



Peace Airshed Zone Association

Ambient Air Monitoring Network Summary

Ambient Air Quality Monitoring Program

Monthly Report

August 2022

September 30, 2022

Alberta Environment and Parks

11th Floor, Oxbridge Place
9820-106 Street
Edmonton Alberta T5K 2J6

Subject: **Peace Airshed Zone Association (PAZA)**
August 2022 Ambient Air Quality Monitoring Report

Please find enclosed the PAZA Ambient Air Quality Monitoring Network Report for the month of August 2022.

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, Donnelly, Poplar-Portable and Milner.
Detailed Summaries are included in the report

Calibration and Data Submission:

Monthly report, hourly data and calibration reports for August 2022 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
	Ante Creek	02-26-068-25-W5	00266694-00-00
	Gordondale	02-26-068-25-W5	00287474-00-00
Apache Canada Ltd.	House Mountain	01-08-070-10-W5	00010137-02-02
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
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:

The follow is a summary of the concentrations in exceedance of AAAQG and AAAQO:

Two 1-hr readings above the PM_{2.5} AAAQG (80 µg/m³) was recorded as:

Reference Number	Site	Date	From MST	To MST	Hour average (µg/m ³)	WS km/hr	WD degrees
403540	Smoky Heights	August 30	21:00	22:00	115.4	14.1	271
403541	Dunes	August 31	01:00	02:00	83.7	1.5	254

Five, 1-hr readings above the hourly H₂S AAAQO (10ppb) for TRS as:

Reference Number	Site	Date	From MST	To MST	Hour average (µg/m ³)	WS km/hr	WD degrees
402784	Poplar	August 16	20:00	21:00	13.2	12.1	261
403126	Poplar	August 24	01:00	02:00	11.0	1.7	250
403126	Poplar	August 24	02:00	03:00	13.2	1.9	281
403126	Poplar	August 24	04:00	05:00	16.9	2.7	255
403126	Poplar	August 24	05:00	06:00	14.1	2.1	292

Three, 1-hr readings above the hourly O₃ AAAQO (76ppb) as:

Reference Number	Site	Date	From MST	To MST	Hour average (µg/m ³)	WS km/hr	WD degrees
402947	Beaverlodge	August 19	15:00	16:00	77.5	1.5	135
402947	Beaverlodge	August 19	16:00	17:00	81.8	1.4	99
402947	Beaverlodge	August 19	17:00	18:00	82.2	0.9	81

Operational times less than 90 percent:

THC/CH₄/NMHC analyzer was removed at Poplar on August 10, THC was installed August 11, however due to equipment issues later in month the uptime for THC was below 90% (reference number 404647)

Air Incidents

None were reported

Deviations from Authorized Monitoring Methods

None were reported

Passive Monitoring

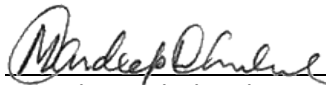
- 49 Stations throughout the PAZA zone
 - Passive sample analyses were performed by Bureau Veritas Laboratories
- There were 17 duplicates sampled in the month of August;
- Seven SO₂ duplicates located at Wembley, Gordondale, High Prairie, Duvernay 2, Deer Mountain, Jayar5 Camp, Wanyandie; RPD ranging from 4% to 17% (no fails)
- One O₃ duplicate located at East Prairie; RPD 17% (no fails)
- Six NO₂ duplicates at Pinto Creek, Kinuso, Steeprock Creek, Clairmont Lake, Jayar3 Bone Yard, Bridge; RPD ranging from 0% to 200% (three fails)
 - Steeprock Creek, both reported 0 ppb.
 - East Prairie, one reported 0 and other 0.1ppb.

- Jayar3 Bone Yard, one reported 0.6 and other 1.3ppb.
- Three H₂S duplicates, Girouxville 3, Duvernay 2, Jayar2 14-8; RPD 0% to 5% (no fails)
 - Duplicate at Girouxville 3 had both passives identified as “found on ground”
- There were no exceedances of the AAAQOs for all monitored parameters at any of the passive monitoring stations during this month.

Dustfall Monitoring

- Five Stations collected Total Dustfall and Fixed Dustfall
- There was one duplicate sampled collected for each in the month of August
 - RPD ranged from 12% to 14%
- Total dustfall ranged from 22.7 to 77.1 mg/100cm²/30day

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.

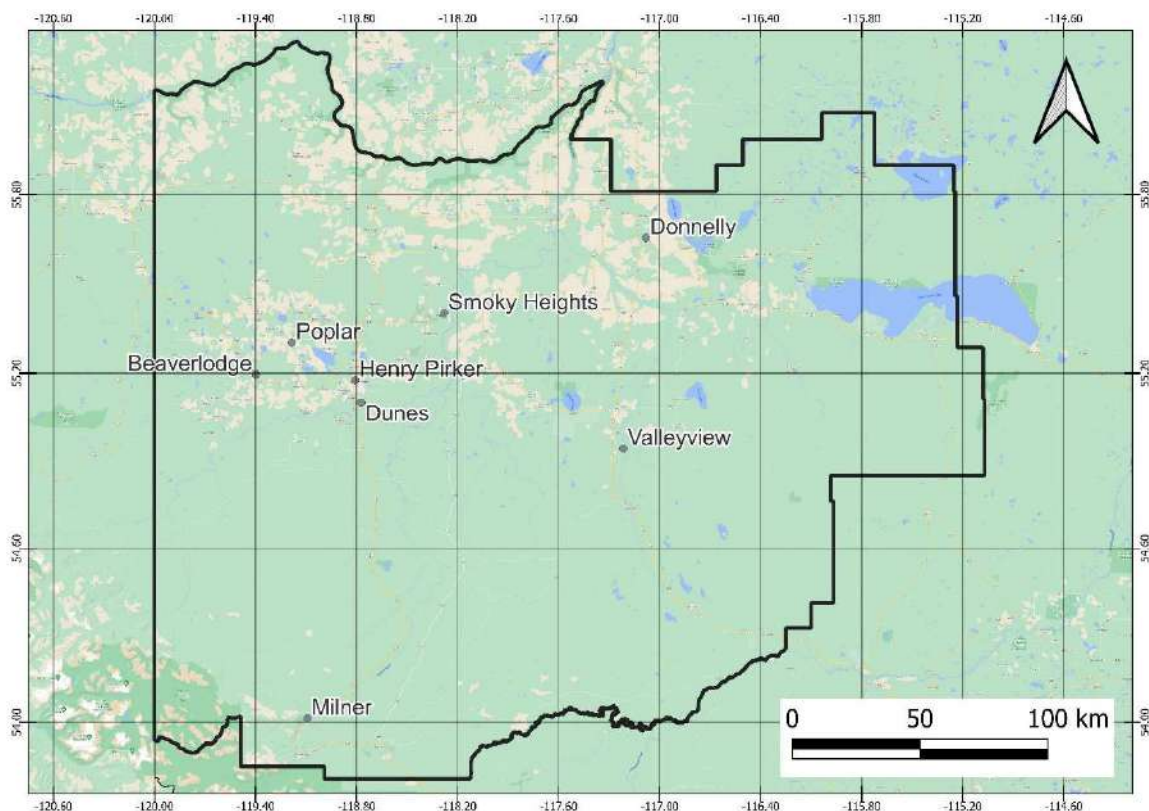


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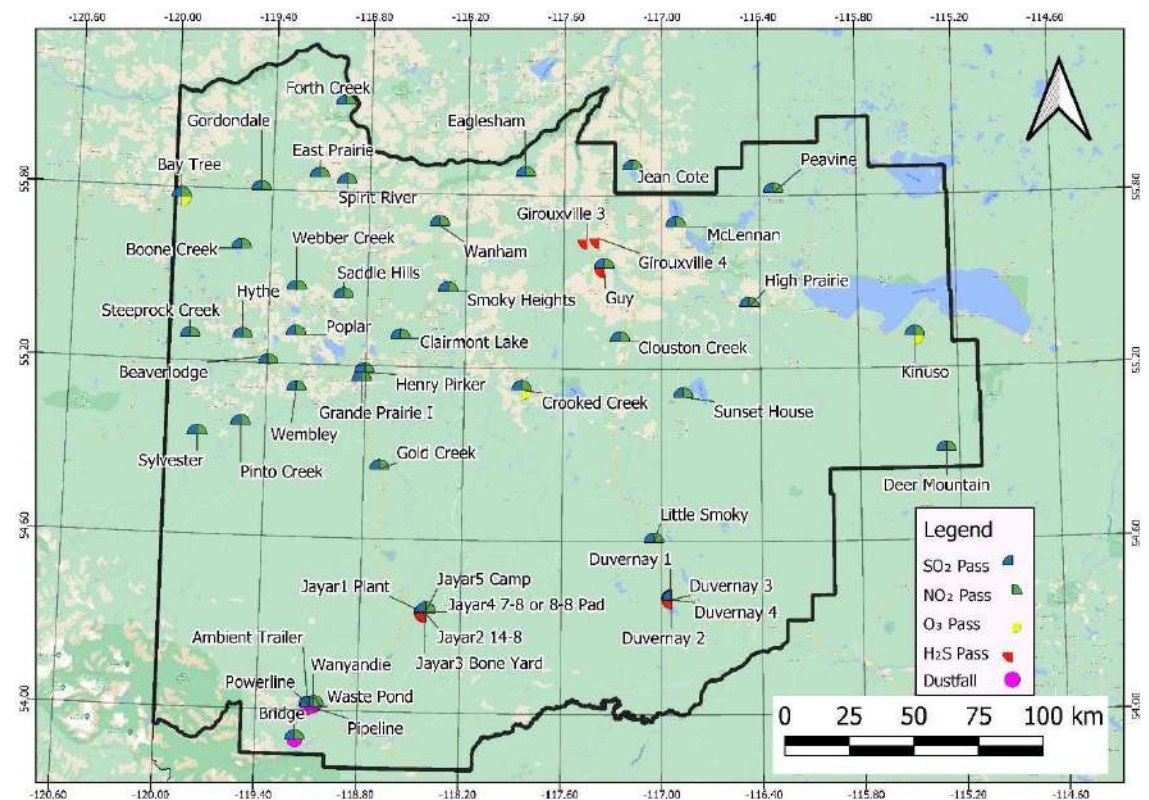
TABLE OF CONTENTS

1	AUGUST MONTHLY STATION SUMMARIES.....	2
1.1	Beaverlodge Air Monitoring Station	2
1.2	Dunes Air Monitoring Station	2
1.3	Grande Prairie - Henry Pirker Air Monitoring Station.....	3
1.4	Smoky Heights Air Monitoring Station	3
1.5	Valleyview Air Monitoring Station	4
1.6	Donnelly Air Monitoring Station	4
1.7	Poplar Air Monitoring Station	4
1.8	Milner Air Monitoring Station.....	5
2	BEAVERLODGE CHARTS.....	6
3	DUNES CHARTS	16
4	GRANDE PRAIRIE - HENRY PIRKER CHARTS.....	24
5	SMOKY HEIGHTS CHARTS.....	38
6	VALLEYVIEW CHARTS	45
7	DONNELLY CHARTS	52
8	POPLAR (PORTABLE) CHARTS.....	58
9	MILNER CHARTS.....	70
10	CONCENTRATION SUMMARIES AND ROSES FOR PAZA	76
10.1	Air Quality Health Index (AQHI) Plots	77
10.2	Wind Roses	78
10.3	Carbon Monoxide (CO) Plots	78
10.4	Sulphur Dioxide (SO ₂) Plots.....	79
10.5	Nitrogen Dioxide (NO ₂) Plots	80
10.6	Ozone (O ₃) Plots.....	81
10.7	Fine Particulate Matter (PM _{2.5}) Plots.....	82
10.8	Hydrogen Sulphide (H ₂ S) Plots.....	83
10.9	Total Reduced Sulphur (TRS) Plots.....	84
10.10	Total Hydrocarbon (THC) Plots	85
10.11	Meteorology Summary	86
11	PASSIVE MONITORING DATA.....	87
12	DUSTFALL MONITORING DATA	96
13	END OF REPORT	97

PAZA Continuous Monitoring Station Locations



PAZA Passive Monitoring Station Locations



1 August Monthly Station Summaries

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

1.1 Beaverlodge Air Monitoring Station

PAZA - August 2022 Beaverlodge Station Report

Parameter	August			Operational	Max	1-hour		Max	24-hour		Exceedance				Calibration Date
	Average	Minimum	Valid			Objective	Max Day and Time		Objective	Max Day	1hr	8hr	24hr	30d	
NO (ppb)	0.5	0.0	94.5%	99.3%	11.5	-	Aug-19 08:00	1.2	-	Aug-09	-	-	-	-	Aug 02, 2022
NO ₂ (ppb)	2.9	0.2	94.5%	99.3%	24.0	159	Aug-13 02:00	6.8	-	Aug-19	0	-	-	-	Aug 02, 2022
NO _x (ppb)	3.3	0.2	94.5%	99.3%	25.6	-	Aug-13 04:00	8.0	-	Aug-19	-	-	-	-	Aug 02, 2022
O ₃ (ppb)	26.9	4.0	92.1%	97.2%	82.2	76	Aug-19 17:00	44.6	-	Aug-19	3	-	-	-	Aug 03, 2022
PM _{2.5} (µg/m³)	6.6	0.2	98.8%	99.3%	25.0	80	Aug-24 10:00	16.9	29	Aug-23	0	-	0	-	Aug 03, 2022
SO ₂ (ppb)	0.8	0.0	94.8%	99.3%	16.1	172	Aug-09 11:00	6.0	48	Aug-22	0	-	0	0	Aug 03, 2022
Average															
Temp (°C)	18.4	8.4	99.3%	99.3%	31.1										
RH (%)	62.3	20.9	99.3%	99.3%	99.9										
WS (km/hr)	9.9	0.4	99.3%	99.3%	48.4										
WD (deg)	255	0.7	99.3%	99.3%	358.7										

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

Average Wind Direction 255 WSW

Update Summary:

Parameter	Make	Model	Equipment summary
NO/NO ₂ /NO _x	Thermo	42i	Power outages Aug 26 & 27 (5hrs removed)
O ₃	Thermo	49iQ	Power outages Aug 26-27 (5hrs); Scrubber replacement, 16hrs maintenance (Aug 2-3); 3hrs above AAAQO
PM _{2.5}	Sharp	5030	Power outages Aug 26 & 27 (5hrs removed)
SO ₂	Thermo	43i-TLE	Power outages Aug 26 & 27 (5hrs removed)
Met Equip	MetOne	50.5	Power outages Aug 26 & 27 (5hrs removed)

1.2 Dunes Air Monitoring Station

PAZA - August 2022 Dunes Station Report

Parameter	August			Operational	Max	1-hour		Max	24-hour		Exceedance				Calibration Date
	Average	Minimum	Valid			Objective	Max Day and Time		Objective	Max Day	1hr	8hr	24hr	30d	
PM _{2.5} (µg/m³)	5.7	0.0	99.3%	100.0%	83.7	80	Aug-31 01:00	16.4	29	Aug-25	1	-	0	-	Aug-11-2022
SO ₂ (ppb)	0.3	0.0	95.3%	100.0%	13.4	172	Aug-10 12:00	1.7	48	Aug-10	0	-	0	0	Aug-11-2022
TRS (ppb)	0.2	0.0	94.1%	98.7%	1.8	-	Aug-22 13:00	0.5	-	Aug-19	-	-	-	-	Aug-23-2022
Average															
Temp (°C)	18.4	5.3	100.0%	100.0%	31.6										
RH (%)	64.6	18.1	100.0%	100.0%	97.9										
WS (km/hr)	3.5	0.0	100.0%	100.0%	11.4										
WD (deg)	245	0.6	100.0%	100.0%	359.5										

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

Average Wind Direction 245 WSW

Update Summary:

Parameter	Make	Model	Equipment summary
PM _{2.5}	Thermo	TEOM AB	There was one reading above the AAAQG (80 µg/m³) on Aug 31
SO ₂	TECO	43i	No Operational issues noted
TRS	TECO	43C	Second calibration on Aug 23 due to span issues, 6hrs removed and 4 hrs maintenance
Met Equip	Gil/RMYoung	MetPak/RMY86004	No Operational issues noted

1.3 Grande Prairie - Henry Pirker Air Monitoring Station

PAZA - August 2022 Henry Pirker Station Report

AAR - August 2022 Henry Parker Station Report															
Parameter	August			Operational	1-hour			8-hour / 24-hour			Exceedance				Calibration
	Average	Minimum	Valid		Max	Objective	Max Day and Time	Max	Objective	Max Day	1hr	8hr	24hr	30d	Date
NO (ppb)	1.1	0.0	90.2%	98.3%	32.9	-	Aug-10 07:00	3.4	-	Aug-10	-	-	-	-	Aug 21, 2022
NO _x (ppb)	5.0	0.7	90.2%	98.3%	23.1	159	Aug-18 22:00	9.1	-	Aug-25	0	-	-	-	Aug 21, 2022
NO ₂ (ppb)	6.2	0.9	90.2%	98.3%	48.2	-	Aug-10 07:00	11.7	-	Aug-25	-	-	-	-	Aug 21, 2022
O ₃ (ppb)	24.0	0.7	95.3%	100.0%	70.7	76	Aug-12 14:00	35.1	-	Aug-22	0	-	-	-	Aug 05, 2022
PM _{2.5} (µg/m³)	5.8	0.0	99.7%	100.0%	28.6	80	Aug-25 10:00	15.0	29	Aug-25	0	-	0	-	Aug 29, 2022
SO ₂ (ppb)	0.2	0.0	94.8%	99.5%	7.2	172	Aug-27 19:00	0.6	48	Aug-31	0	-	0	0	Aug 05, 2022
H ₂ S (ppb)	0.1	0.0	95.2%	100.0%	1.4	10	Aug-30 02:00	0.3	3	Aug-23	0	-	0	-	Aug 08, 2022
CH ₄ (ppm)	2.1	1.9	93.4%	98.1%	3.6	-	Aug-30 01:00	2.2	-	Aug-03	-	-	-	-	Aug 05, 2022
THC (ppm)	2.1	1.9	93.4%	98.1%	3.6	-	Aug-30 01:00	2.2	-	Aug-03	-	-	-	-	Aug 05, 2022
NMHC (ppm)	0.0	0.0	93.4%	98.1%	0.4	-	Aug-16 23:00	0.0	-	Aug-18	-	-	-	-	Aug 05, 2022
CO (ppm)	0.2	0.1	95.3%	100.0%	0.3	13	Aug-26 12:00	0.2	5	Aug-25	0	0	-	-	Aug 08, 2022
	Average	Minimum	Valid	Operational	Maximum	Note: Valid hours must be greater than 75% Operational hours must be greater than 90%									
Temp (°C)	19.8	8.8	100.0%	100.0%	32.2										
RH (%)	58.6	18.1	100.0%	100.0%	90.0										
SR (W/m²)	178.1	0.0	100.0%	100.0%	672.9										
WS (km/hr)	7.2	0.2	100.0%	100.0%	29.1										
WD (deg)	247	3.0	100.0%	100.0%	357.5	Average Wind Direction 247 WSW									

Update Summary:

Parameter	Make	Model	Equipment summary
NO/NO ₂ /NO _x	Thermo	421Q	Capital replacement; Aug 21 span failed, second calibration performed and data removed (12hrs)
O ₃	TECO	49I	No operational issues
PM _{2.5}	Sharp	5030	No operational issues
SO ₂	TEI	43I-TLE	Second calibration performed Aug 5 due to miscalculation, 4hrs of maintenance
H ₂ S	TEI	450I	No operational issues
THC/CH ₄ /NMHC	TEI	55I	Data removed after Calibration to valid span, Aug 5-6, 14hrs
CO	TEI	48I-TLE	No operational issues
Met Equip	MetOne	50.5	No operational issues

1.4 Smoky Heights Air Monitoring Station

PAZA - August 2022 Smoky Heights Station Report

August 2022 Smoky Airborne Station Report															
Parameter	August		Valid	Operational	Max	1-hour		24-hour		Exceedance				Calibration	
	Average	Minimum				Objective	Max Day and Time	Max	Objective	Max Day	1hr	8hr	24hr	30d	Date
PM _{2.5} (µg/m³)	6.8	0.0	99.6%	100.0%	115.4	80	Aug-30 21:00	18.7	29	Aug-26	1	-	0	-	Aug 17, 2022
SO ₂ (ppb)	0.3	0.0	95.3%	100.0%	4.6	172	Aug-28 02:00	0.7	48	Aug-28	0	-	0	0	Aug 17, 2022
TRS (ppb)	0.2	0.0	88.2%	93.0%	1.1	-	Aug-11 04:00	0.4	-	Aug-01	-	-	-	-	Aug 29, 2022
	Average	Minimum	Valid	Operational	Maximum	Note: Valid hours must be greater than 75% Operational hours must be greater than 90%									
Temp (°C)	18.5	6.8	100.0%	100.0%	32.2										
WS (km/hr)	11.2	0.1	100.0%	100.0%	49.3										
WD (deg)	245	0.3	100.0%	100.0%	359.9										
Average Wind Direction						245		WNW							

Update Summary:

Parameter	Make	Model	Equipment summary
PM _{2.5}	Sharp	5030	There was one reading above the AAAQG (80 µg/m ³) on Aug 30
SO ₂	TECO	43I	No Operational issues noted
TRS	TEI	43I APSAA	Calibrations, Aug 17, 18, 19, 29; 20hrs maintenance and 31hrs removed; oxidizer and scrubber changed
Met Equip	MetOne	50.5	No Operational issues noted

1.5 Valleyview Air Monitoring Station

PAZA - August 2022 Valleyview Station Report

Parameter	August			Operational	Max	1-hour		24-hour			Exceedance				Calibration Date
	Average	Minimum	Valid			Objective	Max Day and Time	Max	Objective	Max Day	1hr	8hr	24hr	30d	
SO ₂ (ppb)	0.1	0.0	95.2%	100.0%	1.0	172	Aug-05 05:00	0.3	48	Aug-05	0	-	0	0	Aug 15, 2022
H ₂ S (ppb)	0.1	0.0	95.3%	100.0%	0.6	10	Aug-19 01:00	0.3	3	Aug-11	0	-	0	-	Aug 15, 2022
Average Minimum Valid Operational Maximum															
Temp (°C)	18.7	4.8	100.0%	100.0%	34.3	Note: Valid hours must be greater than 75% Operational hours must be greater than 90%									
RH (%)	73.4	26.6	100.0%	100.0%	100.2										
WS (km/hr)	3.1	0.0	100.0%	100.0%	13.2										
WD (deg)	243	0.2	100.0%	100.0%	359.4										
Average Wind Direction									243	NW					

Update Summary:

Parameter	Make	Model	Equipment summary
SO ₂	TEI	43I-APSCB	No Operational issues noted
H ₂ S	TEI	450I-APHAA	No Operational issues noted
Met Equip	RMYoung	RMY86004	No Operational issues noted

1.6 Donnelly Air Monitoring Station

PAZA - August 2022 Donnelly Station Report

Parameter	August			Operational	Max	1-hour		24-hour			Exceedance				Calibration Date
	Average	Minimum	Valid			Objective	Max Day and Time	Max	Objective	Max Day	1hr	8hr	24hr	30d	
SO ₂ (ppb)	0.1	0.0	95.3%	100.0%	1.8	172	Aug-31 10:00	0.3	48	Aug-31	0	-	0	0	Aug 12, 2022
H ₂ S (ppb)	0.2	0.0	94.8%	100.0%	3.2	10	Aug-11 21:00	0.5	3	Aug-23	0	-	0	-	Aug 12, 2022
Average Minimum Valid Operational Maximum															
Temp (°C)	18.6	5.5	100.0%	100.0%	32.2	Note: Valid hours must be greater than 75% Operational hours must be greater than 90%									
WS (km/hr)	8.4	0.1	100.0%	100.0%	33.5										
WD (deg)	223	2.9	100.0%	100.0%	357.8										
Average Wind Direction									223	SW					

Update Summary:

Parameter	Make	Model	Equipment summary
SO ₂	Teco	43I	No Operational issues noted
H ₂ S	Thermo	45C	No Operational issues noted
Met Equip	RMYoung	5103	No Operational issues noted

1.7 Poplar Air Monitoring Station

PAZA - August 2022 Poplar Station Report

AER - August 2022 - Opial Station Report															
Parameter	August			Operational	1-hour			24-hour			Exceedance				Calibration
	Average	Minimum	Valid		Max	Objective	Max Day and Time	Max	Objective	Max Day	1hr	8hr	24hr	30d	Date
NO (ppb)	1.5	0.0	94.8%	99.7%	21.8	-	Aug-18 02:00	4.4	-	Aug-24	-	-	-	-	Aug 08, 2022
NO ₂ (ppb)	4.3	0.1	94.8%	99.7%	19.7	159	Aug-25 04:00	7.9	-	Aug-25	0	-	-	-	Aug 08, 2022
NO _x (ppb)	5.8	0.0	94.8%	99.7%	35.3	-	Aug-18 02:00	12.0	-	Aug-24	-	-	-	-	Aug 08, 2022
O ₃ (ppb)	23.5	0.0	95.0%	99.7%	69.5	76	Aug-13 14:00	33.6	-	Aug-19	0	-	-	-	Aug 08, 2022
PM _{2.5} (µg/m³)	2.9	0.0	97.6%	98.1%	15.0	80	Aug-22 08:00	9.0	29	Aug-22	0	-	0	-	Aug 10, 2022
SO ₂ (ppb)	1.0	0.0	95.0%	99.7%	76.7	172	Aug-07 11:00	4.6	48	Aug-07	0	-	0	0	Aug 08, 2022
TRS (ppb)	0.7	0.1	95.0%	99.7%	16.9	-	Aug-24 04:00	3.5	-	Aug-24	-	-	-	-	Aug 11, 2022
CH ₄ (ppm)	removed August 10														
THC (ppm)	2.1	1.7	84.0%	89.1%	5.6	-	Aug-24 04:00	2.6	-	Aug-24	-	-	-	-	Aug 16, 2022
NMHC (ppm)	removed August 10														
	Average	Minimum	Valid	Operational	Maximum										
Temp (°C)	18.1	4.8	99.7%	99.7%	31.4	Note: Valid hours must be greater than 75% Operational hours must be greater than 90%									
WS (km/hr)	11.0	0.1	99.7%	99.7%	44.5										
WD (deg)	262	1.3	99.7%	99.7%	360.0										
Average Wind Direction									262	W					

Update Summary:

Parameter	Make	Model	Equipment summary
NO/NO ₂ /NO _x	TEI	42I	Power Failure on Aug 22, 2hrs removed
O ₃	TEI	49I	Power Failure on Aug 22, 2hrs removed
PM _{2.5}	Thermo	TEOM AB	Power Failure on Aug 22, 3hrs removed; Periods of data in excessive negative drift (11hrs removed)
SO ₂	TEI	43I	Power Failure on Aug 22, 2hrs removed
TRS	TEI	43I	Power Failure on Aug 22, 2hrs removed
THC	TEI	55I-A3PHAA	Power Failure on Aug 22, 3hrs removed; Aug 10 removal calibration THC/CH ₄ /NMHC for repair; Aug 11 install calibration of THC (17hrs removed); Aug 16 THC calibration, pump seized (61hrs removed)
Met Equip	MetOne	50.5	Power Failure on Aug 22, 2hrs removed

1.8 Milner Air Monitoring Station

PAZA - August 2022 Milner Station Report

August					1-hour			24-hour			Exceedance				Calibration
Parameter	Average	Minimum	Valid	Operational	Max	Objective	Max Day and Time	Max	Objective	Max Day	1hr	8hr	24hr	30d	Date
NO (ppb)	1.0	0.0	94.5%	99.7%	52.3	-	Aug-11 09:00	4.9	-	Aug-11	-	-	-	-	Aug 18, 2022
NO ₂ (ppb)	2.2	0.0	94.5%	99.7%	15.0	159	Aug-13 04:00	4.2	-	Aug-13	0	-	-	-	Aug 18, 2022
NO _x (ppb)	3.3	0.0	94.5%	99.7%	63.5	-	Aug-11 09:00	8.7	-	Aug-11	-	-	-	-	Aug 18, 2022
PM _{2.5} (µg/m³)	5.5	0.0	91.5%	91.7%	28.2	80	Aug-01 16:00	11.1	29	Aug-22	0	-	0	-	Aug 18, 2022
	Average	Minimum	Valid	Operational	Maximum										
WS (km/hr)	5.3	0.0	100.0%	100.0%	23.0										
WD (deg)	244	0.8	100.0%	100.0%	359.7										
Note: Valid hours must be greater than 75% Operational hours must be greater than 90%															
Average Wind Direction										244	WSW				

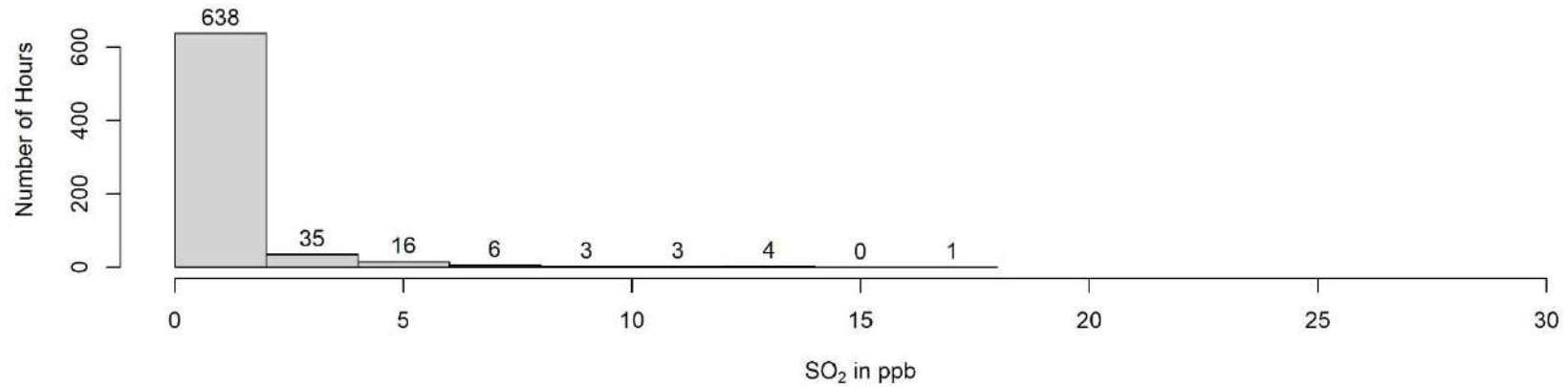
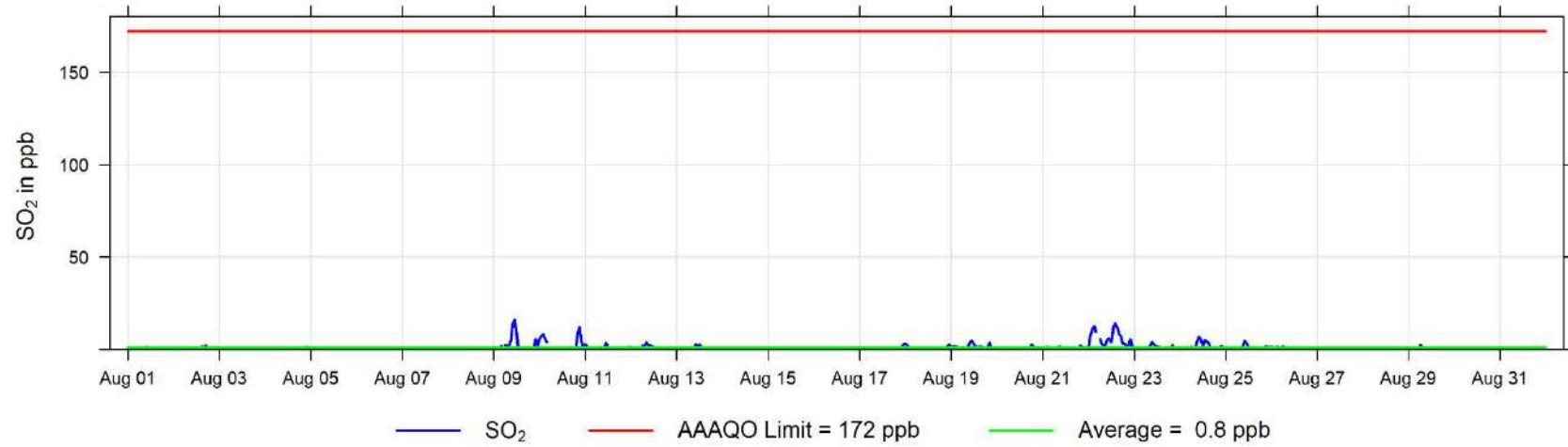
Update Summary:

Parameter	Make	Model	Equipment summary
NO/NO ₂ /NO _x	Thermo	42i	Aug 2, One hour removed from failed NO ₂ span
PM _{2.5}	TEOM	AB	Excessive drifting was removed (61hrs)
Met Equip	MetOne	50.5	No Operational Issues noted

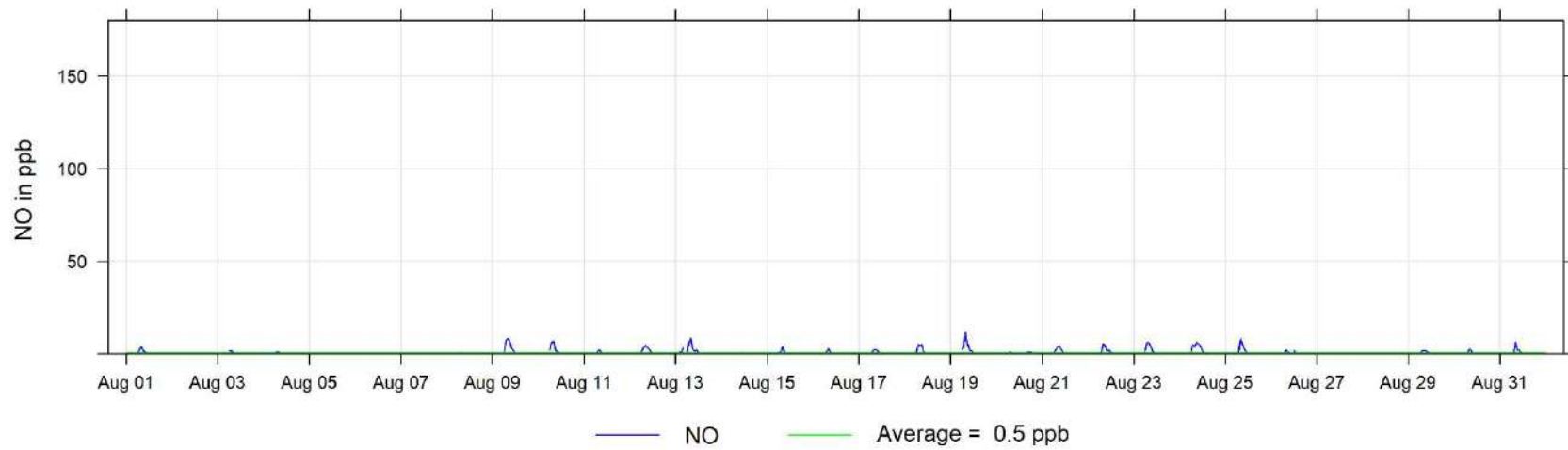
2 Beaverlodge Charts

The following pages include the charts and histograms for Beaverlodge Station

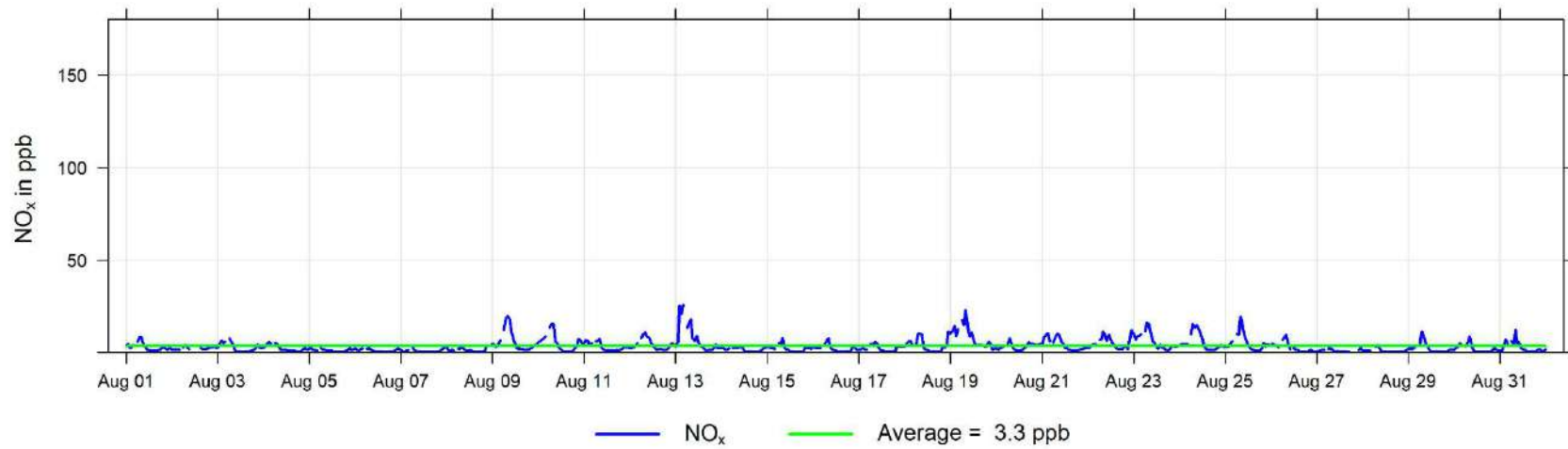
August 2022 Hourly Concentration Readings of SO₂ (in ppb) at Beaverlodge



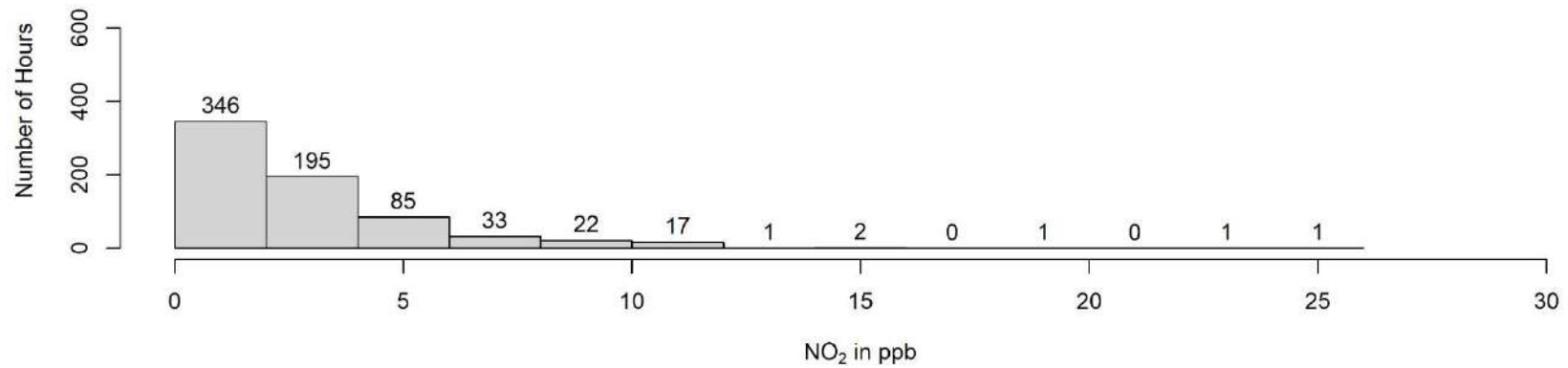
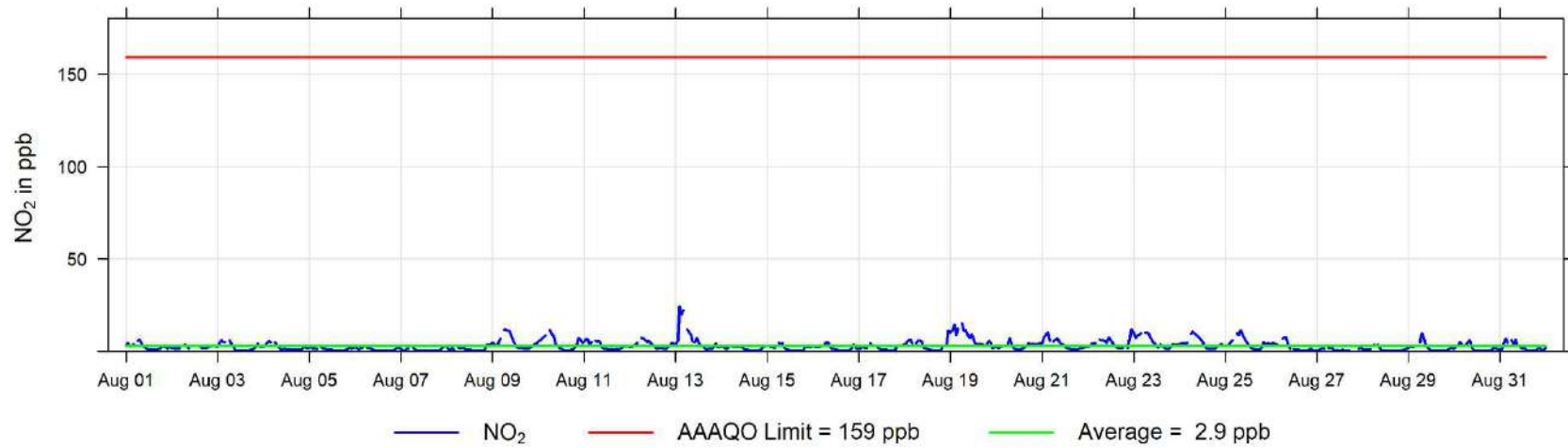
August 2022 Hourly Concentration Readings of NO (in ppb) at Beaverlodge



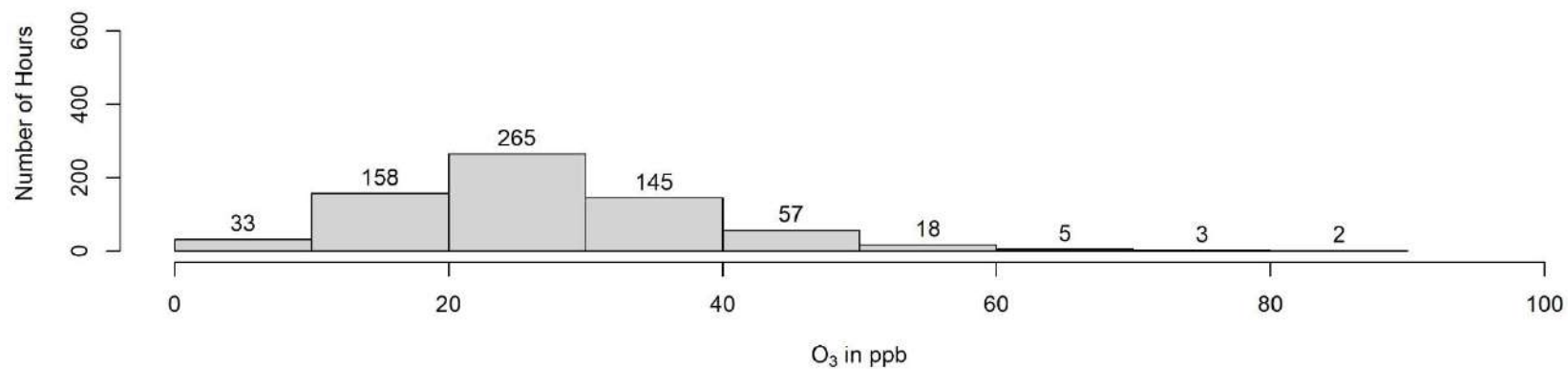
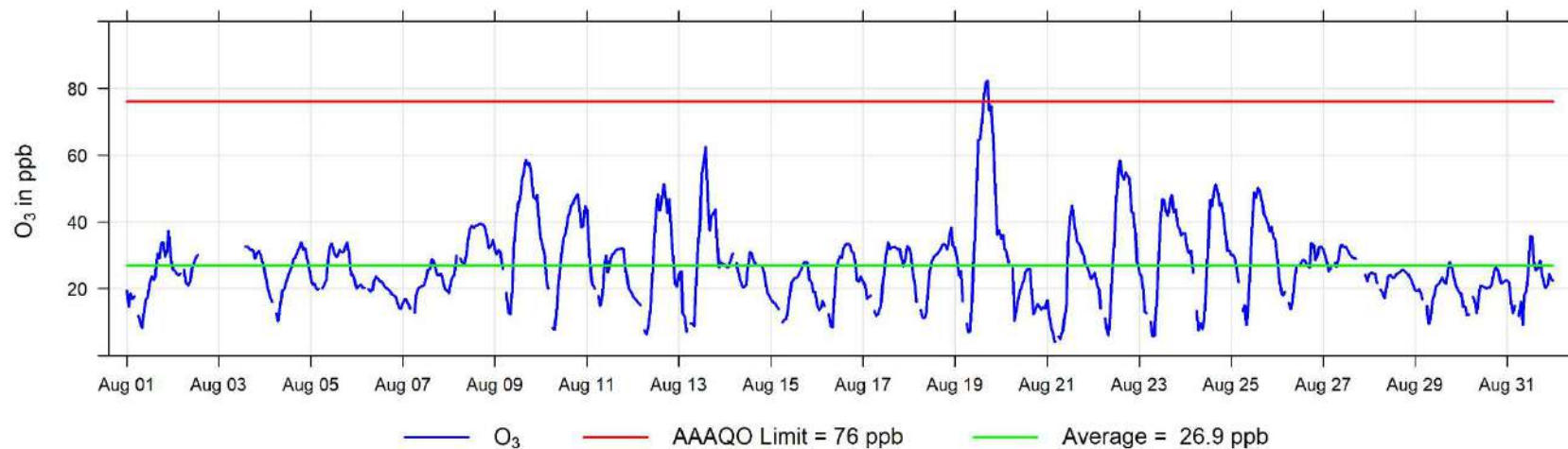
August 2022 Hourly Concentration Readings of NO_x (in ppb) at Beaverlodge



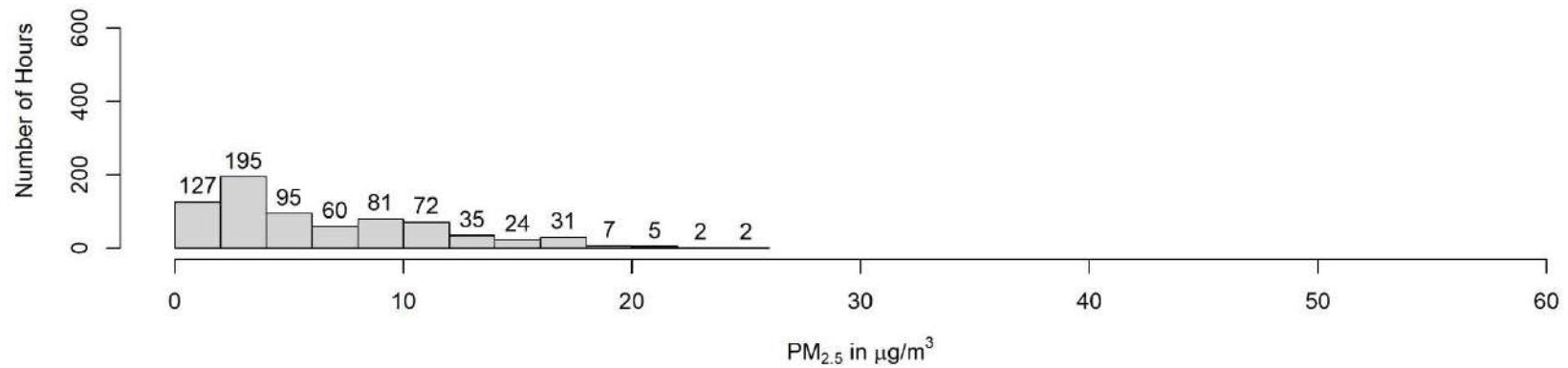
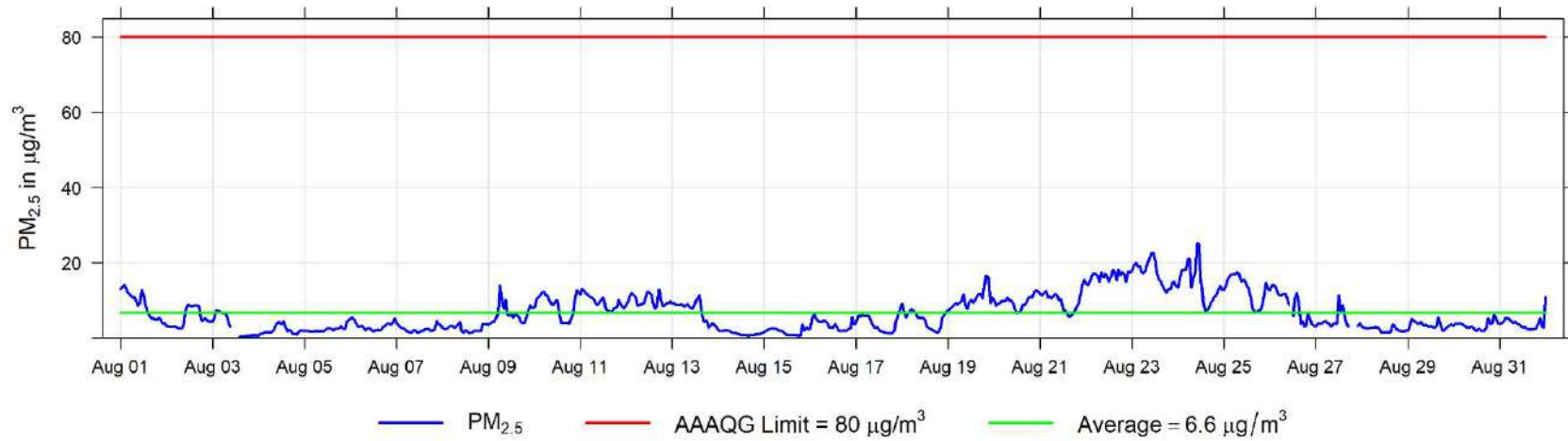
August 2022 Hourly Concentration Readings of NO₂ (in ppb) at Beaverlodge



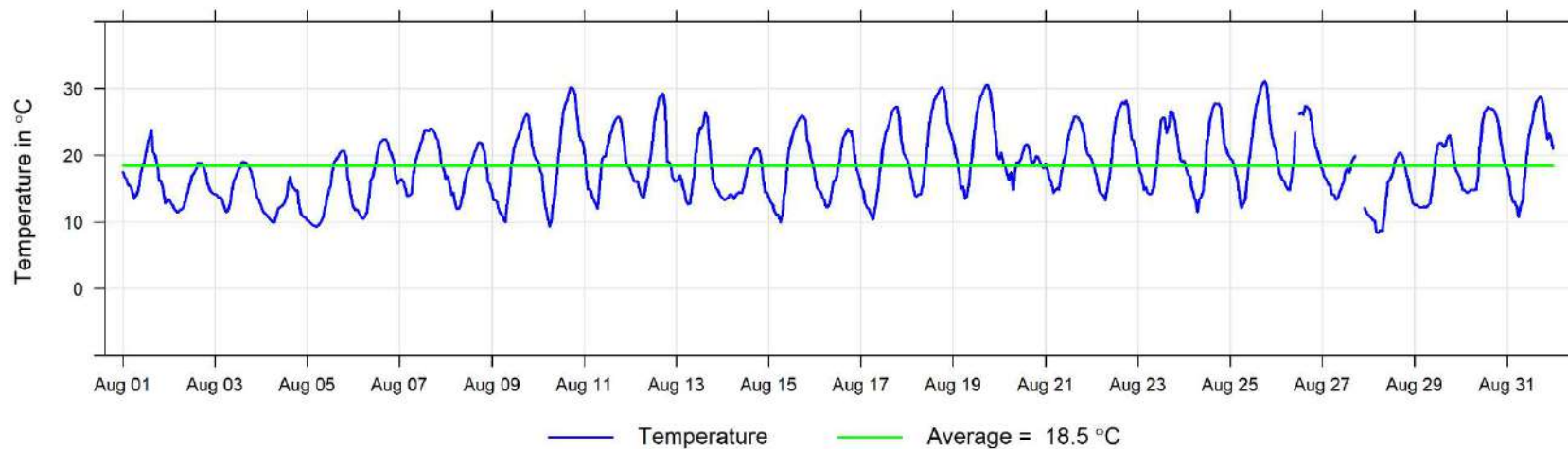
August 2022 Hourly Concentration Readings of O₃ (in ppb) at Beaverlodge



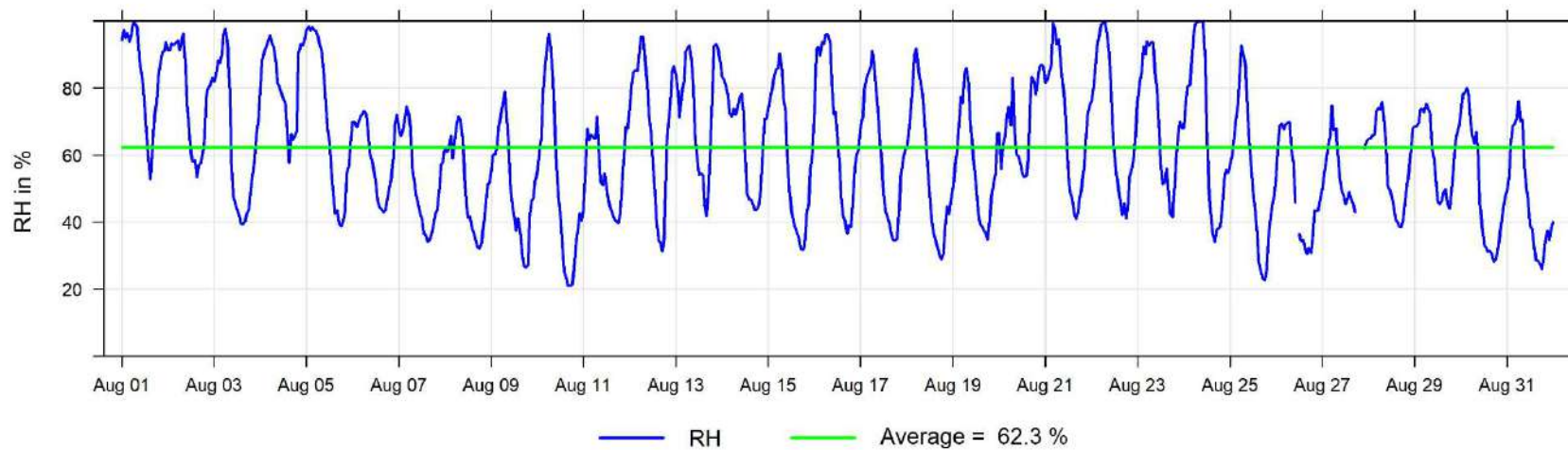
August 2022 Hourly Concentration Readings of PM_{2.5} in $\mu\text{g}/\text{m}^3$ at Beaverlodge



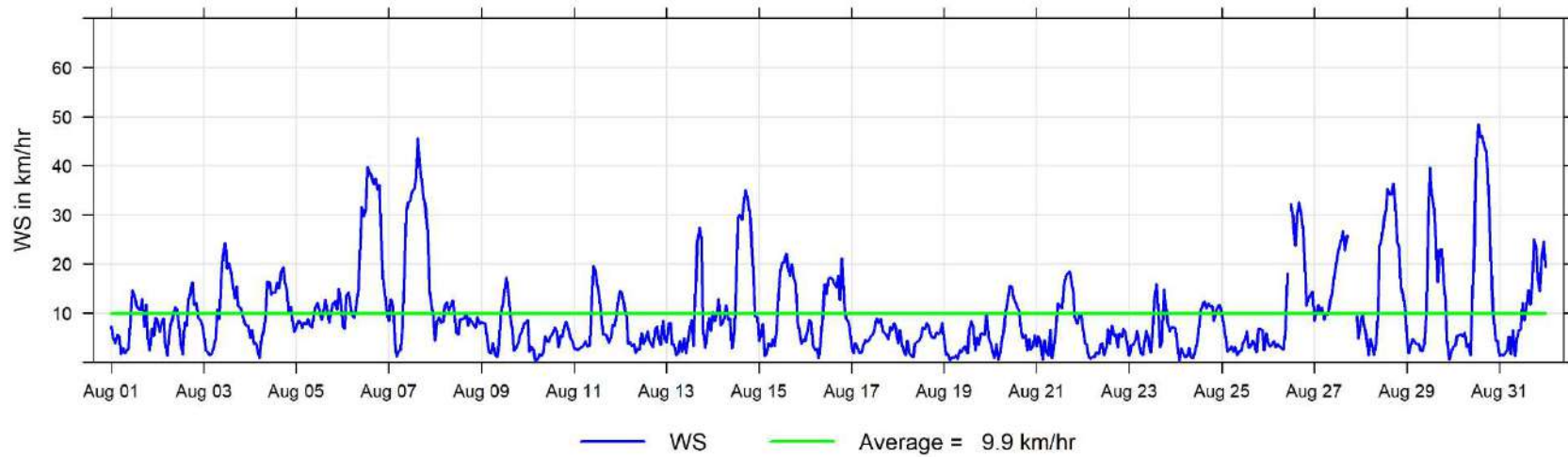
August 2022 Hourly Temperature Readings (in °C) at Beaverlodge



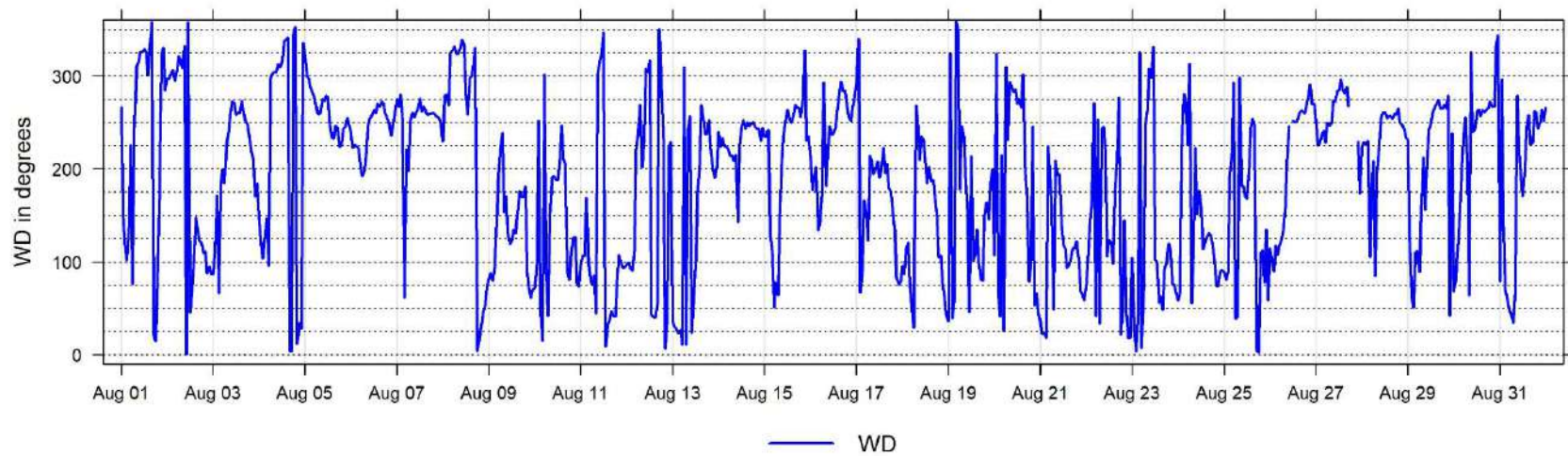
August 2022 Hourly Readings of Relative Humidity (in %) at Beaverlodge



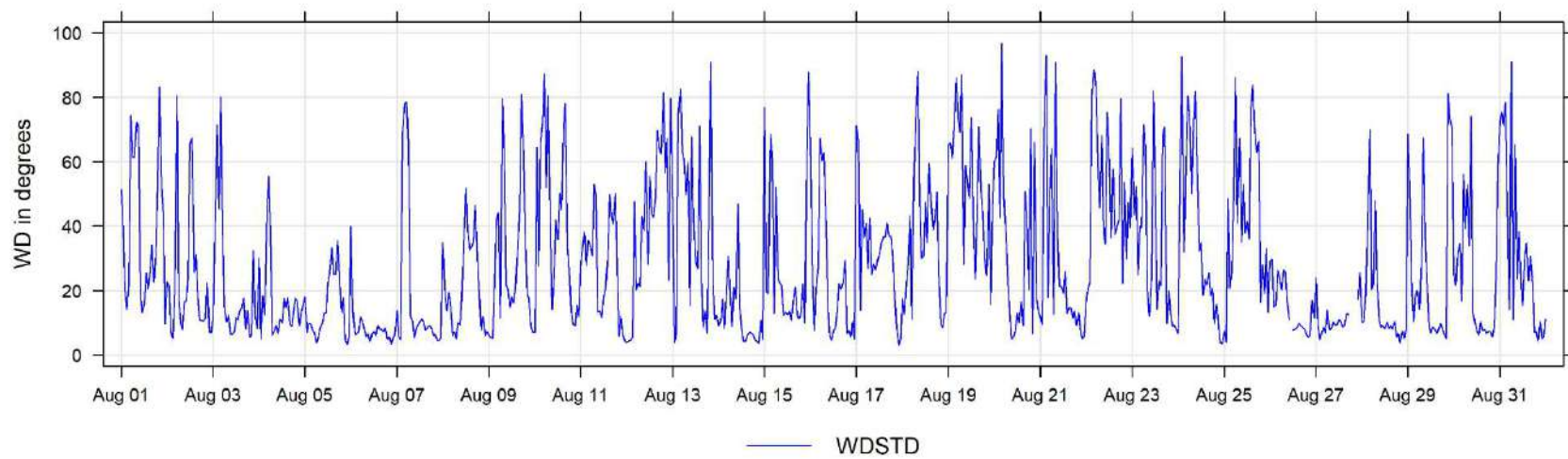
August 2022 Hourly Readings of Wind Speed (in km/hr) at Beaverlodge

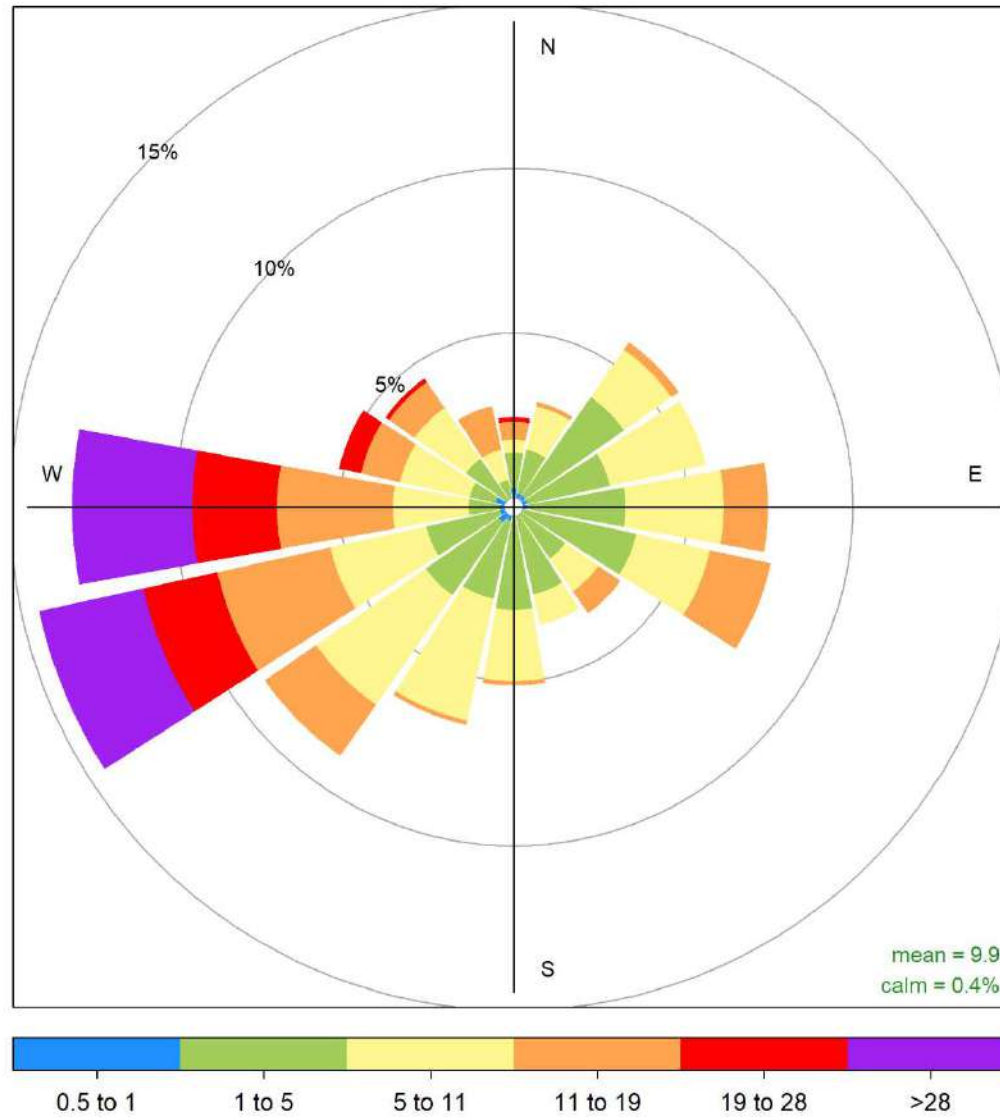


August 2022 Hourly Readings of Wind Direction (in degrees) at Beaverlodge



August 2022 Hourly Readings of Wind Direction Standard Deviation (in degrees) at Beaverlodge



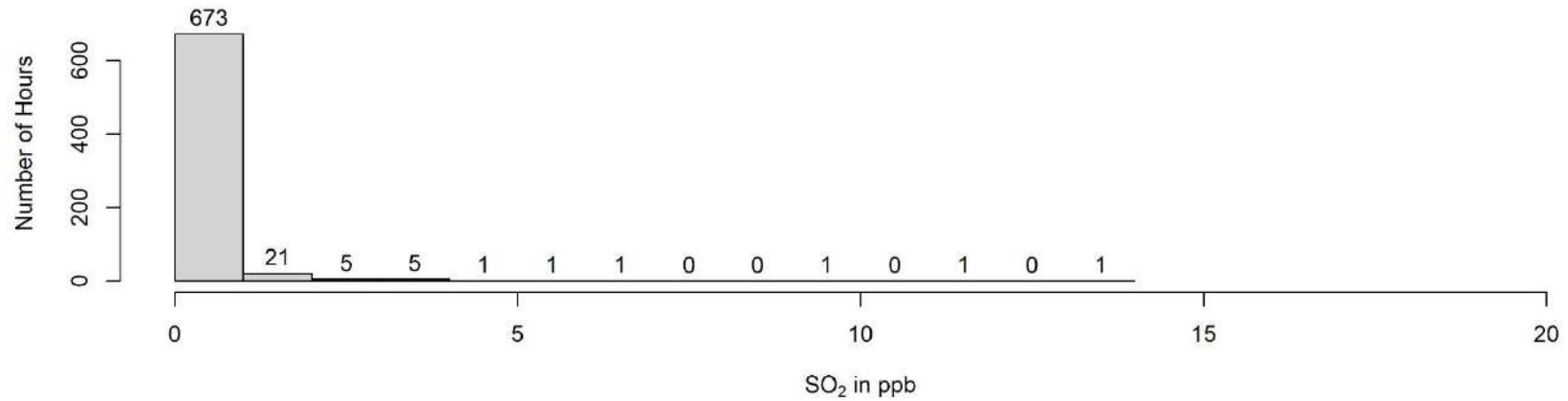
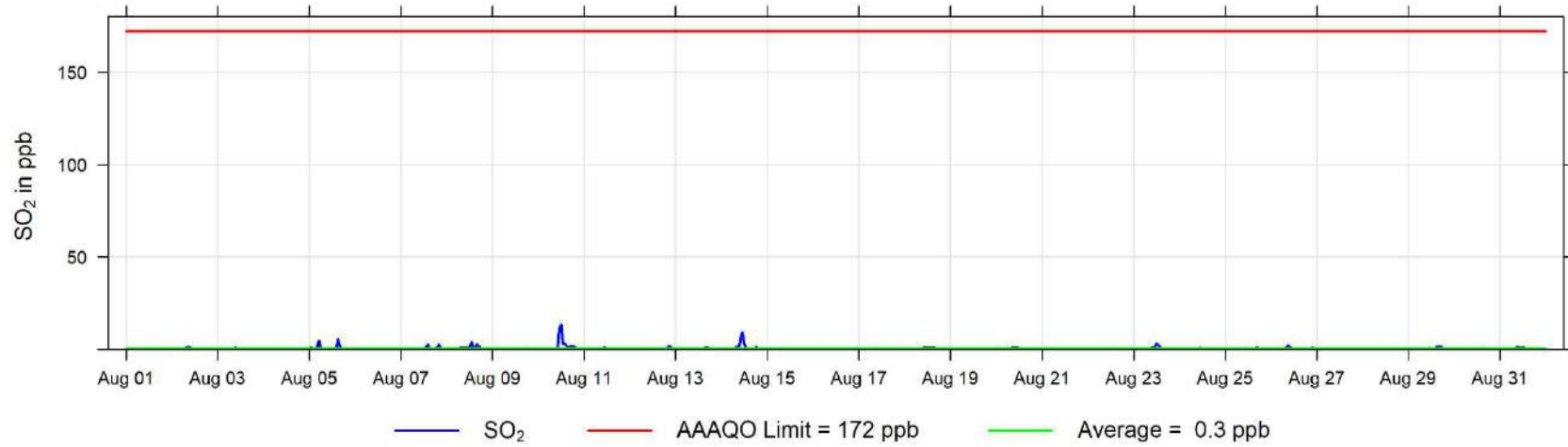


Beaverlodge August 2022 Wind Rose, wind speed in km/hr
Frequency of counts by wind direction (%)

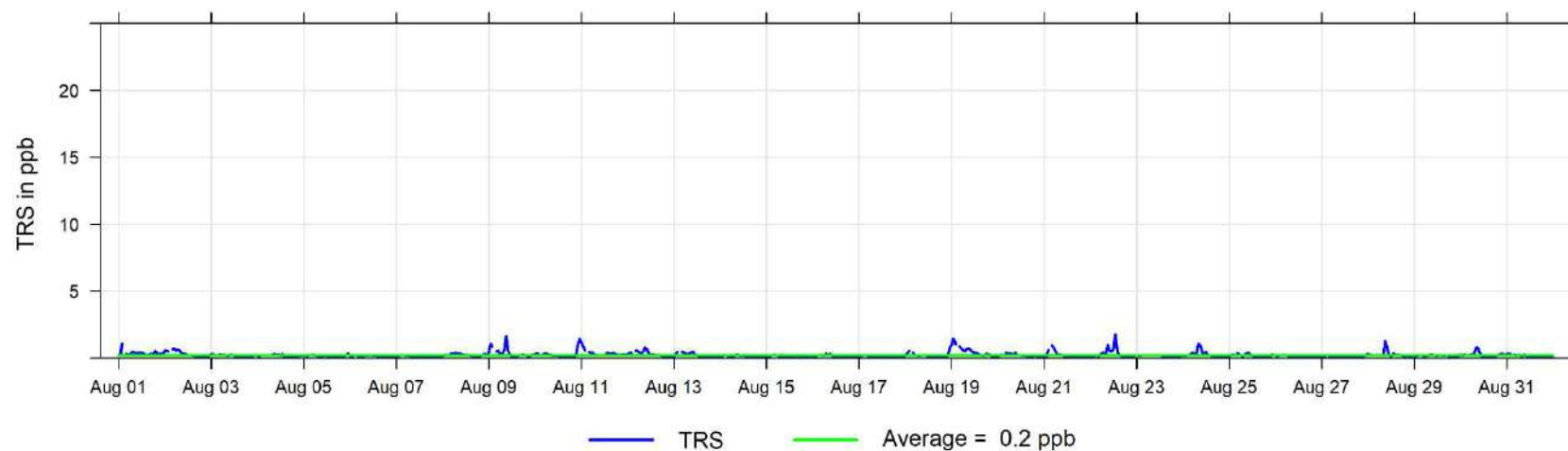
3 Dunes Charts

The following pages include the charts and histograms for Dunes Station

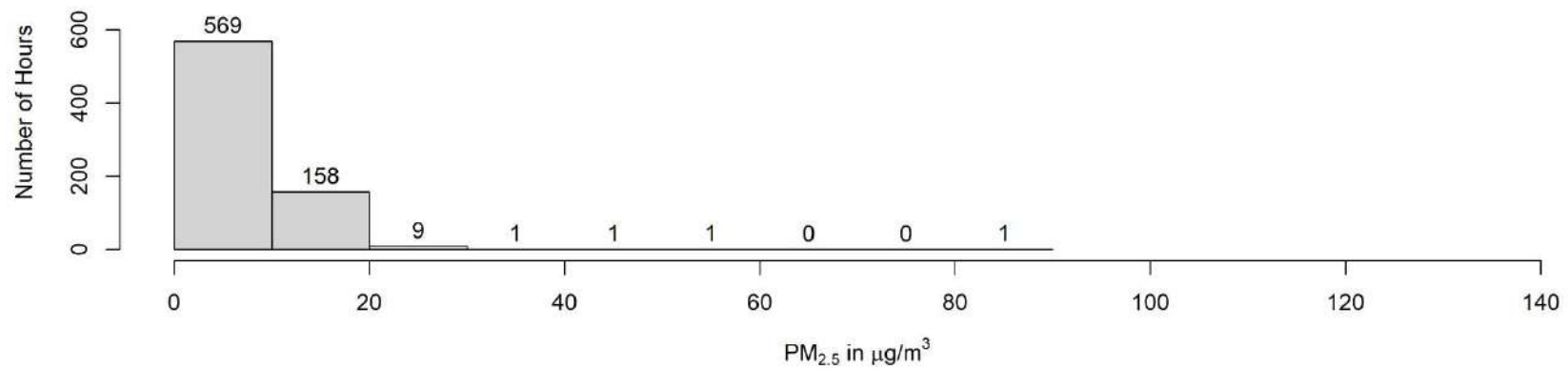
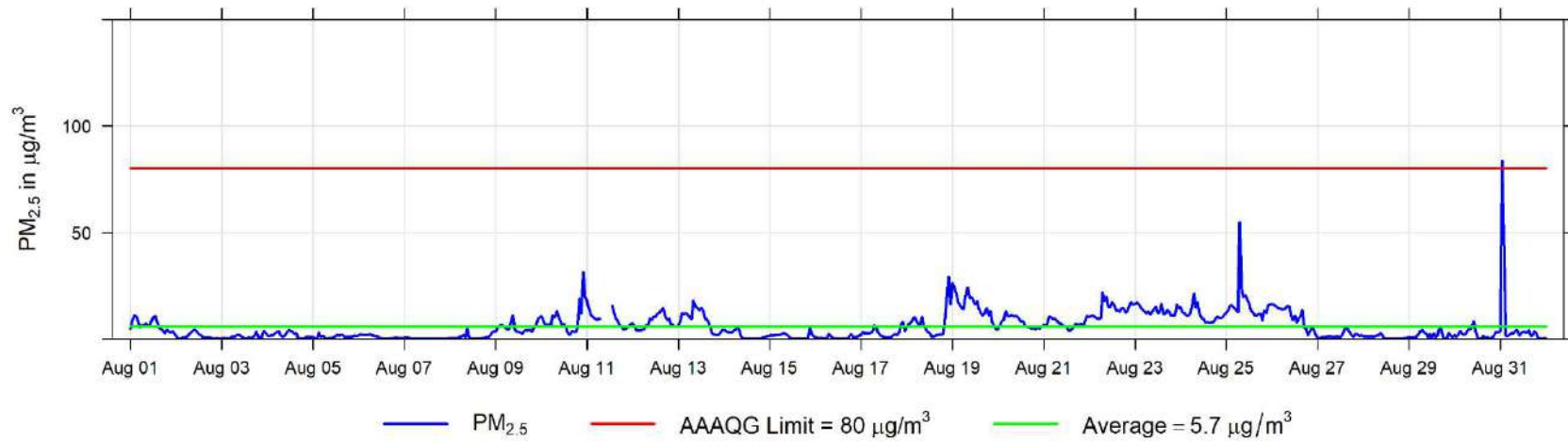
August 2022 Hourly Concentration Readings of SO₂ (in ppb) at Dunes



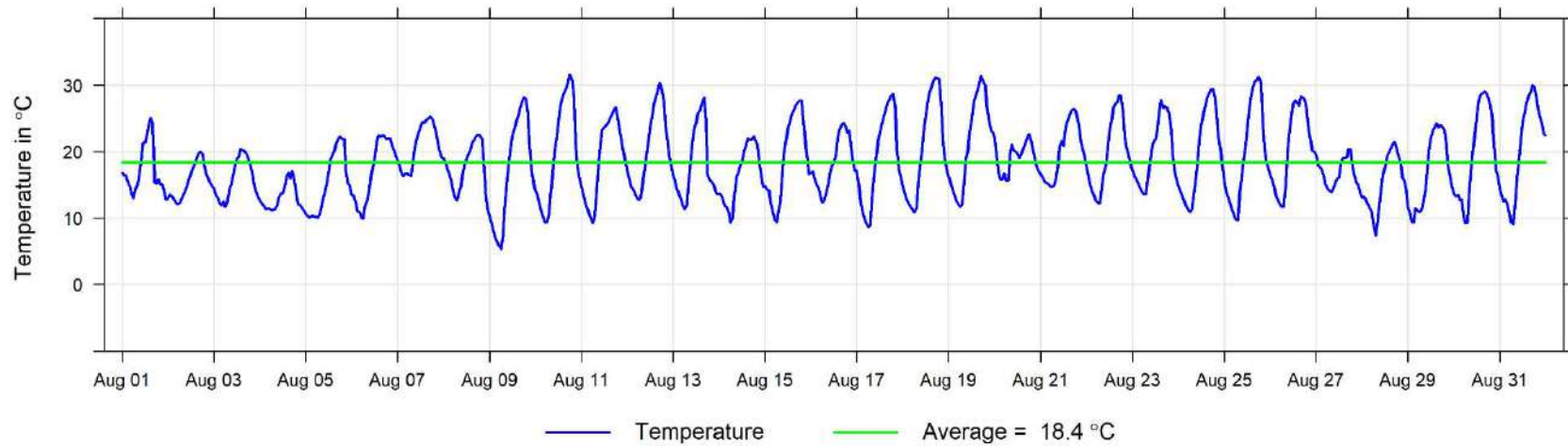
August 2022 Hourly Concentration Readings of TRS (in ppb) at Dunes



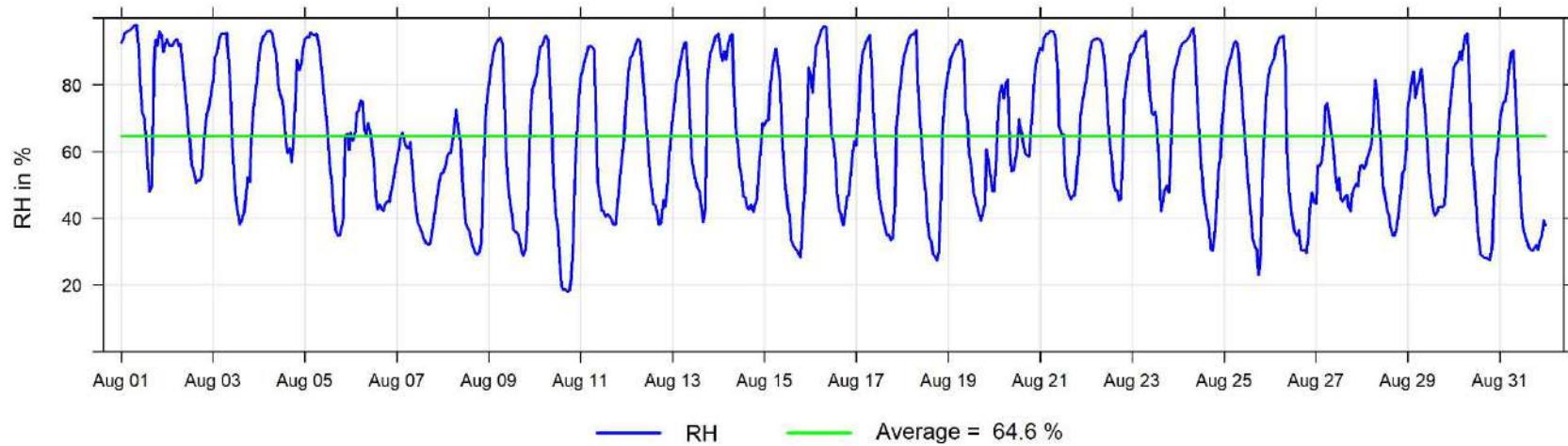
August 2022 Hourly Concentration Readings of PM_{2.5} in $\mu\text{g}/\text{m}^3$ at Dunes



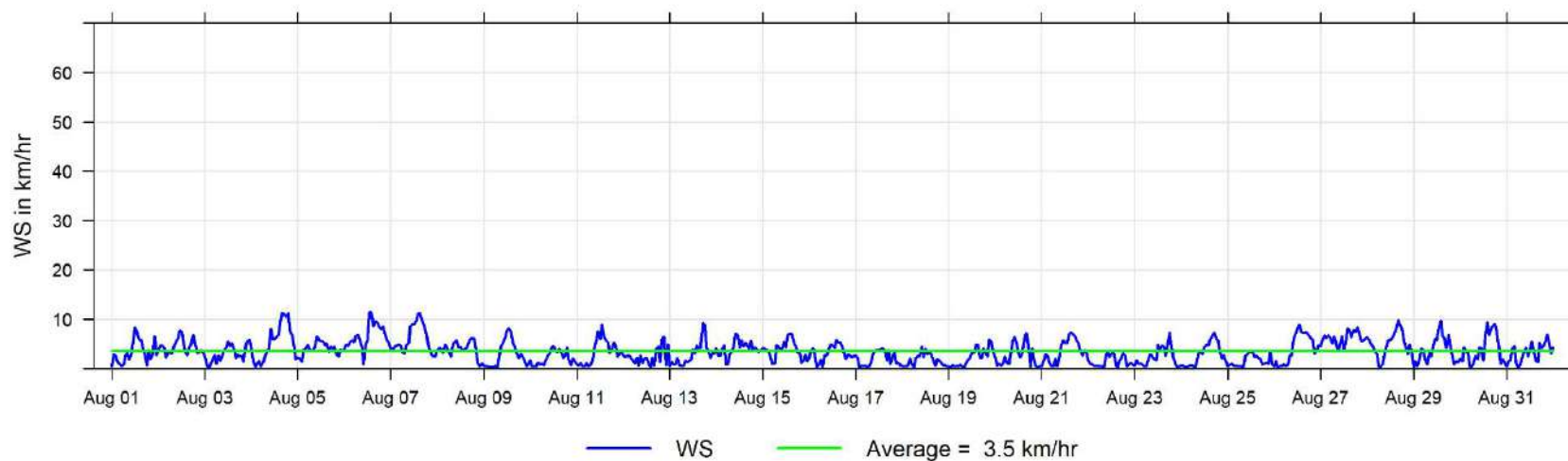
August 2022 Hourly Temperature Readings (in °C) at Dunes



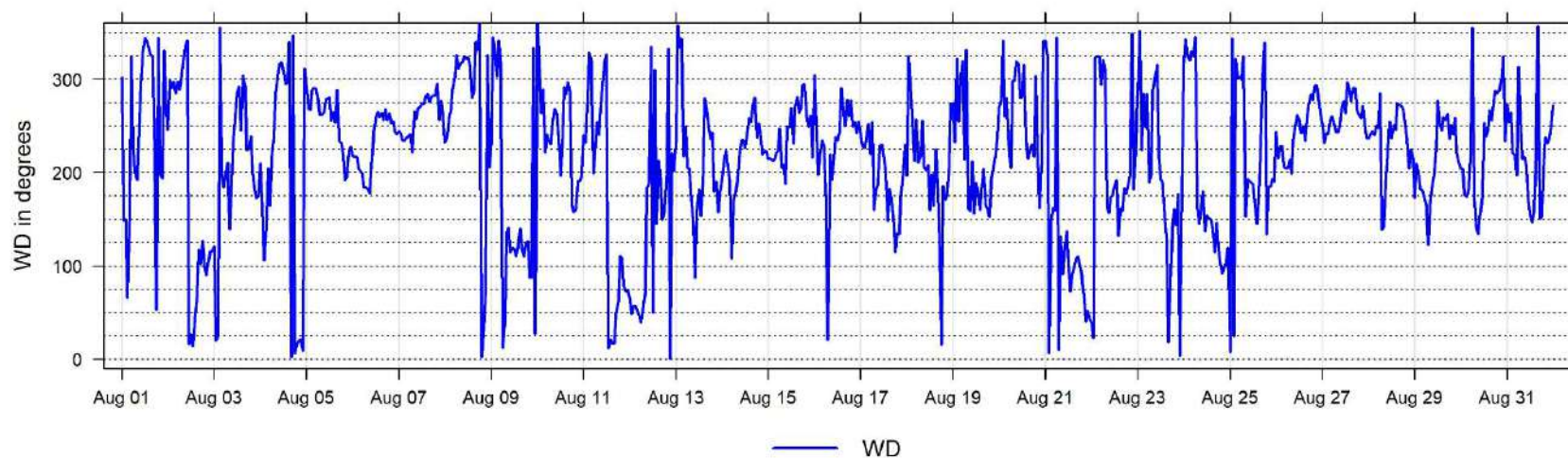
August 2022 Hourly Readings of Relative Humidity (in %) at Dunes



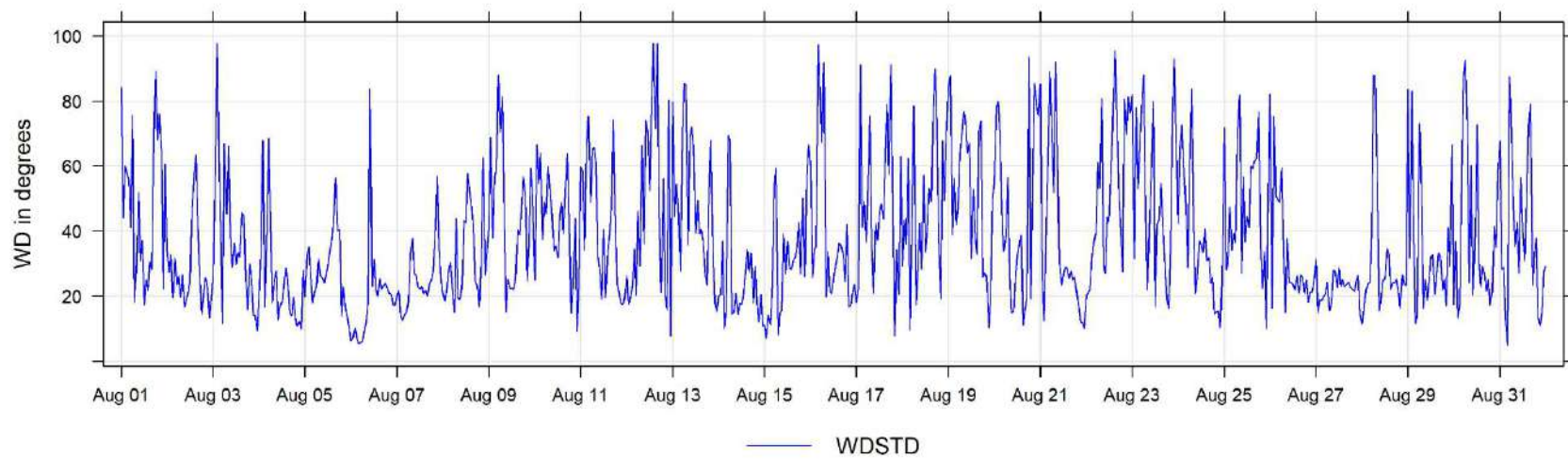
August 2022 Hourly Readings of Wind Speed (in km/hr) at Dunes

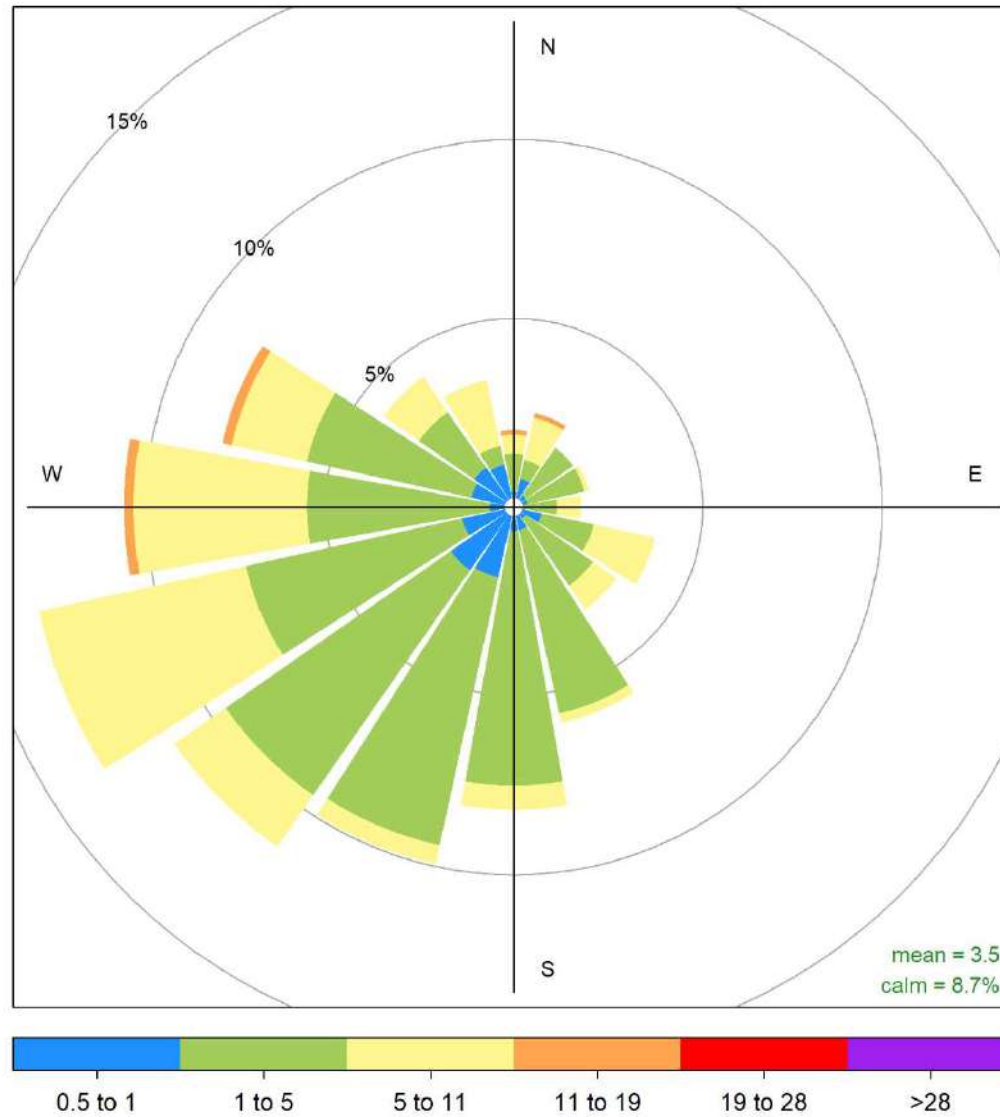


August 2022 Hourly Readings of Wind Direction (in degrees) at Dunes



August 2022 Hourly Readings of Wind Direction Standard Deviation (in degrees) at Dunes



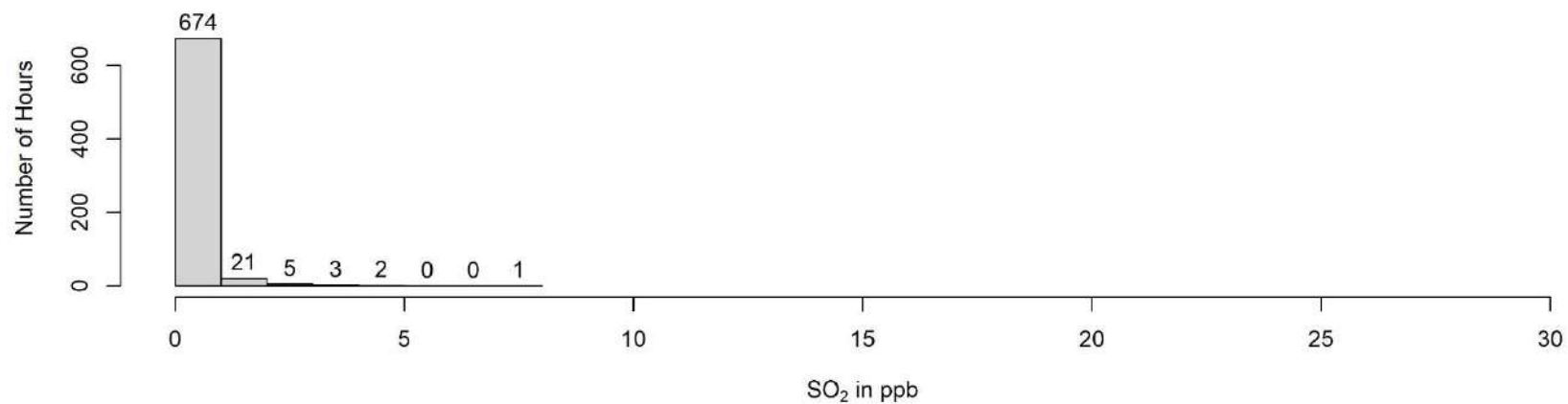
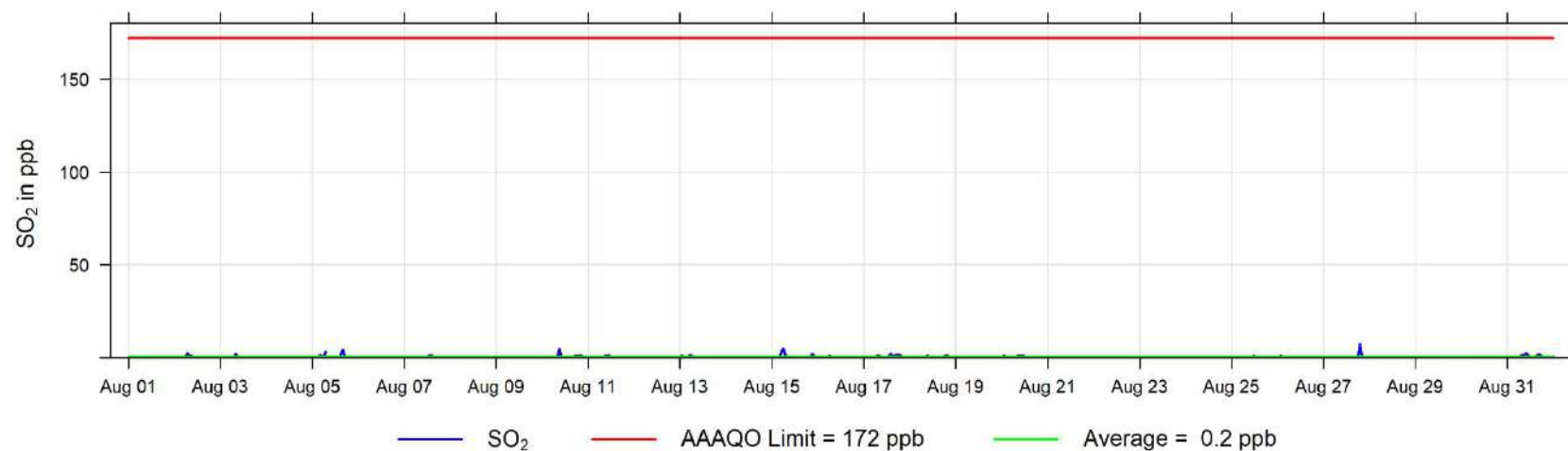


Dunes August 2022 Wind Rose, wind speed in km/hr
Frequency of counts by wind direction (%)

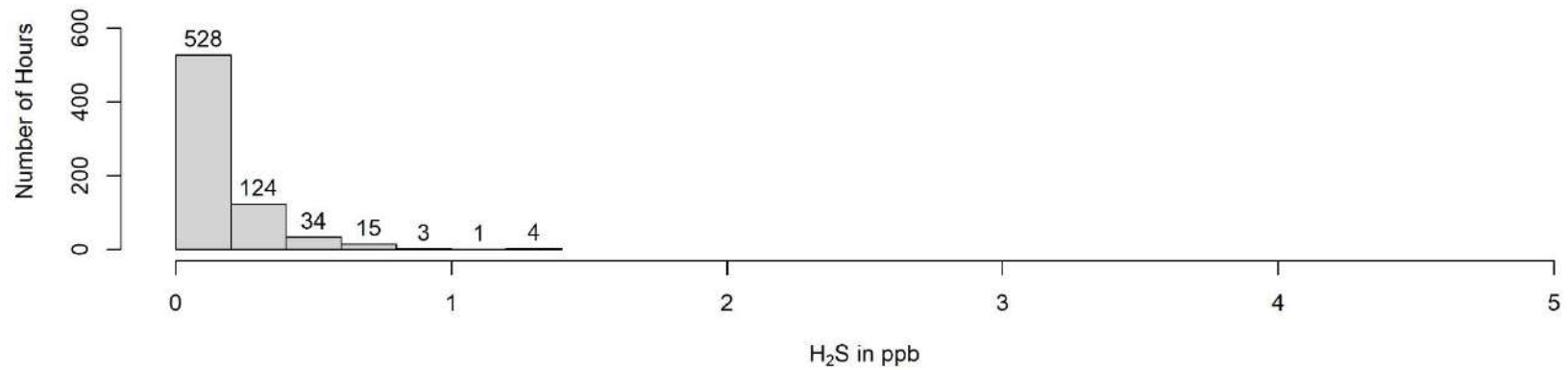
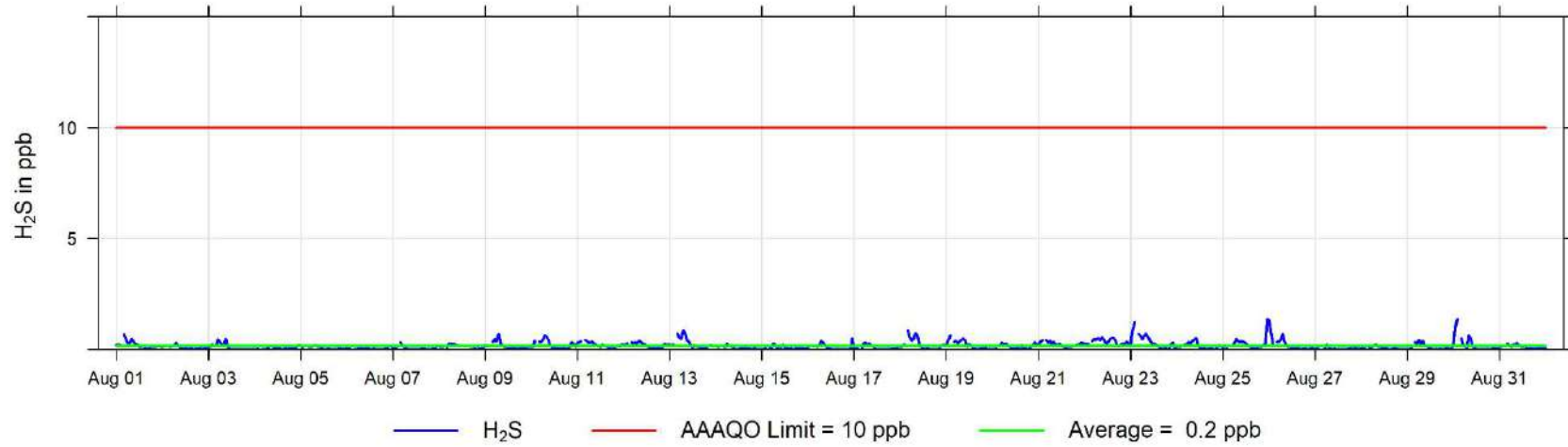
4 Grande Prairie - Henry Pirker Charts

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

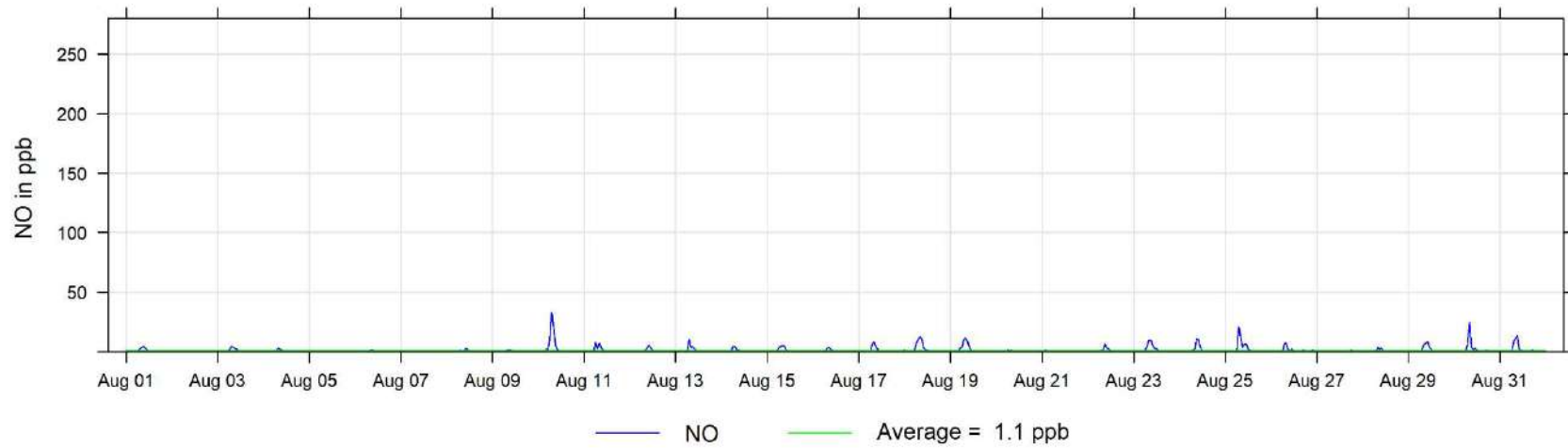
August 2022 Hourly Concentration Readings of SO₂ (in ppb) at Henry Pirker



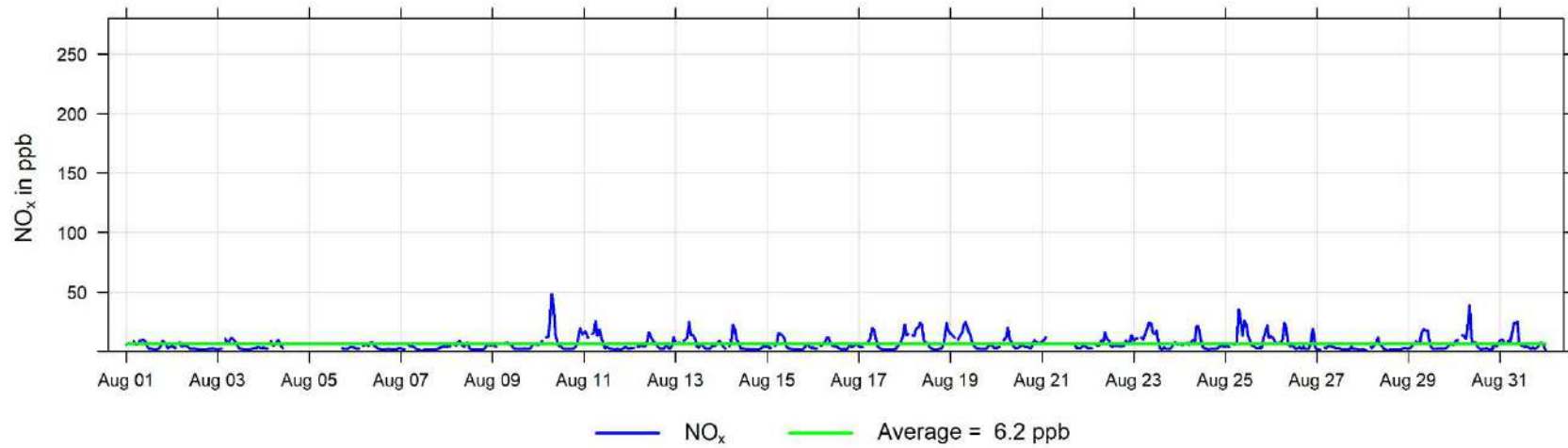
August 2022 Hourly Concentration Readings of H₂S (in ppb) at Henry Pirker



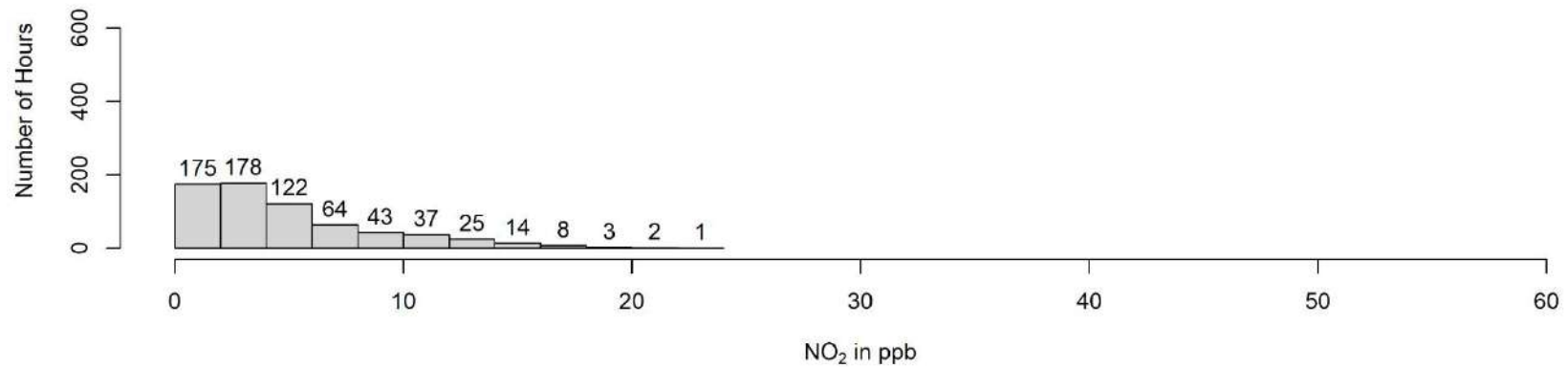
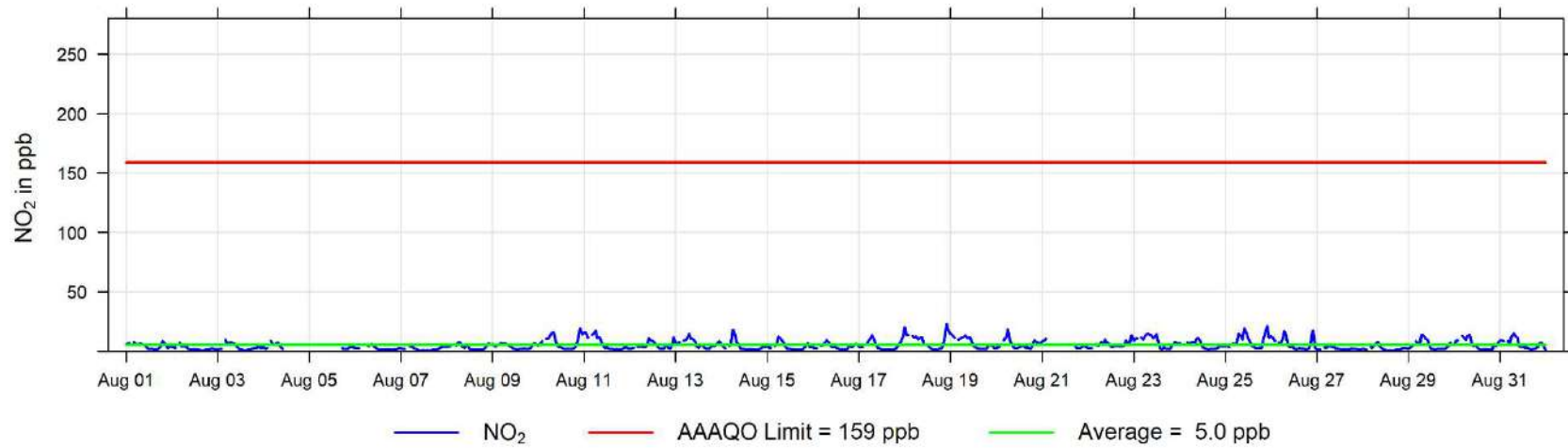
August 2022 Hourly Concentration Readings of NO (in ppb) at Henry Pirker



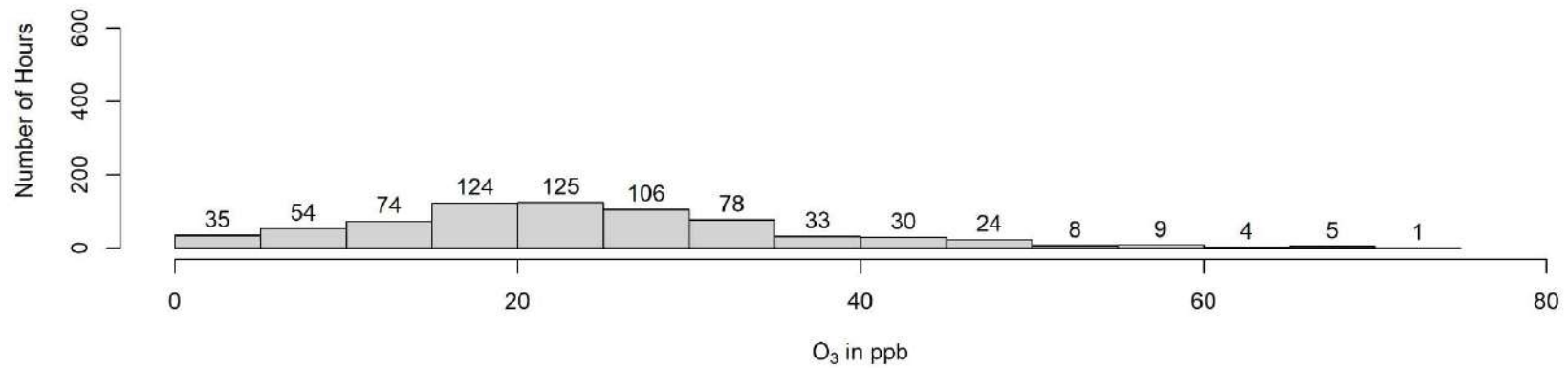
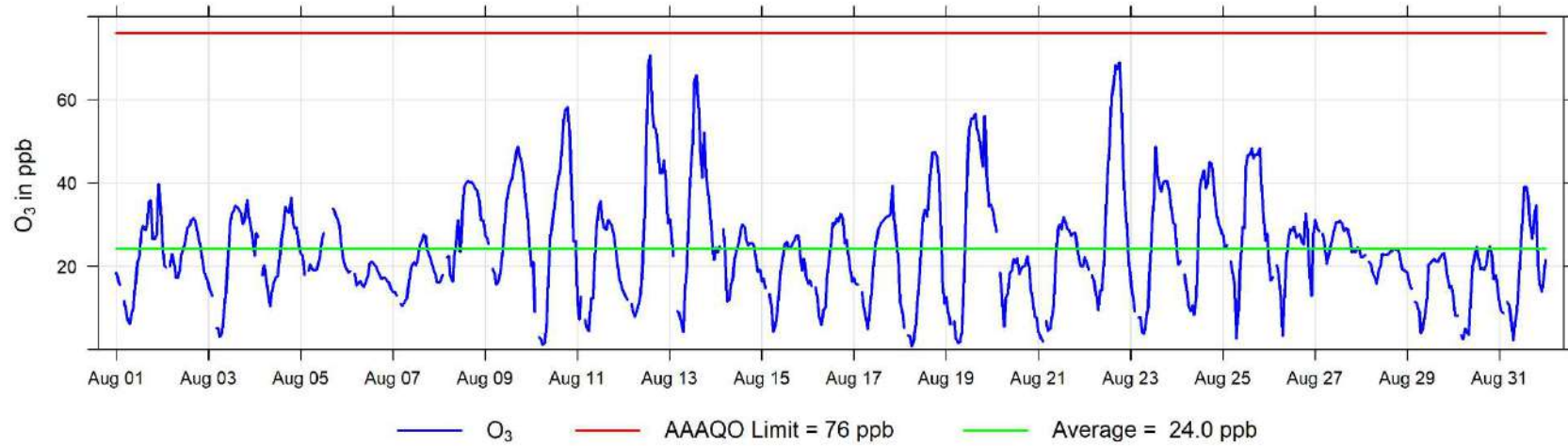
August 2022 Hourly Concentration Readings of NO_x (in ppb) at Henry Pirker



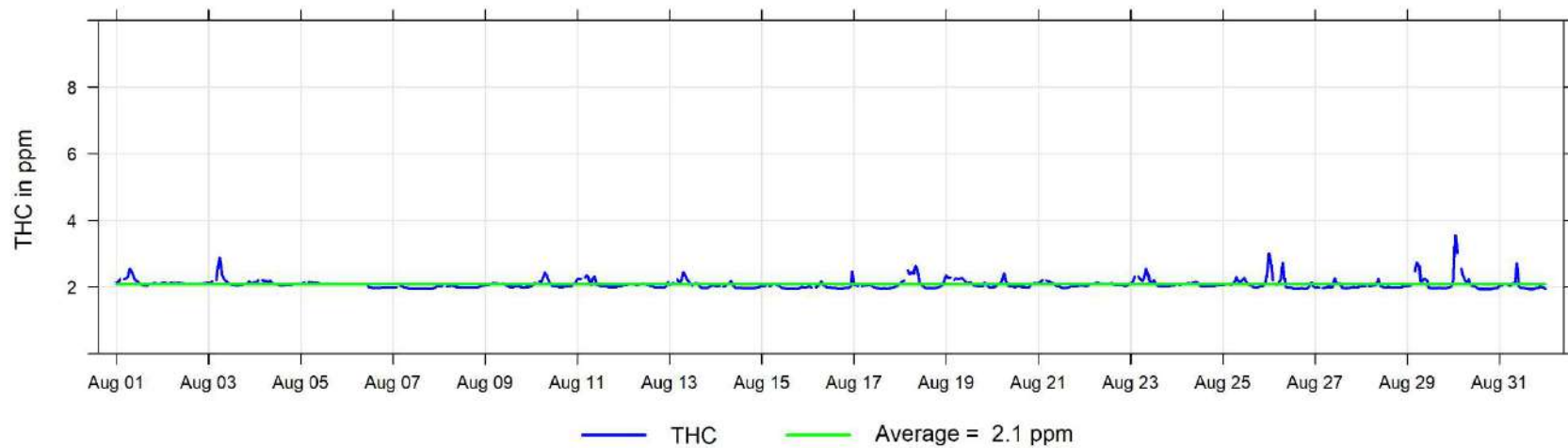
August 2022 Hourly Concentration Readings of NO₂ (in ppb) at Henry Pirker



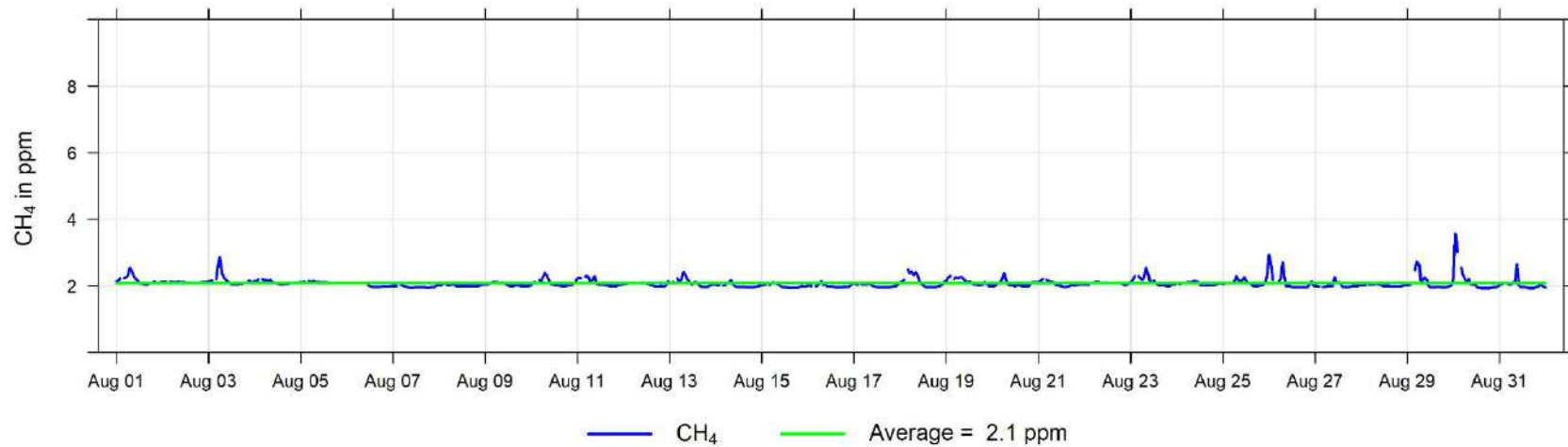
August 2022 Hourly Concentration Readings of O₃ (in ppb) at Henry Pirker



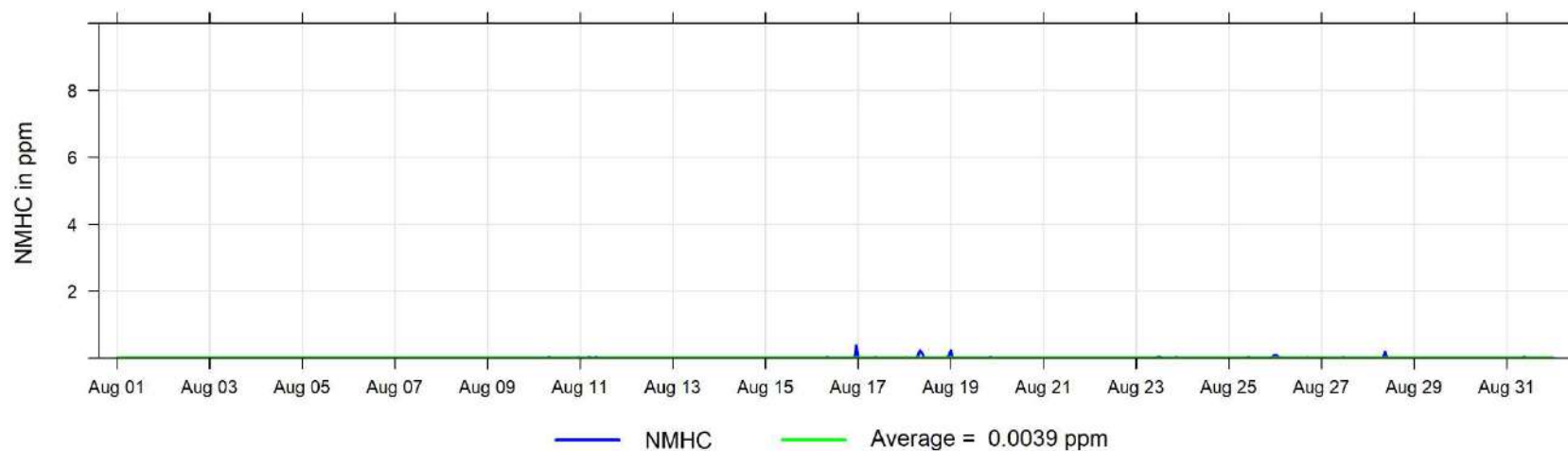
August 2022 Hourly Concentration Readings of THC (in ppm) at Henry Pirker



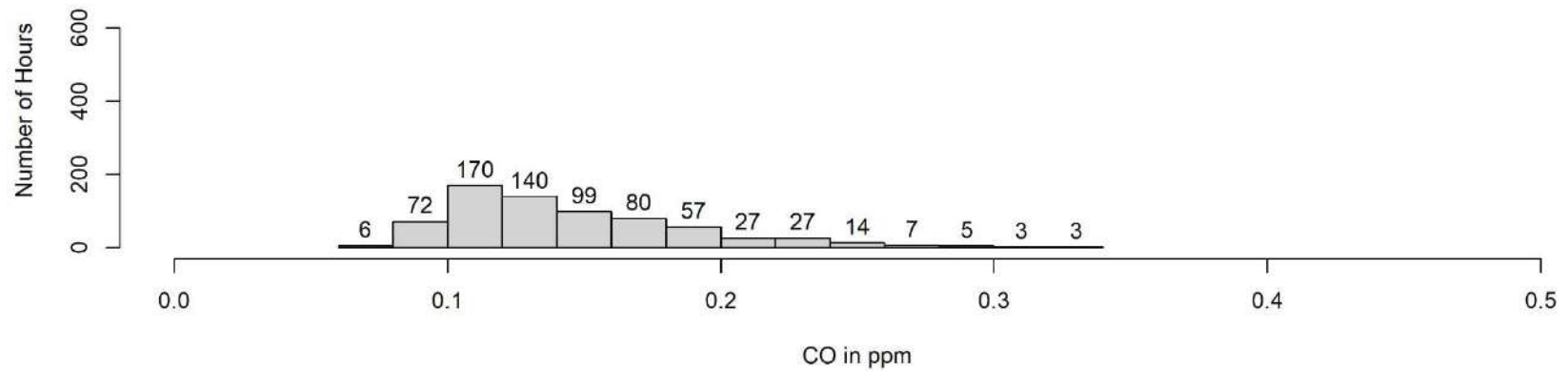
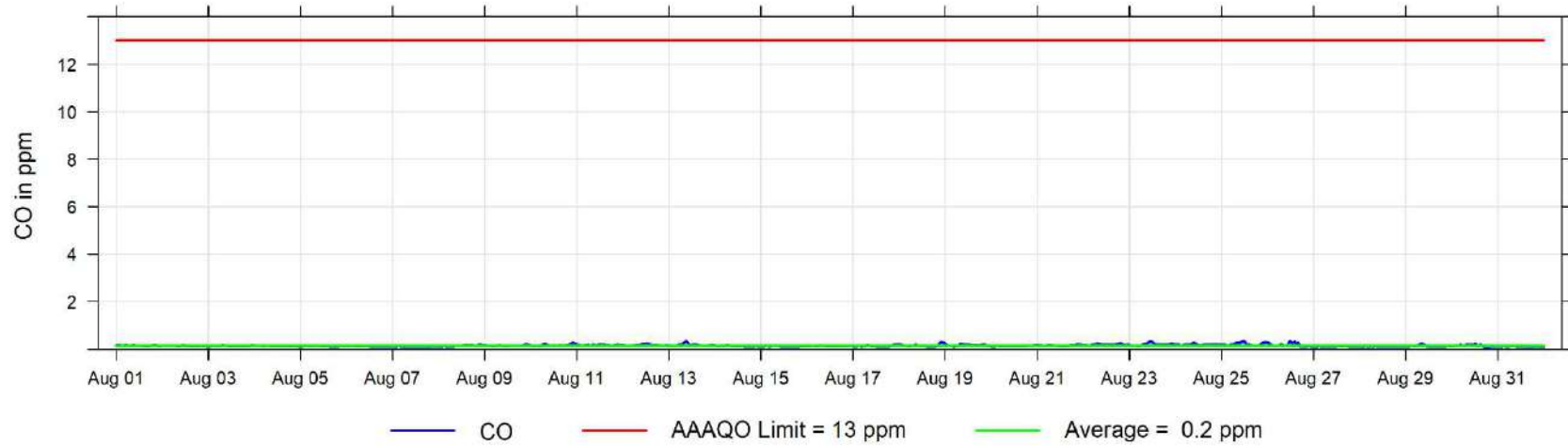
August 2022 Hourly Concentration Readings of CH₄ (in ppm) at Henry Pirker



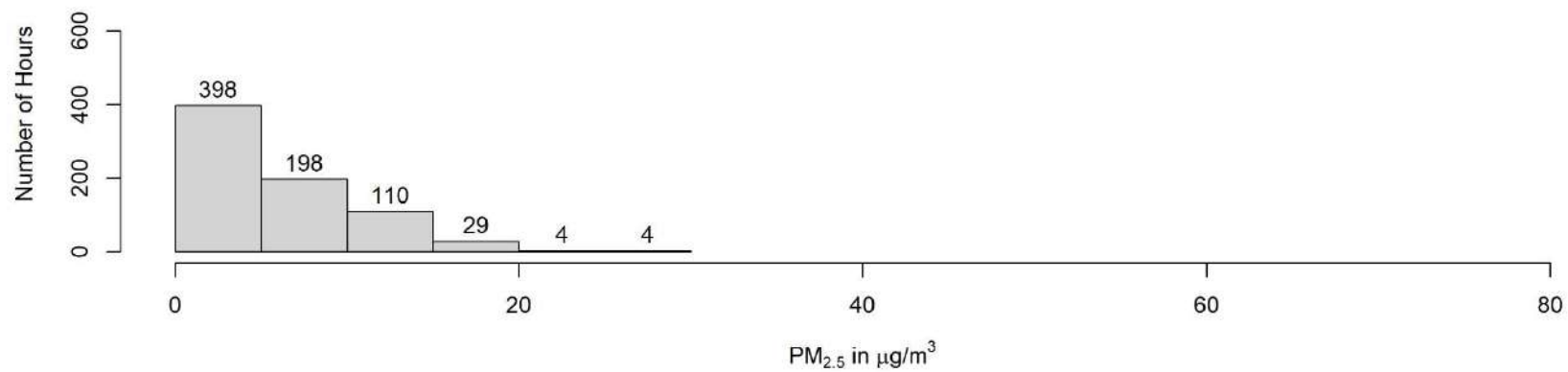
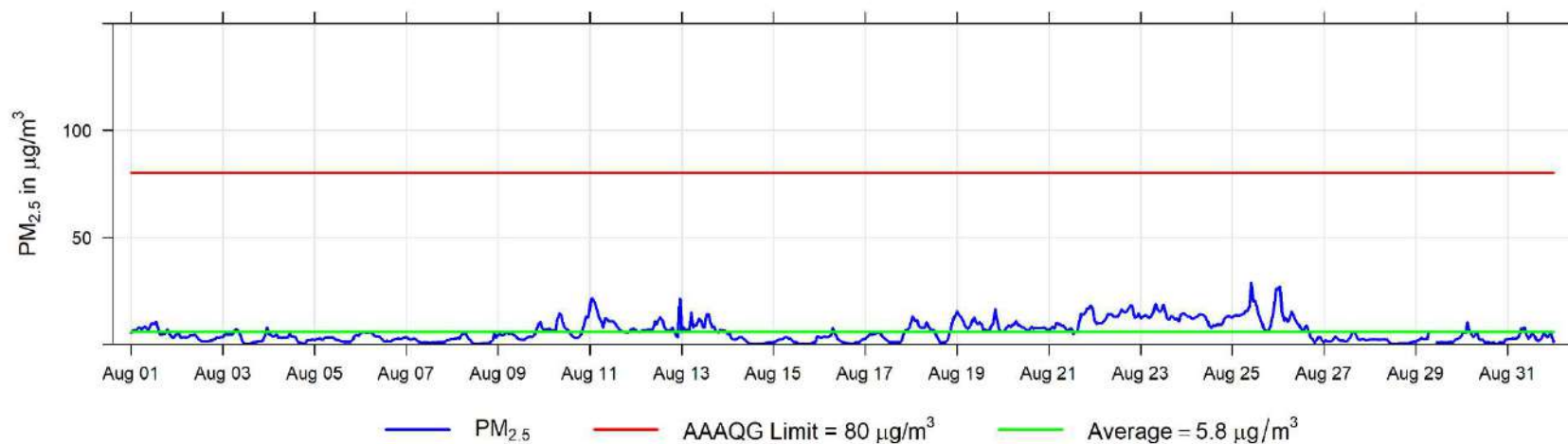
August 2022 Hourly Concentration Readings of NMHC (in ppm) at Henry Pirker



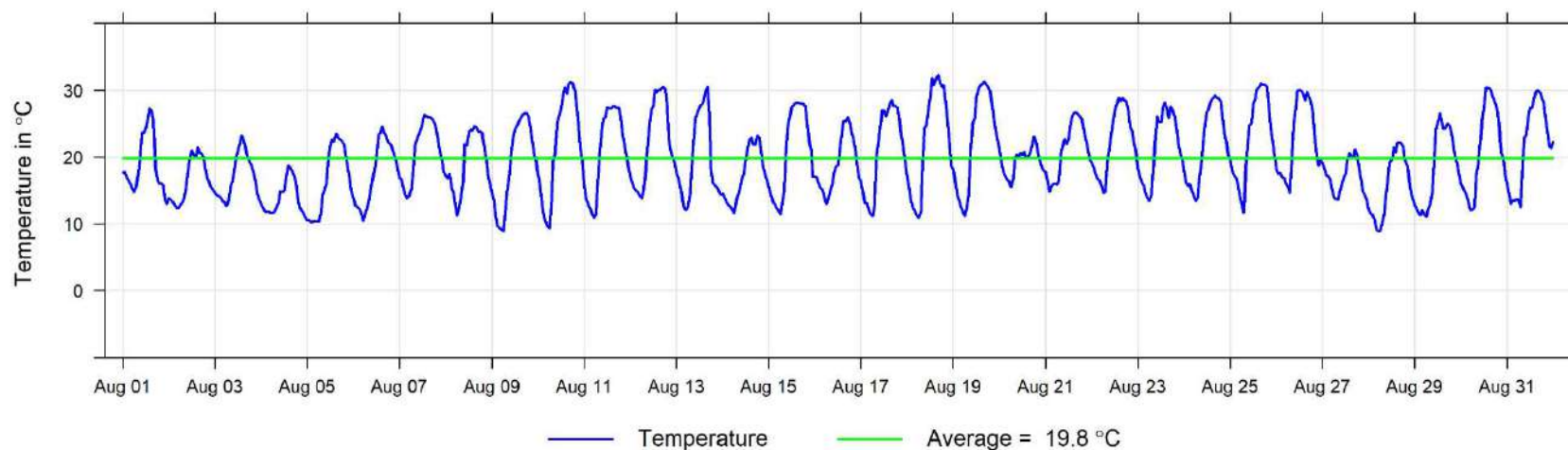
August 2022 Hourly Concentration Readings of CO (in ppm) at Henry Pirker



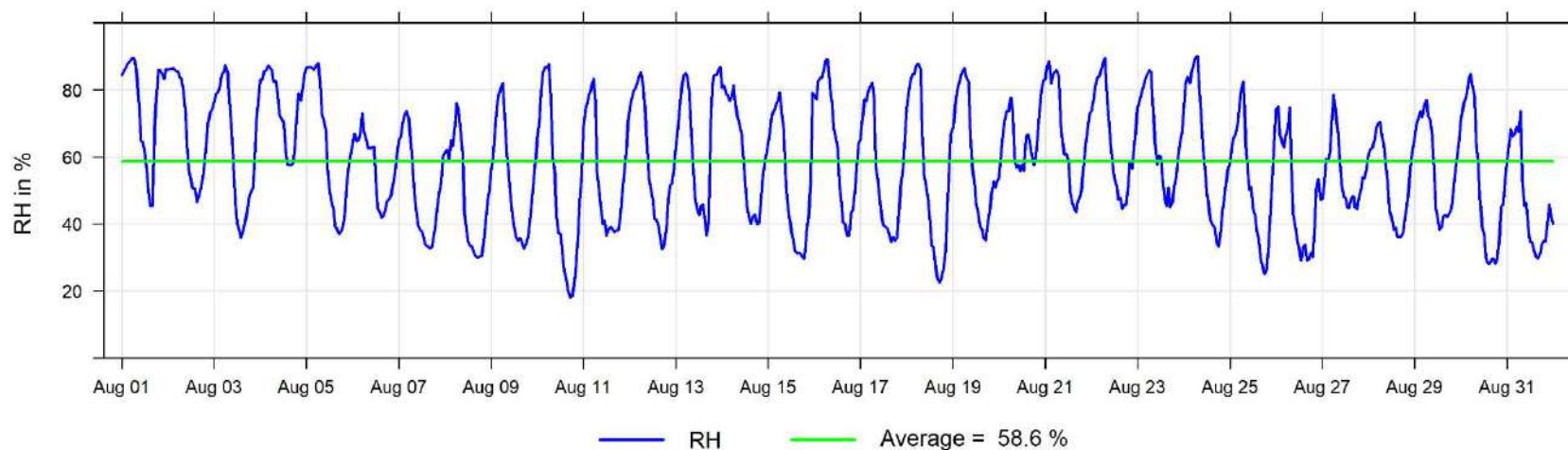
August 2022 Hourly Concentration Readings of PM_{2.5} in $\mu\text{g}/\text{m}^3$ at Henry Pirker



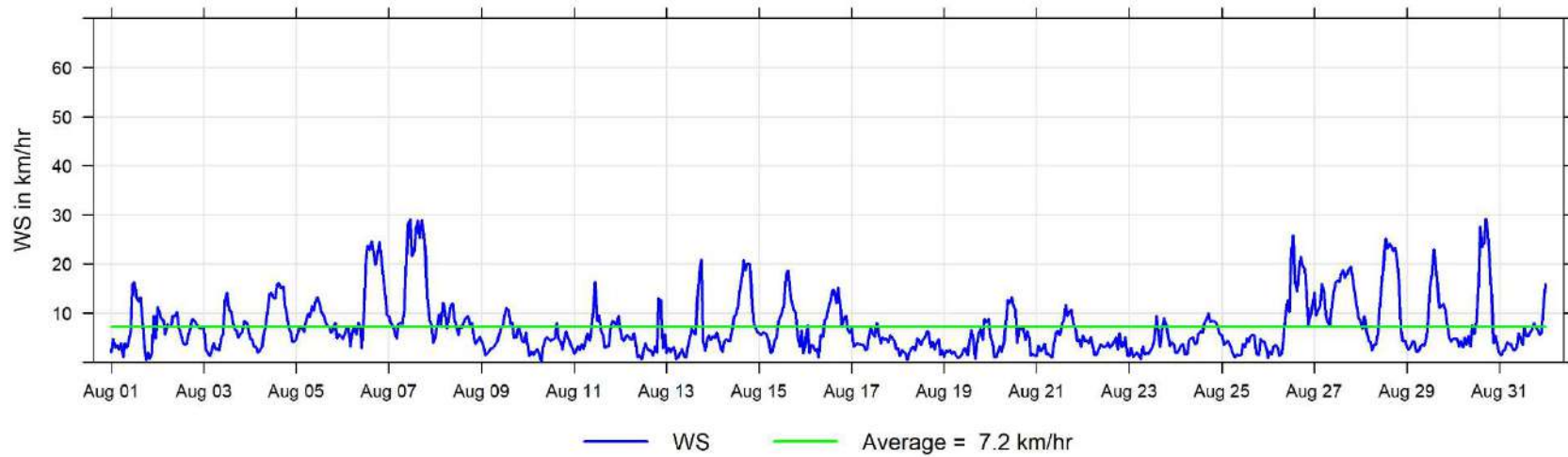
August 2022 Hourly Temperature Readings (in °C) at Henry Pirker



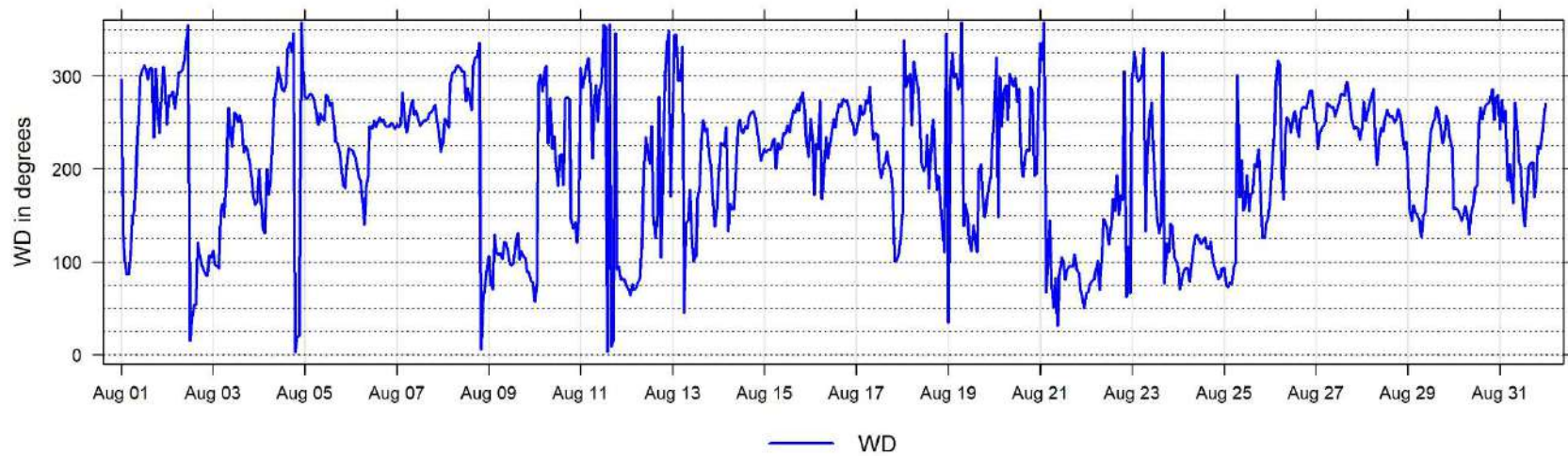
August 2022 Hourly Readings of Relative Humidity (in %) at Henry Pirker



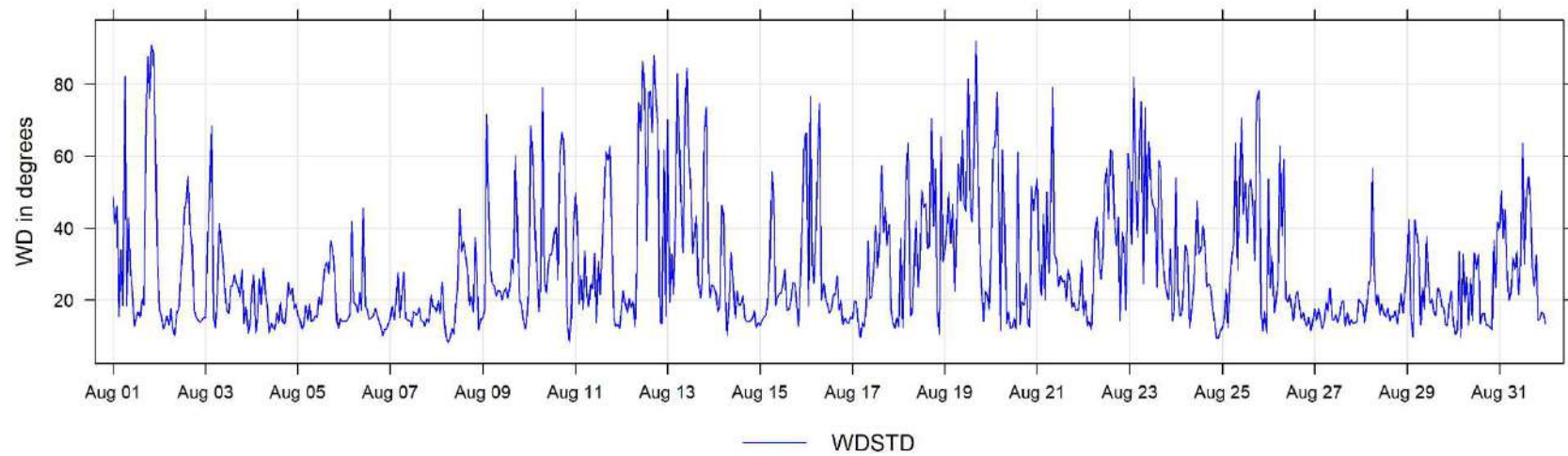
August 2022 Hourly Readings of Wind Speed (in km/hr) at Henry Pirker

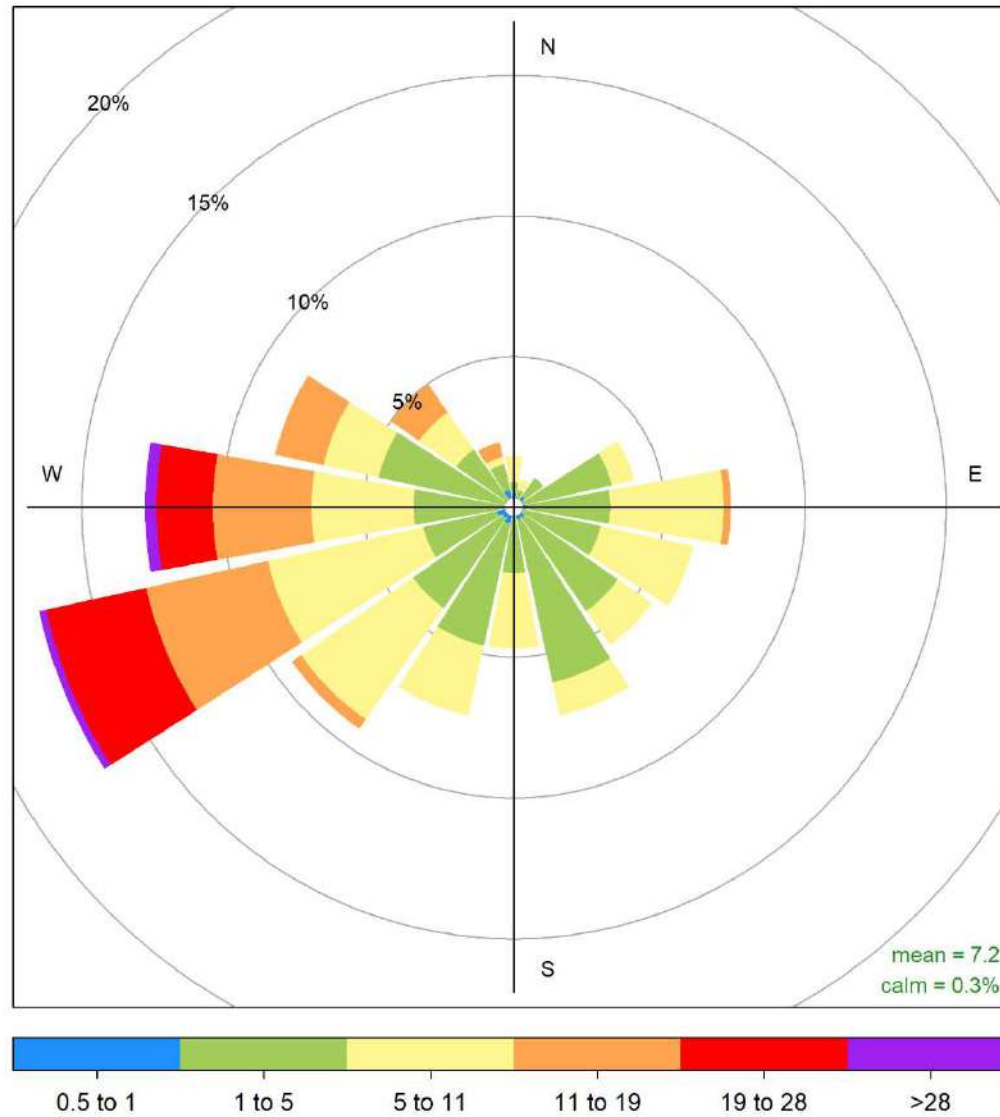


August 2022 Hourly Readings of Wind Direction (in degrees) at Henry Pirker



August 2022 Hourly Readings of Wind Direction Standard Deviation (in degrees) at Henry Pirker



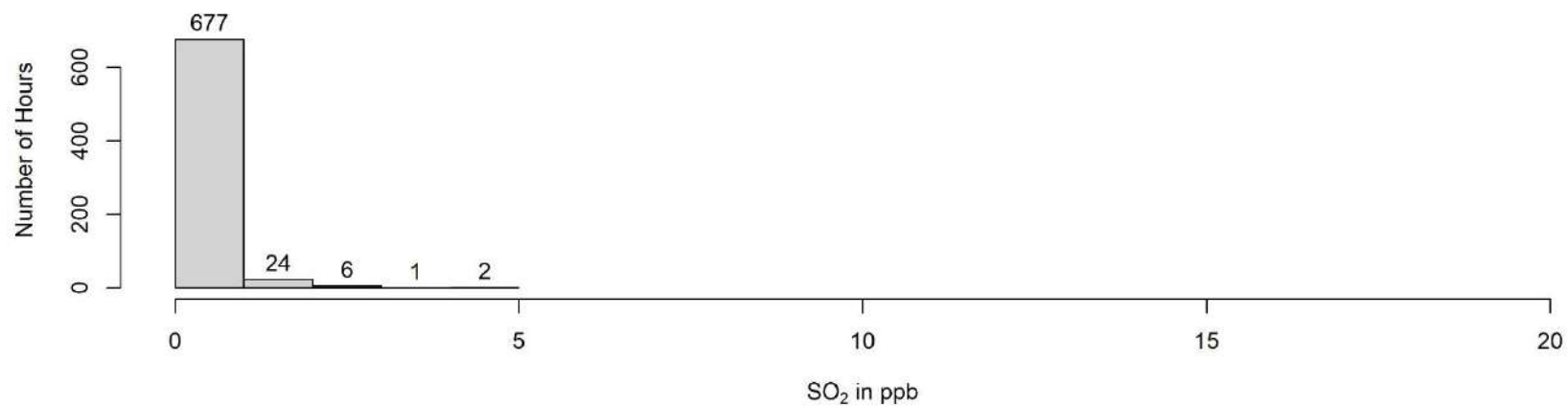
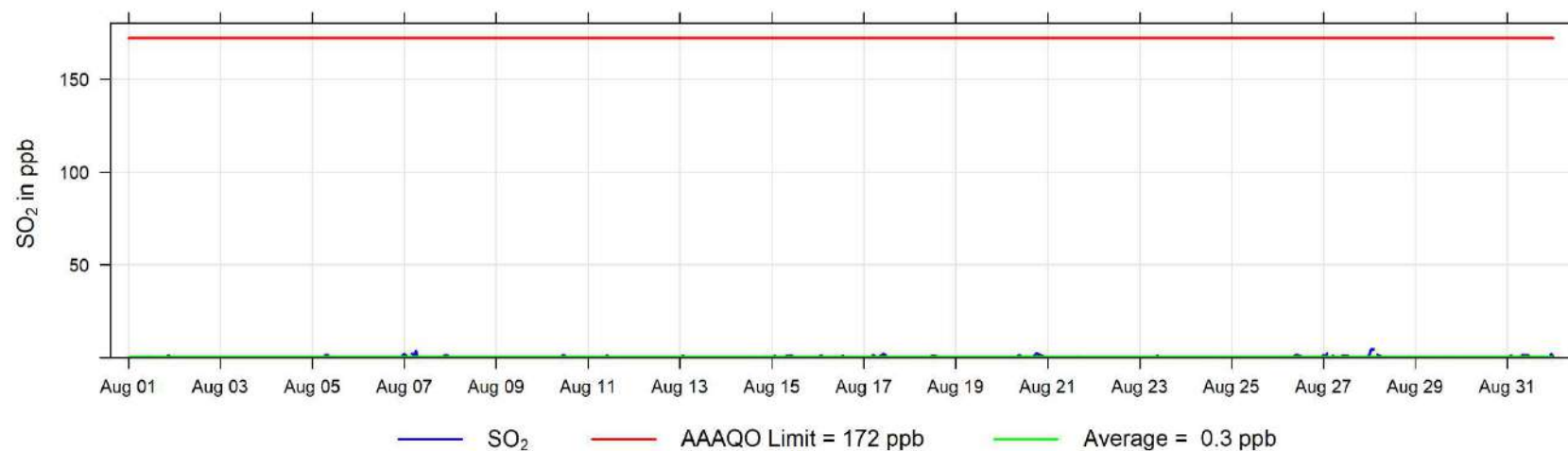


Henry Pirker August 2022 Wind Rose, wind speed in km/hr
Frequency of counts by wind direction (%)

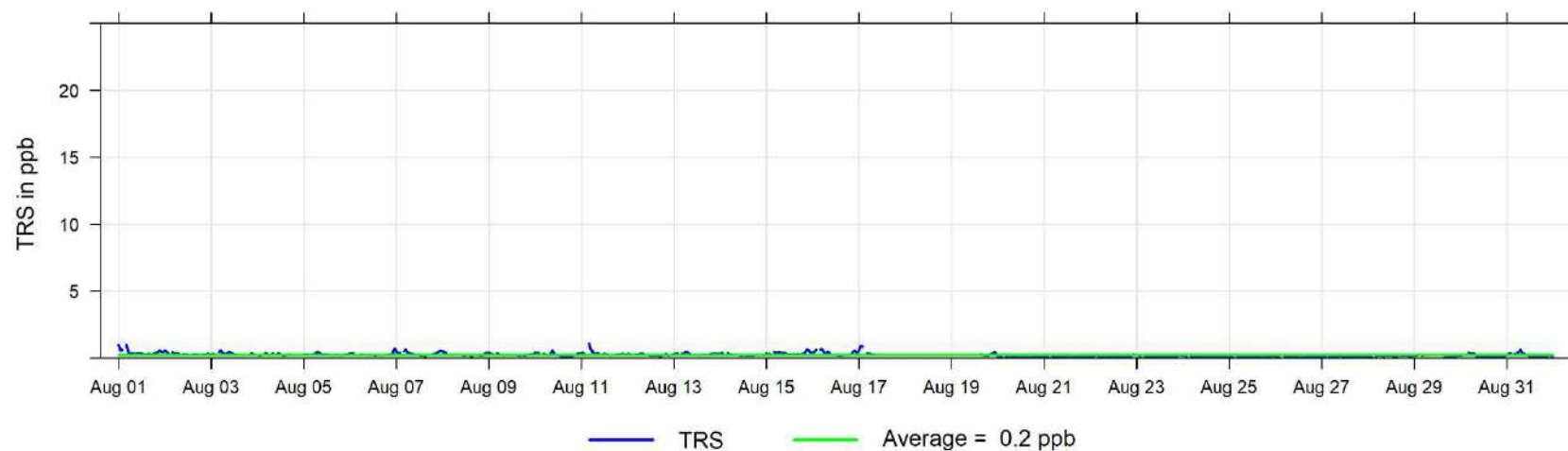
5 Smoky Heights Charts

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

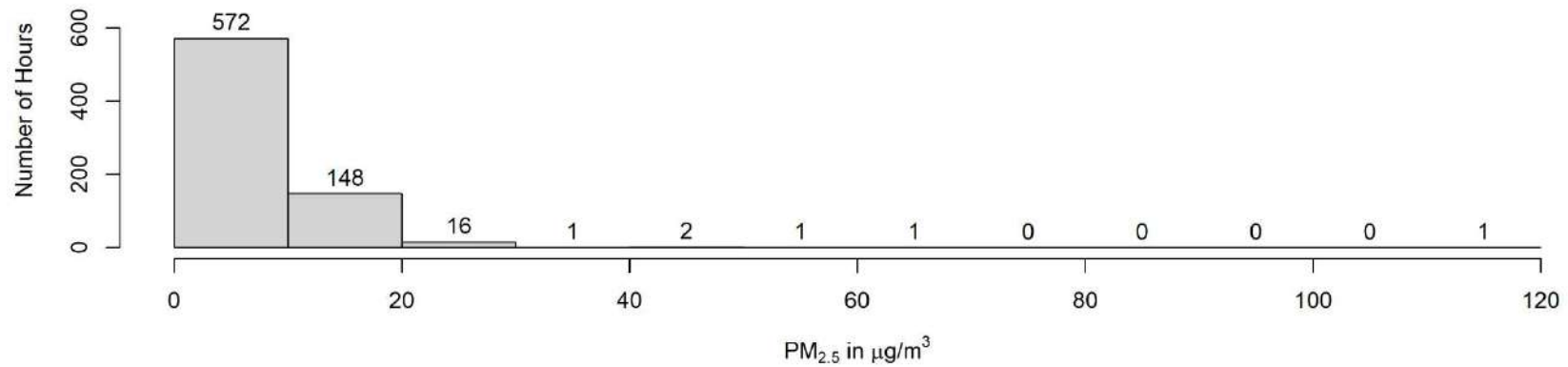
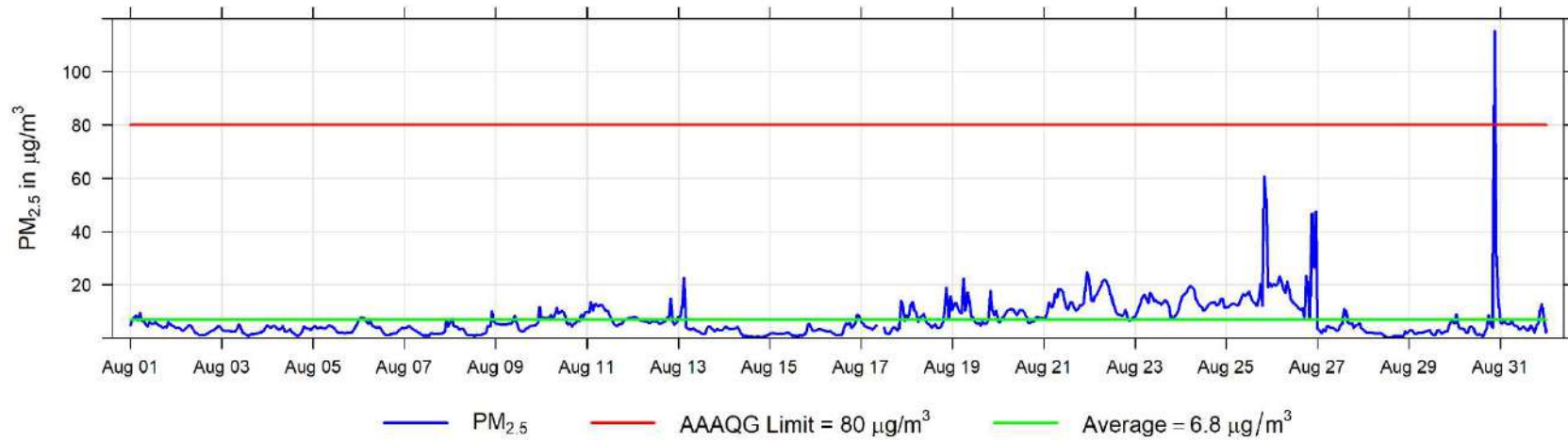
August 2022 Hourly Concentration Readings of SO₂ (in ppb) at Smoky Heights



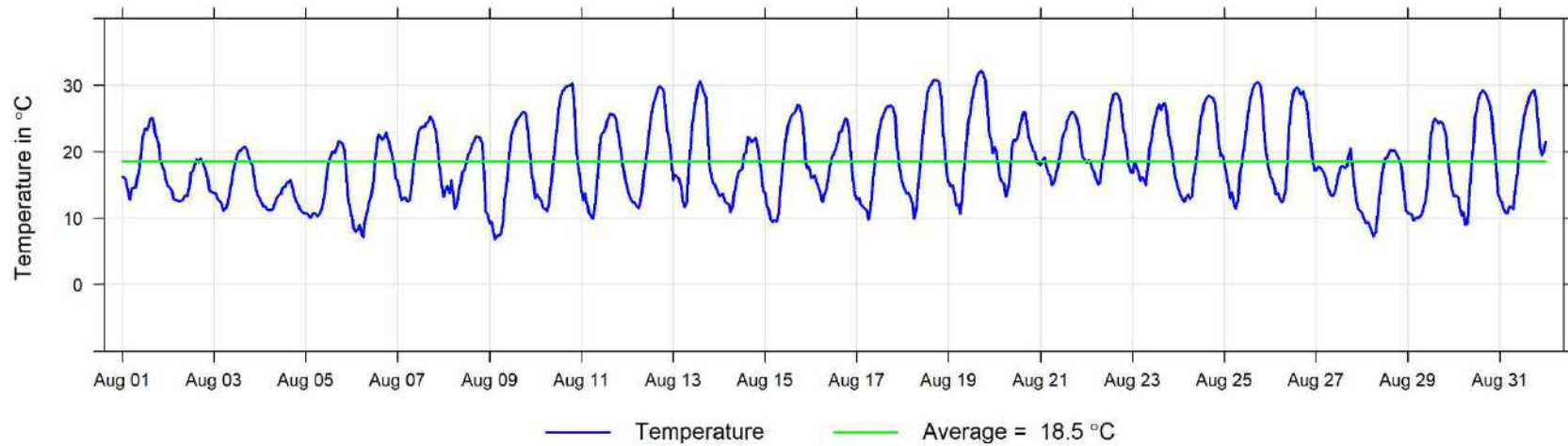
August 2022 Hourly Concentration Readings of TRS (in ppb) at Smoky Heights



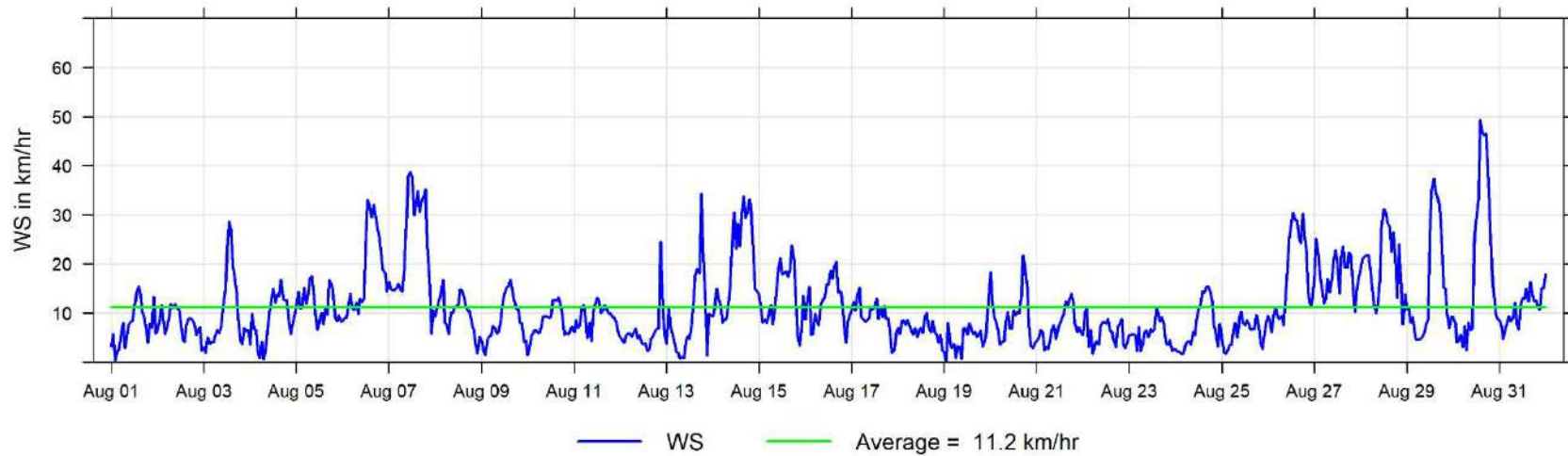
August 2022 Hourly Concentration Readings of PM_{2.5} in $\mu\text{g}/\text{m}^3$ at Smoky Heights



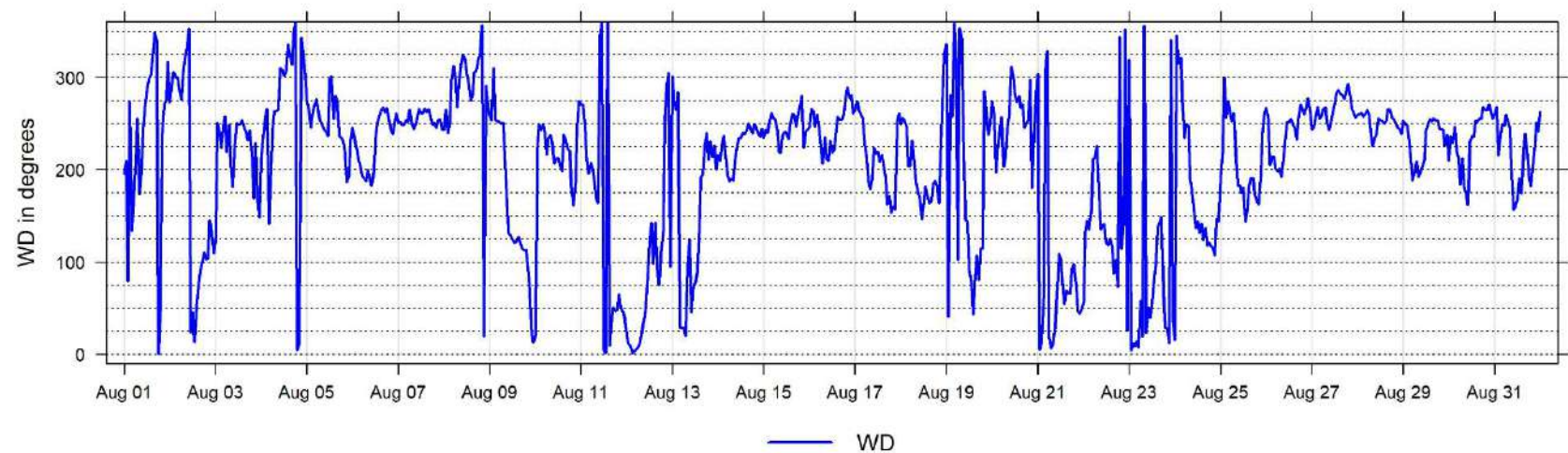
August 2022 Hourly Temperature Readings (in °C) at Smoky Heights



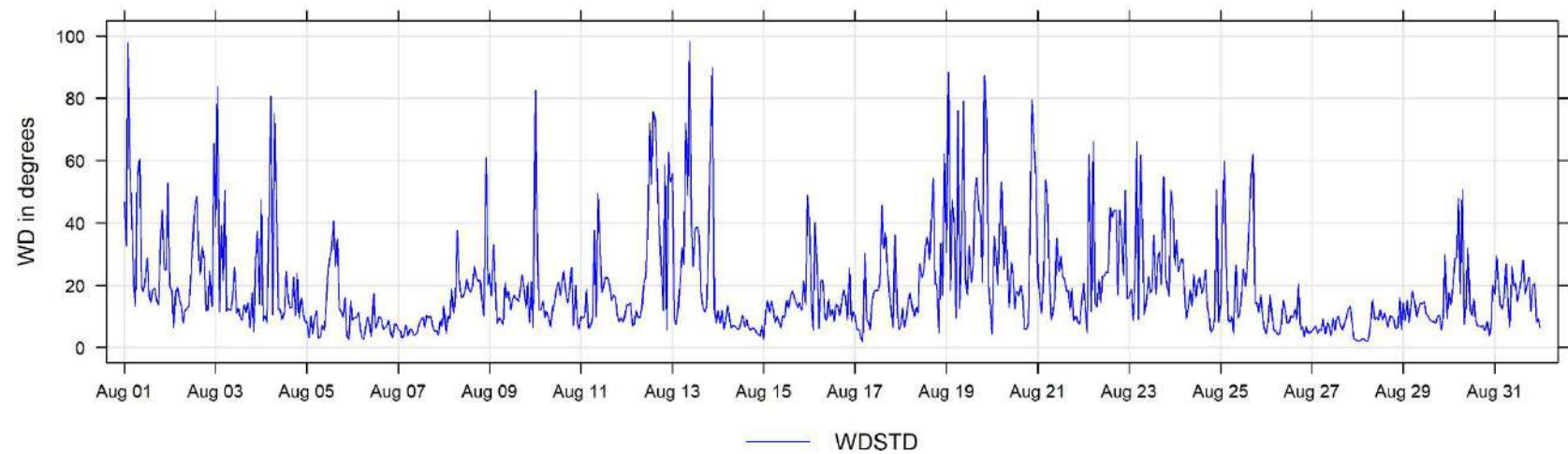
August 2022 Hourly Readings of Wind Speed (in km/hr) at Smoky Heights

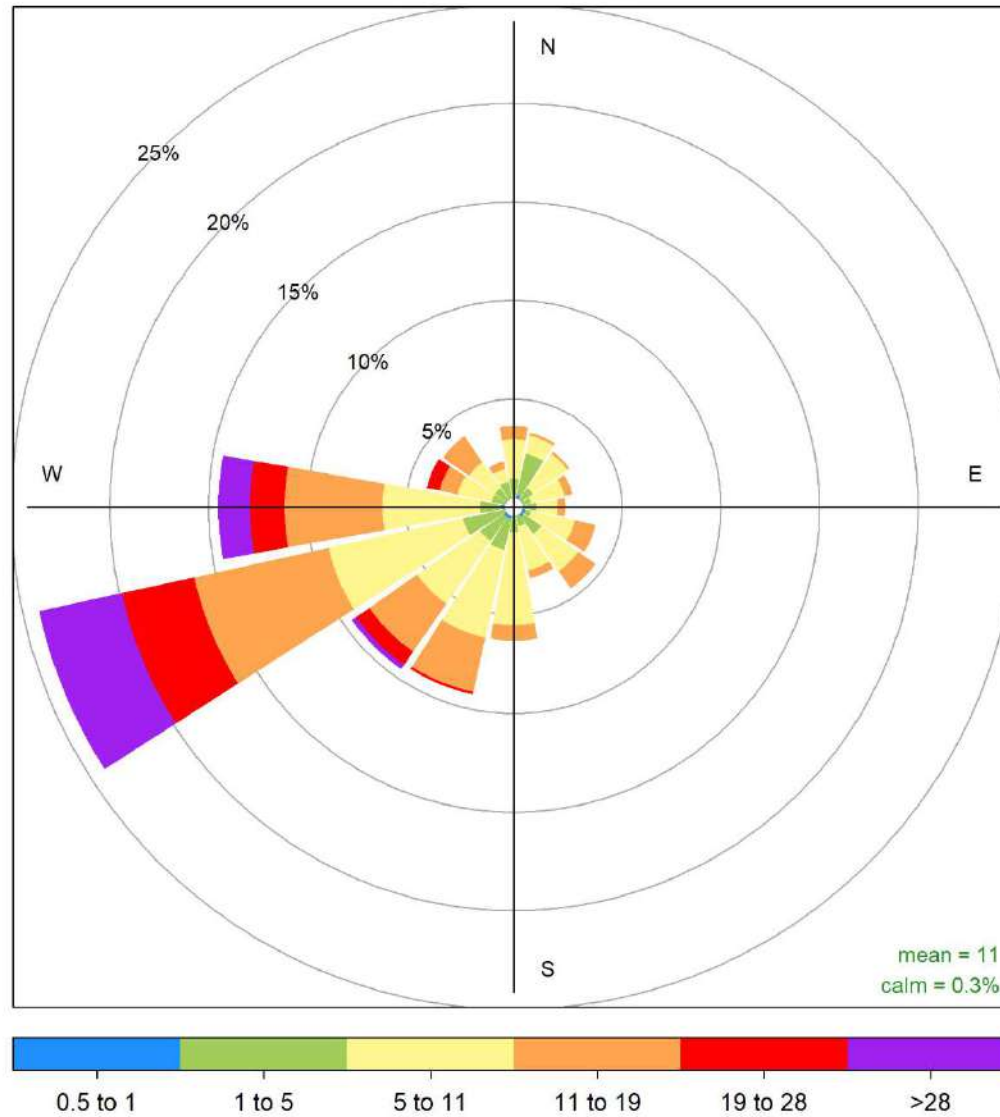


August 2022 Hourly Readings of Wind Direction (in degrees) at Smoky Heights



August 2022 Hourly Readings of Wind Direction Standard Deviation (in degrees) at Smoky Heights



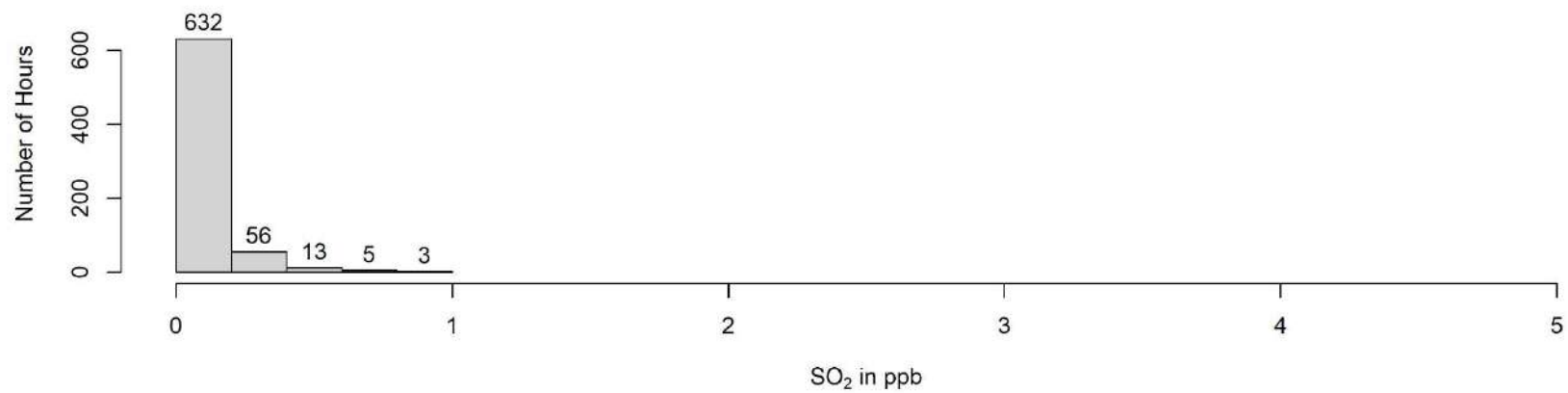
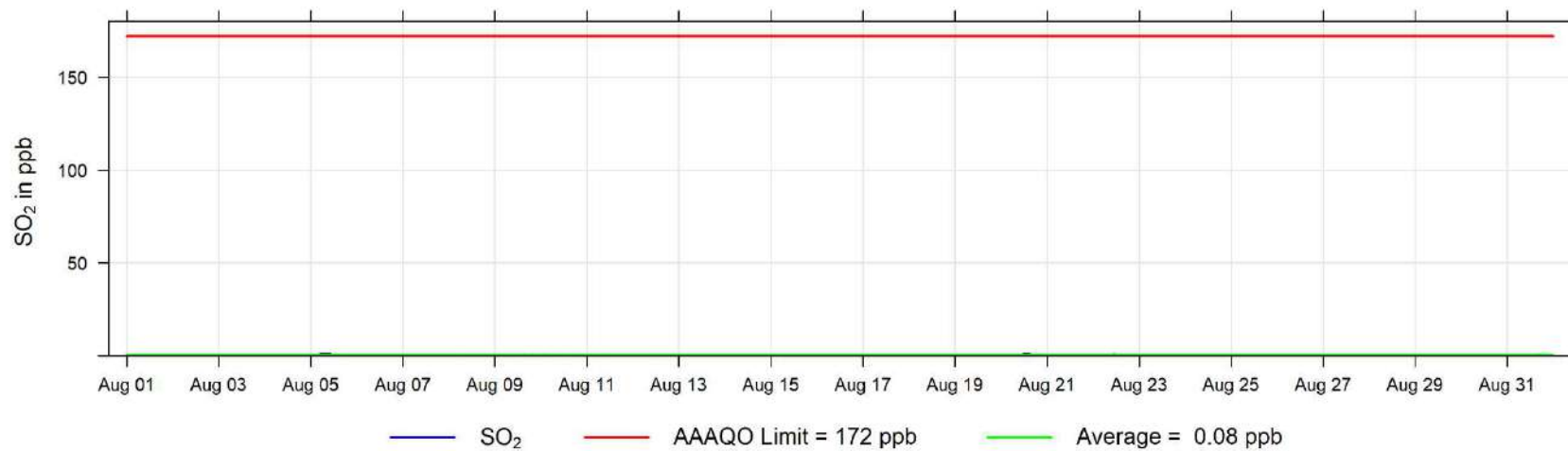


Smoky Heights August 2022 Wind Rose, wind speed in km/hr
Frequency of counts by wind direction (%)

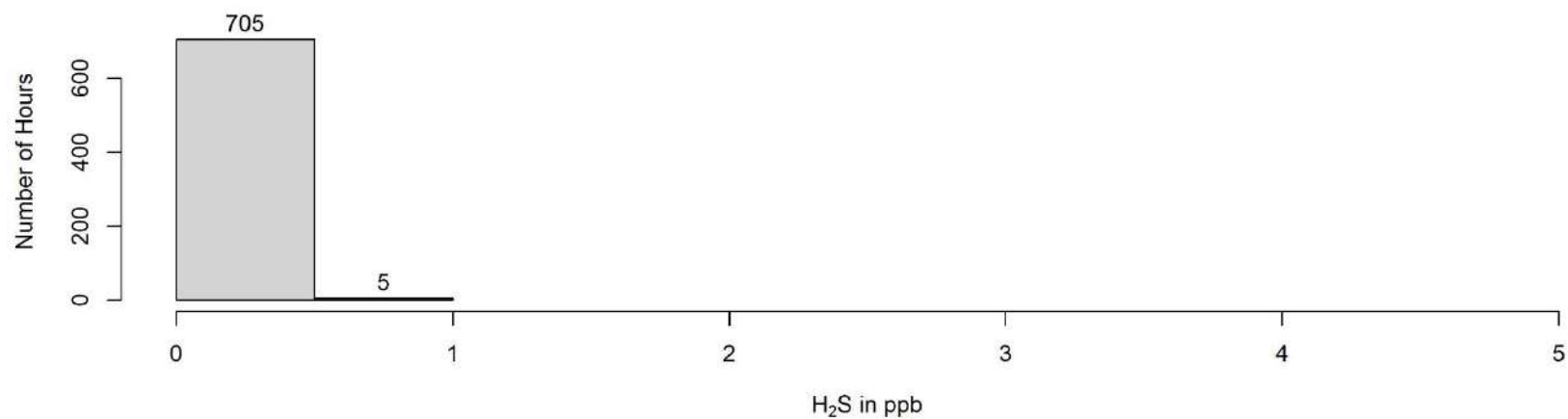
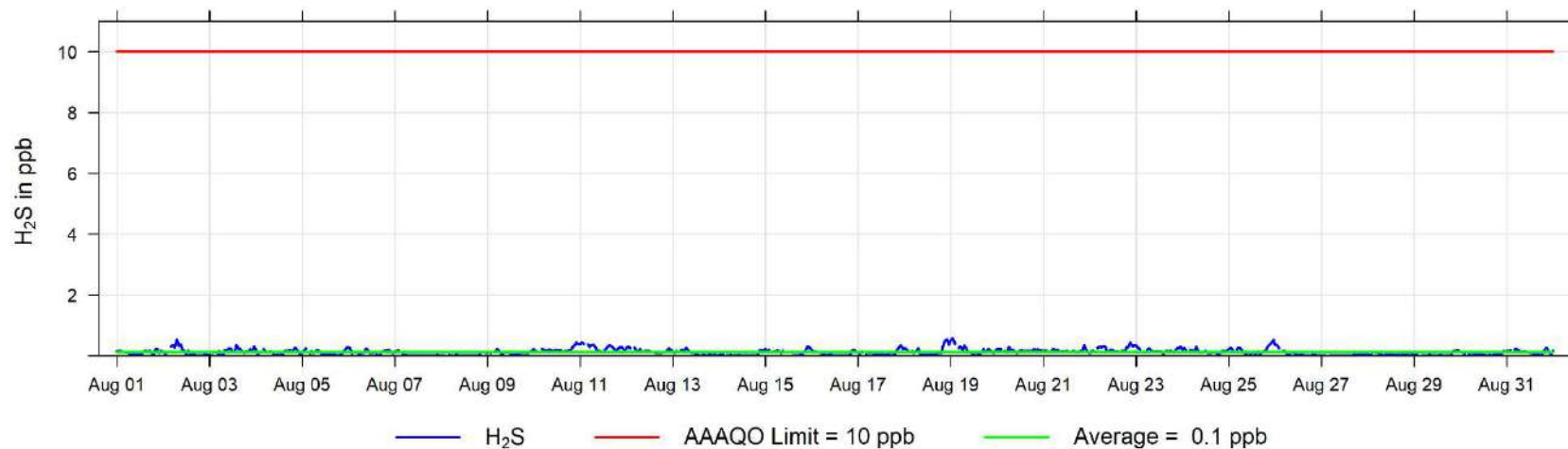
6 Valleyview Charts

The following pages include the charts and histograms for Valleyview Station

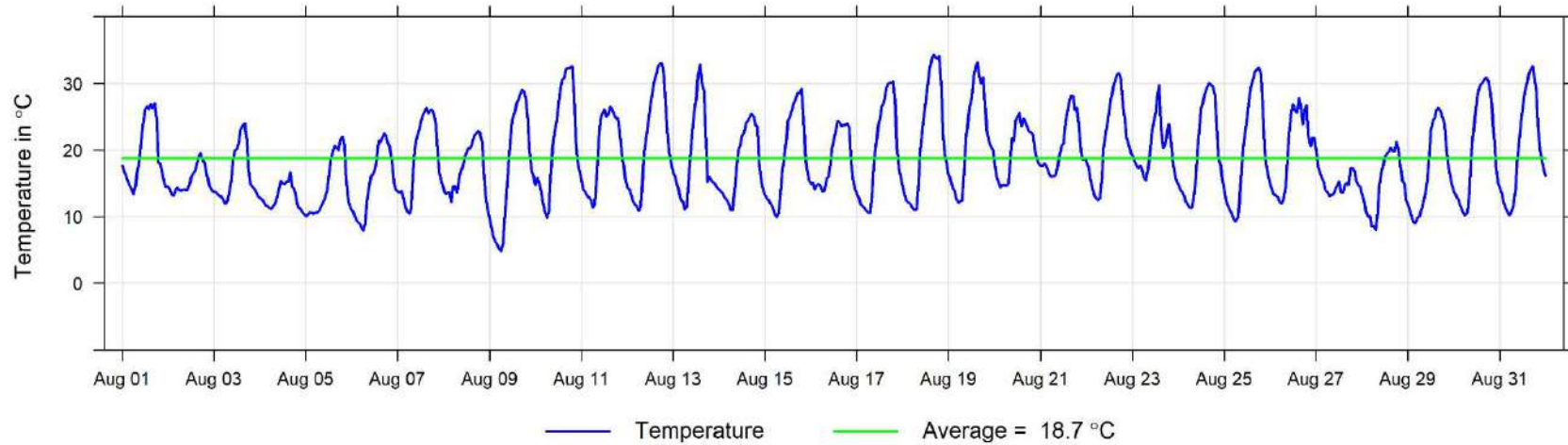
August 2022 Hourly Concentration Readings of SO₂ (in ppb) at Valleyview



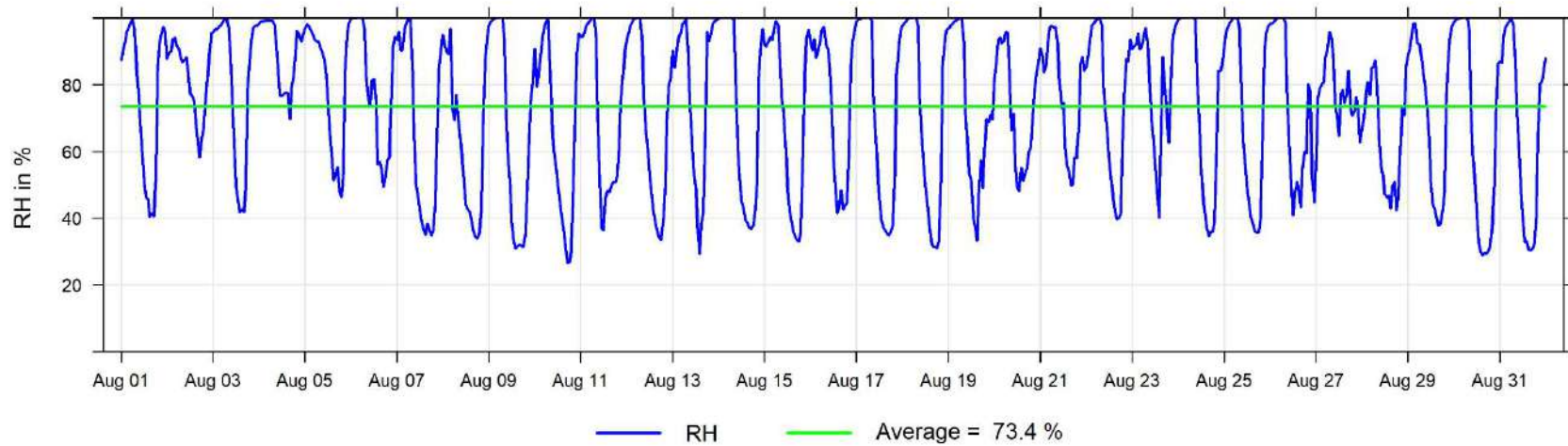
August 2022 Hourly Concentration Readings of H₂S (in ppb) at Valleyview



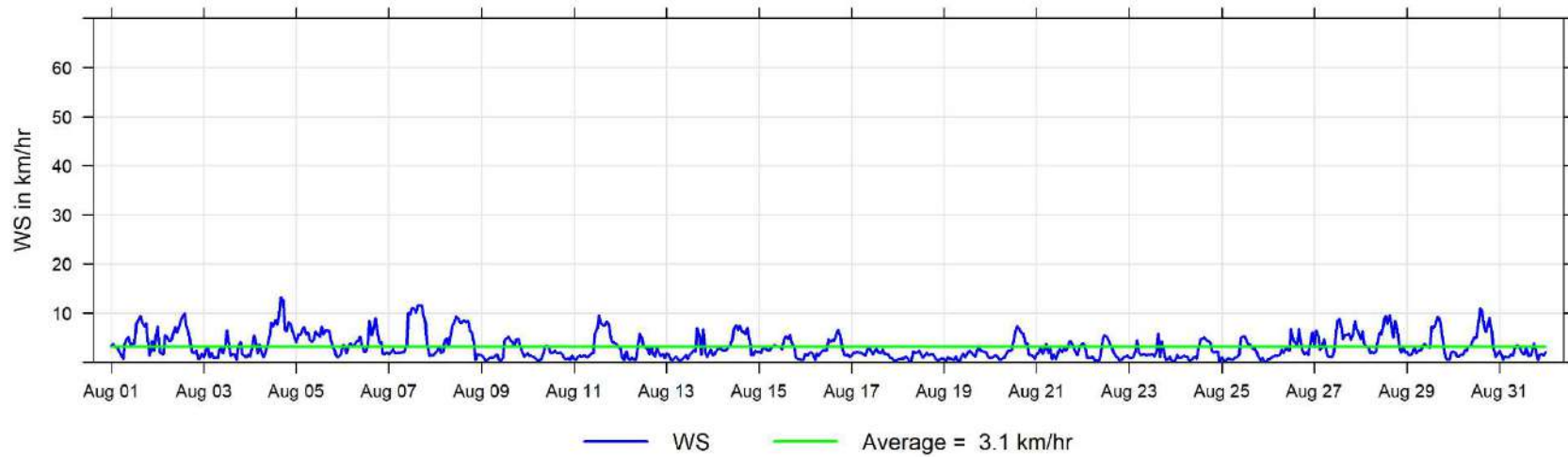
August 2022 Hourly Temperature Readings (in °C) at Valleyview



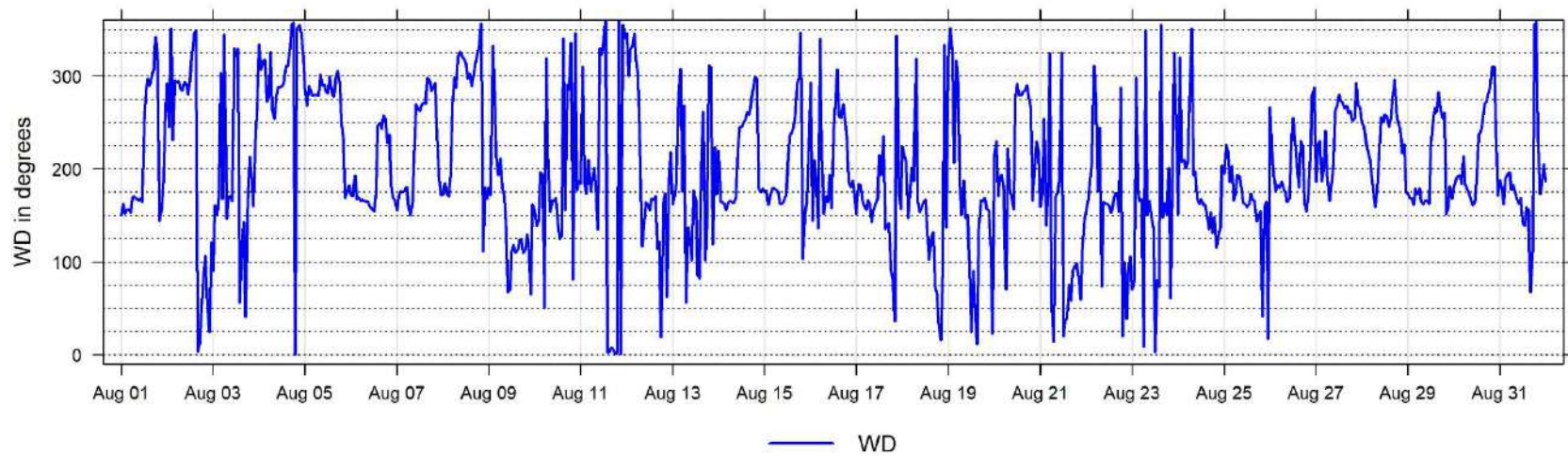
August 2022 Hourly Readings of Relative Humidity (in %) at Valleyview



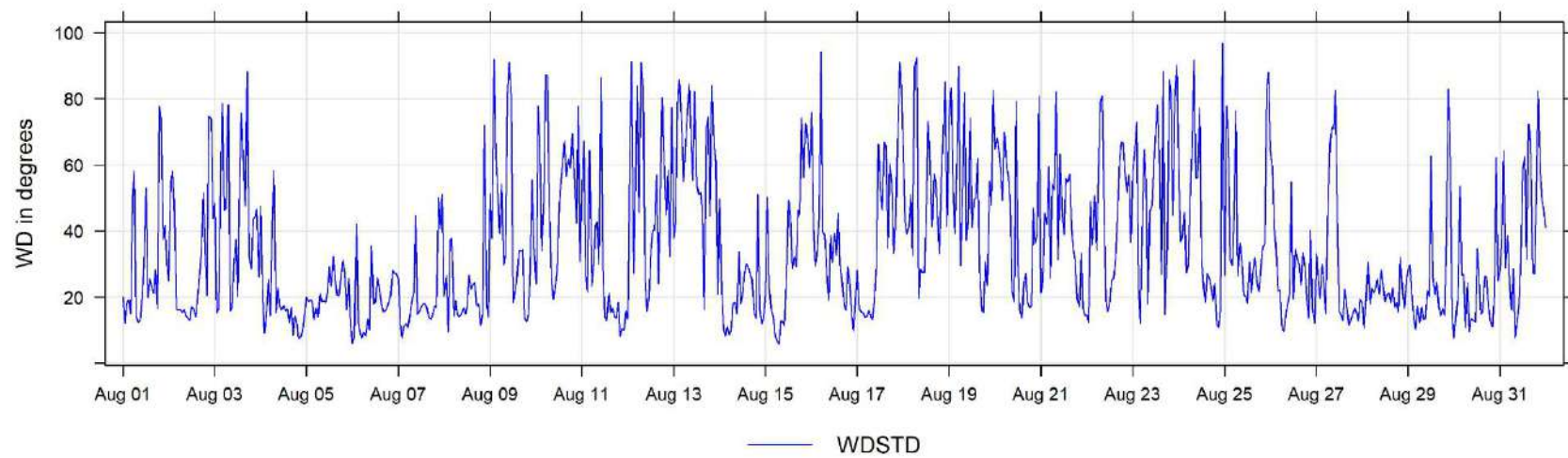
August 2022 Hourly Readings of Wind Speed (in km/hr) at Valleyview

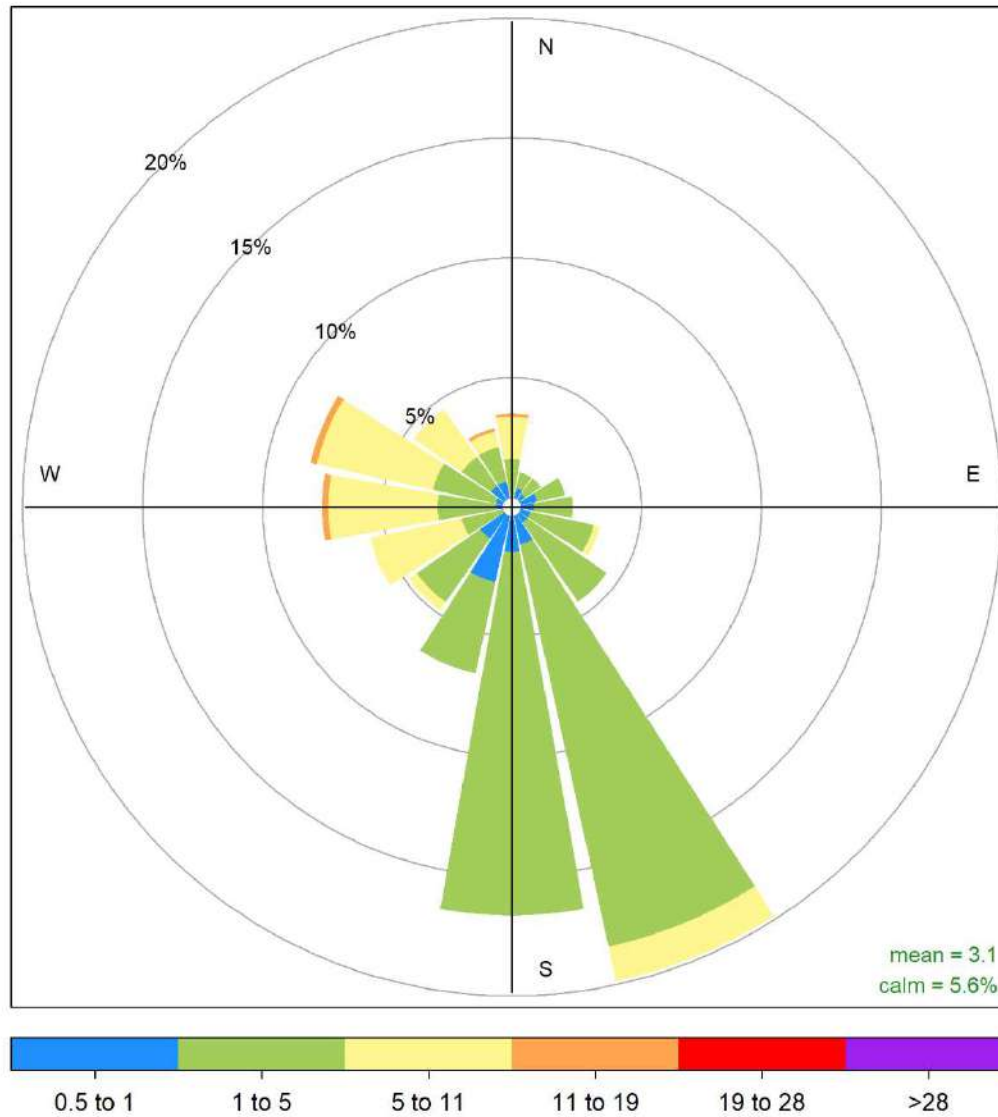


August 2022 Hourly Readings of Wind Direction (in degrees) at Valleyview



August 2022 Hourly Readings of Wind Direction Standard Deviation (in degrees) at Valleyview

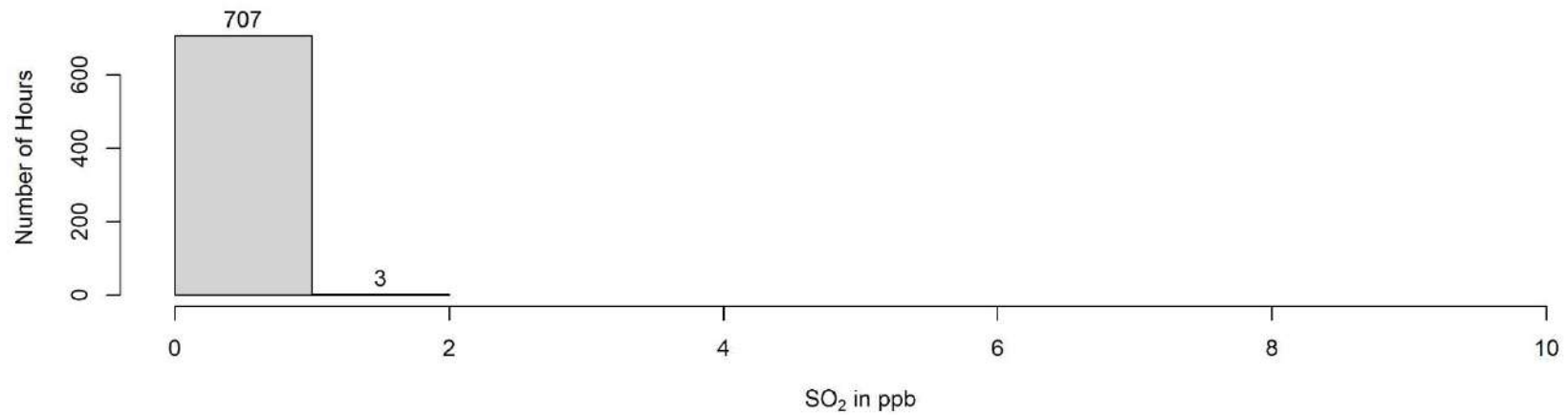
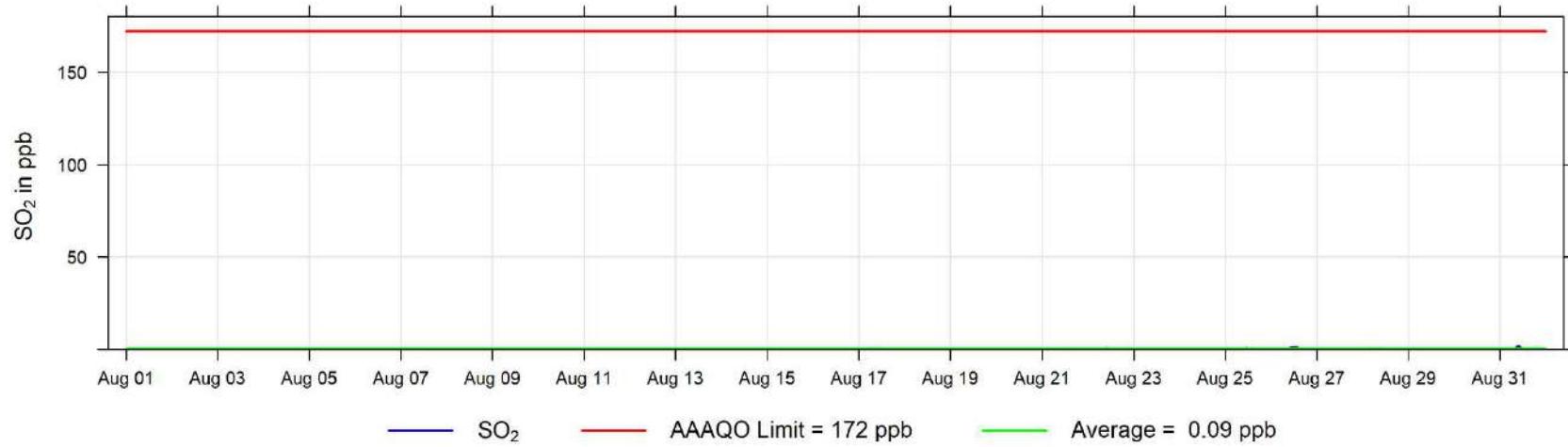




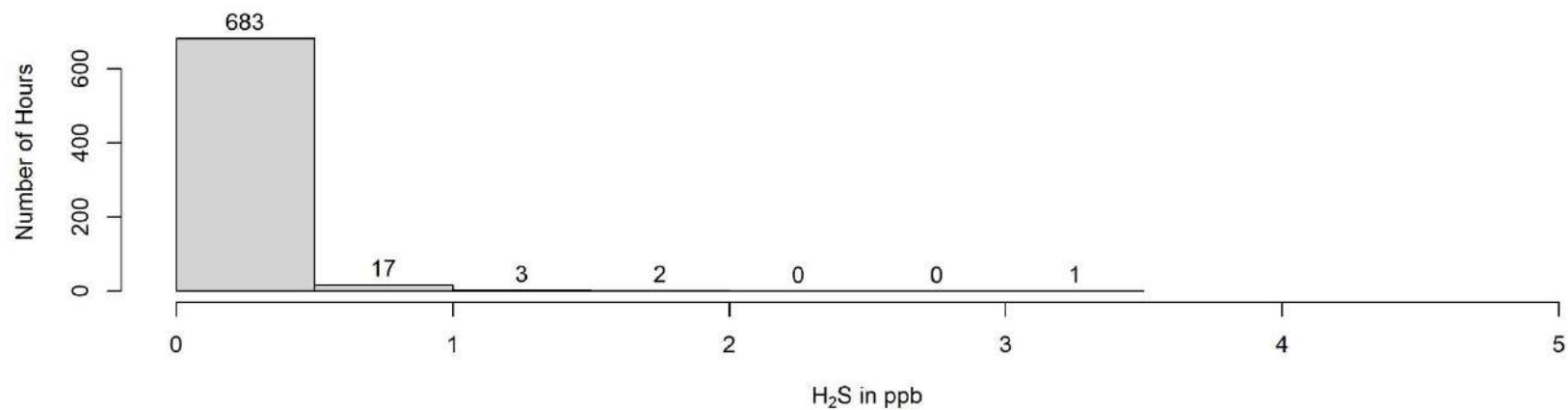
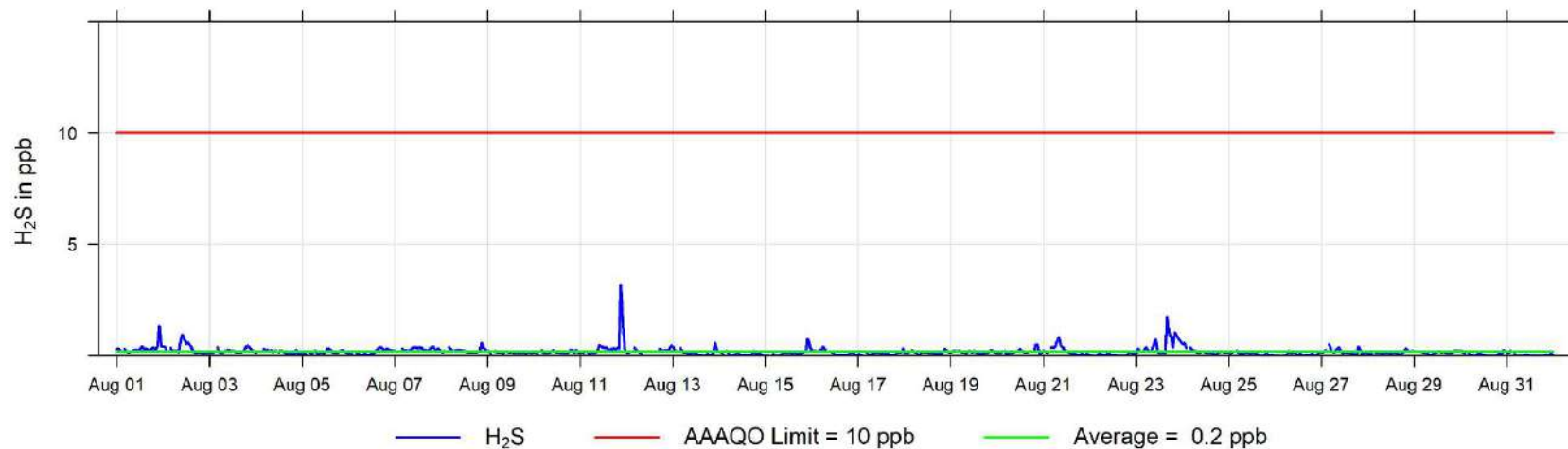
7 Donnelly Charts

The following pages include the charts and histograms for Donnelly Station

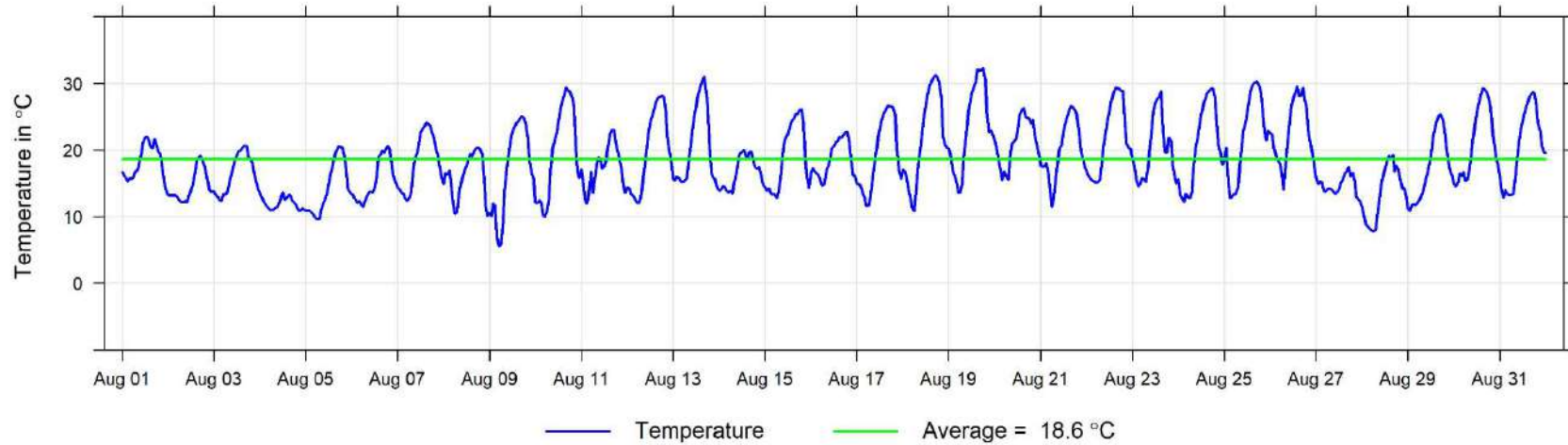
August 2022 Hourly Concentration Readings of SO₂ (in ppb) at Donnelly



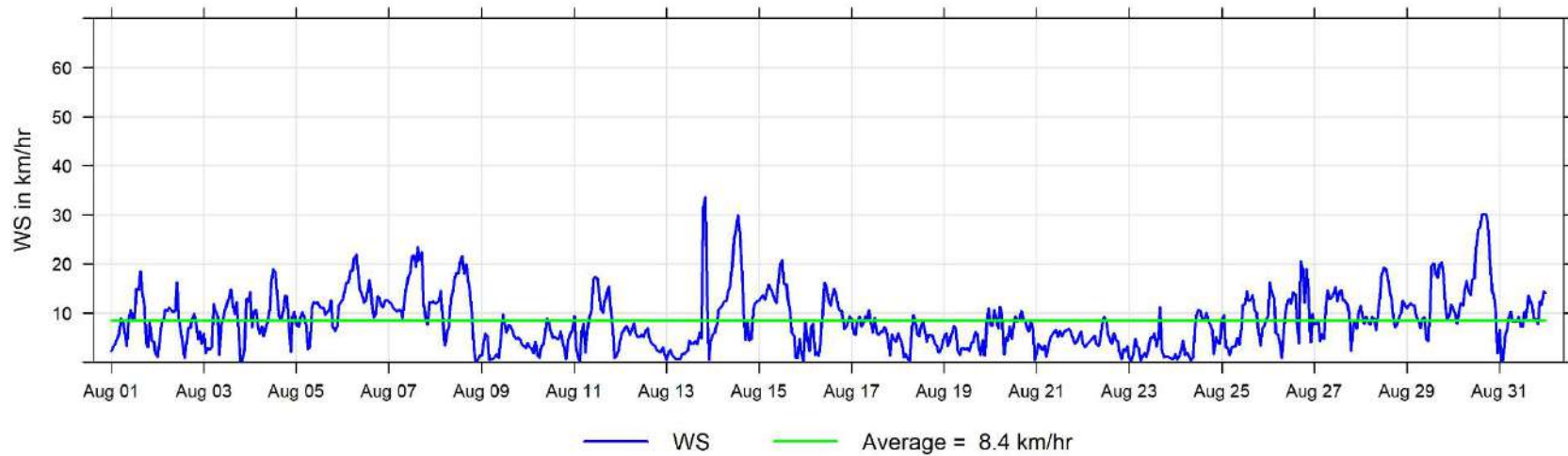
August 2022 Hourly Concentration Readings of H₂S (in ppb) at Donnelly



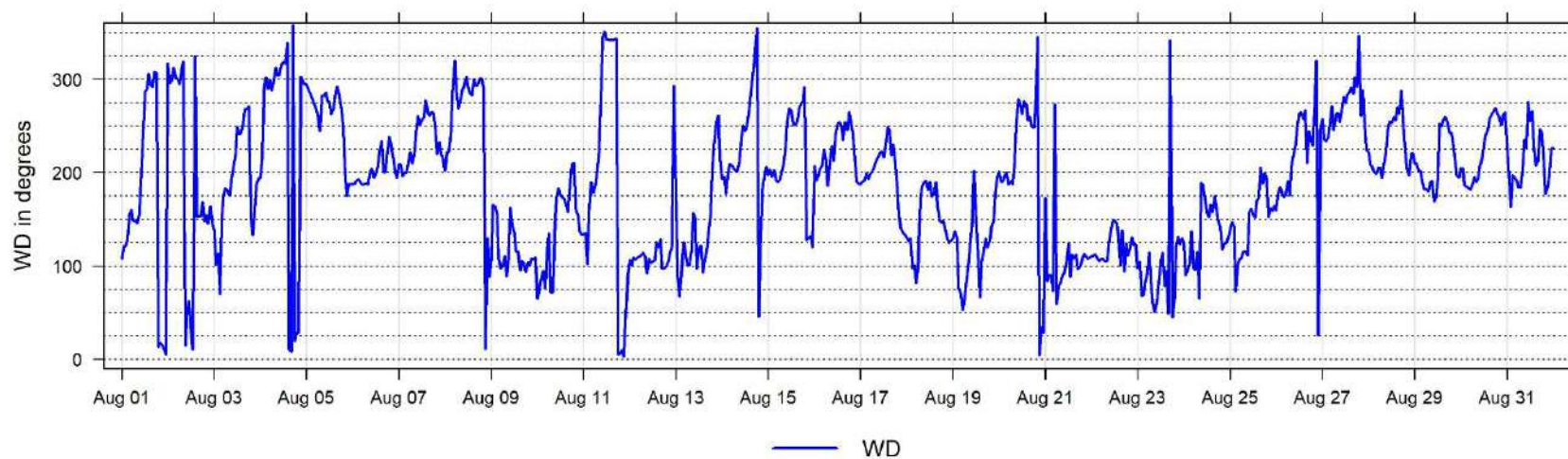
August 2022 Hourly Temperature Readings (in °C) at Donnelly



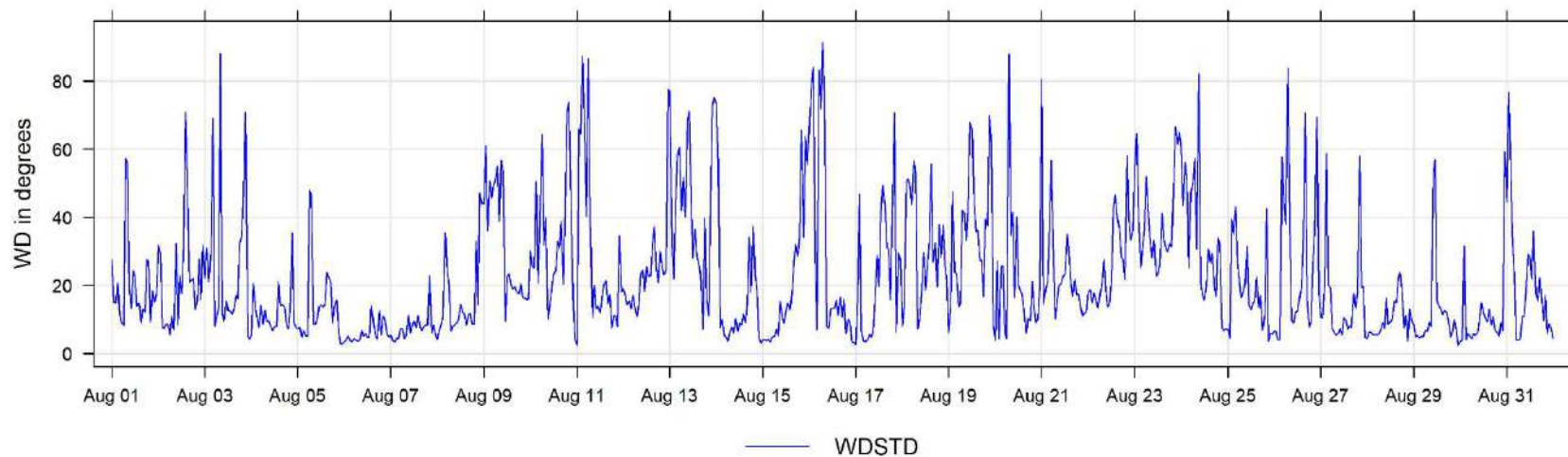
August 2022 Hourly Readings of Wind Speed (in km/hr) at Donnelly

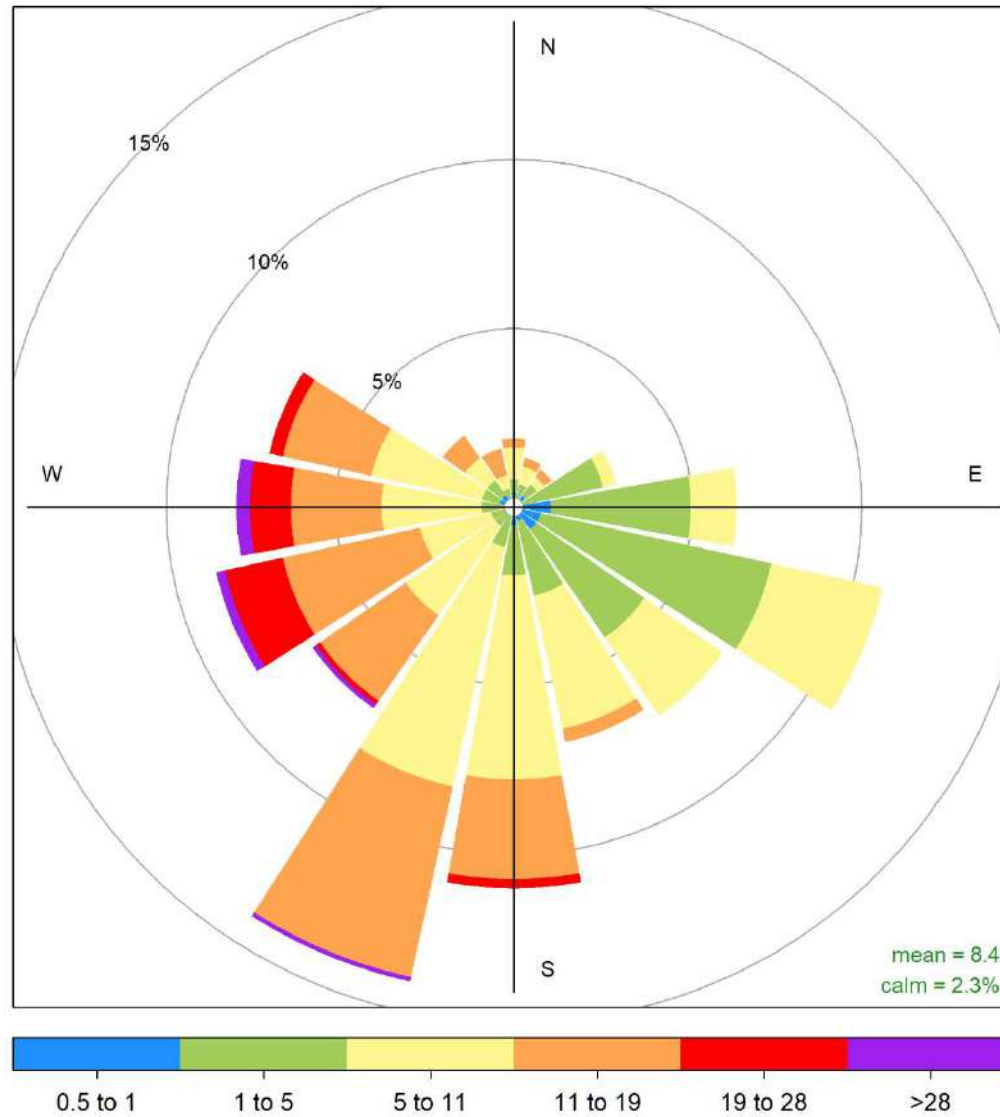


August 2022 Hourly Readings of Wind Direction (in degrees) at Donnelly



August 2022 Hourly Readings of Wind Direction Standard Deviation (in degrees) at Donnelly



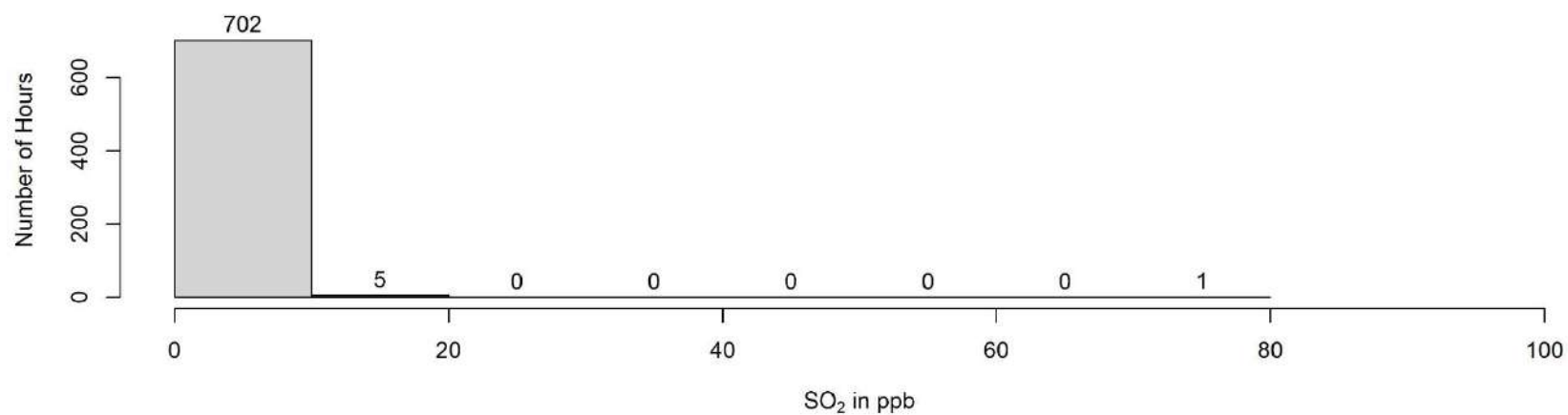
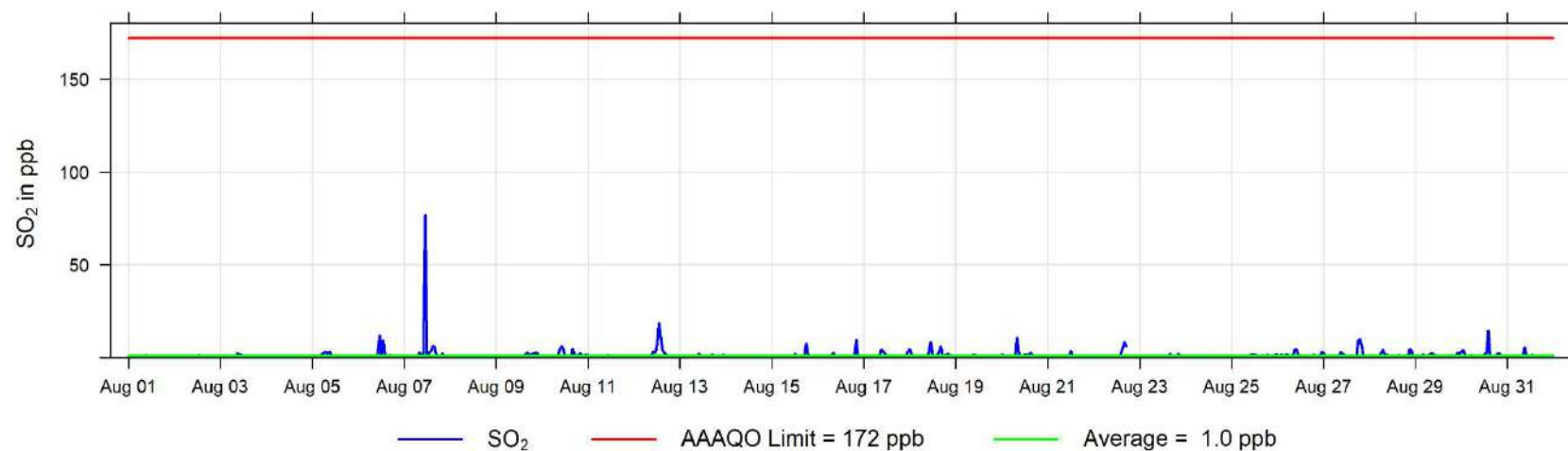


Donnelly August 2022 Wind Rose, wind speed in km/hr
Frequency of counts by wind direction (%)

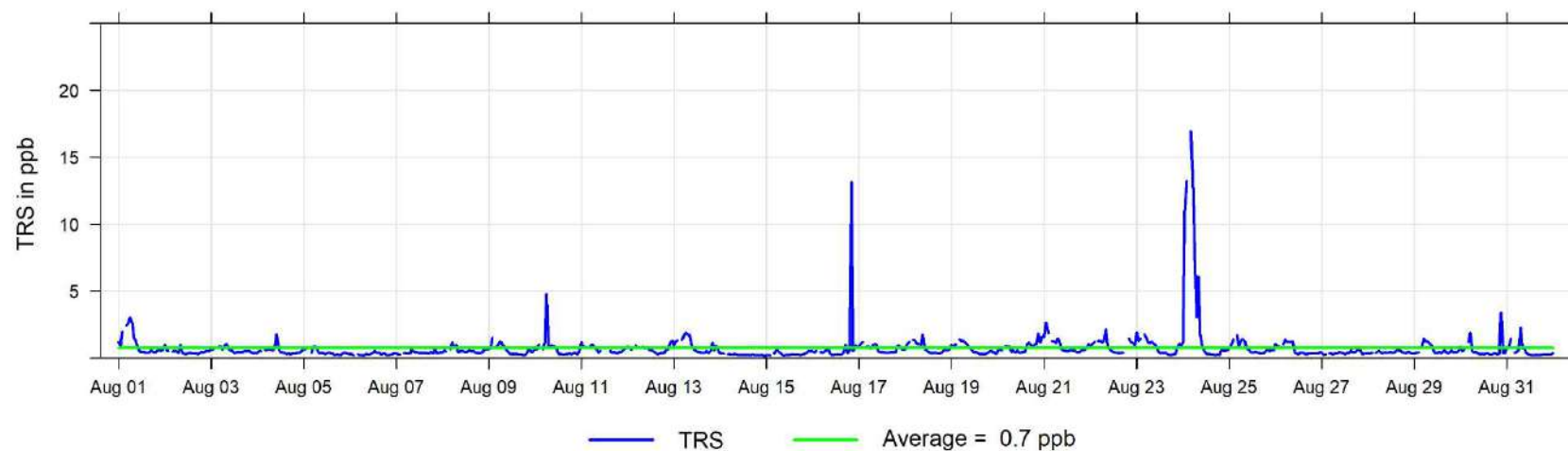
8 Poplar (Portable) Charts

The following pages include the charts and histograms for Poplar Portable Station

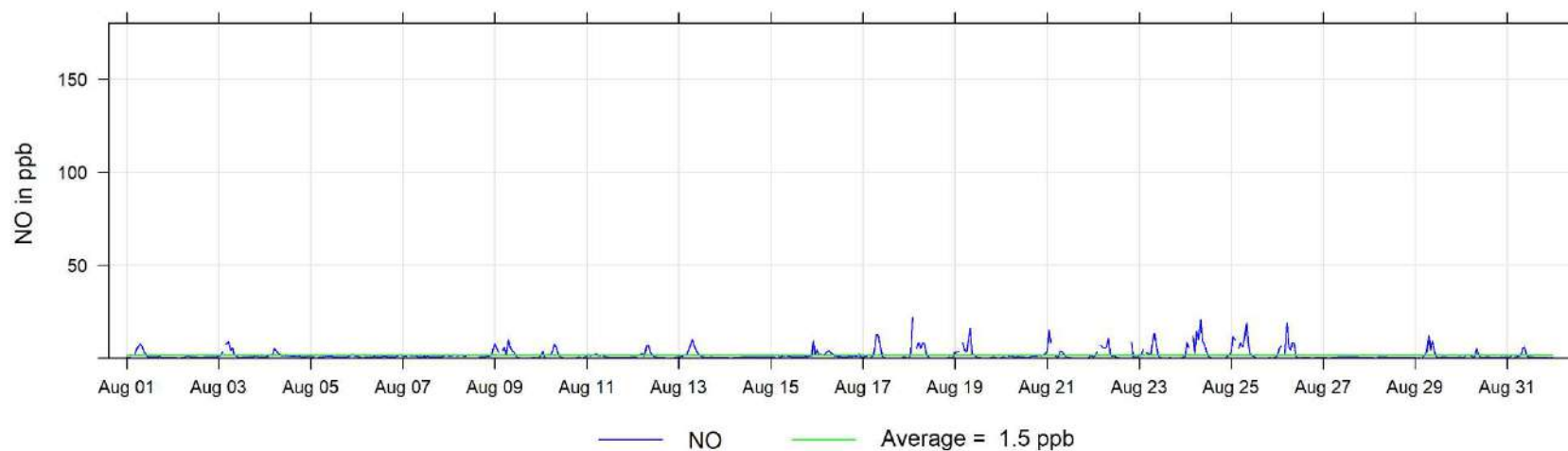
August 2022 Hourly Concentration Readings of SO₂ (in ppb) at Poplar



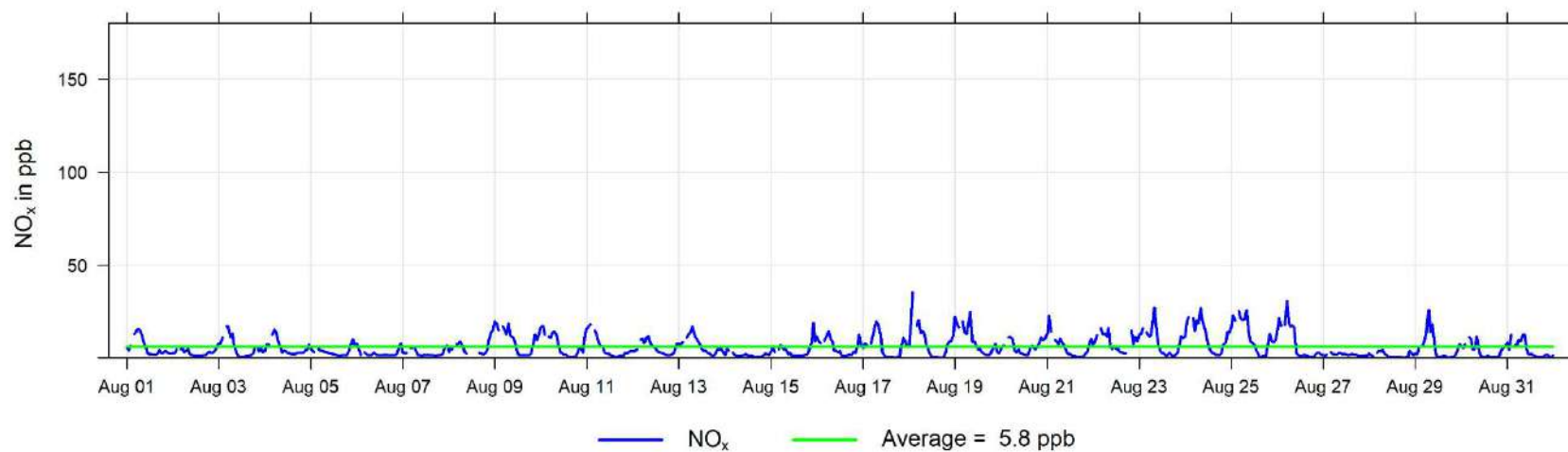
August 2022 Hourly Concentration Readings of TRS (in ppb) at Poplar



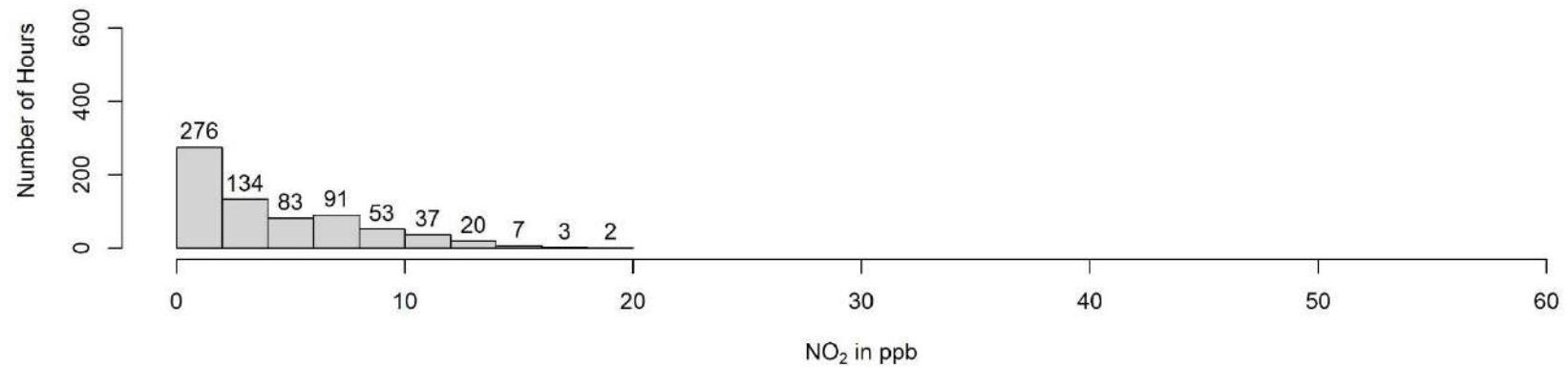
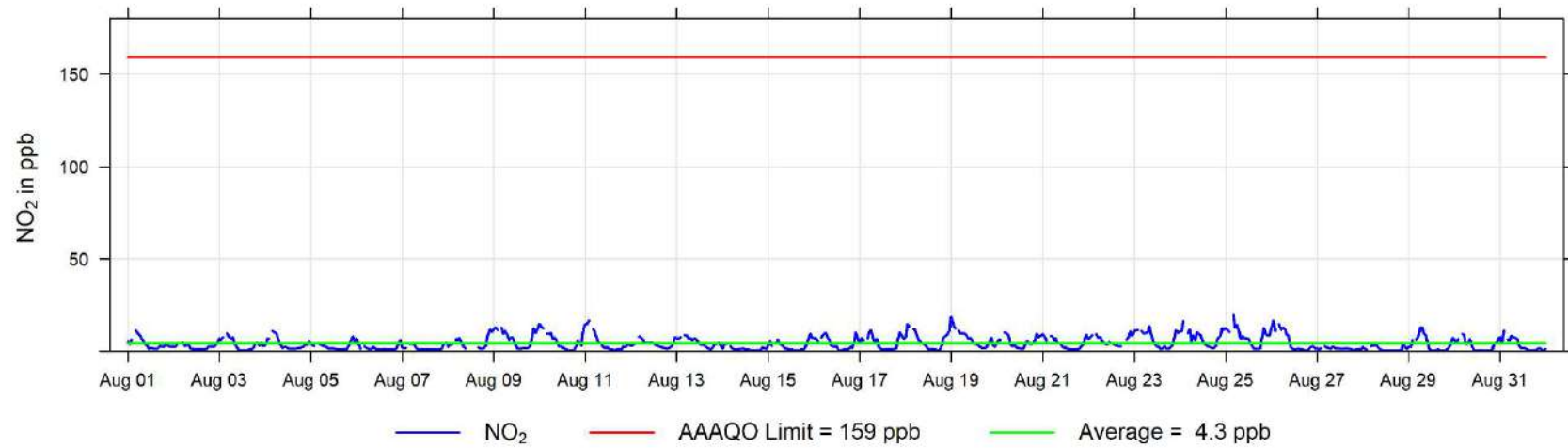
August 2022 Hourly Concentration Readings of NO (in ppb) at Poplar



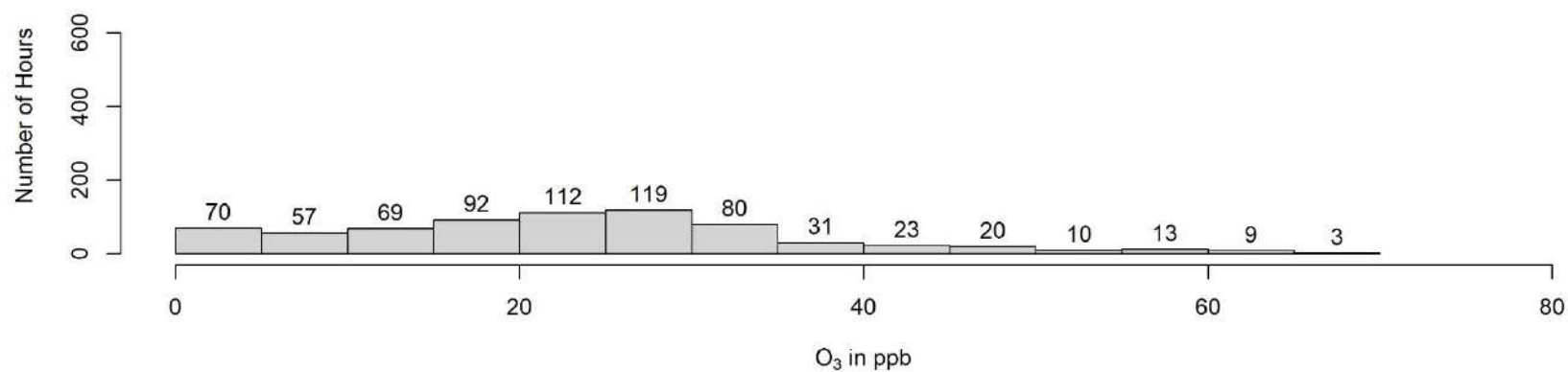
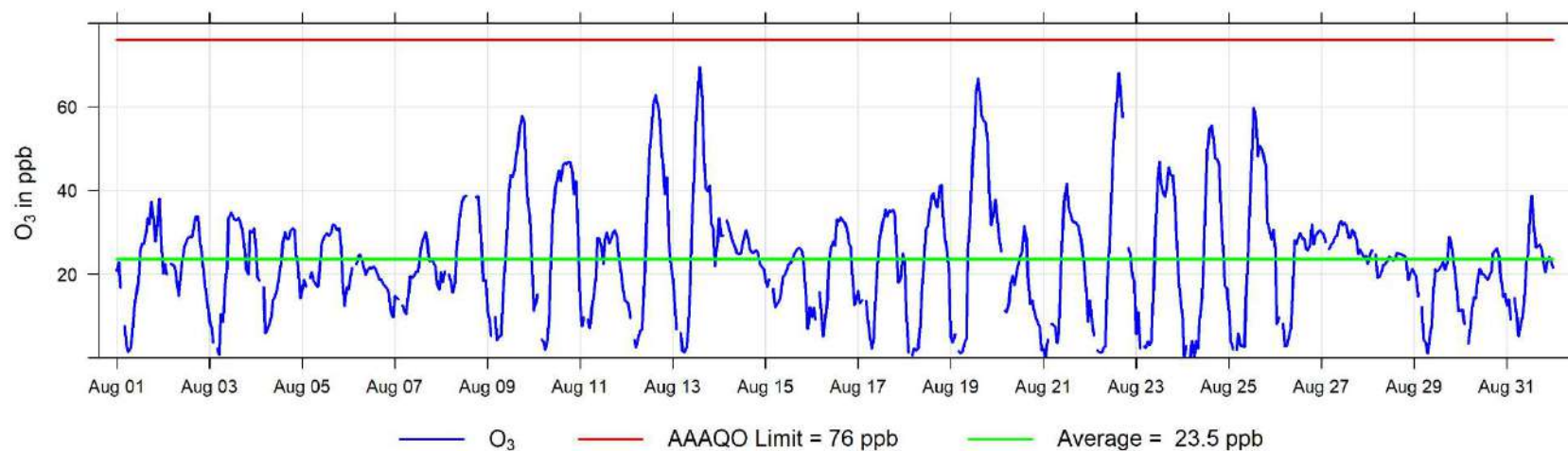
August 2022 Hourly Concentration Readings of NO_x (in ppb) at Poplar



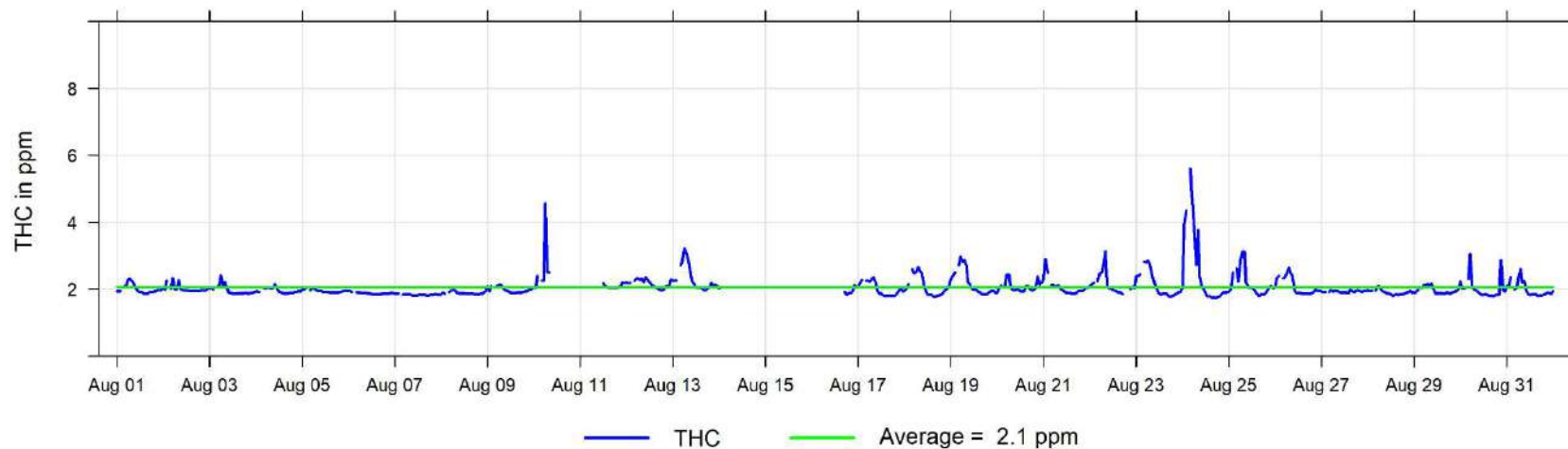
August 2022 Hourly Concentration Readings of NO₂ (in ppb) at Poplar



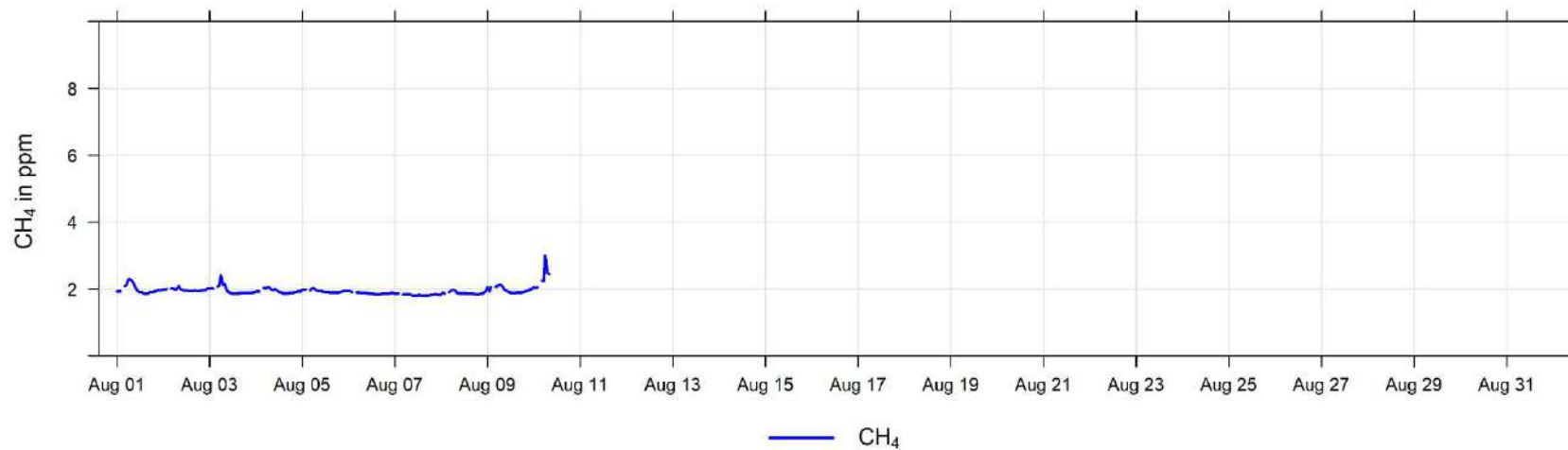
August 2022 Hourly Concentration Readings of O₃ (in ppb) at Poplar



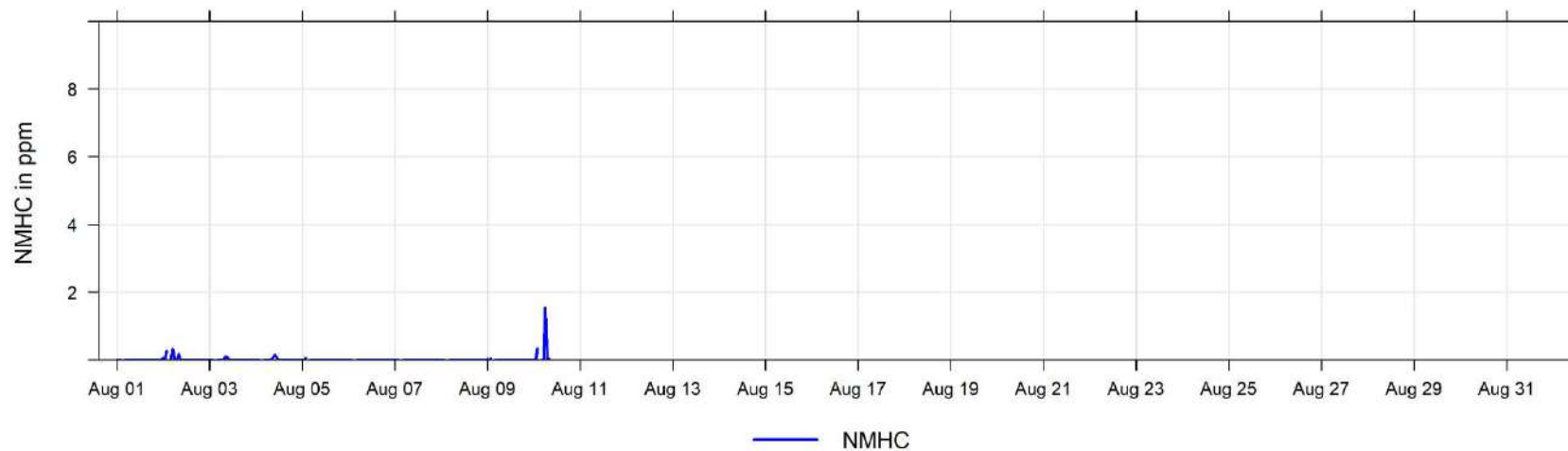
August 2022 Hourly Concentration Readings of THC (in ppm) at Poplar



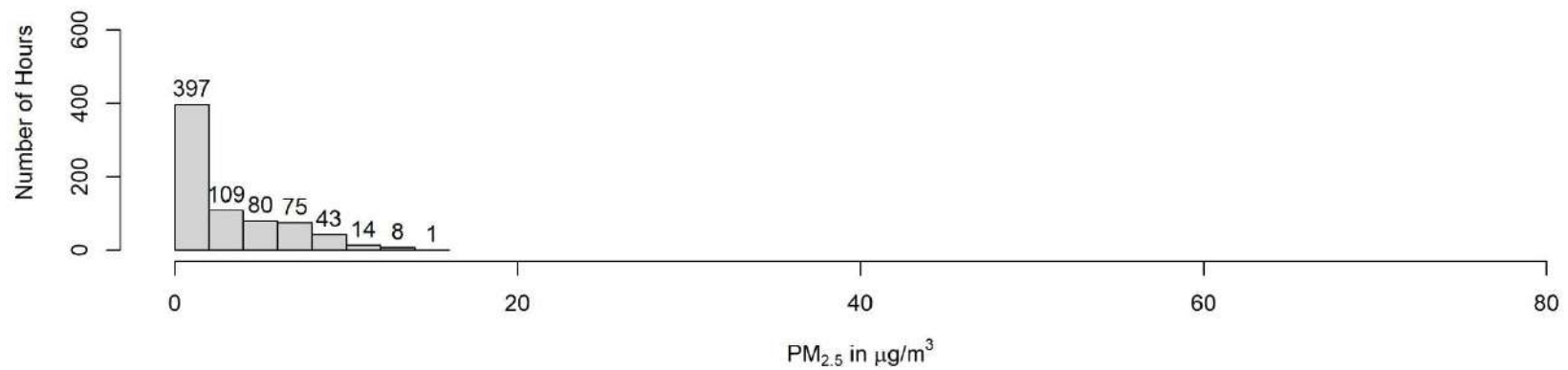
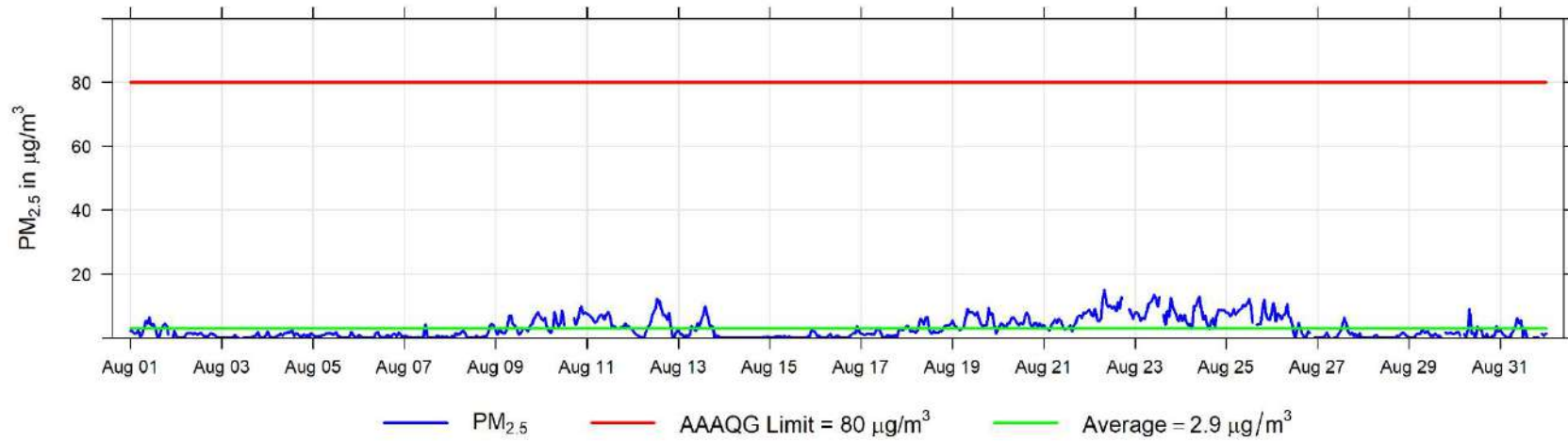
August 2022 Hourly Concentration Readings of CH₄ (in ppm) at Poplar



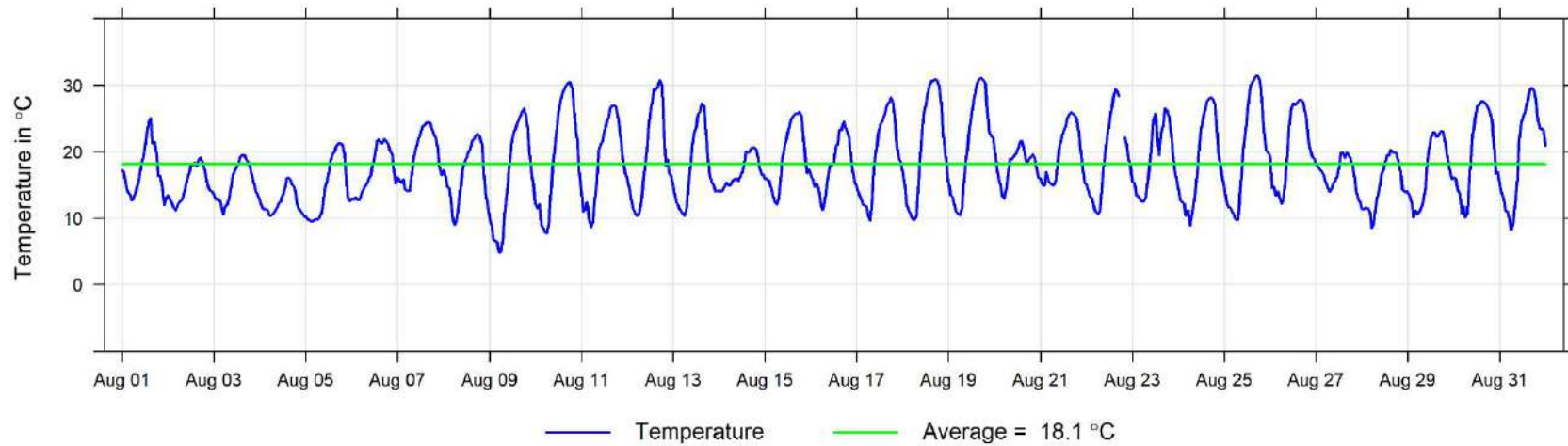
August 2022 Hourly Concentration Readings of NMHC (in ppm) at Poplar



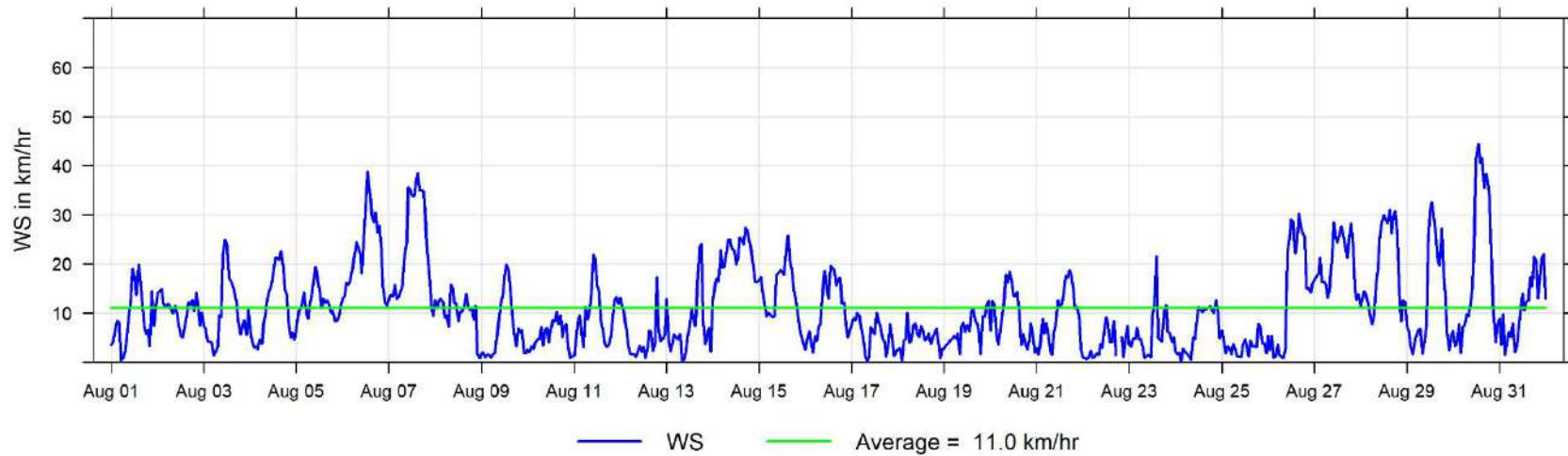
August 2022 Hourly Concentration Readings of PM_{2.5} in $\mu\text{g}/\text{m}^3$ at Poplar



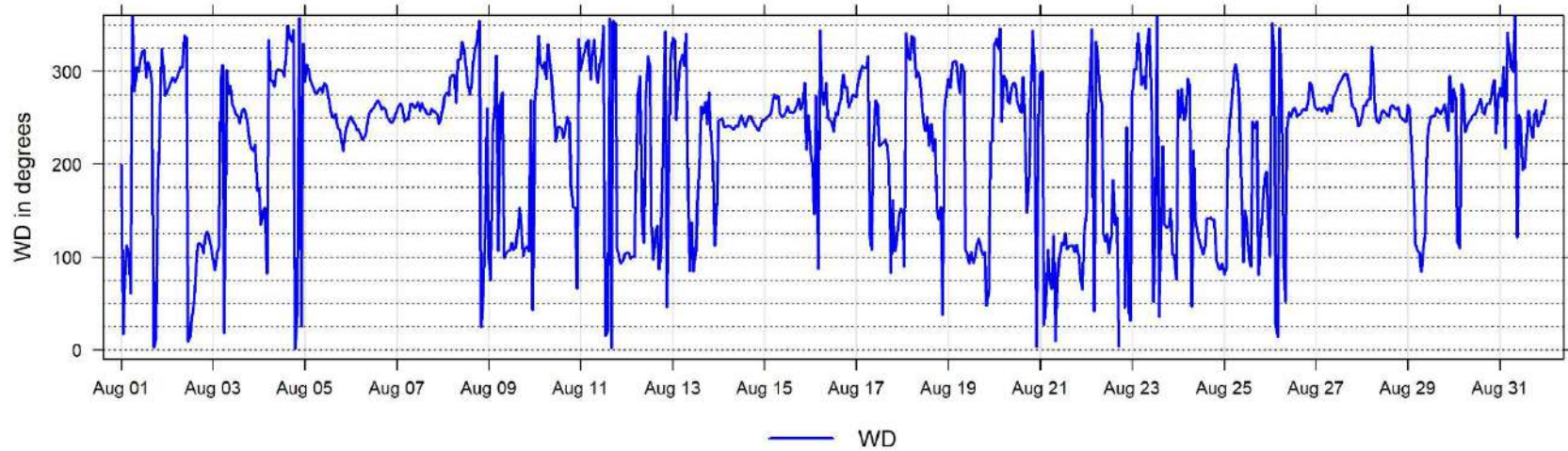
August 2022 Hourly Temperature Readings (in °C) at Poplar



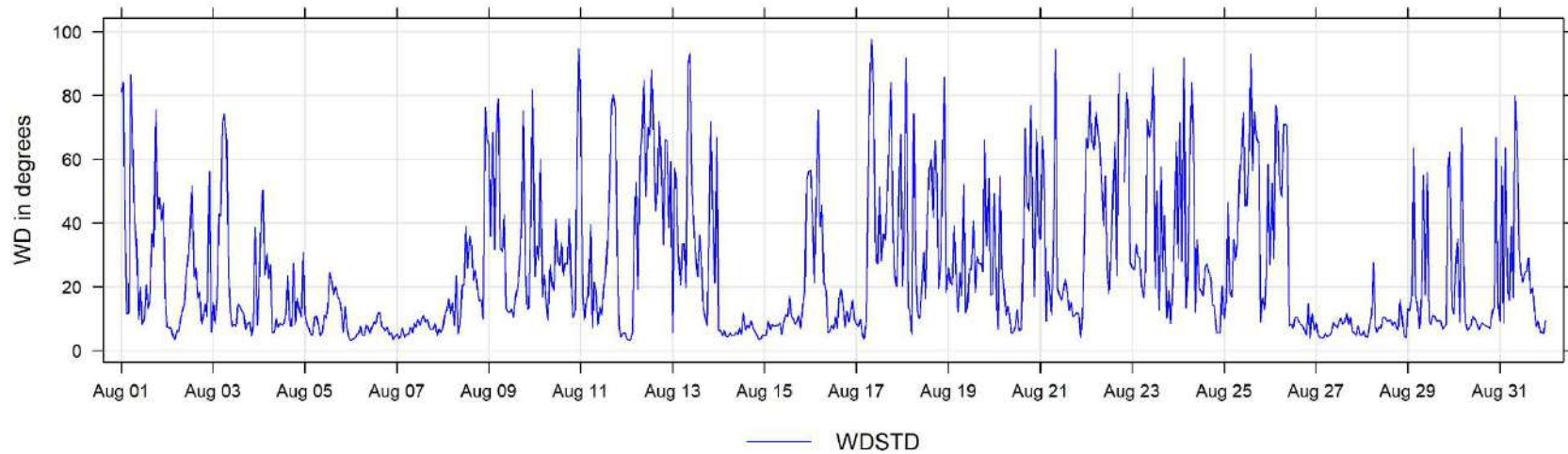
August 2022 Hourly Readings of Wind Speed (in km/hr) at Poplar

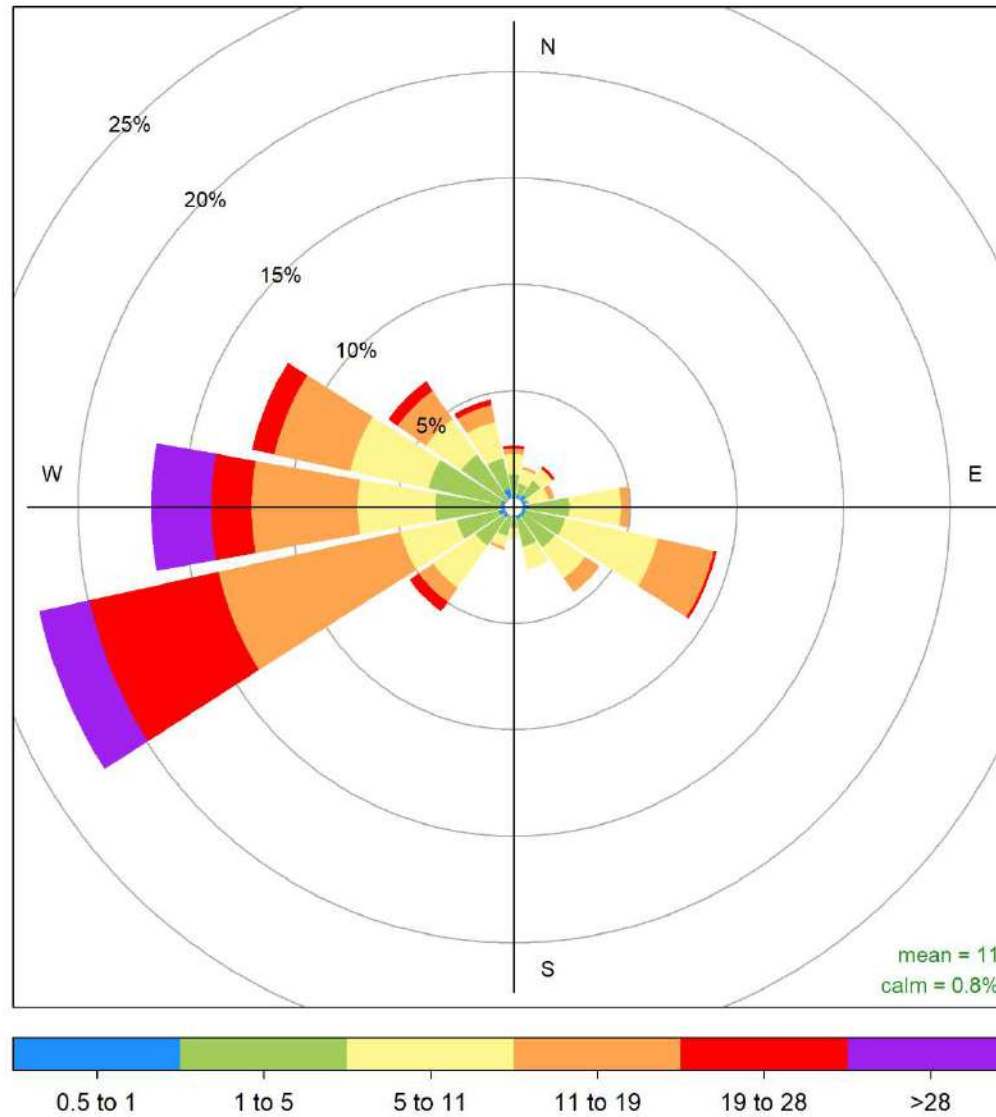


August 2022 Hourly Readings of Wind Direction (in degrees) at Poplar



August 2022 Hourly Readings of Wind Direction Standard Deviation (in degrees) at Poplar



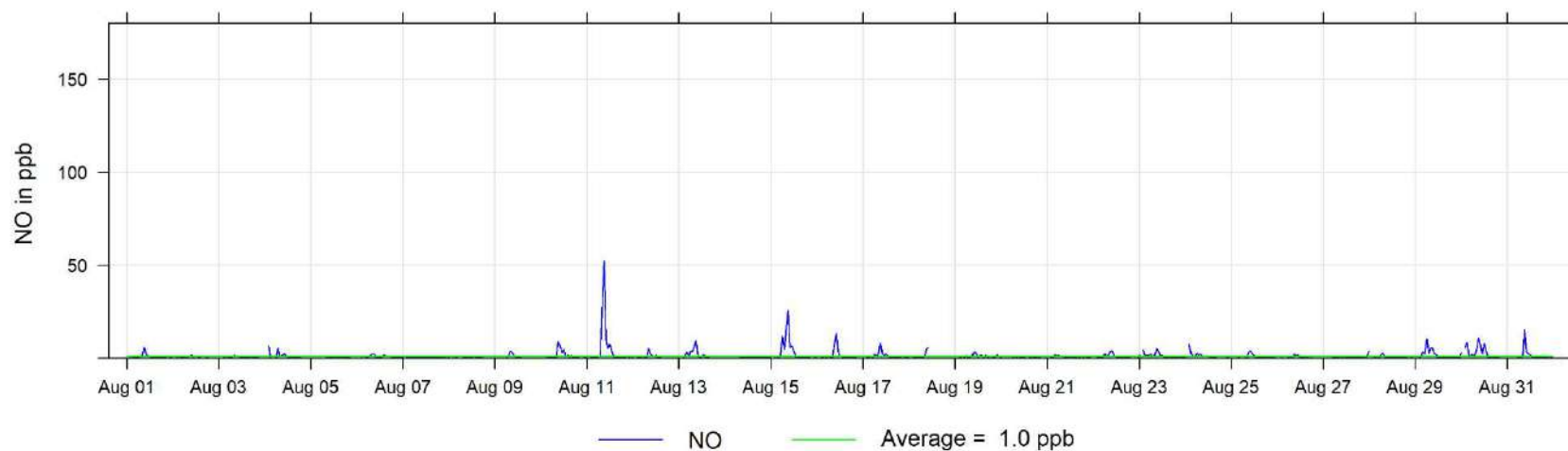


Poplar August 2022 Wind Rose, wind speed in km/hr
Frequency of counts by wind direction (%)

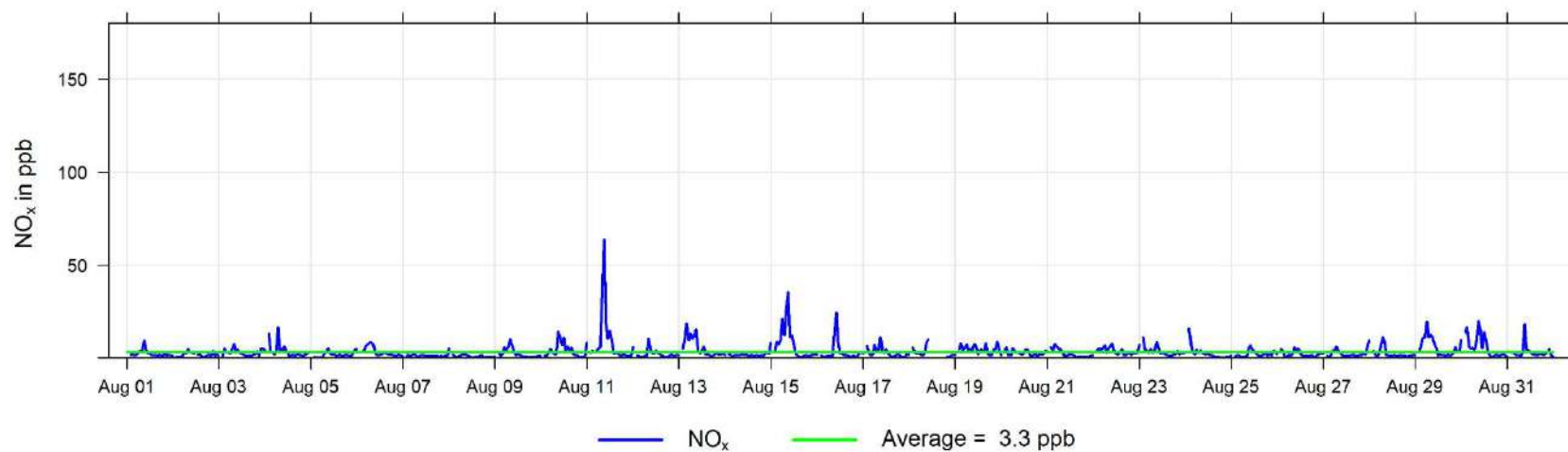
9 Milner Charts

The following pages include the charts and histograms for Poplar Portable Station

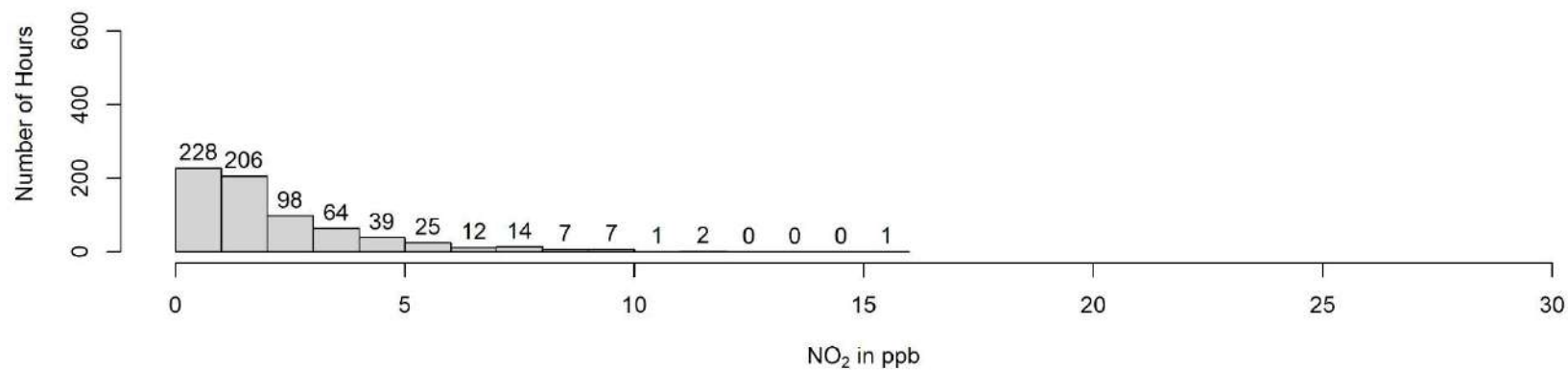
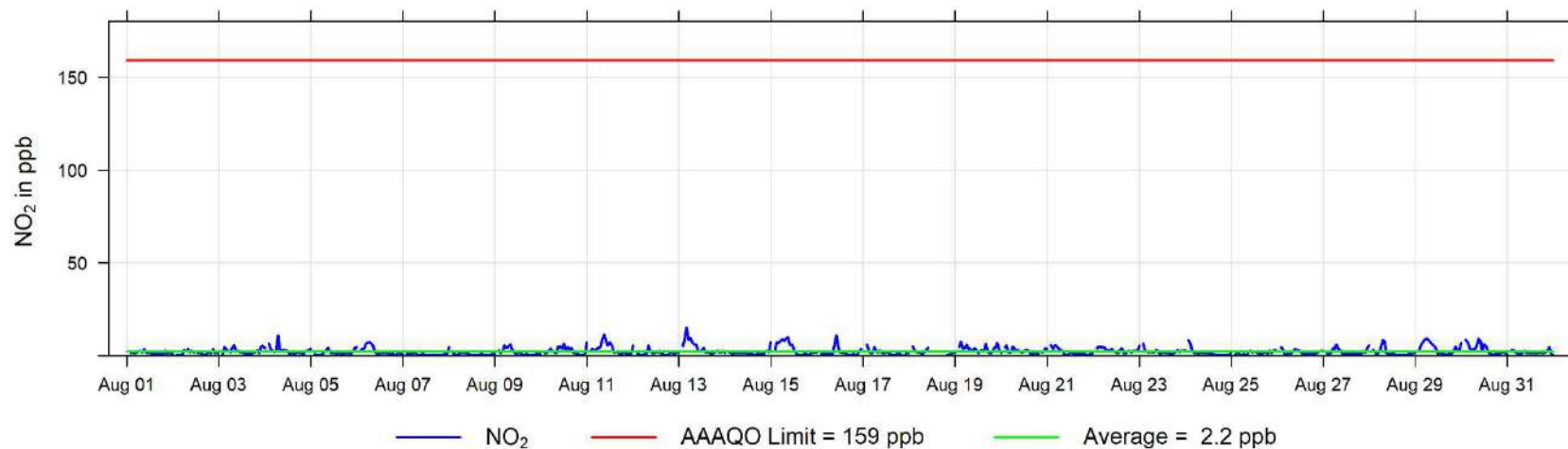
August 2022 Hourly Concentration Readings of NO (in ppb) at Milner



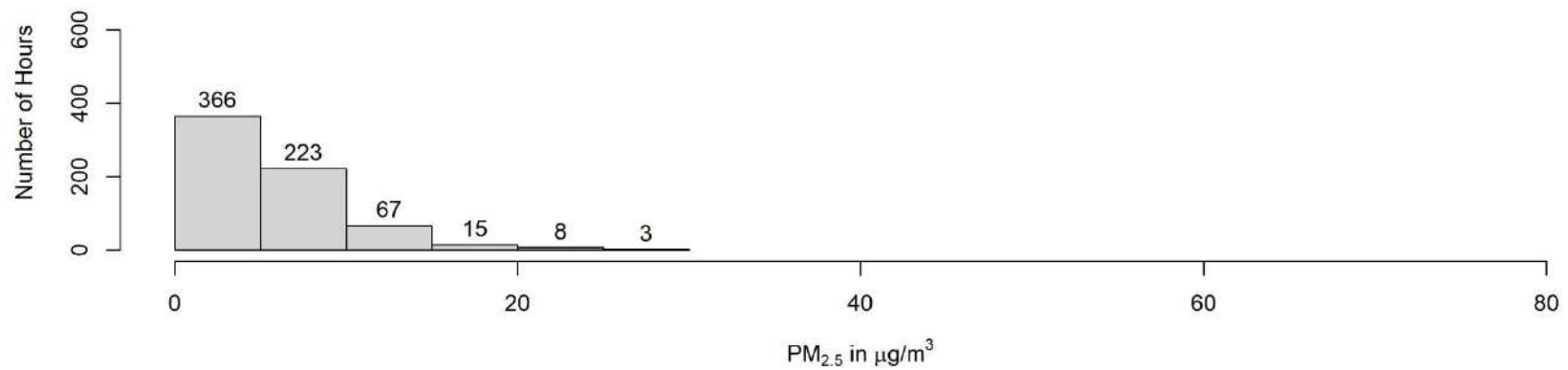
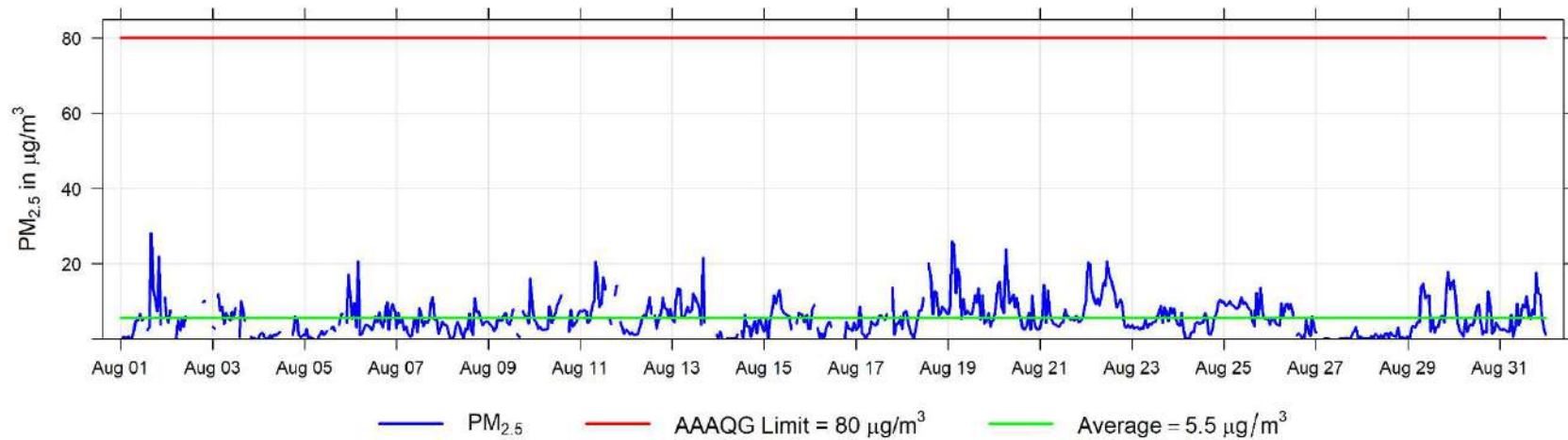
August 2022 Hourly Concentration Readings of NO_x (in ppb) at Milner



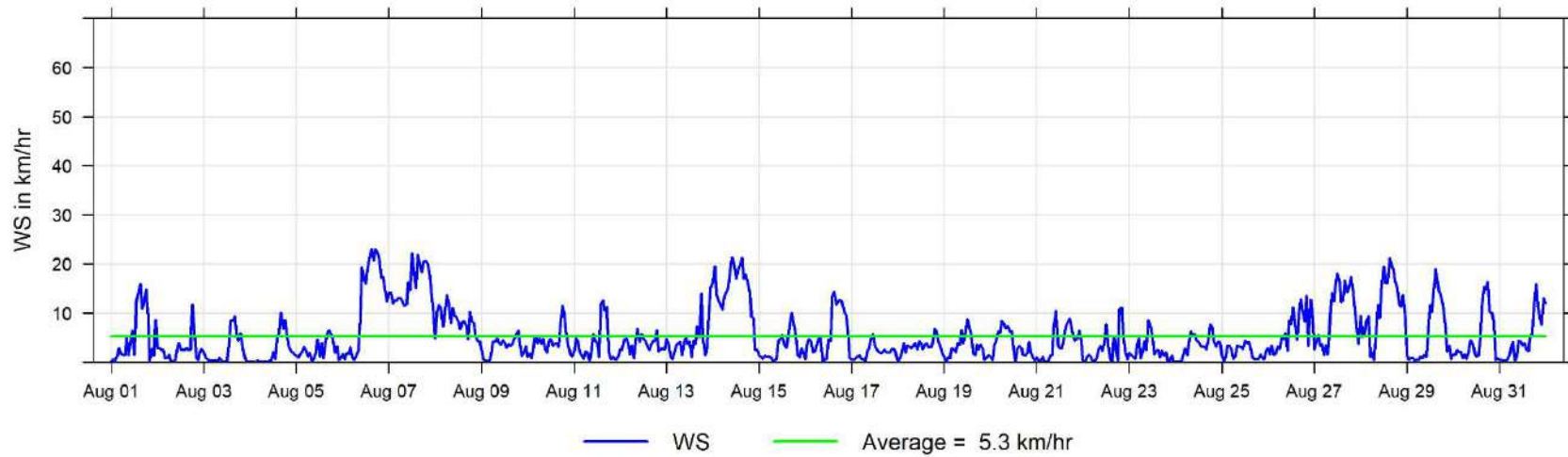
August 2022 Hourly Concentration Readings of NO₂ (in ppb) at Milner



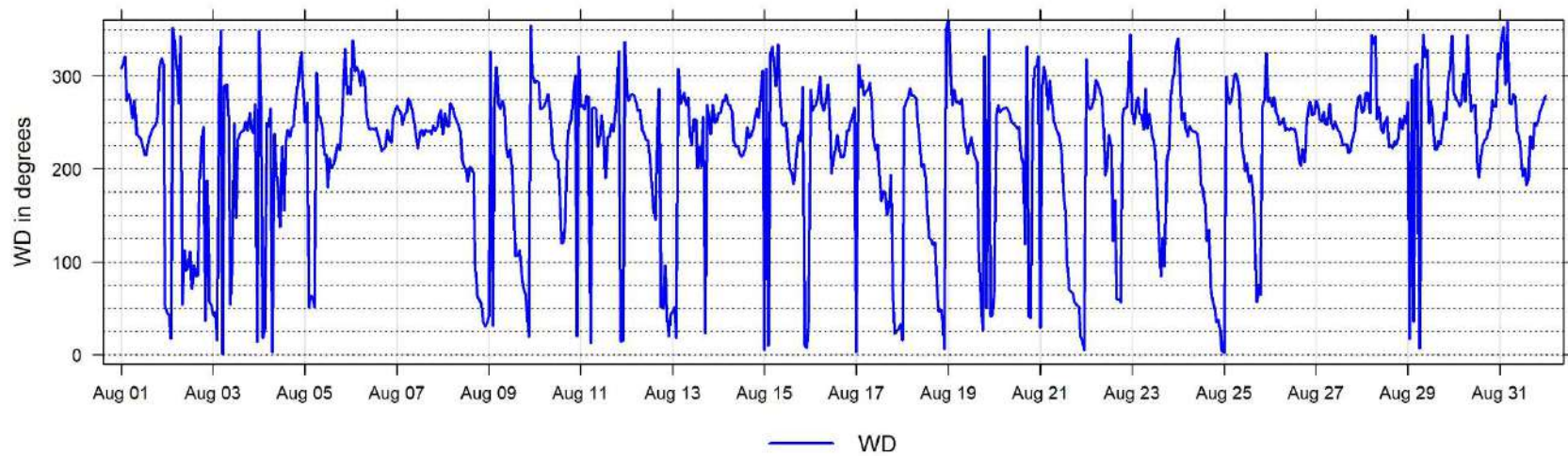
August 2022 Hourly Concentration Readings of PM_{2.5} in $\mu\text{g}/\text{m}^3$ at Milner

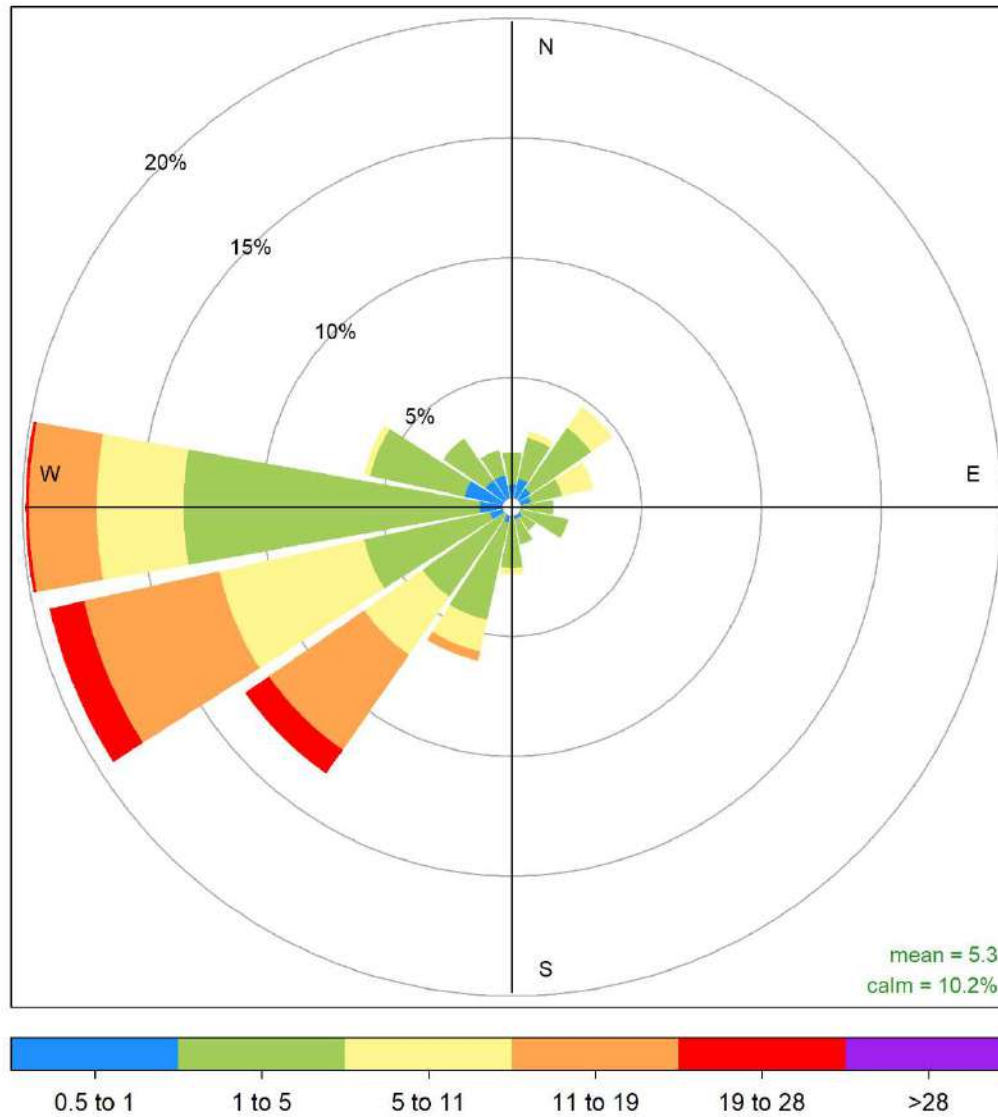


August 2022 Hourly Readings of Wind Speed (in km/hr) at Milner



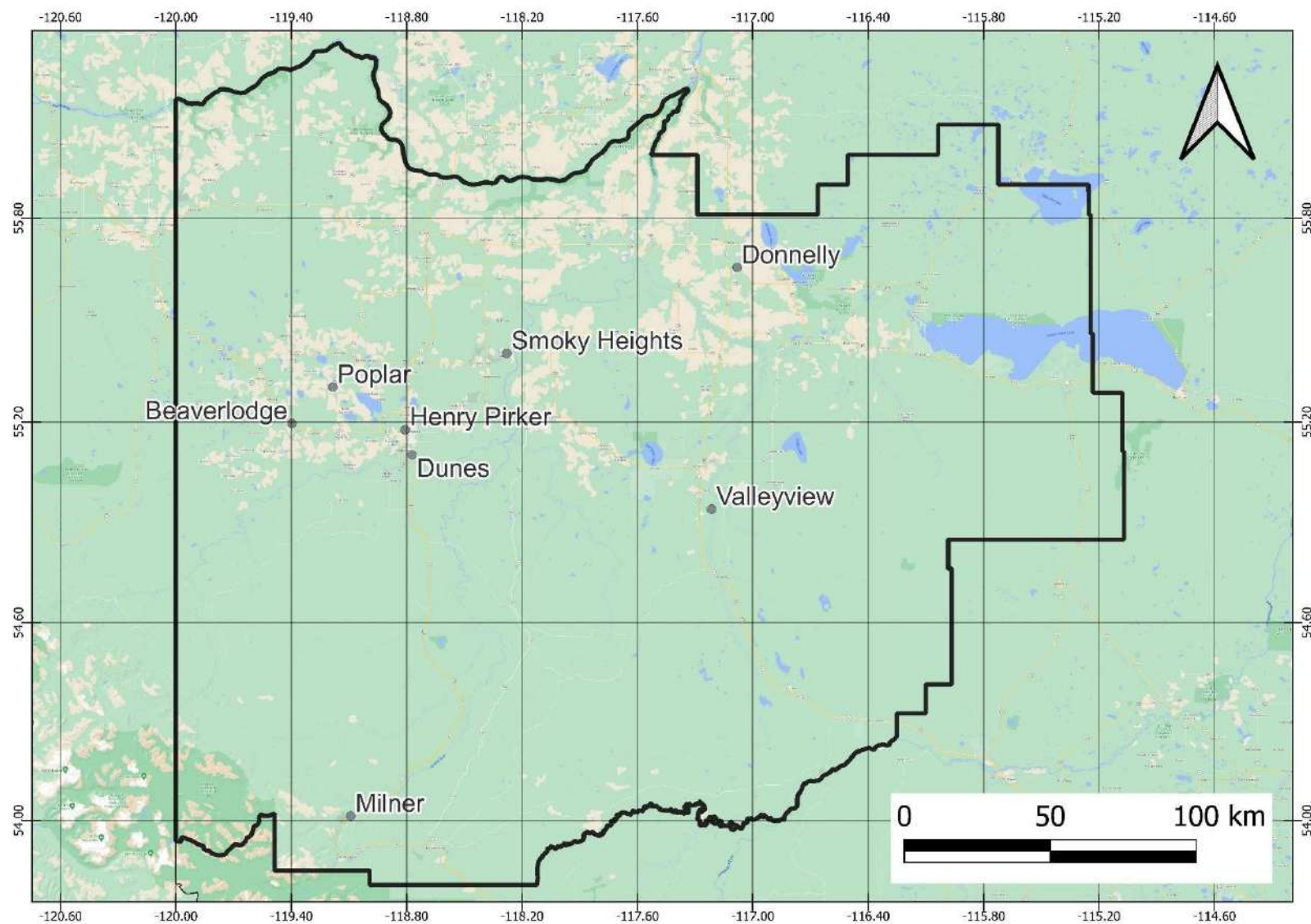
August 2022 Hourly Readings of Wind Direction (in degrees) at Milner



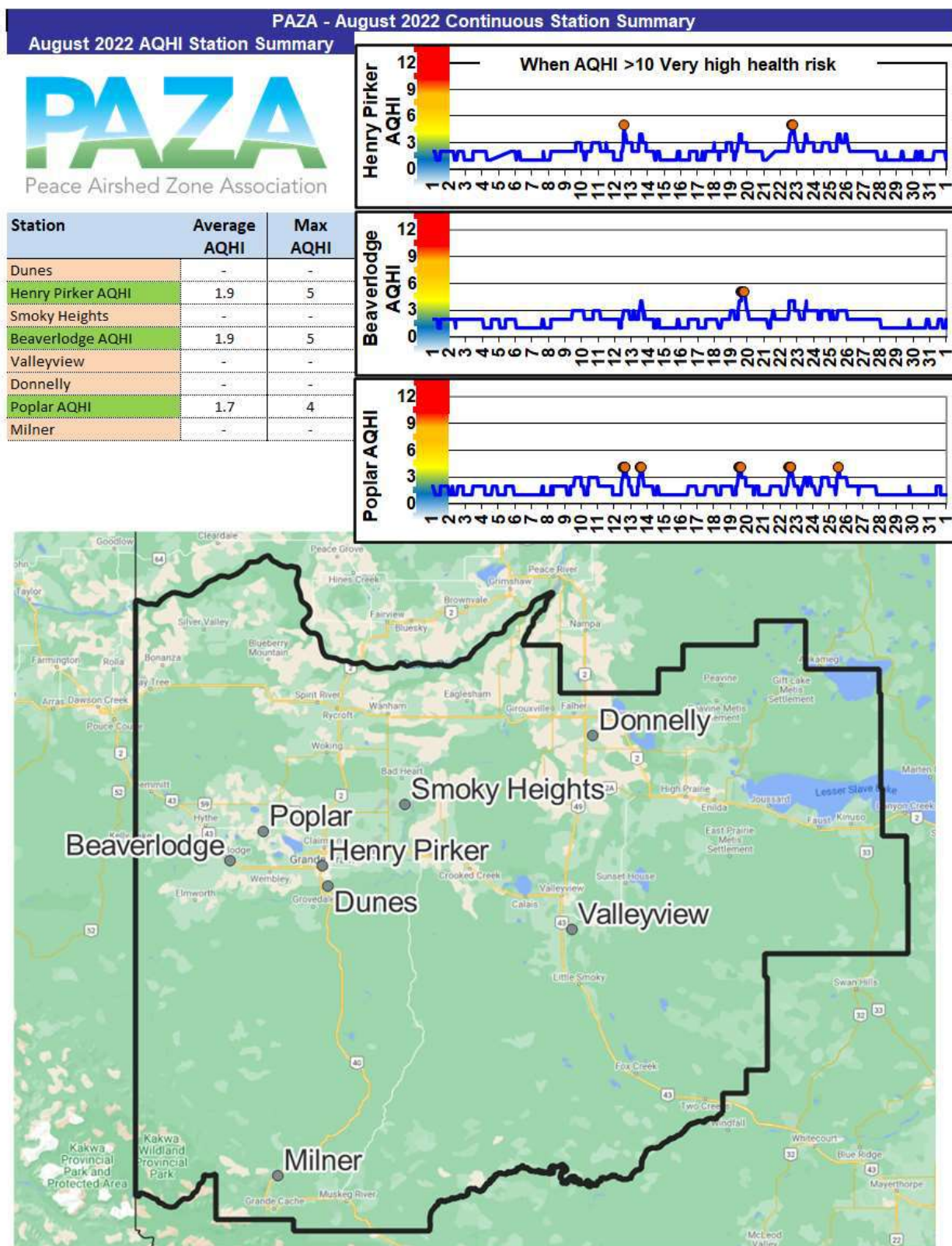


Milner August 2022 Wind Rose, wind speed in km/hr
Frequency of counts by wind direction (%)

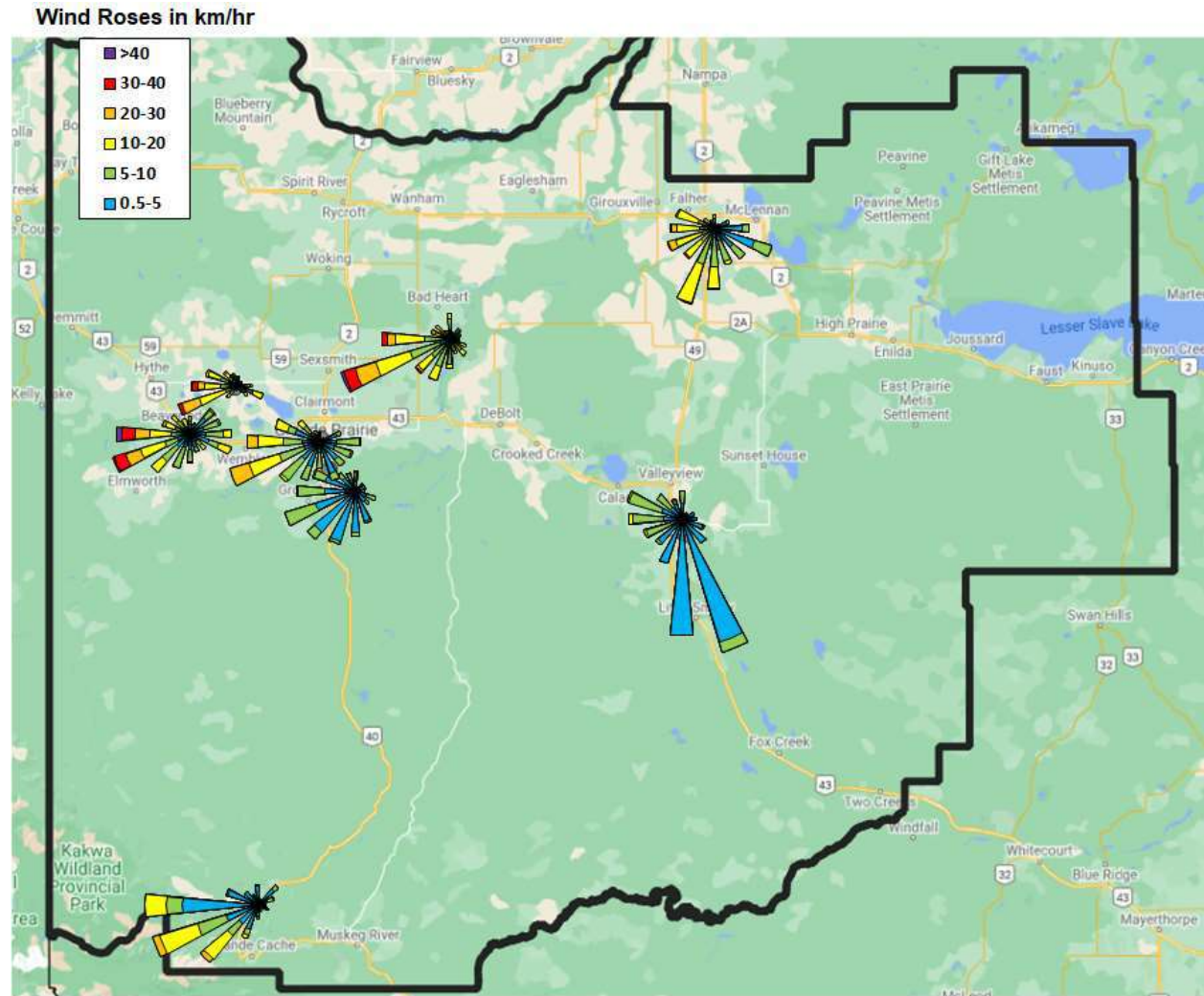
10 Concentration Summaries and Roses for PAZA



10.1 Air Quality Health Index (AQHI) Plots



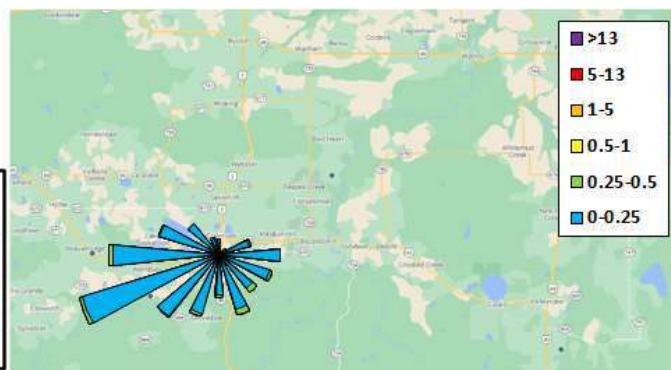
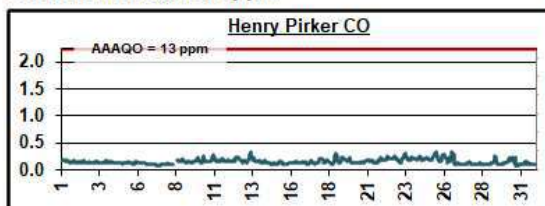
10.2 Wind Roses



10.3 Carbon Monoxide (CO) Plots

August 2022 CO Station Summary		
Station	Avg (ppm)	Max (ppm)
Henry Pirker CO	0.15	0.34

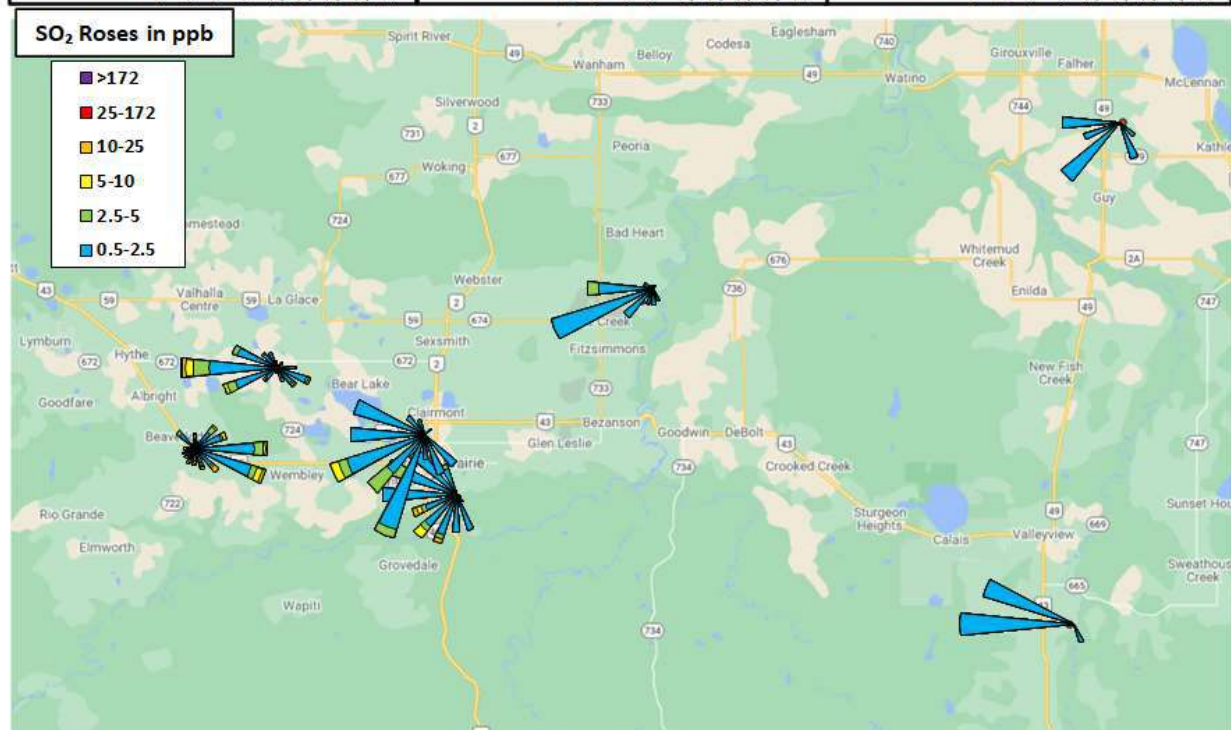
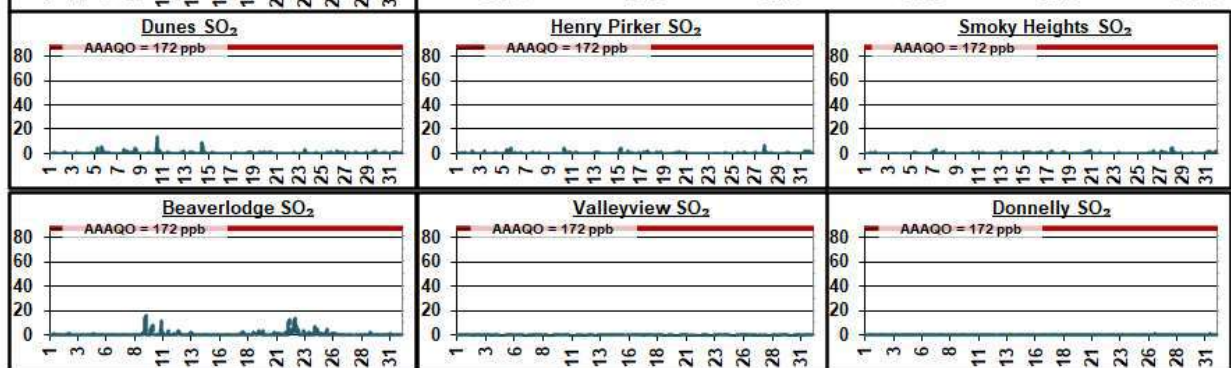
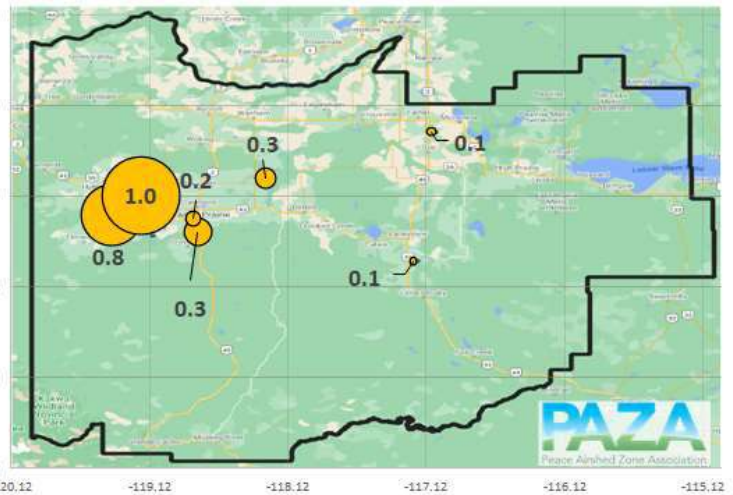
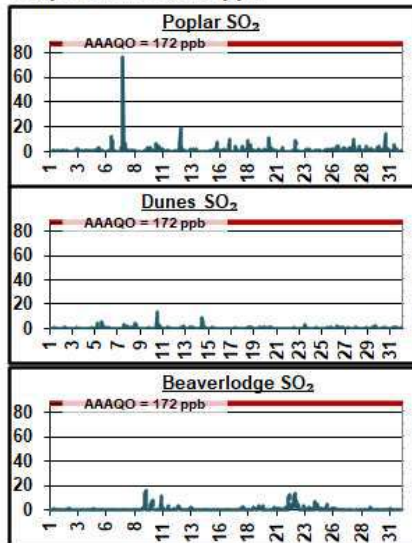
Carbon Monoxide in ppm



10.4 Sulphur Dioxide (SO₂) Plots

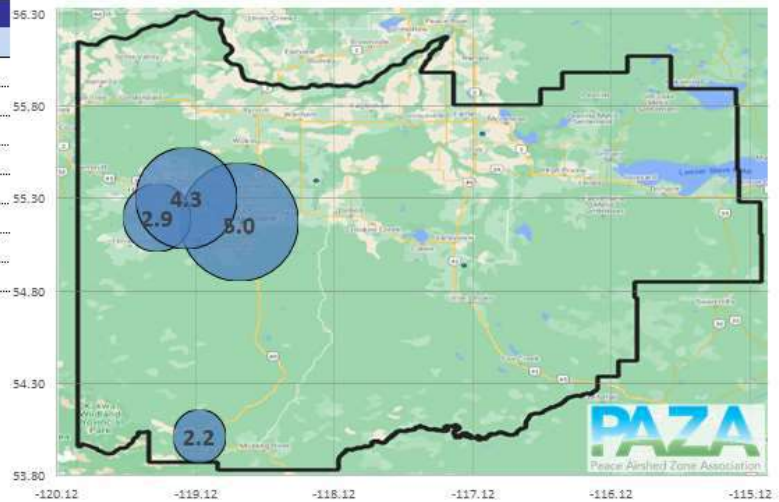
August 2022 SO ₂ Station Summary		
Station	Avg (ppb)	Max (ppb)
Dunes SO ₂	0.3	13.4
Henry Pirkner SO ₂	0.2	7.2
Smoky Heights SO ₂	0.3	4.6
Beaverlodge SO ₂	0.8	16.1
Valleyview SO ₂	0.1	1.0
Donnelly SO ₂	0.1	1.8
Poplar SO ₂	1.0	76.7
Milner SO ₂	-	-

Sulphur Dioxide in ppb

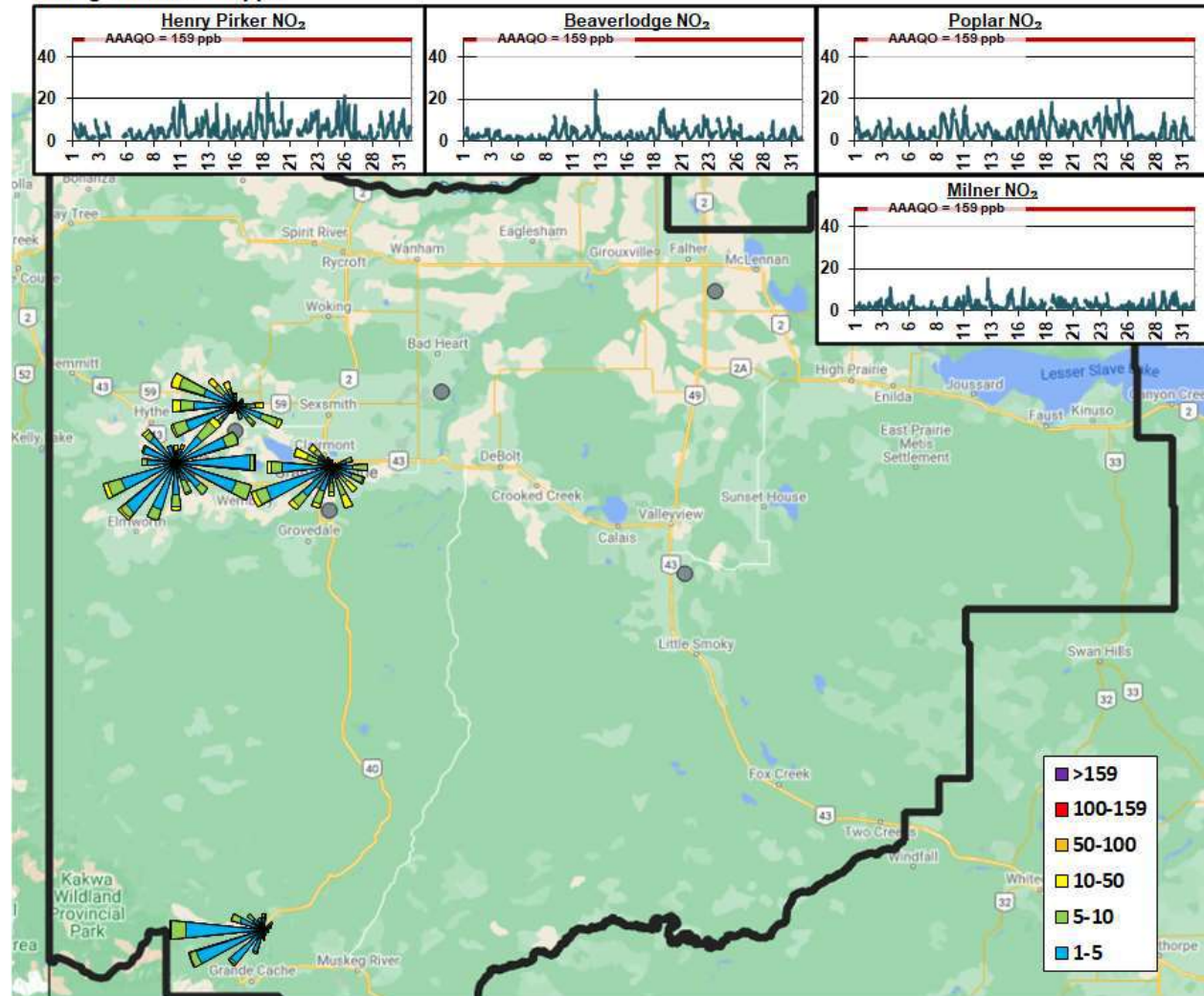


10.5 Nitrogen Dioxide (NO₂) Plots

August 2022 NO ₂ Station Summary		
Station	Avg (ppb)	Max (ppb)
Dunes NO ₂	-	-
Henry Pirkir NO ₂	5.0	23.1
Smoky Heights NO ₂	-	-
Beaverlodge NO ₂	2.9	24.0
Valleyview NO ₂	-	-
Donnelly NO ₂	-	-
Poplar NO ₂	4.3	19.7
Milner NO ₂	2.2	15.0

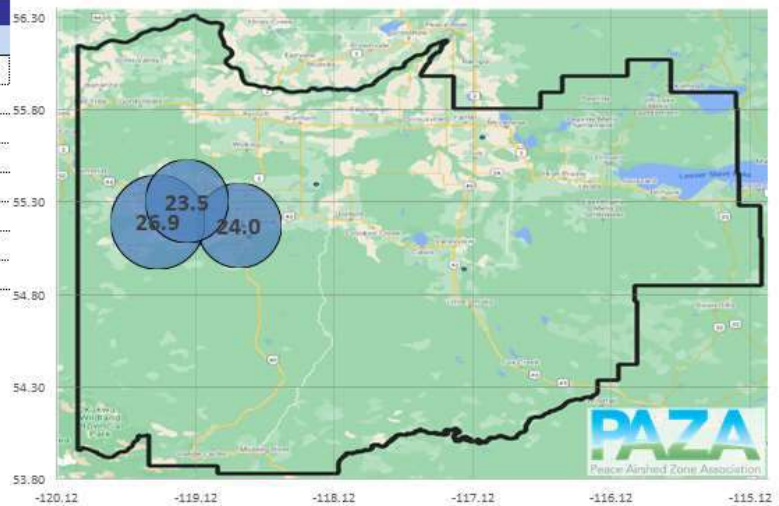


Nitrogen Dioxide in ppb

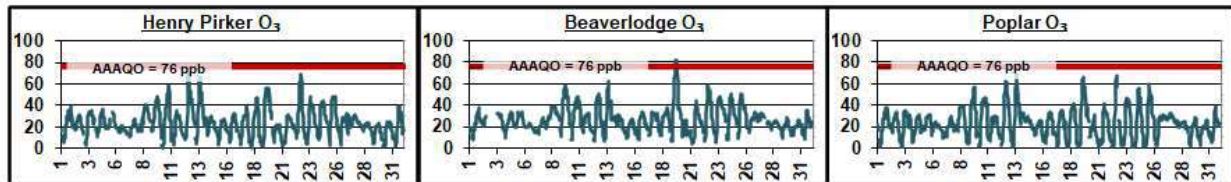


10.6 Ozone (O₃) Plots

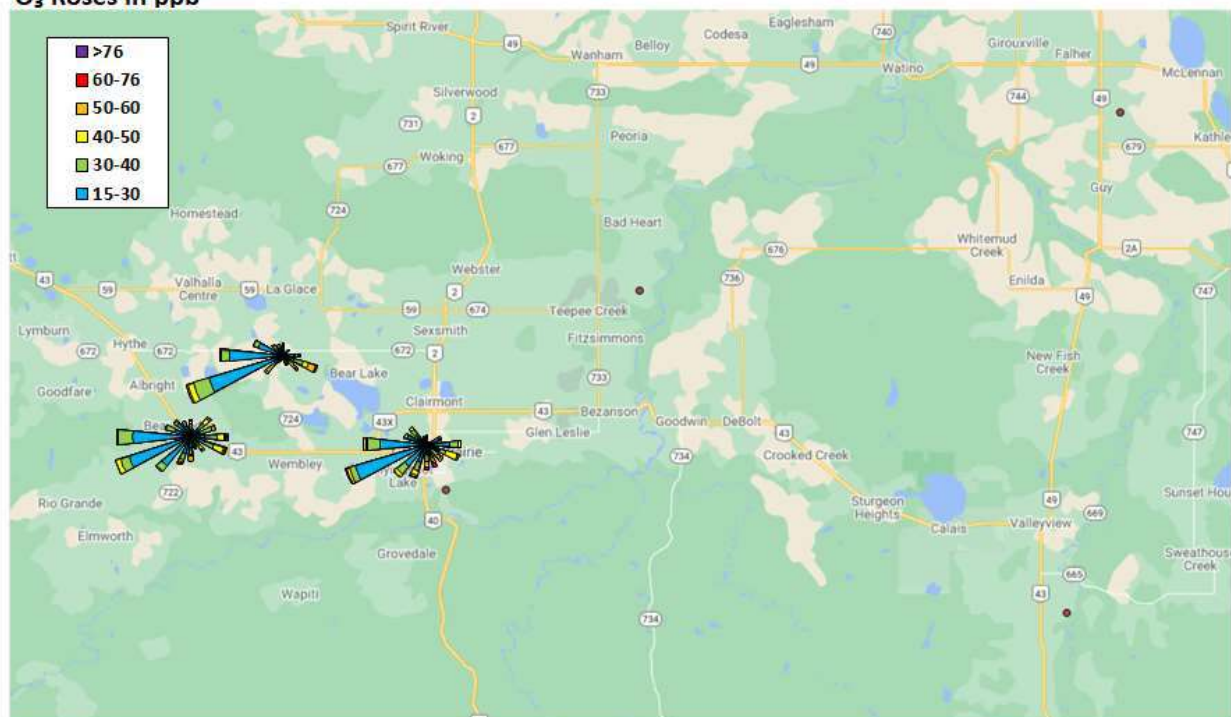
August 2022 O ₃ Station Summary		
Station	Avg (ppb)	Max (ppb)
Dunes O ₃	-	-
Henry Pirker O ₃	24.0	70.7
Smoky Heights O ₃	-	-
Beaverlodge O ₃	26.9	82.2
Valleyview O ₃	-	-
Donnelly O ₃	-	-
Poplar O ₃	23.5	69.5
Milner O ₃	-	-



Ozone in ppb



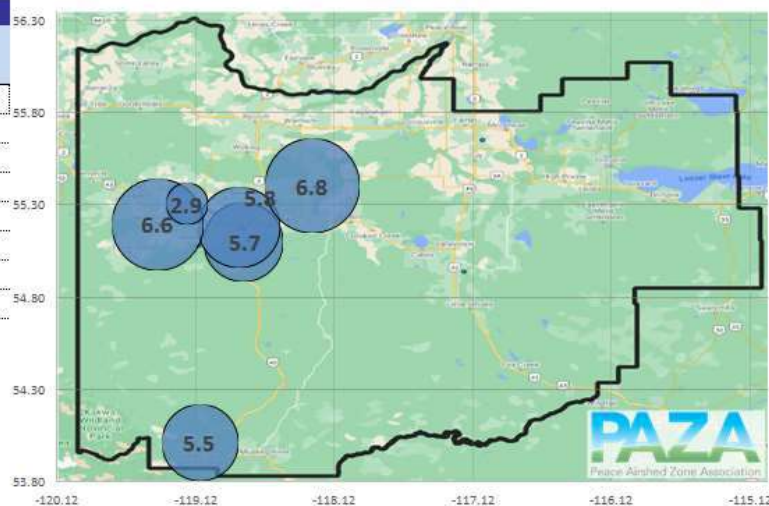
O₃ Roses in ppb



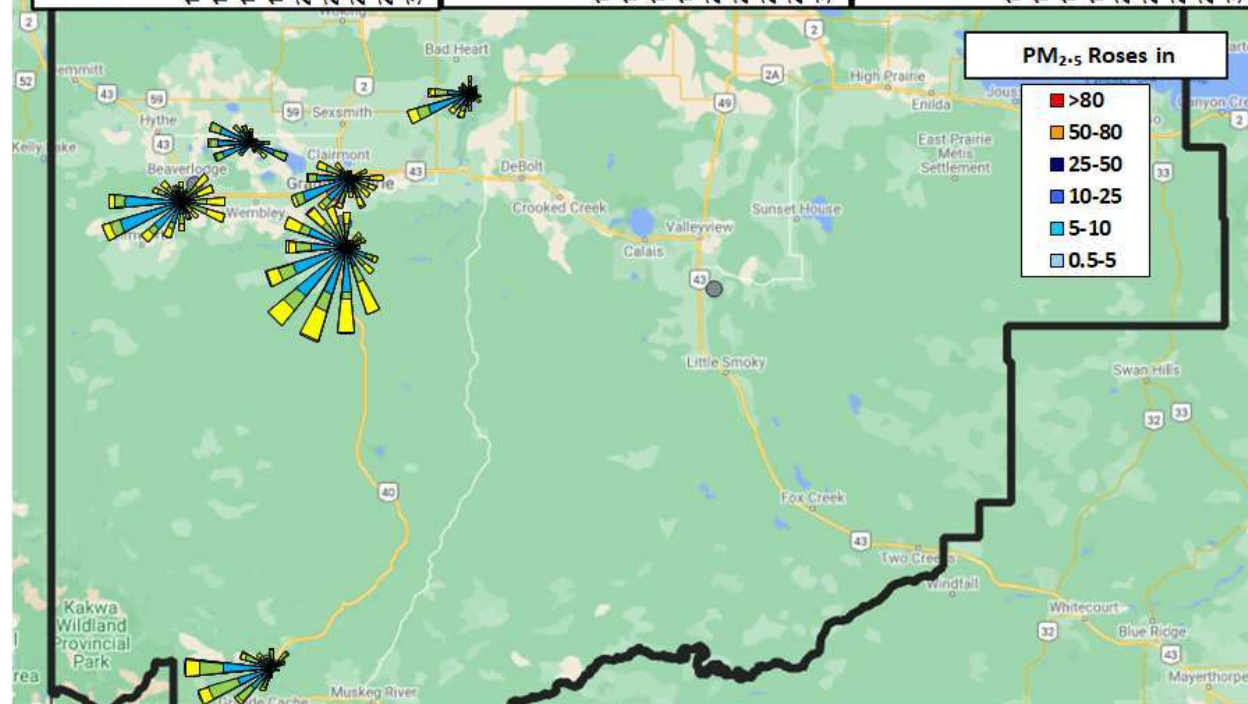
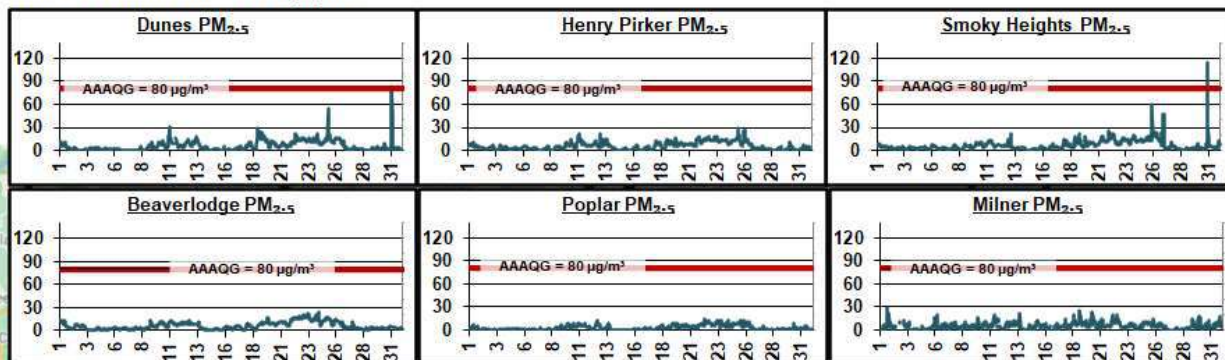
10.7 Fine Particulate Matter (PM_{2.5}) Plots

August 2022 PM_{2.5} Station Summary

Station	Avg µg/m ³	Max µg/m ³
Dunes PM _{2.5}	5.7	83.7
Henry Pirker PM _{2.5}	5.8	28.6
Smoky Heights PM _{2.5}	6.8	115.4
Beaverlodge PM _{2.5}	6.6	25.0
Valleyview PM _{2.5}	-	-
Donnelly PM _{2.5}	-	-
Poplar PM _{2.5}	2.9	15.0
Milner PM _{2.5}	5.5	28.2

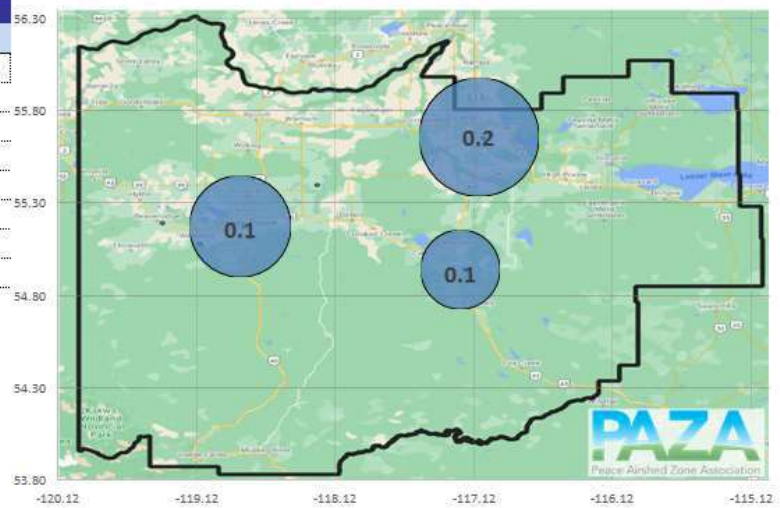


Fine Particulate Matter in µg/m³

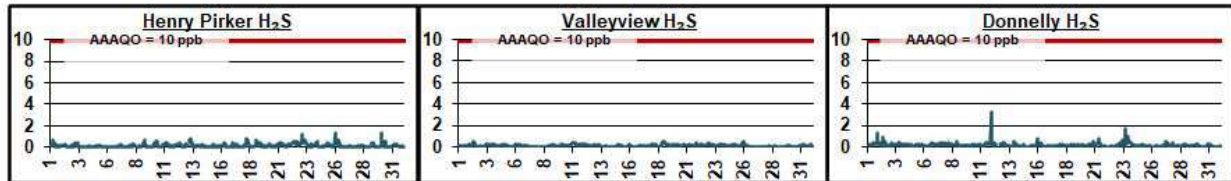


10.8 Hydrogen Sulphide (H₂S) Plots

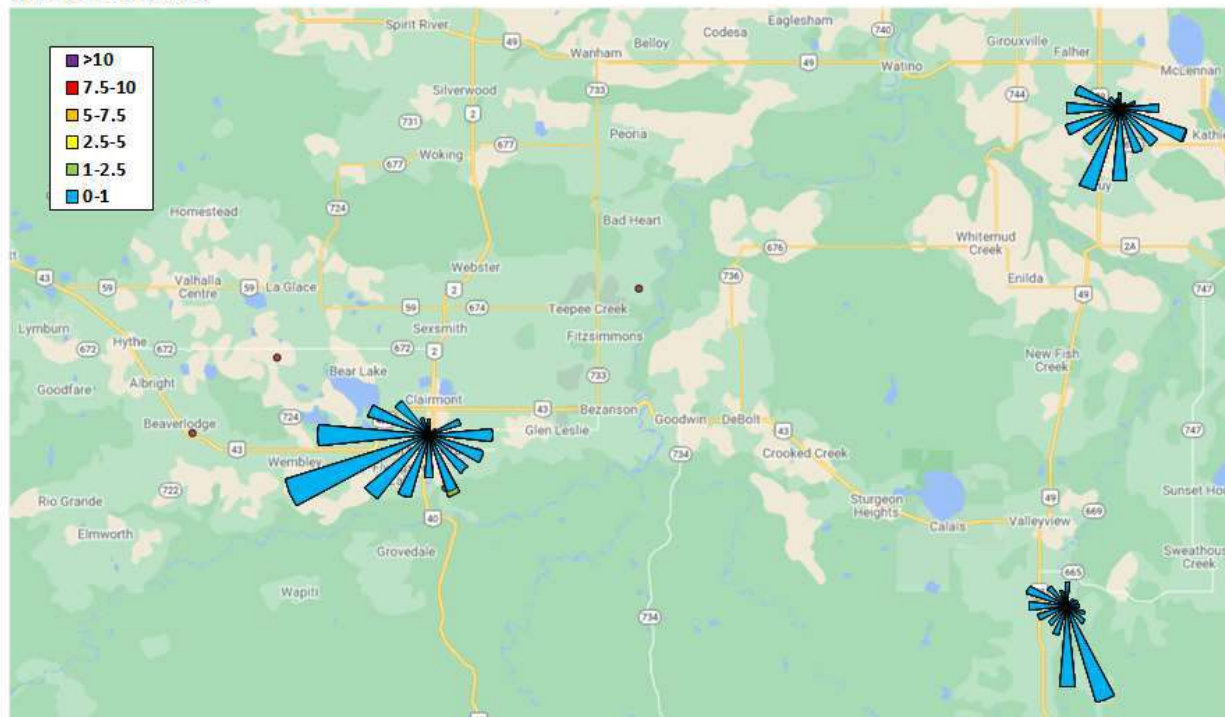
August 2022 H ₂ S Station Summary		
Station	Avg (ppb)	Max (ppb)
Dunes H ₂ S	-	-
Henry Pirker H ₂ S	0.1	1.4
Smoky Heights H ₂ S	-	-
Beaverlodge H ₂ S	-	-
Valleyview H ₂ S	0.1	0.6
Donnelly H ₂ S	0.2	3.2
Poplar H ₂ S	-	-
Milner H ₂ S	-	-



Hydrogen Sulphide in ppb

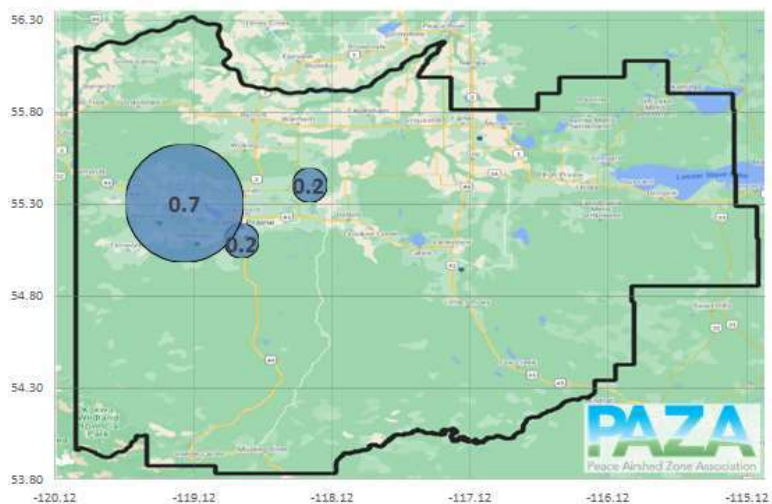


H₂S Roses in ppb

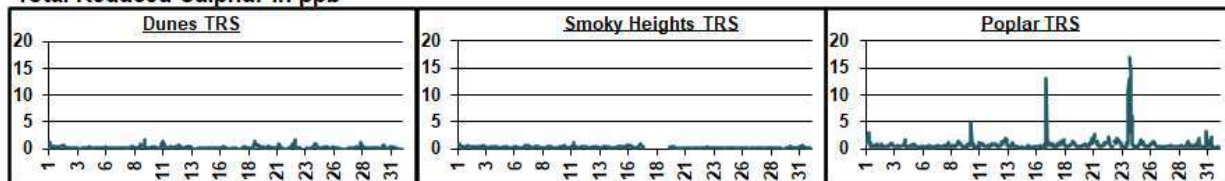


10.9 Total Reduced Sulphur (TRS) Plots

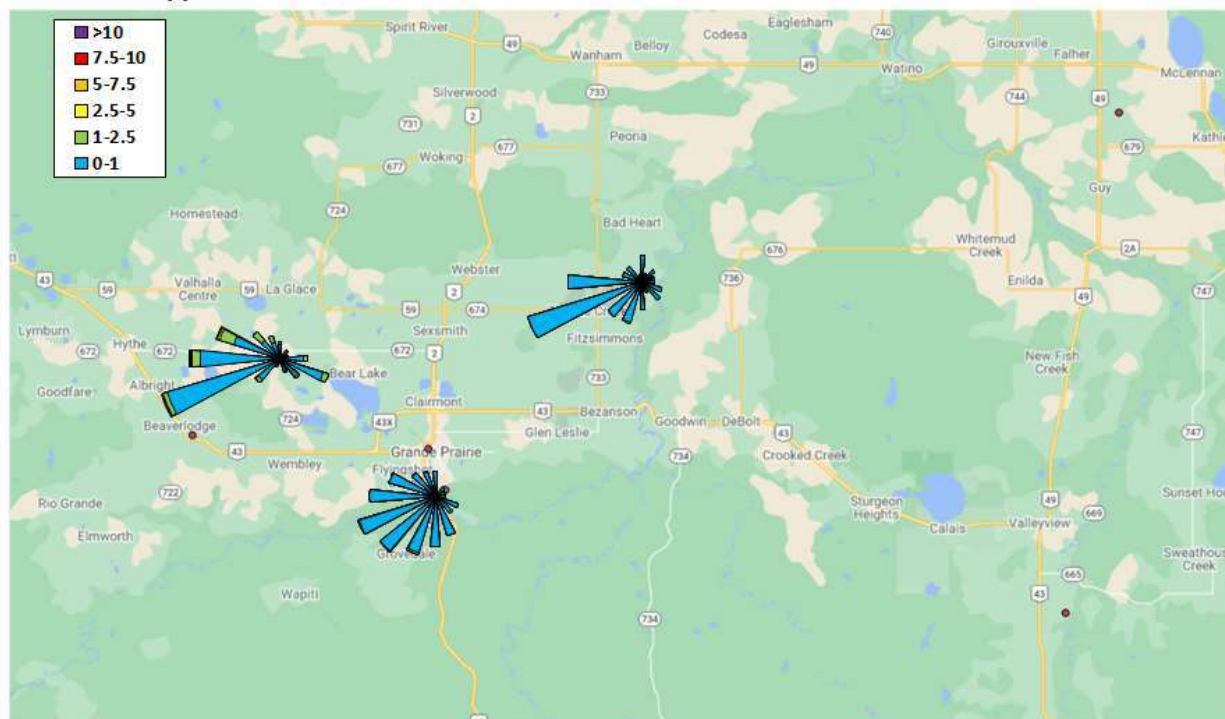
August 2022 TRS Station Summary		
Station	Avg (ppb)	Max (ppb)
Dunes TRS	0.2	1.8
Henry Pirker TRS	-	-
Smoky Heights TRS	0.2	1.1
Beaverlodge TRS	-	-
Valleyview TRS	-	-
Donnelly TRS	-	-
Poplar TRS	0.7	16.9
Milner TRS	-	-



Total Reduced Sulphur in ppb



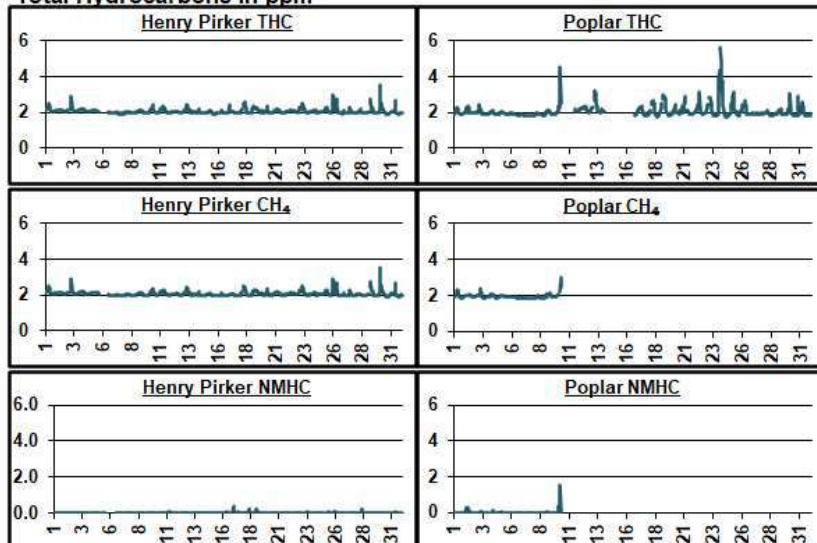
TRS Roses in ppb



10.10 Total Hydrocarbon (THC) Plots

August 2022 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	2.1	3.6	2.1	3.6	0.0	0.4
Smoky Heights THC	-	-	-	-	-	-
Beaverlodge THC	-	-	-	-	-	-
Valleyview THC	-	-	-	-	-	-
Donnelly THC	-	-	-	-	-	-
Poplar THC	2.1	5.6	-	-	-	-

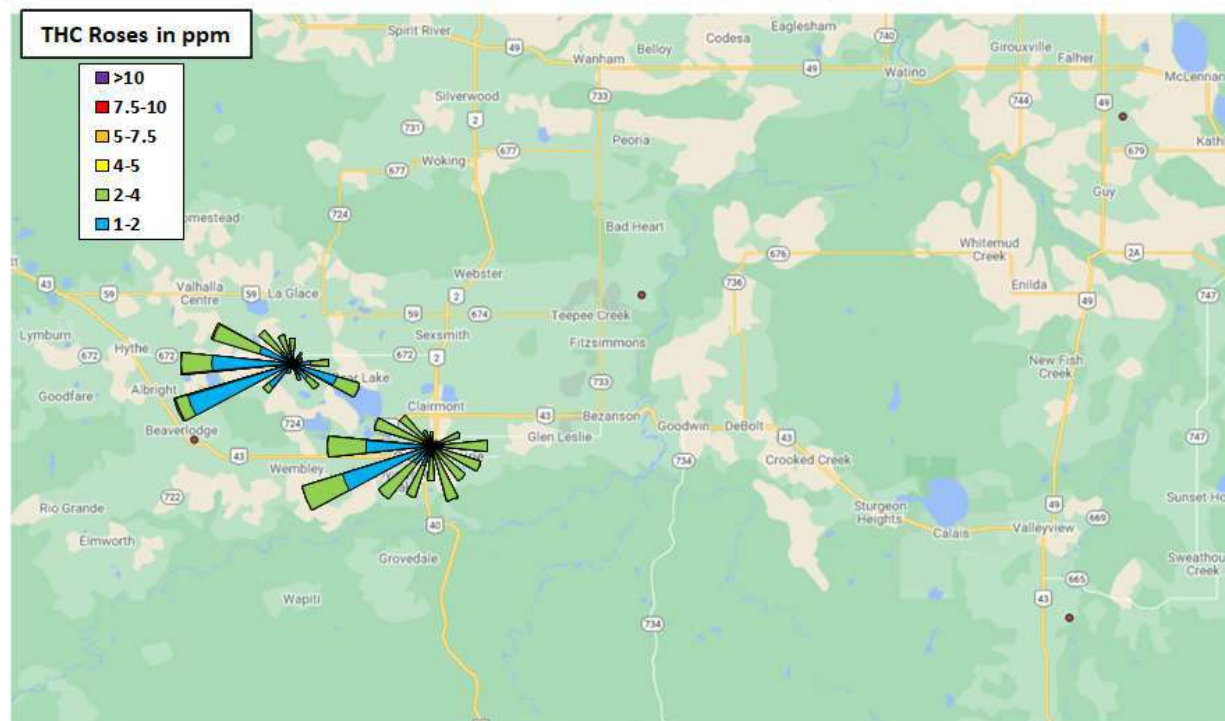
Total Hydrocarbons in ppm



Total Hydrocarbons (THC)

Methane (CH₄)

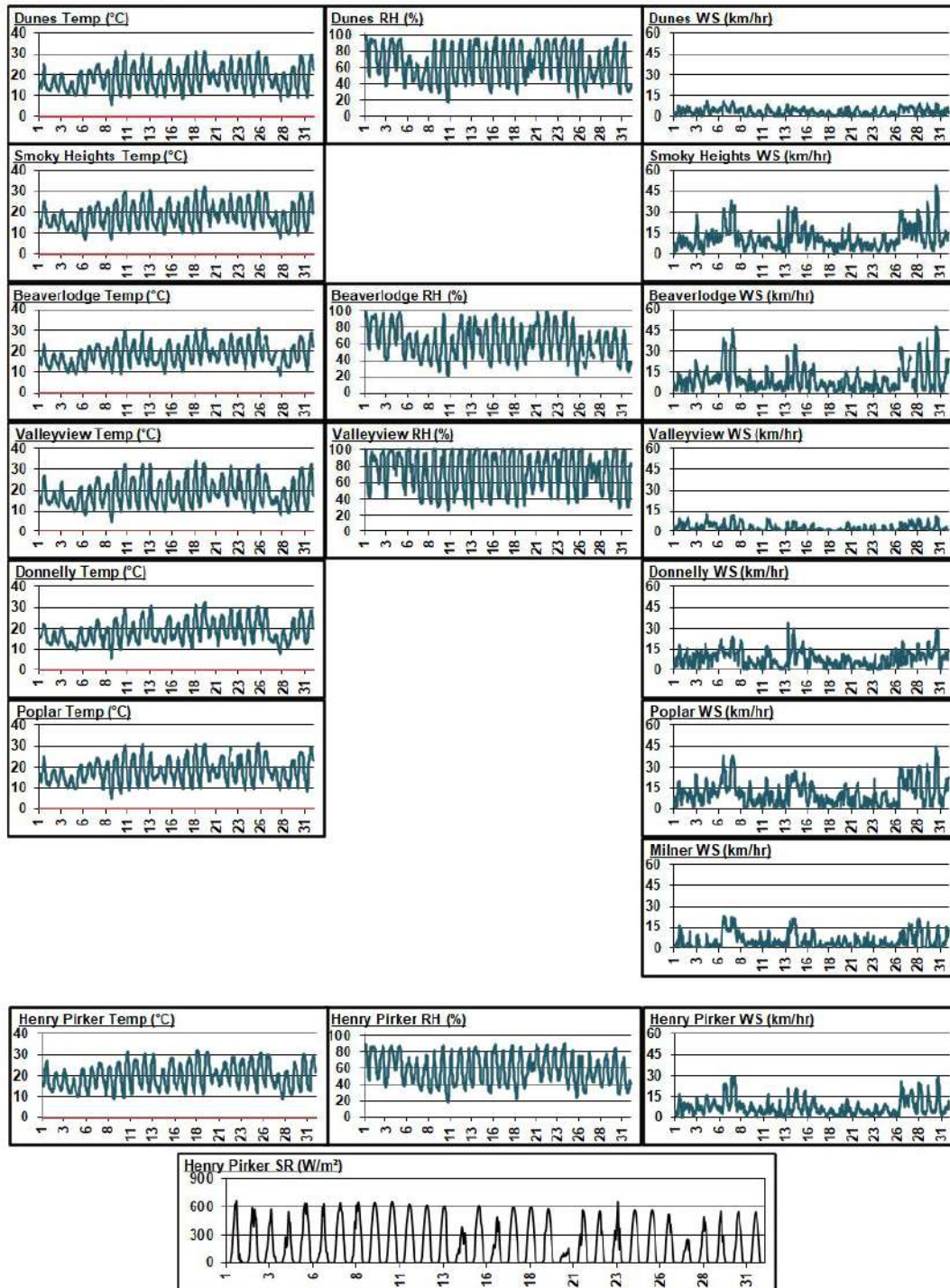
Non-Methane Hydrocarbons (NMHC)



10.11 Meteorology Summary

August 2022 Meteorological Summary						
Station	Temp (°C)	RH (%)	SR (W/m ²)	WS (km/hr)	WD (deg)	WD
Dunes	18.4	64.6	-	3.5	245	WSW
Henry Pirker	19.8	58.6	178.1	7.2	247	WSW
Smoky Heights	18.5	-	-	11.2	245	WSW
Beaverlodge	18.4	62.3	-	9.9	255	WSW
Valleyview	18.7	73.4	-	3.1	243	WSW
Donnelly	18.6	-	-	8.4	223	SW
Poplar	18.1	-	-	11.0	252	W
Milner	-	-	-	5.3	243	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 August 2022

Station Number	Station Name	SO2 ppb	O3 ppb	NO2 ppb	H2S ppb	LSD
Duplicates						
4a	Gordondale	0.4				04-34-078-10 W6M
4b	Gordondale	0.4				
7a	Steepprock Creek			0.0		09-35-072-13 W6M
7b	Steepprock Creek			0.0		
24a	Wembley			1.5		12-31-070-08 W6M
24b	Wembley			1.3		
25a	Pinto Creek	0.1				04-24-069-11 W6M
25b	Pinto Creek	0.1				
28a	Clairmont Lake			0.9		09-06-073-04 W6M
28b	Clairmont Lake			0.9		
43a	High Prairie	0.1				16-13-074-17 W5M
43b	High Prairie	0.1				
47a	Kinuso		20.3			12-10-073-10 W5M
47b	Kinuso		24.0			
48a	Deer Mountain	0.1				15-22-068-09 W5M
48b	Deer Mountain	0.1				
50a	East Prairie			0.0		11-13-079-08 W6M
50b	East Prairie			0.1		
G3a	Girouxville 3				Found on Ground	14-02-077-23 W5M
G3b	Girouxville 3				Found on Ground	
D2a	Duvernay 2	0.4			0.1	04-33-062-20 W5M
D2b	Duvernay 2	0.3			0.1	
J2a	Jayar2 14-8				0.1	07-08-062-03 W6M
J2b	Jayar2 14-8				0.1	
J3a	Jayar3 Bone Yard			0.6		14-08-062-03 W6M
J3b	Jayar3 Bone Yard			1.3		
J5a	Jayar5 Camp	0.2				11-08-062-03 W6M
J5b	Jayar5 Camp	0.3				
M5a	Bridge	<0.1				08-06-057-08 W6M
M5b	Bridge	<0.1				
M7a	Wanyandie			0.6		11-13-058-08 W6M
M7b	Wanyandie			0.5		

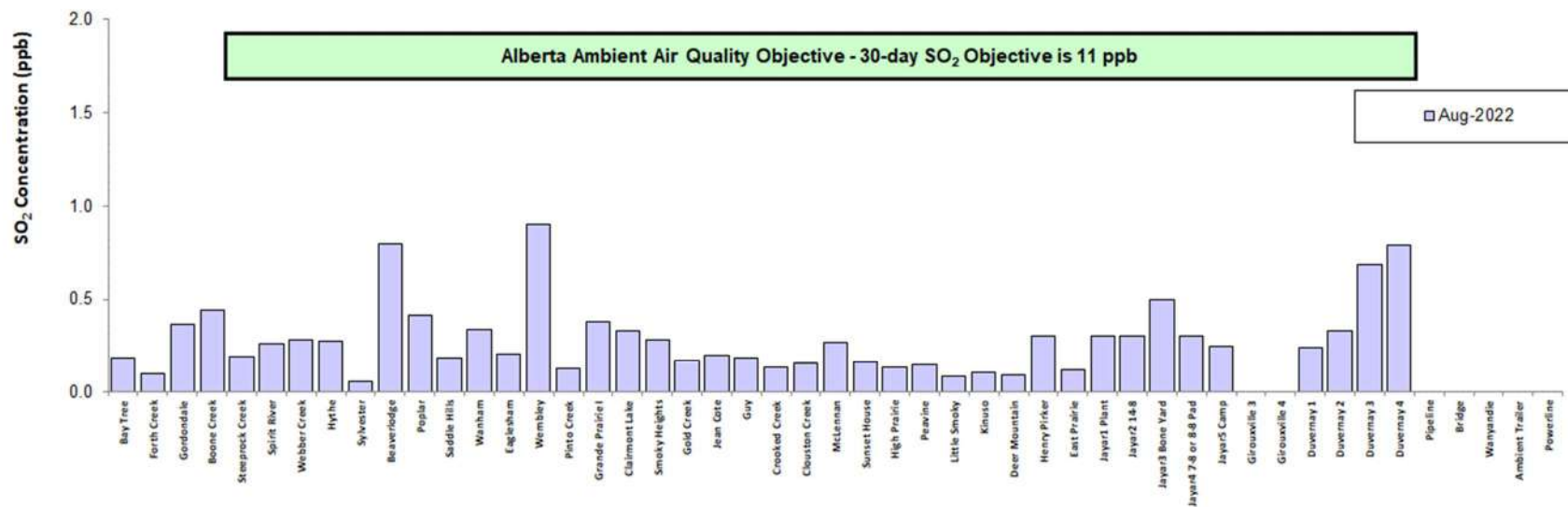
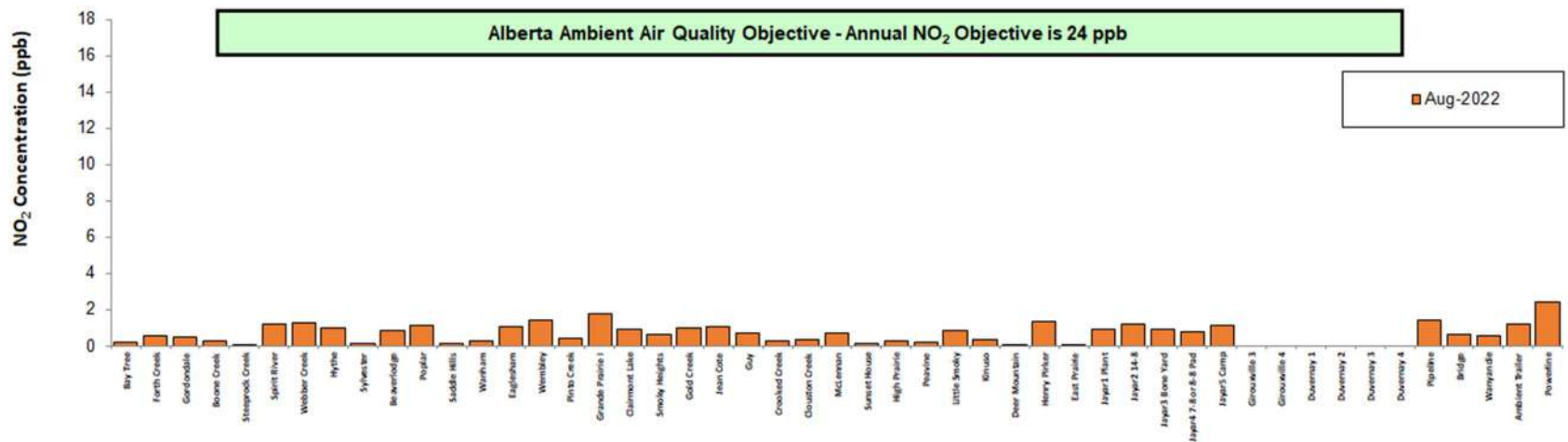
Station Number	Station Name	SO2 ppb	O3 ppb	NO2 ppb	H2S ppb	LSD
2	Bay Tree	0.2	23.2	0.2	-	13-16-078-13 W6M
3	Forth Creek	0.1	-	0.6	-	04-13-082-07 W6M
4	Gordondale	0.4	-	0.5	-	04-34-078-10 W6M
5	Boone Creek	0.4	-	0.3	-	01-23-076-11 W6M
7	Steepprock Creek	0.2	-	0.0	-	09-35-072-13 W6M
9	Spirit River	0.3	-	1.2	-	08-12-079-07 W6M
11	Webber Creek	0.3	-	1.3	-	09-36-074-09 W6M
12	Hythe	0.3	-	1.0	-	14-36-072-11 W6M
14	Sylvester	0.1	-	0.1	-	08-06-069-12 W6M
16	Beaverlodge	0.8	-	0.9	-	15-36-071-10 W6M
17	Poplar	0.4	-	1.1	-	13-06-073-08 W6M
18	Saddle Hills	0.2	-	0.1	-	04-25-074-07 W6M
19	Wanham	0.3	-	0.3	-	16-22-077-03 W6M
21	Eaglesham	0.2	-	1.0	-	16-21-079-25 W5M
24	Wembley	0.9	-	1.4	-	12-31-070-08 W6M
25	Pinto Creek	0.1	-	0.4	-	04-24-069-11 W6M
27	Grande Prairie I	0.4	-	1.8	-	08-15-071-06 W6M
28	Clairmont Lake	0.3	-	0.9	-	09-06-073-04 W6M
29	Smoky Heights	0.3	-	0.6	-	04-06-075-02 W6M
32	Gold Creek	0.2	-	1.0	-	06-33-067-05 W6M
35	Jean Cote	0.2	-	1.1	-	12-35-079-21 W5M
36	Guy	0.2	-	0.7	0.1	03-04-076-22 W5M
37	Crooked Creek	0.1	27.5	0.3	-	16-01-071-26 W5M
39	Clouston Creek	0.2	-	0.3	-	12-01-073-22 W5M
40	McLennan	0.3	-	0.7	-	03-29-077-19 W5M
42	Sunset House	0.2	-	0.1	-	05-32-070-19 W5M
43	High Prairie	0.1	-	0.3	-	16-13-074-17 W5M
44	Peavine	0.1	-	0.2	-	03-05-079-15 W5M
46	Little Smoky	0.1	-	0.9	-	12-01-066-21 W5M
47	Kinuso	0.1	22.1	0.4	-	12-10-073-10 W5M
48	Deer Mountain	0.1	-	0.0	-	15-22-068-09 W5M
49	Henry Pirker	0.3	-	1.4	-	17-26-071-06 W6M
50	East Prairie	0.1	-	0.0	-	11-13-079-08 W6M
57	Jayar1 Plant	0.3	-	0.9	0.1	06-08-062-03 W6M
58	Jayar2 14-8	0.3	-	1.2	0.1	07-08-062-03 W6M
59	Jayar3 Bone Yard	0.5	-	1.0	0.1	14-08-062-03 W6M
60	Jayar4 7-8 or 8-8 Pad	0.3	-	0.8	0.1	10-08-062-03 W6M
61	Jayar5 Camp	0.3	-	1.1	0.1	11-08-062-03 W6M
G3	Girouxville 3	-	-	-	Found on Ground	14-02-077-23 W5M
G4	Girouxville 4	-	-	-	0.3	04-08-077-22 W5M
D1	Duvernay 1	0.2	-	-	0.1	04-33-062-20 W5M
D2	Duvernay 2	0.3	-	-	0.1	04-33-062-20 W5M
D3	Duvernay 3	0.7	-	-	0.1	04-33-062-20 W5M
D4	Duvernay 4	0.8	-	-	0.1	04-33-062-20 W5M
M1	Pipeline	<0.1	-	1.4	-	12-14-058-08 W6M
M2	Bridge	<0.1	-	0.6	-	08-06-057-08 W6M
M3	Wanyandie	<0.1	-	0.6	-	11-13-058-08 W6M
M4	Ambient Trailer	<0.1	-	1.2	-	09-15-058-08 W6M
M5	Powerline	<0.1	-	2.4	-	06-14-058-08 W6M

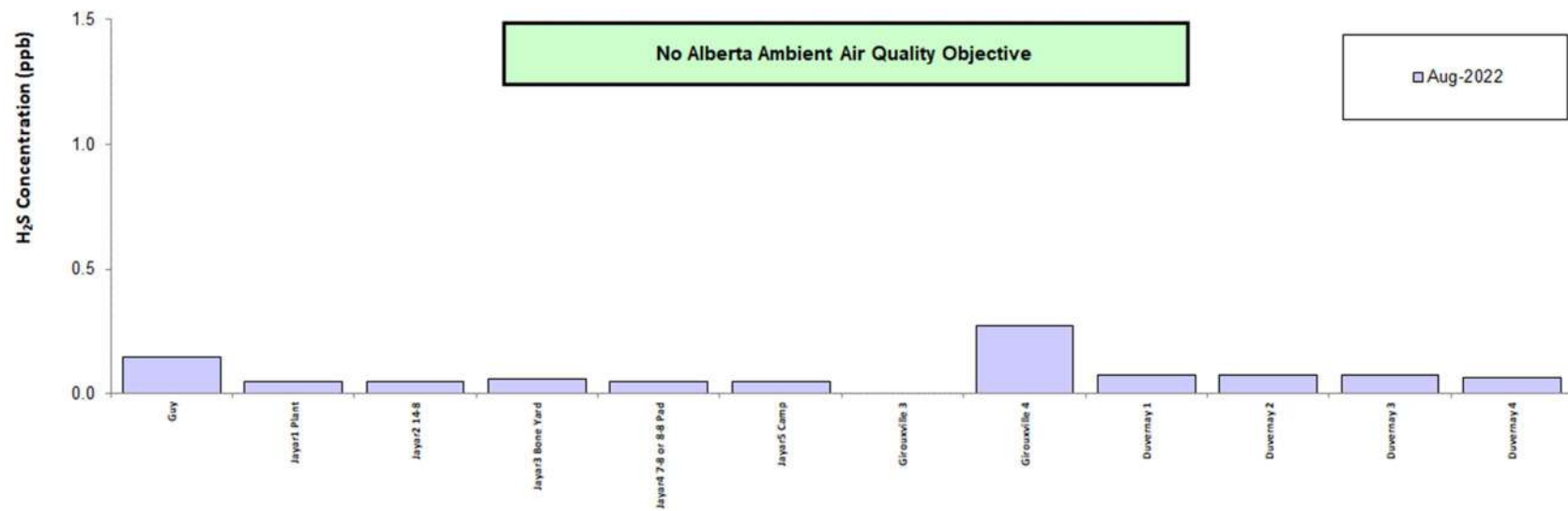
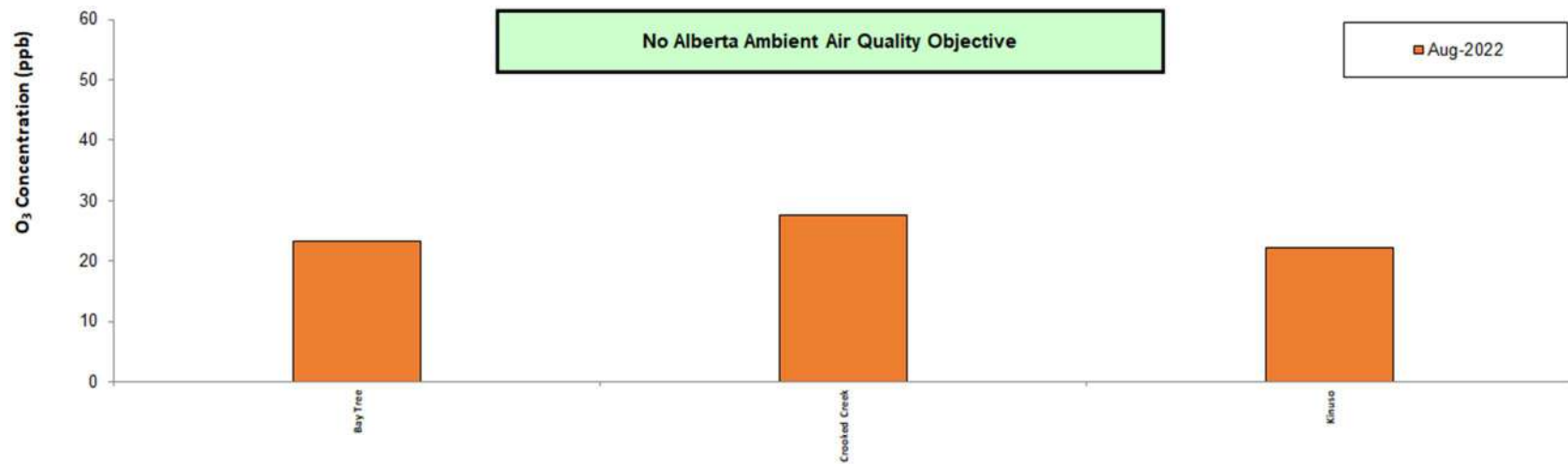
Passive Summary for August 2022

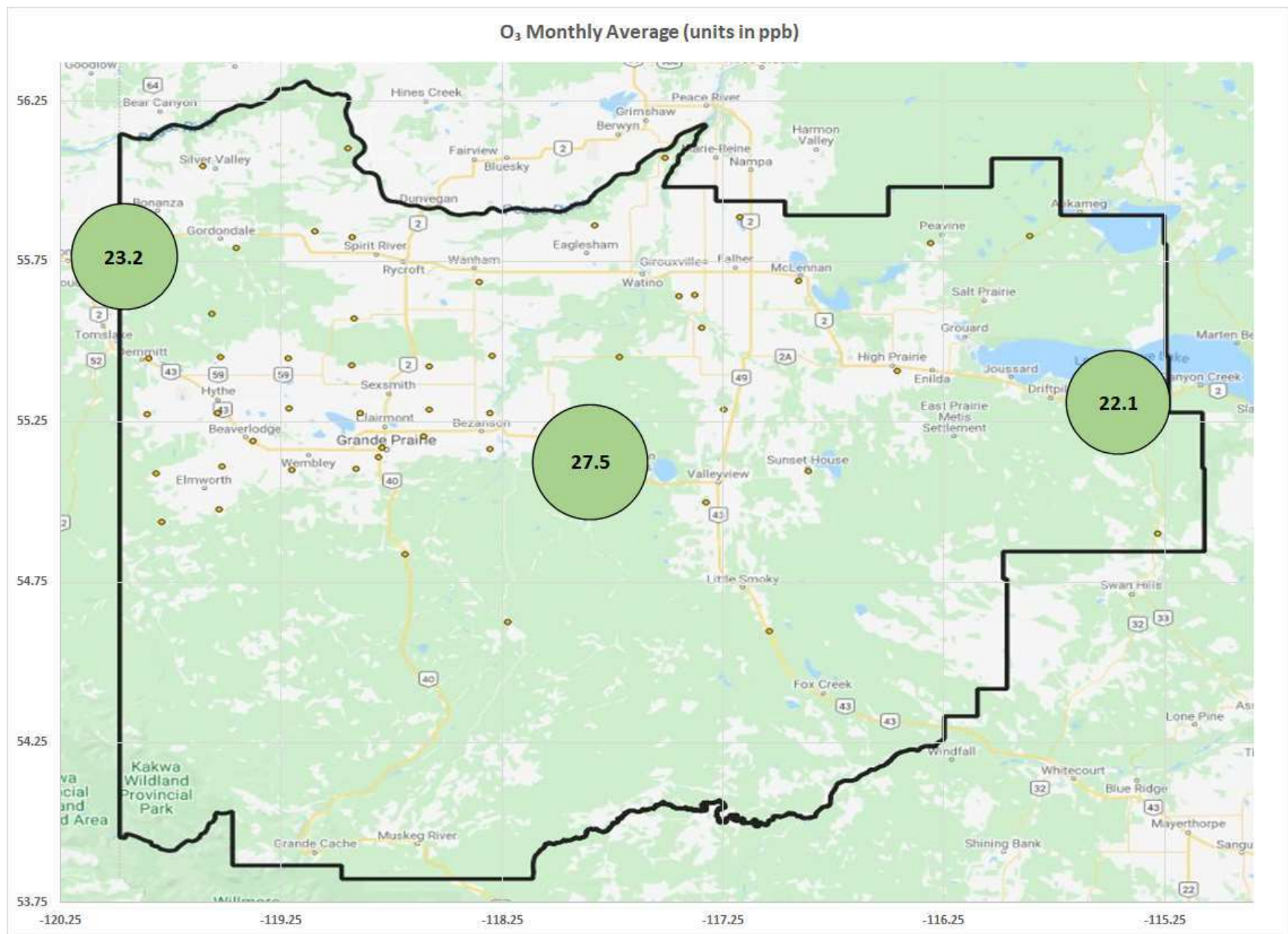
Stats	Sulphur Dioxide SO ₂	Ozone O ₃	Nitrogen Dioxide NO ₂	Hydrogen Sulphide H ₂ S
	ppb	ppb	ppb	ppb

Passive Summary for August 2022 (PAZA)				
Mean	0.3	24.3	0.7	0.1
Standard Deviation	0.2	2.8	0.5	0.1
Minimum	0.1	22.1	0.0	0.1
	Sylvester (#14)	Kinuso (#47)	Steeprock Creek (#7)	Jayar1 Plant (#57)
Maximum	0.9	27.5	2.4	0.3
	Wembley (#24)	Crooked Creek (#37)	Powerline (#M5)	Girouxville 4 (#G4)

Continuous and Passive Monitoring Comparision				
PAZA Beaverlodge Station	0.8	26.9	2.9	-
Beaverlodge Passive (#16)	0.8	-	0.9	-
PAZA Henry Pirker Station	0.2	24.0	5.0	0.1
Henry Pirker passive (#49)	0.3	-	1.4	-
Milner Station	-	-	2.2	-
Henry Pirker passive (#49)	<0.1	-	1.2	-



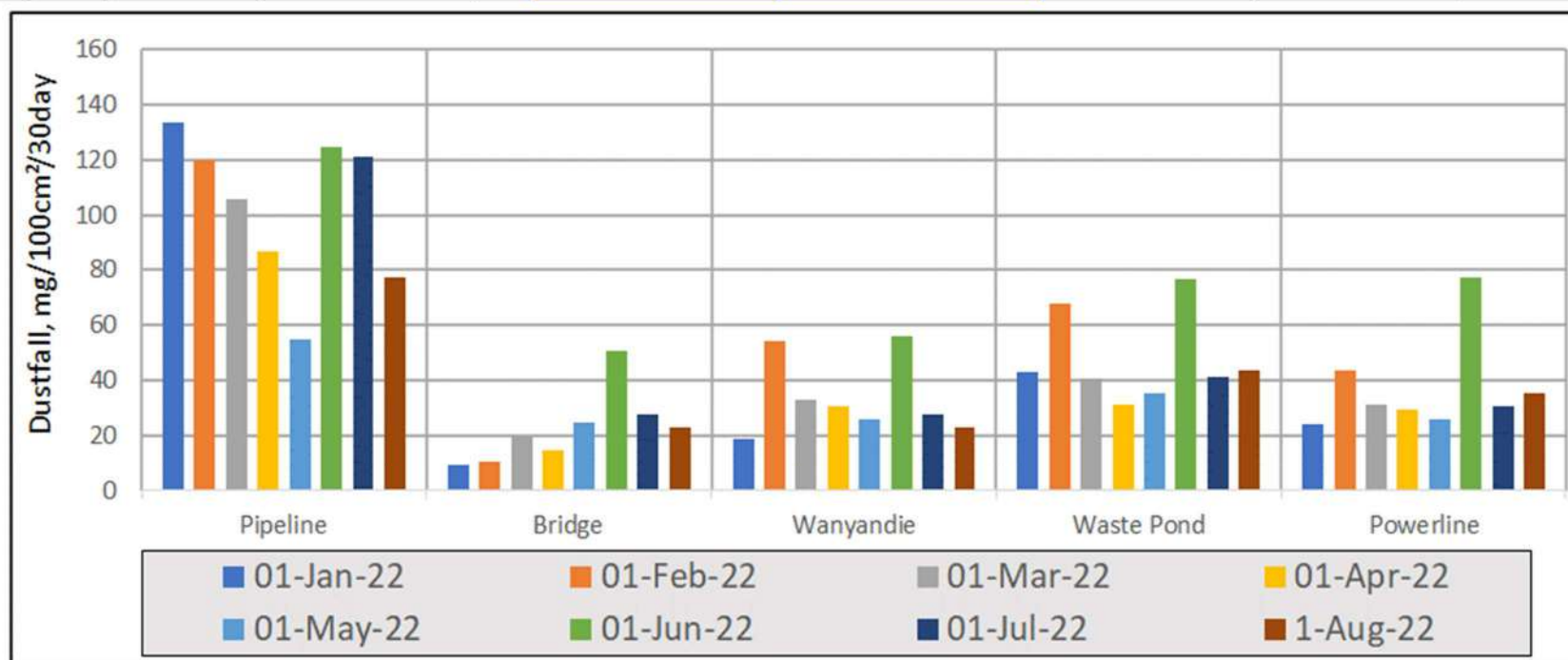




12 Dustfall Monitoring Data

Milner Dustfall Samples August 2022

Exposure Month	Year	Sample	Total Dustfall (30 day) mg/100cm ² /30day	Fixed Dustfall (30 day) mg/100cm ² /30day	Exposure days	Field Notes
August	2022	Pipeline	77.1	32.4	32	
August	2022	Bridge	22.7	8.3	32	
August	2022	Wanyandie	22.7	2.8	32	
August	2022	Waste Pond	43.4	9.6	32	
August	2022	Powerline	35.1	9.6	32	
August	2022	Powerline Dup	31.0	11.0	32	RPD= 12% / 14%



End of Report



Peace Airshed Zone Association

Ambient Air Monitoring Report

August 2022