



Peace Airshed Zone Association

Ambient Air Monitoring Network Summary

Ambient Air Quality Monitoring Program

Monthly Report

July 2021

August 31, 2021

Alberta Environment and Parks

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

Subject: **Peace Airshed Zone Association (PAZA)**
July 2021 Ambient Air Quality Monitoring Report

Please find enclosed the PAZA Ambient Air Quality Monitoring Network Report for the month of July 2021.

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

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This report was prepared by Matrix Solutions Inc. and reviewed by Mandeep Dhaliwal.

PAZA has retained the services of WSP Canada Inc. to conduct continuous ambient monitoring and Matrix Solutions Inc. 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

Continuous Monitoring:

Seven (7) Stations including Henry Pirker (Grande Prairie), Evergreen Park, Smoky Heights, Beaverlodge, Valleyview, Donnelly and Wembley-Portable. Detailed Summaries are included in the report

Calibration and Data Submission:

Monthly report, hourly data and calibration reports for July 2021 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	262479-00-00
Alberta Power (2000) Ltd. (an ATCO company)	Sturgeon	SW-06-069-21-W5	10283-02-02
ATCO Power Canada	Poplar Hill	11-19-073-08-W6	67774-01-01
ATCO Power Canada	Valleyview	SW-06-069-21-W5	147709-01-01
AltaGas Ltd.	Pouce Coupe	03-03-081-13-W6	247673-00-00
	Ante Creek	02-26-068-25-W5	266694-00-00
	Gordondale	02-26-068-25-W5	287474-00-00
Apache Canada Ltd.	House Mountain	01-08-070-10-W5	10137-02-02
Birchcliff Energy Ltd.	Pouce Coupe	03-22-078-12-W6	252529-00-00
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	1633-02-00
Canfor Forest Products	Grande Prairie	SW-23-071-06-W6	152645-01-00
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	1464-02-03
Exshaw Oil Corporation	Spirit River	03-10-077-07-W6	344521-00-00
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	138884-01-00
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	11351-02-00
	Spirit River	08-34-077-06-W6	11096-02-00
Strathcona Resources Ltd.	Jayar Sour Gas Processing Plant	06-08-062-03 W6	3612040
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 were twenty readings above the AAAQO (including 3, 1hr O₃ and 17, 24hr PM_{2.5}) and 28 readings above the AAAQG (1hr PM_{2.5}), results are summarized below:

There were three, 1hr ozone readings above 76ppb (AAAQO) as follows:

Reference Number	Pollutant	Station	Date	From MST	To MST	Hour avg ppb	WS km/h	WD degrees
381144	O ₃	Henry Pirker	13-Jul-21	13:00	14:00	81.1	1.7	192.8
381144	O ₃	Henry Pirker	13-Jul-21	14:00	15:00	84.5	1.2	266.6
381144	O ₃	Henry Pirker	13-Jul-21	15:00	16:00	79.5	1.3	15.3

There were 28, 1hr PM_{2.5} readings above 80 µg/m³ (AAAQG) as follows:

Reference Number	Pollutant	Station	Date	From MST	To MST	Hour avg ppb	WS km/h	WD degrees
381192	PM _{2.5}	Beaverlodge	14-Jul-21	12:00	13:00	111.4	25.2	262.8
381192	PM _{2.5}	Beaverlodge	14-Jul-21	13:00	14:00	143.3	29.3	265.4
381192	PM _{2.5}	Beaverlodge	14-Jul-21	14:00	15:00	98.2	29.7	260.1
381210	PM _{2.5}	Evergreen Park	14-Jul-21	15:00	16:00	90.4	7.1	263.1
381210	PM _{2.5}	Evergreen Park	14-Jul-21	16:00	17:00	82.3	7.0	276.1
381251	PM _{2.5}	Evergreen Park	15-Jul-21	01:00	02:00	85.7	1.4	251.6
381251	PM _{2.5}	Evergreen Park	15-Jul-21	04:00	05:00	80.9	3.3	259.0
381251	PM _{2.5}	Evergreen Park	15-Jul-21	05:00	06:00	84.7	1.5	240.8
381251	PM _{2.5}	Evergreen Park	15-Jul-21	06:00	07:00	88.0	1.7	225.0
381251	PM _{2.5}	Evergreen Park	15-Jul-21	07:00	08:00	94.0	2.2	271.5
381251	PM _{2.5}	Evergreen Park	15-Jul-21	08:00	09:00	83.1	2.5	290.3
381209	PM _{2.5}	Wembley	14-Jul-21	15:00	16:00	99.5	14.1	297.5
381255	PM _{2.5}	Wembley	15-Jul-21	00:00	01:00	89.3	5.3	273.0
381255	PM _{2.5}	Wembley	15-Jul-21	01:00	02:00	95.7	6.1	257.6
381255	PM _{2.5}	Wembley	15-Jul-21	02:00	03:00	97.2	6.8	270.2
381255	PM _{2.5}	Wembley	15-Jul-21	03:00	04:00	99.9	6.5	276.8
381255	PM _{2.5}	Wembley	15-Jul-21	04:00	05:00	100.6	5.1	284.1
381255	PM _{2.5}	Wembley	15-Jul-21	05:00	06:00	100.3	5.4	259.9
381255	PM _{2.5}	Wembley	15-Jul-21	06:00	07:00	96.8	6.7	253.3
381255	PM _{2.5}	Wembley	15-Jul-21	07:00	08:00	92.9	4.1	280.3
381194	PM _{2.5}	Henry Pirker	14-Jul-21	13:00	14:00	108.6	10.9	265.5
381194	PM _{2.5}	Henry Pirker	14-Jul-21	15:00	16:00	131.8	9.6	251.6
381254	PM _{2.5}	Henry Pirker	15-Jul-21	05:00	06:00	81.3	4.7	224.9
381254	PM _{2.5}	Henry Pirker	15-Jul-21	06:00	07:00	106.0	5.8	225.8
381254	PM _{2.5}	Henry Pirker	15-Jul-21	07:00	08:00	93.8	6.6	252.5
381199	PM _{2.5}	Smoky Heights	14-Jul-21	14:00	15:00	115.6	23.5	261.7
381199	PM _{2.5}	Smoky Heights	14-Jul-21	15:00	16:00	119.6	20.6	257.0
381199	PM _{2.5}	Smoky Heights	14-Jul-21	16:00	17:00	80.5	29.3	265.7

There were 17, 24hr PM_{2.5} readings above 29 µg/m³ (AAAQO) as follows:

Reference Number	Pollutant	Station	Date	Day avg µg/m ³	WS km/h	WD degrees
381020	PM _{2.5}	Beaverlodge	09-Jul-21	30.3	10.4	204
381192	PM _{2.5}	Beaverlodge	14-Jul-21	29.0	15.9	225
381210	PM _{2.5}	Evergreen Park	14-Jul-21	29.9	4.1	227
381251	PM _{2.5}	Evergreen Park	15-Jul-21	45.4	3.8	201
381251	PM _{2.5}	Evergreen Park	20-Jul-21	32.4	1.8	192
381209	PM _{2.5}	Wembley	14-Jul-21	31.7	9.1	254
381255	PM _{2.5}	Wembley	15-Jul-21	39.5	9.8	213
380688	PM _{2.5}	Henry Pirker	01-Jul-21	29.8	10.7	292
381021	PM _{2.5}	Henry Pirker	09-Jul-21	30.7	5.1	257
381194	PM _{2.5}	Henry Pirker	14-Jul-21	31.5	6.2	193
381254	PM _{2.5}	Henry Pirker	15-Jul-21	35.7	9.5	219
381450	PM _{2.5}	Henry Pirker	19-Jul-21	31.6	3.7	110
381450	PM _{2.5}	Henry Pirker	20-Jul-21	42.6	4.3	194
381022	PM _{2.5}	Smoky Heights	09-Jul-21	31.7	12.0	238
381039	PM _{2.5}	Smoky Heights	10-Jul-21	36.0	14.7	243
381199	PM _{2.5}	Smoky Heights	14-Jul-21	31.1	15.4	234
381448	PM _{2.5}	Smoky Heights	19-Jul-21	41.7	4.8	88

Operational times less than 90 percent:

Henry Pirker had 108 hours removed based on loss of data from the carbon monoxide resulting in 85.8% operational uptime, reference number 383035.

Air Incidents

Wildfires resulted in elevated PM_{2.5}, ozone and carbon monoxide readings

Deviations from Authorized Monitoring Methods

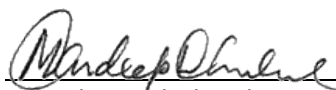
None to report.

Passive Monitoring

- 45 Stations throughout the PAZA zone
 - Passive sample analyses were performed by Bureau Veritas Laboratories
- There were 15 duplicate sites sampled in the month of July
 - Six SO₂ duplicates located at Hythe, Saddle Hills, Wembley, McLennan, Fox Creek 3, Jayar 14-8; RPD ranging from 1% to 67% (3 fails)
 - One O₃ duplicate at Kinuso; RPD at 18%
 - Five NO₂ duplicates at Spirit River, Sylvester, Poplar, Guy, Jarar Bone Yard; RPD ranging from 2% to 24% (0 fails)
 - Three H₂S duplicates Girouxville 3, Fox Creek 3, Jayar Bone Yard; RPD ranging from 0% to 17% (0 fails)
- One field note for the Girouxville duplicate sample identified that the paper filter was pecked open; laboratory results did not show signs of contamination based on readings
- Milner Sites collected and reported separately.

- There were no exceedances of the AAAQOs for all monitored parameters at any of the passive monitoring stations during this month.

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.

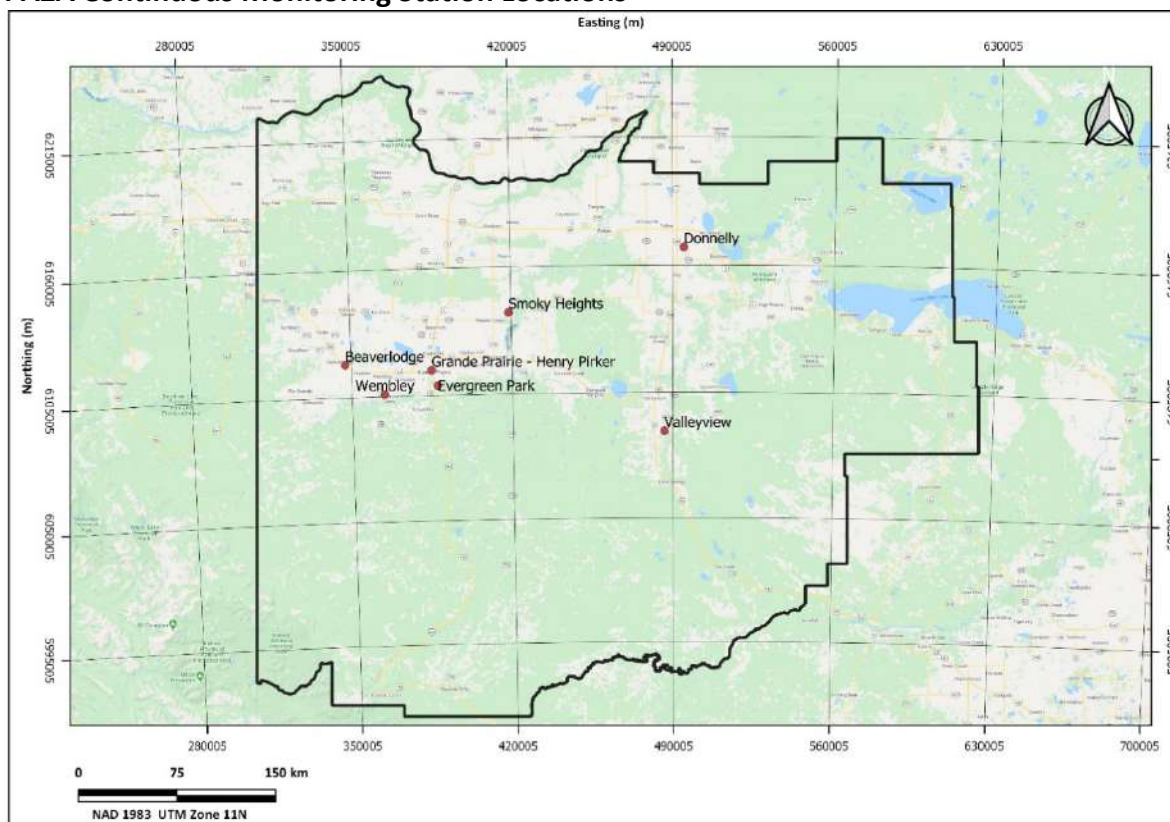


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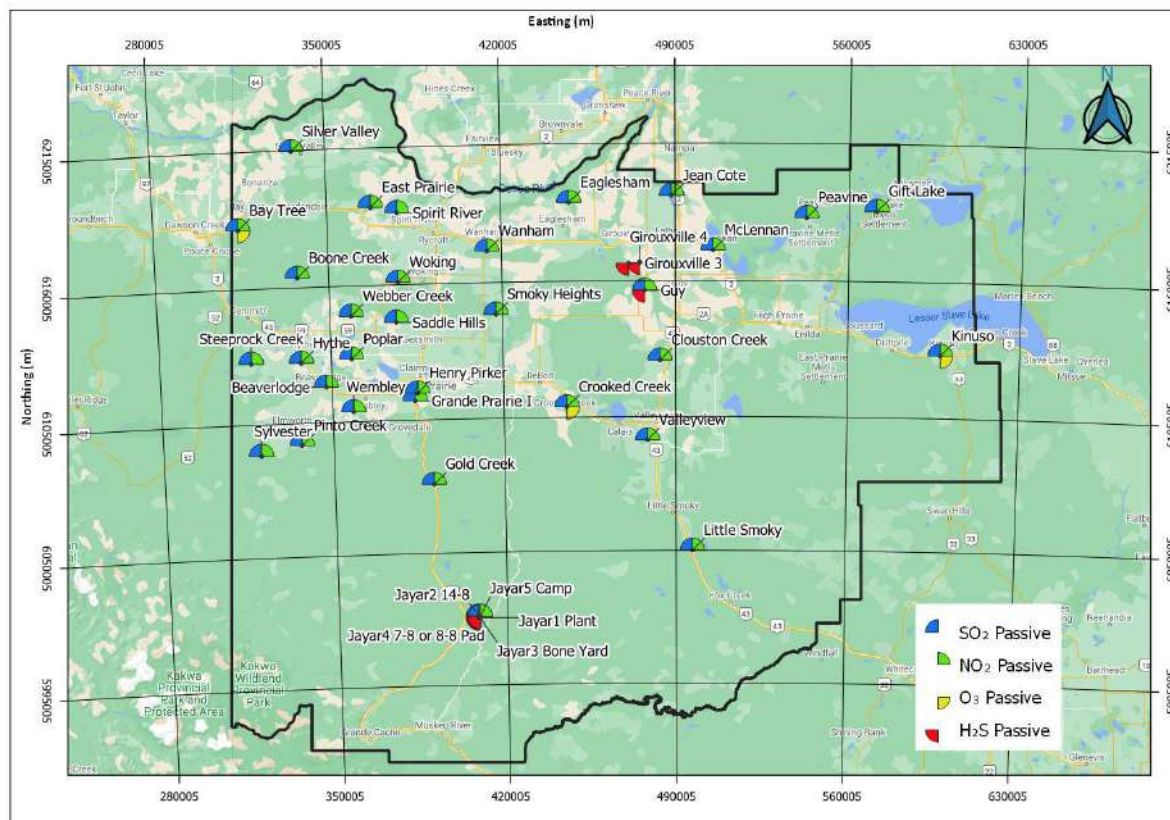
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PAZA Continuous Monitoring Station Locations



PAZA Passive Monitoring Station Locations



1 July 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 - July 2021 Beaverlodge Station Report

Parameter	July			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)	0.4	0.0	94.2%	98.9%	15.3	-	Jul-30 08:00	2.1	-	Jul-30	-	-	-	-	Jul 05, 2021
NO ₂ (ppb)	2.8	0.2	94.2%	98.9%	15.5	159	Jul-14 07:00	5.9	-	Jul-31	0	-	-	-	Jul 05, 2021
NO _x (ppb)	3.2	0.2	94.2%	98.9%	30.4	-	Jul-30 07:00	7.7	-	Jul-30	-	-	-	-	Jul 05, 2021
O ₃ (ppb)	29.5	3.0	93.7%	98.3%	67.9	76	Jul-31 15:00	42.8	-	Jul-31	0	-	-	-	Jul 05, 2021
PM _{2.5} (µg/m³)	10.6	0.0	97.6%	97.9%	143.3	80	Jul-14 13:00	30.3	29	Jul-09	3	-	2	-	Jul 06, 2021
SO ₂ (ppb)	0.5	0.0	94.4%	98.9%	29.3	172	Jul-19 11:00	4.6	48	Jul-19	0	-	0	0	Jul 06, 2021
	Average	Minimum	Valid	Operational	Maximum										
Temp (°C)	17.9	8.1	99.1%	99.1%	30.5	Note: Valid hours must be greater than 75% Operational hours must be greater than 90%									
RH (%)	59.3	16.4	99.1%	99.1%	99.9										
WS (km/hr)	11.4	0.1	99.1%	99.1%	50.2										
WD (deg)	283	1.8	99.1%	99.1%	359.7	Average Wind Direction		283	WNW						

Update Summary:

Parameter	Make	Model	Equipment summary
NO/NO ₂ /NO _x	Thermo	42i	No Operational issues noted during the month; July 13 and 28, power failure resulted in 8 hours removed
O ₃	Thermo	49IQ	Replaced charcoal in zero air canister, 5 hours maint. July 6; July 13 & 28, power failure resulted in 8 hours removed
PM _{2.5}	Sharp	5030	July 13 & 28, power failure, 7hrs removed; 5hrs removed data flatline and 4hrs maint. on July 13
SO ₂	Thermo	43i-TLE	No Operational issues noted during the month; July 13 and 28, power failure resulted in 8 hours removed
Met Equip	MetOne	50.5	No Operational Issues noted during the month; July 13 & 28, power failure resulted in 7 hours removed

1.2 Evergreen Park Air Monitoring Station

PAZA - July 2021 Evergreen Park Station Report

Parameter	July				1-hour			24-hour			Exceedance				Calibration
	Average	Minimum	Valid	Operational	Max	Objective	Max Day and Time	Max	Objective	Max Day	1hr	8hr	24hr	30d	Date
PM _{2.5} (µg/m³)	11.2	0.0	97.7%	98.1%	94.0	80	Jul-15 07:00	45.4	29	Jul-15	8	-	3	-	Jul-15-2021
SO ₂ (ppb)	0.2	0.0	95.2%	100.0%	9.8	172	Jul-28 10:00	0.8	48	Jul-28	0	-	0	0	Jul-15-2021
TRS (ppb)	0.2	0.0	90.3%	95.0%	1.7	-	Jul-30 04:00	0.5	-	Jul-16	-	-	-	-	Jul-01-2021
	Average	Minimum	Valid	Operational	Maximum	Note: Valid hours must be greater than 75% Operational hours must be greater than 90%									
Temp (°C)	18.2	5.9	99.6%	99.6%	32.5										
RH (%)	61.5	14.3	99.6%	99.6%	98.8										
WS (km/hr)	3.6	0.0	99.6%	99.6%	14.8										
WD (deg)	273	0.4	99.6%	99.6%	359.2										
Average Wind Direction						273		W							

Update Summary:

Parameter	Make	Model	Equipment summary
PM _{2.5}	Thermo	TEOM AB	Three readings above the AAAQO and eight readings above the AAAQG; three hours of excessive negative drift
SO ₂	TECO	43i	No Operational issues noted during the month
TRS	TECO	43C	TRS second calibration flagged as maintenance (10hrs), following span on June 29 data removed till July 1 (45hrs)
Met Equip	Gil/RMYoung	MetPak/RMY86004	Wind sensor was exchanged for manufacturer calibration, three hours maintenance

1.3 Grande Prairie - Henry Pirker Air Monitoring Station

PAZA - July 2021 Henry Pirker Station Report

Parameter	July			Operational	1-hour			8-hour / 24-hour			Exceedance				Calibration Date
	Average	Minimum	Valid		Max	Objective	Max Day and Time	Max	Objective	Max Day	1hr	8hr	24hr	30d	
NO (ppb)	0.6	0.0	94.4%	99.3%	16.5	-	Jul-30 09:00	2.7	-	Jul-30	-	-	-	-	Jul 01, 2021
NO ₂ (ppb)	4.7	0.7	94.4%	99.3%	21.3	159	Jul-10 00:00	8.0	-	Jul-30	0	-	-	-	Jul 01, 2021
NO _x (ppb)	5.5	0.8	94.4%	99.3%	35.4	-	Jul-30 09:00	10.8	-	Jul-30	-	-	-	-	Jul 01, 2021
O ₃ (ppb)	26.4	1.1	95.3%	100.0%	84.5	76	Jul-13 14:00	50.5	-	Jul-13	3	-	-	-	Jul 07, 2021
PM _{2.5} (µg/m ³)	13.5	0.0	99.3%	99.9%	131.8	80	Jul-14 15:00	42.6	29	Jul-20	5	-	6	-	Jul 14, 2021
SO ₂ (ppb)	0.3	0.0	95.3%	100.0%	16.9	172	Jul-22 20:00	1.2	48	Jul-22	0	-	0	0	Jul 07, 2021
H ₂ S (ppb)	0.2	0.0	95.3%	100.0%	1.5	10	Jul-01 23:00	0.4	3	Jul-01	0	-	0	-	Jul 14, 2021
CH ₄ (ppm)	2.0	1.8	95.3%	100.0%	2.6	-	Jul-10 04:00	2.1	-	Jul-21	-	-	-	-	Jul 06, 2021
THC (ppm)	2.0	1.8	95.3%	100.0%	2.6	-	Jul-10 04:00	2.1	-	Jul-21	-	-	-	-	Jul 06, 2021
NMHC (ppm)	0.0	0.0	95.3%	100.0%	0.3	-	Jul-31 22:00	0.1	-	Jul-31	-	-	-	-	Jul 06, 2021
CO (ppm)	0.3	0.1	81.2%	85.8%	1.2	13	Jul-19 23:00	0.9	5	Jul-20	0	0	-	-	Jul 06, 2021
Average					Maximum										
Temp (°C)	19.6	8.8	100.0%	100.0%	34.3										
RH (%)	55.3	13.8	100.0%	100.0%	91.5										
SR (W/m ²)	187.9	0.0	100.0%	100.0%	728.8										
WS (km/hr)	7.1	0.3	100.0%	100.0%	27.7										
WD (deg)	274	10.5	100.0%	100.0%	357.8										
Note: Valid hours must be greater than 75% Operational hours must be greater than 90%															
Average Wind Direction									274	W					

Update Summary:

Parameter	Make	Model	Equipment summary
NO/NO ₂ /NO _x	Thermo	42i	Two calibrations, first was due to weather related issues and span (July 1), second was monthly calibration (July 7)
O ₃	TECO	49i	No Operational issues noted during the month; three readings above AAAQO (July 13)
PM _{2.5}	Sharp	5030	One hour of maintenance on July 15; 5hrs (AAAQO, July 14-15); 6hrs (AAAQO, July 1, 9, 14, 15, 19, 20)
SO ₂	TEI	43i-TLE	No Operational issues noted during the month
H ₂ S	TEI	450i	No Operational issues noted during the month
THC/CH ₄ /NMHC	TEI	55i	No Operational issues noted during the month
CO	TEI	48i-TLE	Equipment failure July 26-30, equipment replaced on July 30; <90% operational
Met Equip	MetOne	50.5	No Operational issues noted during the month

1.4 Smoky Heights Air Monitoring Station

PAZA - July 2021 Smoky Heights Station Report

Parameter	July			Operational	1-hour			24-hour			Exceedance				Calibration Date
	Average	Minimum	Valid		Max	Objective	Max Day and Time	Max	Objective	Max Day	1hr	8hr	24hr	30d	
PM _{2.5} (µg/m ³)	14.5	0.0	96.2%	96.4%	119.6	80	Jul-14 15:00	44.3	29	Jul-20	3	-	5	-	Jul 22, 2021
SO ₂ (ppb)	0.3	0.0	94.6%	99.3%	24.5	172	Jul-11 07:00	2.6	48	Jul-11	0	-	0	0	Jul 21, 2021
TRS (ppb)	0.2	0.0	90.7%	95.6%	1.4	-	Jul-16 13:00	0.7	-	Jul-16	-	-	-	-	Jul 22, 2021
Average					Maximum										
Temp (°C)	18.2	6.6	99.3%	99.3%	32.1										
WS (km/hr)	11.9	0.3	99.3%	99.3%	51.0										
WD (deg)	263	1.3	99.3%	99.3%	360.0										
Note: Valid hours must be greater than 75% Operational hours must be greater than 90%															
Average Wind Direction									263	WNW					

Update Summary:

Parameter	Make	Model	Equipment summary
PM _{2.5}	Sharp	5030	23hrs removed following power failure July 10-11; 4hrs maint. July 21; 8 readings above AAAQO&AAAQO
SO ₂	TECO	43i	No Operational issues noted during the month; five hours of power failure on July 10
TRS	TEI	43i APSAA	5hrs power failure July 10; July 21-22, 28hrs removal calibration and maint. (rebuilt the oxidizer)
Met Equip	MetOne	50.5	No Operational issues noted during the month; five hours of power failure on July 10

1.5 Valleyview Air Monitoring Station

PAZA - July 2021 Valleyview Station Report

AAR - July 2021 Valleyview Station Report															
Parameter	July			Operational	Max	1-hour		24-hour			Exceedance				Calibration
	Average	Minimum	Valid			Objective	Max Day and Time	Max	Objective	Max Day	1hr	8hr	24hr	30d	Date
SO ₂ (ppb)	0.1	0.0	95.3%	100.0%	3.6	172	Jul-11 10:00	0.4	48	Jul-11	0	-	0	0	Jul 22, 2021
H ₂ S (ppb)	0.1	0.0	95.2%	100.0%	1.3	10	Jul-04 07:00	0.3	3	Jul-01	0	-	0	-	Jul 22, 2021
	Average	Minimum	Valid	Operational	Maximum	Note: Valid hours must be greater than 75% Operational hours must be greater than 90% Average Wind Direction274NW									
Temp (°C)	18.8	6.7	99.9%	99.9%	33.9										
RH (%)	66.0	16.1	99.9%	99.9%	100.2										
WS (km/hr)	3.8	0.1	99.9%	99.9%	15.3										
WD (deg)	274	0.1	99.9%	99.9%	359.6										

Update Summary:

Parameter	Make	Model	Equipment summary
SO ₂	TEI	43I-APSCB	No Operational issues noted during the month
H ₂ S	TEI	450I-APHAA	No Operational issues noted during the month
Met Equip	RMYoung	RMY86004	One hour of maintenance to replace wind head for manufacturer calibration

1.6 Donnelly Air Monitoring Station

PAZA - July 2021 Donnelly Station Report

A2A - July 2021 Donnelly Station Report															
Parameter	July			Operational	Max	1-hour		24-hour			Exceedance				Calibration
	Average	Minimum	Valid			Objective	Max Day and Time	Max	Objective	Max Day	1hr	8hr	24hr	30d	Date
SO ₂ (ppb)	0.1	0.0	94.6%	99.3%	2.5	172	Jul-26 09:00	0.4	48	Jul-28	0	-	0	0	Jul 08, 2021
H ₂ S (ppb)	0.2	0.0	94.6%	99.3%	6.3	10	Jul-01 08:00	1.0	3	Jul-01	0	-	0	-	Jul 08, 2021
	Average	Minimum	Valid	Operational	Maximum	Note: Valid hours must be greater than 75% Operational hours must be greater than 90% Average Wind Direction252WSW									
Temp (°C)	18.3	7.4	100.0%	100.0%	31.7										
WS (km/hr)	9.6	0.0	100.0%	100.0%	36.2										
WD (deg)	252	0.7	100.0%	100.0%	356.1										

Update Summary:

Parameter	Make	Model	Equipment summary
SO ₂	Teco	43I	No Operational issues noted during the month; five hours data missing July 9 due to power failure
H ₂ S	Thermo	45C	No Operational issues noted during the month; five hours data missing July 9 due to power failure
Met Equip	RMYoung	5103	No Operational issues noted during the month

1.7 Wembley Air Monitoring Station

PAZA - July 2021 Wembley Station Report

Parameter	July				1-hour			24-hour			Exceedance				Calibration
	Average	Minimum	Valid	Operational	Max	Objective	Max Day and Time	Max	Objective	Max Day	1hr	8hr	24hr	30d	Date
NO (ppb)	0.3	0.0	95.0%	99.9%	8.0	-	Jul-14 05:00	0.8	-	Jul-30	-	-	-	-	Jul 02, 2021
NO ₂ (ppb)	2.7	0.1	95.0%	99.9%	14.6	159	Jul-14 05:00	5.8	-	Jul-31	0	-	-	-	Jul 02, 2021
NO _x (ppb)	3.0	0.2	95.0%	99.9%	22.7	-	Jul-14 05:00	6.1	-	Jul-31	-	-	-	-	Jul 02, 2021
O ₃ (ppb)	27.3	3.1	95.2%	99.9%	60.6	76	Jul-31 17:00	38.4	-	Jul-14	0	-	-	-	Jul 02, 2021
PM _{2.5} (µg/m³)	10.2	0.0	96.4%	96.9%	100.6	80	Jul-15 04:00	39.5	29	Jul-15	9	-	2	-	Jul 07, 2021
SO ₂ (ppb)	0.7	0.0	95.2%	99.9%	41.6	172	Jul-19 11:00	6.1	48	Jul-19	0	-	0	0	Jul 02, 2021
TRS (ppb)	0.4	0.0	95.2%	100.0%	1.3	-	Jul-02 08:00	0.7	-	Jul-02	-	-	-	-	Jul 07, 2021
CH ₄ (ppm)	2.0	1.8	95.3%	100.0%	2.3	-	Jul-14 05:00	2.1	-	Jul-20	-	-	-	-	Jul 07, 2021
THC (ppm)	2.0	1.8	95.3%	100.0%	2.3	-	Jul-14 05:00	2.1	-	Jul-20	-	-	-	-	Jul 07, 2021
NMHC (ppm)	0.0	0.0	95.3%	100.0%	0.0	-	Jul-19 08:00	0.0	-	Jul-19	-	-	-	-	Jul 07, 2021
	Average	Minimum	Valid	Operational	Maximum	Note: Valid hours must be greater than 75% Operational hours must be greater than 90% Average Wind Direction292WNW									
Temp (°C)	18.2	6.8	99.7%	99.7%	33.1										
WS (km/hr)	7.6	0.4	99.7%	99.7%	25.8										
WD (deg)	292	3.1	99.7%	99.7%	358.8										

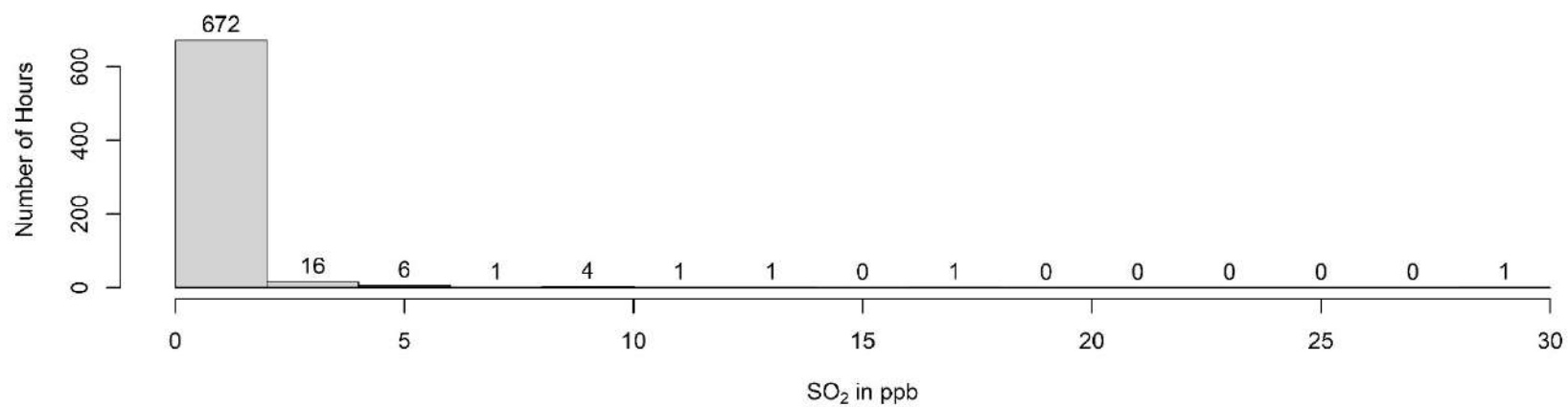
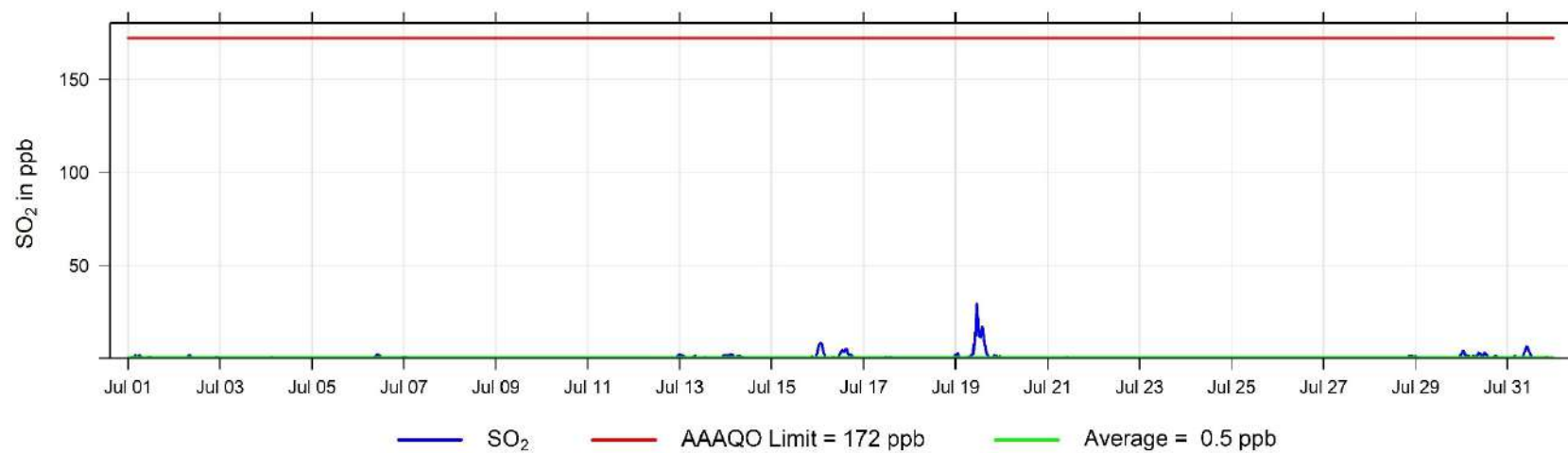
Update Summary:

Parameter	Make	Model	Equipment summary
NO/NO ₂ /NO _x	TEI	42I	No Operational issues noted; one hour of maintenance July 7
O ₃	TEI	49I	No Operational issues noted; one hour of maintenance July 7
PM _{2.5}	Thermo	TEOM AB	One hour removed July 21; two readings above the AAAQO (PM _{2.5}) and nine hours above the AAAQG (PM _{2.5})
SO ₂	TEI	43I	No Operational issues noted; one hour of maintenance July 7
TRS	TEI	43I	No Operational issues noted
THC/CH ₄ /NMHC	TEI	55I-A3PHAA	No Operational issues noted
Met Equip	MetOne	50.5	No Operational issues noted; two hours of maintenance to swap wind heads

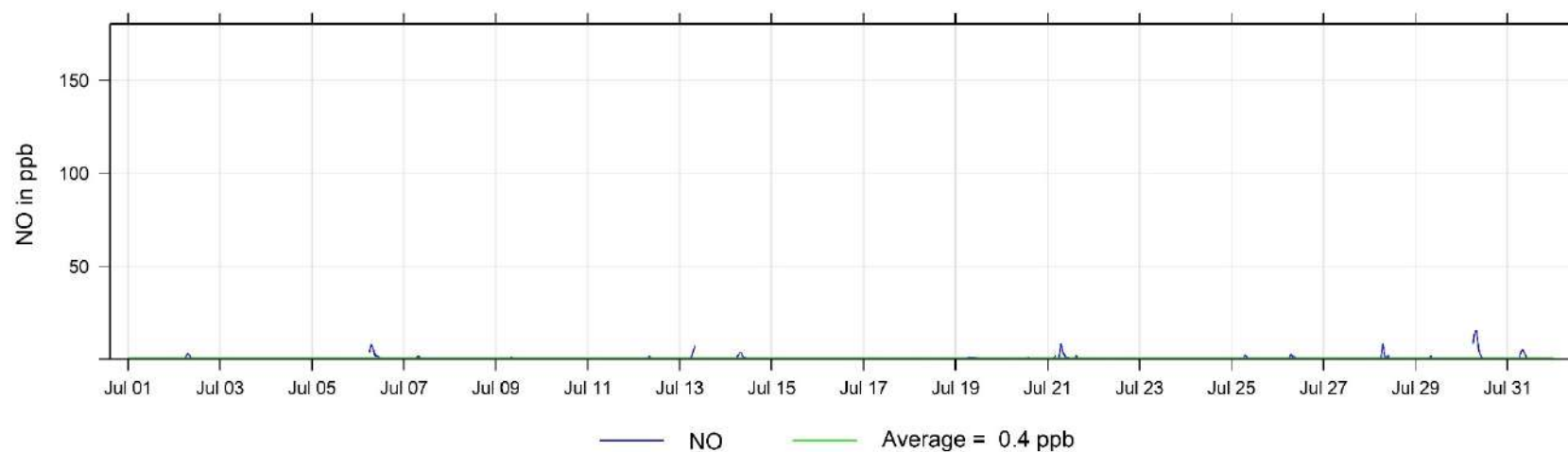
2 Beaverlodge Charts

The following pages include the charts and histograms for Beaverlodge Station

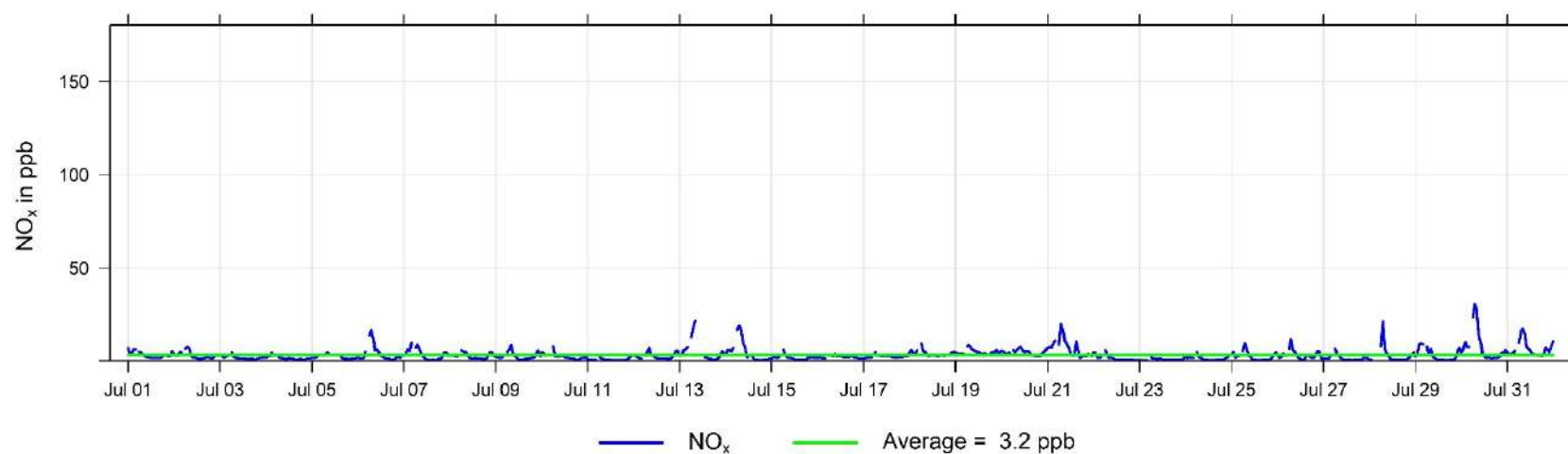
July Hourly Concentration Readings of SO₂ (in ppb) at Beaverlodge



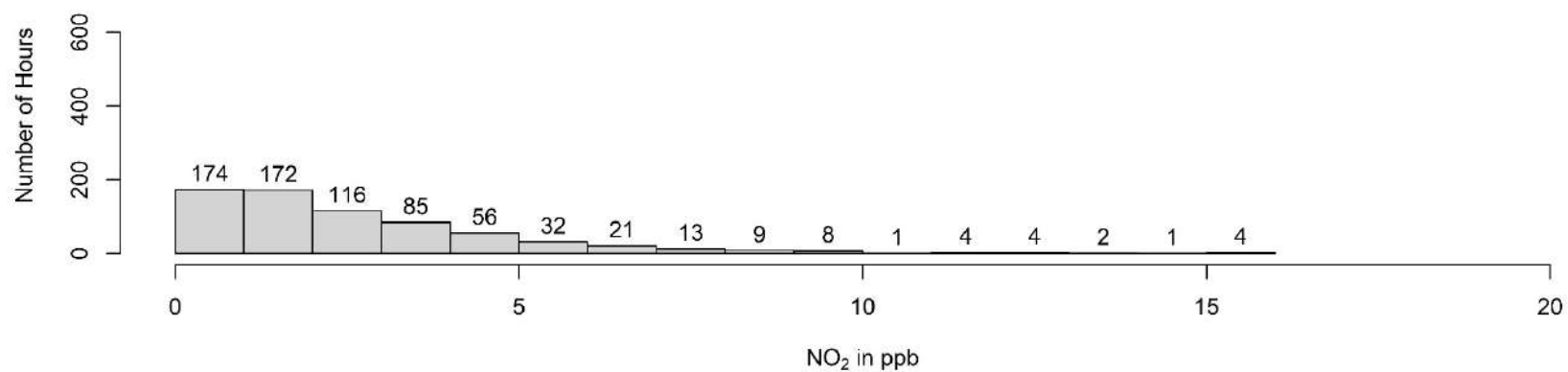
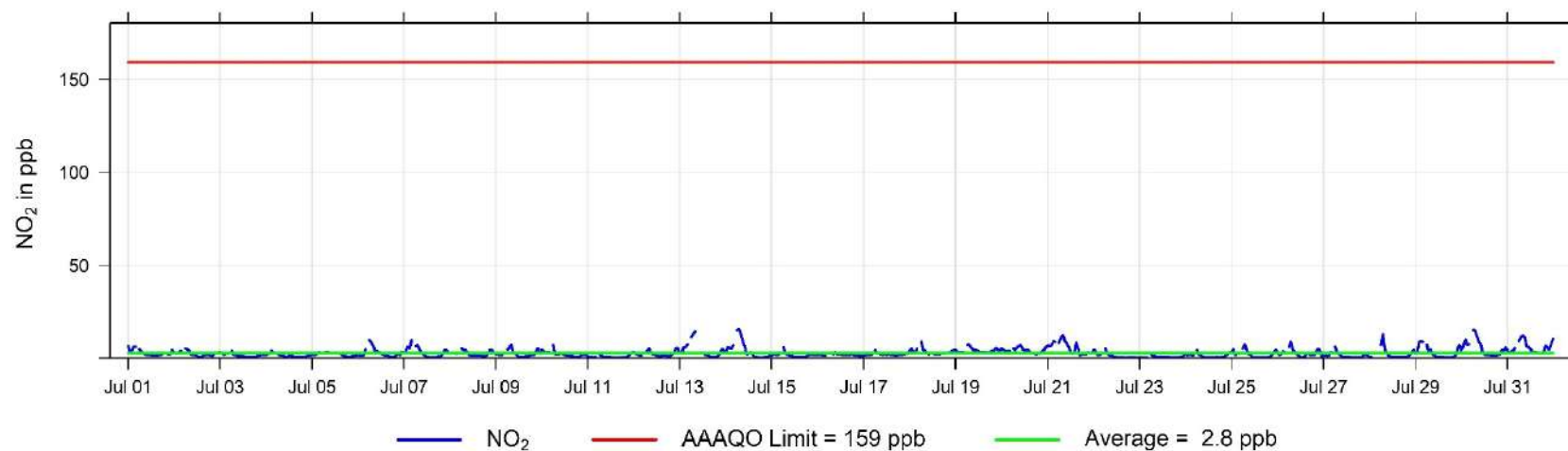
July Hourly Concentration Readings of NO (in ppb) at Beaverlodge



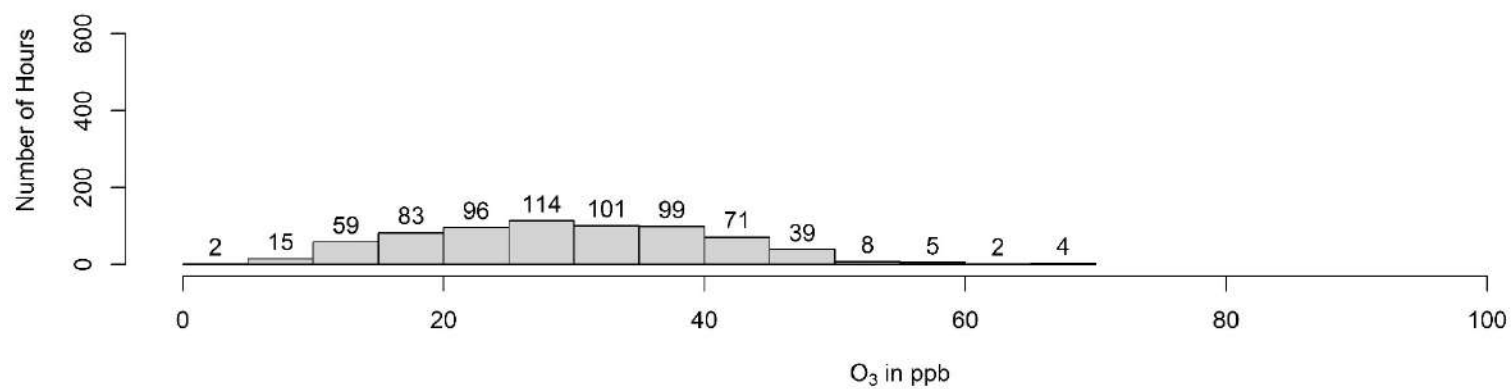
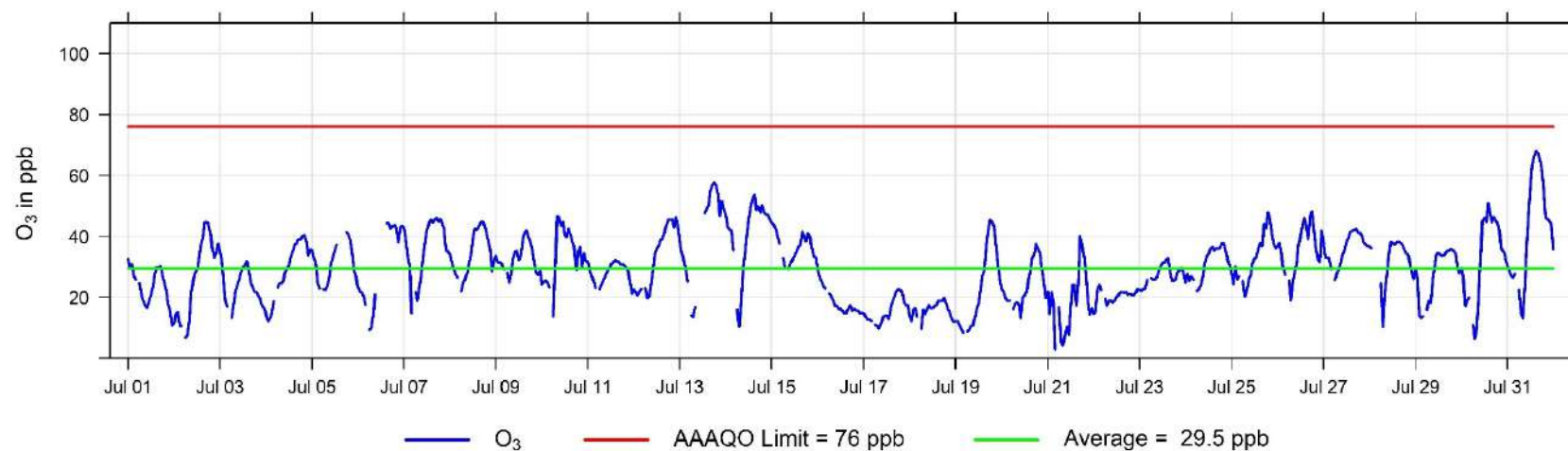
July Hourly Concentration Readings of NO_x (in ppb) at Beaverlodge



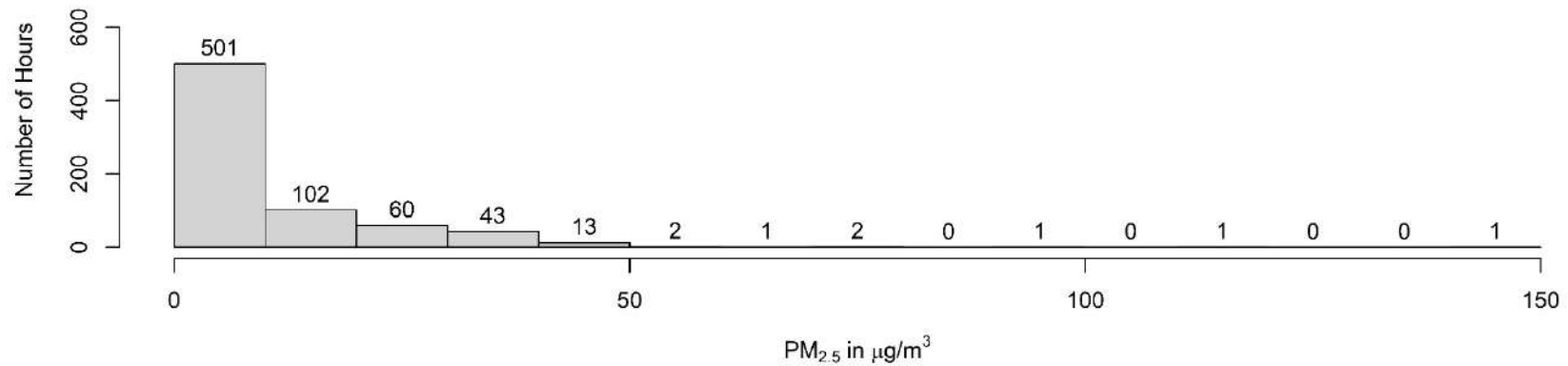
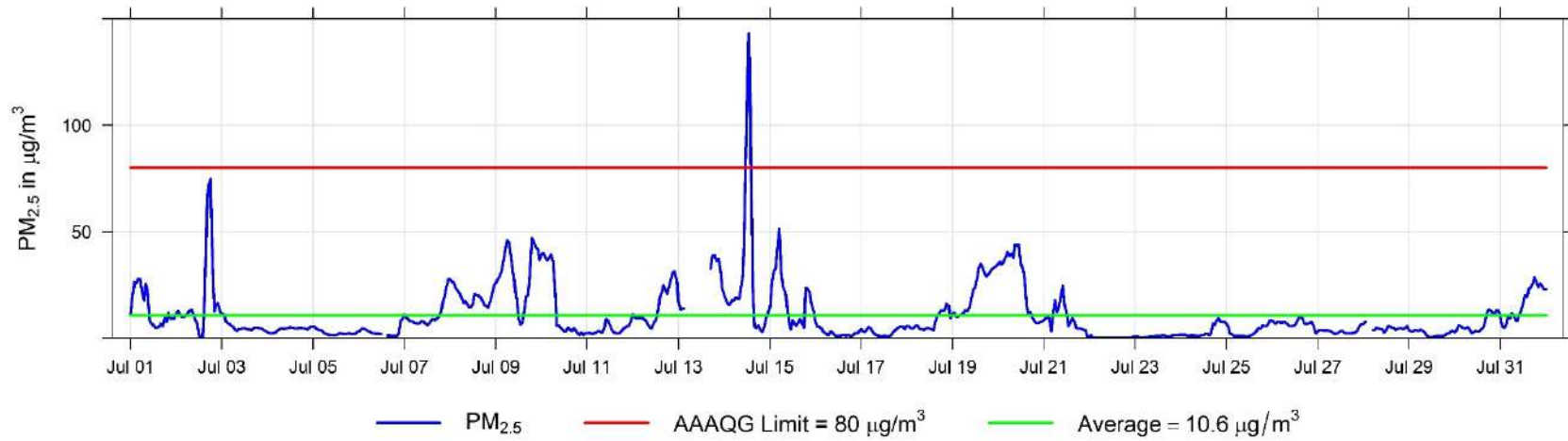
July Hourly Concentration Readings of NO₂ (in ppb) at Beaverlodge



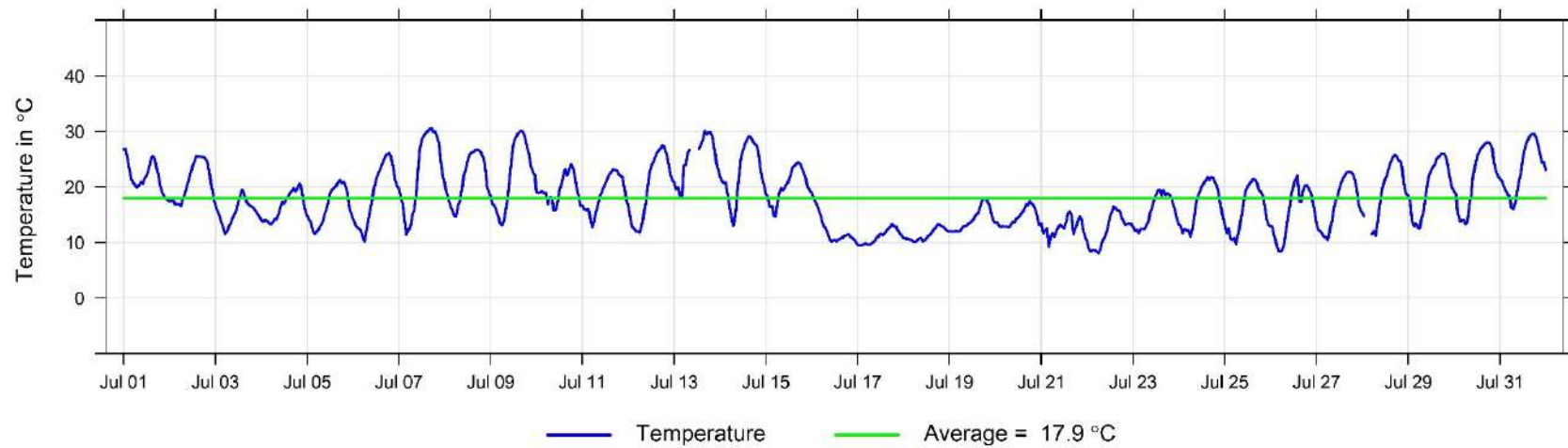
July Hourly Concentration Readings of O₃ (in ppb) at Beaverlodge



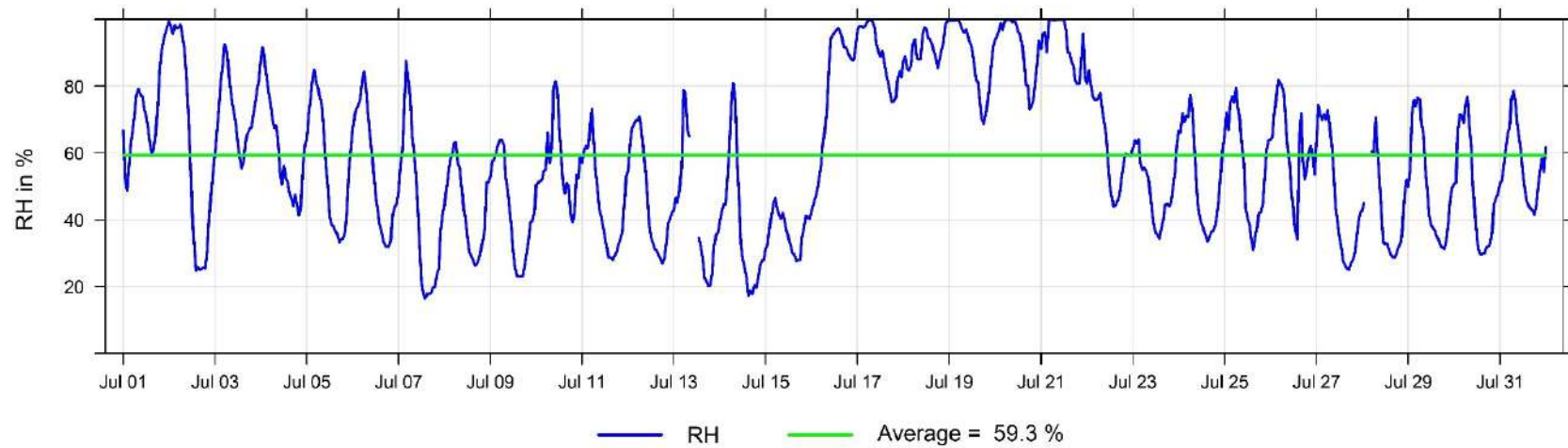
July Hourly Concentration Readings of PM_{2.5} in µg/m³ at Beaverlodge



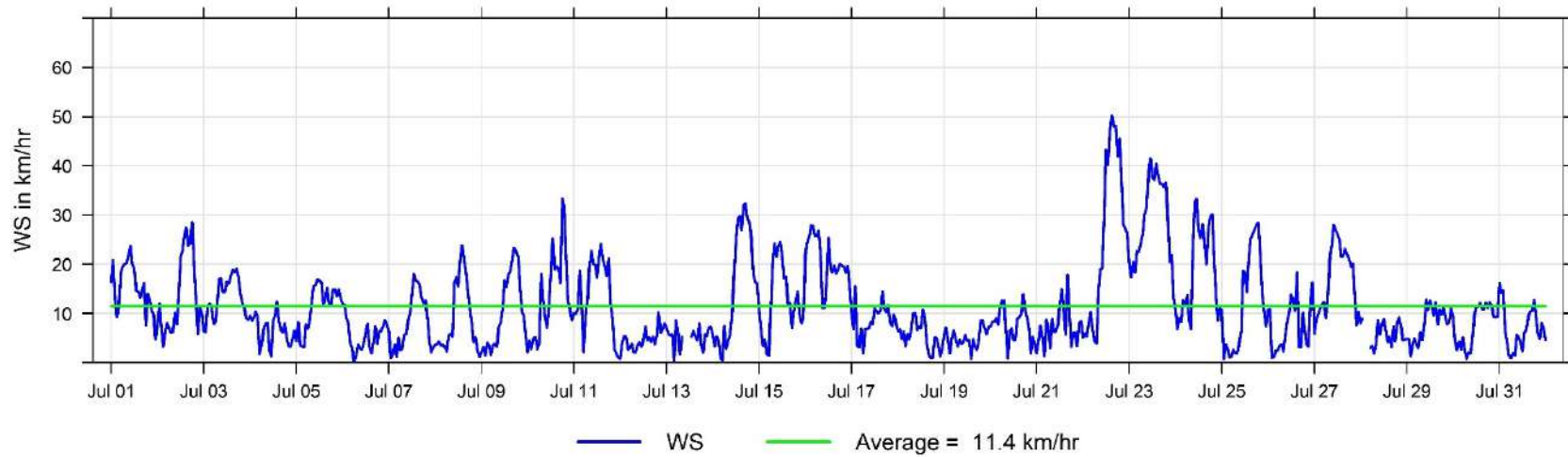
July Hourly Temperature Readings (in °C) at Beaverlodge



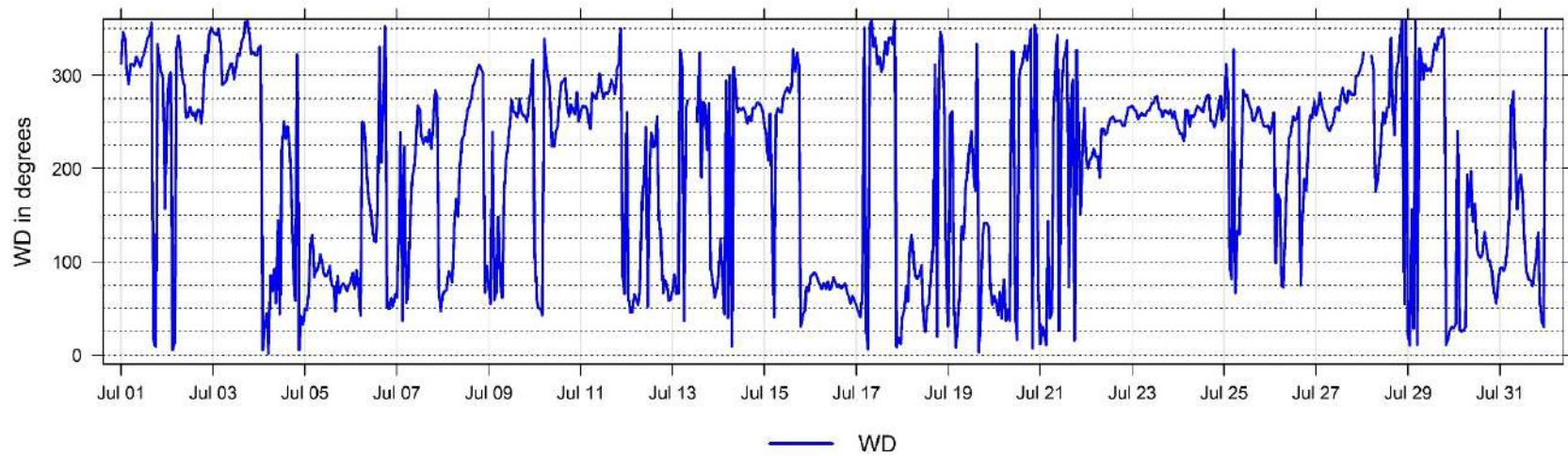
July Hourly Readings of Relative Humidity (in %) at Beaverlodge



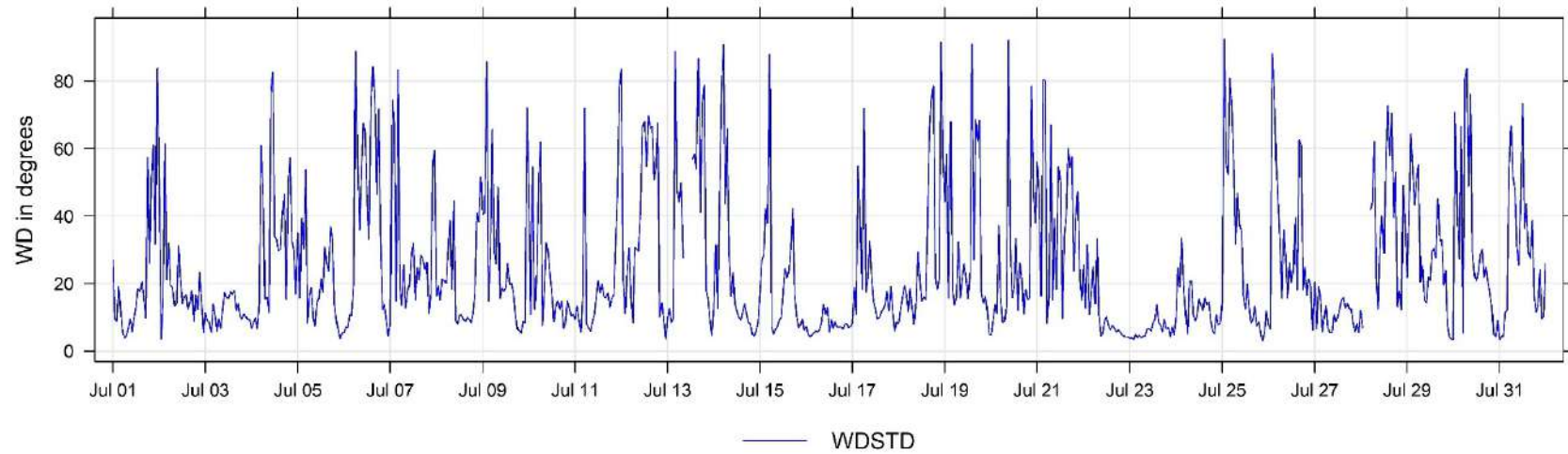
July Hourly Readings of Wind Speed (in km/hr) at Beaverlodge



July Hourly Readings of Wind Direction (in degrees) at Beaverlodge



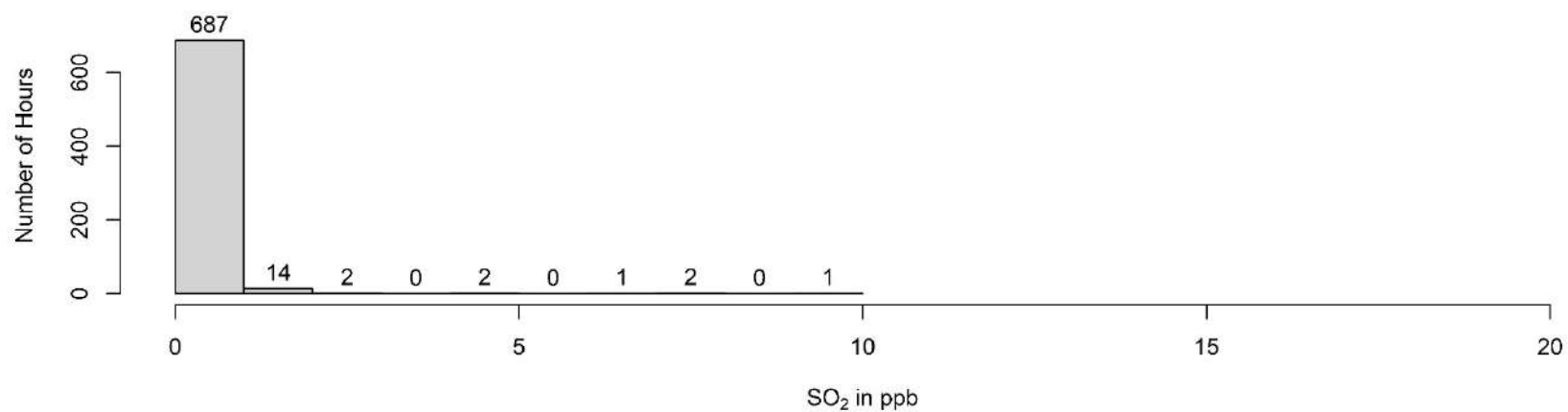
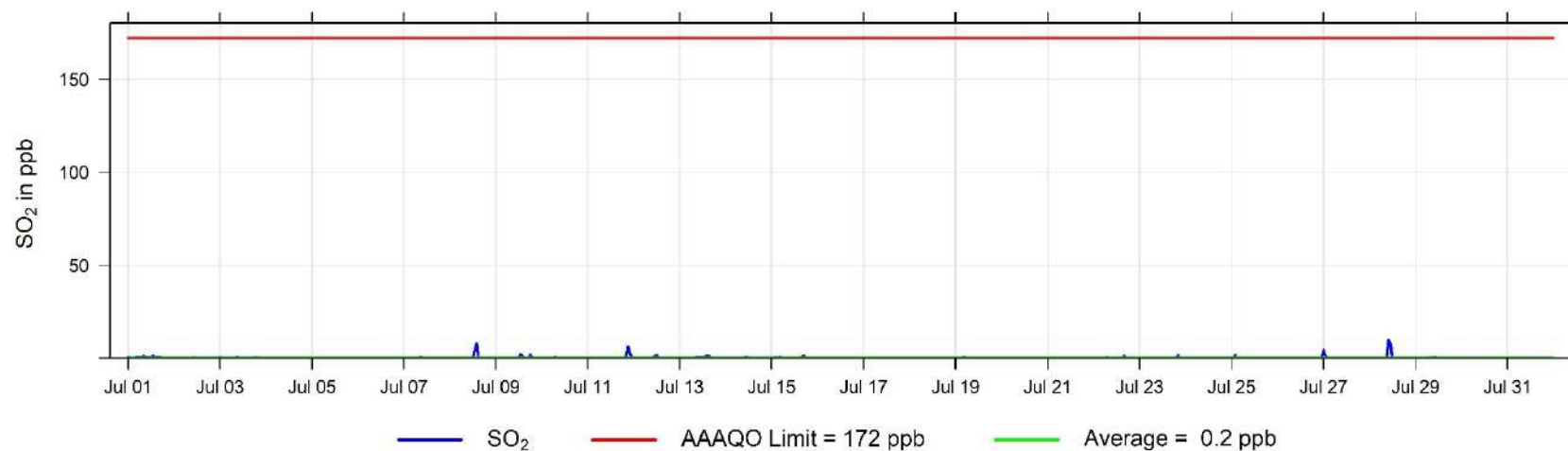
July Hourly Readings of Wind Direction Standard Deviation (in degrees) at Beaverlodge



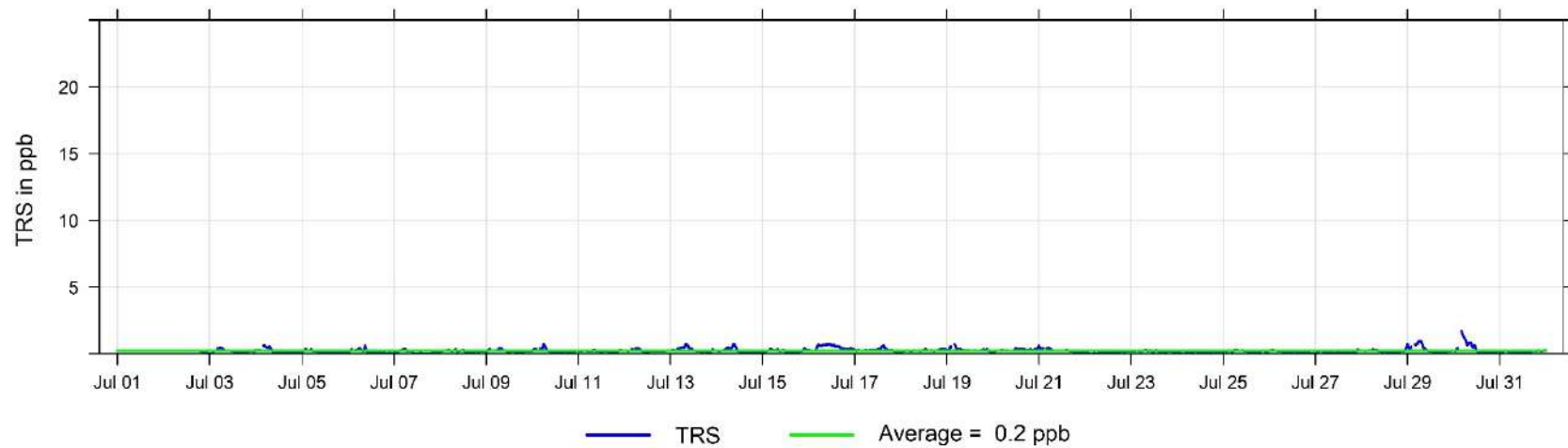
3 **Evergreen Park Charts**

The following pages include the charts and histograms for Evergreen Park Station

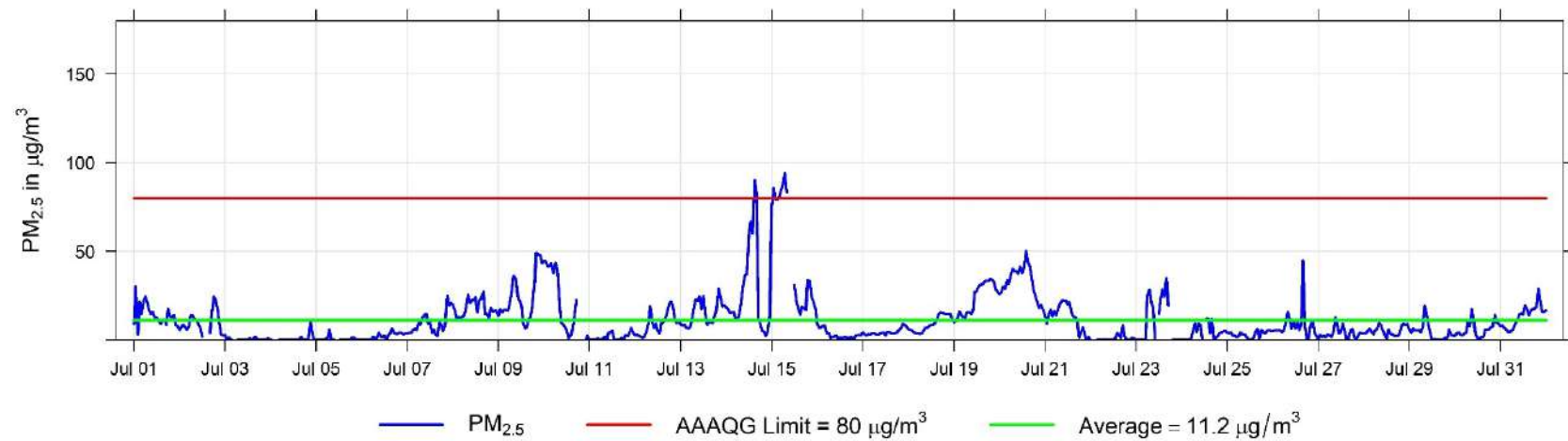
July Hourly Concentration Readings of SO₂ (in ppb) at Evergreen Park

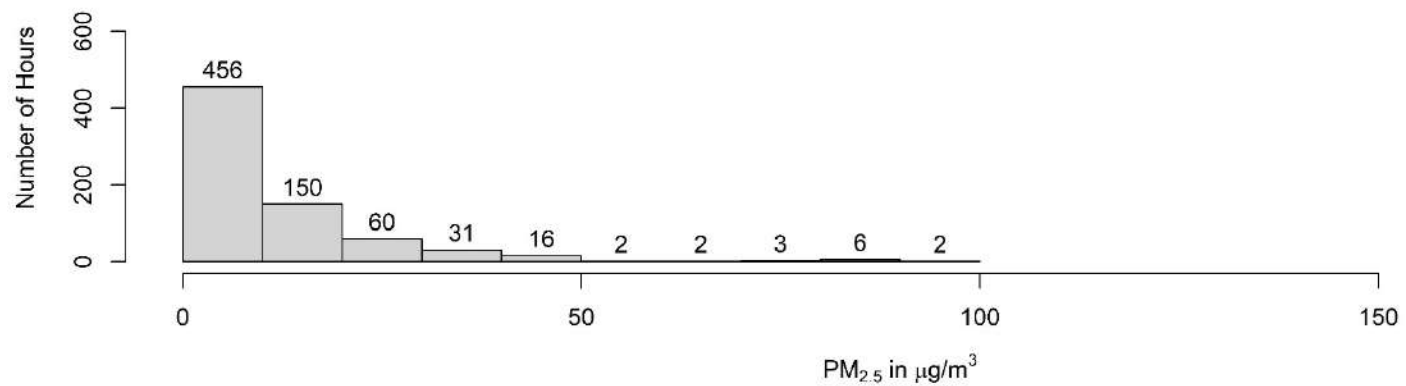


July Hourly Concentration Readings of TRS (in ppb) at Evergreen Park

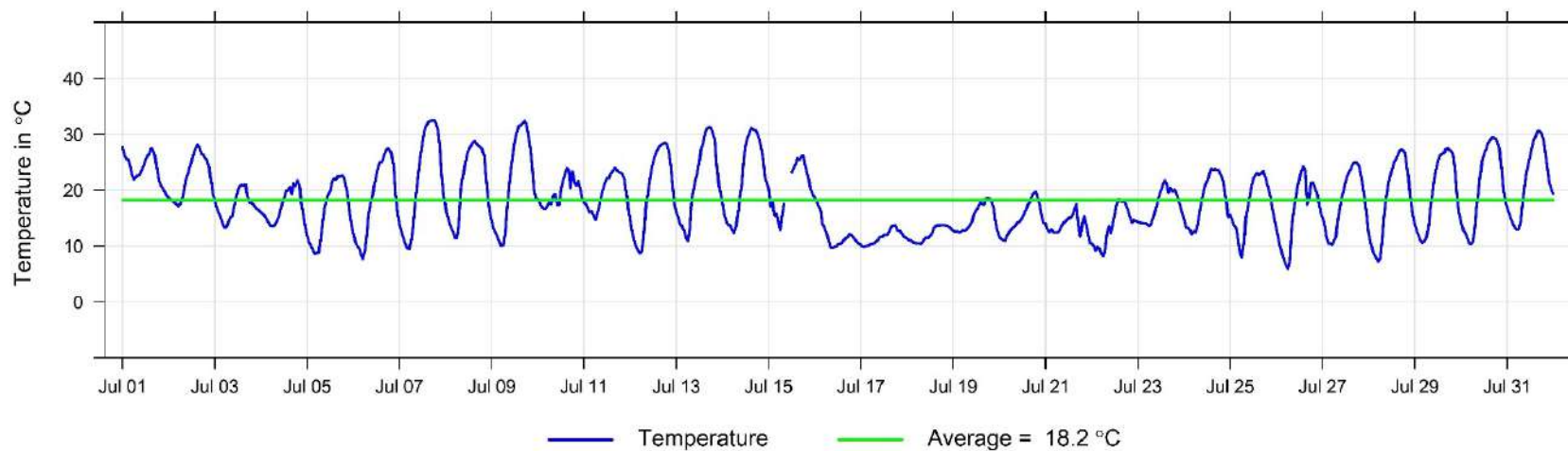


July Hourly Concentration Readings of PM_{2.5} in $\mu\text{g}/\text{m}^3$ at Evergreen Park

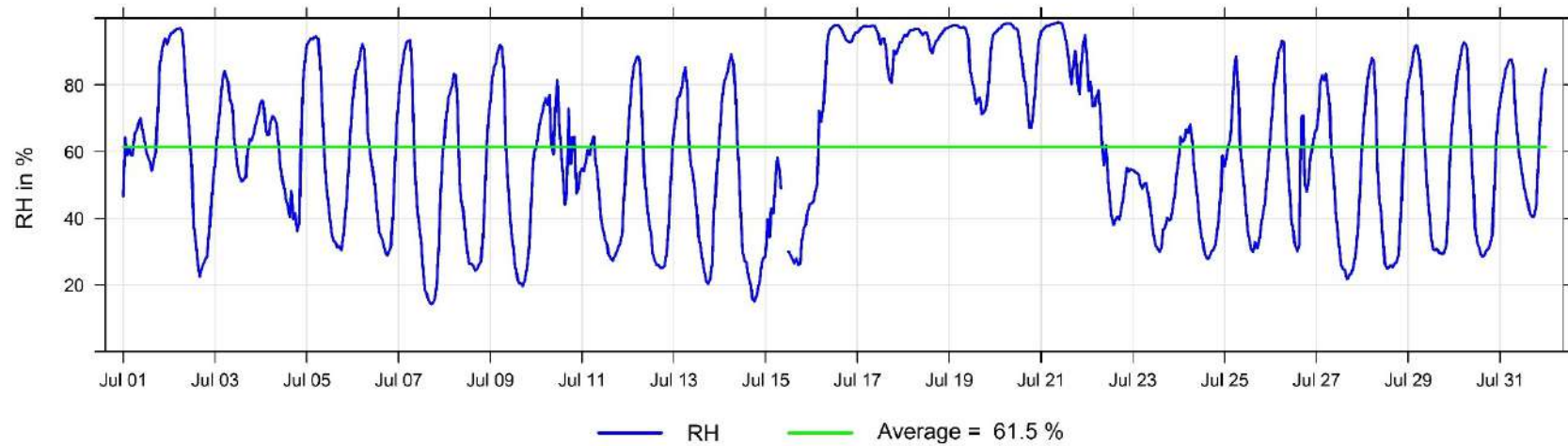




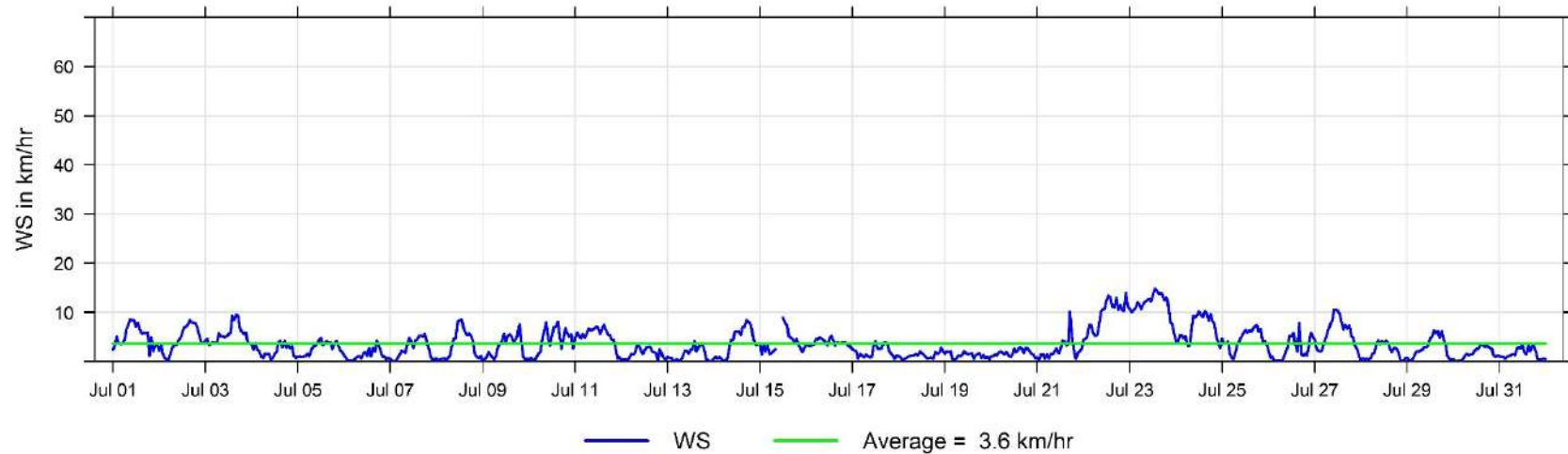
July Hourly Temperature Readings (in °C) at Evergreen Park



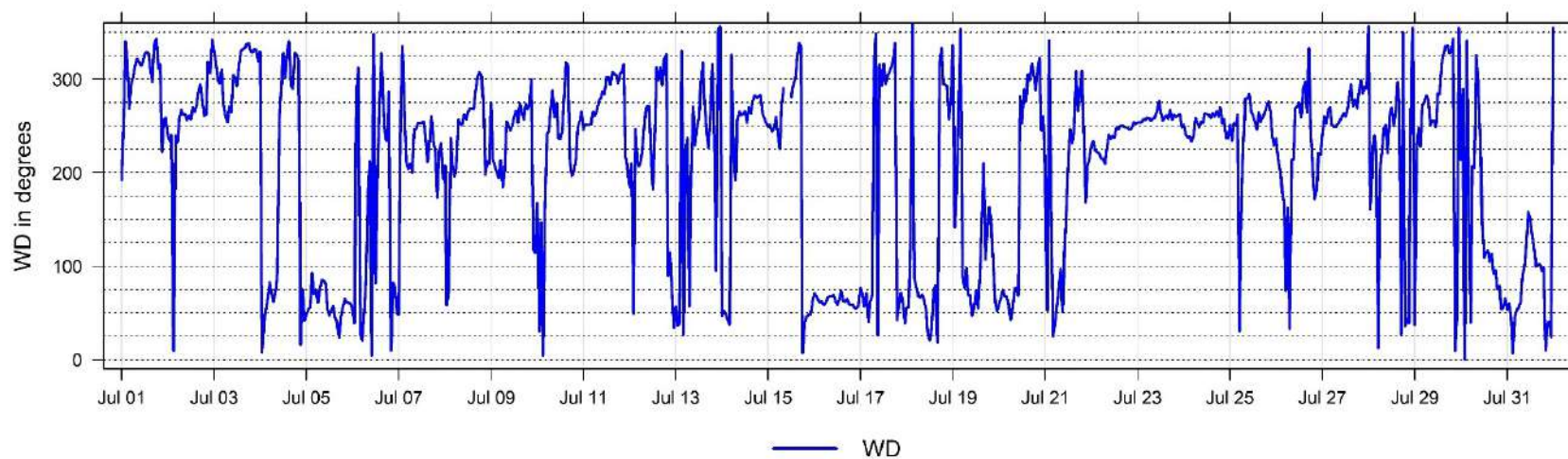
July Hourly Readings of Relative Humidity (in %) at Evergreen Park



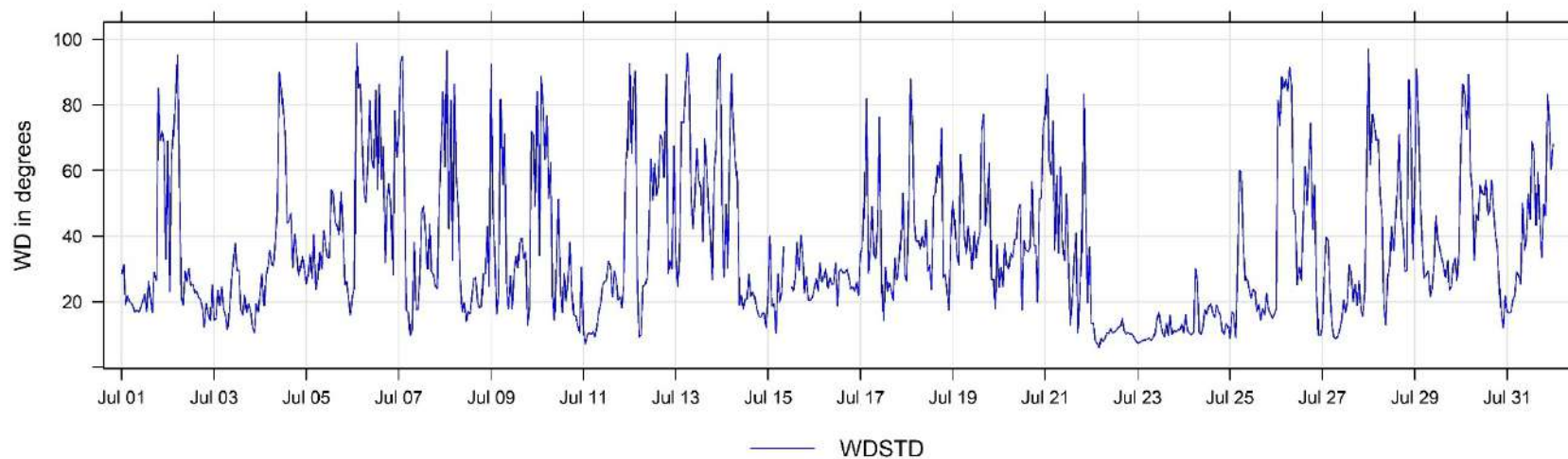
July Hourly Readings of Wind Speed (in km/hr) at Evergreen Park



July Hourly Readings of Wind Direction (in degrees) at Evergreen Park

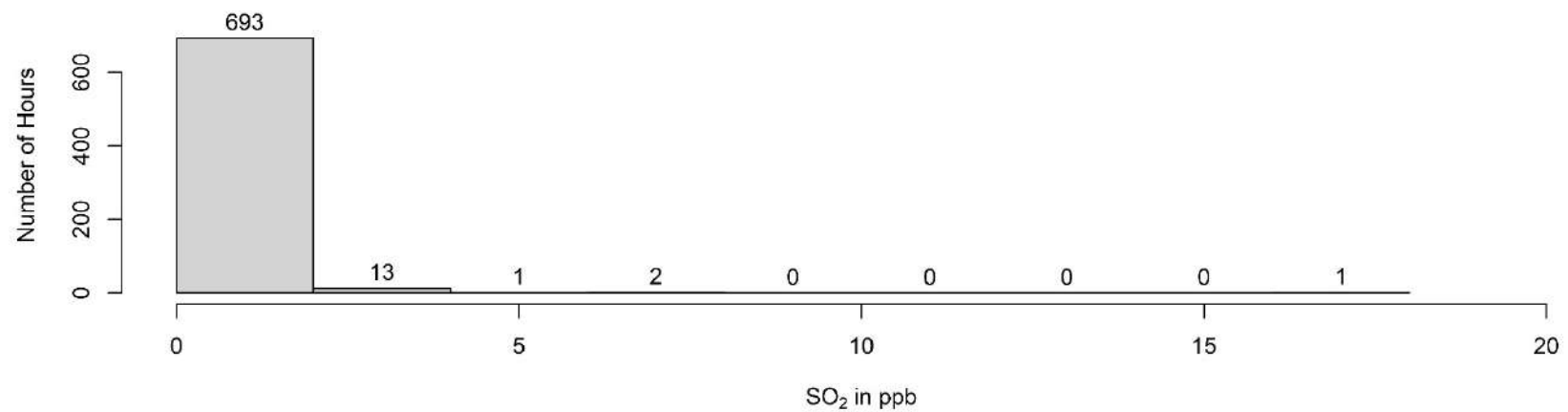
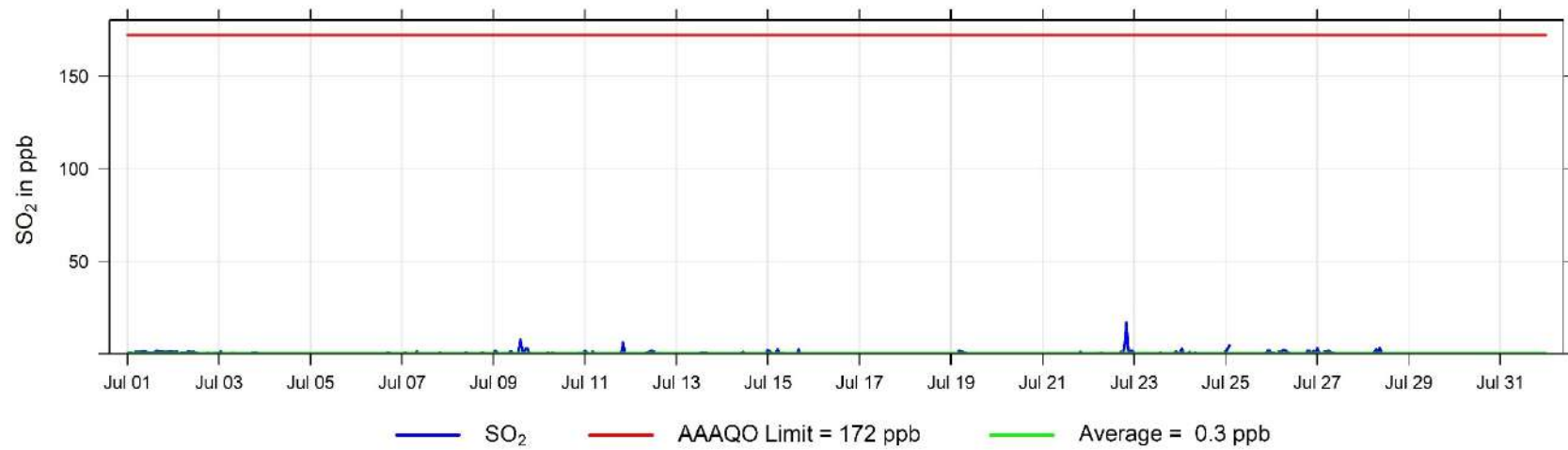


July Hourly Readings of Wind Direction Standard Deviation (in degrees) at Evergreen Park

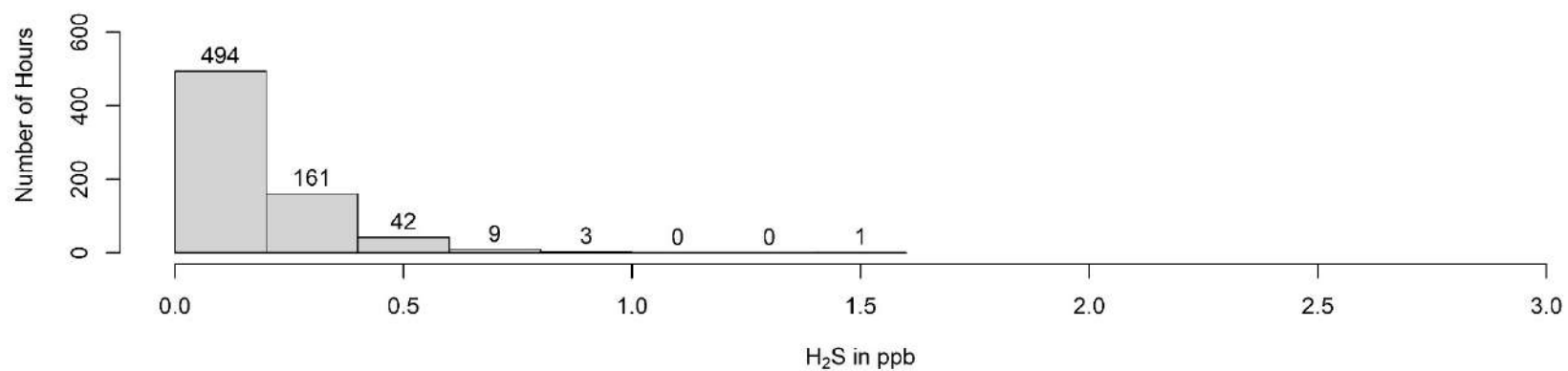
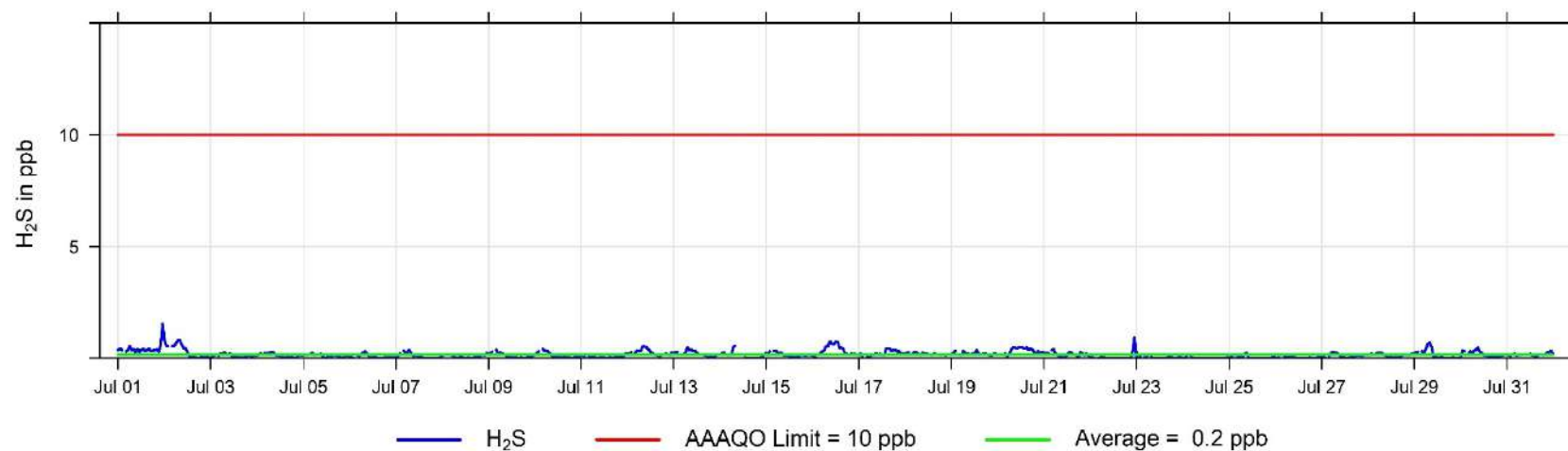


4 Grande Prairie - Henry Pirker Charts

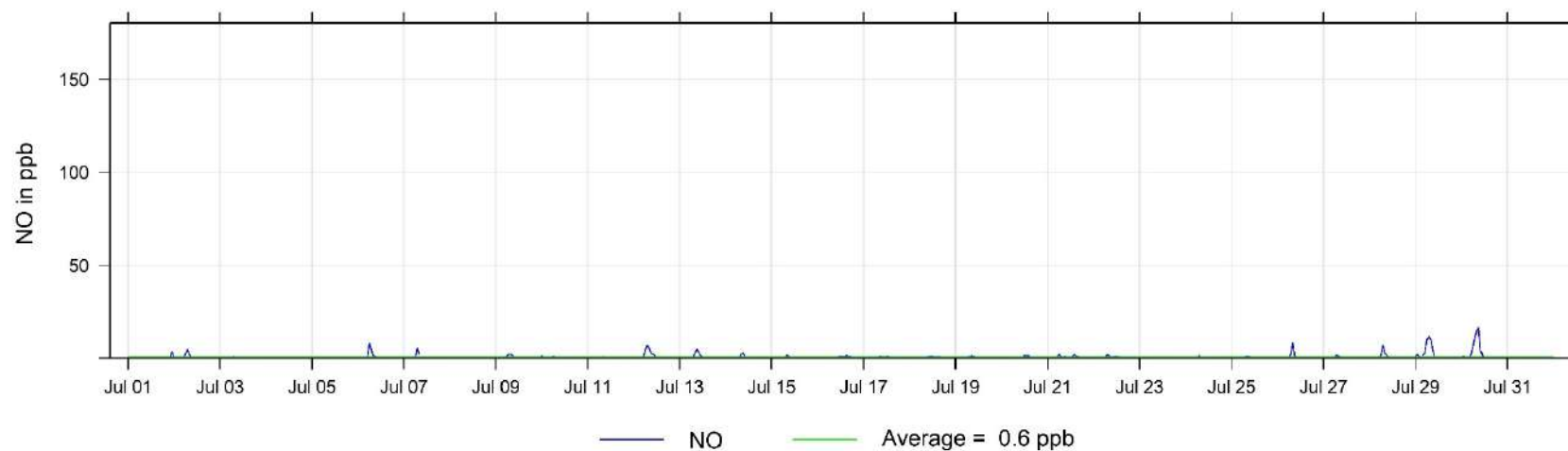
The following pages include the charts and histograms for Henry Pirker Station in Grande Prairie

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

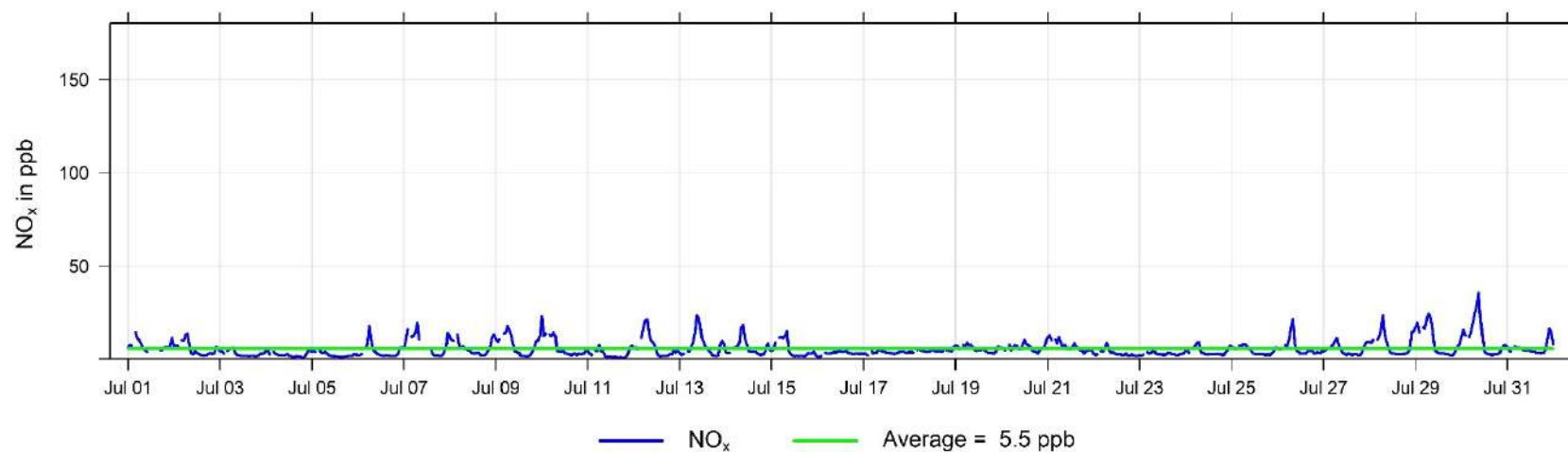
July Hourly Concentration Readings of H₂S (in ppb) at Henry Pirker



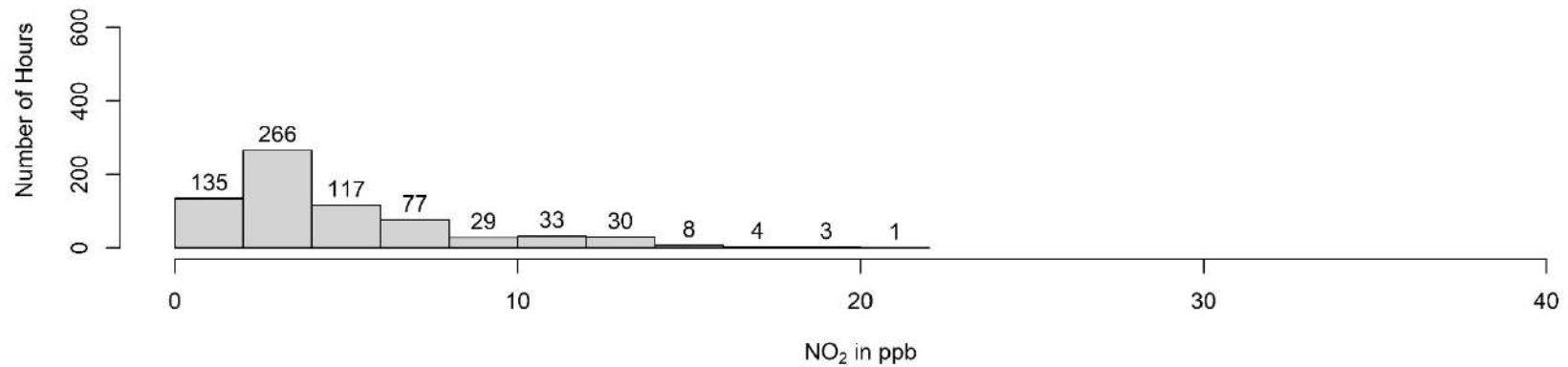
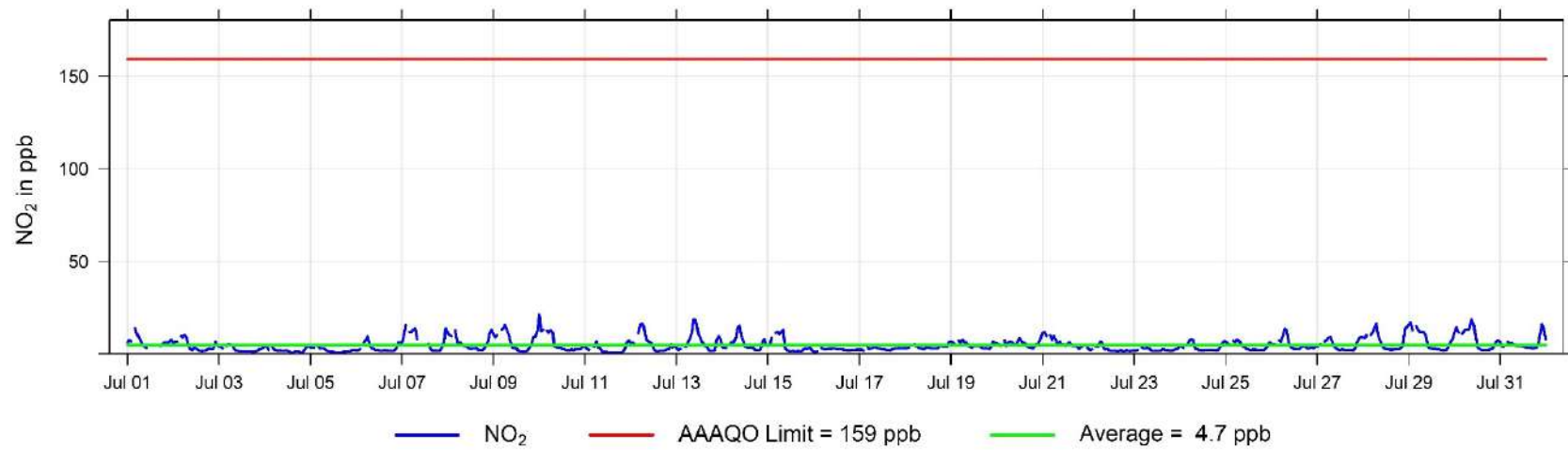
July Hourly Concentration Readings of NO (in ppb) at Henry Pirker



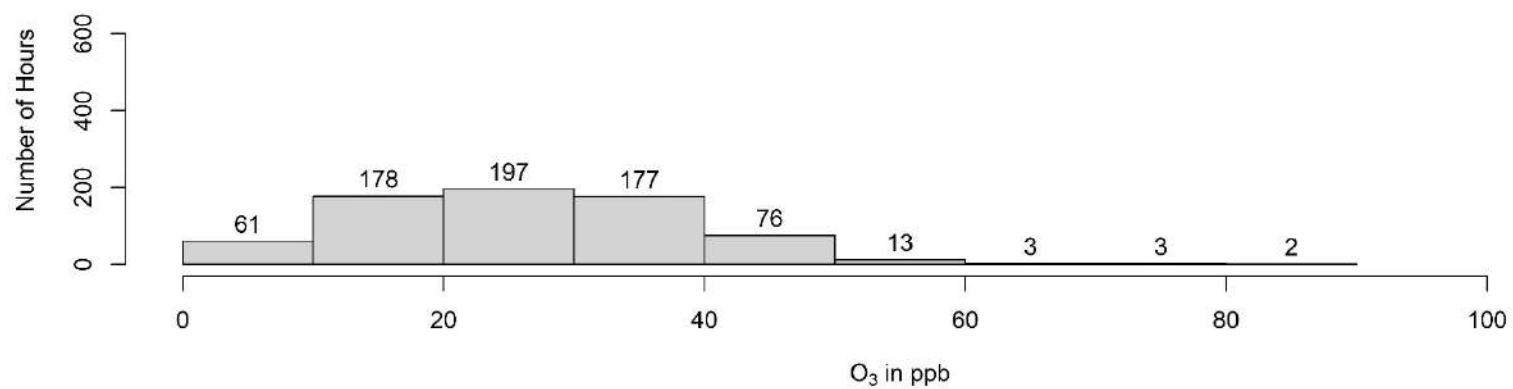
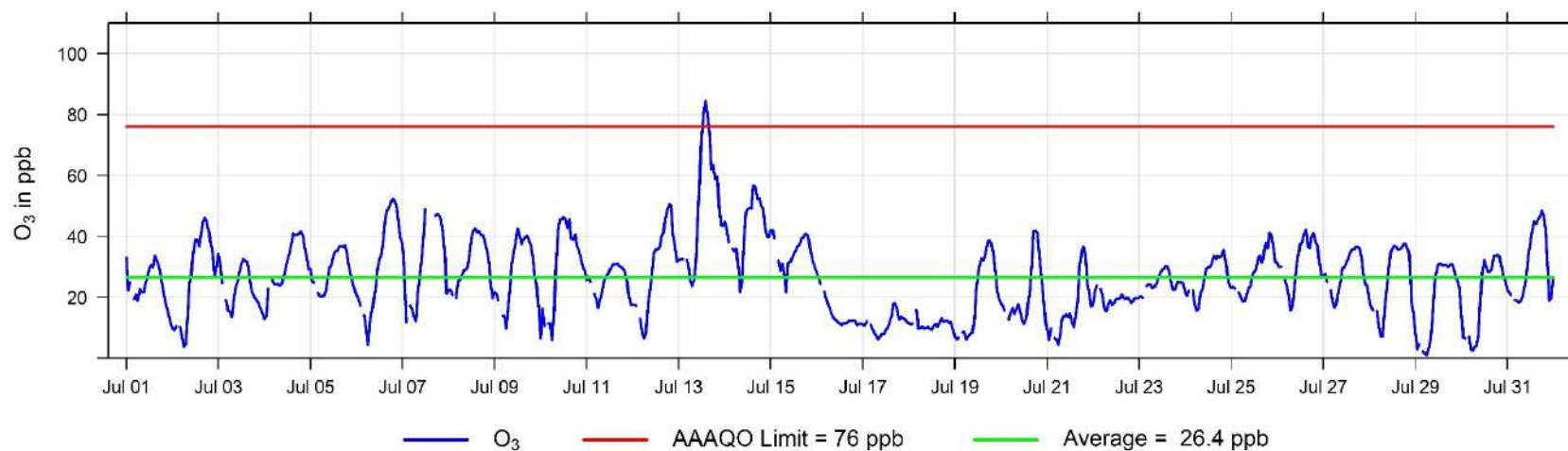
July Hourly Concentration Readings of NO_x (in ppb) at Henry Pirker



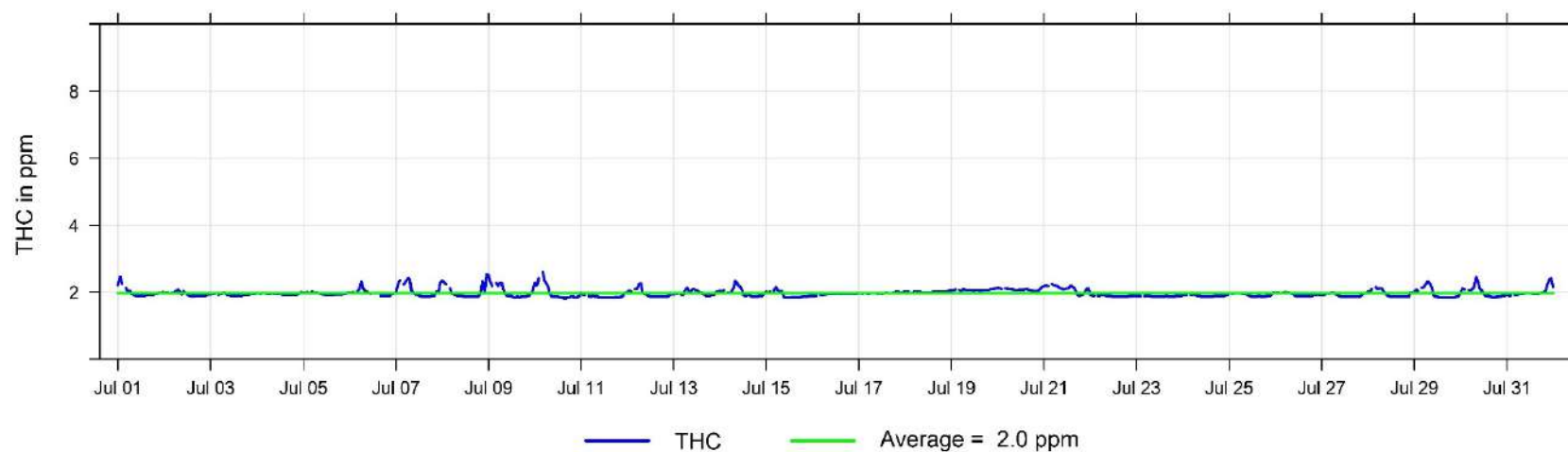
July Hourly Concentration Readings of NO₂ (in ppb) at Henry Pirker



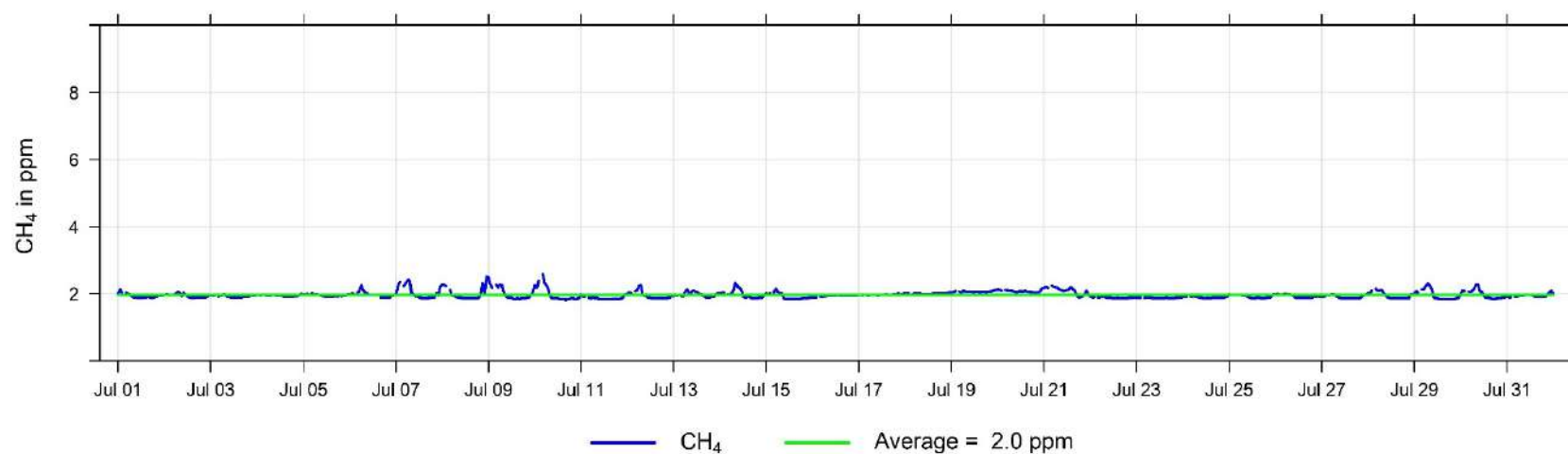
July Hourly Concentration Readings of O₃ (in ppb) at Henry Pirker



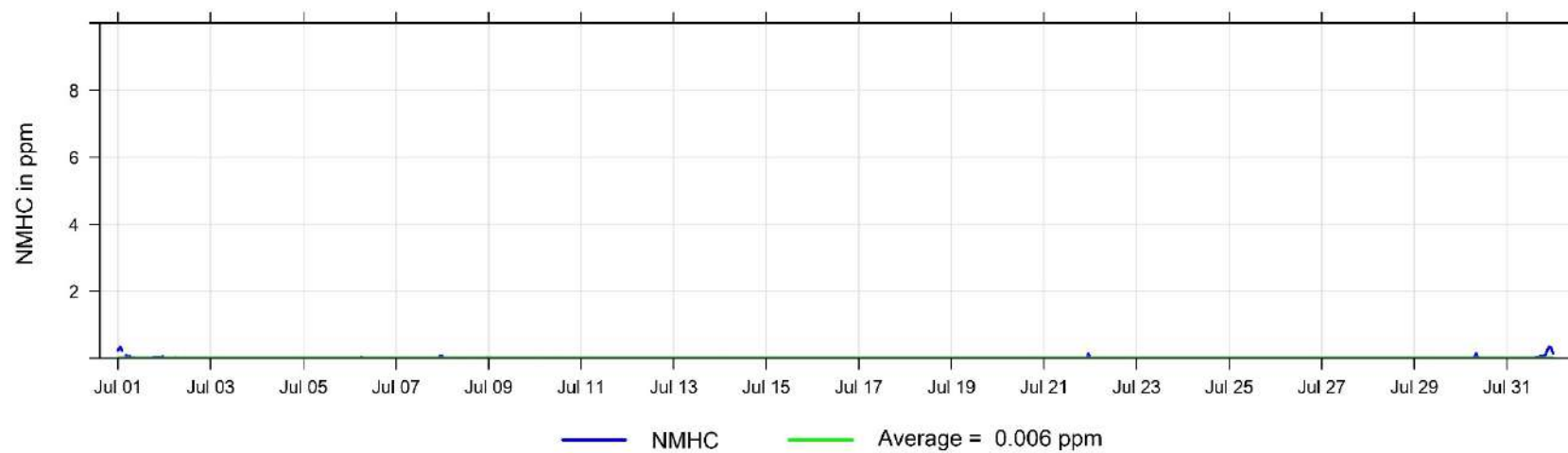
July Hourly Concentration Readings of THC (in ppm) at Henry Pirker



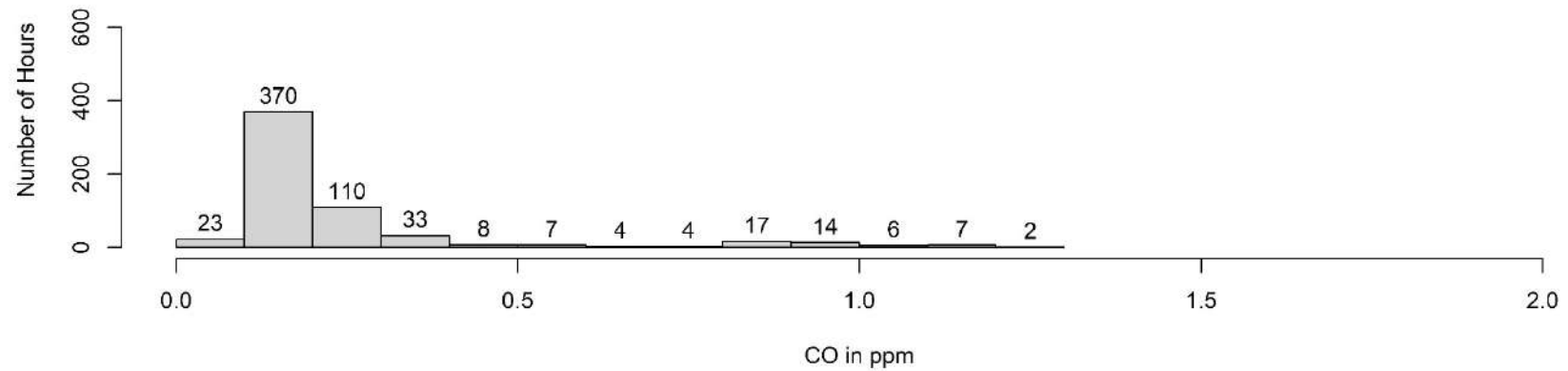
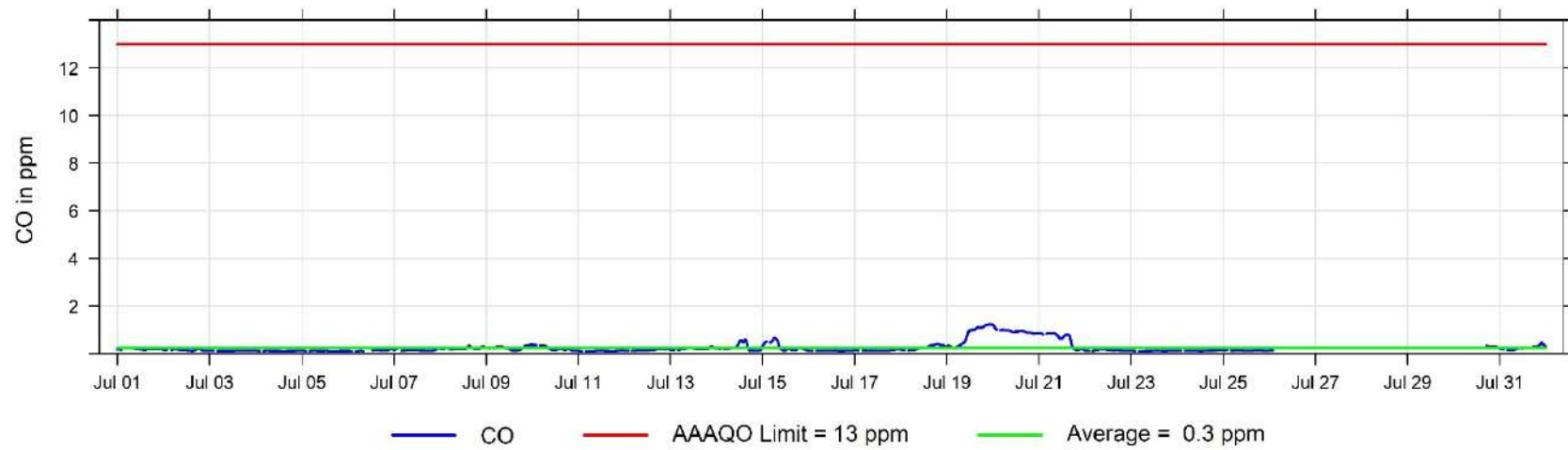
July Hourly Concentration Readings of CH₄ (in ppm) at Henry Pirker



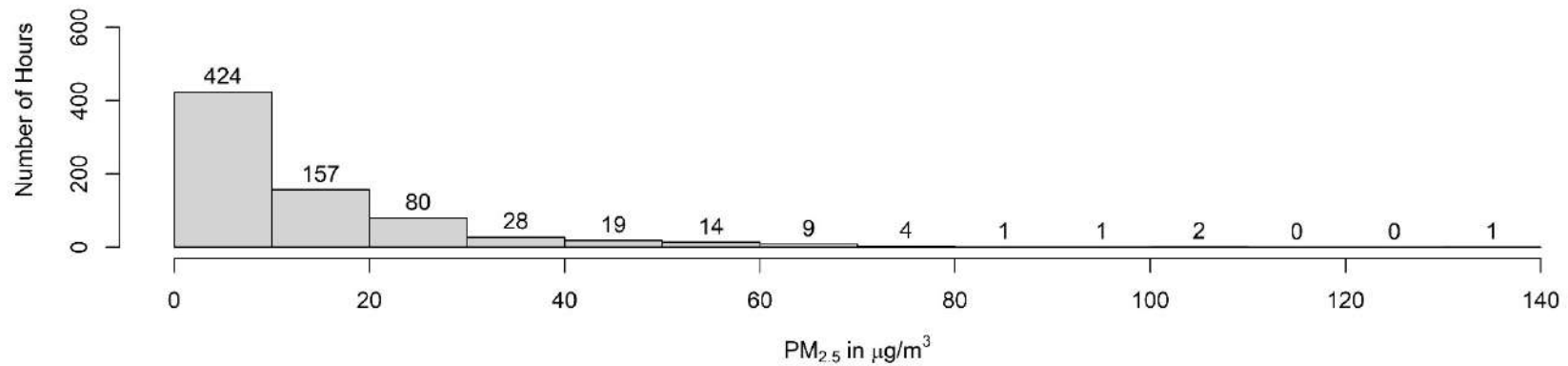
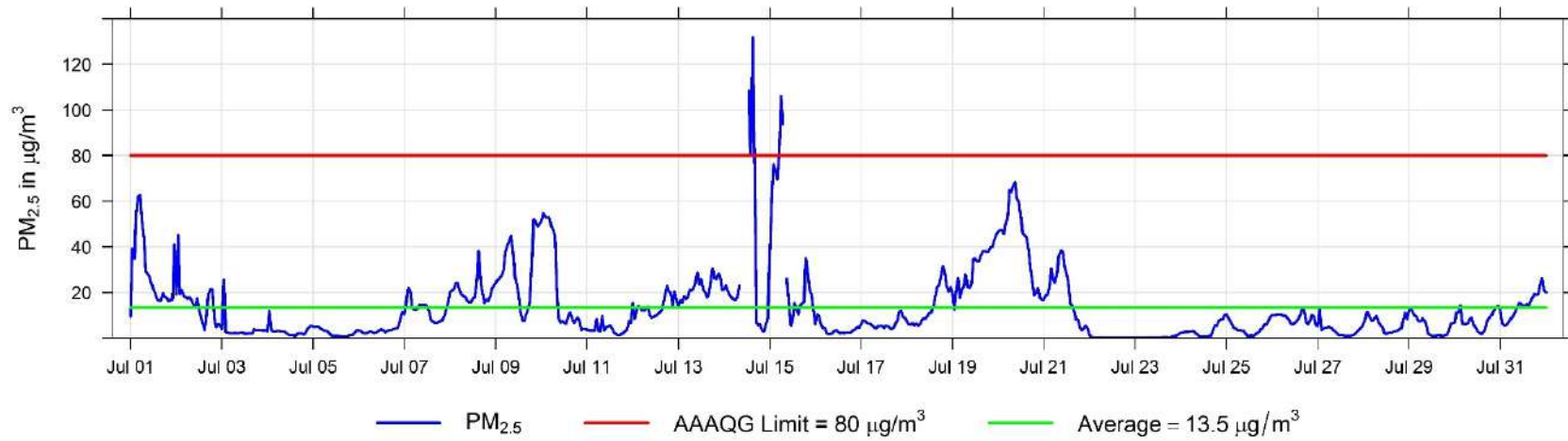
July Hourly Concentration Readings of NMHC (in ppm) at Henry Pirker



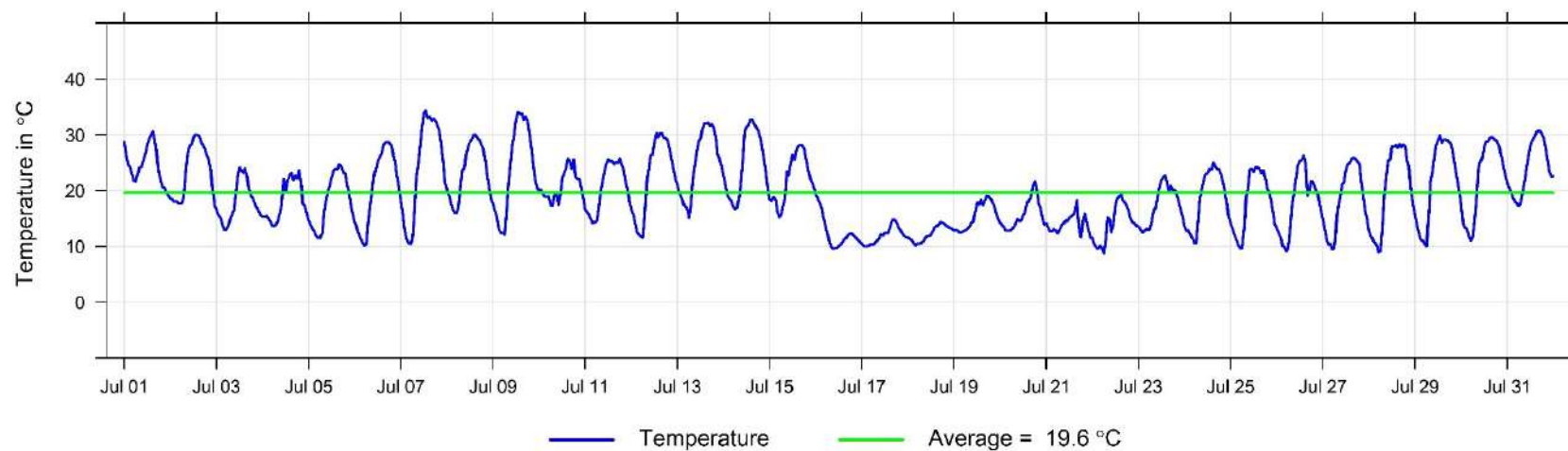
July Hourly Concentration Readings of CO (in ppm) at Henry Pirker



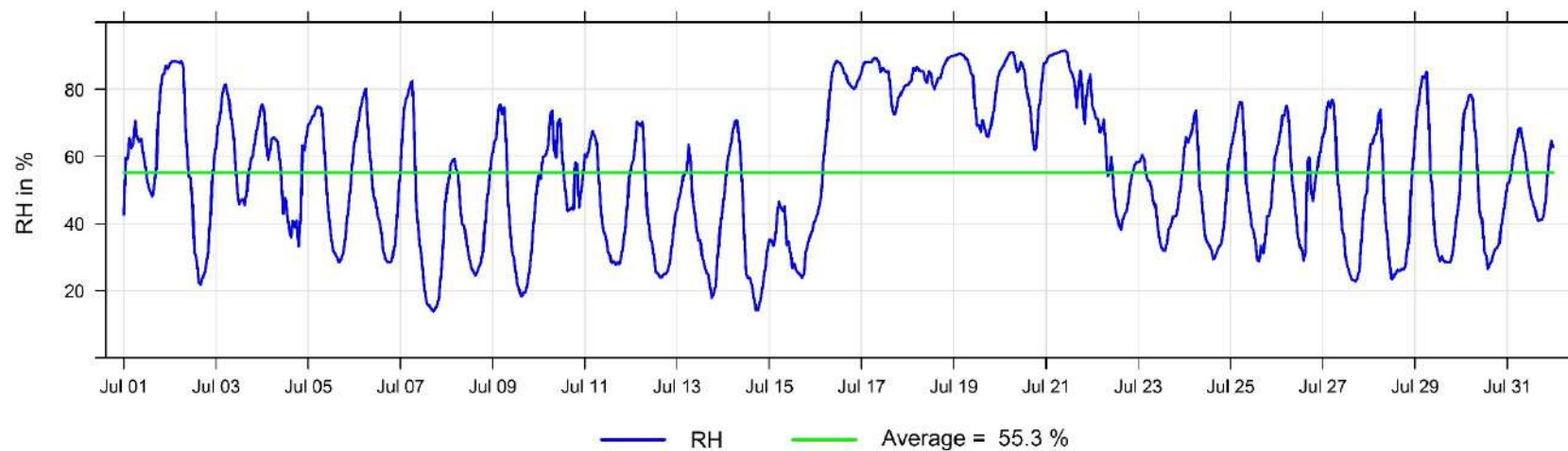
July Hourly Concentration Readings of PM_{2.5} in $\mu\text{g}/\text{m}^3$ at Henry Pirker



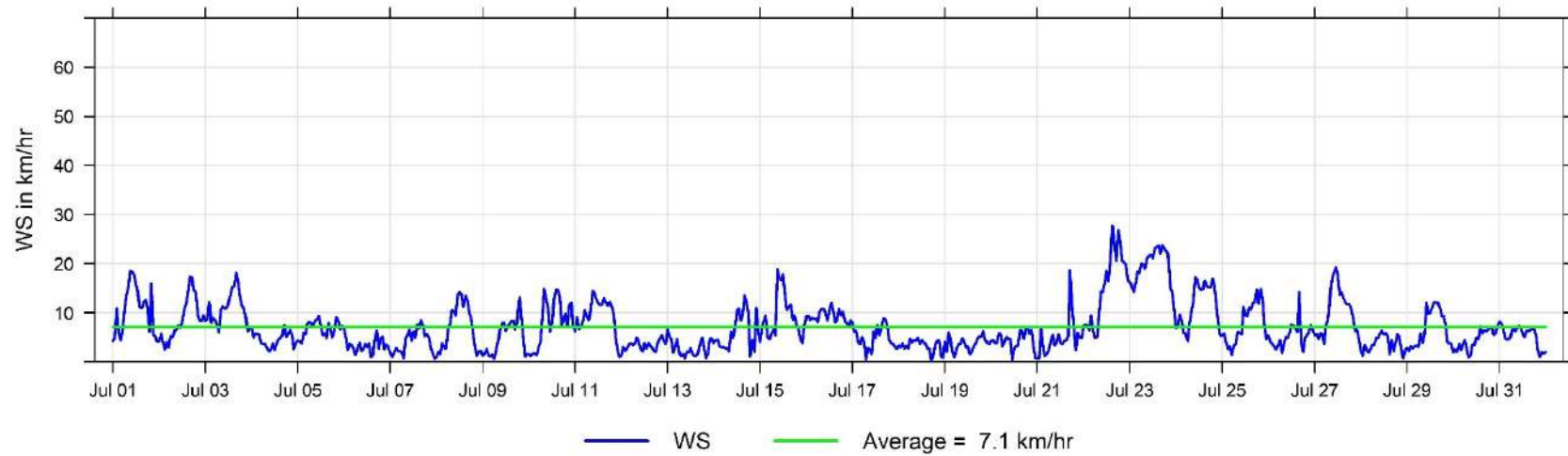
July Hourly Temperature Readings (in °C) at Henry Pirker



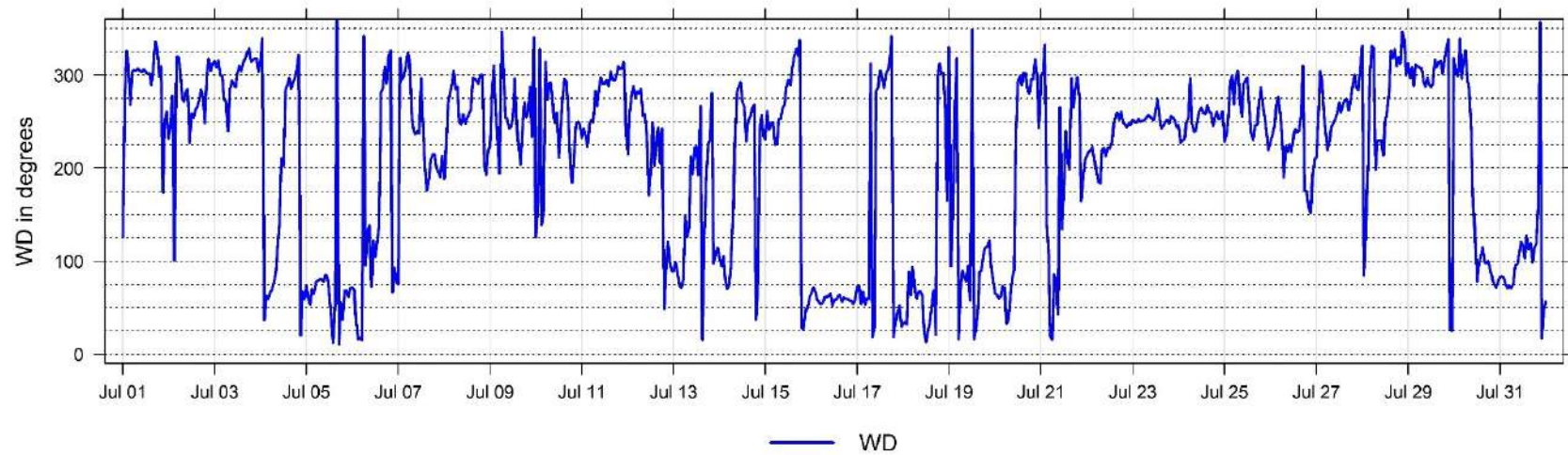
July Hourly Readings of Relative Humidity (in %) at Henry Pirker



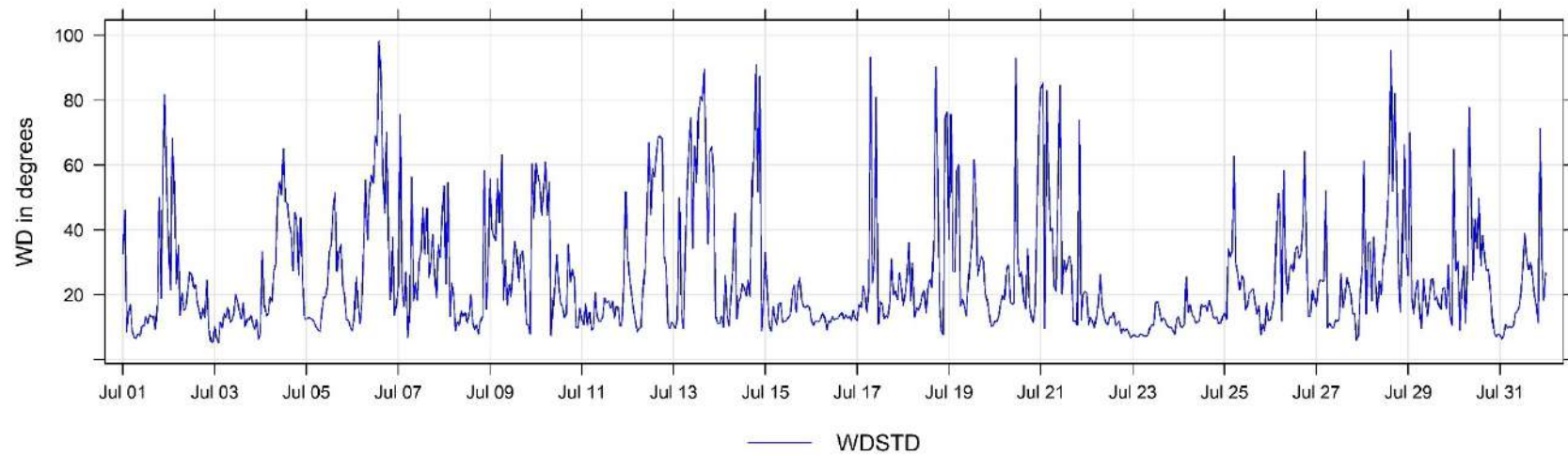
July Hourly Readings of Wind Speed (in km/hr) at Henry Pirker

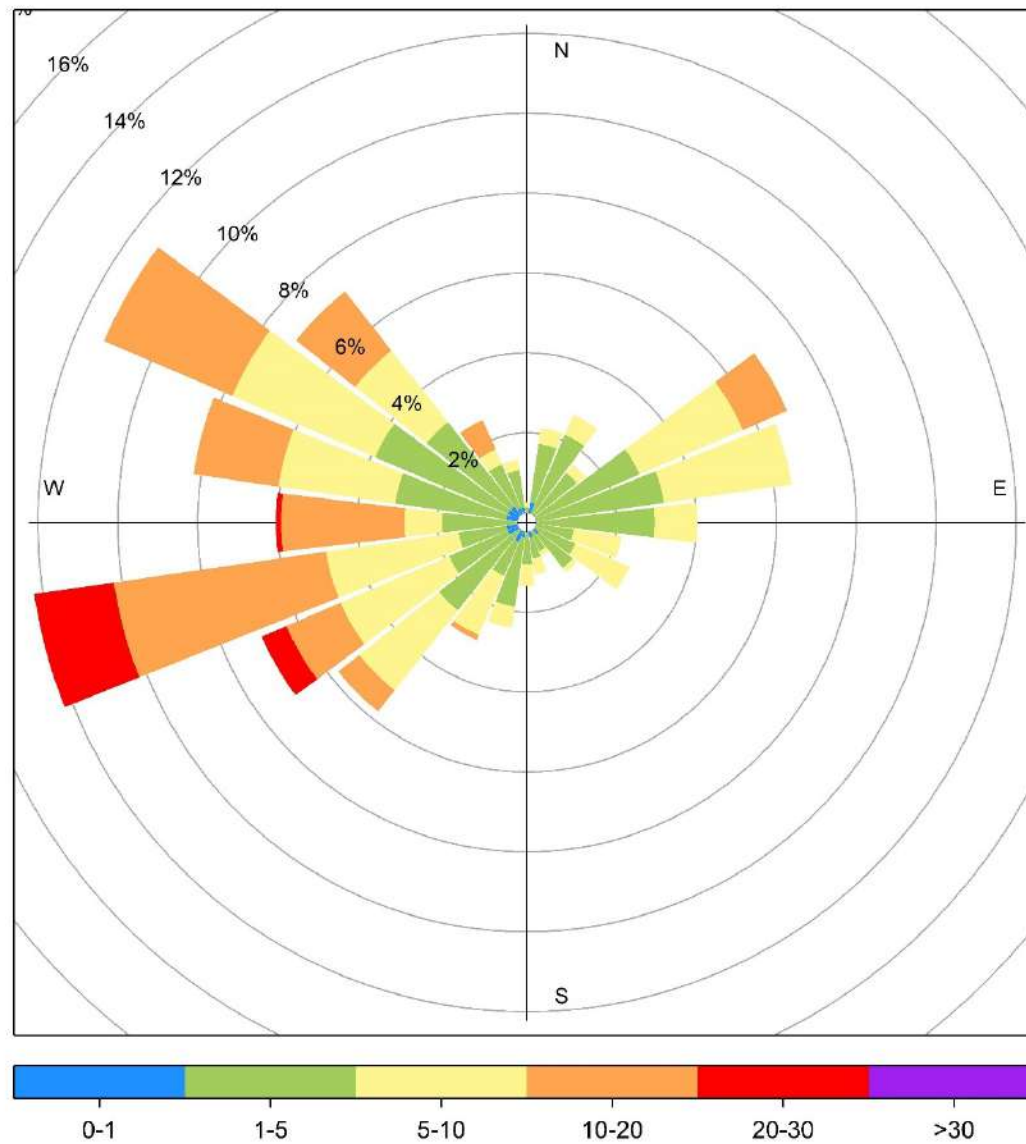


July Hourly Readings of Wind Direction (in degrees) at Henry Pirker



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



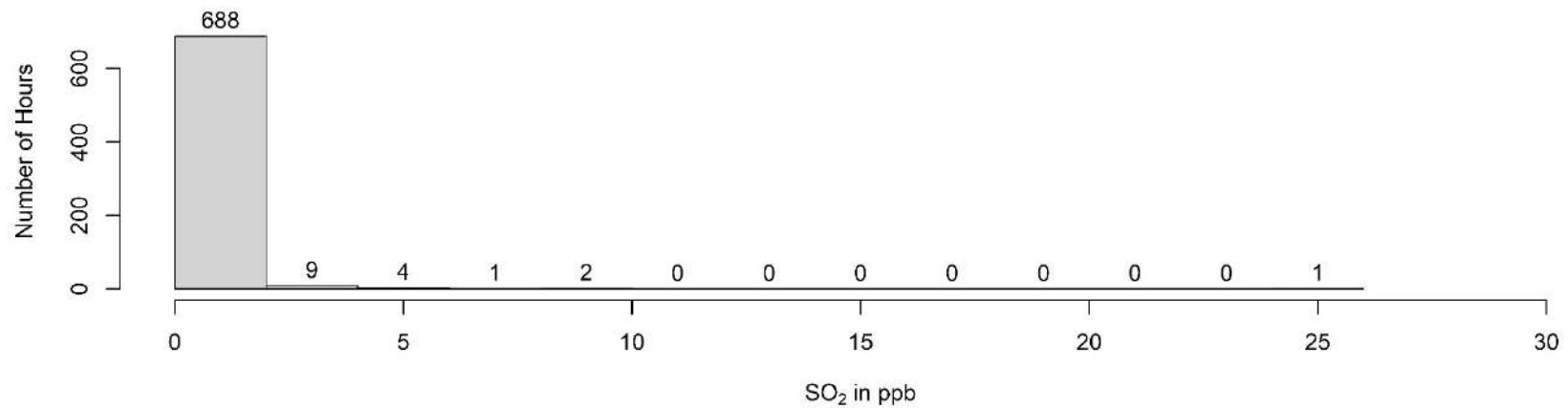
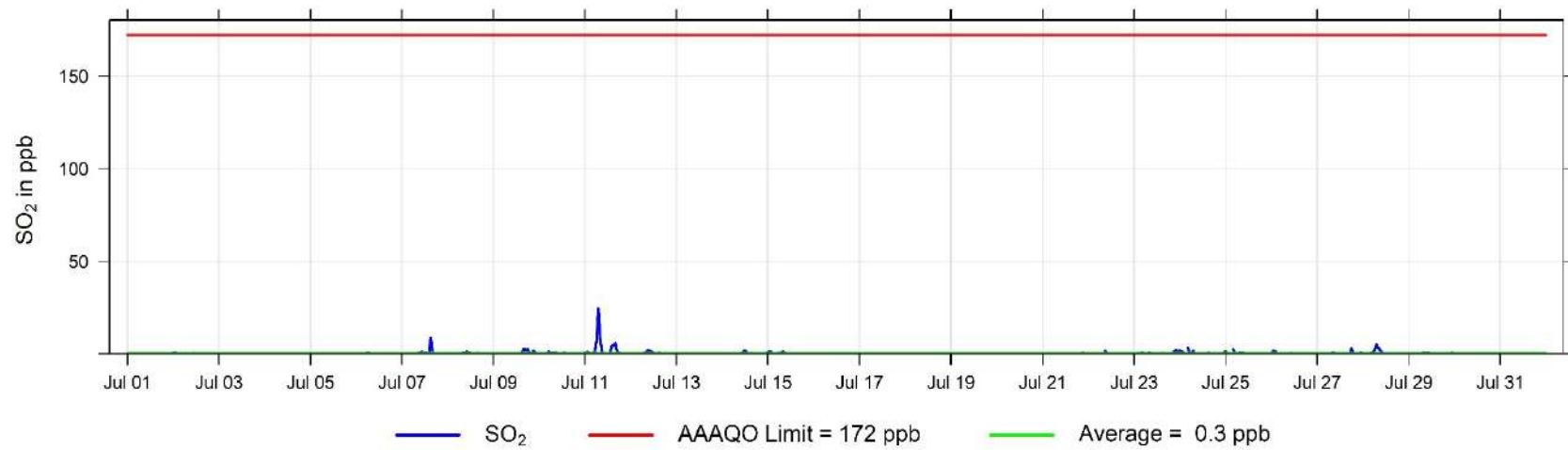


Henry Pirker July Wind Rose, wind speed in km/hr

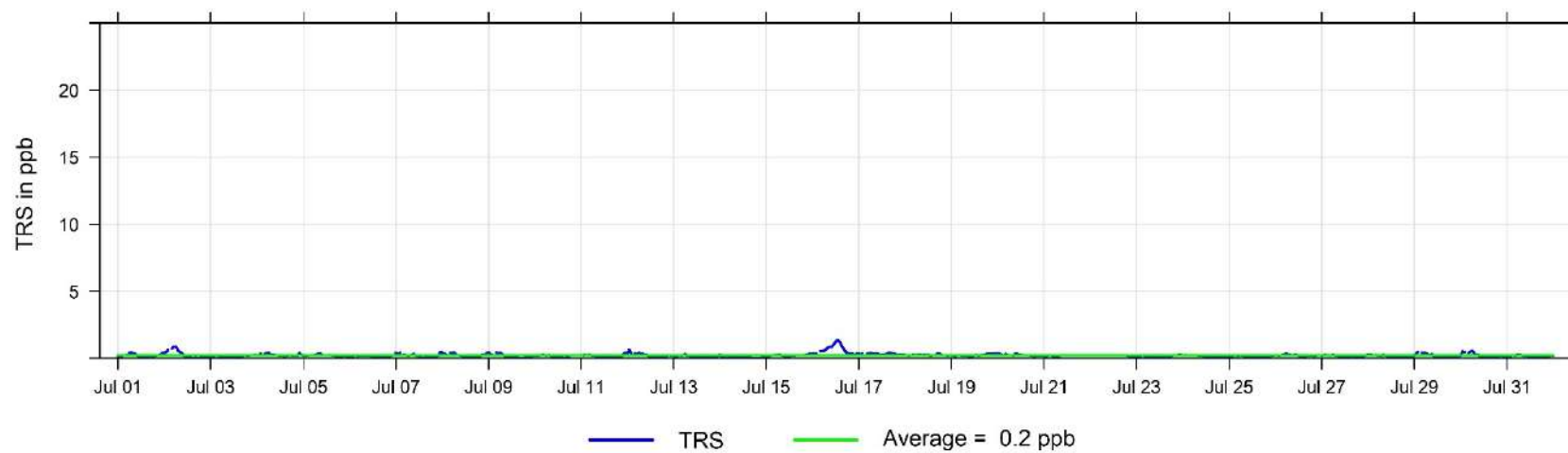
5 Smoky Heights Charts

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

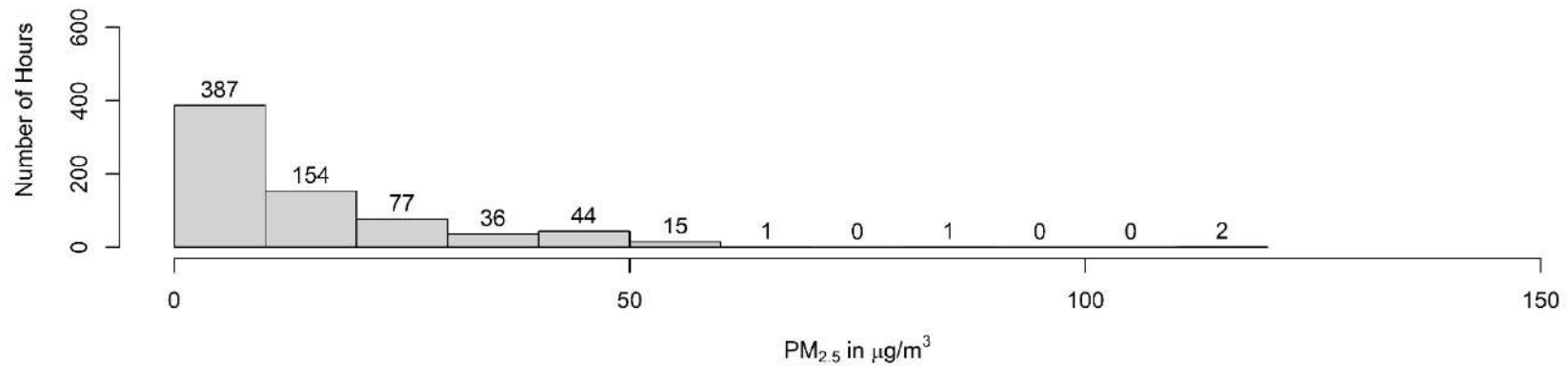
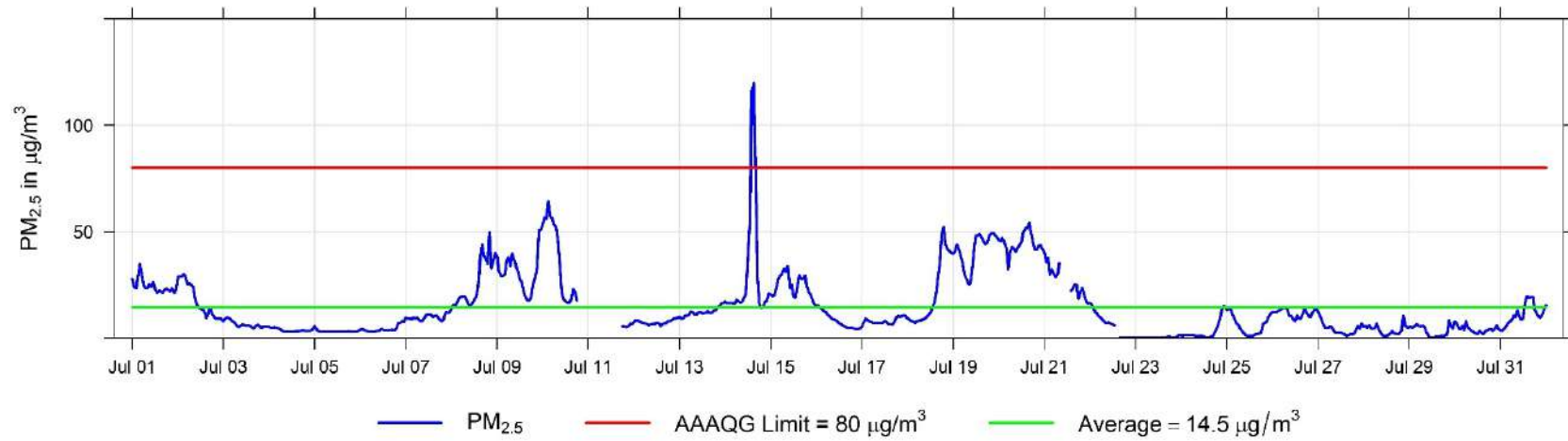
July Hourly Concentration Readings of SO₂ (in ppb) at Smoky Heights



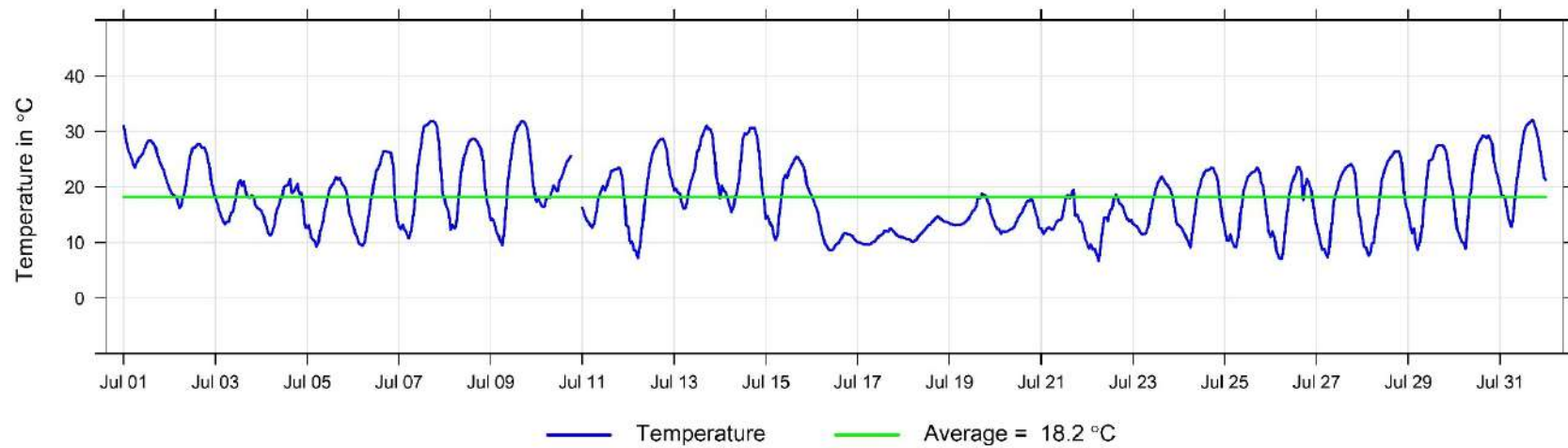
July Hourly Concentration Readings of TRS (in ppb) at Smoky Heights



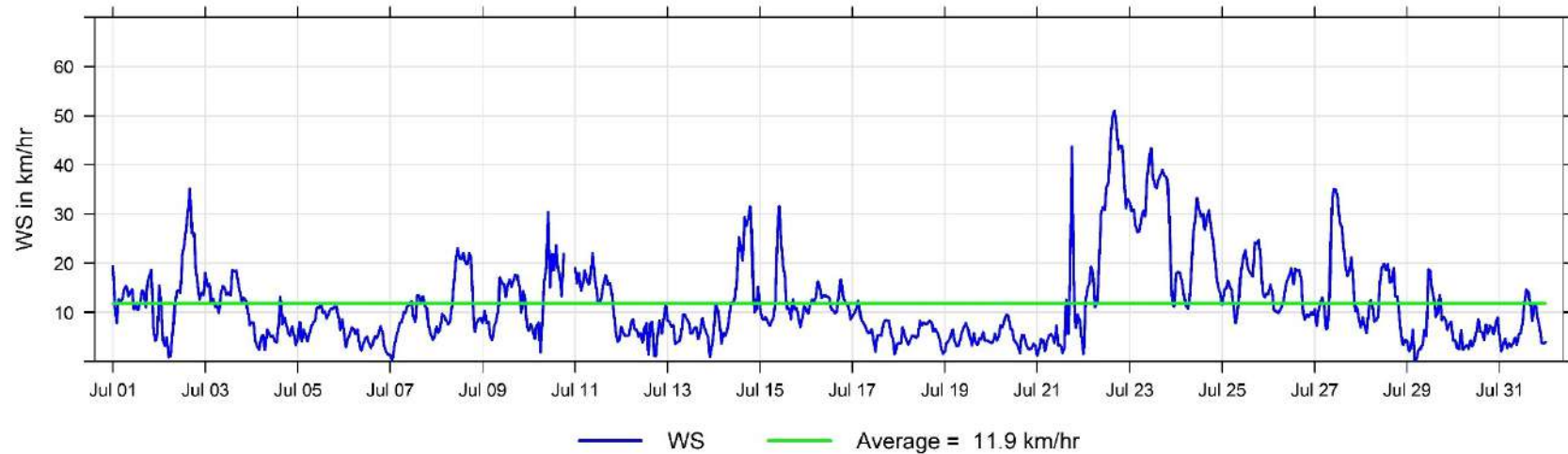
July Hourly Concentration Readings of PM_{2.5} in $\mu\text{g}/\text{m}^3$ at Smoky Heights



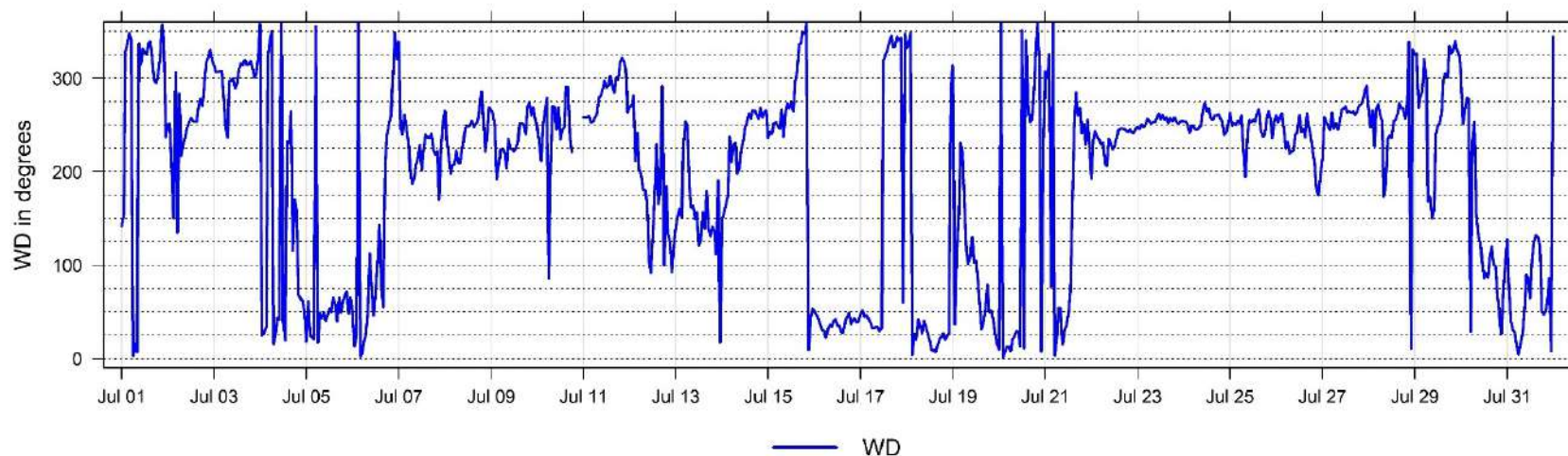
July Hourly Temperature Readings (in °C) at Smoky Heights



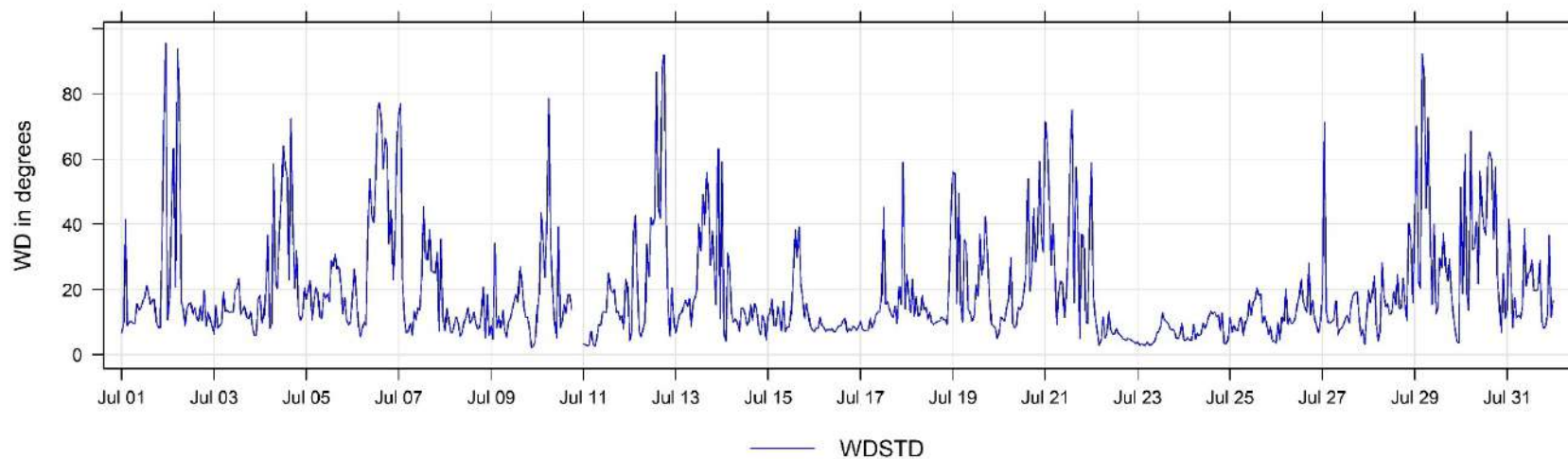
July Hourly Readings of Wind Speed (in km/hr) at Smoky Heights

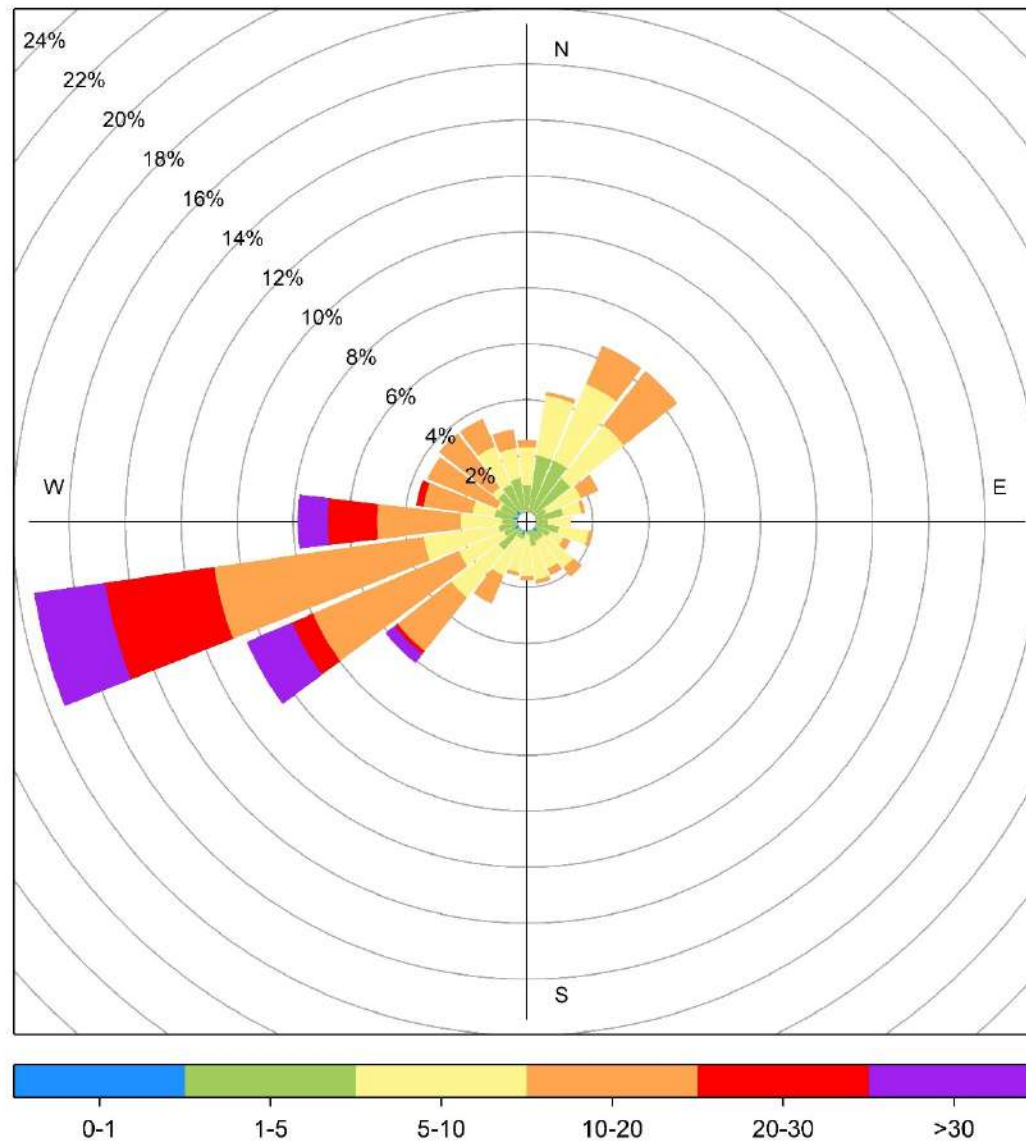


July Hourly Readings of Wind Direction (in degrees) at Smoky Heights



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



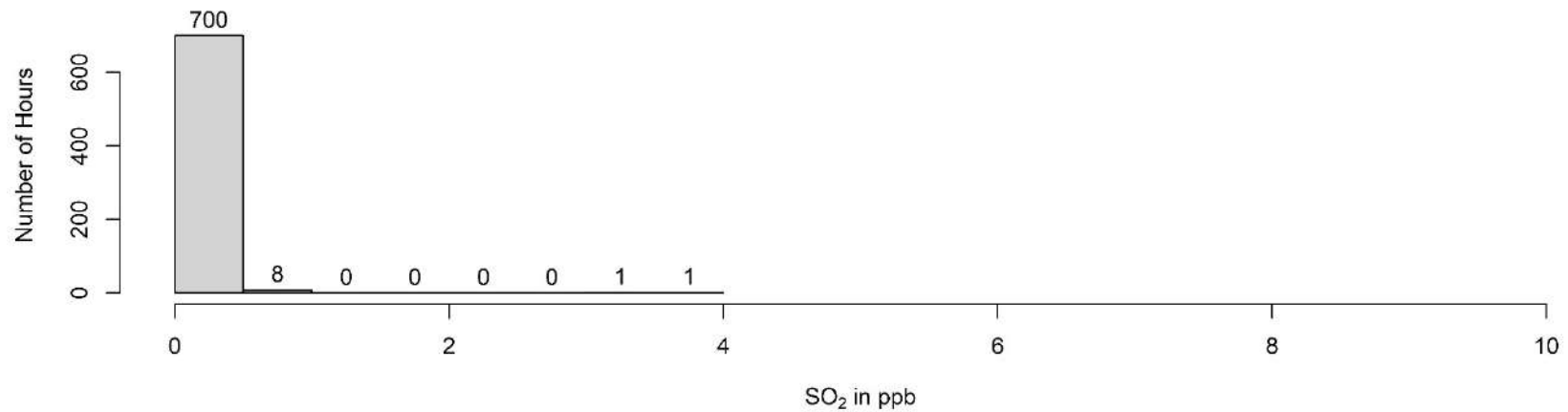
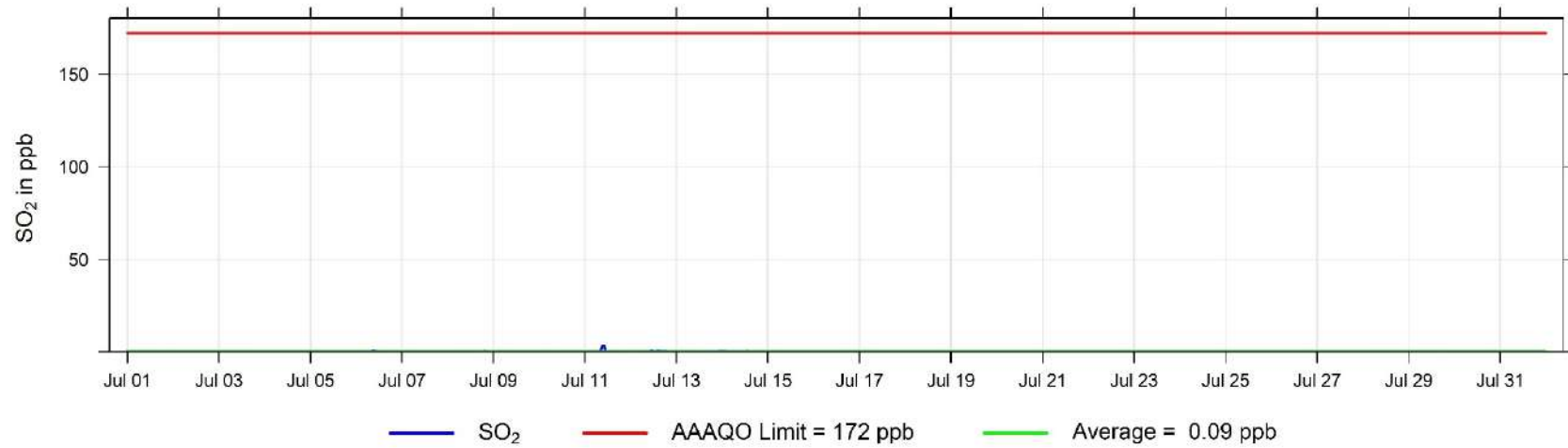


Smoky Heights July Wind Rose, wind speed in km/hr

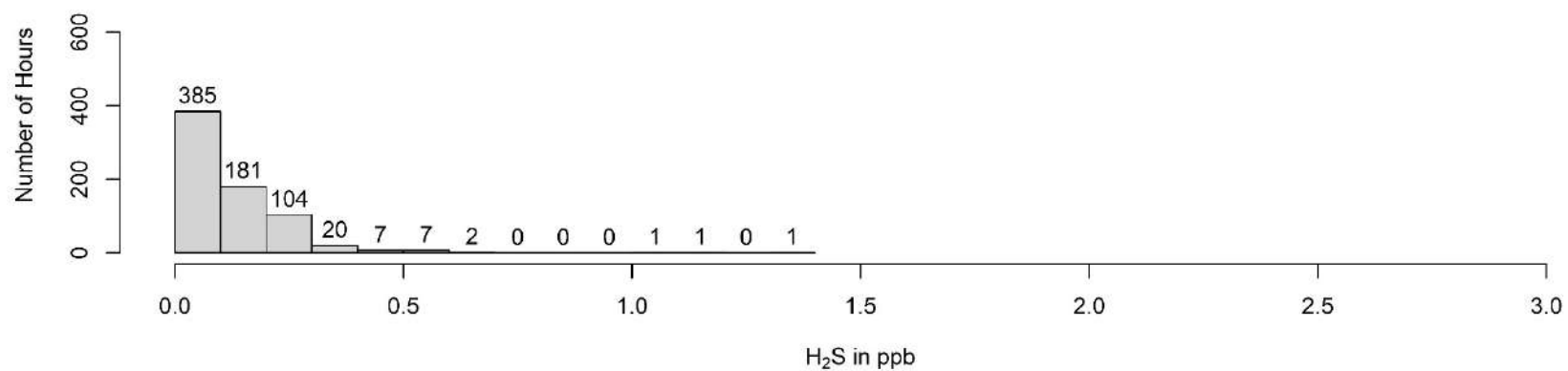
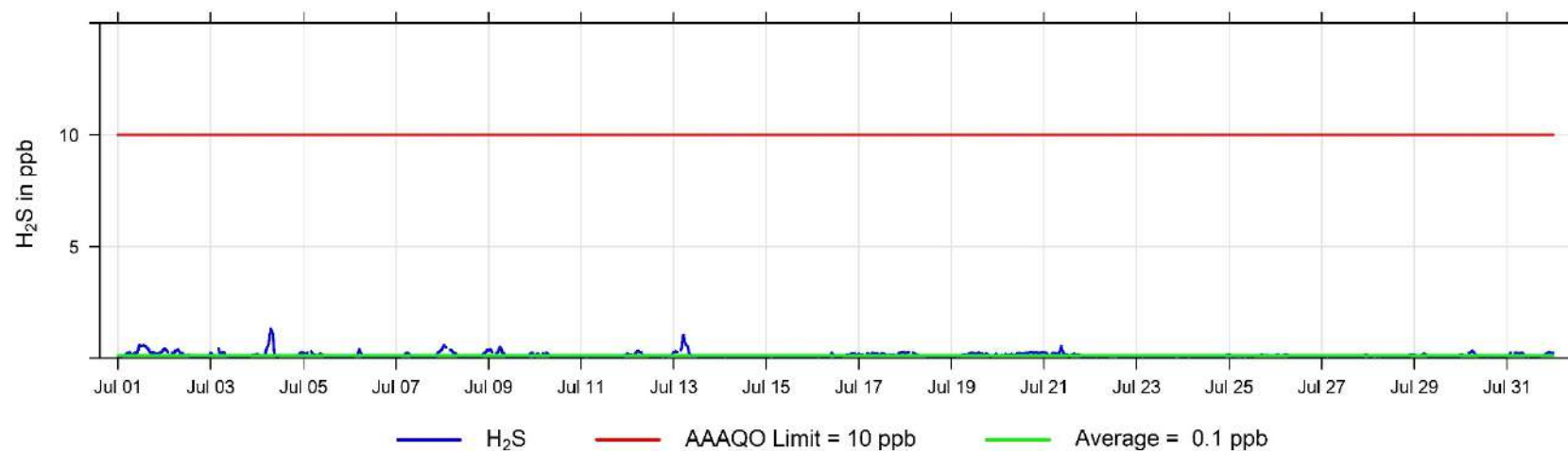
6 Valleyview Charts

The following pages include the charts and histograms for Valleyview Station

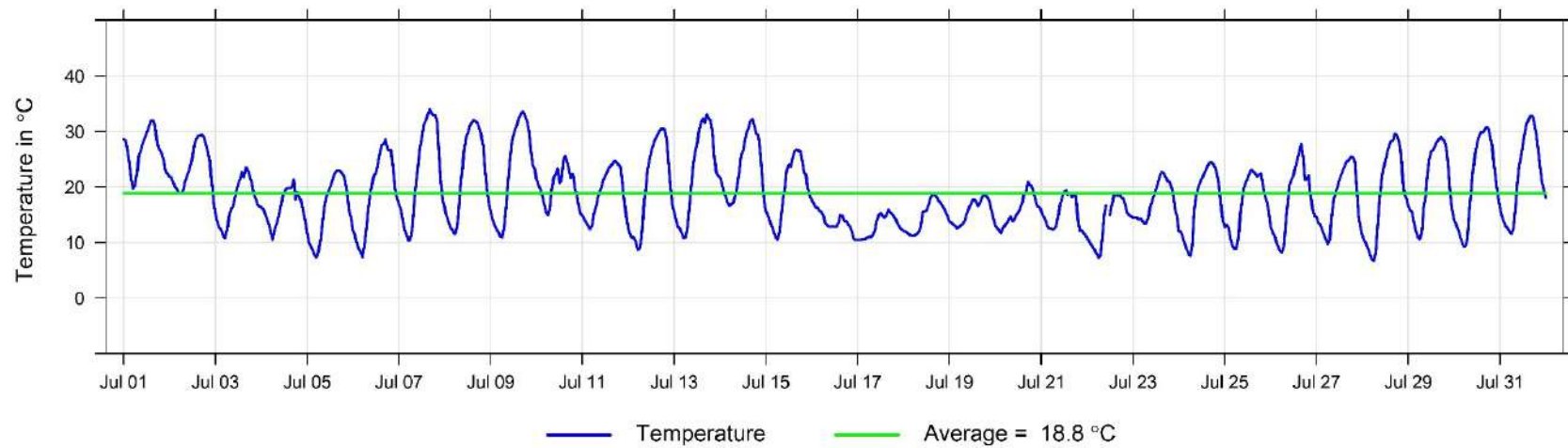
July Hourly Concentration Readings of SO₂ (in ppb) at Valleyview



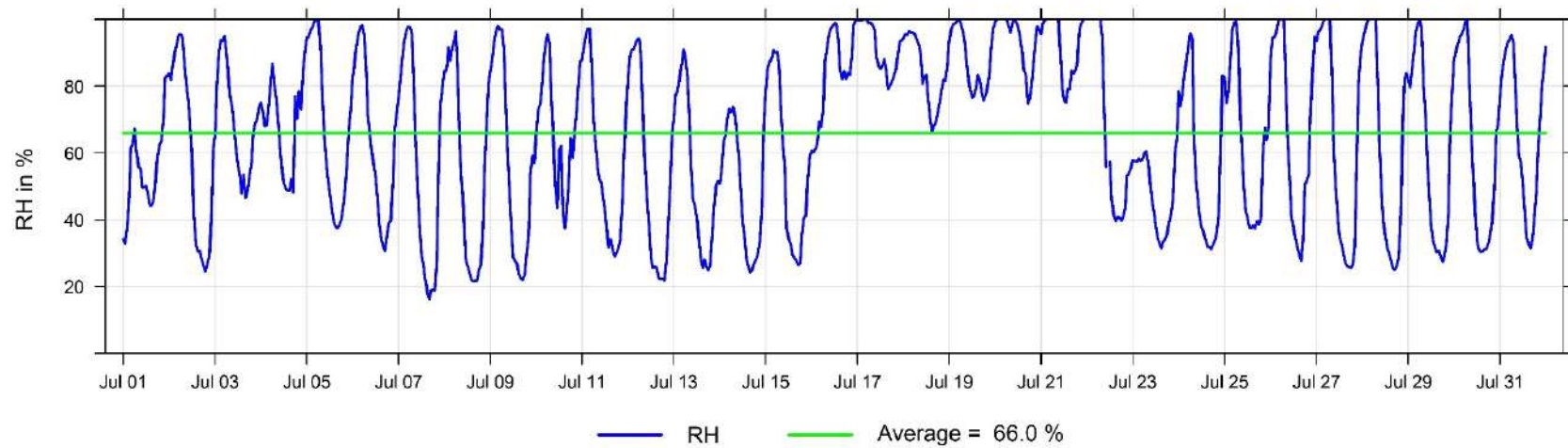
July Hourly Concentration Readings of H₂S (in ppb) at Valleyview



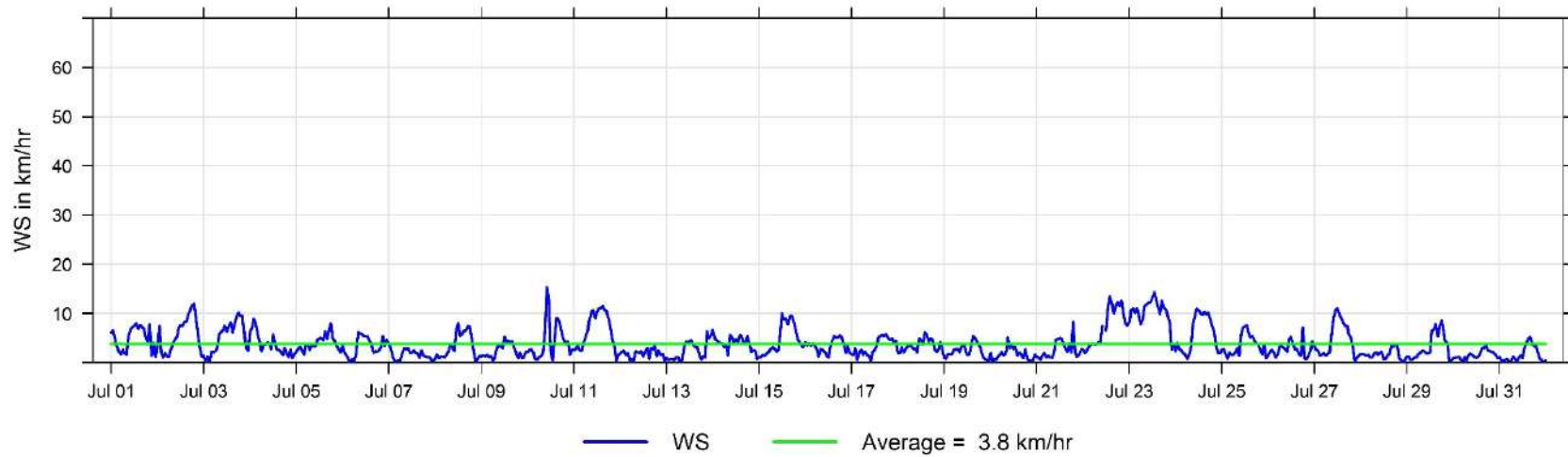
July Hourly Temperature Readings (in °C) at Valleyview



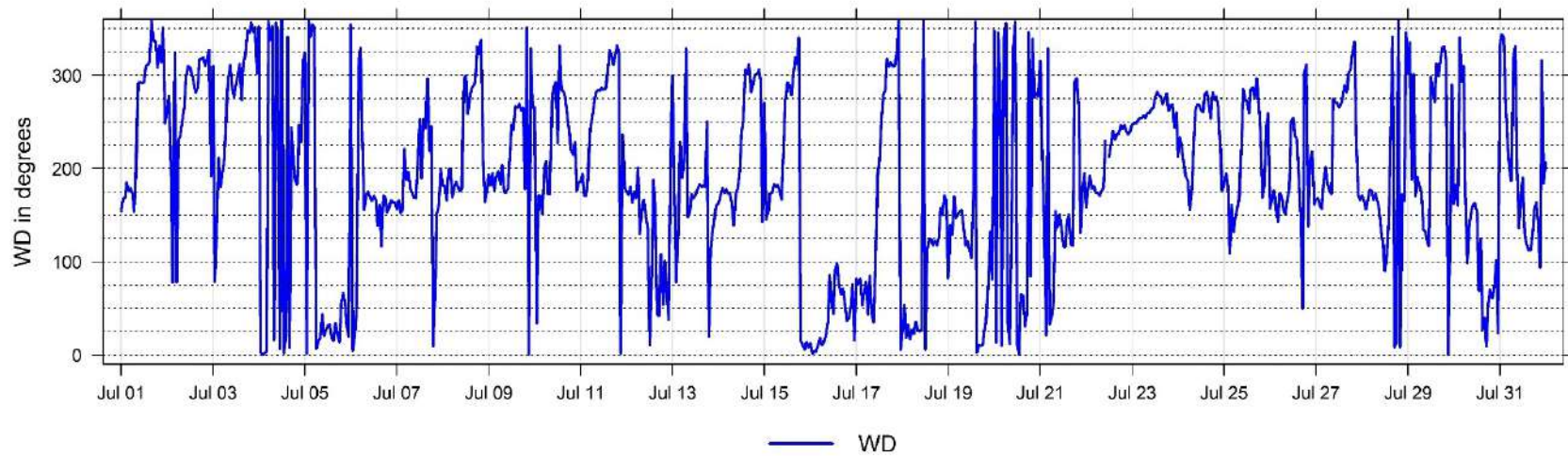
July Hourly Readings of Relative Humidity (in %) at Valleyview



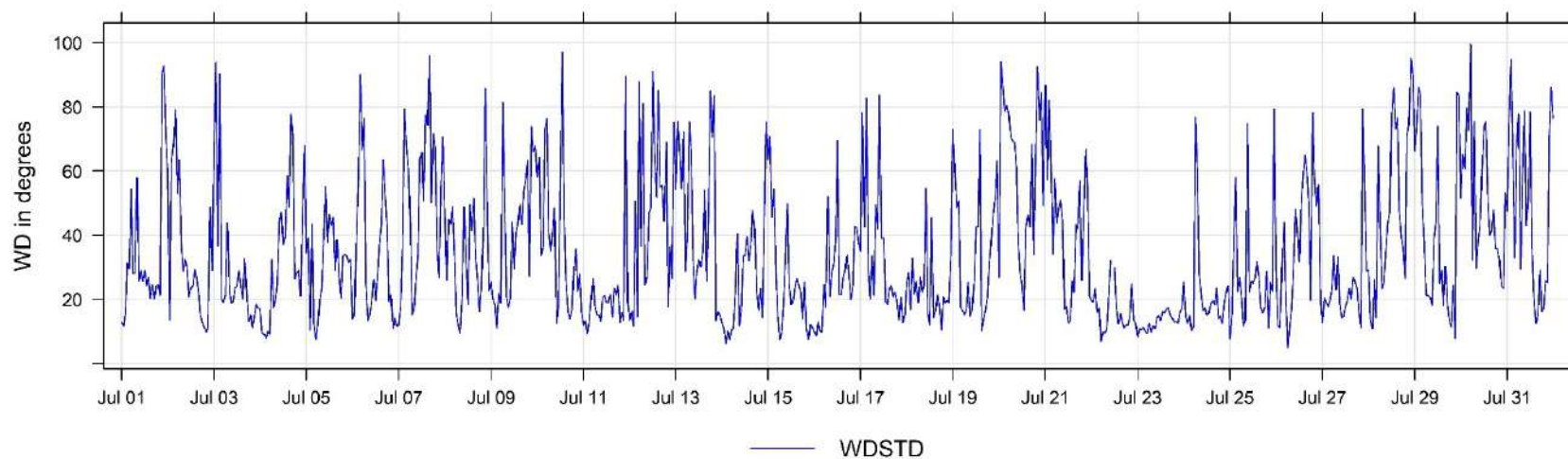
July Hourly Readings of Wind Speed (in km/hr) at Valleyview

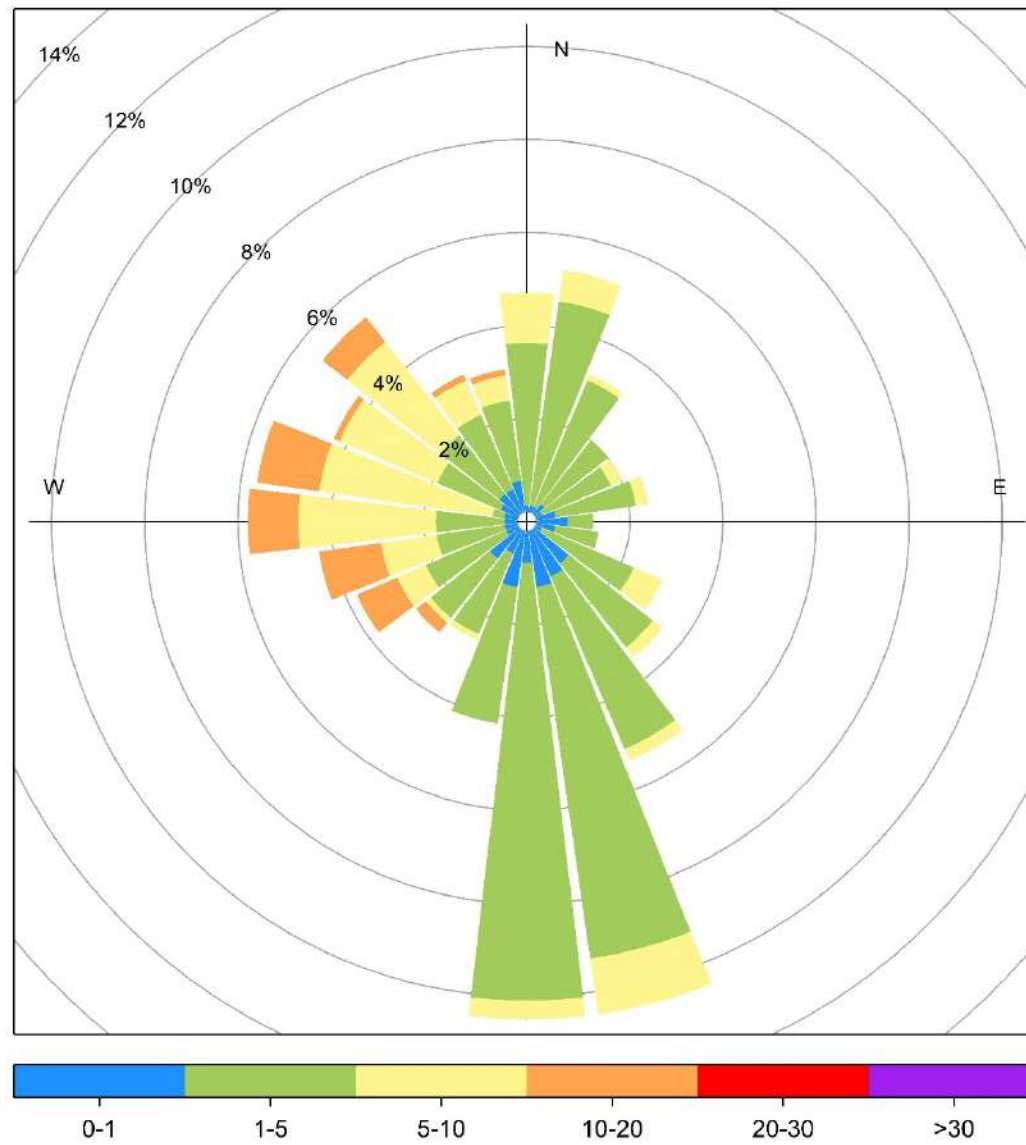


July Hourly Readings of Wind Direction (in degrees) at Valleyview



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



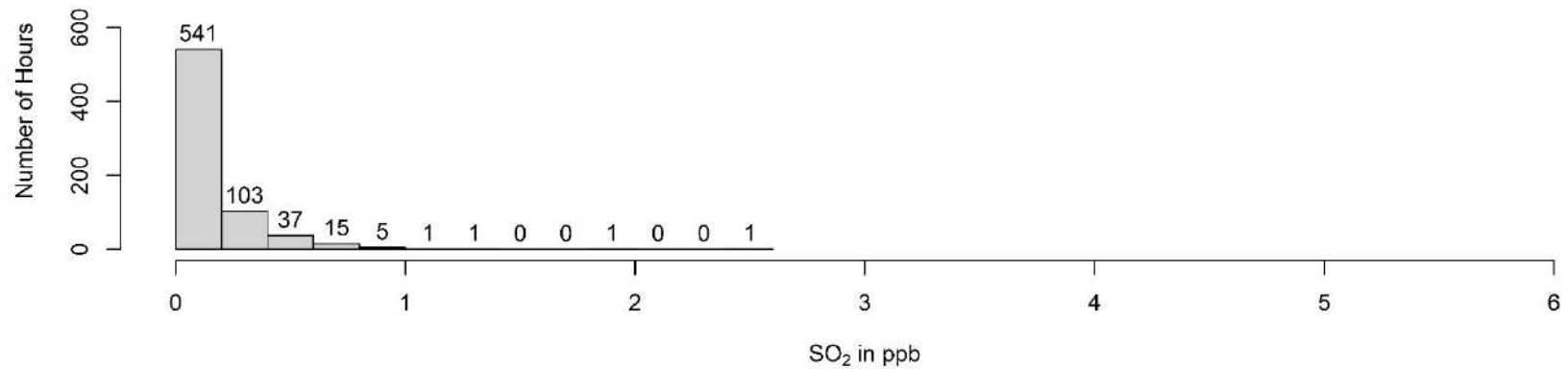
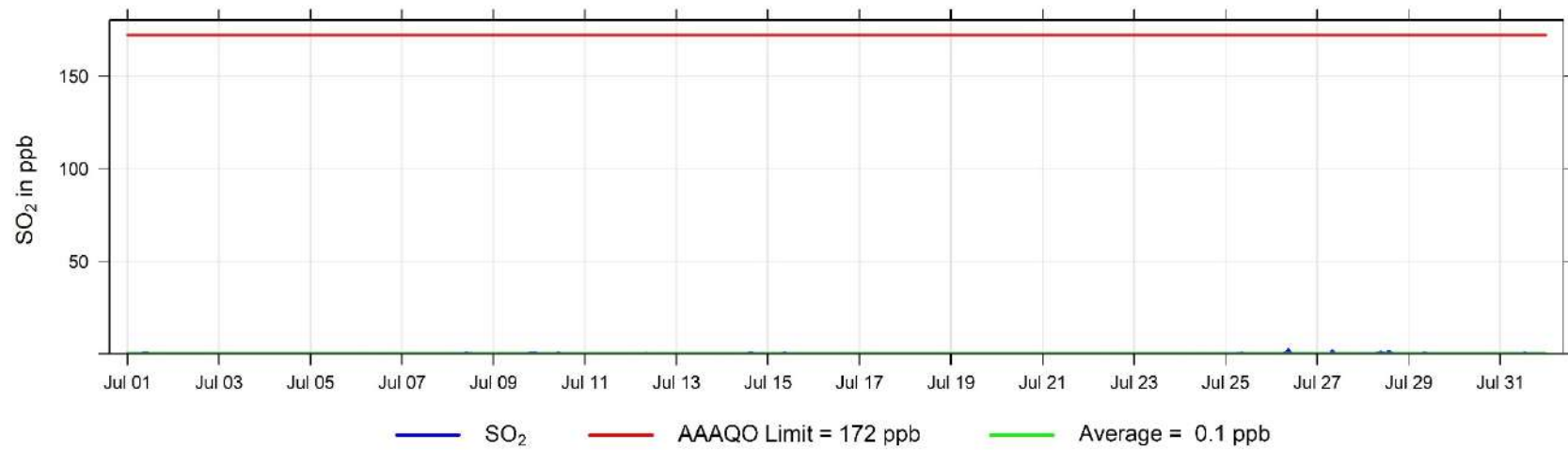


Valleyview July Wind Rose, wind speed in km/hr

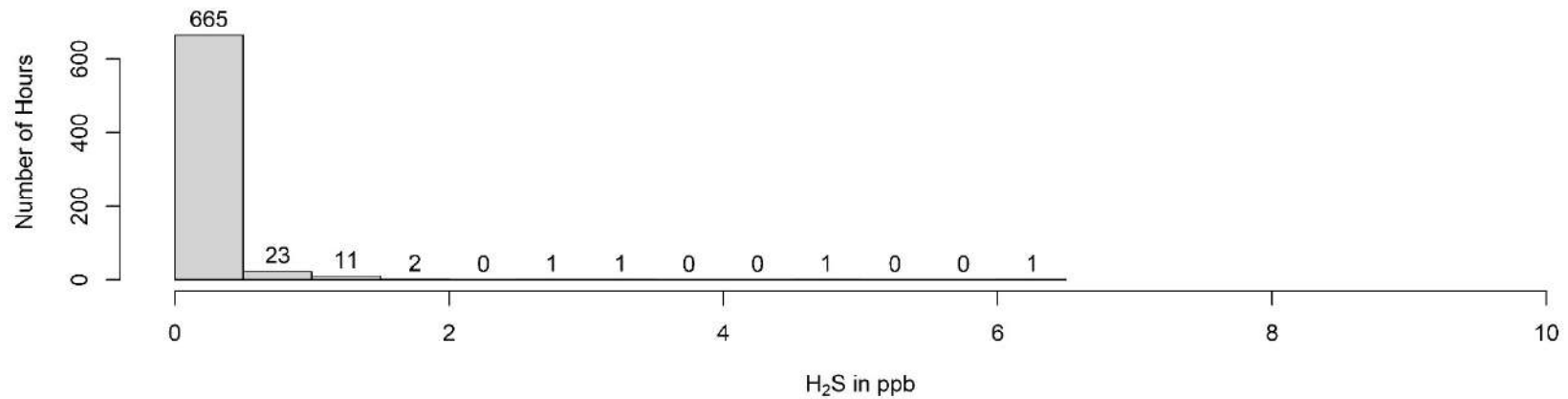
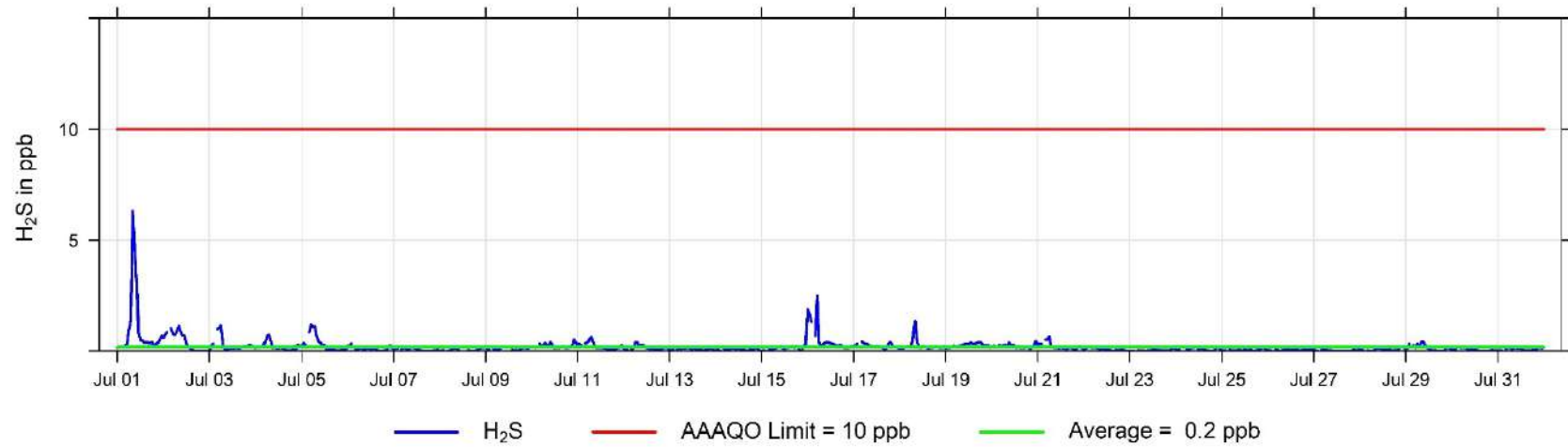
7 Donnelly Charts

The following pages include the charts and histograms for Donnelly Station

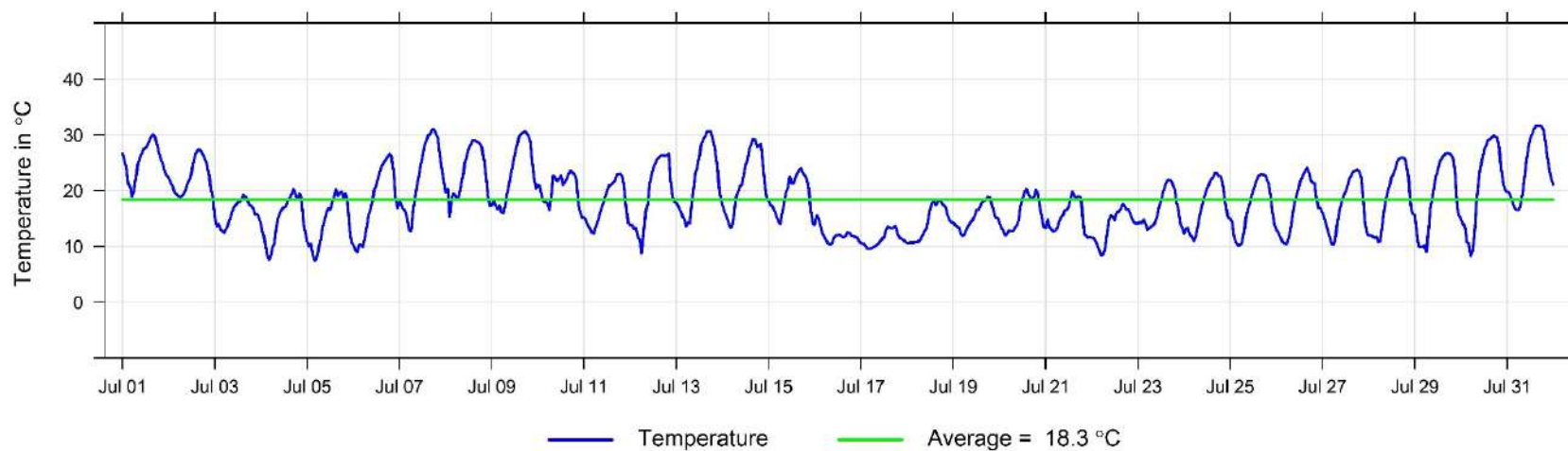
July Hourly Concentration Readings of SO₂ (in ppb) at Donnelly



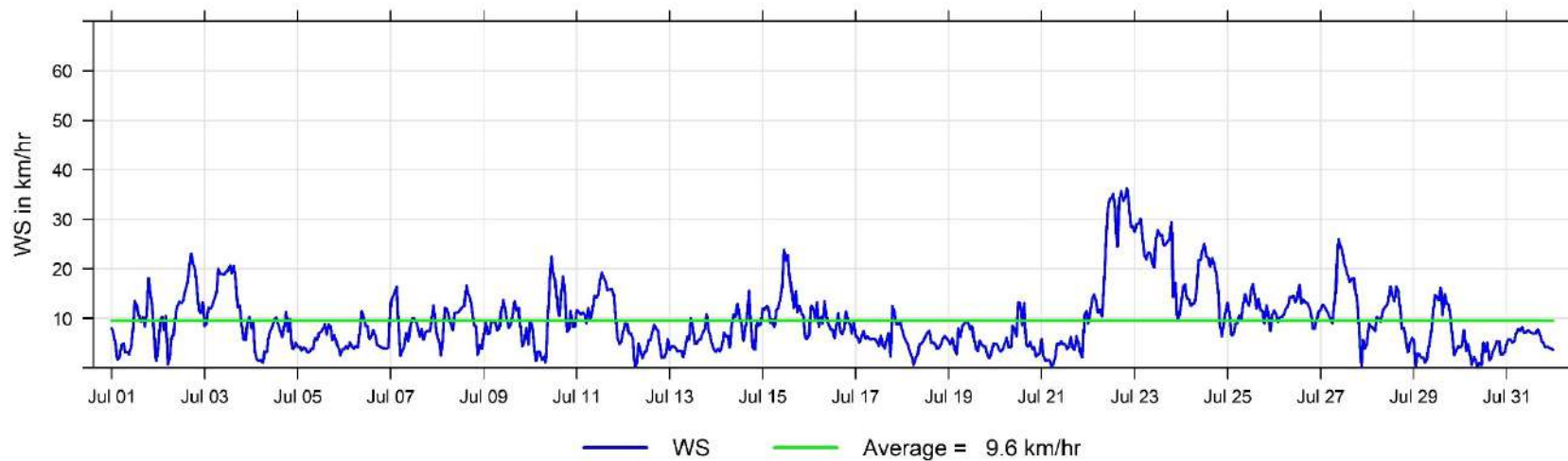
July Hourly Concentration Readings of H₂S (in ppb) at Donnelly



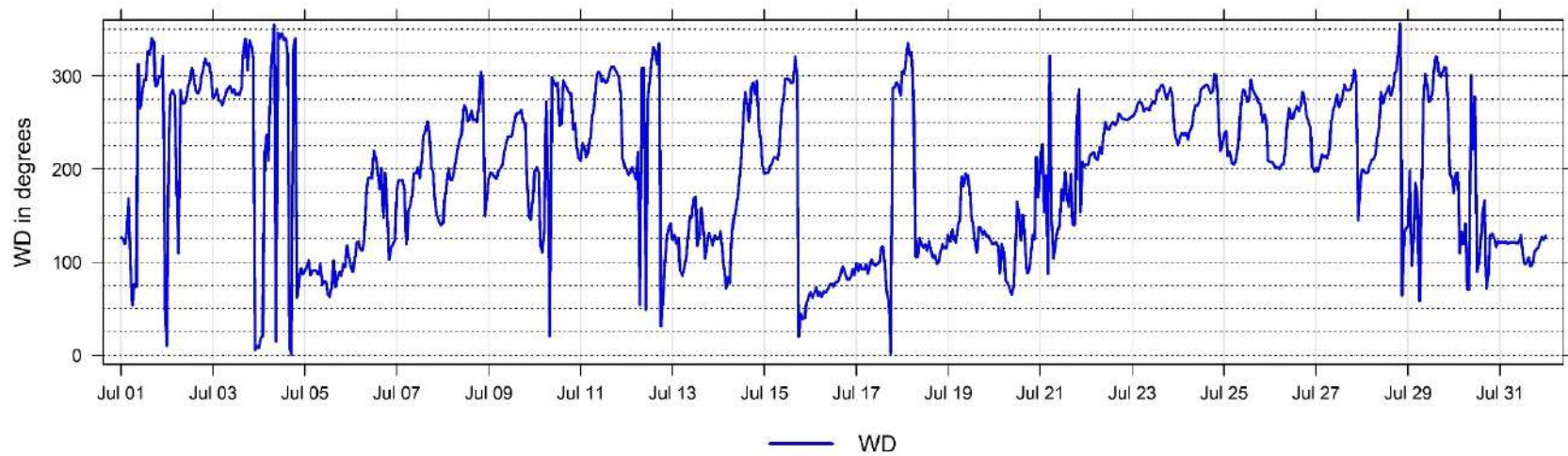
July Hourly Temperature Readings (in °C) at Donnelly



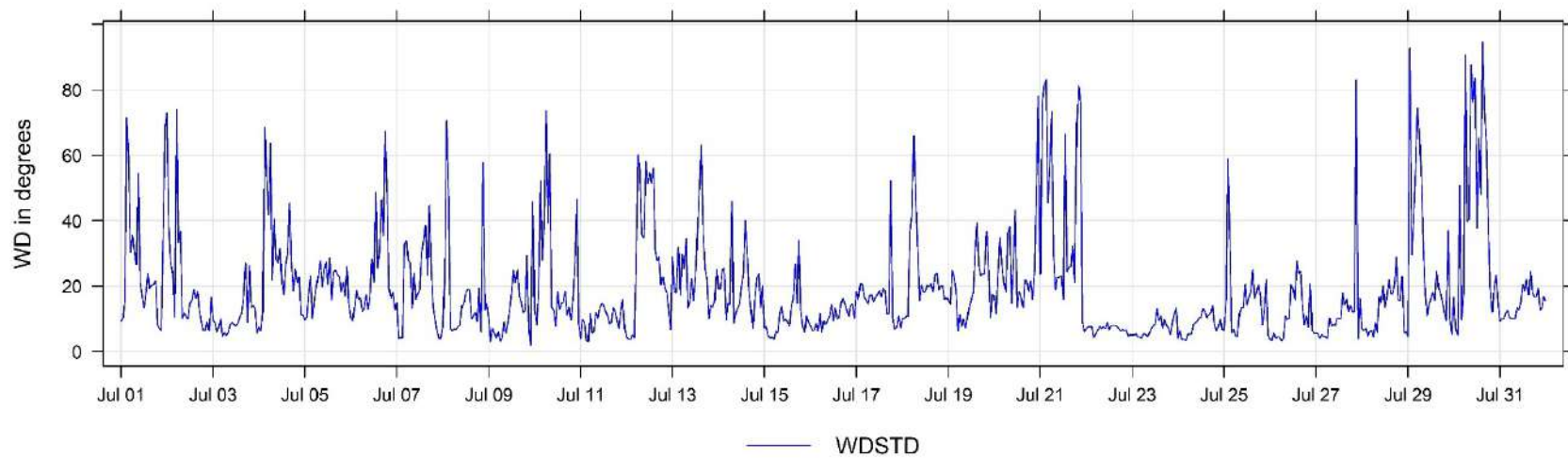
July Hourly Readings of Wind Speed (in km/hr) at Donnelly

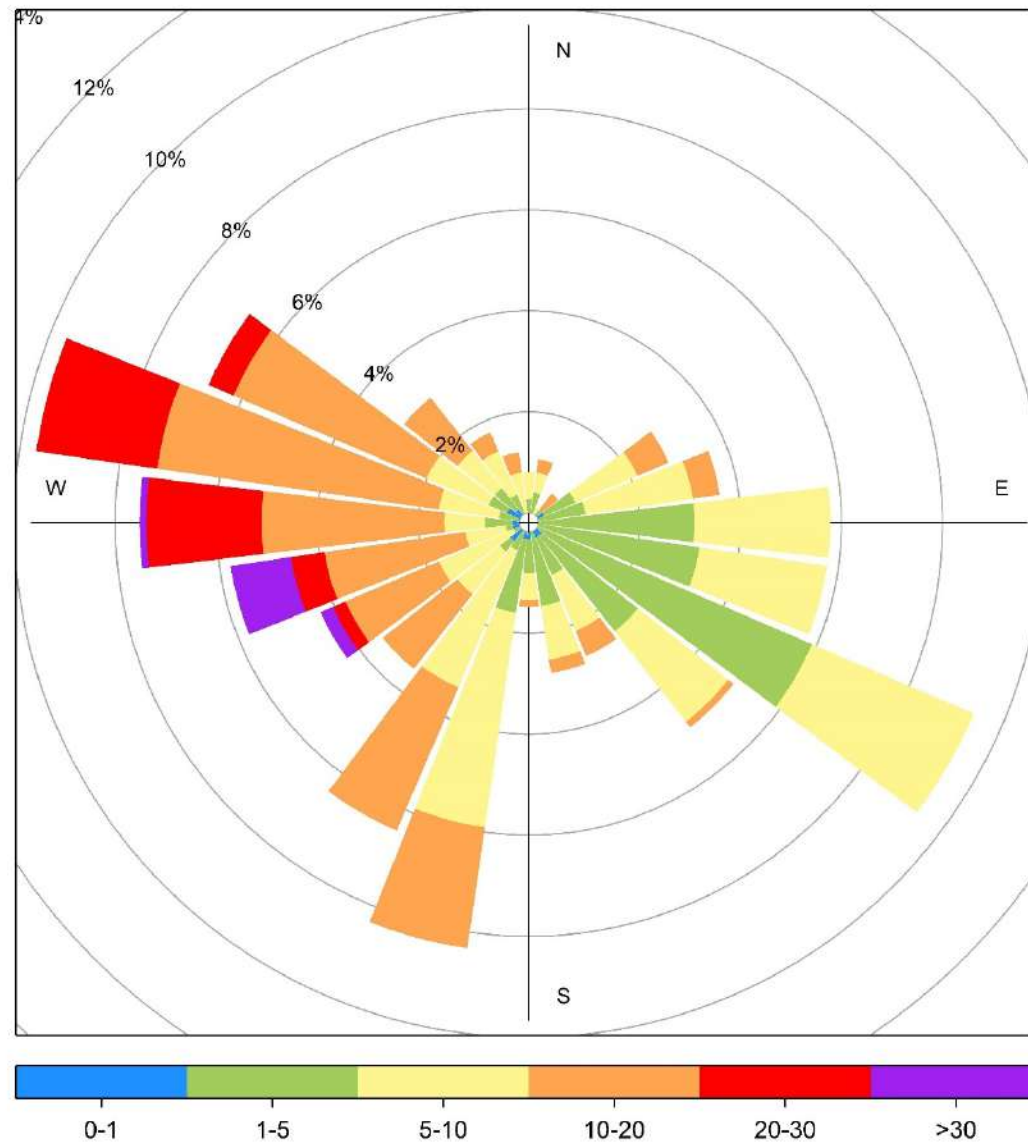


July Hourly Readings of Wind Direction (in degrees) at Donnelly



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

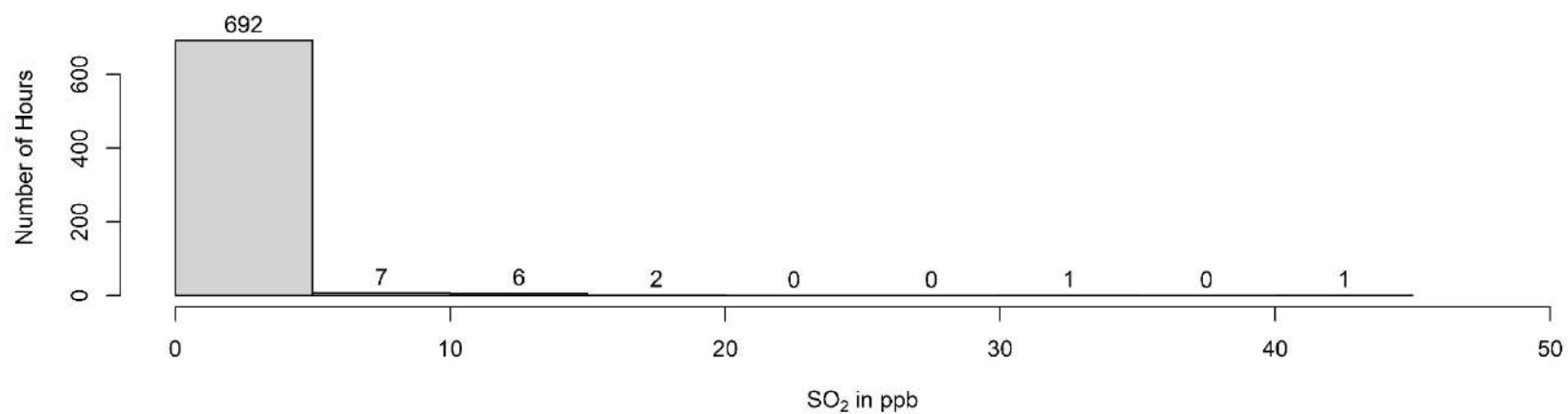
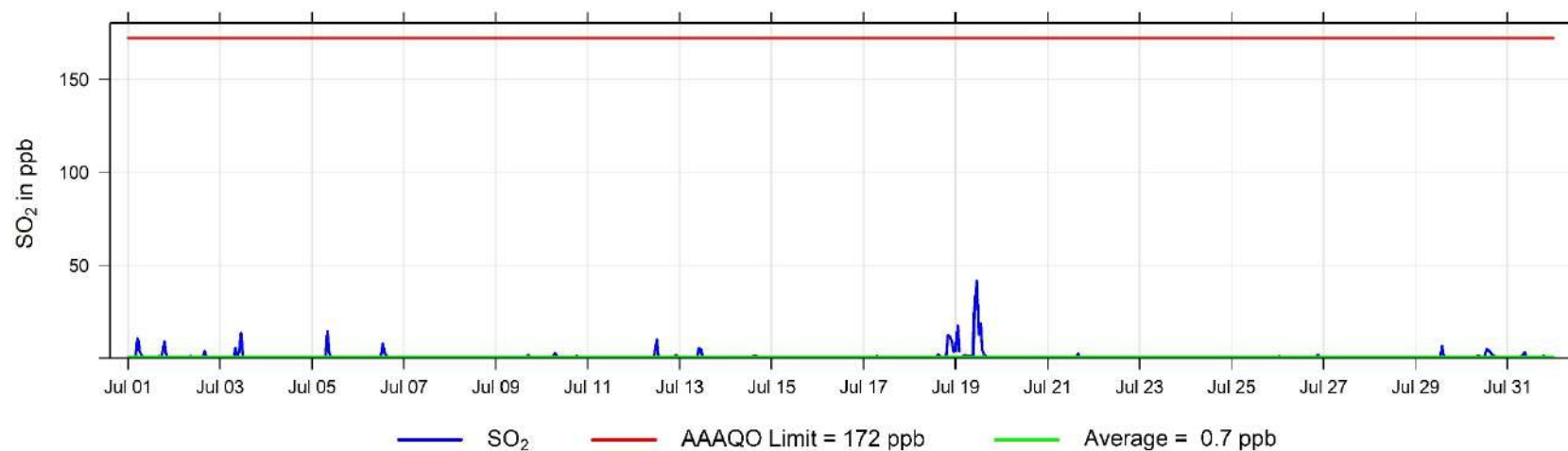




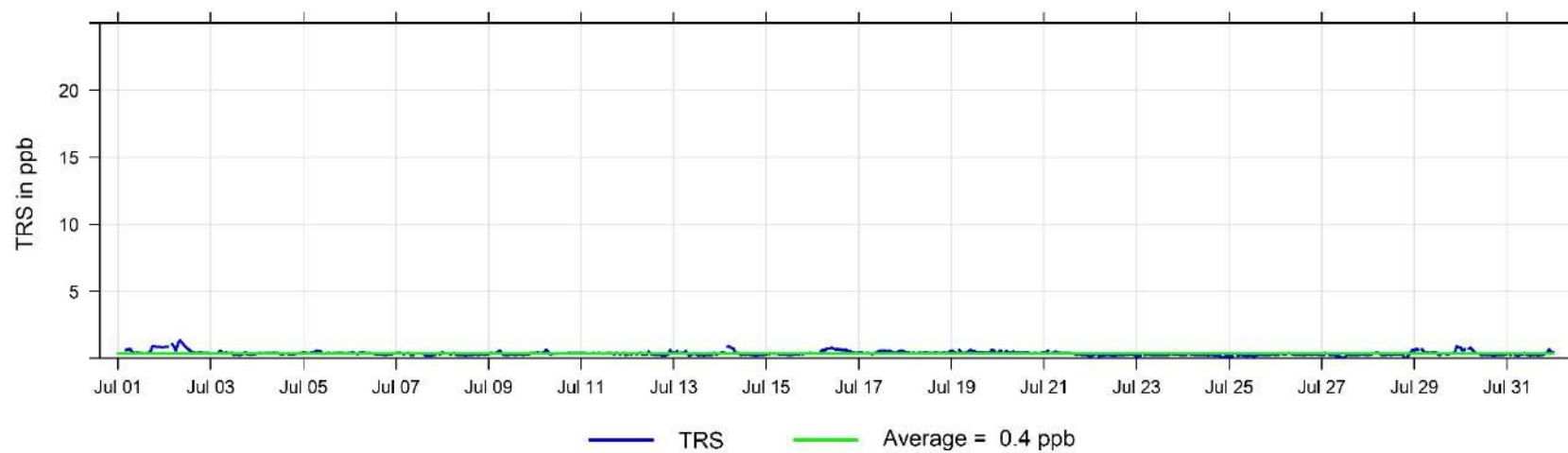
8 Wembley (Portable) Charts

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

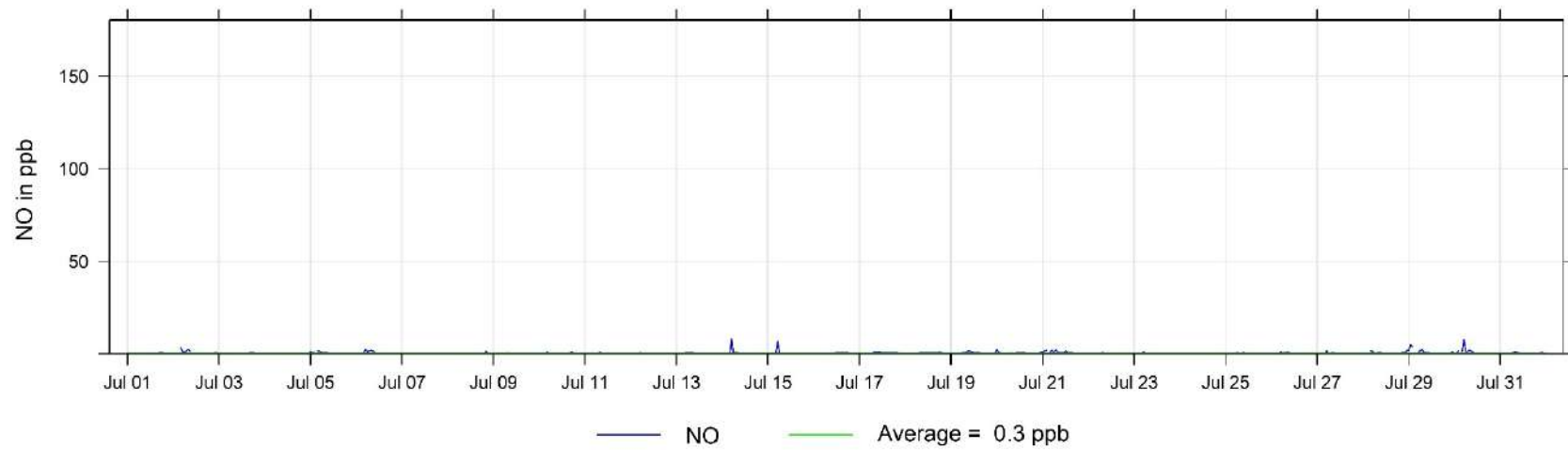
July Hourly Concentration Readings of SO₂ (in ppb) at Wembley



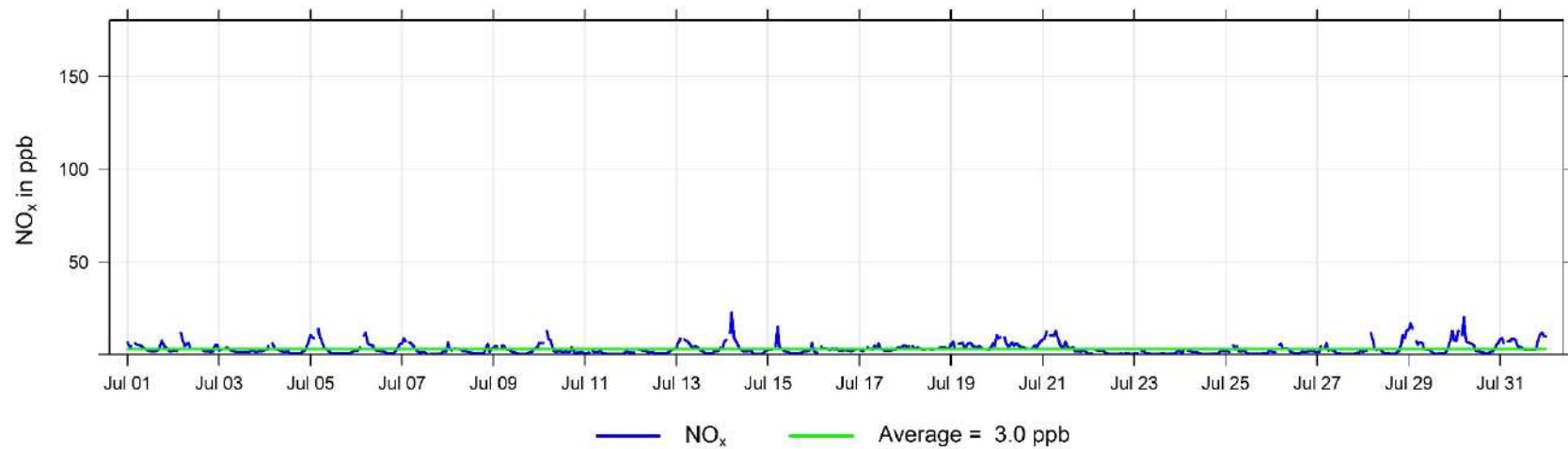
July Hourly Concentration Readings of TRS (in ppb) at Wembley



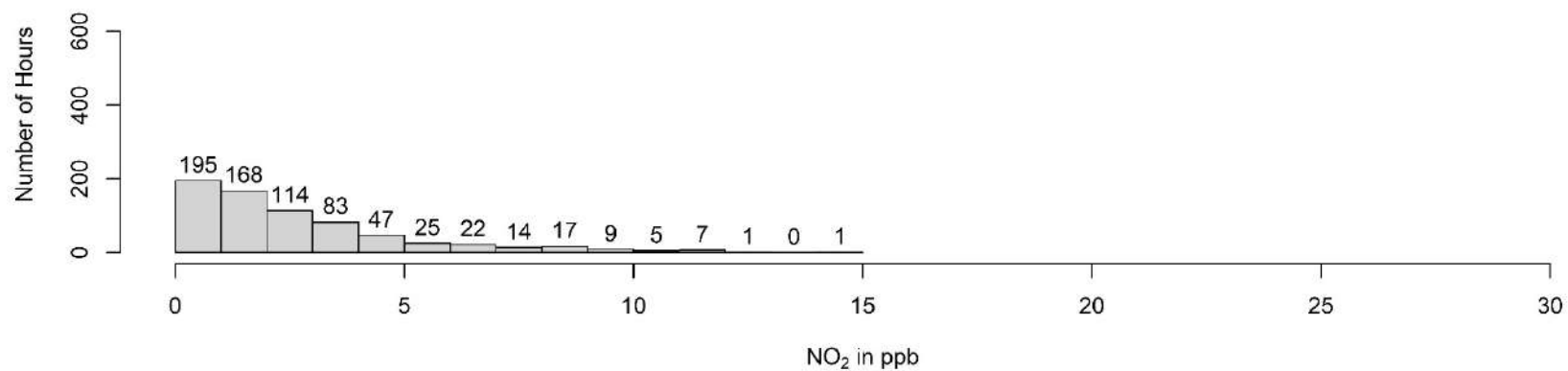
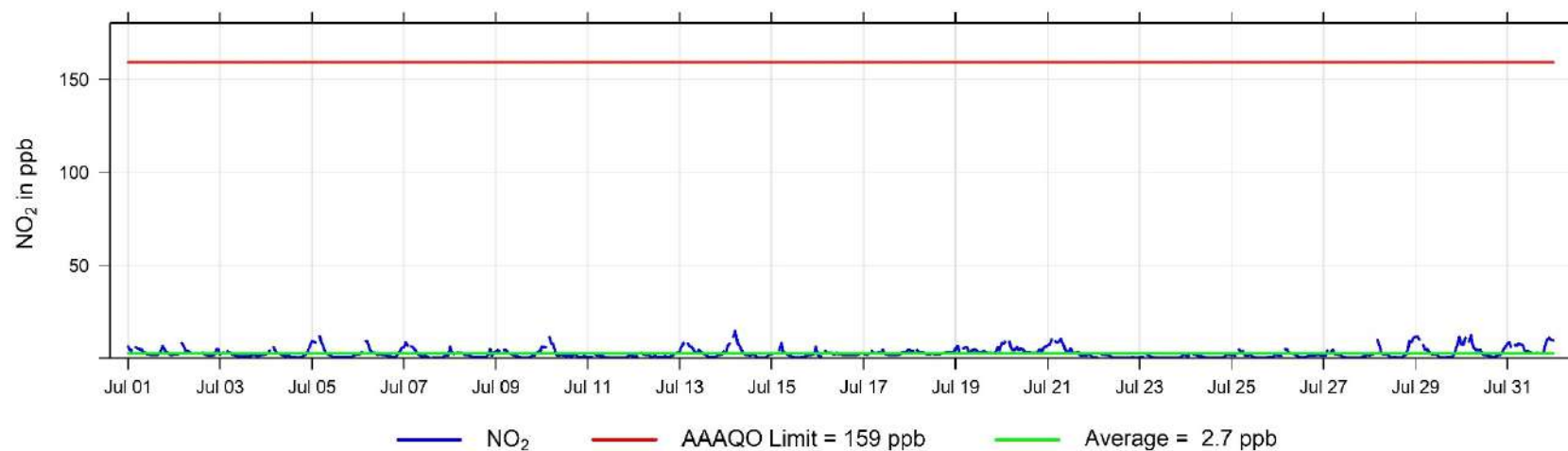
July Hourly Concentration Readings of NO (in ppb) at Wembley



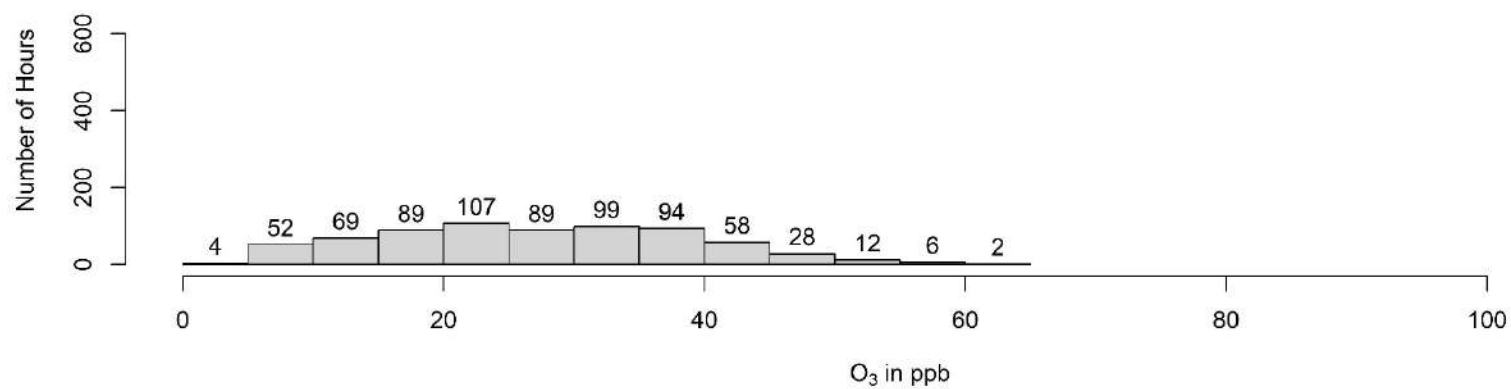
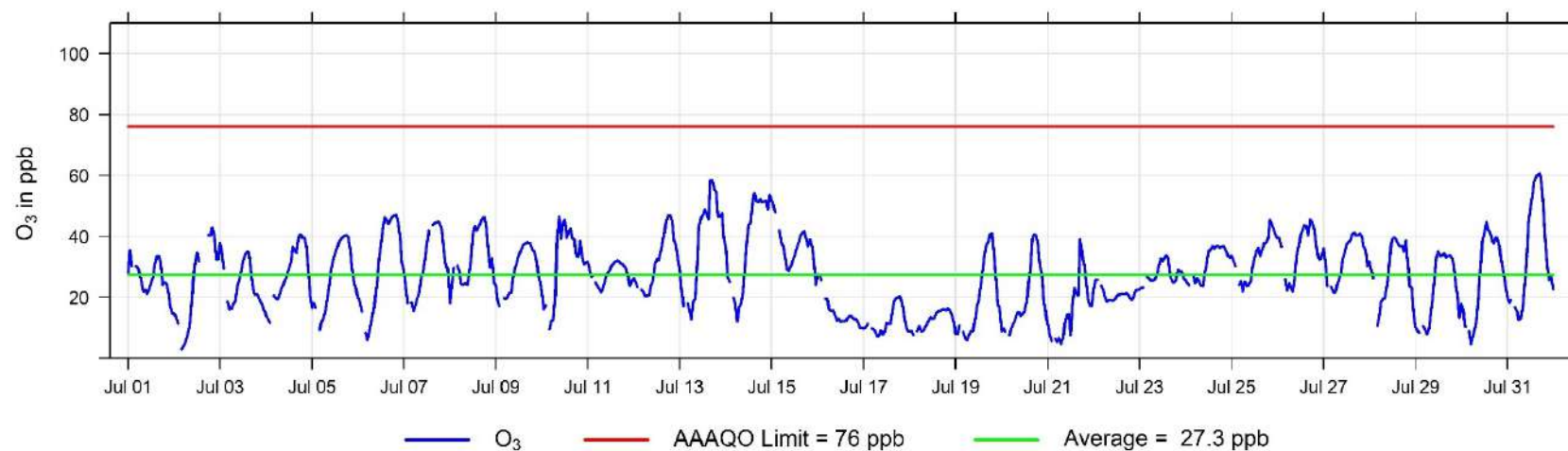
July Hourly Concentration Readings of NO_x (in ppb) at Wembley



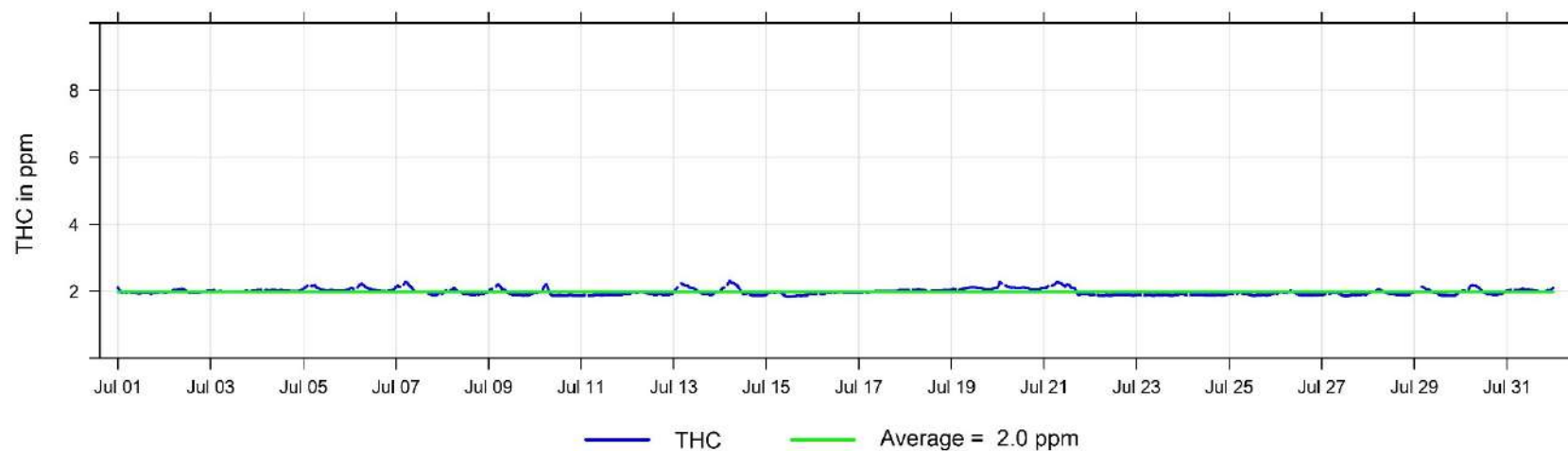
July Hourly Concentration Readings of NO₂ (in ppb) at Wembley



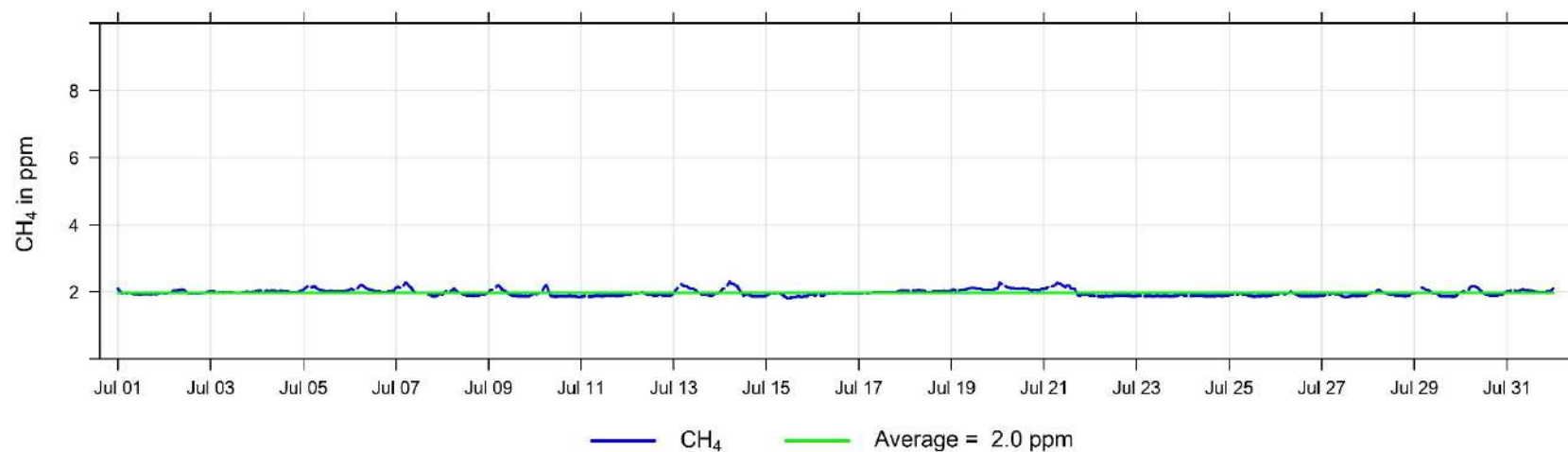
July Hourly Concentration Readings of O₃ (in ppb) at Wembley



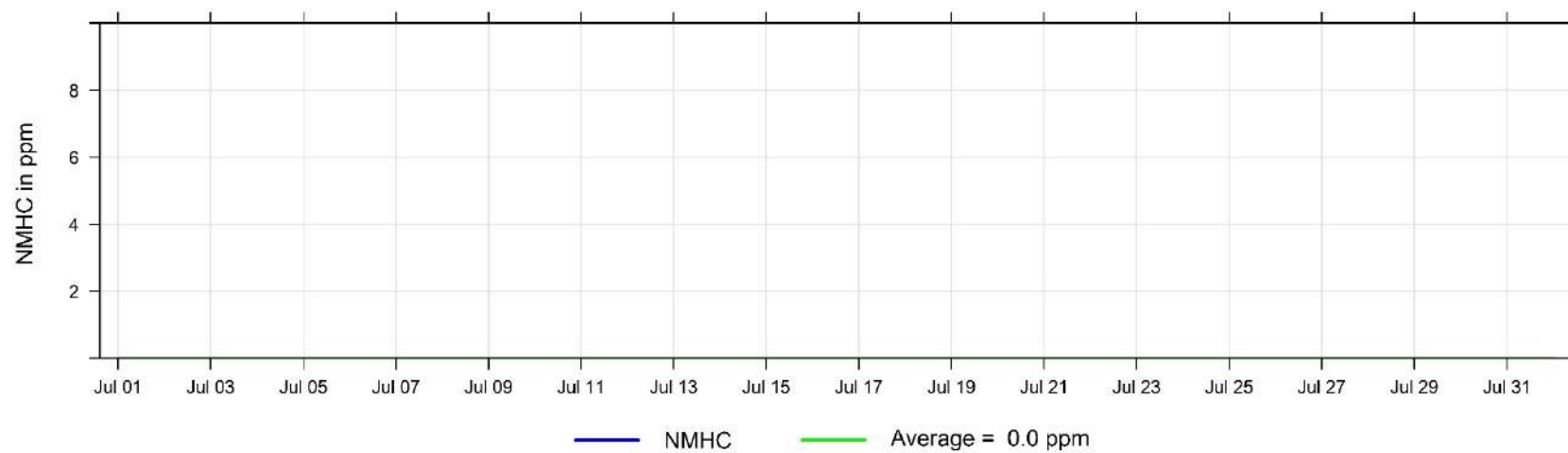
July Hourly Concentration Readings of THC (in ppm) at Wembley



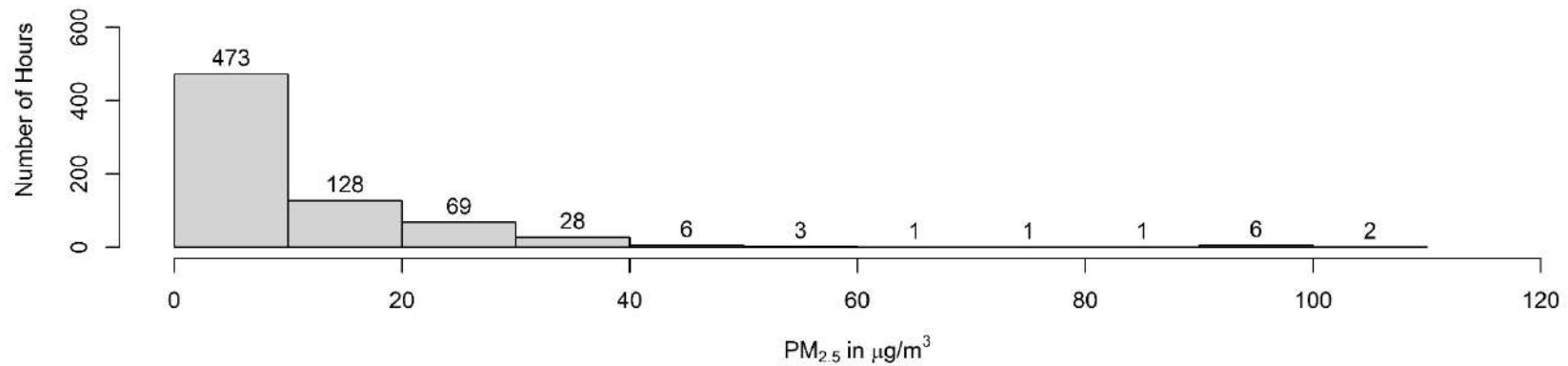
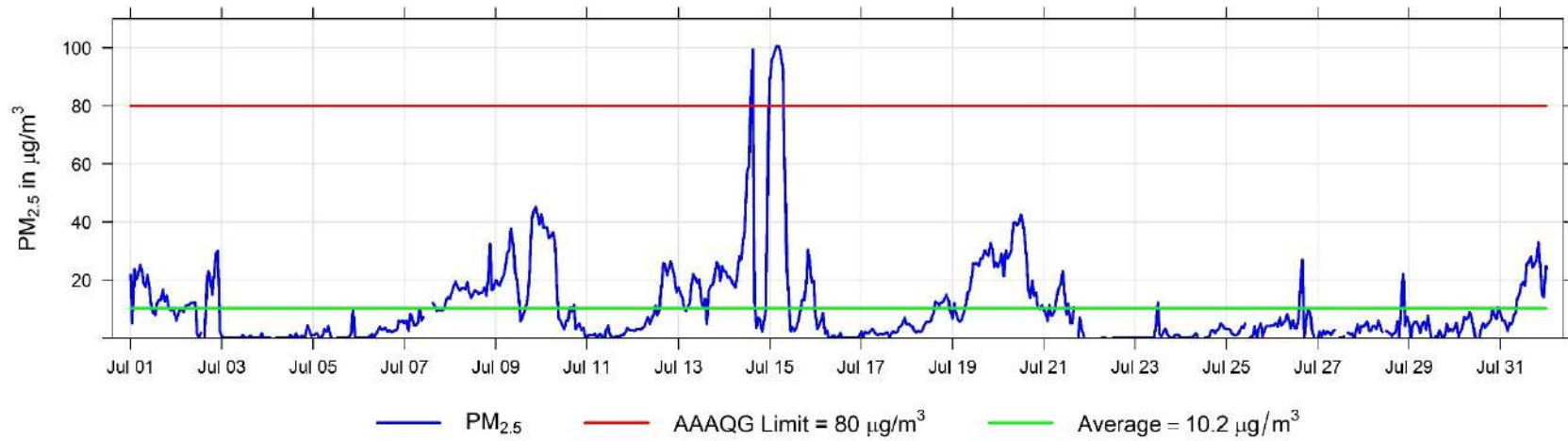
July Hourly Concentration Readings of CH₄ (in ppm) at Wembley



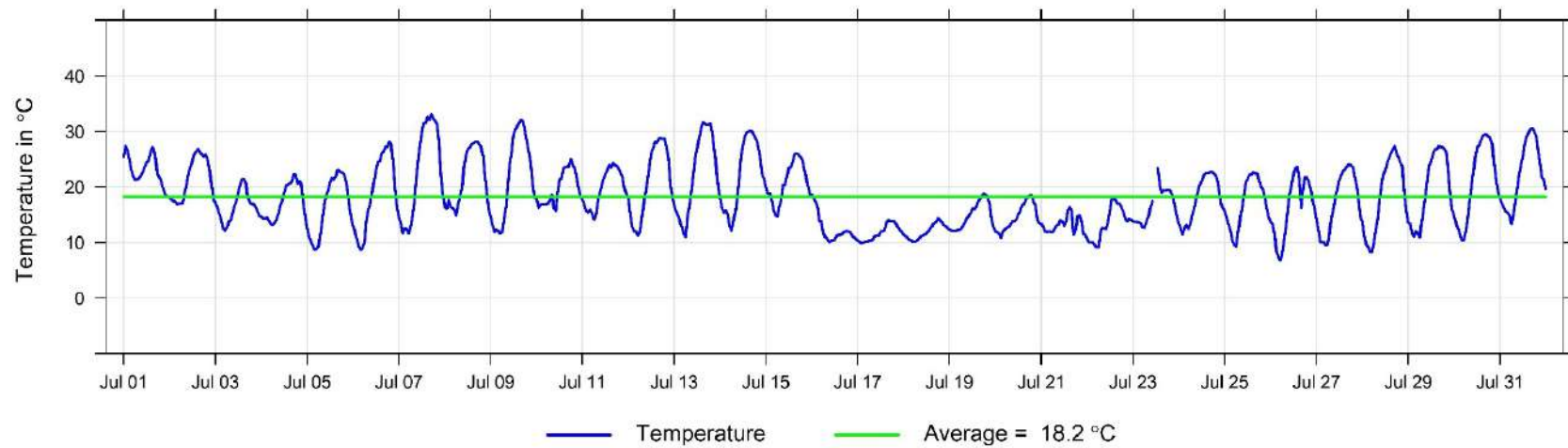
July Hourly Concentration Readings of NMHC (in ppm) at Wembley



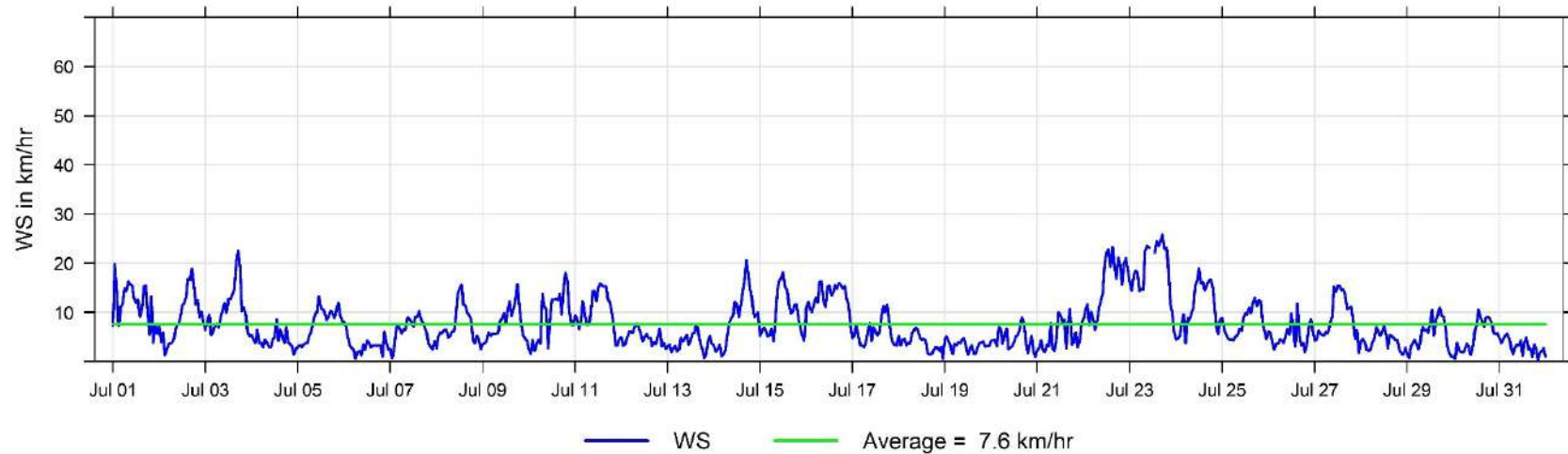
July Hourly Concentration Readings of PM_{2.5} in $\mu\text{g}/\text{m}^3$ at Wembley



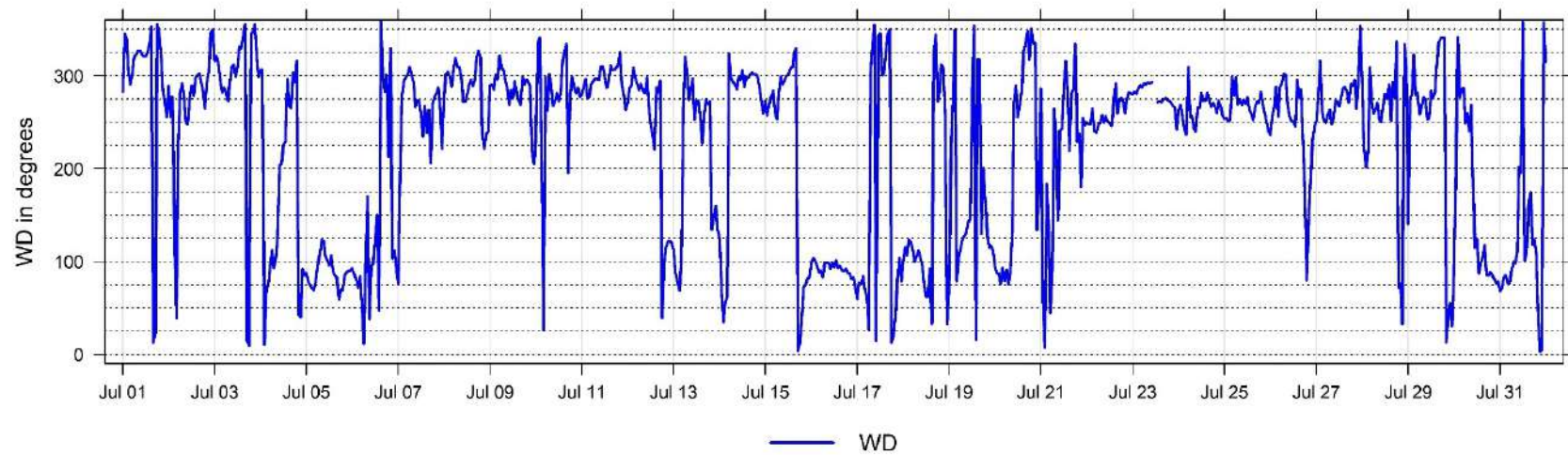
July Hourly Temperature Readings (in °C) at Wembley



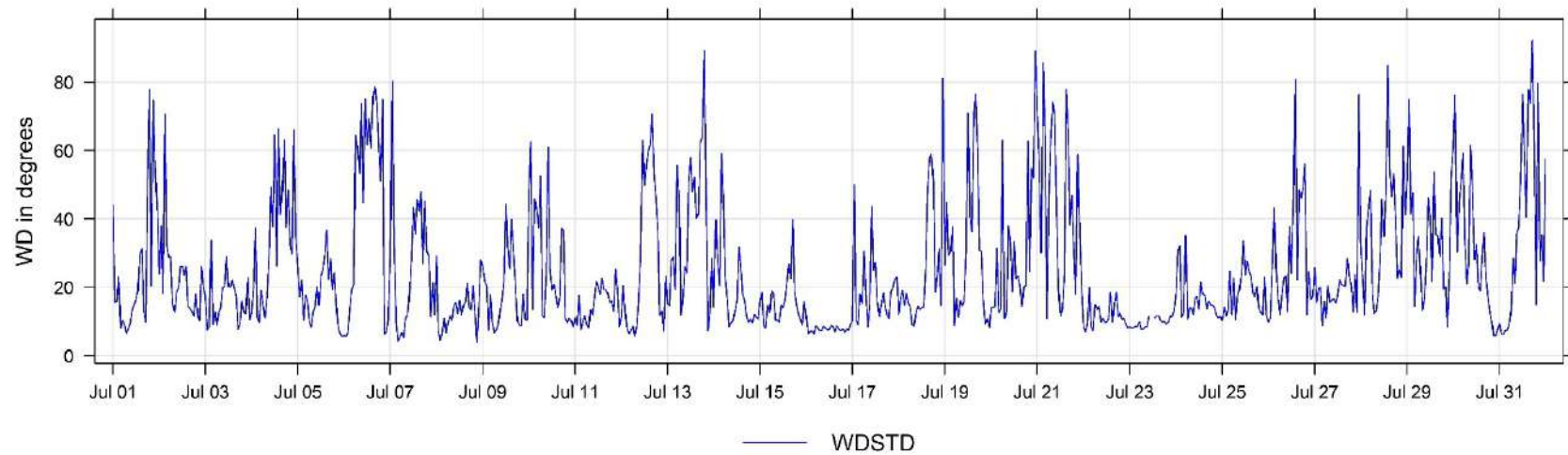
July Hourly Readings of Wind Speed (in km/hr) at Wembley



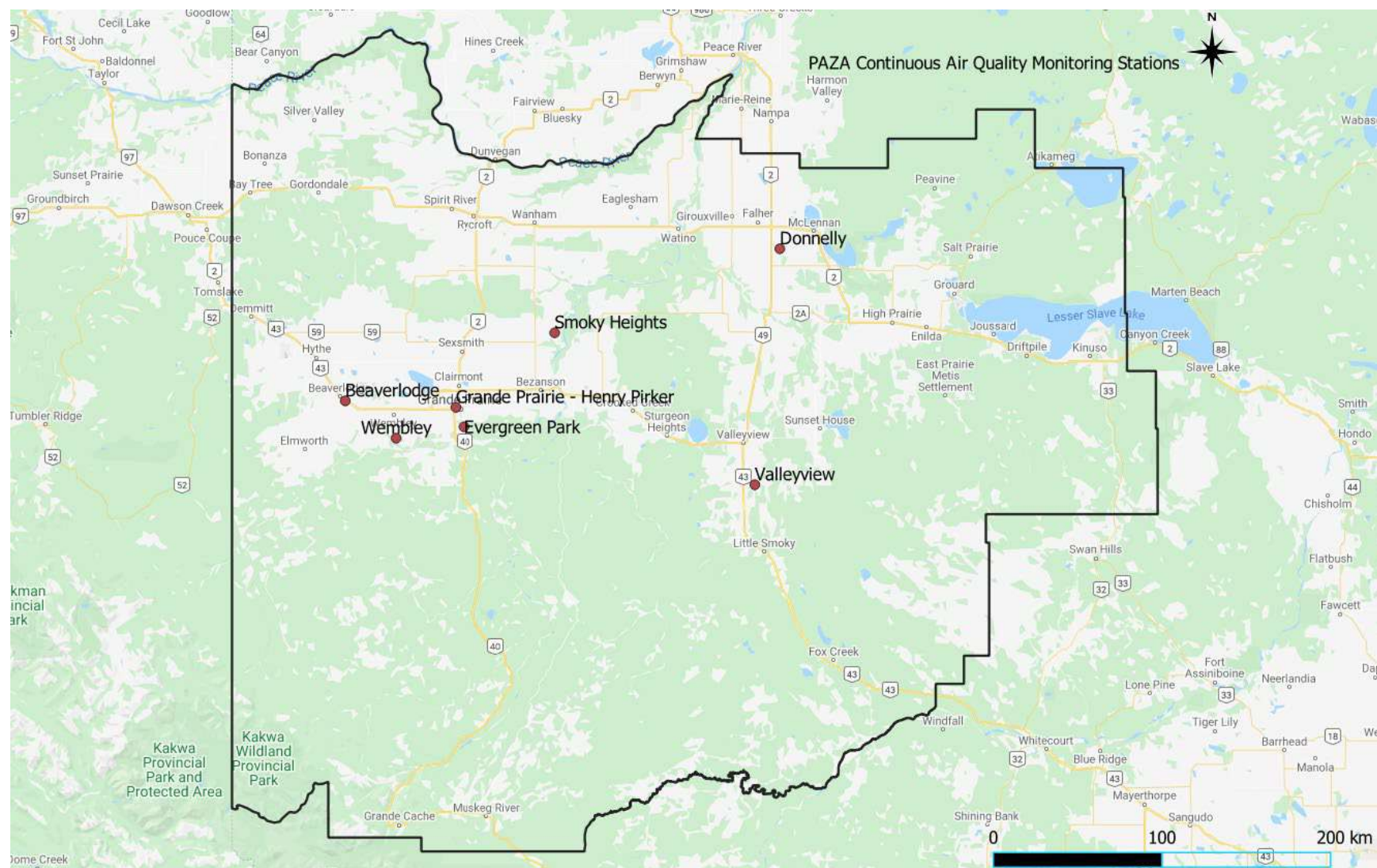
July Hourly Readings of Wind Direction (in degrees) at Wembley



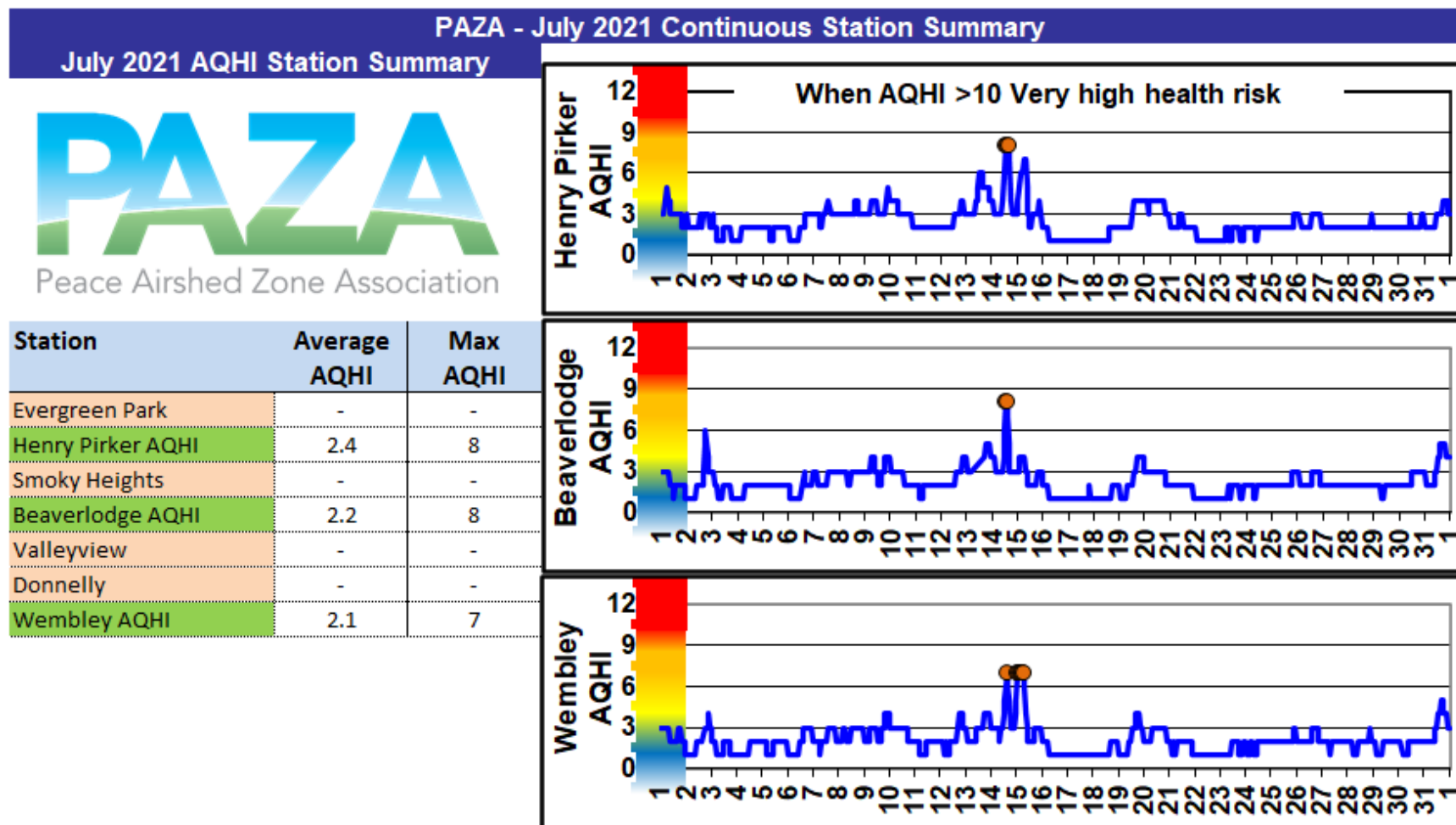
July Hourly Readings of Wind Direction Standard Deviation (in degrees) at Wembley



9 Concentration Summaries and Roses for PAZA

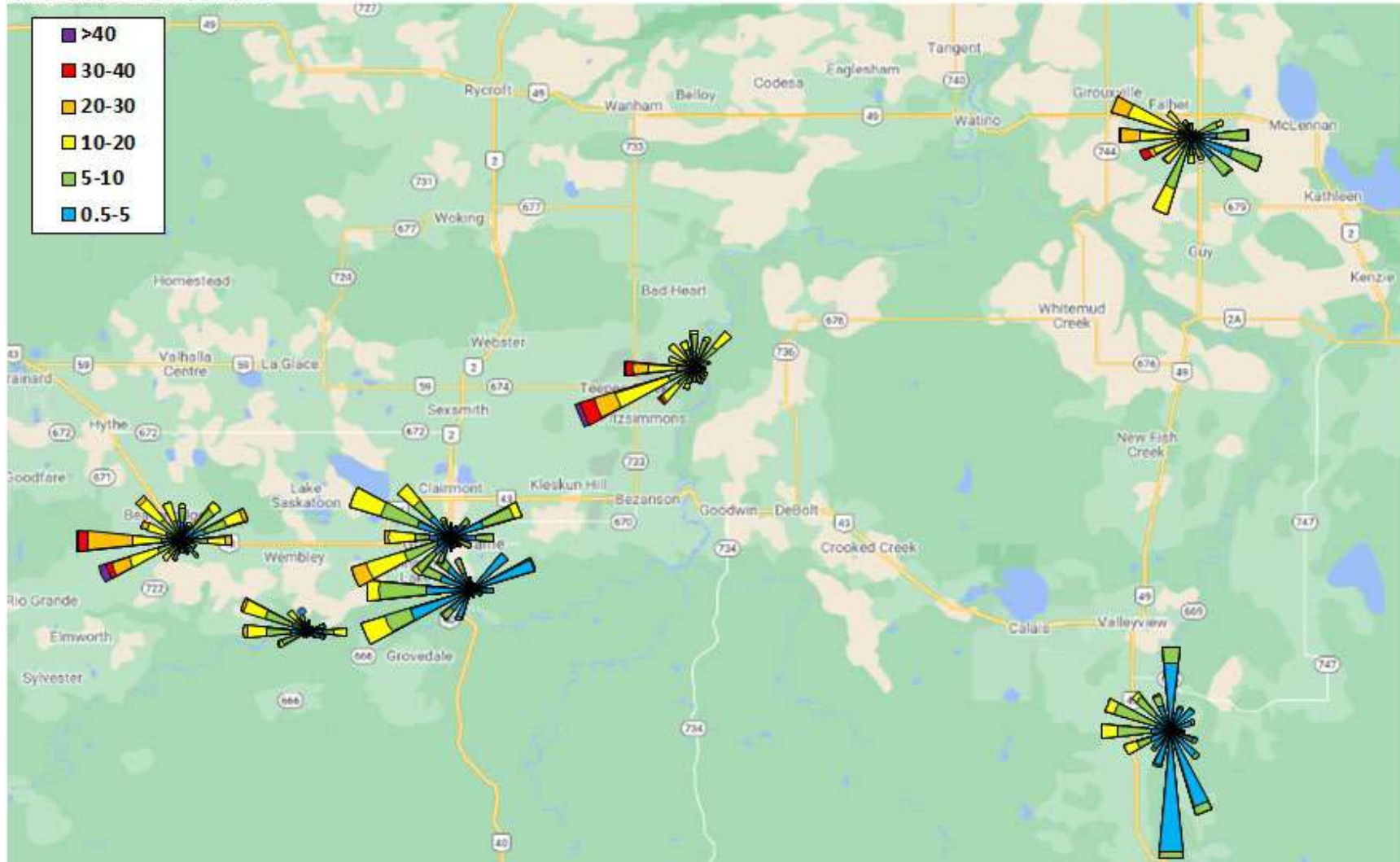


9.1 Air Quality Health Index (AQHI) Plots



9.2 Wind Roses

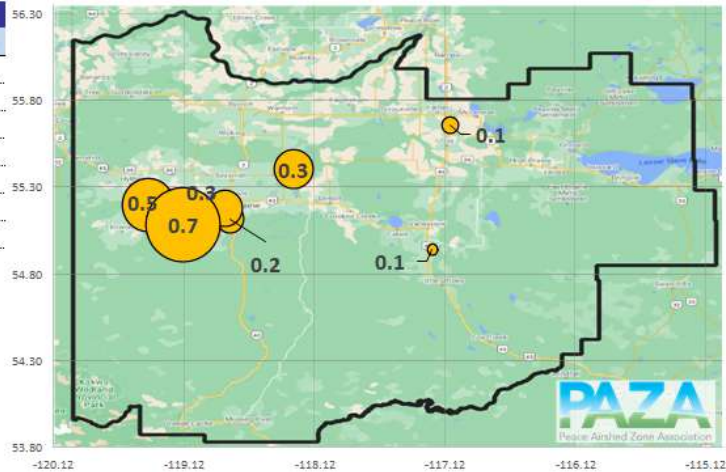
Wind Roses in km/hr



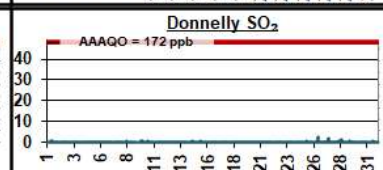
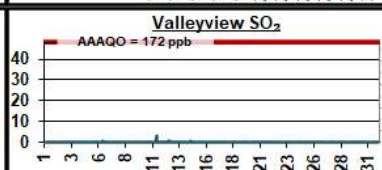
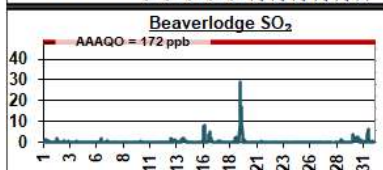
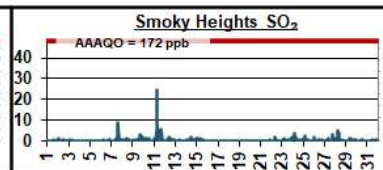
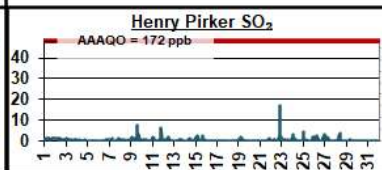
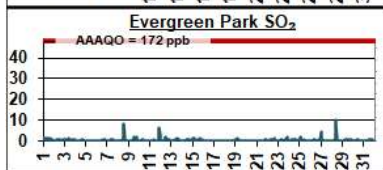
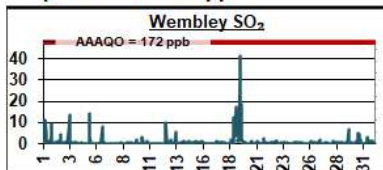
9.3 Sulphur Dioxide (SO₂) Plots

July 2021 SO₂ Station Summary

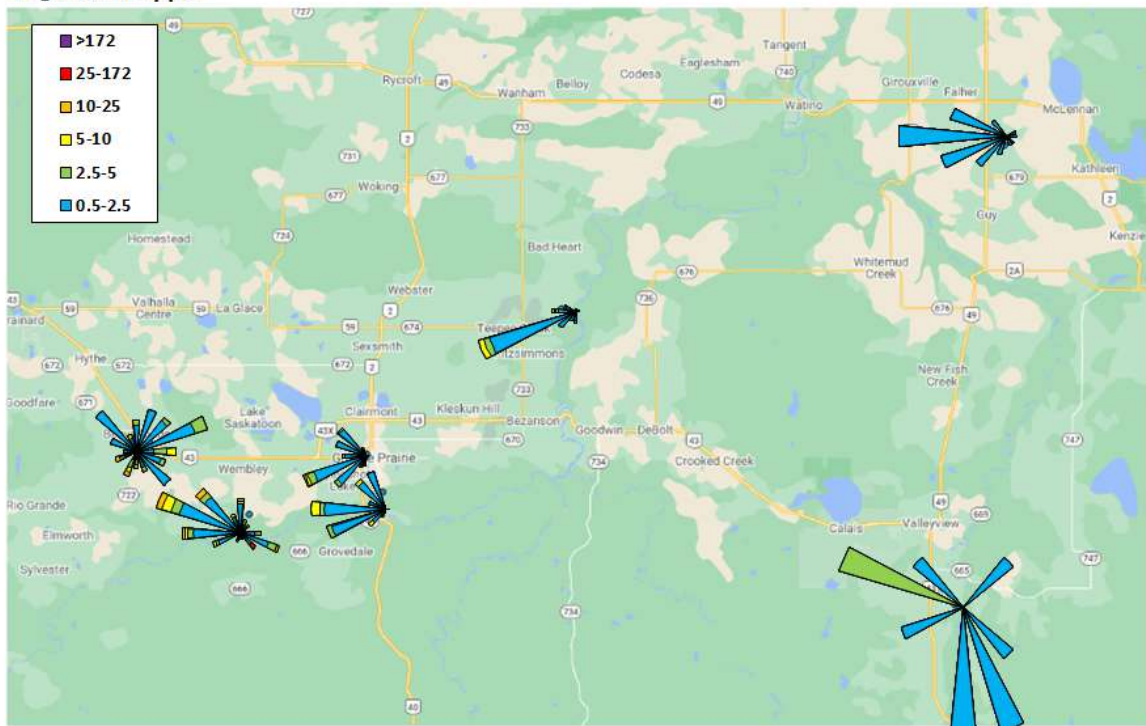
Station	Avg (ppb)	Max (ppb)
Evergreen Park SO ₂	0.2	9.8
Henry Pirkler SO ₂	0.3	16.9
Smoky Heights SO ₂	0.3	24.5
Beaverlodge SO ₂	0.5	29.3
Valleyview SO ₂	0.1	3.6
Donnelly SO ₂	0.1	2.5
Wembley SO ₂	0.7	41.6



Sulphur Dioxide in ppb

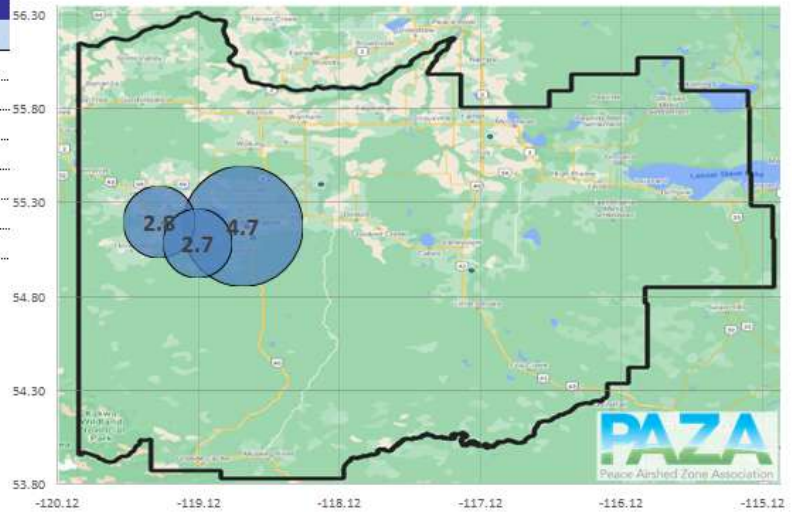


SO₂ Roses in ppb

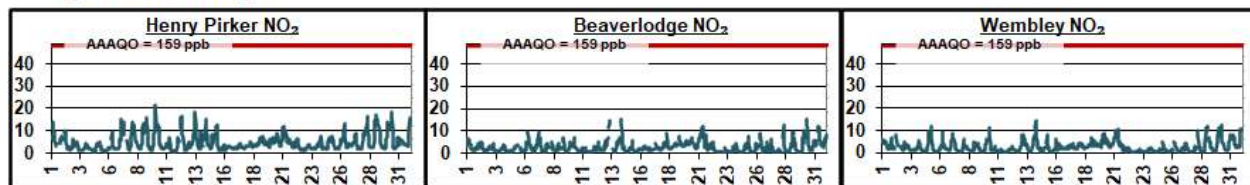


9.4 Nitrogen Dioxide (NO₂) Plots

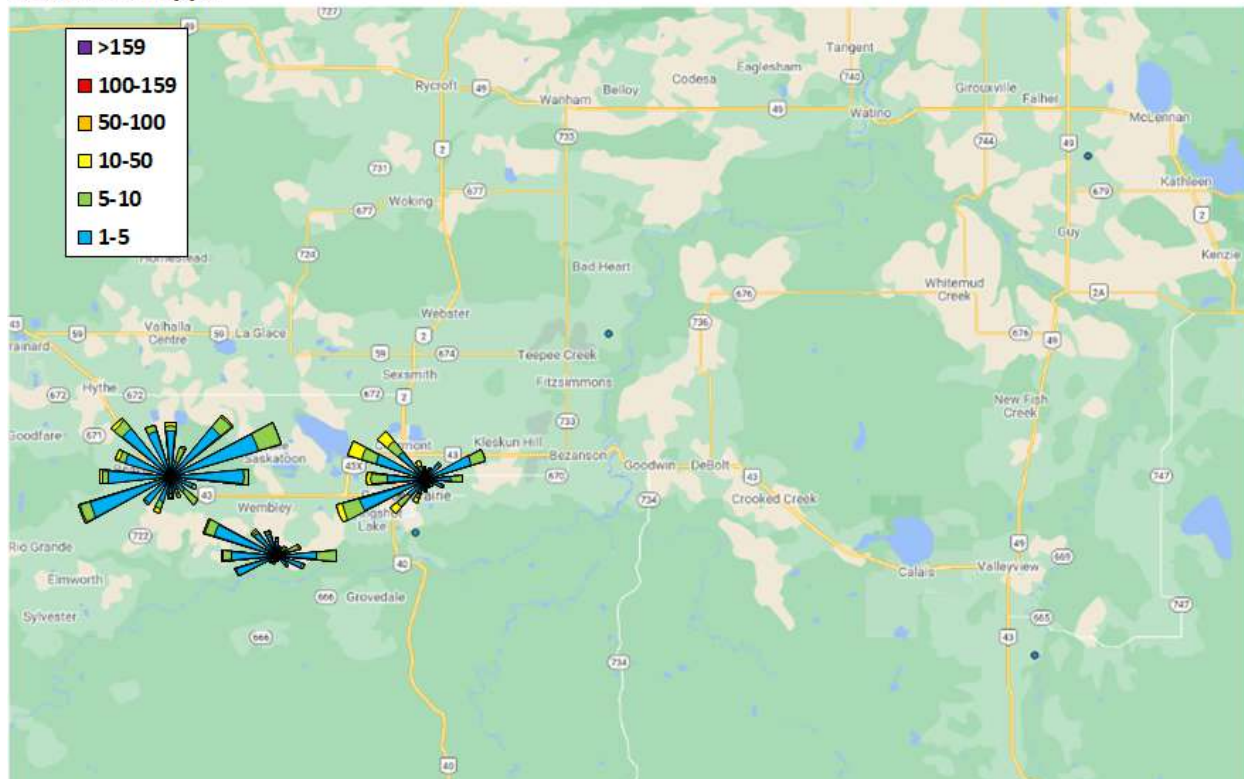
July 2021 NO ₂ Station Summary		
Station	Avg (ppb)	Max (ppb)
Evergreen Park NO ₂	-	-
Henry Pirkler NO ₂	4.7	21.3
Smoky Heights NO ₂	-	-
Beaverlodge NO ₂	2.8	15.5
Valleyview NO ₂	-	-
Donnelly NO ₂	-	-
Wembley NO ₂	2.7	14.6



Nitrogen Dioxide in ppb

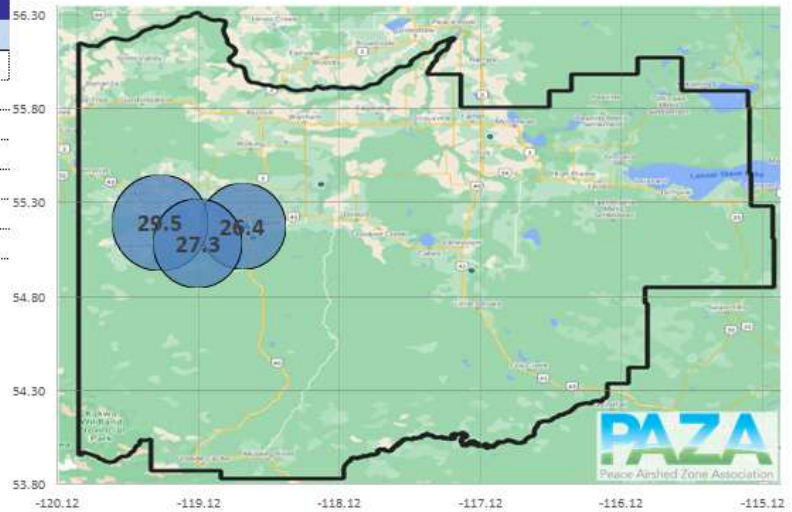


NO₂ Roses in ppb

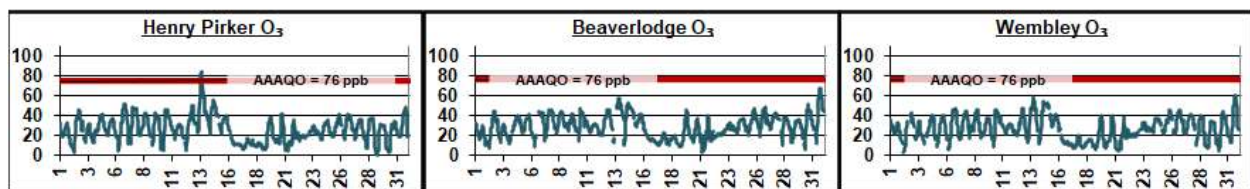


9.5 Ozone (O₃) Plots

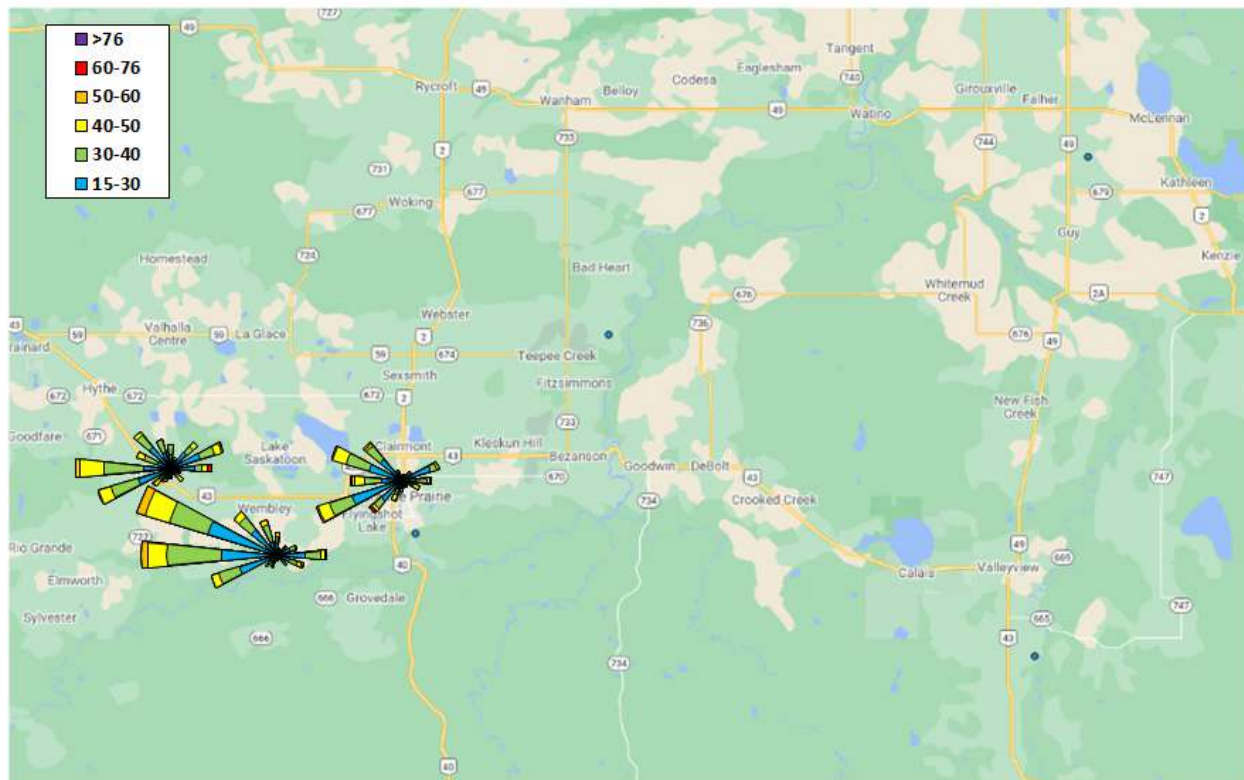
July 2021 O ₃ Station Summary		
Station	Avg (ppb)	Max (ppb)
Evergreen Park O ₃	-	-
Henry Pirker O ₃	26.4	84.5
Smoky Heights O ₃	-	-
Beaverlodge O ₃	29.5	67.9
Valleyview O ₃	-	-
Donnelly O ₃	-	-
Wembley O ₃	27.3	60.6



Ozone in ppb

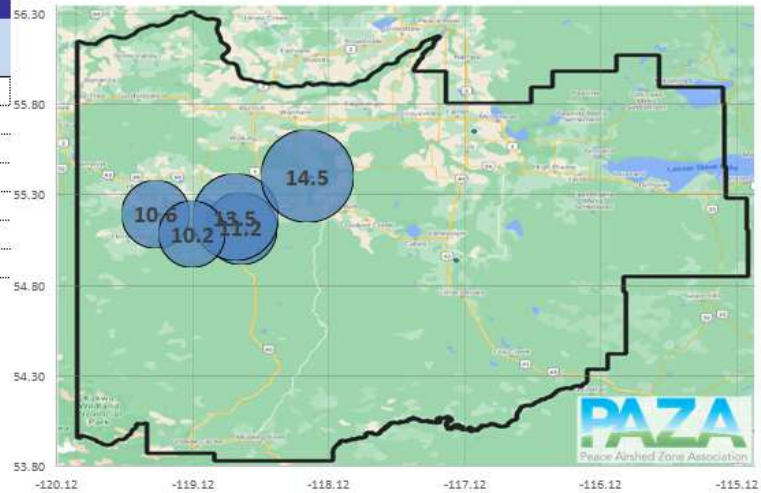


O₃ Roses in ppb

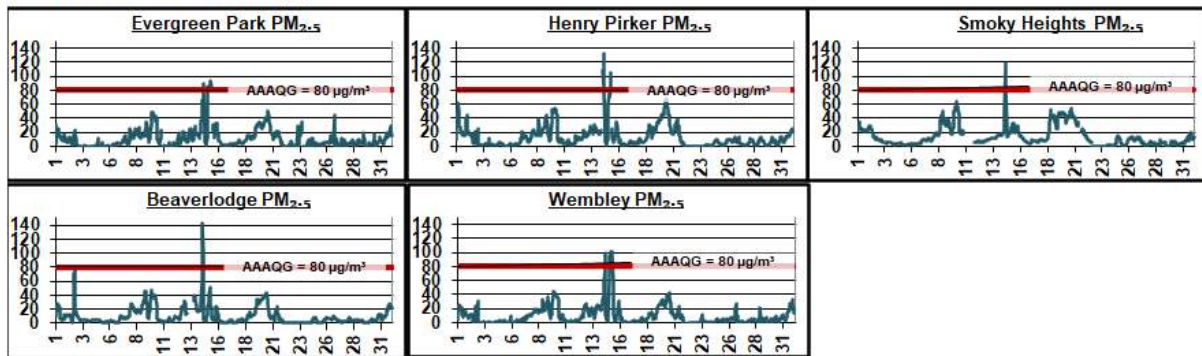


9.6 Fine Particulate Matter (PM_{2.5}) Plots

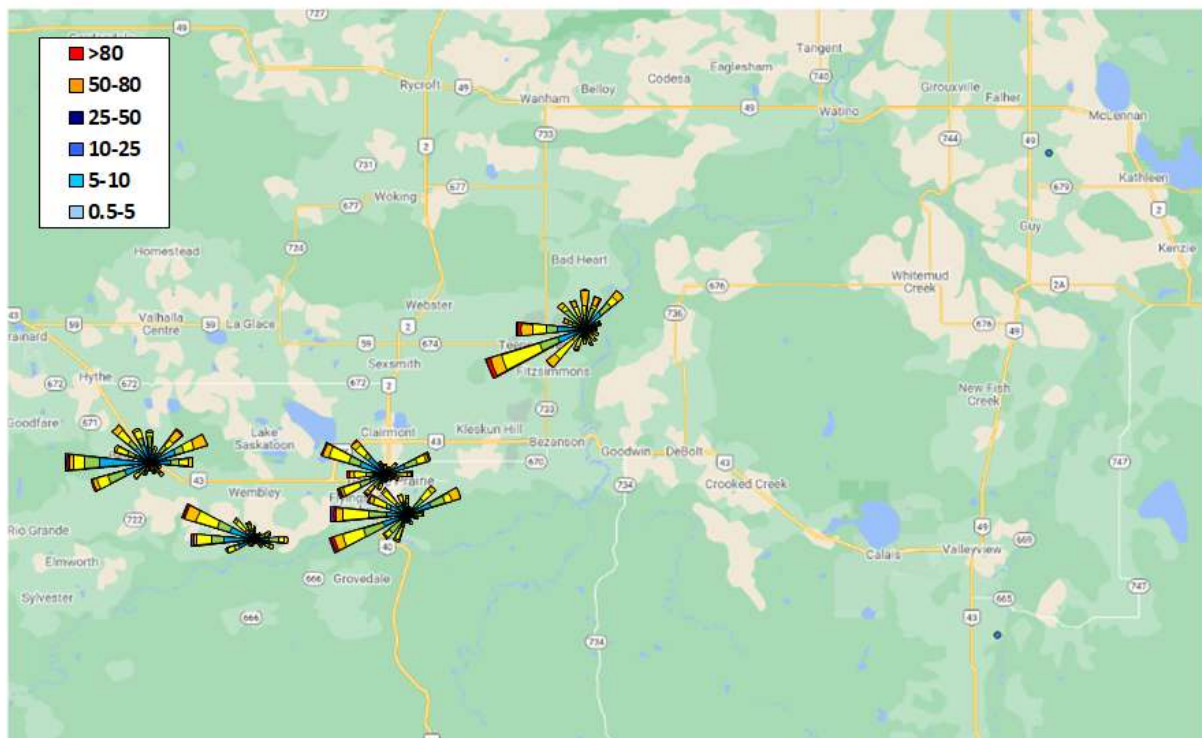
July 2021 PM _{2.5} Station Summary		
Station	Avg µg/m ³	Max µg/m ³
Evergreen Park PM _{2.5}	11.2	94.0
Henry Pirkler PM _{2.5}	13.5	131.8
Smoky Heights PM _{2.5}	14.5	119.6
Beaverlodge PM _{2.5}	10.6	143.3
Valleyview PM _{2.5}	-	-
Donnelly PM _{2.5}	-	-
Wembley PM _{2.5}	10.2	100.6



Fine Particulate Matter in µg/m³



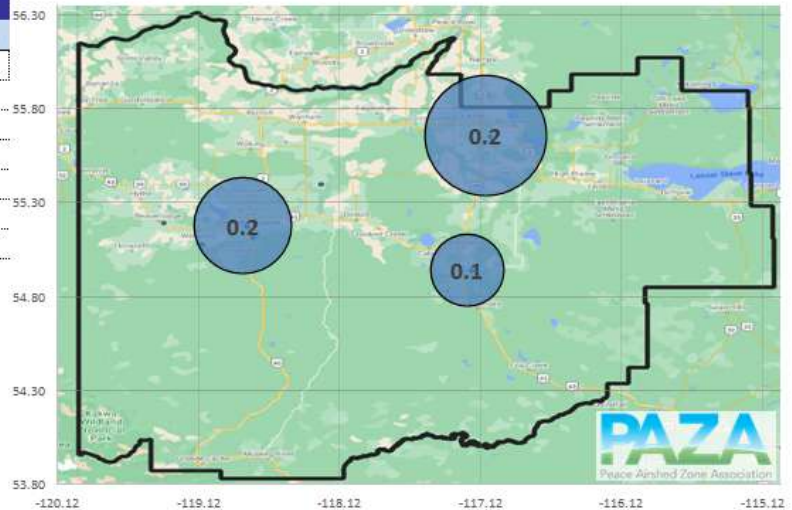
PM_{2.5} Roses in µg/m³



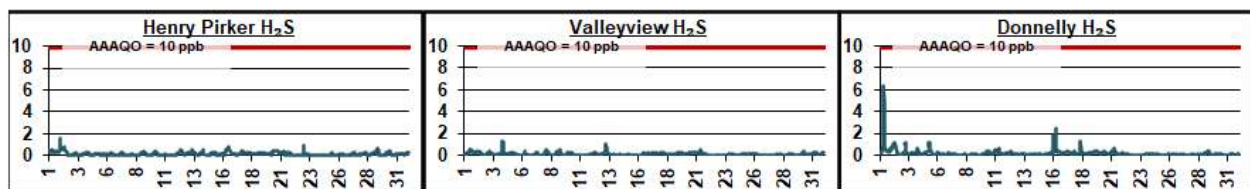
9.7 Hydrogen Sulphide (H₂S) Plots

July 2021 H₂S Station Summary

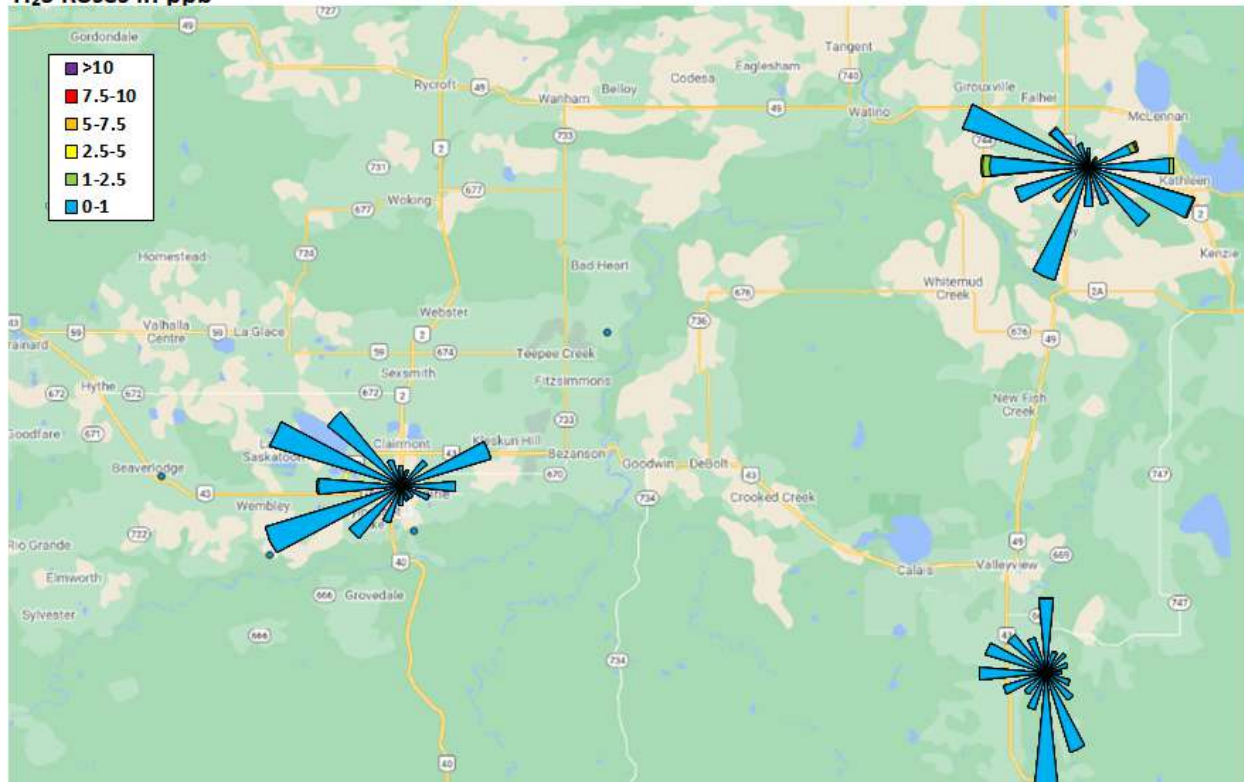
Station	Avg (ppb)	Max (ppb)
Evergreen Park H ₂ S	-	-
Henry Pirker H ₂ S	0.2	1.5
Smoky Heights H ₂ S	-	-
Beaverlodge H ₂ S	-	-
Valleyview H ₂ S	0.1	1.3
Donnelly H ₂ S	0.2	6.3
Wembley H ₂ S	-	-



Hydrogen Sulphide in ppb

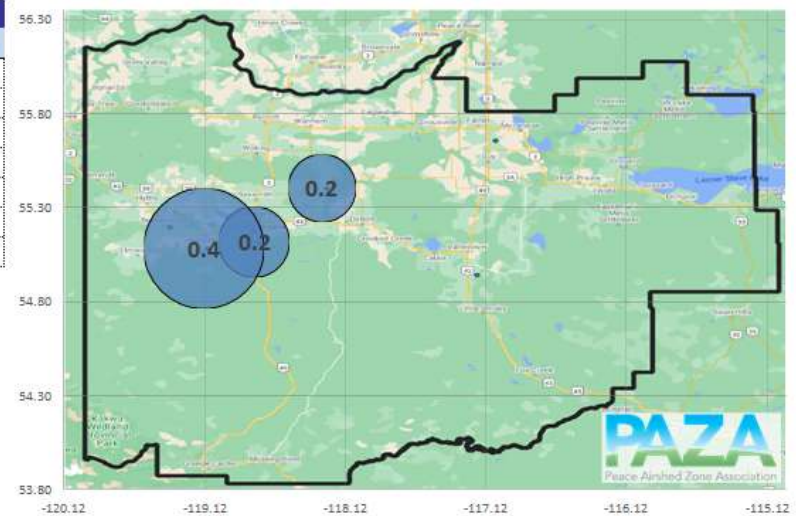


H₂S Roses in ppb

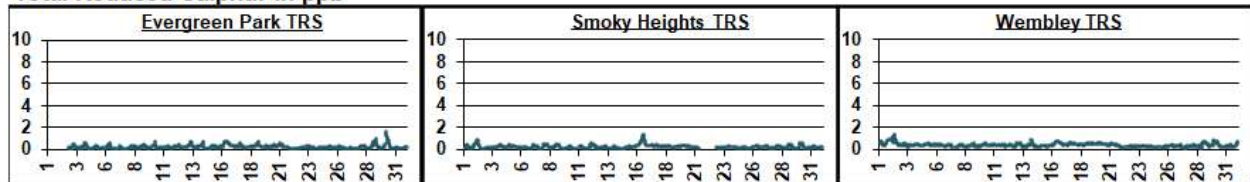


9.8 Total Reduced Sulphur (TRS) Plots

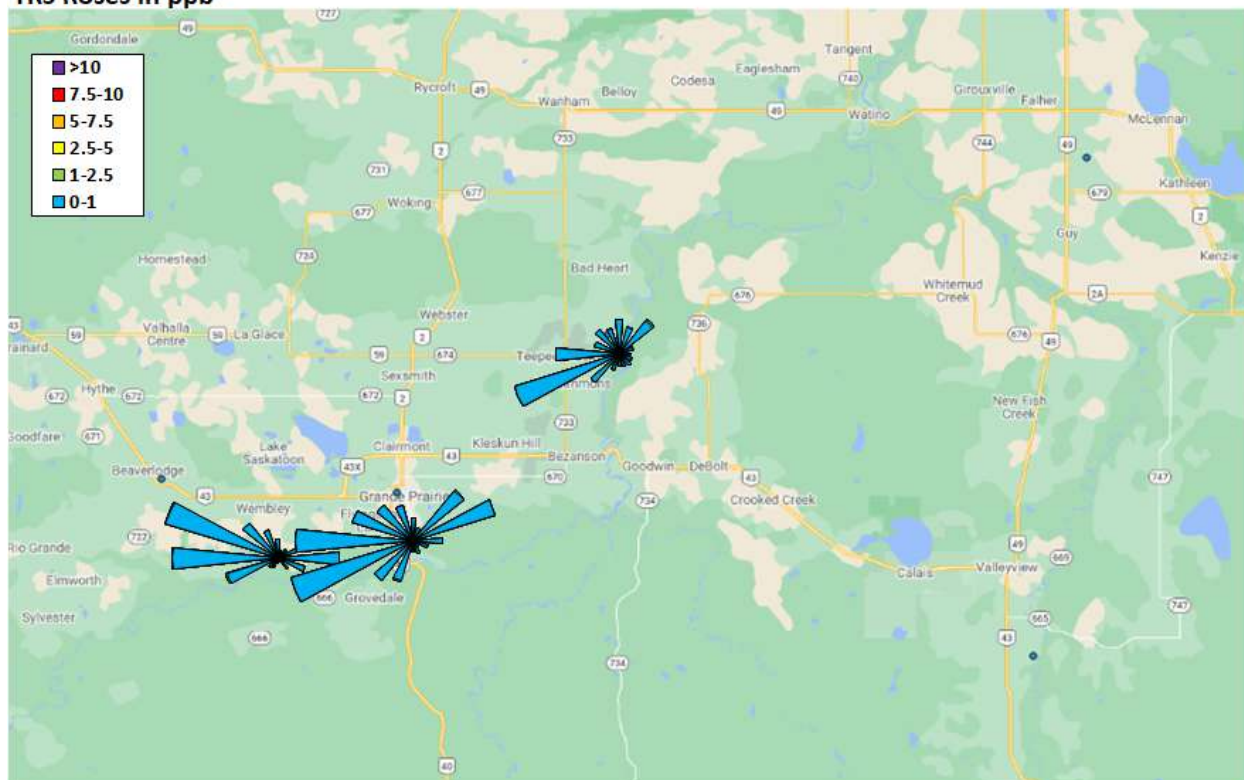
July 2021 TRS Station Summary		
Station	Avg (ppb)	Max (ppb)
Evergreen Park TRS	0.2	1.7
Henry Pirkler TRS	-	-
Smoky Heights TRS	0.2	1.4
Beaverlodge TRS	-	-
Valleyview TRS	-	-
Donnelly TRS	-	-
Wembley TRS	0.4	1.3



Total Reduced Sulphur in ppb



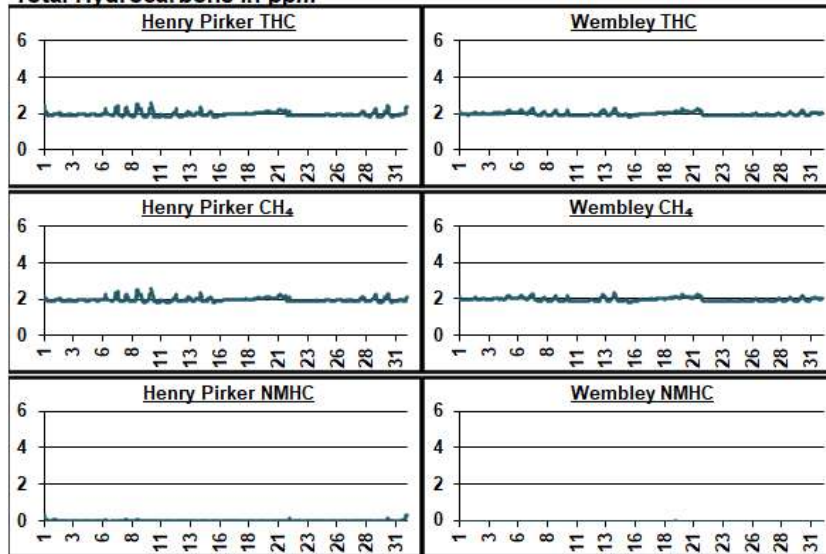
TRS Roses in ppb



9.9 Total Hydrocarbon (THC) Plots

July 2021 THC Station Summary						
Station	Total Hydrocarbons		Methane		Non-Methane HCs	
	Avg (ppm)	Max (ppm)	Avg (ppm)	Max (ppm)	Avg (ppm)	Max (ppm)
Evergreen Park THC	-	-	-	-	-	-
Henry Pirker THC	2.0	2.6	2.6	2.6	0.3	0.3
Smoky Heights THC	-	-	-	-	-	-
Beaverlodge THC	-	-	-	-	-	-
Valleyview THC	-	-	-	-	-	-
Donnelly THC	-	-	-	-	-	-
Wembley THC	2.0	2.3	2.3	2.3	0.0	0.0

Total Hydrocarbons in ppm

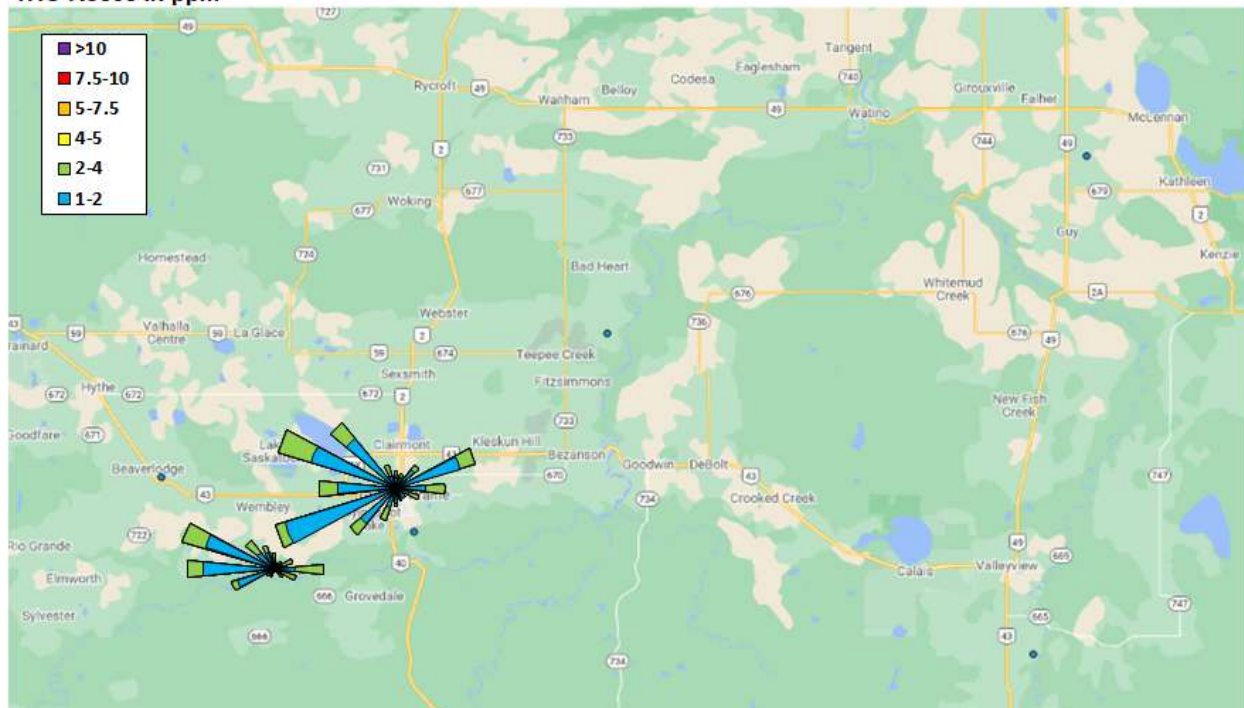


Total Hydrocarbons (THC)

Methane (CH₄)

Non-Methane Hydrocarbons (NMHC)

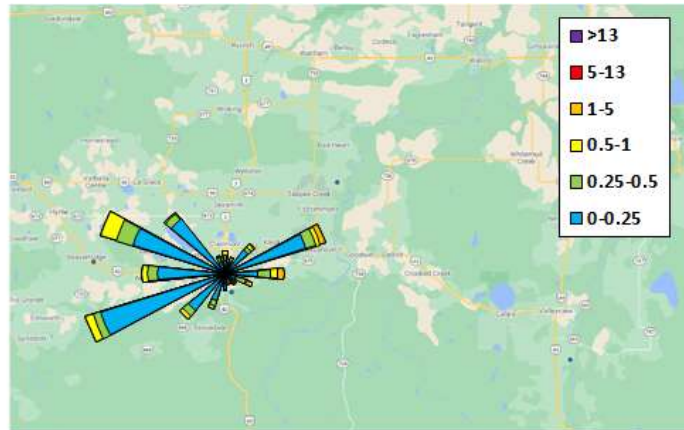
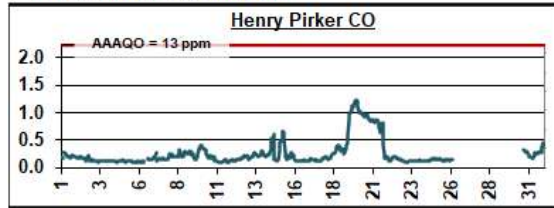
THC Roses in ppm



9.10 Carbon Monoxide (CO) Plots

July 2021 CO Station Summary		
Station	Avg (ppm)	Max (ppm)
Henry Pirkner CO	0.25	1.23

Carbon Monoxide in ppm



9.11 Meteorology Summary

July 2021 Meteorological Summary						
Station	Temp (°C)	RH (%)	SR (W/m ²)	WS (km/hr)	WD (deg)	WD
Evergreen Park	18.2	61.5	-	3.6	272.9	W
Henry Pirker	19.6	55.3	187.9	7.1	274	W
Smoky Heights	18.2	-	-	11.9	263	W
Beaverlodge	17.9	59.3	-	11.4	283	WNW
Valleyview	18.8	66.0	-	3.8	274	W
Donnelly	18.3	-	-	9.6	252	WSW
Wembley	18.2	-	-	7.6	292	WNW

Temp (°C) Outside Temperature

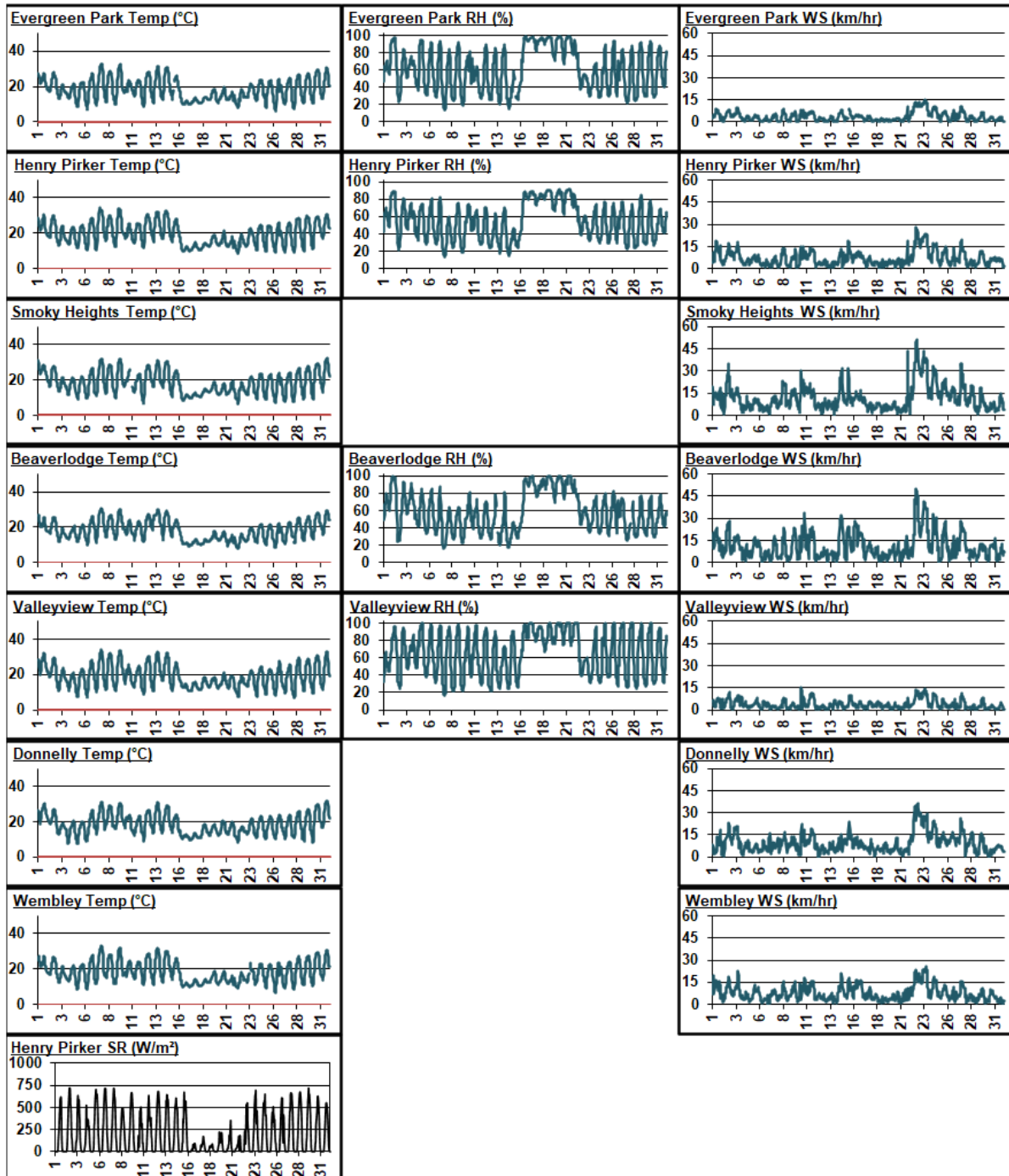
RH (%) Relative Humidity

SR (W/m²) Solar Radiation

WS (km/hr) Wind Speed

WD (deg) Wind Direction

WD Wind Direction



10 Passive Monitoring Data

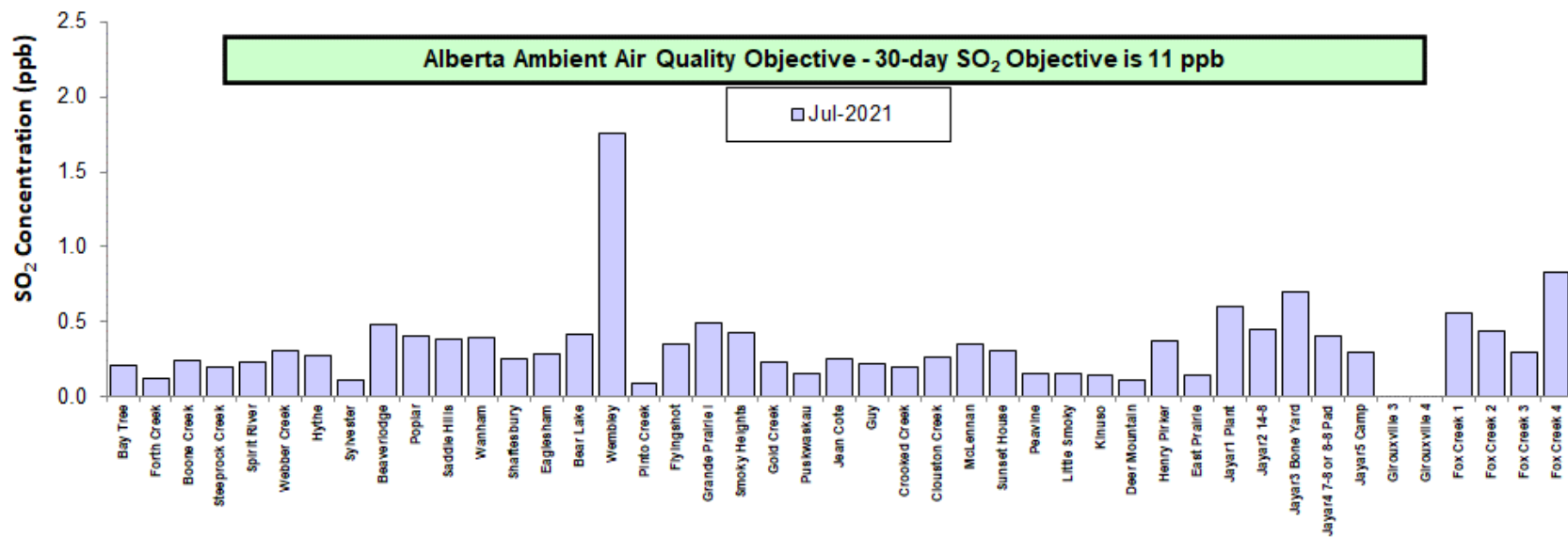
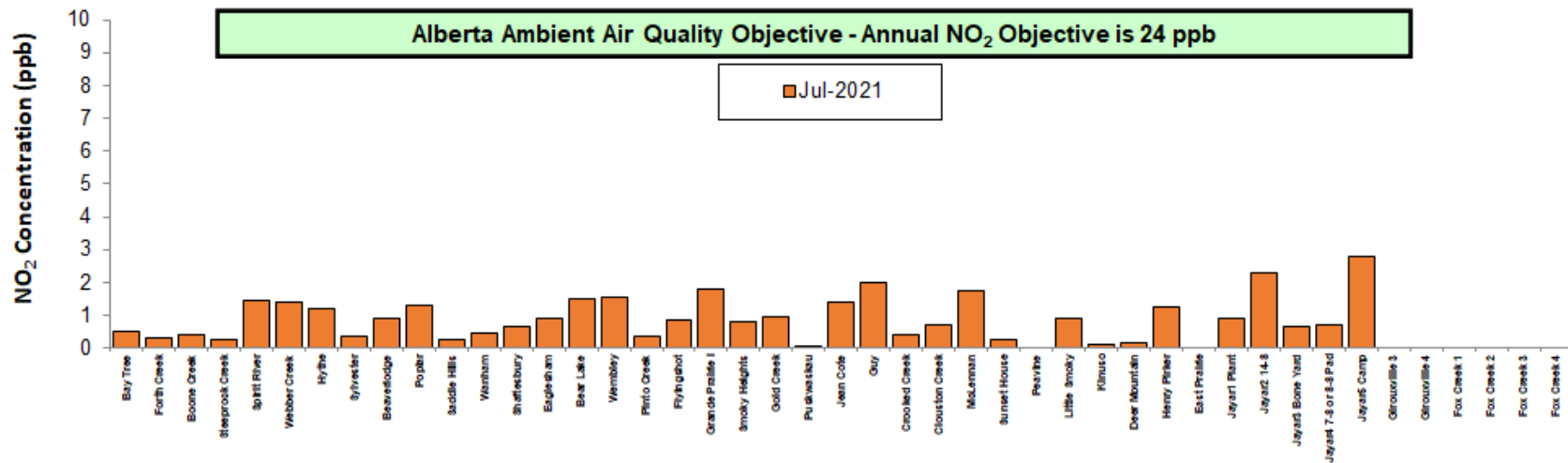
Peace Airshed Zone Association - PAZA Passive Stations for July 2021

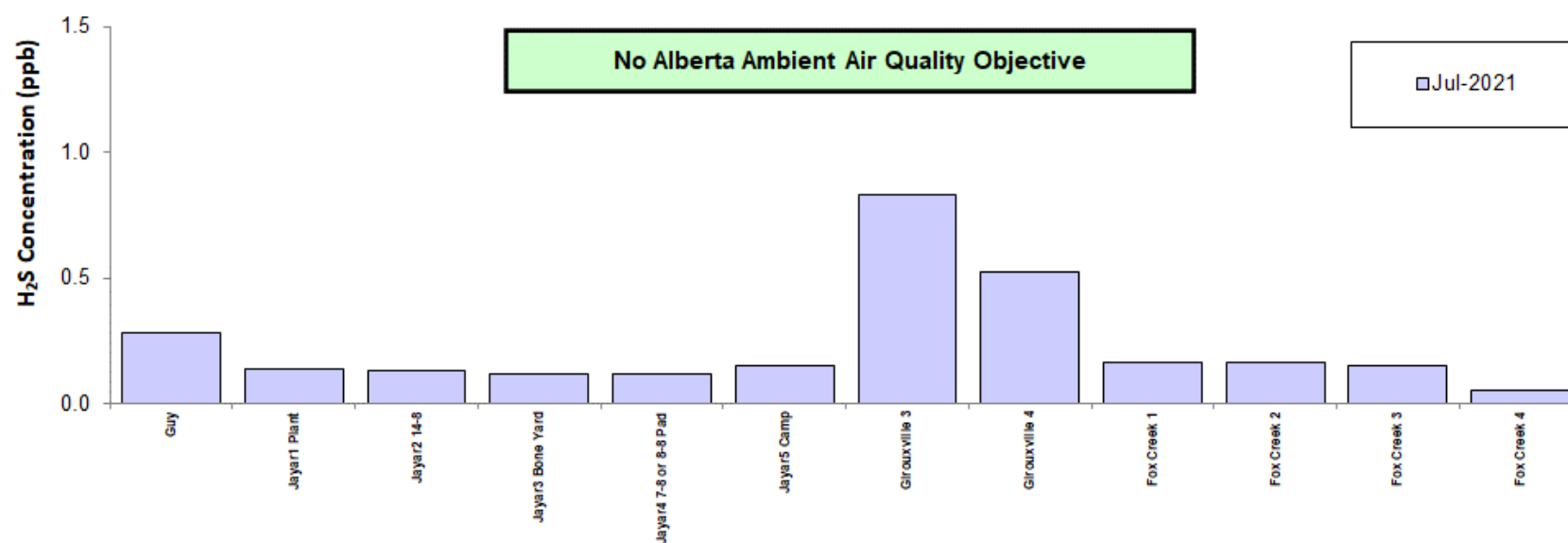
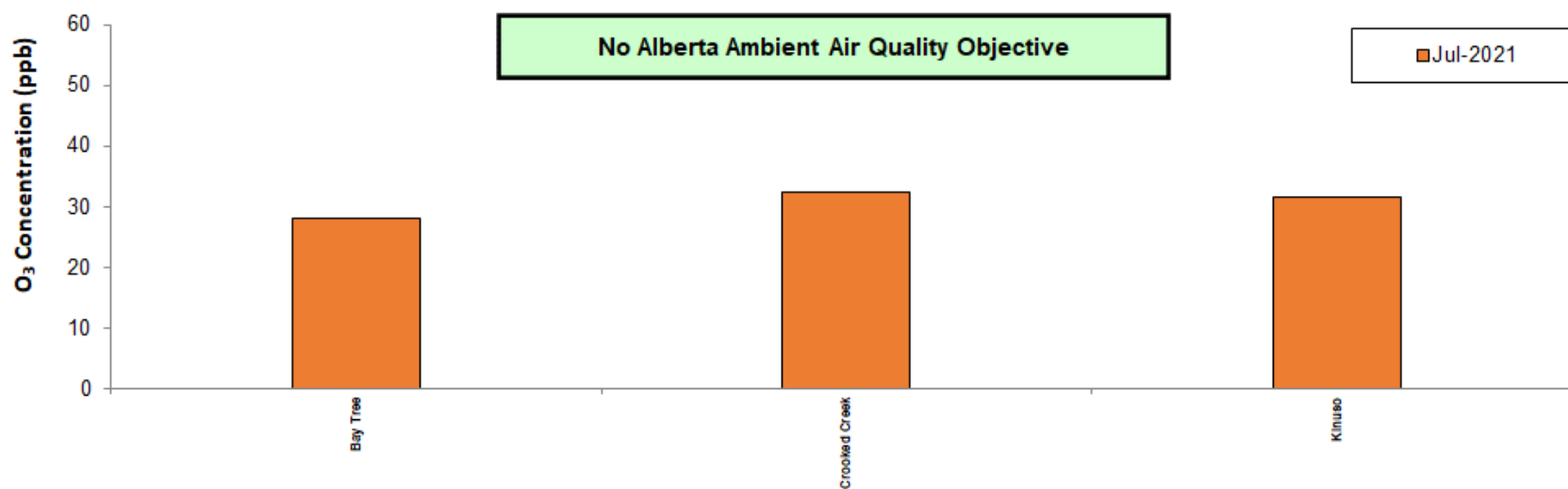
Station Number	Station Name	SO2 ppb	O3 ppb	NO2 ppb	H2S ppb	LSD
Duplicates						
9a	Spirit River			1.4		
9b	Spirit River			1.5		
12a	Hythe	0.3				
12b	Hythe	0.3				
14a	Sylvester			0.3		
14b	Sylvester			0.4		
17a	Poplar			1.3		
17b	Poplar			1.3		
18a	Saddle Hills	0.4				
18b	Saddle Hills	0.4				
24a	Wembley	1.9				
24b	Wembley	1.6				
36a	Guy			1.8		
36b	Guy			2.2		
40a	McLennan	0.2				
40b	McLennan	0.4				
47a	Kinuso		34.3			
47b	Kinuso		28.8			
G3a	Girouxville 3				0.8	
G3b	Girouxville 3				0.9	
FC3a	Fox Creek 3	0.4			0.1	
FC3b	Fox Creek 3	0.2			0.1	
J2a	14-8	0.3				
J2b	14-8	0.6				
J3a	Bone Yard			0.7	0.1	
J3b	Bone Yard			0.6	0.1	

2	Bay Tree	0.2	28.2	0.5	-	13-16-078-13 W6M
3	Forth Creek	0.1	-	0.3	-	04-13-082-07 W6M
5	Boone Creek	0.2	-	0.4	-	01-23-076-11 W6M
7	Steepprock Creek	0.2	-	0.3	-	09-35-072-13 W6M
9	Spirit River	0.2	-	1.4	-	08-12-079-07 W6M
11	Webber Creek	0.3	-	1.4	-	09-36-074-09 W6M
12	Hythe	0.3	-	1.2	-	14-36-072-11 W6M
14	Sylvester	0.1	-	0.4	-	08-06-069-12 W6M
16	Beaverlodge	0.5	-	0.9	-	15-36-071-10 W6M
17	Poplar	0.4	-	1.3	-	13-06-073-08 W6M
18	Saddle Hills	0.4	-	0.3	-	04-25-074-07 W6M
19	Wanham	0.4	-	0.5	-	16-22-077-03 W6M
20	Shaftesbury	0.2	-	0.7	-	04-03-082-23 W5M
21	Eaglesham	0.3	-	0.9	-	16-21-079-25 W5M
23	Bear Lake	0.4	-	1.5	-	15-31-072-06 W6M
24	Wembley	1.8	-	1.5	-	12-31-070-08 W6M
25	Pinto Creek	0.1	-	0.3	-	04-24-069-11 W6M
26	Flyingshot	0.4	-	0.9	-	15-36-070-07 W6M
27	Grande Prairie I	0.5	-	1.8	-	08-15-071-06 W6M
29	Smoky Heights	0.4	-	0.8	-	04-06-075-02 W6M
32	Gold Creek	0.2	-	0.9	-	06-33-067-05 W6M
34	Puskwaskau	0.1	-	0.1	-	15-35-074-25 W5M
35	Jean Cote	0.3	-	1.4	-	12-35-079-21 W5M
36	Guy	0.2	-	2.0	0.3	03-04-076-22 W5M
37	Crooked Creek	0.2	32.4	0.4	-	16-01-071-26 W5M
39	Clouston Creek	0.3	-	0.7	-	12-01-073-22 W5M
40	McLennan	0.3	-	1.7	-	03-29-077-19 W5M
42	Sunset House	0.3	-	0.2	-	05-32-070-19 W5M
44	Peavine	0.2	-	0.0	-	03-05-079-15 W5M
46	Little Smoky	0.2	-	0.9	-	12-01-065-21 W5M
47	Kinuso	0.1	31.5	0.1	-	12-10-073-10 W5M
48	Deer Mountain	0.1	-	0.2	-	15-22-068-09 W5M
49	Henry Pirker	0.4	-	1.3	-	17-26-071-06 W6M
50	East Prairie	0.1	-	0.0	-	11-13-079-08 W6M
57	Jayar1 Plant	0.6	-	0.9	0.1	06-08-062-03 W6M
58	Jayar2 14-8	0.5	-	2.3	0.1	07-08-062-03 W6M
59	Jayar3 Bone Yard	0.7	-	0.7	0.1	14-08-062-03 W6M
60	Jayar4 7-8 or 8-8 Pad	0.4	-	0.7	0.1	10-08-062-03 W6M
61	Jayar5 Camp	0.3	-	2.8	0.2	11-08-062-03 W6M
G3	Girouxville 3	-	-	-	0.8	14-02-077-23 W5M
G4	Girouxville 4	-	-	-	0.5	04-08-077-22 W5M
FC1	Fox Creek 1	0.6	-	-	0.2	
FC2	Fox Creek 2	0.4	-	-	0.2	
FC3	Fox Creek 3	0.3	-	-	0.2	
FC4	Fox Creek 4	0.8	-	-	0.1	

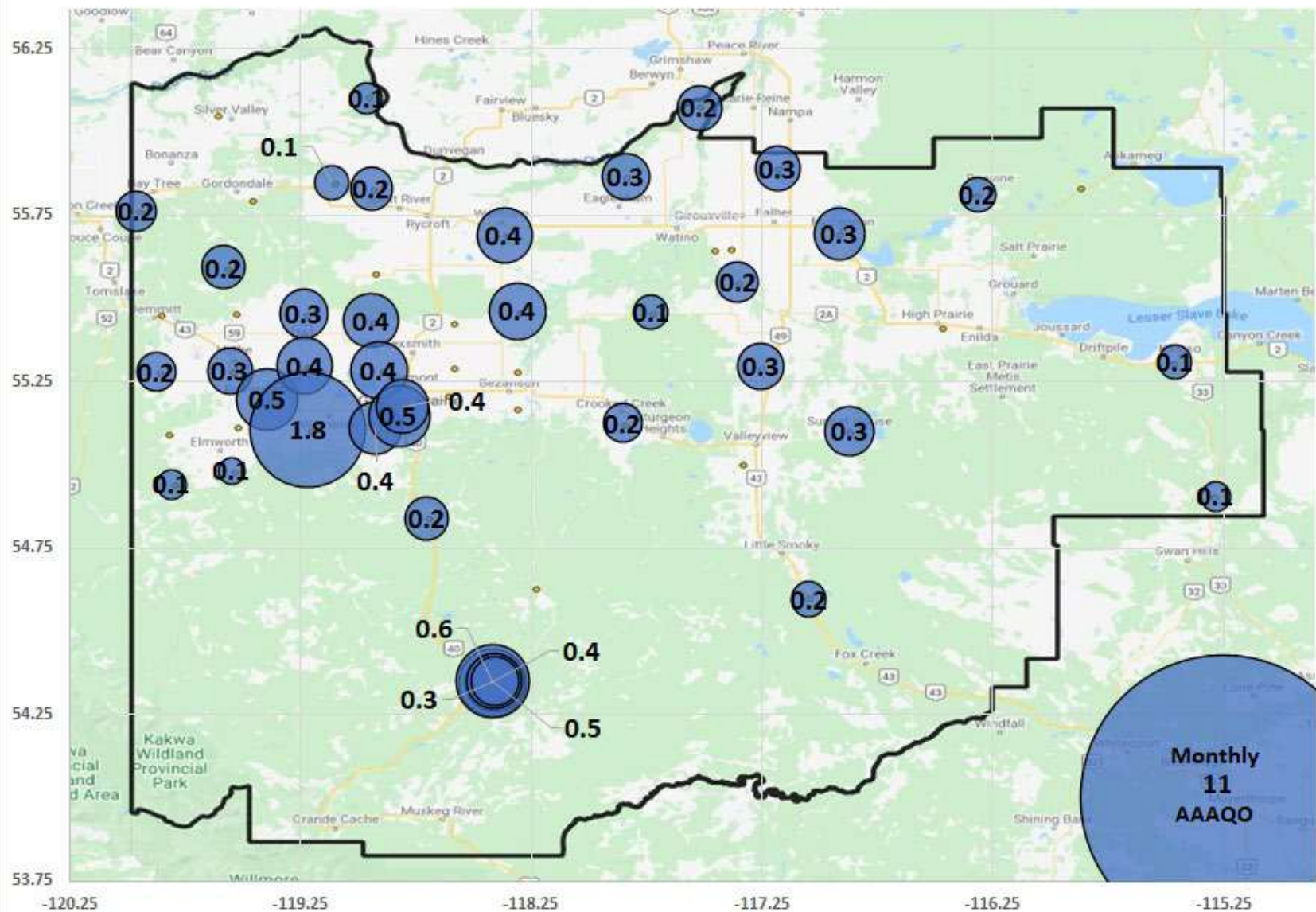
Passive Summary for July 2021

Stats	Sulphur Dioxide SO ₂	Ozone O ₃	Nitrogen Dioxide NO ₂	Hydrogen Sulphide H ₂ S
	ppb	ppb	ppb	ppb
Passive Summary for July 2021 (PAZA)				
Mean	0.3	30.7	0.9	0.3
Standard Deviation	0.3	2.2	0.7	0.3
Minimum	0.1	28.2	0.0	0.1
	Pinto Creek (#25)	Bay Tree (#2)	Peavine (#44)	Jayar3 Bone Yard (#59)
Maximum	1.8	32.4	2.8	0.8
	Wembley (#24)	Crooked Creek (#37)	Jayar5 Camp (#61)	Girouxville 3 (#G3)
Continuous and Passive Monitoring Comparison				
PAZA Beaverlodge Station	0.5	29.5	15.5	-
Beaverlodge Passive (#16)	0.5	-	0.9	-
PAZA Henry Pirker Station	0.3	26.4	21.3	0.2
Henry Pirker passive (#49)	0.4	-	1.3	-

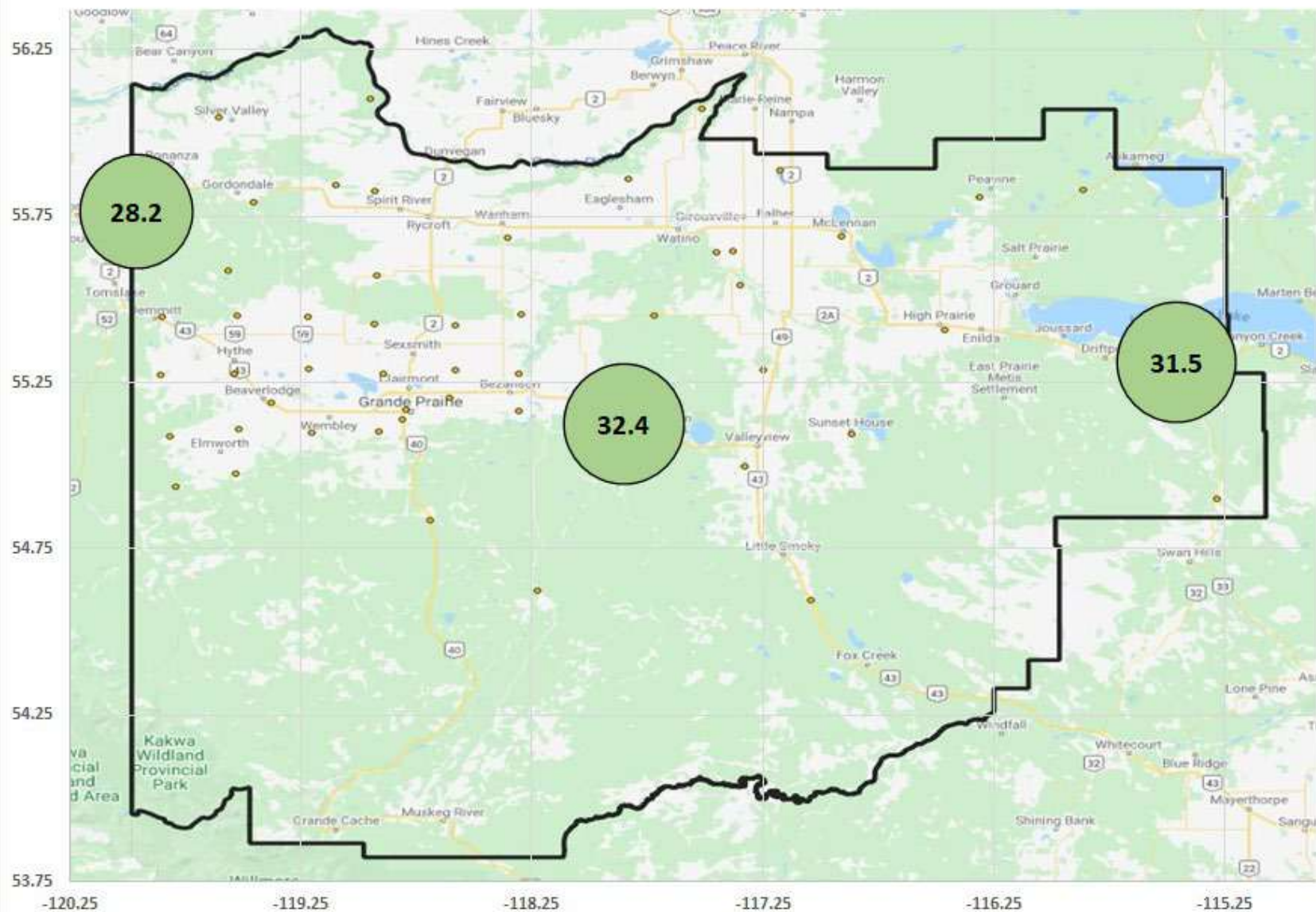




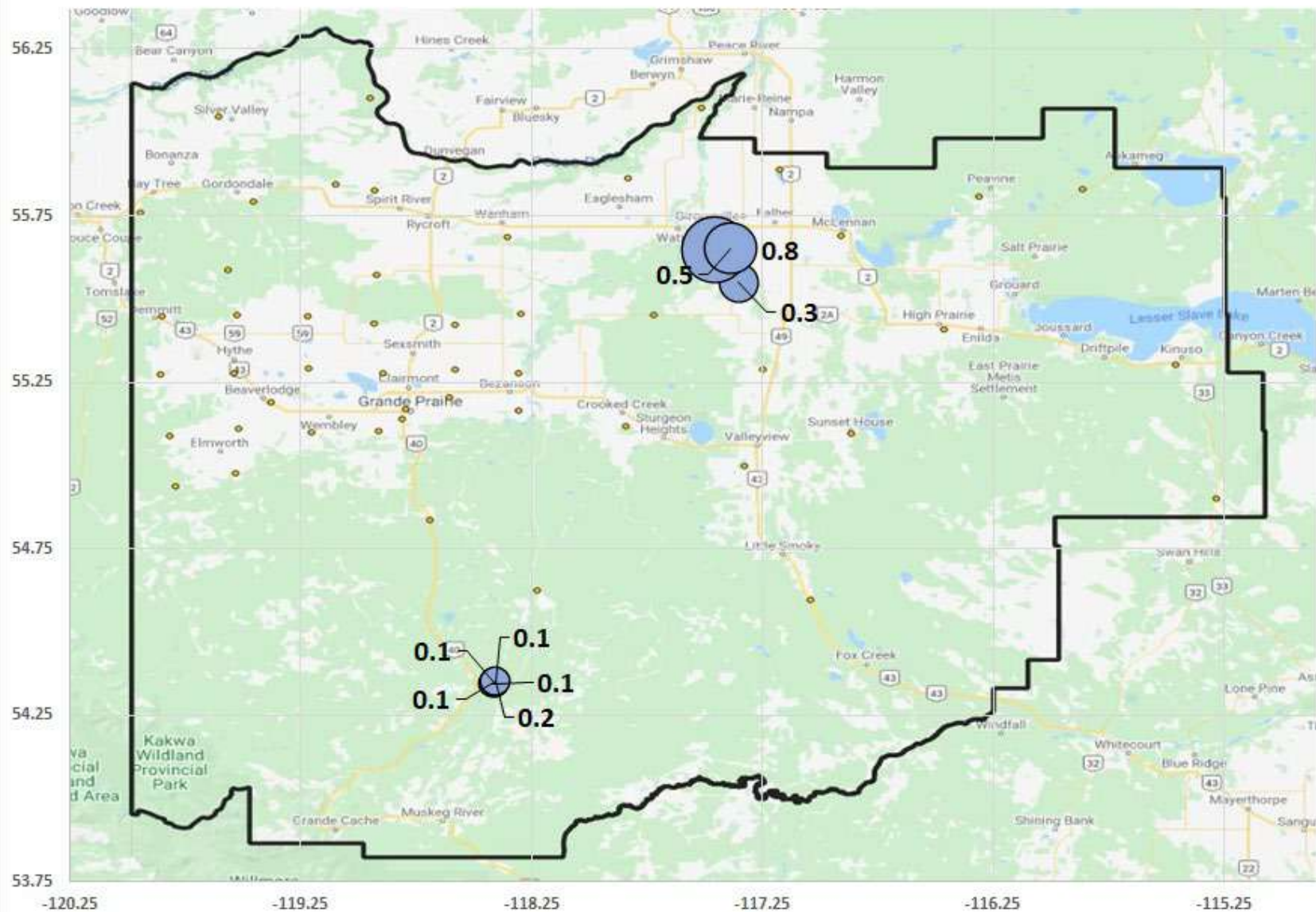
SO₂ Monthly Average (units in ppb)



O₃ Monthly Average (units in ppb)



H₂S Monthly Average (units in ppb)



End of Report



Peace Airshed Zone Association

Ambient Air Monitoring Report

July 2021