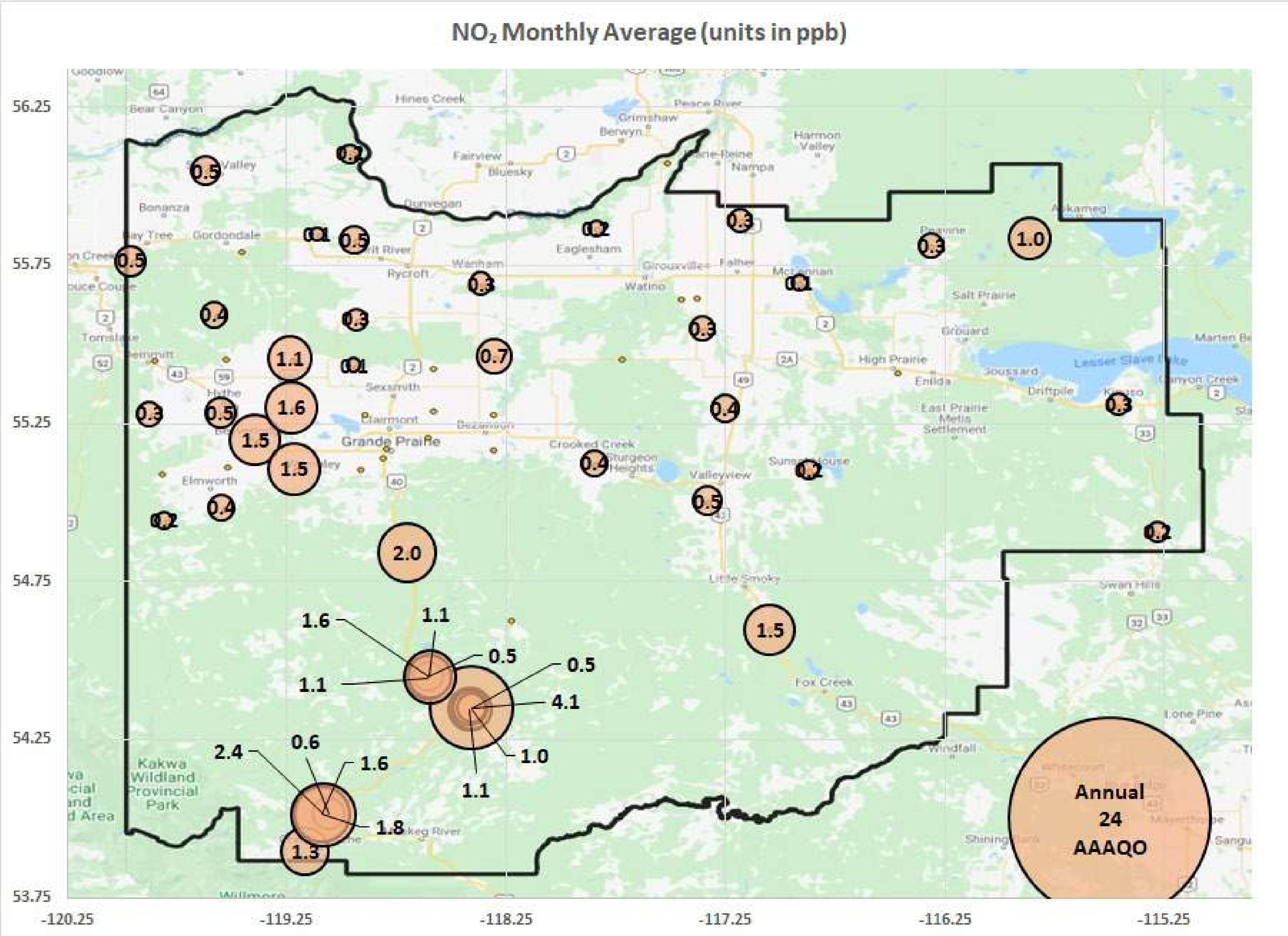
Stats	Sulphur Dioxide SO_2	Ozone O_3	Nitrogen Dioxide NO_2	Hydrogen Sulphide H_2S
	ppb	ppb	ppb	ppb
	Passive Summary for March 2025 (PAZA)			
Mean	0.8	41.1	0.8	0.2
Standard Deviation	2.2	3.0	0.8	0.1
Minimum	0.1 Milner Bridge (#M2)	39.0 Bay Tree (#2)	0.1 East Prairie (#50)	0.1 Jayar4 7-8 or 8-8 Pad
Maximum	12.4 Kakwa 3 (#K3)	44.6 Kinuso (#47)	4.1 Jayar5 Camp (#J5)	0.4 Kakwa 3 (#K3)
	Continuous and Passive Monitoring Comparision			
PAZA Beaverlodge Station	**1.1**	**34.5**	**4.5**	**-**
Beaverlodge Passive (#16)	**1.0**	**-**	**1.5**	**-**
PAZA Henry Pirker Station	**0.3**	**28.4**	**11.6**	**0.2**
Henry Pirker passive (#49)	**-**	**-**	**-**	**-**
Milner Station	**-**	**-**	**3.7**	**-**
Milner passive	**0.1**	**-**	**1.8**	**-**


Alberta Ambient Air Quality Objective - Annual NO2 Objective is 24 ppb
NO2 Concentration (ppb)
Mar-2025
0
2
4
6
8
10
12
14
16
18
20
Bay Tree
Forth Creek
Boone Creek
Steeprock Creek
Spirit River
Woking
Webber Creek
Hythe
Sylvester
Beaverlodge
Poplar
Saddle Hills
Wanham
Eaglesham
Wembley
Pinto Creek
Grande Prairie I
Smoky Heights
Gold Creek
Jean Cote
Guy
Crooked Creek
Clouston Creek
McLennan
Valleyview
Sunset House
Peavine
Gift Lake
Little Smoky
Kinuso
Deer Mountain
Henry Pirker
East Prairie
Duvernay 1
Duvernay 2
Duvernay 3
Duvernay 4
Girouxville 3
Girouxville 4
Kakwa 1
Kakwa 2
Kakwa 3
Kakwa 4
Milner Pipeline
Milner Bridge
Milner Wanyandie
Milner Ambient Trailer
Milner Powerline
Jayar1 Plant
Jayar2 14-8
Jayar3 Bone Yard
Jayar4 7-8 or 8-8Pad
Jayar5 Camp

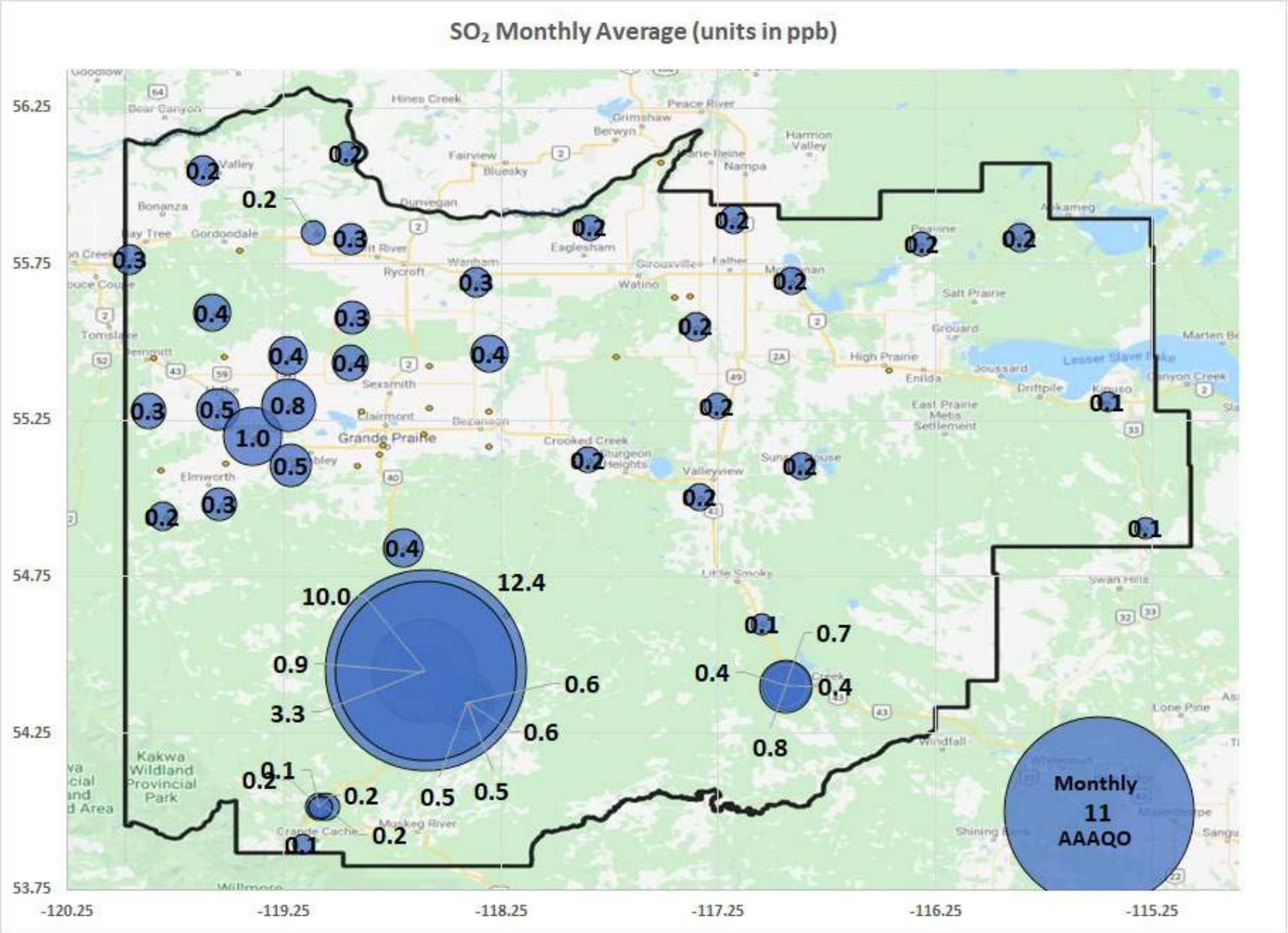

Alberta Ambient Air Quality Objective - 30-day SO2 Objective is 11 ppb
SO2 Concentration (ppb)
Mar-2025
0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
Bay Tree
Forth Creek
Boone Creek
Steeprock Creek
Spirit River
Woking
Webber Creek
Hythe
Sylvester
Beaverlodge
Poplar
Saddle Hills
Wanham
Eaglesham
Wembley
Pinto Creek
Grande Prairie I
Smoky Heights
Gold Creek
Jean Cote
Guy
Crooked Creek
Clouston Creek
McLennan
Valleyview
Sunset House
Peavine
Gift Lake
Little Smoky
Kinuso
Deer Mountain
Henry Pirker
East Prairie
Duvernay 1
Duvernay 2
Duvernay 3
Duvernay 4
Girouxville 3
Girouxville 4
Kakwa 1
Kakwa 2
Kakwa 3
Kakwa 4
Milner Pipeline
Milner Bridge
Milner Wanyandie
Milner Ambient...
Milner Powerline
Jayar1 Plant
Jayar2 14-8
Jayar3 Bone Yard
Jayar4 7-8 or 8-8...
Jayar5 Camp

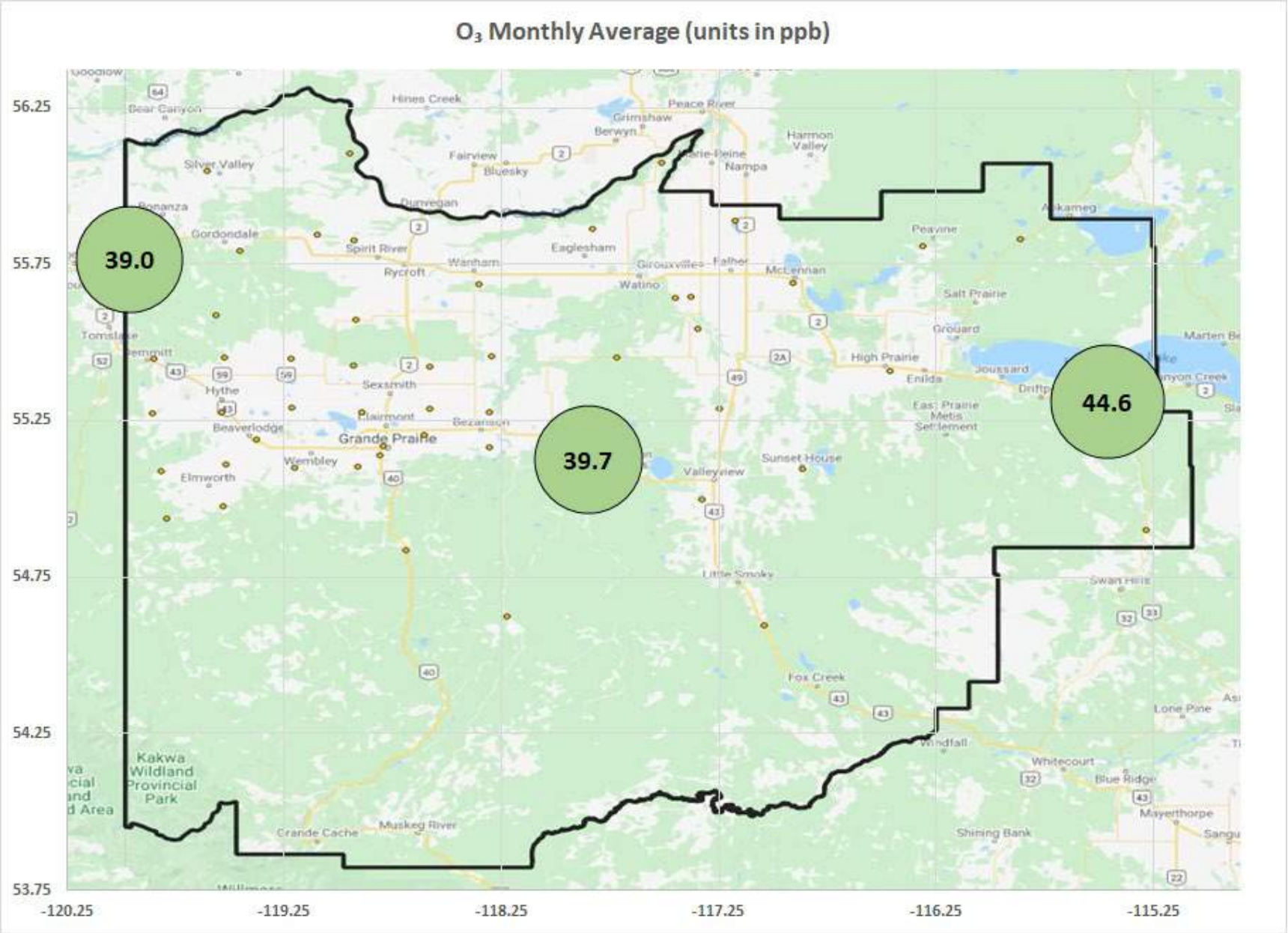

No Alberta Ambient Air Quality Objective
Mar-2025
O3 Concentration (ppb)
70
60
50
40
30
20
10
0
Bay Tree
Forth Creek
Boone Creek
Steeprock Creek
Spirit River
Woking
Webber Creek
Hythe
Sylvester
Beaverlodge
Poplar
Saddle Hills
Wanham
Eaglesham
Wembley
Pinto Creek
Grande Prairie I
Smoky Heights
Gold Creek
Jean Cote
Guy
Crooked Creek
Clouston Creek
McLennan
Valleyview
Sunset House
Peavine
Gift Lake
Little Smoky
Kinuso
Deer Mountain
Henry Pirker
East Prairie
Duvernay 1
Duvernay 2
Duvernay 3
Duvernay 4
Girouxville 3
Girouxville 4
Kakwa 1
Kakwa 2
Kakwa 3
Kakwa 4
Milner Pipeline
Milner Bridge
Milner Wanyandie
Milner Ambient Trailer
Milner Powerline
Jayar1 Plant
Jayar2 14-8
Jayar3 Bone Yard
Jayar4 7-8 or 8-8Pad
Jayar5 Camp

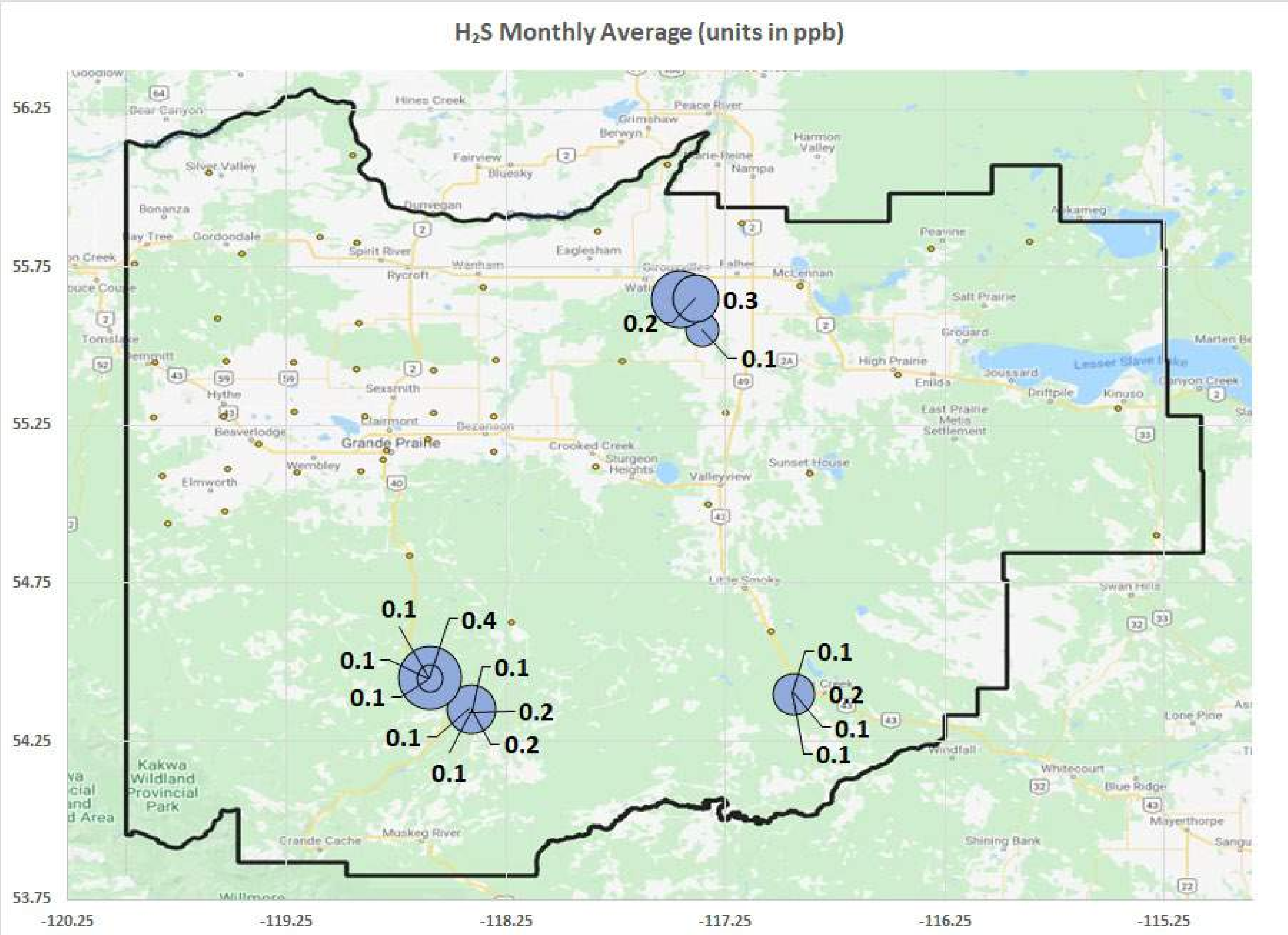

No Alberta Ambient Air Quality Objective
Mar-2025
H2S Concentration (ppb)
2.0
1.5
1.0
0.5
0.0
Bay Tree
Forth Creek
Boone Creek
Steeprock Creek
Spirit River
Woking
Webber Creek
Hythe
Sylvester
Beaverlodge
Poplar
Saddle Hills
Wanham
Eaglesham
Wembley
Pinto Creek
Grande Prairie I
Smoky Heights
Gold Creek
Jean Cote
Guy
Crooked Creek
Clouston Creek
McLennan
Valleyview
Sunset House
Peavine
Gift Lake
Little Smoky
Kinuso
Deer Mountain
Henry Pirker
East Prairie
Duvernay 1
Duvernay 2
Duvernay 3
Duvernay 4
Girouxville 3
Girouxville 4
Kakwa 1
Kakwa 2
Kakwa 3
Kakwa 4
Milner Pipeline
Milner Bridge
Milner Wanyandie
Milner Ambient...
Milner Powerline
Jayar1 Plant
Jayar2 14-8
Jayar3 Bone Yard
Jayar4 7-8 or 8-8...
Jayar5 Camp



NO₂ Monthly Average (units in ppb)
56.25
55.75
55.25
54.75
54.25
53.75
-120.25
-119.25
-118.25
-117.25
-116.25
-115.25
1.0
1.1
1.6
1.5
1.5
2.0
1.5
0.7
1.6
1.1
0.5
1.1
0.5
4.1
1.0
1.1
2.4
0.6
1.6
1.8
1.3
Annual
24
AAAQO


SO2 Monthly Average (units in ppb)
56.25
55.75
55.25
54.75
54.25
53.75
-120.25
-119.25
-118.25
-117.25
-116.25
-115.25
Grande Prairie
Peace River
Fairview
Dunvegan
Eaglesham
Rycroft
Watino
Sexsmith
Valleyview
Crooked Creek
Kakwa Wildland Provincial Park
Monthly
11
AAAQO

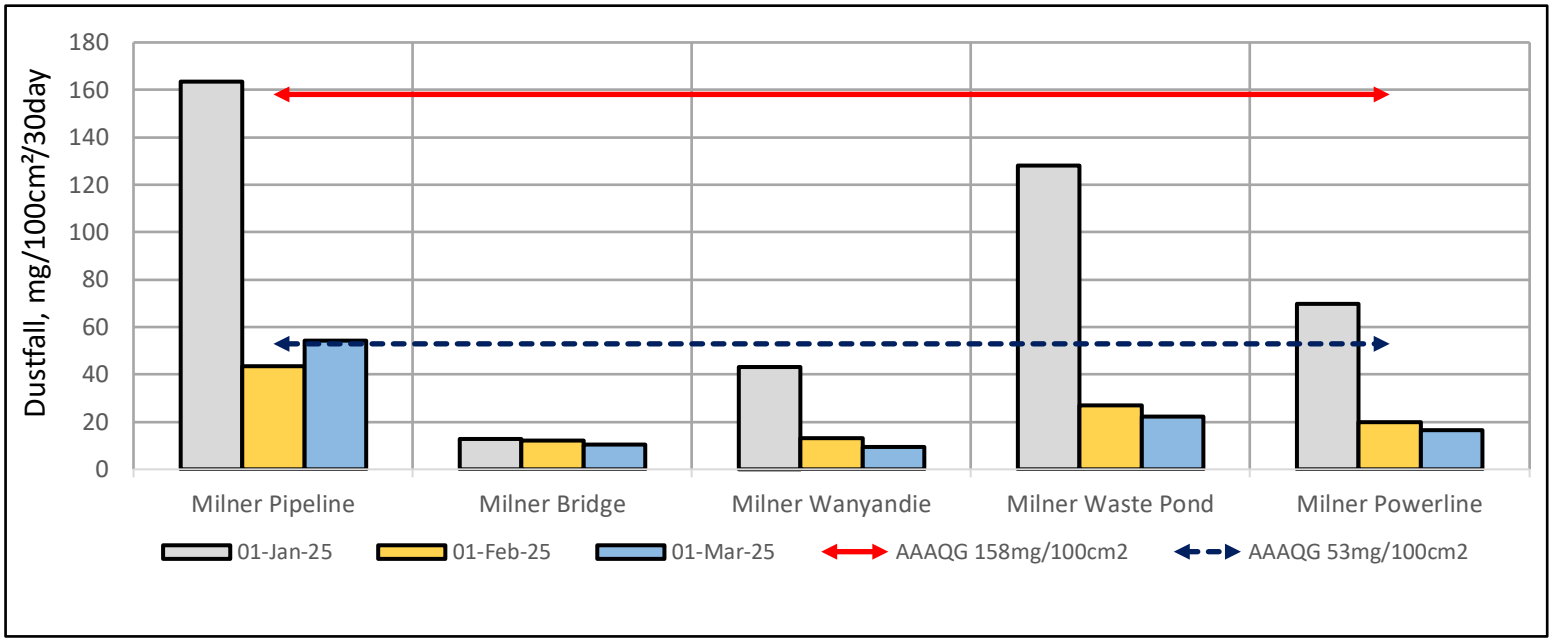

O3 Monthly Average (units in ppb)
39.0
39.7
44.6
56.25
55.75
55.25
54.75
54.25
53.75
-120.25
-119.25
-118.25
-117.25
-116.25
-115.25
Grande Prairie
Peace River
Fairview
Dunvegan
Gordondale
Spirit River
Rycroft
Eaglesham
Watino
McLennan
Peavine
Salt Prairie
Grouard
High Prairie
Enilda
Joussard
Sexsmith
Hythe
Beaverlodge
Wembley
Elmworth
Valleyview
Sunset House
Fox Creek
Whitecourt
Blue Ridge
Mayerthorpe
Kakwa Wildland Provincial Park
Crande Cache
Muskeg River
Shining Bank


H$_2$S Monthly Average (units in ppb)
56.25
55.75
55.25
54.75
54.25
53.75
-120.25
-119.25
-118.25
-117.25
-116.25
-115.25
0.3
0.2
0.1
0.1
0.4
0.1
0.1
0.1
0.2
0.1
0.2
0.1
0.1
0.2
0.1
0.1
Hines Creek
Peace River
Grimshaw
Berwyn
Harmon Valley
Nampa
Fairview
Bluesky
Silver Valley
Bonanza
Gordondale
Dunvegan
Spirit River
Rycroft
Eaglesham
Falher
McLennan
Peavine
Salt Prairie
Grouard
High Prairie
Enilda
Joussard
Driftpile
Kinuso
Lesser Slave Lake
Sexsmith
Hythe
Beaverlodge
Clairmont
Grande Prairie
Bezanson
Wembley
Elmworth
Crooked Creek
Sturgeon Heights
Valleyview
Sunset House
East Prairie Metis Settlement
Little Smoky
Swan Hills
Lone Pine
Whitecourt
Blue Ridge
Mayerthorpe
Windfall
Kakwa Wildland Provincial Park
Grande Cache
Muskeg River
Shining Bank

12 Dustfall Monitoring Data

Milner Dustfall Samples March 2025

Exposure Month	Year	Sample	Total Dustfall (30 day) mg/100cm²/30day	Fixed Dustfall (30 day) mg/100cm²/30day	Exposure days	Field Notes
March	2025	Milner Pipeline	54.4	21.5	34	
March	2025	Milner Bridge	10.4	6.1	34	
March	2025	Milner Wanyandie	9.3	5.0	34	
March	2025	Milner Waste Pond	22.2	12.2	34	
March	2025	Milner Powerline	16.5	5.7	34	
March	2025	Milner Powerline Dup	15.0	5.0	34	RPD, 10% / 13%



End of Report

Peace Airshed Zone Association

Peace Airshed Zone Association

Ambient Air Monitoring Report

March 2025