



Peace Airshed Zone Association

Ambient Air Monitoring Network Summary

**Continuous Ambient Air Quality Monitoring Program
Monthly Report
April 2018**

May 31, 2018

Alberta Environment and Parks

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

RE: Peace Airshed Zone Association (PAZA) – April 2018 Ambient Air Report

Enclosed is the PAZA Ambient Monitoring Network Report for the month of April 2018.

This report is submitted by PAZA on behalf of the industrial member companies to satisfy the requirements of the following facility Operating Approvals:

Company	Facility	LSD	EPEA Approval Number
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	16-31-78-11-W6M	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

Company	Facility	LSD	EPEA Approval Number
	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
Devon Canada	NW Belloy (Dunvegan)	16-36-079-03-W6	00009810-02-00
	Eaglesham (South)	02-14-077-25-W5	00047669-01-00
	North Normanville	03-36-079-23-W5	00047455-01-00
	West Culp	05-34-078-25-W6	00136284-00-00
	Cecil	08-15-084-08-W6	00010032-02-00
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
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
Penn West Petroleum Ltd.	Tangent	13-29-080-23-W5	00001746-02-00
	Pouce Coupe	16-07-078-11-W6	00000614-01-00

Company	Facility	LSD	EPEA Approval Number
Petrus Resources	Rycroft	08-25-077-06-W6	11351-02-00
	Spirit River	08-34-077-06-W6	11096-02-00
Spectra Energy Midstream Corporation	Fourth Creek	16-11-082-09-W6	00000263-01-00
	Gordondale	11-26-079-09-W6	00011495-01-01
	Pouce Coupe/Bonanza	3-23-080-13-W6	00070203-01-01
Suncor Energy Inc.	Progress	07-22-078-09-W6	00011428-02-00
TAQA North Ltd.	Valhalla	13-21-076-09-W6	00017620-01-00
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

Included in this report is a summary of the monthly continuous monitoring, detailed hourly average reports and multipoint calibration reports of all instruments. Operational summaries can be found on the “Monthly Continuous Data Summary” and “Continuous Network Equipment Summary” pages of the report.

Continuous Monitoring: Six (6) Stations including Henry Pirker (Grande Prairie), Evergreen Park, Smoky Heights, Beaverlodge, Valleyview, and Rycroft-Portable.

During the month of April, the following events were noted:

Henry Pirker Station:

- ◆ The measured ambient air quality was within the AAAQO for the Henry Pirker station.
- ◆ All analyzers and meteorological sensors at the Henry Pirker station had an operational uptime greater than 90% for the month of April.

Evergreen Park Station:

- ◆ The measured ambient air quality was within the AAAQO for the Evergreen Park station.
- ◆ All analyzers and meteorological sensors at the Evergreen Park station had an operational uptime greater than 90% for the month of April.

Smoky Heights Station:

- ◆ The measured ambient air quality was within the AAAQO for the Smoky Heights station.
- ◆ All analyzers and meteorological sensors at the Smoky Heights station had an operational uptime greater than 90% for the month of April.

Beaverlodge Station:

- ◆ The measured ambient air quality was within the AAAQO for the Beaverlodge station.
- ◆ All analyzers and meteorological sensors at the Beaverlodge station had an operational uptime greater than 90% for the month of April.

Valleyview Station:

- ◆ The measured ambient air quality was within the AAAQO for the Valleyview station.
- ◆ All analyzers and meteorological sensors at the Valleyview station had an operational uptime greater than 90% for the month of April, with the exception of the relative humidity sensor which was offline due to instrument malfunctioning.

Donnelly Station:

- ◆ The measured ambient air quality was within the AAAQO for the Donnelly station.
- ◆ All analyzers and meteorological sensors at the Donnelly station had an operational uptime greater than 90% for the month of April.

Rycroft-Portable Station:

- ◆ The measured ambient air quality was within the AAAQO for the Rycroft-Portable station.
- ◆ All analyzers and meteorological sensors at the Rycroft-Portable station had an operational uptime greater than 90% for the month of April.

Passive Monitoring - 27 Stations throughout the PAZA zone:

There were six duplicate sites sampled in the month of April: Little Smoky and Grande Prairie HP (SO₂), Crooked Creek (O₃), Fitzsimmons and Clouston Creek (NO₂), and Guy (H₂S). The passive sample analyses were performed by MAXXAM Analytics Inc.

A summary of the passive data collected are reported as follows:

- Monthly average concentrations for SO₂ passives ranged from 0.1 ppb to 0.5 ppb, with a mean of 0.3 ppb.
- Monthly average concentrations for NO₂ passives ranged from 0.1 ppb to 3.6 ppb, with a mean of .7 ppb.
- Monthly average concentrations for O₃ passives ranged from 44.7 ppb to 50.6 ppb, with a mean of 47.0 ppb.
- Monthly average concentrations for H₂S passives ranged from 0.1 to 0.3 ppb, with a mean of 0.1 ppb.

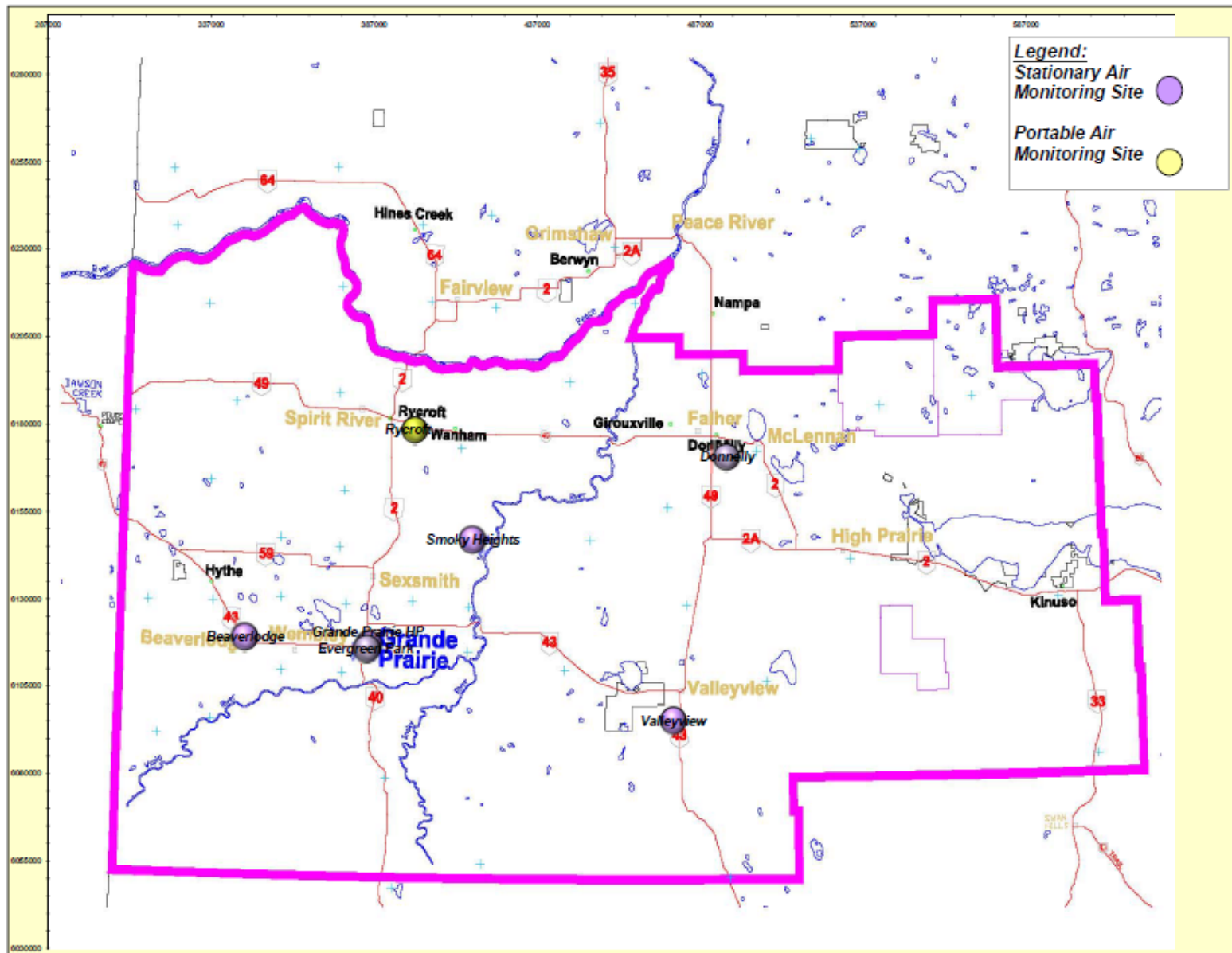
If you have any questions or concerns, please contact Patrick Andersen at 403.505.1041 or the PAZA office at 780.833.4343.

On Behalf of the
Peace Airshed Zone Association



Patrick Andersen, B.Sc.
Program Manager

Location of PAZA Continuous Monitoring Stations



PAZA Monthly Continuous Data Summary

Apr-2018Peace Airshed Zone Association							Maximum Recorded Values					
							1-hr		24-hr / 8-hr			
Pollutant (units)	Objectives		Station	Monthly Average	Exceedence		Conc	Day	Conc	Day	Operational Time (%)	Calibration Date
	1-hr	24-hr			1-hr	24-hr						
SO ₂ (ppb)	172	48	Henry Pirker	0.6	0	0	9.3	Apr-01 15:00	5.2	Apr-01	99.2	Apr-06
SO ₂ (ppb)	172	48	Evergreen Park	0.2	0	0	1.8	Apr-01 17:00	0.8	Apr-01	100.0	Apr-18
SO ₂ (ppb)	172	48	Smoky Heights	0.5	0	0	22.6	Apr-01 15:00	2.1	Apr-01	98.8	Apr-19
SO ₂ (ppb)	172	48	Beaverlodge	0.5	0	0	5.0	Apr-29 21:00	1.6	Apr-09	100.0	Apr-24
SO ₂ (ppb)	172	48	Valleyview	0.7	0	0	35.4	Apr-25 00:00	6.1	Apr-25	100.0	Apr-23
SO ₂ (ppb)	172	48	Donnelly	0.2	0	0	2.0	Apr-01 12:00	0.9	Apr-01	100.0	Apr-25
SO ₂ (ppb)	172	48	Rycroft-Portable	0.3	0	0	2.7	Apr-19 21:00	1.1	Apr-01	100.0	Apr-17
NO (ppb)			Henry Pirker	2.1	0	0	56.6	Apr-13 11:00	10.4	Apr-13	100.0	Apr-10
NO ₂ (ppb)	159	106	Henry Pirker	10.4	0	0	46.7	Apr-04 22:00	27.2	Apr-09	100.0	Apr-10
NO _x (ppb)			Henry Pirker	12.6	0	0	93.0	Apr-13 11:00	35.1	Apr-09	100.0	Apr-10
NO (ppb)			Beaverlodge	0.8	0	0	27.6	Apr-02 10:00	4.3	Apr-02	100.0	Apr-24
NO ₂ (ppb)	159	106	Beaverlodge	3.1	0	0	37.8	Apr-02 06:00	11.6	Apr-09	100.0	Apr-24
NO _x (ppb)			Beaverlodge	3.9	0	0	49.3	Apr-02 10:00	14.5	Apr-09	100.0	Apr-24
NO (ppb)			Rycroft-Portable	0.4	0	0	13.8	Apr-03 06:00	1.9	Apr-05	100.0	Apr-17
NO ₂ (ppb)	159	106	Rycroft-Portable	2.1	0	0	21.6	Apr-08 06:00	4.7	Apr-05	100.0	Apr-17
NO _x (ppb)			Rycroft-Portable	2.5	0	0	33.8	Apr-05 01:00	6.7	Apr-05	100.0	Apr-17
O ₃ (ppb)	82		Henry Pirker	37.0	1	0	102.9	Apr-10 12:00	46.4	Apr-14	99.9	Apr-10
O ₃ (ppb) - 8-hr			Henry Pirker		0				56.7	Apr-10		-
O ₃ (ppb)	82		Beaverlodge	44.1	0	0	60.9	Apr-28 18:00	50.3	Apr-24	100.0	Apr-24
O ₃ (ppb) - 8-hr			Beaverlodge		0				58.6	Apr-24		-
O ₃ (ppb)	82		Rycroft-Portable	45.5	0	0	67.6	Apr-09 18:00	57.0	Apr-09	100.0	Apr-17
O ₃ (ppb) - 8-hr			Rycroft-Portable		0				64.7	Apr-09		-
CO (ppm)	13		Henry Pirker	0.22	0	0	0.7	Apr-13 10:00	0.3	Apr-13	100.0	Apr-06
CO (ppm) - 8-hr		5	Henry Pirker		0				0.5	Apr-13		-

PAZA Monthly Continuous Data Summary – continued

Apr-2018		Peace Airshed Zone Association					Maximum Recorded Values					
							1-hr		24-hr / 8-hr			
THC (ppm)			Henry Pirker	2.1	-	-	4.4	Apr-24 06:00	2.4	Apr-24	100.0	Apr-06
CH ₄ (ppm)			Henry Pirker	2.1	-	-	4.4	Apr-24 06:00	2.4	Apr-24	100.0	Apr-06
NMHC (ppm)			Henry Pirker	0.0	-	-	0.0	Apr-21 16:00	0.0	Apr-02	100.0	Apr-06
THC (ppm)			Rycroft-Portable	2.0	-	-	2.1	Apr-13 06:00	2.0	Apr-13	98.9	Apr-12
CH ₄ (ppm)			Rycroft-Portable	2.0	-	-	2.1	Apr-13 06:00	2.0	Apr-13	98.9	Apr-12
NMHC (ppm)			Rycroft-Portable	0.0	-	-	0.0	Apr-01 18:00	0.0	Apr-09	98.9	Apr-12
TRS (ppb)			Henry Pirker	0.2	-	-	0.7	Apr-24 08:00	0.3	Apr-27	100.0	Apr-05
TRS (ppb)			Evergreen Park	0.2	-	-	0.9	Apr-13 11:00	0.4	Apr-01	100.0	Apr-18
TRS (ppb)			Smoky Heights	0.4	-	-	1.0	Apr-23 22:00	0.6	Apr-22	98.8	Apr-19
TRS (ppb)			Rycroft-Portable	0.1	-	-	12.6	Apr-12 13:00	0.7	Apr-12	100.0	Apr-12
H ₂ S (ppb)	10	3	Valleyview	0.2	0	0	3.1	Apr-22 02:00	0.3	Apr-13	100.0	Apr-23
H ₂ S (ppb)	10	3	Donnelly	0.1	0	0	1.4	Apr-25 18:00	0.5	Apr-25	100.0	Apr-25
PM _{2.5} (µg/m ³)	80	30	Henry Pirker	5.5	0	0	40.1	Apr-27 23:00	13.4	Apr-09	100.0	Apr-06
PM _{2.5} (µg/m ³)	80	30	Evergreen Park	3.9	0	0	55.3	Apr-30 16:00	10.6	Apr-09	100.0	Apr-18
PM _{2.5} (µg/m ³)	80	30	Smoky Heights	3.7	0	0	35.6	Apr-03 18:00	7.8	Apr-11	98.8	Apr-20
PM _{2.5} (µg/m ³)	80	30	Beaverlodge	4.1	0	0	13.8	Apr-24 15:00	8.9	Apr-09	100.0	Apr-24
PM _{2.5} (µg/m ³)	80	30	Rycroft-Portable	2.0	0	0	15.7	Apr-30 18:00	4.7	Apr-09	100.0	Apr-17
RH (%)			Henry Pirker	56.3	-	-	87.5	Apr-13 05:00	80.6	Apr-16	100.0	-
RH (%)			Evergreen Park	58.9	-	-	96.7	Apr-11 03:00	90.5	Apr-16	100.0	-
RH (%)			Beaverlodge	--	-	-	--	Apr-01 00:00	--	Mar-31	0.0	-
RH (%)			Valleyview	--	-	-	--	Apr-01 00:00	--	Mar-31	0.0	-
SR (W/m ²)			Henry Pirker	194.6	-	-	747.4	Apr-19 13:00	261.7	Apr-27	100.0	-
Temp (°C)			Henry Pirker	0.6	-	-	25.7	Apr-27 16:00	12.7	Apr-27	100.0	-
Temp (°C)			Evergreen Park	0.6	-	-	24.6	Apr-27 18:00	12.5	Apr-28	100.0	-
Temp (°C)			Smoky Heights	-0.3	-	-	21.1	Apr-27 18:00	11.4	Apr-28	98.8	-
Temp (°C)			Beaverlodge	0.5	-	-	21.6	Apr-27 16:00	13.4	Apr-27	100.0	-
Temp (°C)			Valleyview	1.2	-	-	23.4	Apr-27 19:00	14.0	Apr-27	100.0	-
Temp (°C)			Donnelly	-0.1	-	-	22.6	Apr-27 19:00	13.7	Apr-28	100.0	-
Temp (°C)			Rycroft-Portable	0.1	-	-	23.2	Apr-27 15:00	13.5	Apr-27	100.0	-

PAZA Monthly Continuous Data Summary – continued

Apr-2018Peace Airshed Zone Association							Maximum Recorded Values					
							1-hr		24-hr / 8-hr			
WSPD s (km/hr)			Henry Pirker	5.8	-	-	28.0	Mar-31 22:00	12.4	Mar-22	97.7%	-
WSPD s (km/hr)			Evergreen Park	9.4	-	-	36.0	Mar-23 05:00	21.6	Mar-22	100.0%	-
WSPD s (km/hr)			Smoky Heights	11.0	-	-	34.0	Mar-22 17:00	27.1	Mar-22	100.0%	-
WSPD s (km/hr)			Beaverlodge	13.5	-	-	44.0	Mar-21 20:00	37.4	Mar-22	98.9%	-
WSPD s (km/hr)			Valleyview	4.4	-	-	19.0	Mar-01 15:00	11.0	Mar-01	100.0%	-
WSPD s (km/hr)			Donnelly	8.6	-	-	26.0	Mar-23 10:00	17.3	Mar-22	100.0%	-
WSPD s (km/hr)			Rycroft-Portable	10.2	-	-	36.0	Mar-02 02:00	27.4	Mar-22	100.0%	-
WSPD v (km/hr)			Henry Pirker	1.8	-	-	28.0	Mar-31 22:00	12.2	Mar-22	97.7%	-
WSPD v (km/hr)			Evergreen Park	2.9	-	-	36.0	Mar-23 05:00	21.1	Mar-22	100.0%	-
WSPD v (km/hr)			Smoky Heights	3.5	-	-	34.0	Mar-22 17:00	26.8	Mar-22	100.0%	-
WSPD v (km/hr)			Beaverlodge	5.0	-	-	44.0	Mar-21 20:00	37.1	Mar-22	98.9%	-
WSPD v (km/hr)			Valleyview	1.5	-	-	19.0	Mar-01 15:00	8.7	Mar-01	100.0%	-
WSPD v (km/hr)			Donnelly	1.9	-	-	26.0	Mar-23 10:00	17.2	Mar-22	100.0%	-
WSPD v (km/hr)			Rycroft-Portable	1.5	-	-	36.0	Mar-02 02:00	27.2	Mar-22	100.0%	-
WDIR			Henry Pirker	NNW	-	-	-	-	-	-	97.7%	-
WDIR			Evergreen Park	NNW	-	-	-	-	-	-	100.0%	-
WDIR			Smoky Heights	NNW	-	-	-	-	-	-	100.0%	-
WDIR			Beaverlodge	NE	-	-	-	-	-	-	98.9%	-
WDIR			Valleyview	N	-	-	-	-	-	-	100.0%	-
WDIR			Donnelly	ESE	-	-	-	-	-	-	100.0%	-
WDIR			Rycroft-Portable	N	-	-	-	-	-	-	100.0%	-

Continuous Network Equipment Summary

PAZA – Henry Pirker Station

General Station Issues:

Parameter	Make	Model	Notes
SO ₂	TEI	43i	Analyzer interface with logger returned greater noise than expected, repaired Apr 6.
NOx/NO/NO ₂	TEI	42i	No operational issues observed.
O ₃	TEI	49i	Analyzer check during Apr 2 SO ₂ maintenance.
CO	TEI	48C	No operational issues observed.
THC/CH ₄ /NMHC	TEI	55i	No operational issues observed.
TRS	TEI	45C	No operational issues observed.
PM _{2.5}	Sharp	5030	No operational issues observed.
RH	Met One	083D	No operational issues observed.
ET	Met One	083D	No operational issues observed.
SR	Met One	096-1	No operational issues observed.
WS / WD	Met One	010C/020C	Intermittent instrument malfunctioning April 1-5.

PAZA – Evergreen Park Station

General Station Issues

Parameter	Make	Model	Notes
SO ₂	TEI	43i	No operational issues observed.
TRS	TEI	43C	No operational issues observed.
PM _{2.5}	Sharp	5030	No operational issues observed.
ET	Met One/Gill	083D	No operational issues observed.
RH	Met One/Gill		No operational issues observed.
WS / WD	Met One/ Gill		No operational issues observed.

PAZA – Smoky Heights Station

General Station Issues

Power outage affected station April 29

Parameter	Make	Model	Notes
SO ₂	TEI	43C	No operational issues observed.
TRS	TEI	43i	No operational issues observed.
PM _{2.5}	Sharp	5030	No operational issues observed.
ET	Met One	083D	No operational issues observed.
WS / WD	Met One	010C/020C	No operational issues observed.

PAZA – Beaverlodge Station

General Station Issues

Station experienced power outage with a general uptime of 99.7%

Parameter	Make	Model	Notes
SO ₂	TEI	43CTL	No operational issues observed.
NOx/NO/NO ₂	TEI	42C	No operational issues observed.
O ₃	TEI	49C	No operational issues observed.
PM _{2.5}	Sharp	5030	No operational issues observed.
ET	n/a	n/a	No operational issues observed.
RH	n/a	n/a	RH offline for replacement
WS / WD	Met One	50.5H	No operational issues observed.

PAZA – Valleyview Station

General Station Issues

Parameter	Make	Model	Notes
SO ₂	TEI	43i	No operational issues observed.
H ₂ S	TEI	43A	No operational issues observed.
ET	Gill	Met Pak 3	No operational issues observed.
RH	Gill	Met Pak 3	The relative humidity sensor was not operational.
WS / WD	Gill	Met Pak 3	No operational issues observed.

PAZA – Donnelly Station

General Station Issues

Parameter	Make	Model	Notes
SO ₂	TEI	43i	No operational issues observed.
H ₂ S	Thermo	450i	No operational issues observed.
ET	Gill	RM Young 5103	No operational issues observed.
WS / WD	Gill	RM Young 5103	No operational issues observed.

PAZA – Portable-Rycroft

General Station Issues

Parameter	Make	Model	Notes
SO ₂	TEI	43i	No operational issues observed.
NOx/NO/NO ₂	TEI	42i	No operational issues observed.
O ₃	TEI	49i	No operational issues observed.
TRS	TEI	43i	No operational issues observed.
THC/CH ₄ /NMHC	TEI	55i	Hydrogen bottle replaced April 12, uptime 98.9%.
PM _{2.5}	Sharp	5030	No operational issues observed.
ET	Gill	Met Pak 3	No operational issues observed.
WS / WD	Gill	Met Pak 3	System returned invalid readings April 10

PAZA

Henry Pirker Station

Monthly Summary Tables, Graphs and
Roses

Hourly Averages

Sulphur Dioxide (SO₂) - ppb

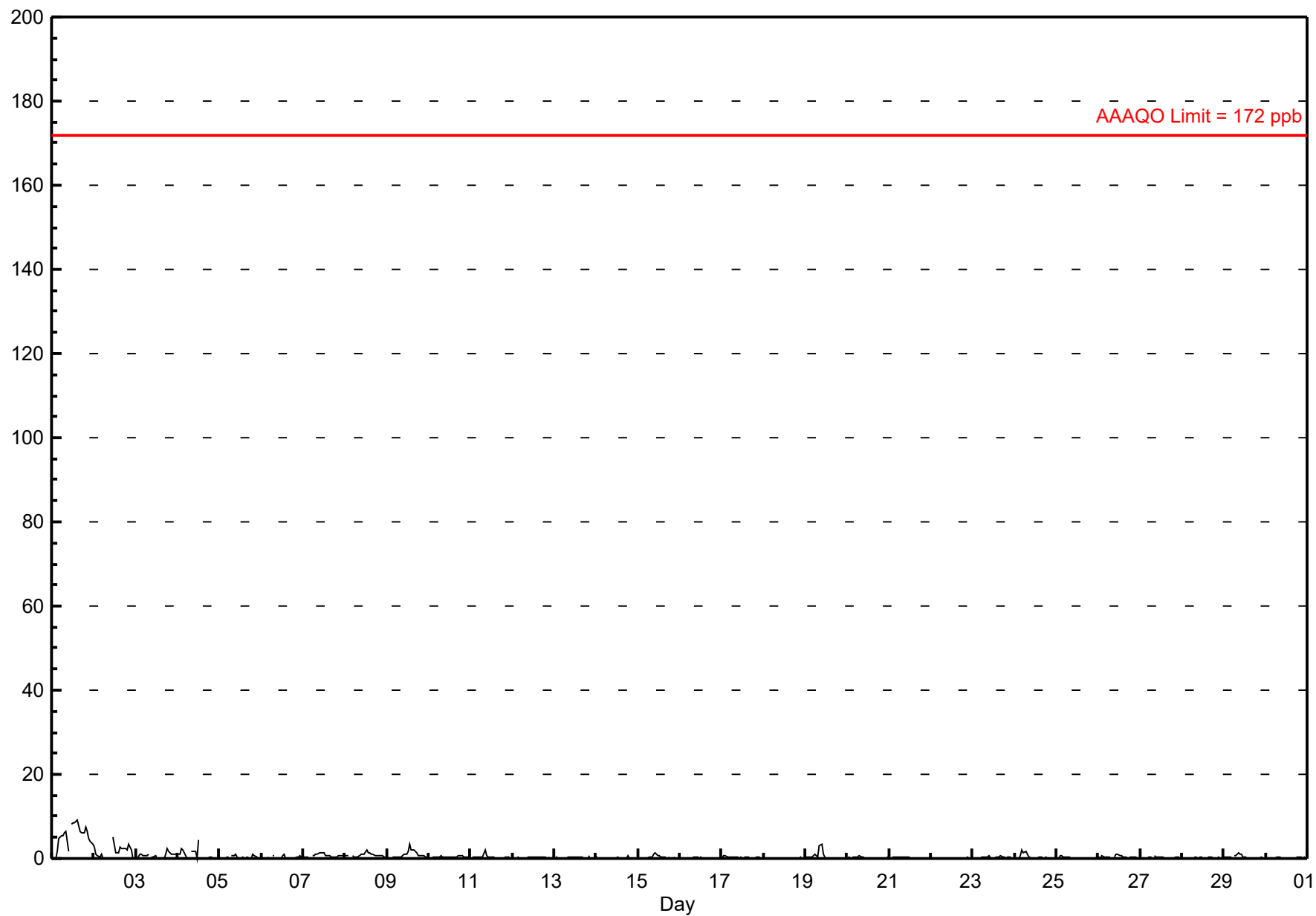
Henry Pirker - April 2018

Number of Exceedences (AAAQO): Maximum Value: 9.3 ppb on Apr 1 15:00																			1-hr: 0 24-hr: 0 Maximum Daily Average: 5.2 ppb on Apr 1					Hours in Service: 720 Hours of Data: 681 Hours of Missing Data: 39 Hours of Calibration: 33 Percent Operational Time: 99.2				
Minimum Value: 0 ppb on Apr 1 01:00 Maximum Diurnal Average: 0.9 ppb at hour 9 Monthly Average: 0.55 ppb																			Minimum Daily Average: 0.1 ppb on Apr 22 Minimum Diurnal Average: 0.2 ppb at hour 2 Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.1 Median = 0.2 Q ₃ = 0.5 P ₉₀ = 1.1 P ₉₉ = 6.5									
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
1-Apr	0	0	0	2	5	5	6	6	7	2	A	8	8	8	9	8	7	6	6	7	6	5	4	4	5.2	9.3		
2-Apr	3	1	1	0	1	0	0	0	M	M	M	5	1	1	1	3	3	2	2	2	3	2	0	0	1.5	5.1		
3-Apr	0	0	1	1	1	1	1	1	A	1	0	1	0	0	0	0	0	1	2	2	1	1	1	1	0.7	2.4		
4-Apr	1	1	2	2	1	0	0	A	2	2	2	0	4	M	M	M	0	0	0	0	0	0	0	0	0.9	4.4		
5-Apr	0	0	0	0	0	0	A	1	1	1	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0.3	1.1		
6-Apr	0	0	0	0	0	A	1	1	C	C	C	0	1	1	0	0	0	0	0	0	0	0	1	0	0.3	1.0		
7-Apr	0	0	0	0	A	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	1	1	1	1	0.7	1.4		
8-Apr	1	1	1	A	1	0	0	0	1	1	1	1	2	1	1	1	1	1	1	1	1	1	0	0	0.8	1.9		
9-Apr	0	0	A	0	0	0	0	0	0	1	1	1	2	3	2	2	2	1	1	1	1	1	0	0	0.9	3.3		
10-Apr	0	A	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0.4	0.8		
11-Apr	A	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.3	2.0		
12-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.2	0.4		
13-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	0	0	0.2	0.5		
14-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	A	0	0	0	0.1	0.7		
15-Apr	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	A	0	0	0	0	0.3	1.4		
16-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.1	0.4		
17-Apr	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.3	0.7		
18-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.1	0.2		
19-Apr	0	0	0	0	0	1	1	1	3	4	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0.5	3.5		
20-Apr	0	0	0	0	0	0	0	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.2	0.5		
21-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.2	0.4		
22-Apr	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3		
23-Apr	0	0	0	0	0	0	0	0	0	1	0	A	0	0	0	0	1	0	0	0	0	0	0	0	0.3	0.8		
24-Apr	0	0	0	1	2	1	2	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	2.1		
25-Apr	0	0	1	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7		
26-Apr	0	0	1	0	0	0	0	0	A	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.3	1.2		
27-Apr	0	0	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5		
28-Apr	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5		
29-Apr	0	0	0	0	0	A	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.3		
30-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4		
0.3		0.2	0.3	0.4	0.5	0.5	0.5	0.6	0.9	0.7	0.5	0.8	0.8	0.7	0.6	0.6	0.6	0.5	0.6	0.6	0.6	0.5	0.3	0.3	Diurnal Average			
2.9		1.2	2.3	2.0	4.6	5.3	5.5	6.0	6.5	3.5	1.5	8.2	8.5	8.3	9.3	7.7	6.6	6.2	6.1	7.4	6.4	4.9	4.0	3.5	Diurnal Maximum			
C - Calibration		M - Maintenance						A - Automated Daily Zero Span																				
Alberta Ambient Air Quality Objectives (AAAQO):		1-hr 172 ppb						24-hr 48 ppb						30-day 11 ppb														

Hourly Averages

Sulphur Dioxide (SO₂) - ppb

Henry Pirker - April 2018



Hourly Maximums

Sulphur Dioxide (SO₂) - ppb

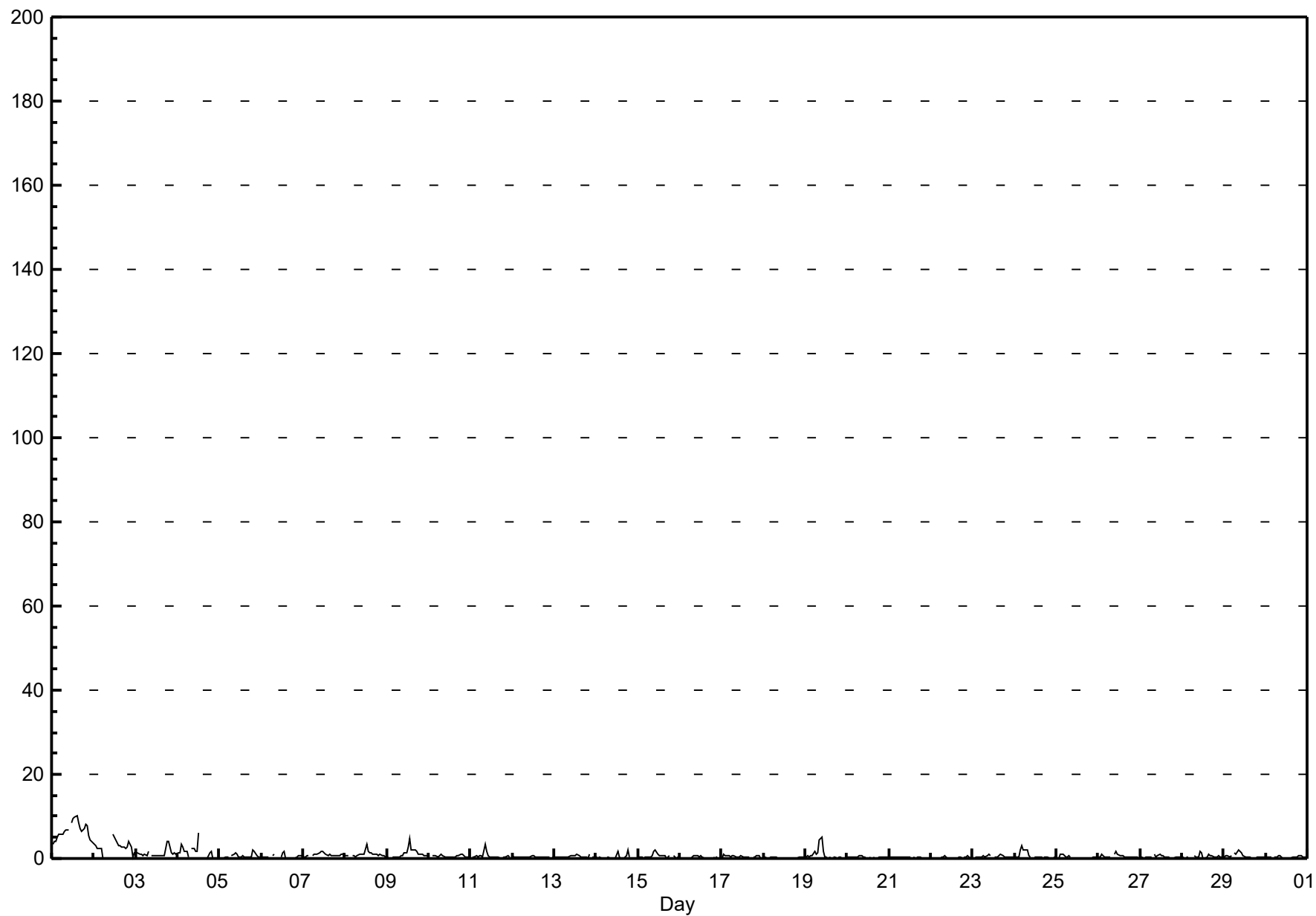
Henry Pirker - April 2018

Maximum Value: 10.0 ppb on Apr 1 15:00																				Maximum Daily Average: 6.6 ppb on Apr 1										Hours in Service: 720									
Minimum Value: 0 ppb on Apr 2 06:00																				Minimum Daily Average: 0.2 ppb on Apr 18										Hours of Data: 681									
Maximum Diurnal Average: 1.3 ppb at hour 13																				Minimum Diurnal Average: 0.5 ppb at hour 24										Hours of Missing Data: 39									
Monthly Average: 0.82 ppb																				Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.2 Median = 0.4 Q ₃ = 0.7 P ₉₀ = 1.8 P ₉₉ = 7.2										Hours of Calibration: 33									
																				Percent Operational Time: 99.2																			
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24															
1-Apr	4	4	4	5	6	6	6	6	7	7	A	9	10	10	10	9	7	7	7	8	8	6	4	4	6.6	10.0													
2-Apr	3	3	2	3	2	0	0	0	M	M	M	6	4	4	3	3	3	3	2	3	4	3	0	1	2.5	5.8													
3-Apr	1	1	1	1	1	1	1	2	A	1	1	1	1	1	1	1	1	2	4	4	1	1	1	1	1.3	4.2													
4-Apr	1	1	3	3	2	2	0	A	2	2	2	2	6	M	M	M	0	0	1	2	0	0	0	0	1.5	6.1													
5-Apr	0	0	0	0	0	0	A	1	1	1	1	0	0	1	0	0	0	0	0	2	2	1	0	0	0.6	2.0													
6-Apr	0	0	0	0	0	A	1	1	C	C	C	0	1	2	0	0	0	0	0	0	0	1	1	1	0.5	1.8													
7-Apr	0	0	1	1	A	1	1	1	1	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.6													
8-Apr	1	1	1	A	1	1	0	1	1	1	1	1	3	2	1	1	1	1	1	1	1	1	1	0	1.0	3.4													
9-Apr	0	0	A	0	0	0	0	0	1	1	1	1	3	5	2	2	2	2	1	1	1	1	1	1	1.2	4.7													
10-Apr	1	A	1	1	1	0	1	1	1	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0.5	1.1													
11-Apr	A	0	0	1	0	1	1	0	3	2	1	0	0	0	0	0	0	0	0	0	0	1	0	A	0.6	3.3													
12-Apr	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	A	0	0.3	0.7													
13-Apr	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	1	A	0	0	0.4	1.1													
14-Apr	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	1	2	0	A	0	0	0	0.3	2.2													
15-Apr	0	0	0	0	0	0	0	0	1	2	2	1	1	1	1	0	0	0	1	A	1	0	0	0	0.5	1.9													
16-Apr	0	0	0	0	0	0	0	0	1	1	1	0	1	0	0	0	0	0	A	0	0	0	0	0	0.2	0.8													
17-Apr	0	1	1	1	1	0	1	1	0	0	0	1	0	0	0	0	0	A	0	0	1	1	0	0	0.4	1.1													
18-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.2	0.3													
19-Apr	0	1	0	1	1	2	1	1	4	5	2	0	0	0	0	A	0	0	0	0	0	0	0	0	0.9	5.0													
20-Apr	0	0	0	0	0	0	0	1	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.3	0.7													
21-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.3	0.5													
22-Apr	0	0	0	0	0	0	0	0	1	0	0	0	A	0	0	0	0	0	0	0	0	1	0	0	0.2	0.7													
23-Apr	0	0	0	0	0	0	1	0	1	1	1	A	0	0	0	1	1	1	0	0	0	0	0	0	0.4	1.0													
24-Apr	0	0	0	2	3	2	2	2	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.7	3.1													
25-Apr	0	0	1	1	1	0	0	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.1													
26-Apr	0	0	1	0	0	0	0	0	A	1	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0.5	1.7													
27-Apr	0	0	0	0	0	0	0	A	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.4	1.2													
28-Apr	0	0	0	0	0	0	A	1	0	0	2	1	0	0	0	1	1	1	0	0	0	1	0	0	0.5	1.8													
29-Apr	0	1	1	0	1	A	1	1	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.6	1.9													
30-Apr	0	0	0	0	A	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0.3	0.7													
0.6 0.6 0.7 0.8 0.8 0.7 0.7 0.9 1.2 1.1 0.8 1.1 1.3 1.1 0.9 0.8 0.7 0.7 0.9 0.9 0.9 0.7 0.5 0.5																								Diurnal Average															
3.5 3.9 4.2 5.2 5.7 5.7 5.9 6.4 6.9 6.8 1.9 8.6 9.6 10.0 8.5 7.1 6.5 7.0 8.2 7.7 5.5 4.3 3.8																								Diurnal Maximum															
C - Calibration M - Maintenance A - Automated Daily Zero Span																																							

Hourly Maximums

Sulphur Dioxide (SO₂) - ppb

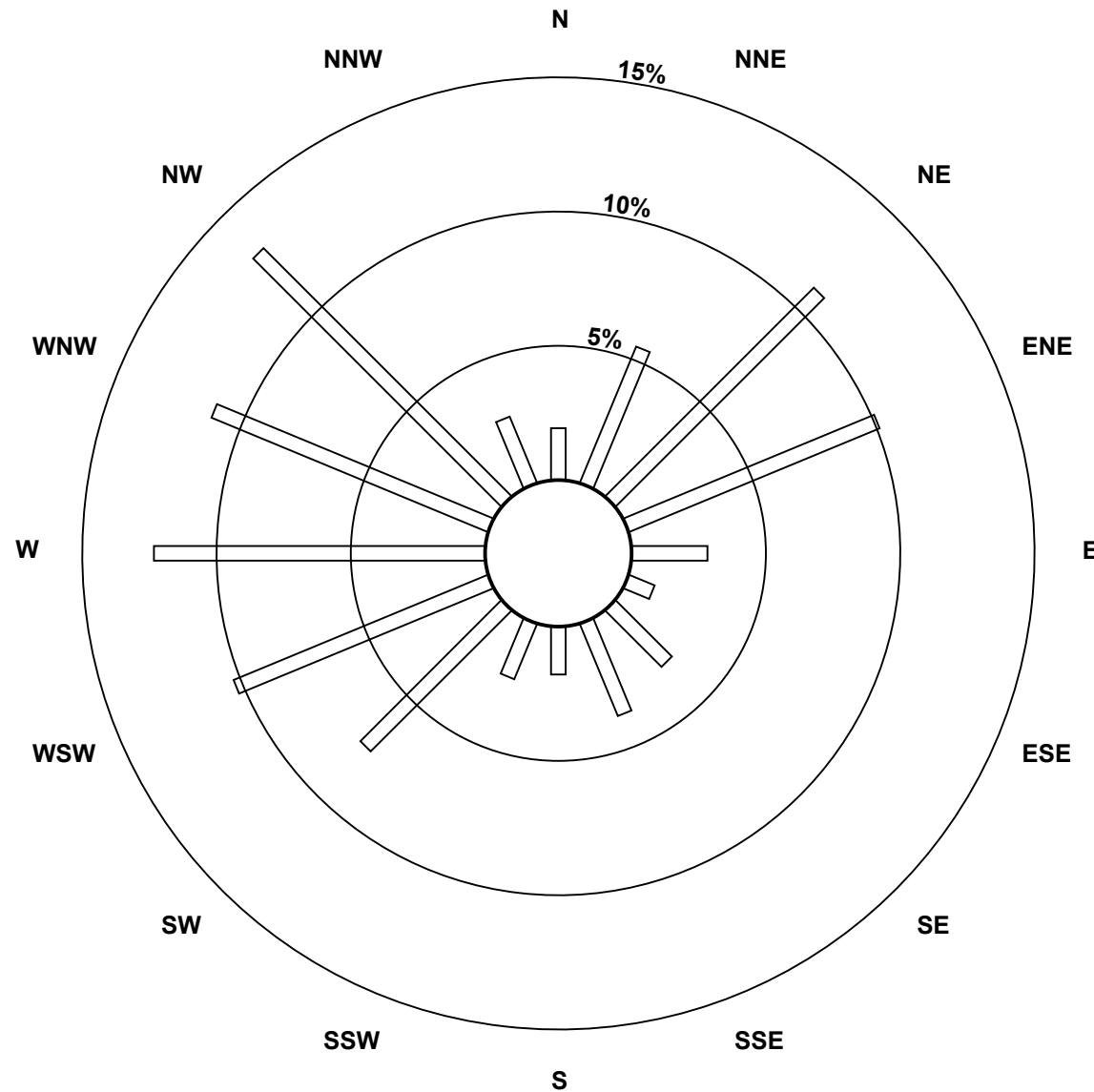
Henry Pirker - April 2018



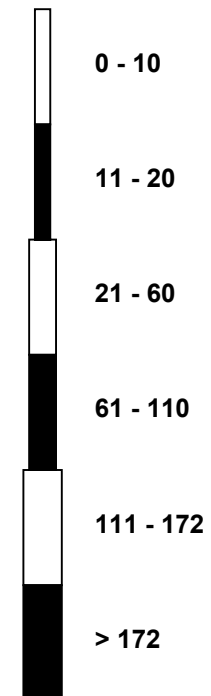
Pollutant Rose

Sulphur Dioxide (SO₂) - ppb

Henry Pirker - April 2018

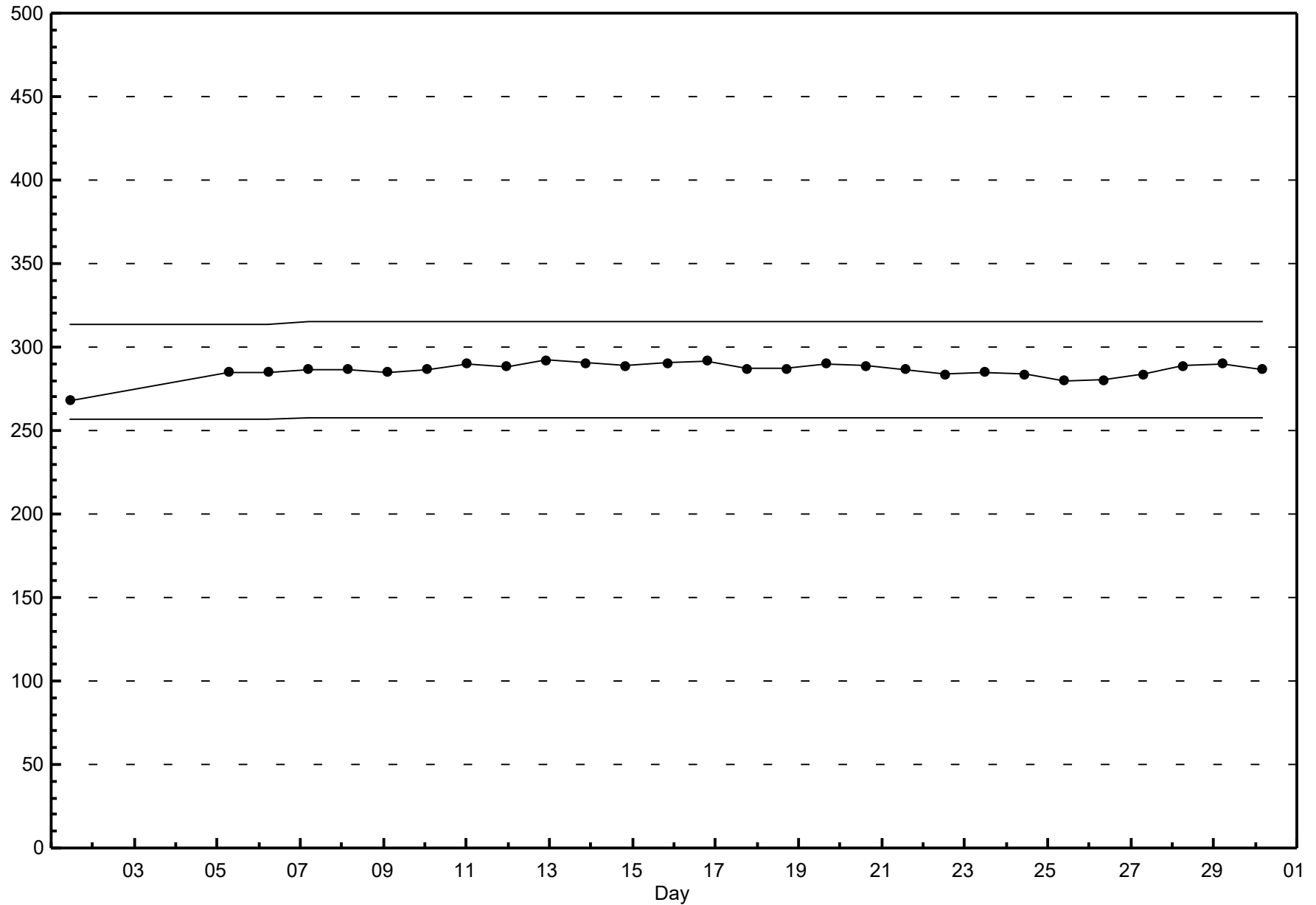


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Henry Pirker - April 2018



Hourly Averages

Total Reduced Sulphur (TRS) - ppb

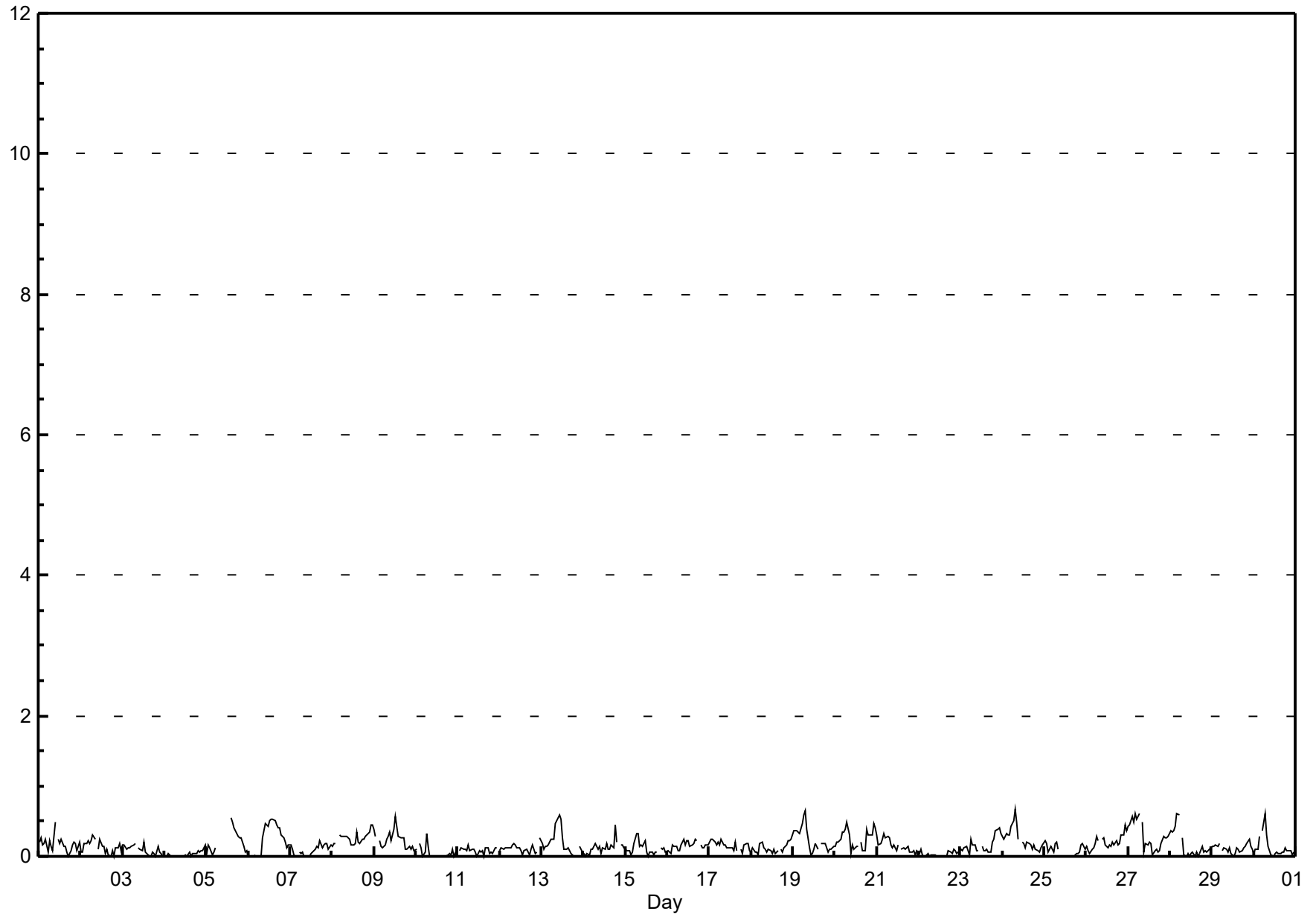
Henry Pirker - April 2018

Maximum Value: 0.7 ppb on Apr 24 08:00																				Maximum Daily Average: 0.3 ppb on Apr 27										Hours in Service: 720									
Minimum Value: 0 ppb on Apr 1 18:00																				Minimum Daily Average: 0.0 ppb on Apr 4										Hours of Data: 682									
Maximum Diurnal Average: 0.2 ppb at hour 7																				Minimum Diurnal Average: 0.1 ppb at hour 17										Hours of Missing Data: 38									
Monthly Average: 0.15 ppb																				Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 0.3 P ₉₉ = 0.6										Hours of Calibration: 38									
																				Percent Operational Time: 100.0																			
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24															
1-Apr	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5													
2-Apr	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3													
3-Apr	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2													
4-Apr	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2													
5-Apr	0	0	0	0	0	0	A	C	C	C	C	C	C	C	1	0	0	0	0	0	0	0	0	0	--	0.6													
6-Apr	0	0	0	0	0	A	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0.3	0.5													
7-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2													
8-Apr	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4													
9-Apr	0	0	A	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6													
10-Apr	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3													
11-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.1	0.2													
12-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.1	0.3													
13-Apr	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	A	0	0	0.2	0.6													
14-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	0.4													
15-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.1	0.3													
16-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.2	0.2													
17-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.2	0.2													
18-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.1	0.2													
19-Apr	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.2	0.7													
20-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.3	0.5													
21-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.2	0.3													
22-Apr	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1													
23-Apr	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4													
24-Apr	0	0	0	0	0	0	1	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7													
25-Apr	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2													
26-Apr	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4													
27-Apr	0	0	1	0	1	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6													
28-Apr	0	0	0	0	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6													
29-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3													
30-Apr	0	0	0	0	A	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.6													
																								Diurnal Average															
																								Diurnal Maximum															
C - Calibration																								A - Automated Daily Zero Span															

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - April 2018



Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

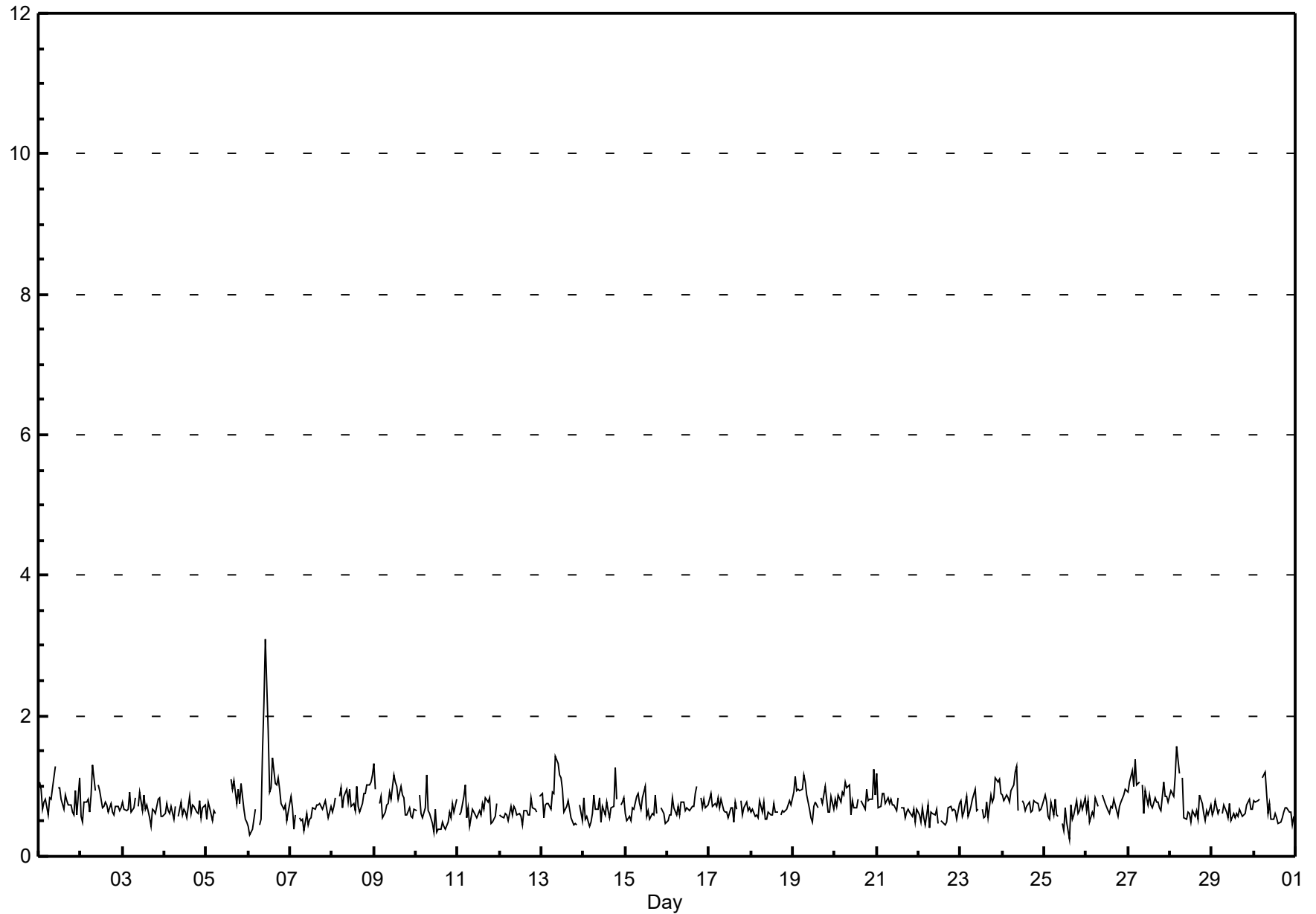
Henry Pirker - April 2018

Maximum Value: 3.1 ppb on Apr 6 11:00																				Maximum Daily Average: 1.0 ppb on Apr 6					Hours in Service: 720	
Minimum Value: 0 ppb on Apr 25 15:00																				Minimum Daily Average: 0.6 ppb on Apr 22					Hours of Data: 682	
Maximum Diurnal Average: 0.8 ppb at hour 9																				Minimum Diurnal Average: 0.7 ppb at hour 14					Hours of Missing Data: 38	
Monthly Average: 0.73 ppb																				Percentiles: P ₁ = 0.4 P ₁₀ = 0.5 Q ₁ = 0.6 Median = 0.7 Q ₃ = 0.8 P ₉₀ = 1.0 P ₉₉ = 1.4					Hours of Calibration: 38	
																				Percent Operational Time: 100.0						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.3
2-Apr	1	0	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.3
3-Apr	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0.7	0.9
4-Apr	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
5-Apr	1	1	1	1	1	1	A	C	C	C	C	C	C	C	1	1	1	1	1	1	1	1	1	0	--	1.1
6-Apr	0	0	0	1	1	A	0	1	1	2	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1.0	3.1
7-Apr	1	1	0	1	A	1	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.9
8-Apr	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1
9-Apr	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.3
10-Apr	1	A	1	1	1	1	1	1	1	0	0	1	0	0	0	0	0	0	0	0	1	1	1	1	0.6	1.2
11-Apr	A	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	A	0.7	1.0
12-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	A	1	0.6	0.9
13-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	A	1	1	0.8	1.4
14-Apr	1	1	1	0	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	A	1	1	1	0.7	1.3
15-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0	0.7	1.0
16-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.7	1.0
17-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	A	1	1	1	1	1	1	0.7	0.9
18-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.6	0.8
19-Apr	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	A	1	1	1	1	1	1	1	1	0.8	1.2
20-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.8	1.2
21-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0	1	0.7	1.2
22-Apr	1	0	1	1	0	1	0	1	1	1	1	0	A	1	0	0	0	1	1	1	1	1	1	1	0.6	0.8
23-Apr	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1
24-Apr	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.3
25-Apr	1	1	1	1	1	1	1	1	1	A	0	0	1	0	0	1	1	1	1	1	1	1	1	1	0.6	0.9
26-Apr	1	1	0	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0
27-Apr	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.4
28-Apr	1	1	1	1	2	1	A	1	1	1	1	1	0	1	1	1	1	1	1	1	0	1	1	1	0.8	1.6
29-Apr	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.8
30-Apr	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	0	1	0.7	1.2
0.8 0.7 0.7 0.7 0.8 0.7 0.8 0.8 0.8 0.8 0.8 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7																									Diurnal Average	
1.3 1.1 1.2 1.1 1.6 1.2 1.2 1.3 1.5 2.2 3.1 1.8 1.1 1.0 1.4 1.0 1.1 1.1 1.1 1.3 0.9 1.1 1.1 1.2 1.1																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

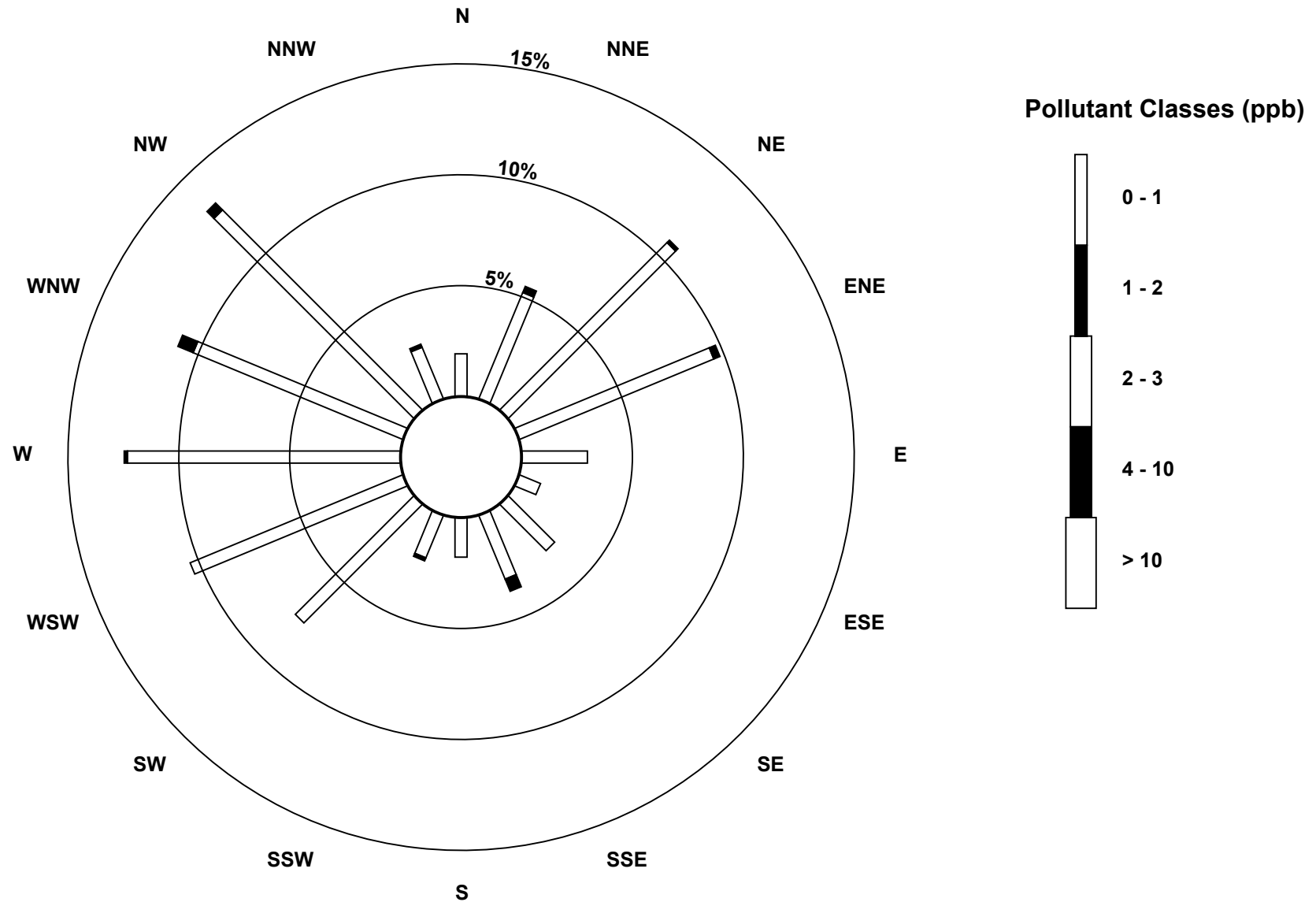
Henry Pirker - April 2018

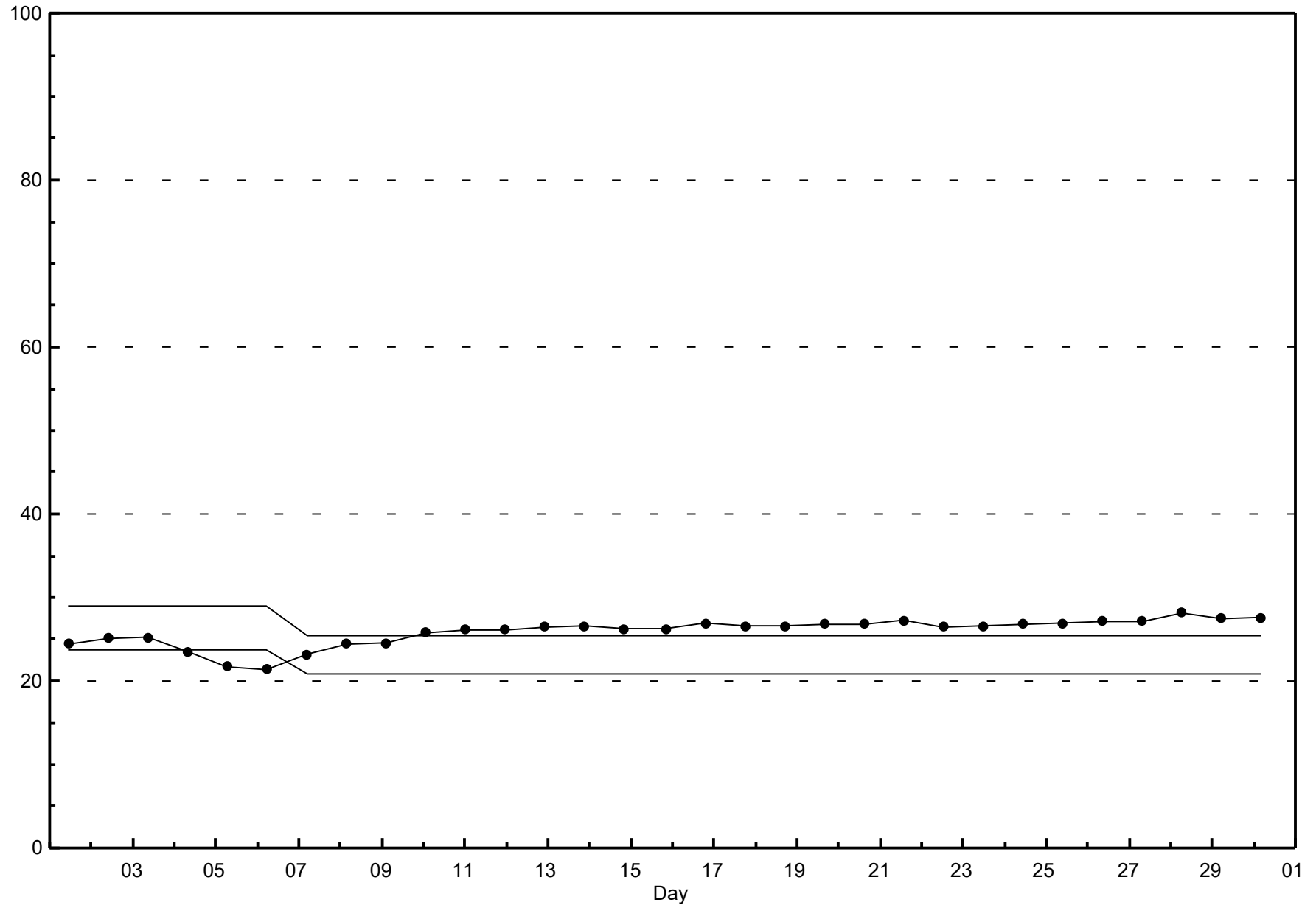


Pollutant Rose

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - April 2018





Hourly Averages

Nitrogen Dioxide (NO₂) - ppb

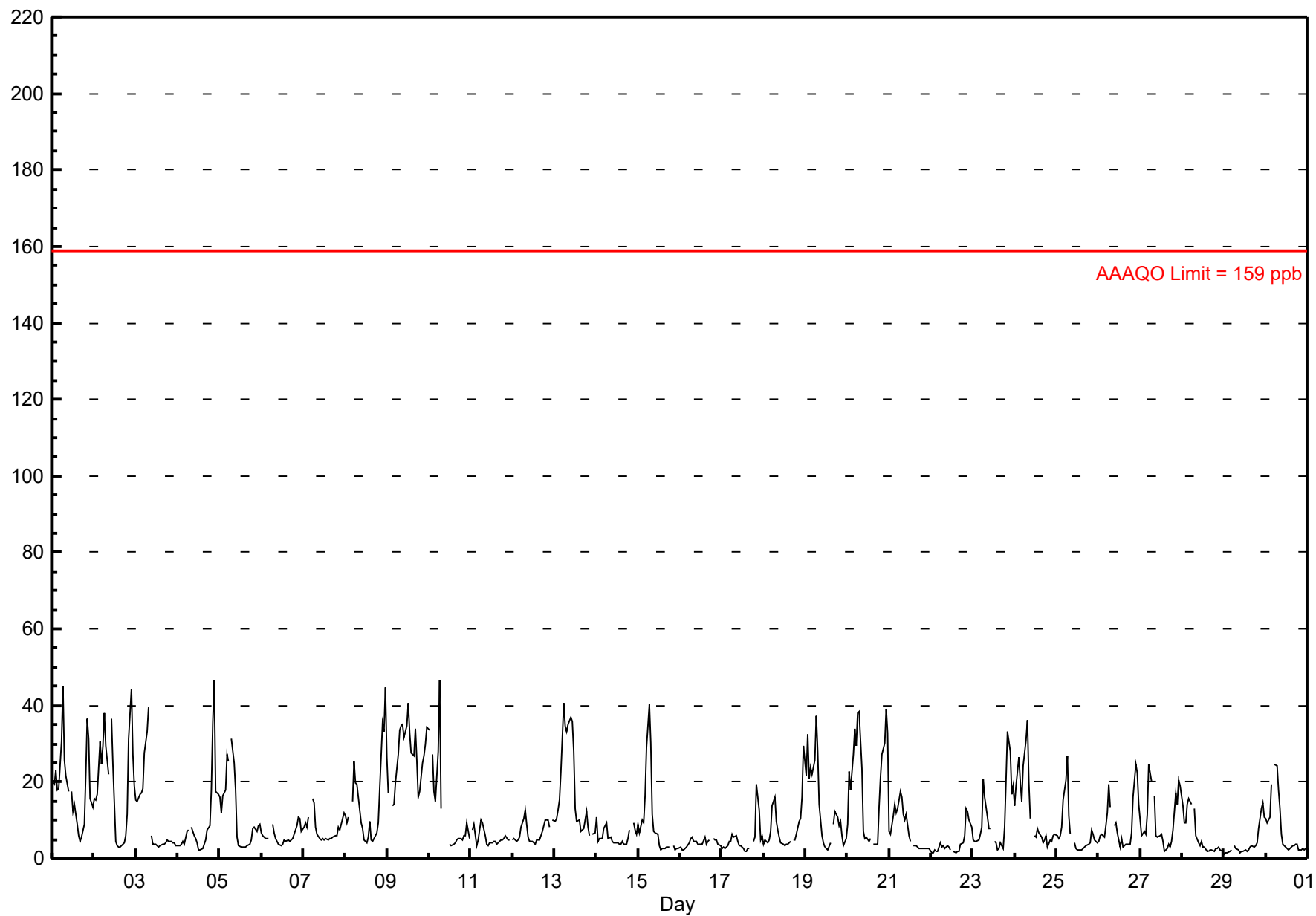
Henry Pirker - April 2018

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 46.7 ppb on Apr 4 22:00 Maximum Daily Average: 27.2 ppb on Apr 9																								Hours in Service: 720 Hours of Data: 685 Hours of Missing Data: 35 Hours of Calibration: 35 Percent Operational Time: 100.0		
Minimum Value: 1 ppb on Apr 29 01:00 Minimum Daily Average: 3.9 ppb on Apr 29 Maximum Diurnal Average: 22.0 ppb at hour 7 Minimum Diurnal Average: 4.6 ppb at hour 16 Monthly Average: 10.35 ppb Percentiles: P ₁ = 1.7 P ₁₀ = 2.7 Q ₁ = 3.9 Median = 6.0 Q ₃ = 13.9 P ₉₀ = 26.5 P ₉₉ = 40.5																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	20	19	23	18	18	31	45	26	22	18	A	18	12	14	9	6	4	6	9	22	37	31	16	13	19.0	45.1
2-Apr	16	15	17	31	24	29	38	30	22	A	37	25	5	3	3	3	3	4	6	11	31	44	27	19	19.3	44.3
3-Apr	15	15	17	17	18	27	33	39	A	6	4	4	3	3	4	4	4	4	5	4	5	4	4	3	10.6	39.5
4-Apr	3	3	4	4	4	7	7	A	8	6	5	4	2	2	3	4	5	8	8	18	35	47	18	17	9.7	46.7
5-Apr	16	12	17	18	27	25	A	31	25	18	6	3	3	3	3	3	3	4	5	8	8	7	9	9	11.4	31.2
6-Apr	7	6	5	5	5	A	9	7	5	5	4	3	4	5	4	5	5	5	5	6	8	11	10	7	5.9	10.8
7-Apr	8	9	8	11	A	16	15	8	6	5	5	5	5	5	5	5	5	6	6	6	8	7	9	12	7.7	15.6
8-Apr	11	9	11	A	15	25	20	19	13	9	8	5	4	6	10	5	4	6	7	9	18	35	33	45	14.3	44.8
9-Apr	27	17	A	14	14	20	27	33	35	35	32	35	41	33	28	27	34	26	16	17	25	27	30	34	27.2	40.7
10-Apr	34	A	27	17	15	28	47	13	C	C	C	C	4	3	4	4	5	5	5	5	6	6	9	5	12.7	46.5
11-Apr	A	7	9	3	5	7	10	9	6	4	3	4	4	4	4	4	4	5	5	5	6	5	5	A	5.5	9.9
12-Apr	5	5	4	5	6	8	10	13	9	6	5	5	4	4	5	5	6	7	9	10	10	8	A	10	6.8	12.8
13-Apr	10	11	13	15	23	40	35	33	35	37	36	28	13	10	10	7	7	8	12	8	6	A	6	7	17.8	40.5
14-Apr	11	4	5	5	8	9	9	5	6	5	4	4	4	4	4	4	4	4	5	8	A	9	8	6	5.9	10.9
15-Apr	9	7	10	9	17	29	40	30	12	7	7	6	4	2	3	3	3	3	3	A	3	2	3	3	9.3	40.5
16-Apr	3	2	2	3	3	4	5	5	5	4	4	4	4	4	5	4	4	5	A	5	5	5	4	3	4.0	5.5
17-Apr	3	3	3	3	4	4	6	6	6	5	3	3	3	2	2	2	3	A	4	6	20	13	5	6	5.0	19.5
18-Apr	4	5	4	5	7	14	16	10	7	6	4	4	4	4	4	4	A	5	5	6	10	10	16	29	7.9	29.5
19-Apr	22	33	21	24	22	26	37	28	14	6	4	3	3	2	4	A	9	12	11	9	10	6	4	5	13.7	37.3
20-Apr	9	23	18	27	34	30	38	38	24	7	5	5	5	5	A	4	4	4	13	21	27	30	39	33	19.3	39.3
21-Apr	7	6	11	14	12	13	18	16	11	10	11	6	5	A	3	3	3	3	3	3	2	3	3	2	7.3	17.6
22-Apr	2	2	2	2	2	4	3	3	3	3	3	2	A	2	1	2	2	4	4	6	13	12	10	8	4.1	12.9
23-Apr	5	4	5	5	6	8	21	16	11	8	8	A	4	4	2	3	4	3	8	21	33	28	17	19	10.5	33.0
24-Apr	14	19	26	20	15	24	31	36	20	10	A	6	5	8	7	6	4	5	6	3	5	4	6	6	12.5	36.1
25-Apr	6	5	6	8	15	20	27	11	6	A	4	3	2	2	2	3	3	3	4	4	8	6	5	4	6.9	27.0
26-Apr	5	6	6	6	9	12	19	13	A	9	9	7	3	5	3	3	4	4	4	7	16	25	22	14	9.1	24.8
27-Apr	10	6	7	6	12	24	20	A	17	6	6	6	6	5	2	3	4	3	4	7	17	14	20	19	9.8	24.5
28-Apr	14	9	9	14	16	14	A	13	6	4	4	5	3	3	2	2	2	2	2	2	3	3	2	2	5.9	15.6
29-Apr	1	2	1	2	2	A	3	2	2	2	2	2	2	2	2	3	3	3	3	4	8	13	14	11	3.9	14.4
30-Apr	10	9	11	20	A	25	24	18	13	6	4	3	3	2	3	3	3	4	4	2	2	3	2	3	7.7	24.7
10.5 9.5 10.5 11.4 12.8 18.8 22.0 18.4 12.9 9.1 8.3 7.4 5.6 5.2 4.8 4.6 5.2 5.4 6.2 8.5 13.3 14.5 12.3 12.3																								Diurnal Average		
33.6 32.5 27.2 30.8 34.0 40.5 46.5 39.5 35.2 37.0 36.5 34.7 40.7 32.7 27.6 26.7 34.1 25.8 15.8 21.9 36.7 46.7 39.3 44.8																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb 24-hr 106 ppb																										

Hourly Averages

Nitrogen Dioxide (NO₂) - ppb

Henry Pirker - April 2018



Hourly Maximums

Nitrogen Dioxide (NO₂) - ppb

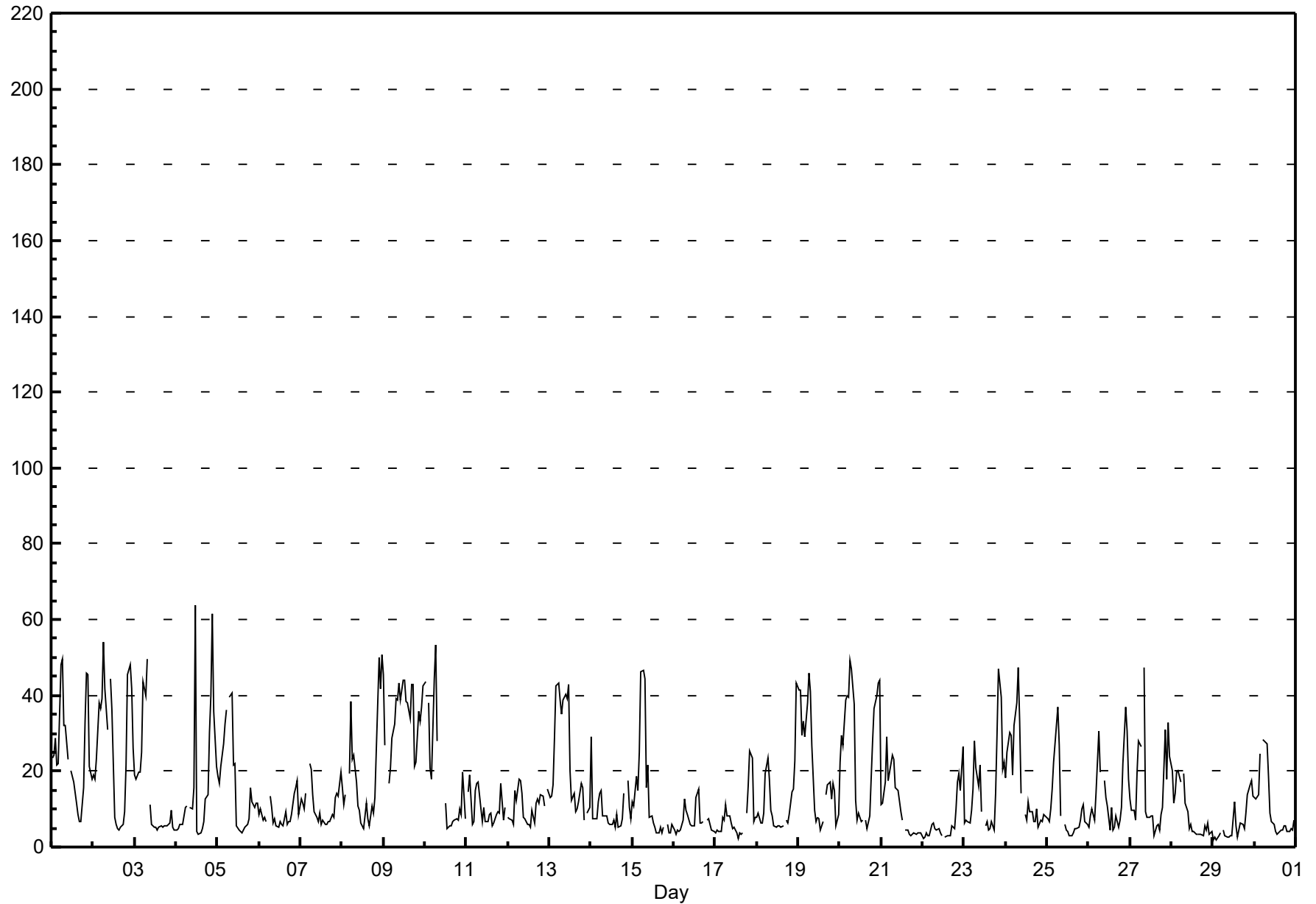
Henry Pirker - April 2018

Maximum Value: 63.9 ppb on Apr 4 12:00																				Maximum Daily Average: 35.1 ppb on Apr 9										Hours in Service: 720	
Minimum Value: 2 ppb on Apr 29 01:00																				Minimum Daily Average: 6.3 ppb on Apr 29										Hours of Data: 685	
Maximum Diurnal Average: 28.5 ppb at hour 7																				Minimum Diurnal Average: 6.7 ppb at hour 16										Hours of Missing Data: 35	
Monthly Average: 14.89 ppb																				Percentiles: P ₁ = 2.6 P ₁₀ = 4.2 Q ₁ = 5.9 Median = 9.5 Q ₃ = 19.9 P ₉₀ = 37.8 P ₉₉ = 49.7										Hours of Calibration: 35	
																														Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
1-Apr	23	24	29	22	22	48	50	32	32	23	A	20	19	17	11	9	7	7	16	33	46	45	21	18	24.9	49.7					
2-Apr	19	18	23	38	37	39	54	42	31	A	44	36	8	6	5	4	5	6	9	21	45	48	42	26	26.4	53.9					
3-Apr	19	18	20	20	25	44	40	50	A	11	6	5	5	4	5	6	5	6	6	5	6	10	5	5	14.2	49.7					
4-Apr	5	5	6	6	6	10	11	A	10	10	16	64	4	3	4	5	7	13	14	30	40	61	36	21	16.8	63.9					
5-Apr	19	17	21	27	33	36	A	40	41	22	22	6	4	4	4	5	5	6	8	16	12	10	11	12	16.5	40.8					
6-Apr	8	10	7	8	7	A	14	10	6	7	6	5	7	6	6	9	6	7	7	9	14	16	18	9	8.7	17.5					
7-Apr	13	12	10	14	A	22	20	14	9	8	7	9	6	7	6	6	7	7	9	8	13	14	13	20	11.0	21.9					
8-Apr	16	11	14	A	19	39	23	24	17	11	10	6	5	8	12	7	5	11	9	13	26	50	42	51	18.6	50.8					
9-Apr	45	27	A	17	21	29	33	39	39	43	39	44	44	38	38	34	43	43	21	22	36	33	37	42	35.1	45.4					
10-Apr	44	A	38	21	18	44	53	28	C	C	C	C	11	5	6	6	7	7	7	7	10	9	20	8	18.3	53.4					
11-Apr	A	15	19	6	7	15	17	17	10	7	10	7	7	9	9	6	6	9	9	9	17	7	10	A	10.3	18.9					
12-Apr	8	8	7	6	15	12	18	18	14	8	8	6	6	5	10	6	11	13	12	14	13	11	A	15	10.6	18.1					
13-Apr	13	13	17	29	42	43	39	35	39	40	39	43	20	12	14	9	10	12	17	16	7	A	9	11	23.0	43.1					
14-Apr	29	7	7	7	12	14	15	8	8	8	6	6	6	7	5	9	5	6	8	14	A	18	11	8	9.8	28.9					
15-Apr	12	11	19	15	25	46	46	44	16	22	8	8	6	5	4	4	5	4	5	A	6	4	4	6	14.1	46.5					
16-Apr	5	3	5	4	4	7	13	10	9	6	6	6	6	13	15	6	6	7	A	7	7	6	5	4	6.9	15.3					
17-Apr	4	4	4	4	8	7	11	8	8	6	5	5	4	2	4	3	4	A	9	16	25	24	7	8	7.9	25.4					
18-Apr	8	9	6	6	9	19	23	18	10	8	6	5	5	6	5	6	A	7	6	8	15	15	23	43	11.6	43.2					
19-Apr	41	41	30	33	29	38	46	41	27	10	7	8	7	4	7	A	14	16	17	13	17	15	6	9	20.6	45.7					
20-Apr	23	29	27	39	40	40	49	47	38	12	7	9	7	7	A	7	5	8	18	28	37	40	43	44	26.2	49.1					
21-Apr	11	12	17	29	17	20	24	23	16	15	15	9	7	A	4	5	4	3	3	4	3	4	4	4	11.0	29.0					
22-Apr	2	3	4	3	3	6	6	5	5	5	4	3	A	2	3	3	3	5	5	10	17	20	15	27	6.8	26.6					
23-Apr	6	7	7	6	10	15	28	21	16	21	9	A	6	7	4	5	7	4	14	30	47	40	21	22	15.4	47.0					
24-Apr	18	25	30	29	19	32	38	47	33	14	A	9	7	12	9	9	7	7	10	5	7	7	8	8	17.0	47.2					
25-Apr	8	7	10	15	22	32	37	27	8	A	6	5	4	3	3	4	5	5	5	7	10	11	7	6	10.7	36.9					
26-Apr	5	8	10	7	14	22	31	20	A	18	13	11	5	10	4	5	8	5	7	10	22	37	31	18	14.0	37.0					
27-Apr	13	10	10	7	19	28	27	A	47	9	8	8	8	8	3	6	6	4	9	10	31	18	33	24	15.0	47.3					
28-Apr	20	12	14	20	20	17	A	19	12	9	5	6	4	4	3	3	3	3	5	5	4	6	3	4	8.8	20.3					
29-Apr	2	2	2	3	4	A	5	3	3	3	3	3	12	6	3	5	6	6	5	9	14	17	17	13	6.3	17.4					
30-Apr	13	13	14	24	A	28	28	27	19	9	7	6	4	3	4	4	5	6	6	4	4	5	4	7	10.6	28.5					
																								Diurnal Average							
																								Diurnal Maximum							
C - Calibration																								A - Automated Daily Zero Span							

Hourly Maximums

Nitrogen Dioxide (NO₂) - ppb

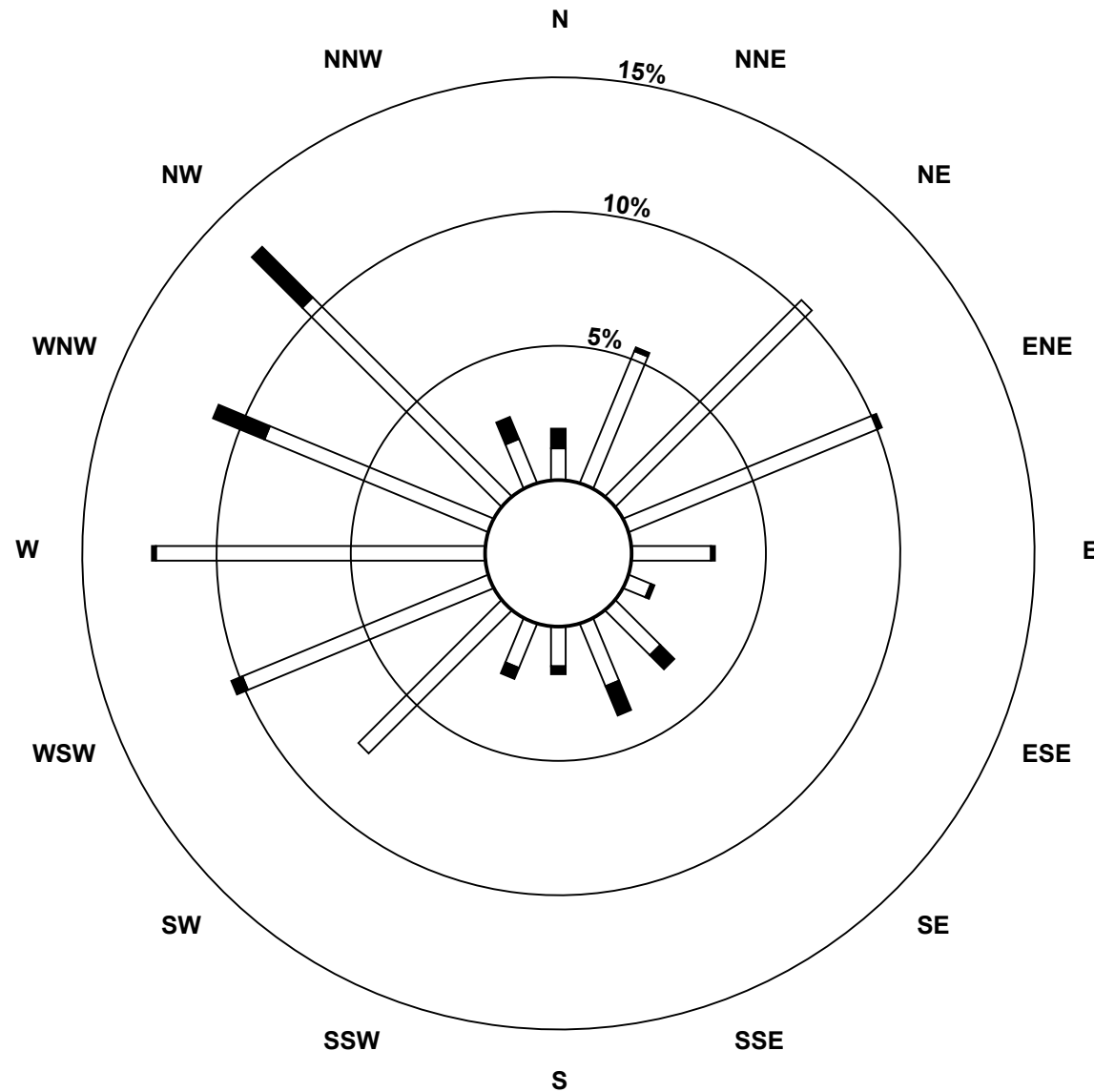
Henry Pirker - April 2018



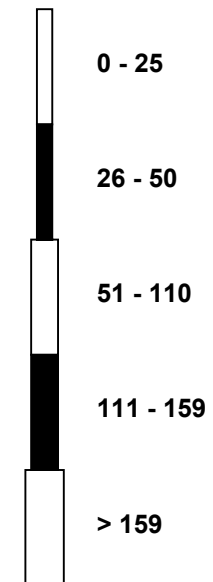
Pollutant Rose

Nitrogen Dioxide (NO₂) - ppb

Henry Pirker - April 2018

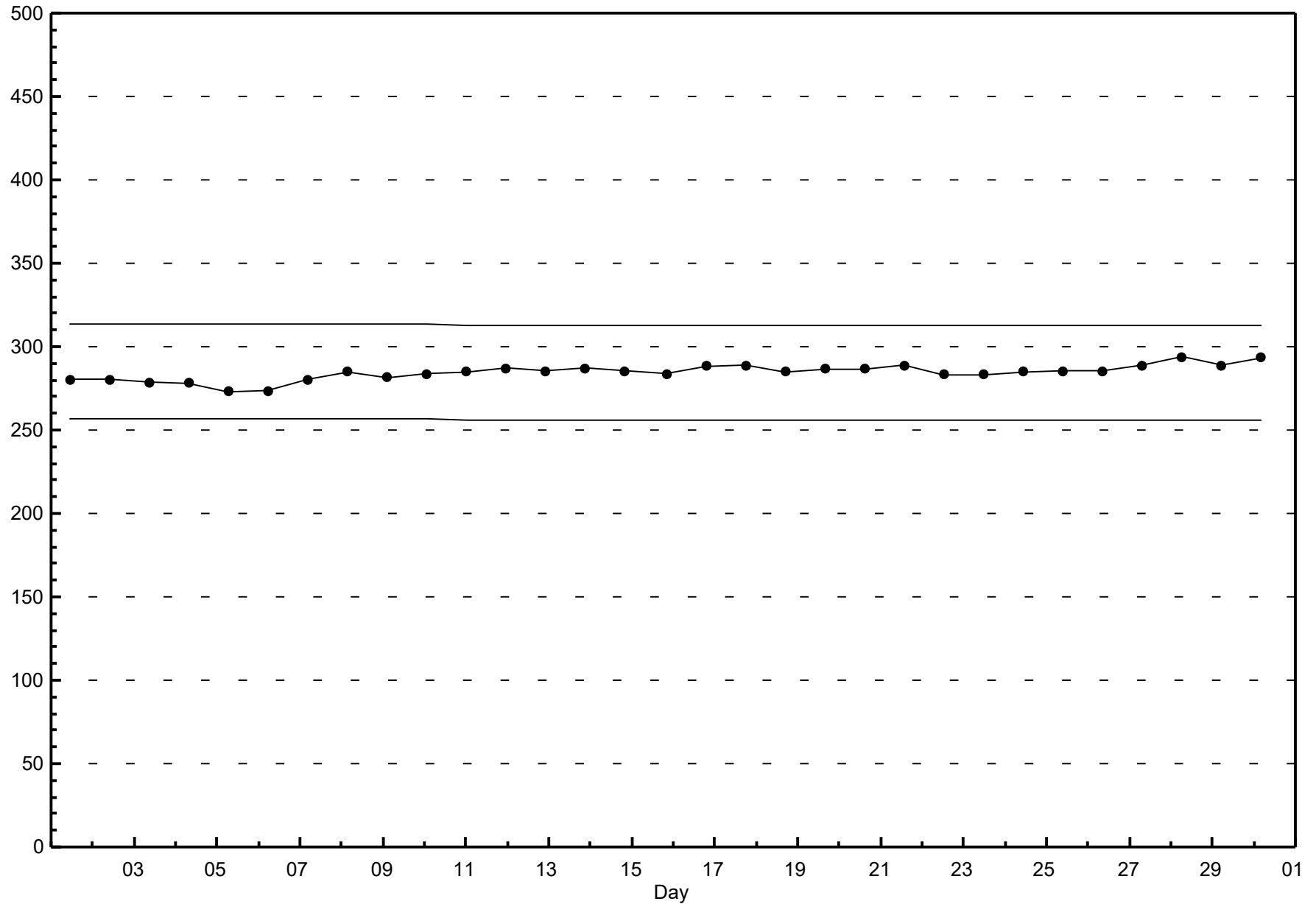


Pollutant Classes (ppb)



Span Responses

Nitrogen Dioxide (NO₂)
Henry Pirker - April 2018



Hourly Averages

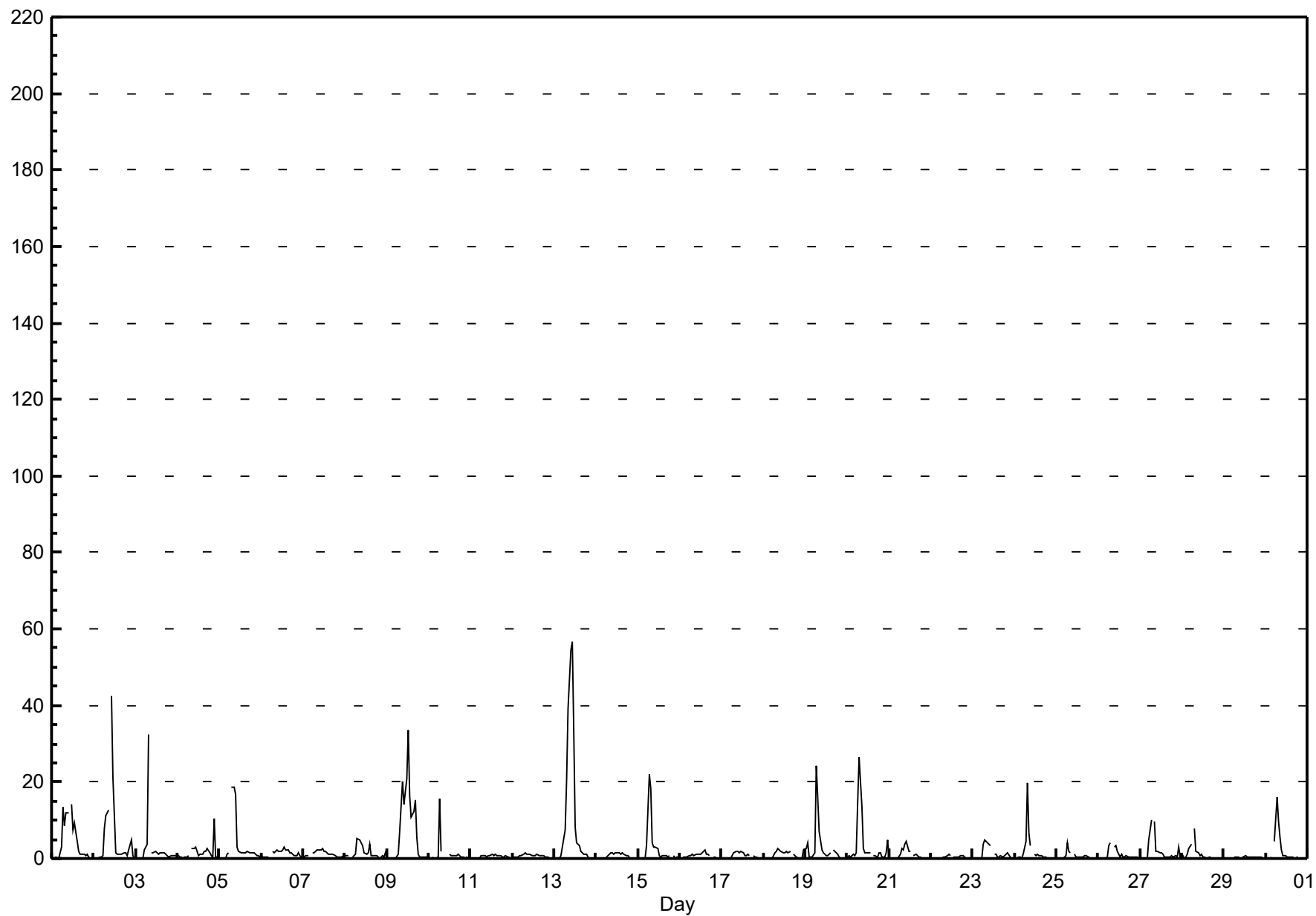
Nitrogen Oxide (NO) - ppb

Henry Pirker - April 2018

Maximum Value: 56.6 ppb on Apr 13 11:00																				Maximum Daily Average: 10.4 ppb on Apr 13					Hours in Service: 720	
Minimum Value: 0 ppb on Apr 18 03:00																				Minimum Daily Average: 0.2 ppb on Apr 29					Hours of Data: 685	
Maximum Diurnal Average: 8.2 ppb at hour 8																				Minimum Diurnal Average: 0.2 ppb at hour 3					Hours of Missing Data: 35	
Monthly Average: 2.14 ppb																				Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.2 Median = 0.6 Q ₃ = 1.5 P ₉₀ = 4.0 P ₉₉ = 27.6					Hours of Calibration: 35	
																				Percent Operational Time: 100.0						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	0	0	0	0	0	3	13	8	12	12	A	14	7	9	4	2	1	1	1	1	1	1	0	0	4.0	14.1
2-Apr	0	0	0	0	0	1	8	11	13	A	43	21	1	1	1	1	1	1	1	1	2	5	1	0	5.0	42.7
3-Apr	0	0	0	0	0	2	4	32	A	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	2.4	32.5
4-Apr	1	0	0	0	0	1	1	A	3	3	3	2	1	1	1	2	2	3	1	1	0	10	1	0	1.6	10.3
5-Apr	0	0	0	0	1	1	A	18	19	17	3	2	2	2	2	2	2	2	2	2	1	1	1	1	3.4	18.6
6-Apr	1	1	0	1	0	A	2	2	2	2	2	2	2	3	2	2	2	1	1	1	1	2	1	0	1.4	2.9
7-Apr	1	1	1	1	A	1	1	2	2	2	2	3	2	2	1	1	1	1	1	0	0	0	0	1	1.2	2.5
8-Apr	1	1	1	A	1	1	1	5	5	4	4	1	1	2	4	1	1	1	1	0	0	1	0	2	1.6	5.4
9-Apr	0	0	A	0	0	0	1	7	14	20	14	21	34	16	11	12	15	6	1	0	0	0	0	0	7.6	33.7
10-Apr	1	A	0	0	0	1	16	2	C	C	C	C	1	1	1	1	1	1	0	1	0	0	0	0	1.4	15.5
11-Apr	A	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	0	A	0.6	1.1
12-Apr	0	0	0	0	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	0	0	0	A	0	0.7	1.6
13-Apr	0	0	0	0	1	5	8	20	39	55	57	34	8	4	3	2	1	1	1	0	0	A	0	0	10.4	56.6
14-Apr	0	0	0	0	0	0	0	1	2	1	1	1	2	1	1	1	1	1	1	0	A	0	0	0	0.7	1.6
15-Apr	0	0	0	0	0	3	22	18	4	3	3	3	1	0	1	1	1	0	1	A	1	0	0	0	2.7	21.9
16-Apr	0	0	0	0	0	1	1	1	1	1	1	1	1	2	2	1	1	1	A	0	0	0	0	0	0.7	2.4
17-Apr	0	0	0	0	0	0	1	1	2	2	2	2	1	1	1	1	1	A	1	0	0	0	0	0	0.7	2.0
18-Apr	0	0	0	0	0	0	1	2	2	2	2	2	2	2	2	2	A	1	1	0	0	0	0	2	1.0	2.5
19-Apr	3	4	0	1	0	2	24	16	7	2	2	1	1	1	1	A	2	2	1	0	0	0	0	0	3.1	24.4
20-Apr	0	1	0	1	1	2	14	27	13	3	2	2	1	2	A	1	1	0	1	1	1	0	1	5	3.5	26.7
21-Apr	0	0	0	0	0	0	1	3	2	4	4	2	2	A	1	1	1	0	0	0	0	0	0	0	0.9	4.3
22-Apr	0	0	0	0	0	0	0	0	0	1	1	1	A	0	0	0	0	1	1	0	0	0	0	0	0.3	1.0
23-Apr	0	0	0	0	0	0	4	5	4	4	3	A	1	1	0	0	1	0	1	1	1	0	0	0	1.2	5.0
24-Apr	0	0	0	0	0	1	5	20	7	3	A	1	1	1	1	1	0	0	0	0	0	0	0	0	1.8	19.9
25-Apr	0	0	0	0	0	1	4	2	1	A	1	1	0	0	0	0	1	1	0	0	0	0	0	0	0.6	4.0
26-Apr	0	0	0	0	0	0	3	4	A	3	3	2	1	1	0	0	1	0	0	0	0	0	0	0	0.9	4.0
27-Apr	0	0	0	0	0	5	10	A	10	2	2	2	2	1	0	0	0	0	0	1	0	1	0	3	1.7	10.2
28-Apr	1	0	0	1	3	4	A	8	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1.0	7.7
29-Apr	0	0	0	0	0	A	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0.2	0.6
30-Apr	0	0	0	0	A	4	16	10	5	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1.8	16.0
0.3 0.3 0.2 0.2 0.4 1.4 5.8 8.2 6.4 5.6 5.9 4.4 2.7 2.0 1.6 1.4 1.4 1.0 0.8 0.5 0.5 0.8 0.4 0.5																									Diurnal Average	
2.6 4.0 0.6 1.2 2.8 5.4 24.4 32.5 39.2 54.6 56.6 33.6 33.7 16.5 10.8 12.3 15.5 5.6 1.6 1.5 2.3 10.3 2.9 4.8																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										

Hourly Averages

Nitrogen Oxide (NO) - ppb
Henry Pirker - April 2018



Hourly Maximums

Nitrogen Oxide (NO) - ppb

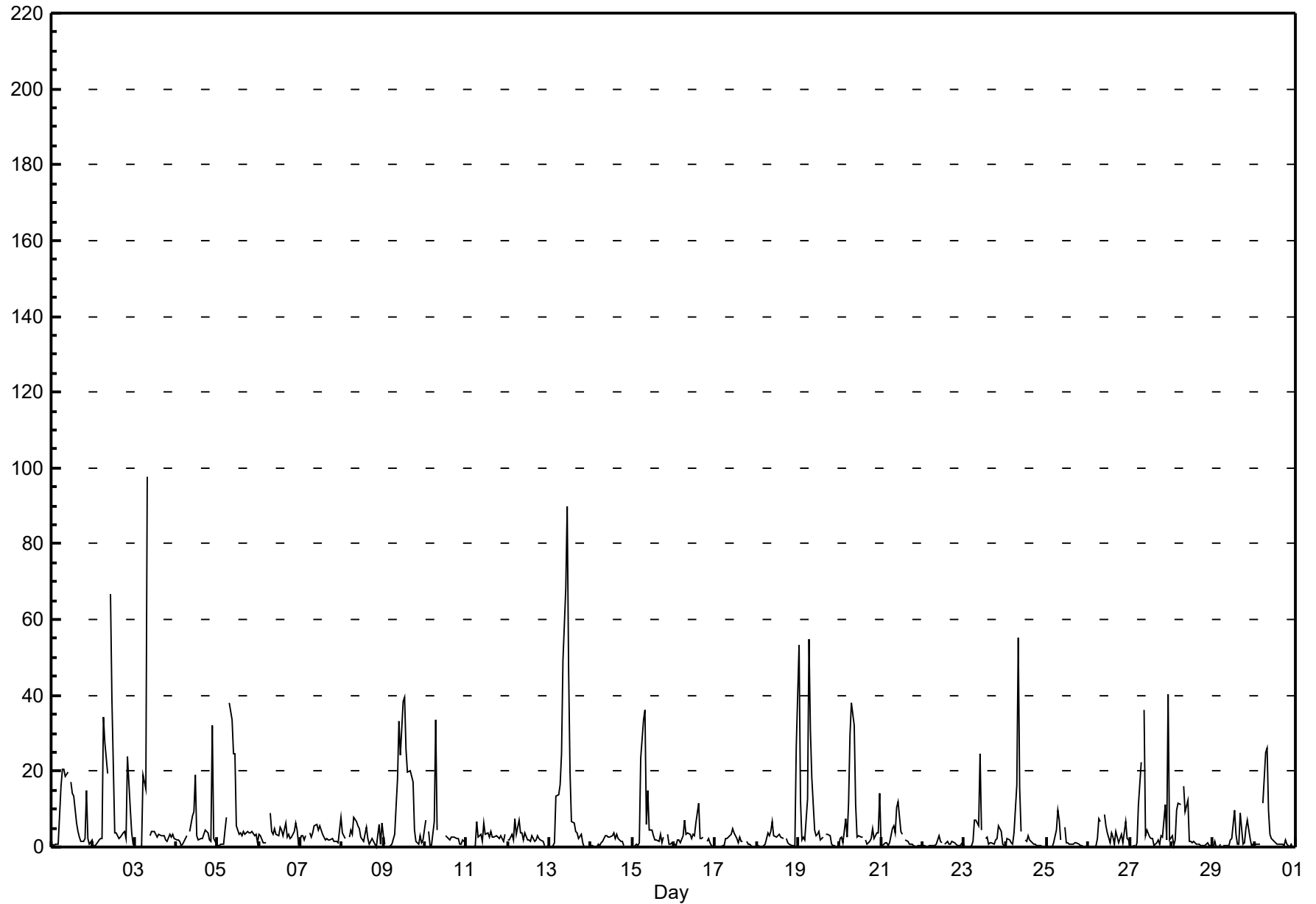
Henry Pirker - April 2018

Maximum Value: 97.9 ppb on Apr 3 08:00																				Maximum Daily Average: 16.2 ppb on Apr 13					Hours in Service: 720	
Minimum Value: 0 ppb on Apr 18 03:00																				Minimum Daily Average: 0.8 ppb on Apr 22					Hours of Data: 685	
Maximum Diurnal Average: 17.4 ppb at hour 8																				Minimum Diurnal Average: 1.0 ppb at hour 3					Hours of Missing Data: 35	
Monthly Average: 5.10 ppb																				Percentiles: P ₁ = 0.1 P ₁₀ = 0.2 Q ₁ = 0.7 Median = 2.2 Q ₃ = 3.9 P ₉₀ = 12.3 P ₉₉ = 50.0					Hours of Calibration: 35	
																				Percent Operational Time: 100.0						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	1	0	1	1	1	16	21	20	19	20	A	17	14	13	6	4	3	2	1	2	15	2	1	2	7.9	20.7
2-Apr	0	0	1	2	2	2	34	28	19	A	67	39	4	4	3	2	3	4	4	2	24	10	4	1	11.2	66.8
3-Apr	0	0	0	0	0	19	15	98	A	3	4	4	3	3	3	3	3	3	2	1	3	3	3	2	7.7	97.9
4-Apr	2	2	1	0	1	2	3	A	4	8	9	19	3	2	2	2	3	5	4	2	2	32	2	1	4.9	32.2
5-Apr	0	0	1	1	4	8	A	38	33	25	25	5	3	4	3	4	3	4	4	4	4	3	3	1	7.9	37.9
6-Apr	3	3	1	1	1	A	9	4	3	5	3	3	5	4	3	6	3	3	2	3	4	6	4	1	3.6	9.0
7-Apr	3	3	2	3	A	4	3	4	5	6	5	6	4	3	2	2	2	2	2	2	2	2	1	8	3.2	7.8
8-Apr	4	3	2	A	2	4	3	8	7	6	5	3	1	3	5	2	1	2	2	1	0	6	1	6	3.4	7.8
9-Apr	3	1	A	0	0	1	3	11	18	33	24	38	39	26	20	20	19	17	5	1	1	3	1	2	12.5	39.5
10-Apr	7	A	4	0	0	7	33	4	C	C	C	C	3	3	2	2	3	3	2	2	1	1	2	1	4.2	33.5
11-Apr	A	0	0	0	0	0	7	3	3	1	6	4	4	3	4	3	3	3	3	2	3	1	3	A	2.6	6.9
12-Apr	2	2	3	2	8	3	7	4	4	2	4	2	2	1	3	1	2	3	2	2	1	1	A	0	2.6	7.6
13-Apr	0	0	0	1	14	14	16	25	49	68	90	47	20	7	6	4	4	2	3	1	0	A	0	0	16.2	89.8
14-Apr	1	0	0	0	1	0	1	1	3	3	2	3	3	4	2	3	2	1	1	0	A	0	0	0	1.5	3.8
15-Apr	0	0	1	0	1	23	34	36	6	15	4	4	3	2	2	1	3	1	3	A	3	1	1	1	6.4	36.3
16-Apr	1	0	2	2	1	3	7	3	4	3	2	3	3	6	12	2	2	3	A	2	2	1	0	0	2.9	11.6
17-Apr	0	0	0	0	0	0	2	2	3	3	5	4	2	1	3	2	1	A	2	1	1	0	0	0	1.5	4.8
18-Apr	1	0	0	0	0	1	4	3	4	7	3	3	3	3	3	2	A	2	1	1	0	0	0	27	3.0	26.6
19-Apr	53	12	2	3	2	13	55	31	18	5	3	3	4	2	3	A	3	4	3	1	0	0	0	0	9.6	54.6
20-Apr	2	3	1	7	2	11	29	38	32	11	2	3	2	3	A	2	1	2	2	5	2	4	4	14	8.0	38.2
21-Apr	1	0	1	1	0	1	5	5	4	10	12	4	4	A	2	2	1	1	1	0	0	0	0	0	2.4	12.1
22-Apr	0	0	0	0	0	0	1	1	1	3	1	1	A	1	2	1	1	1	1	1	0	0	0	1	0.8	3.0
23-Apr	0	0	0	0	0	2	7	7	6	25	5	A	2	3	1	1	1	1	2	2	6	4	1	0	3.3	24.6
24-Apr	0	2	2	1	1	4	16	55	16	4	A	2	2	3	2	1	1	1	1	0	0	0	0	0	4.9	55.4
25-Apr	0	0	0	0	1	5	10	7	2	A	5	1	1	1	1	1	1	1	1	0	0	0	0	0	1.7	9.6
26-Apr	0	0	0	0	1	2	8	7	A	9	6	4	1	4	3	1	4	1	2	4	1	7	2	2	2.9	8.5
27-Apr	0	0	0	0	1	11	22	A	36	3	5	3	2	2	0	1	2	1	3	2	11	2	40	2	6.6	40.4
28-Apr	3	0	2	10	11	11	A	16	9	12	1	1	1	1	1	1	1	0	0	0	1	1	0	0	3.7	16.1
29-Apr	0	2	0	0	1	A	0	1	1	0	2	2	10	3	1	1	9	1	1	5	7	2	0	1	2.2	9.8
30-Apr	1	1	1	1	A	11	25	26	10	3	2	1	1	1	1	1	1	0	2	1	0	1	0	0	3.9	26.2
																								Diurnal Average		
																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Henry Pirker - April 2018



Hourly Averages

Oxides of Nitrogen (NO_x) - ppb

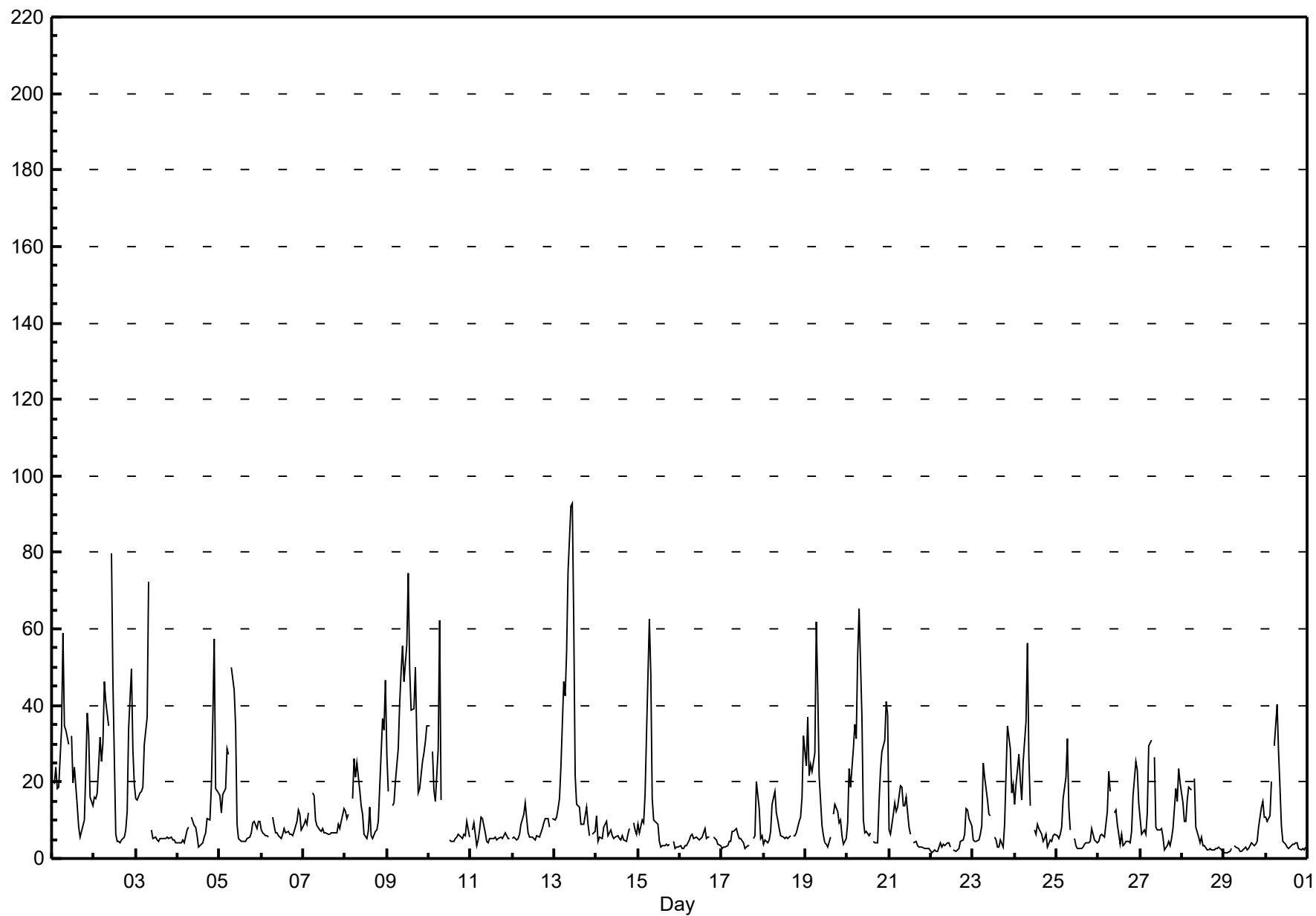
Henry Pirker - April 2018

Maximum Value: 93.0 ppb on Apr 13 11:00																				Maximum Daily Average: 35.1 ppb on Apr 9										Hours in Service: 720	
Minimum Value: 1 ppb on Apr 29 01:00																				Minimum Daily Average: 4.3 ppb on Apr 29										Hours of Data: 685	
Maximum Diurnal Average: 28.0 ppb at hour 7																				Minimum Diurnal Average: 6.0 ppb at hour 16										Hours of Missing Data: 35	
Monthly Average: 12.64 ppb																				Percentiles: P ₁ = 1.9 P ₁₀ = 3.1 Q ₁ = 4.8 Median = 7.1 Q ₃ = 15.3 P ₉₀ = 30.1 P ₉₉ = 63.1										Hours of Calibration: 35	
																														Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
1-Apr	20	20	24	18	19	34	59	35	34	30	A	32	20	24	14	8	6	7	10	23	38	32	16	14	23.3	58.9					
2-Apr	16	16	17	32	25	30	46	41	35	A	80	46	6	5	4	4	5	6	7	12	34	50	28	19	24.6	79.7					
3-Apr	16	15	17	17	19	30	37	72	A	8	5	6	5	5	5	5	5	5	6	5	6	5	5	4	13.1	72.3					
4-Apr	4	4	4	5	4	8	8	A	11	9	8	6	3	3	4	6	7	10	10	19	36	57	18	17	11.4	57.4					
5-Apr	16	12	17	18	29	27	A	50	44	35	9	5	5	4	5	5	5	6	7	9	10	8	10	10	15.0	50.0					
6-Apr	8	7	6	6	6	A	11	8	7	7	6	5	6	8	7	7	6	6	6	7	10	13	11	7	7.4	12.6					
7-Apr	9	10	9	12	A	17	16	10	9	8	7	8	7	7	6	6	7	7	7	7	9	8	10	13	9.0	17.2					
8-Apr	12	10	12	A	16	26	21	25	18	14	11	6	5	7	13	6	5	7	7	10	19	36	34	47	16.0	46.8					
9-Apr	27	17	A	14	14	20	29	41	49	55	46	56	75	49	39	39	50	32	17	18	26	28	31	35	35.1	74.7					
10-Apr	35	A	28	18	15	29	62	15	C	C	C	C	5	4	5	5	6	6	6	5	6	6	10	5	14.3	62.5					
11-Apr	A	8	9	3	5	8	11	10	7	4	4	5	5	5	6	5	5	6	5	6	7	5	5	A	6.1	10.8					
12-Apr	5	5	5	5	7	9	12	15	10	7	6	6	5	5	6	6	7	8	9	11	10	8	A	10	7.6	14.6					
13-Apr	10	11	13	16	24	46	42	54	75	92	93	62	22	14	13	9	9	9	14	9	6	A	6	7	28.5	93.0					
14-Apr	11	5	5	5	8	9	10	6	7	6	5	6	6	5	5	6	5	5	6	8	A	9	8	6	6.6	11.2					
15-Apr	9	7	10	9	17	33	63	49	16	10	10	9	5	3	3	3	4	3	4	A	4	3	3	3	12.1	62.7					
16-Apr	3	2	3	3	3	5	6	6	5	6	5	5	5	6	8	5	6	6	A	6	5	5	4	3	4.8	7.9					
17-Apr	3	3	3	3	5	5	7	7	8	6	5	5	4	3	3	3	3	A	5	6	20	13	5	6	5.7	20.0					
18-Apr	4	5	4	5	7	14	18	12	10	8	6	5	5	6	5	6	A	6	6	7	10	11	16	32	9.0	32.2					
19-Apr	24	37	22	25	23	28	62	44	22	8	6	4	4	3	6	A	12	14	12	9	10	6	4	5	16.9	62.0					
20-Apr	9	24	19	29	35	31	53	65	37	10	7	7	6	7	A	4	4	4	15	23	28	31	41	38	22.9	65.2					
21-Apr	7	6	11	15	12	13	19	19	14	14	16	8	6	A	4	4	4	3	3	3	3	3	3	3	8.4	19.0					
22-Apr	2	2	2	2	2	4	3	4	3	4	4	3	A	2	2	2	2	5	5	6	13	13	10	8	4.5	13.2					
23-Apr	5	4	5	5	6	9	25	21	15	12	11	A	6	5	3	3	5	3	9	22	35	29	17	19	11.9	34.8					
24-Apr	14	19	27	21	15	26	36	56	27	14	A	7	6	9	8	6	5	5	6	3	5	4	6	6	14.4	56.3					
25-Apr	6	5	6	8	16	21	31	13	8	A	5	3	3	3	2	3	4	4	4	4	8	6	5	4	7.6	31.2					
26-Apr	5	6	6	6	9	12	23	18	A	12	13	9	4	6	4	4	4	4	4	7	16	25	23	15	10.2	25.4					
27-Apr	10	6	7	6	12	30	31	A	26	8	8	8	8	6	2	3	4	3	5	8	18	15	24	20	11.7	30.8					
28-Apr	15	10	10	15	19	18	A	21	8	6	4	6	3	3	2	2	3	2	2	3	3	3	3	2	7.1	21.0					
29-Apr	1	2	1	2	3	A	4	3	2	2	2	2	3	2	2	3	4	4	4	5	8	14	15	11	4.3	14.8					
30-Apr	11	10	11	20	A	29	40	28	18	9	5	4	3	3	3	4	4	4	4	2	2	3	2	3	9.6	40.4					
10.9 9.9 10.8 11.8 13.3 20.4 28.0 26.8 19.4 14.9 14.3 11.9 8.5 7.3 6.5 6.0 6.7 6.5 7.1 9.1 13.9 15.5 12.8 12.9																									Diurnal Average						
34.6 36.8 27.9 31.5 35.2 46.1 62.7 72.3 74.8 92.0 93.0 61.8 74.7 49.5 38.7 39.3 49.9 31.7 17.3 23.1 38.1 57.4 40.9 46.8																									Diurnal Maximum						
C - Calibration																									A - Automated Daily Zero Span						

Hourly Averages

Oxides of Nitrogen (NO_x) - ppb

Henry Pirker - April 2018



Hourly Maximums

Oxides of Nitrogen (NO_x) - ppb

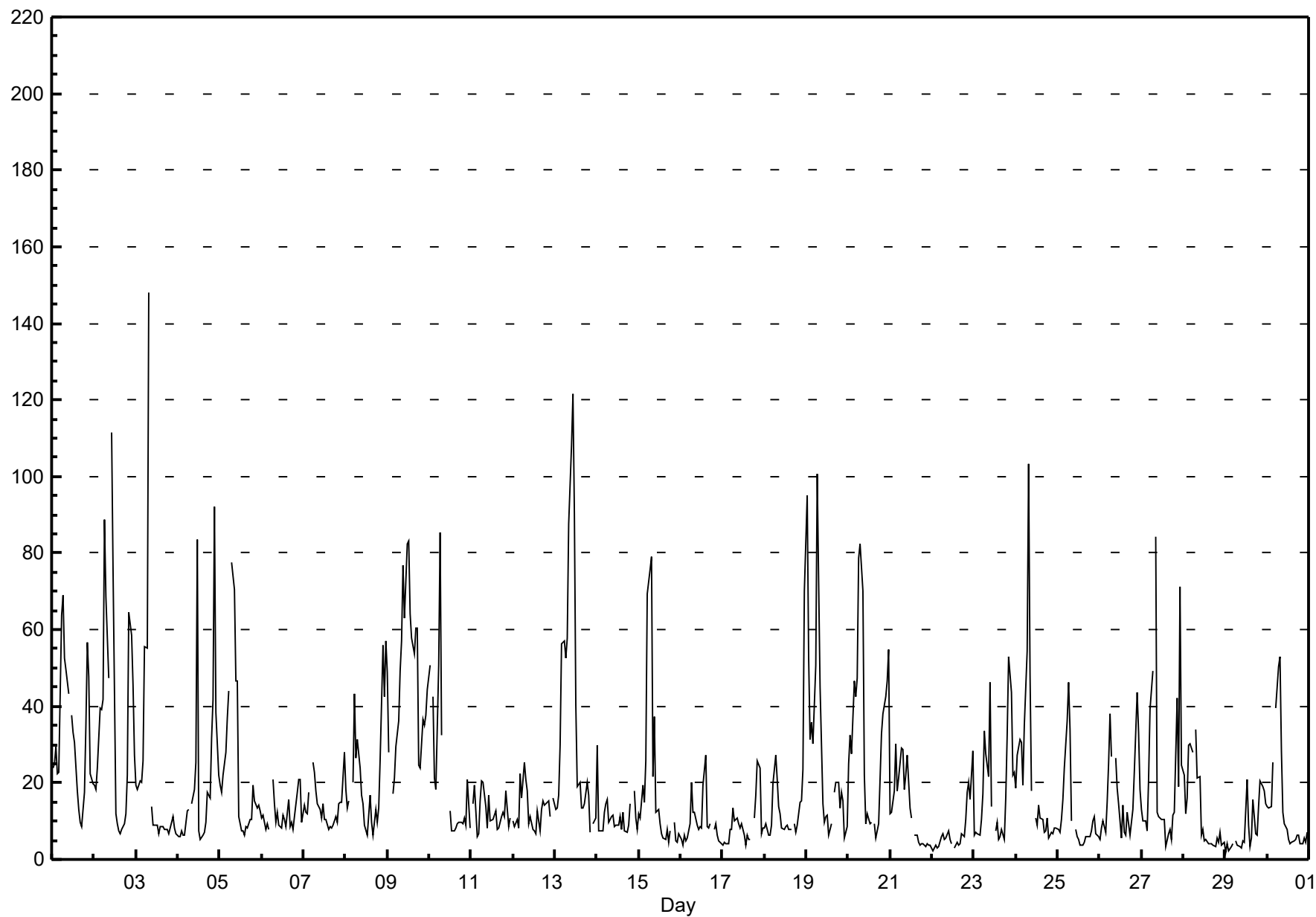
Henry Pirker - April 2018

Maximum Value: 148.2 ppb on Apr 3 08:00																				Maximum Daily Average: 47.4 ppb on Apr 9					Hours in Service: 720	
Minimum Value: 2 ppb on Apr 29 01:00																				Minimum Daily Average: 7.6 ppb on Apr 22					Hours of Data: 685	
Maximum Diurnal Average: 42.6 ppb at hour 8																				Minimum Diurnal Average: 9.5 ppb at hour 16					Hours of Missing Data: 35	
Monthly Average: 19.80 ppb																				Percentiles: P ₁ = 3.2 P ₁₀ = 5.2 Q ₁ = 7.7 Median = 12.1 Q ₃ = 22.6 P ₉₀ = 46.7 P ₉₉ = 92.4					Hours of Calibration: 35	
																				Percent Operational Time: 100.0						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	24	25	30	23	23	64	69	53	50	43	A	38	33	31	18	13	10	9	18	35	57	48	22	20	32.7	68.9
2-Apr	19	18	24	40	39	42	89	68	48	A	112	76	12	9	8	7	8	9	12	22	65	58	45	27	37.2	111.6
3-Apr	19	18	20	20	26	56	55	148	A	14	9	9	9	7	9	9	8	8	8	7	10	11	8	7	21.5	148.2
4-Apr	6	6	7	6	6	13	13	A	15	18	25	83	7	5	6	7	10	17	16	32	42	92	38	22	21.5	91.9
5-Apr	19	17	22	28	37	44	A	78	71	47	47	11	7	7	6	8	8	10	11	19	15	13	14	13	24.1	77.7
6-Apr	11	11	8	9	8	A	21	14	10	12	9	8	11	11	8	16	9	10	8	11	17	21	21	10	11.9	21.0
7-Apr	14	12	12	17	A	25	23	18	15	13	11	15	10	10	8	8	8	9	11	10	15	15	15	28	14.0	28.0
8-Apr	18	14	15	A	20	43	26	32	24	17	15	9	6	11	17	10	6	13	10	13	26	56	43	57	21.8	57.2
9-Apr	49	28	A	17	21	29	36	49	57	77	63	82	83	64	58	54	61	60	25	24	37	35	37	44	47.4	83.1
10-Apr	51	A	42	21	18	51	85	32	C	C	C	C	13	7	8	8	9	10	10	9	11	9	21	8	22.3	85.3
11-Apr	A	15	19	6	7	15	21	20	14	8	17	10	10	11	13	8	8	11	12	11	18	9	11	A	12.5	20.6
12-Apr	10	9	10	8	22	16	25	21	18	9	11	8	8	7	13	8	13	15	14	14	15	11	A	16	13.1	25.4
13-Apr	13	14	17	30	56	57	52	58	88	108	122	90	40	19	20	13	13	14	20	17	7	A	9	11	38.7	121.6
14-Apr	30	8	8	8	12	15	16	10	11	12	9	9	9	11	8	12	8	7	9	14	A	18	11	8	11.3	29.7
15-Apr	12	11	19	15	26	69	76	79	22	37	12	13	9	7	6	5	8	5	7	A	10	5	4	7	20.1	79.1
16-Apr	5	4	6	5	5	9	20	12	12	9	8	9	8	19	27	9	8	9	A	8	9	6	5	4	9.5	27.1
17-Apr	4	4	4	4	8	8	13	10	11	9	8	9	6	4	6	5	5	A	11	17	26	24	7	8	9.2	25.9
18-Apr	8	9	6	6	9	20	27	21	14	12	8	8	9	8	8	8	A	9	7	9	15	15	23	70	14.4	70.2
19-Apr	95	53	31	36	30	51	101	72	45	14	10	11	12	6	9	A	17	20	20	13	17	15	6	9	30.2	100.8
20-Apr	25	32	28	46	43	47	79	82	70	22	9	12	9	10	A	9	5	9	21	33	38	43	47	55	33.7	82.4
21-Apr	12	12	18	30	18	21	29	29	18	22	27	13	11	A	6	6	4	4	4	4	3	4	4	4	13.3	30.2
22-Apr	2	3	4	3	3	6	7	5	6	7	5	4	A	3	5	4	4	7	6	10	17	20	16	28	7.6	28.4
23-Apr	6	7	7	6	10	17	34	27	22	46	14	A	8	10	5	6	8	5	16	32	53	44	22	23	18.6	52.8
24-Apr	19	27	31	31	19	35	55	103	48	18	A	11	9	14	11	11	7	7	11	5	7	7	8	8	21.9	103.1
25-Apr	8	7	10	16	24	36	46	34	10	A	8	6	5	4	4	5	6	6	6	7	10	11	7	6	12.2	46.4
26-Apr	5	8	10	7	15	25	38	27	A	26	19	15	5	14	7	6	12	6	10	13	23	44	33	18	16.9	43.8
27-Apr	13	10	10	7	21	39	49	A	84	12	11	11	11	11	3	7	8	5	12	12	42	19	71	25	21.4	84.1
28-Apr	22	12	16	30	30	28	A	34	21	22	6	8	5	5	4	4	4	4	3	6	4	7	4	4	12.3	33.9
29-Apr	2	4	2	3	4	A	5	4	3	3	5	4	21	9	3	5	16	7	6	14	20	19	18	15	8.4	20.9
30-Apr	14	13	14	25	A	40	50	53	28	12	9	8	5	4	4	5	5	6	6	4	4	6	5	7	14.3	52.8
18.5 14.2 15.6 17.4 20.1 32.9 41.4 42.6 30.9 24.2 22.5 21.0 13.5 11.7 10.6 9.5 10.2 10.8 11.3 14.8 21.9 23.6 19.8 19.3																									Diurnal Average	
95.1 52.9 42.5 46.4 56.3 69.2 100.8 148.2 87.7 108.2 121.6 90.4 83.1 64.1 57.9 53.5 60.6 60.4 24.6 35.0 64.5 91.9 71.3 70.2																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										

Hourly Maximums

Oxides of Nitrogen (NO_x) - ppb

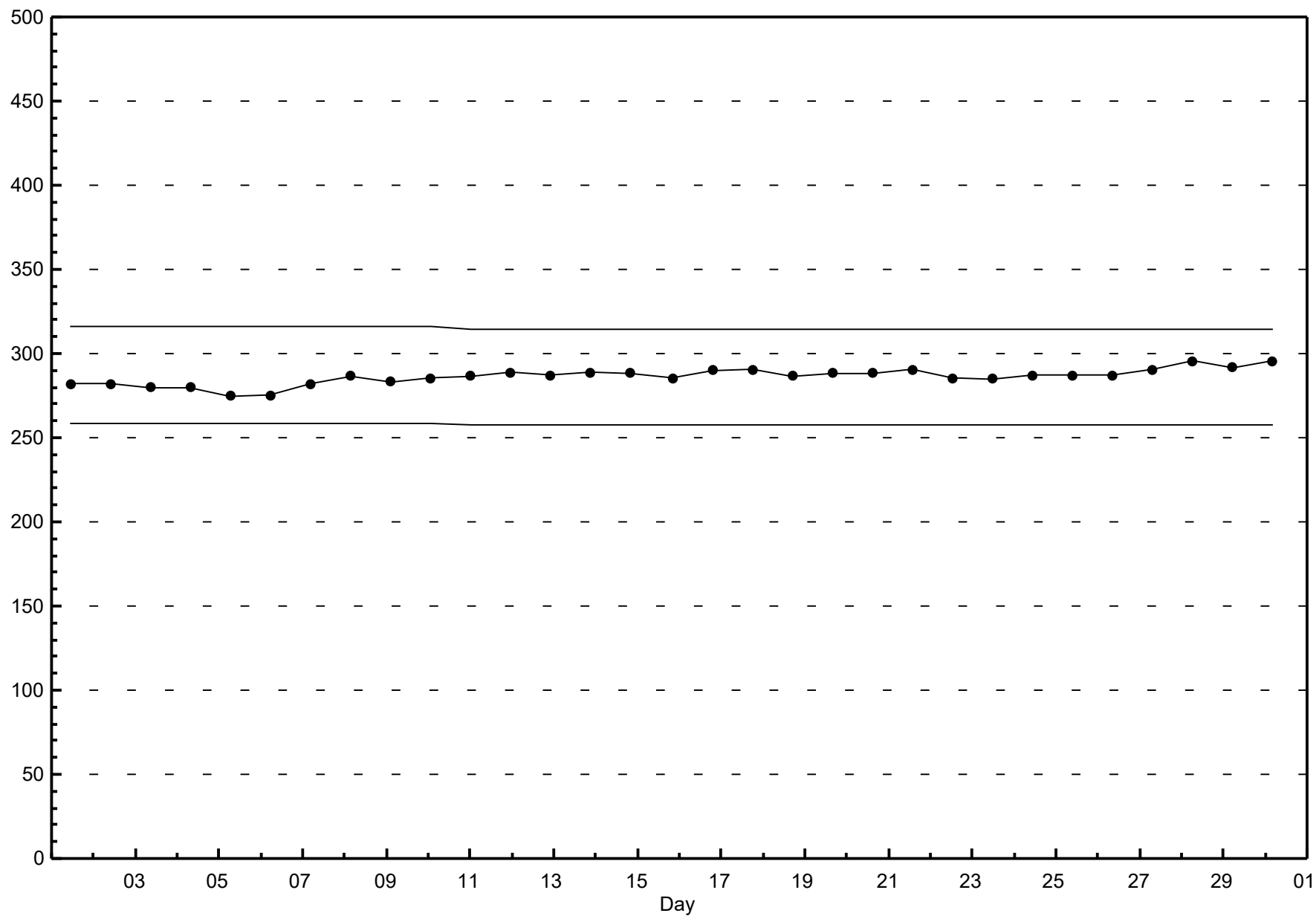
Henry Pirker - April 2018



Span Responses

Oxides of Nitrogen (NO_x)

Henry Pirker - April 2018



Hourly Averages

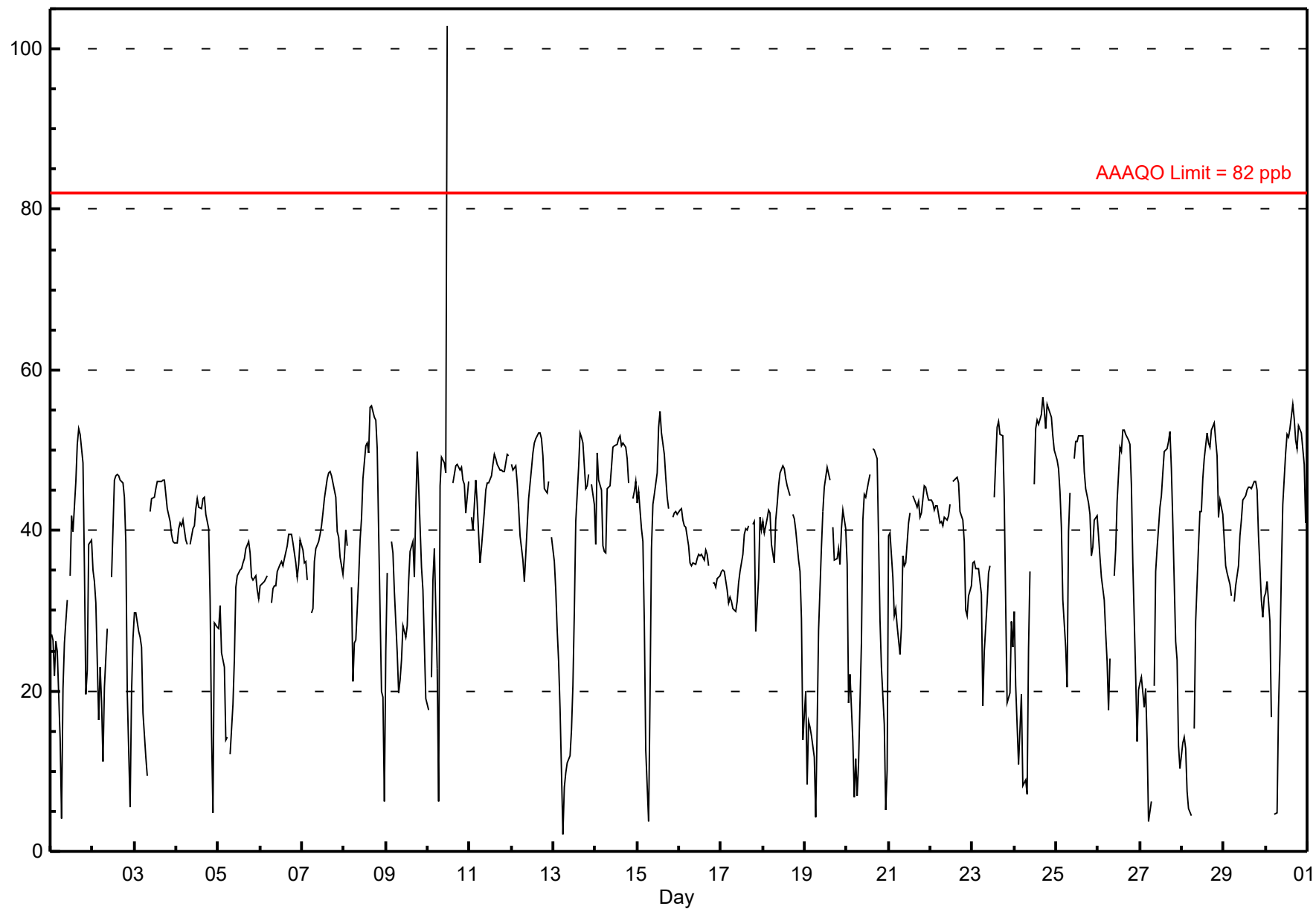
Ozone (O₃) - ppb

Henry Pirker - April 2018

Number of Exceedences (AAAQO): 1-hr: 1 24-hr: 0 Maximum Value: 102.9 ppb on Apr 10 12:00 Maximum Daily Average: 46.4 ppb on Apr 14																								Hours in Service: 720 Hours of Data: 686 Hours of Missing Data: 34 Hours of Calibration: 33 Percent Operational Time: 99.9																									
Minimum Value: 2 ppb on Apr 13 06:00 Minimum Daily Average: 28.1 ppb on Apr 20 Maximum Diurnal Average: 47.6 ppb at hour 16 Minimum Diurnal Average: 21.2 ppb at hour 7 Monthly Average: 36.96 ppb Percentiles: P ₁ = 4.8 P ₁₀ = 18.6 Q ₁ = 31.2 Median = 39.3 Q ₃ = 45.8 P ₉₀ = 50.4 P ₉₉ = 54.9																																																	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																									
1-Apr	27	26	22	26	25	14	4	20	26	31	A	34	42	40	46	51	53	52	48	35	20	23	38	39	32.3	52.7																							
2-Apr	35	34	31	16	23	19	11	20	28	A	M	34	46	47	47	47	46	46	44	38	20	6	20	27	31.1	47.0																							
3-Apr	30	30	27	27	25	17	12	9	A	42	44	44	45	46	46	46	46	46	45	43	41	39	39	38	36.0	46.4																							
4-Apr	39	40	41	41	41	39	38	A	38	40	41	43	44	43	43	44	44	42	40	31	15	5	29	28	36.9	44.1																							
5-Apr	28	31	25	23	14	14	A	12	18	24	33	34	35	35	36	36	38	39	37	34	34	34	33	31	29.5	38.7																							
6-Apr	33	33	34	34	34	A	31	33	33	33	35	36	36	36	37	38	39	40	39	38	36	34	36	39	35.5	39.6																							
7-Apr	38	36	36	34	A	30	30	36	38	39	40	41	42	44	46	47	47	47	45	44	40	39	37	35	39.5	47.4																							
8-Apr	37	40	38	A	33	21	26	26	34	39	41	46	51	51	50	55	56	54	54	50	40	20	19	6	38.6	55.6																							
9-Apr	25	35	A	39	37	32	25	20	21	24	28	27	28	34	37	39	34	43	50	46	35	33	26	19	32.0	49.7																							
10-Apr	18	A	22	34	38	23	6	46	49	48	47	103	C	C	46	47	48	48	47	48	46	46	42	46	42.8	102.9																							
11-Apr	A	42	40	46	43	40	36	38	42	45	46	46	47	48	50	49	48	47	48	47	47	49	49	A	45.2	49.5																							
12-Apr	48	47	48	46	43	39	36	34	37	41	44	48	50	51	51	52	52	51	49	45	45	46	A	39	45.3	52.1																							
13-Apr	36	33	28	24	18	2	8	10	11	12	15	21	30	41	48	52	52	51	45	46	47	A	46	43	31.2	52.1																							
14-Apr	38	50	46	45	38	37	37	45	46	48	50	51	51	51	52	51	51	50	49	46	A	44	45	46	46.4	51.8																							
15-Apr	43	45	40	39	28	13	4	19	38	43	44	47	53	55	52	49	47	44	43	A	42	42	42	42	39.8	54.9																							
16-Apr	42	43	41	41	40	38	36	36	36	36	37	37	37	37	36	38	37	36	A	34	33	33	34	34	37.0	42.8																							
17-Apr	35	35	35	33	31	32	31	30	30	31	33	35	37	40	40	40	41	A	41	41	27	34	42	40	35.3	41.7																							
18-Apr	41	40	42	42	42	38	36	41	43	46	47	48	48	46	46	44	A	42	41	40	36	35	29	14	40.4	48.0																							
19-Apr	20	8	16	16	14	12	4	16	28	38	42	45	47	48	46	A	40	36	37	38	36	40	42	40	30.9	47.9																							
20-Apr	36	18	22	14	7	12	7	11	26	41	44	44	46	47	A	50	50	49	39	29	23	16	5	10	28.1	50.1																							
21-Apr	39	40	34	29	30	28	25	28	37	36	36	41	42	A	44	43	43	44	42	42	46	45	45	44	38.4	45.5																							
22-Apr	44	43	43	43	43	41	41	41	42	41	42	43	A	46	47	47	46	42	41	39	30	29	32	33	40.8	46.6																							
23-Apr	36	36	35	35	34	32	18	25	31	35	36	A	44	49	53	54	52	52	44	31	18	20	29	25	35.7	53.5																							
24-Apr	30	21	11	15	20	8	9	7	25	35	A	46	53	54	53	54	57	55	53	56	55	54	52	50	37.9	56.5																							
25-Apr	49	48	45	40	31	25	20	40	45	A	49	51	51	52	52	52	47	45	44	42	37	38	41	42	42.9	51.8																							
26-Apr	39	37	34	31	27	24	18	24	A	34	37	44	50	50	53	52	52	51	51	46	36	22	14	20	36.8	52.5																							
27-Apr	21	22	18	20	14	4	6	A	21	35	38	43	44	47	50	50	51	52	48	41	26	24	13	10	30.3	52.3																							
28-Apr	14	14	13	7	5	4	A	15	29	38	42	42	46	49	52	51	50	53	53	51	49	42	44	42	35.1	53.5																							
29-Apr	39	36	35	33	32	A	31	33	36	39	41	44	44	45	45	45	45	46	46	45	39	31	29	32	38.8	46.2																							
30-Apr	32	34	29	17	A	5	5	18	25	35	43	50	52	52	53	56	54	51	50	53	52	50	48	41	39.2	55.7																							
																								34.2	34.3	32.1	30.7	29.0	22.9	21.2	26.2	32.5	36.8	39.9	43.7	44.3	45.8	46.8	47.6	47.1	46.7	45.3	42.0	36.2	33.6	34.4	33.0	Diurnal Average	
																								48.7	49.6	48.1	46.2	43.5	41.0	41.1	45.6	49.2	48.3	50.4	102.9	52.9	54.9	53.2	55.7	56.5	55.0	53.7	55.8	54.7	54.0	51.8	50.0	Diurnal Maximum	
C - Calibration M - Maintenance A - Automated Daily Zero Span Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82 ppb 24-hr na																																																	

Hourly Averages

Ozone (O₃) - ppb
Henry Pirker - April 2018



Hourly Maximums

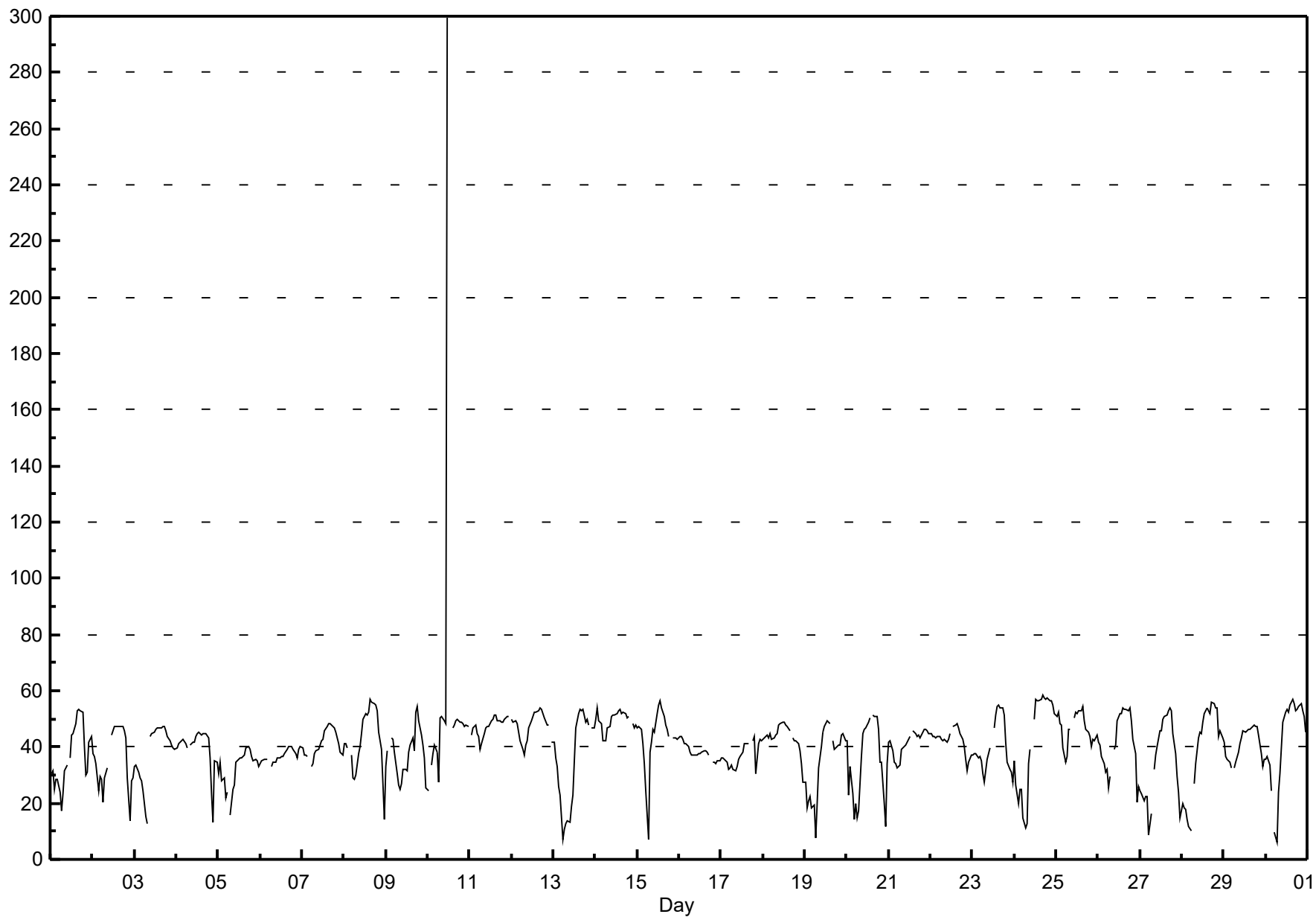
Ozone (O₃) - ppb

Henry Pirker - April 2018

Maximum Value: 299.6 ppb on Apr 10 12:00																					Maximum Daily Average: 56.3 ppb on Apr 10					Hours in Service: 720	
Minimum Value: 6 ppb on Apr 30 07:00																					Minimum Daily Average: 32.4 ppb on Apr 5					Hours of Data: 686	
Maximum Diurnal Average: 52.8 ppb at hour 12																					Minimum Diurnal Average: 27.0 ppb at hour 7					Hours of Missing Data: 34	
Monthly Average: 40.55 ppb																					Percentiles: P ₁ = 10.4 P ₁₀ = 24.9 Q ₁ = 34.8 Median = 42.0 Q ₃ = 47.6 P ₉₀ = 52.3 P ₉₉ = 56.8					Hours of Calibration: 33	
																										Percent Operational Time: 99.9	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Apr	31	32	25	29	29	24	18	23	32	34	A	36	44	45	48	53	53	53	52	40	30	31	42	44	36.8	53.3	
2-Apr	38	36	34	24	29	29	20	29	32	M	44	44	47	47	48	47	47	47	46	43	29	14	28	29	35.9	47.5	
3-Apr	33	34	31	29	28	25	15	12	A	44	45	45	46	47	47	47	47	47	46	44	42	41	40	39	37.9	47.3	
4-Apr	40	41	42	42	43	41	40	A	41	42	42	44	45	45	44	45	45	45	43	36	23	13	35	35	39.7	45.4	
5-Apr	30	34	28	29	22	24	A	16	25	27	35	35	36	36	37	37	40	40	39	37	35	35	35	33	32.4	40.0	
6-Apr	34	35	35	36	35	A	33	34	34	34	36	36	37	37	38	39	40	40	40	39	37	36	39	40	36.8	40.3	
7-Apr	40	37	37	37	A	33	34	38	39	39	41	42	43	46	47	48	48	48	47	45	43	41	38	37	41.2	48.2	
8-Apr	41	41	40	A	37	29	29	30	38	40	45	50	52	52	52	57	56	55	55	53	45	39	27	14	42.4	56.9	
9-Apr	33	39	A	43	42	38	30	27	25	27	32	32	31	38	41	43	39	52	54	49	44	41	36	25	37.5	54.4	
10-Apr	25	A	34	38	41	38	28	50	51	49	49	300	C	C	47	48	49	50	49	49	49	47	48	47	56.3	299.6	
11-Apr	A	44	47	48	45	44	39	41	45	47	47	47	49	50	51	51	49	49	49	49	50	51	51	A	47.4	51.4	
12-Apr	50	49	49	48	45	42	39	37	41	42	47	50	51	52	53	53	54	54	52	50	48	48	A	42	47.6	53.8	
13-Apr	41	36	33	26	23	7	10	13	14	13	19	23	35	47	52	53	53	53	49	50	48	A	47	47	34.4	53.5	
14-Apr	50	54	49	48	42	42	42	47	47	51	51	52	52	53	53	52	52	52	50	51	A	48	47	48	49.3	53.7	
15-Apr	47	48	46	41	34	25	7	38	42	46	45	52	55	56	54	51	48	46	44	A	43	43	43	43	43.3	56.2	
16-Apr	44	44	43	41	41	40	38	37	37	37	37	38	38	38	38	39	38	37	A	35	35	34	35	35	38.2	43.7	
17-Apr	36	36	36	35	32	33	34	32	31	33	35	37	38	41	41	41	41	A	42	44	31	41	43	42	37.1	43.6	
18-Apr	43	43	44	43	45	43	43	44	45	48	48	49	49	48	47	46	A	43	42	42	41	39	34	27	43.3	49.1	
19-Apr	28	18	21	22	19	19	8	20	32	40	45	47	48	49	48	A	42	39	40	41	41	44	45	42	34.8	49.5	
20-Apr	42	23	33	24	14	20	15	18	36	45	46	47	49	50	A	51	51	51	46	34	35	20	12	34	34.6	51.5	
21-Apr	42	42	38	35	34	32	33	39	39	40	41	43	44	A	46	45	44	44	43	44	46	46	46	45	41.4	46.3	
22-Apr	45	44	44	43	44	44	43	42	43	42	43	45	A	47	48	48	47	45	43	40	36	32	35	37	42.4	48.1	
23-Apr	37	38	38	36	37	35	30	27	35	37	39	A	47	51	54	55	54	54	51	42	34	32	31	28	40.2	54.8	
24-Apr	35	26	20	25	25	15	11	13	34	39	A	50	57	56	56	57	59	57	57	57	56	56	55	52	42.1	58.6	
25-Apr	51	53	48	48	40	34	36	46	46	A	50	52	52	53	53	54	49	46	45	44	40	43	42	44	46.5	54.4	
26-Apr	42	40	36	34	31	32	25	30	A	39	40	49	52	52	54	53	53	53	54	49	43	38	20	26	41.2	53.9	
27-Apr	24	23	21	22	22	9	16	A	32	37	40	46	46	50	51	51	53	54	53	45	38	30	24	15	34.8	53.7	
28-Apr	20	18	18	14	12	10	A	27	34	43	45	45	49	52	54	53	52	56	56	54	54	44	46	43	39.0	56.0	
29-Apr	41	37	35	35	33	A	33	34	38	41	43	46	45	46	46	46	47	48	47	47	44	37	33	36	40.8	47.9	
30-Apr	35	37	34	24	A	9	6	24	31	39	49	52	53	53	55	57	56	53	53	54	55	53	51	45	42.6	57.0	
37.7 37.3 35.8 34.4 32.9 29.1 27.0 31.0 36.4 39.1 42.0 52.8 46.1 47.7 48.3 49.0 48.5 48.7 47.9 45.1 41.2 38.5 38.1 37.0																								Diurnal Average			
50.6 53.7 49.4 48.3 45.0 43.6 43.3 50.4 50.7 50.8 51.4 299.6 56.7 56.3 56.5 57.0 58.6 57.3 56.8 57.3 56.5 56.3 55.1 51.7																								Diurnal Maximum			
C - Calibration M - Maintenance A - Automated Daily Zero Span																											

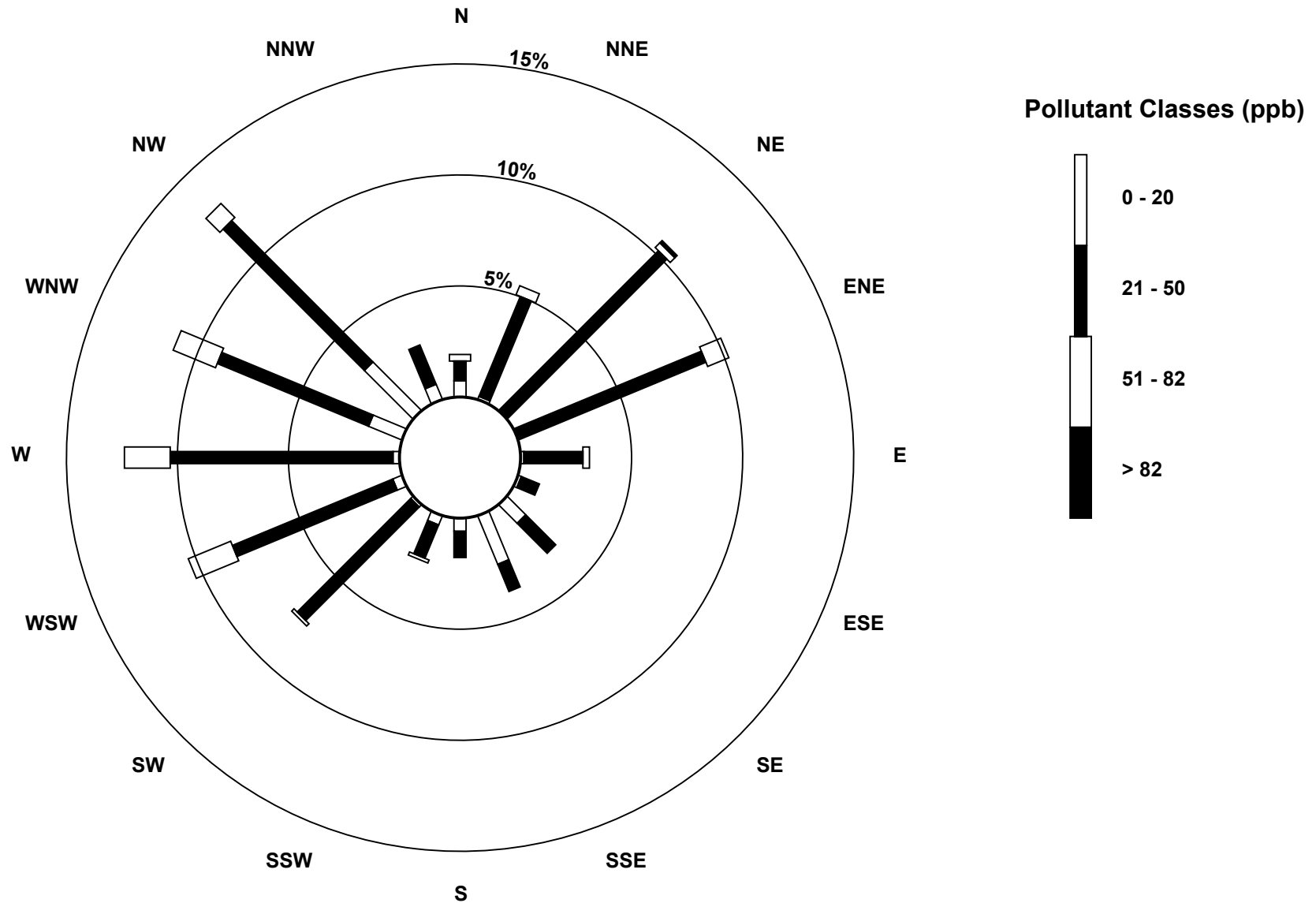
Hourly Maximums

Ozone (O₃) - ppb
Henry Pirker - April 2018



Pollutant Rose

Ozone (O₃) - ppb
Henry Pirker - April 2018



Eight Hour Running Averages

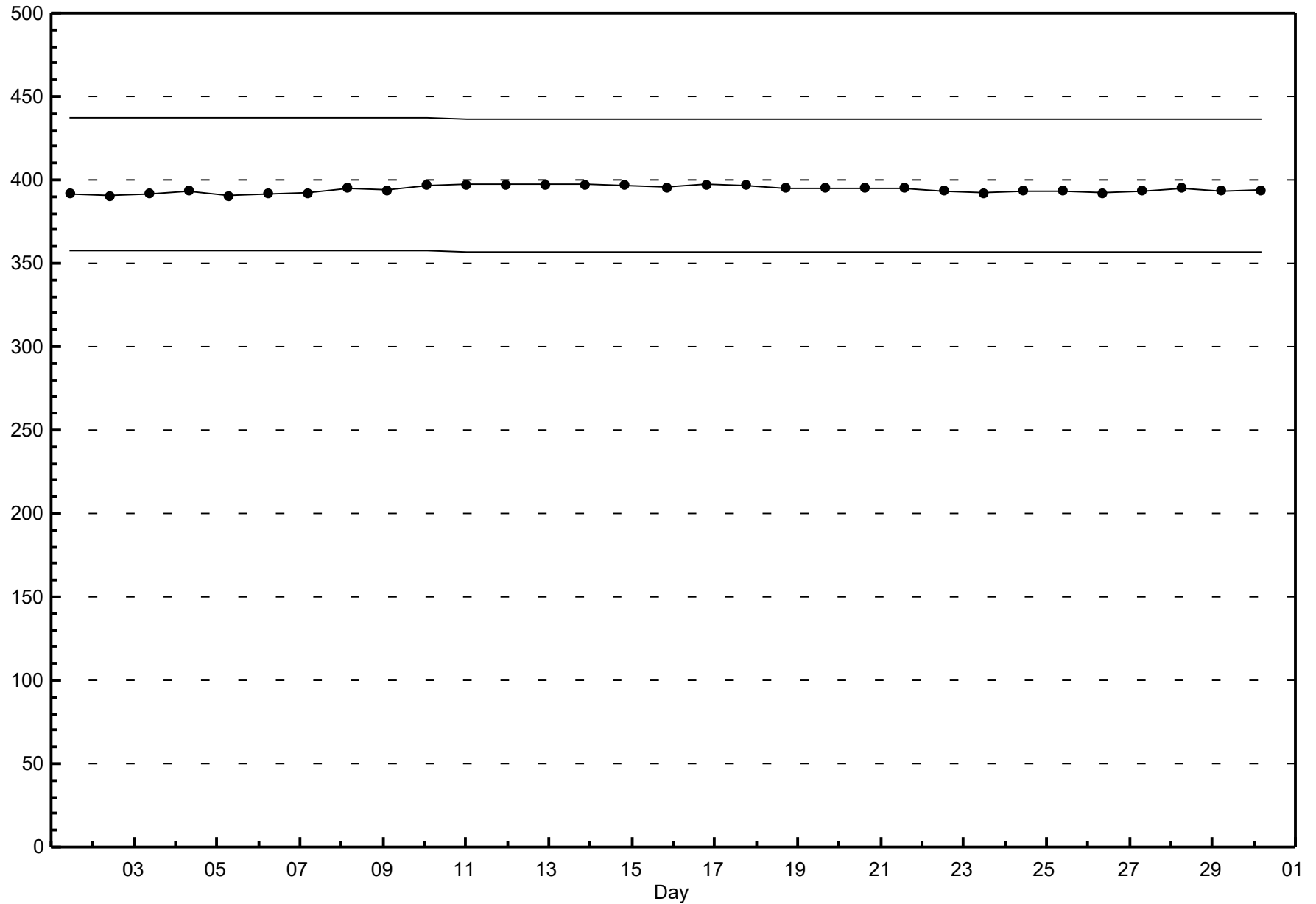
Ozone (O₃) - ppb

Henry Pirker - April 2018

Maximum Value: 56.7 ppb on Apr 10 16:00																								Hours in Service: 720	
Minimum Value: 9.7 ppb on Apr 28 07:00																								Hours of Data: 720	
Percentiles: P ₁ = 13.1 P ₁₀ = 22.9 Q ₁ = 31.1 Median = 38.0 Q ₃ = 44.0 P ₉₀ = 48.2 P ₉₉ = 54.3																								Hours of Missing Data: 0	
																								Hours of Calibration: 0	
																								Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Apr	30	28	26	26	26	25	22	21	20	21	21	22	25	28	34	39	42	45	46	46	43	41	40	38	45.9
2-Apr	36	34	32	29	30	29	26	24	23	21	20	23	26	31	37	41	45	45	45	45	42	37	33	31	45.2
3-Apr	29	27	25	23	24	25	24	22	21	23	25	28	31	35	40	45	45	46	46	45	45	44	43	42	45.6
4-Apr	41	40	40	40	40	40	40	40	40	40	40	40	40	41	42	42	43	43	43	41	38	33	31	29	42.9
5-Apr	27	26	24	23	23	24	23	21	20	19	20	21	24	27	28	32	34	36	36	36	36	36	36	35	36.3
6-Apr	34	34	33	33	33	33	33	33	33	33	33	34	34	34	35	35	36	37	38	38	38	38	38	38	37.9
7-Apr	37	37	37	36	36	35	35	34	34	35	35	36	37	39	41	42	43	44	45	45	45	45	43	42	45.4
8-Apr	40	40	39	38	37	34	33	32	31	31	32	33	36	39	42	46	49	51	52	53	51	47	43	37	52.5
9-Apr	34	31	28	26	26	28	28	30	30	28	28	27	26	26	27	30	31	34	36	39	40	40	38	36	39.7
10-Apr	34	32	28	27	27	26	23	27	31	33	36	45	46	50	57	57	57	57	57	47	47	47	47	46	56.7
11-Apr	46	45	44	44	44	43	42	41	41	41	42	42	42	44	45	47	47	48	48	48	48	48	48	48	48.2
12-Apr	48	48	48	48	47	46	44	43	41	40	40	40	41	42	44	47	49	50	51	50	50	49	49	47	50.6
13-Apr	45	42	39	36	32	26	23	20	17	14	12	12	14	18	23	29	34	39	42	46	48	49	48	47	48.6
14-Apr	45	45	45	45	44	43	42	42	43	43	43	44	46	47	49	50	51	51	51	50	50	49	48	47	50.8
15-Apr	46	45	44	43	41	37	32	29	28	28	29	30	33	38	44	48	49	49	49	49	47	46	44	43	49.0
16-Apr	42	42	42	42	42	41	40	40	39	38	37	37	36	36	36	37	37	37	37	36	36	35	35	34	42.5
17-Apr	34	34	34	34	34	34	33	33	32	32	31	32	32	33	35	36	37	38	39	40	39	38	38	38	39.9
18-Apr	38	38	38	38	40	41	40	40	41	41	42	43	43	44	46	46	46	46	45	44	42	41	38	34	46.4
19-Apr	32	28	25	22	19	16	13	13	14	18	21	25	29	33	39	42	44	44	43	42	40	39	39	39	43.8
20-Apr	38	36	34	31	27	24	19	16	15	17	20	24	29	33	37	43	46	47	46	44	41	37	33	28	47.3
21-Apr	26	25	25	25	26	27	29	32	31	31	31	33	34	35	38	40	41	42	43	43	43	44	44	44	43.7
22-Apr	44	44	44	44	44	43	43	42	42	42	42	42	42	42	43	44	44	45	45	44	42	40	38	37	44.6
23-Apr	35	35	34	33	34	34	32	31	31	31	31	30	32	34	39	43	46	48	49	47	44	40	37	34	49.5
24-Apr	31	27	23	21	21	20	17	15	14	16	17	21	26	33	39	46	50	53	53	54	55	55	54	54	54.5
25-Apr	53	52	51	49	46	43	39	37	37	35	36	37	40	44	48	50	51	50	49	48	46	45	43	42	52.8
26-Apr	41	40	39	37	36	34	32	29	28	27	28	30	33	37	42	46	47	49	50	51	49	45	40	36	50.6
27-Apr	33	29	25	22	19	17	16	15	15	17	20	23	27	33	40	41	45	47	48	48	46	43	38	33	48.2
28-Apr	28	24	19	15	13	10	10	10	13	16	20	25	31	37	39	44	46	48	50	51	51	50	49	48	51.1
29-Apr	47	44	42	40	38	37	35	34	34	34	35	37	38	39	41	42	44	45	45	45	45	43	41	39	46.6
30-Apr	38	36	34	30	29	25	22	20	19	19	21	26	29	35	41	46	49	51	52	53	53	52	52	50	52.5
52.8 51.9 50.9 49.0 47.3 45.9 44.0 42.7 43.0 42.8 43.3 45.0 46.0 49.9 56.5 56.7 56.6 56.6 56.6 54.3 54.5 54.5 54.4 53.8																									Diurnal Maximums

Span Responses

Ozone (O₃)
Henry Pirker - April 2018



Hourly Averages

Carbon Monoxide (CO) - ppm

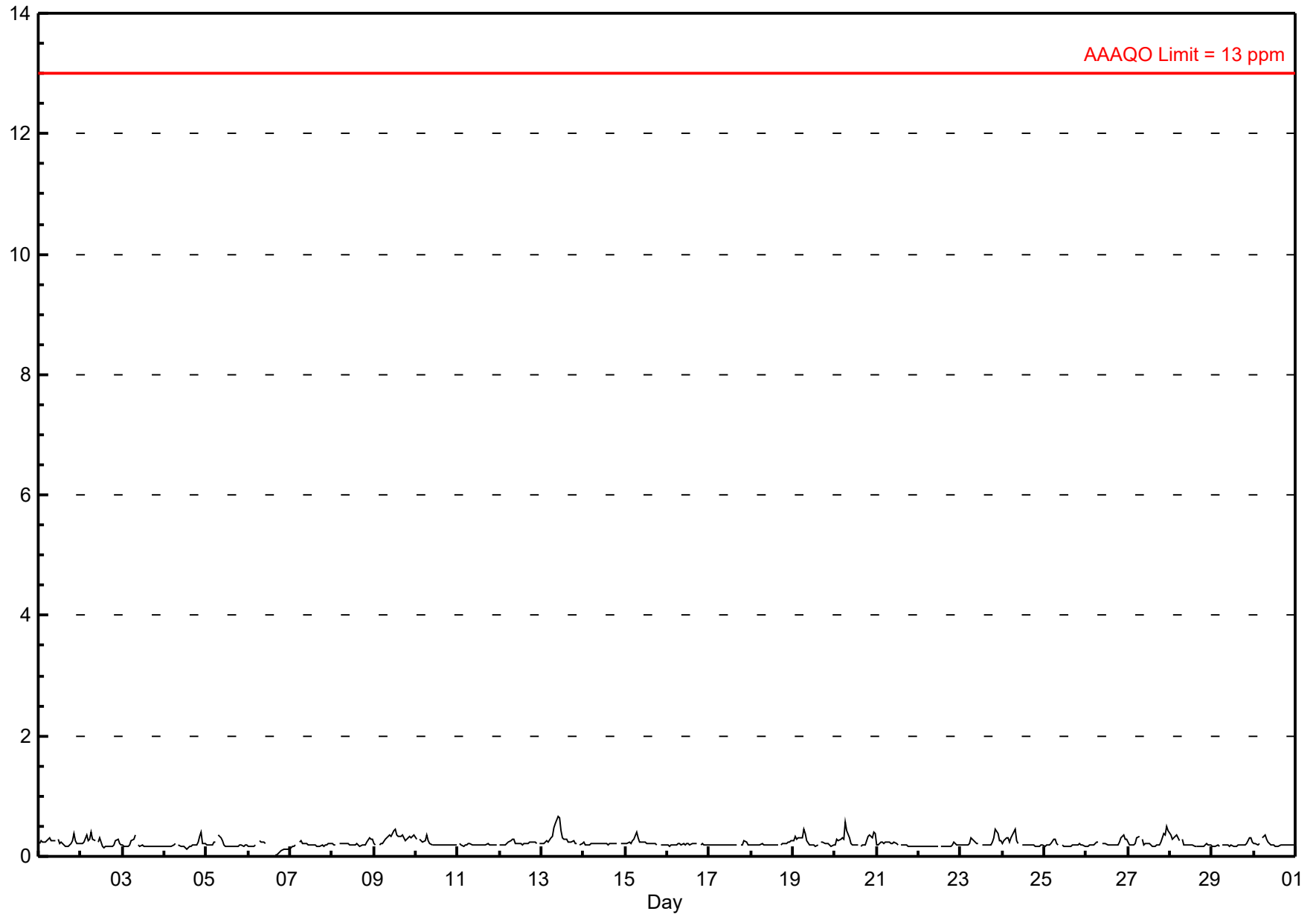
Henry Pirker - April 2018

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 0.66 ppm on Apr 13 10:00 Maximum Daily Average: 0.31 ppm on Apr 13																								Hours in Service: 720 Hours of Data: 685 Hours of Missing Data: 35 Hours of Calibration: 35 Percent Operational Time: 100.0		
Minimum Value: 0.0 ppm on Apr 6 16:00 Minimum Daily Average: 0.14 ppm on Apr 6 Maximum Diurnal Average: 0.29 ppm at hour 7 Minimum Diurnal Average: 0.19 ppm at hour 16 Monthly Average: 0.218 ppm Percentiles: P ₁ = 0.12 P ₁₀ = 0.17 Q ₁ = 0.18 Median = 0.20 Q ₃ = 0.23 P ₉₀ = 0.30 P ₉₉ = 0.45																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	0.2	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	A	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.3	0.2	0.2	0.24	0.37
2-Apr	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.3	0.3	A	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.23	0.41
3-Apr	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19	0.35
4-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.2	0.2	0.19	0.39
5-Apr	0.2	0.2	0.2	0.2	0.2	0.2	A	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20	0.36
6-Apr	0.2	0.2	0.2	0.2	0.2	A	0.3	0.2	0.2	0.2	0.2	C	C	C	C	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.14	0.25
7-Apr	0.1	0.2	0.2	0.2	A	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19	0.25
8-Apr	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.21	0.31
9-Apr	0.2	0.2	A	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.3	0.4	0.4	0.4	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.31	0.44
10-Apr	0.3	A	0.3	0.3	0.2	0.3	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22	0.36
11-Apr	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.19	0.22
12-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.22	0.29
13-Apr	0.2	0.2	0.2	0.3	0.2	0.3	0.3	0.5	0.5	0.7	0.6	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.2	0.2	A	0.2	0.2	0.31	0.66
14-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.21	0.24
15-Apr	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.23	0.39
16-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.20	0.21
17-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.3	0.2	0.2	0.2	0.20	0.27
18-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.3	0.20	0.26	
19-Apr	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.24	0.45
20-Apr	0.2	0.3	0.3	0.3	0.3	0.3	0.6	0.4	0.3	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.3	0.3	0.4	0.3	0.4	0.4	0.28	0.57
21-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20	0.24
22-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18	0.23
23-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.5	0.4	0.3	0.3	0.24	0.46
24-Apr	0.2	0.3	0.3	0.3	0.2	0.3	0.4	0.4	0.3	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.23	0.45
25-Apr	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19	0.28
26-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.3	0.3	0.22	0.37
27-Apr	0.2	0.2	0.2	0.2	0.2	0.3	0.3	A	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.3	0.5	0.4	0.25	0.49
28-Apr	0.4	0.3	0.3	0.3	0.3	0.3	A	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.5	0.4	0.22	0.36
29-Apr	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.19	0.31
30-Apr	0.2	0.2	0.2	0.2	A	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21	0.35
0.20 0.20 0.21 0.22 0.22 0.25 0.29 0.28 0.25 0.23 0.22 0.21 0.20 0.19 0.19 0.19 0.19 0.19 0.19 0.21 0.24 0.24 0.22 0.22																								Diurnal Average		
0.36 0.33 0.32 0.35 0.35 0.32 0.57 0.49 0.54 0.66 0.63 0.42 0.44 0.36 0.34 0.34 0.37 0.31 0.27 0.33 0.46 0.39 0.49 0.43																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 13 ppm 24-hr na																										

Hourly Averages

Carbon Monoxide (CO) - ppm

Henry Pirker - April 2018



Hourly Maximums

Carbon Monoxide (CO) - ppm

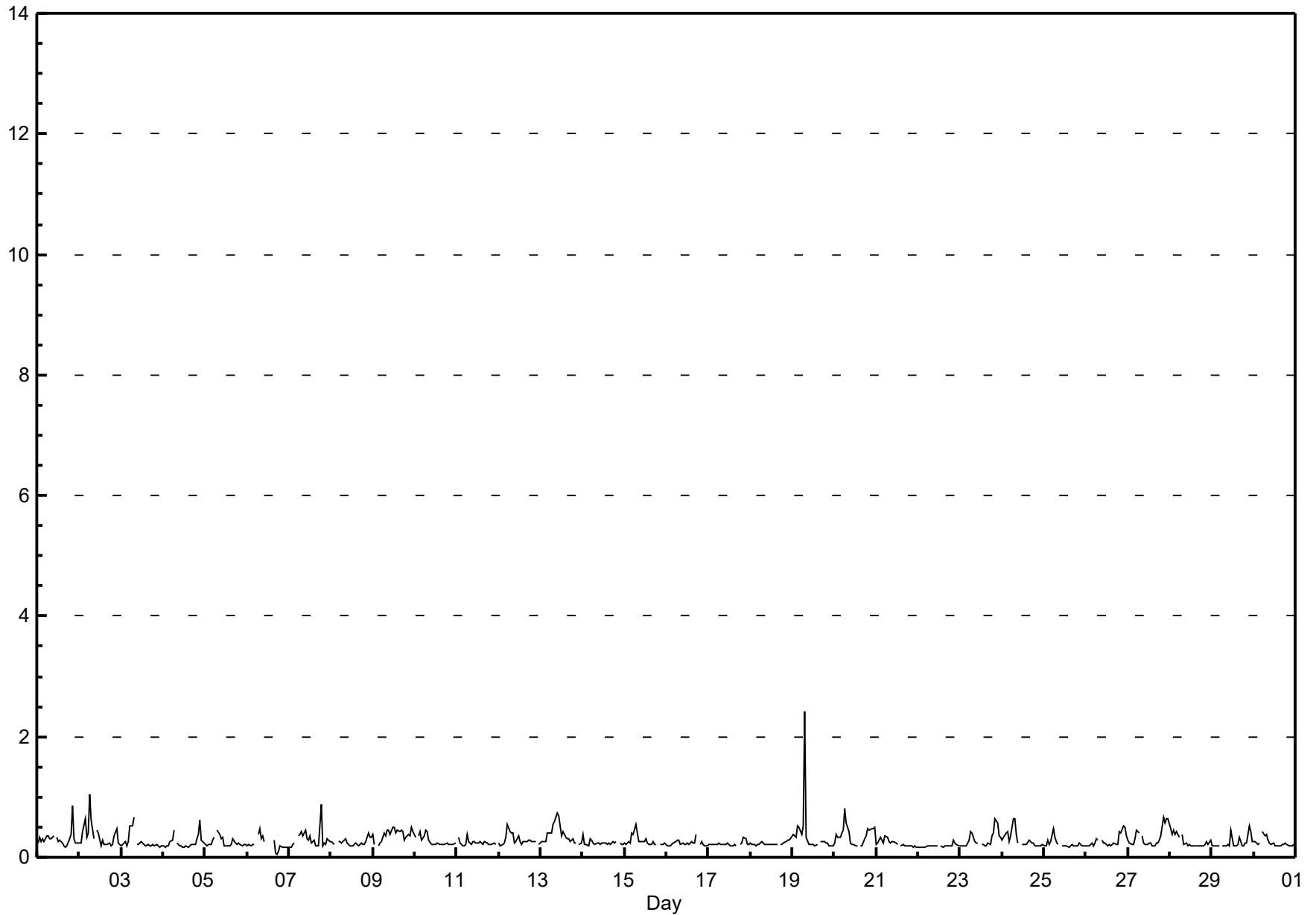
Henry Pirker - April 2018

Maximum Value: 2.42 ppm on Apr 19 08:00																								Hours in Service:	720	
Maximum Daily Average: 0.38 ppm on Apr 19																								Hours of Data:	685	
Minimum Value: 0.1 ppm on Apr 6 18:00																								Hours of Missing Data:	35	
Maximum Diurnal Average: 0.45 ppm at hour 8																								Hours of Calibration:	35	
Monthly Average: 0.276 ppm																								Percent Operational Time:	100.0	
Minimum Daily Average: 0.19 ppm on Apr 22																										
Minimum Diurnal Average: 0.22 ppm at hour 15																										
Percentiles: P ₁ = 0.17 P ₁₀ = 0.19 Q ₁ = 0.20 Median = 0.23 Q ₃ = 0.31 P ₉₀ = 0.43 P ₉₉ = 0.67																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	0.2	0.3	0.2	0.3	0.3	0.4	0.4	0.3	0.3	0.4	A	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.4	0.9	0.3	0.2	0.2	0.31	0.87
2-Apr	0.2	0.2	0.4	0.6	0.3	0.4	1.1	0.6	0.3	A	0.4	0.4	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.5	0.2	0.2	0.35	1.06
3-Apr	0.2	0.2	0.3	0.2	0.3	0.5	0.5	0.7	A	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.25	0.66
4-Apr	0.2	0.2	0.2	0.2	0.3	0.3	0.4	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.6	0.3	0.2	0.25	0.62
5-Apr	0.2	0.2	0.2	0.2	0.3	0.3	A	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.25	0.44
6-Apr	0.2	0.2	0.2	0.2	0.2	A	0.4	0.5	0.3	0.3	0.3	C	C	C	C	0.3	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.22	0.48
7-Apr	0.2	0.2	0.2	0.2	A	0.4	0.4	0.4	0.4	0.5	0.3	0.3	0.4	0.2	0.3	0.2	0.2	0.2	0.9	0.2	0.2	0.2	0.3	0.3	0.30	0.87
8-Apr	0.3	0.2	0.2	A	0.3	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.3	0.3	0.25	0.41
9-Apr	0.4	0.2	A	0.2	0.2	0.3	0.4	0.4	0.5	0.4	0.4	0.5	0.5	0.4	0.5	0.4	0.5	0.4	0.3	0.3	0.4	0.4	0.5	0.4	0.38	0.50
10-Apr	0.3	A	0.4	0.4	0.3	0.4	0.5	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.27	0.46
11-Apr	A	0.3	0.2	0.2	0.2	0.2	0.4	0.3	0.2	0.3	0.3	0.2	0.2	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	A	0.24	0.39
12-Apr	0.2	0.2	0.2	0.2	0.3	0.6	0.4	0.4	0.4	0.2	0.3	0.4	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	A	0.2	0.29	0.55
13-Apr	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.6	0.6	0.7	0.7	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.2	0.2	A	0.2	0.2	0.37	0.73
14-Apr	0.4	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.3	A	0.2	0.2	0.2	0.24	0.37
15-Apr	0.2	0.2	0.3	0.2	0.4	0.4	0.6	0.4	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.2	0.2	A	0.2	0.2	0.2	0.2	0.27	0.55
16-Apr	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.4	A	0.2	0.3	0.2	0.2	0.2	0.23	0.39
17-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.3	0.3	0.2	0.22	0.32
18-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.23	0.30
19-Apr	0.4	0.4	0.3	0.5	0.5	0.4	0.5	2.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	A	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.38	2.42
20-Apr	0.2	0.4	0.3	0.3	0.4	0.4	0.8	0.6	0.4	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.3	0.4	0.5	0.4	0.5	0.5	0.5	0.37	0.81
21-Apr	0.2	0.2	0.3	0.3	0.2	0.4	0.3	0.3	0.2	0.3	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.23	0.36
22-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.19	0.28
23-Apr	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.3	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.4	0.7	0.6	0.3	0.3	0.29	0.65
24-Apr	0.3	0.3	0.4	0.4	0.3	0.4	0.6	0.6	0.4	0.2	A	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.30	0.65
25-Apr	0.2	0.2	0.3	0.2	0.3	0.5	0.3	0.3	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22	0.47
26-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	A	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.4	0.5	0.5	0.3	0.27	0.51
27-Apr	0.3	0.2	0.2	0.2	0.3	0.4	0.4	A	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.7	0.6	0.7	0.6	0.33	0.67
28-Apr	0.5	0.4	0.4	0.4	0.4	0.3	A	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.27	0.48
29-Apr	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.5	0.4	0.3	0.24	0.52
30-Apr	0.3	0.3	0.2	0.2	A	0.4	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.24	0.43
0.25 0.24 0.26 0.27 0.28 0.34 0.41 0.45 0.30 0.27 0.26 0.26 0.23 0.23 0.22 0.22 0.23 0.23 0.26 0.26 0.31 0.31 0.28 0.26																										Diurnal Average
0.48 0.38 0.45 0.63 0.49 0.55 1.06 2.42 0.60 0.73 0.68 0.51 0.49 0.43 0.46 0.43 0.46 0.43 0.43 0.43 0.87 0.48 0.87 0.62 0.65 0.64																										Diurnal Maximum
C - Calibration A - Automated Daily Zero Span																										

Hourly Maximums

Carbon Monoxide (CO) - ppm

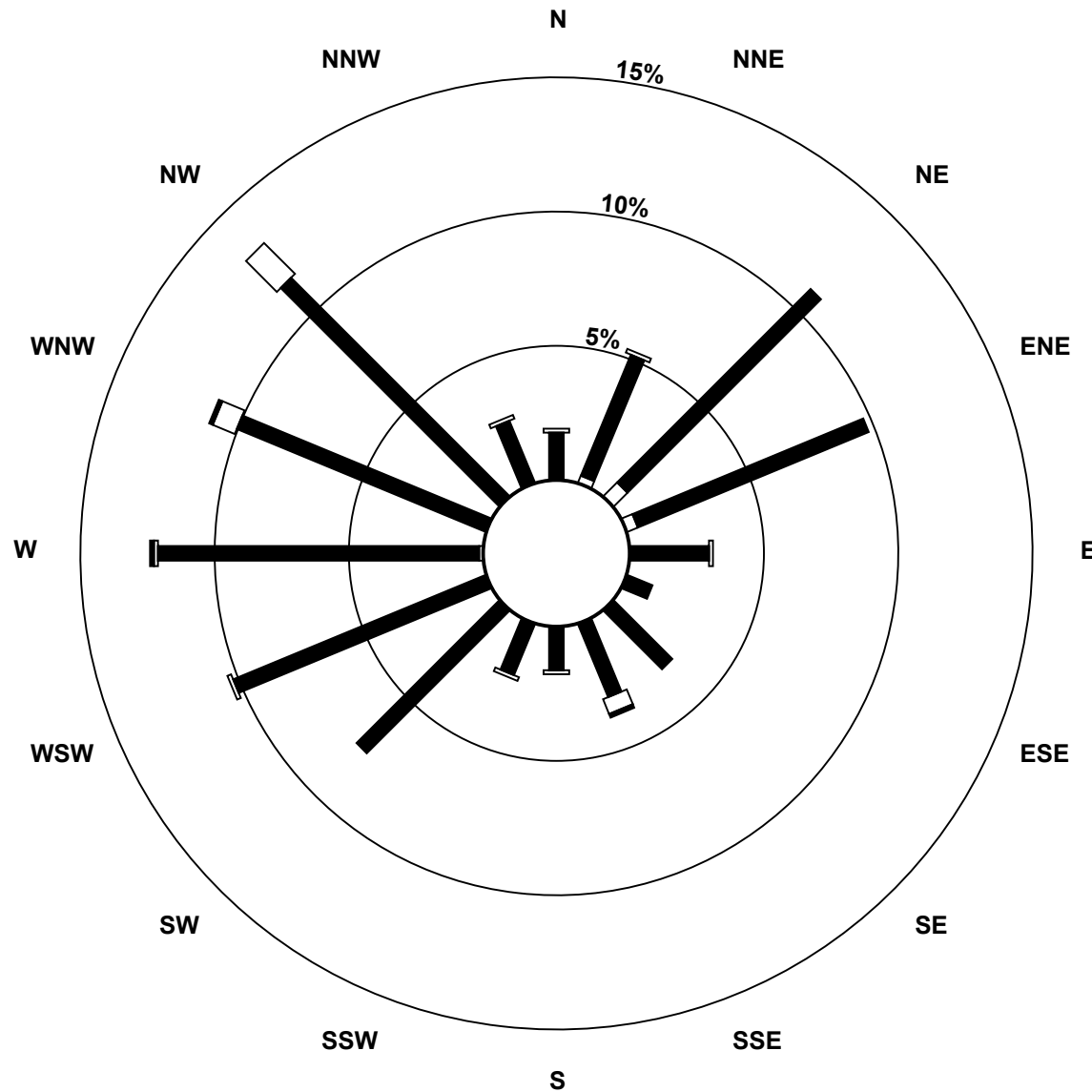
Henry Pirker - April 2018



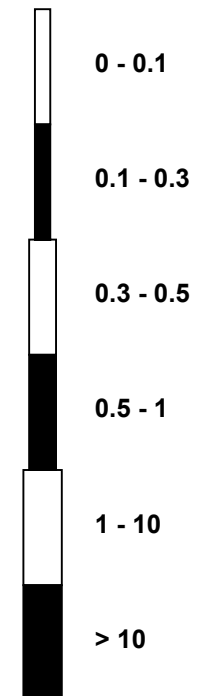
Pollutant Rose

Carbon Monoxide (CO) - ppm

Henry Pirker - April 2018



Pollutant Classes (ppm)



Eight Hour Running Averages

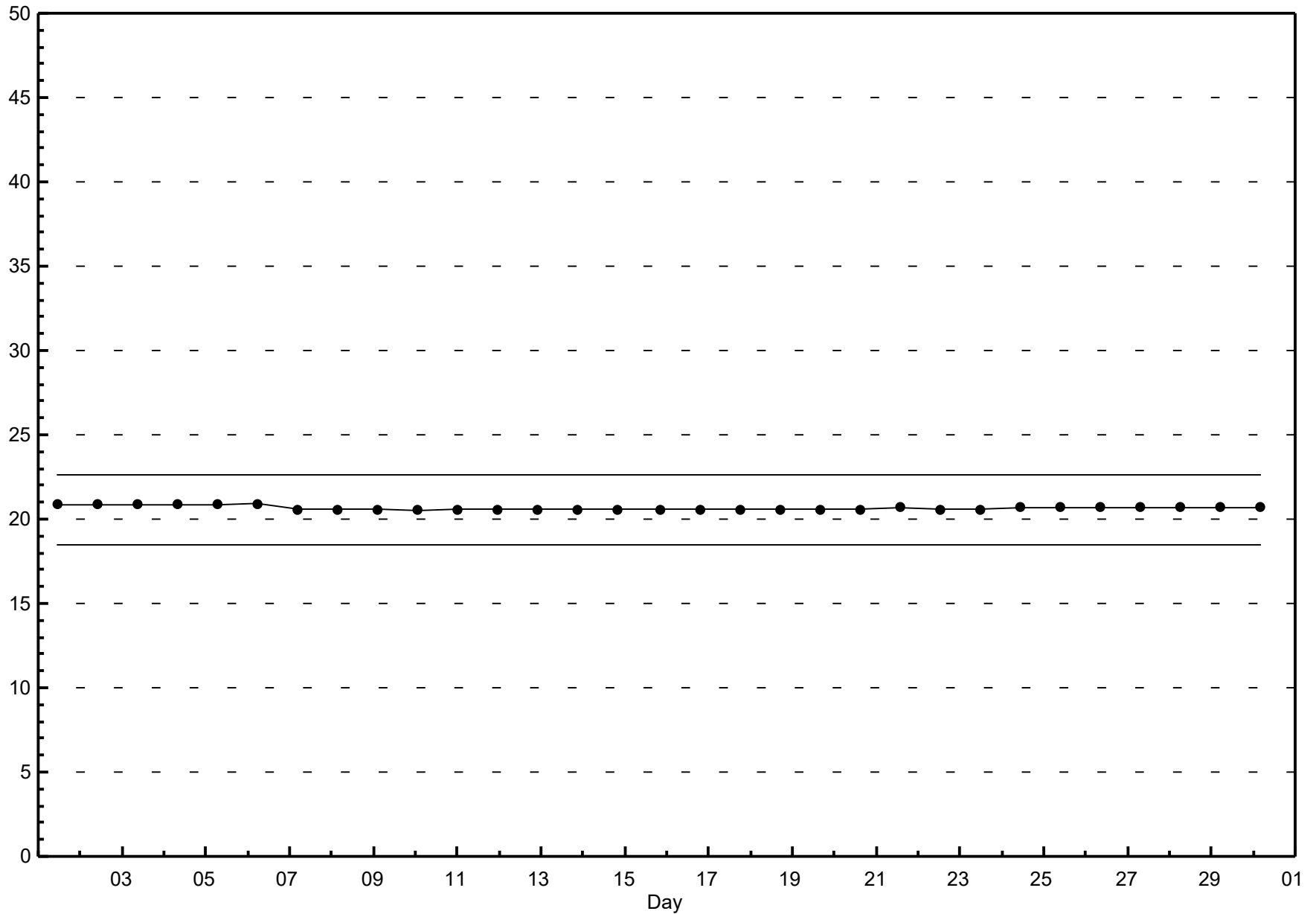
Carbon Monoxide (CO) - ppm

Henry Pirker - April 2018

Number of Exceedences (AAAQO): 8-hr: 0 Maximum Value: 0.46 ppm on Apr 13 13:00																								Hours in Service: 720	
Minimum Value: 0.06 ppm on Apr 6 21:00																								Hours of Data: 712	
Percentiles: P ₁ = 0.14 P ₁₀ = 0.18 Q ₁ = 0.19 Median = 0.21 Q ₃ = 0.24 P ₉₀ = 0.29 P ₉₉ = 0.38																								Hours of Missing Data: 8	
																								Hours of Calibration: 8	
																								Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.27
2-Apr	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.30
3-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.23
4-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.24
5-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.26
6-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	N	N	N	N	N	N	N	N	0.1	0.1	0.1	0.1	0.22
7-Apr	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22
8-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.23
9-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.37
10-Apr	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.31
11-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20
12-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.24
13-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.46
14-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22
15-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.27
16-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20
17-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21
18-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22
19-Apr	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.32
20-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.34
21-Apr	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.30
22-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19
23-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.29
24-Apr	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.32
25-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.23
26-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.25
27-Apr	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.31
28-Apr	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.37
29-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22
30-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.26
0.33 0.34 0.35 0.37 0.36 0.35 0.33 0.33 0.34 0.38 0.43 0.45 0.46 0.46 0.45 0.42 0.38 0.36 0.36 0.34 0.32 0.32 0.32 0.32																									Diurnal Maximums
N - Not Valid																									
Alberta Ambient Air Quality Objectives (AAAQO): 8-hr 5 ppm																									

Span Responses

Carbon Monoxide (CO)
Henry Pirker - April 2018



Hourly Averages

Total Hydrocarbons (THC) - ppm

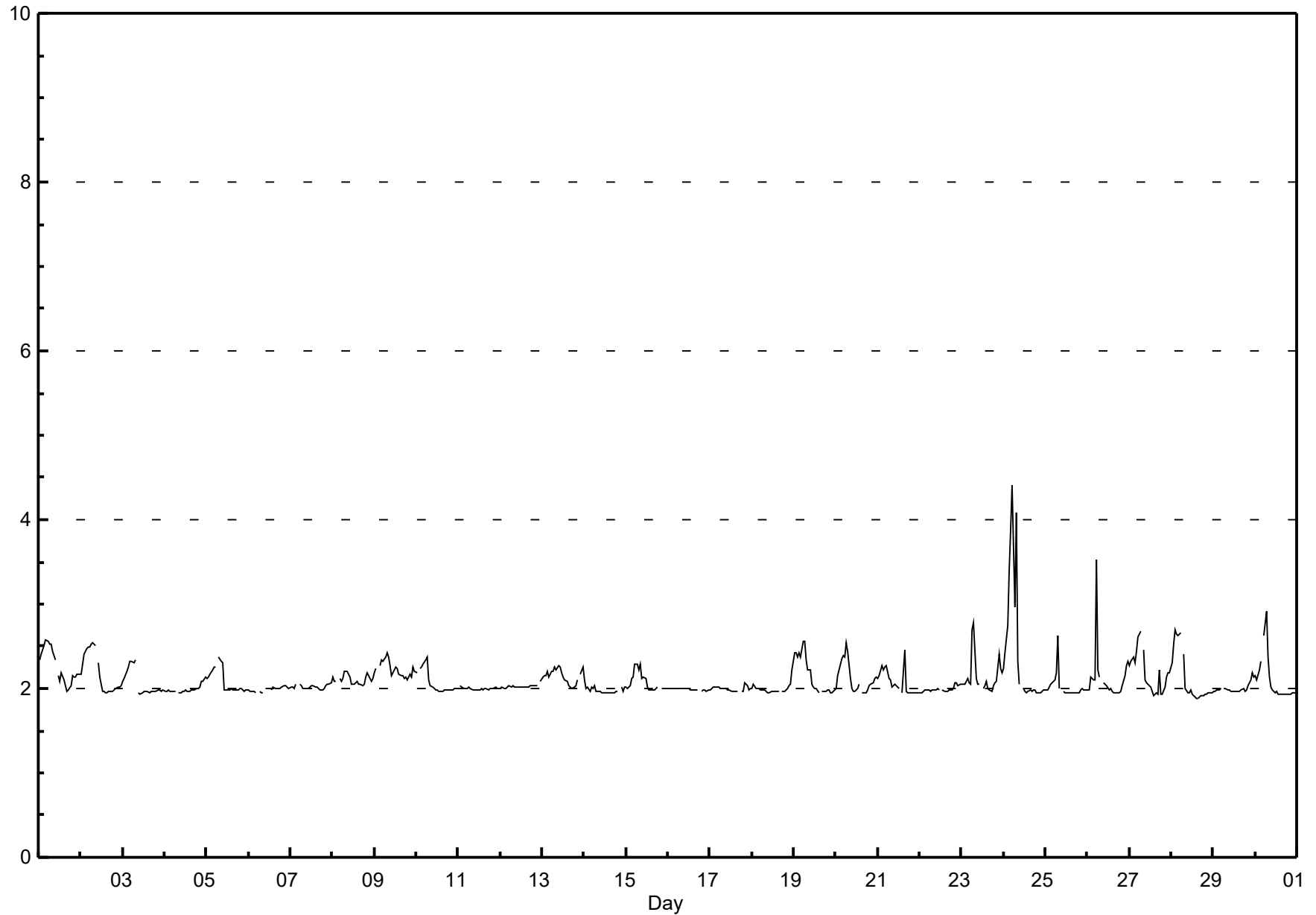
Henry Pirker - April 2018

Maximum Value: 4.40 ppm on Apr 24 06:00																					Maximum Daily Average: 2.44 ppm on Apr 24					Hours in Service: 720	
Minimum Value: 1.9 ppm on Apr 28 15:00																					Minimum Daily Average: 1.98 ppm on Apr 14					Hours of Data: 685	
Maximum Diurnal Average: 2.36 ppm at hour 6																					Minimum Diurnal Average: 1.98 ppm at hour 17					Hours of Missing Data: 35	
Monthly Average: 2.089 ppm																					Percentiles: P ₁ = 1.92 P ₁₀ = 1.95 Q ₁ = 1.97 Median = 2.01 Q ₃ = 2.13 P ₉₀ = 2.32 P ₉₉ = 2.80					Hours of Calibration: 35	
																					Percent Operational Time: 100.0						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Apr	2.3	2.4	2.5	2.5	2.6	2.6	2.5	2.5	2.4	2.3	A	2.2	2.1	2.2	2.1	2.0	2.0	2.0	2.0	2.2	2.1	2.1	2.2	2.2	2.26	2.58	
2-Apr	2.2	2.3	2.4	2.5	2.5	2.5	2.5	2.5	2.5	A	2.3	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.18	2.54	
3-Apr	2.1	2.1	2.2	2.3	2.3	2.3	2.3	2.3	A	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.06	2.34	
4-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	1.99	2.13	
5-Apr	2.1	2.1	2.2	2.2	2.3	2.3	A	2.4	2.3	2.3	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.09	2.37	
6-Apr	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	C	C	C	C	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.99	2.03	
7-Apr	2.0	2.0	2.0	2.1	A	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.02	2.07	
8-Apr	2.1	2.1	2.1	A	2.1	2.1	2.1	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.2	2.1	2.1	2.1	2.11	2.20	
9-Apr	2.2	2.2	A	2.3	2.3	2.3	2.4	2.4	2.4	2.3	2.2	2.2	2.3	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.2	2.1	2.3	2.2	2.23	2.42	
10-Apr	2.2	A	2.2	2.2	2.3	2.3	2.4	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.07	2.37	
11-Apr	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.00	2.04	
12-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.1	2.02	2.08	
13-Apr	2.1	2.1	2.2	2.2	2.1	2.2	2.2	2.3	2.2	2.3	2.3	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	A	2.2	2.3	2.14	2.27	
14-Apr	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	1.98	2.11	
15-Apr	2.0	2.0	2.0	2.1	2.1	2.3	2.3	2.2	2.3	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.08	2.30	
16-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	1.99	2.01	
17-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.1	2.0	2.0	2.0	2.00	2.06	
18-Apr	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.00	2.22	
19-Apr	2.4	2.4	2.4	2.4	2.4	2.6	2.6	2.3	2.2	2.2	2.1	2.0	2.0	2.0	1.9	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.16	2.56	
20-Apr	2.0	2.2	2.2	2.4	2.4	2.4	2.5	2.4	2.1	2.0	2.0	2.0	2.0	2.1	A	2.0	2.0	1.9	2.0	2.0	2.1	2.1	2.1	2.1	2.12	2.55	
21-Apr	2.1	2.2	2.3	2.2	2.2	2.3	2.1	2.1	2.0	2.0	2.0	2.0	2.0	A	2.0	2.5	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.07	2.46	
22-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	1.99	2.07	
23-Apr	2.1	2.1	2.1	2.1	2.1	2.1	2.7	2.8	2.1	2.0	2.1	A	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.4	2.2	2.2	2.14	2.78	
24-Apr	2.2	2.4	2.7	3.4	3.9	4.4	3.0	4.1	2.3	2.1	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	2.0	2.0	2.0	2.44	4.40	
25-Apr	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.6	2.0	A	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.02	2.62	
26-Apr	2.0	2.0	2.1	2.1	2.1	3.5	2.2	2.1	A	2.1	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.2	2.3	2.3	2.12	3.52	
27-Apr	2.3	2.3	2.4	2.3	2.4	2.6	2.7	A	2.5	2.1	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.2	1.9	1.9	2.1	2.2	2.2	2.18	2.68	
28-Apr	2.3	2.5	2.7	2.7	2.6	2.7	A	2.4	2.0	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.12	2.70	
29-Apr	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.1	2.00	2.18	
30-Apr	2.2	2.1	2.2	2.3	A	2.6	2.9	2.4	2.1	2.0	2.0	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	2.09	2.92	
2.10 2.12 2.17 2.21 2.24 2.36 2.27 2.29 2.13 2.06 2.03 2.02 2.00 2.00 1.99 2.00 1.98 1.99 1.99 2.00 2.03 2.05 2.05 2.07																									Diurnal Average		
2.42 2.53 2.74 3.41 3.88 4.40 2.97 4.08 2.51 2.34 2.30 2.21 2.26 2.24 2.17 2.46 2.15 2.22 2.13 2.16 2.18 2.40 2.27 2.32																									Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																											

Hourly Averages

Total Hydrocarbons (THC) - ppm

Henry Pirker - April 2018



Hourly Maximums

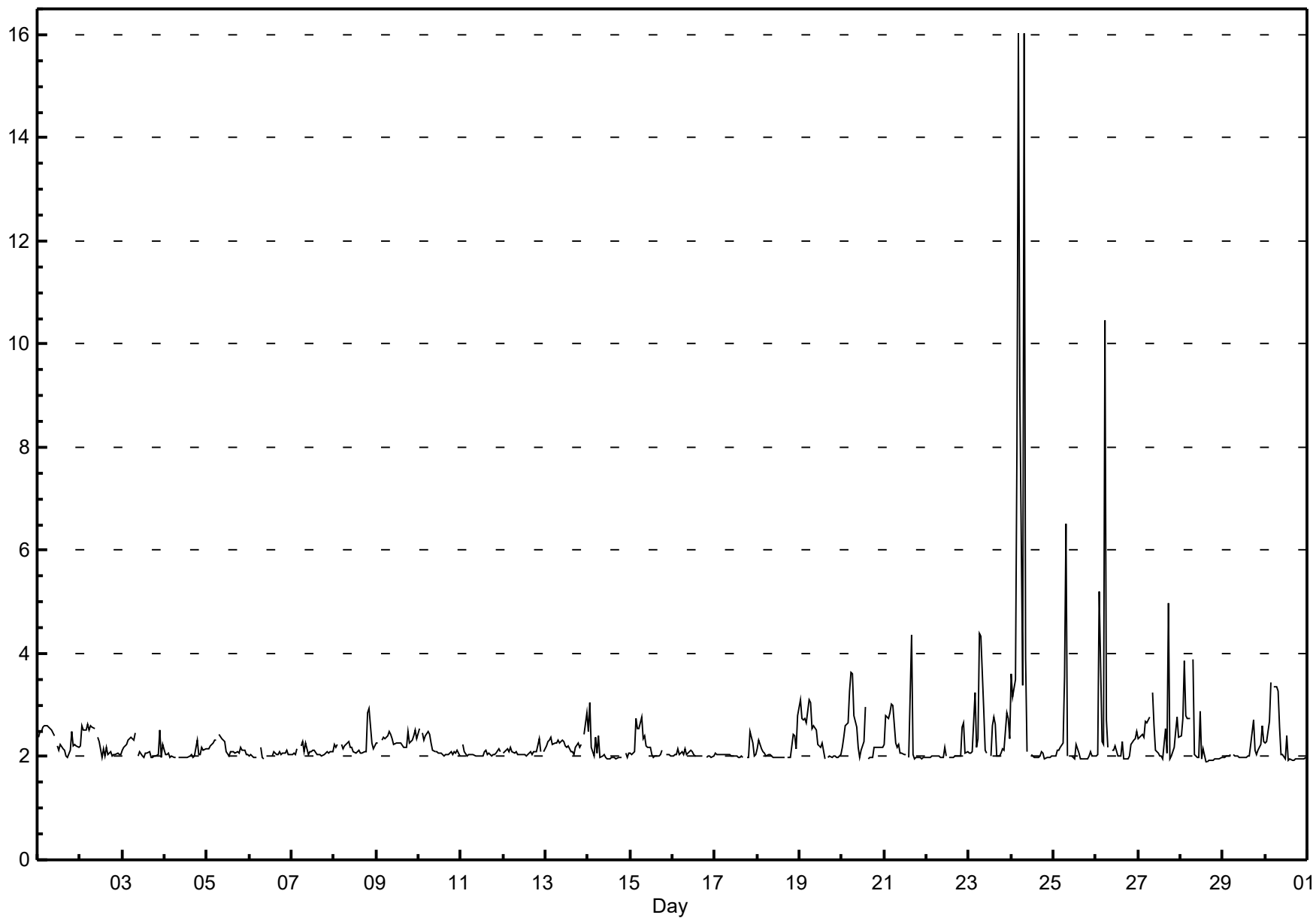
Total Hydrocarbons (THC) - ppm

Henry Pirker - April 2018

Maximum Value: 16.04 ppm on Apr 24 08:00																					Maximum Daily Average: 4.12 ppm on Apr 24					Hours in Service: 720	
Minimum Value: 1.9 ppm on Apr 28 15:00																					Minimum Daily Average: 2.04 ppm on Apr 4					Hours of Data: 685	
Maximum Diurnal Average: 3.07 ppm at hour 8																					Minimum Diurnal Average: 2.02 ppm at hour 17					Hours of Missing Data: 35	
Monthly Average: 2.296 ppm																					Percentiles: P ₁ = 1.94 P ₁₀ = 1.98 Q ₁ = 2.01 Median = 2.09 Q ₃ = 2.28 P ₉₀ = 2.61 P ₉₉ = 5.00					Hours of Calibration: 35	
																					Percent Operational Time: 100.0						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Apr	2.4	2.5	2.5	2.6	2.6	2.6	2.6	2.5	2.5	2.4	A	2.2	2.1	2.2	2.2	2.1	2.0	2.0	2.1	2.5	2.2	2.2	2.2	2.2	2.33	2.61	
2-Apr	2.2	2.6	2.5	2.5	2.6	2.5	2.6	2.6	2.5	A	2.4	2.3	2.0	2.1	2.0	2.2	2.0	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.27	2.62	
3-Apr	2.1	2.2	2.2	2.3	2.4	2.4	2.3	2.5	A	2.0	2.1	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.5	2.0	2.2	2.15	2.51	
4-Apr	2.1	2.0	2.1	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.3	2.0	2.0	2.2	2.1	2.2	2.04	2.32	
5-Apr	2.1	2.2	2.2	2.3	2.3	2.3	A	2.4	2.4	2.3	2.3	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.0	2.1	2.17	2.43	
6-Apr	2.0	2.0	2.0	2.0	2.0	A	2.2	2.0	2.0	C	C	C	C	2.0	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.04	2.17		
7-Apr	2.0	2.1	2.1	2.2	A	2.2	2.3	2.1	2.3	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.10	2.30	
8-Apr	2.2	2.2	2.2	A	2.2	2.1	2.2	2.2	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.9	2.9	2.3	2.1	2.2	2.23	2.95	
9-Apr	2.3	2.3	A	2.3	2.4	2.4	2.4	2.5	2.4	2.4	2.2	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.5	2.3	2.3	2.4	2.5	2.3	2.32	2.51	
10-Apr	2.5	A	2.5	2.3	2.4	2.5	2.4	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.18	2.53		
11-Apr	A	2.2	2.1	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.1	2.1	A	2.06	2.23	
12-Apr	2.1	2.1	2.2	2.1	2.2	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.1	2.1	2.1	2.4	2.1	A	2.1	2.09	2.36	
13-Apr	2.2	2.3	2.3	2.4	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.1	2.1	2.1	2.2	2.3	2.2	2.2	A	2.4	2.9	2.27	2.85	
14-Apr	2.5	3.1	2.2	2.0	2.4	2.1	2.4	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.1	2.0	2.1	2.11	3.06	
15-Apr	2.1	2.0	2.1	2.7	2.5	2.5	2.8	2.3	2.4	2.2	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.1	A	2.0	2.1	2.0	2.0	2.20	2.76	
16-Apr	2.0	2.0	2.1	2.2	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.05	2.16	
17-Apr	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.5	2.3	2.0	2.05	2.48	
18-Apr	2.2	2.3	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.4	2.4	2.2	2.8	2.11	2.78	
19-Apr	3.1	2.7	2.7	2.7	2.7	3.1	3.0	2.5	2.6	2.5	2.2	2.2	2.2	2.3	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.38	3.10	
20-Apr	2.2	2.4	2.6	2.6	3.3	3.6	3.6	2.8	2.6	2.2	2.0	2.1	2.3	3.0	A	2.0	2.0	2.0	2.2	2.2	2.2	2.2	2.2	2.2	2.44	3.64	
21-Apr	2.2	2.8	2.7	2.9	3.0	3.0	2.3	2.2	2.2	2.1	2.1	2.1	2.1	A	2.0	4.4	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.34	4.35	
22-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.6	2.6	2.1	2.1	2.07	2.64	
23-Apr	2.1	2.1	2.1	3.2	2.2	2.3	4.4	4.3	2.9	2.1	2.1	A	2.0	2.6	2.8	2.6	2.0	2.0	2.1	2.1	2.1	2.9	2.7	2.4	2.53	4.40	
24-Apr	3.6	3.2	3.5	8.0	16.0	9.1	3.4	16.0	3.9	2.1	A	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	4.12	16.04	
25-Apr	2.0	2.0	2.1	2.1	2.2	2.3	3.6	6.5	2.0	A	2.0	2.0	2.0	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.30	6.53	
26-Apr	2.0	2.1	5.2	2.3	2.2	10.4	2.7	2.2	A	2.1	2.1	2.2	2.0	2.0	2.0	2.3	2.0	2.0	2.0	2.0	2.2	2.3	2.4	2.5	2.66	10.45	
27-Apr	2.4	2.4	2.4	2.4	2.7	2.7	2.8	A	3.2	2.6	2.1	2.1	2.0	2.0	2.0	2.5	2.1	5.0	2.0	2.0	2.2	2.5	2.8	2.4	2.48	4.97	
28-Apr	2.4	2.7	3.9	2.8	2.7	2.7	A	3.9	2.0	2.0	2.0	2.9	2.0	2.1	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.33	3.90	
29-Apr	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.7	2.1	2.1	2.1	2.2	2.6	2.3	2.11	2.70	
30-Apr	2.3	2.3	2.7	3.4	A	3.3	3.4	3.3	2.6	2.1	2.0	2.0	2.4	1.9	2.0	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.31	3.44	
2.25 2.30 2.46 2.57 2.84 2.96 2.56 3.07 2.33 2.14 2.10 2.11 2.07 2.12 2.06 2.16 2.02 2.15 2.07 2.09 2.17 2.20 2.16 2.17																									Diurnal Average		
3.60 3.17 5.19 7.96 16.02 10.45 4.40 16.04 3.91 2.59 2.37 2.88 2.41 2.97 2.76 4.35 2.24 4.97 2.50 2.85 2.95 2.86 2.76 2.85																									Diurnal Maximum		
C - Calibration																									A - Automated Daily Zero Span		

Hourly Maximums

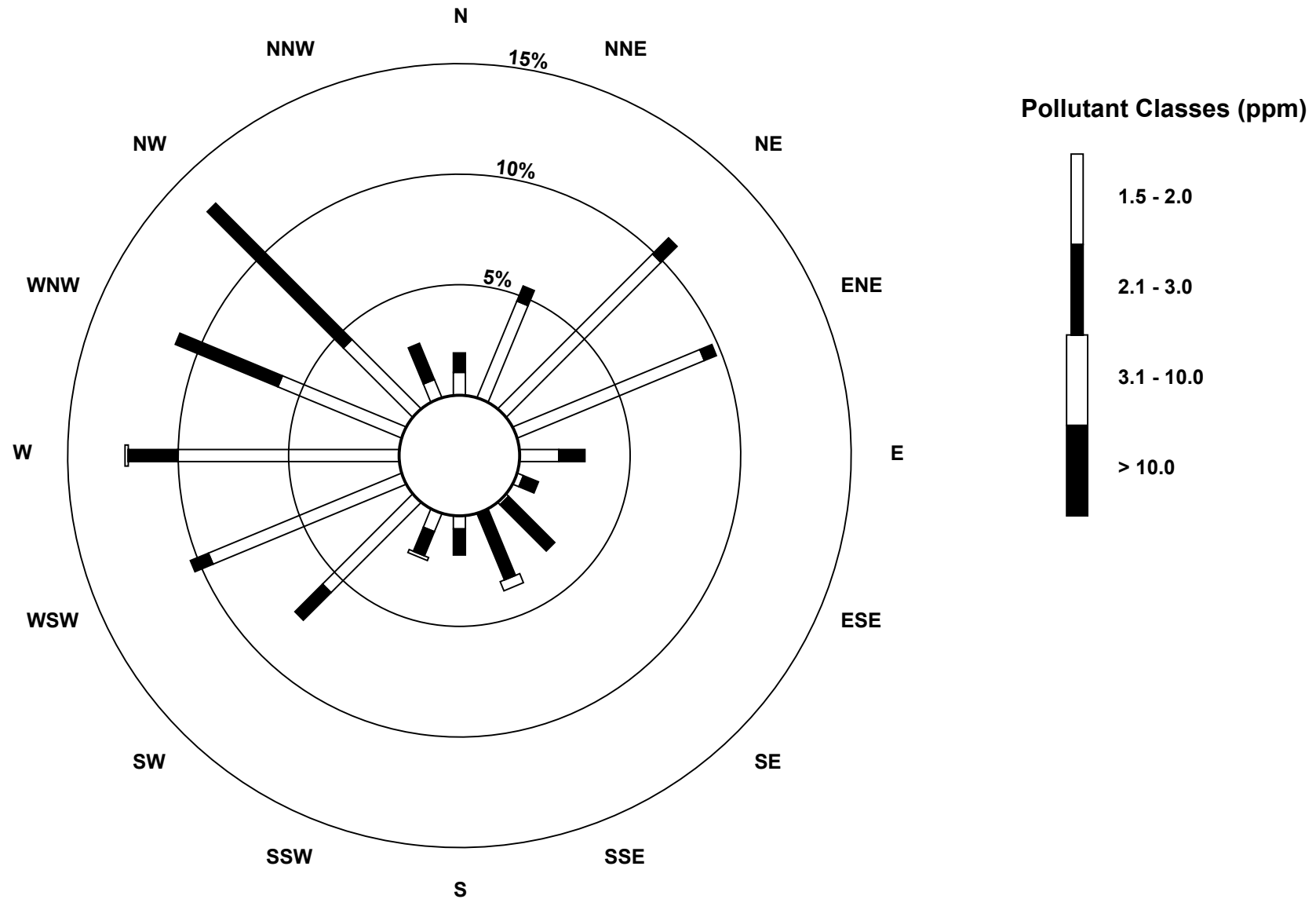
Total Hydrocarbons (THC) - ppm
Henry Pirker - April 2018



Pollutant Rose

Total Hydrocarbons (THC) - ppm

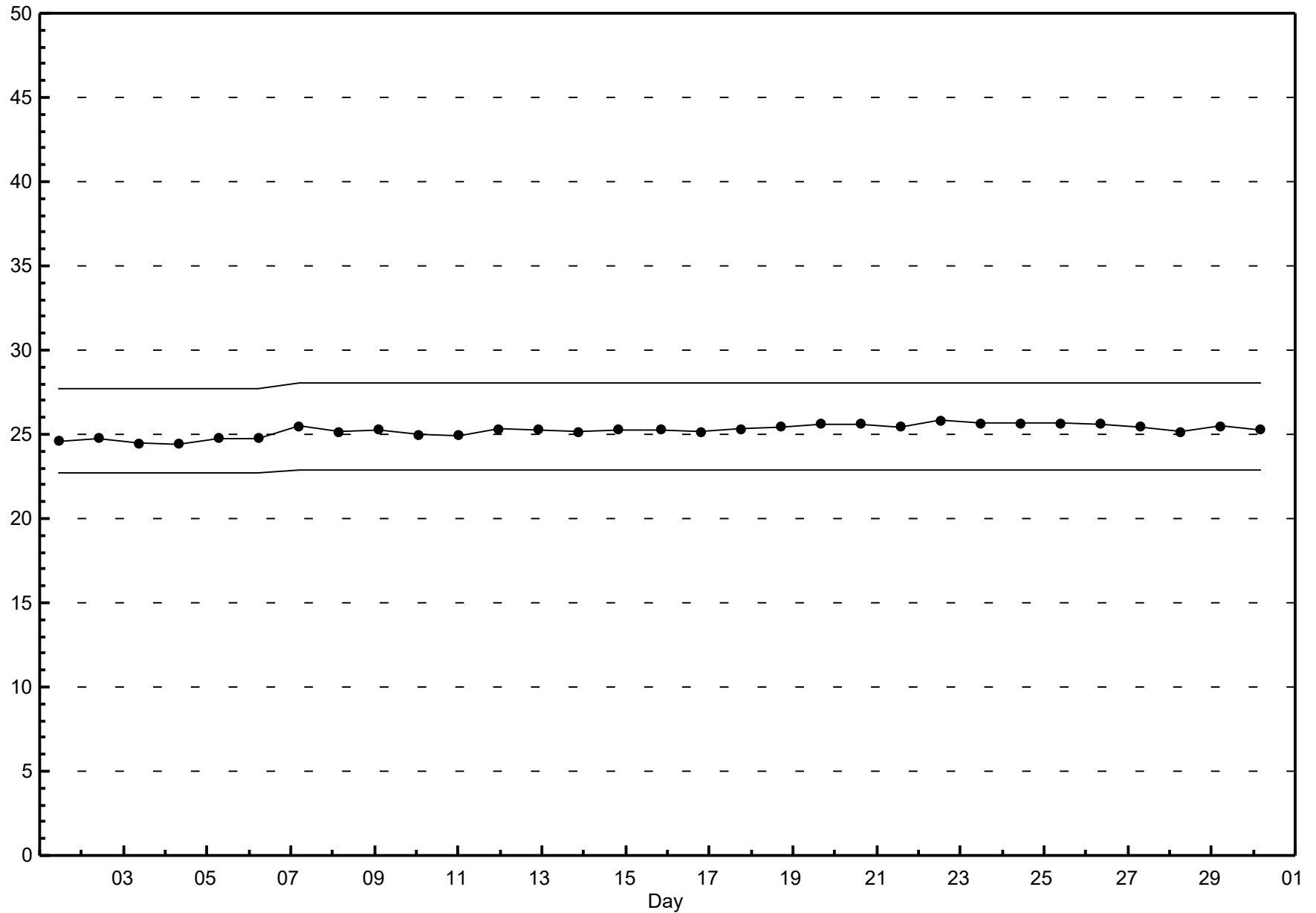
Henry Pirker - April 2018



Span Responses

Total Hydrocarbons (THC)

Henry Pirker - April 2018



Hourly Averages

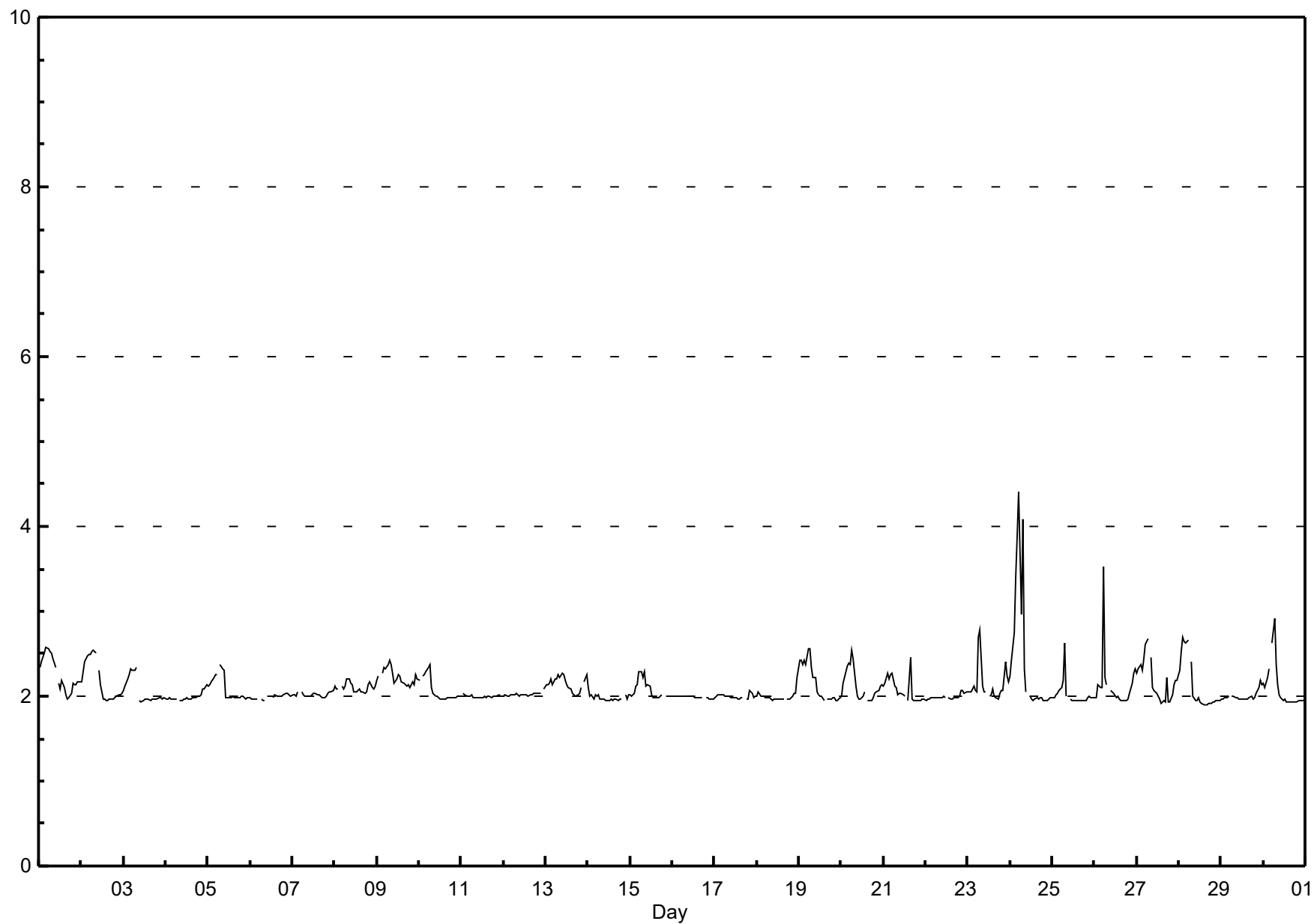
Methane (CH₄) - ppm

Henry Pirker - April 2018

Maximum Value: 4.40 ppm on Apr 24 06:00																					Maximum Daily Average: 2.44 ppm on Apr 24					Hours in Service: 720	
Minimum Value: 1.9 ppm on Apr 28 15:00																					Minimum Daily Average: 1.98 ppm on Apr 14					Hours of Data: 685	
Maximum Diurnal Average: 2.36 ppm at hour 6																					Minimum Diurnal Average: 1.98 ppm at hour 17					Hours of Missing Data: 35	
Monthly Average: 2.089 ppm																					Percentiles: P ₁ = 1.93 P ₁₀ = 1.96 Q ₁ = 1.97 Median = 2.01 Q ₃ = 2.13 P ₉₀ = 2.32 P ₉₉ = 2.80					Hours of Calibration: 35	
																					Percent Operational Time: 100.0						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Apr	2.3	2.4	2.4	2.5	2.6	2.6	2.5	2.5	2.4	2.3	A	2.2	2.1	2.2	2.1	2.0	2.0	2.0	2.0	2.2	2.1	2.1	2.2	2.2	2.26	2.58	
2-Apr	2.2	2.3	2.4	2.5	2.5	2.5	2.5	2.5	2.5	A	2.3	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.18	2.53	
3-Apr	2.1	2.1	2.2	2.3	2.3	2.3	2.3	2.3	A	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.06	2.34	
4-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	1.99	2.13	
5-Apr	2.1	2.1	2.2	2.2	2.3	2.3	A	2.4	2.3	2.3	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.09	2.37	
6-Apr	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	C	C	C	C	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.99	2.03	
7-Apr	2.0	2.0	2.0	2.1	A	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.02	2.06	
8-Apr	2.1	2.1	2.1	A	2.1	2.1	2.1	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.2	2.1	2.1	2.1	2.10	2.20	
9-Apr	2.2	2.2	A	2.3	2.3	2.3	2.4	2.4	2.4	2.3	2.2	2.2	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.3	2.2	2.23	2.42	
10-Apr	2.2	A	2.2	2.2	2.3	2.3	2.4	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.07	2.37	
11-Apr	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.00	2.03	
12-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.1	2.02	2.08	
13-Apr	2.1	2.1	2.2	2.2	2.1	2.2	2.2	2.3	2.2	2.3	2.3	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	A	2.2	2.3	2.14	2.27	
14-Apr	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	1.98	2.11	
15-Apr	2.0	2.0	2.0	2.1	2.1	2.3	2.3	2.2	2.3	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.08	2.29	
16-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	1.99	2.01	
17-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.1	2.0	2.0	2.0	2.00	2.06	
18-Apr	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.00	2.22	
19-Apr	2.4	2.4	2.4	2.4	2.4	2.6	2.6	2.3	2.2	2.2	2.1	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.16	2.56	
20-Apr	2.0	2.2	2.2	2.3	2.4	2.4	2.5	2.4	2.1	2.0	2.0	2.0	2.0	2.1	A	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.12	2.55	
21-Apr	2.1	2.2	2.3	2.2	2.2	2.3	2.1	2.1	2.0	2.0	2.0	2.0	A	2.0	2.5	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.07	2.46	
22-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	1.99	2.07	
23-Apr	2.1	2.0	2.1	2.1	2.1	2.1	2.7	2.8	2.1	2.0	2.0	A	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.4	2.2	2.2	2.14	2.78	
24-Apr	2.2	2.4	2.7	3.4	3.9	4.4	3.0	4.1	2.3	2.1	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.44	4.40	
25-Apr	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.6	2.0	A	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.02	2.62	
26-Apr	2.0	2.0	2.1	2.1	2.1	3.5	2.2	2.1	A	2.1	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.2	2.3	2.3	2.12	3.52	
27-Apr	2.3	2.3	2.4	2.3	2.4	2.6	2.7	A	2.5	2.1	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.2	1.9	1.9	2.1	2.2	2.2	2.18	2.68	
28-Apr	2.3	2.5	2.7	2.7	2.6	2.7	A	2.4	2.0	2.0	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.12	2.69	
29-Apr	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.1	2.00	2.18	
30-Apr	2.2	2.1	2.2	2.3	A	2.6	2.9	2.4	2.1	2.0	2.0	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.09	2.92	
2.10 2.12 2.17 2.21 2.24 2.36 2.27 2.29 2.13 2.06 2.03 2.02 2.00 2.00 1.99 2.00 1.98 1.99 1.99 2.00 2.02 2.04 2.05 2.07																									Diurnal Average		
2.42 2.52 2.74 3.41 3.88 4.40 2.97 4.08 2.51 2.34 2.31 2.21 2.25 2.23 2.17 2.46 2.14 2.22 2.13 2.15 2.18 2.40 2.27 2.32																									Diurnal Maximum		
C - Calibration																									A - Automated Daily Zero Span		

Hourly Averages

Methane (CH₄) - ppm
Henry Pirker - April 2018



Hourly Maximums

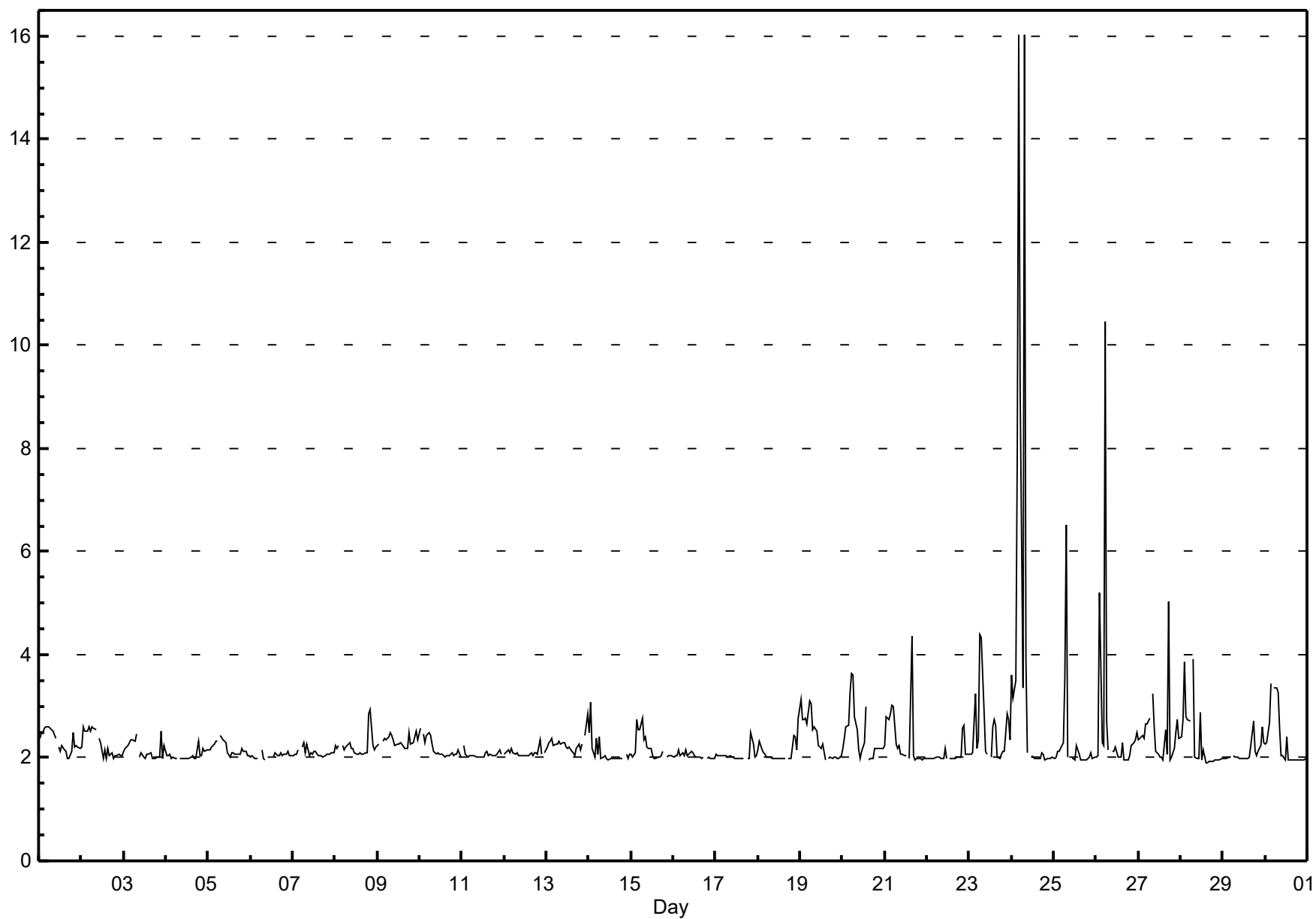
Methane (CH₄) - ppm

Henry Pirker - April 2018

Maximum Value: 16.03 ppm on Apr 24 08:00																					Maximum Daily Average: 4.12 ppm on Apr 24					Hours in Service: 720	
Minimum Value: 1.9 ppm on Apr 28 15:00																					Minimum Daily Average: 2.04 ppm on Apr 4					Hours of Data: 685	
Maximum Diurnal Average: 3.06 ppm at hour 8																					Minimum Diurnal Average: 2.02 ppm at hour 17					Hours of Missing Data: 35	
Monthly Average: 2.296 ppm																					Percentiles: P ₁ = 1.95 P ₁₀ = 1.98 Q ₁ = 2.01 Median = 2.08 Q ₃ = 2.28 P ₉₀ = 2.61 P ₉₉ = 5.05					Hours of Calibration: 35	
																					Percent Operational Time: 100.0						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Apr	2.4	2.5	2.5	2.6	2.6	2.6	2.6	2.5	2.5	2.4	A	2.2	2.1	2.2	2.2	2.1	2.0	2.0	2.1	2.5	2.2	2.2	2.2	2.2	2.32	2.61	
2-Apr	2.2	2.6	2.5	2.5	2.6	2.5	2.6	2.6	2.5	A	2.4	2.3	2.0	2.1	2.0	2.2	2.0	2.1	2.0	2.1	2.1	2.1	2.0	2.1	2.26	2.61	
3-Apr	2.1	2.2	2.2	2.3	2.4	2.4	2.3	2.5	A	2.0	2.1	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.5	2.0	2.2	2.15	2.51	
4-Apr	2.0	2.0	2.1	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.3	2.0	2.0	2.2	2.1	2.2	2.04	2.32	
5-Apr	2.1	2.2	2.2	2.3	2.3	2.3	A	2.4	2.4	2.3	2.3	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.0	2.1	2.17	2.43	
6-Apr	2.0	2.0	2.0	2.0	2.0	A	2.2	2.0	2.0	C	C	C	C	2.0	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.04	2.17	
7-Apr	2.0	2.1	2.1	2.2	A	2.2	2.3	2.1	2.3	2.0	2.1	2.1	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.10	2.30	
8-Apr	2.2	2.2	2.2	A	2.2	2.1	2.2	2.2	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.9	2.9	2.2	2.1	2.2	2.23	2.95	
9-Apr	2.2	2.3	A	2.3	2.4	2.4	2.4	2.5	2.4	2.4	2.2	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.5	2.3	2.3	2.4	2.5	2.3	2.32	2.51	
10-Apr	2.6	A	2.5	2.3	2.4	2.5	2.4	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.0	2.0	2.1	2.0	2.1	2.1	2.1	2.0	2.18	2.57	
11-Apr	A	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.1	2.1	A	2.06	2.22	
12-Apr	2.1	2.1	2.2	2.1	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.1	2.4	2.1	A	2.1	2.09	2.35	
13-Apr	2.2	2.3	2.3	2.4	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.1	2.1	2.1	2.2	2.3	2.2	2.3	A	2.4	2.9	2.27	2.86	
14-Apr	2.5	3.1	2.2	2.0	2.4	2.1	2.4	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.1	2.0	2.1	2.11	3.06	
15-Apr	2.1	2.0	2.1	2.7	2.5	2.5	2.8	2.3	2.4	2.2	2.2	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.1	A	2.0	2.0	2.0	2.0	2.19	2.76	
16-Apr	2.0	2.0	2.0	2.2	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.04	2.16	
17-Apr	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.5	2.3	2.0	2.1	2.05	2.49
18-Apr	2.2	2.3	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.4	2.4	2.2	2.8	2.11	2.78	
19-Apr	3.1	2.7	2.8	2.8	2.7	3.1	3.0	2.5	2.6	2.5	2.2	2.2	2.2	2.3	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.38	3.12	
20-Apr	2.2	2.4	2.6	2.6	3.3	3.6	3.6	2.8	2.6	2.2	2.0	2.1	2.3	3.0	A	2.0	2.0	2.0	2.2	2.2	2.2	2.2	2.2	2.2	2.45	3.65	
21-Apr	2.2	2.8	2.7	2.9	3.0	3.0	2.3	2.2	2.2	2.1	2.1	2.1	2.0	A	2.0	4.4	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.34	4.35	
22-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.6	2.6	2.1	2.1	2.07	2.64	
23-Apr	2.1	2.1	2.1	3.2	2.2	2.3	4.4	4.3	2.9	2.1	2.1	A	2.0	2.6	2.7	2.6	2.0	2.0	2.1	2.1	2.1	2.9	2.7	2.4	2.53	4.40	
24-Apr	3.6	3.2	3.5	8.0	16.0	9.1	3.4	16.0	3.9	2.1	A	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	4.12	16.03	
25-Apr	2.0	2.0	2.1	2.1	2.2	2.3	3.5	6.5	2.0	A	2.0	2.0	2.0	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.30	6.53	
26-Apr	2.0	2.0	5.2	2.3	2.2	10.5	2.7	2.2	A	2.1	2.1	2.2	2.0	2.0	2.0	2.3	2.0	2.0	2.0	2.0	2.2	2.3	2.4	2.5	2.66	10.46	
27-Apr	2.4	2.4	2.4	2.4	2.7	2.7	2.8	A	3.2	2.6	2.1	2.1	2.0	2.0	2.0	2.5	2.1	5.0	2.0	2.0	2.2	2.5	2.8	2.4	2.48	5.03	
28-Apr	2.4	2.7	3.9	2.8	2.7	2.7	A	3.9	2.0	2.0	2.0	2.9	2.0	2.1	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.33	3.91	
29-Apr	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.7	2.1	2.0	2.1	2.2	2.6	2.3	2.10	2.71	
30-Apr	2.3	2.3	2.7	3.4	A	3.3	3.3	3.3	2.6	2.0	2.0	2.0	2.4	1.9	2.0	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.32	3.45	
2.25 2.30 2.46 2.57 2.84 2.96 2.56 3.06 2.33 2.14 2.10 2.11 2.07 2.12 2.06 2.16 2.02 2.16 2.07 2.09 2.17 2.20 2.16 2.17																										Diurnal Average	
3.60 3.17 5.19 7.98 16.02 10.46 4.40 16.03 3.92 2.60 2.36 2.87 2.40 3.00 2.74 4.35 2.24 5.03 2.49 2.85 2.95 2.86 2.75 2.86																										Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																											

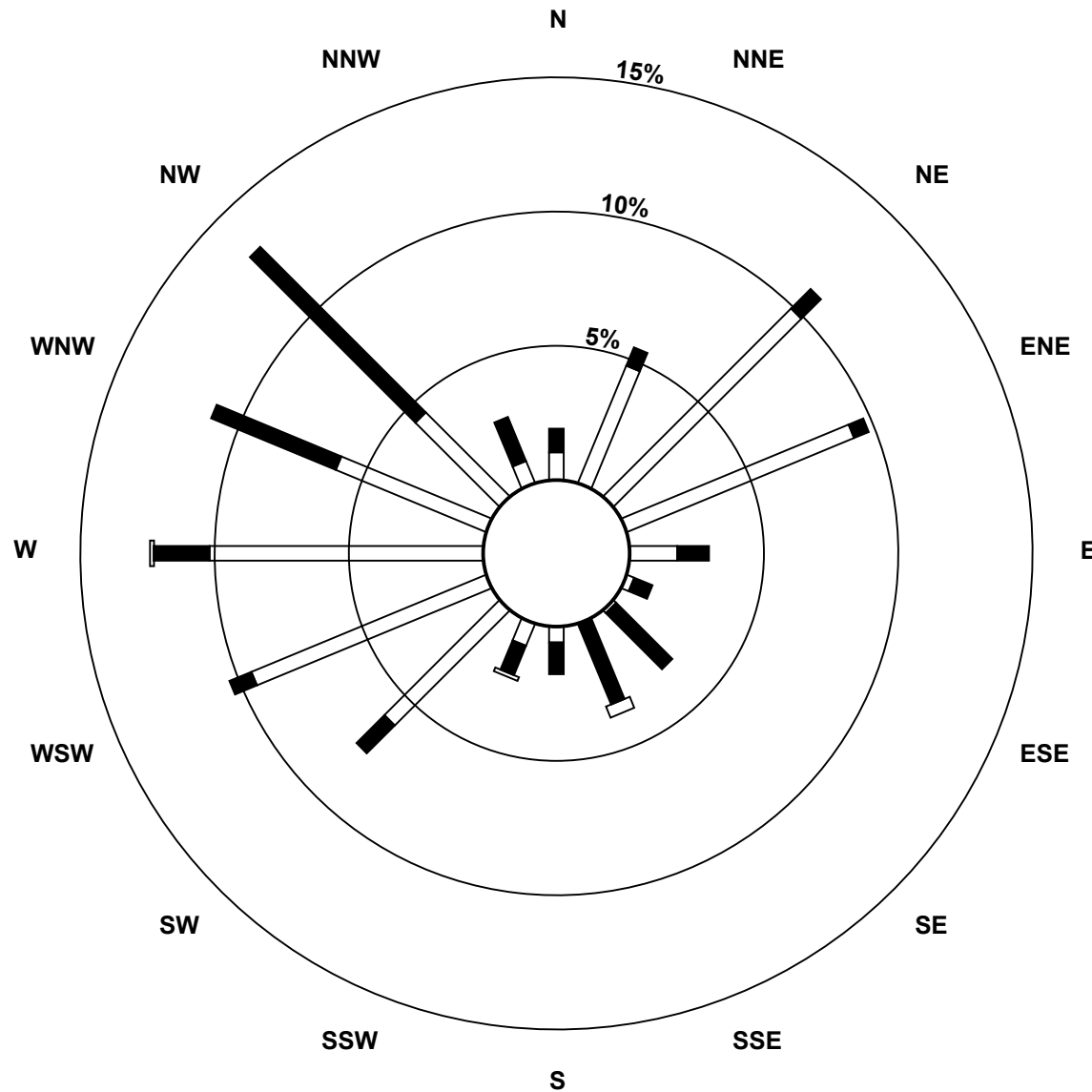
Hourly Maximums

Methane (CH₄) - ppm
Henry Pirker - April 2018

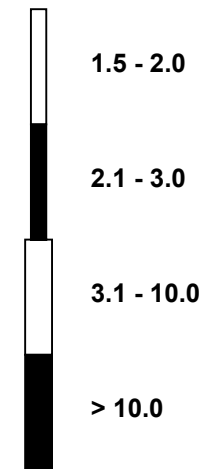


Pollutant Rose

Methane (CH₄) - ppm
Henry Pirker - April 2018

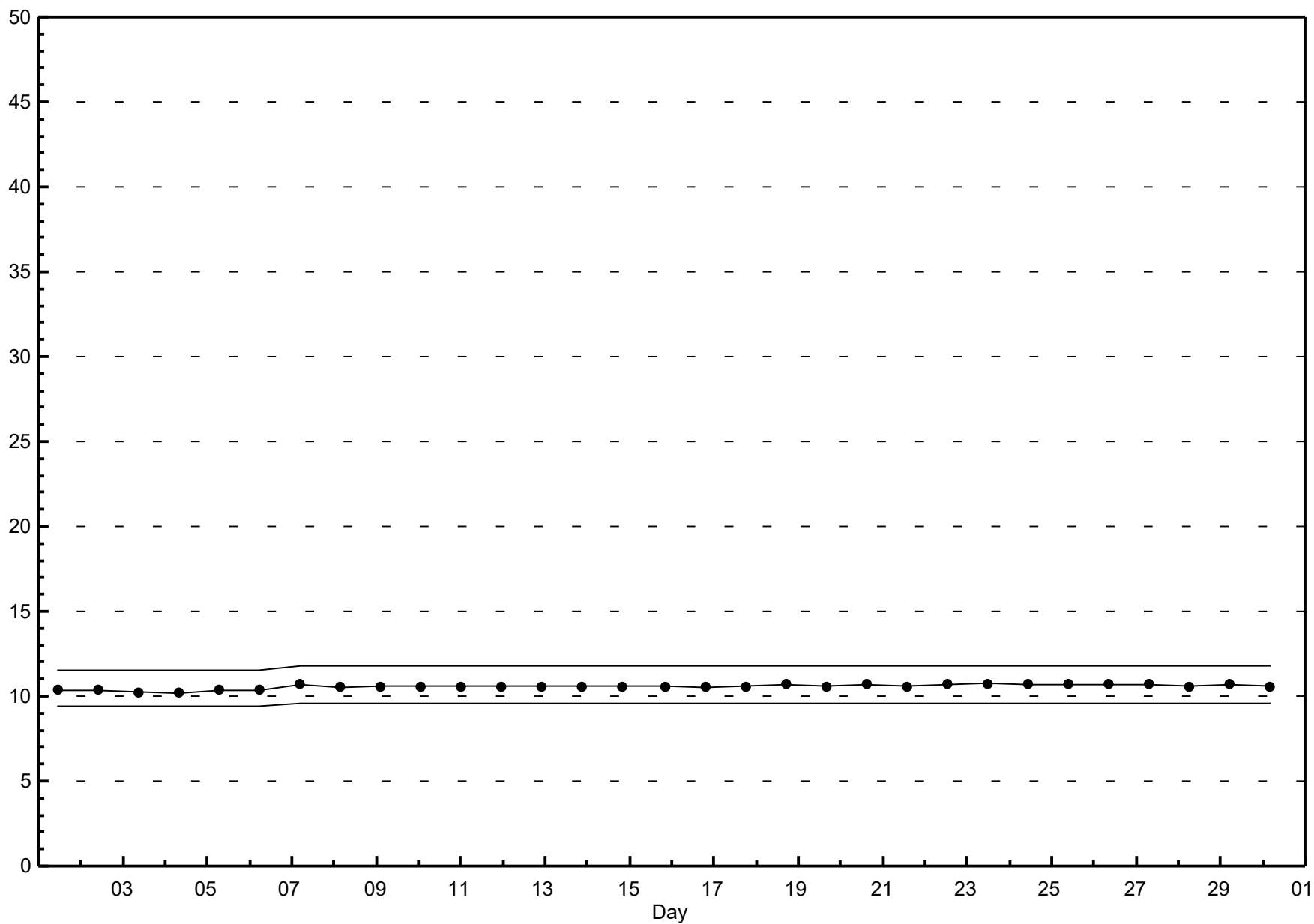


Pollutant Classes (ppm)



Span Responses

Methane (CH₄)
Henry Pirker - April 2018

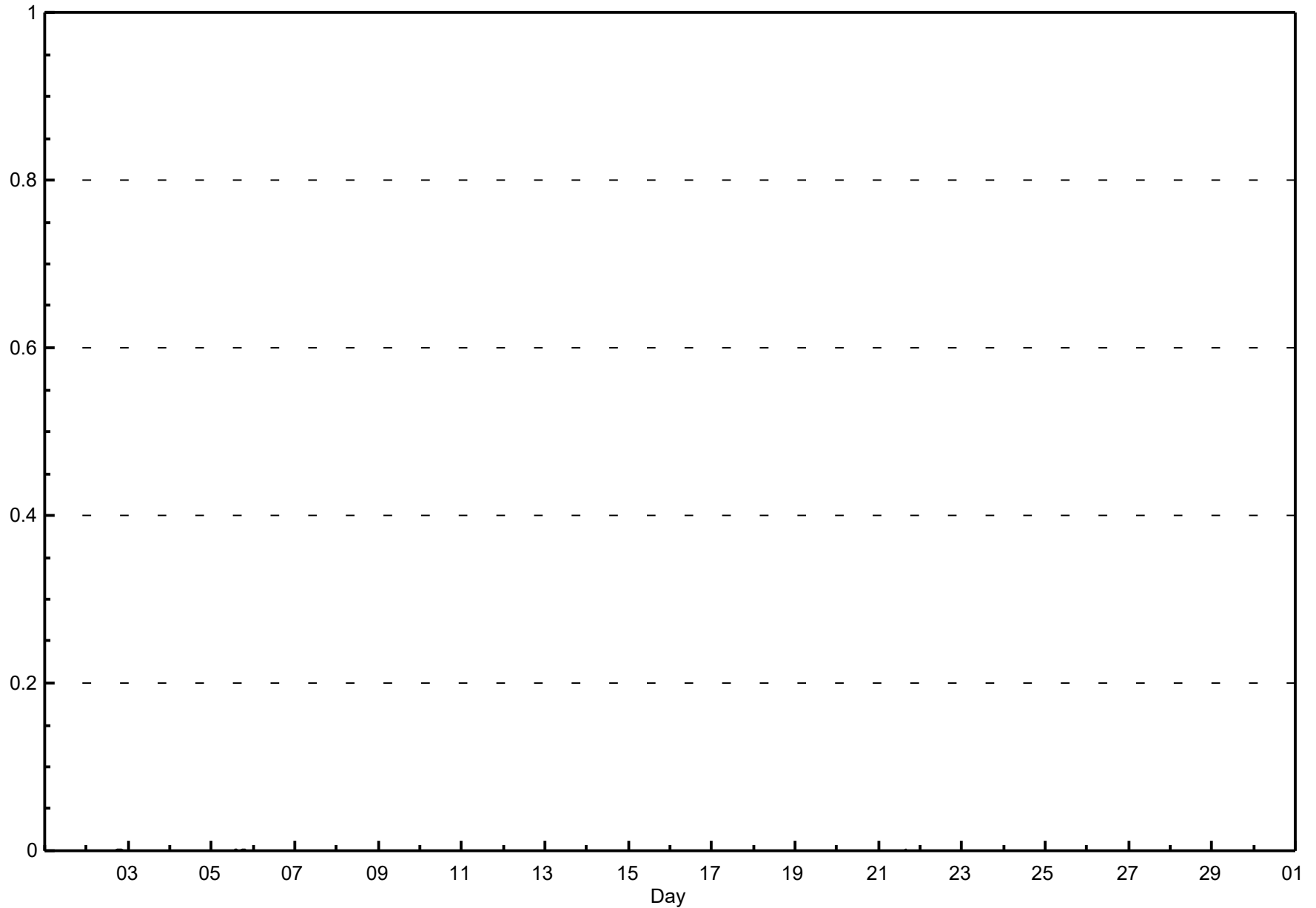


Hourly Averages

Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - April 2018

Maximum Value: 0.00 ppm on Apr 21 16:00																					Maximum Daily Average: 0.00 ppm on Apr 2					Hours in Service: 720	
Minimum Value: 0.0 ppm on Apr 1 01:00																					Minimum Daily Average: 0.00 ppm on Apr 9					Hours of Data: 685	
Maximum Diurnal Average: 0.00 ppm at hour 16																					Minimum Diurnal Average: 0.00 ppm at hour 6					Hours of Missing Data: 35	
Monthly Average: 0.000 ppm																					Percentiles: P ₁ = 0.00 P ₁₀ = 0.00 Q ₁ = 0.00 Median = 0.00 Q ₃ = 0.00 P ₉₀ = 0.00 P ₉₉ = 0.00					Hours of Calibration: 35	
																					Percent Operational Time: 100.0						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
2-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
3-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
4-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
5-Apr	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
6-Apr	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
7-Apr	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
8-Apr	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
9-Apr	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
10-Apr	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
11-Apr	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.00	0.00	
12-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.00	0.00	
13-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.00	0.00	
14-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.00	0.00	
15-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.00	0.00	
16-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
17-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
18-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
19-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
20-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
21-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
22-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
23-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
24-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
25-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
26-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
27-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
28-Apr	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
29-Apr	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
30-Apr	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
0.00 0.00																									Diurnal Average		
0.00 0.00																									Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																											



Hourly Maximums

Non Methane Hydrocarbon (NMHC) - ppm

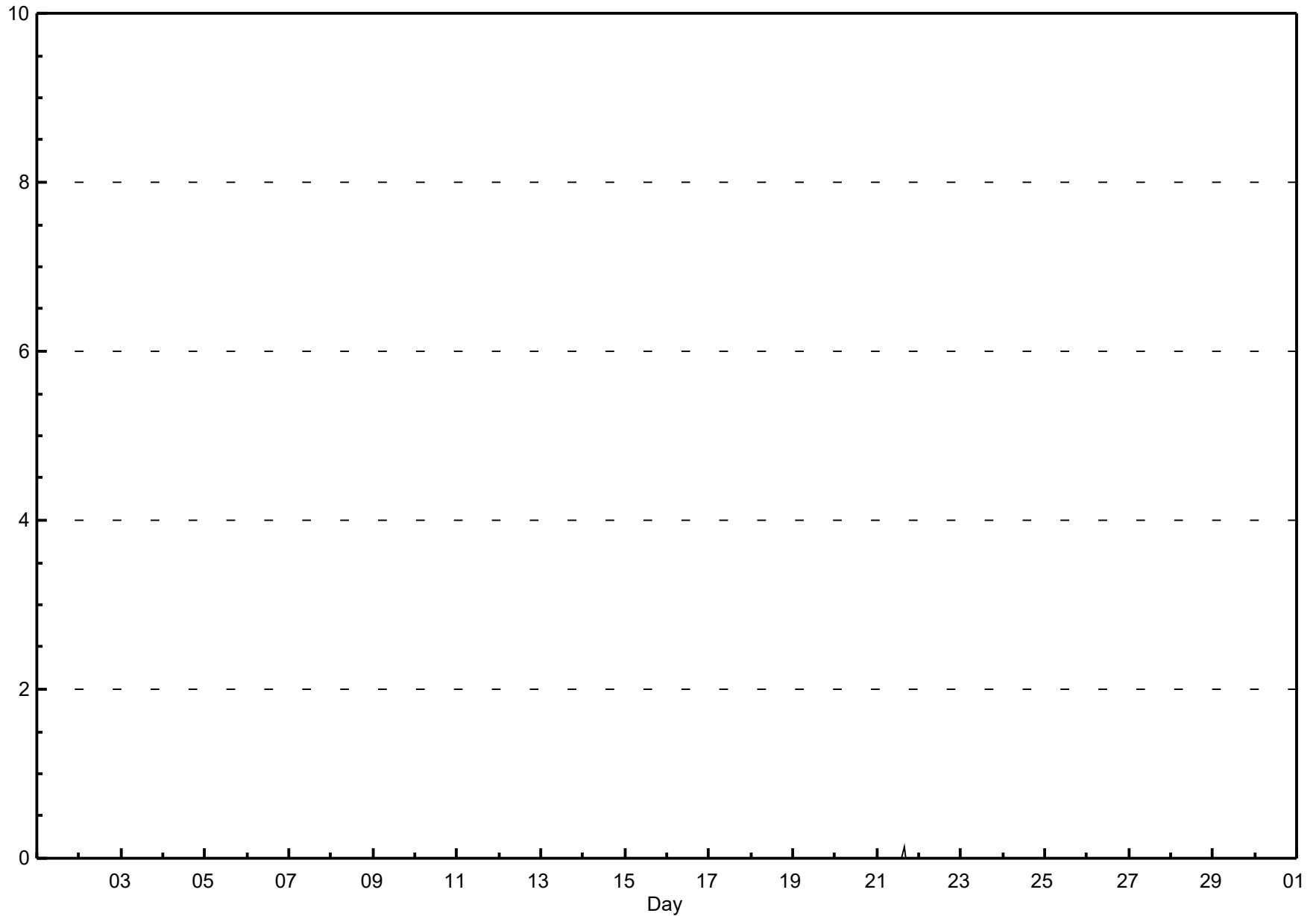
Henry Pirker - April 2018

Maximum Value: 0.13 ppm on Apr 21 16:00																					Maximum Daily Average: 0.01 ppm on Apr 21					Hours in Service: 720	
Minimum Value: 0.0 ppm on Apr 1 02:00																					Minimum Daily Average: 0.00 ppm on Apr 11					Hours of Data: 685	
Maximum Diurnal Average: 0.00 ppm at hour 16																					Minimum Diurnal Average: 0.00 ppm at hour 10					Hours of Missing Data: 35	
Monthly Average: 0.000 ppm																					Percentiles: P ₁ = 0.00 P ₁₀ = 0.00 Q ₁ = 0.00 Median = 0.00 Q ₃ = 0.00 P ₉₀ = 0.00 P ₉₉ = 0.00					Hours of Calibration: 35	
																					Percent Operational Time: 100.0						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
2-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
3-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
4-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
5-Apr	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
6-Apr	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
7-Apr	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
8-Apr	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
9-Apr	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
10-Apr	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
11-Apr	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.00	0.00	
12-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.00	0.00	
13-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.00	0.00	
14-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.00	0.00	
15-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.00	0.00	
16-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
17-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
18-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
19-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
20-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
21-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.13	
22-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
23-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
24-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
25-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
26-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
27-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
28-Apr	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
29-Apr	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
30-Apr	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
0.00 0.00																									Diurnal Average		
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.13 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00																									Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																											

Hourly Maximums

Non Methane Hydrocarbon (NMHC) - ppm

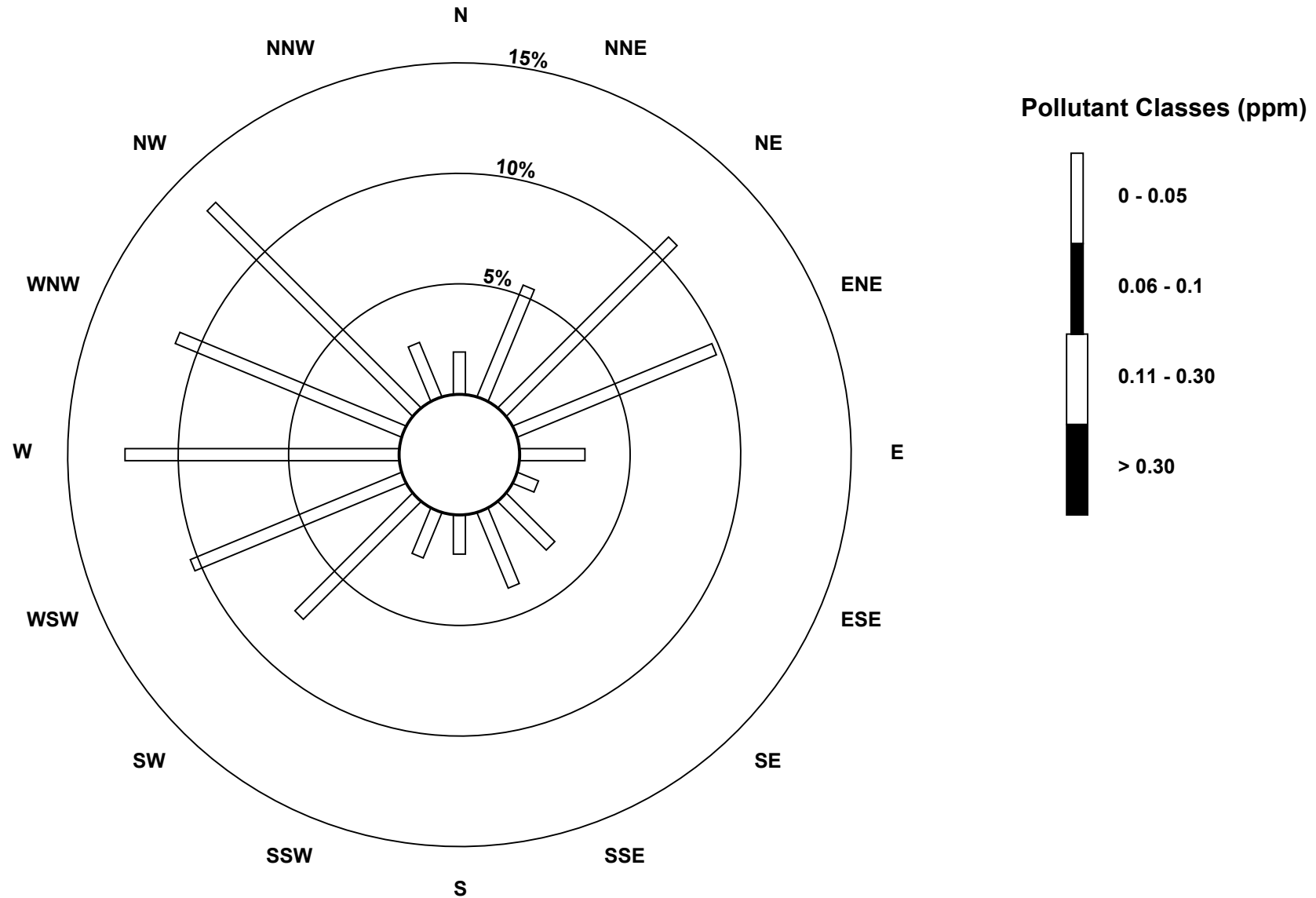
Henry Pirker - April 2018

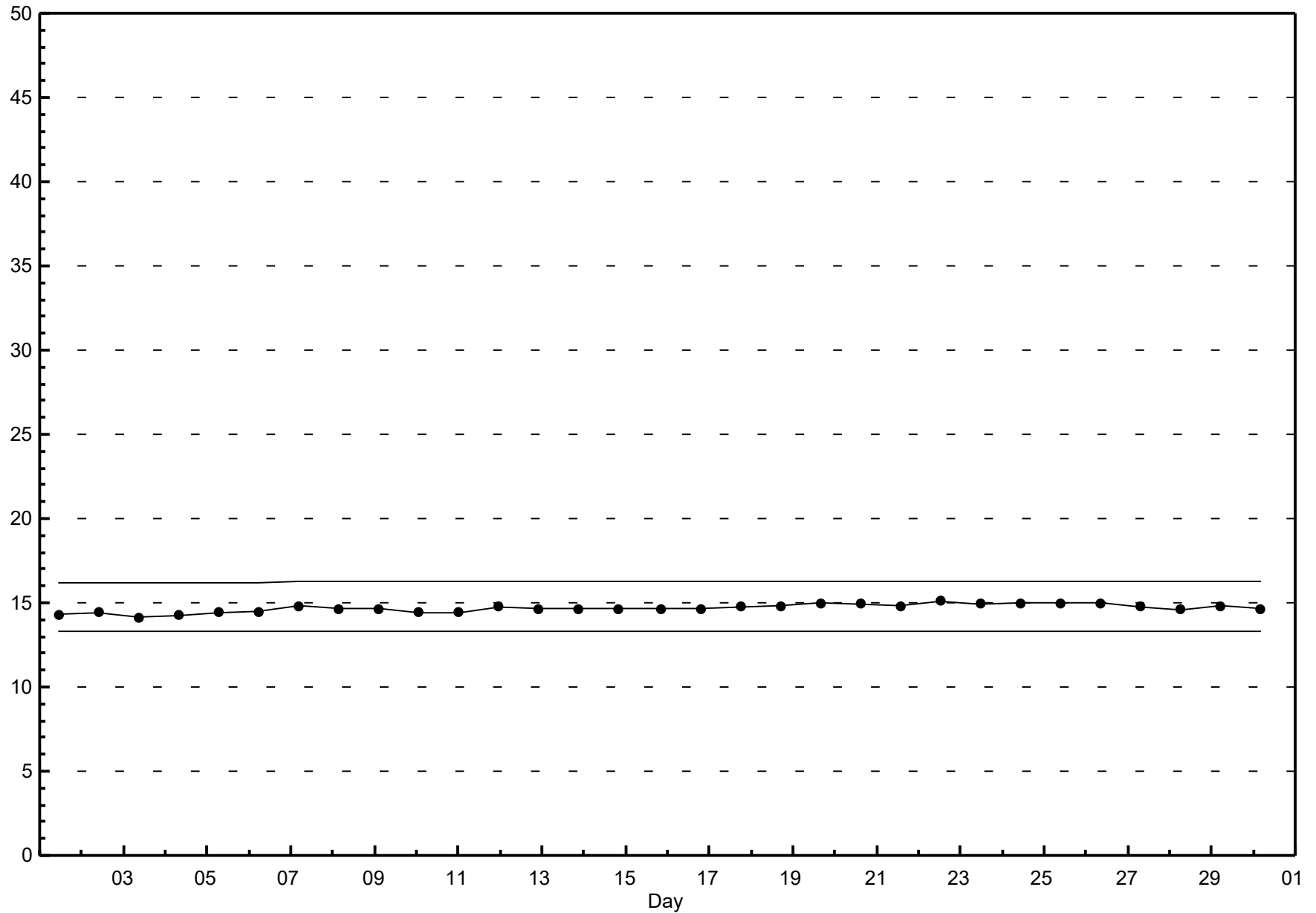


Pollutant Rose

Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - April 2018



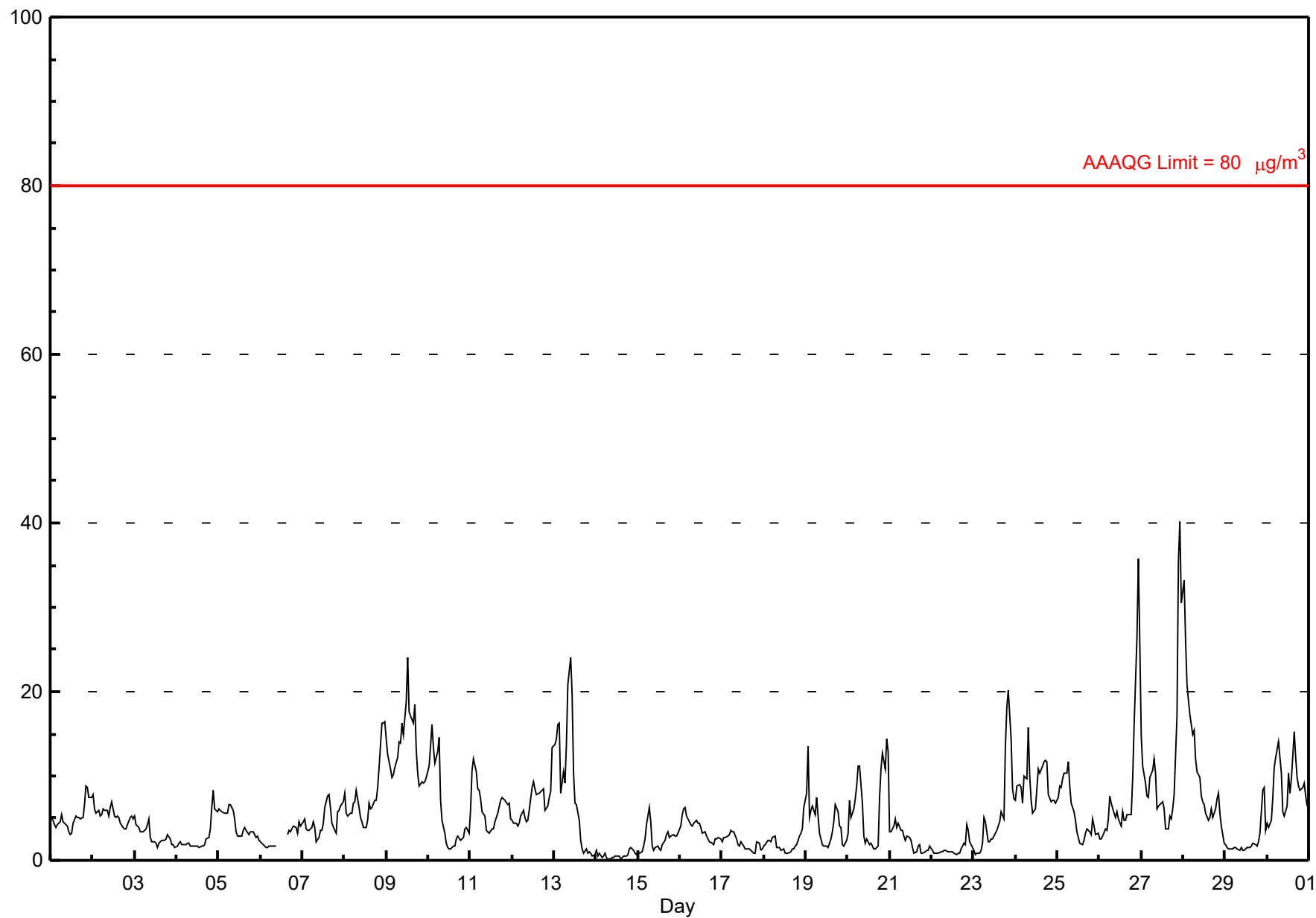


Hourly Averages

Particulate Matter 2.5 (PM_{2.5}) - µg/m³

Henry Pirker - April 2018

Number of Exceedences: 1-hr: 0 24-hr: 0 Maximum Value: 40.1 µg/m ³ on Apr 27 23:00 Maximum Daily Average: 13.4 µg/m ³ on Apr 9																								Hours in Service: 720 Hours of Data: 715 Hours of Missing Data: 5 Hours of Calibration: 5 Percent Operational Time: 100.0		
Minimum Value: 0 µg/m ³ on Apr 14 15:00 Maximum Diurnal Average: 7.5 µg/m ³ at hour 23 Monthly Average: 5.50 µg/m ³ Minimum Daily Average: 0.6 µg/m ³ on Apr 14 Minimum Diurnal Average: 4.2 µg/m ³ at hour 14 Percentiles: P ₁ = 0.4 P ₁₀ = 1.2 Q ₁ = 2.0 Median = 4.2 Q ₃ = 7.1 P ₉₀ = 11.2 P ₉₉ = 25.4																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	5	5	4	4	4	4	5	5	4	4	3	3	3	4	5	5	5	5	5	7	9	9	7	7	5.1	8.7
2-Apr	8	6	6	6	5	5	6	6	6	5	6	7	5	5	5	5	4	4	4	4	4	5	5	5	5.3	7.8
3-Apr	5	4	4	3	3	3	4	4	5	3	2	2	2	2	2	2	2	2	3	3	3	2	2	2	2.9	5.3
4-Apr	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	4	6	8	6	6	2.8	8.3
5-Apr	6	6	6	6	6	6	7	7	6	5	3	3	3	3	4	4	4	3	3	3	3	3	3	2	4.3	6.6
6-Apr	2	2	2	2	2	2	2	2	2	2	C	C	C	C	C	3	4	3	4	4	4	3	5	4	2.7	4.6
7-Apr	5	5	4	4	4	4	5	4	2	3	4	3	4	6	8	8	6	4	3	3	6	6	6	7	4.7	7.8
8-Apr	8	6	5	6	6	7	7	8	6	5	5	4	4	5	7	6	6	7	7	9	11	16	16	16	7.6	16.4
9-Apr	14	13	11	10	10	11	12	14	14	16	15	19	24	18	17	16	18	13	10	9	9	9	9	10	13.4	24.1
10-Apr	11	13	16	13	11	13	15	7	5	3	2	1	1	1	2	2	2	3	2	2	3	4	4	3	5.9	16.1
11-Apr	6	11	12	10	8	8	7	6	5	4	3	3	4	4	5	5	6	7	8	7	7	7	7	5	6.4	12.1
12-Apr	5	4	4	4	4	5	6	5	5	5	6	9	9	8	8	8	8	8	8	6	6	7	8	13	6.7	13.4
13-Apr	14	14	16	16	8	11	9	14	21	24	20	10	7	7	5	2	1	1	1	1	1	1	1	1	8.5	24.0
14-Apr	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0.6	1.5
15-Apr	1	1	1	2	3	4	6	5	2	1	2	2	1	1	2	2	3	3	3	3	3	3	3	3	2.5	6.2
16-Apr	4	5	6	6	5	5	4	4	4	5	4	4	4	3	3	3	2	2	2	2	3	3	3	3	3.8	6.3
17-Apr	2	3	3	3	3	4	3	3	3	2	2	2	2	1	1	1	1	1	1	1	2	2	1	1	2.0	3.6
18-Apr	2	2	2	2	2	3	3	1	1	2	1	1	1	1	1	1	1	1	2	2	3	3	4	6	2.1	6.2
19-Apr	8	14	5	6	6	5	7	5	3	2	2	2	2	2	3	3	5	7	6	4	4	2	2	2	4.4	13.6
20-Apr	3	7	5	6	7	9	11	11	7	3	2	2	2	2	2	1	1	2	8	11	13	11	14	13	6.4	14.4
21-Apr	3	3	4	5	4	4	4	4	3	2	3	3	2	1	1	1	2	2	1	1	1	1	1	2	2.4	4.9
22-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	4	4	2	2	1.4	4.2
23-Apr	1	1	1	1	1	2	5	5	2	2	2	2	3	4	4	5	6	5	14	18	20	14	9	7	5.6	20.2
24-Apr	7	9	9	9	7	10	10	16	10	7	6	6	8	11	10	11	12	12	12	8	7	7	7	7	9.0	15.8
25-Apr	8	9	9	10	10	10	12	9	7	6	5	3	3	2	2	2	3	4	3	3	5	4	3	3	5.6	11.7
26-Apr	3	3	3	4	4	5	8	7	6	5	6	5	4	6	5	5	5	5	5	10	16	26	36	26	8.5	35.8
27-Apr	15	11	9	8	7	10	11	12	10	6	6	7	7	6	4	4	5	5	6	8	17	35	40	31	11.7	40.1
28-Apr	33	26	21	19	17	15	15	12	10	10	8	7	7	6	5	5	6	5	6	7	8	6	4	2	10.8	33.3
29-Apr	2	1	1	1	1	2	2	1	1	2	1	1	1	2	1	2	2	2	2	2	3	8	9	4	2.3	8.7
30-Apr	4	4	5	7	11	12	14	12	10	6	5	6	10	8	10	15	12	10	9	8	9	9	8	6	8.8	15.2
6.3 6.4 5.9 5.8 5.5 6.1 6.7 6.4 5.5 4.7 4.4 4.2 4.4 4.2 4.2 4.4 4.6 4.4 4.8 5.1 6.4 7.3 7.5 6.7																								Diurnal Average		
33.3 26.0 20.8 19.0 17.4 14.8 15.4 15.8 20.9 24.0 19.6 18.9 24.1 17.6 17.1 16.2 18.5 13.1 13.5 18.2 20.2 35.4 40.1 30.5																								Diurnal Maximum		
C - Calibration																										
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 µg/m ³ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 µg/m ³																										



Hourly Maximums

Particulate Matter 2.5 (PM_{2.5}) - µg/m³

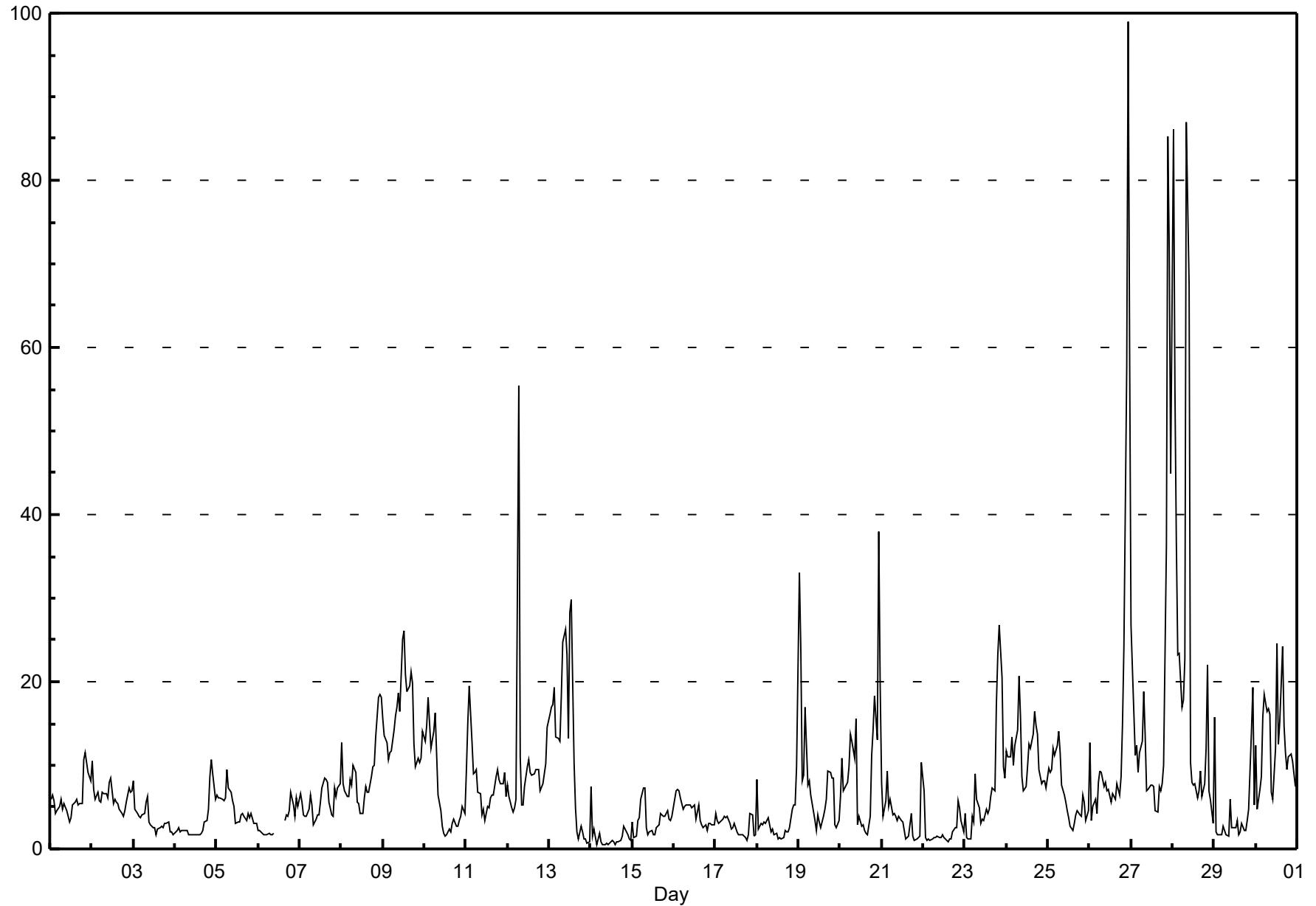
Henry Pirker - April 2018

Maximum Value: 98.9 μg/m ³ on Apr 26 23:00																								Maximum Daily Average: 23.2 μg/m ³ on Apr 28										Hours in Service: 720	
Minimum Value: 0 μg/m ³ on Apr 14 08:00																								Minimum Daily Average: 1.4 μg/m ³ on Apr 14										Hours of Data: 715	
Maximum Diurnal Average: 12.8 μg/m ³ at hour 23																								Minimum Diurnal Average: 5.3 μg/m ³ at hour 15										Hours of Missing Data: 5	
Monthly Average: 7.90 μg/m ³																								Percentiles: P ₁ = 0.7 P ₁₀ = 1.7 Q ₁ = 2.9 Median = 5.4 Q ₃ = 9.2 P ₉₀ = 15.7 P ₉₉ = 57.5										Hours of Calibration: 5	
																								Percent Operational Time: 100.0											
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum									
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24											
1-Apr	6	7	6	4	5	5	6	5	5	5	4	3	4	5	6	6	5	5	6	11	12	10	9	8	6.1	11.6									
2-Apr	11	7	6	7	6	6	7	7	7	6	8	8	5	6	6	5	5	4	4	5	6	7	7	7	6.3	10.5									
3-Apr	8	5	4	4	4	4	4	6	6	3	3	2	3	2	2	3	3	3	3	3	3	2	2	2	3.5	8.1									
4-Apr	2	2	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	5	9	11	9	6	3.3	10.8									
5-Apr	6	6	6	6	6	6	10	7	7	6	5	3	3	3	4	4	4	3	4	4	4	3	3	3	4.9	9.6									
6-Apr	2	2	2	2	2	2	2	2	2	2	C	C	C	C	C	3	4	4	5	7	5	4	6	5	3.3	6.9									
7-Apr	7	6	4	4	4	5	6	5	3	4	4	4	6	7	8	8	8	6	4	4	7	6	7	8	5.6	8.4									
8-Apr	13	8	7	6	6	8	8	10	9	6	5	4	4	6	7	7	7	9	10	10	13	18	18	18	9.1	18.4									
9-Apr	16	14	13	11	12	12	14	16	17	19	16	25	26	21	19	19	21	20	13	10	11	10	11	14	15.8	26.1									
10-Apr	13	15	18	15	12	14	16	11	6	5	3	2	2	2	2	2	3	4	3	3	3	4	5	4	6.9	18.2									
11-Apr	9	15	19	13	9	9	9	7	7	4	5	3	5	5	6	6	6	9	9	8	8	8	9	6	8.2	19.4									
12-Apr	8	6	5	4	5	6	55	11	5	5	7	10	11	9	9	9	9	10	10	7	8	9	10	15	10.1	55.5									
13-Apr	16	17	17	19	13	13	13	18	25	26	23	13	28	30	10	5	2	1	3	2	1	1	1	1	12.5	29.8									
14-Apr	7	2	2	1	1	2	1	0	0	1	1	1	1	1	0	1	1	1	2	3	2	2	1	1	1.4	7.5									
15-Apr	3	1	2	3	4	6	7	7	3	2	2	2	2	2	2	3	4	4	4	4	5	4	3	4	3.4	7.4									
16-Apr	6	7	7	7	6	5	5	5	5	5	5	5	5	4	5	3	3	3	3	2	3	3	3	3	4.5	7.1									
17-Apr	4	3	3	3	4	4	4	4	3	2	2	3	2	2	2	2	2	1	1	2	4	4	2	2	2.7	4.3									
18-Apr	8	2	3	3	3	3	4	3	2	2	2	2	1	1	1	1	2	2	2	3	5	5	5	10	3.2	9.8									
19-Apr	33	24	8	9	17	8	8	6	5	3	2	4	3	2	4	5	6	9	9	8	8	3	2	3	8.0	33.1									
20-Apr	6	11	7	8	8	10	14	13	11	16	3	4	3	3	2	2	2	4	11	14	18	13	38	20	10.0	37.9									
21-Apr	8	4	6	9	5	6	4	4	4	3	4	3	3	2	1	2	3	4	2	1	1	1	2	10	3.9	10.3									
22-Apr	7	1	1	1	1	1	1	1	2	1	1	2	1	1	1	1	1	2	3	2	6	5	3	2	2.1	7.0									
23-Apr	4	1	1	1	4	3	9	6	5	3	4	3	5	4	5	6	7	7	17	23	27	21	10	8	7.7	26.8									
24-Apr	12	11	11	13	10	12	14	21	16	9	7	7	10	12	12	14	16	15	14	10	8	8	8	7	11.6	20.6									
25-Apr	10	9	10	12	11	12	14	12	8	6	6	5	4	3	2	3	4	5	4	4	6	6	3	5	6.7	14.1									
26-Apr	13	3	5	6	4	8	9	9	7	8	7	7	6	7	6	6	8	6	9	15	24	58	99	60	16.3	98.9									
27-Apr	27	21	11	12	9	12	13	19	14	7	7	8	8	7	5	4	7	7	8	10	36	85	71	45	18.9	85.3									
28-Apr	86	55	37	23	23	17	18	23	87	67	10	8	8	8	6	7	9	6	8	12	22	7	6	3	23.2	86.9									
29-Apr	16	2	2	2	2	3	2	2	2	6	2	3	3	3	2	2	3	2	2	3	5	14	19	5	4.4	19.3									
30-Apr	12	5	7	9	16	18	16	17	16	7	6	12	25	13	15	24	15	12	9	11	11	11	9	7	12.6	24.5									
12.6 9.1 7.7 7.3 7.1 7.4 9.9 8.6 9.7 8.0 5.4 5.5 6.4 6.0 5.3 5.6 5.8 5.7 6.1 6.8 9.4 11.4 12.8 9.8																									Diurnal Average										
86.1 54.8 36.6 23.2 23.4 18.4 55.5 22.7 86.9 67.4 23.2 25.1 28.3 29.8 18.8 24.3 21.1 19.9 17.2 23.2 36.5 85.3 98.9 60.3																									Diurnal Maximum										
C - Calibration																																			

Hourly Maximums

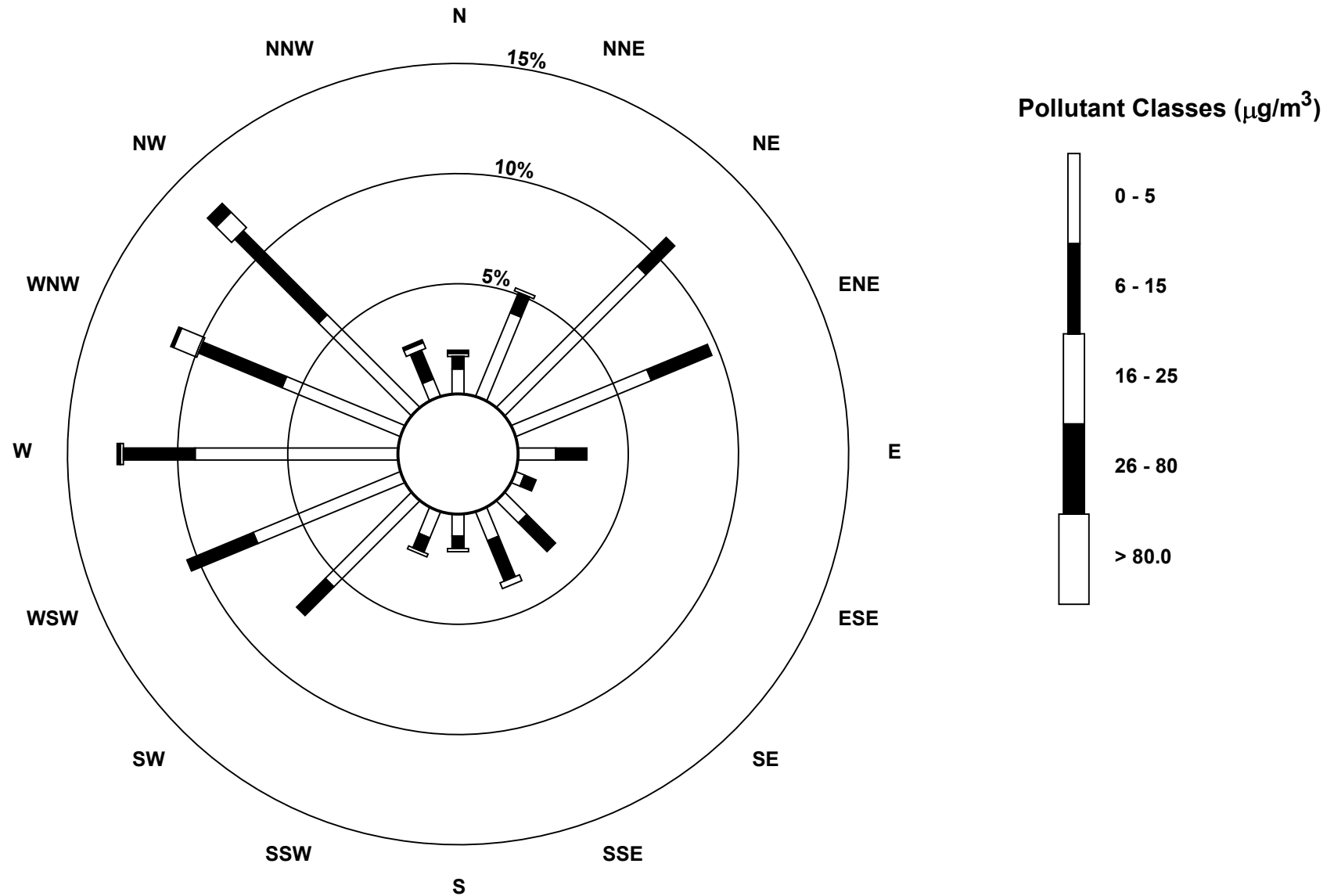
Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$

Henry Pirker - April 2018



Pollutant Rose

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Henry Pirker - April 2018



Hourly Averages

External Temperature (ET) - °C

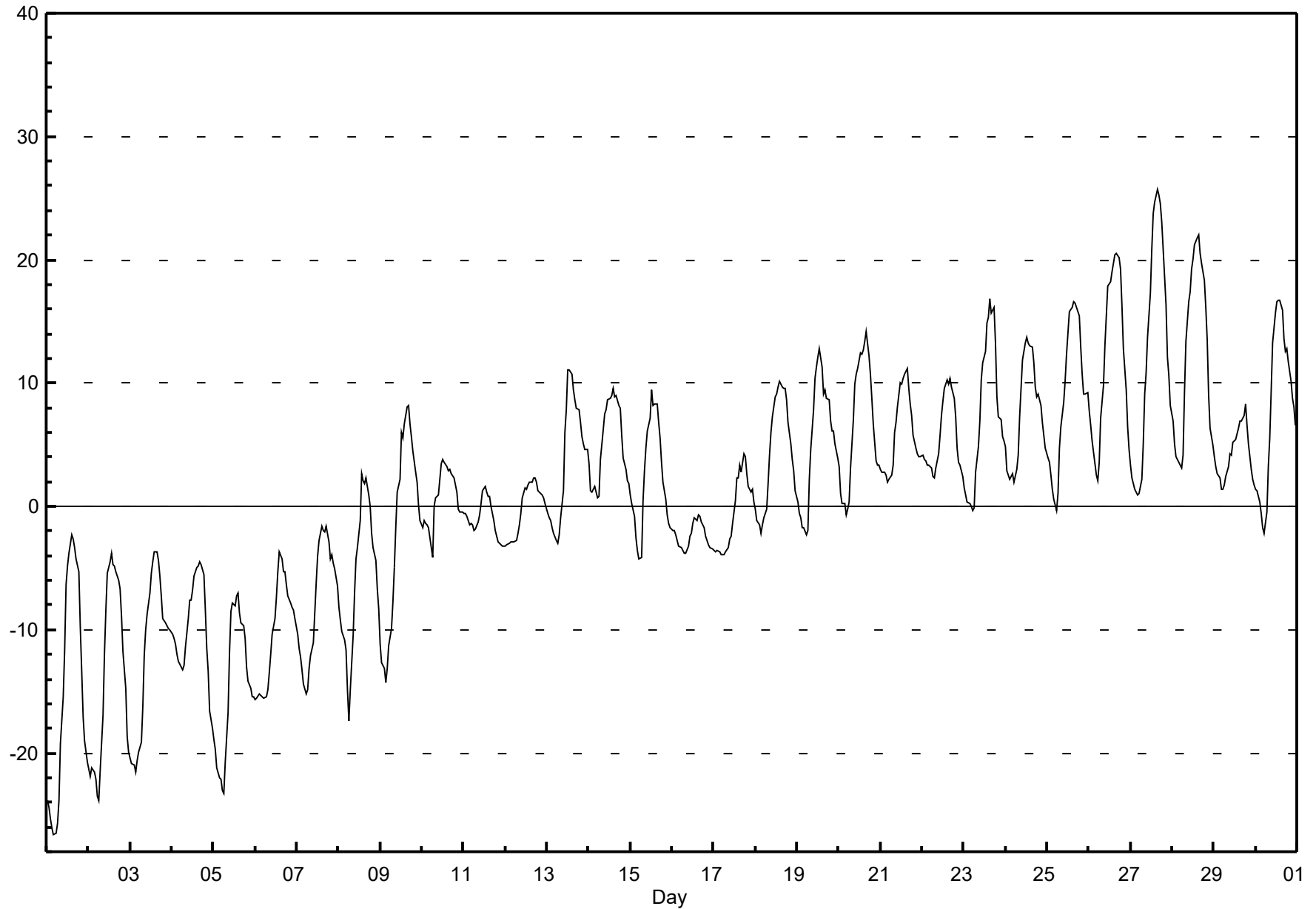
Henry Pirker - April 2018

Maximum Value: 25.7 °C on Apr 27 16:00																								Maximum Daily Average: 12.7 °C on Apr 27										Hours in Service: 720	
Minimum Value: -27 °C on Apr 1 05:00																								Minimum Daily Average: -15.1 °C on Apr 1										Hours of Data: 720	
Maximum Diurnal Average: 6.9 °C at hour 15																								Minimum Diurnal Average: -5.8 °C at hour 6										Hours of Missing Data: 0	
Monthly Average: 0.63 °C																								Percentiles: P ₁ = -23.8 P ₁₀ = -13.0 Q ₁ = -4.0 Median = 1.4 Q ₃ = 6.9 P ₉₀ = 12.2 P ₉₉ = 21.7										Hours of Calibration: 0	
																								Percent Operational Time: 100.0											
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum									
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24											
1-Apr	-24	-24	-25	-26	-27	-26	-26	-24	-19	-15	-12	-6	-5	-4	-2	-3	-3	-4	-5	-10	-13	-17	-19	-21	-15.1	-2.3									
2-Apr	-21	-22	-21	-21	-22	-23	-24	-21	-17	-12	-8	-5	-4	-4	-5	-5	-5	-6	-7	-9	-12	-15	-19	-20	-13.7	-3.8									
3-Apr	-20	-21	-21	-22	-21	-20	-19	-16	-12	-10	-9	-7	-5	-4	-4	-4	-4	-6	-7	-9	-9	-10	-10	-10	-11.7	-3.7									
4-Apr	-10	-11	-11	-12	-13	-13	-13	-13	-11	-9	-8	-8	-7	-6	-5	-5	-5	-5	-6	-8	-12	-13	-17	-18	-9.8	-4.5									
5-Apr	-19	-20	-21	-22	-22	-23	-23	-21	-17	-12	-9	-8	-8	-7	-7	-9	-9	-10	-11	-13	-14	-15	-15	-15	-14.6	-7.0									
6-Apr	-16	-16	-15	-15	-15	-16	-15	-15	-13	-12	-10	-9	-7	-5	-4	-4	-5	-5	-6	-7	-8	-8	-8	-9	-10.2	-3.6									
7-Apr	-10	-11	-12	-13	-14	-15	-15	-13	-12	-11	-9	-6	-4	-3	-2	-2	-2	-2	-3	-4	-4	-5	-5	-6	-7.7	-1.6									
8-Apr	-8	-9	-10	-11	-12	-15	-17	-15	-10	-7	-4	-3	-1	3	2	2	2	1	0	-2	-3	-4	-7	-8	-5.8	2.7									
9-Apr	-11	-13	-13	-14	-13	-11	-10	-8	-5	-2	1	2	6	6	7	8	8	7	6	5	3	2	0	-1	-1.7	8.2									
10-Apr	-2	-1	-1	-2	-2	-3	-4	0	1	1	2	3	4	4	3	3	3	3	2	2	1	0	0	0	0.6	3.8									
11-Apr	-1	-1	-1	-1	-1	-1	-2	-2	-1	-1	0	1	2	1	1	1	0	-1	-2	-2	-3	-3	-3	-3	-1.0	1.6									
12-Apr	-3	-3	-3	-3	-3	-3	-3	-2	-1	-1	1	2	1	2	2	2	2	2	2	1	1	1	1	0	-0.2	2.4									
13-Apr	-1	-1	-1	-2	-2	-3	-3	-2	-1	1	6	8	11	11	11	9	9	8	8	7	6	5	5	5	3.9	11.1									
14-Apr	3	1	1	2	1	1	1	4	6	7	8	9	9	9	10	9	9	8	8	6	4	3	2	2	5.1	9.6									
15-Apr	1	0	-1	-3	-4	-4	-4	1	3	5	6	7	9	8	8	8	7	6	4	2	1	-1	-1	-2	2.3	9.4									
16-Apr	-2	-2	-2	-3	-3	-3	-4	-4	-4	-3	-2	-2	-1	-1	-1	-1	-1	-1	-2	-2	-3	-3	-3	-3	-2.4	-0.7									
17-Apr	-4	-4	-4	-4	-4	-4	-4	-4	-3	-3	-2	-1	0	2	2	3	3	4	4	3	2	1	1	0	-0.5	4.2									
18-Apr	0	-1	-1	-2	-1	-1	0	2	4	6	7	9	9	10	10	10	10	10	9	7	5	4	3	1	4.5	10.2									
19-Apr	0	-1	-1	-2	-2	-2	-2	2	5	8	10	11	12	13	11	9	9	9	9	7	6	6	5	4	5.3	12.8									
20-Apr	3	1	0	0	-1	0	0	3	7	10	11	11	12	12	13	13	14	12	11	9	7	4	3	3	6.7	14.2									
21-Apr	3	3	3	3	2	2	3	3	6	7	8	10	10	10	11	11	10	8	7	6	5	4	4	4	5.9	11.2									
22-Apr	4	4	4	3	3	3	2	2	3	4	6	7	9	10	10	10	10	10	9	7	5	4	3	2	5.6	10.3									
23-Apr	2	1	0	0	0	0	0	3	5	7	10	12	13	15	15	17	16	16	13	9	7	7	6	5	7.4	16.8									
24-Apr	5	3	2	2	3	2	3	4	7	10	12	13	14	13	13	13	12	10	9	9	8	7	6	5	7.6	13.7									
25-Apr	4	4	3	1	1	0	1	5	6	8	10	12	14	16	16	17	17	16	15	13	11	9	9	9	9.0	16.6									
26-Apr	8	7	5	3	3	2	4	7	10	13	15	18	18	19	20	20	21	20	19	16	13	9	6	5	11.7	20.6									
27-Apr	3	2	1	1	1	1	2	5	9	11	14	17	21	24	25	26	25	25	23	21	16	12	11	8	12.7	25.7									
28-Apr	7	5	4	4	4	3	4	9	13	17	17	19	20	21	22	22	21	20	18	16	13	9	6	5	12.5	22.0									
29-Apr	4	3	3	2	1	1	2	2	3	4	4	5	5	6	6	7	7	7	8	7	5	3	2	2	4.2	8.3									
30-Apr	1	1	0	-1	-2	-2	0	3	6	9	13	16	17	17	17	16	14	13	13	12	10	9	8	7	8.2	16.7									
																									Diurnal Average										
																									Diurnal Maximum										

Hourly Averages

External Temperature (ET) - °C

Henry Pirker - April 2018



Hourly Averages

Relative Humidity (RH) - %

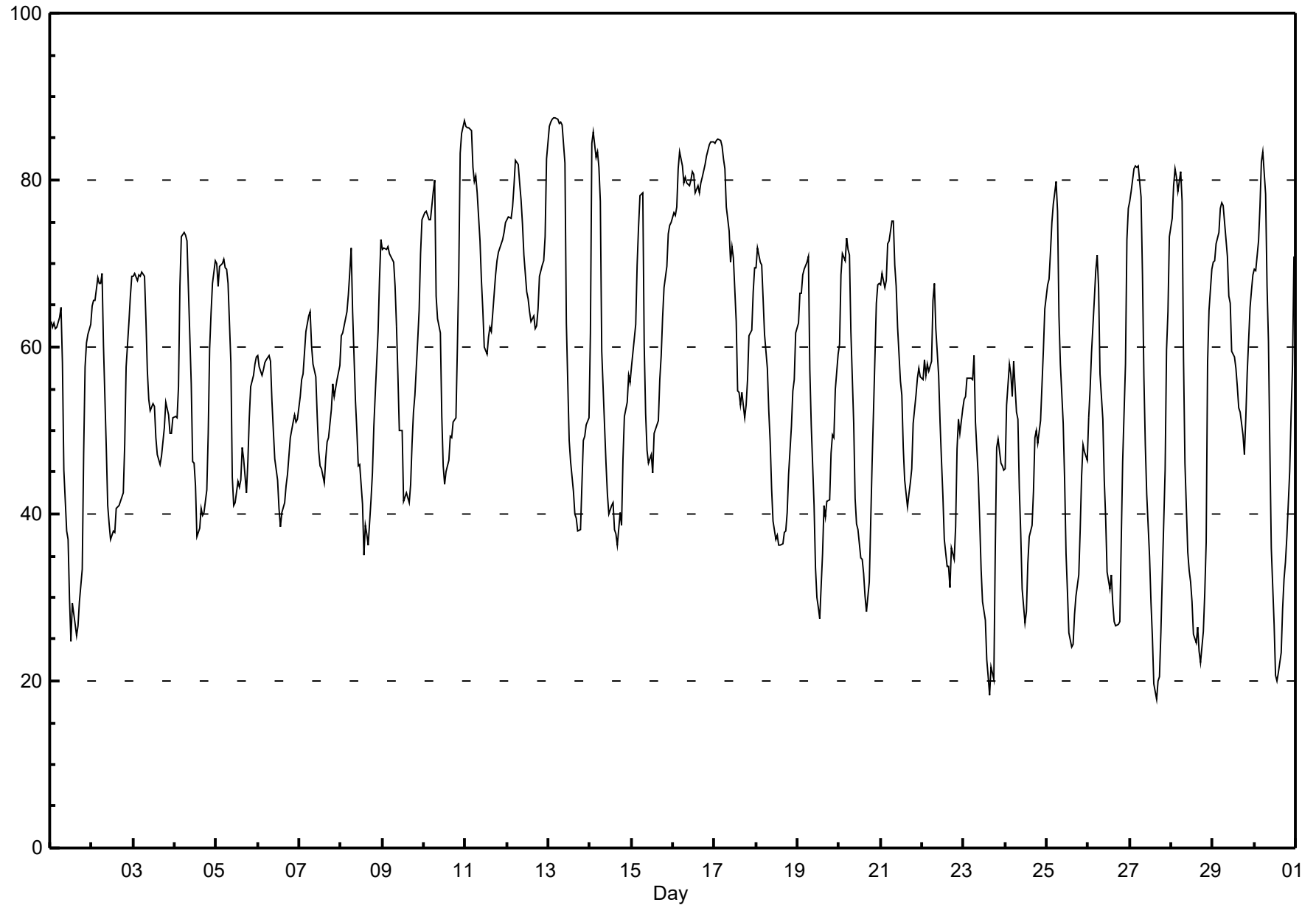
Henry Pirker - April 2018

Maximum Value: 87.5 % on Apr 13 05:00																								Hours in Service: 720		
Maximum Daily Average: 80.6 % on Apr 16																								Hours of Data: 720		
Minimum Value: 18 % on Apr 27 16:00																								Hours of Missing Data: 0		
Maximum Diurnal Average: 72.7 % at hour 6																								Hours of Calibration: 0		
Monthly Average: 56.26 %																								Percent Operational Time: 100.0		
Minimum Daily Average: 41.2 % on Apr 23																										
Minimum Diurnal Average: 40.4 % at hour 15																										
Percentiles: P ₁ = 20.6 P ₁₀ = 34.5 Q ₁ = 44.1 Median = 56.5 Q ₃ = 69.2 P ₉₀ = 78.5 P ₉₉ = 86.7																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	63	62	63	62	62	63	65	58	45	38	37	30	25	29	27	25	27	30	33	47	58	61	62	63	47.3	64.8
2-Apr	65	66	66	68	68	68	69	60	48	41	39	37	38	38	41	41	41	42	43	48	58	63	66	68	53.3	68.8
3-Apr	69	69	68	69	68	69	68	63	57	54	52	53	53	49	47	46	47	49	50	53	52	50	50	52	56.5	68.9
4-Apr	52	51	55	67	73	74	73	73	67	56	46	46	43	37	38	41	40	40	43	50	60	64	68	70	55.3	73.7
5-Apr	70	67	70	70	70	70	69	68	58	44	41	41	44	43	44	48	47	42	46	52	55	57	58	59	55.5	70.4
6-Apr	59	58	57	57	58	58	59	58	54	50	47	44	41	38	40	41	43	45	47	49	51	52	51	51	50.4	58.9
7-Apr	54	56	57	59	62	64	64	60	58	56	52	48	46	45	44	47	49	49	53	56	54	55	56	58	54.2	64.3
8-Apr	61	62	63	64	66	69	72	64	54	50	46	46	41	35	39	38	36	42	45	51	54	62	68	73	54.2	72.9
9-Apr	72	72	72	72	71	71	70	67	62	57	50	50	42	42	43	41	44	48	52	54	61	64	71	75	59.3	75.2
10-Apr	76	76	76	75	75	79	80	66	63	62	52	46	44	45	46	49	49	51	52	60	69	83	86	87	64.5	87.2
11-Apr	86	86	86	86	82	80	81	78	73	68	64	60	59	61	62	62	64	69	70	71	72	73	74	75	72.6	86.5
12-Apr	75	76	75	77	79	82	82	80	78	75	71	67	66	64	63	64	62	62	65	68	70	70	73	83	71.9	82.5
13-Apr	86	87	87	88	88	87	87	87	87	82	63	56	49	46	43	40	39	38	38	44	49	49	51	52	63.4	87.5
14-Apr	62	84	86	83	83	81	77	59	51	46	42	40	41	41	38	38	36	40	39	47	52	53	57	56	55.5	85.8
15-Apr	58	59	63	70	74	78	78	60	52	48	46	47	45	50	50	51	56	59	63	67	70	74	75	75	61.2	78.5
16-Apr	76	76	77	81	83	82	80	80	80	79	80	81	81	78	79	79	80	80	82	83	84	84	85	85	80.6	84.6
17-Apr	84	85	85	85	84	83	81	77	74	70	72	71	63	55	55	53	55	51	53	56	61	62	67	70	68.8	84.9
18-Apr	69	72	70	70	66	62	57	52	49	43	39	37	37	36	36	37	38	38	40	45	51	55	56	62	50.7	71.9
19-Apr	63	67	66	69	69	70	71	57	51	41	34	30	29	28	35	41	40	42	42	47	50	49	55	59	50.1	70.9
20-Apr	60	69	71	70	73	72	71	62	51	42	39	38	35	35	33	30	28	32	39	46	52	65	68	68	52.0	73.1
21-Apr	68	69	67	68	72	73	75	75	70	67	62	56	54	48	44	41	42	44	45	51	54	56	58	56	59.0	75.1
22-Apr	56	58	57	58	57	58	66	68	62	57	51	46	42	37	34	34	31	36	35	38	48	51	50	52	49.3	67.6
23-Apr	54	54	56	56	56	56	59	51	44	39	33	29	27	23	21	18	22	20	36	48	49	46	46	45	41.2	58.9
24-Apr	45	53	58	57	54	58	52	51	43	38	31	27	28	34	37	39	43	49	50	49	51	55	60	65	47.0	64.6
25-Apr	67	68	71	75	77	80	76	64	58	51	44	35	31	26	24	24	28	30	33	38	44	48	48	46	49.5	79.9
26-Apr	52	55	59	66	69	71	67	57	51	44	39	33	31	33	29	27	27	27	27	37	46	58	73	77	48.1	76.6
27-Apr	77	79	81	82	82	82	78	69	56	48	42	35	30	25	20	18	20	21	26	32	45	60	64	73	51.9	81.8
28-Apr	75	79	81	80	79	81	77	58	46	35	33	32	29	26	25	26	23	22	26	31	37	58	64	69	49.8	81.4
29-Apr	70	70	72	74	77	77	77	75	71	66	65	60	59	57	55	53	52	50	47	52	57	65	67	69	64.0	77.3
30-Apr	69	69	73	77	82	83	78	67	61	48	36	27	21	20	21	23	29	32	34	37	45	52	58	71	50.6	83.4
66.5 68.5 69.6 71.2 72.1 72.7 72.0 65.5 59.1 53.2 48.3 44.9 42.4 40.9 40.4 40.5 41.2 42.7 45.1 50.2 55.3 59.8 62.7 65.4																								Diurnal Average		
86.5 86.9 87.3 87.5 87.5 87.2 86.8 86.9 86.5 82.1 80.0 81.1 80.6 78.5 79.4 78.5 79.7 80.4 81.9 82.8 83.5 84.2 85.5 87.2																								Diurnal Maximum		

Hourly Averages

Relative Humidity (RH) - %

Henry Pirker - April 2018



Hourly Averages

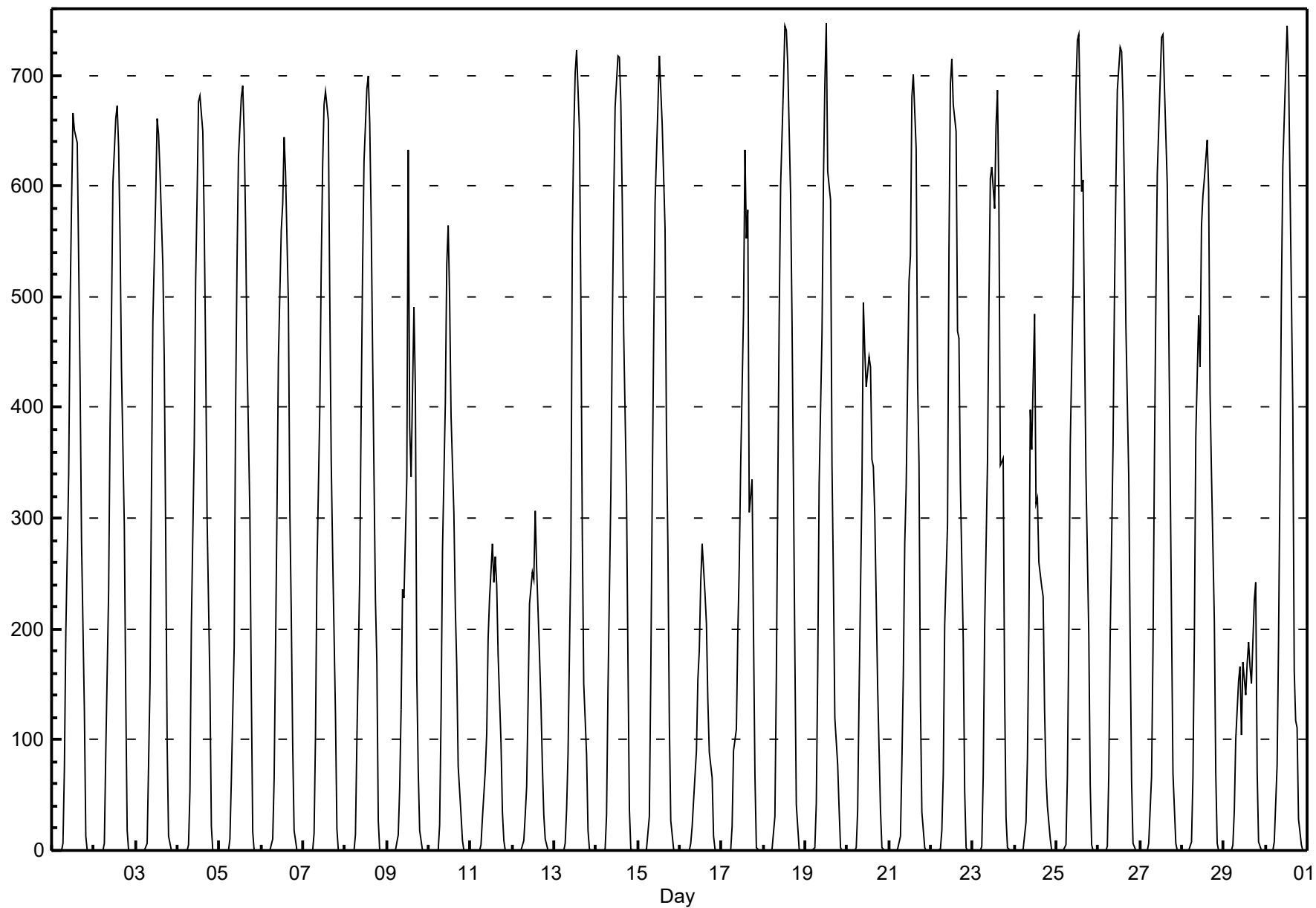
Solar Radiation (SR) - W/m²

Henry Pirker - April 2018

Maximum Value: 747.5 W/m ² on Apr 19 13:00																								Maximum Daily Average: 261.7 W/m ² on Apr 27																								Hours in Service: 720	
Minimum Value: 0 W/m ² on Apr 1 01:00																								Minimum Daily Average: 73.3 W/m ² on Apr 16																								Hours of Data: 720	
Maximum Diurnal Average: 585.2 W/m ² at hour 13																								Minimum Diurnal Average: 0.0 W/m ² at hour 4																								Hours of Missing Data: 0	
Monthly Average: 194.56 W/m ²																								Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 61.0 Q ₃ = 352.7 P ₉₀ = 613.4 P ₉₉ = 730.1																								Hours of Calibration: 0	
																																																Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																									
1-Apr	0	0	0	0	0	0	6	75	197	339	492	583	666	651	638	534	423	279	127	13	0	0	0	0	209.3	665.6																							
2-Apr	0	0	0	0	0	0	7	89	235	382	480	603	660	673	635	554	436	292	140	18	0	0	0	0	216.8	672.5																							
3-Apr	0	0	0	0	0	0	6	78	151	322	478	590	660	647	613	528	442	284	99	12	0	0	0	0	204.6	660.2																							
4-Apr	0	0	0	0	0	0	5	54	205	366	515	591	676	682	649	567	447	301	150	22	0	0	0	0	217.9	682.1																							
5-Apr	0	0	0	0	0	0	10	63	184	401	532	626	680	691	648	565	448	304	146	17	0	0	0	0	221.5	691.0																							
6-Apr	0	0	0	0	0	0	10	65	183	307	444	560	584	644	612	493	308	216	96	18	0	0	0	0	189.1	644.5																							
7-Apr	0	0	0	0	0	0	15	104	252	398	526	619	674	685	659	498	353	269	123	20	0	0	0	0	216.5	685.3																							
8-Apr	0	0	0	0	0	0	14	99	249	397	526	622	688	699	657	572	451	227	170	27	0	0	0	0	225.0	699.2																							
9-Apr	0	0	0	0	0	0	14	57	128	235	228	336	633	383	338	491	416	158	72	18	0	0	0	0	146.2	633.0																							
10-Apr	0	0	0	0	0	0	24	121	271	404	530	564	498	394	304	219	166	76	32	9	0	0	0	0	150.6	564.4																							
11-Apr	0	0	0	0	0	0	5	29	72	106	192	228	277	243	266	240	176	98	34	9	0	0	0	0	82.3	277.1																							
12-Apr	0	0	0	0	0	0	8	33	59	134	223	251	245	307	255	176	135	78	33	10	0	0	0	0	81.1	307.1																							
13-Apr	0	0	0	0	0	0	6	37	87	271	555	646	702	722	650	495	286	151	86	19	1	0	0	0	196.5	722.5																							
14-Apr	0	0	0	0	0	1	32	146	322	469	585	671	718	716	675	587	467	321	172	38	1	0	0	0	246.7	718.0																							
15-Apr	0	0	0	0	0	1	31	159	319	459	585	672	717	687	655	562	375	274	116	27	1	0	0	0	235.0	717.2																							
16-Apr	0	0	0	0	0	0	6	22	45	90	154	181	242	277	232	205	136	89	66	13	1	0	0	0	73.3	277.3																							
17-Apr	0	0	0	0	0	1	22	90	110	196	256	347	485	632	553	578	306	334	198	69	2	0	0	0	174.2	632.5																							
18-Apr	0	0	0	0	0	2	31	156	323	480	600	691	744	740	710	592	478	331	176	41	2	0	0	0	254.1	744.4																							
19-Apr	0	0	0	0	0	2	42	161	332	467	603	691	747	614	587	350	245	120	77	38	2	0	0	0	211.6	747.5																							
20-Apr	0	0	0	0	0	3	36	141	328	494	451	419	446	437	353	346	303	148	92	36	2	0	0	0	168.1	494.1																							
21-Apr	0	0	0	0	0	1	13	80	158	277	328	514	537	680	700	634	424	349	134	35	2	0	0	0	202.8	700.2																							
22-Apr	0	0	0	0	0	2	19	69	204	295	542	691	715	673	649	469	462	331	189	54	3	0	0	0	223.7	715.4																							
23-Apr	0	0	0	0	0	4	67	200	350	494	606	617	580	655	687	586	347	354	143	30	2	0	0	0	238.5	686.9																							
24-Apr	0	0	0	0	0	1	26	83	201	399	362	485	312	318	261	238	229	128	67	40	11	0	0	0	131.8	485.0																							
25-Apr	0	0	0	0	0	5	67	195	366	508	622	688	731	736	595	606	466	342	194	60	5	0	0	0	257.8	736.5																							
26-Apr	0	0	0	0	0	4	68	194	366	501	603	686	725	722	676	592	474	338	190	62	6	0	0	0	258.6	725.4																							
27-Apr	0	0	0	0	0	7	66	182	352	494	610	694	735	737	690	601	482	346	208	70	6	0	0	0	261.7	736.8																							
28-Apr	0	0	0	0	0	7	66	195	374	482	436	564	591	607	641	597	413	340	207	69	7	0	0	0	233.3	641.3																							
29-Apr	0	0	0	0	0	6	36	101	153	166	104	169	140	169	188	166	150	225	242	72	8	0	0	0	87.3	242.5																							
30-Apr	0	0	0	0	0	8	77	188	337	501	619	703	745	707	607	399	163	117	111	28	5	0	0	0	221.5	745.2																							
0.1 0.1 0.0 0.0 0.0 1.8 27.8 108.8 230.3 361.1 459.6 543.5 585.2 584.3 546.1 468.0 346.9 240.7 129.7 33.1 2.3 0.1 0.0 0.0																								Diurnal Average																									
0.2 0.3 0.3 0.2 0.2 8.0 76.9 199.5 374.2 507.6 622.5 702.8 747.5 740.1 710.3 633.5 482.4 354.4 242.5 71.9 10.6 0.2 0.1 0.2																								Diurnal Maximum																									

Hourly Averages

Solar Radiation (SR) - W/m²
Henry Pirker - April 2018



Hourly Averages

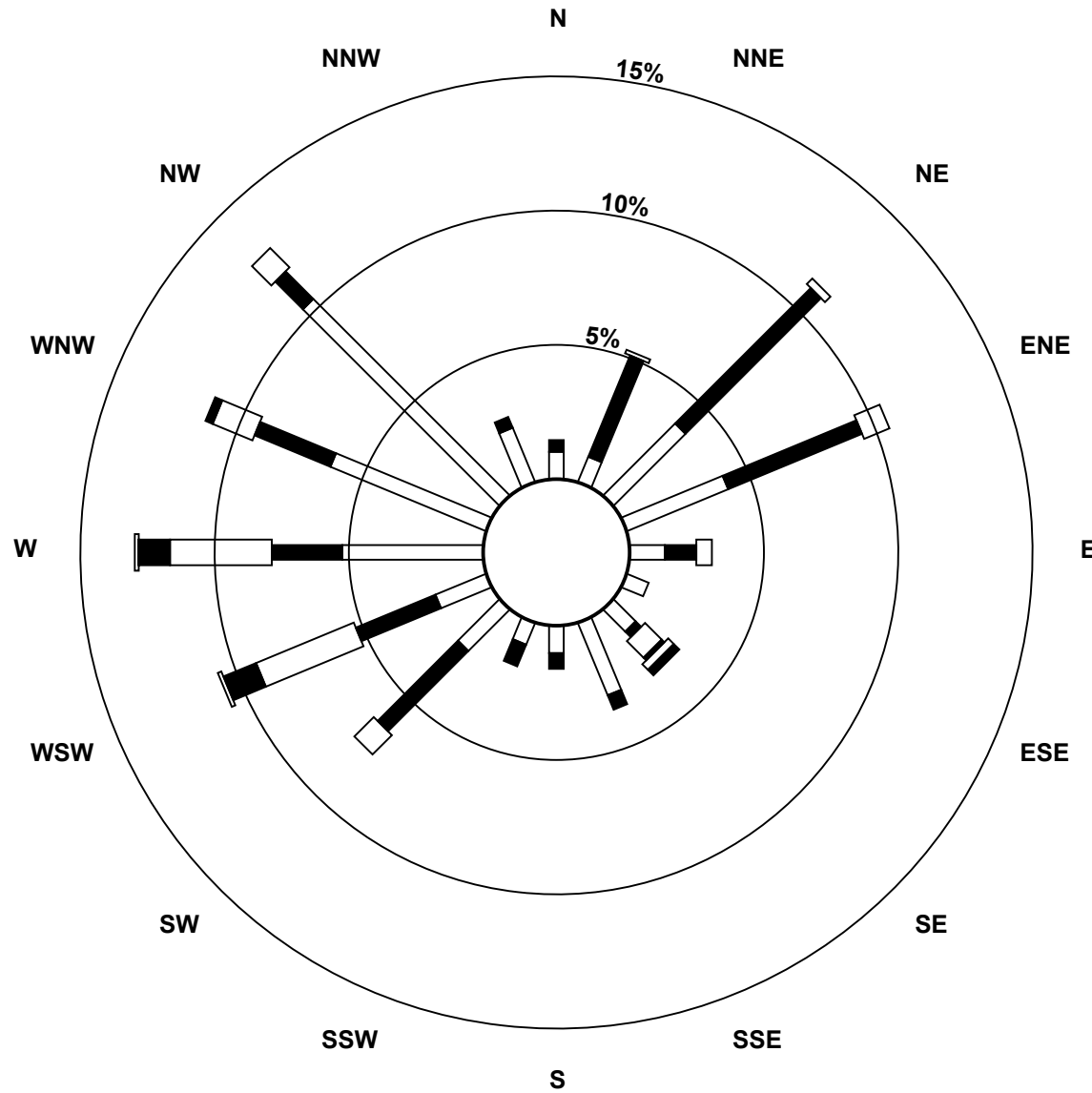
Wind Speed (km/h)
Wind Direction (deg)
Henry Pirker - April 2018

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	3	3	4	32	33	15	N	19	11	4	4	3	4	5	5	6	6	6	4	2	2	3	4	3	2.2	32.9
Dir	312	321	329	133	133	134	N	135	139	158	241	283	279	320	318	319	314	312	318	314	320	324	322	314	139.9	133.0
2 Spd	2	15	15	3	3	3	3	25	12	3	3	1	5	6	8	7	7	6	6	3	3	3	3	16	3.5	24.7
Dir	319	135	133	350	328	313	322	135	289	313	30	55	48	64	67	57	59	62	25	358	325	312	131	95.7	134.9	
3 Spd	52	51	N	N	N	N	N	N	2	7	8	9	8	8	8	9	10	11	8	10	8	8	7	7	9.5	51.7
Dir	132	132	N	N	N	N	N	N	143	81	75	78	56	48	43	36	35	35	35	37	43	53	55	56	86.8	131.9
4 Spd	6	7	6	9	8	8	8	7	6	6	7	8	7	6	7	6	5	4	4	2	2	3	5	4	3.0	9.2
Dir	52	45	34	24	31	27	28	23	14	351	333	280	276	267	250	231	265	269	225	248	252	310	319	328	337.6	24.1
5 Spd	4	4	2	N	3	6	N	0	0	2	5	6	7	7	8	10	9	7	6	5	6	6	5	5	3.9	10.0
Dir	318	308	317	N	331	154	N	100	139	285	60	45	66	65	51	65	57	45	47	40	42	66	73	71	50.6	65.2
6 Spd	5	8	10	12	11	11	12	14	14	14	14	16	14	12	9	11	12	10	8	7	5	5	8	8	9.9	16.2
Dir	58	73	81	81	80	79	79	79	84	81	75	72	64	59	34	33	33	35	36	40	43	54	75	76	65.0	72.0
7 Spd	5	5	6	4	4	4	5	6	10	9	7	6	7	9	10	11	11	9	10	7	7	10	7	6	6.8	11.4
Dir	68	64	63	54	50	51	62	64	74	69	68	54	42	43	28	30	27	28	29	37	75	79	83	84	53.3	29.8
8 Spd	3	4	3	3	2	3	3	3	4	5	4	5	4	2	4	4	3	2	3	3	1	2	1	1	1.5	5.0
Dir	54	57	60	59	44	312	304	306	299	309	292	275	271	275	273	277	275	324	88	141	179	321	333	356	313.3	274.9
9 Spd	3	2	2	3	3	3	3	1	3	2	1	2	3	3	1	3	3	4	2	3	2	2	0	1	1.3	3.7
Dir	301	326	312	300	316	313	294	296	303	324	355	178	285	307	327	283	287	71	82	102	123	343	211	312	313.9	70.8
10 Spd	1	1	2	3	2	2	1	5	9	11	11	10	11	11	12	12	11	9	9	11	11	6	5	5	6.5	12.3
Dir	317	340	299	329	310	314	289	45	47	45	52	49	47	47	46	56	63	56	63	63	69	83	68	79	51.8	46.0
11 Spd	3	1	7	12	10	10	6	5	7	5	4	2	3	3	5	5	5	7	5	4	5	4	5	5	2.8	11.7
Dir	64	118	268	279	276	275	323	334	333	322	355	350	44	53	66	48	60	71	53	40	38	48	36	34	356.6	279.2
12 Spd	3	4	5	5	5	4	4	2	6	8	9	11	13	13	11	10	8	6	5	4	5	4	5	7	6.3	12.7
Dir	35	54	60	63	57	54	57	53	74	78	79	74	73	71	70	73	77	66	67	47	68	84	100	136	72.2	73.2
13 Spd	3	1	2	2	1	0	0	0	1	2	2	4	3	4	5	7	6	6	3	9	7	5	5	3	1.3	8.9
Dir	164	141	151	151	131	336	282	241	298	299	276	296	23	42	45	54	51	66	183	178	168	160	163	148	123.4	177.8
14 Spd	12	6	6	6	1	1	7	11	8	14	18	16	15	13	11	13	11	9	12	8	7	6	6	7	8.5	18.3
Dir	260	255	193	216	206	268	213	216	217	223	231	249	261	278	285	274	259	280	259	248	226	229	227	219	245.7	231.1
15 Spd	5	5	5	1	1	1	1	2	4	4	6	4	4	9	9	8	9	9	8	6	8	7	7	8	3.6	9.4
Dir	224	243	299	316	279	193	315	313	316	312	316	297	27	25	24	26	24	34	44	42	52	31	38	30	12.6	24.1
16 Spd	7	7	6	6	6	6	6	7	6	7	7	8	8	11	8	7	7	9	8	7	6	5	6	5	6.3	10.7
Dir	27	32	41	41	40	34	37	40	35	43	41	45	31	27	33	34	25	17	10	5	347	327	321	319	24.1	27.3
17 Spd	6	8	10	10	10	12	12	15	16	14	14	13	14	16	18	14	12	10	8	6	4	7	13	7	10.4	18.1
Dir	299	287	289	295	288	289	279	279	275	279	271	273	285	296	296	310	297	288	279	273	208	225	241	224	280.6	296.2
18 Spd	3	2	1	2	3	7	5	13	12	16	16	12	14	14	14	15	12	14	14	13	8	6	3	1	8.7	16.0
Dir	309	298	250	266	228	243	261	226	226	231	236	246	261	258	255	260	263	245	245	243	238	230	230	150	246.1	235.8
19 Spd	2	2	4	1	5	4	3	2	6	9	10	11	11	7	13	13	10	4	6	6	8	14	11	5	5.1	14.0
Dir	170	177	160	180	168	153	148	148	167	167	175	175	173	196	280	276	271	263	228	227	213	236	230	232	211.8	236.4
20 Spd	1	1	1	3	3	3	2	2	5	6	9	7	5	6	5	3	1	3	1	1	1	0	0	3	1.6	9.2
Dir	266	7	32	111	138	154	167	155	203	210	233	225	254	285	290	308	289	306	325	59	336	6	12	317	245.5	232.5
21 Spd	5	3	2	3	2	2	2	3	1	4	4	5	9	14	12	15	22	25	22	22	22	20	18	26	10.2	25.6
Dir	323	312	19	281	297	304	319	282	224	273	265	247	286	275	283	266	248	250	248	246	246	244	248	262	258.8	261.9
22 Spd	29	27	19	18	23	16	15	16	18	16	17	16	12	11	9	9	11	10	14	10	5	5	7	8	14.0	29.4
Dir	267	268	261	262	263	255	265	256	252	255	260	252	250	257	282	274	249	263	259	257	234	225	225	220	258.2	266.9

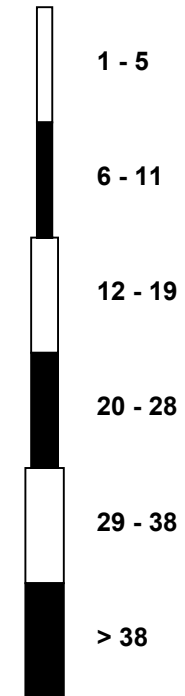
Wind Rose

Wind Speed (WS) (km/h)

Henry Pirker - April 2018



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Henry Pirker - April 2018

Maximum Speed: 52 km/h on Apr 3 01:00																				Maximum Daily Speed Average: 14.5 km/h on Apr 22										Hours in Service: 720	
Minimum Speed: 0 km/h on Apr 24 07:00																				Minimum Daily Speed Average: 2.7 km/h on Apr 9										Hours of Data: 711	
Maximum Diurnal Speed Average: 9.8 km/h at hour 17																				Minimum Diurnal Speed Average: 4.8 km/h at hour 7										Hours of Missing Data: 9	
Monthly Average Speed: 7.47 km/h																				Percentiles: P ₁ = 0.9 P ₁₀ = 2.2 Q ₁ = 3.4 Median = 6.0 Q ₃ = 9.9 P ₉₀ = 14.1 P ₉₉ = 28.8										Percent Operational Time: 98.8	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
1-Apr	3	3	4	33	33	20	N	23	15	7	4	3	4	5	6	6	6	6	4	2	2	4	4	3	8.7	33.5					
2-Apr	2	18	20	5	4	3	3	29	16	3	1	4	6	6	8	7	7	7	6	3	3	3	3	20	7.8	28.6					
3-Apr	52	51	N	N	N	N	N	N	2	7	9	9	9	8	8	10	10	11	8	10	8	8	7	7	13.0	51.7					
4-Apr	7	7	6	9	8	8	8	7	7	6	7	8	8	6	8	7	6	5	4	2	2	3	5	4	6.1	9.3					
5-Apr	4	4	2	N	3	10	N	5	7	3	5	6	7	7	8	10	9	7	6	5	6	6	5	5	6.0	10.4					
6-Apr	5	8	10	12	11	11	12	14	14	15	14	16	14	13	10	11	12	10	9	7	5	5	8	8	10.5	16.3					
7-Apr	5	5	6	4	4	4	5	6	10	10	7	6	7	10	10	12	11	9	10	7	7	10	7	6	7.4	11.5					
8-Apr	3	4	3	3	2	3	3	3	4	5	5	5	5	3	4	4	3	3	4	3	1	2	1	2	3.3	5.1					
9-Apr	3	3	2	3	3	3	3	2	3	2	1	3	3	3	2	3	3	4	3	3	4	3	1	1	2.7	4.2					
10-Apr	1	1	3	3	2	2	2	5	9	11	11	10	11	11	12	12	11	9	9	11	11	6	5	5	7.4	12.4					
11-Apr	3	2	7	12	10	10	6	5	7	5	5	2	4	4	5	6	6	8	5	5	5	4	5	5	5.7	11.9					
12-Apr	3	4	5	6	5	4	4	2	6	8	9	11	13	13	11	10	8	7	5	4	5	4	6	7	6.7	12.8					
13-Apr	3	1	2	3	1	1	0	0	1	2	2	4	3	4	5	8	6	6	5	9	7	5	5	3	3.6	9.0					
14-Apr	13	8	7	6	2	2	7	11	8	14	19	16	15	13	11	14	12	10	12	8	7	6	6	7	9.7	18.5					
15-Apr	5	5	5	2	2	2	1	2	4	4	6	5	4	9	9	8	10	9	8	6	8	8	7	8	5.6	9.6					
16-Apr	7	7	6	6	6	6	6	7	7	7	8	8	8	11	8	7	7	9	8	7	6	5	6	5	7.0	10.9					
17-Apr	6	8	10	10	10	12	12	15	16	14	14	13	14	16	18	14	12	10	8	7	4	8	13	7	11.2	18.2					
18-Apr	5	2	2	3	3	7	6	13	12	16	16	12	14	14	15	12	14	14	13	8	6	3	1		9.3	16.1					
19-Apr	2	2	4	1	5	4	3	2	6	9	10	11	12	9	13	13	10	5	6	6	8	14	12	5	7.2	14.1					
20-Apr	3	1	2	3	3	3	2	2	5	6	9	7	6	6	5	3	1	3	2	1	2	1	1	4	3.4	9.3					
21-Apr	5	4	3	3	4	3	3	4	3	4	4	6	9	14	12	16	22	26	22	22	22	20	18	26	11.4	25.8					
22-Apr	30	27	19	18	23	16	15	16	19	16	17	17	13	11	10	10	12	11	14	10	5	5	7	8	14.5	29.5					
23-Apr	7	6	4	3	3	2	3	3	4	5	5	6	4	4	6	4	6	4	4	2	2	2	2	3	3.9	6.7					
24-Apr	3	0	0	3	4	4	0	3	8	10	11	12	13	13	8	6	11	4	9	20	17	13	10	6	7.8	20.2					
25-Apr	7	4	3	3	3	3	4	8	9	9	11	9	8	6	8	11	15	16	13	12	8	9	13	11	8.5	16.2					
26-Apr	6	4	4	4	5	3	4	3	3	3	3	3	6	5	5	4	4	4	3	3	2	1	3	3	3.6	6.1					
27-Apr	2	3	2	2	2	2	2	3	4	8	6	5	3	4	3	3	4	5	4	3	3	3	2	2	3.3	8.4					
28-Apr	3	2	1	1	3	3	3	4	8	11	9	6	9	13	18	21	26	24	17	15	17	14	17	16	10.9	26.0					
29-Apr	13	15	11	10	12	8	10	12	11	8	7	3	3	4	3	2	2	3	3	3	2	1	2	4	6.4	14.8					
30-Apr	3	4	4	3	2	2	2	3	4	7	8	15	24	29	29	29	29	29	21	18	24	16	11	12	7	12.7	29.2				
7.1 7.1 5.5 6.2 6.2 5.5 4.8 7.3 7.7 7.8 8.1 8.1 8.5 9.1 9.2 9.5 9.8 8.9 8.1 7.8 6.8 6.3 6.5 6.6																									Diurnal Average						
51.7 50.6 19.8 33.5 33.1 20.0 15.5 28.6 18.5 16.0 18.5 16.7 23.7 28.9 28.8 29.2 28.6 25.6 22.3 23.8 22.1 19.8 18.2 25.8																									Diurnal Maximum						
N - Not Valid																															
All monthly, daily, and diurnal averages have been calculated using scalar methods																															

Hourly Standard Deviations

Wind Direction (WD) - deg

Henry Pirker - April 2018

Maximum Value: 94.8 deg on Apr 24 07:00																			Hours in Service: 720						
Minimum Value: 0.2 deg on Apr 3 04:00																			Hours of Data: 720						
Percentiles: P ₁ = 4.1 P ₁₀ = 6.5 Q ₁ = 9.0 Median = 13.2 Q ₃ = 22.6 P ₉₀ = 50.5 P ₉₉ = 84.8																			Hours of Missing Data: 0						
																			Hours of Calibration: 0						
																			Percent Operational Time: 100.0						
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Apr	10	10	7	57	7	87	87	80	66	48	18	10	12	16	11	12	8	6	7	47	9	8	21	10	87.2
2-Apr	7	74	85	24	11	11	12	80	76	11	20	73	22	19	13	14	14	13	13	18	13	20	7	82	84.9
3-Apr	0	0	6	0	0	1	67	50	53	12	13	16	16	13	10	10	10	9	11	7	9	9	11	10	67.1
4-Apr	10	11	12	9	12	12	10	15	15	19	19	19	10	17	27	20	17	12	8	14	15	11	6	7	26.9
5-Apr	7	8	14	71	23	82	72	73	69	21	26	14	18	16	13	12	13	12	10	13	10	11	14	12	82.0
6-Apr	9	10	6	5	6	5	6	6	7	7	9	8	8	16	11	9	8	9	10	8	9	11	9	6	15.8
7-Apr	9	8	7	10	9	9	8	10	10	12	17	18	13	19	12	8	8	9	8	14	11	6	7	8	18.5
8-Apr	9	7	10	13	15	36	7	6	11	12	25	9	9	39	10	12	15	59	26	16	28	17	19	30	59.1
9-Apr	16	22	15	13	13	16	17	62	40	31	74	54	14	27	56	13	16	51	38	21	82	73	91	40	91.3
10-Apr	47	29	39	13	27	53	56	13	10	7	7	9	8	8	8	7	8	7	10	8	9	35	18	10	56.5
11-Apr	14	58	27	10	9	8	10	15	10	12	16	39	37	26	19	20	17	12	20	21	14	19	12	12	57.8
12-Apr	17	14	13	14	13	18	14	22	13	10	10	10	7	9	9	10	9	10	14	23	9	11	16	14	22.8
13-Apr	9	12	13	33	31	87	88	71	45	23	21	21	40	15	13	8	11	17	64	9	7	7	8	21	88.0
14-Apr	47	51	22	14	85	80	23	8	18	11	9	10	10	8	10	7	18	12	10	14	13	8	5	7	84.7
15-Apr	8	8	31	80	44	50	63	11	9	13	13	53	20	13	13	17	10	19	10	11	16	13	14	14	80.2
16-Apr	14	15	17	13	12	14	13	12	15	17	12	11	13	11	13	14	16	13	12	14	17	11	6	5	17.5
17-Apr	8	7	7	5	6	6	5	4	5	5	6	7	9	6	6	7	6	8	5	21	18	19	6	10	21.0
18-Apr	53	58	82	57	63	10	35	8	5	6	8	13	7	12	12	8	8	7	5	5	12	15	25	87	87.1
19-Apr	29	28	33	27	10	12	12	18	10	7	11	15	15	37	3	6	7	24	11	12	10	7	6	8	37.4
20-Apr	73	57	77	24	25	34	46	38	12	15	10	21	21	10	15	21	70	23	54	42	45	80	72	15	79.5
21-Apr	43	36	53	51	76	75	39	55	77	11	24	31	12	11	12	13	6	7	6	4	4	5	6	8	77.4
22-Apr	6	8	5	6	4	8	10	7	8	8	8	12	13	18	10	18	14	21	8	6	12	7	5	5	21.0
23-Apr	7	9	20	15	38	21	38	19	19	17	16	27	24	32	28	37	22	20	22	50	43	73	19	21	73.2
24-Apr	39	43	53	12	9	5	95	26	27	11	9	9	10	8	22	16	12	38	16	7	6	7	7	15	94.8
25-Apr	14	19	21	23	25	20	16	10	14	10	12	14	19	25	17	20	10	8	10	6	12	11	6	18	24.9
26-Apr	13	17	18	16	13	68	31	19	12	21	29	30	36	40	34	64	50	37	30	16	19	72	17	11	72.3
27-Apr	27	6	12	29	26	36	28	10	43	14	14	16	30	36	48	73	49	44	17	19	46	62	34	52	72.7
28-Apr	12	23	48	20	11	18	14	44	8	16	28	20	16	14	14	10	6	5	10	7	20	9	4	6	47.6
29-Apr	6	4	5	5	5	6	6	6	9	16	13	37	38	24	20	76	73	53	58	32	14	17	13	9	76.4
30-Apr	7	7	16	18	27	9	10	22	32	16	18	15	10	9	9	10	6	6	7	13	18	11	18	23	32.2
72.8 74.1 84.9 80.2 84.7 87.4 94.8 80.1 77.4 47.9 74.4 73.3 39.7 39.7 55.7 76.4 72.9 59.1 64.4 50.5 82.0 79.5 91.3 87.1																									

PAZA

Evergreen Park Station

Monthly Summary Tables, Graphs and
Roses

Hourly Averages

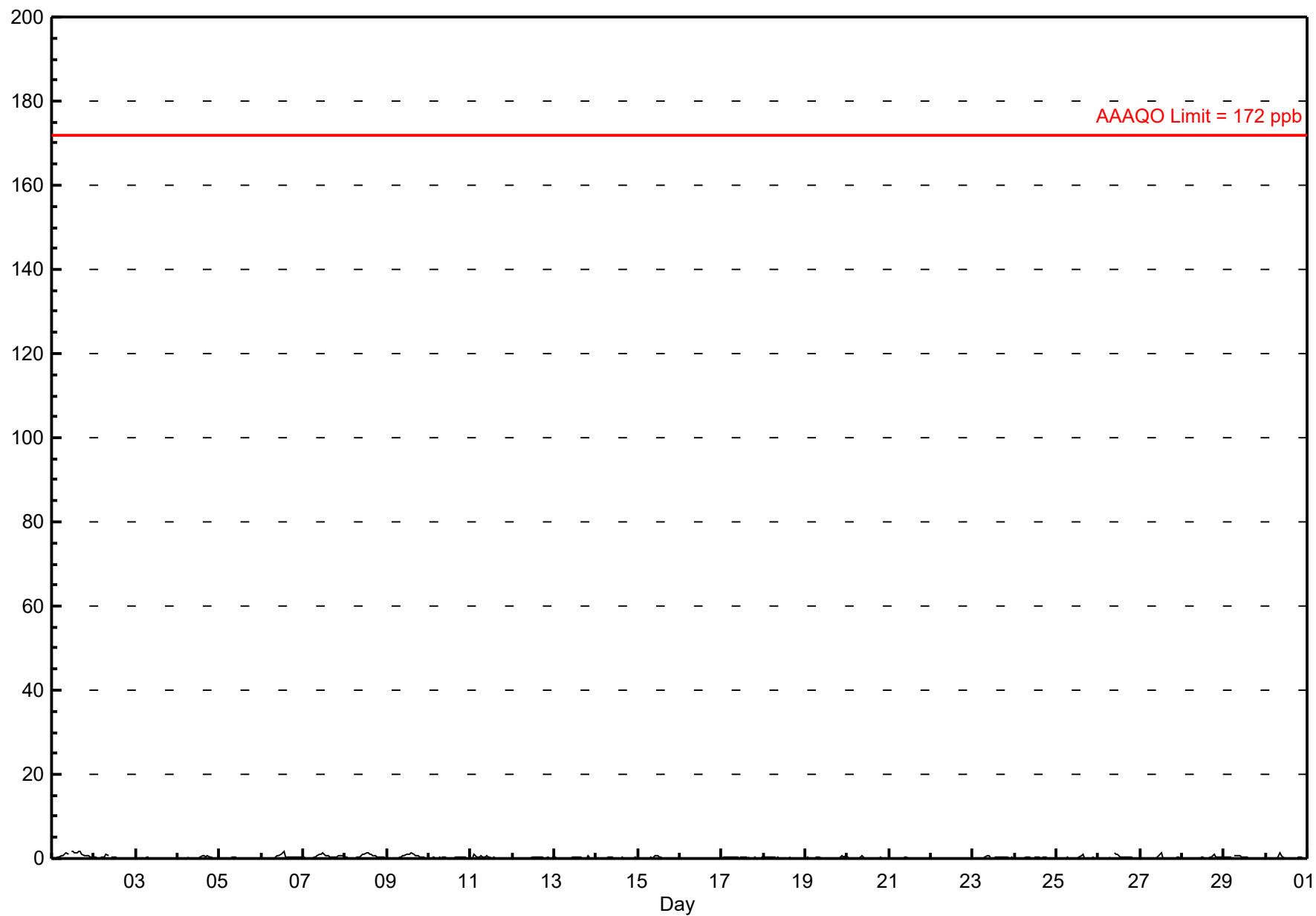
Sulphur Dioxide (SO₂) - ppb

Evergreen Park - April 2018

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 1.8 ppb on Apr 1 17:00 Maximum Daily Average: 0.8 ppb on Apr 1																		Hours in Service: 720								
Minimum Value: 0 ppb on Apr 3 14:00 Minimum Daily Average: 0.0 ppb on Apr 22 Maximum Diurnal Average: 0.4 ppb at hour 13 Minimum Diurnal Average: 0.1 ppb at hour 2 Monthly Average: 0.23 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.3 P ₉₀ = 0.6 P ₉₉ = 1.4																		Hours of Data: 686								
																		Hours of Missing Data: 34								
																		Hours of Calibration: 34								
																		Percent Operational Time: 100.0								
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Apr	0	0	0	0	0	1	1	1	1	1	A	2	2	1	1	2	2	1	1	1	1	1	0	0	0.8	1.8
2-Apr	0	0	0	0	0	0	0	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.0
3-Apr	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
4-Apr	0	0	0	0	0	0	0	A	0	0	0	0	0	0	1	1	0	1	0	0	0	0	0	0	0.2	0.6
5-Apr	0	0	0	0	0	0	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
6-Apr	0	0	0	0	0	A	0	0	0	1	1	1	1	2	0	0	0	0	0	0	0	0	0	0	0.4	1.6
7-Apr	0	0	0	0	A	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	1	1	1	1	0.6	1.3
8-Apr	0	0	0	A	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0.5	1.4
9-Apr	0	0	A	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0.5	1.3
10-Apr	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
11-Apr	A	0	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.3	1.1
12-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.1	0.3
13-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	A	0	0	0.2	0.7
14-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	0.3
15-Apr	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	A	0	0	0	0	0.2	0.8
16-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.1	0.2
17-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.2	0.5
18-Apr	0	0	0	0	0	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0	0	0	0.2	0.4
19-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	1	0	1	0.2	0.8
20-Apr	0	0	0	0	0	0	0	0	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.1	0.8
21-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.1	0.3
22-Apr	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
23-Apr	0	0	0	0	0	0	0	0	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8
24-Apr	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
25-Apr	0	0	0	0	0	0	0	0	0	A	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0.2	1.1
26-Apr	0	0	0	0	0	0	0	0	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.3
27-Apr	0	0	0	0	0	0	0	A	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0.2	1.3
28-Apr	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.2	0.9
29-Apr	0	0	0	0	0	A	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8
30-Apr	0	0	0	0	A	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.2
0.1		0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.4	0.4	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	Diurnal Average	
0.5		0.3	1.1	0.5	0.5	0.5	0.8	1.1	1.3	1.3	1.2	1.7	1.8	1.6	1.4	1.7	1.8	1.0	0.9	0.7	0.7	0.7	0.7	0.8	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																								
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb																										

Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Evergreen Park - April 2018



Hourly Maximums

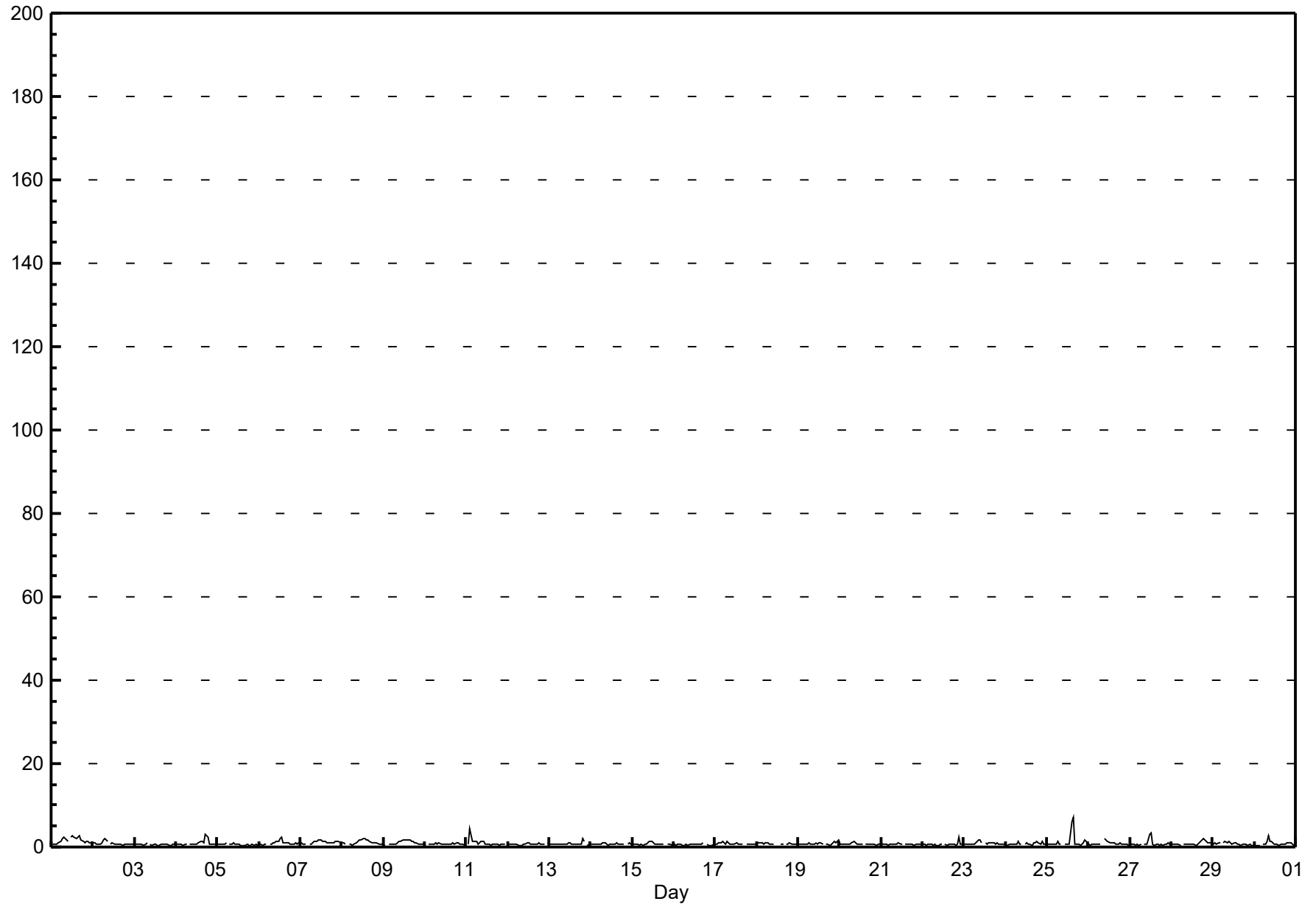
Sulphur Dioxide (SO₂) - ppb

Evergreen Park - April 2018

Maximum Value: 7.2 ppb on Apr 25 16:00																			Maximum Daily Average: 1.6 ppb on Apr 1							Hours in Service: 720			
Minimum Value: 0 ppb on Apr 3 14:00																			Minimum Daily Average: 0.6 ppb on Apr 16							Hours of Data: 686			
Maximum Diurnal Average: 1.1 ppb at hour 16																			Minimum Diurnal Average: 0.7 ppb at hour 2							Hours of Missing Data: 34			
Monthly Average: 0.85 ppb																			Percentiles: P ₁ = 0.4 P ₁₀ = 0.5 Q ₁ = 0.6 Median = 0.7 Q ₃ = 0.9 P ₉₀ = 1.3 P ₉₉ = 2.7							Hours of Calibration: 34			
																										Percent Operational Time: 100.0			
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
1-Apr	1	1	1	1	1	1	2	2	2	1	A	2	3	2	2	2	3	2	1	1	1	1	1	1	1.6	2.8			
2-Apr	1	1	1	1	1	1	2	2	1	A	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0.8	1.9			
3-Apr	1	1	1	1	1	0	1	1	A	1	0	1	1	0	0	1	1	1	1	1	0	0	1	1	0.6	1.0			
4-Apr	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	3	2	1	1	1	1	1	0.9	3.1			
5-Apr	1	1	1	1	1	1	A	1	1	1	1	1	1	0	0	0	1	1	0	0	1	0	1	0	0.6	1.2			
6-Apr	1	1	0	1	1	A	1	1	1	1	1	2	2	2	1	1	1	1	1	1	1	1	1	1	1.0	2.3			
7-Apr	1	1	1	1	A	1	1	1	1	1	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1.2	1.9			
8-Apr	1	1	1	A	1	1	0	1	1	1	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1.1	2.0			
9-Apr	1	0	A	1	1	1	1	1	1	1	1	2	2	2	2	2	1	1	1	1	1	1	1	1	1.1	1.8			
10-Apr	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0			
11-Apr	A	1	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	A	1.0	4.4			
12-Apr	0	1	1	1	1	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.7	1.2			
13-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	A	0	1	0.8	1.9			
14-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.7	1.1			
15-Apr	1	1	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0	0.7	1.5			
16-Apr	1	0	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	A	1	0	0	0	1	0.6	0.9			
17-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0.8	1.2			
18-Apr	1	1	1	1	1	1	1	1	1	1	1	C	C	C	1	1	A	1	1	1	1	1	1	1	0.7	1.0			
19-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0	1	1	2	1	2	0.8	1.6			
20-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0	1	1	0.7	1.4			
21-Apr	1	1	1	1	0	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0	1	1	1	1	0.7	1.0			
22-Apr	1	1	0	1	1	1	0	1	0	0	1	1	A	1	1	1	1	1	1	0	1	2	1	1	0.7	2.2			
23-Apr	1	1	1	1	1	1	1	1	2	2	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.8			
24-Apr	0	0	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.5			
25-Apr	1	1	1	1	1	1	1	1	1	A	1	1	1	1	6	7	1	1	1	0	1	1	2	1	1.2	7.2			
26-Apr	1	1	1	1	1	1	1	1	A	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	0.9	2.1			
27-Apr	0	1	1	0	1	1	1	A	1	1	1	3	3	1	0	1	1	0	1	0	1	1	1	1	0.9	3.4			
28-Apr	1	1	1	1	1	0	A	1	1	1	1	1	1	1	0	1	1	1	2	2	1	1	1	1	0.8	2.0			
29-Apr	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	1	0	0	0.8	1.3			
30-Apr	0	0	0	0	A	1	1	1	3	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0	0.8	2.7			
0.7		0.7	0.8	0.7	0.7	0.7	0.8	0.9	1.0	1.0	1.0	1.0	1.1	0.9	1.0	1.1	0.8	0.9	0.9	0.8	0.8	0.8	0.7	0.7	Diurnal Average				
1.1		1.0	4.4	1.3	1.3	1.4	1.9	2.3	2.7	2.1	1.8	3.0	3.4	2.3	5.9	7.2	2.8	3.1	2.5	1.9	1.3	2.2	1.6	1.6	Diurnal Maximum				
C - Calibration				A - Automated Daily Zero Span																									

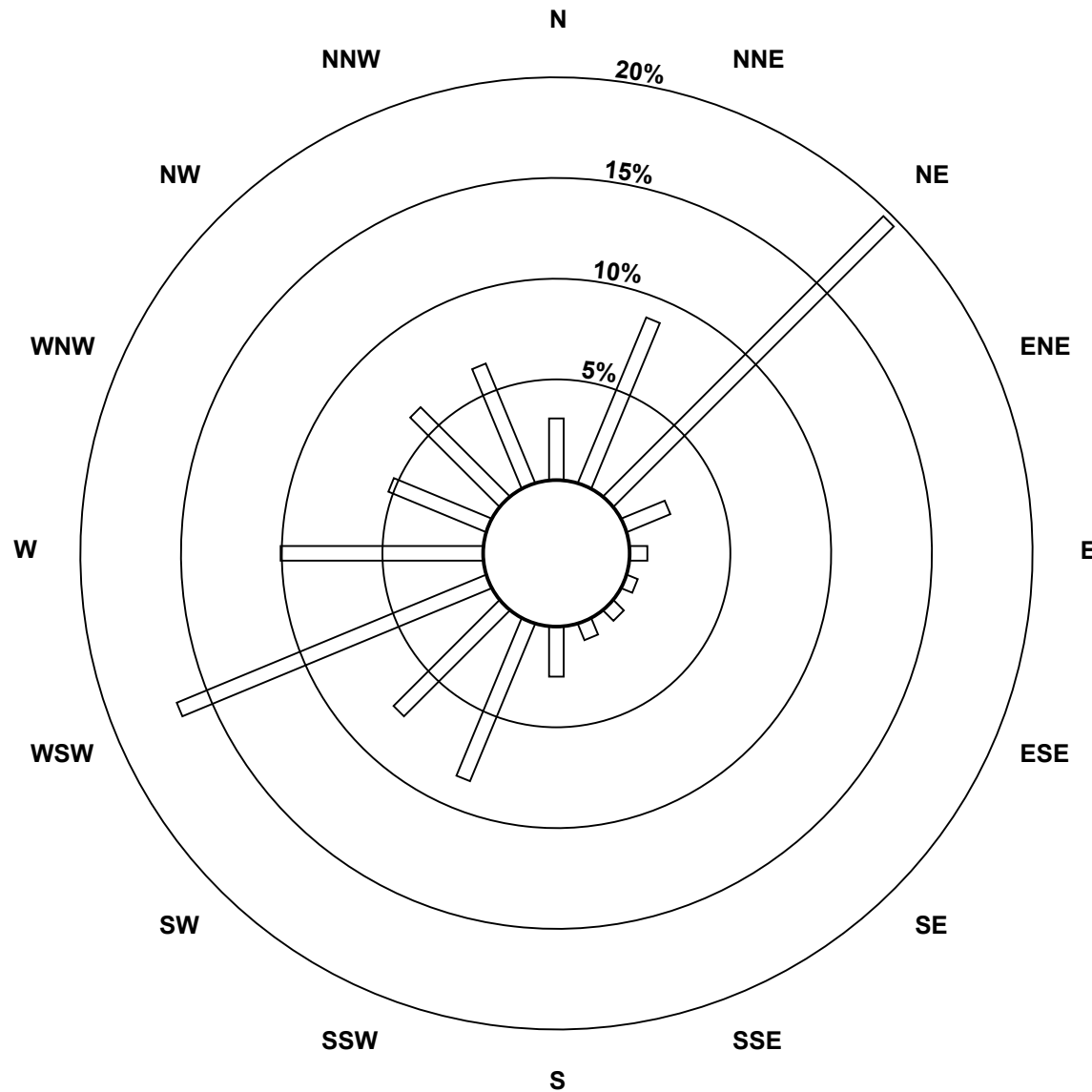
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Evergreen Park - April 2018

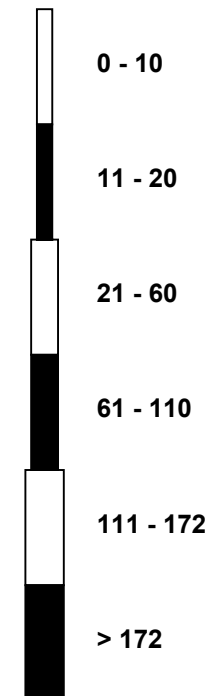


Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Evergreen Park - April 2018

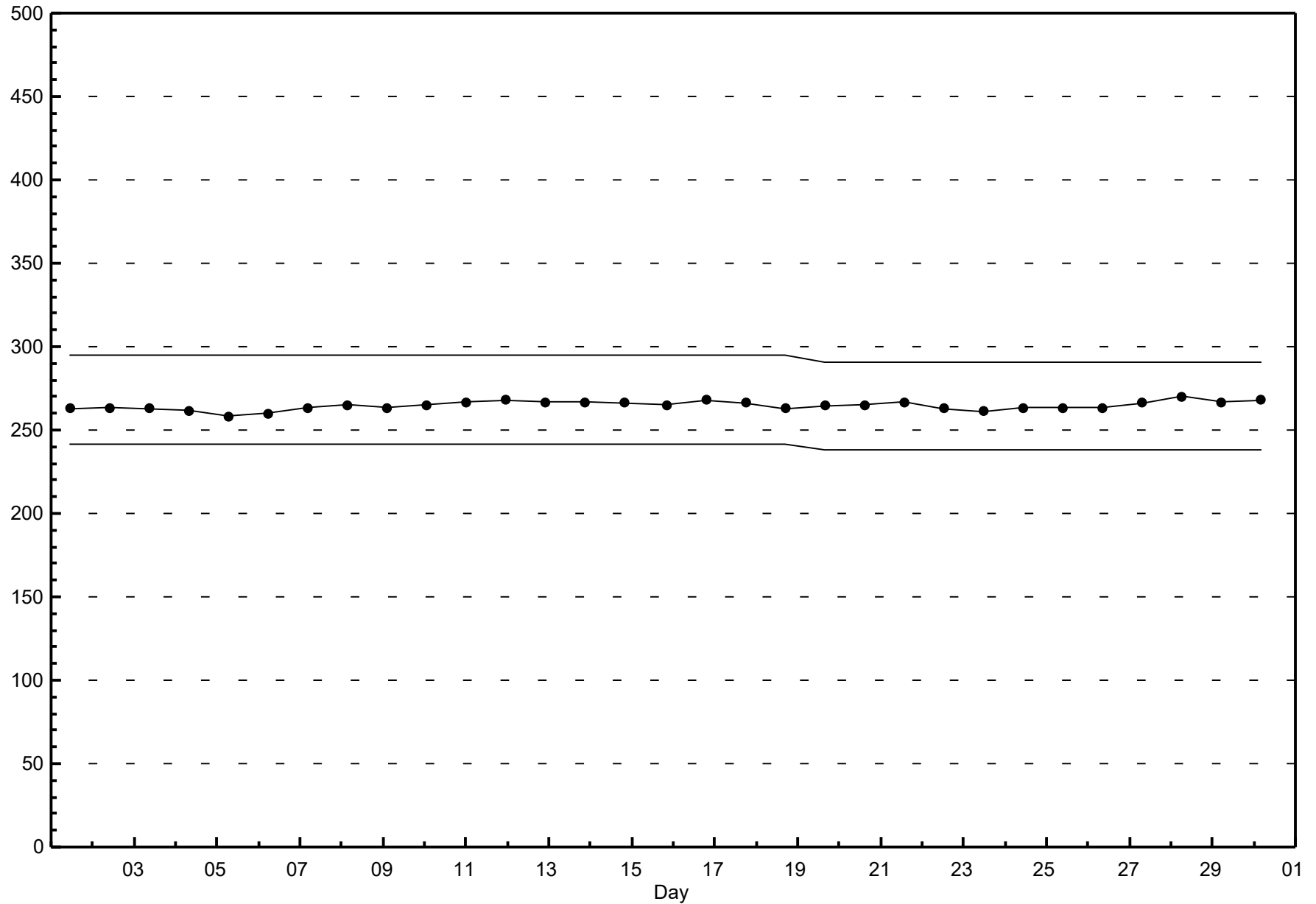


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Evergreen Park - April 2018



Hourly Averages

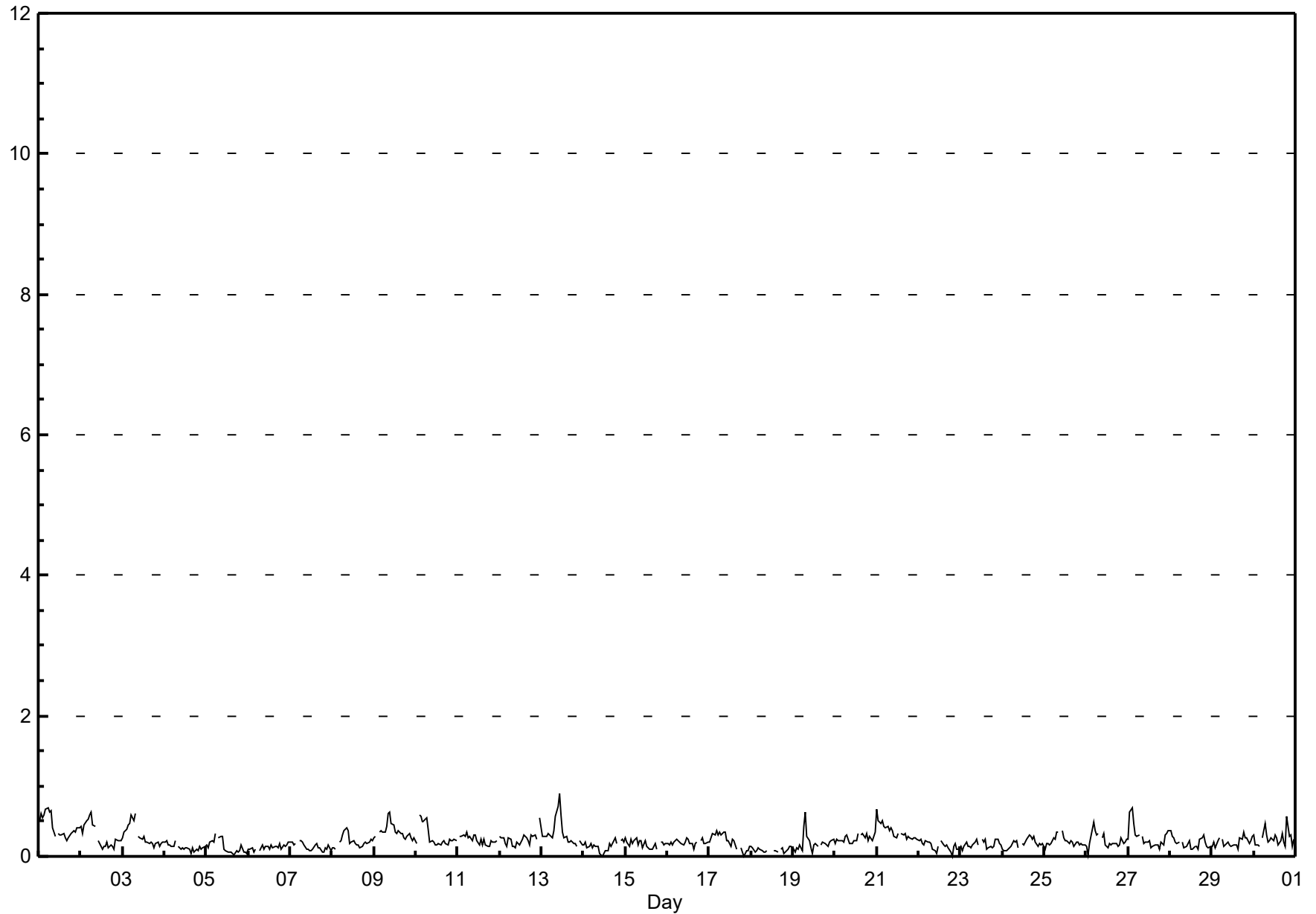
Total Reduced Sulphur (TRS) - ppb

Evergreen Park - April 2018

Maximum Value: 0.9 ppb on Apr 13 11:00																				Maximum Daily Average: 0.4 ppb on Apr 1					Hours in Service: 720				
Minimum Value: 0 ppb on Apr 14 12:00																				Minimum Daily Average: 0.1 ppb on Apr 18					Hours of Data: 686				
Maximum Diurnal Average: 0.3 ppb at hour 7																				Minimum Diurnal Average: 0.2 ppb at hour 16					Hours of Missing Data: 34				
Monthly Average: 0.22 ppb																				Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.1 Median = 0.2 Q ₃ = 0.3 P ₉₀ = 0.4 P ₉₉ = 0.6					Hours of Calibration: 34				
																									Percent Operational Time: 100.0				
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
1-Apr	1	1	1	1	1	1	1	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.7			
2-Apr	0	0	0	1	1	1	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6			
3-Apr	0	0	0	0	0	1	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6			
4-Apr	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2			
5-Apr	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3			
6-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2			
7-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2			
8-Apr	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4			
9-Apr	0	0	A	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6			
10-Apr	0	A	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6			
11-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.2	0.3			
12-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	0.2	0.6			
13-Apr	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	A	0	0	0.3	0.9			
14-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	0.3			
15-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.2	0.3			
16-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.2	0.3			
17-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.2	0.4			
18-Apr	0	0	0	0	0	0	0	0	0	0	C	C	C	0	0	0	A	0	0	0	0	0	0	0	0.1	0.1			
19-Apr	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.2	0.6			
20-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.3	0.4			
21-Apr	1	1	0	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.4	0.7			
22-Apr	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2			
23-Apr	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3			
24-Apr	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3			
25-Apr	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4			
26-Apr	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5			
27-Apr	0	1	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7			
28-Apr	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4			
29-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4			
30-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.3	0.6			
0.2 0.2 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2																								Diurnal Average					
0.7 0.6 0.7 0.6 0.7 0.7 0.6 0.6 0.6 0.6 0.7 0.9 0.6 0.4 0.3 0.4 0.3 0.3 0.3 0.4 0.6 0.4 0.3 0.4 0.6																								Diurnal Maximum					
C - Calibration																								A - Automated Daily Zero Span					

Hourly Averages

Total Reduced Sulphur (TRS) - ppb
Evergreen Park - April 2018



Hourly Maximums

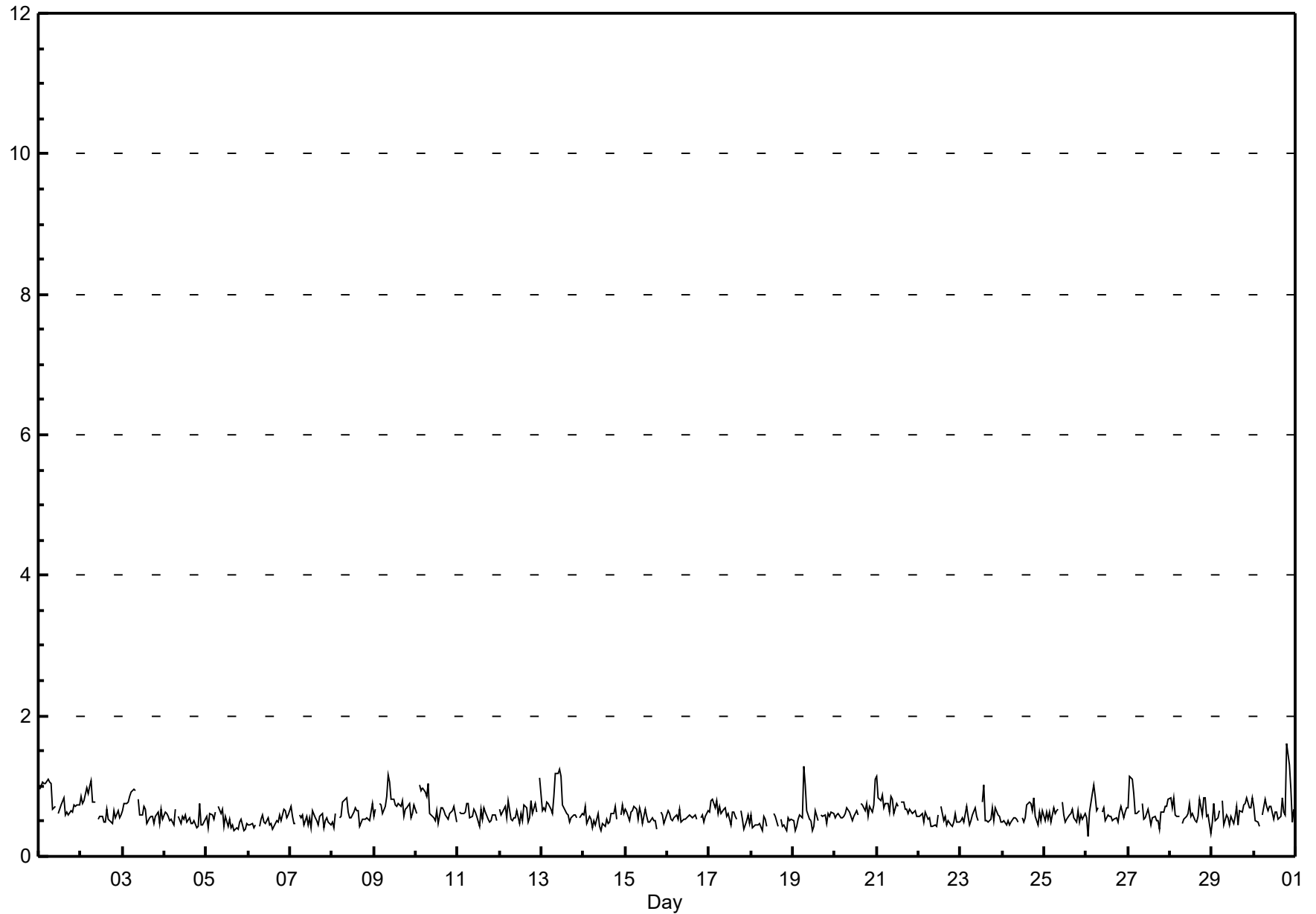
Total Reduced Sulphur (TRS) - ppb

Evergreen Park - April 2018

Maximum Value: 1.6 ppb on Apr 30 20:00																				Maximum Daily Average: 0.8 ppb on Apr 1					Hours in Service: 720				
Minimum Value: 0 ppb on Apr 26 02:00																				Minimum Daily Average: 0.5 ppb on Apr 18					Hours of Data: 686				
Maximum Diurnal Average: 0.7 ppb at hour 7																				Minimum Diurnal Average: 0.6 ppb at hour 18					Hours of Missing Data: 34				
Monthly Average: 0.62 ppb																				Percentiles: P ₁ = 0.4 P ₁₀ = 0.5 Q ₁ = 0.5 Median = 0.6 Q ₃ = 0.7 P ₉₀ = 0.8 P ₉₉ = 1.1					Hours of Calibration: 34				
																									Percent Operational Time: 100.0				
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
1-Apr	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1			
2-Apr	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0	0	1	1	0	0	1	1	1	1	1	0.7	1.1		
3-Apr	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0	0	1	1	1	0	1	1	0	1	1	0.7	0.9		
4-Apr	1	1	1	1	1	0	1	A	1	0	1	1	1	0	1	0	0	1	0	0	1	0	0	1	1	0.5	0.8		
5-Apr	1	0	1	1	1	1	A	1	1	1	0	1	0	1	0	0	0	0	0	0	0	1	0	0	0	0.5	0.7		
6-Apr	0	0	0	0	0	A	0	1	1	0	0	1	0	0	0	0	1	0	1	1	1	1	1	1	1	0.5	0.7		
7-Apr	1	1	0	0	A	1	1	1	0	1	0	1	0	1	1	1	0	1	1	0	1	1	0	0	0	0.5	0.7		
8-Apr	0	0	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0.6	0.8		
9-Apr	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.2		
10-Apr	1	A	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0	0.7	1.0		
11-Apr	A	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0	1	1	1	1	A	1	0.6	0.7		
12-Apr	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	1	1	1	A	1	1	0.6	1.1		
13-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	A	1	1	1	0.7	1.2		
14-Apr	1	1	0	1	1	0	1	0	1	0	0	0	0	1	0	0	1	1	1	1	A	1	1	1	1	0.5	0.7		
15-Apr	1	1	0	1	1	1	1	1	1	1	0	1	1	0	0	1	1	1	0	A	1	1	0	1	1	0.6	0.7		
16-Apr	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	A	1	1	0	1	1	1	0.6	0.7		
17-Apr	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	1	A	1	1	0	1	1	0	0.6	0.8		
18-Apr	1	0	0	0	0	0	0	1	1	0	C	C	C	1	1	0	1	1	A	1	0	0	0	1	1	0.5	0.6		
19-Apr	1	0	0	1	1	1	1	1	1	1	1	0	0	1	1	A	1	1	1	1	0	1	1	1	1	0.6	1.3		
20-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.6	1.1		
21-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.7	1.1		
22-Apr	1	1	1	0	1	1	1	0	0	0	0	1	A	1	1	1	0	1	0	0	0	1	0	0	0	0.5	0.7		
23-Apr	1	1	0	1	1	0	0	1	1	1	1	1	A	1	1	1	1	0	1	1	1	1	1	0	1	0.6	1.0		
24-Apr	0	1	0	1	0	0	1	1	1	0	A	1	0	1	1	1	1	1	1	1	1	0	1	1	1	0.6	0.8		
25-Apr	1	1	1	1	0	1	1	1	1	A	1	1	0	1	1	1	1	1	0	1	0	1	1	1	1	0.6	0.8		
26-Apr	1	0	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0.6	1.0		
27-Apr	1	1	1	1	1	1	1	A	1	1	1	1	1	0	1	1	1	1	0	1	1	1	1	1	1	0.7	1.1		
28-Apr	1	1	1	1	1	1	A	0	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0	1	0.6	0.8		
29-Apr	0	1	1	1	1	A	1	0	1	1	0	1	0	1	1	0	1	1	1	1	1	1	1	1	1	0.6	0.8		
30-Apr	1	1	0	0	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	0	1	0.7	1.6		
0.6 0.6 0.6 0.7 0.7 0.7 0.7 0.7 0.7 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6																								Diurnal Average					
1.1 1.1 1.1 1.0 1.0 1.1 1.3 1.0 1.2 1.2 1.2 1.1 0.8 1.0 0.8 0.8 0.8 0.8 0.8 0.8 1.6 1.3 0.9 0.7 1.1																								Diurnal Maximum					
C - Calibration A - Automated Daily Zero Span																													

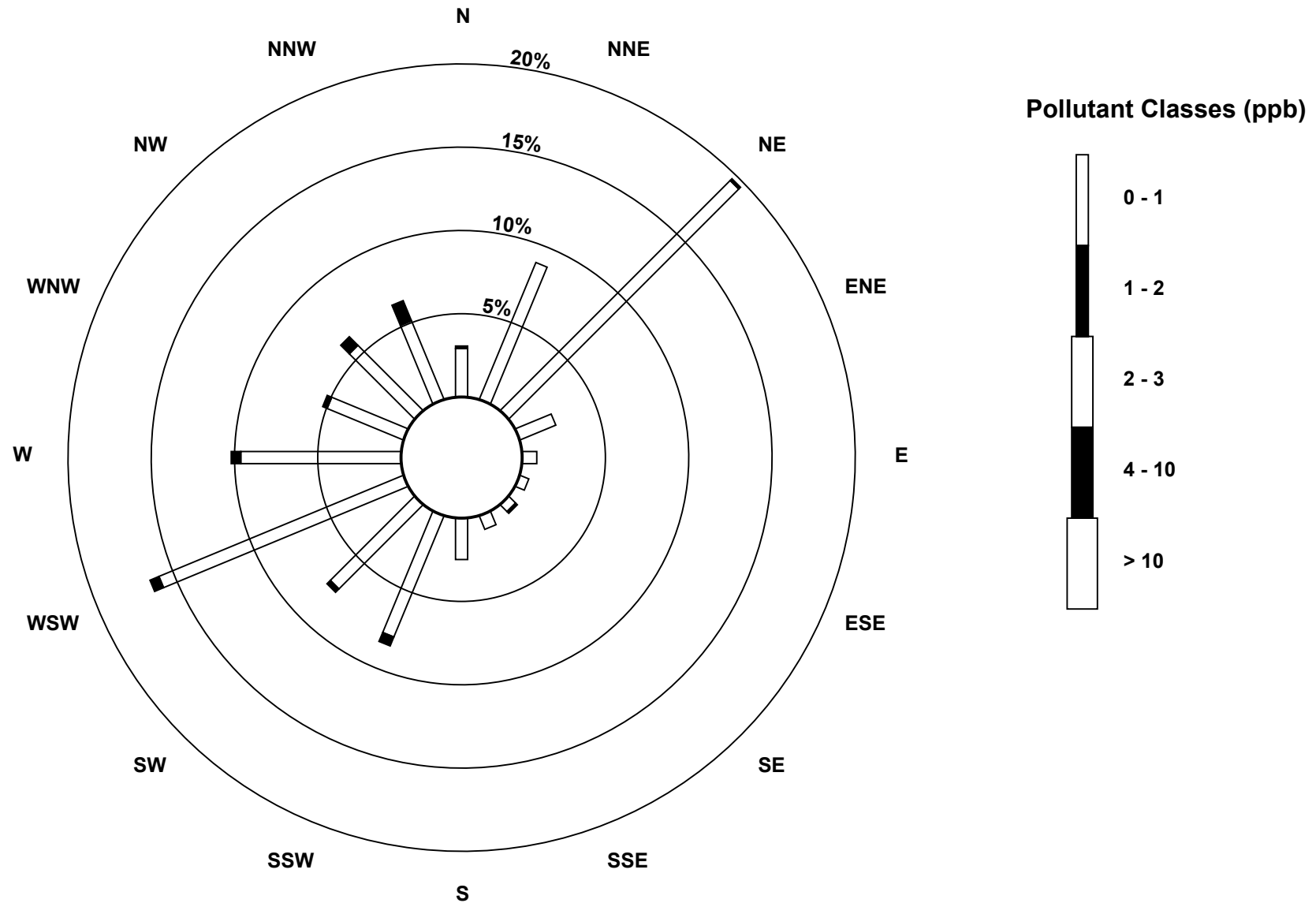
Hourly Maximums

Total Reduced Sulphur (TRS) - ppb
Evergreen Park - April 2018



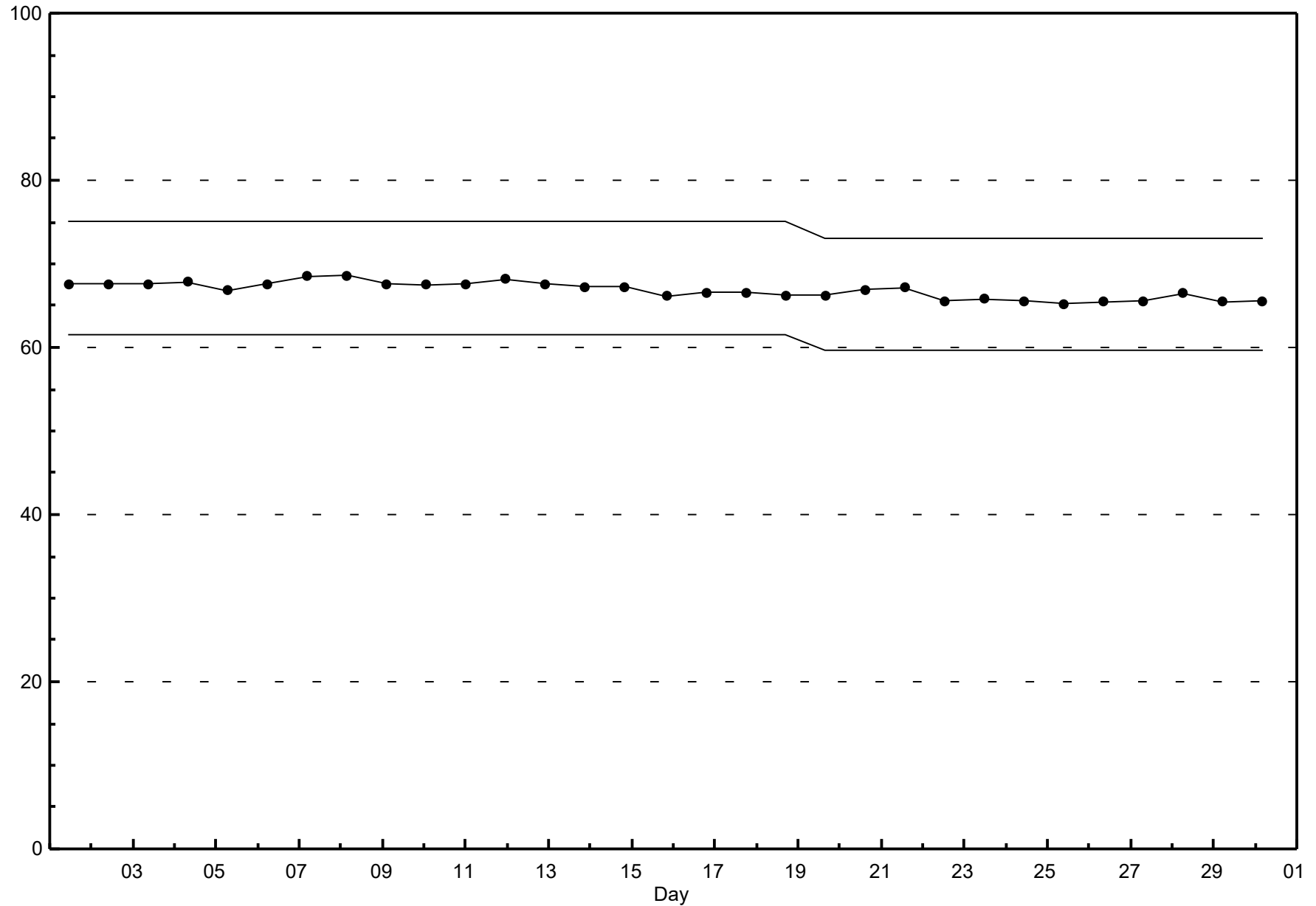
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb
Evergreen Park - April 2018



Span Responses

Total Reduced Sulphur (TRS)
Evergreen Park - April 2018

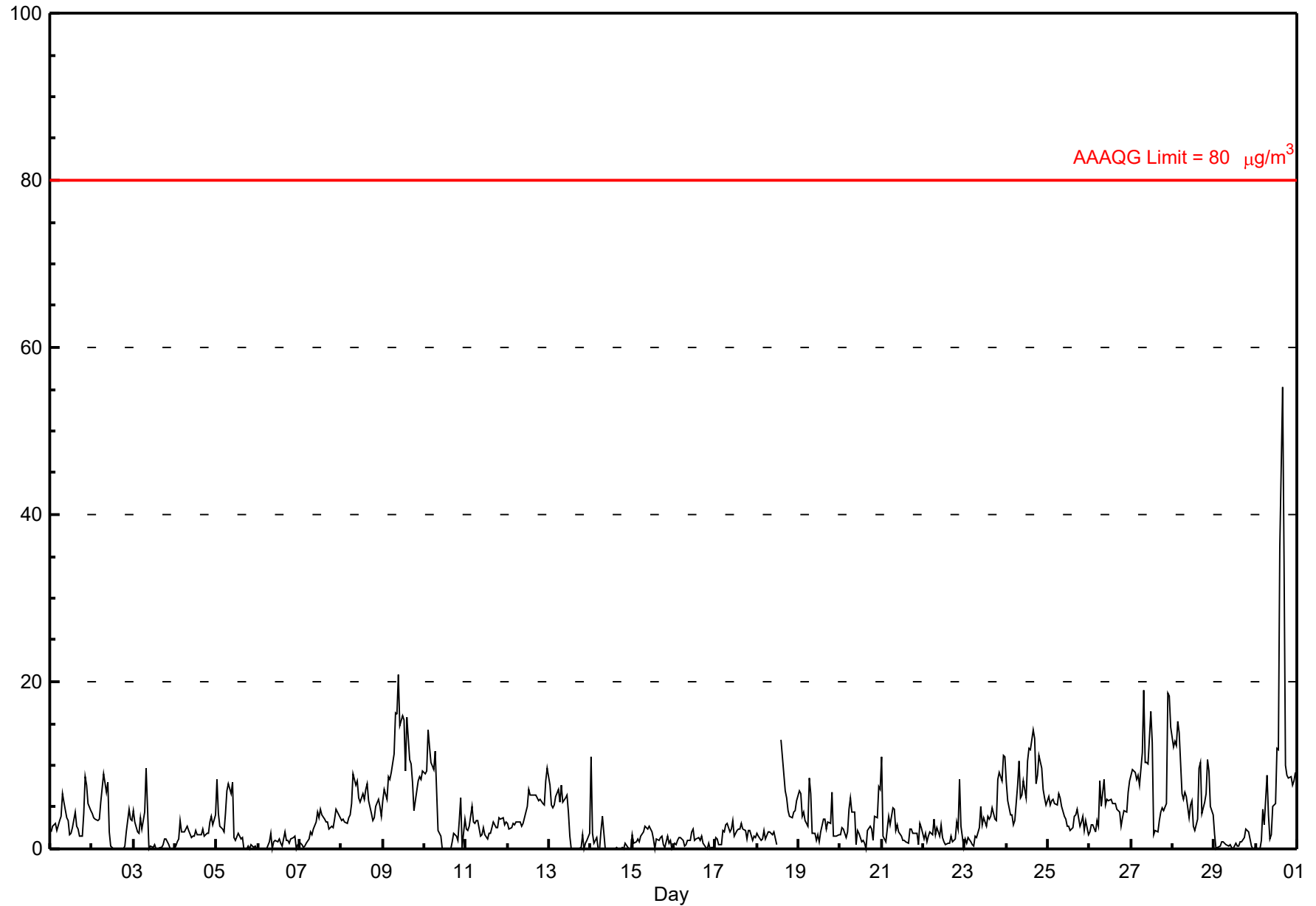


Hourly Averages

Particulate Matter 2.5 (PM_{2.5}) - µg/m³

Evergreen Park - April 2018

Number of Exceedences: 1-hr: 0 24-hr: 0 Maximum Value: 55.3 µg/m³ on Apr 30 16:00 Maximum Daily Average: 10.6 µg/m³ on Apr 9																								Hours in Service: 720 Hours of Data: 718 Hours of Missing Data: 2 Hours of Calibration: 2 Percent Operational Time: 100.0		
Minimum Value: 0 µg/m³ on Apr 2 13:00 Maximum Diurnal Average: 5.6 µg/m³ at hour 8 Monthly Average: 3.86 µg/m³ Minimum Daily Average: 0.7 µg/m³ on Apr 6 Minimum Diurnal Average: 2.7 µg/m³ at hour 19 Percentiles: P ₁ = 0.0 P ₁₀ = 0.2 Q ₁ = 1.2 Median = 2.7 Q ₃ = 5.4 P ₉₀ = 8.7 P ₉₉ = 16.5																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	2	3	3	3	2	3	4	7	6	4	3	2	2	3	4	3	2	2	2	4	9	8	5	5	3.7	8.7
2-Apr	4	4	4	3	4	6	7	9	7	8	2	0	0	0	0	0	0	0	0	0	2	5	4	3	3.0	9.0
3-Apr	5	3	2	2	4	2	4	10	5	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	1.7	9.7
4-Apr	0	1	1	3	2	2	2	3	2	1	2	1	2	2	2	2	2	2	2	2	3	4	3	4	2.1	4.0
5-Apr	8	4	3	2	2	4	7	8	7	8	1	1	2	2	1	1	0	0	0	0	1	0	0	0	2.6	8.2
6-Apr	0	0	0	0	0	0	1	2	0	1	1	1	1	1	0	2	1	1	1	1	1	2	0	0	0.7	2.0
7-Apr	1	0	0	0	1	1	2	2	2	3	4	4	5	4	4	3	3	2	3	3	3	5	4	4	2.7	4.8
8-Apr	3	4	3	3	4	4	5	9	8	8	6	6	7	6	7	8	6	4	3	4	5	6	5	4	5.3	9.1
9-Apr	6	7	6	9	8	9	11	16	16	21	15	16	15	9	16	11	10	8	5	6	8	9	8	9	10.6	20.9
10-Apr	9	9	14	12	10	9	12	7	2	2	0	0	0	0	0	0	1	2	1	1	3	6	0	3	4.4	14.2
11-Apr	2	2	3	5	3	3	3	3	2	2	3	2	1	2	2	2	3	3	3	4	4	4	3	3	2.7	5.1
12-Apr	3	2	3	3	3	3	3	3	3	3	4	5	7	6	6	7	6	6	6	6	5	5	8	10	4.9	9.7
13-Apr	8	5	5	5	6	7	6	8	6	6	7	4	1	0	0	0	0	0	0	2	0	1	1	2	3.3	7.7
14-Apr	11	2	1	1	0	0	2	4	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.9	11.0
15-Apr	2	1	1	1	1	2	2	3	3	2	3	2	1	0	1	1	1	1	1	0	2	1	1	0	1.3	2.7
16-Apr	1	1	1	1	1	1	0	0	1	1	2	2	1	1	1	1	2	1	0	0	1	0	0	0	0.9	2.3
17-Apr	1	1	1	1	2	2	3	3	2	2	3	1	2	2	2	3	2	2	1	2	2	1	2	1	2.0	3.3
18-Apr	2	2	1	1	2	1	2	2	2	2	2	1	C	C	13	9	7	6	5	4	4	4	5	6	3.7	13.1
19-Apr	7	7	4	4	3	3	8	7	2	2	1	2	1	2	4	3	2	3	3	7	2	2	1	2	3.4	8.4
20-Apr	2	2	2	1	2	5	6	4	4	0	2	2	1	1	1	0	2	3	2	1	4	4	7	7	2.8	7.4
21-Apr	11	2	1	2	4	3	5	5	2	3	2	2	1	1	1	1	2	2	2	2	2	1	3	2	2.5	11.0
22-Apr	1	2	1	2	2	2	4	2	3	1	3	1	1	0	1	1	2	1	1	3	2	8	3	0	1.9	8.3
23-Apr	1	1	1	1	1	0	1	1	3	5	3	4	3	4	4	4	5	4	3	8	9	8	11	11	4.0	11.1
24-Apr	8	6	4	4	3	3	8	11	6	6	8	6	10	12	12	14	13	8	9	11	10	7	6	5	8.0	14.3
25-Apr	6	5	6	6	5	5	7	6	5	4	4	3	3	2	3	4	4	5	3	3	4	2	3	2	4.2	6.7
26-Apr	2	3	3	2	3	3	8	5	8	5	6	6	6	5	5	5	5	4	3	4	5	4	7	8	4.8	8.4
27-Apr	9	9	9	8	9	8	12	19	10	10	10	17	13	2	2	2	3	4	5	5	5	19	18	15	9.3	19.0
28-Apr	12	13	12	15	14	7	6	7	6	4	5	6	3	2	4	10	10	4	6	7	11	9	5	4	7.5	15.3
29-Apr	2	0	0	0	1	1	1	1	0	1	0	0	1	0	0	1	1	1	2	2	2	0	0	0	0.7	2.4
30-Apr	0	0	0	1	5	3	9	4	1	2	5	5	12	12	36	55	34	10	9	9	9	8	8	9	10.3	55.3
4.3 3.3 3.1 3.5 3.6 3.4 5.1 5.6 4.1 3.9 3.6 3.4 3.5 2.8 4.4 5.1 4.4 3.0 2.7 3.4 4.0 4.4 4.1 4.0																								Diurnal Average		
12.3 12.8 14.2 15.3 13.8 9.5 11.8 19.0 16.1 20.9 14.7 16.5 15.4 12.1 36.2 55.3 34.4 10.0 8.8 11.3 10.8 18.7 18.3 14.6																								Diurnal Maximum		
C - Calibration Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 µg/m³ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 µg/m³																										



Hourly Maximums

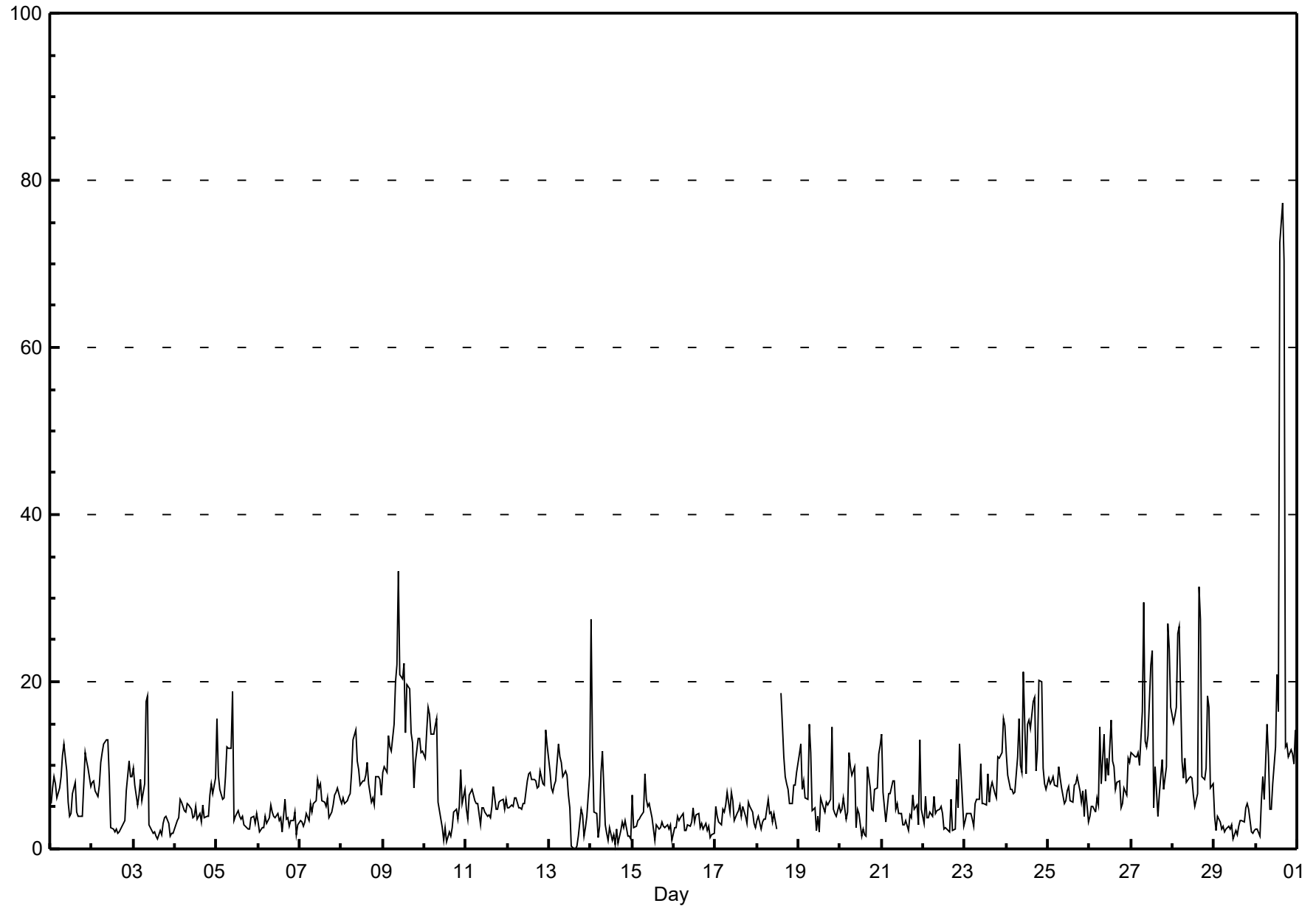
Particulate Matter 2.5 (PM_{2.5}) - µg/m³

Evergreen Park - April 2018

Maximum Value: 77.3 μg/m³ on Apr 30 16:00																								Maximum Daily Average: 17.6 μg/m³ on Apr 30										Hours in Service: 720	
Minimum Value: 0 μg/m³ on Apr 13 15:00																								Minimum Daily Average: 2.9 μg/m³ on Apr 29										Hours of Data: 718	
Maximum Diurnal Average: 9.9 μg/m³ at hour 8																								Minimum Diurnal Average: 5.4 μg/m³ at hour 14										Hours of Missing Data: 2	
Monthly Average: 7.15 μg/m³																								Percentiles: P ₁ = 1.0 P ₁₀ = 2.4 Q ₁ = 3.5 Median = 5.5 Q ₃ = 8.7 P ₉₀ = 13.0 P ₉₉ = 27.3										Hours of Calibration: 2	
																								Percent Operational Time: 100.0											
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum									
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24											
1-Apr	5	7	9	8	6	7	9	11	13	9	6	4	4	7	8	4	4	4	4	8	12	11	10	7	7.3	12.5									
2-Apr	8	8	7	6	8	10	12	13	13	13	9	3	2	2	2	2	2	3	3	3	7	11	9	9	6.8	13.0									
3-Apr	10	8	5	6	8	6	8	18	18	3	3	2	2	1	1	2	2	3	4	4	3	1	2	2	5.1	18.4									
4-Apr	3	3	4	6	6	5	4	5	5	5	4	4	5	3	4	3	5	4	4	4	6	8	7	8	4.8	8.4									
5-Apr	16	9	7	6	6	9	12	12	12	19	3	4	5	4	4	4	3	3	2	2	4	4	3	4	6.5	18.8									
6-Apr	3	2	2	2	4	3	4	5	4	4	4	4	3	4	2	6	4	4	3	3	3	4	2	3	3.5	6.0									
7-Apr	3	3	3	3	4	3	5	4	5	6	8	7	8	6	6	5	6	4	4	5	6	7	7	6	5.3	8.3									
8-Apr	5	6	5	6	6	7	9	13	14	11	9	8	8	8	9	10	8	6	6	5	9	9	8	6	8.0	14.3									
9-Apr	9	10	9	13	12	12	15	20	22	33	21	20	22	14	20	19	14	13	7	10	13	13	12	12	15.2	33.2									
10-Apr	11	14	17	16	14	14	15	16	6	4	2	1	3	1	2	1	3	4	5	3	5	9	5	7	7.4	16.9									
11-Apr	5	3	6	7	7	6	5	5	3	5	5	4	4	4	4	5	7	5	5	6	6	6	5	6	5.1	7.5									
12-Apr	5	5	5	5	6	6	5	5	5	5	5	8	9	9	8	8	8	7	7	9	8	8	14	12	7.3	14.2									
13-Apr	9	7	7	8	8	13	11	10	9	9	9	6	5	0	0	0	0	1	5	4	2	2	4	9	5.8	12.6									
14-Apr	27	12	4	4	1	3	9	12	3	2	1	2	1	2	1	2	1	2	3	2	3	1	2	1	4.3	27.5									
15-Apr	6	2	3	3	3	4	4	9	6	5	5	4	2	1	3	2	3	3	3	3	3	2	3	1	3.6	9.0									
16-Apr	2	2	4	3	4	4	2	2	3	3	3	5	3	4	4	2	3	2	3	2	3	1	2	2	3.0	5.0									
17-Apr	5	4	3	3	5	4	5	7	4	7	6	3	4	5	5	4	5	4	3	6	5	4	3	3	4.5	6.8									
18-Apr	3	4	2	3	4	3	6	4	4	3	4	2	C	C	19	11	9	8	7	5	5	8	8	9	6.1	18.7									
19-Apr	11	13	7	8	6	6	15	12	5	5	2	4	2	6	5	4	6	5	6	15	5	4	4	5	6.7	14.9									
20-Apr	4	5	6	4	4	12	10	9	10	3	5	4	2	2	2	2	10	7	5	5	7	7	11	12	6.1	12.4									
21-Apr	14	7	3	5	7	7	8	8	5	5	4	4	3	3	3	2	4	4	6	5	5	3	13	5	5.5	13.7									
22-Apr	3	6	4	4	4	4	6	4	5	5	5	4	2	3	2	2	6	2	2	8	5	13	9	3	4.7	12.6									
23-Apr	3	4	4	4	4	3	5	6	6	10	5	5	5	9	6	7	8	7	6	11	11	11	16	15	7.2	15.7									
24-Apr	11	9	7	7	7	7	11	16	10	9	21	9	15	15	14	18	18	9	12	20	20	10	8	7	12.1	21.2									
25-Apr	9	8	8	9	8	7	10	8	7	5	6	7	7	6	6	8	8	9	7	6	7	4	7	3	7.0	9.8									
26-Apr	4	5	5	4	6	5	15	8	14	8	11	9	15	11	10	7	8	8	5	5	7	6	11	10	8.3	15.4									
27-Apr	12	11	11	11	12	10	16	30	13	12	14	22	24	5	10	4	7	9	11	7	10	27	24	17	13.6	29.5									
28-Apr	15	16	17	26	27	11	8	11	8	8	9	8	6	5	7	31	27	9	8	10	18	17	7	8	13.2	31.3									
29-Apr	4	2	4	3	2	3	2	2	3	2	3	1	2	2	3	3	3	3	5	5	5	2	2	2	2.9	5.4									
30-Apr	2	2	1	6	9	6	15	11	5	5	8	12	21	16	73	77	70	12	13	11	12	11	10	14	17.6	77.3									
7.7 6.6 6.1 6.7 6.9 6.6 8.7 9.9 7.9 7.4 6.7 6.1 6.8 5.4 8.0 8.6 8.7 5.4 5.5 6.5 7.2 7.5 7.5 7.0																									Diurnal Average										
27.5 16.0 16.9 25.7 26.7 13.8 16.4 29.5 22.1 33.2 21.2 22.0 23.7 16.4 72.6 77.3 70.4 12.8 12.5 20.2 20.1 26.9 24.0 17.0																									Diurnal Maximum										
C - Calibration																																			

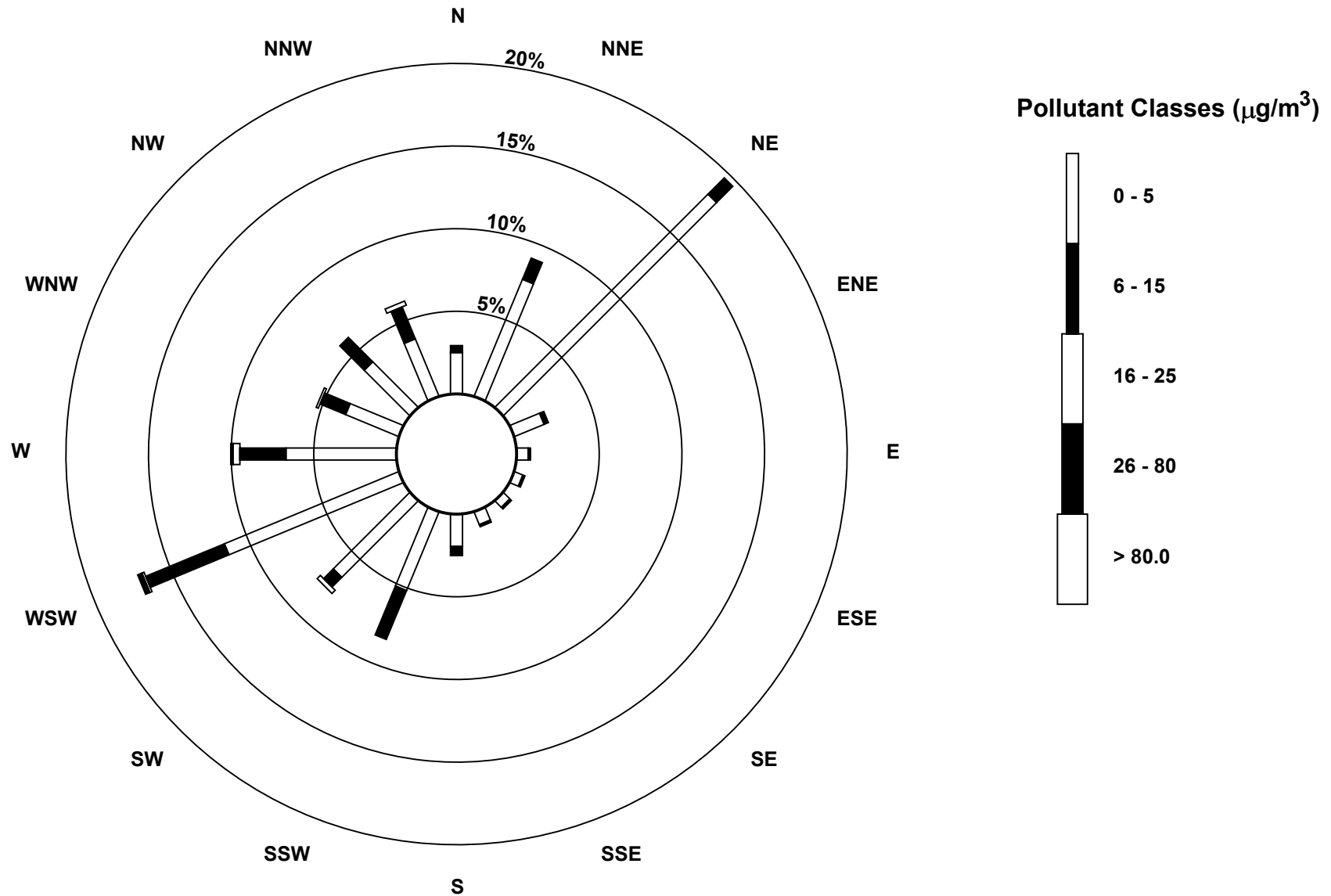
Hourly Maximums

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Evergreen Park - April 2018



Pollutant Rose

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Evergreen Park - April 2018



Hourly Averages

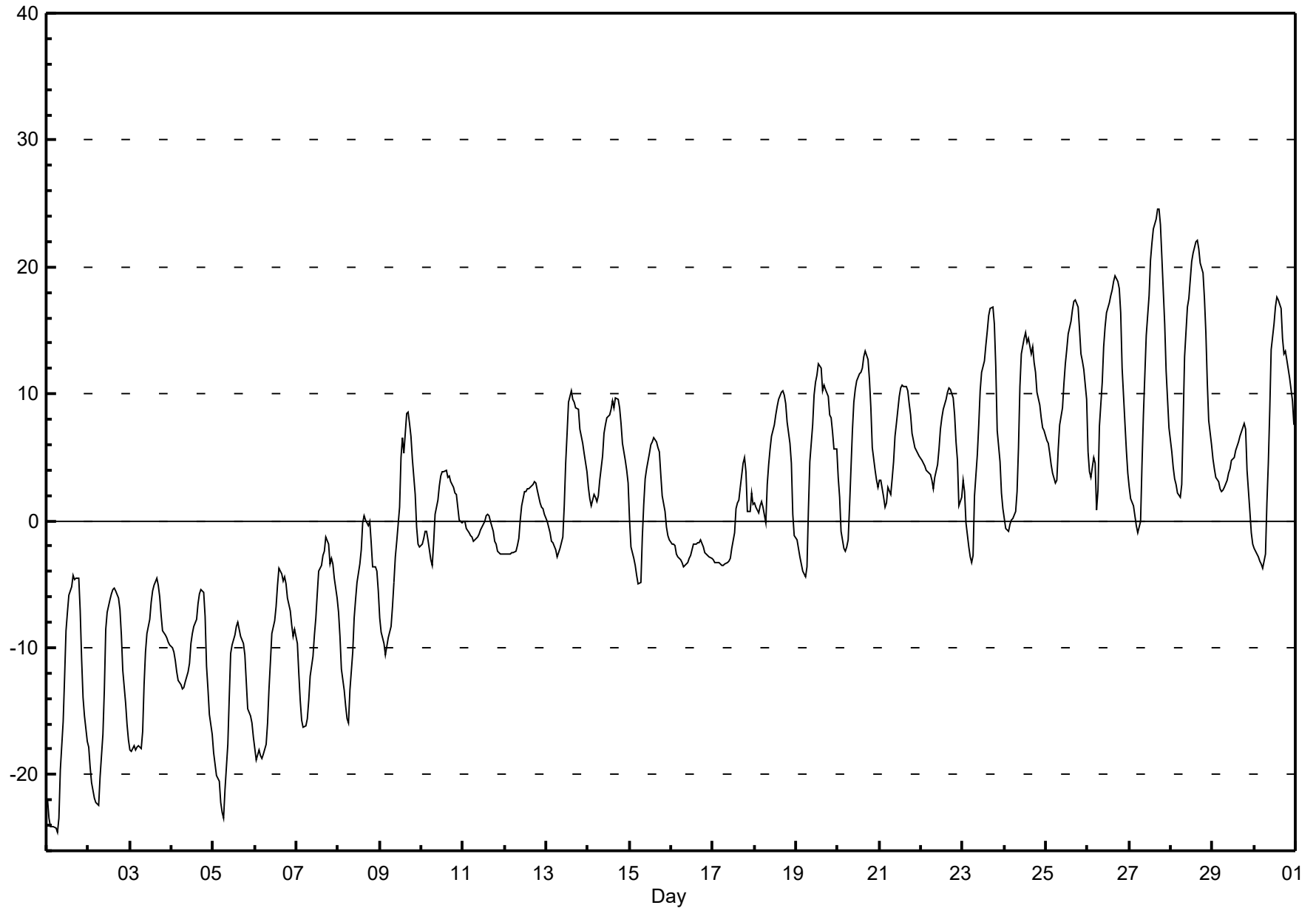
External Temperature (ET) - °C

Evergreen Park - April 2018

Maximum Value: 24.6 °C on Apr 27 18:00																				Maximum Daily Average: 12.5 °C on Apr 28										Hours in Service: 720	
Minimum Value: -25 °C on Apr 1 07:00																				Minimum Daily Average: -14.9 °C on Apr 5										Hours of Data: 720	
Maximum Diurnal Average: 6.4 °C at hour 17																				Minimum Diurnal Average: -5.9 °C at hour 6										Hours of Missing Data: 0	
Monthly Average: 0.55 °C																				Percentiles: P ₁ = -23.3 P ₁₀ = -13.1 Q ₁ = -4.4 Median = 1.0 Q ₃ = 6.9 P ₉₀ = 12.4 P ₉₉ = 21.7										Hours of Calibration: 0	
																														Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
1-Apr	-22	-23	-24	-24	-24	-24	-25	-23	-20	-16	-12	-9	-7	-6	-5	-4	-5	-5	-5	-7	-11	-14	-15	-17	-14.5	-4.3					
2-Apr	-18	-19	-21	-22	-22	-22	-22	-20	-17	-13	-9	-7	-6	-6	-5	-5	-6	-6	-7	-9	-12	-14	-16	-17	-13.4	-5.3					
3-Apr	-18	-18	-18	-18	-18	-18	-18	-17	-13	-10	-9	-8	-6	-6	-5	-5	-5	-6	-7	-9	-9	-9	-10	-10	-11.2	-4.5					
4-Apr	-10	-10	-11	-12	-13	-13	-13	-13	-13	-12	-11	-10	-9	-8	-8	-7	-6	-5	-6	-8	-11	-13	-15	-17	-10.5	-5.4					
5-Apr	-18	-19	-20	-21	-22	-23	-23	-21	-18	-14	-10	-10	-9	-8	-8	-9	-9	-10	-11	-13	-15	-15	-16	-17	-14.9	-8.0					
6-Apr	-18	-19	-18	-18	-19	-18	-18	-16	-13	-11	-9	-8	-7	-5	-4	-4	-5	-4	-5	-6	-7	-8	-9	-9	-10.8	-3.7					
7-Apr	-10	-12	-14	-16	-16	-16	-16	-14	-12	-11	-9	-8	-6	-4	-4	-3	-2	-1	-2	-3	-3	-3	-4	-6	-8.1	-1.3					
8-Apr	-7	-9	-12	-13	-15	-16	-16	-13	-10	-8	-6	-5	-3	-2	0	0	0	0	0	-2	-4	-4	-4	-6	-6.4	0.4					
9-Apr	-8	-9	-10	-11	-10	-9	-8	-7	-5	-3	-2	1	5	7	5	8	9	8	7	5	2	0	-2	-2	-1.2	8.6					
10-Apr	-2	-1	-1	-1	-1	-3	-3	-2	1	2	3	4	4	4	4	3	4	3	3	2	2	1	0	0	1.0	4.0					
11-Apr	0	0	-1	-1	-1	-1	-2	-2	-1	-1	-1	-1	0	0	1	0	0	-1	-2	-2	-2	-3	-3	-3	-1.0	0.5					
12-Apr	-3	-3	-3	-3	-3	-3	-2	-2	-1	0	1	2	2	3	3	3	3	3	3	2	1	1	1	0	0.3	3.1					
13-Apr	0	0	-1	-2	-2	-2	-3	-2	-2	-1	1	5	7	9	10	10	9	9	9	7	7	6	5	4	3.4	10.2					
14-Apr	3	2	1	2	2	1	2	3	5	7	8	8	8	9	9	9	10	10	9	8	6	5	4	3	5.5	9.7					
15-Apr	0	-2	-3	-4	-4	-5	-5	-1	1	3	4	5	6	6	7	6	6	5	4	2	1	-1	-1	-1	1.2	6.6					
16-Apr	-2	-2	-2	-3	-3	-3	-3	-4	-4	-3	-3	-3	-2	-2	-2	-2	-2	-2	-2	-3	-3	-3	-3	-3	-2.5	-1.5					
17-Apr	-3	-3	-3	-3	-3	-4	-4	-3	-3	-3	-3	-2	-1	1	1	2	3	5	5	4	1	1	2	1	-0.6	4.9					
18-Apr	1	1	1	1	1	1	0	3	4	6	7	8	8	9	10	10	10	10	9	8	6	4	1	-1	4.9	10.3					
19-Apr	-1	-2	-3	-3	-4	-4	-4	1	5	8	10	11	11	12	12	10	11	10	10	8	8	7	6	6	5.2	12.3					
20-Apr	3	2	-1	-2	-2	-2	-2	1	7	9	10	11	12	12	12	13	13	13	11	9	6	4	3	3	6.1	13.3					
21-Apr	3	3	2	1	1	3	2	3	5	7	8	10	10	11	11	11	10	9	8	7	6	6	5	5	6.1	10.7					
22-Apr	5	5	4	4	4	4	3	3	3	4	6	7	8	9	10	10	10	10	10	8	6	5	1	2	5.9	10.5					
23-Apr	3	2	0	-2	-3	-3	-3	2	5	8	10	12	13	14	15	16	17	17	15	12	7	5	2	1	6.9	16.8					
24-Apr	0	-1	-1	0	0	0	1	2	6	11	13	14	15	14	14	13	14	12	12	10	9	8	7	7	7.6	14.8					
25-Apr	6	6	5	4	4	3	3	6	8	9	11	12	14	15	16	17	17	17	17	15	13	13	12	10	10.5	17.4					
26-Apr	5	4	3	5	5	1	2	7	11	14	15	16	17	18	18	19	19	19	18	16	12	8	6	4	11.0	19.3					
27-Apr	3	2	1	0	0	-1	0	4	8	12	15	18	20	22	23	24	25	25	23	21	16	12	10	7	12.0	24.6					
28-Apr	5	4	3	3	2	2	3	8	13	17	17	19	20	21	22	22	21	20	19	18	15	11	8	6	12.5	22.1					
29-Apr	5	4	3	3	3	2	2	3	3	4	4	5	5	6	6	6	7	7	8	7	4	1	-1	-2	3.9	7.6					
30-Apr	-2	-2	-3	-3	-3	-4	-3	1	5	9	13	16	17	18	17	17	14	13	13	13	11	10	9	8	7.7	17.6					
-3.3 -4.0 -4.8 -5.2 -5.6 -5.9 -5.8 -3.8 -1.4 0.7 2.4 3.8 4.9 5.7 6.2 6.4 6.4 6.2 5.6 4.1 2.1 0.6 -0.6 -1.5																									Diurnal Average						
6.3 6.1 5.3 5.0 4.5 3.6 3.2 7.8 12.9 16.8 17.5 19.0 20.5 21.8 23.0 23.8 24.5 24.6 23.3 20.7 15.5 12.6 11.9 9.6																									Diurnal Maximum						

Hourly Averages

External Temperature (ET) - °C
Evergreen Park - April 2018



Hourly Averages

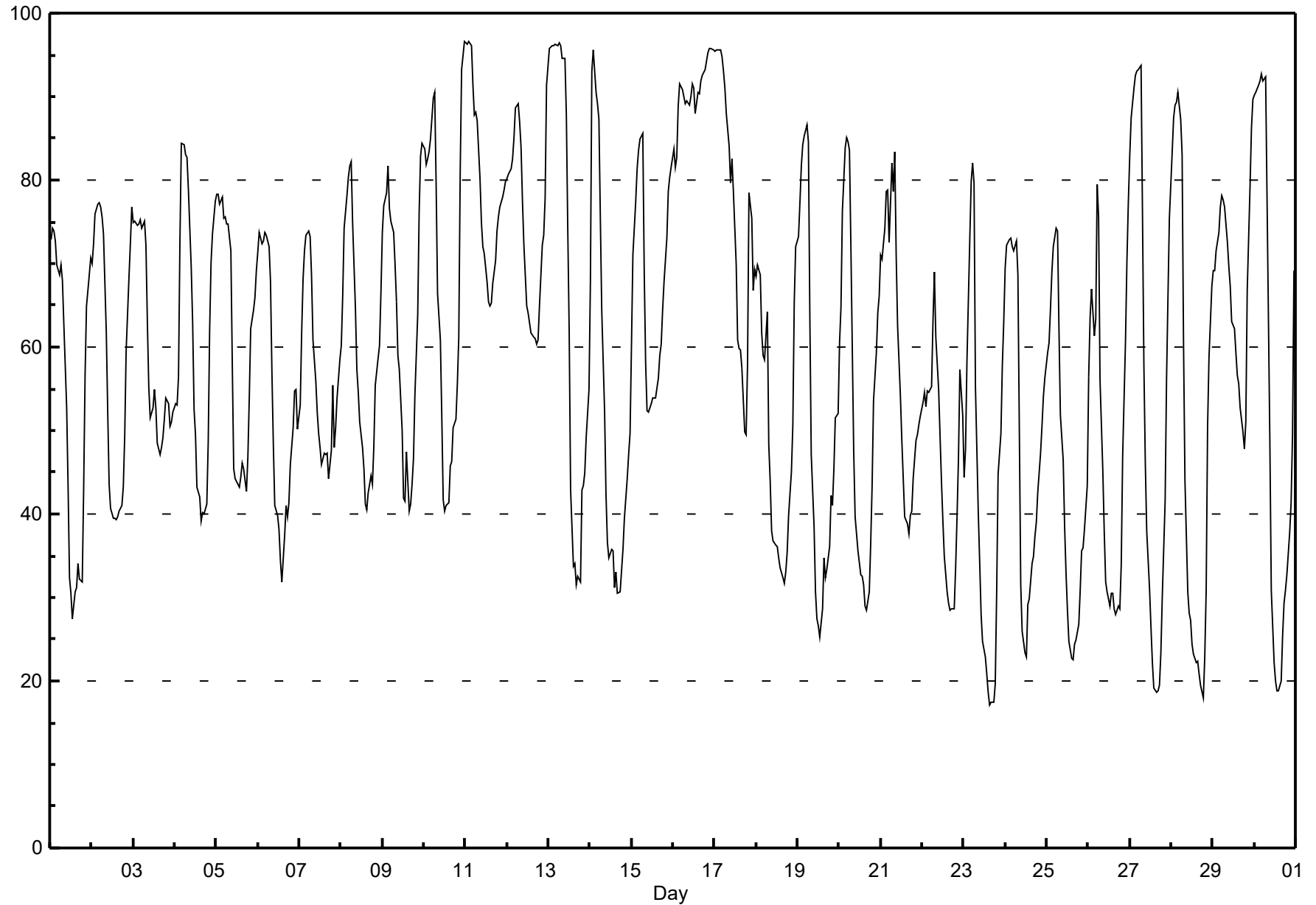
Relative Humidity (RH) - %

Evergreen Park - April 2018

Maximum Value: 96.7 % on Apr 11 03:00																				Maximum Daily Average: 90.5 % on Apr 16					Hours in Service: 720	
Minimum Value: 17 % on Apr 23 16:00																				Minimum Daily Average: 42.8 % on Apr 23					Hours of Data: 720	
Maximum Diurnal Average: 80.6 % at hour 6																				Minimum Diurnal Average: 39.8 % at hour 15					Hours of Missing Data: 0	
Monthly Average: 58.91 %																				Percentiles: P ₁ = 18.9 P ₁₀ = 30.7 Q ₁ = 41.9 Median = 59.0 Q ₃ = 75.5 P ₉₀ = 87.9 P ₉₉ = 96.1					Hours of Calibration: 0	
																									Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	73	74	74	73	70	69	70	68	63	53	43	32	31	28	31	31	34	32	32	43	57	65	67	71	53.4	74.2
2-Apr	70	72	76	77	77	77	76	74	62	52	44	41	40	40	39	40	40	41	43	49	60	68	72	77	58.6	77.3
3-Apr	75	75	75	75	75	74	75	72	63	55	52	53	55	53	49	47	48	49	51	54	53	50	51	52	59.6	75.2
4-Apr	53	53	56	73	84	84	83	83	79	70	63	53	50	43	42	39	40	40	41	49	62	70	73	78	60.9	84.4
5-Apr	78	78	77	78	75	76	75	75	71	58	45	44	43	43	44	46	45	43	47	54	62	64	66	69	60.8	78.3
6-Apr	71	74	72	73	74	73	72	68	57	48	41	40	38	34	32	38	41	40	41	46	50	55	55	50	53.5	73.8
7-Apr	53	62	68	72	73	74	73	69	61	56	52	50	48	46	47	47	47	44	48	55	48	50	54	59	56.5	73.8
8-Apr	60	66	74	78	80	82	82	75	65	57	55	51	48	45	41	40	42	45	44	48	55	59	60	66	59.1	82.3
9-Apr	74	77	78	82	77	75	74	70	65	59	57	50	42	41	47	40	41	43	47	54	64	76	83	84	62.6	84.4
10-Apr	84	82	82	83	85	90	91	79	66	61	52	42	40	41	41	46	46	50	51	56	61	81	93	97	66.7	96.5
11-Apr	96	96	97	96	91	88	88	87	80	75	72	71	68	65	65	65	68	70	74	76	77	78	79	80	79.3	96.7
12-Apr	80	81	81	82	85	89	89	87	84	77	72	65	64	63	62	61	61	60	61	65	72	73	78	91	74.4	91.4
13-Apr	96	96	96	96	96	96	96	96	95	95	88	74	62	43	34	34	31	32	32	43	43	45	49	55	67.7	96.5
14-Apr	68	93	96	91	89	87	76	64	52	42	37	35	36	36	31	33	30	31	33	36	40	44	47	50	53.2	95.6
15-Apr	60	71	77	81	84	85	86	69	58	52	52	53	54	54	54	56	59	60	64	68	73	79	80	82	67.2	85.6
16-Apr	84	82	83	89	92	91	90	89	89	89	90	91	91	88	90	90	92	93	93	94	95	96	96	96	90.5	95.8
17-Apr	95	96	96	96	95	93	91	88	84	80	83	79	70	61	60	60	57	50	49	58	79	75	67	69	76.2	95.7
18-Apr	68	70	69	62	59	59	64	48	44	38	37	36	36	35	34	32	32	33	35	40	45	51	66	72	48.5	72.1
19-Apr	73	77	82	84	85	87	85	64	47	39	31	28	27	25	29	35	32	33	36	42	41	45	52	52	51.2	86.7
20-Apr	60	65	76	84	85	85	84	72	47	40	38	36	33	33	32	29	29	31	37	43	54	59	64	66	53.3	85.0
21-Apr	71	70	74	79	79	72	82	79	83	71	63	54	49	44	40	39	38	40	40	44	49	50	51	52	58.8	83.5
22-Apr	53	55	53	55	55	55	63	69	61	55	49	44	39	35	31	29	28	29	29	33	40	47	57	52	46.5	68.9
23-Apr	44	48	58	73	80	82	80	55	40	34	28	25	23	21	19	17	17	17	20	31	45	50	58	63	42.8	82.0
24-Apr	70	72	73	73	72	72	73	69	50	32	26	23	23	29	30	34	35	37	39	43	47	50	54	56	49.2	73.1
25-Apr	59	60	65	69	72	74	74	62	52	46	38	33	28	25	23	23	24	25	27	31	36	36	38	43	44.3	74.3
26-Apr	56	64	67	61	63	79	76	56	45	38	32	31	29	31	30	29	28	29	29	34	47	61	70	77	48.4	79.5
27-Apr	83	87	91	93	93	93	94	76	58	46	38	31	26	22	19	19	19	19	23	30	42	56	66	75	54.2	93.7
28-Apr	83	87	89	89	90	87	83	60	44	31	28	27	24	23	22	22	21	19	18	23	31	50	59	67	49.2	90.4
29-Apr	69	69	72	74	77	78	78	77	73	70	67	63	62	59	57	56	53	50	48	51	67	79	86	90	67.6	89.7
30-Apr	90	90	91	92	93	92	92	78	63	49	31	22	20	19	19	20	25	29	31	33	38	41	50	69	53.2	92.7
71.8 74.8 77.3 79.4 80.2 80.6 80.4 72.6 63.4 55.5 50.1 45.9 43.3 40.8 39.8 39.9 40.2 40.5 42.1 47.5 54.4 60.2 64.7 68.7																								Diurnal Average		
96.4 96.3 96.7 96.2 96.3 96.1 96.5 96.1 94.6 94.7 90.0 91.5 91.0 88.0 90.5 90.3 91.9 92.6 93.2 94.3 95.2 95.7 95.8 96.5																								Diurnal Maximum		

Hourly Averages

Relative Humidity (RH) - %
Evergreen Park - April 2018



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Evergreen Park - April 2018

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	1	1	1	3	3	3	2	2	9	6	6	6	11	11	11	10	11	9	6	3	2	2	2	2	3.8	11.1
Dir	348	347	308	267	310	240	227	239	258	266	221	263	336	338	336	347	336	336	12	339	325	298	276	298	312.9	336.1
2 Spd	3	1	0	2	1	3	5	6	6	3	13	13	16	15	16	14	15	15	14	7	3	2	1	2	5.6	16.1
Dir	329	243	286	339	275	319	322	263	297	236	41	34	37	19	28	43	52	47	40	16	9	18	323	215	24.9	37.4
3 Spd	1	1	2	2	2	2	1	2	5	9	14	17	21	22	26	23	24	21	21	20	16	13	11	13	11.4	25.7
Dir	204	283	302	323	314	311	201	204	45	51	33	36	34	41	34	32	36	32	35	37	43	48	45	44	35.9	34.1
4 Spd	13	13	14	14	11	13	15	15	15	11	12	10	9	12	16	14	13	11	9	3	4	4	3	1	4.8	16.4
Dir	43	36	34	26	36	28	25	28	25	1	351	356	311	259	243	252	243	250	248	267	223	240	261	254	346.0	243.1
5 Spd	2	4	2	2	1	1	0	1	3	4	16	16	15	16	18	20	20	19	17	11	7	8	7	6	7.9	20.1
Dir	261	295	291	303	280	213	221	289	278	345	42	35	32	42	41	42	40	31	39	38	41	49	51	45	34.5	41.8
6 Spd	5	8	7	7	7	7	9	11	15	17	15	22	22	25	20	22	20	22	17	13	10	5	7	7	13.0	24.9
Dir	46	48	50	51	51	53	52	54	71	81	77	45	46	45	41	32	34	35	34	44	44	44	59	70	48.4	45.0
7 Spd	6	6	6	6	7	7	8	11	11	11	10	14	18	22	24	17	22	21	16	11	12	11	10	6	11.5	24.5
Dir	69	51	46	47	42	46	49	52	43	27	31	26	37	37	22	26	28	35	34	42	87	85	91	77	41.9	22.4
8 Spd	6	4	4	3	1	1	1	2	4	6	10	11	9	9	7	7	10	8	7	2	1	0	0	1	3.5	11.1
Dir	71	48	35	37	11	333	291	314	244	289	320	333	333	332	255	329	343	348	30	53	177	30	6	22	339.2	333.3
9 Spd	1	0	1	1	2	2	1	1	2	5	6	3	7	5	7	6	7	8	4	2	0	2	2	1	2.1	7.8
Dir	12	328	16	318	321	308	296	288	267	333	322	246	246	288	340	309	325	27	36	38	23	25	205	216	321.2	27.1
10 Spd	0	2	1	1	1	1	0	10	18	18	22	24	26	28	23	19	17	15	11	10	9	6	8	3	11.1	28.1
Dir	207	21	250	348	241	54	282	32	40	50	44	43	42	41	46	44	54	45	52	43	62	54	46	59	44.9	41.3
11 Spd	1	2	14	12	11	12	9	8	9	7	8	6	7	4	12	15	13	11	10	9	13	13	12	8	5.4	15.4
Dir	299	225	246	264	276	257	295	322	333	330	355	352	3	20	14	38	47	62	35	29	37	40	39	37	0.3	37.8
12 Spd	8	8	9	10	8	7	6	6	6	7	9	12	13	16	17	16	14	7	5	4	5	3	7	5	8.2	17.5
Dir	38	41	48	53	51	51	48	46	53	65	52	80	54	46	41	44	37	53	70	37	48	62	114	145	53.1	41.0
13 Spd	3	2	2	1	1	1	0	2	5	7	9	8	12	12	16	18	14	6	16	15	8	9	7	2	1.5	17.7
Dir	196	141	159	127	75	20	329	332	331	339	337	344	336	355	37	38	39	42	197	203	171	174	179	163	18.3	38.4
14 Spd	12	12	11	18	15	16	21	25	24	30	42	33	32	27	23	19	21	16	16	22	22	15	13	14	19.0	42.0
Dir	253	247	204	213	205	211	215	208	211	223	226	247	252	259	275	282	256	282	258	231	224	229	221	210	235.4	226.0
15 Spd	5	2	0	0	2	3	3	5	6	7	14	14	15	19	19	24	21	20	20	17	18	18	17	17	9.1	24.0
Dir	210	199	309	333	184	190	195	256	240	308	329	341	357	15	25	29	34	34	36	38	41	34	33	30	20.2	29.2
16 Spd	18	16	17	17	14	15	14	14	16	16	18	18	17	19	17	16	14	14	15	14	8	7	8	7	14.1	18.7
Dir	30	35	36	36	36	37	33	37	40	37	39	40	36	35	28	32	25	21	21	20	5	6	336	329	29.6	34.6
17 Spd	8	9	10	10	9	13	14	18	22	26	21	22	22	20	21	22	13	14	11	4	4	14	19	16	13.8	25.9
Dir	301	271	277	286	267	269	264	267	264	260	259	258	262	266	312	319	283	264	254	250	193	229	233	221	265.9	259.8
18 Spd	18	16	16	21	21	17	7	30	28	34	28	26	26	26	34	26	29	30	26	19	11	4	1	4	20.3	34.1
Dir	229	230	234	230	232	236	245	228	238	233	247	253	260	261	249	253	249	249	250	244	232	242	131	182	242.6	249.0
19 Spd	6	1	0	0	1	2	3	7	11	14	15	19	20	16	22	21	16	9	13	8	21	18	14	19	10.4	22.3
Dir	184	212	155	207	193	181	208	191	186	195	201	208	202	201	269	258	249	247	253	239	226	214	217	213	221.7	269.1
20 Spd	13	5	2	1	0	2	1	1	9	22	19	15	21	20	16	7	6	3	3	3	2	1	0	1	5.5	21.9
Dir	204	183	29	107	44	189	87	128	228	229	238	221	222	202	197	219	280	348	358	40	9	340	335	355	220.8	229.4
21 Spd	4	4	1	1	4	4	2	5	1	8	9	10	15	26	27	27	42	41	40	43	37	41	40	38	19.1	43.3
Dir	254	300	28	220	230	286	243	253	61	277	256	257	278	259	265	260	247	247	246	247	247	241	243	252	251.6	247.5
22 Spd	32	32	35	28	31	26	30	29	28	28	26	24	26	19	16	15	21	24	22	13	10	6	4	11	22.1	34.7
Dir	258	266	250	252	251	248	256	251	250	248	255	256	255	262	261	253	254	249	252	258	251	247	215	219	252.9	250.2

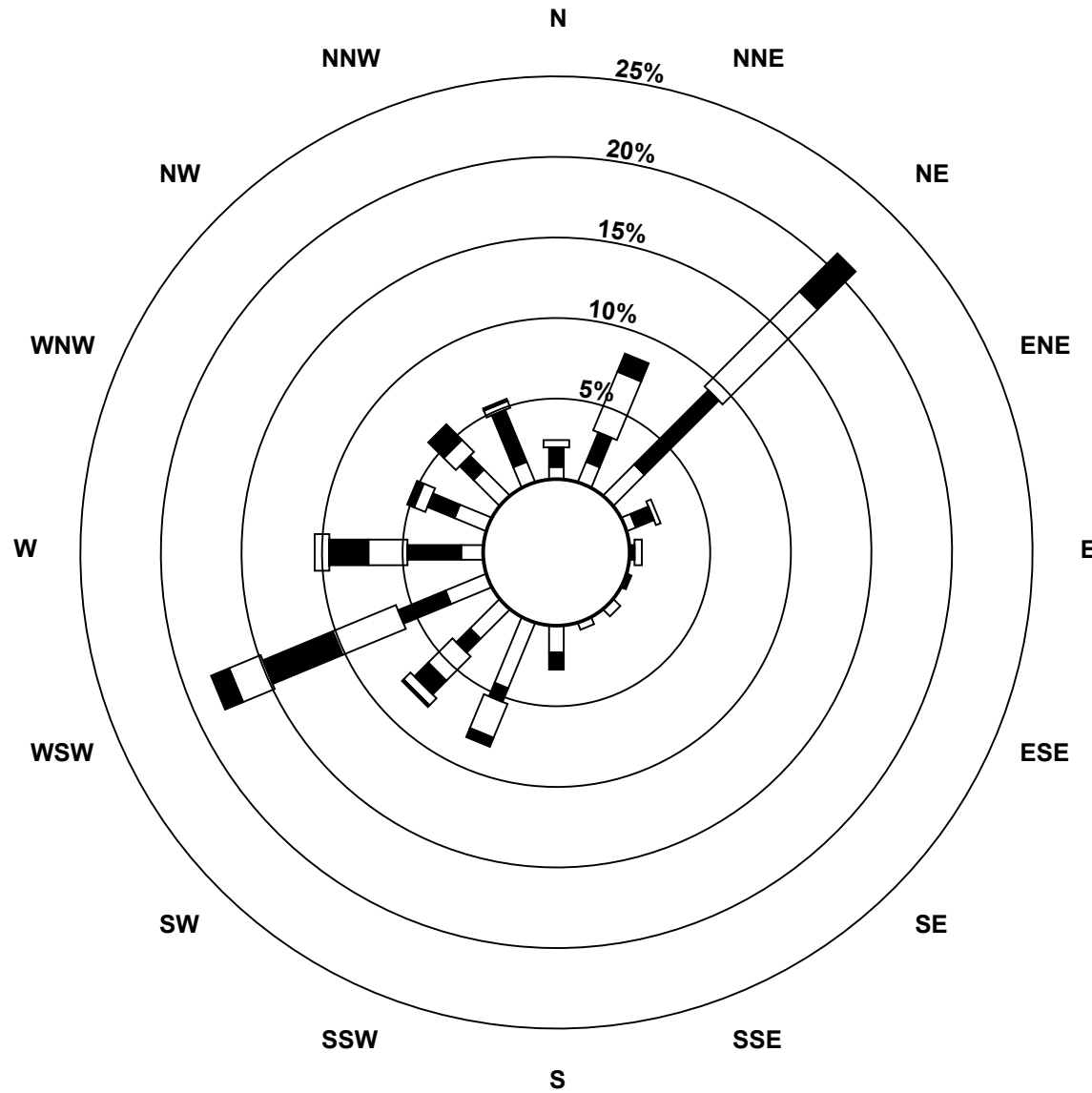
Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Evergreen Park - April 2018

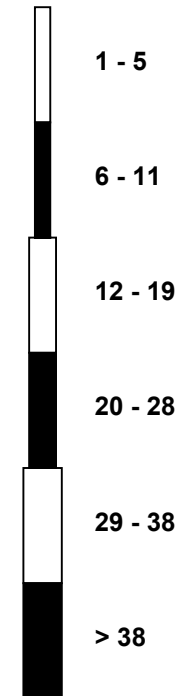
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	12	9	4	0	1	1	1	2	2	4	8	12	4	14	12	11	10	10	8	5	5	3	0	2	4.8	13.7
Dir	223	225	217	105	57	123	168	202	209	227	228	258	225	201	202	202	263	269	283	299	186	205	306	199	228.6	200.9
24 Spd	3	4	2	1	0	2	2	2	7	17	23	22	21	18	21	11	9	11	9	28	28	24	22	18	12.2	28.1
Dir	198	200	195	205	116	199	205	200	257	242	254	248	255	250	256	252	274	292	267	251	252	245	248	246	250.5	252.4
25 Spd	17	18	12	11	10	8	9	13	18	19	15	15	11	12	13	18	27	29	27	21	17	23	19	8	15.8	28.7
Dir	246	248	272	269	268	279	262	253	251	254	267	263	264	278	263	251	247	249	248	248	242	239	240	205	252.7	248.9
26 Spd	0	1	6	9	4	1	4	2	5	2	5	6	11	7	7	7	6	10	10	7	1	1	2	1	2.6	10.6
Dir	320	317	303	299	272	358	238	311	273	253	211	250	254	344	357	347	12	30	31	30	351	26	194	359	322.9	254.1
27 Spd	1	1	0	1	2	1	1	5	8	8	6	6	11	8	7	7	5	5	11	5	1	2	1	1	2.2	11.0
Dir	265	353	207	201	200	30	206	227	252	272	260	270	261	287	251	311	24	49	27	41	38	223	271	236	285.2	26.6
28 Spd	1	0	5	2	1	6	6	7	11	17	13	16	20	18	25	31	29	26	22	18	19	26	27	25	13.3	31.2
Dir	165	223	193	224	177	199	195	229	245	253	286	254	262	273	283	265	269	277	283	278	308	328	323	308	278.4	265.0
29 Spd	22	25	22	20	14	7	14	16	17	12	6	3	3	6	3	2	3	1	3	1	2	1	0	1	7.7	24.7
Dir	307	310	309	308	313	287	316	316	320	310	347	312	233	282	224	190	237	237	236	54	48	33	159	34	307.7	309.7
30 Spd	1	0	0	1	0	1	3	4	8	8	15	31	31	34	39	44	38	31	26	27	24	19	21	12	15.5	44.1
Dir	30	42	264	1	166	200	196	183	185	190	235	235	255	263	257	254	265	260	261	270	286	294	317	320	261.2	254.2
Spd	2.9	2.9	2.7	2.9	2.5	2.2	2.5	3.4	4.2	5.8	5.3	5.6	6.6	6.2	7.4	6.8	6.6	6.0	4.9	4.3	3.2	3.3	3.1	2.7	Diurnal Average	
Dir	265.5	283.8	283.3	288.5	275.1	267.6	273.7	262.7	267.2	262.2	282.5	286.8	294.9	307.7	310.9	316.5	309.2	313.2	303.6	287.4	271.7	269.0	272.5	258.4	Diurnal Maximum	
Spd	32.1	32.1	34.7	27.9	31.2	25.6	29.6	29.8	28.4	33.8	42.0	32.7	32.5	33.6	39.5	44.1	41.9	40.7	40.4	43.3	37.1	41.3	40.0	37.8	Diurnal Maximum	
Dir	257.8	266.0	250.2	252.1	251.4	247.5	255.8	228.2	237.8	233.2	226.0	246.6	251.8	262.5	257.4	254.2	246.8	247.5	246.3	247.5	247.4	241.4	242.5	251.8		
Maximum Speed Value: 44 km/h on Apr 30 16:00								Minimum Speed Value: 0 km/h on Apr 30 03:00												Hours in Service: 720						
Maximum Daily Speed Average: 22.1 km/h on Apr 22								Minimum Daily Speed Average: 1.5 km/h on Apr 9												Hours of Data: 720						
Maximum Diurnal Speed Average: 7.4 km/h at hour 15								Minimum Diurnal Speed Average: 2.2 km/h at hour 6												Hours of Missing Data: 0						
Monthly Average Velocity: 4.10 km/h 288.88 deg								Speed Percentiles: P ₁ = 0.3 P ₁₀ = 1.2 Q ₁ = 3.6 Median = 9.7 Q ₃ = 17.3 P ₉₀ = 24.0 P ₉₉ = 39.9												Percent Operational Time: 100.0						
All monthly, daily, and diurnal averages have been calculated using vector methods																										
Frequency Distribution																										
Speed Range (km/h)																										
Direction	0 to 5		5 to 11		11 to 19		19 to 28		28 to 38		> 38		Total													
North	26		20		11		1		0		0		58													
NorthEast	30		55		80		30		1		0		196													
East	4		6		6		0		0		0		16													
SouthEast	7		2		0		0		0		0		9													
South	35		10		9		2		0		0		56													
SouthWest	47		18		30		19		7		7		128													
West	27		42		41		42		20		2		174													
NorthWest	35		25		12		11		0		0		83													
Total	211		178		189		105		28		9		720													

Wind Rose

Wind Speed (WS) (km/h)
Evergreen Park - April 2018



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Evergreen Park - April 2018

Maximum Speed: 45 km/h on Apr 30 16:00																				Maximum Daily Speed Average: 22.8 km/h on Apr 22										Hours in Service: 720																				
Minimum Speed: 0 km/h on Apr 30 03:00																				Minimum Daily Speed Average: 3.9 km/h on Apr 9										Hours of Data: 720																				
Maximum Diurnal Speed Average: 19.0 km/h at hour 15																				Minimum Diurnal Speed Average: 6.5 km/h at hour 6										Hours of Missing Data: 0																				
Monthly Average Speed: 12.12 km/h																				Percentiles: P ₁ = 0.5 P ₁₀ = 1.8 Q ₁ = 4.4 Median = 10.5 Q ₃ = 17.7 P ₉₀ = 24.5 P ₉₉ = 40.4										Percent Operational Time: 100.0																				
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum																								
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																										
1-Apr	2	2	2	4	3	3	3	3	9	7	6	8	11	11	12	10	11	9	6	4	3	2	2	3	5.6	11.6																								
2-Apr	3	3	1	2	1	3	5	7	6	6	14	14	17	16	17	15	16	15	14	7	3	2	1	2	8.0	17.0																								
3-Apr	1	1	2	2	3	2	1	2	6	10	15	18	22	23	26	23	25	21	21	20	16	14	11	13	12.5	26.2																								
4-Apr	14	13	15	14	12	14	16	15	15	12	13	11	11	14	17	14	13	11	9	3	4	4	4	1	11.1	16.8																								
5-Apr	2	4	3	3	1	2	1	2	5	9	17	17	16	17	19	21	21	19	17	11	7	8	7	6	9.8	21.0																								
6-Apr	5	8	7	7	7	7	9	12	16	18	16	23	22	26	21	23	21	22	18	13	10	5	7	8	13.8	25.5																								
7-Apr	6	6	6	6	7	7	8	12	12	12	11	15	19	22	25	18	22	22	16	12	12	12	10	6	12.7	25.3																								
8-Apr	6	4	4	4	1	2	2	3	5	7	11	12	11	11	9	10	11	9	8	2	1	1	1	1	5.6	12.2																								
9-Apr	2	1	1	1	2	2	2	2	4	6	6	4	7	8	8	7	7	8	4	3	2	3	2	2	3.9	8.1																								
10-Apr	1	3	3	2	2	3	2	10	18	18	22	24	26	29	24	20	18	16	12	10	10	7	9	3	12.2	28.5																								
11-Apr	2	3	14	12	11	12	10	8	9	8	9	7	9	7	13	16	14	12	11	10	13	13	12	9	10.2	16.0																								
12-Apr	8	9	9	11	9	7	6	6	6	8	10	13	14	17	18	17	14	8	5	4	6	3	7	6	9.2	18.1																								
13-Apr	4	2	2	2	1	1	0	2	5	7	9	9	13	14	17	18	14	8	16	15	8	9	7	3	7.8	18.1																								
14-Apr	13	14	11	18	15	16	21	25	24	31	42	34	33	27	24	21	22	18	17	22	22	15	14	14	21.4	42.5																								
15-Apr	5	2	2	3	2	3	4	6	7	9	15	15	16	19	20	25	22	21	20	17	18	18	17	17	12.6	24.5																								
16-Apr	18	16	17	17	15	15	15	14	17	17	19	19	18	19	18	17	14	14	15	15	8	8	8	7	14.9	19.1																								
17-Apr	9	10	11	11	10	13	15	18	22	26	22	22	23	21	22	23	15	15	11	5	5	15	19	16	15.7	26.3																								
18-Apr	18	16	16	21	21	17	9	30	29	34	28	27	27	27	35	26	29	30	27	19	11	5	1	4	21.1	34.6																								
19-Apr	6	2	1	1	1	2	4	7	11	14	15	20	21	17	24	22	17	10	13	9	21	18	15	19	12.0	23.6																								
20-Apr	13	8	3	1	1	2	2	4	9	22	20	16	22	20	16	10	7	4	4	4	3	1	1	2	8.1	22.2																								
21-Apr	5	5	1	3	6	5	3	6	4	10	9	10	17	27	28	28	42	41	41	44	37	42	40	38	20.5	43.7																								
22-Apr	33	33	35	28	31	26	30	29	28	28	27	25	26	20	18	16	22	24	23	13	10	6	4	11	22.8	35.0																								
23-Apr	12	9	4	1	1	1	2	2	3	4	9	13	7	16	13	12	11	11	9	5	5	4	1	3	6.5	15.6																								
24-Apr	3	4	2	1	1	2	3	3	10	17	23	22	21	18	21	12	11	12	10	28	28	24	22	19	13.2	28.4																								
25-Apr	17	18	13	12	10	8	9	14	18	19	16	16	14	14	14	19	27	29	27	21	17	23	19	8	16.8	29.1																								
26-Apr	3	3	6	9	6	3	5	3	6	6	7	8	12	10	9	10	8	11	10	7	2	1	2	1	6.1	12.1																								
27-Apr	2	1	0	1	2	1	1	5	8	9	7	7	12	10	11	9	7	8	11	5	3	4	3	1	5.3	11.7																								
28-Apr	1	1	5	2	1	6	6	8	11	18	14	17	21	20	27	33	30	27	22	18	21	27	28	25	16.3	32.5																								
29-Apr	23	25	22	21	15	7	15	17	18	14	8	5	5	8	6	4	4	6	4	2	2	1	0	1	9.6	25.3																								
30-Apr	1	0	0	1	1	1	3	5	9	9	16	31	32	34	40	45	39	31	27	28	27	21	21	13	18.1	44.9																								
																									7.9	7.5	7.2	7.3	6.6	6.5	6.9	9.3	11.7	13.9	15.3	16.0	17.5	18.1	19.0	18.0	17.8	16.4	15.0	12.6	11.2	10.5	9.8	8.7	Diurnal Average	
																									32.6	33.1	35.0	28.2	31.5	25.8	30.2	30.0	28.7	34.3	42.5	33.7	32.9	34.4	40.4	44.9	42.2	41.0	40.7	43.7	37.5	41.6	40.3	38.4	Diurnal Maximum	
All monthly, daily, and diurnal averages have been calculated using scalar methods																																																		

Hourly Standard Deviations

Wind Direction (WD) - deg

Evergreen Park - April 2018

Maximum Value: 97.7 deg on Apr 9 21:00																								Hours in Service: 720	
Minimum Value: 4.0 deg on Apr 20 01:00																								Hours of Data: 720	
																								Hours of Missing Data: 0	
Percentiles: P ₁ = 5.7 P ₁₀ = 9.0 Q ₁ = 12.8 Median = 19.8 Q ₃ = 40.0 P ₉₀ = 69.8 P ₉₉ = 93.5																								Hours of Calibration: 0	
																								Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Apr	67	78	61	42	36	33	46	64	15	25	16	46	21	21	19	20	14	17	20	29	26	51	26	26	77.6
2-Apr	16	68	76	34	80	22	17	31	34	58	28	28	21	25	25	26	24	20	15	18	28	26	61	24	79.7
3-Apr	38	34	24	19	28	26	27	32	50	31	18	16	14	16	13	14	14	13	12	12	15	15	20	16	49.9
4-Apr	15	13	14	14	18	13	12	12	15	21	26	31	46	40	13	17	13	13	9	25	7	11	33	77	76.6
5-Apr	46	29	48	44	74	64	78	72	53	74	23	28	33	25	20	18	17	14	11	10	9	12	12	10	77.7
6-Apr	8	7	8	7	6	7	9	13	18	19	27	15	16	13	18	19	15	14	11	12	9	7	13	16	26.5
7-Apr	11	13	7	7	6	9	11	16	22	27	28	28	20	15	17	18	12	14	13	31	18	20	15	12	30.9
8-Apr	10	29	10	12	24	36	61	32	40	35	22	27	41	37	38	50	28	28	20	65	63	94	77	47	93.7
9-Apr	78	73	53	45	35	28	52	76	61	31	34	44	16	46	20	19	17	22	30	70	98	72	58	94	97.7
10-Apr	92	66	71	77	88	76	79	13	13	17	15	17	11	10	15	18	17	13	24	18	21	43	18	45	92.0
11-Apr	74	91	11	17	17	14	23	25	23	35	30	40	49	67	28	17	19	27	19	19	14	17	14	20	90.8
12-Apr	14	19	20	22	19	22	24	23	27	31	34	23	28	17	17	18	12	22	25	34	18	27	30	29	33.6
13-Apr	13	14	45	53	60	89	81	30	16	25	15	18	23	27	15	14	18	57	44	9	11	11	17	59	88.6
14-Apr	40	43	42	8	5	9	6	5	8	13	9	13	10	12	20	26	18	28	22	7	8	5	9	5	42.7
15-Apr	62	67	88	86	76	33	26	28	21	42	15	21	21	15	15	13	16	14	15	13	12	13	14	15	87.7
16-Apr	12	15	14	13	13	14	15	16	16	13	12	15	13	14	14	17	16	14	12	11	23	20	20	21	23.4
17-Apr	24	19	15	17	18	14	14	12	13	10	13	11	12	18	17	14	31	18	18	39	63	33	6	6	63.3
18-Apr	9	7	7	5	6	8	60	6	7	10	10	12	13	11	9	12	9	7	8	6	9	37	81	34	81.1
19-Apr	9	82	74	69	91	57	43	12	13	7	16	20	17	20	21	12	15	16	12	15	7	7	6	7	90.9
20-Apr	4	66	57	54	88	46	85	71	23	10	15	22	15	9	12	56	41	40	44	15	34	78	79	76	88.2
21-Apr	57	67	57	79	61	45	64	35	95	35	18	21	24	14	14	12	7	7	7	8	8	6	6	10	95.2
22-Apr	9	14	8	9	7	7	11	8	8	7	10	13	13	22	24	17	15	9	9	13	10	21	23	6	24.0
23-Apr	6	10	13	94	66	55	59	34	52	36	38	25	70	41	21	25	29	24	32	42	51	71	79	71	94.4
24-Apr	25	15	50	70	88	67	54	76	67	8	10	10	11	9	12	23	31	28	35	10	8	6	7	7	88.3
25-Apr	7	14	21	16	12	17	17	12	11	13	21	25	40	33	25	19	11	10	9	8	6	6	6	36	39.7
26-Apr	94	70	17	13	53	59	70	56	39	78	59	59	32	54	59	58	55	23	15	14	33	60	65	51	94.3
27-Apr	78	76	82	47	40	84	74	22	16	36	49	39	25	41	49	59	65	75	15	14	64	74	97	94	97.4
28-Apr	57	83	15	38	32	9	11	15	14	12	28	23	20	30	20	17	18	18	15	16	23	11	12	12	82.9
29-Apr	13	13	12	10	14	18	12	13	12	26	34	70	65	50	67	74	53	86	52	63	11	87	82	93	93.4
30-Apr	80	70	85	70	70	64	23	27	22	27	33	11	14	13	12	10	12	9	11	16	27	24	9	30	85.2
	94.3	90.8	87.7	94.4	90.9	88.6	84.9	76.3	95.2	78.0	59.1	69.7	69.8	67.1	66.8	74.0	65.0	85.8	52.3	70.4	97.7	93.7	97.4	93.8	

PAZA
Smoky Heights Station
Monthly Summary Tables, Graphs and
Roses

Hourly Averages

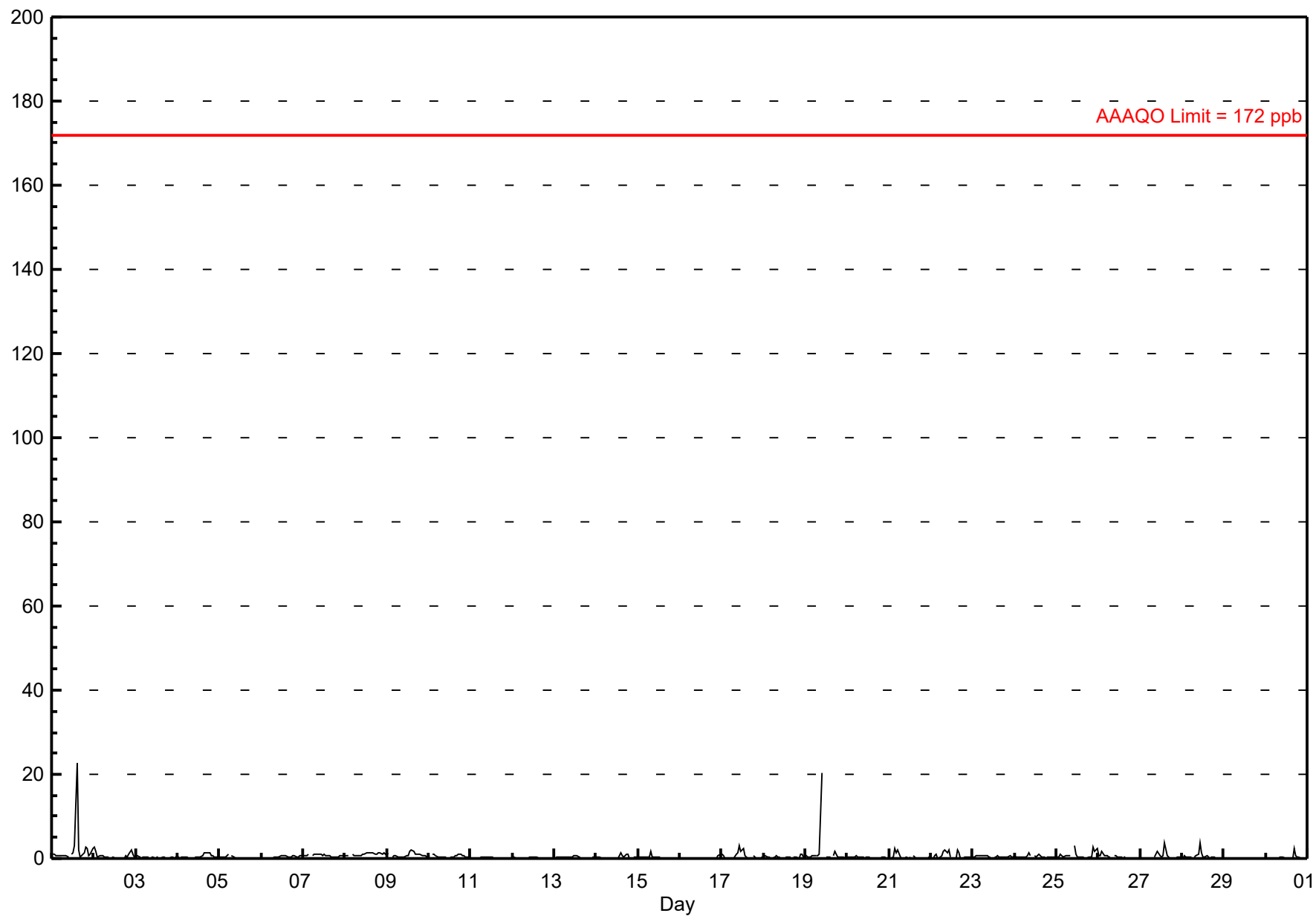
Sulphur Dioxide (SO₂) - ppb

Smoky Heights - April 2018

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0																						Hours in Service: 720				
Maximum Value: 22.6 ppb on Apr 1 15:00																						Maximum Daily Average: 2.1 ppb on Apr 1		Hours of Data: 678		
Minimum Value: 0 ppb on Apr 21 16:00																						Minimum Daily Average: 0.1 ppb on Apr 16		Hours of Missing Data: 42		
Maximum Diurnal Average: 1.4 ppb at hour 15																						Minimum Diurnal Average: 0.3 ppb at hour 7		Hours of Calibration: 33		
Monthly Average: 0.52 ppb																						Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.1 Median = 0.3 Q ₃ = 0.6 P ₉₀ = 1.1 P ₉₉ = 2.7		Percent Operational Time: 98.8		
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	1	1	1	1	1	1	1	1	1	0	A	1	1	3	23	2	0	1	1	3	2	1	1	2	2.1	22.6
2-Apr	3	2	0	1	1	1	1	0	0	A	0	0	0	0	0	0	0	0	1	0	1	2	1	0	0.6	2.6
3-Apr	0	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
4-Apr	0	0	0	0	0	0	0	A	0	0	0	0	0	0	1	1	1	1	1	1	1	0	0	0	0.5	1.4
5-Apr	0	0	0	0	1	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.9
6-Apr	0	0	0	0	0	A	0	0	0	0	0	1	1	1	1	0	0	0	1	1	0	0	1	1	0.4	0.8
7-Apr	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	1	1	1	0.7	1.0
8-Apr	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.5
9-Apr	1	1	A	0	1	1	0	0	0	0	0	1	1	1	2	2	1	1	1	1	1	1	1	0	0.8	2.1
10-Apr	1	A	1	1	1	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0.4	1.1
11-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.2	0.4
12-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.1	0.4
13-Apr	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	A	0	0	0.3	0.8
14-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	1	1	0	A	0	0	0	0.4	1.3
15-Apr	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.3	1.7
16-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	1	0.1	0.9
17-Apr	1	1	0	0	0	0	0	0	1	1	3	2	2	1	0	0	0	A	1	0	0	0	0	0	0.6	3.0
18-Apr	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	A	0	0	0	0	1	1	0	0.3	1.1
19-Apr	1	0	0	0	1	1	1	1	1	20	C	C	0	0	0	A	1	2	0	0	0	0	0	0	1.5	20.3
20-Apr	0	0	0	0	0	1	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.2	0.5
21-Apr	0	0	0	2	1	2	0	0	0	0	1	0	1	A	1	0	0	0	0	0	0	0	0	0	0.4	2.2
22-Apr	0	0	1	1	0	0	1	2	2	1	2	0	A	0	0	2	1	0	0	0	0	0	0	0	0.7	2.1
23-Apr	0	0	1	1	1	1	1	1	1	0	0	A	0	0	1	0	0	0	0	0	0	1	0	1	0.5	0.8
24-Apr	1	0	0	0	0	0	0	1	1	1	A	1	0	1	1	0	0	0	0	0	0	0	0	0	0.4	1.4
25-Apr	0	0	1	1	1	1	1	1	1	A	3	1	0	0	0	0	0	0	0	0	0	3	2	2	0.8	3.0
26-Apr	1	1	2	1	1	1	0	0	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.5
27-Apr	0	0	0	0	0	0	0	A	0	1	2	1	0	1	4	1	0	0	0	0	0	0	0	0	0.5	3.9
28-Apr	0	1	0	0	0	0	A	0	1	1	4	1	0	1	1	0	0	0	0	0	0	0	0	0	0.5	3.6
29-Apr	0	0	0	0	0	A	0	0	0	0	0	0	P	P	P	P	P	P	P	P	P	0	0	0	--	0.1
30-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0.2	2.3
0.4		0.4	0.4	0.4	0.4	0.4	0.3	0.5	0.5	1.2	0.8	0.5	0.5	0.5	1.4	0.5	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.5	Diurnal Average	
2.6		1.7	1.5	2.2	1.2	2.1	0.9	1.7	2.0	20.3	3.6	1.7	2.3	3.0	22.6	2.2	2.3	1.7	1.2	2.6	2.2	2.6	1.8	2.2	Diurnal Maximum	
C - Calibration		P - Power Failure				A - Automated Daily Zero Span																				
Alberta Ambient Air Quality Objectives (AAAQO):		1-hr 172 ppb				24-hr 48 ppb				30-day 11 ppb																

Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Smoky Heights - April 2018



Hourly Maximums

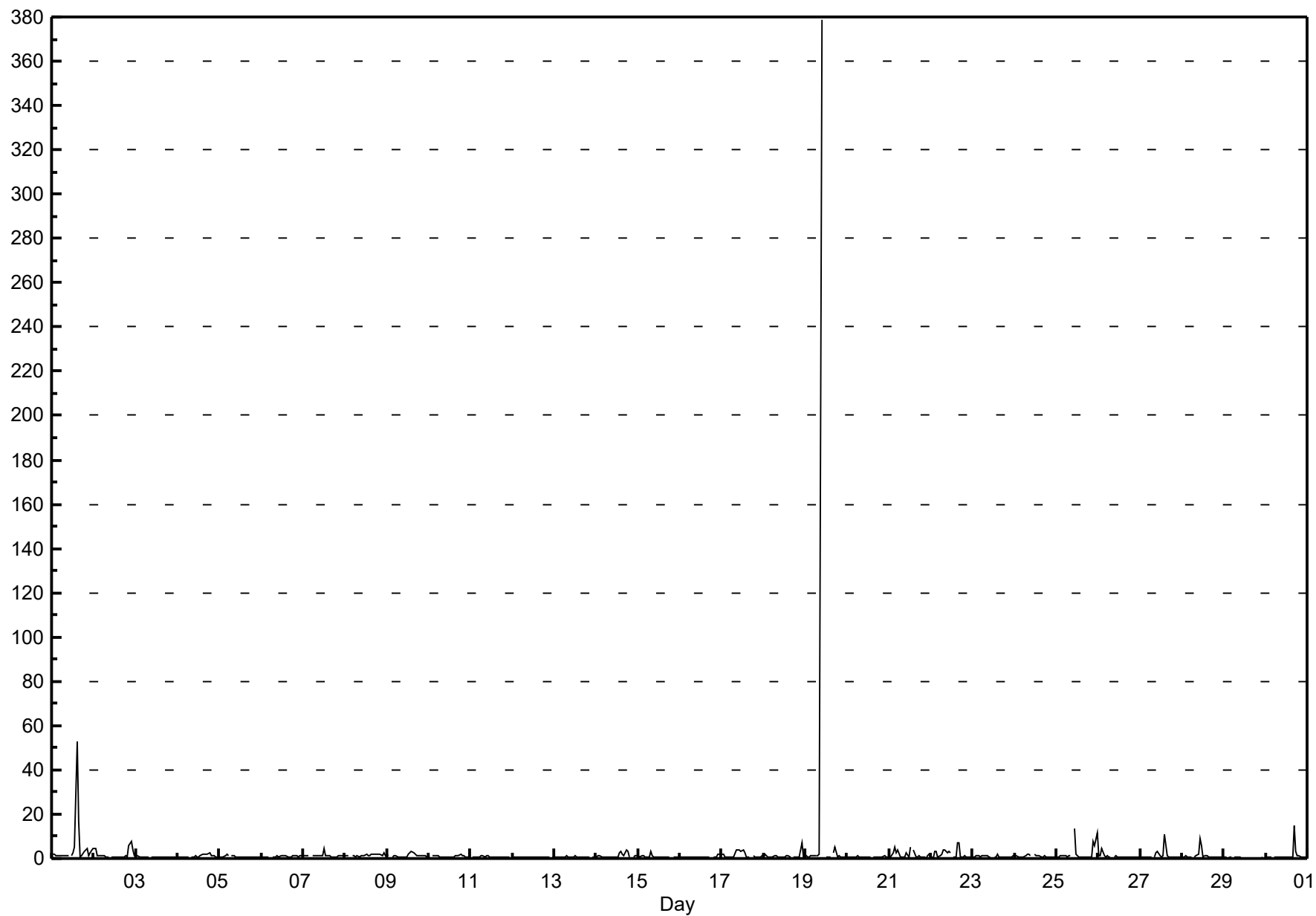
Sulphur Dioxide (SO₂) - ppb

Smoky Heights - April 2018

Maximum Value: 379.0 ppb on Apr 19 10:00																				Maximum Daily Average: 19.2 ppb on Apr 19										Hours in Service: 720									
Minimum Value: 0 ppb on Apr 29 23:00																				Minimum Daily Average: 0.5 ppb on Apr 12										Hours of Data: 678									
Maximum Diurnal Average: 14.6 ppb at hour 10																				Minimum Diurnal Average: 0.9 ppb at hour 5										Hours of Missing Data: 42									
Monthly Average: 1.83 ppb																				Percentiles: P ₁ = 0.3 P ₁₀ = 0.5 Q ₁ = 0.6 Median = 0.8 Q ₃ = 1.2 P ₉₀ = 2.2 P ₉₉ = 9.3										Hours of Calibration: 33									
																				Percent Operational Time: 98.8																			
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24															
1-Apr	2	2	1	1	1	1	1	1	1	1	A	1	2	5	53	17	1	1	3	4	4	1	3	4	4.9	52.5													
2-Apr	5	4	1	1	1	1	1	1	1	A	1	1	1	1	0	0	1	0	1	1	6	8	4	1	1.8	7.9													
3-Apr	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0.6	1.2													
4-Apr	1	1	1	1	1	1	1	A	1	1	1	1	1	1	2	2	2	2	2	1	1	1	1	1	1.0	2.4													
5-Apr	1	1	1	1	2	2	A	1	1	1	1	1	0	0	0	0	1	0	1	0	0	0	0	1	0.7	1.8													
6-Apr	0	0	0	1	1	A	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	0.9	1.5													
7-Apr	1	1	1	1	A	1	1	1	1	2	1	1	5	1	1	1	1	1	1	1	1	1	1	1	1.3	4.7													
8-Apr	1	1	1	A	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	3	2	1.5	2.7													
9-Apr	2	2	A	1	1	1	1	1	1	1	1	1	2	3	3	2	2	2	1	1	1	1	1	1	1.4	3.0													
10-Apr	1	A	1	2	1	1	1	1	1	1	0	1	1	1	1	1	1	1	2	1	1	1	1	1	1.0	1.8													
11-Apr	A	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	0	1	1	0	0	0	A	0.7	1.5													
12-Apr	0	1	1	1	0	1	0	0	1	0	1	1	1	1	1	1	0	0	0	0	1	1	A	1	0.5	0.8													
13-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	1	A	1	1	0.7	1.2													
14-Apr	1	1	1	1	1	1	0	1	1	1	0	0	0	3	3	2	1	4	3	1	A	1	1	1	1.3	3.6													
15-Apr	1	1	1	1	1	1	1	3	1	1	1	1	1	0	1	1	1	1	0	A	0	0	0	0	0.8	3.1													
16-Apr	0	0	0	0	1	0	0	1	1	1	0	1	0	0	0	0	1	0	A	0	1	0	2	2	0.6	2.2													
17-Apr	2	2	0	0	0	1	1	0	4	4	4	3	4	3	1	1	1	A	2	1	0	1	0	1	1.6	4.2													
18-Apr	1	2	1	1	1	0	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0	4	7	1	1.2	7.0													
19-Apr	1	1	1	1	1	1	1	1	2	379	C	C	1	1	1	A	3	5	1	1	1	1	1	1	19.2	379.0													
20-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0	0	1	0	1	1	1	1	1	0.7	1.3													
21-Apr	0	0	2	5	3	4	1	1	1	0	3	1	5	A	4	0	0	1	0	0	0	0	1	2	1.6	4.9													
22-Apr	0	0	3	3	1	1	2	4	4	3	3	2	A	0	1	7	7	0	1	2	1	1	1	1	2.1	7.1													
23-Apr	1	1	1	1	1	1	1	1	1	1	1	A	1	1	2	1	1	1	1	1	1	1	1	1	1.0	1.8													
24-Apr	1	1	1	1	1	1	1	2	2	1	A	2	1	1	2	1	1	1	1	1	1	1	1	1	1.0	2.2													
25-Apr	1	1	1	1	1	1	1	1	1	A	13	2	1	1	1	1	1	1	1	1	1	7	6	11	2.5	13.4													
26-Apr	2	1	5	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1.0	4.5													
27-Apr	1	1	1	0	1	1	1	A	1	3	3	1	1	1	11	1	1	0	0	1	1	1	1	1	1.3	10.9													
28-Apr	1	1	1	1	1	1	A	1	1	2	9	6	1	1	1	1	1	1	1	1	0	0	0	0	1.4	8.8													
29-Apr	0	0	0	0	0	A	0	0	1	0	0	0	P	P	P	P	P	P	P	P	P	P	P	0	--	0.6													
30-Apr	0	0	0	1	A	0	0	0	1	1	1	0	1	0	0	0	15	3	2	1	1	0	1	0	1.3	14.6													
																									Diurnal Average														
																									Diurnal Maximum														
C - Calibration																									P - Power Failure					A - Automated Daily Zero Span									

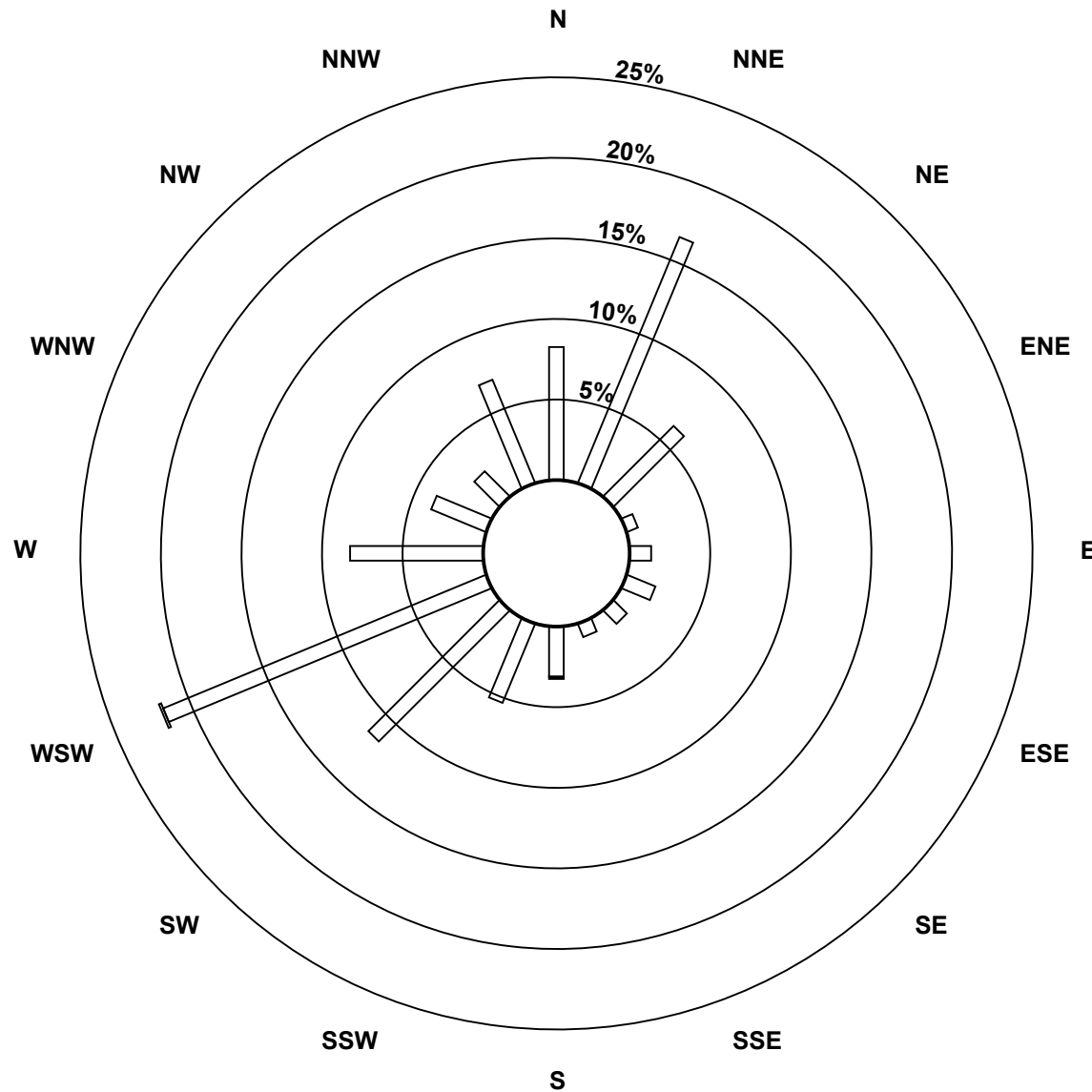
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Smoky Heights - April 2018



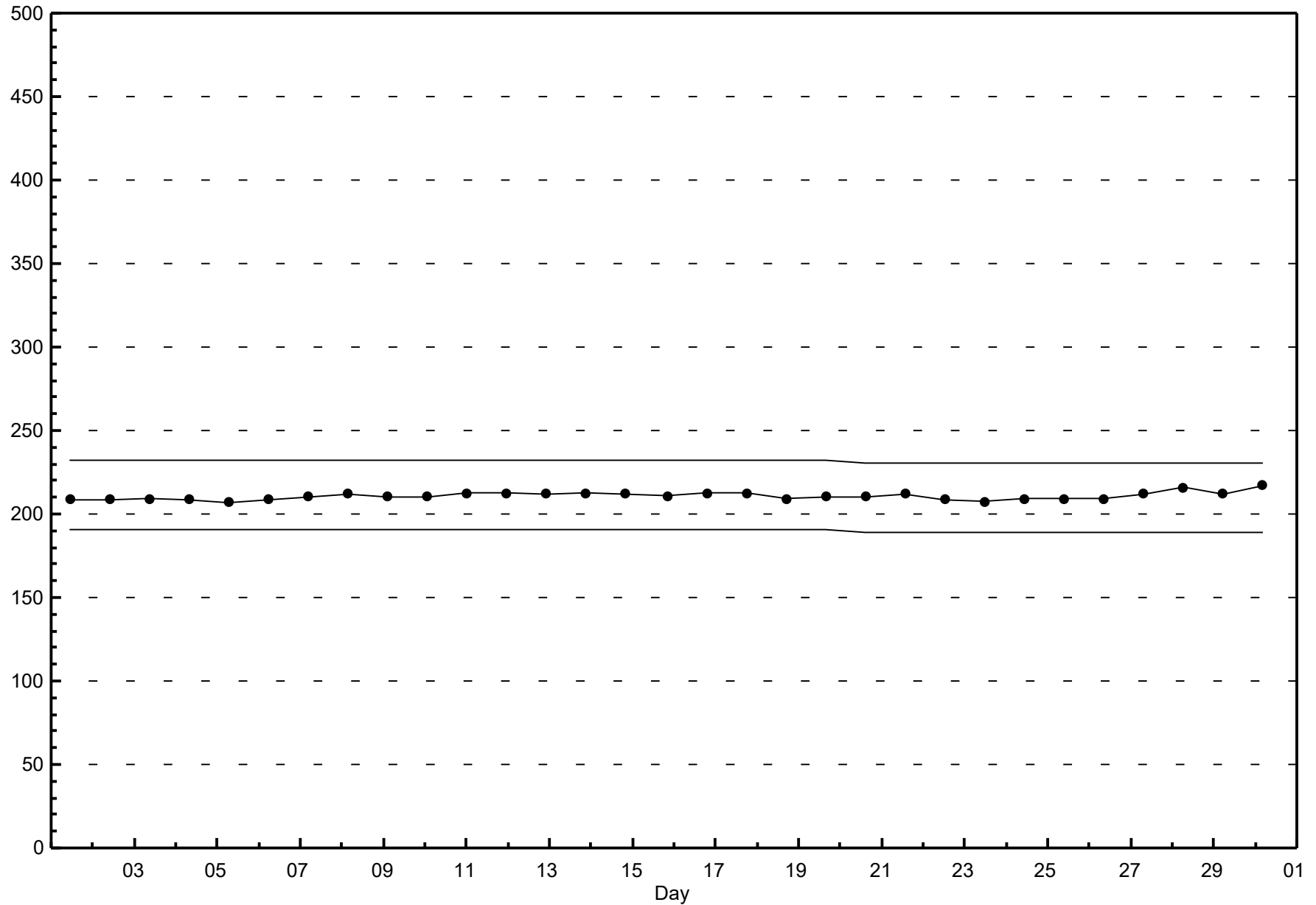
Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Smoky Heights - April 2018



Span Responses

Sulphur Dioxide (SO₂)
Smoky Heights - April 2018



Hourly Averages

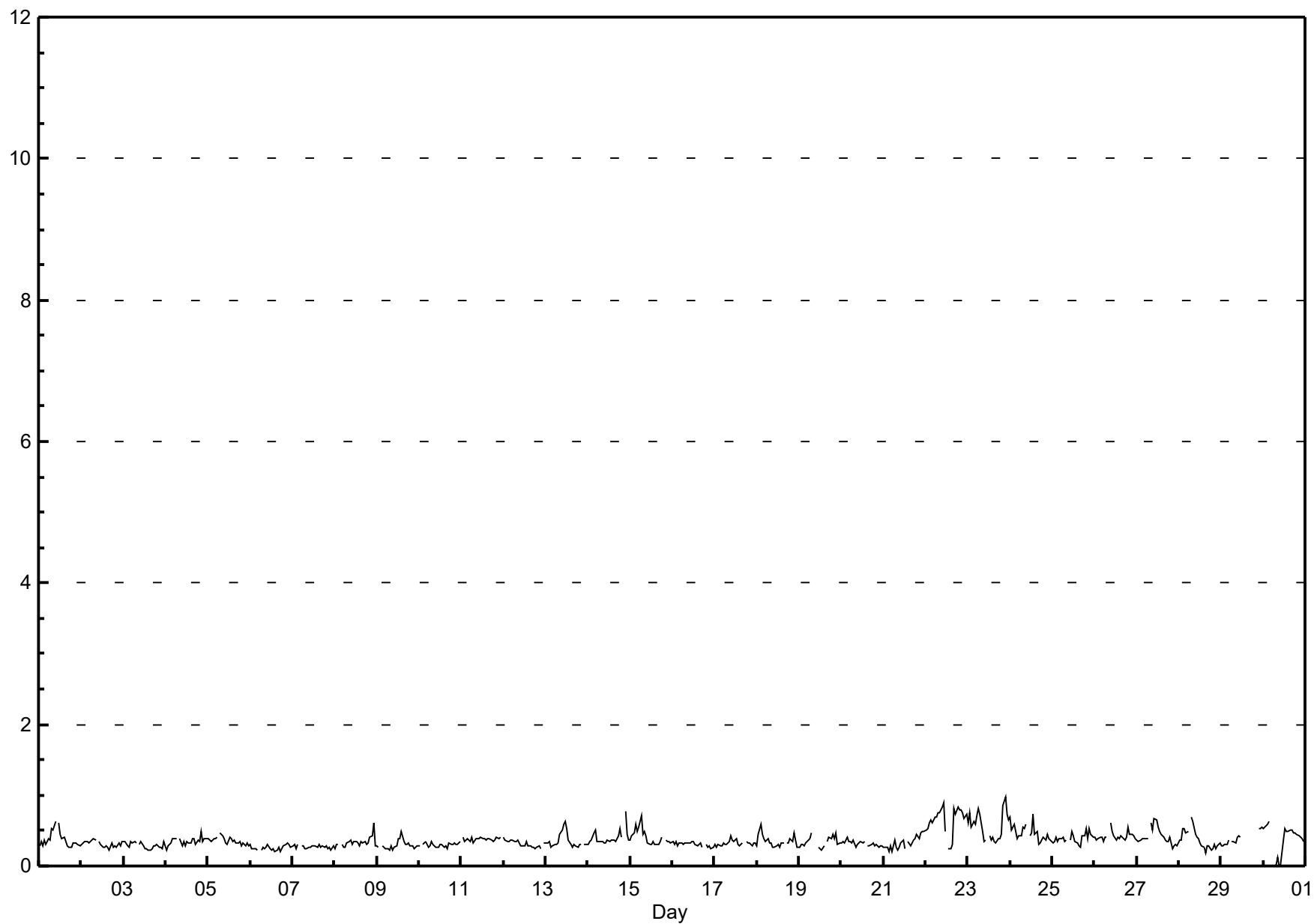
Total Reduced Sulphur (TRS) - ppb

Smoky Heights - April 2018

Maximum Value: 1.0 ppb on Apr 23 22:00																				Maximum Daily Average: 0.6 ppb on Apr 22										Hours in Service: 720	
Minimum Value: 0 ppb on Apr 30 06:00																				Minimum Daily Average: 0.3 ppb on Apr 6										Hours of Data: 677	
Maximum Diurnal Average: 0.4 ppb at hour 22																				Minimum Diurnal Average: 0.3 ppb at hour 16										Hours of Missing Data: 43	
Monthly Average: 0.37 ppb																				Percentiles: P ₁ = 0.2 P ₁₀ = 0.3 Q ₁ = 0.3 Median = 0.3 Q ₃ = 0.4 P ₉₀ = 0.5 P ₉₉ = 0.8										Hours of Calibration: 34	
																														Percent Operational Time: 98.8	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
1-Apr	0	0	0	0	0	0	0	1	1	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6					
2-Apr	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4					
3-Apr	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4					
4-Apr	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5					
5-Apr	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5					
6-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.3					
7-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.3					
8-Apr	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.3	0.6					
9-Apr	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5					
10-Apr	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4					
11-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.4	0.4					
12-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.3	0.4					
13-Apr	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	A	0	0	0.4	0.6					
14-Apr	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	A	1	0	0	0.4	0.8					
15-Apr	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.4	0.7					
16-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.3	0.4					
17-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.3	0.4					
18-Apr	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.3	0.6					
19-Apr	0	0	0	0	0	0	0	0	C	C	C	0	0	0	0	A	0	0	0	0	0	0	0	0	0.3	0.5					
20-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.3	0.4					
21-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.3	0.5					
22-Apr	1	1	1	1	1	1	1	1	1	1	1	0	A	0	0	0	1	1	1	1	1	1	1	1	0.6	0.9					
23-Apr	1	1	1	1	1	1	1	1	0	0	0	A	0	0	0	0	0	0	0	0	1	1	1	1	0.6	1.0					
24-Apr	1	1	1	0	0	0	0	1	1	1	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0.5	0.7					
25-Apr	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0.4	0.5					
26-Apr	0	0	0	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.4	0.6					
27-Apr	0	0	0	0	0	0	0	A	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.4	0.7					
28-Apr	0	0	1	1	0	0	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.7					
29-Apr	0	0	0	0	0	A	0	0	0	0	0	0	P	P	P	P	P	P	P	P	P	1	1	1	--	0.5					
30-Apr	1	1	1	1	A	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0.4	0.6					
0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.3 0.3 0.3 0.3 0.4 0.4 0.4 0.4 0.4 0.4																								Diurnal Average							
0.7 0.7 0.6 0.6 0.6 0.7 0.8 0.7 0.7 0.7 0.8 0.9 0.7 0.5 0.5 0.5 0.5 0.8 0.7 0.8 0.8 0.9 1.0 0.7 0.7																								Diurnal Maximum							
C - Calibration P - Power Failure A - Automated Daily Zero Span																															

Hourly Averages

Total Reduced Sulphur (TRS) - ppb
Smoky Heights - April 2018



Hourly Maximums

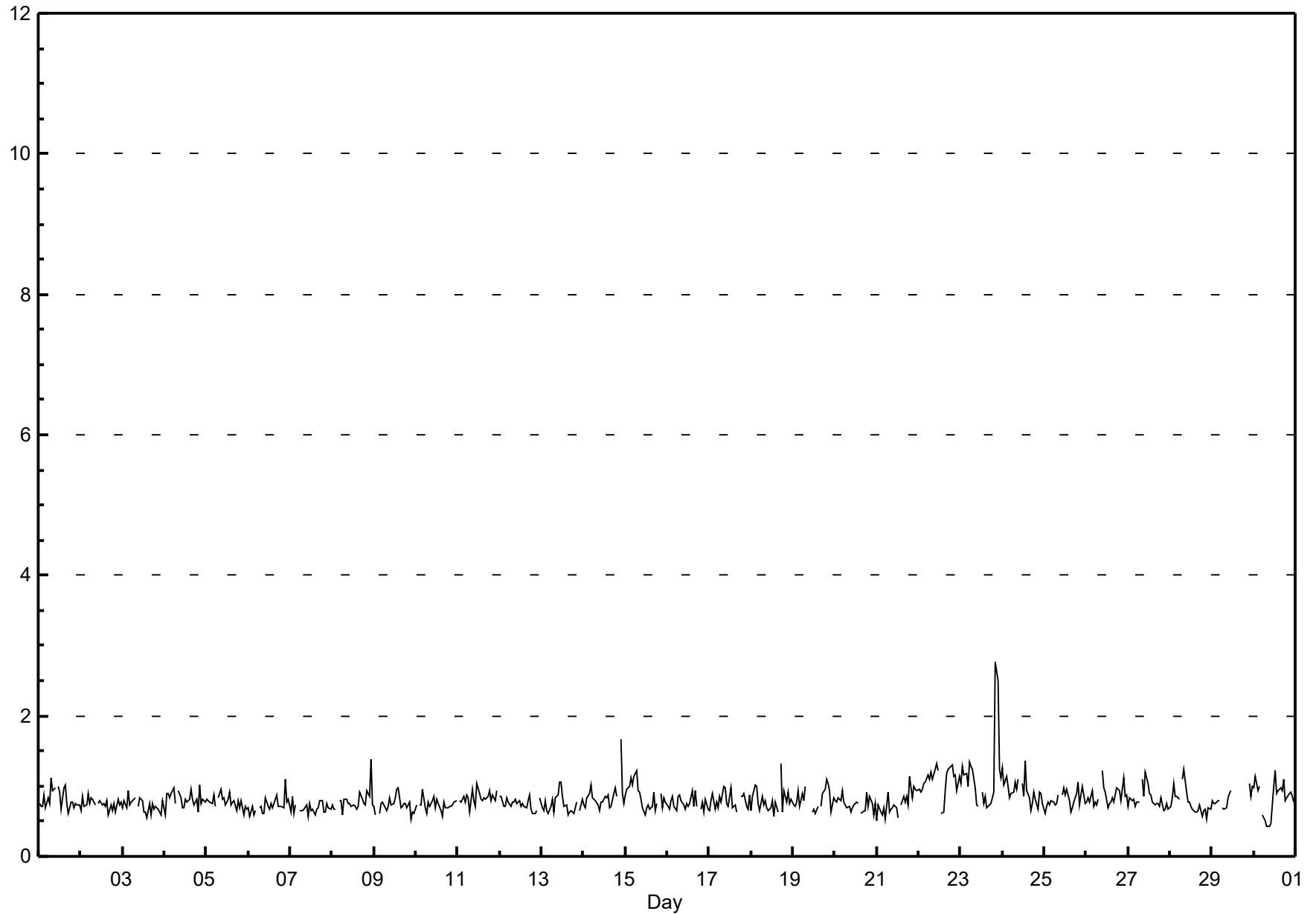
Total Reduced Sulphur (TRS) - ppb

Smoky Heights - April 2018

Maximum Value: 2.8 ppb on Apr 23 21:00																				Maximum Daily Average: 1.1 ppb on Apr 23					Hours in Service: 720	
Minimum Value: 0 ppb on Apr 30 10:00																				Minimum Daily Average: 0.7 ppb on Apr 7					Hours of Data: 677	
Maximum Diurnal Average: 0.9 ppb at hour 22																				Minimum Diurnal Average: 0.8 ppb at hour 16					Hours of Missing Data: 43	
Monthly Average: 0.81 ppb																				Percentiles: P ₁ = 0.5 P ₁₀ = 0.6 Q ₁ = 0.7 Median = 0.8 Q ₃ = 0.9 P ₉₀ = 1.0 P ₉₉ = 1.3					Hours of Calibration: 34	
																									Percent Operational Time: 98.8	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1
2-Apr	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
3-Apr	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
4-Apr	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0
5-Apr	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0
6-Apr	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.1
7-Apr	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.8
8-Apr	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.4
9-Apr	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0
10-Apr	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0
11-Apr	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.8	1.0
12-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.7	0.9
13-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.7	1.1
14-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	2	1	1	0.9	1.7
15-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.9	1.2
16-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.8	0.9
17-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0.8	1.0
18-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.8	1.3
19-Apr	1	1	1	1	1	1	1	1	C	C	C	1	1	1	1	A	1	1	1	1	1	1	1	1	0.8	1.1
20-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.7	0.9
21-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.8	1.1
22-Apr	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1.1	1.3
23-Apr	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	3	3	1	1	1.1	2.8
24-Apr	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.4
25-Apr	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1
26-Apr	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.2
27-Apr	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.2
28-Apr	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.2
29-Apr	1	1	1	1	1	A	1	1	1	1	1	1	P	P	P	P	P	P	P	P	P	1	1	1	--	1.0
30-Apr	1	1	1	1	A	1	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.2
0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.9 0.9 0.8 0.8																									Diurnal Average	
1.3 1.3 1.2 1.2 1.0 1.3 1.3 1.2 1.2 1.2 1.3 1.2 1.2 1.4 1.0 1.0 1.2 1.3 1.3 1.3 2.8 2.5 1.4 1.1																									Diurnal Maximum	
C - Calibration P - Power Failure A - Automated Daily Zero Span																										

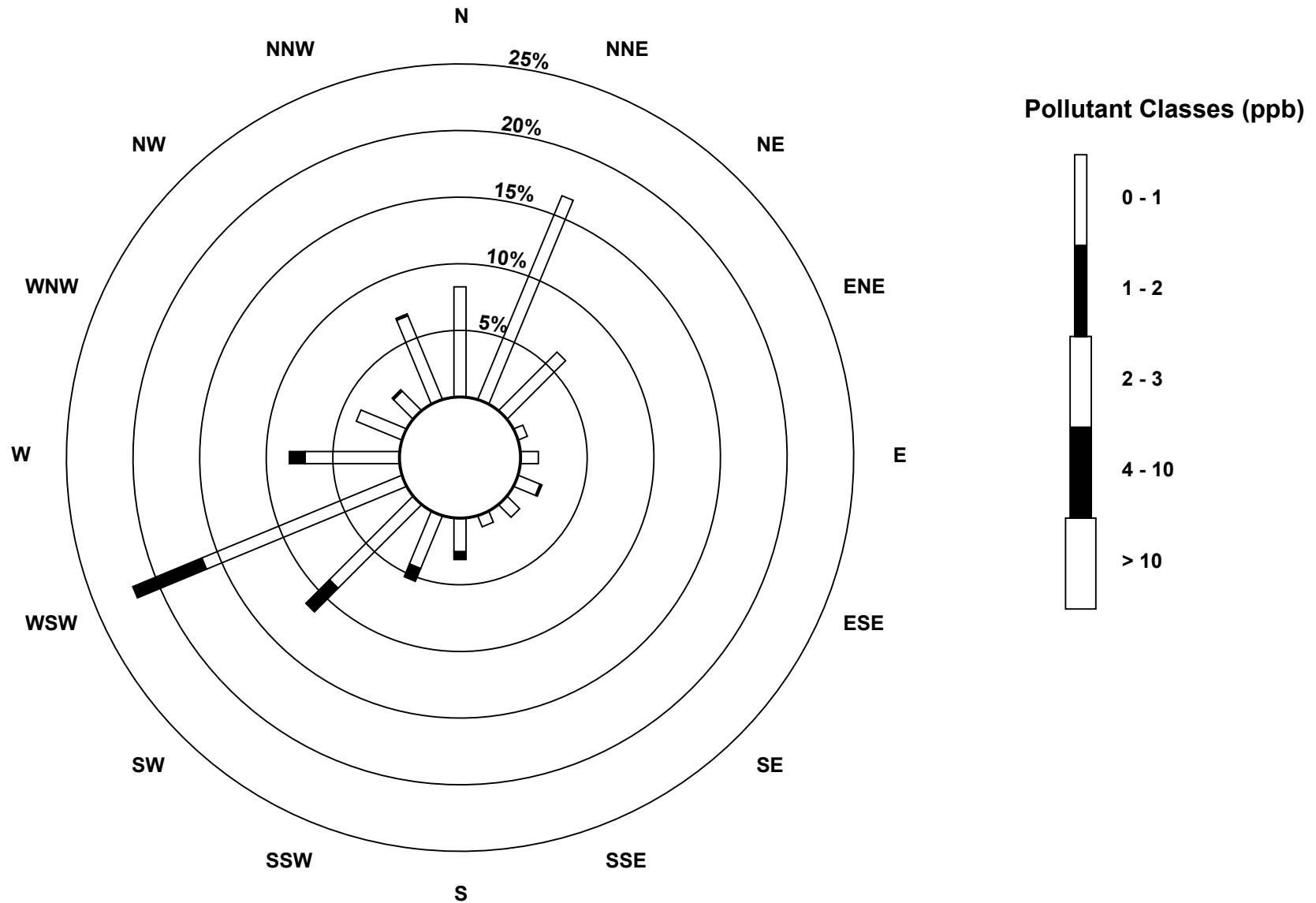
Hourly Maximums

Total Reduced Sulphur (TRS) - ppb
Smoky Heights - April 2018



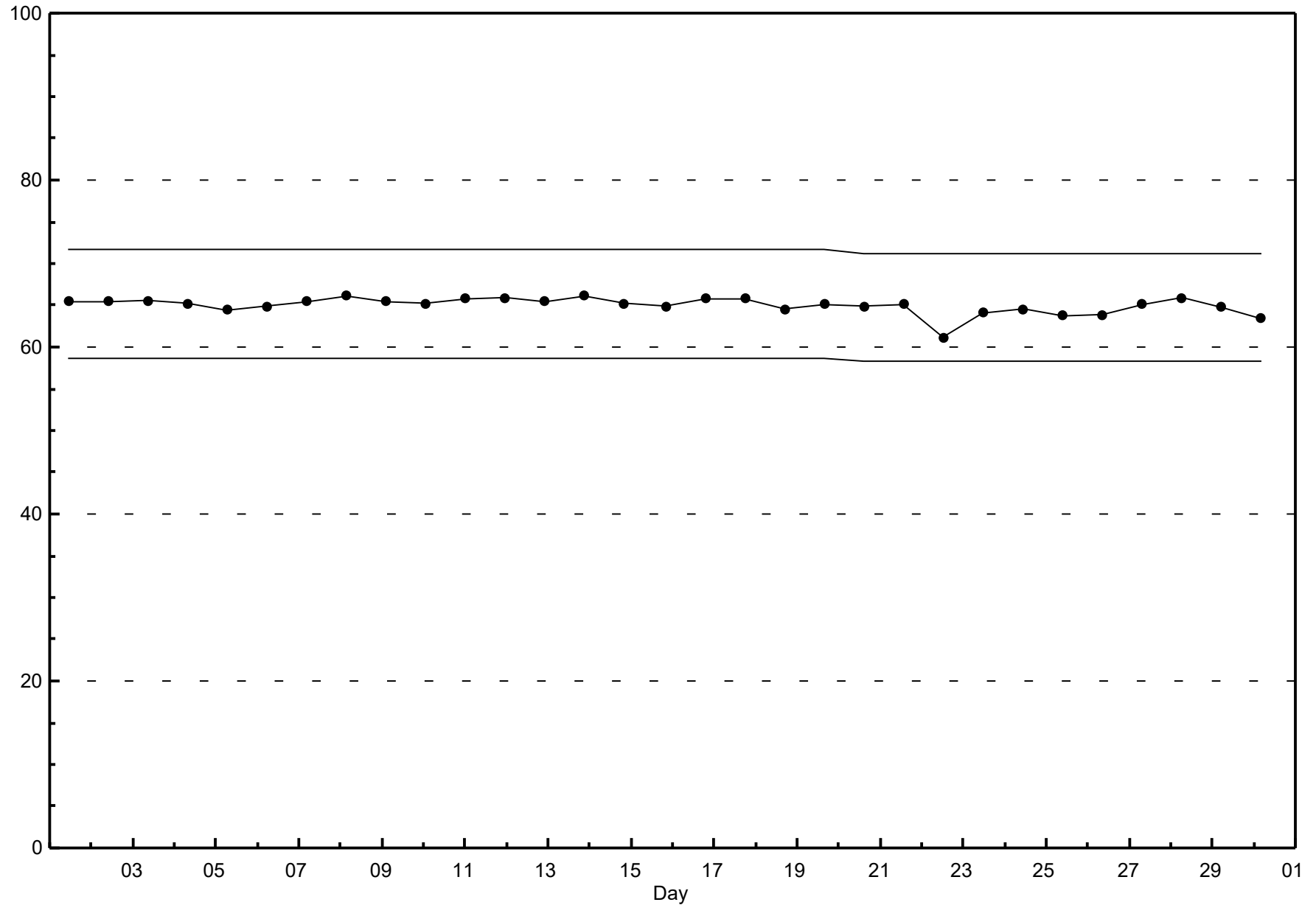
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb
Smoky Heights - April 2018



Span Responses

Total Reduced Sulphur (TRS)
Smoky Heights - April 2018

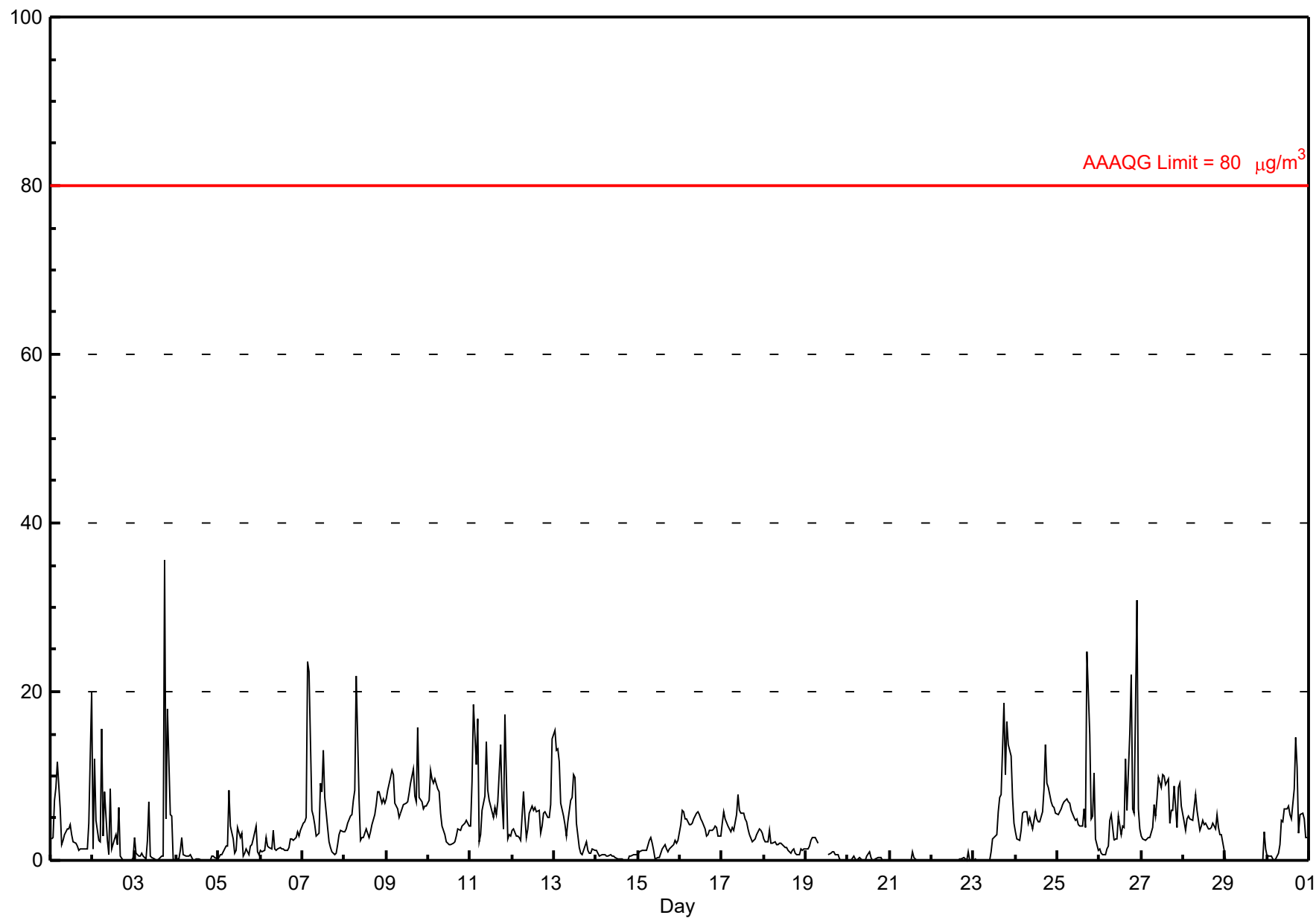


Hourly Averages

Particulate Matter 2.5 (PM_{2.5}) - µg/m³

Smoky Heights - April 2018

Number of Exceedences: 1-hr: 0 24-hr: 0 Maximum Value: 35.6 µg/m ³ on Apr 3 18:00 Maximum Daily Average: 7.8 µg/m ³ on Apr 11																								Hours in Service: 720 Hours of Data: 705 Hours of Missing Data: 15 Hours of Calibration: 6 Percent Operational Time: 98.8		
Minimum Value: 0 µg/m ³ on Apr 2 18:00 Maximum Diurnal Average: 6.2 µg/m ³ at hour 18 Monthly Average: 3.74 µg/m ³																								Minimum Daily Average: 0.1 µg/m ³ on Apr 21 Minimum Diurnal Average: 2.9 µg/m ³ at hour 1 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.7 Median = 2.7 Q ₃ = 5.5 P ₉₀ = 8.2 P ₉₉ = 20.0		
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	3	3	7	9	12	6	2	2	3	4	4	4	3	2	2	2	1	1	1	1	1	1	4	20	4.1	20.0
2-Apr	1	12	5	2	2	16	3	8	2	1	8	1	3	3	2	6	1	0	0	0	0	0	0	0	3.2	15.5
3-Apr	3	1	1	0	1	0	0	2	7	0	0	0	0	0	0	0	1	36	5	18	5	5	0	0	3.6	35.6
4-Apr	0	0	1	3	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	2.7
5-Apr	0	1	1	1	2	2	8	4	3	1	1	4	3	3	1	1	1	1	2	2	2	4	1	1	2.0	8.3
6-Apr	1	1	1	3	2	2	1	4	1	1	1	2	1	1	1	1	2	2	3	2	3	3	3	4	1.9	3.6
7-Apr	4	5	5	23	22	6	5	4	3	3	9	8	13	8	4	2	1	1	1	1	2	3	4	3	5.9	23.5
8-Apr	3	4	4	5	6	7	8	22	7	2	3	3	4	3	3	4	5	7	8	8	7	7	7	7	5.9	21.8
9-Apr	7	8	10	11	10	7	6	5	6	6	7	7	7	8	9	11	8	7	16	7	7	6	6	6	7.8	15.7
10-Apr	7	11	10	9	10	8	8	6	4	3	2	2	2	2	2	2	3	4	4	4	4	4	5	4	5.0	10.7
11-Apr	4	9	18	11	17	2	3	6	8	14	8	7	6	5	6	5	7	14	7	4	17	3	3	3	7.8	18.4
12-Apr	4	4	3	3	3	2	8	5	3	4	6	6	6	6	6	6	3	4	6	6	5	5	7	14	5.2	14.5
13-Apr	15	13	13	12	7	5	4	3	5	7	7	10	10	4	2	1	1	1	2	1	1	1	1	1	5.3	15.4
14-Apr	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0.5	1.3
15-Apr	1	1	1	1	1	1	2	3	2	1	0	0	0	1	1	2	1	1	1	2	2	2	2	2	1.4	2.7
16-Apr	4	6	6	5	5	4	4	4	5	6	6	5	5	5	4	3	3	4	4	4	4	4	3	3	4.3	6.0
17-Apr	4	6	5	4	4	3	4	4	5	8	6	6	6	5	5	4	3	2	2	3	3	4	4	3	4.2	7.7
18-Apr	3	2	2	3	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1.6	3.5
19-Apr	1	1	2	2	3	3	2	2	C	C	C	C	C	1	1	1	1	1	1	0	0	0	0	0	1.2	2.8
20-Apr	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.2	1.1
21-Apr	0	0	0	0	0	0	0	0	0	0	0	C	0	1	0	0	0	0	0	0	0	0	0	0	0.1	1.0
22-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.1	1.1
23-Apr	0	0	0	0	0	0	0	0	0	0	1	3	3	3	6	8	8	19	10	16	14	12	7	4	4.7	18.6
24-Apr	3	2	2	4	6	6	6	4	5	4	4	6	5	5	5	6	8	14	9	9	7	6	6	6	5.7	13.7
25-Apr	5	6	6	7	7	7	7	7	6	5	5	5	4	4	4	6	4	25	15	5	5	10	3	1	6.6	24.8
26-Apr	1	1	1	1	1	2	5	6	2	3	3	5	3	4	4	12	6	15	22	6	6	31	6	4	6.2	30.9
27-Apr	3	3	2	3	3	3	4	7	5	7	10	9	10	10	9	10	4	6	6	9	4	9	9	6	6.2	10.2
28-Apr	5	4	5	5	5	5	6	8	6	4	4	5	4	4	4	4	4	4	4	5	4	3	3	1	4.4	7.7
29-Apr	0	0	0	0	0	0	0	0	0	0	0	0	P	P	P	P	P	P	P	P	P	0	3	1	--	3.4
30-Apr	0	0	1	0	0	0	1	2	5	5	6	6	6	5	5	8	15	11	3	5	6	5	3	3	4.2	14.5
2.9 3.5 3.7 4.3 4.3 3.4 3.4 4.0 3.3 3.1 3.6 3.8 3.8 3.3 2.9 3.6 3.1 6.2 4.5 4.1 3.9 4.4 3.1 3.4																								Diurnal Average		
15.4 13.1 18.4 23.5 22.3 15.5 8.4 21.8 7.6 14.0 9.8 10.2 13.1 10.0 9.1 12.0 14.5 35.6 22.0 17.9 17.3 30.9 9.1 20.0																								Diurnal Maximum		
C - Calibration P - Power Failure																										
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 µg/m ³ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 µg/m ³																										



Hourly Maximums

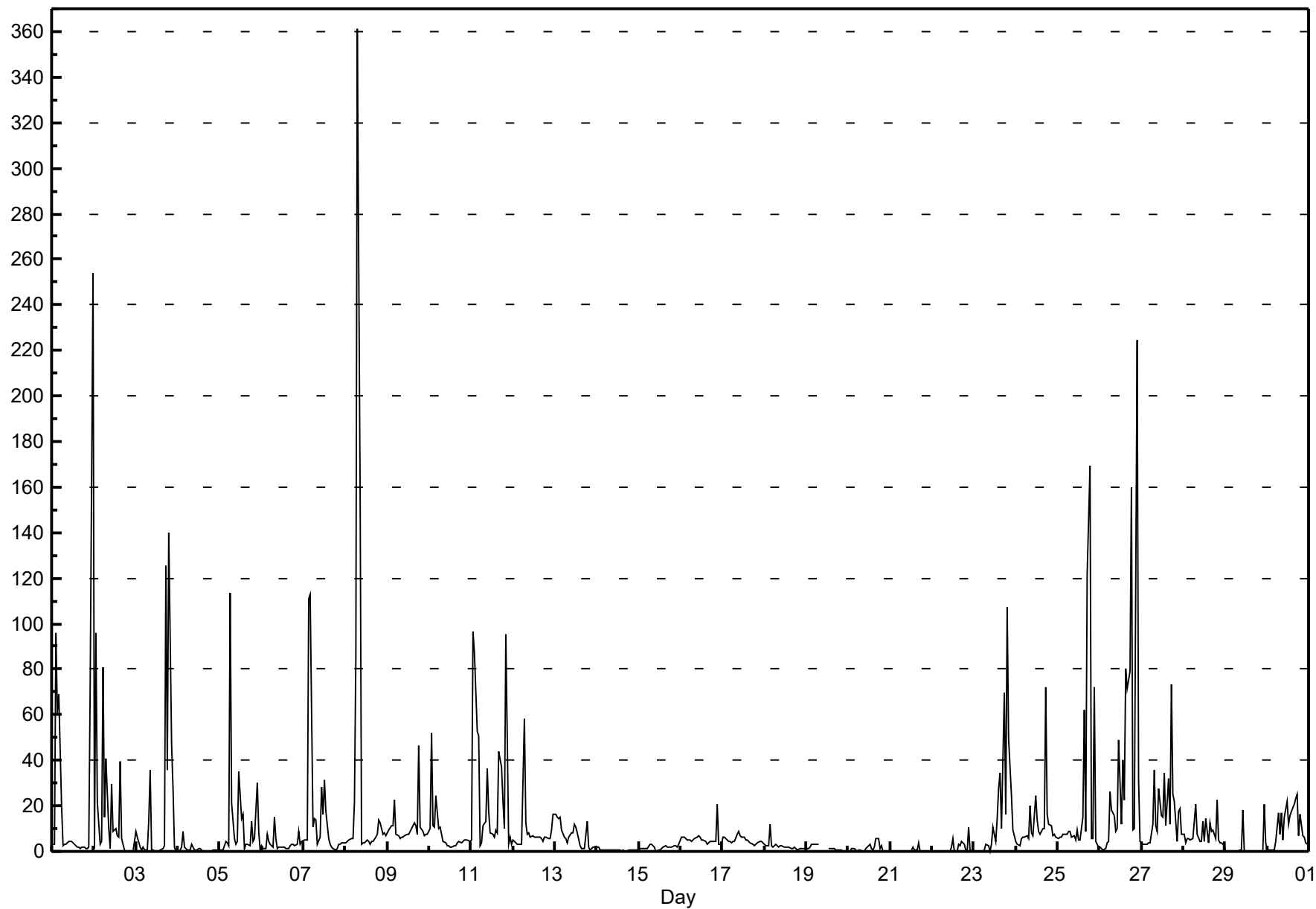
Particulate Matter 2.5 (PM_{2.5}) - µg/m³

Smoky Heights - April 2018

Maximum Value: 361.2 μg/m³ on Apr 8 08:00																				Maximum Daily Average: 36.9 μg/m³ on Apr 26										Hours in Service: 720	
Minimum Value: 0 μg/m³ on Apr 2 19:00																				Minimum Daily Average: 0.3 μg/m³ on Apr 21										Hours of Data: 705	
Maximum Diurnal Average: 23.0 μg/m³ at hour 18																				Minimum Diurnal Average: 3.8 μg/m³ at hour 1										Hours of Missing Data: 15	
Monthly Average: 11.31 μg/m³																				Percentiles: P ₁ = 0.0 P ₁₀ = 0.2 Q ₁ = 1.4 Median = 4.1 Q ₃ = 8.7 P ₉₀ = 22.1 P ₉₉ = 125.1										Hours of Calibration: 6	
																														Percent Operational Time: 98.8	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
1-Apr	3	3	96	61	69	19	2	3	3	4	4	5	4	3	2	2	1	2	2	1	1	2	73	254	25.9	254.0					
2-Apr	1	96	21	3	4	81	15	41	10	1	30	9	10	7	6	40	6	1	0	0	0	0	4	16.1	96.2						
3-Apr	9	6	2	1	2	1	1	13	36	1	1	0	0	0	1	1	2	125	36	140	47	28	2	0	19.0	139.7					
4-Apr	0	0	2	8	2	1	1	0	3	1	0	1	1	1	0	0	0	0	0	0	1	0	0	0	1.1	8.5					
5-Apr	1	1	1	4	4	2	114	21	6	3	4	35	14	16	1	3	3	3	13	5	6	30	8	1	12.4	113.5					
6-Apr	3	1	1	7	4	3	2	15	6	1	2	2	2	2	1	1	2	3	3	3	3	9	3	4	3.5	14.9					
7-Apr	5	5	5	111	113	10	14	14	3	7	29	16	31	17	6	3	2	1	1	1	3	3	4	4	17.1	113.0					
8-Apr	4	4	5	6	6	21	85	361	156	3	4	4	5	4	3	4	5	6	8	14	12	7	8	7	31.0	361.2					
9-Apr	8	9	11	11	22	8	7	6	6	7	7	7	8	9	10	12	11	8	46	11	9	7	7	7	10.6	46.1					
10-Apr	10	52	11	11	25	10	11	7	5	4	3	2	2	2	3	3	4	4	4	5	5	5	5	5	8.2	52.0					
11-Apr	5	97	87	53	51	2	4	11	13	37	18	8	7	7	9	8	44	37	22	10	95	3	6	3	26.5	96.7					
12-Apr	5	4	3	3	3	3	59	12	8	8	6	7	7	7	6	7	6	5	6	6	6	6	9	16	8.6	58.6					
13-Apr	16	15	14	15	10	7	6	4	7	8	8	12	11	8	3	1	1	1	13	2	1	1	2	2	7.0	16.1					
14-Apr	2	2	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	1	1	1	1	1	0.7	2.2					
15-Apr	1	1	1	1	1	1	3	3	3	2	0	0	0	1	2	2	2	2	2	2	3	2	2	3	1.8	3.4					
16-Apr	6	7	6	6	5	5	5	5	6	7	7	6	5	5	5	3	4	4	4	4	4	21	3	3	5.6	21.0					
17-Apr	6	6	6	5	4	4	4	4	8	9	7	6	6	5	5	4	4	3	3	3	4	4	4	4	4.9	8.8					
18-Apr	3	2	3	12	2	2	3	2	2	2	3	2	2	2	2	1	1	2	1	1	1	1	1	1	2.3	11.9					
19-Apr	1	1	2	3	3	3	3	3	C	C	C	C	C	1	1	1	1	1	1	0	0	0	0	0	1.5	3.4					
20-Apr	0	0	1	1	1	0	1	1	0	0	1	2	3	1	0	2	6	6	1	3	0	0	0	0	1.3	5.6					
21-Apr	0	0	0	0	0	0	0	0	0	0	0	C	0	2	1	0	4	0	0	0	0	0	0	0	0.3	3.6					
22-Apr	0	0	0	0	0	0	0	0	0	0	0	2	6	0	0	3	2	4	3	0	0	11	1	0	1.4	11.0					
23-Apr	0	0	0	0	0	0	1	3	2	0	3	10	4	14	27	34	10	69	16	107	49	25	9	7	16.4	107.2					
24-Apr	4	3	3	6	6	6	7	6	20	8	7	25	14	9	8	10	10	72	17	12	11	7	8	6	11.8	72.3					
25-Apr	6	7	6	7	8	8	9	9	7	7	5	9	5	5	15	62	9	121	169	5	6	72	4	2	23.5	169.2					
26-Apr	2	1	1	1	4	5	27	18	16	9	10	49	12	40	23	80	72	79	160	9	10	225	31	5	36.9	224.5					
27-Apr	4	3	3	3	4	4	12	36	11	9	28	16	15	35	11	32	12	73	25	22	4	18	19	8	16.9	73.5					
28-Apr	8	4	6	6	5	6	13	20	7	5	5	13	5	15	4	12	9	10	5	23	5	4	4	2	8.1	22.7					
29-Apr	0	0	0	0	0	0	0	0	1	1	18	0	P	P	P	P	P	P	P	P	P	1	21	4	--	21.0					
30-Apr	1	1	1	0	0	4	17	8	17	5	15	22	12	16	18	21	23	25	7	16	7	6	4	3	10.3	25.1					
3.8 11.1 10.0 11.6 12.0 7.3 14.2 20.9 12.5 5.1 7.7 9.7 6.8 8.1 6.0 12.3 8.8 23.0 19.6 14.0 10.2 16.6 8.1 11.9																										Diurnal Average					
16.1 96.7 95.7 111.1 113.0 81.1 113.5 361.2 156.3 36.6 29.8 48.8 31.2 40.0 27.3 80.1 71.8 125.3 169.2 139.7 95.2 224.5 72.5 254.0																										Diurnal Maximum					
C - Calibration P - Power Failure																															

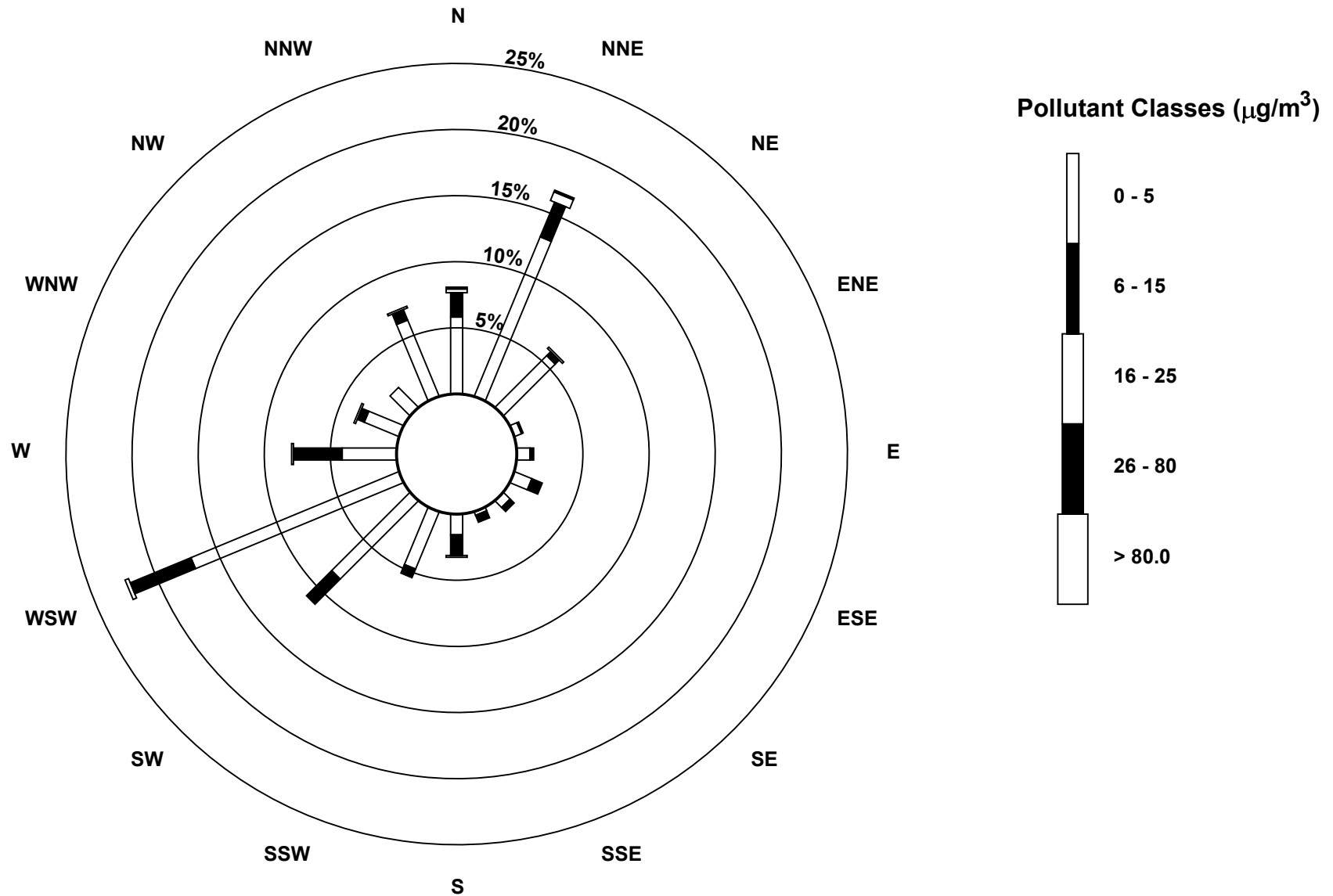
Hourly Maximums

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Smoky Heights - April 2018



Pollutant Rose

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Smoky Heights - April 2018



Hourly Averages

External Temperature (ET) - °C

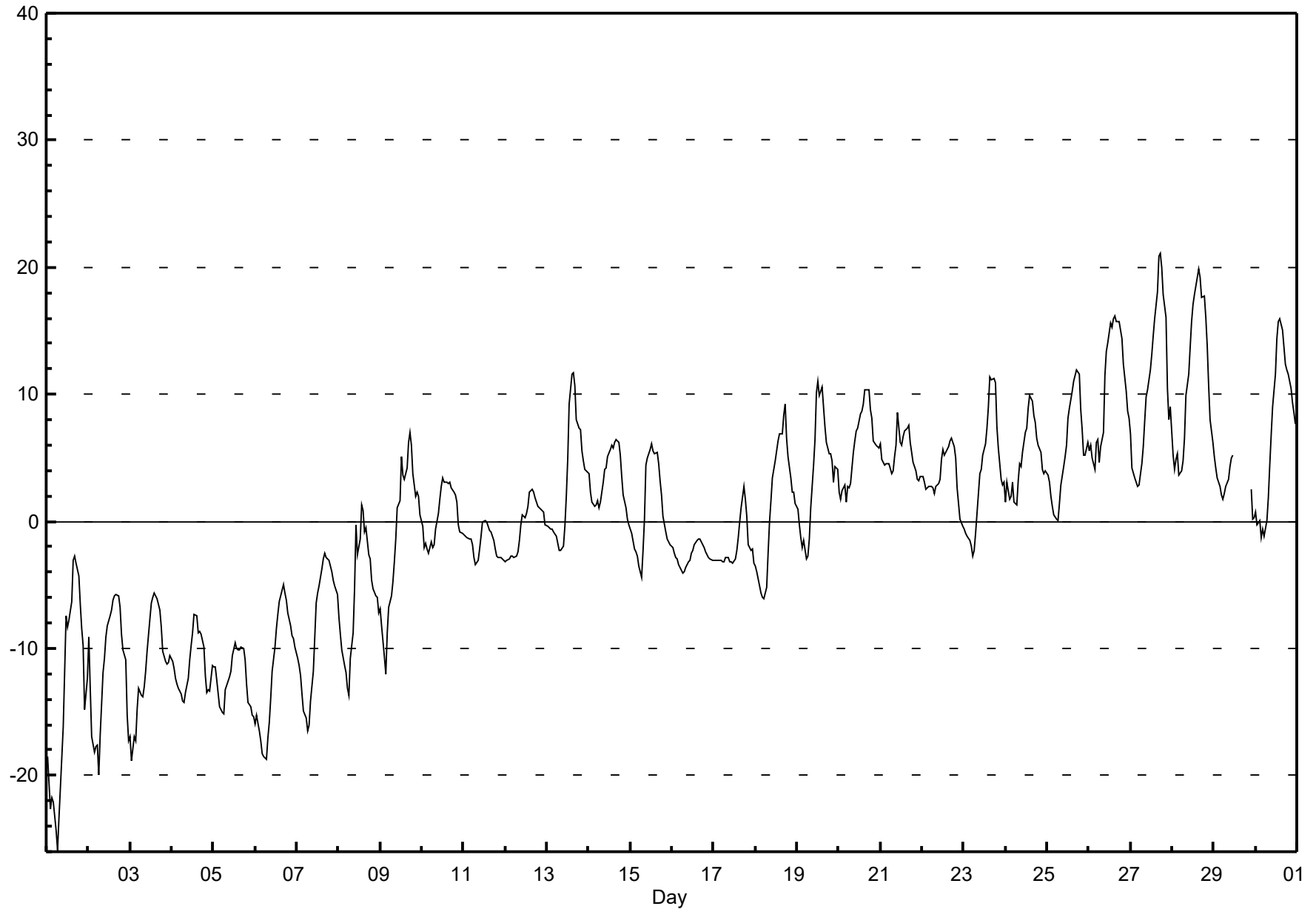
Smoky Heights - April 2018

Maximum Value: 21.1 °C on Apr 27 18:00																			Maximum Daily Average: 11.4 °C on Apr 28						Hours in Service: 720	
Minimum Value: -26 °C on Apr 1 07:00																			Minimum Daily Average: -13.5 °C on Apr 1						Hours of Data: 711	
Maximum Diurnal Average: 4.5 °C at hour 17																			Minimum Diurnal Average: -4.9 °C at hour 7						Hours of Missing Data: 9	
Monthly Average: -0.28 °C																			Percentiles: P ₁ = -20.6 P ₁₀ = -12.3 Q ₁ = -5.2 Median = 0.4 Q ₃ = 5.2 P ₉₀ = 9.4 P ₉₉ = 17.9						Hours of Calibration: 0	
																									Percent Operational Time: 98.8	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Apr	-18	-21	-23	-22	-22	-24	-26	-23	-21	-16	-12	-7	-8	-8	-6	-3	-3	-3	-4	-7	-8	-10	-15	-12	-13.5	-2.8
2-Apr	-9	-13	-17	-18	-18	-18	-20	-17	-12	-11	-9	-8	-7	-7	-6	-6	-6	-6	-7	-9	-10	-11	-15	-17	-11.5	-5.7
3-Apr	-17	-19	-17	-17	-15	-13	-14	-14	-13	-12	-10	-8	-6	-6	-6	-6	-7	-7	-8	-10	-11	-11	-11	-11	-11.2	-5.6
4-Apr	-11	-12	-12	-13	-13	-14	-14	-14	-13	-12	-11	-10	-9	-7	-7	-9	-9	-9	-10	-12	-14	-13	-13	-11	-11.4	-7.3
5-Apr	-11	-11	-12	-15	-15	-15	-15	-13	-13	-12	-12	-11	-10	-10	-10	-10	-10	-10	-11	-13	-14	-15	-15	-15	-12.4	-9.6
6-Apr	-16	-15	-17	-17	-18	-19	-19	-17	-16	-14	-12	-10	-8	-7	-6	-5	-5	-6	-6	-7	-8	-9	-9	-10	-11.5	-4.9
7-Apr	-11	-11	-12	-14	-15	-16	-17	-16	-14	-12	-9	-6	-6	-5	-4	-3	-2	-3	-3	-4	-4	-5	-5	-6	-8.4	-2.5
8-Apr	-8	-9	-10	-11	-12	-13	-14	-11	-9	-5	0	-3	-1	1	1	-1	0	-3	-3	-5	-5	-6	-6	-7	-5.8	1.3
9-Apr	-7	-8	-11	-12	-9	-7	-6	-5	-3	-1	1	2	5	4	3	4	6	7	6	4	2	2	2	1	-0.8	7.0
10-Apr	0	-2	-2	-2	-3	-2	-2	-2	-1	1	2	3	3	3	3	3	3	3	2	2	1	0	-1	-1	0.5	3.4
11-Apr	-1	-1	-1	-1	-1	-2	-3	-3	-3	-2	-1	0	0	0	0	-1	-1	-1	-2	-3	-3	-3	-3	-3	-1.7	0.0
12-Apr	-3	-3	-3	-3	-3	-3	-3	-2	-2	0	0	0	1	1	2	3	2	2	2	1	1	1	1	0	-0.3	2.6
13-Apr	0	-1	-1	-1	-1	-1	-2	-2	-2	-2	0	2	5	9	12	12	11	8	7	7	6	5	4	4	3.3	11.7
14-Apr	4	2	2	1	1	2	1	1	3	4	4	5	6	6	6	6	6	6	5	4	2	1	0	0	3.3	6.4
15-Apr	-1	-1	-2	-2	-3	-4	-4	-2	0	4	5	6	6	6	5	5	5	3	2	0	-1	-1	-2	-2	1.0	6.1
16-Apr	-2	-2	-3	-3	-3	-4	-4	-4	-4	-3	-3	-3	-2	-2	-1	-1	-1	-2	-2	-2	-3	-3	-3	-3	-2.7	-1.3
17-Apr	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-2	-1	0	1	3	2	0	-2	-2	-2	-3	-2.0	2.7
18-Apr	-4	-4	-5	-6	-6	-6	-5	-3	0	2	3	5	6	6	7	7	8	9	7	5	3	2	2	1	1.5	9.3
19-Apr	1	0	-1	-2	-1	-3	-3	-1	1	4	6	10	11	10	11	9	7	6	5	5	5	3	4	4	3.8	11.1
20-Apr	2	2	2	3	2	3	3	3	5	6	7	7	8	9	9	10	10	10	9	8	6	6	6	6	6.0	10.4
21-Apr	6	5	4	5	5	4	4	4	5	6	9	6	6	7	7	7	8	6	5	5	4	3	3	4	5.3	8.6
22-Apr	4	3	3	3	3	3	3	2	3	3	3	5	6	5	6	6	6	7	6	5	3	1	0	0	3.6	6.6
23-Apr	-1	-1	-1	-2	-2	-3	-2	-1	2	4	4	5	6	7	9	11	11	11	11	7	6	3	3	3	3.9	11.4
24-Apr	2	3	2	2	3	2	1	3	5	4	5	7	7	9	10	9	8	8	7	6	5	4	4	4	5.0	9.9
25-Apr	4	3	2	1	1	0	0	1	3	4	5	6	8	9	10	11	12	12	12	9	7	5	5	6	5.7	11.9
26-Apr	6	6	5	4	6	6	5	6	7	11	13	14	16	15	16	16	16	16	15	14	12	10	9	8	10.5	16.2
27-Apr	7	4	3	3	3	3	5	6	8	10	10	12	13	15	16	18	21	21	20	18	16	10	8	9	10.8	21.1
28-Apr	5	4	5	5	4	4	5	7	10	12	14	16	17	18	19	20	19	18	18	16	14	11	8	6	11.4	19.9
29-Apr	5	4	3	3	2	2	2	3	3	4	5	5	P	P	P	P	P	P	P	P	P	2	0	0	--	5.2
30-Apr	1	0	0	-1	-1	-1	0	2	4	7	9	12	14	16	16	15	14	12	12	12	10	9	9	8	7.4	15.9
-2.6 -3.4 -4.0 -4.5 -4.5 -4.7 -4.9 -3.9 -2.3 -0.7 0.8 2.0 2.9 3.5 4.1 4.4 4.5 4.1 3.3 2.0 0.7 -0.3 -1.1 -1.3																									Diurnal Average	
6.9 6.0 5.0 5.3 6.2 6.4 4.8 6.5 9.9 11.5 13.7 15.8 17.0 17.9 19.1 19.9 20.9 21.1 20.0 17.8 16.1 10.6 8.6 9.1																									Diurnal Maximum	
P - Power Failure																										

Hourly Averages

External Temperature (ET) - °C

Smoky Heights - April 2018



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Smoky Heights - April 2018

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	3	3	4	0	1	4	5	4	5	3	2	1	5	8	6	6	8	8	8	7	8	8	3	8	2.5	8.2
Dir	313	262	303	42	125	207	185	192	171	117	105	229	255	243	254	336	342	334	335	333	329	329	359	342	304.5	341.6
2 Spd	11	7	2	1	2	4	2	9	12	14	11	13	16	16	12	11	9	9	7	8	10	9	5	3	7.8	16.0
Dir	333	28	38	195	144	23	59	19	23	31	1	346	1	10	12	10	345	343	331	333	340	331	5	25	1.5	1.5
3 Spd	6	5	6	6	10	12	12	12	13	14	15	15	16	16	17	17	17	17	17	12	13	10	12	18	12.8	18.4
Dir	15	19	24	28	10	9	18	17	14	18	19	26	31	26	22	5	7	12	13	12	15	11	18	25	17.0	24.9
4 Spd	19	17	15	15	12	14	13	11	9	12	11	9	10	3	8	14	14	15	14	14	15	16	15	17	7.3	19.1
Dir	23	22	10	10	11	14	3	344	350	345	348	345	18	26	233	237	237	239	242	257	263	267	279	304	321.2	23.4
5 Spd	13	12	10	7	9	8	8	10	9	9	10	9	11	14	15	15	12	10	11	11	9	12	13	13	10.4	15.1
Dir	319	334	336	349	1	357	346	358	9	18	21	23	8	9	13	7	5	358	353	0	14	18	26	27	3.5	13.3
6 Spd	11	17	14	11	12	13	13	13	13	13	16	17	18	20	19	21	20	18	16	12	11	7	9	13	13.9	21.0
Dir	41	52	43	24	19	21	27	27	30	30	29	25	28	45	38	41	43	41	39	33	27	51	87	95	38.1	41.2
7 Spd	13	11	9	7	8	10	10	12	14	13	11	11	15	18	19	22	23	20	17	17	13	14	18	18	11.4	22.5
Dir	102	100	83	44	15	15	16	21	26	19	14	13	27	30	38	45	46	43	43	53	105	119	123	129	52.3	45.9
8 Spd	16	12	10	6	5	1	5	5	8	3	1	6	5	1	2	5	4	12	10	5	8	9	9	9	0.8	15.7
Dir	122	120	123	120	113	28	4	353	23	40	149	22	28	158	249	267	230	254	268	268	273	272	271	273	264.4	121.7
9 Spd	10	5	7	6	5	4	6	6	7	7	7	4	3	9	7	7	3	3	5	5	4	6	9	11	5.4	10.7
Dir	280	261	221	232	237	252	225	227	217	190	180	233	226	252	269	272	260	181	249	288	267	255	240	252	242.0	251.8
10 Spd	3	2	1	2	8	12	16	19	22	23	24	25	24	23	26	28	24	27	26	21	15	14	11	13	16.2	28.3
Dir	271	190	116	332	7	8	9	17	27	39	39	42	42	45	46	46	44	45	45	48	56	80	40	38	39.5	45.9
11 Spd	8	6	7	7	7	9	12	12	8	7	5	7	11	10	7	9	9	8	8	6	5	7	7	12	7.4	12.2
Dir	34	23	20	355	2	333	326	340	347	349	349	26	20	17	3	32	22	3	35	61	32	52	26	25	11.4	25.5
12 Spd	10	11	12	12	14	11	10	9	8	7	17	20	20	16	13	14	13	11	12	12	12	8	8	9	8.9	20.3
Dir	14	13	18	28	28	29	16	16	26	42	120	134	123	113	79	82	42	35	49	61	75	75	103	154	65.6	134.2
13 Spd	7	6	7	9	13	13	13	13	12	11	9	10	7	2	3	4	7	13	10	9	14	14	8	10	5.4	14.3
Dir	155	154	165	178	196	205	196	218	222	235	247	248	272	334	29	32	80	44	36	208	218	208	210	233	208.0	217.8
14 Spd	7	29	12	15	12	16	17	17	14	13	20	25	28	19	16	13	11	12	16	14	13	14	16	14	15.6	28.8
Dir	232	262	244	240	230	218	212	233	244	242	233	236	241	270	252	251	244	241	231	230	237	244	254	248	241.1	261.6
15 Spd	14	14	14	15	6	7	8	5	4	2	9	11	12	16	18	18	22	24	22	25	23	23	23	21	9.8	25.3
Dir	252	258	259	260	257	226	252	246	134	356	348	343	356	4	11	16	20	14	21	18	13	15	18	13	355.1	18.0
16 Spd	21	21	17	20	22	23	23	22	20	22	21	19	19	22	23	24	23	21	19	18	15	15	17	16	19.9	24.4
Dir	17	15	14	23	17	15	14	16	20	14	14	20	13	15	16	16	17	11	6	7	2	349	341	341	11.7	15.9
17 Spd	15	14	11	10	10	11	16	15	12	20	23	27	23	22	16	14	16	5	3	5	3	1	7	9	10.2	27.1
Dir	344	338	328	299	292	289	297	291	241	249	246	248	247	251	270	303	296	253	346	101	127	204	232	269	275.2	248.1
18 Spd	9	10	14	12	14	13	13	18	19	24	25	25	19	15	13	18	6	2	15	18	16	16	18	17	14.7	25.4
Dir	242	246	244	246	260	259	259	244	243	240	239	236	233	228	232	226	331	30	231	237	250	252	241	255	243.3	239.2
19 Spd	12	10	11	6	5	4	6	5	8	7	8	3	7	13	13	14	20	20	13	10	15	16	24	21	10.5	24.3
Dir	231	215	203	214	229	196	209	203	221	190	151	143	203	209	196	248	252	244	237	235	236	246	235	230	225.3	235.4
20 Spd	17	19	21	18	15	21	17	17	18	16	11	11	8	10	9	6	5	3	5	1	2	5	5	5	8.4	20.9
Dir	217	208	189	175	185	187	197	213	205	218	237	240	279	242	243	260	282	294	283	289	5	358	23	8	215.3	186.9
21 Spd	5	3	4	8	8	4	12	12	12	1	4	15	14	14	19	24	19	23	31	33	34	31	31	37	15.0	37.0
Dir	346	322	332	15	351	276	255	273	277	189	214	233	244	251	251	258	258	240	243	240	240	239	245	255	252.1	255.2
22 Spd	40	39	31	26	24	22	27	26	27	25	20	18	17	20	19	15	13	13	11	13	10	13	14	15	20.7	40.5
Dir	262	255	254	250	253	252	257	252	253	254	244	265	256	234	235	242	239	238	242	240	254	257	256	257	251.4	261.8

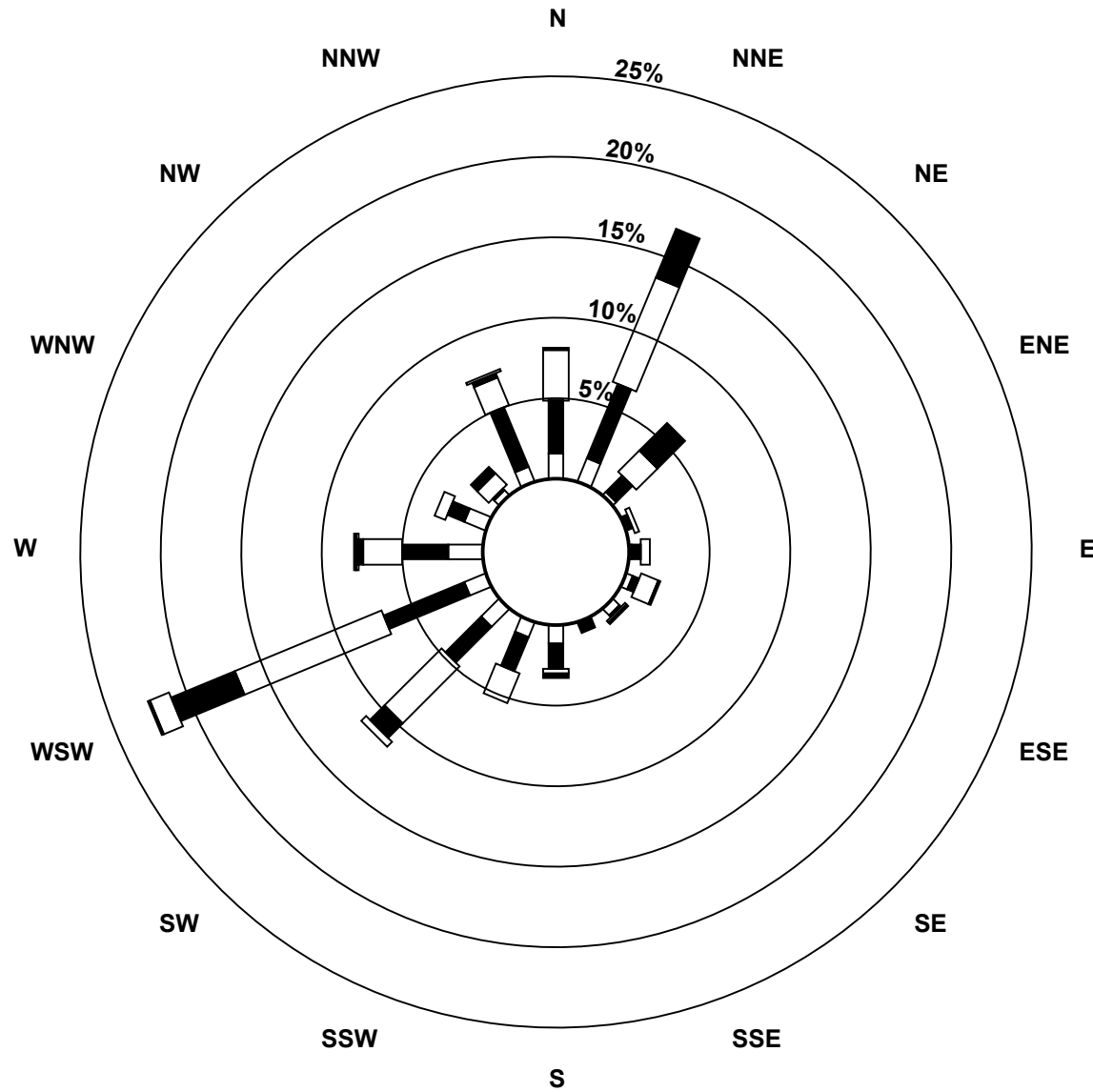
Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Smoky Heights - April 2018

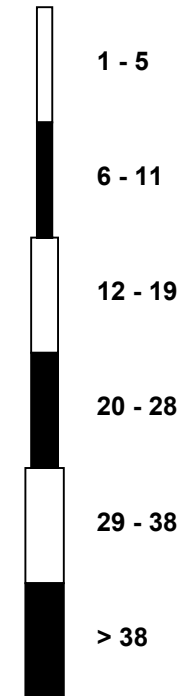
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	15	16	19	18	16	11	8	7	7	14	14	11	11	10	6	4	9	3	2	7	7	10	10	14	9.5	18.5
Dir	260	256	258	258	256	243	225	220	222	236	254	254	255	256	272	187	144	182	270	246	251	247	226	255	246.0	257.8
24 Spd	12	14	12	10	8	7	6	12	16	14	15	12	14	9	9	14	18	14	16	15	19	21	22	24	13.2	24.5
Dir	232	212	214	203	189	190	190	214	230	242	236	260	248	253	238	242	238	251	228	235	242	243	250	253	235.1	252.9
25 Spd	23	20	18	15	5	7	6	11	11	15	15	14	13	11	10	10	11	7	12	14	16	14	17	18	12.8	22.7
Dir	248	246	255	258	238	238	215	224	229	224	229	240	244	246	254	255	246	262	227	228	234	247	245	245	241.5	247.7
26 Spd	22	27	23	19	8	1	4	2	5	2	0	4	2	6	6	6	6	6	4	5	5	6	7	5	5.8	27.2
Dir	249	243	243	259	298	145	221	218	243	187	290	293	298	284	296	282	284	280	287	347	2	1	9	2	269.8	243.4
27 Spd	4	1	2	3	3	4	11	8	5	10	10	12	10	11	10	6	10	8	6	4	4	5	7	7	5.5	12.4
Dir	345	278	300	267	254	223	196	187	190	179	244	248	261	273	280	272	223	250	269	266	283	274	245	243	245.2	248.0
28 Spd	4	12	11	10	9	8	7	8	10	14	15	18	20	17	14	21	16	14	11	8	24	29	24	20	9.3	28.8
Dir	234	232	240	208	210	203	197	191	210	239	238	230	230	235	238	253	304	331	327	316	319	328	335	337	268.5	328.1
29 Spd	28	26	23	18	16	13	12	12	13	13	9	8	P	P	P	P	P	P	P	P	P	4	2	3	--	28.0
Dir	314	306	308	317	327	331	317	337	343	1	7	29	P	P	P	P	P	P	P	P	P	324	261	198	--	314.2
30 Spd	2	3	5	5	8	10	10	11	14	18	19	22	24	34	36	34	32	31	24	22	21	17	14	14	15.4	35.7
Dir	260	233	229	213	200	194	187	181	202	212	233	235	236	232	231	234	237	254	253	278	279	280	321	317	241.0	230.7
Spd	5.4	5.6	4.8	4.1	3.4	3.0	3.6	3.9	3.4	3.4	3.9	4.7	4.6	4.4	4.1	4.8	4.7	5.0	4.4	4.0	5.1	5.4	5.0	5.8	Diurnal Average	
Dir	287.9	272.0	269.6	274.6	293.1	284.2	277.9	282.9	279.4	276.0	272.8	277.5	286.8	289.0	297.8	305.5	317.6	320.1	307.8	298.5	289.6	288.6	283.6	287.8	Diurnal Maximum	
Spd	40.5	39.5	31.4	26.4	24.0	22.8	26.9	26.2	27.3	25.0	25.4	27.1	28.1	34.4	35.7	33.7	31.5	30.8	30.6	32.7	34.2	31.5	30.9	37.0	Diurnal Maximum	
Dir	261.8	255.2	254.3	249.7	253.2	14.6	257.3	252.5	252.6	253.6	239.2	248.1	240.6	232.1	230.7	234.3	236.6	254.0	243.4	240.1	239.9	239.4	245.5	255.2		
Maximum Speed Value: 40 km/h on Apr 22 01:00																									Hours in Service: 720	
Maximum Daily Speed Average: 20.7 km/h on Apr 22																									Hours of Data: 711	
Maximum Diurnal Speed Average: 5.8 km/h at hour 24																									Hours of Missing Data: 9	
Minimum Speed Value: 0 km/h on Apr 1 04:00																										
Minimum Daily Speed Average: 0.8 km/h on Apr 1																										
Minimum Diurnal Speed Average: 3.0 km/h at hour 6																										
Monthly Average Velocity: 4.32 km/h 288.45 deg																									Percent Operational Time: 98.8	
Speed Percentiles: P ₁ = 0.9 P ₁₀ = 4.3 Q ₁ = 7.3 Median = 11.8 Q ₃ = 16.4 P ₉₀ = 21.9 P ₉₉ = 32.6																										
All monthly, daily, and diurnal averages have been calculated using vector methods																										
P - Power Failure																										
Frequency Distribution																										
Speed Range (km/h)																										
Direction	0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total																			
North	10	58	59	24	0	0	151																			
NorthEast	11	24	39	20	1	0	95																			
East	2	5	8	0	0	0	15																			
SouthEast	10	7	7	2	0	0	26																			
South	13	17	8	2	0	0	40																			
SouthWest	15	54	85	23	10	0	187																			
West	23	43	48	24	4	2	144																			
NorthWest	11	16	19	6	1	0	53																			
Total	95	224	273	101	16	2	711																			

Wind Rose

Wind Speed (WS) (km/h)
Smoky Heights - April 2018



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Smoky Heights - April 2018

Maximum Speed: 41 km/h on Apr 22 01:00																				Maximum Daily Speed Average: 21.1 km/h on Apr 22										Hours in Service: 720	
Minimum Speed: 1 km/h on Apr 20 20:00																				Minimum Daily Speed Average: 5.3 km/h on Apr 1										Hours of Data: 711	
Maximum Diurnal Speed Average: 14.6 km/h at hour 16																				Minimum Diurnal Speed Average: 10.2 km/h at hour 5										Hours of Missing Data: 9	
Monthly Average Speed: 12.75 km/h																				Percentiles: P ₁ = 2.2 P ₁₀ = 4.9 Q ₁ = 7.6 Median = 12.0 Q ₃ = 16.5 P ₉₀ = 22.0 P ₉₉ = 32.6										Percent Operational Time: 98.8	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
1-Apr	3	4	5	3	2	4	5	5	5	3	2	2	6	8	6	7	8	8	8	7	8	8	3	8	5.3	8.3					
2-Apr	11	8	3	1	2	4	3	9	13	14	11	13	16	16	12	12	9	9	7	8	10	9	5	4	8.8	16.3					
3-Apr	6	5	6	6	10	12	12	12	13	14	15	15	16	16	17	17	17	18	17	12	13	10	12	18	12.9	18.4					
4-Apr	19	17	15	16	12	14	13	11	9	12	11	10	10	7	8	14	14	15	14	14	15	16	15	17	13.2	19.2					
5-Apr	13	12	10	7	9	8	9	10	9	9	10	9	11	14	15	15	13	11	11	11	10	12	13	13	11.0	15.2					
6-Apr	11	17	14	11	12	13	13	13	13	13	16	17	18	20	19	21	20	19	16	12	11	7	10	13	14.6	21.1					
7-Apr	13	11	9	7	8	10	10	12	14	13	11	11	15	19	19	22	23	21	17	17	14	14	18	18	14.4	22.6					
8-Apr	16	12	11	7	5	2	5	5	8	3	2	6	5	3	3	5	5	12	10	5	8	9	9	9	6.9	15.8					
9-Apr	10	6	7	6	6	5	6	6	7	7	7	5	3	9	7	8	3	3	6	5	4	6	9	11	6.4	11.1					
10-Apr	4	3	3	3	8	12	16	19	22	23	24	26	24	24	26	28	24	28	26	21	16	15	11	13	17.5	28.4					
11-Apr	8	6	7	7	7	9	12	12	9	8	6	7	11	10	7	10	9	9	9	6	6	7	7	12	8.3	12.2					
12-Apr	10	11	12	12	14	12	10	9	8	9	17	20	20	17	14	14	13	11	12	12	12	8	9	9	12.3	20.4					
13-Apr	7	6	7	9	13	13	13	13	12	12	9	10	7	3	4	5	8	13	10	11	14	14	9	10	9.6	14.4					
14-Apr	8	29	12	16	12	17	17	17	14	13	20	25	28	20	16	13	11	14	16	14	13	15	16	14	16.3	29.2					
15-Apr	14	14	14	15	7	8	8	7	4	3	10	11	12	17	18	18	22	24	22	25	23	23	23	21	15.1	25.4					
16-Apr	22	21	18	20	22	23	23	22	20	22	21	19	19	22	23	24	24	21	19	18	15	15	17	16	20.3	24.4					
17-Apr	15	14	11	10	10	11	16	15	12	20	23	27	23	22	16	14	16	6	5	6	4	2	7	11	13.3	27.1					
18-Apr	10	11	14	12	14	13	13	18	19	24	25	25	19	15	13	18	9	4	15	18	16	16	18	17	15.6	25.5					
19-Apr	13	11	12	7	6	5	6	5	8	8	8	5	8	14	13	15	20	20	13	10	15	16	24	21	11.8	24.4					
20-Apr	17	19	21	18	15	21	17	17	18	16	11	11	8	10	10	6	5	3	5	1	3	6	5	5	11.2	21.2					
21-Apr	6	4	6	8	8	7	13	12	12	5	5	15	14	14	19	24	20	23	31	33	34	31	31	37	17.2	37.1					
22-Apr	41	40	31	26	24	23	27	26	27	25	21	20	18	20	19	15	14	13	11	13	11	13	14	15	21.1	40.6					
23-Apr	15	16	19	18	16	11	9	8	7	14	14	11	11	10	6	6	10	3	3	7	8	10	10	14	10.7	18.5					
24-Apr	13	14	12	10	8	7	6	12	16	14	16	12	14	9	10	14	18	14	16	15	19	21	22	25	14.0	24.5					
25-Apr	23	20	18	15	6	7	6	11	11	15	15	14	13	11	10	10	11	7	12	14	16	14	17	18	13.2	22.8					
26-Apr	22	27	23	20	11	5	5	3	5	3	4	4	3	6	6	6	7	6	4	6	6	7	7	5	8.4	27.3					
27-Apr	4	2	3	3	3	4	11	8	5	11	10	12	10	11	10	7	10	8	6	4	4	5	7	7	6.9	12.4					
28-Apr	5	12	11	10	9	8	7	9	10	15	15	18	20	17	14	21	19	15	11	9	25	29	24	20	14.6	29.0					
29-Apr	28	26	23	18	16	13	12	12	13	13	10	9	P	P	P	P	P	P	P	P	P	4	3	3	--	28.1					
30-Apr	2	3	5	6	8	10	10	11	14	18	20	22	24	35	36	34	32	31	24	22	21	19	14	14	18.1	35.9					
12.9 13.4 12.0 11.0 10.2 10.2 11.2 11.7 12.0 12.6 13.0 13.7 14.2 14.4 13.7 14.6 14.2 13.3 12.9 12.3 12.9 12.7 13.0 14.0																								Diurnal Average							
40.6 39.5 31.5 26.4 24.0 22.8 27.0 26.2 27.4 25.1 25.5 27.1 28.4 34.5 35.9 33.8 31.6 30.9 30.7 32.8 34.3 31.5 30.9 37.1																								Diurnal Maximum							
P - Power Failure																															
All monthly, daily, and diurnal averages have been calculated using scalar methods																															

Hourly Standard Deviations

Wind Direction (WD) - deg

Smoky Heights - April 2018

Maximum Value: 92.8 deg on Apr 26 11:00																			Hours in Service: 720						
Minimum Value: 1.7 deg on Apr 23 05:00																			Hours of Data: 711						
																			Hours of Missing Data: 9						
Percentiles: P ₁ = 2.4 P ₁₀ = 3.8 Q ₁ = 5.1 Median = 8.1 Q ₃ = 14.5 P ₉₀ = 29.4 P ₉₉ = 79.0																			Hours of Calibration: 0						
																			Percent Operational Time: 98.8						
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Apr	23	63	42	92	90	27	16	11	21	31	13	73	15	6	14	27	11	8	5	4	3	3	49	23	92.3
2-Apr	3	19	63	72	44	34	64	13	10	4	13	9	10	6	8	10	14	11	9	7	6	5	30	54	72.2
3-Apr	6	14	7	15	4	7	3	4	3	4	6	8	8	7	11	7	5	17	3	4	4	4	4	3	17.0
4-Apr	4	5	5	6	6	8	10	9	11	9	12	21	9	88	13	3	3	3	5	4	4	5	8	9	87.6
5-Apr	4	6	5	14	11	12	16	9	9	7	11	15	10	9	6	7	9	9	8	10	5	3	3	7	15.9
6-Apr	14	7	5	11	6	7	4	10	7	4	4	5	7	6	6	6	7	6	5	9	9	8	22	8	22.0
7-Apr	4	8	6	20	4	3	4	6	3	5	6	6	10	8	13	6	5	5	4	7	14	5	5	5	19.6
8-Apr	4	5	4	20	26	55	12	9	4	47	60	11	11	69	74	25	45	16	7	12	4	3	3	5	73.6
9-Apr	6	44	16	6	14	22	14	19	12	11	5	19	28	11	13	14	16	24	40	12	23	13	9	15	44.1
10-Apr	63	75	81	71	21	11	5	5	4	6	6	7	7	7	6	5	5	5	5	6	18	16	10	6	81.5
11-Apr	9	6	6	16	19	10	9	13	26	17	26	7	5	11	15	14	9	17	23	29	20	19	21	4	29.4
12-Apr	5	3	5	4	4	8	8	5	12	28	10	4	6	19	10	11	12	6	9	6	8	11	27	6	27.5
13-Apr	4	6	8	7	7	8	7	10	4	8	3	8	10	45	53	24	24	4	9	69	8	10	16	14	69.5
14-Apr	33	10	17	11	6	5	7	10	8	12	5	8	8	11	10	11	20	23	5	5	5	10	5	5	33.0
15-Apr	7	4	3	4	46	26	16	55	36	89	12	9	12	8	4	10	5	4	4	4	6	5	4	5	88.9
16-Apr	5	5	8	4	4	4	4	4	4	3	5	5	4	4	5	4	4	6	6	7	7	8	5	6	8.0
17-Apr	7	5	8	20	8	5	6	8	15	3	4	3	4	5	13	9	12	35	58	39	35	79	6	41	79.1
18-Apr	27	12	3	16	3	3	5	6	5	2	2	3	3	5	5	8	46	78	4	3	6	4	6	4	78.0
19-Apr	20	16	14	54	20	15	10	20	12	21	12	66	35	21	14	13	5	4	3	8	6	6	5	4	66.1
20-Apr	5	5	12	4	6	8	13	14	6	7	10	10	8	14	13	21	5	35	7	64	42	20	18	21	63.7
21-Apr	25	39	43	16	13	55	30	8	16	78	37	5	9	6	7	5	7	6	3	2	2	2	4	4	77.9
22-Apr	3	3	4	2	4	7	6	3	4	6	7	22	24	3	3	7	10	3	9	4	10	7	5	3	23.6
23-Apr	5	4	2	2	2	7	16	16	13	10	6	7	4	8	7	50	7	25	60	20	20	16	12	18	60.1
24-Apr	16	9	7	10	6	9	13	6	13	16	5	11	15	14	18	8	6	5	5	10	8	5	3	3	18.2
25-Apr	4	3	3	5	44	13	12	7	8	4	5	2	9	7	8	5	5	7	13	4	4	6	4	5	44.1
26-Apr	5	3	3	16	70	87	34	59	9	46	93	11	57	7	10	6	5	6	31	11	29	14	12	11	92.8
27-Apr	7	48	27	14	28	38	9	4	12	23	4	5	11	12	9	19	6	11	9	21	19	21	11	10	48.2
28-Apr	19	6	15	16	16	14	11	6	20	8	10	6	4	7	8	7	35	10	12	25	13	7	8	10	34.9
29-Apr	6	4	6	7	9	9	6	10	11	14	19	16	P	P	P	P	P	P	P	P	P	16	39	13	38.8
30-Apr	33	15	15	23	9	3	4	5	7	8	11	7	7	6	5	5	4	6	4	14	12	25	7	5	33.4
63.1 74.6 81.5 92.3 90.4 87.1 64.4 58.9 36.1 88.9 92.8 72.9 57.1 87.6 73.6 49.7 45.9 78.0 60.1 69.5 42.1 79.1 48.8 54.3																									
P - Power Failure																									

PAZA

Beaverlodge Station

Monthly Summary Tables, Graphs and
Roses

Hourly Averages

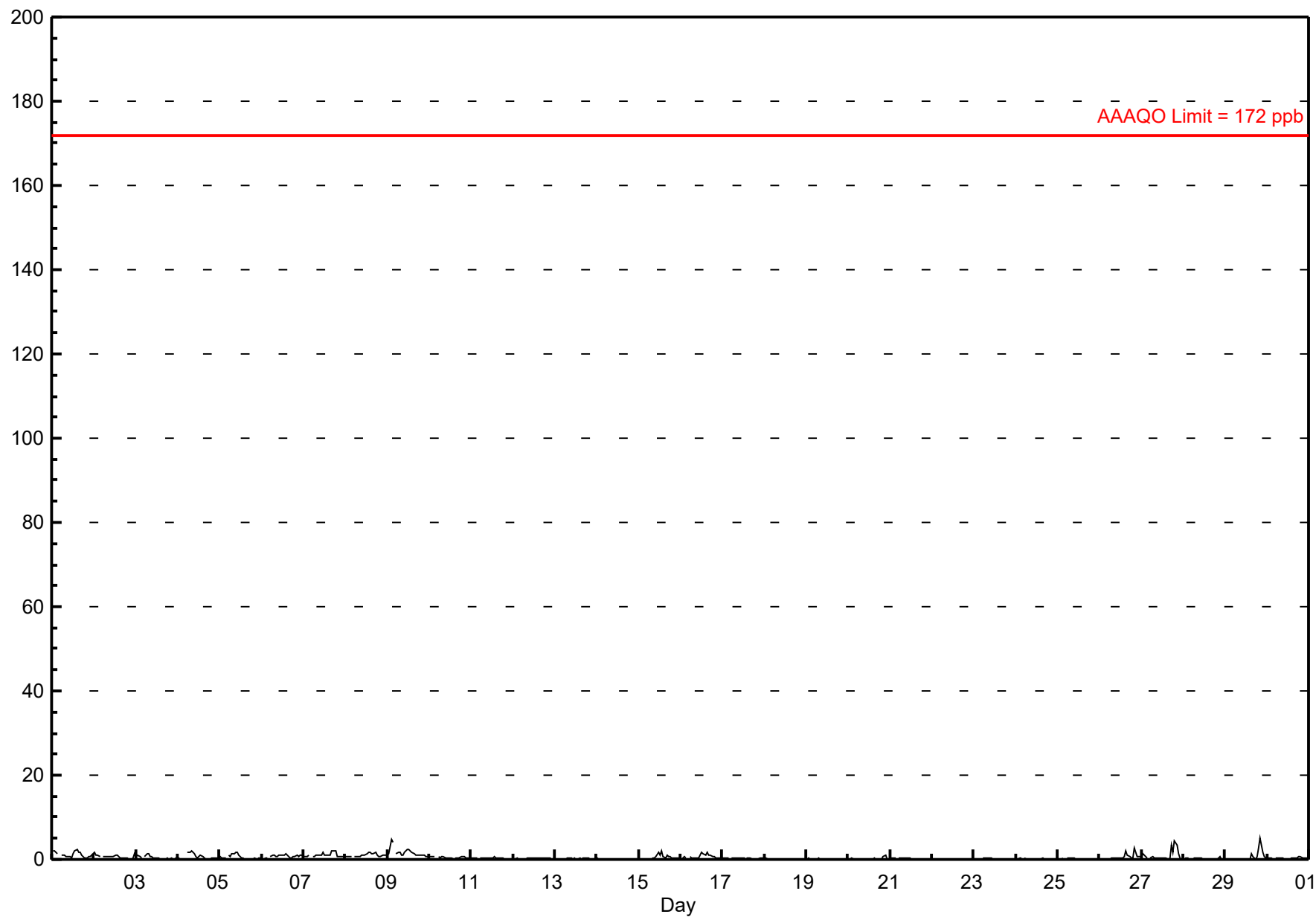
Sulphur Dioxide (SO₂) - ppb

Beaverlodge - April 2018

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0																				Hours in Service: 720						
Maximum Value: 5.0 ppb on Apr 29 21:00										Maximum Daily Average: 1.6 ppb on Apr 9										Hours of Data: 687						
Minimum Value: 0 ppb on Apr 18 16:00										Minimum Daily Average: 0.1 ppb on Apr 22										Hours of Missing Data: 33						
Maximum Diurnal Average: 0.7 ppb at hour 21										Minimum Diurnal Average: 0.3 ppb at hour 23										Hours of Calibration: 33						
Monthly Average: 0.47 ppb										Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.1 Median = 0.2 Q ₃ = 0.6 P ₉₀ = 1.2 P ₉₉ = 2.6										Percent Operational Time: 100.0						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	2	2	2	1	A	1	1	1	1	1	1	0	1	2	2	2	2	1	0	0	0	1	1	1	1.2	2.3
2-Apr	2	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	1	0.7	1.6
3-Apr	1	1	1	0	A	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.4
4-Apr	0	0	0	0	A	2	2	2	2	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0.6	1.9
5-Apr	1	0	0	0	A	1	1	1	1	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0.6	1.7
6-Apr	0	0	0	0	A	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	0.7	1.4
7-Apr	1	1	1	1	A	1	1	1	1	1	1	2	1	1	1	1	2	2	2	1	1	1	1	1	1.0	2.2
8-Apr	1	1	1	1	A	1	1	1	1	1	1	1	1	2	2	1	1	2	1	1	1	1	1	1	1.0	1.7
9-Apr	1	1	5	4	A	1	2	2	1	1	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1.6	4.6
10-Apr	1	1	1	1	A	1	0	1	1	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0.5	0.8
11-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.3	0.5
12-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
13-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
14-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
15-Apr	0	0	0	0	A	0	0	0	0	0	1	2	1	2	1	0	1	1	1	0	0	0	0	0	0.5	1.9
16-Apr	0	0	1	0	A	1	0	0	0	0	0	1	2	1	1	2	1	1	1	1	0	0	0	0	0.6	1.8
17-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
18-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
19-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
20-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0.2	0.9
21-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
22-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
23-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
24-Apr	0	0	0	0	A	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0	0	0	0.1	0.4
25-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
26-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	2	1	1	0	0	3	1	1	1	0.5	2.6
27-Apr	1	1	1	0	A	0	1	0	0	0	0	0	0	0	0	0	0	3	2	4	3	1	0	0	0.9	4.4
28-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.2	0.6
29-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	1	0	1	3	5	2	1	0	0.6	5.0
30-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0.3	0.6
0.4 0.4 0.5 0.5 -- 0.5 0.5 0.5 0.5 0.4 0.4 0.5 0.5 0.6 0.5 0.5 0.5 0.5 0.4 0.5 0.7 0.4 0.3 0.4																								Diurnal Average		
2.2 2.1 4.6 4.1 -- 1.8 1.6 1.6 1.9 1.7 1.7 2.3 2.5 2.0 2.3 2.2 2.1 3.3 2.0 4.4 5.0 1.6 1.0 1.4																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb																										

Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Beaverlodge - April 2018



Hourly Maximums

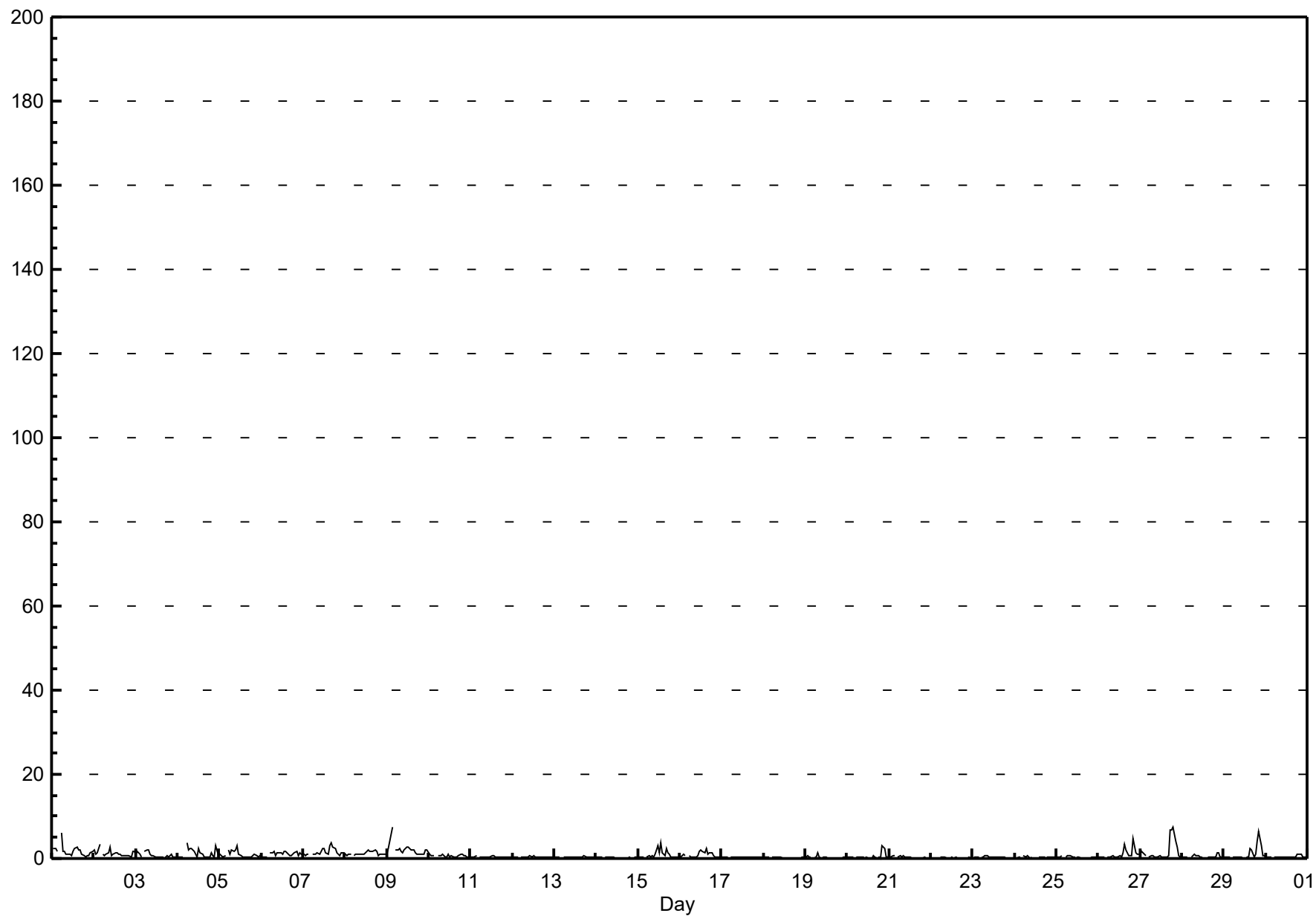
Sulphur Dioxide (SO₂) - ppb

Beaverlodge - April 2018

Maximum Value: 7.5 ppb on Apr 9 04:00																			Maximum Daily Average: 2.2 ppb on Apr 9							Hours in Service: 720			
Minimum Value: 0 ppb on Apr 18 13:00																			Minimum Daily Average: 0.2 ppb on Apr 22							Hours of Data: 687			
Maximum Diurnal Average: 1.1 ppb at hour 21																			Minimum Diurnal Average: 0.6 ppb at hour 1							Hours of Missing Data: 33			
Monthly Average: 0.76 ppb																			Percentiles: P ₁ = 0.1 P ₁₀ = 0.1 Q ₁ = 0.2 Median = 0.4 Q ₃ = 1.0 P ₉₀ = 1.8 P ₉₉ = 5.0							Hours of Calibration: 33			
																			Percent Operational Time: 100.0										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
1-Apr	3	3	2	2	A	6	2	2	1	1	1	1	2	3	3	2	2	1	1	0	1	1	1	2	1.8	6.2			
2-Apr	2	1	1	3	A	1	1	1	1	3	1	1	1	1	1	1	1	1	1	1	1	0	2	2	1.2	3.3			
3-Apr	1	2	1	0	A	2	2	2	1	1	1	0	0	0	0	0	0	0	1	0	1	0	0	0	0.8	2.1			
4-Apr	0	0	0	0	A	4	2	2	2	2	1	0	2	1	1	0	0	0	0	1	1	0	3	1	1.2	3.6			
5-Apr	1	1	0	1	A	2	1	2	2	2	3	1	1	0	0	0	0	0	0	1	1	1	0	1	0.9	3.0			
6-Apr	0	0	0	0	A	1	1	2	1	1	1	1	1	2	2	1	1	1	1	2	2	1	2	1	1.1	1.8			
7-Apr	1	1	1	1	A	1	1	1	1	1	2	2	2	1	1	3	4	3	2	1	1	1	1	1	1.6	3.7			
8-Apr	1	1	1	1	A	1	1	1	1	1	1	1	2	2	2	2	2	2	2	1	1	1	1	1	1.2	2.1			
9-Apr	1	2	6	7	A	2	2	2	2	1	2	3	3	2	2	2	1	1	1	1	1	1	2	2	2.2	7.5			
10-Apr	1	1	1	1	A	1	1	1	1	1	0	1	0	1	0	0	0	1	1	1	1	1	0	0	0.7	1.1			
11-Apr	0	0	0	1	A	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0.4	0.7			
12-Apr	0	0	0	0	A	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7			
13-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0.3	0.5			
14-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3			
15-Apr	0	0	0	0	A	0	1	0	1	0	1	3	1	4	1	1	2	1	1	0	0	0	0	0	0.9	3.8			
16-Apr	0	1	1	1	A	1	0	0	0	0	1	2	2	2	2	2	1	1	1	1	0	0	0	0	0.9	2.4			
17-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5			
18-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3			
19-Apr	0	1	0	0	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.5			
20-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	3	2	0	0	0.5	2.9			
21-Apr	0	0	1	1	A	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8			
22-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.2			
23-Apr	0	0	0	1	A	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8			
24-Apr	0	0	0	0	A	1	0	1	0	0	0	C	C	C	0	0	0	0	0	0	0	0	0	0	0.3	0.7			
25-Apr	0	0	0	1	A	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7			
26-Apr	0	0	0	0	A	0	0	0	1	0	0	0	1	0	1	3	2	1	1	1	5	1	1	1	0.9	4.9			
27-Apr	1	2	1	1	A	0	1	1	0	0	0	1	0	0	0	0	1	7	7	7	4	3	1	0	1.7	7.4			
28-Apr	0	0	0	1	A	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0.4	1.4			
29-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	2	2	0	1	4	7	3	1	1	1.0	6.6			
30-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0.4	1.2			
0.6					0.6	0.7	0.8	--	0.9	0.7	0.8	0.7	0.7	0.8	0.8	0.8	0.7	0.8	0.8	0.8	0.8	0.9	1.1	0.7	0.7	0.6	Diurnal Average		
2.5					2.5	5.6	7.5	--	6.2	2.2	2.3	2.5	2.9	3.0	3.0	2.8	3.8	2.9	3.3	3.7	6.9	6.8	7.4	6.6	3.0	3.0	2.1	Diurnal Maximum	
C - Calibration																	A - Automated Daily Zero Span												

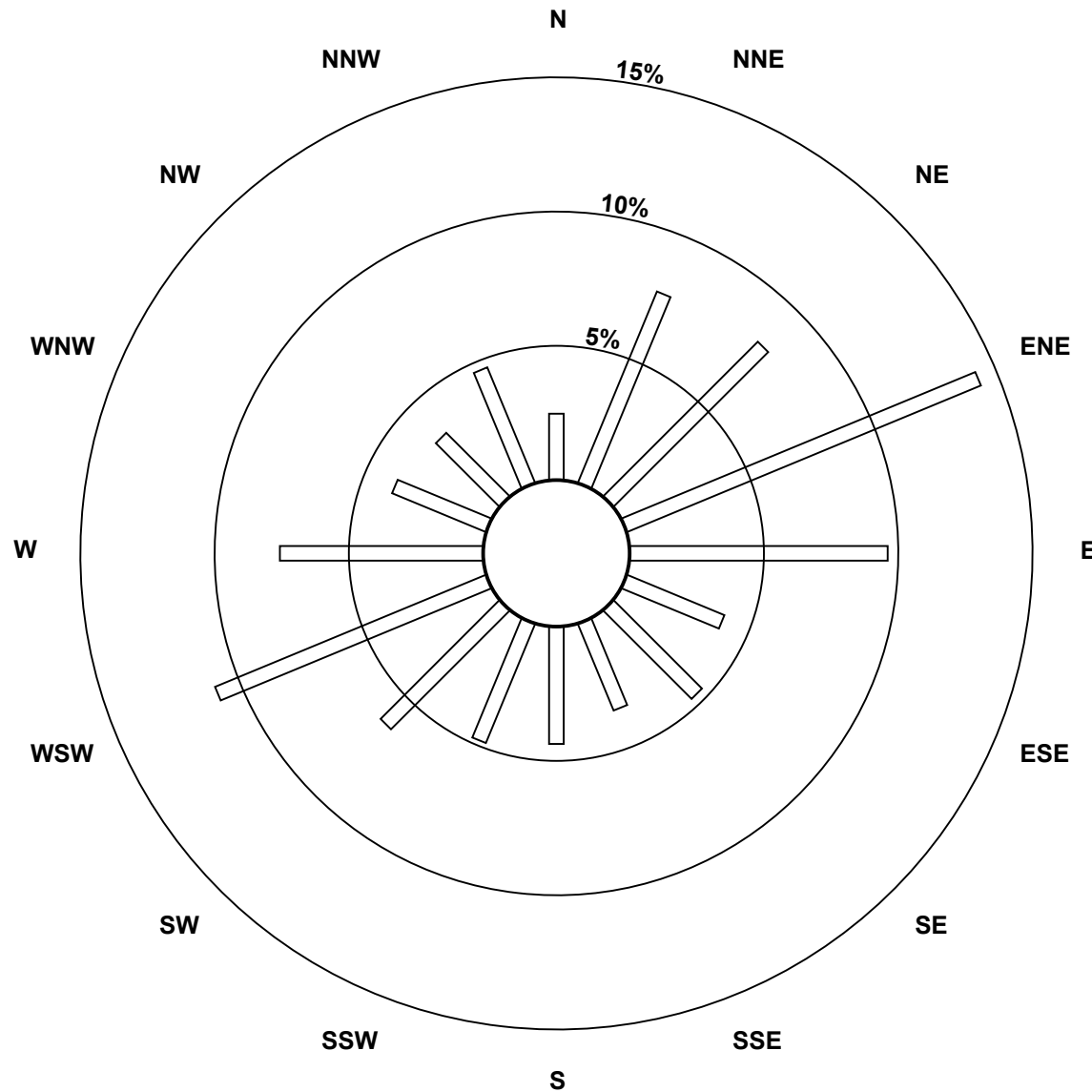
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Beaverlodge - April 2018

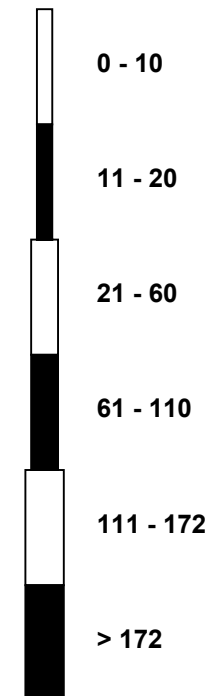


Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Beaverlodge - April 2018

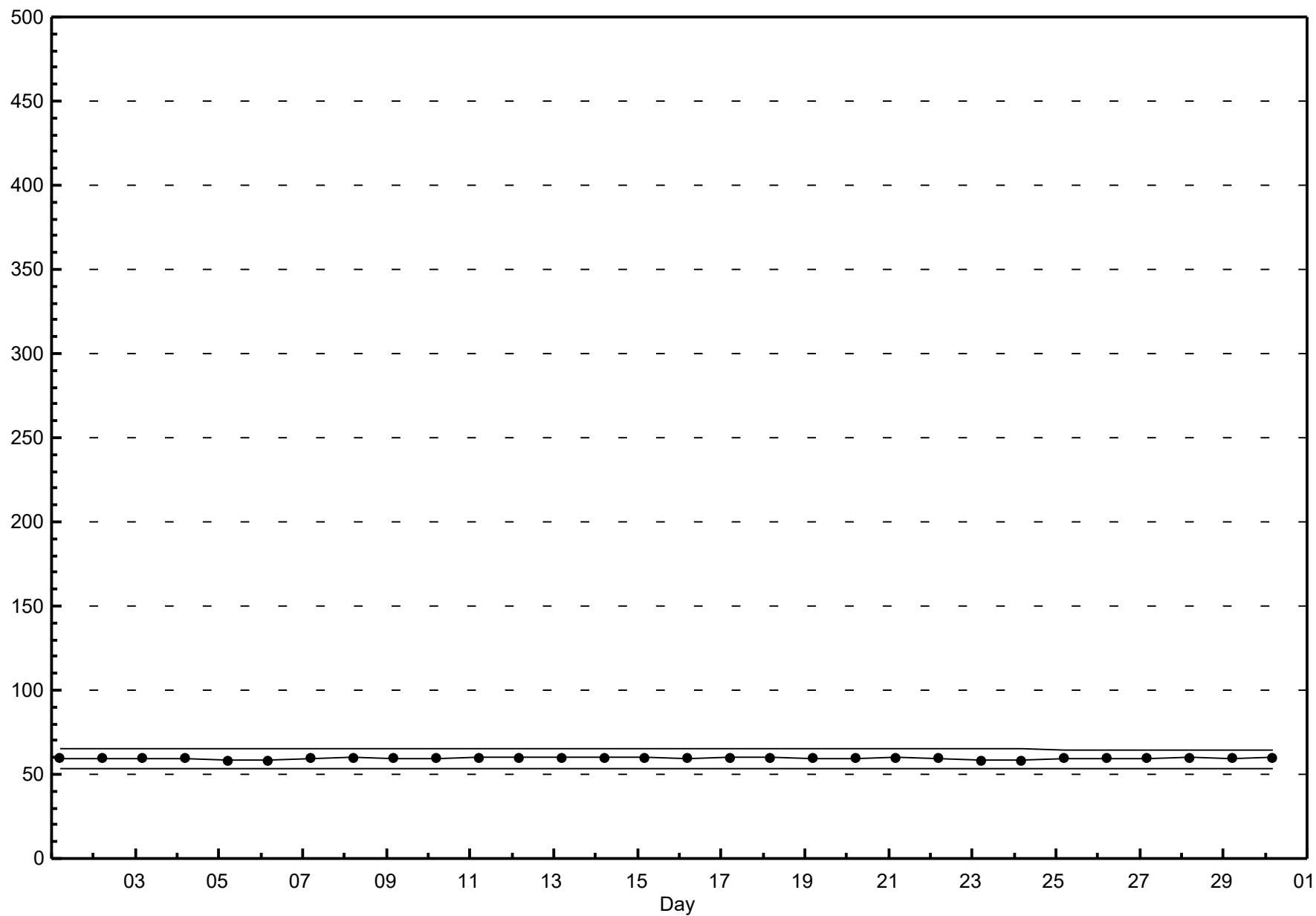


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Beaverlodge - April 2018



Hourly Averages

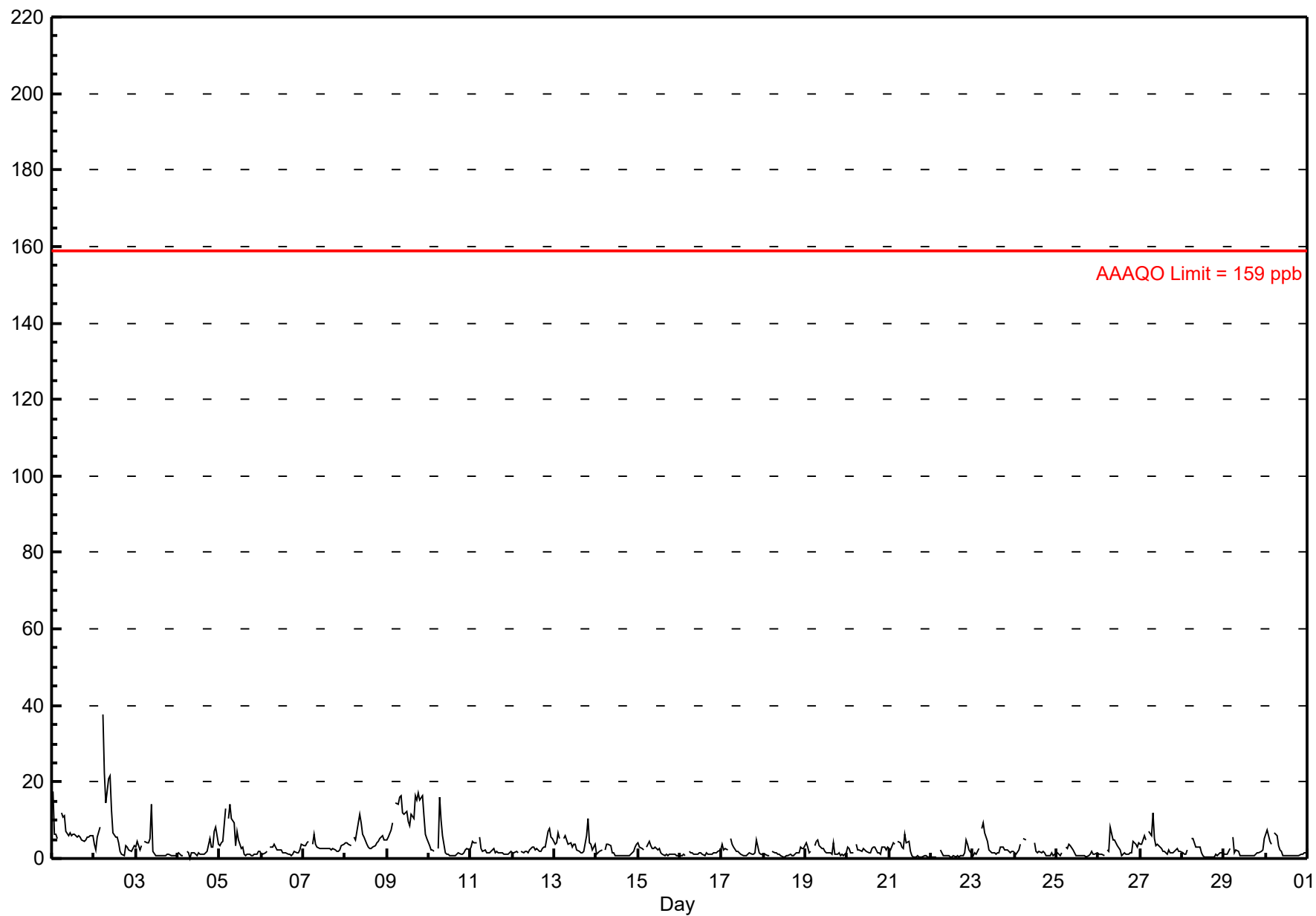
Nitrogen Dioxide (NO₂) - ppb

Beaverlodge - April 2018

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 37.8 ppb on Apr 2 06:00 Maximum Daily Average: 11.6 ppb on Apr 9																				Hours in Service: 720 Hours of Data: 686 Hours of Missing Data: 34 Hours of Calibration: 34 Percent Operational Time: 100.0						
Minimum Value: 0 ppb on Apr 4 08:00 Maximum Diurnal Average: 6.0 ppb at hour 6 Monthly Average: 3.08 ppb										Minimum Daily Average: 1.1 ppb on Apr 22 Minimum Diurnal Average: 1.8 ppb at hour 16 Percentiles: P ₁ = 0.4 P ₁₀ = 0.7 Q ₁ = 1.1 Median = 2.0 Q ₃ = 3.7 P ₉₀ = 6.1 P ₉₉ = 16.4																
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	17	6	6	5	A	12	11	11	7	6	7	6	6	6	5	6	6	5	4	5	6	6	6	6	7.0	17.4
2-Apr	4	2	6	8	A	38	23	14	21	22	13	7	6	6	4	2	1	1	3	3	2	2	3	3	8.4	37.8
3-Apr	3	4	2	3	A	5	4	4	5	14	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2.5	14.0
4-Apr	1	1	1	1	A	2	1	0	1	2	1	1	1	1	1	1	1	2	5	3	3	7	8	4	2.2	8.2
5-Apr	3	4	5	13	A	11	14	10	9	3	7	5	3	3	1	1	1	1	1	1	1	1	2	2	4.4	14.2
6-Apr	1	1	1	2	A	3	3	4	3	2	2	2	2	2	2	1	1	1	1	2	2	1	2	4	1.9	3.9
7-Apr	3	3	4	4	A	4	6	4	3	3	3	3	3	3	3	3	2	3	2	2	2	2	3	4	3.1	6.4
8-Apr	4	4	4	3	A	6	5	7	12	9	6	6	4	3	3	3	3	3	4	5	5	6	5	5	5.0	11.6
9-Apr	5	5	8	9	A	15	14	16	17	12	12	12	10	9	12	10	16	15	17	15	16	11	6	5	11.6	17.1
10-Apr	4	2	2	2	A	3	16	10	6	2	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2.8	15.9
11-Apr	3	4	4	4	A	6	3	2	2	2	2	1	2	2	1	2	2	1	1	1	1	1	1	2	2.2	5.6
12-Apr	1	1	2	1	A	2	2	2	2	2	2	3	3	2	2	2	2	2	3	3	7	8	6	5	2.9	7.8
13-Apr	4	4	7	5	A	5	6	5	4	4	3	4	4	2	2	2	2	2	6	11	4	4	2	4	4.0	10.6
14-Apr	1	1	2	2	A	2	4	4	4	2	2	1	1	1	1	1	1	1	1	1	1	2	3	4	1.7	3.9
15-Apr	4	3	3	2	A	3	4	3	3	3	3	2	3	2	1	1	1	1	1	1	1	1	1	1	2.0	4.3
16-Apr	1	1	1	1	A	2	1	1	1	1	1	1	2	1	1	2	1	1	1	1	1	2	2	2	1.3	2.2
17-Apr	4	2	3	2	A	5	4	3	2	2	1	1	1	1	1	1	1	1	1	2	5	1	1	1	2.0	5.3
18-Apr	1	1	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	3	3	1.2	3.0
19-Apr	4	3	1	2	A	3	5	5	3	3	3	2	1	1	1	1	4	1	1	2	1	1	1	2	2.3	4.8
20-Apr	3	3	2	2	A	4	2	2	2	3	2	2	2	2	3	3	3	1	2	1	3	3	2	3	2.3	3.7
21-Apr	3	2	4	4	A	4	4	3	3	6	4	4	2	1	1	1	1	0	1	0	1	1	0	0	2.1	6.4
22-Apr	0	0	0	0	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2	5	4	2	1	1.1	4.8
23-Apr	1	1	1	3	A	8	9	7	5	2	2	2	1	1	1	2	3	3	2	2	2	2	2	2	2.8	9.2
24-Apr	2	1	2	4	A	5	5	C	C	C	C	4	2	1	2	2	2	1	1	1	1	1	1	1	2.1	5.4
25-Apr	1	1	1	1	A	3	3	4	3	2	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1.5	3.7
26-Apr	1	1	1	1	A	2	2	8	5	5	4	3	2	1	1	2	1	1	2	1	5	4	3	4	2.6	8.3
27-Apr	4	4	6	5	A	7	6	12	5	4	4	3	3	2	2	1	2	2	2	1	2	3	2	2	3.5	11.9
28-Apr	1	1	1	2	A	5	5	4	3	3	3	1	1	0	0	0	0	1	1	1	1	1	2	1	1.8	5.3
29-Apr	1	1	1	3	A	6	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	2	2	5	1.6	5.7
30-Apr	7	7	5	4	A	7	6	3	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2.4	7.3
3.1 2.6 2.8 3.4 -- 6.0 5.7 5.3 4.7 4.2 3.2 2.7 2.2 1.9 1.9 1.8 2.1 1.9 2.3 2.5 2.9 2.8 2.5 2.7																								Diurnal Average		
17.4 7.3 7.6 13.0 -- 37.8 22.6 15.9 21.1 21.8 12.8 12.4 9.7 8.6 11.6 10.4 16.4 15.3 17.1 15.3 16.4 11.0 8.2 6.1																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb 24-hr 106 ppb																										

Hourly Averages

Nitrogen Dioxide (NO₂) - ppb
Beaverlodge - April 2018



Hourly Maximums

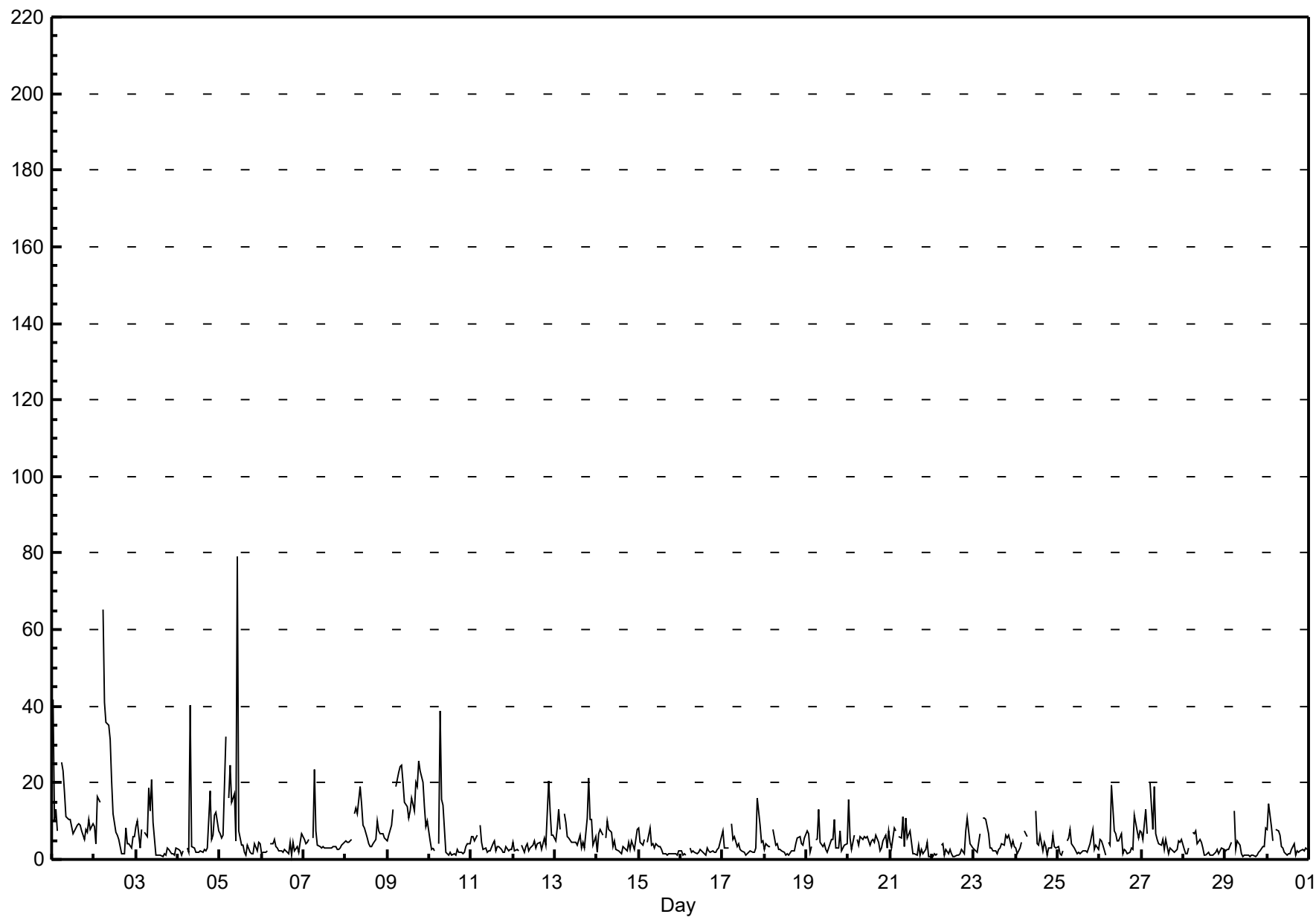
Nitrogen Dioxide (NO₂) - ppb

Beaverlodge - April 2018

Maximum Value: 79.2 ppb on Apr 5 11:00																				Maximum Daily Average: 15.9 ppb on Apr 9					Hours in Service: 720	
Minimum Value: 1 ppb on Apr 22 00:00																				Minimum Daily Average: 2.2 ppb on Apr 16					Hours of Data: 686	
Maximum Diurnal Average: 11.6 ppb at hour 8																				Minimum Diurnal Average: 3.0 ppb at hour 14					Hours of Missing Data: 34	
Monthly Average: 5.66 ppb																				Percentiles: P ₁ = 0.9 P ₁₀ = 1.5 Q ₁ = 2.3 Median = 3.7 Q ₃ = 6.4 P ₉₀ = 11.3 P ₉₉ = 35.1					Hours of Calibration: 34	
																				Percent Operational Time: 100.0						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	42	10	13	8	A	25	23	18	11	10	10	9	7	7	9	9	9	7	5	8	7	11	8	9	12.0	41.9
2-Apr	8	4	16	15	A	65	41	36	35	31	21	12	7	6	5	3	1	1	8	4	4	3	6	6	14.8	65.4
3-Apr	8	10	3	8	A	7	6	19	13	21	10	1	1	1	1	1	2	1	3	3	1	2	1	3	5.4	20.7
4-Apr	3	2	1	2	A	3	2	40	4	3	2	2	2	2	2	2	2	3	18	5	6	11	12	8	6.0	40.4
5-Apr	7	6	6	32	A	16	24	15	17	5	79	7	4	4	2	1	4	2	1	2	4	2	4	4	10.8	79.2
6-Apr	2	2	2	2	A	4	4	5	3	3	2	2	2	3	2	2	4	1	5	2	3	2	4	7	3.0	6.8
7-Apr	5	4	5	5	A	6	24	8	4	3	3	3	3	3	3	3	3	3	3	2	3	3	4	4	4.7	23.6
8-Apr	5	5	4	5	A	12	13	12	19	14	9	8	6	4	3	3	4	5	10	7	7	7	6	5	7.6	19.0
9-Apr	5	6	9	13	A	19	23	24	25	20	15	14	11	13	16	13	20	19	26	23	20	14	9	10	15.9	25.8
10-Apr	5	3	3	2	A	4	39	16	14	2	2	1	2	1	1	1	3	2	2	2	2	3	4	4	5.1	38.7
11-Apr	6	6	5	6	A	9	4	2	3	2	2	2	4	5	2	3	3	3	2	2	3	2	2	3	3.6	8.9
12-Apr	4	2	3	2	A	4	2	3	4	2	3	4	5	3	4	4	3	4	6	4	21	13	6	6	4.8	20.6
13-Apr	5	8	13	8	A	12	10	6	5	4	4	5	5	4	6	3	4	3	11	21	11	10	4	6	7.3	21.3
14-Apr	2	7	8	6	A	6	10	8	7	3	5	3	2	2	2	3	3	2	4	2	5	3	5	8	4.6	10.0
15-Apr	8	4	4	5	A	4	8	4	4	3	4	3	3	3	1	1	1	1	2	1	1	1	1	2	3.2	8.2
16-Apr	2	1	1	1	A	3	2	2	2	1	2	2	2	2	1	3	2	2	2	2	2	3	3	6	2.2	6.0
17-Apr	7	3	3	3	A	9	5	6	3	4	2	2	2	1	1	2	2	2	2	3	16	9	5	5	4.3	16.1
18-Apr	3	4	3	3	A	8	4	4	3	3	2	2	1	1	1	2	2	2	4	5	6	4	4	6	3.4	8.0
19-Apr	7	7	2	3	A	5	5	13	5	3	4	3	2	3	5	5	10	3	3	8	2	3	4	4	4.8	13.1
20-Apr	16	6	3	6	A	5	4	6	5	6	5	6	4	5	5	4	6	5	2	3	5	6	3	7	5.4	15.7
21-Apr	5	3	8	7	A	6	6	11	3	11	6	8	4	2	2	1	4	1	3	1	3	4	1	1	4.3	11.2
22-Apr	1	1	1	1	A	4	4	1	3	2	2	2	1	1	1	1	1	2	2	7	11	7	4	3	2.8	10.8
23-Apr	3	2	2	7	A	11	11	11	7	3	3	2	2	2	2	3	4	4	6	5	7	3	5	3	4.7	11.0
24-Apr	3	2	3	4	A	8	6	C	C	C	C	13	4	4	6	2	4	3	1	3	3	6	3	3	4.3	12.8
25-Apr	4	1	1	2	A	5	6	8	4	3	2	2	2	2	2	2	2	2	4	6	8	3	4	3	3.3	7.7
26-Apr	5	5	4	1	A	4	4	19	7	7	5	5	7	2	3	2	2	2	3	3	12	8	6	7	5.2	19.5
27-Apr	7	5	13	7	A	20	8	19	7	5	4	4	5	3	5	2	3	2	2	2	3	5	4	5	6.1	20.1
28-Apr	3	1	1	3	A	7	7	8	4	5	4	3	1	1	2	1	1	1	2	3	1	2	3	3	2.9	7.6
29-Apr	2	3	3	5	A	13	3	5	4	1	1	1	1	1	1	1	1	1	1	2	2	3	3	8	2.8	12.5
30-Apr	8	15	8	5	A	8	8	7	3	3	2	1	1	1	3	4	1	2	2	2	2	2	3	3	4.1	14.7
6.3 4.6 5.1 6.0 -- 10.4 10.4 11.6 7.9 6.4 7.5 4.3 3.4 3.0 3.4 3.1 3.8 3.1 4.8 4.8 6.0 5.2 4.4 5.1																									Diurnal Average	
41.9 14.7 16.3 32.2 -- 65.4 41.0 40.4 34.9 31.3 79.2 13.6 10.9 12.7 16.2 12.8 20.3 19.1 25.8 23.3 20.6 13.8 12.2 10.1																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										

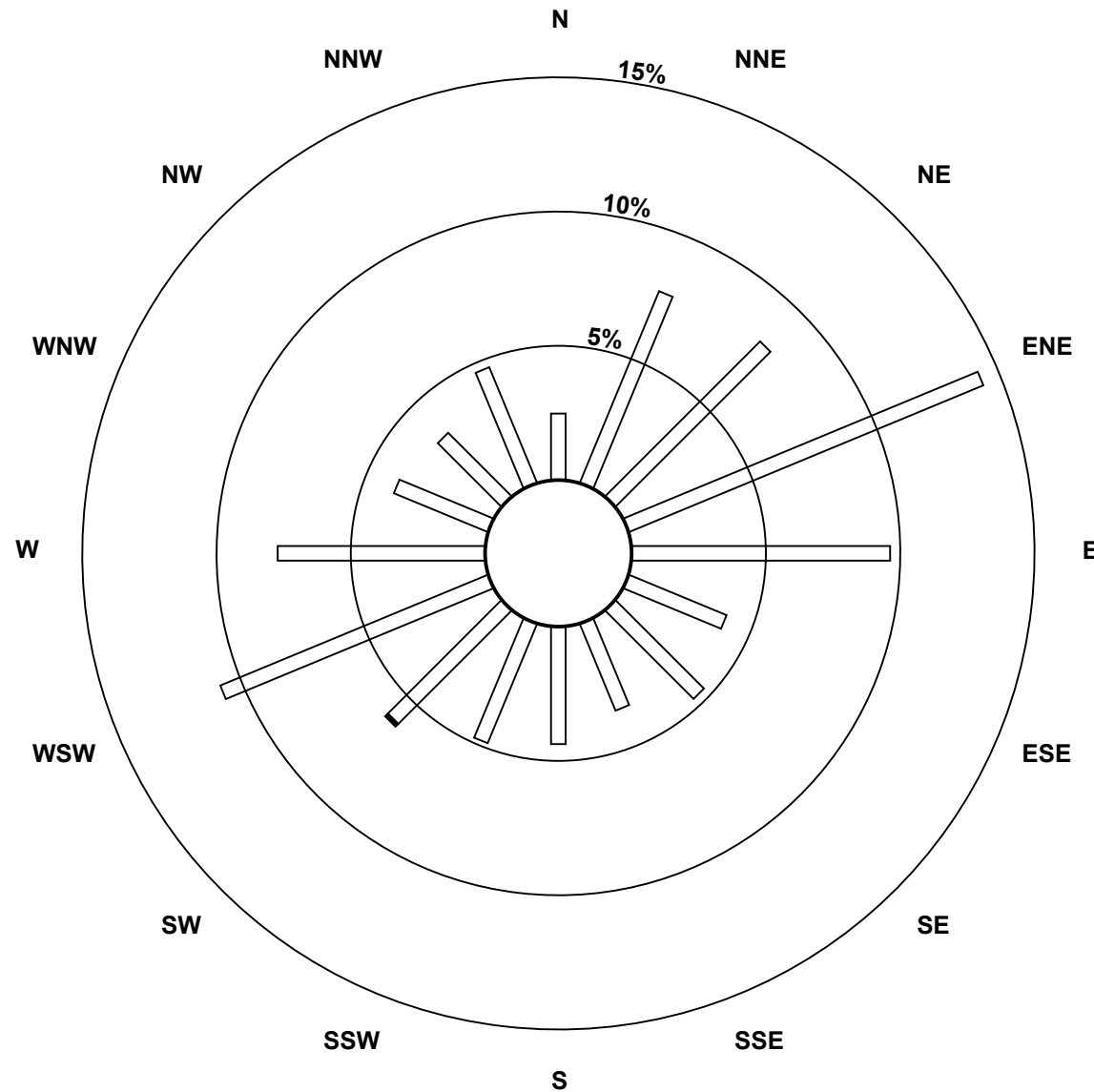
Hourly Maximums

Nitrogen Dioxide (NO₂) - ppb
Beaverlodge - April 2018

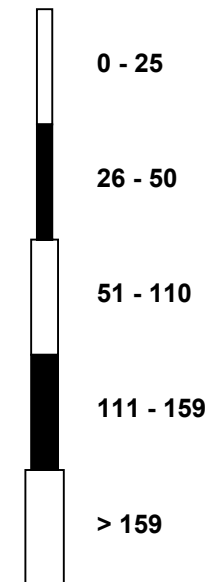


Pollutant Rose

Nitrogen Dioxide (NO₂) - ppb
Beaverlodge - April 2018

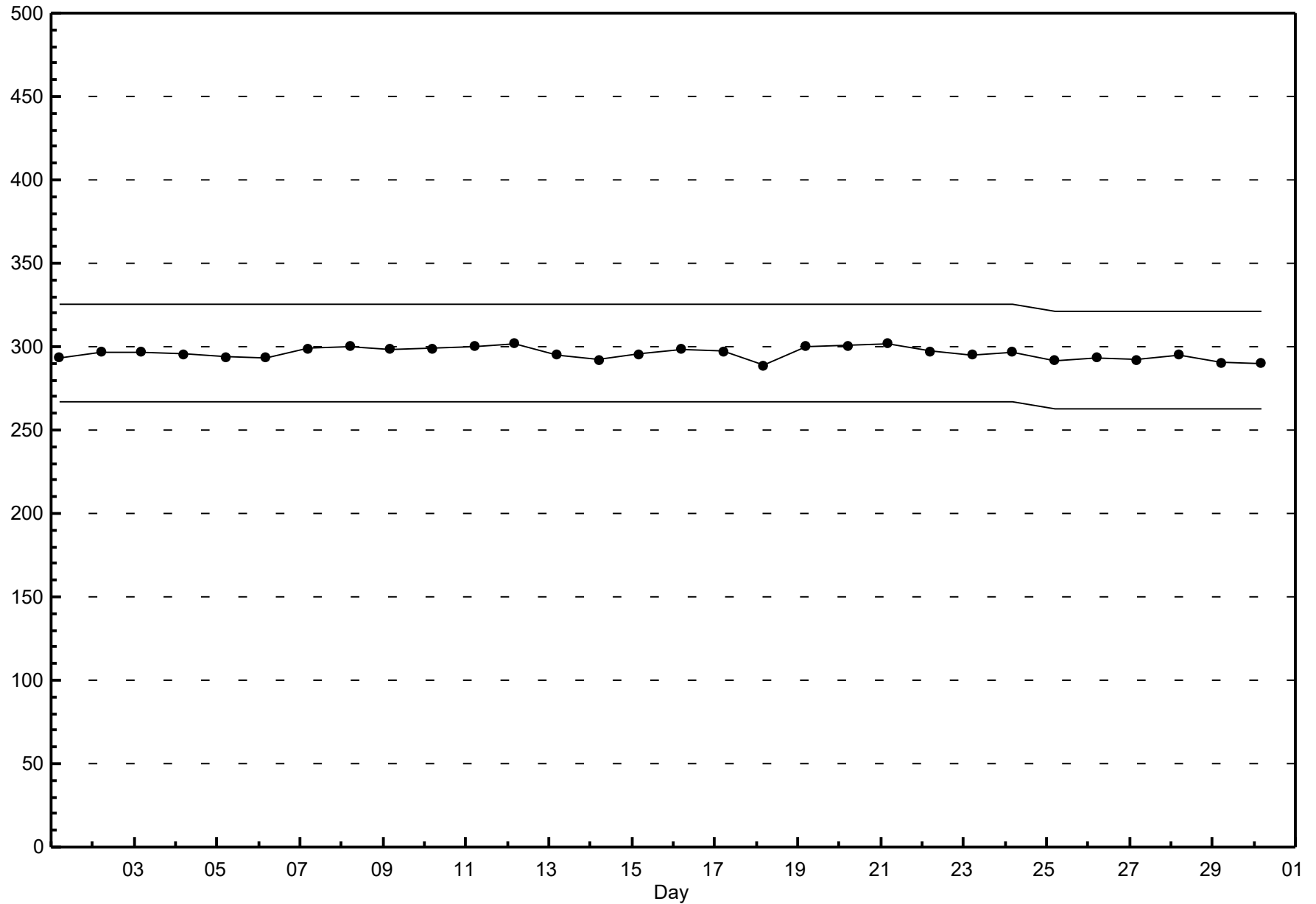


Pollutant Classes (ppb)



Span Responses

Nitrogen Dioxide (NO₂)
Beaverlodge - April 2018



Hourly Averages

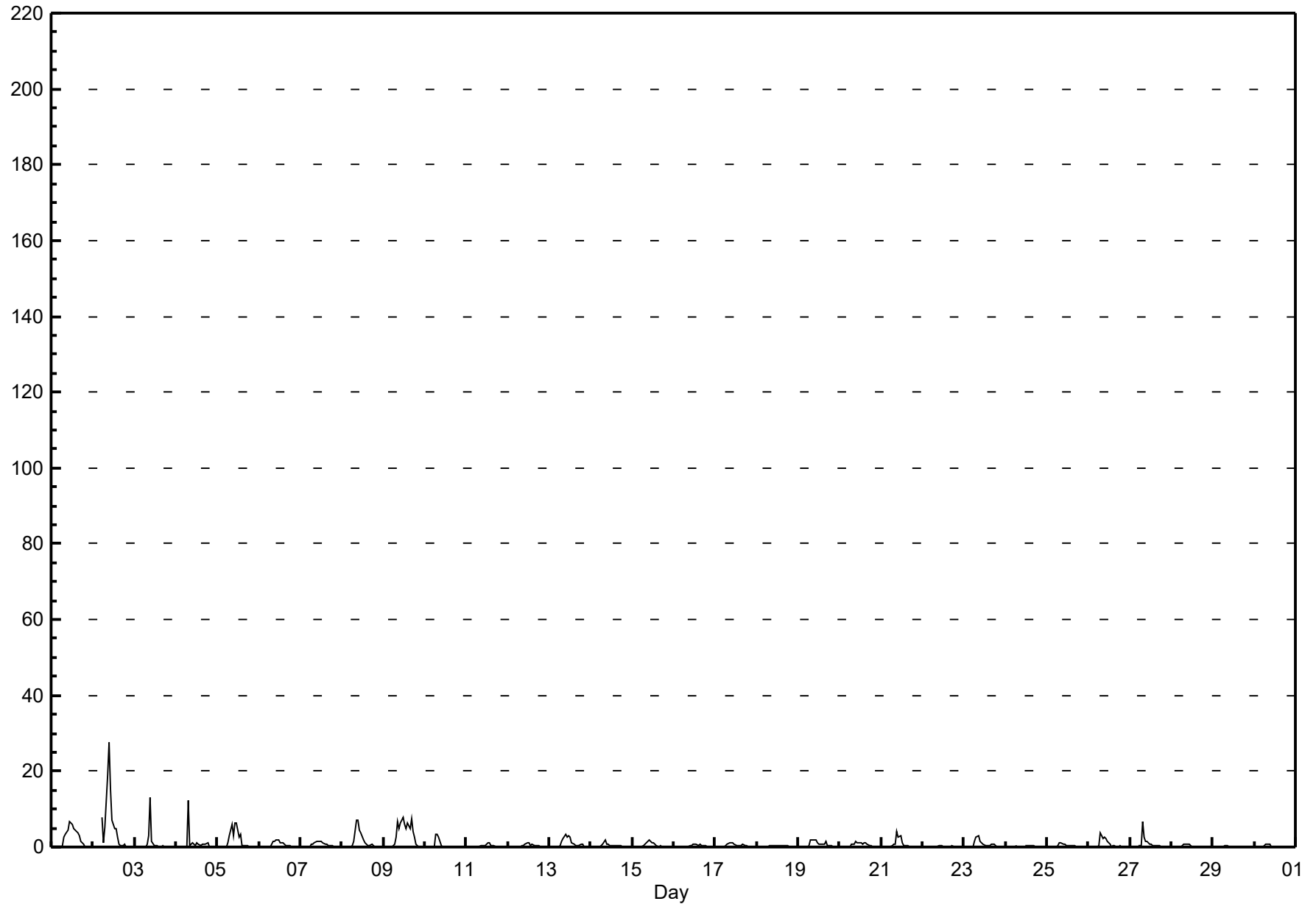
Nitrogen Oxide (NO) - ppb

Beaverlodge - April 2018

Maximum Value: 27.6 ppb on Apr 2 10:00																				Maximum Daily Average: 4.3 ppb on Apr 2										Hours in Service: 720	
Minimum Value: 0 ppb on Apr 2 02:00																				Minimum Daily Average: 0.1 ppb on Apr 29										Hours of Data: 686	
Maximum Diurnal Average: 3.0 ppb at hour 10																				Minimum Diurnal Average: 0.0 ppb at hour 24										Hours of Missing Data: 34	
Monthly Average: 0.78 ppb																				Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.2 Q ₃ = 0.6 P ₉₀ = 1.8 P ₉₉ = 7.5										Hours of Calibration: 34	
																														Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
1-Apr	0	0	0	0	A	0	0	3	3	5	7	6	6	5	4	4	3	2	1	0	0	0	0	0	2.1	6.6					
2-Apr	0	0	0	0	A	8	1	5	19	28	15	7	5	5	3	1	0	0	1	0	0	0	0	0	4.3	27.6					
3-Apr	0	0	0	0	A	0	0	1	3	13	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0.9	13.0					
4-Apr	0	0	0	0	A	0	0	12	0	1	1	1	1	1	0	1	1	1	1	0	0	0	0	0	0.9	12.4					
5-Apr	0	0	0	0	A	0	1	3	6	3	6	6	3	3	0	0	0	0	0	0	0	0	0	0	1.5	6.4					
6-Apr	0	0	0	0	A	0	0	1	1	2	2	2	1	1	1	1	0	0	0	0	0	0	0	0	0.6	1.8					
7-Apr	0	0	0	0	A	0	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0.5	1.5					
8-Apr	0	0	0	0	A	0	0	1	7	7	4	4	2	1	1	1	0	1	1	0	0	0	0	0	1.3	7.0					
9-Apr	0	0	0	0	A	0	1	3	7	5	6	8	6	5	6	5	7	4	3	1	0	0	0	0	2.9	8.0					
10-Apr	0	0	0	0	A	0	3	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	3.3					
11-Apr	0	0	0	0	A	0	0	0	0	0	1	0	1	1	0	1	0	0	0	0	0	0	0	0	0.3	1.1					
12-Apr	0	0	0	0	A	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0.3	1.3					
13-Apr	0	0	0	0	A	0	0	1	2	3	2	3	3	1	1	0	0	0	1	1	0	0	0	0	0.9	3.4					
14-Apr	0	0	0	0	A	0	0	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.7					
15-Apr	0	0	0	0	A	0	0	1	1	1	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0.4	2.0					
16-Apr	0	0	0	0	A	0	0	0	0	0	0	1	1	1	0	1	0	0	0	0	0	0	0	0	0.2	0.9					
17-Apr	0	0	0	0	A	0	0	1	1	1	1	1	0	0	0	1	1	0	0	0	0	0	0	0	0.4	1.2					
18-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5					
19-Apr	0	0	0	0	A	0	0	2	2	2	2	1	1	1	1	1	1	0	0	0	0	0	0	0	0.6	1.9					
20-Apr	0	0	0	0	A	0	0	1	1	2	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0.5	1.6					
21-Apr	0	0	0	0	A	0	0	1	1	4	3	3	1	0	0	0	0	0	0	0	0	0	0	0	0.6	4.0					
22-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3					
23-Apr	0	0	0	0	A	0	1	3	3	1	1	1	1	0	1	0	1	1	0	0	0	0	0	0	0.6	2.8					
24-Apr	0	0	0	0	A	0	0	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5					
25-Apr	0	0	0	0	A	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.2					
26-Apr	0	0	0	0	A	0	0	4	2	3	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0.6	3.8					
27-Apr	0	0	0	0	A	0	1	7	3	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.7	6.8					
28-Apr	0	0	0	0	A	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.9					
29-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3					
30-Apr	0	0	0	0	A	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.9					
0.0		0.0	0.0	0.0	--	0.3	0.5	2.0	2.5	3.0	2.3	1.8	1.3	1.0	0.8	0.7	0.7	0.5	0.4	0.1	0.0	0.0	0.0	0.0	Diurnal Average						
0.1		0.1	0.1	0.1	--	7.9	3.3	12.4	19.2	27.6	15.3	8.0	5.8	4.9	6.2	4.7	7.4	4.2	2.8	0.8	0.2	0.1	0.1	0.1	Diurnal Maximum						
C - Calibration		A - Automated Daily Zero Span																													

Hourly Averages

Nitrogen Oxide (NO) - ppb
Beaverlodge - April 2018



Hourly Maximums

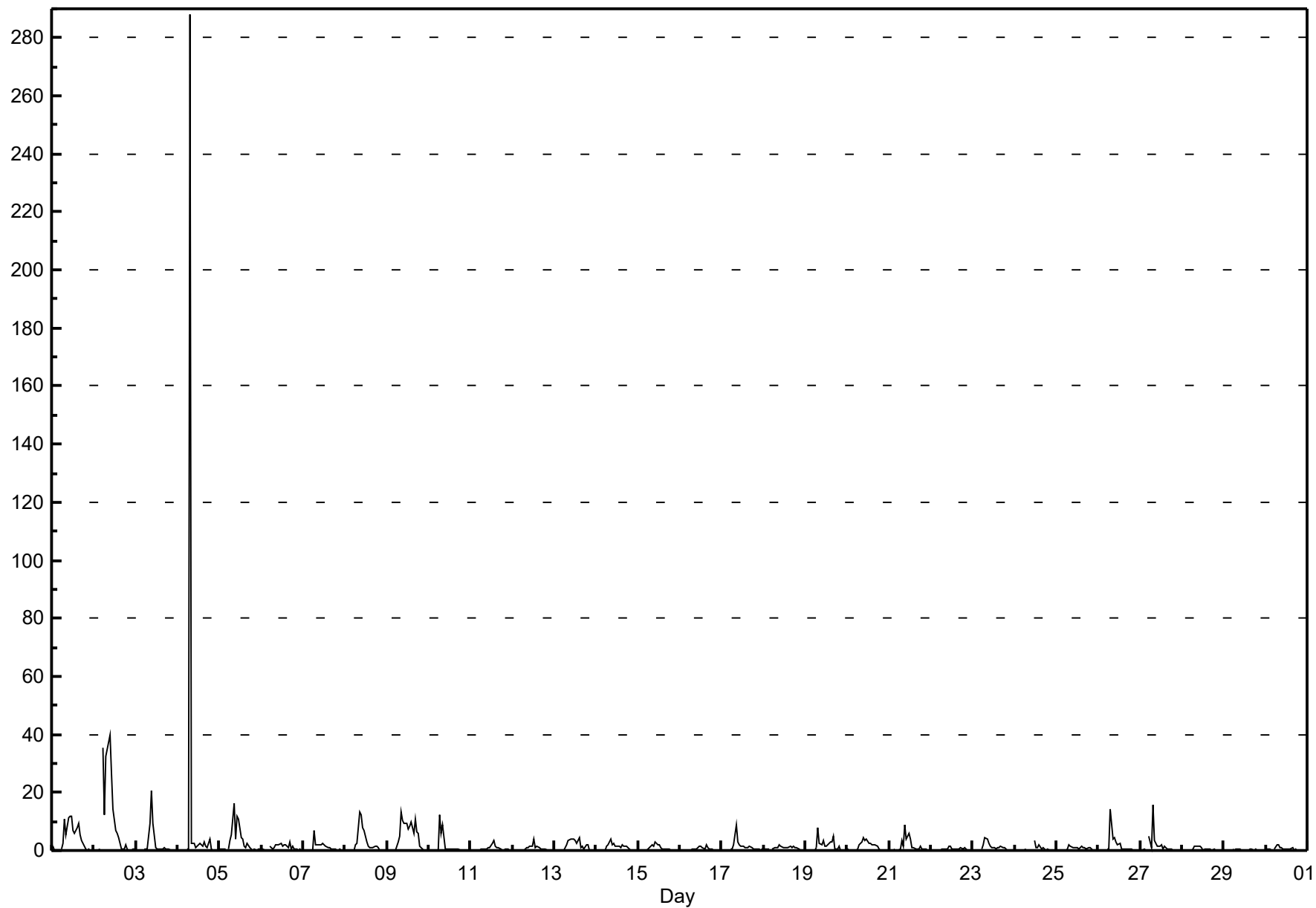
Nitrogen Oxide (NO) - ppb

Beaverlodge - April 2018

Maximum Value: 288.3 ppb on Apr 4 08:00																				Maximum Daily Average: 13.6 ppb on Apr 4					Hours in Service: 720	
Minimum Value: 0 ppb on Apr 4 04:00																				Minimum Daily Average: 0.2 ppb on Apr 29					Hours of Data: 686	
Maximum Diurnal Average: 14.5 ppb at hour 8																				Minimum Diurnal Average: 0.2 ppb at hour 4					Hours of Missing Data: 34	
Monthly Average: 2.11 ppb																				Percentiles: P ₁ = 0.1 P ₁₀ = 0.2 Q ₁ = 0.2 Median = 0.4 Q ₃ = 1.5 P ₉₀ = 3.9 P ₉₉ = 17.0					Hours of Calibration: 34	
																				Percent Operational Time: 100.0						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	1	0	0	0	A	0	2	11	5	11	12	12	7	6	8	9	6	3	1	0	0	0	0	0	4.2	11.9
2-Apr	0	0	0	0	A	36	13	33	37	40	26	14	7	6	5	2	1	1	2	1	0	0	0	0	9.7	40.0
3-Apr	0	0	0	0	A	1	1	5	9	21	9	1	1	1	1	0	1	1	1	0	0	0	0	0	2.3	20.7
4-Apr	0	0	0	0	A	0	0	288	2	2	1	2	2	2	1	3	2	1	4	0	0	0	0	0	13.6	288.3
5-Apr	0	0	0	0	A	0	3	5	16	4	12	11	4	4	2	1	3	1	0	0	1	0	0	0	3.1	16.3
6-Apr	0	0	0	0	A	1	1	1	2	2	2	2	1	2	2	1	3	0	1	0	1	0	0	0	1.1	2.7
7-Apr	0	0	0	0	A	0	7	2	2	2	2	2	2	2	1	1	1	1	1	0	0	0	0	0	1.1	7.1
8-Apr	0	0	0	0	A	0	2	3	13	12	8	7	3	2	1	1	1	2	1	1	0	0	0	0	2.5	13.3
9-Apr	0	0	0	0	A	0	3	5	13	10	9	9	7	8	10	6	11	6	6	1	1	0	0	0	4.7	13.3
10-Apr	0	0	0	0	A	0	12	6	9	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1.4	12.4
11-Apr	0	0	0	0	A	0	0	0	1	1	1	1	3	4	1	1	1	0	0	0	0	0	0	0	0.7	3.5
12-Apr	0	0	0	0	A	0	0	0	1	1	1	2	4	1	2	1	1	1	1	0	0	0	0	0	0.7	3.7
13-Apr	0	0	0	0	A	0	1	2	3	4	4	4	3	3	5	1	1	0	2	2	0	0	0	0	1.6	4.5
14-Apr	0	0	0	0	A	0	1	2	4	2	3	1	1	1	1	2	2	1	1	0	0	0	0	0	1.0	4.0
15-Apr	0	0	0	0	A	0	1	1	2	2	3	2	2	1	1	0	1	0	0	0	0	0	0	0	0.8	2.8
16-Apr	0	0	0	0	A	0	0	0	0	1	1	1	2	1	0	2	1	1	1	0	0	0	0	0	0.6	2.0
17-Apr	0	0	0	0	A	0	1	2	9	3	2	2	1	1	1	1	1	1	1	0	1	1	0	0	1.2	8.9
18-Apr	0	1	0	0	A	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0.9	2.0
19-Apr	0	0	0	0	A	0	1	8	2	2	4	2	1	2	3	3	5	1	1	1	0	0	0	0	1.6	7.9
20-Apr	0	0	0	0	A	0	0	2	3	4	3	4	3	3	2	2	2	1	0	0	0	0	0	0	1.4	4.2
21-Apr	0	0	0	0	A	0	1	3	1	9	4	6	4	1	1	1	1	0	1	0	0	1	0	0	1.5	8.8
22-Apr	0	0	0	0	A	0	0	0	1	1	1	1	0	0	0	1	1	1	0	1	0	0	0	0	0.5	1.5
23-Apr	0	0	0	0	A	0	2	4	4	2	2	1	1	1	1	1	1	1	1	0	0	0	0	0	1.1	4.3
24-Apr	0	0	0	0	A	0	1	C	C	C	C	3	1	1	2	0	1	0	0	0	0	0	0	0	0.6	3.2
25-Apr	0	0	0	0	A	0	0	2	2	1	1	1	1	1	1	1	1	0	1	1	0	0	0	0	0.7	2.2
26-Apr	0	0	0	0	A	0	1	14	4	4	3	2	3	0	1	0	0	0	0	0	0	0	0	0	1.5	14.1
27-Apr	0	0	0	0	A	5	1	16	4	3	2	2	2	1	2	0	1	0	0	0	0	0	0	0	1.7	15.9
28-Apr	0	0	0	0	A	0	1	2	2	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0.5	1.7
29-Apr	0	0	0	0	A	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
30-Apr	0	0	0	0	A	0	2	2	1	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0.5	1.9
0.2 0.2 0.2 0.2 -- 1.6 2.0 14.5 5.3 5.1 4.1 3.3 2.3 1.8 1.9 1.5 1.6 0.9 1.0 0.5 0.3 0.2 0.2 0.2																									Diurnal Average	
1.4 0.6 0.4 0.4 -- 35.6 12.5 288.3 37.3 40.0 26.5 14.5 7.4 8.4 10.1 9.4 10.6 6.4 6.0 1.9 0.7 0.6 0.4 0.4																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										

Hourly Maximums

Nitrogen Oxide (NO) - ppb
Beaverlodge - April 2018



Hourly Averages

Oxides of Nitrogen (NO_x) - ppb

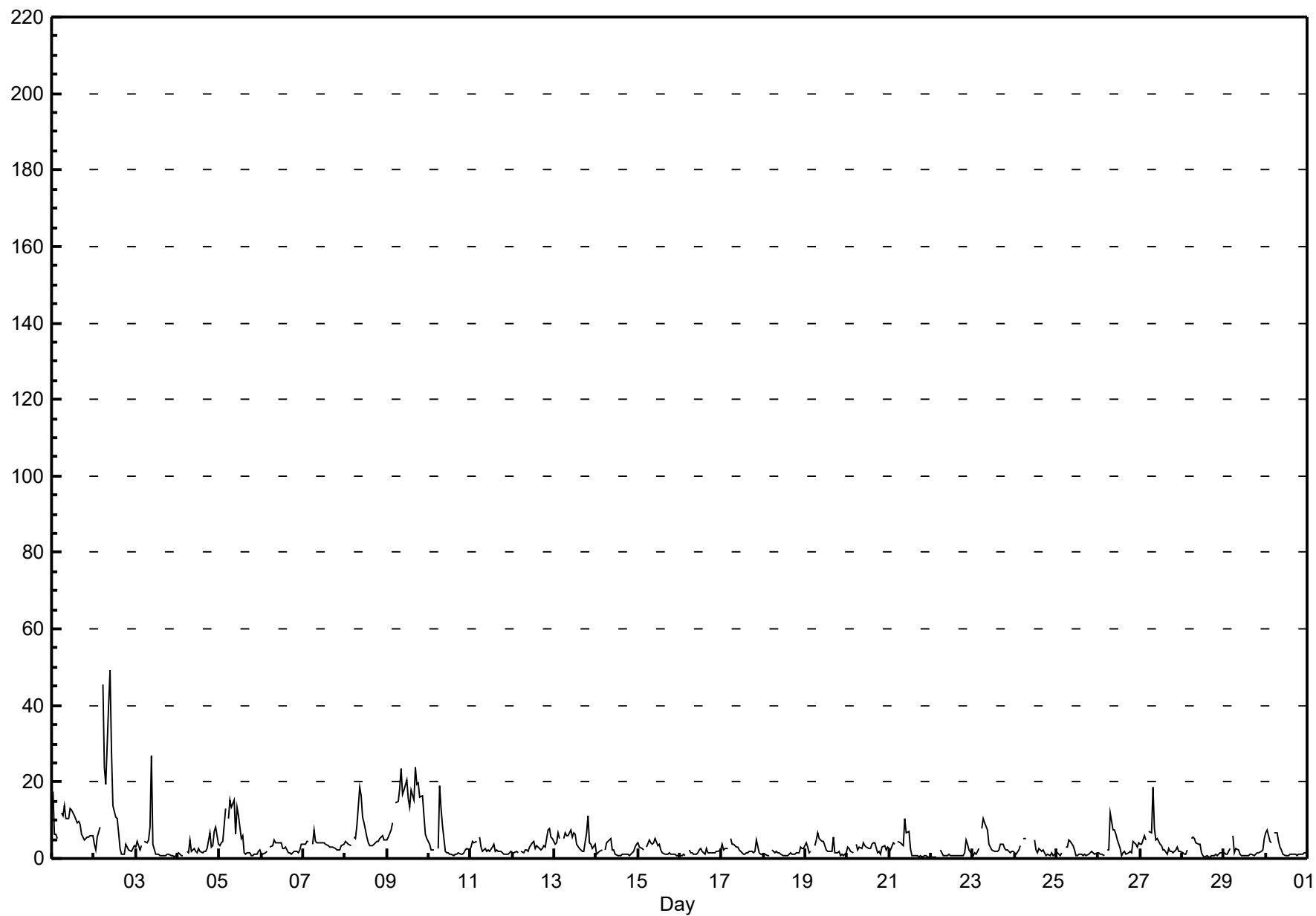
Beaverlodge - April 2018

Maximum Value: 49.3 ppb on Apr 2 10:00																				Maximum Daily Average: 14.5 ppb on Apr 9										Hours in Service: 720	
Minimum Value: 0 ppb on Apr 22 00:00																				Minimum Daily Average: 1.2 ppb on Apr 22										Hours of Data: 686	
Maximum Diurnal Average: 7.2 ppb at hour 10																				Minimum Diurnal Average: 2.4 ppb at hour 18										Hours of Missing Data: 34	
Monthly Average: 3.86 ppb																				Percentiles: P ₁ = 0.5 P ₁₀ = 0.9 Q ₁ = 1.3 Median = 2.3 Q ₃ = 4.3 P ₉₀ = 7.5 P ₉₉ = 23.4										Hours of Calibration: 34	
																				Percent Operational Time: 100.0											
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
1-Apr	17	7	6	5	A	12	11	14	10	10	13	13	12	11	10	10	9	6	5	5	6	6	6	6	9.1	17.4					
2-Apr	4	2	6	8	A	46	24	19	40	49	28	14	11	11	7	3	1	1	4	3	2	2	3	3	12.6	49.3					
3-Apr	3	5	2	3	A	5	4	5	8	27	4	1	1	1	1	1	1	1	1	1	1	1	1	1	3.4	27.0					
4-Apr	1	1	1	1	A	2	1	5	2	3	2	1	3	2	1	2	2	3	7	3	3	7	8	4	2.8	8.2					
5-Apr	3	4	5	13	A	11	15	13	15	6	13	11	5	6	1	1	2	2	1	1	1	1	2	2	5.9	15.2					
6-Apr	1	1	1	2	A	3	3	5	4	4	4	4	3	3	3	2	1	1	2	2	2	2	2	4	2.5	4.7					
7-Apr	4	4	4	5	A	4	7	4	4	4	4	4	4	4	4	3	3	3	3	2	2	2	3	4	3.7	7.3					
8-Apr	4	4	4	4	A	6	5	9	19	16	11	9	6	4	3	3	3	4	5	5	5	6	5	5	6.3	18.6					
9-Apr	5	6	8	9	A	15	15	18	23	17	18	20	15	14	18	15	24	19	20	16	16	11	6	5	14.5	23.7					
10-Apr	4	2	2	2	A	3	19	13	9	2	1	1	1	1	1	1	1	2	1	1	2	2	3	2	3.3	19.2					
11-Apr	3	4	4	4	A	6	3	2	3	2	2	2	3	4	2	2	2	2	1	1	1	1	1	2	2.5	5.6					
12-Apr	1	1	2	1	A	2	2	2	2	2	3	4	4	3	3	2	2	3	3	3	7	8	6	5	3.2	7.8					
13-Apr	4	4	7	5	A	5	7	6	6	7	5	7	6	4	3	2	2	2	7	11	4	4	2	4	4.9	11.2					
14-Apr	1	2	2	2	A	2	4	5	5	2	2	1	1	1	1	1	1	1	1	1	1	2	3	4	2.0	5.2					
15-Apr	4	3	3	2	A	3	5	4	4	4	5	3	4	2	1	1	1	1	1	1	1	1	1	1	2.5	5.2					
16-Apr	1	1	1	1	A	2	1	1	1	1	1	2	3	2	1	2	2	1	1	2	1	2	2	2	1.6	2.5					
17-Apr	4	2	3	2	A	5	4	4	3	3	2	2	1	1	1	2	2	2	1	2	5	2	1	1	2.4	5.4					
18-Apr	1	1	1	1	A	2	2	2	1	1	1	1	1	1	1	1	1	1	1	2	2	3	3	3	1.4	3.0					
19-Apr	4	3	1	2	A	3	5	7	5	5	5	3	2	2	2	2	6	1	1	2	1	1	1	2	2.9	6.8					
20-Apr	3	3	2	2	A	4	2	3	3	4	3	3	3	3	4	4	4	2	2	1	3	3	2	3	2.8	4.2					
21-Apr	3	2	4	4	A	4	4	4	3	10	7	7	3	1	1	1	1	0	1	1	1	1	0	0	2.7	10.4					
22-Apr	0	0	0	0	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2	5	4	2	1	1.2	4.9					
23-Apr	1	1	1	3	A	8	11	9	7	4	3	2	2	2	2	2	4	4	3	2	2	2	2	2	3.4	10.6					
24-Apr	2	1	2	4	A	5	5	C	C	C	C	5	2	2	2	2	2	2	1	1	1	1	1	1	2.2	5.4					
25-Apr	1	1	1	1	A	3	3	5	5	3	2	1	1	1	1	1	1	1	1	1	2	1	1	1	1.8	4.7					
26-Apr	1	1	1	1	A	2	2	12	7	7	7	5	3	1	2	2	1	1	2	2	5	4	3	4	3.3	12.1					
27-Apr	4	4	6	5	A	7	7	19	8	5	5	4	3	2	2	1	3	2	2	2	2	3	2	2	4.3	18.7					
28-Apr	1	1	1	2	A	5	6	5	4	4	4	2	1	1	1	1	1	1	1	1	1	1	2	2	2.0	5.7					
29-Apr	1	1	1	3	A	6	1	3	2	1	1	1	1	1	1	1	1	1	1	1	1	2	2	5	1.7	5.8					
30-Apr	7	7	5	4	A	7	7	4	3	2	1	1	1	1	1	1	1	1	1	1	1	1	2	1	2.6	7.3					
3.1		2.7	2.9	3.4	--	6.3	6.2	7.0	7.2	7.2	5.5	4.5	3.5	3.0	2.7	2.4	2.8	2.4	2.7	2.6	2.9	2.8	2.6	2.7	Diurnal Average						
17.4		7.3	7.6	13.0	--	45.5	23.8	19.5	40.2	49.3	28.1	20.3	15.5	13.5	17.7	15.1	23.7	19.4	19.8	16.0	16.4	11.0	8.2	6.1	Diurnal Maximum						
C - Calibration					A - Automated Daily Zero Span																										

Hourly Averages

Oxides of Nitrogen (NO_x) - ppb

Beaverlodge - April 2018



Hourly Maximums

Oxides of Nitrogen (NO_x) - ppb

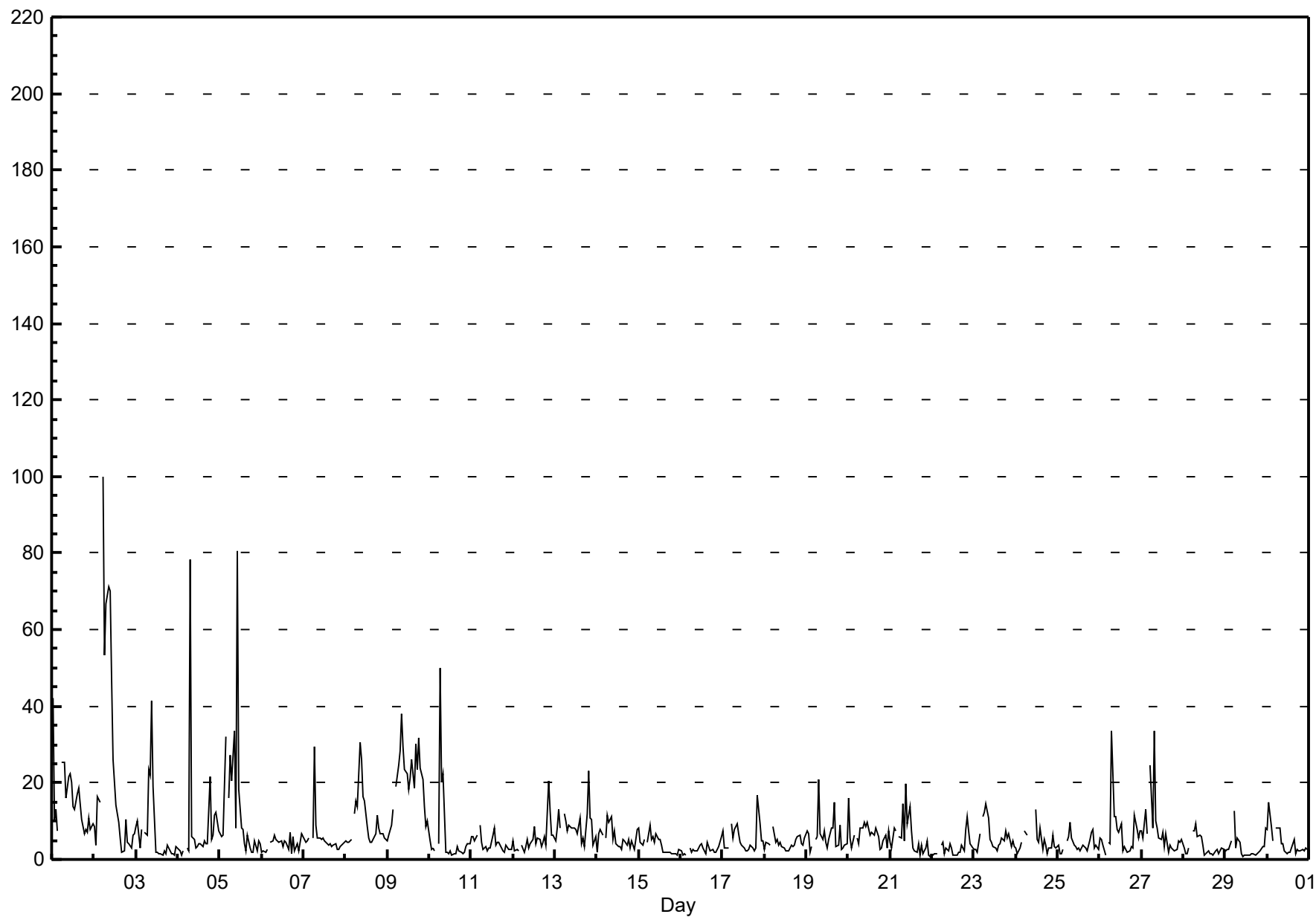
Beaverlodge - April 2018

Maximum Value: 99.9 ppb on Apr 2 06:00																				Maximum Daily Average: 24.3 ppb on Apr 2					Hours in Service: 720				
Minimum Value: 1 ppb on Apr 22 00:00																				Minimum Daily Average: 2.7 ppb on Apr 16					Hours of Data: 686				
Maximum Diurnal Average: 17.1 ppb at hour 8																				Minimum Diurnal Average: 4.0 ppb at hour 18					Hours of Missing Data: 34				
Monthly Average: 7.26 ppb																				Percentiles: P ₁ = 1.0 P ₁₀ = 1.8 Q ₁ = 2.8 Median = 4.6 Q ₃ = 7.7 P ₉₀ = 14.5 P ₉₉ = 50.4					Hours of Calibration: 34				
																									Percent Operational Time: 100.0				
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
1-Apr	42	10	13	8	A	25	25	25	16	22	22	20	14	13	17	19	14	10	7	8	7	11	8	9	15.9	42.0			
2-Apr	8	4	16	15	A	100	53	67	71	70	47	26	14	12	10	6	2	2	10	5	4	3	6	7	24.3	99.9			
3-Apr	8	10	3	8	A	7	6	23	22	42	19	2	2	2	2	1	2	2	4	3	1	2	1	3	7.6	41.5			
4-Apr	3	2	1	2	A	3	2	78	6	5	3	3	4	4	3	5	4	4	22	5	6	11	12	8	8.6	78.2			
5-Apr	7	6	6	32	A	16	27	20	34	8	81	18	8	8	4	2	6	3	2	2	5	2	5	4	13.3	80.6			
6-Apr	2	2	2	2	A	5	5	6	5	5	4	5	4	5	4	3	7	1	6	2	4	2	5	7	4.1	7.2			
7-Apr	5	4	5	5	A	6	29	9	6	6	5	6	5	5	4	4	3	4	4	3	3	3	4	5	5.7	29.4			
8-Apr	5	5	4	5	A	12	15	14	31	26	16	15	9	6	4	4	5	7	12	8	7	7	6	5	9.9	30.5			
9-Apr	5	6	9	13	A	19	25	28	38	29	24	23	18	21	26	18	30	23	32	24	21	14	9	10	20.2	38.0			
10-Apr	5	3	3	2	A	4	50	20	22	2	2	2	2	1	2	1	3	2	2	2	2	3	4	4	6.3	49.9			
11-Apr	6	6	5	6	A	9	4	3	3	2	3	3	6	8	4	4	5	3	2	2	4	3	3	3	4.2	9.0			
12-Apr	5	2	3	2	A	4	2	4	5	3	4	5	9	4	6	5	3	5	6	4	21	13	6	6	5.5	20.6			
13-Apr	5	8	13	8	A	12	10	7	9	8	8	8	8	7	11	4	6	3	12	23	11	11	4	6	8.8	23.2			
14-Apr	2	7	8	6	A	6	11	10	11	5	7	4	4	3	3	5	5	4	5	3	5	3	5	8	5.6	11.4			
15-Apr	8	4	4	5	A	4	9	5	6	5	7	5	5	4	2	2	2	2	2	1	1	1	1	3	3.9	8.8			
16-Apr	2	1	1	1	A	3	2	2	2	2	3	4	4	3	2	5	3	2	3	2	2	3	3	6	2.7	6.1			
17-Apr	7	3	3	3	A	9	6	8	9	7	4	4	3	2	2	3	4	3	2	3	17	9	5	5	5.3	16.7			
18-Apr	3	5	4	4	A	9	4	5	4	5	3	3	2	2	2	4	3	4	5	6	6	4	4	6	4.2	8.6			
19-Apr	7	7	2	3	A	5	6	21	7	5	8	4	3	5	8	8	15	3	4	9	2	3	4	4	6.3	21.1			
20-Apr	16	6	3	6	A	5	4	8	8	10	9	10	6	7	7	6	8	6	3	3	5	6	3	7	6.6	16.1			
21-Apr	5	3	8	7	A	6	6	15	5	20	9	14	8	3	2	2	4	1	4	2	3	5	1	1	5.8	19.7			
22-Apr	1	1	1	2	A	4	5	2	3	2	4	3	1	1	1	2	2	4	2	8	11	7	4	3	3.2	11.1			
23-Apr	3	3	2	7	A	11	12	14	11	5	5	3	3	2	4	4	5	5	7	6	7	3	5	3	5.7	14.5			
24-Apr	3	2	3	4	A	8	6	C	C	C	C	13	5	5	8	3	5	4	1	3	3	6	4	3	4.7	13.1			
25-Apr	4	1	1	2	A	5	6	10	6	4	4	3	3	2	4	4	3	2	5	7	8	3	4	3	4.0	9.8			
26-Apr	5	5	4	1	A	4	4	34	11	11	8	7	9	2	3	3	2	2	3	3	12	8	6	8	6.7	33.6			
27-Apr	7	5	13	7	A	25	8	34	10	8	6	5	7	3	7	2	4	3	3	2	3	5	4	5	7.6	33.6			
28-Apr	3	1	2	3	A	7	7	9	6	6	6	4	1	1	2	1	1	1	2	3	1	2	3	3	3.4	9.5			
29-Apr	2	3	3	5	A	13	3	6	4	2	1	1	1	1	1	1	1	1	1	2	2	3	3	8	3.0	12.8			
30-Apr	8	15	8	5	A	8	8	8	4	4	2	1	2	2	3	5	1	3	2	2	3	2	3	3	4.5	14.7			
6.4 4.7 5.1 6.0 -- 11.8 12.1 17.1 12.9 11.3 11.2 7.5 5.7 4.8 5.3 4.5 5.4 4.0 5.8 5.2 6.2 5.3 4.4 5.1																								Diurnal Average					
42.0 14.7 16.2 32.2 -- 99.9 53.4 78.2 71.2 70.3 80.6 26.2 18.2 21.2 26.3 18.8 30.3 23.4 31.8 24.0 20.7 13.7 12.2 10.2																								Diurnal Maximum					
C - Calibration A - Automated Daily Zero Span																													

Hourly Maximums

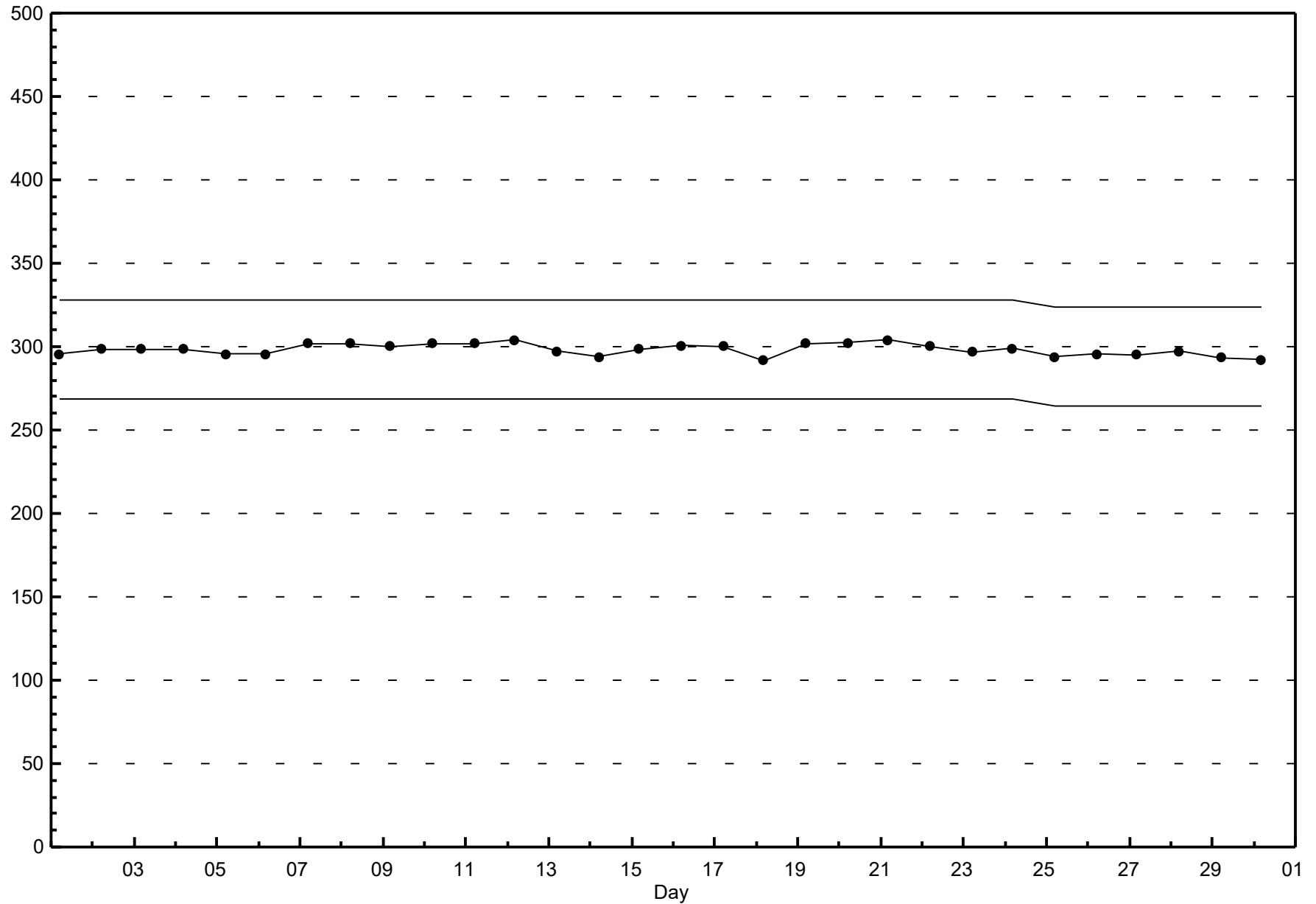
Oxides of Nitrogen (NO_x) - ppb

Beaverlodge - April 2018



Span Responses

Oxides of Nitrogen (NO_x)
Beaverlodge - April 2018



Hourly Averages

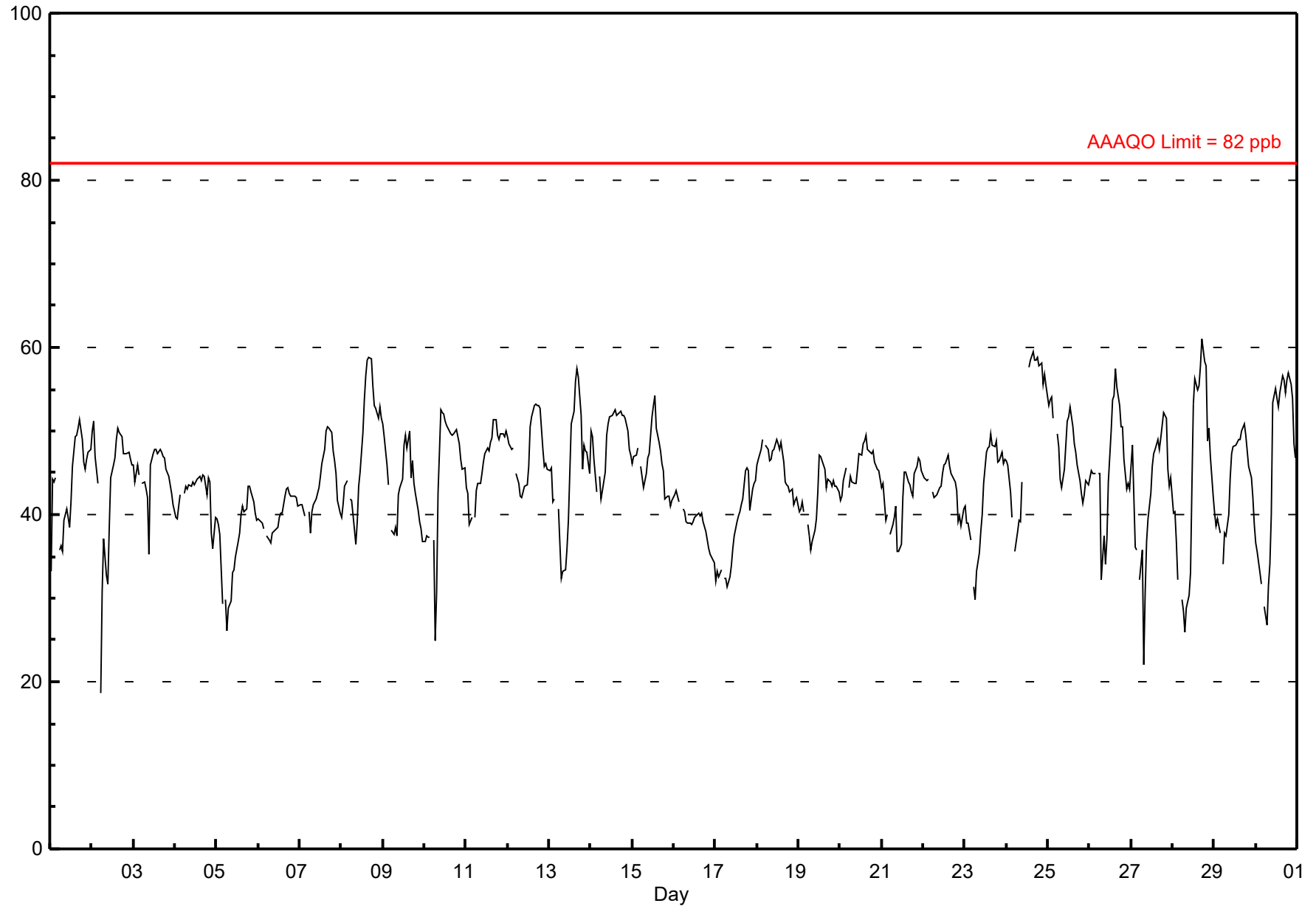
Ozone (O₃) - ppb

Beaverlodge - April 2018

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 60.9 ppb on Apr 28 18:00 Maximum Daily Average: 50.3 ppb on Apr 24																					Hours in Service: 720 Hours of Data: 687 Hours of Missing Data: 33 Hours of Calibration: 33 Percent Operational Time: 100.0																												
Minimum Value: 19 ppb on Apr 2 06:00 Maximum Diurnal Average: 49.3 ppb at hour 16 Monthly Average: 44.11 ppb										Minimum Daily Average: 36.9 ppb on Apr 5 Minimum Diurnal Average: 37.4 ppb at hour 8 Percentiles: P ₁ = 28.7 P ₁₀ = 36.4 Q ₁ = 40.1 Median = 44.1 Q ₃ = 48.0 P ₉₀ = 51.9 P ₉₉ = 58.5																																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																									
1-Apr	33	44	44	44	A	36	36	36	39	41	40	39	42	46	49	49	50	51	49	46	45	47	47	48	43.6	51.4																							
2-Apr	50	51	47	44	A	19	31	37	33	32	38	44	46	47	49	50	50	49	47	47	47	47	47	46	43.4	51.1																							
3-Apr	46	44	46	45	A	44	44	43	42	35	46	47	48	48	47	48	47	47	47	45	45	44	42	41	44.8	47.9																							
4-Apr	40	40	41	42	A	43	43	43	43	43	44	44	44	44	45	44	45	45	42	44	44	38	36	40	42.4	44.8																							
5-Apr	40	39	38	29	A	30	26	29	30	33	33	35	37	38	40	41	40	41	43	43	43	42	40	39	36.9	43.5																							
6-Apr	40	39	39	38	A	37	37	37	38	38	38	38	40	40	40	42	43	43	43	42	42	42	42	41	40.0	43.2																							
7-Apr	41	41	41	40	A	40	38	40	41	42	42	43	45	46	48	50	50	50	50	48	46	45	42	40	43.9	50.5																							
8-Apr	40	41	43	44	A	42	42	40	37	39	43	45	50	54	57	59	59	59	55	53	53	52	53	51	48.2	58.8																							
9-Apr	51	49	46	44	A	38	38	38	37	42	43	44	48	49	48	50	44	46	44	43	40	39	38	37	43.4	50.8																							
10-Apr	37	38	37	37	A	37	25	31	43	53	52	52	51	51	50	50	49	50	50	49	48	47	45	46	44.6	52.5																							
11-Apr	43	42	39	40	A	40	43	44	44	45	46	47	48	48	49	49	51	51	50	49	50	50	49	50	46.4	51.4																							
12-Apr	49	49	48	48	A	45	44	42	42	43	43	44	46	50	52	53	53	53	53	53	48	46	46	45	47.6	53.2																							
13-Apr	45	46	42	42	A	41	36	32	33	33	36	39	45	51	52	56	57	56	52	45	48	48	47	45	44.7	57.5																							
14-Apr	50	49	47	43	A	45	42	43	45	49	51	52	52	52	53	52	52	52	52	52	50	48	47	47	49.0	52.6																							
15-Apr	46	47	47	48	A	46	43	44	45	47	47	52	53	54	50	49	48	46	45	42	42	42	41	42	46.4	54.2																							
16-Apr	42	43	42	42	A	41	40	39	39	39	39	39	40	40	40	40	40	39	38	37	36	35	35	34	39.1	42.9																							
17-Apr	32	33	33	33	A	32	32	31	33	34	36	37	39	40	40	41	42	45	46	45	40	43	44	44	38.1	45.6																							
18-Apr	46	47	48	49	A	48	48	46	47	48	48	49	49	48	49	46	44	44	43	43	43	41	42	42	45.9	49.0																							
19-Apr	40	41	41	40	A	39	37	36	37	38	39	43	47	47	46	45	43	44	44	43	44	43	43	43	42.0	47.1																							
20-Apr	42	42	44	46	A	43	45	44	44	44	45	47	47	48	49	49	48	47	47	48	46	45	45	44	45.7	49.4																							
21-Apr	43	44	39	40	A	38	39	40	41	36	36	36	42	45	45	44	43	43	42	45	46	47	46	45	41.9	46.8																							
22-Apr	44	44	44	44	A	43	42	42	42	43	43	45	46	46	47	46	45	45	44	43	39	40	39	41	43.4	47.1																							
23-Apr	41	39	39	37	A	31	30	33	35	38	40	44	47	48	48	50	48	48	49	46	46	47	46	47	42.6	49.7																							
24-Apr	46	46	43	40	A	36	38	39	39	44	C	C	C	58	59	60	58	59	59	58	58	56	57	55	50.3	59.6																							
25-Apr	53	54	54	52	A	50	48	44	43	45	48	51	52	53	51	49	47	46	44	42	41	42	44	44	47.7	54.0																							
26-Apr	44	45	45	45	A	45	45	32	37	34	37	44	50	54	54	58	55	53	51	50	47	43	44	43	45.9	57.5																							
27-Apr	46	48	36	36	A	32	36	22	31	37	39	43	46	47	48	49	48	49	51	52	52	45	43	44	42.6	52.2																							
28-Apr	40	40	37	32	A	30	28	26	29	30	33	43	53	56	55	55	58	61	58	58	49	50	47	42	44.0	60.9																							
29-Apr	40	39	40	38	A	34	38	37	40	44	47	48	48	49	49	49	50	51	49	48	46	44	42	39	43.9	50.8																							
30-Apr	37	36	33	32	A	29	27	31	34	40	53	55	54	53	55	57	56	55	56	57	56	54	49	47	45.8	56.9																							
																									42.9	43.3	42.0	41.1	--	38.4	38.0	37.4	38.8	40.3	42.4	44.5	46.6	48.3	48.7	49.3	48.9	49.0	48.1	47.3	46.1	45.1	44.3	43.7	Diurnal Average
																									53.0	53.8	54.0	51.5	--	49.6	48.2	46.5	46.6	52.5	53.4	55.1	53.9	57.6	58.5	59.6	58.8	60.9	58.8	57.8	58.2	55.5	56.7	55.4	Diurnal Maximum
C - Calibration A - Automated Daily Zero Span Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82 ppb 24-hr na																																																	

Hourly Averages

Ozone (O₃) - ppb
Beaverlodge - April 2018



Hourly Maximums

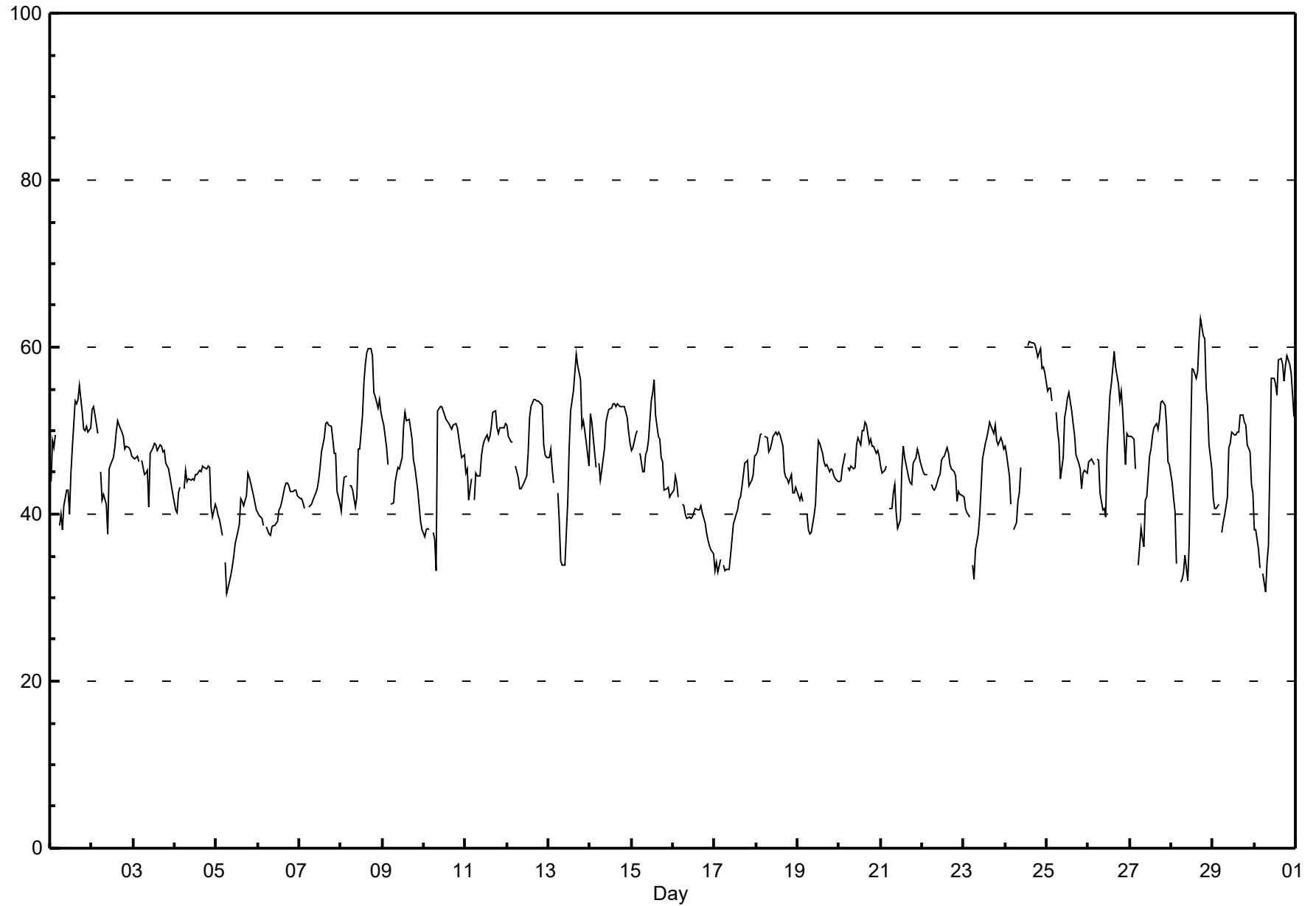
Ozone (O₃) - ppb

Beaverlodge - April 2018

Maximum Value: 63.4 ppb on Apr 28 18:00																				Maximum Daily Average: 52.0 ppb on Apr 24					Hours in Service: 720	
Minimum Value: 30 ppb on Apr 5 07:00																				Minimum Daily Average: 38.8 ppb on Apr 5					Hours of Data: 687	
Maximum Diurnal Average: 50.6 ppb at hour 16																				Minimum Diurnal Average: 40.5 ppb at hour 8					Hours of Missing Data: 33	
Monthly Average: 46.08 ppb																				Percentiles: P ₁ = 32.7 P ₁₀ = 38.5 Q ₁ = 42.0 Median = 45.9 Q ₃ = 49.9 P ₉₀ = 53.5 P ₉₉ = 60.3					Hours of Calibration: 33	
																				Percent Operational Time: 100.0						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	44	49	48	50	A	39	40	38	41	43	43	40	45	48	54	53	54	55	52	50	50	51	50	50	47.2	55.4
2-Apr	53	53	52	50	A	45	42	42	41	38	45	46	47	48	50	51	51	50	49	48	48	48	48	47	47.4	52.9
3-Apr	47	47	47	46	A	46	45	45	45	41	47	48	49	48	48	48	48	48	48	46	45	44	43	42	46.2	48.5
4-Apr	40	40	43	43	A	43	45	44	44	44	44	44	45	45	45	45	46	46	45	46	46	41	40	41	43.7	45.8
5-Apr	41	40	39	37	A	34	30	31	33	34	35	36	38	39	42	42	41	42	45	44	44	42	41	40	38.8	44.8
6-Apr	40	40	39	39	A	39	38	38	39	39	39	39	41	41	42	43	44	44	43	43	43	43	43	42	40.7	43.8
7-Apr	42	42	41	41	A	41	41	41	42	43	43	44	46	48	49	51	51	51	51	49	47	47	43	41	44.9	51.1
8-Apr	40	43	44	45	A	43	43	43	41	42	48	48	52	56	58	59	60	60	59	55	54	53	54	52	50.1	59.9
9-Apr	51	51	48	46	A	41	41	44	45	46	45	47	51	52	51	51	50	49	46	46	43	41	39	38	46.2	52.2
10-Apr	37	38	38	38	A	38	37	33	52	53	53	52	52	51	51	50	50	51	51	50	49	48	47	47	46.4	52.9
11-Apr	45	45	42	44	A	42	45	45	45	47	48	49	49	49	49	51	52	52	50	50	50	50	50	51	47.9	52.4
12-Apr	51	49	49	49	A	46	44	43	43	43	44	45	47	51	53	54	54	54	54	53	53	48	47	47	48.7	53.7
13-Apr	47	48	45	44	A	42	39	34	34	34	38	42	48	52	55	57	59	58	56	51	51	50	49	46	46.9	59.1
14-Apr	52	51	49	46	A	46	44	45	48	51	52	53	53	53	53	53	53	53	53	53	53	51	50	49	50.6	53.3
15-Apr	48	48	49	50	A	47	45	45	47	48	49	54	55	56	52	49	49	47	46	43	43	43	42	42	47.7	56.0
16-Apr	43	45	44	42	A	41	41	40	39	40	39	40	40	41	41	41	41	40	39	38	37	36	36	35	39.9	44.6
17-Apr	33	34	33	35	A	34	33	33	33	35	37	39	40	40	42	42	43	46	46	46	43	44	45	47	39.4	46.9
18-Apr	47	48	50	50	A	49	49	48	48	49	49	50	49	50	49	48	45	44	44	44	45	43	43	43	47.1	49.9
19-Apr	42	42	42	42	A	40	38	38	38	40	41	45	49	48	47	46	46	46	45	45	45	45	44	44	43.4	48.8
20-Apr	44	44	46	47	A	46	45	46	45	46	48	49	48	50	50	51	51	49	49	48	48	47	48	47	47.5	51.0
21-Apr	46	45	45	46	A	41	41	43	44	40	38	39	45	48	47	45	44	44	44	46	47	48	47	46	44.3	48.1
22-Apr	45	45	45	45	A	44	43	43	43	44	45	46	47	47	48	47	46	45	45	45	41	43	42	42	44.6	47.9
23-Apr	42	41	40	40	A	34	32	36	38	40	43	47	48	49	50	51	50	50	51	49	48	49	49	48	44.5	51.1
24-Apr	48	47	45	41	A	38	39	42	42	46	C	C	C	60	61	61	60	60	60	59	60	57	58	57	52.0	60.6
25-Apr	55	55	55	54	A	52	50	49	44	47	52	52	54	55	52	51	49	47	46	45	43	45	45	45	49.7	55.1
26-Apr	46	47	47	46	A	47	47	43	40	41	40	47	54	56	57	59	58	56	53	55	52	46	50	49	49.3	59.5
27-Apr	49	49	49	45	A	34	38	37	36	42	42	47	48	49	50	51	50	51	53	54	53	51	46	46	46.6	53.5
28-Apr	44	42	40	34	A	32	32	33	35	32	36	49	57	57	56	57	61	63	61	61	55	53	48	45	47.2	63.4
29-Apr	42	41	41	41	A	38	39	40	42	48	49	50	49	49	50	50	52	52	51	51	48	47	44	42	45.9	51.9
30-Apr	38	38	36	34	A	33	31	34	36	46	56	56	56	54	58	59	58	56	58	59	58	57	54	52	48.5	58.9
44.7 44.8 44.4 43.5 -- 41.1 40.6 40.5 41.5 42.6 44.4 46.3 48.3 49.7 50.3 50.6 50.5 50.3 49.8 49.0 48.1 47.1 46.1 45.5																									Diurnal Average	
54.7 55.1 55.1 53.6 -- 52.2 50.0 48.7 52.4 52.9 56.3 56.3 57.4 60.2 60.6 60.6 61.0 63.4 61.3 61.0 59.8 57.5 57.6 56.9																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										

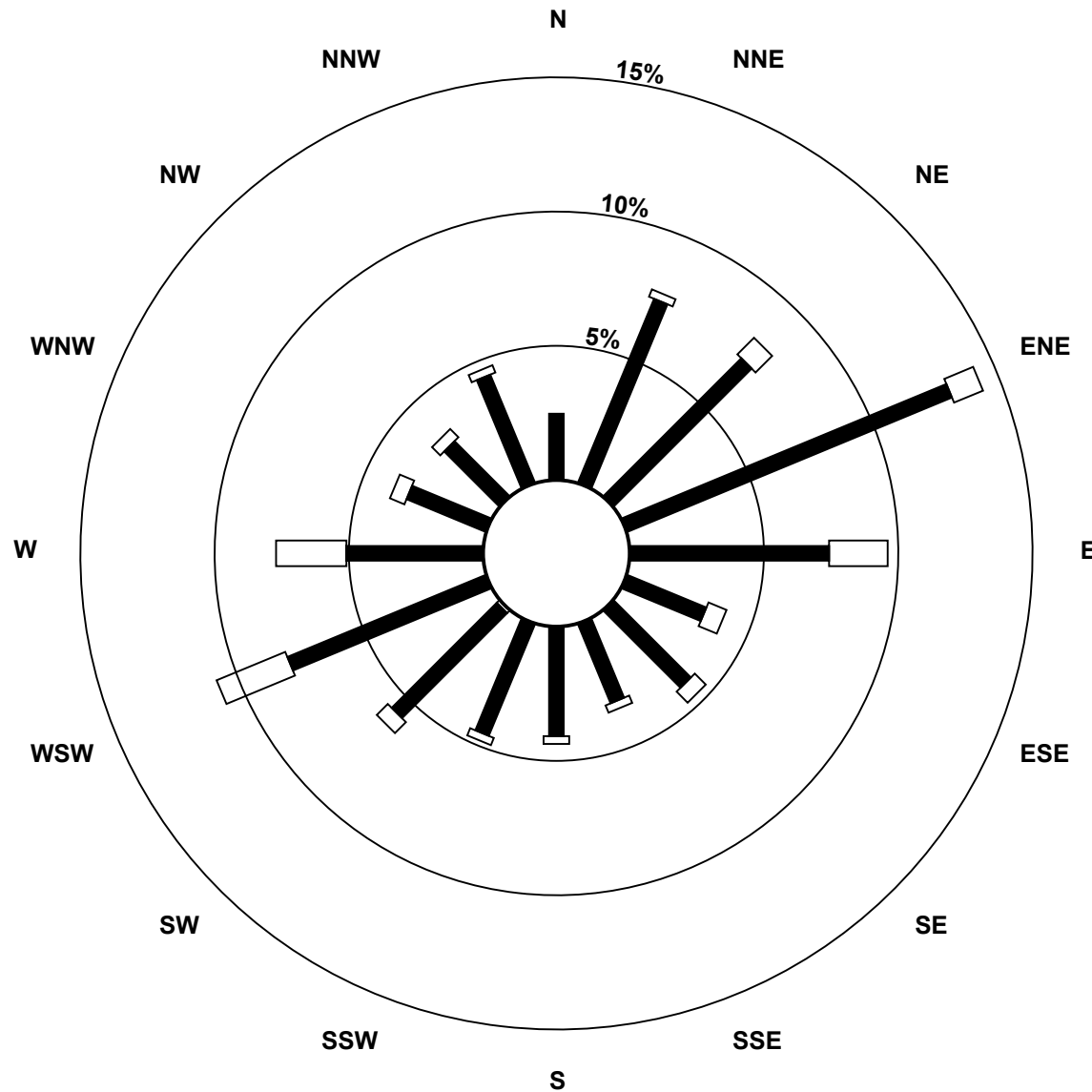
Hourly Maximums

Ozone (O₃) - ppb
Beaverlodge - April 2018



Pollutant Rose

Ozone (O₃) - ppb
Beaverlodge - April 2018



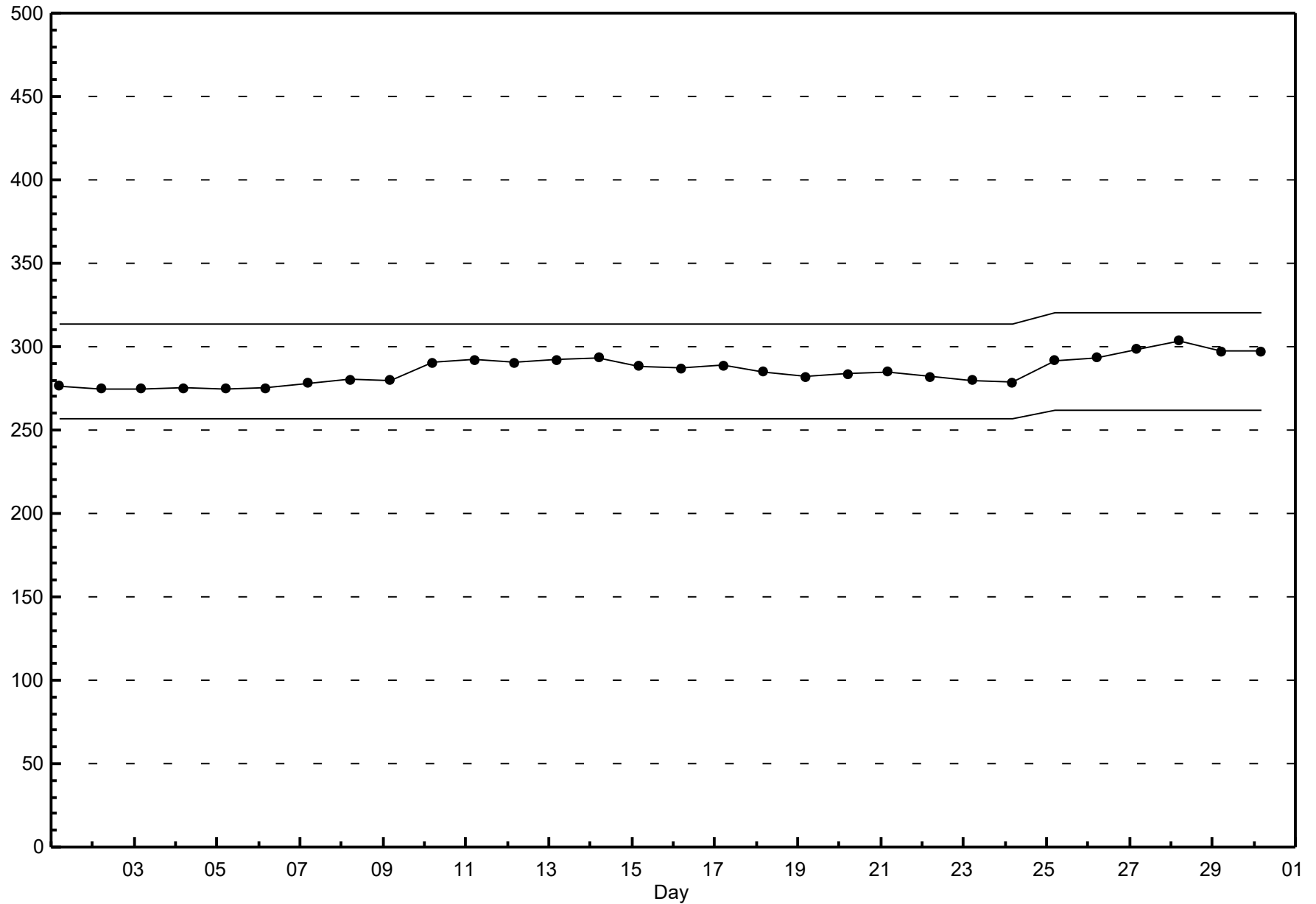
Eight Hour Running Averages

Ozone (O₃) - ppb
Beaverlodge - April 2018

Maximum Value: 58.6 ppb on Apr 24 19:00																								Hours in Service: 720
Minimum Value: 29.8 ppb on Apr 28 11:00																								Hours of Data: 713
Percentiles: P ₁ = 31.6 P ₁₀ = 37.4 Q ₁ = 40.5 Median = 43.9 Q ₃ = 47.5 P ₉₀ = 50.0 P ₉₉ = 56.7																								Hours of Missing Data: 7
																								Hours of Calibration: 7
																								Percent Operational Time: 100.0
Day	Hourly Period Ending At (MST)																							Daily Maximum
1-Apr	37	37	37	38	37	36	39	39	40	39	39	38	38	40	41	43	44	46	47	48	48	48	48	48
2-Apr	48	48	48	47	48	44	41	40	37	35	33	33	35	39	41	42	45	47	48	48	48	48	48	48
3-Apr	47	46	46	46	46	45	45	44	44	43	43	43	44	44	45	45	46	47	47	47	47	46	46	45
4-Apr	44	43	42	42	41	41	41	42	42	43	43	43	43	44	44	44	44	44	44	44	44	43	42	42
5-Apr	41	40	40	38	37	36	34	33	31	31	30	31	32	33	34	36	37	38	39	40	41	42	42	41
6-Apr	41	41	41	40	40	39	39	38	38	38	38	38	38	39	39	40	41	41	42	42	42	42	42	42
7-Apr	42	42	42	41	41	41	40	40	40	40	41	41	41	42	43	45	46	47	48	48	49	48	48	46
8-Apr	45	44	43	43	42	42	42	42	41	41	41	41	42	44	46	48	51	53	55	56	56	55	54	54
9-Apr	53	52	51	50	49	47	45	43	41	40	40	40	41	43	44	45	46	47	47	46	44	43	41	53.3
10-Apr	41	39	39	38	38	37	35	34	35	37	40	42	43	45	48	50	51	51	50	50	50	49	49	48
11-Apr	47	46	45	44	43	42	42	42	42	42	43	44	45	46	46	47	48	49	49	49	50	50	50	50
12-Apr	50	49	49	49	49	48	47	46	45	44	44	43	44	44	45	47	48	49	50	52	52	51	51	50
13-Apr	49	48	46	45	45	44	42	41	39	37	36	36	37	38	40	43	46	49	51	52	52	52	51	50
14-Apr	49	48	47	47	47	47	46	45	45	45	45	47	47	48	50	51	52	52	52	52	52	51	51	52.1
15-Apr	50	49	49	48	48	47	46	46	46	46	46	46	47	48	49	50	50	50	50	48	47	46	44	44
16-Apr	43	42	42	42	42	42	42	41	41	40	40	39	39	39	39	39	40	40	39	39	39	38	38	37
17-Apr	36	35	34	34	34	33	33	32	33	33	33	34	34	35	36	38	39	40	41	42	42	43	43	44
18-Apr	44	44	45	45	46	47	47	47	48	48	48	48	48	48	48	48	47	47	46	46	45	44	43	43
19-Apr	42	42	42	41	41	41	40	39	39	38	38	38	40	41	42	43	44	44	45	45	45	44	44	44
20-Apr	43	43	43	43	43	43	43	44	44	44	44	45	45	46	46	47	47	48	48	48	48	47	47	46
21-Apr	46	45	44	43	43	42	41	40	40	39	38	38	38	39	40	41	41	42	43	44	44	44	45	45
22-Apr	45	45	45	45	45	44	44	43	43	43	43	43	43	44	44	45	45	45	45	45	44	44	42	42
23-Apr	41	41	40	39	39	38	37	36	35	35	35	36	37	39	42	44	45	47	48	48	48	48	48	47
24-Apr	47	47	46	45	45	43	42	41	40	40	39	N	N	N	N	N	N	N	59	58	58	58	58	57
25-Apr	57	56	56	55	54	53	52	51	49	48	47	47	48	48	48	49	49	50	49	48	47	45	45	44
26-Apr	44	43	44	44	44	45	45	43	42	40	39	39	41	42	43	46	48	51	52	53	53	51	50	48
27-Apr	47	46	45	43	42	41	40	37	34	33	33	34	36	38	39	42	45	46	47	49	49	49	49	48
28-Apr	47	46	44	42	40	38	36	33	32	30	30	31	34	37	41	44	48	52	55	57	56	55	53	56.8
29-Apr	51	48	46	43	42	40	39	38	38	39	40	41	42	44	45	47	48	49	49	49	49	48	47	46
30-Apr	44	43	40	39	37	35	33	32	32	32	35	39	40	43	47	50	53	55	55	55	55	56	55	54
56.8 56.2 55.6 54.8 54.3 53.4 52.2 50.6 49.2 48.0 47.7 47.7 47.8 48.2 49.6 50.7 52.8 54.6 58.6 58.5 58.4 58.2 57.9 57.4																								
Diurnal Maximums																								
N - Not Valid																								

Span Responses

Ozone (O₃)
Beaverlodge - April 2018



Hourly Averages

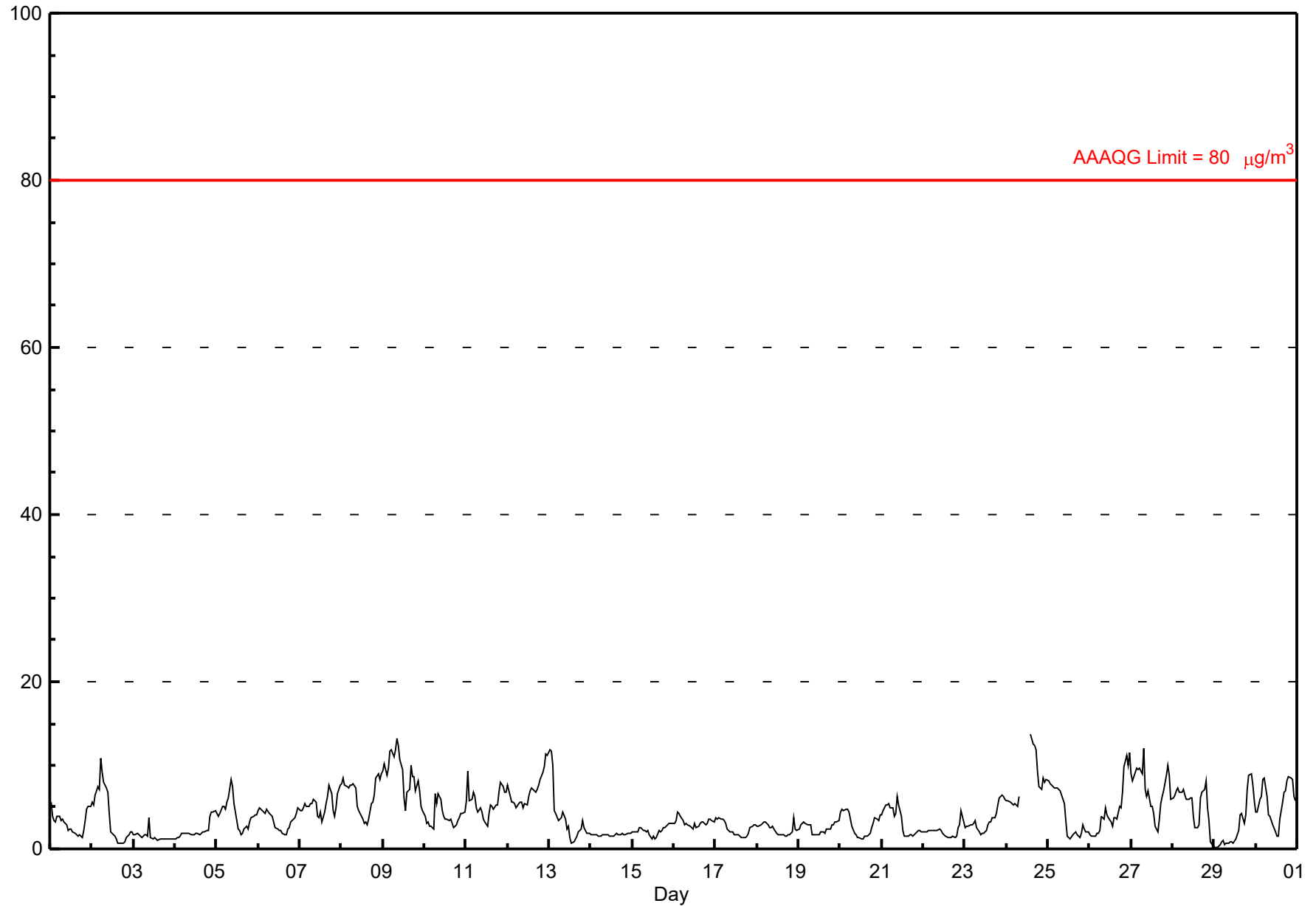
Particulate Matter 2.5 (PM_{2.5}) - µg/m³

Beaverlodge - April 2018

Number of Exceedences: 1-hr: 0 24-hr: 0 Maximum Value: 13.8 µg/m³ on Apr 24 15:00 Maximum Daily Average: 8.9 µg/m³ on Apr 9																								Hours in Service: 720 Hours of Data: 714 Hours of Missing Data: 6 Hours of Calibration: 6 Percent Operational Time: 100.0		
Minimum Value: 0 µg/m³ on Apr 29 01:00 Maximum Diurnal Average: 5.0 µg/m³ at hour 22 Monthly Average: 4.05 µg/m³ Minimum Daily Average: 1.5 µg/m³ on Apr 3 Minimum Diurnal Average: 2.4 µg/m³ at hour 14 Percentiles: P ₁ = 0.7 P ₁₀ = 1.5 Q ₁ = 1.9 Median = 3.3 Q ₃ = 5.5 P ₉₀ = 7.7 P ₉₉ = 11.9																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	6	4	3	3	4	4	3	3	3	3	2	2	2	2	2	2	2	2	1	2	3	5	5	5	3.1	5.6
2-Apr	6	5	6	8	7	11	9	8	7	7	4	2	2	2	1	1	1	1	1	1	1	2	2	2	4.0	10.8
3-Apr	2	2	2	2	1	1	2	2	2	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.5	3.7
4-Apr	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	4	4	4	5	2.2	4.5
5-Apr	4	4	4	5	5	5	6	6	8	8	6	4	2	2	2	2	2	3	2	3	4	4	4	4	4.1	8.2
6-Apr	5	5	5	4	4	5	4	4	4	3	3	2	2	2	2	2	2	2	3	3	4	4	4	5	3.4	5.0
7-Apr	5	5	5	5	5	5	5	5	6	6	4	4	4	3	4	5	6	8	7	5	4	5	7	8	5.2	7.6
8-Apr	8	8	8	7	7	8	8	8	7	5	5	4	4	3	3	3	4	5	6	6	9	9	8	9	6.3	9.0
9-Apr	9	10	9	10	12	12	11	12	13	12	11	10	6	5	7	7	10	9	9	7	8	7	5	5	8.9	13.3
10-Apr	4	3	3	3	3	2	7	5	7	6	5	4	4	4	3	4	3	3	3	3	4	4	4	4	3.9	6.6
11-Apr	6	9	6	6	7	6	5	4	5	4	4	3	3	4	5	5	5	5	5	7	8	7	7	7	5.6	9.3
12-Apr	8	7	6	6	5	5	5	6	6	5	5	5	6	7	7	7	7	7	8	8	9	10	11	11	7.0	11.3
13-Apr	12	12	10	5	4	3	4	4	4	4	2	3	1	1	1	1	2	2	2	3	2	2	2	2	3.7	11.8
14-Apr	2	2	2	2	2	1	2	2	2	2	2	2	1	1	2	2	2	2	2	2	2	2	2	2	1.7	1.9
15-Apr	2	2	2	2	3	3	2	2	2	2	2	1	1	1	1	2	2	2	3	2	3	3	3	3	2.2	3.1
16-Apr	3	3	4	4	4	3	3	3	3	3	3	2	3	3	3	3	3	3	3	3	4	4	3	3	3.2	4.3
17-Apr	4	4	4	3	3	3	3	2	2	2	2	2	2	2	2	1	1	1	1	2	3	3	3	3	2.4	3.7
18-Apr	3	3	3	3	3	3	3	3	3	2	3	2	2	2	2	2	2	2	2	2	2	4	2	2	2.4	3.8
19-Apr	2	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	2.5	3.4
20-Apr	4	5	5	5	5	4	4	3	2	2	1	1	1	1	1	1	1	2	3	3	4	4	3	4	2.9	4.8
21-Apr	4	5	5	5	5	5	5	4	4	6	5	4	2	2	1	1	2	2	1	2	2	2	2	2	3.3	6.3
22-Apr	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	2	1	2	3	3	5	3	2.1	4.5
23-Apr	3	3	3	3	3	3	3	3	2	2	2	2	2	3	3	3	4	4	4	5	6	6	6	6	3.5	6.5
24-Apr	6	6	6	5	5	5	5	6	C	C	C	C	C	C	14	13	12	12	9	8	7	8	8	8	8.0	13.8
25-Apr	8	8	8	8	7	7	7	7	6	5	3	2	1	1	2	2	2	2	1	2	3	2	2	2	4.1	8.1
26-Apr	2	2	2	2	2	2	2	4	4	5	4	4	3	3	4	4	4	5	5	7	10	11	10	11	4.5	11.5
27-Apr	9	8	9	10	9	10	9	12	7	6	7	5	5	4	3	2	3	5	6	7	9	10	9	6	7.1	12.0
28-Apr	6	6	7	7	7	7	7	6	6	6	6	6	4	3	3	3	6	7	7	8	5	3	1	0	5.3	8.2
29-Apr	0	0	0	0	1	1	1	1	1	1	1	1	1	2	2	4	4	3	4	7	9	9	8	6	2.8	9.0
30-Apr	4	4	6	6	8	8	6	4	4	3	3	2	1	2	3	6	7	7	8	9	8	8	6	6	5.5	8.7
4.6 4.7 4.6 4.5 4.7 4.7 4.6 4.5 4.3 4.2 3.4 3.0 2.6 2.4 3.0 3.1 3.5 3.7 3.8 4.2 4.7 5.0 4.8 4.6																								Diurnal Average		
11.8 11.6 10.1 9.7 11.7 11.9 11.1 12.0 13.3 12.5 10.6 9.5 6.2 7.0 13.8 12.6 12.3 11.8 9.4 8.7 9.8 11.1 11.3 11.5																								Diurnal Maximum		
C - Calibration																										
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 µg/m³ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 µg/m³																										

Hourly Averages

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Beaverlodge - April 2018



Hourly Maximums

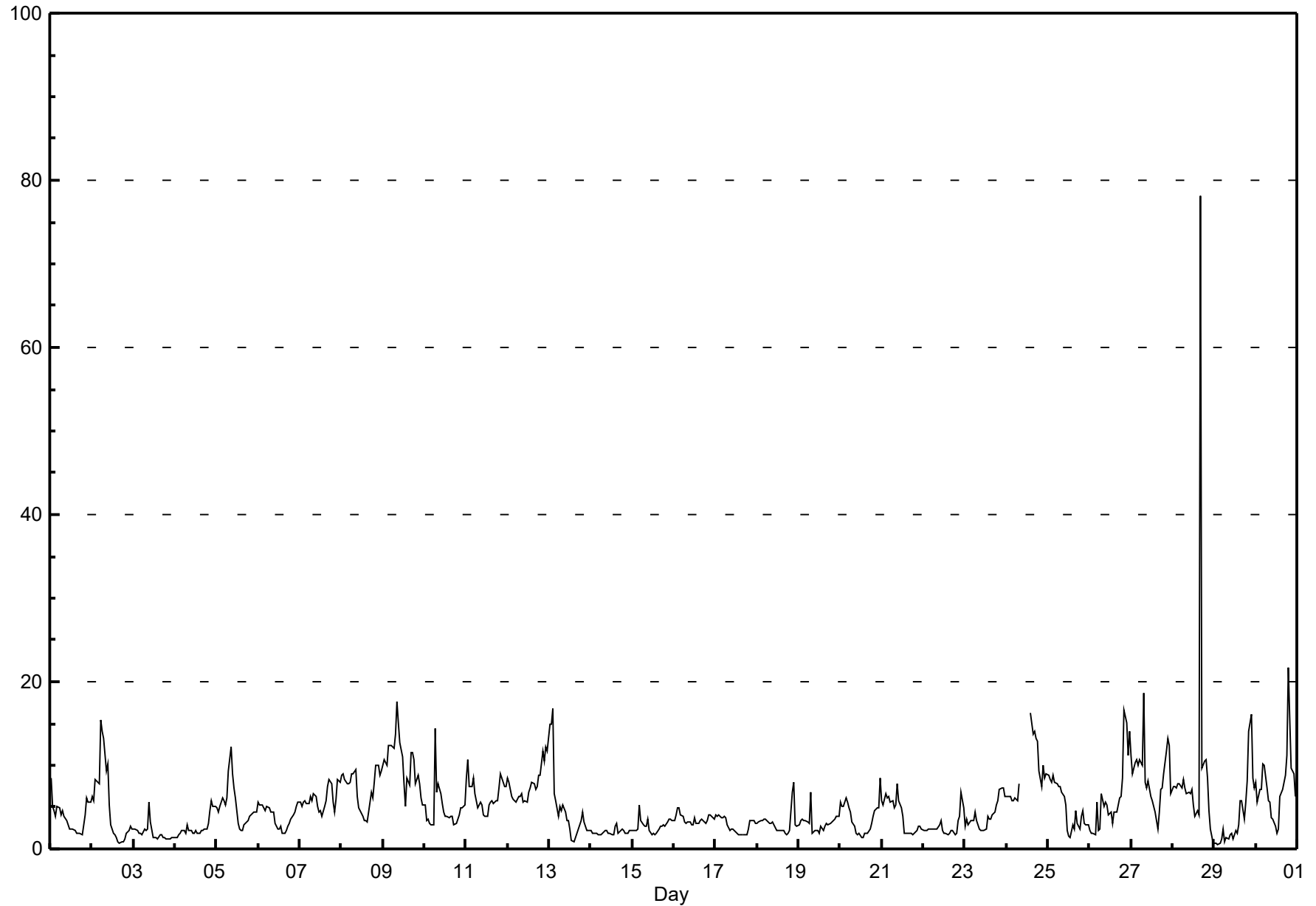
Particulate Matter 2.5 (PM_{2.5}) - µg/m³

Beaverlodge - April 2018

Maximum Value: 78.1 μg/m ³ on Apr 28 17:00																				Maximum Daily Average: 10.3 μg/m ³ on Apr 9					Hours in Service: 720				
Minimum Value: 0 μg/m ³ on Apr 29 03:00																				Minimum Daily Average: 1.9 μg/m ³ on Apr 3					Hours of Data: 714				
Maximum Diurnal Average: 6.6 μg/m ³ at hour 17																				Minimum Diurnal Average: 2.8 μg/m ³ at hour 14					Hours of Missing Data: 6				
Monthly Average: 5.02 μg/m ³																				Percentiles: P ₁ = 0.9 P ₁₀ = 1.9 Q ₁ = 2.4 Median = 3.9 Q ₃ = 6.5 P ₉₀ = 9.0 P ₉₉ = 16.1					Hours of Calibration: 6				
																									Percent Operational Time: 100.0				
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
1-Apr	8	5	5	4	5	5	4	5	4	3	3	2	2	2	2	2	2	2	2	3	4	6	6	6	3.8	8.5			
2-Apr	6	6	8	8	8	15	14	13	9	10	5	3	2	2	1	1	1	1	1	1	2	2	3	2	5.2	15.4			
3-Apr	2	2	2	2	2	2	2	2	2	6	3	1	1	1	1	2	2	1	1	1	1	1	1	1	1.9	5.6			
4-Apr	1	1	2	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2	2	3	5	6	5	5	2.6	5.8			
5-Apr	5	4	5	6	6	5	6	9	12	9	7	6	3	2	2	2	3	3	3	4	4	4	4	4	5.1	12.2			
6-Apr	6	5	5	5	5	5	5	4	4	4	3	2	2	3	2	2	2	3	3	4	4	4	5	6	3.9	5.6			
7-Apr	6	5	6	6	5	5	6	6	7	6	5	4	5	4	5	6	8	8	8	6	4	6	8	8	5.9	8.3			
8-Apr	9	9	8	8	8	8	9	9	9	6	5	5	4	3	3	3	4	7	6	8	10	10	9	9	7.1	10.0			
9-Apr	10	11	10	12	12	12	12	14	18	15	13	11	8	5	9	8	11	11	11	8	9	8	6	5	10.3	17.6			
10-Apr	5	3	4	3	3	3	14	7	8	7	5	4	4	4	4	4	4	3	3	4	4	5	5	5	4.8	14.4			
11-Apr	8	11	8	8	8	7	6	5	6	5	4	4	4	5	6	6	5	6	6	7	9	8	8	8	6.5	10.7			
12-Apr	9	8	6	6	6	6	6	6	7	6	6	6	7	7	8	8	7	8	9	9	12	10	12	12	7.7	12.2			
13-Apr	15	15	17	7	6	4	5	5	5	4	3	3	2	1	1	1	2	2	3	4	3	3	2	2	4.9	16.9			
14-Apr	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	2	2	2	2	2	2	2	2	2.0	3.1			
15-Apr	2	2	2	2	5	3	3	3	3	4	2	2	2	2	2	2	3	3	3	3	3	4	4	3	2.7	5.3			
16-Apr	3	4	5	5	4	4	3	3	3	3	3	3	4	3	3	3	4	3	3	3	4	4	4	4	3.6	4.8			
17-Apr	4	4	4	4	4	4	4	3	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	2.8	4.1			
18-Apr	3	3	3	3	4	4	3	3	3	3	3	2	2	2	2	2	2	2	2	2	7	8	3	3	3.1	8.0			
19-Apr	3	3	4	3	3	3	3	7	2	2	2	2	2	3	2	3	3	3	3	3	3	4	4	4	3.1	6.8			
20-Apr	6	5	5	6	6	5	4	3	3	2	2	2	1	1	2	2	2	2	3	4	5	5	5	8	3.7	8.5			
21-Apr	6	5	7	6	6	6	6	5	5	8	6	5	4	2	2	2	2	2	2	2	2	3	3	2	4.0	7.8			
22-Apr	2	2	2	2	2	2	2	2	2	3	3	2	2	2	2	2	2	2	2	2	3	4	7	5	2.7	6.8			
23-Apr	3	4	3	3	3	3	4	3	2	2	2	2	2	4	4	4	4	4	5	6	7	7	7	6	4.0	7.3			
24-Apr	6	6	6	6	6	6	6	8	C	C	C	C	C	C	16	14	14	13	13	9	8	10	8	9	9.2	16.4			
25-Apr	9	8	8	9	8	8	8	8	7	6	5	2	1	1	3	2	5	3	2	4	5	3	3	3	5.0	8.8			
26-Apr	2	2	2	2	6	2	2	7	5	6	5	4	4	3	4	4	4	6	6	9	17	15	11	14	6.0	16.7			
27-Apr	11	9	10	11	10	11	10	19	8	7	8	6	6	5	4	2	4	7	7	9	12	13	12	7	8.7	18.6			
28-Apr	8	8	7	8	8	7	8	7	7	7	7	5	4	5	4	78	10	10	11	9	5	2	1	1	9.6	78.1			
29-Apr	1	1	0	1	1	2	1	1	1	2	2	1	2	2	3	6	6	4	6	8	14	16	9	7	4.0	16.2			
30-Apr	8	6	7	7	10	10	7	6	6	4	4	3	2	2	6	7	8	9	11	22	10	9	9	6	7.4	21.7			
																									Diurnal Average				
																									Diurnal Maximum				
C - Calibration																													

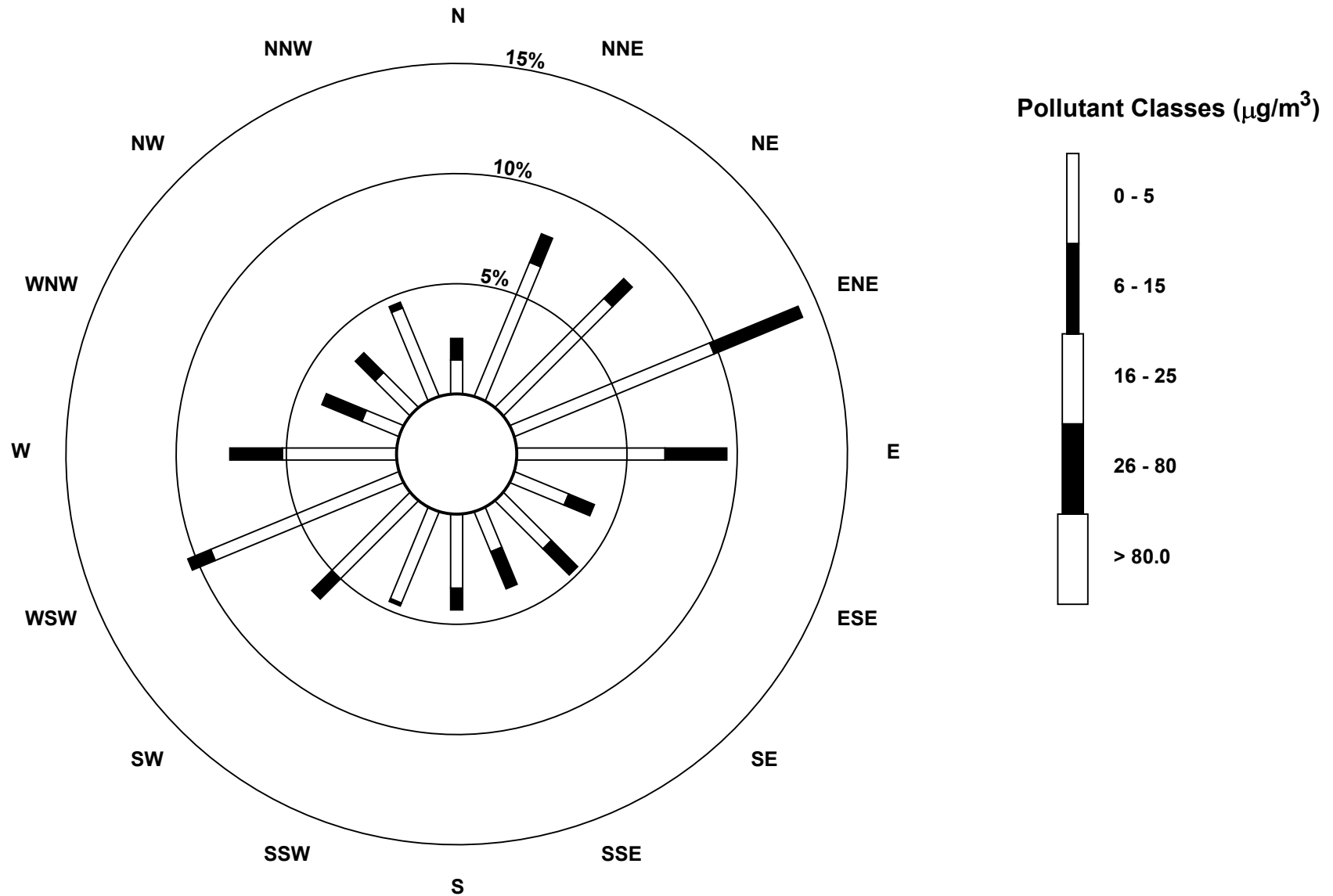
Hourly Maximums

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Beaverlodge - April 2018



Pollutant Rose

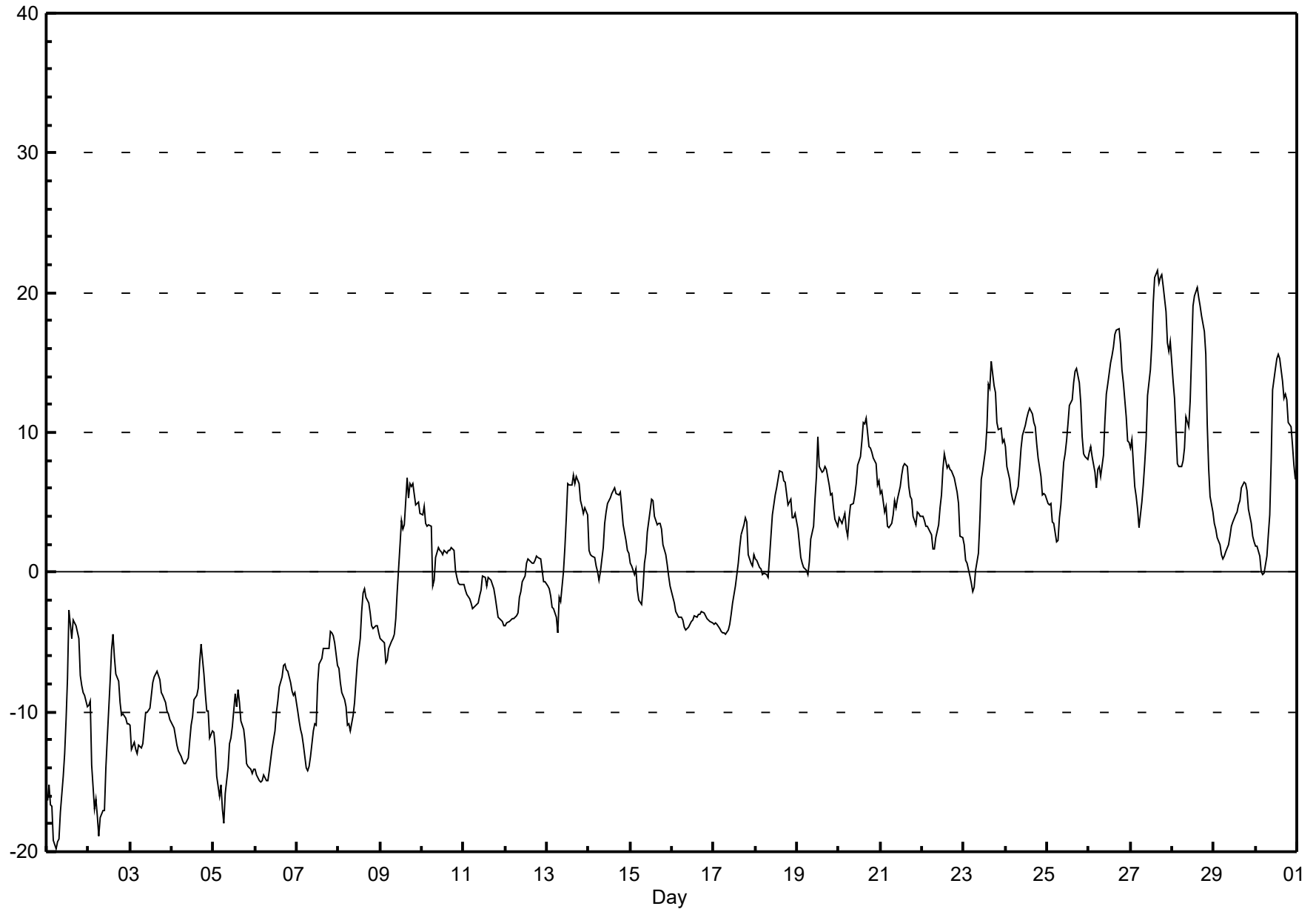
Particulate Matter 2.5 (PM_{2.5}) - µg/m³
Beaverlodge - April 2018



Hourly Averages

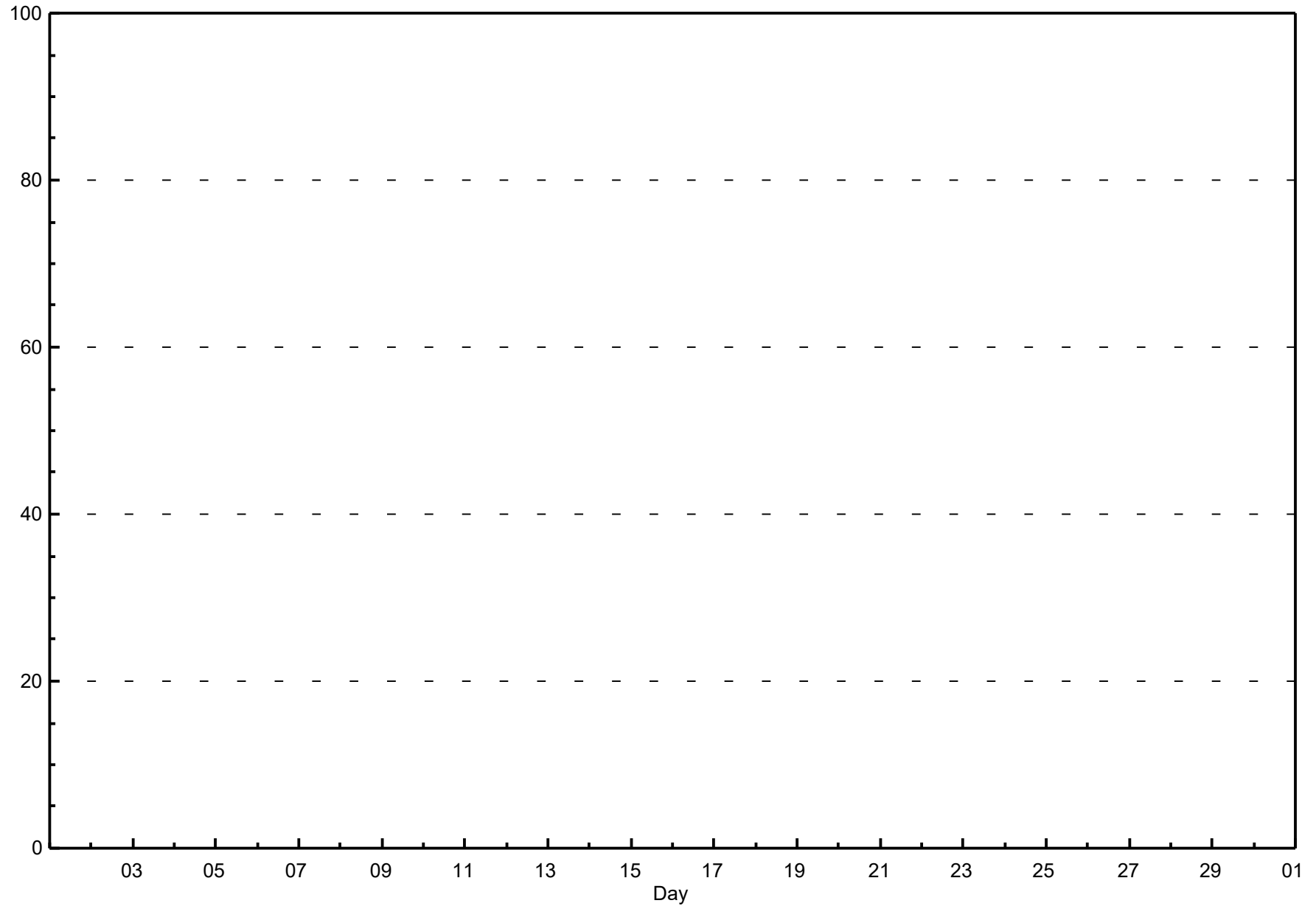
External Temperature (ET) - °C

Beaverlodge - April 2018



Hourly Averages

Relative Humidity (RH) - %
Beaverlodge - April 2018



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Beaverlodge - April 2018

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	14	4	1	7	4	9	6	10	12	5	5	1	3	3	4	3	2	3	4	5	9	12	10	9	3.4	14.5
Dir	25	319	325	28	215	14	12	360	347	334	310	213	52	189	216	203	186	181	171	144	35	20	27	20	11	25
2 Spd	10	12	8	9	11	8	3	5	9	5	6	10	4	3	2	9	15	16	13	10	12	12	13	16	4.9	16.4
Dir	2	344	325	15	12	215	152	4	340	62	229	260	221	196	193	73	60	68	112	74	41	33	33	33	34	33
3 Spd	12	10	12	9	15	13	13	13	12	9	20	22	17	18	19	21	24	23	21	23	22	22	19	14	15.1	23.7
Dir	33	42	47	357	30	27	26	28	78	179	92	87	83	91	78	77	67	65	58	49	52	67	68	67	62	67
4 Spd	12	14	15	16	15	15	18	16	14	13	10	12	4	7	8	8	5	4	11	3	8	14	12	17	6.6	17.8
Dir	57	40	36	33	24	20	33	28	25	19	355	3	234	206	205	211	185	154	222	246	359	331	16	337	15	33
5 Spd	15	14	11	2	19	4	8	7	2	14	7	8	5	10	12	14	17	16	17	20	18	18	23	22	7.7	23.0
Dir	331	345	343	205	355	37	281	18	295	22	135	212	175	135	75	91	103	96	75	62	57	62	88	82	61	88
6 Spd	22	19	28	27	30	30	27	29	26	23	22	20	18	22	24	25	24	23	22	20	21	18	13	13	22.1	29.8
Dir	83	82	90	96	93	90	92	90	90	86	86	81	74	67	67	65	67	64	58	51	57	67	50	75	77	93
7 Spd	15	16	16	15	14	15	18	15	13	11	8	15	4	8	13	17	14	15	17	20	21	17	16	14	13.5	20.5
Dir	89	78	74	74	73	67	65	39	52	96	30	25	119	99	69	56	29	20	28	54	60	74	68	60	60	60
8 Spd	14	15	13	14	11	12	15	7	9	9	8	7	10	7	5	5	6	8	10	10	13	13	11	11	4.0	15.1
Dir	69	66	62	68	82	12	7	257	189	259	259	228	253	234	183	153	146	143	121	109	76	74	88	107	90	7
9 Spd	11	11	13	8	9	4	2	7	8	1	5	3	1	6	5	3	4	4	6	6	8	5	6	4	3.2	12.9
Dir	73	74	72	155	191	150	138	264	218	173	66	189	135	49	258	154	69	90	70	135	98	67	71	114	106	72
10 Spd	7	6	4	6	7	11	3	1	6	9	11	16	24	22	24	16	16	9	17	20	13	6	8	4	10.5	24.0
Dir	50	58	131	65	36	35	103	183	56	51	60	54	53	51	50	57	62	47	68	67	51	47	11	150	56	53
11 Spd	7	10	11	11	12	15	12	11	9	8	8	5	8	13	8	7	8	12	12	15	18	15	15	13	4.9	17.5
Dir	318	312	311	295	304	301	338	341	331	326	12	76	111	109	93	129	106	101	89	85	69	69	62	57	37	69
12 Spd	17	15	14	15	15	14	13	11	7	14	12	13	10	15	15	16	19	15	9	13	2	10	9	6	10.4	19.0
Dir	66	63	58	70	72	68	75	53	71	90	107	111	107	94	90	87	90	87	78	80	355	302	309	354	76	90
13 Spd	9	10	12	14	9	9	12	6	10	8	11	8	6	11	13	12	13	6	6	9	10	15	7	4	7.5	15.2
Dir	80	116	156	134	125	167	72	141	63	97	85	78	93	104	100	80	52	77	144	146	179	177	144	173	114	177
14 Spd	16	10	12	11	19	18	16	13	14	22	20	25	21	21	27	20	26	27	23	28	18	12	9	13	17.5	27.6
Dir	274	204	215	206	229	241	214	198	223	229	236	252	251	257	248	246	245	244	257	246	244	240	203	230	239	246
15 Spd	18	13	2	13	10	10	10	9	12	12	11	12	4	11	18	19	21	23	22	17	12	13	13	15	7.2	23.0
Dir	216	207	52	236	45	168	287	359	332	314	339	12	86	34	35	36	36	39	42	50	57	57	45	52	29	39
16 Spd	16	19	18	17	16	16	15	17	20	16	16	15	17	17	17	17	18	16	16	16	16	15	18	19	15.9	20.1
Dir	49	35	36	33	33	36	35	35	37	36	33	25	24	23	29	29	28	24	22	19	19	339	343	327	24	37
17 Spd	16	16	16	17	16	20	20	19	18	19	20	20	19	22	20	22	18	17	11	12	13	20	19	15	16.0	22.3
Dir	318	312	315	315	307	304	305	293	293	288	291	292	311	302	302	298	296	295	329	320	206	245	246	250	295	302
18 Spd	20	25	24	23	23	25	28	26	27	24	23	32	28	27	29	21	24	26	24	19	16	8	11	14	21.6	31.8
Dir	246	249	248	249	244	242	244	244	242	229	244	265	257	265	274	263	243	245	245	244	255	201	145	204	247	265
19 Spd	19	18	13	16	14	16	15	12	11	10	9	8	3	20	18	15	10	15	17	19	23	15	16	4	8.6	23.3
Dir	199	170	136	138	152	175	150	131	124	81	77	65	170	236	239	232	245	256	242	230	245	234	243	223	200	245
20 Spd	15	8	7	12	16	2	13	18	14	14	18	15	11	11	8	11	8	11	9	10	12	9	9	11	4.9	18.5
Dir	215	176	154	243	234	211	303	265	213	199	219	231	204	192	184	103	184	228	86	56	79	1	14	355	216	265
21 Spd	12	16	16	1	10	6	13	10	12	11	12	12	16	24	29	34	39	36	35	32	26	33	37	36	15.2	39.0
Dir	36	31	330	179	265	57	44	27	38	221	232	224	248	270	269	257	242	245	246	244	245	262	266	269	261	242
22 Spd	32	35	34	36	30	28	25	24	19	21	18	17	7	3	9	7	22	22	22	16	14	16	8	11	18.4	36.1
Dir	272	271	272	274	276	286	281	270	271	272	273	276	270	74	73	280	268	269	269	264	273	269	189	257	272	274

Hourly Averages

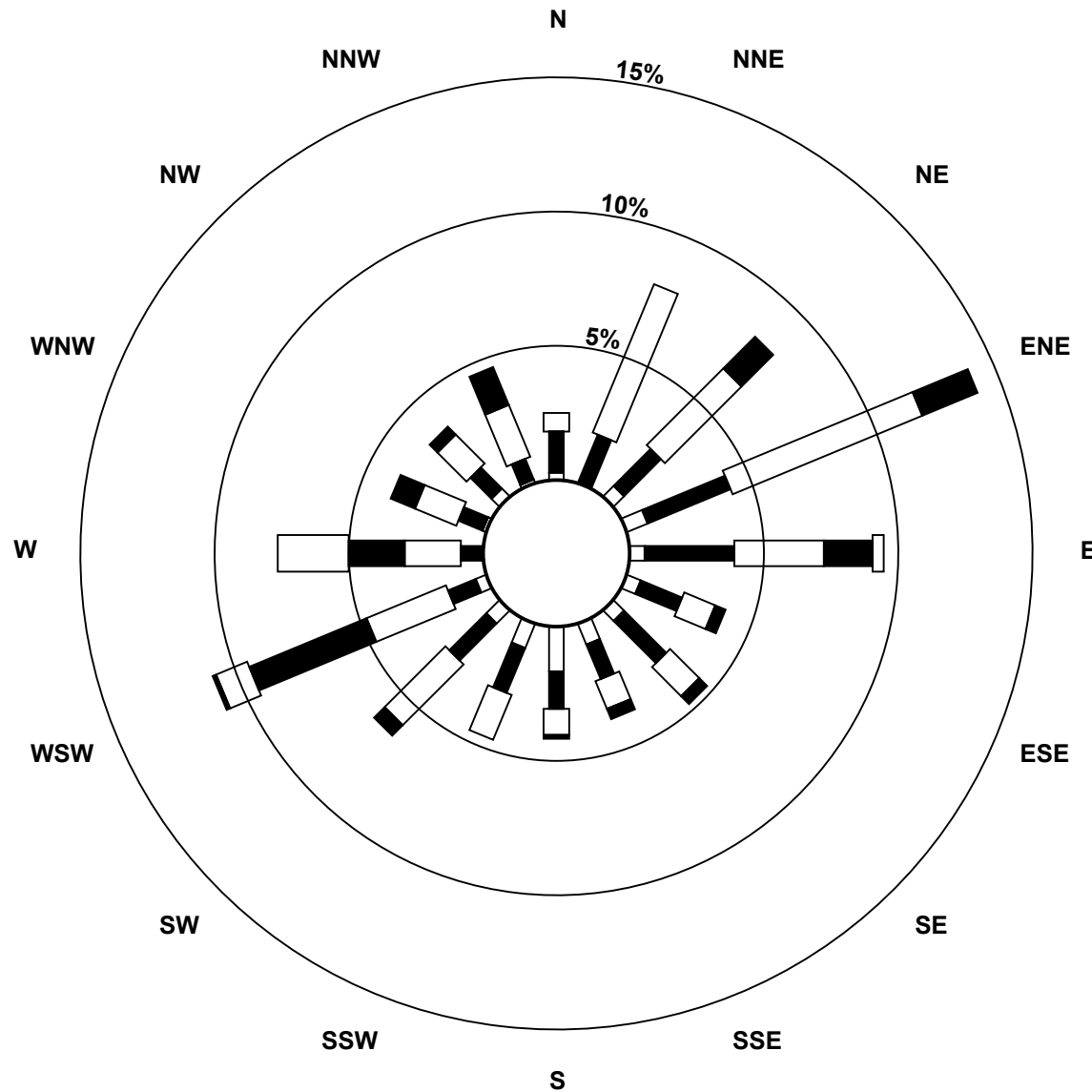
Wind Speed (km/h)
Wind Direction (deg)
Beaverlodge - April 2018

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	18	14	10	18	18	20	19	18	16	13	13	15	10	7	6	5	6	4	9	11	13	14	6	12	6.7	20.4
Dir	240	207	206	185	110	132	122	151	161	146	144	74	64	97	137	120	190	97	248	221	224	250	302	281	167	132
24 Spd	14	11	15	15	13	7	6	7	13	20	16	15	16	20	14	13	14	21	37	23	22	22	18	16	12.7	36.8
Dir	228	157	179	168	162	189	230	238	231	247	238	244	251	263	278	324	314	291	273	257	262	257	266	268	251	273
25 Spd	15	8	16	11	14	15	18	17	16	13	8	15	12	11	15	16	21	22	20	16	14	16	16	13	8.0	21.9
Dir	282	298	269	308	308	36	121	136	94	109	192	228	192	192	224	233	258	257	255	250	235	255	249	211	237	257
26 Spd	15	16	9	14	16	19	16	7	13	8	9	8	7	7	8	7	5	11	11	7	6	9	10	12	3.4	19.4
Dir	233	250	311	69	65	21	30	252	236	104	106	75	87	92	98	92	80	72	42	85	8	301	71	195	63	21
27 Spd	9	16	6	12	16	16	15	10	13	13	10	9	9	9	9	10	12	10	7	8	6	9	13	12	6.3	16.5
Dir	31	35	140	125	147	70	56	138	131	89	118	92	69	79	85	83	97	88	87	64	147	235	270	262	95	147
28 Spd	9	5	10	14	20	14	5	7	9	13	10	10	25	35	35	35	36	31	25	22	23	21	22	21	9.9	35.5
Dir	217	256	165	139	55	92	53	224	168	175	164	226	253	265	272	264	276	266	260	280	341	344	343	339	273	276
29 Spd	20	20	20	25	23	21	21	21	19	18	16	14	16	15	4	9	13	13	15	17	19	22	25	22	9.1	25.4
Dir	334	325	330	328	330	343	331	334	348	15	339	18	354	270	207	136	73	145	100	94	72	78	90	106	11	90
30 Spd	22	20	23	23	24	23	26	20	19	17	26	33	35	37	36	36	33	26	30	28	19	18	18	18	13.7	37.5
Dir	105	122	174	156	138	124	153	165	178	203	234	242	245	239	244	252	265	264	275	269	284	329	351	299	229	239
Spd	1.9	1.8	0.7	1.2	2.4	3.4	3.3	0.9	0.4	0.9	1.2	1.8	2.1	2.7	1.8	0.6	1.6	2.0	2.2	0.8	2.4	3.3	3.5	2.4	Diurnal Average	
Dir	336	14	1	116	51	48	39	343	91	160	215	279	252	246	271	298	305	283	294	345	12	332	12	327	Diurnal Maximum	
Spd	32.0	35.3	34.5	36.1	30.0	29.6	28.3	28.7	27.4	23.8	25.5	33.2	35.5	37.5	36.0	35.9	39.0	36.2	36.8	32.2	26.2	33.2	37.0	36.3	Diurnal Maximum	
Dir	272	271	272	274	276	90	244	90	242	229	234	242	245	239	244	252	242	245	273	244	245	262	266	269		
Maximum Speed Value: 39 km/h on Apr 21 17:00																								Hours in Service: 720		
Maximum Daily Speed Average: 22.1 km/h on Apr 30																								Hours of Data: 720		
Maximum Diurnal Speed Average: 3.5 km/h at hour 23																								Hours of Missing Data: 0		
Minimum Speed Value: 1 km/h on Apr 10 08:00																								Percent Operational Time: 100.0		
Minimum Daily Speed Average: 3.2 km/h on Apr 9																										
Minimum Diurnal Speed Average: 0.4 km/h at hour 9																										
Monthly Average Velocity: 0.97 km/h 338.2 deg																										
Speed Percentiles: P ₁ = 1.6 P ₁₀ = 5.9 Q ₁ = 9.4 Median = 13.7 Q ₃ = 18.5 P ₉₀ = 23.6 P ₉₉ = 35.9																										
All monthly, daily, and diurnal averages have been calculated using vector methods																										
Frequency Distribution																										
Speed Range (km/h)																										
Direction	0 to 5		5 to 11		11 to 19		19 to 28		28 to 38		> 38		Total													
North	2		21		26		8		0		0		57													
NorthEast	6		26		80		28		0		0		140													
East	6		47		66		20		3		0		142													
SouthEast	13		23		18		7		0		0		61													
South	13		21		14		3		0		0		51													
SouthWest	11		24		44		23		8		1		111													
West	2		13		30		33		22		0		100													
NorthWest	3		16		26		13		0		0		58													
Total	56		191		304		135		33		1		720													

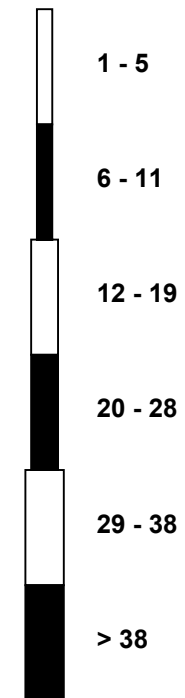
Wind Rose

Wind Speed (WS) (km/h)

Beaverlodge - April 2018



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Beaverlodge - April 2018

Maximum Speed: 39 km/h on Apr 21 17:00																			Maximum Daily Speed Average: 26.4 km/h on Apr 30										Hours in Service: 720			
Minimum Speed: 3 km/h on Apr 1 17:00																			Minimum Daily Speed Average: 7.9 km/h on Apr 9										Hours of Data: 720			
Maximum Diurnal Speed Average: 18.0 km/h at hour 6																			Minimum Diurnal Speed Average: 13.8 km/h at hour 13										Hours of Missing Data: 0			
Monthly Average Speed: 16.10 km/h																			Percentiles: P ₁ = 3.8 P ₁₀ = 8.6 Q ₁ = 12.1 Median = 15.4 Q ₃ = 19.4 P ₉₀ = 23.9 P ₉₉ = 36.1										Percent Operational Time: 100.0			
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24								
1-Apr	21	11	11	13	14	13	13	16	13	10	7	4	3	4	4	3	3	3	4	6	10	12	10	11	9.2	21.2						
2-Apr	11	12	15	15	15	16	19	17	15	13	13	10	5	4	3	9	16	16	14	11	12	12	13	16	12.5	19.4						
3-Apr	12	13	13	15	16	13	13	13	14	10	21	23	17	18	19	21	24	23	21	23	22	23	19	14	17.5	23.7						
4-Apr	12	14	15	16	15	15	18	16	14	13	11	13	9	7	8	8	5	4	11	11	13	14	14	18	12.3	18.0						
5-Apr	15	15	15	17	20	16	18	16	18	14	12	9	7	10	13	15	17	16	17	20	19	18	23	22	15.8	23.1						
6-Apr	22	19	28	27	30	30	27	29	26	23	23	21	18	22	24	26	24	23	22	20	22	18	14	13	22.8	29.8						
7-Apr	15	16	16	15	15	16	20	16	14	12	10	15	11	10	13	17	15	15	18	20	21	17	16	14	15.2	20.6						
8-Apr	15	15	13	14	14	14	18	14	12	10	8	7	10	8	5	5	6	8	10	10	14	13	11	12	11.2	18.2						
9-Apr	12	11	13	14	10	10	10	9	8	12	7	3	3	6	7	4	5	5	6	7	10	6	6	6	7.9	13.8						
10-Apr	7	7	6	7	9	11	8	8	9	10	12	16	24	23	24	16	17	14	18	20	14	13	12	9	13.1	24.1						
11-Apr	8	10	11	11	12	15	12	11	10	8	9	7	8	13	8	7	9	12	13	15	18	15	15	13	11.3	17.6						
12-Apr	17	15	14	15	15	14	13	12	9	14	13	13	10	15	15	16	19	15	10	14	9	10	9	9	13.0	19.1						
13-Apr	9	10	12	14	11	11	12	12	10	8	11	8	6	11	13	12	13	7	7	9	10	15	10	11	10.6	15.3						
14-Apr	19	11	12	12	19	18	16	13	15	22	20	25	21	21	27	20	26	27	23	28	18	12	13	13	18.8	27.6						
15-Apr	18	14	14	14	15	15	15	18	16	12	11	12	9	11	18	19	21	23	22	17	13	14	14	15	15.4	23.0						
16-Apr	16	19	18	17	16	16	15	17	20	17	16	15	17	17	17	17	18	16	16	16	16	16	18	19	16.9	20.2						
17-Apr	16	16	16	17	16	21	20	19	18	19	20	20	19	23	21	22	18	17	11	13	15	20	19	20	18.1	22.6						
18-Apr	20	25	24	24	23	25	28	26	27	24	23	32	28	27	29	21	24	26	24	19	16	13	15	15	23.3	32.0						
19-Apr	19	19	17	17	17	17	17	16	18	15	10	8	7	20	18	15	11	15	17	19	23	15	16	15	15.9	23.3						
20-Apr	15	15	15	15	17	19	15	19	15	14	18	16	12	11	9	12	11	12	10	11	12	13	13	13	13.9	19.4						
21-Apr	14	16	20	14	15	15	15	14	13	11	12	13	17	24	29	34	39	36	35	32	26	33	37	36	22.9	39.1						
22-Apr	32	35	35	36	30	28	25	24	19	21	18	17	11	8	10	14	22	22	22	16	15	16	17	18	21.3	36.1						
23-Apr	18	19	23	23	21	21	20	19	17	14	14	15	11	9	7	6	6	6	10	12	14	14	15	20	14.7	22.7						
24-Apr	17	15	15	16	16	16	16	16	15	20	16	15	16	20	15	14	14	22	37	23	22	22	18	16	18.0	36.9						
25-Apr	16	17	17	18	18	19	25	18	16	14	14	15	12	11	15	16	22	22	21	17	15	17	16	16	17.0	24.9						
26-Apr	16	16	16	17	19	22	16	15	14	12	10	9	8	7	8	7	7	11	12	9	12	14	15	15	12.8	22.1						
27-Apr	16	16	16	17	23	23	19	17	15	14	11	9	9	9	9	10	12	10	7	8	10	13	13	13	13.3	22.9						
28-Apr	13	15	16	17	21	22	17	15	13	13	13	13	26	35	35	35	36	31	25	23	23	22	22	21	21.8	35.7						
29-Apr	20	21	20	26	23	22	21	21	20	19	19	20	23	17	17	17	17	15	16	17	19	23	26	22	20.1	26.1						
30-Apr	22	22	23	24	25	27	27	22	20	18	26	33	36	38	36	36	33	26	31	29	20	19	19	19	26.4	37.8						
16.2 16.0 16.7 17.2 17.7 18.0 17.6 16.6 15.5 14.5 14.1 14.5 13.8 15.4 15.8 15.8 16.9 16.7 16.9 16.5 16.0 16.1 15.9 15.9																									Diurnal Average							
32.1 35.4 34.5 36.1 30.1 29.7 28.3 28.8 27.4 23.8 26.4 33.4 35.8 37.8 36.4 36.1 39.1 36.2 36.9 32.2 26.3 33.3 37.1 36.4																									Diurnal Maximum							
All monthly, daily, and diurnal averages have been calculated using scalar methods																																

Hourly Standard Deviations

Wind Direction (WD) - deg

Beaverlodge - April 2018

Maximum Value: 96.7 deg on Apr 2 07:00																			Hours in Service: 720						
Minimum Value: 1.5 deg on Apr 16 13:00																			Hours of Data: 720						
Percentiles: P ₁ = 2.5 P ₁₀ = 4.2 Q ₁ = 6.3 Median = 13.0 Q ₃ = 32.4 P ₉₀ = 58.4 P ₉₉ = 90.8																			Hours of Missing Data: 0						
																			Hours of Calibration: 0						
																			Percent Operational Time: 100.0						
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Apr	52	76	90	69	84	56	75	57	27	76	51	86	33	53	8	20	44	24	18	33	31	14	11	29	90.4
2-Apr	21	21	66	63	49	73	97	82	55	83	76	15	30	24	77	26	8	5	16	26	6	5	4	3	96.7
3-Apr	25	44	30	55	14	6	2	5	27	30	37	6	6	11	7	9	4	5	4	4	5	6	5	6	54.6
4-Apr	10	11	5	4	5	4	5	3	4	3	20	24	66	19	7	4	19	27	8	82	54	6	28	25	82.5
5-Apr	6	17	57	91	12	85	74	74	95	2	56	25	55	22	14	14	7	9	9	4	6	10	4	4	95.3
6-Apr	4	5	4	2	3	3	3	4	4	6	5	6	10	5	4	4	4	5	3	4	5	3	16	12	15.8
7-Apr	6	8	5	7	13	6	22	10	20	14	32	8	79	64	9	12	13	8	9	5	5	6	8	9	78.9
8-Apr	20	13	6	8	46	34	37	66	47	27	26	10	8	29	16	9	12	11	8	7	13	8	13	18	65.6
9-Apr	17	10	9	57	35	69	87	52	19	93	44	28	58	22	50	48	40	40	21	27	30	47	20	54	92.9
10-Apr	11	15	49	37	53	19	74	91	64	40	25	16	6	9	8	15	15	85	22	6	10	73	48	66	91.4
11-Apr	30	7	7	15	15	9	19	12	16	16	28	44	32	6	23	24	28	16	14	11	6	11	6	8	43.9
12-Apr	5	3	6	7	5	7	7	20	42	4	7	7	7	6	7	4	4	4	12	7	82	5	4	45	82.2
13-Apr	14	15	10	11	32	35	14	66	10	18	16	13	10	7	9	8	7	35	31	18	5	6	50	66	65.9
14-Apr	60	33	14	18	6	7	4	15	19	6	5	6	6	7	4	6	4	4	4	3	7	14	46	11	59.8
15-Apr	13	27	93	17	59	52	58	61	41	9	9	7	68	27	4	4	4	3	3	6	20	15	13	10	93.2
16-Apr	18	7	5	4	3	7	5	4	4	6	6	5	2	2	4	4	8	2	4	7	8	12	8	7	17.7
17-Apr	5	5	5	4	9	7	7	6	5	5	6	6	8	8	7	8	5	9	12	23	28	5	3	57	56.6
18-Apr	4	4	2	4	5	4	3	3	3	3	15	6	7	9	6	17	3	3	2	4	6	54	46	21	54.2
19-Apr	7	17	38	24	38	21	33	40	52	52	18	12	69	3	4	6	19	7	4	8	3	12	3	88	87.7
20-Apr	9	60	68	36	20	95	32	18	22	13	10	24	27	5	27	30	44	30	29	24	10	48	44	36	94.9
21-Apr	30	6	38	96	52	77	31	43	31	15	7	21	20	8	6	5	4	3	5	3	4	5	4	4	96.5
22-Apr	4	4	4	4	4	8	9	5	4	6	6	9	63	83	17	82	6	8	4	12	28	20	66	63	83.4
23-Apr	13	45	69	41	30	11	19	9	13	26	7	19	8	38	35	42	19	53	20	24	24	7	67	56	68.9
24-Apr	32	46	12	17	36	73	81	72	34	3	7	7	8	7	25	9	13	16	5	4	5	8	4	5	80.9
25-Apr	19	67	20	54	42	41	46	17	14	20	58	8	13	14	5	10	10	5	7	10	11	5	4	33	66.6
26-Apr	24	12	61	44	39	29	4	69	27	51	18	23	27	22	6	13	35	16	15	48	60	58	60	42	69.3
27-Apr	65	3	80	49	47	49	52	55	36	23	24	21	6	12	9	5	11	8	8	14	56	52	12	17	80.3
28-Apr	50	88	53	39	18	53	87	77	47	10	41	48	14	6	10	8	7	6	5	17	8	7	8	8	87.8
29-Apr	8	7	11	16	11	13	7	11	17	20	31	51	50	31	89	70	40	35	26	8	9	19	14	4	88.8
30-Apr	5	26	11	13	13	34	11	24	15	21	19	7	8	8	9	6	6	5	12	15	17	20	20	13	33.6
64.5 87.8 93.2 96.5 84.2 94.9 96.7 91.4 95.3 92.9 75.9 86.2 78.9 83.4 88.8 82.5 44.1 85.3 30.6 82.5 82.2 73.2 67.4 87.7																									

PAZA
Valleyview Station
Monthly Summary Tables, Graphs and
Roses

Hourly Averages

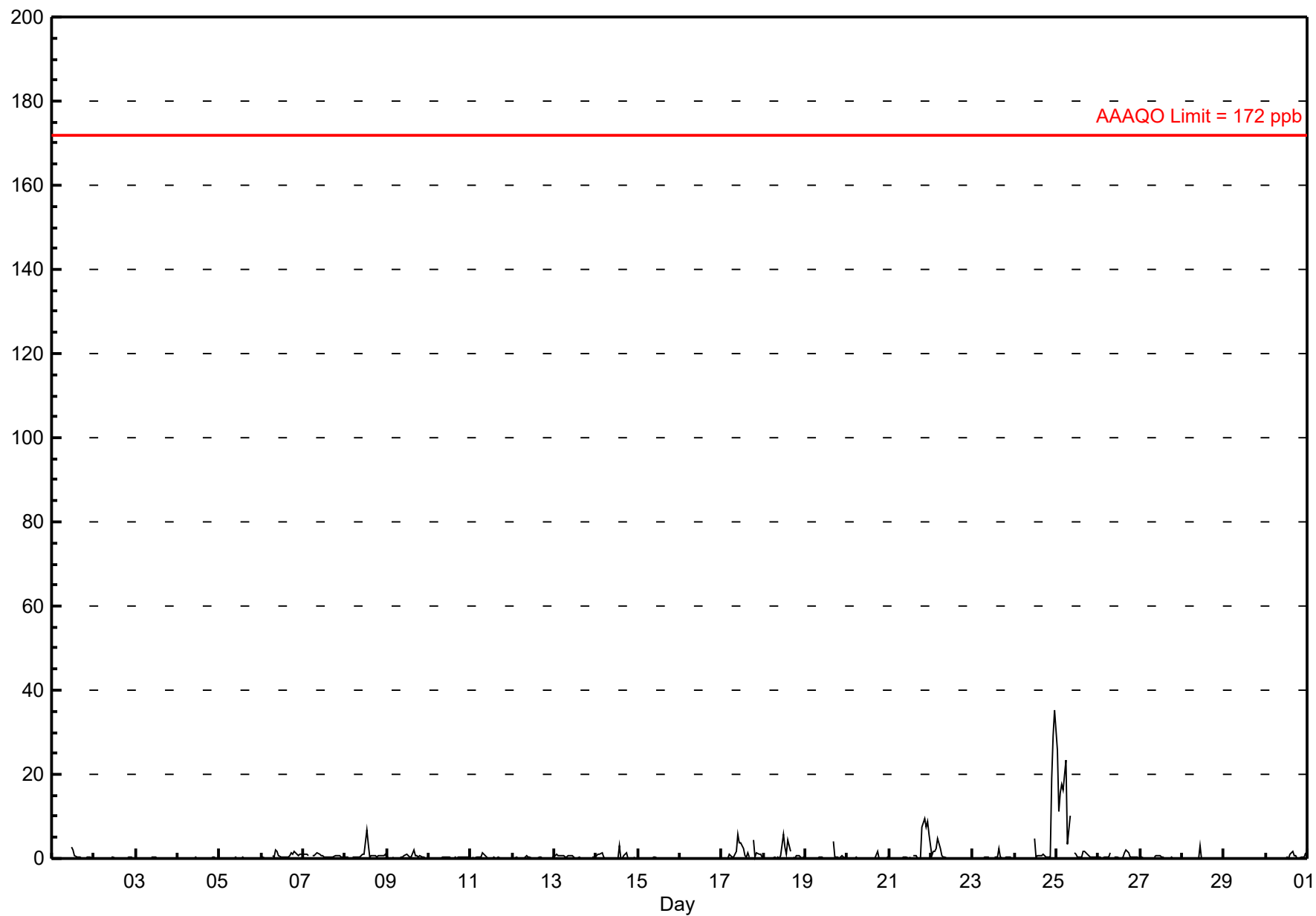
Sulphur Dioxide (SO₂) - ppb

Valleyview - April 2018

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 35.4 ppb on Apr 25 00:00 Maximum Daily Average: 6.1 ppb on Apr 25																					Hours in Service: 720 Hours of Data: 688 Hours of Missing Data: 32 Hours of Calibration: 32 Percent Operational Time: 100.0					
Minimum Value: 0 ppb on Apr 1 05:00 Minimum Daily Average: 0.0 ppb on Apr 16 Maximum Diurnal Average: 1.7 ppb at hour 24 Minimum Diurnal Average: 0.3 ppb at hour 7 Monthly Average: 0.72 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.4 P ₉₀ = 1.1 P ₉₉ = 15.7																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	0	0	0	0	0	0	0	0	0	0	A	3	2	1	0	0	0	0	0	0	0	0	0	0	0.3	2.7
2-Apr	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
3-Apr	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
4-Apr	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
5-Apr	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
6-Apr	0	0	0	0	0	A	1	0	2	2	1	0	0	0	0	0	1	1	1	2	1	1	1	1	0.7	2.0
7-Apr	1	1	1	1	A	1	1	1	1	1	1	1	0	0	0	0	0	0	1	1	1	1	0	0	0.7	1.2
8-Apr	0	0	0	A	0	0	0	0	0	0	1	1	7	3	0	1	1	1	1	1	1	1	1	1	0.9	6.6
9-Apr	0	0	A	0	0	0	0	0	0	0	0	1	1	0	0	2	1	1	0	1	0	0	0	0	0.4	2.2
10-Apr	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
11-Apr	A	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.2	1.3
12-Apr	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.2	0.7
13-Apr	1	1	1	1	1	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0.4	0.9
14-Apr	1	1	1	1	0	0	0	0	0	0	0	0	0	3	0	0	1	1	0	0	A	0	0	0	0.4	3.1
15-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.0	0.2
16-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.0	0.0
17-Apr	0	0	0	0	1	1	0	0	2	6	4	4	2	1	0	1	0	A	4	0	1	1	1	0	1.3	5.8
18-Apr	0	0	0	0	0	0	0	0	0	0	1	6	3	1	4	2	A	0	0	1	1	0	0	0	0.9	5.8
19-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	4	0	0	0	0	1	0	0	0.3	4.0
20-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	2	0	0	0	0	0	0.2	1.8
21-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	1	0	0	0	7	9	7	9	6	1.8	9.4
22-Apr	1	2	2	3	5	3	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.7	4.9
23-Apr	0	0	0	0	0	0	0	0	0	0	C	C	0	0	0	2	0	0	0	0	0	0	0	0	0.3	2.3
24-Apr	0	0	0	0	0	0	0	0	0	0	A	5	0	1	1	1	1	1	0	0	0	19	29	35	4.1	35.4
25-Apr	26	11	16	18	16	23	3	7	10	A	1	1	0	0	0	2	2	1	1	0	0	0	0	0	6.1	25.7
26-Apr	0	0	0	0	0	0	0	1	A	0	0	0	0	0	0	1	2	1	0	0	0	0	0	0	0.5	2.1
27-Apr	0	0	0	0	0	0	0	A	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
28-Apr	0	0	0	0	0	0	A	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	3.2
29-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
30-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	2	1	1	0	0	0	0	0	1	0.3	1.6
																									Diurnal Average	
																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb																										

Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Valleyview - April 2018



Hourly Maximums

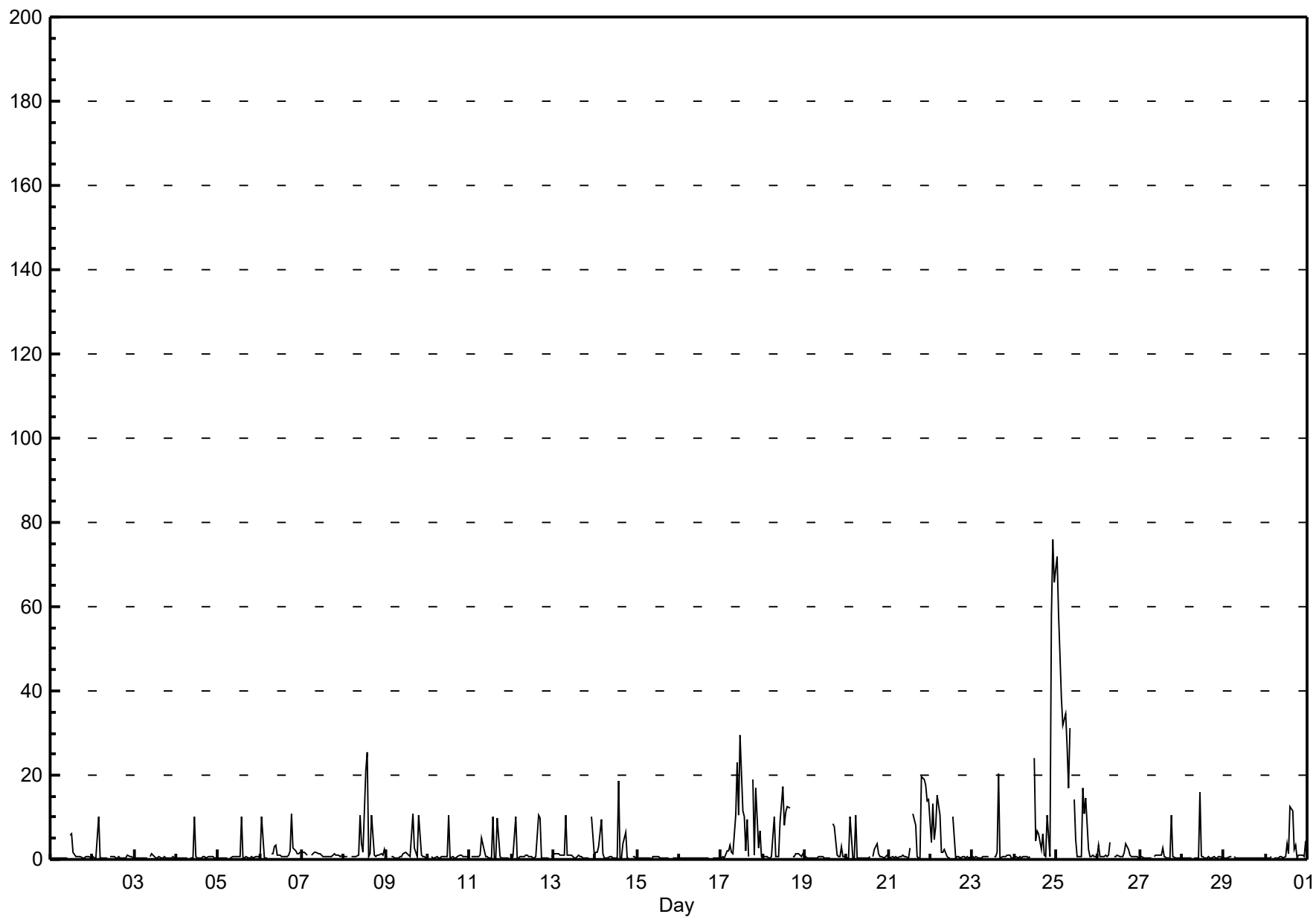
Sulphur Dioxide (SO₂) - ppb

Valleyview - April 2018

Maximum Value: 75.8 ppb on Apr 24 23:00																				Maximum Daily Average: 18.6 ppb on Apr 25					Hours in Service: 720		
Minimum Value: 0 ppb on Apr 15 09:00																				Minimum Daily Average: 0.3 ppb on Apr 16					Hours of Data: 688		
Maximum Diurnal Average: 4.2 ppb at hour 23																				Minimum Diurnal Average: 1.8 ppb at hour 18					Hours of Missing Data: 32		
Monthly Average: 2.76 ppb																				Percentiles: P ₁ = 0.2 P ₁₀ = 0.4 Q ₁ = 0.4 Median = 0.6 Q ₃ = 1.1 P ₉₀ = 9.5 P ₉₉ = 34.9					Hours of Calibration: 32		
																									Percent Operational Time: 100.0		
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Apr	0	0	0	0	0	0	0	0	0	0	A	6	6	2	1	1	1	1	0	0	1	1	1	0	1.0	6.0	
2-Apr	1	0	0	10	0	0	0	0	0	A	1	1	1	0	0	1	0	0	0	0	1	1	1	1	0	0.9	10.1
3-Apr	0	0	0	0	0	0	0	0	A	1	1	1	0	0	1	0	0	1	0	0	0	0	1	0	0.5	1.2	
4-Apr	0	0	0	0	1	0	0	A	0	0	10	1	0	0	0	1	1	0	1	1	1	1	0	0	0.9	10.1	
5-Apr	0	0	0	0	0	0	A	0	1	1	1	1	1	10	0	0	1	0	0	1	0	1	1	1	0.9	10.1	
6-Apr	0	10	0	0	0	A	1	1	3	3	1	1	1	1	1	1	1	2	11	3	2	1	1	2	2.1	10.7	
7-Apr	2	2	1	1	A	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.8	
8-Apr	1	1	1	A	1	1	1	1	1	11	4	2	21	25	1	1	10	1	1	1	1	1	1	2	3.9	25.3	
9-Apr	1	1	A	1	1	0	0	0	0	1	1	1	2	1	1	11	3	2	1	11	1	1	1	0	1.8	10.9	
10-Apr	1	A	1	0	0	1	0	0	1	1	1	1	10	0	1	0	1	1	1	1	1	1	1	1	1.0	10.4	
11-Apr	A	1	1	1	1	1	1	5	2	1	1	0	0	10	0	0	10	1	0	0	0	0	0	A	1.7	10.1	
12-Apr	0	1	10	0	0	1	1	1	1	1	1	1	0	0	1	11	10	0	0	0	0	0	A	1	1.8	10.5	
13-Apr	1	1	1	1	1	1	1	11	1	1	1	1	0	0	1	1	1	0	0	0	0	A	10	1	1.7	10.6	
14-Apr	2	2	3	10	1	0	0	0	1	1	0	0	0	19	0	0	4	6	0	0	A	1	1	0	2.3	18.6	
15-Apr	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	A	0	0	0	0	0.4	0.7	
16-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.3	0.4	
17-Apr	0	1	0	2	2	3	2	1	10	23	11	30	12	10	2	9	1	A	19	1	17	3	7	1	7.2	29.5	
18-Apr	1	1	1	0	0	1	10	1	1	1	9	17	8	11	13	12	A	1	1	1	1	1	1	1	4.0	17.1	
19-Apr	1	1	0	0	0	0	0	0	1	1	1	0	0	0	0	A	9	8	1	1	1	3	1	1	1.3	8.6	
20-Apr	0	0	10	0	0	10	0	1	0	0	0	0	0	1	A	1	2	4	1	1	1	0	1	1	1.6	10.5	
21-Apr	1	0	1	0	1	0	1	1	1	1	1	0	3	A	11	8	1	0	0	20	19	18	14	14	5.0	19.8	
22-Apr	4	13	5	8	15	10	2	2	2	1	0	0	A	10	0	1	1	0	1	1	0	1	0	1	3.4	15.3	
23-Apr	1	0	1	0	0	0	1	1	1	1	C	C	1	1	2	20	0	1	1	1	1	1	1	0	1.5	20.3	
24-Apr	0	1	0	1	0	1	1	1	0	1	A	24	4	7	6	2	6	1	1	11	1	58	76	66	11.6	75.8	
25-Apr	72	58	49	38	32	34	27	17	31	A	14	5	1	1	1	17	11	15	2	1	1	1	1	1	18.6	72.0	
26-Apr	3	1	1	1	1	1	1	4	A	1	1	1	1	1	1	2	4	3	1	1	1	1	1	1	1.2	3.9	
27-Apr	0	1	0	0	0	0	1	A	1	1	1	1	1	3	1	0	0	0	11	1	0	0	0	0	1.1	10.6	
28-Apr	0	0	0	0	0	0	A	0	0	0	16	1	1	0	0	1	0	0	1	1	1	1	1	0	1.1	16.0	
29-Apr	0	0	0	1	1	A	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0.4	0.6	
30-Apr	0	0	0	1	A	0	0	0	1	1	0	1	4	1	12	12	2	3	0	1	1	1	1	4	2.1	12.4	
3.3 3.4 3.1 2.8 2.2 2.5 1.9 1.9 2.3 1.9 2.9 3.4 2.8 4.0 2.0 4.0 2.8 1.8 2.0 2.1 1.9 3.4 4.2 3.5																									Diurnal Average		
72.0 58.3 48.5 38.2 32.0 34.4 26.7 17.0 31.2 23.1 16.0 29.5 20.9 25.3 12.5 20.3 11.0 14.5 18.9 19.8 18.8 57.6 75.8 65.6																									Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																											

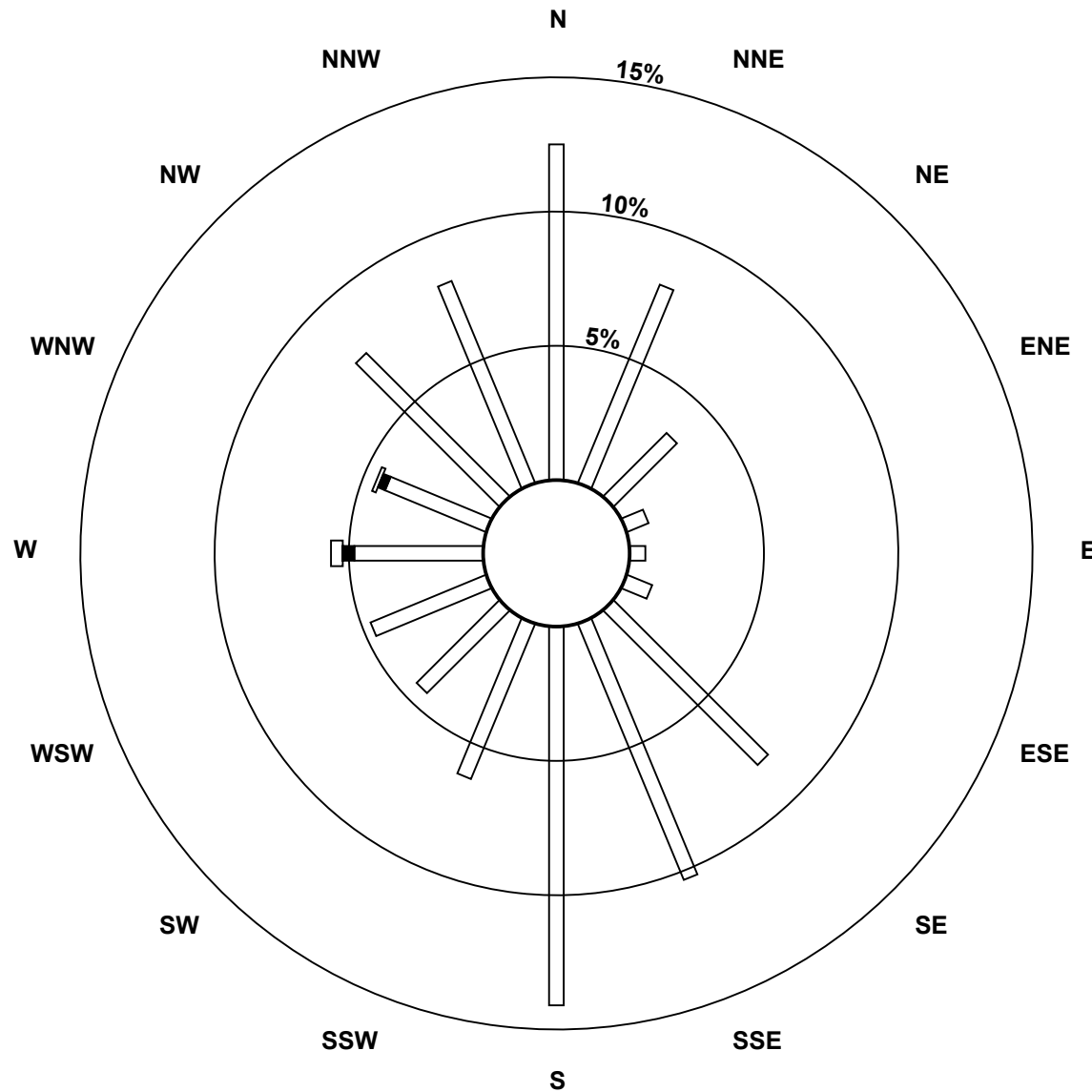
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Valleyview - April 2018

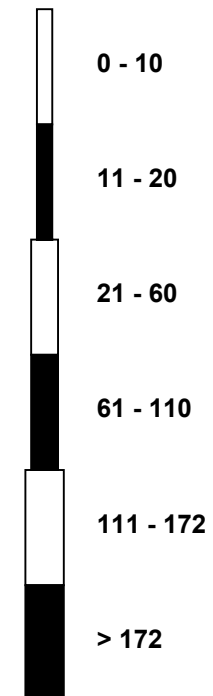


Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Valleyview - April 2018

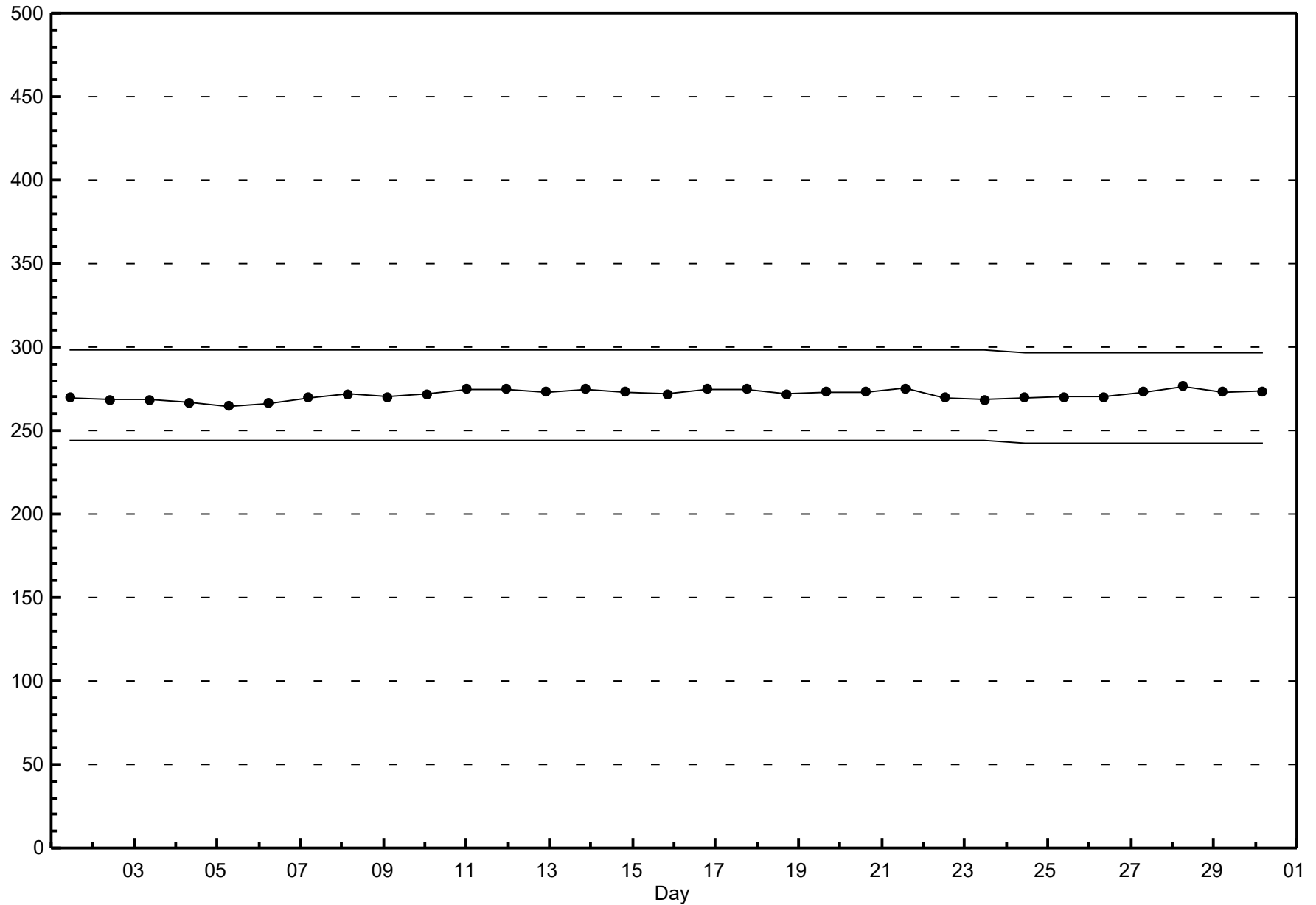


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Valleyview - April 2018



Hourly Averages

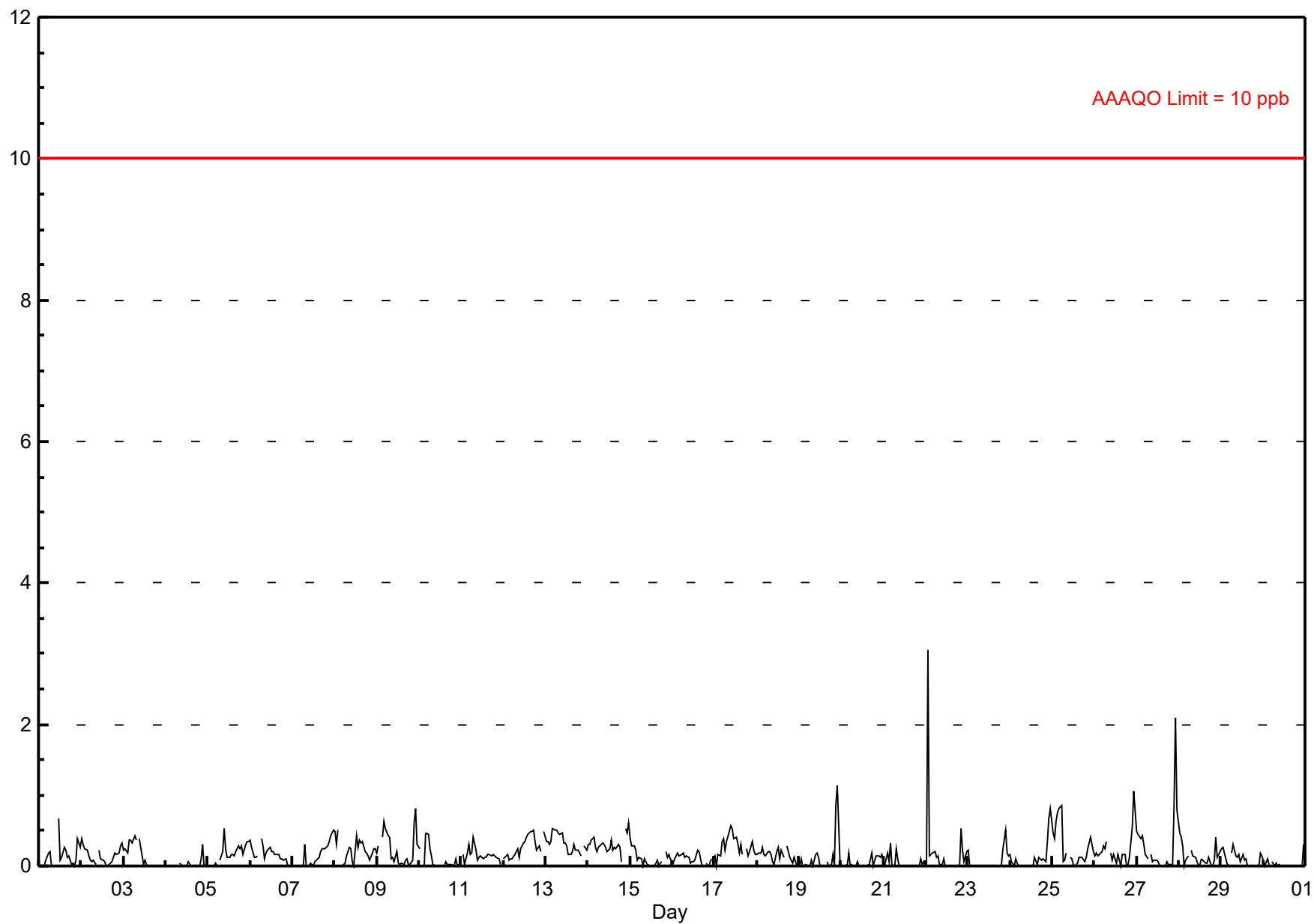
Hydrogen Sulphide (H₂S) - ppb

Valleyview - April 2018

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 3.1 ppb on Apr 22 02:00 Maximum Daily Average: 0.3 ppb on Apr 13																				Hours in Service: 720 Hours of Data: 686 Hours of Missing Data: 34 Hours of Calibration: 34 Percent Operational Time: 100.0						
Minimum Value: 0 ppb on Apr 1 01:00 Maximum Diurnal Average: 0.3 ppb at hour 23 Monthly Average: 0.16 ppb										Minimum Daily Average: 0.0 ppb on Apr 4 Minimum Diurnal Average: 0.1 ppb at hour 20 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 0.4 P ₉₉ = 0.8																
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	0	0	0	0	0	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.7
2-Apr	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
3-Apr	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
4-Apr	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.3
5-Apr	0	0	0	0	0	0	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
6-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
7-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
8-Apr	0	0	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
9-Apr	0	0	A	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0.2	0.8
10-Apr	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
11-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.2	0.4
12-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	A	0	0.3	0.5
13-Apr	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.3	0.5
14-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	0	1	0.3	0.6
15-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.1	0.4
16-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.1	0.2
17-Apr	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0.3	0.6
18-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.2	0.3
19-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	1	1	0	0.1	1.1
20-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.1	0.2
21-Apr	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
22-Apr	0	3	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	1	0	0	0	0.2	3.1
23-Apr	0	0	0	0	0	0	0	0	C	C	C	A	0	0	0	0	0	0	0	0	0	1	0	0	0.1	0.5
24-Apr	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	1	0.1	0.8
25-Apr	0	0	1	1	1	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8
26-Apr	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0.2	1.1
27-Apr	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	1	0.3	2.1
28-Apr	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
29-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
30-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.3
0.2 0.3 0.2 0.2 0.2 0.2 0.2 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.3 0.3 0.3																									Diurnal Average	
0.5 3.1 0.6 0.8 0.8 0.8 0.5 0.5 0.5 0.6 0.5 0.7 0.4 0.4 0.4 0.5 0.5 0.5 0.5 0.3 0.3 0.5 0.9 2.1 0.8																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb																										

Hourly Averages

Hydrogen Sulphide (H₂S) - ppb
Valleyview - April 2018



Hourly Maximums

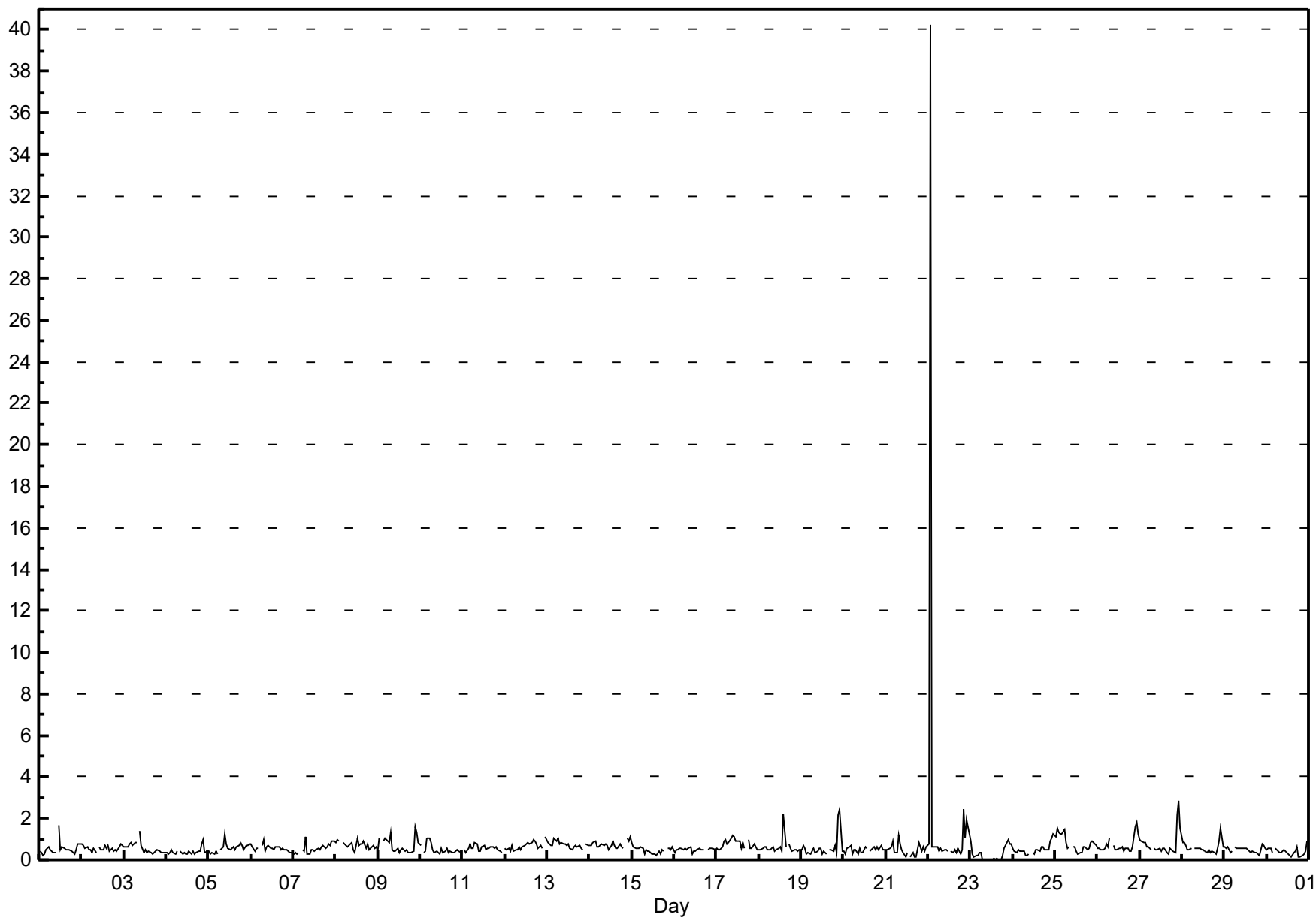
Hydrogen Sulphide (H₂S) - ppb

Valleyview - April 2018

Maximum Value: 40.3 ppb on Apr 22 02:00										Maximum Daily Average: 2.4 ppb on Apr 22										Hours in Service: 720						
Minimum Value: 0 ppb on Apr 23 08:00										Minimum Daily Average: 0.3 ppb on Apr 23										Hours of Data: 686						
Maximum Diurnal Average: 2.0 ppb at hour 2										Minimum Diurnal Average: 0.5 ppb at hour 17										Hours of Missing Data: 34						
Monthly Average: 0.64 ppb										Percentiles: P ₁ = 0.1 P ₁₀ = 0.3 Q ₁ = 0.4 Median = 0.5 Q ₃ = 0.7 P ₉₀ = 0.9 P ₉₉ = 1.9										Hours of Calibration: 34						
										Percent Operational Time: 100.0																
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	0	0	0	0	0	1	1	0	0	0	A	2	0	1	1	1	0	0	0	0	0	0	1	1	0.5	1.7
2-Apr	1	1	1	1	1	1	0	1	0	A	1	1	0	1	1	1	0	1	0	1	0	1	1	1	0.6	0.8
3-Apr	1	1	1	1	1	1	1	1	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	1.4
4-Apr	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0.4	1.0
5-Apr	0	0	0	0	0	0	A	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0.6	1.2
6-Apr	1	1	0	1	1	A	1	1	0	1	1	1	1	0	1	1	1	1	1	1	0	0	0	0	0.6	1.0
7-Apr	0	0	0	0	A	0	0	1	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	0.5	1.1
8-Apr	1	1	1	A	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0
9-Apr	0	1	A	1	1	1	1	1	0	0	0	1	0	0	1	0	1	0	0	0	0	2	1	1	0.7	1.6
10-Apr	1	A	0	0	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0.5	1.1
11-Apr	A	0	0	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	0	0	A	0.6	0.8
12-Apr	1	1	1	0	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.7	1.1
13-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0	A	1	1	0.7	1.0
14-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.7	1.1
15-Apr	1	1	1	1	1	1	1	0	1	0	0	0	0	0	0	0	0	1	0	A	1	1	1	1	0.5	0.9
16-Apr	0	1	1	1	1	1	1	0	1	1	0	0	0	1	1	0	0	0	A	1	1	1	1	0	0.5	0.6
17-Apr	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0	0.8	1.2
18-Apr	0	1	1	1	1	0	0	1	1	0	0	1	1	0	2	1	A	1	1	1	0	0	0	1	0.6	2.2
19-Apr	0	1	1	0	0	0	0	1	0	0	1	1	0	0	0	A	1	0	0	1	0	2	2	0	0.6	2.5
20-Apr	0	0	1	1	1	0	0	0	0	1	0	0	1	1	A	0	1	1	1	0	1	1	1	0	0.5	0.7
21-Apr	1	0	1	1	1	0	0	1	1	0	0	0	0	A	0	0	0	0	0	1	1	0	1	0	0.5	1.2
22-Apr	1	40	1	1	1	1	0	1	0	0	0	0	A	0	0	0	0	0	1	0	0	2	1	2	2.4	40.3
23-Apr	1	0	0	0	0	0	0	0	C	C	C	A	0	0	0	0	0	0	0	1	1	1	1	1	0.3	0.9
24-Apr	1	0	0	0	0	0	0	0	0	0	A	0	0	0	1	0	1	1	1	0	0	1	1	1	0.5	1.2
25-Apr	1	2	1	1	1	1	1	1	1	A	1	1	0	0	0	0	1	1	1	1	1	1	1	1	0.8	1.5
26-Apr	1	1	0	1	1	1	1	1	A	1	0	1	1	1	1	0	1	1	0	0	1	2	2	1	0.7	1.8
27-Apr	1	1	1	1	1	1	0	A	1	0	0	1	0	1	1	0	0	1	1	0	0	2	3	2	0.8	2.9
28-Apr	1	1	1	0	1	1	A	1	1	1	1	0	0	0	0	0	0	0	0	0	1	1	2	1	0.6	1.5
29-Apr	1	1	1	0	0	A	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	1	1	1	0.5	0.8
30-Apr	0	1	1	0	A	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0.4	0.9
0.6 2.0 0.6 0.6 0.7 0.6 0.6 0.6 0.5 0.6 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.6 0.8 0.9 0.7												1.1 40.3 1.3 1.2 1.3 1.4 1.0 1.3 1.0 1.4 1.1 1.7 1.0 0.9 2.2 0.9 1.0 0.9 1.0 0.8 2.4 2.1 2.9 1.5												Diurnal Average		
C - Calibration												A - Automated Daily Zero Span												Diurnal Maximum		

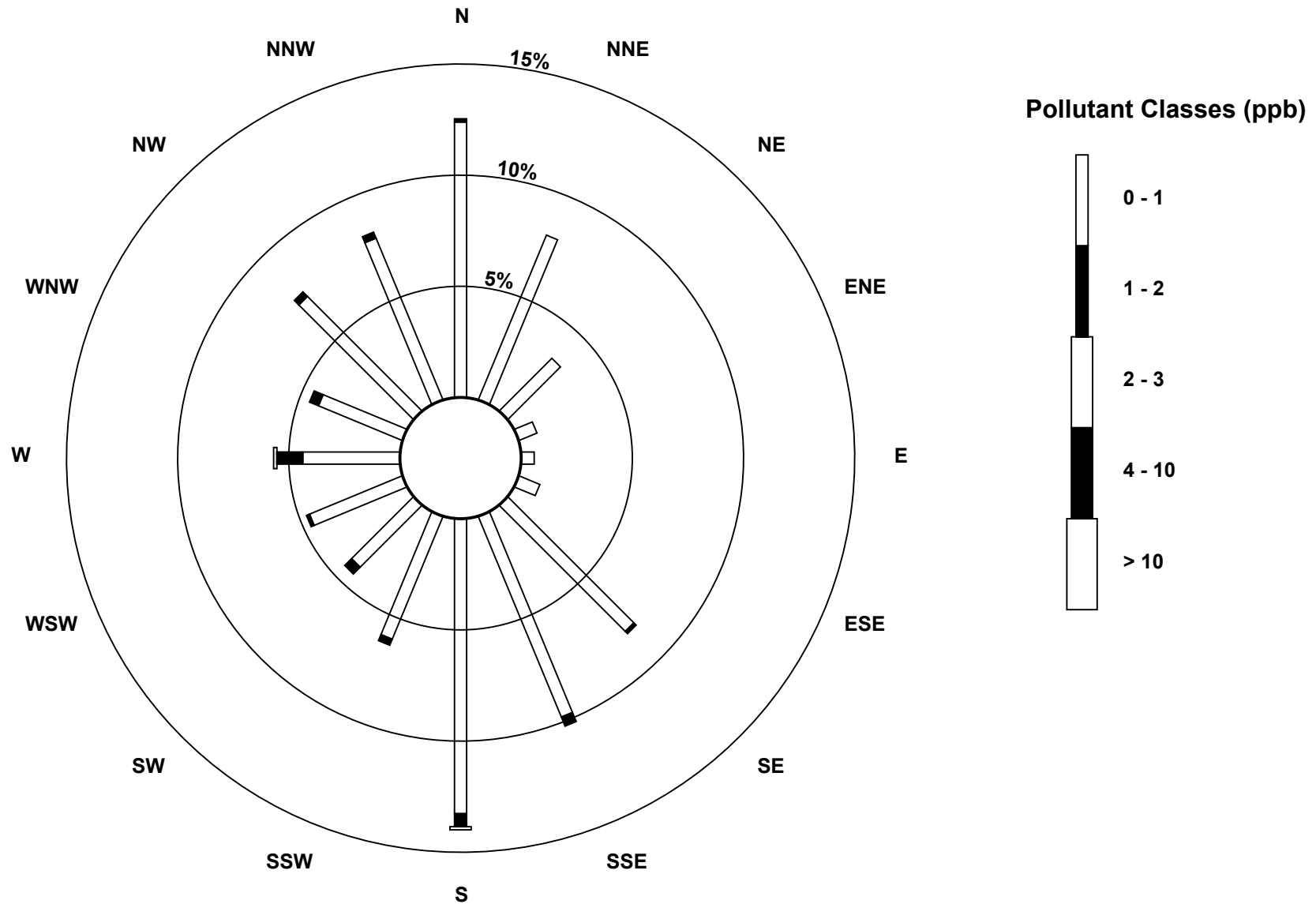
Hourly Maximums

Hydrogen Sulphide (H₂S) - ppb
Valleyview - April 2018



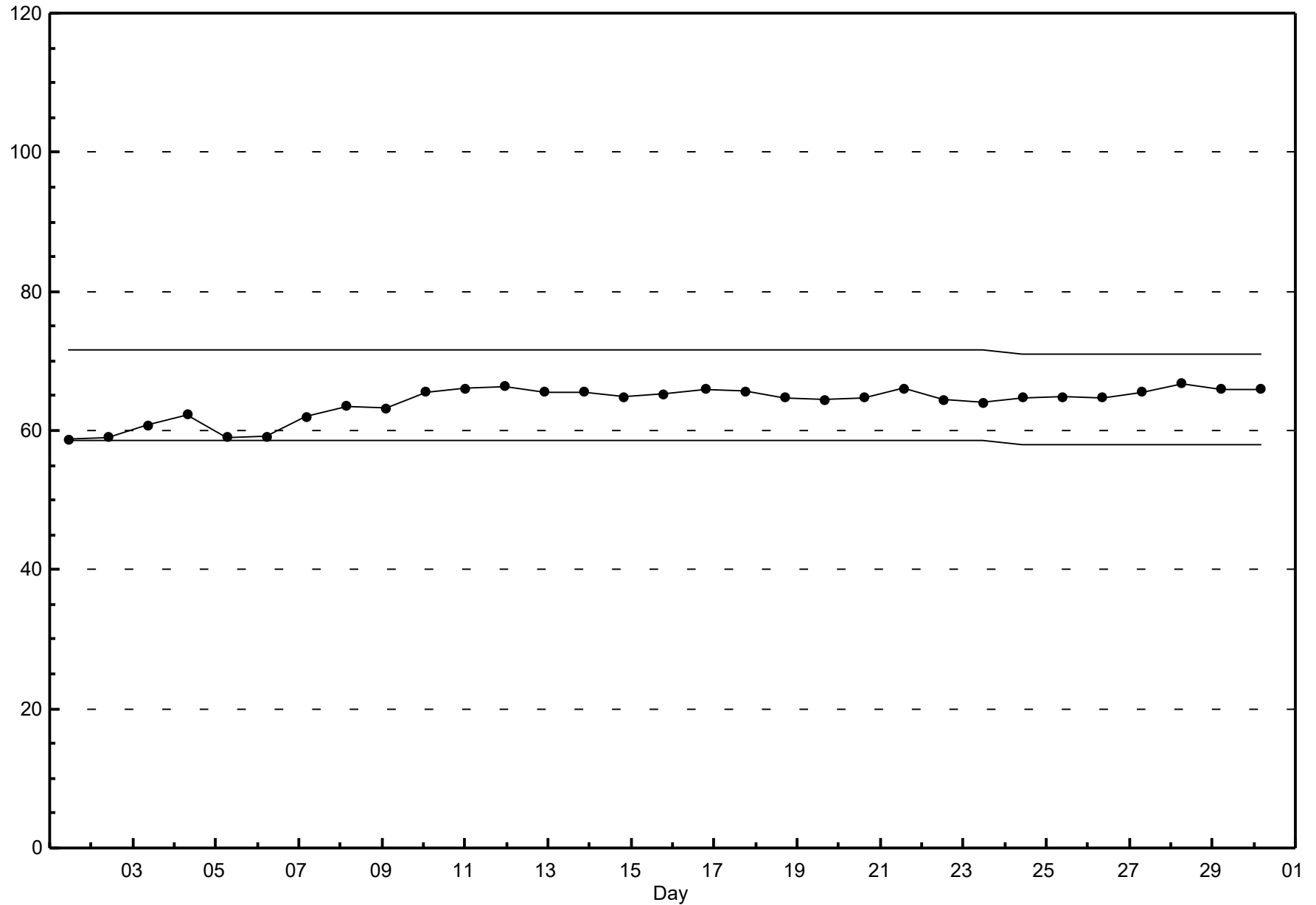
Pollutant Rose

Hydrogen Sulphide (H₂S) - ppb
Valleyview - April 2018



Span Responses

Hydrogen Sulphide (H₂S)
Valleyview - April 2018



Hourly Averages

External Temperature (ET) - °C

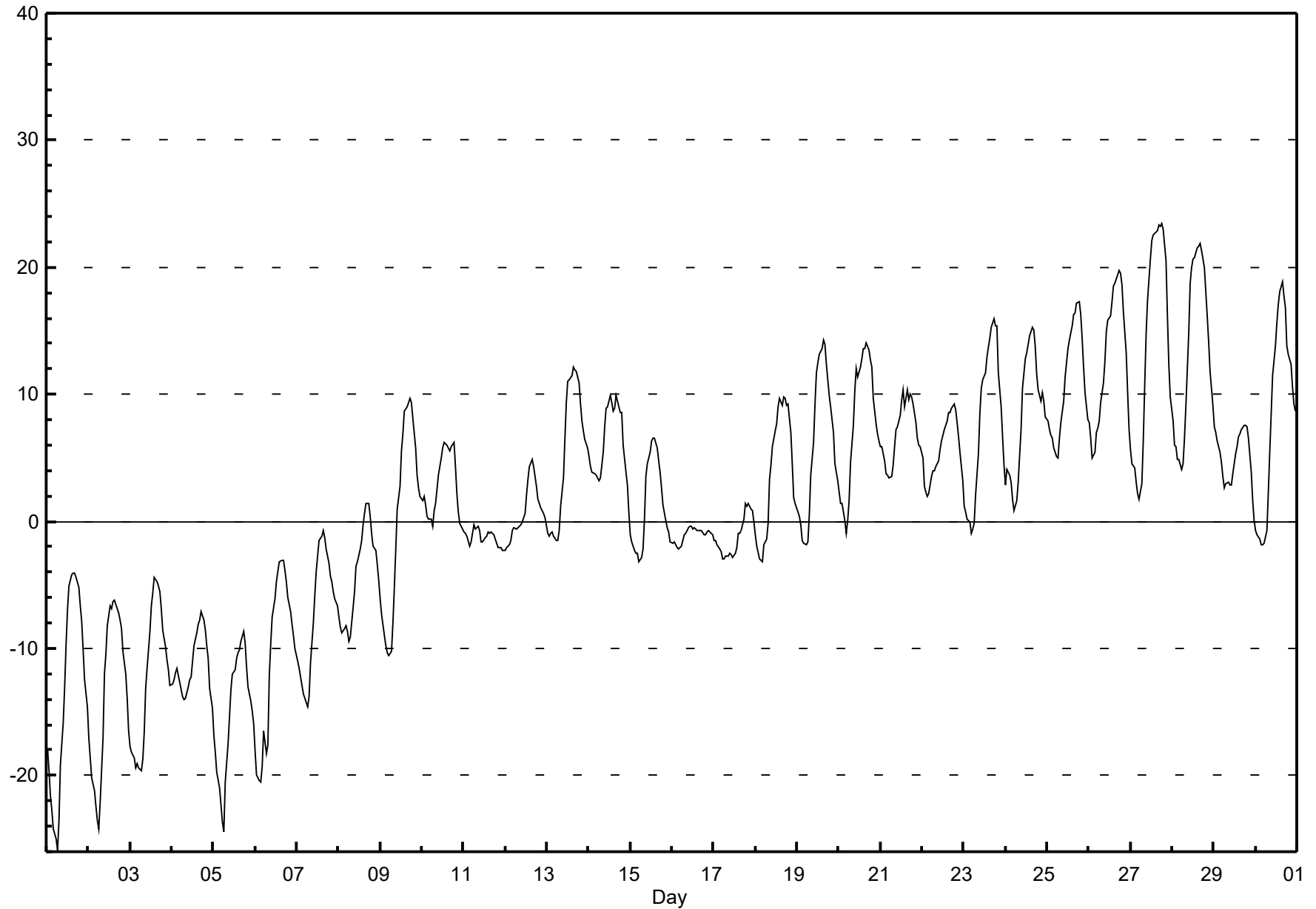
Valleyview - April 2018

Maximum Value: 23.4 °C on Apr 27 19:00																				Maximum Daily Average: 14.0 °C on Apr 27					Hours in Service: 720		
Minimum Value: -26 °C on Apr 1 07:00																				Minimum Daily Average: -15.2 °C on Apr 5					Hours of Data: 720		
Maximum Diurnal Average: 6.7 °C at hour 17																				Minimum Diurnal Average: -4.6 °C at hour 6					Hours of Missing Data: 0		
Monthly Average: 1.22 °C																				Percentiles: P ₁ = -23.4 P ₁₀ = -12.4 Q ₁ = -3.3 Median = 1.4 Q ₃ = 7.8 P ₉₀ = 13.3 P ₉₉ = 22.0					Hours of Calibration: 0		
																									Percent Operational Time: 100.0		
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
1-Apr	-18	-20	-22	-23	-24	-25	-26	-24	-19	-16	-13	-10	-7	-5	-4	-4	-4	-4	-5	-7	-8	-10	-12	-15	-13.5	-4.0	
2-Apr	-17	-19	-20	-21	-22	-23	-24	-22	-17	-12	-10	-8	-7	-7	-6	-6	-7	-7	-8	-8	-10	-12	-14	-16	-13.6	-6.2	
3-Apr	-18	-18	-19	-19	-19	-19	-20	-19	-17	-13	-12	-9	-7	-6	-4	-5	-5	-6	-7	-9	-10	-11	-12	-13	-12.2	-4.4	
4-Apr	-13	-12	-12	-12	-12	-13	-14	-14	-14	-13	-12	-12	-11	-10	-9	-8	-8	-7	-8	-9	-10	-11	-13	-15	-11.3	-7.0	
5-Apr	-17	-18	-20	-21	-22	-24	-24	-20	-18	-15	-13	-12	-12	-11	-10	-10	-9	-9	-10	-11	-13	-14	-15	-16	-15.2	-8.7	
6-Apr	-18	-20	-20	-21	-19	-17	-18	-18	-12	-10	-8	-6	-5	-4	-3	-3	-3	-4	-5	-6	-7	-8	-9	-10	-10.5	-3.0	
7-Apr	-11	-12	-12	-13	-14	-14	-15	-14	-11	-8	-6	-4	-3	-2	-1	-1	-1	-2	-3	-4	-5	-6	-6	-7	-7.2	-0.7	
8-Apr	-8	-8	-9	-8	-8	-9	-9	-9	-7	-5	-3	-3	-2	-2	0	1	1	1	0	-1	-2	-2	-3	-5	-4.2	1.4	
9-Apr	-6	-7	-9	-10	-10	-11	-10	-8	-5	-2	1	3	6	7	9	9	10	9	8	6	4	3	2	0.2	9.7		
10-Apr	2	2	1	0	0	0	0	1	1	4	4	5	6	6	6	6	6	6	6	4	2	1	0	-1	2.9	6.3	
11-Apr	-1	-1	-1	-2	-2	-1	0	-1	0	-1	-2	-2	-1	-1	-1	-1	-1	-1	-1	-2	-2	-2	-2	-2	-1.3	-0.3	
12-Apr	-2	-2	-2	-1	-1	0	-1	0	0	0	0	1	2	3	4	5	4	4	3	2	1	1	1	0	0.8	4.8	
13-Apr	-1	-1	-1	-1	-1	-2	-1	-1	1	3	6	9	11	11	11	12	12	12	11	9	8	7	6	6	5.3	12.1	
14-Apr	5	4	4	4	4	3	3	3	5	7	9	9	10	9	9	9	10	9	9	9	6	4	3	1	6.2	9.9	
15-Apr	-1	-2	-2	-3	-3	-3	-3	-2	0	4	5	5	6	7	7	6	5	4	3	1	0	-1	-1	-2	1.3	6.6	
16-Apr	-2	-2	-2	-2	-2	-2	-1	-1	-1	-1	0	0	-1	0	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1.1	-0.4	
17-Apr	-1	-2	-2	-2	-2	-3	-3	-3	-3	-3	-3	-3	-2	-2	-1	-1	-1	0	1	1	1	1	1	0	-1.3	1.4	
18-Apr	-1	-2	-3	-3	-3	-2	-1	0	3	4	6	7	8	9	10	9	10	10	9	9	7	5	2	1	3.9	9.8	
19-Apr	1	0	0	-1	-2	-2	-2	0	4	6	9	12	12	13	14	14	14	14	12	10	9	8	7	5	3	6.1	14.3
20-Apr	2	1	1	0	-1	0	2	5	8	10	12	11	12	13	14	14	14	14	13	13	12	10	8	7	6	7.8	14.1
21-Apr	6	6	5	4	4	3	4	4	6	7	8	8	10	10	9	10	10	10	10	9	8	7	6	6	7.0	10.4	
22-Apr	5	3	2	2	2	4	4	4	4	5	6	6	7	7	8	9	9	9	9	9	8	7	5	3	5.6	9.2	
23-Apr	1	1	0	0	-1	-1	0	2	5	8	10	11	12	13	14	14	15	16	15	15	12	9	7	4	7.7	15.9	
24-Apr	3	4	4	3	2	1	2	3	5	7	10	13	13	14	15	15	15	14	12	10	9	10	9	8	8.4	15.3	
25-Apr	8	7	7	7	6	5	5	7	8	9	11	12	14	14	15	16	16	17	17	16	14	12	10	8	11.0	17.3	
26-Apr	8	7	5	5	7	7	8	9	11	13	15	16	16	17	18	19	19	20	20	19	16	13	10	7	12.7	19.8	
27-Apr	6	5	4	3	2	2	3	6	11	15	17	21	22	23	23	23	23	23	23	23	21	16	12	10	14.0	23.4	
28-Apr	8	6	6	5	5	4	5	7	9	15	19	20	21	21	22	22	22	21	20	18	16	14	12	9	13.5	21.9	
29-Apr	7	7	6	5	5	4	3	3	3	3	3	4	5	6	7	7	7	8	8	7	7	4	2	0	5.0	7.6	
30-Apr	-1	-1	-1	-2	-2	-2	-1	2	5	8	11	14	16	17	18	19	18	17	14	13	12	11	9	9	8.5	18.8	
-2.5 -3.1 -3.7 -4.2 -4.5 -4.6 -4.6 -3.3 -1.1 1.0 2.7 4.0 5.0 5.7 6.3 6.6 6.7 6.5 5.8 4.9 3.5 2.1 0.7 -0.6																									Diurnal Average		
7.9 7.2 6.8 6.5 7.0 7.3 7.9 9.4 10.9 14.9 18.7 20.7 22.1 22.5 22.7 22.9 23.4 23.2 23.4 23.0 20.6 16.2 12.3 9.8																									Diurnal Maximum		

Hourly Averages

External Temperature (ET) - °C

Valleyview - April 2018



Hourly Averages

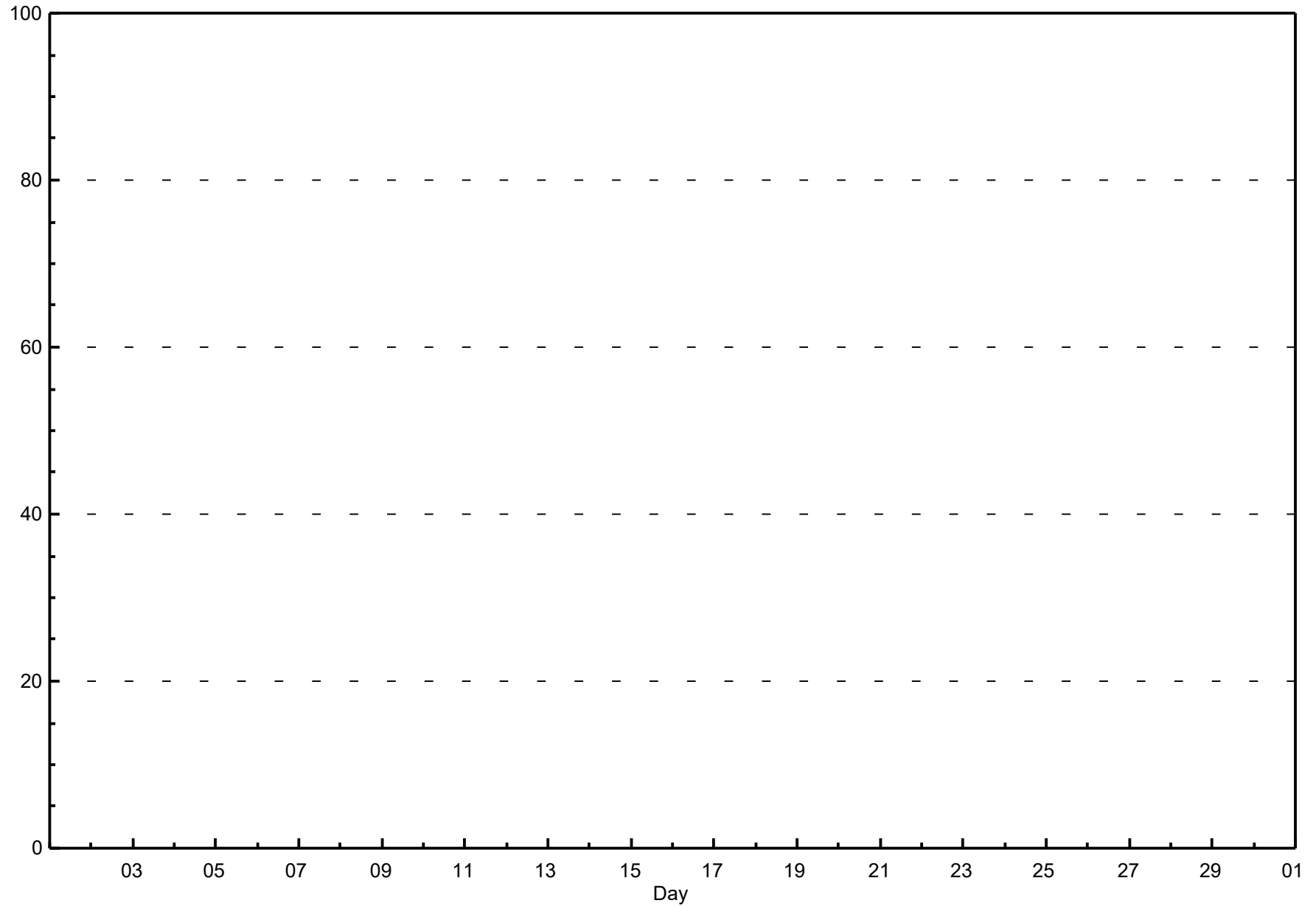
Relative Humidity (RH) - %

Valleyview - April 2018

Maximum Value: -- % on Apr 1 00:00										Maximum Daily Average: -- % on Mar 31										Hours in Service: 720							
Minimum Value: -- % on Apr 1 00:00										Minimum Daily Average: -- % on Mar 31										Hours of Data: 0							
Maximum Diurnal Average: -- % at hour 0										Minimum Diurnal Average: -- % at hour 0										Hours of Missing Data: 720							
Monthly Average: -- %										Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.0 Q ₃ = 0.0 P ₉₀ = 0.0 P ₉₉ = 0.0										Hours of Calibration: 0							
																				Percent Operational Time: 0.0							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
2-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
3-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
4-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
5-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
6-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
7-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
8-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
9-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
10-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
11-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
12-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
13-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
14-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
15-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
16-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
17-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
18-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
19-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
20-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
21-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
22-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
23-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
24-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
25-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
26-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
27-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
28-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
29-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
30-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
																								Diurnal Average			
																								Diurnal Maximum			
N - Not Valid																											

Hourly Averages

Relative Humidity (RH) - %
Valleyview - April 2018



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Valleyview - April 2018

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	0	0	0	0	0	0	0	0	0	1	1	2	3	5	11	12	11	11	10	6	5	1	0	0	3.2	12.5
Dir	143	193	163	351	238	175	166	243	211	349	352	352	341	324	345	348	359	3	1	2	4	328	188	138	352	348
2 Spd	0	0	1	0	0	0	0	0	1	0	3	4	7	11	9	11	10	10	7	6	2	0	0	1	3.0	11.0
Dir	177	196	175	184	195	177	191	157	165	322	349	341	1	9	25	10	15	19	0	14	318	317	190	181	9	10
3 Spd	0	0	0	1	0	0	0	0	2	1	3	4	8	9	7	10	12	12	12	10	8	6	5	7	4.6	12.5
Dir	189	177	22	338	10	175	171	333	357	346	335	313	321	348	40	25	20	18	10	6	360	10	13	2	5	20
4 Spd	7	5	8	7	8	10	10	10	10	10	14	14	10	7	5	7	6	3	5	5	5	1	1	1	6.4	14.4
Dir	16	12	12	3	2	11	13	12	5	1	348	348	8	10	9	347	348	349	317	289	285	260	191	179	357	348
5 Spd	1	1	1	0	0	0	1	0	1	4	7	10	11	9	11	11	8	5	7	8	7	6	2	2	4.2	11.1
Dir	148	166	169	184	178	168	178	54	351	340	345	340	353	9	8	6	29	54	5	6	14	26	5	28	7	6
6 Spd	0	2	3	2	2	3	3	3	8	9	7	8	9	12	12	11	10	10	7	10	10	7	5	5	5.7	12.0
Dir	23	26	357	360	56	108	10	43	125	131	139	146	140	132	134	134	138	133	149	131	135	137	134	133	129	134
7 Spd	5	4	2	1	0	1	1	3	5	5	6	7	10	9	10	9	11	10	9	8	9	9	8	5	6.0	10.6
Dir	145	143	148	148	150	145	144	124	138	170	166	143	135	129	121	127	125	154	152	165	136	148	160	149	143	125
8 Spd	3	3	2	1	3	5	1	1	3	6	2	4	6	6	3	3	3	4	7	4	2	1	2	0	0.6	7.2
Dir	135	127	131	142	166	170	174	139	167	165	145	334	310	340	16	10	24	8	355	6	329	325	331	312	17	355
9 Spd	0	0	1	0	0	0	1	0	1	3	2	2	4	3	3	2	3	3	1	0	0	1	0	1	0.7	4.0
Dir	196	25	326	4	217	313	329	181	174	165	176	222	224	206	218	246	310	288	20	26	323	199	196	102	227	224
10 Spd	1	2	0	1	1	1	3	2	6	8	11	14	15	15	12	12	10	6	11	9	9	7	6	2	4.6	14.7
Dir	167	179	159	329	279	310	26	350	359	7	22	46	39	42	34	43	41	80	125	146	127	126	127	125	58	39
11 Spd	3	3	1	1	1	0	0	6	6	6	5	6	4	5	5	5	6	8	6	6	7	6	5	6	3.2	8.0
Dir	158	166	178	291	203	12	184	273	295	333	14	21	27	36	38	32	4	1	355	5	14	19	19	22	7	1
12 Spd	6	4	4	2	3	9	7	7	7	6	7	7	6	6	4	5	6	8	9	7	7	5	7	8	4.9	9.1
Dir	17	15	23	18	116	128	127	144	136	136	134	126	128	140	143	169	168	163	162	147	145	150	161	163	139	162
13 Spd	8	7	6	5	6	5	5	5	5	6	4	3	1	5	6	6	7	7	7	9	4	4	6	5	5.4	8.5
Dir	164	166	170	170	169	167	168	167	168	167	149	138	178	143	156	160	158	170	182	177	174	164	170	173	166	177
14 Spd	4	4	3	4	3	2	2	4	5	8	9	11	10	9	8	6	3	5	5	1	1	1	1	1	3.0	10.9
Dir	167	173	233	254	216	176	177	173	202	225	226	243	239	274	307	334	170	326	315	336	211	343	172	183	242	243
15 Spd	1	1	1	2	1	1	1	1	1	1	3	6	9	12	12	16	16	16	12	14	12	12	12	14	6.5	16.5
Dir	169	97	179	171	204	175	217	216	158	8	345	337	336	339	350	360	2	3	11	10	13	5	5	0	360	3
16 Spd	13	10	11	11	9	10	9	10	10	9	10	10	10	10	11	10	12	11	11	9	7	6	6	7	9.5	13.0
Dir	4	9	8	5	4	11	24	22	28	46	50	42	22	25	19	17	16	15	18	11	25	13	13	349	18	4
17 Spd	8	6	7	7	9	9	6	5	7	8	9	11	12	11	11	8	5	4	2	1	7	12	5	3	6.6	12.2
Dir	328	302	303	290	277	281	284	289	280	270	272	278	276	287	290	284	313	291	244	190	241	259	222	182	279	259
18 Spd	2	1	1	1	2	1	1	2	3	10	13	12	9	6	6	7	6	9	6	1	1	1	2	2	3.1	12.7
Dir	168	143	158	167	184	192	167	175	219	249	254	258	267	261	272	322	310	315	332	329	191	187	178	209	265	254
19 Spd	2	2	1	2	1	1	1	2	5	5	4	3	2	6	5	2	2	8	7	1	1	2	1	1	1.4	8.0
Dir	179	180	197	189	159	175	201	187	168	164	153	154	182	168	202	209	310	297	323	253	133	299	173	194	199	297
20 Spd	1	1	1	0	1	2	2	1	4	4	5	7	4	4	3	5	3	3	3	1	2	3	4	2	1.4	6.9
Dir	181	169	218	305	171	200	196	175	176	173	209	234	244	249	236	241	247	342	349	59	340	352	338	323	242	234
21 Spd	0	0	0	0	1	1	1	1	1	1	6	6	2	5	5	11	12	7	8	14	18	18	17	17	5.3	17.8
Dir	117	27	196	118	229	203	178	328	51	218	310	5	52	293	232	325	313	311	318	267	270	271	269	274	286	271
22 Spd	19	20	18	16	15	15	18	17	17	16	15	15	15	14	11	10	9	7	5	4	3	5	4	2	11.4	20.3
Dir	283	280	278	274	272	278	279	282	285	292	301	306	308	313	312	316	330	344	324	313	273	255	239	219	291	280

Hourly Averages

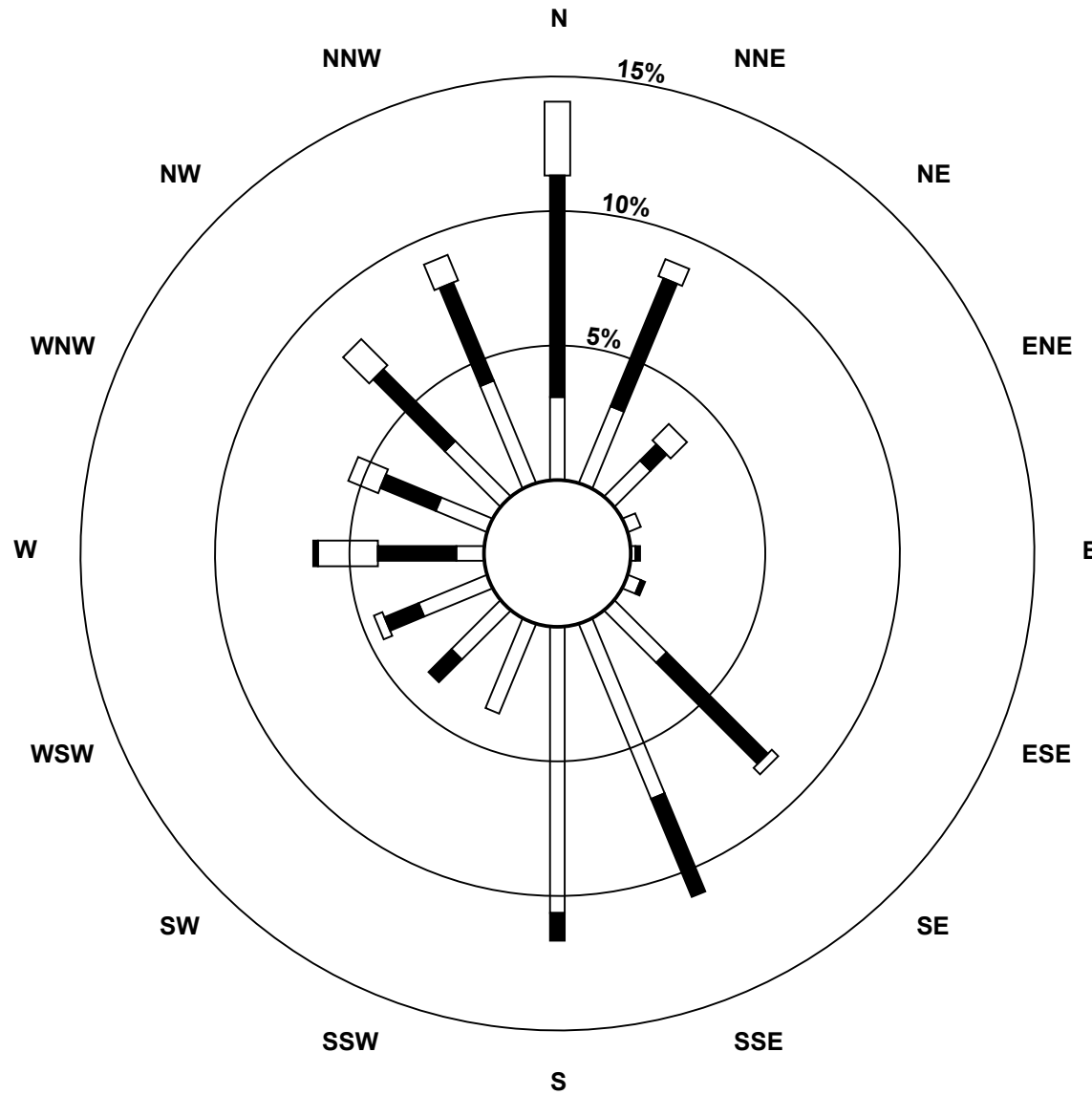
Wind Speed (km/h)
Wind Direction (deg)
Valleyview - April 2018

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24									
23 Spd	2	2	2	2	2	3	3	4	3	3	2	4	6	4	4	3	4	2	2	0	3	1	1	1	1.8	5.6							
Dir	182	169	164	165	158	164	164	164	168	169	212	234	256	250	256	259	234	160	158	242	330	215	203	165	204	256							
24 Spd	1	3	3	3	1	1	1	1	2	3	3	3	4	3	1	3	5	7	8	10	6	11	8	11	2.7	11.0							
Dir	187	188	184	189	198	175	218	198	186	183	180	234	245	248	66	224	304	322	312	323	313	278	278	276	272	276							
25 Spd	11	8	9	11	9	2	1	3	5	5	3	5	5	6	6	7	5	5	6	2	1	3	1	2	4.4	10.8							
Dir	282	286	273	279	282	270	202	249	272	289	207	259	237	228	227	255	261	306	307	349	252	237	169	162	267	282							
26 Spd	1	1	2	2	3	2	0	2	2	2	0	2	4	2	2	3	3	2	3	2	1	1	0	1	0.8	3.6							
Dir	189	177	173	141	297	343	313	283	333	24	127	16	357	39	73	343	348	36	73	56	8	314	258	174	9	357							
27 Spd	1	1	0	0	0	0	1	1	2	6	4	2	4	5	7	6	7	7	3	2	0	0	0	0	0.5	7.0							
Dir	201	194	216	233	199	201	203	188	166	165	154	197	208	313	320	342	341	349	42	79	112	298	181	232	311	320							
28 Spd	1	1	1	2	1	1	2	2	1	2	4	10	10	16	9	9	6	10	15	10	3	1	17	17	4.9	17.2							
Dir	204	177	210	184	204	203	195	184	178	172	287	329	317	341	336	351	1	335	327	355	20	298	358	5	340	358							
29 Spd	15	14	9	11	11	11	10	9	10	12	10	5	4	6	2	4	1	1	1	1	0	0	0	0	5.5	14.7							
Dir	351	349	339	320	320	343	2	11	8	7	7	6	344	357	37	47	60	173	171	118	160	85	181	184	354	351							
30 Spd	0	1	0	1	1	1	2	4	5	4	5	6	7	6	11	12	18	15	18	11	14	14	12	8	5.6	18.0							
Dir	176	169	202	213	180	192	192	171	171	177	176	232	240	230	251	268	288	286	307	294	305	304	311	274	275	288							
Spd	0.9	0.8	1.1	1.5	1.3	0.6	0.5	0.4	0.4	0.7	1.2	2.3	2.6	2.8	2.4	3.6	3.6	3.6	3.4	1.9	1.3	1.5	1.1	1.1	Diurnal Average								
Dir	310	292	299	293	282	289	308	287	251	238	301	316	315	336	341	347	351	348	346	352	332	298	312	311	Diurnal Maximum								
Spd	19.0	20.3	18.5	16.4	14.5	15.4	18.2	16.6	17.2	16.0	15.4	15.2	14.7	15.7	12.4	15.6	18.0	16.5	17.5	14.2	17.8	17.8	17.2	17.2	Diurnal Maximum								
Dir	283	280	278	274	272	278	279	282	285	292	301	306	39	341	34	360	288	3	307	267	270	271	358	274									
Maximum Speed Value: 20 km/h on Apr 22 02:00																								Minimum Speed Value: 0 km/h on Apr 27 04:00									
Maximum Daily Speed Average: 11.4 km/h on Apr 22																								Minimum Daily Speed Average: 0.5 km/h on Apr 9									
Maximum Diurnal Speed Average: 3.6 km/h at hour 16																								Minimum Diurnal Speed Average: 0.4 km/h at hour 9									
Monthly Average Velocity: 1.53 km/h 326.1 deg																								Speed Percentiles: P ₁ = 0.1 P ₁₀ = 0.5 Q ₁ = 1.4 Median = 4.2 Q ₃ = 8.1 P ₉₀ = 11.1 P ₉₉ = 17.5									
All monthly, daily, and diurnal averages have been calculated using vector methods																								Percent Operational Time: 100.0									
Frequency Distribution																																	
Speed Range (km/h)																																	
Direction	0 to 5		5 to 11		11 to 19		19 to 28		28 to 38		> 38		Total																				
North	49		81		31		0		0		0		161																				
NorthEast	26		16		5		0		0		0		47																				
East	8		1		0		0		0		0		9																				
SouthEast	37		39		4		0		0		0		80																				
South	158		29		0		0		0		0		187																				
SouthWest	53		14		0		0		0		0		67																				
West	26		29		22		1		0		0		78																				
NorthWest	38		38		15		0		0		0		91																				
Total	395		247		77		1		0		0		720																				

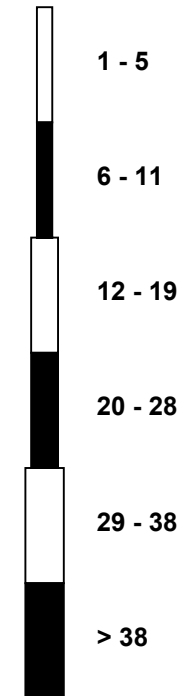
Wind Rose

Wind Speed (WS) (km/h)

Valleyview - April 2018



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Valleyview - April 2018

Maximum Speed: 20 km/h on Apr 22 02:00																				Maximum Daily Speed Average: 12.3 km/h on Apr 22										Hours in Service: 720	
Minimum Speed: 0 km/h on Apr 9 05:00																				Minimum Daily Speed Average: 1.6 km/h on Apr 9										Hours of Data: 720	
Maximum Diurnal Speed Average: 8.0 km/h at hour 16																				Minimum Diurnal Speed Average: 3.3 km/h at hour 7										Hours of Missing Data: 0	
Monthly Average Speed: 5.49 km/h																				Percentiles: P ₁ = 0.2 P ₁₀ = 0.7 Q ₁ = 1.6 Median = 4.6 Q ₃ = 8.4 P ₉₀ = 11.4 P ₉₉ = 17.7										Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
1-Apr	0	0	0	0	0	0	0	0	0	1	1	2	3	5	11	13	11	11	10	6	5	2	0	0	3.5	12.6					
2-Apr	1	0	1	0	0	0	0	0	1	1	3	4	7	11	9	11	10	10	7	6	2	0	0	1	3.7	11.3					
3-Apr	0	0	0	2	1	0	0	1	2	1	3	4	8	10	8	11	13	13	12	10	8	6	5	7	5.2	12.7					
4-Apr	8	5	8	7	8	10	10	10	10	11	14	15	11	7	5	7	6	4	6	5	5	1	1	1	7.2	14.6					
5-Apr	1	1	1	0	0	0	1	0	1	4	8	10	11	10	11	11	8	5	7	8	7	6	3	2	4.8	11.3					
6-Apr	1	2	3	2	3	3	4	4	9	10	7	8	9	12	12	11	10	10	7	10	10	7	5	5	6.9	12.2					
7-Apr	5	4	2	1	0	1	1	3	5	5	6	7	11	9	11	9	11	10	9	9	9	9	8	5	6.4	10.8					
8-Apr	3	3	2	1	3	5	2	1	3	6	4	4	6	6	3	4	3	4	7	4	2	1	2	1	3.3	7.4					
9-Apr	0	0	1	0	0	0	1	1	1	3	3	3	4	3	3	2	3	3	1	1	1	1	0	1	1.6	4.3					
10-Apr	1	2	1	1	1	1	3	2	6	9	11	15	15	15	13	13	10	7	11	9	9	7	6	2	7.1	14.8					
11-Apr	3	3	1	1	1	0	0	6	7	7	6	6	4	5	5	5	7	8	6	7	7	6	5	6	4.7	8.1					
12-Apr	6	4	4	2	4	9	7	8	7	6	7	7	6	6	5	5	6	8	9	7	7	5	7	8	6.3	9.2					
13-Apr	8	8	6	5	6	5	5	5	5	6	4	4	3	5	7	7	7	7	7	9	4	4	6	5	5.7	8.6					
14-Apr	4	4	4	4	3	2	2	4	6	8	10	11	10	10	9	6	3	5	5	2	2	2	1	1	4.9	11.1					
15-Apr	1	1	1	2	1	1	1	1	2	1	3	6	9	12	12	16	16	17	12	14	13	13	12	14	7.5	16.6					
16-Apr	13	10	11	11	10	10	10	10	10	10	10	10	10	10	11	10	12	11	11	9	8	6	6	7	9.9	13.2					
17-Apr	8	6	7	7	9	9	7	5	7	8	10	11	12	11	11	8	5	5	2	2	7	13	6	3	7.5	12.5					
18-Apr	2	1	1	1	2	1	1	2	3	10	13	12	10	7	7	9	7	9	6	2	1	1	2	2	4.6	12.8					
19-Apr	2	3	1	2	1	1	1	2	5	5	4	3	3	6	6	3	3	10	7	1	1	3	1	1	3.1	9.7					
20-Apr	1	1	1	1	1	2	2	1	4	4	5	7	4	4	4	5	3	3	3	1	3	3	4	2	2.8	7.0					
21-Apr	1	1	0	1	1	1	1	2	2	1	7	6	4	5	6	11	12	7	8	14	18	18	17	17	6.8	18.0					
22-Apr	19	20	19	17	15	16	18	17	17	16	16	15	15	14	12	10	9	7	5	4	3	5	4	2	12.3	20.5					
23-Apr	2	2	2	2	2	3	3	4	3	3	3	5	6	5	4	5	4	2	2	2	3	1	1	1	3.0	6.0					
24-Apr	1	3	3	3	1	1	1	1	2	3	3	3	4	3	2	3	5	7	8	10	6	11	9	11	4.2	11.1					
25-Apr	11	8	9	11	9	3	1	3	6	5	4	6	6	7	7	8	6	6	6	2	1	3	1	2	5.6	10.8					
26-Apr	2	1	2	2	4	2	1	2	2	2	2	4	4	4	3	4	4	2	3	3	1	2	1	1	2.4	4.3					
27-Apr	1	2	0	0	0	0	1	1	2	6	4	3	5	6	8	7	7	7	3	2	1	1	0	0	2.8	7.9					
28-Apr	1	1	1	2	1	1	2	2	2	3	5	11	11	16	10	9	7	10	15	11	3	2	17	17	6.6	17.4					
29-Apr	15	14	10	12	11	12	10	9	11	12	10	6	5	7	3	4	2	1	1	1	0	0	1	0	6.5	14.8					
30-Apr	0	1	0	1	1	1	2	4	5	5	5	7	8	8	12	13	18	16	18	12	15	15	13	8	7.7	18.2					
4.0 3.7 3.4 3.4 3.3 3.4 3.3 3.7 4.9 5.8 6.4 7.2 7.5 8.0 7.6 8.0 7.6 7.5 7.3 6.0 5.3 5.1 4.8 4.5																									Diurnal Average						
19.3 20.5 18.7 16.5 14.7 15.5 18.4 16.8 17.5 16.2 15.7 15.4 14.8 15.9 12.6 15.7 18.2 16.6 17.7 14.4 18.0 18.0 17.4 17.5																									Diurnal Maximum						
All monthly, daily, and diurnal averages have been calculated using scalar methods																															

Hourly Standard Deviations

Wind Direction (WD) - deg

Valleyview - April 2018

Maximum Value: 98.3 deg on Apr 26 11:00																			Hours in Service: 720						
Minimum Value: 3.9 deg on Apr 15 13:00																			Hours of Data: 720						
Percentiles: P ₁ = 5.9 P ₁₀ = 8.3 Q ₁ = 10.6 Median = 16.8 Q ₃ = 35.7 P ₉₀ = 61.8 P ₉₉ = 91.5																			Hours of Missing Data: 0						
																			Hours of Calibration: 0						
																			Percent Operational Time: 100.0						
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Apr	76	70	40	79	80	28	41	62	84	53	19	9	10	14	14	9	11	8	6	6	8	79	73	77	83.6
2-Apr	68	16	12	17	16	35	19	51	64	75	14	18	21	15	16	14	15	14	10	17	38	52	66	34	74.5
3-Apr	65	37	47	59	84	33	83	92	17	17	11	15	22	35	27	13	10	11	8	7	5	8	16	7	91.9
4-Apr	12	12	8	11	9	8	9	7	9	10	8	11	16	19	26	13	14	25	16	13	11	47	30	23	47.5
5-Apr	19	25	20	48	39	34	42	87	52	12	12	11	16	16	16	12	21	24	18	8	8	9	17	10	87.4
6-Apr	84	17	10	14	55	24	45	29	12	11	22	15	14	13	12	14	13	9	13	8	8	10	10	10	84.2
7-Apr	10	10	13	12	34	39	58	37	15	15	14	19	14	18	15	17	12	13	14	11	12	13	10	13	58.1
8-Apr	11	8	9	40	12	8	19	28	80	13	71	28	16	12	35	31	26	26	11	14	53	68	27	62	80.3
9-Apr	43	84	51	98	87	93	83	44	61	36	38	39	23	25	34	56	24	29	68	80	88	49	54	67	97.9
10-Apr	42	12	69	71	75	92	17	84	11	16	18	8	9	8	9	8	8	31	8	15	10	8	7	45	92.4
11-Apr	11	11	18	86	34	91	43	18	20	28	17	13	16	12	20	19	16	11	12	14	11	13	12	13	90.6
12-Apr	11	13	16	15	38	7	8	14	12	11	13	13	18	27	53	14	10	10	9	11	9	12	10	8	52.6
13-Apr	7	9	8	9	7	8	6	9	8	9	11	20	83	36	25	19	15	16	8	6	9	10	7	10	82.5
14-Apr	19	8	43	63	20	17	7	8	29	17	16	12	12	26	13	18	45	26	13	92	21	92	51	24	92.3
15-Apr	25	53	64	24	20	21	19	34	81	60	29	8	4	7	10	8	8	8	10	9	11	9	8	7	80.8
16-Apr	8	9	8	9	8	8	11	10	9	12	14	10	12	21	9	10	10	8	8	8	10	9	10	10	21.0
17-Apr	12	19	14	14	10	12	14	16	12	14	16	13	12	15	16	16	18	22	34	17	30	15	39	27	38.7
18-Apr	12	47	51	31	11	11	12	13	27	8	8	12	21	37	30	37	34	19	10	41	44	23	21	24	51.4
19-Apr	21	12	24	13	14	44	25	26	8	10	15	20	53	17	36	60	58	41	8	60	67	56	25	16	66.8
20-Apr	15	23	22	91	62	10	6	16	9	13	24	14	17	18	42	18	34	13	14	26	34	21	10	35	90.9
21-Apr	86	85	62	68	33	55	33	68	77	52	54	29	69	30	20	20	6	10	12	11	8	9	9	10	86.1
22-Apr	11	8	9	8	8	9	8	9	9	9	11	9	10	9	10	12	14	7	19	11	19	11	13	16	19.0
23-Apr	8	11	9	8	8	5	6	6	14	16	53	35	28	37	33	56	39	25	11	69	14	66	40	18	68.7
24-Apr	22	6	9	7	17	33	26	44	15	7	9	36	23	35	66	35	29	12	11	6	13	11	9	7	66.2
25-Apr	7	15	9	8	10	57	30	45	22	24	38	42	40	29	31	30	33	32	29	18	40	26	13	17	56.5
26-Apr	34	22	10	31	58	55	91	37	37	53	98	80	50	70	68	62	40	55	25	15	55	58	94	66	98.3
27-Apr	46	48	45	66	14	9	7	28	29	9	19	58	36	54	28	28	27	17	35	28	39	88	68	69	88.4
28-Apr	44	41	49	10	11	42	11	10	38	16	56	21	19	9	26	24	32	19	8	23	66	66	9	8	66.2
29-Apr	8	8	18	7	9	22	11	12	12	9	12	27	41	29	64	38	65	50	57	44	46	75	44	26	74.7
30-Apr	13	31	37	46	13	22	11	11	12	15	24	31	35	33	31	26	9	11	8	11	16	19	19	14	45.8
86.1 84.7 68.7 97.9 87.5 93.1 91.1 91.9 83.6 74.5 98.3 80.4 82.5 70.3 68.1 62.3 65.5 54.6 68.3 92.3 88.5 91.6 93.8 77.3																									

PAZA

Donnelly Station

Monthly Summary Tables, Graphs and Roses

Hourly Averages

Sulphur Dioxide (SO₂) - ppb

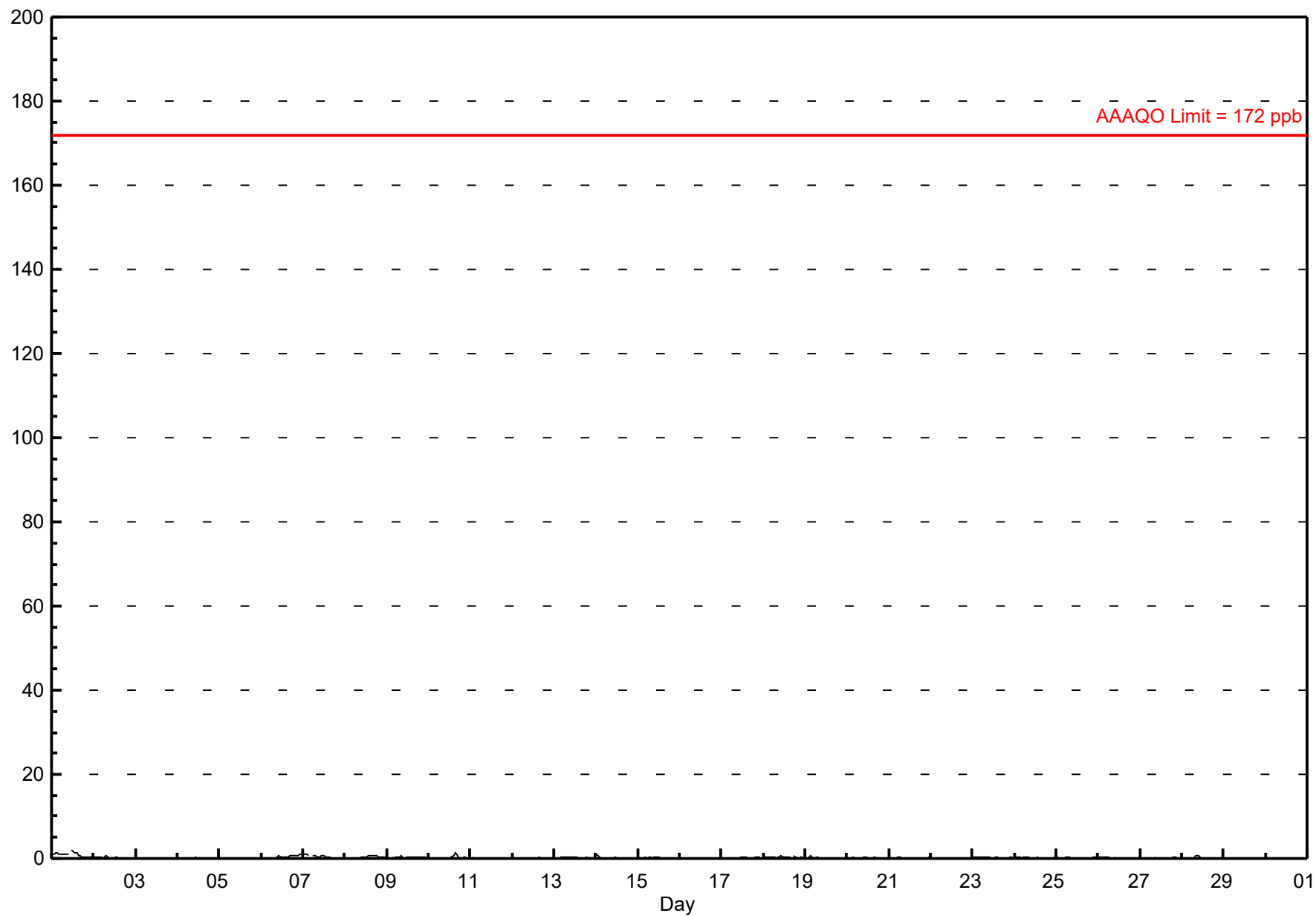
Donnelly - April 2018

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0																			Hours in Service: 720							
Maximum Value: 2.0 ppb on Apr 1 12:00																			Maximum Daily Average: 0.9 ppb on Apr 1				Hours of Data: 685			
Minimum Value: 0 ppb on Apr 3 00:00																			Minimum Daily Average: 0.0 ppb on Apr 29				Hours of Missing Data: 35			
Maximum Diurnal Average: 0.2 ppb at hour 12																			Minimum Diurnal Average: 0.1 ppb at hour 19				Hours of Calibration: 35			
Monthly Average: 0.17 ppb																			Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 0.4 P ₉₉ = 1.2				Percent Operational Time: 100.0			
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	1	1	1	1	1	1	1	1	1	1	A	2	2	1	1	1	1	0	0	0	0	0	0	0	0.9	2.0
2-Apr	0	0	0	0	0	0	0	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
3-Apr	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
4-Apr	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.3
5-Apr	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
6-Apr	0	0	0	0	0	A	0	0	0	0	1	0	0	0	0	0	1	1	1	1	1	1	1	1	0.4	1.1
7-Apr	1	1	1	1	A	1	1	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.4	1.1
8-Apr	0	0	0	A	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0.3	0.6
9-Apr	0	0	A	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
10-Apr	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0.2	1.3
11-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.1	0.2
12-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.0	0.4
13-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.2	0.5
14-Apr	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	1.2
15-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.1	0.3
16-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.1	0.2
17-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.1	0.3
18-Apr	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	A	1	0	0	0	0	0	0	0.3	0.5
19-Apr	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.1	0.5
20-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.1	0.3
21-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.1	0.3
22-Apr	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
23-Apr	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
24-Apr	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
25-Apr	0	0	0	0	0	0	0	0	0	A	0	C	C	C	C	0	0	0	0	0	0	0	0	0	0.2	0.5
26-Apr	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
27-Apr	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
28-Apr	0	0	0	0	0	0	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.6
29-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
30-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
0.2		0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	Diurnal Average		
1.2		1.1	1.3	1.4	1.1	1.0	0.9	0.9	1.0	1.0	0.7	2.0	1.8	1.5	1.2	1.3	0.9	0.6	0.6	0.6	0.6	0.6	1.0	1.1	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																								
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb																										

Hourly Averages

Sulphur Dioxide (SO₂) - ppb

Donnelly - April 2018



Hourly Maximums

Sulphur Dioxide (SO₂) - ppb

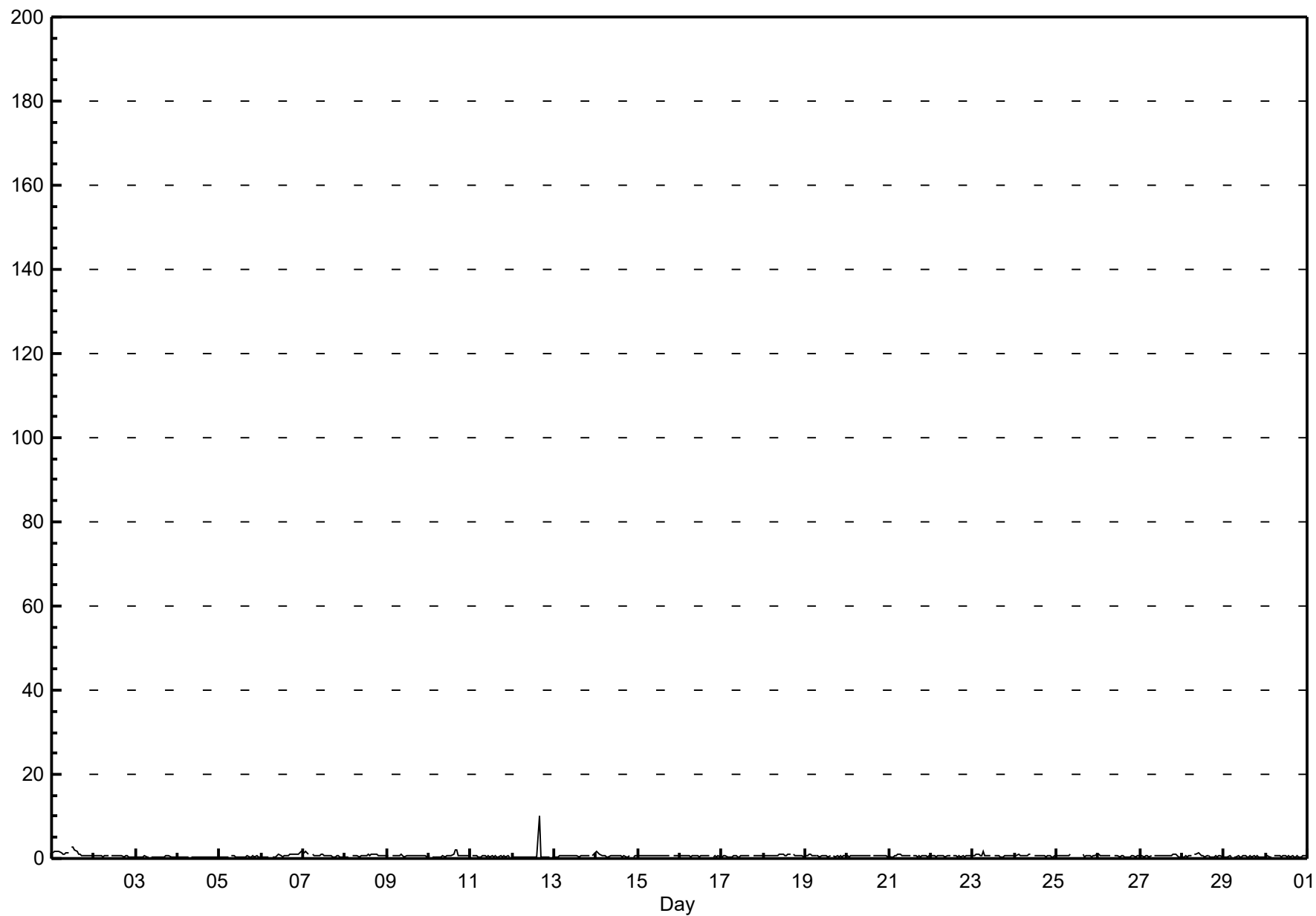
Donnelly - April 2018

Maximum Value: 10.2 ppb on Apr 12 16:00										Maximum Daily Average: 1.3 ppb on Apr 1										Hours in Service: 720							
Minimum Value: 0 ppb on Apr 4 06:00										Minimum Daily Average: 0.3 ppb on Apr 4										Hours of Data: 685							
Maximum Diurnal Average: 1.0 ppb at hour 16										Minimum Diurnal Average: 0.5 ppb at hour 19										Hours of Missing Data: 35							
Monthly Average: 0.63 ppb										Percentiles: P ₁ = 0.2 P ₁₀ = 0.4 Q ₁ = 0.5 Median = 0.6 Q ₃ = 0.7 P ₉₀ = 0.9 P ₉₉ = 1.8										Hours of Calibration: 35							
																				Percent Operational Time: 100.0							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Apr	1	2	2	2	2	1	1	1	1	1	A	3	3	2	2	1	1	1	1	1	1	1	1	1	1.3	2.7	
2-Apr	1	1	1	1	1	0	1	1	1	1	A	1	1	1	1	1	1	0	1	1	0	0	0	0	0.6	0.8	
3-Apr	0	0	0	0	0	1	0	0	A	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0.4	0.5	
4-Apr	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.3	0.5	
5-Apr	0	0	0	0	0	0	A	1	1	0	0	0	0	0	0	0	1	0	0	1	0	1	1	0	0.4	0.6	
6-Apr	0	0	0	0	0	A	0	0	0	1	1	1	0	1	1	1	1	1	1	1	1	1	2	2	0.7	1.6	
7-Apr	1	2	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	0	0	0	0.8	1.6	
8-Apr	0	0	0	A	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0	
9-Apr	1	1	A	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0	0.6	1.0	
10-Apr	1	A	0	0	0	0	0	0	1	0	1	1	1	1	1	2	2	1	1	1	1	1	1	1	0.7	2.0	
11-Apr	A	1	1	1	0	1	0	1	1	0	1	0	1	0	1	0	0	1	0	1	0	1	0	A	0	0.5	0.6
12-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	A	0	0.8	10.2	
13-Apr	0	0	0	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	A	1	1	0.7	1.2	
14-Apr	2	1	1	1	1	1	0	0	1	1	1	1	1	1	1	0	1	1	0	1	A	0	1	1	0.7	1.6	
15-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.6	0.8	
16-Apr	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	A	0	1	1	1	0	0.6	0.7	
17-Apr	0	1	1	0	0	0	0	1	1	0	0	1	1	1	1	1	1	A	1	1	1	1	1	1	0.6	0.8	
18-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.8	1.0	
19-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	A	1	0	1	0	1	0	1	1	0.6	1.0	
20-Apr	1	0	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0	0.6	0.8	
21-Apr	1	0	0	1	1	1	1	1	1	1	1	1	1	A	1	1	0	1	0	1	1	1	0	1	0.6	0.9	
22-Apr	1	1	1	0	1	1	1	1	0	1	1	1	A	1	1	0	1	1	1	0	1	1	1	1	0.6	0.7	
23-Apr	1	1	1	1	1	1	2	1	1	1	1	A	1	1	1	1	0	1	1	1	1	1	1	1	0.7	1.7	
24-Apr	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0	1	1	1	1	1	0.7	0.9	
25-Apr	1	1	1	1	1	1	1	1	1	A	1	C	C	C	C	1	0	1	1	1	0	1	1	1	0.7	1.1	
26-Apr	1	1	1	1	1	1	1	1	A	1	1	1	0	1	1	0	0	0	0	1	1	0	1	1	0.6	0.9	
27-Apr	0	1	0	1	1	0	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0.6	1.2	
28-Apr	0	0	1	0	1	1	A	1	1	1	1	1	1	0	1	1	1	0	0	1	0	1	1	0	0.6	1.3	
29-Apr	0	0	0	1	0	A	0	0	1	0	0	1	1	0	0	1	0	1	1	1	0	0	0	0	0.4	0.6	
30-Apr	0	1	0	0	A	1	1	1	1	0	1	1	0	1	1	1	0	0	1	0	0	1	1	1	0.5	0.8	
0.6		0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.6	0.7	0.7	0.7	0.6	0.6	1.0	0.6	0.6	0.5	0.6	0.6	0.6	0.6	0.6	Diurnal Average		
1.6		1.6	1.8	1.8	1.6	1.3	1.7	1.2	1.4	1.4	1.1	2.6	2.7	2.1	1.6	10.2	2.0	1.0	1.0	1.1	1.2	0.9	1.5	1.6	Diurnal Maximum		
C - Calibration		A - Automated Daily Zero Span																									

Hourly Maximums

Sulphur Dioxide (SO₂) - ppb

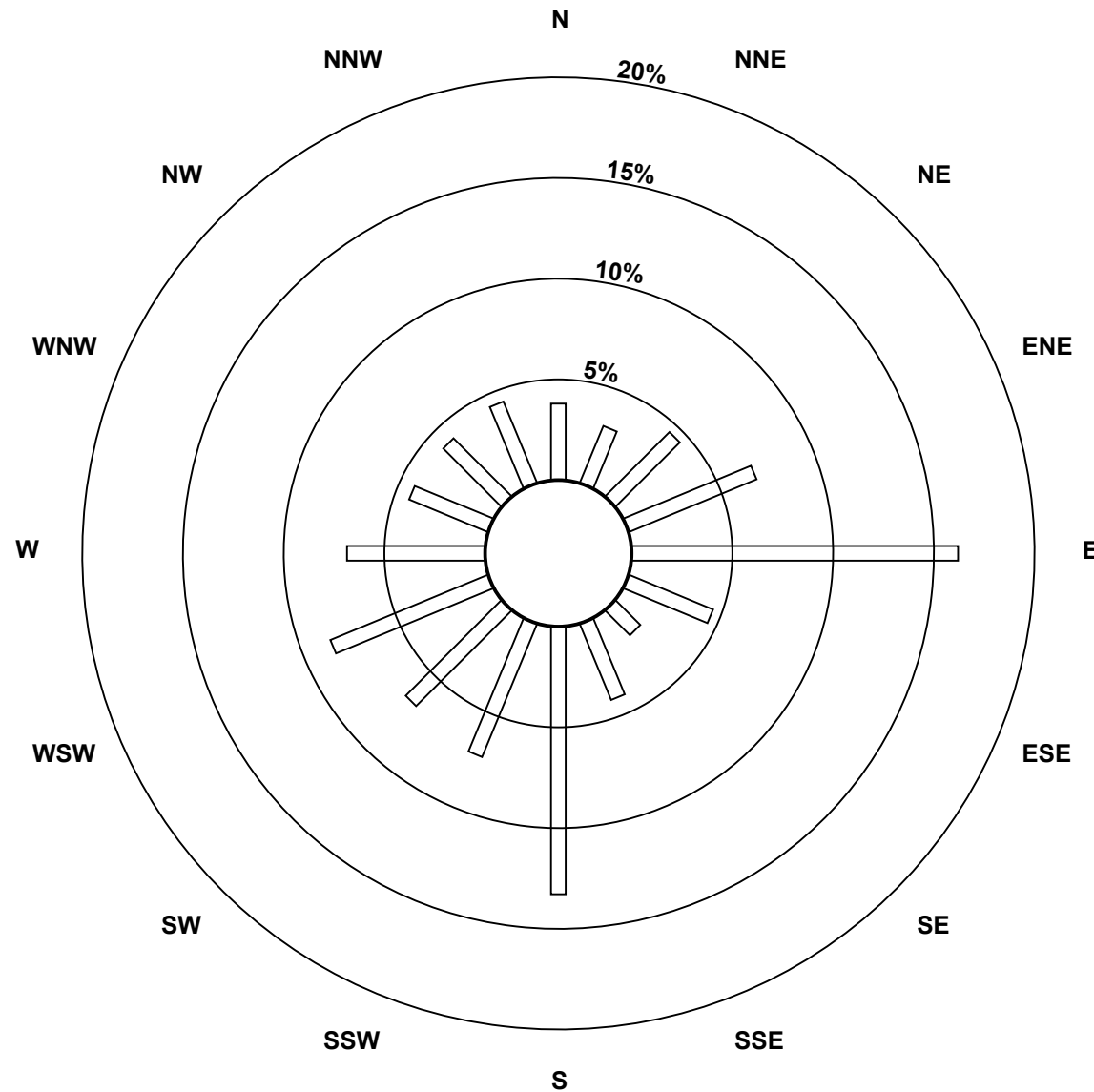
Donnelly - April 2018



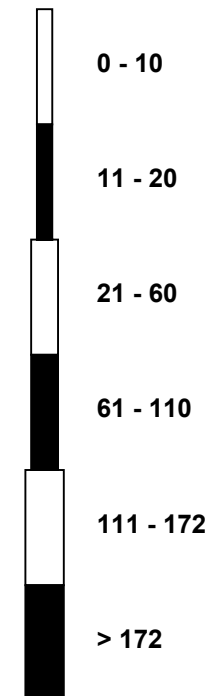
Pollutant Rose

Sulphur Dioxide (SO₂) - ppb

Donnelly - April 2018

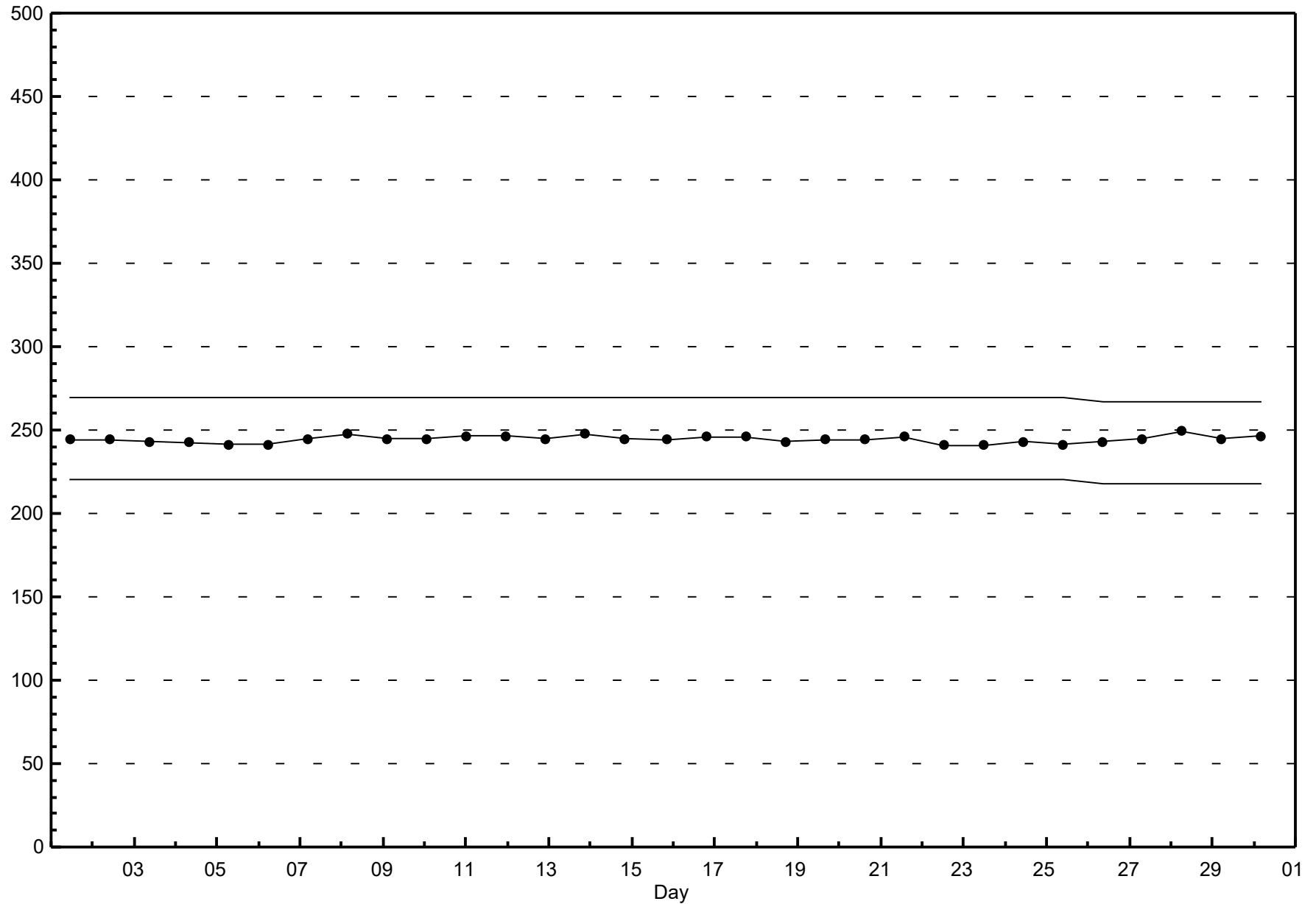


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Donnelly - April 2018



Hourly Averages

Hydrogen Sulphide (H₂S) - ppb

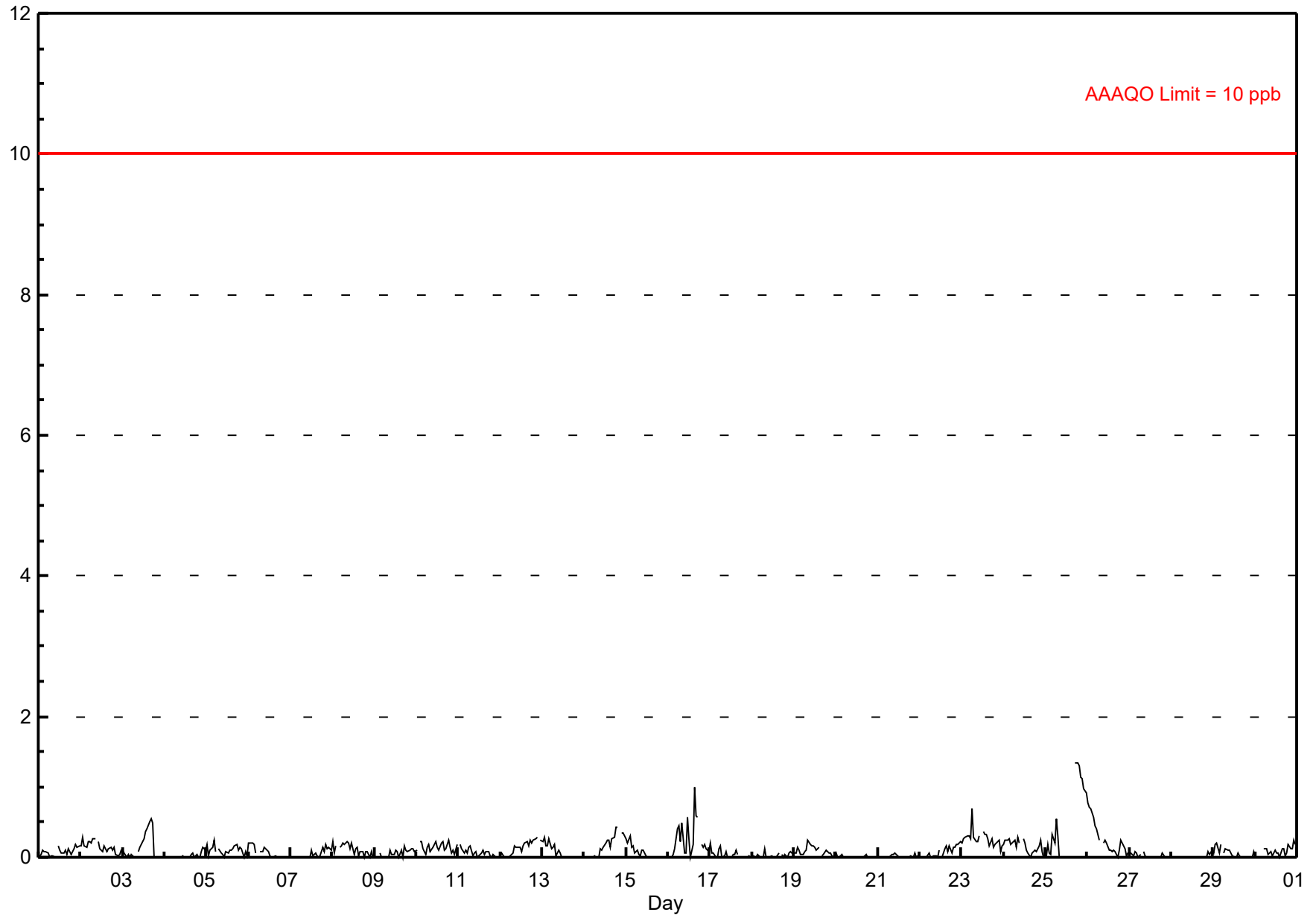
Donnelly - April 2018

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0																				Hours in Service: 720						
Maximum Value: 1.4 ppb on Apr 25 18:00																				Maximum Daily Average: 0.5 ppb on Apr 25		Hours of Data: 685				
Minimum Value: 0 ppb on Apr 1 07:00																				Minimum Daily Average: 0.0 ppb on Apr 20		Hours of Missing Data: 35				
Maximum Diurnal Average: 0.2 ppb at hour 18																				Minimum Diurnal Average: 0.1 ppb at hour 14		Hours of Calibration: 35				
Monthly Average: 0.11 ppb																				Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.1 P ₉₀ = 0.2 P ₉₉ = 0.9		Percent Operational Time: 100.0				
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
2-Apr	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
3-Apr	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0.1	0.5
4-Apr	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
5-Apr	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
6-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
7-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
8-Apr	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
9-Apr	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
10-Apr	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
11-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.1	0.2
12-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.1	0.3
13-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.3
14-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	0.4
15-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.1	0.3
16-Apr	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	A	0	0	0	0	0	0.3	1.0
17-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.0	0.2
18-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.0	0.1
19-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.1	0.2
20-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.0	0.1
21-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.0	0.1
22-Apr	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
23-Apr	0	0	0	0	0	0	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
24-Apr	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
25-Apr	0	0	0	0	0	0	1	0	0	A	0	0	0	C	C	C	C	1	1	1	1	1	1	1	0.5	1.4
26-Apr	1	1	1	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8
27-Apr	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
28-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
29-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
30-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.2 0.1 0.1 0.1 0.1 0.1 0.1																								Diurnal Average		
0.8 0.7 0.7 0.6 0.5 0.4 0.7 0.3 0.5 0.2 0.3 0.6 0.4 0.4 0.4 1.0 0.6 1.4 1.3 1.3 1.1 1.1 1.0 0.9																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb																										

Hourly Averages

Hydrogen Sulphide (H₂S) - ppb

Donnelly - April 2018



Hourly Maximums

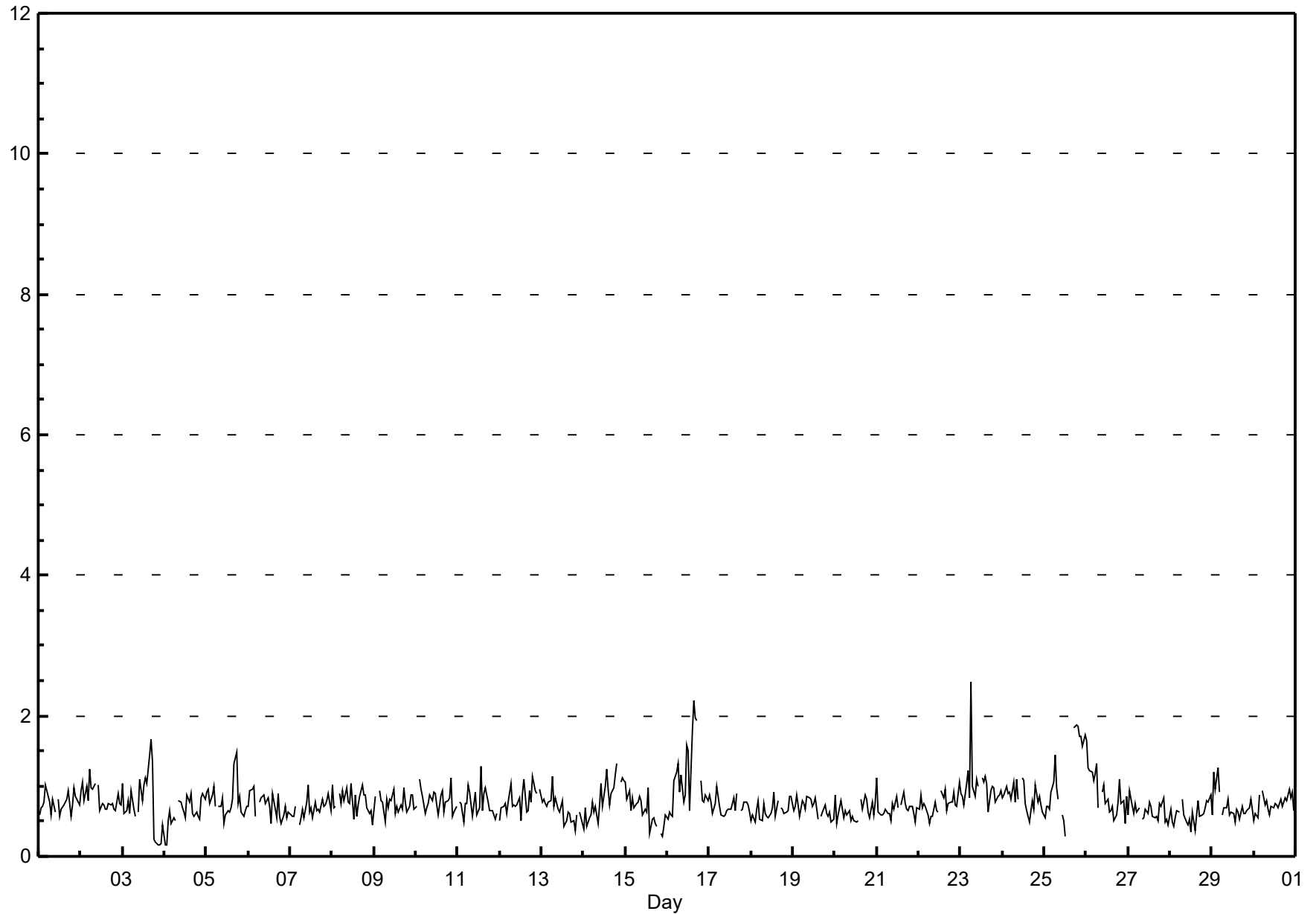
Hydrogen Sulphide (H₂S) - ppb

Donnelly - April 2018

Maximum Value: 2.5 ppb on Apr 23 07:00																				Maximum Daily Average: 1.1 ppb on Apr 25					Hours in Service: 720	
Minimum Value: 0 ppb on Apr 4 02:00																				Minimum Daily Average: 0.6 ppb on Apr 28					Hours of Data: 685	
Maximum Diurnal Average: 0.9 ppb at hour 18																				Minimum Diurnal Average: 0.7 ppb at hour 13					Hours of Missing Data: 35	
Monthly Average: 0.77 ppb																				Percentiles: P ₁ = 0.3 P ₁₀ = 0.5 Q ₁ = 0.6 Median = 0.7 Q ₃ = 0.9 P ₉₀ = 1.0 P ₉₉ = 1.8					Hours of Calibration: 35	
																				Percent Operational Time: 100.0						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0
2-Apr	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.2
3-Apr	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	2	1	0	0	0	0	0	0	0.8	1.7
4-Apr	0	0	1	1	0	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.9
5-Apr	1	1	1	1	1	1	A	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.5
6-Apr	1	1	1	1	1	A	1	1	1	1	1	1	1	0	1	1	1	1	1	0	1	1	1	1	0.7	1.0
7-Apr	1	1	1	1	A	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0
8-Apr	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0.8	1.0
9-Apr	1	1	A	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0
10-Apr	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1
11-Apr	A	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.8	1.3
12-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.8	1.1
13-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	1	0	1	A	1	0	0.7	1.1
14-Apr	0	1	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.8	1.3
15-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	0	A	0	0	0	1	0.7	1.1
16-Apr	1	1	1	1	1	1	1	1	1	1	1	2	2	1	2	2	2	2	A	1	1	1	1	1	1.1	2.2
17-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0.7	1.0
18-Apr	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.7	0.9
19-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0	1	0.7	0.9
20-Apr	1	0	1	1	1	1	1	1	1	1	1	1	0	1	A	1	1	1	1	1	1	1	1	1	0.6	0.9
21-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0	1	0.7	1.1
22-Apr	1	1	1	1	1	1	0	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.7	1.1
23-Apr	1	1	1	1	1	1	2	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1.0	2.5
24-Apr	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0	1	1	1	1	1	1	1	1	0.8	1.1
25-Apr	1	1	1	1	1	1	1	1	1	A	1	1	0	C	C	C	C	2	2	2	2	2	2	2	1.1	1.9
26-Apr	2	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0.9	1.6
27-Apr	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	0.6	0.9
28-Apr	1	0	0	1	1	1	A	1	1	0	0	1	0	1	0	1	1	1	1	1	1	1	1	1	0.6	0.9
29-Apr	1	1	1	1	1	A	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0.7	1.3
30-Apr	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0
0.7 0.8 0.7 0.8 0.8 0.8 0.9 0.7 0.7 0.7 0.8 0.8 0.7 0.8 0.8 0.8 0.8 0.9 0.7 0.8 0.7 0.7 0.7 0.8																									Diurnal Average	
1.6 1.3 1.2 1.3 1.2 1.2 2.5 1.0 1.2 1.1 1.1 1.6 1.5 1.3 1.8 2.2 2.0 1.9 1.9 1.8 1.7 1.7 1.6 1.7																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										

Hourly Maximums

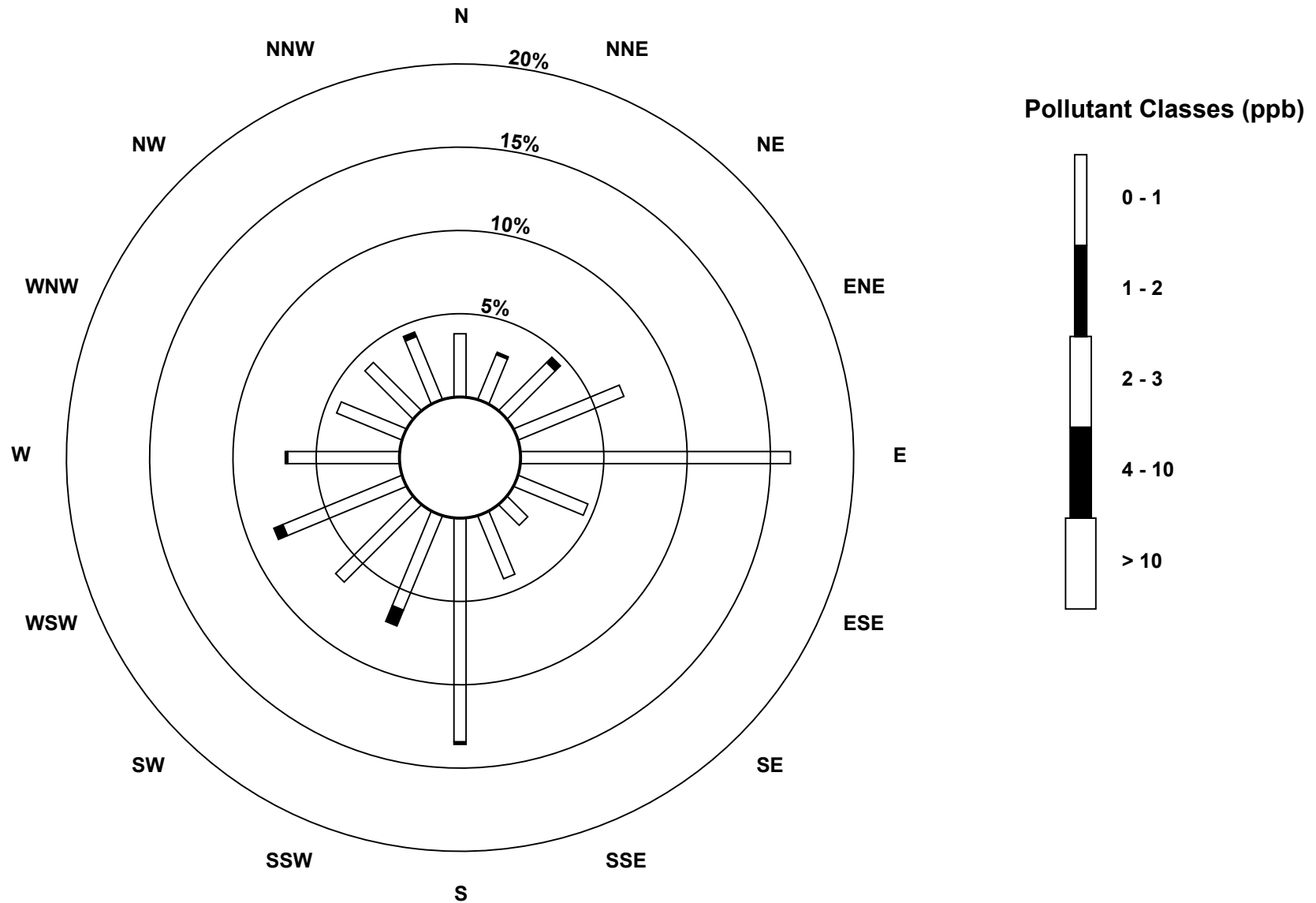
Hydrogen Sulphide (H₂S) - ppb
Donnelly - April 2018



Pollutant Rose

Hydrogen Sulphide (H₂S) - ppb

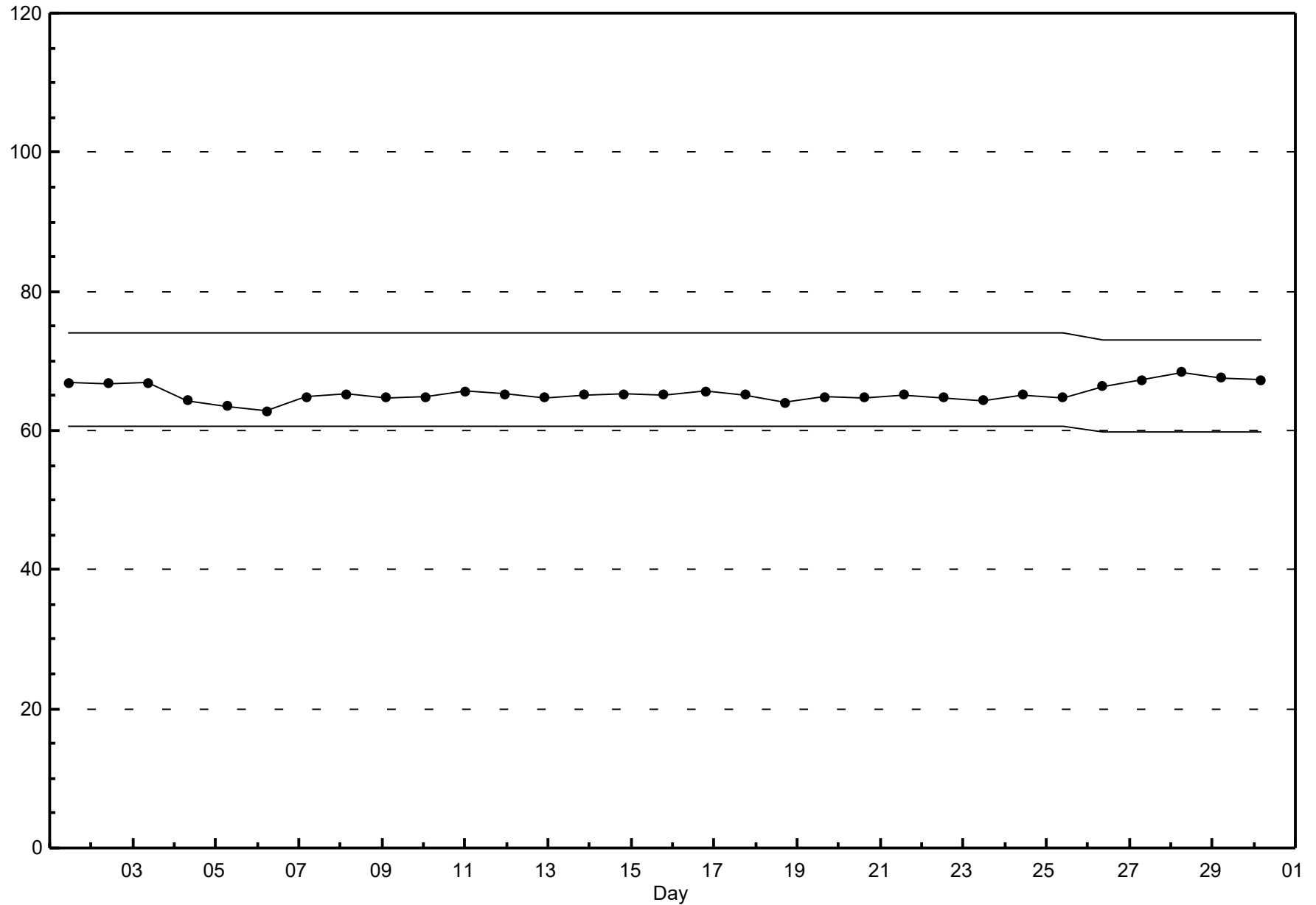
Donnelly - April 2018



Span Responses

Hydrogen Sulphide (H_2S)

Donnelly - April 2018



Hourly Averages

External Temperature (ET) - °C

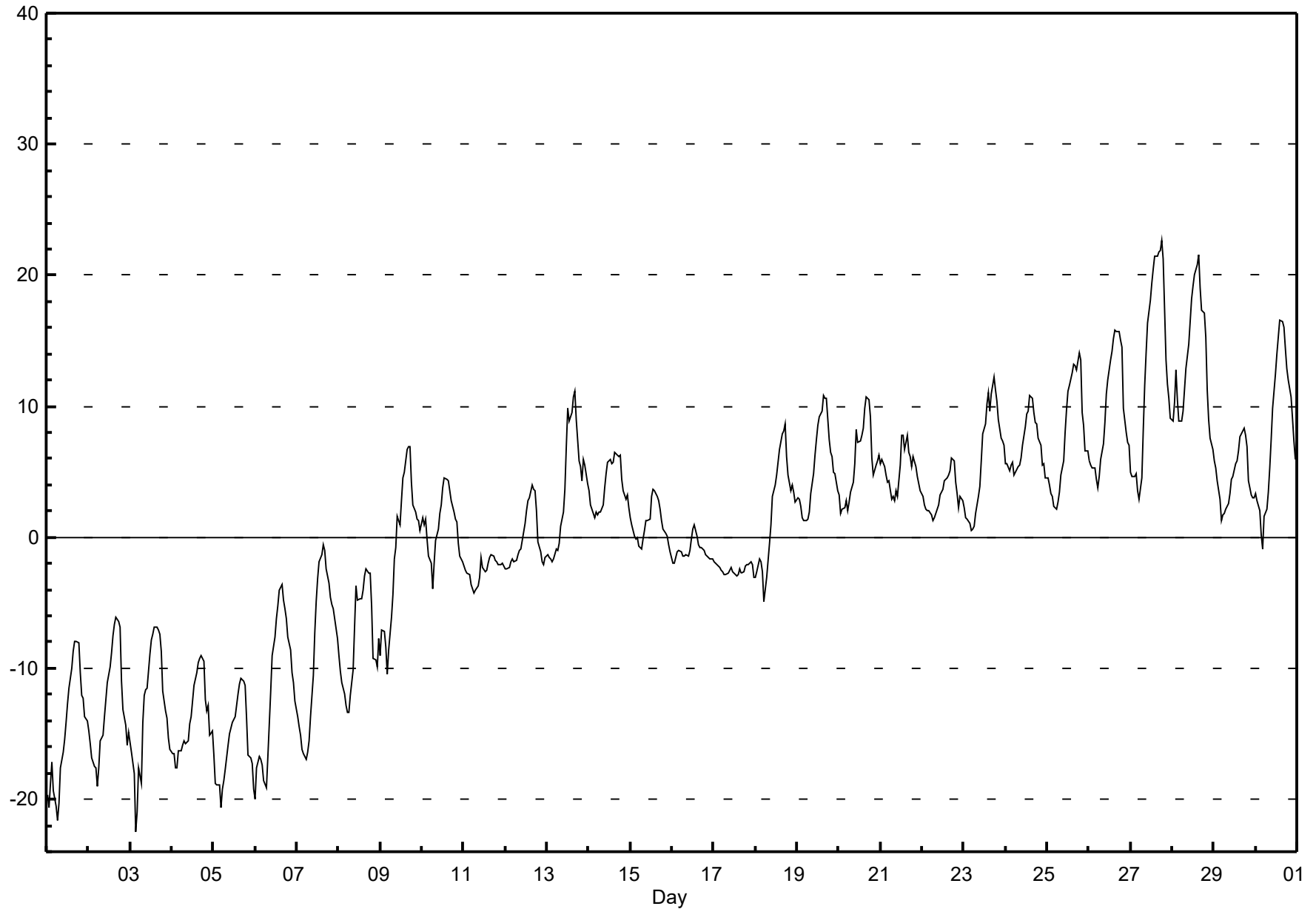
Donnelly - April 2018

Maximum Value: 22.6 °C on Apr 27 19:00																				Maximum Daily Average: 13.7 °C on Apr 28					Hours in Service: 720	
Minimum Value: -22 °C on Apr 3 04:00																				Minimum Daily Average: -15.6 °C on Apr 5					Hours of Data: 720	
Maximum Diurnal Average: 4.6 °C at hour 16																				Minimum Diurnal Average: -4.3 °C at hour 6					Hours of Missing Data: 0	
Monthly Average: -0.09 °C																				Percentiles: P ₁ = -19.9 P ₁₀ = -14.5 Q ₁ = -4.8 Median = 1.5 Q ₃ = 5.7 P ₉₀ = 10.4 P ₉₉ = 20.7					Hours of Calibration: 0	
																									Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	-20	-21	-19	-17	-19	-21	-22	-20	-18	-16	-15	-14	-13	-12	-10	-9	-8	-8	-8	-10	-12	-12	-14	-14	-14.6	-7.9
2-Apr	-15	-16	-17	-18	-18	-19	-18	-16	-15	-14	-12	-11	-10	-9	-7	-7	-6	-6	-7	-11	-13	-14	-16	-15	-12.8	-6.2
3-Apr	-16	-16	-18	-22	-21	-18	-19	-14	-12	-12	-12	-9	-8	-7	-7	-7	-7	-7	-9	-12	-13	-14	-15	-16	-12.9	-6.8
4-Apr	-17	-17	-18	-18	-16	-16	-16	-16	-16	-16	-14	-14	-12	-11	-10	-10	-9	-9	-9	-12	-13	-13	-15	-15	-13.8	-9.1
5-Apr	-17	-19	-19	-19	-21	-19	-19	-18	-16	-15	-15	-14	-14	-13	-12	-11	-11	-11	-11	-14	-17	-17	-17	-19	-15.6	-10.8
6-Apr	-20	-18	-17	-17	-17	-19	-19	-17	-14	-12	-9	-8	-6	-5	-4	-4	-5	-5	-6	-8	-9	-10	-11	-12	-11.3	-3.6
7-Apr	-14	-14	-15	-16	-17	-17	-16	-16	-14	-11	-7	-5	-3	-2	-1	-1	-1	-2	-4	-5	-5	-5	-6	-8	-8.5	-0.5
8-Apr	-9	-10	-11	-12	-13	-13	-13	-12	-10	-7	-4	-5	-5	-5	-4	-3	-2	-3	-3	-5	-9	-9	-10	-8	-7.7	-2.4
9-Apr	-9	-7	-7	-8	-10	-9	-6	-4	-2	-1	2	1	3	5	5	7	7	7	4	2	2	1	1	0	-0.7	6.9
10-Apr	1	1	1	0	-1	-2	-4	-2	0	1	2	2	4	4	4	4	4	3	2	1	1	0	-1	-2	1.0	4.5
11-Apr	-2	-3	-3	-3	-4	-4	-4	-4	-4	-3	-2	-2	-3	-3	-2	-2	-1	-1	-2	-2	-2	-2	-2	-2	-2.5	-1.3
12-Apr	-2	-2	-2	-2	-2	-2	-2	-1	-1	-1	0	1	2	3	3	4	4	4	2	0	-1	-2	-2	-2	-0.1	4.0
13-Apr	-1	-2	-2	-2	-2	-1	-1	0	1	2	4	7	10	9	9	11	11	9	6	5	4	6	6	4	3.9	11.2
14-Apr	4	2	2	1	2	2	2	2	2	4	5	6	6	6	6	6	6	6	6	4	4	3	3	2	3.9	6.5
15-Apr	1	1	0	0	0	-1	-1	0	0	1	1	1	3	4	4	3	3	2	1	1	0	0	-1	-1	1.0	3.7
16-Apr	-2	-2	-2	-1	-1	-1	-1	-1	-1	-1	-1	0	1	1	0	-1	-1	-1	-1	-1	-1	-2	-2	-2	-1.0	1.0
17-Apr	-2	-2	-2	-2	-3	-3	-3	-3	-3	-3	-2	-3	-3	-3	-3	-2	-3	-3	-2	-2	-2	-2	-2	-3	-2.5	-1.9
18-Apr	-3	-3	-2	-2	-3	-5	-3	-2	0	1	3	4	5	6	7	8	8	9	6	5	4	4	3	3	2.2	8.7
19-Apr	3	3	2	2	1	1	1	2	3	5	6	8	9	9	10	11	11	11	7	6	6	5	5	4	5.4	10.8
20-Apr	3	2	2	2	3	2	3	3	4	6	8	7	7	8	8	10	11	11	9	6	5	6	6	6	5.7	10.8
21-Apr	6	6	5	5	4	4	3	3	3	4	3	5	8	8	7	8	7	6	5	6	5	5	4	4	5.1	7.8
22-Apr	3	2	2	2	2	2	1	1	2	2	3	3	4	4	4	5	5	6	6	4	3	2	3	3	3.2	6.0
23-Apr	2	2	1	1	1	1	1	2	3	4	6	8	9	10	11	10	11	12	11	10	9	8	7	7	6.1	12.2
24-Apr	6	6	5	5	6	5	5	5	5	6	7	8	9	10	11	11	9	9	9	8	7	5	6	5	7.0	10.8
25-Apr	5	4	3	3	2	2	3	3	5	6	8	10	11	12	13	13	13	13	14	14	10	9	7	7	7.8	14.1
26-Apr	6	6	5	5	4	4	5	6	7	9	11	12	14	14	15	16	16	16	15	14	10	8	7	7	9.6	15.8
27-Apr	5	5	5	5	4	3	5	8	12	14	16	18	19	20	21	21	22	22	23	21	14	12	11	9	13.1	22.6
28-Apr	9	10	13	10	9	9	10	11	13	15	16	18	19	20	21	22	19	17	17	15	11	9	8	7	13.7	21.5
29-Apr	6	5	4	3	1	2	2	2	3	3	4	5	6	6	7	8	8	8	8	7	4	3	3	3	4.6	8.3
30-Apr	3	3	2	0	-1	2	2	3	5	7	10	12	14	15	17	16	16	14	13	12	11	9	7	6	8.4	16.6
-2.8 -3.1 -3.3 -3.8 -4.3 -4.3 -4.2 -3.1 -1.9 -0.7 0.8 1.8 2.8 3.5 4.0 4.6 4.5 4.2 3.4 2.0 0.4 -0.3 -0.9 -1.4																									Diurnal Average	
8.9 10.3 12.7 10.5 8.8 8.8 9.6 11.2 12.9 14.7 16.4 18.2 19.4 20.5 21.5 21.5 21.8 21.9 22.6 21.2 13.6 11.7 10.6 9.1																									Diurnal Maximum	

Hourly Averages

External Temperature (ET) - °C

Donnelly - April 2018



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Donnelly - April 2018

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	2	4	3	5	6	5	1	1	6	5	5	3	4	6	7	8	7	7	5	5	3	1	2	2	3.0	8.1
Dir	76	80	172	195	186	198	212	191	212	241	255	284	254	250	274	268	246	256	257	229	237	249	45	86	238	268
2 Spd	3	2	1	2	1	1	3	3	8	6	7	11	11	13	13	11	9	7	4	2	2	2	3	7	3.7	12.7
Dir	45	58	34	78	48	92	41	30	27	353	300	301	290	289	301	299	328	340	341	289	309	45	67	75	329	289
3 Spd	5	4	3	1	7	6	7	8	6	1	5	6	8	10	10	10	9	6	5	4	4	7	8	8	4.0	10.4
Dir	73	76	81	14	73	74	68	79	75	350	268	286	320	335	336	338	341	336	350	31	37	51	59	64	22	338
4 Spd	8	9	10	12	13	4	8	6	8	10	12	13	14	13	11	14	12	9	7	8	7	6	2	2	4.6	13.5
Dir	68	71	61	51	48	6	41	351	345	348	332	311	306	304	299	282	268	257	249	253	255	220	233	254	323	282
5 Spd	2	2	1	0	0	1	1	3	9	13	12	14	15	14	12	10	9	7	5	3	3	5	5	4	4.0	15.0
Dir	202	64	140	216	246	254	1	23	4	359	347	318	312	319	320	299	295	269	287	220	115	101	95	77	327	312
6 Spd	6	7	9	9	9	8	6	7	7	9	11	12	13	13	13	13	12	12	11	11	11	9	10	10	9.9	13.5
Dir	74	100	100	100	100	99	100	96	92	95	87	86	86	84	85	85	86	87	89	92	96	100	101	99	92	84
7 Spd	10	11	12	11	10	10	13	12	13	12	11	11	13	13	14	14	13	13	11	9	9	9	9	6	11.2	14.1
Dir	98	100	100	99	99	99	98	99	98	97	91	88	85	87	86	84	86	90	93	92	90	93	101	103	93	86
8 Spd	6	8	7	7	7	6	6	8	6	5	6	9	9	9	8	5	5	5	3	1	3	5	4	7	1.9	9.1
Dir	102	100	101	101	101	102	104	99	99	101	133	206	242	295	301	309	313	305	327	153	71	128	187	171	121	206
9 Spd	11	11	8	6	4	5	6	7	4	8	6	6	3	5	5	2	1	3	4	4	4	3	4	5	3.7	11.1
Dir	184	175	176	158	158	159	155	165	138	166	163	152	20	55	63	234	47	57	70	114	117	98	79	81	141	175
10 Spd	5	7	7	8	8	10	10	13	13	15	17	19	14	13	13	16	16	12	9	10	13	13	12	10	11.6	19.2
Dir	89	81	96	82	89	87	73	77	77	72	65	64	74	82	75	69	69	78	80	73	96	94	87	89	78	64
11 Spd	10	10	9	8	9	8	6	5	7	8	4	9	12	9	8	6	5	5	5	2	1	3	6	8	3.1	11.6
Dir	89	89	90	92	78	82	64	21	23	33	320	267	293	305	330	318	313	328	323	356	172	60	70	64	29	293
12 Spd	10	10	7	9	10	9	11	10	11	12	12	11	10	10	12	9	9	9	11	12	12	10	7	8	9.9	12.5
Dir	59	67	85	92	95	94	98	99	102	101	104	113	112	89	81	87	79	84	96	96	99	100	104	116	94	99
13 Spd	6	6	6	5	8	11	9	8	9	9	6	3	2	5	6	5	6	9	9	11	14	18	12	16	7.6	18.3
Dir	108	105	113	101	131	145	135	133	152	157	172	132	138	168	159	86	92	99	102	98	120	137	150	128	128	137
14 Spd	12	7	6	2	11	15	16	16	19	17	18	27	24	26	26	23	22	16	15	13	10	7	10	14	13.6	26.7
Dir	123	106	219	172	193	195	195	189	186	189	217	227	232	243	249	235	235	241	234	218	229	208	220	190	216	227
15 Spd	15	15	10	8	7	9	9	6	8	3	6	7	6	10	14	15	15	15	19	21	21	13	12	11	4.1	21.1
Dir	187	195	198	196	200	191	193	179	189	272	306	300	313	341	350	351	353	351	358	2	7	18	10	16	338	7
16 Spd	11	13	11	13	12	19	21	21	20	19	20	21	21	21	19	20	18	14	13	12	10	10	10	8	15.3	21.2
Dir	9	10	16	35	34	41	45	42	45	51	45	36	42	49	47	35	35	29	26	22	22	23	22	17	36	36
17 Spd	9	6	6	7	9	7	13	13	17	18	22	29	27	29	30	31	28	24	19	15	9	8	11	15	14.0	31.1
Dir	1	356	352	301	317	325	286	276	273	265	255	262	260	262	263	264	264	253	255	259	251	187	178	182	263	264
18 Spd	12	13	5	3	3	5	6	14	12	17	18	17	20	17	7	5	4	2	6	7	6	12	16	17	8.4	20.0
Dir	181	203	212	215	163	123	159	196	193	205	223	244	245	233	285	312	298	297	229	196	172	171	180	185	209	245
19 Spd	18	18	16	17	16	17	18	18	16	16	19	15	16	17	15	13	10	7	7	12	14	14	14	17	14.3	18.6
Dir	192	182	176	174	178	175	172	171	169	172	173	168	169	170	173	168	175	190	224	246	224	195	195	205	182	173
20 Spd	16	14	14	18	19	17	18	19	14	15	13	13	13	10	10	5	9	1	3	4	5	5	5	8	8.9	19.2
Dir	205	195	186	184	186	187	189	186	181	179	172	215	241	243	250	181	182	113	53	83	80	93	100	100	188	186
21 Spd	8	8	6	6	6	5	2	3	6	6	7	1	1	2	8	4	10	11	11	25	29	32	25	29	7.6	32.0
Dir	97	96	100	102	105	148	192	230	238	263	249	66	234	211	238	212	228	235	243	234	239	241	236	242	229	241
22 Spd	31	34	32	32	32	27	24	21	23	24	21	19	21	26	26	20	21	14	13	9	6	4	13	16	20.1	33.8
Dir	253	268	268	263	262	269	269	269	269	273	275	266	257	268	267	258	267	276	275	254	254	187	191	184	262	268

Hourly Averages

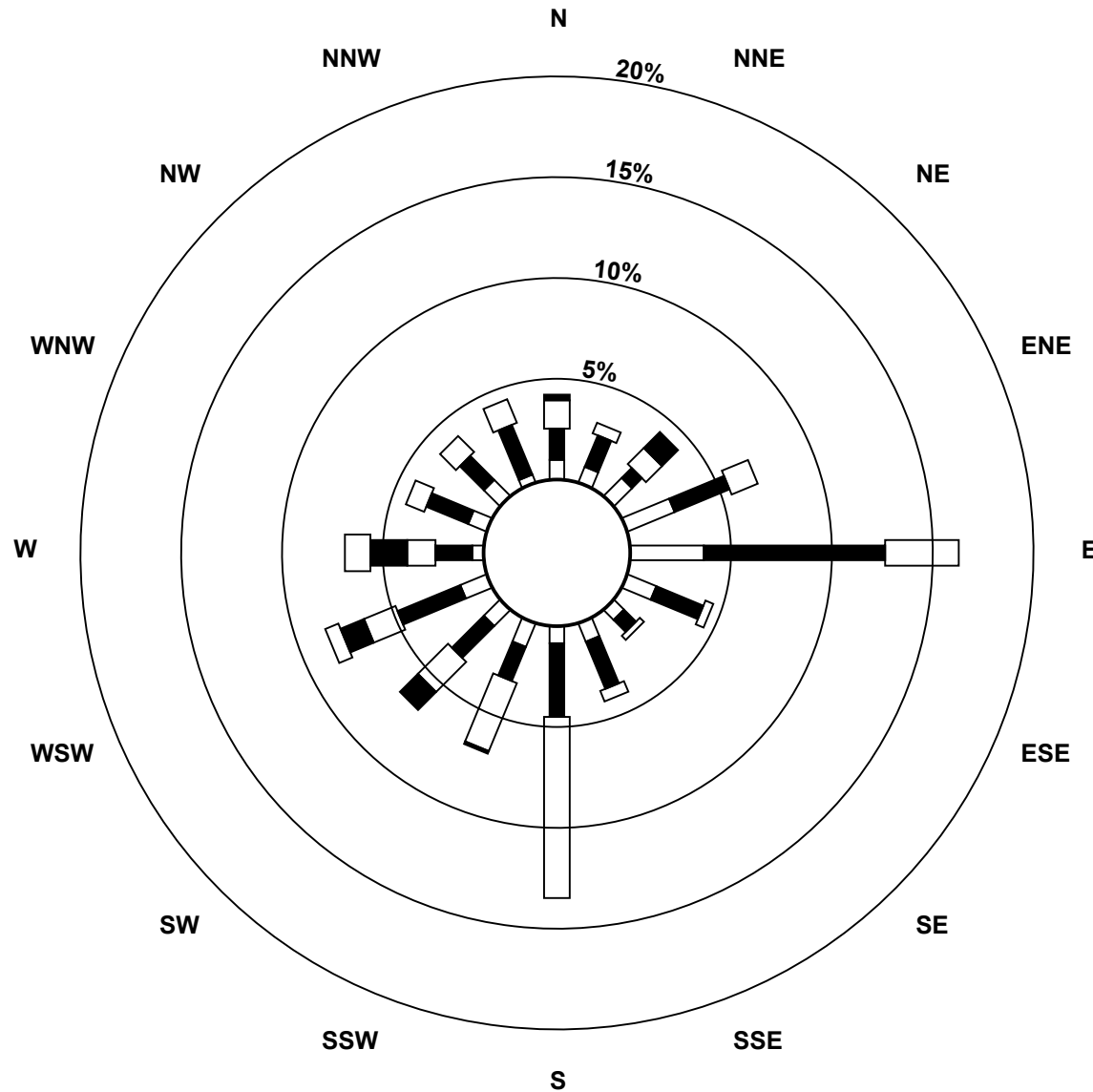
Wind Speed (km/h)
Wind Direction (deg)
Donnelly - April 2018

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	15	16	16	14	12	12	10	13	14	14	11	9	10	7	7	12	10	8	10	10	13	17	15	17	12.0	16.9
Dir	186	188	194	196	189	189	185	188	189	183	179	178	182	189	199	201	182	170	165	171	174	182	186	190	185	190
24 Spd	15	18	16	18	17	16	16	17	16	19	17	15	19	11	8	9	11	9	12	11	13	13	16	15	12.4	19.5
Dir	194	193	193	192	185	179	176	180	180	186	190	220	258	259	262	286	272	256	254	217	243	220	221	218	211	258
25 Spd	10	7	8	8	9	8	7	7	8	8	3	7	13	18	17	20	15	14	5	3	5	13	14	17	9.5	20.3
Dir	238	261	241	215	221	226	242	233	236	260	229	191	180	223	226	234	253	256	263	251	207	203	201	199	226	234
26 Spd	14	14	11	8	4	3	4	4	6	3	5	6	4	6	6	6	9	10	7	5	4	4	4	3	0.6	14.4
Dir	203	203	201	241	244	264	214	255	276	283	297	337	2	350	15	42	40	32	36	59	67	77	99	90	302	203
27 Spd	2	1	2	5	5	7	4	10	5	3	6	9	14	14	8	10	8	4	5	3	3	4	4	5	2.3	13.8
Dir	156	103	97	108	110	64	88	121	82	96	140	158	183	186	254	297	305	0	71	81	92	106	99	87	130	183
28 Spd	4	9	16	11	7	13	15	16	15	13	16	12	17	13	9	15	17	13	11	10	9	12	17	16	5.4	17.3
Dir	111	159	176	190	193	178	180	185	193	224	256	266	275	290	293	268	315	334	317	328	351	346	346	353	263	346
29 Spd	12	13	15	14	6	8	11	10	11	12	10	11	9	8	6	7	9	8	12	11	7	6	7	8	5.1	14.7
Dir	340	340	353	348	341	327	328	343	346	347	21	356	309	311	279	257	261	236	224	222	203	176	164	156	315	353
30 Spd	9	8	7	3	5	13	18	17	18	18	19	21	21	23	25	26	31	29	26	22	14	8	11	6	11.2	30.8
Dir	163	161	157	96	63	169	170	171	175	176	183	211	219	234	233	236	237	260	270	271	294	312	352	336	223	237
Spd	3.7	3.4	3.5	2.9	3.2	3.9	3.8	4.2	3.3	2.9	3.1	4.1	5.3	5.1	4.9	4.6	4.3	3.1	2.4	1.9	1.2	3.1	3.0	4.1	Diurnal Average	
Dir	165	162	168	164	157	161	160	163	170	187	211	242	251	262	274	272	277	283	279	235	188	160	159	161	Diurnal Maximum	
Spd	31.0	33.8	32.3	31.8	31.8	27.5	24.4	21.1	23.4	24.1	21.6	28.8	26.5	29.2	29.6	31.1	30.8	28.8	25.9	25.5	28.6	32.0	25.1	28.7	Diurnal Maximum	
Dir	253	268	268	263	262	269	269	269	269	273	255	262	260	262	263	264	237	260	270	234	239	241	236	242		
Maximum Speed Value: 34 km/h on Apr 22 02:00																								Hours in Service: 720		
Maximum Daily Speed Average: 20.1 km/h on Apr 22																								Hours of Data: 720		
Maximum Diurnal Speed Average: 5.3 km/h at hour 13																								Hours of Missing Data: 0		
Minimum Speed Value: 0 km/h on Apr 5 04:00																								Percent Operational Time: 100.0		
Minimum Daily Speed Average: 0.6 km/h on Apr 1																										
Minimum Diurnal Speed Average: 1.2 km/h at hour 21																										
Monthly Average Velocity: 2.32 km/h 205.4 deg																										
Speed Percentiles: P ₁ = 1.0 P ₁₀ = 3.5 Q ₁ = 6.0 Median = 9.5 Q ₃ = 13.8 P ₉₀ = 18.4 P ₉₉ = 30.6																										
All monthly, daily, and diurnal averages have been calculated using vector methods																										
Frequency Distribution																										
Speed Range (km/h)																										
Direction	0 to 5		5 to 11		11 to 19		19 to 28		28 to 38		> 38		Total													
North	9		26		22		2		0		0		59													
NorthEast	23		18		10		10		0		0		61													
East	38		87		43		0		0		0		168													
SouthEast	13		15		6		0		0		0		34													
South	12		45		87		4		0		0		148													
SouthWest	17		31		28		14		4		0		94													
West	13		32		21		20		10		0		96													
NorthWest	10		34		16		0		0		0		60													
Total	135		288		233		50		14		0		720													

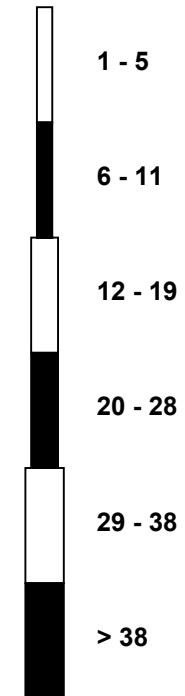
Wind Rose

Wind Speed (WS) (km/h)

Donnelly - April 2018



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Donnelly - April 2018

Maximum Speed: 34 km/h on Apr 22 02:00																				Maximum Daily Speed Average: 21.3 km/h on Apr 22										Hours in Service: 720	
Minimum Speed: 1 km/h on Apr 5 04:00																				Minimum Daily Speed Average: 4.5 km/h on Apr 1										Hours of Data: 720	
Maximum Diurnal Speed Average: 13.2 km/h at hour 14																				Minimum Diurnal Speed Average: 9.0 km/h at hour 21										Hours of Missing Data: 0	
Monthly Average Speed: 10.76 km/h																				Percentiles: P ₁ = 1.5 P ₁₀ = 3.8 Q ₁ = 6.3 Median = 9.8 Q ₃ = 13.9 P ₉₀ = 18.6 P ₉₉ = 30.7										Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
1-Apr	2	4	3	5	6	5	1	1	6	6	6	4	4	6	7	8	7	7	5	5	3	1	2	3	4.5	8.1					
2-Apr	3	3	2	3	2	2	3	3	8	6	8	12	12	13	13	11	9	8	4	3	2	2	4	7	5.8	12.8					
3-Apr	5	4	3	3	7	7	7	8	6	6	5	6	8	10	10	10	9	6	5	4	5	7	8	8	6.6	10.5					
4-Apr	8	9	10	12	13	5	8	7	8	10	12	13	14	13	12	14	12	9	7	8	7	7	2	3	9.3	13.6					
5-Apr	2	2	1	1	2	2	1	3	9	13	12	14	15	14	12	10	9	7	6	4	4	5	6	4	6.5	15.0					
6-Apr	6	7	9	9	9	8	6	7	7	9	11	12	13	13	13	13	12	12	11	11	11	9	10	10	10.0	13.5					
7-Apr	10	11	12	11	10	10	13	12	13	12	11	12	13	13	14	14	13	13	11	9	10	9	9	6	11.3	14.1					
8-Apr	6	8	7	7	7	6	7	8	6	6	6	9	9	9	8	6	5	5	3	2	3	5	4	7	6.2	9.4					
9-Apr	11	11	8	6	4	5	6	7	4	9	6	9	3	5	6	2	1	4	4	5	4	4	5	6	5.6	11.2					
10-Apr	5	7	7	8	8	10	10	13	13	15	17	19	14	13	13	16	16	12	9	10	14	13	12	10	11.8	19.2					
11-Apr	10	10	9	8	9	8	6	5	7	8	4	9	12	9	8	6	5	5	5	3	2	3	6	8	6.9	11.8					
12-Apr	10	10	7	9	10	9	11	11	11	12	12	11	10	11	12	9	9	9	11	12	13	10	8	8	10.2	12.5					
13-Apr	7	6	6	5	8	11	9	8	9	9	7	4	2	5	6	5	6	9	9	11	15	18	12	16	8.5	18.4					
14-Apr	12	7	14	3	11	15	16	16	19	17	19	27	24	26	26	23	23	16	15	14	10	7	10	14	16.1	26.8					
15-Apr	15	15	10	8	7	9	9	6	8	5	6	7	7	10	14	15	15	15	19	21	21	13	13	11	11.6	21.3					
16-Apr	11	13	11	14	12	19	21	21	20	19	20	21	21	21	19	20	18	14	13	12	10	10	10	8	15.7	21.3					
17-Apr	9	6	6	7	9	7	13	13	17	19	22	29	27	29	30	31	28	24	19	15	9	8	11	15	16.7	31.1					
18-Apr	12	13	7	4	3	5	7	14	12	17	18	17	20	17	8	5	4	2	6	8	6	12	16	17	10.5	20.1					
19-Apr	18	18	16	17	16	17	18	18	16	16	19	15	16	17	15	13	10	8	7	12	14	15	14	17	15.1	18.6					
20-Apr	16	14	14	18	19	17	18	19	14	15	13	15	13	10	10	6	9	2	4	4	5	5	5	8	11.4	19.2					
21-Apr	8	8	6	6	6	7	3	4	6	6	7	4	3	3	9	5	10	11	11	26	29	32	25	29	11.0	32.0					
22-Apr	31	34	32	32	32	27	24	21	23	24	21	20	21	26	26	20	21	14	13	9	6	4	13	17	21.3	33.8					
23-Apr	15	16	16	14	12	12	10	13	14	14	11	9	10	7	7	12	10	8	10	10	13	17	15	17	12.2	17.0					
24-Apr	15	18	16	18	17	16	16	17	16	19	17	16	20	11	8	9	11	10	14	11	13	14	17	16	14.7	19.7					
25-Apr	10	7	9	8	9	8	7	7	8	8	4	7	13	18	17	21	16	14	5	3	5	13	14	17	10.4	20.5					
26-Apr	14	14	11	8	5	4	4	4	6	4	6	6	5	6	6	6	9	10	7	5	4	4	4	3	6.4	14.4					
27-Apr	2	2	3	5	5	7	4	10	5	4	7	10	14	14	12	11	8	5	5	3	4	4	4	5	6.3	14.5					
28-Apr	4	9	16	11	7	13	15	17	15	14	17	12	17	13	10	15	20	13	11	10	9	12	17	16	13.0	20.3					
29-Apr	12	13	15	14	6	8	11	10	11	12	11	12	10	9	6	8	10	9	13	11	7	6	7	8	10.0	14.8					
30-Apr	9	8	7	4	5	13	18	17	18	19	19	22	21	24	25	27	31	30	26	22	15	9	11	7	16.9	30.9					
10.0 10.2 9.8 9.2 9.2 9.8 10.1 10.7 11.3 11.7 11.7 12.7 13.1 13.2 12.8 12.3 12.3 10.4 9.6 9.4 9.0 9.2 9.7 10.7																									Diurnal Average						
31.4 33.8 32.3 31.8 31.8 27.5 24.4 21.1 23.4 24.2 21.7 28.8 26.6 29.3 29.7 31.1 30.9 29.6 26.0 25.6 28.6 32.0 25.1 28.7																									Diurnal Maximum						
All monthly, daily, and diurnal averages have been calculated using scalar methods																															

Hourly Standard Deviations

Wind Direction (WD) - deg

Donnelly - April 2018

Maximum Value: 90.6 deg on Apr 1 08:00																								Hours in Service: 720	
Minimum Value: 1.8 deg on Apr 22 03:00																								Hours of Data: 720	
																								Hours of Missing Data: 0	
Percentiles: P ₁ = 2.1 P ₁₀ = 3.3 Q ₁ = 4.8 Median = 7.4 Q ₃ = 15.3 P ₉₀ = 30.3 P ₉₉ = 73.5																								Hours of Calibration: 0	
																								Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Apr	39	17	31	5	9	12	83	91	13	20	4	33	27	9	9	5	7	8	13	11	25	73	15	41	90.6
2-Apr	22	43	46	40	59	41	22	18	12	16	19	12	9	5	6	8	17	10	24	38	42	50	17	4	58.7
3-Apr	11	27	17	71	5	11	13	9	6	76	12	17	26	7	5	6	6	8	10	14	15	13	7	7	75.5
4-Apr	5	5	7	5	7	42	11	21	7	6	8	6	7	9	12	8	5	8	5	4	3	22	57	47	57.0
5-Apr	71	26	68	88	83	56	25	12	11	5	6	8	5	8	8	12	9	18	17	37	38	7	10	7	87.5
6-Apr	5	5	4	4	4	5	7	6	9	8	6	6	5	5	5	4	4	5	5	5	5	4	3	4	8.7
7-Apr	3	3	4	3	4	4	4	4	5	6	6	6	5	5	5	4	5	5	6	5	6	7	7	5	6.5
8-Apr	5	4	5	4	4	4	6	4	5	19	18	11	25	18	9	11	12	18	34	65	13	13	18	5	64.9
9-Apr	6	3	7	15	22	31	14	13	18	37	22	54	22	35	69	49	42	13	7	22	8	15	30	29	69.1
10-Apr	15	16	7	9	8	8	3	3	3	5	3	3	7	4	4	4	4	4	5	4	12	7	5	5	16.0
11-Apr	5	5	6	7	5	6	21	16	12	15	27	19	11	11	13	15	19	17	22	68	72	19	6	7	72.2
12-Apr	5	6	5	7	6	5	5	5	4	5	5	6	7	13	4	8	6	7	6	5	4	4	6	8	12.6
13-Apr	7	6	11	10	18	5	9	10	8	9	13	39	70	47	30	17	10	6	4	7	15	4	10	4	70.4
14-Apr	15	11	68	56	11	6	3	5	3	4	14	4	5	4	5	5	6	10	9	10	22	14	10	9	68.3
15-Apr	4	5	6	4	11	7	6	25	8	50	6	9	13	6	5	4	4	4	4	3	8	6	6	9	49.7
16-Apr	7	6	7	4	6	3	5	3	4	5	4	5	4	6	7	3	3	5	6	5	5	5	4	8	8.1
17-Apr	5	11	11	12	8	18	5	6	5	7	3	3	4	3	5	3	5	2	3	4	19	22	6	4	21.9
18-Apr	8	9	60	51	39	20	18	7	3	8	6	3	6	7	29	13	18	59	19	14	8	4	3	5	59.6
19-Apr	6	5	3	3	4	3	2	2	5	4	3	7	3	3	3	5	5	19	22	19	11	10	2	6	21.8
20-Apr	4	10	5	2	3	3	5	3	2	4	3	30	6	11	12	40	7	74	13	8	17	6	8	5	73.8
21-Apr	5	5	7	7	7	51	58	47	21	13	12	74	83	61	26	28	13	16	11	6	3	4	2	4	83.4
22-Apr	9	2	2	2	2	3	3	2	2	2	2	8	2	3	3	5	2	4	7	3	11	16	4	6	16.2
23-Apr	5	3	3	4	3	3	4	2	2	2	2	3	7	10	22	8	16	7	6	5	3	4	4	6	22.1
24-Apr	6	4	2	3	5	2	2	3	2	3	3	21	9	9	14	9	11	22	24	13	5	16	10	8	23.8
25-Apr	19	13	16	11	7	6	12	14	16	5	42	9	6	10	8	9	9	4	13	23	51	5	3	6	50.7
26-Apr	7	3	6	20	31	32	13	30	10	23	15	21	37	21	27	15	7	4	6	12	5	9	13	16	36.7
27-Apr	32	65	62	12	10	11	31	5	24	54	22	19	17	10	47	13	15	41	9	10	17	8	9	13	64.8
28-Apr	18	9	6	6	5	3	3	4	6	16	13	13	14	16	21	17	30	9	9	11	7	6	7	6	30.3
29-Apr	6	6	6	7	10	10	7	10	9	11	29	30	17	22	31	34	27	27	16	11	16	8	5	7	33.8
30-Apr	4	3	4	35	27	4	3	3	5	7	10	13	12	16	12	8	5	13	3	7	18	19	7	17	35.4
	71.5	64.8	68.3	87.5	82.7	56.4	82.9	90.6	24.5	75.5	42.0	74.4	83.4	61.2	69.1	48.7	42.0	73.8	33.9	67.8	72.2	72.6	57.0	47.0	

PAZA

Portable – Rycroft Station

Monthly Summary Tables, Graphs and
Roses

Hourly Averages

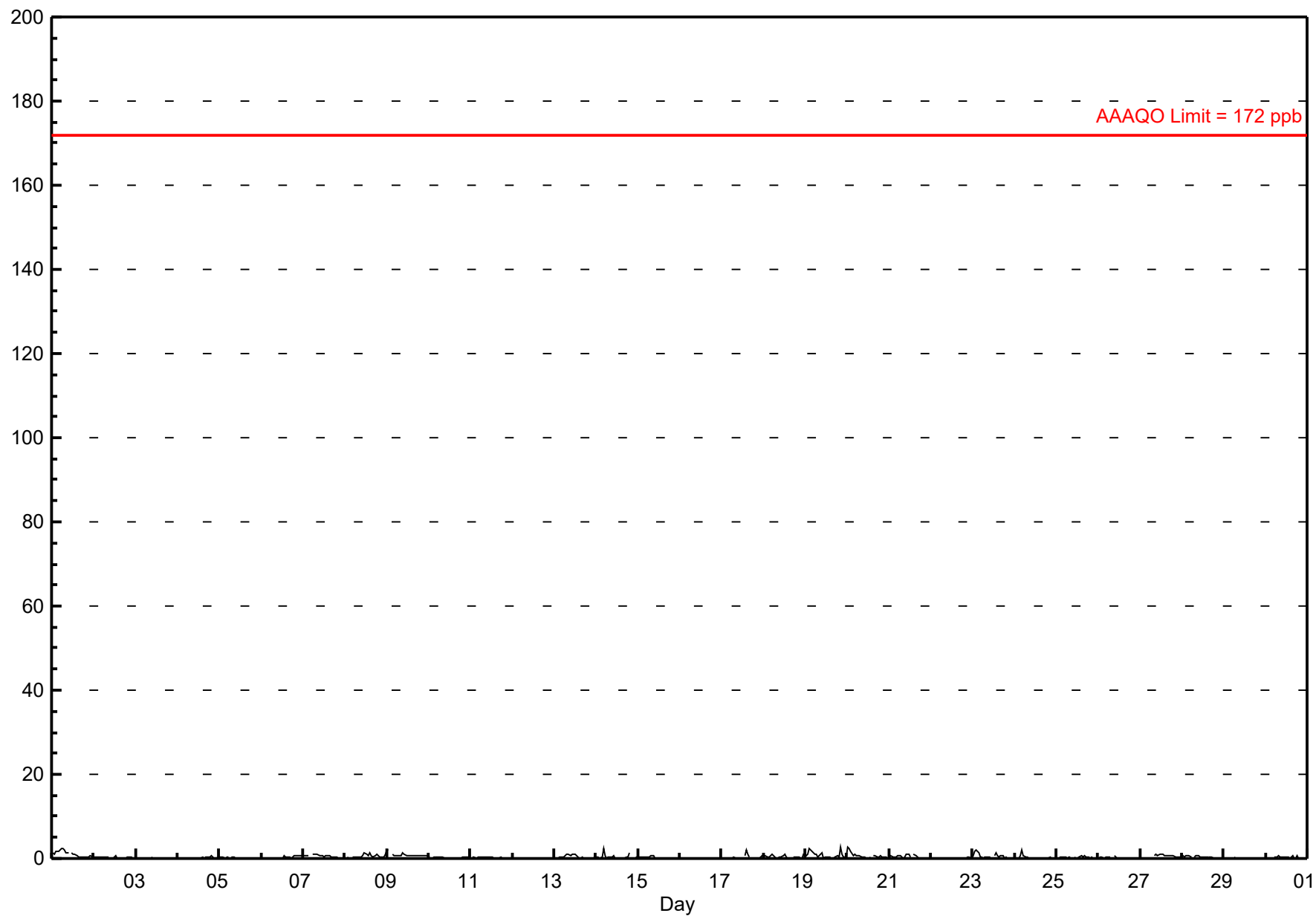
Sulphur Dioxide (SO₂) - ppb

Portable Rycroft - April 2018

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 2.7 ppb on Apr 19 21:00 Maximum Daily Average: 1.1 ppb on Apr 1																				Hours in Service: 720 Hours of Data: 685 Hours of Missing Data: 35 Hours of Calibration: 35 Percent Operational Time: 100.0						
Minimum Value: 0 ppb on Apr 4 02:00 Maximum Diurnal Average: 0.5 ppb at hour 5 Monthly Average: 0.34 ppb										Minimum Daily Average: 0.0 ppb on Apr 16 Minimum Diurnal Average: 0.2 ppb at hour 23 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.2 Q ₃ = 0.5 P ₉₀ = 0.8 P ₉₉ = 2.1																
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	1	1	2	2	2	2	2	2	1	1	A	1	1	1	1	0	0	0	0	0	0	0	1	0	1.1	2.5
2-Apr	0	0	0	0	0	0	0	0	0	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
3-Apr	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
4-Apr	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.2	0.6
5-Apr	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
6-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	1	1	0.2	0.6
7-Apr	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0.5	1.0
8-Apr	0	0	0	A	0	0	0	0	0	0	1	1	1	1	1	1	0	1	1	1	0	0	1	1	0.5	1.5
9-Apr	2	2	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	2.1
10-Apr	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
11-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.2	0.5
12-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.0	0.1
13-Apr	0	0	0	0	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	A	0	0	0.4	1.1
14-Apr	0	0	0	0	2	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	A	0	0	0	0.4	2.3
15-Apr	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.2	0.7
16-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.0	0.0
17-Apr	0	0	0	0	0	0	0	0	0	C	C	C	C	1	2	1	0	A	0	0	0	0	0	1	0.3	2.0
18-Apr	0	1	0	0	1	1	0	0	0	0	0	1	1	0	0	0	A	0	0	0	0	0	0	1	0.4	1.1
19-Apr	1	1	2	2	2	1	1	0	1	1	0	0	0	0	0	A	0	0	1	0	3	1	0	0	0.8	2.7
20-Apr	3	3	2	1	1	1	1	1	0	0	0	0	0	0	A	1	1	0	0	1	0	0	0	0	0.7	2.6
21-Apr	0	1	0	0	0	1	1	0	0	0	1	1	0	A	1	1	0	0	0	0	0	0	0	0	0.3	1.1
22-Apr	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
23-Apr	1	2	2	1	0	0	0	0	0	0	0	A	1	1	1	0	1	1	0	0	0	0	0	0	0.5	2.1
24-Apr	0	0	0	1	2	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	2.0
25-Apr	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	0	1	0	0	0	0	0	0	0	0.3	0.8
26-Apr	0	0	0	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
27-Apr	0	0	0	0	0	0	0	A	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0.5	1.1
28-Apr	1	0	1	1	1	0	A	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
29-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
30-Apr	0	0	0	0	A	0	0	1	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0.2	0.7
0.4 0.4 0.4 0.4 0.5 0.5 0.4 0.4 0.4 0.4 0.3 0.4 0.3 0.3 0.4 0.3 0.2 0.2 0.2 0.3 0.3 0.2 0.2 0.2																									Diurnal Average	
2.6 2.5 2.3 2.1 2.3 2.2 2.5 2.0 1.5 1.4 1.1 1.5 1.1 1.4 2.0 1.1 0.8 0.8 0.9 1.5 2.7 1.0 0.7 1.1																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb																										

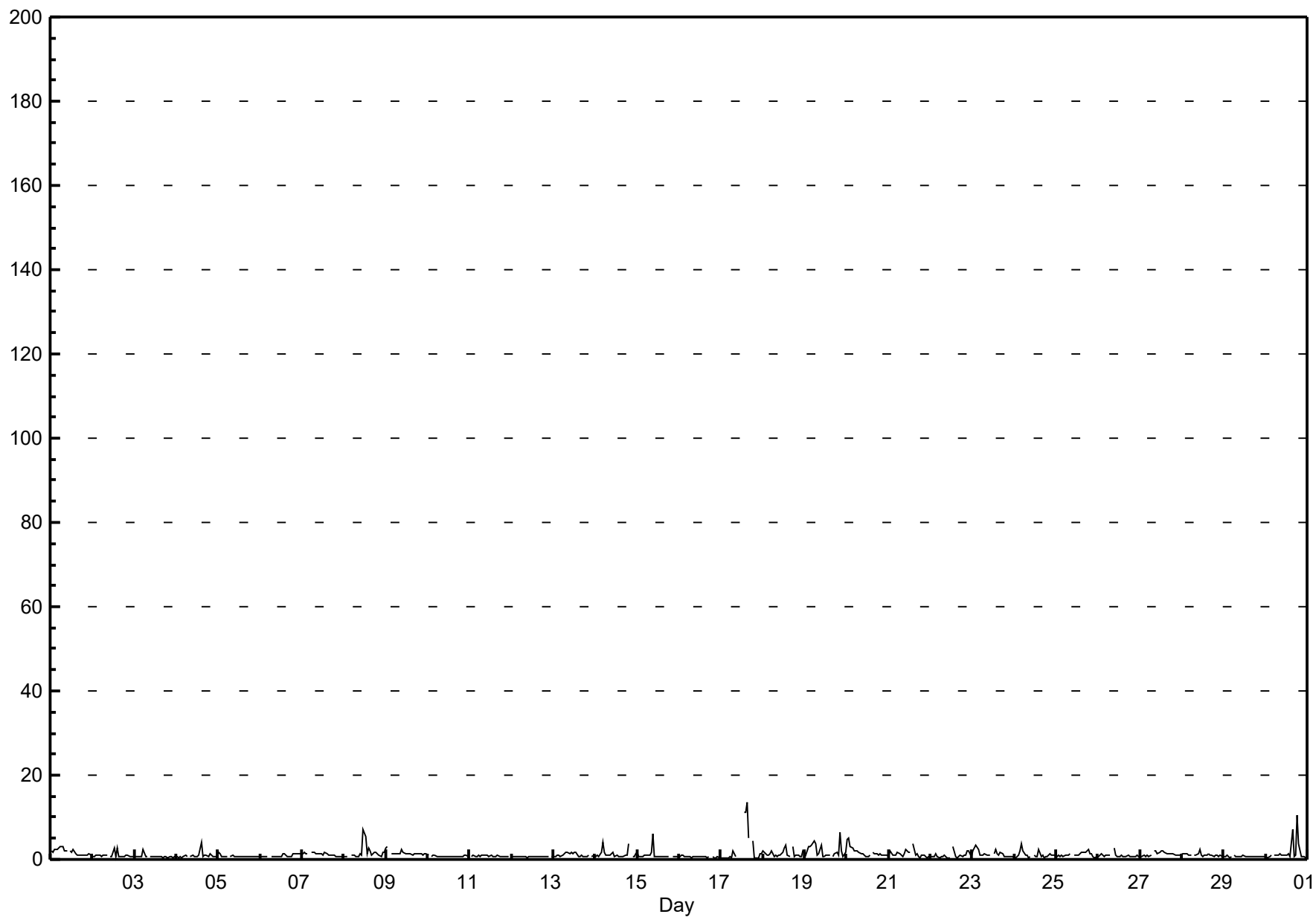
Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Portable Rycroft - April 2018



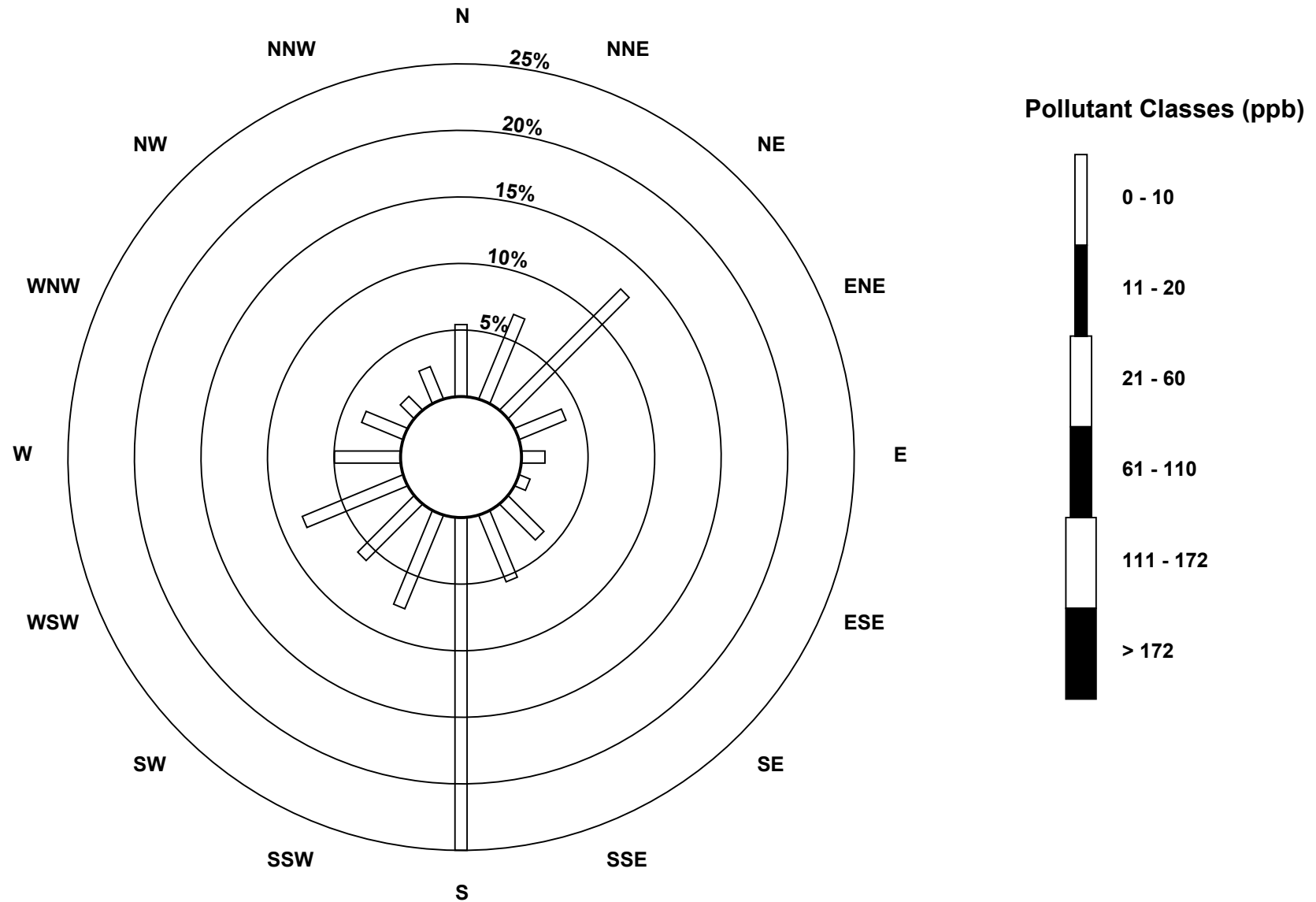
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Portable Rycroft - April 2018



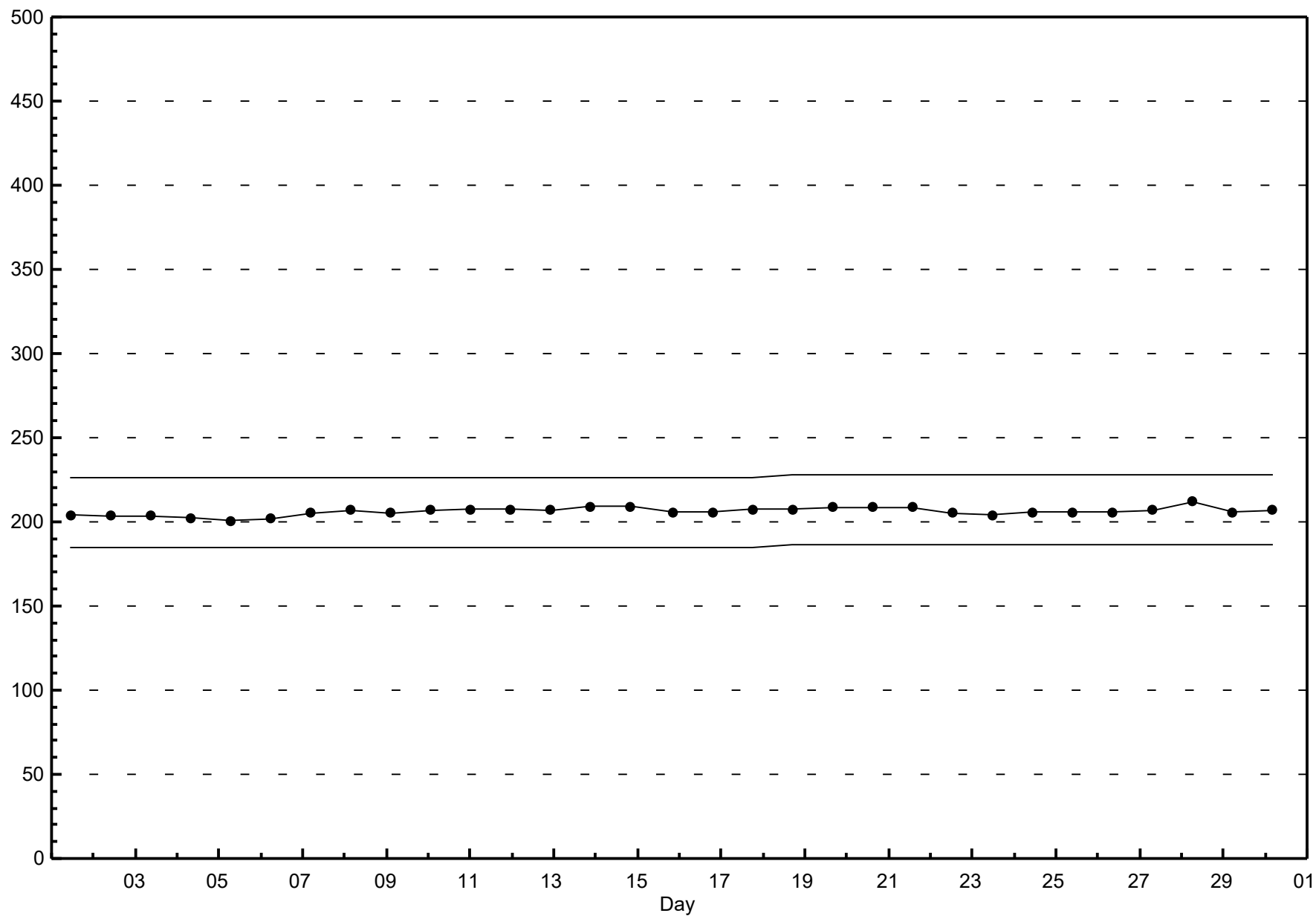
Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Portable Rycroft - April 2018



Span Responses

Sulphur Dioxide (SO₂)
Portable Rycroft - April 2018



Hourly Averages

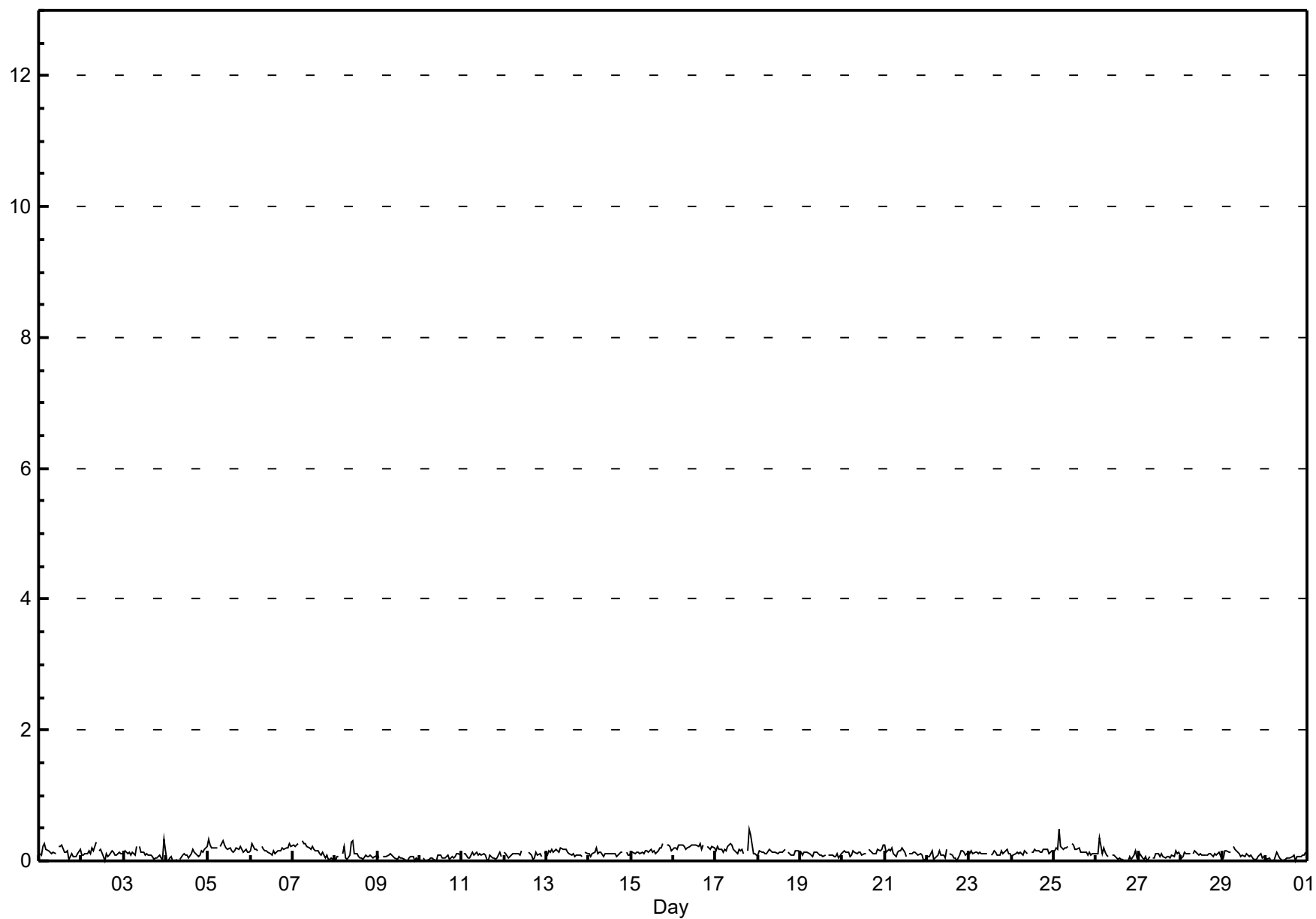
Total Reduced Sulphur (TRS) - ppb

Portable Rycroft - April 2018

Maximum Value: 12.6 ppb on Apr 12 13:00																			Maximum Daily Average: 0.7 ppb on Apr 12						Hours in Service: 720	
Minimum Value: 0 ppb on Apr 2 14:00																			Minimum Daily Average: 0.1 ppb on Apr 9						Hours of Data: 687	
Maximum Diurnal Average: 0.5 ppb at hour 13																			Minimum Diurnal Average: 0.1 ppb at hour 18						Hours of Missing Data: 33	
Monthly Average: 0.14 ppb																			Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 0.2 P ₉₉ = 0.3						Hours of Calibration: 33	
																			Percent Operational Time: 100.0							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
2-Apr	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
3-Apr	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
4-Apr	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
5-Apr	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
6-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
7-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
8-Apr	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
9-Apr	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
10-Apr	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
11-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.1	0.1
12-Apr	0	0	0	0	0	0	0	0	0	0	0	C	13	C	0	0	0	0	0	0	0	0	A	0	0.7	12.6
13-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.2
14-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	0.2
15-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.2	0.3
16-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.2	0.3
17-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.2	0.5
18-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.1	0.2
19-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.1	0.1
20-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.1	0.3
21-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.1	0.3
22-Apr	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
23-Apr	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
24-Apr	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
25-Apr	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
26-Apr	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
27-Apr	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
28-Apr	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
29-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
30-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
																									Diurnal Average	
																									Diurnal Maximum	
C - Calibration																									A - Automated Daily Zero Span	

Hourly Averages

Total Reduced Sulphur (TRS) - ppb
Portable Rycroft - April 2018

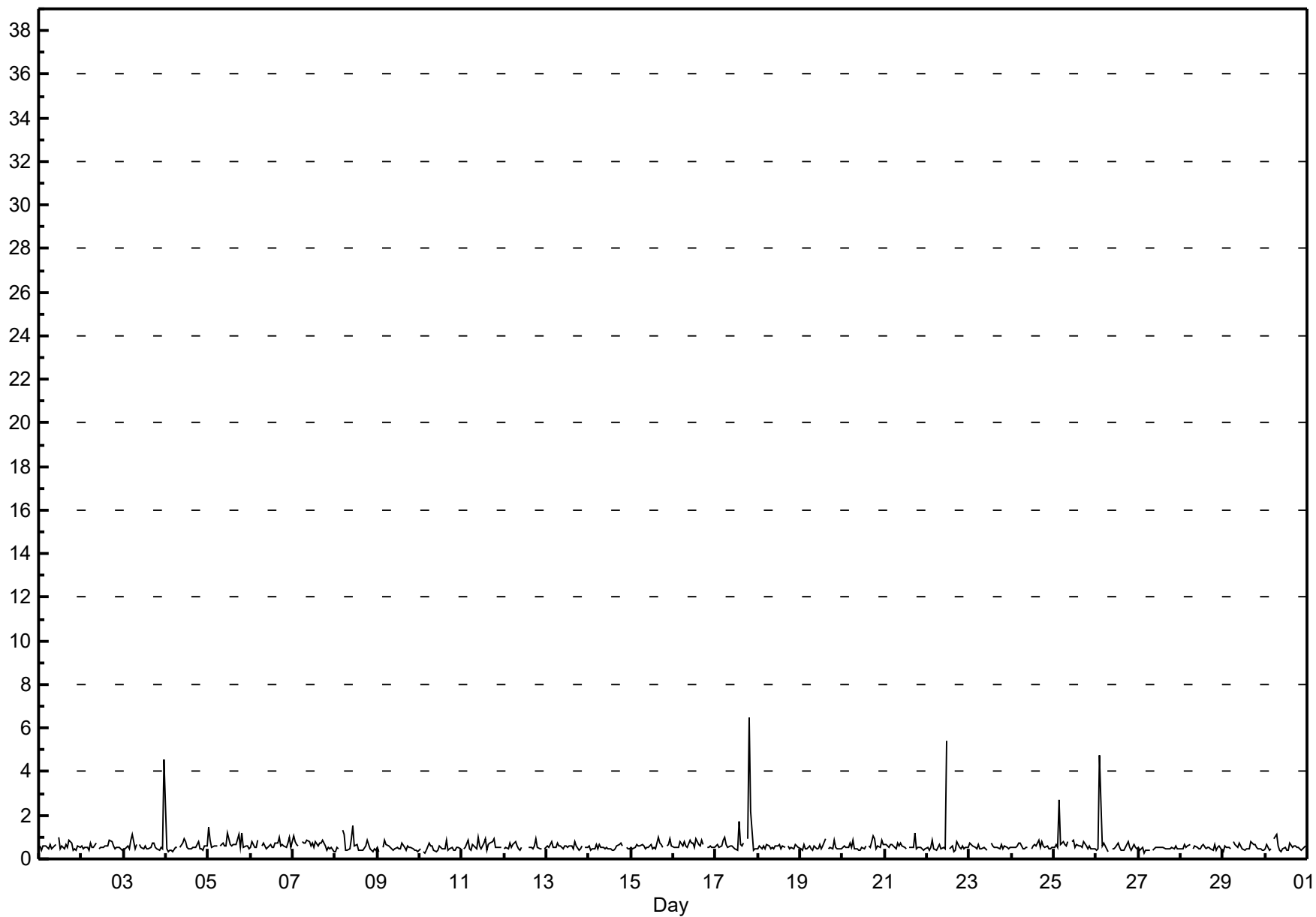


Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

Portable Rycroft - April 2018

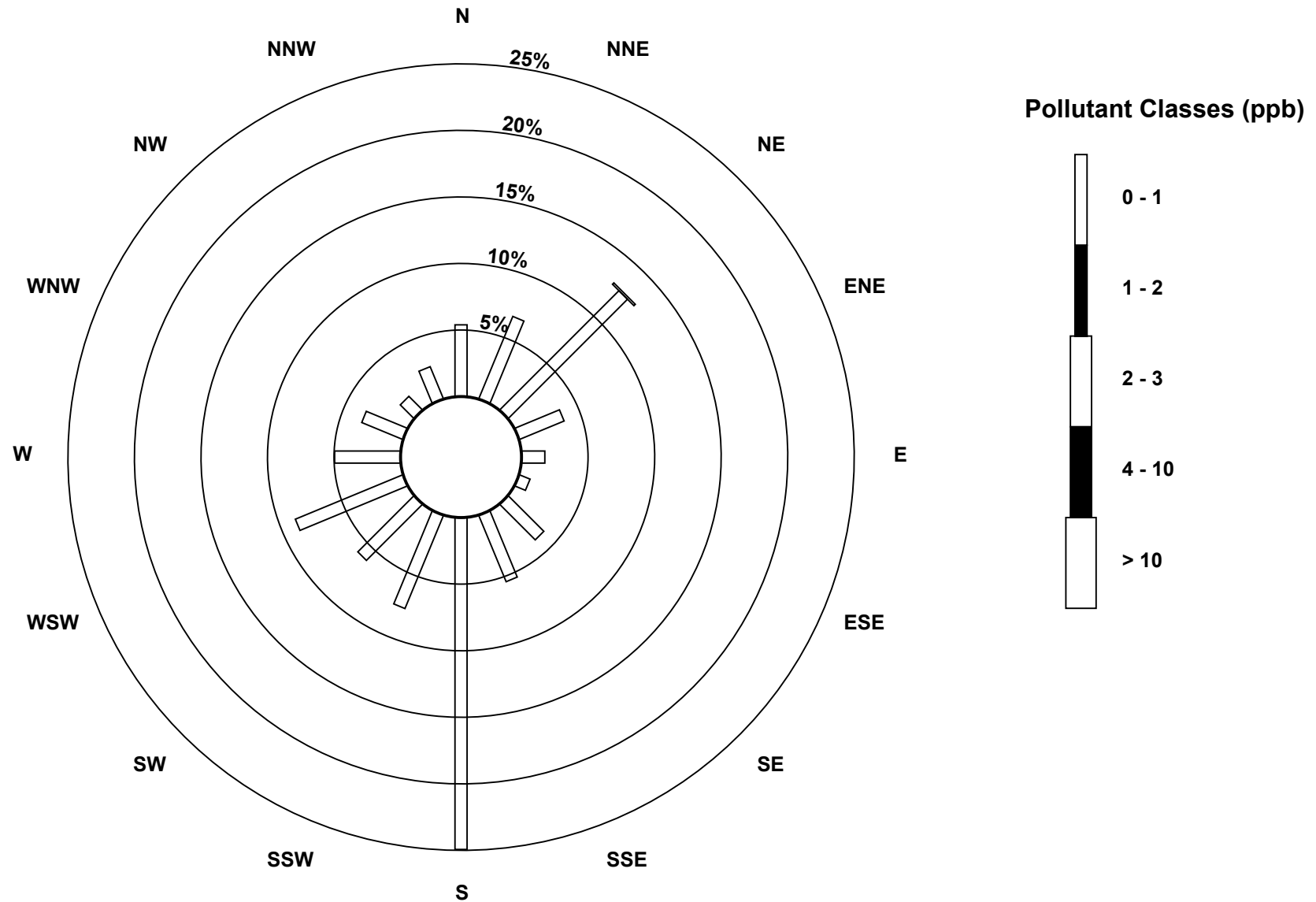
Maximum Value: 38.6 ppb on Apr 12 13:00																				Maximum Daily Average: 2.4 ppb on Apr 12					Hours in Service: 720	
Minimum Value: 0 ppb on Apr 27 04:00																				Minimum Daily Average: 0.5 ppb on Apr 27					Hours of Data: 687	
Maximum Diurnal Average: 1.8 ppb at hour 13																				Minimum Diurnal Average: 0.5 ppb at hour 22					Hours of Missing Data: 33	
Monthly Average: 0.66 ppb																				Percentiles: P ₁ = 0.3 P ₁₀ = 0.4 Q ₁ = 0.5 Median = 0.5 Q ₃ = 0.6 P ₉₀ = 0.8 P ₉₉ = 1.8					Hours of Calibration: 33	
																				Percent Operational Time: 100.0						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	1	0	1	1	1	0	1	0	1	1	A	1	0	1	0	1	1	1	1	0	0	0	1	1	0.6	1.0
2-Apr	1	0	1	1	0	1	1	1	1	1	A	0	0	1	1	1	1	1	1	0	1	1	0	0	0.6	0.8
3-Apr	0	0	1	0	1	1	0	1	A	1	1	1	0	1	0	1	1	1	0	0	0	1	0	5	0.7	4.6
4-Apr	0	0	0	0	0	1	1	A	1	1	1	1	0	0	0	1	1	1	1	0	0	0	1	1	0.5	0.9
5-Apr	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0.7	1.5
6-Apr	0	1	1	1	1	A	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	1.0
7-Apr	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	1	0	0.7	1.1
8-Apr	0	1	0	A	1	1	0	0	0	1	1	1	1	0	0	0	0	1	1	1	0	0	0	0	0.6	1.5
9-Apr	1	0	A	1	1	1	1	1	0	0	0	1	0	0	1	1	0	1	1	1	0	0	0	0	0.5	0.9
10-Apr	0	A	0	0	0	1	1	1	0	0	0	1	1	0	0	1	0	0	1	0	0	1	1	0	0.5	0.9
11-Apr	A	0	1	1	0	0	1	1	0	1	1	0	1	1	0	1	1	1	1	1	1	1	1	A	0.6	1.0
12-Apr	0	1	0	1	1	1	1	1	0	0	0	C	39	C	1	1	0	1	1	0	0	0	A	0	2.4	38.6
13-Apr	1	0	1	1	1	1	1	1	1	0	1	1	1	1	1	0	1	1	0	0	1	A	1	1	0.6	0.8
14-Apr	1	0	0	0	1	0	1	1	0	0	1	0	0	0	0	0	1	1	1	1	A	1	0	0	0.5	0.8
15-Apr	1	0	1	1	1	1	1	1	0	1	1	1	0	1	0	1	1	1	1	A	1	1	1	1	0.6	1.0
16-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.6	0.9
17-Apr	1	1	1	1	1	1	1	1	1	1	1	0	0	2	1	1	1	A	1	6	2	0	0	0	1.0	6.5
18-Apr	0	1	0	1	0	1	1	0	1	0	1	1	0	1	1	A	A	1	0	1	0	1	1	1	0.5	0.7
19-Apr	0	0	1	0	0	1	0	0	1	0	0	1	0	1	1	A	0	1	0	1	1	0	0	0	0.5	0.9
20-Apr	1	1	1	1	1	1	1	0	0	0	0	0	0	1	A	1	1	1	1	0	1	1	1	1	0.6	1.0
21-Apr	1	1	1	1	1	1	0	1	1	1	1	1	0	A	1	1	1	1	0	1	1	0	0	0	0.6	1.2
22-Apr	1	0	1	1	0	0	1	1	0	0	0	5	A	0	1	0	0	1	1	0	1	0	1	1	0.7	5.4
23-Apr	1	1	1	1	0	1	0	0	1	0	0	A	1	1	1	1	1	0	1	0	1	1	0	1	0.5	0.7
24-Apr	1	1	1	1	1	1	0	0	1	1	A	0	1	1	1	1	0	1	1	1	1	0	0	1	0.6	0.8
25-Apr	0	1	1	3	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0	1	0	0	0	0.7	2.7
26-Apr	0	0	5	1	1	1	0	0	A	0	0	1	1	1	0	0	0	1	1	1	0	1	1	0	0.7	4.8
27-Apr	1	0	1	0	0	0	0	A	0	0	1	1	1	1	1	0	0	0	0	1	0	1	0	0	0.5	0.6
28-Apr	0	0	1	1	1	1	A	0	1	1	0	0	1	1	0	1	1	0	0	1	0	1	1	0	0.5	0.7
29-Apr	0	1	1	1	0	A	1	1	1	1	1	0	0	0	0	0	1	1	1	0	0	0	0	0	0.5	0.8
30-Apr	0	1	0	0	A	1	1	1	0	0	0	1	0	0	1	1	1	1	1	0	0	0	1	1	0.5	1.1
0.6 0.5 0.7 0.6 0.6 0.7 0.6 0.6 0.5 0.6 0.6 0.8 1.8 0.6 0.6 0.6 0.6 0.7 0.6 0.8 0.6 0.5 0.5 0.6																								Diurnal Average		
1.5 0.9 4.8 2.7 1.3 1.1 1.1 0.7 0.9 1.0 1.5 5.4 38.6 1.7 0.9 1.0 1.0 1.2 0.9 6.5 2.2 0.7 1.0 4.6																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										



Pollutant Rose

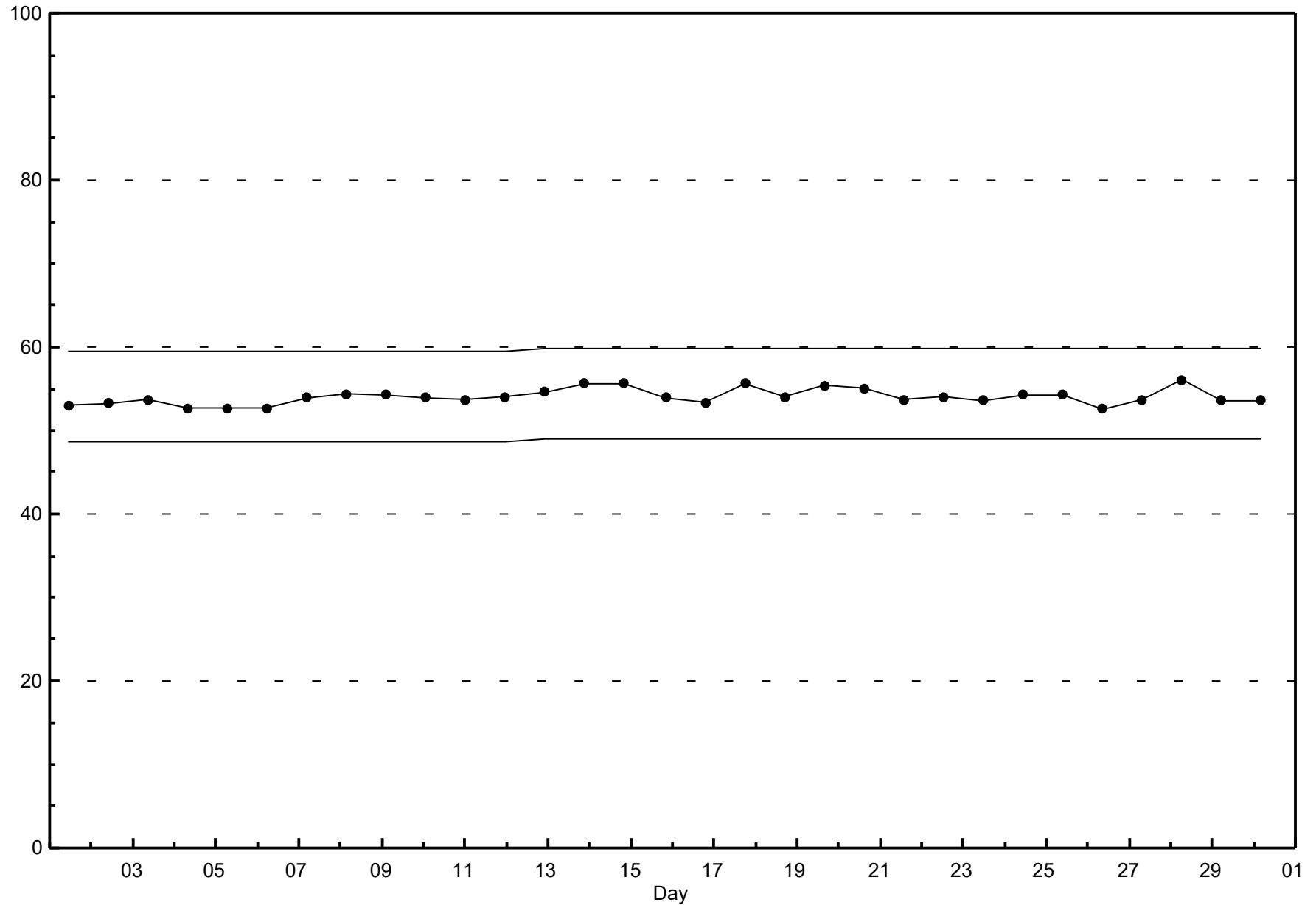
Total Reduced Sulphur (TRS) - ppb

Portable Rycroft - April 2018



Span Responses

Total Reduced Sulphur (TRS)
Portable Rycroft - April 2018



Hourly Averages

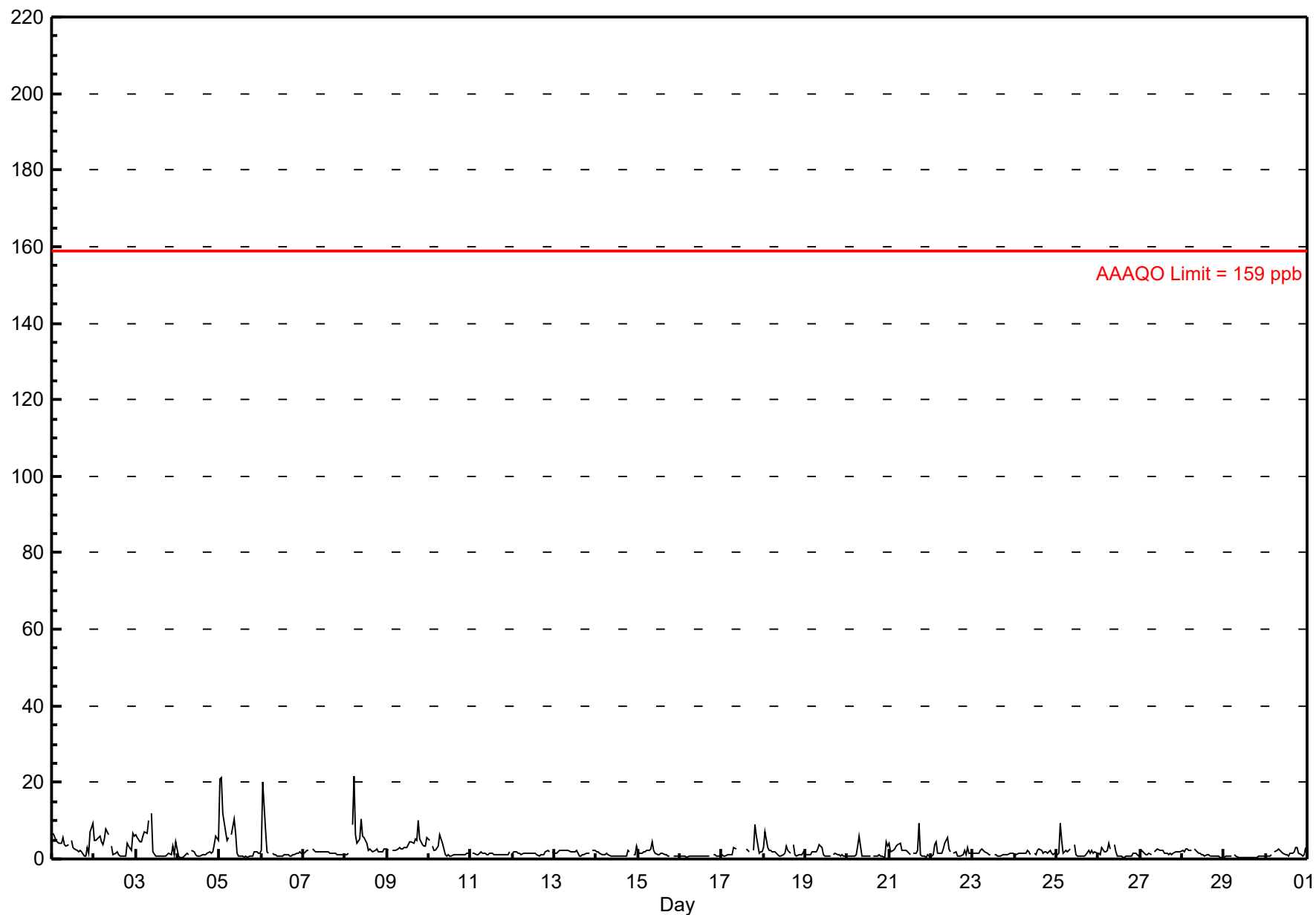
Nitrogen Dioxide (NO₂) - ppb

Portable Rycroft - April 2018

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 21.6 ppb on Apr 8 06:00 Maximum Daily Average: 4.7 ppb on Apr 5																								Hours in Service: 720 Hours of Data: 684 Hours of Missing Data: 36 Hours of Calibration: 36 Percent Operational Time: 100.0		
Minimum Value: 0 ppb on Apr 29 01:00 Minimum Daily Average: 0.6 ppb on Apr 29 Maximum Diurnal Average: 3.3 ppb at hour 2 Minimum Diurnal Average: 1.2 ppb at hour 16 Monthly Average: 2.10 ppb Percentiles: P ₁ = 0.5 P ₁₀ = 0.7 Q ₁ = 0.9 Median = 1.4 Q ₃ = 2.3 P ₉₀ = 4.3 P ₉₉ = 10.3																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	7	6	5	4	4	4	6	4	3	4	A	5	3	3	2	2	2	2	1	1	3	1	7	9	3.8	9.2
2-Apr	5	5	5	6	5	4	5	8	6	A	3	1	1	2	1	1	1	1	1	4	3	2	7	6	3.6	8.0
3-Apr	6	6	4	4	6	7	7	10	A	12	2	1	1	1	1	1	1	1	1	1	1	3	1	4	3.5	12.1
4-Apr	1	1	1	0	1	1	1	A	2	2	1	1	1	1	1	1	1	1	2	2	2	4	6	5	1.6	6.1
5-Apr	21	21	12	7	5	6	A	6	10	7	1	1	1	1	0	1	0	1	1	1	2	2	2	2	4.7	21.2
6-Apr	2	20	7	2	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2.3	20.2
7-Apr	2	2	2	2	A	3	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1.7	2.7
8-Apr	1	1	1	A	9	22	6	4	5	10	6	6	4	2	3	2	2	2	3	2	2	2	3	3	4.4	21.6
9-Apr	2	2	A	2	2	2	3	3	2	2	3	3	4	5	4	4	5	5	10	5	4	3	3	5	3.7	9.9
10-Apr	5	A	3	2	2	3	6	5	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2.1	6.4
11-Apr	A	2	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	A	1.3	1.8
12-Apr	2	2	2	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	A	2	1.5	2.1
13-Apr	1	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	A	2	2	1.7	2.4
14-Apr	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	A	1	1	3	1.2	3.2
15-Apr	2	2	2	2	2	2	2	3	4	2	1	1	1	2	1	1	1	1	1	A	1	1	1	1	1.5	4.3
16-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.7	1.2
17-Apr	1	1	1	1	1	1	1	3	3	C	C	C	C	C	3	2	2	A	2	9	6	2	2	2	2.3	9.0
18-Apr	3	7	3	2	2	2	2	1	1	1	1	1	2	3	2	1	A	A	4	1	1	1	1	2	2.0	7.1
19-Apr	1	1	1	1	2	2	2	2	4	3	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1.4	3.7
20-Apr	1	1	1	1	1	1	3	6	1	1	1	1	1	1	A	1	1	1	1	1	1	1	4	3	1.3	5.8
21-Apr	4	2	2	3	3	4	4	2	2	2	2	1	1	A	2	1	2	10	1	1	1	0	1	1	2.3	9.5
22-Apr	1	1	4	4	1	1	1	2	4	6	2	2	A	2	2	1	1	1	1	2	1	3	2	1	2.0	5.6
23-Apr	2	1	2	2	2	3	2	2	2	1	1	A	1	1	1	1	1	1	1	1	1	1	2	1	1.4	2.5
24-Apr	1	1	1	2	1	1	2	2	2	1	A	2	1	2	3	2	1	2	2	2	2	1	1	1	1.6	2.5
25-Apr	1	1	9	5	2	2	2	2	3	A	4	1	1	1	1	1	1	1	2	2	2	1	2	2	2.0	9.3
26-Apr	1	1	3	2	2	2	4	3	A	4	2	1	1	1	1	1	1	1	1	1	1	2	1	1	1.6	4.0
27-Apr	1	2	1	1	1	1	1	A	2	2	3	2	2	2	2	1	1	1	1	1	2	2	2	2	1.7	2.7
28-Apr	2	2	3	3	2	2	A	3	2	2	2	1	1	1	1	1	1	1	1	1	1	1	0	0	1.4	2.8
29-Apr	0	1	1	1	1	A	1	1	0	0	1	0	0	1	1	0	1	1	1	1	1	1	1	1	0.6	1.0
30-Apr	1	1	1	1	A	2	2	3	2	2	1	1	1	1	2	2	2	3	3	2	1	1	1	3	1.6	2.9
2.8 3.3 2.8 2.3 2.4 3.1 2.7 3.0 2.7 2.7 1.8 1.5 1.3 1.4 1.4 1.2 1.3 1.7 1.6 1.8 1.7 1.5 2.1 2.4																								Diurnal Average		
20.7 21.2 12.0 7.1 8.8 21.6 6.7 10.1 10.3 12.1 6.1 5.6 4.1 4.6 4.4 4.1 5.3 9.5 9.9 9.0 5.9 3.7 7.1 9.2																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb 24-hr 106 ppb																										

Hourly Averages

Nitrogen Dioxide (NO₂) - ppb
Portable Rycroft - April 2018



Hourly Maximums

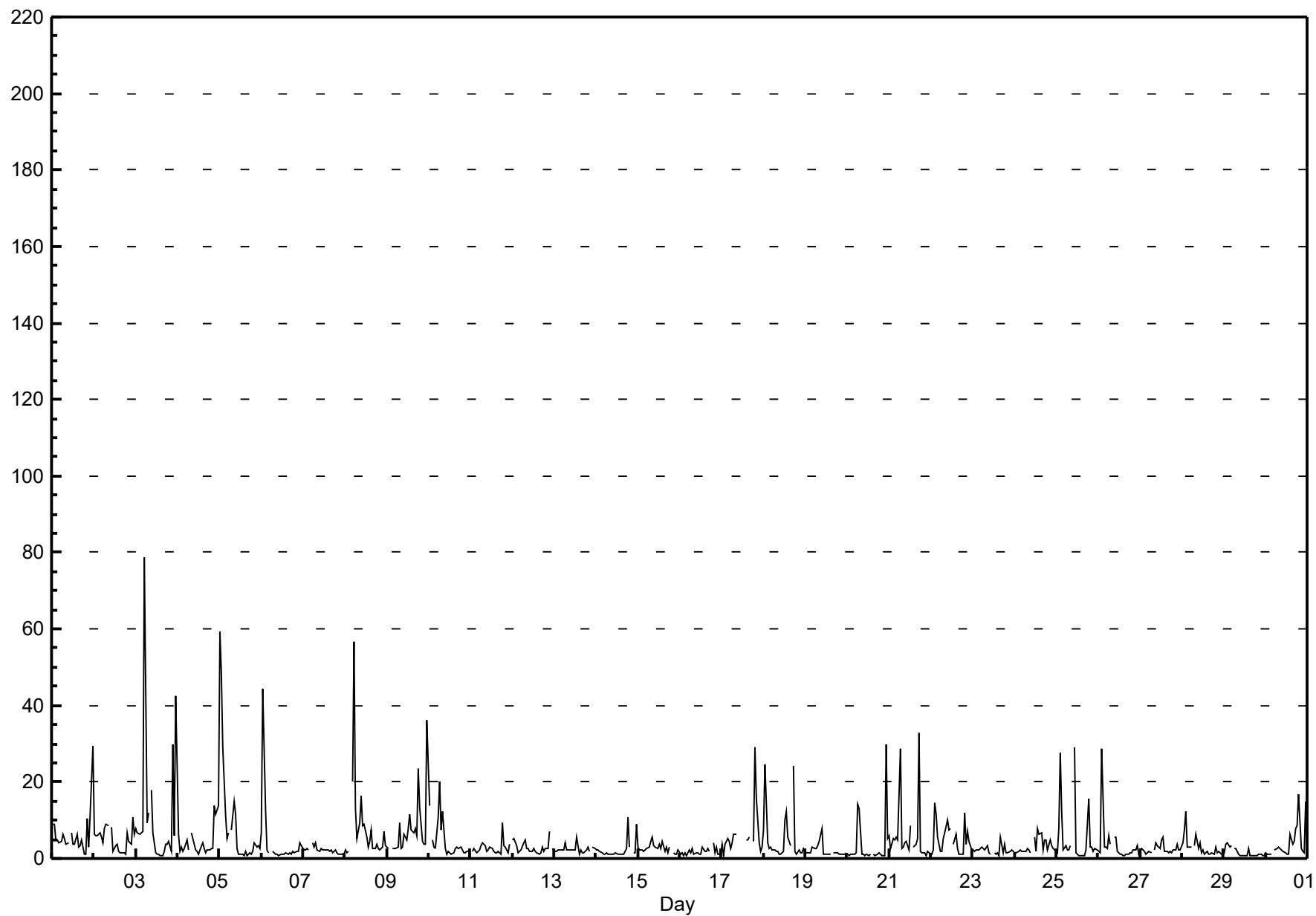
Nitrogen Dioxide (NO₂) - ppb

Portable Rycroft - April 2018

Maximum Value: 78.7 ppb on Apr 3 06:00																				Maximum Daily Average: 11.2 ppb on Apr 3										Hours in Service: 720	
Minimum Value: 1 ppb on Apr 29 16:00																				Minimum Daily Average: 1.5 ppb on Apr 29										Hours of Data: 684	
Maximum Diurnal Average: 7.9 ppb at hour 6																				Minimum Diurnal Average: 2.4 ppb at hour 17										Hours of Missing Data: 36	
Monthly Average: 4.37 ppb																				Percentiles: P ₁ = 0.7 P ₁₀ = 1.1 Q ₁ = 1.5 Median = 2.4 Q ₃ = 4.3 P ₉₀ = 8.4 P ₉₉ = 33.5										Hours of Calibration: 36	
																				Percent Operational Time: 100.0											
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
1-Apr	9	9	5	5	4	5	6	5	4	4	A	7	4	4	6	3	3	5	1	1	10	3	11	30	6.3	29.5					
2-Apr	6	6	6	7	6	4	8	9	8	A	8	2	3	4	2	2	1	1	1	7	4	4	11	6	5.1	10.7					
3-Apr	8	7	6	7	7	79	9	12	A	18	7	1	1	1	1	1	2	4	4	4	2	30	6	42	11.2	78.7					
4-Apr	6	2	3	2	2	5	2	A	7	4	2	2	1	2	4	3	2	2	2	3	2	14	12	14	4.2	13.8					
5-Apr	59	48	29	11	5	7	A	7	15	12	2	1	1	1	1	2	1	2	1	2	4	3	4	2	9.6	59.1					
6-Apr	7	44	13	2	2	A	2	2	1	1	1	1	1	1	1	1	1	1	2	2	2	2	4	3	4.3	44.4					
7-Apr	2	2	3	2	A	4	3	4	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	2.2	4.3					
8-Apr	2	1	2	A	20	57	13	5	9	16	9	9	5	3	5	7	2	3	4	3	2	3	7	3	8.3	56.7					
9-Apr	3	3	A	3	3	3	3	9	3	3	6	5	8	11	7	7	8	6	24	13	4	4	4	36	7.6	36.3					
10-Apr	14	A	5	3	3	11	20	7	12	2	1	2	2	1	1	3	3	3	3	2	1	1	2	2	4.5	20.2					
11-Apr	A	2	2	1	2	2	4	4	3	2	2	3	3	2	2	2	2	1	9	3	3	1	4	A	2.7	9.2					
12-Apr	5	5	3	2	2	2	4	5	3	3	2	2	2	2	1	1	1	3	2	3	3	7	A	3	2.8	6.9					
13-Apr	2	2	2	2	2	2	4	2	2	2	2	2	2	6	1	2	1	1	2	3	2	A	3	3	2.4	5.7					
14-Apr	2	2	2	2	1	1	2	1	1	1	1	1	1	1	1	1	1	3	11	3	A	2	2	9	2.2	10.7					
15-Apr	3	2	2	2	2	3	3	4	6	3	3	3	4	3	4	2	3	2	3	A	1	1	1	2	2.7	5.5					
16-Apr	1	1	1	1	1	2	2	2	1	2	2	1	1	3	2	2	2	2	A	4	2	3	1	1	1.8	4.1					
17-Apr	4	1	4	5	5	3	4	6	6	C	C	C	C	C	5	5	5	A	4	29	16	4	2	3	6.2	28.9					
18-Apr	7	25	4	3	3	2	2	2	2	1	1	2	10	12	6	3	A	24	2	1	2	2	2	3	5.2	24.6					
19-Apr	2	1	1	1	3	3	3	3	4	8	1	1	1	1	1	A	2	2	2	1	1	1	1	1	2.0	7.8					
20-Apr	1	1	1	1	1	2	14	13	1	1	1	1	1	1	A	1	1	1	1	1	1	1	30	5	3.6	29.7					
21-Apr	6	3	5	5	6	5	29	3	3	4	4	2	9	A	3	4	5	33	2	2	2	1	2	2	5.9	32.9					
22-Apr	1	2	14	12	6	2	2	5	7	10	7	8	A	4	6	3	1	1	1	12	4	7	4	2	5.3	14.4					
23-Apr	2	2	2	2	3	3	3	2	4	2	1	A	1	1	1	1	5	1	4	1	1	2	2	2	2.2	5.4					
24-Apr	1	1	2	2	2	2	2	3	2	1	A	5	2	8	6	7	2	5	5	2	5	3	3	2	3.2	7.8					
25-Apr	2	8	27	12	2	3	2	2	3	A	29	2	1	1	1	1	1	2	16	3	3	2	3	2	5.5	29.1					
26-Apr	2	2	29	3	3	3	6	4	A	6	5	2	1	1	1	1	1	1	2	1	2	2	3	1	3.5	28.6					
27-Apr	2	3	2	1	1	2	2	A	2	4	3	3	5	6	2	2	2	2	1	2	2	4	2	2	2.5	5.5					
28-Apr	4	7	12	3	3	3	A	3	6	3	4	1	2	1	2	1	1	1	1	3	2	2	1	1	3.0	12.3					
29-Apr	2	4	4	3	3	A	2	2	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1.5	4.1					
30-Apr	1	1	1	1	A	2	3	3	3	2	2	2	1	1	6	4	4	8	8	17	3	2	2	15	4.0	16.9					
5.7 6.8 6.7 3.7 3.7 7.9 5.6 4.7 4.4 4.3 4.1 2.6 2.7 3.0 2.9 2.5 2.4 4.2 4.2 4.5 3.1 3.9 4.4 6.9																									Diurnal Average						
59.1 48.3 29.1 12.2 20.3 78.7 28.6 13.0 15.1 17.8 29.1 9.0 9.9 12.4 7.3 7.3 7.9 32.9 23.7 28.9 15.7 29.8 29.7 42.4																									Diurnal Maximum						
C - Calibration																									A - Automated Daily Zero Span						

Hourly Maximums

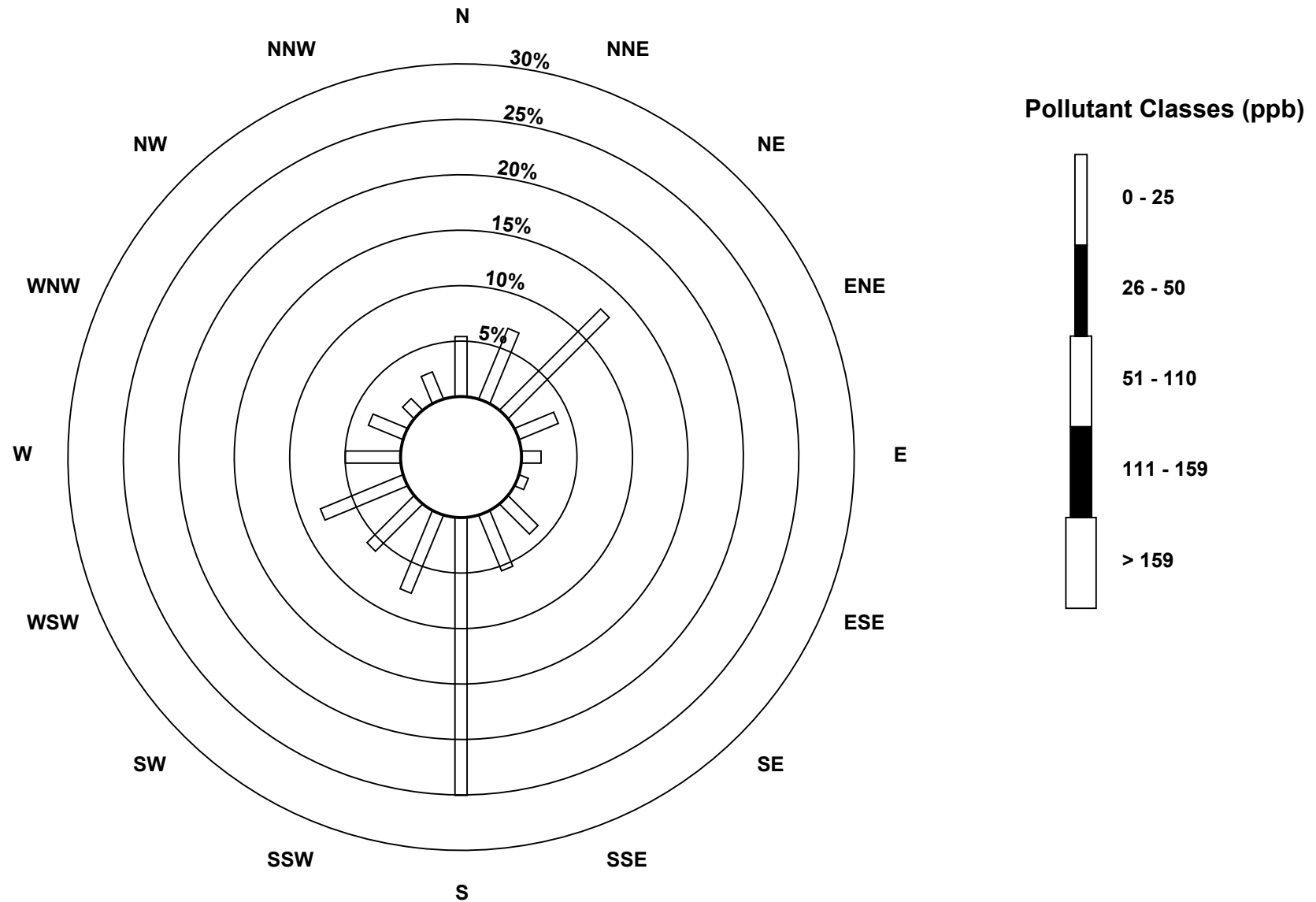
Nitrogen Dioxide (NO₂) - ppb
Portable Rycroft - April 2018



Pollutant Rose

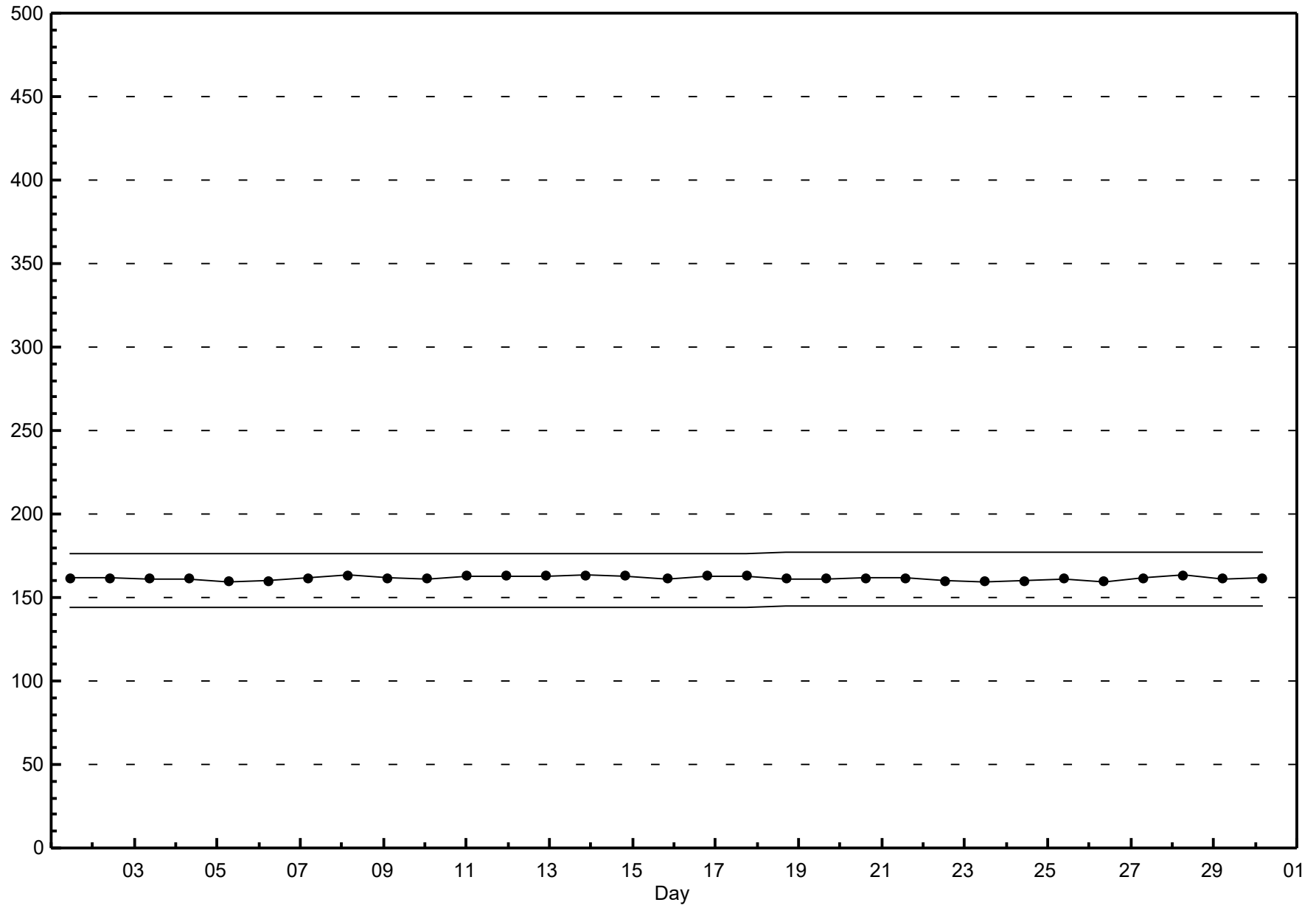
Nitrogen Dioxide (NO₂) - ppb

Portable Rycroft - April 2018



Span Responses

Nitrogen Dioxide (NO₂)
Portable Rycroft - April 2018



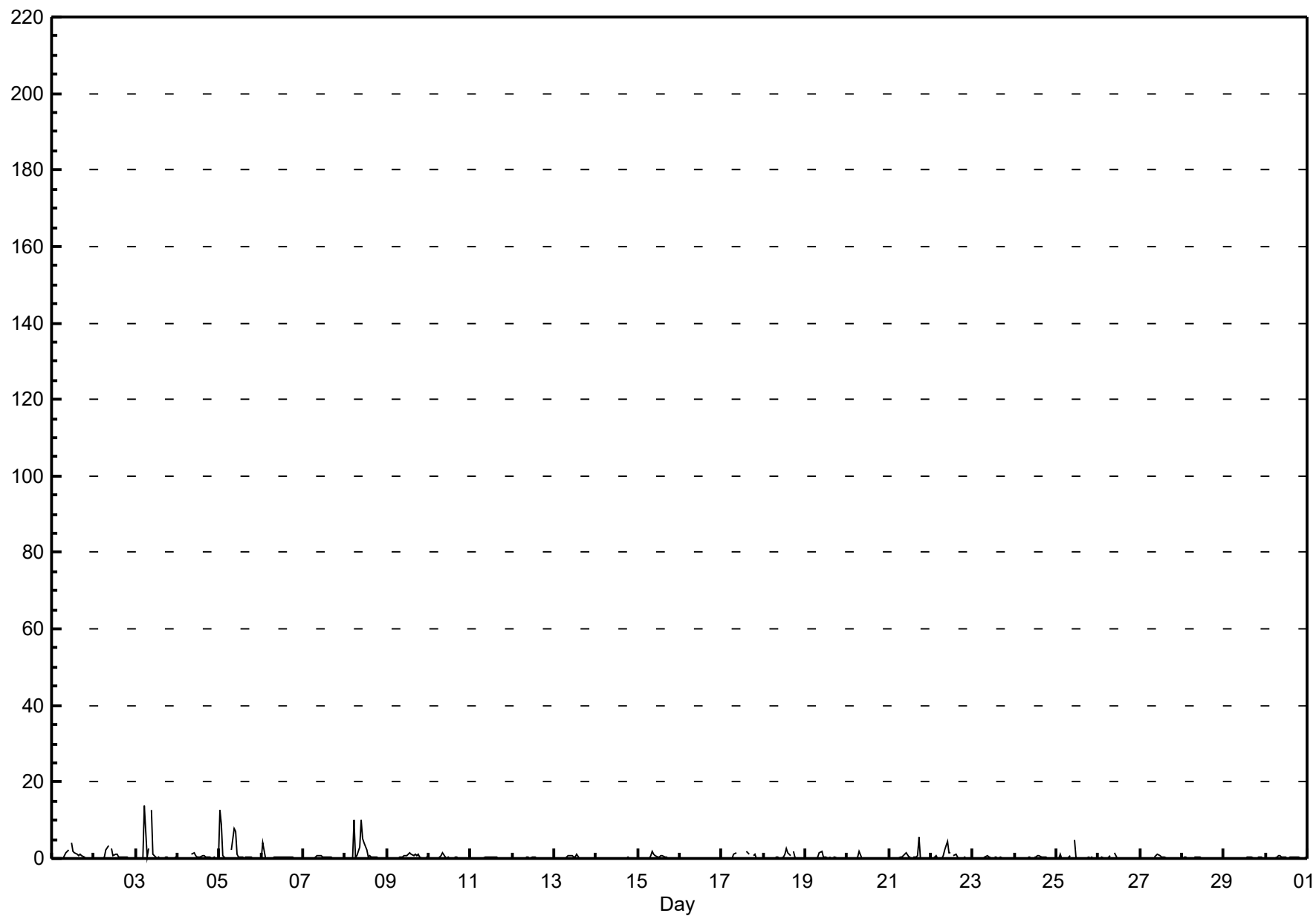
Hourly Averages

Nitrogen Oxide (NO) - ppb
Portable Rycroft - April 2018

Maximum Value: 13.8 ppb on Apr 3 06:00																				Maximum Daily Average: 1.9 ppb on Apr 5					Hours in Service: 720	
Minimum Value: 0 ppb on Apr 1 04:00																				Minimum Daily Average: 0.0 ppb on Apr 16					Hours of Data: 684	
Maximum Diurnal Average: 1.8 ppb at hour 10																				Minimum Diurnal Average: 0.0 ppb at hour 5					Hours of Missing Data: 36	
Monthly Average: 0.44 ppb																				Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.3 P ₉₀ = 0.8 P ₉₉ = 7.2					Hours of Calibration: 36	
																									Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	0	0	0	0	0	0	0	1	2	2	A	4	2	1	1	1	1	1	0	0	0	0	0	0	0.7	4.2
2-Apr	0	0	0	0	0	0	0	2	3	3	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0.6	3.4
3-Apr	0	0	0	0	0	14	0	3	A	13	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1.4	13.8
4-Apr	0	0	0	0	0	0	0	A	1	1	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0.4	1.4
5-Apr	13	9	1	0	0	0	A	2	8	7	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1.9	12.8
6-Apr	0	4	0	0	0	A	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	4.0
7-Apr	0	0	0	0	A	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
8-Apr	0	0	0	A	0	10	0	1	3	10	5	4	2	0	1	0	0	0	0	0	0	0	0	0	1.7	10.0
9-Apr	0	0	A	0	0	0	0	0	0	0	1	1	1	2	1	1	1	1	1	0	0	0	0	0	0.5	1.7
10-Apr	0	A	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.5
11-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.1	0.3
12-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.1	0.3
13-Apr	0	0	0	0	0	0	0	0	1	1	1	1	0	1	0	0	0	0	0	0	0	A	0	0	0.2	1.0
14-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	0.4
15-Apr	0	0	0	0	0	0	0	1	2	1	1	0	0	1	1	0	0	0	0	A	0	0	0	0	0.3	1.9
16-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.0	0.1
17-Apr	0	0	0	0	0	0	0	1	1	C	C	C	C	C	2	1	1	A	1	1	0	0	0	0	0.5	1.8
18-Apr	0	0	0	0	0	0	0	0	0	0	0	1	3	2	2	1	A	2	0	0	0	0	0	0	0.4	2.6
19-Apr	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.3	1.8
20-Apr	0	0	0	0	0	0	0	2	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.2	1.9
21-Apr	0	0	0	0	0	0	1	0	1	1	1	1	0	A	0	0	1	6	0	0	0	0	0	0	0.5	5.6
22-Apr	0	0	1	1	0	0	0	1	2	4	2	1	A	1	1	0	0	0	0	0	0	0	0	0	0.6	4.3
23-Apr	0	0	0	0	0	0	0	0	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
24-Apr	0	0	0	0	0	0	0	0	0	0	A	0	0	1	1	1	0	0	0	0	0	0	0	0	0.2	0.8
25-Apr	0	0	1	0	0	0	0	0	1	A	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	4.9
26-Apr	0	0	0	0	0	0	0	1	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.5
27-Apr	0	0	0	0	0	0	0	A	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.3
28-Apr	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
29-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
30-Apr	0	0	0	0	A	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
0.5 0.5 0.1 0.0 0.0 0.9 0.1 0.7 1.2 1.8 1.0 0.7 0.5 0.5 0.5 0.3 0.3 0.5 0.2 0.2 0.1 0.1 0.1 0.1																									Diurnal Average	
12.8 9.0 1.1 0.6 0.2 13.8 0.5 2.7 7.8 12.7 5.2 4.2 2.2 2.6 1.8 1.5 1.2 5.6 1.0 0.9 0.3 0.3 0.2 0.4																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										

Hourly Averages

Nitrogen Oxide (NO) - ppb
Portable Rycroft - April 2018



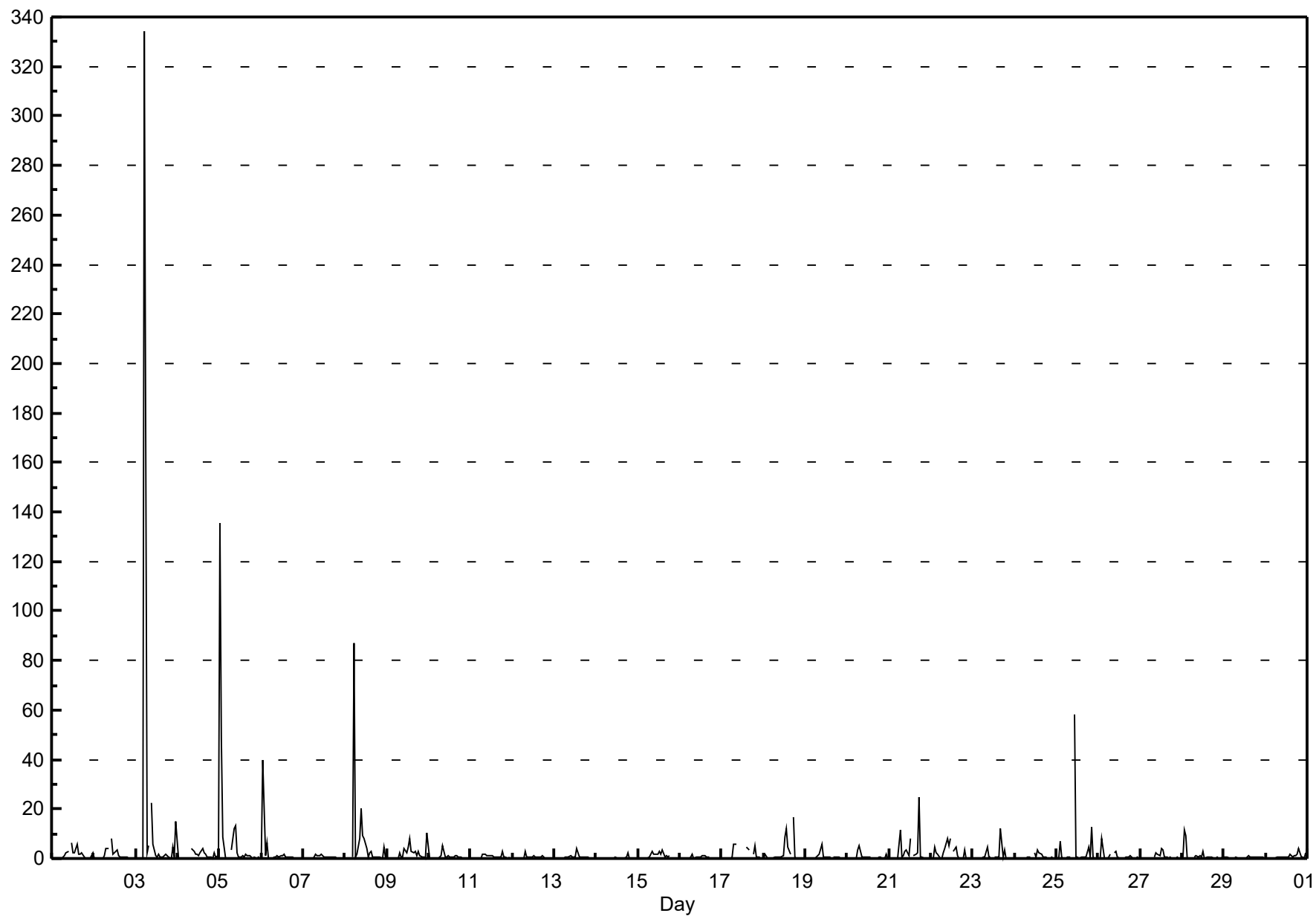
Hourly Maximums

Nitrogen Oxide (NO) - ppb Portable Rycroft - April 2018

Maximum Value: 334.4 ppb on Apr 3 06:00																				Maximum Daily Average: 17.3 ppb on Apr 3					Hours in Service: 720	
Minimum Value: 0 ppb on Apr 15 01:00																				Minimum Daily Average: 0.3 ppb on Apr 14					Hours of Data: 684	
Maximum Diurnal Average: 15.2 ppb at hour 6																				Minimum Diurnal Average: 0.2 ppb at hour 5					Hours of Missing Data: 36	
Monthly Average: 2.26 ppb																				Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.2 Median = 0.3 Q ₃ = 1.0 P ₉₀ = 3.5 P ₉₉ = 23.0					Hours of Calibration: 36	
																									Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	0	0	0	0	0	0	1	1	2	3	A	6	3	3	6	2	2	2	0	0	0	0	0	3	1.5	6.1
2-Apr	0	0	0	0	0	0	1	4	4	A	8	2	3	4	1	1	1	1	0	0	0	0	0	0	1.3	8.1
3-Apr	0	0	0	0	0	334	2	5	A	23	6	1	0	2	0	0	1	2	1	0	0	4	0	15	17.3	334.4
4-Apr	0	0	0	0	0	0	0	A	4	3	2	2	1	2	4	2	2	1	1	0	0	2	1	1	1.3	4.2
5-Apr	136	48	9	0	0	0	A	4	12	13	2	1	1	1	0	2	1	1	0	0	0	0	0	0	10.1	135.5
6-Apr	0	40	1	7	0	A	0	1	1	1	1	1	1	2	1	1	1	0	1	0	0	0	0	0	2.6	39.7
7-Apr	0	0	0	0	A	0	0	2	1	1	2	1	1	1	1	0	1	1	0	0	0	0	0	0	0.6	1.9
8-Apr	0	0	0	A	0	87	0	2	8	20	9	8	4	1	2	3	1	0	1	0	0	0	5	0	6.7	87.2
9-Apr	0	0	A	0	0	0	0	2	0	1	4	2	5	8	3	2	3	1	3	1	0	0	0	10	2.1	10.3
10-Apr	0	A	0	0	0	0	1	1	5	1	0	1	1	0	0	1	1	1	0	0	0	0	0	0	0.7	5.1
11-Apr	A	0	0	0	0	0	0	2	2	1	1	1	1	1	1	0	1	0	3	1	0	0	0	A	0.7	3.0
12-Apr	0	0	0	0	0	0	0	3	0	0	0	1	1	0	0	0	0	1	0	0	0	0	A	0	0.5	3.0
13-Apr	0	0	0	0	0	0	0	1	1	1	1	1	1	4	0	1	0	0	0	1	0	A	0	0	0.6	4.0
14-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	A	0	0	0	0.3	2.4
15-Apr	0	0	0	0	0	0	0	2	3	2	2	2	3	2	3	1	1	0	1	A	0	0	0	0	1.0	3.5
16-Apr	0	0	0	0	0	0	0	2	0	1	1	0	1	1	1	1	1	0	A	0	0	0	0	0	0.5	1.9
17-Apr	0	0	0	0	0	0	1	6	6	C	C	C	C	C	4	4	4	A	2	5	1	1	0	0	1.9	6.0
18-Apr	0	2	0	0	0	0	0	1	1	1	0	1	9	12	5	2	A	17	0	0	0	0	0	0	2.3	16.6
19-Apr	0	0	0	0	0	0	0	1	2	6	1	1	1	0	0	A	0	0	0	0	0	0	0	0	0.6	5.7
20-Apr	0	0	0	0	0	0	4	5	0	0	0	0	0	0	A	0	0	0	0	0	0	0	2	0	0.6	5.5
21-Apr	0	0	0	0	0	0	12	1	1	3	3	1	8	A	1	1	2	25	0	0	0	0	0	0	2.6	24.9
22-Apr	0	0	4	2	2	0	0	2	4	8	5	8	A	3	4	1	0	0	0	3	0	0	0	0	2.2	8.3
23-Apr	0	0	0	0	0	0	0	1	5	1	1	A	0	0	0	0	12	0	4	0	0	0	0	0	1.1	12.0
24-Apr	0	0	0	0	0	0	0	0	0	0	A	2	0	3	2	2	1	1	0	0	0	0	0	0	0.7	3.4
25-Apr	0	1	7	0	0	0	0	1	1	A	58	0	0	0	0	0	0	1	5	0	13	0	0	0	3.9	58.3
26-Apr	0	0	8	0	0	0	1	2	A	2	3	1	0	0	0	0	0	0	1	0	0	0	0	0	0.9	8.0
27-Apr	0	0	0	0	0	0	0	A	1	2	2	1	4	3	0	0	0	0	0	0	0	0	0	0	0.7	3.9
28-Apr	0	12	9	0	0	0	A	1	1	1	1	0	3	0	0	0	0	0	0	0	0	0	0	0	1.4	11.6
29-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.4	1.2
30-Apr	0	0	0	0	A	0	0	1	1	1	0	0	0	0	2	1	1	1	2	4	0	0	0	2	0.8	4.1
4.8 3.7 1.4 0.4 0.2 15.2 1.0 1.8 2.4 3.5 4.2 1.7 1.8 2.0 1.6 1.1 1.3 2.0 1.1 0.7 0.7 0.5 0.4 1.2																									Diurnal Average	
135.5 48.4 9.0 6.6 1.9 334.4 11.5 5.8 12.3 22.6 58.3 7.9 8.5 12.3 5.7 4.2 12.0 24.9 4.6 5.4 12.9 4.5 4.7 15.0																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										

Hourly Maximums

Nitrogen Oxide (NO) - ppb
Portable Rycroft - April 2018



Hourly Averages

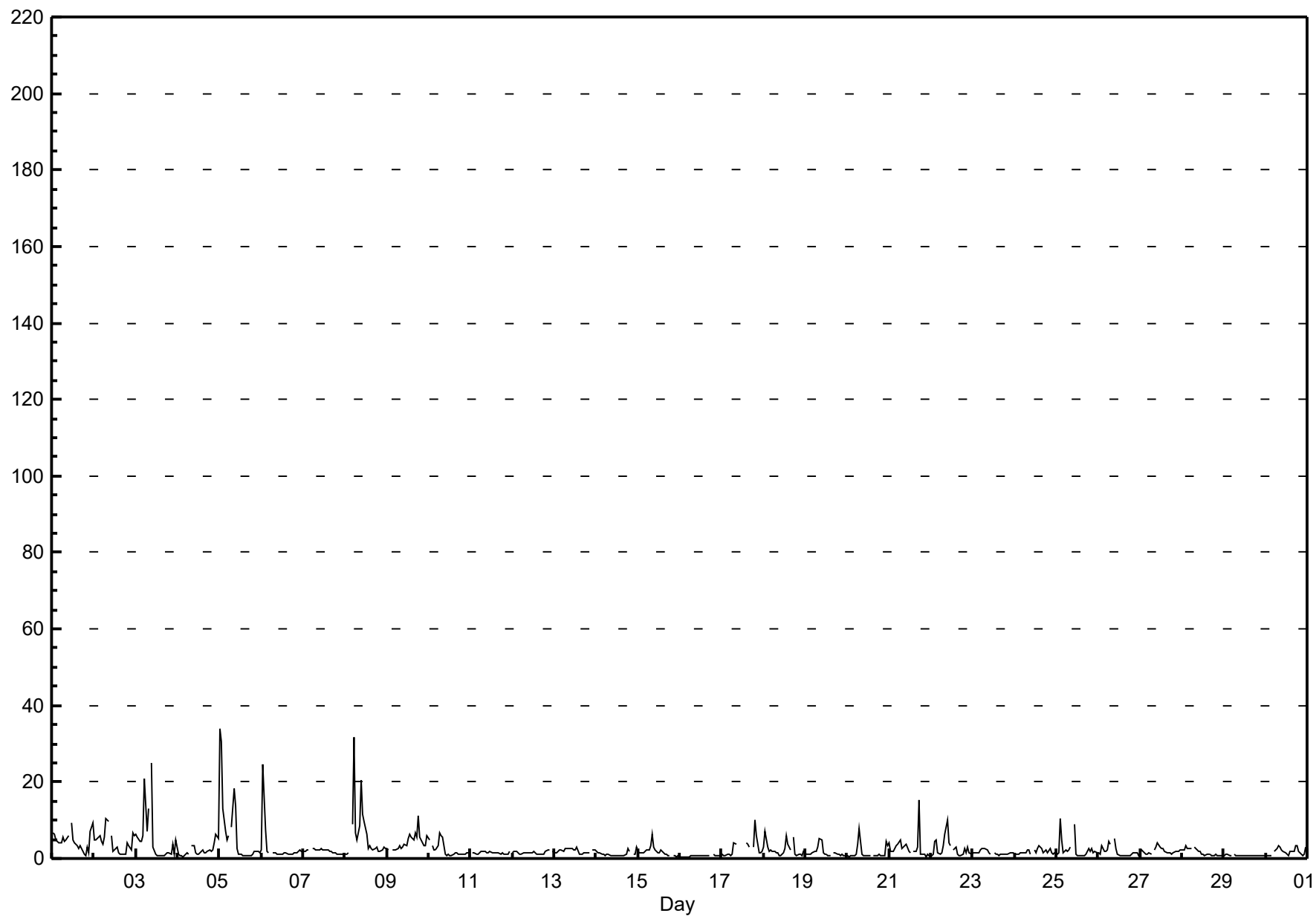
Oxides of Nitrogen (NO_x) - ppb

Portable Rycroft - April 2018

Maximum Value: 33.8 ppb on Apr 5 01:00																				Maximum Daily Average: 6.7 ppb on Apr 5										Hours in Service: 720	
Minimum Value: 0 ppb on Apr 16 05:00																				Minimum Daily Average: 0.7 ppb on Apr 16										Hours of Data: 684	
Maximum Diurnal Average: 4.5 ppb at hour 10																				Minimum Diurnal Average: 1.5 ppb at hour 16										Hours of Missing Data: 36	
Monthly Average: 2.52 ppb																				Percentiles: P ₁ = 0.5 P ₁₀ = 0.8 Q ₁ = 1.0 Median = 1.6 Q ₃ = 2.7 P ₉₀ = 5.0 P ₉₉ = 18.6										Hours of Calibration: 36	
																				Percent Operational Time: 100.0											
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
1-Apr	7	6	5	4	4	4	6	5	5	6	A	9	5	4	3	3	3	2	1	1	3	1	7	9	4.5	9.5					
2-Apr	5	5	5	6	5	4	5	10	10	A	6	2	2	3	1	1	1	1	1	4	3	2	7	6	4.2	10.4					
3-Apr	6	6	4	4	6	21	7	13	A	25	3	1	1	1	1	1	1	1	1	1	1	4	1	5	5.0	24.9					
4-Apr	1	1	1	1	1	1	1	A	3	3	2	1	1	1	2	2	2	2	2	2	2	4	6	5	2.0	6.3					
5-Apr	34	30	13	7	5	6	A	8	18	14	3	1	1	1	1	1	1	1	1	1	2	2	2	2	6.7	33.8					
6-Apr	2	24	8	2	1	A	1	2	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2.7	24.5					
7-Apr	2	2	2	2	A	3	3	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1.9	2.7					
8-Apr	1	1	1	A	9	32	7	5	9	21	11	10	6	3	3	3	2	3	3	2	2	2	3	3	6.1	31.9					
9-Apr	2	2	A	2	2	2	3	3	3	3	4	3	5	6	6	5	7	5	11	6	4	3	3	6	4.2	11.0					
10-Apr	5	A	3	2	2	3	7	6	5	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2.2	6.6					
11-Apr	A	2	1	1	1	1	2	2	2	1	2	2	2	1	1	1	1	1	1	1	1	1	2	A	1.5	1.9					
12-Apr	2	2	2	1	1	1	2	1	2	2	1	2	2	2	1	1	1	1	1	2	2	2	A	2	1.6	2.1					
13-Apr	2	2	2	2	2	2	2	3	3	3	2	2	2	3	1	1	1	1	2	2	1	A	2	2	2.0	3.1					
14-Apr	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	2	A	1	1	3	1.2	3.1					
15-Apr	2	2	1	2	2	2	2	3	6	3	2	1	1	2	2	1	1	1	1	A	1	1	1	1	1.8	6.3					
16-Apr	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.7	1.2					
17-Apr	1	1	1	1	1	1	1	4	4	C	C	C	C	C	4	4	3	A	3	10	6	2	2	2	2.8	10.1					
18-Apr	3	7	3	2	2	2	2	2	2	1	1	1	3	6	4	2	A	6	1	1	1	1	1	2	2.4	7.2					
19-Apr	1	1	1	1	2	2	2	3	5	5	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1.6	5.1					
20-Apr	1	0	1	1	1	1	4	8	1	1	1	1	1	1	A	1	1	1	1	1	1	1	4	3	1.5	7.7					
21-Apr	4	2	2	3	3	4	5	3	3	3	4	2	2	A	2	2	3	15	1	1	1	1	1	1	2.9	15.2					
22-Apr	1	1	4	5	2	1	1	3	6	10	4	3	A	2	3	1	1	1	1	3	1	3	2	1	2.7	10.0					
23-Apr	2	1	1	2	2	3	2	2	2	2	1	A	1	1	1	1	1	1	1	1	1	2	2	1	1.5	2.5					
24-Apr	1	1	1	1	1	1	2	2	2	1	A	2	1	3	3	3	2	2	2	2	2	1	1	1	1.8	3.3					
25-Apr	1	2	11	5	2	2	2	2	3	A	9	1	1	1	1	1	1	1	3	2	3	1	2	2	2.4	10.5					
26-Apr	2	1	3	2	2	2	5	4	A	5	3	1	1	1	1	1	1	1	1	1	1	2	1	1	1.8	5.2					
27-Apr	2	2	1	1	1	1	1	A	2	3	4	3	3	2	2	2	1	1	1	1	2	2	2	2	1.9	4.0					
28-Apr	2	2	3	3	2	2	A	3	3	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1.6	3.2					
29-Apr	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0					
30-Apr	1	1	1	1	A	2	3	3	3	2	2	1	1	1	2	2	2	3	3	2	1	1	1	3	1.8	3.4					
3.2		3.8	3.0	2.3	2.3	3.9	2.8	3.7	3.8	4.5	2.8	2.2	1.8	1.9	1.9	1.5	1.6	2.1	1.9	1.9	1.8	1.6	2.1	2.4	Diurnal Average						
33.8		30.4	12.9	7.2	8.9	31.9	7.0	13.0	18.3	24.9	11.4	9.8	6.3	6.3	5.7	4.9	6.5	15.2	11.0	10.1	6.0	4.1	7.2	9.5	Diurnal Maximum						
C - Calibration		A - Automated Daily Zero Span																													

Hourly Averages

Oxides of Nitrogen (NO_x) - ppb
Portable Rycroft - April 2018



Hourly Maximums

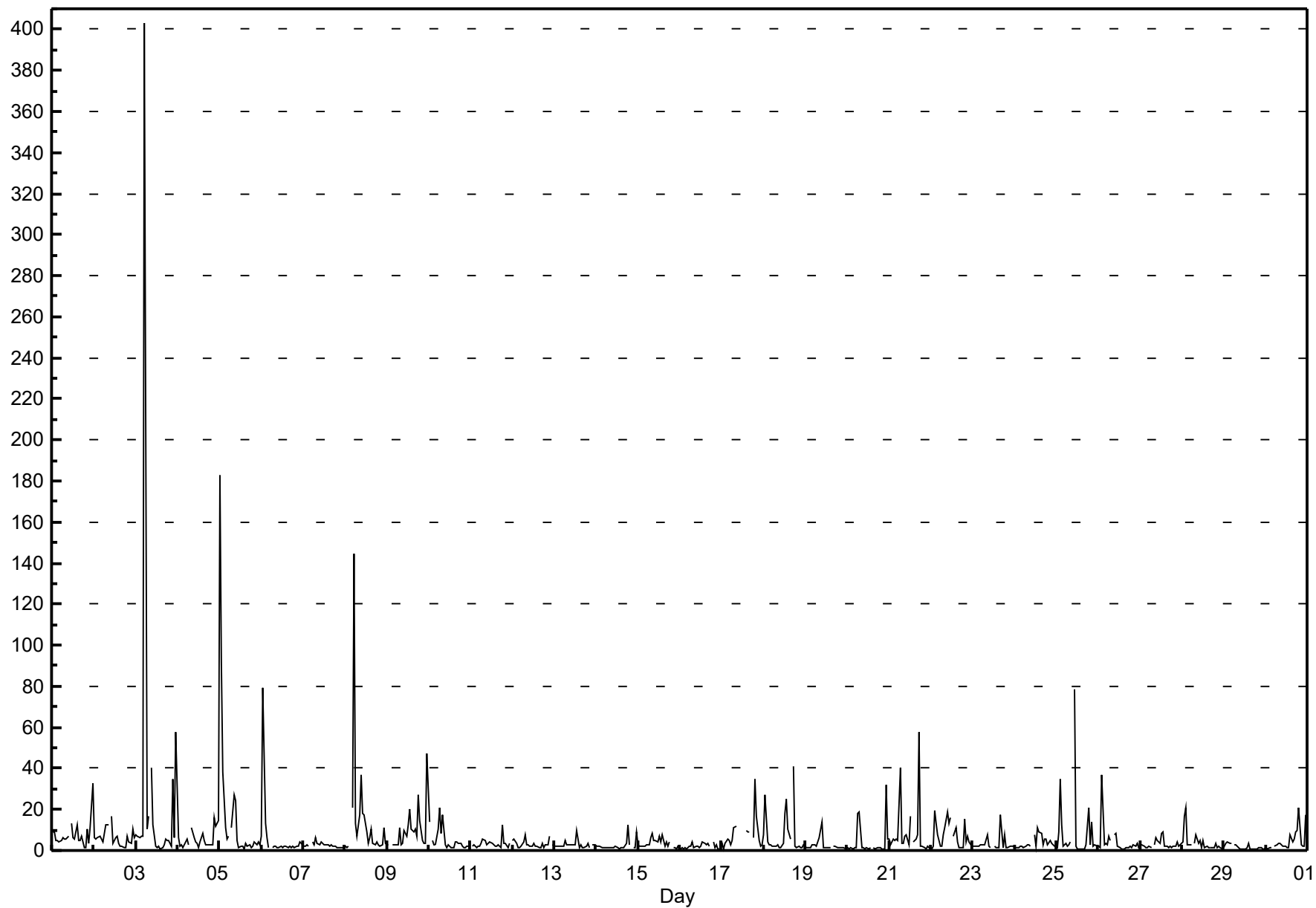
Oxides of Nitrogen (NO_x) - ppb

Portable Rycroft - April 2018

Maximum Value: 402.8 ppb on Apr 3 06:00																				Maximum Daily Average: 28.0 ppb on Apr 3					Hours in Service: 720	
Minimum Value: 1 ppb on Apr 16 05:00																				Minimum Daily Average: 1.7 ppb on Apr 29					Hours of Data: 684	
Maximum Diurnal Average: 22.6 ppb at hour 6																				Minimum Diurnal Average: 3.5 ppb at hour 16					Hours of Missing Data: 36	
Monthly Average: 6.45 ppb																				Percentiles: P ₁ = 0.8 P ₁₀ = 1.2 Q ₁ = 1.7 Median = 2.7 Q ₃ = 5.4 P ₉₀ = 11.9 P ₉₉ = 58.0					Hours of Calibration: 36	
																									Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	9	9	5	5	4	5	7	6	5	7	A	13	6	6	12	5	5	7	2	1	11	3	11	33	7.6	32.6
2-Apr	6	6	6	7	6	4	8	12	12	A	17	4	6	7	3	2	2	2	2	7	5	4	11	6	6.3	16.5
3-Apr	8	7	6	7	7	403	11	17	A	40	12	2	1	2	1	1	3	5	5	5	2	35	6	58	28.0	402.8
4-Apr	6	2	3	2	3	5	3	A	11	6	4	4	2	4	8	5	3	3	3	3	3	16	12	15	5.4	16.3
5-Apr	183	92	38	11	5	7	A	11	27	24	5	1	2	2	1	3	2	2	1	2	4	3	4	2	18.9	182.8
6-Apr	7	79	13	6	2	A	2	2	2	2	1	2	2	2	2	2	2	2	2	2	2	2	4	3	6.2	79.0
7-Apr	2	2	3	2	A	4	3	6	3	3	4	4	3	3	3	2	3	2	2	2	1	1	1	1	2.6	5.9
8-Apr	2	1	2	A	21	144	13	7	18	37	18	17	9	4	6	11	3	3	4	3	2	3	11	3	14.9	144.2
9-Apr	3	3	A	2	2	3	3	11	3	3	10	7	13	20	10	9	11	7	27	15	5	4	4	47	9.6	47.0
10-Apr	14	A	5	3	3	11	21	8	18	3	1	3	2	1	1	4	4	3	3	2	1	1	2	2	5.1	21.0
11-Apr	A	2	3	1	2	2	4	6	5	3	3	4	4	2	2	2	3	1	12	4	3	1	4	A	3.3	12.2
12-Apr	5	5	3	2	2	2	4	8	3	3	2	2	4	2	2	1	2	4	2	3	3	7	A	3	3.1	7.8
13-Apr	2	2	2	2	2	2	5	3	3	3	3	3	3	10	1	3	1	2	2	4	2	A	3	3	2.7	9.7
14-Apr	2	2	2	1	1	1	2	1	1	1	1	2	1	1	1	1	1	3	12	3	A	1	1	9	2.3	12.5
15-Apr	3	2	2	2	2	3	3	6	8	5	5	4	7	4	8	2	4	2	4	A	2	1	1	2	3.6	8.4
16-Apr	1	1	1	1	1	2	2	4	1	2	2	2	2	4	3	2	3	2	A	4	2	3	1	1	2.1	4.5
17-Apr	4	1	4	6	5	3	5	11	12	C	C	C	C	C	9	9	9	A	6	35	17	5	2	3	8.0	34.7
18-Apr	8	27	4	2	3	2	2	2	2	2	1	3	18	25	10	5	A	41	2	1	2	2	2	3	7.4	41.0
19-Apr	1	1	1	1	3	3	2	4	6	14	2	2	2	1	1	A	2	2	2	1	1	1	1	1	2.4	13.6
20-Apr	1	1	1	1	1	2	18	19	1	1	1	1	1	1	A	1	1	1	1	1	1	1	32	5	4.1	31.8
21-Apr	6	3	5	5	6	5	41	3	3	7	8	3	17	A	4	5	7	58	2	2	2	1	2	2	8.5	58.0
22-Apr	1	2	19	13	7	2	2	8	11	18	13	16	A	7	11	4	1	1	1	15	4	7	4	2	7.4	19.2
23-Apr	2	2	2	2	3	3	3	3	8	2	2	A	2	2	2	1	18	1	7	2	2	2	2	2	3.1	17.6
24-Apr	1	1	2	2	2	2	2	3	3	2	A	8	2	11	9	9	3	5	5	3	5	3	3	2	3.8	11.2
25-Apr	1	9	35	13	2	3	2	3	4	A	78	2	1	1	1	1	1	2	21	3	14	2	3	2	8.9	78.4
26-Apr	2	2	37	3	3	3	7	5	A	8	8	2	1	1	1	1	1	2	2	2	3	2	3	1	4.3	37.1
27-Apr	2	3	2	1	1	2	2	A	3	6	5	4	8	9	2	2	2	2	2	2	2	4	2	3	3.1	8.8
28-Apr	4	16	21	3	3	3	A	4	8	3	5	2	5	1	2	1	1	2	1	3	2	2	1	1	4.2	21.1
29-Apr	2	4	4	3	3	A	3	3	1	1	1	1	1	1	4	1	1	1	1	1	1	1	1	1	1.7	4.5
30-Apr	1	1	1	1	A	2	3	3	3	3	2	2	1	1	8	4	5	9	10	21	3	2	2	17	4.7	21.1
10.0 9.9 8.0 3.9 3.7 22.6 6.4 6.4 6.6 7.8 7.9 4.2 4.4 4.8 4.5 3.5 3.6 6.1 5.1 5.2 3.6 4.2 4.7 8.1																									Diurnal Average	
182.8 91.6 38.4 13.5 21.1 402.8 40.5 18.7 26.8 40.4 78.4 17.1 18.3 24.9 12.3 10.6 17.6 58.0 27.2 34.7 16.6 34.8 31.8 58.0																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										

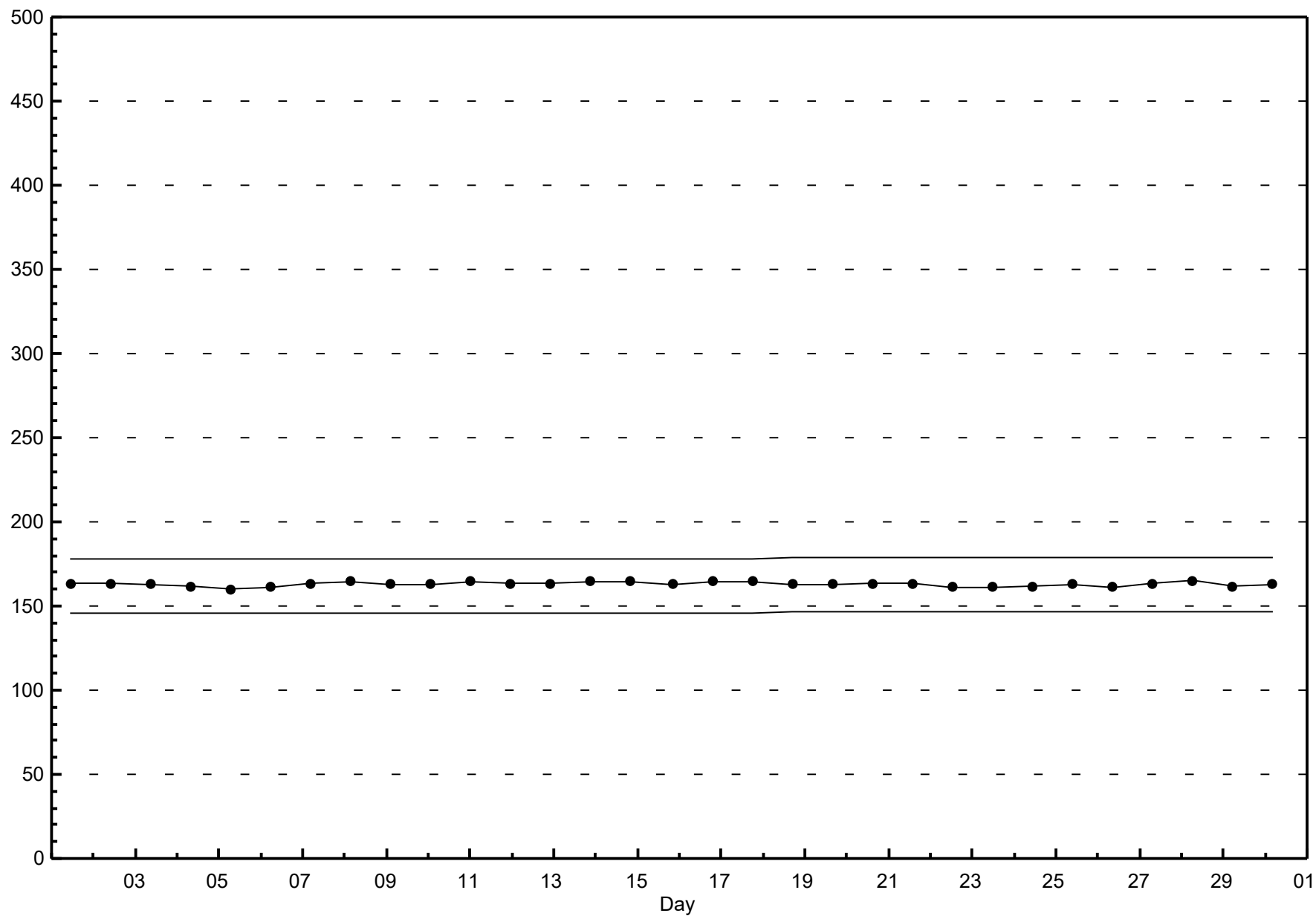
Hourly Maximums

Oxides of Nitrogen (NO_x) - ppb
Portable Rycroft - April 2018



Span Responses

Oxides of Nitrogen (NO_x)
Portable Rycroft - April 2018



Hourly Averages

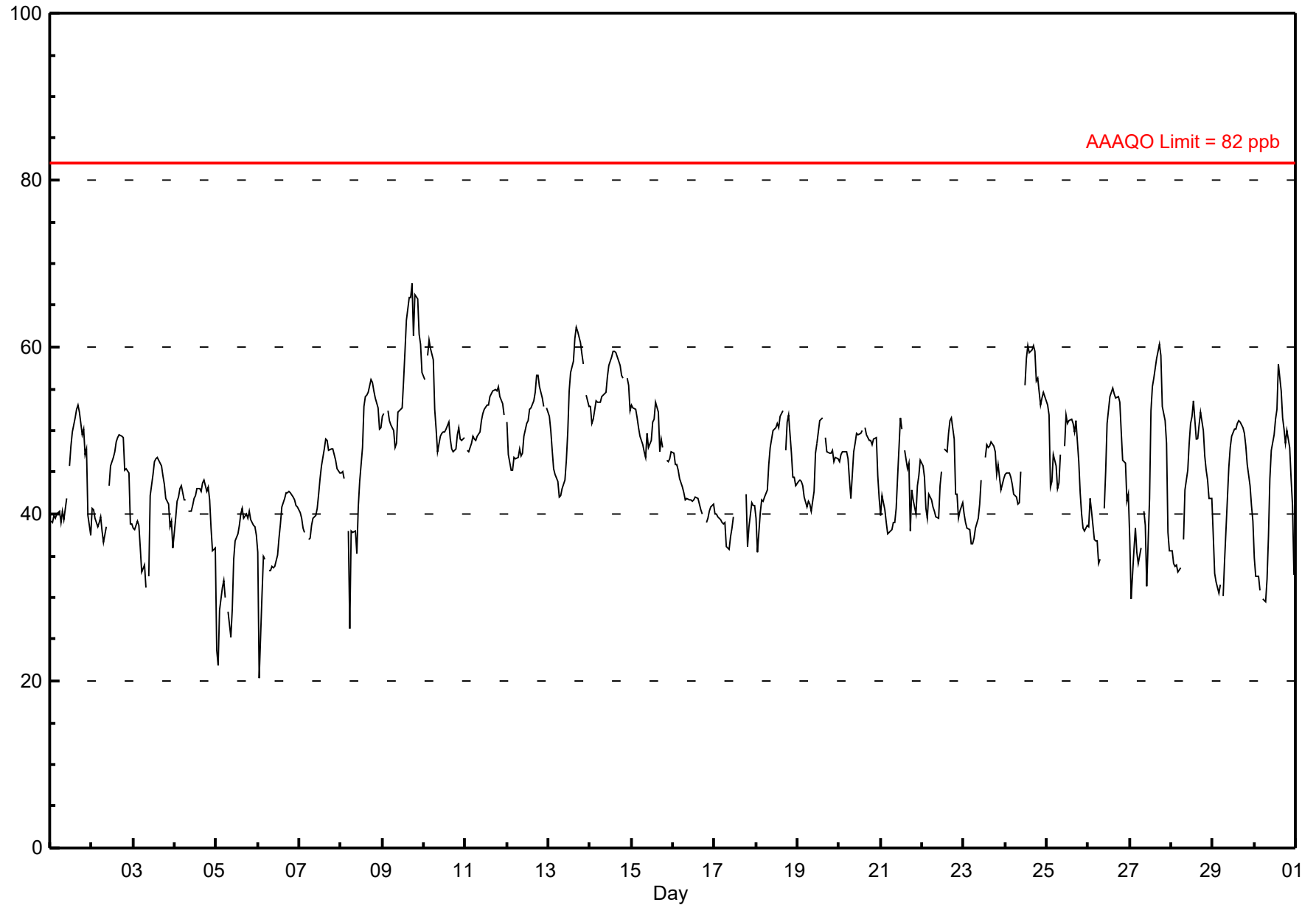
Ozone (O₃) - ppb

Portable Rycroft - April 2018

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 67.6 ppb on Apr 9 18:00 Maximum Daily Average: 57.0 ppb on Apr 9																								Hours in Service: 720 Hours of Data: 685 Hours of Missing Data: 35 Hours of Calibration: 35 Percent Operational Time: 100.0		
Minimum Value: 20 ppb on Apr 6 02:00 Minimum Daily Average: 34.4 ppb on Apr 5 Maximum Diurnal Average: 51.3 ppb at hour 16 Minimum Diurnal Average: 40.5 ppb at hour 8 Monthly Average: 45.51 ppb Percentiles: P ₁ = 28.6 P ₁₀ = 36.8 Q ₁ = 40.3 Median = 45.7 Q ₃ = 50.4 P ₉₀ = 54.5 P ₉₉ = 62.0																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	39	39	40	40	40	40	39	40	39	42	A	46	48	50	52	53	53	52	49	50	47	48	40	38	44.5	53.0
2-Apr	41	40	40	38	39	40	38	37	38	A	43	46	47	47	49	49	49	49	49	45	46	45	39	39	43.2	49.5
3-Apr	38	38	39	39	36	33	34	31	A	33	42	45	46	47	47	46	46	45	44	42	41	39	39	36	40.2	46.8
4-Apr	40	41	42	43	43	42	42	A	40	40	41	42	42	43	43	43	44	44	43	43	42	38	36	36	41.4	44.1
5-Apr	24	22	28	31	32	30	A	28	25	29	35	37	38	39	40	41	39	40	40	40	39	39	38	37	34.4	40.7
6-Apr	35	20	30	35	35	A	33	33	34	34	34	35	37	39	41	42	43	43	43	42	42	42	41	41	37.1	42.7
7-Apr	40	39	38	38	A	37	37	39	39	40	41	42	44	46	48	49	49	48	48	48	47	46	45	45	43.2	48.9
8-Apr	45	45	44	A	38	26	38	38	38	35	41	44	48	53	54	54	55	56	56	55	54	53	50	50	46.5	56.0
9-Apr	52	52	A	52	51	51	50	48	49	52	52	53	56	59	63	66	66	68	61	66	66	62	60	57	57.0	67.6
10-Apr	56	A	59	61	60	59	53	50	48	49	50	50	50	50	51	49	48	47	48	49	50	49	49	49	51.4	60.9
11-Apr	A	48	47	48	49	49	49	49	50	51	52	53	53	53	54	54	55	55	55	55	54	53	52	A	51.8	55.2
12-Apr	51	47	45	45	47	47	47	48	47	47	49	51	51	52	53	54	55	57	57	55	54	53	A	53	50.6	56.6
13-Apr	52	50	48	45	45	44	42	42	43	44	47	50	55	57	58	61	62	62	61	59	58	A	54	53	51.8	62.3
14-Apr	53	51	51	54	53	53	53	54	54	55	56	58	59	59	60	59	59	58	57	56	A	56	55	52	55.5	59.5
15-Apr	53	53	52	51	50	49	48	48	47	50	48	49	51	51	53	52	48	49	48	A	46	46	47	47	49.5	53.4
16-Apr	47	46	46	45	44	43	42	42	42	42	42	42	42	42	42	41	41	40	A	39	40	40	41	41	42.2	47.3
17-Apr	40	40	40	39	39	39	39	36	36	37	38	40	C	C	C	C	42	A	42	36	38	41	41	41	39.2	42.4
18-Apr	40	35	40	42	42	42	43	46	48	49	50	50	51	50	52	52	A	48	51	52	47	44	44	43	46.2	52.4
19-Apr	44	44	44	43	42	41	42	41	40	43	47	48	50	51	51	A	49	47	47	47	48	46	47	47	45.7	51.4
20-Apr	46	47	47	48	47	47	44	42	48	48	50	49	50	50	A	50	49	49	49	48	49	49	45	42	47.5	50.3
21-Apr	40	42	41	39	38	38	38	39	39	41	44	52	50	A	48	46	46	38	43	42	40	43	45	46	42.4	51.6
22-Apr	46	44	41	40	42	42	41	40	40	40	43	45	A	48	47	50	51	52	49	42	42	39	40	41	43.7	51.6
23-Apr	40	39	38	38	36	36	37	38	40	41	44	A	47	48	48	48	49	48	47	45	46	43	44	44	42.8	48.6
24-Apr	45	45	45	44	44	42	42	41	41	45	A	55	59	60	59	60	60	59	56	56	53	54	55	54	51.1	60.2
25-Apr	53	52	43	44	47	46	43	44	47	A	48	52	51	51	51	51	50	51	46	43	40	38	38	39	46.4	53.1
26-Apr	39	42	40	37	37	37	34	35	A	41	45	51	54	55	55	54	54	54	53	50	46	46	42	42	45.3	55.0
27-Apr	37	30	36	38	35	34	36	A	40	39	31	42	52	55	56	59	59	60	59	53	51	48	38	36	44.6	60.3
28-Apr	36	34	34	34	33	34	A	37	43	45	48	51	52	54	49	49	51	52	50	47	45	44	42	42	43.7	53.6
29-Apr	37	33	32	31	31	A	30	34	42	46	48	49	50	50	51	51	51	50	50	48	46	43	41	39	42.8	51.3
30-Apr	35	33	32	31	A	30	29	32	37	44	48	50	51	52	58	55	51	50	48	50	48	44	41	33	42.8	58.0
42.8 41.1 41.5 41.8 42.0 41.0 40.8 40.5 41.9 42.9 44.9 47.4 49.4 50.5 51.2 51.3 50.8 50.7 49.9 48.5 47.1 46.0 44.4 43.6																								Diurnal Average		
56.1 52.8 59.0 60.9 59.9 58.5 53.3 54.0 54.3 54.7 56.4 57.8 58.7 60.2 63.3 65.9 65.9 67.6 61.4 66.2 65.7 61.5 60.4 56.9																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82 ppb 24-hr na																										

Hourly Averages

Ozone (O₃) - ppb
Portable Rycroft - April 2018



Hourly Maximums

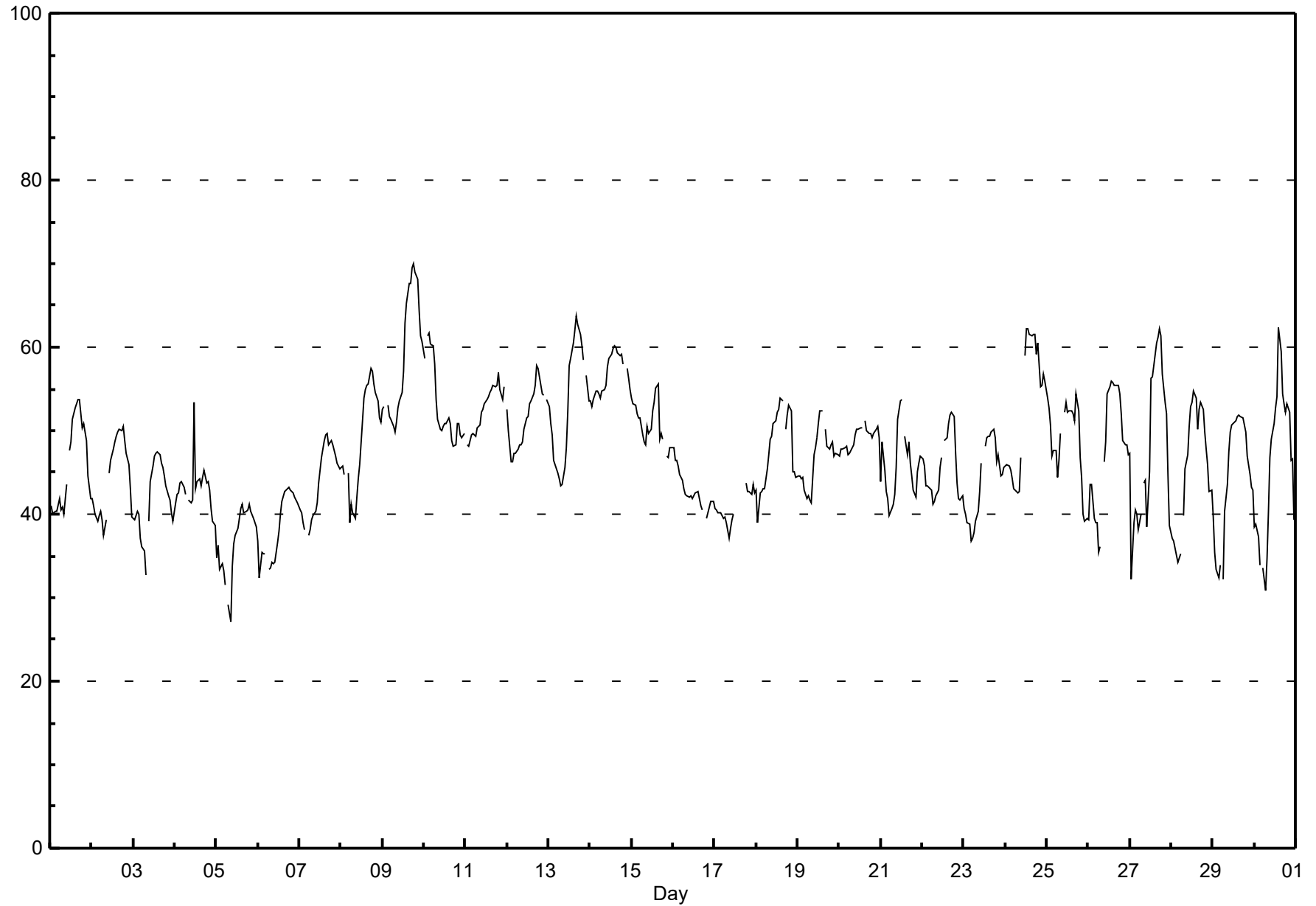
Ozone (O₃) - ppb

Portable Rycroft - April 2018

Maximum Value: 70.0 ppb on Apr 9 19:00																								Hours in Service: 720		
Maximum Daily Average: 59.0 ppb on Apr 9																								Hours of Data: 685		
Minimum Value: 27 ppb on Apr 5 09:00																								Hours of Missing Data: 35		
Maximum Diurnal Average: 52.6 ppb at hour 15																								Hours of Calibration: 35		
Monthly Average: 47.23 ppb																								Percent Operational Time: 100.0		
Minimum Daily Average: 36.8 ppb on Apr 5																										
Minimum Diurnal Average: 42.2 ppb at hour 8																										
Percentiles: P ₁ = 32.3 P ₁₀ = 39.0 Q ₁ = 41.8 Median = 47.2 Q ₃ = 52.1 P ₉₀ = 55.8 P ₉₉ = 64.5																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	41	40	40	40	40	42	40	41	40	44	A	48	49	51	53	53	54	54	50	51	50	49	45	42	45.9	53.7
2-Apr	42	41	40	39	40	40	39	37	39	A	45	46	48	49	49	50	50	50	50	49	47	46	43	40	44.4	50.5
3-Apr	40	39	40	40	37	36	36	33	A	39	44	46	47	47	47	47	46	46	45	43	42	42	40	39	41.8	47.4
4-Apr	41	42	43	44	44	43	42	A	42	41	42	53	43	44	44	43	44	45	44	44	43	41	39	39	43.1	53.5
5-Apr	35	36	33	34	33	31	A	29	27	34	36	37	38	39	41	41	40	40	40	41	40	39	39	39	36.8	41.2
6-Apr	37	32	35	35	35	A	33	34	34	34	34	37	38	40	42	43	43	43	43	43	42	42	42	41	38.4	43.2
7-Apr	41	40	39	38	A	38	38	39	40	40	41	44	45	47	49	49	50	48	49	48	48	47	46	45	43.9	49.7
8-Apr	46	46	45	A	45	39	41	40	39	42	44	46	51	54	55	55	56	57	57	56	55	54	52	51	48.9	57.4
9-Apr	53	53	A	53	52	51	51	50	51	53	53	54	57	63	65	68	68	70	70	69	68	64	61	61	59.0	70.0
10-Apr	59	A	61	62	60	60	58	54	51	50	50	50	51	51	52	51	49	48	48	51	51	49	49	50	52.8	61.8
11-Apr	A	48	48	49	50	49	49	50	51	52	52	53	54	54	55	55	55	55	55	57	55	54	55	A	52.6	57.0
12-Apr	53	50	46	46	47	47	48	48	48	49	50	52	52	53	54	54	55	58	57	56	54	54	A	54	51.6	57.9
13-Apr	53	51	50	46	46	45	44	43	44	46	48	52	58	59	61	62	64	63	62	60	59	A	57	53	53.2	63.8
14-Apr	54	53	54	55	55	54	54	55	55	55	58	59	59	60	60	60	59	59	59	58	A	58	56	55	56.6	60.1
15-Apr	54	53	53	52	52	51	49	49	48	50	50	50	52	53	55	56	49	50	49	A	47	47	48	48	50.7	55.7
16-Apr	48	46	47	46	45	44	43	42	42	42	42	42	42	43	43	42	41	41	A	40	40	41	42	42	42.8	48.0
17-Apr	41	41	40	40	40	40	40	39	37	38	39	40	C	C	C	C	43	A	44	43	43	42	44	42	40.8	43.7
18-Apr	43	39	43	43	43	43	45	47	49	49	51	51	52	53	54	54	A	50	52	53	52	45	45	44	47.8	53.9
19-Apr	45	45	44	44	43	42	42	42	41	47	48	49	51	52	52	A	50	48	48	48	49	47	47	47	46.6	52.4
20-Apr	47	48	48	48	48	47	47	48	48	49	50	50	50	50	A	51	50	50	50	49	50	50	50	49	49.1	51.2
21-Apr	44	49	45	43	42	40	41	41	42	46	51	54	54	A	49	47	49	46	45	43	42	45	46	47	45.6	53.7
22-Apr	47	46	43	43	43	43	41	42	42	43	46	47	A	49	49	51	52	52	52	47	44	42	42	42	45.5	52.1
23-Apr	41	40	39	39	37	37	38	39	40	43	46	A	48	49	49	49	50	50	49	46	47	45	45	46	44.0	50.2
24-Apr	46	46	46	45	44	43	43	43	43	47	A	59	62	62	62	61	62	62	59	61	55	55	57	56	52.9	62.2
25-Apr	54	53	51	47	48	48	44	47	50	A	52	53	52	52	52	52	51	54	52	47	44	40	39	40	48.8	54.3
26-Apr	39	44	44	39	39	39	35	36	A	46	49	54	55	56	56	55	55	55	54	52	49	48	48	47	47.7	55.9
27-Apr	47	32	39	41	40	38	40	A	44	44	39	45	56	56	58	60	61	62	61	57	53	52	45	39	48.2	62.1
28-Apr	37	37	36	35	34	35	A	40	45	47	50	53	53	55	54	50	53	53	53	50	48	46	43	43	45.7	54.8
29-Apr	40	35	33	32	34	A	32	40	44	47	50	51	51	51	52	52	52	51	51	50	47	45	43	43	44.6	51.9
30-Apr	38	39	37	34	A	34	31	35	40	47	49	51	53	54	62	59	54	53	52	53	52	46	47	39	46.1	62.4
44.9 43.6 43.5 43.2 43.4 42.9 42.4 42.2 43.5 45.2 46.8 49.2 50.8 51.7 52.6 52.6 51.9 52.2 51.8 50.5 48.8 47.4 46.7 45.6																								Diurnal Average		
58.6 53.2 61.4 61.8 60.4 60.2 58.0 54.7 54.9 55.5 57.6 59.0 62.2 62.9 65.3 67.7 67.6 69.5 70.0 69.0 68.2 64.3 61.3 60.6																								Diurnal Maximum		
C - Calibration																								A - Automated Daily Zero Span		

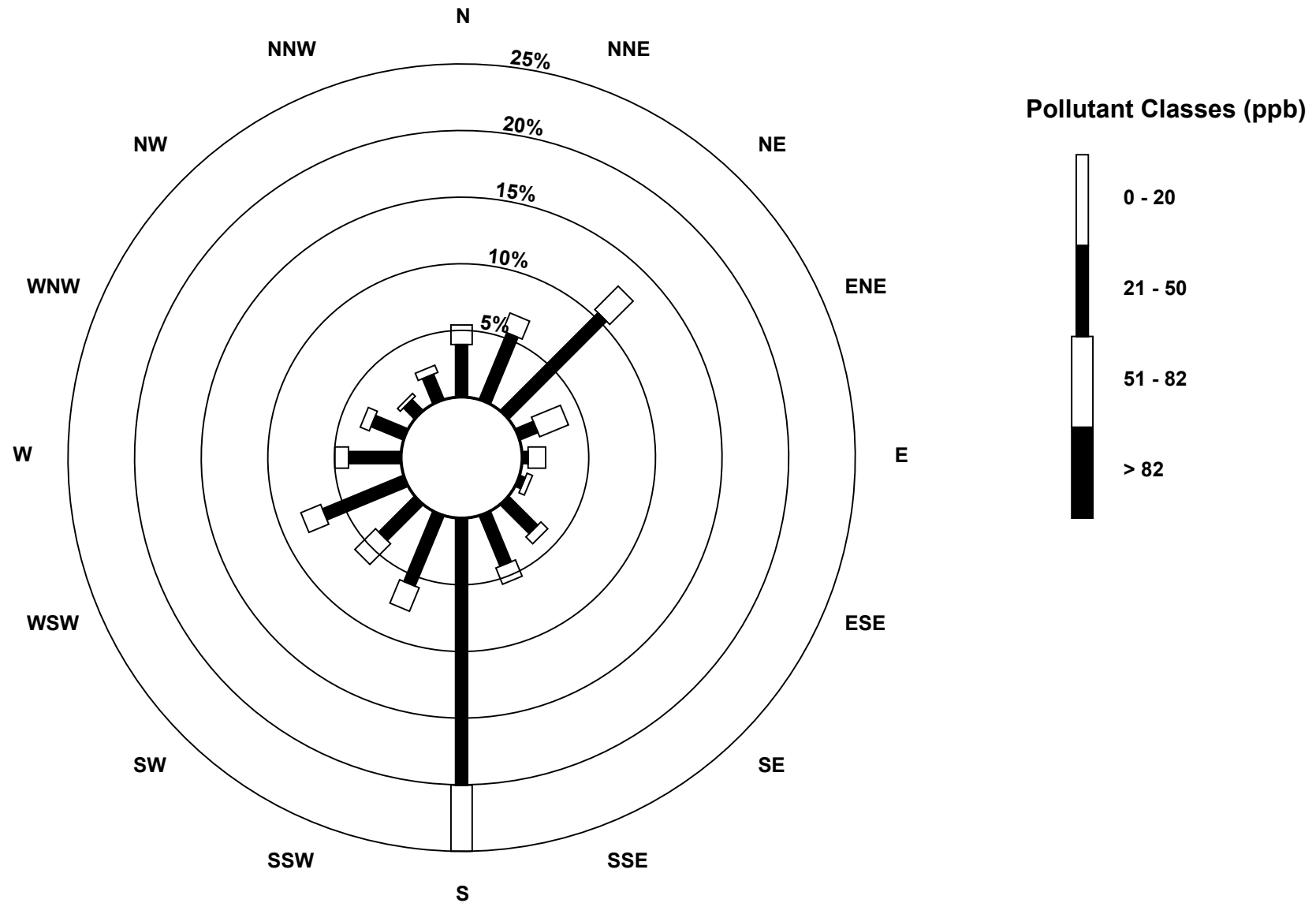
Hourly Maximums

Ozone (O₃) - ppb
Portable Rycroft - April 2018



Pollutant Rose

Ozone (O₃) - ppb
Portable Rycroft - April 2018



Eight Hour Running Averages

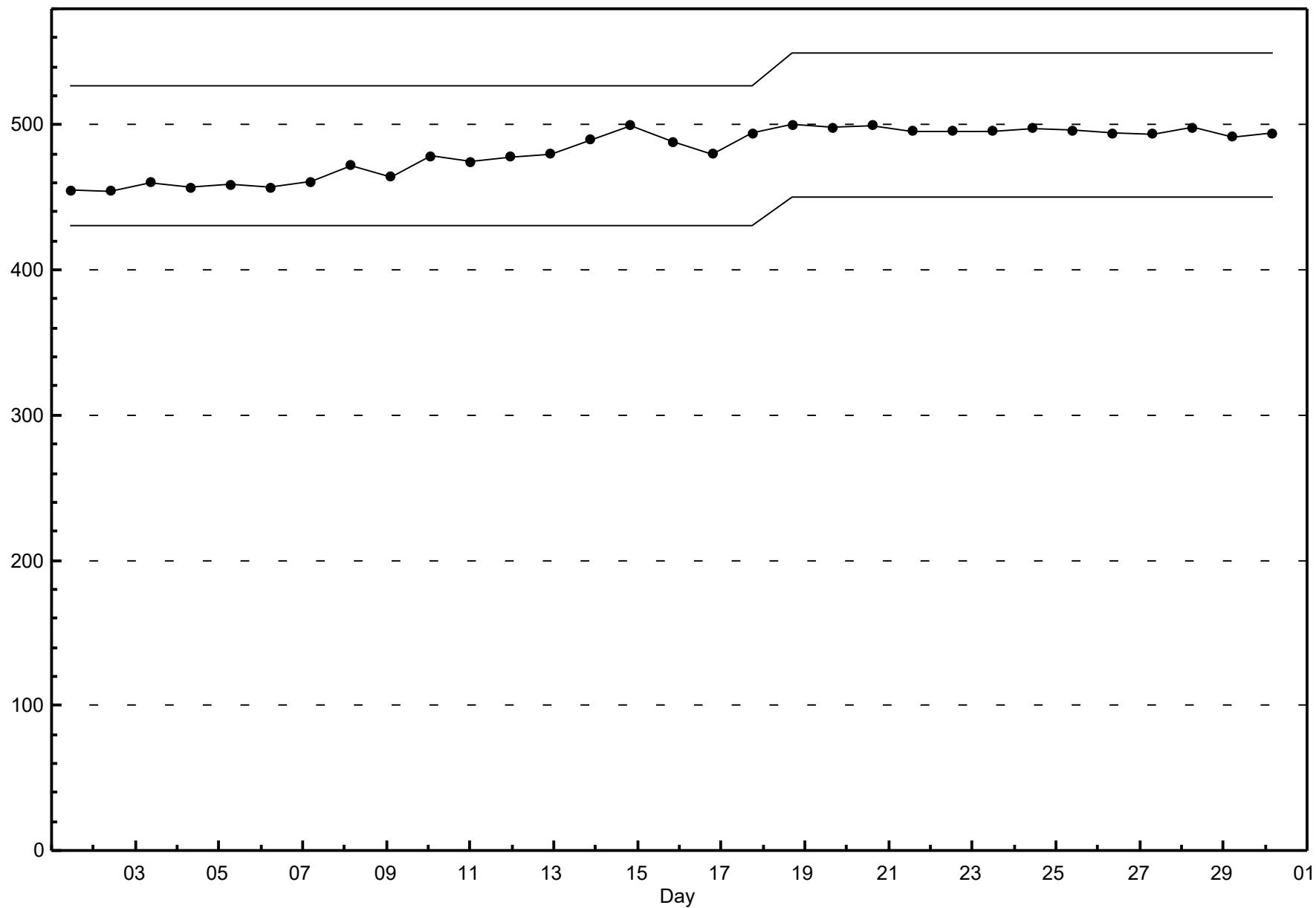
Ozone (O₃) - ppb

Portable Rycroft - April 2018

Maximum Value: 64.7 ppb on Apr 9 22:00																								Hours in Service: 720	
Minimum Value: 28.0 ppb on Apr 5 08:00																								Hours of Data: 712	
																								Hours of Missing Data: 8	
Percentiles: P ₁ = 31.0 P ₁₀ = 37.6 Q ₁ = 40.4 Median = 45.7 Q ₃ = 49.8 P ₉₀ = 54.1 P ₉₉ = 61.1																								Hours of Calibration: 8	
																								Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Apr	44	43	42	41	40	40	40	40	40	40	40	41	42	43	45	47	49	50	50	51	51	50	49	47	50.8
2-Apr	46	44	43	41	40	39	39	39	39	39	39	40	41	42	44	46	47	47	48	48	48	48	46	45	48.2
3-Apr	44	42	41	40	39	38	37	36	36	35	35	36	38	40	41	44	44	45	46	45	45	44	43	41	45.5
4-Apr	41	40	40	40	40	41	41	42	42	42	42	41	41	41	42	42	42	43	43	43	43	42	42	41	43.1
5-Apr	38	35	34	32	31	30	29	28	28	29	30	31	32	33	34	35	37	38	39	40	40	40	40	39	39.8
6-Apr	39	36	35	34	34	33	32	32	32	33	34	34	34	35	36	37	38	39	40	41	42	42	42	42	42.1
7-Apr	42	41	41	40	40	39	39	38	38	38	39	39	40	41	42	44	45	46	47	47	48	48	48	47	47.8
8-Apr	47	46	46	45	44	41	40	39	38	37	36	37	38	42	44	46	48	51	52	54	55	55	54	54	54.5
9-Apr	53	53	52	52	51	51	51	51	50	50	51	51	51	52	54	56	58	60	61	63	64	65	64	63	64.7
10-Apr	62	61	61	60	59	59	58	57	56	55	54	52	51	50	50	50	50	49	49	49	49	49	49	49	62.0
11-Apr	49	49	49	49	49	49	49	49	49	49	50	50	51	51	52	53	53	54	54	54	54	54	54	54	54.4
12-Apr	54	52	51	50	49	48	47	47	47	47	47	48	48	49	50	51	51	53	54	54	54	55	55	55	54.8
13-Apr	54	53	52	51	49	48	47	46	45	44	44	45	46	47	49	52	54	56	58	59	60	60	60	58	60.2
14-Apr	57	56	54	53	53	53	53	53	53	54	54	55	55	56	57	58	58	58	59	58	58	58	57	56	58.5
15-Apr	55	55	54	53	53	52	51	51	50	50	49	49	49	49	50	50	50	50	50	50	50	49	48	47	55.4
16-Apr	47	47	47	46	46	46	45	45	44	43	43	42	42	42	42	42	42	41	41	41	41	40	40	40	47.3
17-Apr	40	40	40	40	40	40	40	39	38	38	38	38	38	38	N	N	N	N	N	N	N	N	40	40	40.3
18-Apr	40	39	39	40	40	40	41	41	42	44	45	46	47	48	49	50	51	50	51	51	50	49	48	47	50.8
19-Apr	47	46	45	44	44	43	43	43	42	42	42	43	44	45	47	47	49	49	49	49	49	48	47	47	49.3
20-Apr	47	47	47	47	47	47	47	46	46	46	47	47	47	48	48	49	50	50	49	49	49	49	49	48	49.6
21-Apr	46	45	44	43	42	40	40	39	39	39	39	41	43	43	45	46	47	46	46	45	43	43	43	43	46.6
22-Apr	43	44	43	43	43	43	43	42	41	41	41	42	41	42	43	45	46	48	49	48	48	47	46	45	48.8
23-Apr	43	42	40	40	39	39	38	38	38	38	39	39	40	42	44	45	46	47	48	48	47	47	46	46	47.9
24-Apr	45	45	44	44	44	44	44	44	43	43	43	44	47	49	52	54	57	59	59	59	58	57	57	56	59.0
25-Apr	55	54	53	51	50	49	48	46	46	45	46	47	47	48	49	50	51	51	50	49	48	46	45	43	55.1
26-Apr	42	41	40	39	39	38	38	38	37	37	38	40	42	45	48	51	51	53	54	54	53	52	50	48	53.8
27-Apr	46	43	41	40	38	37	36	35	36	37	36	37	39	42	45	47	49	52	55	57	57	56	53	51	56.7
28-Apr	48	44	41	39	37	35	34	34	35	37	39	42	44	47	47	49	50	51	51	50	50	48	48	47	50.9
29-Apr	45	43	40	38	36	35	34	33	33	35	37	40	43	44	46	48	50	50	50	50	50	49	48	46	50.4
30-Apr	44	42	40	37	36	34	33	32	32	34	36	39	40	43	47	49	51	52	52	52	52	51	48	46	52.1
62.0 61.2 60.8 60.1 59.2 58.8 57.7 56.7 55.5 54.7 54.1 54.7 55.3 56.1 56.9 57.5 58.4 60.4 61.5 63.2 64.4 64.7 64.3 63.2																									Diurnal Maximums
N - Not Valid																									

Span Responses

Ozone (O₃)
Portable Rycroft - April 2018



Hourly Averages

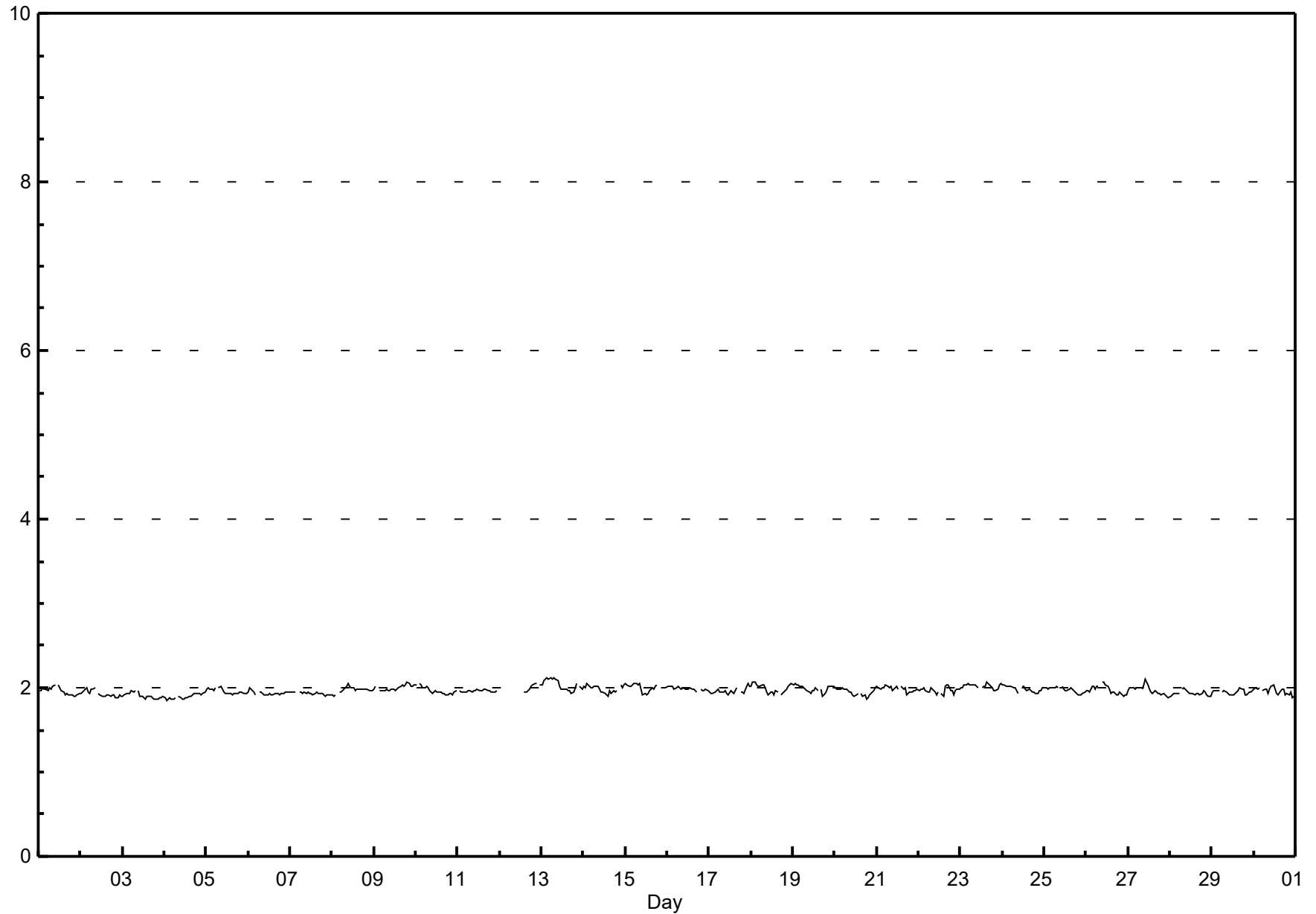
Total Hydrocarbons (THC) - ppm

Portable Rycroft - April 2018

Maximum Value: 2.12 ppm on Apr 13 06:00																					Maximum Daily Average: 2.03 ppm on Apr 13					Hours in Service: 720	
Minimum Value: 1.9 ppm on Apr 4 02:00																					Minimum Daily Average: 1.89 ppm on Apr 4					Hours of Data: 676	
Maximum Diurnal Average: 1.99 ppm at hour 8																					Minimum Diurnal Average: 1.95 ppm at hour 19					Hours of Missing Data: 44	
Monthly Average: 1.967 ppm																					Percentiles: P ₁ = 1.87 P ₁₀ = 1.91 Q ₁ = 1.93 Median = 1.97 Q ₃ = 2.00 P ₉₀ = 2.03 P ₉₉ = 2.10					Hours of Calibration: 36	
																					Percent Operational Time: 98.9						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.96	2.04	
2-Apr	1.9	1.9	2.0	2.0	2.0	1.9	2.0	2.0	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.93	2.00	
3-Apr	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	A	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.91	1.96	
4-Apr	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.89	1.94	
5-Apr	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.95	2.01	
6-Apr	1.9	2.0	2.0	1.9	1.9	A	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.94	1.99	
7-Apr	1.9	1.9	2.0	1.9	A	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.93	1.96	
8-Apr	1.9	1.9	1.9	A	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.97	2.04	
9-Apr	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.00	2.07	
10-Apr	2.0	A	2.1	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.96	2.05	
11-Apr	A	2.0	2.0	2.0	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	2.0	2.0	A	1.96	1.99	
12-Apr	2.0	N	N	N	N	N	N	N	N	C	C	C	C	C	2.0	1.9	2.0	2.0	2.0	2.0	2.1	2.1	A	2.0	--	2.06	
13-Apr	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	A	2.0	2.0	2.03	2.12	
14-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	1.9	2.0	2.0	2.0	A	2.0	2.0	2.0	1.98	2.04	
15-Apr	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.00	2.05	
16-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	1.99	2.02	
17-Apr	1.9	1.9	1.9	2.0	2.0	2.0	1.9	1.9	1.9	2.0	1.9	1.9	2.0	2.0	1.9	2.0	2.0	A	2.0	2.0	1.9	2.0	2.0	2.0	1.96	2.04	
18-Apr	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	1.9	2.0	2.0	A	1.9	1.9	1.9	2.0	2.0	2.0	2.0	1.99	2.07	
19-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	2.0	2.0	2.0	2.0	A	2.0	1.9	1.9	2.0	2.0	2.0	2.0	2.0	1.99	2.05	
20-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.95	2.00	
21-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.99	2.03	
22-Apr	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	1.9	1.9	A	1.9	1.9	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	1.97	2.03	
23-Apr	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.02	2.06		
24-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.0	1.98	2.03	
25-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	1.97	2.03	
26-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.1	2.1	2.0	2.0	2.0	1.9	1.9	2.0	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.97	2.06	
27-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.1	2.0	2.0	2.0	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.97	2.11	
28-Apr	1.9	1.9	1.9	1.9	1.9	1.9	A	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.93	1.99	
29-Apr	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0	1.95	1.99	
30-Apr	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	1.9	1.9	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.96	2.04	
1.98 1.98 1.99 1.99 1.98 1.99 1.99 1.99 1.99 1.97 1.96 1.96 1.96 1.95 1.95 1.96 1.96 1.95 1.95 1.95 1.95 1.95 1.96 1.97																									Diurnal Average		
2.05 2.09 2.10 2.11 2.10 2.12 2.10 2.11 2.11 2.08 2.11 2.04 2.01 2.02 2.02 2.06 2.05 2.03 2.04 2.07 2.06 2.05 2.04 2.05																									Diurnal Maximum		
C - Calibration N - Not Valid A - Automated Daily Zero Span																											

Hourly Averages

Total Hydrocarbons (THC) - ppm
Portable Rycroft - April 2018



Hourly Maximums

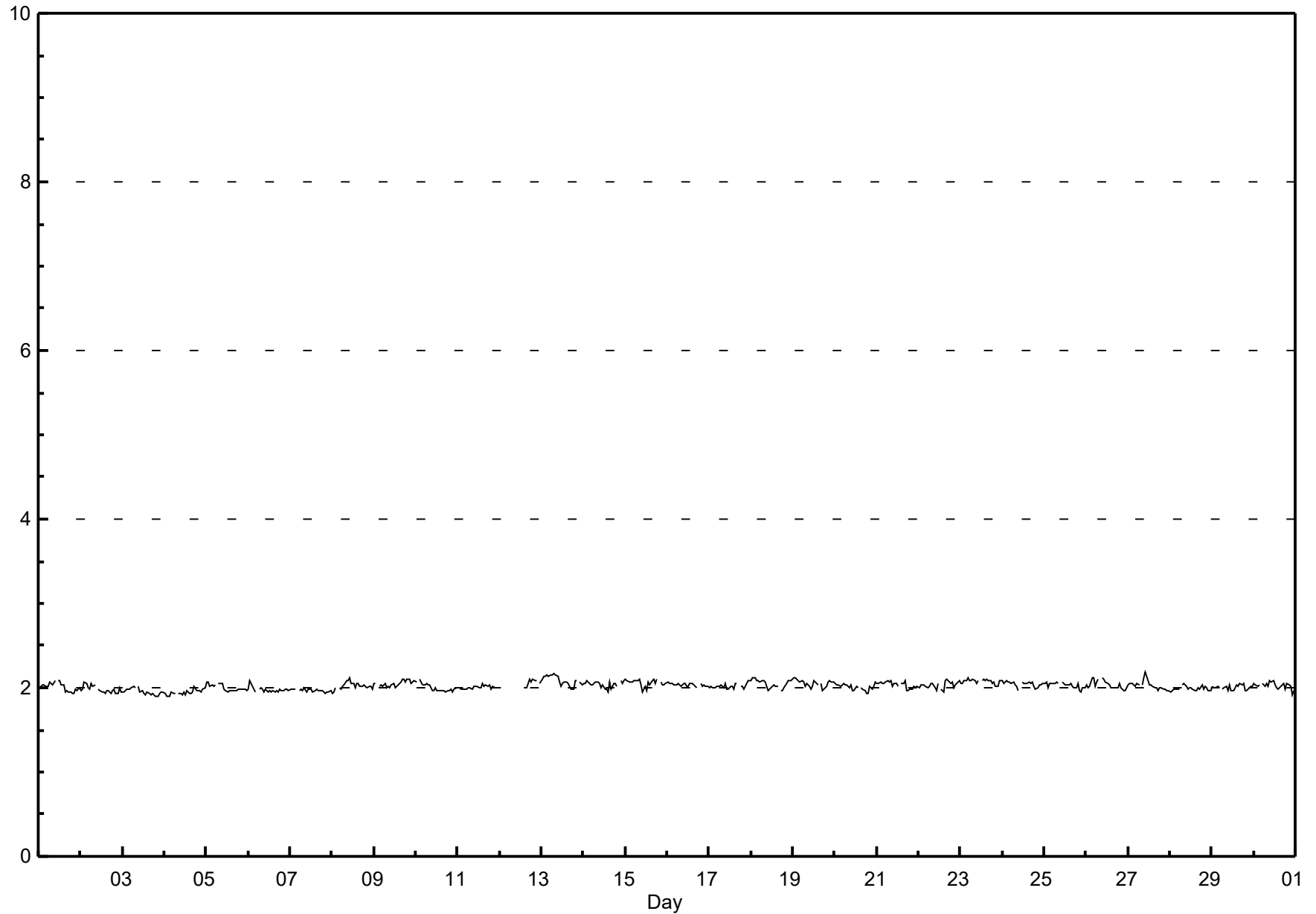
Total Hydrocarbons (THC) - ppm

Portable Rycroft - April 2018

Maximum Value: 2.18 ppm on Apr 27 11:00																					Maximum Daily Average: 2.09 ppm on Apr 13				Hours in Service: 720	
Minimum Value: 1.9 ppm on Apr 3 21:00																					Minimum Daily Average: 1.94 ppm on Apr 4				Hours of Data: 676	
Maximum Diurnal Average: 2.05 ppm at hour 8																					Minimum Diurnal Average: 2.00 ppm at hour 21				Hours of Missing Data: 44	
Monthly Average: 2.020 ppm																					Percentiles: P ₁ = 1.91 P ₁₀ = 1.96 Q ₁ = 1.98 Median = 2.02 Q ₃ = 2.06 P ₉₀ = 2.08 P ₉₉ = 2.14				Hours of Calibration: 36	
																					Percent Operational Time: 98.9					
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.1	A	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	2.0	2.0	2.0	2.01	2.09
2-Apr	2.0	2.0	2.1	2.1	2.0	2.0	2.1	2.0	2.0	A	2.0	2.0	1.9	1.9	1.9	2.0	2.0	1.9	2.0	2.0	1.9	1.9	2.0	2.0	1.98	2.06
3-Apr	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.95	2.02
4-Apr	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.94	2.02
5-Apr	2.1	2.1	2.0	2.0	2.0	2.0	A	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.00	2.07
6-Apr	2.0	2.1	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.98	2.08
7-Apr	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	1.97	2.00
8-Apr	1.9	2.0	2.0	A	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.02	2.11
9-Apr	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.05	2.11
10-Apr	2.1	A	2.1	2.1	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.00	2.11
11-Apr	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.00	2.05
12-Apr	2.1	N	N	N	N	N	N	N	N	C	C	C	C	C	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	A	2.1	--	2.11
13-Apr	2.1	2.1	2.1	2.2	2.1	2.2	2.2	2.2	2.2	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.1	A	2.1	2.0	2.09	2.16
14-Apr	2.1	2.0	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	A	2.1	2.1	2.1	2.04	2.08
15-Apr	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	1.9	2.0	2.0	2.1	2.0	2.1	2.1	2.1	2.1	A	2.1	2.0	2.0	2.1	2.06	2.10
16-Apr	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.03	2.06
17-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.1	2.1	2.1	2.02	2.09
18-Apr	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.05	2.11
19-Apr	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.1	2.1	2.0	A	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.05	2.11
20-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	1.9	1.9	2.0	2.0	2.0	2.1	2.01	2.07
21-Apr	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.0	A	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.04	2.09
22-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.1	A	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.1	2.03	2.10
23-Apr	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.1	2.08	2.11
24-Apr	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	A	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.04	2.08
25-Apr	2.1	2.1	2.0	2.1	2.0	2.1	2.0	2.1	2.1	A	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.03	2.07
26-Apr	2.0	2.0	2.0	2.1	2.1	2.0	2.1	2.1	A	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.03	2.11
27-Apr	2.0	2.1	2.0	2.0	2.0	2.1	2.0	A	2.0	2.1	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.03	2.18
28-Apr	1.9	2.0	2.0	2.0	2.0	2.0	A	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.99	2.05
29-Apr	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.01	2.06
30-Apr	2.0	2.0	2.0	2.0	A	2.0	2.0	2.1	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.02	2.09
2.03 2.03 2.04 2.04 2.03 2.03 2.04 2.05 2.04 2.03 2.02 2.02 2.01 2.01 2.01 2.01 2.02 2.02 2.00 2.00 2.01 2.00 2.01 2.01 2.02																									Diurnal Average	
2.11 2.13 2.14 2.15 2.14 2.15 2.15 2.16 2.15 2.13 2.18 2.09 2.09 2.09 2.08 2.11 2.10 2.11 2.10 2.11 2.11 2.08 2.09 2.09																									Diurnal Maximum	
C - Calibration N - Not Valid A - Automated Daily Zero Span																										

Hourly Maximums

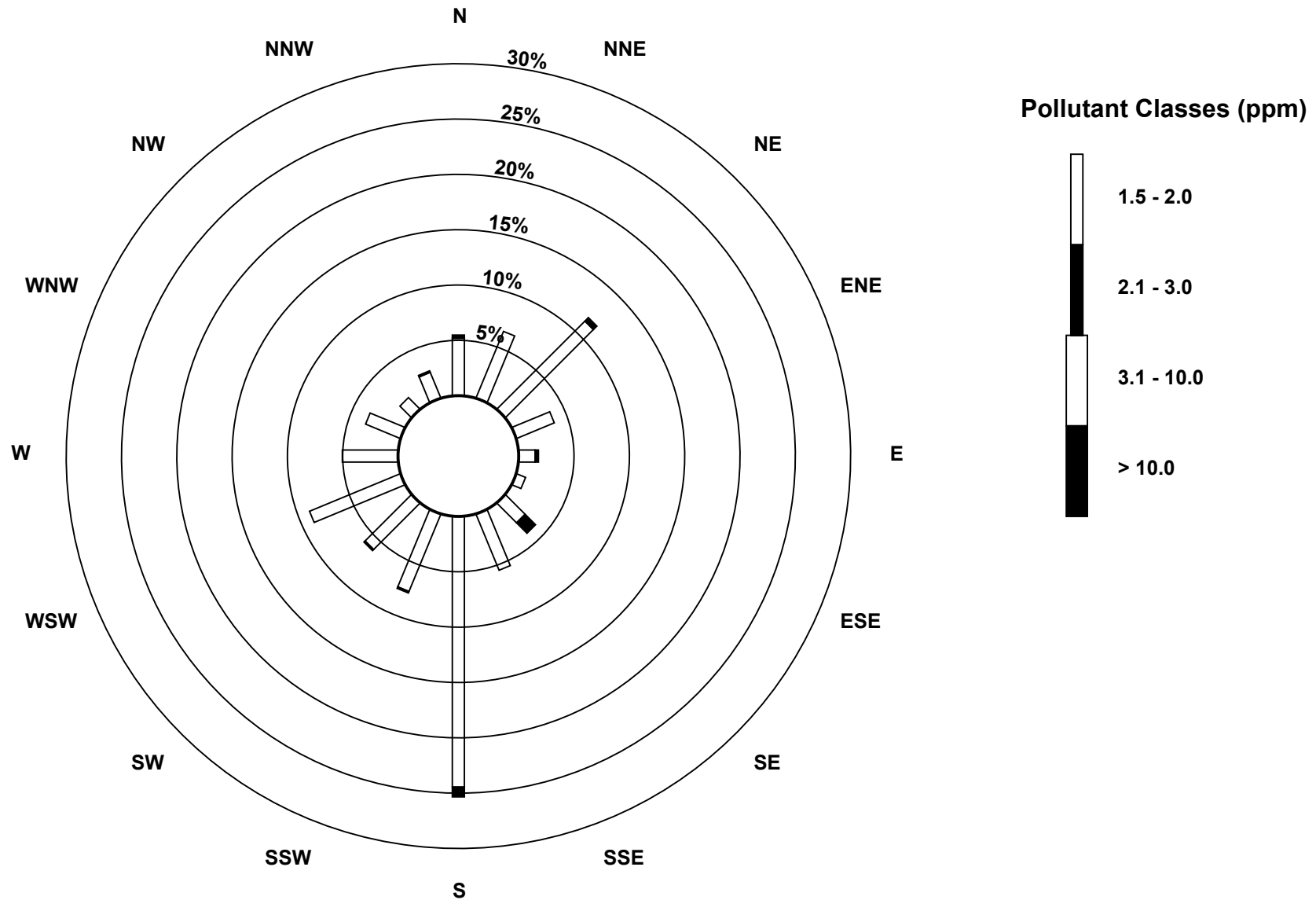
Total Hydrocarbons (THC) - ppm
Portable Rycroft - April 2018



Pollutant Rose

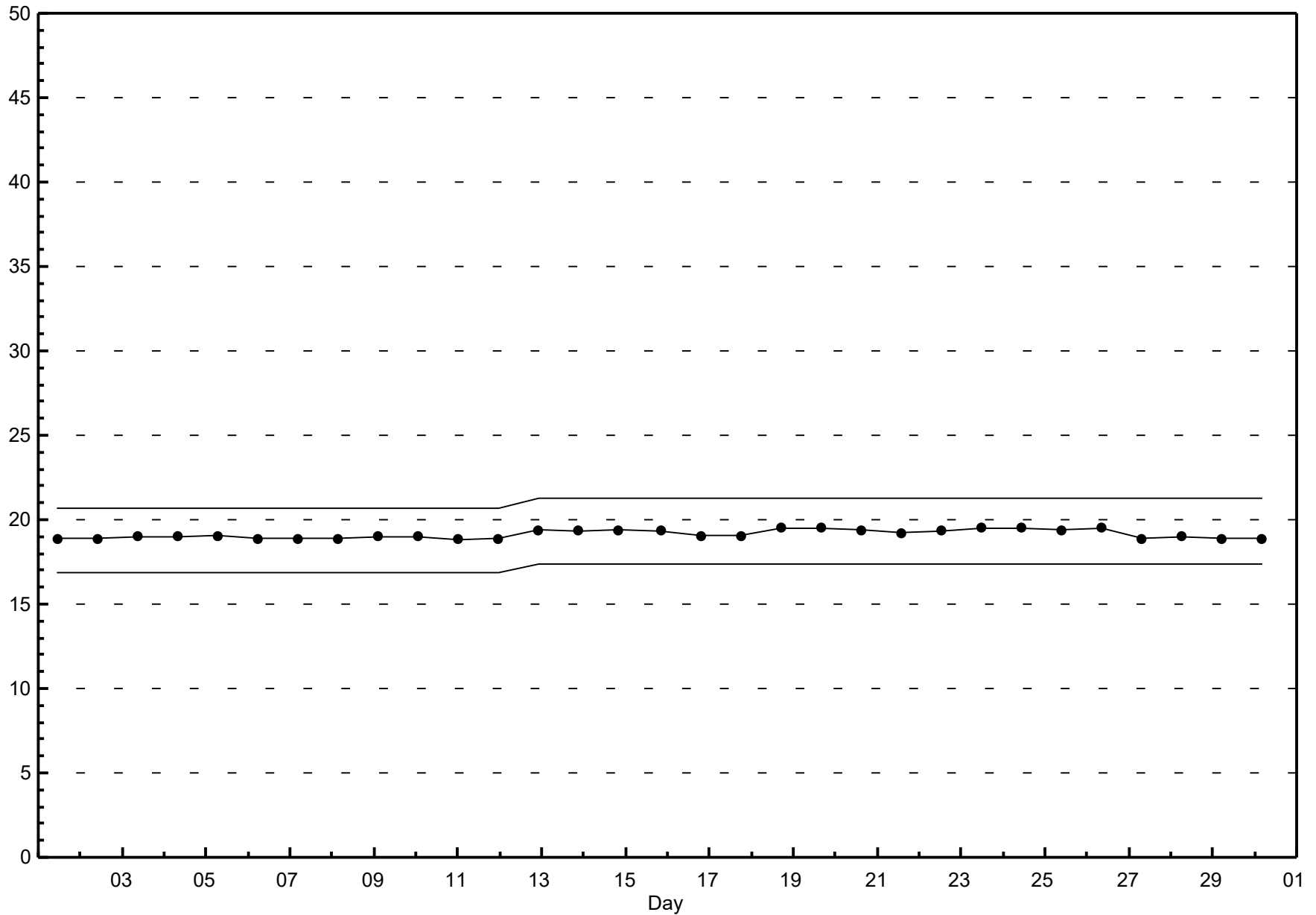
Total Hydrocarbons (THC) - ppm

Portable Rycroft - April 2018



Span Responses

Total Hydrocarbons (THC)
Portable Rycroft - April 2018



Hourly Averages

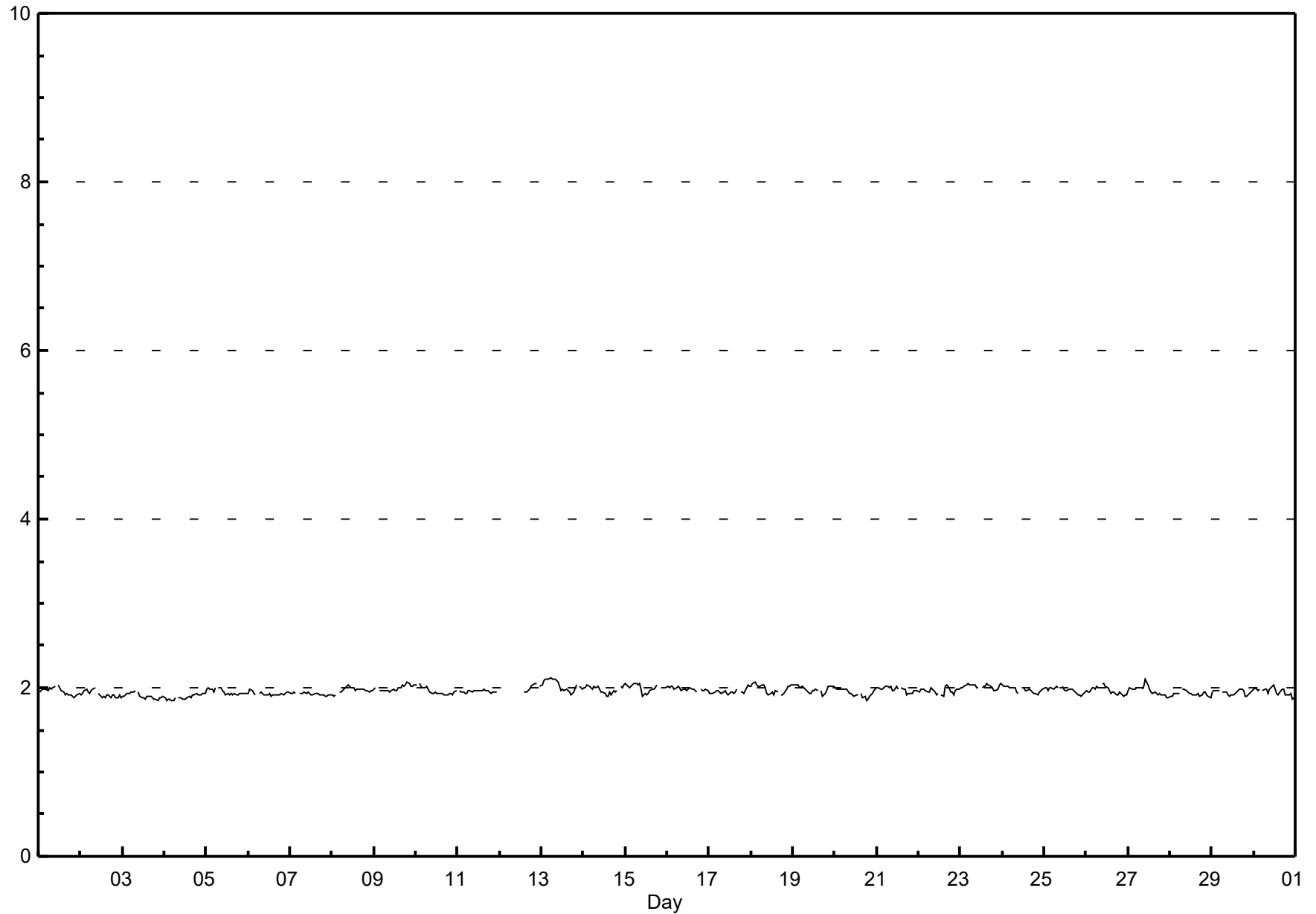
Methane (CH₄) - ppm

Portable Rycroft - April 2018

Maximum Value: 2.11 ppm on Apr 13 06:00																					Maximum Daily Average: 2.03 ppm on Apr 13					Hours in Service: 720	
Minimum Value: 1.8 ppm on Apr 4 02:00																					Minimum Daily Average: 1.89 ppm on Apr 4					Hours of Data: 676	
Maximum Diurnal Average: 1.99 ppm at hour 8																					Minimum Diurnal Average: 1.94 ppm at hour 19					Hours of Missing Data: 44	
Monthly Average: 1.962 ppm																					Percentiles: P ₁ = 1.86 P ₁₀ = 1.91 Q ₁ = 1.93 Median = 1.96 Q ₃ = 1.99 P ₉₀ = 2.02 P ₉₉ = 2.10					Hours of Calibration: 36	
																					Percent Operational Time: 98.9						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.96	2.03	
2-Apr	1.9	1.9	2.0	2.0	1.9	1.9	2.0	2.0	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.92	1.99	
3-Apr	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.0	A	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.90	1.96	
4-Apr	1.9	1.8	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.89	1.94	
5-Apr	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.95	2.01	
6-Apr	1.9	2.0	2.0	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.93	1.99	
7-Apr	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.93	1.95	
8-Apr	1.9	1.9	1.9	A	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.97	2.04	
9-Apr	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	1.99	2.07	
10-Apr	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.96	2.05	
11-Apr	A	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	2.0	2.0	A	1.96	1.99	
12-Apr	2.0	N	N	N	N	N	N	N	N	C	C	C	C	C	1.9	1.9	2.0	2.0	2.0	2.0	2.1	2.0	A	2.0	--	2.05	
13-Apr	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	2.0	2.0	A	2.0	2.0	2.03	2.11	
14-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.0	1.9	2.0	A	2.0	2.0	2.0	1.98	2.04	
15-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.00	2.05	
16-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	1.98	2.01	
17-Apr	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	2.0	1.9	1.9	2.0	2.0	1.9	2.0	2.0	A	1.9	2.0	1.9	2.0	2.0	2.0	1.96	2.04	
18-Apr	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	1.9	A	1.9	1.9	1.9	2.0	2.0	2.0	2.0	1.99	2.07	
19-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	2.0	2.0	2.0	2.0	A	2.0	1.9	1.9	2.0	2.0	2.0	2.0	2.0	1.99	2.04	
20-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.94	2.00	
21-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.98	2.02	
22-Apr	2.0	2.0	2.0	2.0	2.0	1.9	1.9	2.0	2.0	1.9	1.9	1.9	A	1.9	1.9	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	1.96	2.03	
23-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.02	2.06	
24-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	A	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.98	2.03	
25-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	1.97	2.02	
26-Apr	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	A	2.1	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.97	2.06	
27-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.1	2.0	2.0	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.96	2.10	
28-Apr	1.9	1.9	1.9	1.9	1.9	1.9	A	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.93	1.99	
29-Apr	1.9	2.0	2.0	2.0	2.0	A	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0	1.94	1.99	
30-Apr	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	1.9	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.96	2.03	
1.97 1.98 1.98 1.99 1.98 1.98 1.99 1.99 1.98 1.97 1.96 1.96 1.95 1.94 1.94 1.96 1.96 1.94 1.94 1.94 1.94 1.94 1.95 1.96 1.96																									Diurnal Average		
2.05 2.08 2.10 2.11 2.10 2.11 2.10 2.11 2.10 2.07 2.10 2.03 2.01 2.02 2.01 2.06 2.04 2.02 2.04 2.07 2.05 2.05 2.04 2.05																									Diurnal Maximum		
C - Calibration N - Not Valid A - Automated Daily Zero Span																											

Hourly Averages

Methane (CH₄) - ppm
Portable Rycroft - April 2018



Hourly Maximums

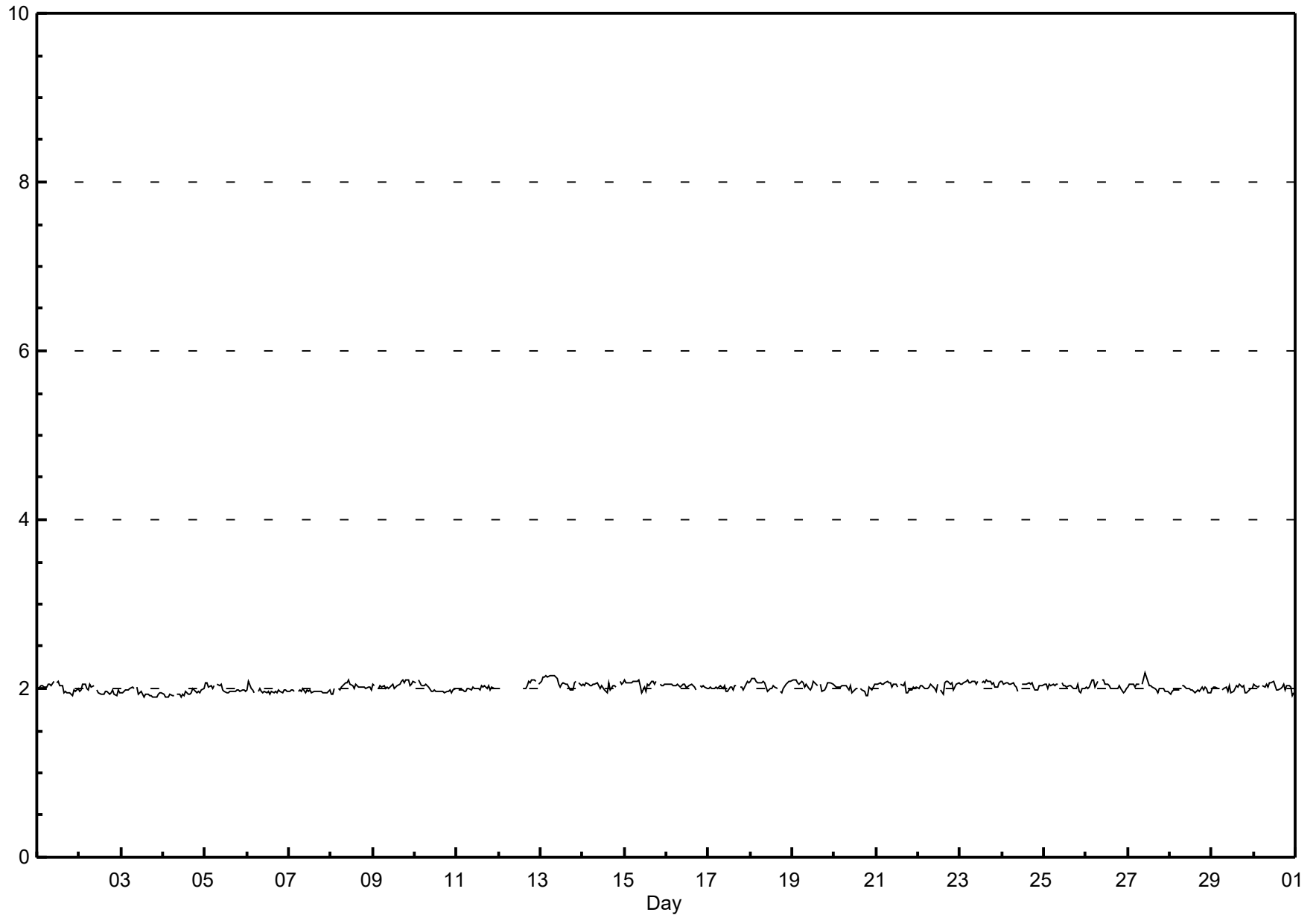
Methane (CH₄) - ppm

Portable Rycroft - April 2018

Maximum Value: 2.18 ppm on Apr 27 11:00																					Maximum Daily Average: 2.08 ppm on Apr 13					Hours in Service: 720	
Minimum Value: 1.9 ppm on Apr 4 03:00																					Minimum Daily Average: 1.94 ppm on Apr 4					Hours of Data: 676	
Maximum Diurnal Average: 2.04 ppm at hour 8																					Minimum Diurnal Average: 2.00 ppm at hour 19					Hours of Missing Data: 44	
Monthly Average: 2.015 ppm																					Percentiles: P ₁ = 1.91 P ₁₀ = 1.95 Q ₁ = 1.98 Median = 2.02 Q ₃ = 2.05 P ₉₀ = 2.08 P ₉₉ = 2.14					Hours of Calibration: 36	
																					Percent Operational Time: 98.9						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.1	A	2.1	2.1	2.0	2.0	1.9	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.01	2.08
2-Apr	2.0	2.0	2.1	2.0	2.0	2.0	2.1	2.0	2.0	A	2.0	2.0	1.9	1.9	1.9	2.0	2.0	1.9	2.0	2.0	1.9	1.9	2.0	2.0	1.97	2.06	
3-Apr	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.95	2.01	
4-Apr	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	2.0	2.0	2.0	2.0	1.9	2.0	2.0	1.94	2.01	
5-Apr	2.1	2.1	2.0	2.0	2.0	2.0	A	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.00	2.07	
6-Apr	2.0	2.1	2.0	2.0	1.9	A	2.0	2.0	2.0	1.9	2.0	1.9	2.0	1.9	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.97	2.08	
7-Apr	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	1.9	2.0	1.97	2.00	
8-Apr	1.9	1.9	2.0	A	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.02	2.11	
9-Apr	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.04	2.10	
10-Apr	2.1	A	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	1.9	2.0	2.0	2.00	2.10	
11-Apr	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.00	2.04	
12-Apr	2.1	N	N	N	N	N	N	N	N	C	C	C	C	C	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	A	2.1	--	2.10	
13-Apr	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.1	A	2.1	2.0	2.08	2.16	
14-Apr	2.0	2.0	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	1.9	2.1	2.0	2.0	2.0	2.0	A	2.1	2.0	2.1	2.03	2.08	
15-Apr	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	1.9	2.0	2.0	2.1	2.0	2.1	2.1	2.0	2.1	A	2.1	2.0	2.0	2.0	2.05	2.10	
16-Apr	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.03	2.05	
17-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.1	2.1	2.1	2.02	2.09	
18-Apr	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.04	2.12	
19-Apr	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.1	2.1	2.0	A	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.05	2.11	
20-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	1.9	1.9	2.0	2.0	2.0	2.1	2.00	2.06	
21-Apr	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.0	A	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.03	2.09	
22-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	1.9	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.1	2.03	2.09	
23-Apr	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.1	2.07	2.10	
24-Apr	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.0	2.0	2.0	A	2.1	2.0	2.0	2.0	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.04	2.08	
25-Apr	2.0	2.1	2.0	2.1	2.0	2.1	2.0	2.1	2.1	A	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.03	2.06	
26-Apr	2.0	2.0	2.0	2.1	2.1	2.0	2.1	2.1	A	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.03	2.11	
27-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.1	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.03	2.18	
28-Apr	1.9	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.98	2.04	
29-Apr	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.00	2.05	
30-Apr	2.0	2.0	2.0	2.0	A	2.0	2.0	2.1	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.02	2.08	
2.03 2.03 2.03 2.03 2.03 2.03 2.04 2.04 2.03 2.02 2.01 2.01 2.00 2.00 2.00 2.01 2.01 2.00 2.00 2.00 2.00 2.00 2.01 2.01																									Diurnal Average		
2.11 2.13 2.14 2.15 2.14 2.15 2.15 2.16 2.15 2.12 2.18 2.08 2.08 2.09 2.08 2.10 2.09 2.09 2.09 2.10 2.10 2.08 2.09 2.09																									Diurnal Maximum		
C - Calibration N - Not Valid A - Automated Daily Zero Span																											

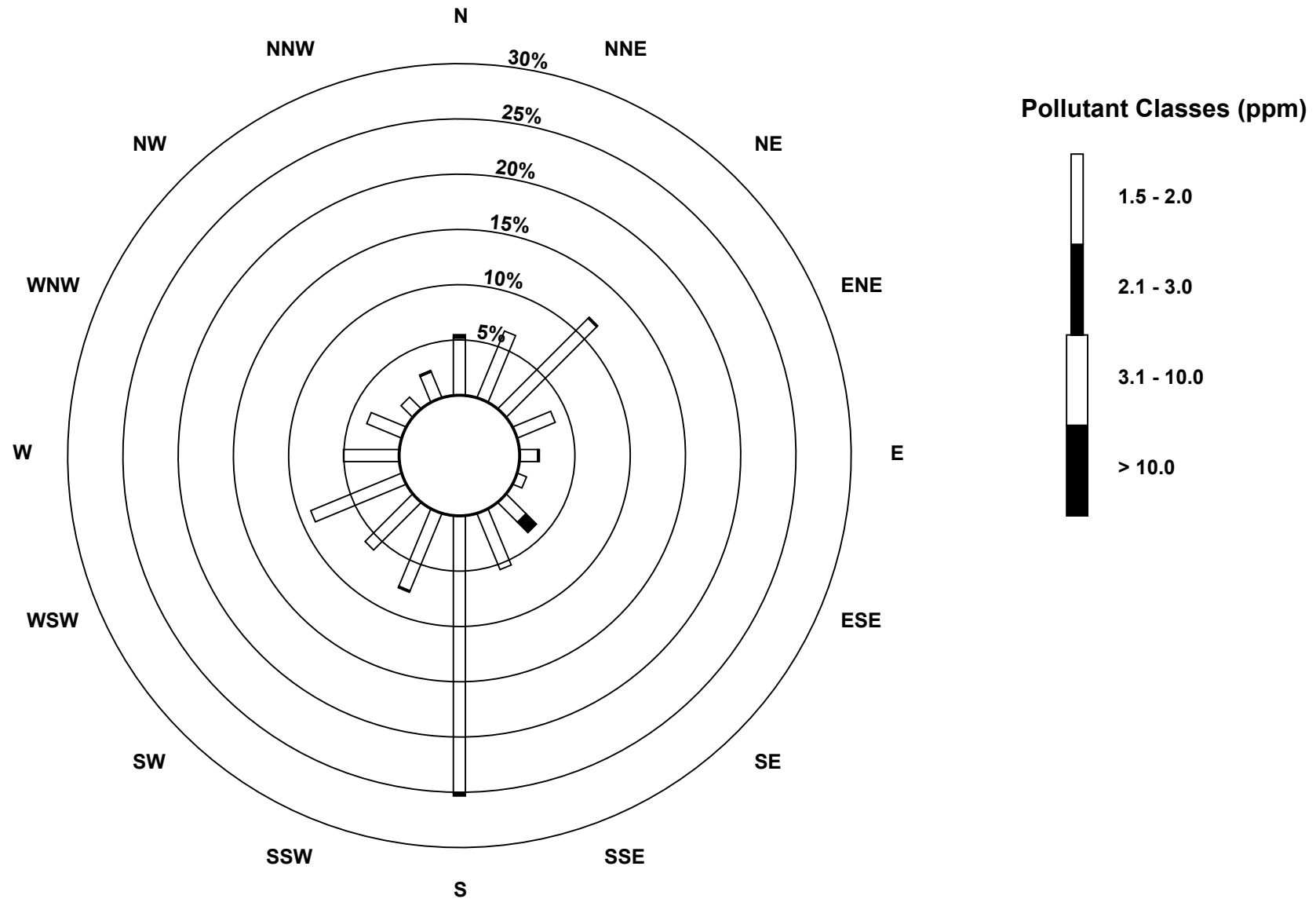
Hourly Maximums

Methane (CH₄) - ppm
Portable Rycroft - April 2018



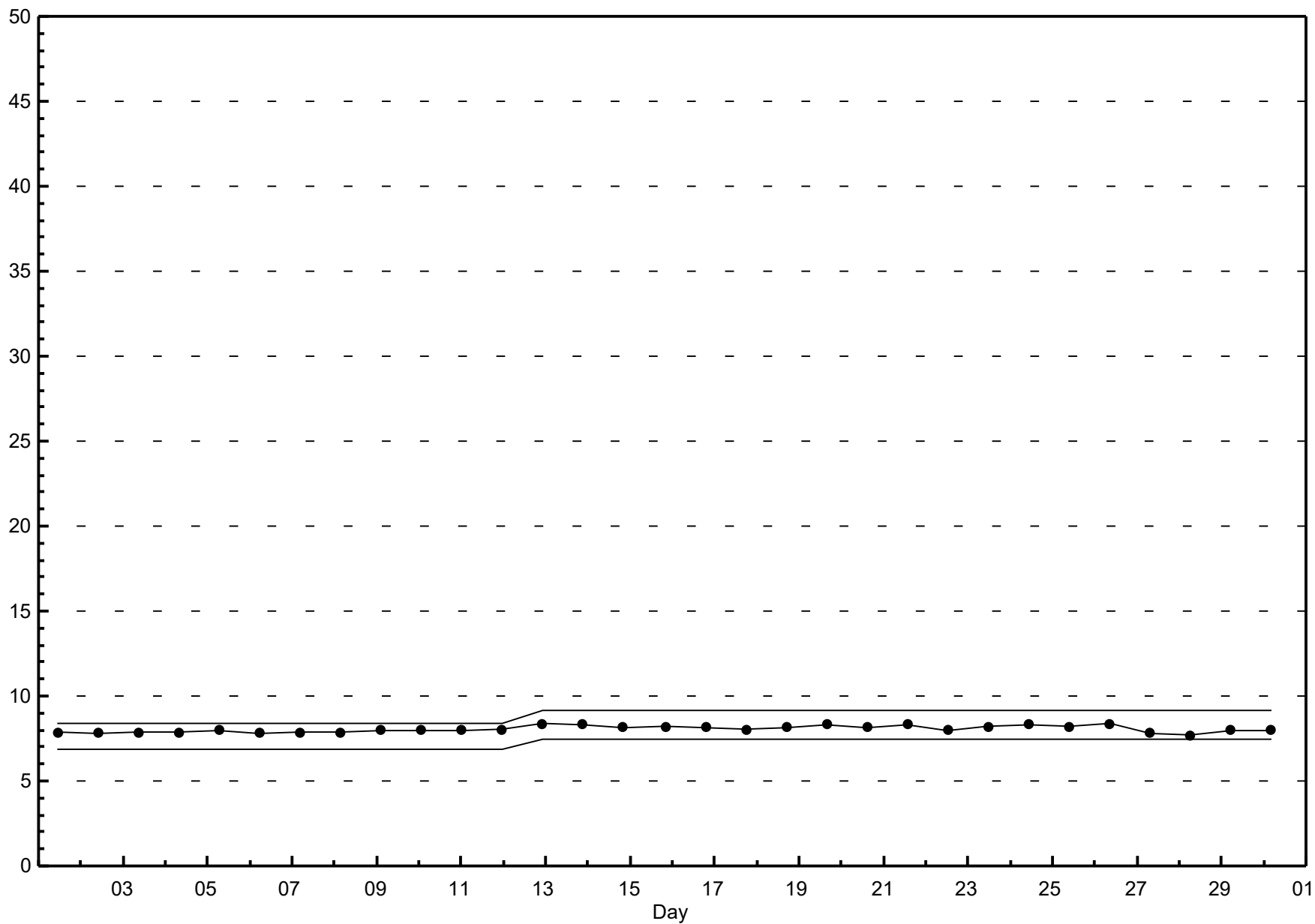
Pollutant Rose

Methane (CH₄) - ppm
Portable Rycroft - April 2018



Span Responses

Methane (CH₄)
Portable Rycroft - April 2018

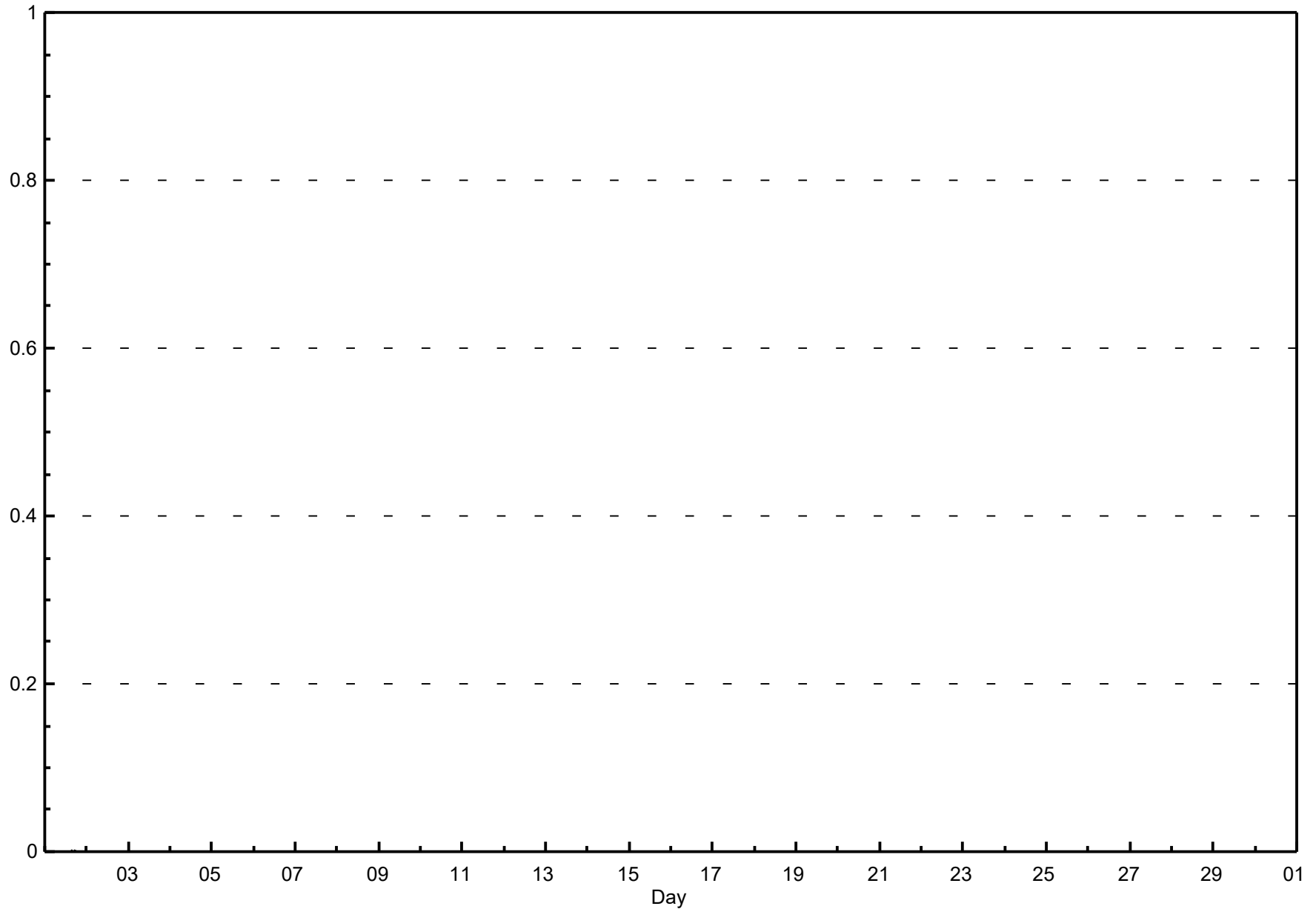


Hourly Averages

Non Methane Hydrocarbon (NMHC) - ppm

Portable Rycroft - April 2018

Maximum Value: 0.00 ppm on Apr 1 18:00																				Maximum Daily Average: 0.00 ppm on Apr 9										Hours in Service: 720	
Minimum Value: 0.0 ppm on Apr 1 01:00																				Minimum Daily Average: 0.00 ppm on Apr 6										Hours of Data: 676	
Maximum Diurnal Average: 0.00 ppm at hour 17																				Minimum Diurnal Average: 0.00 ppm at hour 3										Hours of Missing Data: 44	
Monthly Average: 0.000 ppm																				Percentiles: P ₁ = 0.00 P ₁₀ = 0.00 Q ₁ = 0.00 Median = 0.00 Q ₃ = 0.00 P ₉₀ = 0.00 P ₉₉ = 0.00										Hours of Calibration: 36	
																														Percent Operational Time: 98.9	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
1-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00					
2-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00					
3-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00					
4-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00					
5-Apr	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00					
6-Apr	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00					
7-Apr	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00					
8-Apr	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00					
9-Apr	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00					
10-Apr	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00					
11-Apr	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00					
12-Apr	0.0	N	N	N	N	N	N	N	N	C	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	--	0.00					
13-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.00	0.00					
14-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.00	0.00					
15-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.00	0.00					
16-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.00	0.00					
17-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00					
18-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00					
19-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00					
20-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00					
21-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00					
22-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00					
23-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00					
24-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00					
25-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00					
26-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00					
27-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00					
28-Apr	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00					
29-Apr	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00					
30-Apr	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00					
0.00 0.00																								Diurnal Average							
0.00 0.00																								Diurnal Maximum							
C - Calibration N - Not Valid A - Automated Daily Zero Span																															



Hourly Maximums

Non Methane Hydrocarbon (NMHC) - ppm

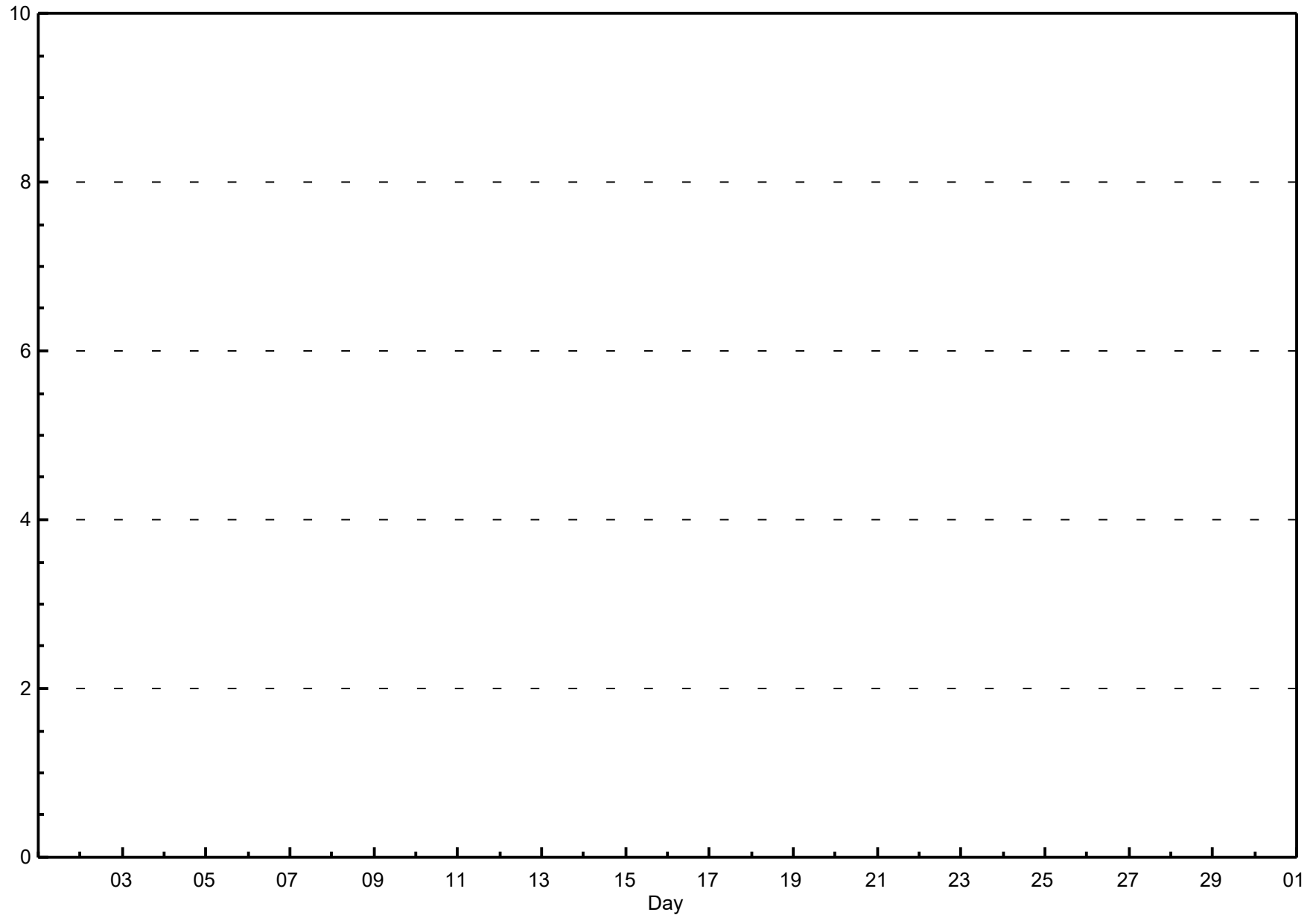
Portable Rycroft - April 2018

Maximum Value: 0.00 ppm on Apr 29 21:00																					Maximum Daily Average: 0.00 ppm on Apr 3					Hours in Service: 720	
Minimum Value: 0.0 ppm on Apr 1 01:00																					Minimum Daily Average: 0.00 ppm on Apr 15					Hours of Data: 676	
Maximum Diurnal Average: 0.00 ppm at hour 19																					Minimum Diurnal Average: 0.00 ppm at hour 9					Hours of Missing Data: 44	
Monthly Average: 0.000 ppm																					Percentiles: P ₁ = 0.00 P ₁₀ = 0.00 Q ₁ = 0.00 Median = 0.00 Q ₃ = 0.00 P ₉₀ = 0.00 P ₉₉ = 0.00					Hours of Calibration: 36	
																					Percent Operational Time: 98.9						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
2-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
3-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
4-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
5-Apr	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
6-Apr	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
7-Apr	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
8-Apr	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
9-Apr	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
10-Apr	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
11-Apr	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.00	0.00	
12-Apr	0.0	N	N	N	N	N	N	N	N	C	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	--	0.00	
13-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.00	0.00	
14-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.00	0.00	
15-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.00	0.00	
16-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
17-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
18-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
19-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
20-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
21-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
22-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
23-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
24-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
25-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
26-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
27-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
28-Apr	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
29-Apr	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
30-Apr	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
0.00 0.00																									Diurnal Average		
0.00 0.00																									Diurnal Maximum		
C - Calibration N - Not Valid A - Automated Daily Zero Span																											

Hourly Maximums

Non Methane Hydrocarbon (NMHC) - ppm

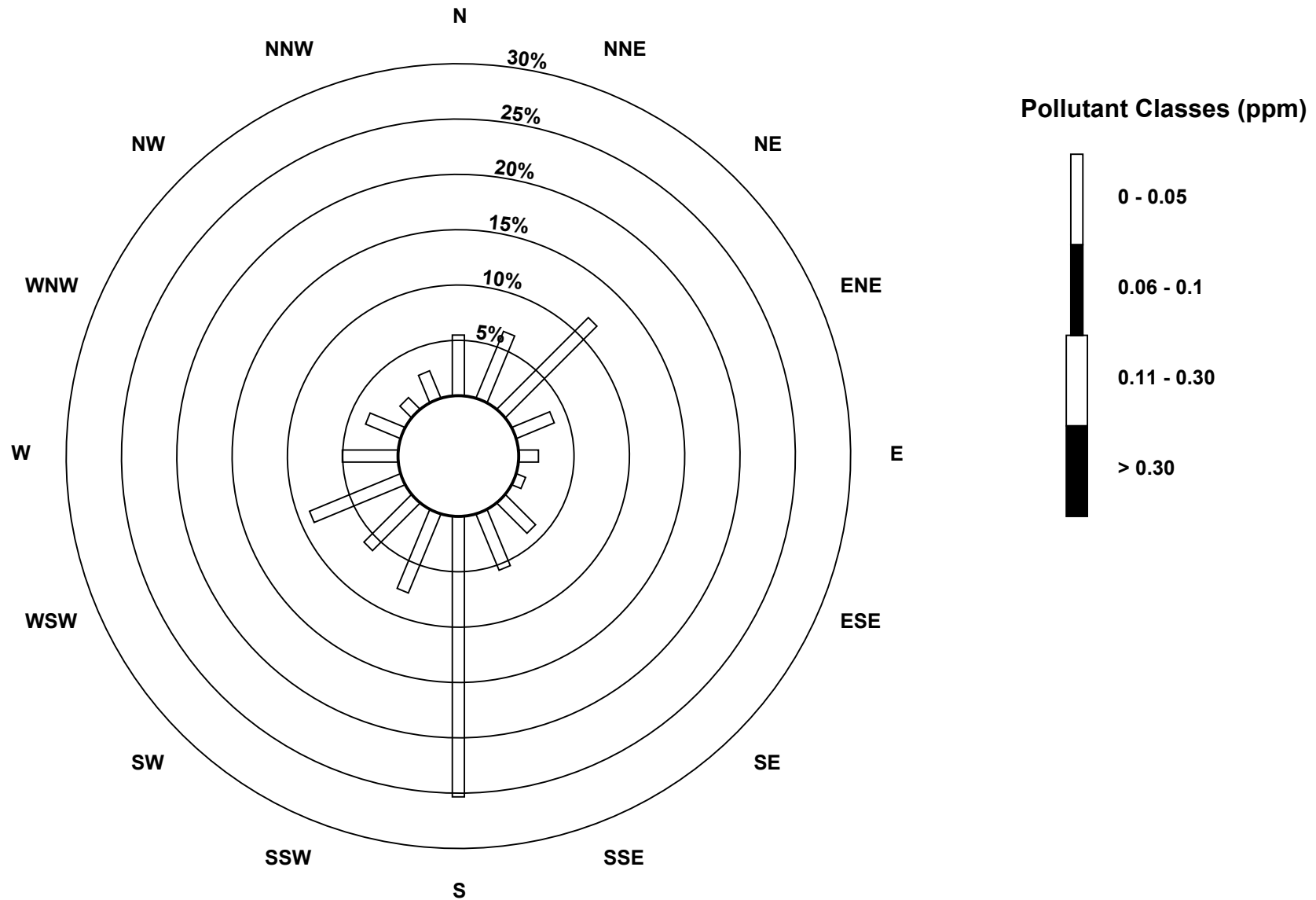
Portable Rycroft - April 2018



Pollutant Rose

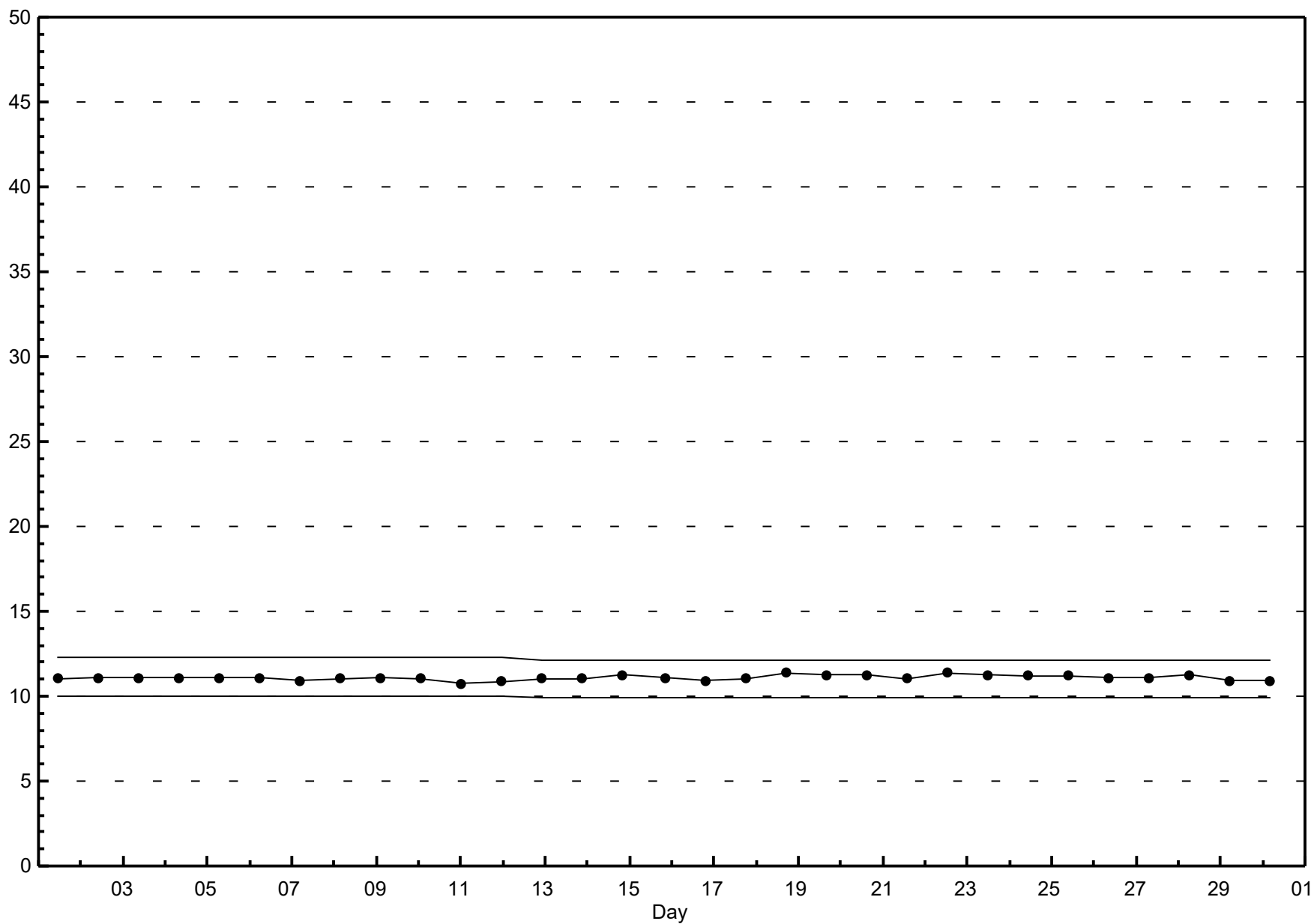
Non Methane Hydrocarbon (NMHC) - ppm

Portable Rycroft - April 2018



Span Responses

Non Methane Hydrocarbon (NMHC)
Portable Rycroft - April 2018



Hourly Averages

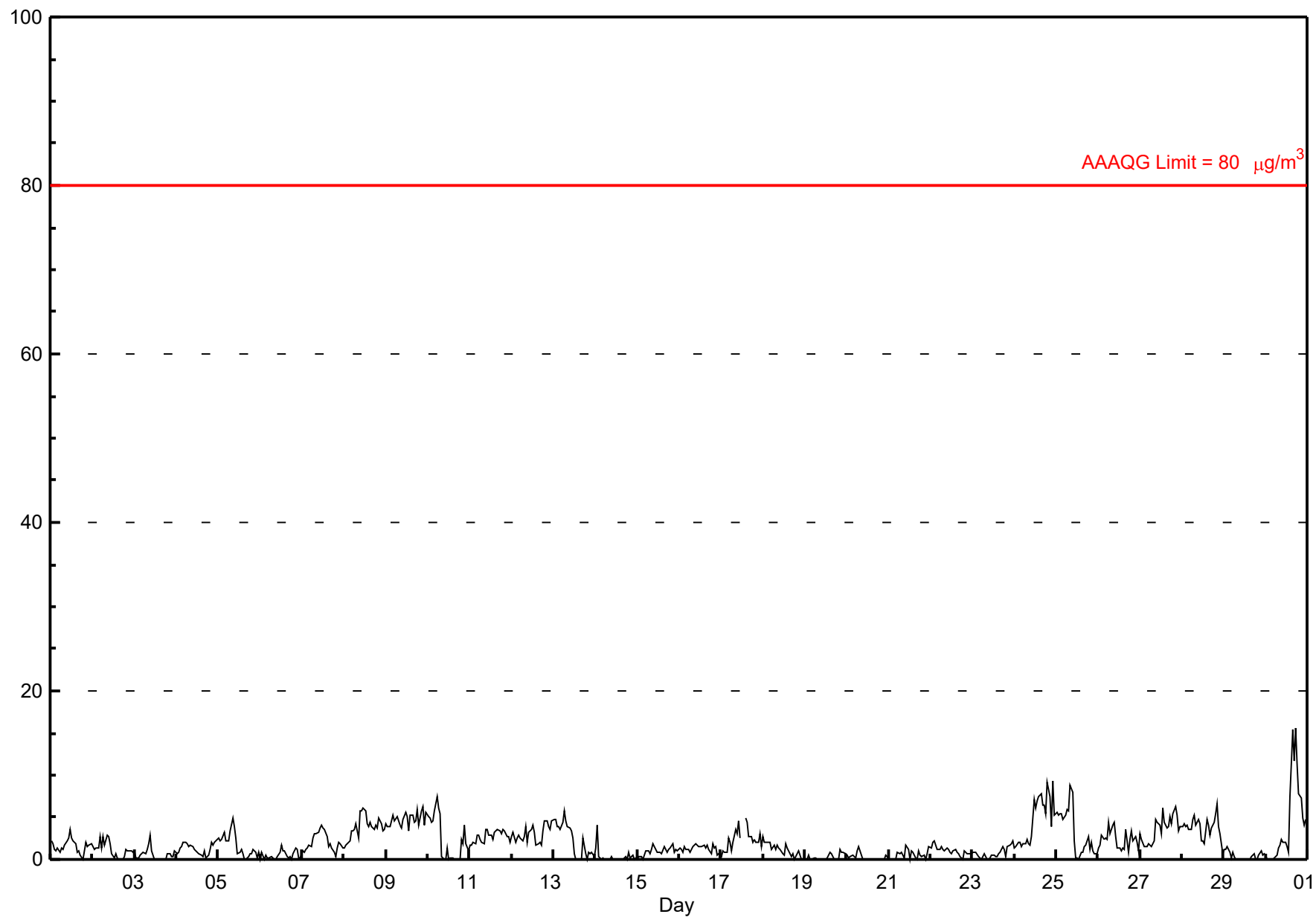
PM2.5 (PM_{2.5}) - µg/m³

Portable Rycroft - April 2018

Number of Exceedences: 1-hr: 0 24-hr: 0 Maximum Value: 15.7 µg/m³ on Apr 30 18:00 Maximum Daily Average: 4.7 µg/m³ on Apr 9																								Hours in Service: 720 Hours of Data: 718 Hours of Missing Data: 2 Hours of Calibration: 2 Percent Operational Time: 100.0			
Minimum Value: 0 µg/m³ on Apr 1 19:00 Maximum Diurnal Average: 2.5 µg/m³ at hour 21 Monthly Average: 1.97 µg/m³ Minimum Daily Average: 0.3 µg/m³ on Apr 20 Minimum Diurnal Average: 1.6 µg/m³ at hour 14 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.5 Median = 1.4 Q ₃ = 2.9 P ₉₀ = 4.6 P ₉₉ = 8.0																											
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Apr	2	2	1	1	1	1	1	1	2	2	3	4	3	2	2	1	1	0	0	1	2	2	2	2	1.6	3.6	
2-Apr	2	1	1	1	3	1	3	2	3	3	2	1	0	1	0	0	0	0	0	1	1	1	1	1	1.2	2.8	
3-Apr	1	0	0	1	1	1	1	1	2	3	1	0	0	0	0	0	0	0	0	1	1	0	0	1	0.6	2.9	
4-Apr	1	1	1	2	2	2	2	1	2	2	1	1	1	1	1	0	1	0	1	1	2	2	2	2	1.3	2.3	
5-Apr	3	2	2	3	2	2	2	3	5	4	3	1	1	1	1	0	0	0	1	1	1	1	0	1	1.7	4.8	
6-Apr	0	1	0	1	0	0	0	0	0	0	0	1	2	1	1	0	0	0	0	1	1	1	0	0	0.5	1.6	
7-Apr	1	1	1	1	2	2	3	3	3	3	4	4	4	4	3	2	2	1	1	0	1	2	2	1	2.1	4.1	
8-Apr	1	2	2	2	3	3	4	4	3	6	6	6	6	4	4	4	4	4	4	4	5	4	3	4	3.8	6.1	
9-Apr	4	4	4	5	5	5	5	5	4	4	5	6	5	3	5	5	4	5	6	4	6	6	4	6	4.7	6.2	
10-Apr	5	5	4	5	6	7	6	5	0	0	0	1	0	0	0	0	0	0	0	2	2	4	2	1	2.4	7.4	
11-Apr	2	2	2	2	3	3	2	2	2	4	4	3	3	2	3	3	4	3	3	4	3	3	3	2	2.7	3.6	
12-Apr	3	3	2	3	3	3	2	3	4	2	3	3	4	3	2	2	2	2	3	5	5	4	4	5	3.0	4.6	
13-Apr	5	5	4	4	4	4	6	5	4	4	3	2	1	0	0	0	0	2	1	0	1	1	1	0	2.3	5.8	
14-Apr	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0.3	4.1	
15-Apr	0	0	0	0	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	2	1	1	1	0.9	1.9	
16-Apr	1	1	1	2	1	1	1	1	1	2	2	2	1	2	2	1	2	1	1	2	1	2	0	1	1.3	1.9	
17-Apr	0	1	1	1	2	2	1	2	4	3	5	3	C	C	5	4	3	3	2	2	2	2	3	2	2.4	5.0	
18-Apr	3	2	2	2	2	1	2	1	2	1	1	1	1	2	1	1	0	1	0	0	1	0	0	0	1.1	2.7	
19-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	1	1	1	0.3	1.2	
20-Apr	1	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.6	
21-Apr	0	0	0	0	0	1	1	1	0	0	2	1	0	1	1	0	0	1	1	0	1	0	1	1	0.5	1.6	
22-Apr	1	2	2	2	1	1	2	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1.1	2.2	
23-Apr	1	1	1	0	0	0	0	1	0	0	0	1	0	0	0	1	1	1	1	0	2	2	2	2	0.7	2.2	
24-Apr	1	2	2	2	2	2	2	2	2	2	3	7	6	7	7	8	7	7	5	9	7	4	9	5	4.6	9.3	
25-Apr	6	5	5	5	5	5	6	6	9	8	2	0	0	0	1	1	2	2	3	1	2	1	1	1	3.2	8.8	
26-Apr	1	2	3	2	2	2	4	3	4	4	3	1	1	1	1	1	4	1	2	3	2	3	2	1	2.3	4.5	
27-Apr	3	2	2	2	2	2	2	2	2	5	4	4	3	6	4	4	4	5	4	5	6	5	3	4	3.6	6.3	
28-Apr	4	4	4	4	4	4	5	5	4	5	4	2	2	2	5	4	3	4	4	5	7	4	3	1	3.8	6.6	
29-Apr	1	1	2	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	1	0.4	1.5	
30-Apr	1	0	0	0	0	0	0	1	2	2	2	2	1	1	7	15	12	16	11	8	7	5	4	5	4.3	15.7	
1.8 1.9 1.7 1.8 1.9 1.9 2.2 2.2 2.2 2.4 2.1 1.9 1.6 1.6 2.0 2.1 1.9 2.0 1.9 2.2 2.5 2.1 1.9 1.7																								Diurnal Average			
5.5 5.2 5.4 5.5 5.8 7.4 6.1 5.7 8.8 8.0 5.8 7.2 6.0 7.0 7.5 15.4 11.6 15.7 11.4 9.2 7.5 6.2 9.3 5.6																								Diurnal Maximum			
C - Calibration																											
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 µg/m³ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 µg/m³																											

Hourly Averages

PM_{2.5} (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Portable Rycroft - April 2018



Hourly Maximums

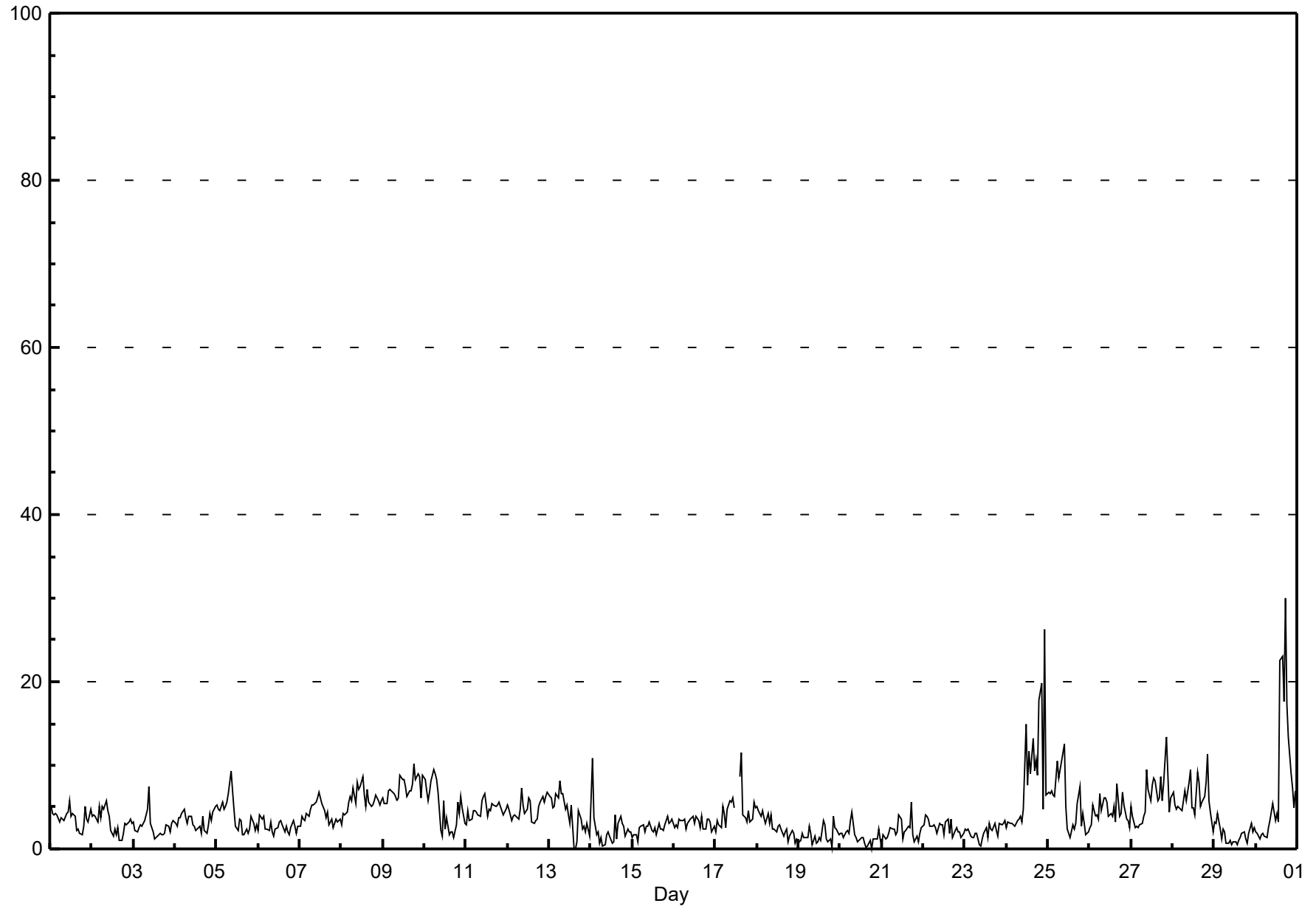
PM2.5 (PM_{2.5}) - µg/m³

Portable Rycroft - April 2018

Maximum Value: 30.1 μg/m ³ on Apr 30 18:00																				Maximum Daily Average: 8.2 μg/m ³ on Apr 24					Hours in Service: 720	
Minimum Value: 0 μg/m ³ on Apr 13 16:00																				Minimum Daily Average: 1.5 μg/m ³ on Apr 20					Hours of Data: 718	
Maximum Diurnal Average: 5.0 μg/m ³ at hour 21																				Minimum Diurnal Average: 3.5 μg/m ³ at hour 13					Hours of Missing Data: 2	
Monthly Average: 4.03 μg/m ³																				Percentiles: P ₁ = 0.4 P ₁₀ = 1.4 Q ₁ = 2.1 Median = 3.4 Q ₃ = 5.1 P ₉₀ = 7.0 P ₉₉ = 17.0					Hours of Calibration: 2	
																									Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	5	4	4	4	4	3	4	4	3	4	4	6	4	4	4	2	2	2	2	3	5	4	3	5	3.7	5.8
2-Apr	4	4	4	3	5	4	5	5	6	5	4	2	2	2	2	3	1	1	2	3	3	3	4	3	3.3	5.8
3-Apr	3	2	2	3	3	3	3	4	5	7	3	2	1	1	2	2	2	2	2	3	3	2	3	3	2.7	7.4
4-Apr	3	3	4	4	4	5	4	3	4	4	3	3	2	2	3	2	4	2	2	3	4	3	4	5	3.3	5.1
5-Apr	5	5	5	6	5	5	6	7	9	7	5	3	2	4	3	2	2	2	2	2	4	3	2	3	4.1	9.3
6-Apr	2	4	4	4	2	2	2	3	2	2	2	3	3	3	3	2	3	2	2	3	3	3	2	3	2.7	4.1
7-Apr	3	4	4	3	4	4	5	5	5	6	6	7	6	5	5	4	4	3	4	3	3	4	3	4	4.2	6.8
8-Apr	3	4	4	4	6	6	6	7	6	8	7	7	9	6	5	7	6	5	5	6	7	6	5	6	5.9	8.6
9-Apr	6	5	5	7	7	7	7	6	6	6	9	8	8	7	6	7	7	8	10	8	9	9	6	9	7.3	10.2
10-Apr	8	7	6	7	8	9	9	8	7	2	2	6	2	4	2	2	2	1	3	6	4	6	5	3	5.0	9.5
11-Apr	3	5	3	4	5	4	4	4	4	6	6	7	4	5	5	5	5	5	5	6	5	4	4	5	4.7	6.6
12-Apr	5	5	3	4	4	4	4	5	7	5	4	5	6	6	3	3	3	4	5	6	6	6	6	7	4.8	7.2
13-Apr	6	6	5	5	7	6	8	7	7	5	5	4	3	5	0	0	1	5	4	2	3	2	3	2	4.2	8.1
14-Apr	6	11	4	2	2	1	1	0	0	2	2	2	1	1	4	1	3	4	3	3	1	2	2	2	2.5	10.9
15-Apr	1	2	2	1	3	3	3	2	3	3	3	2	2	2	2	3	2	2	2	3	4	3	3	4	2.5	3.8
16-Apr	3	3	2	4	3	3	3	2	3	4	4	4	3	4	3	3	4	2	2	3	4	3	2	3	3.1	4.0
17-Apr	2	3	3	3	5	4	3	5	6	6	6	5	C	C	9	11	4	4	3	5	3	4	6	5	4.7	11.5
18-Apr	5	5	4	5	4	3	4	3	4	2	2	2	3	3	2	2	2	2	1	1	2	2	1	1	2.7	5.1
19-Apr	1	1	2	1	1	1	3	2	0	1	1	1	1	1	3	3	1	1	1	0	4	3	2	2	1.6	3.8
20-Apr	2	2	1	2	2	2	3	4	2	1	1	1	1	1	1	0	0	1	0	1	1	1	2	1	1.5	4.3
21-Apr	1	2	1	1	2	3	2	2	2	2	4	4	1	2	2	3	3	6	2	1	2	1	2	3	2.1	5.6
22-Apr	3	4	4	4	3	3	3	2	2	3	3	3	2	3	4	2	4	1	2	3	2	2	1	2	2.6	4.1
23-Apr	2	2	2	2	1	1	2	2	0	0	1	2	2	1	3	2	2	3	2	1	3	3	3	3	2.0	3.4
24-Apr	3	3	3	3	3	3	3	4	4	3	5	15	8	12	9	13	9	11	9	18	20	5	26	6	8.2	26.3
25-Apr	7	7	7	6	6	11	9	9	10	13	5	2	2	1	3	2	3	5	7	3	4	3	2	2	5.4	12.6
26-Apr	3	3	5	4	4	4	7	5	6	6	6	4	4	4	5	3	8	4	4	7	5	4	3	3	4.6	7.8
27-Apr	5	4	3	3	2	3	3	4	4	10	7	6	8	8	8	6	6	9	6	8	13	9	4	6	6.0	13.4
28-Apr	7	5	5	5	5	5	6	7	6	8	9	5	5	4	9	8	5	6	6	8	11	6	4	2	6.1	11.3
29-Apr	3	3	4	2	1	2	2	1	1	1	0	1	1	0	1	1	2	2	1	1	2	3	2	3	1.7	4.2
30-Apr	2	2	1	2	2	2	1	3	3	4	5	3	4	3	22	23	18	30	17	13	9	7	5	7	7.9	30.1
3.7 4.0 3.5 3.5 3.8 3.8 4.1 4.2 4.2 4.5 4.2 4.1 3.5 3.7 4.4 4.2 3.9 4.5 3.9 4.4 5.0 3.8 4.1 3.7																									Diurnal Average	
8.3 10.9 7.0 7.0 8.1 10.6 8.9 9.4 10.5 12.6 9.5 14.9 8.6 11.6 22.5 23.0 17.6 30.1 17.4 17.8 19.9 9.0 26.3 8.8																									Diurnal Maximum	
C - Calibration																										

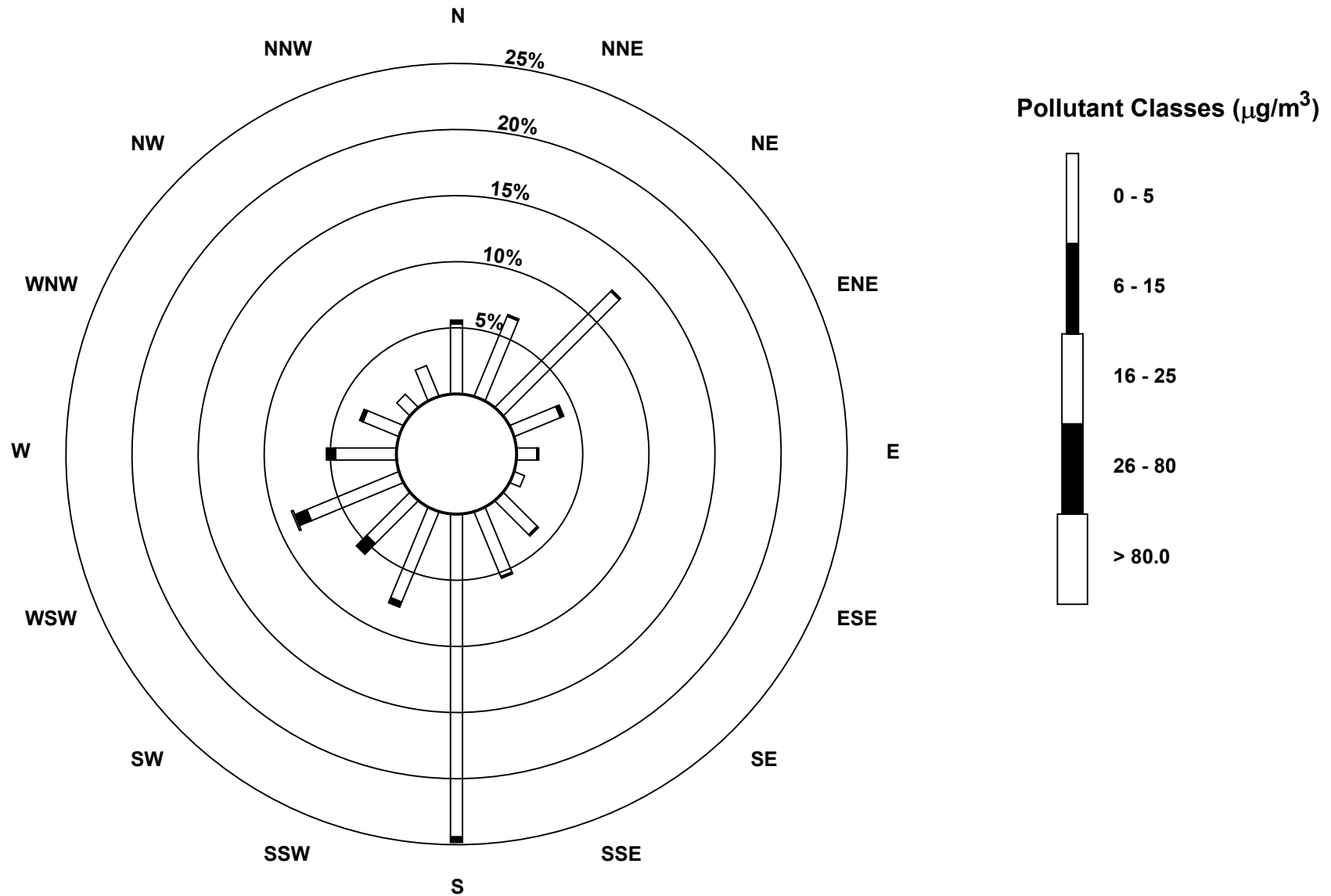
Hourly Maximums

PM_{2.5} (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Portable Rycroft - April 2018



Pollutant Rose

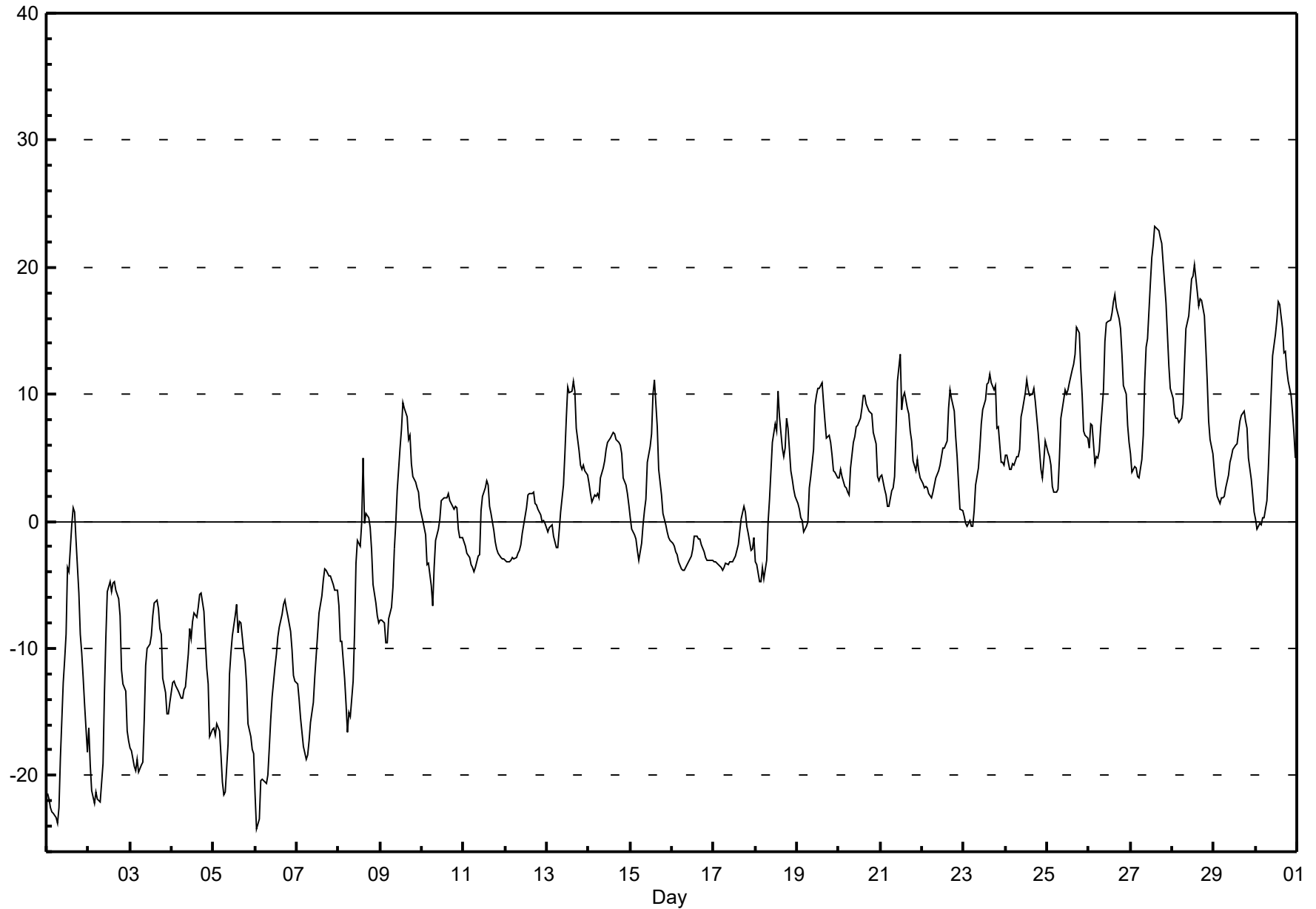
PM_{2.5} (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Portable Rycroft - April 2018



Hourly Averages

External Temperature (ET) - °C

Portable Rycroft - April 2018



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Portable Rycroft - April 2018

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	11	10	9	10	10	10	11	9	6	3	5	6	6	6	8	7	6	2	5	3	5	6	9	7	5.7	11.1
Dir	184	180	177	176	171	178	181	182	175	213	242	254	273	262	270	270	268	241	188	205	160	171	169	189	198.3	181.0
2 Spd	8	9	9	10	8	9	8	8	7	5	7	7	6	8	6	6	5	4	4	4	4	5	8	10	5.7	10.1
Dir	171	184	186	185	174	178	182	190	189	239	265	286	260	257	242	253	211	213	226	220	207	177	175	173	203.7	184.8
3 Spd	9	8	9	7	4	5	3	1	2	5	13	18	20	18	15	14	14	12	10	10	5	4	9	2	5.2	20.2
Dir	171	174	190	177	177	181	179	206	259	324	25	31	39	33	30	31	33	35	31	24	43	2	0	345	37.4	38.7
4 Spd	9	14	11	12	8	7	10	9	7	6	7	7	6	7	12	11	5	4	7	16	15	16	12	12	5.4	16.0
Dir	19	23	359	358	4	324	338	352	327	298	290	253	211	224	254	257	214	208	226	234	240	246	261	256	283.0	234.0
5 Spd	11	10	9	6	8	8	7	6	3	3	6	8	9	10	10	8	8	9	8	9	7	5	7	8	2.2	10.7
Dir	253	253	247	225	184	178	181	187	254	333	27	24	21	14	38	29	30	50	67	59	49	45	26	56	31.6	253.1
6 Spd	3	2	7	15	16	16	12	10	12	14	15	16	22	23	25	23	22	19	17	16	12	8	10	10	14.1	25.0
Dir	95	324	46	63	59	57	56	60	51	50	54	43	36	38	40	41	39	41	44	51	60	64	41	40	47.3	39.7
7 Spd	8	9	12	7	3	6	8	12	14	15	16	17	19	21	24	23	22	22	18	20	18	12	10	8	14.2	24.2
Dir	48	47	49	55	64	51	65	53	42	36	34	36	38	39	40	39	40	42	44	49	53	58	48	52	44.3	40.1
8 Spd	8	5	4	1	2	1	4	5	4	3	5	7	8	6	2	4	3	4	2	2	6	7	9	7	1.2	8.9
Dir	40	56	70	270	341	263	156	190	227	247	279	278	293	319	286	209	207	176	99	101	144	153	158	159	193.6	158.2
9 Spd	7	8	8	5	6	6	6	2	2	9	2	6	7	9	9	8	9	4	1	3	4	4	3	3	2.0	9.4
Dir	155	156	158	172	171	161	170	122	163	150	67	356	346	5	13	23	27	26	203	85	89	161	126	61	102.1	12.6
10 Spd	7	7	7	N	10	8	5	1	10	25	32	24	28	25	24	21	19	18	20	25	28	23	18	20	17.2	31.7
Dir	58	64	46	N	55	30	354	83	36	42	39	36	43	43	42	24	18	26	26	52	53	55	47	44	40.6	38.7
11 Spd	18	15	13	12	12	13	10	13	13	8	4	5	4	4	4	4	4	4	6	7	6	3	2	3	6.9	18.2
Dir	52	47	34	3	339	351	336	1	11	29	11	2	23	357	354	15	41	50	54	54	67	57	354	360	19.5	51.7
12 Spd	6	6	8	8	10	7	8	11	13	13	12	14	13	12	16	15	13	18	12	10	9	8	2	3	9.7	17.7
Dir	356	14	21	42	47	39	36	42	36	35	51	34	42	71	69	66	63	43	47	60	53	34	45	125	46.5	42.8
13 Spd	6	8	6	6	7	7	6	8	10	10	9	6	3	5	10	6	9	16	14	8	4	9	10	11	6.4	16.4
Dir	128	139	130	127	145	142	131	137	137	144	143	153	177	233	159	119	78	60	54	59	97	147	165	167	128.0	60.0
14 Spd	9	11	7	13	12	13	12	20	24	20	16	16	20	24	20	19	14	9	7	5	9	12	12	8	13.6	23.6
Dir	185	208	187	177	170	179	194	189	189	191	192	191	189	187	188	187	188	217	238	209	189	186	182	216	190.4	189.3
15 Spd	7	9	8	7	7	4	3	4	5	7	9	8	8	4	5	10	17	19	20	20	21	21	19	15	5.1	20.9
Dir	180	181	183	180	189	198	180	222	233	258	318	307	302	295	336	1	24	24	21	21	28	20	9	6	4.4	28.3
16 Spd	17	19	17	14	16	19	15	17	18	20	20	21	20	20	21	19	14	16	18	15	12	12	12	12	16.4	21.0
Dir	359	360	354	6	16	10	1	7	22	21	19	16	14	11	10	11	13	358	356	353	350	347	333	328	5.0	16.1
17 Spd	11	11	13	20	21	19	20	19	21	23	23	26	20	30	30	28	21	14	11	7	3	6	4	7	15.7	30.3
Dir	303	287	268	265	268	266	264	251	243	242	242	241	244	250	257	255	264	264	258	262	177	151	176	163	253.7	250.2
18 Spd	5	5	7	8	8	8	8	8	9	11	8	7	10	7	13	18	11	7	5	4	8	12	13	11	6.9	17.6
Dir	201	193	183	179	172	177	170	168	197	196	206	213	234	273	268	265	260	245	140	110	179	184	186	177	204.5	264.9
19 Spd	11	11	10	9	9	8	9	7	5	6	19	18	17	12	9	7	6	8	13	12	11	10	12	14	10.3	18.8
Dir	174	183	181	178	180	183	179	179	200	192	165	164	164	177	183	208	207	191	186	180	187	191	188	193	181.0	164.9
20 Spd	14	14	11	12	9	8	7	7	8	15	20	18	15	13	13	13	10	8	7	7	6	5	3	5	9.9	19.8
Dir	188	185	185	186	176	186	235	238	203	189	183	189	186	184	182	181	180	180	181	149	146	141	234	214	186.3	183.3
21 Spd	4	3	4	1	6	7	6	5	4	1	4	3	9	6	5	6	10	13	8	9	10	15	26	34	7.1	33.5
Dir	183	128	227	39	186	193	201	187	166	333	351	349	194	209	209	218	232	240	211	205	208	222	234	236	219.0	235.7
22 Spd	36	37	26	27	30	27	24	26	24	28	25	24	20	23	14	6	3	3	4	9	15	8	9	10	18.6	36.7
Dir	236	238	245	249	240	237	239	248	246	247	244	245	237	245	243	228	247	179	191	237	231	214	189	186	238.3	237.8

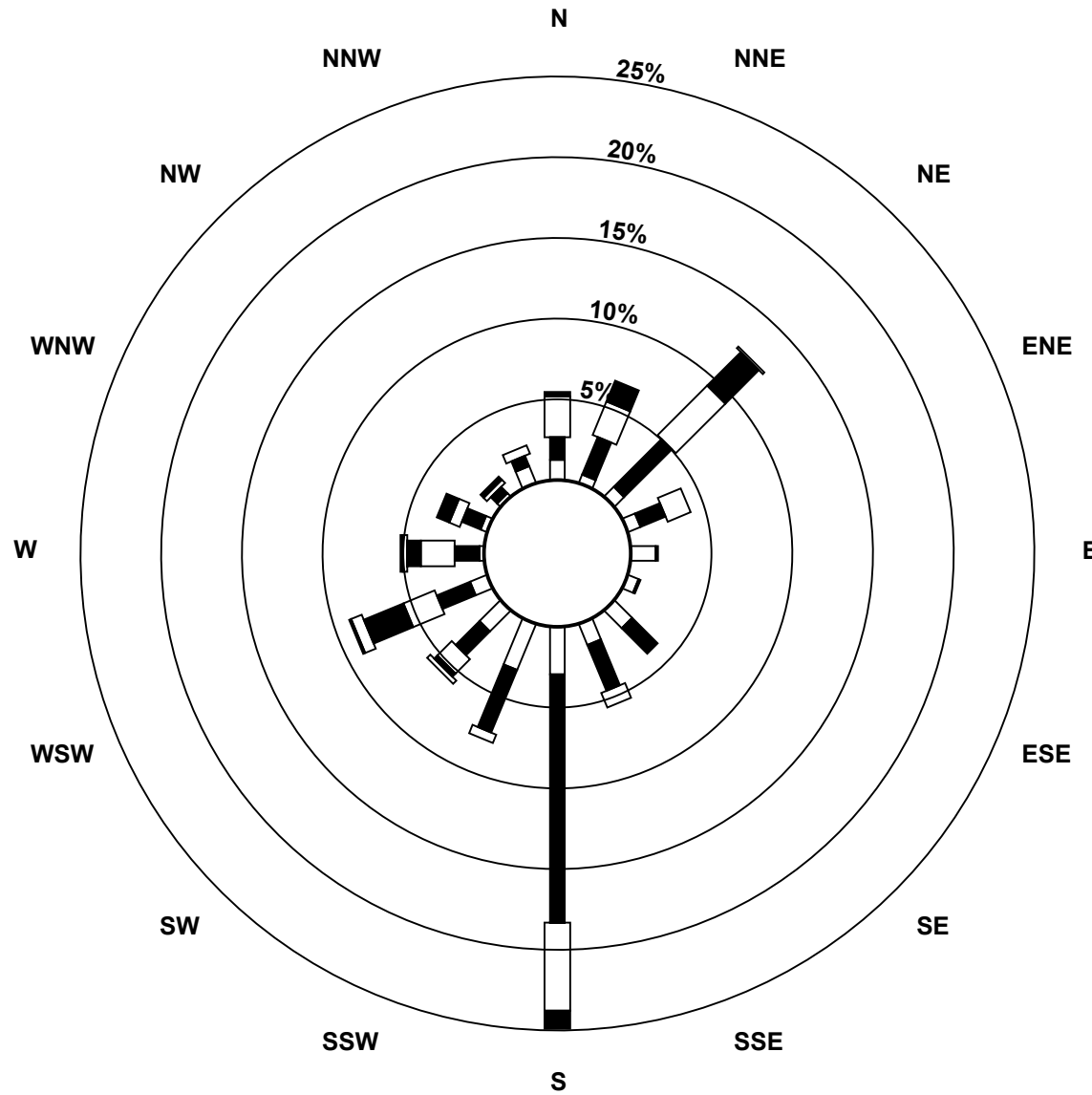
Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Portable Rycroft - April 2018

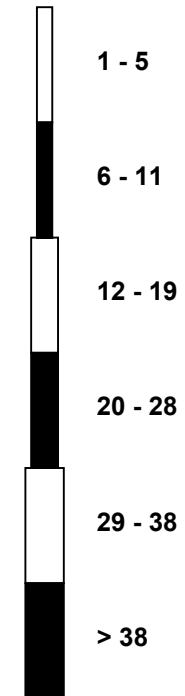
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum								
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24										
23 Spd	8	8	8	10	10	9	10	11	13	12	11	12	11	10	10	11	12	9	9	6	9	8	9	11	9.8	12.8								
Dir	186	177	177	174	173	174	172	178	182	181	183	184	188	188	186	186	186	188	187	203	176	192	176	185	182.3	182.3								
24 Spd	13	14	12	10	8	9	14	12	10	15	11	16	17	24	19	17	14	14	7	7	6	6	11	16	11.1	24.2								
Dir	166	167	174	178	192	196	187	187	200	186	192	235	234	246	247	244	239	239	223	216	206	204	220	229	213.0	246.4								
25 Spd	14	21	19	7	6	6	7	6	3	3	7	10	9	13	13	10	5	3	4	5	7	10	11	12	7.8	20.6								
Dir	230	240	249	247	181	192	171	171	172	208	193	186	192	186	185	186	206	287	234	198	206	188	190	188	204.8	240.2								
26 Spd	10	16	14	14	12	9	7	7	4	2	8	10	9	11	6	5	12	12	12	10	8	4	2	6	0.8	15.9								
Dir	190	233	254	271	242	225	170	182	186	334	1	16	50	49	92	89	46	55	58	49	56	84	126	183	70.7	233.2								
27 Spd	6	6	6	6	5	4	5	5	8	1	7	3	2	2	3	5	3	5	5	6	4	4	7	9	2.6	9.0								
Dir	181	183	174	174	166	171	178	191	145	7	351	344	224	216	336	246	102	86	90	64	65	131	150	175	155.6	174.6								
28 Spd	6	8	10	12	12	13	9	7	12	19	18	15	11	13	19	24	22	23	19	22	26	22	29	28	11.2	29.2								
Dir	174	174	169	165	169	168	176	187	273	267	254	278	190	193	291	309	306	292	294	297	298	283	279	284	267.5	279.0								
29 Spd	24	23	24	16	12	12	17	14	13	9	7	6	3	3	4	5	6	4	6	4	5	5	4	3	6.4	24.1								
Dir	282	271	269	280	284	271	271	292	314	303	301	339	14	148	206	226	211	191	155	118	127	135	139	127	271.6	269.0								
30 Spd	5	4	5	6	7	4	10	11	11	14	14	17	18	20	21	39	40	35	32	17	17	17	12	13	11.4	39.9								
Dir	147	122	147	143	144	168	156	163	171	186	187	189	191	188	233	263	258	249	261	231	281	317	284	259	230.5	258.1								
Spd	3.5	4.1	3.5	3.4	3.4	3.4	3.6	3.3	2.5	2.3	1.2	1.7	0.9	1.7	1.9	3.0	2.2	2.0	1.5	1.7	1.0	1.3	2.6	3.7	Diurnal Average									
Dir	200.8	209.8	215.0	207.3	192.0	199.4	201.2	200.5	210.2	225.9	247.1	275.1	216.9	238.4	279.6	288.7	322.0	348.7	10.2	46.7	83.1	169.8	212.6	214.2	Diurnal Maximum									
Spd	36.3	36.7	25.9	27.3	29.6	27.3	24.4	25.6	24.2	28.4	31.7	26.4	27.7	30.3	29.7	39.0	39.9	35.3	32.0	25.1	28.1	22.9	29.2	33.5										
Dir	235.9	237.8	245.0	249.1	239.6	237.2	238.5	247.8	245.5	247.3	38.7	241.1	43.1	250.2	257.2	262.9	258.1	249.0	260.7	51.5	52.5	55.4	279.0	235.7										
Maximum Speed Value: 40 km/h on Apr 30 17:00																				Minimum Speed Value: 1 km/h on Apr 27 10:00										Hours in Service:				720
Maximum Daily Speed Average: 18.6 km/h on Apr 22																				Minimum Daily Speed Average: 0.8 km/h on Apr 8										Hours of Data:				719
Maximum Diurnal Speed Average: 4.1 km/h at hour 2																				Minimum Diurnal Speed Average: 0.9 km/h at hour 13										Hours of Missing Data:				1
Monthly Average Velocity: 1.65 km/h 220.98 deg										Speed Percentiles: P ₁ = 1.5 P ₁₀ = 3.9 Q ₁ = 6.0 Median = 9.1 Q ₃ = 14.0 P ₉₀ = 20.2 P ₉₉ = 31.4										Percent Operational Time:				99.9										
All monthly, daily, and diurnal averages have been calculated using vector methods																																		
N - Not Valid																																		
Frequency Distribution																																		
Speed Range (km/h)																																		
Direction	0 to 5		5 to 11		11 to 19		19 to 28		28 to 38		> 38		Total																					
North	15		21		21		13		0		0		70																					
NorthEast	12		53		51		24		2		0		142																					
East	11		5		2		0		0		0		18																					
SouthEast	16		30		0		0		0		0		46																					
South	24		133		60		9		0		0		226																					
SouthWest	29		43		18		18		5		0		113																					
West	7		21		24		15		6		2		75																					
NorthWest	7		13		5		4		0		0		29																					
Total	121		319		181		83		13		2		719																					

Wind Rose

Wind Speed (WS) (km/h)
Portable Rycroft - April 2018



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Portable Rycroft - April 2018

Maximum Speed: 40 km/h on Apr 30 17:00																				Maximum Daily Speed Average: 19.2 km/h on Apr 22										Hours in Service: 720	
Minimum Speed: 1 km/h on Apr 3 08:00																				Minimum Daily Speed Average: 4.9 km/h on Apr 8										Hours of Data: 719	
Maximum Diurnal Speed Average: 13.3 km/h at hour 15																				Minimum Diurnal Speed Average: 9.5 km/h at hour 7										Hours of Missing Data: 1	
Monthly Average Speed: 11.08 km/h																				Percentiles: P ₁ = 2.4 P ₁₀ = 4.5 Q ₁ = 6.3 Median = 9.3 Q ₃ = 14.2 P ₉₀ = 20.4 P ₉₉ = 31.5										Percent Operational Time: 99.9	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
1-Apr	11	10	9	10	10	10	11	9	6	4	5	6	6	7	8	7	6	3	5	3	6	6	9	7	7.2	11.1					
2-Apr	8	9	9	10	8	9	8	8	7	6	7	7	6	8	6	6	5	4	5	4	4	5	8	10	7.0	10.1					
3-Apr	9	8	9	7	4	5	3	1	2	5	13	18	20	18	15	14	14	12	10	10	6	5	9	4	9.3	20.3					
4-Apr	10	14	11	12	8	7	10	9	7	6	7	7	6	7	12	11	6	5	7	16	15	16	12	12	9.8	16.0					
5-Apr	11	10	9	7	8	8	7	6	3	4	6	8	9	10	10	8	9	9	8	10	7	5	7	8	7.8	10.8					
6-Apr	5	3	8	15	16	16	12	10	12	15	15	17	22	23	25	23	22	19	17	16	12	8	10	10	14.6	25.1					
7-Apr	8	9	12	7	4	6	8	12	14	15	16	17	19	21	24	23	22	22	18	20	18	12	10	8	14.3	24.3					
8-Apr	8	5	4	2	2	2	4	5	5	3	5	7	8	6	3	4	3	4	4	2	6	7	9	8	4.9	9.1					
9-Apr	7	8	8	5	6	6	6	3	3	9	7	6	7	9	9	8	9	5	2	3	4	5	4	3	6.0	9.4					
10-Apr	7	7	9	N	10	9	6	3	11	25	32	24	28	25	24	21	19	18	20	25	28	23	18	20	18.0	31.7					
11-Apr	18	15	14	12	13	13	10	13	13	9	6	5	4	4	4	5	5	5	6	8	6	3	2	4	8.2	18.3					
12-Apr	6	6	8	8	10	7	8	11	13	13	12	14	13	12	16	15	14	18	12	10	9	8	5	4	10.4	17.7					
13-Apr	6	8	6	6	7	7	6	8	10	10	9	6	4	6	11	8	9	17	14	8	5	9	11	12	8.5	16.5					
14-Apr	9	11	8	13	12	13	12	20	24	20	16	16	20	24	20	19	14	9	8	5	9	12	12	9	14.0	23.7					
15-Apr	7	9	8	7	7	4	4	5	5	7	9	8	8	5	5	10	18	19	20	20	21	21	19	15	10.7	21.0					
16-Apr	17	20	17	14	16	19	15	17	18	20	20	21	20	20	21	19	14	17	19	15	12	12	12	12	16.9	21.1					
17-Apr	11	11	13	20	21	19	20	19	21	23	23	26	20	30	30	28	22	15	11	7	4	6	5	7	17.2	30.4					
18-Apr	7	5	7	8	8	8	8	8	9	11	8	7	10	7	13	18	11	8	5	5	8	12	13	11	9.1	17.6					
19-Apr	11	11	10	9	9	8	9	8	5	8	19	18	18	12	9	7	6	8	13	12	11	10	12	14	10.7	18.9					
20-Apr	14	14	12	12	9	8	8	8	8	16	20	18	15	13	13	13	10	8	7	7	6	5	5	5	10.6	19.8					
21-Apr	5	4	6	4	6	7	6	5	4	3	4	4	9	6	5	6	10	13	8	9	10	15	26	34	8.7	33.6					
22-Apr	36	37	26	27	30	27	24	26	24	28	25	24	20	23	14	6	3	3	5	9	15	8	9	10	19.2	36.8					
23-Apr	8	8	8	10	10	9	10	11	13	12	11	12	11	10	10	11	12	9	9	6	9	8	9	11	9.9	12.8					
24-Apr	13	14	12	10	8	9	14	12	10	15	11	16	17	24	19	18	14	14	8	7	6	6	12	16	12.6	24.3					
25-Apr	14	21	19	7	6	6	7	6	4	3	7	10	9	13	13	10	5	4	4	5	8	10	11	12	8.9	20.6					
26-Apr	10	16	16	14	12	10	7	7	4	3	8	11	10	12	7	7	13	13	13	10	8	4	2	6	9.2	16.3					
27-Apr	6	7	6	7	5	5	5	6	9	6	8	4	3	3	4	6	4	6	6	6	4	5	7	10	5.7	9.8					
28-Apr	6	8	10	12	12	13	9	7	13	19	18	16	12	13	22	24	23	23	19	22	26	23	29	28	16.9	29.2					
29-Apr	24	23	24	16	13	12	17	15	13	9	8	6	5	4	4	6	7	6	6	5	5	5	5	3	9.9	24.2					
30-Apr	5	4	5	6	7	5	10	11	11	14	15	17	18	20	22	39	40	35	32	17	21	18	12	13	16.5	40.0					
10.6 11.2 10.8 10.3 9.9 9.5 9.5 9.6 10.0 11.4 12.3 12.6 12.5 13.1 13.3 13.3 12.2 11.6 10.6 10.1 10.3 9.7 10.5 10.8																									Diurnal Average						
36.4 36.8 26.2 27.4 29.7 27.4 24.4 25.7 24.2 28.5 31.7 26.4 27.9 30.4 29.7 39.2 40.0 35.4 32.5 25.4 28.2 23.0 29.2 33.6																									Diurnal Maximum						
N - Not Valid																															
All monthly, daily, and diurnal averages have been calculated using scalar methods																															

Hourly Standard Deviations

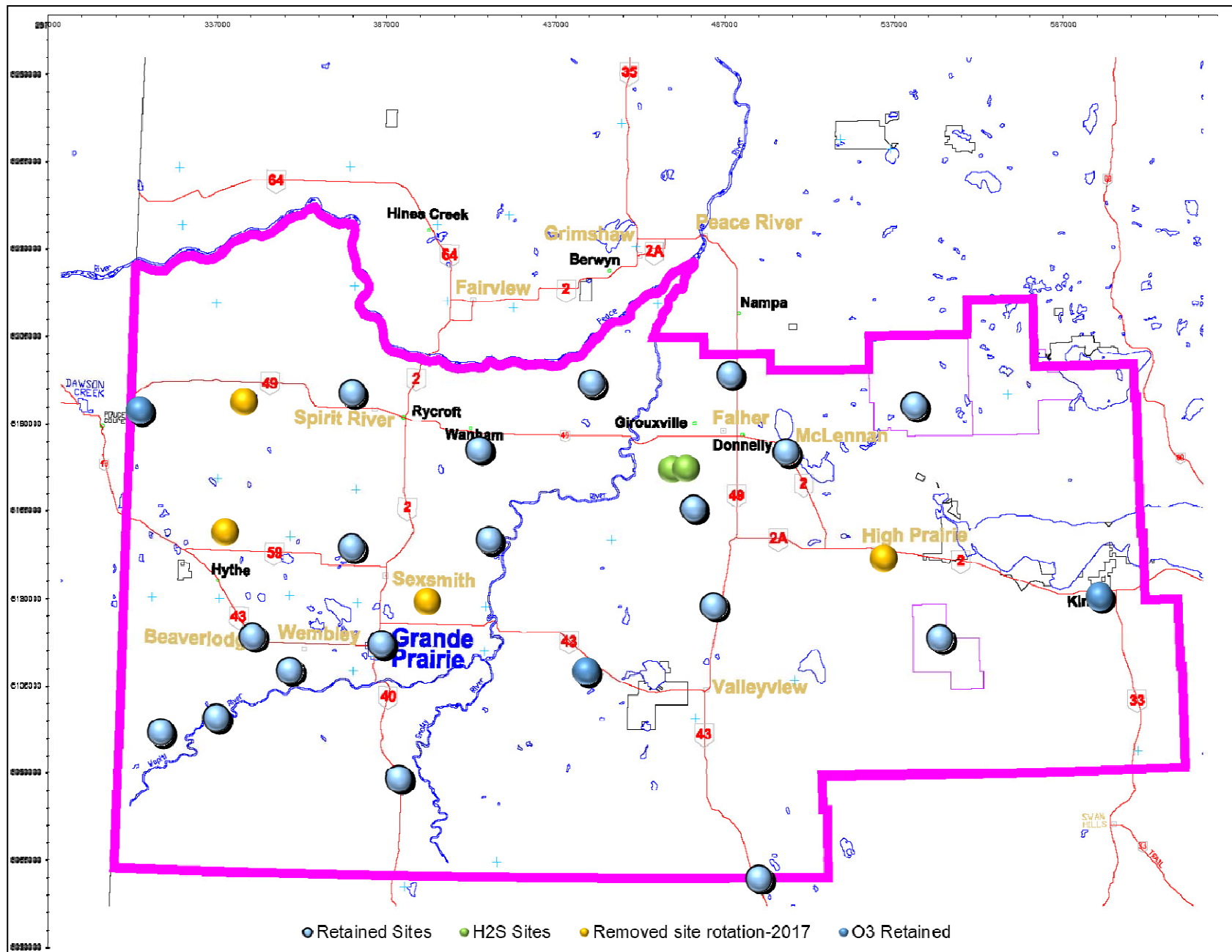
Wind Direction (WD) - deg
Portable Rycroft - April 2018

Maximum Value: 88.5 deg on Apr 27 10:00																			Hours in Service: 720						
Minimum Value: 1.5 deg on Apr 3 00:00																			Hours of Data: 720						
																			Hours of Missing Data: 0						
Percentiles: P ₁ = 2.1 P ₁₀ = 3.5 Q ₁ = 4.6 Median = 7.5 Q ₃ = 14.4 P ₉₀ = 29.5 P ₉₉ = 70.0																			Hours of Calibration: 0						
																			Percent Operational Time: 100.0						
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Apr	2	4	3	4	5	5	2	2	4	24	9	10	12	7	7	5	10	39	5	9	15	8	16	17	38.6
2-Apr	4	4	5	2	4	3	5	4	8	21	8	8	11	8	20	16	3	11	17	14	20	6	4	2	21.2
3-Apr	6	3	5	12	8	7	21	49	28	26	11	2	6	4	8	4	5	6	5	6	9	30	10	72	71.8
4-Apr	17	6	18	10	7	14	14	8	9	8	13	21	9	13	8	12	30	20	4	3	2	4	6	2	30.1
5-Apr	5	3	3	31	5	8	7	11	23	39	29	11	9	9	11	14	12	21	21	16	8	15	9	13	39.4
6-Apr	50	62	8	5	4	3	5	7	7	8	9	17	4	5	5	4	5	5	5	4	7	7	9	2	62.1
7-Apr	12	11	2	5	25	15	5	6	7	4	5	4	4	5	4	4	5	4	3	5	5	6	6	4	24.8
8-Apr	5	11	13	80	33	43	9	7	33	11	7	7	14	8	29	13	8	19	51	16	6	19	12	17	79.8
9-Apr	6	4	5	9	11	12	9	65	52	7	70	12	5	5	5	6	4	35	48	22	20	32	37	55	70.2
10-Apr	18	19	27	65	12	22	18	79	37	4	3	10	8	6	4	10	3	3	4	9	5	5	4	5	78.8
11-Apr	5	6	9	12	6	5	6	9	6	12	40	20	9	28	18	20	42	40	32	21	21	33	64	30	64.4
12-Apr	7	6	7	9	5	6	4	7	4	3	11	6	11	13	9	10	11	5	12	6	6	11	86	60	86.1
13-Apr	15	6	7	7	11	8	10	6	7	7	7	10	35	29	15	33	17	7	6	16	34	7	8	4	34.6
14-Apr	10	6	13	6	9	8	6	5	4	5	4	5	3	2	3	3	5	15	19	11	6	6	5	25	24.9
15-Apr	15	5	5	5	6	11	25	15	17	10	5	4	6	19	12	22	4	3	3	3	5	7	5	5	24.9
16-Apr	6	10	7	9	5	4	6	4	6	6	4	5	4	3	4	6	11	6	6	4	5	4	4	5	10.9
17-Apr	3	9	4	3	4	4	2	5	3	4	4	3	4	4	4	4	13	7	5	8	41	8	29	35	41.2
18-Apr	44	25	8	7	3	13	14	12	9	5	4	11	13	24	9	4	6	41	31	19	25	3	4	5	43.7
19-Apr	7	8	5	5	5	7	8	12	16	39	4	5	7	10	16	4	3	6	6	3	12	9	7	4	39.2
20-Apr	3	3	5	4	11	8	23	29	3	7	2	3	4	5	4	3	3	2	11	5	9	11	56	14	55.7
21-Apr	30	69	47	73	17	9	20	12	14	88	13	56	9	4	9	8	8	17	8	6	10	6	5	5	87.9
22-Apr	2	3	8	4	4	2	3	6	4	3	4	4	3	6	4	10	56	28	18	5	4	10	3	6	55.6
23-Apr	5	6	4	4	2	5	3	4	3	3	3	3	4	4	6	6	5	7	13	9	9	7	9	7	12.6
24-Apr	4	4	8	4	7	6	5	12	4	3	4	15	6	4	8	7	6	8	10	12	4	4	10	3	15.2
25-Apr	5	4	3	26	10	15	7	6	15	24	15	7	8	5	3	4	7	69	29	11	18	6	4	3	68.7
26-Apr	6	18	26	14	8	21	10	4	15	61	10	17	21	18	36	41	14	12	7	6	11	7	42	17	61.1
27-Apr	9	8	8	7	15	16	14	19	10	89	20	36	52	66	46	29	64	36	21	9	19	22	10	27	88.5
28-Apr	27	3	5	4	4	2	4	8	32	8	14	19	28	9	40	8	9	5	7	8	6	7	2	3	39.8
29-Apr	2	3	3	7	9	3	5	12	11	18	22	38	61	39	35	35	28	51	25	26	8	11	12	15	61.2
30-Apr	8	12	10	7	3	23	12	6	7	7	7	7	6	9	17	5	4	4	9	12	40	7	7	7	40.1
50.2 69.2 47.1 79.8 32.8 43.4 24.9 78.8 51.9 88.5 70.2 55.6 61.2 66.1 45.6 40.8 63.6 68.7 51.2 26.5 41.2 33.3 86.1 71.8																									

PAZA

Monthly Passive Data Summary

Location of PAZA Passive Monitoring Stations



PAZA Passive Results for April 2018

Station Number	Station Name	SO2 ppb	O3 ppb	NO2 ppb	H2S ppb	Site Legal
Duplicates						
30a	Fitzsimmons			0.4		
30b	Fitzsimmons			0.5		
37a	Crooked Creek		50.0			
37b	Crooked Creek		51.2			
39a	Clouston Creek			0.2		
39b	Clouston Creek			0.1		
46a	Little Smoky	0.2				
46b	Little Smoky	0.3				
49a	Grande Prairie HP	0.5				
49b	Grande Prairie HP	0.4				
36a	Guy				0.1	
36b	Guy				0.1	
2	Bay Tree	0.3	45.5	0.3		13-16-078-13 W6M
3	Fourth Creek	0.4		0.4		04-13-082-07 W6M
9	Spirit River	0.3		0.3		08-12-079-07 W6M
12	Hythe	0.4		0.3		14-36-072-11 W6M
14	Sylvester	0.2		0.1		08-06-069-12 W6M
16	Beaverlodge	0.5		0.6		15-36-071-10 W6M
18	Saddle Hills	0.4		0.1		04-25-074-07 W6M
19	Wanham	0.4		BDL		16-22-077-03 W6M
21	Eaglesham	0.2		0.1		16-21-079-25 W5M
24	Wembley	0.4		0.5		12-31-070-08 W6M
25	Pinto Creek	0.5		0.2		04-24-069-11 W6M
27	Grande Prairie I	0.4		3.6		08-15-071-06 W6M
29	Smoky Heights	0.5		0.4		04-06-075-02 W6M
30	Fitzsimmons	0.4		0.5		15-36-072-03 W6M
32	Gold Creek	0.5		1.2		06-33-067-05 W6M
35	Jean Cote	0.2		0.2		12-35-079-21 W5M
36	Guy	0.2		0.2	0.1	03-04-076-22 W5M
37	Crooked Creek	0.2	50.6	BDL		16-01-071-26 W5M
39	Clouston Creek	0.5		0.2		12-01-073-22 W5M
40	McLennan	0.3		0.2		03-29-077-19 W5M
42	Sunset House	0.3		BDL		05-32-070-19 W5M
44	Peavine	0.1		BDL		03-05-079-15 W5M
46	Little Smoky	0.2		1.5		12-01-065-21 W5M
47	Kinuso	0.4	44.7	0.3		12-10-073-10 W5M
49	Grande Prairie HP	0.4		3.4		17-26-071-06 W6M
50	East Prairie	0.2		0.2		13-02-072-15 W5M
63	Girouxville 3				0.3	14-02-077-23 W5M
64	Girouxville 4				0.1	4-08-077-22 W5M

*BDL = Below Detection Level

*N/S - No sample

Passive Summary for April 2018

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

Passive Summary for April 2018 (PAZA Zone)				
Mean	0.3	47.0	0.7	0.1
Standard Deviation	0.1	3.2	1.0	0.1
Minimum	0.1	44.7	0.1	0.1
Minimum At	Peavine (#44)	Kinuso (#47)	Sylvester (#14)	Girouxville 4 (#64)
Maximum	0.5	50.6	3.6	0.3
Maximum At	Clouston Creek (#39)	Crooked Creek (#37)	Grande Prairie I (#27)	Girouxville 3 (#63)

Comparison between Continuous and Passive monitoring at Beaverlodge (passive #16 Beaverlodge)

	SO ₂	NO ₂
PAZA Beaverlodge station	0.5	3.1
PAZA Beaverlodge passive	0.5	0.6

Comparison between Continuous and Passive monitoring at Henry Pirker (passive #49 Grande Prairie HP)

	SO ₂	NO ₂
PAZA Henry Pirker station	0.6	10.4
PAZA Grande Prairie passive	0.4	3.6

April 2018 Calibration Reports

Calibration Report



Parameter SO₂
Air Monitoring Network PAZA

Station Information

Calibration Date	April 18, 2018	Previous Calibration	March 22, 2018
Station Number	2	Station Location	Evergreen Park
Reason:	Routine	Install	Removal
		Other:	

Start Time (MST)	11:25	End Time (MST)	13:25:00 PM
Barometric Pressure	0.936 ATM	Station Temperature	22.0 Deg C
Calibrator	EnviroNics 6103	Serial Number	6586
Cal Gas Concentratio	49.6 ppm	Cal Gas Expiry Date	04/05/2019
Correction factor	0.031602	Cal Gas Cylinder #	LL107945
DACS make	CR3000	DACS serial No.	5236
DACS voltage range	0 - 5 volt	DACS channel #	6
	<u>Before</u>		<u>After</u>
Calculated slope	0.989142	Calculated slope	0.998395
Calculated intercept	0.527796	Calculated intercept	0.530622

Analyzer make	Teco 43i	Analyzer serial #	701120008
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	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	12.7		12.7	
coefficient	1.246		1.246	
Lamp Voltage	835	volts	835	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	671	mm Hg	672.7	mm Hg
Sample Flow	0.440	ccm	0.440	ccm
Lamp Intensity	89	%	89	%

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4997	0.0	0.00	0.4	N/A
4997	39.97	393.6	394.1	0.9987
4997	19.99	197.6	197.2	1.0024
4997	9.98	98.9	97.4	1.0154
4997	0.0	0.0	0.4	As Found Zero
4997	39.98	393.7	394.1	As Found Span
Average Correction Factor				1.0055

Calculated value of As Found Response: 389.907 ppm Percent Change of As Found: 1.0%

	before calibration		after calibration	
Auto zero	0.4	ppm	0.4	ppm
Auto span	264.1	ppm	263.9	ppm

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter SO2

Air Monitoring Network PAZA



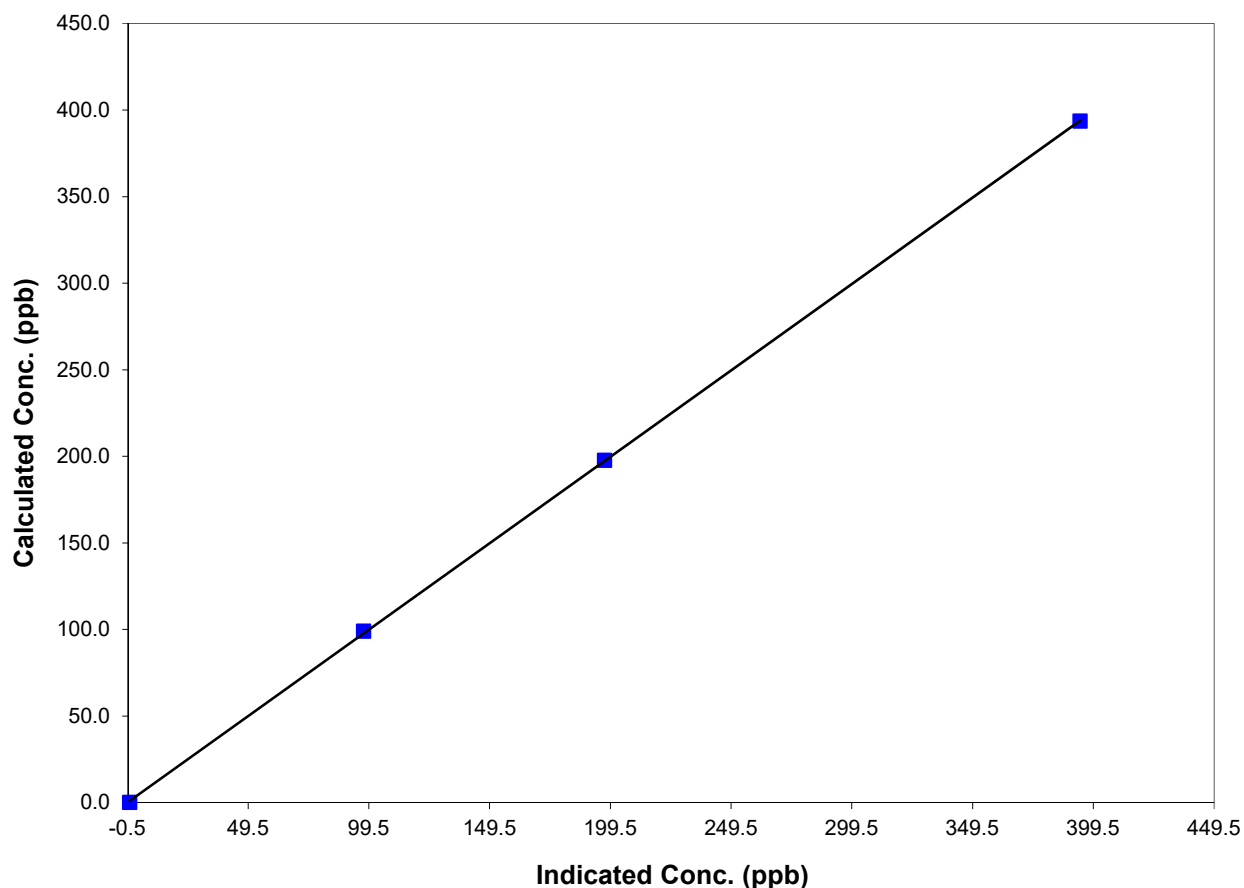
Station Information

Calibration Date	April 18, 2018	Previous Calibration	March 22, 2018
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	11:25	End Time (MST)	13:25:00 PM
Analyzer make/model	Teco 43i	Analyzer serial #	701120008

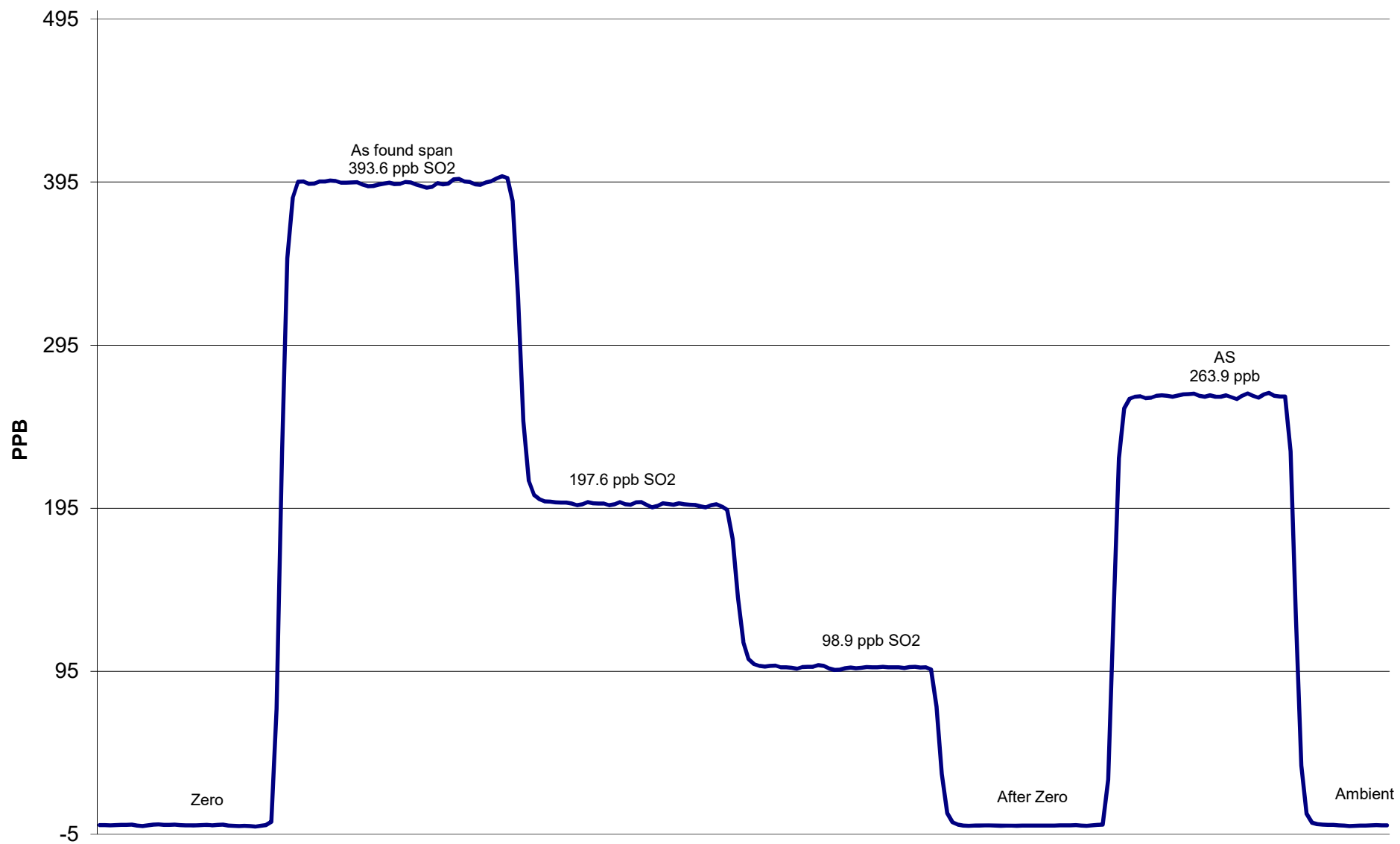
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.4	N/A	Correlation Coefficient	0.999971
393.6	394.1	0.9987		
197.6	197.2	1.0024		
98.9	97.4	1.0154	Slope	0.998395
			Intercept	0.530622

SO2 Calibration Curve



SO2 Calibration



April 18, 2018

Calibration Report



Parameter TRS

Air Monitoring Network PAZA

Station Information

Calibration Date	April 18, 2018	Previous Calibration	March 22, 2018
Station Number	2	Station Location	Evergreen Park
Reason:	Routine	Install	Removal
		Other:	
Start Time (MST)	10:00	End Time (MST)	12:25
Barometric Pressure	0.936 ATM	Station Temperature	22.0 Deg C
Calibrator	Evironics 6103	Serial Number	6586
Cal Gas Conc	9.78 ppm	Cal Gas Expiry Date	23/02/2019
Correction factor	0.031602	Cal Gas Cylinder #	EY0000380
DACS make	CR3000	DACS serial No.	5236
DACS voltage range	0 - 5 volt	DACS channel #	5
	<u>Before</u>		<u>After</u>
Calculated slope	1.007673	Calculated slope	1.016488
Calculated intercept	-0.204931	Calculated intercept	0.059154
Analyzer make	TEI Model 43C	Analyzer serial #	3.199E+13

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	17.1	ppb	17.1	ppb
coefficient	0.946		0.946	
Lamp Voltage	1020	volts	1020	volts
Chamber Temp	44.3	Deg C	44.3	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	641.8	mm Hg	640.4	mm Hg
Sample Flow	0.596	ccm	0.598	ccm
Lamp Intensity	36,860	mv	36,745	mv

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4996	0.00	0.00	0.3	N/A
4996	39.97	77.62	76.5	1.0150
4996	19.96	38.92	38.0	1.0248
6999	9.97	13.91	13.3	1.0427
4996	10.00	0.00	0.6	Sox Test
4996	0.00	0.00	0.3	As Found Zero
4996	39.97	77.62	76.5	As Found Span
Average Correction Factor				1.0275

Calculated value of As Found Response: 76.55 ppm Percent Change of As Found: **1.4%**

	before calibration		after calibration	
Auto zero	0.5	ppm	0.5	ppm
Auto span	68.3	ppm	66.8	ppm

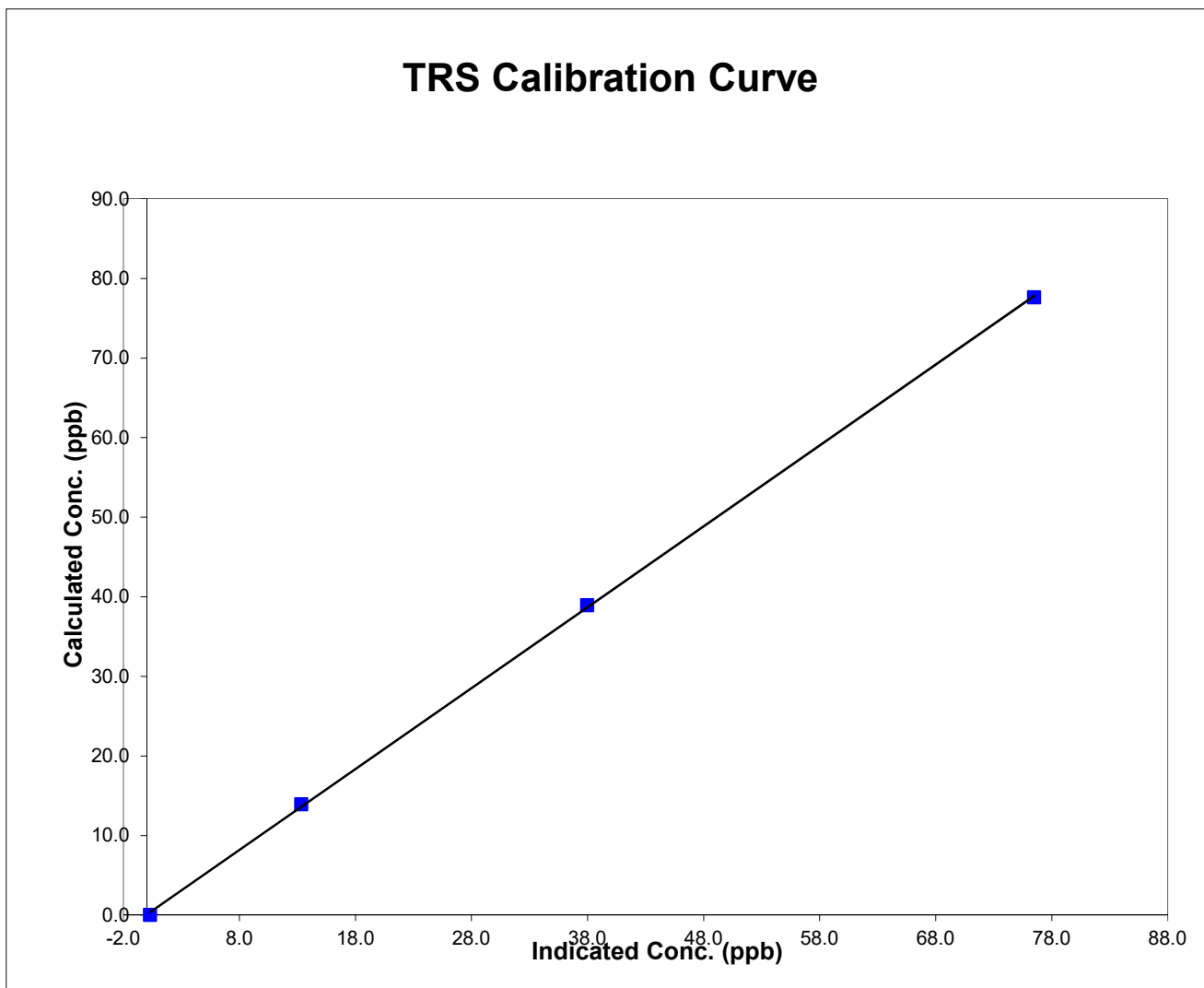
Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

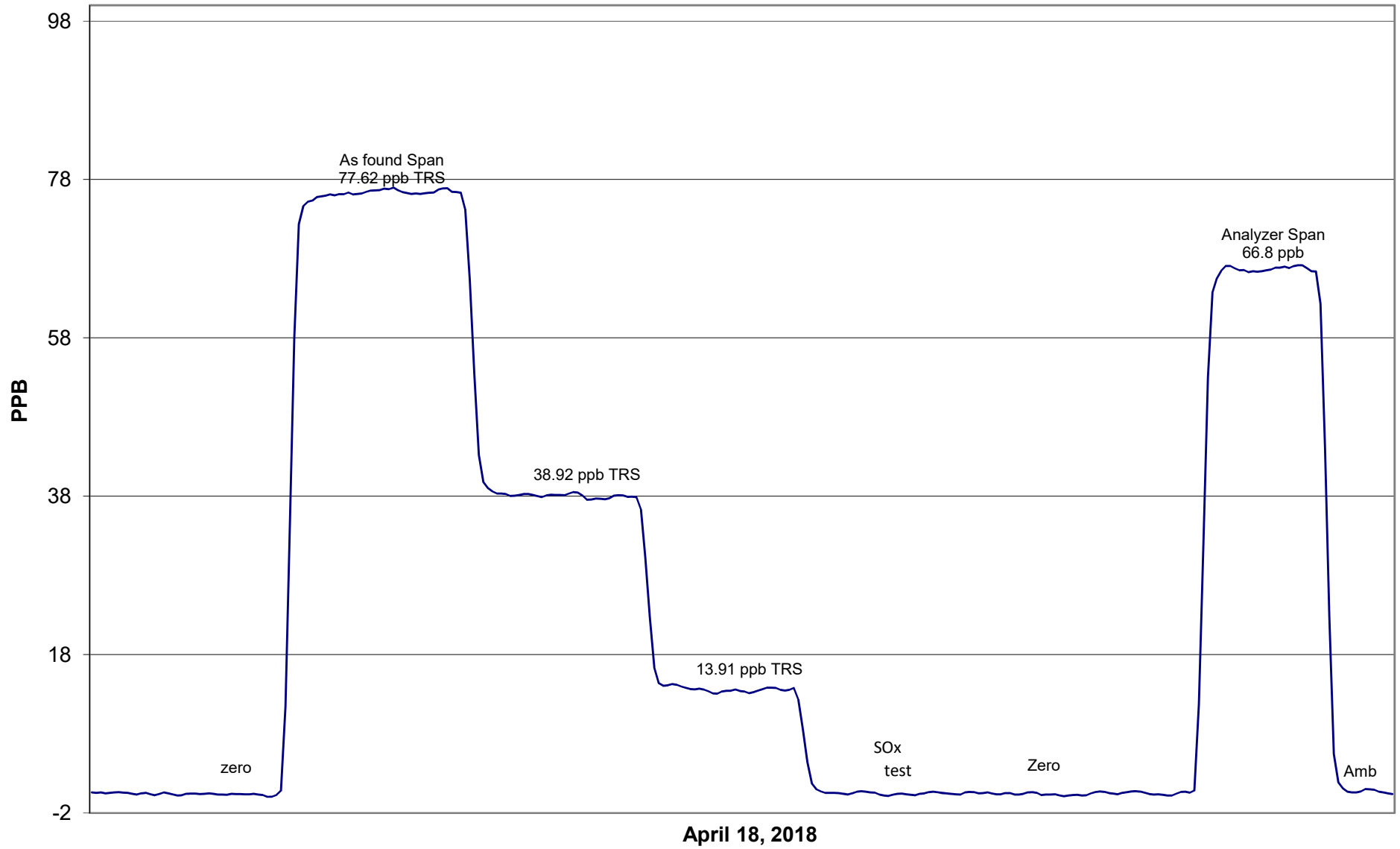


Calibration Date	April 18, 2018	Previous Calibration	March 22, 2018
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	10:00	End Time (MST)	12:25
Analyzer make/model	TEI Model 43C	Analyzer serial #	31990000000491

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	N/A		
77.6	76.5	1.0150	Correlation Coefficient	0.999908
38.9	38.0	1.0248		
13.9	13.3	1.0427		
			Slope	1.016488
			Intercept	0.059154



TRS Calibration



AB TEOM PM2.5 Calibration



STATION: Evergreen Park
 LOCATION: PAZA - Grande Prairie

OPERATOR: Dmytro Dolotii
 DATE: 18-Apr-17

MONITOR INFO / PARAMETER VALUES:

Make/Model	TEOM AB
Configuration	PM2.5
Serial Number	24634
Site Number	2
Inlet Type	PM 10 / SCC
FAdj. Main Setting	1.000
FAdj. Aux. Setting	1.000
T-Case Indicated / Set Point	40/40
T-Air Indicated / Set Point	40/40
T-Cap Indicated / Set Point	40/40
Splitter Assembly Alignment (cm)	15.5
(vs. specified depth of 15.5 cm from top of flow tube to top of concentric 1/2 in. tube)	

RECENT CALIBRATION AND AUDIT HISTORY

Previous Audit	
Previous Calibration	19-Oct-17

PUMP CAPACITY CHECK *	PASS
-----------------------	------

* capacity test or pump on timed test utilized to verify pump integrity
 "FAIL" indicates that pump requires service.

LEAK CHECK	Indicated Flow (lpm)	
	Main	Auxiliary
PUMP ON	0.030	0.060
PUMP OFF	0.000	-0.020
NET	0.030	0.080
LIMITS	<0.15	<0.60

	Ambient Temp. (° C)	Ambient Pres. (atm)	Ko *	Bypass flow (lpm)	Sample flow (lpm)
SET POINT (S)	na	na	16086	13.67	3.000
INDICATED (I)	8.4	0.928		13.69	3.000
MEASURED (AF)	8.3	0.928		13.83	3.140
MEASURED (M)	8.3	0.928	16147	13.83	3.140
DIFFERENCE (M-I)	-0.1	0.000	0.4%	0.16	0.14
LIMITS	± 2 ° C	± 0.005 atm	± 2.5 %	± 1.0 L/min	± 0.2 L/min

As Found Data
 Adjusted Data

Ko Audit Filter data Weight: 0.11014 Serial #: CVK 2123

COMMENTS: Pass.

Sample Head Inspection/Cleaning: Large In Line Filter Inspection & Or Cleaning:

Calibration Report

Parameter SO2

Air Monitoring Network PAZA



Station Information

Calibration Date	April 6, 2018	Previous Calibration	March 1, 2018
Station Number	1	Station Location	Henry Pirker
Reason:	☒ Routine	☐ Install	☐ Removal
		☐ Other:	

Start Time (MST)	8:35	End Time (MST)	11:05
Barometric Pressure	923.0 mbar	Station Temperature	20.0 Deg C
Calibrator	EnviroNics	Serial Number	6586
Cal Gas Conc	49.6 ppm	Cal Gas Cert Date	10/24/2020
		Cal Gas Cylinder #	LL107945
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 1 volt	DACS channel #	10
	Before		After
Calculated slope	1.009705	Calculated slope	0.975839
Calculated intercept	1.791259	Calculated intercept	0.953247

Analyzer make TEI 43I-TLE Analyzer serial # 1507864682 (AMU 2006)

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	1.45		1.44	
Coefficient	0.935		0.935	
Pressure	677.0	mm Hg	681.6	mm Hg
Flow	0.447	lpm	0.450	lpm
Lamp intensity	82	Hz	82	Hz

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.0	0.1	N/A
4995	39.99	393.9	402.9	0.9777
4995	19.97	197.5	201.8	0.9787
4995	9.98	98.9	98.7	1.0024
4995	0.00	0.0	0.1	As Found Zero
4995	39.97	393.7	402.9	As Found Span
Average Correction Factor				0.9862

Calculated value of As Found Response: 408.5 ppb Percent Change of As Found: -3.8%

	before calibration		after calibration	
Auto zero	0.1	ppb	0.1	ppb
Auto span	286.1	ppb	281.8	ppb

Notes: Performed analog outputs calibrations.
No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter SO2
Air Monitoring Network PAZA



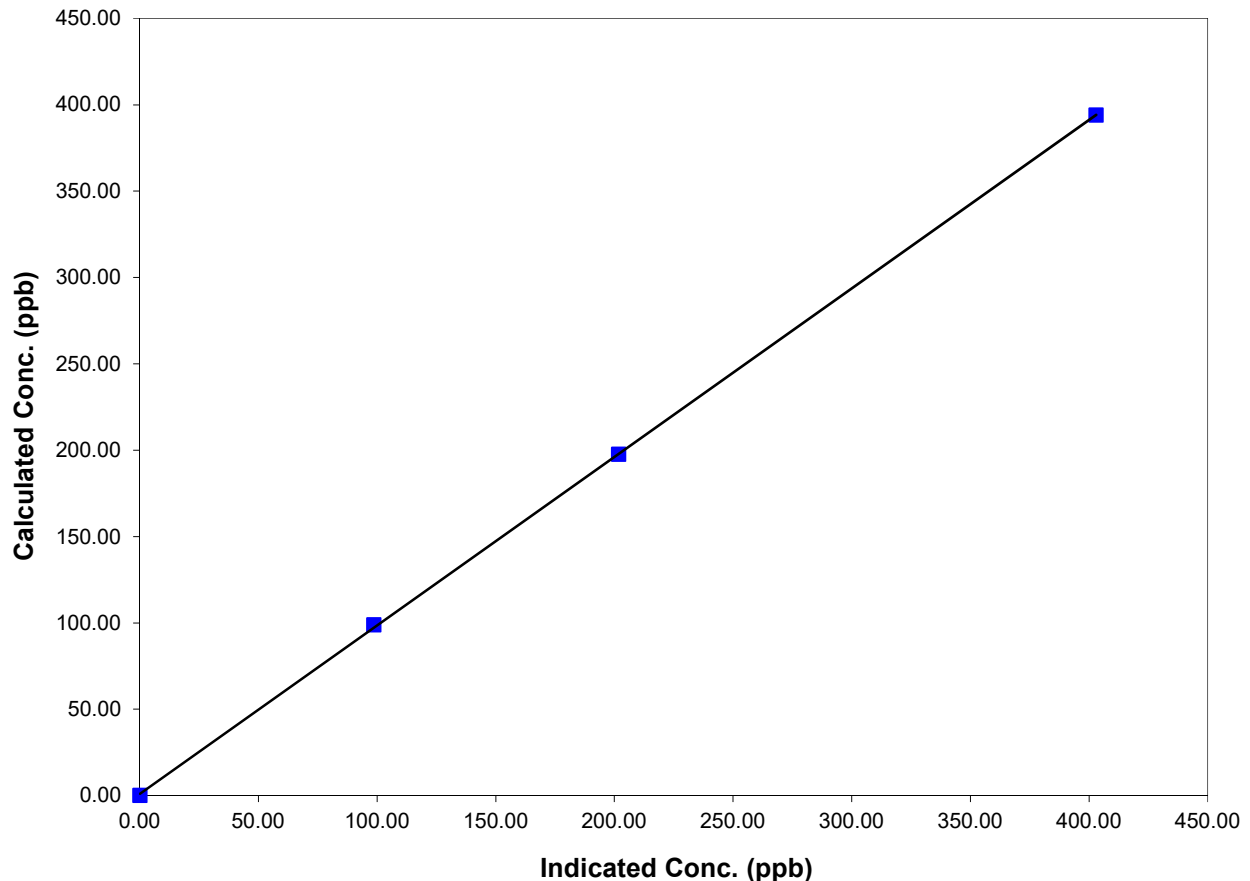
Station Information

Calibration Date	April 6, 2018	Previous Calibration	March 1, 2018
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	8:35	End Time (MST)	11:05
Analyzer make/model	TEI 43I-TLE	Analyzer serial #	1507864682 (AMU 2006)

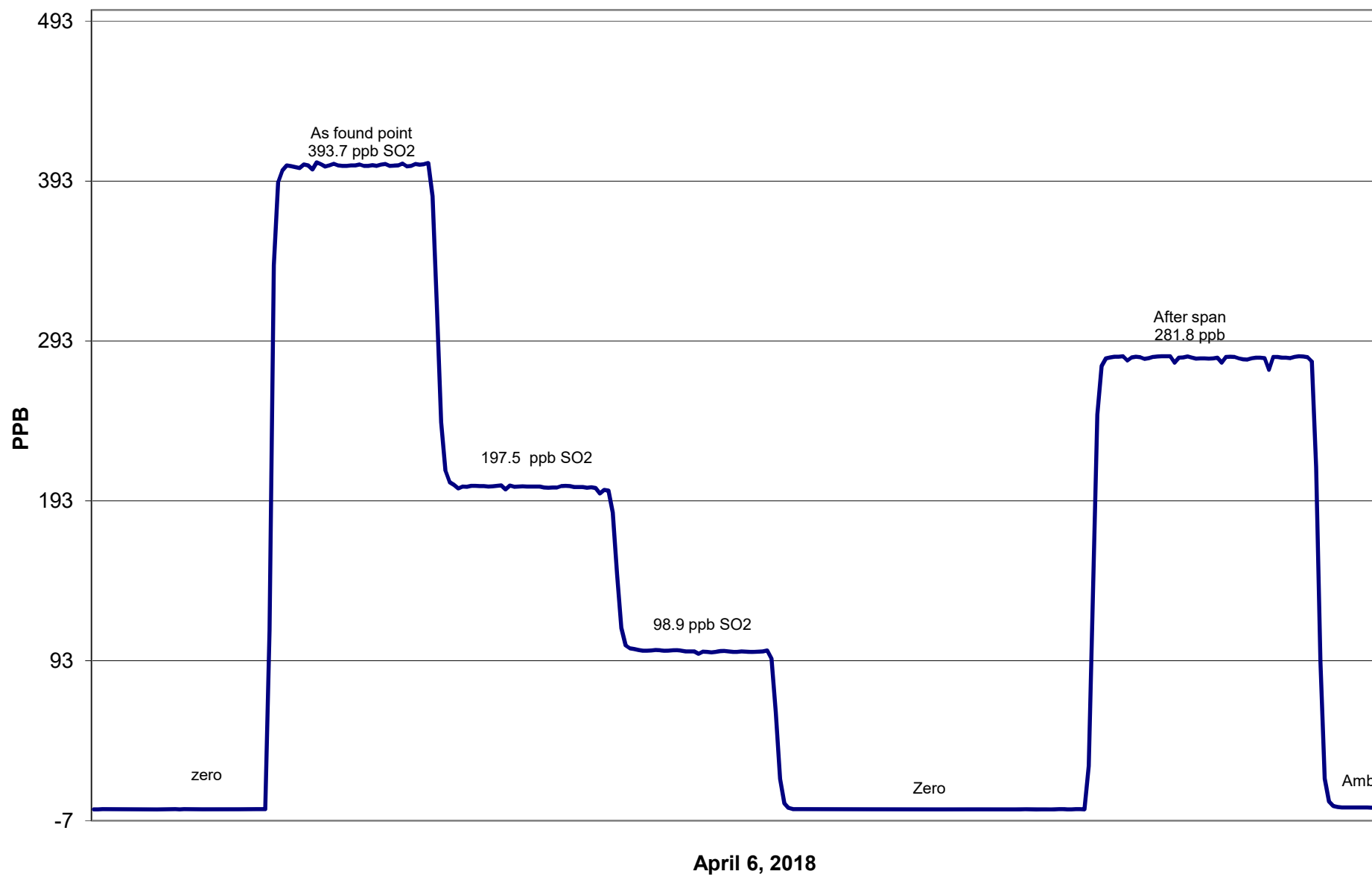
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A	Correlation Coefficient	0.999952
393.9	402.9	0.9777		
197.5	201.8	0.9787		
98.9	98.7	1.0024	Slope	0.975839
			Intercept	0.953247

SO2 Calibration Curve



SO2 Calibration



Calibration Report



Parameter TRS
Air Monitoring Network

PAZA

Station Information

Calibration Date	April 2, 2018	Previous Calibration	March 2, 2018
Station Number	1	Station Location	Henry Pirker
Reason:	☒ Routine	☐ Install	☐ Removal
			Other:

Start Time (MST)	14:00	End Time (MST)	
Barometric Pressure	0.919 mBar	Station Temperature	23.0 Deg C
Calibrator	EnviroNics 6103	Serial Number	6586
Cal Gas Conc	9.78 ppb	Cal Gas Expiry Date	02/23/2019
		Cal Gas Cylinder #	EY0000380
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 1 volt	DACS channel #	9
	Before		After
Calculated slope	0.978931	Calculated slope	0.978931
Calculated intercept	0.531638	Calculated intercept	0.531638

Analyzer make	TEI 450i	Analyzer serial #	1170050143 AMU2198
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	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Coefficient	0.886		1.022	
Background	14.1		18.7	
Pressure	558.9	mm Hg	664.5	mm Hg
Flow	0.980	ccm	0.428	ccm
Lamp Voltage	775	V	822	V

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4997	0.00	0.00	-0.11	N/A
4997	39.98	77.63	83.29	0.9320
4998	19.97	38.92	40.87	0.9523
6997	9.98	13.93	13.83	1.0072
4997	0.00	0.00	-0.11	As Found Zero
4997	41.20	79.98	74.46	As Found Span
Average Correction Factor				0.9638

Calculated value of As Found Response: 73.5 ppb Percent Change of As Found: 8.1%

	before calibration		after calibration	
Auto zero	-0.30	ppb	-0.24	ppb
Auto span	26.28	ppb	26.43	ppb

Notes: _____

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter TRS

Air Monitoring Network PAZA



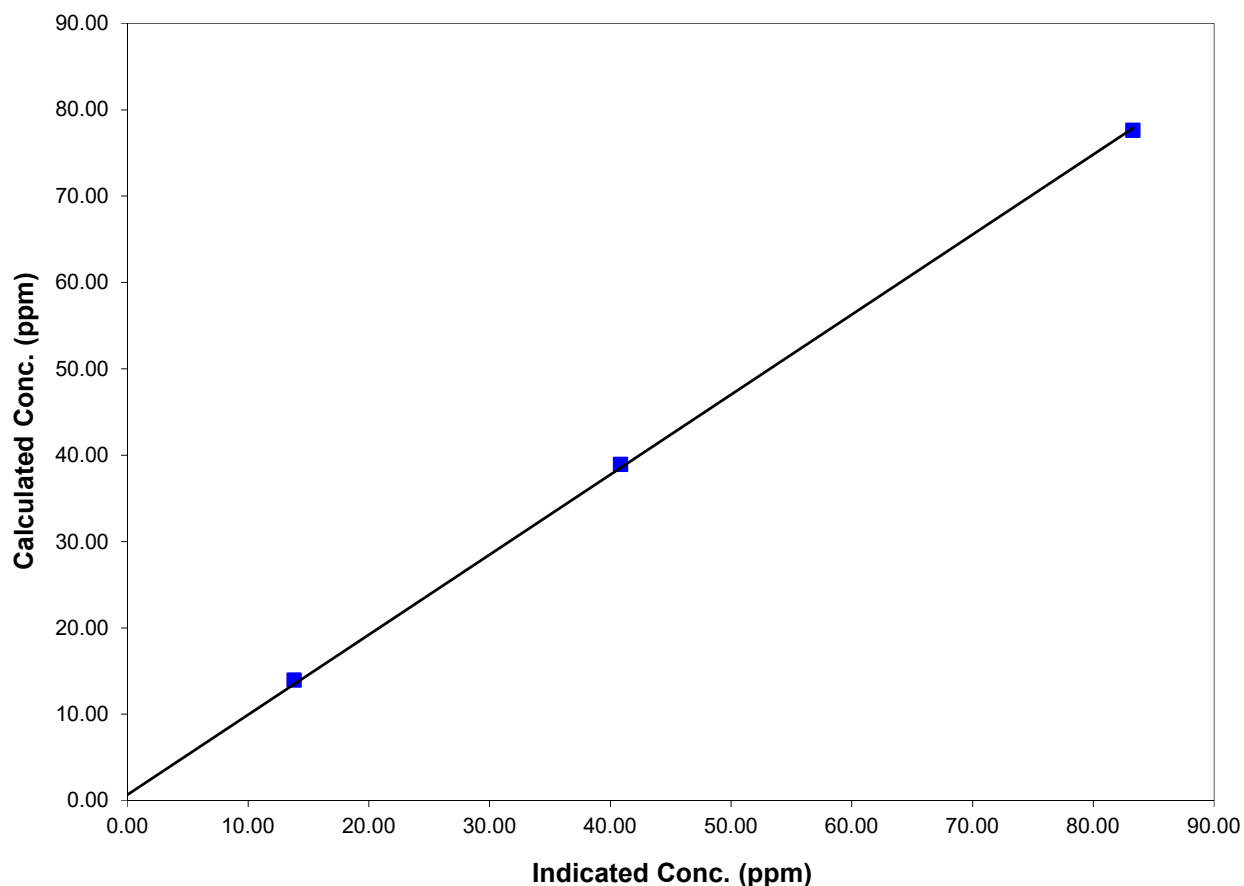
Station Information

Calibration Date	April 2, 2018	Previous Calibration	March 2, 2018
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	14:00	End Time (MST)	0:00
Analyzer make/model	TEI 450i	Analyzer serial #	1170050143 AMU2198

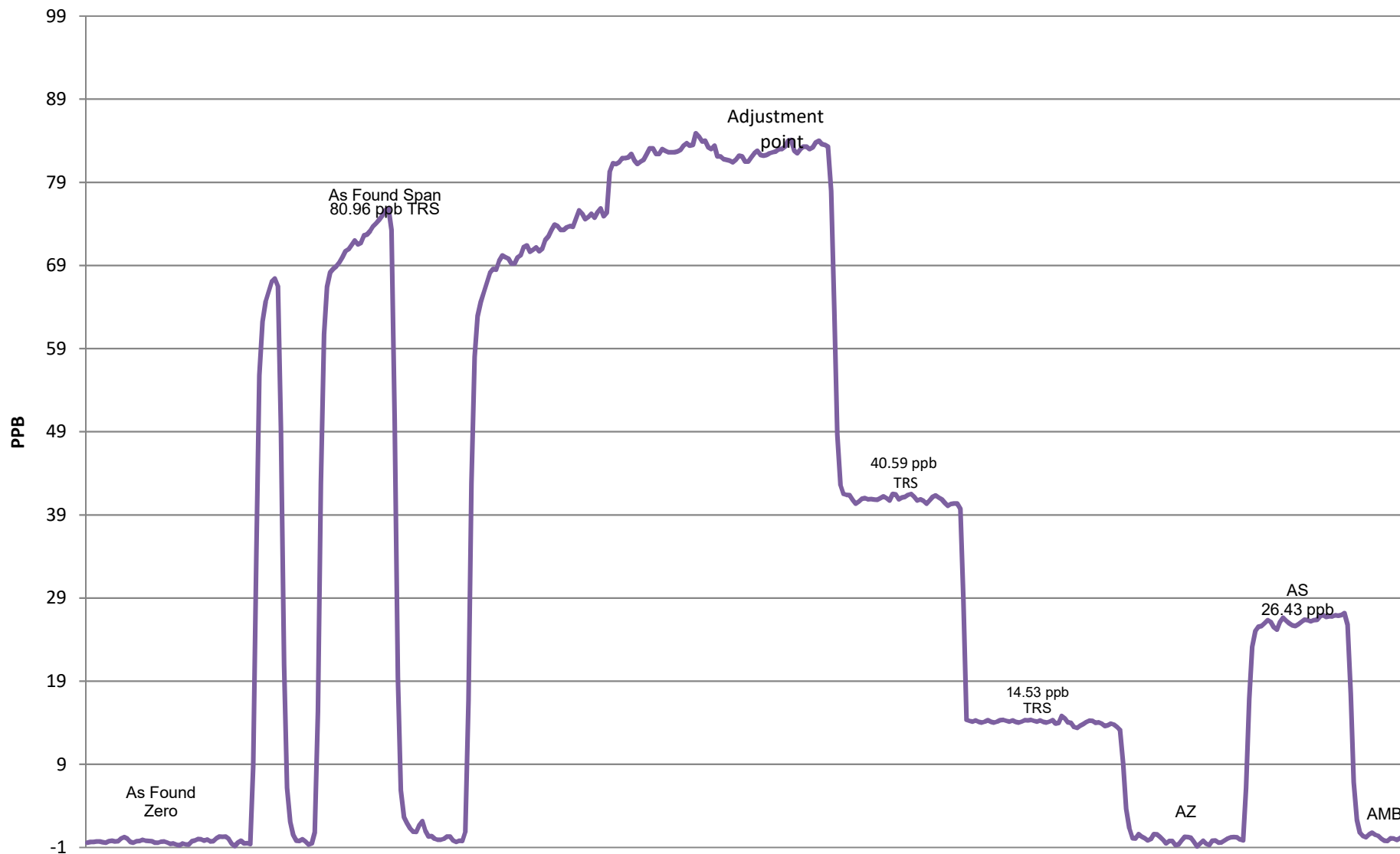
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	-0.115	N/A	Correlation Coefficient	0.999797
77.627	83.288	0.9320		
38.921	40.869	0.9523		
13.930	13.831	1.0072	Slope	0.927134
			Intercept	0.662791

TRS Calibration Curve



TRS Calibration



April 2, 2018

Calibration Report



Parameter TRS
Air Monitoring Network

PAZA

Station Information

Calibration Date	April 5, 2018	Previous Calibration	March 2, 2018
Station Number	1	Station Location	Henry Pirker
Reason:	☐ Routine	☐ Install	☒ Removal

Start Time (MST)	8:00	End Time (MST)	10:26
Barometric Pressure	0.919 mBar	Station Temperature	23.0 Deg C
Calibrator	EnviroNics 6103	Serial Number	6586
Cal Gas Conc	9.78 ppb	Cal Gas Expiry Date	02/28/2020
		Cal Gas Cylinder #	EY0000380
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 1 volt	DACS channel #	9
	Before		After
Calculated slope	0.966949	Calculated slope	0.996429
Calculated intercept	0.691255	Calculated intercept	0.727042

Analyzer make	TEI 45C	Analyzer serial #	630718528
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	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Coefficient	1.022		1.022	
Background	18.4		18.4	
Pressure	679.0	mm Hg	68.2	mm Hg
Flow	0.428	ccm	0.428	ccm
Lamp Voltage	821	V	821	V

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4997	0.00	0.00	-0.40	N/A
4997	39.98	77.63	77.26	1.0047
4998	19.97	38.92	38.28	1.0167
6997	9.98	13.93	12.88	1.0813
4997	0.00	0.00	-0.40	As Found Zero
4997	41.20	79.98	77.26	As Found Span
Average Correction Factor				1.0342

Calculated value of As Found Response: 75.8 ppb Percent Change of As Found: 5.2%

	before calibration		after calibration	
Auto zero	-0.24	ppb	-0.36	ppb
Auto span	26.43	ppb	27.73	ppb

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter TRS
Air Monitoring Network PAZA



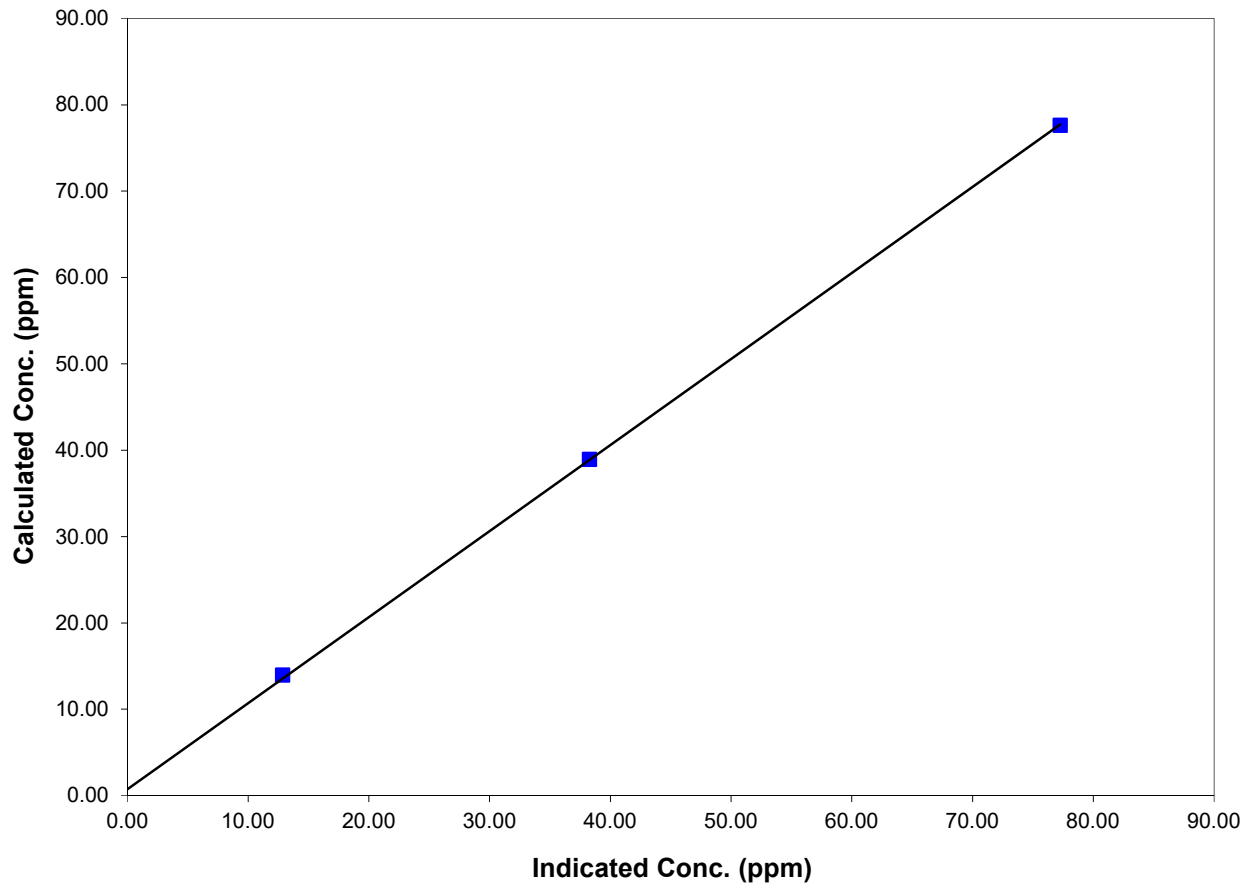
Station Information

Calibration Date	April 5, 2018	Previous Calibration	March 2, 2018
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	8:00	End Time (MST)	10:26
Analyzer make/model	TEI 45C	Analyzer serial #	630718528

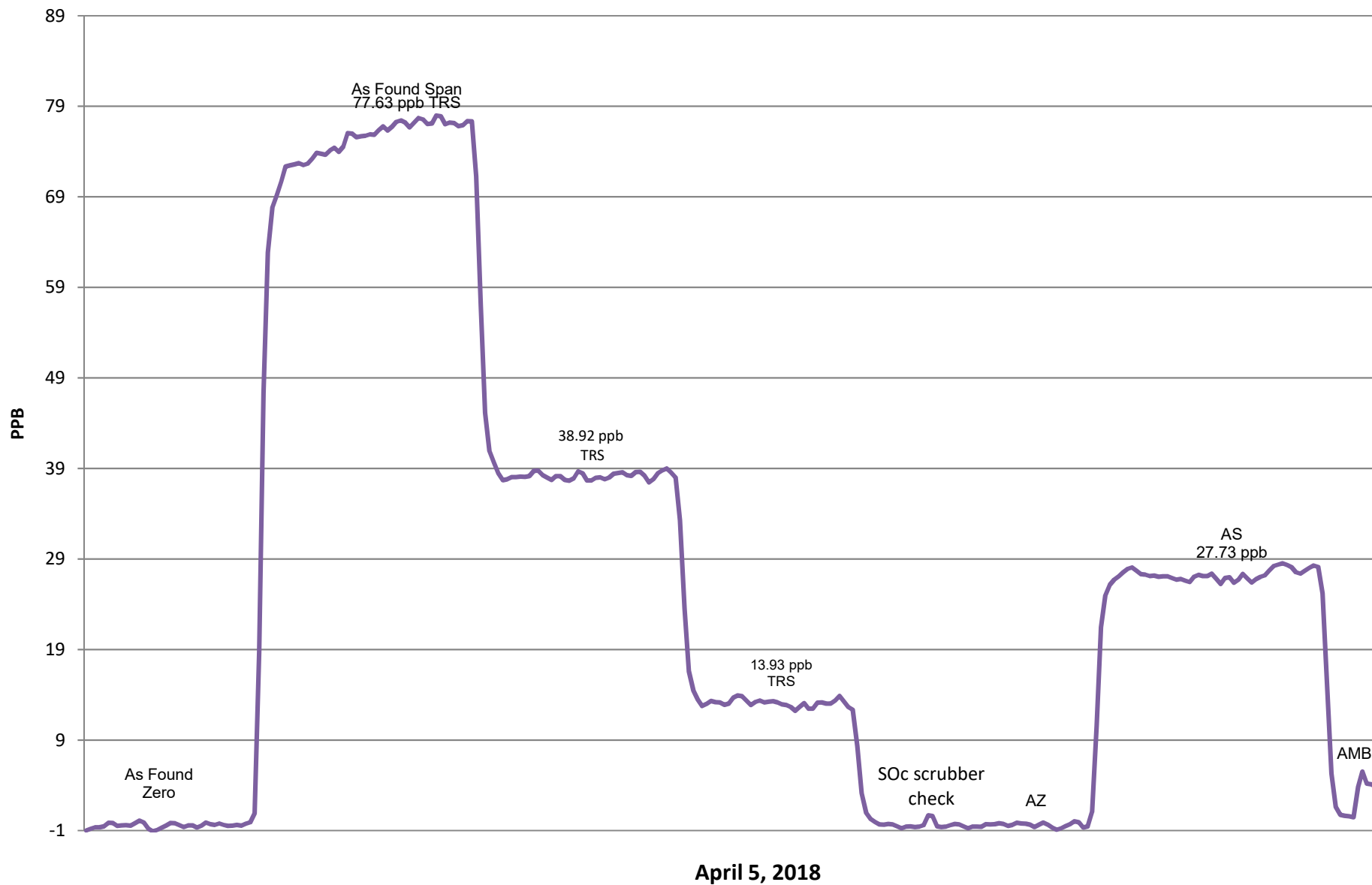
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	-0.401	N/A	Correlation Coefficient	0.999928
77.627	77.262	1.0047		
38.921	38.284	1.0167		
13.930	12.882	1.0813	Slope	0.996429
			Intercept	0.727042

TRS Calibration Curve



TRS Calibration



Calibration Report

Parameter H2S
Air Monitoring Network

PAZA



Station Information

Calibration Date	April 5, 2018	Previous Calibration	
Station Number	1	Station Location	Henry Pirker
Reason:	☐ Routine ☒ Install ☐ Removal ☐ Other:		
Start Time (MST)	11:20	End Time (MST)	13:35:00 PM
Barometric Pressure	0.919 mBar	Station Temperature	23.0 Deg C
Calibrator	EnviroNics 6103	Serial Number	6586
Cal Gas Conc	9.78 ppb	Cal Gas Expiry Date	02/28/2020
		Cal Gas Cylinder #	LL119574
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 1 volt	DACS channel #	9
	Before		After
Calculated slope		Calculated slope	1.003448
Calculated intercept		Calculated intercept	-0.185981
Analyzer make	TEI 450i	Analyzer serial #	1170050143(AMU 2198)

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Coefficient			0.862	
Background			12.5	
Pressure		mm Hg	567.5	mm Hg
Flow		ccm	0.987	ccm
Lamp Voltage		V	779	V

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4997	0.00	0.00	0.29	N/A
4997	39.98	77.63	77.62	1.0001
4998	19.97	38.92	38.84	1.0022
6997	9.98	13.93	14.02	0.9934
4997	0.00	0.00	0.29	As Found Zero
4997	41.20	79.98	77.62	As Found Span
Average Correction Factor				0.9986

Calculated value of As Found Response: NA ppb Percent Change of As Found: NA

	before calibration		after calibration	
Auto zero		ppb	0.26	ppb
Auto span		ppb	22.17	ppb

Notes: Instal calibration performed. Sligh zero adjust made.

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter H2S
Air Monitoring Network PAZA



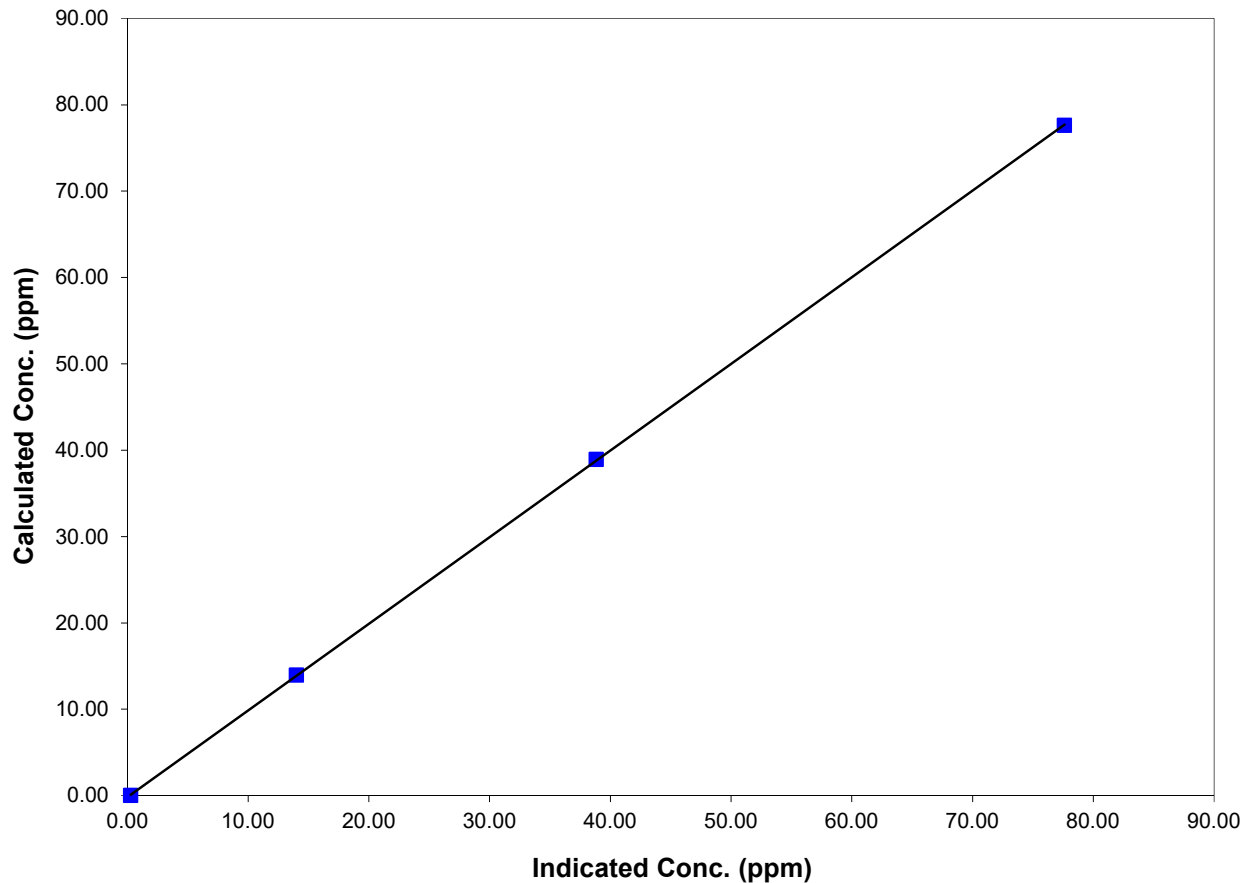
Station Information

Calibration Date	April 5, 2018	Previous Calibration	January 0, 1900
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	11:20	End Time (MST)	13:35:00 PM
Analyzer make/model	TEI 450i	Analyzer serial #	1170050143(AMU 2198)

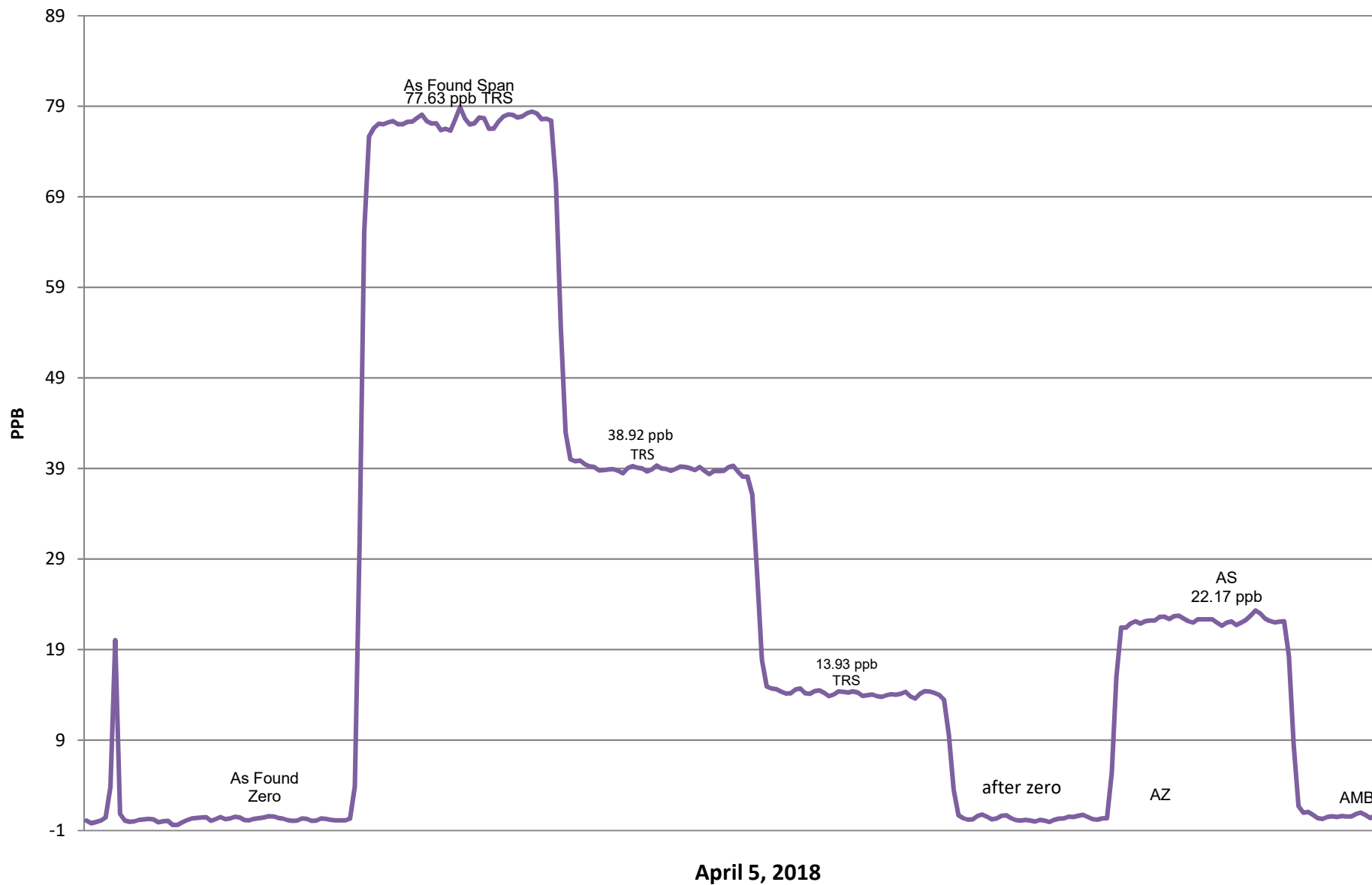
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.291	N/A	Correlation Coefficient	0.999989
77.627	77.622	1.0001		
38.921	38.836	1.0022		
13.930	14.022	0.9934	Slope	1.003448
			Intercept	-0.185981

TRS Calibration Curve



TRS Calibration



Calibration Report

Parameter
Air Monitoring Network

NO_x-NO-NO₂
PAZA



Station Information

Calibration Date	April 10, 2018	Previous Calibration	March 1, 2018
Station Number	1	Station Location	Henry Pirker
Reason:	Routine	Installation	Removal
Start Time (MST)	8:40	End Time (MST)	12:15
Barometric Pressure	0.923 mbar	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6103	Serial Number	6586
NO Cal Gas Conc	51.9 ppm	Cal Gas Expiry Date	10/24/2020
NO _x Cal Gas Conc	52.0 ppm	Cal Gas Serial #	LL107945

DACS Information

DACS make	CR3000	DACS serial No.	5408	
	Parameter	NO ₂	NO _x	NO
Before	Data Slope	1.003874	0.988434	0.986558
	Data Offset	0.377319	2.913837	3.172304
After	Data Slope	1.006696	0.999173	0.994574
	Data Offset	0.458378	0.944144	1.557514
	Channel #	8	6	7
	Voltage Range	0 - 5 VDC	0 - 5 VDC	0 - 5 VDC

Analyzer Information

Analyzer make/model	42i	Analyzer serial #	906535087	
Test Point	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
NO offset	8.3	mV	8.3	mV
NO _x bkgnd	8.6	mV	8.5	mV
NO coefficient	1.105		1.099	
NO _x coefficient	1.000		1.000	
NO ₂ conv temp	323.7	Deg C	327.1	Deg C
Cooler Temp	2.7	Deg C	2.7	Deg C
PMT Volt	-843.6	mV	-843.6	mV
R Cell Press	208.1	in Hg	208.1	in Hg
Sample Flow	0.560	LPM	0.560	LPM

Notes: Span adjustment made

Calibration Report

Parameter **NOX-NO-NO2**
Air Monitoring Network **PAZA**



Station Information

Calibration Date: April 10, 2018 Station Location: Henry Pirker

Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor
zero	4996	0.00	0.0	0.0	0.0	0.0	0.2	0.1	N/A	N/A
1	4996	39.97	412.7	411.9	0.8	412.5	413.6	-0.2	1.0005	0.9960
2	4996	19.98	207.1	206.7	0.4	206.0	205.1	0.5	1.0053	1.0080
3	4996	10.01	104.0	103.8	0.2	102.1	101.3	0.8	1.0184	1.0246
AFZ	4996	0.00	0.0	0.0	0.0	0.0	0.2	0.1	0.0000	0.0000
AFS	4996	39.97	412.7	411.9	0.8	417.5	414.0	3.3	0.9886	0.9951
Average Correction Factor									1.0081	1.0095

As Found Concentrations: NO_x= 415.6 NO= 411.4 As Found Percent Change NO_x= 0.7% NO= -0.1%

GPT Calibration Data

Dilution Flow 4995 ccm Source Gas Flow 39.93 ccm

O3 Setpoint (ppb)	Indicated NO high point (ppb)	Calculated NO drop conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor	NO2 Correction factor	Converter Efficiency
0	0.2	0.2	0.0	0.0	0.2	0.1	N/A	N/A	N/A	N/A
NO point	413.2	413.2	0.0	411.6	413.2	-0.2	1.0037	1.0000	N/A	N/A
300	413.2	113.0	300.2	411.6	113.0	298.1	1.0039	1.0000	1.0070	99.3%
200	413.2	213.3	199.8	411.9	213.3	197.8	1.0030	1.0000	1.0103	99.0%
100	413.2	317.4	95.8	412.2	317.4	94.1	1.0022	1.0000	1.0183	98.2%
Average Correction Factor							1.0030	1.0000	1.0119	98.8%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	0.0	0.0	0.1	ppb	0.0	0.0	0.2	ppb
Auto span	286.6	284.7	1.6	ppb	282.9	281.2	1.6	ppb

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter NO₂

Air Monitoring Network PAZA



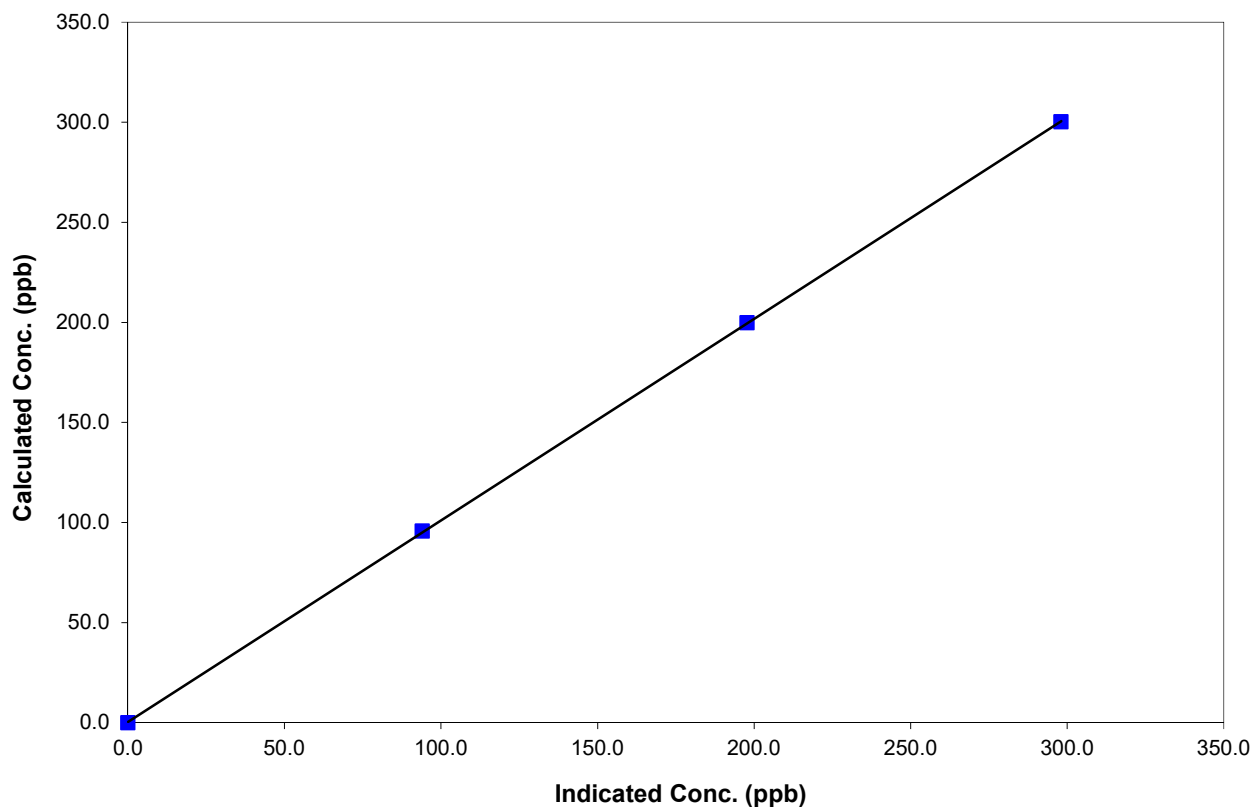
Station Information

Calibration Date	April 10, 2018	Previous Calibration	March 1, 2018
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	8:40	End Time (MST)	12:15
Analyzer make	42i	Analyzer serial #	906535087

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A	Correlation Coefficient	0.999983
300.2	298.1	1.0070		
199.8	197.8	1.0103		
95.8	94.1	1.0183	Slope	1.006696
			Intercept	0.458378

NO₂ Calibration Curve



Calibration Summary

Parameter NO_x

Air Monitoring Network PAZA



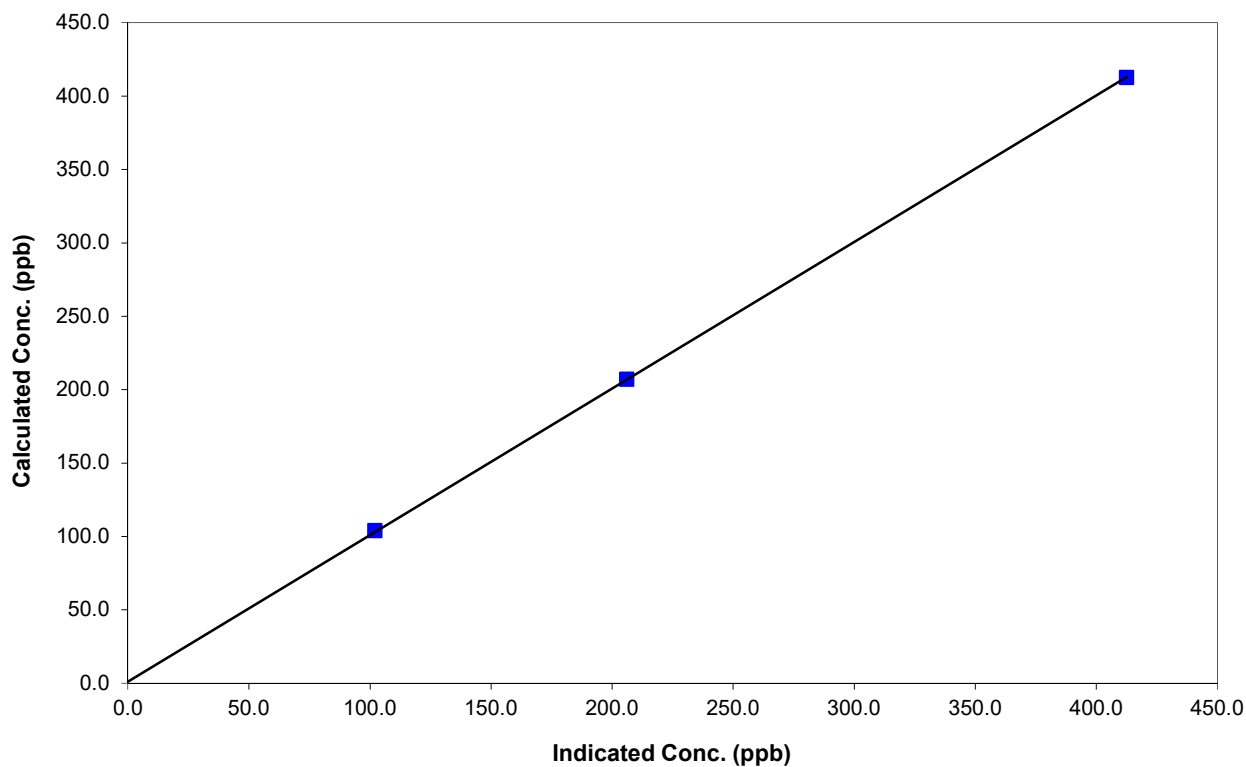
Station Information

Calibration Date	April 10, 2018	Previous Calibration	March 1, 2018
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	8:40	End Time (MST)	12:15
Analyzer make	42i	Analyzer serial #	906535087

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A	Correlation Coefficient	0.999977
412.7	412.5	1.0005		
207.1	206.0	1.0053		
104.0	102.1	1.0184	Slope	0.999173
			Intercept	0.944144

NO_x Calibration Curve



Calibration Summary

Parameter NO

Air Monitoring Network PAZA



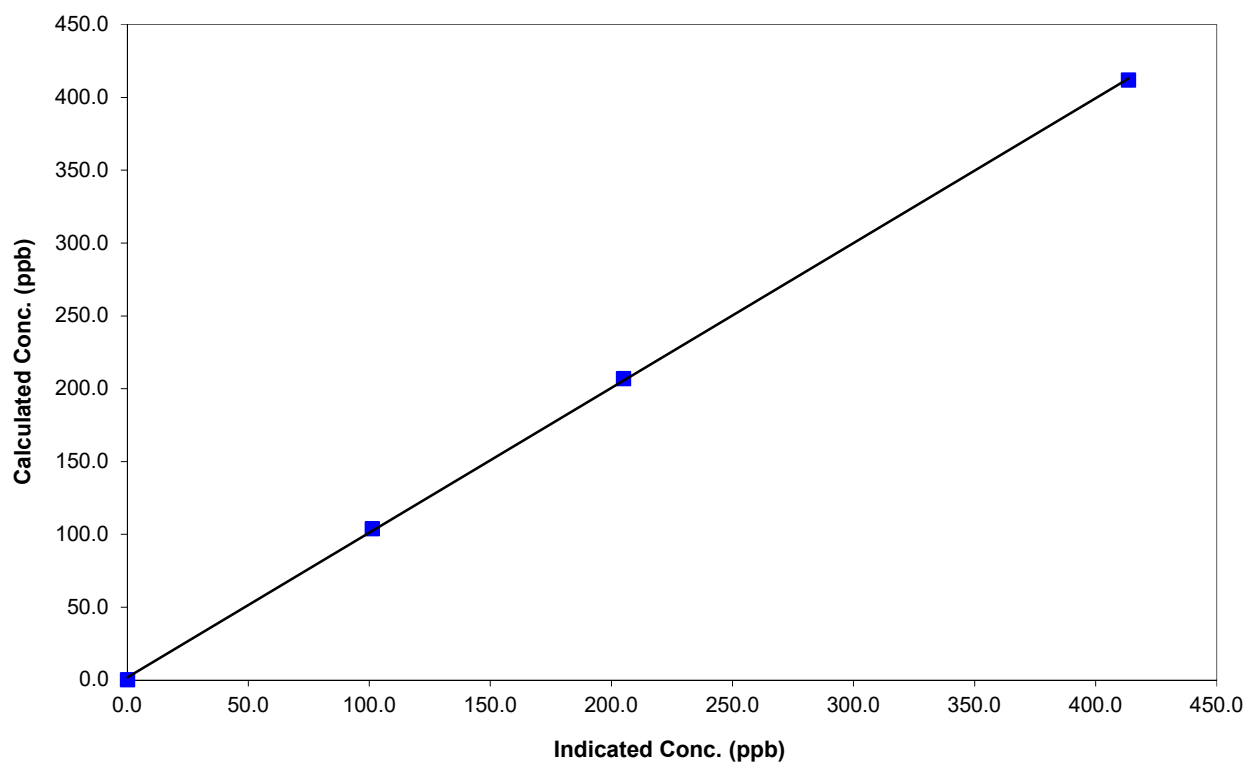
Station Information

Calibration Date	April 10, 2018	Previous Calibration	March 1, 2018
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	8:40	End Time (MST)	12:15
Analyzer make	42i	Analyzer serial #	906535087

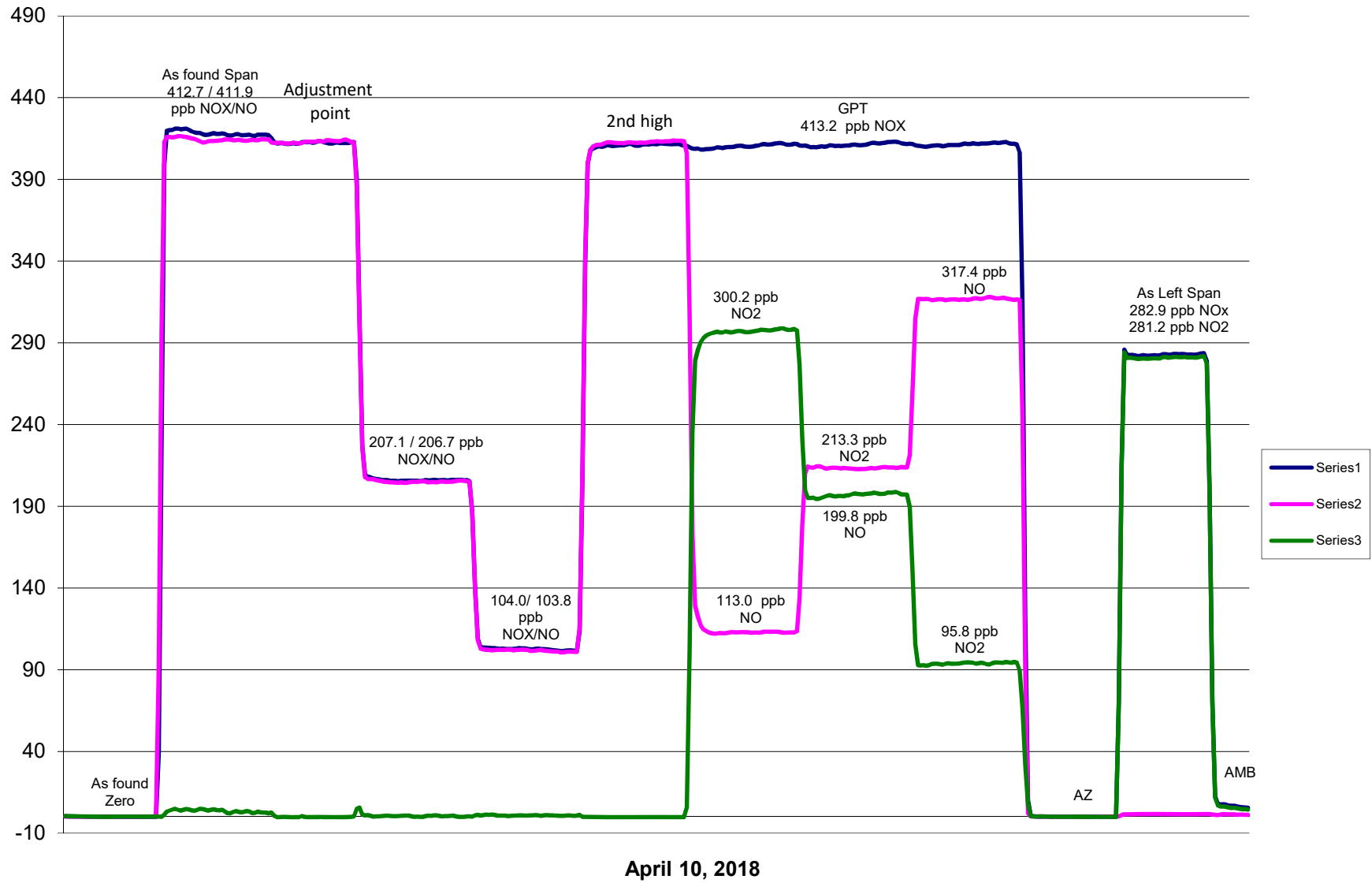
Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A	Correlation Coefficient	0.999919
411.9	413.6	0.9960		
206.7	205.1	1.0080		
103.8	101.3	1.0246	Slope	0.994574
			Intercept	1.557514

NO Calibration Curve



NO_x Calibration



Calibration Report

Parameter 03

Air Monitoring Network PAZA



Station Information

Calibration Date	April 10, 2018	Previous Calibration	March 1, 2018
Station Number	1	Station Location	Henry Pirker
Reason:	Routine	Install	Removal
		Other:	

Start Time (MST)	11:28	End Time (MST)	13:20:00 PM
Barometric Pressure	920.0 mbar	Station Temperature	20.0 Deg C
Calibrator	Envionics	Serial Number	6586
Cal Gas Concentration	NA	Cal Gas Expiry Date	NA

DACS make	CR3000	DACS serial No.	5237
DACS voltage range	0 - 5 volt	DACS channel #	9
	Before		After
Calculated slope	1.004705	Calculated slope	1.002508
Calculated intercept	-0.360061	Calculated intercept	-1.162687

Analyzer make	Teco 49I	Analyzer serial #	1507964699 (AMU:2015)
---------------	----------	-------------------	-----------------------

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
offset	-0.60	ppb	-0.60	ppb
slope	1.024		1.024	
Lamp temp	53.7	mV	53.6	mV
Lamp Intensity A/B	64202/69391	mV	64387/69744	mV
Pressure	690.1	mm Hg	695.8	mm Hg
Flow A	0.73	ccm	0.734	ccm
Flow B	0.730	ccm	0.735	ccm

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4996	0.0	0.0	0.7	N/A
4998	0.3	300.2	300.4	0.9994
4998	0.2	199.8	200.5	0.9964
4998	0.1	95.8	97.3	0.9842
4996	0.0	0.0	0.7	As found zero
4996	0.3	300.2	300.4	As found span
Average Correction Factor				0.9934

Calculated value of As Found Response: 300.7 ppm Percent Change of As Found: 0.2%

	before calibration		after calibration	
Auto zero	0.8	ppb	0.9	ppb
Auto span	400.5	ppb	397.0	ppb

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter 03
Air Monitoring Network PAZA



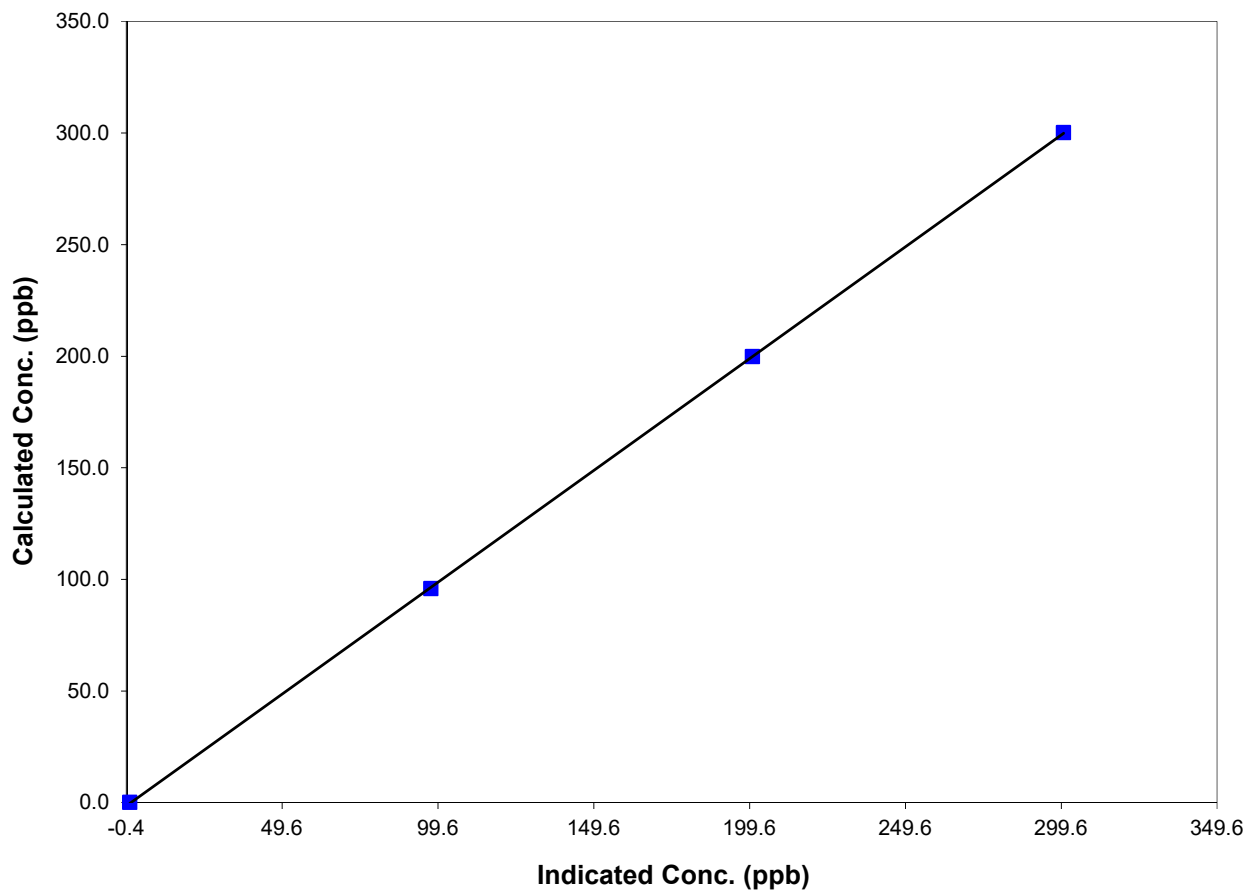
Station Information

Calibration Date	April 10, 2018	Previous Calibration	March 1, 2018
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	11:28	End Time (MST)	13:20:00 PM
Analyzer make/model	Teco 49I	Analyzer serial #	1507964699 (AMU:2015)

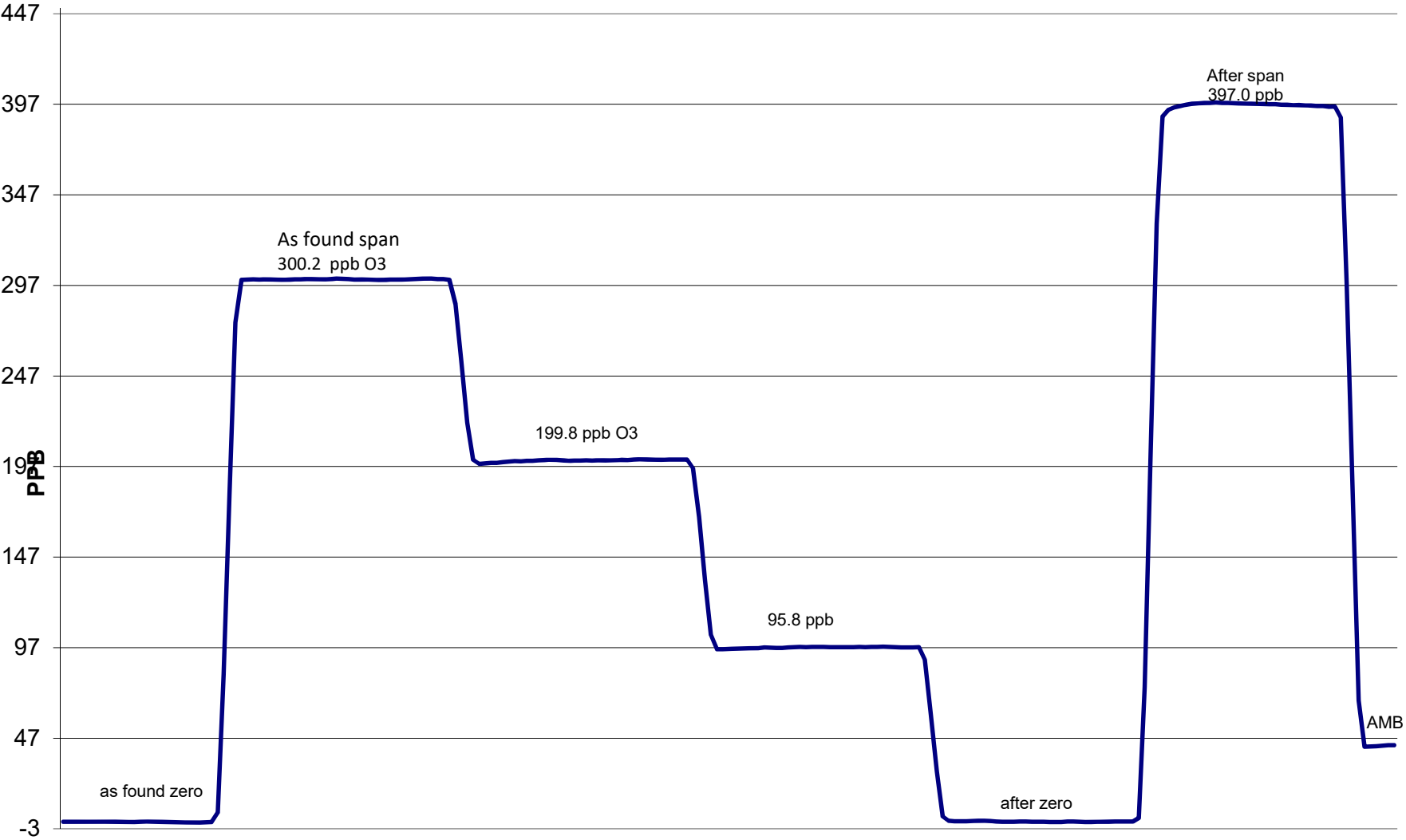
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.7	NA	Correlation Coefficient	0.999987
300.2	300.4	0.9994		
199.8	200.5	0.9964		
95.8	97.3	0.9842	Slope	1.002508
			Intercept	-1.162687

O3 Calibration Curve



O3 Calibration



April 10, 2018

Calibration Report

Parameter CO
Air Monitoring Network PAZA



Station Information

Calibration Date	April 6, 2018	Previous Calibration	March 2, 2018
Station Number	1	Station Location	Henry Pirker
Reason:	Routine	☐ Install	☐ Removal
		☐ Other:	
Start Time (MST)	12:05	End Time (MST)	14:55:00 PM
Barometric Pressure	0.919 mBar	Station Temperature	23.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	6586
Cal Gas Conc	2906 ppm	Cal Gas Expiry Date	07/07/2023
		Cal Gas Cylinder #	LL109096
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 5 volt	DACS channel #	9
	Before		After
Calculated slope	0.999626	Calculated slope	1.001600
Calculated intercept	-0.178254	Calculated intercept	-0.237449
Analyzer make	Model 48I-TLE	Analyzer serial #	1408761378

	before		after	
Concentration range	0 - 50	ppm	0 - 50	ppm
CO zero setting	10.343		10.637	
CO span setting	1.080		1.085	
Sample pressure	698.9	mm Hg	700.7	mm Hg
Sample Flow	0.455	LPM	0.455	LPM

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4997	0.00	0.00	-0.01	N/A
4998	69.96	40.12	40.12	0.9999
4998	34.98	20.20	20.63	0.9789
4998	17.99	10.42	10.83	0.9623
4998	0.00	0.00	0.26	As Found Zero
4998	69.96	40.12	40.59	As Found Span
Average Correction Factor				0.9804

Calculated value of As Found Response: 40.131 ppm Percent Change of As Found: 0.0%

	before calibration		after calibration	
Auto zero	0.01	ppm	-0.01	ppm
Auto span	20.48	ppm	20.52	ppm

Notes: Zero & span adjustments made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter CO
Air Monitoring Network PAZA



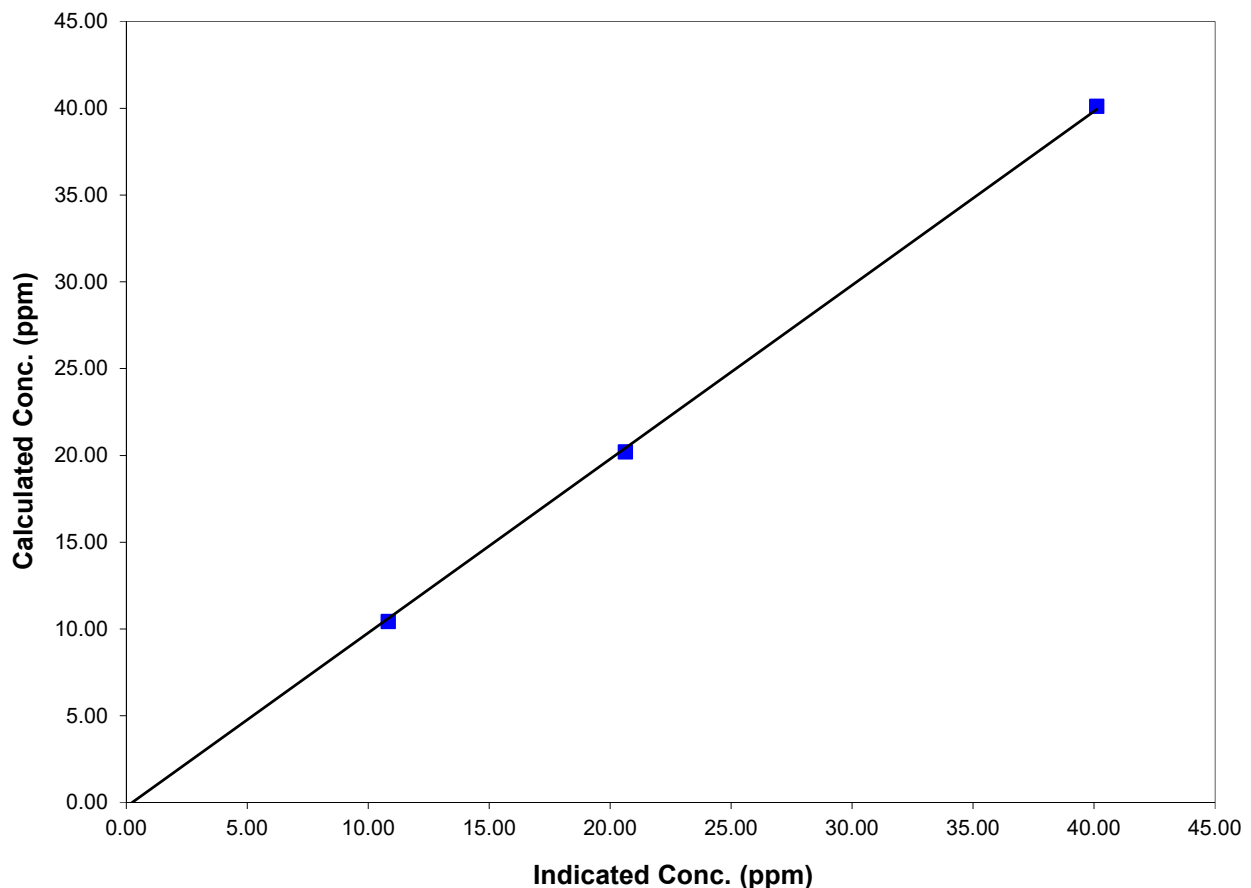
Station Information

Calibration Date	April 6, 2018	Previous Calibration	March 2, 2018
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	12:05	End Time (MST)	14:55:00 PM
Analyzer make/model	Model 48I-TLE	Analyzer serial #	1408761378

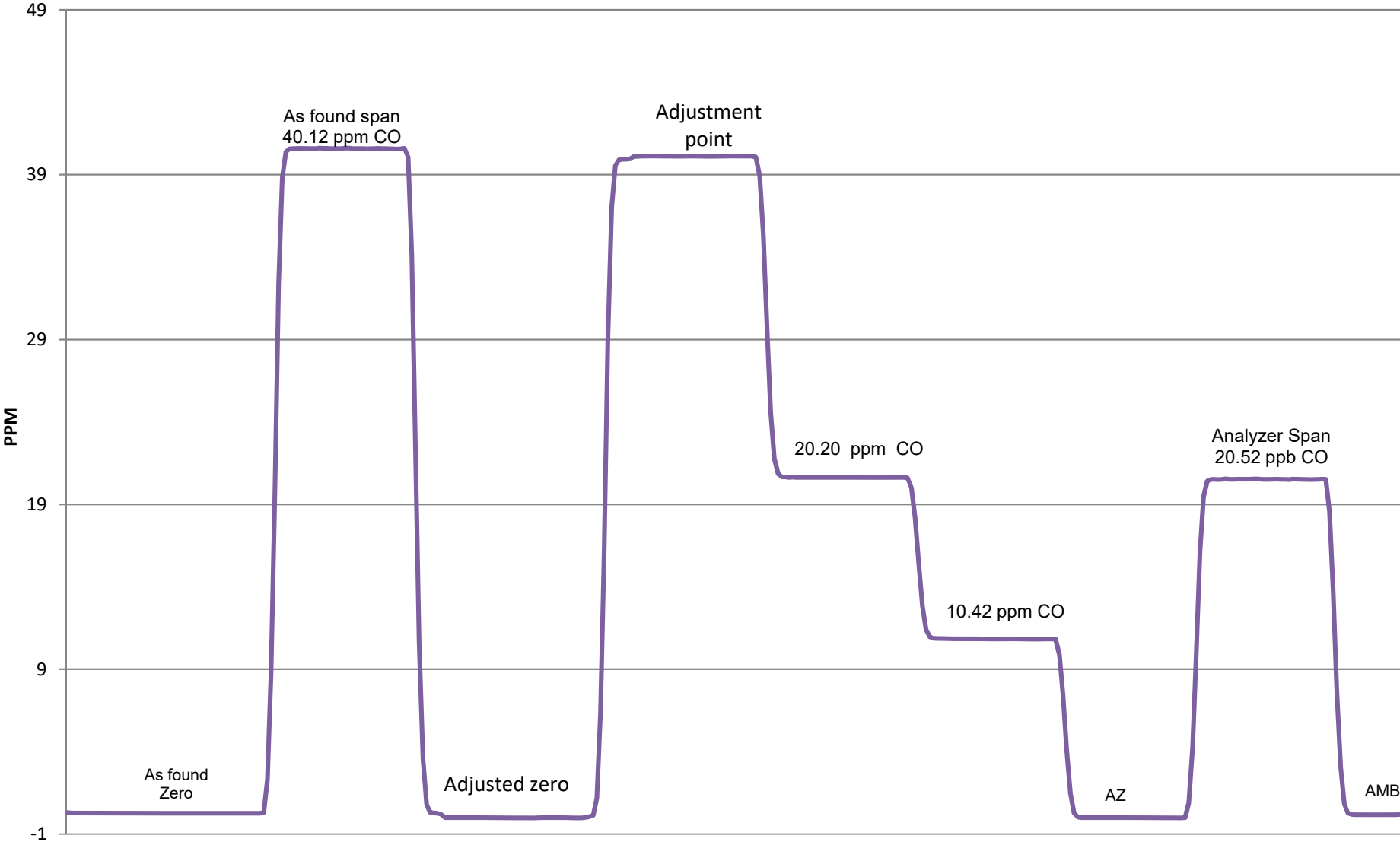
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	-0.012	N/A	Correlation Coefficient	0.999795
40.116	40.119	0.9999		
20.197	20.632	0.9789		
10.422	10.831	0.9623	Slope	1.001600
			Intercept	-0.237449

CO Calibration Curve



CO Calibration



April 6, 2018

Calibration Report



Parameter CH4 / NMHC / THC

Air Monitoring Network PAZA

Station Information

Calibration Date	April 6, 2018	Previous Calibration	March 2, 2018
Station Number	1	Station Location	Henry Pirker
Reason:	Routine	Install	Removal
			Other: Mair

Start Time (MST)	9:50	End Time (MST)	13:00:00 PM
Barometric Pressure	0.919 mBar	Station Temperature	23.0 Deg C
Calibrator	EnviroNics 6103	Serial Number	6586
Cal Gas CH4 Conc	386 ppm CH4	Cal Gas Expiry Date	05/07/2015
Cal Gas C3H8 Conc	207 569.25 ppm CH4	Cal Gas Cylinder #	LL34318
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 5 volt	DACS channel #	SE 11,12,13

Analyzer make TEI 55I Analyzer serial # 1134650658

	before		after	
Concentration range	0-20 (CH4, NMHC); 0-40 (THC)	ppm	0-20 (CH4, NMHC); 0-40 (THC)	ppm
Air pressure	27.8	PSI	27.8	PSI
Fuel pressure	42.1	PSI	42.1	PSI
Carrier pressure	30.3	PSI	30.3	PSI
CH4 cal factor	5.22		5.22	E ⁻⁴
NMHC cal factor	1.51		1.51	E ⁻⁴
Rt	12.31	Sec	12.31	Sec
Pk Index	23.43		23.43	

CH4 Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
1998	0.00	0.00	0.02	N/A
1998	64.99	12.16	12.11	1.0044
1998	40.97	7.76	7.69	1.0080
1998	15.99	3.06	3.02	1.0131
1998	0.00	0.00	0.02	As Found Zero
1998	70.65	13.18	11.82	As Found Span
Average Correction Factor				1.0085

Calculated value of As Found Response: 11.829 ppm Percent Change of As Found: 10.3%

	Before		After
Calculated slope	1.001182	Calculated slope	1.005538
Calculated intercept	0.013170	Calculated intercept	0.002366

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.03	ppm	0.03	ppm
Auto span	10.53	ppm	10.54	ppm

NMHC Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
1998	0.00	0.00	0.02	N/A
1998	64.99	17.93	17.93	1.0002
1998	40.97	11.44	11.48	0.9961
1998	15.99	4.52	4.52	0.9998
1998	0.00	0.00	0.02	As Found Zero
1998	70.65	19.44	17.52	As Found Span
Average Correction Factor				0.9987

Calculated value of As Found Response: 17.492 ppm Percent Change of As Found: 10.0%

	Before		After
Calculated slope	0.998526	Calculated slope	1.000289
Calculated intercept	0.017320	Calculated intercept	-0.017783

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.02	ppm	0.02	ppm
Auto span	14.79	ppm	14.70	ppm

THC Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
1998	0.00	0.00	0.03	N/A
1998	64.99	30.09	30.02	1.0024
1998	40.97	19.19	19.16	1.0017
1998	15.99	7.58	7.53	1.0067
1998	0.00	0.00	0.03	As Found Zero
1998	70.65	32.62	29.33	As Found Span
Average Correction Factor				1.0036

Calculated value of As Found Response: 29.332 ppm Percent Change of As Found: 10.1%

	Before		After
Calculated slope	1.000005	Calculated slope	1.002706
Calculated intercept	0.038453	Calculated intercept	-0.007265

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.02	ppm	0.02	ppm
Auto span	25.30	ppm	25.21	ppm

Notes: Span & hydrogen replaced
Slight span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter CH4

Air Monitoring Network PAZA



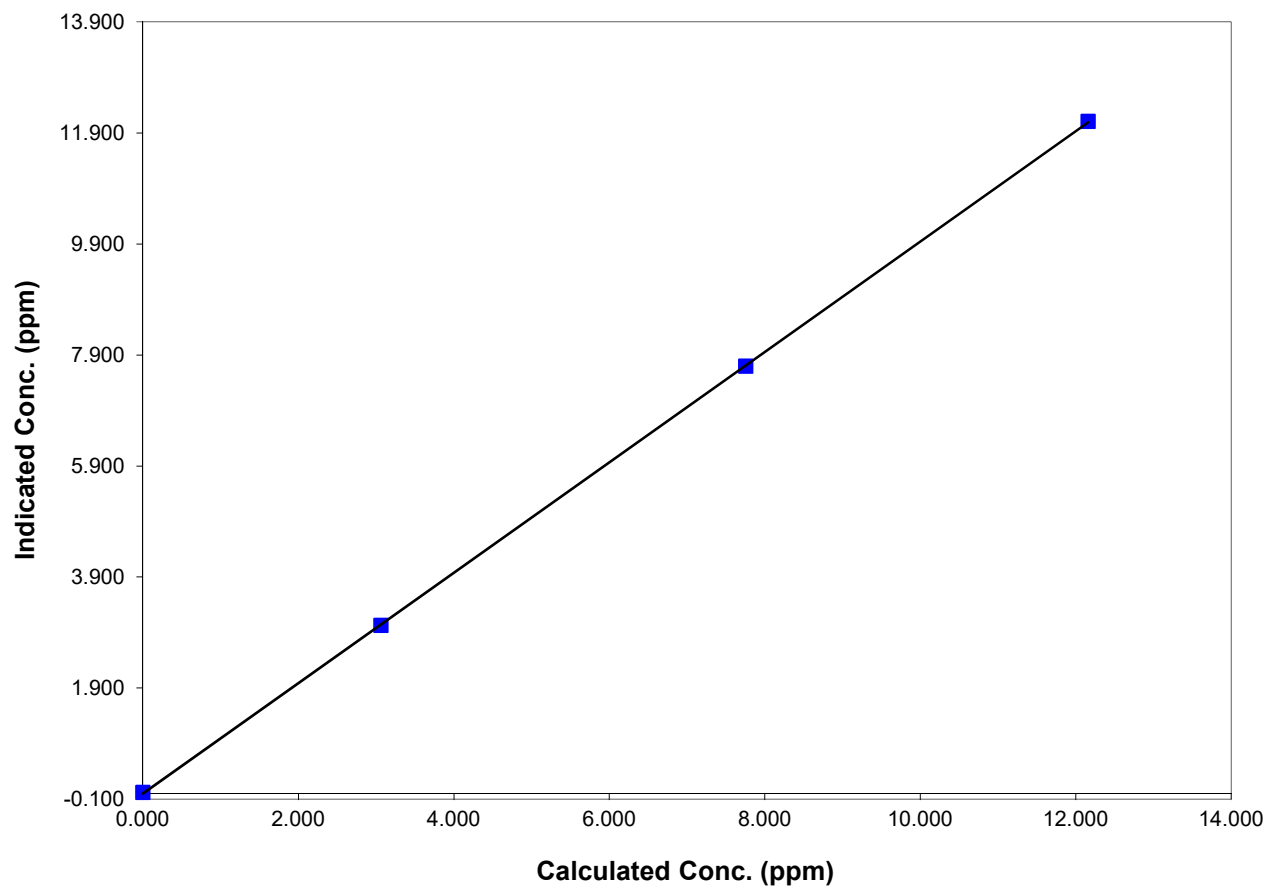
Station Information

Calibration Date	April 6, 2018	Previous Calibration	March 2, 2018
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:50	End Time (MST)	13:00:00 PM
Analyzer make/model	TEI 55I	Analyzer serial #	1134650658

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.019	N/A	Correlation Coefficient	0.999984
12.160	12.106	1.0044		
7.756	7.695	1.0080		
3.065	3.025	1.0131	Slope	1.005538
			Intercept	0.002366

CH4 Calibration Data



Calibration Summary

Parameter NMHC

Air Monitoring Network PAZA



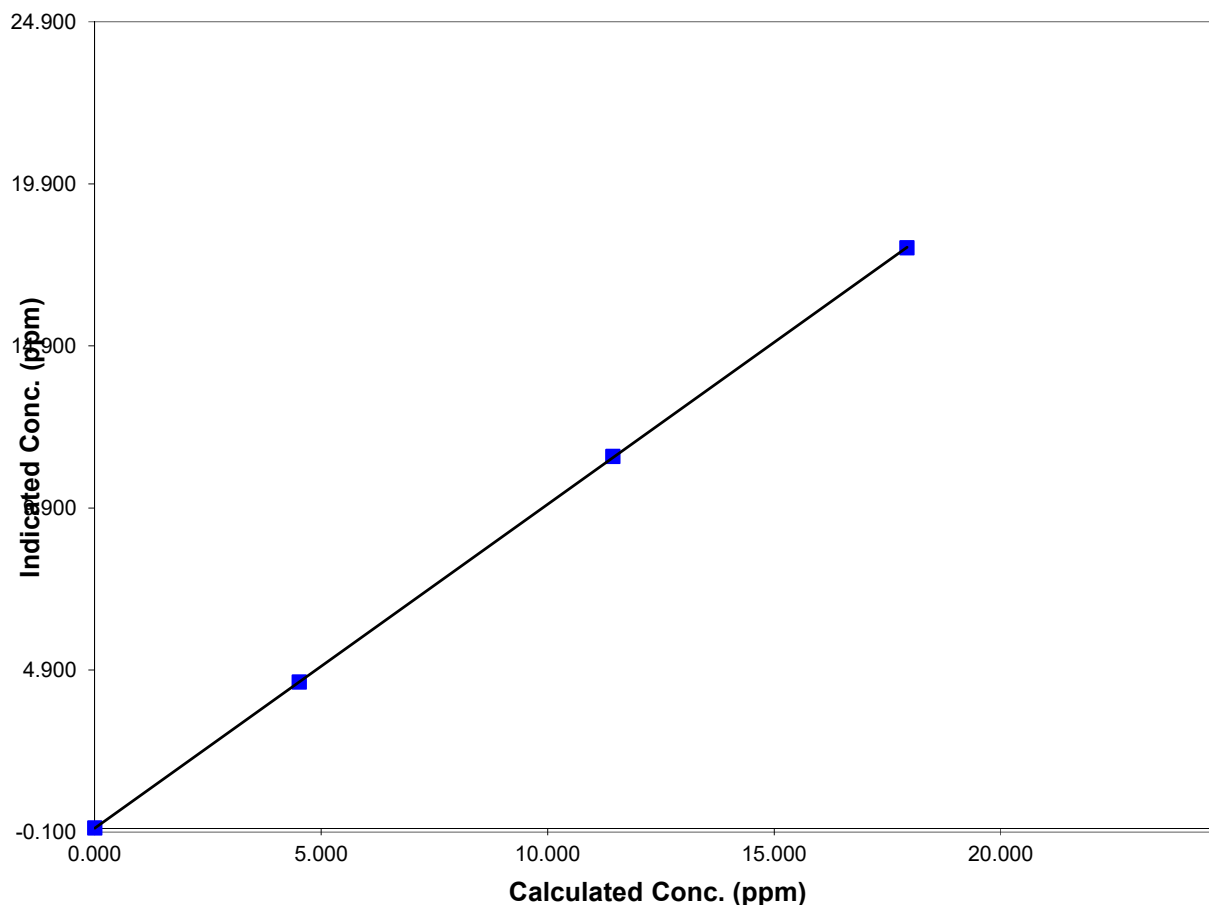
Station Information

Calibration Date	April 6, 2018	Previous Calibration	March 2, 2018
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:50	End Time (MST)	13:00:00 PM
Analyzer make/model	TEI 55I	Analyzer serial #	1134650658

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.018	N/A	Correlation Coefficient	0.999992
17.933	17.930	1.0002		
11.438	11.483	0.9961		
4.520	4.521	0.9998	Slope	1.000289
			Intercept	-0.017783

NMHC Calibration Data



Calibration Summary



Parameter THC
Air Monitoring Network PAZA

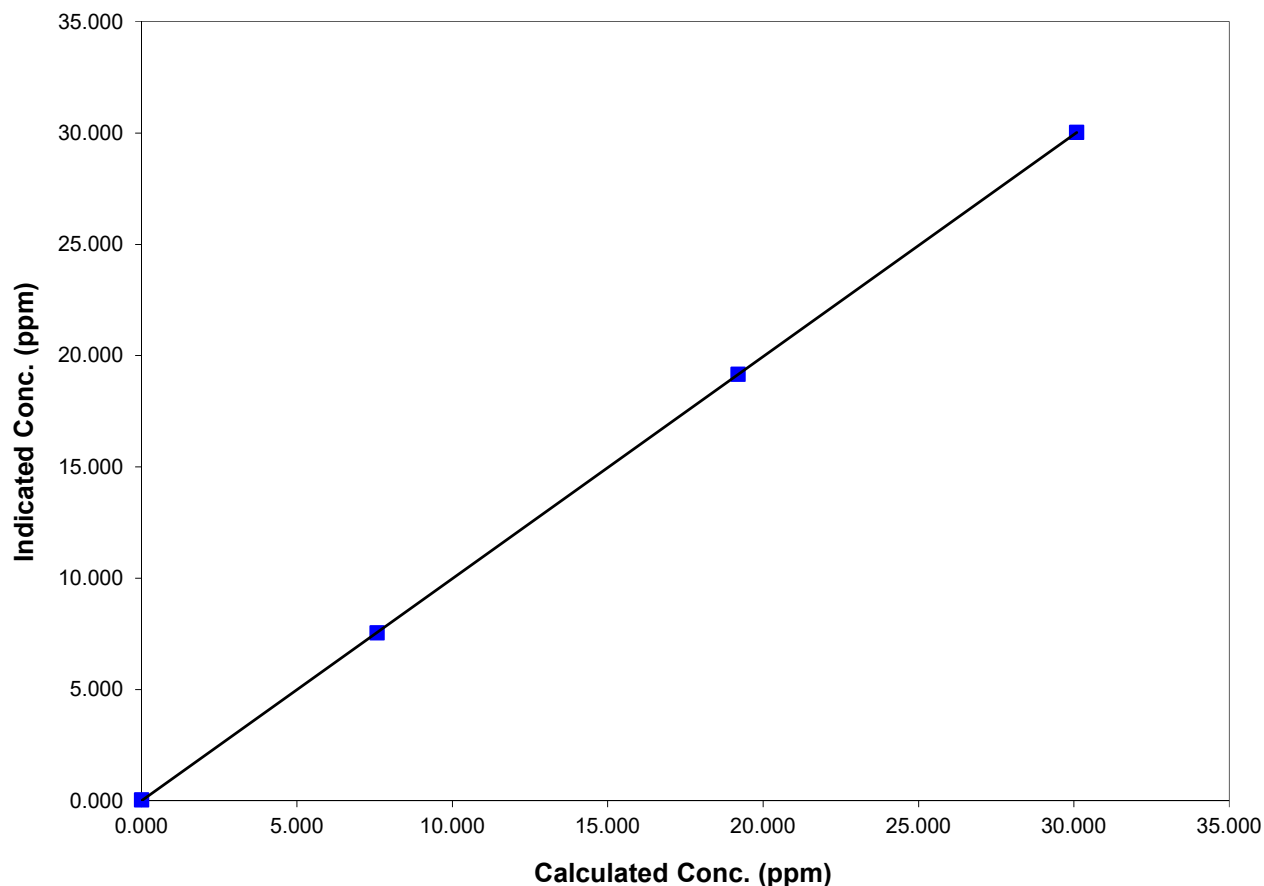
Station Information

Calibration Date	April 6, 2018	Previous Calibration	March 2, 2018
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:50	End Time (MST)	13:00:00 PM
Analyzer make/model	TEI 55I	Analyzer serial #	1134650658

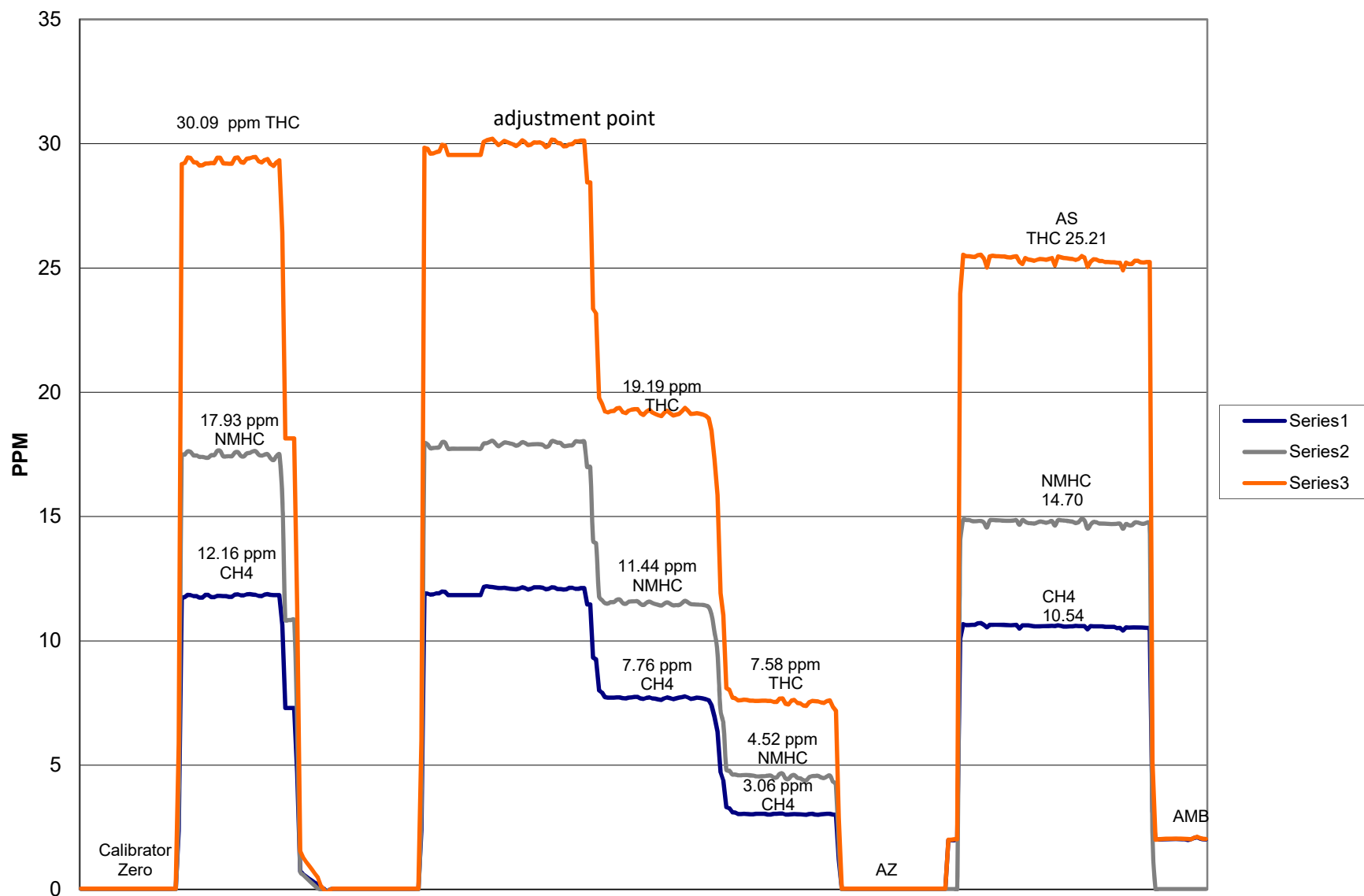
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.031	N/A	Correlation Coefficient	0.999996
30.093	30.021	1.0024		
19.194	19.162	1.0017	Slope	1.002706
7.584	7.534	1.0067		
			Intercept	-0.007265

THC Calibration Data



THC/CH₄/NMHC Calibration



SHARP 5030 PM2.5 Calibration



STATION: Henry Pirker
 LOCATION: Muskoseepi Park
 START TIME (MST): 9:00
 END TIME (MST): _____

OPERATOR: Dmytro Dolotii
 Last calibration date: October 27 2017
 Calibration date: April 6 2017

MONITOR INFO / PARAMETER VALUES:

Make/Model **SHARP 5030**
 Configuration **PM 2.5**
 Serial Number **N-759**

Audit Device Model **Delta cal**
 Audit Device S/N **N402807**
 Certification Date **01-Oct-15**

AUDIT / CALIBRATION RESULTS:

	Ambient Temp. (° C)	Ambient Pres. (mbar)	Leak Check (L/min)	Flow Rate (lpm)	Time settings (hh:mm)
<i>As Found Data</i>					
Audit values (I)	-5.0	931	16.67	16.67	14:00
MEASURED (AF)	-5.8	940	17.08	17.22	14:00
AF Difference (AF-I)	-0.8	9	-0.41	0.55	0:00
<i>Adjusted Data</i>					
MEASURED (M)	-5.8	940	16.67	16.67	14:00
Adj Difference (M-I)	-0.8	9	0.00	0.00	0:00
LIMITS	± 4.0 ° C	13.33 mbar	0.8 L/min	± 1.0 L/min	±2 min

	As found	Adjusted
Nephelometer zero	2.1	0.04
Foil calibration	6968	7004

Sample Head Inspect/Cleaning: Cleaned sample head
 Status of sampling tape: 20% full
 Nozzle Inspection / cleanliness: _____

COMMENTS: Barometric pressure, temperature & zero adjustments made.

Calibration Report

Parameter S02
Air Monitoring Network PAZA



Station Information

Calibration Date	April 24, 2018	Previous Calibration	March 6, 2018
Station Number	4	Station Location	Beaverlodge
Reason:	Routine	Install	Removal
Start Time (MST)	11:50	End Time (MST)	13:55:00 PM
Barometric Pressure	0.921 atm	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3016
Cal Gas Concentratio	10.5 ppm	Cal Gas Expiry Date	12/01/2019
Gas Cert Reference	FF16108		
DACS make	CR3000	DACS serial No.	5237
DACS voltage range	0 - 5 volt	DACS channel #	5
	<u>Before</u>		<u>After</u>
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	1.002009	Calculated slope	0.994629
Calculated intercept	0.102788	Calculated intercept	-0.086074
Analyzer make	TEI Model 43i-TLE	Analyzer serial #	713021137

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	2.84		2.84	
Coefficient	0.975		0.975	
PMT	-768.2	V	-768.2	V
UV Lamp Voltage	1135	V	1135	V
Chamber Temp	45	Deg C	45	Deg C
Pressure	669.3	mm Hg	669.3	mm Hg
Sample Flow	0.486	LPM	0.486	LPM
Lamp Intensity	94	%	94	%

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.0	0.0	N/A
4995	39.94	83.3	83.8	0.9941
4995	19.97	41.8	42.2	0.9917
4995	9.97	20.9	21.2	0.9856
4995	0.00	0.0	0.0	As found zero
4995	39.94	83.3	83.8	As found span
Average Correction Factor				0.9905

Calculated value of As Found Response: 84.065 ppm Percent Change of As Found: -0.9%

	before calibration		after calibration	
Auto zero	0.2	ppb	-0.1	ppb
Auto span	59.2	ppb	58.4	ppb

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter SO2

Air Monitoring Network PAZA



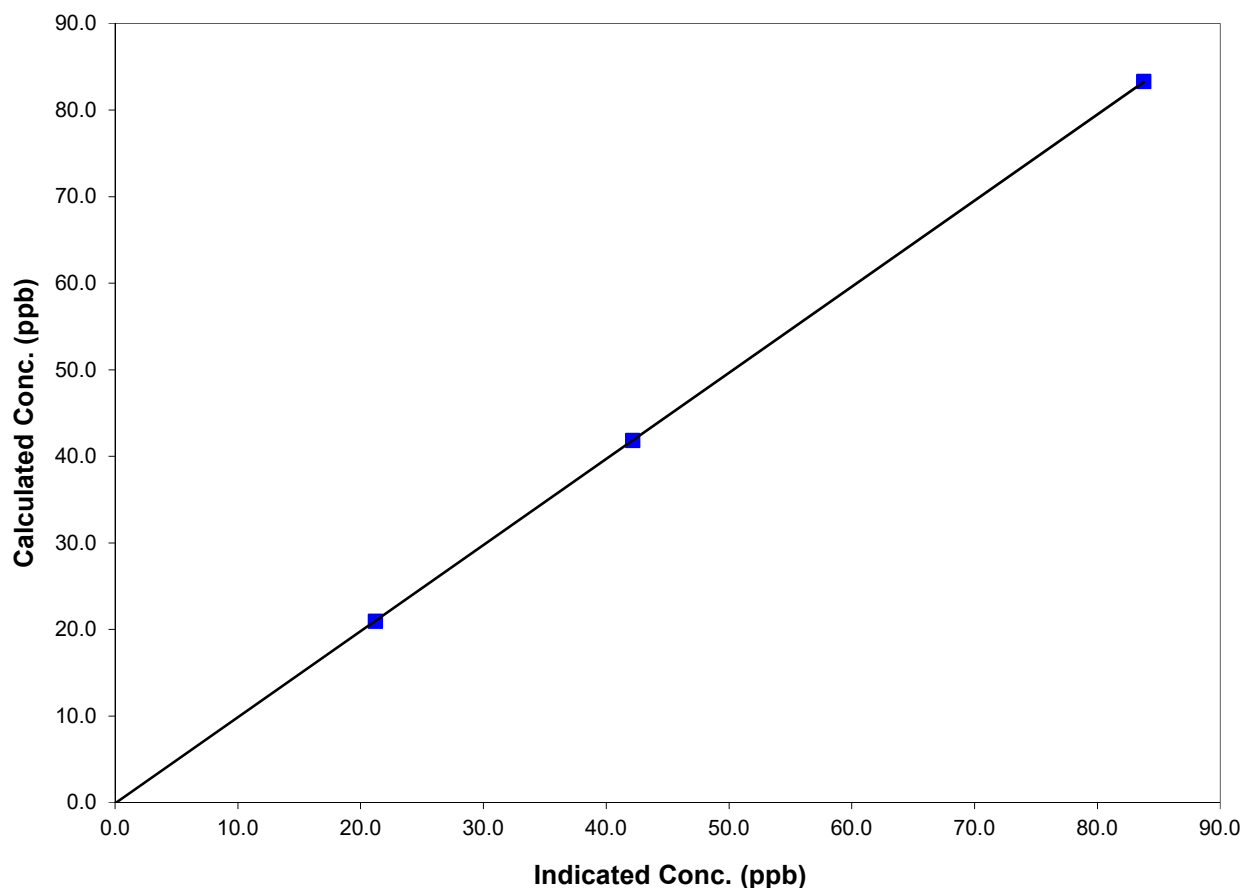
Station Information

Calibration Date	April 24, 2018	Previous Calibration	March 6, 2018
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	11:50	End Time (MST)	13:55:00 PM
Analyzer make/model	TEI Model 43i-TLE	Analyzer serial #	713021137

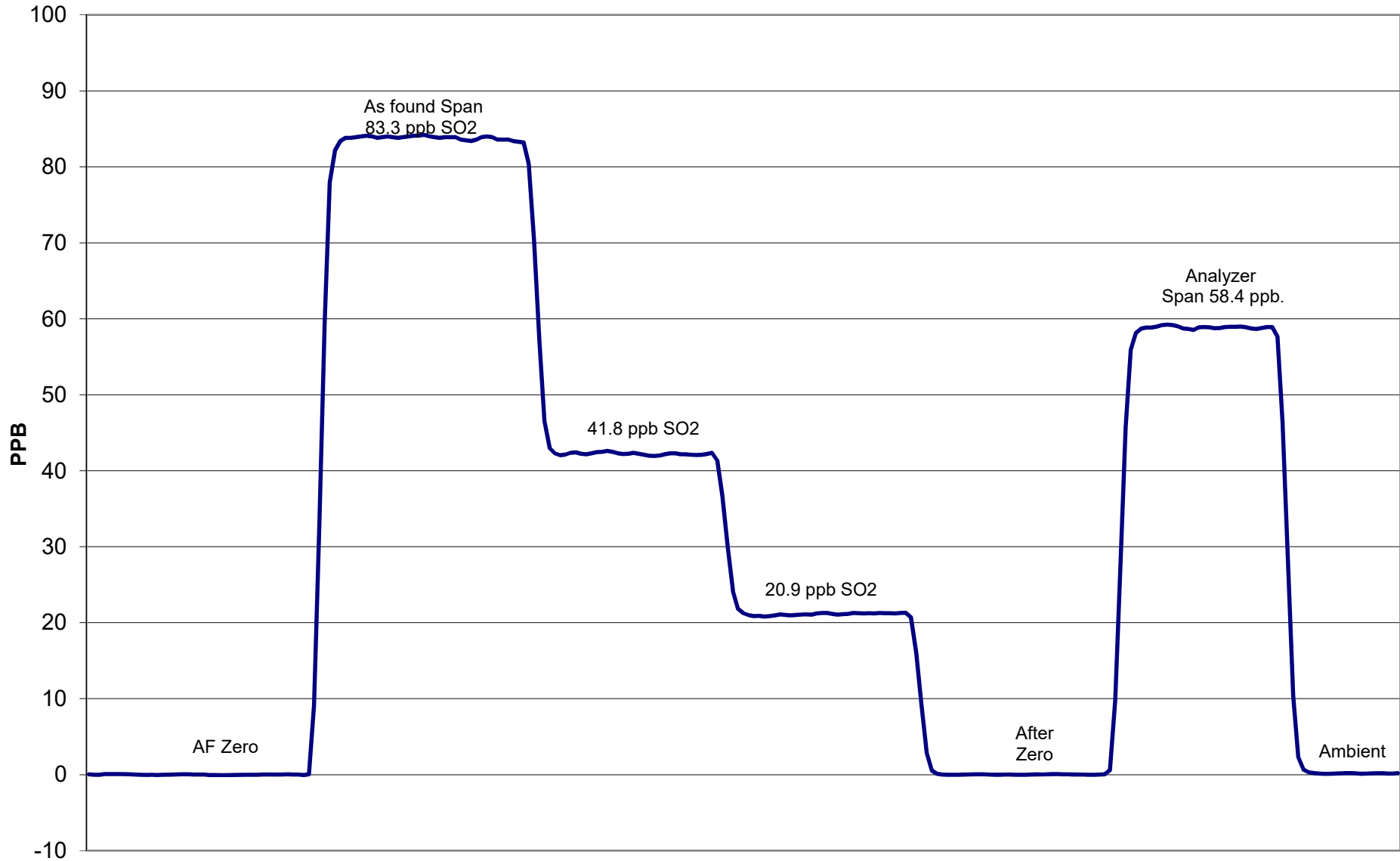
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A	Correlation Coefficient	0.999994
83.3	83.8	0.9941		
41.8	42.2	0.9917		
20.9	21.2	0.9856	Slope	0.994629
			Intercept	-0.086074

SO2 Calibration Curve



SO2 Calibration



April 24, 2018

Calibration Report

Parameter
Air Monitoring Network

NO_x-NO-NO₂
PAZA



Station Information

Calibration Date	April 24, 2018	Previous Calibration	March 6, 2018
Station Number	4	Station Location	Beaverlodge
Reason:	Routine	Installation	Removal
Start Time (MST)	7:20	End Time (MST)	11:10
Barometric Pressure	0.921 Atm	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3016
NO Cal Gas Conc	51.9 ppm	Cal Gas Expiry Date	10/24/2020
NOx Cal Gas Conc	52 ppm	Cal Gas Serial #	LL107945

DACS Information

DACS make	CR3000	DACS serial No.	5237																																			
	<table border="1"> <thead> <tr> <th>Parameter</th> <th>NO2</th> <th>NOx</th> <th>NO</th> </tr> </thead> <tbody> <tr> <td>Before</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Data Slope</td> <td>0.973184</td> <td>1.006470</td> <td>1.005445</td> </tr> <tr> <td>Data Offset</td> <td>-3.356142</td> <td>1.116415</td> <td>1.185484</td> </tr> <tr> <td>After</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Data Slope</td> <td>0.998955</td> <td>1.001088</td> <td>1.000289</td> </tr> <tr> <td>Data Offset</td> <td>-0.325974</td> <td>0.738027</td> <td>1.112046</td> </tr> <tr> <td>Channel #</td> <td>8</td> <td>6</td> <td>7</td> </tr> <tr> <td>Voltage Range</td> <td>0 - 5 VDC</td> <td>0 - 5 VDC</td> <td>0 - 5 VDC</td> </tr> </tbody> </table>	Parameter	NO2	NOx	NO	Before				Data Slope	0.973184	1.006470	1.005445	Data Offset	-3.356142	1.116415	1.185484	After				Data Slope	0.998955	1.001088	1.000289	Data Offset	-0.325974	0.738027	1.112046	Channel #	8	6	7	Voltage Range	0 - 5 VDC	0 - 5 VDC	0 - 5 VDC	
Parameter	NO2	NOx	NO																																			
Before																																						
Data Slope	0.973184	1.006470	1.005445																																			
Data Offset	-3.356142	1.116415	1.185484																																			
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Channel #	8	6	7																																			
Voltage Range	0 - 5 VDC	0 - 5 VDC	0 - 5 VDC																																			

Analyzer Information

Analyzer make/model	TEI 42i	Analyzer serial #	906535068
Test Point	before	after	
Concentration range	0-500	ppb	0-500
NO offset	2.8	mV	2.7
NOx bkgnd	3.1	mV	3.1
NO coefficient	1.060		1.060
NOx coefficient	0.999		0.999
NO2 conv temp	325.8	Deg C	326.1
PMT Temp	-3.0	Deg C	-3.0
PMT Volt	-742.6	mV	-742.6
R Cell Press	211.5	in Hg	212.1
Sample Flow	0.722	LPM	0.723

Notes: Span adjustment made

Calibration Report

Parameter **NOX-NO-NO2**
Air Monitoring Network **PAZA**



Station Information

Calibration Date: April 24, 2018 Station Location: Beaverlodge

Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor
zero	4995	0.00	0.0	0.0	0.0	-0.2	-0.2	-0.2	N/A	N/A
1	4995	39.94	412.5	411.7	0.8	411.6	411.0	-0.2	1.0022	1.0018
2	4995	19.97	207.1	206.7	0.4	205.8	204.9	0.0	1.0060	1.0086
3	4995	9.97	103.6	103.4	0.2	102.2	101.4	0.5	1.0140	1.0193
AFZ	4995	0.00	0.0	0.0	0.0	-0.2	-0.2	-0.2	0.0000	0.0000
AFS	4995	39.94	412.5	411.7	0.8	416.7	416.3	-0.4	0.9900	0.9891
Average Correction Factor									1.0074	1.0099

As Found Concentrations: NO_x= 420.7 NO= 419.9 As Found Percent Change NO_x= 2.0% NO= 2.0%

GPT Calibration Data

Dilution Flow 4995 ccm Source Gas Flow 39.94 ccm

O3 Setpoint (ppb)	Indicated NOx high point (ppb)	Indicated NO drop conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor	NO2 Correction factor	Converter Efficiency
0	-0.2	-0.2	0.0	-0.2	-0.2	-0.2	N/A	N/A	N/A	N/A
NO point	409.9	409.9	0.0	410.3	409.9	-0.3	0.9989	1.0000	N/A	N/A
300	409.9	113.3	296.5	411.0	113.3	297.0	0.9972	1.0000	0.9985	100.2%
200	409.9	211.9	197.9	411.3	211.9	198.4	0.9966	1.0000	0.9977	100.2%
100	409.9	315.1	94.7	411.5	315.1	95.9	0.9959	1.0000	0.9877	101.2%
Average Correction Factor							0.9966	1.0000	0.9947	100.5%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	-0.3	-0.3	-0.1	ppb	-0.2	-0.2	-0.2	ppb
Auto span	299.8	297.6	1.4	ppb	296.4	294.0	1.6	ppb

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter NO₂

Air Monitoring Network PAZA



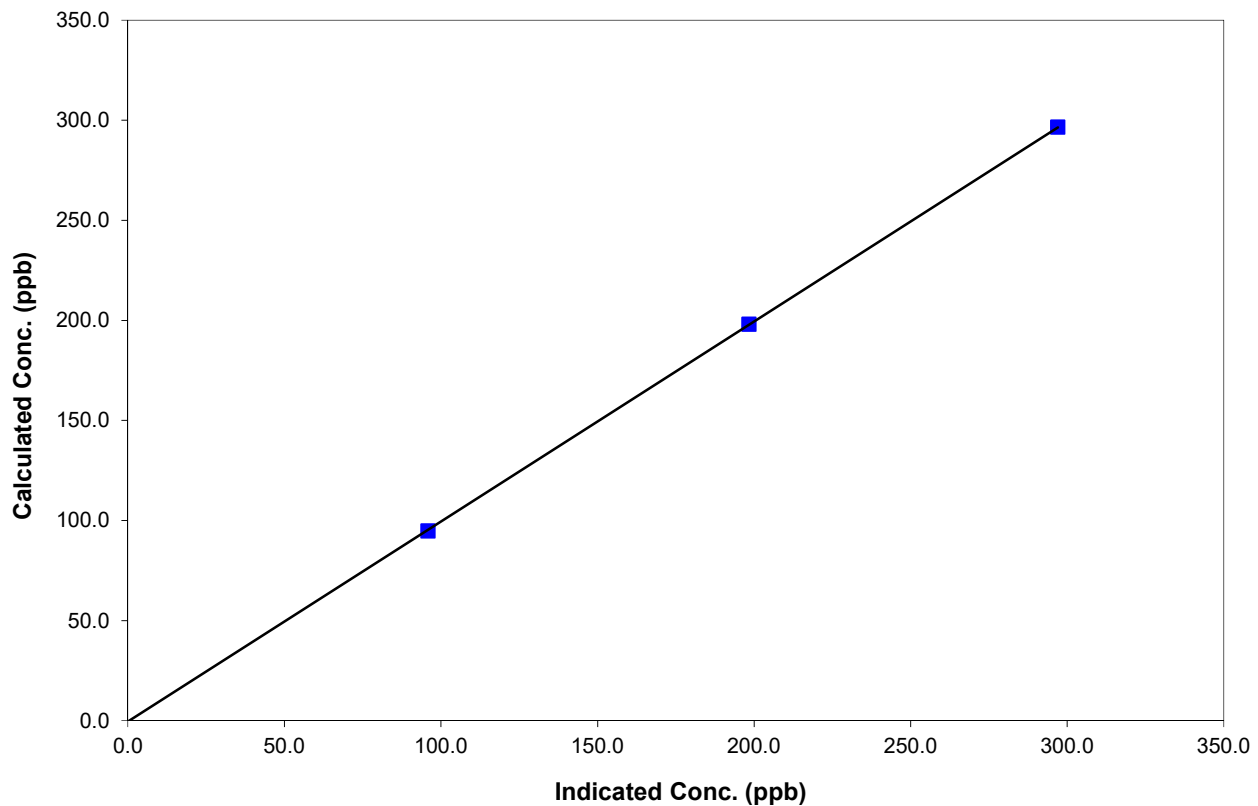
Station Information

Calibration Date	April 24, 2018	Previous Calibration	March 6, 2018
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	7:20	End Time (MST)	11:10
Analyzer make	TEI 42i	Analyzer serial #	906535068

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.2	N/A	Correlation Coefficient	0.999983
296.5	297.0	0.9985		
197.9	198.4	0.9977		
94.7	95.9	0.9877	Slope	0.998955
			Intercept	-0.325974

NO₂ Calibration Curve



Calibration Summary

Parameter NO_x

Air Monitoring Network PAZA



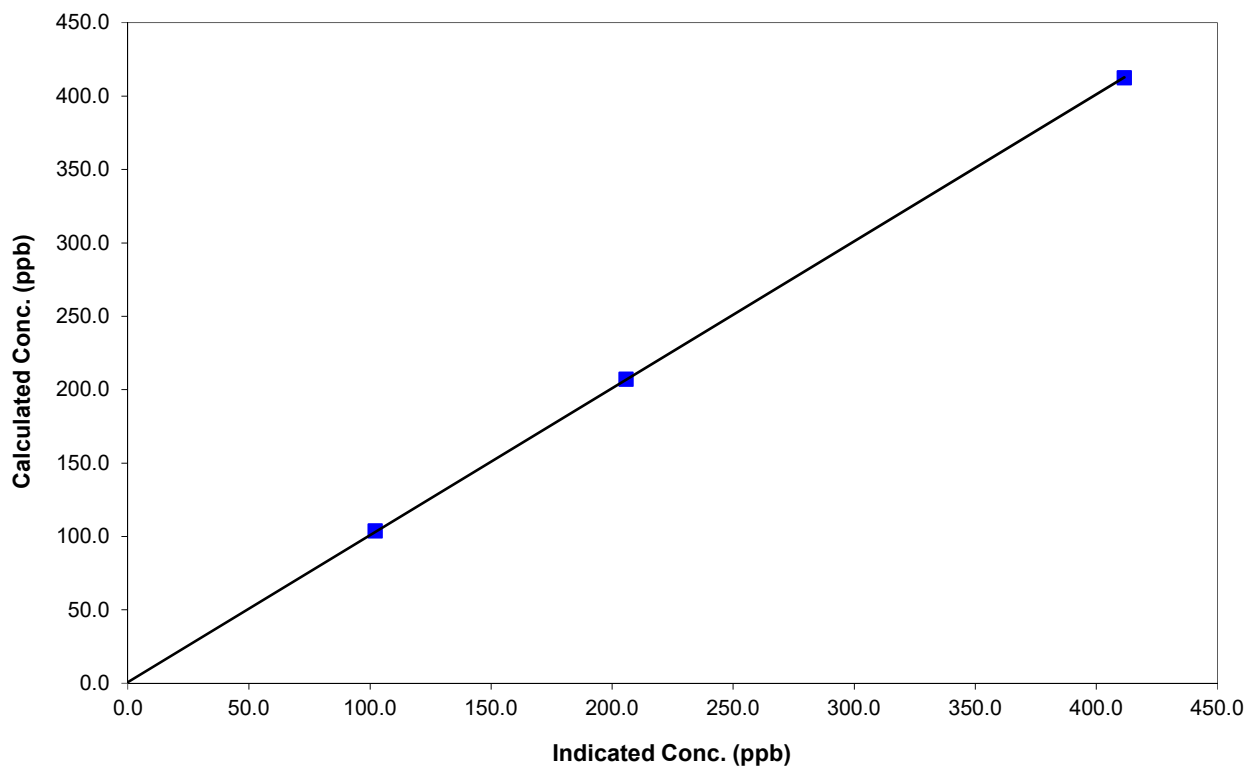
Station Information

Calibration Date	April 24, 2018	Previous Calibration	March 6, 2018
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	7:20	End Time (MST)	11:10
Analyzer make	TEI 42i	Analyzer serial #	906535068

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.2	N/A	Correlation Coefficient	0.999991
412.5	411.6	1.0022		
207.1	205.8	1.0060		
103.6	102.2	1.0140	Slope	1.001088
			Intercept	0.738027

NO_x Calibration Curve



Calibration Summary

Parameter NO

Air Monitoring Network PAZA



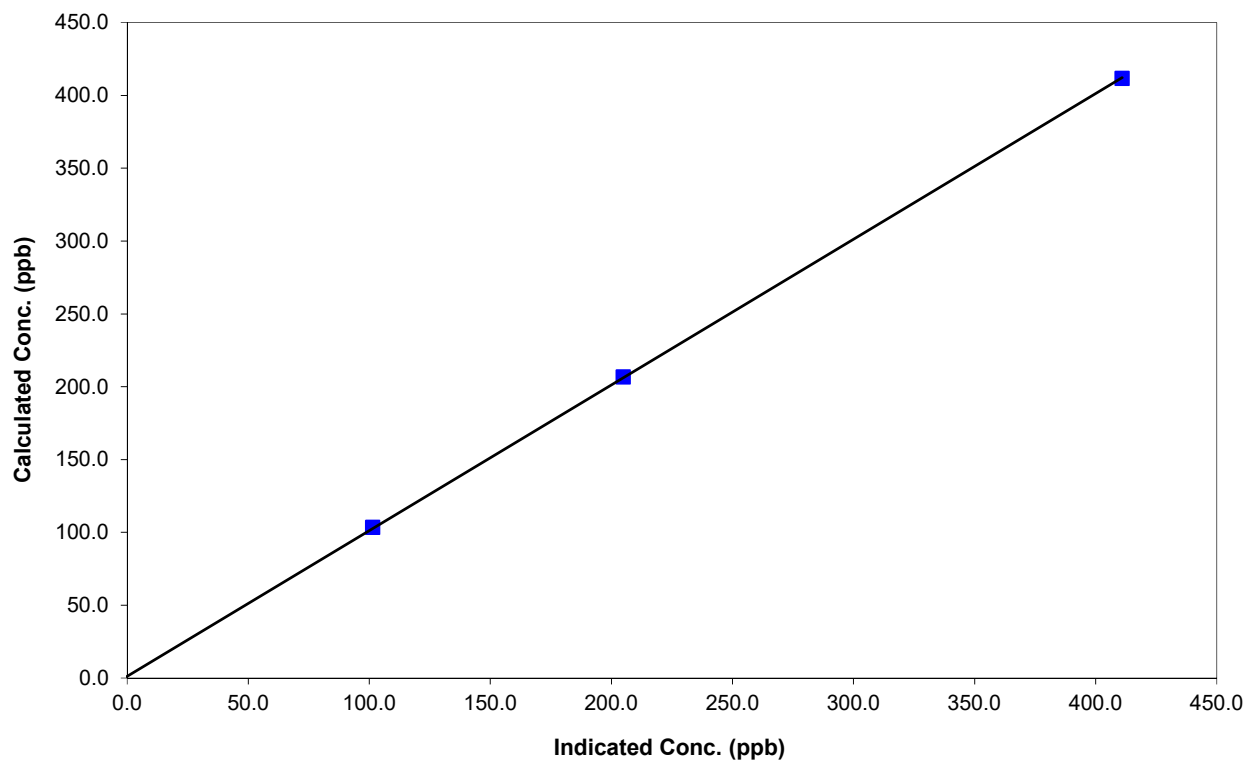
Station Information

Calibration Date	April 24, 2018	Previous Calibration	March 6, 2018
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	7:20	End Time (MST)	11:10
Analyzer make	TEI 42i	Analyzer serial #	906535068

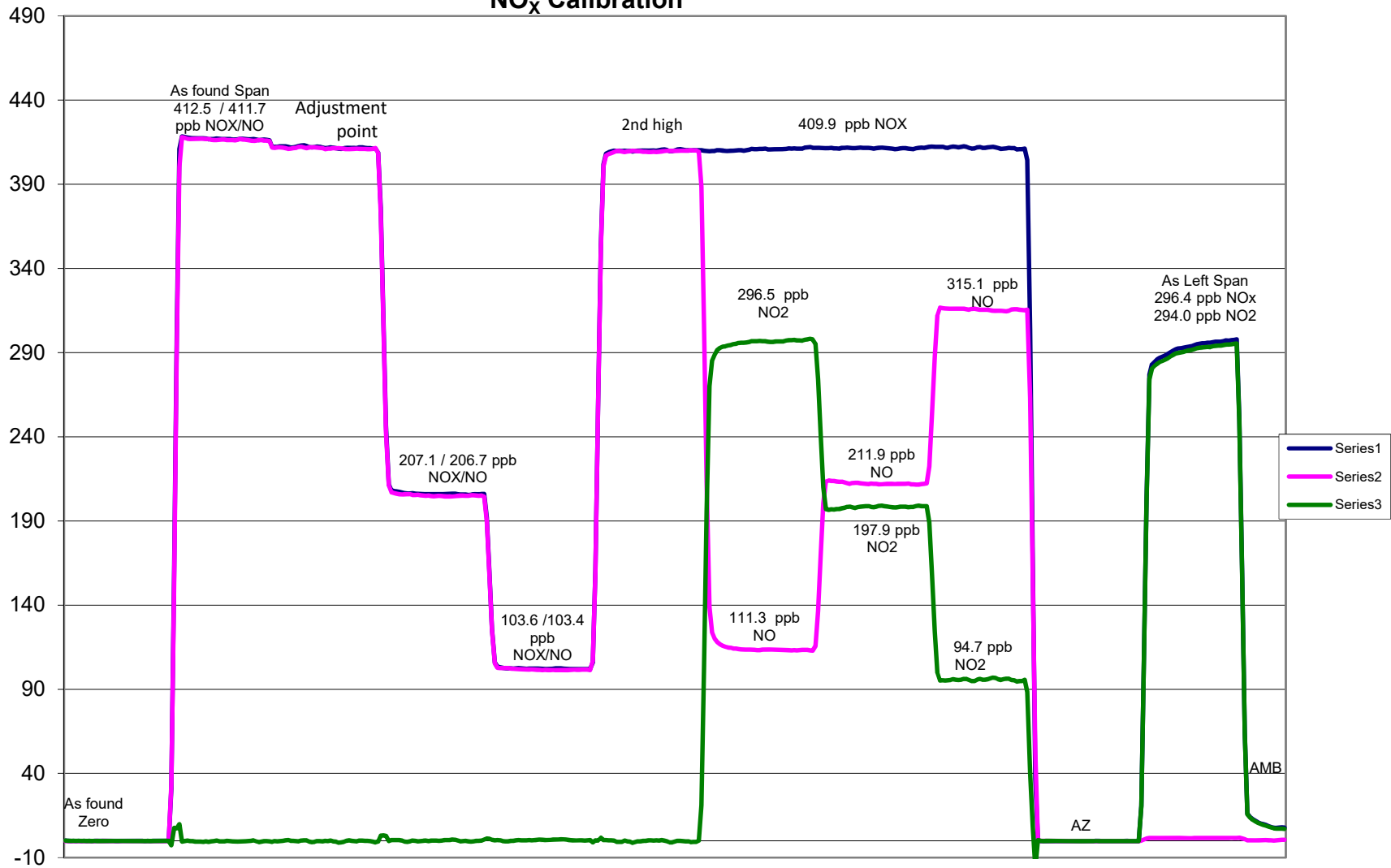
Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.2	N/A		
411.7	411.0	1.0018	Correlation Coefficient	0.999977
206.7	204.9	1.0086		
103.4	101.4	1.0193		
			Slope	1.000289
			Intercept	1.112046

NO Calibration Curve



NO_x Calibration



April 24, 2018

Calibration Report

Parameter 03

Air Monitoring Network PAZA



Station Information

Calibration Date	April 24, 2018	Previous Calibration	March 6, 2018
Station Number	4	Station Location	Beaverlodge
Reason:	☒ Routine	☐ Install	☐ Removal
		☐ Other:	
Start Time (MST)	10:10	End Time (MST)	12:40
Barometric Pressure	0.921 atm	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6103	Serial Number	6586
Cal Gas Concentration	NA	Cal Gas Expiry Date	NA
DACS make	CR3000	DACS serial No.	5237
DACS voltage range	0 - 5 volt	DACS channel #	9
	Before		After
Calculated slope	0.976983	Calculated slope	1.000949
Calculated intercept	-2.671603	Calculated intercept	-0.678674

Analyzer make Teco 49i Analyzer serial # 1136451236,AMU 1879

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
offset	-0.30	ppb	-0.30	ppb
slope	1.130		1.184	
Lamp temp	67.6	mV	53.9	mV
Lamp Intensity A/B	54805/64161	mV	54763/64127	mV
Pressure	683	mm Hg	689.9	mm Hg
Flow A	0.807	LPM	0.806	LPM
Flow B	0.740	LPM	0.737	LPM

Calibration Data

Dilution air flow rate (cc/min)	Calibrator Setting	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
5032	0.00	0.0	0.6	N/A
5032	0.30	296.5	297.2	0.9977
5032	0.20	197.9	197.8	1.0007
5032	0.10	94.7	95.7	0.9893
5032				
5032	0.00	0.0	0.6	As found zero
5032	0.30	296.5	285.5	As found span
Average Correction Factor				0.9959

Calculated value of As Found Response: 275.7 ppm Percent Change of As Found: -7.0%

	before calibration		after calibration	
Auto zero	0.6	ppb	0.6	ppb
Auto span	284.2	ppb	286.5	ppb

Notes: _____

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter 03

Air Monitoring Network PAZA



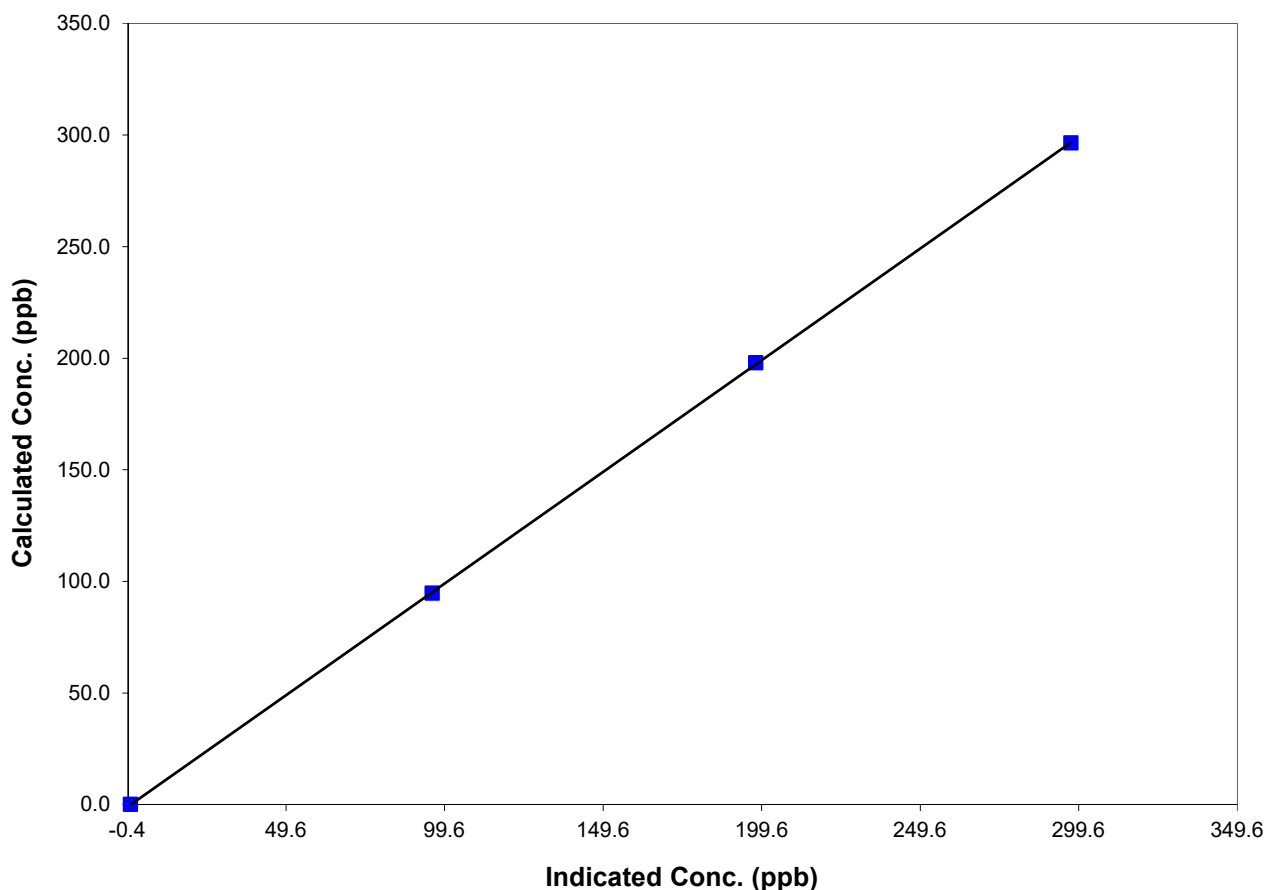
Station Information

Calibration Date	April 24, 2018	Previous Calibration	March 6, 2018
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	10:10	End Time (MST)	12:40
Analyzer make/model	Teco 49i	Analyzer serial #	1136451236,AMU 1879

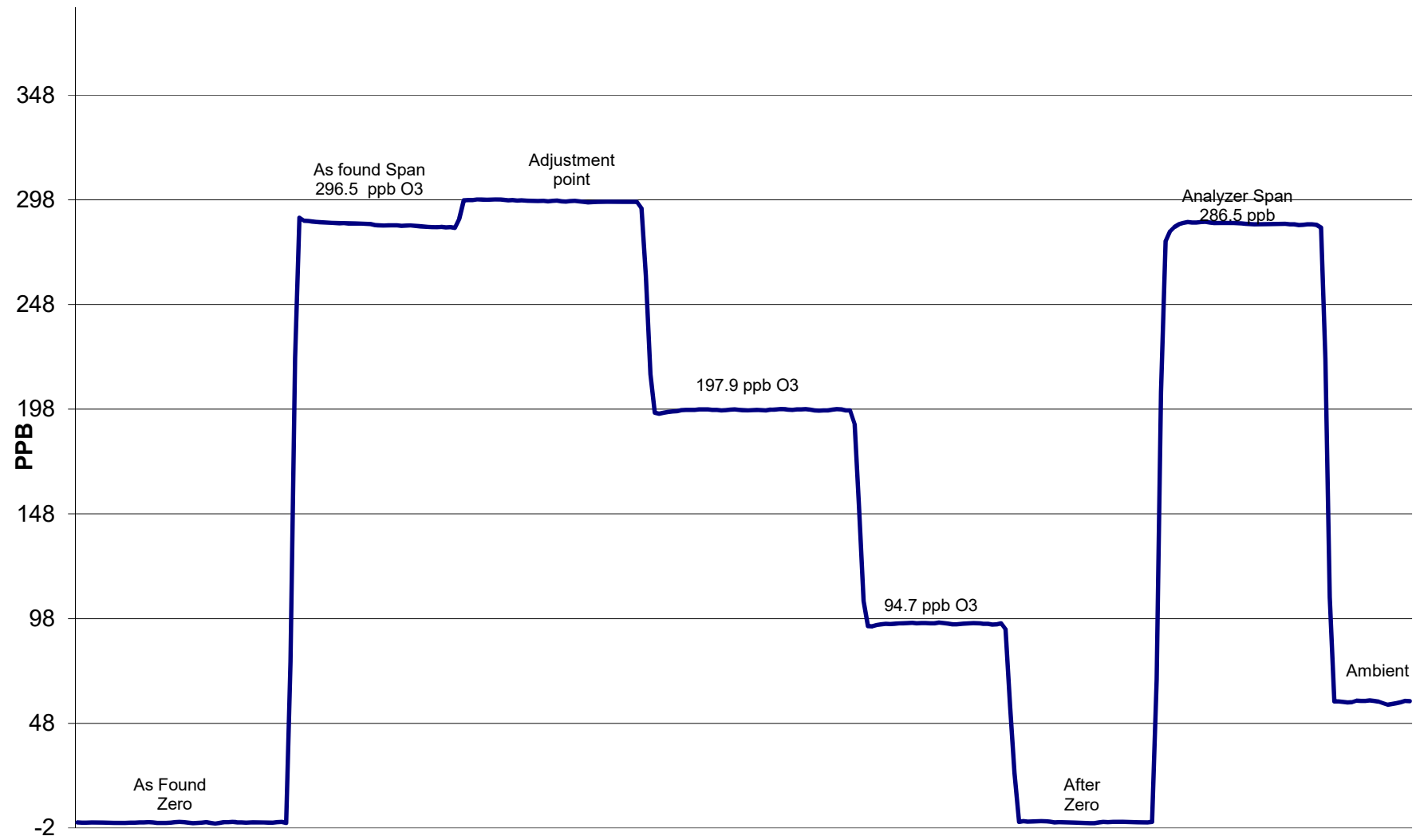
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.6	NA	Correlation Coefficient	0.999986
296.5	297.2	0.9977		
197.9	197.8	1.0007		
94.7	95.7	0.9893	Slope	1.000949
			Intercept	-0.678674

O3 Calibration Curve



O3 Calibration



April 24, 2018

SHARP 5030 PM2.5 Calibration



Station: Beaverlodge
Location: Agricultural centre
Start Time (MST): 10:00

Operator: Dmytro Dolotii
Date: April 24 2018
End Time (MST): 12:00

MONITOR INFO / PARAMETER VALUES:

Make/Model SHARP 5030
Configuration PM 2.5
AMU Number AMU1969
Serial Number 208

Audit Device Model Delta cal
AMU S/N AMU 1789
Serial Number 1612
Certification Date 01-Oct-15

AUDIT / CALIBRATION RESULTS:

	Ambient Temp. (°C)	Ambient Pres. (mbar)	RH (%)	Leak Check (l/min)	Flow Rate (lpm)	Foil Calibration (ug)	Nephelometer (ug)	Time settings (hh:mm)
Audit values (l)	11.0	918	18.0	16.67	16.67	7023	0.0	14:47
MEASURED (AF)	10.3	918	18.6	16.47	16.51	7022	1.7	14:48
AF Difference (AF-l)	-0.7	0	0.6	-0.20	-0.16	-1	1.7	0:01
MEASURED (M)	10.3	918	18.6	16.47	16.51	7023	0.0	14:48
Adj Difference (M-l)	-0.7	0	0.6	-0.20	-0.16	1	0.0	0:01
LIMITS	± 4.0 °C	13.33 mbar(hPa)	± 2.0%	0.8 L/min	± 1.0 L/min	(+/-5%)	(<+/-2 ug/m3)	±2 min

Sample Head Inspect/Cleaning: Heads cleaned

Status of sampling tape: 60%

Nozzle Inspection / cleanliness: Clean

RH/Temp standard (make and s/n): _____

COMMENTS:

Calibration Report



Parameter SO₂

Air Monitoring Network PAZA

Station Information

Calibration Date	April 19, 2018	Previous Calibration	March 21, 2018
Station Number	3	Station Location	Smokey Heights
Reason:	Routine	Install	Removal
		Other:	
Start Time (MST)	9:35	End Time (MST)	11:55
Barometric Pressure	0.924 ATM	Station Temperature	19.0 Deg C
Calibrator	EnviroNics 6103	Serial Number	6586
Cal Gas Concentration	49.6 ppm	Cal Gas Cert Date	10/24/2020
Correction factor	0.031517	Cal Gas Cylinder #	LL107945
DACS make	CR3000	DACS serial No.	5238
DACS voltage range	0 - 5 volt	DACS channel #	6
	<u>Before</u>		<u>After</u>
Calculated slope	1.005575	Calculated slope	1.001582
Calculated intercept	-0.201842	Calculated intercept	0.519984
Analyzer make	Teco 43i	Analyzer serial #	701120009

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	13.9		13.9	
coefficient	0.966		0.966	
Lamp Voltage	946	volts	946	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	670.2	mm Hg	669.3	mm Hg
Sample Flow	0.447	lpm	0.448	lpm
Lamp Intensity	87	%	87	%

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)
4996	0.0	0.00	0.9	N/A
4996	39.96	393.57	393.2	1.0010
4996	19.97	197.47	195.9	1.0083
4996	9.99	98.98	96.9	1.0212
4996	0.0	0.00	0.9	As Found Zero
4996	39.96	393.57	393.2	As Found Span
Average Correction Factor				1.0102

Calculated value of As Found Response: 394.225 ppb Percent Change of As Found: -0.2%

	before calibration		after calibration	
Auto zero	0.8	ppb	0.9	ppb
Auto span	212.1	ppb	208.8	ppb

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter SO2

Air Monitoring Network PAZA



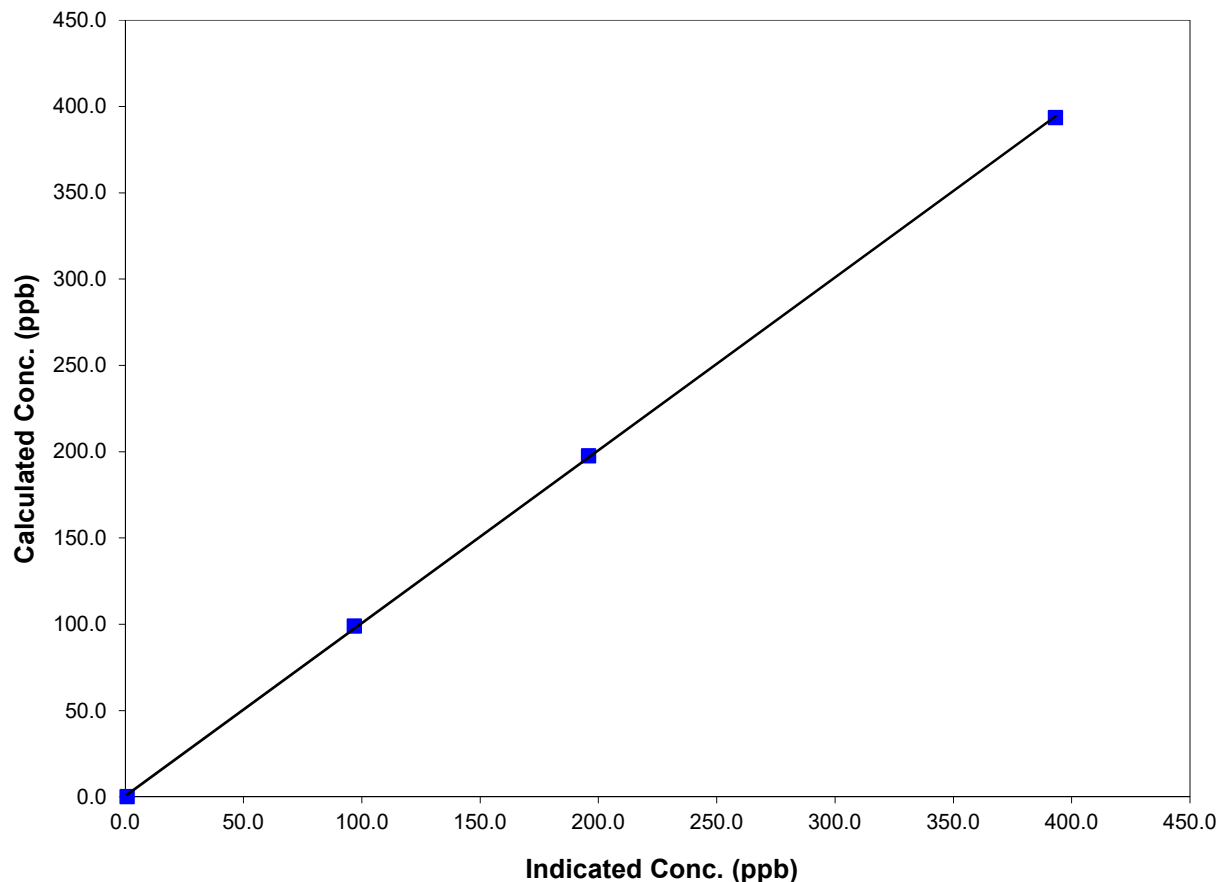
Station Information

Calibration Date	April 19, 2018	Previous Calibration	March 21, 2018
Station Number	3	Station Location	Smokey Heights
Start Time (MST)	9:35	End Time (MST)	11:55
Analyzer make/model	Teco 43i	Analyzer serial #	701120009

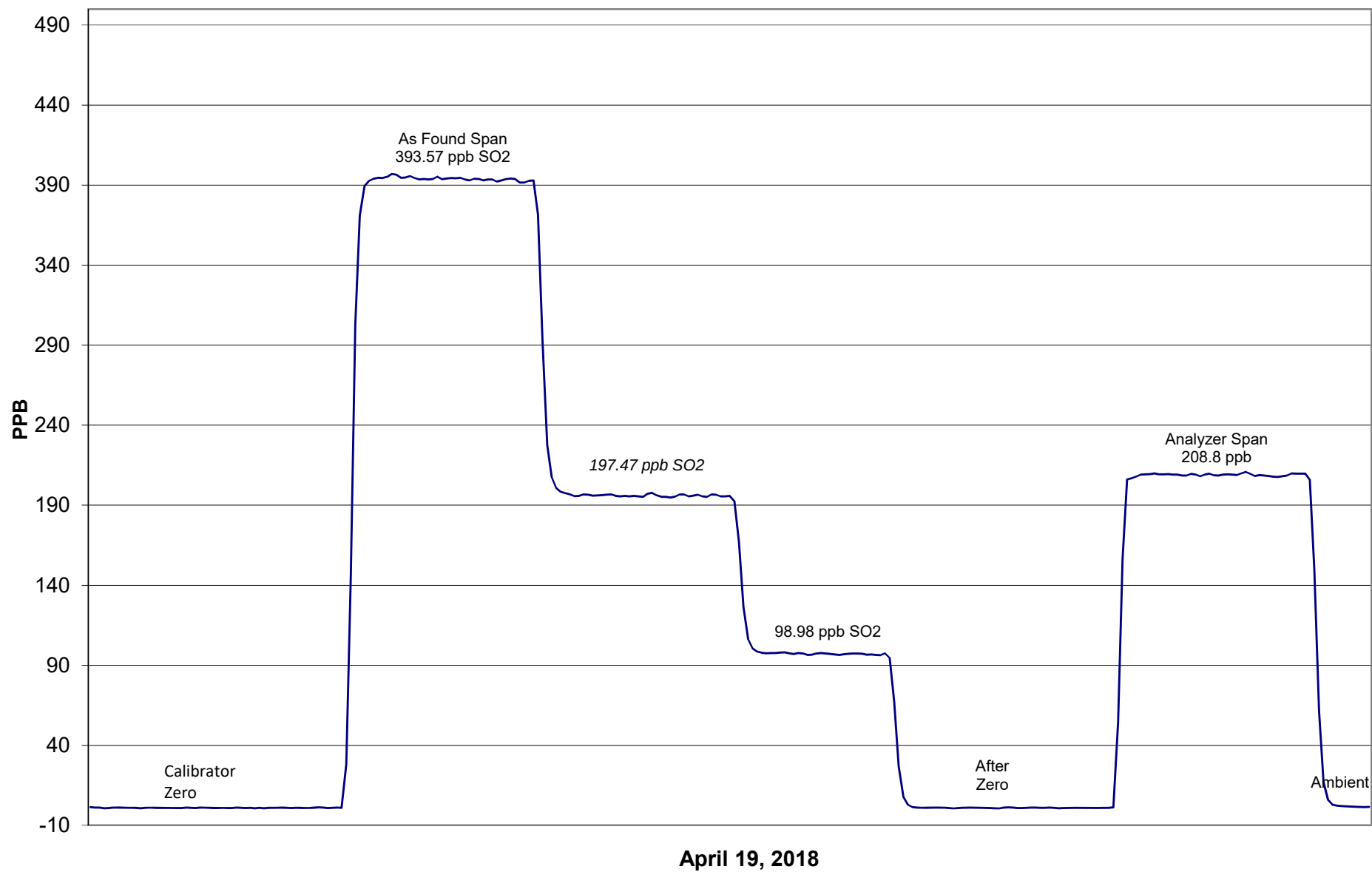
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.9	N/A	Correlation Coefficient	0.999939
393.6	393.2	1.0010		
197.5	195.9	1.0083		
99.0	96.9	1.0212	Slope	1.001582
			Intercept	0.519984

SO2 Calibration Curve



Smokey Heights SO₂ Calibration



Calibration Report



Parameter TRS

Air Monitoring Network PAZA

Station Information

Calibration Date	April 19, 2018	Previous Calibration	March 21, 2018
Station Number	3	Station Location	Smokey Heights
Reason:	Routine	Install	Removal
		Other:	
Start Time (MST)	8:05	End Time (MST)	10:50
Barometric Pressure	0.923 ATM	Station Temperature	19.0 Deg C
Calibrator	Envionics 6103	Serial Number	6586
Cal Gas Conc	9.78 ppm	Cal Gas Expiry Date	02/28/2020
Correction factor	0.031483	Cal Gas Cylinder #	LL119574
DACS make	CR3000	DACS serial No.	5238
DACS voltage range	0 - 5 volt	DACS channel #	5
	<u>Before</u>		<u>After</u>
Calculated slope	1.017060	Calculated slope	1.015208
Calculated intercept	-0.316419	Calculated intercept	-0.409536

Analyzer make TEI Model 43I APSAA Analyzer serial # 1153630151

	before		after	
Concentration range	100	ppb	100	ppb
Background	14.1	ppb	14.1	ppb
coefficient	1.027		1.027	
Lamp Voltage	814	volts	814	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	674.3	mm Hg	675.2	mm Hg
Sample Flow	0.423	lpm	0.423	lpm
Lamp Intensity	93	mv	93	mv

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)
4996	0.0	0.00	0.6	N/A
4996	39.96	77.60	76.9	1.0098
4996	19.97	38.94	38.8	1.0029
6998	9.99	13.94	13.9	1.0022
4996	9.99		0.8	Sox test
4996	0.0	0.00	0.6	As Found Zero
4996	39.96	77.60	76.9	As Found Span
Average Correction Factor				1.0050

Calculated value of As Found Response: 77.28 ppb Percent Change of As Found: 0.4%

	before calibration		after calibration	
Auto zero	0.5	ppb	0.6	ppb
Auto span	66.1	ppb	64.9	ppb

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter TRS

Air Monitoring Network PAZA



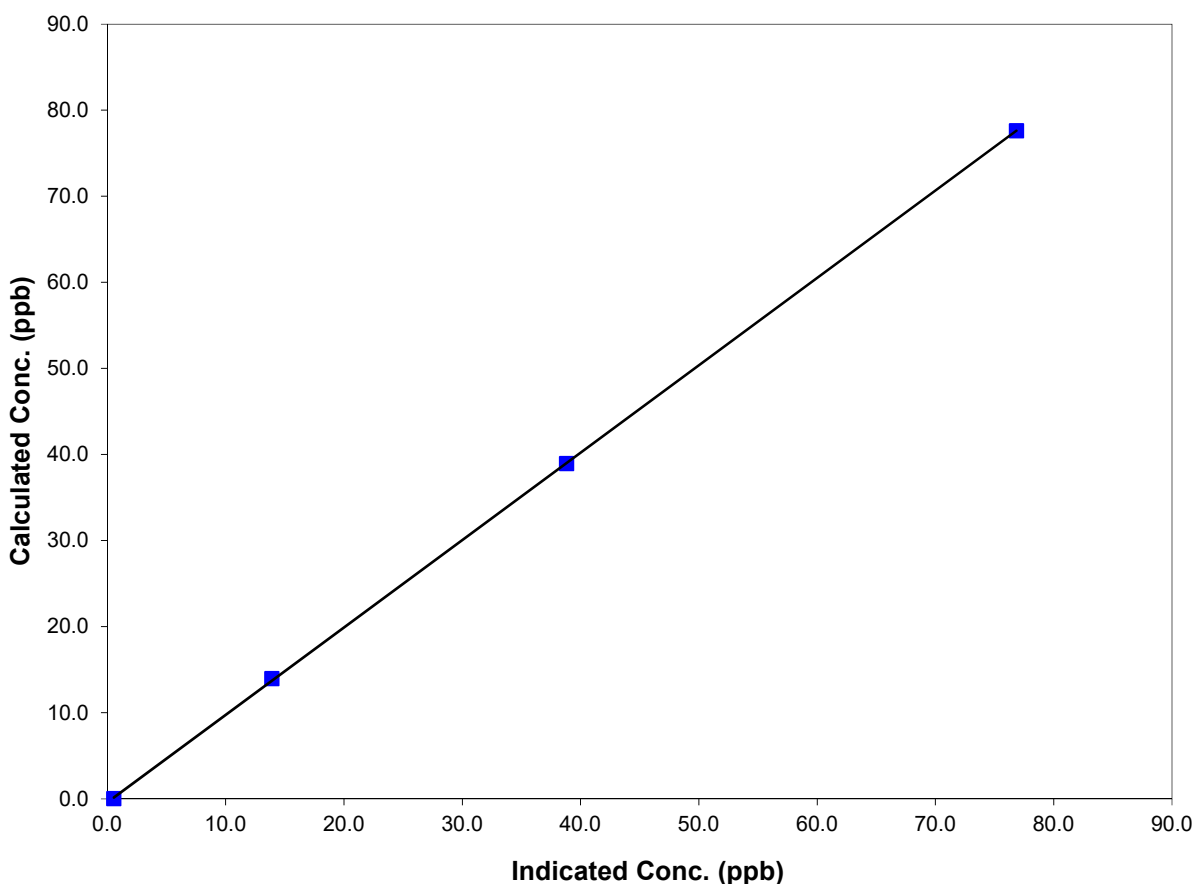
Station Information

Calibration Date	April 19, 2018	Previous Calibration	March 21, 2018
Station Number	3	Station Location	Smokey Heights
Start Time (MST)	8:05	End Time (MST)	10:50
Analyzer make/model	TEI Model 43I APSAA	Analyzer serial #	1153630151

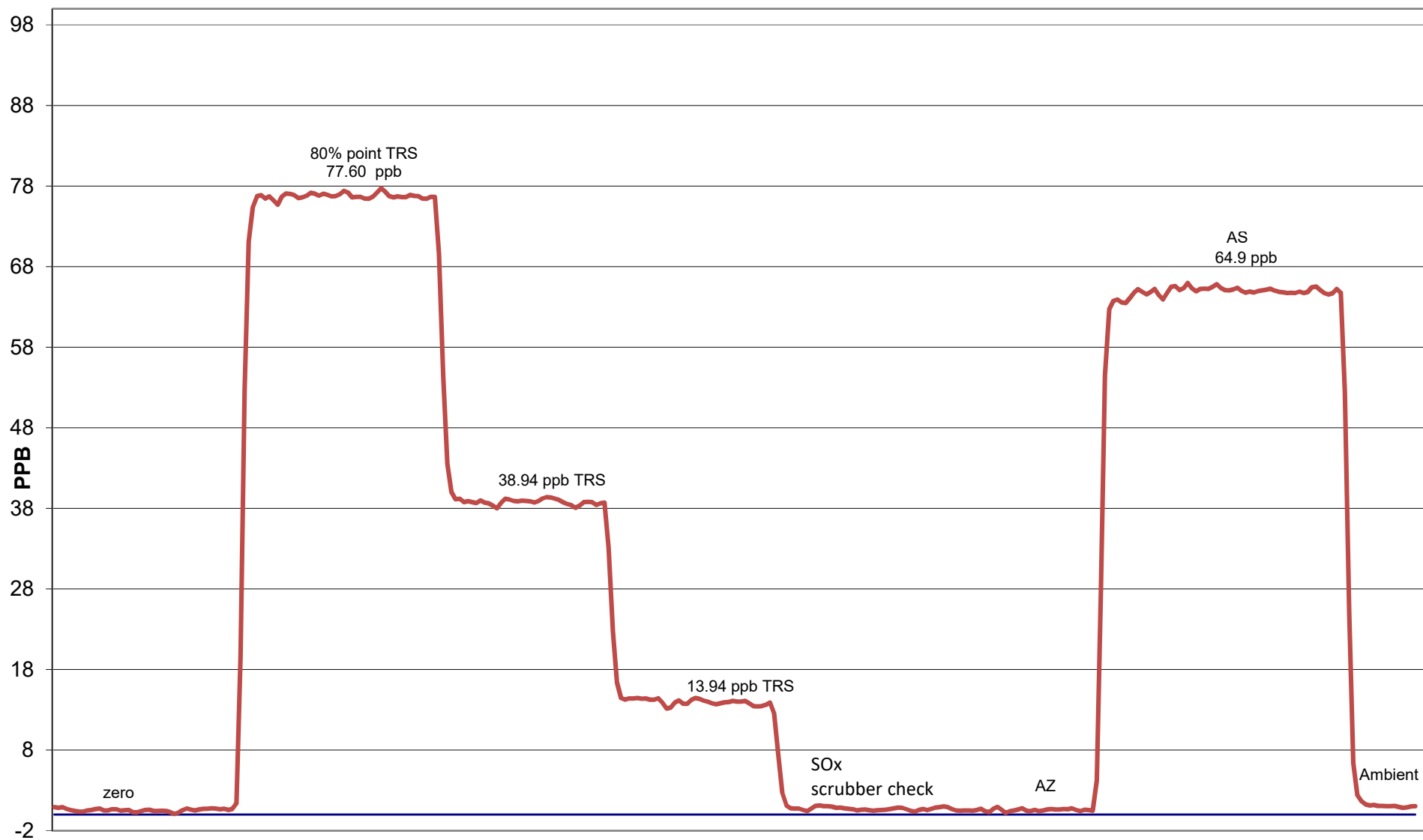
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.6	N/A	Correlation Coefficient	0.999977
77.6	76.9	1.0098		
38.9	38.8	1.0029	Slope	1.015208
13.9	13.9	1.0022		
			Intercept	-0.409536

TRS Calibration Curve



Smokey Heights TRS Calibration



April 19, 2018

SHARP 5030 PM2.5 Calibration



Station: Smokey Heights Operator: Dmytro Dolotii
 Location: Smokey Heights Date: April 19 2017
 Start Time (MS): 12:40 End Time (MS): 14:20:00 PM

MONITOR INFO / PARAMETER VALUES:

Make/Model	<u>SHARP 5030</u>	Audit Device Model	<u>Delta cal</u>
Configuration	<u>PM 2.5</u>	AMU S/N	<u>AMU 1789</u>
AMU Number	<u></u>	Serial Number	<u>1612</u>
Serial Number	<u>CM-0271</u>	Certification Date	<u>01-Oct-15</u>

AUDIT / CALIBRATION RESULTS:

	Ambient Temp (°C)	Ambient Pres. (mbar)	RH (%)	Leak Check (l/min)	Flow Rate (lpm)	Foil Calibration (ug)	Nephelometer (ug)	Time settings (hh:mm)
Audit values (I)	6.0	928	22.0	16.67	16.67	7133	1.6	14:13
MEASURED (AF)	6.1	928	22.5	15.90	16.24	6946	0.0	14:14
AF Difference (AF-I)	0.1	0	0.5	-0.77	-0.43	-187	-1.6	0:01
MEASURED (M)	6.0	928	22.0	16.54	16.75	6946	0.0	14:14
Adj Difference (M-I)	0.0	0	0.0	-0.13	0.08	0	-1.6	0:01
LIMITS	± 4.0 °C	13.33 mbar(hPa)	± 2.0%	0.8 L/min	± 1.0 L/min	(+/- 5%)	(<+/-2 ug/m3)	±2 min

Sample Head Inspect/Cleaning: Heads cleaned

Status of sampling tape: 40% roll

Sample Inspection / cleanliness: Clean

Sample standard (make and s/n):

COMMENTS:

Adjusted flow from 16.24LPM to 16.75LPM

Adjusted zero

Calibration Report

Parameter SO2

Air Monitoring Network PAZA



Station Information

Calibration Date	April 23, 2018	Previous Calibration	March 28, 2018
Station Number	6	Station Location	Valleyview
Reason:	Routine	Install	Removal
			Other:

Start Time (MST)	09:45:00:AM	End Time (MST)	11:50:00:AM
Barometric Pressure	0.929 atm	Station Temperature	22.0 Deg C
Calibrator	Envionics	Serial Number	3016
Cal Gas Concentratio	49.6 ppm	Cal Gas Exp Date	February 21, 2020
Gas Cylinder Num.	EY0000751		
DACS make	CR3000	DACS serial No.	5409
DACS voltage range	0 - 5 volt	DACS channel #	4
	<u>Before</u>		<u>After</u>
DACS Scale High	500	DACS slope	500
DACS Scale Low	0	DACS intercept	0
Calculated slope	1.018450	Calculated slope	1.005469
Calculated intercept	0.189147	Calculated intercept	0.425032

Analyzer make	TEI Model 43i - APSCB	Analyzer serial #	701120010
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	before		after	
Concentration range	0-500	ppb	0-500	ppb
Background	7.2		7.2	
Coefficient	0.861		0.861	
UV Lamp Voltage	797	LPM	797	LPM
Chamber Temp	45	V	45	V
Perm Gas Temp	45	C	45	C
Pressure	685.6	in Hg	686.1	in Hg
Sample Flow	0.461	LPM	0.462	LPM
Lamp Intensity	91	Hz	91	%

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.0	0.6	N/A
4995	39.96	393.7	391.5	1.0055
4995	19.97	197.5	195.7	1.0091
4995	9.97	98.8	96.7	1.0219
4995	0.00	0.0	0.6	As found zero
4995	39.96	393.7	391.5	As found span
Average Correction Factor				1.0121

Calculated value of As Found Response: 398.3 ppb Percent Change of As Found: -1.2%

	before calibration		after calibration	
Auto zero	0.7	ppb	0.5	ppb
Auto span	271.2	ppb	268.4	ppb

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter SO2

Air Monitoring Network PAZA



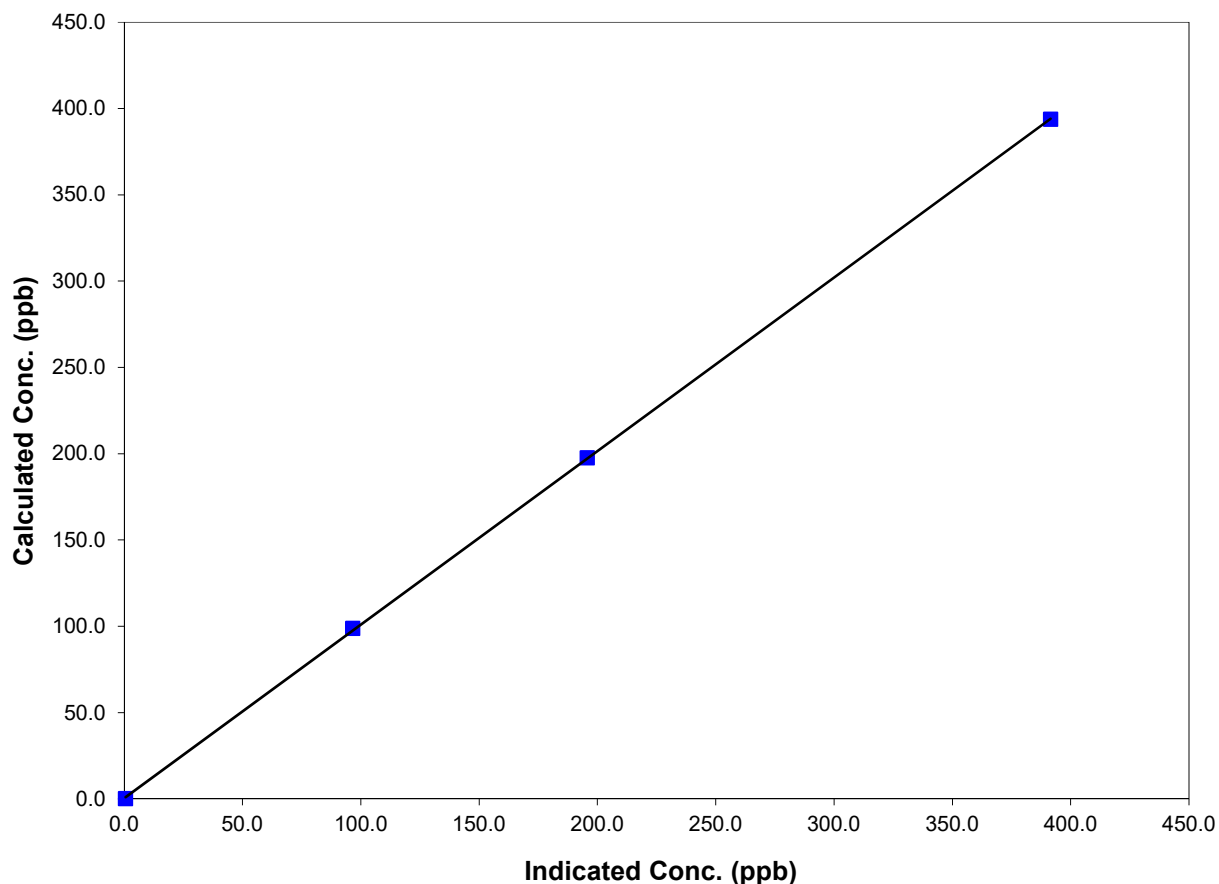
Station Information

Calibration Date	April 23, 2018	Previous Calibration	March 28, 2018
Station Number	6	Station Location	Valleyview
Start Time (MST)	09:45:00:AM	End Time (MST)	11:50:00:AM
Analyzer make/model	TEI Model 43i - APSCB	Analyzer serial #	701120010

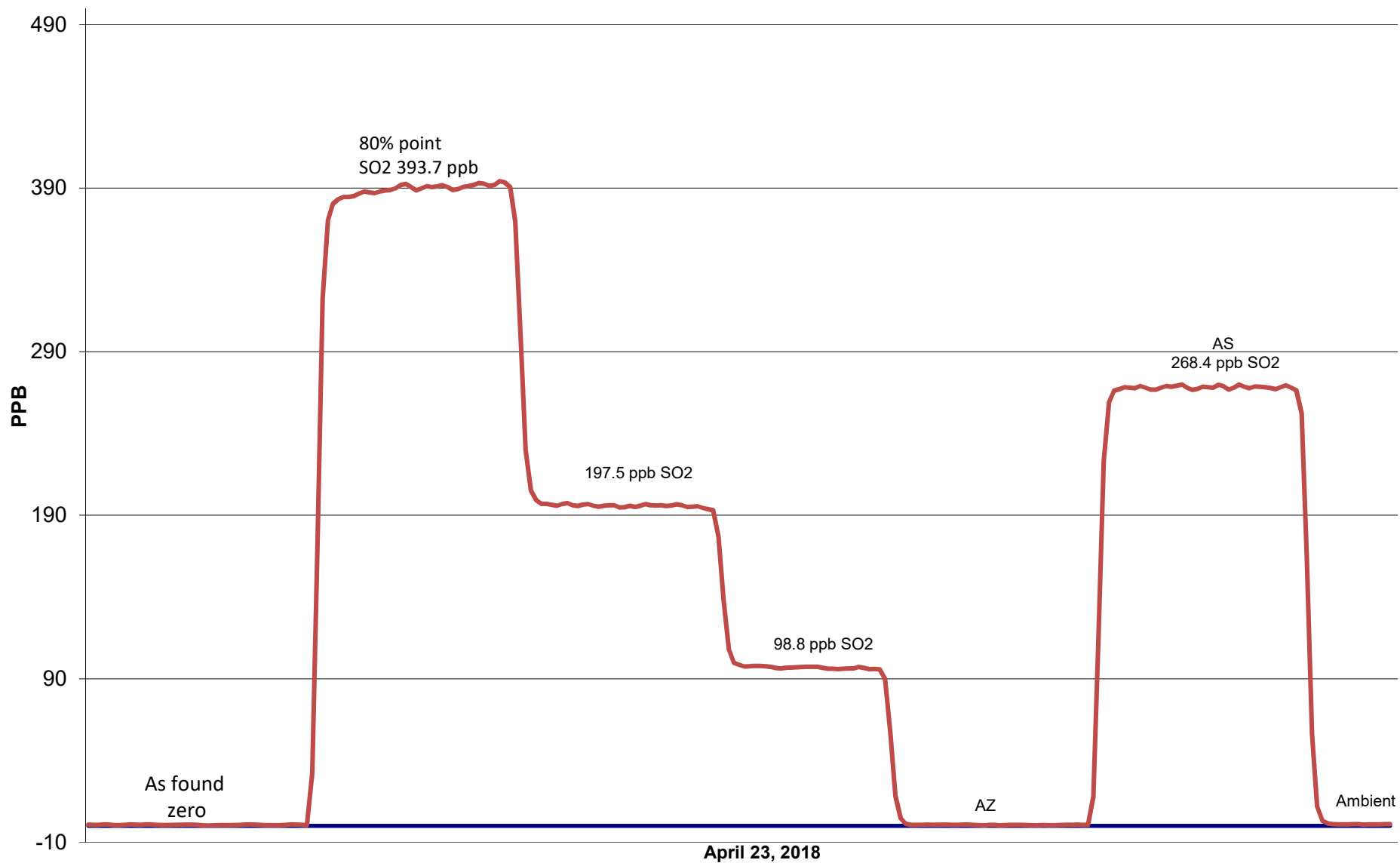
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.6	N/A	Correlation Coefficient	0.999969
393.7	391.5	1.0055		
197.5	195.7	1.0091		
98.8	96.7	1.0219	Slope	1.005469
			Intercept	0.425032

SO2 Calibration Curve



SO2 Calibration



Calibration Report

Parameter H2S

Air Monitoring Network PAZA



Station Information

Calibration Date	April 23, 2018	Previous Calibration	March 28, 2018
Station Number	6	Station Location	Valleyview
Reason:	Routine	Install	Removal
Start Time (MST)	8:25	End Time (MST)	10:55
Barometric Pressure	0.929 atm	Station Temperature	22.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3016
Cal Gas Concentration	9.78 ppm	Cal Gas Expiry Date	28/02/2020
Gas Cert Reference	LL119574		
DACS make	CR3000	DACS serial No.	5409
DACS voltage range	0 - 5 volt	DACS channel #	9
	<u>Before</u>		<u>After</u>
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.990280	Calculated slope	0.991157
Calculated intercept	0.416816	Calculated intercept	0.235417
Analyzer make	TEI Model 450i-APHA	Analyzer serial #	1170050144

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Back Ground	13.0	ppb	13.1	ppb
Coefficient	1.017		1.017	
Lamp Voltage	778	V	779	V
Chamber Temp	326.5	c	45.5	c
Convertor	323.8	c	233.4	c
Pressure	571.80	mm Hg	572.00	mm Hg
Sample Flow	0.936	ccm	0.936	lpm
Lamp Intensity	88	%	88	%

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.0	-0.2	N/A
4995	39.98	77.7	78.1	0.9941
4995	19.97	38.9	39.1	0.9972
6995	9.97	13.9	13.8	1.0109
4995	0.00	0.0	-0.2	As found zero
4995	39.98	77.7	78.1	As found span
Average Correction Factor				1.0007

Calculated value of As Found Response: 77.98 ppb Percent Change of As Found: -0.4%

	before calibration		after calibration	
Auto zero	-0.1	ppb	0.0	ppb
Auto span	66.3	ppb	64.9	ppb

Notes: No adjustment made.

Calibration Performed By: Dmytro Dolotii

Calibration Summary



Parameter H2S
Air Monitoring Network PAZA

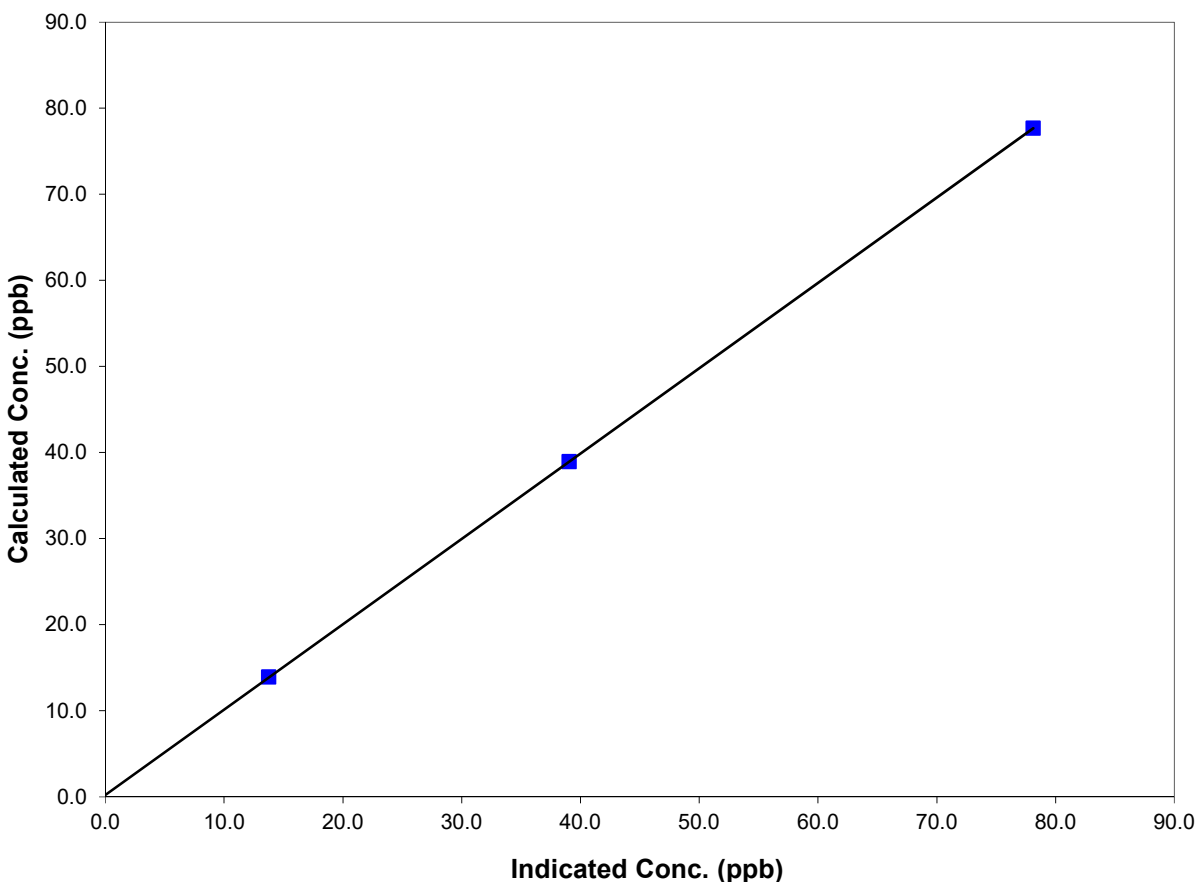
Station Information

Calibration Date	April 23, 2018	Previous Calibration	March 28, 2018
Station Number	6	Station Location	Valleyview
Start Time (MST)	8:25	End Time (MST)	10:55
Analyzer make/model	TEI Model 450i-APHAA	Analyzer serial #	1170050144

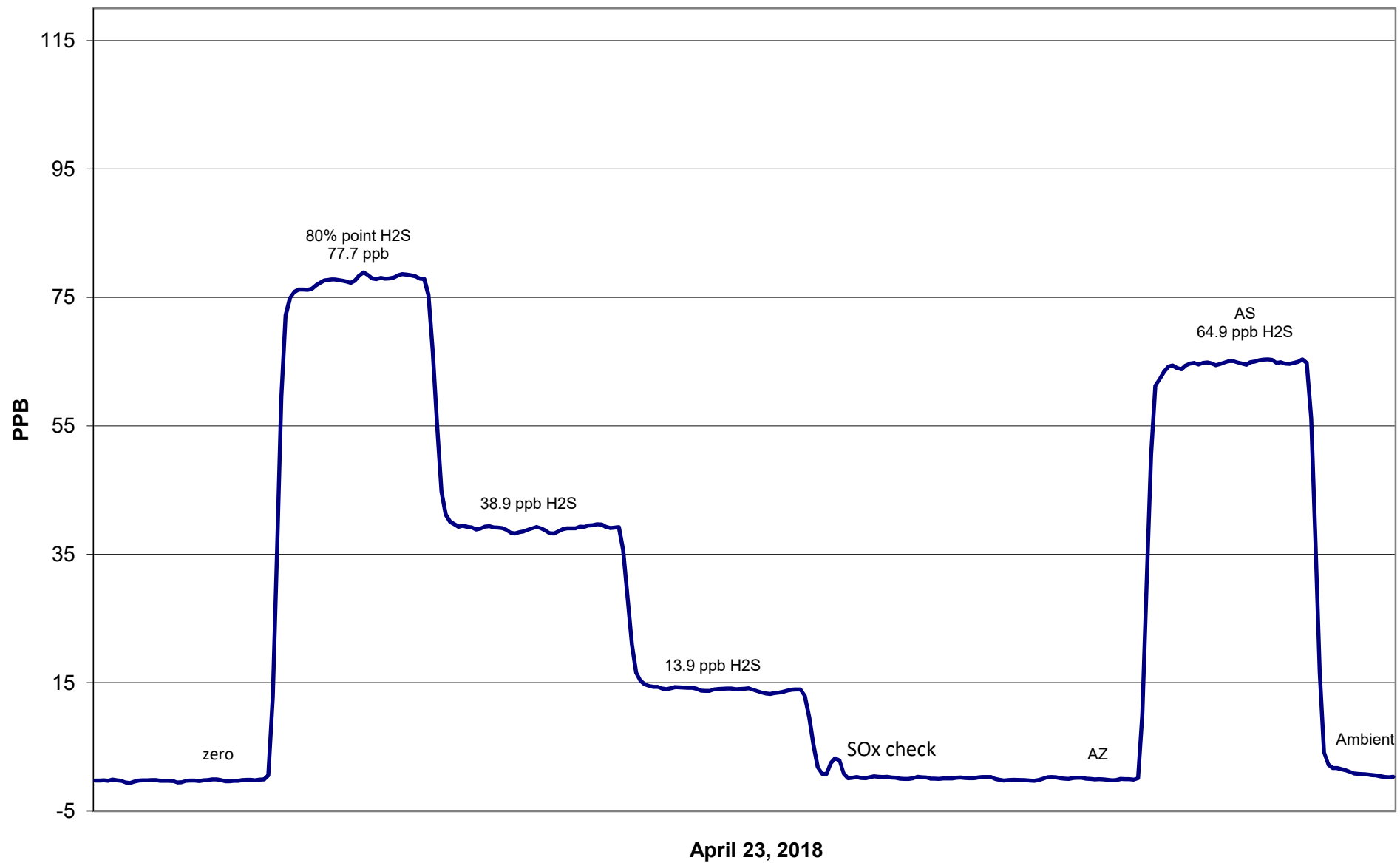
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.2	N/A	Correlation Coefficient	0.999999
77.7	78.1	0.9941		
38.9	39.1	0.9972		
13.9	13.8	1.0109	Slope	0.991157
			Intercept	0.235417

H2S Calibration Curve



H2S Calibration



Calibration Report



Parameter S02

Air Monitoring Network PAZA

Station Information

Calibration Date	April 17, 2018	Previous Calibration	March 16, 2018
Station Number	10	Station Location	Rycroft
Reason:	☒ Routine	☐ Install	☐ Removal
		☐ Other:	

Start Time (MST)	9:50	End Time (MST)	12:10
Barometric Pressure	0.919 Atm	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6103	Serial Number	6586
Cal Gas Concentratio	49.6 ppm	Cal Gas Expiry Date	10/10/2020
Gas Cert Reference	LL104185		
DACS make	CR3000	DACS serial No.	5407
DACS voltage range	0 - 5 Volt	DACS channel #	2
	Before		After
DACS Scale High	500	DACS slope	500
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.987900	Calculated slope	1.005633
Calculated intercept	1.847987	Calculated intercept	-0.466668

Analyzer make TEI 43C Analyzer serial # 436610005

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Background	24.5		24.5	
Coefficient	1.076		1.076	
UV Lamp Voltage	901	V	902	V
Chamber Temp	44.5	C	44.5	C
Perm Gas Temp	45	C	45	C
Pressure	669.7	mm Hg	670.2	mm Hg
Sample Flow	0.464	LPM	0.470	LPM
Lamp Intesity	30231	Hz	30627	Hz

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)
4996	0.00	0.0	0.9	N/A
4996	39.96	393.6	391.9	1.0042
4996	19.99	197.7	197.2	1.0025
4996	9.98	98.9	98.1	1.0079
4996	0.00	0.0	0.9	As found zero
4996	39.96	393.6	391.9	As found span
Average Correction Factor				1.0049

Calculated value of As Found Response: 388.139 ppb Percent Change of As Found: 1.4%

	before calibration		after calibration	
Auto zero	0.3	ppb	0.3	ppb
Auto span	208.9	ppb	208.4	ppb

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter SO2
Air Monitoring Network PAZA



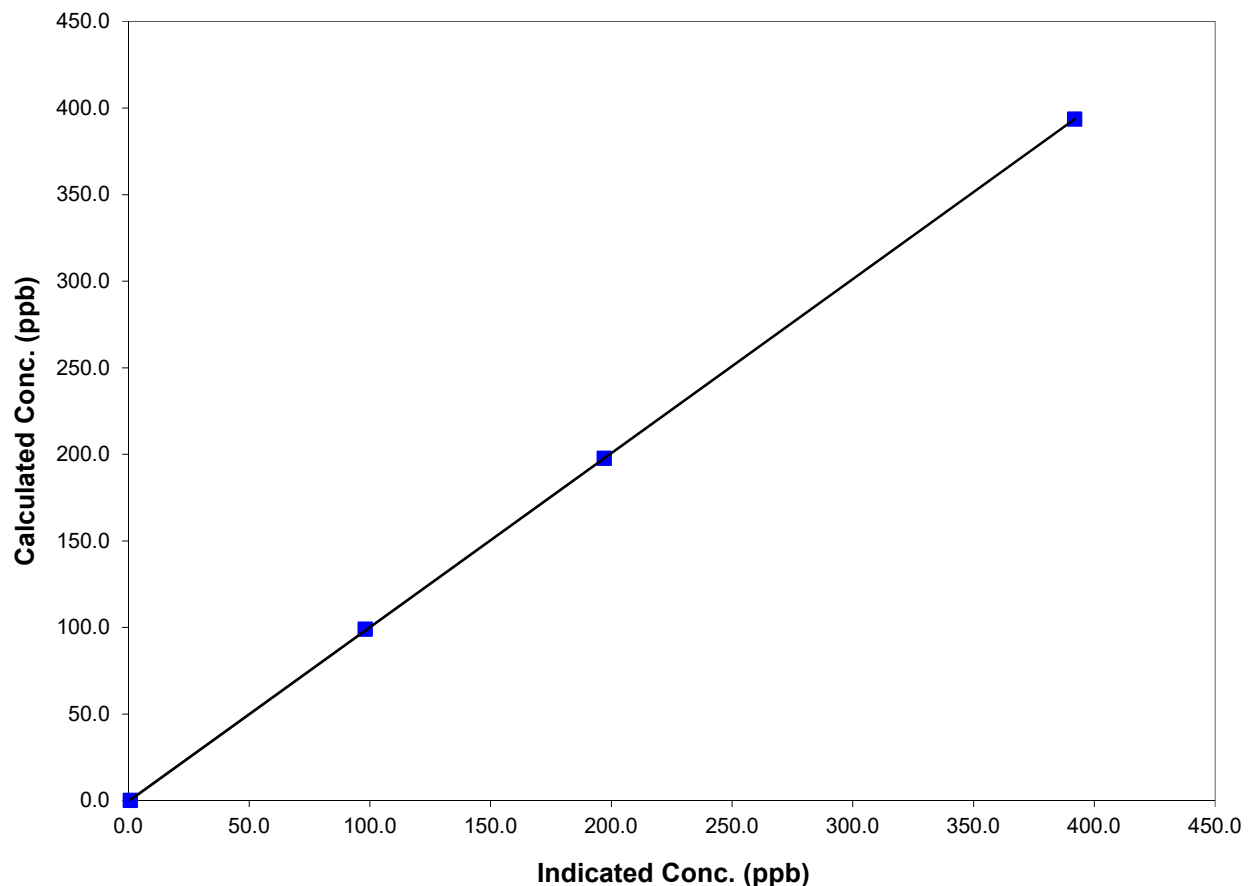
Station Information

Calibration Date	April 17, 2018	Previous Calibration	March 16, 2018
Station Number	10	Station Location	Rycroft
Start Time (MST)	9:50	End Time (MST)	12:10
Analyzer make/model	TEI 43C	Analyzer serial #	436610005

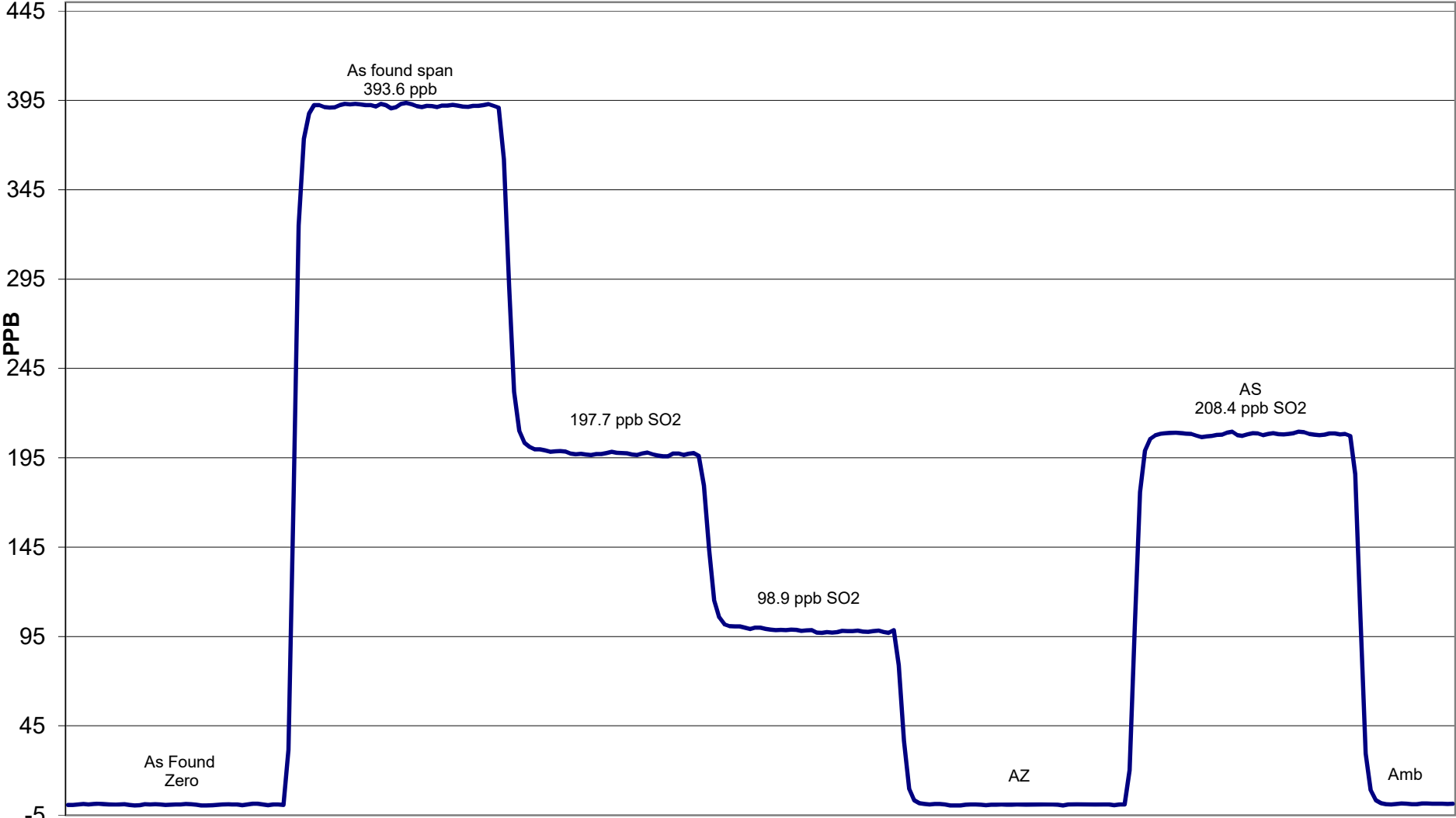
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.9	N/A	Correlation Coefficient	0.999992
393.6	391.9	1.0042		
197.7	197.2	1.0025		
98.9	98.1	1.0079	Slope	1.005633
			Intercept	-0.466668

SO2 Calibration Curve



SO2 Calibration



April 17, 2018

Calibration Report



Parameter TRS
Air Monitoring Network PAZA

Station Information

Calibration Date	April 12, 2018	Previous Calibration	March 16, 2018
Station Name	PAZA Rover	Station Location	Rycroft
Reason:	☒ Routine	☐ Install	☐ Removal
			☐ Other:

Start Time (MST)	11:05 AM	End Time (MST)	13:34:00 PM
Barometric Pressure	0.919 mbar	Station Temperature	21.0 Deg C
Calibrator	EnviroNics 6103	Serial Number	6586
Cal Gas Concentratio	9.78 ppm	Cal Gas Expiry Date	02/02/2020
Gas Cert Reference	LL119574		
DACS make	CR3000	DACS serial No.	5407
DACS voltage range	0 - 5 Volt	DACS channel #	1
	<u>Before</u>		<u>After</u>
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.983731	Calculated slope	1.007010
Calculated intercept	0.497604	Calculated intercept	0.296010

Analyzer make TEI 43C Analyzer serial # _____

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	11.7	ppb	11.7	ppb
Coefficient	1.130		1.130	
Lamp Voltage	782	V	782	V
Chamber Temp	45	C	45	C
Perm gas Temp	45	C	45	C
Pressure	671.1	mmHg	671.1	mmHg
Sample Flow	0.386	lpm	0.386	lpm
Lamp Intensity	85	Hz	85	Hz

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)
4996	0.0	0.0	0.1	N/A
4996	39.96	77.6	76.9	1.0088
4998	19.98	38.9	38.2	1.0199
6996	9.97	13.9	13.2	1.0561
			0.9	Sox Test
4996	0.00	0.0	0.1	As found zero
4996	39.96	77.6	76.9	As found span
Average Correction Factor				1.0283

Calculated value of As Found Response: 76.08 ppb Percent Change of As Found: 2.0%

	before calibration		after calibration	
Auto zero	0.1	ppb	0.2	ppb
Auto span	56.2	ppb	56.1	ppb

Notes: _____

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **TRS**
 Air Monitoring Network **PAZA**



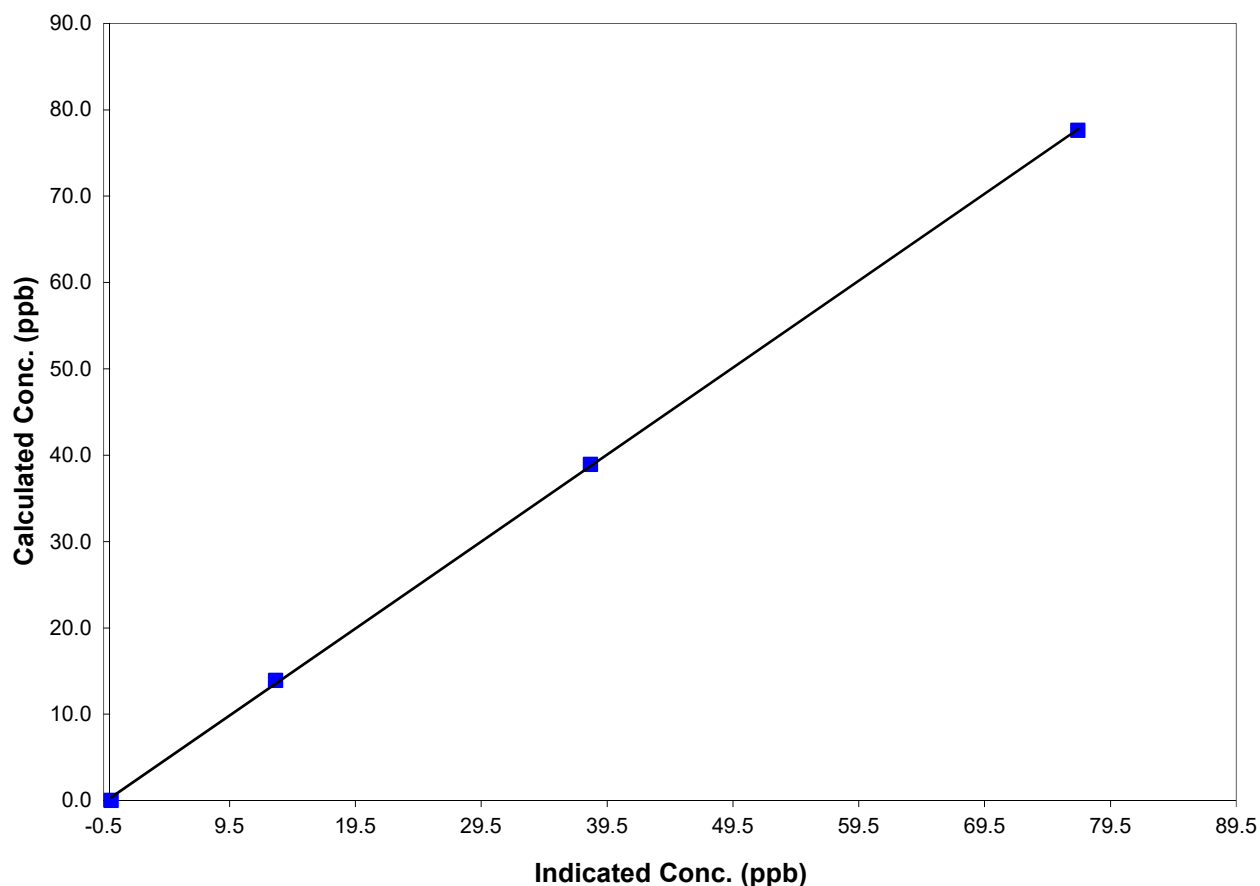
Station Information

Calibration Date	April 12, 2018	Previous Calibration	March 16, 2018
Station Number	PAZA Rover	Station Location	Rycroft
Start Time (MST)	11:05	End Time (MST)	13:34:00 PM
Analyzer make/model	TEI 43C	Analyzer serial #	0

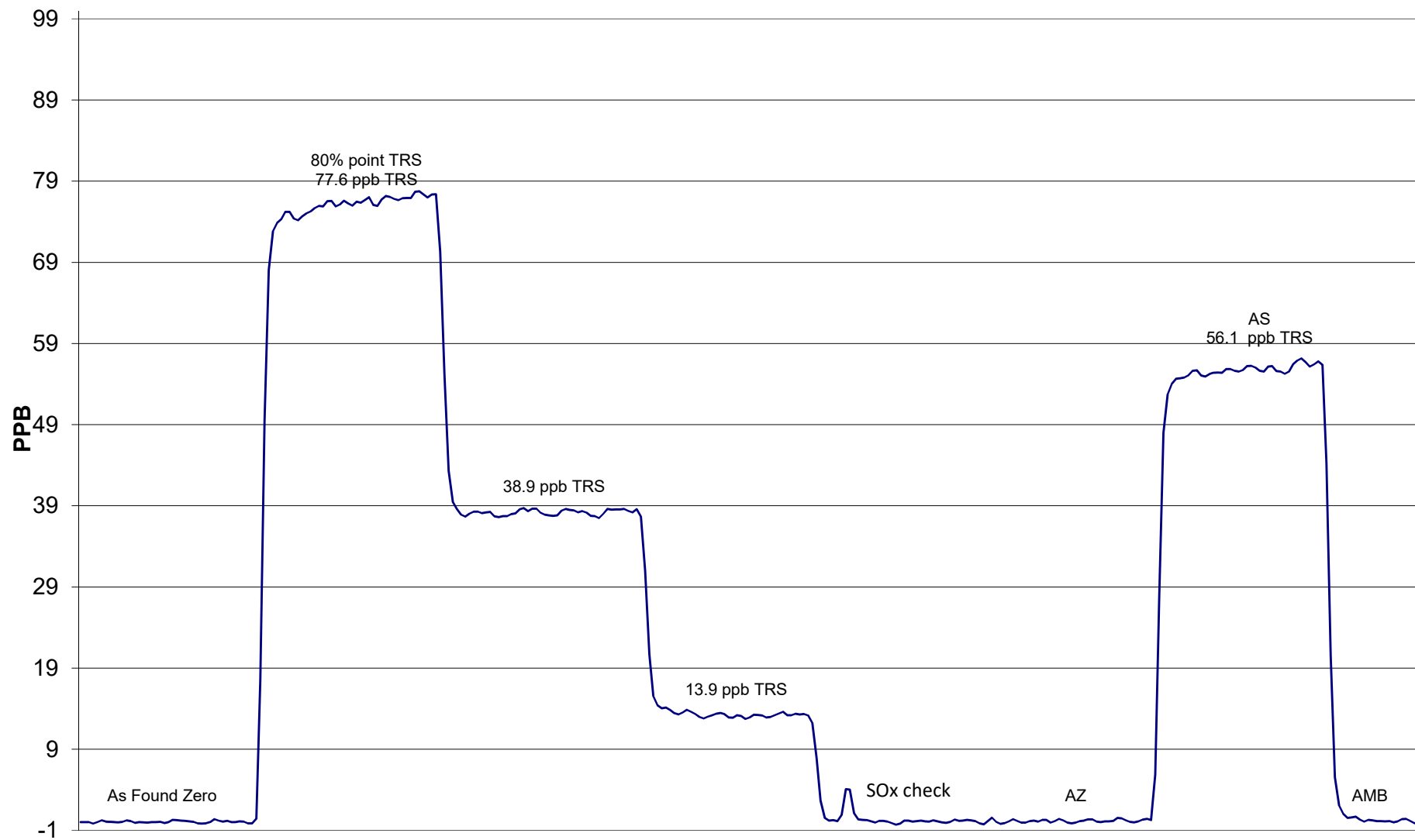
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A	Correlation Coefficient	0.999902
77.6	76.9	1.0088		
38.9	38.2	1.0199		
13.9	13.2	1.0561	Slope	1.007010
			Intercept	0.296010

TRS Calibration Curve



TRS Calibration



April 12, 2018

Parameter

Air Monitoring Network

NO_x-NO-NO₂
PAZA



Station Information

Calibration Date	April 17, 2018		Previous Calibration	March 16, 2018		
Station Number	10		Station Location	Rycroft		
Reason:	Routine Installation Removal	Other: _____				
Start Time (MST)	10:00		End Time (MST)	14:00:00 PM		
Barometric Pressure	0.919	Atm	Station Temperature	20.0	Deg C	
Calibrator	Enviroicnscn 6103		Serial Number	6586		
NO Cal Gas Conc	51.9	ppm	Cal Gas Expiry Date	10/24/2020		
NOx Cal Gas Conc	52	ppm	Cal Gas Serial #	LL107945		

DACS Information

DACS make	CR3000	DACS serial No.	5407	
Parameter		NO2	NOx	NO
Before	Data Slope	0.998363	0.998560	1.001008
	Data Offset	-0.286506	1.051864	1.074920
After	Data Slope	0.995112	0.984894	0.989134
	Data Offset	-0.819544	0.741045	0.687726
Channel #		8	6	7
Voltage Range		0 - 5 VDC	0 - 5 VDC	0 - 5 VDC

Analyzer Information

Analyzer make/model	TEI 42i	Analyzer serial #	0701120011	
Test Point	before		after	
Concentration range	0-500	ppb	0-500	ppb
NO offset	6.6	mV	6.6	mV
NOx bkgnd	6.7	mV	6.7	mV
NO coefficient	1.053		1.053	
NOx coefficient	1.001		1.001	
NO2 conv temp	324.7	Deg C	323.6	Deg C
PMT Temp	-3.0	Deg C	-3.0	Deg C
PMT Volt	-835.4	mV	-835.4	mV
R Cell Press	171.4	in Hg	172.3	in Hg
Sample Flow	0.883	LPM	0.882	LPM

Notes: No adjustment made

Calibration Report

Parameter **NOX-NO-NO2**
Air Monitoring Network **PAZA**



Station Information

Calibration Date: April 17, 2018 Station Location: Rycroft

Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor
zero	4996	0.00	0.0	0.0	0.0	0.0	0.1	0.0	N/A	N/A
1	4996	39.96	412.6	411.8	0.8	418.5	416.0	0.7	0.9860	0.9899
2	4996	19.99	207.2	206.8	0.4	209.6	208.1	0.5	0.9889	0.9939
3	4996	9.98	103.7	103.5	0.2	103.5	103.1	0.5	1.0015	1.0037
AFZ	4996	0.00	0.0	0.0	0.0	0.0	0.1	0.0	0.0000	0.0000
AFS	4996	39.96	412.6	411.8	0.8	418.5	416.0	0.7	0.9860	0.9899
Average Correction Factor									0.9921	0.9959

As Found Concentrations: NO_x= 418.9 NO= 417.4 As Found Percent Change NO_x= 1.5% NO= 1.4%

GPT Calibration Data

Dilution Flow 4995 ccm Source Gas Flow 39.94 ccm

O3 Setpoint (ppb)	Indicated NOX high point (ppb)	Indicated NO drop conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor	NO2 Correction factor	Converter Efficiency
0	0.1	0.1	0.0	0.0	0.1	0.0	N/A	N/A	N/A	N/A
NO point	415.0	415.0	0.0	418.2	415.0	1.0	0.9925	1.0000	N/A	N/A
300	415.0	113.4	301.7	418.6	113.4	303.5	0.9913	1.0000	0.9939	100.6%
200	415.0	214.0	201.0	419.2	214.0	203.0	0.9901	1.0000	0.9904	101.0%
100	415.0	318.3	96.7	419.4	318.3	99.1	0.9896	1.0000	0.9758	102.5%
Average Correction Factor							0.9904	1.0000	0.9867	101.4%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	0.3	0.1	0.2	ppb	0.2	0.1	0.2	ppb
Auto span	161.8	160.2	1.0	ppb	162.9	161.4	1.0	ppb

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter NO₂

Air Monitoring Network PAZA



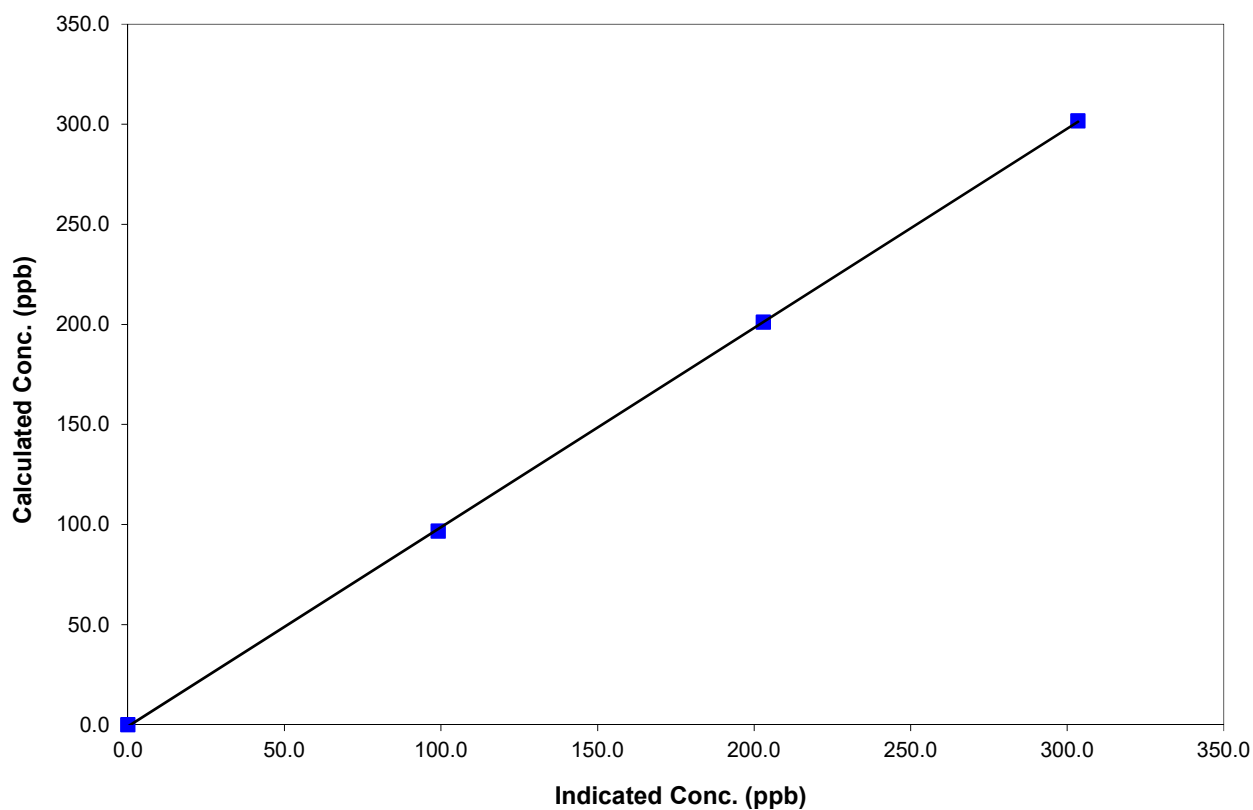
Station Information

Calibration Date	April 17, 2018	Previous Calibration	March 16, 2018
Station Number	10	Station Location	Rycroft
Start Time (MST)	10:00	End Time (MST)	14:00:00 PM
Analyzer make	TEI 42i	Analyzer serial #	0701120011

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A	Correlation Coefficient	0.999960
301.7	303.5	0.9939		
201.0	203.0	0.9904		
96.7	99.1	0.9758	Slope	0.995112
			Intercept	-0.819544

NO₂ Calibration Curve



Calibration Summary

Parameter NO_x

Air Monitoring Network PAZA



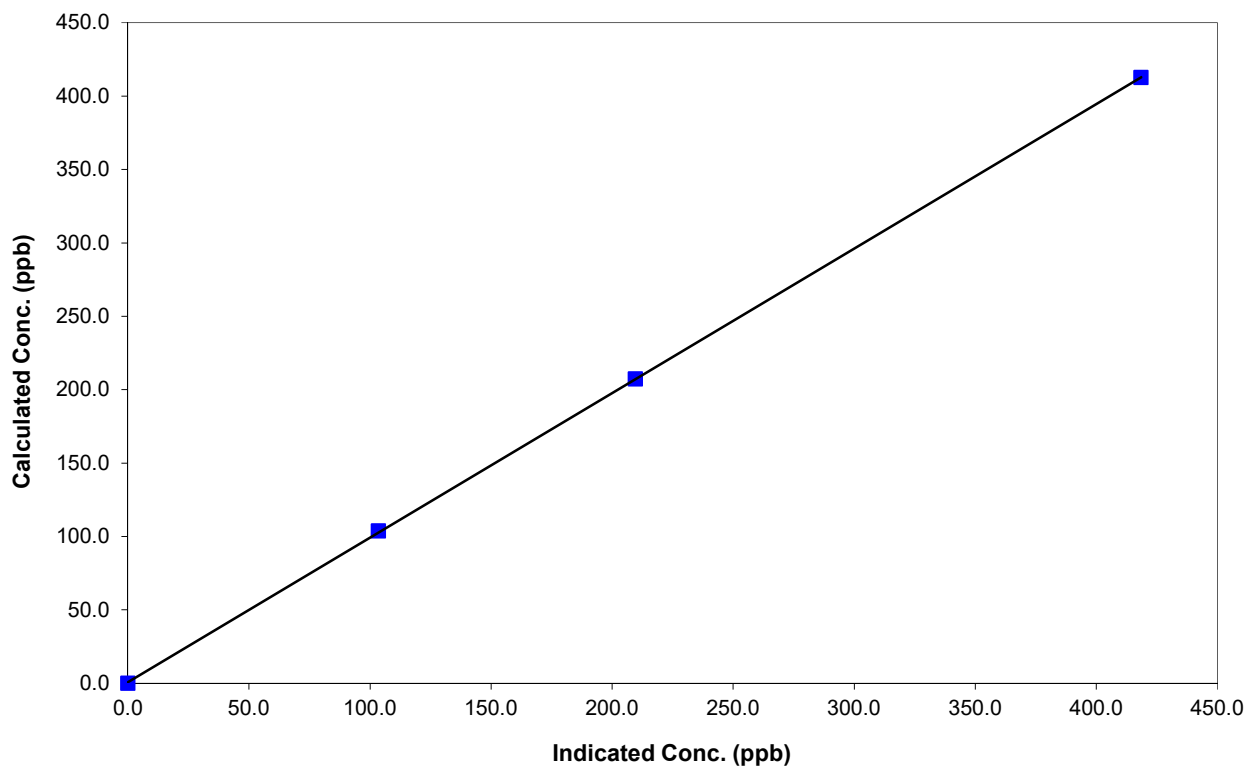
Station Information

Calibration Date	April 17, 2018	Previous Calibration	March 16, 2018
Station Number	10	Station Location	Rycroft
Start Time (MST)	10:00	End Time (MST)	14:00:00 PM
Analyzer make	TEI 42i	Analyzer serial #	0701120011

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A	Correlation Coefficient	0.999982
412.6	418.5	0.9860		
207.2	209.6	0.9889		
103.7	103.5	1.0015	Slope	0.984894
			Intercept	0.741045

NO_x Calibration Curve



Calibration Summary

Parameter NO

Air Monitoring Network PAZA



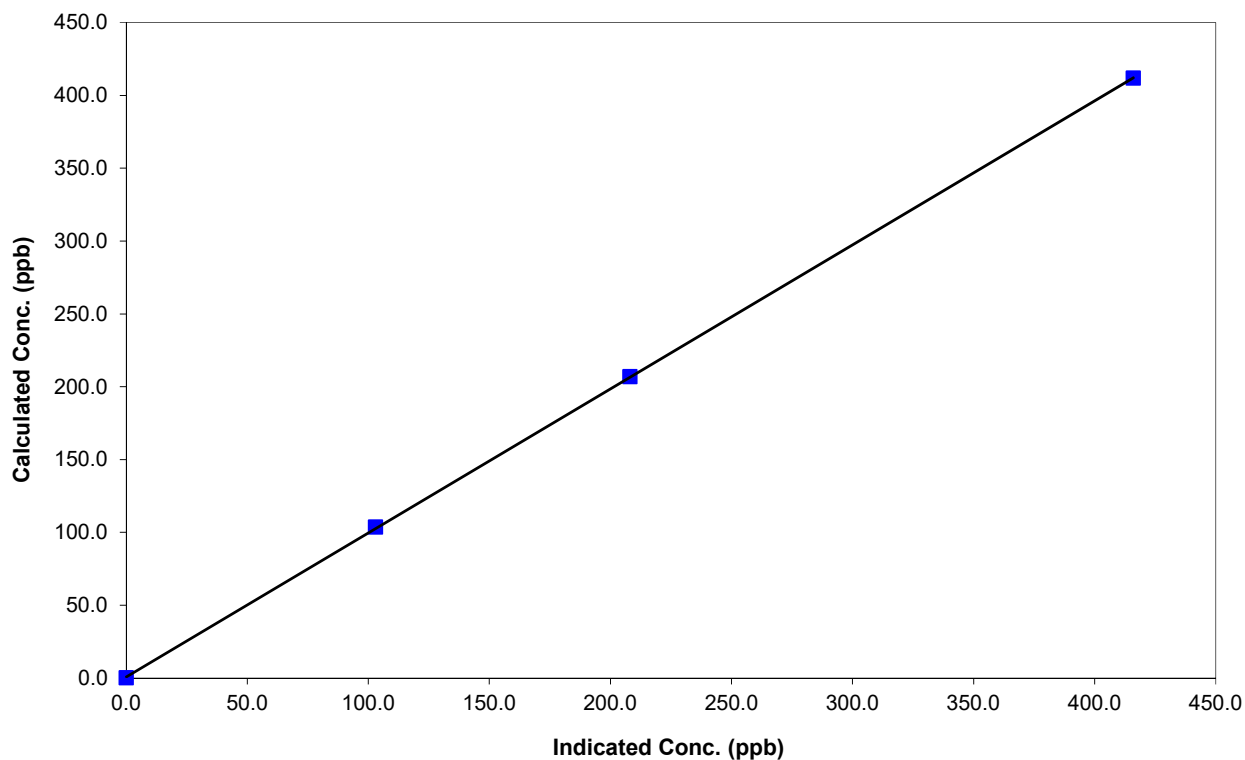
Station Information

Calibration Date	April 17, 2018	Previous Calibration	March 16, 2018
Station Number	10	Station Location	Rycroft
Start Time (MST)	10:00	End Time (MST)	14:00:00 PM
Analyzer make	TEI 42i	Analyzer serial #	0701120011

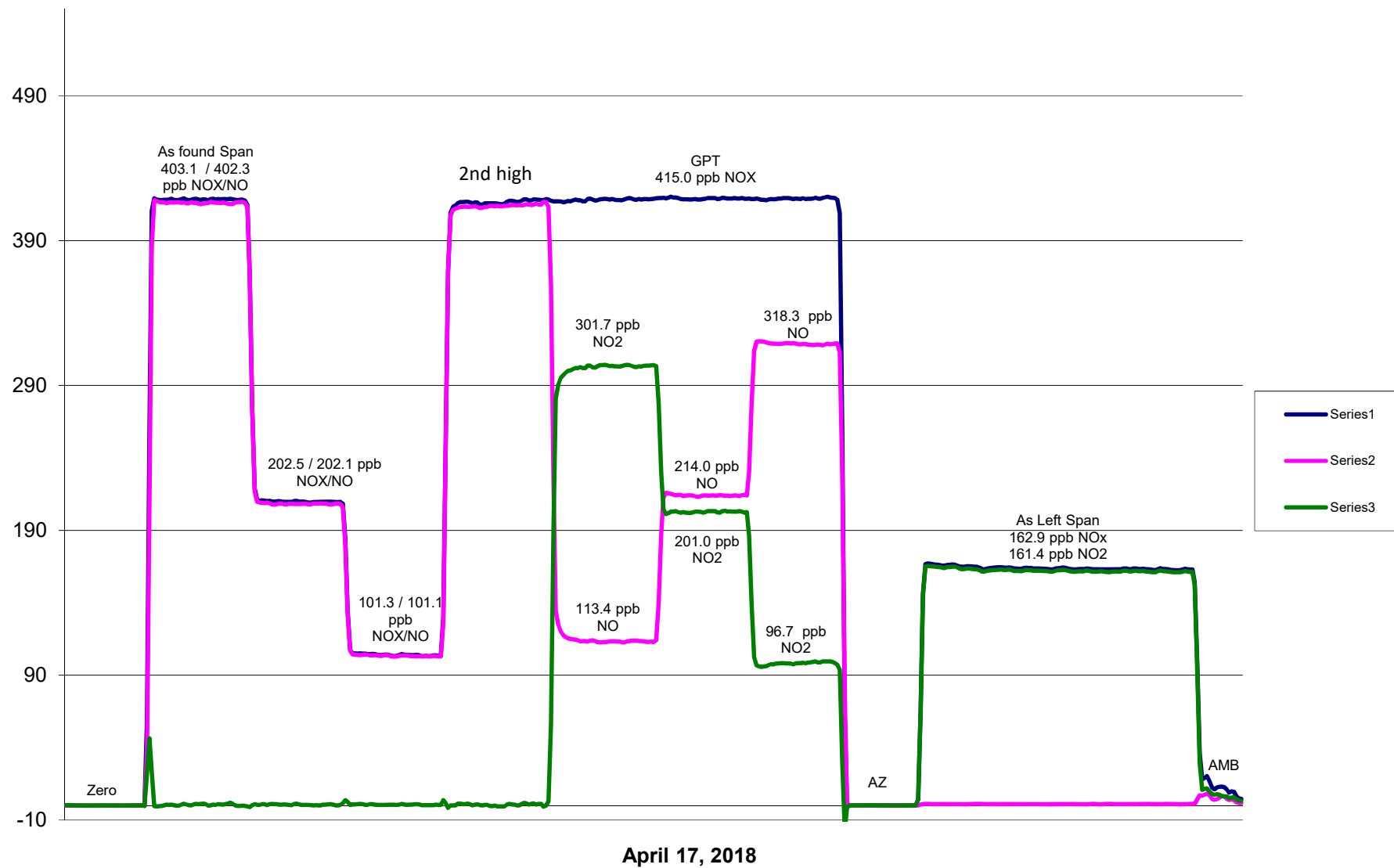
Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A		
411.8	416.0	0.9899	Correlation Coefficient	0.999984
206.8	208.1	0.9939		
103.5	103.1	1.0037		
			Slope	0.989134
			Intercept	0.687726

NO Calibration Curve



NO_x Calibration



Calibration Report



Parameter 03
Air Monitoring Network PAZA

Station Information

Calibration Date	April 17 2017	Previous Calibration	March 16 2017
Station Number	10	Station Location	Rycroft
Reason:	Routine	Install	Removal
Start Time (MST)	12:25	End Time (MST)	15:30:00 PM
Barometric Pressure	0.919 atm	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6103	Serial Number	6586
DACS make	CR3000	DACS serial No.	5407
DACS voltage range	0 - 5 Volts	DACS channel #	6
	Before		After
Calculated slope	1.039418	Calculated slope	1.001445
Calculated intercept	4.393219	Calculated intercept	0.216238
Analyzer make	TEI Model 49C	Analyzer serial #	49I-115363156

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Offset	-1.3	ppb	0.6	ppb
Span	1.198		1.022	
Cell A intensity	98226	Hz	97807	Hz
Cell B intensity	90013	Hz	90301	Hz
Pressure	688.90	in Hg	696.80	in Hg
CellA Flow	0.683	ccm	0.687	ccm
Cell B Flow	0.681	cmm	0.687	cmm

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4996	0.00	0.0	0.0	N/A
4996	0.30	301.7	301.2	1.0016
4996	0.20	201.0	200.4	1.0031
4996	0.10	96.7	96.1	1.0064
4996	0.00	0.0	0.2	As found zero
4996	0.30	301.7	310.3	As found span
Average Correction Factor				1.0037

Calculated value of As Found Response: 326.6 ppm Percent Change of As Found: 8.3%

	before calibration		after calibration	
Auto zero	-1.9	ppb	-0.1	ppb
Auto span	476.7	ppb	491.5	ppb

Notes: Scrubber canister replaced
Zero/span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter 03
Air Monitoring Network PAZA



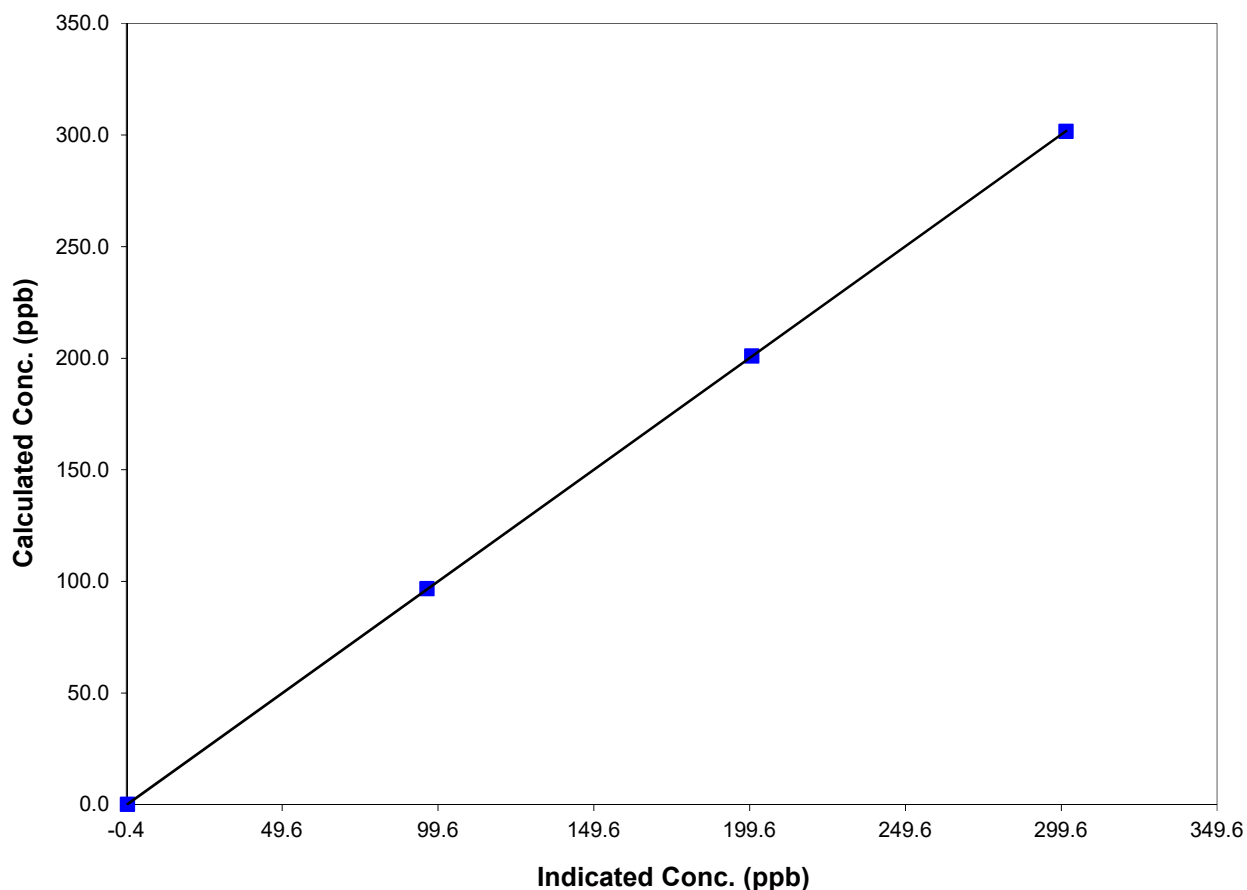
Station Information

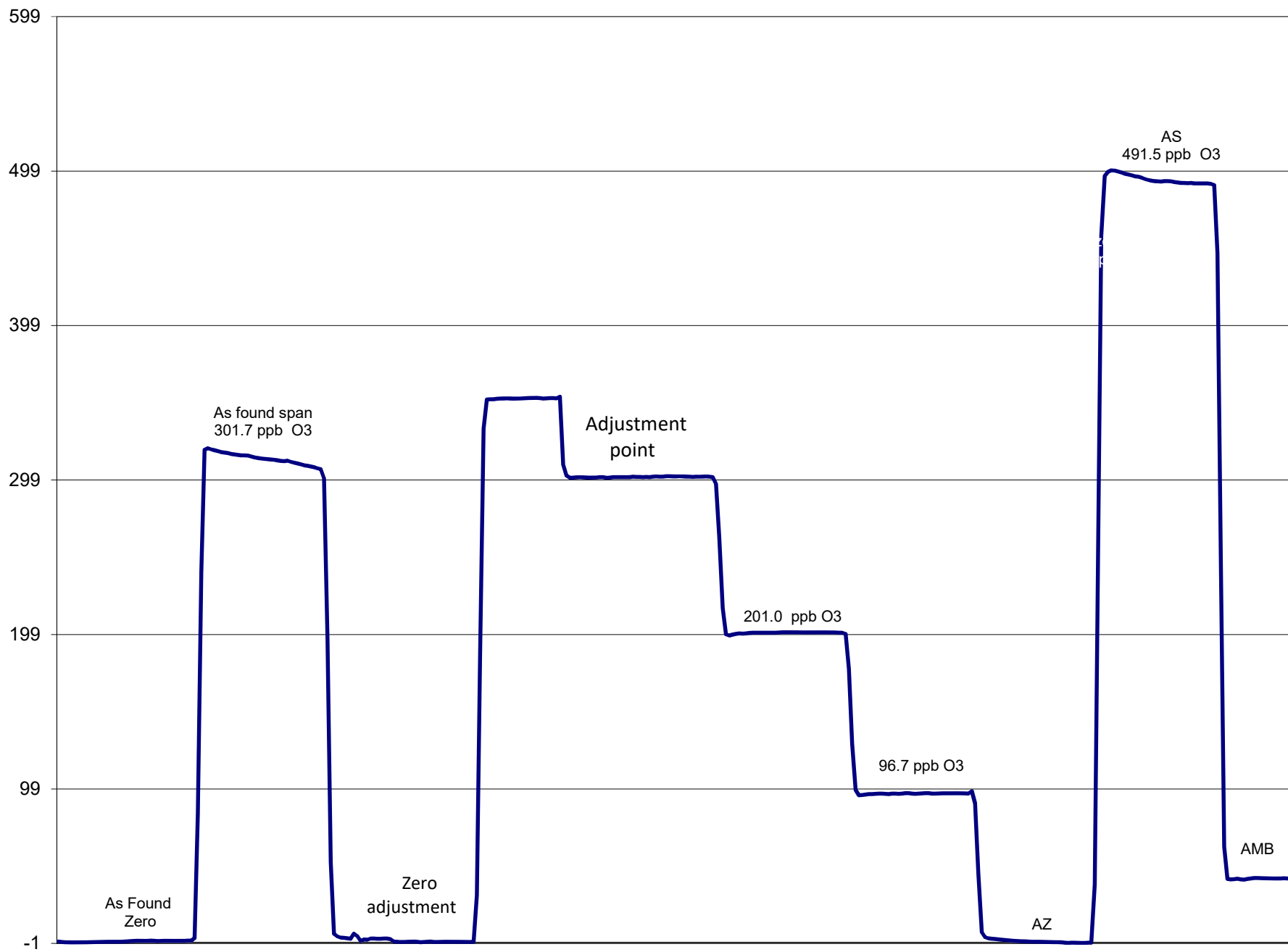
Calibration Date	April 17 2017	Previous Calibration	March 16 2017
Station Number	10	Station Location	Rycroft
Start Time (MST)	12:25	End Time (MST)	15:30:00 PM
Analyzer make/model	TEI Model 49C	Analyzer serial #	49I-115363156

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	NA	Correlation Coefficient	0.999997
301.7	301.2	1.0016		
201.0	200.4	1.0031		
96.7	96.1	1.0064	Slope	1.001445
			Intercept	0.216238

O3 Calibration Curve





April 17 2017

Calibration Report



Parameter CH4 / NMHC / THC

Air Monitoring Network PAZA

Station Information

Calibration Date	April 12, 2018	Previous Calibration	March 13, 2018
Station Number	1	Station Location	Rycroft
Reason:	Routine	Install	Removal Other:

Start Time (MST)	9:10	End Time (MST)	11:55
Barometric Pressure	0.930 atm	Station Temperature	21.0 Deg C
Calibrator	EnviroNics 6103	Serial Number	6586
Cal Gas CH4 Conc	404 ppm CH4	Cal Gas Expiry Date	28/03/2014
Cal Gas C3H8 Conc	201 552.75 ppm CH4	Cal Gas Cylinder #	LL34988
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 5 volt	DACS channel #	SE 12,13,14

Analyzer make TEI 55I-A3PHAA Analyzer serial # 1151980005

	before		after	
Concentration range	0-20 (CH4, NMHC); 0-40 (THC)	ppm	0-20 (CH4, NMHC); 0-40 (THC)	ppm
Air pressure	34.7	PSI	34.7	PSI
Fuel pressure	49.4	PSI	49.4	PSI
Carrier pressure	40.1	PSI	40.1	PSI
CH4 cal factor				E ⁻⁴
NMHC cal factor				E ⁻⁴
Rt		Sec		Sec
Pk Index				

CH4 Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
2000	0.00	0.00	0.02	N/A
2000	64.96	12.71	12.70	1.0005
2000	40.97	8.11	8.00	1.0140
2000	15.96	3.20	3.10	1.0305
2000	0.00	0.00	0.02	As Found Zero
2000	64.93	12.70	12.08	As Found Span
Average Correction Factor				1.0150

Calculated value of As Found Response: 12.687 ppm Percent Change of As Found: 0.1%

	Before		After
Calculated slope	1.053972	Calculated slope	1.001129
Calculated intercept	-0.022531	Calculated intercept	0.042014

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.01	ppm	0.00	ppm
Auto span	7.83	ppm	8.04	ppm

NMHC Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
2000	0.00	0.00	0.00	N/A
2002	64.96	17.37	17.46	0.9951
2000	40.97	11.10	11.15	0.9953
2000	15.96	4.38	4.29	1.0201
2000	0.00	0.00	0.00	As Found Zero
2000	64.93	17.38	17.80	As Found Span
Average Correction Factor				1.0035

Calculated value of As Found Response: 17.264 ppm Percent Change of As Found: 0.7%

	Before		After
Calculated slope	0.967472	Calculated slope	0.992793
Calculated intercept	0.043438	Calculated intercept	0.046352

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.00	ppm	0.00	ppm
Auto span	11.51	ppm	11.10	ppm

THC Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
2000	0.00	0.00	0.02	N/A
2000	64.96	30.10	30.20	0.9967
2000	40.97	19.21	19.14	1.0034
2000	15.96	7.57	7.42	1.0206
2000	0.00	0.00	0.02	As Found Zero
2000	64.93	30.08	29.91	As Found Span
Average Correction Factor				1.0069

Calculated value of As Found Response: 29.970 ppm Percent Change of As Found: 0.4%

	Before		After
Calculated slope	1.001928	Calculated slope	0.996052
Calculated intercept	0.017965	Calculated intercept	0.081333

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.01	ppm	0.00	ppm
Auto span	19.34	ppm	19.15	ppm

Notes: Nitrogen & hydrogen cylinders replaced
Span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter CH4
Air Monitoring Network PAZA



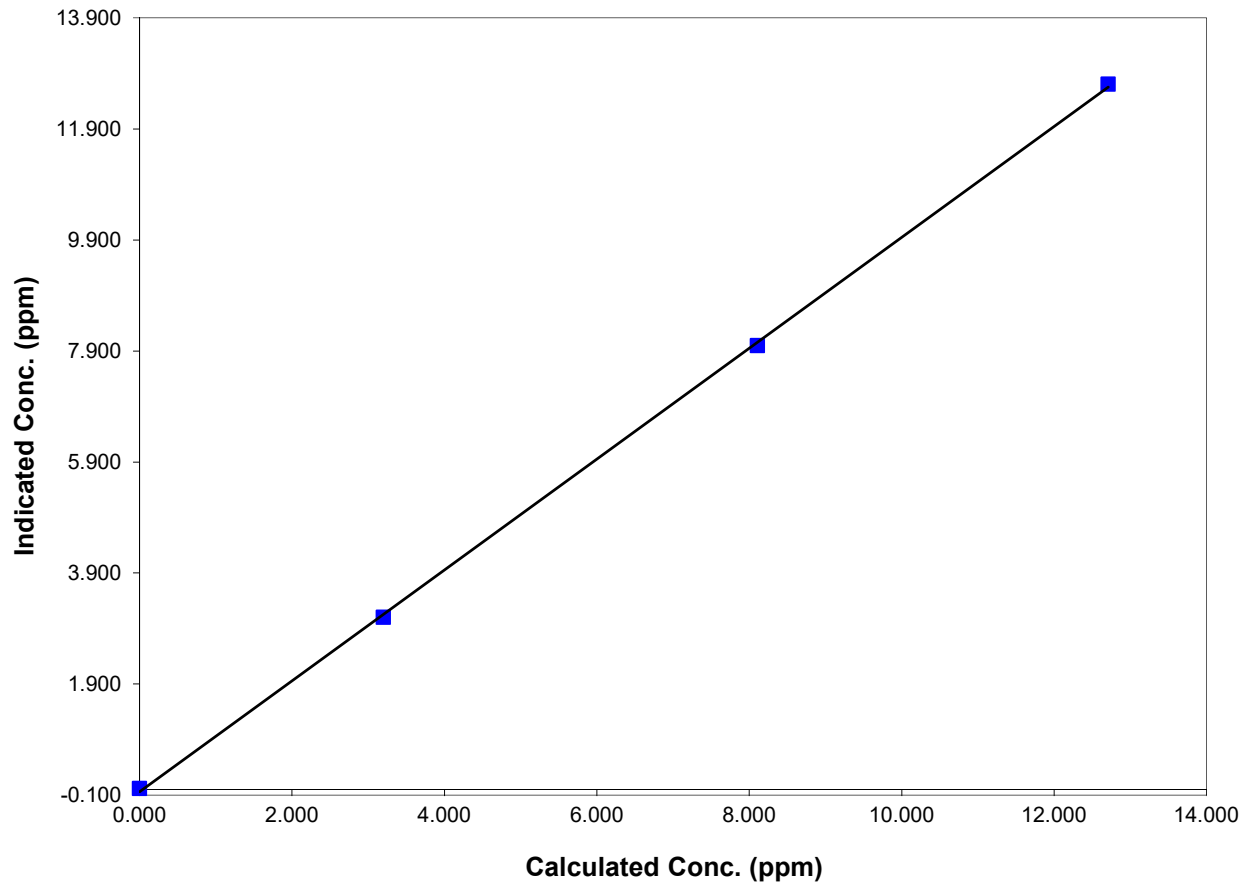
Station Information

Calibration Date	April 12, 2018	Previous Calibration	March 13, 2018
Station Number	1	Station Location	Rycroft
Start Time (MST)	9:10	End Time (MST)	11:55
Analyzer make/model	TEI 55I-A3PHAA	Analyzer serial #	1151980005

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.018	N/A	Correlation Coefficient	0.999869
12.709	12.703	1.0005		
8.110	7.998	1.0140		
3.198	3.104	1.0305	Slope	1.001129
			Intercept	0.042014

CH4 Calibration Data



Calibration Summary

Parameter NMHC
Air Monitoring Network PAZA



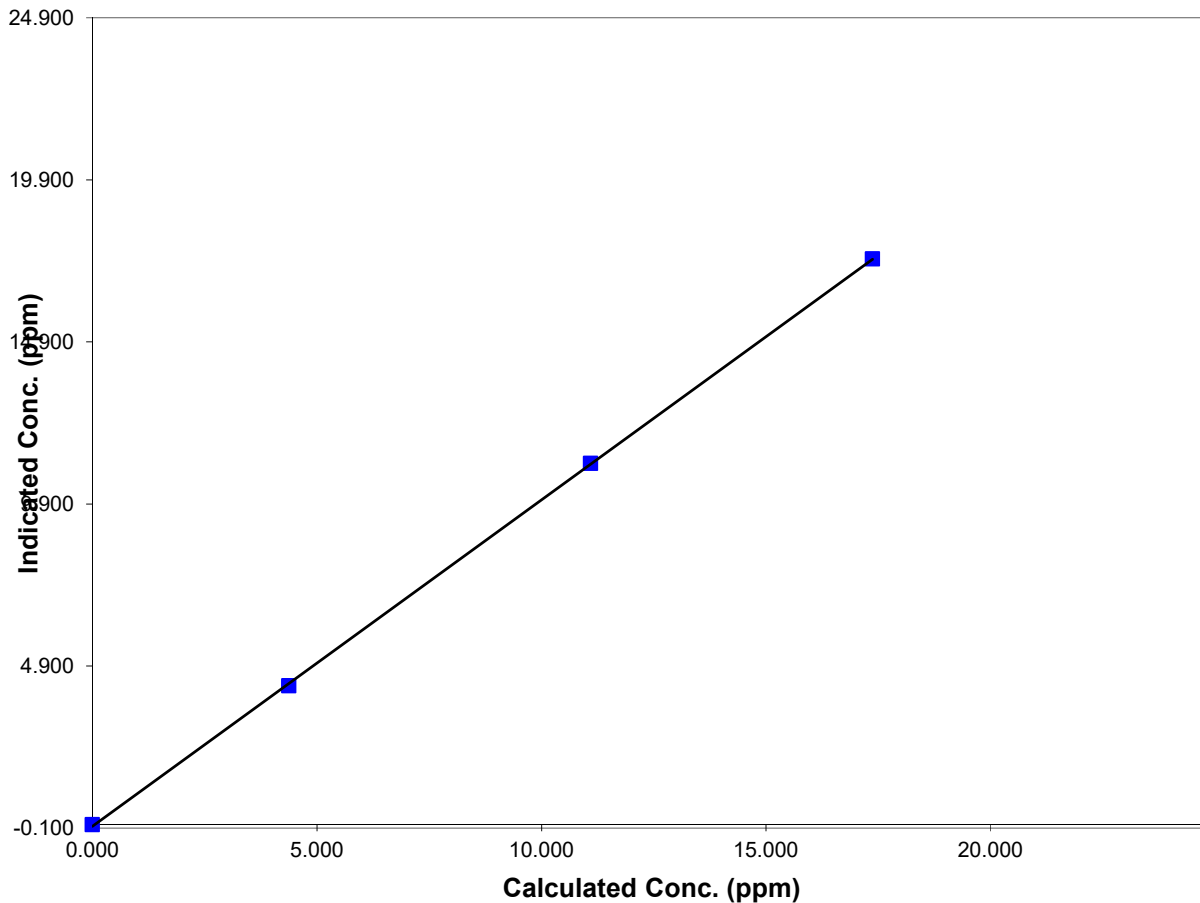
Station Information

Calibration Date	April 12, 2018	Previous Calibration	March 13, 2018
Station Number	1	Station Location	Rycroft
Start Time (MST)	9:10	End Time (MST)	11:55
Analyzer make/model	TEI 55I-A3PHAA	Analyzer serial #	1151980005

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.001	N/A	Correlation Coefficient	0.999956
17.372	17.457	0.9951		
11.096	11.148	0.9953		
4.376	4.290	1.0201	Slope	0.992793
			Intercept	0.046352

NMHC Calibration Data



Calibration Summary

Parameter THC
Air Monitoring Network PAZA



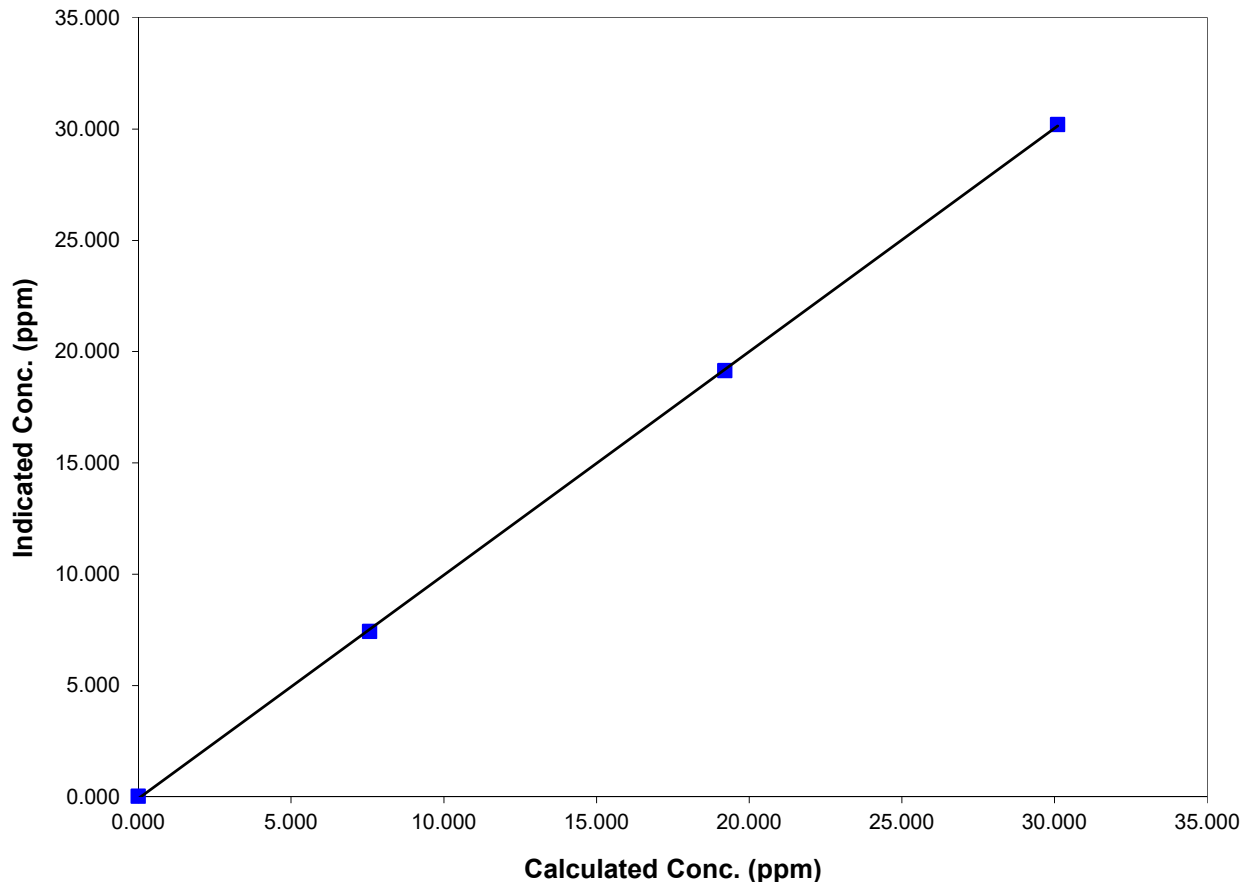
Station Information

Calibration Date	April 12, 2018	Previous Calibration	March 13, 2018
Station Number	1	Station Location	Rycroft
Start Time (MST)	9:10	End Time (MST)	11:55
Analyzer make/model	TEI 55I-A3PHAA	Analyzer serial #	1151980005

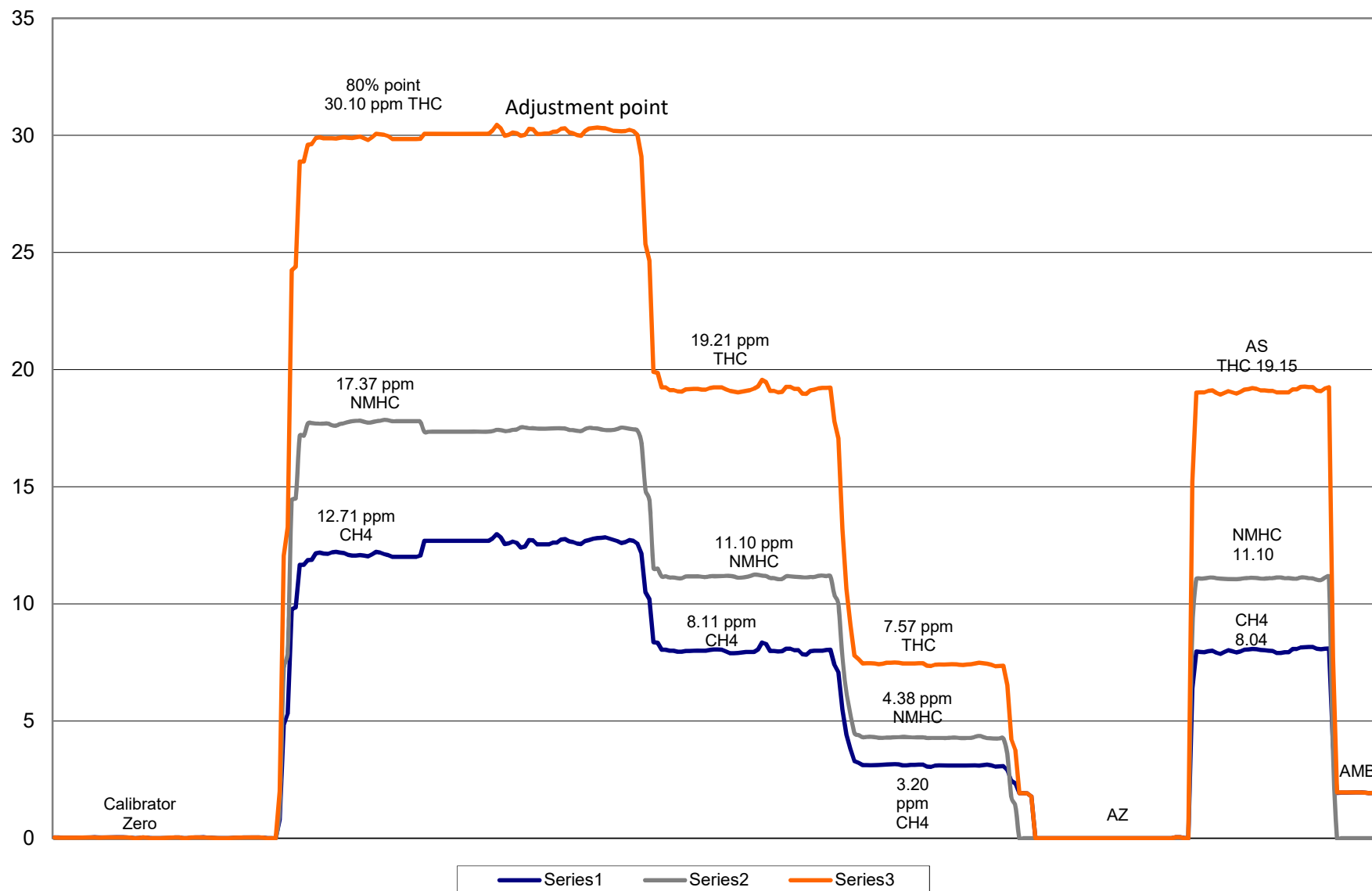
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.017	N/A	Correlation Coefficient	0.999948
30.098	30.198	0.9967		
19.206	19.141	1.0034		
7.574	7.421	1.0206	Slope	0.996052
			Intercept	0.081333

THC Calibration Data



THC/CH₄/NMHC Calibration



Calibration Report

Parameter SO₂

Air Monitoring Network PAZA



Station Information

Calibration Date	April 25, 2018	Previous Calibration	March 27, 2018
Station Number	1	Station Location	Donnelly
Reason:	Routine	Install	Removal
		Other:	
Start Time (MST)	11:50	End Time (MST)	14:25
Barometric Pressure	0.934 atm	Station Temperature	21.0 Deg C
Calibrator	SABIO 2010	Serial Number	9900912
Cal Gas Concentration	50.5 ppm	Cal Gas Expiry Date	January 17, 2020
Correction factor	0.031641	Cal Gas Cylinder #	DT0017197
DACS make	CR1000	DACS serial No.	3980
DACS voltage range	0 - 5 volt	DACS channel #	6
	<u>Before</u>		<u>After</u>
Calculated slope	1.005314	Calculated slope	1.001585
Calculated intercept	0.987794	Calculated intercept	-1.610686
Analyzer make	Teco 43i	Analyzer serial #	1207452008

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	8		8	
coefficient	1.020		1.029	
Lamp Voltage	862	volts	852	volts
Chamber Temp	45	Deg C	45.2	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	673.1	mm Hg	677.3	mm Hg
Sample Flow	0.431	ccm	0.428	ccm
Lamp Intensity	97	%	97	%

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)
4920	0.0	0.00	0.2	N/A
4920	39.20	399.2	399.3	0.9998
4920	19.50	199.4	201.8	0.9877
4920	9.60	98.3	100.9	0.9746
4997	0.0	0.0	0.2	As Found Zero
4997	39.99	400.9	395.2	As Found Span
Average Correction Factor				0.9874

Calculated value of As Found Response: 398.046 ppb Percent Change of As Found: 0.7%

	before calibration		after calibration	
Auto zero	-0.1	ppb	-0.3	ppb
Auto span	246.7	ppb	244.2	ppb

Notes: Adjusted High point.

Calibration Performed By: Raminder Gill

Calibration Summary

Parameter SO2

Air Monitoring Network PAZA



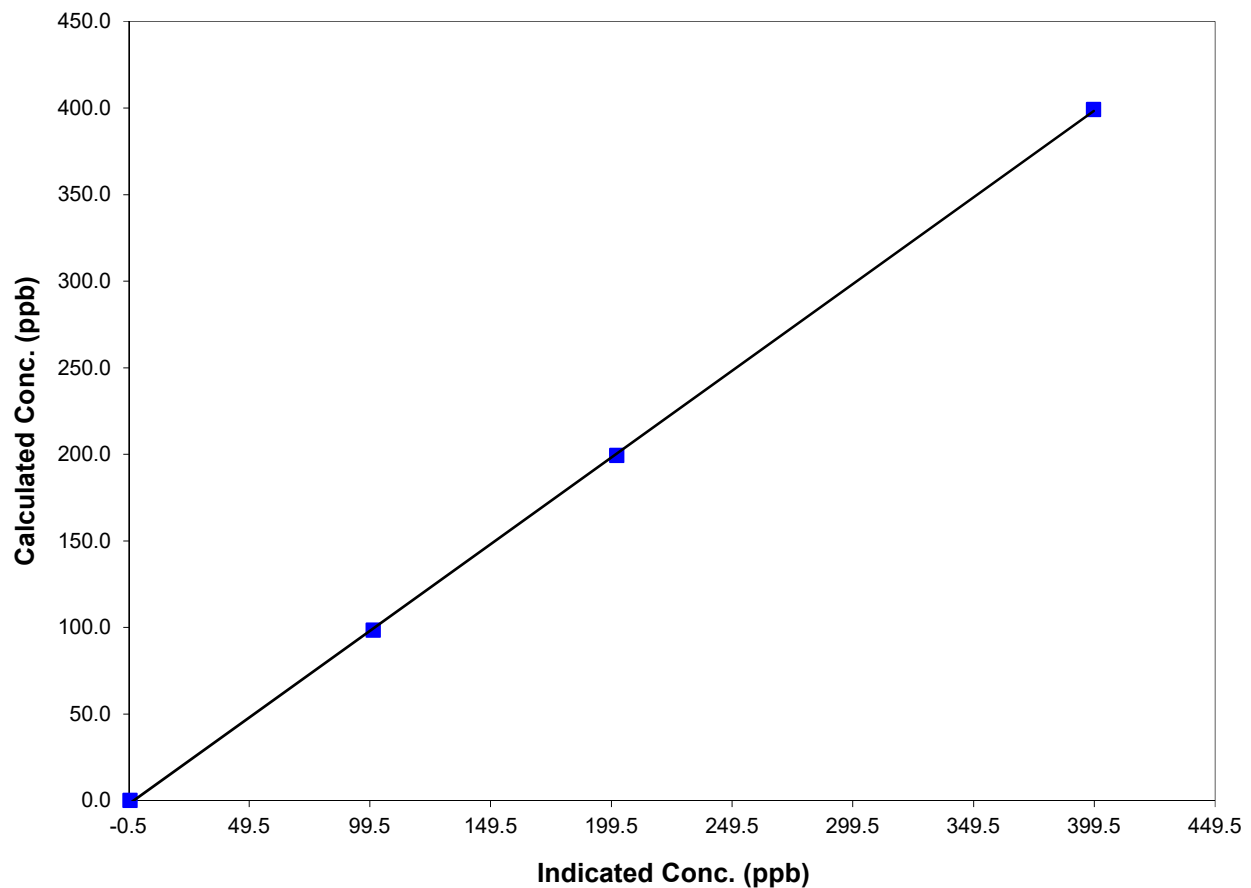
Station Information

Calibration Date	April 25, 2018	Previous Calibration	March 27, 2018
Station Number	1	Station Location	Donnelly
Start Time (MST)	11:50	End Time (MST)	14:25
Analyzer make/model	Teco 43i	Analyzer serial #	1207452008

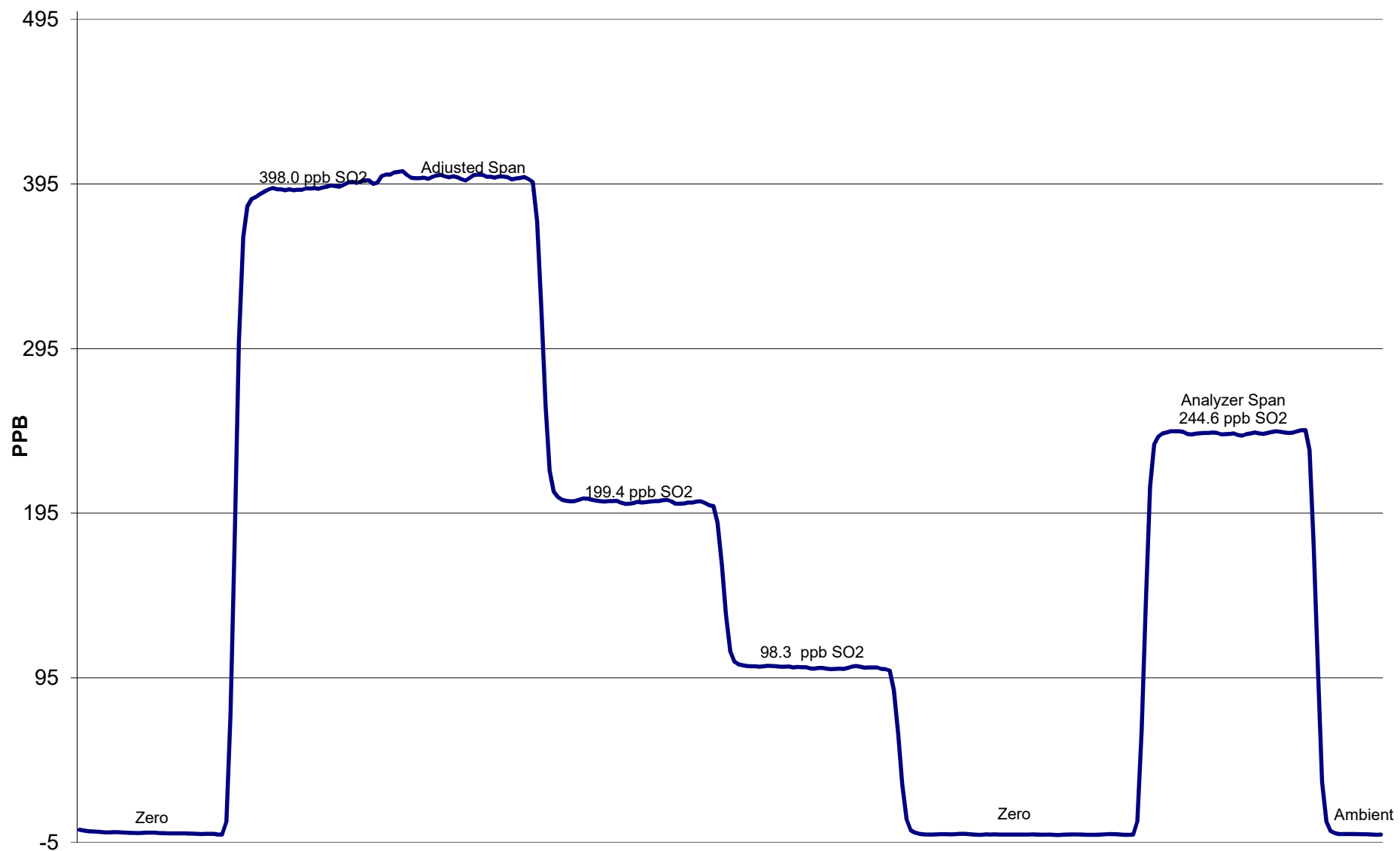
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A	Correlation Coefficient	0.999938
399.2	399.3	0.9998		
199.4	201.8	0.9877		
98.3	100.9	0.9746	Slope	1.001585
			Intercept	-1.610686

SO2 Calibration Curve



SO2 Calibration



April 25, 2018

Calibration Report



Parameter H2S

Air Monitoring Network PAZA

Station Information

Calibration Date	25/04/2018	Previous Calibration	March 27, 2018
Station Number	1	Station Location	Donnelly
Reason:	Routine	Install	Removal
		Other:	
Start Time (MST)	13:35	End Time (MST)	17:15
Barometric Pressure	0.926 atm	Station Temperature	20.0 Deg C
Calibrator	SABIO 2010	Serial Number	9900912
Cal Gas Conc	10.2 ppm	Cal Gas Expiry Date	March 19, 2021
Correction factor	0.031477	Cal Gas Cylinder #	EY0000943
DACS make	CR1000	DACS serial No.	3980
DACS voltage range	0 - 5 volt	DACS channel #	5
	<u>Before</u>		<u>After</u>
Calculated slope	0.978904	Calculated slope	1.002729
Calculated intercept	0.628986	Calculated intercept	-0.520611
Analyzer make	Thermo 450i	Analyzer serial #	1207452006

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	19.3	ppb	16.8	ppb
coefficient	1.048		1.044	
Lamp Voltage	816	volts	813	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	485.1	mm Hg	493.5	mm Hg
Sample Flow	0.716	lpm	0.711	lpm
Lamp Intensity	90	mv	90	mv

Calibration Data

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)
4970	0.00	0.00	0.3	N/A
4970	39.20	79.82	79.9	0.9985
4970	19.50	39.86	40.6	0.9808
6970	9.70	14.18	14.6	0.9678
4970	0.00	0.00	-1.7	As Found Zero
4970	39.20	79.82	77.7	As Found Span
Average Correction Factor				0.9824

Calculated value of As Found Response: 78.36 ppb Percent Change of As Found: **1.8%**

	before calibration		after calibration	
Auto zero	-0.1	ppb	0.6	ppb
Auto span	68.7	ppb	67.1	ppb

Notes: Monthly calibration.
Adjusted Zero and High point.

Calibration Performed By: Raminder Gill

Calibration Summary

Parameter H2S

Air Monitoring Network PAZA



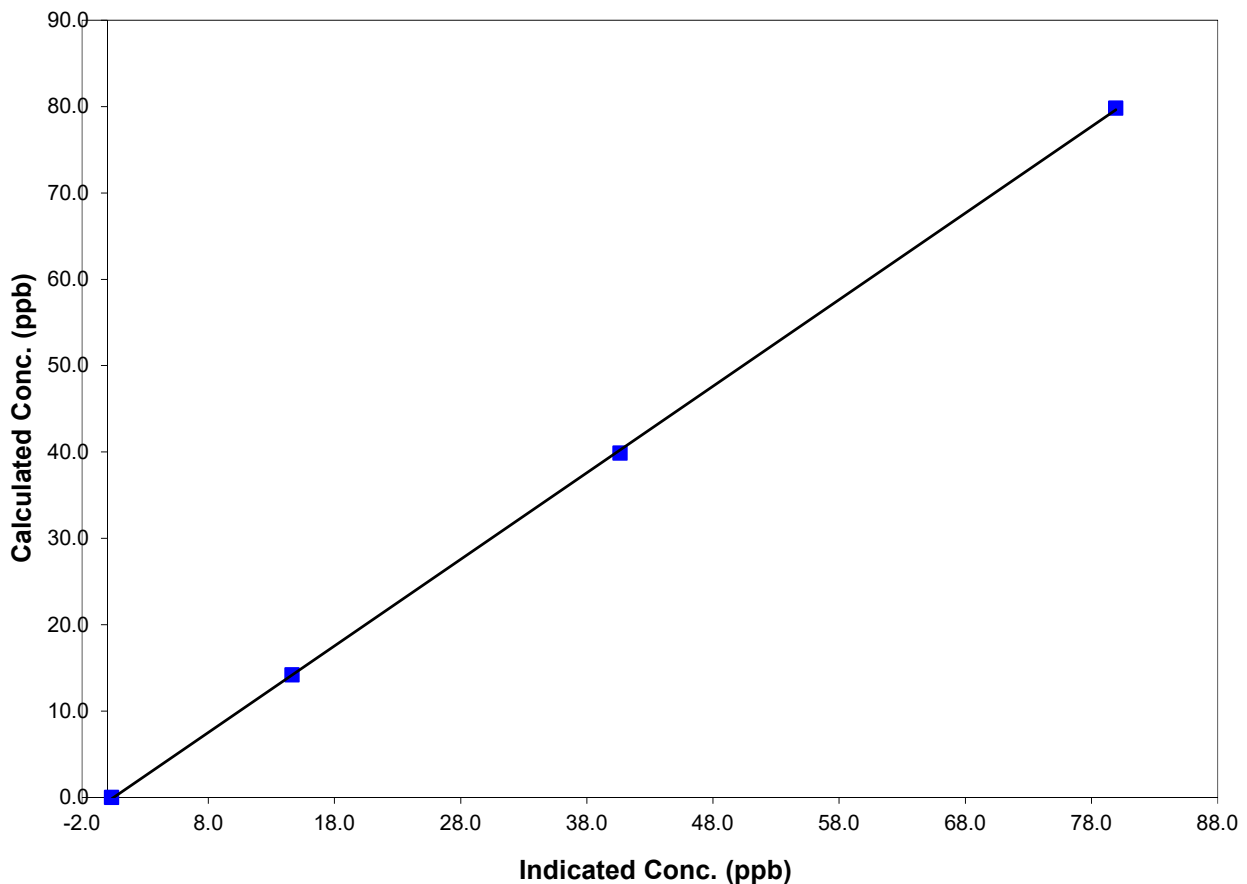
Station Information

Calibration Date	25/04/2018	Previous Calibration	March 27, 2018
Station Number	1	Station Location	Donnelly
Start Time (MST)	13:35	End Time (MST)	17:15
Analyzer make/model	Thermo 450i	Analyzer serial #	1207452006

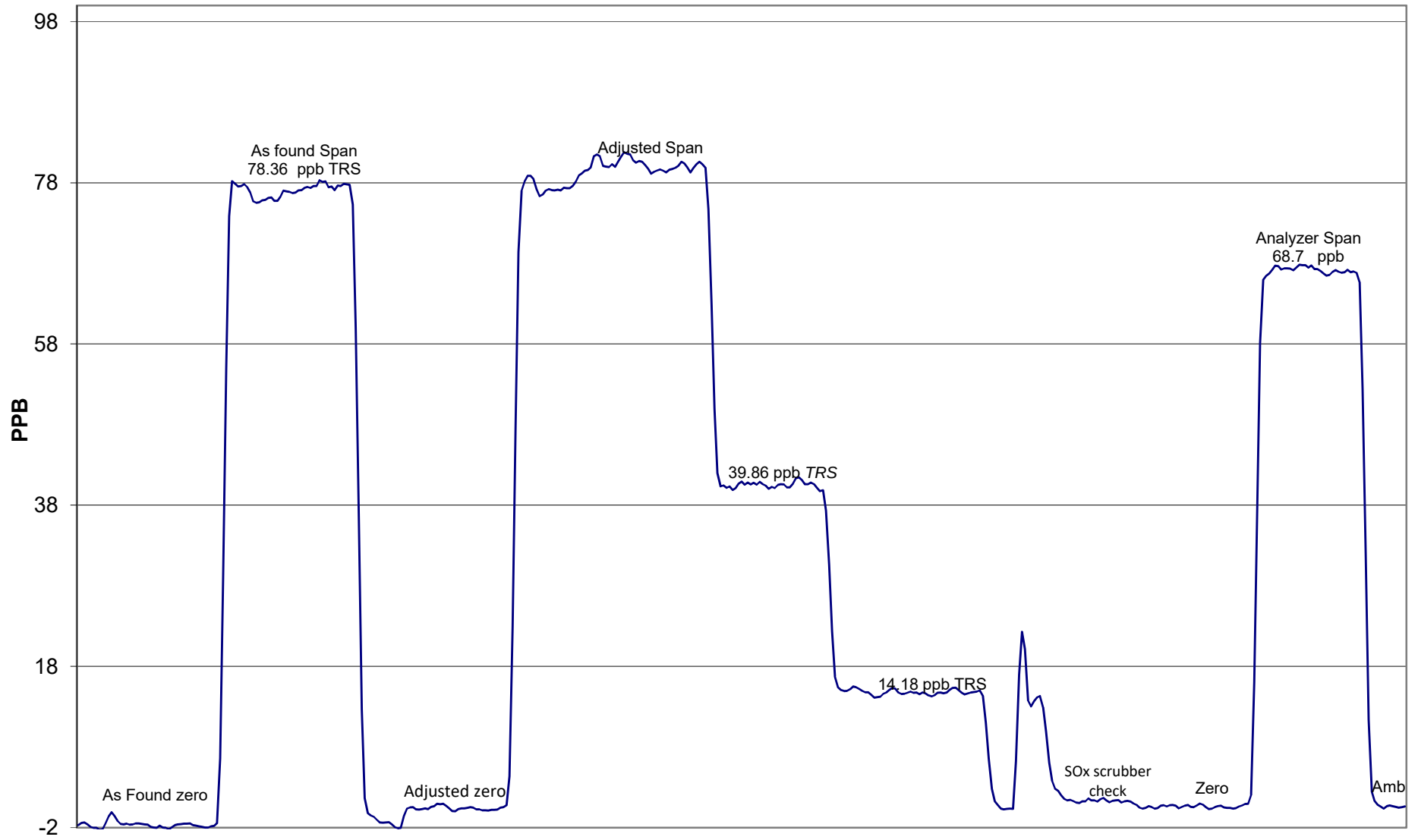
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	N/A	Correlation Coefficient	0.999945
79.8	79.9	0.9985		
39.9	40.6	0.9808		
14.2	14.6	0.9678	Slope	1.002729
			Intercept	-0.520611

TRS Calibration Curve



H2S Calibration



25/04/2018