



Peace Airshed Zone Association

Ambient Air Monitoring Network Summary

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

June 28, 2018

Alberta Environment and Parks

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

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

Enclosed is the PAZA Ambient Monitoring Network Report for the month of May 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 May, the following events were noted:

Henry Pirker Station:

- ♦ The measured ambient air quality was within the AAAQO for the Henry Pirker station with the exception of PM_{2.5}, which returned one (1) exceedence of the 1-hour AAAQO. Ref#338607.
- ♦ All analyzers and meteorological sensors at the Henry Pirker station had an operational uptime greater than 90% for the month of May.

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 May.

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 May.

Beaverlodge Station:

- ◆ The measured ambient air quality was within the AAAQO for the Beaverlodge station with the exception of PM_{2.5}, which returned two (2) exceedences of the 1-hour AAAQO. Ref#338589.
- ◆ The NOx analyzer experienced equipment malfunctioning, returning an uptime of 87.8%. All other analyzers and meteorological sensors at the Beaverlodge station had an operational uptime greater than 90% for the month of May.

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 May, 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 May.

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 May.

Passive Monitoring - 27 Stations throughout the PAZA zone:

There were five duplicate sites sampled in the month of May: Wembley and Pinto Creek (SO₂), Bay Tree (O₃), Hythe and Sylvester (NO₂), and Griouxville 4 (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 0.2 ppb.
- Monthly average concentrations for NO₂ passives ranged from 0.1 ppb to 2.5 ppb, with a mean of 0.8 ppb.
- Monthly average concentrations for O₃ passives ranged from 37.3 ppb to 47.1 ppb, with a mean of 42.7 ppb.
- Monthly average concentrations for H₂S passives ranged from 0.1 to 0.4 ppb, with a mean of 0.2 ppb.

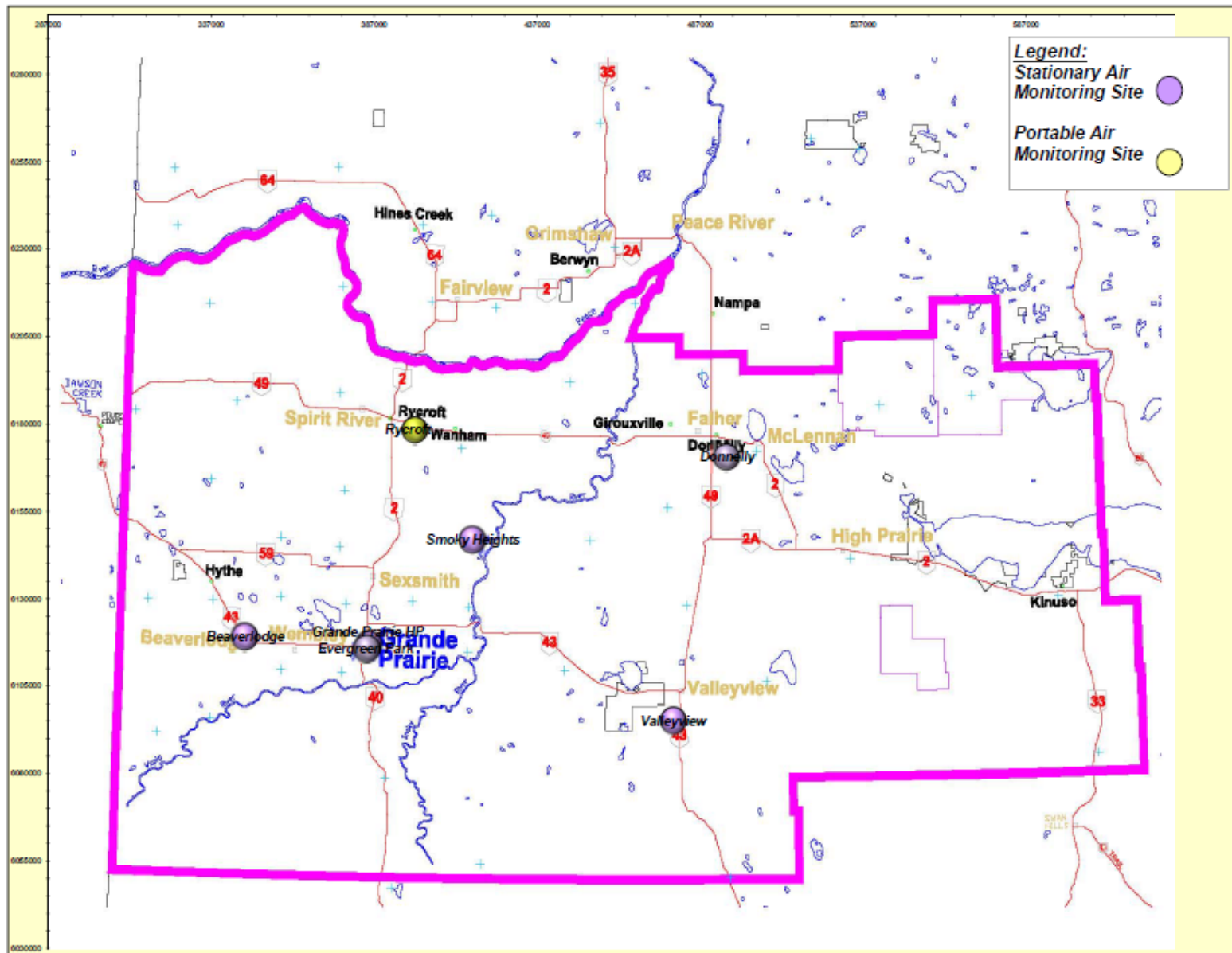
If you have any questions or concerns, please contact Patrick Andersen at 403.505.1041 or the PAZA office at 780.833.4343.

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

May-2018 Peace 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	0.2	0	0	2.0	May-03 03:00	0.4	May-23	99.2	May-10
SO ₂ (ppb)	172	48	Evergreen Park	0.2	0	0	5.1	May-21 02:00	0.6	May-23	100.0	May-18
SO ₂ (ppb)	172	48	Smoky Heights	0.3	0	0	5.8	May-12 06:00	1.3	May-05	100.0	May-22
SO ₂ (ppb)	172	48	Beaverlodge	0.2	0	0	3.9	May-16 06:00	0.7	May-16	99.2	May-09
SO ₂ (ppb)	172	48	Valleyview	0.6	0	0	27.2	May-03 00:00	3.4	May-02	99.1	May-28
SO ₂ (ppb)	172	48	Donnelly	0.1	0	0	1.3	May-23 22:00	0.3	May-24	100.0	May-17
SO ₂ (ppb)	172	48	Rycroft-Portable	0.2	0	0	2.4	May-04 13:00	0.6	May-04	97.0	May-25
NO (ppb)			Henry Pirker	0.5	0	0	17.3	May-07 07:00	2.2	May-23	100.0	May-10
NO ₂ (ppb)	159	106	Henry Pirker	4.6	0	0	27.7	May-24 07:00	10.5	May-23	100.0	May-10
NO _x (ppb)			Henry Pirker	5.2	0	0	41.6	May-24 07:00	12.8	May-23	100.0	May-10
NO (ppb)			Beaverlodge	0.2	0	0	2.9	May-18 07:00	0.5	May-31	87.8	May-08
NO ₂ (ppb)	159	106	Beaverlodge	2.1	0	0	22.9	May-07 19:00	3.6	May-16	87.8	May-08
NO _x (ppb)			Beaverlodge	2.3	0	0	23.2	May-07 19:00	3.8	May-16	87.8	May-08
NO (ppb)			Rycroft-Portable	0.3	0	0	6.2	May-26 03:00	1.2	May-31	97.0	May-25
NO ₂ (ppb)	159	106	Rycroft-Portable	2.3	0	0	15.4	May-16 01:00	4.6	May-30	97.0	May-25
NO _x (ppb)			Rycroft-Portable	2.6	0	0	16.6	May-16 01:00	5.5	May-30	97.0	May-25
O ₃ (ppb)	82		Henry Pirker	35.5	0	0	69.9	May-23 13:00	44.5	May-19	100.0	May-10
O ₃ (ppb) - 8-hr			Henry Pirker		0				60.4	May-23		-
O ₃ (ppb)	82		Beaverlodge	37.6	0	0	57.7	May-19 16:00	47.9	May-03	98.7	May-08
O ₃ (ppb) - 8-hr			Beaverlodge		0				55.6	May-19		-
O ₃ (ppb)	82		Rycroft-Portable	38.0	0	0	66.9	May-23 14:00	48.0	May-19	100.0	May-24
O ₃ (ppb) - 8-hr			Rycroft-Portable		0				65.6	May-23		-
CO (ppm)	13		Henry Pirker	0.17	0	0	0.4	May-24 13:00	0.2	May-23	100.0	May-10
CO (ppm) - 8-hr	5		Henry Pirker		0				0.3	May-24		-

PAZA Monthly Continuous Data Summary – continued

May-2018 Peace Airshed Zone Association							Maximum Recorded Values					
							1-hr		24-hr / 8-hr			
THC (ppm)			Henry Pirker	2.0	-	-	2.6	May-22 07:00	2.1	May-22	96.1	May-11
CH ₄ (ppm)			Henry Pirker	2.0	-	-	2.6	May-22 07:00	2.1	May-22	96.1	May-11
NMHC (ppm)			Henry Pirker	0.0	-	-	0.0	May-11 09:00	0.0	May-11	96.1	May-11
THC (ppm)			Rycroft-Portable	2.0	-	-	2.2	May-24 07:00	2.0	May-20	100.0	May-28
CH ₄ (ppm)			Rycroft-Portable	1.9	-	-	2.1	May-24 07:00	2.0	May-20	100.0	May-28
NMHC (ppm)			Rycroft-Portable	0.0	-	-	0.0	May-20 04:00	0.0	May-20	100.0	May-28
TRS (ppb)			Henry Pirker	0.2	-	-	3.2	May-22 07:00	0.4	May-22	100.0	May-11
TRS (ppb)			Evergreen Park	0.3	-	-	4.8	May-13 08:00	1.0	May-13	100.0	May-18
TRS (ppb)			Smoky Heights	0.4	-	-	1.6	May-15 06:00	0.6	May-15	100.0	May-22
TRS (ppb)			Rycroft-Portable	0.1	-	-	0.9	May-16 04:00	0.3	May-16	100.0	May-28
H ₂ S (ppb)	10	3	Valleyview	0.1	0	0	1.1	May-19 05:00	0.3	May-30	98.9	May-28
H ₂ S (ppb)	10	3	Donnelly	0.1	0	0	0.8	May-28 04:00	0.3	May-09	100.0	May-17
PM _{2.5} (µg/m3)	80	30	Henry Pirker	7.0	1	0	108.3	May-24 13:00	23.6	May-24	100.0	Apr-06
PM _{2.5} (µg/m3)	80	30	Evergreen Park	5.7	0	0	54.6	May-24 13:00	15.6	May-24	99.6	May-18
PM _{2.5} (µg/m3)	80	30	Smoky Heights	7.4	0	0	58.2	May-24 15:00	20.8	May-24	100.0	May-22
PM _{2.5} (µg/m3)	80	30	Beaverlodge	5.8	2	0	99.0	May-24 11:00	21.8	May-24	98.9	Apr-24
PM _{2.5} (µg/m3)	80	30	Rycroft-Portable	5.5	0	0	68.6	May-23 22:00	13.2	May-24	100.0	May-25
RH (%)			Henry Pirker	46.5	-	-	88.3	May-31 05:00	74.4	May-17	100.0	-
RH (%)			Evergreen Park	49.5	-	-	98.0	May-17 04:00	82.6	May-17	100.0	-
RH (%)			Beaverlodge	48.1	-	-	100.0	May-17 03:00	85.1	May-31	92.6	-
RH (%)			Valleyview	70.3	-	-	100.0	May-31 00:00	72.2	May-30	6.9	-
SR (W/m ²)			Henry Pirker	239.9	-	-	820.5	May-29 14:00	305.8	May-29	100.0	-
Temp (°C)			Henry Pirker	15.0	-	-	31.2	May-23 16:00	22.9	May-23	100.0	-
Temp (°C)			Evergreen Park	14.4	-	-	30.8	May-23 17:00	20.3	May-23	100.0	-
Temp (°C)			Smoky Heights	14.2	-	-	30.4	May-23 16:00	22.0	May-23	100.0	-
Temp (°C)			Beaverlodge	14.3	-	-	29.4	May-23 17:00	22.4	May-23	98.9	-
Temp (°C)			Valleyview	14.5	-	-	30.7	May-23 18:00	22.3	May-23	96.6	-
Temp (°C)			Donnelly	14.9	-	-	31.6	May-23 16:00	24.1	May-23	100.0	-
Temp (°C)			Rycroft-Portable	14.9	-	-	31.4	May-23 17:00	22.6	May-23	100.0	-

PAZA Monthly Continuous Data Summary – continued

May-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 returned invalid data on May 13, 15 and 31.
NOx/NO/NO ₂	TEI	42i	No operational issues observed.
O ₃	TEI	49i	No operational issues observed.
CO	TEI	48C	No operational issues observed.
THC/CH ₄ /NMHC	TEI	55i	Hydrogen bottle expired May 30 th . Replaced and analyzer calibrated May 31 st .
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	No operational issues observed.

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	Analyzer returned 3 hours of invalid data on May 15 th .
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 99.2%

Parameter	Make	Model	Notes
SO ₂	TEI	43CTL	No operational issues observed.
NOx/NO/NO ₂	TEI	42C	Analyzer malfunctioned May 3-7.
O ₃	TEI	49C	Analyzer returned invalid readings May 8.
PM _{2.5}	Sharp	5030	No operational issues observed.
ET	n/a	n/a	No operational issues observed.
RH	n/a	n/a	Sensor returned to service May 2 nd .
WS / WD	Met One	50.5H	No operational issues observed.

PAZA – Valleyview Station

General Station Issues

Station experienced power outage with a general uptime of 99.1%

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	Sensor returned to service May 29.
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	Analyzer maintenance May 24-25
NOx/NO/NO ₂	TEI	42i	Analyzer maintenance May 24-25
O ₃	TEI	49i	No operational issues observed.
TRS	TEI	43i	No operational issues observed.
THC/CH ₄ /NMHC	TEI	55i	No operational issues observed.
PM _{2.5}	Sharp	5030	No operational issues observed.
ET	Gill	Met Pak 3	No operational issues observed.
WS / WD	Gill	Met Pak 3	No operational issues observed.

PAZA

Henry Pirker Station

Monthly Summary Tables, Graphs and
Roses

Hourly Averages

Sulphur Dioxide (SO₂) - ppb

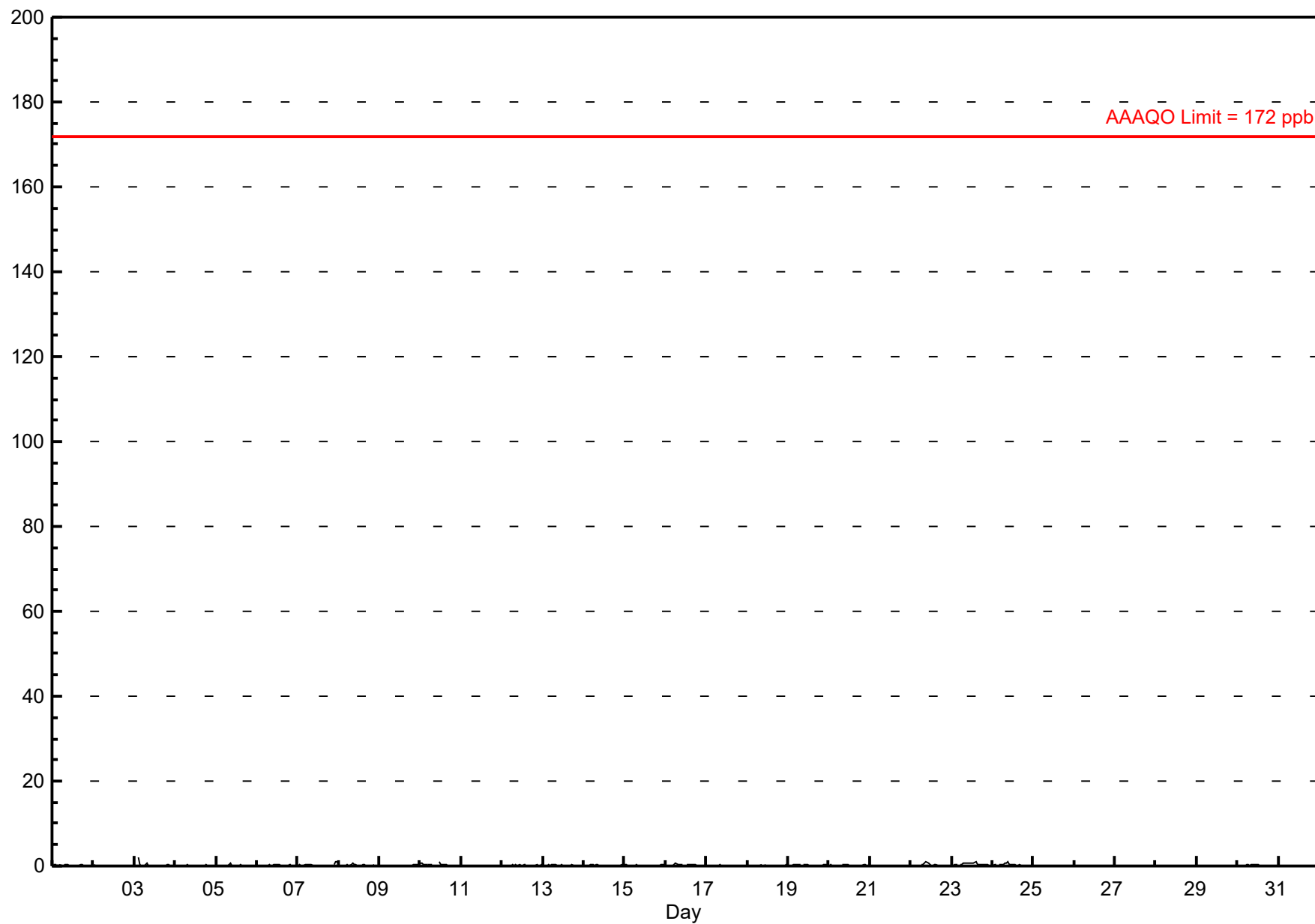
Henry Pirker - May 2018

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 2.0 ppb on May 3 03:00 Maximum Daily Average: 0.4 ppb on May 23																				Hours in Service: 744 Hours of Data: 701 Hours of Missing Data: 43 Hours of Calibration: 37 Percent Operational Time: 99.2						
Minimum Value: 0 ppb on May 14 02:00 Maximum Diurnal Average: 0.3 ppb at hour 9 Monthly Average: 0.15 ppb										Minimum Daily Average: 0.0 ppb on May 27 Minimum Diurnal Average: 0.1 ppb at hour 19 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 = 0.8																
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-May	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	0.5
2-May	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
3-May	0	A	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	2.0
4-May	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
5-May	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.1	0.7
6-May	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	0.3
7-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	1	0.3	1.1
8-May	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.2	0.7
9-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	1	0.1	0.5
10-May	1	1	0	0	0	0	0	0	C	C	C	1	0	0	0	0	0	A	0	0	0	0	0	0	0.3	1.0
11-May	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
12-May	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	0.3
13-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	R	0	0	0	N	N	N	N	0	0.2	0.3
14-May	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	0.2
15-May	0	0	0	0	0	0	0	0	0	N	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
16-May	0	0	0	0	0	0	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
17-May	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
18-May	0	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	0.2
19-May	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	0.3
20-May	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
21-May	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
22-May	0	0	0	0	0	A	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.0
23-May	0	0	0	0	A	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.4	0.9
24-May	0	0	0	A	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.1
25-May	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	0.1
26-May	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	0.1
27-May	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.0	0.1
28-May	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	0.1
29-May	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	0.1
30-May	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
31-May	0	0	0	0	0	0	0	0	0	0	0	N	0	0	0	0	0	0	0	A	0	0	0	0	0.1	0.1
0.1 0.1 0.2 0.1 0.1 0.1 0.2 0.2 0.3 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 0.2 0.2																									Diurnal Average	
0.7 0.6 2.0 0.4 0.3 0.3 0.6 0.7 0.8 1.1 0.8 1.0 0.5 0.8 0.9 0.3 0.3 0.3 0.4 0.4 0.3 0.5 1.1 0.9																									Diurnal Maximum	
C - Calibration R - Recovery N - Not Valid 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 - May 2018



Hourly Maximums

Sulphur Dioxide (SO₂) - ppb

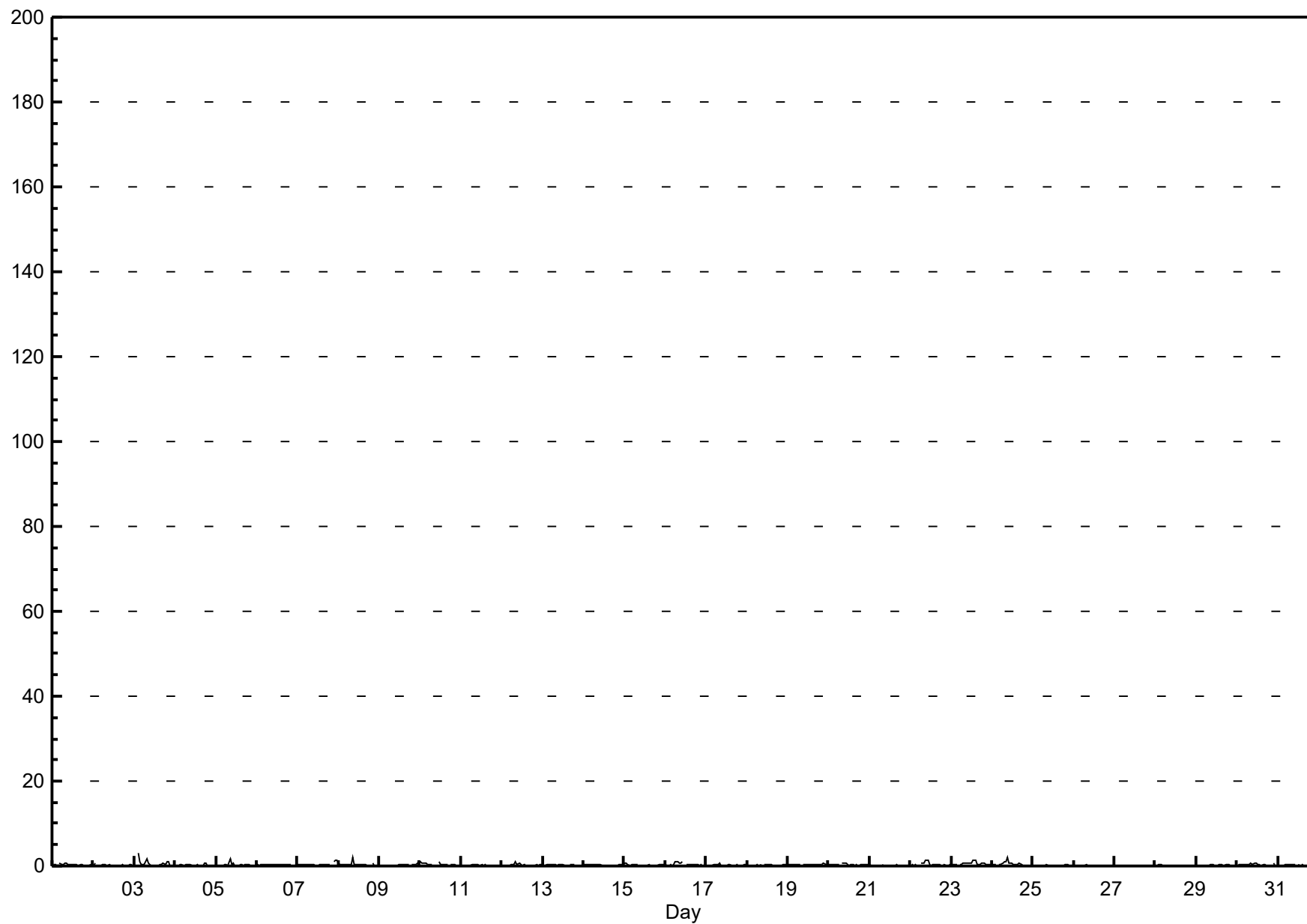
Henry Pirker - May 2018

Maximum Value: 3.1 ppb on May 3 03:00																				Maximum Daily Average: 0.5 ppb on May 23										Hours in Service: 744												
Minimum Value: 0 ppb on May 31 04:00																				Minimum Daily Average: 0.1 ppb on May 27										Hours of Data: 701												
Maximum Diurnal Average: 0.5 ppb at hour 9																				Minimum Diurnal Average: 0.2 ppb at hour 16										Hours of Missing Data: 43												
Monthly Average: 0.28 ppb																				Percentiles: P ₁ = 0.1 P ₁₀ = 0.1 Q ₁ = 0.1 Median = 0.2 Q ₃ = 0.3 P ₉₀ = 0.4 P ₉₉ = 1.4										Hours of Calibration: 37												
																				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-May	0	0	0	A	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8																
2-May	0	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5																
3-May	0	A	3	1	0	0	0	2	1	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0.5	3.1																
4-May	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	A	0.2	0.8																
5-May	0	0	0	0	0	0	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0.3	1.7																
6-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.3	0.4																
7-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	1	1	0.4	1.4																
8-May	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	A	1	0	0	0	0.4	2.0																
9-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	1	0.3	0.8																
10-May	1	1	1	1	0	0	0	0	C	C	C	1	0	0	0	0	0	A	0	0	0	0	0	0	0.4	1.2																
11-May	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																
12-May	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0.3	1.0																
13-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	R	0	0	0	N	N	N	N	0	0.3	0.4																
14-May	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																
15-May	1	1	0	0	0	0	0	0	0	N	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6																
16-May	0	0	0	0	0	0	1	1	1	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.2																
17-May	0	0	0	0	0	0	0	0	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6																
18-May	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	0.3																
19-May	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.3	0.7																
20-May	0	0	0	0	0	0	0	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6																
21-May	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																
22-May	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	1.4																
23-May	0	0	0	0	A	0	0	1	1	1	1	1	1	1	1	0	0	0	1	1	0	0	0	0	0.5	1.5																
24-May	0	0	0	A	0	0	1	1	1	2	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0.4	2.0																
25-May	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	0.3																
26-May	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																
27-May	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																
28-May	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																
29-May	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																
30-May	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	A	1	0	0	0.3	0.7																
31-May	0	0	0	0	0	0	0	0	0	0	0	N	0	0	0	0	0	0	0	A	0	0	0	0	0.2	0.3																
																									Diurnal Average																	
																									Diurnal Maximum																	
C - Calibration																									R - Recovery		N - Not Valid		A - Automated Daily Zero Span													

Hourly Maximums

Sulphur Dioxide (SO₂) - ppb

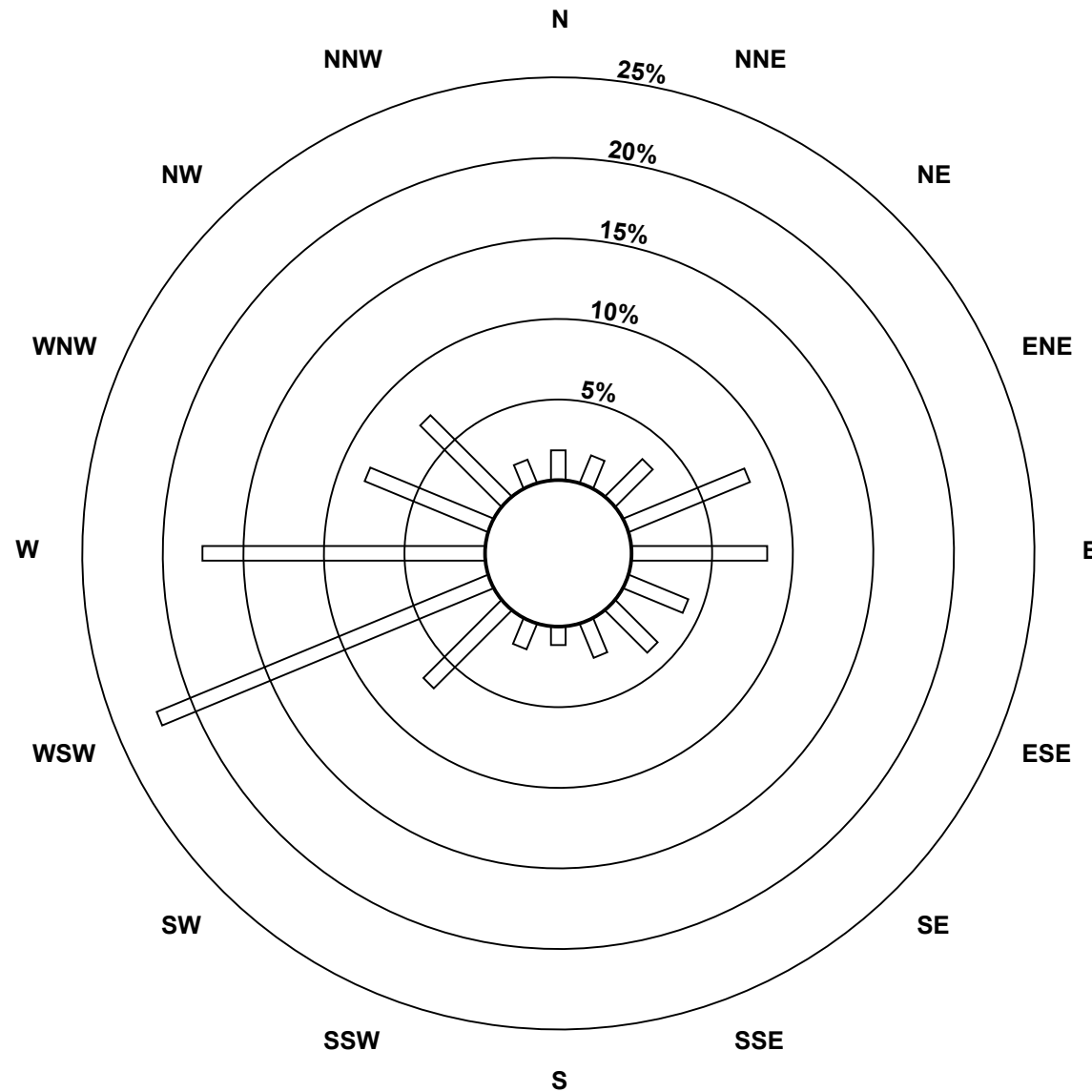
Henry Pirker - May 2018



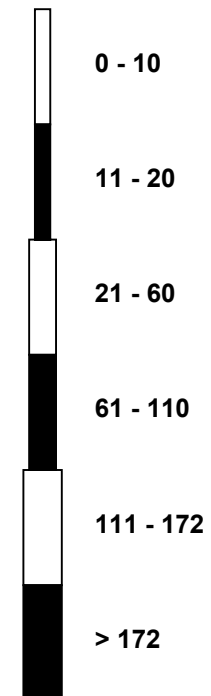
Pollutant Rose

Sulphur Dioxide (SO₂) - ppb

Henry Pirker - May 2018

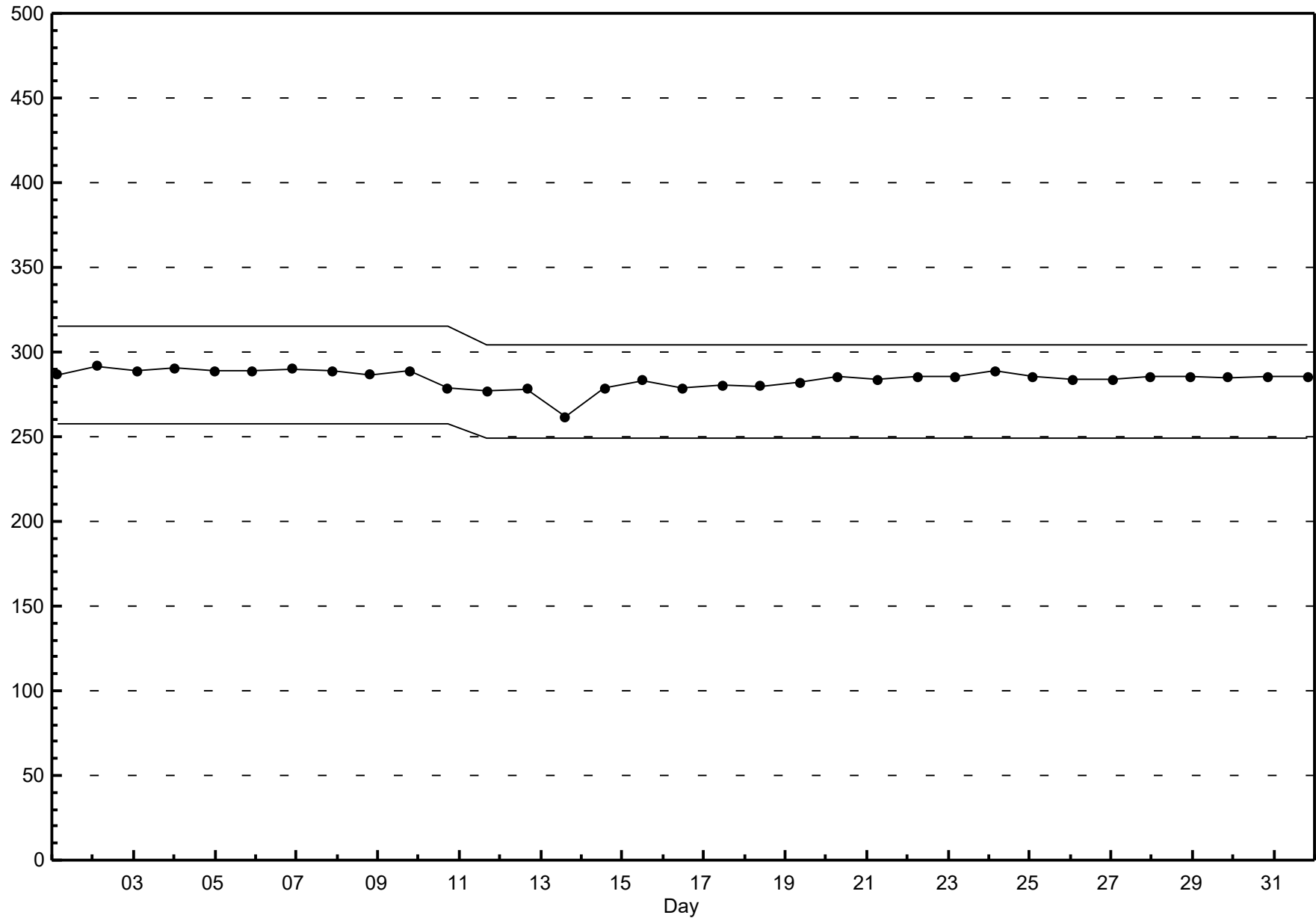


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Henry Pirker - May 2018



Hourly Averages

Total Reduced Sulphur (TRS) - ppb

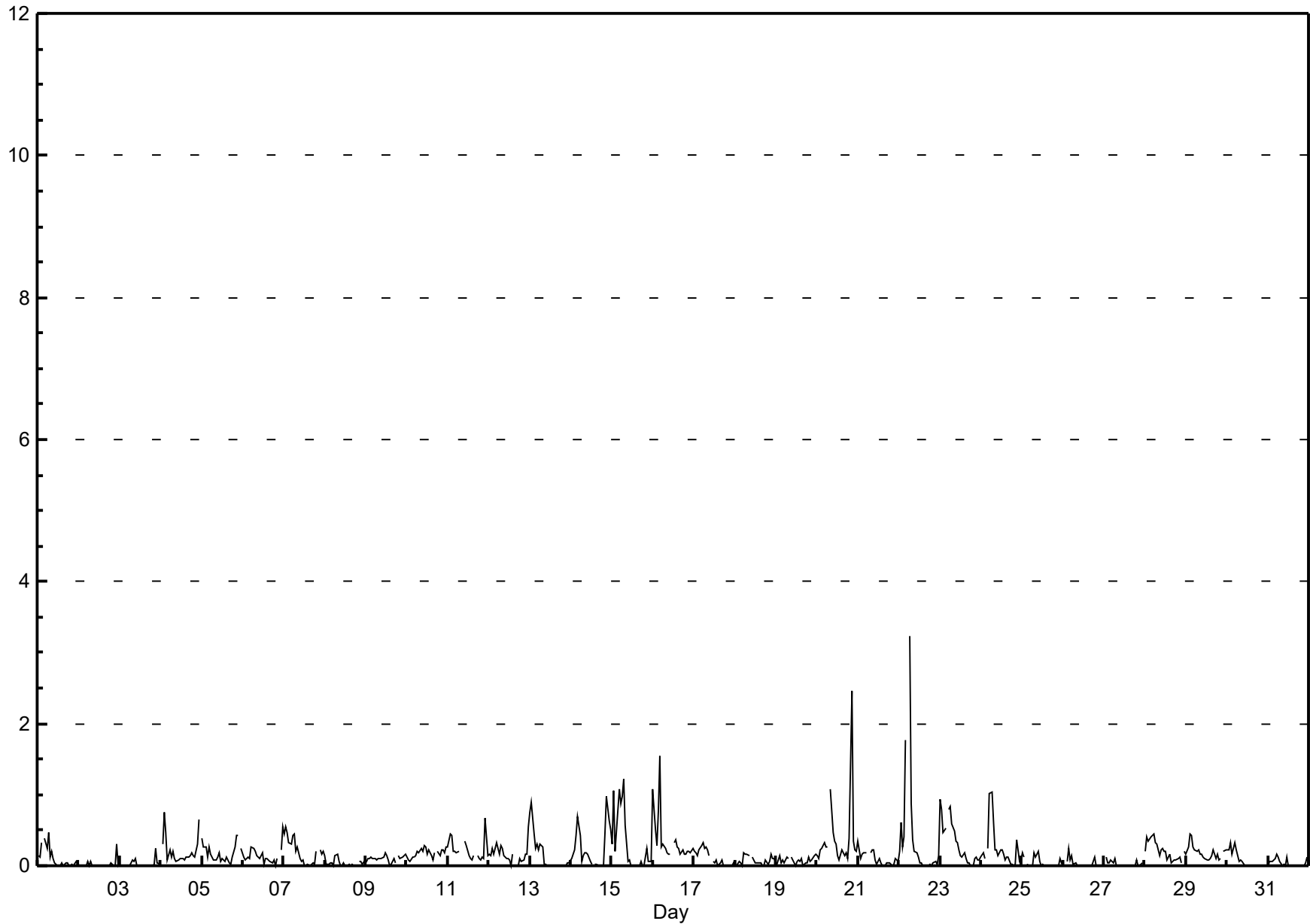
Henry Pirker - May 2018

Maximum Value: 3.2 ppb on May 22 07:00																				Maximum Daily Average: 0.4 ppb on May 22										Hours in Service: 744									
Minimum Value: 0 ppb on May 1 12:00																				Minimum Daily Average: 0.0 ppb on May 2										Hours of Data: 708									
Maximum Diurnal Average: 0.4 ppb at hour 7																				Minimum Diurnal Average: 0.0 ppb at hour 18										Hours of Missing Data: 36									
Monthly Average: 0.16 ppb																				Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 0.3 P ₉₉ = 1.1										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-May	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	0.5													
2-May	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	0.3													
3-May	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	0.2													
4-May	A	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	0.2	0.8													
5-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.2	0.4													
6-May	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	0.6													
7-May	0	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	0.5													
8-May	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													
9-May	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													
10-May	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	0.3													
11-May	0	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0	A	0	0	0	0	0	1	0	0.2	0.7													
12-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	1	0	0.2	0.6													
13-May	1	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.2	0.9													
14-May	0	0	0	0	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	1	1	1	0.2	1.0													
15-May	0	1	0	1	1	1	1	1	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.3	1.2													
16-May	1	0	0	1	2	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.6													
17-May	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	0.3													
18-May	0	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	0.2													
19-May	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													
20-May	0	0	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0.4	2.5													
21-May	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													
22-May	0	1	0	0	2	A	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	3.2													
23-May	1	1	0	1	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.9													
24-May	0	0	0	A	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.0													
25-May	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	0.2													
26-May	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	0.2													
27-May	A	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													
28-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.2	0.4													
29-May	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													
30-May	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													
31-May	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													
0.2 0.3 0.2 0.2 0.3 0.3 0.4 0.3 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.0 0.0 0.1 0.1 0.2 0.1 0.2 0.2																									Diurnal Average														
1.1 1.1 0.8 0.8 1.8 1.0 3.2 1.2 1.1 0.5 0.4 0.3 0.3 0.4 0.3 0.2 0.2 0.2 0.2 0.4 2.5 1.0 0.7 0.6																									Diurnal Maximum														
C - Calibration																									A - Automated Daily Zero Span														

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - May 2018



Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

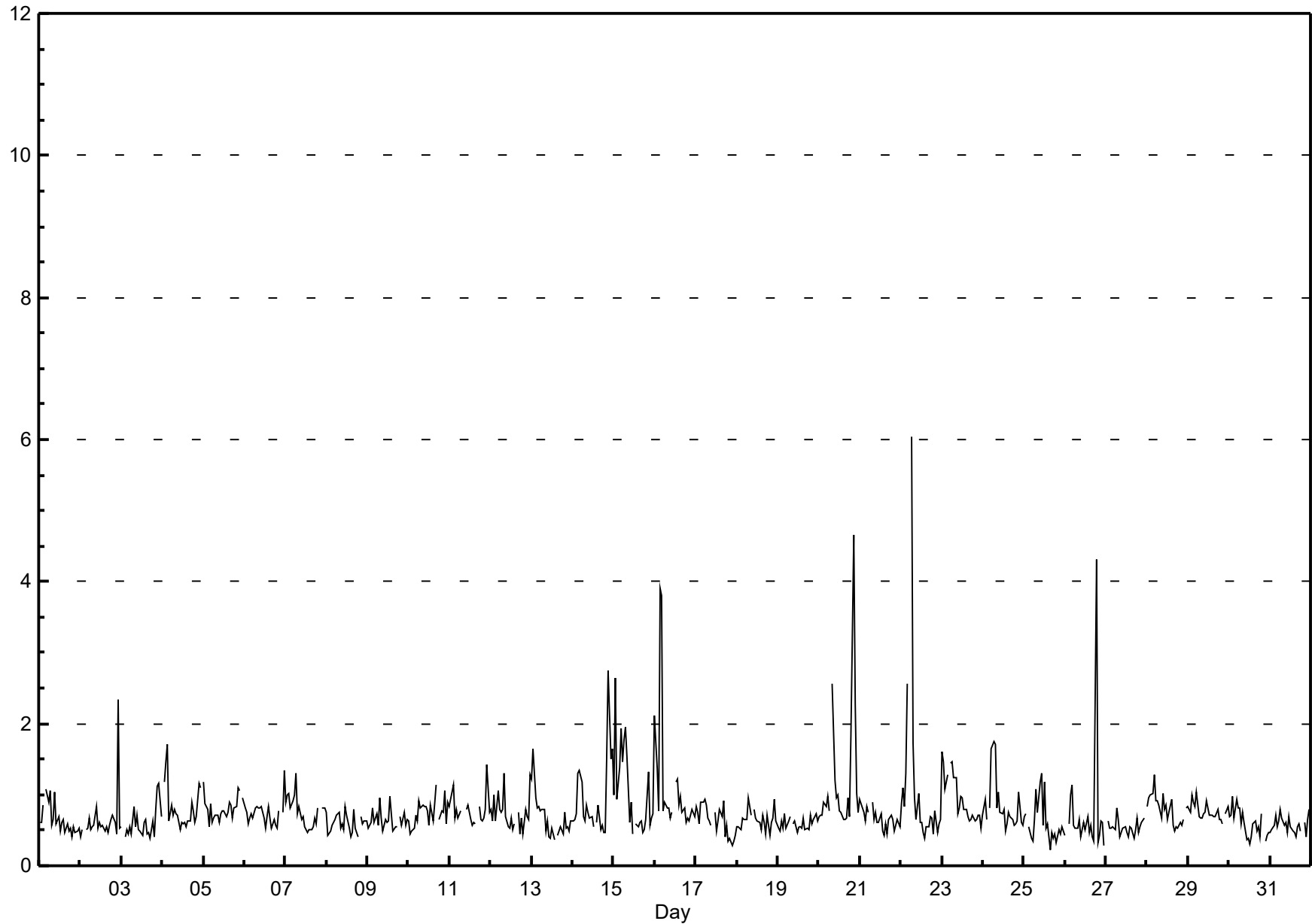
Henry Pirker - May 2018

Maximum Value: 6.0 ppb on May 22 07:00																				Maximum Daily Average: 1.2 ppb on May 20										Hours in Service: 744	
Minimum Value: 0 ppb on May 25 16:00																				Minimum Daily Average: 0.5 ppb on May 27										Hours of Data: 708	
Maximum Diurnal Average: 1.0 ppb at hour 7																				Minimum Diurnal Average: 0.6 ppb at hour 18										Hours of Missing Data: 36	
Monthly Average: 0.76 ppb																				Percentiles: P ₁ = 0.3 P ₁₀ = 0.5 Q ₁ = 0.6 Median = 0.7 Q ₃ = 0.8 P ₉₀ = 1.1 P ₉₉ = 2.6										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-May	1	1	1	A	1	1	1	1	1	1	1	1	0	1	1	0	1	0	1	0	1	0	0	1	0.6	1.1					
2-May	0	1	A	1	1	1	1	1	1	1	1	1	1	1	0	1	0	1	1	1	1	0	2	1	0.6	2.3					
3-May	1	A	0	1	0	1	0	1	1	1	1	0	0	1	1	0	0	0	1	0	1	1	1	1	0.6	1.2					
4-May	A	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.8	1.7					
5-May	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	1.2					
6-May	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	1.3					
7-May	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	A	1	1	1	0.8	1.3					
8-May	1	0	0	1	1	1	1	1	1	1	0	1	1	1	0	0	1	1	1	A	1	1	1	1	0.6	0.8					
9-May	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0	1	1	A	1	1	1	1	1	0.6	1.0					
10-May	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0.7	1.1					
11-May	1	1	1	1	1	1	1	C	C	C	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.8	1.4					
12-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0	1	0	1	1	1	1	0.7	1.3					
13-May	1	2	1	1	1	1	1	1	0	1	0	0	1	0	A	0	0	1	0	1	1	1	0	1	0.7	1.6					
14-May	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0	1	0	0	2	3	2	2	0.9	2.8					
15-May	1	3	1	1	2	1	2	2	2	1	1	0	A	1	1	1	1	0	1	1	1	1	1	1	1.0	2.6					
16-May	2	1	1	4	4	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1.2	3.9					
17-May	1	1	1	1	1	1	1	1	1	1	1	A	1	0	1	1	1	1	0	1	0	0	0	0	0.6	0.9					
18-May	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0	1	0	1	1	1	0.6	0.9					
19-May	1	0	1	1	1	1	1	1	1	A	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0.6	0.7					
20-May	1	1	1	1	1	1	1	A	3	1	1	1	1	1	1	1	1	1	1	2	5	2	1	1	1.2	4.7					
21-May	1	1	1	1	1	1	A	1	1	1	1	1	1	0	0	1	0	1	1	1	0	1	1	1	0.7	0.9					
22-May	1	1	1	1	3	A	6	2	1	1	1	1	1	0	0	1	1	1	1	1	0	1	0	1	1.1	6.0					
23-May	2	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.6					
24-May	1	1	1	A	1	2	2	2	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0.8	1.7					
25-May	1	1	A	1	0	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	1	0	1	0	0.6	1.3				
26-May	0	A	1	1	1	1	1	1	1	0	1	1	0	1	0	1	0	0	4	0	0	1	1	0	0.7	4.3					
27-May	A	1	1	1	1	0	1	1	0	0	1	1	0	0	1	1	0	1	1	0	1	1	1	A	0.5	0.8					
28-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	A	1	0.8	1.3					
29-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.8	1.0					
30-May	1	1	1	1	1	1	1	1	1	1	0	0	0	0	1	1	0	1	0	1	A	0	0	0	0.6	1.0					
31-May	0	1	1	1	1	1	1	1	1	1	0	1	1	0	0	0	1	1	0	A	1	0	1	1	0.6	0.8					
0.8 0.9 0.8 0.9 1.0 0.8 1.0 0.9 0.8 0.7 0.7 0.7 0.6 0.6 0.6 0.6 0.6 0.6 0.7 0.6 0.8 0.8 0.8 0.7																								Diurnal Average							
2.1 2.6 1.5 3.9 3.8 1.7 6.0 2.0 2.6 1.2 1.3 1.0 1.2 1.2 0.9 1.0 1.1 1.0 4.3 1.8 4.7 2.8 2.3 1.7																								Diurnal Maximum							
C - Calibration																								A - Automated Daily Zero Span							

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

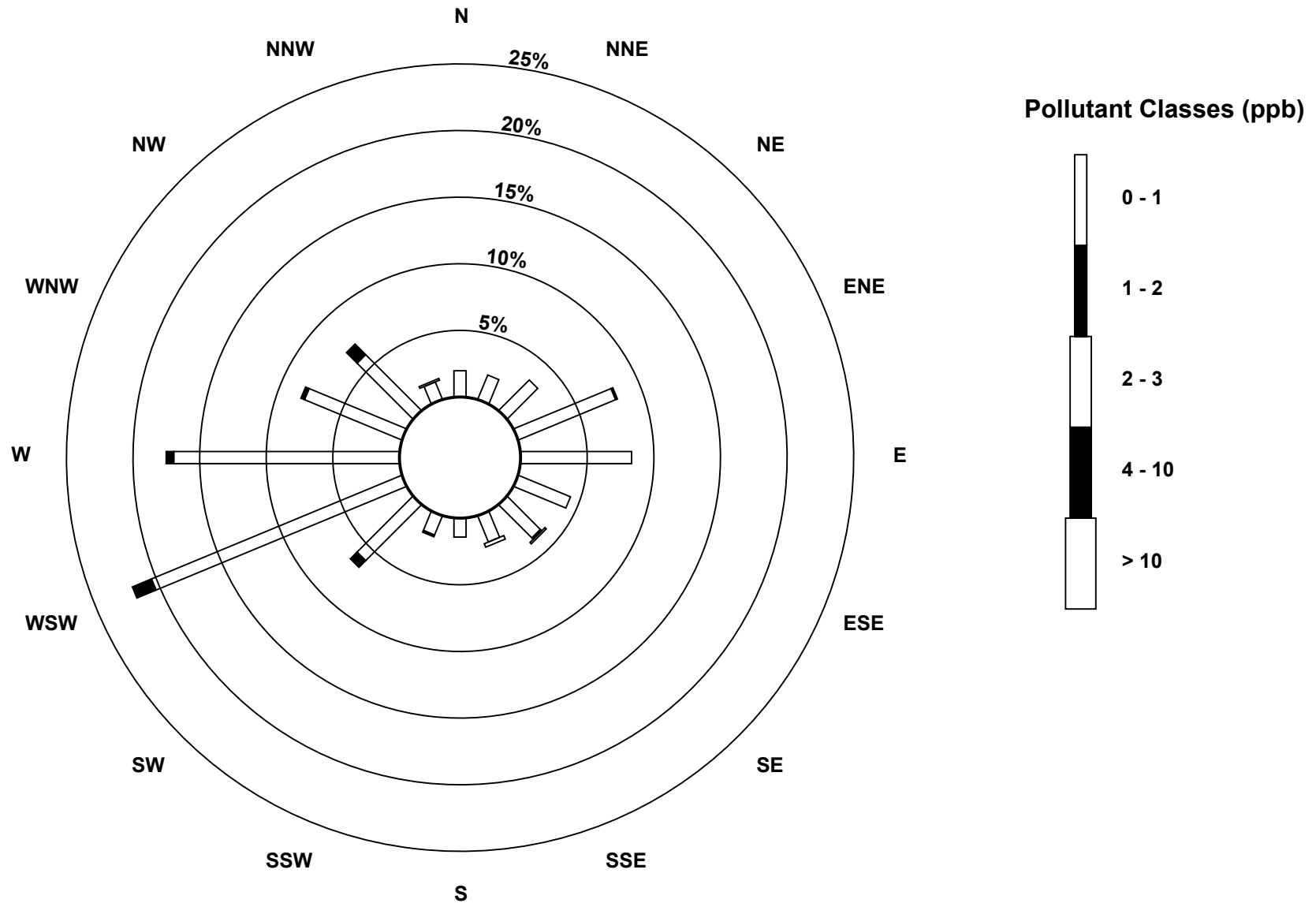
Henry Pirker - May 2018

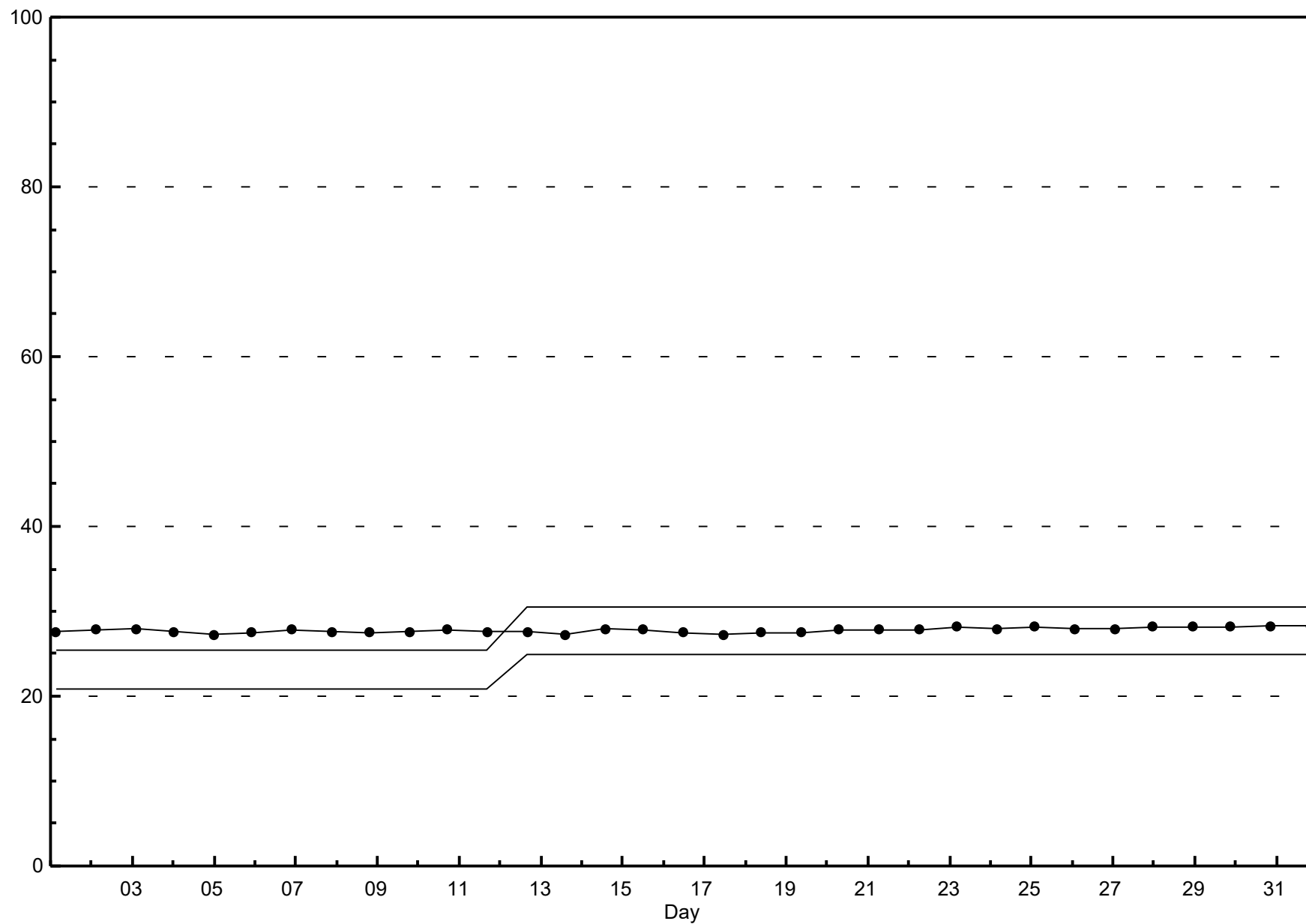


Pollutant Rose

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - May 2018





Hourly Averages

Nitrogen Dioxide (NO₂) - ppb

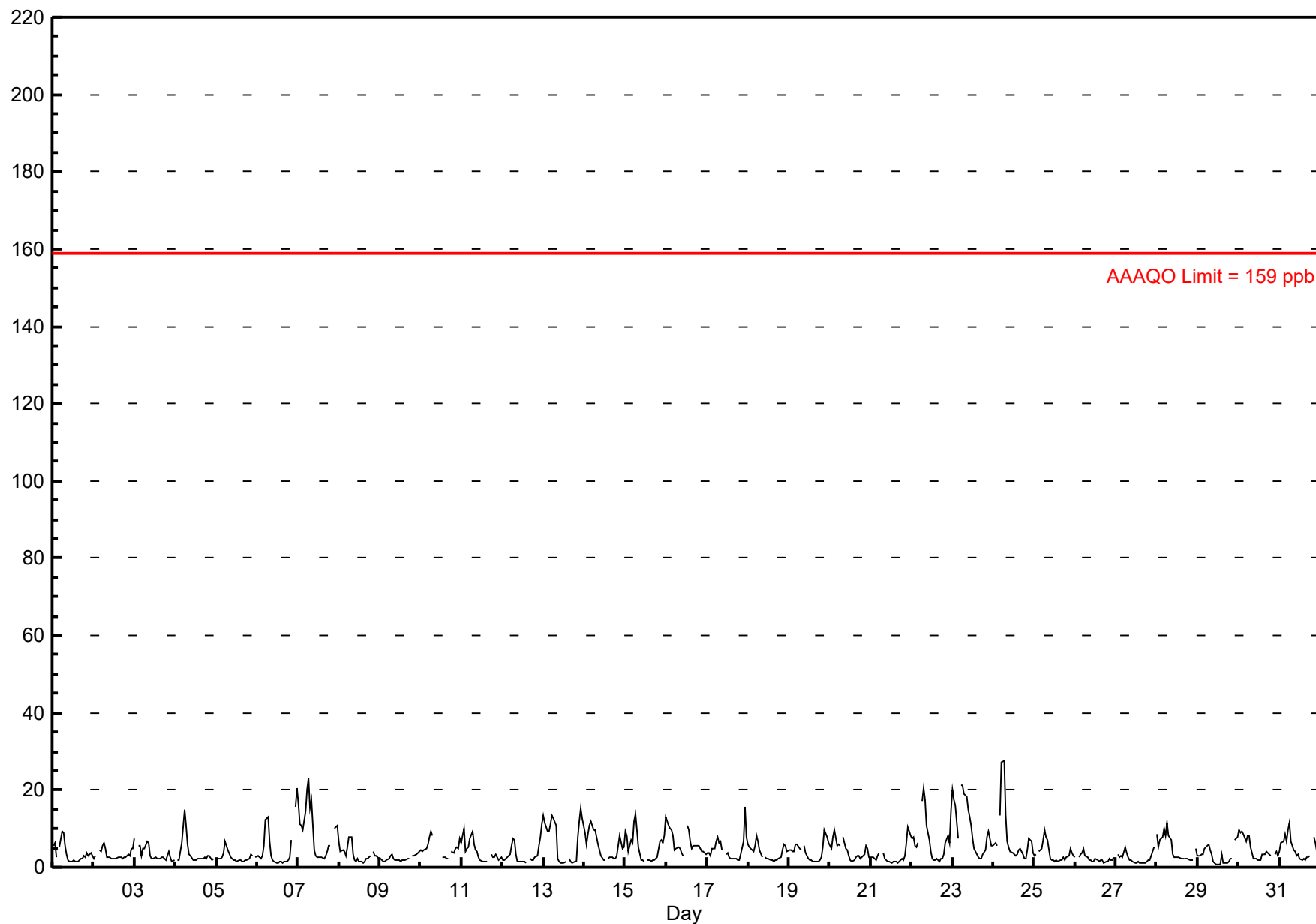
Henry Pirker - May 2018

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 27.7 ppb on May 24 07:00 Maximum Daily Average: 10.5 ppb on May 23																				Hours in Service: 744 Hours of Data: 706 Hours of Missing Data: 38 Hours of Calibration: 38 Percent Operational Time: 100.0						
Minimum Value: 1 ppb on May 29 13:00 Maximum Diurnal Average: 9.9 ppb at hour 7 Monthly Average: 4.63 ppb										Minimum Daily Average: 2.3 ppb on May 27 Minimum Diurnal Average: 2.1 ppb at hour 16 Percentiles: P ₁ = 1.1 P ₁₀ = 1.6 Q ₁ = 2.1 Median = 3.2 Q ₃ = 5.9 P ₉₀ = 9.5 P ₉₉ = 20.2																
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-May	5	6	3	A	5	9	9	6	3	2	2	2	2	1	1	2	2	3	3	4	3	4	3	3.6	9.5	
2-May	2	3	A	4	4	6	6	5	3	3	2	2	2	2	2	2	2	3	3	3	3	5	5	3.3	6.2	
3-May	7	A	6	6	3	5	5	7	7	3	2	2	2	2	2	3	3	2	3	4	3	2	2	3.6	7.4	
4-May	A	2	2	4	6	15	11	6	3	3	2	2	2	2	2	2	2	2	3	3	2	2	A	3.7	14.9	
5-May	2	2	2	3	4	7	6	4	3	2	2	2	2	2	2	2	2	2	2	3	3	A	2	2.7	6.7	
6-May	3	3	2	3	6	12	13	7	3	2	2	1	1	1	1	1	1	2	3	7	A	16	21	4.9	20.6	
7-May	16	11	11	10	14	20	23	15	18	5	3	3	3	2	2	3	4	5	6	A	10	10	11	9.1	23.3	
8-May	7	4	5	4	3	5	8	8	3	2	2	2	2	1	1	2	2	3	A	4	3	3	2	3.4	7.8	
9-May	2	2	1	2	2	2	3	4	2	2	2	2	2	2	2	2	2	A	3	3	3	4	4	2.4	4.2	
10-May	5	4	4	5	6	8	9	8	C	C	C	C	C	3	2	2	2	A	4	4	5	5	5	7	4.9	9.5
11-May	6	10	4	5	5	8	9	6	5	4	3	2	2	2	1	A	3	3	2	3	3	2	2	4.0	9.9	
12-May	2	2	2	3	3	5	8	7	3	2	1	1	1	1	A	2	2	2	2	3	6	8	11	3.5	11.1	
13-May	14	11	9	9	11	14	13	11	2	1	1	1	1	A	2	1	1	1	2	8	12	15	13	6.8	15.1	
14-May	9	6	9	11	12	10	10	8	6	4	3	2	2	A	2	3	2	2	2	3	5	8	5	5	5.7	12.0
15-May	9	8	4	7	6	12	14	10	5	2	2	2	A	2	2	2	2	2	3	7	7	6	8	5.4	13.9	
16-May	13	11	10	10	8	5	5	5	5	4	3	A	11	10	7	5	6	6	6	5	4	4	3	6.5	13.1	
17-May	4	4	3	5	5	7	8	6	7	5	A	3	4	3	2	2	2	2	2	3	7	16	8	4.7	15.7	
18-May	6	5	4	4	5	8	7	4	3	A	3	2	2	2	1	2	2	2	3	5	6	6	4	3.8	8.1	
19-May	5	4	4	4	6	6	5	5	A	6	4	2	2	2	2	2	1	1	2	3	5	10	8	6	4.1	9.7
20-May	6	5	8	10	6	6	5	A	8	5	5	3	2	2	2	3	3	3	2	3	3	5	5	3	4.3	9.5
21-May	3	2	2	2	3	4	A	4	2	2	2	2	1	1	1	1	1	2	2	3	6	11	8	2.9	10.5	
22-May	7	8	6	5	6	A	17	21	18	11	7	4	2	2	2	1	2	2	3	6	8	6	15	7.0	20.6	
23-May	20	18	16	8	A	21	21	19	18	15	13	11	7	5	3	3	2	2	3	4	8	9	7	6	10.5	21.3
24-May	6	6	6	A	13	27	28	13	7	5	4	4	4	3	3	4	5	4	2	2	4	7	4	7.3	27.7	
25-May	3	3	A	4	5	7	10	8	7	2	2	2	2	2	2	2	2	2	3	3	5	4	3	3.6	9.8	
26-May	3	A	3	3	4	5	3	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2.3	4.7	
27-May	A	3	2	3	3	5	4	2	2	2	1	1	1	1	1	1	1	2	2	2	3	5	A	2.3	5.1	
28-May	9	5	7	8	10	8	11	8	7	3	3	2	2	3	2	2	2	2	2	2	2	A	5	4.7	11.5	
29-May	3	3	3	3	5	5	6	4	3	1	1	1	1	3	1	1	1	2	2	2	A	7	8	3.0	7.8	
30-May	10	9	10	9	7	8	8	5	4	2	2	2	2	3	3	4	4	3	3	A	3	4	3	4.8	9.6	
31-May	4	6	7	9	7	10	11	7	5	4	3	3	2	2	2	3	3	3	A	8	6	4	6	5.0	11.4	
6.5 5.8 5.4 5.5 6.1 9.0 9.9 7.5 5.6 3.6 2.8 2.4 2.4 2.2 2.2 2.1 2.3 2.3 2.5 2.8 4.3 5.4 6.2 6.2 20.2 17.6 15.9 10.7 14.5 27.1 27.7 20.6 18.4 14.8 13.0 10.8 10.9 9.6 6.7 5.0 5.6 5.6 5.5 5.6 7.9 11.7 15.8 20.6																								Diurnal Average	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 - May 2018



Hourly Maximums

Nitrogen Dioxide (NO₂) - ppb

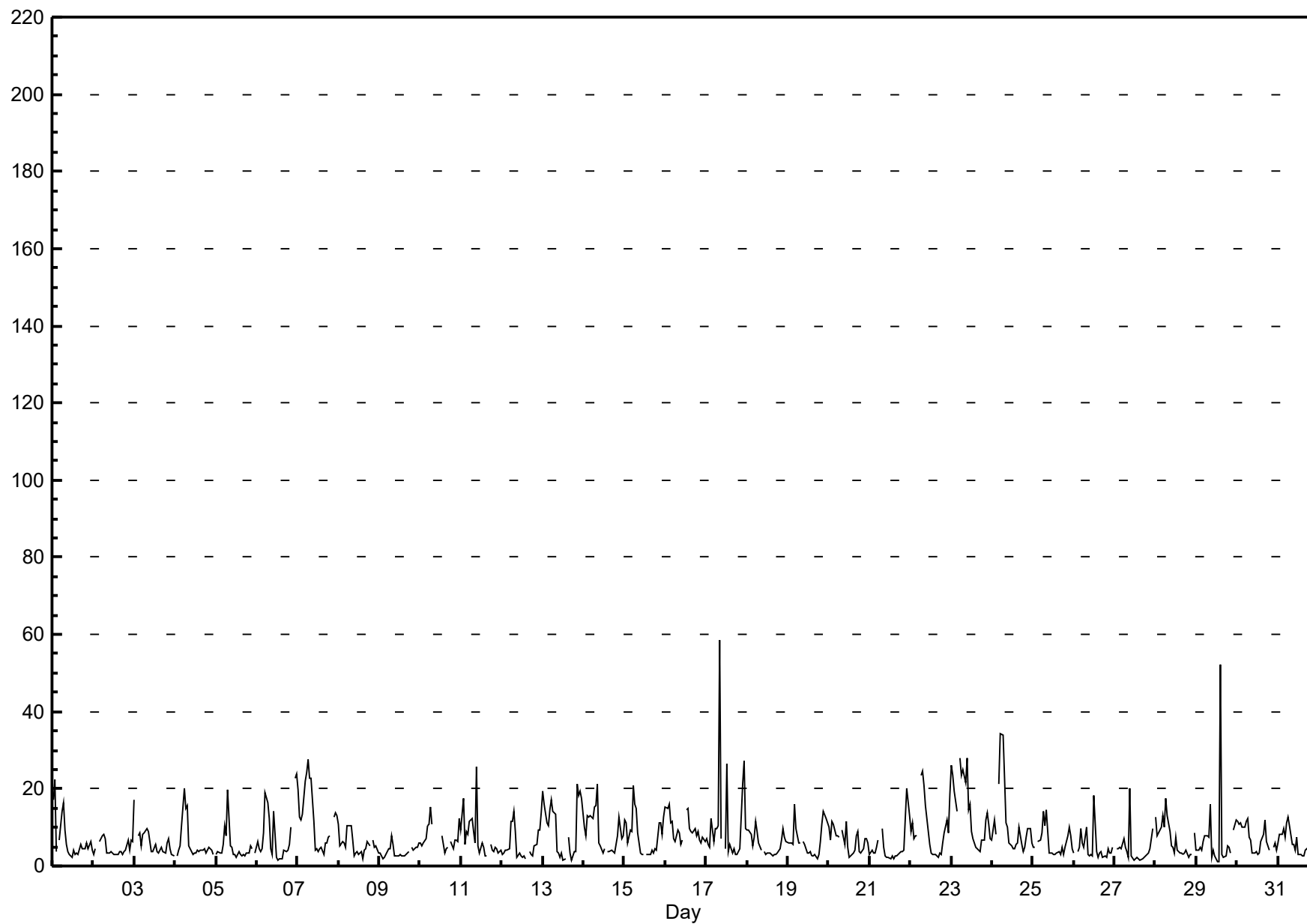
Henry Pirker - May 2018

Maximum Value: 58.7 ppb on May 17 09:00																				Maximum Daily Average: 14.4 ppb on May 23					Hours in Service: 744	
Minimum Value: 1 ppb on May 29 13:00																				Minimum Daily Average: 3.8 ppb on May 9					Hours of Data: 706	
Maximum Diurnal Average: 13.1 ppb at hour 7																				Minimum Diurnal Average: 3.8 ppb at hour 16					Hours of Missing Data: 38	
Monthly Average: 7.38 ppb																				Percentiles: P ₁ = 1.7 P ₁₀ = 2.8 Q ₁ = 3.5 Median = 5.3 Q ₃ = 9.5 P ₉₀ = 14.5 P ₉₉ = 27.1					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-May	17	22	4	A	7	14	16	9	6	4	3	2	4	3	3	3	5	4	5	4	6	5	6	4	6.8	22.3
2-May	3	4	A	6	7	8	8	7	3	3	4	3	3	3	3	4	4	3	4	4	7	4	7	6	4.7	8.2
3-May	17	A	8	9	5	8	9	10	9	6	4	4	5	4	4	4	5	4	3	6	7	5	3	3	6.1	17.2
4-May	A	3	4	5	11	20	15	16	5	5	3	3	3	4	4	4	4	4	3	4	5	4	3	A	6.0	20.0
5-May	3	4	3	3	6	10	8	20	5	5	3	3	2	4	3	3	3	3	4	3	5	4	A	3	4.8	19.8
6-May	6	5	4	4	9	19	16	12	4	3	14	2	2	2	2	2	4	4	4	5	10	A	23	24	7.8	24.0
7-May	20	13	12	13	22	24	28	23	23	12	4	5	4	5	5	3	6	6	8	8	A	13	14	13	12.2	27.8
8-May	11	5	6	6	5	10	11	10	7	3	3	4	3	4	2	4	4	6	5	A	7	5	5	3	5.7	10.7
9-May	3	3	2	2	3	4	4	8	5	3	3	3	3	3	3	2	3	4	A	5	4	5	5	6	3.8	8.0
10-May	6	5	6	7	10	11	15	11	C	C	C	C	C	8	3	5	5	A	6	5	7	7	6	12	7.5	15.3
11-May	9	17	6	9	8	12	12	9	6	26	5	3	6	5	3	3	A	6	4	4	5	4	3	4	7.3	25.8
12-May	3	4	4	4	5	12	12	14	9	2	3	2	2	2	2	A	4	3	3	5	6	9	9	14	5.7	14.0
13-May	19	16	11	11	14	17	14	13	4	3	2	3	1	2	A	7	3	2	4	4	21	18	19	17	9.9	21.3
14-May	10	8	13	13	13	12	15	16	21	6	5	3	5	A	4	4	4	4	3	5	8	13	7	8	8.7	21.3
15-May	12	11	6	9	9	21	16	15	9	3	3	3	A	3	3	3	4	3	4	4	11	11	8	13	8.1	20.7
16-May	15	15	16	11	12	7	6	9	8	6	7	A	14	15	10	9	9	10	8	9	7	6	7	6	9.6	15.9
17-May	7	6	5	12	6	10	10	11	59	7	A	4	26	4	6	3	5	3	3	4	4	21	27	10	11.0	58.7
18-May	9	9	8	5	7	11	9	6	4	A	4	3	3	3	3	3	3	3	3	4	7	10	7	7	5.8	11.5
19-May	6	6	6	6	16	10	6	6	A	6	5	3	3	4	3	3	3	2	3	6	11	14	12	11	6.5	16.0
20-May	10	7	12	11	8	8	7	A	10	6	12	5	2	2	3	4	8	9	4	3	4	7	7	6	6.7	11.7
21-May	3	4	3	3	5	7	A	10	5	3	2	2	2	2	2	2	3	3	4	4	4	12	20	13	5.1	20.1
22-May	9	11	7	8	8	A	23	25	21	16	9	6	3	3	3	3	2	3	3	6	9	12	8	19	9.4	24.7
23-May	26	24	20	14	A	28	24	25	21	28	15	16	9	7	5	5	4	4	7	7	12	14	11	7	14.4	27.8
24-May	7	12	8	A	21	34	34	23	11	10	6	5	5	5	6	6	10	6	4	5	7	10	10	6	10.9	34.1
25-May	5	5	A	6	7	9	14	10	14	4	3	3	3	3	3	4	3	5	3	5	8	10	8	5	6.1	14.5
26-May	3	A	4	5	10	6	5	10	3	3	3	2	18	4	2	3	4	2	2	2	5	3	3	5	4.7	18.4
27-May	A	5	5	5	4	7	5	4	2	20	3	2	2	2	2	2	2	2	3	3	3	5	10	A	4.3	20.2
28-May	13	8	9	10	13	10	18	13	9	5	5	3	7	4	4	3	3	3	4	2	3	3	A	9	7.0	17.5
29-May	4	4	5	4	6	8	8	7	16	2	4	3	1	1	52	3	2	3	5	5	3	A	9	12	7.4	52.3
30-May	11	11	11	10	10	11	12	7	7	4	3	4	3	3	6	8	12	6	5	4	A	5	6	4	7.2	12.3
31-May	6	8	8	10	8	11	13	10	6	6	4	7	3	3	3	3	4	4	4	A	12	11	6	16	7.2	15.9
9.5 8.7 7.4 7.7 9.1 12.7 13.1 12.3 10.8 7.2 5.0 3.9 5.1 3.9 5.2 3.8 4.5 4.1 4.1 4.7 7.2 8.6 9.4 9.2																								Diurnal Average		
26.1 23.6 19.5 14.2 21.9 34.1 34.1 25.1 58.7 27.8 14.7 16.0 26.3 14.8 52.3 8.8 11.8 9.7 7.8 8.8 21.3 21.2 27.1 24.0																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										

Hourly Maximums

Nitrogen Dioxide (NO₂) - ppb

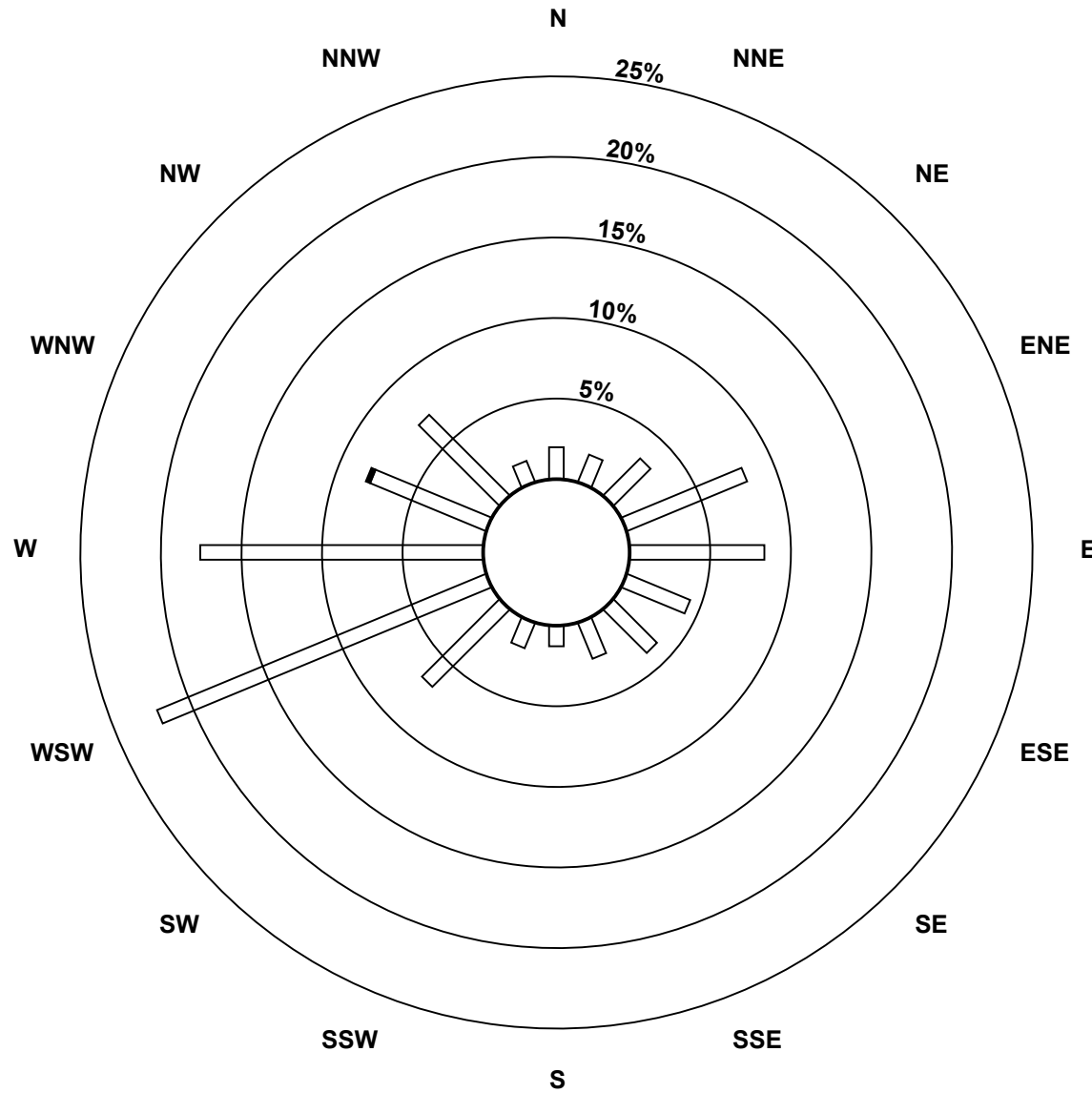
Henry Pirker - May 2018



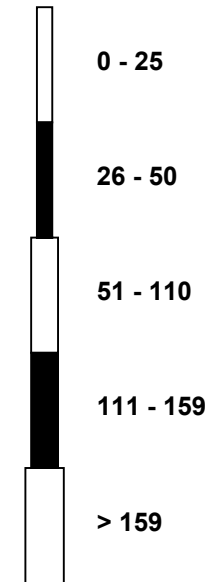
Pollutant Rose

Nitrogen Dioxide (NO₂) - ppb

Henry Pirker - May 2018

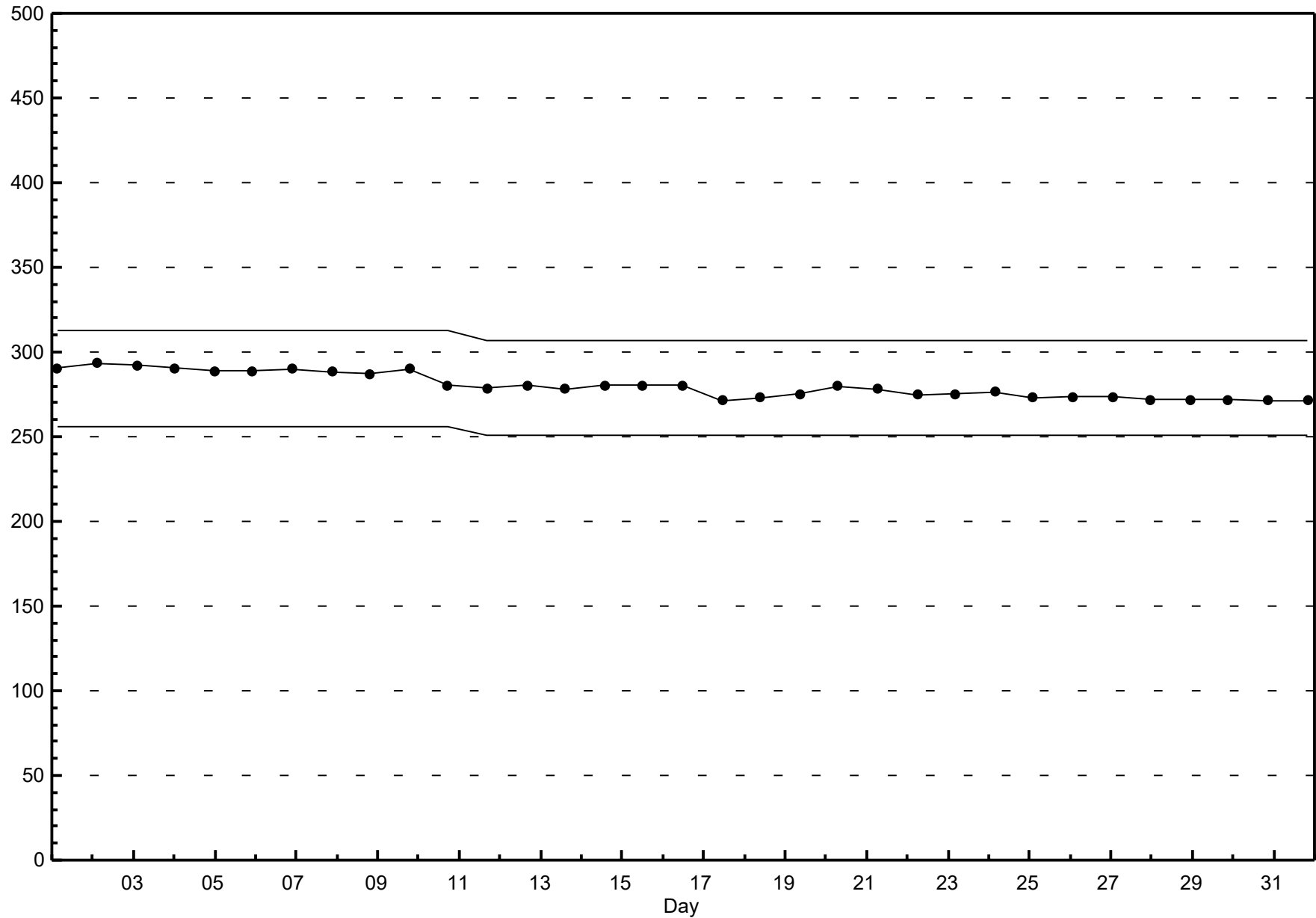


Pollutant Classes (ppb)



Span Responses

Nitrogen Dioxide (NO₂)
Henry Pirker - May 2018



Hourly Averages

Nitrogen Oxide (NO) - ppb

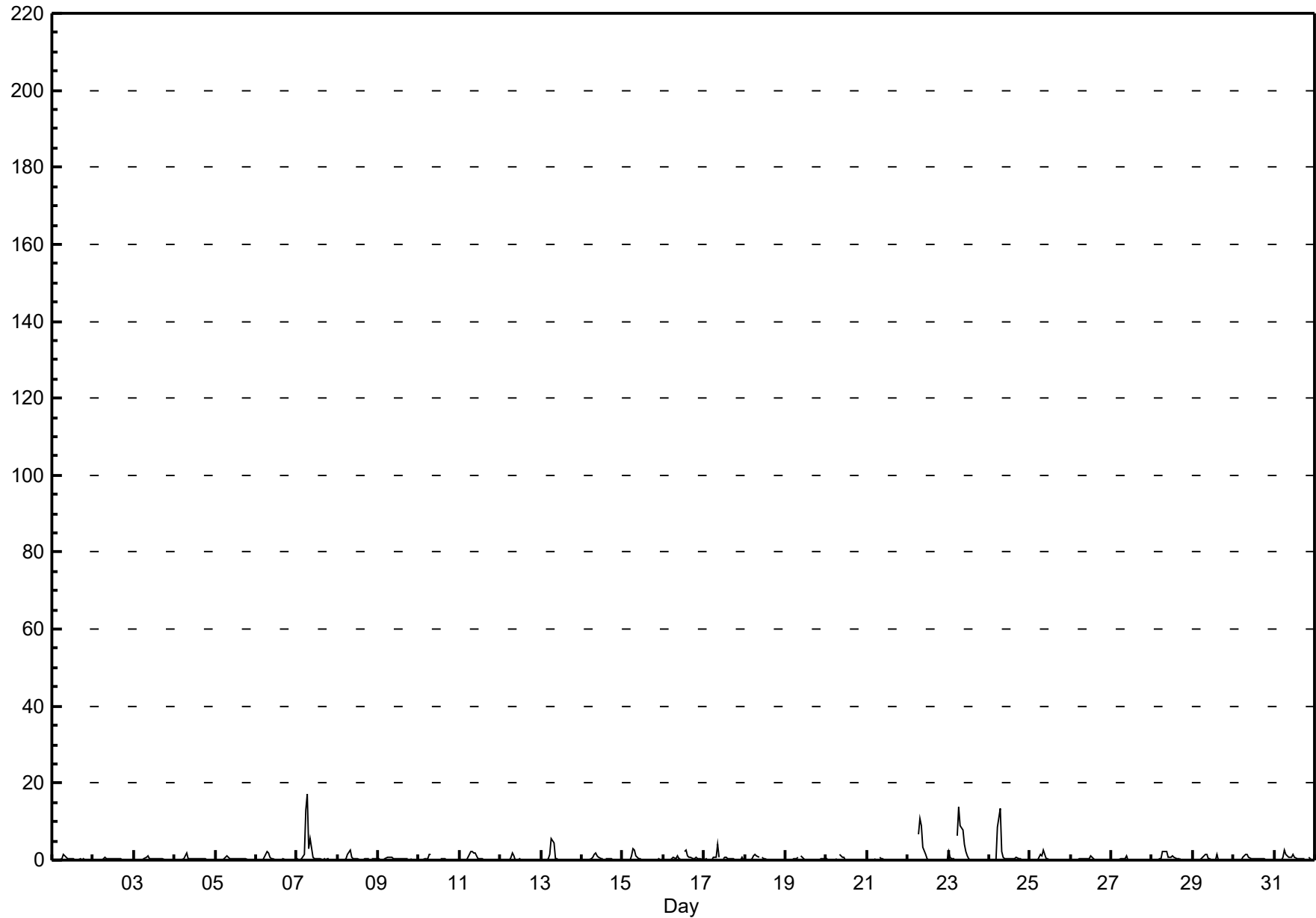
Henry Pirker - May 2018

Maximum Value: 17.3 ppb on May 7 07:00																			Maximum Daily Average: 2.2 ppb on May 23										Hours in Service: 744	
Minimum Value: 0 ppb on May 14 22:00																			Minimum Daily Average: 0.1 ppb on May 21										Hours of Data: 706	
Maximum Diurnal Average: 2.9 ppb at hour 7																			Minimum Diurnal Average: 0.1 ppb at hour 24										Hours of Missing Data: 38	
Monthly Average: 0.53 ppb																			Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.2 Q ₃ = 0.4 P ₉₀ = 1.1 P ₉₉ = 8.7										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-May	0	0	0	A	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.4				
2-May	0	0	A	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.8				
3-May	0	A	0	0	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.2	0.9				
4-May	A	0	0	0	0	1	1	2	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	A	0.4	1.7				
5-May	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.3	1.0				
6-May	0	0	0	0	0	1	2	2	1	0	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0.4	2.3				
7-May	0	0	0	0	1	13	17	3	6	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	2.0	17.3				
8-May	0	0	0	0	0	0	1	3	1	0	0	0	0	0	0	0	0	1	1	A	0	0	0	0	0.4	2.7				
9-May	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.3	0.9				
10-May	0	0	0	0	0	0	1	2	C	C	C	C	C	0	0	0	0	A	0	0	0	0	0	0	0.3	1.6				
11-May	0	0	0	0	0	1	2	2	2	2	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0.5	2.1				
12-May	0	0	0	0	0	0	1	2	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.2	1.8				
13-May	0	0	0	0	0	2	6	4	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.6	5.6				
14-May	0	0	0	0	0	0	1	2	2	1	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0.3	2.0				
15-May	0	0	0	0	0	1	3	3	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.4	2.8				
16-May	0	0	0	0	0	1	1	0	1	1	0	A	2	2	1	1	1	1	1	1	0	0	0	0	0.6	2.4				
17-May	0	0	0	0	0	1	1	1	4	1	A	0	1	1	0	0	0	0	0	0	0	0	1	0	0.5	4.0				
18-May	0	0	0	0	0	1	1	1	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.5				
19-May	0	0	0	0	0	0	1	1	A	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0.2	1.2				
20-May	0	0	0	0	0	0	0	A	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.6				
21-May	0	0	0	0	0	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.7				
22-May	0	0	0	0	0	A	7	11	9	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1.4	10.8				
23-May	2	1	0	0	A	6	14	9	8	4	2	1	0	0	0	0	0	0	0	0	0	0	0	0	2.2	13.9				
24-May	0	0	0	A	0	9	14	2	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1.3	13.6				
25-May	0	0	A	0	0	1	2	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	2.7				
26-May	0	A	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				
27-May	A	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.2	1.0				
28-May	0	0	0	0	0	0	2	2	2	1	1	1	1	1	0	0	0	0	0	0	0	0	A	0	0.5	2.3				
29-May	0	0	0	0	0	0	1	1	2	0	0	0	0	0	2	0	0	0	0	0	0	A	0	0	0.3	1.6				
30-May	0	0	0	0	0	1	1	2	1	1	0	0	0	0	1	0	0	0	0	0	A	0	0	0	0.4	1.6				
31-May	0	0	0	0	0	1	3	1	1	1	1	2	1	0	0	0	0	0	0	A	1	0	0	0	0.6	2.5				
0.1 0.1 0.1 0.1 0.1 1.4 2.9 2.1 1.8 0.8 0.5 0.3 0.4 0.3 0.3 0.2 0.2 0.2 0.2 0.1 0.1 0.1 0.1 0.1																									Diurnal Average					
2.2 0.8 0.5 0.3 1.4 12.9 17.3 10.8 9.0 4.3 2.4 1.6 2.1 2.4 1.6 0.8 0.6 0.6 0.6 0.6 0.7 0.8 0.5 0.6 0.3																									Diurnal Maximum					
C - Calibration																									A - Automated Daily Zero Span					

Hourly Averages

Nitrogen Oxide (NO) - ppb

Henry Pirker - May 2018



Hourly Maximums

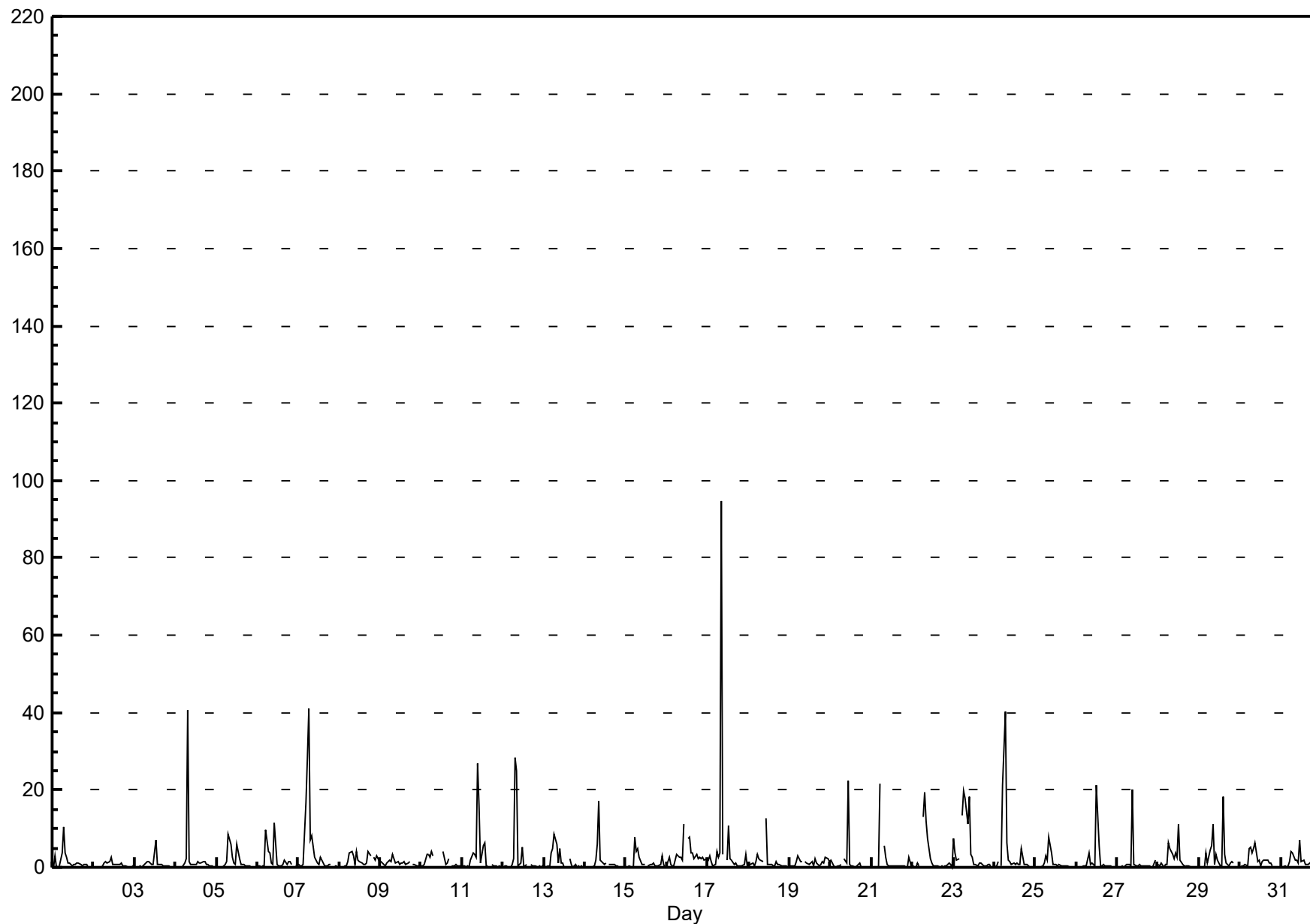
Nitrogen Oxide (NO) - ppb

Henry Pirker - May 2018

Maximum Value: 94.8 ppb on May 17 09:00																				Maximum Daily Average: 6.1 ppb on May 17					Hours in Service: 744	
Minimum Value: 0 ppb on May 14 22:00																				Minimum Daily Average: 0.7 ppb on May 2					Hours of Data: 706	
Maximum Diurnal Average: 8.1 ppb at hour 9																				Minimum Diurnal Average: 0.4 ppb at hour 24					Hours of Missing Data: 38	
Monthly Average: 2.18 ppb																				Percentiles: P ₁ = 0.1 P ₁₀ = 0.1 Q ₁ = 0.3 Median = 0.7 Q ₃ = 1.8 P ₉₀ = 4.1 P ₉₉ = 25.0					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-May	0	3	0	A	0	4	10	4	3	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1.5	10.3
2-May	0	0	A	0	0	0	1	1	1	2	3	1	1	1	1	1	1	0	1	0	0	0	0	0	0.7	2.7
3-May	0	A	0	0	0	0	1	1	1	1	1	1	7	1	1	1	1	0	0	1	0	0	0	0	0.8	7.2
4-May	A	0	0	0	0	1	2	41	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	A	2.6	40.6
5-May	0	0	0	0	0	1	1	9	6	2	1	1	6	2	1	1	1	0	1	0	0	0	A	0	1.5	8.7
6-May	0	0	0	0	0	10	4	4	1	1	12	1	0	0	0	1	2	1	2	1	1	A	0	1	1.9	11.6
7-May	1	0	0	1	17	28	41	7	8	3	2	1	1	3	2	1	0	0	1	1	A	0	0	0	5.1	41.2
8-May	0	0	0	0	0	1	4	4	3	1	4	2	1	1	1	1	1	4	3	A	2	2	3	2	1.7	4.1
9-May	1	1	1	1	1	2	2	3	2	1	1	1	1	1	1	1	1	2	A	1	1	0	0	0	1.2	3.5
10-May	0	0	1	4	3	3	4	3	C	C	C	C	C	4	1	1	2	A	0	1	1	0	0	0	1.6	4.2
11-May	0	0	0	0	0	2	4	3	3	27	16	1	5	6	1	0	A	1	0	0	0	0	0	0	3.1	26.9
12-May	0	0	0	0	0	1	2	28	25	0	1	5	0	1	1	A	1	0	0	1	0	1	0	0	3.0	28.3
13-May	1	0	0	0	4	5	9	6	1	5	1	1	0	0	A	2	1	0	1	0	0	0	1	0	1.7	8.7
14-May	0	0	0	0	0	0	2	6	17	2	1	1	1	A	1	1	1	1	0	1	0	0	0	0	1.5	17.1
15-May	0	0	0	0	0	8	4	5	2	1	1	1	A	1	1	1	1	1	1	0	1	3	1	0	1.3	7.7
16-May	0	3	1	0	1	2	3	2	3	2	11	A	8	8	4	4	2	3	2	3	2	3	2	2	3.1	11.2
17-May	2	3	2	1	1	4	3	4	95	3	A	2	11	2	2	1	1	1	0	0	0	1	4	0	6.1	94.8
18-May	1	1	1	0	1	3	2	2	1	A	13	1	1	1	1	0	1	1	1	0	0	1	0	0	1.4	12.6
19-May	0	0	0	1	1	3	1	2	A	2	1	1	1	2	1	2	1	0	1	1	1	3	2	2	1.3	2.9
20-May	2	1	0	0	0	0	1	A	2	1	22	1	0	0	0	0	1	1	0	0	0	0	0	0	1.5	22.3
21-May	0	0	0	0	0	21	A	6	3	1	0	0	0	0	0	1	0	1	0	0	0	0	3	0	1.7	21.5
22-May	0	0	0	1	0	A	13	19	12	7	2	1	0	0	0	0	0	0	0	0	0	1	1	0	2.7	19.4
23-May	7	4	2	2	A	13	20	18	11	18	3	3	1	1	0	1	1	1	1	0	1	1	0	0	4.7	19.6
24-May	0	0	1	A	0	21	40	6	2	2	1	1	1	1	1	1	5	1	1	1	0	0	0	0	3.7	40.3
25-May	0	0	A	0	0	1	3	2	8	4	1	1	1	0	1	0	0	0	0	0	0	0	0	0	1.0	7.7
26-May	0	A	0	0	0	1	1	4	1	1	1	1	21	5	0	0	1	0	0	0	0	0	0	0	1.7	21.4
27-May	A	0	0	0	0	1	1	1	0	20	1	0	0	1	0	0	0	0	1	0	0	0	2	A	1.4	20.0
28-May	1	0	1	0	1	1	6	5	3	2	4	2	11	2	1	0	1	0	0	0	0	0	A	0	1.9	11.4
29-May	0	0	0	0	4	1	5	5	11	1	3	2	0	0	18	4	1	1	1	1	1	A	0	0	2.6	18.3
30-May	0	0	0	1	0	5	5	4	5	6	1	2	1	2	2	2	2	1	1	0	A	0	0	0	1.8	6.5
31-May	0	0	0	0	0	2	4	4	2	2	1	7	1	2	1	1	1	1	1	A	4	4	0	1	1.7	7.0
0.7 0.7 0.5 0.5 1.3 4.9 6.6 7.0 8.1 4.1 3.8 1.4 2.9 1.7 1.4 1.0 1.1 0.8 0.7 0.6 0.7 0.7 0.7 0.4																									Diurnal Average	
7.5 3.6 1.8 3.5 16.6 28.5 41.2 40.6 94.8 26.9 22.3 7.0 21.4 8.0 18.3 3.7 5.0 4.0 3.0 2.6 4.4 3.7 3.5 2.3																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										

Hourly Maximums

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



Hourly Averages

Oxides of Nitrogen (NO_x) - ppb

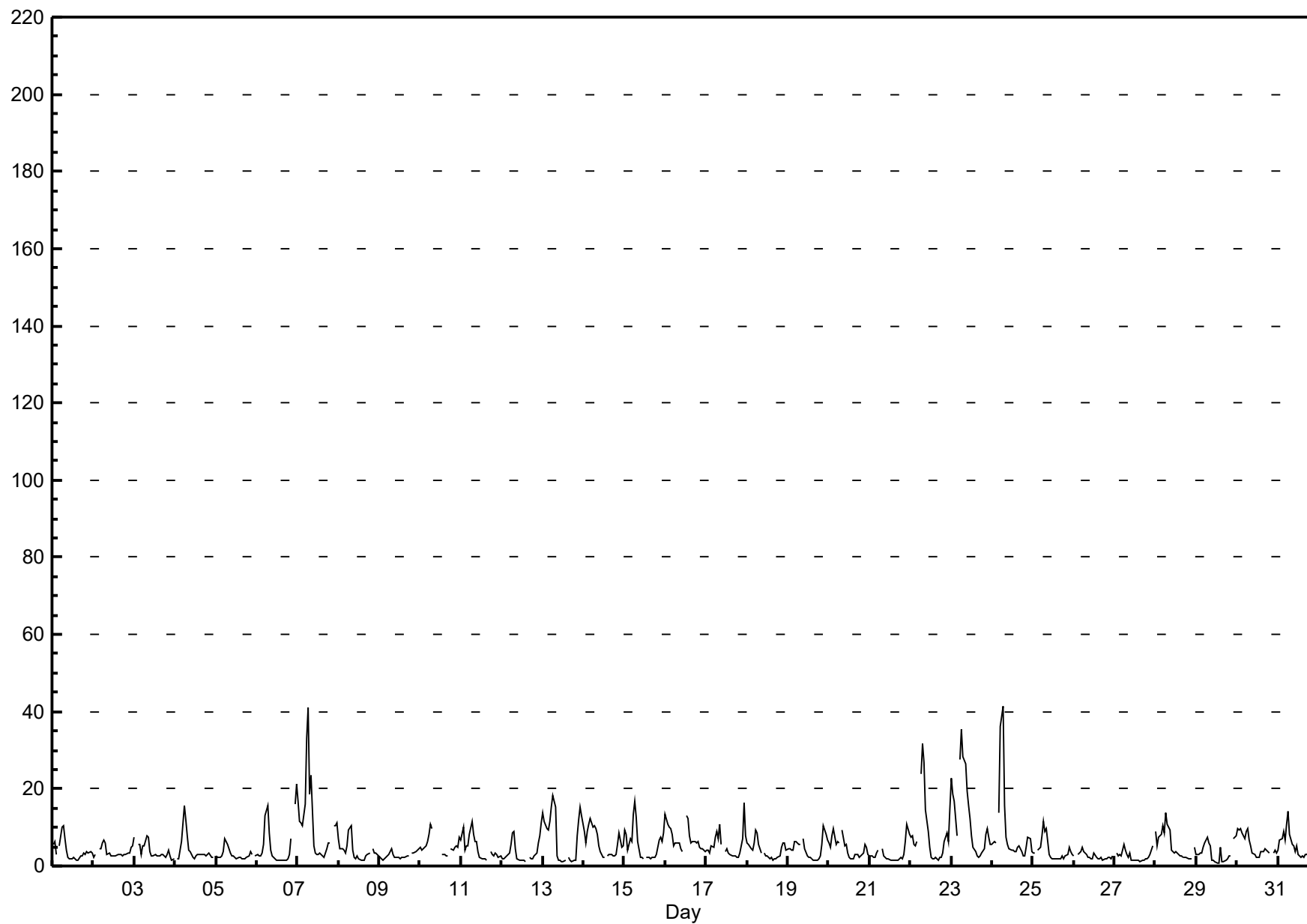
Henry Pirker - May 2018

Maximum Value: 41.6 ppb on May 24 07:00																				Maximum Daily Average: 12.8 ppb on May 23										Hours in Service: 744									
Minimum Value: 1 ppb on May 29 13:00																				Minimum Daily Average: 2.5 ppb on May 26										Hours of Data: 706									
Maximum Diurnal Average: 12.9 ppb at hour 7																				Minimum Diurnal Average: 2.4 ppb at hour 16										Hours of Missing Data: 38									
Monthly Average: 5.24 ppb																				Percentiles: P ₁ = 1.3 P ₁₀ = 1.8 Q ₁ = 2.4 Median = 3.5 Q ₃ = 6.3 P ₉₀ = 10.3 P ₉₉ = 27.7										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-May	6	6	3	A	5	10	11	7	4	2	2	2	2	2	2	2	3	2	3	3	4	3	4	3	3.9	10.5													
2-May	2	3	A	4	4	6	7	6	3	3	3	3	2	3	3	3	3	3	3	3	3	3	5	5	3.6	6.8													
3-May	8	A	6	6	3	5	5	8	8	4	3	3	3	3	3	3	3	3	2	3	4	3	2	2	3.9	7.7													
4-May	A	2	2	4	6	16	12	8	4	4	2	2	2	3	3	3	3	3	3	3	3	2	2	A	4.2	15.6													
5-May	2	2	2	3	4	7	6	5	3	3	2	2	2	2	2	2	2	2	2	2	4	3	A	3	3.0	7.0													
6-May	3	3	3	3	6	13	16	9	4	3	2	1	2	2	2	1	2	2	2	3	7	A	16	21	5.4	21.1													
7-May	17	11	11	10	16	33	41	19	23	5	3	3	3	3	3	2	3	4	6	6	A	10	11	11	11.2	40.9													
8-May	7	4	5	4	3	5	9	11	4	2	2	2	2	2	1	2	2	3	3	A	5	3	3	3	3.9	10.6													
9-May	2	2	2	2	2	3	4	4	3	2	2	2	2	2	2	2	3	3	A	3	3	4	4	4	2.8	4.5													
10-May	5	4	5	5	6	8	11	10	C	C	C	C	C	3	3	3	2	A	A	4	4	5	5	5	8	5.4	11.0												
11-May	7	10	4	5	5	8	12	8	6	6	4	2	2	2	2	2	A	4	3	3	3	3	2	2	4.6	11.6													
12-May	2	2	2	3	3	6	8	9	4	2	2	2	2	2	1	A	2	2	2	3	3	6	8	11	3.7	11.3													
13-May	14	12	10	9	12	15	18	15	2	2	1	1	1	1	A	2	2	2	1	1	2	8	12	15	13	7.4	18.4												
14-May	9	6	9	11	12	10	11	10	8	5	4	2	2	A	3	3	3	3	2	3	5	8	5	5	6.1	12.2													
15-May	9	8	4	7	6	13	17	13	6	2	2	2	A	2	2	2	2	2	2	3	7	7	6	8	5.9	16.9													
16-May	13	11	10	10	8	5	6	6	6	4	4	A	13	12	8	6	6	6	6	6	5	4	4	4	7.2	13.3													
17-May	4	4	3	5	5	8	9	7	11	5	A	4	4	3	3	2	3	3	2	2	3	7	17	8	5.3	16.6													
18-May	6	5	5	4	6	9	8	6	3	A	3	3	3	2	2	2	2	2	2	3	5	6	6	4	4.2	9.4													
19-May	5	5	4	4	6	6	6	6	A	7	5	3	2	2	2	2	2	1	2	3	6	10	8	7	4.4	10.4													
20-May	6	5	8	10	6	6	6	A	9	5	6	3	2	2	2	3	3	3	2	3	3	6	5	3	4.6	9.7													
21-May	3	3	2	2	3	4	A	4	3	2	2	2	1	2	1	2	1	2	2	2	3	7	11	8	3.1	10.8													
22-May	7	8	6	5	6	A	24	32	27	14	9	5	2	2	2	2	2	2	2	3	6	8	6	15	8.6	31.6													
23-May	23	19	17	8	A	28	36	28	27	19	16	12	8	5	4	3	2	3	4	5	8	10	8	6	12.8	35.6													
24-May	6	6	6	A	14	36	42	16	7	6	4	4	4	4	4	5	5	4	3	3	5	8	7	4	8.7	41.6													
25-May	3	3	A	4	5	8	11	9	10	3	2	2	2	2	2	2	2	3	2	3	3	5	4	3	4.0	11.5													
26-May	3	A	3	3	4	5	4	3	2	2	2	2	3	2	2	2	2	1	2	2	2	2	2	2	2.5	4.9													
27-May	A	3	2	3	3	5	4	3	2	3	2	1	1	2	1	1	1	1	2	2	2	3	5	A	2.5	5.4													
28-May	9	5	7	8	11	9	14	11	9	4	4	3	4	3	3	3	2	2	2	2	2	2	A	5	5.4	13.8													
29-May	3	3	3	3	5	6	7	6	5	2	1	1	1	1	5	1	1	1	2	3	2	A	7	8	3.4	7.9													
30-May	10	9	10	9	7	9	10	7	5	3	3	2	2	2	4	4	4	4	4	3	A	3	4	3	5.3	9.8													
31-May	4	7	7	9	7	11	14	8	5	5	4	5	3	2	2	2	3	3	3	A	9	7	4	6	5.7	14.1													
6.8 5.9 5.5 5.7 6.4 10.5 12.9 9.7 7.5 4.5 3.4 2.8 2.9 2.6 2.6 2.4 2.6 2.6 2.7 3.0 4.5 5.5 6.4 6.4																									Diurnal Average														
22.8 18.8 16.6 10.9 16.2 36.2 41.6 31.6 26.7 19.3 15.7 12.2 13.2 12.2 8.0 5.8 6.3 6.2 6.1 6.4 8.7 11.9 16.6 21.1																									Diurnal Maximum														
C - Calibration					A - Automated Daily Zero Span																																		

Hourly Averages

Oxides of Nitrogen (NO_x) - ppb

Henry Pirker - May 2018



Hourly Maximums

Oxides of Nitrogen (NO_x) - ppb

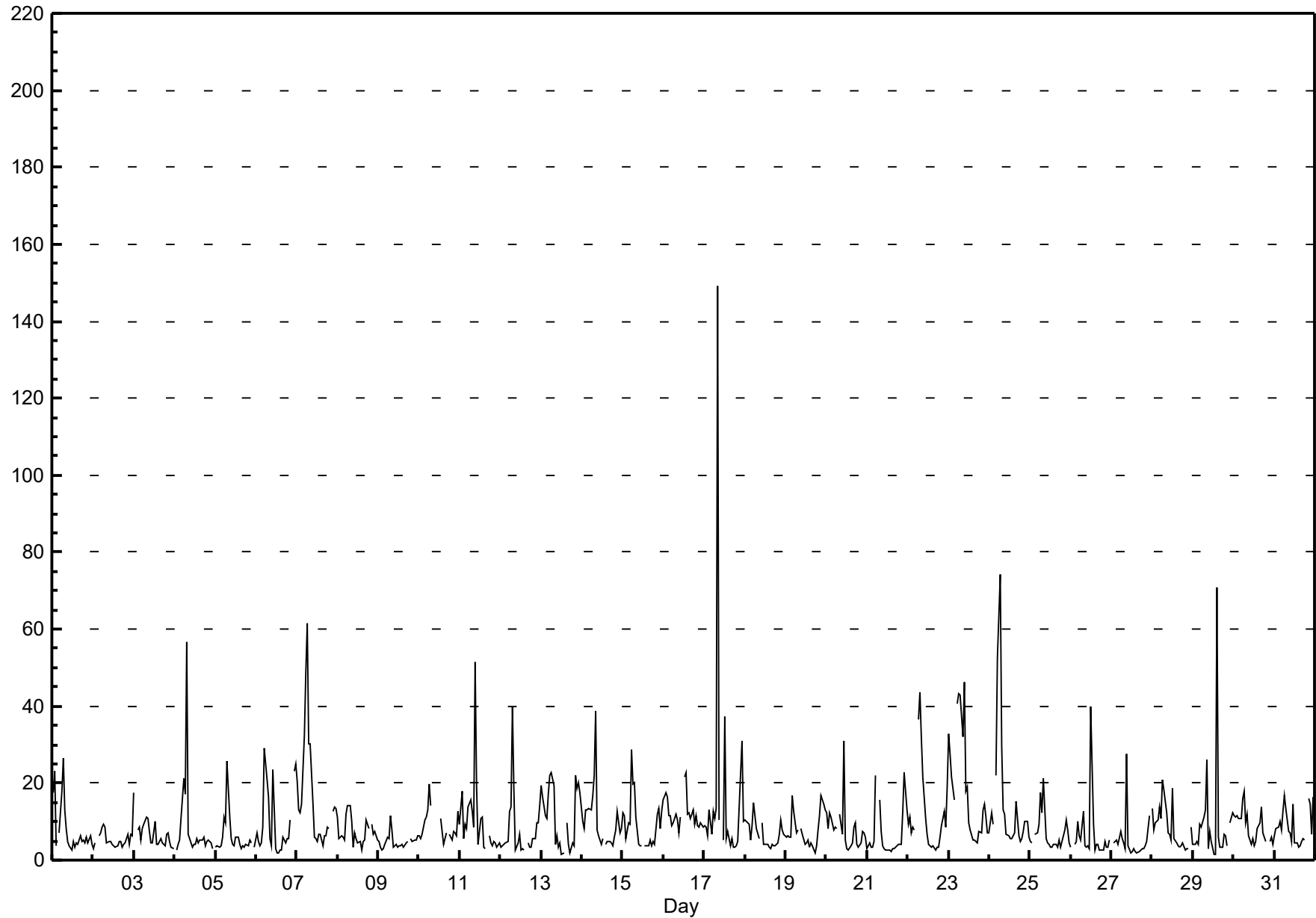
Henry Pirker - May 2018

Maximum Value: 149.3 ppb on May 17 09:00																				Maximum Daily Average: 19.0 ppb on May 23										Hours in Service: 744	
Minimum Value: 1 ppb on May 29 14:00																				Minimum Daily Average: 4.8 ppb on May 9										Hours of Data: 706	
Maximum Diurnal Average: 19.3 ppb at hour 7																				Minimum Diurnal Average: 4.8 ppb at hour 16										Hours of Missing Data: 38	
Monthly Average: 9.35 ppb																				Percentiles: P ₁ = 2.0 P ₁₀ = 3.3 Q ₁ = 4.2 Median = 6.3 Q ₃ = 11.1 P ₉₀ = 17.8 P ₉₉ = 48.8										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-May	18	23	4	A	7	18	26	13	8	5	4	3	5	4	4	4	6	5	5	4	6	5	7	4	8.2	26.5					
2-May	3	4	A	6	7	8	9	8	4	5	5	4	4	3	4	5	5	3	4	4	7	4	7	7	5.3	9.2					
3-May	18	A	8	9	5	8	9	11	11	7	5	4	10	4	4	5	6	4	4	7	7	5	3	3	6.8	17.6					
4-May	A	3	4	5	11	21	17	57	7	6	4	4	4	6	5	5	5	6	4	5	5	4	3	A	8.6	56.5					
5-May	3	4	3	4	6	11	10	26	11	6	4	4	6	6	4	3	4	3	4	4	5	4	A	3	6.0	25.7					
6-May	7	5	4	4	9	29	21	16	6	4	23	3	2	2	3	3	6	4	6	6	11	A	23	25	9.5	28.9					
7-May	20	13	12	14	32	49	62	30	30	15	6	6	5	7	7	4	6	6	8	8	A	13	14	13	16.6	61.5					
8-May	11	6	6	6	5	12	14	14	10	3	7	6	4	5	3	5	5	10	8	A	9	7	8	5	7.4	14.0					
9-May	5	3	3	3	4	6	6	12	8	3	4	4	4	4	4	3	4	5	A	6	5	5	5	6	4.8	11.6					
10-May	6	6	7	11	11	13	20	14	C	C	C	C	C	11	4	5	7	A	7	5	8	7	6	13	8.9	19.6					
11-May	9	18	6	9	8	14	16	13	9	51	19	4	11	11	3	3	A	6	4	4	5	5	3	4	10.3	51.3					
12-May	3	4	4	4	5	13	14	40	18	3	5	7	3	3	3	A	4	3	3	6	6	10	10	14	7.9	39.7					
13-May	20	16	12	11	17	22	23	20	4	6	3	4	2	2	A	10	4	2	4	4	22	19	20	18	11.5	22.8					
14-May	10	8	13	13	13	13	17	22	39	8	6	4	6	A	4	5	5	5	4	6	8	13	7	8	10.3	38.7					
15-May	12	11	6	10	9	29	20	20	11	4	4	4	A	4	4	4	5	4	5	4	12	13	8	13	9.3	28.7					
16-May	15	17	16	11	12	9	10	12	10	7	11	A	22	23	12	12	11	13	10	11	9	9	10	9	12.2	22.9					
17-May	9	9	6	13	7	13	11	13	149	10	A	5	37	6	7	4	6	4	3	4	5	22	31	10	16.7	149.3					
18-May	10	10	9	5	9	15	12	8	6	A	10	4	4	4	3	3	4	4	4	5	7	10	8	7	6.9	14.9					
19-May	6	6	6	6	17	13	7	8	A	8	7	4	4	5	3	4	4	2	4	8	11	17	15	13	7.7	16.9					
20-May	12	8	12	11	8	9	8	A	12	7	31	5	3	3	4	4	9	10	4	3	4	7	7	6	8.2	31.0					
21-May	3	4	3	3	5	22	A	16	8	4	3	3	2	3	2	3	3	3	4	4	4	12	23	13	6.6	22.9					
22-May	9	11	7	9	8	A	36	44	32	22	11	7	4	4	3	4	2	3	3	6	9	13	9	19	11.9	43.7					
23-May	33	27	22	15	A	41	43	43	32	46	18	19	10	8	5	5	5	5	7	7	13	15	11	7	19.0	46.4					
24-May	7	12	9	A	22	52	74	29	13	12	7	6	5	6	6	7	15	7	5	6	8	10	10	6	14.6	74.1					
25-May	5	5	A	7	7	9	17	12	21	6	4	4	3	3	4	4	3	5	3	5	8	10	8	5	6.9	21.2					
26-May	3	A	4	5	10	6	5	13	4	4	4	3	40	9	3	4	4	3	3	3	5	3	3	5	6.3	40.0					
27-May	A	4	5	5	4	7	5	5	3	28	4	2	2	3	2	2	2	3	3	3	4	5	12	A	5.1	27.6					
28-May	14	8	10	10	14	11	21	18	12	7	7	5	19	6	4	4	3	4	4	3	3	3	A	9	8.6	21.0					
29-May	4	4	5	4	9	9	11	13	26	3	8	5	1	1	71	6	3	3	7	6	4	A	10	12	9.8	70.9					
30-May	12	11	12	11	11	16	18	10	12	6	4	5	4	5	8	10	14	7	6	5	A	5	6	4	8.7	17.7					
31-May	6	8	8	10	8	13	17	13	7	7	5	15	5	4	3	4	5	6	5	A	16	15	7	17	8.8	16.6					
10.2 9.3 7.8 8.1 10.0 17.0 19.3 19.0 18.1 10.4 8.0 5.2 7.9 5.4 6.6 4.8 5.6 4.9 4.8 5.2 7.7 9.3 10.1 9.6																									Diurnal Average						
32.7 27.4 21.5 15.5 32.4 52.4 74.1 56.5 149.3 51.3 31.0 18.8 40.0 22.9 70.9 12.4 15.3 13.2 9.5 11.5 22.0 22.3 30.8 24.9																									Diurnal Maximum						
C - Calibration A - Automated Daily Zero Span																															

Hourly Maximums

Oxides of Nitrogen (NO_x) - ppb

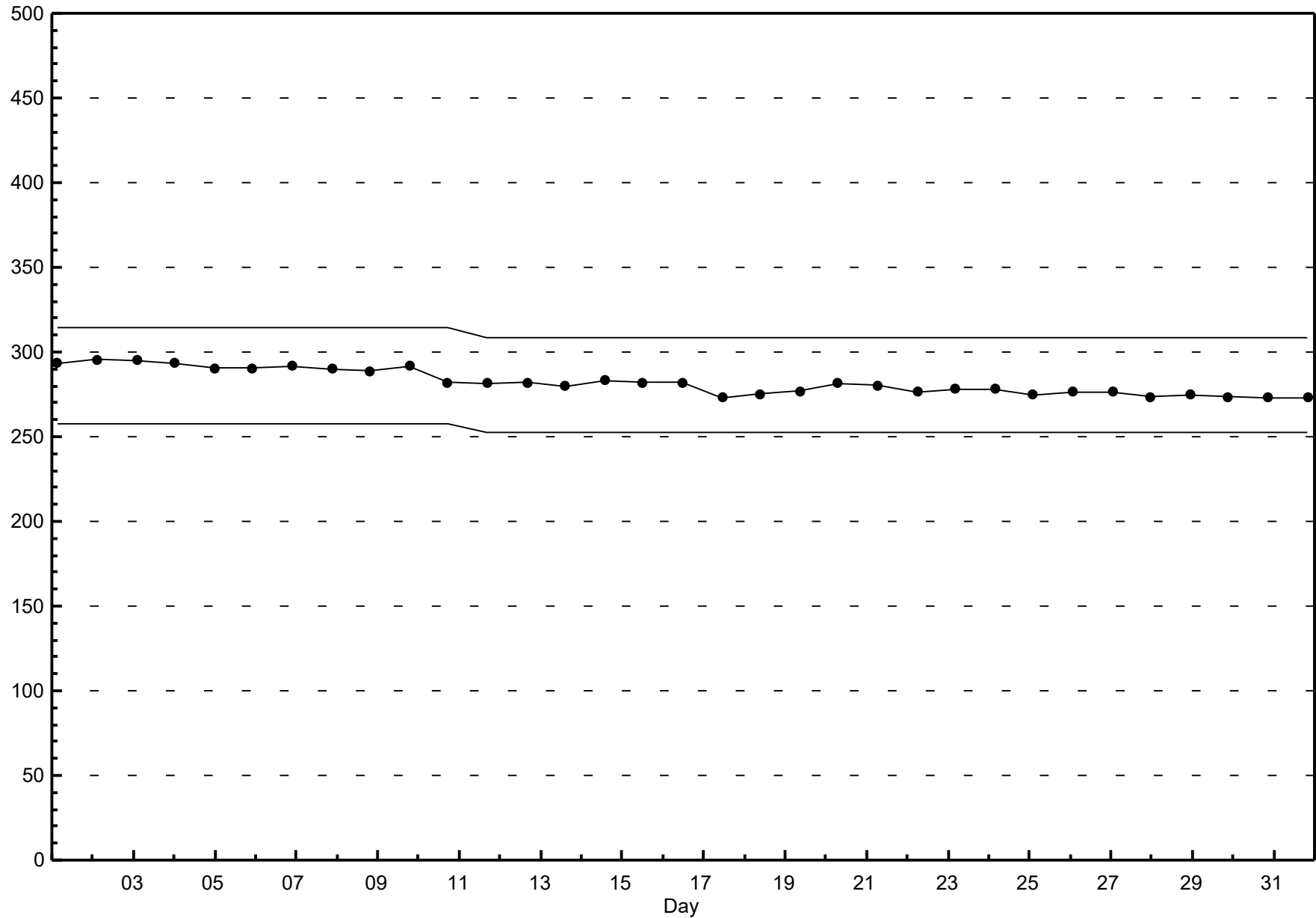
Henry Pirker - May 2018



Span Responses

Oxides of Nitrogen (NO_x)

Henry Pirker - May 2018



Hourly Averages

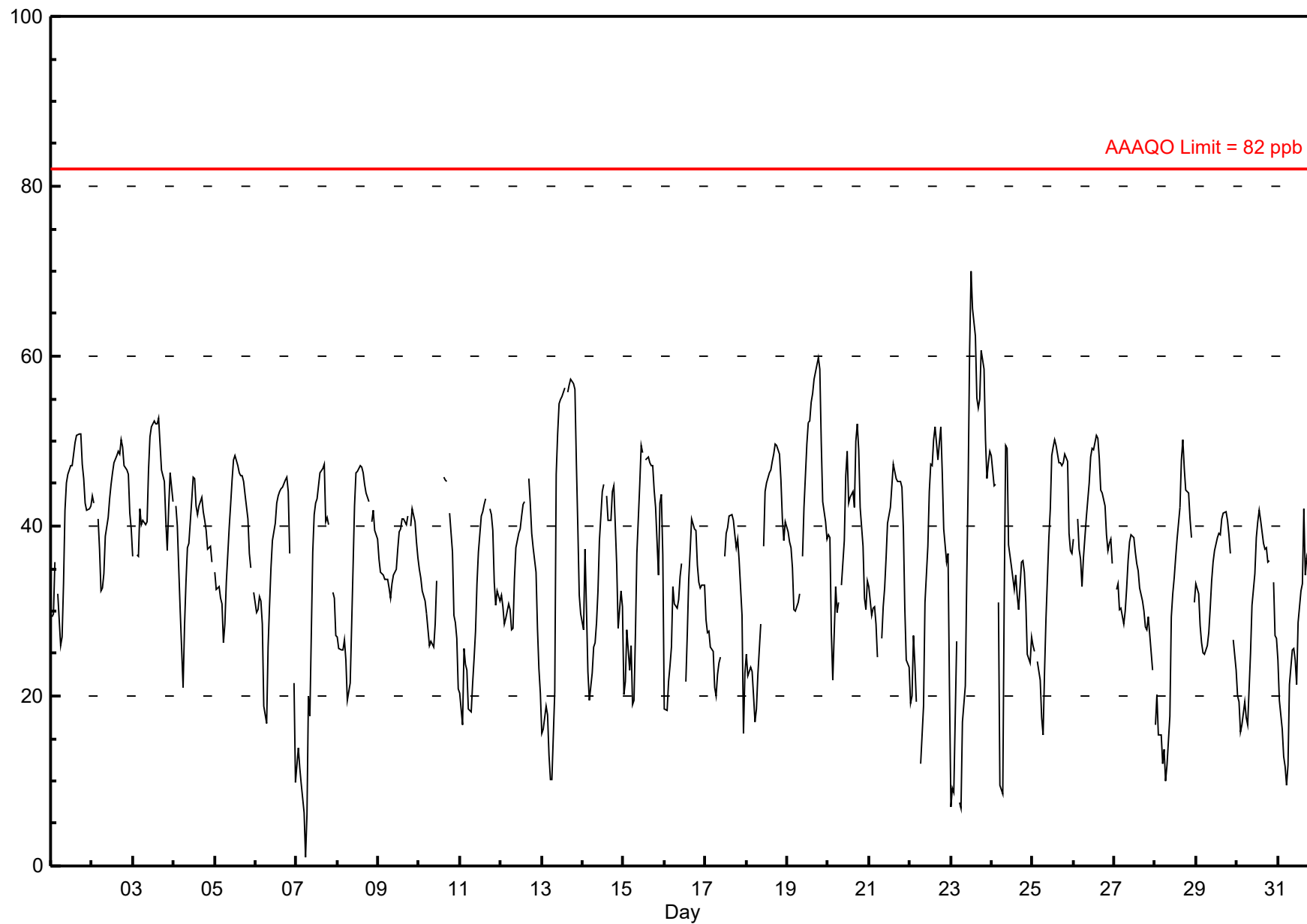
Ozone (O₃) - ppb

Henry Pirker - May 2018

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 69.9 ppb on May 23 13:00 Maximum Daily Average: 44.5 ppb on May 19																					Hours in Service: 744 Hours of Data: 708 Hours of Missing Data: 36 Hours of Calibration: 36 Percent Operational Time: 100.0					
Minimum Value: 1 ppb on May 7 06:00 Maximum Diurnal Average: 45.2 ppb at hour 16 Monthly Average: 35.50 ppb										Minimum Daily Average: 24.7 ppb on May 31 Minimum Diurnal Average: 22.1 ppb at hour 7 Percentiles: P ₁ = 8.7 P ₁₀ = 20.2 Q ₁ = 28.0 Median = 36.7 Q ₃ = 43.5 P ₉₀ = 48.4 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-May	29	30	36	A	32	26	27	33	42	45	46	47	47	48	50	51	51	51	47	46	43	42	42	42	41.4	50.9
2-May	44	43	A	41	37	32	33	34	39	41	43	45	46	47	48	49	49	50	49	47	47	46	42	40	43.1	50.3
3-May	36	A	37	37	42	40	41	40	41	47	51	52	52	52	52	53	50	47	45	41	37	42	46	43	44.4	52.8
4-May	A	42	40	35	30	21	28	33	37	38	43	46	46	42	41	42	43	42	41	39	37	38	36	A	38.3	45.8
5-May	35	33	33	32	31	26	29	33	40	43	45	48	48	47	46	46	46	45	44	41	37	35	A	32	38.8	48.2
6-May	30	30	32	31	28	19	17	26	31	35	38	40	43	44	44	44	45	45	46	44	37	A	22	10	33.9	45.7
7-May	12	14	12	10	6	1	6	20	18	37	41	43	43	45	46	47	47	40	41	40	A	32	32	27	28.7	47.3
8-May	27	26	25	25	27	24	20	22	28	35	42	46	47	47	46	45	44	43	A	41	42	39	38	35.9	47.1	
9-May	36	35	34	34	34	34	33	32	33	34	35	37	39	40	41	41	40	41	A	40	42	41	38	36	36.9	42.1
10-May	35	34	32	31	30	28	26	26	26	28	34	C	C	C	46	45	45	A	42	37	29	29	27	21	32.5	45.8
11-May	20	17	26	24	23	19	18	21	24	28	33	37	41	42	43	43	A	42	41	40	33	31	32	31	30.8	43.2
12-May	32	31	29	29	31	30	28	28	34	38	39	40	41	43	43	A	46	43	39	37	35	28	23	20	34.1	45.6
13-May	16	16	19	18	13	10	10	20	46	51	54	55	55	56	A	56	57	57	57	56	48	40	32	30	37.9	57.3
14-May	28	37	30	23	20	23	26	26	29	32	38	44	45	A	44	41	41	44	45	40	35	28	32	31	34.0	44.9
15-May	20	22	28	23	26	19	19	27	37	45	49	49	A	48	48	47	47	47	44	42	34	43	44	37	36.8	49.4
16-May	18	18	22	24	26	33	31	30	31	34	36	A	22	27	34	37	41	40	40	35	33	33	33	33	30.9	40.9
17-May	29	27	28	26	25	21	20	23	24	25	A	36	39	40	41	41	41	39	37	39	36	29	16	23	30.6	41.3
18-May	25	22	23	23	20	17	18	22	28	A	38	44	45	46	47	48	48	50	49	49	45	41	38	41	36.0	49.6
19-May	39	38	37	35	30	30	31	32	A	36	42	50	52	52	55	56	57	59	60	59	50	43	41	39	44.5	59.8
20-May	39	39	27	22	33	30	31	A	33	38	46	49	43	43	44	42	50	52	49	42	38	32	30	34	38.5	52.1
21-May	33	29	30	31	28	25	A	27	30	33	36	40	42	45	47	46	46	45	45	45	40	30	24	23	35.7	47.3
22-May	19	20	27	24	19	A	12	15	19	31	38	44	47	47	50	52	48	50	52	46	40	36	37	21	34.5	51.7
23-May	7	9	9	26	A	7	7	17	21	34	45	61	70	66	62	55	54	55	61	59	50	46	47	49	39.8	69.9
24-May	48	45	45	A	31	9	8	32	49	49	38	35	34	33	34	32	30	36	36	35	31	25	24	27	33.3	49.5
25-May	26	25	A	24	22	18	15	23	29	39	42	48	49	50	49	47	47	47	47	48	48	39	37	37	37.3	50.1
26-May	39	A	41	37	36	33	36	41	43	45	48	49	49	51	50	48	44	44	42	39	37	38	39	36	42.0	50.7
27-May	A	33	33	30	30	29	30	33	36	38	39	39	37	36	35	33	31	30	28	28	29	27	23	A	32.1	39.0
28-May	17	20	15	15	12	14	10	12	18	29	32	34	36	38	42	48	50	47	44	44	41	39	A	31	29.9	50.2
29-May	33	32	28	26	25	25	26	28	30	34	36	37	39	39	39	41	42	42	41	39	37	A	27	23	33.4	41.7
30-May	20	19	16	17	19	17	17	21	25	31	34	39	41	42	41	38	37	37	36	36	A	33	27	27	29.1	41.9
31-May	24	19	16	13	12	9	12	21	25	26	24	21	29	32	33	42	34	36	35	A	29	28	24	21	24.7	42.0
28.1 27.8 27.9 26.4 25.9 22.3 22.1 26.6 31.6 36.6 40.3 43.3 43.7 44.4 44.8 45.2 45.0 44.9 44.2 42.5 38.6 35.6 32.9 31.1																									Diurnal Average	
48.3 44.8 44.9 40.9 42.0 40.2 40.7 41.0 49.5 50.9 54.4 60.8 69.9 65.5 62.4 55.8 57.2 59.0 60.7 58.6 50.2 46.2 47.5 48.8																									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
Henry Pirker - May 2018



Hourly Maximums

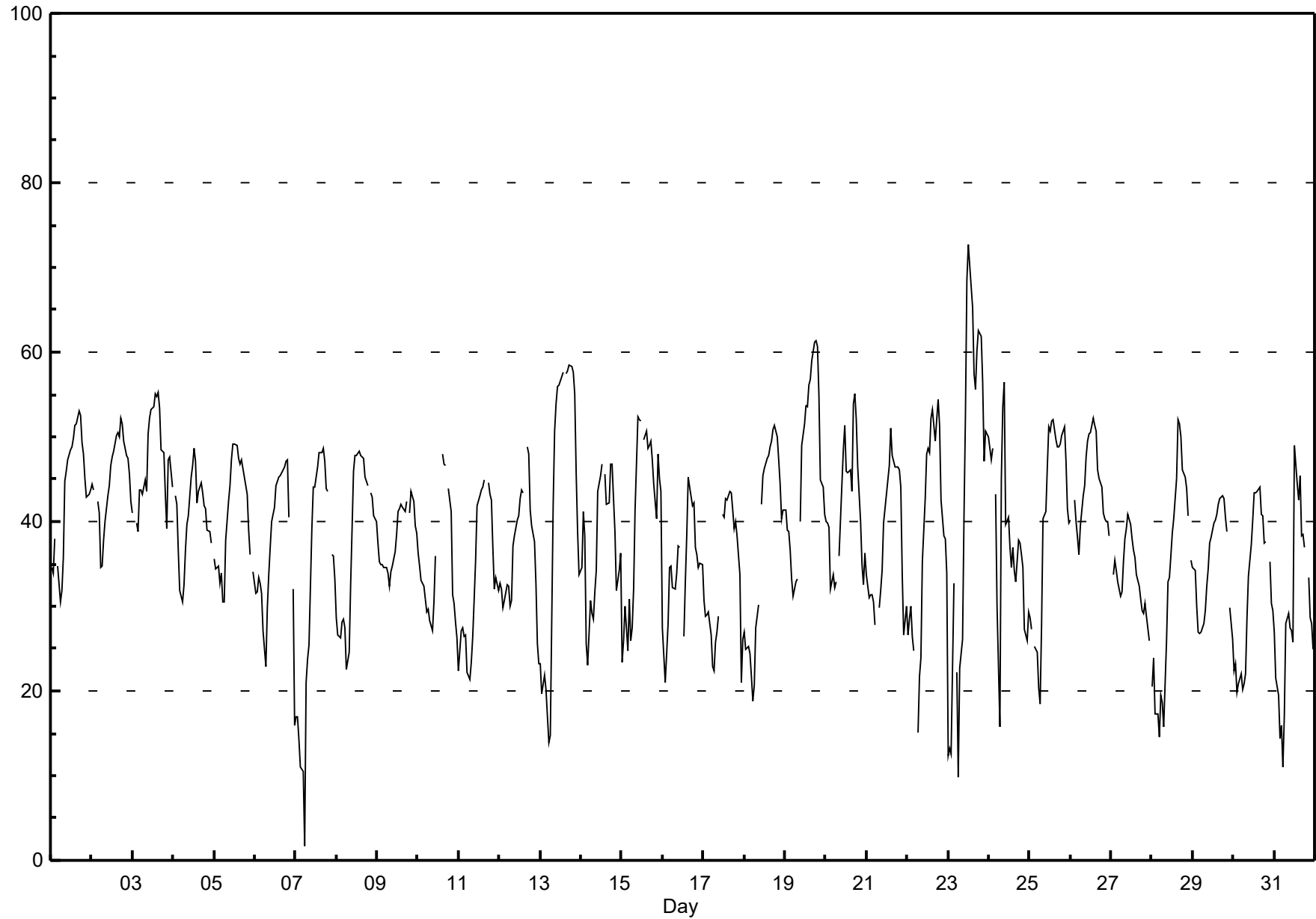
Ozone (O₃) - ppb

Henry Pirker - May 2018

Maximum Value: 72.8 ppb on May 23 13:00																				Maximum Daily Average: 47.1 ppb on May 3				Hours in Service: 744		
Minimum Value: 2 ppb on May 7 06:00																				Minimum Daily Average: 29.3 ppb on May 31				Hours of Data: 708		
Maximum Diurnal Average: 47.3 ppb at hour 16																				Minimum Diurnal Average: 26.1 ppb at hour 7				Hours of Missing Data: 36		
Monthly Average: 38.34 ppb																				Percentiles: P ₁ = 13.3 P ₁₀ = 24.8 Q ₁ = 31.1 Median = 39.5 Q ₃ = 45.9 P ₉₀ = 50.7 P ₉₉ = 61.2				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-May	35	34	38	A	35	30	32	36	45	46	47	49	49	50	51	52	53	53	49	48	45	43	43	44	43.7	53.0
2-May	44	44	A	42	41	35	35	38	40	43	44	47	48	48	50	51	50	52	52	49	48	48	46	42	45.0	52.2
3-May	41	A	40	39	44	44	43	45	43	50	52	53	54	55	55	55	53	48	48	43	39	47	48	44	47.1	55.2
4-May	A	43	42	37	32	31	33	37	40	41	45	47	49	47	42	43	45	43	42	42	39	39	37	A	40.6	48.6
5-May	36	34	35	33	34	31	30	38	42	44	47	49	49	49	47	47	47	46	45	43	39	36	A	34	40.7	49.2
6-May	31	32	33	33	32	27	23	30	34	37	40	42	44	45	45	45	46	46	47	47	41	A	32	16	36.9	47.2
7-May	17	17	14	11	10	2	21	24	25	39	44	44	45	46	48	48	49	47	44	43	A	36	36	33	32.4	48.6
8-May	29	27	26	28	29	27	23	25	33	39	46	48	48	48	48	48	47	45	44	A	43	43	41	40	38.0	48.3
9-May	38	35	35	35	35	35	34	32	34	35	36	38	41	42	42	42	41	42	A	41	44	42	40	39	38.1	43.6
10-May	36	35	33	32	31	29	30	28	27	31	36	C	C	C	48	47	47	A	44	41	31	30	28	26	34.6	48.0
11-May	22	27	27	26	27	22	21	23	26	31	35	42	43	44	44	45	A	45	43	43	37	32	33	32	33.6	44.8
12-May	33	32	30	31	33	32	30	31	37	38	40	41	43	44	43	A	49	48	41	40	38	33	26	23	36.3	48.8
13-May	23	20	22	20	17	14	15	42	51	54	56	56	57	58	A	57	58	59	58	58	55	46	39	34	42.0	58.5
14-May	35	41	38	26	23	31	29	29	32	34	44	45	47	A	46	42	42	47	47	43	39	32	34	36	37.4	46.7
15-May	23	26	30	25	31	26	27	32	41	52	52	52	A	50	51	49	49	49	47	44	40	48	45	44	40.6	52.4
16-May	27	21	24	28	35	35	32	32	34	37	37	A	26	33	38	45	44	42	42	37	36	35	35	35	34.4	45.2
17-May	31	29	29	29	27	23	22	26	27	29	A	41	40	43	43	44	43	41	39	40	38	34	21	26	33.2	43.6
18-May	27	25	25	24	22	19	21	27	30	A	42	45	46	47	48	49	49	51	51	50	47	44	40	41	38.0	51.3
19-May	41	39	39	37	33	31	33	33	A	40	49	51	54	54	56	57	59	61	61	61	55	45	44	41	46.7	61.3
20-May	40	40	39	32	34	32	33	A	36	44	49	51	46	46	46	44	54	55	52	46	40	35	32	36	41.9	55.1
21-May	34	31	31	31	31	28	A	30	32	34	40	42	45	47	51	48	47	47	47	46	44	34	27	30	38.0	51.0
22-May	27	28	30	26	25	A	15	22	24	35	43	48	49	48	52	53	50	52	54	51	43	38	38	34	38.5	54.4
23-May	12	13	12	33	A	22	10	23	26	41	53	69	73	70	65	57	56	60	62	62	56	47	51	50	44.5	72.8
24-May	50	47	49	A	43	30	16	45	54	56	40	40	37	35	37	34	33	38	37	36	35	27	26	29	38.0	56.4
25-May	29	27	A	25	25	20	19	28	40	41	46	51	51	52	52	50	49	49	49	50	51	47	42	40	40.6	52.1
26-May	40	A	42	40	38	36	39	43	44	48	50	50	51	52	51	51	46	45	44	41	40	40	40	38	44.0	52.2
27-May	A	34	35	34	33	31	32	35	38	39	41	40	38	37	36	34	32	31	29	29	30	29	26	A	33.8	40.8
28-May	21	24	17	17	15	20	19	16	26	33	33	36	39	40	45	52	51	50	46	45	44	41	A	35	33.2	52.0
29-May	35	34	30	27	27	27	28	30	32	34	37	38	40	40	41	42	43	43	43	41	39	A	30	26	35.0	43.1
30-May	22	23	20	21	22	20	21	22	29	34	37	40	43	43	44	44	41	41	37	38	A	35	30	30	32.1	44.0
31-May	27	22	19	14	16	11	17	28	29	27	27	26	49	44	43	45	38	38	37	A	33	29	28	25	29.3	49.0
31.2 30.5 30.6 28.9 29.2 26.7 26.1 30.9 35.0 39.6 43.0 45.5 46.3 46.7 47.0 47.3 47.0 47.2 46.2 44.8 41.7 38.4 35.8 34.6																									Diurnal Average	
50.1 47.2 48.7 42.4 43.8 43.7 43.2 45.1 53.6 56.4 56.0 68.5 72.8 70.1 65.3 57.5 58.9 61.3 62.5 61.9 56.4 48.0 50.7 50.3																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										

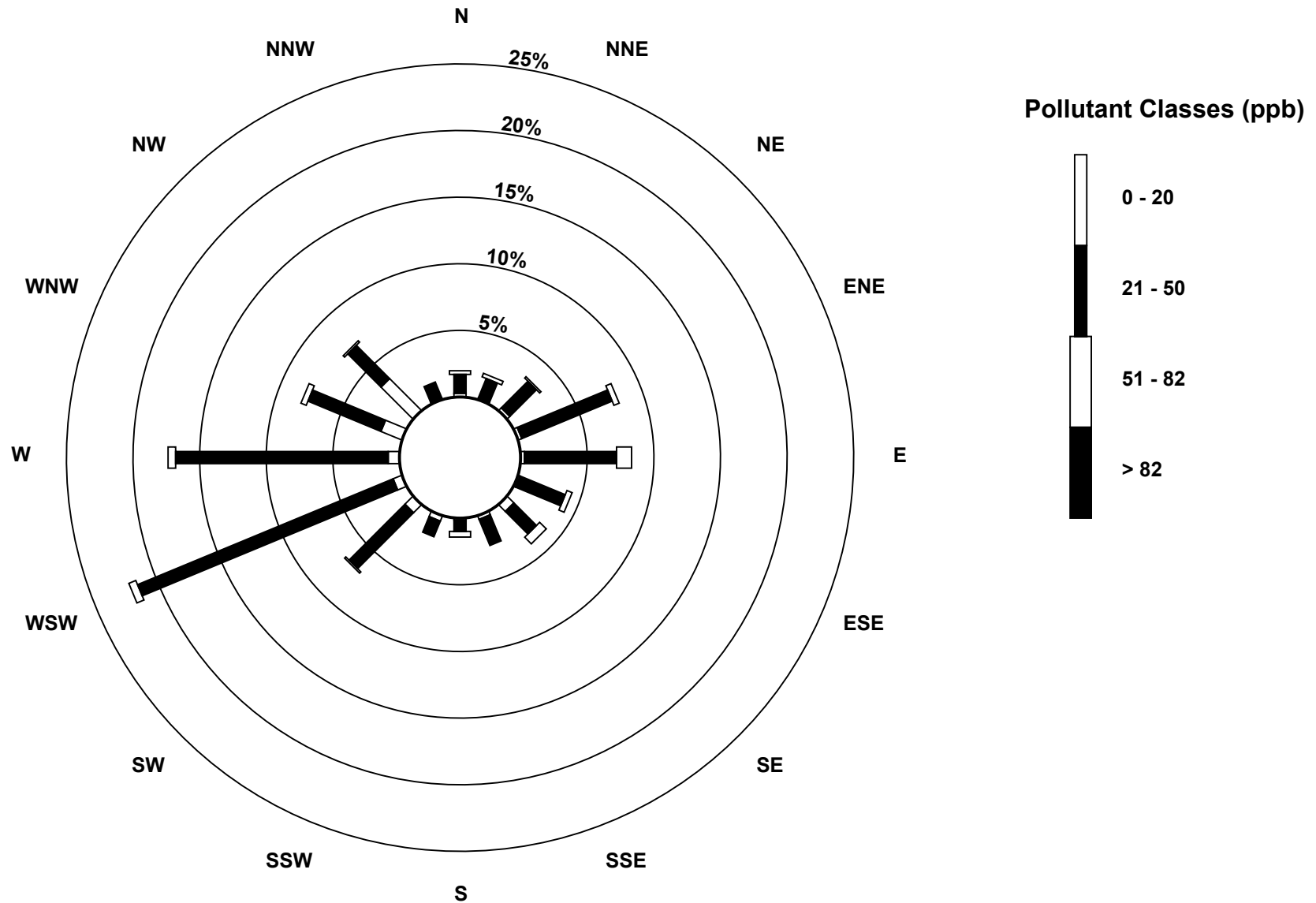
Hourly Maximums

Ozone (O₃) - ppb
Henry Pirker - May 2018



Pollutant Rose

Ozone (O_3) - ppb
Henry Pirker - May 2018



Eight Hour Running Averages

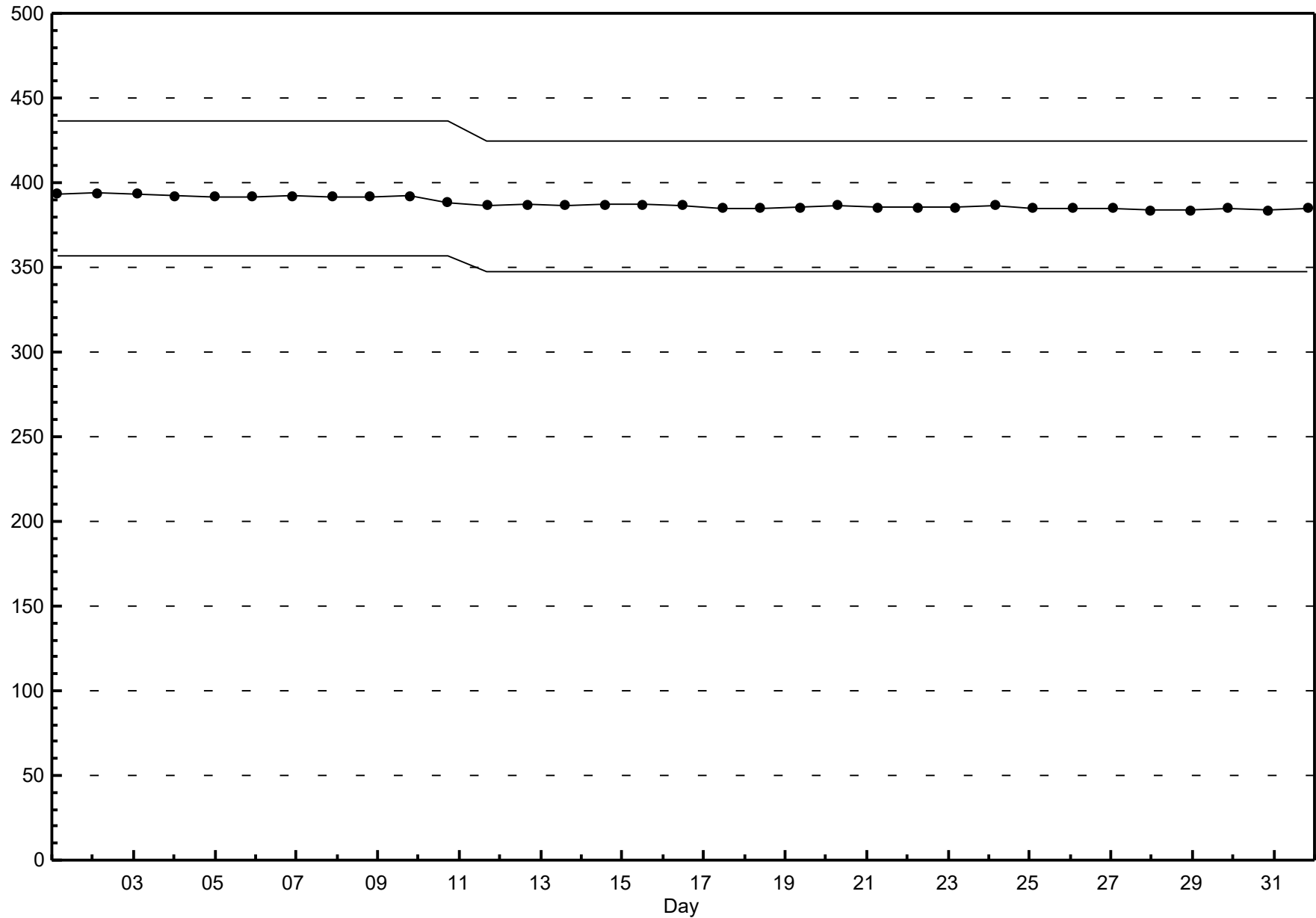
Ozone (O₃) - ppb

Henry Pirker - May 2018

Maximum Value: 60.4 ppb on May 23 19:00																								Hours in Service: 744	
Minimum Value: 8.8 ppb on May 7 07:00																								Hours of Data: 737	
Percentiles: P ₁ = 13.7 P ₁₀ = 23.2 Q ₁ = 29.8 Median = 35.9 Q ₃ = 42.1 P ₉₀ = 46.9 P ₉₉ = 55.9																								Hours of Missing Data: 7	
																								Hours of Calibration: 7	
																								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-May	47	44	42	41	38	35	32	30	32	34	36	37	39	42	45	47	48	49	49	49	48	47	47	45	49.0
2-May	45	44	43	42	42	40	39	38	37	37	38	38	39	41	43	45	46	47	48	48	48	48	47	46	48.3
3-May	45	44	42	41	40	39	39	39	40	40	42	44	45	47	48	50	51	51	50	49	47	46	45	44	51.0
4-May	43	42	42	41	40	37	34	33	33	33	33	35	37	39	41	42	43	43	43	42	41	41	40	39	43.2
5-May	38	37	36	35	34	32	31	31	32	33	35	37	39	42	44	45	46	47	46	45	44	42	42	40	46.5
6-May	38	36	34	32	31	29	27	27	27	27	28	29	31	34	38	40	42	43	44	44	44	44	40	35	44.3
7-May	31	26	21	16	12	11	9	10	11	14	17	22	26	32	37	40	44	44	44	44	44	42	40	37	44.1
8-May	34	32	30	28	28	27	25	24	25	26	28	30	33	36	39	42	44	46	46	46	45	44	43	42	45.6
9-May	40	39	38	37	37	36	35	34	34	33	34	34	35	35	36	38	38	39	40	40	41	41	40	40	40.8
10-May	39	38	37	36	35	33	32	30	29	28	29	28	28	N	N	N	N	N	N	N	41	39	36	33	40.7
11-May	29	28	26	24	23	22	21	21	21	23	24	25	28	31	34	36	38	40	41	42	41	39	38	36	41.7
12-May	35	34	32	31	31	31	30	30	30	31	32	33	35	36	38	40	41	42	42	42	41	39	36	34	42.0
13-May	30	27	24	22	19	17	15	15	19	23	28	33	38	44	48	53	55	56	56	56	55	53	50	47	56.3
14-May	43	41	38	33	30	28	27	27	27	26	27	30	33	34	37	39	41	42	43	43	41	40	38	37	43.4
15-May	34	32	30	27	26	25	23	23	25	28	31	34	35	39	43	46	48	48	47	46	45	44	44	42	48.0
16-May	39	35	32	30	29	28	26	25	27	29	31	32	31	30	31	32	33	34	34	34	36	37	36	36	38.7
17-May	35	33	31	30	29	28	26	25	24	24	23	25	27	30	33	35	38	40	39	40	39	38	35	32	39.7
18-May	30	28	27	25	23	21	21	21	22	22	24	27	30	35	39	42	45	46	47	48	48	47	46	45	47.8
19-May	44	43	41	39	37	36	35	34	33	33	34	36	39	42	46	49	50	53	55	56	56	55	53	51	56.2
20-May	49	46	42	37	35	34	32	32	31	31	33	37	39	40	42	42	44	46	47	46	45	44	42	41	48.5
21-May	39	36	33	32	31	30	30	29	29	29	30	31	33	36	38	40	42	44	45	45	45	43	40	37	45.2
22-May	34	31	29	26	23	22	21	20	19	21	23	25	29	32	36	41	45	47	49	49	48	47	45	41	49.0
23-May	36	31	26	23	21	17	12	12	14	17	23	27	33	40	47	52	56	58	60	60	58	55	53	52	60.4
24-May	52	51	49	47	44	39	34	31	31	32	31	31	32	35	38	38	36	34	34	34	33	32	31	30	51.8
25-May	30	29	28	26	25	24	22	22	22	24	26	30	33	37	41	44	47	48	48	48	48	47	45	44	48.3
26-May	43	42	41	40	38	37	37	38	38	39	40	41	43	45	47	48	48	48	47	46	44	43	41	40	48.1
27-May	39	38	36	35	34	33	31	31	32	32	33	34	35	36	36	36	36	35	33	32	31	30	29	28	39.2
28-May	26	25	23	21	19	17	15	14	15	16	18	20	23	26	30	35	39	41	43	44	44	44	45	42	44.7
29-May	40	38	35	33	31	29	28	28	28	28	29	30	32	34	35	37	38	39	40	40	40	40	38	36	40.1
30-May	33	29	26	23	20	20	19	18	19	20	23	25	28	31	34	36	38	39	39	38	38	37	35	33	38.8
31-May	32	29	26	23	21	18	17	16	16	17	18	19	21	24	27	29	30	32	33	35	35	34	33	30	34.7
Diurnal Maximums																									
N - Not Valid																									

Span Responses

Ozone (O₃)
Henry Pirker - May 2018



Hourly Averages

Carbon Monoxide (CO) - ppm

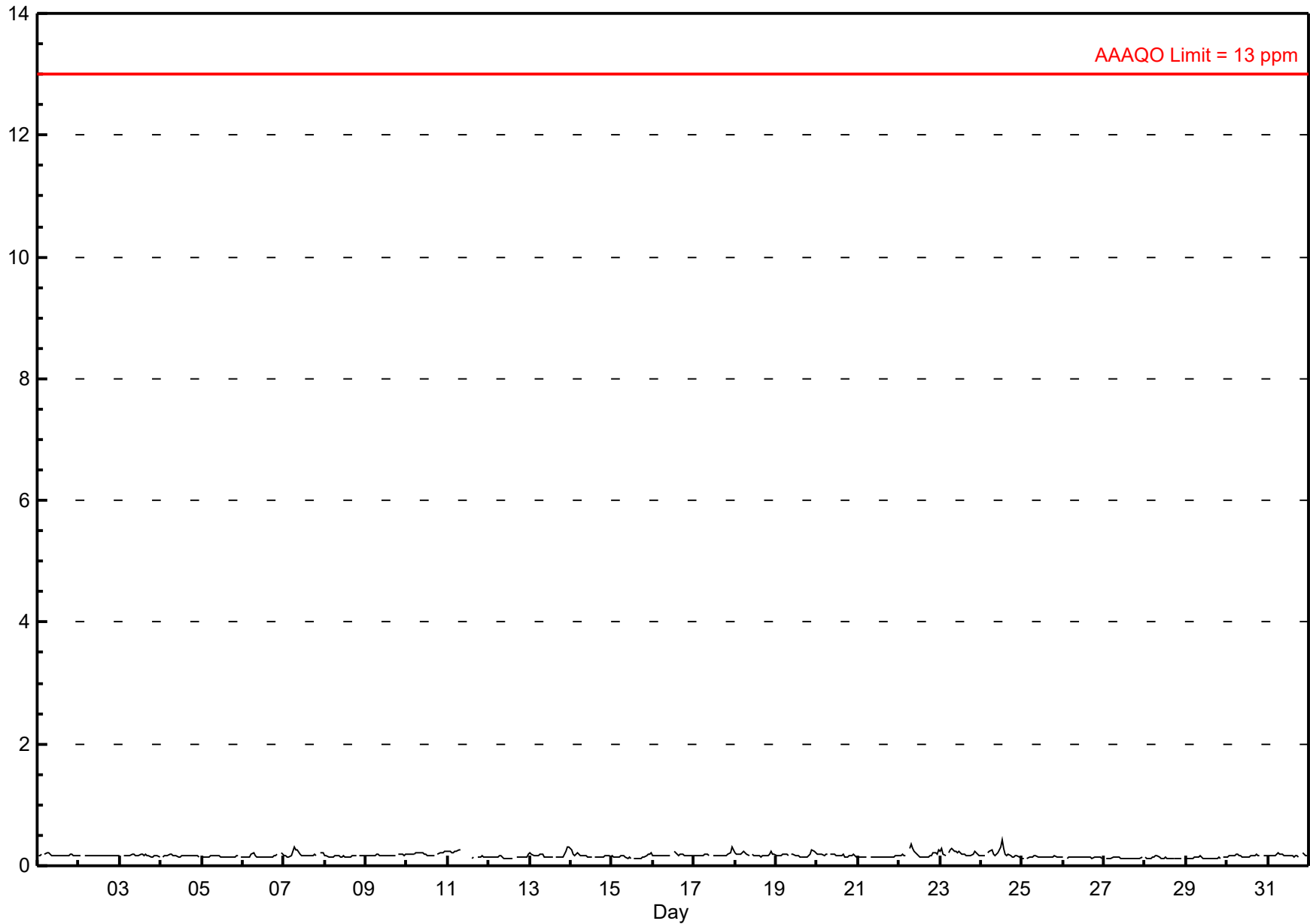
Henry Pirker - May 2018

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 0.44 ppm on May 24 13:00 Maximum Daily Average: 0.21 ppm on May 23																								Hours in Service: 744 Hours of Data: 705 Hours of Missing Data: 39 Hours of Calibration: 39 Percent Operational Time: 100.0		
Minimum Value: 0.1 ppm on May 29 13:00 Minimum Daily Average: 0.13 ppm on May 29 Maximum Diurnal Average: 0.19 ppm at hour 7 Minimum Diurnal Average: 0.15 ppm at hour 18 Monthly Average: 0.166 ppm Percentiles: P ₁ = 0.12 P ₁₀ = 0.13 Q ₁ = 0.14 Median = 0.16 Q ₃ = 0.18 P ₉₀ = 0.20 P ₉₉ = 0.29																										
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-May	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	0.2	0.2	0.2	0.18	0.22
2-May	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	0.2	0.2	0.2	0.2	0.16	0.17
3-May	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	0.1	0.2	0.2	0.2	0.2	0.2	0.17	0.19
4-May	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	0.16	0.19
5-May	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	A	0.1	0.15	0.16
6-May	0.1	0.1	0.1	0.1	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	0.2	0.2	0.2	A	0.2	0.2	0.16	0.21
7-May	0.2	0.2	0.2	0.1	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	A	0.2	0.2	0.2	0.19	0.31
8-May	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.16	0.18
9-May	0.2	0.2	0.2	0.2	0.2	0.2	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	0.17	0.19
10-May	0.2	0.2	0.2	0.2	0.2	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	0.20	0.23
11-May	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	C	C	C	C	C	C	0.1	0.1	A	0.1	0.1	0.1	0.2	0.2	0.1	0.2	--	0.27
12-May	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.14	0.19
13-May	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	A	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.18	0.30
14-May	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.16	0.25
15-May	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.15	0.20
16-May	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	0.2	0.18	0.23
17-May	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	0.3	0.3	0.18	0.31
18-May	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	0.2	0.19	0.23
19-May	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	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.3	0.2	0.2	0.18	0.25
20-May	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	0.2	0.2	0.2	0.2	0.2	0.17	0.20
21-May	0.1	0.1	0.1	0.1	0.2	0.2	A	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	0.2	0.2	0.2	0.15	0.17
22-May	0.2	0.2	0.2	0.2	0.2	A	0.3	0.4	0.3	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.20	0.35
23-May	0.2	0.3	0.2	0.2	A	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	0.2	0.2	0.2	0.2	0.2	0.21	0.28
24-May	0.2	0.2	0.2	A	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.4	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.1	0.1	0.20	0.44
25-May	0.1	0.1	A	0.1	0.1	0.1	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	0.2	0.1	0.2	0.2	0.1	0.14	0.17
26-May	0.1	A	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	0.1	0.1	0.1	0.1	0.1	0.13	0.14
27-May	A	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	0.1	0.1	0.1	0.1	0.1	A	0.13	0.15
28-May	0.1	0.1	0.1	0.1	0.1	0.1	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	0.1	A	0.1	0.13	0.17
29-May	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	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.13	0.16
30-May	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.16	0.19
31-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	A	0.2	0.2	0.2	0.2	0.17	0.22
0.17 0.17 0.16 0.16 0.17 0.18 0.19 0.19 0.17 0.16 0.16 0.16 0.17 0.16 0.15 0.15 0.15 0.15 0.15 0.15 0.16 0.17 0.18 0.18 0.18																								Diurnal Average		
0.25 0.28 0.21 0.21 0.23 0.24 0.31 0.35 0.29 0.24 0.22 0.30 0.44 0.29 0.19 0.18 0.19 0.19 0.19 0.21 0.24 0.25 0.31 0.30																								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 - May 2018



Hourly Maximums

Carbon Monoxide (CO) - ppm

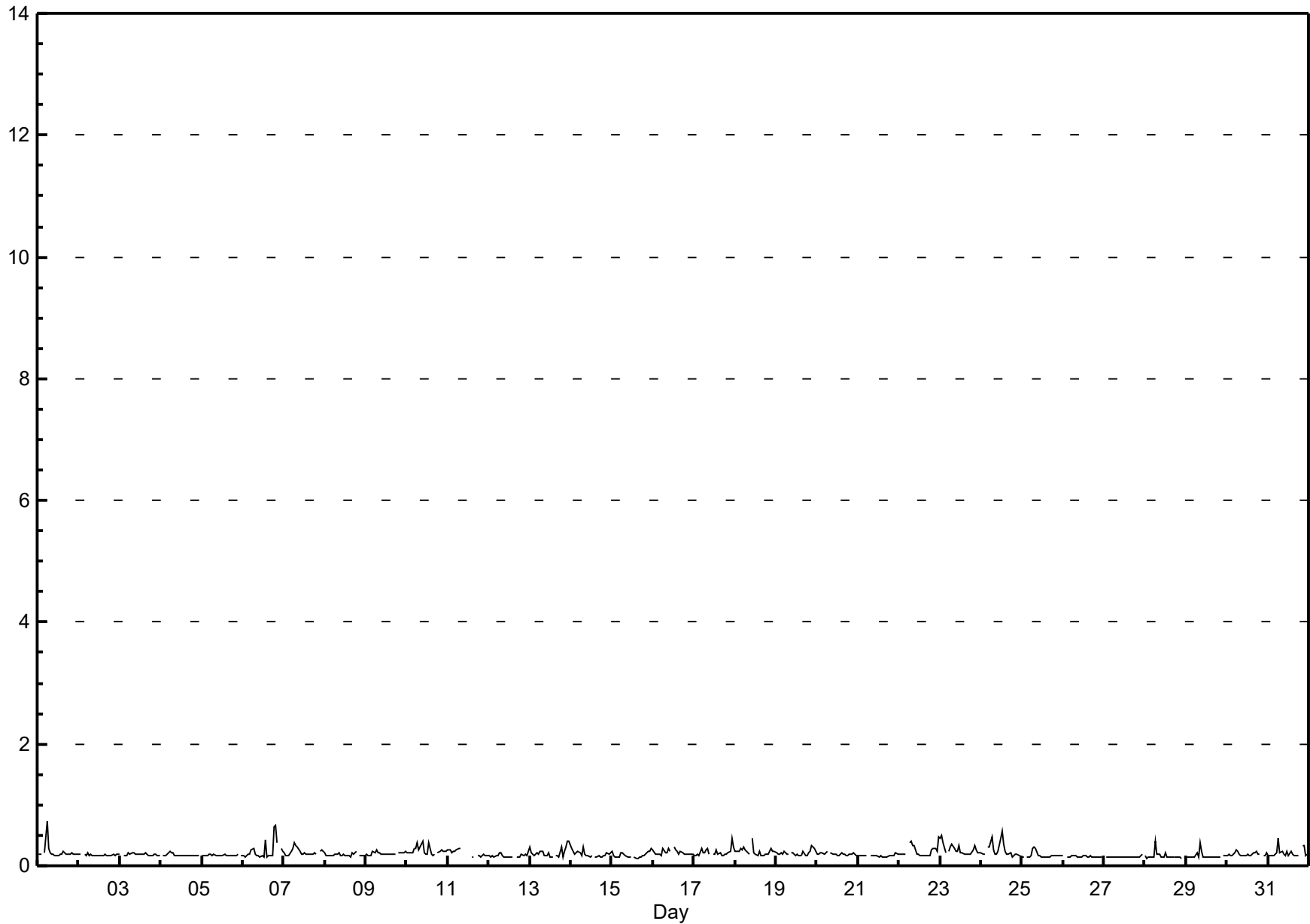
Henry Pirker - May 2018

Maximum Value: 0.73 ppm on May 1 06:00																				Maximum Daily Average: 0.27 ppm on May 23					Hours in Service: 744	
Minimum Value: 0.1 ppm on May 15 15:00																				Minimum Daily Average: 0.14 ppm on May 27					Hours of Data: 705	
Maximum Diurnal Average: 0.26 ppm at hour 7																				Minimum Diurnal Average: 0.17 ppm at hour 18					Hours of Missing Data: 39	
Monthly Average: 0.199 ppm																				Percentiles: P ₁ = 0.13 P ₁₀ = 0.14 Q ₁ = 0.16 Median = 0.18 Q ₃ = 0.21 P ₉₀ = 0.27 P ₉₉ = 0.46					Hours of Calibration: 39	
																									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-May	0.2	0.2	0.2	A	0.2	0.7	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	0.22	0.73
2-May	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	0.2	0.2	0.2	0.2	0.18	0.20
3-May	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	0.2	0.2	0.2	0.2	0.2	0.19	0.22
4-May	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	0.18	0.23
5-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	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	0.17	0.18
6-May	0.2	0.1	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.1	0.2	0.1	0.4	0.2	0.2	0.2	0.2	0.6	0.7	0.4	A	0.3	0.2	0.25	0.66
7-May	0.2	0.2	0.2	0.2	0.2	0.3	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	A	0.2	0.3	0.2	0.22	0.38
8-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	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	0.18	0.24
9-May	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	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.20	0.26
10-May	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.3	0.4	0.4	0.2	0.2	0.2	0.4	0.2	0.2	0.2	A	0.2	0.2	0.3	0.2	0.2	0.2	0.25	0.39
11-May	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.3	C	C	C	C	C	C	0.1	0.1	A	0.2	0.2	0.1	0.2	0.2	0.2	0.2	--	0.29
12-May	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.16	0.23
13-May	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	A	0.2	0.2	0.1	0.3	0.1	0.2	0.3	0.4	0.4	0.22	0.41
14-May	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.1	0.2	A	0.1	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.19	0.32
15-May	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.2	A	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.18	0.27
16-May	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.2	A	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22	0.30
17-May	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.3	0.2	A	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.5	0.3	0.22	0.46
18-May	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	A	0.5	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	0.24	0.45
19-May	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	0.2	0.3	0.3	0.2	0.21	0.34
20-May	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	0.2	0.2	0.2	0.2	0.2	0.19	0.23
21-May	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	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.16	0.20
22-May	0.2	0.2	0.2	0.2	0.2	A	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.5	0.24	0.48
23-May	0.5	0.5	0.4	0.2	A	0.2	0.3	0.4	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.27	0.50
24-May	0.2	0.2	0.2	A	0.3	0.3	0.5	0.3	0.2	0.2	0.2	0.5	0.6	0.4	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.25	0.56
25-May	0.1	0.1	A	0.1	0.1	0.2	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.17	0.30
26-May	0.2	A	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.15	0.17
27-May	A	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	0.1	0.1	0.1	0.1	0.1	0.1	0.2	A	0.14	0.20
28-May	0.2	0.1	0.1	0.1	0.2	0.2	0.4	0.2	0.2	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.16	0.41
29-May	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.4	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.2	0.2	0.16	0.37
30-May	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	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.19	0.26
31-May	0.2	0.2	0.2	0.2	0.2	0.2	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	A	0.3	0.3	0.2	0.2	0.21	0.44
0.21 0.19 0.18 0.18 0.20 0.23 0.26 0.23 0.21 0.19 0.19 0.19 0.19 0.20 0.17 0.17 0.18 0.17 0.19 0.20 0.21 0.21 0.22 0.22																									Diurnal Average	
0.46 0.50 0.38 0.29 0.32 0.73 0.47 0.40 0.37 0.39 0.45 0.46 0.56 0.44 0.25 0.23 0.24 0.23 0.63 0.66 0.38 0.34 0.46 0.48																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										

Hourly Maximums

Carbon Monoxide (CO) - ppm

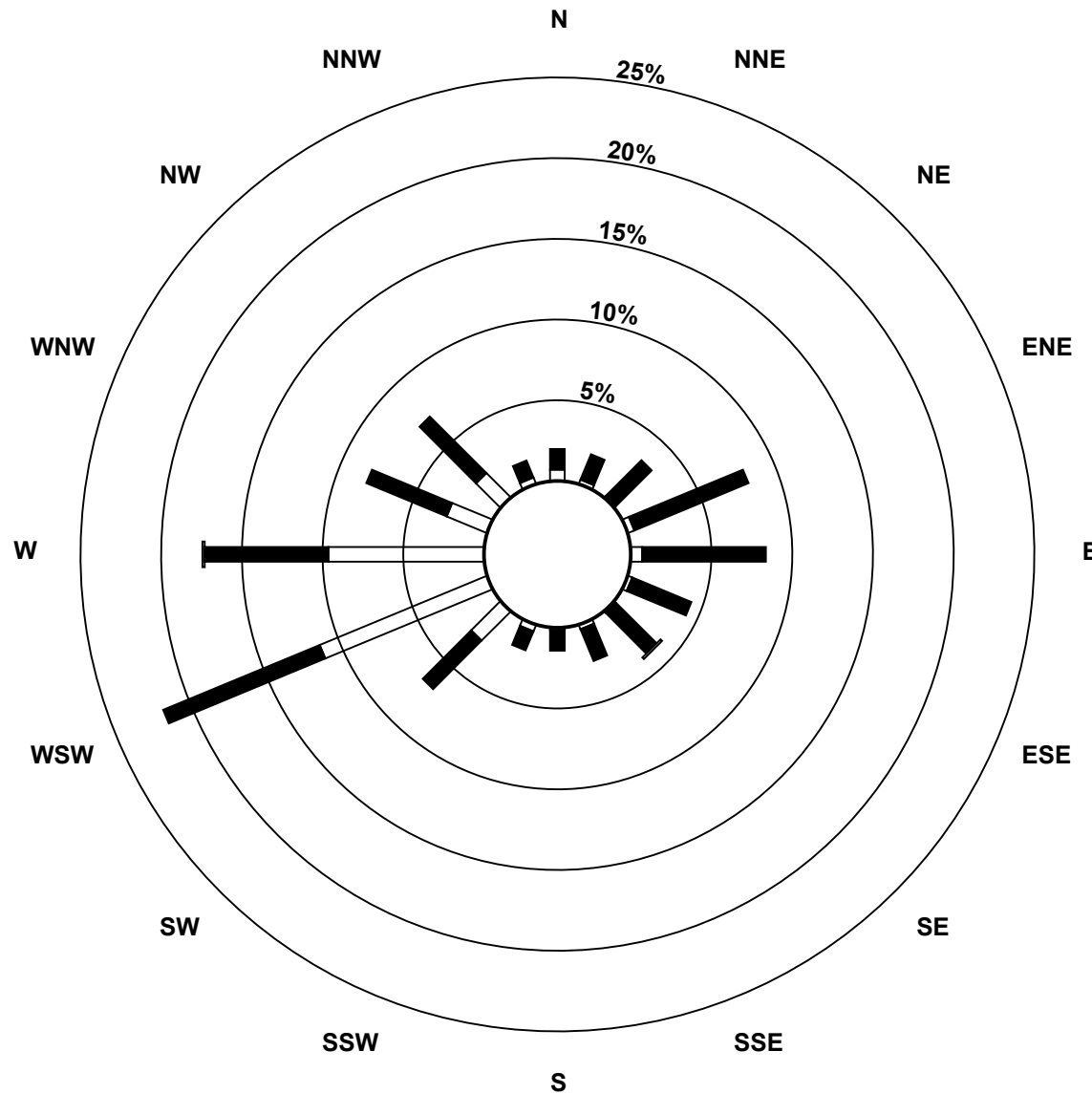
Henry Pirker - May 2018



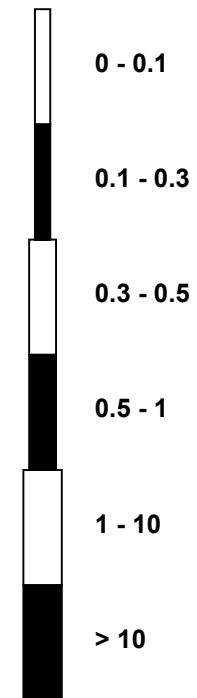
Pollutant Rose

Carbon Monoxide (CO) - ppm

Henry Pirker - May 2018



Pollutant Classes (ppm)



Eight Hour Running Averages

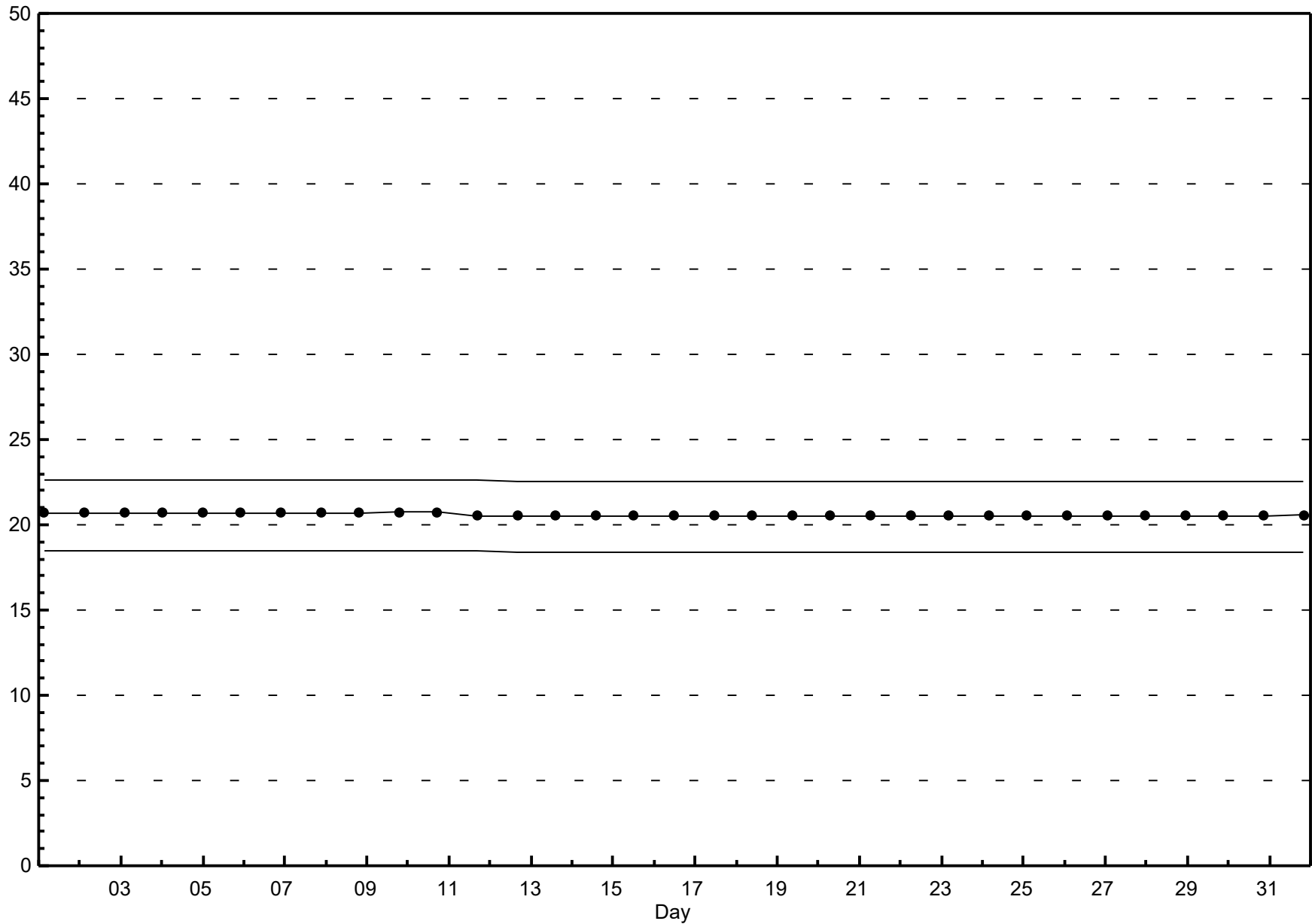
Carbon Monoxide (CO) - ppm

Henry Pirker - May 2018

Number of Exceedences (AAAQO): 8-hr: 0 Maximum Value: 0.26 ppm on May 24 14:00																					Hours in Service: 744 Hours of Data: 734 Hours of Missing Data: 10 Hours of Calibration: 10 Percent Operational Time: 100.0					
Minimum Value: 0.12 ppm on May 29 18:00																										
Percentiles: P ₁ = 0.12 P ₁₀ = 0.13 Q ₁ = 0.15 Median = 0.16 Q ₃ = 0.18 P ₉₀ = 0.20 P ₉₉ = 0.24																										
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-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19
2-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18
3-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18
4-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.17
5-May	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	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.16
6-May	0.2	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	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.17
7-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	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-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19
9-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18
10-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21
11-May	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	N	N	0.1	0.1	0.1	0.1	0.24	
12-May	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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.15	
13-May	0.2	0.2	0.2	0.2	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	0.2	0.2	0.2	0.2	0.20
14-May	0.2	0.2	0.2	0.2	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	0.1	0.1	0.1	0.1	0.23
15-May	0.2	0.2	0.2	0.2	0.2	0.1	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	0.1	0.1	0.1	0.2	0.16
16-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19
17-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20
18-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.23
19-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19
20-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20
21-May	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	0.1	0.1	0.1	0.1	0.1	0.1	0.16
22-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.24
23-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.24
24-May	0.2	0.2	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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.26
25-May	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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.15
26-May	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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.15
27-May	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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.13
28-May	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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.14
29-May	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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.13
30-May	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	0.2	0.2	0.17
31-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18
0.22 0.22 0.22 0.23 0.23 0.23 0.23 0.24 0.24 0.24 0.24 0.24 0.25 0.26 0.25 0.24 0.24 0.24 0.24 0.23 0.21 0.19 0.19 0.20 0.21																										
Diurnal Maximums																										
N - Not Valid																										
Alberta Ambient Air Quality Objectives (AAAQO): 8-hr 5 ppm																										

Span Responses

Carbon Monoxide (CO)
Henry Pirker - May 2018



Hourly Averages

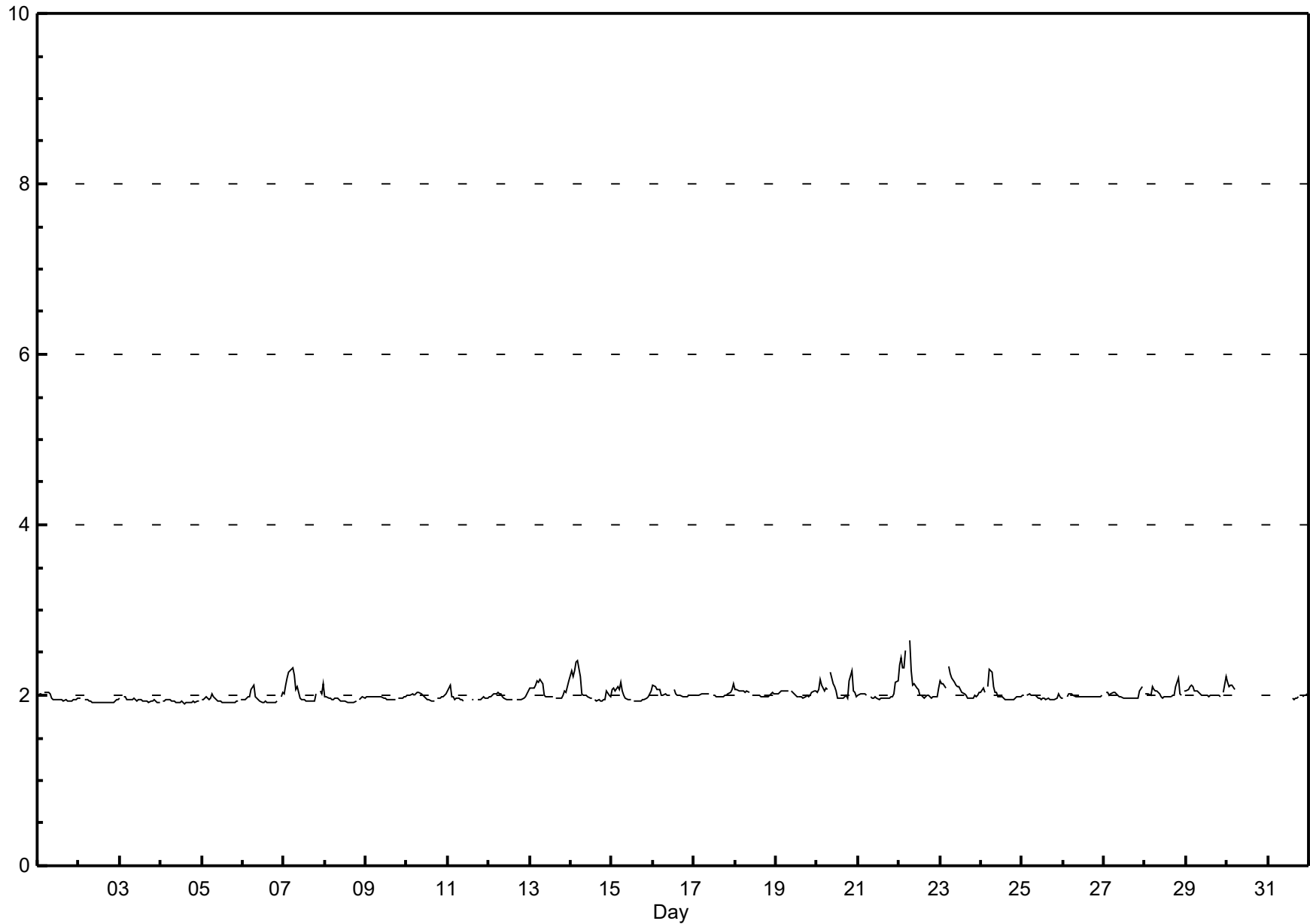
Total Hydrocarbons (THC) - ppm

Henry Pirker - May 2018

Maximum Value: 2.64 ppm on May 22 07:00																					Maximum Daily Average: 2.14 ppm on May 22				Hours in Service: 744	
Minimum Value: 1.9 ppm on May 4 15:00																					Minimum Daily Average: 1.93 ppm on May 4				Hours of Data: 675	
Maximum Diurnal Average: 2.07 ppm at hour 7																					Minimum Diurnal Average: 1.95 ppm at hour 16				Hours of Missing Data: 69	
Monthly Average: 2.004 ppm																					Percentiles: P ₁ = 1.91 P ₁₀ = 1.93 Q ₁ = 1.95 Median = 1.98 Q ₃ = 2.02 P ₉₀ = 2.10 P ₉₉ = 2.33				Hours of Calibration: 40	
																					Percent Operational Time: 96.1					
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-May	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	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.97	2.03
2-May	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	1.9	1.9	2.0	2.0	1.93	1.96
3-May	2.0	A	2.0	2.0	1.9	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	1.9	1.9	1.9	1.9	1.9	1.9	1.94	1.98
4-May	A	1.9	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	1.9	1.9	A	1.93	1.96
5-May	1.9	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	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.94	2.02
6-May	2.0	2.0	2.0	2.0	2.0	2.1	2.1	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	A	2.0	2.0	1.96	2.12
7-May	2.0	2.1	2.2	2.3	2.3	2.3	2.2	2.1	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	A	2.0	2.0	2.1	2.06	2.33
8-May	2.0	2.0	2.0	2.0	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.0	2.0	2.0	2.0	2.0	1.95	1.99
9-May	2.0	2.0	2.0	2.0	2.0	2.0	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	1.97	1.99
10-May	2.0	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	1.9	A	2.0	2.0	2.0	2.0	2.0	2.0	1.98	2.03
11-May	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	C	C	C	C	2.0	1.9	A	1.9	2.0	2.0	2.0	2.0	2.0	2.0	1.97	2.12
12-May	2.0	2.0	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	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	1.98	2.05
13-May	2.1	2.1	2.1	2.1	2.2	2.2	2.2	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	2.1	2.0	2.1	2.2	2.05	2.19
14-May	2.3	2.2	2.3	2.4	2.4	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	1.9	1.9	2.0	1.9	1.9	2.0	2.0	2.1	2.0	2.0	2.06	2.41
15-May	2.1	2.1	2.0	2.1	2.1	2.1	2.0	2.0	2.0	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.1	2.00	2.15
16-May	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	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	2.02	2.11
17-May	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	2.0	2.0	2.0	2.1	2.1	2.01	2.14
18-May	2.1	2.1	2.1	2.0	2.1	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	2.0	2.0	2.0	2.02	2.07
19-May	2.0	2.0	2.0	2.0	2.0	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	2.0	2.0	2.0	2.0	2.02	2.05
20-May	2.0	2.1	2.2	2.1	2.0	2.1	2.1	A	2.3	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.3	2.1	2.0	2.07	2.30
21-May	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	2.0	2.0	2.1	2.2	2.00	2.17
22-May	2.4	2.4	2.3	2.3	2.5	A	2.6	2.3	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	2.1	2.14	2.64
23-May	2.2	2.1	2.1	2.1	A	2.3	2.2	2.2	2.2	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	2.08	2.34
24-May	2.0	2.1	2.0	A	2.1	2.3	2.3	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.02	2.30
25-May	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	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	1.98	2.02
26-May	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	2.0	2.0	2.0	2.0	2.0	2.0	1.98	2.02
27-May	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	2.1	A	2.00	2.10
28-May	2.0	2.0	2.0	2.0	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	2.1	2.2	2.0	2.0	A	2.1	2.02	2.21
29-May	2.0	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.2	2.04	2.23
30-May	2.2	2.1	2.1	2.1	2.1	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	2.15
31-May	N	N	N	N	N	N	N	N	N	N	N	C	C	C	C	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	--	2.02
																									Diurnal Average	
																									Diurnal Maximum	
C - Calibration																										
N - Not Valid																										
A - Automated Daily Zero Span																										

Hourly Averages

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



Hourly Maximums

Total Hydrocarbons (THC) - ppm

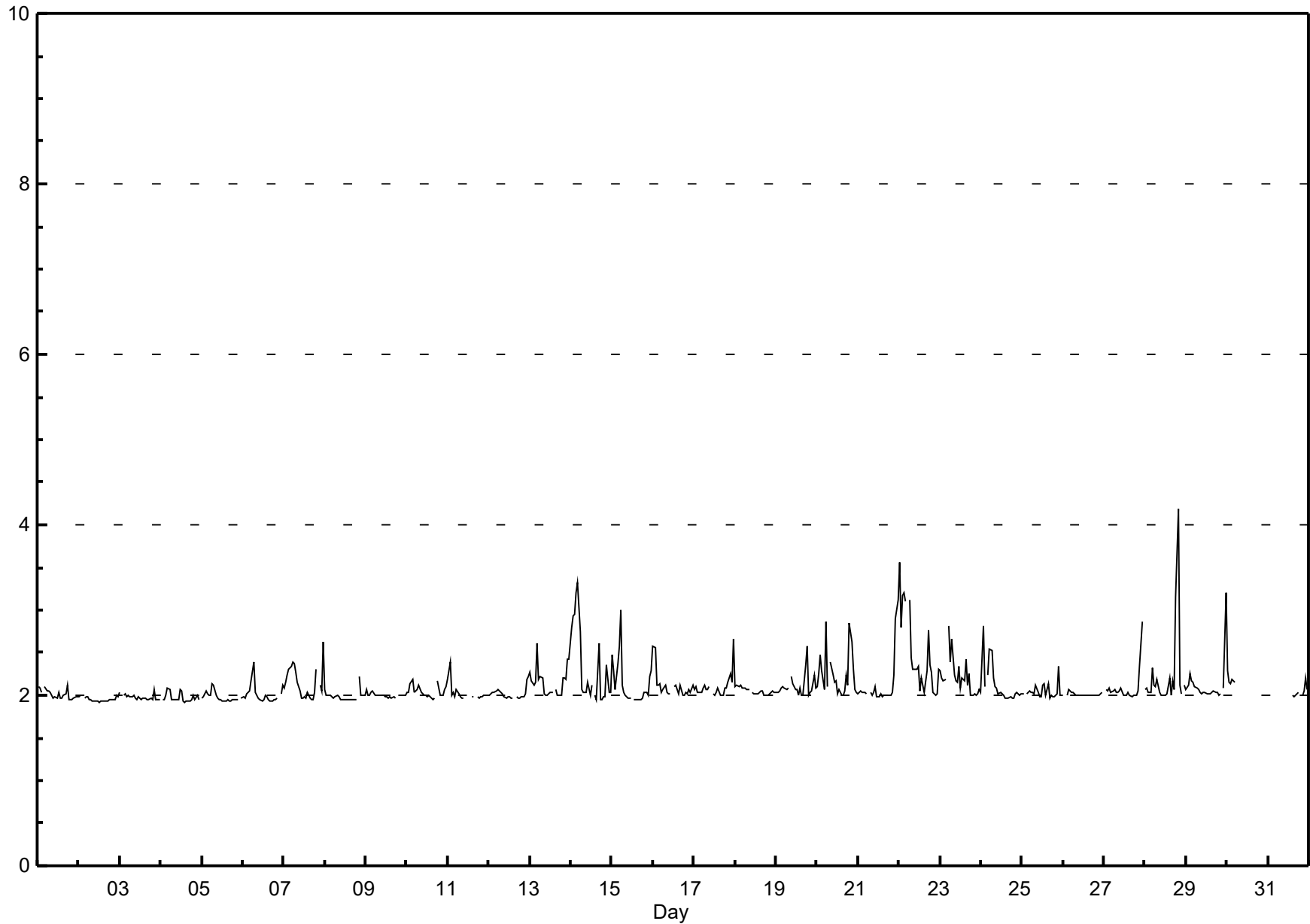
Henry Pirker - May 2018

Maximum Value: 4.19 ppm on May 28 20:00																				Maximum Daily Average: 2.48 ppm on May 22										Hours in Service: 744	
Minimum Value: 1.9 ppm on May 4 15:00																				Minimum Daily Average: 1.95 ppm on May 2										Hours of Data: 675	
Maximum Diurnal Average: 2.20 ppm at hour 6																				Minimum Diurnal Average: 2.00 ppm at hour 16										Hours of Missing Data: 69	
Monthly Average: 2.094 ppm																				Percentiles: P ₁ = 1.93 P ₁₀ = 1.96 Q ₁ = 1.98 Median = 2.02 Q ₃ = 2.10 P ₉₀ = 2.29 P ₉₉ = 3.16										Hours of Calibration: 40	
																				Percent Operational Time: 96.1											
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-May	2.1	2.1	2.0	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	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.01	2.12					
2-May	2.0	2.0	A	2.0	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	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.95	1.99					
3-May	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	1.9	1.9	2.0	1.9	2.1	2.0	1.9	1.9	1.98	2.06					
4-May	A	2.0	2.0	2.0	2.1	2.1	2.0	2.0	1.9	1.9	2.0	2.1	2.1	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	2.0	2.0	A	1.97	2.09					
5-May	2.0	2.0	2.1	2.0	2.0	2.0	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	2.0	2.0	A	2.0	1.98	2.13					
6-May	2.0	2.0	2.0	2.0	2.1	2.2	2.4	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	A	2.0	2.1	2.01	2.38					
7-May	2.1	2.2	2.2	2.3	2.3	2.4	2.4	2.3	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.3	A	2.1	2.1	2.6	2.14	2.62					
8-May	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.2	2.0	2.0	2.0	2.0	1.98	2.22					
9-May	2.1	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.00	2.06					
10-May	2.0	2.0	2.1	2.2	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	A	2.2	2.0	2.0	2.0	2.1	2.1	2.04	2.18					
11-May	2.2	2.4	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	C	C	C	C	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.02	2.38					
12-May	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	A	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.2	2.02	2.21					
13-May	2.3	2.2	2.1	2.1	2.6	2.2	2.2	2.2	2.0	2.0	2.0	2.0	2.0	2.0	A	2.1	2.0	2.0	2.0	2.2	2.2	2.2	2.4	2.4	2.16	2.61					
14-May	2.8	2.9	2.9	3.2	3.3	2.7	2.1	2.0	2.0	2.0	2.2	2.0	2.1	A	2.0	2.0	2.6	2.0	2.0	2.0	2.0	2.3	2.0	2.0	2.31	3.31					
15-May	2.5	2.3	2.1	2.4	2.6	3.0	2.1	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	2.2	2.3	2.14	3.01					
16-May	2.6	2.6	2.1	2.1	2.1	2.0	2.1	2.1	2.0	2.0	2.0	A	2.1	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.11	2.57					
17-May	2.1	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	A	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.1	2.1	2.2	2.3	2.2	2.7	2.10	2.66					
18-May	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.05	2.12					
19-May	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	A	2.2	2.1	2.1	2.1	2.0	2.1	2.0	2.0	2.4	2.6	2.0	2.0	2.1	2.2	2.1	2.11	2.57					
20-May	2.1	2.3	2.5	2.3	2.1	2.9	2.1	A	2.4	2.2	2.1	2.2	2.0	2.1	2.0	2.0	2.1	2.2	2.1	2.9	2.6	2.3	2.1	2.0	2.24	2.86					
21-May	2.0	2.1	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	2.0	2.0	2.2	2.9	3.1	2.11	3.11					
22-May	3.6	2.8	3.2	3.2	3.1	A	3.1	2.4	2.3	2.3	2.3	2.3	2.1	2.2	2.1	2.0	2.3	2.8	2.3	2.3	2.0	2.0	2.0	2.3	2.48	3.56					
23-May	2.3	2.2	2.2	2.2	A	2.8	2.4	2.7	2.2	2.2	2.2	2.3	2.1	2.2	2.2	2.4	2.1	2.3	2.0	2.0	2.0	2.0	2.1	2.22	2.81						
24-May	2.0	2.8	2.1	A	2.2	2.5	2.5	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	2.11	2.82					
25-May	2.0	2.0	A	2.0	2.1	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.3	2.0	2.0	2.04	2.35					
26-May	2.0	A	2.0	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	2.0	2.0	2.0	2.0	2.01	2.08					
27-May	A	2.1	2.1	2.1	2.0	2.1	2.1	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.3	2.9	A	2.08	2.87					
28-May	2.1	2.1	2.0	2.0	2.3	2.1	2.1	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.0	2.2	2.1	3.2	4.2	2.1	2.0	A	2.1	2.22	4.19					
29-May	2.1	2.1	2.3	2.2	2.2	2.1	2.1	2.1	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	A	2.1	3.2	2.12	3.21					
30-May	2.3	2.1	2.1	2.2	2.2	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	2.28					
31-May	N	N	N	N	N	N	N	N	N	N	N	C	C	C	C	2.0	2.0	2.0	2.0	2.0	A	2.0	2.1	2.2	2.1	--	2.21				
																									Diurnal Average						
																									Diurnal Maximum						
C - Calibration																									N - Not Valid		A - Automated Daily Zero Span				

Hourly Maximums

Total Hydrocarbons (THC) - ppm

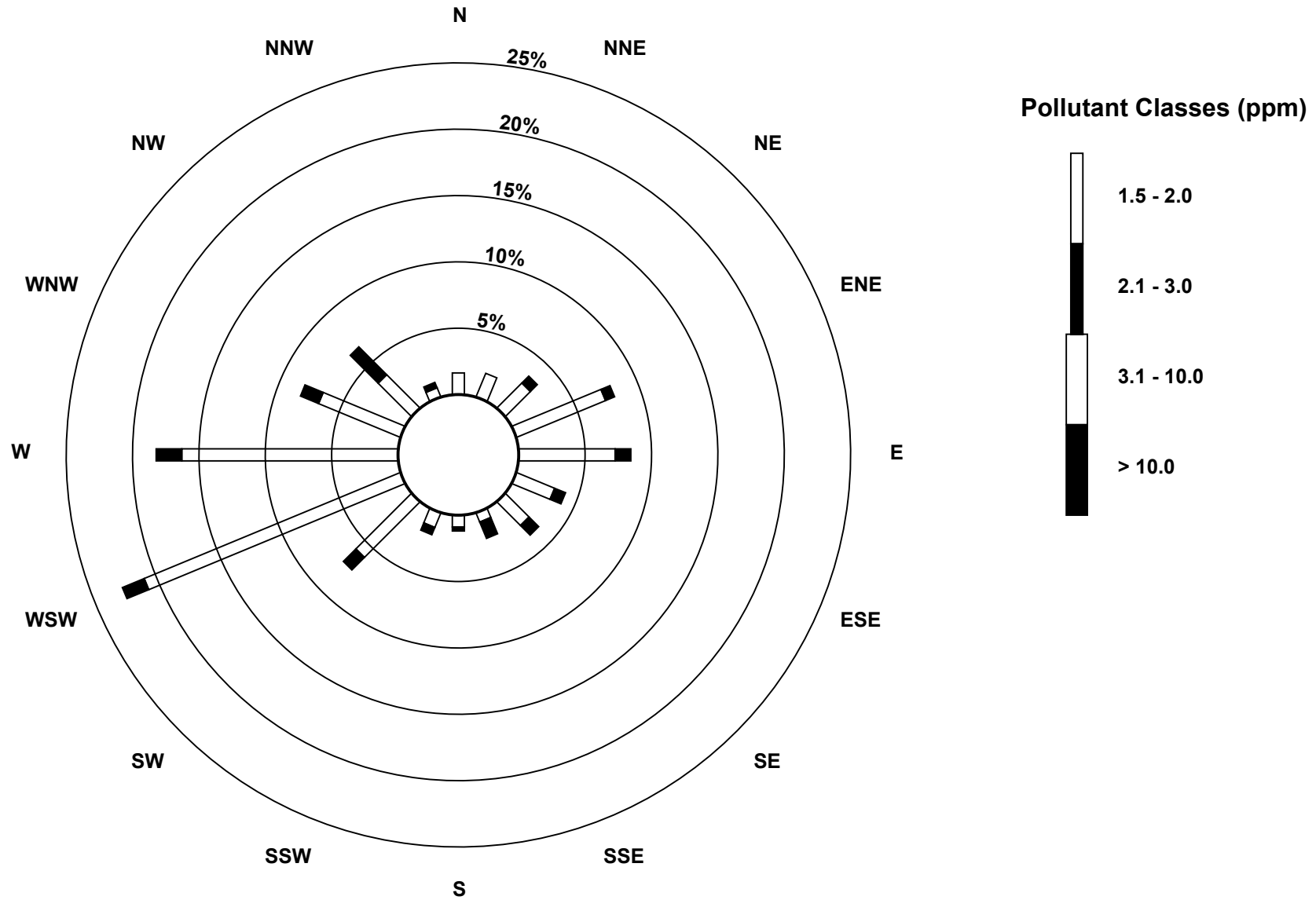
Henry Pirker - May 2018



Pollutant Rose

Total Hydrocarbons (THC) - ppm

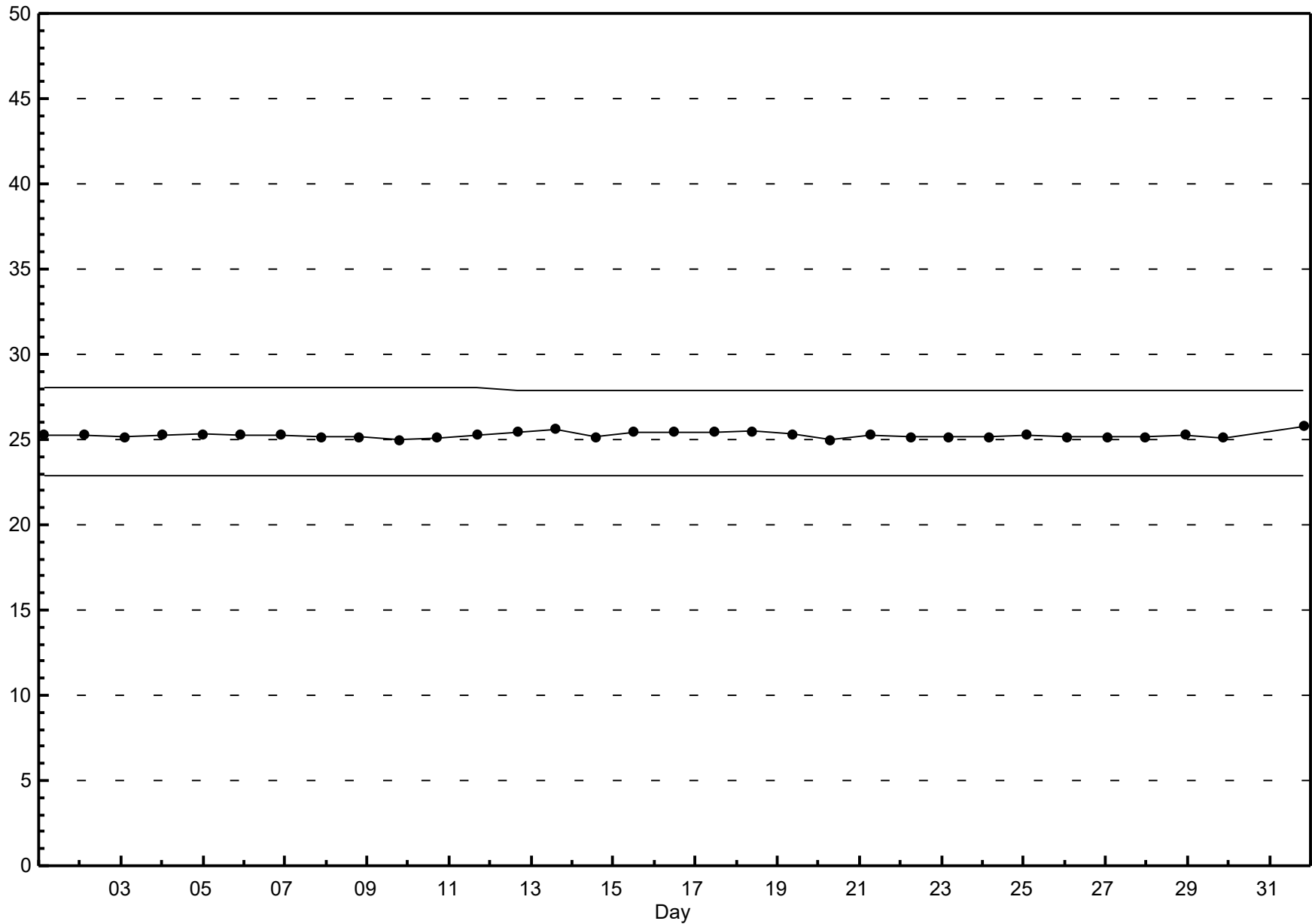
Henry Pirker - May 2018



Span Responses

Total Hydrocarbons (THC)

Henry Pirker - May 2018



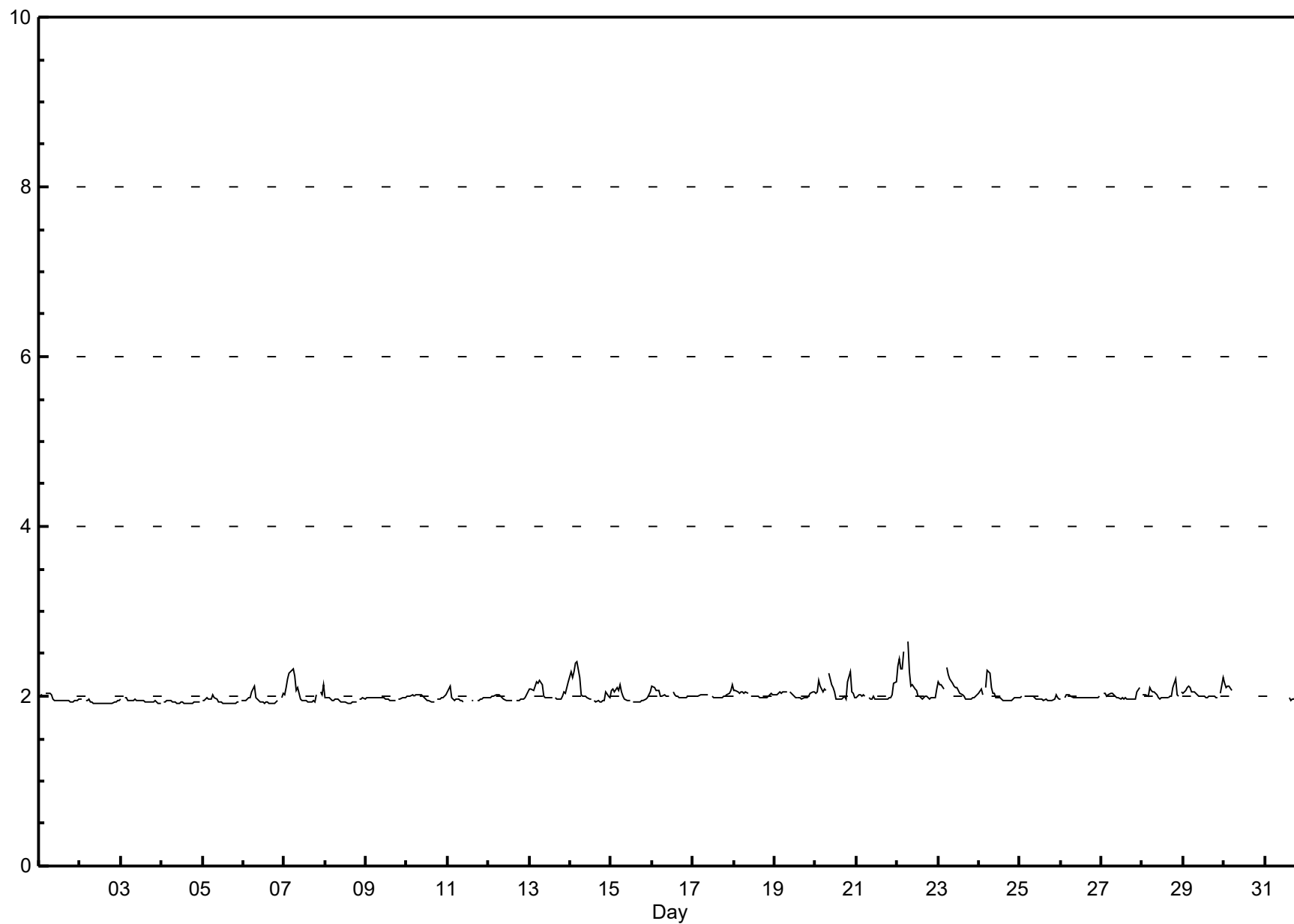
Hourly Averages

Methane (CH₄) - ppm
Henry Pirker - May 2018

Maximum Value: 2.64 ppm on May 22 07:00																					Maximum Daily Average: 2.14 ppm on May 22				Hours in Service: 744		
Minimum Value: 1.9 ppm on May 2 12:00																					Minimum Daily Average: 1.93 ppm on May 4				Hours of Data: 675		
Maximum Diurnal Average: 2.07 ppm at hour 7																					Minimum Diurnal Average: 1.96 ppm at hour 16				Hours of Missing Data: 69		
Monthly Average: 2.004 ppm																					Percentiles: P ₁ = 1.91 P ₁₀ = 1.93 Q ₁ = 1.96 Median = 1.98 Q ₃ = 2.02 P ₉₀ = 2.10 P ₉₉ = 2.33				Hours of Calibration: 40		
																					Percent Operational Time: 96.1						
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-May	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	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.97	2.03	
2-May	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	1.9	1.9	2.0	2.0	1.93	1.96	
3-May	2.0	A	2.0	2.0	1.9	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	1.9	1.9	2.0	1.9	1.9	1.9	1.94	1.98	
4-May	A	1.9	1.9	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	1.9	1.9	1.9	A	1.93	1.96	
5-May	1.9	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	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.94	2.02	
6-May	2.0	2.0	2.0	2.0	2.0	2.1	2.1	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	A	2.0	2.0	1.96	2.12	
7-May	2.0	2.1	2.2	2.3	2.3	2.3	2.2	2.1	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	A	2.0	2.0	2.1	2.06	2.33	
8-May	2.0	2.0	2.0	2.0	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.0	2.0	2.0	2.0	2.0	1.95	1.99	
9-May	2.0	2.0	2.0	2.0	2.0	2.0	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	1.97	1.99	
10-May	2.0	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	1.9	A	2.0	2.0	2.0	2.0	2.0	2.0	1.98	2.02	
11-May	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	C	C	C	C	2.0	1.9	A	1.9	2.0	2.0	2.0	2.0	2.0	2.0	1.97	2.12	
12-May	2.0	2.0	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	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.98	2.05	
13-May	2.1	2.1	2.1	2.1	2.2	2.2	2.2	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	2.1	2.0	2.1	2.2	2.05	2.19	
14-May	2.3	2.2	2.3	2.4	2.4	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	1.9	1.9	2.0	1.9	1.9	2.0	2.0	2.1	2.0	2.0	2.06	2.40	
15-May	2.1	2.1	2.0	2.1	2.1	2.1	2.0	2.0	2.0	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.1	2.00	2.14	
16-May	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	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	2.02	2.11	
17-May	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	2.0	2.0	2.0	2.1	2.1	2.01	2.14	
18-May	2.1	2.1	2.1	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	2.0	2.0	2.0	2.02	2.07	
19-May	2.0	2.0	2.0	2.0	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	2.02	2.05	
20-May	2.0	2.1	2.2	2.1	2.0	2.1	2.1	A	2.3	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.3	2.1	2.0	2.07	2.29	
21-May	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	2.0	2.0	2.1	2.2	2.00	2.17	
22-May	2.4	2.4	2.3	2.3	2.5	A	2.6	2.3	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	2.1	2.14	2.64	
23-May	2.2	2.1	2.1	2.1	A	2.3	2.2	2.2	2.2	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	2.08	2.34	
24-May	2.0	2.1	2.0	A	2.1	2.3	2.3	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	1.9	1.9	2.0	2.0	2.0	2.0	2.02	2.30	
25-May	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	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.98	2.02	
26-May	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	2.0	2.0	2.0	2.0	2.0	2.0	1.99	2.02	
27-May	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	2.1	A	2.00	2.09	
28-May	2.0	2.0	2.0	2.0	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	2.1	2.2	2.0	2.0	A	2.0	2.02	2.21
29-May	2.0	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.2	2.03	2.23	
30-May	2.2	2.1	2.1	2.1	2.1	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	2.15
31-May	N	N	N	N	N	N	N	N	N	N	N	C	C	C	C	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	--	2.02	
																									Diurnal Average		
																									Diurnal Maximum		
C - Calibration																											
N - Not Valid																											
A - Automated Daily Zero Span																											

Hourly Averages

Methane (CH₄) - ppm
Henry Pirker - May 2018



Hourly Maximums

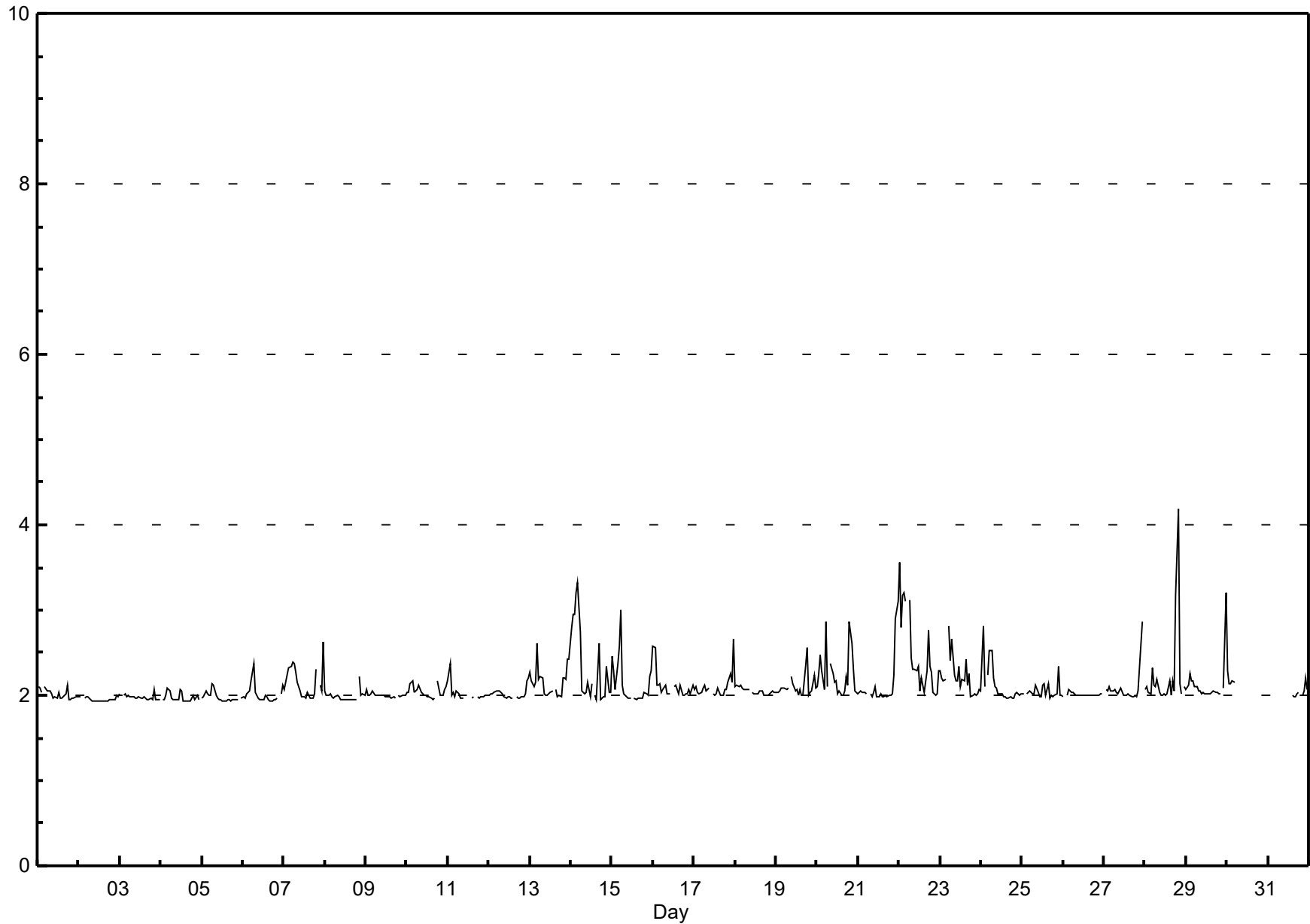
Methane (CH₄) - ppm

Henry Pirker - May 2018

Maximum Value: 4.19 ppm on May 28 20:00																					Maximum Daily Average: 2.48 ppm on May 22				Hours in Service: 744		
Minimum Value: 1.9 ppm on May 4 15:00																					Minimum Daily Average: 1.95 ppm on May 2				Hours of Data: 675		
Maximum Diurnal Average: 2.20 ppm at hour 6																					Minimum Diurnal Average: 2.00 ppm at hour 16				Hours of Missing Data: 69		
Monthly Average: 2.093 ppm																					Percentiles: P ₁ = 1.93 P ₁₀ = 1.95 Q ₁ = 1.98 Median = 2.02 Q ₃ = 2.10 P ₉₀ = 2.29 P ₉₉ = 3.16				Hours of Calibration: 40		
																					Percent Operational Time: 96.1						
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-May	2.1	2.1	2.0	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	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.01	2.12	
2-May	2.0	2.0	A	2.0	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	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.95	1.99	
3-May	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	1.9	1.9	2.0	1.9	2.1	2.0	1.9	1.9	1.98	2.06	
4-May	A	2.0	2.0	2.0	2.1	2.1	2.0	2.0	1.9	1.9	2.0	2.1	2.1	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	2.0	2.0	A	1.97	2.09	
5-May	2.0	2.0	2.1	2.0	2.0	2.0	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	2.0	2.0	A	2.0	1.98	2.13	
6-May	2.0	2.0	2.0	2.0	2.0	2.2	2.4	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	A	2.0	2.1	2.01	2.38	
7-May	2.1	2.2	2.2	2.3	2.3	2.4	2.4	2.3	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.3	A	2.1	2.1	2.6	2.14	2.62	
8-May	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	A	2.2	2.0	2.0	2.0	1.98	2.22	
9-May	2.1	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.00	2.06	
10-May	2.0	2.0	2.1	2.2	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	A	2.2	2.0	2.0	2.0	2.1	2.1	2.04	2.18	
11-May	2.2	2.4	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	C	C	C	C	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.02	2.37	
12-May	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	A	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.2	2.02	2.20	
13-May	2.3	2.2	2.1	2.1	2.6	2.2	2.2	2.2	2.0	2.0	2.0	2.0	2.0	2.0	A	2.1	2.0	2.0	2.0	2.2	2.2	2.2	2.4	2.4	2.15	2.61	
14-May	2.8	2.9	2.9	3.2	3.3	2.7	2.1	2.0	2.0	2.0	2.2	2.0	2.1	A	2.0	2.0	2.6	2.0	2.0	2.0	2.0	2.3	2.0	2.0	2.31	3.32	
15-May	2.5	2.3	2.1	2.4	2.6	3.0	2.1	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	2.2	2.3	2.3	2.14	3.00	
16-May	2.6	2.6	2.1	2.1	2.1	2.0	2.1	2.1	2.0	2.0	2.0	A	2.1	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.11	2.57	
17-May	2.1	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	A	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.3	2.2	2.10	2.65	
18-May	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.05	2.12	
19-May	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	A	2.2	2.1	2.1	2.1	2.0	2.1	2.0	2.0	2.4	2.6	2.0	2.0	2.1	2.2	2.1	2.11	2.57	
20-May	2.1	2.2	2.5	2.3	2.1	2.9	2.1	A	2.4	2.2	2.1	2.2	2.0	2.1	2.0	2.0	2.1	2.2	2.1	2.9	2.6	2.3	2.1	2.0	2.24	2.87	
21-May	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	2.0	2.0	2.2	2.9	3.1	2.11	3.11	
22-May	3.6	2.8	3.2	3.2	3.1	A	3.1	2.4	2.3	2.3	2.3	2.3	2.1	2.2	2.1	2.0	2.3	2.8	2.3	2.3	2.0	2.0	2.0	2.3	2.48	3.56	
23-May	2.3	2.2	2.2	2.2	A	2.8	2.4	2.7	2.2	2.2	2.2	2.3	2.1	2.2	2.2	2.4	2.1	2.2	2.0	2.0	2.0	2.0	2.0	2.1	2.22	2.81	
24-May	2.0	2.8	2.1	A	2.2	2.5	2.5	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	2.11	2.81	
25-May	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.3	2.0	2.0	2.04	2.35	
26-May	2.0	A	2.0	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	2.0	2.0	2.0	2.0	2.01	2.07	
27-May	A	2.1	2.1	2.1	2.0	2.1	2.1	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.3	2.9	A	2.08	2.86	
28-May	2.1	2.1	2.0	2.0	2.3	2.1	2.1	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.0	2.2	2.1	3.2	4.2	2.1	2.0	A	2.1	2.22	4.19	
29-May	2.1	2.1	2.3	2.2	2.2	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	A	2.1	3.2	2.11	3.20	
30-May	2.3	2.1	2.1	2.2	2.2	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	2.28	
31-May	N	N	N	N	N	N	N	N	N	N	N	C	C	C	C	2.0	2.0	2.0	2.0	2.0	A	2.0	2.1	2.2	2.1	--	2.21
																									Diurnal Average		
																									Diurnal Maximum		
C - Calibration																											
N - Not Valid																											
A - Automated Daily Zero Span																											

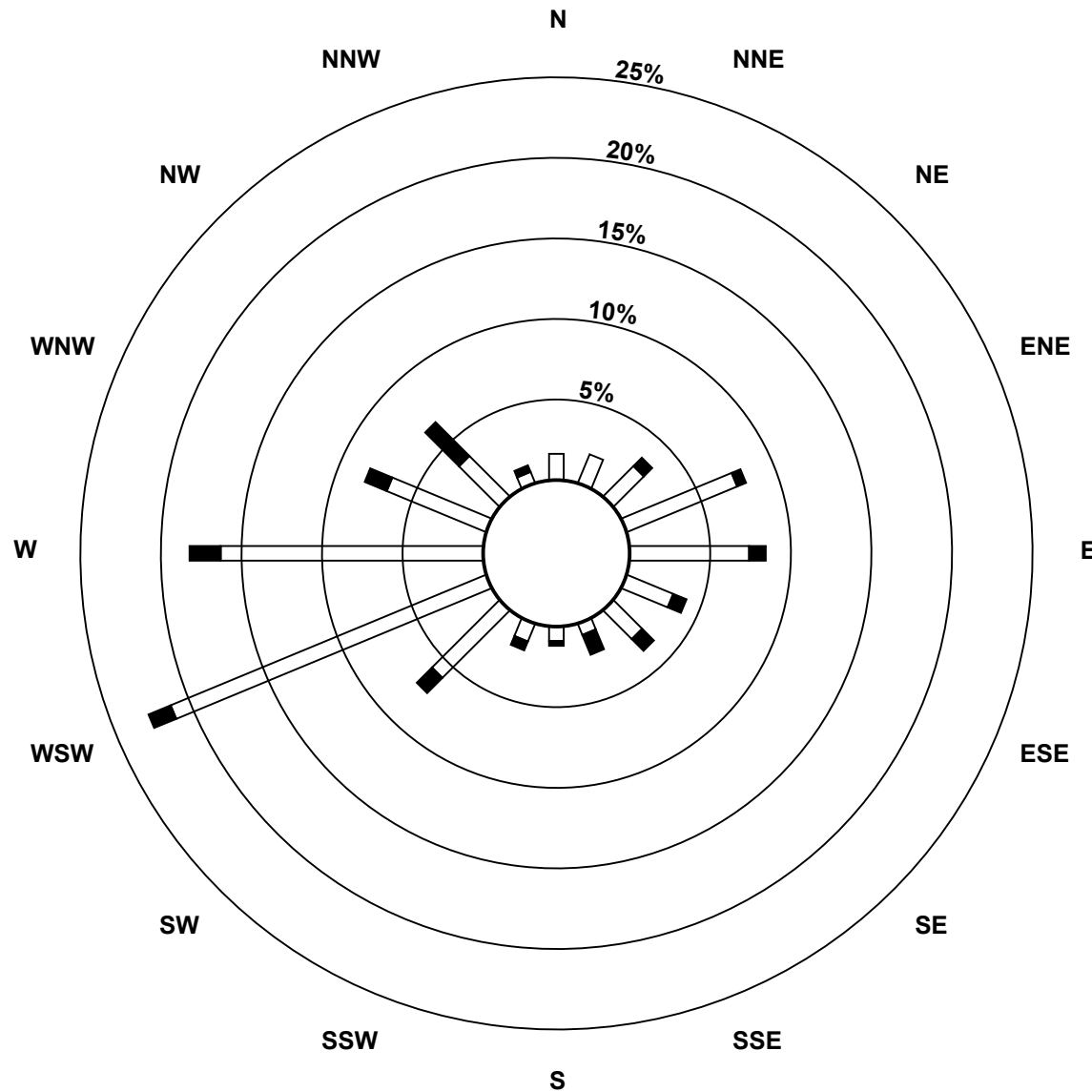
Hourly Maximums

Methane (CH₄) - ppm
Henry Pirker - May 2018

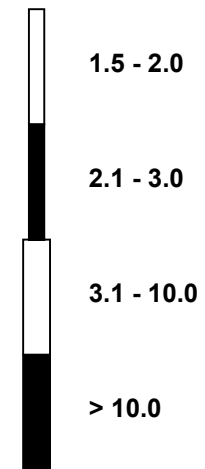


Pollutant Rose

Methane (CH₄) - ppm
Henry Pirker - May 2018

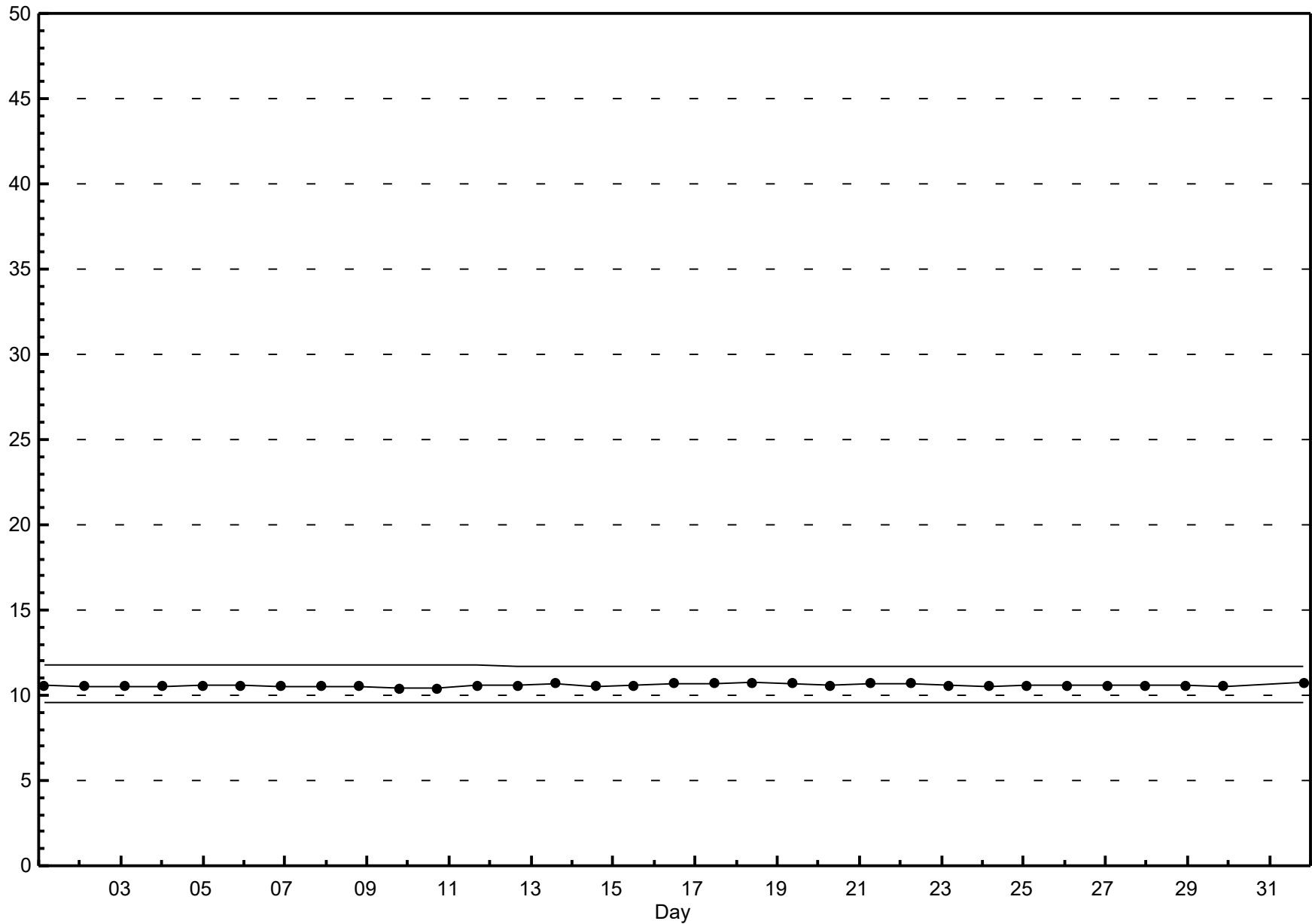


Pollutant Classes (ppm)



Span Responses

Methane (CH₄)
Henry Pirker - May 2018

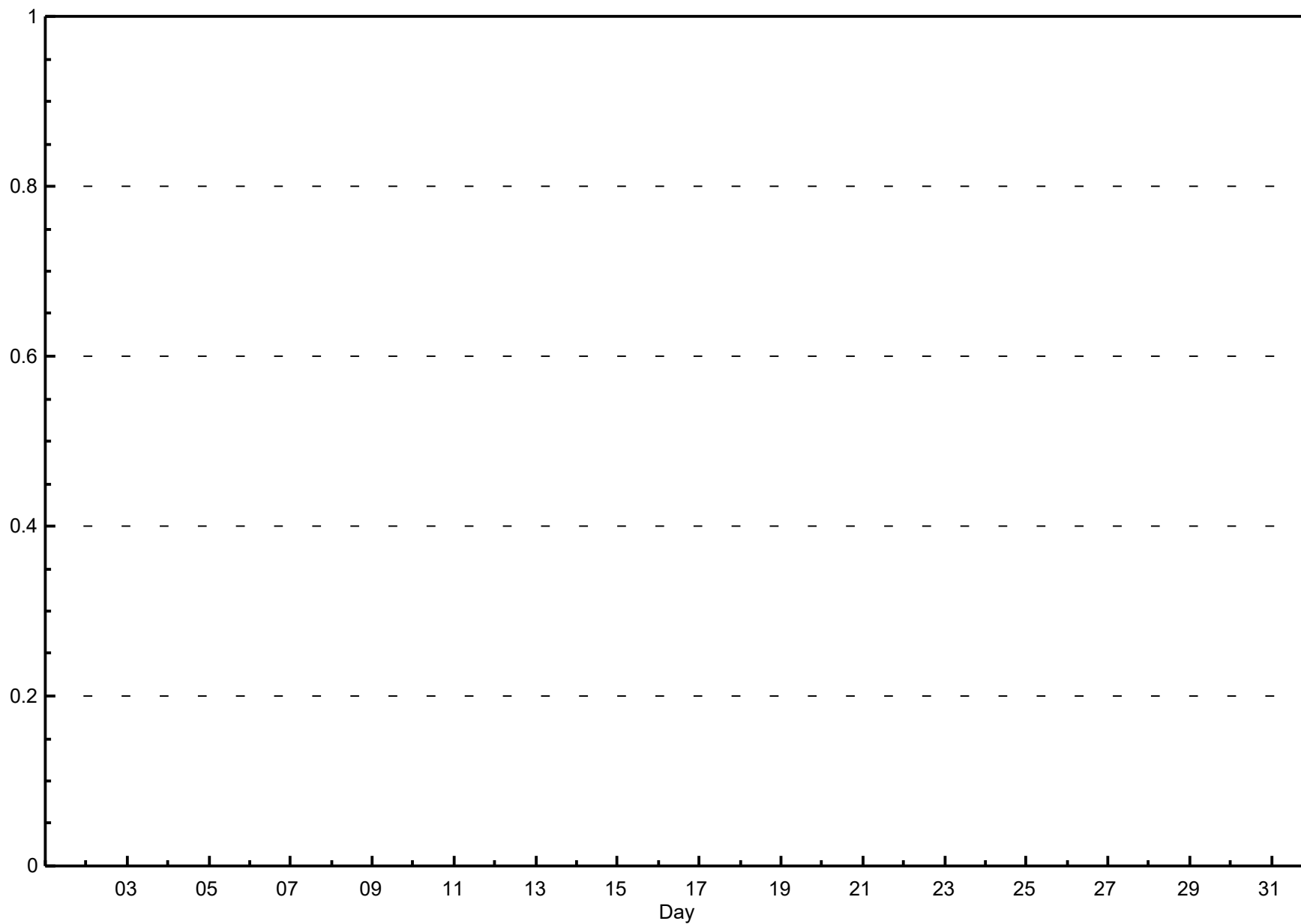


Hourly Averages

Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - May 2018

Maximum Value: 0.00 ppm on May 11 09:00																				Maximum Daily Average: 0.00 ppm on May 11					Hours in Service: 744	
Minimum Value: 0.0 ppm on May 1 01:00																				Minimum Daily Average: 0.00 ppm on May 1					Hours of Data: 675	
Maximum Diurnal Average: 0.00 ppm at hour 7																				Minimum Diurnal Average: 0.00 ppm at hour 14					Hours of Missing Data: 69	
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: 40	
																									Percent Operational Time: 96.1	
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-May	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
2-May	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
3-May	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
4-May	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
5-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
6-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
7-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
8-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
9-May	0.0	0.0	0.0	0.0	0.0	0.0	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
10-May	0.0	0.0	0.0	0.0	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
11-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C	C	C	C	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
12-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C	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
13-May	0.0	0.0	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
14-May	0.0	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
15-May	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
16-May	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
17-May	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
18-May	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
19-May	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
20-May	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
21-May	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
22-May	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
23-May	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
24-May	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
25-May	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
26-May	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
27-May	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
28-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
29-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
30-May	0.0	0.0	0.0	0.0	0.0	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.00	0.00
31-May	N	N	N	N	N	N	N	N	N	N	C	C	C	C	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.00	0.00
																								Diurnal Average		
																								Diurnal Maximum		
C - Calibration N - Not Valid A - Automated Daily Zero Span																										

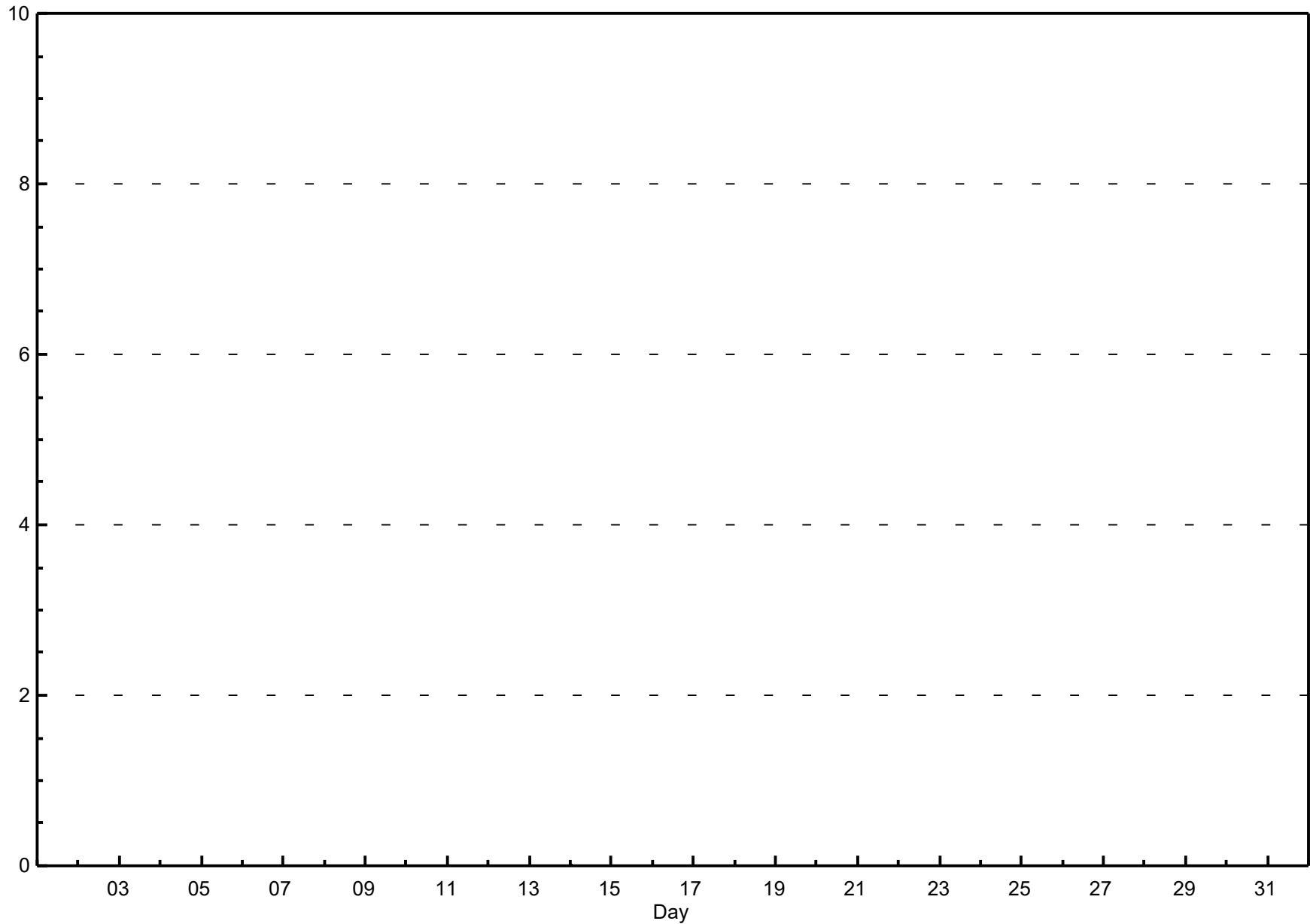


Hourly Maximums

Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - May 2018

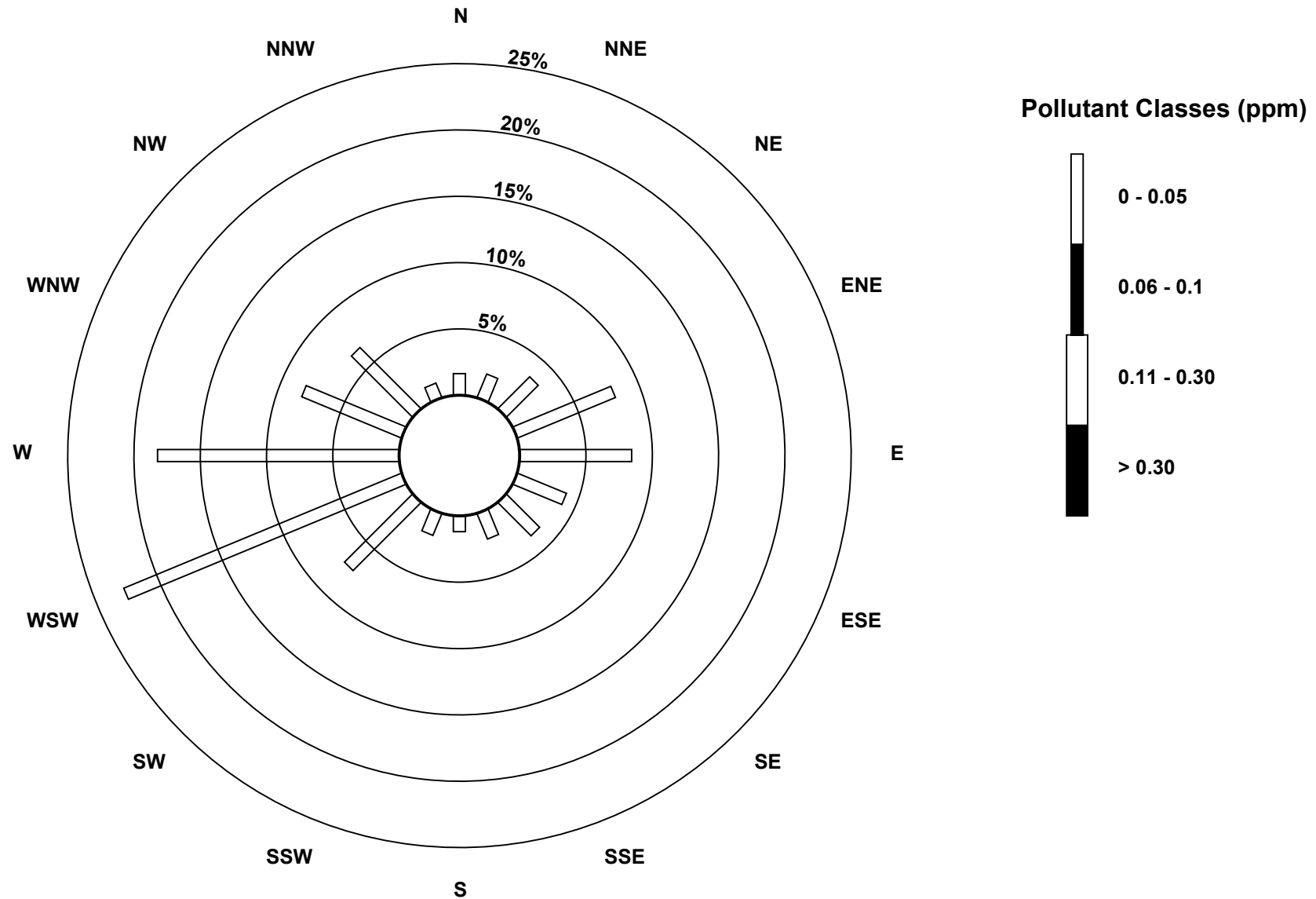
Maximum Value: 0.02 ppm on May 14 01:00																					Maximum Daily Average: 0.00 ppm on May 14				Hours in Service: 744	
Minimum Value: 0.0 ppm on May 1 05:00																					Minimum Daily Average: 0.00 ppm on May 2				Hours of Data: 675	
Maximum Diurnal Average: 0.00 ppm at hour 1																					Minimum Diurnal Average: 0.00 ppm at hour 12				Hours of Missing Data: 69	
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: 40	
																					Percent Operational Time: 96.1					
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-May	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
2-May	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
3-May	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
4-May	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
5-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
6-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
7-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
8-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
9-May	0.0	0.0	0.0	0.0	0.0	0.0	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
10-May	0.0	0.0	0.0	0.0	0.0	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
11-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C	C	C	C	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
12-May	0.0	0.0	0.0	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
13-May	0.0	0.0	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
14-May	0.0	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	0.02
15-May	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
16-May	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
17-May	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
18-May	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
19-May	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
20-May	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
21-May	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
22-May	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
23-May	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
24-May	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
25-May	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
26-May	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
27-May	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
28-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
29-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
30-May	0.0	0.0	0.0	0.0	0.0	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	0.00
31-May	N	N	N	N	N	N	N	N	N	N	C	C	C	C	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	--	0.00
0.00 0.00																									Diurnal Average	
0.02 0.00																									Diurnal Maximum	
C - Calibration N - Not Valid A - Automated Daily Zero Span																										

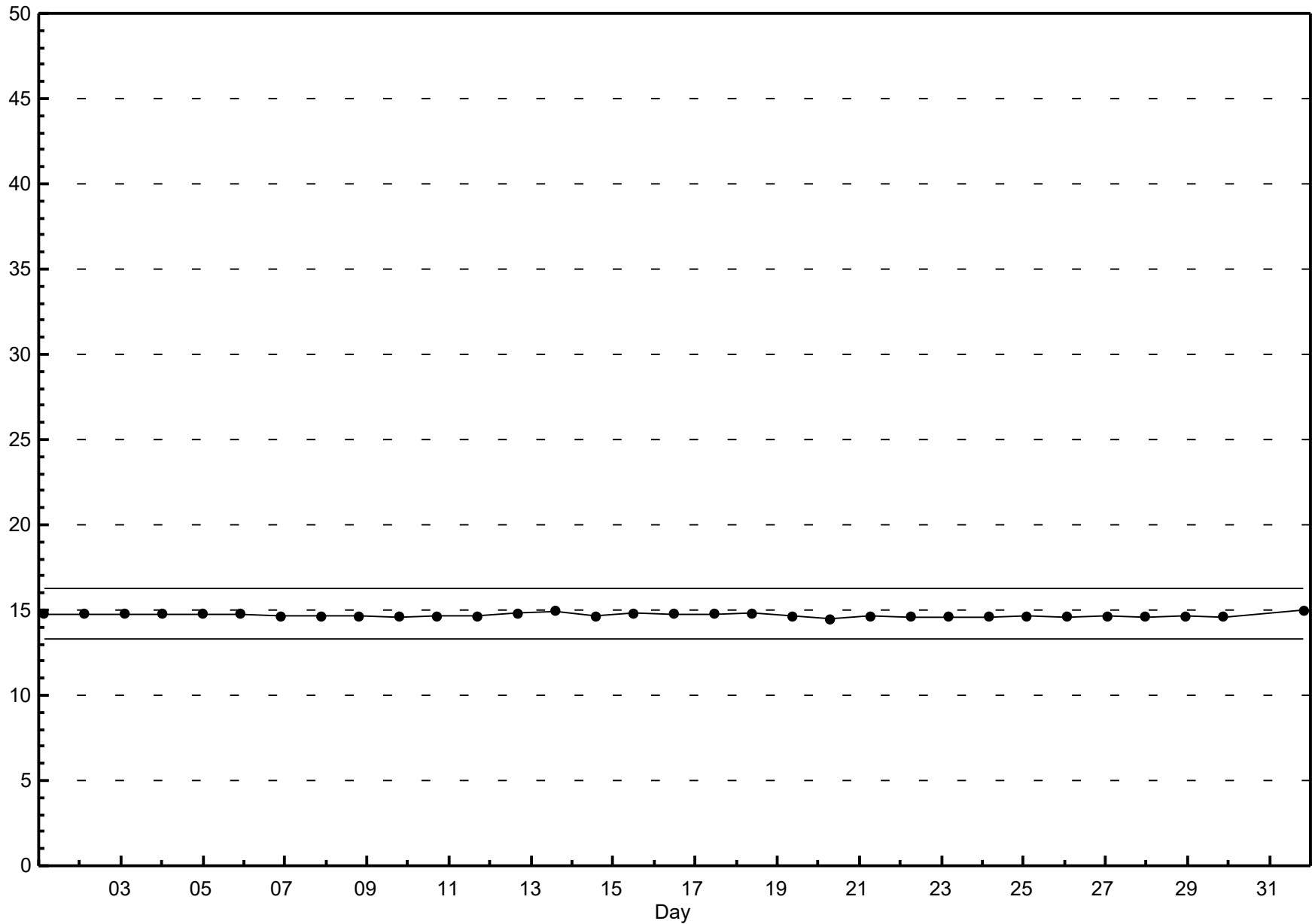


Pollutant Rose

Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - May 2018





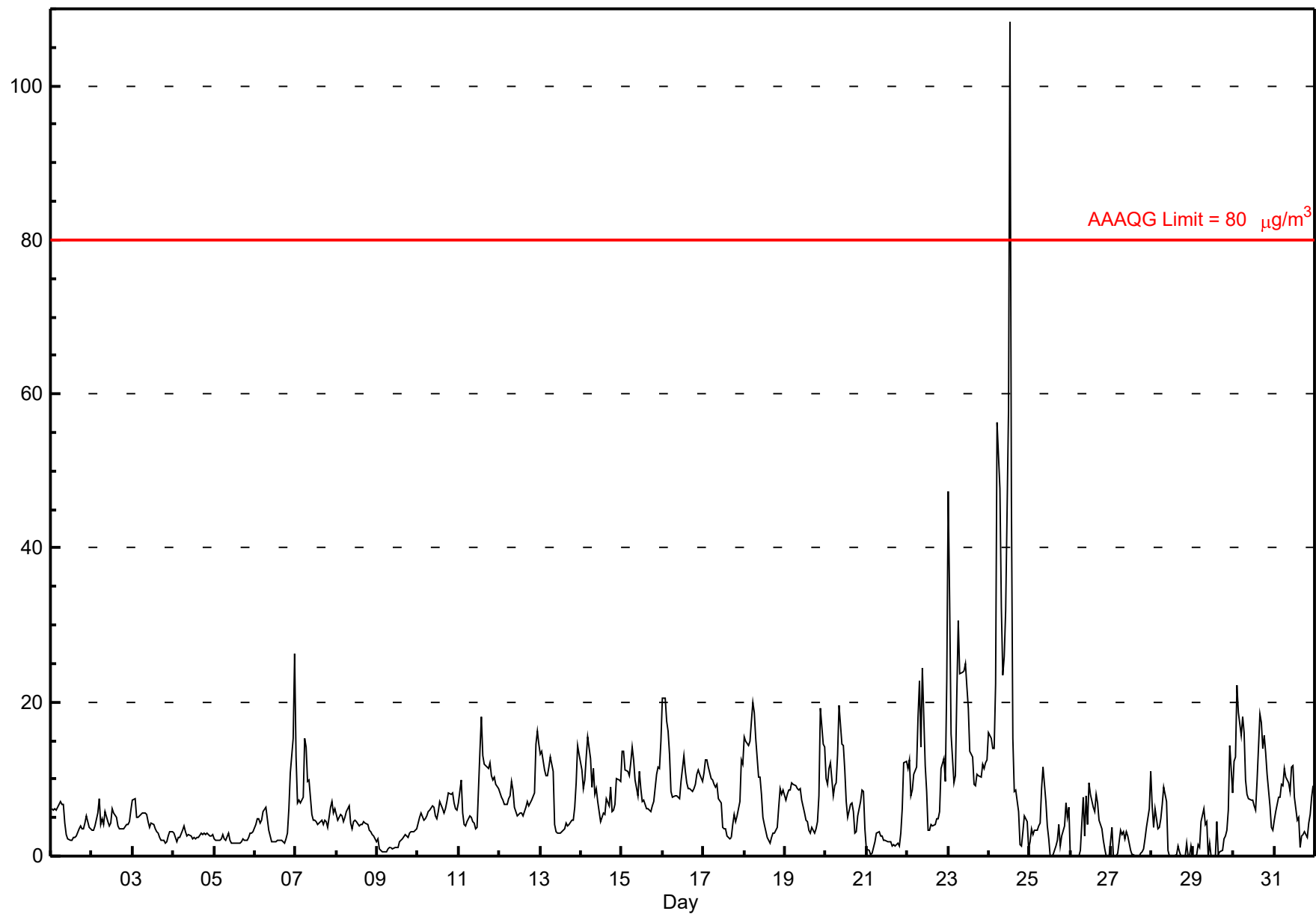
Henry Pirker - May 2018

Number of Exceedences: 1-hr: 1 24-hr: 0 Maximum Value: 108.3 µg/m³ on May 24 13:00 Minimum Value: 0 µg/m³ on May 25 13:00 Maximum Diurnal Average: 9.9 µg/m³ at hour 7 Monthly Average: 6.97 µg/m³																								Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0		
Maximum Daily Average: 23.6 µg/m³ on May 24 Minimum Daily Average: 1.8 µg/m³ on May 9 Minimum Diurnal Average: 4.5 µg/m³ at hour 20 Percentiles: P ₁ = 0.0 P ₁₀ = 1.3 Q ₁ = 2.9 Median = 5.2 Q ₃ = 9.2 P ₉₀ = 13.6 P ₉₉ = 32.1																										
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-May	6	6	6	6	6	7	7	7	4	3	2	2	2	2	2	3	3	4	4	4	4	5	4	3	4.3	7.0
2-May	3	3	4	6	7	4	5	4	6	4	4	4	6	6	5	4	4	3	4	4	4	4	4	6	4.5	7.4
3-May	7	7	5	5	5	5	6	6	5	5	4	4	4	4	3	3	2	2	2	2	2	3	3	3	4.1	7.4
4-May	3	2	2	3	2	3	4	3	3	3	3	2	2	2	2	3	3	3	3	3	3	3	3	3	2.7	3.9
5-May	2	2	2	2	2	3	2	2	3	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	2.2	3.1
6-May	4	5	5	4	5	6	6	5	3	3	2	2	2	2	2	2	2	2	2	3	6	11	15	26	5.2	26.2
7-May	13	7	7	7	8	15	14	10	10	5	5	5	4	4	4	5	4	5	5	4	6	7	6	6	6.9	15.3
8-May	5	5	5	5	5	5	6	7	4	4	4	5	5	4	4	4	4	4	4	3	3	3	3	2	4.3	6.5
9-May	2	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	3	3	3	3	3	3	3	4	1.8	3.5
10-May	4	5	6	5	5	5	6	6	7	6	5	5	6	7	6	6	6	7	8	8	8	7	6	6	6.1	8.3
11-May	7	10	6	4	4	5	5	5	4	4	4	4	14	18	13	12	12	11	12	11	10	10	9	9	8.4	18.2
12-May	8	8	7	7	7	7	8	10	9	6	5	5	6	6	5	6	7	7	7	7	8	15	16	14	8.0	16.3
13-May	13	14	11	11	10	12	13	11	4	3	3	3	3	3	4	4	4	4	5	5	6	9	14	13	7.6	14.4
14-May	11	9	10	13	16	13	9	11	8	9	7	4	5	6	5	8	7	9	6	6	7	10	10	10	8.6	15.5
15-May	14	14	11	11	10	12	14	13	10	8	11	9	7	7	6	6	6	6	7	7	11	11	11	15	9.9	15.0
16-May	20	20	17	16	13	8	8	8	8	8	7	10	13	11	9	9	9	8	9	9	11	11	11	10	11.0	20.5
17-May	11	12	12	11	10	10	9	9	9	7	7	4	4	4	3	2	2	4	5	5	5	7	13	12	7.4	12.5
18-May	15	15	14	15	18	20	19	15	10	10	8	5	4	2	2	2	2	3	3	4	6	9	8	9	9.1	19.9
19-May	7	8	9	9	9	9	9	9	9	9	7	6	5	4	3	3	4	3	4	5	8	19	15	14	7.7	19.2
20-May	10	9	11	12	8	9	9	13	20	15	14	11	7	5	7	7	6	3	3	5	7	9	8	4	8.9	19.6
21-May	1	1	0	0	1	2	3	3	3	3	2	2	2	2	2	1	1	1	2	1	3	6	12	12	2.8	12.4
22-May	11	12	8	9	11	12	18	23	14	25	12	8	3	3	4	4	4	5	5	6	11	13	10	23	10.5	24.5
23-May	47	33	16	10	10	21	31	24	24	24	25	22	19	14	13	9	9	11	11	10	12	11	12	13	17.9	47.4
24-May	16	15	14	14	22	56	48	32	24	26	32	58	108	46	15	8	9	6	2	1	3	5	4	1	23.6	108.3
25-May	2	4	3	3	3	4	4	9	12	7	4	2	0	0	0	1	2	4	1	3	4	7	5	6	3.8	11.5
26-May	0	0	0	0	0	0	1	8	3	8	4	10	8	6	6	8	7	5	4	2	1	0	0	0	3.3	9.5
27-May	4	0	0	0	0	3	3	3	2	3	3	1	0	0	0	0	0	0	1	1	2	4	6	11	2.0	10.9
28-May	7	4	6	4	4	5	7	9	7	1	0	0	0	0	0	1	1	0	0	0	2	0	0	1	2.4	8.9
29-May	0	0	0	2	1	4	6	4	4	0	2	0	0	0	5	0	1	1	2	3	3	6	14	8	2.8	14.4
30-May	12	13	22	19	16	18	16	10	8	7	7	7	7	6	10	18	17	14	16	13	11	7	4	3	11.7	22.1
31-May	5	6	8	8	9	9	11	10	9	8	12	12	8	5	5	1	3	3	3	2	4	5	8	9	6.8	11.7
8.8 8.1 7.4 7.1 7.4 9.5 9.9 9.3 7.9 7.3 6.7 6.9 8.3 5.9 4.8 4.7 4.7 4.6 4.5 4.5 5.7 7.2 7.8 8.4																								Diurnal Average		
47.4 33.0 22.1 18.6 22.4 56.2 47.8 32.3 23.8 25.9 32.0 57.9 108.3 46.3 15.3 18.4 17.3 14.0 15.6 13.5 11.9 19.2 16.3 26.2																								Diurnal Maximum		
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}) - $\mu\text{g}/\text{m}^3$

Henry Pirker - May 2018



Hourly Maximums

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

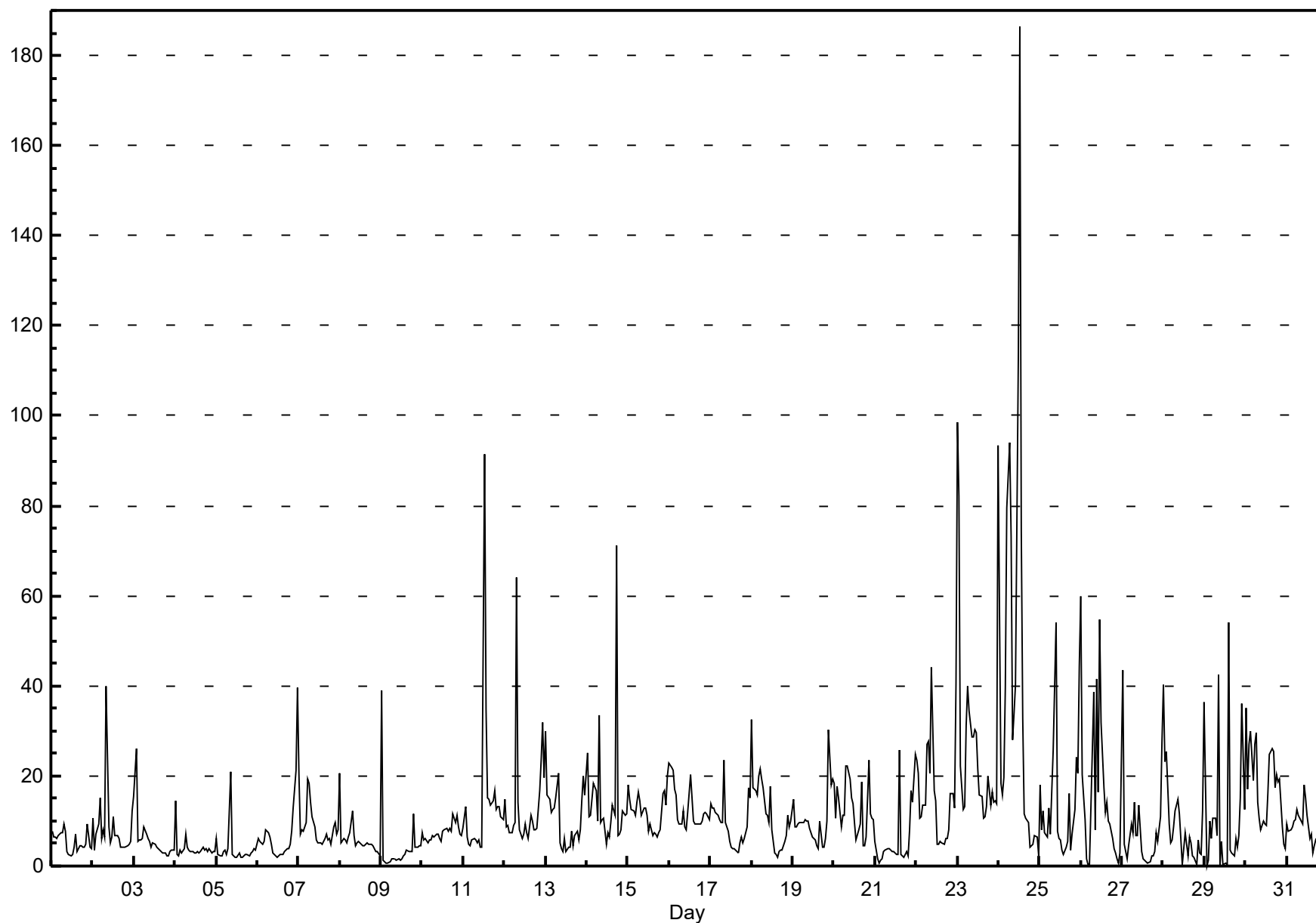
Henry Pirker - May 2018

Maximum Value: 186.5 μg/m ³ on May 24 13:00																					Maximum Daily Average: 41.8 μg/m ³ on May 24					Hours in Service: 744	
Minimum Value: 0 μg/m ³ on May 29 02:00																					Minimum Daily Average: 3.6 μg/m ³ on May 5					Hours of Data: 744	
Maximum Diurnal Average: 26.1 μg/m ³ at hour 1																					Minimum Diurnal Average: 6.3 μg/m ³ at hour 20					Hours of Missing Data: 0	
Monthly Average: 11.48 μg/m ³																					Percentiles: P ₁ = 0.5 P ₁₀ = 2.6 Q ₁ = 4.3 Median = 7.6 Q ₃ = 13.3 P ₉₀ = 22.0 P ₉₉ = 77.4					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-May	8	6	6	6	7	7	7	9	8	3	2	2	3	4	7	3	4	5	4	4	5	9	4	4	5.4	9.4	
2-May	11	4	7	9	15	6	8	7	40	9	5	6	11	7	7	6	4	4	4	4	5	5	5	12	8.4	40.0	
3-May	16	26	6	6	6	6	9	7	6	5	4	5	5	4	4	4	3	3	3	2	2	3	3	3	5.9	26.1	
4-May	15	3	2	4	3	4	7	4	3	3	3	3	3	3	3	3	4	3	4	3	4	3	3	3	3.9	14.5	
5-May	6	3	2	2	3	4	3	4	21	2	2	2	2	3	2	2	2	3	2	2	3	3	4	3	3.6	21.0	
6-May	6	6	5	5	5	8	7	6	5	3	3	2	2	3	2	3	3	4	4	5	8	13	21	40	7.0	39.5	
7-May	20	7	8	8	10	19	18	14	11	9	6	5	5	5	5	6	7	6	6	5	9	10	7	8	8.9	20.4	
8-May	21	5	6	6	5	7	7	12	7	4	5	6	5	5	4	5	5	5	5	5	4	3	3	2	5.9	20.6	
9-May	39	1	1	1	1	1	2	2	2	1	2	1	2	2	2	3	3	3	3	11	4	4	4	5	4.2	39.0	
10-May	7	6	6	5	6	6	7	6	7	7	6	5	8	8	8	8	8	8	12	10	11	9	7	7	7.4	11.5	
11-May	8	13	6	5	4	6	6	6	5	6	4	4	91	35	15	15	13	15	17	13	13	13	11	10	14.0	91.4	
12-May	15	9	9	7	7	9	10	64	14	8	6	7	9	7	6	11	10	8	8	8	17	24	32	20	13.6	64.1	
13-May	30	16	15	12	13	13	15	21	5	4	3	6	3	4	4	8	5	7	8	6	8	15	20	16	10.6	29.9	
14-May	25	11	11	15	18	17	10	34	10	10	11	5	7	7	10	14	11	71	7	7	8	12	11	12	14.7	71.3	
15-May	18	15	12	12	11	14	16	14	11	13	13	11	8	9	7	7	7	6	7	8	16	17	13	20	12.0	20.0	
16-May	23	22	21	17	16	10	9	9	12	9	8	12	20	15	10	9	9	9	9	10	12	12	12	10	12.8	22.8	
17-May	14	13	13	12	11	10	10	10	23	10	8	5	4	4	4	3	3	5	6	5	6	9	17	15	9.2	23.4	
18-May	32	17	17	16	20	21	19	17	11	11	10	18	8	3	3	2	3	3	3	5	7	11	9	10	11.6	32.5	
19-May	15	9	9	9	10	10	10	10	10	10	8	7	6	6	4	4	10	4	4	6	10	30	18	19	9.9	30.1	
20-May	18	11	18	15	9	11	11	22	22	19	15	14	10	6	8	9	19	4	5	6	23	12	11	10	12.9	23.4	
21-May	6	2	1	1	2	3	3	4	4	3	3	3	2	3	26	3	2	2	3	2	8	17	14	25	5.9	25.6	
22-May	23	21	11	11	13	14	27	28	21	44	17	14	5	5	5	5	5	6	6	8	16	16	13	41	15.6	44.0	
23-May	98	82	22	12	13	31	40	34	29	29	30	30	21	16	16	11	11	13	20	14	16	14	15	14	26.3	98.4	
24-May	93	18	16	20	40	80	94	73	28	34	40	114	187	74	33	12	11	10	4	5	5	7	7	2	41.8	186.5	
25-May	18	8	12	7	6	13	7	16	26	54	8	6	6	3	2	4	5	16	4	7	13	24	21	44	13.9	54.1	
26-May	60	20	10	2	0	0	13	39	8	42	16	55	32	17	12	14	10	9	6	4	3	2	1	3	15.8	60.0	
27-May	43	5	3	2	5	9	7	14	7	7	14	3	2	1	1	1	1	2	2	3	7	5	11	28	7.6	43.4	
28-May	40	23	26	9	5	6	9	12	15	12	6	0	4	7	2	7	5	2	2	0	6	3	3	12	9.0	40.1	
29-May	36	0	1	10	6	11	11	7	43	0	5	0	1	0	54	3	3	2	6	4	7	15	36	13	11.5	54.2	
30-May	35	17	27	30	19	27	30	14	11	8	10	9	9	16	25	26	25	17	20	19	19	9	5	4	18.0	35.1	
31-May	9	8	8	9	10	10	13	11	10	9	18	15	11	6	7	3	4	6	5	3	7	7	9	10	8.7	18.1	
26.1 13.1 10.3 9.2 9.6 12.7 14.4 17.1 14.0 12.5 9.4 12.2 15.8 9.3 9.6 6.9 7.1 8.5 6.5 6.3 9.1 10.8 11.3 13.7																									Diurnal Average		
98.4 82.2 27.2 29.9 39.5 79.6 93.9 73.1 42.6 54.1 40.2 113.9 186.5 74.5 54.2 26.2 25.4 71.3 20.1 18.7 23.4 30.1 36.2 44.5																									Diurnal Maximum		

Hourly Maximums

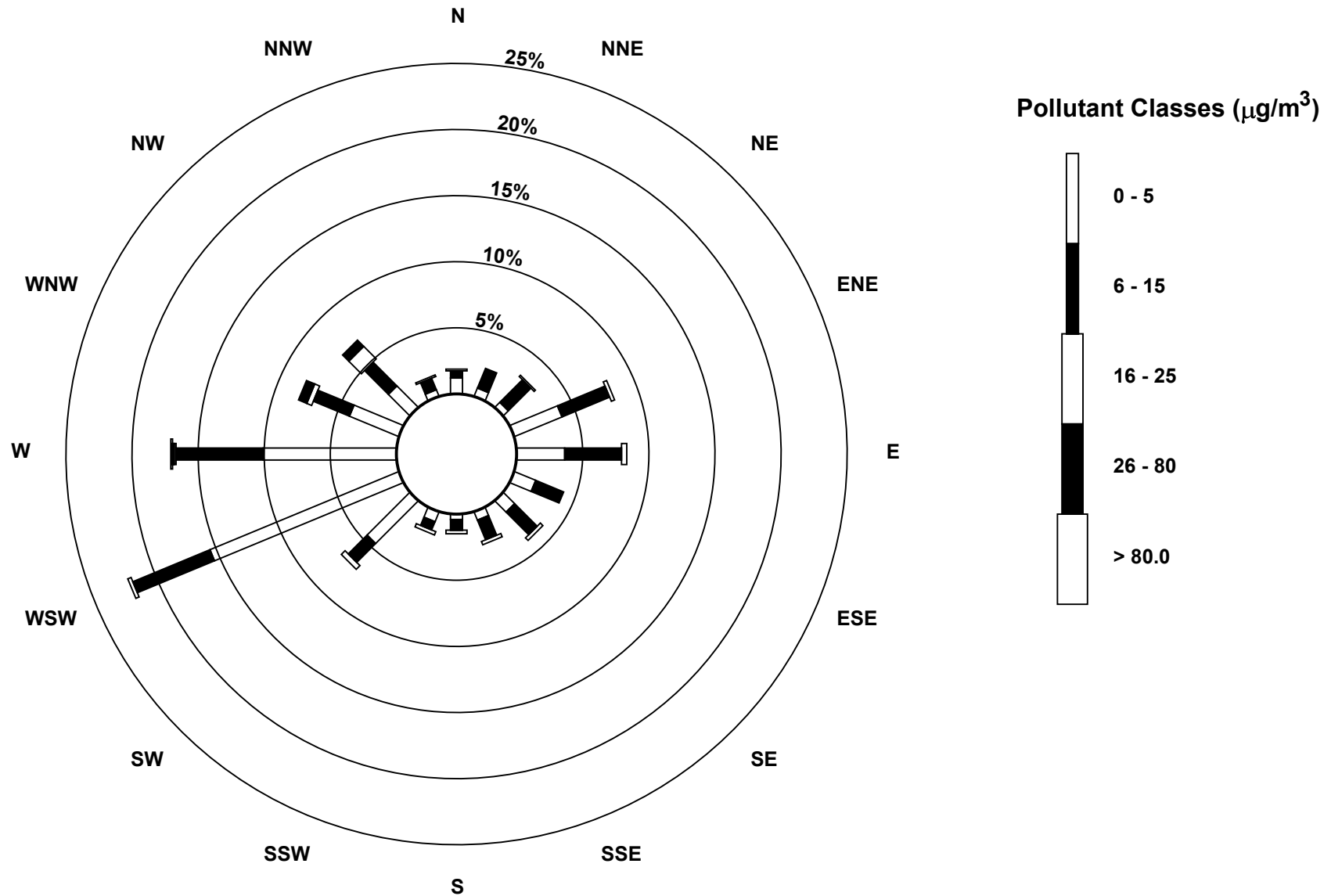
Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$

Henry Pirker - May 2018



Pollutant Rose

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



Hourly Averages

External Temperature (ET) - °C

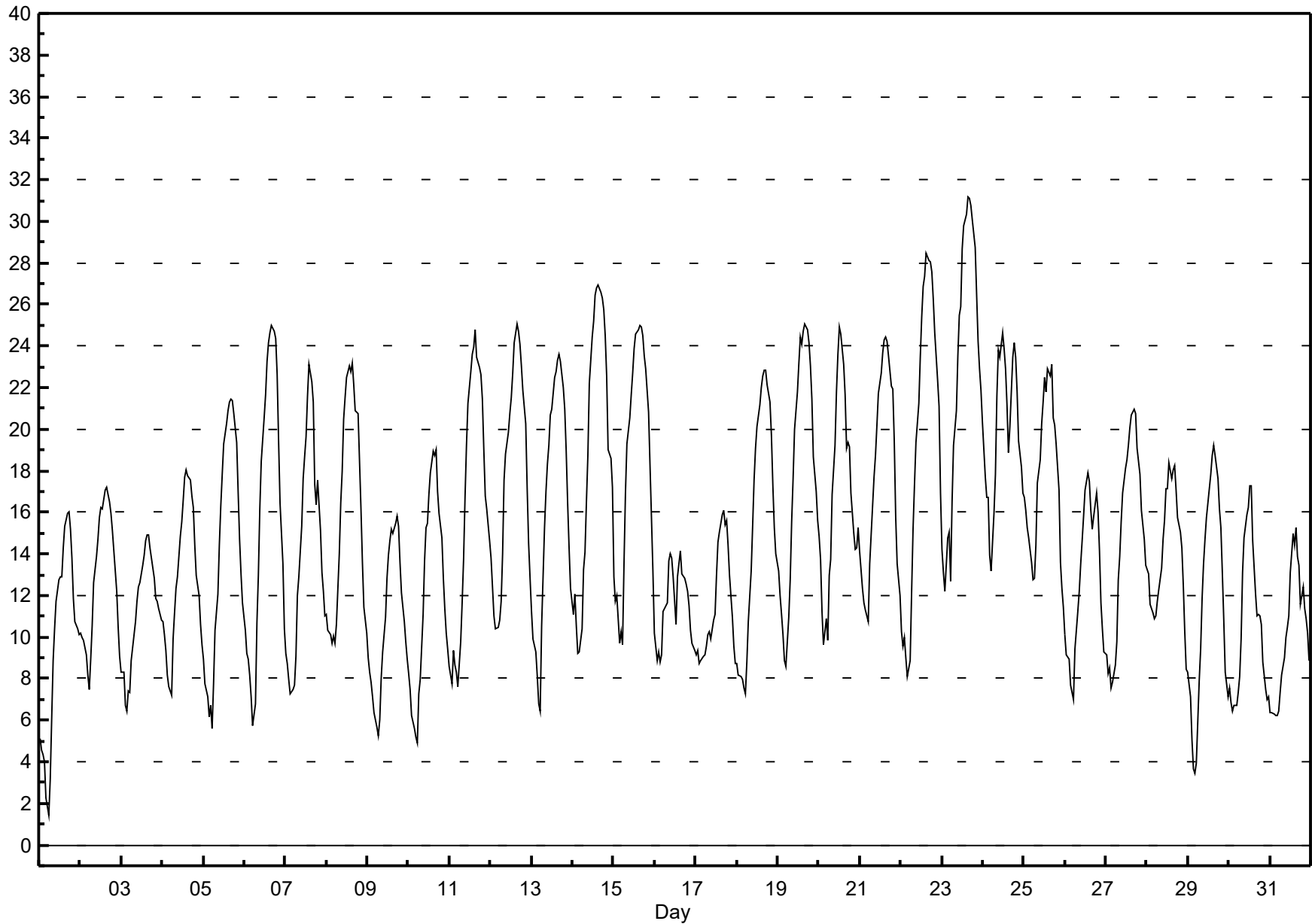
Henry Pirker - May 2018

Maximum Value: 31.2 °C on May 23 16:00																								Hours in Service: 744		
Maximum Daily Average: 22.9 °C on May 23																								Hours of Data: 744		
Minimum Value: 1 °C on May 1 06:00																								Hours of Missing Data: 0		
Maximum Diurnal Average: 20.7 °C at hour 16																								Hours of Calibration: 0		
Monthly Average: 14.97 °C																								Percent Operational Time: 100.0		
Minimum Daily Average: 9.8 °C on May 1																										
Minimum Diurnal Average: 8.3 °C at hour 6																										
Percentiles: P ₁ = 4.4 P ₁₀ = 8.0 Q ₁ = 10.3 Median = 14.3 Q ₃ = 19.2 P ₉₀ = 23.3 P ₉₉ = 28.6																										
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-May	5	5	4	4	2	1	3	6	9	10	12	13	13	13	14	15	16	16	15	14	12	11	10	10	9.8	16.0
2-May	10	10	10	9	8	7	9	11	13	14	15	16	16	16	17	17	17	16	16	15	13	12	10	9	12.8	17.2
3-May	8	8	7	6	7	7	9	10	11	12	12	13	13	14	15	15	15	14	13	13	12	12	11	11	11.2	14.9
4-May	11	10	9	8	8	7	10	11	12	13	15	16	17	18	18	18	18	17	16	14	13	12	11	10	12.9	18.1
5-May	9	8	7	6	7	6	8	10	12	14	16	18	19	20	21	21	21	21	21	19	17	15	13	12	14.3	21.5
6-May	10	9	9	8	7	6	7	11	13	16	18	21	22	23	24	25	25	25	24	23	19	16	13	10	16.1	25.0
7-May	9	9	8	7	7	8	9	12	13	15	18	19	20	22	23	22	21	17	16	18	15	13	12	11	14.4	23.1
8-May	11	10	10	10	10	10	11	14	16	18	20	22	22	23	23	23	22	21	21	18	16	14	11	10	16.1	23.2
9-May	9	8	8	7	6	6	5	6	8	9	11	13	14	15	15	15	15	16	15	14	12	11	10	9	10.7	15.8
10-May	8	7	6	6	5	5	7	8	11	14	15	15	17	18	19	19	19	17	16	15	13	11	10	9	12.1	19.0
11-May	9	8	9	9	8	8	10	12	14	17	19	21	23	24	24	25	23	23	23	21	19	17	16	15	16.5	24.8
12-May	14	12	11	10	10	11	12	14	18	19	20	21	22	23	24	25	25	24	23	22	20	17	14	13	17.6	25.1
13-May	11	10	9	8	7	6	11	15	17	18	19	21	21	23	23	23	24	23	22	21	19	16	14	12	16.4	23.6
14-May	11	12	11	9	9	10	13	14	17	19	22	24	25	26	27	27	27	26	26	24	23	19	19	17	19.1	26.9
15-May	13	12	12	10	10	10	14	17	19	21	22	23	24	25	25	25	25	25	24	23	21	18	16	13	18.5	25.0
16-May	10	9	9	9	9	11	11	12	14	14	14	13	11	13	14	14	13	13	13	12	11	10	10	9	11.6	14.2
17-May	9	9	9	9	9	9	10	10	10	10	11	11	13	15	15	16	16	15	16	14	13	11	10	9	11.6	16.1
18-May	9	8	8	8	8	7	9	11	13	15	18	19	20	21	22	23	23	23	22	21	20	17	15	14	15.6	22.8
19-May	13	12	11	10	9	9	11	13	16	18	20	22	23	24	24	25	25	25	24	23	21	19	17	16	17.9	25.1
20-May	15	14	11	10	11	10	13	14	17	19	22	24	25	25	23	22	19	19	19	17	15	14	14	15	16.9	24.9
21-May	14	12	12	11	11	11	14	16	18	19	20	22	23	24	24	24	24	24	22	22	19	16	14	12	17.8	24.4
22-May	10	10	10	9	8	9	12	15	17	19	21	23	25	27	27	28	28	28	28	26	25	22	21	17	19.5	28.5
23-May	14	13	12	15	15	13	17	19	21	24	25	26	29	30	30	31	31	31	30	29	26	24	23	22	22.9	31.2
24-May	20	18	17	17	14	13	16	18	22	24	23	25	24	23	21	19	20	23	24	23	22	19	18	17	20.0	24.6
25-May	17	16	15	15	14	13	13	14	17	18	20	21	22	22	23	23	23	21	20	19	17	14	12	11	17.6	23.1
26-May	10	9	9	8	7	7	9	11	12	14	15	16	17	18	17	16	15	16	17	16	14	12	10	9	12.7	17.9
27-May	9	8	8	8	8	9	10	13	14	16	17	18	19	19	20	21	21	21	19	18	18	16	15	13	14.9	21.0
28-May	13	13	12	11	11	11	12	12	13	15	16	17	17	18	18	18	18	17	16	15	14	12	10	8	14.1	18.4
29-May	8	7	5	4	3	4	8	9	12	14	15	16	17	18	19	19	19	18	16	15	13	11	8	7	11.9	19.3
30-May	8	7	6	7	7	7	8	10	13	15	16	16	17	17	15	12	11	11	11	11	9	7	7	7	10.6	17.3
31-May	6	6	6	6	6	6	7	8	9	10	10	11	13	15	14	15	14	13	12	12	11	11	10	9	10.2	15.3
10.8 10.0 9.4 8.8 8.5 8.3 10.2 12.2 14.2 15.8 17.3 18.5 19.4 20.3 20.6 20.7 20.4 20.0 19.3 18.4 16.6 14.5 13.1 11.9																								Diurnal Average		
20.4 17.7 16.8 16.8 15.0 13.2 16.5 19.2 21.6 23.8 25.5 25.9 28.7 29.8 30.3 31.2 31.1 30.8 30.0 28.8 26.5 24.3 22.9 21.8																								Diurnal Maximum		

Hourly Averages

External Temperature (ET) - °C

Henry Pirker - May 2018



Hourly Averages

Relative Humidity (RH) - %

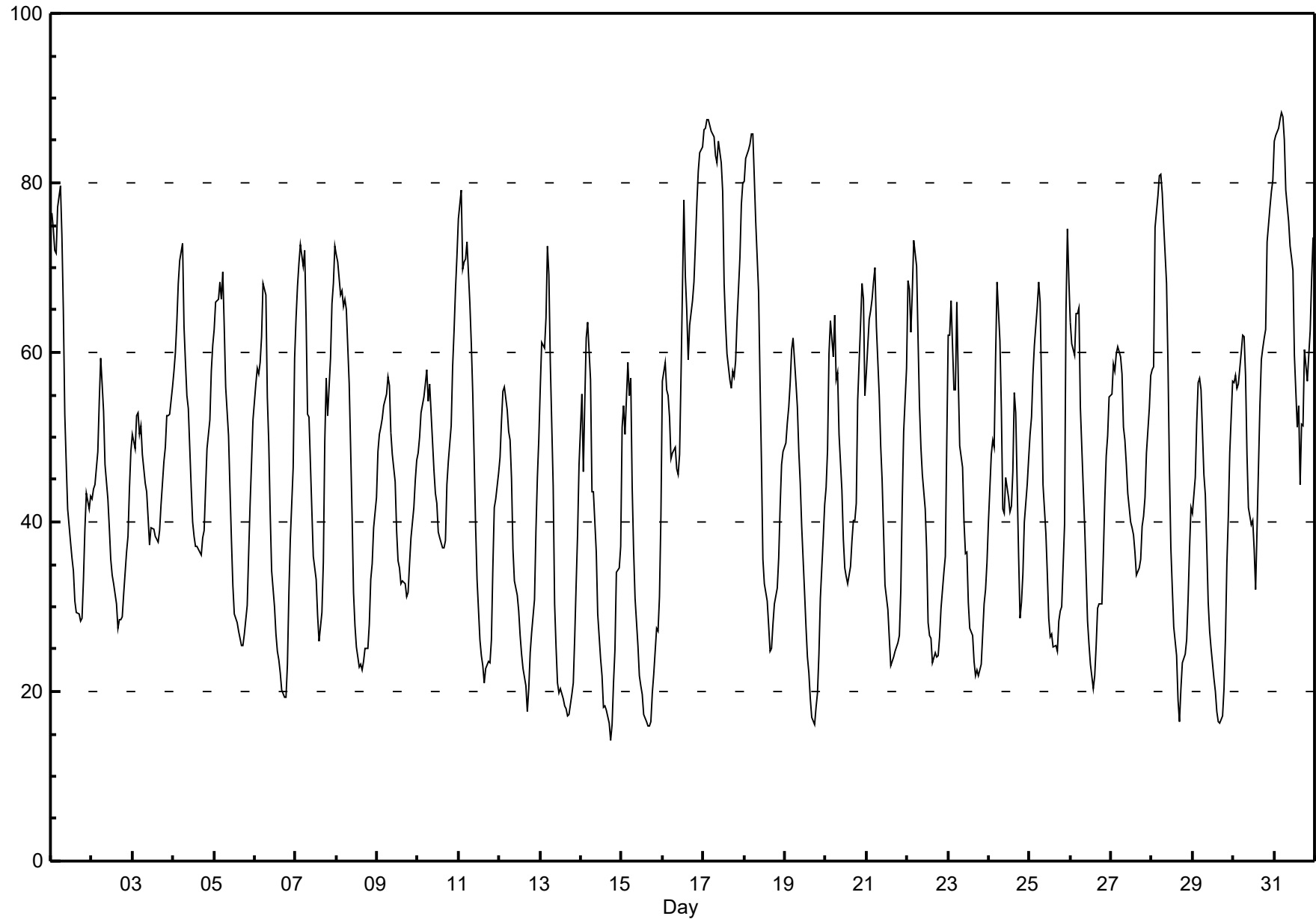
Henry Pirker - May 2018

Maximum Value: 88.3 % on May 31 05:00																					Maximum Daily Average: 74.4 % on May 17					Hours in Service: 744	
Minimum Value: 14 % on May 14 18:00																					Minimum Daily Average: 32.3 % on May 15					Hours of Data: 744	
Maximum Diurnal Average: 66.4 % at hour 6																					Minimum Diurnal Average: 30.2 % at hour 16					Hours of Missing Data: 0	
Monthly Average: 46.53 %																					Percentiles: P ₁ = 16.5 P ₁₀ = 23.8 Q ₁ = 31.8 Median = 45.7 Q ₃ = 58.9 P ₉₀ = 70.4 P ₉₉ = 86.2					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-May	77	75	72	72	77	80	74	65	53	47	42	38	36	34	31	29	29	28	29	33	39	43	41	43	49.4	79.6	
2-May	43	44	44	48	54	59	56	53	47	43	39	36	34	33	30	27	29	29	29	32	36	38	44	48	40.6	59.2	
3-May	50	49	53	53	50	51	48	45	44	41	37	39	39	38	38	38	39	42	47	49	53	52	53	56	46.0	56.0	
4-May	58	60	63	68	71	73	63	59	55	53	44	40	38	37	37	37	36	38	39	44	49	52	58	61	51.4	72.8	
5-May	63	66	66	68	66	69	63	56	50	44	38	32	29	28	27	26	25	25	27	30	36	42	47	52	44.9	69.4	
6-May	56	58	57	59	62	68	67	55	49	41	34	30	27	25	24	22	20	19	19	23	32	38	46	59	41.3	68.2	
7-May	64	68	71	73	70	72	64	53	52	41	36	35	33	29	26	29	35	49	57	53	59	66	68	73	53.2	72.7	
8-May	71	71	67	67	65	66	65	56	49	41	32	28	25	23	23	22	23	25	25	28	33	35	39	43	42.7	71.5	
9-May	48	50	51	52	54	55	57	56	50	48	45	39	36	35	33	33	33	31	32	35	38	42	45	47	43.5	57.0	
10-May	48	50	53	55	56	58	54	56	49	46	43	42	39	38	37	37	38	44	47	51	58	62	67	71	50.1	71.4	
11-May	76	79	70	71	71	73	66	61	55	47	40	33	26	24	23	21	23	24	23	26	35	42	43	46	45.7	79.2	
12-May	48	52	55	56	53	51	50	45	37	33	31	29	27	24	23	21	18	20	25	27	31	39	45	50	37.1	55.9	
13-May	56	61	60	64	72	69	59	44	30	25	21	20	20	19	18	18	17	17	20	21	26	33	39	47	36.6	72.5	
14-May	55	46	54	62	63	57	44	44	40	36	29	24	22	18	18	18	16	14	16	21	25	34	35	37	34.5	63.5	
15-May	51	54	50	59	55	57	44	37	31	26	22	21	20	17	16	16	16	16	20	22	27	27	31	41	32.3	58.9	
16-May	57	59	56	55	52	48	48	49	46	46	48	57	78	69	65	59	63	66	68	73	77	81	84	84	62.0	84.2	
17-May	86	86	87	87	86	86	85	83	82	85	82	79	68	63	60	57	56	58	57	59	64	71	77	80	74.4	87.5	
18-May	80	83	84	85	86	86	81	75	67	57	47	36	33	31	28	25	25	28	30	32	36	42	47	48	52.9	85.8	
19-May	49	52	54	56	60	62	56	54	48	45	40	32	28	24	22	19	17	16	18	20	24	31	38	42	37.8	61.7	
20-May	44	48	60	64	60	64	57	58	50	44	38	35	34	33	35	38	40	40	42	54	63	68	66	55	49.6	68.2	
21-May	58	64	65	66	68	70	63	55	49	45	39	33	30	26	23	24	24	25	26	27	32	42	51	58	44.2	70.0	
22-May	68	67	62	67	73	70	62	54	49	46	42	37	28	27	26	23	24	24	24	26	30	34	36	49	43.7	73.2	
23-May	62	62	66	56	56	66	57	49	46	40	36	36	31	27	27	24	22	23	22	23	27	30	32	35	39.8	66.2	
24-May	40	48	50	49	59	68	61	53	42	41	45	43	41	42	46	55	53	36	29	30	34	40	44	47	45.7	68.4	
25-May	50	52	57	61	65	68	66	56	44	39	34	29	26	27	25	25	25	28	29	30	40	65	75	68	45.2	74.5	
26-May	64	61	60	65	65	65	54	44	39	34	28	26	23	20	22	25	30	30	30	36	43	48	50	55	42.3	65.3	
27-May	55	59	58	60	61	60	58	51	50	47	43	40	39	38	36	34	34	36	39	41	43	48	53	57	47.5	60.6	
28-May	58	58	75	78	81	81	79	75	68	59	46	37	32	28	24	19	16	20	23	24	26	31	37	42	46.6	81.1	
29-May	41	45	52	56	57	56	46	43	37	31	27	25	22	20	18	16	16	17	20	26	35	41	48	57	35.5	57.0	
30-May	56	57	56	56	60	62	62	57	48	42	40	40	37	32	39	54	59	60	62	63	73	77	79	80	56.3	80.4	
31-May	85	86	86	87	88	88	85	79	75	72	71	70	60	51	54	44	52	51	60	57	60	62	69	74	69.4	88.3	
58.6 60.3 61.8 63.7 65.1 66.4 61.0 55.5 49.5 44.6 40.0 36.7 34.2 31.7 30.8 30.2 30.8 31.7 33.4 36.0 41.4 47.0 51.2 55.0																									Diurnal Average		
86.3 86.5 87.5 87.5 88.3 87.9 85.4 83.2 82.4 84.8 82.3 78.9 78.0 69.1 64.9 59.2 63.3 66.1 68.3 72.7 77.4 81.3 83.5 84.2																									Diurnal Maximum		

Hourly Averages

Relative Humidity (RH) - %

Henry Pirker - May 2018



Hourly Averages

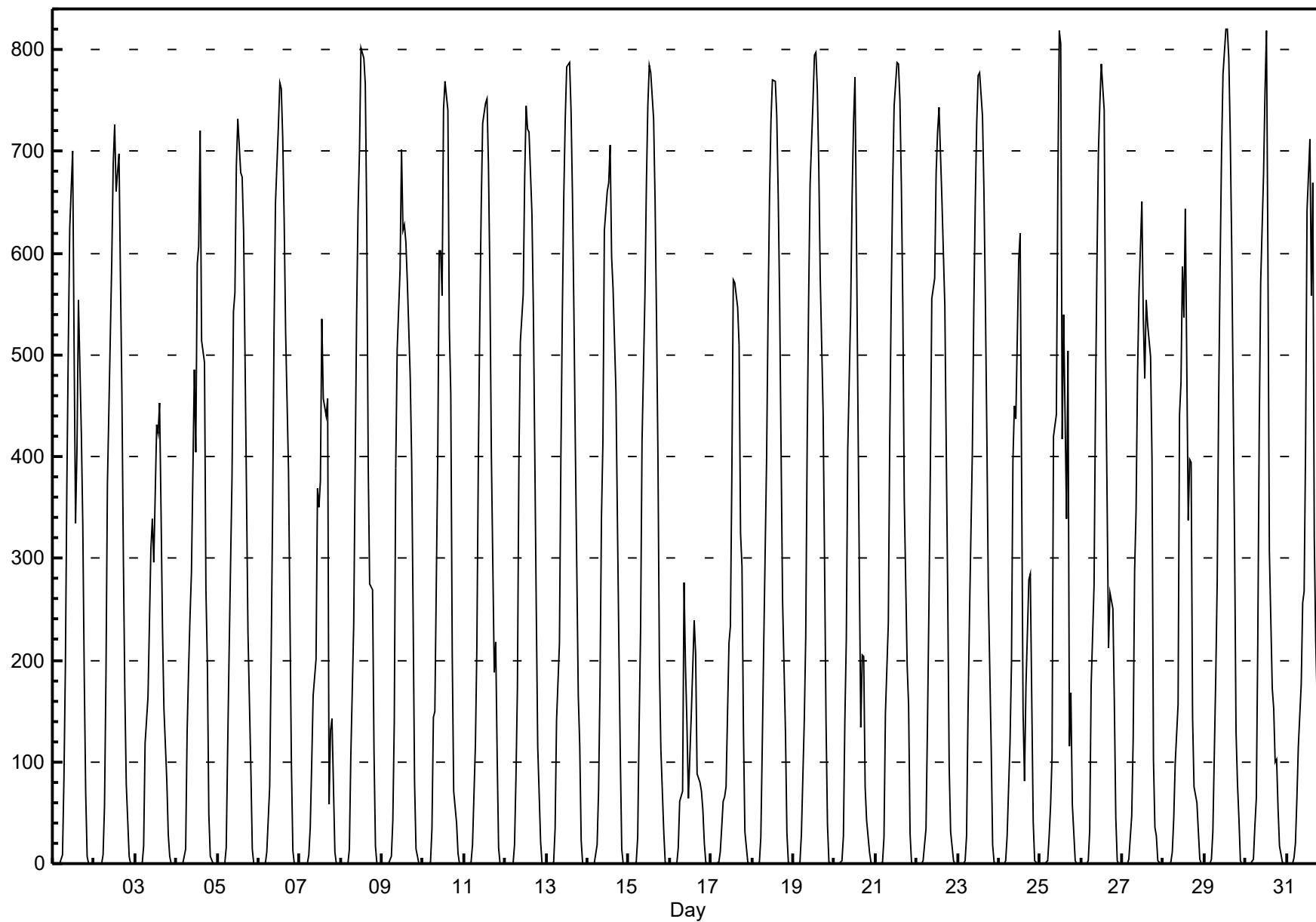
Solar Radiation (SR) - W/m²

Henry Pirker - May 2018

Maximum Value: 820.5 W/m ² on May 29 14:00																								Maximum Daily Average: 305.8 W/m ² on May 29										Hours in Service: 744	
Minimum Value: 0 W/m ² on May 1 03:00																								Minimum Daily Average: 79.7 W/m ² on May 16										Hours of Data: 744	
Maximum Diurnal Average: 668.9 W/m ² at hour 13																								Minimum Diurnal Average: 0.0 W/m ² at hour 3										Hours of Missing Data: 0	
Monthly Average: 239.88 W/m ²																								Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 117.2 Q ₃ = 462.1 P ₉₀ = 677.1 P ₉₉ = 793.7										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-May	0	0	0	0	0	9	84	195	371	509	624	701	508	334	408	554	423	333	185	70	7	0	0	0	221.5	701.2									
2-May	0	0	0	0	0	8	57	185	373	519	593	687	726	660	697	576	461	302	170	78	7	0	0	0	254.2	725.8									
3-May	0	0	0	0	0	16	118	163	236	309	339	297	432	422	453	347	231	152	81	29	7	0	0	0	151.4	452.7									
4-May	0	0	0	0	0	14	129	190	242	286	486	405	589	607	721	513	493	269	195	48	7	0	0	0	216.4	720.9									
5-May	0	0	0	0	0	15	114	208	380	543	562	686	732	679	675	621	496	365	228	93	14	0	0	0	267.1	731.8									
6-May	0	0	0	0	0	11	75	202	345	523	649	725	767	761	713	632	522	387	240	97	13	0	0	0	277.6	767.2									
7-May	0	0	0	0	0	8	36	99	165	201	369	350	376	535	457	440	457	59	130	142	12	0	0	0	159.9	535.2									
8-May	0	0	0	0	0	14	105	235	390	539	643	702	801	791	766	631	393	275	269	111	18	0	0	0	278.4	801.2									
9-May	0	0	0	0	0	7	43	139	388	506	584	702	622	627	611	572	479	396	245	79	15	1	0	0	250.7	701.6									
10-May	0	0	0	0	1	34	143	150	400	602	603	557	742	769	741	527	461	206	71	40	10	0	0	0	252.4	769.0									
11-May	0	0	0	0	1	19	117	213	393	533	646	728	748	751	686	575	403	188	217	107	16	0	0	0	264.2	751.1									
12-May	0	0	0	0	1	18	85	173	392	512	560	674	745	721	720	639	544	400	251	116	22	1	0	0	273.9	744.8									
13-May	0	0	0	0	1	35	141	217	401	542	657	732	783	787	741	654	539	407	165	117	23	1	0	0	289.3	786.9									
14-May	0	0	0	0	0	19	72	175	340	414	622	660	669	706	597	565	464	339	218	107	15	1	0	0	249.3	706.4									
15-May	0	0	0	0	1	26	136	229	414	557	666	745	784	777	731	652	536	399	195	113	32	1	0	0	291.4	784.0									
16-May	0	0	0	0	1	15	61	71	276	194	137	64	147	192	238	206	88	80	71	53	19	1	0	0	79.7	276.0									
17-May	0	0	0	0	1	12	36	62	66	75	217	233	383	573	571	547	510	325	292	130	31	1	0	0	169.5	573.2									
18-May	0	0	0	0	1	25	117	216	401	542	656	731	770	769	735	656	551	404	259	130	30	2	0	0	291.4	770.0									
19-May	0	0	0	0	2	28	141	224	416	555	668	748	795	797	760	685	577	442	294	140	38	2	0	0	304.8	797.5									
20-May	0	0	0	0	2	27	142	221	407	544	656	730	774	618	286	133	204	203	75	43	12	2	0	0	211.6	773.6									
21-May	0	0	0	0	2	25	149	237	422	557	667	744	787	787	750	666	548	359	195	155	30	2	0	0	295.0	786.6									
22-May	0	0	0	0	4	34	133	249	388	555	576	679	720	742	697	651	549	405	265	95	31	2	0	0	282.3	742.5									
23-May	0	0	0	0	3	27	149	240	406	545	649	728	775	778	735	661	550	422	271	114	19	2	0	0	294.7	777.9									
24-May	0	0	0	0	2	27	120	197	396	449	437	594	620	381	150	81	175	279	284	161	42	3	0	0	183.3	619.7									
25-May	0	0	0	0	2	28	57	105	420	442	669	818	805	418	539	338	504	116	168	59	3	0	0	0	228.8	818.1									
26-May	0	0	0	0	3	33	175	273	455	591	700	747	785	741	499	358	212	266	250	159	45	3	0	0	262.2	785.5									
27-May	0	0	0	0	5	47	122	287	348	480	560	650	535	477	554	530	499	397	102	35	26	3	0	0	235.7	650.0									
28-May	0	0	0	0	1	12	44	98	157	441	473	586	536	643	338	397	395	144	76	59	31	5	0	0	184.8	643.0									
29-May	0	0	0	0	4	31	184	278	456	586	698	776	820	820	792	716	608	315	130	78	45	3	0	0	305.8	820.5									
30-May	0	0	0	0	5	36	64	216	425	571	678	759	819	600	308	173	152	99	102	54	16	1	0	0	211.6	818.6									
31-May	0	0	0	0	5	20	65	115	176	257	268	410	643	711	558	670	320	218	158	116	25	4	0	0	197.5	711.4									
0.0 0.0 0.0 0.0 1.6 21.9 103.6 189.1 349.9 467.0 558.4 624.2 668.9 644.4 588.0 515.1 430.5 288.7 188.8 94.5 21.3 1.3 0.0 0.0																								Diurnal Average											
0.2 0.2 0.1 0.2 5.2 46.6 184.3 287.5 455.8 602.3 699.5 818.1 819.6 820.5 792.0 716.1 608.2 442.1 294.4 160.7 44.9 4.8 0.2 0.1																								Diurnal Maximum											

Hourly Averages

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



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Henry Pirker - May 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	7	6	10	7	5	6	7	8	12	12	10	10	9	5	6	7	4	4	13	16	10	9	10	9	7.1	16.3
Dir	286	297	300	304	312	317	306	299	297	299	284	275	239	283	288	275	235	287	238	237	227	224	215	214	269.0	237.1
2 Spd	9	7	6	7	7	9	15	17	27	28	29	30	36	33	31	33	32	32	28	20	17	14	7	7	19.6	36.1
Dir	210	210	218	231	251	279	242	235	246	253	257	258	260	252	260	271	268	262	266	260	251	250	233	238	254.7	259.5
3 Spd	5	7	9	11	12	11	14	13	12	18	20	16	17	17	15	14	16	20	16	13	10	14	16	12	13.3	19.6
Dir	244	258	275	279	280	282	280	258	252	260	275	263	255	254	249	259	268	263	280	275	262	241	246	249	262.9	275.5
4 Spd	14	13	9	5	4	4	5	10	13	14	18	16	16	19	20	23	24	22	23	19	18	19	13	12	14.5	24.3
Dir	251	241	250	234	219	236	251	244	252	250	280	281	262	249	241	240	246	245	251	257	246	244	239	240	249.7	246.2
5 Spd	10	7	6	7	7	5	6	8	15	14	15	18	17	16	16	16	16	15	16	14	12	11	12	11	11.7	17.6
Dir	248	266	255	302	274	289	274	270	261	243	242	253	248	242	248	240	242	242	240	243	239	237	236	234	248.7	253.4
6 Spd	9	7	5	5	1	1	2	4	6	8	8	6	4	4	3	3	5	7	5	6	5	2	2	2	3.1	8.6
Dir	228	225	239	291	302	286	242	227	243	259	279	301	279	293	304	309	339	322	341	3	25	21	292	314	286.6	227.6
7 Spd	4	4	3	3	1	2	1	2	2	8	7	6	8	6	5	5	13	12	6	6	5	1	2	4	1.9	12.6
Dir	324	317	315	286	301	296	36	112	139	79	82	87	87	62	69	126	137	245	154	166	160	169	155	188	120.5	137.0
8 Spd	7	5	4	5	10	8	6	6	12	13	6	5	5	6	10	10	7	10	11	10	6	8	7	7	4.6	13.4
Dir	227	225	245	278	289	285	296	266	304	295	308	356	354	319	283	312	4	2	12	28	50	58	57	56	325.0	294.5
9 Spd	7	10	10	11	9	12	11	13	15	16	14	16	17	15	16	17	15	16	15	15	12	11	9	8	12.8	17.2
Dir	48	60	68	69	63	68	73	76	79	80	76	80	87	81	88	84	76	79	74	72	72	77	90	92	76.6	83.9
10 Spd	7	6	5	5	3	1	2	1	2	1	2	3	4	2	2	6	2	5	4	6	6	7	5	6	2.3	7.4
Dir	84	76	70	64	69	61	61	93	224	189	13	299	347	273	304	323	8	99	106	90	98	108	118	125	79.1	108.4
11 Spd	3	3	5	6	7	7	8	8	9	9	10	10	12	12	10	9	11	15	20	20	14	11	15	12	9.6	20.2
Dir	126	205	258	260	252	271	262	235	240	236	244	257	282	270	272	293	254	246	251	252	238	229	239	226	250.7	251.1
12 Spd	12	11	9	5	7	7	5	7	13	18	16	15	20	19	14	20	27	25	27	24	14	6	5	2	13.0	26.9
Dir	229	225	223	245	269	260	253	250	280	291	304	283	274	278	298	290	272	279	277	270	272	290	283	242	273.7	276.5
13 Spd	2	1	4	3	2	2	2	1	5	5	5	2	2	0	1	4	3	1	2	0	4	3	2	1	0.8	5.4
Dir	263	267	295	312	314	307	300	46	77	50	62	32	85	137	231	349	355	284	305	180	129	114	104	107	28.3	77.4
14 Spd	1	4	1	1	1	3	7	8	7	9	10	8	9	9	10	22	26	26	20	15	9	4	8	7	8.7	26.2
Dir	98	104	143	154	201	260	250	237	236	233	261	239	247	242	244	261	255	256	257	271	253	239	240	271	251.0	254.8
15 Spd	2	3	4	2	4	2	2	5	11	16	15	15	13	17	18	21	20	21	16	12	7	3	2	2	9.2	20.8
Dir	290	226	254	239	265	240	254	235	249	266	266	276	267	269	267	278	270	269	265	262	280	49	65	335	267.5	277.8
16 Spd	3	2	3	3	4	6	6	3	7	7	6	3	1	4	3	4	5	8	7	4	5	5	5	5	3.3	7.6
Dir	308	320	339	324	349	44	55	77	354	20	107	171	267	27	32	60	64	75	91	45	51	58	57	65	45.4	74.7
17 Spd	3	3	4	4	5	4	5	4	5	6	8	10	8	7	8	9	8	8	7	6	6	3	2	2	4.6	10.1
Dir	50	49	36	28	28	29	30	33	36	40	66	79	69	60	85	86	105	122	135	127	141	134	71	92	75.9	79.3
18 Spd	3	3	4	4	6	7	6	7	9	10	11	13	13	11	10	8	8	7	10	10	8	6	8	7	7.6	13.3
Dir	95	72	82	71	78	84	96	99	108	95	106	115	119	113	105	105	93	95	87	87	85	79	86	98	97.3	114.7
19 Spd	7	7	7	5	4	3	3	3	1	2	3	3	3	5	6	5	3	3	3	6	3	3	3	3	3.6	7.3
Dir	90	92	88	75	66	69	92	102	126	147	125	92	87	17	93	84	66	113	85	65	62	55	46	53	79.9	91.8
20 Spd	3	2	0	2	5	2	2	4	3	5	5	10	12	14	14	15	19	8	6	4	5	3	6	13	4.3	19.1
Dir	53	43	51	81	96	100	103	145	236	242	256	263	251	269	271	238	179	187	206	166	166	224	235	245	227.1	179.0
21 Spd	11	7	7	7	6	6	6	15	17	19	17	14	15	14	13	14	15	16	16	14	10	5	2	2	10.9	19.3
Dir	241	229	231	236	245	276	265	259	257	261	252	255	262	243	245	247	263	267	267	271	272	279	280	315	257.0	260.7
22 Spd	1	2	1	2	3	2	1	1	2	4	6	7	6	4	4	2	4	4	6	6	5	4	3	2	2.6	7.4
Dir	221	220	211	154	153	146	127	137	135	148	146	160	158	196	177	143	160	126	112	87	81	77	70	313	139.1	159.5

Hourly Averages

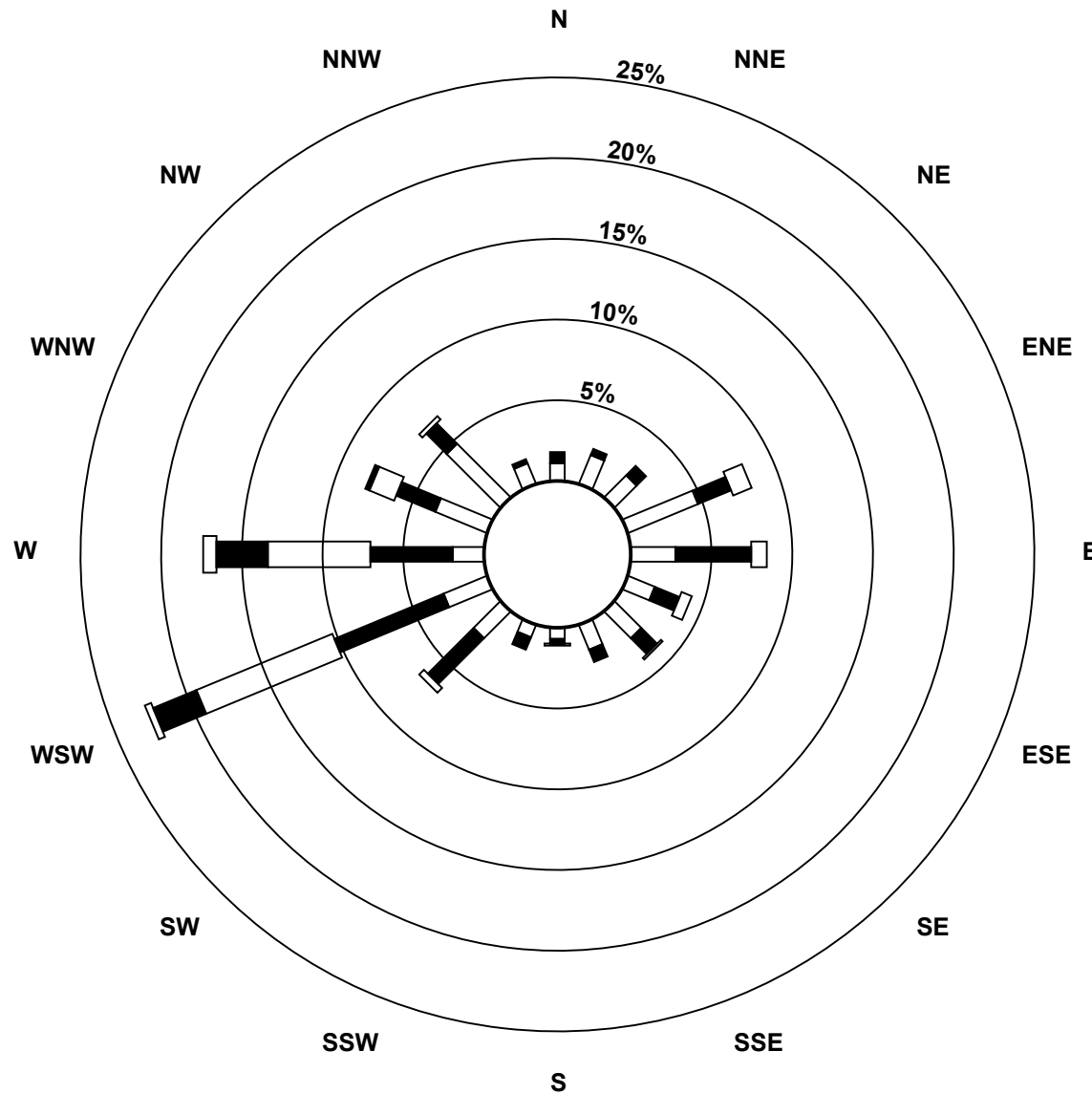
Wind Speed (km/h)
Wind Direction (deg)
Henry Pirker - May 2018

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	3	3	3	3	1	1	0	1	1	1	1	2	1	2	3	3	3	5	9	7	4	5	5	6	1.8	8.9										
Dir	314	313	306	66	91	222	322	234	242	233	205	174	293	131	139	129	93	102	83	82	71	72	77	80	85.6	83.3										
24 Spd	5	1	2	2	1	1	2	6	7	14	17	22	29	24	19	10	5	14	18	16	10	7	8	10	9.3	28.9										
Dir	86	56	62	60	62	295	295	312	298	292	290	278	280	285	278	287	322	274	262	274	265	257	250	281	281.5	280.4										
25 Spd	6	5	5	7	9	8	5	4	6	9	13	15	10	10	8	8	14	15	10	7	11	6	9	12	8.3	15.1										
Dir	263	243	231	245	243	268	284	274	276	255	249	257	249	245	246	242	280	277	271	299	264	202	226	248	256.9	256.7										
26 Spd	14	14	15	8	9	7	14	21	24	23	25	23	19	21	22	26	19	12	13	19	16	15	11	9	16.3	25.8										
Dir	251	251	245	228	213	233	247	249	249	251	262	267	255	257	264	273	279	283	242	256	240	261	255	259	255.6	272.9										
27 Spd	8	6	7	3	6	6	7	8	9	11	12	15	14	11	11	16	15	18	15	15	10	3	1	2	9.0	18.2										
Dir	239	225	254	301	234	236	239	239	226	240	241	240	248	241	248	242	257	270	274	260	253	192	149	13	248.1	270.4										
28 Spd	4	5	3	2	2	4	4	4	9	19	20	20	25	21	26	25	27	24	26	22	17	18	12	7	13.8	26.6										
Dir	336	317	312	307	236	267	226	213	240	259	247	252	261	255	259	256	259	261	268	259	282	282	281	248	261.9	258.8										
29 Spd	10	7	4	4	5	5	6	9	8	9	7	9	6	5	6	4	0	4	2	6	11	5	4	2	4.8	11.2										
Dir	246	237	229	245	274	279	258	249	268	314	267	280	292	308	307	245	5	295	317	3	332	329	303	279	282.6	332.5										
30 Spd	5	5	6	4	5	4	4	6	3	2	3	6	7	8	13	11	7	4	6	4	11	6	3	1	0.8	12.6										
Dir	304	323	325	322	304	316	355	345	1	15	62	107	125	83	70	160	185	327	306	294	199	249	316	348	341.2	70.0										
31 Spd	1	3	2	0	2	1	2	3	3	5	6	7	8	7	14	12	14	7	7	1	3	5	8	5	3.8	14.5										
Dir	311	301	319	176	150	323	9	73	96	119	138	149	133	116	111	111	119	141	227	293	63	86	125	103	120.7	119.3										
Spd	3.0	2.5	2.5	1.8	2.1	2.4	2.6	3.8	5.5	6.4	6.4	6.7	7.0	6.8	6.2	7.1	6.7	7.7	7.2	5.8	4.1	2.6	2.6	2.5	Diurnal Average											
Dir	249.0	248.4	262.5	280.7	267.7	283.7	270.3	250.2	259.2	264.7	262.7	259.3	257.4	260.6	258.9	259.5	254.6	262.4	260.6	264.9	251.9	244.1	234.2	238.7	Diurnal Maximum											
Spd	14.1	13.6	15.0	10.6	11.6	11.9	15.3	21.5	27.1	27.5	29.3	30.0	36.1	33.0	31.4	33.3	32.2	32.1	28.3	23.7	18.0	19.2	16.4	13.0	Diurnal Maximum											
Dir	250.8	250.9	245.3	69.1	279.7	67.7	241.9	249.2	245.7	253.1	256.7	257.8	259.5	251.7	260.2	271.4	268.0	262.3	265.9	270.0	246.4	244.0	245.8	244.8												
Maximum Speed Value: 36 km/h on May 2 13:00																								Minimum Speed Value: 0 km/h on May 13 14:00										Hours in Service:		744
Maximum Daily Speed Average: 19.6 km/h on May 2																								Minimum Daily Speed Average: 0.8 km/h on May 13										Hours of Data:		744
Maximum Diurnal Speed Average: 7.7 km/h at hour 18																								Minimum Diurnal Speed Average: 1.8 km/h at hour 4										Hours of Missing Data:		0
Monthly Average Velocity: 4.62 km/h 258.89 deg																								Speed Percentiles: P ₁ = 0.7 P ₁₀ = 2.0 Q ₁ = 3.9 Median = 6.9 Q ₃ = 12.4 P ₉₀ = 17.5 P ₉₉ = 29.1										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	16		11		1		0		0		0		28																							
NorthEast	41		19		0		0		0		0		60																							
East	38		57		20		0		0		0		115																							
SouthEast	30		15		5		0		0		0		50																							
South	15		7		1		1		0		0		24																							
SouthWest	35		62		42		7		0		0		146																							
West	28		74		79		45		10		0		236																							
NorthWest	51		27		7		0		0		0		85																							
Total	254		272		155		53		10		0		744																							

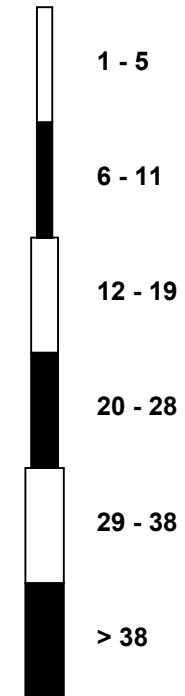
Wind Rose

Wind Speed (WS) (km/h)

Henry Pirker - May 2018



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Henry Pirker - May 2018

Maximum Speed: 37 km/h on May 2 13:00																			Maximum Daily Speed Average: 20.4 km/h on May 2										Hours in Service: 744																					
Minimum Speed: 0 km/h on May 31 04:00																			Minimum Daily Speed Average: 3.3 km/h on May 13										Hours of Data: 744																					
Maximum Diurnal Speed Average: 13.3 km/h at hour 18																			Minimum Diurnal Speed Average: 4.7 km/h at hour 4										Hours of Missing Data: 0																					
Monthly Average Speed: 9.17 km/h																			Percentiles: P ₁ = 1.0 P ₁₀ = 2.5 Q ₁ = 4.6 Median = 7.2 Q ₃ = 12.7 P ₉₀ = 17.8 P ₉₉ = 29.5										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-May	7	6	10	7	6	6	7	8	12	12	10	11	10	5	6	7	6	6	14	16	11	9	10	9	8.8	16.4																								
2-May	9	7	6	7	8	10	15	17	27	28	30	31	37	33	32	34	33	32	29	20	17	15	8	7	20.4	36.6																								
3-May	6	8	9	11	12	11	14	13	12	18	20	17	17	17	15	15	16	20	16	13	10	14	16	12	13.9	19.9																								
4-May	14	13	9	5	4	4	5	10	13	14	19	17	17	20	20	23	25	22	23	19	18	19	13	12	15.0	24.8																								
5-May	10	8	7	7	7	5	6	8	15	14	15	18	17	17	16	17	17	16	16	14	12	11	12	11	12.4	18.4																								
6-May	9	7	6	5	2	1	2	4	6	8	8	6	5	5	5	5	6	8	6	6	5	3	2	2	5.1	8.7																								
7-May	4	4	3	3	1	2	2	2	2	8	7	7	8	7	6	7	13	13	8	7	5	2	3	4	5.2	13.1																								
8-May	7	6	5	5	10	8	6	7	13	14	7	6	6	7	11	10	8	10	12	10	6	9	7	8	8.2	13.6																								
9-May	7	10	10	11	9	12	11	13	15	16	14	16	17	15	16	18	16	17	15	15	12	11	9	8	13.1	17.6																								
10-May	7	6	5	5	3	2	2	1	2	3	3	5	5	5	4	7	5	6	5	6	6	7	5	6	4.6	7.5																								
11-May	3	4	5	6	7	7	8	8	10	9	10	10	12	13	12	10	11	15	21	20	14	12	15	12	10.5	20.5																								
12-May	13	11	9	6	8	8	5	7	14	18	16	16	20	19	15	22	27	26	27	24	15	7	5	2	14.1	27.0																								
13-May	2	1	4	3	2	2	2	2	6	6	6	4	5	3	4	6	4	3	3	1	4	3	2	1	3.3	6.1																								
14-May	1	4	2	1	2	3	7	8	7	9	10	9	9	10	11	23	27	26	20	15	10	5	8	8	9.7	26.6																								
15-May	3	3	4	2	4	3	3	6	11	17	16	16	14	18	19	21	21	21	16	12	7	4	2	2	10.2	21.2																								
16-May	3	3	3	3	5	6	6	6	8	8	6	4	4	4	4	4	5	8	7	4	6	5	5	5	5.1	8.4																								
17-May	3	3	4	5	5	4	5	5	5	6	9	10	8	8	9	10	9	9	8	6	6	3	2	2	5.9	10.3																								
18-May	3	3	4	4	6	7	6	7	9	11	12	14	13	12	10	9	8	8	11	10	8	6	8	7	8.1	13.9																								
19-May	7	7	7	5	4	3	3	3	2	3	3	5	5	6	7	6	4	4	4	6	4	3	3	3	4.5	7.4																								
20-May	3	2	0	2	5	2	2	4	3	5	6	10	12	15	15	15	20	9	6	4	5	3	6	13	7.0	19.6																								
21-May	11	7	7	7	6	6	6	15	18	20	17	15	15	14	14	14	15	17	16	14	10	5	3	2	11.5	19.6																								
22-May	2	2	2	2	3	2	1	1	2	4	6	8	7	6	5	4	5	5	6	7	5	4	4	2	4.0	7.8																								
23-May	3	3	3	3	2	1	0	1	1	1	2	3	2	3	4	3	4	6	9	7	4	5	5	6	3.4	9.1																								
24-May	5	2	2	2	1	1	2	6	7	14	18	23	29	25	20	11	5	15	18	16	10	7	8	10	10.7	29.2																								
25-May	6	5	5	7	9	8	5	4	6	10	14	16	11	11	9	9	15	15	10	8	12	6	9	12	9.2	15.7																								
26-May	14	14	15	8	9	7	15	22	25	23	26	24	20	22	23	26	19	13	14	20	16	15	11	9	17.0	26.2																								
27-May	8	6	7	4	7	6	7	8	9	12	13	15	15	11	12	16	16	18	15	15	10	3	2	3	9.9	18.5																								
28-May	5	6	3	3	3	5	4	5	9	19	20	20	26	22	26	26	27	24	26	22	18	18	12	7	14.8	27.2																								
29-May	10	7	5	4	5	6	6	10	9	10	8	9	7	7	7	5	5	6	4	7	11	5	4	2	6.6	11.4																								
30-May	5	6	6	5	5	5	4	6	4	3	5	7	8	9	13	13	7	5	6	4	11	7	4	1	6.2	13.2																								
31-May	2	3	2	0	2	1	2	3	3	5	6	7	8	8	15	13	15	12	8	1	3	5	8	5	5.7	14.9																								
																									6.2	5.7	5.5	4.7	5.2	5.0	5.5	7.1	9.2	11.2	11.7	12.2	12.6	12.1	12.4	13.2	13.3	13.3	12.8	11.3	9.3	7.4	6.7	6.3	Diurnal Average	
																									14.2	13.8	15.1	10.7	11.6	11.9	15.4	21.7	27.3	27.8	29.7	30.5	36.6	33.3	31.8	33.6	32.6	32.4	28.5	23.8	18.0	19.2	16.5	13.1	Diurnal Maximum	
All monthly, daily, and diurnal averages have been calculated using scalar methods																																																		

Hourly Standard Deviations

Wind Direction (WD) - deg

Henry Pirker - May 2018

Maximum Value: 96.8 deg on May 29 17:00																				Hours in Service: 744					
Minimum Value: 3.9 deg on May 28 22:00																				Hours of Data: 744					
																				Hours of Missing Data: 0					
Percentiles: P ₁ = 4.7 P ₁₀ = 7.3 Q ₁ = 10.1 Median = 15.5 Q ₃ = 27.8 P ₉₀ = 49.1 P ₉₉ = 81.4																				Hours of Calibration: 0					
																				Percent Operational Time: 100.0					
Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-May	6	12	4	5	13	5	6	8	7	13	18	22	33	32	28	19	45	57	11	6	6	5	5	7	57.4
2-May	6	8	17	12	31	18	7	8	7	8	9	11	9	8	9	8	9	8	7	7	9	10	12	10	30.9
3-May	14	20	5	5	4	6	5	8	9	10	11	21	18	13	14	14	11	11	6	7	13	6	4	7	20.9
4-May	9	6	11	18	10	11	15	10	10	11	14	13	16	16	12	10	11	9	9	9	4	5	6	5	17.7
5-May	7	24	28	13	12	13	16	11	10	13	15	17	12	16	17	15	15	13	8	7	6	7	7	7	28.1
6-May	7	6	46	30	53	24	20	12	14	20	21	35	57	51	81	86	44	20	34	25	11	15	37	13	85.9
7-May	11	15	16	21	44	33	71	27	31	10	16	22	17	20	38	75	17	22	43	29	9	43	12	30	75.2
8-May	7	7	16	30	8	13	18	26	15	12	42	42	54	34	30	26	29	17	14	13	12	9	9	10	54.0
9-May	10	9	7	8	8	7	9	8	7	9	10	10	10	13	12	11	12	10	9	6	7	6	9	10	12.8
10-May	8	9	8	9	12	49	31	77	23	81	67	61	47	78	81	37	81	24	17	29	13	9	11	9	81.1
11-May	24	38	12	14	11	6	10	10	13	12	16	21	17	17	32	33	16	10	10	8	8	7	7	5	37.7
12-May	5	5	6	38	14	12	14	11	20	10	12	15	12	13	15	19	9	9	6	5	13	26	55	43	55.3
13-May	33	25	26	36	51	33	15	65	26	35	40	71	82	88	66	73	58	90	33	75	15	15	17	21	89.8
14-May	12	10	35	22	39	21	10	9	12	11	20	17	18	27	23	16	10	11	10	6	8	25	7	31	38.9
15-May	33	18	36	16	17	54	41	16	14	10	17	14	19	23	13	11	13	10	13	11	23	28	40	51	53.7
16-May	50	57	15	23	34	13	16	80	30	30	21	43	96	20	26	29	14	9	21	16	14	12	13	17	96.4
17-May	18	16	15	17	11	17	15	14	15	17	11	11	16	21	23	17	23	22	18	18	12	14	9	15	23.2
18-May	8	14	14	7	7	5	13	12	13	14	15	17	19	21	22	28	24	25	20	9	7	6	7	4	28.0
19-May	5	6	7	8	7	13	23	26	48	55	58	54	68	38	45	41	60	60	35	13	10	9	12	9	67.9
20-May	11	51	77	23	10	52	38	29	38	21	29	21	22	14	19	17	14	21	22	16	34	11	14	5	76.6
21-May	7	8	8	11	11	27	20	8	9	11	13	15	20	17	21	16	17	12	9	8	10	8	36	49	49.1
22-May	60	13	63	36	9	11	56	35	33	25	21	18	37	56	57	92	70	37	26	11	8	7	30	17	92.0
23-May	23	14	37	15	65	29	51	46	34	63	72	57	83	74	54	62	50	32	11	9	12	8	8	5	83.3
24-May	6	63	11	26	35	32	26	10	16	9	7	12	8	9	9	22	13	25	11	7	6	8	9	10	62.8
25-May	28	19	24	10	8	16	18	12	37	17	16	17	21	28	23	33	18	15	20	17	24	20	10	9	37.5
26-May	5	9	7	9	7	12	9	8	8	11	11	11	17	16	12	10	10	13	20	11	13	8	9	13	19.9
27-May	17	10	16	57	48	10	11	12	12	19	17	17	16	18	23	16	15	11	8	8	21	28	60	49	60.0
28-May	20	26	38	24	44	33	37	19	13	14	11	15	10	18	10	11	12	11	7	7	14	4	5	20	43.6
29-May	5	12	17	16	29	15	19	14	19	19	42	24	47	57	55	64	97	70	69	26	9	17	15	16	96.8
30-May	18	18	9	26	23	33	44	22	47	49	57	34	43	35	13	35	25	37	15	41	18	25	43	68	67.9
31-May	68	15	31	66	14	79	28	33	33	33	22	20	22	38	17	16	13	49	16	42	19	12	18	14	79.1
67.6 62.8 76.6 65.6 64.6 79.1 70.9 79.9 47.9 80.5 71.6 71.4 96.4 88.0 81.2 92.0 96.8 89.8 69.5 74.5 34.4 42.5 60.0 67.9																									

PAZA
Evergreen Park Station
Monthly Summary Tables, Graphs and
Roses

Hourly Averages

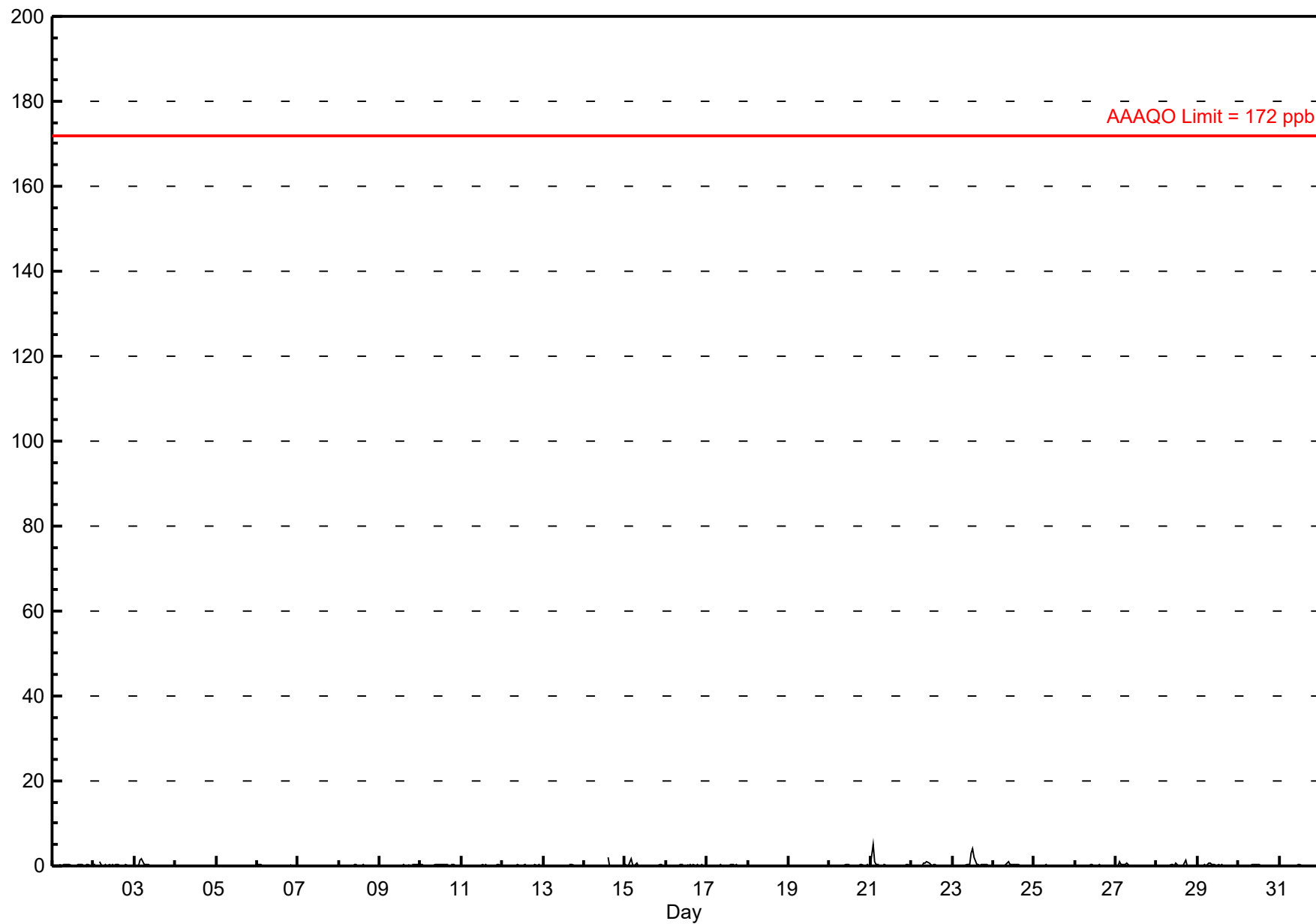
Sulphur Dioxide (SO₂) - ppb

Evergreen Park - May 2018

Number of Exceedences (AAAQO):		1-hr: 0		24-hr: 0		Hours in Service: 744																				
Maximum Value: 5.1 ppb on May 21 02:00		Maximum Daily Average: 0.6 ppb on May 23																		Hours of Data: 708						
Minimum Value: 0 ppb on May 1 01:00		Minimum Daily Average: 0.0 ppb on May 4																		Hours of Missing Data: 36						
Maximum Diurnal Average: 0.3 ppb at hour 13		Minimum Diurnal Average: 0.1 ppb at hour 24																		Hours of Calibration: 36						
Monthly Average: 0.15 ppb		Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 0.3 P ₉₉ = 1.5																		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-May	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	0.5
2-May	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.1
3-May	0	A	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.8
4-May	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.0	0.1
5-May	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
6-May	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
7-May	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	0.1
8-May	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	0.3
9-May	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	0.3
10-May	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	A	0	0	0	0	0	0	0.2	0.5
11-May	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	0.4
12-May	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
13-May	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	0.4
14-May	0	0	0	0	0	0	0	0	0	0	0	0	0	A	2	0	0	0	0	0	0	0	0	0	0.2	1.9
15-May	0	0	0	2	0	0	0	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.2	1.8
16-May	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
17-May	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
18-May	0	0	0	0	0	0	0	0	0	A	0	C	C	C	0	0	0	0	0	0	0	0	0	0	0.1	0.3
19-May	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
20-May	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
21-May	0	5	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	5.1
22-May	0	0	0	0	0	A	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.2
23-May	0	0	0	0	A	0	0	0	0	0	0	3	4	2	0	0	0	0	0	0	0	0	0	0	0.6	4.2
24-May	0	0	0	A	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.1
25-May	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
26-May	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
27-May	A	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.2	1.0
28-May	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	2	0	0	0	0	A	0	0.2	1.5
29-May	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.2	0.7
30-May	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
31-May	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
		0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1		Diurnal Average
		0.5	5.1	1.1	1.8	1.8	1.1	0.7	0.7	0.7	1.2	0.7	3.2	4.2	1.9	1.9	0.3	0.8	1.5	0.4	0.3	0.3	0.2	0.4	0.3	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 - May 2018



Hourly Maximums

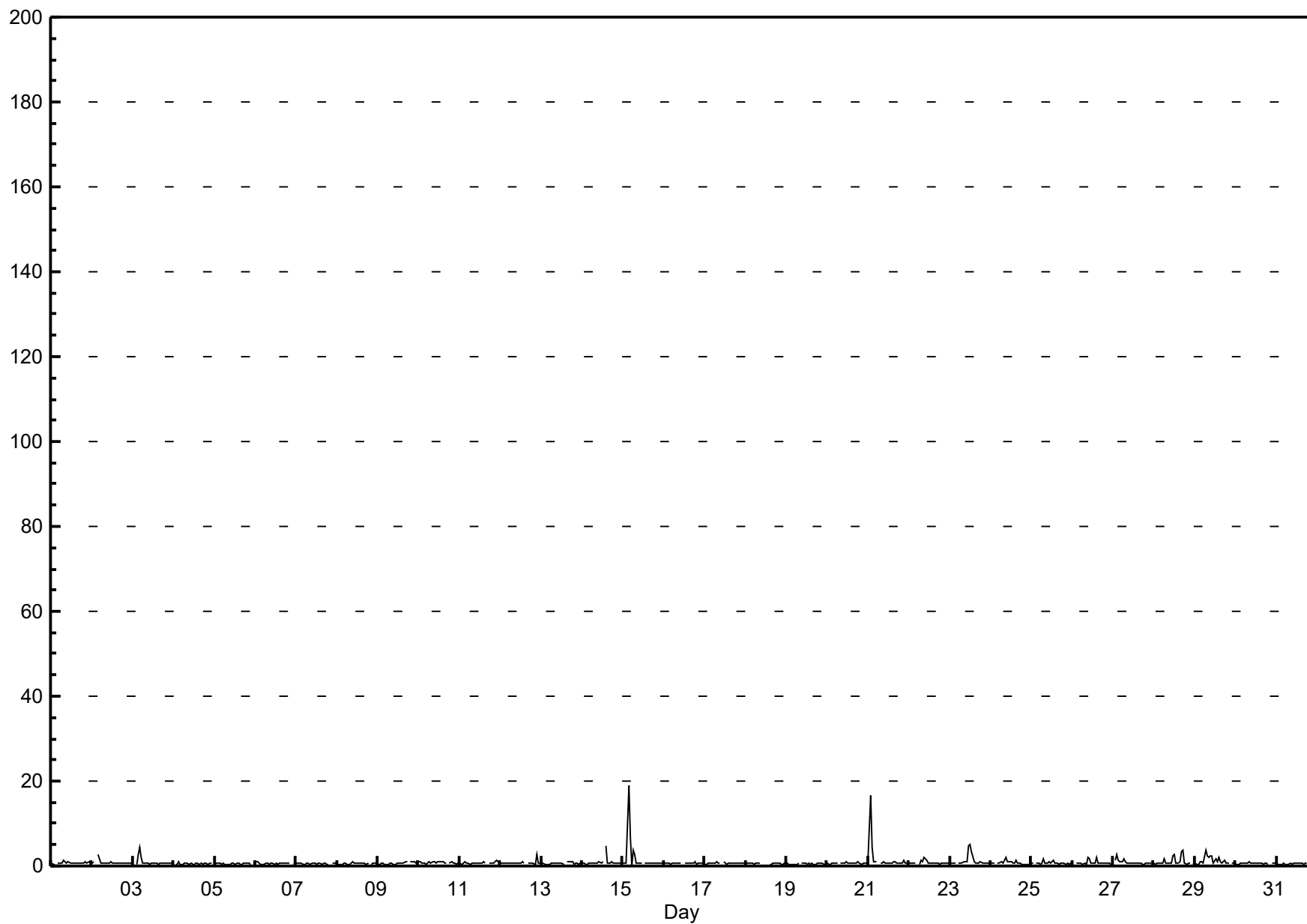
Sulphur Dioxide (SO₂) - ppb

Evergreen Park - May 2018

Maximum Value: 19.1 ppb on May 15 04:00																				Maximum Daily Average: 1.9 ppb on May 15					Hours in Service: 744		
Minimum Value: 0 ppb on May 15 06:00																				Minimum Daily Average: 0.5 ppb on May 19					Hours of Data: 708		
Maximum Diurnal Average: 1.4 ppb at hour 4																				Minimum Diurnal Average: 0.6 ppb at hour 21					Hours of Missing Data: 36		
Monthly Average: 0.80 ppb																				Percentiles: P ₁ = 0.4 P ₁₀ = 0.5 Q ₁ = 0.5 Median = 0.6 Q ₃ = 0.7 P ₉₀ = 1.0 P ₉₉ = 4.3					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-May	1	0	0	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.2	
2-May	1	1	A	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	2.6	
3-May	1	A	0	3	4	2	1	1	1	1	0	1	1	1	1	0	1	1	1	1	1	1	1	1	0.9	4.4	
4-May	A	0	0	1	1	0	1	1	1	1	1	0	0	1	1	0	1	1	1	1	1	0	1	1	A	0.6	1.0
5-May	0	1	1	1	0	1	0	0	0	0	1	1	0	1	1	0	0	1	1	1	1	1	0	A	1	0.5	0.8
6-May	1	1	1	0	0	0	1	1	0	1	1	0	1	0	1	1	1	1	1	1	1	1	A	1	0	0.6	0.9
7-May	1	1	1	1	0	0	1	1	0	1	1	1	0	1	1	0	1	1	1	1	0	A	1	1	1	0.6	0.7
8-May	0	0	0	0	1	1	0	0	1	1	1	1	1	1	1	1	1	0	1	A	0	1	1	1	1	0.6	0.9
9-May	0	0	1	1	0	0	0	1	1	0	0	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.6	1.0
10-May	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.8	1.1
11-May	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0.7	1.4
12-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0	3	1	1	1	0.8	2.7
13-May	1	1	0	0	0	0	1	1	1	1	1	1	1	0	A	1	1	1	1	1	1	1	0	1	1	0.6	0.9
14-May	1	1	0	0	1	1	1	1	1	1	1	1	1	A	5	1	1	1	1	1	1	1	1	1	1	0.8	4.9
15-May	1	1	1	19	7	0	4	3	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1.9	19.1
16-May	1	1	1	1	0	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0	1	1	1	1	0.7	0.9
17-May	0	0	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.9
18-May	1	1	1	1	1	0	1	1	1	1	A	1	C	C	C	1	0	1	1	1	1	0	0	1	1	0.6	0.8
19-May	1	0	1	0	0	0	0	1	A	1	1	1	0	1	0	1	0	0	1	1	1	1	1	0	0	0.5	0.7
20-May	1	0	0	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0.6	1.1
21-May	1	17	5	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.6	16.7
22-May	1	1	1	1	1	A	0	2	1	2	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0.8	2.1
23-May	1	1	1	1	A	1	1	1	1	1	1	5	5	3	1	1	1	1	1	1	1	1	1	1	1	1.2	5.0
24-May	1	1	1	A	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	0	0	0	0	0	1	0.8	2.0
25-May	1	1	A	1	1	0	1	2	1	1	1	1	1	1	1	1	0	1	1	1	0	1	1	1	1	0.7	1.7
26-May	0	A	1	1	1	1	0	1	1	2	2	1	1	1	2	1	1	1	1	1	1	1	1	0	0	0.7	2.1
27-May	A	2	3	1	1	1	2	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	A	0.9	2.7
28-May	1	0	1	1	1	1	2	1	1	1	1	3	3	1	1	1	3	4	1	1	1	1	A	0	0	1.1	3.7
29-May	1	0	1	1	1	1	4	3	2	3	3	1	2	1	2	1	1	1	1	1	1	A	1	1	1	1.3	3.8
30-May	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	A	1	1	1	1	0.6	1.0
31-May	1	0	0	0	1	0	0	0	1	0	1	1	1	1	1	1	0	1	1	A	0	1	0	0	0	0.5	0.7
0.6 1.2 0.8 1.4 1.0 0.6 0.9 0.9 0.7 0.9 0.8 0.9 0.9 0.8 0.9 0.7 0.7 0.8 0.7 0.6 0.6 0.7 0.6 0.6																								Diurnal Average	Diurnal Maximum		
1.0 16.7 4.5 19.1 6.7 2.0 3.8 2.7 2.0 2.5 2.5 4.7 5.0 3.5 4.9 1.4 3.4 3.7 1.1 1.0 1.0 2.7 1.4 0.9																											
C - Calibration A - Automated Daily Zero Span																											

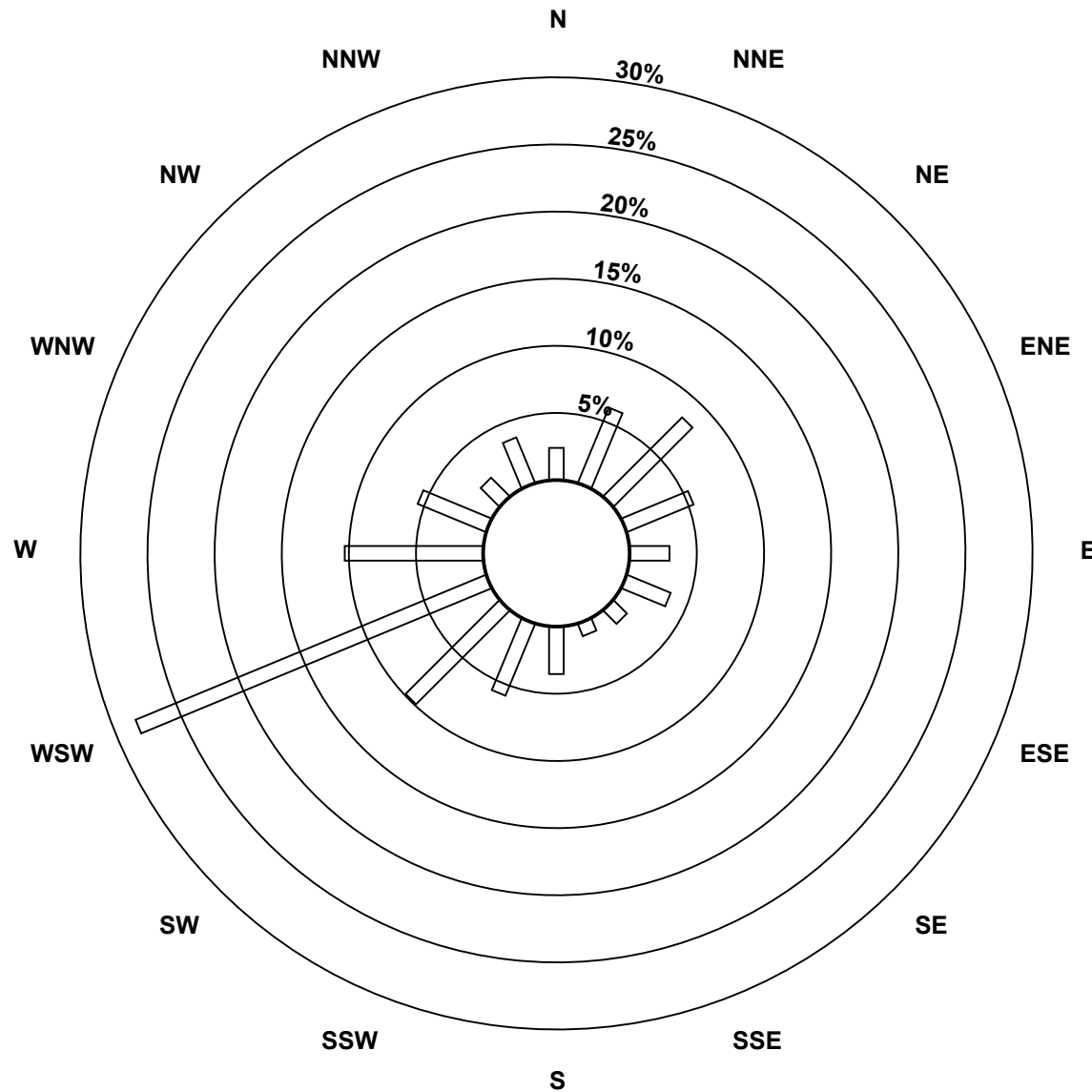
Hourly Maximums

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

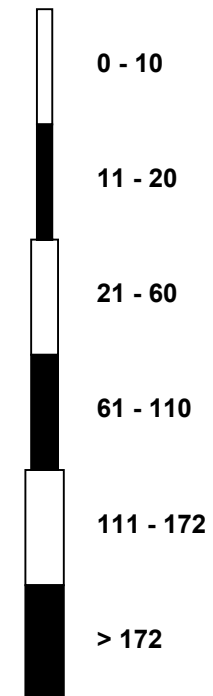


Pollutant Rose

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

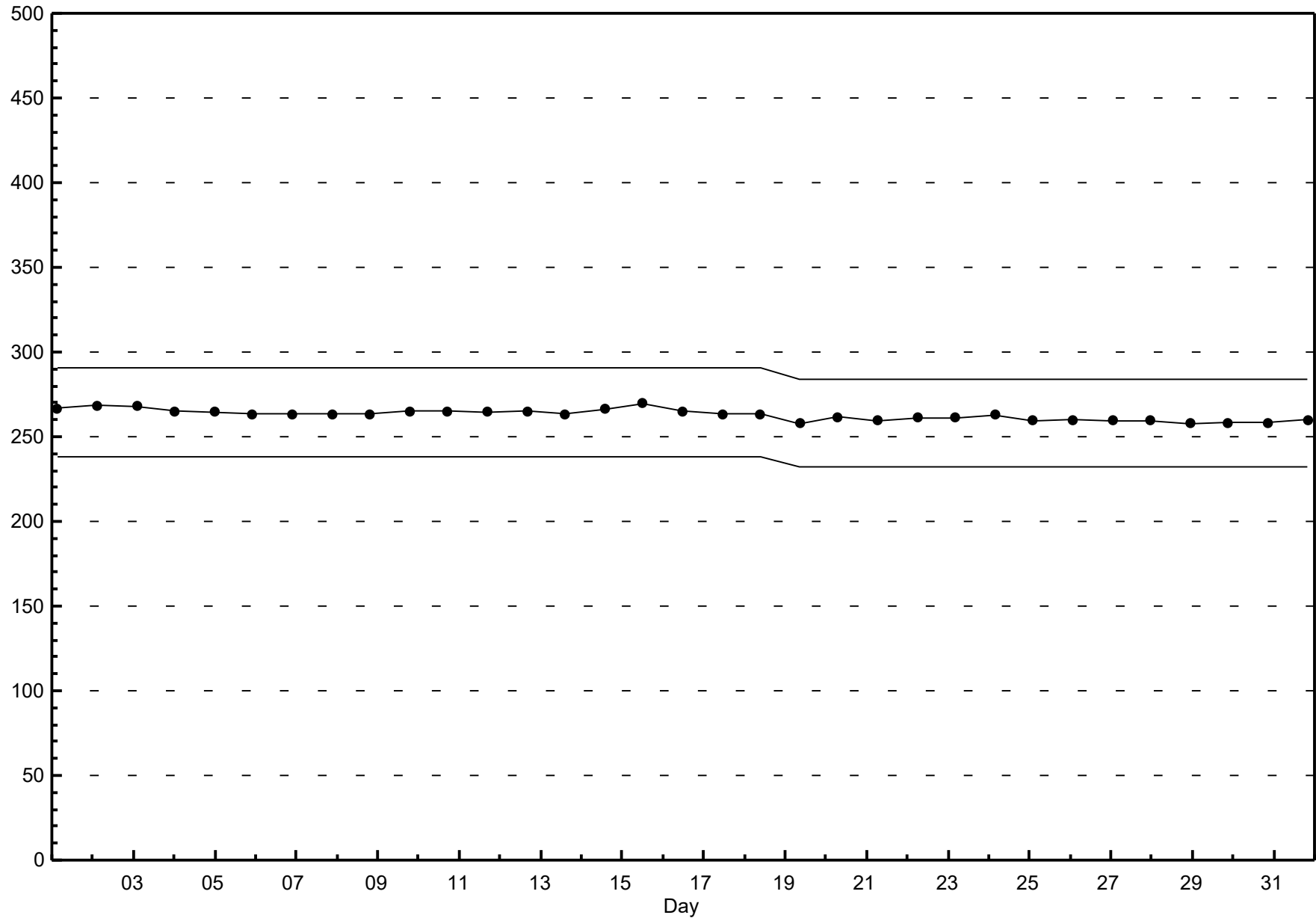


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Evergreen Park - May 2018



Hourly Averages

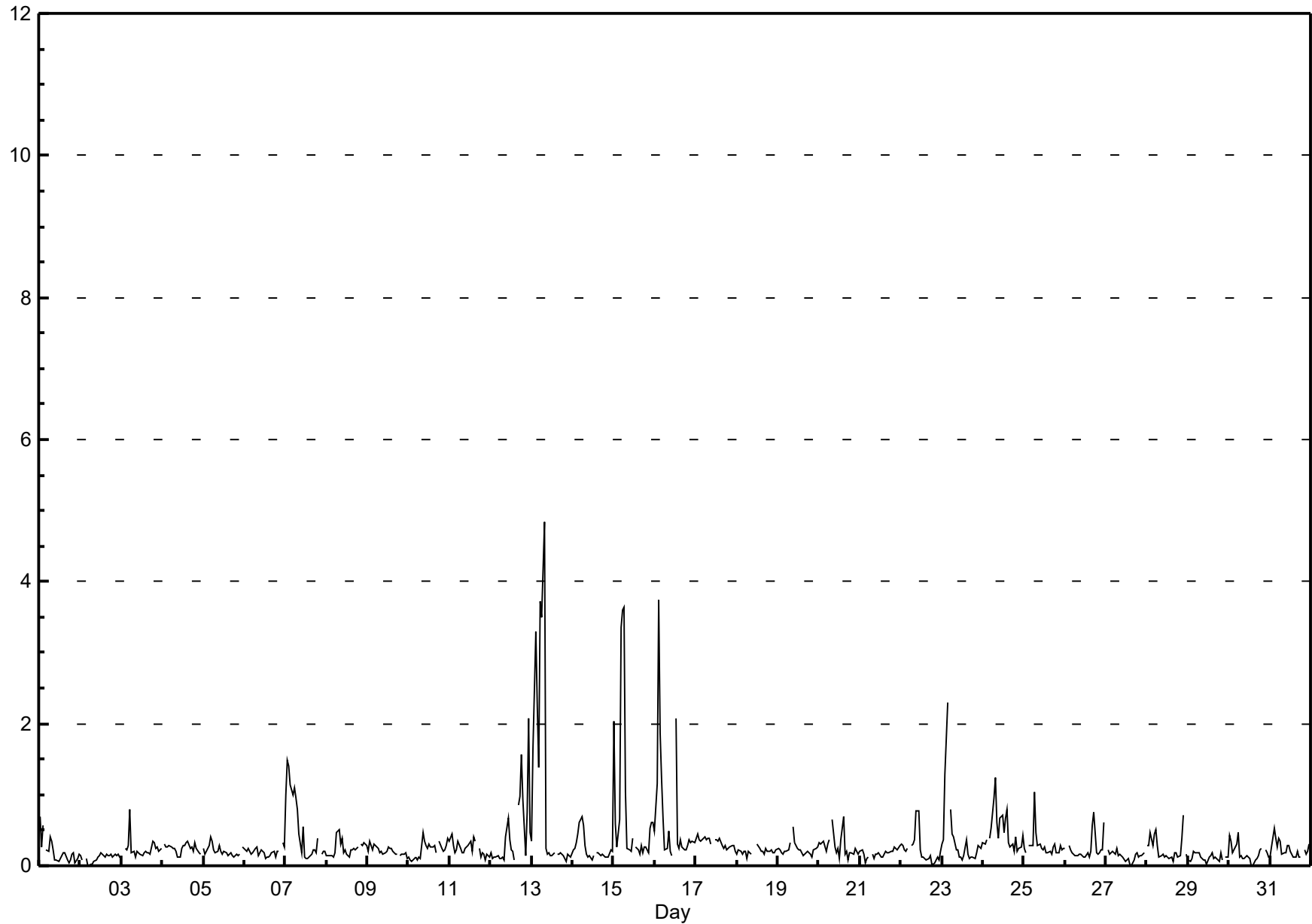
Total Reduced Sulphur (TRS) - ppb

Evergreen Park - May 2018

Maximum Value: 4.8 ppb on May 13 08:00																				Maximum Daily Average: 1.0 ppb on May 13										Hours in Service: 744	
Minimum Value: 0 ppb on May 2 05:00																				Minimum Daily Average: 0.1 ppb on May 2										Hours of Data: 709	
Maximum Diurnal Average: 0.6 ppb at hour 6																				Minimum Diurnal Average: 0.2 ppb at hour 16										Hours of Missing Data: 35	
Monthly Average: 0.31 ppb																				Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.2 Median = 0.2 Q ₃ = 0.3 P ₉₀ = 0.5 P ₉₉ = 3.2										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-May	1	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	0.7					
2-May	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					
3-May	0	A	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.8					
4-May	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					
5-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.2	0.4					
6-May	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	0.3					
7-May	1	1	1	1	1	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0.5	1.5					
8-May	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	A	A	0	0	0	0	0.2	0.5					
9-May	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	0.4					
10-May	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					
11-May	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	0.5					
12-May	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	A	1	1	2	1	0	1	2	0	0.5	2.1					
13-May	0	2	3	2	1	4	3	5	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1.0	4.8					
14-May	0	0	0	0	1	1	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.2	0.7					
15-May	2	1	0	1	3	4	4	1	0	0	0	0	A	0	0	0	0	0	0	0	0	1	1	1	0.9	3.6					
16-May	0	1	4	2	1	1	0	0	0	0	0	A	2	0	0	0	0	0	0	0	0	0	0	0	0.7	3.7					
17-May	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5					
18-May	0	0	0	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3					
19-May	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	0.5					
20-May	0	0	0	0	0	0	0	A	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.3	0.7					
21-May	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					
22-May	0	0	0	0	0	A	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.8					
23-May	0	0	1	2	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	2.3					
24-May	0	0	0	A	0	1	1	1	1	0	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0.5	1.2					
25-May	0	0	A	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.0					
26-May	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0.2	0.7					
27-May	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					
28-May	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	0	0.2	0.7					
29-May	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					
30-May	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	0.5					
31-May	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.2	0.5					
0.3 0.4 0.6 0.5 0.4 0.6 0.5 0.5 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 0.3 0.3																									Diurnal Average						
2.0 1.6 3.7 2.3 3.4 3.7 3.6 4.8 0.6 0.8 0.8 0.7 2.1 0.7 0.8 0.4 0.9 1.0 1.6 0.9 0.4 0.7 2.1 0.6																									Diurnal Maximum						
C - Calibration																									A - Automated Daily Zero Span						

Hourly Averages

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



Hourly Maximums

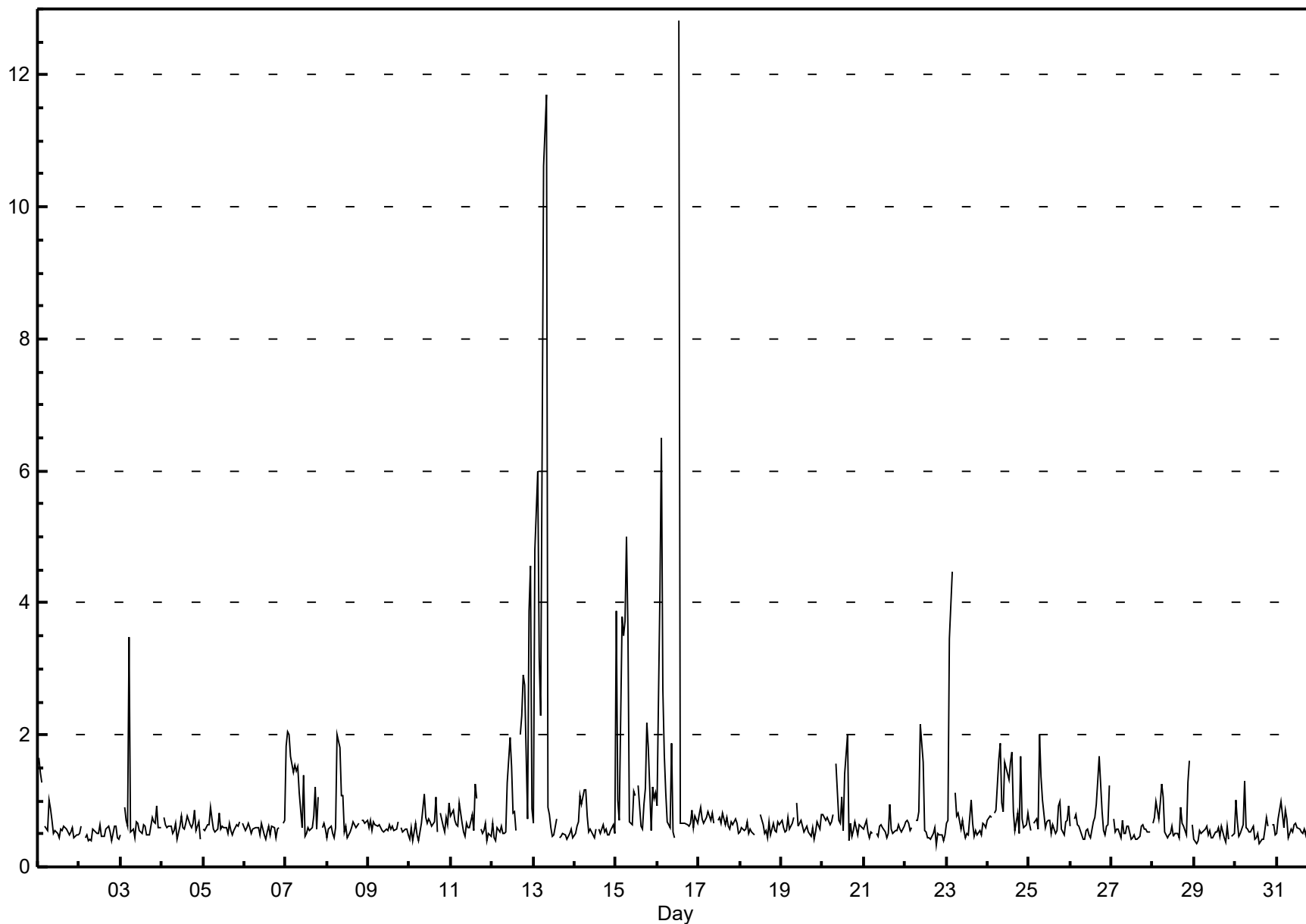
Total Reduced Sulphur (TRS) - ppb

Evergreen Park - May 2018

Maximum Value: 12.8 ppb on May 16 13:00																				Maximum Daily Average: 2.3 ppb on May 13					Hours in Service: 744	
Minimum Value: 0 ppb on May 22 19:00																				Minimum Daily Average: 0.5 ppb on May 29					Hours of Data: 709	
Maximum Diurnal Average: 1.3 ppb at hour 7																				Minimum Diurnal Average: 0.6 ppb at hour 21					Hours of Missing Data: 35	
Monthly Average: 0.84 ppb																				Percentiles: P ₁ = 0.4 P ₁₀ = 0.5 Q ₁ = 0.5 Median = 0.6 Q ₃ = 0.7 P ₉₀ = 1.2 P ₉₉ = 4.8					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-May	2	1	1	A	1	1	1	1	1	0	1	1	0	1	1	1	1	1	0	1	1	0	0	0	0.7	1.7
2-May	1	1	A	0	0	0	0	0	1	1	1	1	1	0	0	1	1	1	1	0	1	1	0	0	0.5	0.6
3-May	0	A	1	1	1	3	1	1	0	1	1	1	1	1	1	0	0	0	1	1	1	1	1	1	0.7	3.5
4-May	A	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0	A	0.6	0.9
5-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	A	1	0.6	0.9
6-May	1	1	1	1	1	1	1	1	1	0	1	0	0	1	1	0	1	1	0	1	1	A	1	1	0.6	0.7
7-May	2	2	2	2	1	2	1	2	1	1	1	0	0	1	1	1	1	1	1	1	A	1	1	1	1.1	2.1
8-May	0	1	1	1	0	1	2	2	1	1	1	1	0	1	1	1	1	1	1	A	1	1	1	1	0.8	2.0
9-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0	0.6	0.7
10-May	0	1	0	1	0	0	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0.7	1.1
11-May	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	A	1	0	1	1	0	0	0	0.7	1.3
12-May	1	0	0	1	1	1	1	1	1	1	2	2	1	1	1	A	2	2	3	3	1	4	5	1	1.4	4.6
13-May	1	5	6	3	2	6	11	12	1	1	1	0	0	1	A	0	0	1	0	0	0	0	1	0	2.3	11.7
14-May	1	1	1	1	1	1	1	1	1	1	1	0	1	A	1	1	1	1	1	0	0	1	1	1	0.7	1.2
15-May	4	1	1	4	3	4	5	4	1	1	1	1	A	1	1	1	1	1	2	2	1	1	1	1	1.8	5.0
16-May	1	4	6	3	2	1	1	1	2	1	0	A	13	1	1	1	1	1	1	1	1	1	1	1	1.8	12.8
17-May	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
18-May	1	1	1	1	1	1	1	1	0	C	C	C	1	1	1	1	0	1	0	1	1	1	1	1	0.6	0.8
19-May	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0	1	0	1	1	1	1	0.6	1.0
20-May	1	1	1	1	1	1	1	A	2	1	1	1	1	1	2	0	1	0	1	1	0	1	1	1	0.8	2.0
21-May	1	1	1	0	1	1	A	1	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0.6	0.9
22-May	1	1	1	1	1	A	1	1	1	2	2	1	1	0	0	0	0	1	0	1	0	0	0	0	0.7	2.2
23-May	1	1	3	4	A	1	1	1	1	1	1	0	1	0	1	1	0	1	0	1	0	1	1	1	0.9	4.5
24-May	1	1	1	A	1	1	2	2	1	1	2	1	1	2	2	1	1	1	1	2	1	1	1	1	1.0	1.9
25-May	1	1	A	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0.8	2.0
26-May	1	A	1	1	1	1	1	0	0	1	1	0	0	1	1	1	1	2	1	1	0	1	1	1	0.7	1.7
27-May	A	1	1	1	1	0	1	1	1	1	1	0	0	0	0	0	0	1	1	1	1	1	1	A	0.5	0.7
28-May	1	1	1	1	1	1	1	1	0	0	0	1	0	1	1	0	1	1	1	0	1	2	A	1	0.7	1.6
29-May	0	0	0	1	1	1	1	1	0	1	0	0	1	1	1	0	1	0	0	1	0	A	0	1	0.5	0.6
30-May	1	1	0	1	1	1	1	1	1	1	1	0	0	1	0	0	0	1	1	1	A	1	1	0	0.6	1.3
31-May	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0	1	0	1	A	1	1	1	1	0.6	1.0
0.8 1.0 1.2 1.1 0.9 1.1 1.3 1.2 0.7 0.7 0.7 0.7 1.0 0.7 0.7 0.6 0.7 0.7 0.7 0.7 0.8 0.6 0.8 0.7 0.7																								Diurnal Average		
3.9 4.8 6.5 4.5 3.5 6.3 10.6 11.7 1.9 2.2 2.0 1.5 12.8 1.6 2.0 1.1 2.0 2.3 2.9 2.8 1.3 3.9 4.6 1.2																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										

Hourly Maximums

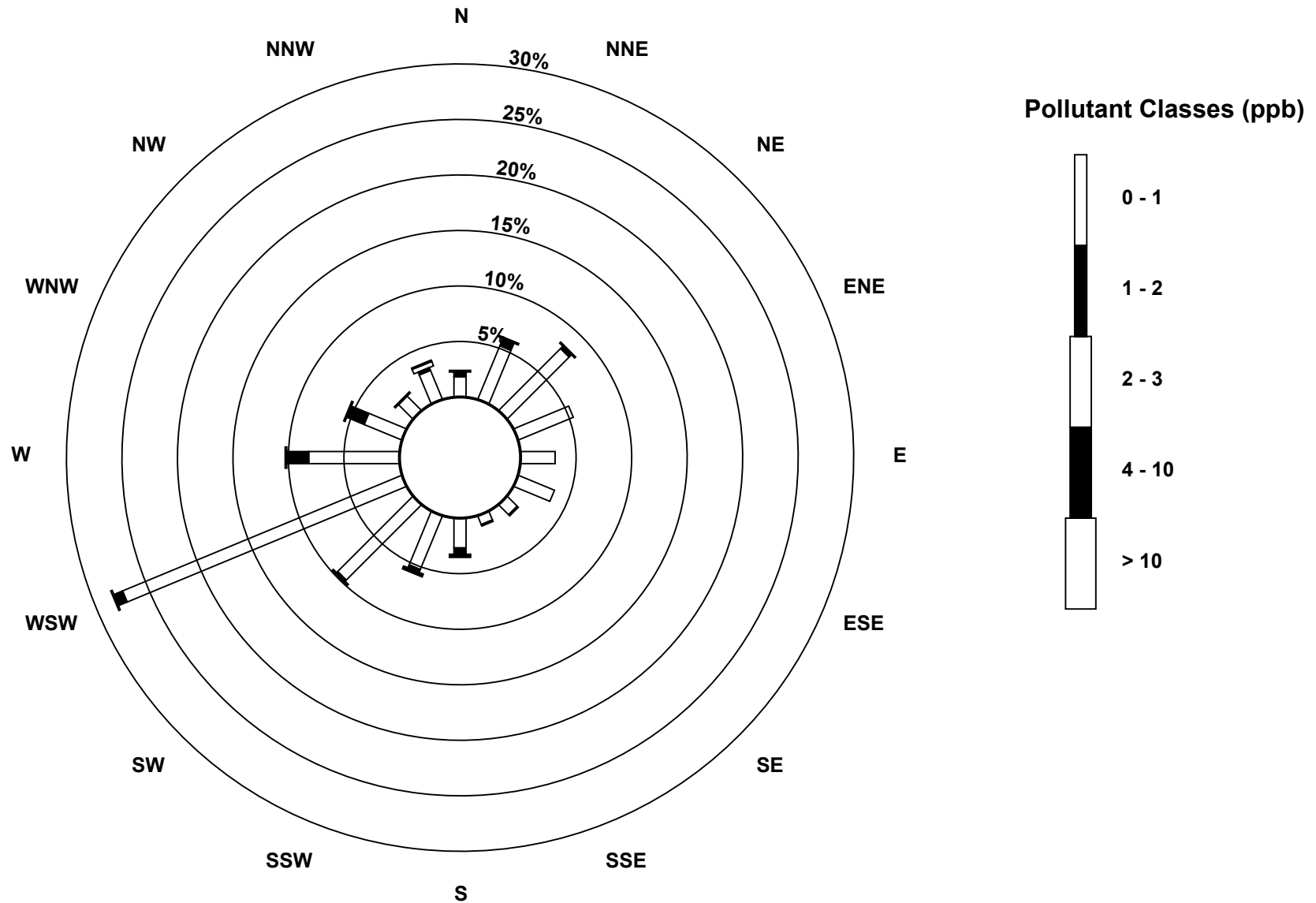
Total Reduced Sulphur (TRS) - ppb
Evergreen Park - May 2018



Pollutant Rose

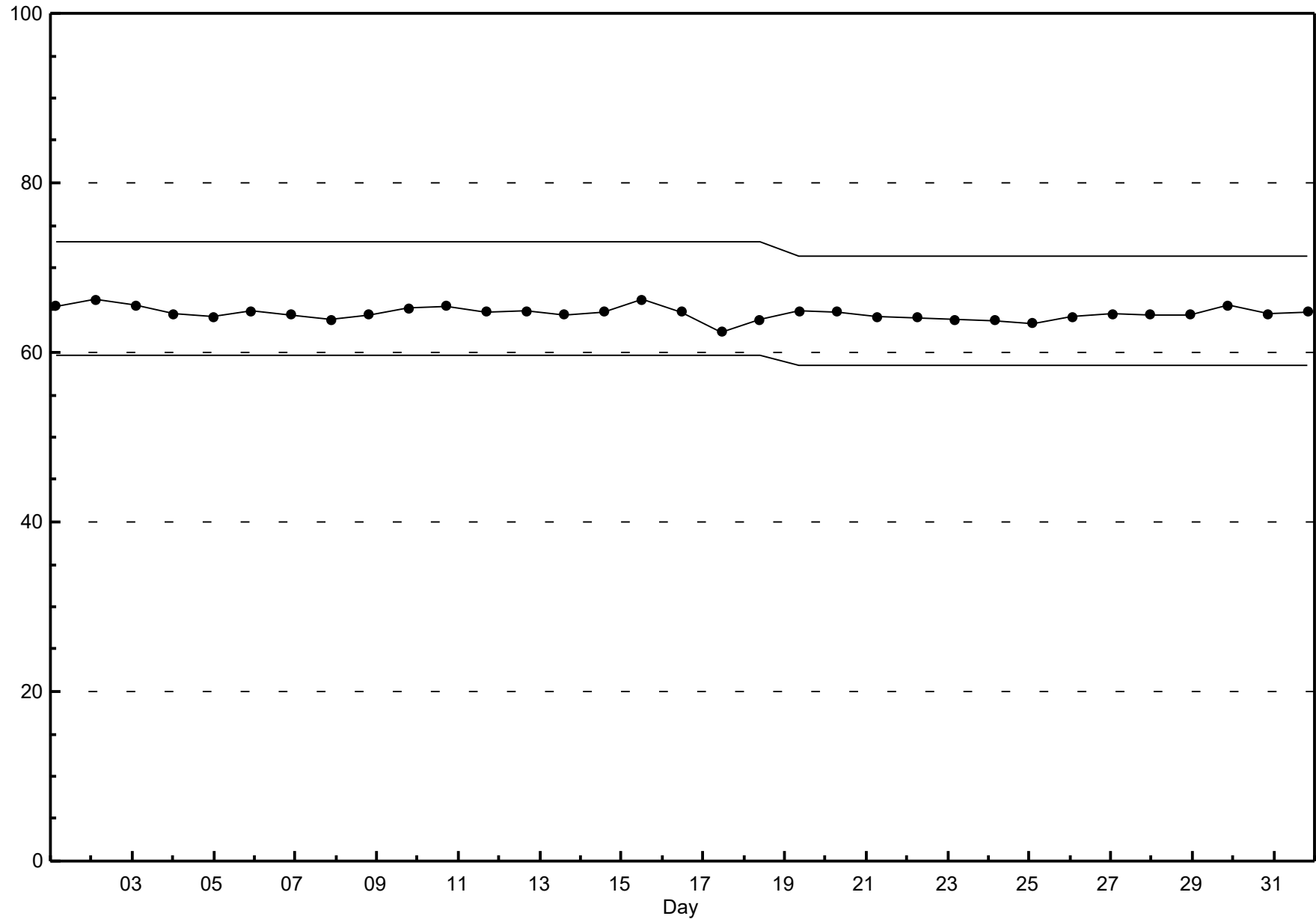
Total Reduced Sulphur (TRS) - ppb

Evergreen Park - May 2018



Span Responses

Total Reduced Sulphur (TRS)
Evergreen Park - May 2018

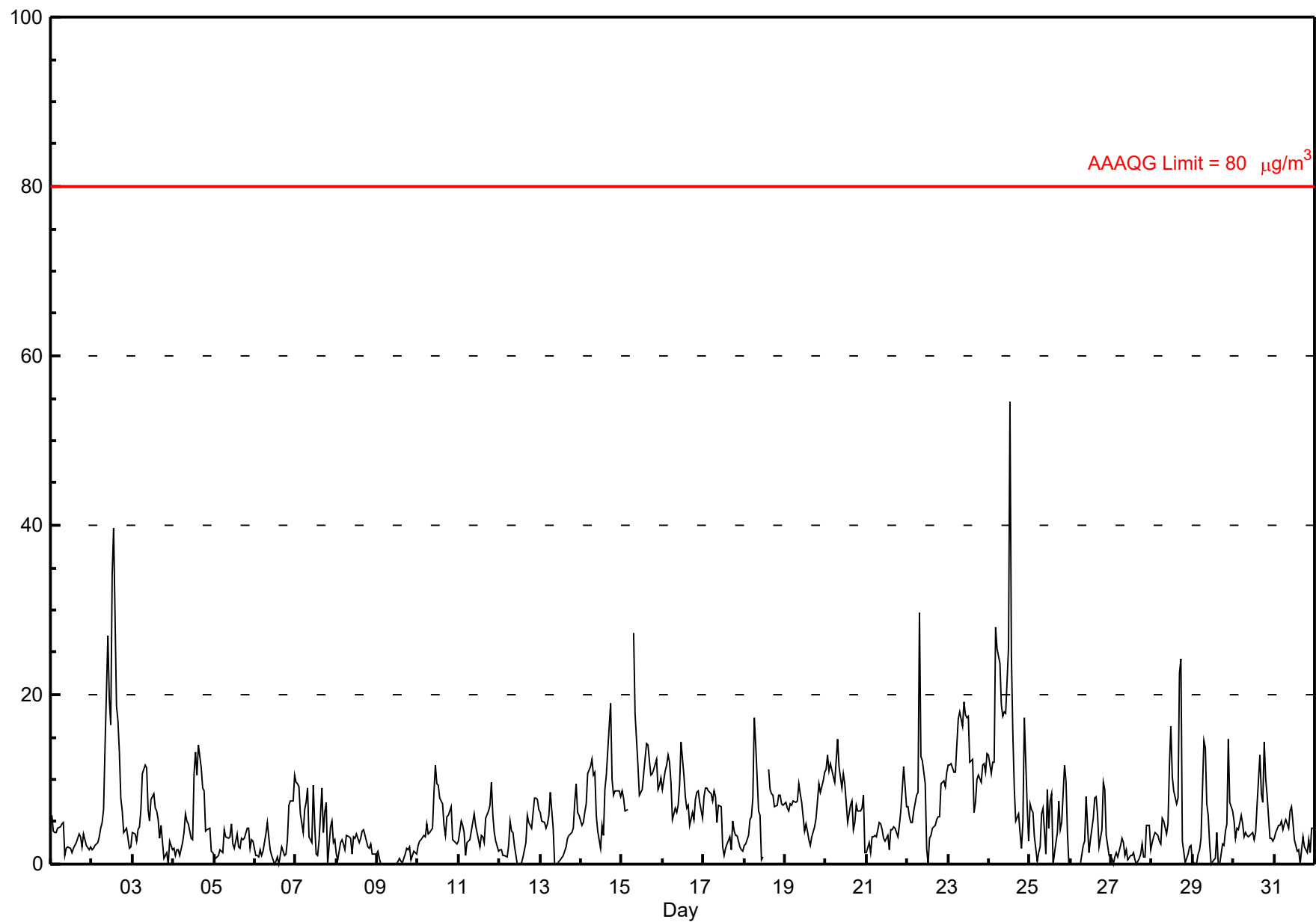


Hourly Averages

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

Evergreen Park - May 2018

Number of Exceedences: 1-hr: 0 24-hr: 0 Maximum Value: 54.6 µg/m³ on May 24 13:00 Maximum Daily Average: 15.6 µg/m³ on May 24																				Hours in Service: 744 Hours of Data: 739 Hours of Missing Data: 5 Hours of Calibration: 2 Percent Operational Time: 99.6						
Minimum Value: 0 µg/m³ on May 6 12:00 Maximum Diurnal Average: 8.5 µg/m³ at hour 8 Monthly Average: 5.72 µg/m³ Minimum Daily Average: 0.6 µg/m³ on May 9 Minimum Diurnal Average: 4.4 µg/m³ at hour 24 Percentiles: P ₁ = 0.0 P ₁₀ = 1.0 Q ₁ = 2.2 Median = 4.3 Q ₃ = 7.9 P ₉₀ = 11.6 P ₉₉ = 25.5																										
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-May	6	4	4	4	4	4	5	5	1	2	2	2	1	2	2	3	4	3	2	3	3	2	2	2	3.0	5.8
2-May	2	2	2	3	3	4	5	6	14	27	19	16	34	40	19	17	13	8	6	4	4	3	2	2	10.6	39.7
3-May	4	4	3	4	4	6	11	12	11	6	5	8	8	7	6	5	3	5	1	1	1	0	3	2	5.0	11.7
4-May	2	1	2	2	1	2	4	6	5	5	3	3	11	13	10	14	11	9	9	4	4	4	1	1	5.3	14.0
5-May	1	1	1	2	2	1	4	3	3	3	5	2	2	3	2	2	3	3	3	4	4	2	3	3	2.6	4.8
6-May	1	1	1	2	1	2	4	5	3	2	1	0	0	1	0	1	2	1	1	3	7	8	7	10	2.6	10.5
7-May	10	9	9	6	4	6	7	9	3	3	9	5	1	1	3	9	4	6	7	0	4	5	2	3	5.3	9.7
8-May	1	1	2	3	2	2	3	3	3	1	3	3	3	2	3	4	4	3	2	2	2	1	1	1	2.4	4.1
9-May	2	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2	2	2	0	1	1	1	0.6	2.0
10-May	2	3	3	3	3	5	4	4	4	8	12	9	9	8	7	5	3	6	6	7	3	3	3	2	5.0	11.7
11-May	3	5	5	4	1	3	3	4	5	6	4	4	2	3	3	3	5	6	7	10	6	4	3	1	4.1	9.7
12-May	2	2	1	1	1	2	5	4	4	2	0	0	0	0	1	3	6	5	5	4	8	8	8	6	3.2	7.9
13-May	6	5	5	4	5	6	8	4	0	0	0	0	0	1	2	2	3	3	4	4	7	9	6	6	3.8	9.5
14-May	5	5	6	7	11	11	12	11	11	6	4	2	5	3	9	11	16	19	10	8	9	9	9	8	8.5	18.9
15-May	9	8	6	6	N	N	N	27	18	12	8	8	9	11	14	14	12	11	11	11	12	9	9	10	11.2	27.3
16-May	9	11	12	13	12	10	5	7	6	7	9	14	10	8	7	7	5	6	5	8	9	9	7	5	8.3	14.3
17-May	8	9	9	9	8	7	9	8	5	7	7	2	1	2	2	3	2	5	4	3	3	2	2	2	4.9	9.0
18-May	2	2	3	5	6	8	17	14	6	6	0	1	C	C	11	9	8	8	7	7	8	8	7	7	6.9	17.3
19-May	7	7	6	7	7	7	7	7	10	8	7	4	5	4	3	2	3	4	5	7	9	9	10	11	6.6	10.9
20-May	11	13	11	12	10	10	12	15	12	9	11	10	7	5	7	7	4	5	7	6	6	7	8	1	8.6	14.7
21-May	1	3	1	3	3	3	3	5	5	4	3	3	3	2	4	4	4	4	3	5	6	9	12	7	4.2	11.6
22-May	7	6	5	5	6	8	9	30	13	12	10	2	0	3	3	4	5	5	6	6	10	10	9	11	7.6	29.7
23-May	12	12	12	11	11	14	17	18	16	19	18	17	18	12	12	6	7	10	11	10	12	12	11	13	12.9	19.2
24-May	13	11	12	12	28	25	24	19	17	18	18	26	55	25	16	9	5	6	4	2	5	17	7	3	15.6	54.6
25-May	7	6	6	3	0	1	2	6	7	1	9	4	7	8	0	3	4	7	4	5	12	10	4	0	4.9	11.8
26-May	0	0	0	0	0	0	0	2	3	8	5	1	3	5	8	8	6	2	4	10	9	3	2	1	3.3	9.6
27-May	1	0	1	1	1	2	3	2	1	2	1	1	1	1	1	0	1	1	2	1	1	5	5	2	1.5	4.6
28-May	3	3	4	3	3	2	5	5	4	5	12	16	10	9	7	8	23	24	3	0	1	1	2	2	6.4	24.2
29-May	0	0	0	1	2	3	15	14	7	6	2	0	0	1	4	0	0	2	2	4	5	15	7	6	4.0	14.7
30-May	5	3	4	4	6	5	3	4	3	3	4	4	3	4	7	13	8	7	14	10	8	3	3	3	5.5	14.4
31-May	3	4	5	5	5	4	5	5	4	6	7	5	3	1	2	0	2	3	2	1	3	1	4	4	3.5	6.8
4.6 4.5 4.5 4.7 5.0 5.5 7.0 8.5 6.6 6.6 6.4 5.6 7.1 6.2 5.6 5.6 5.7 6.2 5.1 4.9 5.9 6.1 5.1 4.4																								Diurnal Average		
12.8 12.9 12.1 12.8 28.0 25.5 23.8 29.7 17.8 27.0 19.5 25.5 54.6 39.7 18.7 17.0 22.6 24.2 14.4 11.1 12.4 17.3 11.6 13.1																								Diurnal Maximum		
C - Calibration N - Not Valid																										
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 µg/m³ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 µg/m³																										



Hourly Maximums

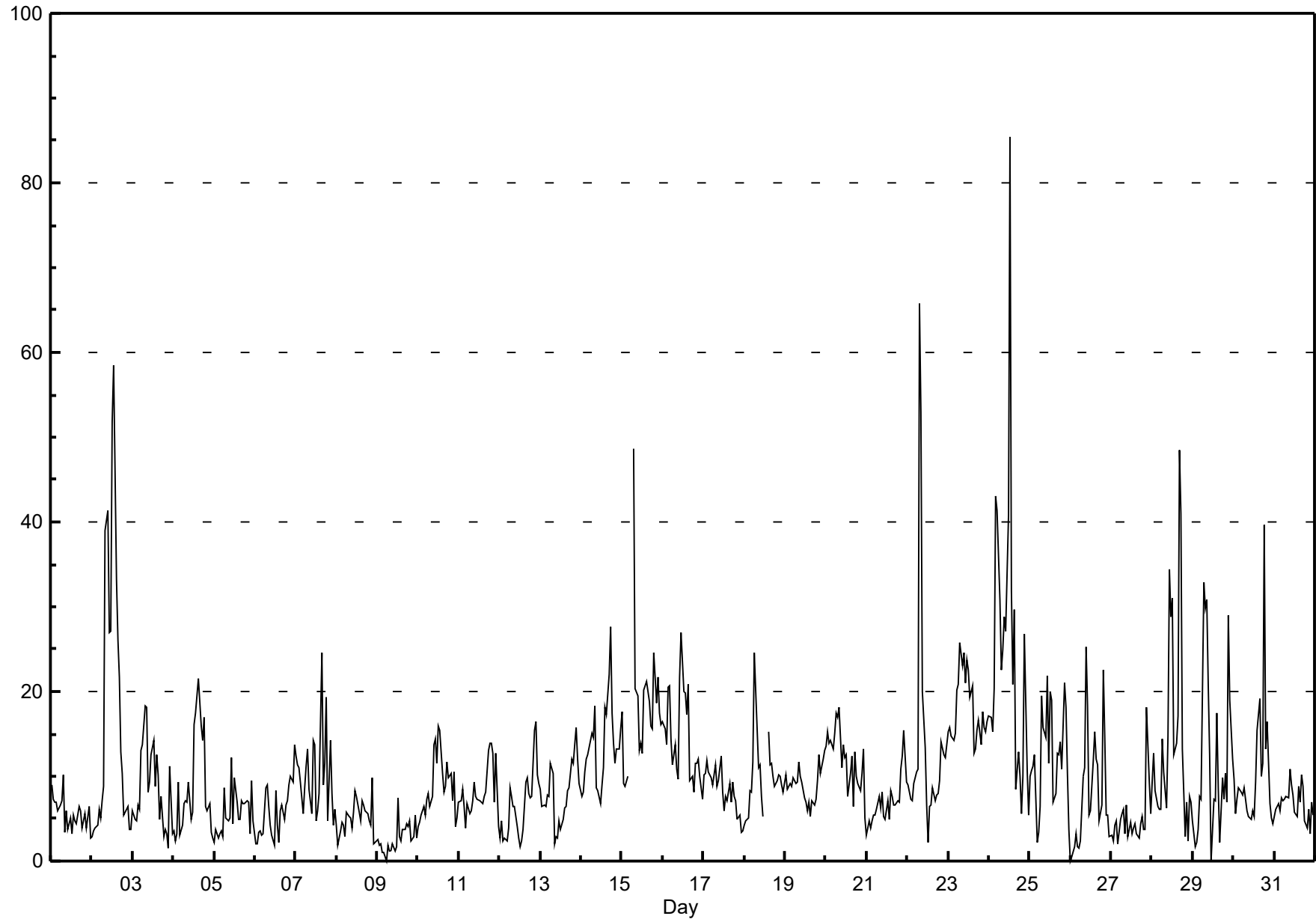
Particulate Matter 2.5 (PM_{2.5}) - µg/m³

Evergreen Park - May 2018

Maximum Value: 85.5 µg/m³ on May 24 13:00																				Maximum Daily Average: 24.4 µg/m³ on May 24										Hours in Service: 744	
Minimum Value: 0 µg/m³ on May 9 06:00																				Minimum Daily Average: 2.7 µg/m³ on May 9										Hours of Data: 739	
Maximum Diurnal Average: 14.7 µg/m³ at hour 8																				Minimum Diurnal Average: 7.0 µg/m³ at hour 2										Hours of Missing Data: 5	
Monthly Average: 10.32 µg/m³																				Percentiles: P ₁ = 1.2 P ₁₀ = 3.2 Q ₁ = 5.2 Median = 8.1 Q ₃ = 12.8 P ₉₀ = 19.4 P ₉₉ = 42.4										Hours of Calibration: 2	
																														Percent Operational Time: 99.6	
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-May	9	7	7	7	6	7	7	10	3	6	4	5	3	5	5	4	6	6	4	5	6	4	6	3	5.6	10.1					
2-May	3	4	4	4	6	5	7	9	39	41	27	27	52	58	33	26	22	13	10	5	6	6	4	4	17.3	58.4					
3-May	6	5	5	7	6	13	14	18	18	8	9	13	14	9	13	10	5	8	3	4	3	1	11	3	8.6	18.3					
4-May	4	2	3	9	3	4	7	7	7	9	5	6	16	17	19	22	16	14	17	6	6	7	3	3	8.9	21.5					
5-May	2	4	3	3	4	3	9	5	5	5	12	4	10	7	5	5	7	7	7	7	7	3	10	5	5.7	12.3					
6-May	2	2	3	4	3	3	9	9	6	4	3	2	8	4	2	6	7	5	7	7	9	10	9	14	5.8	13.8					
7-May	12	11	11	9	6	9	11	13	8	6	14	14	5	6	8	25	9	12	19	5	14	8	4	6	10.2	24.6					
8-May	4	2	4	5	4	3	6	5	5	4	6	8	8	6	5	7	7	6	6	5	4	10	2	2	5.1	9.8					
9-May	3	2	2	1	1	0	2	1	1	2	1	2	7	3	2	4	4	4	4	5	2	3	5	3	2.7	7.4					
10-May	4	5	5	6	5	7	8	6	8	14	14	12	16	15	10	8	9	12	10	10	7	11	4	5	8.8	16.0					
11-May	7	7	8	6	4	7	6	6	7	9	8	7	7	7	7	8	8	13	14	14	13	7	13	4	8.2	14.0					
12-May	3	5	2	3	2	4	9	8	6	6	4	3	2	2	4	9	10	8	7	8	15	16	10	9	6.5	16.4					
13-May	8	7	7	6	8	8	12	10	2	3	3	5	4	5	6	6	8	9	12	12	14	16	12	9	7.9	15.8					
14-May	8	8	11	12	13	14	15	15	18	9	8	7	9	11	18	17	22	28	18	14	12	13	13	16	13.6	27.7					
15-May	18	9	9	10	N	N	N	49	20	20	13	14	13	20	21	20	19	16	16	25	19	22	17	16	18.3	48.7					
16-May	16	16	14	21	21	14	11	14	11	10	22	27	20	20	17	21	10	10	8	12	12	12	10	7	14.7	27.0					
17-May	10	10	12	11	10	9	10	11	9	10	12	8	6	8	7	9	7	9	8	7	5	5	3	4	8.3	12.4					
18-May	4	5	5	8	8	12	25	20	11	11	8	5	C	C	15	11	12	10	9	10	10	10	9	8	10.3	24.5					
19-May	10	8	9	9	9	10	9	9	12	10	9	7	7	6	7	5	7	7	7	10	13	10	12	13	9.0	13.0					
20-May	14	15	14	14	13	15	18	17	18	11	14	12	13	8	10	12	6	13	10	9	8	10	13	5	12.2	18.2					
21-May	3	5	4	5	5	5	6	8	6	8	5	5	7	5	8	8	7	7	7	7	11	12	15	9	7.0	15.5					
22-May	9	8	7	7	9	11	11	66	53	20	13	7	2	6	7	9	7	8	8	10	14	13	12	14	13.8	65.8					
23-May	15	16	15	14	15	20	21	26	23	25	21	24	22	19	21	13	13	15	17	14	18	16	15	16	18.1	25.8					
24-May	17	17	15	20	43	41	31	22	25	29	27	41	86	32	21	30	8	13	10	6	10	27	11	5	24.4	85.5					
25-May	10	11	11	13	2	3	6	20	16	15	22	12	20	19	7	8	13	13	14	11	21	18	10	4	12.4	21.8					
26-May	0	1	2	3	2	1	2	10	11	25	18	5	6	12	15	12	11	5	7	22	15	5	5	3	8.3	25.3					
27-May	3	2	4	5	2	5	6	6	3	7	3	5	3	4	4	3	3	4	5	4	4	18	9	6	4.9	18.1					
28-May	9	13	8	6	6	6	14	11	6	15	34	29	31	13	14	17	48	41	13	3	7	2	8	7	15.1	48.5					
29-May	5	2	2	4	8	7	33	30	31	21	13	0	7	7	17	9	2	10	7	10	7	29	19	12	12.1	32.8					
30-May	10	6	7	9	8	8	9	7	6	5	5	6	5	9	15	19	10	12	40	13	16	7	5	4	10.1	39.6					
31-May	5	6	7	6	7	7	7	8	7	11	9	8	6	5	9	7	10	9	5	4	6	3	7	6	6.9	10.8					
7.5 7.0 7.1 8.0 8.0 8.8 11.3 14.7 13.0 12.2 11.8 10.6 13.8 11.6 11.4 11.9 10.7 11.1 10.6 9.1 10.1 10.8 9.4 7.2																								Diurnal Average							
17.6 16.9 15.2 20.6 43.0 41.4 32.8 65.8 52.9 41.3 34.3 40.8 85.5 58.4 33.2 29.6 48.5 41.0 39.6 24.6 21.0 28.9 19.0 16.5																								Diurnal Maximum							
C - Calibration N - Not Valid																															

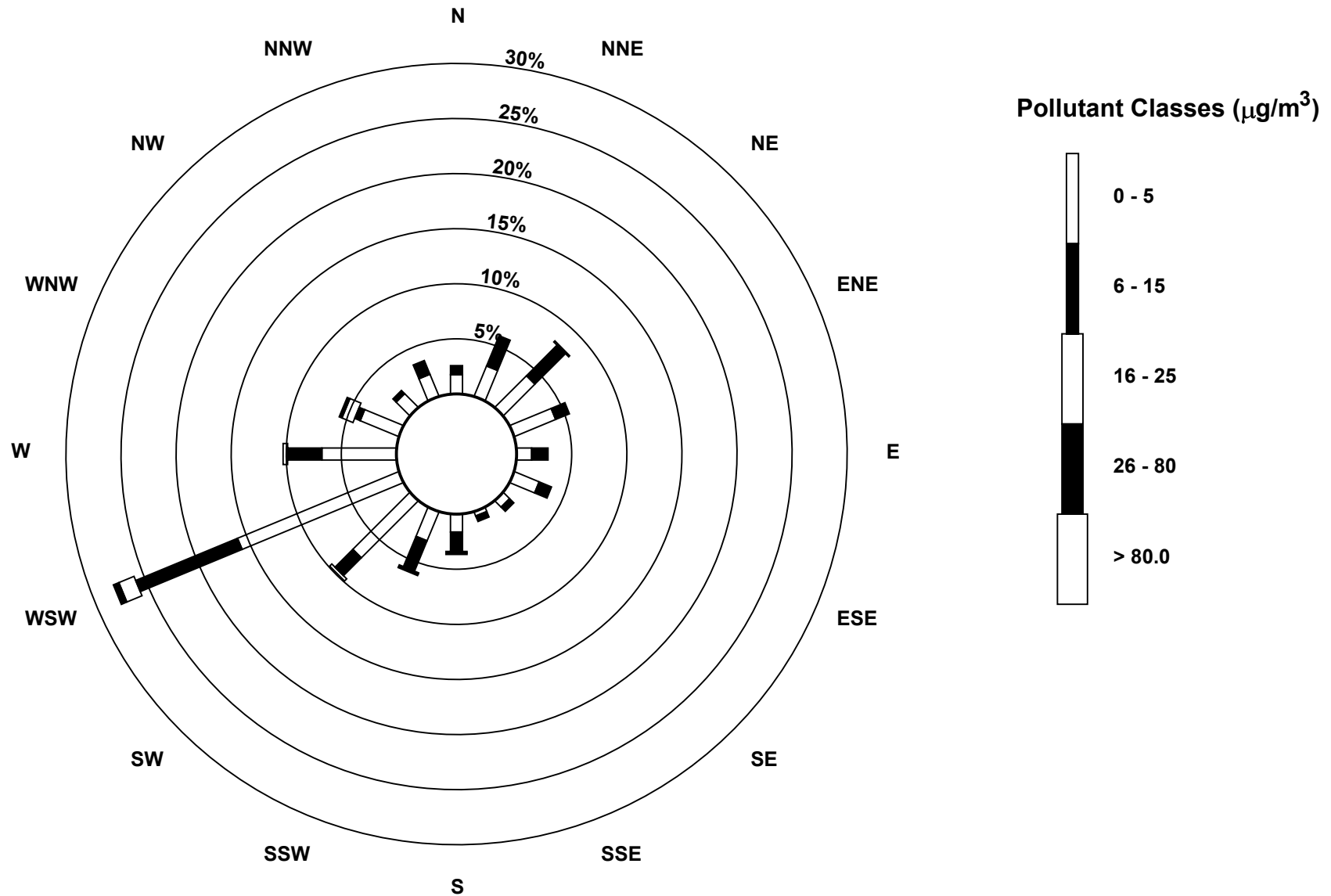
Hourly Maximums

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



Pollutant Rose

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



Hourly Averages

External Temperature (ET) - °C

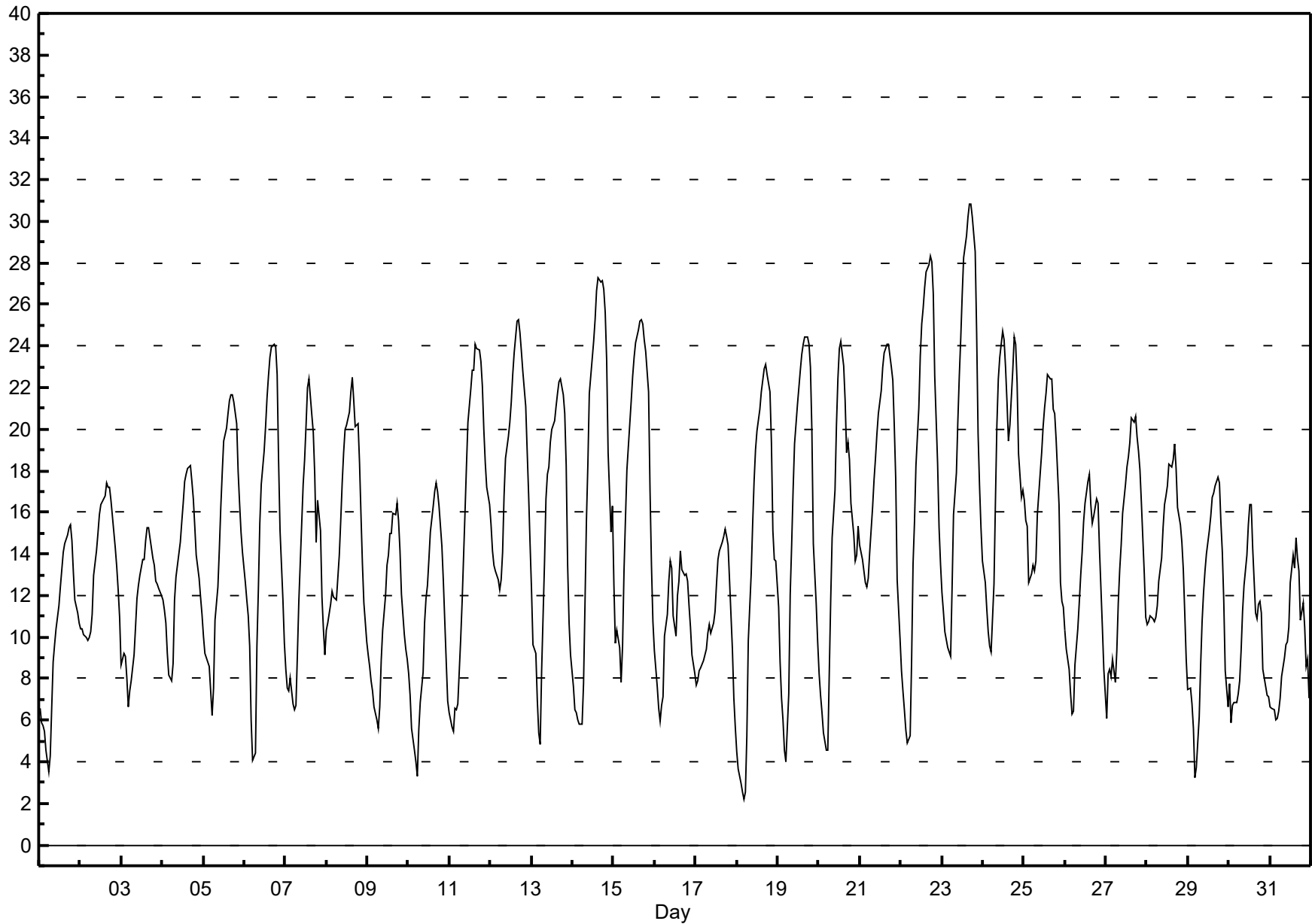
Evergreen Park - May 2018

Maximum Value: 30.8 °C on May 23 17:00																				Maximum Daily Average: 20.3 °C on May 23					Hours in Service: 744	
Minimum Value: 2 °C on May 18 05:00																				Minimum Daily Average: 9.6 °C on May 31					Hours of Data: 744	
Maximum Diurnal Average: 20.3 °C at hour 16																				Minimum Diurnal Average: 7.3 °C at hour 6					Hours of Missing Data: 0	
Monthly Average: 14.36 °C																				Percentiles: P ₁ = 3.7 P ₁₀ = 6.8 Q ₁ = 9.6 Median = 13.7 Q ₃ = 18.5 P ₉₀ = 22.8 P ₉₉ = 28.2					Hours of Calibration: 0	
																									Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-May	7	6	6	5	5	4	4	7	9	10	10	11	12	13	14	14	15	15	15	15	13	12	11	11	10.2	15.4
2-May	10	10	10	10	10	10	10	11	13	14	15	16	16	16	17	17	17	17	17	16	14	13	12	11	13.5	17.4
3-May	9	9	9	8	7	7	8	9	10	12	12	13	14	14	15	15	15	15	14	13	13	13	12	12	11.6	15.3
4-May	12	11	11	9	8	8	9	12	13	13	15	16	16	18	18	18	18	17	17	15	14	13	12	11	13.5	18.2
5-May	10	9	9	9	7	6	8	11	12	14	16	18	19	20	21	21	22	22	21	20	18	16	15	14	15.0	21.7
6-May	13	12	11	10	6	4	4	10	12	15	17	19	20	22	23	23	24	24	24	23	18	15	12	10	15.4	24.1
7-May	8	8	7	8	7	7	7	9	12	15	17	19	20	22	22	21	20	18	15	17	15	12	10	9	13.5	22.4
8-May	10	11	12	12	12	12	12	14	16	17	19	20	20	21	22	22	21	20	20	18	16	14	12	10	15.9	22.5
9-May	9	9	8	7	7	6	6	7	9	10	12	13	14	15	15	16	16	16	16	14	12	10	9	9	11.0	16.4
10-May	8	7	6	5	4	3	6	7	8	11	12	12	14	15	16	17	17	17	16	14	13	11	9	7	10.6	17.4
11-May	6	6	5	7	6	7	10	12	14	16	18	20	22	23	23	24	24	24	23	22	20	18	17	16	16.0	24.1
12-May	15	14	13	13	13	12	13	14	17	19	20	20	21	23	24	25	25	25	24	23	21	19	17	14	18.5	25.3
13-May	12	10	9	7	5	5	8	14	17	18	18	19	20	20	21	22	22	22	22	21	18	13	11	9	15.2	22.4
14-May	8	7	6	6	6	6	8	12	16	18	22	23	24	25	27	27	27	27	27	26	23	19	15	16	17.5	27.3
15-May	13	10	10	9	8	10	13	16	18	20	21	23	23	24	25	25	25	25	24	24	22	17	13	11	17.9	25.3
16-May	9	8	7	6	7	7	10	11	13	14	13	11	10	12	13	14	13	13	13	13	12	10	9	8	10.6	14.2
17-May	8	8	8	9	9	9	9	10	11	10	11	11	13	14	14	15	15	15	15	14	13	9	7	6	10.9	15.2
18-May	4	4	3	3	2	3	5	10	13	15	18	19	20	21	22	22	23	23	23	22	19	15	14	14	14.0	23.1
19-May	11	9	7	6	5	4	7	12	14	17	19	21	22	23	24	24	24	24	24	23	20	15	12	10	15.7	24.5
20-May	8	7	6	5	5	5	8	12	15	17	20	22	24	24	23	21	19	19	19	16	15	14	14	15	14.8	24.3
21-May	14	14	13	13	12	13	14	16	18	19	20	21	22	23	24	24	24	24	23	22	20	18	13	10	18.0	24.1
22-May	8	7	7	6	5	5	9	14	16	18	21	24	25	26	27	28	28	28	28	27	23	18	15	14	17.7	28.3
23-May	12	11	10	9	9	9	12	16	18	20	23	24	26	28	29	30	31	31	30	29	25	20	17	15	20.3	30.8
24-May	14	13	11	10	10	9	13	17	20	22	23	25	24	23	21	19	20	23	24	24	22	19	17	17	18.4	24.7
25-May	17	16	15	13	13	13	13	14	16	18	19	20	21	22	23	22	22	21	21	19	16	13	12	11	17.1	22.6
26-May	10	9	8	7	6	6	9	10	12	13	14	16	16	17	18	16	15	16	17	16	14	12	11	8	12.5	17.8
27-May	6	8	8	8	9	8	9	12	13	14	16	17	18	19	19	21	20	21	20	19	18	16	13	11	14.4	20.6
28-May	11	11	11	11	11	11	11	13	14	15	16	17	17	18	18	19	19	18	16	15	15	13	11	9	14.2	19.3
29-May	7	8	7	6	3	4	6	9	11	12	13	14	15	16	17	17	17	18	17	16	14	12	8	7	11.4	17.7
30-May	8	6	7	7	7	7	8	9	11	13	14	15	16	16	14	11	11	12	12	11	8	8	7	7	10.2	16.4
31-May	7	7	6	6	6	6	7	8	9	10	10	10	13	14	13	15	14	13	11	12	10	9	9	7	9.6	14.8
9.9 9.1 8.7 8.0 7.4 7.3 8.9 11.4 13.5 15.2 16.6 17.8 18.7 19.6 20.0 20.3 20.2 20.1 19.5 18.7 16.6 14.0 12.1 11.0																									Diurnal Average	
16.6 15.6 15.3 13.2 13.1 13.5 14.1 16.5 20.2 22.4 23.5 24.7 26.4 28.3 29.3 30.2 30.8 30.8 30.2 28.6 24.7 19.8 17.3 17.1																									Diurnal Maximum	

Hourly Averages

External Temperature (ET) - °C

Evergreen Park - May 2018



Hourly Averages

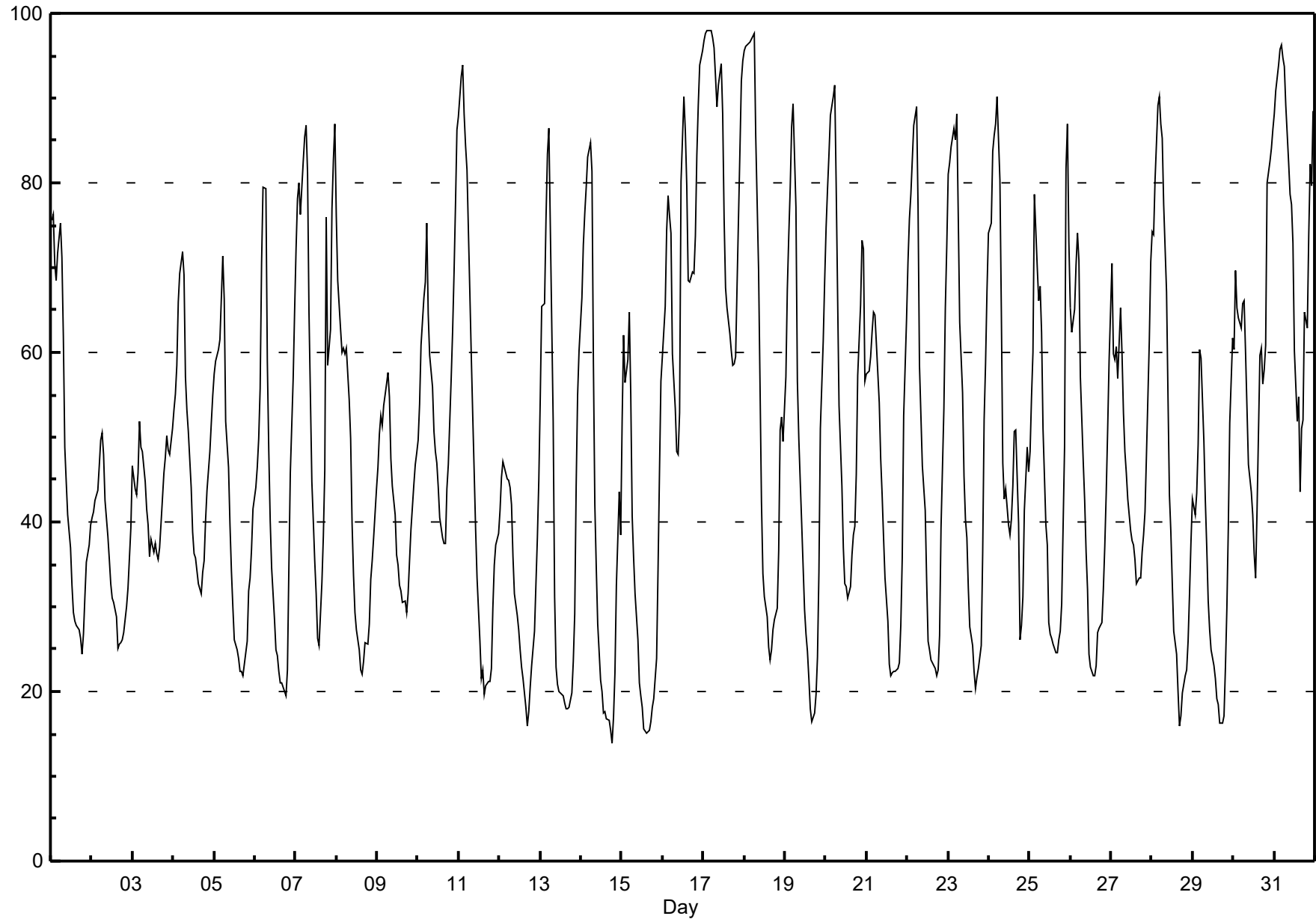
Relative Humidity (RH) - %

Evergreen Park - May 2018

Maximum Value: 98.0 % on May 17 04:00																								Hours in Service: 744		
Maximum Daily Average: 82.6 % on May 17																								Hours of Data: 744		
Minimum Value: 14 % on May 14 19:00																								Hours of Missing Data: 0		
Maximum Diurnal Average: 74.7 % at hour 6																								Hours of Calibration: 0		
Monthly Average: 49.46 %																								Percent Operational Time: 100.0		
Minimum Daily Average: 32.8 % on May 12																										
Minimum Diurnal Average: 29.8 % at hour 16																										
Percentiles: P ₁ = 16.0 P ₁₀ = 22.5 Q ₁ = 31.2 Median = 46.0 Q ₃ = 65.4 P ₉₀ = 82.7 P ₉₉ = 96.9																										
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-May	76	76	71	69	72	75	71	62	49	45	41	37	33	29	28	28	27	26	24	27	31	35	37	40	46.2	76.2
2-May	40	41	42	44	47	50	51	48	43	38	36	33	31	31	29	25	26	26	26	27	30	32	36	39	36.2	50.5
3-May	47	44	43	46	52	49	48	45	42	40	36	38	36	37	36	36	37	40	46	48	50	48	48	51	43.4	51.8
4-May	53	55	59	66	69	72	69	57	53	51	44	39	36	36	34	33	31	34	36	40	44	48	52	55	48.6	71.9
5-May	58	59	60	62	66	71	66	52	46	40	34	30	26	25	24	22	22	22	23	26	32	33	37	42	40.8	71.4
6-May	44	47	50	56	70	79	79	59	48	40	35	28	25	24	22	21	21	20	19	23	35	46	57	65	42.2	79.4
7-May	72	78	80	76	83	85	87	81	65	45	40	35	32	26	25	33	38	46	76	58	63	77	83	87	61.3	87.0
8-May	76	69	63	60	61	60	60	54	50	40	34	29	27	25	22	22	23	26	26	28	33	35	38	44	41.9	76.0
9-May	46	50	53	51	54	56	58	55	47	44	41	36	35	33	32	31	31	29	32	35	39	44	47	48	42.8	57.6
10-May	50	54	61	66	68	75	65	60	56	51	48	47	44	41	38	37	37	44	47	57	63	69	78	86	55.9	86.2
11-May	88	93	94	88	84	81	67	60	53	46	39	33	26	22	22	20	21	21	21	23	30	35	37	39	47.6	93.8
12-May	41	45	47	46	45	45	44	42	36	31	29	27	25	23	22	18	16	18	21	23	27	33	38	45	32.8	47.1
13-May	55	65	66	76	83	86	75	52	31	23	21	20	20	19	19	18	18	18	20	24	29	44	55	60	41.5	86.4
14-May	66	73	76	80	83	85	81	59	42	35	28	21	20	17	18	17	17	15	14	17	22	33	44	38	41.7	84.8
15-May	52	62	56	59	65	55	41	36	31	26	21	19	18	16	15	15	15	16	18	19	24	34	46	57	34.1	64.8
16-May	60	65	74	78	76	74	60	53	48	48	53	80	90	86	80	68	68	70	69	74	83	89	94	96	72.4	95.5
17-May	97	98	98	98	98	97	96	93	89	92	94	88	76	68	65	62	60	58	59	59	68	84	92	94	82.6	98.0
18-May	96	96	96	97	97	97	98	86	70	56	42	34	31	29	25	24	25	27	28	30	37	51	52	50	57.2	97.7
19-May	57	67	74	79	87	89	77	57	50	45	40	30	27	25	21	18	17	17	20	24	34	51	61	68	47.3	89.3
20-May	75	79	83	88	90	92	80	67	54	44	37	33	32	31	32	36	38	39	46	57	66	73	72	57	58.4	91.5
21-May	57	58	60	62	65	64	61	54	47	43	38	33	28	23	22	22	22	22	23	23	28	36	53	64	42.1	64.7
22-May	71	76	79	83	87	89	77	58	53	47	41	33	26	25	24	23	23	22	23	27	39	53	65	73	50.6	89.0
23-May	81	82	84	86	85	88	76	64	55	45	40	38	32	28	25	22	20	22	23	25	36	52	59	67	51.6	88.1
24-May	74	75	84	86	87	90	80	65	47	43	44	40	39	40	44	51	51	40	26	28	31	41	49	46	54.2	90.1
25-May	48	55	60	79	70	66	68	62	51	40	37	28	27	26	26	25	25	26	27	30	49	82	87	73	48.6	87.0
26-May	65	62	65	70	74	71	57	47	43	36	32	24	23	22	22	23	27	27	28	32	37	43	51	59	43.4	74.1
27-May	70	60	59	61	57	65	60	53	48	46	43	39	38	37	36	33	33	33	36	38	41	48	61	71	48.6	70.7
28-May	74	74	80	89	90	87	85	78	67	55	43	39	33	27	24	20	16	17	20	22	23	26	31	38	48.3	90.1
29-May	43	41	43	49	60	59	49	43	37	31	27	25	23	22	19	18	16	16	17	23	30	39	52	62	35.2	61.7
30-May	60	70	65	64	63	66	66	60	53	47	44	41	36	33	41	60	60	56	58	61	80	83	84	86	59.9	86.2
31-May	88	91	94	96	96	95	94	89	82	79	77	73	60	52	55	44	51	52	65	63	74	82	80	89	75.8	96.2
63.9 66.5 68.4 71.3 73.7 74.7 69.2 59.6 51.2 44.8 40.6 37.2 34.0 31.5 30.6 29.8 30.1 30.6 32.7 35.2 42.1 51.0 57.3 60.9																								Diurnal Average		
96.9 97.6 97.9 98.0 97.9 97.3 97.7 92.6 89.0 91.5 94.1 88.2 90.2 86.1 79.7 68.5 68.3 69.6 76.0 73.7 83.2 89.1 93.9 95.5																								Diurnal Maximum		

Hourly Averages

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



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Evergreen Park - May 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	7	4	12	10	9	6	7	9	17	17	19	15	15	17	16	14	13	14	25	27	21	19	20	19	13.0	27.3
Dir	272	275	298	304	305	303	278	278	302	266	251	270	236	278	273	262	238	236	243	238	227	216	219	213	254.1	238.1
2 Spd	20	22	18	16	18	24	30	33	42	49	47	45	49	54	46	46	42	42	40	34	30	24	16	14	32.5	54.1
Dir	210	211	211	215	227	239	244	240	243	248	248	256	257	251	250	258	260	257	259	250	247	242	237	230	246.1	251.4
3 Spd	7	13	10	8	7	13	14	20	21	29	26	28	30	28	26	24	25	27	18	13	16	24	25	23	19.5	29.9
Dir	212	244	278	267	241	247	243	241	248	257	267	253	253	250	253	260	262	256	266	254	244	236	243	245	251.8	252.6
4 Spd	26	23	20	7	9	6	8	22	26	29	28	26	26	31	33	35	36	34	36	27	27	27	28	24	24.4	36.3
Dir	238	240	234	221	205	220	244	252	256	253	257	267	254	249	249	244	249	251	252	256	243	247	243	243	247.7	248.8
5 Spd	19	19	16	12	6	4	10	17	21	32	25	23	26	29	27	26	25	25	24	20	15	23	22	21	20.0	32.2
Dir	229	232	235	244	289	251	237	248	243	242	242	235	249	252	253	255	255	253	255	250	242	236	235	239	245.0	242.0
6 Spd	15	14	13	4	2	1	2	5	13	15	11	12	16	10	11	10	9	12	10	10	9	2	2	0	5.7	16.0
Dir	221	237	237	238	6	190	208	237	242	253	284	252	248	267	279	307	357	338	338	19	31	351	205	241	272.3	247.9
7 Spd	1	1	1	2	1	0	2	1	4	6	4	5	9	8	6	4	12	17	2	6	4	4	4	6	1.1	16.9
Dir	336	280	260	266	17	220	33	191	40	55	171	91	48	67	42	251	123	249	202	155	182	187	197	214	146.2	248.6
8 Spd	11	15	13	19	13	10	9	15	21	18	10	9	10	10	16	12	12	15	19	21	13	14	11	12	5.9	21.4
Dir	213	208	222	231	248	272	294	263	264	299	306	355	330	326	287	343	354	17	27	33	43	52	51	47	316.6	32.9
9 Spd	13	13	12	14	13	13	13	12	17	16	15	18	19	19	20	20	18	17	16	12	12	8	8	7	14.3	20.5
Dir	48	52	59	59	55	57	65	67	75	65	78	80	81	72	82	71	73	86	70	65	60	64	87	79	69.5	82.1
10 Spd	6	5	3	4	2	1	3	2	3	3	8	8	9	10	8	6	5	6	1	2	5	4	1	1	0.2	10.1
Dir	73	56	50	47	23	331	35	60	339	211	244	234	234	226	250	301	17	50	89	81	75	86	108	104	326.4	225.5
11 Spd	0	3	1	6	5	6	12	18	16	18	18	18	18	18	17	16	15	25	29	32	30	24	25	27	15.6	31.8
Dir	75	192	173	231	253	256	254	248	249	244	240	236	269	273	299	290	279	251	248	241	239	235	233	236	249.6	241.3
12 Spd	25	19	18	18	17	10	9	13	22	22	20	22	23	19	21	26	31	31	28	24	16	8	6	6	17.2	31.3
Dir	236	234	234	238	238	249	260	252	257	283	274	293	298	301	316	291	275	286	280	269	242	267	256	228	268.9	275.2
13 Spd	3	3	5	1	1	1	1	2	10	13	11	9	10	7	9	7	4	6	4	3	2	2	1	0	3.2	12.7
Dir	240	288	315	327	13	214	346	23	57	49	30	23	4	326	298	316	345	34	16	78	120	183	35	54	7.1	49.0
14 Spd	0	1	0	0	1	1	2	6	10	13	17	21	17	13	17	27	35	33	29	23	13	4	2	6	11.8	34.7
Dir	22	54	177	199	189	214	185	217	257	259	237	249	244	270	246	260	257	254	253	248	241	214	236	241	250.1	256.6
15 Spd	2	3	4	3	2	2	3	12	17	21	25	19	19	28	29	28	24	26	19	16	8	4	2	2	12.3	28.7
Dir	213	199	240	253	180	180	222	245	249	253	253	266	262	262	253	253	259	252	261	258	255	37	48	33	254.9	252.5
16 Spd	2	1	1	1	2	3	5	1	11	7	6	5	7	9	7	7	8	8	7	7	9	7	5	3	3.9	11.0
Dir	312	4	348	329	349	33	39	299	343	39	205	211	352	25	29	40	45	70	68	46	45	44	40	46	32.4	343.2
17 Spd	2	1	5	4	6	5	5	6	7	10	8	9	10	10	7	11	12	11	10	7	5	2	2	0	5.2	11.9
Dir	30	32	30	25	25	33	34	41	51	40	58	59	61	65	68	111	117	111	134	130	117	47	31	198	72.9	117.4
18 Spd	1	2	1	1	1	1	1	4	10	13	16	15	17	13	13	13	11	11	11	10	7	5	6	6	7.5	17.3
Dir	33	30	9	256	42	43	53	95	109	107	108	114	100	110	100	106	92	81	93	101	78	62	83	105	97.7	99.8
19 Spd	5	4	3	2	2	0	4	2	1	1	4	6	7	9	5	6	8	7	9	7	3	2	2	1	3.7	9.3
Dir	81	73	53	46	28	334	33	103	223	239	333	27	51	13	38	67	29	35	29	42	43	34	20	23	38.3	13.1
20 Spd	1	2	0	0	1	1	1	5	10	11	17	21	23	21	20	25	29	7	10	4	6	4	8	18	8.8	28.6
Dir	20	202	42	26	194	358	214	183	249	261	246	257	248	272	266	230	203	174	193	166	176	221	220	233	235.1	203.0
21 Spd	13	15	15	15	15	18	17	21	28	27	27	27	27	23	23	22	21	20	18	17	13	6	1	0	17.5	27.8
Dir	230	227	222	236	236	234	242	251	255	250	243	236	240	238	251	253	259	258	262	270	269	258	206	180	246.2	254.8
22 Spd	2	2	1	0	0	1	1	4	3	6	7	7	7	7	5	7	5	5	7	6	3	1	2	1	2.5	7.1
Dir	188	185	42	15	289	216	111	185	156	148	133	174	149	185	233	190	130	118	104	69	56	34	25	342	148.7	174.0

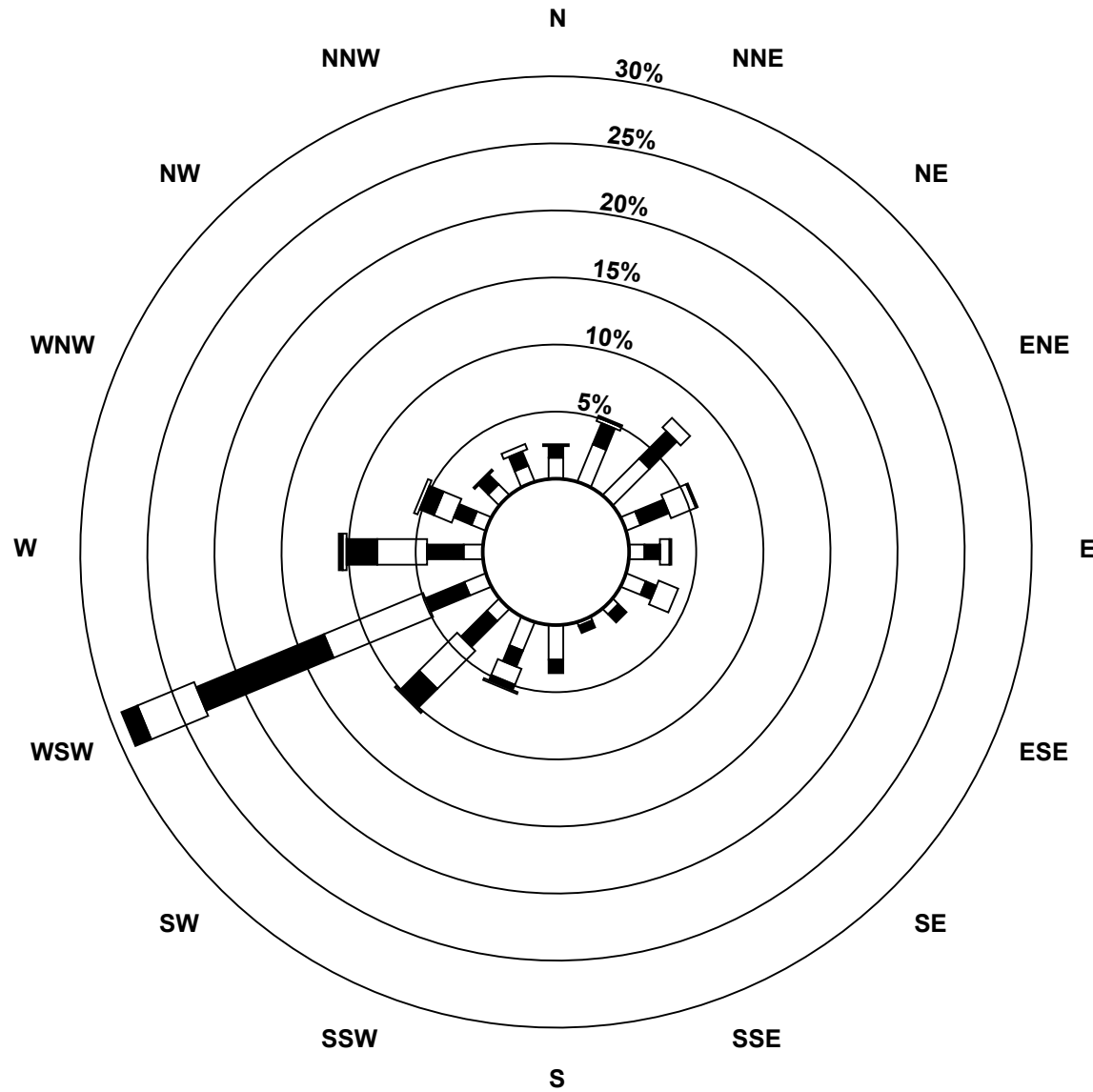
Hourly Averages

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

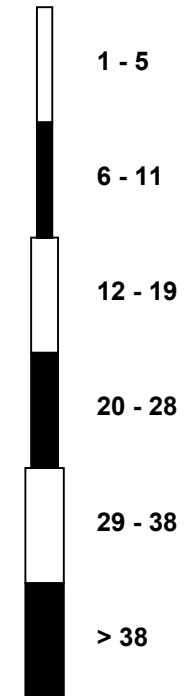
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	2	0	1	2	4	2	4	4	5	5	3	7	2	4	6	5	4	8	8	6	3	3	1	2	0.9	8.1
Dir	349	296	344	40	190	246	237	180	228	266	260	213	302	145	130	122	99	78	59	48	48	53	51	44	118.9	59.3
24 Spd	3	1	2	1	1	0	3	4	10	15	21	25	33	26	22	13	3	12	26	14	10	5	7	9	10.2	33.2
Dir	50	28	24	214	206	301	281	296	286	290	296	289	282	291	277	289	323	254	252	268	256	235	262	267	278.9	282.2
25 Spd	12	4	8	5	11	11	3	10	10	17	15	20	16	13	9	9	13	16	14	12	22	5	13	15	10.9	22.0
Dir	243	230	230	202	243	257	293	259	254	247	246	245	251	209	179	212	263	255	263	225	214	188	219	246	238.2	214.0
26 Spd	21	18	13	14	13	16	18	33	34	29	28	30	27	22	25	27	23	16	15	24	32	17	8	3	20.1	34.1
Dir	246	246	234	210	204	208	242	244	239	241	234	247	251	239	249	266	277	267	234	238	236	246	269	357	243.4	238.8
27 Spd	2	11	14	10	14	5	9	14	17	18	24	28	24	17	17	21	23	22	17	15	10	5	3	2	13.5	27.7
Dir	174	218	214	228	232	200	242	239	240	228	235	248	242	252	248	245	249	254	269	259	249	275	118	11	242.2	247.6
28 Spd	1	3	2	1	6	5	9	10	16	27	33	30	25	32	31	30	30	28	29	25	23	20	9	9	17.5	32.9
Dir	347	286	2	302	210	262	234	222	244	259	252	248	251	241	247	250	252	255	262	258	275	283	255	232	253.4	252.5
29 Spd	10	11	13	9	5	5	11	12	17	13	9	12	10	9	8	3	8	4	9	8	14	4	3	3	7.4	17.5
Dir	214	230	235	223	243	267	257	258	261	264	262	293	287	263	279	261	347	208	269	298	333	324	210	254	265.1	261.2
30 Spd	6	3	3	4	5	6	6	8	4	6	9	7	12	10	14	18	14	6	8	9	20	9	2	2	1.1	20.2
Dir	306	321	323	349	278	333	18	335	358	353	352	48	121	87	68	194	213	324	333	205	212	260	352	108	299.4	212.1
31 Spd	0	1	2	2	3	1	1	2	3	5	8	8	9	9	19	16	17	9	12	2	1	5	5	3	3.8	18.9
Dir	154	325	304	179	222	331	45	102	50	134	153	146	136	117	102	116	108	190	249	321	61	74	126	88	127.5	101.9
Spd	5.0	5.4	4.8	3.9	3.9	3.8	4.5	8.0	10.2	11.3	11.8	11.6	11.1	10.6	10.2	11.0	9.5	10.2	10.3	8.2	7.4	5.2	4.8	5.1	Diurnal Average	
Dir	232.3	232.7	240.6	237.5	240.2	249.5	254.5	246.5	254.9	256.7	251.4	254.3	256.8	258.4	259.9	255.1	256.9	258.0	261.4	254.3	243.5	245.1	233.3	236.0	Diurnal Maximum	
Spd	25.8	23.3	19.8	18.8	18.1	24.4	30.2	33.3	41.8	49.3	46.8	44.9	48.9	54.1	46.3	46.2	42.3	42.1	39.9	33.9	31.8	27.0	27.9	27.2	Diurnal Maximum	
Dir	238.4	240.5	234.5	231.1	227.1	238.9	244.0	240.2	243.4	247.6	248.4	255.6	256.8	251.4	249.9	258.4	260.4	256.8	259.1	249.5	236.1	247.1	243.0	236.4		
Maximum Speed Value: 54 km/h on May 2 14:00																									Hours in Service: 744	
Maximum Daily Speed Average: 32.5 km/h on May 2																									Hours of Data: 744	
Maximum Diurnal Speed Average: 11.8 km/h at hour 11																									Hours of Missing Data: 0	
Minimum Speed Value: 0 km/h on May 14 03:00																										
Minimum Daily Speed Average: 0.2 km/h on May 22																										
Minimum Diurnal Speed Average: 3.8 km/h at hour 6																										
Monthly Average Velocity: 7.74 km/h 251.42 deg																									Percent Operational Time: 100.0	
Speed Percentiles: P ₁ = 0.3 P ₁₀ = 1.5 Q ₁ = 4.4 Median = 10.0 Q ₃ = 18.2 P ₉₀ = 26.6 P ₉₉ = 42.2																										
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	28	12	4	0	0	0	44																			
NorthEast	56	38	18	1	0	0	113																			
East	17	20	17	4	0	0	58																			
SouthEast	8	14	5	0	0	0	27																			
South	30	11	1	0	0	0	42																			
SouthWest	30	37	68	48	15	1	199																			
West	19	36	53	62	29	10	209																			
NorthWest	22	19	7	4	0	0	52																			
Total	210	187	173	119	44	11	744																			

Wind Rose

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



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Evergreen Park - May 2018

Maximum Speed: 55 km/h on May 2 14:00																				Maximum Daily Speed Average: 33.9 km/h on May 2										Hours in Service: 744	
Minimum Speed: -2 km/h on May 15 06:00																				Minimum Daily Speed Average: 5.0 km/h on May 22										Hours of Data: 744	
Maximum Diurnal Speed Average: 19.8 km/h at hour 13																				Minimum Diurnal Speed Average: 6.1 km/h at hour 6										Hours of Missing Data: 0	
Monthly Average Speed: 13.39 km/h																				Percentiles: P ₁ = 0.6 P ₁₀ = 2.0 Q ₁ = 5.2 Median = 11.8 Q ₃ = 19.3 P ₉₀ = 27.6 P ₉₉ = 43.1										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-May	7	5	12	10	10	7	7	10	18	20	20	18	18	21	20	16	15	15	25	28	21	20	20	19	15.8	27.6					
2-May	20	22	18	16	18	25	30	34	42	50	48	47	50	55	47	48	43	43	41	34	30	24	16	14	33.9	55.1					
3-May	7	13	11	8	8	13	14	20	22	30	28	29	31	29	27	26	26	28	19	13	16	24	25	24	20.5	31.2					
4-May	26	24	20	8	9	7	9	22	27	29	29	28	27	32	34	36	38	35	37	28	27	27	28	25	25.4	37.8					
5-May	19	19	16	12	6	5	10	17	21	33	25	24	28	30	28	27	26	26	24	21	15	24	22	21	20.8	32.7					
6-May	15	15	13	6	3	2	2	6	13	16	13	14	18	13	15	13	11	14	12	10	9	2	2	1	9.9	17.6					
7-May	2	2	2	2	1	0	2	2	4	7	7	7	10	11	8	8	14	19	9	7	4	4	4	6	5.9	19.1					
8-May	11	15	13	19	14	12	10	16	22	20	12	12	13	15	19	16	15	16	20	22	13	15	12	12	15.1	21.9					
9-May	14	13	13	15	13	14	13	13	18	17	18	19	21	21	22	21	19	19	17	13	13	8	9	8	15.4	21.8					
10-May	6	5	4	4	2	1	3	2	4	6	9	9	10	12	11	11	7	7	2	3	6	5	2	2	5.5	12.0					
11-May	2	3	1	6	5	7	12	18	17	18	18	19	20	21	19	19	18	26	30	32	30	24	25	27	17.5	32.1					
12-May	25	19	18	19	17	10	9	13	23	25	22	24	25	21	22	28	33	32	29	25	16	9	6	6	19.9	32.6					
13-May	3	4	6	2	1	1	1	3	11	14	13	12	12	11	12	12	9	8	6	3	2	3	1	1	6.3	14.0					
14-May	1	2	1	1	1	1	2	7	10	14	18	22	19	16	22	28	36	34	30	23	13	5	2	7	13.1	35.8					
15-May	4	3	5	4	-2	-2	1	12	17	22	26	21	22	30	30	30	26	27	20	17	8	5	3	2	13.8	30.2					
16-May	2	2	2	1	3	3	5	9	12	8	7	6	10	9	8	8	8	9	7	8	9	7	5	4	6.4	12.4					
17-May	3	1	5	4	6	5	5	6	8	10	9	9	11	12	9	12	13	12	11	8	5	2	2	1	7.1	12.5					
18-May	1	2	1	1	1	1	2	5	11	14	18	17	19	15	15	15	13	13	10	7	5	7	6	6	8.8	19.1					
19-May	6	5	3	2	2	1	4	3	3	4	6	9	10	12	12	10	10	8	10	7	3	2	2	1	5.6	11.9					
20-May	1	2	1	0	1	1	2	6	11	12	18	22	25	24	22	26	29	8	10	6	6	4	8	18	11.0	29.3					
21-May	13	15	15	16	16	18	17	22	29	28	28	28	28	25	25	24	22	21	19	18	13	6	1	1	18.6	28.7					
22-May	2	2	1	0	1	1	2	4	5	8	8	9	10	10	9	11	8	7	8	6	3	1	2	1	5.0	11.2					
23-May	2	1	2	2	4	2	5	5	6	7	5	8	6	8	9	8	9	10	10	7	3	3	1	2	5.1	10.4					
24-May	3	2	2	2	1	1	4	4	12	16	22	27	35	27	24	15	4	14	27	15	10	5	7	9	12.0	35.1					
25-May	12	5	9	5	11	12	5	11	11	18	17	22	18	16	12	13	16	17	14	12	23	8	14	15	13.1	22.6					
26-May	21	18	13	14	13	17	19	33	34	29	28	31	28	24	27	28	25	17	16	25	32	18	9	5	21.9	34.5					
27-May	4	11	15	10	14	6	9	14	17	19	25	29	25	19	18	22	24	23	18	15	11	5	3	3	15.0	28.6					
28-May	3	4	3	2	6	7	10	10	16	28	34	31	26	33	32	31	32	29	30	26	23	21	9	9	19.0	33.8					
29-May	10	11	13	10	5	5	12	13	19	15	14	14	14	14	12	9	10	8	11	10	15	4	3	4	10.7	18.5					
30-May	6	4	4	5	6	7	6	9	6	9	11	10	15	12	16	19	15	7	9	11	21	12	5	2	9.5	20.8					
31-May	2	2	2	3	5	2	1	3	4	6	9	9	11	12	20	17	18	16	14	4	1	5	6	3	7.3	19.8					
8.2 8.1 7.9 6.8 6.5 6.1 7.6 11.4 15.3 17.8 18.3 19.0 19.8 19.7 19.5 19.6 19.1 18.3 17.6 15.1 13.2 9.9 8.5 8.3																									Diurnal Average						
26.0 23.5 19.9 18.9 18.2 24.6 30.4 33.5 42.3 49.8 47.6 46.6 50.1 55.1 47.2 48.2 43.2 42.9 40.5 34.2 32.2 27.2 28.2 27.4																									Diurnal Maximum						
All monthly, daily, and diurnal averages have been calculated using scalar methods																															

Hourly Standard Deviations

Wind Direction (WD) - deg

Evergreen Park - May 2018

Maximum Value: 99.6 deg on May 16 08:00																		Hours in Service: 744							
Minimum Value: 0.0 deg on May 15 06:00																		Hours of Data: 744							
Percentiles: P ₁ = 5.6 P ₁₀ = 9.6 Q ₁ = 15.0 Median = 23.3 Q ₃ = 43.7 P ₉₀ = 66.5 P ₉₉ = 89.8																		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-May	21	26	13	16	11	13	17	32	23	33	22	35	41	38	38	34	39	25	10	8	8	7	7	7	41.3
2-May	4	5	5	7	7	6	6	6	9	8	10	16	13	11	11	17	12	12	10	8	9	7	5	8	17.4
3-May	14	11	24	25	23	16	9	9	10	13	22	16	17	17	19	21	15	12	15	11	10	10	8	11	25.5
4-May	7	8	7	26	12	17	35	12	15	11	15	23	15	18	14	12	16	11	11	13	7	8	7	8	34.6
5-May	7	7	6	16	17	20	10	12	13	10	12	18	19	14	16	17	19	14	12	9	9	6	8	7	20.0
6-May	9	8	7	78	71	95	62	23	14	22	31	35	26	56	53	48	46	29	28	16	8	41	46	76	95.0
7-May	70	63	72	75	80	91	74	68	30	32	68	47	29	47	51	85	44	53	88	24	27	14	16	18	90.6
8-May	9	5	11	6	10	27	25	14	18	26	42	57	52	51	36	50	36	17	19	12	14	14	14	13	57.4
9-May	16	23	16	16	18	21	19	22	19	23	34	22	24	24	21	24	22	25	20	17	15	12	16	16	33.7
10-May	16	13	16	16	33	36	30	46	57	77	32	34	43	45	56	72	67	35	58	73	44	31	67	76	77.1
11-May	88	13	44	31	22	26	13	10	15	13	16	17	32	38	29	35	37	15	12	8	6	7	9	6	87.8
12-May	7	7	6	6	6	18	22	12	14	28	24	27	25	28	22	24	17	17	17	17	9	33	21	16	33.2
13-May	46	29	24	57	68	79	68	46	27	27	38	48	43	64	57	82	85	55	46	36	16	58	65	90	90.3
14-May	76	86	82	79	77	79	41	18	23	21	19	17	28	43	42	18	15	12	13	9	15	45	21	33	85.8
15-May	58	31	17	52	0	0	46	19	13	20	20	26	29	20	19	18	23	18	17	15	20	40	37	51	57.9
16-May	70	91	79	78	54	37	28	100	30	34	58	46	49	15	27	33	29	28	23	23	21	16	11	15	99.6
17-May	31	39	17	17	15	20	32	22	27	20	28	28	26	31	45	28	23	33	24	24	23	50	40	90	89.9
18-May	46	38	63	78	34	65	64	39	26	31	32	33	29	39	38	40	41	32	31	21	15	8	17	13	78.2
19-May	16	10	8	28	18	42	13	58	90	97	67	70	62	43	76	62	52	41	29	22	14	11	41	25	97.4
20-May	48	64	73	87	66	49	70	26	28	25	21	21	21	24	26	16	14	35	19	73	18	28	11	7	87.1
21-May	10	9	8	7	8	8	11	13	14	14	15	15	12	19	20	24	22	20	18	17	14	21	73	71	72.7
22-May	16	23	57	76	83	56	68	36	52	36	45	50	51	51	61	58	72	59	37	24	18	31	33	28	83.5
23-May	25	74	48	22	49	33	50	57	35	45	82	42	79	70	65	63	71	47	35	24	12	12	72	17	81.6
24-May	44	83	48	81	78	78	41	50	30	23	23	23	19	18	23	29	52	41	14	21	14	15	20	17	82.7
25-May	13	54	54	18	13	21	72	29	25	22	29	27	28	39	49	47	53	16	17	17	13	71	19	12	72.2
26-May	11	10	15	8	9	9	17	10	9	12	14	16	19	22	19	17	21	22	29	19	10	22	22	73	72.7
27-May	78	11	11	20	8	51	14	13	11	16	11	14	17	26	22	17	15	17	19	18	17	32	43	35	77.9
28-May	81	74	62	62	45	38	18	15	15	14	13	13	17	15	15	16	21	14	15	15	15	15	17	16	81.3
29-May	11	9	9	34	27	24	24	23	21	35	59	51	54	61	59	82	48	83	31	36	20	27	46	41	83.0
30-May	13	41	27	34	50	46	20	25	59	61	44	53	48	50	35	18	31	44	28	52	14	39	62	32	61.7
31-May	97	55	81	42	47	40	31	63	64	46	28	36	48	47	19	22	23	60	32	57	39	16	42	19	96.7
96.7 91.2 81.7 87.1 83.5 95.0 74.0 99.6 89.7 97.4 81.6 70.2 79.5 70.1 75.5 85.1 85.4 83.0 87.8 73.3 44.0 71.2 72.7 90.3																									

PAZA
Smoky Heights Station
Monthly Summary Tables, Graphs and
Roses

Hourly Averages

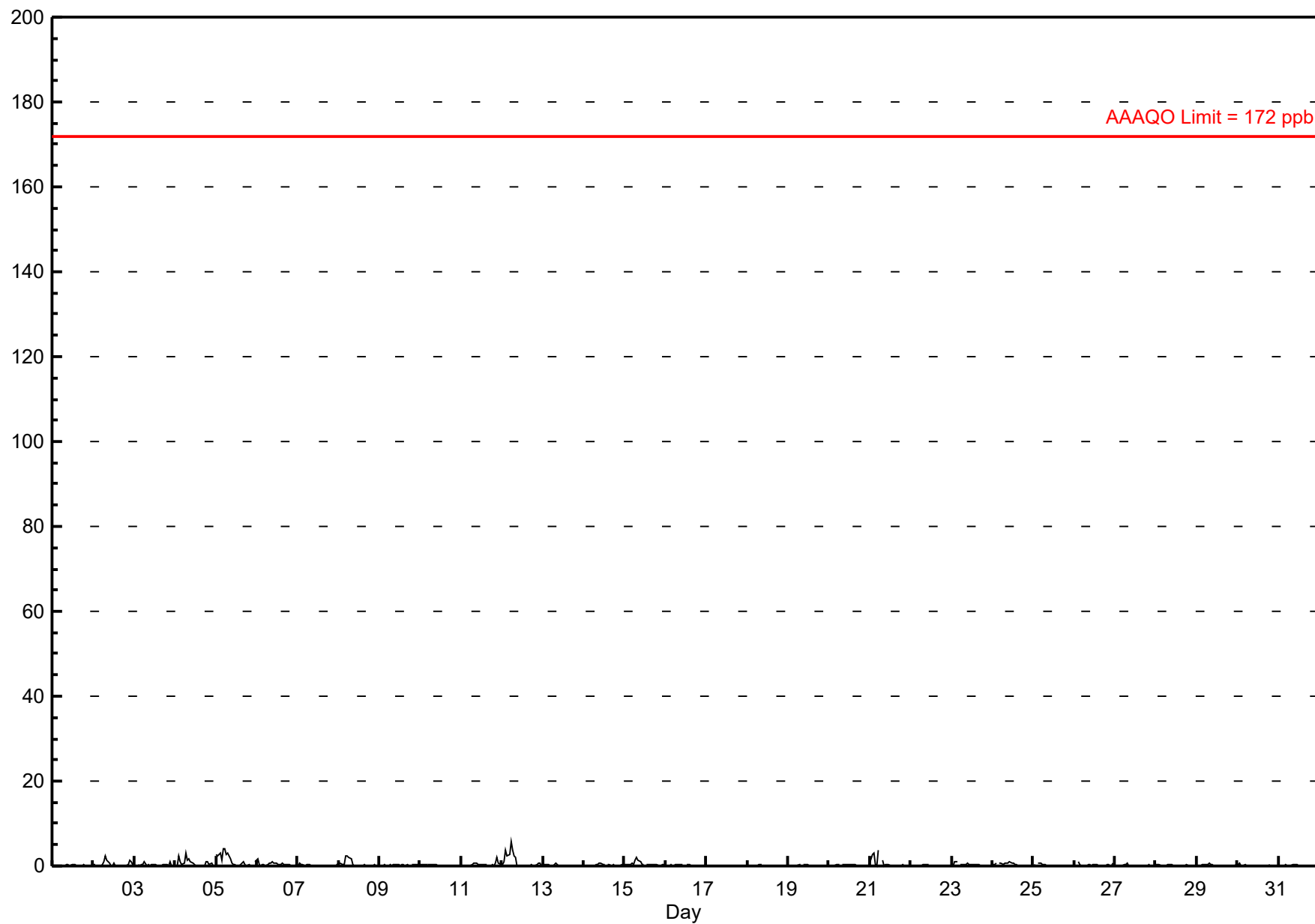
Sulphur Dioxide (SO₂) - ppb

Smoky Heights - May 2018

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 5.8 ppb on May 12 06:00 Maximum Daily Average: 1.3 ppb on May 5																				Hours in Service: 744 Hours of Data: 707 Hours of Missing Data: 37 Hours of Calibration: 37 Percent Operational Time: 100.0						
Minimum Value: 0 ppb on May 2 18:00 Maximum Diurnal Average: 0.7 ppb at hour 8 Monthly Average: 0.32 ppb																				Minimum Daily Average: 0.0 ppb on May 17 Minimum Diurnal Average: 0.1 ppb at hour 18 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.1 Q ₃ = 0.3 P ₉₀ = 0.7 P ₉₉ = 3.0						
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-May	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	0.5
2-May	0	0	A	0	0	0	1	2	1	1	0	0	1	0	0	0	0	0	0	0	0	1	1	0	0.4	2.4
3-May	1	A	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.3	1.0
4-May	A	0	2	1	0	1	3	1	2	1	1	0	0	0	0	0	0	0	1	1	0	1	0	A	0.7	3.0
5-May	3	2	3	1	4	4	3	3	2	1	0	0	0	0	0	1	1	0	0	0	0	0	A	1	1.3	4.1
6-May	2	0	0	0	0	0	0	1	1	1	1	1	0	0	0	1	0	0	0	0	0	A	0	0	0.5	1.7
7-May	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	0.5
8-May	1	1	0	0	2	2	2	2	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.6	2.4
9-May	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	0.4
10-May	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
11-May	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	A	0	0	0	1	2	1	0	0.4	2.1
12-May	0	1	4	2	3	6	4	3	2	0	0	0	0	0	0	A	0	0	0	0	0	1	1	0	1.2	5.8
13-May	0	0	0	0	0	0	0	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.1	0.5
14-May	0	0	0	0	0	0	0	0	0	1	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0.2	0.8
15-May	0	0	0	0	1	0	1	2	1	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.5	2.0
16-May	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
17-May	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	0.1
18-May	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
19-May	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
20-May	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
21-May	1	3	3	0	0	4	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	3.6
22-May	0	0	0	0	0	A	0	0	0	0	0	C	C	C	C	0	0	0	0	0	0	0	0	0	0.1	0.4
23-May	0	0	1	1	A	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.0
24-May	0	1	1	A	1	1	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.4	1.0
25-May	0	0	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.8
26-May	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	1.1
27-May	A	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.1	0.6
28-May	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
29-May	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.2	0.8
30-May	0	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	0.7
31-May	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
0.4 0.4 0.6 0.4 0.5 0.7 0.7 0.7 0.5 0.4 0.3 0.2 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.3 0.2 0.2																									Diurnal Average	
2.8 2.6 3.6 2.3 4.0 5.8 3.7 3.0 2.1 1.0 1.0 0.7 0.7 0.4 0.4 0.8 0.9 0.4 1.1 1.1 0.7 2.1 0.9 0.9																									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
Smoky Heights - May 2018



Hourly Maximums

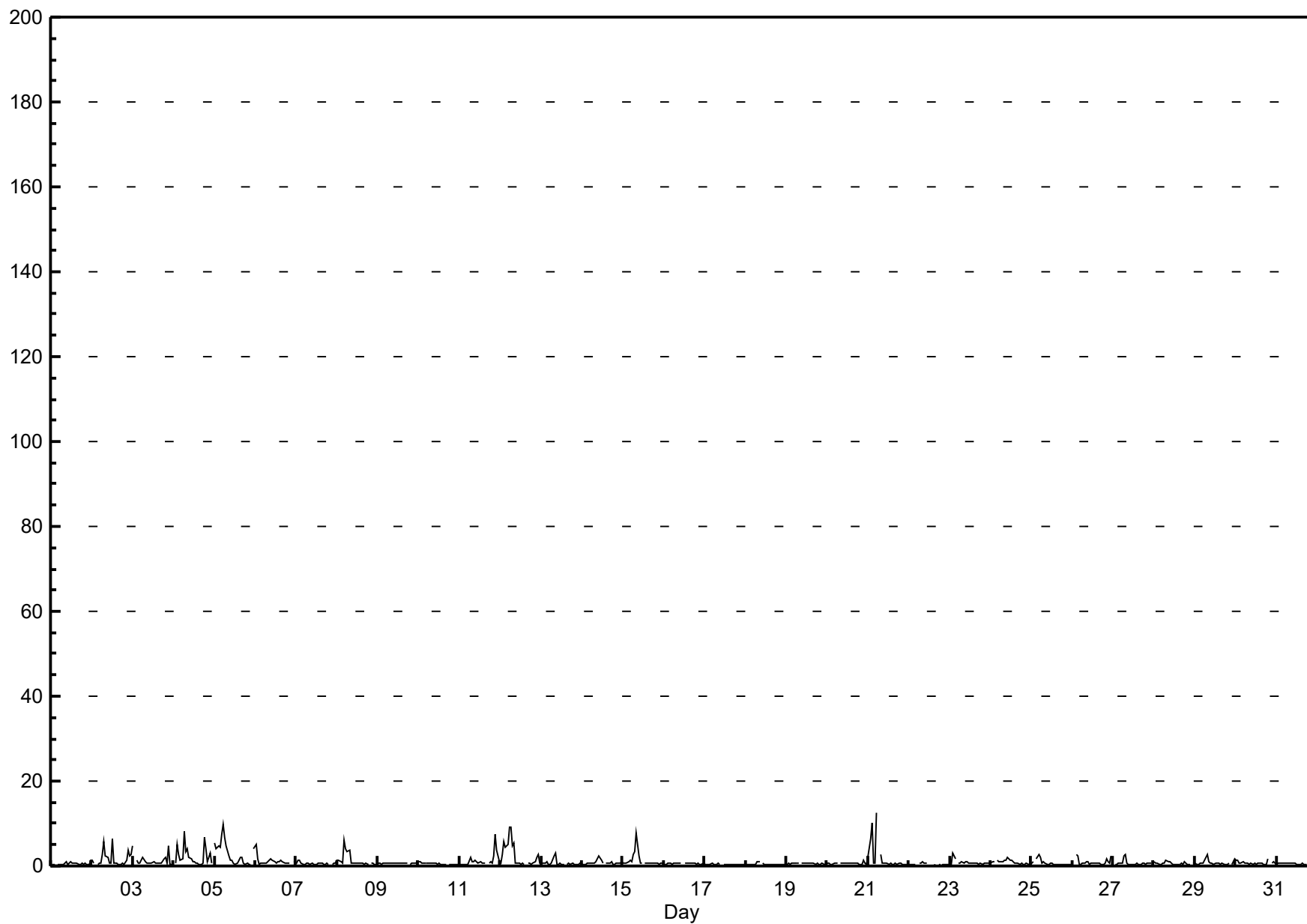
Sulphur Dioxide (SO₂) - ppb

Smoky Heights - May 2018

Maximum Value: 12.7 ppb on May 21 06:00																				Maximum Daily Average: 2.9 ppb on May 5					Hours in Service: 744	
Minimum Value: 0 ppb on May 22 18:00																				Minimum Daily Average: 0.4 ppb on May 22					Hours of Data: 707	
Maximum Diurnal Average: 1.8 ppb at hour 6																				Minimum Diurnal Average: 0.5 ppb at hour 18					Hours of Missing Data: 37	
Monthly Average: 1.01 ppb																				Percentiles: P ₁ = 0.3 P ₁₀ = 0.4 Q ₁ = 0.5 Median = 0.6 Q ₃ = 0.8 P ₉₀ = 1.9 P ₉₉ = 7.4					Hours of Calibration: 37	
																									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-May	0	0	0	A	0	0	0	0	1	1	0	1	1	1	1	1	0	0	1	1	1	0	0	1	0.6	1.4
2-May	1	1	A	0	1	1	3	6	2	2	1	1	7	1	1	0	0	0	1	0	1	4	2	3	1.6	6.6
3-May	5	A	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	2	2	1	5	0	0	1.2	4.8
4-May	A	1	5	3	1	2	8	3	4	2	2	1	1	1	1	0	0	1	7	4	1	3	1	A	2.3	8.0
5-May	6	4	5	4	7	10	7	5	2	1	1	1	0	1	1	2	2	1	0	1	0	0	A	4	2.9	9.9
6-May	5	2	0	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1.1	5.0
7-May	1	1	1	1	0	1	1	1	0	1	0	0	0	1	1	1	0	0	1	1	A	0	1	1	0.6	1.4
8-May	1	1	1	1	6	4	4	4	1	1	1	1	1	1	1	1	0	1	0	A	1	1	0	0	1.3	6.2
9-May	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0	1	1	1	1	0.6	0.9
10-May	1	1	1	1	1	1	1	1	1	1	1	0	1	0	0	0	0	A	0	0	0	0	0	0	0.6	0.9
11-May	0	0	0	0	0	0	2	1	1	1	1	1	1	1	1	1	A	1	1	1	3	7	4	1	1.3	7.4
12-May	1	3	6	5	5	9	9	5	5	1	1	1	0	1	0	A	1	1	0	1	1	2	3	1	2.6	9.3
13-May	1	1	1	1	0	0	1	2	3	0	0	1	0	0	A	0	1	0	1	0	0	0	0	1	0.7	3.2
14-May	0	0	0	1	1	1	1	1	1	2	2	1	1	A	1	1	1	1	0	0	1	1	1	1	0.8	2.2
15-May	1	1	1	1	1	1	3	3	8	2	1	1	A	1	1	1	1	1	1	1	1	0	1	1	1.3	7.9
16-May	0	0	1	1	1	0	1	1	1	1	1	A	1	1	1	1	1	1	1	0	1	0	0	1	0.6	0.8
17-May	0	0	0	0	1	0	0	0	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6
18-May	0	0	0	0	0	0	0	1	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0.9
19-May	0	1	0	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0	1	0	1	1	0	0	0.6	0.7
20-May	1	1	1	0	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	0	0.7	1.4
21-May	2	6	10	1	1	13	A	3	1	1	1	1	0	1	0	0	1	0	1	1	0	0	0	0	1.9	12.7
22-May	0	0	0	0	0	A	1	1	1	1	1	C	C	C	C	0	0	0	0	0	0	0	0	0	0.4	0.9
23-May	0	0	3	2	A	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	1	1	1	1	0.8	2.9
24-May	1	1	1	A	1	1	1	1	1	1	2	1	1	1	1	1	1	0	1	0	0	1	1	0	0.9	2.0
25-May	1	1	A	2	3	2	1	1	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0.7	2.8
26-May	0	A	3	2	0	0	1	1	1	1	0	1	1	1	1	1	1	0	0	1	2	1	1	2	0.9	2.6
27-May	A	0	0	1	1	1	2	3	1	0	0	0	0	0	1	0	0	1	1	0	1	1	1	A	0.7	2.8
28-May	1	1	1	0	0	1	1	1	1	1	1	0	0	0	0	0	1	0	1	0	0	0	A	1	0.6	1.4
29-May	1	0	0	1	1	1	2	3	1	1	1	0	1	1	1	0	1	0	0	0	1	A	0	2	0.8	2.6
30-May	1	1	1	1	1	1	1	1	0	1	0	1	1	1	1	1	0	0	0	2	A	1	1	1	0.7	1.6
31-May	0	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	0	0	0	A	0	0	0	1	0.5	0.8
1.1 1.1 1.6 1.1 1.3 1.8 1.8 1.7 1.5 0.9 0.8 0.7 0.8 0.6 0.6 0.6 0.6 0.5 0.8 0.7 0.7 1.2 0.8 0.9																									Diurnal Average	
5.6 6.3 10.0 4.5 7.4 12.7 9.1 5.7 7.9 2.3 2.2 1.4 6.6 0.9 1.5 1.9 2.1 0.9 6.9 3.9 2.5 7.4 3.6 3.9																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										

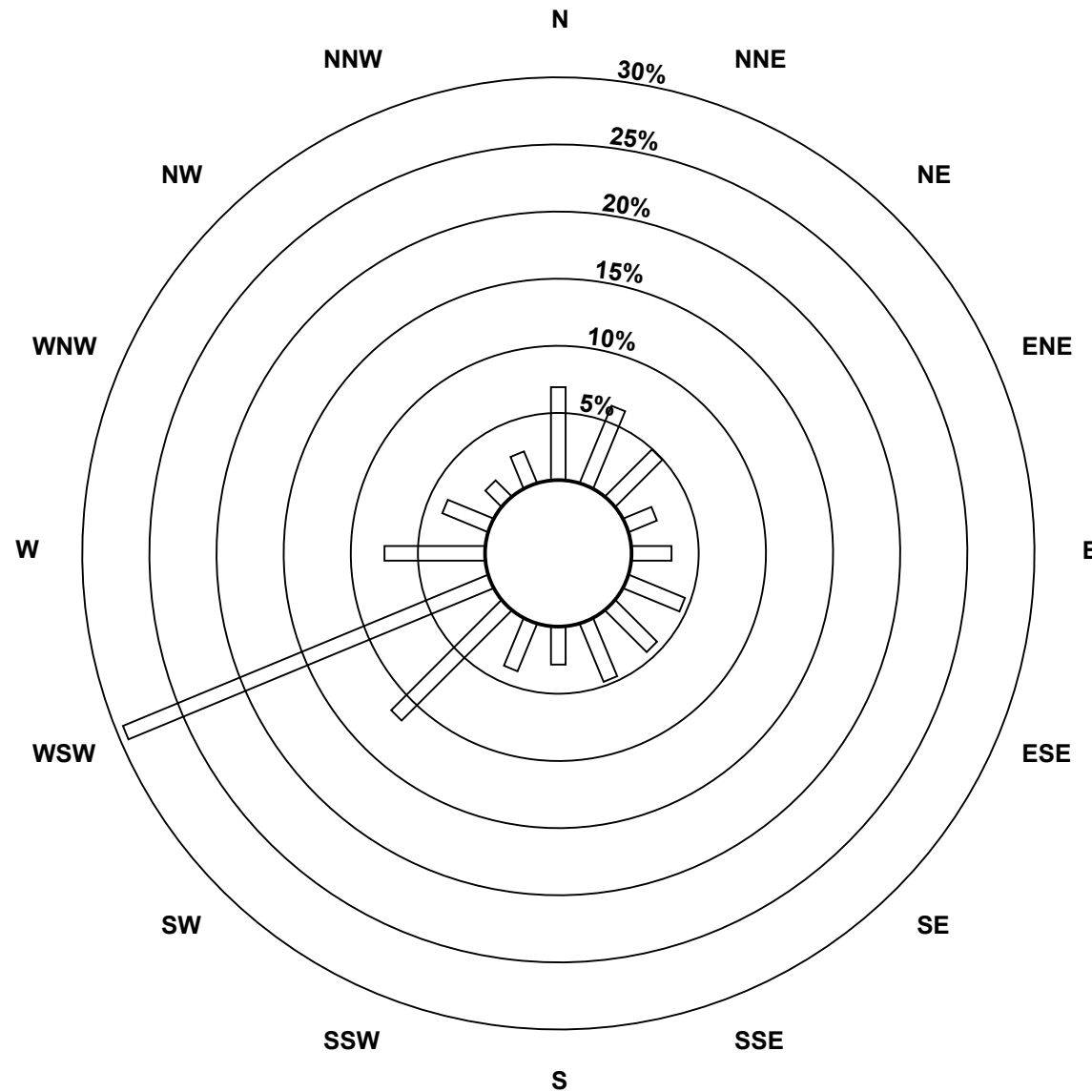
Hourly Maximums

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

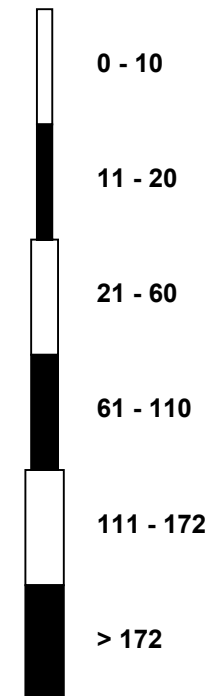


Pollutant Rose

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

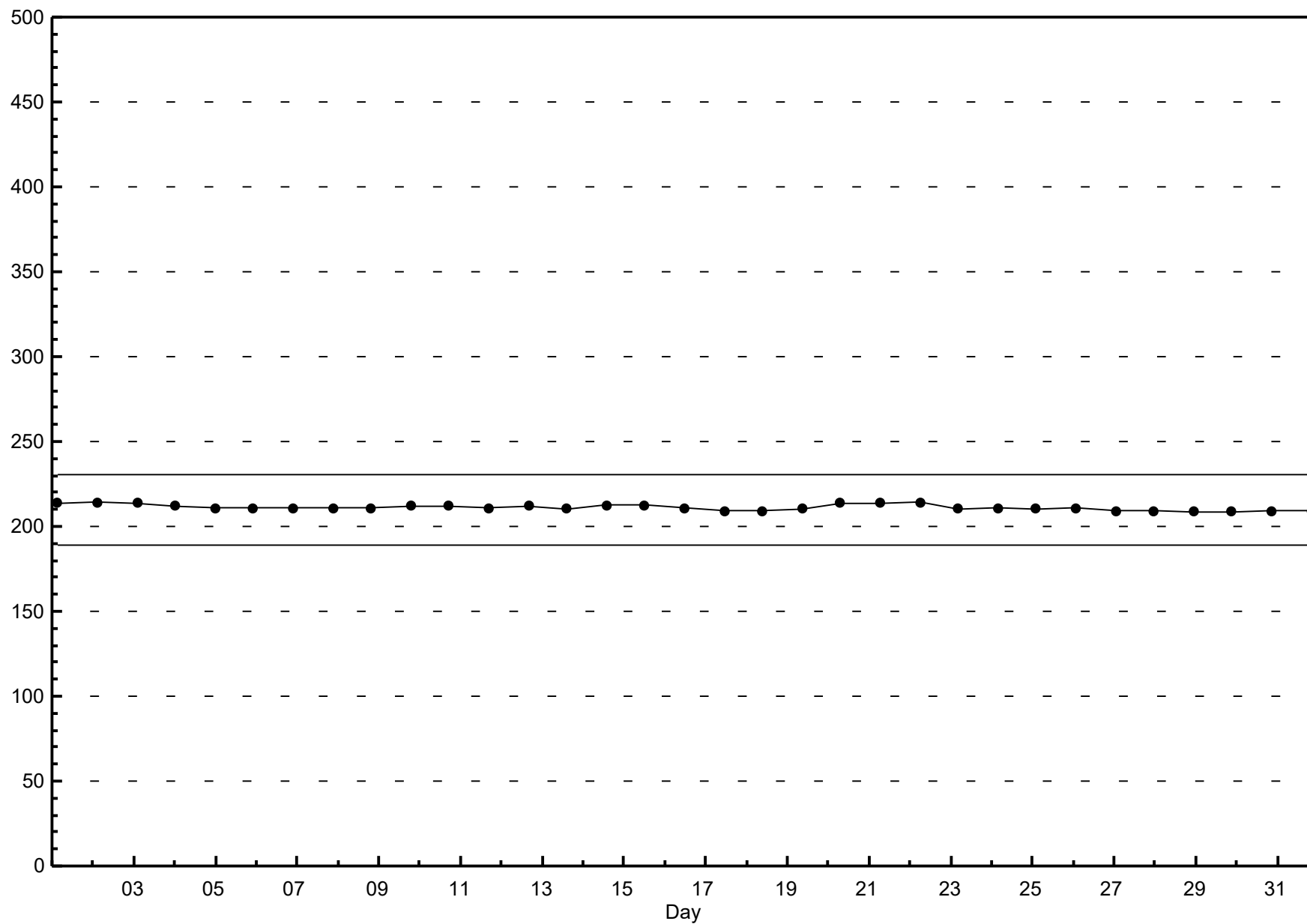


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Smoky Heights - May 2018



Hourly Averages

Total Reduced Sulphur (TRS) - ppb

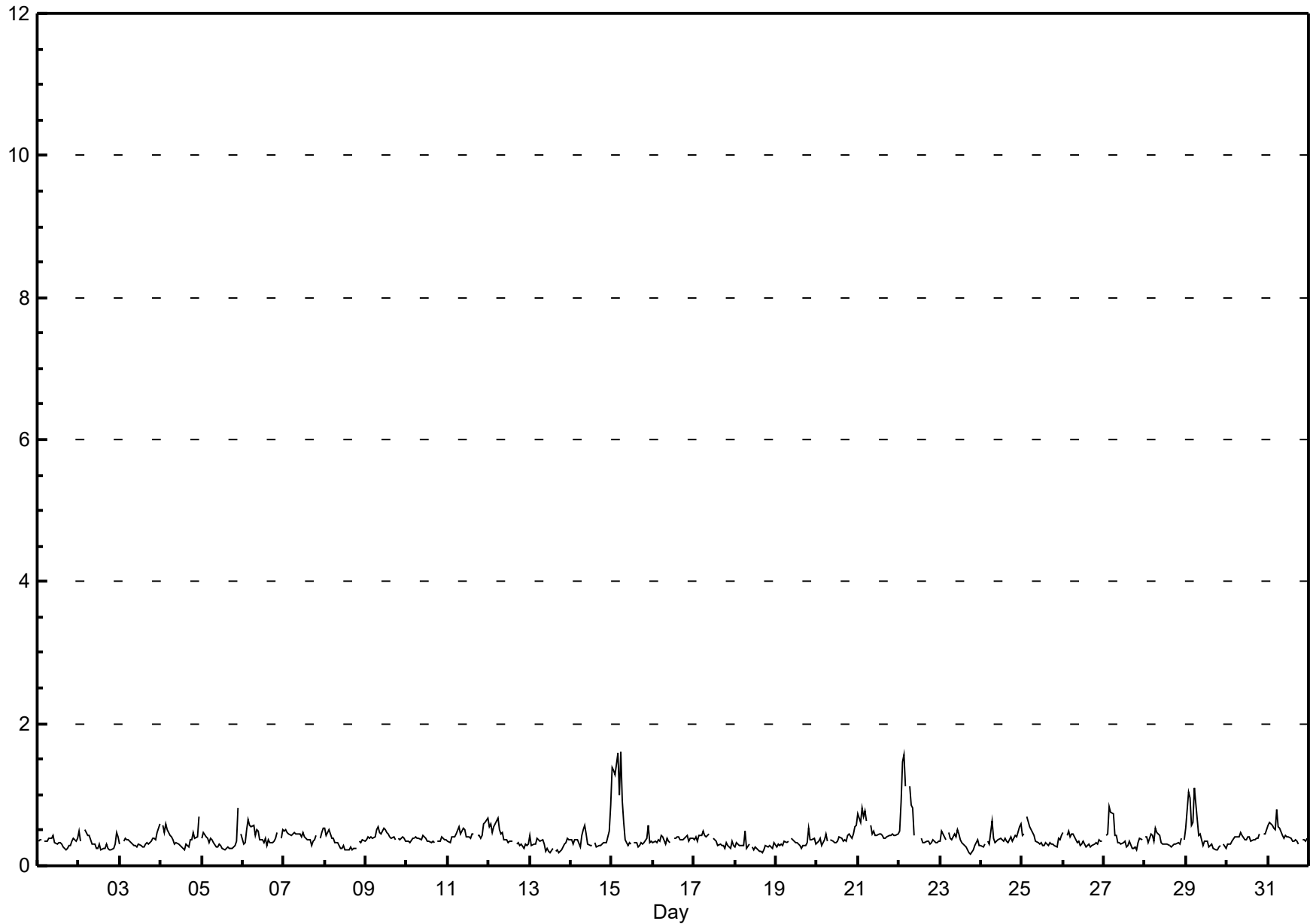
Smoky Heights - May 2018

Maximum Value: 1.6 ppb on May 15 06:00																				Maximum Daily Average: 0.6 ppb on May 15										Hours in Service: 744	
Minimum Value: 0 ppb on May 23 19:00																				Minimum Daily Average: 0.3 ppb on May 18										Hours of Data: 708	
Maximum Diurnal Average: 0.5 ppb at hour 4																				Minimum Diurnal Average: 0.3 ppb at hour 17										Hours of Missing Data: 36	
Monthly Average: 0.39 ppb																				Percentiles: P ₁ = 0.2 P ₁₀ = 0.3 Q ₁ = 0.3 Median = 0.4 Q ₃ = 0.4 P ₉₀ = 0.5 P ₉₉ = 1.1										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-May	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					
2-May	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5					
3-May	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	0.6					
4-May	A	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	0.4	0.7					
5-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	0	0.3	0.8					
6-May	0	0	1	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	0.4	0.7					
7-May	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	0.5					
8-May	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.3	0.5					
9-May	0	0	0	0	0	0	1	1	0	0	1	1	0	0	0	0	0	0	A	0	0	0	0	0	0.4	0.5					
10-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.4	0.4					
11-May	0	0	0	0	0	0	1	0	0	1	1	0	0	0	0	0	A	0	0	0	0	1	1	1	0.5	0.7					
12-May	1	1	0	1	1	1	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.4	0.7					
13-May	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					
14-May	0	0	0	0	0	0	0	1	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	0.4	0.9					
15-May	1	1	1	2	1	2	1	1	0	0	0	0	A	0	0	0	0	0	0	0	0	1	0	0	0.6	1.6					
16-May	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.4					
17-May	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5					
18-May	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	0.5					
19-May	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.3	0.5					
20-May	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.4	0.6					
21-May	1	1	1	1	1	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0.8					
22-May	0	1	1	2	1	A	1	1	1	0	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0.6	1.6					
23-May	0	0	0	0	A	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5					
24-May	0	0	0	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.4	0.6					
25-May	0	0	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.7					
26-May	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	0.5					
27-May	A	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.4	0.8					
28-May	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.4	0.5					
29-May	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.4	1.1					
30-May	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	0.5					
31-May	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.4	0.8					
																									Diurnal Average						
																									Diurnal Maximum						
C - Calibration																									A - Automated Daily Zero Span						

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Smoky Heights - May 2018



Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

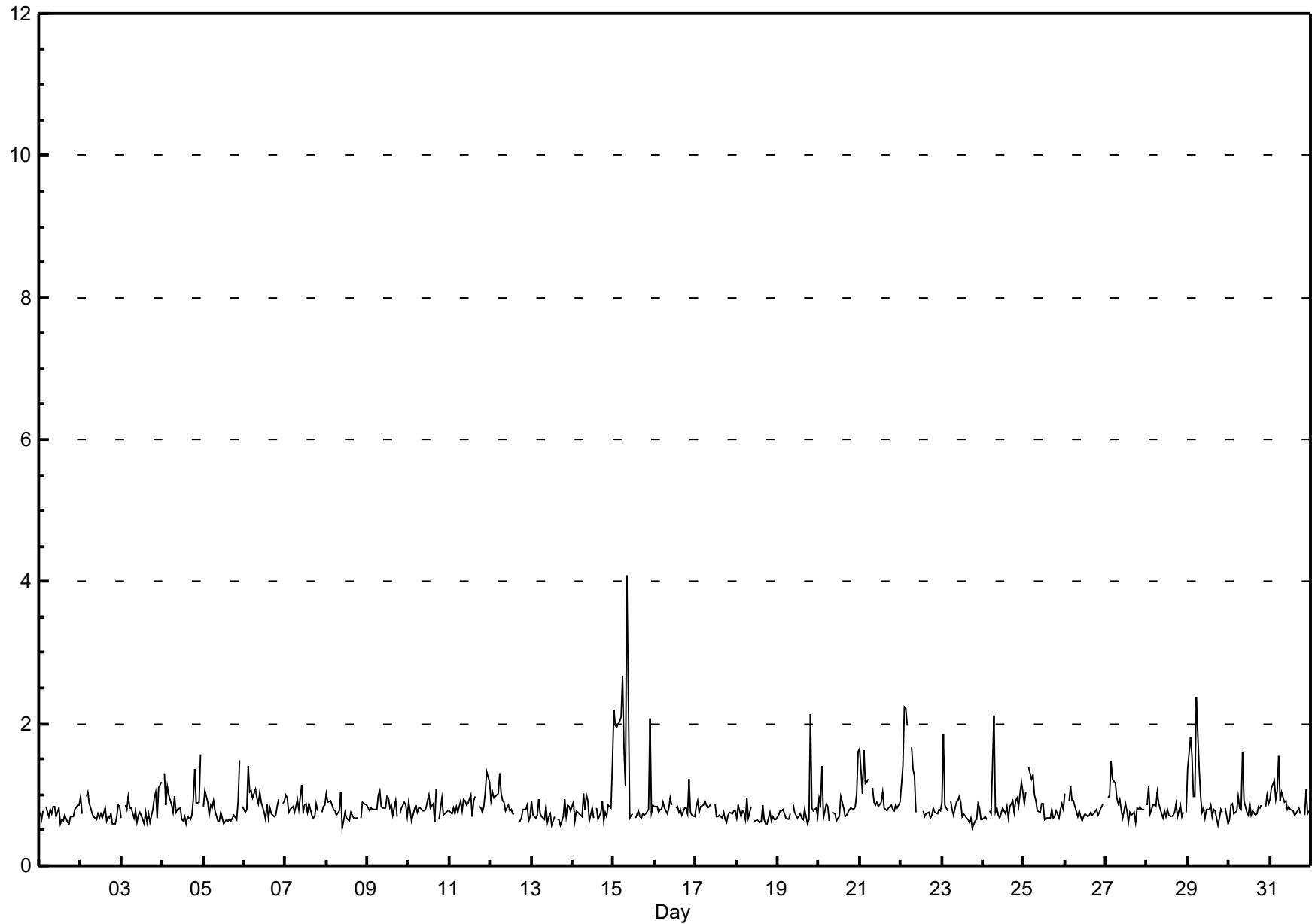
Smoky Heights - May 2018

Maximum Value: 4.1 ppb on May 15 09:00																				Maximum Daily Average: 1.4 ppb on May 15										Hours in Service: 744	
Minimum Value: 1 ppb on May 23 19:00																				Minimum Daily Average: 0.7 ppb on May 18										Hours of Data: 708	
Maximum Diurnal Average: 1.0 ppb at hour 6																				Minimum Diurnal Average: 0.7 ppb at hour 18										Hours of Missing Data: 36	
Monthly Average: 0.85 ppb																				Percentiles: P ₁ = 0.6 P ₁₀ = 0.7 Q ₁ = 0.7 Median = 0.8 Q ₃ = 0.9 P ₉₀ = 1.0 P ₉₉ = 2.1										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-May	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9					
2-May	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	1.0					
3-May	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	1.2					
4-May	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	A	0.9	1.6					
5-May	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	1.5					
6-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.9	1.4					
7-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.8	1.1					
8-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.8	1.0					
9-May	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	1.1					
10-May	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	1.1					
11-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.9	1.3					
12-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0.8	1.3					
13-May	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					
14-May	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	1.4					
15-May	2	2	2	2	2	3	2	1	4	1	1	A	1	1	1	1	1	1	1	1	1	2	1	1	1.4	4.1					
16-May	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	1.2					
17-May	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	0.9					
18-May	1	1	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					
19-May	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	0.8	2.1					
20-May	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	0.8	1.6					
21-May	2	1	2	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.7					
22-May	1	1	2	2	2	A	2	1	1	1	C	C	C	1	1	1	1	1	1	1	1	1	1	1	1.1	2.2					
23-May	1	2	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.9					
24-May	1	1	1	A	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	2.1					
25-May	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.4					
26-May	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					
27-May	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.9	1.5					
28-May	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					
29-May	1	2	2	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1.0	2.4					
30-May	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.8	1.6					
31-May	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.9	1.6					
0.9 1.0 1.0 1.0 1.0 1.0 1.0 0.9 1.0 0.8 0.8 0.8 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.8 0.8 0.9 0.9 0.9																									Diurnal Average						
2.2 2.0 2.2 2.2 2.1 2.7 2.1 1.4 4.1 1.1 1.0 1.0 1.0 1.0 0.9 1.0 1.1 0.9 0.9 2.1 1.2 2.1 1.6 1.6																									Diurnal Maximum						
C - Calibration																									A - Automated Daily Zero Span						

Hourly Maximums

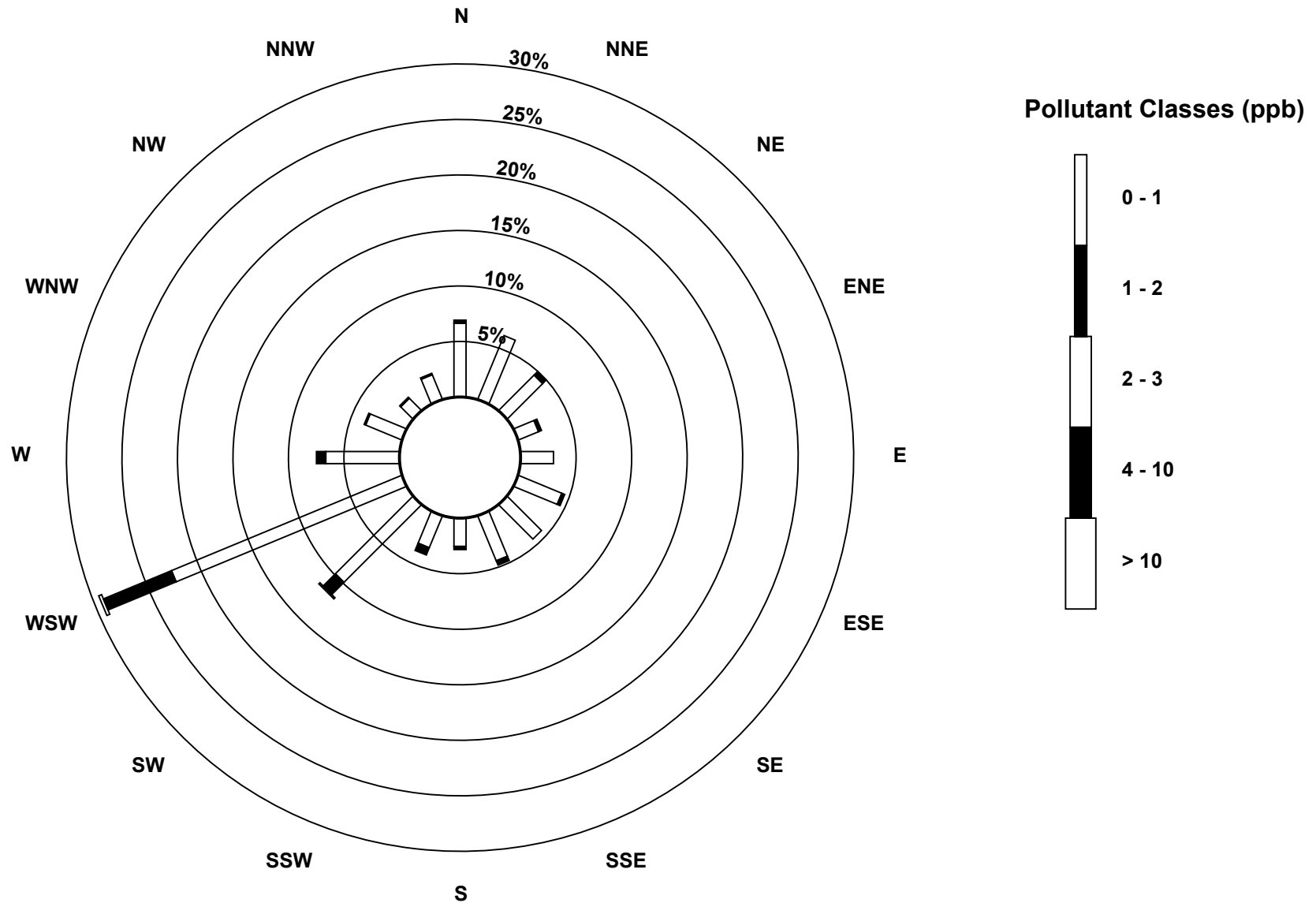
Total Reduced Sulphur (TRS) - ppb

Smoky Heights - May 2018



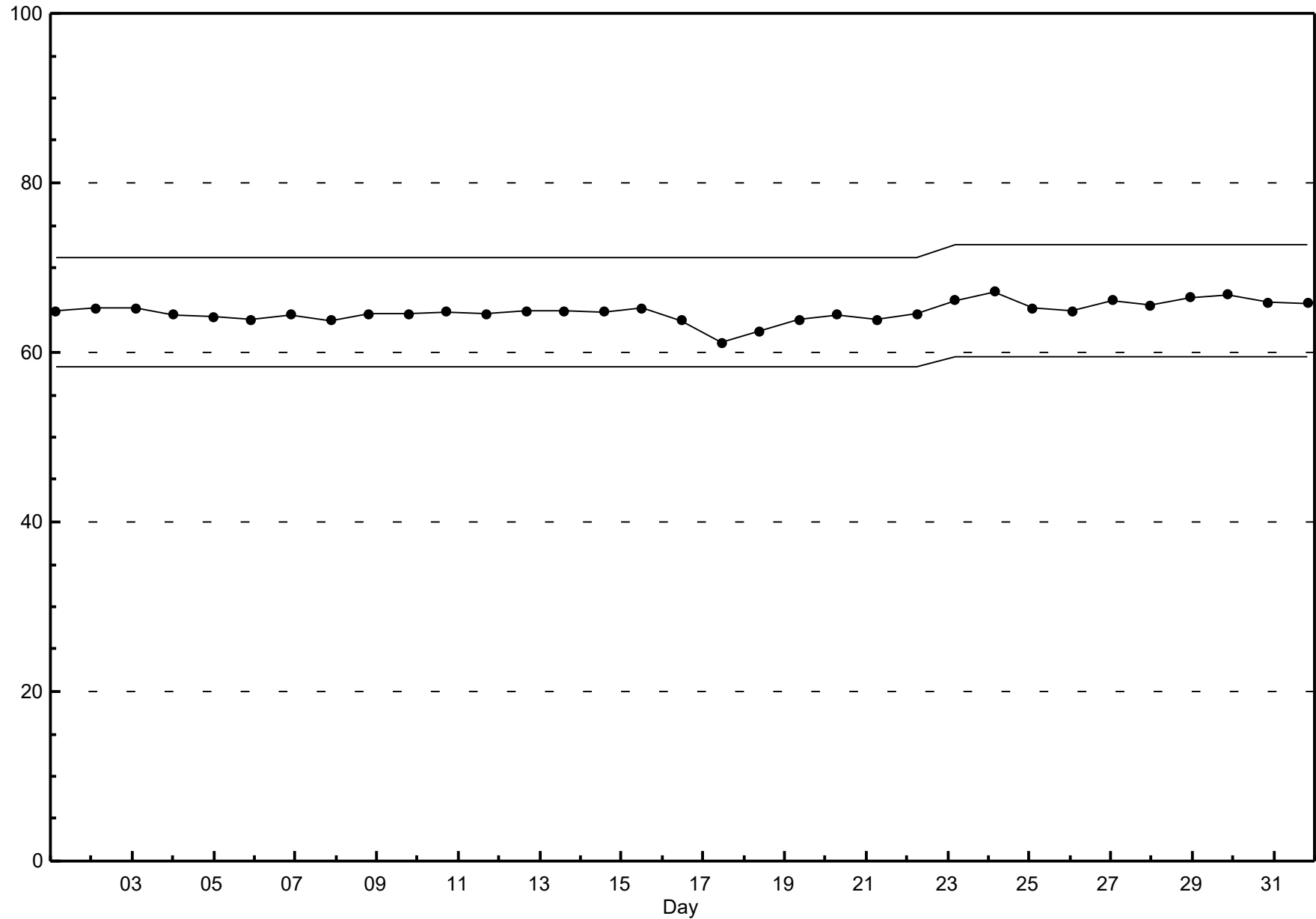
Pollutant Rose

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



Span Responses

Total Reduced Sulphur (TRS)
Smoky Heights - May 2018



Hourly Averages

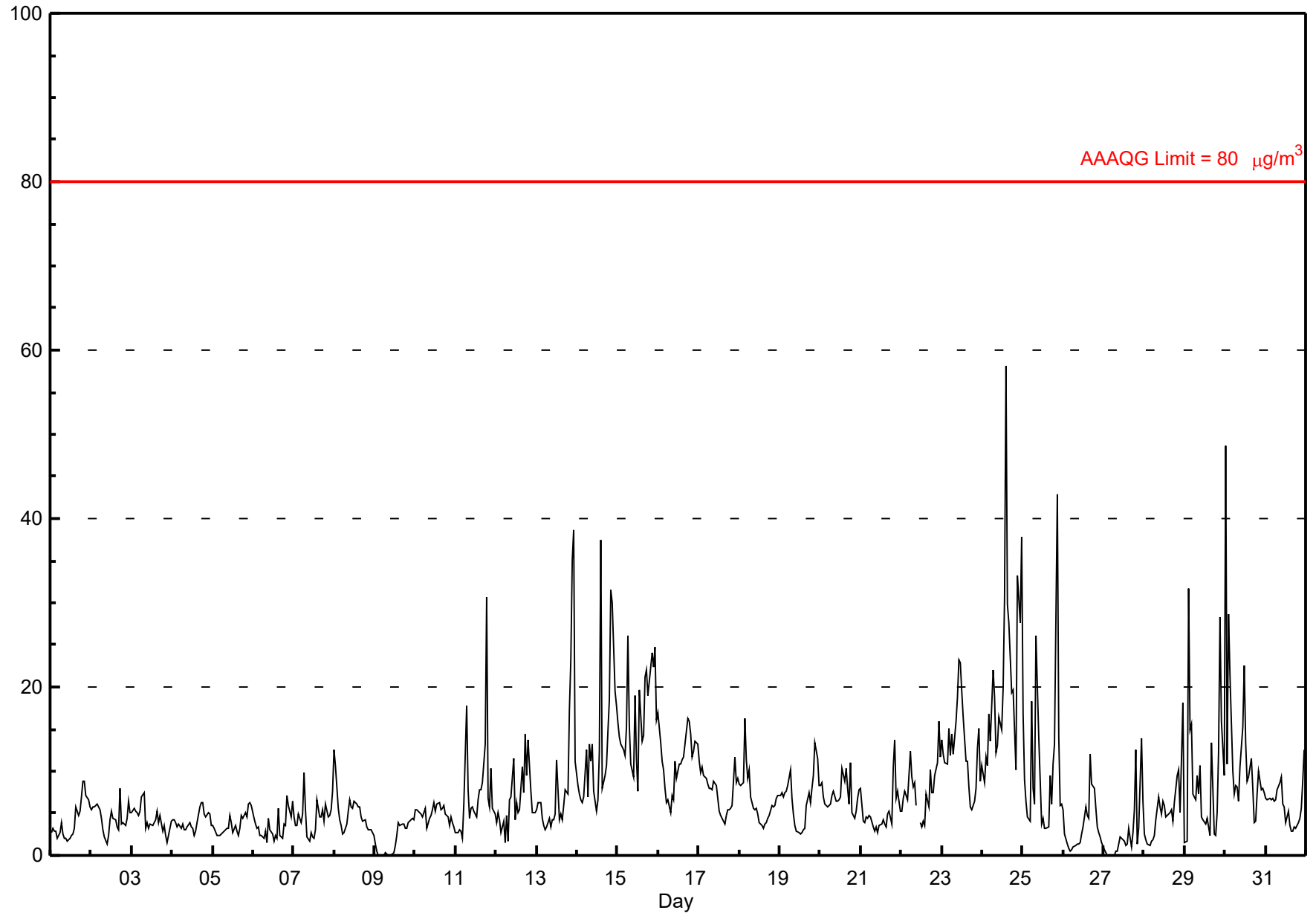
Particulate Matter 2.5 (PM_{2.5}) - µg/m³

Smoky Heights - May 2018

Number of Exceedences: 1-hr: 0 24-hr: 0 Maximum Value: 58.2 µg/m³ on May 24 15:00 Maximum Daily Average: 20.8 µg/m³ on May 24																								Hours in Service: 744 Hours of Data: 743 Hours of Missing Data: 1 Hours of Calibration: 1 Percent Operational Time: 100.0		
Minimum Value: 0 µg/m³ on May 9 03:00 Maximum Diurnal Average: 10.6 µg/m³ at hour 22 Monthly Average: 7.38 µg/m³												Minimum Daily Average: 1.9 µg/m³ on May 9 Minimum Diurnal Average: 5.9 µg/m³ at hour 13 Percentiles: P ₁ = 0.0 P ₁₀ = 2.4 Q ₁ = 3.6 Median = 5.5 Q ₃ = 8.8 P ₉₀ = 14.2 P ₉₉ = 32.6														
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-May	3	3	3	3	2	3	4	3	2	2	2	2	3	3	6	5	5	7	9	9	7	7	6	4.1	8.8	
2-May	5	6	6	6	6	5	4	3	2	1	2	4	5	4	4	3	3	8	4	4	4	6	5	4.5	7.9	
3-May	5	6	5	5	5	5	7	7	3	4	3	4	4	4	5	4	5	3	4	2	1	2	4	4.2	7.5	
4-May	4	4	4	3	4	3	4	3	3	3	4	3	3	2	3	4	6	6	6	5	5	5	4	4.0	6.3	
5-May	4	3	2	2	2	3	3	3	3	3	5	4	3	3	3	2	3	5	4	5	5	6	6	3.7	6.3	
6-May	4	4	3	3	2	2	2	3	2	4	3	3	2	2	2	6	2	2	4	4	7	6	5	6	3.5	7.2
7-May	5	3	4	5	4	5	10	5	2	2	3	2	2	3	7	5	5	5	4	6	5	5	8	4.5	9.8	
8-May	13	11	6	4	4	3	3	4	5	7	6	6	6	6	6	5	4	4	3	3	3	3	2	5.0	12.5	
9-May	1	0	0	0	0	0	0	0	0	0	0	0	1	2	4	4	4	4	3	3	4	4	4	1.9	4.5	
10-May	5	5	5	5	5	5	6	3	4	5	5	6	5	6	6	5	6	6	5	5	4	5	4	3	5.0	6.3
11-May	3	3	3	3	2	6	18	8	4	6	6	5	5	7	8	8	9	13	31	7	6	10	6	5	7.4	30.6
12-May	4	5	4	3	4	2	5	2	7	7	12	4	6	5	5	11	8	14	10	14	8	5	5	5	6.4	14.5
13-May	5	6	6	4	3	3	3	4	3	4	4	5	11	4	5	4	6	8	7	17	23	35	39	11	9.4	38.7
14-May	8	7	7	6	7	12	7	13	11	13	8	5	7	12	37	8	9	11	15	18	32	30	20	18	13.4	37.4
15-May	16	14	13	13	12	15	26	15	11	9	19	11	8	20	14	14	21	22	19	21	24	22	25	16	16.7	26.1
16-May	17	13	11	10	8	6	7	5	7	7	11	9	11	11	11	12	13	16	16	14	12	12	13	13	11.1	16.9
17-May	11	10	11	9	9	8	8	8	8	9	8	7	5	5	4	4	5	5	5	6	6	12	9	9	7.5	11.6
18-May	9	8	9	16	11	9	10	7	6	5	6	5	4	4	3	4	4	5	6	6	6	6	7	7	6.6	16.2
19-May	7	7	7	7	8	8	10	7	5	4	3	3	3	3	3	3	6	7	6	8	10	13	12	8	6.6	13.5
20-May	8	9	7	6	6	6	6	7	8	6	6	7	7	10	9	10	8	6	11	5	4	5	7	8	7.2	11.0
21-May	8	4	4	5	4	5	5	3	3	3	3	4	4	4	4	3	5	5	4	10	14	7	8	5	5.1	13.7
22-May	5	7	8	7	7	12	9	8	9	6	C	4	3	4	4	7	6	10	7	7	10	11	16	12	7.8	15.9
23-May	14	12	11	11	15	12	14	12	16	19	23	23	19	16	11	11	8	6	5	6	8	13	15	9	12.9	23.2
24-May	11	9	12	11	17	14	22	19	12	13	16	15	20	31	58	30	28	19	20	15	10	33	28	38	20.8	58.2
25-May	17	9	6	5	4	18	8	6	26	14	9	4	4	3	3	3	9	6	11	13	43	14	6	6	10.4	42.9
26-May	5	3	1	1	1	1	1	1	1	1	2	2	3	6	5	4	12	8	8	6	3	3	2	2	3.4	12.1
27-May	1	0	0	0	0	0	0	0	0	1	2	2	2	1	1	3	1	3	5	13	1	3	14	6	2.6	13.9
28-May	3	2	1	1	2	2	2	4	7	6	5	6	6	5	5	5	5	4	6	9	10	5	11	18	5.5	18.1
29-May	2	2	32	15	16	7	7	10	7	11	5	4	4	4	3	2	13	2	2	5	12	28	16	9	9.1	31.7
30-May	49	11	29	21	10	7	8	8	6	11	15	23	13	9	9	12	8	4	4	7	10	8	8	7	12.4	48.7
31-May	7	7	7	7	7	6	7	8	9	9	6	6	4	5	4	3	3	3	3	4	4	6	9	13	6.0	12.5
8.3 6.2 7.3 6.4 6.0 6.3 7.3 6.2 6.3 6.3 6.7 6.1 5.9 6.6 8.0 6.7 7.4 7.4 7.9 8.4 9.7 10.6 10.4 8.8																								Diurnal Average		
48.7 14.0 31.7 21.3 16.8 18.4 26.1 18.8 26.1 18.8 23.2 22.8 19.8 30.8 58.2 29.8 27.6 22.0 30.6 20.7 42.9 35.1 38.7 37.8																								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}) - $\mu\text{g}/\text{m}^3$
Smoky Heights - May 2018



Hourly Maximums

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

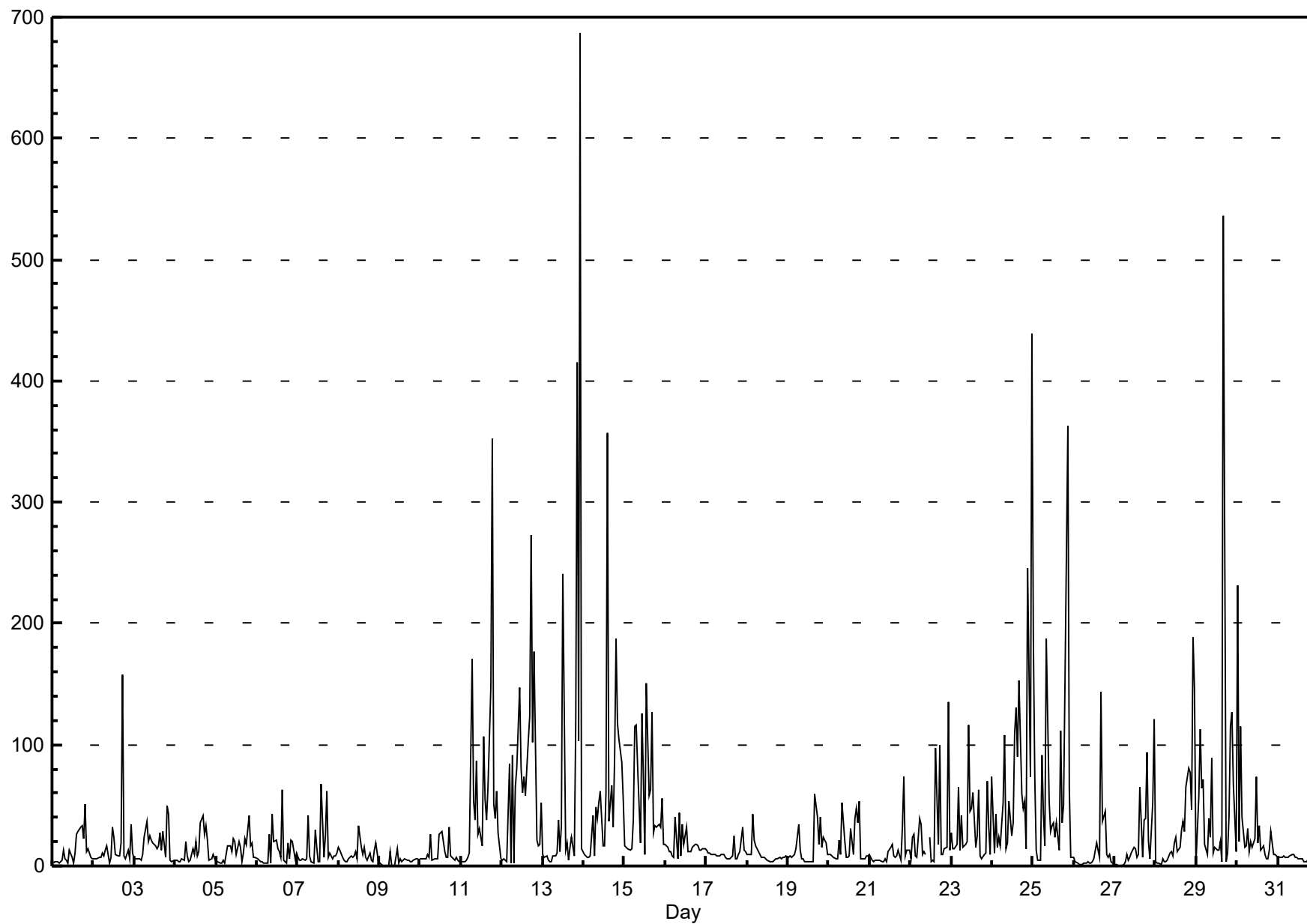
Smoky Heights - May 2018

Maximum Value: 686.7 μg/m ³ on May 13 23:00																								Maximum Daily Average: 79.4 μg/m ³ on May 24												Hours in Service: 744	
Minimum Value: 0 μg/m ³ on May 9 05:00																								Minimum Daily Average: 3.8 μg/m ³ on May 9												Hours of Data: 743	
Maximum Diurnal Average: 58.3 μg/m ³ at hour 17																								Minimum Diurnal Average: 10.4 μg/m ³ at hour 4												Hours of Missing Data: 1	
Monthly Average: 29.22 μg/m ³																								Percentiles: P ₁ = 0.2 P ₁₀ = 3.7 Q ₁ = 6.0 Median = 11.4 Q ₃ = 28.9 P ₉₀ = 67.5 P ₉₉ = 261.1												Hours of Calibration: 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-May	3	4	4	4	2	5	13	6	5	2	13	7	3	11	27	29	32	33	23	51	12	14	7	6	13.2	50.8											
2-May	6	6	6	7	7	10	9	13	17	2	7	32	24	9	9	8	19	158	8	6	13	6	34	11	17.7	158.0											
3-May	6	6	6	6	5	10	24	37	20	25	22	19	17	14	16	27	13	29	7	50	43	5	4	4	17.3	50.0											
4-May	5	5	4	4	6	5	20	8	4	5	14	10	21	9	11	35	41	26	34	22	5	6	10	6	13.1	41.0											
5-May	4	4	3	3	4	3	9	16	17	12	23	21	10	20	16	4	11	23	18	42	16	19	7	7	12.9	41.8											
6-May	5	4	4	4	3	3	2	26	3	43	20	21	14	12	8	63	5	3	19	6	21	20	6	11	13.5	62.7											
7-May	7	4	5	6	5	6	42	8	3	2	30	15	4	4	68	7	25	62	7	11	5	9	8	10	14.7	67.9											
8-May	15	13	8	5	4	4	6	8	7	8	12	6	33	16	10	15	8	5	11	5	4	13	20	3	9.9	33.4											
9-May	2	1	0	0	0	0	12	1	0	0	14	2	5	3	5	6	5	5	4	4	5	5	6	5	3.8	13.7											
10-May	6	6	6	6	9	7	26	4	6	6	6	26	27	28	12	7	7	32	8	5	5	7	5	4	10.8	31.8											
11-May	3	3	4	5	7	10	171	53	38	86	26	30	16	107	55	38	65	149	353	51	39	62	28	6	58.5	352.5											
12-May	5	5	5	3	85	2	91	2	65	80	147	80	60	73	58	103	123	272	102	177	21	17	17	52	68.6	272.4											
13-May	9	7	8	5	4	4	8	8	11	38	12	33	240	13	20	5	15	24	8	120	415	104	687	14	75.4	686.7											
14-May	10	8	7	7	8	41	8	49	39	52	62	16	16	60	357	36	66	32	89	188	118	104	86	54	63.1	357.4											
15-May	16	15	14	13	14	38	115	116	82	19	125	73	10	151	58	63	128	28	33	32	34	31	56	18	53.5	151.2											
16-May	18	16	12	12	9	8	41	6	44	8	34	18	32	12	12	12	15	18	17	16	13	13	14	14	17.1	44.2											
17-May	13	11	11	10	9	9	9	9	9	9	9	7	6	5	5	8	25	6	6	9	12	32	13	12	10.7	32.5											
18-May	9	9	9	43	22	17	14	11	7	7	7	5	4	4	4	4	4	5	5	7	6	7	7	8	9.5	43.2											
19-May	8	8	8	8	10	14	34	13	6	6	3	4	3	4	3	4	60	41	18	41	15	24	19	10	15.1	59.8											
20-May	9	10	8	7	6	6	21	9	52	20	7	8	8	31	9	39	48	36	53	6	6	6	8	9	17.6	53.0											
21-May	10	5	4	5	5	5	5	4	3	6	3	11	16	18	9	7	8	13	4	31	74	9	14	13	11.7	74.0											
22-May	6	23	26	8	7	39	34	10	12	9	C	23	4	4	4	97	18	100	10	9	14	15	135	13	27.0	135.1											
23-May	27	14	14	18	65	13	42	16	18	20	116	45	47	61	16	25	63	8	6	9	10	70	32	9	31.8	116.0											
24-May	74	10	42	16	24	17	52	108	14	19	53	25	36	109	131	90	153	59	47	53	15	246	74	439	79.4	438.7											
25-May	189	74	13	5	5	91	42	17	188	54	28	33	36	24	36	13	112	36	50	152	364	64	7	7	68.2	363.5											
26-May	8	3	2	1	1	1	2	2	3	2	2	4	5	19	13	7	144	37	46	9	7	9	4	3	14.0	144.1											
27-May	1	1	0	0	0	1	4	9	4	7	11	15	14	7	10	65	7	38	39	93	20	6	53	121	22.0	121.1											
28-May	4	2	2	1	6	4	4	5	10	11	9	19	23	12	15	30	37	28	65	81	77	46	189	146	34.5	188.8											
29-May	2	56	113	64	71	18	9	39	23	89	10	16	14	13	20	4	537	3	10	42	115	127	68	11	61.5	536.7											
30-May	231	20	115	41	15	17	31	11	20	16	22	73	19	33	14	16	10	5	6	13	29	10	10	8	32.7	231.0											
31-May	7	7	7	8	8	7	7	9	10	10	8	7	6	6	5	4	4	4	6	4	6	6	12	13	7.1	13.4											
23.2 11.7 15.1 10.4 13.7 13.3 29.2 20.5 23.9 21.7 28.5 22.7 25.0 28.8 33.4 28.1 58.3 42.5 35.9 43.4 49.6 35.8 52.8 33.8																								Diurnal Average													
231.0 73.5 115.0 64.2 84.5 91.1 171.0 116.0 187.6 88.6 147.0 80.3 240.3 151.2 357.4 102.8 536.7 272.4 352.5 187.6 415.3 245.5 686.7 438.7																								Diurnal Maximum													
C - Calibration																																					

Hourly Maximums

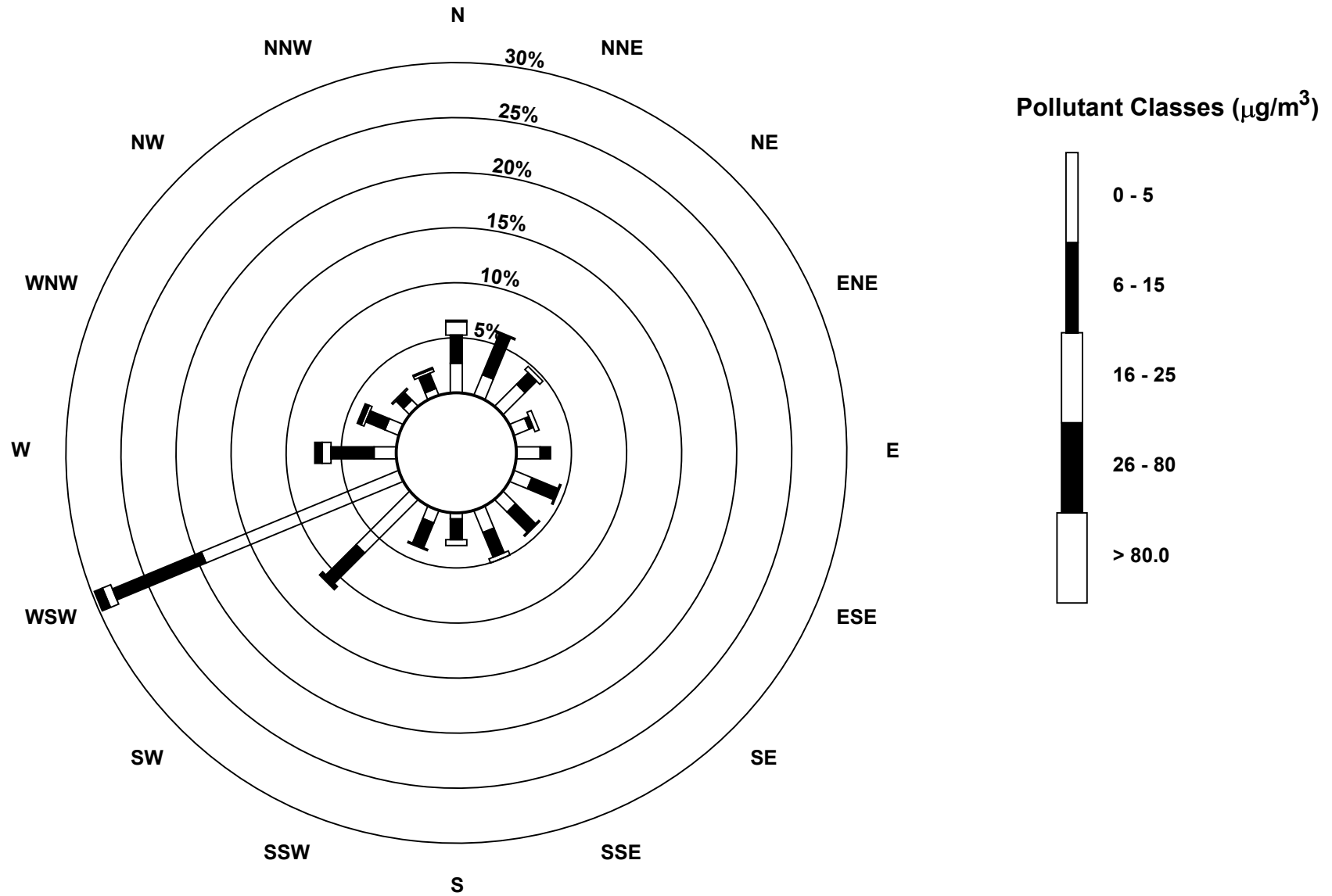
Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$

Smoky Heights - May 2018



Pollutant Rose

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



Hourly Averages

External Temperature (ET) - °C

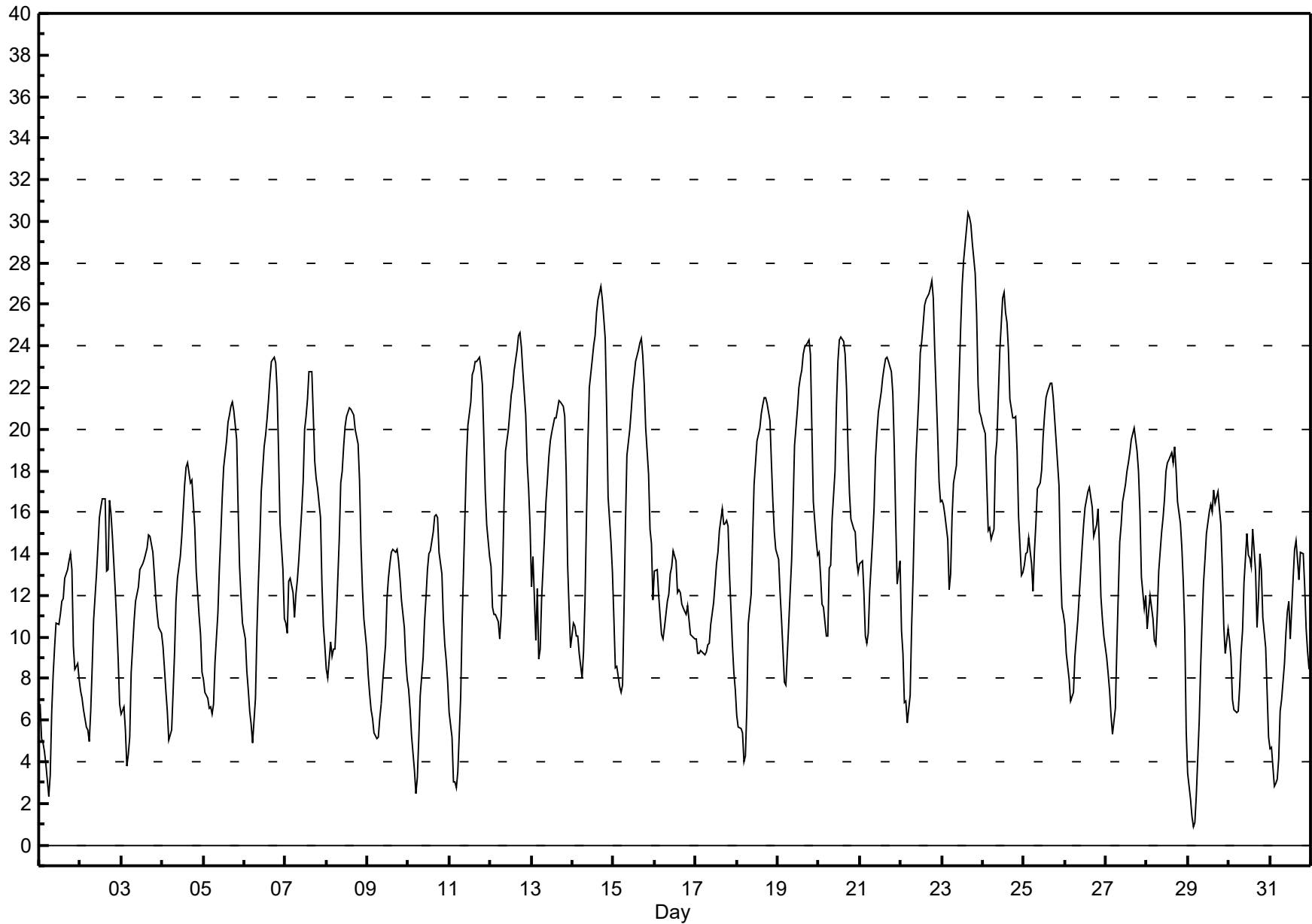
Smoky Heights - May 2018

Maximum Value: 30.4 °C on May 23 16:00																					Maximum Daily Average: 22.0 °C on May 23					Hours in Service: 744	
Minimum Value: 1 °C on May 29 04:00																					Minimum Daily Average: 8.9 °C on May 1					Hours of Data: 744	
Maximum Diurnal Average: 19.9 °C at hour 16																					Minimum Diurnal Average: 7.4 °C at hour 5					Hours of Missing Data: 0	
Monthly Average: 14.23 °C																					Percentiles: P ₁ = 2.8 P ₁₀ = 6.7 Q ₁ = 10.0 Median = 13.7 Q ₃ = 18.6 P ₉₀ = 22.5 P ₉₉ = 27.0					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-May	7	5	5	4	4	2	3	6	8	10	11	11	11	12	12	13	13	14	14	13	10	8	9	8	8.9	14.0	
2-May	7	7	6	6	6	5	6	8	11	13	14	16	16	17	17	13	13	17	16	15	12	11	9	7	11.2	16.7	
3-May	6	7	6	4	4	5	8	11	12	12	12	13	13	14	14	14	15	15	14	13	12	11	10	10	10.7	14.9	
4-May	10	9	7	6	5	6	7	9	12	13	14	15	16	17	18	18	17	18	16	15	13	11	10	8	12.2	18.4	
5-May	8	7	7	7	7	6	7	9	11	13	15	17	18	19	20	21	21	21	21	19	16	13	12	11	13.6	21.3	
6-May	10	8	7	6	6	5	7	10	13	15	17	19	20	20	21	22	23	23	23	22	19	15	13	11	14.9	23.5	
7-May	11	10	13	13	12	11	12	13	14	16	17	20	21	21	23	23	21	18	18	17	16	13	11	10	15.5	22.7	
8-May	8	8	10	9	9	9	11	15	17	18	19	20	21	21	21	21	21	20	19	18	14	12	11	9	15.1	21.0	
9-May	8	7	6	6	5	5	5	6	7	8	10	12	13	14	14	14	14	14	14	13	12	10	9	8	9.8	14.2	
10-May	7	7	5	4	3	3	5	7	9	11	12	13	14	14	15	16	16	16	14	13	11	10	9	8	10.0	15.9	
11-May	6	5	3	3	3	4	7	11	13	16	19	20	21	23	23	23	23	23	23	22	20	17	15	14	14.9	23.5	
12-May	13	11	11	11	11	10	11	13	16	19	20	21	22	22	23	24	25	25	24	23	21	18	17	15	17.7	24.7	
13-May	12	14	10	12	9	9	12	15	17	18	19	19	20	21	21	21	21	21	21	21	18	13	11	10	16.0	21.4	
14-May	11	11	10	10	9	8	9	12	16	19	22	23	24	25	26	26	27	26	25	24	21	17	15	13	17.9	26.9	
15-May	11	8	9	8	7	8	11	15	19	20	21	22	23	23	24	24	24	24	22	20	18	15	15	12	16.8	24.4	
16-May	13	13	12	11	10	10	10	12	12	13	13	14	14	12	12	12	12	11	11	11	11	10	10	10	11.7	14.1	
17-May	10	9	9	9	9	9	9	10	10	11	12	13	14	14	15	16	15	15	16	15	13	10	8	7	11.6	16.1	
18-May	6	6	6	5	4	4	7	11	12	15	17	18	19	20	21	21	21	21	21	20	18	17	15	14	14.2	21.5	
19-May	14	12	11	9	8	8	11	12	14	16	19	21	22	22	23	24	24	24	24	24	20	17	15	14	16.9	24.3	
20-May	14	13	12	11	10	10	13	13	16	18	21	23	24	24	24	24	22	19	17	16	15	15	14	13	16.8	24.5	
21-May	14	14	12	10	10	10	12	15	16	19	20	21	22	22	23	23	23	23	23	22	19	16	13	14	17.3	23.4	
22-May	10	9	7	7	6	7	10	13	16	19	22	24	24	25	26	26	27	27	27	26	24	20	18	17	18.1	27.1	
23-May	17	16	16	15	12	13	16	17	18	20	23	25	27	28	30	30	30	30	29	27	25	22	21	21	22.0	30.4	
24-May	20	20	17	15	15	15	15	19	19	22	24	26	27	26	25	24	21	21	21	21	19	16	13	13	19.7	26.6	
25-May	13	14	14	15	14	12	14	15	17	17	18	20	21	21	22	22	22	22	20	19	17	14	11	11	17.0	22.2	
26-May	11	9	8	7	7	7	9	11	12	13	14	15	16	17	17	17	16	15	15	16	14	12	11	10	12.5	17.2	
27-May	9	8	7	6	5	7	10	12	15	15	17	17	18	18	19	19	20	20	19	18	16	13	11	12	13.8	20.0	
28-May	10	11	12	11	10	10	11	13	15	16	17	18	18	19	19	18	19	18	17	15	14	13	10	5	14.2	19.2	
29-May	3	2	1	1	1	2	6	9	11	13	14	15	16	16	16	17	16	17	16	15	13	11	9	10	10.5	17.1	
30-May	10	9	7	7	6	6	8	9	10	13	15	14	14	13	15	13	10	12	14	13	11	9	7	5	10.5	15.2	
31-May	5	5	3	3	3	4	6	7	9	10	11	12	10	13	14	15	14	13	14	14	12	10	9	8	9.4	14.6	
10.2 9.5 8.7 8.1 7.4 7.5 9.4 11.6 13.4 15.1 16.7 18.0 18.6 19.2 19.7 19.9 19.7 19.4 19.0 18.1 16.0 13.5 12.0 10.9																									Diurnal Average		
20.2 19.7 17.4 15.1 15.3 14.7 15.8 18.7 19.5 21.6 23.7 26.3 26.9 28.1 29.6 30.4 30.2 29.9 28.9 27.5 25.5 22.2 20.8 20.6																									Diurnal Maximum		

Hourly Averages

External Temperature (ET) - °C

Smoky Heights - May 2018



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Smoky Heights - May 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	15	12	13	14	13	13	13	11	11	13	11	17	18	17	13	10	12	14	11	8	5	11	14	14	11.4	17.6
Dir	311	286	295	295	286	268	262	272	270	244	282	241	227	237	239	254	238	222	239	225	208	236	240	250	255.7	227.3
2 Spd	15	13	14	15	18	14	20	23	29	38	40	41	43	48	48	16	5	40	38	30	22	20	16	15	25.0	48.2
Dir	247	238	248	258	253	246	250	244	248	249	253	254	254	251	250	322	53	259	256	254	253	252	247	251	253.0	249.7
3 Spd	12	16	17	15	17	16	17	22	26	25	24	24	26	22	22	21	24	21	22	21	13	14	17	17	19.4	26.1
Dir	250	238	245	247	247	243	252	263	268	269	258	252	245	257	249	253	239	251	245	245	255	245	235	245	250.6	267.9
4 Spd	17	16	16	15	13	14	16	20	21	23	25	23	27	29	31	33	34	36	30	27	24	23	26	23	23.2	36.4
Dir	236	234	246	244	249	251	252	254	249	244	243	246	246	249	240	230	233	235	239	242	245	245	251	253	243.0	235.2
5 Spd	24	25	23	25	26	26	26	28	28	31	22	24	25	23	28	27	27	26	25	19	16	17	19	20	23.8	30.8
Dir	253	250	252	252	247	248	250	247	248	252	234	228	226	230	248	236	229	226	230	232	235	241	240	240	241.1	251.8
6 Spd	16	15	15	18	16	14	11	15	19	17	11	7	15	16	12	17	6	7	8	9	6	5	5	5	8.7	18.9
Dir	243	243	255	254	256	243	241	216	232	227	223	230	228	232	210	216	334	20	14	6	4	319	330	304	246.3	232.1
7 Spd	1	4	9	9	9	8	11	16	18	14	13	10	7	10	9	12	9	6	11	6	9	12	10	12	3.6	18.2
Dir	329	38	1	3	6	10	7	29	27	34	43	56	44	17	52	74	167	229	245	233	206	239	236	242	15.1	27.0
8 Spd	7	7	15	16	22	23	21	17	18	17	15	13	13	13	14	15	16	17	18	17	19	17	17	17	8.3	23.0
Dir	230	201	240	236	242	245	249	266	322	355	354	350	334	331	336	341	347	10	12	27	38	38	35	35	330.2	245.1
9 Spd	15	12	13	13	13	13	13	13	12	19	15	18	17	17	15	19	21	22	20	17	11	12	13	12	14.4	22.3
Dir	40	48	43	49	47	51	50	52	71	79	57	69	76	67	57	94	94	97	92	83	76	84	98	107	72.0	97.5
10 Spd	9	8	4	4	5	6	5	5	3	5	6	8	10	8	9	8	11	15	16	13	13	12	12	9	6.2	15.7
Dir	98	108	88	9	354	358	14	15	95	120	125	151	152	153	133	143	141	155	164	158	148	158	154	165	138.2	163.9
11 Spd	8	7	9	8	10	9	8	15	15	16	20	22	12	11	10	12	6	15	20	23	25	23	25	24	13.1	24.9
Dir	193	208	197	199	196	195	211	223	218	216	218	227	249	303	304	271	284	251	258	250	243	245	246	252	237.9	246.3
12 Spd	24	19	21	24	22	17	17	17	17	20	16	17	16	21	22	21	23	24	29	24	19	15	12	15	18.5	29.3
Dir	251	253	251	253	247	246	246	245	261	292	283	283	278	278	285	293	298	288	289	289	309	310	296	291	275.4	289.4
13 Spd	13	7	4	7	5	4	3	6	11	13	10	3	5	3	3	5	5	7	8	6	5	1	3	3	3.0	12.8
Dir	272	332	337	352	5	357	22	353	359	5	352	325	303	22	244	96	175	119	87	67	77	117	282	277	0.1	272.1
14 Spd	5	3	7	6	7	7	10	8	13	17	20	22	21	20	19	23	32	33	35	22	13	9	13	12	14.6	35.0
Dir	204	202	229	232	211	201	187	172	209	230	239	247	232	247	246	233	240	246	263	273	265	237	258	252	240.2	263.0
15 Spd	13	13	14	12	13	12	10	13	23	26	25	25	26	27	21	20	10	12	9	7	5	5	5	5	12.3	26.8
Dir	247	238	252	248	250	258	256	234	251	259	269	262	258	266	277	278	286	355	356	9	3	356	349	339	269.0	266.2
16 Spd	8	9	8	11	11	11	13	14	11	11	12	5	6	5	1	1	5	6	7	7	9	7	6	8	6.7	13.6
Dir	354	353	1	359	5	13	23	35	24	12	25	346	218	157	312	296	79	38	35	42	32	35	39	28	19.7	35.3
17 Spd	8	8	9	8	8	7	8	10	9	8	10	13	15	15	18	13	15	12	9	9	7	5	7	6	5.4	18.1
Dir	34	38	22	29	20	21	16	26	27	33	64	68	85	75	101	97	128	144	155	178	182	227	251	255	74.8	101.1
18 Spd	5	3	3	3	1	3	0	4	6	8	19	21	24	21	19	16	13	14	14	14	10	11	15	18	9.4	23.8
Dir	263	249	271	339	339	289	183	143	111	106	130	127	125	115	128	115	115	103	108	103	94	109	126	136	119.9	125.0
19 Spd	16	7	2	2	2	3	4	7	5	6	5	8	7	8	4	1	2	3	3	5	6	6	6	5	1.8	15.9
Dir	147	148	142	144	272	205	210	171	149	127	69	52	43	31	93	344	211	232	232	44	22	9	8	11	93.5	147.4
20 Spd	6	8	4	2	2	3	2	6	8	5	2	5	6	6	10	15	35	25	8	16	20	21	10	4	5.3	34.8
Dir	32	21	31	88	115	226	285	127	170	188	112	147	146	206	123	221	234	202	275	308	269	219	214	227	220.9	234.1
21 Spd	16	15	15	17	17	20	23	27	31	30	29	25	23	21	21	24	23	24	23	19	12	14	13	13	20.4	30.6
Dir	239	247	239	238	247	250	247	246	252	255	251	250	254	250	233	229	233	235	244	259	259	256	254	272	246.9	252.0
22 Spd	12	7	7	7	7	6	5	7	7	9	13	13	10	8	11	9	11	8	5	4	5	4	4	5	5.2	13.5
Dir	257	253	206	216	213	239	179	166	160	164	161	166	172	165	161	181	156	154	150	116	38	27	15	11	177.3	166.1

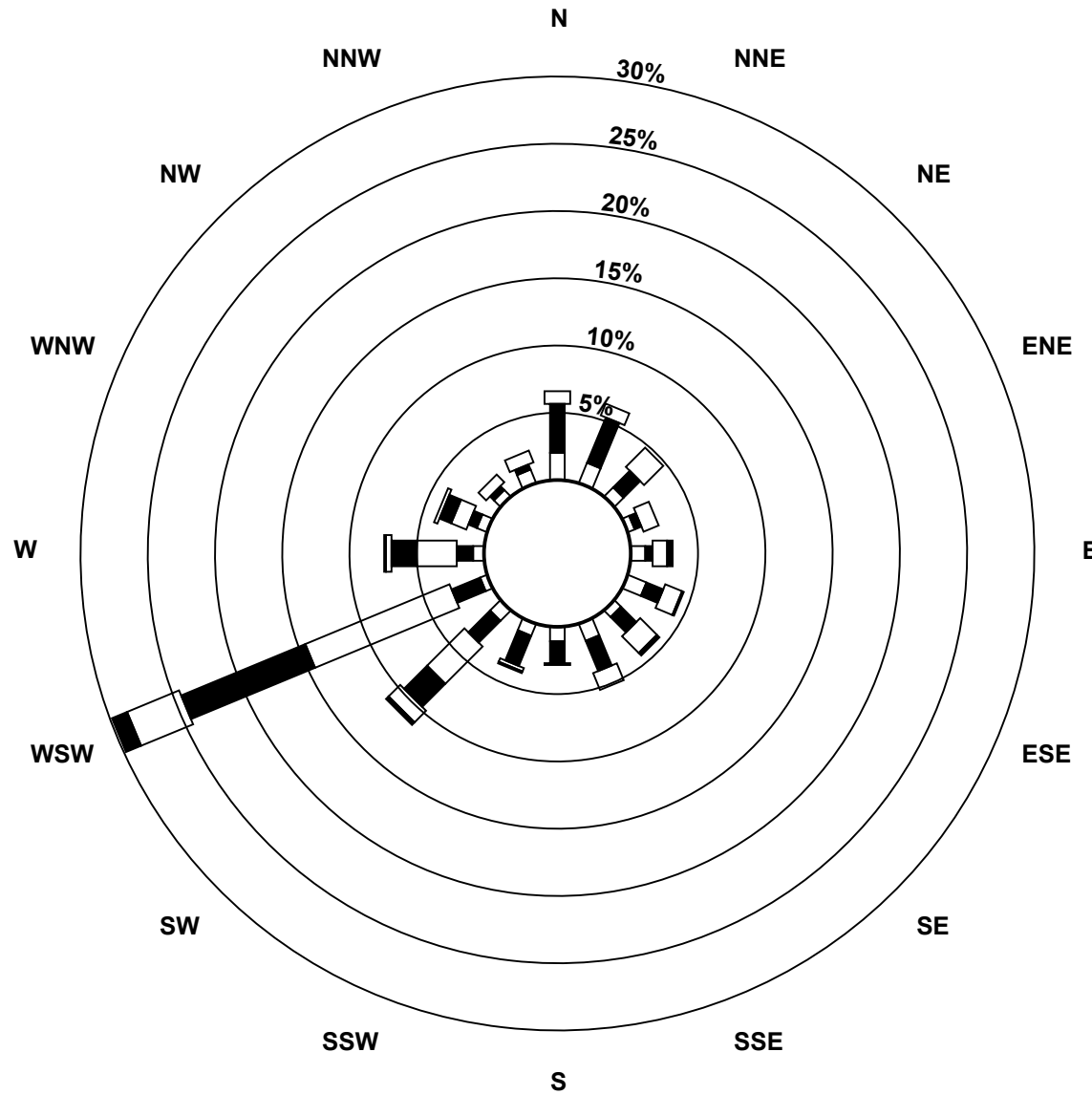
Hourly Averages

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

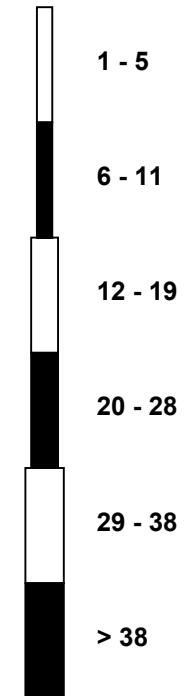
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	6	6	6	5	6	6	6	6	5	7	7	7	6	7	5	4	10	11	13	12	4	4	1	11	3.7	12.9
Dir	14	0	355	3	12	21	27	150	164	134	150	179	180	186	148	186	123	127	116	104	89	73	103	134	116.0	115.8
24 Spd	12	11	3	1	2	2	3	2	5	3	5	5	14	24	33	30	18	6	1	2	5	3	6	13	4.4	32.7
Dir	143	142	157	79	156	34	354	54	121	140	62	31	281	288	284	262	275	268	259	114	156	219	233	265	264.1	284.4
25 Spd	14	16	16	19	17	14	10	8	17	15	18	19	20	18	15	14	10	15	20	16	13	11	12	13	13.7	20.3
Dir	260	242	241	247	257	264	244	244	277	276	266	241	239	220	234	227	208	247	273	277	232	183	175	217	244.6	272.6
26 Spd	17	28	24	18	18	20	26	34	37	38	35	31	34	35	33	34	42	31	17	23	31	30	33	28	28.6	41.7
Dir	225	240	244	230	225	222	232	243	249	250	251	252	251	252	252	241	262	262	247	251	251	248	245	247	246.5	262.2
27 Spd	20	19	17	14	11	13	15	20	29	31	32	36	31	31	26	22	25	26	17	6	10	4	2	6	18.8	36.2
Dir	249	236	236	242	270	250	245	241	238	234	234	232	233	240	240	244	241	246	259	254	224	177	215	307	240.6	231.9
28 Spd	3	4	6	1	1	5	8	10	17	33	39	40	42	45	42	34	38	38	30	22	19	20	15	9	20.3	45.2
Dir	7	22	296	6	146	203	233	219	237	256	244	242	245	235	230	232	250	256	256	271	274	266	269	242	247.6	234.7
29 Spd	11	12	14	14	14	15	14	17	15	6	8	8	8	2	5	7	8	7	5	4	8	5	8	12	6.0	17.3
Dir	243	257	256	250	255	257	249	239	243	263	261	255	213	111	22	68	81	26	22	355	223	256	314	334	261.1	239.4
30 Spd	13	10	9	9	12	11	12	11	10	8	5	3	10	9	3	6	13	7	5	9	10	12	14	8	2.7	14.3
Dir	341	350	3	359	1	8	18	18	37	31	46	186	201	165	319	116	144	150	359	327	266	256	258	202	348.5	258.4
31 Spd	5	5	1	1	3	6	4	4	6	5	11	16	12	14	19	18	16	2	4	5	5	7	15	12	5.9	18.9
Dir	271	329	112	223	259	275	285	104	124	51	111	132	142	115	125	127	154	119	181	172	146	102	123	130	131.6	124.6
Spd	6.7	6.2	7.0	6.8	7.0	7.0	7.0	7.4	9.0	9.2	8.7	9.9	11.4	10.5	9.8	8.9	9.2	9.5	8.2	6.1	5.8	6.1	6.4	6.3	Diurnal Average	
Dir	252.2	251.0	257.1	260.1	260.1	257.4	256.2	245.7	251.4	254.8	248.2	238.1	235.9	243.3	241.9	234.5	229.8	238.0	252.0	261.3	252.1	244.7	243.7	248.5	Diurnal Maximum	
Spd	24.5	28.1	24.1	25.2	25.6	25.9	26.1	34.5	37.5	37.6	39.7	40.9	43.3	47.6	48.2	34.2	41.7	40.1	38.5	29.6	30.9	30.2	32.7	28.2	Diurnal Maximum	
Dir	252.9	239.6	243.5	252.4	246.8	248.1	250.5	243.0	248.9	248.8	253.4	254.0	254.4	250.6	249.7	241.1	262.2	258.5	255.8	253.6	251.3	247.8	245.0	247.2		
Maximum Speed Value: 48 km/h on May 2 15:00																									Minimum Speed Value: 0 km/h on May 18 07:00	
Maximum Daily Speed Average: 28.6 km/h on May 26																									Minimum Daily Speed Average: 1.8 km/h on May 19	
Maximum Diurnal Speed Average: 11.4 km/h at hour 13																									Minimum Diurnal Speed Average: 5.8 km/h at hour 21	
Monthly Average Velocity: 7.84 km/h 247.18 deg																									Speed Percentiles: P ₁ = 1.2 P ₁₀ = 4.5 Q ₁ = 7.0 Median = 12.8 Q ₃ = 18.9 P ₉₀ = 26.1 P ₉₉ = 40.6	
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	24		42		16		0		0		0		82													
NorthEast	10		29		23		0		0		0		62													
East	13		13		20		4		0		0		50													
SouthEast	14		33		22		4		0		0		73													
South	8		32		6		1		0		0		47													
SouthWest	15		34		83		53		20		5		210													
West	12		17		66		55		28		8		186													
NorthWest	9		10		12		3		0		0		34													
Total	105		210		248		120		48		13		744													

Wind Rose

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



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Smoky Heights - May 2018

Maximum Speed: 48 km/h on May 2 15:00																				Maximum Daily Speed Average: 29.4 km/h on May 26										Hours in Service: 744	
Minimum Speed: 1 km/h on May 18 07:00																				Minimum Daily Speed Average: 6.1 km/h on May 19										Hours of Data: 744	
Maximum Diurnal Speed Average: 19.0 km/h at hour 14																				Minimum Diurnal Speed Average: 11.1 km/h at hour 4										Hours of Missing Data: 0	
Monthly Average Speed: 14.65 km/h																				Percentiles: P ₁ = 2.6 P ₁₀ = 5.1 Q ₁ = 7.8 Median = 13.2 Q ₃ = 19.4 P ₉₀ = 26.4 P ₉₉ = 40.9										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-May	15	12	13	14	13	13	13	12	12	14	12	18	18	18	13	10	12	15	11	8	5	12	14	14	13.0	18.2					
2-May	15	13	14	15	18	14	20	23	29	38	40	41	44	48	48	22	7	40	39	30	22	20	17	15	26.4	48.5					
3-May	12	16	17	15	17	16	18	22	26	25	24	24	26	22	23	22	24	21	22	21	13	14	17	17	19.9	26.5					
4-May	17	16	16	15	13	14	16	20	21	23	25	23	28	30	31	34	34	37	30	27	24	23	26	23	23.5	36.6					
5-May	25	25	23	25	26	26	26	28	29	31	22	25	25	23	29	27	28	26	25	19	16	18	19	20	24.3	30.9					
6-May	16	15	15	18	16	14	11	15	19	17	11	8	16	17	15	18	9	8	9	9	6	5	5	6	12.4	19.0					
7-May	5	4	9	9	10	8	11	17	18	14	13	11	8	10	10	12	16	11	12	7	10	12	11	12	10.8	18.3					
8-May	8	8	15	16	22	23	22	18	19	18	16	14	14	15	15	16	17	18	18	18	19	17	17	17	16.6	23.0					
9-May	15	12	13	13	13	13	13	13	12	20	16	19	18	18	17	20	21	23	20	17	12	12	13	13	15.6	22.6					
10-May	9	8	5	4	5	6	5	5	4	6	7	9	11	9	10	9	11	15	16	13	13	12	12	9	9.0	15.8					
11-May	8	7	9	8	10	9	8	15	15	16	20	23	15	12	11	14	7	16	20	24	25	23	25	24	15.2	25.0					
12-May	24	19	21	24	22	17	17	18	18	20	17	17	20	23	23	22	24	25	30	24	19	15	12	15	20.2	29.6					
13-May	14	8	4	8	5	4	4	6	12	13	11	7	7	7	8	8	6	8	8	6	5	3	3	3	7.0	14.0					
14-May	5	4	7	7	7	8	10	8	14	17	20	22	22	22	21	24	33	33	35	22	13	9	13	12	16.2	35.2					
15-May	13	13	14	12	13	12	10	13	24	27	25	25	27	28	23	21	13	13	9	7	5	5	5	5	15.1	27.6					
16-May	8	9	8	11	11	12	13	14	11	11	12	6	8	6	5	4	5	6	7	7	9	7	6	8	8.5	14.0					
17-May	8	8	9	8	9	7	8	10	9	8	10	13	15	16	19	14	15	13	9	9	7	5	7	6	10.2	18.5					
18-May	5	4	3	3	2	3	1	4	6	8	19	22	25	22	20	16	14	15	14	15	10	11	15	18	11.5	24.8					
19-May	16	7	5	3	3	3	4	7	6	6	6	9	9	9	7	6	5	4	4	5	6	6	6	5	6.1	16.0					
20-May	6	8	4	3	2	3	3	6	9	6	4	6	7	8	10	21	35	26	11	17	21	22	10	7	10.6	35.2					
21-May	16	15	15	17	17	20	23	27	31	30	30	25	24	22	21	24	24	25	23	19	13	14	13	13	20.9	30.7					
22-May	12	9	8	7	8	7	6	7	7	10	13	14	11	10	12	11	12	9	5	4	5	4	4	5	8.3	13.9					
23-May	6	6	6	5	6	6	6	7	6	7	8	8	7	8	7	6	12	11	13	12	5	4	8	11	7.5	12.9					
24-May	12	11	4	3	3	3	4	4	5	3	6	6	15	25	33	31	19	7	3	4	6	3	6	13	9.5	33.0					
25-May	14	16	17	19	17	14	11	9	18	15	19	20	22	19	17	15	11	16	20	16	15	12	12	13	15.7	22.0					
26-May	17	28	24	18	18	20	26	35	38	38	35	32	34	36	33	35	42	31	18	23	31	30	33	28	29.4	42.0					
27-May	20	19	18	14	11	13	15	21	29	31	32	37	31	31	27	23	25	27	17	6	10	5	2	6	19.5	36.6					
28-May	4	5	7	3	3	5	8	10	17	33	39	40	43	45	43	34	38	38	30	22	19	20	15	10	22.1	45.5					
29-May	11	12	14	14	14	15	15	17	16	8	10	11	10	7	8	9	8	8	6	4	8	6	8	12	10.4	17.4					
30-May	13	10	9	10	12	11	12	11	10	8	7	6	10	10	6	12	14	9	5	10	11	13	15	9	10.1	14.8					
31-May	6	5	3	2	3	6	4	4	6	6	12	16	13	14	19	19	18	4	4	5	6	7	15	12	8.7	19.3					
12.1 11.3 11.3 11.1 11.2 11.1 11.7 13.7 16.0 17.0 17.4 18.0 18.8 19.0 18.8 18.0 18.1 18.0 16.0 13.9 12.5 11.8 12.5 12.3																									Diurnal Average						
24.5 28.2 24.1 25.3 25.7 25.9 26.1 34.6 37.7 37.9 40.0 41.2 43.8 48.2 48.5 34.7 42.0 40.5 38.6 29.7 31.0 30.4 32.7 28.3																									Diurnal Maximum						
All monthly, daily, and diurnal averages have been calculated using scalar methods																															

Hourly Standard Deviations

Wind Direction (WD) - deg

Smoky Heights - May 2018

Maximum Value: 92.9 deg on May 19 16:00																				Hours in Service: 744					
Minimum Value: 1.9 deg on May 12 04:00																				Hours of Data: 744					
																				Hours of Missing Data: 0					
																				Hours of Calibration: 0					
Percentiles: P ₁ = 2.3 P ₁₀ = 4.7 Q ₁ = 7.1 Median = 11.7 Q ₃ = 21.8 P ₉₀ = 42.7 P ₉₉ = 84.1																				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-May	4	9	6	8	8	11	5	10	22	21	24	22	11	15	16	22	23	13	9	10	48	5	3	7	48.5
2-May	5	2	8	5	5	5	3	4	5	5	6	6	8	8	6	39	60	20	5	4	3	2	13	5	59.7
3-May	7	4	3	5	4	10	16	10	8	8	8	10	11	12	10	16	11	11	5	10	8	4	4	3	15.8
4-May	3	3	6	4	3	9	8	9	6	8	6	10	10	9	10	7	6	5	6	4	4	3	3	2	10.4
5-May	3	3	2	2	2	2	2	3	5	6	11	11	11	12	12	13	10	8	6	4	5	9	3	3	12.7
6-May	7	5	3	4	6	7	15	7	6	11	17	41	17	20	39	19	49	30	18	9	16	10	9	26	49.4
7-May	85	32	7	9	7	10	11	5	6	11	10	25	32	16	29	22	59	89	35	34	33	17	17	8	88.7
8-May	29	18	6	3	5	3	5	17	19	13	18	23	21	27	21	20	19	19	11	16	5	6	6	5	29.3
9-May	8	6	6	6	6	8	6	12	15	13	16	16	16	19	25	16	13	10	10	7	5	13	8	10	25.4
10-May	11	10	55	26	12	9	10	19	68	47	48	36	39	34	32	33	18	13	8	6	4	9	5	11	67.5
11-May	10	6	6	5	5	5	42	6	7	15	9	10	45	39	23	34	48	17	10	6	6	4	3	2	47.7
12-May	2	3	2	2	4	4	4	5	17	12	16	18	55	21	16	14	13	10	8	8	6	4	8	4	55.2
13-May	27	43	59	14	10	10	15	18	17	19	22	87	54	83	75	65	58	39	17	15	14	75	15	28	87.1
14-May	15	27	21	15	18	23	8	9	18	15	12	12	14	27	26	11	10	9	6	5	8	9	16	9	27.1
15-May	6	8	7	7	8	10	13	9	14	10	9	13	12	14	21	17	48	14	11	8	11	10	7	8	48.3
16-May	9	8	10	10	7	9	8	13	11	10	8	26	51	24	76	85	27	12	10	10	8	10	7	7	84.7
17-May	10	11	8	9	9	20	9	6	7	11	13	13	16	18	13	29	10	20	15	11	10	17	8	9	28.9
18-May	6	15	22	44	89	49	87	28	28	19	11	13	17	16	17	18	25	21	16	9	7	7	7	5	89.4
19-May	6	12	89	76	38	30	30	12	22	24	37	29	33	36	75	93	69	55	45	24	7	7	7	21	92.9
20-May	13	6	20	50	39	33	48	12	24	51	68	36	46	57	14	57	8	8	48	13	20	13	10	73	72.7
21-May	7	4	5	5	4	2	4	4	5	8	8	12	13	18	16	10	11	12	9	5	7	2	8	8	18.4
22-May	7	40	25	20	20	17	17	9	12	15	13	15	25	38	33	32	23	23	20	19	8	9	7	3	39.8
23-May	13	14	15	23	6	7	8	43	24	21	24	32	29	30	60	59	35	18	7	7	23	21	79	14	79.5
24-May	5	9	38	66	41	55	42	56	29	41	53	44	31	13	8	15	15	36	73	81	29	33	11	6	80.6
25-May	8	7	6	17	5	6	13	26	10	15	13	21	23	15	23	26	26	35	6	4	29	28	14	12	34.7
26-May	17	4	3	5	4	5	7	5	6	7	9	15	11	12	12	10	7	9	18	10	5	7	4	5	17.6
27-May	4	6	5	16	6	6	5	7	7	7	9	8	9	7	12	13	9	8	13	29	12	21	35	19	34.6
28-May	59	29	34	76	73	27	14	14	11	7	7	8	11	7	8	9	10	9	8	7	5	6	4	14	75.9
29-May	11	11	7	4	8	3	10	5	8	65	53	58	48	78	50	40	20	31	37	26	27	32	15	9	77.6
30-May	7	12	10	9	8	9	9	12	19	26	50	67	16	27	68	61	12	63	26	37	22	24	17	28	68.2
31-May	40	17	61	61	11	15	9	36	20	19	16	14	21	13	12	15	31	72	49	22	15	12	13	4	72.3
84.7 43.2 88.6 75.9 89.4 55.0 86.5 55.9 67.5 65.1 67.8 87.1 55.2 83.4 75.9 92.9 69.0 88.7 72.6 80.6 48.5 75.1 79.5 72.7																									

PAZA
Beaverlodge Station
Monthly Summary Tables, Graphs and
Roses

Hourly Averages

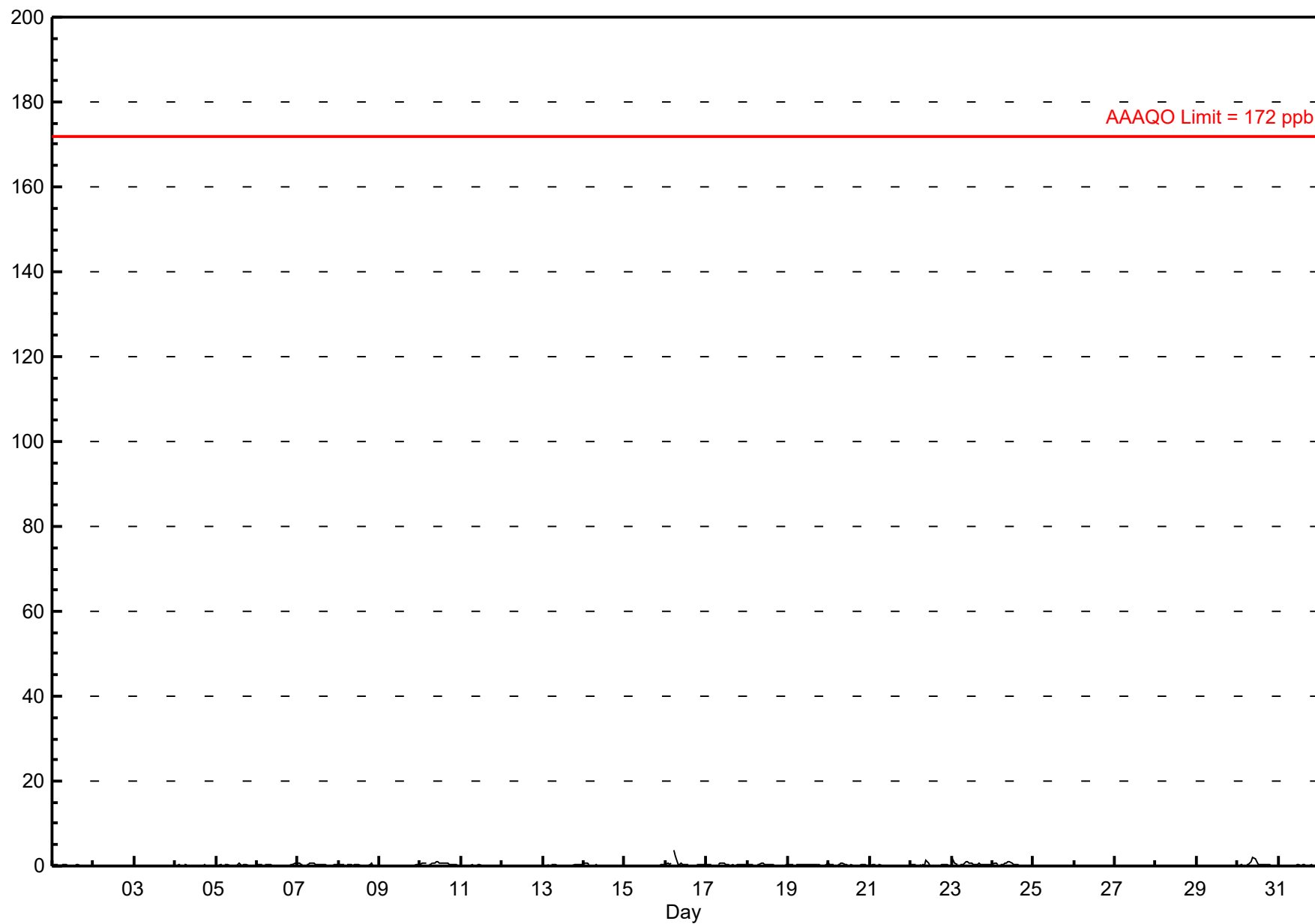
Sulphur Dioxide (SO₂) - ppb

Beaverlodge - May 2018

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 3.9 ppb on May 16 06:00 Maximum Daily Average: 0.7 ppb on May 16																				Hours in Service: 744 Hours of Data: 704 Hours of Missing Data: 40 Hours of Calibration: 34 Percent Operational Time: 99.2						
Minimum Value: 0 ppb on May 28 18:00 Minimum Daily Average: 0.0 ppb on May 27 Maximum Diurnal Average: 0.4 ppb at hour 10 Minimum Diurnal Average: 0.1 ppb at hour 21 Monthly Average: 0.21 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.1 Q ₃ = 0.3 P ₉₀ = 0.5 P ₉₉ = 0.9																										
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-May	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
2-May	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	0.1
3-May	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
4-May	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
5-May	0	0	0	0	A	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.2	0.6
6-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.2	0.7
7-May	1	1	0	0	A	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.7
8-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.2	0.6
9-May	0	0	0	0	A	0	0	0	0	0	C	C	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
10-May	0	1	1	1	A	0	0	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0.5	0.9
11-May	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
12-May	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
13-May	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
14-May	1	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.8
15-May	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	0.4
16-May	1	1	1	1	A	4	2	0	0	1	0	0	0	0	P	P	P	P	0	0	0	0	0	0	0.7	3.9
17-May	0	0	0	0	A	R	P	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
18-May	0	0	0	0	A	P	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
19-May	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	1.0
20-May	0	0	0	0	A	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
21-May	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
22-May	0	0	0	0	A	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.3
23-May	0	1	1	0	A	0	0	0	1	1	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0.5	1.2
24-May	0	1	1	0	A	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.4	0.9
25-May	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
26-May	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	0.1
27-May	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	0.1
28-May	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	0.1
29-May	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
30-May	0	0	0	0	A	0	0	1	1	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	2.1
31-May	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
0.2 0.3 0.2 0.2 -- 0.3 0.3 0.3 0.3 0.4 0.3 0.2 0.2 0.2 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.2 0.2 Diurnal Average																										
0.7 1.2 0.7 0.6 -- 3.9 2.2 0.6 0.9 2.1 1.8 0.9 0.6 0.6 0.6 0.6 0.6 0.7 0.5 0.5 0.6 0.4 0.4 0.7 1.0 Diurnal Maximum																										
C - Calibration R - Recovery 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
Beaverlodge - May 2018



Hourly Maximums

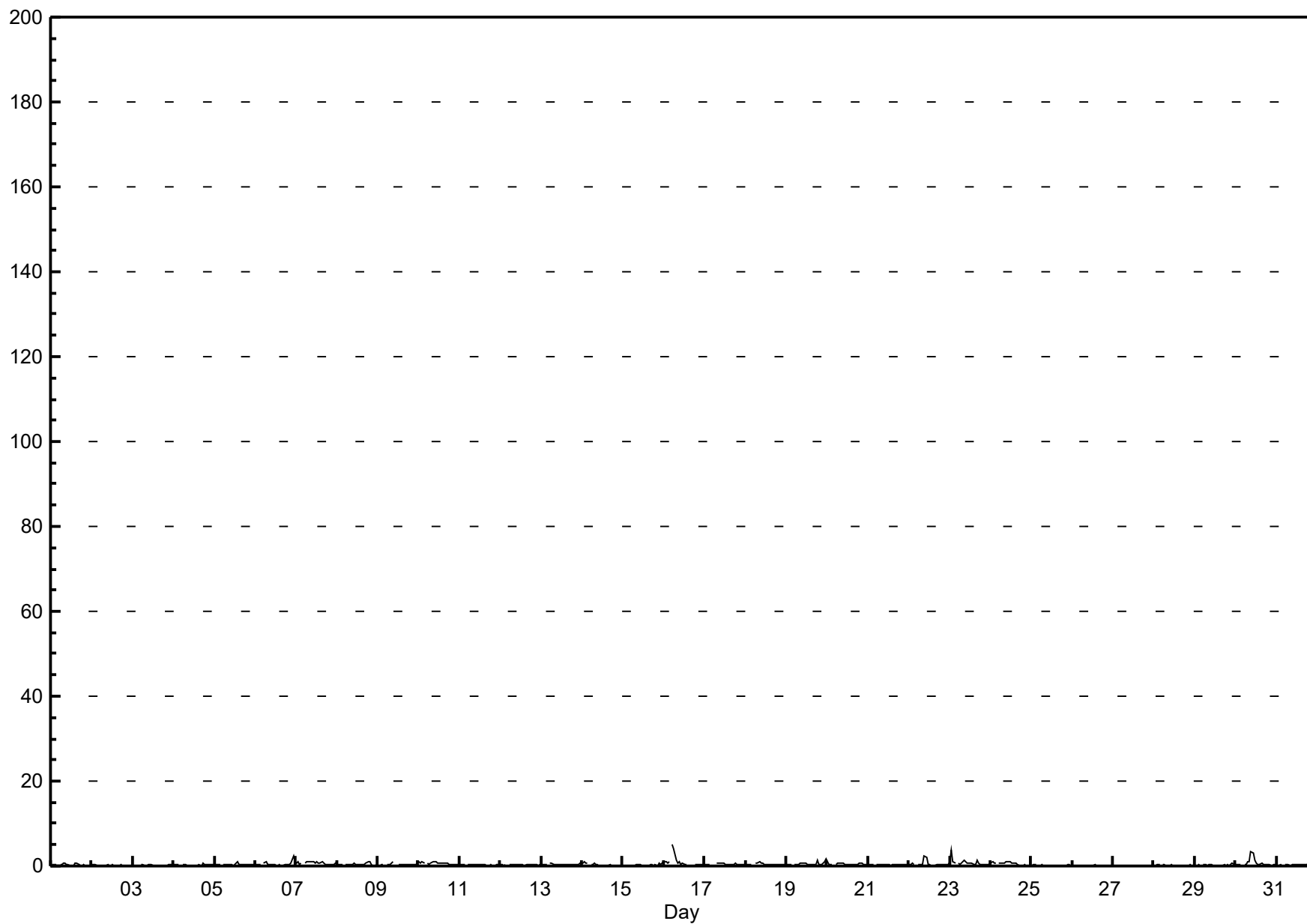
Sulphur Dioxide (SO₂) - ppb

Beaverlodge - May 2018

Maximum Value: 5.0 ppb on May 16 06:00																				Maximum Daily Average: 1.0 ppb on May 16										Hours in Service: 744									
Minimum Value: 0 ppb on May 3 18:00																				Minimum Daily Average: 0.1 ppb on May 27										Hours of Data: 704									
Maximum Diurnal Average: 0.6 ppb at hour 10																				Minimum Diurnal Average: 0.3 ppb at hour 21										Hours of Missing Data: 40									
Monthly Average: 0.37 ppb																				Percentiles: P ₁ = 0.1 P ₁₀ = 0.1 Q ₁ = 0.2 Median = 0.2 Q ₃ = 0.4 P ₉₀ = 0.7 P ₉₉ = 2.1										Hours of Calibration: 34									
																				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-May	0	0	0	0	A	0	0	1	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0.3	0.6													
2-May	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													
3-May	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													
4-May	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	0.7													
5-May	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	1.0													
6-May	0	0	0	0	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	1	0.4	2.2													
7-May	1	1	0	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	1	1	0.7	1.2													
8-May	0	0	0	0	A	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0	0	0	0	0.4	1.2													
9-May	0	0	0	0	A	0	0	0	1	1	C	C	0	0	0	0	0	0	0	0	0	0	0	1	0.3	1.0													
10-May	1	1	1	1	A	1	0	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0.7	1.1													
11-May	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													
12-May	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													
13-May	0	0	0	0	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.3	0.7													
14-May	1	1	1	1	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.9													
15-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0.2	0.7													
16-May	1	1	1	1	A	5	4	1	1	1	0	1	0	0	P	P	P	P	0	0	0	0	0	0	1.0	5.0													
17-May	0	0	0	0	A	R	P	1	1	1	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0.4	0.7													
18-May	0	0	0	0	A	P	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.9													
19-May	0	0	0	0	A	0	0	0	1	1	1	1	0	0	0	0	0	0	1	0	0	0	1	2	0.5	1.7													
20-May	1	0	0	1	A	0	1	1	1	1	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0.4	1.1													
21-May	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													
22-May	0	0	1	0	A	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	2.5													
23-May	1	4	1	1	A	1	0	1	1	1	1	1	1	1	0	0	1	1	0	0	0	0	0	0	0.8	3.6													
24-May	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	1.1													
25-May	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													
26-May	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													
27-May	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													
28-May	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	0.4													
29-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.2	0.6													
30-May	0	0	0	0	A	0	0	1	1	3	3	1	1	1	0	1	0	0	0	0	0	0	0	0	0.7	3.4													
31-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.2	0.5													
0.4		0.5	0.4	0.3	--	0.5	0.5	0.4	0.4	0.6	0.5	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	Diurnal Average														
1.1		3.6	1.0	1.0	--	5.0	4.0	1.3	1.4	3.4	3.1	1.4	1.1	1.0	0.8	1.2	1.3	0.7	1.4	1.1	0.6	0.7	2.2	1.7	Diurnal Maximum														
C - Calibration					R - Recovery					P - Power Failure					A - Automated Daily Zero Span																								

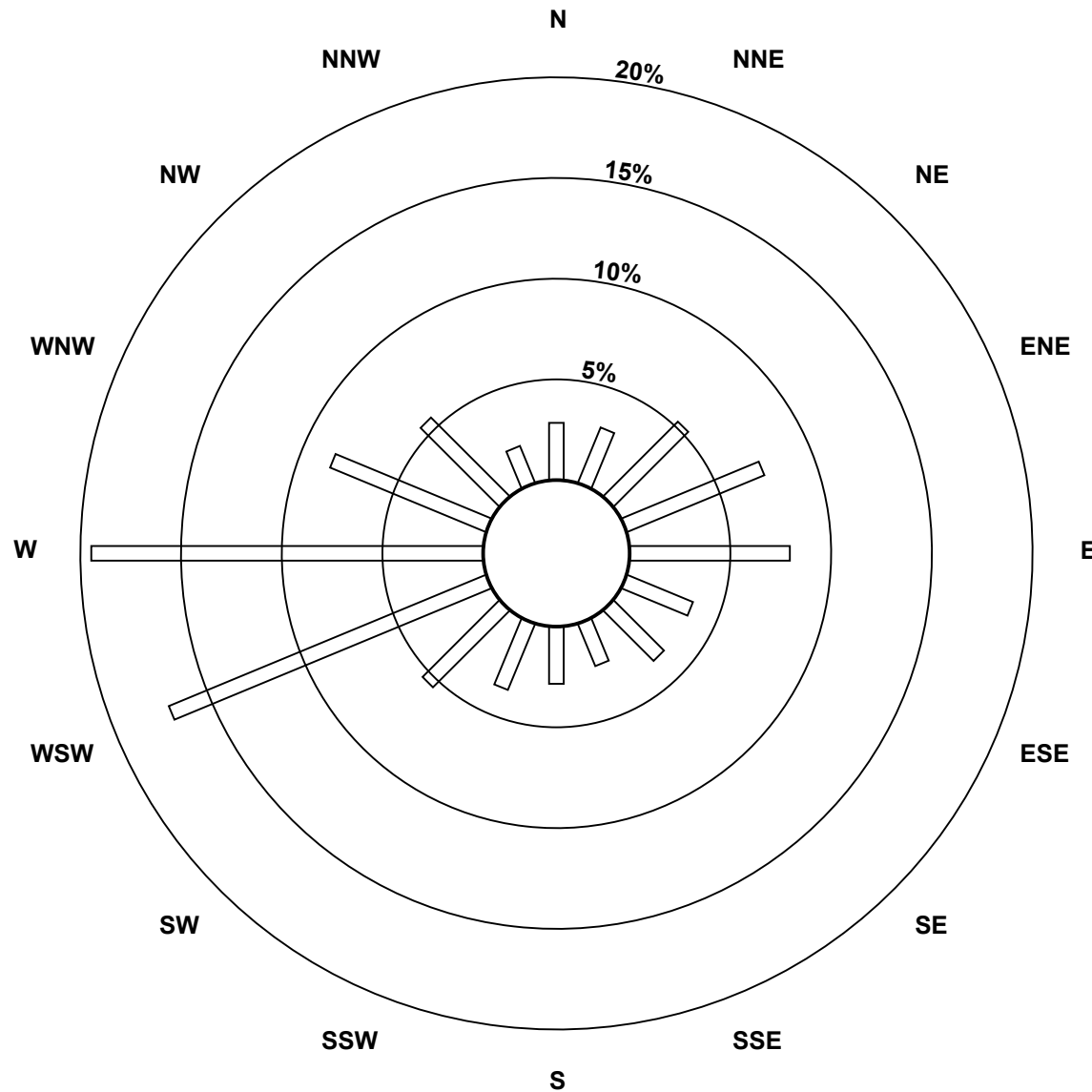
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Beaverlodge - May 2018

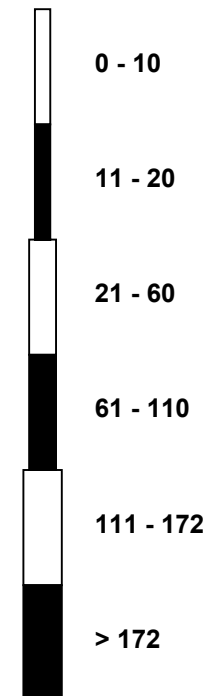


Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Beaverlodge - May 2018

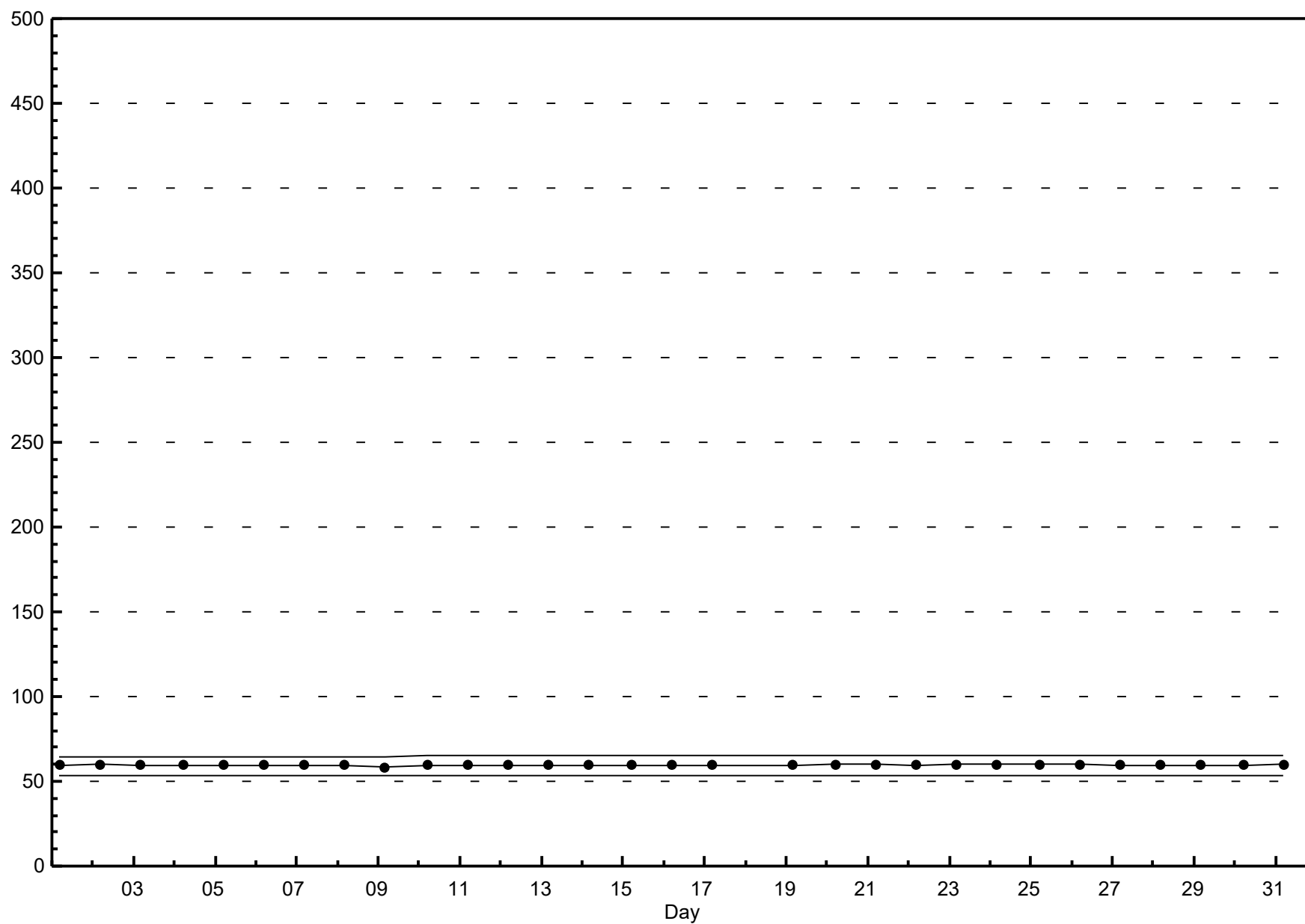


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Beaverlodge - May 2018



Hourly Averages

Nitrogen Dioxide (NO₂) - ppb

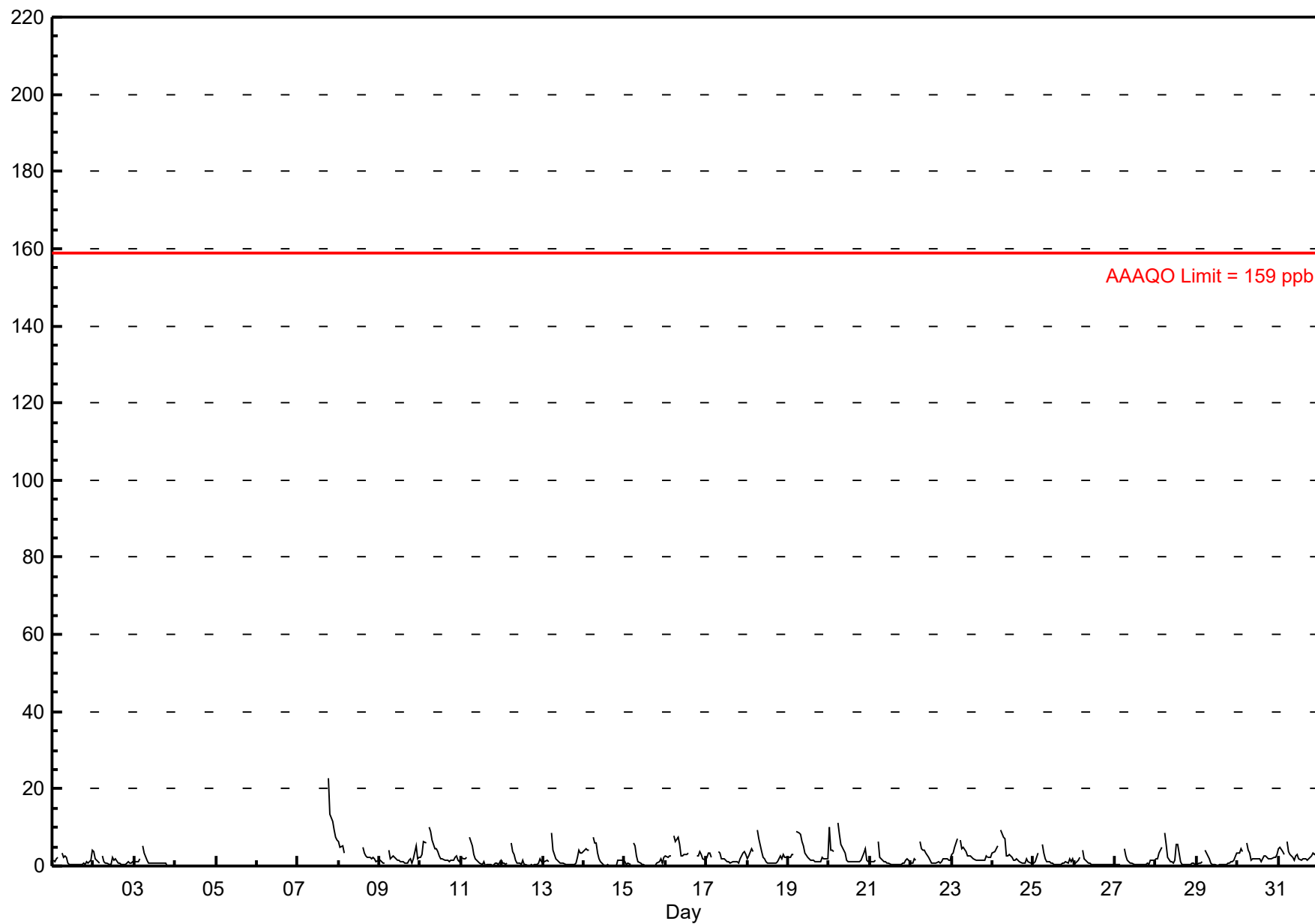
Beaverlodge - May 2018

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 22.9 ppb on May 7 19:00 Maximum Daily Average: 3.6 ppb on May 16																			Hours in Service: 744 Hours of Data: 609 Hours of Missing Data: 135 Hours of Calibration: 44 Percent Operational Time: 87.8							
Minimum Value: 0 ppb on May 15 15:00 Minimum Daily Average: 0.8 ppb on May 26 Maximum Diurnal Average: 6.5 ppb at hour 6 Minimum Diurnal Average: 0.8 ppb at hour 18 Monthly Average: 2.12 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.4 Q ₁ = 0.7 Median = 1.5 Q ₃ = 2.7 P ₉₀ = 4.8 P ₉₉ = 9.4																										
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-May	2	1	2	2	A	3	2	3	2	1	0	0	0	0	1	0	1	1	1	1	1	1	2	4	1.3	4.1
2-May	4	2	1	1	A	2	1	1	1	1	1	2	2	2	1	1	1	0	0	0	1	1	1	1	1.1	3.6
3-May	1	1	1	2	A	5	3	2	1	1	1	1	1	1	1	1	1	1	1	0	0	N	N	N	1.2	5.1
4-May	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-May	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-May	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-May	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	22.9
8-May	6	5	5	3	A	5	C	C	C	C	C	C	C	C	5	3	3	2	2	2	2	2	1	1	--	6.2
9-May	1	1	1	1	A	4	2	2	3	2	2	1	1	1	1	1	1	1	2	1	2	5	2	2	1.8	5.3
10-May	2	3	6	6	A	10	9	7	5	4	4	3	2	2	2	1	1	1	2	2	2	3	2	1	3.4	9.9
11-May	2	2	2	2	A	7	5	3	2	2	1	1	1	1	0	0	0	0	0	0	1	1	1	2	1.5	7.4
12-May	1	1	1	1	A	6	4	3	2	1	1	0	1	0	0	0	0	0	0	0	0	1	2	1	1.1	6.0
13-May	1	1	1	1	A	9	4	2	1	1	1	1	1	0	0	0	0	0	0	1	2	4	3	3	1.7	8.6
14-May	4	5	4	4	A	7	6	6	3	2	1	0	0	0	0	0	0	0	0	0	2	1	1	1	2.1	7.3
15-May	1	1	1	0	A	6	5	2	1	1	1	0	0	0	0	0	0	0	0	1	1	2	1	2	1.1	6.0
16-May	3	2	3	3	A	8	6	7	6	3	3	3	3	3	P	P	P	P	3	3	4	3	2	1	3.6	7.9
17-May	2	3	3	2	A	R	P	4	3	2	2	1	1	1	1	1	1	1	1	1	2	3	4	3	2.1	3.8
18-May	2	3	4	4	A	P	9	7	4	2	2	1	1	1	1	1	1	1	1	3	2	3	2	2	2.5	9.4
19-May	2	2	3	3	A	9	8	8	7	5	3	2	2	2	2	1	1	1	1	1	2	2	2	2	3.2	9.1
20-May	10	4	4	4	A	11	8	6	5	3	2	1	1	1	1	1	1	1	1	1	3	4	1	1	3.3	11.0
21-May	1	1	1	1	A	6	2	1	1	1	1	1	0	0	0	0	0	0	0	1	1	1	2	1	1.2	6.5
22-May	1	1	2	2	A	6	5	4	4	3	2	1	1	1	1	1	1	1	1	2	2	2	1	1	2.0	6.5
23-May	3	3	5	7	A	7	4	5	4	3	3	2	2	2	1	1	1	1	2	2	3	2	2	2	3.0	7.2
24-May	4	4	5	5	A	9	7	7	3	3	3	2	2	1	2	1	1	1	1	1	2	1	1	1	2.9	9.4
25-May	1	1	2	3	A	6	3	2	1	1	1	1	1	0	0	0	0	1	1	1	1	2	1	2	1.4	5.6
26-May	1	1	1	2	A	4	2	1	1	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0.8	4.3
27-May	0	0	0	0	A	4	3	1	1	1	1	1	0	0	0	0	0	0	0	1	0	1	2	2	0.9	4.4
28-May	2	2	3	5	A	9	5	2	1	1	1	1	6	6	1	0	0	0	0	0	0	1	1	0	2.1	8.8
29-May	1	1	1	1	A	4	3	2	1	0	0	0	0	0	0	0	0	0	1	1	1	1	2	3	1.0	4.1
30-May	3	3	5	4	A	6	4	3	2	2	2	2	2	2	1	2	3	2	2	2	2	2	2	3	2.7	6.1
31-May	5	5	4	3	A	6	4	3	2	2	3	3	2	2	2	2	2	1	2	3	3	3	3	3	2.9	6.4
2.4 2.2 2.6 2.7 -- 6.5 4.6 3.6 2.5 1.8 1.5 1.3 1.3 1.2 0.9 0.9 0.8 0.8 1.7 1.5 2.0 2.3 1.9 2.0 Diurnal Average																										
10.0 4.9 6.4 7.2 -- 11.0 9.4 8.1 6.5 5.4 3.6 3.0 5.5 5.5 4.8 3.3 2.6 2.3 22.9 13.4 11.5 9.3 7.3 6.8 Diurnal Maximum																										
C - Calibration R - Recovery P - Power Failure N - Not Valid 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 - May 2018



Hourly Maximums

Nitrogen Dioxide (NO₂) - ppb

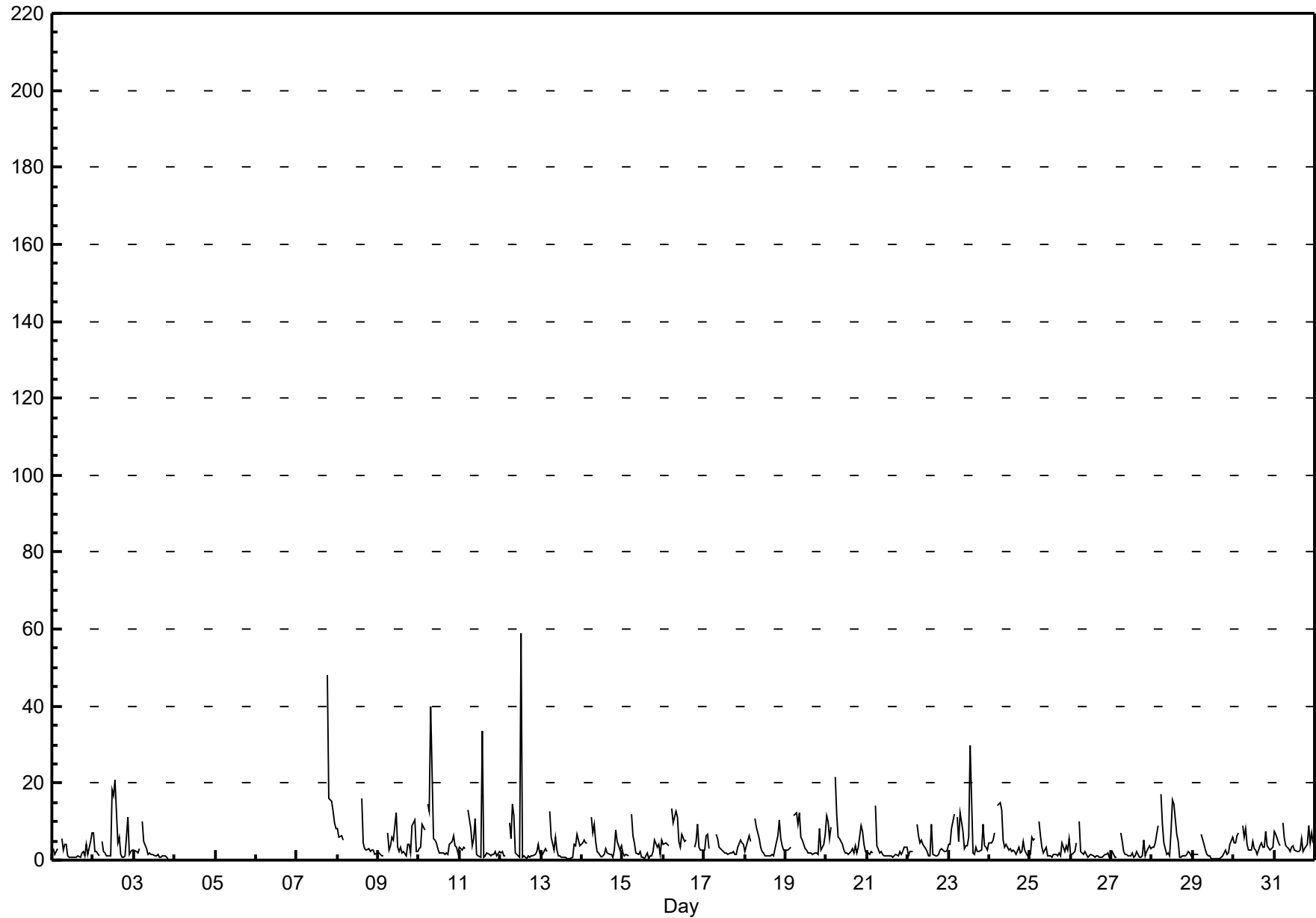
Beaverlodge - May 2018

Maximum Value: 59.0 ppb on May 12 13:00																				Maximum Daily Average: 6.3 ppb on May 10					Hours in Service: 744	
Minimum Value: 0 ppb on May 3 21:00																				Minimum Daily Average: 1.9 ppb on May 26					Hours of Data: 609	
Maximum Diurnal Average: 11.0 ppb at hour 6																				Minimum Diurnal Average: 1.6 ppb at hour 17					Hours of Missing Data: 135	
Monthly Average: 4.10 ppb																				Percentiles: P ₁ = 0.5 P ₁₀ = 1.0 Q ₁ = 1.5 Median = 2.6 Q ₃ = 4.8 P ₉₀ = 9.2 P ₉₉ = 20.6					Hours of Calibration: 44	
																									Percent Operational Time: 87.8	
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-May	3	2	2	3	A	6	3	4	4	1	1	1	1	1	1	1	1	2	2	1	4	2	5	7	2.4	7.2
2-May	7	2	2	1	A	5	2	2	1	1	1	18	17	21	4	6	1	1	1	1	11	1	2	3	4.9	20.8
3-May	3	2	2	3	A	10	5	3	2	2	1	2	1	1	2	1	1	1	1	1	0	N	N	N	2.1	10.1
4-May	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-May	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-May	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-May	N	N	N	N	N	N	N	N	N	N	N	C	C	C	C	C	C	C	48	16	15	13	10	8	--	48.2
8-May	8	6	6	5	A	10	C	C	C	C	C	C	C	C	16	4	3	3	3	2	3	2	2	2	--	16.0
9-May	2	1	1	1	A	7	3	4	6	5	12	3	2	3	2	2	1	4	4	2	9	10	2	2	3.9	12.2
10-May	3	3	9	8	A	15	13	40	6	5	5	3	2	2	2	2	2	2	4	5	6	4	3	2	6.3	39.7
11-May	3	3	3	3	A	13	8	4	5	11	1	1	1	34	1	1	2	2	1	2	2	2	1	2	4.6	33.7
12-May	2	2	1	1	A	10	5	14	11	2	1	1	59	1	1	1	1	1	1	1	2	2	4	2	5.5	59.0
13-May	1	2	3	2	A	13	6	3	6	3	1	1	1	1	1	0	0	0	1	4	4	7	5	4	3.0	12.6
14-May	5	5	5	4	A	11	7	9	5	2	2	1	1	1	3	2	1	2	1	3	8	5	3	4	3.9	11.1
15-May	2	1	1	1	A	12	6	5	2	1	2	1	1	0	2	1	1	1	2	5	3	4	2	5	2.7	11.9
16-May	4	5	4	4	A	13	10	13	11	5	3	7	5	5	P	P	P	P	3	5	9	4	3	3	6.0	13.3
17-May	3	6	7	3	A	R	P	7	5	3	2	2	2	2	1	2	2	2	1	2	3	5	5	4	3.3	6.8
18-May	2	4	6	5	A	P	11	9	6	3	2	2	1	1	1	1	1	1	3	6	11	6	4	3	4.0	10.8
19-May	3	3	3	3	A	12	12	9	12	6	5	3	3	2	2	2	1	2	2	2	8	3	4	7	4.7	12.4
20-May	12	10	6	8	A	21	12	6	6	4	3	2	2	1	2	3	2	4	2	3	9	8	4	2	5.7	21.5
21-May	2	2	2	2	A	14	4	2	2	2	1	1	1	1	1	1	1	2	1	2	1	2	3	3	2.3	14.3
22-May	1	2	2	2	A	9	6	5	5	4	3	2	1	1	9	1	1	1	1	2	3	2	2	2	3.1	9.5
23-May	4	4	8	12	A	11	5	12	7	3	4	4	6	30	2	2	3	2	2	3	9	4	3	3	6.2	29.8
24-May	5	4	5	7	A	14	15	13	5	3	4	3	3	2	3	2	1	3	2	2	5	3	1	1	4.7	14.9
25-May	2	6	5	5	A	10	6	3	2	3	1	1	1	1	1	1	1	2	1	4	2	4	2	6	3.2	10.2
26-May	2	2	2	4	A	10	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1.9	10.1
27-May	2	1	1	1	A	7	5	2	1	1	1	1	2	1	1	2	1	1	1	5	1	2	4	3	2.1	7.3
28-May	3	3	5	9	A	17	9	4	2	2	1	7	16	15	7	5	1	1	1	1	1	2	2	1	5.0	17.0
29-May	2	1	1	2	A	7	4	3	2	1	1	1	0	1	1	0	0	1	2	3	2	2	4	6	2.0	6.8
30-May	4	4	6	7	A	9	6	8	4	3	2	5	3	3	1	4	4	3	4	7	4	3	3	4	4.4	9.1
31-May	8	7	5	4	A	10	6	4	3	2	3	4	3	2	2	3	6	2	3	4	9	5	7	4	4.5	9.6
3.5 3.5 3.9 4.1 -- 11.0 6.8 7.3 4.8 3.1 2.6 2.9 5.2 5.1 2.6 1.9 1.6 1.8 3.5 3.4 5.2 3.9 3.4 3.5																									Diurnal Average	
11.6 10.1 9.1 12.1 -- 21.5 14.9 39.7 12.3 10.7 12.2 18.3 59.0 33.7 16.0 6.0 5.7 4.2 48.2 16.2 15.3 12.8 9.7 8.1																									Diurnal Maximum	
C - Calibration R - Recovery P - Power Failure N - Not Valid A - Automated Daily Zero Span																										

Hourly Maximums

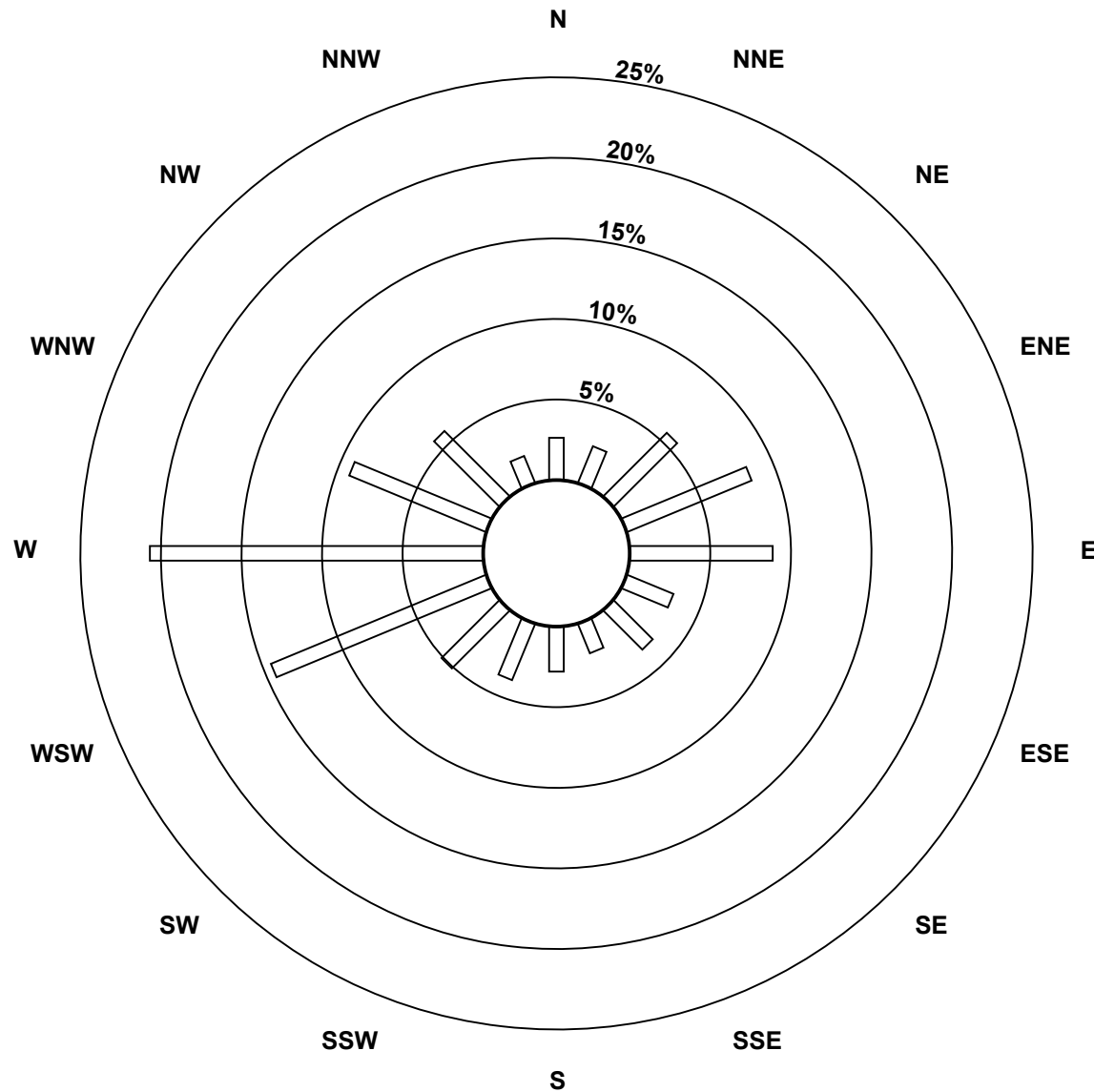
Nitrogen Dioxide (NO₂) - ppb

Beaverlodge - May 2018

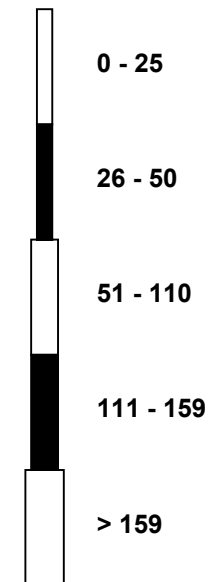


Pollutant Rose

Nitrogen Dioxide (NO₂) - ppb
Beaverlodge - May 2018

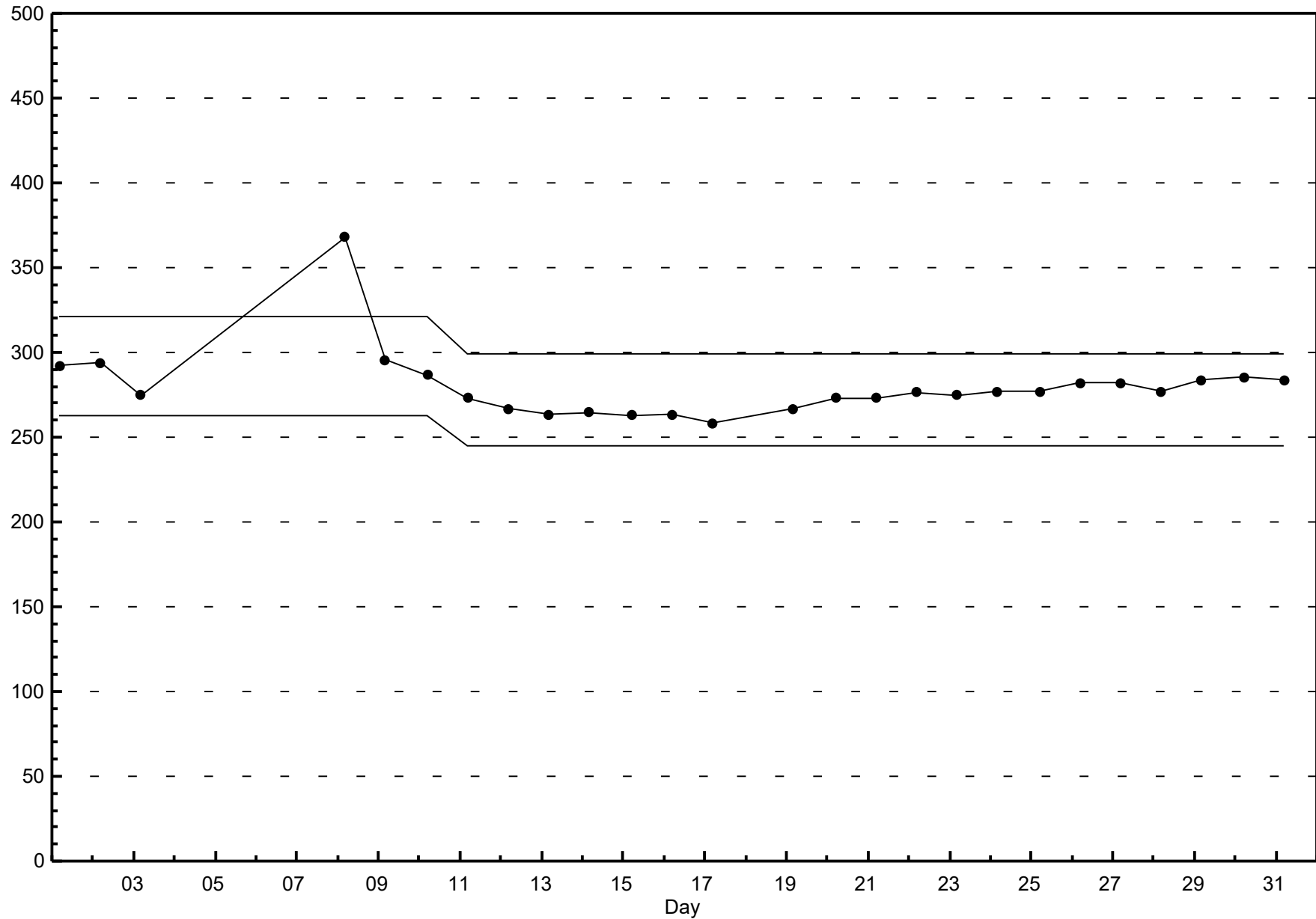


Pollutant Classes (ppb)



Span Responses

Nitrogen Dioxide (NO₂)
Beaverlodge - May 2018



Hourly Averages

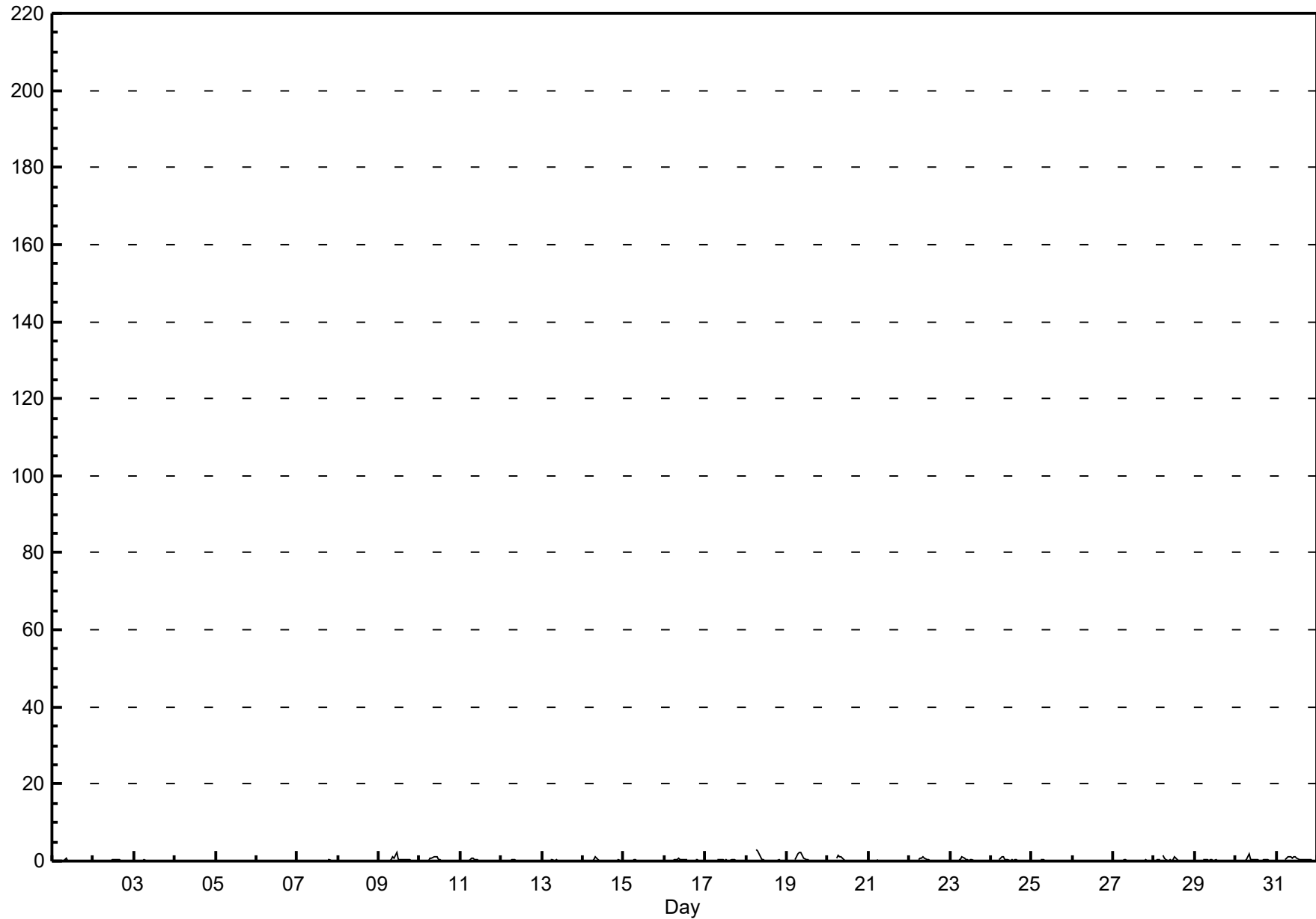
Nitrogen Oxide (NO) - ppb

Beaverlodge - May 2018

Maximum Value: 2.9 ppb on May 18 07:00																				Maximum Daily Average: 0.5 ppb on May 31										Hours in Service: 744	
Minimum Value: 0 ppb on May 3 02:00																				Minimum Daily Average: 0.1 ppb on May 3										Hours of Data: 609	
Maximum Diurnal Average: 0.7 ppb at hour 8																				Minimum Diurnal Average: 0.0 ppb at hour 24										Hours of Missing Data: 135	
Monthly Average: 0.20 ppb																				Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 0.5 P ₉₉ = 1.8										Hours of Calibration: 44	
																														Percent Operational Time: 87.8	
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-May	0	0	0	0	A	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.6					
2-May	0	0	0	0	A	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0.1	0.5					
3-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	N	N	N	0.1	0.2					
4-May	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-May	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-May	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-May	N	N	N	N	N	N	N	N	N	N	N	C	C	C	C	C	C	C	C	0	0	0	0	0	0	--	0.4				
8-May	0	0	0	0	A	0	C	C	C	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	--	0.2				
9-May	0	0	0	0	A	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	2.1				
10-May	0	0	0	0	A	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.1				
11-May	0	0	0	0	A	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.8				
12-May	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	0.4				
13-May	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	0.3				
14-May	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	0.2	1.2				
15-May	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	0.1	0.6				
16-May	0	0	0	0	A	0	0	0	1	0	0	0	0	0	P	P	P	P	0	0	0	0	0	0	0	0.2	0.8				
17-May	0	0	0	0	A	R	P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4				
18-May	0	0	0	0	A	P	3	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	2.9				
19-May	0	0	0	0	A	0	2	2	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	2.4				
20-May	0	0	0	0	A	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.4				
21-May	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	0.2				
22-May	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	0.2	1.3				
23-May	0	0	0	0	A	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.3				
24-May	0	0	0	0	A	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.1				
25-May	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	0.2				
26-May	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	0.1				
27-May	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	0.3				
28-May	0	0	0	0	A	1	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0.3	1.4				
29-May	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	0.4				
30-May	0	0	0	0	A	0	1	1	2	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.4	1.8				
31-May	0	0	0	0	A	0	1	1	1	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0.5	1.2				
0.1 0.0 0.1 0.1 -- 0.2 0.6 0.7 0.6 0.4 0.3 0.2 0.2 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.0 0.0																									Diurnal Average						
0.2 0.2 0.3 0.3 -- 1.4 2.9 2.4 2.1 1.5 2.1 1.1 1.0 0.9 0.5 0.4 0.3 0.3 0.4 0.5 0.2 0.4 0.1 0.2																									Diurnal Maximum						
C - Calibration					R - Recovery					P - Power Failure					N - Not Valid					A - Automated Daily Zero Span											

Hourly Averages

Nitrogen Oxide (NO) - ppb
Beaverlodge - May 2018



Hourly Maximums

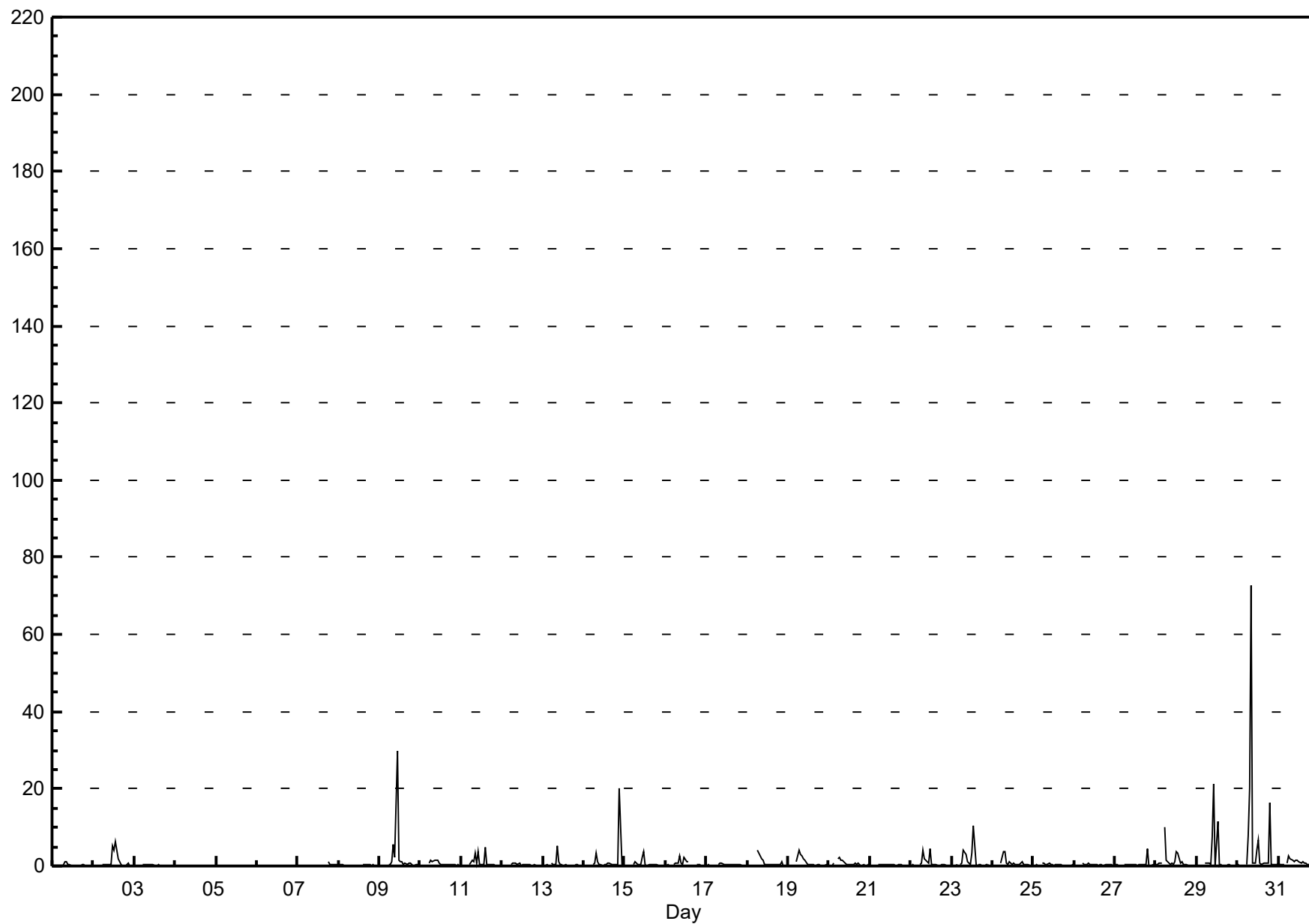
Nitrogen Oxide (NO) - ppb

Beaverlodge - May 2018

Maximum Value: 72.8 ppb on May 30 09:00																				Maximum Daily Average: 5.9 ppb on May 30					Hours in Service: 744	
Minimum Value: 0 ppb on May 13 04:00																				Minimum Daily Average: 0.2 ppb on May 3					Hours of Data: 609	
Maximum Diurnal Average: 4.3 ppb at hour 9																				Minimum Diurnal Average: 0.1 ppb at hour 24					Hours of Missing Data: 135	
Monthly Average: 0.93 ppb																				Percentiles: P ₁ = 0.1 P ₁₀ = 0.1 Q ₁ = 0.1 Median = 0.2 Q ₃ = 0.6 P ₉₀ = 1.4 P ₉₉ = 11.4					Hours of Calibration: 44	
																									Percent Operational Time: 87.8	
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-May	0	0	0	0	A	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.3
2-May	0	0	0	0	A	0	0	1	0	0	0	5	4	6	2	1	0	0	0	0	0	1	0	0	1.0	6.3
3-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	N	N	N	0.2	0.4
4-May	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-May	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-May	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-May	N	N	N	N	N	N	N	N	N	N	N	C	C	C	C	C	C	C	C	1	0	0	0	0	--	1.3
8-May	0	0	0	0	A	1	C	C	C	C	C	C	C	C	1	0	0	0	0	0	0	0	0	0	--	1.4
9-May	0	0	0	0	A	0	0	1	6	2	30	1	1	1	1	1	0	1	1	0	0	0	0	0	2.1	29.9
10-May	0	0	0	0	A	1	2	1	1	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.5	1.6
11-May	0	0	0	0	A	0	1	1	3	1	4	0	0	0	5	0	0	0	0	0	0	0	0	0	0.8	4.9
12-May	0	0	0	0	A	0	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.9
13-May	0	0	0	0	A	1	1	0	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	5.1
14-May	0	0	0	0	A	0	1	3	1	1	0	0	0	0	1	1	0	0	0	0	0	20	0	0	1.3	20.0
15-May	0	0	0	0	A	1	1	1	0	0	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0.5	3.9
16-May	0	0	0	0	A	0	1	1	3	1	0	2	1	1	P	P	P	P	0	0	0	0	0	0	0.6	2.7
17-May	0	0	0	0	A	R	P	0	1	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0.3	0.8
18-May	0	0	0	0	A	P	4	3	2	2	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0.7	4.2
19-May	0	0	0	0	A	1	4	3	3	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.8	4.1
20-May	0	0	0	1	A	2	2	2	2	1	0	0	0	0	1	1	0	1	0	0	0	0	0	0	0.6	2.2
21-May	0	0	0	0	A	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
22-May	0	0	0	0	A	1	1	4	2	1	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0.7	4.5
23-May	0	0	0	0	A	0	1	4	3	1	1	0	3	11	0	0	0	0	0	0	0	0	0	0	1.2	10.6
24-May	0	0	0	0	A	1	4	4	1	0	1	0	1	0	1	1	0	1	0	0	1	0	0	0	0.7	3.8
25-May	0	0	0	0	A	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.9
26-May	0	0	0	0	A	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
27-May	0	0	0	0	A	0	1	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0.5	4.5
28-May	0	0	1	1	A	10	2	1	0	1	0	1	4	3	1	1	0	0	0	0	0	0	0	0	1.2	10.2
29-May	0	0	0	0	A	1	1	1	0	7	21	0	11	0	0	0	0	0	0	0	0	0	0	0	2.0	21.4
30-May	0	0	0	0	A	0	8	20	73	1	1	4	7	1	0	1	1	1	1	17	1	0	0	0	5.9	72.8
31-May	1	1	0	1	A	1	2	2	2	1	2	2	1	1	1	1	1	0	1	1	1	0	1	0	0.9	2.4
0.2 0.2 0.2 0.2 -- 1.0 1.5 2.2 4.3 1.1 2.7 1.1 1.5 1.1 0.6 0.4 0.3 0.3 0.3 1.0 0.3 0.9 0.2 0.1																									Diurnal Average	
0.6 0.5 0.9 0.9 -- 10.2 8.0 20.1 72.8 7.4 29.9 5.3 11.4 10.6 4.9 1.1 0.7 1.1 1.3 16.5 1.1 20.0 1.3 0.4																									Diurnal Maximum	
C - Calibration					R - Recovery			P - Power Failure					N - Not Valid					A - Automated Daily Zero Span								

Hourly Maximums

Nitrogen Oxide (NO) - ppb
Beaverlodge - May 2018



Hourly Averages

Oxides of Nitrogen (NO_x) - ppb

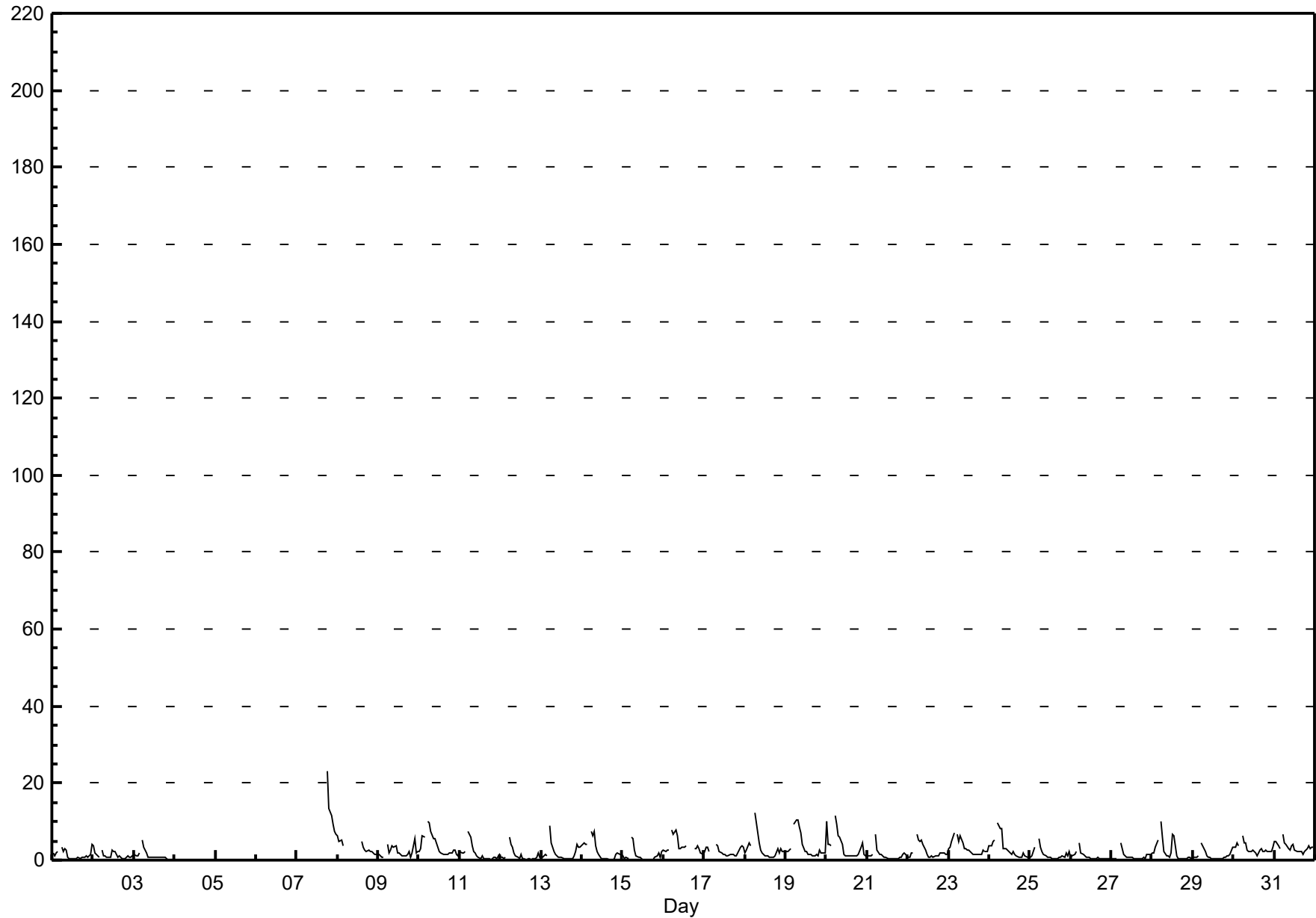
Beaverlodge - May 2018

Maximum Value: 23.2 ppb on May 7 19:00																			Maximum Daily Average: 3.8 ppb on May 16										Hours in Service: 744	
Minimum Value: 0 ppb on May 15 16:00																			Minimum Daily Average: 0.9 ppb on May 26										Hours of Data: 609	
Maximum Diurnal Average: 6.7 ppb at hour 6																			Minimum Diurnal Average: 0.9 ppb at hour 18										Hours of Missing Data: 135	
Monthly Average: 2.30 ppb																			Percentiles: P ₁ = 0.1 P ₁₀ = 0.4 Q ₁ = 0.7 Median = 1.6 Q ₃ = 3.0 P ₉₀ = 5.2 P ₉₉ = 10.4										Hours of Calibration: 44	
																													Percent Operational Time: 87.8	
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-May	2	1	2	2	A	4	2	3	3	1	1	0	0	0	1	1	1	1	1	1	1	1	2	4	1.4	4.1				
2-May	4	2	1	1	A	3	1	1	1	1	1	3	2	2	1	1	1	1	1	0	1	1	1	1	1.3	3.7				
3-May	1	1	1	2	A	5	3	2	1	1	1	1	1	1	1	1	1	1	1	0	0	N	N	N	1.2	5.2				
4-May	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-May	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-May	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-May	N	N	N	N	N	N	N	N	N	N	N	C	C	C	C	C	C	C	C	23	14	12	9	7	--	23.2				
8-May	6	5	5	4	A	5	C	C	C	C	C	C	C	C	5	3	3	2	2	2	2	2	1	1	--	6.2				
9-May	1	1	1	1	A	4	2	3	4	3	4	2	2	1	1	1	1	2	2	1	2	5	2	2	2.1	5.4				
10-May	2	3	6	6	A	10	10	7	6	6	5	3	2	2	2	1	1	1	2	2	2	3	2	1	3.7	10.1				
11-May	2	2	2	2	A	8	6	4	2	2	1	1	1	1	0	0	0	0	0	0	1	1	1	2	1.7	7.5				
12-May	1	1	0	1	A	6	4	3	2	1	1	0	1	0	0	0	0	0	0	0	0	1	2	1	1.2	6.0				
13-May	1	1	1	1	A	9	4	2	2	1	1	1	1	0	0	0	0	0	0	1	2	4	3	3	1.8	8.8				
14-May	4	5	4	4	A	7	6	7	4	2	1	1	0	0	0	0	0	0	0	0	2	2	1	2	2.3	7.4				
15-May	1	1	1	0	A	6	6	3	1	1	1	0	0	0	0	0	0	0	0	1	1	2	1	2	1.2	6.1				
16-May	3	2	3	3	A	8	7	8	6	3	3	3	3	4	P	P	P	P	3	3	4	3	2	1	3.8	8.0				
17-May	2	3	3	2	A	R	P	4	4	2	2	2	1	1	1	1	1	1	1	1	2	3	4	3	2.2	4.0				
18-May	2	3	4	4	A	P	12	10	5	3	2	1	1	1	1	1	1	1	1	3	2	3	2	2	2.9	12.3				
19-May	2	2	3	3	A	9	10	10	9	7	4	2	2	2	2	1	1	1	1	1	2	2	2	2	3.6	10.4				
20-May	10	4	4	4	A	12	9	7	6	4	2	1	1	1	1	1	1	1	1	2	3	4	1	1	3.5	11.7				
21-May	1	1	1	1	A	7	3	1	1	1	1	1	1	1	1	0	0	1	0	1	1	1	2	1	1.2	6.6				
22-May	1	1	2	2	A	7	5	5	5	4	3	2	1	1	1	1	1	1	1	2	2	2	1	1	2.2	6.7				
23-May	3	3	5	7	A	7	5	6	5	3	3	3	2	2	1	1	1	1	2	2	3	2	2	2	3.2	7.2				
24-May	4	4	5	5	A	10	8	8	3	3	3	2	2	2	2	2	1	1	1	1	2	1	1	1	3.0	9.7				
25-May	1	1	2	3	A	6	3	2	1	1	1	1	1	1	0	0	0	1	1	1	1	2	1	2	1.5	5.7				
26-May	1	1	1	2	A	4	2	1	1	1	1	1	1	1	0	1	1	0	0	1	0	0	0	0	0.9	4.4				
27-May	0	0	0	0	A	4	3	2	1	1	1	1	1	0	0	0	0	0	0	1	1	1	2	2	1.0	4.5				
28-May	2	2	3	5	A	10	6	2	1	1	1	2	7	6	1	0	0	0	0	0	1	1	1	1	2.4	10.2				
29-May	1	1	1	1	A	4	3	2	1	1	1	0	0	0	0	0	0	0	1	1	1	1	2	3	1.1	4.3				
30-May	3	3	5	4	A	6	5	4	3	2	2	2	2	2	1	3	3	2	2	3	2	2	2	3	3.0	6.2				
31-May	5	5	4	3	A	7	5	4	3	2	4	4	3	2	2	2	2	2	2	3	4	3	3	3	3.3	6.8				
		2.4	2.2	2.7	2.7	--	6.7	5.3	4.3	3.1	2.2	1.8	1.5	1.5	1.4	1.0	1.0	0.9	0.9	1.8	1.6	2.0	2.3	1.9	2.1	Diurnal Average				
		10.0	5.0	6.4	7.2	--	11.7	12.3	10.4	8.6	6.9	4.6	4.1	6.5	6.5	4.9	3.4	2.9	2.4	23.2	13.6	11.7	9.5	7.4	6.8	Diurnal Maximum				
C - Calibration					R - Recovery					P - Power Failure					N - Not Valid					A - Automated Daily Zero Span										

Hourly Averages

Oxides of Nitrogen (NO_x) - ppb

Beaverlodge - May 2018



Hourly Maximums

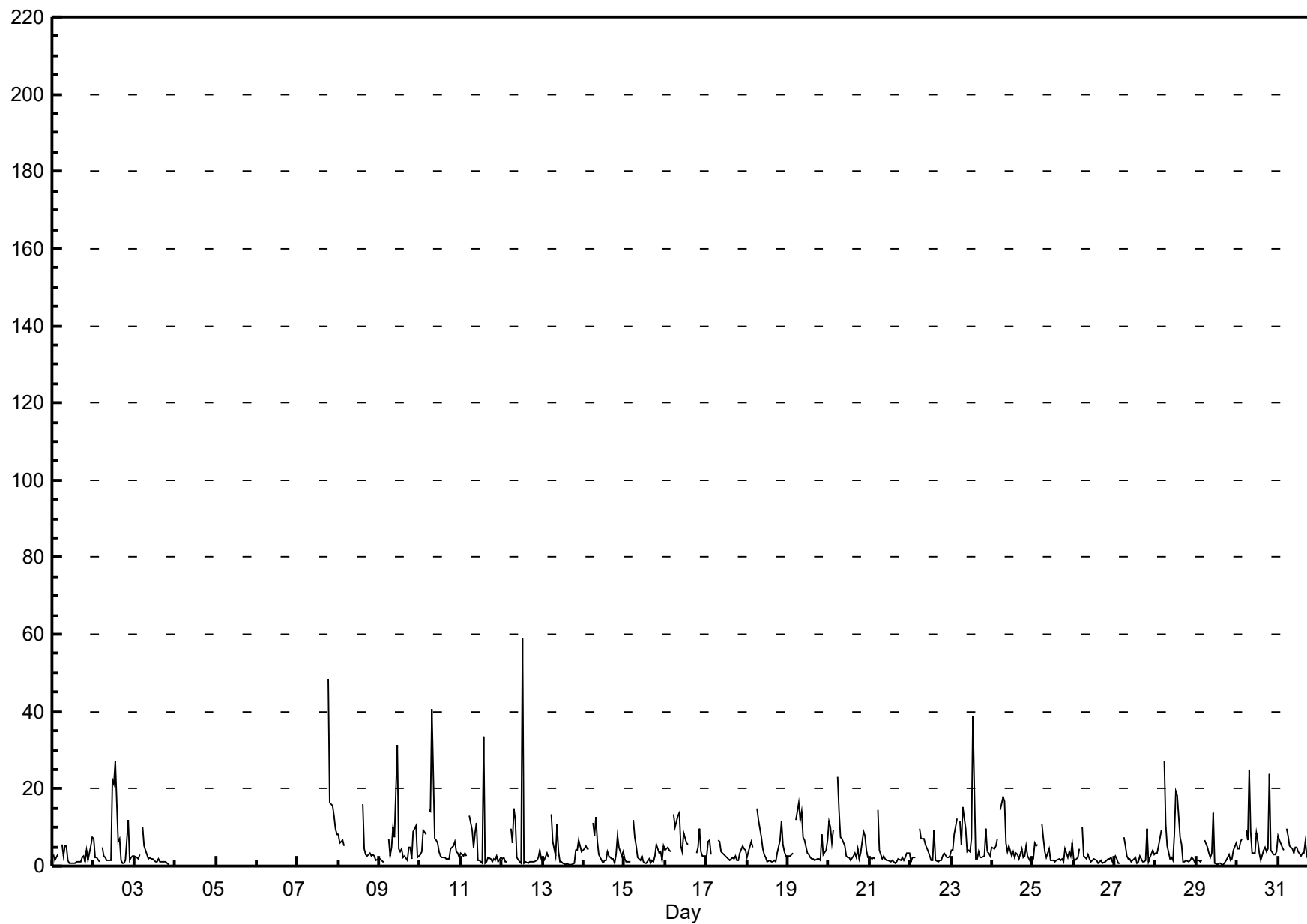
Oxides of Nitrogen (NO_x) - ppb

Beaverlodge - May 2018

Maximum Value: 58.8 ppb on May 12 13:00																				Maximum Daily Average: 7.0 ppb on May 23					Hours in Service: 744				
Minimum Value: 0 ppb on May 3 21:00																				Minimum Daily Average: 2.1 ppb on May 26					Hours of Data: 609				
Maximum Diurnal Average: 11.6 ppb at hour 6																				Minimum Diurnal Average: 1.9 ppb at hour 17					Hours of Missing Data: 135				
Monthly Average: 4.66 ppb																				Percentiles: P ₁ = 0.5 P ₁₀ = 1.1 Q ₁ = 1.6 Median = 2.8 Q ₃ = 5.4 P ₉₀ = 9.8 P ₉₉ = 27.2					Hours of Calibration: 44				
																									Percent Operational Time: 87.8				
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-May	3	2	2	3	A	6	3	5	5	2	1	1	1	1	1	1	1	2	3	1	4	2	5	7	2.7	7.3			
2-May	7	2	2	1	A	5	2	2	1	1	2	22	21	27	6	7	2	1	1	1	12	2	2	3	5.8	27.2			
3-May	3	2	2	3	A	10	5	3	2	2	2	2	1	1	2	1	1	1	1	1	0	N	N	N	2.2	10.0			
4-May	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-May	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-May	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-May	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	48.6			
8-May	8	6	7	5	A	10	C	C	C	C	C	C	C	C	16	4	3	3	3	2	3	3	2	2	--	16.2			
9-May	2	1	1	1	A	7	3	5	10	8	31	5	4	4	2	3	2	5	5	2	9	10	2	3	5.4	31.3			
10-May	3	4	9	8	A	15	14	41	7	7	6	4	3	2	2	2	2	2	5	5	6	4	3	2	6.7	40.6			
11-May	3	3	3	3	A	13	9	5	9	11	2	1	1	34	1	1	2	2	1	2	2	2	1	2	4.9	33.6			
12-May	2	2	1	1	A	10	6	15	12	2	1	1	59	1	1	1	1	1	1	1	2	2	4	2	5.6	58.8			
13-May	1	1	3	2	A	13	6	3	11	4	1	1	1	1	1	1	1	0	1	4	4	7	5	4	3.3	13.3			
14-May	4	5	4	4	A	11	8	13	6	3	2	1	1	2	4	2	2	2	1	3	8	5	3	4	4.3	12.7			
15-May	2	1	1	1	A	12	7	5	2	2	3	1	1	1	2	1	1	1	2	5	3	4	2	5	2.8	11.9			
16-May	4	5	4	4	A	13	10	13	14	5	4	9	6	5	P	P	P	P	4	5	10	4	3	3	6.5	13.9			
17-May	3	6	7	3	A	R	P	7	6	4	3	3	2	2	2	2	2	3	2	2	3	5	5	4	3.5	6.9			
18-May	2	4	6	5	A	P	15	12	7	4	3	2	1	1	1	1	2	1	3	7	12	6	4	3	4.6	14.9			
19-May	3	2	3	3	A	12	16	12	14	8	7	3	3	2	2	2	1	2	2	2	8	3	4	7	5.3	16.3			
20-May	12	10	6	9	A	23	14	7	7	5	3	2	2	1	3	3	2	4	2	3	9	8	4	2	6.2	23.3			
21-May	2	2	2	2	A	15	4	2	3	2	1	1	1	1	1	1	1	2	1	2	1	2	3	3	2.5	14.6			
22-May	1	2	2	2	A	10	7	7	7	6	4	3	1	1	9	2	1	1	2	3	3	2	2	3	3.5	9.6			
23-May	4	4	8	12	A	11	6	15	10	4	4	4	7	39	2	2	4	2	2	3	10	4	3	3	7.0	38.6			
24-May	5	4	5	7	A	14	18	17	6	4	5	3	4	2	3	3	2	4	2	3	5	3	1	1	5.3	18.0			
25-May	2	6	5	5	A	11	7	4	2	4	1	1	1	1	2	2	1	2	1	5	2	4	3	6	3.4	10.6			
26-May	2	2	2	4	A	10	3	2	3	2	1	1	2	2	1	1	1	1	1	2	2	2	2	1	2.1	10.2			
27-May	3	2	1	1	A	7	5	3	2	2	1	2	2	1	1	2	1	1	1	10	1	2	4	3	2.5	9.7			
28-May	3	4	5	9	A	27	11	5	2	2	1	8	19	18	7	6	1	1	1	1	2	2	2	1	6.1	27.2			
29-May	2	1	1	2	A	7	5	3	2	4	14	1	1	1	1	0	1	1	2	3	2	2	4	6	2.8	13.9			
30-May	5	4	6	7	A	9	7	25	9	3	3	9	7	4	2	4	5	4	4	24	4	3	3	4	6.7	25.1			
31-May	8	7	5	4	A	10	8	5	5	3	5	5	4	3	3	3	6	3	3	5	10	5	8	5	5.3	9.9			
3.6 3.5 4.0 4.2 -- 11.6 8.0 9.1 6.3 3.9 4.2 3.7 6.0 6.0 3.0 2.2 1.9 2.0 3.8 4.3 5.4 4.0 3.5 3.5																									Diurnal Average				
11.7 10.2 9.1 12.3 -- 27.2 18.0 40.6 14.2 11.3 31.3 22.4 58.8 38.6 16.2 7.1 6.3 4.9 48.6 23.9 15.5 13.0 9.7 8.2																									Diurnal Maximum				
C - Calibration					R - Recovery					P - Power Failure					N - Not Valid					A - Automated Daily Zero Span									

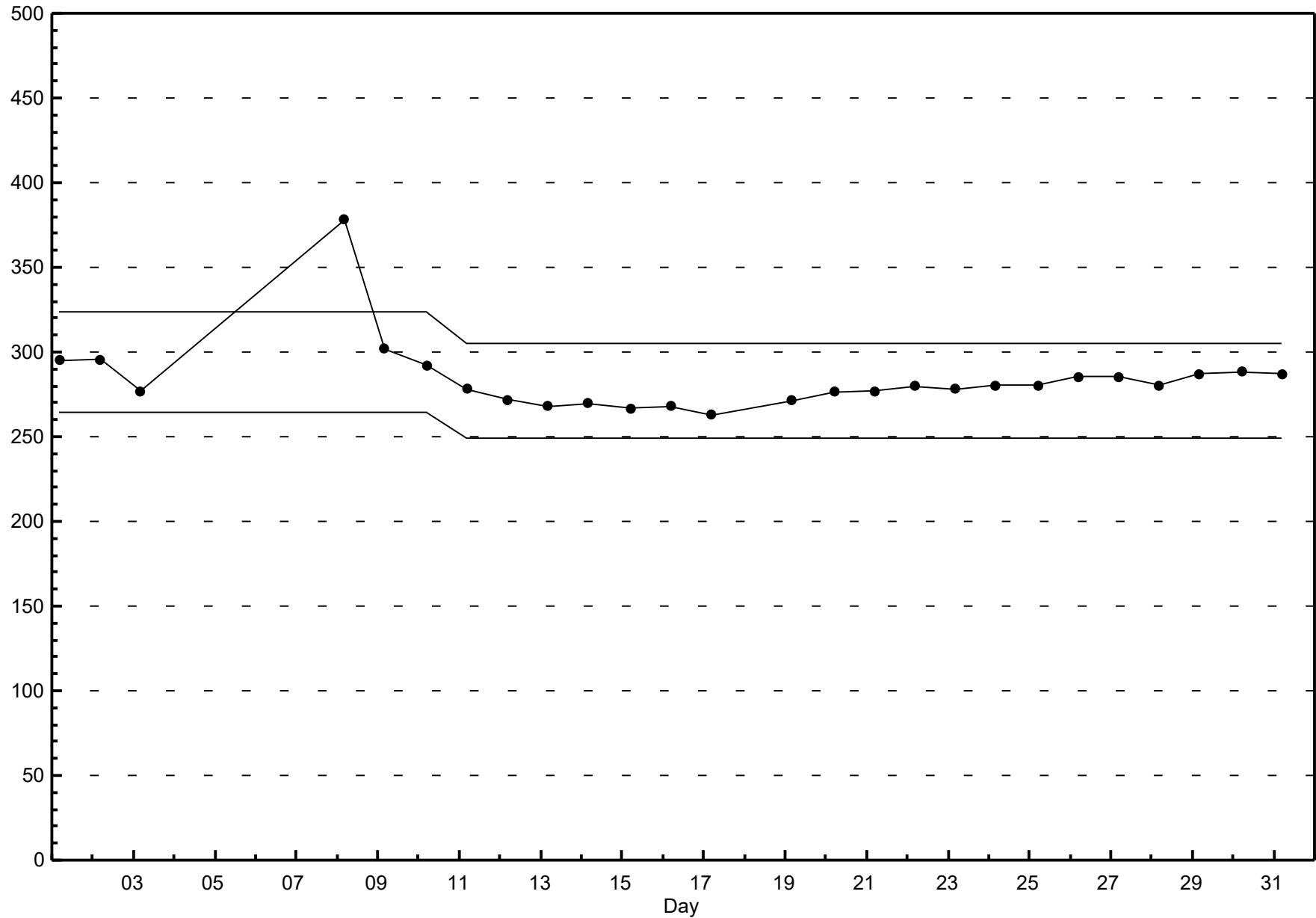
Hourly Maximums

Oxides of Nitrogen (NO_x) - ppb
Beaverlodge - May 2018



Span Responses

Oxides of Nitrogen (NO_x)
Beaverlodge - May 2018



Hourly Averages

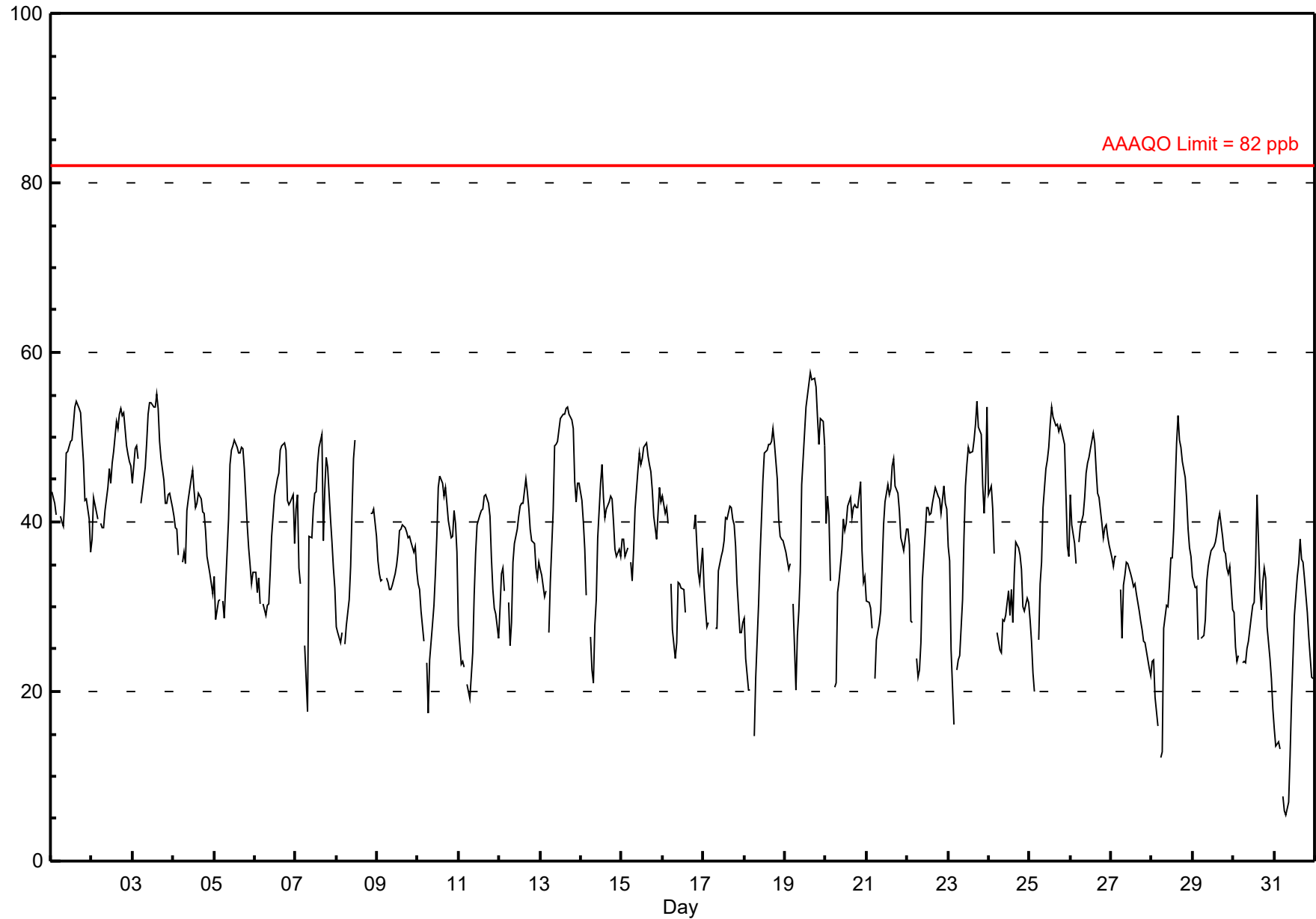
Ozone (O₃) - ppb

Beaverlodge - May 2018

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 57.7 ppb on May 19 16:00 Maximum Daily Average: 47.9 ppb on May 3																								Hours in Service: 744 Hours of Data: 699		
Minimum Value: 5 ppb on May 31 08:00 Minimum Daily Average: 21.8 ppb on May 31 Maximum Diurnal Average: 45.4 ppb at hour 16 Minimum Diurnal Average: 26.6 ppb at hour 7 Monthly Average: 37.56 ppb Percentiles: P ₁ = 13.3 P ₁₀ = 25.5 Q ₁ = 31.8 Median = 38.2 Q ₃ = 43.6 P ₉₀ = 49.3 P ₉₉ = 54.2																								Hours of Missing Data: 45 Hours of Calibration: 35 Percent Operational Time: 98.7		
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-May	44	43	42	41	A	41	40	39	43	48	48	49	50	52	54	54	53	53	50	47	43	43	40	36	45.8	54.2
2-May	38	43	42	40	A	40	39	39	41	44	46	45	47	48	52	51	53	53	53	49	48	47	47	47	46.0	53.5
3-May	45	49	49	47	A	42	43	46	49	53	54	54	54	54	55	53	49	48	45	42	42	43	43	42	47.9	55.0
4-May	41	39	39	36	A	35	36	35	41	43	45	46	44	42	42	43	43	41	41	39	36	34	33	31	39.4	46.2
5-May	33	28	31	31	A	31	29	33	40	47	48	49	50	49	48	48	49	49	46	40	37	35	33	34	39.9	49.6
6-May	34	32	33	30	A	30	29	30	30	34	38	43	44	45	46	49	49	49	48	43	42	42	43	37	39.2	49.2
7-May	41	43	35	33	A	25	21	18	38	38	42	43	44	47	49	50	38	44	48	46	40	38	35	32	38.6	50.3
8-May	28	27	26	27	A	26	28	31	35	42	48	50	C	C	C	46	N	N	N	N	41	41	42	38	--	49.6
9-May	35	34	33	33	A	33	33	32	32	33	34	35	37	39	39	40	39	38	38	38	38	36	37	34	35.7	39.7
10-May	33	32	30	26	A	23	18	24	28	30	34	38	44	45	45	43	44	42	40	38	38	41	40	36	35.3	45.5
11-May	28	23	24	23	A	21	19	22	25	31	36	40	41	41	41	43	43	42	41	36	32	30	29	26	32.0	43.2
12-May	30	34	35	32	A	31	25	28	35	37	39	41	42	42	42	45	44	42	39	38	37	35	33	35	36.5	45.1
13-May	34	34	31	32	A	27	33	41	49	49	49	51	52	53	53	53	54	53	52	51	45	42	45	45	44.7	53.6
14-May	43	40	37	31	A	26	23	21	28	31	38	45	47	43	40	41	42	43	43	40	37	36	37	36	36.8	46.8
15-May	38	38	36	37	A	35	33	37	42	46	48	47	47	49	49	48	47	46	44	41	38	41	44	42	42.3	49.4
16-May	43	41	42	40	A	33	27	24	26	33	33	32	32	29	P	P	P	P	39	41	37	34	33	37	34.5	43.0
17-May	32	30	28	28	A	R	P	28	28	34	36	37	38	41	40	42	42	40	40	37	33	27	27	28	34.0	41.9
18-May	29	24	20	20	A	P	15	22	30	36	40	45	48	49	49	50	51	49	45	40	38	38	38	38	37.5	51.1
19-May	36	35	34	35	A	30	20	27	29	34	44	51	54	55	56	58	57	57	56	52	49	52	52	49	44.5	57.7
20-May	40	43	41	33	A	20	21	32	33	37	40	39	40	42	43	41	42	42	42	42	45	37	33	34	37.4	44.8
21-May	31	30	30	28	A	22	26	28	29	35	40	42	44	43	44	47	47	44	43	41	38	37	37	39	36.8	47.5
22-May	39	37	28	28	A	24	22	23	26	33	39	42	42	41	41	42	44	44	43	43	41	44	42	41	36.9	44.3
23-May	37	35	25	16	A	23	24	24	31	38	44	47	49	48	48	50	52	54	51	50	44	41	45	54	40.4	54.2
24-May	43	44	42	36	A	27	25	25	28	28	29	32	29	32	28	34	38	37	36	34	30	30	31	30	32.6	44.3
25-May	29	26	22	20	A	26	33	35	42	46	47	49	52	53	52	51	52	51	51	51	49	43	37	36	41.4	53.5
26-May	43	40	37	35	A	38	39	41	43	46	47	48	49	50	49	46	43	43	40	38	39	40	38	37	42.2	50.5
27-May	36	35	36	36	A	32	26	33	34	35	35	34	33	32	33	31	30	28	27	26	26	25	23	22	30.8	36.0
28-May	24	24	19	16	A	12	13	27	30	30	33	36	36	39	49	53	50	49	47	45	43	39	37	36	34.2	52.5
29-May	34	32	32	26	A	26	27	29	33	35	36	37	37	38	39	40	41	38	37	36	35	34	35	30	34.1	40.9
30-May	29	25	24	24	A	23	24	23	25	26	29	30	31	35	43	32	30	33	35	33	28	24	21	18	28.1	43.2
31-May	16	14	14	13	A	8	6	5	7	12	19	24	29	34	35	38	36	35	33	29	26	24	22	22	21.8	38.0
35.0 34.0 32.1 30.1 -- 27.9 26.6 29.1 33.2 36.9 40.0 41.9 42.7 43.6 45.0 45.4 44.7 44.5 43.2 41.2 38.7 37.2 36.5 35.6 Diurnal Average																										
44.6 48.6 49.0 47.4 -- 42.2 43.5 46.5 49.4 52.7 54.1 54.0 53.5 54.9 56.3 57.7 56.8 57.0 56.0 52.8 49.2 52.3 51.9 53.6 Diurnal Maximum																										
C - Calibration R - Recovery P - Power Failure N - Not Valid A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82 ppb 24-hr na																										

Hourly Averages

Ozone (O₃) - ppb
Beaverlodge - May 2018



Hourly Maximums

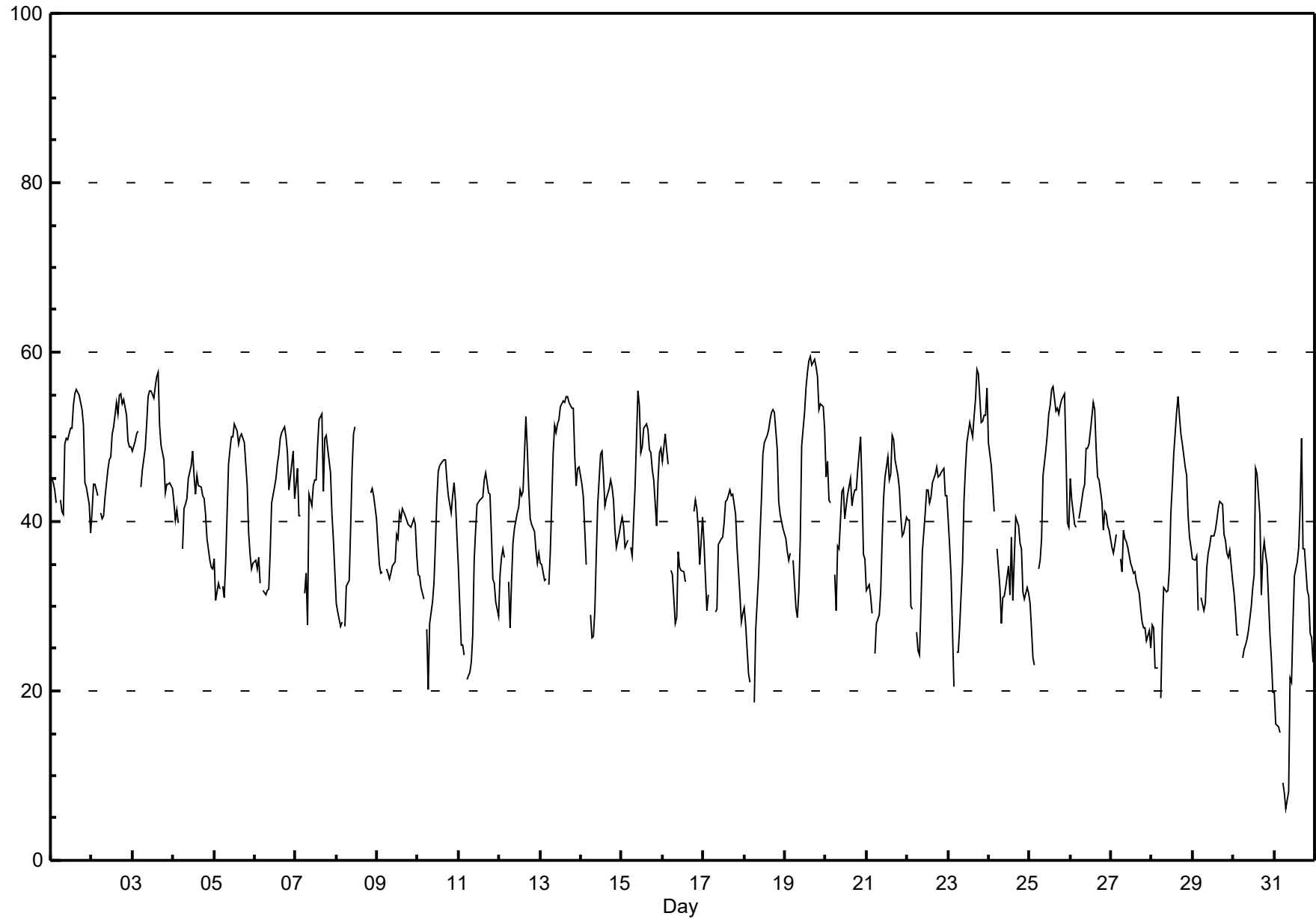
Ozone (O₃) - ppb

Beaverlodge - May 2018

Maximum Value: 59.6 ppb on May 19 16:00																				Maximum Daily Average: 49.9 ppb on May 3				Hours in Service: 744		
Minimum Value: 6 ppb on May 31 08:00																				Minimum Daily Average: 25.2 ppb on May 31				Hours of Data: 699		
Maximum Diurnal Average: 47.9 ppb at hour 16																				Minimum Diurnal Average: 30.7 ppb at hour 7				Hours of Missing Data: 45		
Monthly Average: 40.29 ppb																				Percentiles: P ₁ = 18.7 P ₁₀ = 28.1 Q ₁ = 34.2 Median = 40.8 Q ₃ = 46.8 P ₉₀ = 52.0 P ₉₉ = 57.6				Hours of Calibration: 35		
																				Percent Operational Time: 98.7						
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-May	45	45	44	42	A	43	41	41	49	50	50	51	51	54	55	56	55	54	53	51	45	44	42	39	47.7	55.5
2-May	41	44	44	43	A	41	40	41	43	46	47	48	50	51	54	53	55	55	54	54	52	50	49	49	48.0	55.0
3-May	48	49	50	51	A	44	46	49	52	55	55	55	55	56	57	58	51	49	47	43	44	44	45	44	49.9	57.6
4-May	42	40	41	40	A	37	41	42	43	45	47	48	45	43	45	44	44	43	43	41	38	35	35	34	41.6	48.3
5-May	36	31	33	32	A	32	31	35	47	48	50	50	52	51	49	50	50	50	49	44	39	36	34	35	41.9	51.6
6-May	35	34	36	33	A	32	31	32	32	36	42	44	45	47	48	50	50	51	50	48	44	45	48	43	41.6	51.2
7-May	44	46	41	41	A	31	34	28	43	42	44	45	45	49	52	53	44	50	50	49	46	41	38	34	43.0	52.8
8-May	30	29	28	28	A	28	32	33	39	46	50	51	C	C	C	47	N	N	N	N	43	44	43	40	--	51.1
9-May	37	35	34	34	A	34	34	33	34	35	35	39	38	41	40	41	41	40	40	39	39	40	40	36	37.4	41.5
10-May	34	34	32	31	A	27	20	28	30	33	37	42	46	47	47	47	47	45	43	41	43	45	42	38	38.3	47.3
11-May	35	25	25	24	A	21	22	23	27	35	39	42	42	43	43	45	46	43	43	39	33	33	30	29	34.3	45.7
12-May	34	36	37	36	A	33	27	33	37	39	41	42	44	43	44	52	48	44	40	40	39	37	35	36	38.9	52.3
13-May	35	35	33	33	A	33	36	48	51	51	51	52	53	54	54	55	55	54	53	53	48	44	46	46	46.8	54.7
14-May	44	43	39	35	A	29	26	26	29	36	42	48	48	45	42	43	44	45	44	43	39	37	39	40	39.4	48.3
15-May	40	39	37	38	A	37	36	40	44	55	54	48	49	51	52	51	49	48	46	45	39	45	48	49	45.2	55.5
16-May	47	50	48	47	A	34	34	28	29	36	35	34	34	33	P	P	P	P	41	43	41	39	35	40	38.4	50.4
17-May	38	33	30	31	A	R	P	29	30	37	38	38	40	42	43	44	43	43	42	41	37	31	28	29	36.5	43.8
18-May	30	28	22	21	A	P	19	27	34	38	43	48	49	50	51	52	53	53	53	48	42	41	40	39	40.1	53.3
19-May	38	37	35	36	A	35	30	29	32	38	49	53	56	58	59	60	58	59	58	57	53	54	54	51	47.3	59.6
20-May	45	47	42	42	A	34	29	37	37	44	44	40	42	43	45	42	43	44	44	46	50	44	36	36	41.6	50.0
21-May	32	33	31	29	A	24	28	29	32	38	43	45	48	45	46	50	50	47	45	44	41	38	39	40	39.0	50.1
22-May	40	40	30	30	A	27	25	24	30	36	41	44	44	42	43	45	46	46	45	45	46	46	43	43	39.2	46.5
23-May	40	37	34	21	A	25	25	28	35	42	46	49	50	52	50	52	54	58	58	52	52	53	53	56	44.4	58.0
24-May	49	47	44	41	A	37	32	28	31	31	32	35	31	38	31	36	40	40	37	37	32	31	32	32	35.8	49.3
25-May	30	27	24	23	A	34	35	38	45	48	50	53	54	56	56	53	53	53	54	54	55	48	40	39	44.5	56.0
26-May	45	43	40	39	A	40	41	44	44	49	49	49	51	54	53	48	45	45	42	39	41	41	40	39	44.4	54.1
27-May	37	36	37	38	A	36	34	39	38	38	37	35	35	34	34	33	31	30	28	27	28	26	27	25	33.2	38.9
28-May	28	28	23	23	A	19	27	32	32	32	35	41	44	48	53	55	52	50	49	46	45	41	38	37	38.2	54.7
29-May	36	35	36	29	A	31	29	30	35	36	37	38	38	39	40	41	42	42	39	38	36	36	37	33	36.3	42.4
30-May	32	29	27	27	A	24	25	25	26	27	30	32	34	46	46	41	31	36	38	36	35	27	24	20	31.2	46.2
31-May	20	16	16	15	A	9	8	6	8	21	21	28	34	35	37	42	50	37	37	32	31	27	26	23	25.2	49.8
37.7 36.5 34.6 33.3 -- 31.4 30.7 32.4 36.1 40.2 42.4 44.2 44.9 46.3 47.2 47.9 47.3 46.7 45.6 43.9 41.8 40.1 38.9 37.9																								Diurnal Average		
49.3 50.4 50.4 50.7 -- 44.1 46.2 48.6 51.5 55.5 55.4 55.4 55.8 57.6 58.9 59.6 58.4 59.1 58.3 57.0 55.1 53.8 53.5 55.8																								Diurnal Maximum		
C - Calibration					R - Recovery					P - Power Failure					N - Not Valid					A - Automated Daily Zero Span						

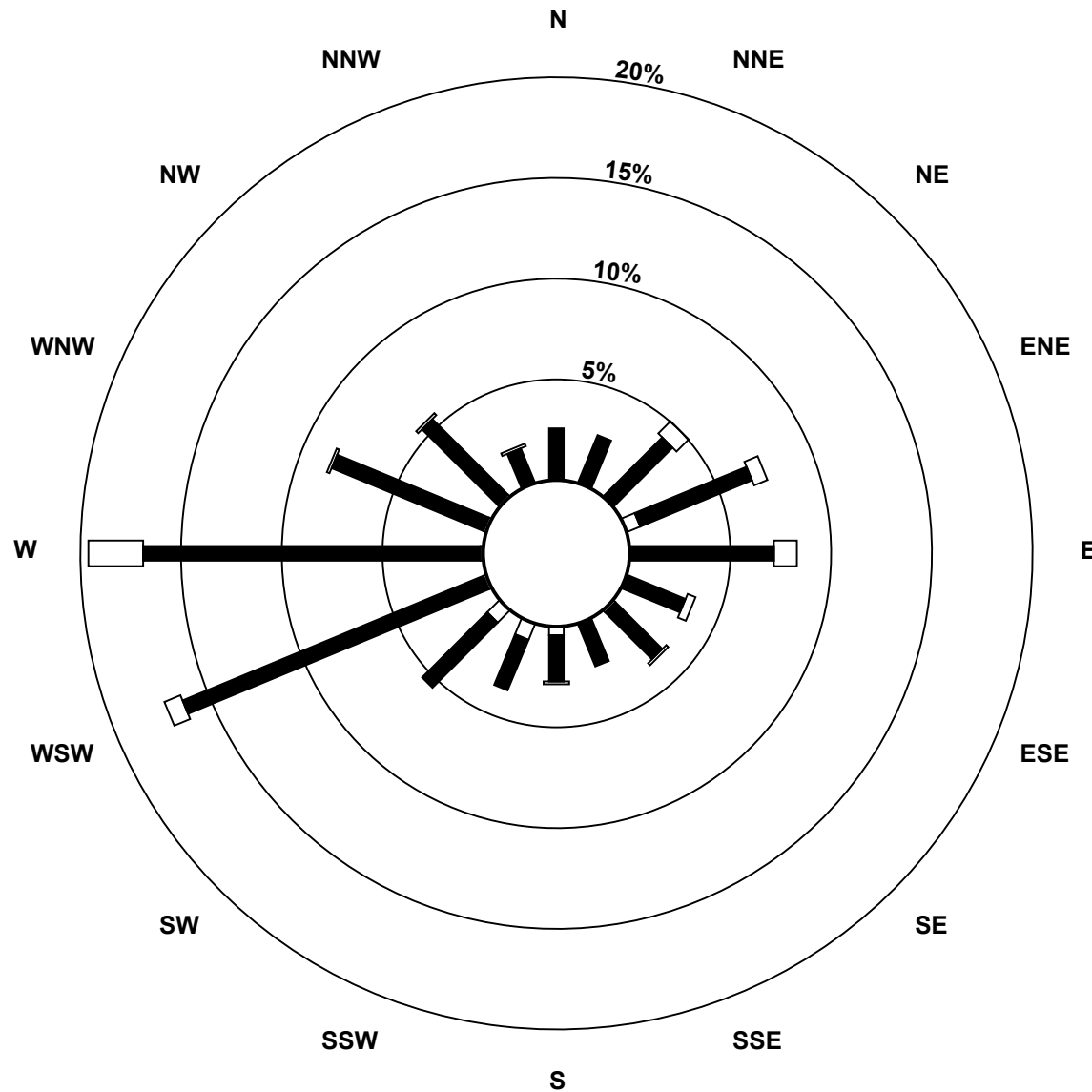
Hourly Maximums

Ozone (O₃) - ppb
Beaverlodge - May 2018

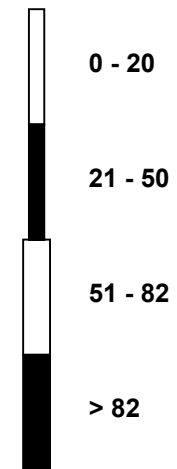


Pollutant Rose

Ozone (O₃) - ppb
Beaverlodge - May 2018



Pollutant Classes (ppb)



Eight Hour Running Averages

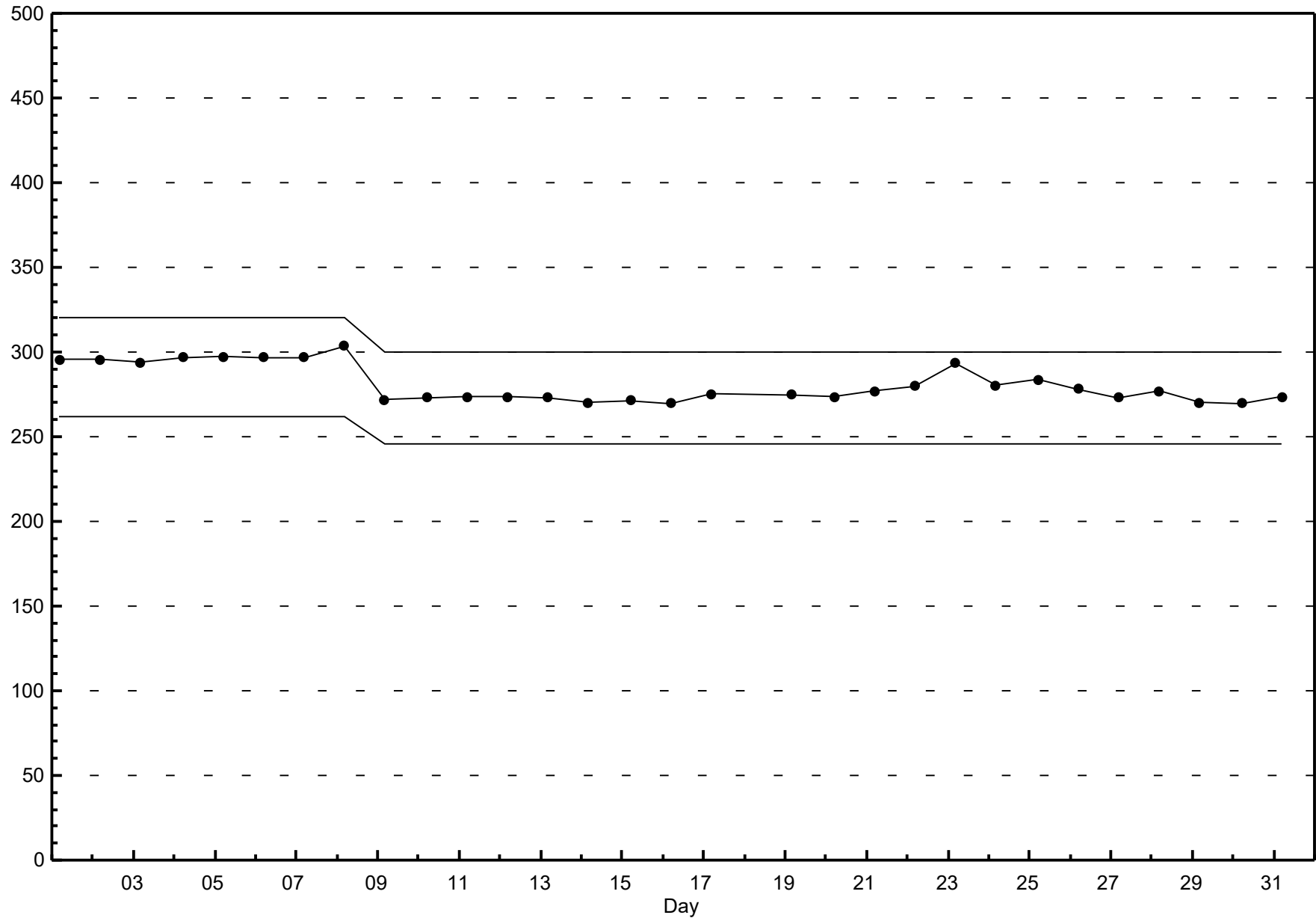
Ozone (O₃) - ppb

Beaverlodge - May 2018

Maximum Value: 55.6 ppb on May 19 20:00																					Hours in Service: 744				
Minimum Value: 9.4 ppb on May 31 10:00																					Hours of Data: 720				
Percentiles: P ₁ = 15.2 P ₁₀ = 27.7 Q ₁ = 31.9 Median = 37.9 Q ₃ = 43.0 P ₉₀ = 47.9 P ₉₉ = 53.2																					Hours of Missing Data: 24				
																					Hours of Calibration: 14				
																					Percent Operational Time: 98.7				
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-May	52	51	49	47	46	44	42	41	41	42	43	44	45	46	48	50	51	52	52	52	51	50	48	46	52.0
2-May	44	42	42	41	40	40	40	40	41	41	42	42	43	44	45	47	48	49	50	51	51	51	51	50	51.4
3-May	49	49	48	48	47	47	46	46	47	47	48	49	49	51	52	53	53	53	51	50	49	47	46	44	53.2
4-May	43	42	41	41	40	39	38	37	38	38	39	40	41	42	42	43	43	43	43	42	41	40	39	37	43.4
5-May	36	34	33	32	32	31	31	31	32	34	37	39	41	43	45	47	48	49	48	47	46	44	42	40	48.7
6-May	38	36	35	34	33	32	32	31	31	31	32	34	35	37	39	41	43	45	47	47	46	46	46	44	46.6
7-May	43	43	41	40	39	37	34	31	30	30	31	32	34	36	40	44	44	45	45	46	45	44	42	40	45.7
8-May	39	37	34	31	30	29	28	27	28	30	34	37	37	39	N	N	N	N	N	N	N	N	N	N	38.8
9-May	N	39	38	37	37	36	34	33	33	33	33	34	34	35	36	37	38	38	39	39	38	38	38	38	38.8
10-May	37	36	35	33	33	31	28	26	26	25	26	28	30	33	36	38	40	42	43	43	42	42	41	40	42.8
11-May	38	36	34	32	31	28	25	23	22	23	25	28	29	32	35	37	40	41	42	41	40	39	37	35	41.6
12-May	33	32	31	31	31	31	30	31	31	32	33	34	35	36	38	40	42	42	42	42	41	40	39	38	42.0
13-May	37	36	35	34	34	32	32	33	35	37	40	43	44	47	50	51	52	52	53	53	52	50	49	48	52.5
14-May	47	45	43	41	40	38	35	32	29	28	28	30	32	34	37	39	41	42	43	42	41	40	40	39	46.8
15-May	39	38	37	37	37	37	36	36	37	38	40	41	42	44	46	47	48	48	47	46	45	44	44	43	47.7
16-May	42	42	41	41	42	41	38	36	33	32	31	30	30	29	30	31	N	N	N	N	N	N	N	37	42.3
17-May	36	35	34	32	32	31	N	N	N	N	N	N	33	34	35	37	39	39	40	40	39	38	36	34	39.9
18-May	33	30	28	26	25	25	23	22	22	24	27	31	34	36	40	43	46	48	49	49	48	46	45	44	48.7
19-May	42	40	38	37	36	35	33	31	30	30	31	34	36	39	44	48	51	54	55	56	55	55	54	53	55.6
20-May	51	49	47	45	44	40	35	33	32	31	31	32	33	35	38	39	40	41	41	42	42	41	40	39	50.9
21-May	38	37	35	33	32	30	29	28	28	28	30	32	33	36	38	41	43	44	44	44	44	43	42	41	44.4
22-May	40	39	37	36	35	33	31	29	27	26	28	30	31	33	36	38	40	42	42	42	42	43	43	43	42.9
23-May	42	41	39	35	34	31	29	26	25	26	29	33	35	38	41	44	47	49	50	50	50	49	48	49	50.3
24-May	48	47	45	44	44	42	39	35	32	30	28	28	28	29	29	30	31	32	33	34	34	33	34	33	47.8
25-May	32	31	29	27	27	26	27	27	29	32	36	40	41	45	47	49	50	51	51	52	51	50	48	46	51.6
26-May	45	44	42	40	39	38	38	39	39	40	41	43	44	45	47	47	47	47	46	45	44	42	41	40	47.3
27-May	39	38	37	37	37	36	34	33	33	33	33	33	33	34	33	34	33	32	31	30	29	28	27	26	38.9
28-May	25	24	23	22	22	20	19	19	20	21	23	26	27	30	35	38	41	43	45	46	47	47	45	43	46.8
29-May	41	39	37	35	34	32	30	29	29	30	30	32	32	34	35	37	38	38	38	38	38	37	37	36	41.2
30-May	34	33	31	29	29	27	26	25	24	24	25	26	26	28	30	31	32	33	34	34	34	32	29	28	34.1
31-May	26	24	21	18	17	15	13	11	10	9	10	12	14	17	21	25	28	31	33	34	33	32	30	28	33.6
52.0 50.5 48.8 47.5 47.3 46.5 46.0 46.0 46.7 47.2 48.0 48.9 49.5 50.9 52.3 53.2 53.2 53.9 55.3 55.6 55.0 54.7 54.1 53.0																									
Diurnal Maximums																									
N - Not Valid																									

Span Responses

Ozone (O₃)
Beaverlodge - May 2018



Hourly Averages

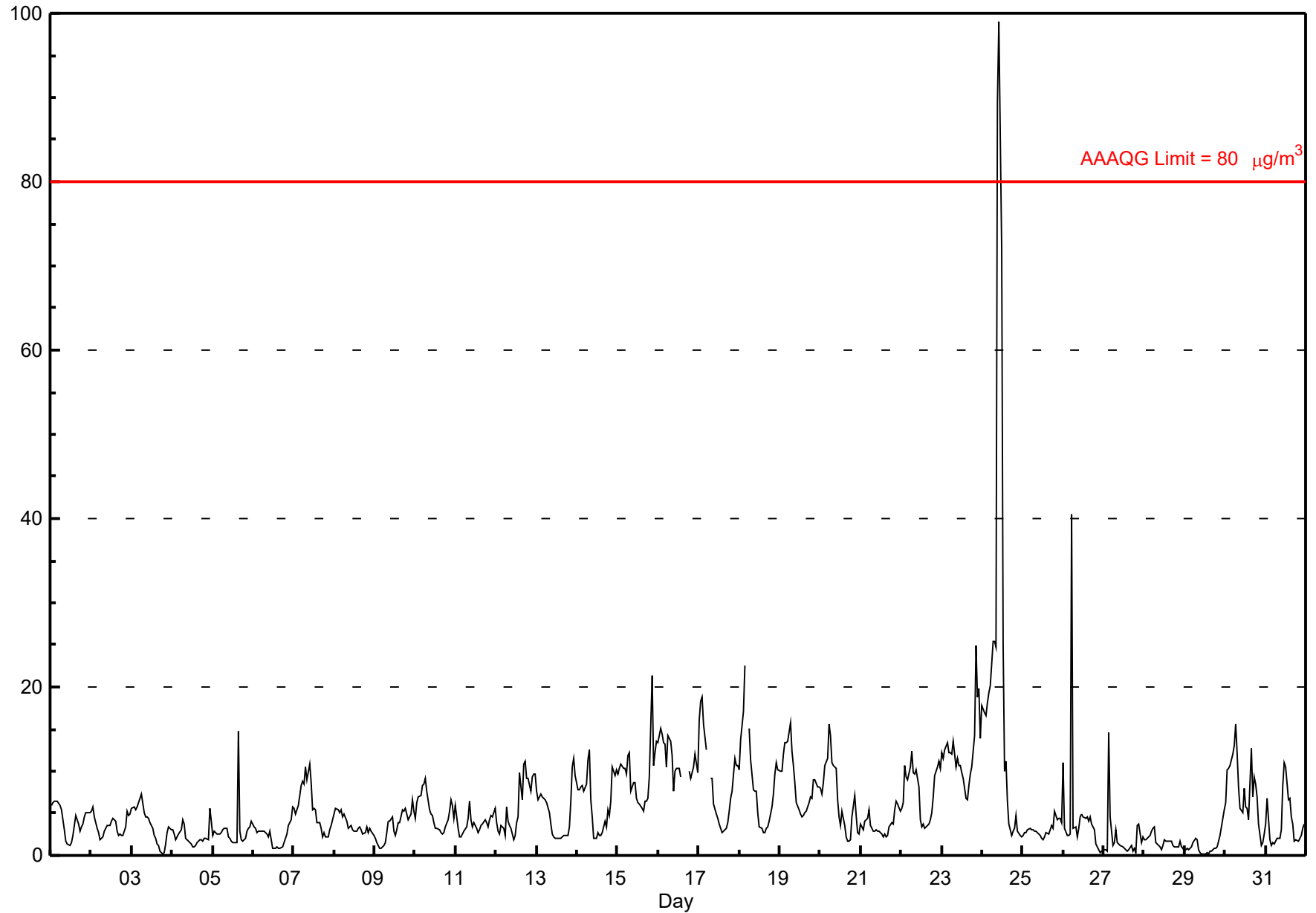
Particulate Matter 2.5 (PM_{2.5}) - µg/m³

Beaverlodge - May 2018

Number of Exceedences: 1-hr: 2 24-hr: 0 Maximum Value: 99.0 µg/m³ on May 24 11:00 Minimum Value: 0 µg/m³ on May 29 12:00 Maximum Diurnal Average: 7.9 µg/m³ at hour 6 Monthly Average: 5.80 µg/m³																					Maximum Daily Average: 21.8 µg/m³ on May 24 Minimum Daily Average: 1.2 µg/m³ on May 29 Minimum Diurnal Average: 3.6 µg/m³ at hour 18 Percentiles: P ₁ = 0.3 P ₁₀ = 1.5 Q ₁ = 2.5 Median = 4.0 Q ₃ = 7.6 P ₉₀ = 11.2 P ₉₉ = 24.9					Hours in Service: 744 Hours of Data: 736 Hours of Missing Data: 8 Hours of Calibration: 0 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-May	6	6	7	6	6	6	5	4	3	2	1	1	2	2	4	5	4	3	3	4	5	5	5	5	5	4.2	6.5
2-May	5	6	5	3	3	2	2	2	3	4	3	4	4	4	4	3	2	2	2	2	3	5	5	5	5	3.5	5.7
3-May	6	6	5	6	6	7	7	5	5	5	4	4	3	2	2	1	1	0	0	0	1	3	3	3	3.6	7.4	
4-May	3	3	2	2	3	3	4	4	2	2	2	1	1	1	1	2	2	2	2	2	2	2	6	4	2.3	5.6	
5-May	2	3	2	2	3	3	3	3	3	2	2	2	2	1	1	15	3	2	2	2	3	3	3	4	3.0	14.8	
6-May	3	3	3	3	3	3	3	3	3	2	3	1	1	1	1	1	1	1	2	2	3	4	4	6	2.4	5.8	
7-May	6	5	5	6	8	9	9	10	9	11	9	5	6	5	4	4	3	2	3	2	2	3	4	4	5.6	10.9	
8-May	5	6	5	5	5	5	5	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	3.7	5.5	
9-May	2	1	1	1	1	1	2	3	4	4	5	3	2	3	4	4	5	5	6	5	4	5	7	5	3.5	6.6	
10-May	4	6	7	7	8	8	9	8	5	5	5	4	3	3	3	3	3	3	3	4	5	7	6	4	5.2	9.2	
11-May	6	3	2	2	3	3	3	4	6	4	3	4	3	3	3	4	4	4	4	3	4	5	5	6	3.8	6.5	
12-May	4	3	3	4	3	2	6	4	4	3	2	2	4	5	10	7	11	11	9	9	8	9	10	10	5.9	11.1	
13-May	8	7	7	7	7	7	6	5	4	2	2	2	2	2	2	2	2	2	2	3	6	11	12	10	5.0	11.5	
14-May	8	8	8	8	8	8	11	13	7	4	2	2	3	2	2	3	4	3	5	5	6	10	10	10	6.3	12.6	
15-May	10	10	11	10	10	10	12	12	8	9	9	7	6	6	6	5	6	6	7	9	21	11	12	14	9.5	21.4	
16-May	13	15	14	13	13	11	14	13	12	8	10	10	10	9	P	P	P	P	10	9	10	11	12	10	11.4	15.1	
17-May	16	18	19	16	13	P	P	9	9	6	5	4	3	3	3	3	3	4	5	7	8	12	11	11	8.5	18.8	
18-May	10	14	17	23	P	P	15	11	8	8	8	5	3	3	3	3	3	3	4	6	7	10	11	10	8.4	22.6	
19-May	10	10	12	13	13	14	16	12	11	9	6	5	5	5	5	5	5	6	7	7	9	9	8	8	8.8	15.7	
20-May	8	7	9	11	12	16	14	11	11	10	7	4	4	5	3	2	2	2	2	5	7	5	3	3	6.7	15.5	
21-May	4	3	4	4	4	5	4	3	3	3	3	3	3	2	2	2	2	3	4	4	5	6	6	5	3.7	6.4	
22-May	6	6	11	9	9	11	12	10	10	10	8	4	3	4	3	3	4	4	5	7	9	10	11	10	7.6	12.5	
23-May	12	11	13	13	12	12	12	14	11	11	11	11	10	9	7	7	8	10	11	14	25	19	20	14	12.3	24.9	
24-May	18	17	17	18	19	20	25	26	25	90	99	72	25	10	11	6	4	2	3	3	5	3	2	2	21.8	99.0	
25-May	2	3	3	3	3	3	3	3	3	3	2	2	2	2	3	2	3	4	3	5	4	4	4	4	3.1	5.3	
26-May	11	3	2	2	3	41	3	3	2	3	5	5	4	5	4	5	4	3	1	1	1	1	0	1	4.8	40.5	
27-May	1	1	1	15	5	1	2	3	2	1	1	1	1	1	1	1	1	1	1	0	4	4	2	2	2.0	14.5	
28-May	2	2	2	2	3	3	3	1	1	1	1	1	2	2	2	2	2	1	1	1	1	2	1	1	1.7	3.4	
29-May	1	1	1	1	1	1	2	2	1	0	0	0	0	0	0	1	0	1	1	1	2	2	3	5	1.2	5.5	
30-May	6	10	10	11	12	13	16	12	8	6	5	8	6	6	4	13	7	9	8	7	4	1	2	3	7.8	15.5	
31-May	4	7	2	1	2	1	2	2	2	3	8	11	11	7	7	5	4	2	2	2	2	2	3	4	3.9	11.1	
6.5 6.6 6.7 7.4 6.7 7.9 7.7 7.1 6.0 7.5 7.6 6.2 4.4 3.8 3.6 4.0 3.6 3.6 4.0 4.4 5.8 6.0 6.2 5.9																									Diurnal Average		
17.7 18.4 18.8 22.6 19.4 40.5 25.5 25.5 24.7 89.5 99.0 71.9 25.1 10.1 11.2 14.8 10.9 11.1 10.6 14.3 24.9 18.9 19.9 13.9																									Diurnal Maximum		
P - Power Failure 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 - May 2018



Hourly Maximums

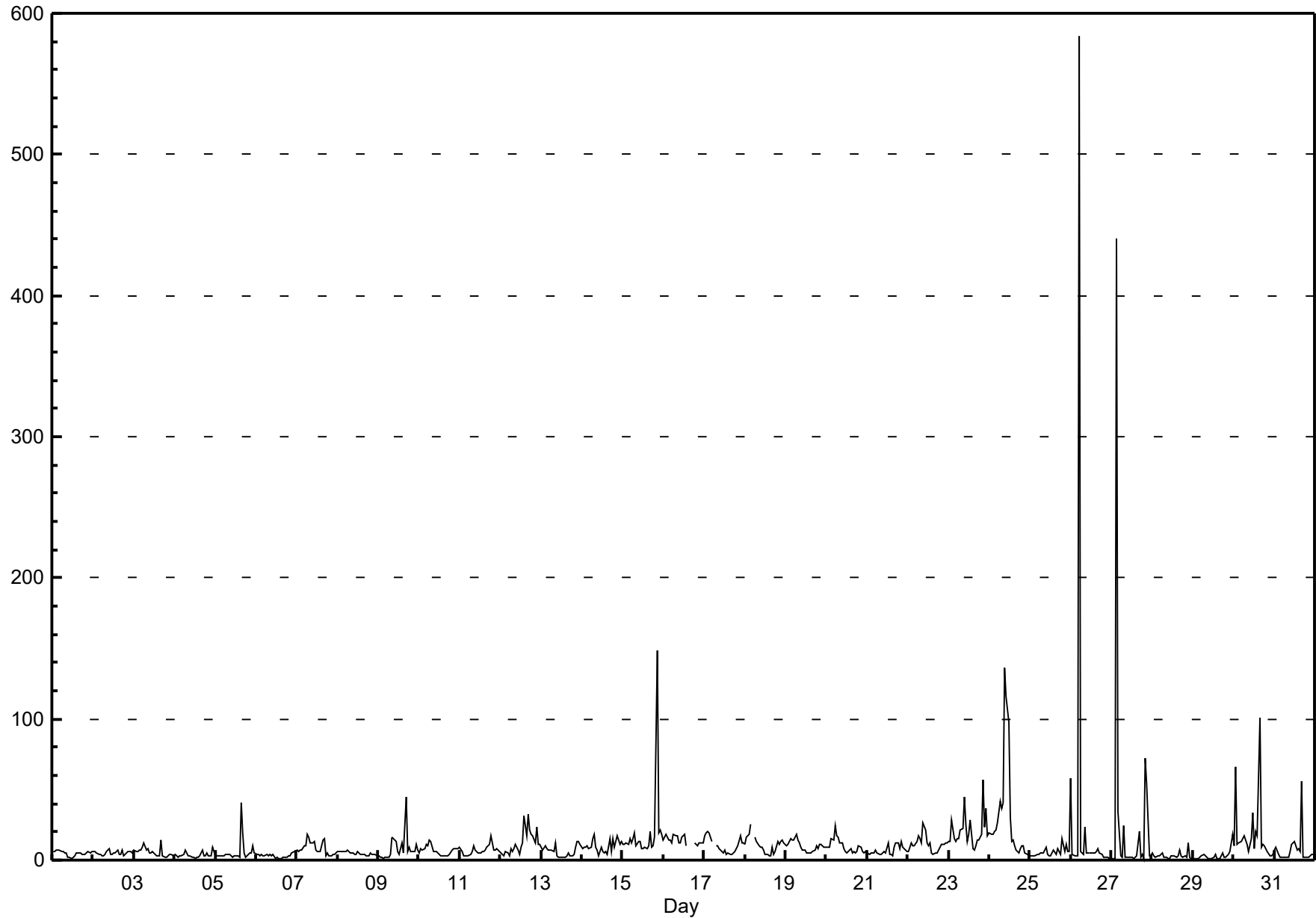
Particulate Matter 2.5 (PM_{2.5}) - µg/m³

Beaverlodge - May 2018

Maximum Value: 584.2 μg/m ³ on May 26 06:00																					Maximum Daily Average: 31.4 μg/m ³ on May 26					Hours in Service: 744	
Minimum Value: 1 μg/m ³ on May 29 12:00																					Minimum Daily Average: 2.9 μg/m ³ on May 29					Hours of Data: 736	
Maximum Diurnal Average: 28.4 μg/m ³ at hour 6																					Minimum Diurnal Average: 6.1 μg/m ³ at hour 18					Hours of Missing Data: 8	
Monthly Average: 10.63 μg/m ³																					Percentiles: P ₁ = 1.0 P ₁₀ = 2.3 Q ₁ = 3.6 Median = 6.2 Q ₃ = 11.2 P ₉₀ = 17.2 P ₉₉ = 69.8					Hours of Calibration: 0	
																					Percent Operational Time: 98.9						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
1-May	7	7	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	4.8	6.8	
2-May	6	6	5	4	4	3	3	4	7	8	4	4	5	5	7	4	4	8	3	4	6	7	6	5	5.1	8.3	
3-May	7	6	6	7	7	10	13	7	8	5	5	6	4	3	3	3	14	3	2	2	3	4	4	3	5.6	13.9	
4-May	4	3	2	3	3	4	7	5	3	3	2	2	1	2	2	3	7	3	3	5	3	3	10	6	3.6	9.5	
5-May	3	3	3	3	3	3	4	4	4	3	2	3	3	3	2	41	19	5	2	4	5	5	10	5	6.0	40.9	
6-May	4	4	3	4	3	3	4	3	4	3	4	1	2	1	1	1	2	2	2	3	3	5	6	7	3.2	6.5	
7-May	7	6	7	8	10	11	18	16	12	12	13	7	7	6	6	15	15	3	5	3	3	4	4	5	8.5	18.3	
8-May	6	6	6	6	7	6	7	5	5	5	4	4	6	4	4	4	3	3	5	4	4	4	4	3	4.7	7.3	
9-May	3	2	2	1	2	2	2	4	16	15	14	6	4	9	12	5	45	7	10	6	6	7	11	7	8.1	45.1	
10-May	5	8	7	8	11	10	14	13	6	6	6	5	4	3	3	3	3	3	4	7	8	8	8	8	6.8	14.2	
11-May	9	6	3	3	3	3	4	6	10	7	6	5	5	6	6	8	9	11	17	12	7	7	8	7	7.0	16.8	
12-May	5	4	3	6	5	3	8	6	8	11	7	4	10	12	32	17	33	21	18	17	12	23	11	11	12.0	33.0	
13-May	9	8	10	8	8	7	8	6	12	3	2	2	2	2	2	3	5	3	3	4	9	13	13	11	6.4	12.9	
14-May	9	10	9	10	9	9	15	19	9	7	3	9	6	5	6	4	15	6	15	9	13	17	11	13	9.9	18.8	
15-May	11	11	12	11	15	12	15	19	10	13	13	9	8	9	8	10	20	9	10	17	149	19	21	18	18.7	148.9	
16-May	15	19	17	14	14	12	18	17	17	12	13	16	19	10	P	P	P	P	13	11	11	12	13	12	14.2	18.6	
17-May	18	20	20	19	13	P	P	10	10	8	6	5	7	4	5	4	4	5	7	8	10	18	12	12	10.1	20.3	
18-May	11	16	18	26	P	P	16	13	10	9	9	7	4	4	3	3	9	4	6	14	11	14	14	13	10.5	25.7	
19-May	11	11	13	15	14	14	19	14	12	10	8	7	5	5	5	6	6	7	10	9	11	11	9	9	9.9	18.6	
20-May	9	9	9	15	14	24	18	16	12	12	8	7	5	7	9	5	6	5	7	10	9	6	5	7	9.7	24.4	
21-May	5	4	5	5	5	7	5	4	4	5	6	5	12	4	4	3	9	12	12	9	13	10	8	6	6.7	13.4	
22-May	6	9	12	10	10	13	17	15	12	26	22	12	10	12	5	4	5	5	7	10	11	11	12	12	11.2	26.0	
23-May	13	13	29	15	13	15	15	22	22	45	25	13	19	28	9	8	10	15	14	18	57	24	36	17	20.5	57.0	
24-May	20	19	18	21	21	27	42	37	41	136	116	98	31	13	15	10	7	5	8	10	10	5	4	3	29.9	136.4	
25-May	3	3	3	3	4	4	5	6	5	9	4	3	3	5	7	4	9	6	4	15	6	11	6	6	5.7	15.4	
26-May	58	4	3	3	3	584	7	4	23	5	5	5	5	5	6	6	8	5	4	2	2	2	2	1	31.4	584.2	
27-May	1	1	1	441	35	3	2	24	2	2	2	2	2	1	2	3	21	2	4	1	72	54	3	3	28.6	440.6	
28-May	6	3	2	3	3	4	5	2	2	1	1	3	3	3	2	3	7	3	2	3	2	12	2	1	3.2	11.7	
29-May	1	1	1	1	2	3	4	3	2	1	1	1	2	4	1	1	1	5	2	2	3	4	6	18	2.9	17.8	
30-May	10	66	11	12	13	15	17	14	11	6	15	34	8	21	17	101	9	11	10	8	6	3	3	4	17.8	100.6	
31-May	8	9	4	2	2	2	2	2	2	6	11	12	14	7	8	6	56	2	2	2	2	3	4	4	7.2	55.5	
9.2 9.5 8.1 22.3 8.8 28.4 10.6 10.4 9.8 12.7 11.0 9.6 7.0 6.7 6.5 9.8 12.2 6.1 6.9 7.6 15.3 10.6 8.7 7.8																									Diurnal Average		
57.5 66.3 28.7 440.6 34.5 584.2 41.6 36.9 41.1 136.4 116.3 97.5 30.9 28.1 31.8 100.6 55.5 21.3 18.1 18.1 148.9 54.1 36.5 18.1																									Diurnal Maximum		
P - Power Failure																											

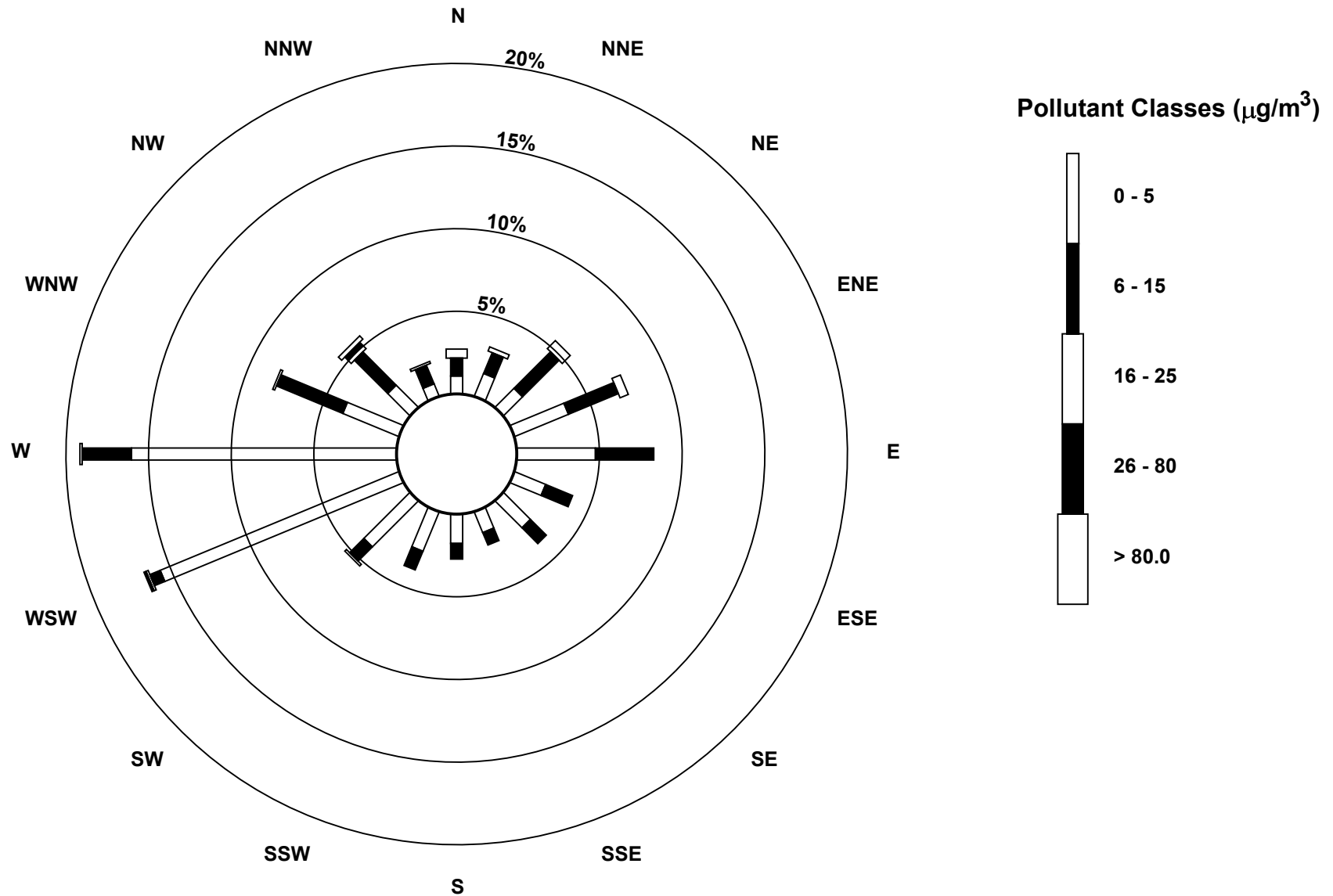
Hourly Maximums

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



Pollutant Rose

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



Hourly Averages

External Temperature (ET) - °C

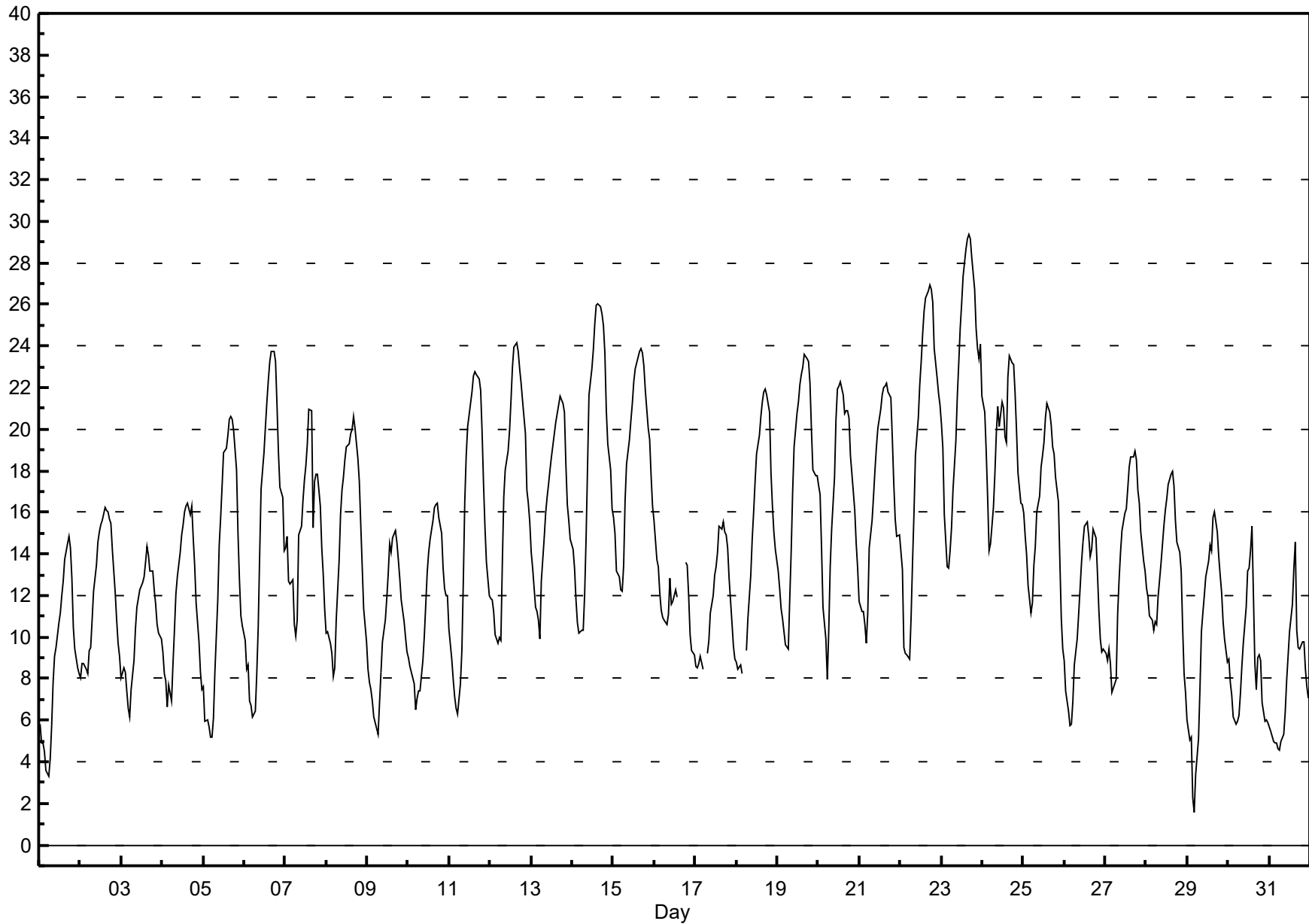
Beaverlodge - May 2018

Maximum Value: 29.4 °C on May 23 17:00																								Maximum Daily Average: 22.4 °C on May 23								Hours in Service: 744	
Minimum Value: 2 °C on May 29 05:00																								Minimum Daily Average: 7.9 °C on May 31								Hours of Data: 736	
Maximum Diurnal Average: 19.5 °C at hour 16																								Minimum Diurnal Average: 8.5 °C at hour 5								Hours of Missing Data: 8	
Monthly Average: 14.30 °C																								Percentiles: P ₁ = 4.6 P ₁₀ = 7.5 Q ₁ = 9.9 Median = 13.9 Q ₃ = 18.3 P ₉₀ = 21.9 P ₉₉ = 26.7								Hours of Calibration: 0	
Percent Operational Time: 98.9																																	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum							
1-May	6	5	5	5	4	3	4	6	8	9	10	11	11	12	13	14	14	15	14	13	10	9	9	8	9.0	14.9							
2-May	8	9	9	8	8	9	9	11	12	13	15	15	15	16	16	16	16	16	15	14	12	11	10	9	12.2	16.3							
3-May	8	9	8	7	7	6	7	9	10	11	12	12	13	13	14	14	14	13	13	12	12	11	10	10	10.7	14.4							
4-May	9	8	8	7	8	7	9	10	12	13	14	15	15	16	16	16	16	16	15	13	12	10	8	7	11.7	16.5							
5-May	8	6	6	6	5	5	6	8	12	14	16	17	19	19	20	21	21	20	20	18	15	13	11	11	13.2	20.6							
6-May	10	8	9	7	7	6	6	8	10	14	17	19	20	21	22	23	24	24	23	21	19	17	17	14	15.3	23.7							
7-May	14	15	13	13	13	11	10	11	15	15	17	18	18	19	21	21	15	17	18	18	16	14	13	11	15.2	21.0							
8-May	10	10	10	9	8	9	11	14	16	17	18	19	19	20	20	21	20	19	17	15	13	11	10	10	14.8	20.6							
9-May	8	8	7	7	6	6	5	7	8	10	11	12	13	15	14	15	15	15	14	13	12	11	10	9	10.4	15.1							
10-May	9	9	8	8	7	7	7	7	9	10	12	13	14	15	16	16	16	16	16	15	13	12	12	12	11.6	16.4							
11-May	10	9	8	7	7	6	8	9	13	17	19	20	21	22	23	23	23	22	22	20	17	15	14	12	15.2	22.8							
12-May	12	12	11	10	10	10	10	14	17	18	19	20	21	23	24	24	24	23	22	21	20	17	16	16	17.2	24.2							
13-May	14	13	11	11	11	10	13	15	16	17	17	18	19	20	20	21	21	22	21	21	18	16	16	15	16.5	21.6							
14-May	14	13	12	11	10	10	10	12	15	18	22	23	24	25	26	26	26	26	25	24	21	19	18	16	18.6	26.1							
15-May	16	15	13	13	12	12	13	17	18	20	20	21	22	23	23	24	24	24	23	22	20	20	18	16	18.7	23.9							
16-May	16	14	13	12	11	11	11	11	11	13	12	12	12	12	P	P	P	P	14	13	12	10	9	9	11.9	15.6							
17-May	9	9	9	9	8	P	P	P	9	10	11	12	13	13	14	15	15	16	15	15	14	13	11	10	9	11.7	15.6						
18-May	9	8	9	8	P	P	9	11	13	15	16	17	19	20	21	21	22	22	22	21	18	16	15	14	15.7	21.9							
19-May	13	12	11	11	10	10	9	12	14	17	19	21	21	22	23	23	24	23	23	22	20	18	18	18	17.3	23.6							
20-May	17	17	14	11	10	8	10	13	15	18	20	22	22	22	22	21	21	21	21	19	17	16	15	13	16.9	22.3							
21-May	12	11	11	11	10	11	14	16	17	18	19	20	21	22	22	22	22	22	22	20	17	16	15	15	16.8	22.2							
22-May	14	13	10	9	9	9	11	14	16	19	21	22	23	25	26	26	27	27	27	26	24	23	22	21	19.2	27.0							
23-May	20	19	16	13	13	14	15	17	19	22	23	25	26	27	29	29	29	29	28	27	25	24	23	24	22.4	29.4							
24-May	22	21	19	17	14	14	16	18	20	21	20	21	21	20	19	22	24	23	23	22	20	18	16	16	19.5	23.6							
25-May	16	15	14	12	11	12	13	14	16	17	18	19	19	21	21	21	20	19	19	18	17	14	11	9	16.1	21.2							
26-May	9	7	6	6	6	7	9	10	11	12	14	15	15	16	15	14	14	15	15	13	11	10	9	9	11.2	15.6							
27-May	9	9	9	9	7	8	8	11	13	14	15	16	16	17	18	19	19	19	18	17	16	15	14	13	13.8	18.9							
28-May	12	12	11	11	10	11	11	12	14	14	15	16	17	17	18	18	17	16	15	14	13	10	8	7	13.3	18.0							
29-May	6	5	5	2	2	3	5	8	10	11	12	13	14	14	14	16	16	15	14	13	12	11	10	9	10.0	16.0							
30-May	9	8	7	6	6	6	6	7	9	10	11	13	13	14	15	9	8	9	9	9	7	6	6	6	8.7	15.3							
31-May	6	5	5	5	5	5	5	5	5	6	8	9	10	12	13	15	10	9	9	10	10	8	8	7	7.9	14.5							
11.5 10.8 10.0 9.1 8.5 8.5 9.4 11.1 13.0 14.7 15.9 17.0 17.7 18.4 19.3 19.5 19.2 19.1 18.5 17.4 15.6 14.0 12.9 12.2																								Diurnal Average									
21.6 20.8 18.9 16.7 14.2 14.5 16.3 17.8 19.8 21.6 23.2 24.9 26.1 27.4 28.7 29.1 29.4 29.2 28.3 26.7 24.9 23.9 23.4 24.1																								Diurnal Maximum									
P - Power Failure																																	

Hourly Averages

External Temperature (ET) - °C

Beaverlodge - May 2018



Hourly Averages

Relative Humidity (RH) - %

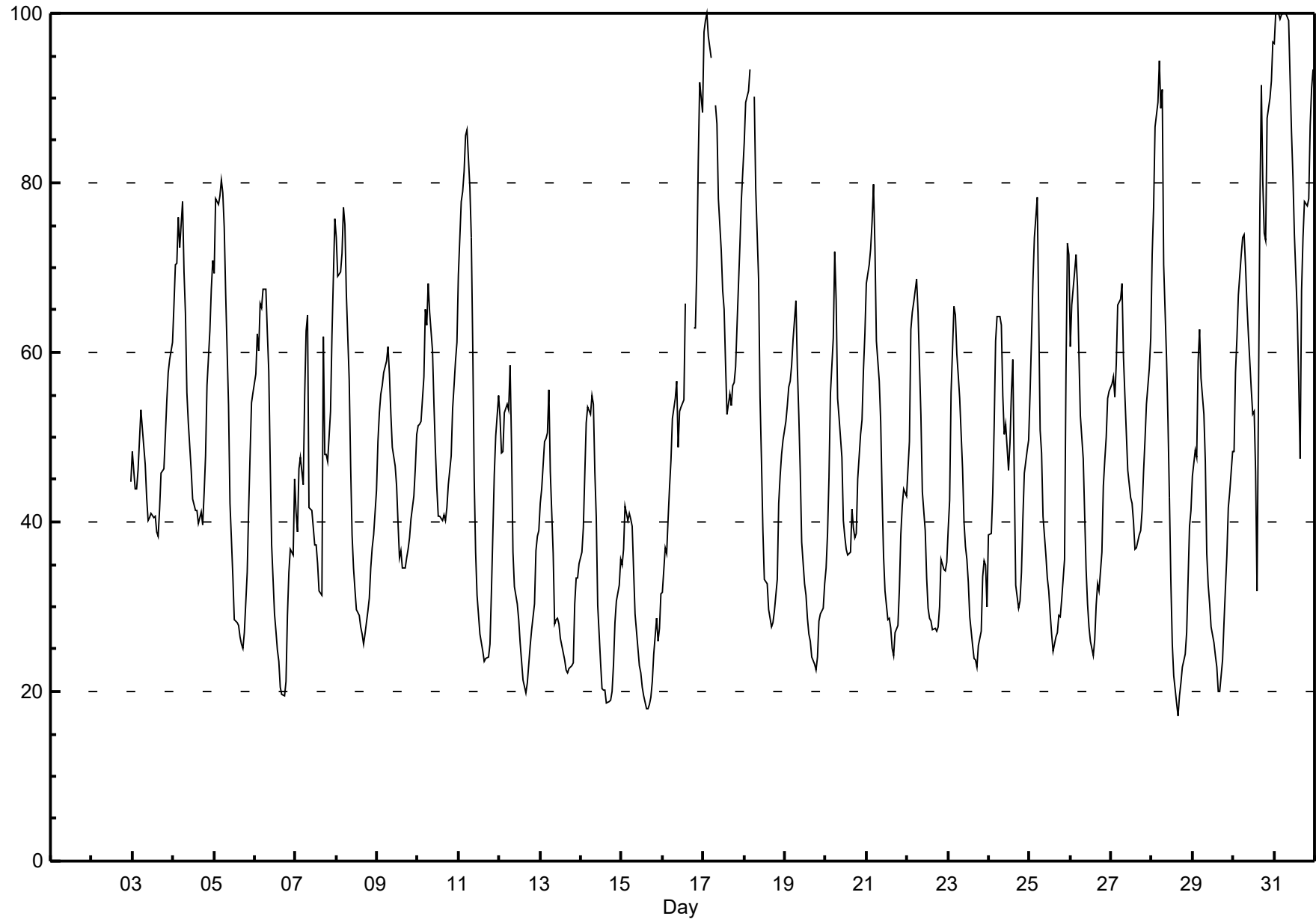
Beaverlodge - May 2018

Maximum Value: 100.0 % on May 17 03:00																					Maximum Daily Average: 85.1 % on May 31				Hours in Service: 744		
Minimum Value: 17 % on May 28 16:00																					Minimum Daily Average: 28.4 % on May 15				Hours of Data: 689		
Maximum Diurnal Average: 66.7 % at hour 5																					Minimum Diurnal Average: 31.4 % at hour 15				Hours of Missing Data: 55		
Monthly Average: 48.13 %																					Percentiles: P ₁ = 18.9 P ₁₀ = 25.5 Q ₁ = 32.6 Median = 45.7 Q ₃ = 60.1 P ₉₀ = 74.8 P ₉₉ = 99.4				Hours of Calibration: 0		
																									Percent Operational Time: 92.6		
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-May	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	45	--	
2-May	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	45	44.8	
3-May	48	44	44	46	50	53	51	47	43	40	41	41	40	41	39	38	41	46	46	50	54	58	59	61	46.7	61.3	
4-May	66	70	70	76	72	78	69	65	55	52	46	43	42	41	41	40	41	40	43	48	56	63	68	71	56.5	77.9	
5-May	69	78	77	78	80	79	75	67	54	42	38	34	28	28	28	26	26	25	27	34	42	48	54	55	49.7	80.3	
6-May	57	62	60	66	65	67	67	62	58	47	37	29	27	25	24	20	20	19	21	29	34	37	36	45	42.4	67.5	
7-May	41	39	46	48	44	55	63	64	42	41	39	37	37	35	32	31	62	48	48	47	53	62	69	76	48.4	75.8	
8-May	73	69	70	72	77	75	67	57	47	39	35	32	30	29	28	27	26	27	30	31	35	37	38	44	45.5	77.1	
9-May	49	53	55	56	58	59	61	57	53	49	47	44	40	36	37	35	35	36	37	38	40	43	46	50	46.4	60.7	
10-May	51	51	52	57	65	63	68	65	60	54	48	44	41	41	40	41	40	42	44	48	53	56	59	61	51.9	68.1	
11-May	69	78	79	81	86	86	79	74	61	45	36	31	27	26	25	24	24	24	26	32	39	46	50	55	50.1	86.3	
12-May	52	48	48	53	54	53	58	49	36	32	30	28	26	24	21	20	21	23	25	27	30	37	38	39	36.5	58.4	
13-May	42	44	50	50	51	56	46	36	28	28	29	28	26	25	24	23	22	23	23	23	30	33	33	35	33.6	55.5	
14-May	36	39	46	52	54	53	55	54	46	41	30	23	20	20	20	19	19	19	20	23	28	31	33	36	34.0	55.0	
15-May	35	37	42	40	41	40	39	34	29	25	23	22	21	20	18	18	19	19	21	24	29	26	27	31	28.4	41.8	
16-May	32	37	36	40	44	47	52	54	57	49	53	54	54	66	P	P	P	P	63	63	70	82	92	88	56.7	91.8	
17-May	98	99	100	97	95	P	P	P	89	87	78	72	67	65	59	53	55	54	56	56	58	63	73	78	81	74.3	100.0
18-May	85	89	91	93	P	P	90	79	69	55	47	39	33	33	30	29	28	28	30	33	42	45	48	50	53.0	93.4	
19-May	52	54	56	57	58	61	66	58	53	46	38	33	31	29	27	26	24	23	22	24	28	29	30	33	39.9	66.0	
20-May	35	39	45	55	62	72	66	55	52	48	40	38	37	36	36	42	39	38	39	45	50	52	58	62	47.6	71.8	
21-May	68	70	72	75	80	72	61	57	52	43	36	32	29	29	28	25	24	27	28	32	39	42	44	43	46.1	79.9	
22-May	46	50	63	65	66	69	65	59	52	44	39	33	30	29	28	27	28	27	28	30	36	34	34	35	42.3	68.6	
23-May	39	43	55	65	64	60	57	55	46	40	37	36	33	29	26	24	24	23	25	27	34	35	35	30	39.2	65.4	
24-May	38	39	43	51	61	64	64	63	55	50	51	46	49	55	59	45	32	30	31	34	41	46	49	50	47.8	64.2	
25-May	55	62	68	74	78	65	51	48	41	36	33	32	29	27	25	26	27	29	29	31	36	58	73	71	46.0	78.3	
26-May	61	66	69	72	68	60	53	47	41	34	30	28	26	24	26	30	33	32	36	44	47	50	55	55	45.3	71.5	
27-May	56	57	55	59	66	66	68	59	55	51	46	43	42	40	37	37	38	39	41	46	50	54	58	62	51.0	68.2	
28-May	72	77	87	90	94	89	91	70	59	52	43	33	26	22	19	17	19	21	23	24	27	33	39	41	48.7	94.3	
29-May	45	48	48	59	63	57	53	47	36	33	30	28	26	24	23	20	20	24	28	32	36	42	44	48	38.1	62.7	
30-May	48	58	62	67	71	74	74	70	66	62	56	53	53	46	32	77	92	80	74	73	88	90	92	97	68.9	96.6	
31-May	96	100	100	99	100	100	100	100	99	92	86	81	74	65	57	48	67	74	78	77	78	87	91	93	85.1	100.0	
55.8 58.6 61.7 65.3 66.7 65.7 64.7 60.1 52.8 46.5 42.0 38.3 35.9 34.5 31.4 31.8 33.7 33.6 36.0 39.0 44.4 49.2 52.8 54.8																									Diurnal Average		
97.7 100.0 100.0 99.4 99.9 100.0 100.0 100.0 99.2 92.3 86.0 80.8 73.9 65.7 59.2 77.2 91.6 80.2 77.8 77.4 87.6 90.0 91.9 96.6																									Diurnal Maximum		
P - Power Failure N - Not Valid																											

Hourly Averages

Relative Humidity (RH) - %

Beaverlodge - May 2018



Hourly Averages

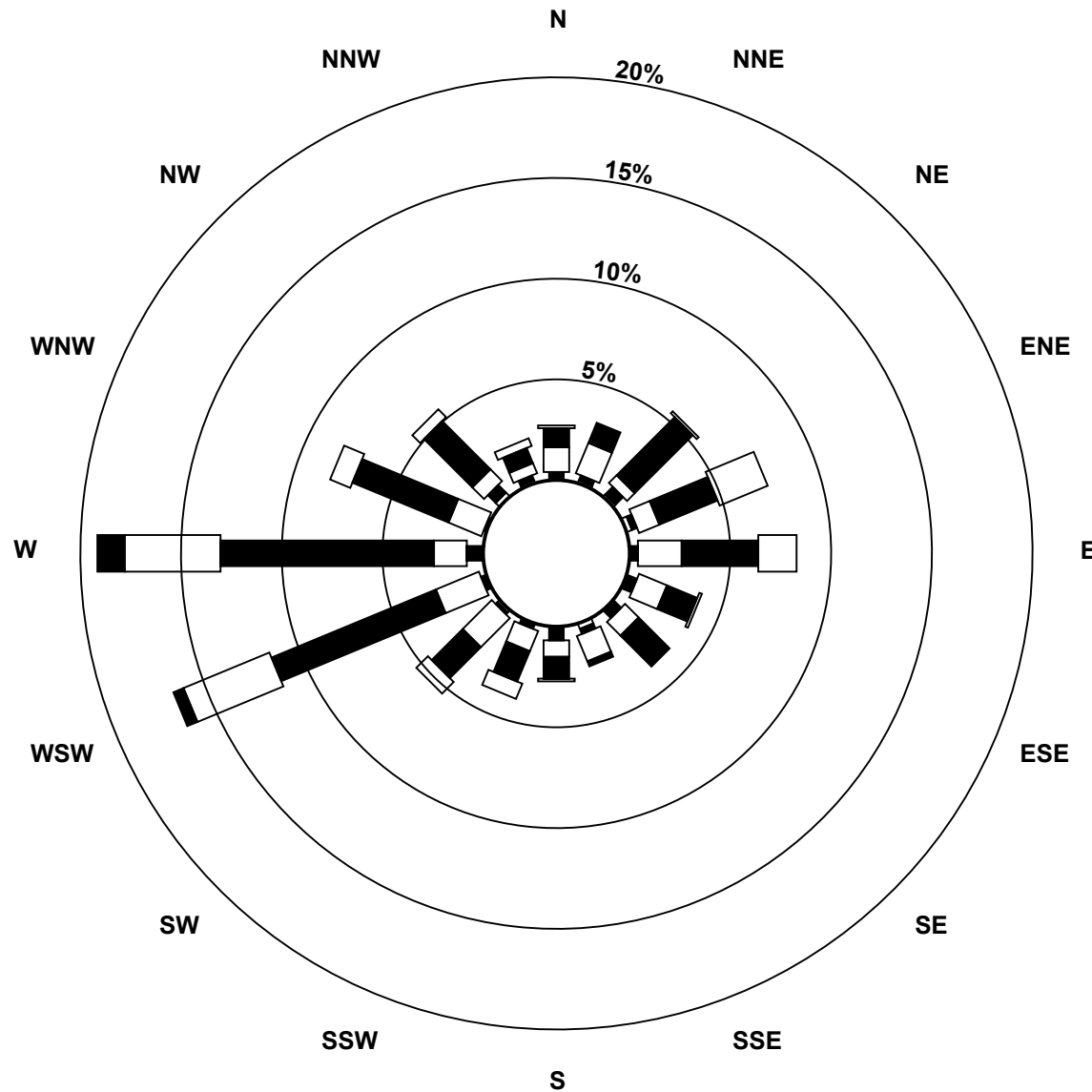
Wind Speed (km/h)
Wind Direction (deg)
Beaverlodge - May 2018

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	20	20	20	25	24	21	21	19	15	16	15	13	13	9	15	18	19	23	25	21	18	19	18	18	14.9	24.7
Dir	306	319	319	334	330	325	322	303	270	291	256	260	209	266	257	250	257	256	246	246	241	242	241	232	277	246
2 Spd	19	20	24	17	8	25	24	28	35	33	39	44	47	45	43	46	43	43	40	33	20	19	19	19	29.6	47.4
Dir	228	229	221	215	266	269	262	256	257	261	269	263	267	263	277	271	270	270	270	266	252	263	248	262	261	267
3 Spd	16	22	26	21	22	22	21	20	26	27	26	26	25	24	25	29	30	26	32	27	22	20	20	20	23.2	31.8
Dir	264	281	312	287	286	283	272	272	267	271	265	258	261	256	269	270	262	272	269	266	246	244	249	245	268	269
4 Spd	21	26	22	5	16	15	17	12	21	23	21	24	25	30	33	36	34	32	32	22	21	20	21	13	19.9	36.1
Dir	253	247	258	59	212	127	258	233	272	269	272	270	260	247	242	241	247	256	251	256	243	245	233	145	248	241
5 Spd	23	24	23	15	20	18	22	18	19	22	24	25	26	26	25	24	23	23	21	22	20	19	19	21	13.8	26.3
Dir	240	119	180	156	85	90	108	183	231	245	241	249	274	267	253	257	262	256	258	241	245	251	245	251	235	267
6 Spd	26	19	22	19	17	21	16	21	19	16	10	15	7	5	8	7	5	9	10	14	15	17	12	11	3.4	25.9
Dir	230	159	205	97	119	145	153	208	219	238	253	285	267	228	175	265	309	309	346	21	23	32	348	330	214	230
7 Spd	24	23	9	19	10	20	11	15	19	18	15	15	11	5	20	11	26	11	16	17	16	12	13	12	5.8	26.5
Dir	44	43	4	38	115	237	5	222	111	119	114	95	98	15	103	150	275	140	176	192	206	164	124	165	122	275
8 Spd	11	18	29	24	23	19	10	20	21	19	16	12	12	12	18	16	15	18	25	23	21	25	28	26	8.4	29.4
Dir	150	204	196	183	87	81	314	284	303	322	6	30	28	351	8	18	23	32	43	48	59	72	69	59	41	196
9 Spd	26	29	32	32	29	29	28	29	29	29	29	31	32	34	33	34	32	31	27	27	28	28	25	25	29.1	34.3
Dir	60	64	72	75	74	72	79	86	90	89	90	88	82	82	78	87	83	82	74	72	75	84	91	97	80	87
10 Spd	25	28	31	9	26	10	7	25	23	20	5	7	8	15	16	17	18	20	20	21	22	23	22	24	9.7	30.8
Dir	92	84	68	229	269	323	173	247	267	256	316	101	254	290	214	240	237	235	241	241	263	221	250	263	246	68
11 Spd	8	28	31	23	27	25	22	25	21	18	18	18	18	17	21	18	23	28	29	27	22	23	23	23	17.6	31.0
Dir	179	200	202	192	192	144	174	207	232	271	285	282	285	299	263	266	252	263	256	248	246	247	243	203	234	202
12 Spd	24	26	5	8	15	9	23	7	24	24	20	19	18	22	31	33	32	32	29	28	26	21	22	23	15.9	33.1
Dir	234	232	147	71	39	137	59	201	284	300	318	326	304	300	287	283	292	290	284	279	271	281	303	301	290	283
13 Spd	24	24	10	23	32	24	24	23	22	20	14	12	12	3	7	2	8	17	22	16	20	19	24	23	10.0	31.7
Dir	301	296	20	337	329	9	60	99	99	100	109	98	68	47	180	340	48	73	54	68	93	112	70	78	56	329
14 Spd	24	24	25	25	26	27	29	26	16	19	8	16	12	19	32	35	32	34	32	27	24	21	21	18	9.1	35.0
Dir	96	145	146	121	143	92	108	101	185	225	281	266	248	259	264	255	252	263	276	268	270	290	286	282	231	255
15 Spd	20	24	26	26	26	25	24	23	28	27	25	21	25	28	32	31	28	28	25	20	18	20	28	22	20.6	32.3
Dir	276	284	292	292	266	302	292	282	281	269	281	283	282	268	259	260	266	270	263	261	278	9	53	22	283	259
16 Spd	24	19	21	25	24	25	22	23	21	8	28	23	22	23	P	P	P	P	23	23	24	27	30	34	17.1	34.1
Dir	42	29	3	42	39	41	319	322	33	206	293	335	46	33	P	P	P	P	93	87	55	52	60	64	34	64
17 Spd	28	28	28	27	25	P	P	27	26	28	31	27	27	25	23	20	22	22	22	22	24	24	33	33	22.1	33.1
Dir	55	75	59	49	13	P	P	50	54	62	68	68	90	81	96	117	114	126	136	137	141	117	78	77	82	77
18 Spd	29	29	29	29	P	P	26	26	25	28	28	24	22	20	19	18	18	17	18	19	21	23	25	31	21.7	30.6
Dir	68	78	72	74	P	P	139	116	124	119	127	136	134	134	121	108	98	99	102	77	69	78	89	95	102	95
19 Spd	30	26	27	27	24	19	25	17	14	6	18	17	11	15	14	12	11	17	18	19	20	23	24	24	13.9	30.0
Dir	89	90	86	89	120	143	228	211	199	143	124	105	122	101	121	138	91	97	99	87	66	55	56	54	101	89
20 Spd	24	24	27	13	28	19	16	15	22	18	21	26	28	28	34	28	25	23	21	11	14	22	25	26	12.2	33.6
Dir	63	91	179	225	63	243	339	291	223	223	262	269	276	273	266	263	240	245	255	6	72	235	252	252	255	266
21 Spd	27	28	28	34	29	28	25	25	24	29	29	29	27	23	22	24	28	28	26	24	23	25	26	26	25.0	33.6
Dir	249	256	244	225	225	225	250	273	260	265	268	277	268	275	257	252	256	261	263	267	276	285	298	288	260	225
22 Spd	26	19	22	28	29	34	18	11	21	18	17	16	17	17	12	13	11	14	21	20	17	20	21	21	7.9	34.0
Dir	286	281	92	85	92	80	156	114	192	166	173	190	234	241	216	159	127	88	99	101	62	50	57	22	114	80

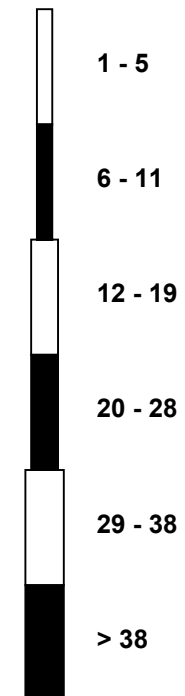
Wind Rose

Wind Speed (WS) (km/h)

Beaverlodge - May 2018



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Beaverlodge - May 2018

Maximum Speed: 49 km/h on May 28 13:00																								Maximum Daily Speed Average: 34.1 km/h on May 28										Hours in Service: 744	
Minimum Speed: 11 km/h on May 6 15:00																								Minimum Daily Speed Average: 17.7 km/h on May 6										Hours of Data: 736	
Maximum Diurnal Speed Average: 28.3 km/h at hour 3																								Minimum Diurnal Speed Average: 23.2 km/h at hour 21										Hours of Missing Data: 8	
Monthly Average Speed: 25.61 km/h																								Percentiles: P ₁ = 14.1 P ₁₀ = 18.8 Q ₁ = 21.7 Median = 25.5 Q ₃ = 29.0 P ₉₀ = 32.5 P ₉₉ = 43.7										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-May	20	20	20	25	24	22	21	19	18	17	16	15	16	15	19	19	21	23	25	21	18	19	18	18	19.5	25.1									
2-May	19	21	25	20	20	25	24	28	35	33	39	44	48	45	44	46	43	43	40	33	21	19	19	20	31.4	47.8									
3-May	20	23	27	21	22	22	21	20	26	28	27	26	26	25	25	29	31	27	32	27	23	20	20	20	24.5	32.0									
4-May	21	26	23	22	22	22	21	19	21	23	22	24	26	31	33	36	34	32	33	22	21	20	21	23	24.9	36.3									
5-May	27	27	24	24	24	24	24	21	20	22	24	25	27	27	25	24	24	23	21	22	20	20	19	21	23.4	27.1									
6-May	27	24	23	23	24	24	24	22	19	16	15	18	14	12	11	11	11	11	12	14	15	17	17	19	17.7	26.7									
7-May	24	25	20	21	22	22	22	21	20	18	16	16	15	19	21	20	28	18	16	17	18	21	22	24	20.2	27.7									
8-May	25	26	31	27	26	26	24	22	22	19	18	16	15	16	21	21	17	19	25	23	22	25	28	26	22.5	30.7									
9-May	26	29	32	32	29	30	28	29	29	29	29	32	33	34	33	35	32	31	27	27	28	28	25	25	29.7	34.7									
10-May	25	28	31	26	27	27	26	25	24	23	21	20	20	24	21	19	19	21	20	21	23	24	25	25	23.5	31.1									
11-May	25	30	33	28	29	29	28	26	23	21	19	18	19	21	22	19	24	29	29	27	22	23	23	25	24.6	32.5									
12-May	26	26	31	31	27	27	26	24	25	24	21	20	20	23	32	34	32	33	29	28	26	21	23	24	26.3	33.7									
13-May	25	25	26	27	32	29	25	23	22	21	19	18	17	17	16	15	16	21	23	18	20	23	24	24	21.9	31.7									
14-May	25	25	26	27	27	29	33	27	23	20	17	18	17	20	32	36	33	34	32	27	24	21	23	24	25.8	35.5									
15-May	24	24	26	26	26	26	25	24	28	28	26	22	26	29	33	31	29	29	25	20	20	22	28	28	26.0	32.8									
16-May	24	25	26	26	26	26	26	26	26	24	29	30	24	25	P	P	P	P	24	24	24	27	30	34	26.2	34.2									
17-May	28	28	28	27	27	P	P	27	26	28	31	27	28	25	24	22	23	22	22	23	24	27	33	33	26.6	33.2									
18-May	29	29	29	29	P	P	28	27	25	28	29	25	23	22	20	19	19	19	19	19	21	23	25	31	24.5	30.6									
19-May	30	26	27	28	29	29	28	26	24	22	20	22	23	19	17	17	16	18	19	19	20	23	24	24	22.9	30.3									
20-May	24	30	31	28	29	30	28	26	24	22	22	26	29	29	34	28	25	23	21	21	22	24	25	26	26.1	33.8									
21-May	27	28	28	34	33	29	26	25	25	29	30	30	28	24	24	25	28	28	26	24	23	25	26	26	27.1	34.0									
22-May	26	27	29	30	30	35	31	25	23	21	19	18	18	18	16	15	15	16	22	21	18	20	21	22	22.4	35.4									
23-May	22	22	23	26	26	25	24	26	27	21	18	16	15	14	15	15	17	17	15	17	22	25	21	20	20.3	27.4									
24-May	21	21	22	24	26	26	24	23	23	22	26	28	26	22	21	19	29	27	24	22	21	23	25	25	23.8	29.0									
25-May	30	30	26	28	28	29	26	25	26	28	27	25	26	28	31	29	29	24	22	23	24	26	28	29	26.9	30.7									
26-May	32	32	39	33	33	33	33	32	34	35	31	31	31	35	37	32	26	30	34	36	35	31	30	30	32.7	38.6									
27-May	31	35	34	30	30	31	30	28	27	28	30	31	27	29	28	26	26	26	25	24	24	25	27	27	28.2	35.0									
28-May	28	28	33	33	29	28	28	29	29	32	37	44	49	48	43	39	38	40	33	32	29	28	30	31	34.1	48.9									
29-May	32	34	38	38	36	35	33	31	29	27	26	25	26	29	28	23	21	24	26	26	27	28	29	30	29.2	37.9									
30-May	30	35	34	31	31	32	31	30	29	28	26	26	30	29	25	34	31	29	29	29	31	32	32	38	30.5	37.6									
31-May	34	32	32	32	32	32	32	32	34	36	29	27	26	25	24	22	29	29	29	29	33	34	31	32	30.3	36.0									
26.0 27.1 28.3 27.6 27.5 27.7 26.7 25.4 25.3 24.9 24.5 24.6 24.7 25.1 25.8 25.3 25.6 25.6 25.1 23.8 23.2 24.0 25.0 25.9 Diurnal Average																																			
33.8 35.0 38.6 37.9 36.0 35.4 33.4 31.7 35.0 36.0 39.4 44.4 48.9 48.0 43.8 46.2 43.4 43.5 40.1 35.8 34.7 34.3 32.7 37.6 Diurnal Maximum																																			
P - Power Failure																																			
All monthly, daily, and diurnal averages have been calculated using scalar methods																																			

Hourly Standard Deviations

Wind Direction (WD) - deg

Beaverlodge - May 2018

Maximum Value: 96.7 deg on May 28 04:00																			Hours in Service: 744						
Minimum Value: 0.8 deg on May 30 19:00																			Hours of Data: 736						
Percentiles: P ₁ = 2.6 P ₁₀ = 4.7 Q ₁ = 7.8 Median = 13.3 Q ₃ = 30.8 P ₉₀ = 56.8 P ₉₉ = 85.8																			Hours of Missing Data: 8						
																			Hours of Calibration: 0						
																			Percent Operational Time: 98.9						
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-May	6	11	12	12	5	8	6	14	36	18	28	29	38	58	44	18	21	12	10	5	3	3	7	4	57.9
2-May	4	9	14	36	82	4	4	3	5	8	9	8	8	9	12	7	6	7	8	5	5	4	8	17	82.4
3-May	43	5	17	4	4	5	6	4	6	11	12	12	11	15	14	10	8	8	6	6	5	3	5	5	43.1
4-May	6	5	19	88	48	50	39	64	10	10	14	14	11	13	10	6	6	9	9	8	3	4	12	56	87.8
5-May	37	30	21	55	36	42	18	30	17	8	10	13	14	12	12	13	12	9	10	4	4	3	6	6	55.2
6-May	15	41	8	33	45	28	49	13	12	19	52	33	78	71	47	64	80	44	34	4	6	3	45	56	80.5
7-May	3	26	70	20	67	29	63	51	11	11	18	19	45	86	10	48	19	63	12	7	23	59	58	61	86.4
8-May	64	50	17	31	30	46	70	24	10	18	25	46	42	40	32	39	30	19	6	5	7	6	4	6	69.8
9-May	4	4	5	4	4	3	5	6	7	8	9	11	10	9	9	9	8	8	5	4	4	4	3	3	10.7
10-May	3	6	8	75	14	72	77	11	20	31	85	75	76	60	39	26	22	13	8	5	11	19	26	9	84.6
11-May	72	22	18	41	20	30	37	12	22	27	17	17	21	35	19	19	12	14	8	6	2	3	5	23	71.6
12-May	22	7	81	87	65	81	36	81	16	9	20	21	26	22	12	10	8	8	9	6	4	8	14	8	87.1
13-May	5	14	83	32	4	35	13	10	12	15	48	57	47	89	77	97	65	40	23	30	15	35	9	15	96.6
14-May	10	18	18	20	19	22	27	17	47	20	66	27	49	21	13	9	9	9	7	6	9	9	20	42	65.9
15-May	39	7	4	10	5	16	11	8	7	10	13	20	15	15	10	11	14	10	8	10	22	25	5	36	38.7
16-May	2	39	38	17	24	20	33	26	36	76	12	42	22	21	P	P	P	P	8	13	8	4	4	3	75.6
17-May	3	12	9	4	25	P	P	4	4	6	6	8	9	11	20	21	17	11	15	10	7	28	6	4	27.8
18-May	11	7	8	4	P	P	23	6	10	8	12	16	17	21	23	25	23	24	18	9	3	6	4	3	24.9
19-May	8	4	7	12	35	51	30	60	67	83	23	45	73	39	40	50	55	22	16	9	17	5	4	11	82.9
20-May	8	39	28	71	20	65	63	67	24	34	17	13	10	9	7	8	7	6	8	60	60	19	5	6	71.3
21-May	4	10	11	9	36	10	21	8	12	8	10	9	12	14	20	18	10	7	9	4	6	7	6	10	35.7
22-May	4	64	40	19	16	17	56	68	26	28	27	28	18	22	48	41	48	30	12	8	17	9	6	19	67.6
23-May	2	2	50	8	4	2	4	5	17	31	50	81	44	52	45	34	20	10	9	4	46	36	5	11	81.5
24-May	6	9	8	57	69	37	51	12	8	10	10	10	9	12	13	19	11	10	12	5	4	5	9	9	68.8
25-May	13	37	14	34	82	87	13	13	16	10	14	14	14	14	12	10	10	15	14	36	80	47	22	8	86.7
26-May	6	10	11	23	6	7	7	8	7	10	12	13	12	11	8	7	10	8	7	6	6	4	6	5	22.8
27-May	6	3	4	10	18	10	16	21	7	9	10	8	11	12	15	13	15	11	7	7	13	47	32	46	47.2
28-May	34	34	15	97	23	59	18	4	11	7	11	9	7	6	8	12	11	8	6	10	8	6	8	5	96.7
29-May	53	61	53	57	60	72	68	21	19	34	30	43	69	63	75	72	71	79	16	31	19	1	41	31	79.1
30-May	9	9	24	5	6	7	11	23	23	22	33	38	33	91	20	37	25	74	1	20	51	25	78	29	91.4
31-May	42	23	17	30	32	14	14	14	12	12	28	19	13	20	37	45	52	25	29	68	35	8	67	1	68.2
71.6 64.1 83.3 96.7 82.4 86.7 76.5 81.4 67.4 82.9 84.6 81.5 78.5 91.4 76.5 96.6 80.5 79.1 33.6 68.2 80.3 59.4 78.0 61.4																									
P - Power Failure																									

PAZA
Valleyview Station
Monthly Summary Tables, Graphs and
Roses

Hourly Averages

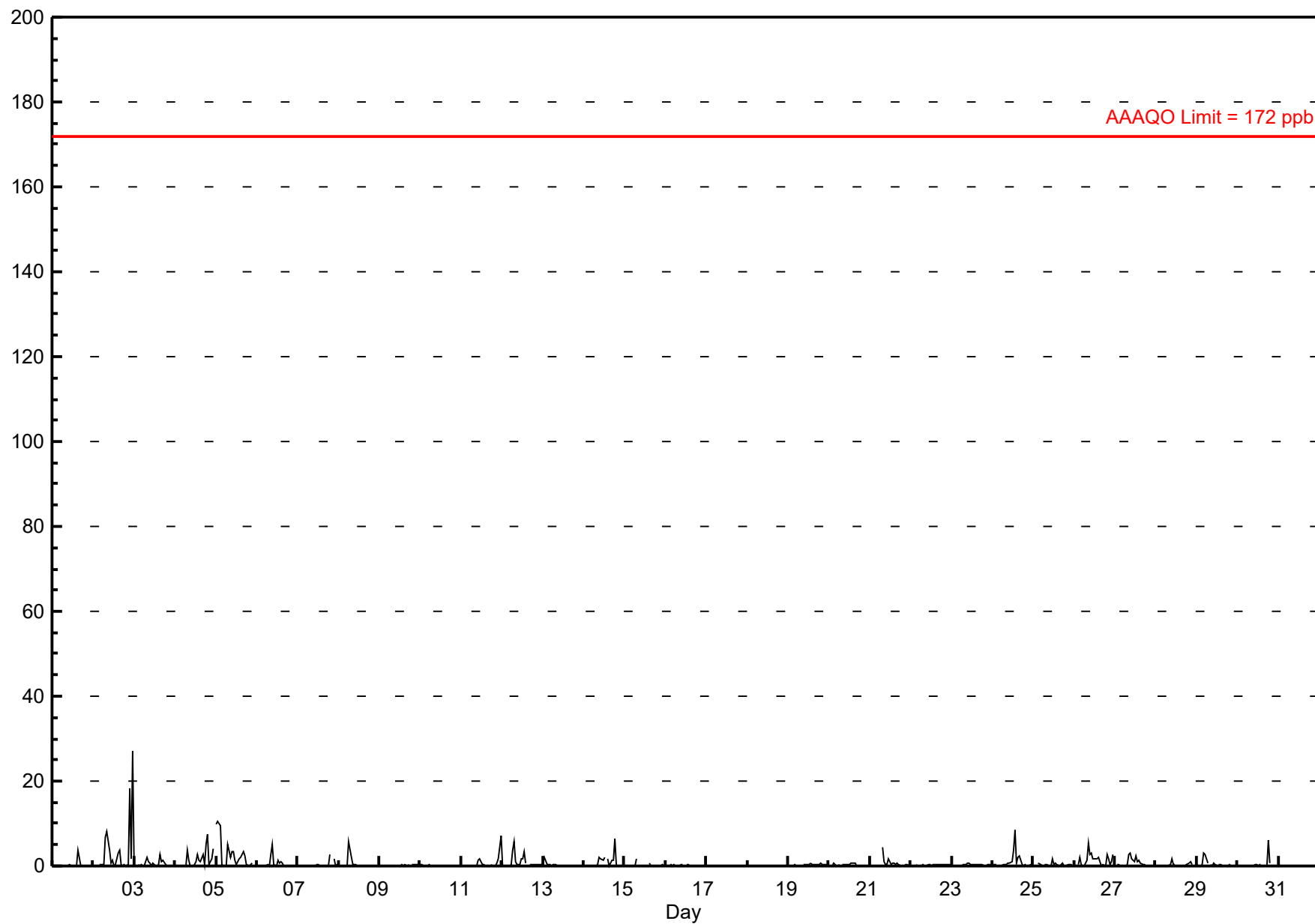
Sulphur Dioxide (SO₂) - ppb

Valleyview - May 2018

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 27.2 ppb on May 3 00:00 Maximum Daily Average: 3.4 ppb on May 2																				Hours in Service: 744 Hours of Data: 702 Hours of Missing Data: 42 Hours of Calibration: 35 Percent Operational Time: 99.1						
Minimum Value: 0 ppb on May 1 10:00 Minimum Daily Average: 0.0 ppb on May 17 Maximum Diurnal Average: 1.4 ppb at hour 24 Minimum Diurnal Average: 0.2 ppb at hour 6 Monthly Average: 0.60 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.3 P ₉₀ = 1.6 P ₉₉ = 7.4																										
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-May	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0.2	3.7
2-May	0	0	A	0	0	0	0	7	8	4	1	1	0	0	3	4	0	0	0	0	0	18	2	27	3.4	27.2
3-May	0	A	0	0	0	0	0	2	1	1	0	1	0	0	0	3	1	1	0	0	0	0	0	0	0.5	2.7
4-May	A	0	0	0	0	0	0	4	1	0	0	0	1	3	1	1	3	0	5	7	0	2	4	A	1.5	7.4
5-May	10	11	10	0	0	0	0	5	2	3	3	1	0	2	2	3	3	2	0	0	0	1	A	0	2.6	10.6
6-May	0	0	0	0	0	0	0	0	3	5	0	0	2	1	1	1	0	0	0	0	0	A	0	0	0.6	5.2
7-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	A	2	0	0	0.3	2.7
8-May	0	0	0	0	0	0	6	2	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.4	5.9
9-May	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
10-May	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	0.2
11-May	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	A	0	0	0	0	1	2	7	0.6	7.2
12-May	0	0	0	0	0	0	4	6	1	0	0	2	2	3	1	A	0	0	0	0	0	0	0	0	0.9	5.9
13-May	1	2	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.2	2.0
14-May	0	0	0	0	0	0	0	0	0	2	2	1	2	A	2	0	1	1	6	0	0	0	0	0	0.8	6.4
15-May	0	0	0	0	0	0	0	2	P	P	P	P	P	P	1	0	0	0	0	0	0	0	0	0	0.2	1.8
16-May	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
17-May	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	0.1
18-May	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	0.1
19-May	0	0	0	0	0	0	0	0	A	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0.2	0.6
20-May	0	0	0	1	0	0	0	A	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0.2	0.7
21-May	0	0	0	0	0	0	A	4	1	0	0	2	0	1	1	0	1	0	0	0	0	0	0	0	0.5	4.4
22-May	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
23-May	0	0	0	0	A	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8
24-May	0	0	0	A	0	0	0	0	0	1	1	1	4	8	1	2	2	0	0	0	0	0	0	0	1.0	8.3
25-May	0	0	A	1	0	0	0	0	0	0	0	2	0	1	0	0	0	1	0	0	0	0	0	0	0.3	1.6
26-May	0	A	0	2	0	0	0	2	5	3	3	2	2	2	2	1	0	0	0	3	2	0	1	3	1.4	5.4
27-May	A	0	0	0	0	0	0	0	3	3	2	1	2	1	1	1	0	0	0	0	0	0	0	A	0.7	2.9
28-May	0	0	0	0	0	0	0	0	0	2	0	0	C	C	C	0	0	0	0	1	1	0	A	0	0.3	1.7
29-May	0	0	0	0	3	3	1	P	0	0	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0.5	3.0
30-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	1	A	0	0	0	0.4	6.1
31-May	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
0.4 0.5 0.4 0.2 0.2 0.2 0.4 1.2 1.0 0.9 0.6 0.6 0.6 0.9 0.6 0.7 0.5 0.3 0.7 0.6 0.2 0.9 0.4 1.4 9.7 10.6 9.5 2.1 3.0 2.8 5.9 6.8 8.0 5.2 3.4 1.6 3.7 8.3 2.9 3.9 3.4 2.2 6.4 7.4 1.6 18.1 3.9 27.2																								Diurnal Average	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
Valleyview - May 2018



Hourly Maximums

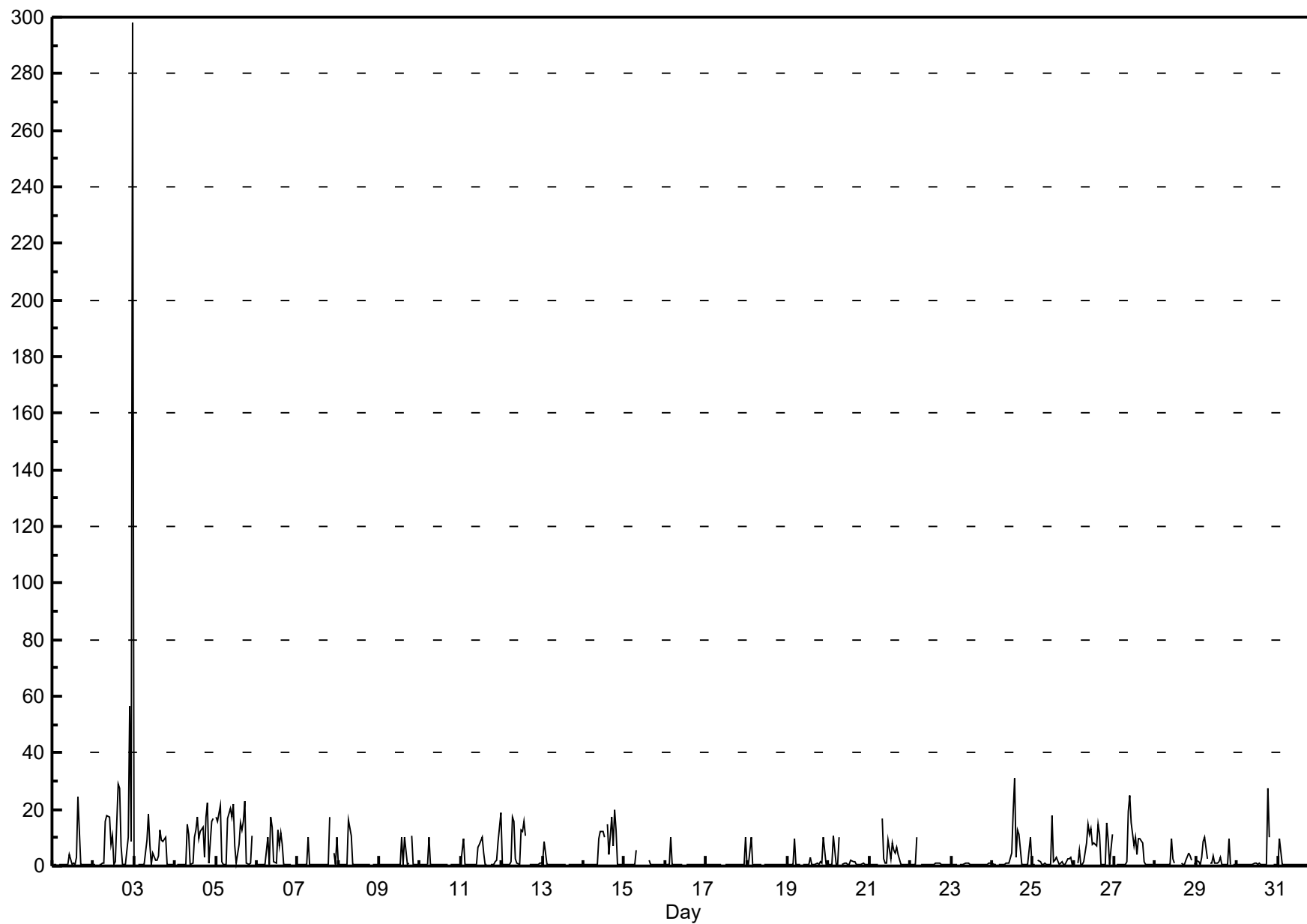
Sulphur Dioxide (SO₂) - ppb

Valleyview - May 2018

Maximum Value: 298.2 ppb on May 3 00:00																				Maximum Daily Average: 22.4 ppb on May 2										Hours in Service: 744	
Minimum Value: 0 ppb on May 18 04:00																				Minimum Daily Average: 0.7 ppb on May 23										Hours of Data: 702	
Maximum Diurnal Average: 12.4 ppb at hour 24																				Minimum Diurnal Average: 1.1 ppb at hour 1										Hours of Missing Data: 42	
Monthly Average: 3.48 ppb																				Percentiles: P ₁ = 0.3 P ₁₀ = 0.4 Q ₁ = 0.4 Median = 0.6 Q ₃ = 1.6 P ₉₀ = 10.5 P ₉₉ = 24.5										Hours of Calibration: 35	
																				Percent Operational Time: 99.1											
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-May	0	0	1	A	0	1	1	0	0	0	4	0	1	0	3	25	0	0	1	0	0	1	0	0	1.8	24.6					
2-May	1	0	A	0	1	1	1	16	18	17	8	11	1	2	29	28	7	1	1	1	10	56	9	298	22.4	298.2					
3-May	1	A	1	1	1	1	1	9	18	8	1	4	2	2	3	13	9	9	10	0	1	0	1	0	4.1	18.4					
4-May	A	0	0	0	0	0	1	15	11	1	1	10	12	17	10	12	14	3	17	22	1	16	17	A	8.3	22.2					
5-May	18	16	21	1	1	0	0	17	20	18	22	7	1	8	15	13	16	23	1	0	1	11	A	0	10.0	22.9					
6-May	0	1	1	1	0	0	10	0	17	14	2	1	12	7	12	8	1	0	0	0	0	A	0	0	3.9	17.1					
7-May	0	0	0	0	0	0	10	0	0	1	1	1	1	1	0	1	0	0	0	17	A	4	1	10	2.2	17.2					
8-May	1	0	0	0	0	0	16	11	1	0	1	0	0	1	0	0	0	0	0	A	1	0	0	1	1.6	16.1					
9-May	0	0	0	0	0	1	0	1	0	1	1	0	1	10	1	10	0	1	A	10	1	1	1	1	1.8	10.5					
10-May	1	1	1	1	1	10	0	0	0	0	0	0	0	1	0	0	0	A	0	0	0	0	0	0	0.9	10.2					
11-May	0	10	0	0	0	0	0	0	0	1	7	8	10	4	1	0	A	1	1	1	1	2	9	19	3.3	18.7					
12-May	1	1	0	1	1	2	17	16	2	1	1	13	12	16	10	A	1	1	1	1	1	1	1	1	4.3	17.2					
13-May	1	8	1	1	1	1	1	1	1	1	1	1	1	0	A	1	1	1	1	1	1	0	0	1	0.9	8.4					
14-May	0	0	0	0	0	0	0	1	1	10	12	12	10	A	15	4	17	7	20	13	0	0	0	0	5.4	19.7					
15-May	0	0	0	0	0	0	0	6	P	P	P	P	P	P	2	0	0	0	0	0	1	0	1	0	0.8	5.8					
16-May	0	0	0	10	0	1	0	0	1	1	1	A	1	1	0	0	0	0	0	0	1	1	0	0	0.9	10.3					
17-May	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	10	0.8	10.0					
18-May	0	0	10	0	0	0	0	0	0	A	0	1	0	0	0	1	0	0	0	0	1	0	0	1	0.9	10.2					
19-May	1	0	0	0	10	0	0	0	A	1	1	1	1	3	1	1	1	1	1	2	1	10	1	0	1.5	10.2					
20-May	0	1	0	10	1	0	10	A	1	1	1	1	1	2	2	2	0	0	0	1	1	1	0	1	1.6	10.5					
21-May	0	0	1	0	1	1	A	17	2	1	1	9	3	8	6	4	7	4	1	0	1	1	1	1	3.0	16.7					
22-May	1	0	0	1	10	A	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	10.3					
23-May	0	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0.7	1.3					
24-May	1	1	1	A	1	1	1	1	1	1	1	5	19	31	3	13	11	1	1	1	0	0	10	0	4.5	31.0					
25-May	0	0	A	2	1	0	1	1	1	1	1	18	2	2	3	0	1	1	1	0	2	2	3	1	2.0	18.0					
26-May	0	A	1	6	1	0	1	8	15	11	13	7	8	7	15	11	1	1	0	15	9	1	6	11	6.5	15.5					
27-May	A	1	1	1	0	0	0	2	19	25	15	7	10	4	10	10	8	1	1	1	1	1	0	A	5.3	24.7					
28-May	0	0	0	0	0	1	1	1	1	10	3	1	C	C	C	1	0	1	2	5	3	2	A	1	1.6	9.9					
29-May	2	1	0	3	9	10	3	P	1	1	4	1	1	2	3	1	0	0	1	10	0	A	0	0	2.4	10.1					
30-May	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	1	0	0	27	10	A	0	0	1	2.1	27.2					
31-May	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	0	1	0.8	9.7					
1.1 1.9 1.5 1.5 1.4 1.2 2.7 4.3 4.7 4.3 3.5 4.2 3.9 4.7 5.1 5.3 3.3 2.0 3.0 3.9 1.4 3.9 2.2 12.4																										Diurnal Average					
17.5 15.9 21.2 10.5 10.3 10.2 17.2 16.9 20.3 24.7 21.8 18.0 19.4 31.0 28.9 27.6 17.3 22.9 27.2 22.2 10.0 56.4 16.7 298.2																										Diurnal Maximum					
C - Calibration P - Power Failure A - Automated Daily Zero Span																															

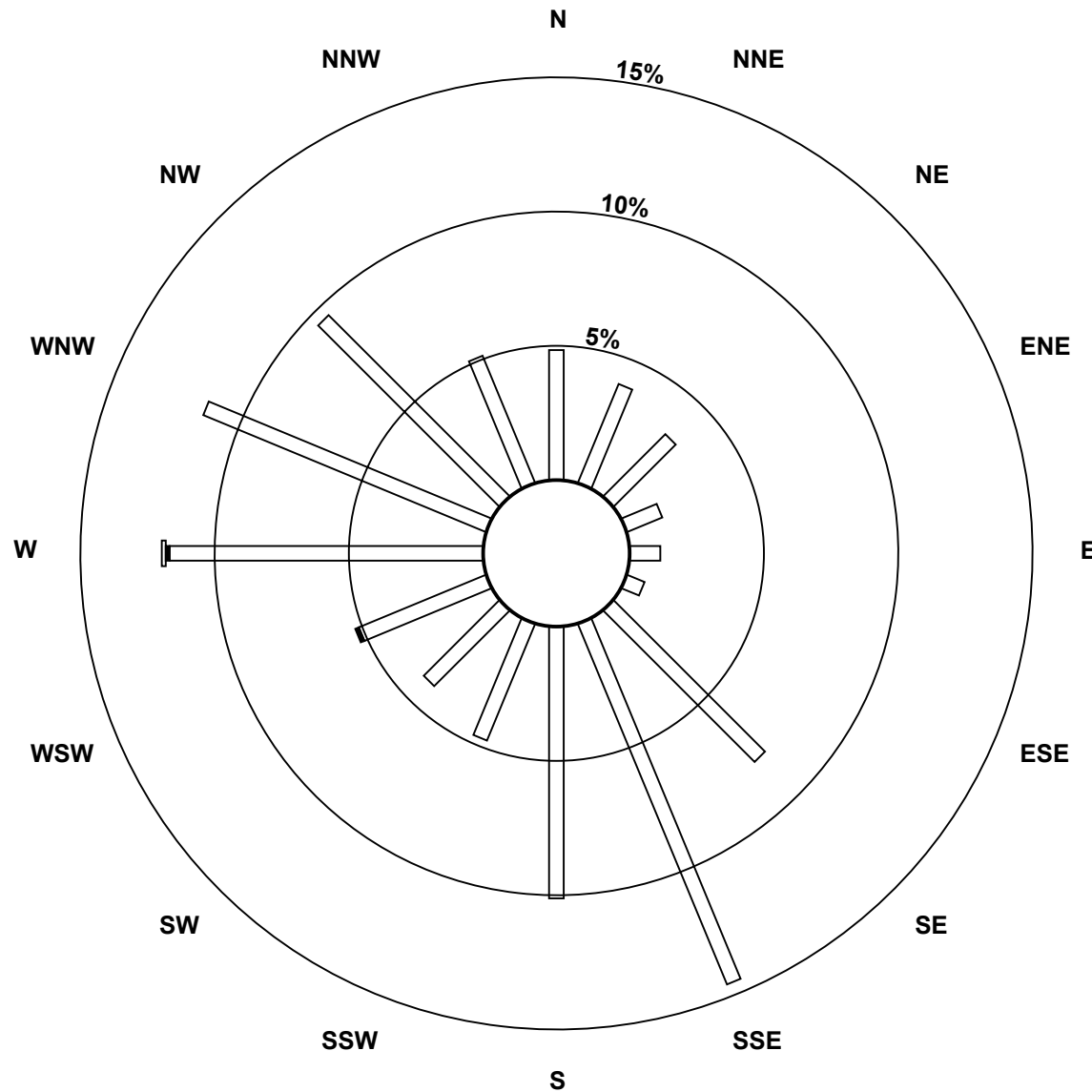
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Valleyview - May 2018



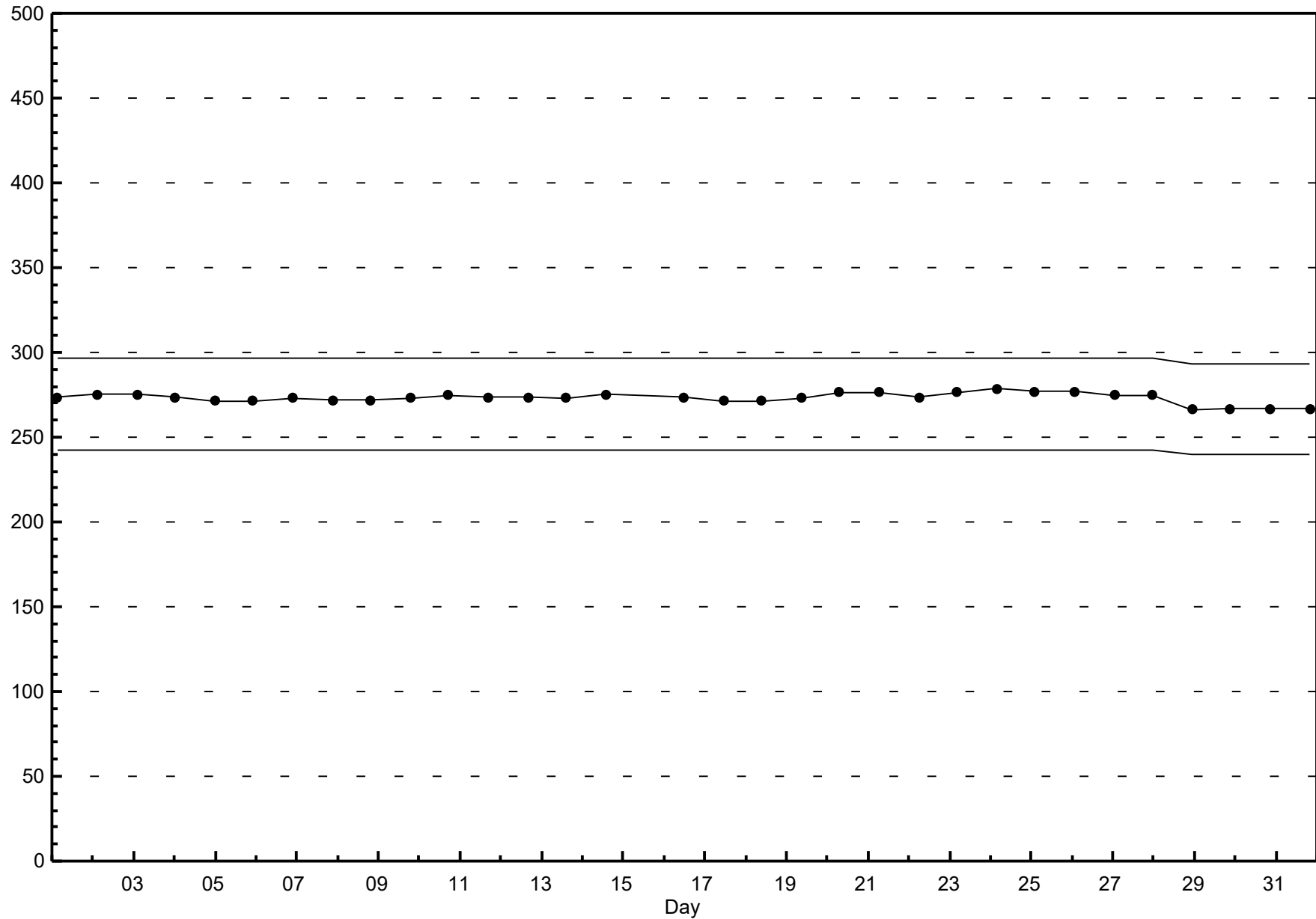
Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Valleyview - May 2018



Span Responses

Sulphur Dioxide (SO₂)
Valleyview - May 2018



Hourly Averages

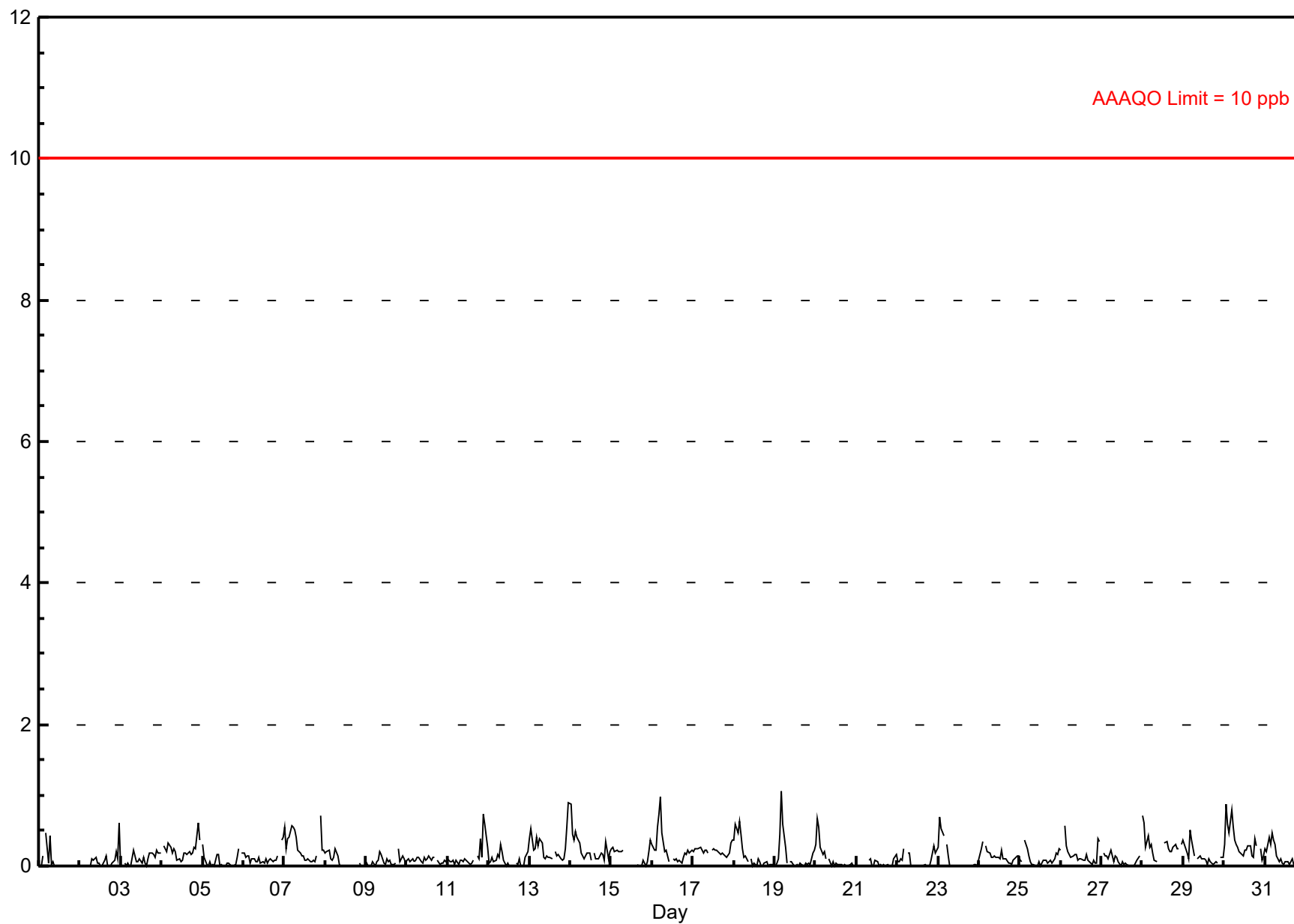
Hydrogen Sulphide (H₂S) - ppb

Valleyview - May 2018

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 1.1 ppb on May 19 05:00 Maximum Daily Average: 0.3 ppb on May 30																				Hours in Service: 744 Hours of Data: 700						
Minimum Value: 0 ppb on May 1 01:00 Minimum Daily Average: 0.0 ppb on May 21 Maximum Diurnal Average: 0.3 ppb at hour 5 Minimum Diurnal Average: 0.1 ppb at hour 18 Monthly Average: 0.14 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 0.3 P ₉₉ = 0.7																				Hours of Missing Data: 44 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-May	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	0.5
2-May	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	0.6
3-May	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
4-May	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	A	0.2	0.6
5-May	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
6-May	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	0.4
7-May	1	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	0	0	0.3	0.7
8-May	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	0.2
9-May	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
10-May	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	0.2
11-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	1	1	0	0.1	0.7
12-May	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	0.3
13-May	0	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	1	1	0.3	0.9
14-May	1	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	0.9
15-May	0	0	0	0	0	0	0	0	P	P	P	P	P	P	P	0	0	0	0	0	0	0	0	0	--	0.4
16-May	0	0	0	1	1	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.0
17-May	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
18-May	0	1	0	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
19-May	0	0	0	0	1	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.1
20-May	0	1	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.7
21-May	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	0.2
22-May	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
23-May	0	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.7
24-May	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
25-May	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	0.4
26-May	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
27-May	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
28-May	1	1	0	0	0	0	0	0	0	C	C	C	C	0	0	0	0	0	0	0	0	0	A	0	0.3	0.7
29-May	0	0	0	0	1	0	0	P	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.5
30-May	0	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.3	0.9
31-May	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	0.5
0.2 0.3 0.2 0.2 0.3 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 0.1 0.1 0.1 0.1 0.1 0.1																								Diurnal Average		
0.9 0.9 0.6 0.6 1.1 1.0 0.5 0.4 0.3 0.2 0.2 0.2 0.2 0.3 0.3 0.3 0.2 0.2 0.4 0.4 0.2 0.7 0.6 0.9																								Diurnal Maximum		
C - Calibration P - Power Failure 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 - May 2018



Hourly Maximums

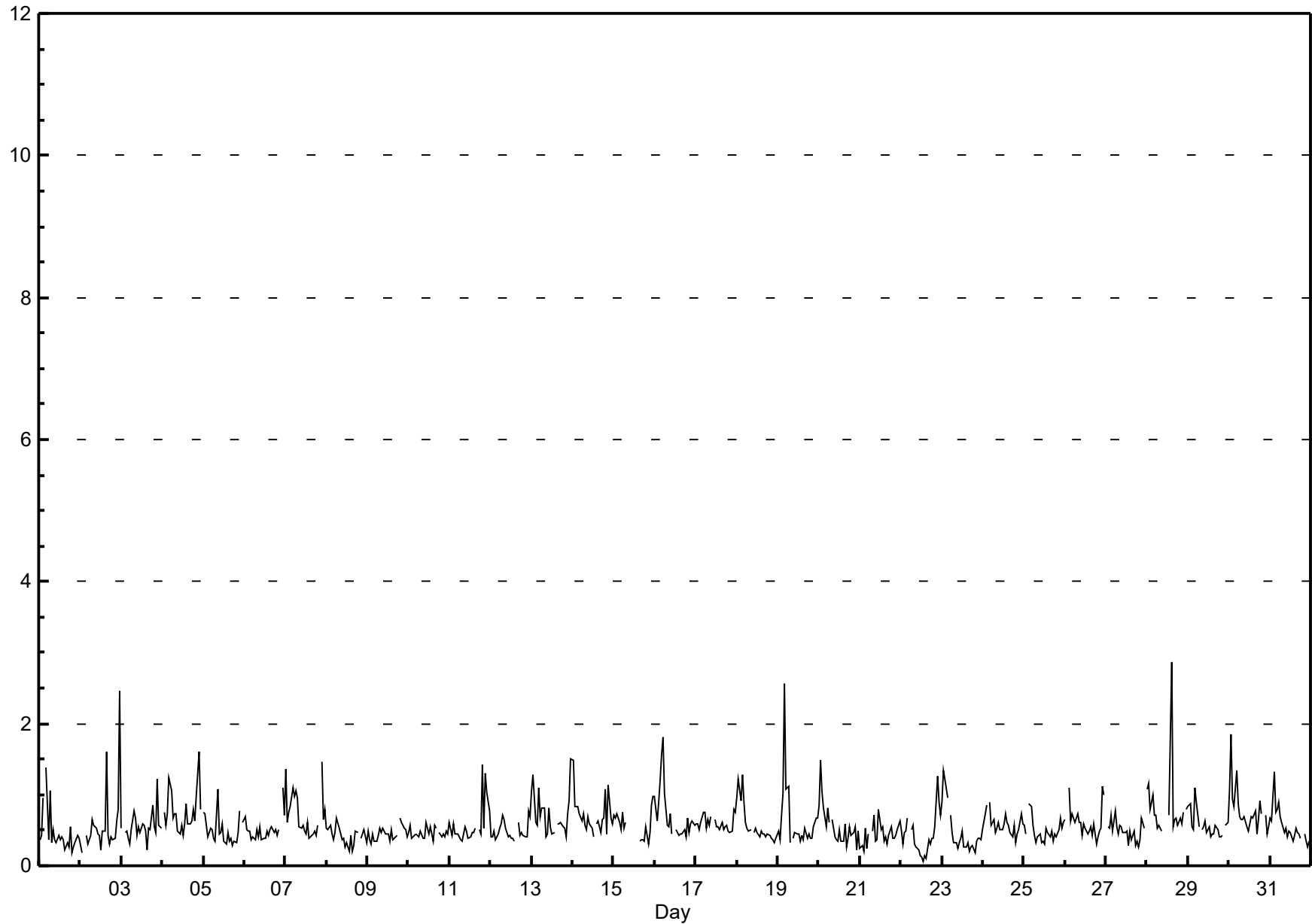
Hydrogen Sulphide (H₂S) - ppb

Valleyview - May 2018

Maximum Value: 2.9 ppb on May 28 15:00																				Maximum Daily Average: 0.8 ppb on May 28										Hours in Service: 744	
Minimum Value: 0 ppb on May 22 14:00																				Minimum Daily Average: 0.4 ppb on May 8										Hours of Data: 700	
Maximum Diurnal Average: 0.8 ppb at hour 5																				Minimum Diurnal Average: 0.4 ppb at hour 13										Hours of Missing Data: 44	
Monthly Average: 0.57 ppb																				Percentiles: P ₁ = 0.2 P ₁₀ = 0.3 Q ₁ = 0.4 Median = 0.5 Q ₃ = 0.6 P ₉₀ = 0.9 P ₉₉ = 1.6										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-May	0	0	1	A	1	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.5	1.4					
2-May	0	0	A	0	0	0	0	1	1	1	0	0	0	0	0	2	0	0	0	0	0	1	1	2	0.6	2.5					
3-May	1	A	0	0	0	0	1	1	1	0	1	0	1	1	0	0	1	1	1	1	0	1	1	1	0.5	1.2					
4-May	A	1	1	1	1	1	1	1	1	0	0	1	0	1	1	1	1	1	1	1	1	2	1	A	0.8	1.6					
5-May	1	1	0	0	1	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	1	A	1	0.5	1.1					
6-May	1	1	0	0	0	0	0	1	0	1	0	0	0	0	0	1	1	0	1	0	1	A	1	1	0.5	1.1					
7-May	1	1	1	1	1	1	1	1	1	1	1	0	0	1	0	0	0	0	0	1	A	1	1	1	0.7	1.5					
8-May	1	1	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	1	0	0.4	0.7					
9-May	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	0	0	A	1	1	1	1	0	0.5	0.7					
10-May	0	1	0	0	0	0	0	0	0	0	1	1	0	1	0	1	1	A	0	0	0	0	0	0	0.5	0.6					
11-May	1	0	1	0	0	0	0	0	0	1	0	0	0	0	0	1	A	1	0	1	1	1	1	1	0.6	1.4					
12-May	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	A	1	0	0	0	0	0	1	1	0.5	0.8					
13-May	1	1	1	1	1	1	1	1	0	0	1	1	0	0	A	1	1	1	1	1	0	1	1	2	0.7	1.5					
14-May	1	1	1	1	1	1	1	1	1	1	1	1	0	A	1	1	0	1	1	1	0	1	1	1	0.7	1.5					
15-May	1	1	1	1	1	1	1	1	P	P	P	P	P	P	P	0	0	0	0	1	0	0	1	1	--	1.0					
16-May	1	1	1	1	2	2	1	1	1	1	0	A	1	0	0	0	0	1	0	1	0	1	1	1	0.7	1.8					
17-May	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0	0	0	1	1	0.6	0.8					
18-May	1	1	1	1	1	1	1	0	1	A	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.6	1.3					
19-May	0	0	1	1	3	1	1	0	A	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0.6	2.6					
20-May	1	1	1	1	1	1	1	A	1	0	0	0	1	0	0	1	0	0	1	0	0	1	0	0	0.6	1.5					
21-May	0	0	0	1	0	0	A	0	1	0	0	1	1	1	0	0	0	0	1	0	0	0	1	1	0.4	0.8					
22-May	0	0	0	0	1	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0.4	1.3					
23-May	1	1	1	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	1.3					
24-May	0	1	1	A	1	1	1	0	1	1	1	0	1	1	1	1	0	0	1	0	0	1	1	1	0.6	0.9					
25-May	1	0	A	1	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	1	0.5	0.9					
26-May	1	A	1	1	1	1	1	1	1	1	0	1	1	0	0	1	0	1	0	0	0	1	1	1	0.6	1.1					
27-May	A	1	1	1	0	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	A	0.5	0.8					
28-May	1	1	1	1	1	1	1	1	0	C	C	C	C	1	3	1	1	1	1	1	1	1	A	1	0.8	2.9					
29-May	1	1	1	0	1	1	1	P	1	1	1	0	1	0	0	0	1	1	0	0	0	A	1	1	0.6	1.1					
30-May	1	2	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	1	A	1	0	1	0.8	1.9					
31-May	1	1	1	1	1	1	1	1	0	1	0	0	0	0	0	1	0	0	0	A	0	0	0	0	0.6	1.3					
		0.7	0.7	0.7	0.7	0.8	0.7	0.6	0.6	0.5	0.5	0.5	0.5	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	Diurnal Average						
		1.5	1.9	1.3	1.3	2.6	1.8	1.1	1.0	1.1	0.7	0.8	0.8	0.6	0.7	2.9	1.6	0.6	0.7	0.9	1.4	1.0	1.6	1.1	2.5	Diurnal Maximum					
C - Calibration		P - Power Failure						A - Automated Daily Zero Span																							

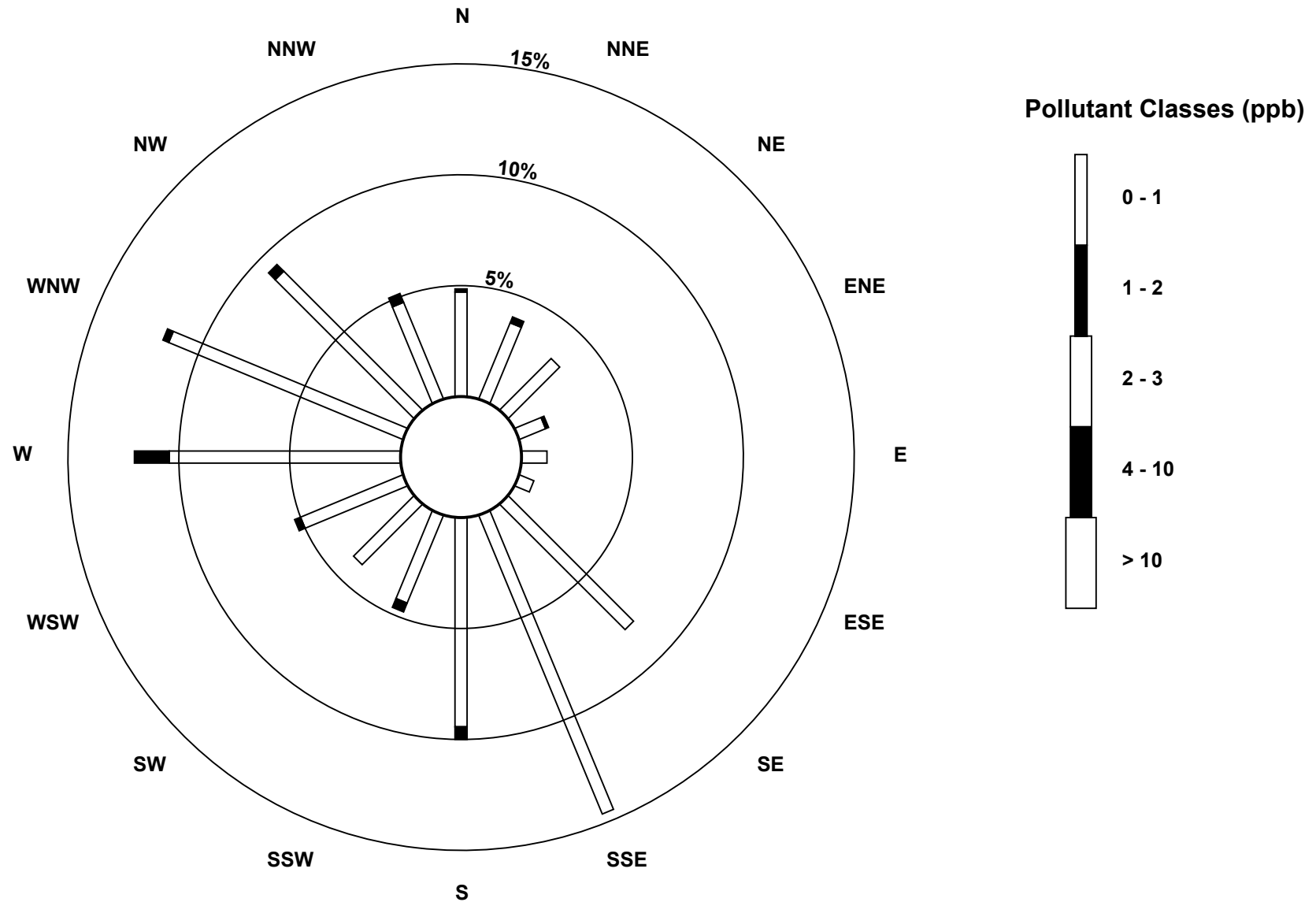
Hourly Maximums

Hydrogen Sulphide (H₂S) - ppb
Valleyview - May 2018



Pollutant Rose

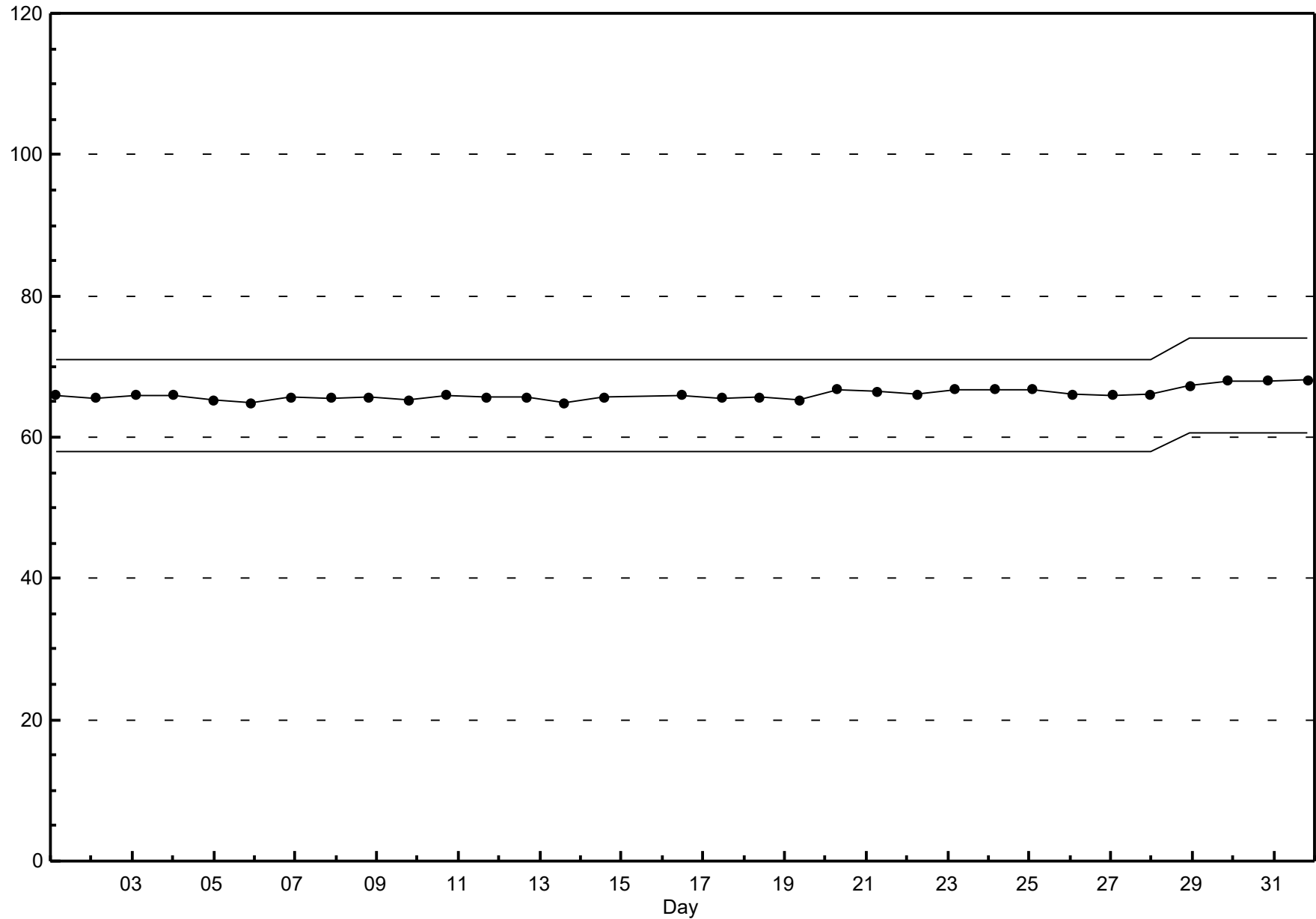
Hydrogen Sulphide (H₂S) - ppb
Valleyview - May 2018



Span Responses

Hydrogen Sulphide (H_2S)

Valleyview - May 2018



Hourly Averages

External Temperature (ET) - °C

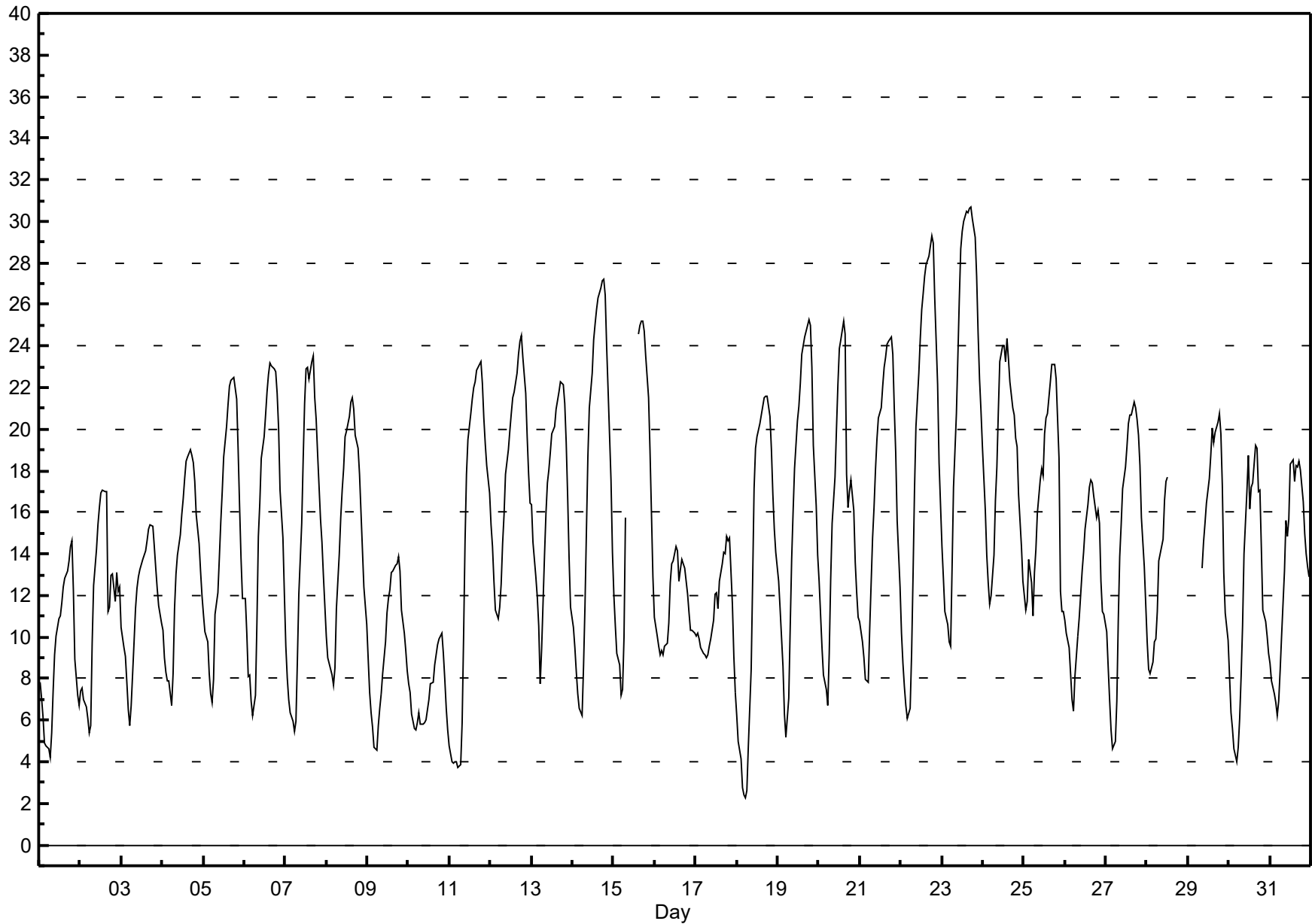
Valleyview - May 2018

Maximum Value: 30.7 °C on May 23 18:00																					Maximum Daily Average: 22.3 °C on May 23					Hours in Service: 744	
Minimum Value: 2 °C on May 18 06:00																					Minimum Daily Average: 7.3 °C on May 10					Hours of Data: 719	
Maximum Diurnal Average: 20.4 °C at hour 16																					Minimum Diurnal Average: 7.0 °C at hour 6					Hours of Missing Data: 25	
Monthly Average: 14.54 °C																					Percentiles: P ₁ = 4.0 P ₁₀ = 6.7 Q ₁ = 9.7 Median = 13.8 Q ₃ = 19.2 P ₉₀ = 23.0 P ₉₉ = 29.3					Hours of Calibration: 0	
																					Percent Operational Time: 96.6						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
1-May	8	7	6	5	5	5	4	5	7	9	10	11	11	12	12	13	13	14	14	15	12	9	7	7	9.2	14.7	
2-May	7	8	7	7	6	5	6	10	12	14	15	16	17	17	17	11	11	13	13	12	13	12	12	12	11.7	17.1	
3-May	10	9	9	8	6	6	7	10	11	12	13	13	14	14	14	15	15	15	15	14	13	12	12	11	11.7	15.4	
4-May	10	9	8	8	8	7	8	11	13	14	15	16	17	18	18	19	19	19	18	18	16	15	13	12	13.7	19.0	
5-May	11	10	10	8	7	7	8	11	12	14	16	17	19	20	21	22	22	22	22	21	19	16	14	12	15.1	22.5	
6-May	12	10	8	8	7	6	7	11	15	16	19	20	21	22	23	23	23	23	23	22	20	17	15	12	15.9	23.2	
7-May	10	8	7	6	6	5	6	9	12	15	18	21	23	23	22	23	24	22	21	19	16	15	13	12	14.8	23.5	
8-May	10	9	8	8	8	9	11	14	16	17	18	20	20	21	21	22	21	20	19	18	16	14	12	11	15.1	21.5	
9-May	9	7	6	6	5	5	6	7	7	8	10	11	12	12	13	13	13	14	14	13	11	10	9	8	9.6	13.8	
10-May	8	7	6	6	6	6	6	6	6	6	6	7	7	8	8	9	9	10	10	10	9	8	7	6	7.3	10.2	
11-May	5	4	4	4	4	4	4	6	10	15	18	19	21	21	22	22	23	23	23	22	21	19	18	17	14.5	23.3	
12-May	15	14	13	11	11	11	13	15	16	18	19	20	21	22	22	23	24	24	24	23	22	20	18	16	18.1	24.5	
13-May	16	15	13	12	11	8	9	14	16	17	18	19	20	20	21	21	22	22	22	21	19	17	14	11	16.6	22.3	
14-May	10	10	8	7	7	6	9	11	15	19	21	23	24	25	26	26	27	27	27	26	24	22	18	14	18.0	27.2	
15-May	12	11	9	9	7	7	10	16	P	P	P	P	P	P	25	25	25	25	25	24	22	19	16	13	16.6	25.2	
16-May	11	10	10	9	9	9	10	10	11	13	14	14	14	14	13	13	14	13	13	12	11	10	10	10	11.5	14.4	
17-May	10	10	10	10	9	9	9	9	10	10	11	12	12	11	13	14	14	14	15	15	15	12	9	7	11.2	14.8	
18-May	6	5	4	3	2	2	3	5	8	13	17	19	20	20	21	21	21	22	22	21	19	17	15	14	13.3	21.6	
19-May	13	11	10	9	6	5	7	10	14	16	18	20	21	22	24	24	24	25	25	25	23	19	16	14	16.8	25.3	
20-May	13	11	9	8	7	7	9	13	15	18	20	22	24	24	25	25	18	16	17	18	16	14	12	11	15.5	25.2	
21-May	11	10	9	8	8	8	10	15	16	18	19	21	21	22	23	23	24	24	24	24	21	19	16	12	16.9	24.4	
22-May	10	9	8	7	6	7	9	13	17	20	23	24	26	27	27	28	28	29	29	29	26	22	18	16	19.1	29.3	
23-May	14	13	11	11	10	10	13	17	21	23	26	29	30	30	31	30	31	31	30	29	27	25	22	21	22.3	30.7	
24-May	19	16	14	13	12	12	14	17	18	21	23	24	24	23	24	23	22	21	21	20	19	17	14	13	18.5	24.4	
25-May	12	11	12	14	13	11	13	14	16	18	18	18	20	21	21	22	23	23	23	22	19	12	11	11	16.6	23.1	
26-May	11	10	10	8	7	6	8	10	11	12	13	14	15	16	17	18	17	17	16	16	16	13	11	11	12.6	17.6	
27-May	10	9	7	6	5	5	7	11	14	15	17	18	19	20	21	21	21	20	20	18	16	13	12	12	14.4	21.3	
28-May	10	8	8	9	10	10	11	14	14	15	17	17	18	N	N	N	N	N	N	N	N	N	N	N	--	17.7	
29-May	N	N	N	N	N	N	N	N	N	13	15	15	16	18	19	20	19	20	20	21	20	17	13	11	10	--	20.7
30-May	8	6	6	5	4	5	6	8	11	14	17	19	16	17	17	19	19	17	17	14	11	11	10	9	11.9	19.2	
31-May	9	8	7	7	6	7	8	10	13	16	15	16	18	19	18	18	18	18	18	17	15	14	13	13	13.4	18.5	
																									Diurnal Average		
																									Diurnal Maximum		
P - Power Failure N - Not Valid																											

Hourly Averages

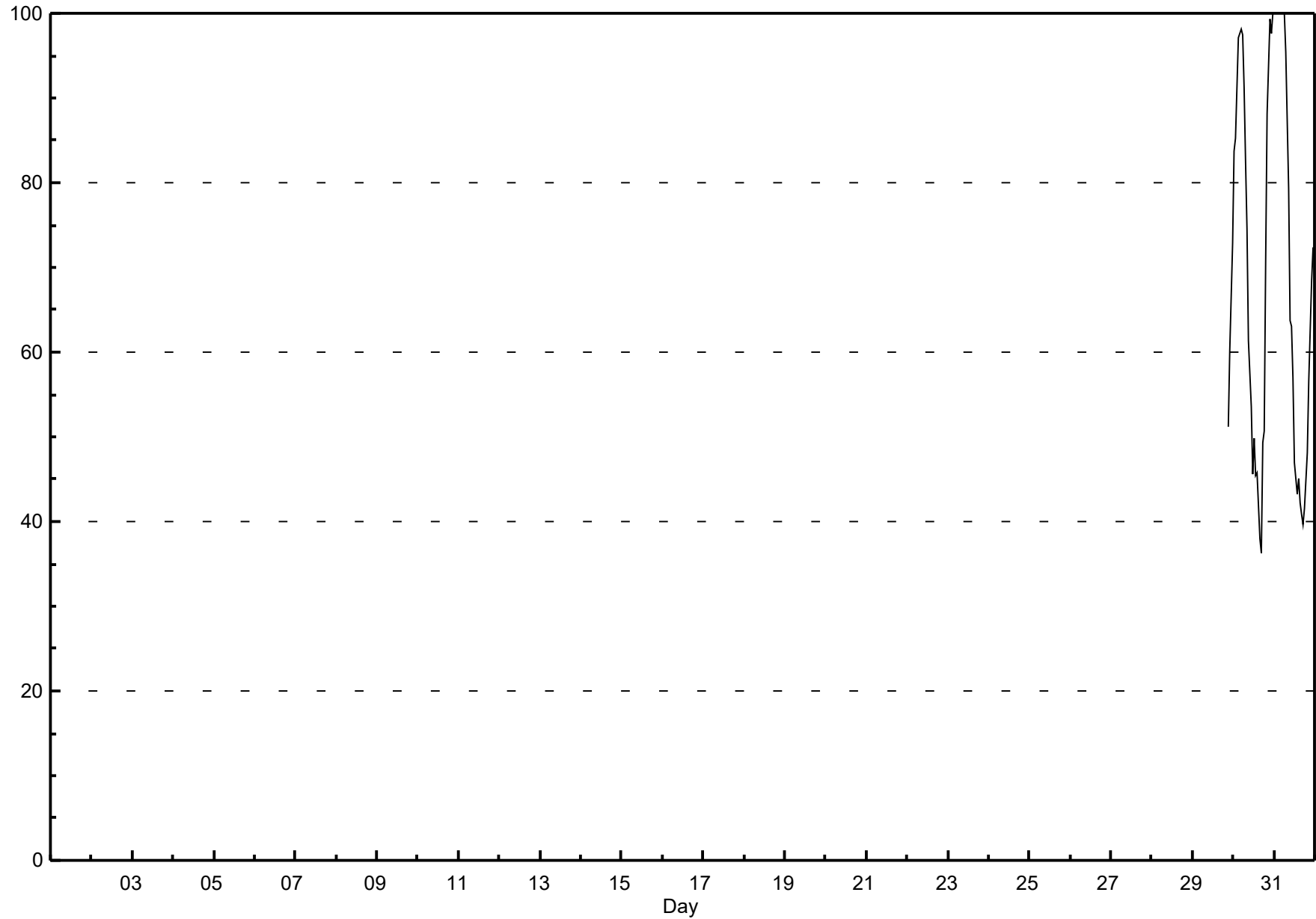
External Temperature (ET) - °C

Valleyview - May 2018



Hourly Averages

Relative Humidity (RH) - %
Valleyview - May 2018



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Valleyview - May 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	7	5	2	3	5	5	6	9	9	8	11	11	10	9	9	9	6	5	2	1	1	1	2	2	5.0	10.7	
Dir	339	348	293	282	284	293	281	295	305	306	306	313	319	322	307	285	316	324	353	98	161	195	197	174	307	313	
2 Spd	3	4	4	3	2	2	2	7	15	18	18	18	20	23	27	23	16	5	2	3	3	9	8	6	7.7	27.1	
Dir	175	173	169	170	180	191	195	261	270	276	285	287	296	291	281	280	360	42	194	186	203	263	257	266	278	281	
3 Spd	2	4	2	2	2	2	2	8	12	14	16	15	13	10	11	12	9	8	8	8	5	1	1	2	6.3	15.9	
Dir	201	186	197	189	198	208	210	266	282	287	290	286	296	306	293	267	285	271	280	294	304	258	205	228	278	290	
4 Spd	1	0	1	1	1	2	4	10	13	14	13	14	13	13	15	15	14	16	13	11	7	11	11	11	8.9	15.8	
Dir	194	172	201	184	256	204	235	269	285	302	306	292	288	278	288	280	280	285	267	270	284	276	273	269	281	285	
5 Spd	9	10	7	2	2	2	2	7	15	12	9	8	9	7	8	8	9	10	8	6	2	1	1	1	5.8	14.6	
Dir	264	258	250	164	158	163	187	255	275	269	262	264	241	253	270	274	270	289	292	297	327	195	202	212	265	275	
6 Spd	2	2	2	2	1	1	2	3	3	7	5	6	5	6	4	5	8	11	11	8	4	2	1	0	2.4	11.2	
Dir	231	171	156	175	173	186	181	171	237	260	233	250	263	280	281	298	353	343	336	337	336	336	305	210	294	343	
7 Spd	0	1	1	0	1	0	0	0	1	2	4	2	4	3	7	6	6	5	2	6	2	1	2	1	0.6	7.2	
Dir	170	171	188	62	343	67	25	45	311	40	13	34	20	33	129	73	76	190	120	262	260	187	181	229	82	129	
8 Spd	1	0	1	1	1	2	6	15	16	15	12	11	11	11	14	14	15	17	14	13	11	8	8	7	6.7	17.0	
Dir	178	183	192	193	157	155	258	280	299	314	318	6	6	313	322	350	6	10	24	28	24	37	42	50	348	10	
9 Spd	5	5	4	4	4	4	5	7	9	9	10	10	12	12	10	11	12	13	11	10	8	6	7	6	6.9	13.0	
Dir	40	20	32	32	51	55	122	128	139	138	137	144	144	140	130	129	132	131	129	137	141	142	142	143	127	131	
10 Spd	4	2	3	3	3	4	5	5	5	6	4	5	4	4	5	5	3	3	4	3	3	2	3	3	3.7	5.6	
Dir	144	136	129	130	133	133	147	141	150	148	151	154	142	154	142	138	140	149	157	167	171	175	177	171	148	148	
11 Spd	2	3	3	3	3	3	4	3	2	2	5	6	5	9	11	9	11	10	7	2	2	7	10	7	3.2	10.8	
Dir	174	173	168	168	165	163	162	157	162	177	262	283	312	300	304	305	325	332	309	281	243	272	275	254	278	304	
12 Spd	8	8	2	1	2	2	3	11	14	12	12	12	12	13	16	17	14	15	13	14	11	7	5	5	8.5	16.9	
Dir	246	242	218	173	204	218	228	272	280	308	310	290	283	284	297	323	315	314	309	292	296	309	312	254	292	323	
13 Spd	7	6	4	2	2	1	1	1	5	5	6	6	4	6	5	6	5	4	3	3	1	0	0	0	2.6	7.4	
Dir	264	296	308	292	293	163	154	24	20	9	14	9	2	354	359	331	329	333	354	29	68	35	198	191	342	264	
14 Spd	0	0	0	0	0	1	2	2	3	2	11	11	8	9	9	10	5	6	5	8	5	2	1	0	3.6	11.4	
Dir	208	178	218	184	243	189	163	163	172	228	279	280	262	281	289	313	311	291	266	298	312	283	180	165	281	280	
15 Spd	0	0	1	1	1	1	1	4	P	P	P	P	P	P	P	11	12	12	11	11	10	6	4	1	1	4.0	12.3
Dir	208	174	162	171	158	161	155	276	P	P	P	P	P	P	P	304	313	312	317	321	329	16	9	307	221	317	312
16 Spd	0	0	0	0	0	2	3	3	3	3	3	7	6	6	8	4	4	5	6	4	4	4	4	2	3.1	8.2	
Dir	170	75	126	302	329	10	5	10	308	349	348	10	10	343	354	30	43	43	37	35	16	3	13	33	11	354	
17 Spd	1	0	1	1	1	1	1	1	2	3	4	2	3	2	0	0	2	2	1	0	0	0	0	0	0.9	3.7	
Dir	19	93	142	145	79	87	94	40	58	36	52	56	145	136	188	262	130	50	114	94	342	221	300	175	87	52	
18 Spd	0	0	0	1	0	1	1	1	1	1	5	7	8	7	8	7	5	6	4	5	4	4	6	6	3.4	8.3	
Dir	245	269	303	324	267	175	232	233	356	5	143	157	154	150	147	149	159	160	151	150	146	147	149	153	152	154	
19 Spd	4	2	0	1	0	0	1	1	2	2	1	2	1	2	0	3	2	4	2	2	3	2	1	0	0.4	4.2	
Dir	153	156	183	268	276	269	248	224	158	162	190	141	342	332	356	3	321	353	339	356	20	14	343	286	358	153	
20 Spd	0	0	1	0	0	0	1	3	4	4	3	2	2	1	2	3	9	8	3	2	2	2	1	1	1.7	8.6	
Dir	272	259	252	234	182	232	189	162	161	158	152	152	146	33	237	165	196	228	221	172	304	220	157	163	190	196	
21 Spd	1	1	0	1	1	1	2	8	10	13	12	10	10	9	10	8	6	6	5	4	2	1	0	1	4.5	12.6	
Dir	170	155	163	159	156	160	220	266	278	290	294	291	286	284	287	295	302	314	316	328	344	308	167	164	289	290	
22 Spd	0	1	0	1	1	0	1	1	1	2	2	2	2	2	2	2	1	0	1	1	1	0	1	0	0.9	2.5	
Dir	172	168	180	177	167	167	165	167	161	160	170	182	177	193	164	138	230	63	161	124	79	347	334	287	169	177	

Hourly Averages

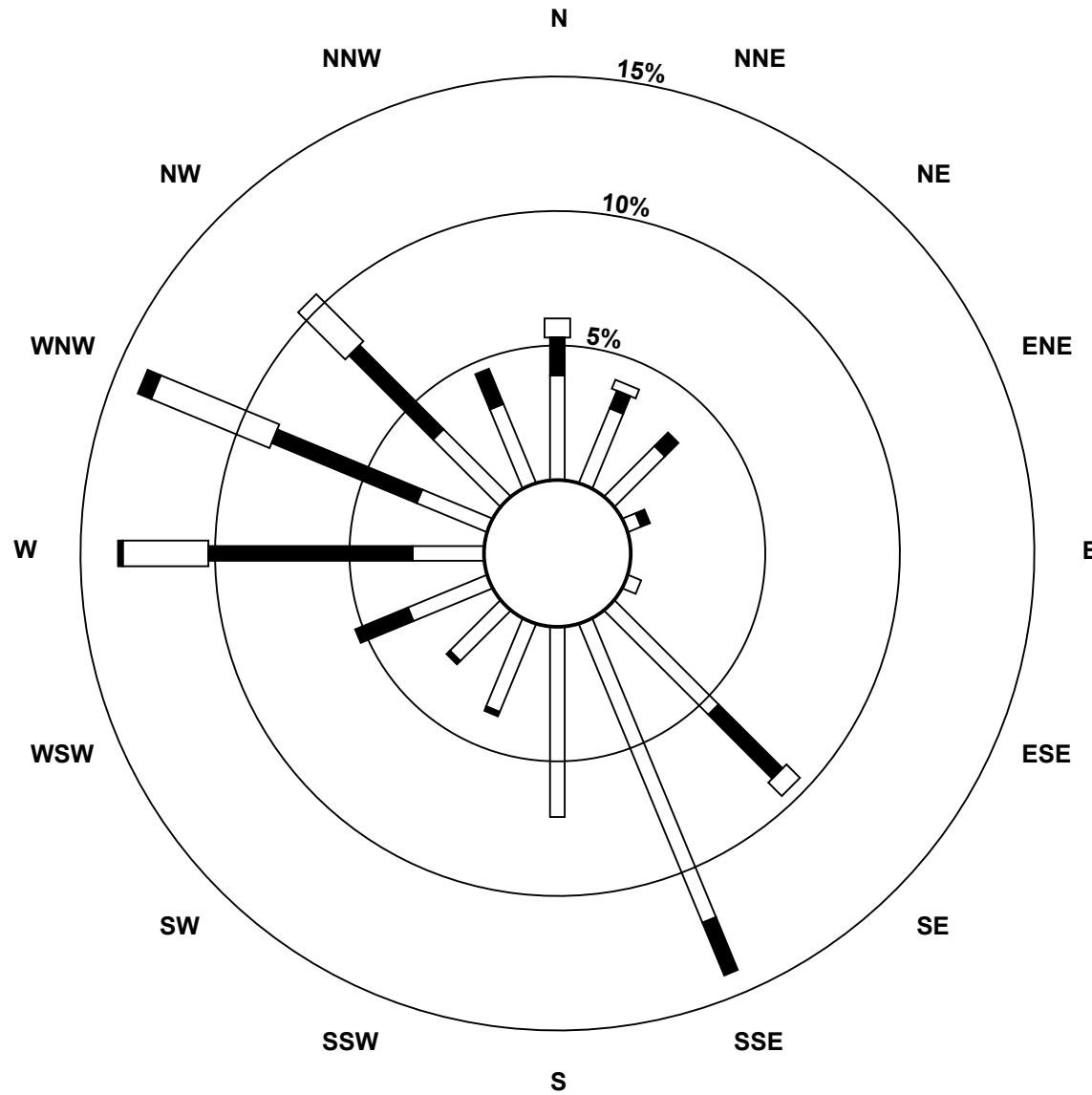
Wind Speed (km/h)
Wind Direction (deg)
Valleyview - May 2018

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	0	0	0	0	0	0	0	1	2	3	3	5	5	5	5	5	5	4	4	5	4	4	3	2	2.6	5.3
Dir	254	240	209	309	246	228	197	168	169	159	160	162	148	146	148	137	143	145	140	136	139	144	152	160	148	146
24 Spd	1	0	1	0	0	0	1	0	1	1	2	4	8	11	16	19	16	10	1	1	2	0	1	1	3.7	19.4
Dir	185	253	345	334	182	236	225	265	219	201	190	261	265	277	284	277	275	283	2	333	244	195	168	167	274	277
25 Spd	2	1	1	3	1	1	2	1	5	5	6	4	1	1	1	1	0	1	1	1	6	12	3	2	1.7	11.6
Dir	163	156	137	262	169	155	168	284	317	315	312	295	319	153	240	196	292	341	69	48	292	279	300	296	289	279
26 Spd	1	1	6	5	2	1	2	9	11	12	14	13	12	11	11	8	9	13	10	5	3	0	4	8	6.8	14.2
Dir	164	209	276	256	210	190	226	262	266	269	264	279	280	278	280	283	296	303	301	284	253	202	270	267	275	264
27 Spd	5	2	0	0	1	0	1	1	3	4	5	6	10	9	9	6	5	4	2	3	0	1	1	0	2.7	9.6
Dir	267	248	192	176	90	39	159	161	271	280	253	254	262	261	291	310	307	306	328	340	145	337	163	312	277	262
28 Spd	1	1	1	1	0	0	0	0	1	1	1	9	13	11	12	13	12	13	9	13	1	2	5	8	5.0	13.1
Dir	348	281	335	326	186	269	246	4	170	228	180	315	299	297	301	313	310	294	285	289	193	249	283	288	297	289
29 Spd	6	3	2	5	7	3	2	P	9	6	6	5	5	5	3	5	3	6	2	1	1	0	0	0	2.8	8.5
Dir	284	249	230	249	270	241	276	P	305	311	293	286	305	323	306	0	0	16	336	19	32	71	305	97	302	305
30 Spd	0	0	0	1	1	0	2	0	0	1	2	4	4	5	5	5	2	3	6	2	1	0	1	0	0.4	6.3
Dir	324	326	175	45	317	23	21	40	279	135	173	147	30	349	353	9	104	191	261	247	282	164	189	154	342	261
31 Spd	1	0	1	1	1	1	0	2	3	5	4	4	6	6	7	8	7	6	6	5	6	5	4	3	3.4	7.5
Dir	158	180	311	352	332	337	159	139	156	152	159	143	142	141	139	139	137	153	150	157	158	159	157	154	148	139
Spd	1.1	0.9	0.7	0.7	0.5	0.6	1.1	2.5	3.8	3.8	4.1	4.0	3.9	4.6	5.2	4.6	3.6	3.7	2.5	2.1	0.9	1.2	1.1	1.2	Diurnal Average	
Dir	242	239	221	219	212	183	206	257	275	285	285	285	286	287	290	300	313	311	306	303	308	276	252	234		
Spd	9.3	9.8	7.0	5.5	6.5	5.1	6.4	15.5	15.8	17.6	18.3	18.1	20.0	22.6	27.1	22.7	15.9	17.0	14.3	14.2	10.8	11.6	11.2	10.9	Diurnal Maximum	
Dir	264	258	250	256	270	293	258	280	299	276	285	287	296	291	281	280	360	10	24	292	24	279	273	269		
Maximum Speed Value: 27 km/h on May 2 15:00																								Hours in Service: 744		
Maximum Daily Speed Average: 8.9 km/h on May 2																								Hours of Data: 737		
Maximum Diurnal Speed Average: 5.2 km/h at hour 15																								Hours of Missing Data: 7		
Minimum Speed Value: 0 km/h on May 16 03:00																										
Minimum Daily Speed Average: 0.4 km/h on May 22																										
Minimum Diurnal Speed Average: 0.5 km/h at hour 5																										
Monthly Average Velocity: 2.18 km/h 283.6 deg																								Percent Operational Time: 99.1		
Speed Percentiles: P ₁ = 0.1 P ₁₀ = 0.4 Q ₁ = 1.1 Median = 3.3 Q ₃ = 7.3 P ₉₀ = 11.4 P ₉₉ = 17.4																										
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	46	16	5	0	0	0	67																			
NorthEast	34	7	2	0	0	0	43																			
East	14	2	0	0	0	0	16																			
SouthEast	71	31	6	0	0	0	108																			
South	153	4	0	0	0	0	157																			
SouthWest	53	4	0	0	0	0	57																			
West	45	70	43	4	0	0	162																			
NorthWest	52	50	24	1	0	0	127																			
Total	468	184	80	5	0	0	737																			

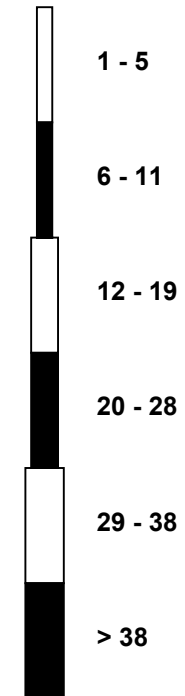
Wind Rose

Wind Speed (WS) (km/h)

Valleyview - May 2018



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Valleyview - May 2018

Maximum Speed: 28 km/h on May 2 15:00																				Maximum Daily Speed Average: 10.4 km/h on May 2					Hours in Service: 744	
Minimum Speed: 0 km/h on May 23 06:00																				Minimum Daily Speed Average: 1.5 km/h on May 22					Hours of Data: 737	
Maximum Diurnal Speed Average: 9.3 km/h at hour 15																				Minimum Diurnal Speed Average: 1.5 km/h at hour 6					Hours of Missing Data: 7	
Monthly Average Speed: 5.18 km/h																				Percentiles: P ₁ = 0.2 P ₁₀ = 0.6 Q ₁ = 1.4 Median = 3.7 Q ₃ = 7.6 P ₉₀ = 12.0 P ₉₉ = 18.5					Percent Operational Time: 99.1	
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-May	7	6	2	3	5	5	6	9	9	9	11	12	11	10	9	10	7	6	3	1	1	1	2	2	6.2	11.7
2-May	3	4	4	3	2	2	2	8	16	18	19	19	20	23	28	23	19	6	2	3	3	9	8	6	10.4	27.6
3-May	2	4	2	2	2	2	2	8	12	15	16	16	14	11	12	13	9	8	9	8	5	2	1	2	7.5	16.5
4-May	1	0	1	1	1	2	4	10	13	15	14	15	14	13	16	15	15	16	14	11	7	11	11	11	9.7	16.1
5-May	9	10	7	2	2	2	2	7	15	13	10	9	10	9	9	9	10	11	8	6	2	1	1	1	6.9	14.9
6-May	2	2	2	2	1	1	2	3	5	7	6	7	7	7	6	7	9	12	11	8	4	2	1	0	4.7	11.6
7-May	1	1	1	1	1	1	1	1	1	2	5	4	6	4	8	7	7	6	3	7	4	1	2	2	3.1	7.6
8-May	1	1	1	1	2	2	7	16	16	15	13	11	12	12	15	15	15	17	15	13	11	9	8	8	9.8	17.4
9-May	6	5	4	4	4	4	6	8	9	10	10	10	12	12	10	11	12	13	11	10	8	6	7	7	8.3	13.1
10-May	4	2	3	3	3	4	5	5	5	6	4	5	4	4	5	5	3	4	4	3	3	2	3	3	3.9	5.7
11-May	2	3	3	3	3	3	4	3	3	2	6	8	7	11	12	10	11	10	8	2	2	7	10	8	5.9	11.8
12-May	8	8	2	1	2	2	4	12	14	13	13	13	13	14	16	17	15	15	13	14	11	7	5	5	9.9	17.4
13-May	7	6	4	2	2	1	1	1	6	6	7	7	6	7	7	8	6	5	4	3	1	0	0	0	4.1	7.9
14-May	0	0	0	0	0	1	2	2	3	4	11	12	9	10	10	11	6	7	6	9	5	2	1	1	4.7	12.0
15-May	1	0	1	1	1	1	1	5	P	P	P	P	P	P	12	13	13	12	11	10	6	5	2	1	5.4	13.3
16-May	0	1	1	1	1	2	4	4	4	4	3	7	6	7	8	5	4	6	6	5	4	4	4	2	3.8	8.5
17-May	1	1	1	1	1	1	1	2	2	3	4	3	3	2	1	1	3	2	1	0	1	1	0	0	1.5	4.0
18-May	0	0	0	1	0	1	1	2	1	2	6	8	9	7	8	7	6	6	5	5	4	5	6	6	4.0	8.7
19-May	4	2	1	1	0	0	1	1	2	3	3	3	4	4	3	4	4	4	3	2	3	2	2	0	2.4	4.3
20-May	1	0	1	0	0	0	1	3	4	4	4	3	3	3	4	3	9	8	4	2	3	2	1	1	2.7	9.2
21-May	1	1	0	1	1	1	2	8	10	13	13	12	11	11	10	9	7	7	6	4	2	1	1	1	5.6	13.1
22-May	0	1	0	1	1	0	1	1	1	3	2	3	3	3	3	3	2	3	1	1	1	1	1	0	1.5	3.3
23-May	0	0	0	0	0	0	0	1	2	3	3	5	5	6	5	5	5	4	4	5	4	4	3	2	2.8	5.7
24-May	1	0	1	1	0	1	1	0	1	1	2	5	9	12	17	20	16	11	2	2	2	0	1	1	4.4	19.7
25-May	2	1	1	3	1	1	2	3	5	6	7	5	3	3	2	2	2	3	2	1	7	12	6	2	3.4	12.4
26-May	1	2	6	6	2	1	3	9	11	13	15	13	13	12	12	9	10	14	10	5	3	0	4	8	7.6	14.8
27-May	5	2	1	1	1	0	1	1	4	5	6	7	10	10	10	7	6	4	3	3	0	1	1	1	3.8	10.5
28-May	1	2	1	2	1	1	2	1	1	2	2	10	13	12	12	14	12	13	9	14	1	2	6	8	6.0	13.8
29-May	6	3	2	5	7	4	3	P	9	7	7	6	7	7	5	5	4	6	3	1	1	0	1	1	4.4	9.2
30-May	0	1	0	1	1	1	2	1	1	1	2	4	9	6	5	6	4	3	7	4	3	0	1	1	2.7	8.9
31-May	1	0	1	1	1	1	0	2	3	5	4	4	6	6	7	8	7	6	6	5	6	5	4	3	3.9	7.7
2.6 2.2 1.8 1.8 1.7 1.5 2.4 4.5 6.2 7.0 7.7 8.2 8.6 8.6 9.3 9.1 8.4 8.1 6.3 5.5 3.8 3.4 3.3 3.0																									Diurnal Average	
9.4 9.9 7.4 5.6 6.7 5.3 7.0 15.6 16.1 17.9 18.8 18.8 20.4 23.1 27.6 23.3 19.3 17.4 14.7 14.4 10.9 12.4 11.3 11.0																									Diurnal Maximum	
P - Power Failure																										
All monthly, daily, and diurnal averages have been calculated using scalar methods																										

Hourly Standard Deviations

Wind Direction (WD) - deg

Valleyview - May 2018

Maximum Value: 101.5 deg on May 19 15:00																								Hours in Service: 744	
Minimum Value: 4.7 deg on May 6 20:00																								Hours of Data: 737	
Percentiles: P ₁ = 6.4 P ₁₀ = 10.6 Q ₁ = 14.9 Median = 24.7 Q ₃ = 49.6 P ₉₀ = 71.3 P ₉₉ = 94.4																								Hours of Missing Data: 7	
																								Hours of Calibration: 0	
																								Percent Operational Time: 99.1	
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-May	19	18	38	12	9	13	9	13	15	23	21	24	27	29	24	30	23	41	75	67	21	13	16	19	74.7
2-May	8	7	5	6	14	15	10	26	12	12	13	17	12	12	11	13	34	63	26	25	22	10	14	37	62.6
3-May	12	11	11	12	11	7	10	17	13	14	15	19	17	19	20	20	21	22	26	13	13	45	16	22	45.0
4-May	15	39	24	47	49	16	10	17	11	16	16	17	19	22	20	16	15	11	13	11	9	10	10	8	48.6
5-May	9	9	26	32	12	11	27	21	13	18	22	33	30	45	31	34	25	23	15	17	14	60	14	33	59.9
6-May	22	20	15	7	6	8	5	11	45	24	37	46	55	46	71	56	36	20	9	5	8	46	82	71	82.2
7-May	54	39	27	95	81	89	85	88	41	63	30	71	62	56	20	29	33	37	59	49	68	64	19	50	94.5
8-May	18	45	16	12	26	28	36	9	11	13	17	23	27	27	17	20	15	12	14	13	9	8	8	11	44.7
9-May	14	9	12	10	10	15	20	11	14	14	16	16	14	16	15	11	12	8	12	12	12	12	10	8	20.4
10-May	10	32	7	7	8	10	14	13	14	14	16	16	18	16	21	19	19	16	15	14	8	6	5	5	32.0
11-May	12	11	8	8	9	9	11	14	40	36	46	43	53	32	25	18	18	15	19	30	15	9	8	19	53.1
12-May	9	8	24	12	21	37	40	14	12	17	16	23	19	20	15	13	20	15	12	11	9	14	15	12	39.6
13-May	8	24	18	35	62	19	51	49	21	36	51	54	73	53	60	44	71	63	42	30	38	81	80	83	82.6
14-May	83	64	37	43	42	29	12	9	16	54	16	20	30	24	26	22	51	31	25	16	11	34	14	56	82.5
15-May	52	27	8	15	13	24	20	46	P	P	P	P	P	P	28	21	22	22	11	13	11	24	75	57	74.9
16-May	56	86	94	89	88	71	80	50	32	43	59	21	18	20	16	29	18	18	14	22	20	11	13	22	94.1
17-May	32	56	16	28	32	38	36	34	36	24	31	45	26	18	54	85	45	58	55	41	89	38	93	48	92.6
18-May	74	96	82	36	75	33	64	58	64	77	61	16	17	18	22	15	15	14	20	12	9	9	9	10	95.9
19-May	10	47	54	21	60	62	54	67	44	55	74	73	95	83	102	60	67	35	44	42	53	11	60	84	101.5
20-May	61	80	37	53	60	83	26	17	13	25	34	68	63	77	76	47	22	25	45	40	78	40	18	9	83.0
21-May	22	12	23	7	7	7	37	16	14	16	19	30	23	29	23	28	40	33	28	16	11	31	80	16	79.9
22-May	26	20	22	10	14	27	14	38	59	26	40	50	41	56	57	53	79	93	39	49	34	77	50	79	93.3
23-May	55	75	53	79	80	74	46	25	24	21	34	20	28	24	21	21	21	26	14	9	6	8	9	9	80.0
24-May	53	62	57	60	46	71	55	77	56	68	40	49	42	15	14	11	13	14	49	83	36	32	26	23	83.3
25-May	16	26	46	41	63	18	40	76	30	31	36	42	90	77	61	71	97	88	60	53	41	22	55	28	97.3
26-May	25	39	14	13	37	24	40	12	15	18	17	18	27	21	21	31	16	12	17	15	42	33	38	11	42.4
27-May	19	21	51	23	71	83	34	33	55	47	45	41	28	30	29	29	42	34	19	26	76	64	82	97	96.9
28-May	71	61	85	63	83	89	71	83	55	55	58	26	19	22	18	19	16	16	16	15	55	41	20	13	88.9
29-May	13	18	22	17	13	53	62	P	22	32	42	50	51	58	73	42	54	36	46	55	45	83	70	98	97.8
30-May	77	54	81	71	51	75	26	97	80	86	48	38	68	71	36	53	56	37	20	82	83	55	32	50	97.1
31-May	28	74	44	62	17	54	62	41	18	17	21	32	21	18	14	15	13	16	17	12	9	11	12	13	73.8
82.5 95.9 94.1 94.5 88.0 89.1 85.1 97.1 80.2 86.1 74.0 73.4 94.9 83.5 101.5 84.8 97.3 93.3 74.7 83.3 88.7 83.0 92.6 97.8																									
P - Power Failure																									

PAZA
Donnelly Station
Monthly Summary Tables, Graphs and
Roses

Hourly Averages

Sulphur Dioxide (SO₂) - ppb

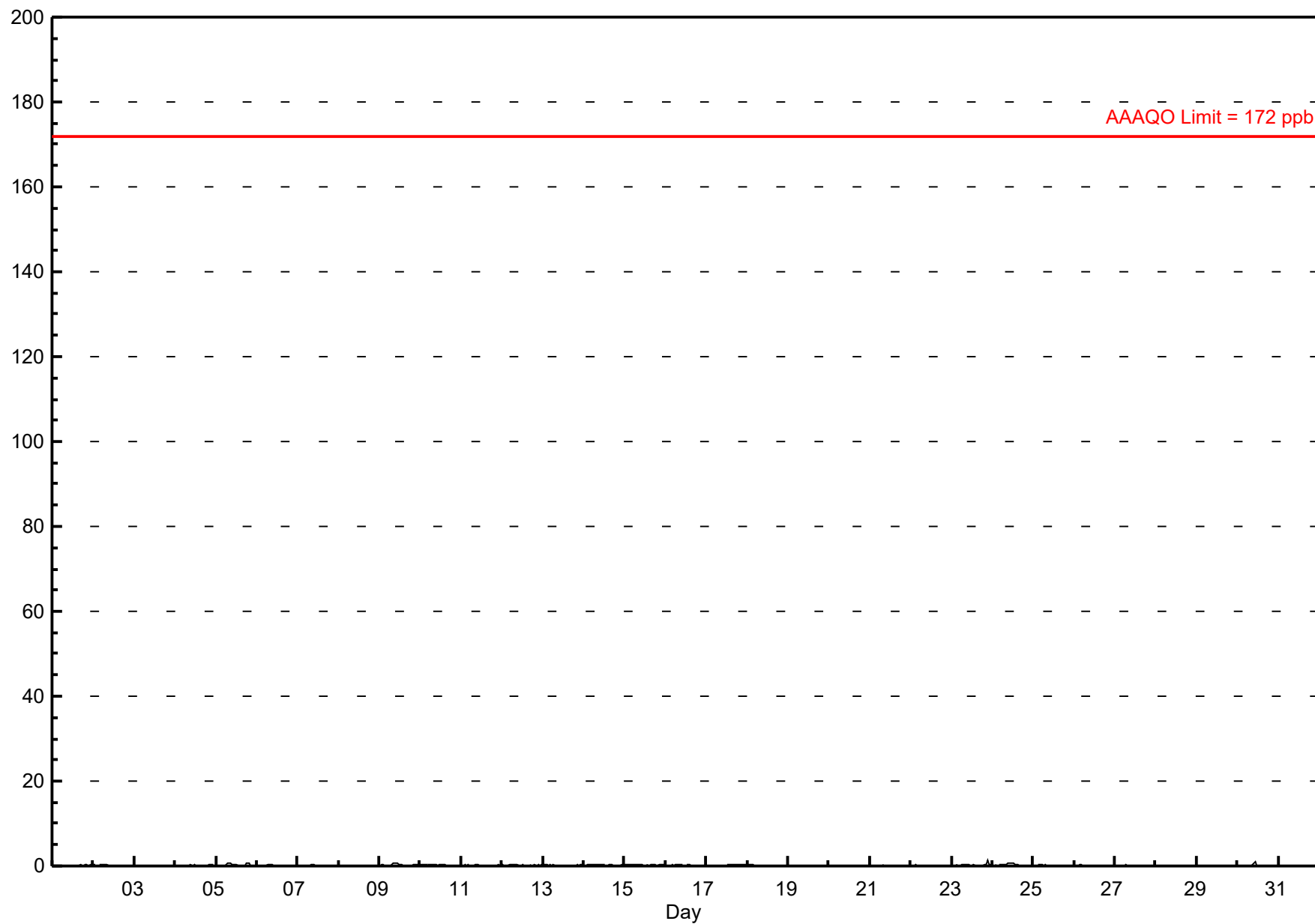
Donnelly - May 2018

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 1.3 ppb on May 23 22:00 Maximum Daily Average: 0.3 ppb on May 24																				Hours in Service: 744 Hours of Data: 708						
Minimum Value: 0 ppb on May 1 01:00 Minimum Daily Average: 0.0 ppb on May 31 Maximum Diurnal Average: 0.2 ppb at hour 9 Minimum Diurnal Average: 0.1 ppb at hour 18 Monthly Average: 0.11 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 0.3 P ₉₉ = 0.6																				Hours of Missing Data: 36 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-May	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
2-May	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	0.4
3-May	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
4-May	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	0.4
5-May	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	1	0	0	A	0	0.2	0.6
6-May	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	0.4
7-May	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
8-May	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	0.1
9-May	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0.3	0.7
10-May	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
11-May	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	0.4
12-May	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	0.4
13-May	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
14-May	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	0.5
15-May	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
16-May	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
17-May	0	0	0	0	0	0	0	0	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
18-May	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
19-May	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
20-May	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
21-May	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	0.2
22-May	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	0.3
23-May	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	1.3
24-May	0	0	0	A	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.3	0.7
25-May	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	0.3
26-May	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
27-May	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.0	0.2
28-May	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
29-May	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	0.1
30-May	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	1.0
31-May	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	0.1
0.1 0.1 0.1 0.1 0.1 0.1 0.1 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																									Diurnal Average	
0.4 0.4 0.3 0.4 0.4 0.4 0.3 0.5 0.7 0.7 1.0 0.6 0.5 0.5 0.4 0.3 0.4 0.3 0.6 0.6 0.3 1.3 0.4 0.3																									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 - May 2018



Hourly Maximums

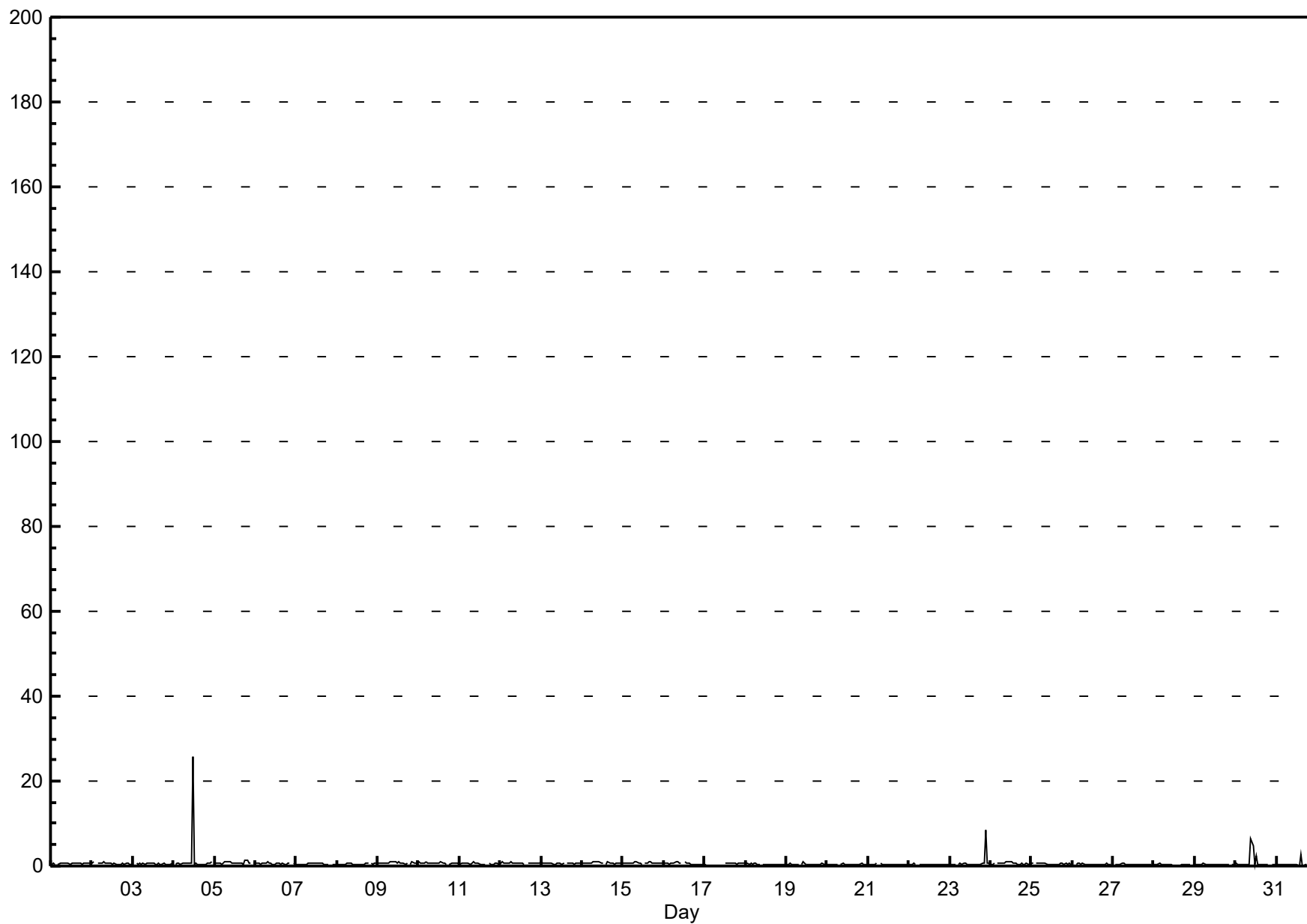
Sulphur Dioxide (SO₂) - ppb

Donnelly - May 2018

Maximum Value: 25.6 ppb on May 4 12:00																				Maximum Daily Average: 1.7 ppb on May 4										Hours in Service: 744	
Minimum Value: 0 ppb on May 17 03:00																				Minimum Daily Average: 0.3 ppb on May 28										Hours of Data: 708	
Maximum Diurnal Average: 1.4 ppb at hour 12																				Minimum Diurnal Average: 0.5 ppb at hour 20										Hours of Missing Data: 36	
Monthly Average: 0.58 ppb																				Percentiles: P ₁ = 0.1 P ₁₀ = 0.3 Q ₁ = 0.4 Median = 0.5 Q ₃ = 0.7 P ₉₀ = 0.8 P ₉₉ = 1.3										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-May	0	1	0	A	0	1	1	1	1	1	1	0	1	1	1	1	1	1	0	1	1	1	1	1	0.6	0.8					
2-May	1	1	A	1	1	1	1	1	1	1	1	1	0	1	0	0	0	0	1	0	1	1	0	0	0.6	0.9					
3-May	1	A	1	0	1	0	1	0	1	1	1	1	1	0	0	1	0	0	1	0	0	0	0	1	0.5	0.7					
4-May	A	1	1	1	0	1	1	1	1	1	1	26	0	1	0	0	0	0	0	0	1	1	1	A	1.7	25.6					
5-May	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	A	1	0.8	1.3					
6-May	1	1	1	0	1	1	1	1	1	1	0	0	1	1	1	0	1	0	0	1	1	A	1	0	0.6	0.9					
7-May	0	0	1	0	0	0	0	1	1	1	1	1	1	1	1	1	0	0	0	0	A	0	0	0	0.5	0.8					
8-May	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	1	1	A	1	0	1	1	0.5	0.8					
9-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	A	0	1	1	1	1	0.7	1.1					
10-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	A	0	1	1	1	1	1	0.7	1.0					
11-May	0	1	1	1	1	1	0	1	1	1	1	1	0	0	0	0	A	1	0	0	0	1	1	1	0.6	1.0					
12-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	A	1	1	1	1	1	1	1	1	0.7	0.9					
13-May	1	1	1	1	1	1	1	0	0	1	1	1	0	1	A	1	1	1	1	0	1	1	1	1	0.6	0.9					
14-May	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0	1	1	1	1	0	1	1	1	1	0.7	1.2					
15-May	1	1	1	1	1	1	1	1	1	1	1	0	A	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0					
16-May	1	1	1	0	1	1	1	1	1	1	1	A	1	1	1	1	0	0	0	0	0	0	0	0	0.6	0.9					
17-May	0	0	0	0	0	0	0	0	C	C	C	C	1	1	1	1	1	1	1	0	1	1	1	1	0.4	0.8					
18-May	1	1	1	1	0	1	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.7					
19-May	0	0	1	0	0	0	0	0	A	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0.3	1.0					
20-May	0	0	0	0	0	0	0	A	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.4	0.6					
21-May	0	0	0	0	0	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6					
22-May	0	0	0	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.7					
23-May	0	0	0	0	A	0	1	0	1	1	0	0	0	0	0	0	0	0	0	1	1	8	1	1	0.8	8.5					
24-May	0	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	0	0	1	0	0	0.6	1.0					
25-May	1	1	A	1	1	1	1	1	1	0	0	0	0	0	0	0	0	1	1	0	1	0	1	0	0.5	0.6					
26-May	0	A	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.4	0.7					
27-May	A	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.4	0.8					
28-May	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.3	0.6					
29-May	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.3	0.6					
30-May	1	0	0	0	0	0	0	0	0	6	5	0	2	0	0	0	0	0	0	0	A	0	0	0	0.9	6.4					
31-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	A	0	0	0	0	0.3	2.6					
0.5 0.5 0.5 0.5 0.5 0.5 0.6 0.6 0.6 0.8 0.7 1.4 0.6 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5																									Diurnal Average						
0.9 0.9 0.7 0.8 1.0 0.8 0.9 1.0 1.1 6.4 4.8 25.6 2.3 0.9 2.6 1.2 1.0 0.8 1.3 1.3 1.0 0.8 0.8 0.8																									Diurnal Maximum						
C - Calibration																									A - Automated Daily Zero Span						

Hourly Maximums

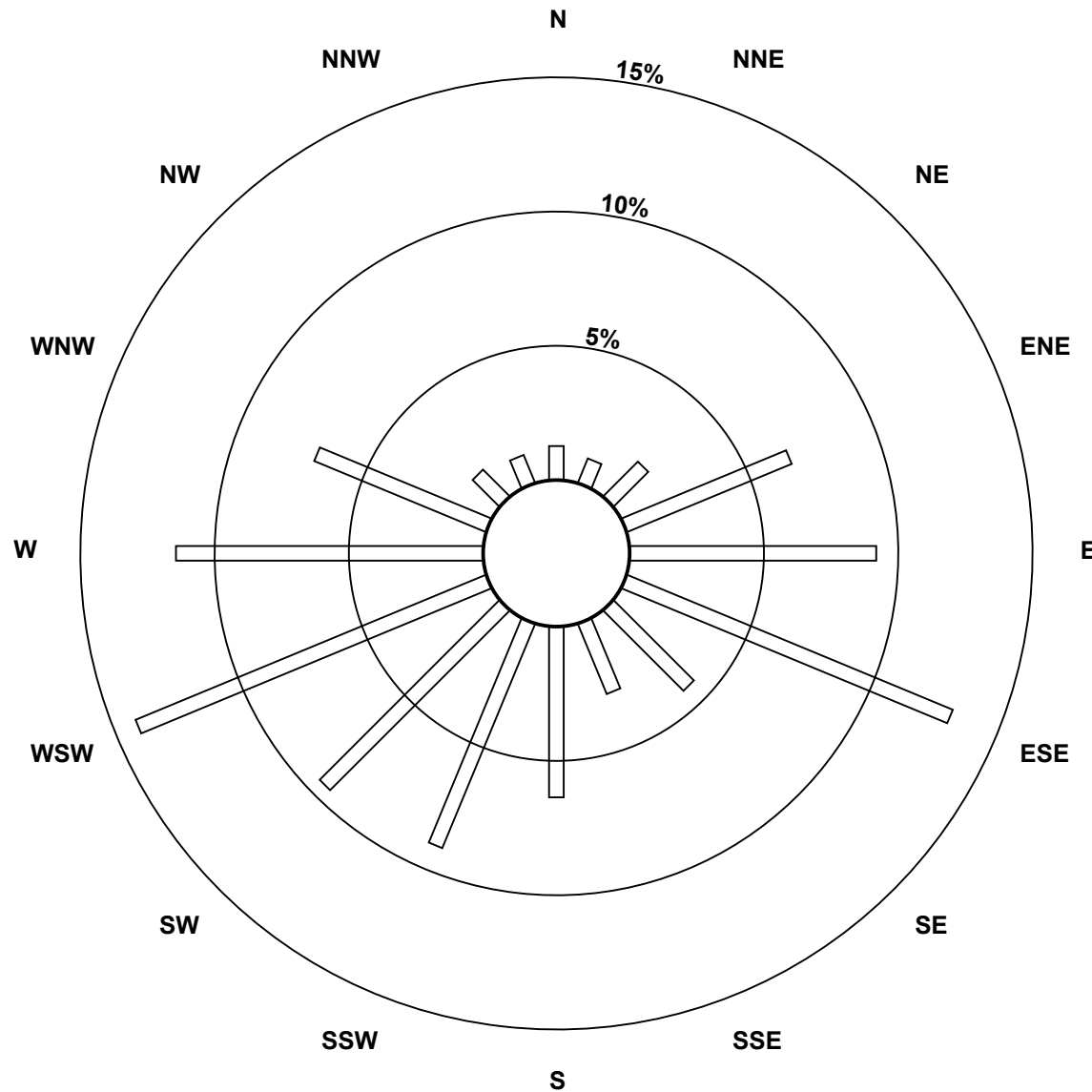
Sulphur Dioxide (SO₂) - ppb
Donnelly - May 2018



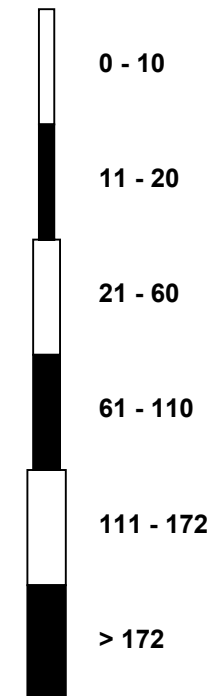
Pollutant Rose

Sulphur Dioxide (SO₂) - ppb

Donnelly - May 2018

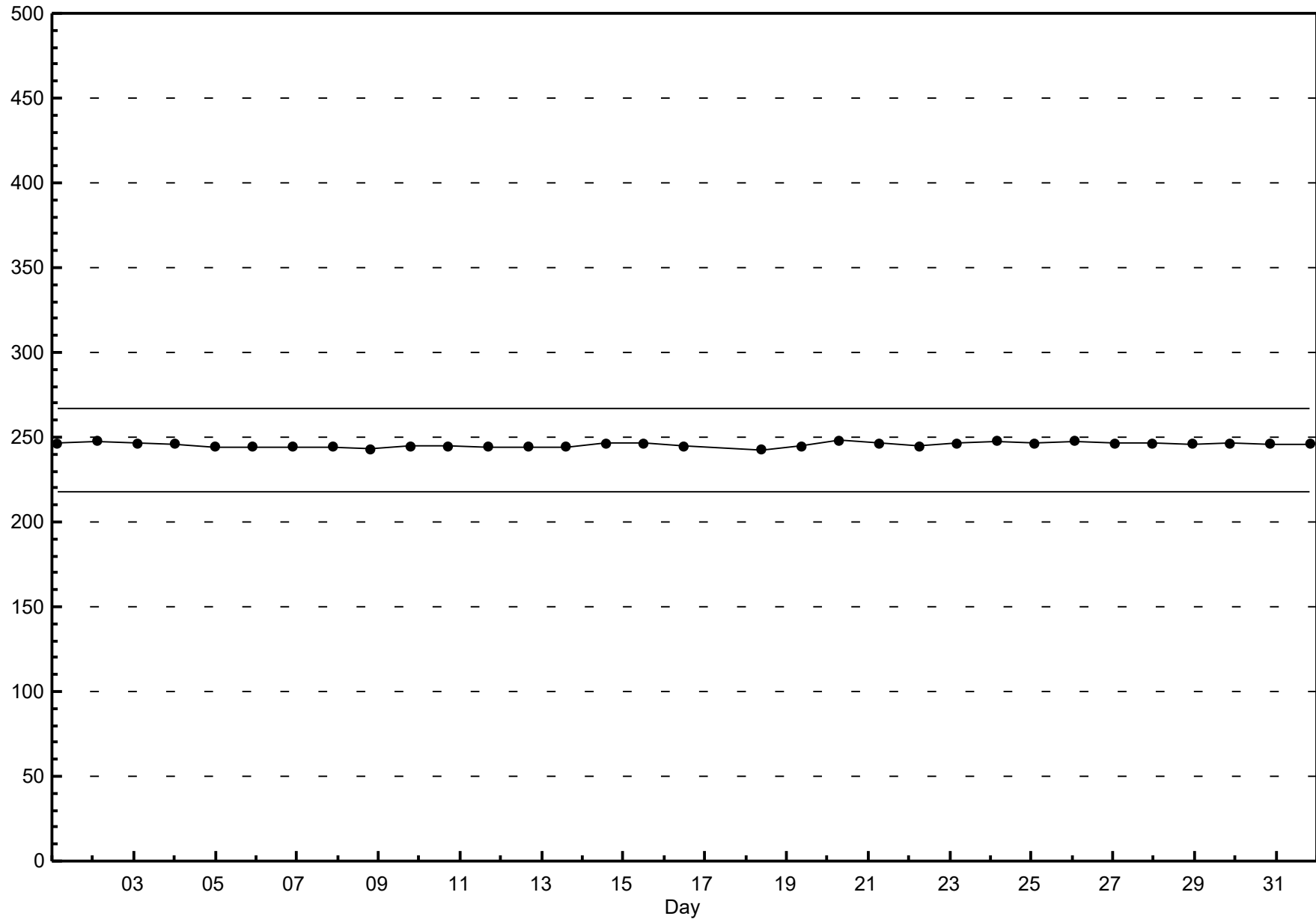


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Donnelly - May 2018



Hourly Averages

Hydrogen Sulphide (H₂S) - ppb

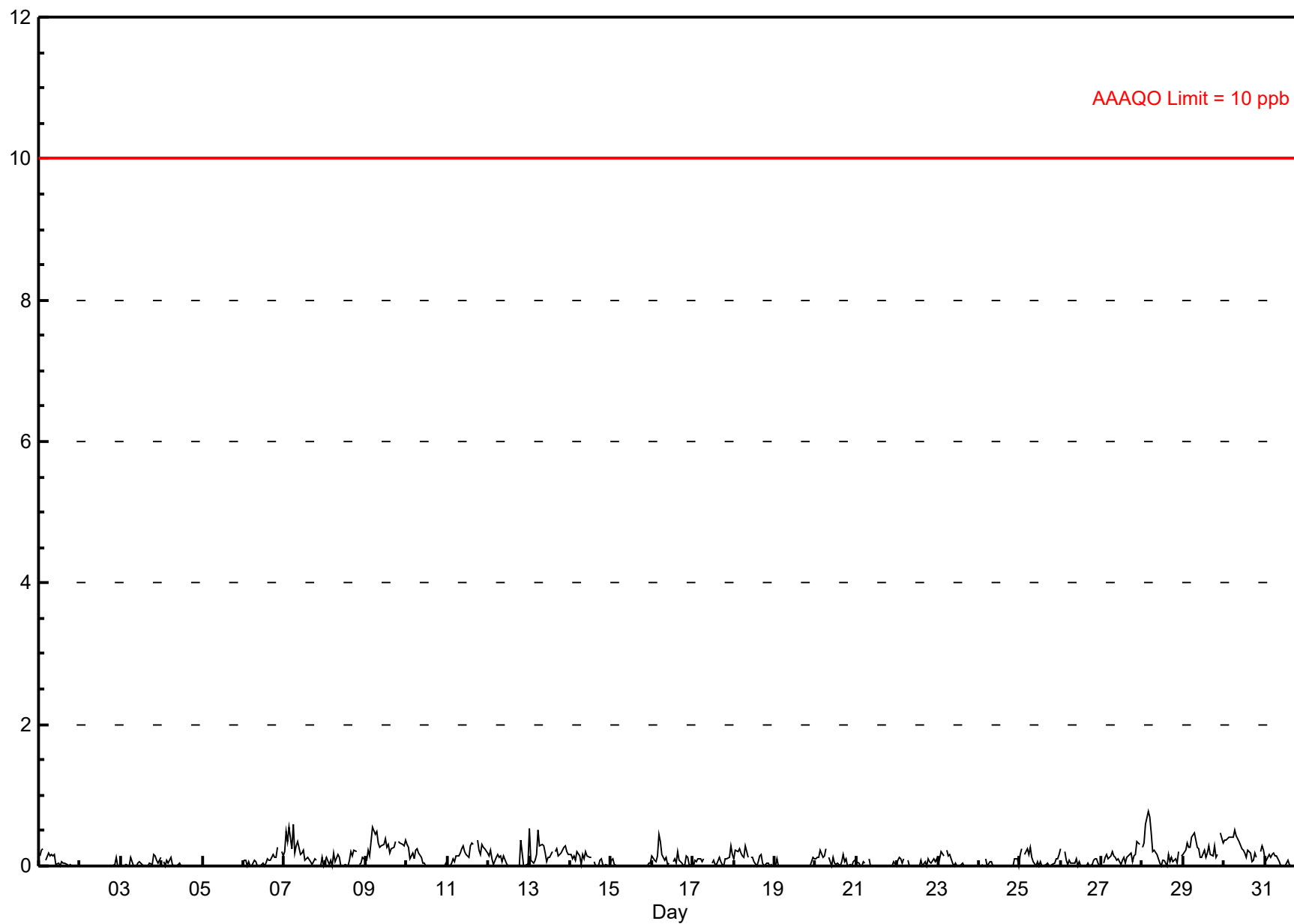
Donnelly - May 2018

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 0.8 ppb on May 28 04:00 Maximum Daily Average: 0.3 ppb on May 9																				Hours in Service: 744 Hours of Data: 708 Hours of Missing Data: 36 Hours of Calibration: 36 Percent Operational Time: 100.0						
Minimum Value: 0 ppb on May 1 13:00 Maximum Diurnal Average: 0.2 ppb at hour 6 Monthly Average: 0.10 ppb										Minimum Daily Average: 0.0 ppb on May 5 Minimum Diurnal Average: 0.1 ppb at hour 15 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 0.3 P ₉₉ = 0.5																
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-May	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
2-May	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	0.1
3-May	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	0.2
4-May	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.0	0.1
5-May	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
6-May	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
7-May	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	0.6
8-May	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	0.2
9-May	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.3	0.6
10-May	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
11-May	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	0.4
12-May	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	0.4
13-May	1	0	0	0	0	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.2	0.5
14-May	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	0.2
15-May	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
16-May	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	0.5
17-May	0	0	0	0	0	0	0	C	C	C	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
18-May	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
19-May	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
20-May	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
21-May	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
22-May	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	0.1
23-May	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
24-May	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	0.1
25-May	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	0.3
26-May	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
27-May	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
28-May	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.2	0.8
29-May	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
30-May	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.3	0.5
31-May	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	0.2
0.1 0.1 0.1 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 0.1 0.1 0.1 0.1																									Diurnal Average	
0.5 0.5 0.6 0.8 0.7 0.6 0.5 0.4 0.4 0.3 0.3 0.4 0.3 0.3 0.3 0.3 0.3 0.3 0.4 0.3 0.4 0.3 0.5 0.4																									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 - May 2018



Hourly Maximums

Hydrogen Sulphide (H₂S) - ppb

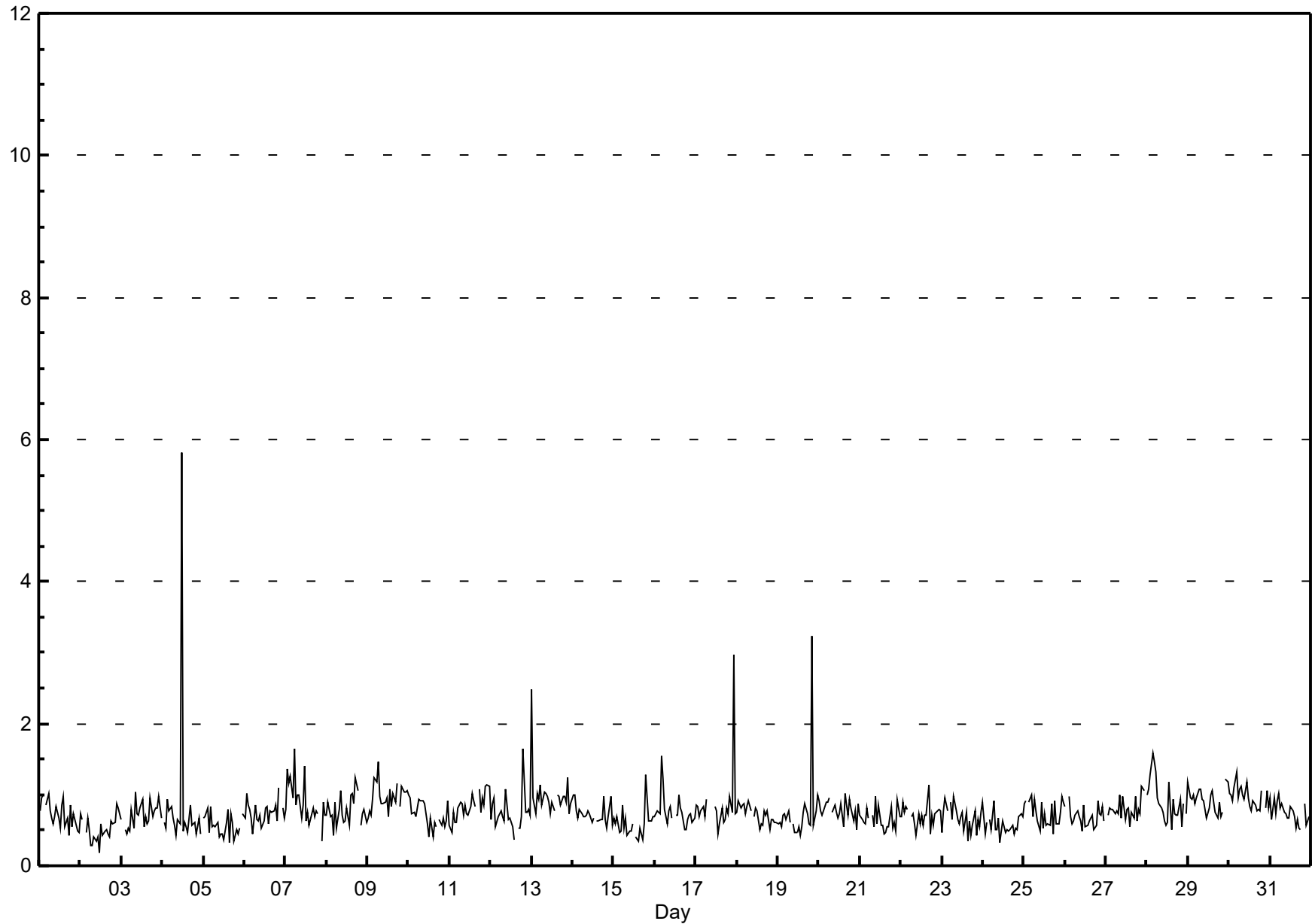
Donnelly - May 2018

Maximum Value: 5.8 ppb on May 4 12:00																				Maximum Daily Average: 1.0 ppb on May 13					Hours in Service: 744	
Minimum Value: 0 ppb on May 2 12:00																				Minimum Daily Average: 0.5 ppb on May 2					Hours of Data: 708	
Maximum Diurnal Average: 0.9 ppb at hour 23																				Minimum Diurnal Average: 0.7 ppb at hour 15					Hours of Missing Data: 36	
Monthly Average: 0.76 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 = 1.5					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-May	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	0	0.7	1.0
2-May	1	1	A	0	1	1	0	0	0	0	0	0	1	0	0	1	0	0	1	1	1	1	1	1	0.5	0.9
3-May	1	A	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0
4-May	A	1	1	1	1	1	1	1	0	1	1	6	0	1	1	0	1	1	1	1	0	1	0	A	0.8	5.8
5-May	1	1	1	0	1	1	1	1	1	0	0	0	0	1	1	0	1	1	0	1	0	1	A	1	0.6	0.8
6-May	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.7	1.1
7-May	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0	1	1	0.9	1.7
8-May	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.8	1.2
9-May	1	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	1.5
10-May	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	1	1	A	1	1	1	1	1	1	0.7	1.0
11-May	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.8	1.1
12-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	A	1	1	1	2	1	1	1	1	0.7	1.6
13-May	2	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	2.5
14-May	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.7	1.0
15-May	1	1	1	0	0	1	1	1	0	0	0	1	A	0	0	1	0	0	1	1	1	1	1	1	0.6	1.3
16-May	1	1	1	1	2	1	1	1	1	1	1	A	1	1	1	1	1	1	0	1	1	1	1	1	0.8	1.5
17-May	1	1	1	1	1	1	1	C	C	C	A	1	1	0	1	1	1	1	1	1	1	3	1	1	0.9	3.0
18-May	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0.7	0.9
19-May	1	1	1	1	1	1	1	1	A	1	0	0	1	0	1	1	1	1	1	1	3	1	1	1	0.8	3.2
20-May	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
21-May	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0	0	1	1	1	1	1	0	1	1	0.6	1.0
22-May	1	1	1	1	1	A	1	1	1	0	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0.7	1.1
23-May	0	1	1	1	A	1	1	1	1	1	1	1	1	0	1	0	1	0	1	1	0	1	1	1	0.7	1.0
24-May	1	0	1	A	1	1	1	1	1	1	0	1	1	0	1	0	0	1	0	1	1	1	1	1	0.6	0.9
25-May	1	1	A	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0.7	1.0
26-May	1	A	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0
27-May	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	1.1
28-May	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.9	1.6
29-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.9	1.2
30-May	1	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	1.3
31-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.7	1.0
0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.7 0.7 0.7 0.9 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.8 0.8 0.7 0.9 0.8																								Diurnal Average		
2.5 1.4 1.3 1.6 1.5 1.7 1.5 1.1 1.1 1.1 1.2 5.8 0.9 1.2 1.1 1.0 1.1 1.2 1.1 1.6 3.2 1.2 3.0 1.2																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										

Hourly Maximums

Hydrogen Sulphide (H₂S) - ppb

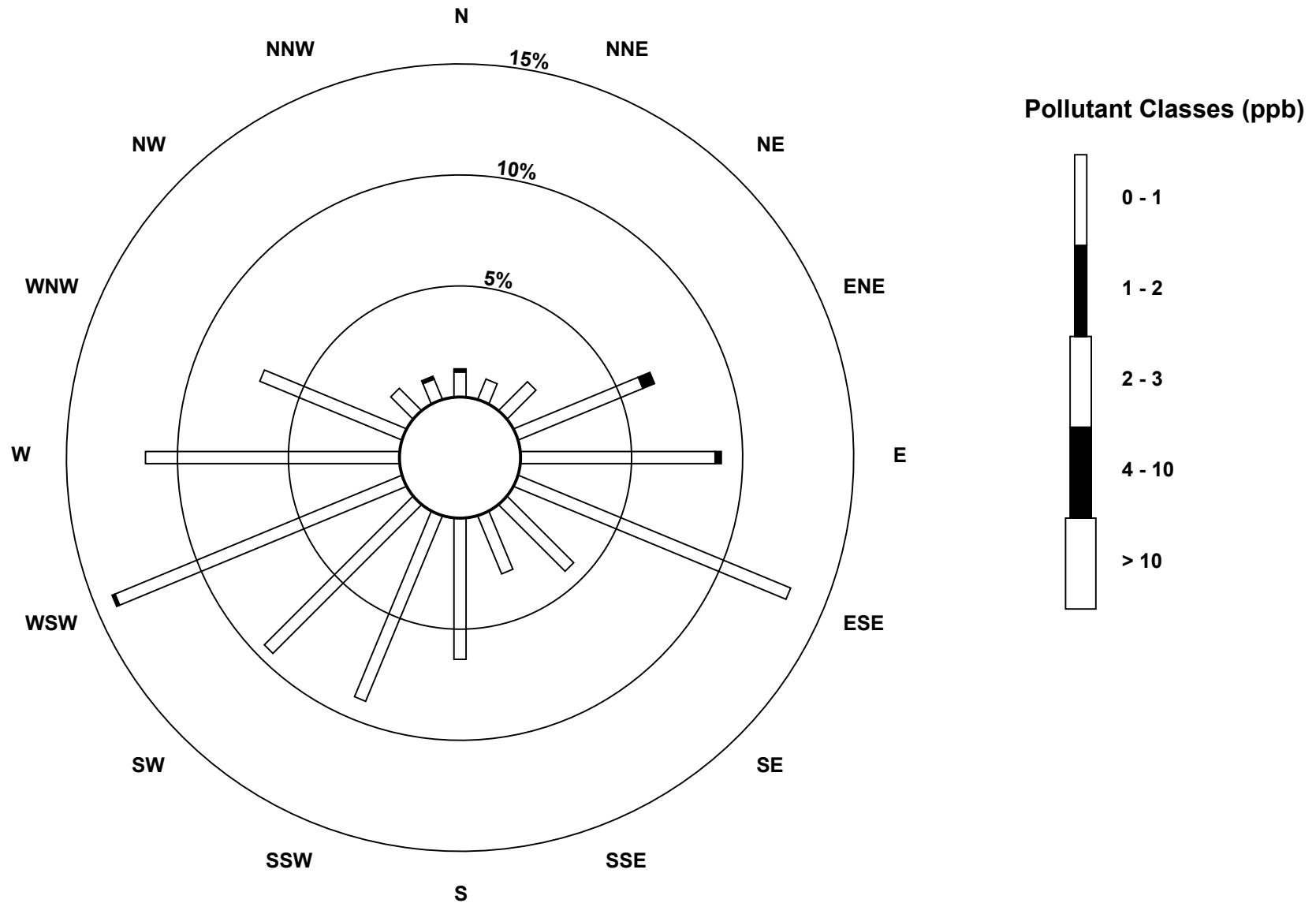
Donnelly - May 2018



Pollutant Rose

Hydrogen Sulphide (H₂S) - ppb

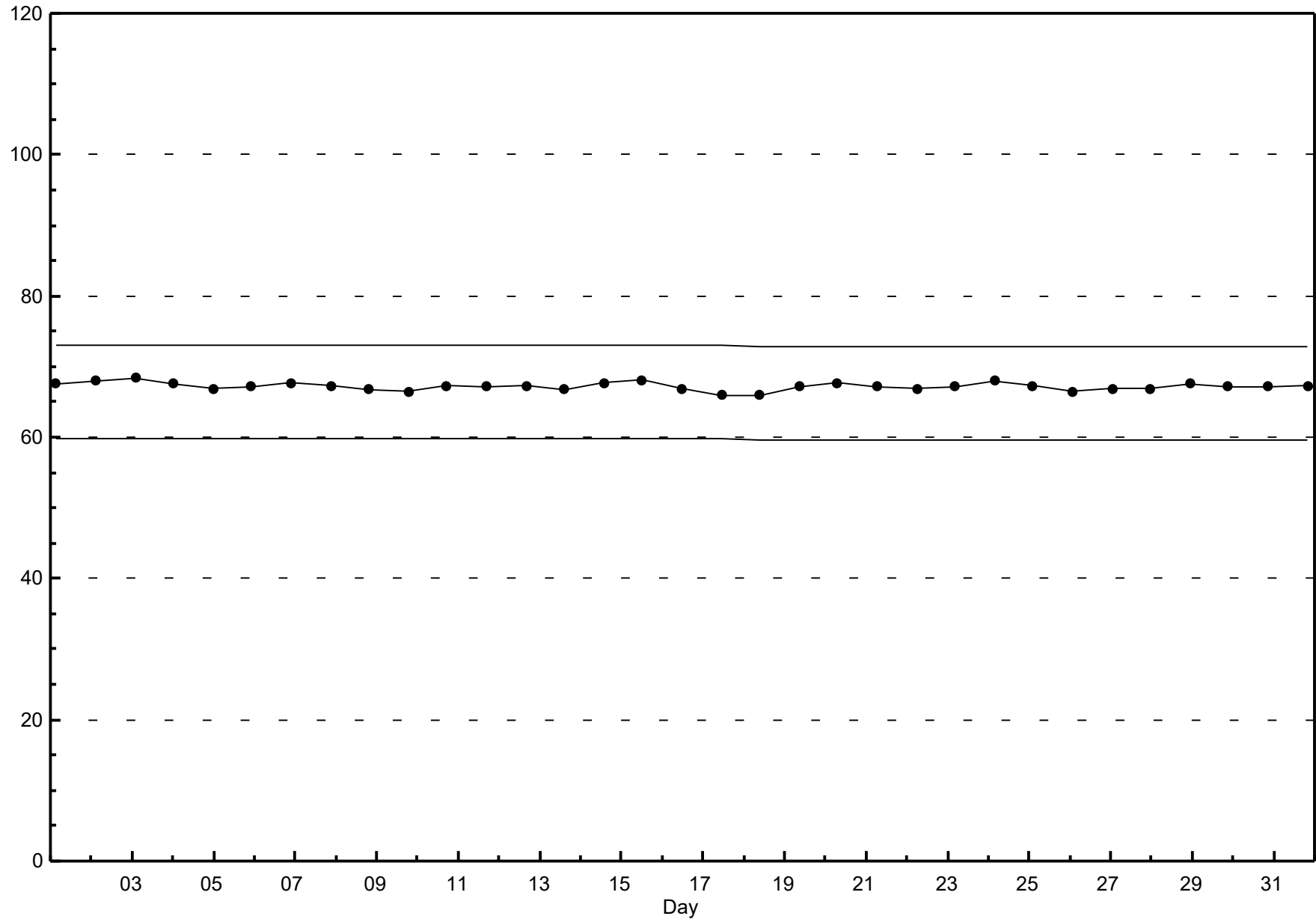
Donnelly - May 2018



Span Responses

Hydrogen Sulphide (H_2S)

Donnelly - May 2018



Hourly Averages

External Temperature (ET) - °C

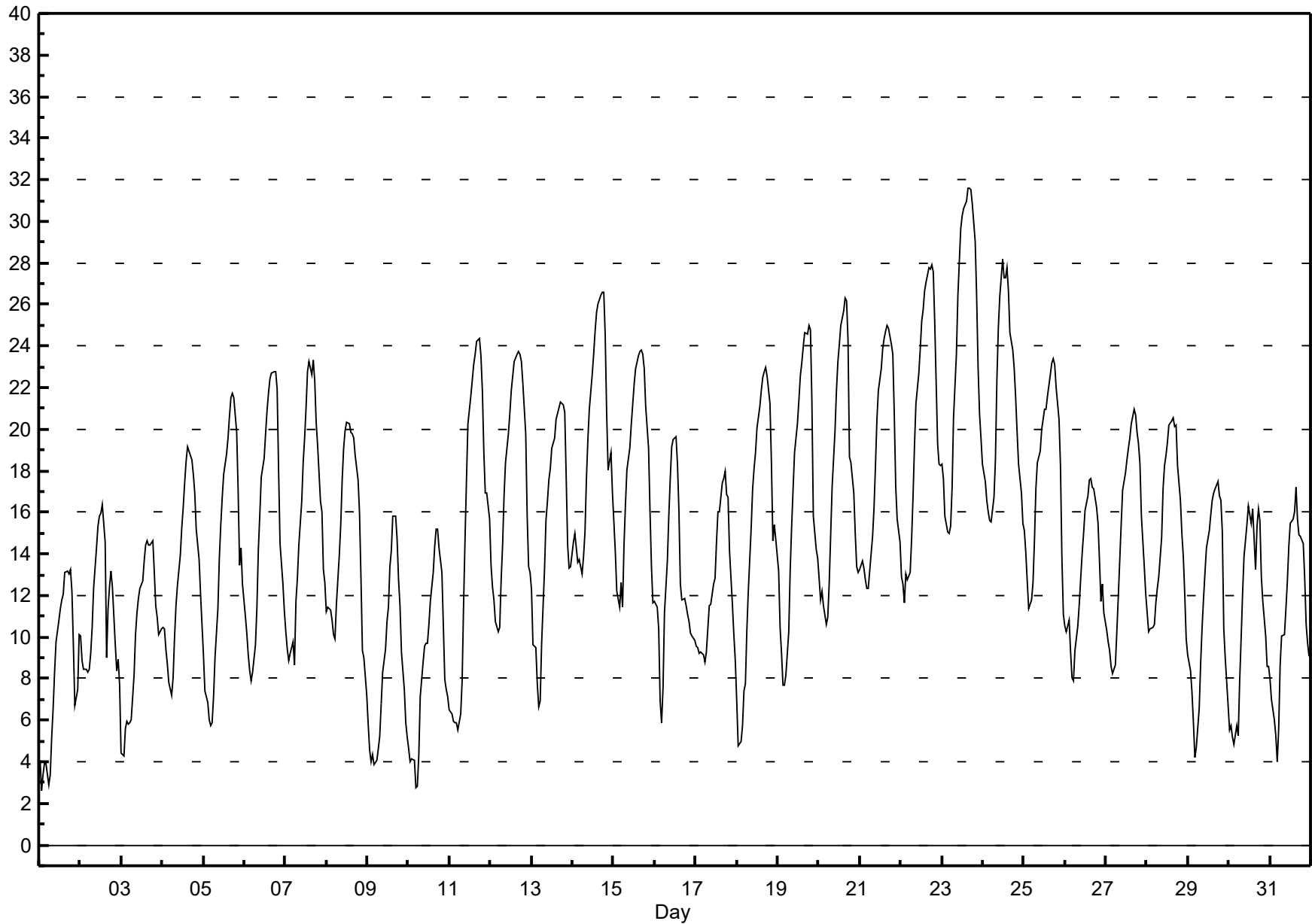
Donnelly - May 2018

Maximum Value: 31.6 °C on May 23 16:00																					Maximum Daily Average: 24.1 °C on May 23					Hours in Service: 744	
Minimum Value: 3 °C on May 1 02:00																					Minimum Daily Average: 8.3 °C on May 1					Hours of Data: 744	
Maximum Diurnal Average: 20.5 °C at hour 17																					Minimum Diurnal Average: 8.5 °C at hour 5					Hours of Missing Data: 0	
Monthly Average: 14.87 °C																					Percentiles: P ₁ = 3.9 P ₁₀ = 7.3 Q ₁ = 10.4 Median = 14.4 Q ₃ = 19.1 P ₉₀ = 23.2 P ₉₉ = 29.4					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-May	4	3	3	4	4	3	3	5	7	8	10	11	11	12	12	13	13	13	13	12	10	7	7	10	8.3	13.3	
2-May	10	9	8	8	8	8	9	10	12	14	15	16	16	16	15	9	11	12	13	12	10	8	9	8	11.3	16.4	
3-May	4	4	6	6	6	6	6	8	10	11	12	12	13	14	14	15	14	14	15	13	12	11	10	10	10.3	14.7	
4-May	10	10	9	9	8	7	8	10	11	12	14	15	16	17	18	19	19	18	18	17	15	14	12	11	13.3	19.1	
5-May	9	7	7	6	6	6	7	9	11	14	15	17	18	19	20	21	22	22	21	20	17	13	14	13	13.9	21.7	
6-May	11	10	9	8	8	8	10	11	14	16	18	19	20	21	22	22	23	23	23	22	18	14	13	11	15.6	22.8	
7-May	10	9	9	9	10	9	12	13	14	17	18	20	21	23	23	23	23	22	20	19	17	16	13	13	16.0	23.3	
8-May	11	11	11	11	10	10	12	14	15	18	19	20	20	20	20	20	20	19	18	16	13	9	9	7	14.7	20.3	
9-May	6	5	4	4	4	4	5	5	7	8	9	11	11	13	14	16	16	15	13	12	9	7	6	5	8.7	15.9	
10-May	5	4	4	4	3	3	4	7	9	10	10	10	11	12	13	14	15	15	14	13	11	8	7	7	8.8	15.2	
11-May	6	6	6	6	6	6	6	8	12	15	18	20	22	22	23	24	24	24	24	22	19	17	17	16	15.3	24.4	
12-May	13	12	12	11	10	10	13	14	17	18	20	21	22	23	23	24	24	24	23	22	20	16	13	13	17.4	23.7	
13-May	12	10	10	8	7	7	10	13	16	17	18	18	19	20	20	21	21	21	21	21	18	14	13	13	15.3	21.3	
14-May	15	15	14	14	14	13	14	15	18	19	21	23	24	25	26	26	26	27	27	24	21	18	19	17	19.7	26.6	
15-May	16	14	12	11	13	11	14	16	18	19	20	21	22	23	24	24	24	24	23	21	19	16	13	12	17.9	23.8	
16-May	12	11	10	7	6	8	11	14	16	18	19	20	20	18	16	13	12	12	12	11	11	10	10	10	12.7	19.6	
17-May	10	9	9	9	9	9	9	10	11	12	13	13	15	16	16	17	18	18	17	17	14	12	10	9	12.6	18.0	
18-May	7	5	5	6	7	8	10	12	15	17	18	19	20	21	22	22	23	23	23	21	18	15	15	15	15.3	22.9	
19-May	13	10	9	8	8	8	10	13	15	17	19	20	21	23	23	24	25	25	25	25	21	16	14	14	17.0	25.0	
20-May	13	12	12	11	11	11	13	15	17	20	22	23	24	25	26	26	26	26	24	19	18	17	15	13	13	17.8	26.3
21-May	13	14	13	13	12	12	13	15	16	18	20	22	23	24	24	25	25	25	24	24	21	17	16	15	18.5	25.0	
22-May	13	13	12	13	13	13	15	17	19	21	23	24	25	26	27	27	28	28	28	28	25	19	18	18	20.5	27.9	
23-May	18	18	16	15	15	15	17	21	24	26	28	30	30	31	31	32	32	32	31	29	26	23	21	20	24.1	31.6	
24-May	18	17	17	16	16	16	17	19	22	25	26	28	27	27	28	27	25	24	23	22	20	18	17	15	21.2	28.2	
25-May	15	14	13	11	12	13	15	17	18	19	20	20	21	21	22	23	23	23	23	22	20	18	14	11	17.9	23.4	
26-May	11	10	11	9	8	8	9	11	12	13	14	15	16	17	18	18	17	17	16	15	14	12	13	11	13.1	17.6	
27-May	10	10	9	9	8	9	10	12	14	15	17	18	19	19	20	20	21	21	20	19	18	16	13	12	15.0	21.0	
28-May	11	10	10	10	11	12	12	13	15	17	18	19	19	20	20	21	20	20	18	17	15	14	12	10	15.2	20.5	
29-May	9	8	7	6	4	5	7	9	10	12	13	14	15	16	17	17	17	17	17	17	15	10	9	7	11.6	17.5	
30-May	6	6	5	5	6	5	8	10	12	14	15	16	16	15	16	13	15	16	16	13	12	10	9	9	11.1	16.3	
31-May	8	7	6	5	4	6	9	10	10	11	13	14	15	16	16	17	16	15	15	15	13	11	10	9	11.2	17.2	
10.7 9.9 9.3 8.8 8.5 8.6 10.3 12.2 14.1 15.9 17.3 18.3 19.1 19.8 20.2 20.3 20.5 20.4 19.7 18.6 16.4 13.7 12.6 11.7																									Diurnal Average		
18.3 17.7 16.6 16.0 15.6 15.6 17.2 20.6 23.6 26.4 28.0 29.6 30.3 30.6 31.0 31.6 31.6 31.5 30.9 29.0 26.4 23.0 20.8 19.6																									Diurnal Maximum		

Hourly Averages

External Temperature (ET) - °C

Donnelly - May 2018



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Donnelly - May 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	5	5	7	9	12	10	9	10	10	11	14	14	12	12	16	16	15	13	10	1	4	6	10	12	7.7	16.0
Dir	303	243	260	265	272	273	266	274	272	270	277	288	287	287	279	267	275	276	276	355	123	119	131	153	269	267
2 Spd	17	17	16	17	17	16	18	22	26	30	31	31	29	36	28	23	9	8	11	7	11	11	14	9	11.3	35.6
Dir	167	176	180	183	186	191	230	241	248	267	271	268	274	271	300	5	334	275	220	185	44	126	179	213	244	271
3 Spd	3	4	10	10	11	10	6	16	23	20	13	12	11	14	18	21	17	14	7	3	2	8	8	12	9.7	22.8
Dir	108	167	211	222	231	255	301	274	272	281	282	278	282	281	282	280	284	287	269	251	126	243	200	220	265	272
4 Spd	17	18	15	16	16	15	13	19	24	24	21	21	18	18	20	25	22	22	24	24	21	23	19	18	18.4	24.6
Dir	222	237	235	232	226	224	227	250	273	277	279	274	277	271	254	264	278	272	248	238	234	232	226	223	251	264
5 Spd	15	14	13	10	11	12	12	15	17	19	17	17	17	16	16	13	18	17	18	17	15	14	15	13	14.3	18.5
Dir	216	203	205	196	204	196	200	209	226	258	253	230	238	247	231	238	245	245	235	223	222	207	234	216	226	258
6 Spd	16	15	15	13	11	11	12	14	14	14	13	14	12	12	10	11	13	13	11	7	2	4	2	2	8.6	15.6
Dir	211	216	207	200	192	195	192	206	240	268	252	238	234	268	277	296	287	292	287	308	231	185	182	102	238	211
7 Spd	3	7	6	7	8	8	10	14	15	14	13	10	11	11	10	9	8	7	3	2	4	8	8	12	6.8	15.4
Dir	65	62	68	82	77	77	82	82	80	88	89	80	75	85	86	90	108	93	155	282	180	185	193	179	94	80
8 Spd	11	14	16	18	16	15	14	16	17	17	17	17	19	19	20	20	19	20	19	16	13	12	19	16	6.2	20.4
Dir	193	190	183	191	195	198	227	276	296	339	336	330	324	326	352	347	357	359	15	20	30	53	59	62	338	347
9 Spd	10	7	8	10	9	11	12	15	17	15	12	12	13	12	13	14	14	13	10	8	9	9	7	7	11.0	17.0
Dir	70	72	78	87	92	92	92	96	95	92	96	83	84	84	81	86	84	101	97	91	91	101	103	102	90	95
10 Spd	7	8	8	8	9	8	6	7	12	12	12	13	13	9	8	7	5	4	11	13	11	9	13	18	8.1	18.2
Dir	98	101	103	103	102	103	104	108	132	144	146	147	155	146	141	164	145	137	193	198	182	178	182	180	147	180
11 Spd	22	20	17	15	15	10	16	18	14	13	12	14	15	13	13	12	16	21	15	11	8	10	17	17	11.2	21.6
Dir	183	180	176	176	177	180	184	193	212	236	235	251	272	295	273	296	274	266	275	251	190	194	222	221	223	183
12 Spd	16	16	15	13	13	12	10	13	15	10	7	11	16	22	25	29	30	26	24	20	15	10	10	11	13.8	29.7
Dir	216	207	205	198	192	208	229	267	282	283	253	251	268	278	273	268	274	283	294	301	291	267	247	273	261	274
13 Spd	6	3	3	2	3	3	4	8	13	12	12	12	10	10	8	10	9	11	10	6	3	4	5	8	4.8	13.4
Dir	333	41	53	293	271	249	231	279	302	323	345	353	314	316	320	292	265	278	284	279	228	144	126	156	302	302
14 Spd	9	9	10	14	17	20	23	23	19	16	18	18	19	15	20	17	21	22	31	18	9	9	13	12	12.9	31.2
Dir	157	147	163	172	174	175	175	182	206	255	263	258	253	250	271	269	244	242	253	280	257	233	239	237	229	253
15 Spd	10	10	14	13	14	13	14	11	20	17	19	20	21	22	23	23	20	17	17	10	5	1	2	6	11.8	23.4
Dir	231	209	207	219	241	211	236	284	287	283	282	286	278	285	282	285	292	300	312	318	329	317	13	54	275	285
16 Spd	6	5	6	1	2	9	9	11	13	10	13	10	9	14	16	14	9	2	9	7	7	7	7	6	6.2	15.9
Dir	81	83	74	11	26	50	66	72	74	90	73	81	95	146	176	180	174	60	50	69	72	77	71	65	92	176
17 Spd	6	5	5	4	3	2	5	4	5	7	8	5	7	7	9	6	5	8	8	8	9	9	5	4	4.4	9.2
Dir	67	73	77	81	73	70	56	82	91	100	111	106	73	66	51	104	110	140	143	157	177	178	176	165	109	51
18 Spd	3	4	4	3	4	2	3	7	7	13	14	10	10	10	12	12	11	10	8	7	6	5	17	18	7.9	18.3
Dir	168	75	94	88	118	109	105	105	111	135	158	149	132	124	137	132	114	116	104	92	95	111	134	136	125	136
19 Spd	13	5	4	3	4	5	5	8	5	5	5	6	7	7	9	8	5	2	2	4	4	3	5	4	5.0	13.4
Dir	130	113	104	108	105	103	108	121	114	105	82	90	118	113	140	132	115	92	97	79	86	78	75	84	109	130
20 Spd	4	4	7	6	4	4	6	9	10	4	4	6	4	7	3	5	1	19	29	23	14	12	13	12	5.8	29.1
Dir	112	105	105	102	104	104	102	113	123	123	122	121	152	163	88	89	237	211	219	222	215	189	204	187	174	219
21 Spd	14	16	14	14	15	14	17	19	18	20	22	23	26	21	18	17	16	17	18	20	13	10	12	12	15.4	25.6
Dir	188	196	207	201	201	213	213	237	245	253	270	258	247	260	254	258	237	238	239	241	234	204	186	191	233	247
22 Spd	11	11	9	12	13	14	15	15	14	14	13	12	13	13	13	14	14	11	9	7	2	4	3	4	9.7	15.3
Dir	198	192	191	171	176	177	186	197	224	244	220	201	195	204	196	212	203	212	220	240	122	95	104	111	199	197

Hourly Averages

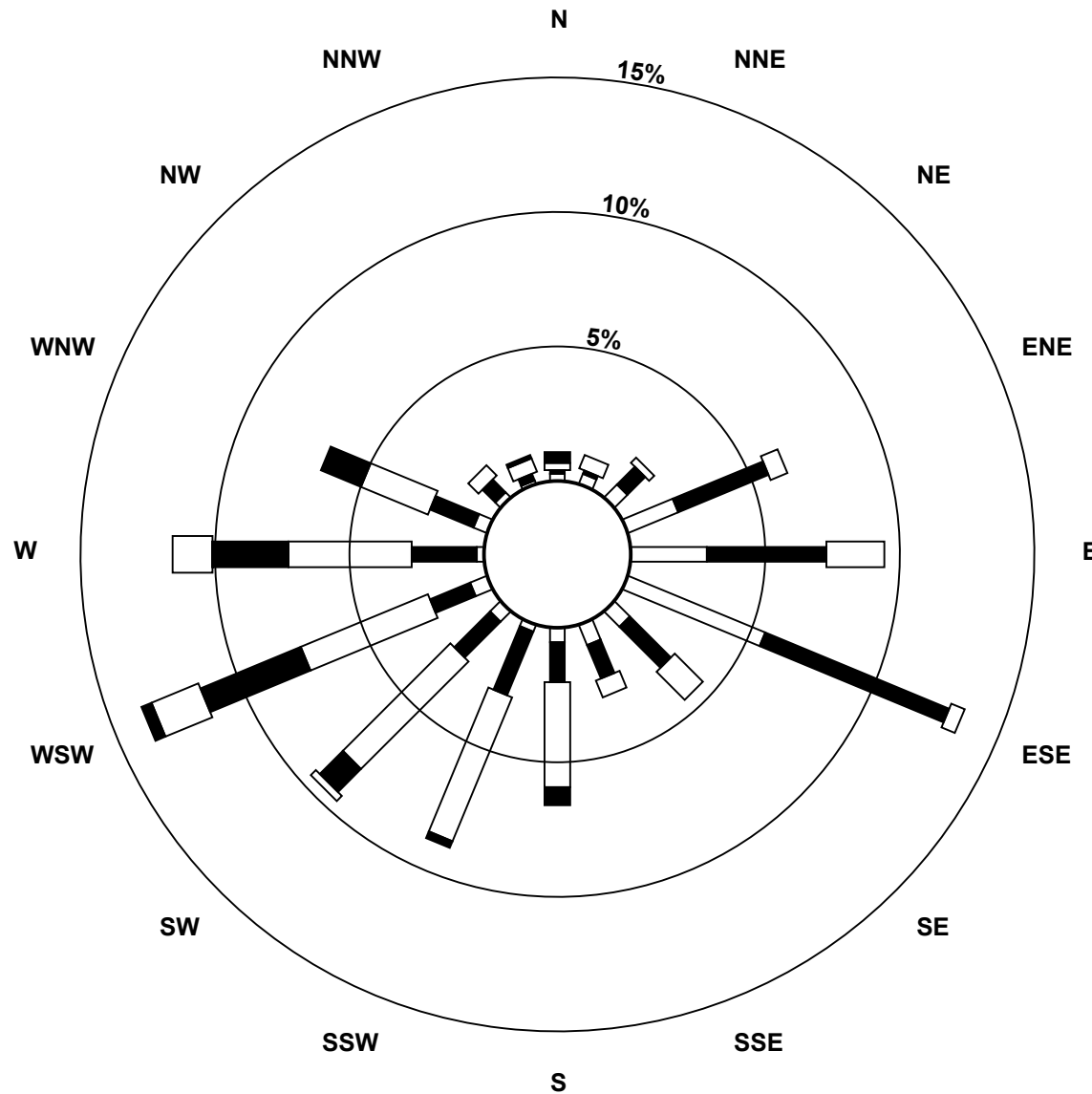
Wind Speed (km/h)
Wind Direction (deg)
Donnelly - May 2018

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	5	3	3	4	4	5	5	6	7	6	8	8	9	9	7	8	11	10	9	8	7	7	6	5	6.2	11.1		
Dir	111	110	104	105	104	102	99	103	127	117	111	110	138	161	138	99	77	86	99	95	99	100	105	107	108	77		
24 Spd	7	7	8	7	8	8	8	6	8	6	7	4	15	16	21	35	33	28	16	8	8	6	10	12	5.2	34.8		
Dir	114	102	102	103	103	103	105	109	105	133	162	204	262	261	248	265	278	288	292	231	252	226	187	184	241	265		
25 Spd	12	12	7	7	7	4	10	16	19	17	17	20	19	19	12	15	13	13	12	10	6	20	28	13	12.7	27.6		
Dir	187	210	226	211	212	225	234	264	275	273	271	249	252	261	244	224	229	244	232	239	288	239	231	234	243	231		
26 Spd	2	8	21	23	20	20	25	32	32	30	32	27	27	27	26	27	31	36	37	22	12	12	25	27	23.4	37.3		
Dir	38	192	211	221	220	213	229	239	245	258	261	251	254	240	239	242	247	247	252	243	226	201	237	241	240	252		
27 Spd	26	24	22	17	19	17	21	18	20	22	30	27	26	30	29	30	27	21	16	9	8	5	5	7	18.9	30.4		
Dir	241	238	237	227	229	224	225	229	247	253	250	246	232	235	245	246	249	250	249	229	227	240	152	127	238	235		
28 Spd	3	3	2	4	2	2	4	6	5	17	29	38	38	43	41	38	41	34	26	24	20	25	21	19	18.5	43.4		
Dir	91	103	73	360	57	31	292	289	212	226	252	253	251	248	244	255	250	260	267	283	280	272	266	261	257	248		
29 Spd	16	17	16	12	6	6	8	12	16	13	14	13	10	9	8	9	5	5	8	10	7	5	6	4	6.5	16.5		
Dir	243	244	241	247	246	224	257	270	269	276	250	260	292	288	304	274	316	265	6	32	39	55	73	77	270	244		
30 Spd	6	5	6	4	4	5	5	5	8	7	9	7	11	12	12	15	9	6	9	10	7	7	4	6	6.8	14.7		
Dir	70	77	74	83	81	65	78	82	74	87	78	79	56	58	47	31	68	88	96	109	99	104	112	100	75	31		
31 Spd	6	5	6	5	4	5	5	8	8	8	12	10	12	11	12	11	10	12	12	8	6	5	6	4	7.9	12.2		
Dir	103	104	104	104	110	116	124	127	116	109	124	115	118	116	120	105	107	116	117	103	103	101	105	109	113	116		
Spd	5.6	6.0	6.1	6.2	6.3	5.8	6.0	6.3	6.8	7.0	7.6	8.0	8.4	8.9	8.4	8.5	8.6	8.7	7.9	5.0	2.7	4.3	5.9	6.0	Diurnal Average			
Dir	186	187	188	191	191	188	200	222	243	258	256	252	253	256	256	263	260	259	254	248	221	197	195	191	Diurnal Maximum			
Spd	26.1	23.8	21.6	22.7	20.1	19.9	25.3	32.3	32.0	30.5	32.2	38.1	38.1	43.4	41.0	38.2	40.9	35.6	37.3	23.9	21.0	24.5	27.6	27.3	Diurnal Maximum			
Dir	241	238	237	221	220	213	229	239	245	258	261	253	251	248	244	255	250	247	252	238	234	272	231	241				
Maximum Speed Value: 43 km/h on May 28 14:00																				Minimum Speed Value: 1 km/h on May 16 04:00				Hours in Service:				744
Maximum Daily Speed Average: 23.4 km/h on May 26																				Minimum Daily Speed Average: 4.4 km/h on May 19				Hours of Data:				744
Maximum Diurnal Speed Average: 8.9 km/h at hour 14																				Minimum Diurnal Speed Average: 2.7 km/h at hour 21				Hours of Missing Data:				0
Monthly Average Velocity: 5.79 km/h 231.1 deg																				Speed Percentiles: P ₁ = 1.8 P ₁₀ = 4.4 Q ₁ = 7.0 Median = 11.6 Q ₃ = 16.4 P ₉₀ = 21.7 P ₉₉ = 35.6				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	4	1	5	5	0	0	15																					
NorthEast	10	14	6	1	0	0	31																					
East	52	105	21	0	0	0	178																					
SouthEast	13	38	20	0	0	0	71																					
South	7	23	55	5	0	0	90																					
SouthWest	7	25	91	31	8	1	163																					
West	5	35	60	45	17	5	167																					
NorthWest	4	11	10	4	0	0	29																					
Total	102	252	268	91	25	6	744																					

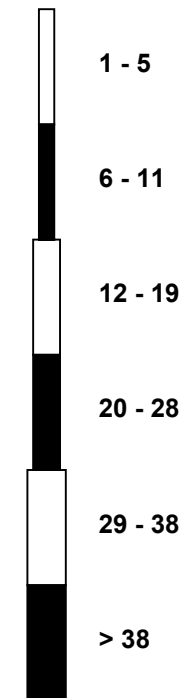
Wind Rose

Wind Speed (WS) (km/h)

Donnelly - May 2018



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Donnelly - May 2018

Maximum Speed: 44 km/h on May 28 14:00																				Maximum Daily Speed Average: 24.7 km/h on May 26										Hours in Service: 744	
Minimum Speed: 2 km/h on May 15 22:00																				Minimum Daily Speed Average: 6.0 km/h on May 19										Hours of Data: 744	
Maximum Diurnal Speed Average: 17.3 km/h at hour 16																				Minimum Diurnal Speed Average: 9.0 km/h at hour 21										Hours of Missing Data: 0	
Monthly Average Speed: 12.95 km/h																				Percentiles: P ₁ = 2.4 P ₁₀ = 4.8 Q ₁ = 7.4 Median = 12.0 Q ₃ = 16.8 P ₉₀ = 22.3 P ₉₉ = 35.9										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-May	5	5	7	9	12	10	9	10	10	11	15	15	13	12	16	17	16	13	10	3	4	6	10	12	10.4	16.7					
2-May	17	17	16	17	17	16	18	22	26	30	32	32	30	36	33	23	10	8	12	8	12	11	15	13	19.6	35.9					
3-May	4	4	10	10	12	12	6	16	23	20	14	13	12	15	18	21	18	14	8	4	2	8	9	12	11.8	23.0					
4-May	17	18	15	16	16	15	13	19	25	24	21	22	19	18	21	25	22	22	24	24	21	23	19	18	20.0	25.3					
5-May	15	14	13	10	11	12	12	15	17	19	18	18	18	18	18	15	19	17	18	17	15	14	15	13	15.5	18.9					
6-May	16	16	15	13	11	11	12	14	15	14	13	15	13	14	11	11	13	14	11	7	3	4	2	2	11.3	15.7					
7-May	3	7	6	7	8	8	10	14	16	14	13	11	11	11	10	9	9	7	9	4	5	8	8	12	9.2	15.5					
8-May	11	14	16	18	16	15	14	16	18	17	18	18	19	20	21	21	20	20	19	16	14	12	20	16	17.0	21.2					
9-May	10	7	8	10	9	11	12	15	17	15	12	13	13	12	14	14	14	13	10	8	9	9	7	7	11.2	17.1					
10-May	7	8	8	8	9	8	6	7	13	12	12	14	13	10	9	8	7	6	12	13	11	9	13	18	10.1	18.2					
11-May	22	20	17	15	15	10	16	18	14	13	12	15	16	16	14	14	17	21	16	11	8	10	18	18	15.2	21.6					
12-May	16	16	15	13	13	12	11	13	15	10	9	12	17	22	26	29	30	26	24	21	15	11	10	11	16.6	30.2					
13-May	6	4	4	3	3	4	5	9	14	13	13	13	12	12	11	12	10	12	11	7	4	4	5	8	8.2	14.0					
14-May	9	9	10	14	17	20	23	23	20	16	18	18	20	17	20	18	22	23	32	18	9	9	13	12	17.1	31.6					
15-May	11	11	14	13	15	13	15	11	20	17	19	21	22	23	24	24	20	18	17	11	5	2	2	6	14.7	23.8					
16-May	6	6	6	4	3	9	9	11	13	10	13	10	10	15	16	14	9	3	9	7	7	7	7	6	8.8	16.2					
17-May	6	6	5	4	3	2	5	4	5	7	8	6	7	7	10	8	6	8	9	9	9	9	5	4	6.2	9.6					
18-May	3	4	4	3	4	2	3	7	7	13	15	11	10	11	13	13	12	11	9	7	6	5	17	18	8.8	18.3					
19-May	14	5	4	3	4	5	5	8	6	6	5	8	8	9	10	9	6	5	5	4	4	3	5	5	6.0	13.5					
20-May	4	4	7	6	4	5	6	9	10	4	5	7	8	8	6	7	8	20	29	23	14	12	13	12	9.7	29.3					
21-May	14	16	14	14	15	15	17	20	18	20	23	24	26	22	19	17	17	17	18	20	13	10	12	12	17.3	25.9					
22-May	11	11	9	12	13	14	15	16	15	14	14	12	14	15	15	15	15	13	9	8	3	4	3	5	11.4	15.6					
23-May	5	3	3	4	4	5	5	6	7	6	8	9	10	10	8	9	11	10	9	8	7	7	6	5	7.0	11.3					
24-May	7	7	8	7	8	8	8	6	8	7	7	6	16	16	21	36	33	28	16	9	8	7	10	12	12.6	35.7					
25-May	12	12	7	7	8	4	10	17	20	18	18	20	20	19	13	15	15	14	12	10	7	20	28	15	14.3	27.9					
26-May	3	9	22	23	20	20	25	32	32	31	33	28	28	28	27	28	31	36	38	22	13	13	25	27	24.7	37.5					
27-May	26	24	22	17	19	17	21	18	20	23	31	28	26	31	29	30	28	21	16	9	8	6	6	7	20.1	30.8					
28-May	3	4	2	5	2	3	4	7	6	17	30	39	39	44	41	39	41	34	27	24	21	25	21	19	20.7	43.8					
29-May	16	17	16	12	6	6	8	13	16	14	14	14	12	12	10	10	7	6	9	10	7	5	6	4	10.4	16.6					
30-May	6	5	6	4	4	5	5	5	8	7	9	8	11	13	14	15	9	7	9	10	8	7	4	6	7.6	15.2					
31-May	6	5	6	5	4	5	6	8	8	8	12	10	12	12	12	11	10	12	12	8	6	6	6	4	8.2	12.3					
10.0 9.9 10.1 9.9 9.9 9.7 10.8 13.2 14.9 14.6 15.5 15.8 16.3 17.0 17.1 17.3 16.3 15.5 15.1 11.6 9.0 9.1 10.9 10.9																									Diurnal Average						
26.1 23.8 21.9 22.7 20.2 20.0 25.4 32.4 32.2 30.9 32.6 38.5 38.8 43.8 41.4 38.6 41.3 35.8 37.5 23.9 21.1 24.6 27.9 27.3																									Diurnal Maximum						
All monthly, daily, and diurnal averages have been calculated using scalar methods																															

Hourly Standard Deviations

Wind Direction (WD) - deg

Donnelly - May 2018

Maximum Value: 95.4 deg on May 20 17:00																		Hours in Service: 744							
Minimum Value: 2.2 deg on May 12 03:00																		Hours of Data: 744							
																		Hours of Missing Data: 0							
Percentiles: P ₁ = 2.5 P ₁₀ = 4.4 Q ₁ = 7.3 Median = 12.1 Q ₃ = 18.9 P ₉₀ = 32.9 P ₉₉ = 69.3																		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-May	23	17	9	13	10	9	9	7	12	17	16	18	22	16	10	17	15	14	14	61	12	9	8	6	61.1
2-May	9	4	6	3	2	7	8	4	6	6	8	11	7	7	32	7	35	17	21	38	34	13	14	54	54.5
3-May	65	16	12	14	15	40	11	7	7	8	19	21	24	21	15	9	10	9	31	56	45	20	11	8	64.5
4-May	6	4	5	4	2	2	9	7	10	9	12	12	13	13	22	14	9	7	9	4	4	3	3	7	21.6
5-May	7	3	4	6	5	6	3	6	11	11	14	16	20	25	22	24	14	16	13	6	4	6	10	18	24.9
6-May	7	5	4	10	3	4	2	10	17	14	16	22	34	25	33	38	21	14	24	8	44	8	9	41	44.0
7-May	12	5	6	6	8	5	4	5	6	7	9	14	13	15	16	15	22	15	68	71	33	17	26	5	71.0
8-May	4	5	2	5	3	3	17	11	15	12	13	17	16	14	12	16	11	13	9	6	9	7	6	6	17.2
9-May	8	7	6	8	8	7	7	7	7	9	10	11	10	11	8	9	8	10	11	10	9	5	5	5	11.3
10-May	5	4	5	5	5	5	7	10	15	14	12	11	17	22	39	35	53	58	23	13	6	8	4	3	58.0
11-May	3	3	3	3	3	5	5	5	13	13	12	21	29	39	31	28	27	13	14	10	15	11	11	6	38.8
12-May	3	3	2	3	4	5	17	11	13	25	40	27	22	16	12	13	10	8	6	5	5	15	6	19	40.0
13-May	27	43	21	56	17	34	32	17	16	15	20	43	49	41	55	38	33	47	22	13	40	18	48	6	55.5
14-May	5	4	10	3	2	2	3	4	16	11	11	15	16	31	13	24	17	10	11	6	11	8	4	4	30.9
15-May	20	17	6	7	7	11	24	11	7	11	13	16	17	16	12	11	15	15	9	12	12	49	20	14	49.2
16-May	8	9	7	88	71	5	9	7	7	15	17	19	24	12	11	8	8	62	7	12	8	9	8	7	87.6
17-May	12	10	9	13	24	17	10	18	24	11	16	17	22	25	17	39	32	32	18	19	4	3	7	12	39.2
18-May	13	22	13	14	7	15	44	11	10	17	20	23	28	27	30	24	21	16	16	16	12	9	5	4	44.4
19-May	8	10	16	23	12	8	10	11	23	28	38	38	38	44	27	27	43	73	64	16	10	12	6	15	72.5
20-May	18	13	8	10	15	16	20	11	11	41	46	39	71	49	71	45	95	20	7	7	8	6	11	6	95.4
21-May	3	5	4	3	4	7	8	7	10	12	15	13	10	14	22	21	19	15	9	5	7	5	5	3	21.8
22-May	3	4	4	4	3	3	6	12	12	18	24	22	26	26	30	23	29	28	26	19	82	20	22	14	82.1
23-May	12	16	20	20	13	13	20	10	17	19	20	19	26	29	47	39	14	13	10	13	11	8	8	9	46.8
24-May	7	8	8	10	8	7	7	58	13	32	31	59	38	12	14	15	7	6	6	31	6	30	5	5	58.7
25-May	11	10	5	11	18	40	7	13	11	13	17	16	21	16	30	21	33	24	20	10	22	22	8	30	39.5
26-May	56	18	13	3	4	4	6	4	6	9	9	14	14	12	13	11	7	6	5	8	13	10	7	3	55.9
27-May	3	3	3	4	2	3	4	6	14	10	9	15	12	9	9	10	15	13	12	7	8	37	9	4	37.5
28-May	17	20	37	43	53	63	31	23	36	18	11	9	11	8	9	9	8	13	14	10	7	4	5	5	63.2
29-May	5	2	4	6	11	29	14	9	10	17	18	23	32	50	57	33	56	43	19	12	13	14	11	12	57.4
30-May	9	9	8	17	20	13	13	14	15	19	17	22	24	18	30	17	16	19	15	9	12	10	17	15	30.2
31-May	9	9	8	8	22	16	18	15	12	14	12	15	17	20	17	15	12	9	9	10	10	7	9	10	21.6
64.5 42.5 36.6 87.6 70.6 63.2 44.4 57.5 36.1 41.4 46.1 58.7 71.4 50.3 70.5 45.3 95.4 72.5 67.7 71.0 82.1 49.2 48.1 54.5																									

PAZA

Portable – Rycroft Station

Monthly Summary Tables, Graphs and
Roses

Hourly Averages

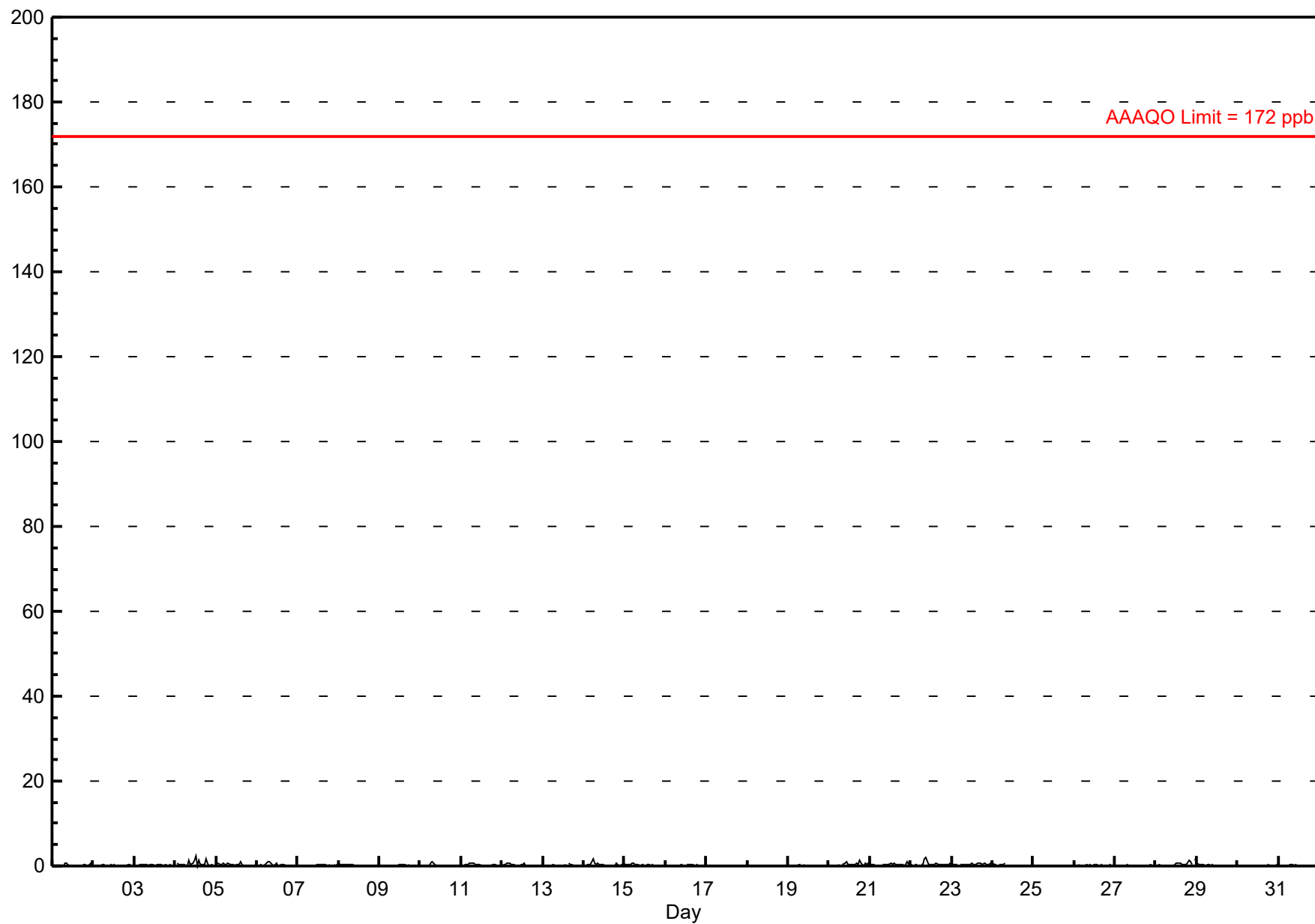
Sulphur Dioxide (SO₂) - ppb

Portable Rycroft - May 2018

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 2.4 ppb on May 4 13:00 Maximum Daily Average: 0.6 ppb on May 4																			Hours in Service: 744 Hours of Data: 681 Hours of Missing Data: 63 Hours of Calibration: 41 Percent Operational Time: 97.0							
Minimum Value: 0 ppb on May 1 01:00 Minimum Daily Average: 0.0 ppb on May 18 Maximum Diurnal Average: 0.3 ppb at hour 8 Minimum Diurnal Average: 0.1 ppb at hour 21 Monthly Average: 0.21 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.3 P ₉₀ = 0.5 P ₉₉ = 1.3																										
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-May	0	0	0	A	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.2	0.6
2-May	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	0.4
3-May	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
4-May	A	1	0	0	0	0	0	0	1	0	1	1	2	0	1	0	0	0	2	1	0	0	0	A	0.6	2.4
5-May	1	1	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	A	0	0.4	1.0
6-May	0	0	0	0	0	0	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	A	0	0	0.3	1.0
7-May	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
8-May	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	0.4
9-May	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	0.3
10-May	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.1	0.9
11-May	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.2	0.6
12-May	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0	A	0	0	0	0	0	0	0	0	0.2	0.7
13-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0.1	0.5
14-May	0	0	0	0	0	2	1	0	1	0	0	0	0	A	0	0	0	0	0	1	0	0	0	1	0.3	1.6
15-May	0	0	0	0	1	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8
16-May	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	0.3
17-May	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	0.1
18-May	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	0.2
19-May	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
20-May	0	0	0	0	0	0	0	A	0	1	1	0	0	0	0	0	1	0	1	1	0	1	0	1	0.4	1.3
21-May	0	0	0	0	0	0	A	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1	0	0.3	1.0
22-May	0	0	0	0	0	A	0	0	2	2	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0.5	1.9
23-May	1	0	1	0	A	0	0	0	0	0	0	0	1	1	0	1	1	1	0	1	0	0	0	1	0.4	0.6
24-May	1	0	0	A	0	0	0	1	C	C	C	C	M	M	M	M	M	M	M	M	M	M	M	M	--	0.5
25-May	M	M	M	M	M	M	M	M	M	M	C	C	C	C	C	0	0	0	0	0	0	0	0	0	--	0.1
26-May	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	0.4
27-May	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
28-May	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	1	0	1	1	0	A	2	0	0.3	1.6
29-May	1	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	0.7
30-May	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	0.2
31-May	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
																									Diurnal Average	
																									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
Portable Rycroft - May 2018



Hourly Maximums

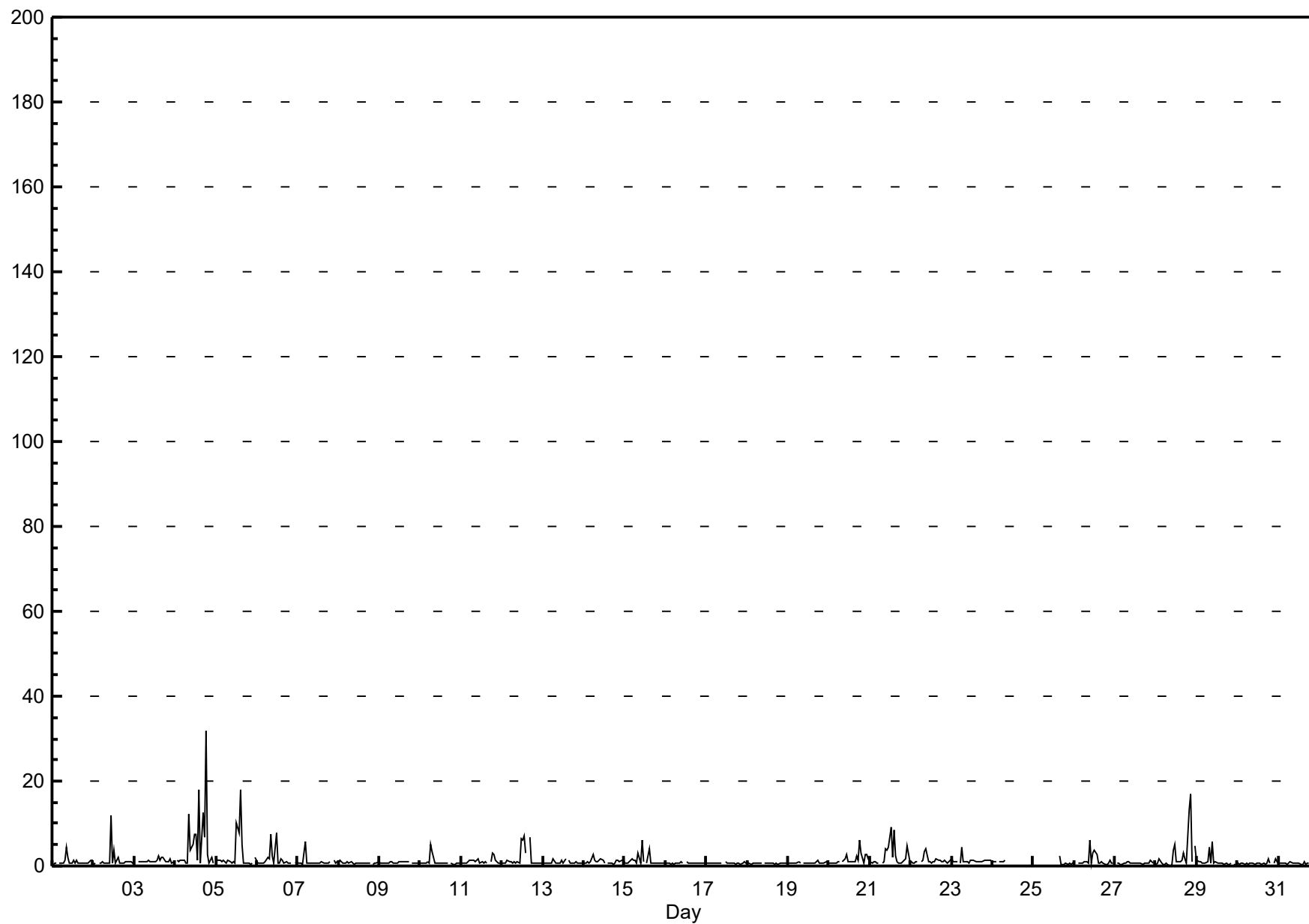
Sulphur Dioxide (SO₂) - ppb

Portable Rycroft - May 2018

Maximum Value: 31.9 ppb on May 4 19:00																				Maximum Daily Average: 5.5 ppb on May 4					Hours in Service: 744	
Minimum Value: 0 ppb on May 28 09:00																				Minimum Daily Average: 0.6 ppb on May 18					Hours of Data: 681	
Maximum Diurnal Average: 2.6 ppb at hour 15																				Minimum Diurnal Average: 0.8 ppb at hour 4					Hours of Missing Data: 63	
Monthly Average: 1.35 ppb																				Percentiles: P ₁ = 0.3 P ₁₀ = 0.6 Q ₁ = 0.7 Median = 0.8 Q ₃ = 1.1 P ₉₀ = 2.0 P ₉₉ = 12.0					Hours of Calibration: 41	
																									Percent Operational Time: 97.0	
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-May	0	1	1	A	1	1	1	1	4	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	4.5
2-May	0	1	A	1	1	1	1	1	1	1	12	1	4	1	2	1	1	1	1	1	1	1	1	1	1.4	11.9
3-May	1	A	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	1	1	1	2	1	1	1.2	2.4
4-May	A	1	1	1	1	1	1	1	12	4	5	8	7	1	18	1	12	7	32	3	1	2	1	A	5.5	31.9
5-May	2	1	1	1	1	1	1	1	1	1	1	1	10	8	18	5	1	1	1	1	0	1	A	2	2.6	18.1
6-May	1	1	1	1	1	1	2	2	7	2	1	8	1	1	2	1	1	1	1	1	1	A	1	1	1.6	7.8
7-May	1	1	1	0	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1.0	5.7
8-May	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	A	0	1	1	1	0.8	1.2
9-May	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	1.2
10-May	1	1	1	1	1	1	5	3	1	1	1	1	1	1	1	1	1	A	1	0	0	1	1	1	1.0	5.2
11-May	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	A	1	3	3	1	1	1	1	1.1	2.9
12-May	1	1	1	1	1	1	1	1	1	1	1	6	6	7	3	A	7	1	1	1	1	1	1	1	1.9	7.2
13-May	1	1	1	1	1	1	2	1	1	1	1	1	1	2	A	1	1	1	1	1	1	1	1	1	0.9	1.8
14-May	1	1	1	1	1	3	1	1	1	1	2	1	1	A	1	1	1	0	1	1	1	1	1	1	1.1	2.8
15-May	1	1	1	1	2	1	1	1	3	1	6	1	A	1	4	1	1	1	1	1	1	1	1	1	1.4	6.2
16-May	1	1	1	0	1	0	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0
17-May	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0	1	1	1	0.7	1.0
18-May	1	1	0	1	1	1	1	1	1	1	A	1	1	1	1	1	0	1	1	1	1	1	1	1	0.6	0.8
19-May	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.2
20-May	1	1	1	1	1	1	1	A	1	2	3	1	1	1	1	1	2	1	6	3	1	3	3	2	1.6	5.9
21-May	1	1	1	1	1	1	A	1	1	4	4	4	9	2	9	2	1	1	1	1	1	2	5	1	2.3	9.2
22-May	1	1	1	1	1	A	1	1	4	4	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1.3	4.2
23-May	2	1	1	1	A	1	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.3	4.3
24-May	1	1	1	A	1	1	1	1	C	C	C	C	M	M	M	M	M	M	M	M	M	M	M	M	--	1.3
25-May	M	M	M	M	M	M	M	M	M	M	C	C	C	C	C	2	1	0	0	1	0	1	0	1	--	2.3
26-May	1	A	1	1	1	1	1	1	1	6	1	3	4	3	1	1	1	1	0	1	1	1	1	1	1.3	6.1
27-May	A	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	A	0.7	1.2
28-May	0	1	2	1	0	0	1	0	0	0	4	5	1	1	1	1	3	2	1	13	17	1	A	5	2.6	17.1
29-May	1	1	1	1	1	1	1	4	1	6	1	1	1	1	1	1	0	1	0	0	1	A	1	0	1.1	5.7
30-May	1	1	1	1	0	1	0	1	1	1	0	1	1	1	0	1	0	1	2	1	A	1	2	1	0.7	1.6
31-May	1	1	1	1	1	0	1	1	1	1	1	1	1	0	0	1	1	1	1	A	1	0	1	1	0.6	0.9
0.8 0.8 0.8 0.8 1.0 0.9 1.2 1.1 1.8 1.6 1.9 1.9 2.1 1.5 2.6 1.1 1.5 1.1 2.1 1.4 1.3 1.0 1.0 1.1																								Diurnal Average		
1.7 1.3 1.6 1.3 5.7 2.8 5.2 4.3 12.3 6.1 11.9 7.8 10.2 7.9 18.1 5.1 12.5 6.7 31.9 13.2 17.1 2.8 4.8 4.6																								Diurnal Maximum		
C - Calibration M - Maintenance A - Automated Daily Zero Span																										

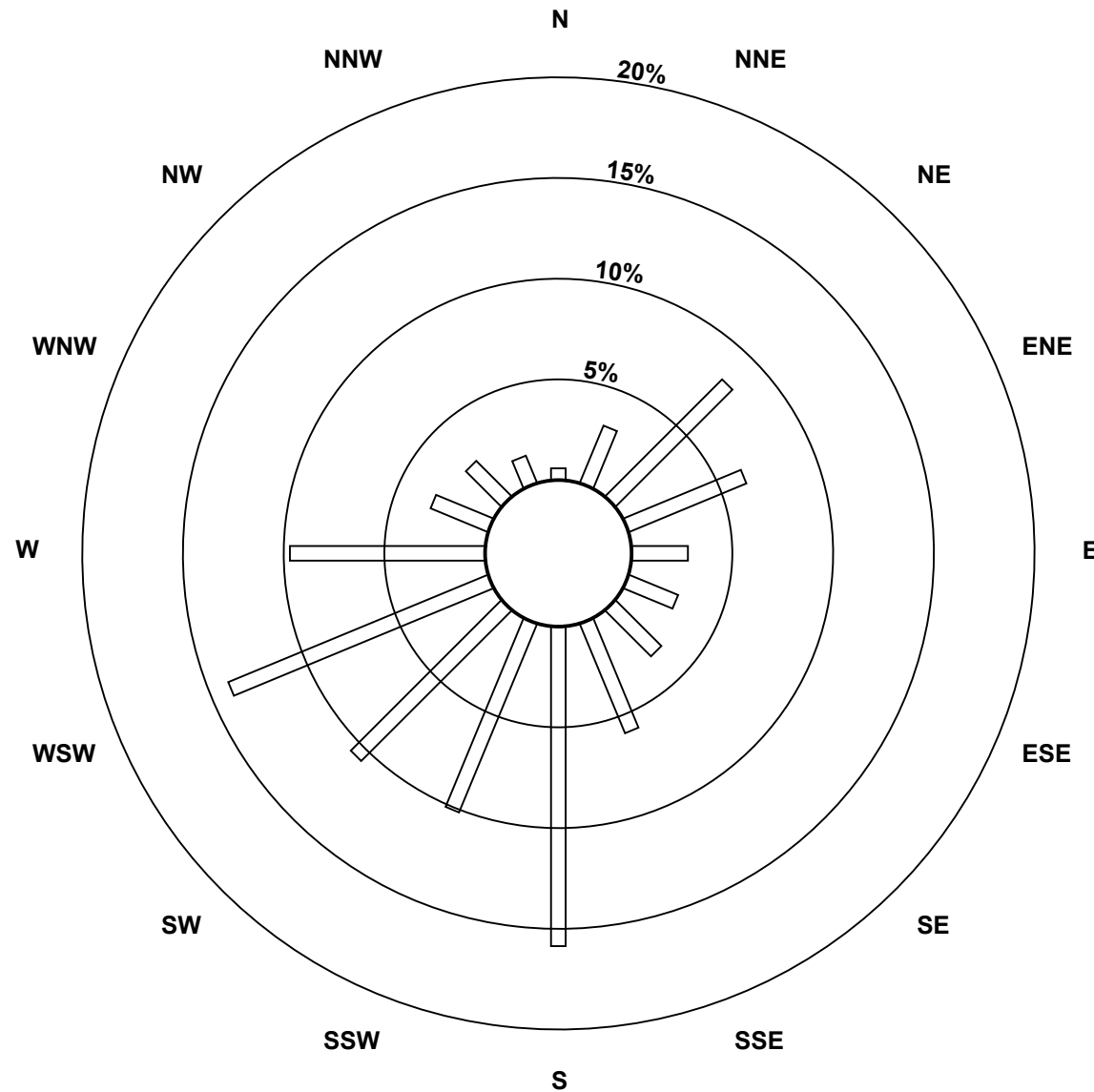
Hourly Maximums

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

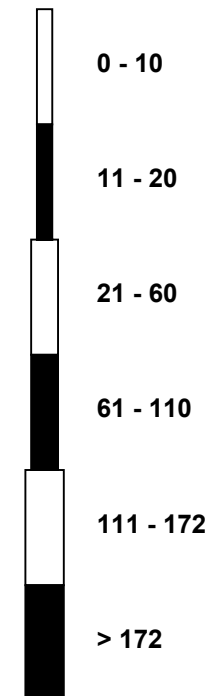


Pollutant Rose

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

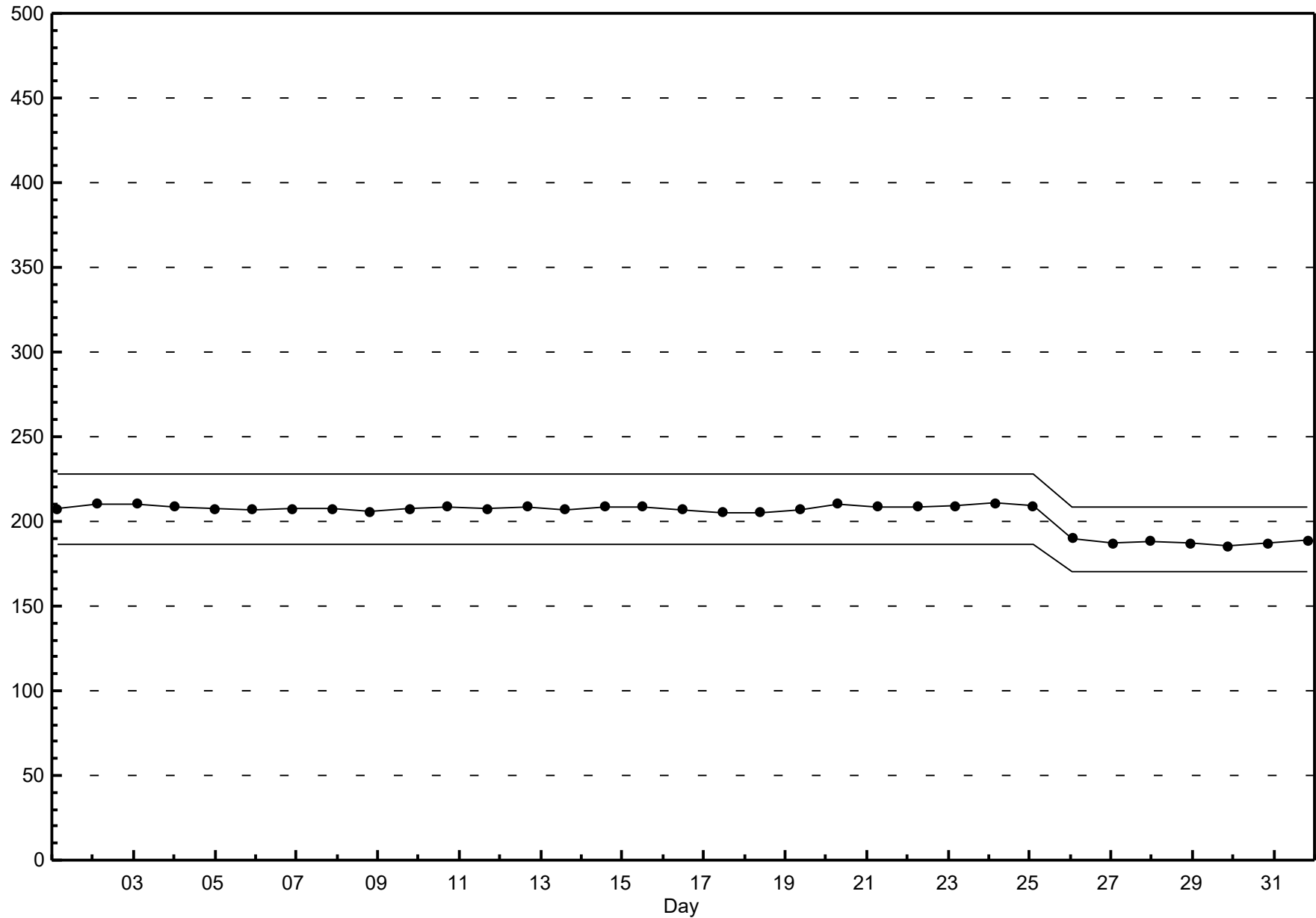


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Portable Rycroft - May 2018



Hourly Averages

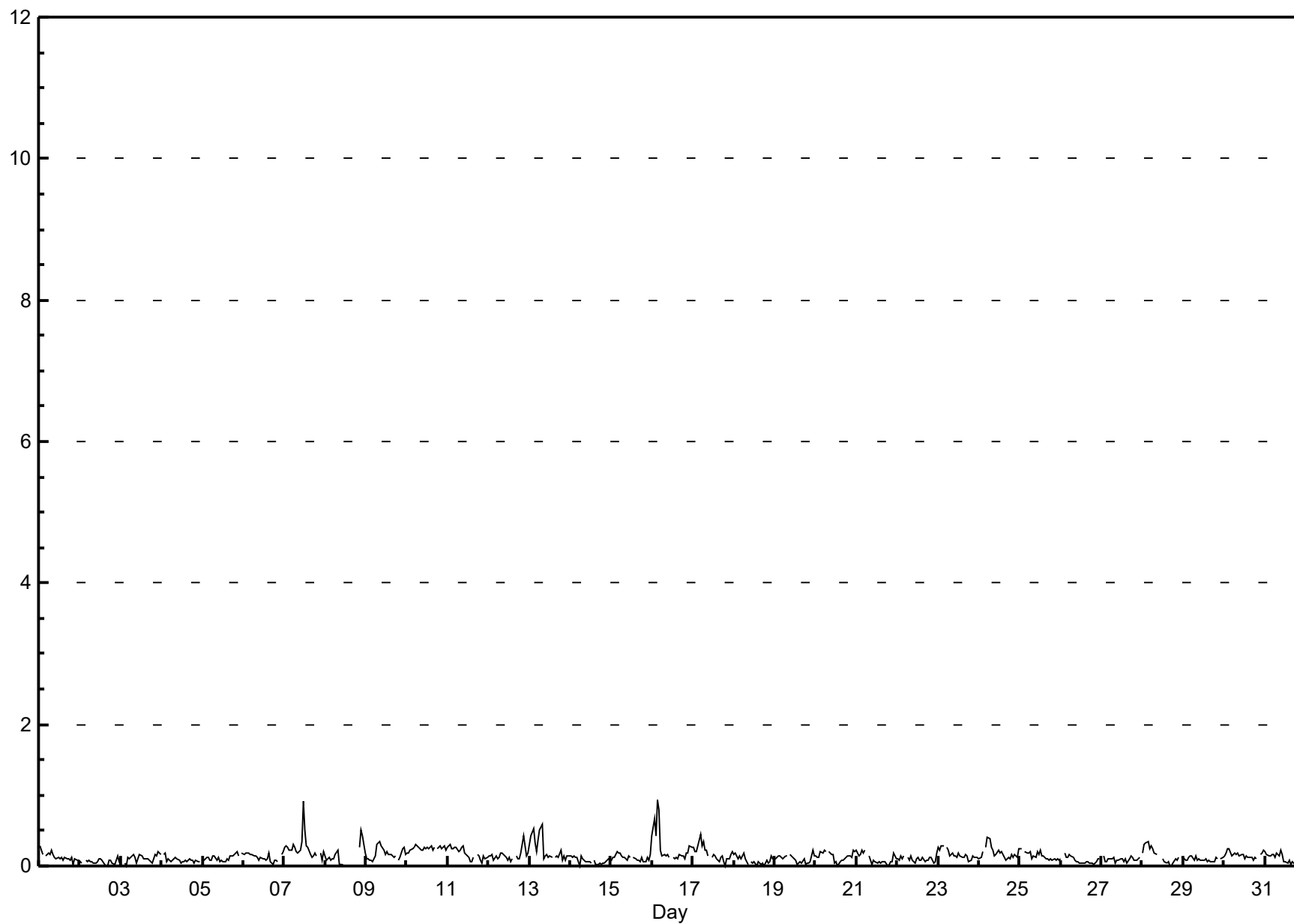
Total Reduced Sulphur (TRS) - ppb

Portable Rycroft - May 2018

Maximum Value: 0.9 ppb on May 16 04:00																			Maximum Daily Average: 0.3 ppb on May 16										Hours in Service: 744	
Minimum Value: 0 ppb on May 2 16:00																			Minimum Daily Average: 0.1 ppb on May 2										Hours of Data: 708	
Maximum Diurnal Average: 0.2 ppb at hour 4																			Minimum Diurnal Average: 0.1 ppb at hour 19										Hours of Missing Data: 36	
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 = 0.3 P ₉₉ = 0.5										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-May	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				
2-May	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				
3-May	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				
4-May	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				
5-May	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	0.2				
6-May	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				
7-May	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	A	0	0	0	0.3	0.9				
8-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	0	0	0.1	0.5				
9-May	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				
10-May	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	0.3				
11-May	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				
12-May	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	0.4				
13-May	0	0	1	0	0	0	1	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.2	0.6				
14-May	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	0.1				
15-May	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				
16-May	0	1	0	1	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.9				
17-May	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	0.5				
18-May	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				
19-May	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				
20-May	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				
21-May	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				
22-May	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				
23-May	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				
24-May	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				
25-May	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				
26-May	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				
27-May	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				
28-May	0	0	0	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0	0	0	A	0	0.2	0.3				
29-May	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	0.1				
30-May	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	0.2				
31-May	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	0.2				
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 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1																									Diurnal Average					
0.4 0.7 0.5 0.9 0.8 0.4 0.5 0.6 0.3 0.3 0.3 0.9 0.5 0.3 0.3 0.2 0.3 0.2 0.2 0.2 0.3 0.4 0.5 0.4 0.3																									Diurnal Maximum					
C - Calibration																									A - Automated Daily Zero Span					

Hourly Averages

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



Hourly Maximums

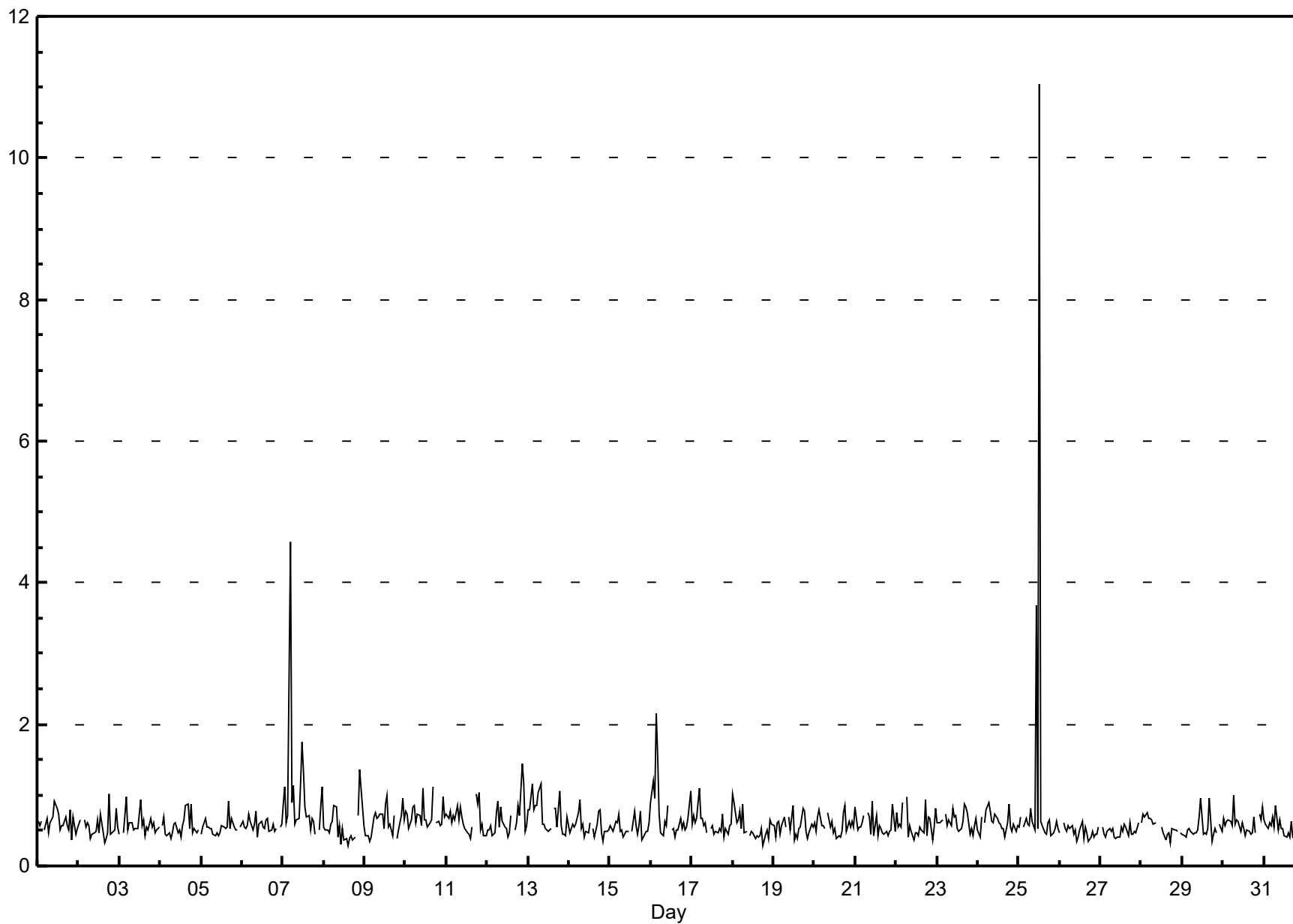
Total Reduced Sulphur (TRS) - ppb

Portable Rycroft - May 2018

Maximum Value: 11.0 ppb on May 25 13:00																				Maximum Daily Average: 1.2 ppb on May 25				Hours in Service: 744		
Minimum Value: 0 ppb on May 8 15:00																				Minimum Daily Average: 0.5 ppb on May 26				Hours of Data: 708		
Maximum Diurnal Average: 0.9 ppb at hour 13																				Minimum Diurnal Average: 0.5 ppb at hour 15				Hours of Missing Data: 36		
Monthly Average: 0.62 ppb																				Percentiles: P ₁ = 0.3 P ₁₀ = 0.4 Q ₁ = 0.5 Median = 0.6 Q ₃ = 0.7 P ₉₀ = 0.8 P ₉₉ = 1.4				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-May	1	1	1	A	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	1	0.6	0.9
2-May	1	1	A	1	1	1	1	0	0	0	0	1	0	1	0	0	0	0	1	0	0	1	1	1	0.6	1.0
3-May	0	A	0	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0	1	1	0.6	1.0
4-May	A	1	1	0	0	0	0	0	1	1	0	1	0	1	1	1	1	1	1	0	1	0	1	A	0.6	0.9
5-May	0	1	1	1	1	1	1	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	A	1	0.5	0.9
6-May	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0	1	1	0	1	A	1	1	0.6	0.8
7-May	1	1	1	1	5	1	1	1	1	1	1	2	1	1	1	1	1	1	1	0	A	0	1	1	1.0	4.6
8-May	1	1	1	0	1	1	1	1	0	1	0	1	0	0	0	0	0	0	0	A	1	1	1	1	0.6	1.4
9-May	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	0	1	0	A	0	1	1	1	1	0.6	1.0
10-May	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	1.1
11-May	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	A	1	1	1	1	1	0	0	0.7	1.0
12-May	1	1	1	0	0	1	1	1	1	1	1	1	0	0	1	A	1	1	1	1	1	1	0	1	0.7	1.4
13-May	1	1	1	1	1	1	1	1	1	1	1	1	0	1	A	1	1	1	1	1	0	0	0	1	0.7	1.2
14-May	0	1	1	1	1	1	1	1	1	0	0	0	1	A	1	0	1	1	1	0	0	0	0	1	0.6	0.9
15-May	1	1	0	1	1	1	0	1	0	0	0	0	A	0	1	1	0	1	1	0	0	0	0	1	0.5	0.8
16-May	1	1	1	2	2	1	0	0	1	1	1	A	1	1	0	1	1	1	1	1	1	1	1	1	0.8	2.2
17-May	1	1	1	1	1	1	1	1	1	0	A	1	1	0	0	0	1	0	1	0	1	0	1	1	0.6	1.1
18-May	1	1	1	1	1	1	1	0	0	A	0	0	0	0	0	0	0	1	0	0	1	0	1	1	0.6	1.0
19-May	1	0	1	1	0	1	1	1	A	1	0	1	0	0	0	1	1	1	1	0	0	0	1	1	0.6	0.8
20-May	1	0	1	1	1	1	1	A	1	1	1	0	1	0	0	0	0	1	1	0	1	1	1	1	0.6	0.9
21-May	1	1	1	1	1	1	A	1	1	0	1	0	1	0	1	1	0	0	0	0	0	1	1	0	0.6	0.9
22-May	1	1	1	1	1	A	1	0	1	0	0	0	0	0	1	1	0	1	0	1	1	0	1	1	0.6	1.0
23-May	1	1	1	1	A	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0	1	0	1	1	0.6	0.9
24-May	1	0	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	1	0	1	0.6	0.9
25-May	1	1	A	1	1	1	1	1	1	1	1	4	1	11	1	1	0	0	1	1	0	0	1	1	1.2	11.0
26-May	0	A	1	1	0	1	1	1	0	1	0	0	1	1	0	1	0	0	0	0	0	0	0	1	0.5	0.6
27-May	A	1	0	0	0	1	0	1	0	0	0	0	1	0	1	1	0	1	0	0	0	0	1	A	0.5	0.6
28-May	1	1	1	1	1	1	1	1	1	C	C	C	1	0	0	0	0	0	1	1	1	0	A	0	0.6	0.8
29-May	0	0	0	1	1	0	0	0	0	1	1	1	0	0	0	1	1	0	0	1	0	A	1	0	0.5	1.0
30-May	1	1	1	1	1	1	1	1	1	1	0	1	1	0	1	0	0	0	1	0	A	1	1	1	0.6	1.0
31-May	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	1	0	0	A	1	0	1	0	0.5	0.9
0.6 0.6 0.6 0.6 0.8 0.7 0.7 0.6 0.6 0.6 0.7 0.6 0.9 0.5 0.5 0.5 0.6 0.6 0.7 0.5 0.5 0.6 0.6 0.6																								Diurnal Average		
1.0 1.2 1.2 2.2 4.6 0.9 1.1 1.2 0.8 0.8 3.7 1.7 11.0 1.0 0.8 0.8 1.1 1.0 1.1 1.0 1.4 1.4 1.1 1.1																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										

Hourly Maximums

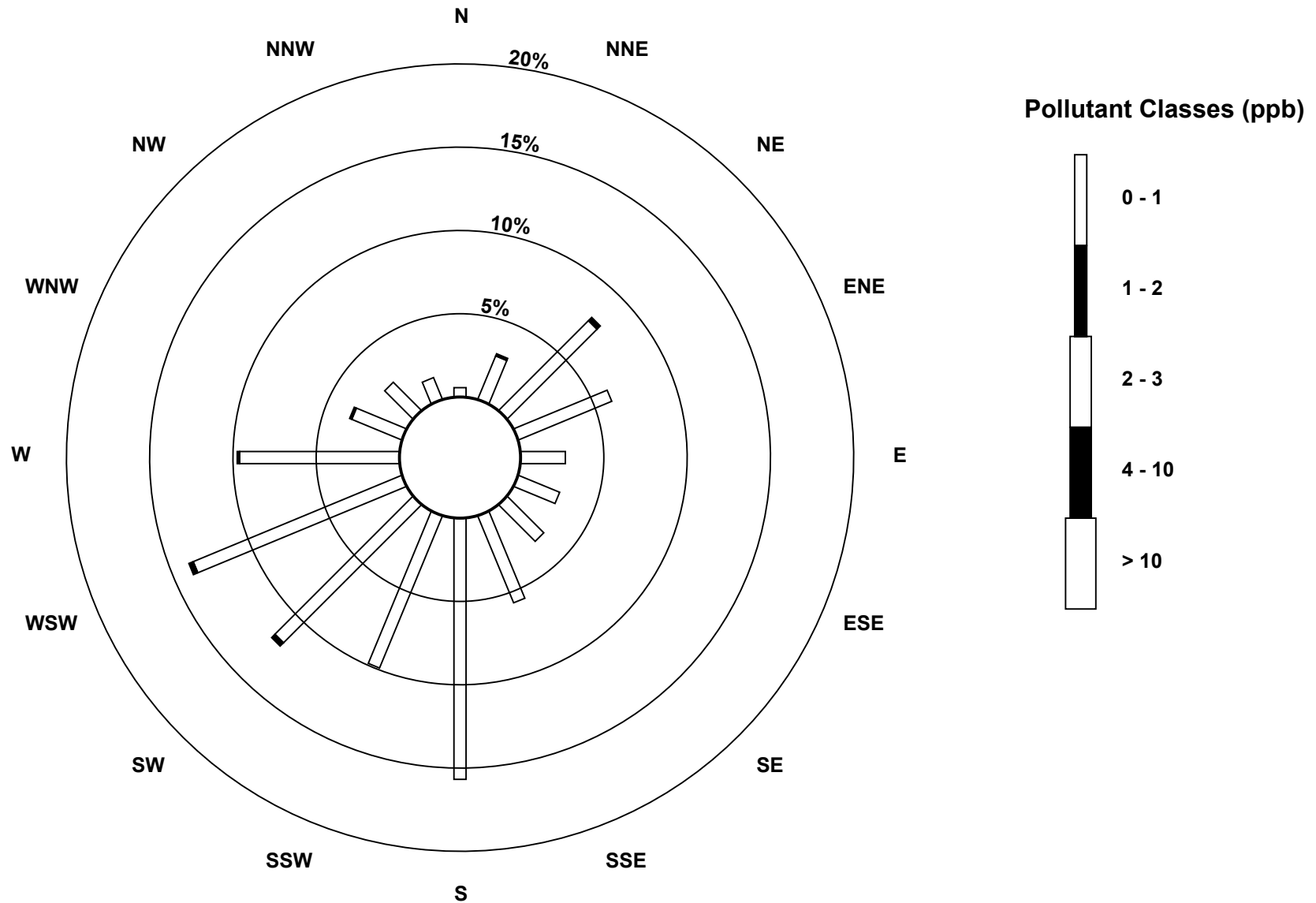
Total Reduced Sulphur (TRS) - ppb
Portable Rycroft - May 2018



Pollutant Rose

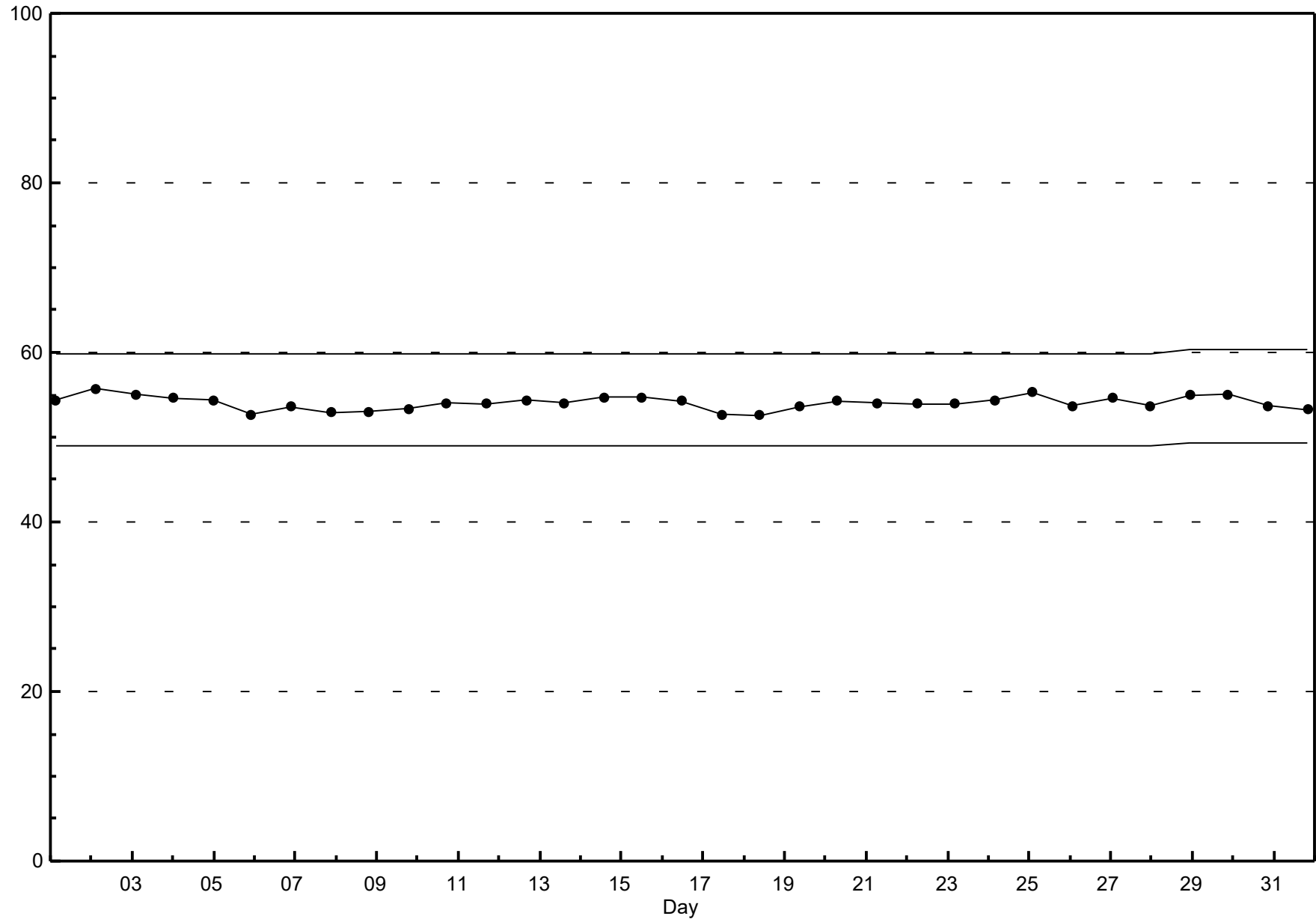
Total Reduced Sulphur (TRS) - ppb

Portable Rycroft - May 2018



Span Responses

Total Reduced Sulphur (TRS)
Portable Rycroft - May 2018



Hourly Averages

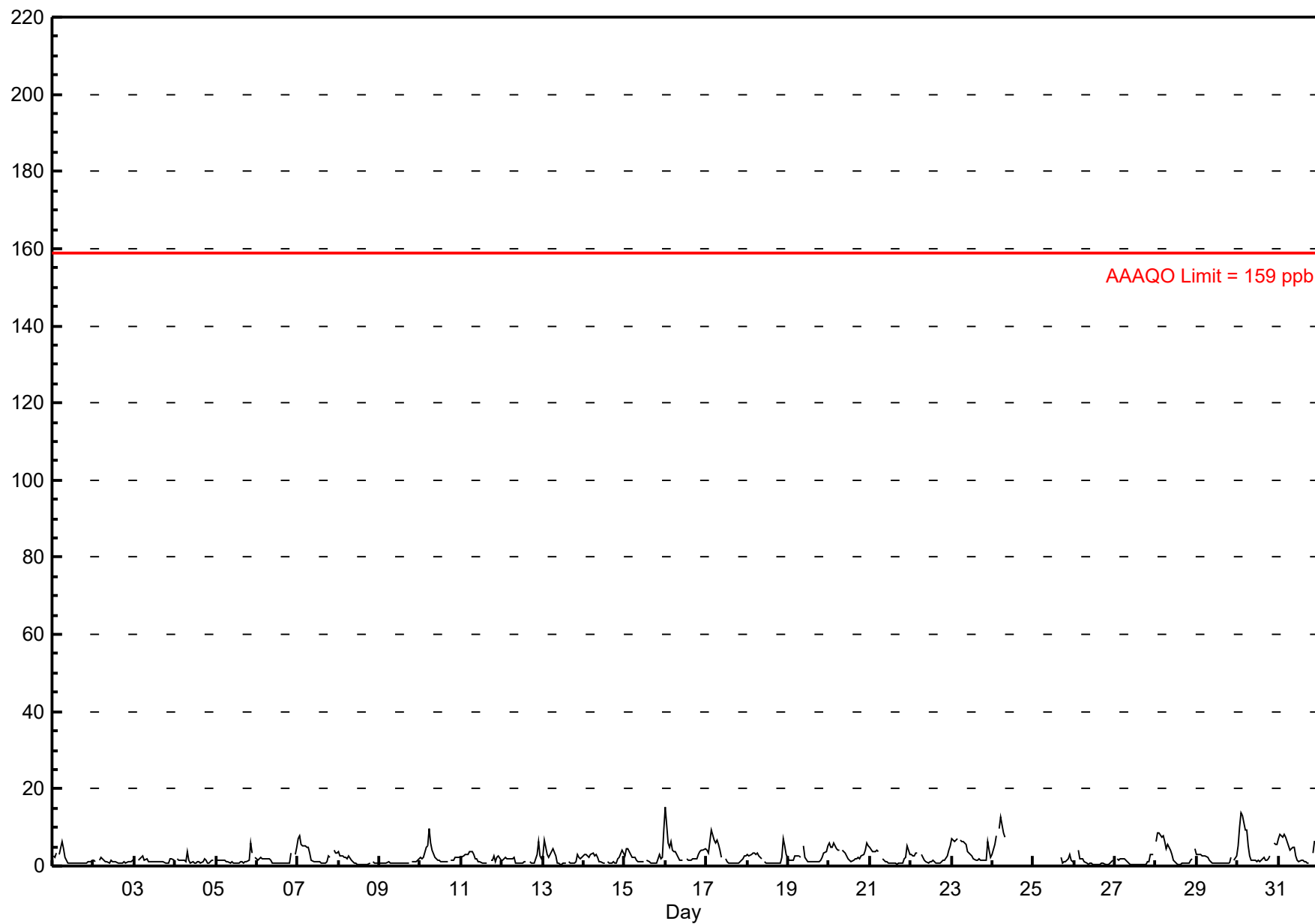
Nitrogen Dioxide (NO₂) - ppb

Portable Rycroft - May 2018

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 15.4 ppb on May 16 01:00 Maximum Daily Average: 4.6 ppb on May 30																				Hours in Service: 744 Hours of Data: 680 Hours of Missing Data: 64 Hours of Calibration: 42 Percent Operational Time: 97.0						
Minimum Value: 0 ppb on May 27 17:00 Minimum Daily Average: 0.9 ppb on May 9 Maximum Diurnal Average: 4.1 ppb at hour 6 Minimum Diurnal Average: 0.9 ppb at hour 16 Monthly Average: 2.27 ppb Percentiles: P ₁ = 0.4 P ₁₀ = 0.7 Q ₁ = 0.9 Median = 1.5 Q ₃ = 2.8 P ₉₀ = 5.2 P ₉₉ = 9.5																										
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-May	3	2	4	A	3	6	4	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.7	6.3
2-May	1	1	A	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	2.1
3-May	1	A	2	2	2	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1.3	2.4
4-May	A	2	1	2	1	2	1	4	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	A	1.3	3.8
5-May	2	1	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6	3	A	2	1.5	5.8
6-May	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	3	A	3	5	1.6	4.9
7-May	7	8	6	5	5	5	5	3	1	1	1	1	1	1	1	1	1	1	3	2	A	4	3	3	3.0	7.7
8-May	4	3	2	2	2	2	2	2	1	1	1	1	0	0	0	0	0	0	1	A	1	1	1	1	1.2	3.6
9-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	2	2	0.9	2.0
10-May	2	2	2	5	5	10	6	4	2	2	1	1	1	1	1	1	1	A	2	2	2	2	2	2	2.6	9.6
11-May	2	3	3	3	3	4	4	3	2	2	1	1	1	1	1	1	A	1	2	3	1	2	3	1	2.0	3.8
12-May	1	2	2	2	2	2	2	2	1	1	1	1	1	1	1	A	1	1	1	1	3	6	3	2	1.6	6.3
13-May	3	7	3	2	3	4	5	3	1	1	1	1	1	1	A	1	1	1	1	1	3	2	2	2	2.0	6.5
14-May	3	3	2	2	3	3	3	3	2	1	1	1	1	A	1	1	1	1	1	1	2	2	4	3	1.9	4.2
15-May	3	4	4	3	2	2	2	2	1	1	1	1	A	1	1	1	1	1	1	1	3	2	2	9	2.2	9.5
16-May	15	6	5	6	4	4	4	2	1	1	2	A	2	2	2	1	2	2	2	3	4	4	4	5	3.6	15.4
17-May	4	3	6	9	7	6	7	6	4	2	A	2	1	1	1	1	1	1	1	1	1	2	3	3	3.1	9.2
18-May	3	3	3	3	3	3	3	3	2	A	1	1	1	1	1	1	1	1	1	1	2	7	5	3	2.2	7.1
19-May	2	1	1	2	3	3	3	2	A	5	2	1	1	1	1	1	1	1	1	2	2	3	4	5	2.1	5.3
20-May	6	5	5	6	4	4	4	A	4	3	3	2	2	1	1	2	2	2	2	2	3	4	6	5	3.4	6.1
21-May	5	4	4	4	4	4	A	2	1	1	1	1	1	1	1	1	1	1	1	1	2	2	5	3	2.1	5.2
22-May	3	3	3	3	3	A	3	2	2	1	1	1	1	1	1	1	1	1	1	1	2	3	4	5	2.0	5.2
23-May	7	7	6	7	A	7	6	6	6	4	3	3	3	2	2	2	2	1	1	2	2	6	4	2	4.0	7.1
24-May	3	6	8	A	10	12	9	7	C	C	C	C	C	C	C	C	M	M	M	M	M	M	M	M	--	12.5
25-May	M	M	M	M	M	M	M	M	M	M	M	M	M	C	C	C	2	1	1	1	2	3	1	1	--	2.8
26-May	1	A	4	2	2	2	1	1	0	1	1	0	1	0	0	1	1	1	0	0	0	1	1	1	1.0	4.2
27-May	A	2	1	2	2	2	1	1	1	0	0	0	0	0	0	0	0	0	0	1	1	3	3	A	1.1	2.8
28-May	6	9	9	7	8	6	4	6	4	3	2	1	1	0	0	1	1	1	1	1	1	2	A	4	3.4	8.7
29-May	3	3	3	3	3	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	2	A	2	3	1.5	2.9
30-May	5	10	14	13	10	9	5	3	1	1	2	1	1	1	2	2	2	2	2	3	A	6	6	6	4.6	13.9
31-May	7	8	8	8	7	6	5	4	5	5	2	2	1	1	2	1	1	1	1	A	3	6	6	4	4.2	8.2
																									Diurnal Average	
																									Diurnal Maximum	
C - Calibration M - Maintenance 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 - May 2018



Hourly Maximums

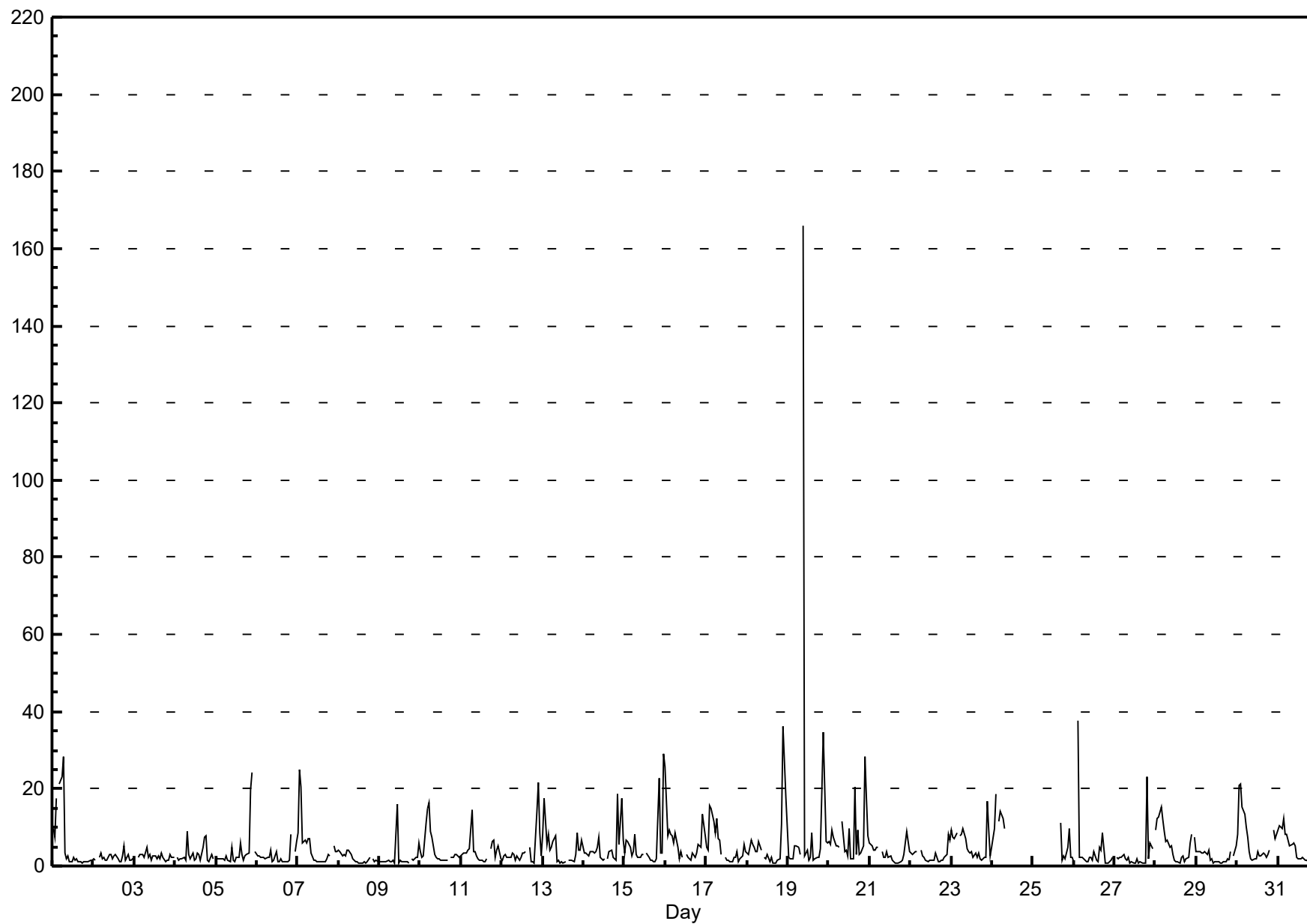
Nitrogen Dioxide (NO₂) - ppb

Portable Rycroft - May 2018

Maximum Value: 165.9 ppb on May 19 10:00																				Maximum Daily Average: 12.6 ppb on May 19										Hours in Service: 744	
Minimum Value: 1 ppb on May 27 13:00																				Minimum Daily Average: 2.0 ppb on May 8										Hours of Data: 680	
Maximum Diurnal Average: 9.2 ppb at hour 22																				Minimum Diurnal Average: 1.8 ppb at hour 14										Hours of Missing Data: 64	
Monthly Average: 4.65 ppb																				Percentiles: P ₁ = 0.8 P ₁₀ = 1.1 Q ₁ = 1.6 Median = 2.6 Q ₃ = 5.0 P ₉₀ = 9.4 P ₉₉ = 27.5										Hours of Calibration: 42	
																				Percent Operational Time: 97.0											
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-May	10	8	18	A	21	23	28	3	2	3	1	1	2	2	2	1	1	1	1	1	1	1	2	2	5.8	28.4					
2-May	2	1	A	2	3	2	2	2	1	3	3	2	3	3	2	1	1	3	5	2	3	2	1	2	2.2	5.2					
3-May	2	A	2	3	3	3	2	5	2	3	1	3	3	2	3	2	3	2	1	2	2	3	2	2	2.4	4.7					
4-May	A	2	2	2	2	2	2	9	3	2	3	2	2	3	3	1	5	7	8	1	1	3	2	A	3.1	9.0					
5-May	2	2	2	2	2	2	3	2	1	5	2	1	2	2	6	3	2	3	3	3	20	24	A	4	4.1	24.2					
6-May	2	3	2	2	2	2	2	2	4	1	2	4	1	1	2	1	1	1	1	1	8	A	4	6	2.5	8.4					
7-May	9	25	20	6	7	6	7	7	3	2	1	1	1	1	1	1	1	2	3	3	A	5	4	4	5.2	24.8					
8-May	4	4	3	3	3	4	4	3	2	1	1	1	1	1	1	1	1	1	2	A	2	1	1	1	2.0	4.1					
9-May	1	1	1	1	1	1	1	1	1	1	16	1	2	1	1	1	1	1	1	A	2	1	2	6	2.1	15.9					
10-May	4	2	3	11	15	16	9	8	3	2	2	2	2	2	1	1	1	A	2	2	3	3	3	2	4.3	16.3					
11-May	3	3	3	3	4	4	15	4	4	3	2	2	1	1	1	2	A	4	6	7	2	4	5	2	3.7	14.6					
12-May	2	3	3	2	2	2	3	3	2	2	1	2	3	4	4	A	5	1	1	1	14	22	9	3	4.1	21.7					
13-May	8	18	5	8	4	5	6	8	1	2	1	1	1	1	A	2	1	2	1	3	9	4	4	7	4.4	17.6					
14-May	3	3	3	3	4	4	3	4	5	7	2	1	2	A	2	4	4	2	2	2	19	5	17	7	4.7	18.7					
15-May	3	7	6	5	3	4	8	3	2	2	3	3	A	3	2	1	1	1	1	2	23	3	3	29	5.2	29.2					
16-May	26	8	9	8	8	6	8	5	2	4	2	A	3	2	2	2	3	2	3	6	5	5	13	8	6.1	25.8					
17-May	5	4	16	15	12	9	12	7	7	3	A	2	2	1	1	1	2	2	4	1	2	3	6	4	5.2	15.8					
18-May	3	3	7	6	5	4	4	6	4	A	2	2	3	1	2	1	1	1	1	2	11	36	27	18	6.5	36.0					
19-May	2	2	2	2	5	5	5	3	A	166	3	4	1	2	9	1	2	2	2	5	19	35	6	6	12.6	165.9					
20-May	6	5	9	8	5	5	5	A	11	4	4	3	10	2	2	20	3	9	3	3	5	28	18	8	7.7	28.3					
21-May	6	5	4	4	5	5	A	4	2	2	4	2	3	1	1	1	1	1	1	1	3	6	9	4	3.2	9.0					
22-May	3	3	3	4	4	A	4	3	2	1	1	1	2	2	1	3	1	1	1	2	2	3	8	7	2.8	8.1					
23-May	9	8	7	9	A	8	8	10	7	5	4	3	4	2	3	2	3	2	2	2	2	17	9	3	5.6	16.7					
24-May	5	10	19	A	12	14	12	10	C	C	C	C	C	C	C	M	M	M	M	M	M	M	M	M	--	18.7					
25-May	M	M	M	M	M	M	M	M	M	M	M	M	M	C	C	C	11	2	3	2	5	10	2	2	--	11.3					
26-May	1	A	38	2	2	2	2	1	1	2	2	1	4	2	1	5	4	9	1	1	1	1	1	2	3.8	37.8					
27-May	A	2	2	2	2	3	2	1	2	1	1	1	1	2	1	1	1	1	1	23	2	6	5	A	2.8	23.0					
28-May	9	12	13	15	12	9	6	7	5	5	3	2	1	1	1	2	3	1	2	2	6	8	A	7	5.8	15.4					
29-May	4	4	4	3	3	4	3	4	1	2	1	1	1	1	1	1	1	1	2	1	4	A	2	5	2.3	5.2					
30-May	8	21	21	15	13	10	8	4	2	2	2	2	4	3	3	3	3	2	3	4	A	9	7	8	6.8	21.2					
31-May	9	10	10	12	8	8	7	5	6	6	5	2	2	2	2	2	2	2	1	A	6	9	9	5	5.7	12.1					
5.4 6.3 8.2 5.7 5.9 5.9 6.3 4.5 3.2 8.6 2.7 1.9 2.3 1.8 2.2 2.5 2.4 2.4 2.3 3.1 6.5 9.2 6.5 5.8																								Diurnal Average							
25.8 24.8 37.8 15.4 21.2 23.0 28.4 9.6 11.4 165.9 15.9 4.3 9.7 3.5 8.7 20.4 11.3 9.4 7.9 23.0 22.7 36.0 27.3 29.2																								Diurnal Maximum							
C - Calibration M - Maintenance A - Automated Daily Zero Span																															

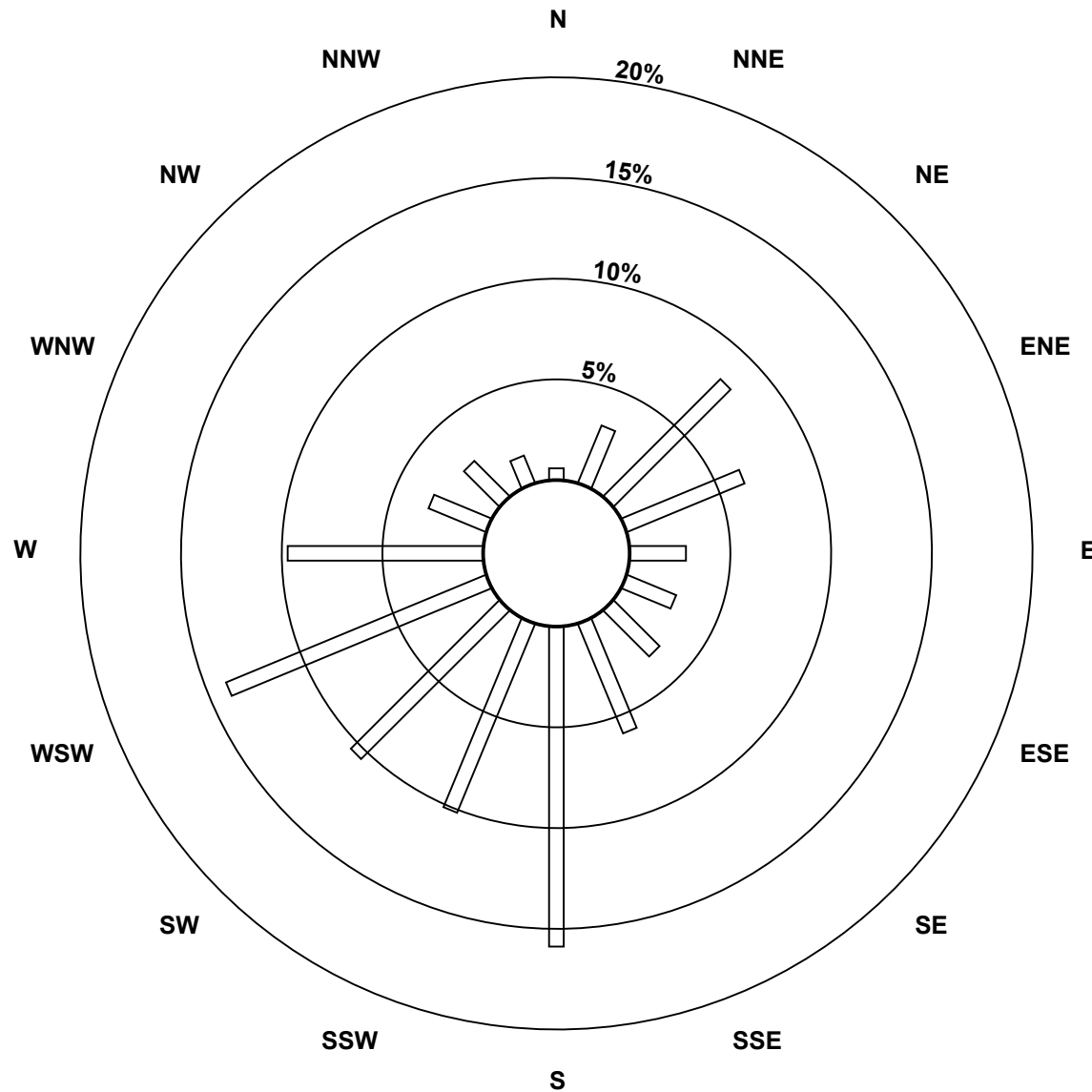
Hourly Maximums

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

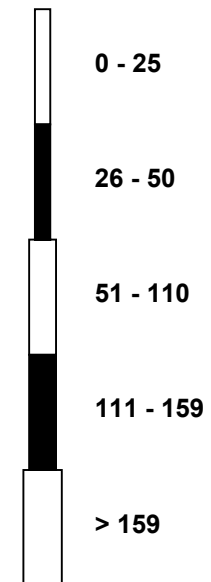


Pollutant Rose

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

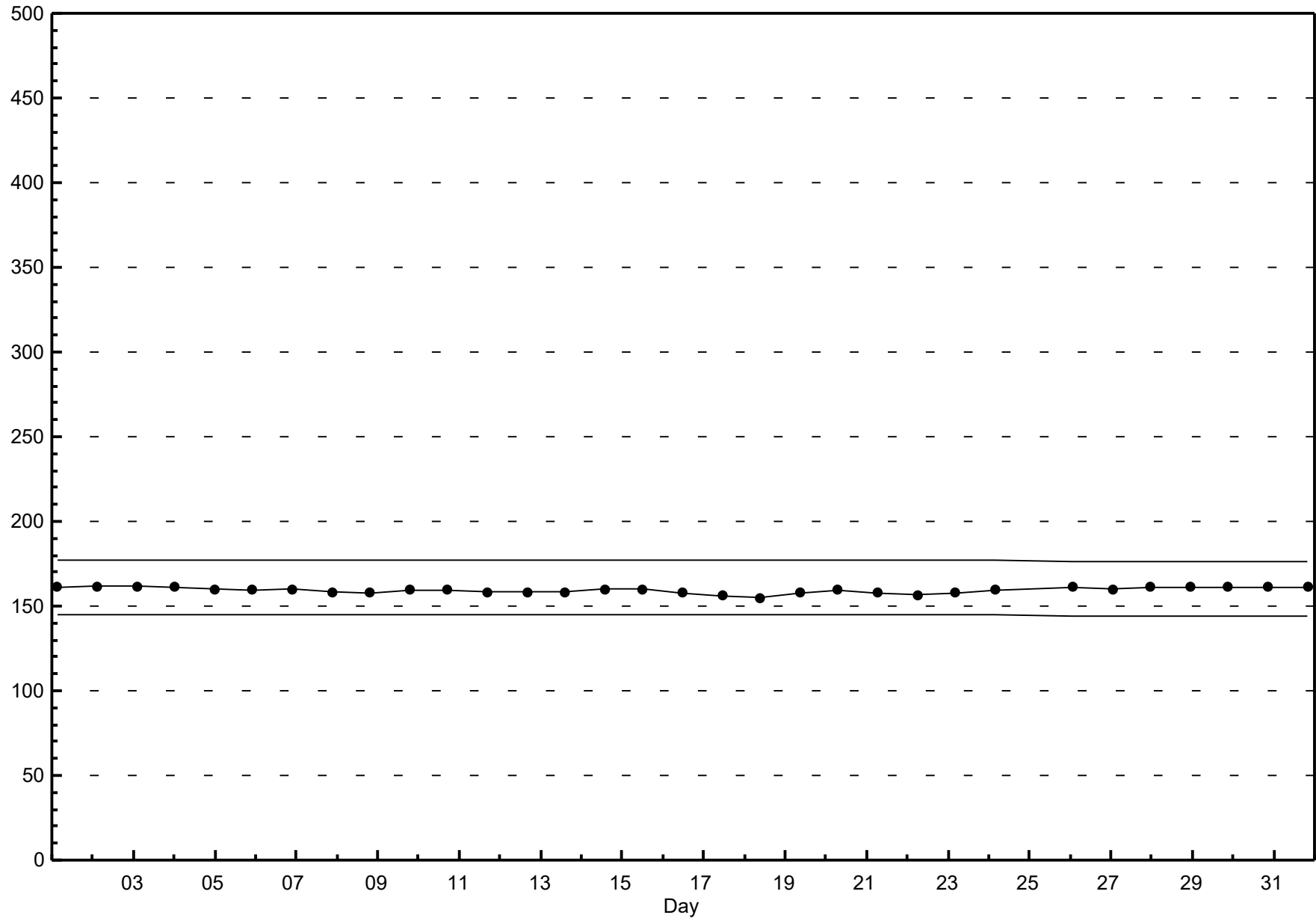


Pollutant Classes (ppb)



Span Responses

Nitrogen Dioxide (NO₂)
Portable Rycroft - May 2018



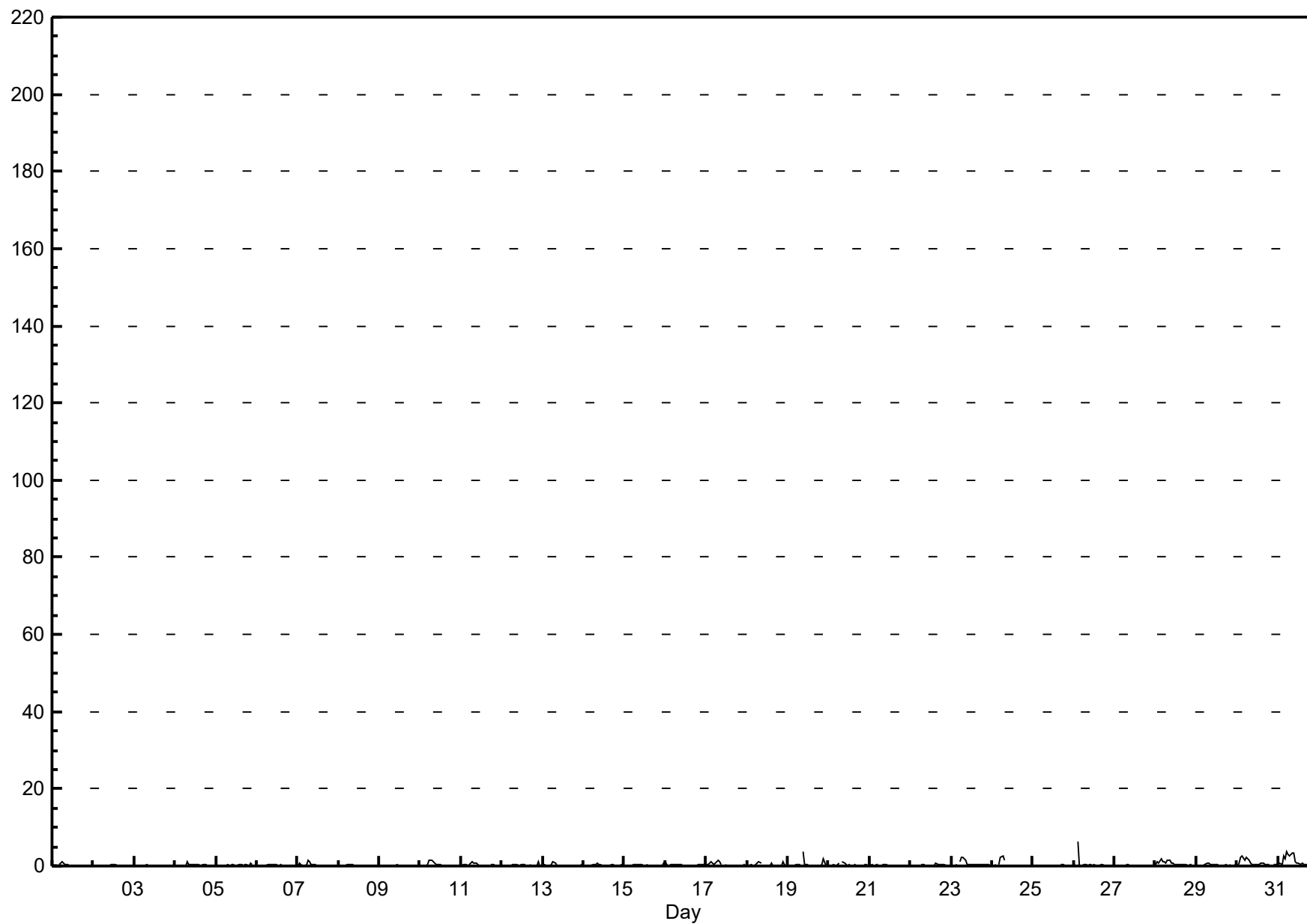
Hourly Averages

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

Maximum Value: 6.2 ppb on May 26 03:00																				Maximum Daily Average: 1.2 ppb on May 31										Hours in Service: 744	
Minimum Value: 0 ppb on May 1 18:00																				Minimum Daily Average: 0.1 ppb on May 3										Hours of Data: 680	
Maximum Diurnal Average: 0.8 ppb at hour 7																				Minimum Diurnal Average: 0.1 ppb at hour 20										Hours of Missing Data: 64	
Monthly Average: 0.31 ppb																				Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.2 Q ₃ = 0.3 P ₉₀ = 0.6 P ₉₉ = 2.5										Hours of Calibration: 42	
																														Percent Operational Time: 97.0	
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-May	0	0	0	A	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.2					
2-May	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	0.5					
3-May	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	0.4					
4-May	A	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.2	1.0					
5-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	A	0	0.2	0.6					
6-May	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.2	0.6					
7-May	0	1	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.3	1.6					
8-May	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.1	0.5					
9-May	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					
10-May	0	0	0	0	0	1	2	1	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.4	1.6					
11-May	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	A	0	0	1	0	0	0	0	0.3	1.1					
12-May	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	A	0	0	0	0	0	1	0	0	0.2	1.2					
13-May	0	0	0	0	0	0	1	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.2	1.1					
14-May	0	0	0	0	0	0	0	0	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.2	0.6					
15-May	0	0	0	0	0	0	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	0.2	0.9					
16-May	1	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	1.0					
17-May	0	0	1	1	1	1	1	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.4					
18-May	0	0	0	0	0	0	1	1	1	A	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0.3	1.1					
19-May	0	0	0	0	0	0	0	0	A	4	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0.4	3.8					
20-May	0	0	0	0	0	1	1	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.0					
21-May	0	0	0	0	0	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5					
22-May	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0.2	0.7					
23-May	0	0	0	0	A	1	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	2.4					
24-May	0	0	0	A	0	2	3	2	C	C	C	C	C	C	C	C	M	M	M	M	M	M	M	M	--	2.7					
25-May	M	M	M	M	M	M	M	M	M	M	M	M	M	C	C	C	0	0	0	0	0	0	0	0	--	0.4					
26-May	0	A	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	6.2					
27-May	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					
28-May	0	1	1	2	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	A	0	0.6	1.7					
29-May	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.2	0.7					
30-May	0	1	2	2	1	2	2	1	1	1	0	0	0	0	1	1	1	0	0	1	A	0	0	1	0.8	2.5					
31-May	1	1	0	2	2	4	3	2	3	3	1	1	1	1	1	0	0	0	0	A	0	0	0	0	1.2	3.9					
0.2 0.2 0.5 0.4 0.3 0.7 0.8 0.8 0.6 0.5 0.3 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.1 0.1 0.1 0.3 0.1 0.1																									Diurnal Average						
1.0 1.3 6.2 2.5 1.8 3.9 2.9 2.5 3.4 3.8 1.1 0.6 0.6 0.5 0.7 0.7 0.5 0.4 0.4 0.5 0.6 1.8 0.5 0.9																									Diurnal Maximum						
C - Calibration				M - Maintenance				A - Automated Daily Zero Span																							

Hourly Averages

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



Hourly Maximums

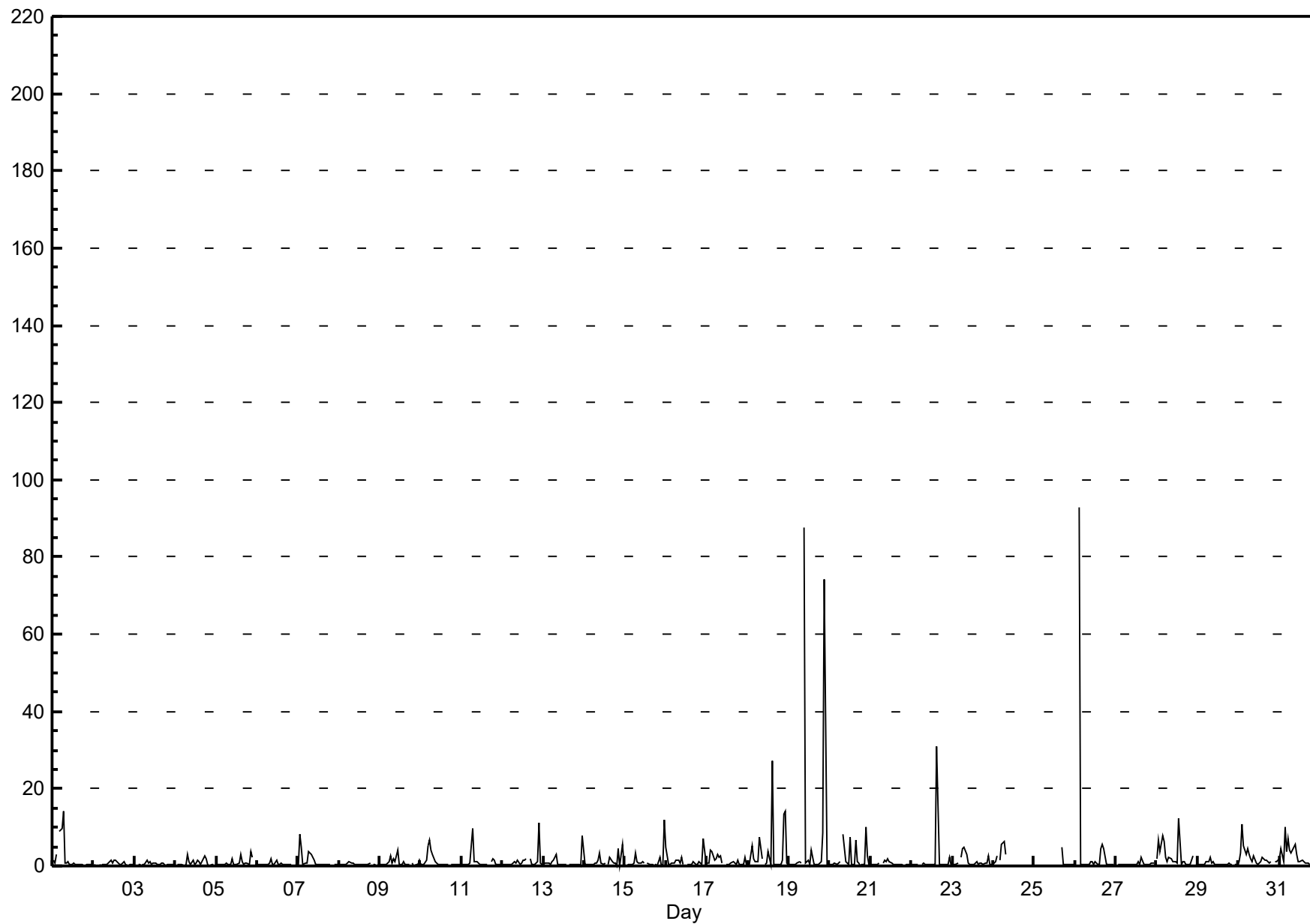
Nitrogen Oxide (NO) - ppb

Portable Rycroft - May 2018

Maximum Value: 92.9 ppb on May 26 03:00																				Maximum Daily Average: 8.1 ppb on May 19					Hours in Service: 744	
Minimum Value: 0 ppb on May 20 19:00																				Minimum Daily Average: 0.4 ppb on May 8					Hours of Data: 680	
Maximum Diurnal Average: 4.6 ppb at hour 3																				Minimum Diurnal Average: 0.4 ppb at hour 20					Hours of Missing Data: 64	
Monthly Average: 1.64 ppb																				Percentiles: P ₁ = 0.2 P ₁₀ = 0.2 Q ₁ = 0.3 Median = 0.5 Q ₃ = 1.2 P ₉₀ = 3.0 P ₉₉ = 13.6					Hours of Calibration: 42	
																									Percent Operational Time: 97.0	
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-May	1	1	3	A	9	10	14	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1.9	14.0
2-May	0	0	A	0	0	0	0	0	0	1	2	1	1	1	1	0	0	1	1	0	0	0	0	0	0.5	1.6
3-May	0	A	0	0	0	0	0	2	1	1	0	1	1	0	1	0	1	1	0	0	0	0	0	0	0.5	1.5
4-May	A	0	0	0	0	0	0	3	1	1	2	0	1	1	1	0	2	2	2	0	0	0	0	A	0.9	3.1
5-May	0	0	0	0	0	0	1	0	0	2	1	0	1	1	3	1	0	1	1	0	4	2	A	0	0.8	3.7
6-May	0	0	0	0	0	0	1	1	2	1	0	2	0	0	1	0	0	0	0	0	0	A	0	0	0.5	1.8
7-May	0	8	5	0	1	1	4	3	3	2	0	0	0	0	0	0	0	0	1	0	A	0	0	0	1.3	8.4
8-May	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	1	A	0	0	0	0	0.4	1.1
9-May	0	0	0	0	0	1	3	1	2	1	4	0	0	0	1	0	0	0	A	1	0	0	0	1	0.8	4.1
10-May	0	0	0	1	5	7	4	3	1	1	1	0	0	0	0	0	0	A	0	0	0	0	0	0	1.2	6.8
11-May	0	0	0	0	0	1	10	1	1	1	1	0	0	0	0	0	A	1	2	1	0	0	0	0	1.0	9.8
12-May	0	0	0	0	0	0	1	1	1	1	1	1	2	2	2	A	2	0	0	0	1	11	1	0	1.2	11.1
13-May	0	1	1	1	0	1	2	3	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	8	0.9	7.7
14-May	0	0	0	0	0	0	1	1	1	3	1	0	1	A	0	2	1	1	1	0	4	0	6	0	1.1	5.6
15-May	0	0	0	0	0	1	3	1	1	1	1	1	A	1	0	0	0	0	0	0	2	0	0	12	1.2	12.1
16-May	5	0	0	1	1	1	2	1	1	2	0	A	0	0	0	0	1	0	0	1	1	0	7	1	1.2	7.1
17-May	1	1	4	4	2	2	3	2	3	1	A	0	0	0	1	1	1	0	2	0	0	0	2	0	1.3	4.2
18-May	0	0	5	2	1	1	1	8	2	A	0	1	4	0	27	0	0	0	0	0	2	13	14	1	3.6	27.2
19-May	0	0	0	0	0	1	1	1	A	88	1	2	0	4	2	0	0	0	1	1	8	74	1	0	8.1	87.8
20-May	0	0	0	1	0	1	1	A	8	1	1	0	8	0	0	7	1	1	0	0	0	10	3	0	1.9	10.0
21-May	0	0	0	0	1	1	A	1	1	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0.5	1.8
22-May	0	0	0	0	0	A	1	1	1	0	0	0	0	0	0	31	0	0	0	1	0	0	2	0	1.7	31.0
23-May	0	0	0	1	A	2	4	5	3	1	0	0	0	0	1	0	1	1	1	1	1	3	0	0	1.1	5.0
24-May	0	1	3	A	2	6	6	3	C	C	C	C	C	C	C	M	M	M	M	M	M	M	M	M	--	6.3
25-May	M	M	M	M	M	M	M	M	M	M	M	M	M	M	C	C	C	5	0	0	0	0	0	0	--	4.8
26-May	0	A	93	0	0	0	0	0	0	1	1	1	1	1	0	4	6	4	0	0	0	0	0	0	5.1	92.9
27-May	A	0	0	0	0	0	0	0	1	0	0	0	0	1	0	2	0	0	1	0	0	1	1	A	0.5	2.1
28-May	2	7	4	8	6	2	1	2	2	1	1	1	1	12	0	1	1	0	0	0	1	3	A	0	2.6	12.2
29-May	0	0	0	0	0	1	1	2	1	1	1	0	0	0	0	0	0	0	1	0	0	A	0	0	0.6	2.2
30-May	1	3	11	5	3	4	3	2	1	2	1	1	1	1	2	1	1	1	1	1	A	1	1	1	2.2	11.0
31-May	2	4	1	10	4	7	4	4	5	5	3	1	1	2	1	1	1	1	0	A	1	1	0	1	2.6	10.1
0.6 1.1 4.6 1.4 1.3 1.8 2.5 1.8 1.5 4.4 0.9 0.6 1.0 1.2 1.8 2.1 1.0 0.7 0.6 0.4 1.1 4.4 1.5 1.1																								Diurnal Average		
4.8 8.4 92.9 10.1 8.9 9.6 14.0 7.6 8.3 87.8 4.1 1.7 7.5 12.2 27.2 31.0 5.7 4.4 1.9 1.5 8.4 74.4 14.2 12.1																								Diurnal Maximum		
C - Calibration M - Maintenance A - Automated Daily Zero Span																										

Hourly Maximums

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



Hourly Averages

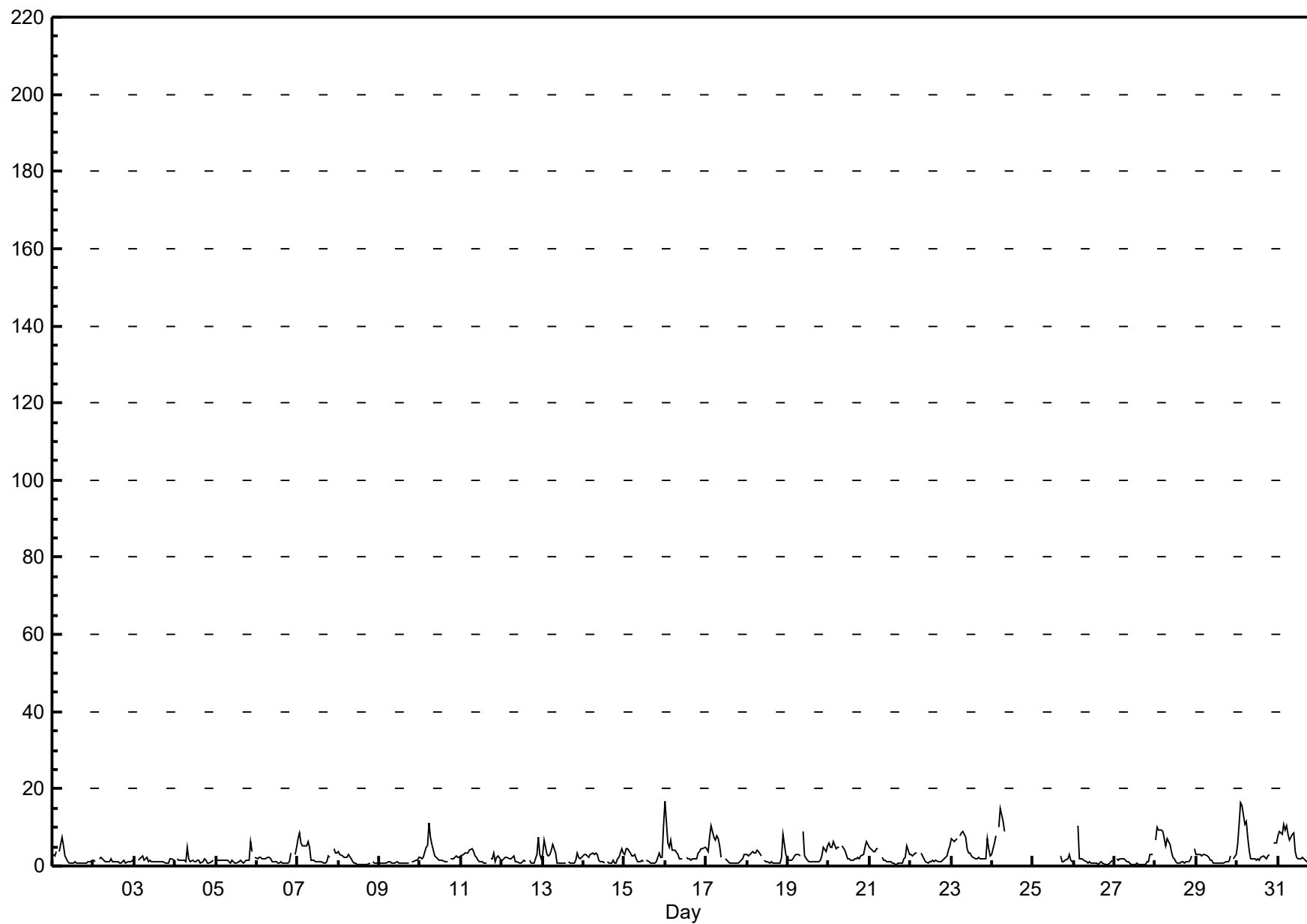
Oxides of Nitrogen (NO_x) - ppb

Portable Rycroft - May 2018

Maximum Value: 16.6 ppb on May 16 01:00																				Maximum Daily Average: 5.5 ppb on May 30					Hours in Service: 744	
Minimum Value: 0 ppb on May 27 17:00																				Minimum Daily Average: 1.0 ppb on May 9					Hours of Data: 680	
Maximum Diurnal Average: 4.7 ppb at hour 6																				Minimum Diurnal Average: 1.1 ppb at hour 16					Hours of Missing Data: 64	
Monthly Average: 2.58 ppb																				Percentiles: P ₁ = 0.5 P ₁₀ = 0.8 Q ₁ = 1.0 Median = 1.7 Q ₃ = 3.0 P ₉₀ = 5.9 P ₉₉ = 11.0					Hours of Calibration: 42	
																				Percent Operational Time: 97.0						
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-May	3	2	4	A	4	8	5	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.9	7.6
2-May	1	1	A	2	2	2	2	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	2.1
3-May	1	A	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1.4	2.5
4-May	A	2	1	2	1	2	1	5	2	1	1	1	1	1	1	1	1	2	2	1	1	1	1	A	1.5	4.7
5-May	2	2	2	2	2	1	1	1	1	2	1	1	1	1	2	1	1	1	1	2	6	4	A	2	1.7	6.5
6-May	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	3	A	3	5	1.7	4.9
7-May	7	8	6	5	5	5	6	5	2	1	1	1	1	1	1	1	1	1	3	2	A	4	4	3	3.3	8.4
8-May	4	3	3	2	2	2	3	2	1	1	1	1	1	1	0	1	0	1	1	A	1	1	1	1	1.4	3.7
9-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	2	2	1.0	2.2
10-May	2	2	2	5	5	11	8	6	3	2	2	2	1	1	1	1	1	A	2	2	2	2	2	2	3.0	11.2
11-May	2	3	3	3	3	4	5	4	3	2	2	1	1	1	1	1	A	2	2	3	1	2	3	2	2.3	4.6
12-May	2	2	2	2	2	2	2	3	1	1	1	1	1	1	1	A	1	1	1	1	3	8	3	2	1.9	7.6
13-May	3	7	3	2	3	4	6	3	1	1	1	1	1	1	A	1	1	1	1	1	3	2	2	2	2.2	6.8
14-May	3	3	3	2	3	3	3	3	3	1	1	1	1	A	1	1	1	1	1	1	2	2	5	3	2.1	4.6
15-May	3	4	4	3	3	3	3	2	1	1	1	1	A	2	1	1	1	1	1	1	3	2	2	11	2.4	10.5
16-May	17	6	5	7	4	4	4	3	2	2	2	A	2	2	2	2	2	2	2	3	4	4	4	5	3.9	16.6
17-May	4	4	7	11	7	7	8	7	5	2	A	2	1	1	1	1	1	1	1	1	1	2	3	3	3.5	10.5
18-May	3	3	3	4	3	3	4	4	2	A	1	1	1	1	1	1	1	1	1	1	2	8	6	3	2.5	8.1
19-May	2	2	2	2	3	3	3	3	A	9	2	1	1	1	1	1	1	1	1	2	3	5	4	5	2.5	9.0
20-May	6	5	5	6	4	5	5	A	5	4	3	2	2	1	1	2	2	2	2	2	3	5	6	5	3.7	6.4
21-May	5	4	4	4	4	4	A	2	2	2	1	1	1	1	1	1	1	1	1	1	2	2	5	3	2.2	5.2
22-May	3	3	3	3	3	A	3	3	2	1	1	1	1	1	1	1	1	1	1	2	2	3	4	5	2.2	5.2
23-May	7	7	6	7	A	8	9	9	7	4	3	3	3	2	2	2	2	2	2	2	2	7	5	2	4.5	8.8
24-May	3	6	8	A	10	15	11	9	C	C	C	C	C	C	C	M	M	M	M	M	M	M	M	M	--	14.9
25-May	M	M	M	M	M	M	M	M	M	M	M	M	M	C	C	C	3	1	1	1	2	3	1	1	--	2.9
26-May	1	A	10	2	2	2	1	1	1	1	1	1	1	1	0	1	1	1	1	0	0	1	1	1	1.4	10.5
27-May	A	2	2	2	2	2	1	1	1	1	1	1	0	1	0	0	0	1	1	1	1	3	3	A	1.2	3.0
28-May	7	10	9	9	9	7	5	7	5	4	2	2	1	1	1	1	1	1	1	1	2	2	A	5	4.1	10.1
29-May	3	3	3	3	3	3	3	2	1	1	1	1	1	1	1	1	1	1	1	1	3	A	2	3	1.8	3.2
30-May	5	11	16	16	11	12	7	4	2	2	2	1	2	2	2	3	2	2	2	3	A	6	6	6	5.5	16.2
31-May	8	9	8	11	9	10	8	7	8	8	4	2	2	2	2	2	1	1	1	A	4	7	7	4	5.4	10.7
3.9 4.1 4.5 4.3 4.0 4.7 4.3 3.6 2.4 2.1 1.5 1.2 1.2 1.1 1.1 1.1 1.1 1.1 1.2 1.4 2.1 3.3 3.1 3.3																									Diurnal Average	
16.6 10.7 16.2 15.8 10.9 14.9 11.5 9.0 8.2 9.0 3.6 3.2 2.8 2.1 2.2 2.7 2.7 2.1 2.6 3.4 6.5 8.1 6.5 10.5																									Diurnal Maximum	
C - Calibration M - Maintenance A - Automated Daily Zero Span																										

Hourly Averages

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



Hourly Maximums

Oxides of Nitrogen (NO_x) - ppb

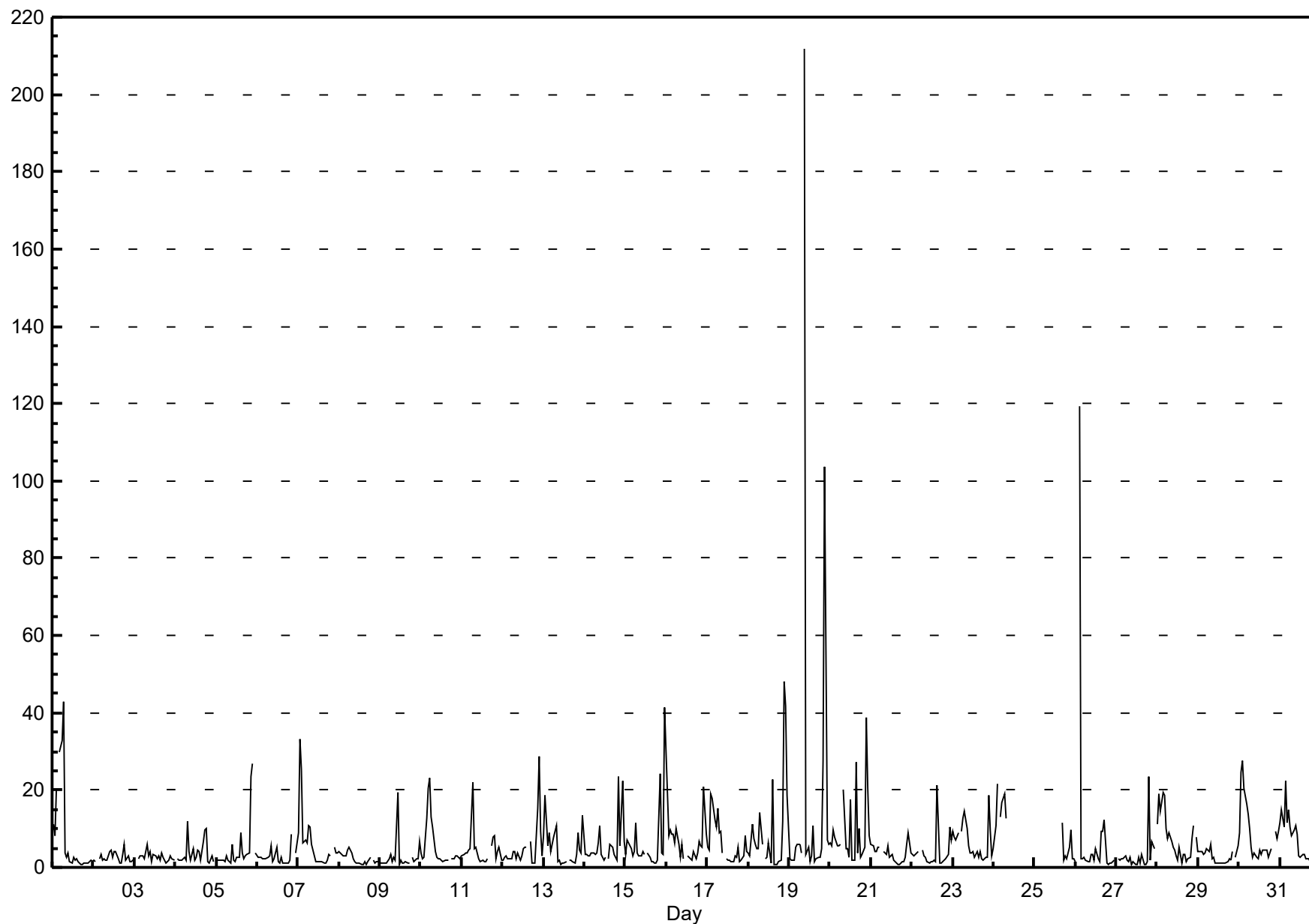
Portable Rycroft - May 2018

Maximum Value: 211.7 ppb on May 19 10:00																				Maximum Daily Average: 18.4 ppb on May 19										Hours in Service: 744	
Minimum Value: 1 ppb on May 27 13:00																				Minimum Daily Average: 2.2 ppb on May 8										Hours of Data: 680	
Maximum Diurnal Average: 13.1 ppb at hour 22																				Minimum Diurnal Average: 2.3 ppb at hour 12										Hours of Missing Data: 64	
Monthly Average: 5.98 ppb																				Percentiles: P ₁ = 0.8 P ₁₀ = 1.3 Q ₁ = 1.8 Median = 3.1 Q ₃ = 6.0 P ₉₀ = 11.6 P ₉₉ = 39.2										Hours of Calibration: 42	
																				Percent Operational Time: 97.0											
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
1-May	11	8	21	A	30	33	43	4	3	4	1	1	3	2	2	1	1	1	1	1	1	1	2	2	7.7	42.9					
2-May	2	1	A	2	3	2	2	2	2	4	4	3	4	4	2	1	1	3	6	2	3	1	1	2	2.6	6.1					
3-May	2	A	2	3	3	3	2	6	3	4	1	3	3	2	3	2	4	3	1	2	2	3	2	2	2.7	6.0					
4-May	A	2	2	2	2	2	2	12	4	2	5	2	3	5	4	2	7	10	10	1	1	3	2	A	3.8	12.1					
5-May	2	2	2	2	2	2	3	2	1	6	2	1	3	3	9	4	2	3	3	4	24	27	A	4	4.8	26.8					
6-May	3	3	3	2	2	2	3	3	6	2	2	5	2	1	3	1	1	1	1	2	9	A	4	6	2.9	8.5					
7-May	9	33	26	6	7	6	11	11	6	3	2	1	1	1	1	1	1	2	3	3	A	5	4	4	6.4	33.1					
8-May	4	4	3	3	3	5	5	4	2	2	1	1	1	1	1	1	1	1	3	A	2	1	1	1	2.2	5.2					
9-May	1	1	1	1	1	2	3	2	3	2	19	1	2	1	1	1	1	1	A	2	2	2	2	7	2.6	19.3					
10-May	4	2	3	13	21	23	13	11	4	3	2	2	2	2	2	2	2	A	2	2	3	3	3	2	5.4	23.1					
11-May	3	3	4	4	5	5	22	5	5	4	2	2	2	2	1	2	A	5	8	8	2	4	5	2	4.6	21.9					
12-May	2	3	3	2	2	2	4	4	2	4	2	3	5	5	5	A	7	1	1	1	15	29	9	3	5.0	28.8					
13-May	8	19	6	9	4	6	8	11	2	2	1	1	1	2	A	2	2	2	1	3	9	4	4	14	5.2	18.7					
14-May	3	3	3	3	4	4	3	4	6	11	3	2	3	A	2	6	5	3	3	2	24	5	22	7	5.7	23.5					
15-May	3	7	6	5	3	4	12	4	3	3	4	3	A	4	3	2	2	1	1	2	24	4	3	41	6.3	41.3					
16-May	30	8	10	9	9	6	10	6	3	6	2	A	3	3	2	2	4	2	4	7	6	5	21	9	7.2	30.2					
17-May	5	5	19	18	12	11	15	9	9	4	A	2	2	2	2	2	3	3	5	1	2	3	8	4	6.3	19.1					
18-May	4	3	11	7	6	5	5	14	6	A	2	3	6	1	23	1	1	1	2	2	12	48	42	19	9.7	47.9					
19-May	2	2	2	2	5	6	6	4	A	212	3	5	2	3	11	1	2	3	3	5	28	104	7	6	18.4	211.7					
20-May	6	6	10	8	5	6	6	A	20	5	5	3	17	2	2	27	4	10	3	3	5	39	21	8	9.6	38.7					
21-May	6	5	4	4	5	5	A	4	4	3	6	3	3	2	1	1	1	1	1	1	3	6	9	4	3.6	9.1					
22-May	3	3	3	4	4	A	5	3	2	2	1	1	2	2	1	21	1	1	2	2	2	3	10	7	3.8	21.3					
23-May	9	8	7	9	A	9	13	15	10	6	4	4	4	3	4	2	4	2	2	2	2	18	10	3	6.5	18.5					
24-May	5	11	22	A	13	17	19	12	C	C	C	C	C	C	C	C	M	M	M	M	M	M	M	M	--	21.6					
25-May	M	M	M	M	M	M	M	M	M	M	M	M	M	C	C	C	12	2	3	2	5	10	2	2	--	11.7					
26-May	1	A	119	2	2	3	2	1	2	3	3	2	5	2	1	9	9	12	1	1	1	1	1	2	8.2	119.2					
27-May	A	2	2	2	2	3	2	2	3	1	1	1	1	3	1	3	1	1	1	23	2	7	5	A	3.1	23.4					
28-May	11	19	15	20	19	10	7	9	7	5	4	3	2	5	1	3	3	1	2	2	8	11	A	8	7.6	19.5					
29-May	4	4	4	3	4	5	4	6	2	3	1	1	1	1	1	1	1	2	2	2	4	A	3	5	2.8	6.1					
30-May	9	25	28	20	17	14	10	5	3	4	2	2	5	3	5	4	4	3	4	5	A	9	7	9	8.6	27.6					
31-May	11	15	10	22	12	15	10	8	10	11	8	3	3	3	3	2	2	2	2	A	7	9	10	5	8.0	22.2					
5.9 7.4 12.0 6.7 7.1 7.4 8.6 6.2 4.6 11.3 3.5 2.3 3.1 2.4 3.5 3.9 3.1 2.9 2.8 3.4 7.4 13.1 7.9 6.7																										Diurnal Average					
30.2 33.1 119.2 22.2 29.9 32.9 42.9 14.6 20.0 211.7 19.3 5.3 17.4 5.3 22.7 27.3 11.7 12.4 9.9 23.4 27.7 103.9 41.8 41.3																										Diurnal Maximum					
C - Calibration M - Maintenance A - Automated Daily Zero Span																															

Hourly Maximums

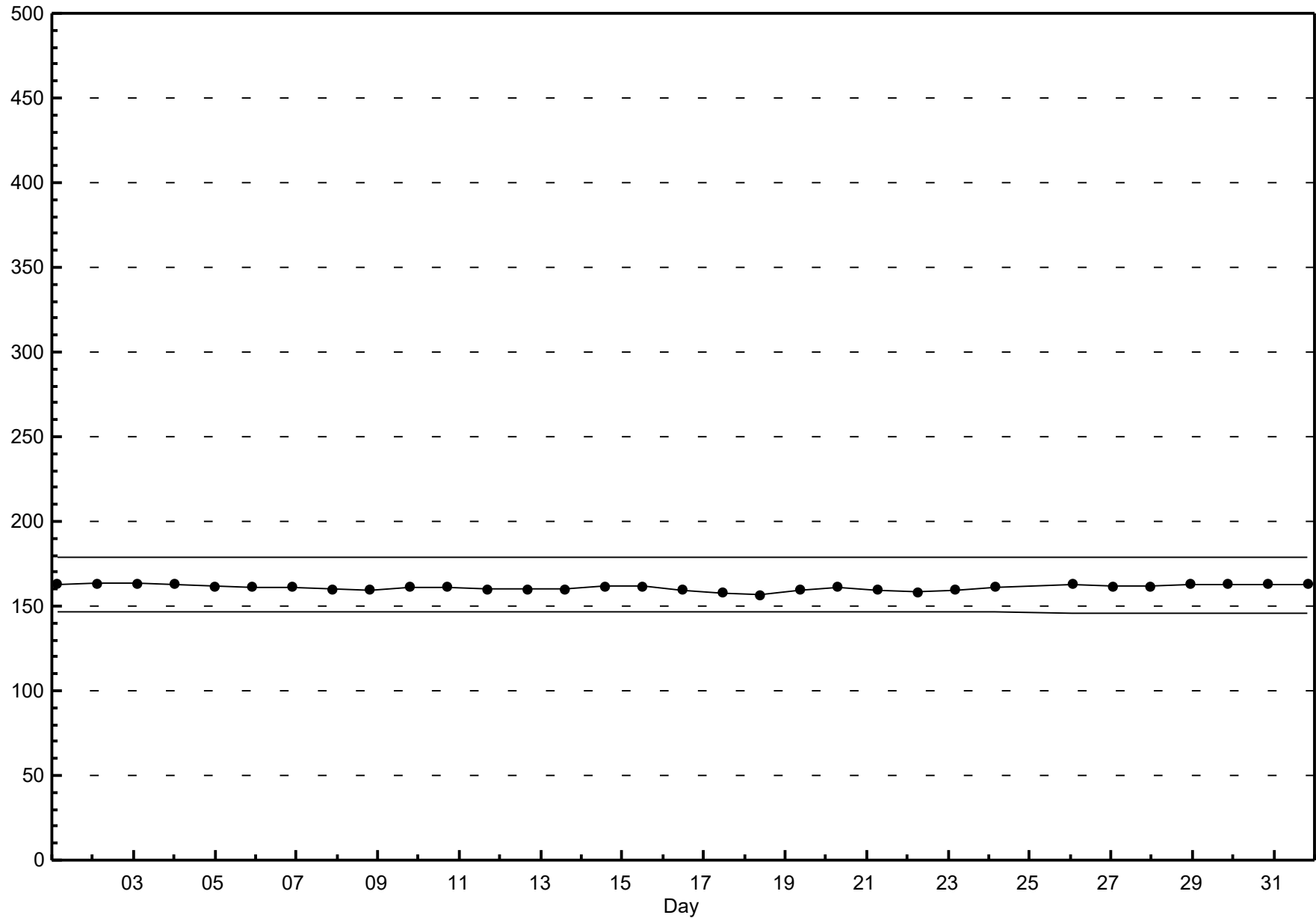
Oxides of Nitrogen (NO_x) - ppb

Portable Rycroft - May 2018



Span Responses

Oxides of Nitrogen (NO_x)
Portable Rycroft - May 2018



Hourly Averages

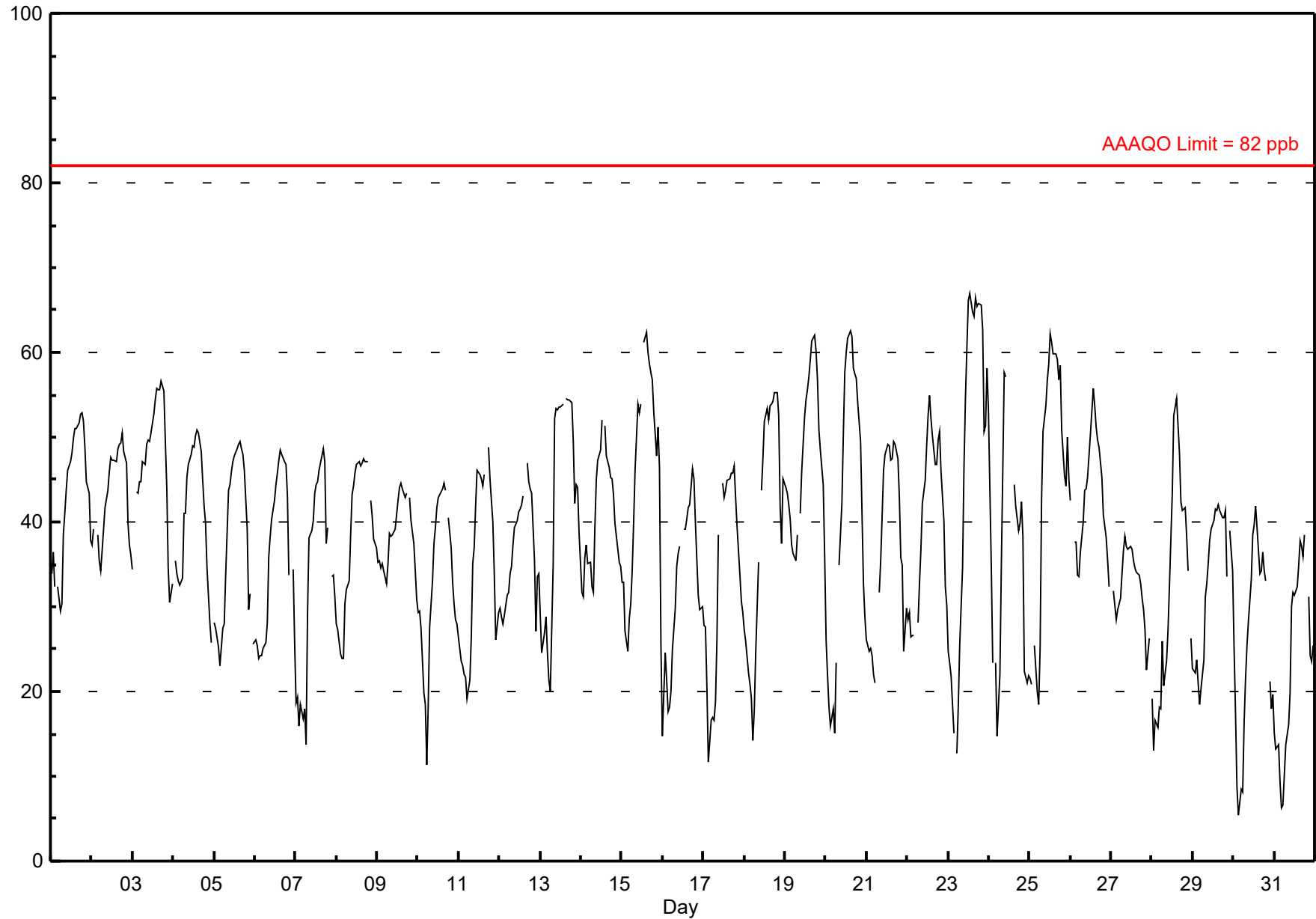
Ozone (O₃) - ppb

Portable Rycroft - May 2018

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 66.9 ppb on May 23 14:00 Maximum Daily Average: 48.0 ppb on May 19																								Hours in Service: 744 Hours of Data: 707 Hours of Missing Data: 37 Hours of Calibration: 37 Percent Operational Time: 100.0		
Minimum Value: 5 ppb on May 30 04:00 Minimum Daily Average: 23.4 ppb on May 31 Maximum Diurnal Average: 49.1 ppb at hour 16 Minimum Diurnal Average: 23.7 ppb at hour 6 Monthly Average: 38.00 ppb Percentiles: P ₁ = 10.3 P ₁₀ = 21.3 Q ₁ = 29.3 Median = 38.5 Q ₃ = 46.9 P ₉₀ = 53.5 P ₉₉ = 64.1																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-May	34	36	32	A	32	29	30	38	41	44	46	47	48	50	51	51	52	53	53	52	49	45	43	38	43.3	52.9
2-May	37	39	A	38	35	34	37	39	42	44	46	48	47	47	49	49	49	49	50	48	47	40	37	36	42.9	50.5
3-May	34	A	44	43	45	45	47	47	49	50	49	50	53	54	56	56	56	57	55	49	44	35	30	33	47.0	56.6
4-May	A	35	34	33	33	33	41	41	45	47	48	49	49	50	51	51	48	45	42	40	35	28	26	A	41.1	50.8
5-May	28	27	25	23	25	27	28	34	44	44	46	47	48	49	49	49	49	48	46	39	30	32	A	26	37.5	49.4
6-May	26	25	24	24	24	25	26	28	36	38	40	43	44	46	47	48	48	47	47	43	34	A	34	26	35.8	48.4
7-May	19	19	16	19	17	18	14	29	38	39	40	43	44	45	46	48	49	47	37	39	A	34	34	31	33.3	48.6
8-May	28	27	24	24	24	30	32	33	39	43	44	46	47	47	47	47	47	47	A	42	41	38	37		38.3	47.4
9-May	35	35	35	35	34	33	35	39	38	38	39	41	42	44	45	44	43	43	A	43	40	37	34	31	38.5	44.6
10-May	29	30	27	20	19	11	18	28	33	37	39	42	43	43	44	45	44	A	40	37	33	30	29	28	32.6	44.6
11-May	26	24	23	22	22	19	21	27	35	37	42	46	46	45	44	46	A	49	45	43	40	34	26	29	34.3	48.8
12-May	30	29	28	29	31	32	34	35	37	39	40	41	42	42	43	A	47	45	44	43	35	27	34	34	36.6	47.0
13-May	29	25	27	29	25	21	20	35	52	53	53	54	54	54	A	55	54	54	54	49	42	44	44	39	42.0	54.5
14-May	32	31	36	37	35	35	32	32	39	45	47	49	52	A	51	48	46	45	45	43	40	38	35	35	40.4	52.0
15-May	33	33	27	25	29	30	34	40	46	54	53	54	A	61	62	60	59	58	57	53	48	51	46	26	45.1	62.3
16-May	15	25	21	18	18	20	25	30	35	36	37	A	39	39	40	42	42	46	45	40	36	31	30	30	32.2	46.3
17-May	28	28	21	12	17	17	17	19	26	39	A	45	43	44	45	45	46	46	47	43	39	34	31	29	32.9	46.6
18-May	27	26	22	21	19	14	18	25	35	A	44	47	52	53	52	54	54	54	55	55	53	42	37	45	39.4	55.2
19-May	44	43	42	40	37	36	36	39	A	41	46	52	54	56	57	59	61	62	60	57	51	48	44	36	48.0	62.0
20-May	26	22	18	16	18	15	23	A	35	42	50	58	60	62	63	62	58	57	57	54	50	41	33	29	41.2	62.6
21-May	26	25	25	24	22	21	A	32	35	41	46	48	49	49	47	47	50	49	48	43	36	35	25	30	37.1	49.6
22-May	29	29	26	27	27	A	28	33	37	42	45	49	52	55	52	50	47	47	50	51	46	40	32	30	40.1	54.9
23-May	25	23	22	15	A	13	18	25	35	47	55	61	66	67	65	64	66	65	66	66	63	51	51	58	47.2	66.9
24-May	53	35	23	A	23	15	22	35	46	58	57	C	C	C	C	44	42	39	40	42	38	22	21	22	35.7	57.6
25-May	22	21	A	26	20	18	25	43	51	54	57	59	62	61	60	60	59	57	58	51	46	44	50	45	45.5	62.1
26-May	42	A	38	38	34	33	36	40	44	44	45	48	50	56	54	51	50	49	45	41	40	38	36	32	42.7	55.8
27-May	A	32	30	29	30	31	34	37	38	37	37	37	37	35	35	34	34	33	31	30	27	23	26	A	32.5	38.2
28-May	19	13	17	16	18	18	26	21	24	27	32	38	43	53	55	51	48	42	41	42	38	34	A	26	32.3	54.6
29-May	23	22	24	21	19	20	24	31	33	35	38	39	40	41	41	42	41	41	41	41	34	A	39	34	33.2	42.1
30-May	25	18	9	5	8	8	16	21	25	28	33	38	40	42	39	34	34	36	34	33	A	21	18	20	25.6	41.8
31-May	15	13	14	9	6	7	10	14	16	20	30	32	31	32	35	38	37	36	39	A	31	24	24	25	23.4	38.5
28.9 27.3 26.0 24.7 24.8 23.7 26.9 32.2 37.6 41.4 44.2 46.5 47.5 49.0 49.1 49.1 48.7 48.2 47.3 45.2 40.9 36.0 34.1 32.4																								Diurnal Average		
53.2 43.4 43.6 43.4 44.8 44.8 47.0 46.7 52.1 57.6 57.1 60.6 66.2 66.9 64.7 64.2 66.4 65.4 65.8 65.6 62.7 51.2 51.4 58.2																								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 - May 2018



Hourly Maximums

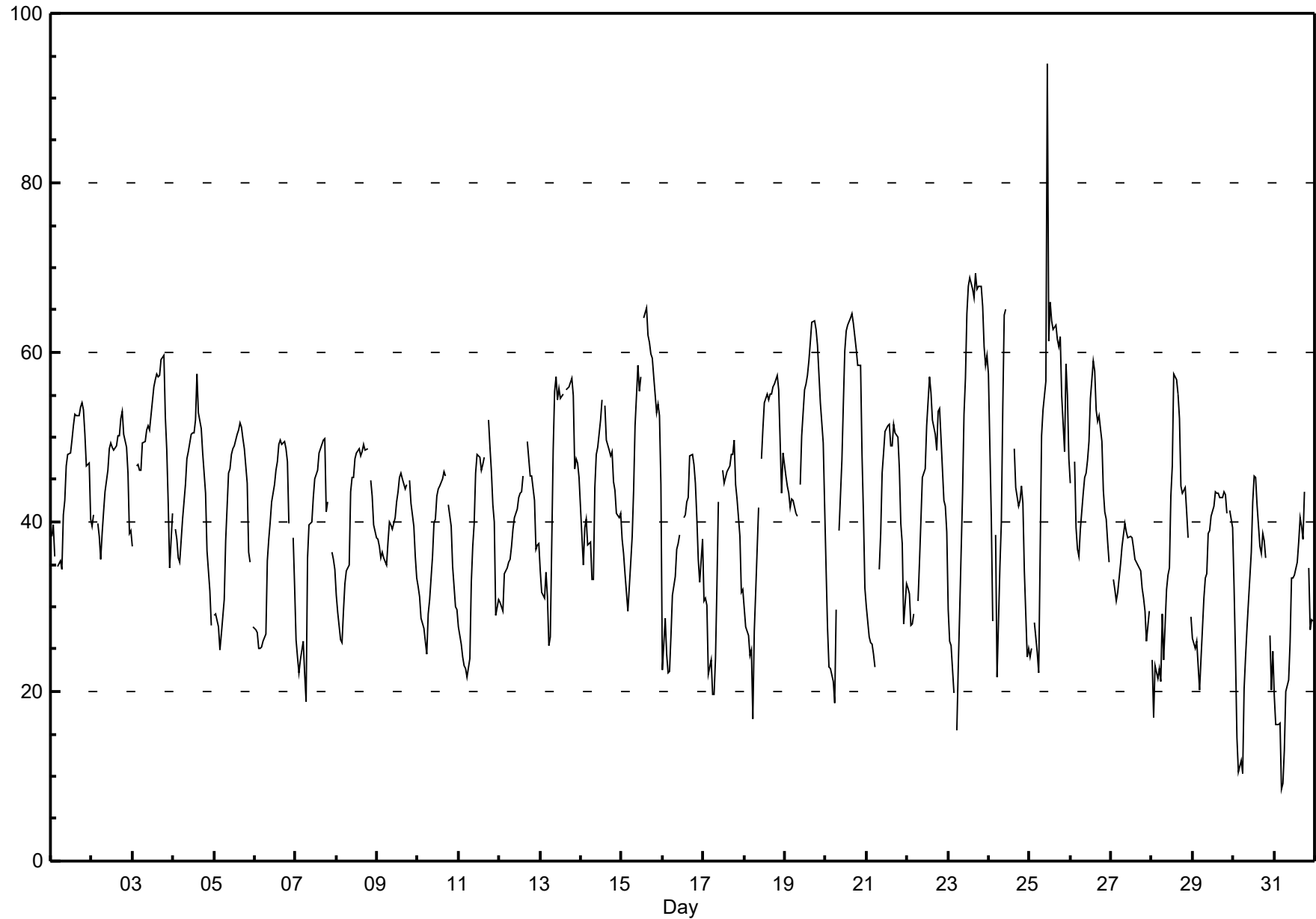
Ozone (O₃) - ppb

Portable Rycroft - May 2018

Maximum Value: 94.1 ppb on May 25 11:00																					Maximum Daily Average: 51.3 ppb on May 25					Hours in Service: 744	
Minimum Value: 8 ppb on May 31 05:00																					Minimum Daily Average: 26.9 ppb on May 31					Hours of Data: 707	
Maximum Diurnal Average: 51.3 ppb at hour 15																					Minimum Diurnal Average: 27.4 ppb at hour 6					Hours of Missing Data: 37	
Monthly Average: 41.26 ppb																					Percentiles: P ₁ = 15.4 P ₁₀ = 25.3 Q ₁ = 33.0 Median = 41.8 Q ₃ = 49.1 P ₉₀ = 56.3 P ₉₉ = 67.3					Hours of Calibration: 37	
																					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-May	38	40	36	A	35	35	34	41	42	47	48	48	50	51	53	53	53	54	54	53	50	47	47	40	45.6	54.0	
2-May	39	41	A	40	38	36	39	41	43	46	49	49	49	48	49	50	50	52	53	50	49	46	39	39	45.0	53.0	
3-May	37	A	47	47	46	46	49	50	51	51	51	53	56	57	58	57	57	59	60	52	48	42	35	41	50.0	59.6	
4-May	A	39	38	36	35	40	42	44	47	48	50	51	51	52	57	53	51	48	46	43	37	32	28	A	44.0	57.5	
5-May	29	29	28	25	27	29	31	38	46	46	48	49	49	50	51	52	51	50	49	45	36	35	A	28	40.0	51.8	
6-May	27	27	25	25	25	26	27	35	38	40	42	44	46	47	49	50	49	49	49	47	40	A	38	32	38.2	49.7	
7-May	26	24	22	24	26	22	19	36	40	40	43	45	46	46	48	49	50	50	41	42	A	36	36	34	36.7	49.8	
8-May	31	29	26	26	30	33	34	35	44	45	45	48	48	49	48	48	49	48	49	A	45	43	40	38	40.4	49.2	
9-May	38	37	36	36	36	35	38	40	40	39	41	42	44	45	46	45	44	44	A	45	42	39	36	33	40.0	45.7	
10-May	32	31	29	27	26	24	29	31	36	40	40	43	44	44	45	46	46	A	42	40	35	32	30	30	35.7	45.9	
11-May	28	26	24	23	23	22	24	33	37	40	46	48	48	46	47	48	A	52	49	46	42	40	29	31	36.9	52.0	
12-May	30	30	30	34	35	35	36	37	39	40	41	43	43	44	45	A	49	47	45	45	43	37	37	38	39.3	49.5	
13-May	34	32	31	34	31	25	26	48	55	57	54	56	55	55	A	56	56	56	57	55	46	48	47	45	46.1	57.2	
14-May	38	35	39	40	37	38	33	33	44	48	49	52	54	A	54	50	49	48	48	45	44	41	41	41	43.5	54.4	
15-May	38	36	34	29	32	35	38	44	51	58	55	57	A	64	65	62	61	60	59	57	53	54	53	44	49.7	65.3	
16-May	22	29	24	22	22	27	31	33	37	38	39	A	41	41	42	43	48	48	47	45	40	36	33	38	35.9	48.0	
17-May	31	31	30	22	24	20	20	24	33	42	A	46	45	45	46	47	48	48	50	44	43	38	32	32	36.5	49.7	
18-May	30	28	27	24	25	17	27	32	42	A	48	51	54	55	54	55	55	56	56	57	56	49	43	48	43.0	57.2	
19-May	45	44	43	42	43	43	41	41	A	44	50	56	56	57	59	61	64	64	63	61	57	54	49	42	51.3	63.8	
20-May	34	27	23	23	21	19	30	A	39	47	54	60	62	63	64	65	63	62	60	58	59	48	41	32	45.9	64.6	
21-May	30	26	26	26	24	23	A	34	39	46	48	51	51	52	49	49	52	51	50	46	40	37	28	33	39.6	51.6	
22-May	32	32	28	28	29	A	31	35	40	45	46	51	54	57	55	52	50	48	53	53	50	42	42	39	43.3	57.1	
23-May	30	26	25	20	A	15	23	29	43	53	57	65	68	69	67	66	69	68	68	68	65	61	58	60	51.0	69.3	
24-May	57	41	28	A	39	22	35	40	53	64	65	C	C	C	C	49	44	42	43	44	42	34	24	25	41.6	65.1	
25-May	24	25	A	28	25	22	36	50	53	57	94	61	66	64	63	63	61	61	62	55	48	59	55	47	51.3	94.1	
26-May	45	A	47	39	37	36	39	43	45	46	47	49	54	59	58	53	52	53	49	44	41	40	38	35	45.7	59.0	
27-May	A	33	32	31	32	35	37	38	40	39	38	38	38	37	36	35	35	34	32	31	29	26	29	A	34.4	39.8	
28-May	24	17	23	22	23	21	29	24	32	34	34	43	47	58	57	55	52	44	43	44	41	38	A	29	36.2	57.5	
29-May	26	25	26	23	20	24	31	33	34	39	39	41	42	44	43	43	43	43	44	43	41	A	41	39	36.0	43.5	
30-May	32	24	15	10	12	10	20	24	27	31	36	42	45	45	42	37	36	39	38	36	A	27	20	25	29.3	45.3	
31-May	20	16	16	16	8	9	13	20	21	26	33	33	34	35	38	41	39	38	44	A	35	27	29	28	26.9	43.6	
32.8 30.4 29.6 28.4 28.8 27.4 31.4 36.3 41.1 44.5 47.8 48.8 49.6 51.0 51.3 51.1 50.9 50.5 50.0 48.1 44.7 41.0 37.8 36.8																									Diurnal Average		
57.5 44.2 47.2 46.8 46.0 46.1 49.3 50.1 55.4 64.3 94.1 64.6 67.9 68.8 67.4 66.5 69.3 67.5 67.7 67.7 65.5 60.7 58.4 59.7																									Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																											

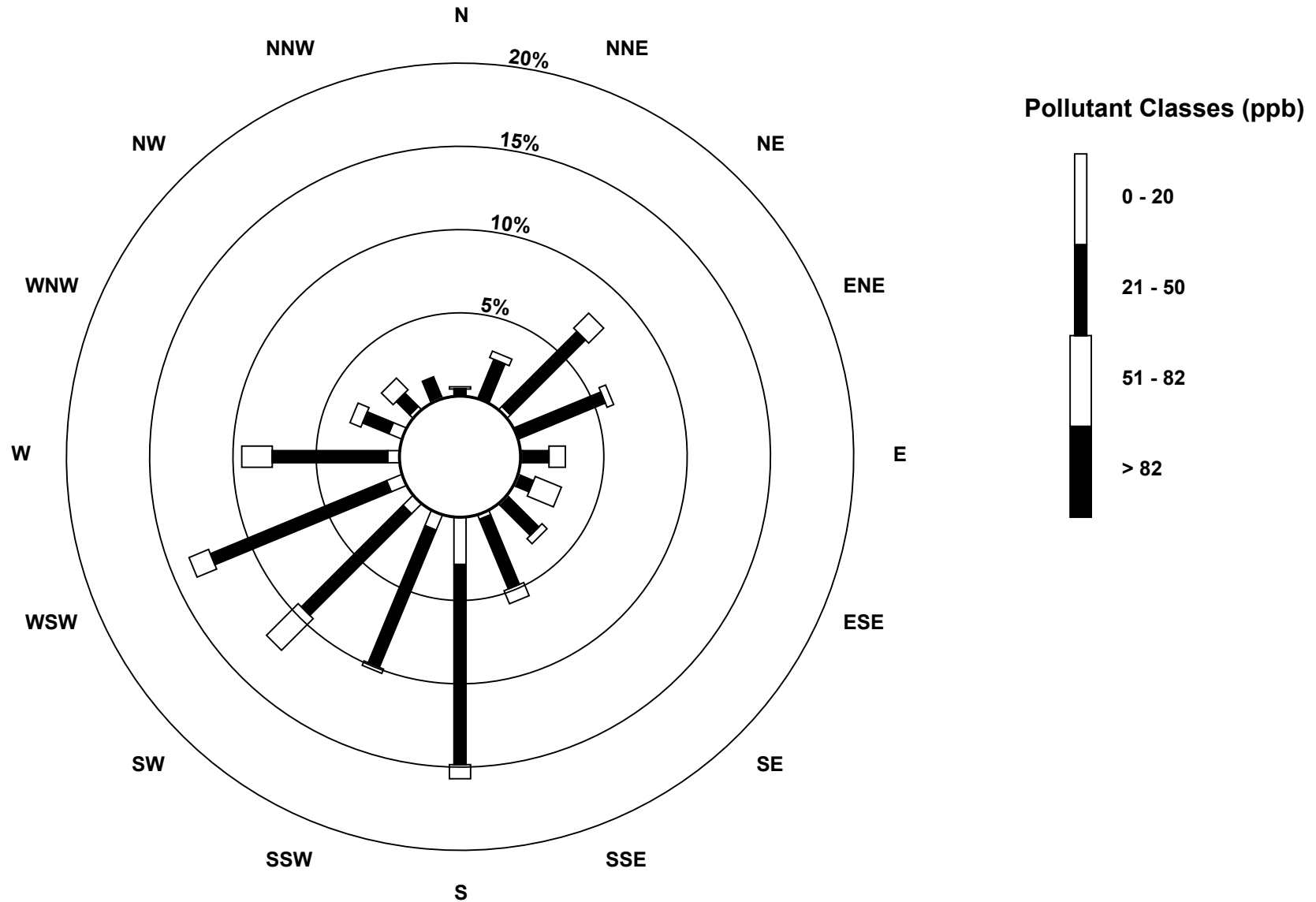
Hourly Maximums

Ozone (O₃) - ppb
Portable Rycroft - May 2018



Pollutant Rose

Ozone (O₃) - ppb
Portable Rycroft - May 2018



Eight Hour Running Averages

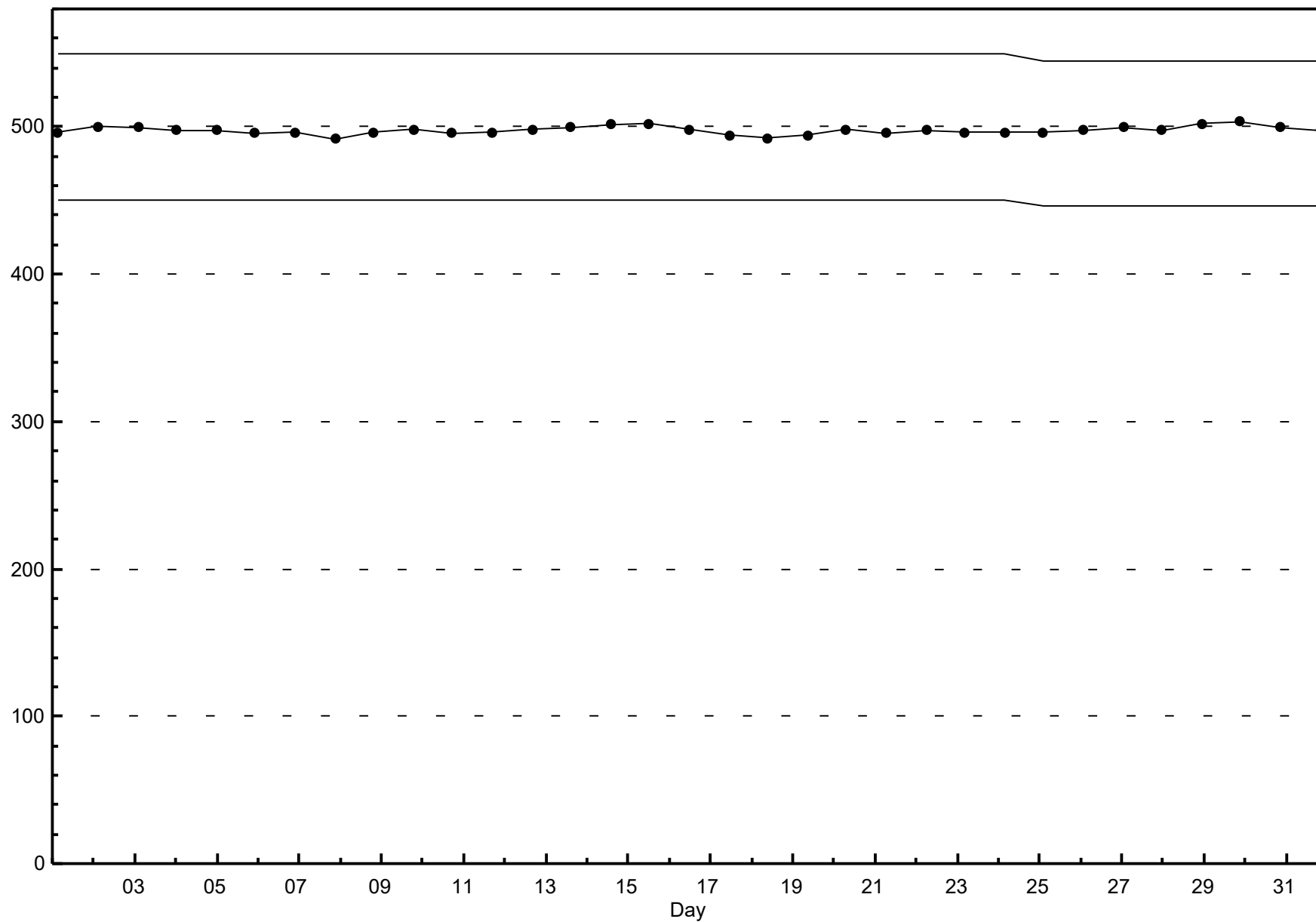
Ozone (O₃) - ppb

Portable Rycroft - May 2018

Maximum Value: 65.6 ppb on May 23 20:00																					Hours in Service: 744				
Minimum Value: 11.0 ppb on May 31 08:00																					Hours of Data: 737				
Percentiles: P ₁ = 14.2 P ₁₀ = 24.1 Q ₁ = 30.9 Median = 38.4 Q ₃ = 45.0 P ₉₀ = 50.6 P ₉₉ = 60.3																					Hours of Missing Data: 7				
																					Hours of Calibration: 7				
																					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-May	44	42	40	38	36	34	33	33	34	35	37	39	41	43	46	47	49	50	51	51	51	51	50	48	51.2
2-May	46	45	43	41	39	38	37	37	38	38	39	41	42	44	45	46	47	48	48	48	48	47	46	45	48.4
3-May	43	42	41	40	40	41	42	44	46	46	47	48	49	50	51	52	53	54	55	54	53	51	48	45	54.6
4-May	43	40	37	35	33	33	35	36	37	38	40	42	44	46	48	49	49	49	48	47	45	42	39	38	49.1
5-May	35	32	30	27	26	26	26	27	29	31	34	37	40	42	45	47	48	48	48	47	45	43	42	38	48.1
6-May	35	32	29	27	26	25	25	25	27	28	30	33	35	38	40	43	44	45	46	46	45	45	43	40	46.3
7-May	36	32	27	24	21	21	18	19	21	24	27	30	33	37	41	43	44	45	45	44	44	43	41	39	45.3
8-May	36	33	31	29	28	28	28	28	29	31	34	36	39	41	43	45	46	46	47	47	46	46	44	43	47.0
9-May	41	39	38	37	36	35	35	35	36	36	36	37	38	40	41	41	42	43	43	43	43	42	41	39	43.4
10-May	37	35	34	31	28	25	23	23	23	24	26	28	31	35	39	41	42	43	43	42	41	39	37	34	42.9
11-May	32	31	29	27	25	24	23	23	24	26	28	31	34	37	40	43	44	45	46	45	44	43	40	38	45.8
12-May	37	34	32	31	30	29	30	31	32	33	35	36	37	39	40	41	42	43	43	44	43	41	39	39	43.7
13-May	36	34	32	30	29	28	26	26	29	33	36	39	43	47	51	53	54	54	54	53	52	50	50	48	54.1
14-May	45	42	40	38	37	36	35	34	35	36	38	39	41	42	45	47	48	48	48	47	46	45	43	41	48.4
15-May	39	38	36	33	32	31	31	31	33	36	39	42	44	49	53	56	58	58	59	59	57	56	54	50	58.6
16-May	44	40	36	31	27	24	21	21	24	25	27	29	32	34	37	38	39	41	42	42	41	40	39	37	44.2
17-May	36	33	30	27	24	23	21	20	19	21	21	25	29	33	37	41	44	45	45	45	44	43	41	39	44.9
18-May	37	34	31	29	26	24	22	22	23	22	25	29	34	39	44	48	51	51	53	54	54	52	51	49	53.8
19-May	48	47	45	43	41	41	41	40	39	39	39	41	43	46	49	52	53	56	58	58	58	57	55	52	58.3
20-May	48	43	38	33	29	24	22	20	21	24	29	34	40	47	53	54	57	59	60	59	58	55	51	47	59.5
21-May	43	39	35	32	28	26	25	25	26	29	32	35	39	43	43	45	47	48	48	48	46	44	42	39	48.4
22-May	37	34	32	30	28	27	28	28	30	31	34	37	41	43	46	48	49	50	50	50	50	48	45	43	50.4
23-May	40	37	34	29	27	23	21	20	22	25	30	36	40	47	52	57	61	64	65	66	65	63	62	61	65.6
24-May	59	55	50	48	42	37	33	29	28	32	37	37	39	N	N	N	N	N	N	N	41	38	36	33	59.1
25-May	31	29	27	25	22	21	22	25	29	34	37	41	46	51	56	58	59	59	59	59	56	54	53	51	59.5
26-May	49	48	45	43	42	40	38	37	37	38	39	41	43	45	48	49	50	50	50	49	48	46	44	41	50.3
27-May	40	38	36	34	32	31	31	32	33	33	34	35	36	36	37	36	36	35	34	34	32	31	30	29	40.1
28-May	27	24	22	20	19	18	18	18	19	21	23	25	29	33	37	40	43	45	46	47	46	44	43	39	47.0
29-May	35	32	30	27	24	22	22	23	24	26	28	30	33	35	37	39	40	40	41	41	40	40	40	39	41.1
30-May	36	33	29	23	20	18	16	14	14	15	18	22	26	31	33	35	36	37	37	37	36	33	30	28	37.3
31-May	25	22	19	16	15	13	12	11	11	12	14	17	20	23	26	29	32	34	35	35	35	34	33	31	35.4
59.1 55.3 50.0 47.8 42.2 40.7 42.0 43.5 45.6 46.1 46.9 47.8 48.7 51.4 55.7 57.9 61.3 63.6 65.0 65.6 65.2 63.2 61.5 60.8																									
Diurnal Maximums																									
N - Not Valid																									

Span Responses

Ozone (O₃)
Portable Rycroft - May 2018



Hourly Averages

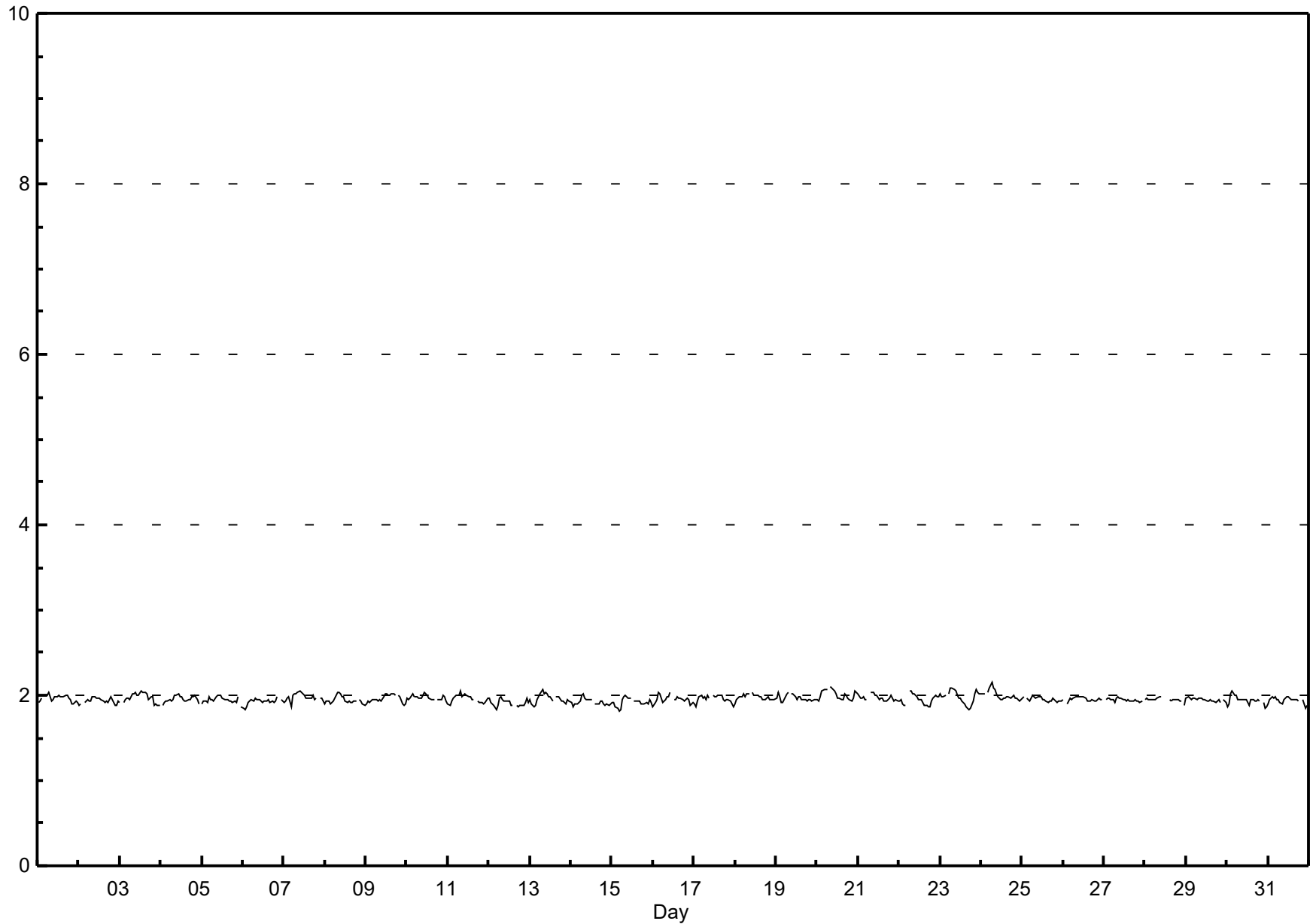
Total Hydrocarbons (THC) - ppm

Portable Rycroft - May 2018

Maximum Value: 2.15 ppm on May 24 07:00																					Maximum Daily Average: 2.00 ppm on May 20				Hours in Service: 744	
Minimum Value: 1.8 ppm on May 15 05:00																					Minimum Daily Average: 1.91 ppm on May 12				Hours of Data: 707	
Maximum Diurnal Average: 1.99 ppm at hour 9																					Minimum Diurnal Average: 1.92 ppm at hour 24				Hours of Missing Data: 37	
Monthly Average: 1.955 ppm																					Percentiles: P ₁ = 1.85 P ₁₀ = 1.90 Q ₁ = 1.93 Median = 1.95 Q ₃ = 1.98 P ₉₀ = 2.02 P ₉₉ = 2.07				Hours of Calibration: 37	
																					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-May	1.9	1.9	2.0	A	2.0	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	1.9	1.9	1.9	1.9	1.9	1.96	2.03
2-May	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	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	1.9	1.9	1.9	1.94	1.99
3-May	1.9	A	1.9	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	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.97	2.05
4-May	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	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	1.9	1.9	A	1.95	2.01
5-May	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	1.9	1.9	1.9	1.9	1.9	1.9	2.0	A	1.9	1.95	2.01
6-May	1.8	1.8	1.9	1.9	1.9	1.9	1.9	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	2.0	A	2.0	1.9	1.93	1.98
7-May	1.9	1.9	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	2.0	2.0	2.0	1.9	2.0	A	2.0	2.0	1.9	1.98	2.05
8-May	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	A	2.0	1.9	1.9	1.9	1.94	2.03
9-May	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.9	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	1.9	1.9	1.9	1.96	2.02
10-May	2.0	2.0	2.0	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	A	2.0	1.9	2.0	2.0	2.0	1.9	1.97	2.03
11-May	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.96	2.05
12-May	2.0	1.9	1.9	1.9	1.8	1.9	2.0	2.0	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	2.0	1.9	1.91	1.98
13-May	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	1.9	A	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0	1.9	1.96	2.06
14-May	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.9	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	1.92	2.02
15-May	1.9	1.9	1.9	1.8	1.8	1.8	2.0	2.0	2.0	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	1.92	2.00
16-May	1.9	1.9	1.9	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	A	1.9	1.9	2.0	2.0	2.0	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.95	2.04
17-May	1.9	1.9	1.9	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	2.0	1.9	1.9	1.9	1.96	2.01
18-May	1.9	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	2.0	1.9	1.9	1.9	1.9	1.98	2.03
19-May	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	1.9	1.9	1.9	2.0	1.97	2.04
20-May	1.9	1.9	2.0	2.1	2.1	2.1	2.1	A	2.1	2.1	2.0	2.0	2.0	2.0	1.9	1.9	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.00	2.09
21-May	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.0	1.9	1.9	1.9	1.97	2.03
22-May	1.9	1.9	1.9	1.9	1.9	A	2.1	2.1	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	1.95	2.06
23-May	2.0	2.0	2.0	2.0	A	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.8	1.8	1.9	1.9	2.0	2.1	2.0	2.0	1.98	2.09
24-May	2.0	2.0	2.0	A	2.0	2.1	2.1	2.1	2.1	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	1.9	1.9	2.00	2.15
25-May	2.0	2.0	A	2.0	1.9	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	2.0	1.9	1.9	1.9	1.9	1.9	1.95	2.00
26-May	2.0	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	1.9	1.9	1.9	2.0	1.9	1.9	2.0	2.0	1.9	1.9	1.96	1.99
27-May	A	2.0	2.0	2.0	2.0	2.0	1.9	2.0	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	1.9	1.9	A	1.95	1.99
28-May	1.9	2.0	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	C	C	C	C	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.95	1.98
29-May	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	1.9	1.9	1.9	1.9	1.9	1.9	A	2.0	1.9	1.95	1.99
30-May	1.9	1.9	2.0	2.1	2.0	2.0	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	1.9	A	1.9	1.9	1.9	1.94	2.05
31-May	1.9	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	1.9	A	2.0	1.9	1.8	1.9	1.94	1.98
1.93 1.93 1.94 1.95 1.95 1.97 1.98 1.99 1.99 1.99 1.99 1.98 1.97 1.96 1.95 1.95 1.95 1.94 1.94 1.94 1.94 1.94 1.94 1.93 1.92																								Diurnal Average		
2.02 2.03 2.01 2.06 2.07 2.08 2.15 2.08 2.09 2.07 2.05 2.02 2.05 2.03 2.03 2.03 2.03 2.02 2.01 1.98 2.00 2.01 2.07 2.05 2.03																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										

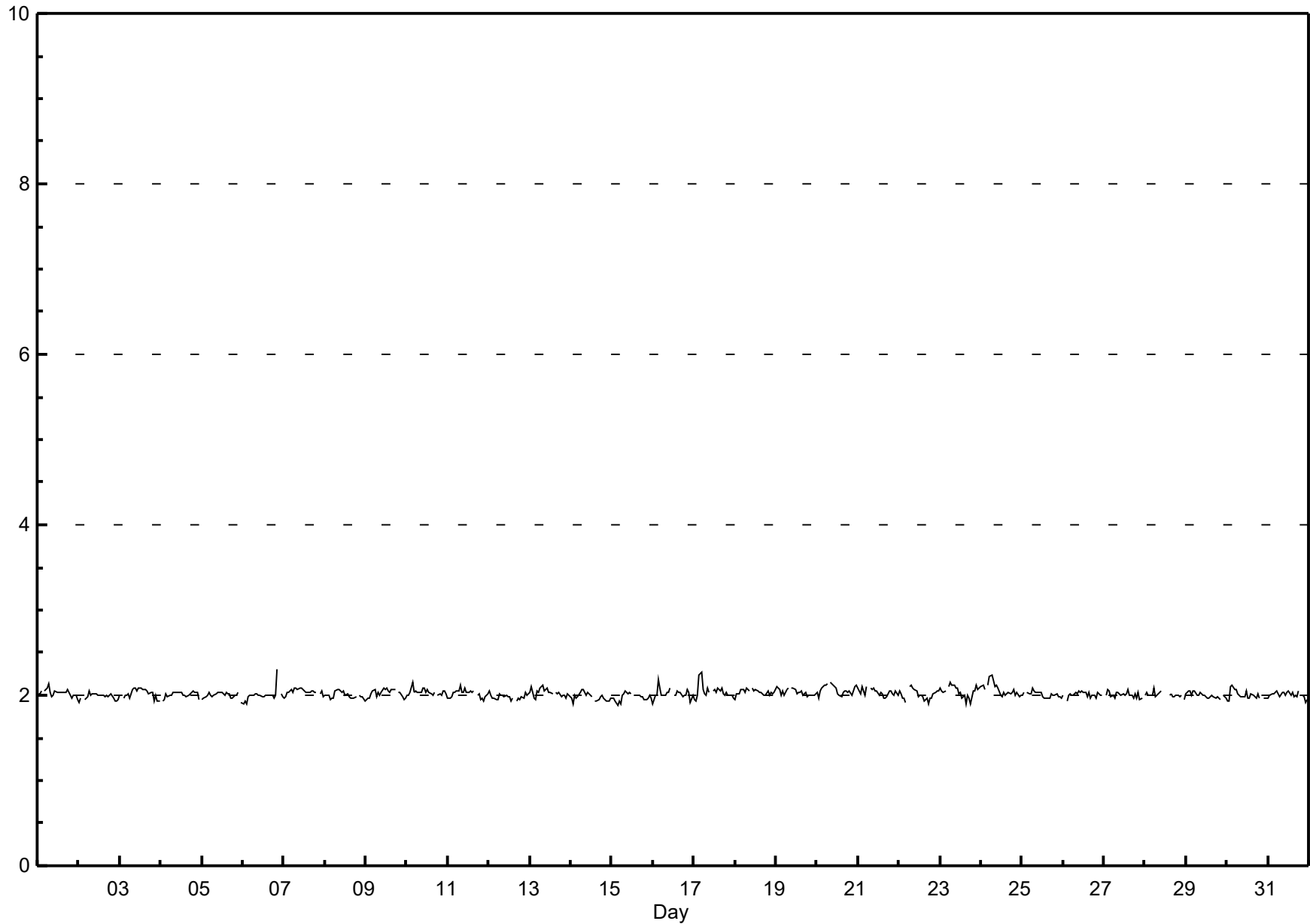
Hourly Averages

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



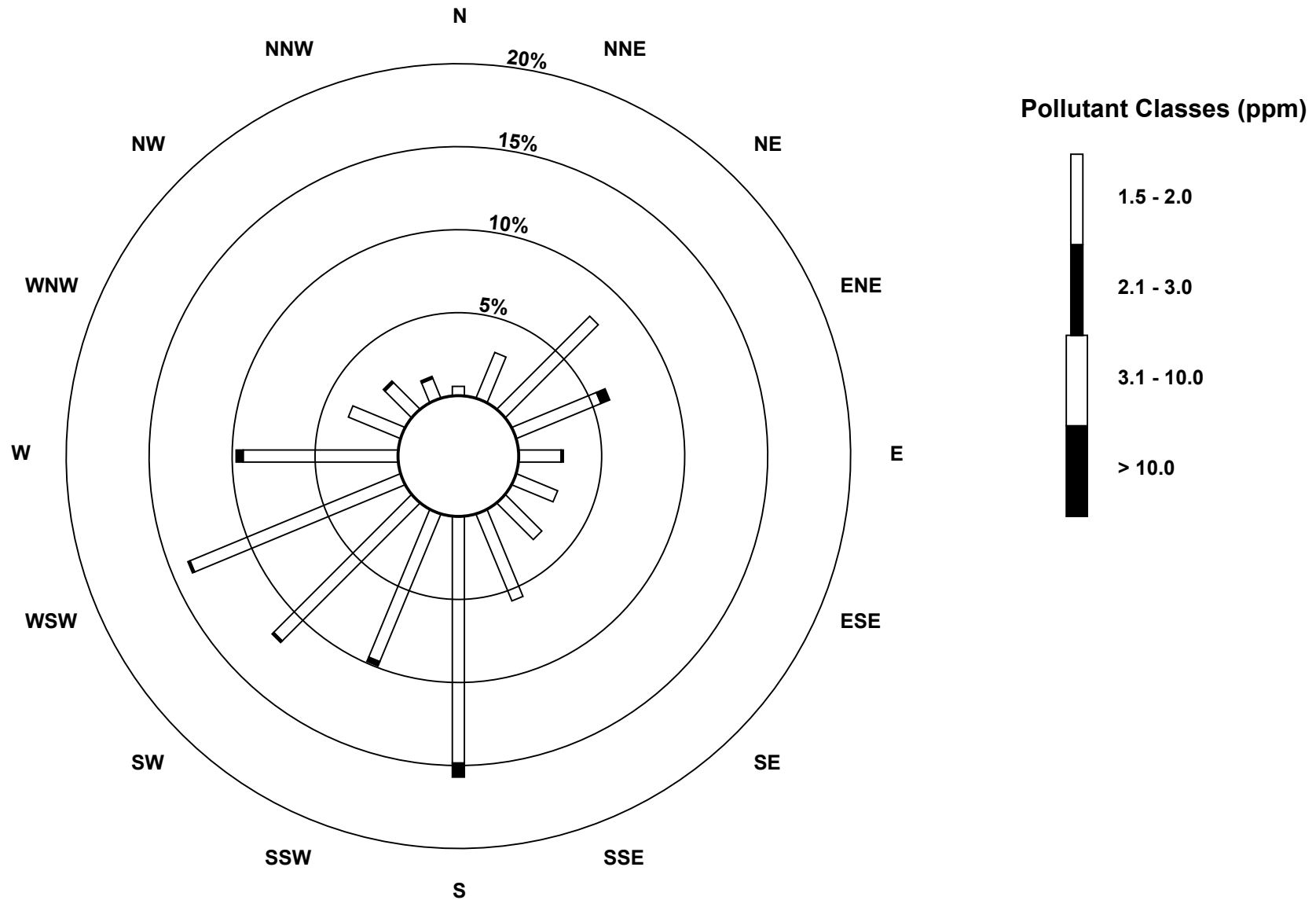
Hourly Maximums

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



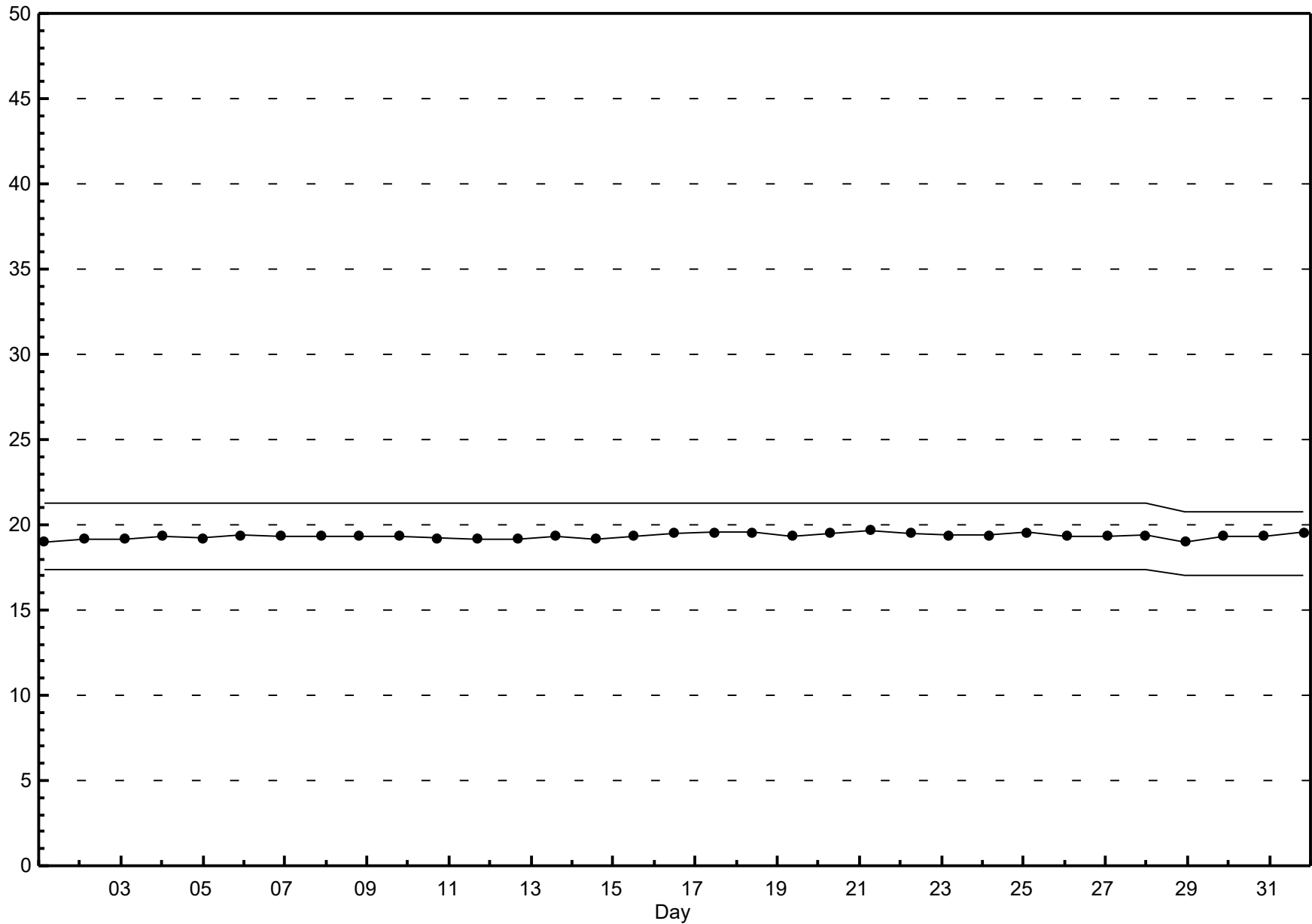
Pollutant Rose

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



Span Responses

Total Hydrocarbons (THC)
Portable Rycroft - May 2018



Hourly Averages

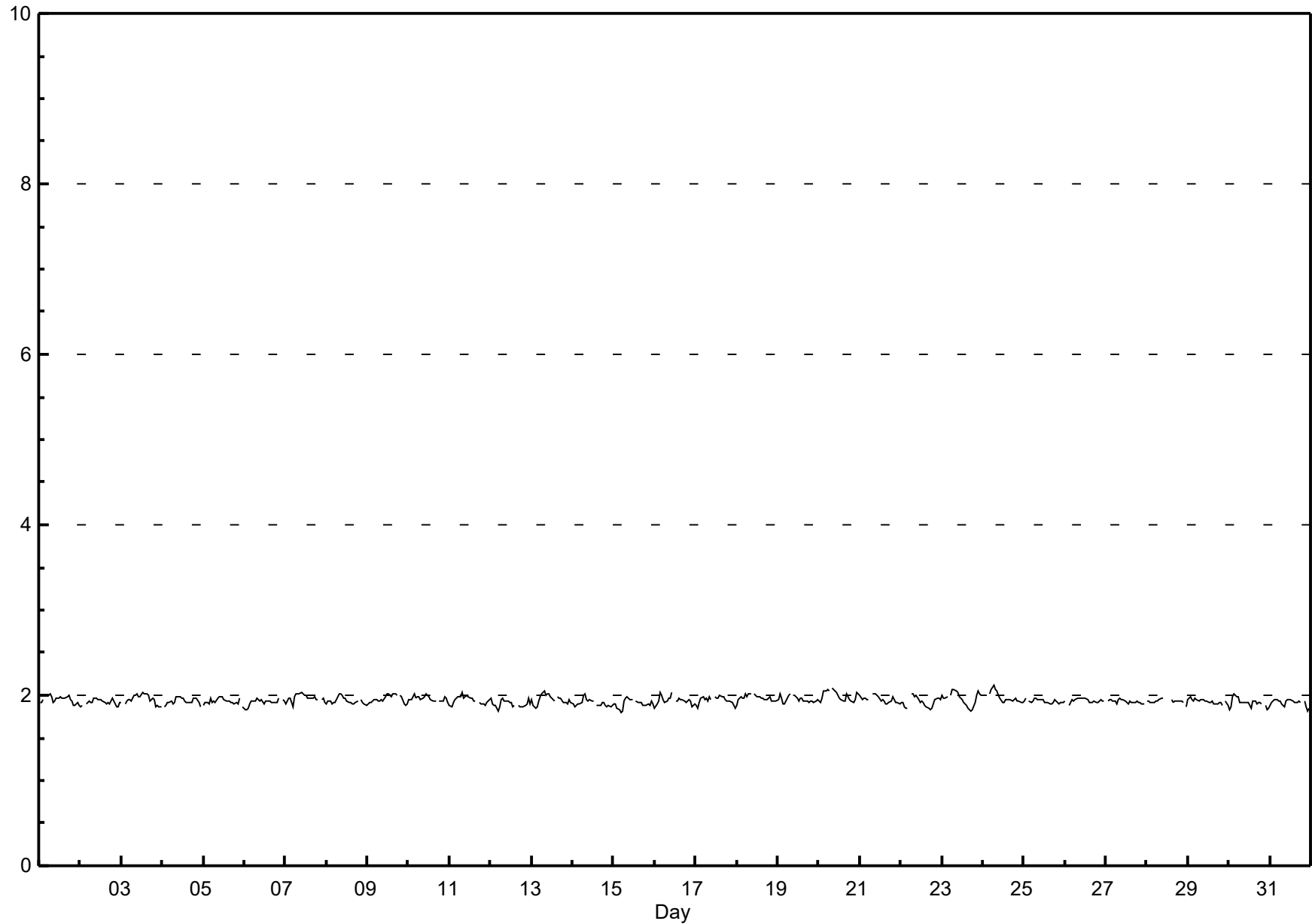
Methane (CH₄) - ppm

Portable Rycroft - May 2018

Maximum Value: 2.13 ppm on May 24 07:00																								Maximum Daily Average: 1.99 ppm on May 20										Hours in Service: 744	
Minimum Value: 1.8 ppm on May 15 05:00																								Minimum Daily Average: 1.90 ppm on May 12										Hours of Data: 707	
Maximum Diurnal Average: 1.98 ppm at hour 9																								Minimum Diurnal Average: 1.91 ppm at hour 24										Hours of Missing Data: 37	
Monthly Average: 1.939 ppm																								Percentiles: P ₁ = 1.83 P ₁₀ = 1.88 Q ₁ = 1.91 Median = 1.93 Q ₃ = 1.97 P ₉₀ = 2.00 P ₉₉ = 2.06										Hours of Calibration: 37	
																								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-May	1.9	1.9	2.0	A	2.0	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	1.9	1.9	1.9	1.9	1.9	1.9	1.95	2.02									
2-May	1.9	1.9	A	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	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.92	1.97									
3-May	1.9	A	1.9	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	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.95	2.03									
4-May	A	1.9	1.9	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	1.9	1.9	2.0	2.0	2.0	1.9	1.9	A	1.93	1.99									
5-May	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	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	A	1.9	1.93	1.99									
6-May	1.8	1.8	1.8	1.9	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	2.0	A	1.9	1.9	1.92	1.96									
7-May	1.9	1.9	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	2.0	2.0	2.0	1.9	2.0	A	2.0	2.0	1.9	1.97	2.04									
8-May	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	A	1.9	1.9	1.9	1.9	1.93	2.02									
9-May	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	1.9	1.9	1.9	1.96	2.02									
10-May	2.0	1.9	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	1.9	1.9	A	1.9	1.9	1.9	2.0	2.0	1.9	1.96	2.02									
11-May	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	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.94	2.03									
12-May	2.0	1.9	1.9	1.9	1.8	1.9	2.0	2.0	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	2.0	1.9	1.90	1.97									
13-May	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	1.9	A	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.95	2.06									
14-May	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	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	1.91	2.01									
15-May	1.9	1.9	1.8	1.8	1.8	1.8	1.9	2.0	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	1.90	1.99									
16-May	1.8	1.9	1.9	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.0	A	1.9	1.9	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.94	2.03									
17-May	1.9	1.9	1.9	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.94	1.99									
18-May	1.9	1.9	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	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.97	2.02									
19-May	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0	A	2.0	2.0	2.0	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.95	2.02									
20-May	1.9	1.9	2.0	2.0	2.1	2.1	2.1	A	2.1	2.1	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.0	1.99	2.08									
21-May	2.0	2.0	2.0	2.0	1.9	1.9	A	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.95	2.02									
22-May	1.9	1.9	1.9	1.8	1.8	A	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.9	1.9	2.0	2.0	2.0	1.92	2.03									
23-May	2.0	2.0	2.0	2.0	A	2.0	2.1	2.1	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.9	2.0	2.1	2.0	2.0	1.96	2.07									
24-May	2.0	2.0	2.0	A	2.0	2.1	2.1	2.1	2.0	2.0	2.0	1.9	1.9	2.0	1.9	2.0	2.0	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.98	2.13									
25-May	1.9	2.0	A	1.9	1.9	1.9	2.0	2.0	1.9	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	1.93	1.97									
26-May	1.9	A	1.9	1.9	2.0	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.94	1.97									
27-May	A	1.9	2.0	2.0	1.9	1.9	1.9	1.9	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	1.9	1.9	A	1.93	1.97									
28-May	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	C	C	C	C	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.93	1.97									
29-May	2.0	2.0	2.0	1.9	2.0	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	A	1.9	1.9	1.93	1.98									
30-May	1.8	1.9	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	1.9	1.9	1.9	1.9	1.9	A	1.9	1.8	1.8	1.91	2.02									
31-May	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.8	1.8	1.91	1.95									
1.91 1.92 1.92 1.93 1.94 1.95 1.97 1.98 1.98 1.98 1.98 1.96 1.95 1.94 1.93 1.93 1.93 1.92 1.92 1.93 1.92 1.92 1.91 1.91																								Diurnal Average											
2.00 2.02 1.99 2.04 2.06 2.06 2.13 2.07 2.08 2.06 2.04 2.01 2.03 2.02 2.01 2.02 2.02 2.00 1.96 1.99 1.99 2.05 2.04 2.02																								Diurnal Maximum											
C - Calibration A - Automated Daily Zero Span																																			

Hourly Averages

Methane (CH₄) - ppm
Portable Rycroft - May 2018



Hourly Maximums

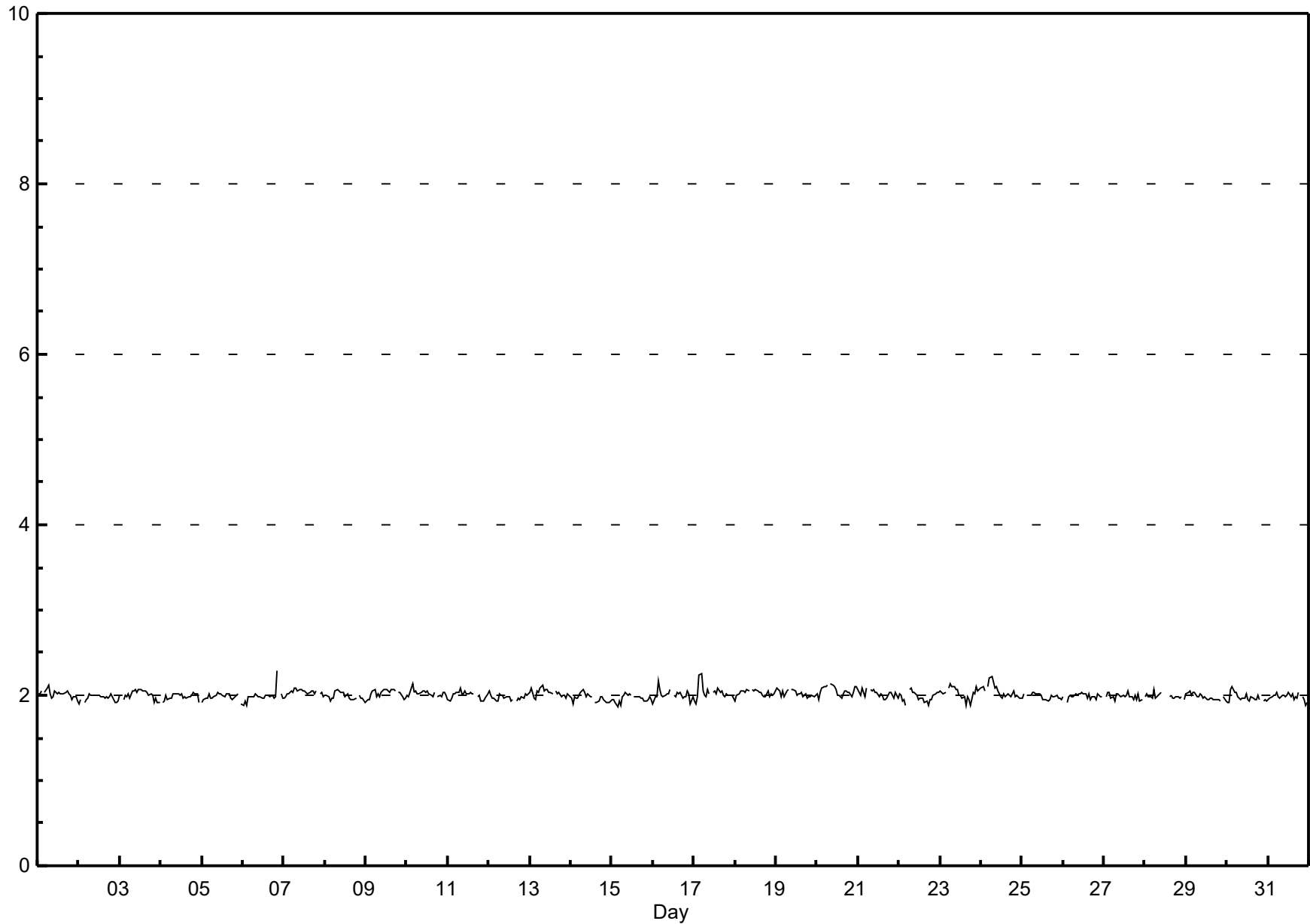
Methane (CH₄) - ppm

Portable Rycroft - May 2018

Maximum Value: 2.29 ppm on May 6 21:00																					Maximum Daily Average: 2.05 ppm on May 20				Hours in Service: 744	
Minimum Value: 1.9 ppm on May 15 04:00																					Minimum Daily Average: 1.96 ppm on May 15				Hours of Data: 707	
Maximum Diurnal Average: 2.03 ppm at hour 8																					Minimum Diurnal Average: 1.97 ppm at hour 24				Hours of Missing Data: 37	
Monthly Average: 2.002 ppm																					Percentiles: P ₁ = 1.89 P ₁₀ = 1.94 Q ₁ = 1.97 Median = 2.00 Q ₃ = 2.03 P ₉₀ = 2.06 P ₉₉ = 2.14				Hours of Calibration: 37	
																					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-May	2.0	2.0	2.0	A	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	1.9	2.0	2.0	1.9	2.02	2.13
2-May	1.9	2.0	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	1.9	1.9	1.9	1.97	2.02
3-May	2.0	A	2.0	2.0	2.0	2.0	2.0	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	1.9	2.0	1.9	1.9	2.01	2.07
4-May	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	2.0	1.9	A	1.99	2.03
5-May	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	2.0	2.0	A	1.9	1.99	2.03
6-May	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	2.0	2.0	2.0	2.0	2.3	A	2.0	2.0	1.99	2.29
7-May	2.0	2.0	2.0	2.0	2.1	2.0	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	2.0	A	2.0	2.0	2.0	2.04	2.09
8-May	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.1	2.1	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	2.0	1.9	1.99	2.06
9-May	1.9	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.1	A	2.0	2.0	2.0	1.9	2.0	2.02	2.07
10-May	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	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	2.0	2.02	2.14
11-May	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.00	2.09
12-May	2.0	2.0	2.0	2.0	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	A	1.9	2.0	1.9	2.0	2.0	2.0	2.0	2.0	1.98	2.05
13-May	2.0	2.1	2.0	1.9	2.1	2.0	2.1	2.1	2.0	2.1	2.1	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	2.03	2.12
14-May	2.0	1.9	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	A	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.97	2.06
15-May	2.0	2.0	1.9	1.9	1.9	1.9	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	1.9	1.9	1.9	2.0	1.9	1.96	2.04
16-May	1.9	2.0	2.0	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.1	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	1.9	2.0	2.00	2.17
17-May	1.9	1.9	2.0	2.2	2.2	2.1	2.0	2.0	2.1	2.0	2.1	A	2.0	2.0	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.03	2.25
18-May	1.9	2.0	2.0	2.1	2.1	2.1	2.0	2.1	2.0	2.1	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	2.03	2.08
19-May	2.1	2.1	2.1	2.0	2.0	2.0	2.1	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	2.02	2.08
20-May	2.0	2.0	2.0	2.1	2.1	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	2.1	2.1	2.05	2.14
21-May	2.1	2.0	2.1	2.0	2.0	2.1	A	2.1	2.1	2.1	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	2.02	2.09
22-May	2.0	2.0	1.9	1.9	1.9	A	2.1	2.1	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	2.0	2.0	2.0	1.98	2.09
23-May	2.1	2.0	2.0	2.0	A	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	1.9	2.0	1.9	1.9	2.0	2.0	2.1	2.0	2.1	2.03	2.14
24-May	2.1	2.1	2.0	A	2.1	2.2	2.2	2.2	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	2.05	2.22
25-May	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	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.99	2.04
26-May	2.0	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	1.9	2.0	2.0	1.9	2.0	2.0	2.0	2.0	1.99	2.04
27-May	A	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	2.0	2.0	1.9	2.0	1.9	1.9	A	1.99	2.04
28-May	2.0	2.0	2.0	2.0	2.0	2.1	2.0	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	A	1.9	1.99	2.07
29-May	2.0	2.0	2.0	2.0	2.0	2.0	2.0	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	A	2.0	1.9	1.98	2.05
30-May	1.9	1.9	2.1	2.1	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	1.9	2.0	1.9	A	1.9	1.9	1.9	1.97	2.10
31-May	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	A	2.0	2.0	1.9	1.9	1.98	2.03
1.98 1.98 1.99 2.01 2.01 2.02 2.03 2.03 2.03 2.03 2.03 2.02 2.01 2.00 2.00 1.99 1.99 1.98 1.98 1.99 1.99 1.99 1.98 1.97																									Diurnal Average	
2.08 2.10 2.08 2.23 2.25 2.20 2.22 2.15 2.14 2.12 2.10 2.07 2.07 2.06 2.08 2.07 2.06 2.06 2.04 2.05 2.29 2.10 2.10 2.10																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										

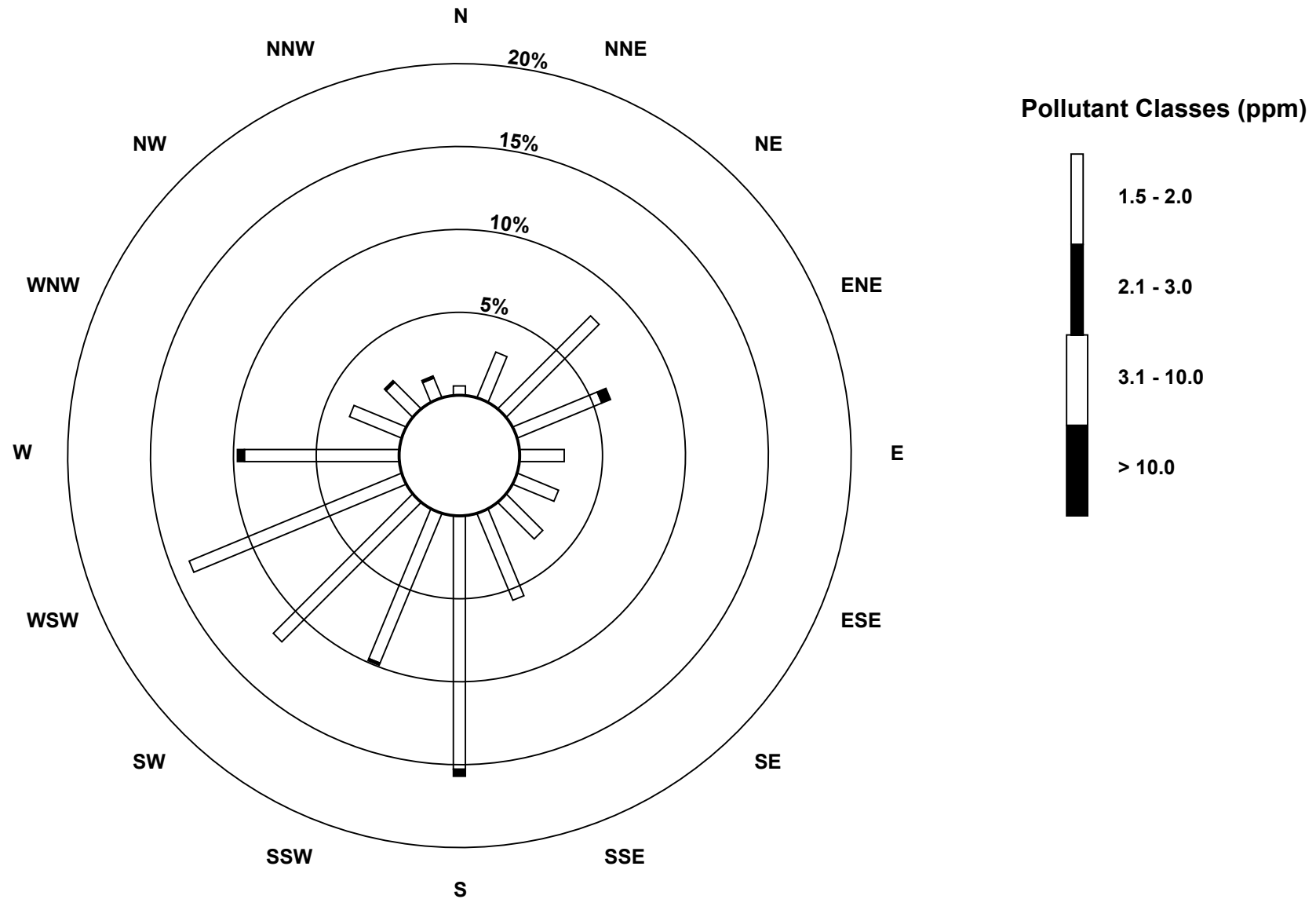
Hourly Maximums

Methane (CH₄) - ppm
Portable Rycroft - May 2018



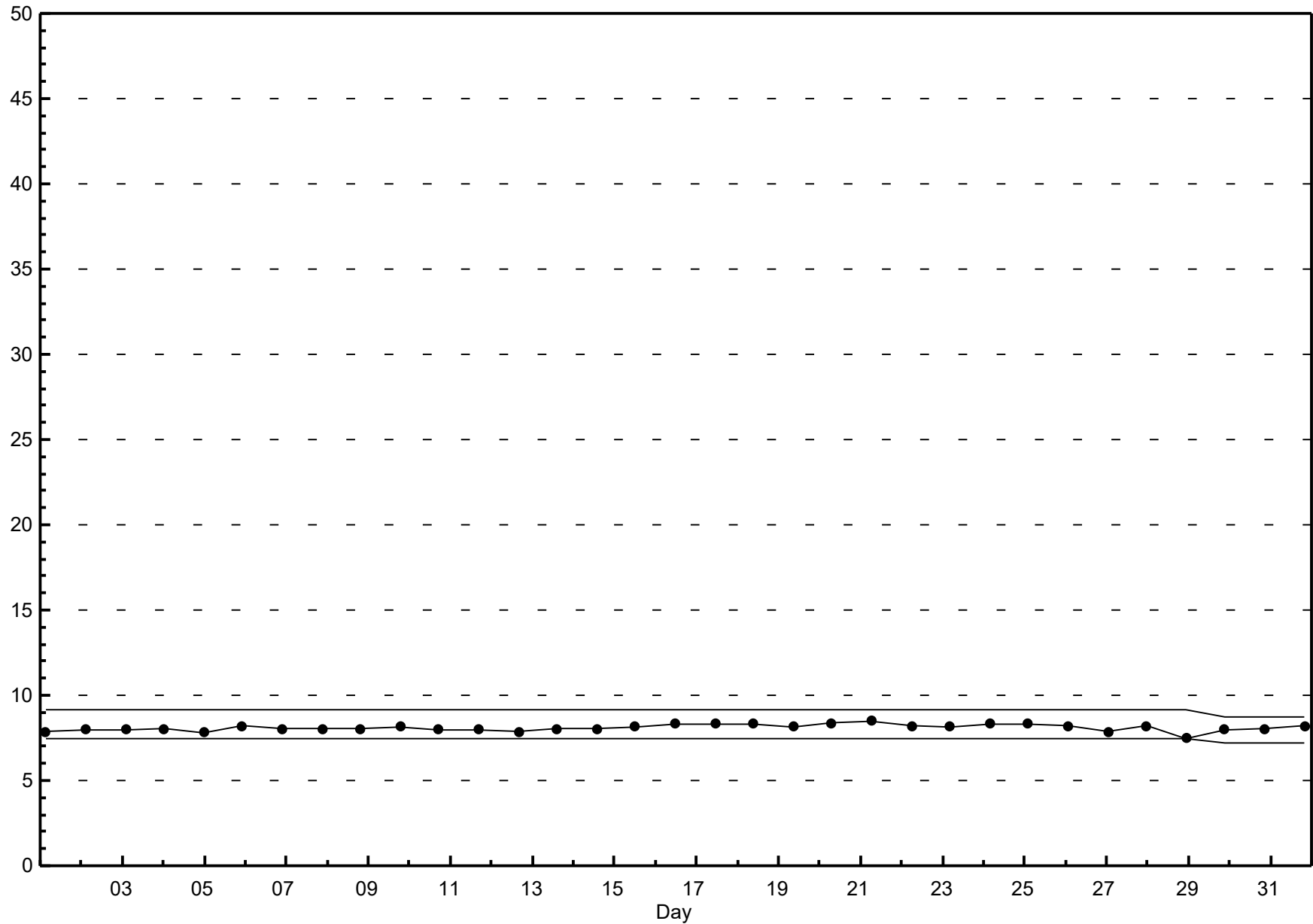
Pollutant Rose

Methane (CH₄) - ppm
Portable Rycroft - May 2018



Span Responses

Methane (CH₄)
Portable Rycroft - May 2018

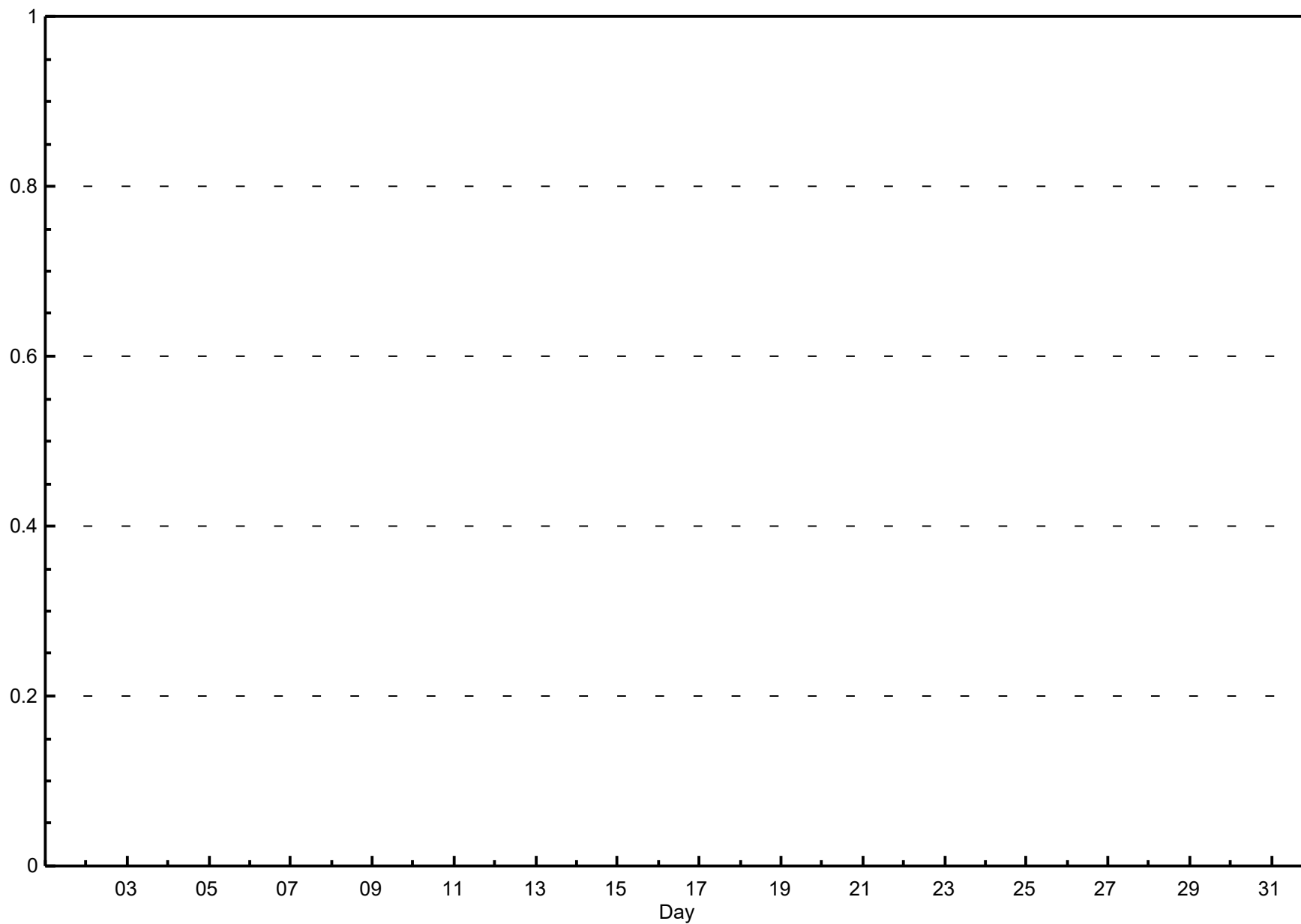


Hourly Averages

Non Methane Hydrocarbon (NMHC) - ppm

Portable Rycroft - May 2018

Maximum Value: 0.00 ppm on May 20 04:00																					Maximum Daily Average: 0.00 ppm on May 20				Hours in Service: 744	
Minimum Value: 0.0 ppm on May 1 05:00																					Minimum Daily Average: 0.00 ppm on May 2				Hours of Data: 707	
Maximum Diurnal Average: 0.00 ppm at hour 21																					Minimum Diurnal Average: 0.00 ppm at hour 8				Hours of Missing Data: 37	
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: 37	
																									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-May	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
2-May	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
3-May	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
4-May	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
5-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
6-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
7-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
8-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
9-May	0.0	0.0	0.0	0.0	0.0	0.0	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
10-May	0.0	0.0	0.0	0.0	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
11-May	0.0	0.0	0.0	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
12-May	0.0	0.0	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
13-May	0.0	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
14-May	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
15-May	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
16-May	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
17-May	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
18-May	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
19-May	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
20-May	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
21-May	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
22-May	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
23-May	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
24-May	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
25-May	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
26-May	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
27-May	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
28-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	A	0.0	0.00	0.00
29-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
30-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
31-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
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

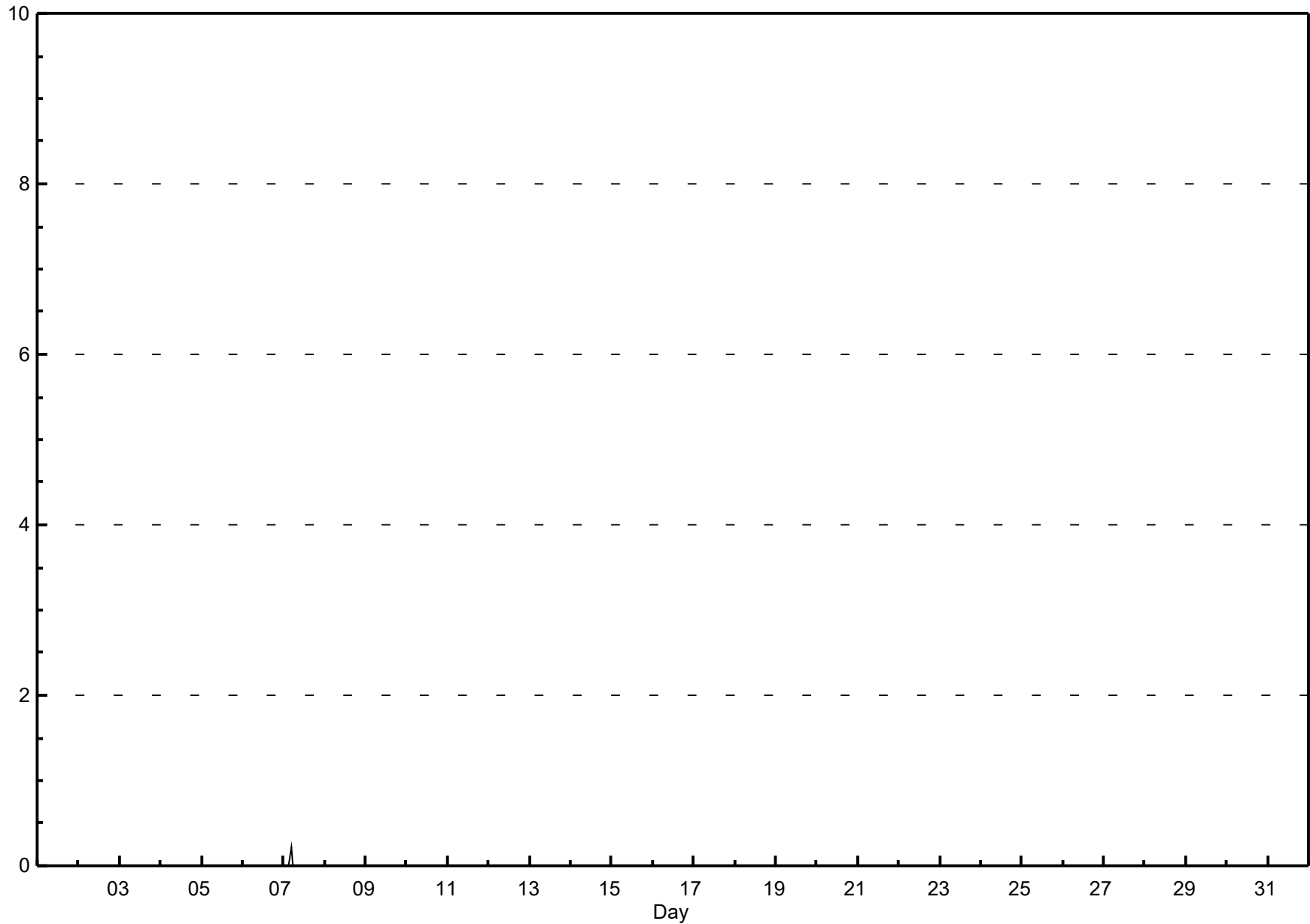
Portable Rycroft - May 2018

Maximum Value: 0.21 ppm on May 7 05:00																				Maximum Daily Average: 0.01 ppm on May 7					Hours in Service: 744	
Minimum Value: 0.0 ppm on May 1 05:00																				Minimum Daily Average: 0.00 ppm on May 2					Hours of Data: 707	
Maximum Diurnal Average: 0.01 ppm at hour 5																				Minimum Diurnal Average: 0.00 ppm at hour 8					Hours of Missing Data: 37	
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: 37	
																				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-May	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
2-May	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
3-May	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
4-May	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
5-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
6-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
7-May	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	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	0.01	0.21
8-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
9-May	0.0	0.0	0.0	0.0	0.0	0.0	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
10-May	0.0	0.0	0.0	0.0	0.0	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
11-May	0.0	0.0	0.0	0.0	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
12-May	0.0	0.0	0.0	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
13-May	0.0	0.0	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
14-May	0.0	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
15-May	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
16-May	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
17-May	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
18-May	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
19-May	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
20-May	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
21-May	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
22-May	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
23-May	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
24-May	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
25-May	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
26-May	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
27-May	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
28-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	A	0.0	0.00	0.00
29-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
30-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
31-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
0.00 0.00 0.00 0.00 0.01 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 0.00 0.00 0.00 0.00																									Diurnal Average	
0.00 0.00 0.00 0.00 0.21 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 0.00 0.00 0.00 0.00																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										

Hourly Maximums

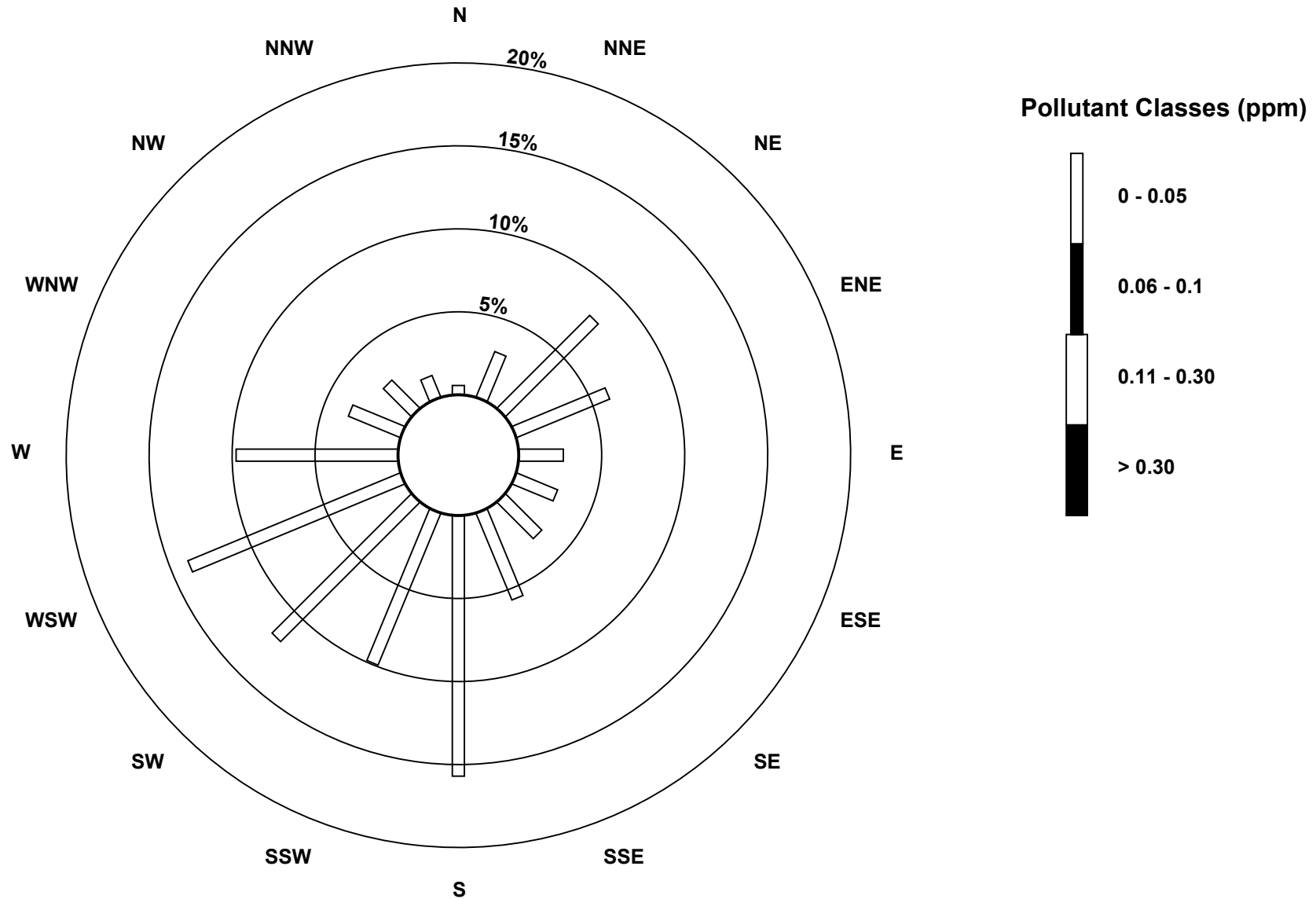
Non Methane Hydrocarbon (NMHC) - ppm

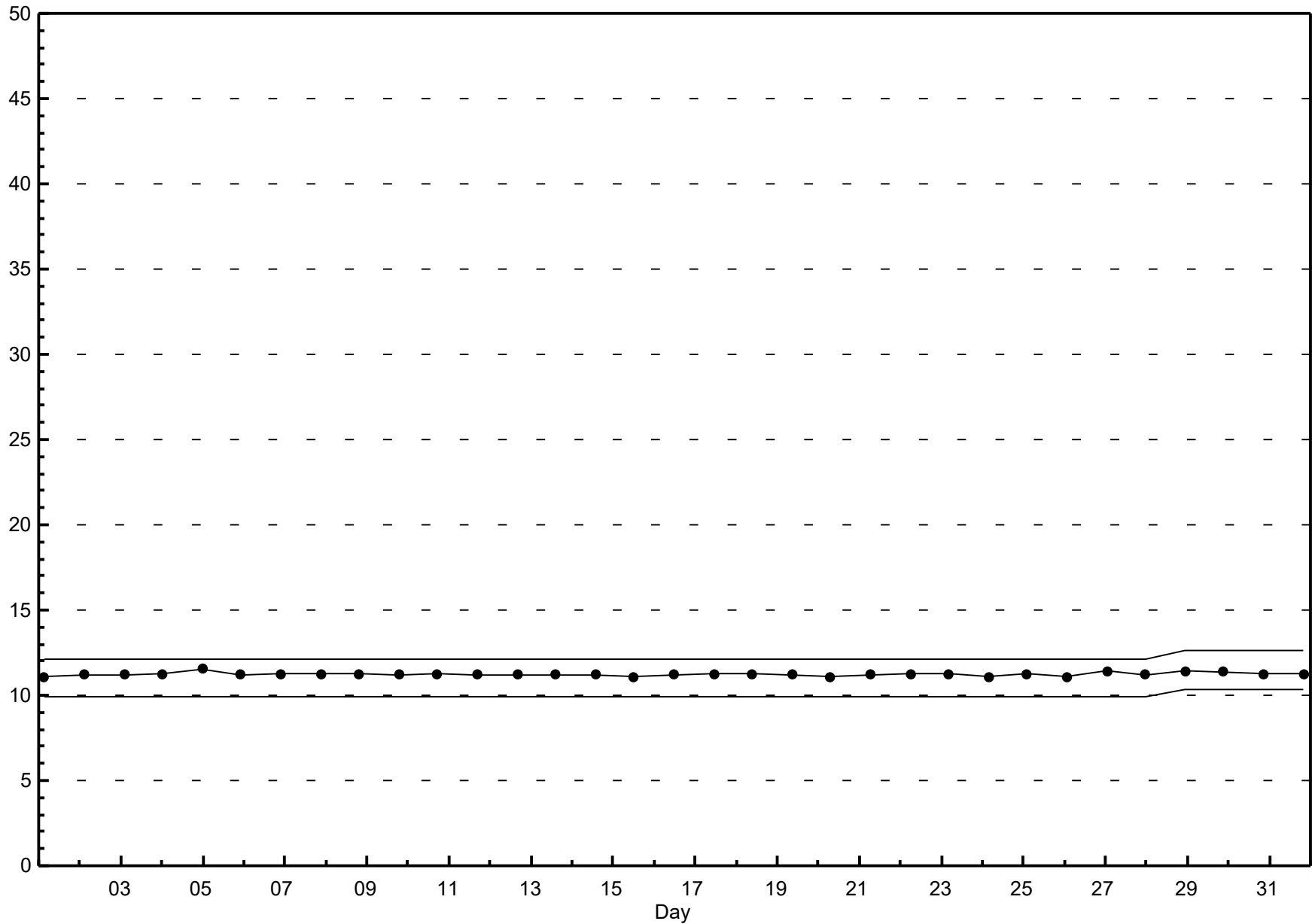
Portable Rycroft - May 2018



Pollutant Rose

Non Methane Hydrocarbon (NMHC) - ppm
Portable Rycroft - May 2018





Hourly Averages

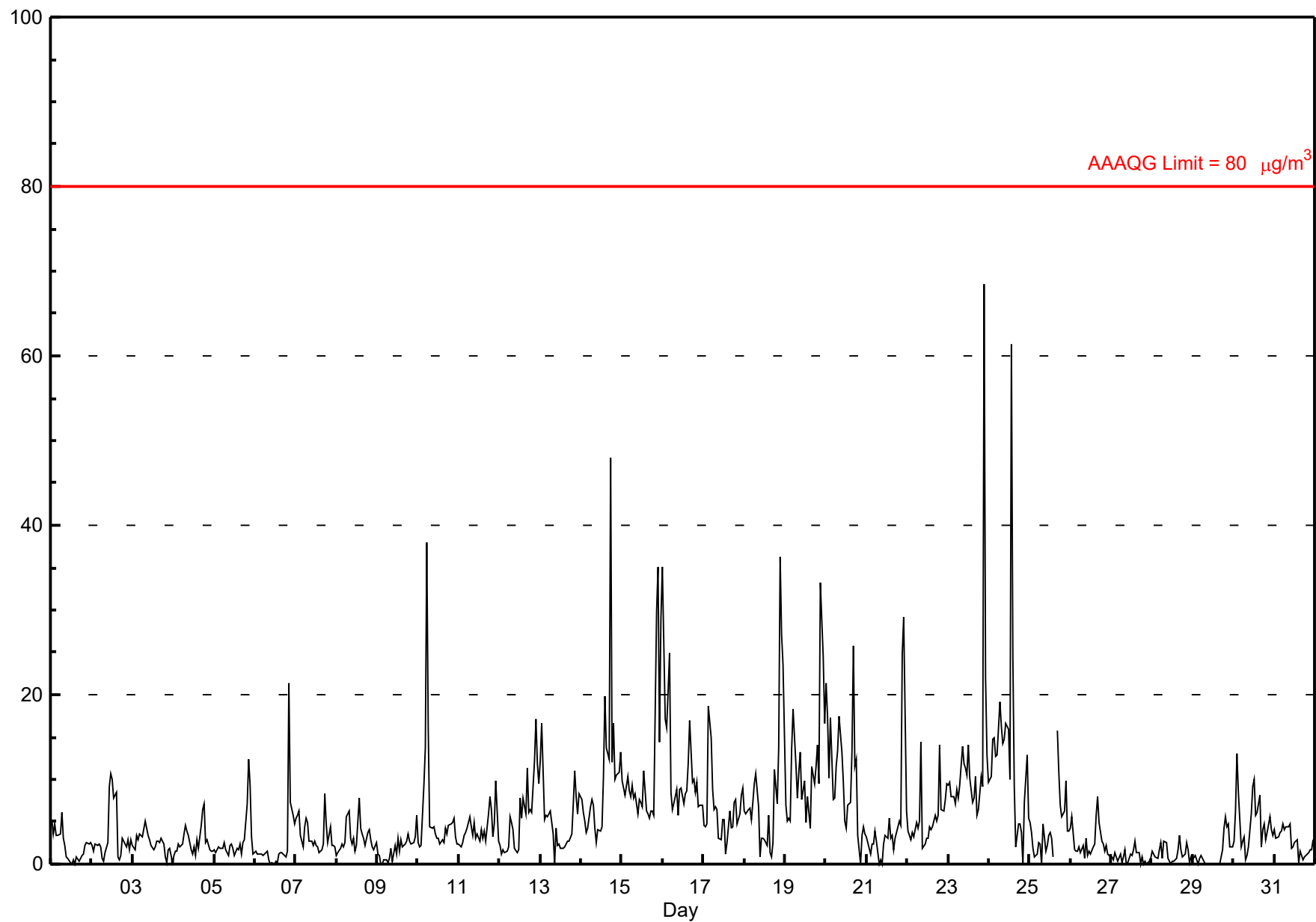
PM2.5 (PM_{2.5}) - µg/m³

Portable Rycroft - May 2018

Number of Exceedences: 1-hr: 0 24-hr: 0 Maximum Value: 68.6 µg/m³ on May 23 22:00 Maximum Daily Average: 13.2 µg/m³ on May 24																				Hours in Service: 744 Hours of Data: 743 Hours of Missing Data: 1 Hours of Calibration: 1 Percent Operational Time: 100.0						
Minimum Value: 0 µg/m³ on May 1 13:00 Maximum Diurnal Average: 10.7 µg/m³ at hour 22 Monthly Average: 5.45 µg/m³										Minimum Daily Average: 0.8 µg/m³ on May 27 Minimum Diurnal Average: 3.8 µg/m³ at hour 10 Percentiles: P ₁ = 0.0 P ₁₀ = 0.8 Q ₁ = 1.8 Median = 3.4 Q ₃ = 7.0 P ₉₀ = 11.8 P ₉₉ = 31.8																
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-May	5	4	5	3	3	4	6	3	2	1	1	0	0	1	0	1	0	1	1	1	2	3	2	2	2.1	6.1
2-May	2	2	2	2	2	2	1	0	1	3	9	11	10	8	9	1	0	1	3	3	2	3	2	3	3.4	10.7
3-May	2	2	3	3	4	3	3	5	4	3	3	2	2	2	3	3	2	3	2	1	0	2	2	0	2.5	5.1
4-May	1	2	2	2	2	2	3	5	4	3	2	1	2	1	3	2	5	6	7	3	3	2	2	1	2.7	7.1
5-May	2	1	2	2	2	2	3	2	1	2	2	2	1	2	2	2	1	3	3	7	12	9	3	1	2.9	12.4
6-May	2	1	1	1	1	1	1	1	1	0	0	0	0	0	1	1	1	1	1	2	21	7	6	5	2.4	21.4
7-May	5	6	6	3	2	4	5	5	3	3	2	3	2	2	1	2	2	8	5	3	4	2	2	2	3.5	8.2
8-May	1	1	2	2	2	3	6	6	3	2	3	1	2	8	4	4	3	2	4	4	3	2	2	3	3.1	7.8
9-May	1	1	0	0	0	0	0	1	2	0	2	1	3	1	3	2	2	3	4	3	2	2	3	6	1.8	5.7
10-May	3	2	2	9	14	38	16	4	4	4	4	3	3	2	3	3	4	4	5	5	5	5	3	2	6.2	38.0
11-May	2	2	3	3	4	4	6	4	3	5	3	4	3	4	3	4	3	6	8	7	3	5	10	3	4.2	9.9
12-May	2	1	2	1	2	2	6	5	4	2	1	2	8	5	8	6	11	6	6	6	12	17	12	10	5.7	17.2
13-May	12	17	5	6	6	6	6	4	0	4	2	2	2	2	2	2	3	3	4	7	11	8	6	8	5.3	16.6
14-May	8	6	5	4	4	7	8	7	4	3	4	4	4	10	20	14	12	48	12	17	10	10	11	13	10.2	47.9
15-May	10	9	8	10	9	8	9	8	8	6	8	7	7	11	6	6	5	6	6	6	30	35	14	29	10.9	35.0
16-May	35	17	16	20	25	8	6	8	9	6	9	9	7	8	9	12	17	10	10	8	10	7	7	7	11.7	35.0
17-May	5	4	5	19	15	9	6	7	6	3	3	5	5	1	3	6	4	4	7	8	5	6	8	9	6.4	18.6
18-May	6	6	6	7	5	7	10	11	7	1	3	3	3	2	6	1	1	2	11	7	14	36	27	24	8.6	36.3
19-May	7	5	5	5	14	18	12	8	11	13	8	10	5	8	6	4	12	10	12	14	9	33	24	17	11.2	33.2
20-May	21	17	10	17	8	8	12	13	17	13	10	5	4	7	7	13	26	11	12	3	0	3	4	3	10.4	25.8
21-May	3	2	1	2	2	4	3	0	0	0	2	3	3	5	3	3	2	3	4	5	5	25	29	6	4.9	29.1
22-May	4	3	3	4	3	5	4	5	14	2	2	3	3	4	4	4	6	5	6	14	6	6	8	9	5.4	14.4
23-May	9	10	8	8	7	9	8	9	14	12	11	10	14	10	7	8	10	6	6	10	9	69	22	13	12.5	68.6
24-May	10	10	15	15	13	13	19	16	14	15	17	16	10	61	25	9	2	5	5	4	0	7	13	5	13.2	61.4
25-May	5	4	2	1	1	3	2	0	5	1	2	3	4	3	1	C	16	11	7	6	6	10	4	4	4.4	15.8
26-May	4	6	2	2	2	2	1	2	1	3	1	2	1	2	2	6	8	5	3	2	2	2	1	1	2.6	8.0
27-May	1	0	1	1	0	1	0	1	2	0	0	1	1	2	3	1	1	0	1	0	0	0	0	1	0.8	2.7
28-May	2	1	1	1	2	3	1	3	3	1	0	0	0	0	1	2	3	2	1	1	3	2	0	1	1.3	3.4
29-May	0	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2	4	6	4	5	2	2	1.2	5.6
30-May	3	6	13	8	2	3	3	1	1	2	6	9	10	6	6	8	2	4	5	3	4	6	4	3	4.9	13.1
31-May	4	3	3	4	4	5	4	4	4	5	2	2	3	3	0	1	1	1	1	1	1	2	2	3	2.6	4.7
5.7 4.9 4.5 5.4 5.1 6.0 5.5 4.8 4.9 3.8 4.0 4.1 3.9 5.9 4.8 4.4 5.4 5.8 5.3 5.3 6.4 10.7 7.6 6.3																									Diurnal Average	
35.0 17.5 16.0 20.3 24.9 38.0 19.1 16.3 17.4 14.8 16.5 15.9 14.1 61.4 24.5 13.7 25.8 47.9 12.4 16.6 29.9 68.6 29.1 29.0																									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

PM2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Portable Rycroft - May 2018



Hourly Maximums

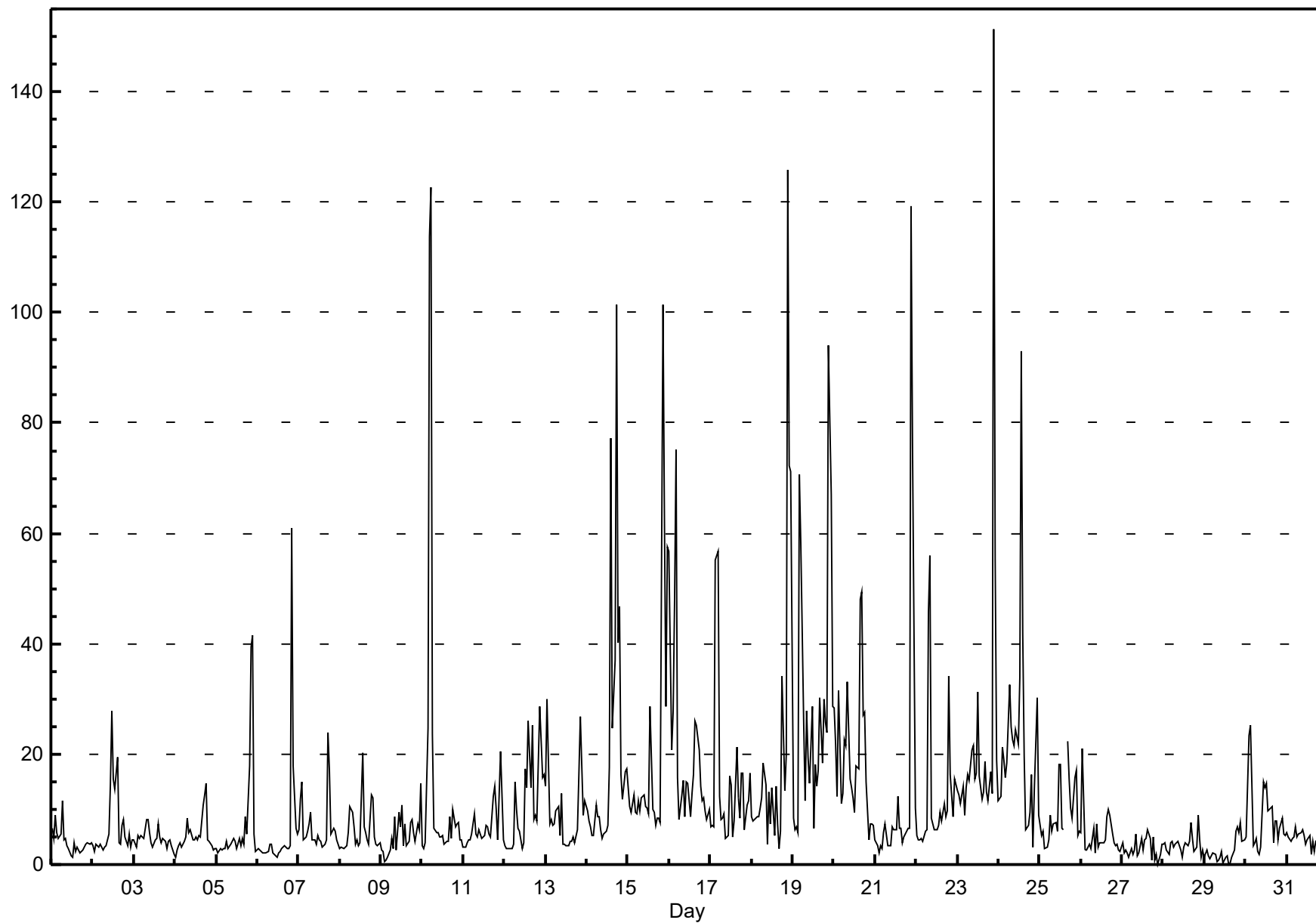
PM2.5 (PM_{2.5}) - µg/m³

Portable Rycroft - May 2018

Maximum Value: 151.4 μg/m ³ on May 23 22:00																					Maximum Daily Average: 27.4 μg/m ³ on May 19							Hours in Service: 744	
Minimum Value: 0 μg/m ³ on May 29 15:00																					Minimum Daily Average: 2.5 μg/m ³ on May 29							Hours of Data: 743	
Maximum Diurnal Average: 26.2 μg/m ³ at hour 22																					Minimum Diurnal Average: 7.2 μg/m ³ at hour 3							Hours of Missing Data: 1	
Monthly Average: 11.27 μg/m ³																					Percentiles: P ₁ = 0.8 P ₁₀ = 2.6 Q ₁ = 3.8 Median = 6.1 Q ₃ = 12.4 P ₉₀ = 22.6 P ₉₉ = 93.5							Hours of Calibration: 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-May	7	5	9	6	5	6	11	5	5	3	3	2	1	4	2	3	2	2	3	3	4	4	4	4	4.2	11.5			
2-May	3	2	4	3	4	3	3	3	3	6	15	28	15	14	19	4	4	7	8	5	3	6	3	4	7.1	27.9			
3-May	5	3	5	5	5	5	5	8	8	6	4	3	5	5	7	5	4	5	4	3	4	4	3	2	4.7	8.2			
4-May	1	3	3	4	3	4	5	8	6	6	5	5	5	5	5	5	11	13	15	5	4	3	3	3	5.4	14.6			
5-May	3	2	3	3	3	3	4	3	4	4	5	4	3	5	3	5	4	9	6	18	39	41	6	2	7.5	41.4			
6-May	3	3	2	2	2	2	2	4	4	2	2	1	2	2	3	3	3	3	3	3	61	18	7	6	6.0	61.0			
7-May	6	12	15	5	5	6	7	9	4	4	4	5	5	4	3	4	4	24	17	6	7	6	5	4	7.1	23.9			
8-May	3	3	3	3	3	6	10	9	7	4	4	3	4	20	7	6	5	4	13	12	5	4	3	4	6.0	20.3			
9-May	3	2	0	1	1	3	5	3	9	3	9	7	11	3	7	3	4	8	8	6	4	7	6	15	5.4	14.7			
10-May	3	3	4	25	114	123	24	7	6	6	5	5	5	4	4	4	9	5	10	7	7	8	4	4	16.4	122.8			
11-May	3	3	4	4	4	5	9	6	5	6	5	5	5	7	7	5	5	12	14	10	4	12	20	5	7.0	20.5			
12-May	3	3	3	3	3	4	15	10	7	6	3	4	17	14	26	14	25	8	9	8	29	22	16	16	11.1	28.5			
13-May	14	30	7	8	7	7	10	10	5	13	4	4	3	3	4	4	5	4	6	16	27	18	9	12	9.6	29.9			
14-May	10	8	7	5	5	11	9	9	6	5	6	6	7	18	77	25	37	102	40	47	16	12	17	17	20.9	101.5			
15-May	14	11	10	13	10	9	12	10	12	13	10	10	9	29	10	9	7	9	8	7	101	62	29	58	19.6	101.3			
16-May	57	21	28	48	75	16	8	13	15	9	15	15	9	13	16	26	25	21	14	11	12	10	8	10	20.6	75.2			
17-May	7	7	7	55	57	12	8	9	9	5	5	16	14	5	8	21	12	8	17	17	6	11	12	17	14.4	56.6			
18-May	9	8	9	9	9	10	12	18	14	4	13	7	14	5	14	7	3	6	34	13	20	126	72	71	21.2	125.9			
19-May	8	6	7	6	71	58	26	12	28	19	15	29	7	18	14	17	30	18	30	26	24	94	67	29	27.4	94.0			
20-May	28	22	12	32	11	13	23	21	33	16	14	12	9	18	17	48	49	27	28	15	4	7	7	7	19.8	49.3			
21-May	4	3	2	4	3	6	7	3	3	3	7	6	6	12	7	7	4	5	6	7	7	119	76	10	13.3	119.2			
22-May	5	5	4	5	4	6	6	46	56	9	6	6	6	7	10	8	11	9	10	34	16	9	16	14	12.8	55.9			
23-May	13	13	11	14	9	14	16	15	21	22	15	17	31	16	12	13	19	13	12	17	13	151	55	19	23.0	151.4			
24-May	12	12	21	19	16	18	33	25	23	21	24	22	34	93	42	20	6	7	9	16	3	14	30	9	22.1	92.9			
25-May	7	5	6	3	3	5	9	6	7	8	6	18	18	7	6	C	22	16	10	8	16	17	5	6	9.3	22.3			
26-May	6	21	3	3	3	4	3	7	2	7	3	4	4	4	4	9	10	9	5	4	3	4	3	2	5.2	20.9			
27-May	4	2	3	2	1	3	2	3	6	2	2	5	3	4	5	6	5	1	5	1	2	0	2	4	2.9	6.4			
28-May	4	4	3	2	4	4	3	4	4	3	3	1	3	4	3	4	8	5	2	3	9	5	1	3	3.7	9.0			
29-May	1	3	2	1	2	2	2	0	1	1	2	0	1	1	0	0	1	3	6	7	6	8	4	5	2.5	7.6			
30-May	5	14	23	25	3	4	5	2	2	3	15	14	15	10	10	10	4	8	8	5	6	9	5	5	8.8	25.1			
31-May	6	5	4	5	5	7	5	6	6	6	5	4	5	5	2	4	2	4	5	3	3	3	2	4	4.4	6.8			
8.3 7.8 7.2 10.3 14.5 12.2 9.6 9.4 10.3 7.2 7.5 8.6 8.9 11.6 11.5 10.0 11.0 12.0 11.8 11.0 15.1 26.2 16.2 11.9																									Diurnal Average				
56.8 29.9 27.8 55.3 113.7 122.8 32.6 45.8 55.9 21.6 24.4 28.8 34.0 92.9 77.2 48.1 49.3 101.5 40.3 46.8 101.3 151.4 76.3 71.3																									Diurnal Maximum				
C - Calibration																													

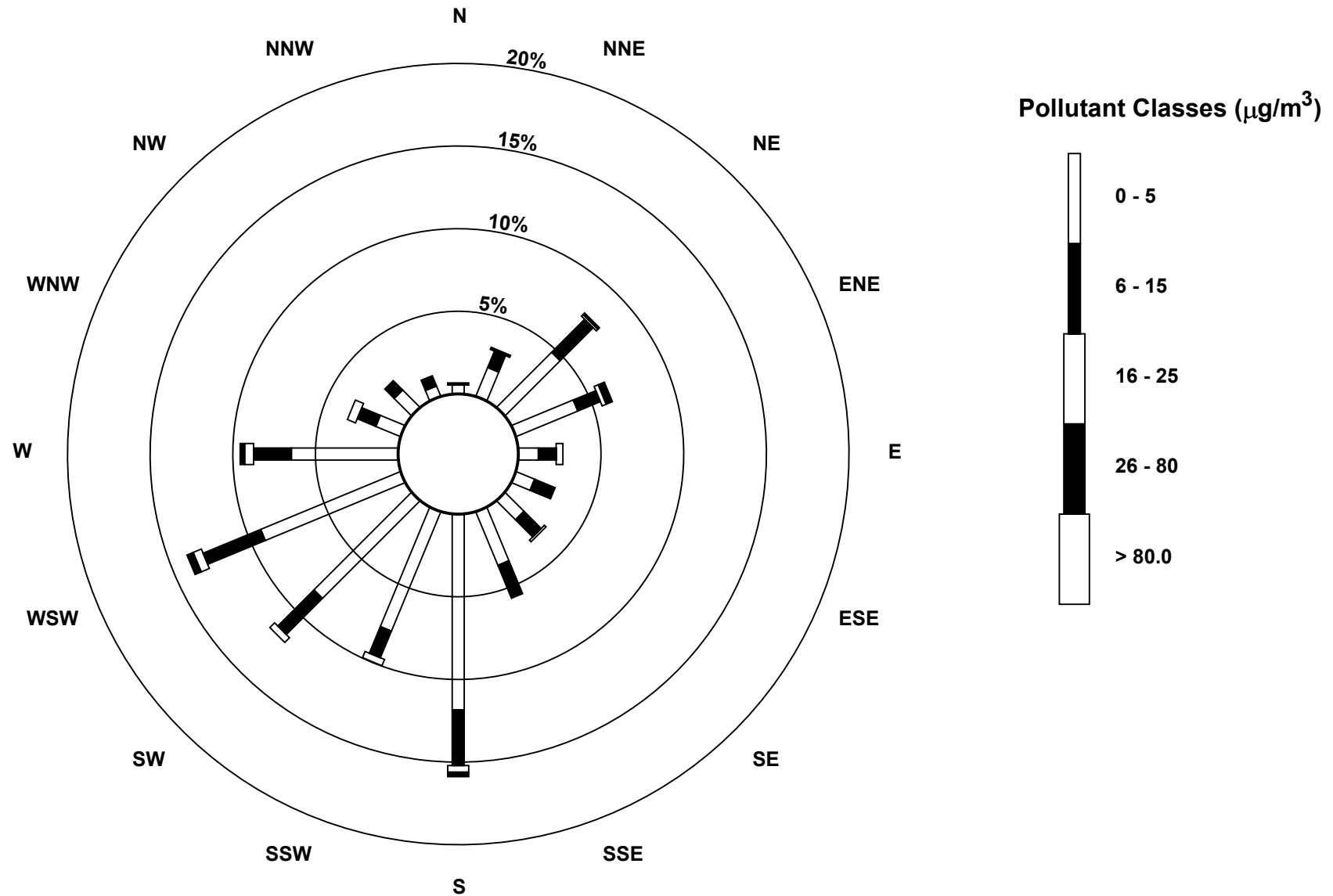
Hourly Maximums

PM2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Portable Rycroft - May 2018



Pollutant Rose

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



Hourly Averages

External Temperature (ET) - °C

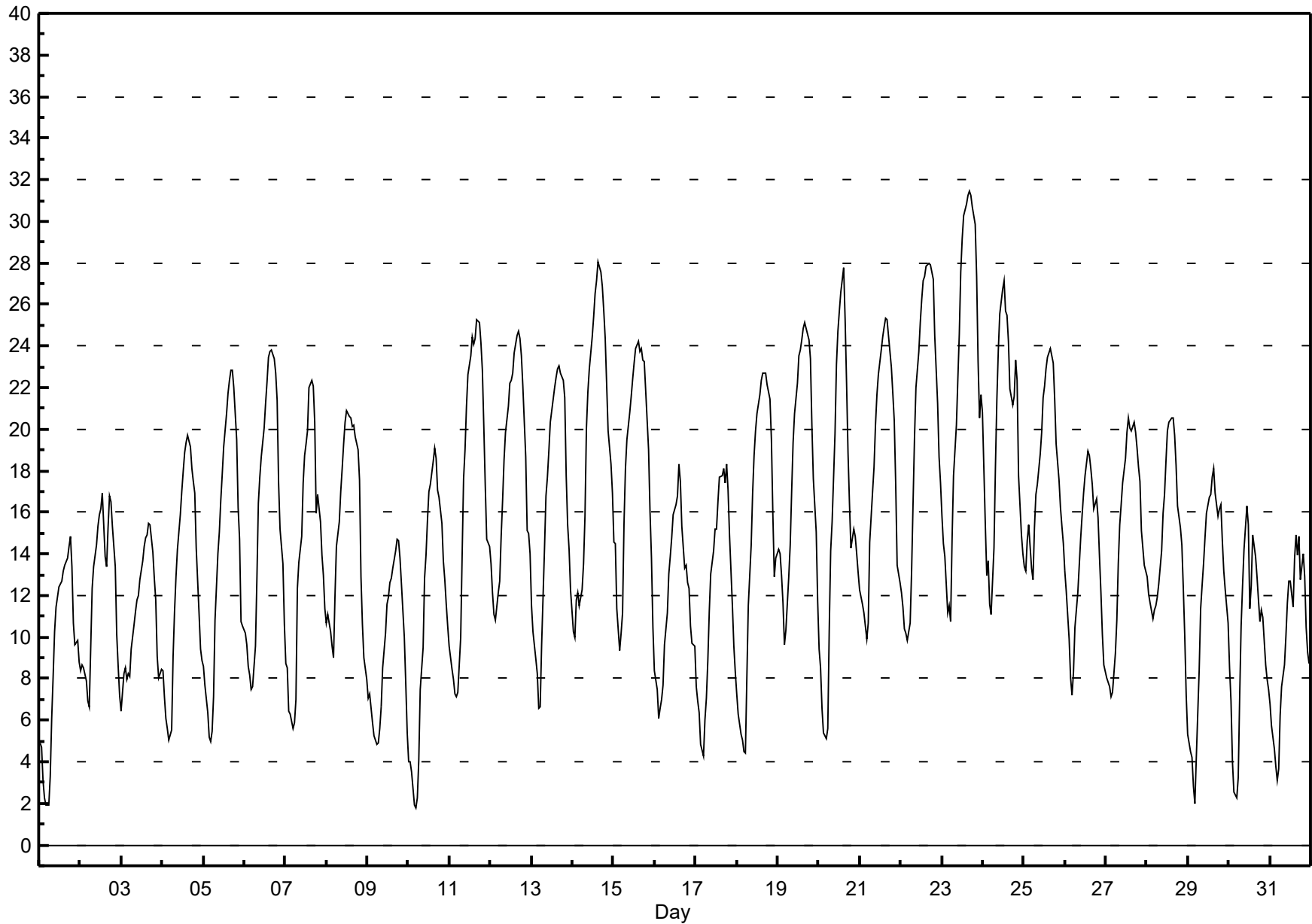
Portable Rycroft - May 2018

Maximum Value: 31.4 °C on May 23 17:00																								Hours in Service: 744		
Maximum Daily Average: 22.6 °C on May 23																								Hours of Data: 744		
Minimum Value: 2 °C on May 10 05:00																								Hours of Missing Data: 0		
Maximum Diurnal Average: 21.0 °C at hour 16																								Hours of Calibration: 0		
Monthly Average: 14.91 °C																								Percent Operational Time: 100.0		
Minimum Daily Average: 9.1 °C on May 1																										
Minimum Diurnal Average: 7.2 °C at hour 5																										
Percentiles: P ₁ = 2.4 P ₁₀ = 7.0 Q ₁ = 10.3 Median = 14.4 Q ₃ = 19.7 P ₉₀ = 23.5 P ₉₉ = 28.7																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-May	5	5	3	2	2	2	3	6	8	10	11	12	13	13	13	13	14	14	15	13	11	10	10	9	9.1	14.9
2-May	8	9	8	8	7	7	9	12	13	14	15	16	16	17	14	13	15	17	17	15	13	10	9	7	12.1	16.9
3-May	6	8	9	8	8	8	9	11	11	12	12	13	14	14	15	15	15	15	14	13	12	9	8	8	11.2	15.5
4-May	8	7	6	6	5	6	9	11	13	14	16	17	18	19	19	20	19	18	18	17	14	11	9	9	12.9	19.7
5-May	9	8	6	5	5	5	7	11	14	15	17	18	19	21	22	22	23	23	22	19	16	15	11	11	14.3	22.8
6-May	10	10	9	8	7	8	10	13	16	18	19	20	21	22	23	24	24	23	23	21	17	15	14	11	16.1	23.8
7-May	9	8	6	6	6	6	7	12	14	15	17	19	19	20	22	22	22	20	16	17	16	14	13	11	14.1	22.3
8-May	11	11	10	10	9	12	14	16	17	18	19	20	21	21	21	20	20	20	19	18	13	11	9	8	15.3	20.9
9-May	7	7	7	6	5	5	5	6	7	8	10	12	12	13	13	13	14	15	15	14	13	10	8	5	9.5	14.7
10-May	4	4	4	2	2	2	4	7	9	13	14	16	17	17	18	19	19	17	17	15	14	13	12	11	11.2	19.1
11-May	10	8	8	7	7	7	10	14	18	19	21	23	24	24	24	24	25	25	24	23	20	17	15	14	17.2	25.3
12-May	14	12	11	11	12	13	15	17	18	20	21	22	22	23	24	24	25	24	24	22	19	15	15	14	18.2	24.7
13-May	11	10	9	8	7	7	10	14	17	18	19	20	21	22	22	23	23	23	22	21	18	15	14	12	16.1	23.0
14-May	10	10	12	12	11	12	14	16	20	22	23	24	25	27	27	28	28	27	26	24	22	20	18	17	19.8	28.0
15-May	15	14	11	9	10	11	16	18	19	21	22	22	23	24	24	24	24	23	23	22	19	16	14	10	18.2	24.2
16-May	8	7	6	7	7	8	10	11	13	14	15	16	16	17	18	18	15	13	13	13	12	11	10	10	12.0	18.3
17-May	8	7	6	5	4	6	7	9	11	13	14	15	15	17	18	18	18	17	18	17	15	11	10	8	12.0	18.3
18-May	7	6	5	5	5	4	8	12	14	17	19	20	21	22	22	23	23	23	22	21	19	16	13	14	15.0	22.7
19-May	14	14	13	12	10	10	13	14	17	19	21	22	24	24	24	25	25	25	24	23	20	18	15	12	18.2	25.1
20-May	9	9	7	5	5	6	10	14	16	20	23	25	26	27	28	25	22	19	16	14	15	15	14	13	15.9	27.7
21-May	12	12	11	11	10	11	15	17	18	20	22	23	24	24	25	25	25	25	23	22	20	17	13	13	18.2	25.4
22-May	12	11	10	10	10	11	13	16	20	22	24	25	26	27	27	28	28	28	28	27	25	21	19	17	20.2	28.0
23-May	16	15	14	11	12	11	15	18	20	22	25	28	29	30	31	31	31	31	31	30	27	23	21	22	22.6	31.4
24-May	21	15	13	14	12	11	14	18	21	24	26	27	27	26	25	24	22	21	22	23	22	18	15	14	19.8	27.1
25-May	13	13	15	15	13	13	15	17	17	19	20	22	22	23	23	24	24	23	21	19	18	16	15	14	18.2	23.9
26-May	13	12	10	8	7	8	10	12	13	15	16	17	18	19	19	18	17	16	17	16	14	12	10	9	13.6	18.9
27-May	8	8	8	7	7	9	11	14	15	16	17	19	20	21	20	20	20	20	19	18	17	15	13	13	14.9	20.5
28-May	13	12	12	11	11	11	12	13	14	16	17	18	20	20	21	21	20	18	16	15	14	12	10	7	14.8	20.6
29-May	5	4	4	3	2	4	8	11	12	14	15	16	17	17	18	18	17	16	16	16	15	13	12	11	11.9	18.1
30-May	9	7	4	3	2	3	7	11	12	14	16	15	11	13	15	14	13	12	11	11	11	9	8	7	9.9	16.3
31-May	7	6	5	4	3	4	6	8	9	10	12	13	13	11	14	15	14	15	13	14	13	10	9	9	9.8	14.9
10.1 9.4 8.4 7.7 7.2 7.8 10.2 12.8 14.8 16.5 17.9 19.2 19.8 20.4 21.0 21.0 20.8 20.2 19.5 18.6 16.6 14.2 12.4 11.3																								Diurnal Average		
20.8 15.4 14.7 15.4 13.3 12.8 15.5 18.2 21.4 23.8 25.6 27.6 29.2 30.3 30.8 31.3 31.4 31.2 30.7 29.9 27.3 23.2 20.5 21.7																								Diurnal Maximum		

Hourly Averages

External Temperature (ET) - °C

Portable Rycroft - May 2018



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Portable Rycroft - May 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	16	14	11	10	12	11	6	17	22	19	20	17	12	14	8	6	6	4	2	3	4	4	9	13	8.7	22.1
Dir	257	261	248	244	243	249	236	259	267	263	265	264	267	267	266	195	176	204	176	147	117	82	144	183	247.2	267.1
2 Spd	12	14	13	12	11	9	15	23	32	37	39	42	44	44	30	9	1	18	35	27	18	10	9	8	18.9	44.4
Dir	189	186	185	189	187	195	227	232	235	239	246	252	248	245	291	333	135	274	244	241	232	208	203	201	237.9	244.9
3 Spd	7	11	10	16	17	16	22	30	36	30	23	16	17	20	17	10	6	13	17	16	9	5	5	8	14.5	36.4
Dir	200	221	217	228	229	227	232	253	268	272	272	262	250	263	264	269	262	235	218	230	232	182	197	190	245.4	267.5
4 Spd	7	6	7	5	7	6	16	22	32	33	23	23	16	17	22	26	29	26	26	19	10	8	9	9	15.4	32.8
Dir	182	187	183	167	170	203	236	245	259	265	257	255	237	241	245	247	257	256	252	233	220	201	193	200	241.1	264.6
5 Spd	8	8	7	6	8	9	8	10	15	24	20	20	14	14	20	16	20	21	23	18	16	14	6	7	12.2	23.6
Dir	202	199	187	177	166	166	173	184	228	243	252	249	247	247	259	250	254	256	259	259	254	234	211	202	236.7	243.5
6 Spd	11	12	11	12	10	9	8	7	22	22	16	13	10	9	10	10	15	16	16	13	8	5	6	5	8.5	21.8
Dir	193	189	190	186	179	173	173	189	258	268	260	254	242	246	265	268	272	291	300	292	283	187	178	195	241.7	257.8
7 Spd	7	5	6	5	4	3	4	6	20	19	19	16	14	14	17	14	13	9	8	7	6	10	13	10	5.0	20.0
Dir	184	216	193	195	233	193	192	38	53	58	46	55	43	47	31	43	59	144	179	153	153	159	166	177	85.0	53.0
8 Spd	9	11	9	9	6	16	30	34	25	21	20	20	17	19	22	22	22	22	20	19	26	23	23	18	10.9	33.8
Dir	182	182	178	178	186	238	255	264	286	309	296	292	308	308	325	310	317	340	355	7	31	28	27	36	313.7	263.5
9 Spd	13	14	16	17	17	17	20	21	20	20	20	20	25	23	22	22	22	20	15	15	14	13	11	8	17.7	24.8
Dir	43	56	50	50	53	52	49	60	57	54	51	57	53	54	55	53	54	59	64	68	66	71	52	37	55.1	52.8
10 Spd	6	7	5	2	1	2	2	0	5	7	10	4	4	5	8	6	10	12	9	10	4	12	14	13	4.1	14.1
Dir	41	70	60	287	248	274	265	20	61	23	36	66	70	61	24	19	29	45	60	68	119	146	149	154	68.7	148.6
11 Spd	11	10	9	7	7	7	7	5	20	16	14	11	14	14	17	20	21	22	25	22	14	9	8	12	10.5	24.5
Dir	155	156	153	164	176	182	170	187	261	254	263	276	271	254	258	270	255	254	248	246	233	212	195	183	236.5	248.1
12 Spd	13	11	9	6	6	6	25	26	35	25	23	22	26	27	28	32	37	38	40	34	18	7	8	12	19.6	40.0
Dir	183	180	179	194	202	216	250	255	266	279	276	255	246	249	256	255	261	264	269	277	268	209	216	232	254.0	268.7
13 Spd	8	7	5	4	5	5	4	9	14	13	10	6	7	8	6	5	5	4	3	6	5	4	5	5	3.8	14.1
Dir	284	272	234	194	190	213	218	275	316	324	306	308	268	273	268	259	298	263	6	346	40	76	134	157	282.9	315.9
14 Spd	7	9	10	9	9	10	8	7	17	25	16	13	17	26	15	16	21	41	31	17	12	13	14	10	13.4	41.1
Dir	170	172	154	158	162	166	177	175	254	268	251	245	240	256	239	219	235	247	239	232	231	234	236	215	230.7	247.5
15 Spd	9	7	6	8	5	6	12	28	30	24	25	23	24	28	28	24	23	22	18	14	6	4	3	4	13.2	29.6
Dir	208	215	201	188	201	216	232	243	248	247	254	259	256	260	270	288	292	306	309	321	353	29	140	256	262.3	247.7
16 Spd	3	3	3	6	5	4	4	6	11	9	12	7	8	3	3	3	12	7	5	5	10	10	7	7	3.1	12.3
Dir	259	240	254	249	284	319	329	42	44	51	26	36	29	166	168	196	139	114	87	70	56	46	65	39	52.1	139.2
17 Spd	8	9	1	5	5	5	5	2	10	11	13	15	13	16	15	13	10	6	8	7	6	5	7	6	5.2	16.3
Dir	38	36	278	278	284	290	303	344	344	36	62	64	66	54	58	66	63	95	86	127	148	149	150	155	60.5	53.8
18 Spd	5	3	2	3	4	6	2	4	7	9	9	11	10	10	9	9	8	7	7	5	4	4	5	3	5.0	10.7
Dir	159	143	173	178	186	176	186	53	74	95	100	122	104	107	111	124	104	116	110	83	75	56	41	83	109.1	122.3
19 Spd	9	12	11	7	1	1	2	4	4	8	11	14	12	10	12	9	7	2	8	10	10	8	3	3	5.4	14.5
Dir	141	140	144	146	72	93	112	64	64	34	48	49	35	47	42	28	17	91	44	41	46	65	100	189	65.1	49.4
20 Spd	7	5	1	4	6	6	1	4	4	2	3	5	8	9	6	5	11	19	20	14	7	9	7	8	3.8	20.1
Dir	188	189	229	208	179	184	261	15	68	315	259	87	79	67	49	87	184	218	224	166	184	229	230	182	185.7	223.5
21 Spd	8	10	10	9	7	7	5	15	24	26	28	24	24	16	11	10	10	13	11	9	4	5	6	8	10.9	27.9
Dir	178	173	177	179	179	175	186	233	238	244	245	243	252	246	214	214	202	191	198	196	199	226	186	166	219.0	245.4
22 Spd	9	9	8	10	11	12	10	11	8	8	7	9	10	8	9	8	8	6	5	4	4	4	4	5	7.6	11.6
Dir	170	167	173	172	171	169	172	174	180	166	177	176	177	178	187	197	195	197	162	150	134	143	174	195	174.6	169.3

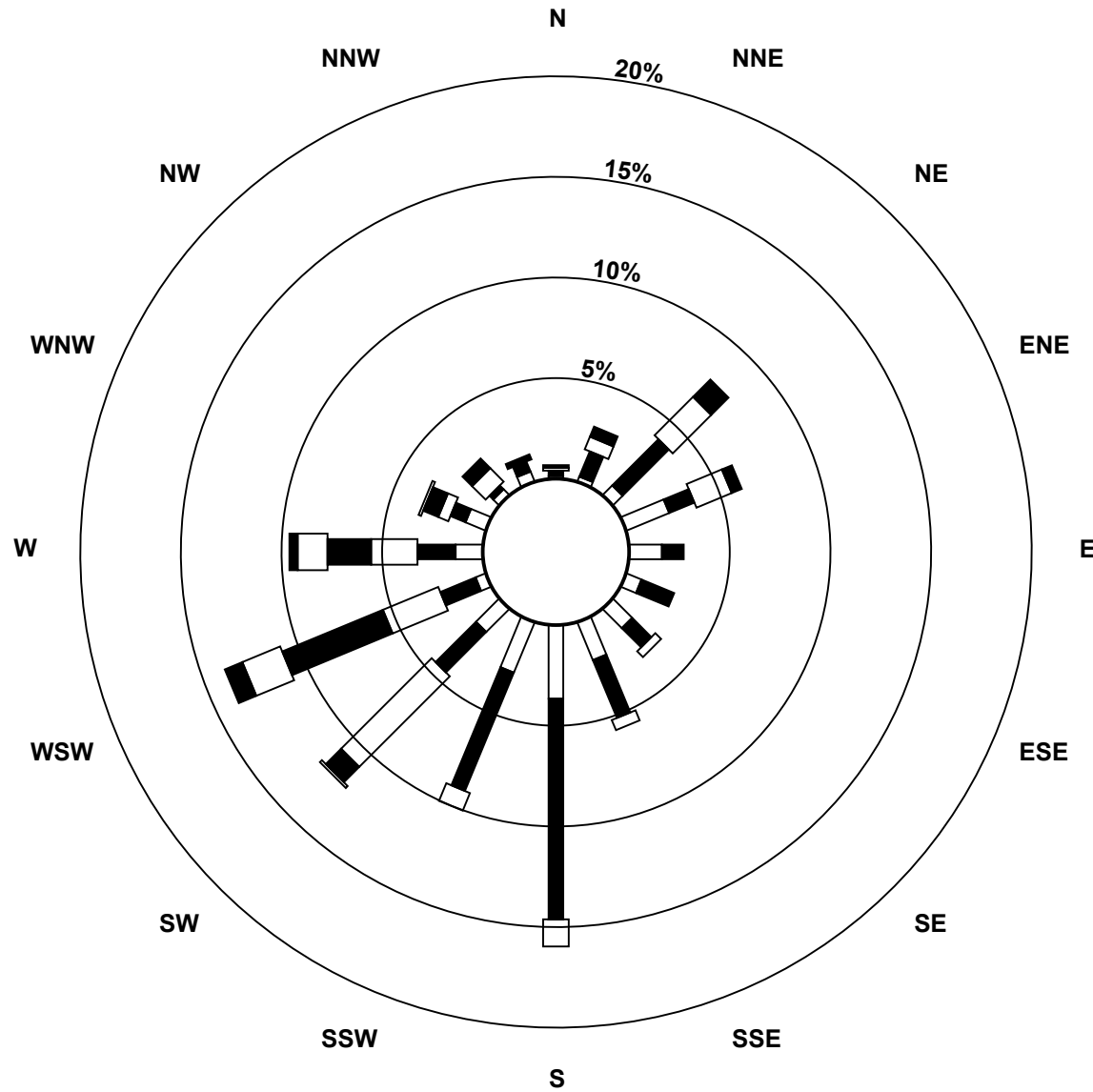
Hourly Averages

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

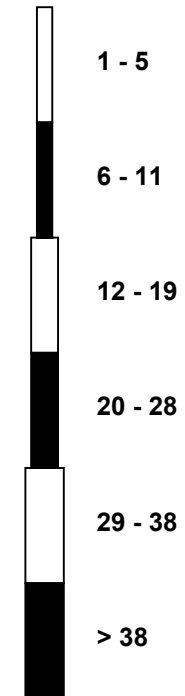
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	6	6	6	5	4	5	3	2	2	3	2	3	8	10	9	8	6	6	6	3	1	4	2	6	3.6	10.0
Dir	183	173	173	186	148	183	273	330	66	87	115	80	94	137	157	147	103	110	110	102	132	63	49	136	134.0	136.6
24 Spd	6	2	6	1	1	2	4	2	4	10	19	23	29	38	40	30	24	16	4	6	6	5	7	6	10.4	39.8
Dir	153	213	272	26	183	188	74	199	235	284	286	285	277	248	260	242	252	262	235	233	229	194	190	194	254.0	259.7
25 Spd	5	5	7	5	4	3	4	15	15	15	16	15	14	13	14	13	18	14	22	30	24	7	8	11	11.0	30.2
Dir	188	189	182	223	114	206	223	236	235	234	233	227	217	221	216	221	235	232	248	269	267	213	160	191	230.4	269.1
26 Spd	7	15	8	10	9	10	11	12	23	31	25	23	18	18	15	18	23	15	15	19	13	10	7	6	14.3	30.8
Dir	204	224	196	184	188	193	205	213	230	242	241	238	238	235	226	224	233	221	222	224	206	173	196	196	222.3	242.4
27 Spd	8	7	9	8	7	5	8	10	11	16	14	12	14	14	15	14	11	11	12	13	7	3	4	5	9.5	16.2
Dir	184	195	195	192	185	188	195	209	214	226	217	215	212	204	200	216	207	215	224	230	230	184	163	146	207.5	226.2
28 Spd	5	6	4	3	5	6	10	10	8	10	11	16	15	24	25	39	37	39	40	37	36	29	10	4	16.0	40.0
Dir	165	245	207	128	176	174	173	176	195	203	208	216	207	224	232	246	248	261	257	252	254	252	225	200	235.8	256.7
29 Spd	4	6	5	7	6	5	5	22	22	14	10	10	10	8	12	11	14	9	5	4	7	4	16	11	6.0	21.7
Dir	200	182	179	185	186	180	218	258	265	255	250	252	280	255	275	283	307	302	329	289	340	298	32	4	270.6	258.1
30 Spd	5	3	7	9	8	2	3	10	11	9	14	23	13	6	18	12	20	4	9	7	7	3	7	6	3.8	23.1
Dir	44	255	256	258	285	224	306	19	25	33	34	27	25	102	52	23	348	168	219	253	263	166	232	243	1.1	27.1
31 Spd	4	4	5	6	6	6	4	2	7	10	6	9	16	8	14	12	17	8	11	3	3	5	3	7	5.2	17.3
Dir	164	181	175	176	175	172	182	97	52	41	77	76	64	89	51	74	64	89	137	126	74	68	127	135	92.7	63.8
Spd	4.9	5.3	5.3	5.3	4.7	5.0	5.6	7.2	9.7	9.4	8.3	7.1	6.6	8.2	6.9	6.8	7.1	8.6	8.8	7.0	3.8	2.5	3.4	4.4	Diurnal Average	
Dir	182.9	189.1	186.4	190.9	190.0	195.6	220.8	240.7	260.7	266.1	265.5	259.8	256.1	246.4	264.3	256.4	260.7	254.0	248.2	250.0	247.0	186.2	167.7	178.8	Diurnal Maximum	
Spd	15.6	15.3	16.5	16.6	17.2	16.9	29.7	33.8	36.4	36.8	39.3	42.2	44.2	44.4	39.8	39.5	37.3	41.1	40.0	37.0	36.3	29.2	22.8	18.0	Diurnal Maximum	
Dir	257.0	223.9	50.4	50.2	229.4	52.1	255.2	263.5	267.5	239.2	245.8	252.0	248.3	244.9	259.7	246.0	247.6	247.5	256.7	252.2	254.4	251.7	26.9	35.6		
Maximum Speed Value: 44 km/h on May 2 14:00																								Hours in Service: 744		
Maximum Daily Speed Average: 19.6 km/h on May 12																								Hours of Data: 744		
Maximum Diurnal Speed Average: 9.7 km/h at hour 9																								Hours of Missing Data: 0		
Minimum Speed Value: 0 km/h on May 10 08:00																								Percent Operational Time: 100.0		
Minimum Daily Speed Average: 3.1 km/h on May 23																										
Minimum Diurnal Speed Average: 2.5 km/h at hour 22																										
Monthly Average Velocity: 5.41 km/h 237.44 deg																										
Speed Percentiles: P ₁ = 1.1 P ₁₀ = 3.8 Q ₁ = 6.0 Median = 9.6 Q ₃ = 15.8 P ₉₀ = 23.3 P ₉₉ = 39.4																										
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	4	8	1	3	0	0	16																			
NorthEast	13	37	37	18	0	0	105																			
East	19	26	3	0	0	0	48																			
SouthEast	17	27	7	0	0	0	51																			
South	35	135	19	0	0	0	189																			
SouthWest	16	41	65	23	7	4	156																			
West	14	31	33	44	23	7	152																			
NorthWest	8	5	8	6	0	0	27																			
Total	126	310	173	94	30	11	744																			

Wind Rose

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



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Portable Rycroft - May 2018

Maximum Speed: 45 km/h on May 2 13:00																				Maximum Daily Speed Average: 22.3 km/h on May 2										Hours in Service: 744	
Minimum Speed: 2 km/h on May 17 03:00																				Minimum Daily Speed Average: 5.8 km/h on May 23										Hours of Data: 744	
Maximum Diurnal Speed Average: 17.4 km/h at hour 10																				Minimum Diurnal Speed Average: 7.3 km/h at hour 5										Hours of Missing Data: 0	
Monthly Average Speed: 12.52 km/h																				Percentiles: P ₁ = 2.4 P ₁₀ = 4.5 Q ₁ = 6.5 Median = 10.0 Q ₃ = 16.4 P ₉₀ = 23.8 P ₉₉ = 39.8										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-May	16	14	11	10	12	11	6	17	22	19	21	17	13	14	9	7	7	4	2	3	4	4	9	13	11.1	22.2					
2-May	12	14	13	12	11	9	15	23	32	37	40	43	45	45	38	10	4	25	35	27	18	11	9	8	22.3	44.7					
3-May	7	11	10	16	17	16	22	30	37	30	23	17	18	21	18	11	7	14	17	17	10	5	5	8	16.1	36.6					
4-May	8	6	7	5	8	7	16	22	32	33	24	24	17	18	23	27	29	26	27	19	10	8	10	9	17.2	32.9					
5-May	8	8	7	6	8	9	8	10	15	24	20	21	15	14	20	17	20	21	23	18	16	14	6	7	14.1	23.8					
6-May	11	12	11	12	10	9	8	8	22	22	17	13	11	10	12	12	16	16	17	13	8	6	6	6	12.0	22.1					
7-May	7	6	7	6	5	5	4	7	20	19	20	16	14	14	17	14	13	12	9	7	6	10	13	10	11.0	20.3					
8-May	9	11	9	9	6	16	30	34	26	21	21	21	19	20	22	22	23	23	20	20	26	23	23	18	19.7	33.9					
9-May	13	14	17	17	17	17	20	21	21	21	20	25	24	23	22	23	20	16	15	14	14	11	8	8	18.1	25.2					
10-May	7	7	5	2	2	2	3	3	5	8	10	8	7	8	10	8	11	13	9	10	4	12	14	13	7.5	14.2					
11-May	11	10	9	7	7	7	7	6	20	17	15	12	15	16	17	20	22	23	25	22	14	9	8	12	13.8	24.8					
12-May	13	11	9	6	6	7	25	26	36	25	24	23	27	28	29	32	38	38	40	35	19	7	9	12	21.8	40.1					
13-May	9	7	6	4	5	5	5	9	15	14	11	8	9	9	8	8	7	7	5	7	6	5	5	6	7.5	14.8					
14-May	7	9	10	9	9	10	8	7	18	25	16	14	17	27	17	16	22	41	31	17	12	13	14	10	15.8	41.3					
15-May	9	8	6	9	5	6	12	29	30	25	26	24	24	28	29	25	24	23	19	15	6	5	4	5	16.4	29.7					
16-May	4	4	3	6	5	4	5	6	11	9	12	7	8	4	6	5	12	7	6	5	10	10	7	8	6.8	12.4					
17-May	8	9	2	5	5	6	5	3	10	12	13	16	14	17	17	13	11	8	8	7	6	5	7	6	8.9	16.9					
18-May	5	3	2	3	4	6	3	4	7	9	10	12	12	11	11	10	9	8	7	5	4	4	5	4	6.6	12.0					
19-May	9	12	11	7	3	2	3	5	5	9	12	15	13	11	13	10	8	6	9	10	10	8	4	3	8.3	15.2					
20-May	7	5	2	5	6	6	3	4	5	4	5	7	9	10	8	6	13	21	20	15	8	9	8	8	8.0	20.7					
21-May	8	10	10	9	7	7	6	15	24	26	28	24	24	17	12	12	11	14	12	9	4	5	6	8	12.8	28.2					
22-May	9	9	8	10	11	12	11	11	8	9	8	10	10	10	10	9	8	7	6	5	4	4	5	6	8.3	11.7					
23-May	6	7	6	6	5	5	4	3	3	4	5	6	9	11	11	9	7	7	6	3	2	4	3	6	5.8	10.9					
24-May	6	3	6	4	2	3	4	4	5	11	19	24	30	39	40	30	24	16	4	6	6	5	7	6	12.8	40.2					
25-May	6	5	8	5	8	4	4	15	16	15	16	16	15	14	15	13	18	15	23	30	25	9	8	12	13.1	30.4					
26-May	8	16	8	10	9	10	11	12	23	31	26	23	19	19	16	18	24	15	15	19	13	13	7	6	15.4	31.1					
27-May	8	7	9	8	7	6	8	10	12	16	14	13	15	15	15	14	11	12	12	14	7	3	4	6	10.2	16.4					
28-May	6	6	5	3	5	7	11	10	8	10	12	16	16	24	25	40	38	39	40	37	36	29	10	4	18.3	40.4					
29-May	4	6	6	7	6	5	6	22	22	15	11	12	12	10	13	12	15	10	7	5	7	11	17	11	10.4	21.9					
30-May	7	4	7	9	8	3	6	10	12	10	15	24	17	10	19	14	22	13	10	8	8	4	7	6	10.5	24.4					
31-May	4	4	5	6	6	6	4	2	8	10	7	9	16	10	15	13	18	9	11	3	3	5	3	7	7.7	17.6					
																									Diurnal Average						
																									Diurnal Maximum						

All monthly, daily, and diurnal averages have been calculated using scalar methods

Hourly Standard Deviations

Wind Direction (WD) - deg

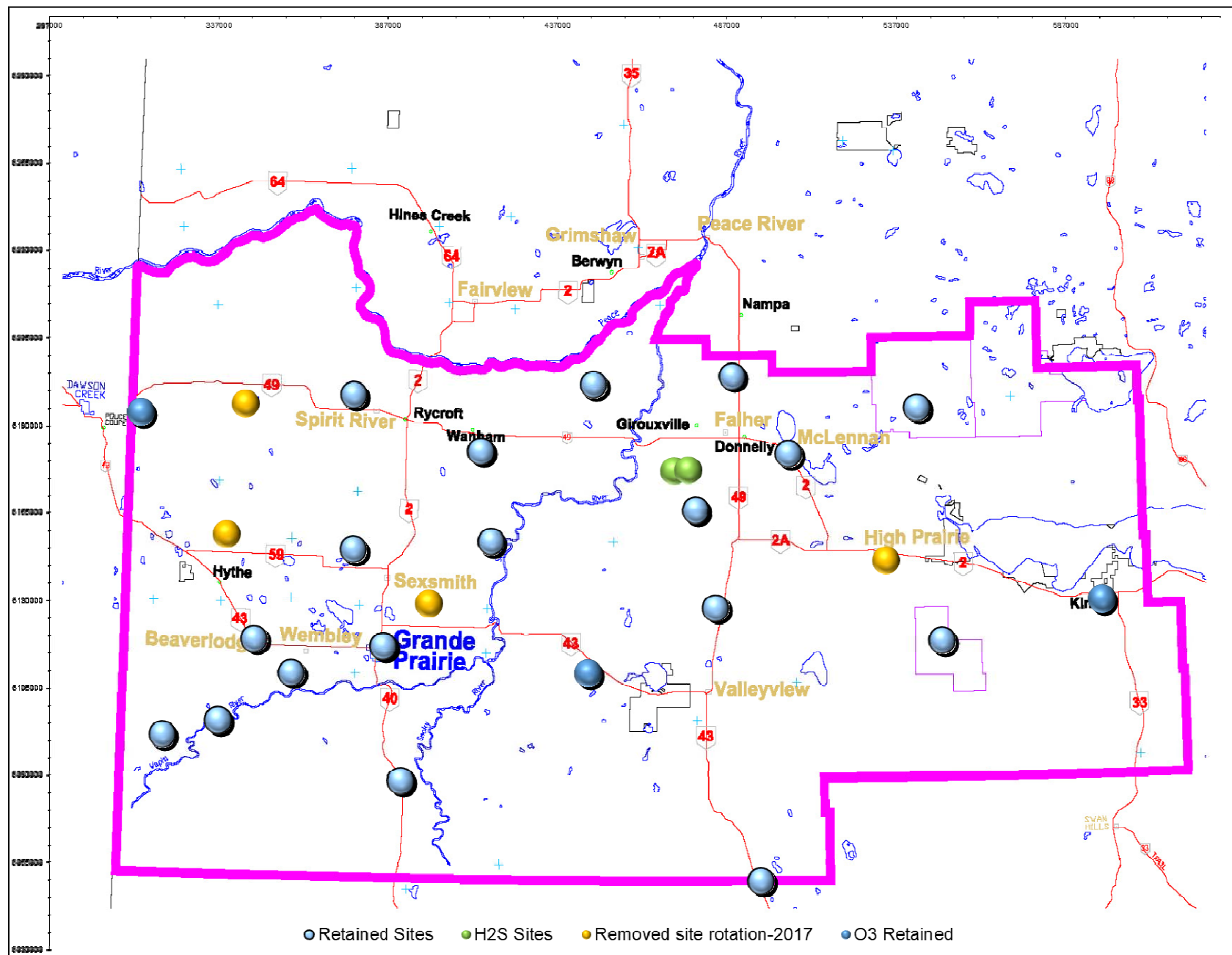
Portable Rycroft - May 2018

Maximum Value: 95.4 deg on May 10 08:00																								Hours in Service: 744	
Minimum Value: 2.3 deg on May 6 06:00																								Hours of Data: 744	
Percentiles: P ₁ = 3.0 P ₁₀ = 5.0 Q ₁ = 7.8 Median = 13.7 Q ₃ = 24.6 P ₉₀ = 41.4 P ₉₉ = 80.5																								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-May	3	10	5	5	3	5	16	8	5	7	11	13	24	19	39	32	26	30	62	24	8	18	17	6	62.4
2-May	5	3	3	3	5	4	12	6	4	6	6	7	9	7	40	41	90	70	6	3	5	16	4	4	90.2
3-May	5	9	11	11	3	6	5	9	5	10	11	16	14	11	15	24	36	14	9	8	14	14	9	6	36.2
4-May	5	5	4	21	7	23	3	4	6	5	12	11	16	18	15	13	10	10	9	6	6	6	7	3	22.7
5-May	3	5	6	10	7	8	3	7	9	8	12	16	19	18	15	17	16	10	7	5	4	10	7	7	18.9
6-May	4	3	4	4	3	2	4	23	9	8	11	21	25	34	38	38	25	17	14	5	13	33	10	11	37.7
7-May	16	38	26	27	33	47	32	52	9	10	13	14	16	14	11	28	12	40	28	23	13	7	4	5	52.2
8-May	4	4	4	4	11	25	5	4	16	11	20	16	23	21	14	10	14	12	9	16	3	3	4	7	25.4
9-May	9	7	5	5	6	5	5	7	9	10	12	14	10	12	10	12	11	12	11	8	8	23	11	8	22.5
10-May	18	5	16	32	89	51	44	95	30	27	22	75	65	72	46	62	39	17	16	10	24	8	4	4	95.4
11-May	5	7	7	7	13	11	6	25	8	14	17	28	21	28	21	17	16	11	7	8	3	16	4	5	28.1
12-May	3	4	4	14	6	13	5	5	7	13	14	15	9	11	13	13	12	7	5	5	12	13	9	16	15.7
13-May	54	19	20	23	15	20	23	24	18	20	30	57	51	42	65	58	72	71	79	23	28	32	8	17	79.5
14-May	5	8	4	8	8	6	5	11	19	10	14	21	16	10	24	12	14	6	5	5	8	6	6	17	24.2
15-May	17	10	9	7	7	16	7	4	5	11	12	15	14	12	17	17	15	14	14	9	23	28	39	42	41.7
16-May	29	30	36	7	10	21	27	14	17	19	15	33	22	54	68	57	14	17	15	13	8	5	6	18	68.4
17-May	8	7	51	9	5	11	12	55	22	14	15	16	13	16	29	24	31	41	23	16	11	7	5	8	55.4
18-May	24	32	59	56	16	6	60	31	25	24	25	25	28	26	32	28	30	28	22	16	12	8	10	25	60.1
19-May	6	6	7	11	78	70	61	22	48	20	21	18	29	43	35	42	47	81	40	15	8	5	44	13	81.3
20-May	7	15	65	37	8	5	63	31	26	78	67	46	41	38	42	29	31	27	8	22	25	18	25	8	78.3
21-May	6	4	4	4	5	6	23	14	6	9	9	13	11	24	29	30	24	12	6	6	13	13	7	8	29.7
22-May	7	5	4	3	3	3	36	7	17	20	26	22	19	38	24	27	23	25	32	25	15	7	34	26	38.0
23-May	15	17	21	24	32	17	30	51	53	51	70	69	29	26	33	43	37	28	23	24	37	32	74	32	73.7
24-May	22	52	20	81	62	45	33	68	48	26	16	18	14	6	9	10	11	14	23	20	7	9	6	9	81.4
25-May	9	13	21	21	92	34	23	7	12	11	15	21	19	22	17	14	14	14	12	6	18	40	9	12	91.6
26-May	10	13	14	4	4	6	7	7	9	9	11	12	19	17	16	10	10	12	10	10	5	35	6	9	35.3
27-May	6	7	5	4	6	17	18	11	11	10	14	16	16	12	13	11	12	13	9	6	8	37	13	20	37.4
28-May	21	28	44	36	28	17	15	10	8	7	11	11	13	15	11	10	9	8	8	5	3	8	13	11	43.5
29-May	8	19	41	8	8	11	24	9	11	19	28	49	47	44	33	37	16	22	61	41	23	82	28	16	82.2
30-May	72	39	20	5	12	41	62	12	19	24	23	25	57	63	13	25	25	88	24	28	41	43	18	14	88.4
31-May	13	11	10	7	3	7	35	40	17	17	32	22	10	31	17	19	11	25	28	20	22	9	19	8	40.3
72.1 51.9 64.9 81.4 91.6 69.7 63.0 95.4 52.6 78.3 70.2 74.6 65.1 72.1 68.4 62.4 90.2 88.4 79.5 41.5 40.6 82.2 73.7 41.7																									

PAZA

Monthly Passive Data Summary

Location of PAZA Passive Monitoring Stations



PAZA Passive Results for May 2018

Station	Station	SO2	O3	NO2	H2S	Site
Number	Name	ppb	ppb	ppb	ppb	Legal
Duplicates						
2a	Bay Tree		45.6			
2b	Bay Tree		41.6			
12a	Hythe			0.8		
12b	Hythe			0.8		
14a	Sylvester			0.7		
14b	Sylvester			0.5		
24a	Wembley	0.2				
24b	Wembley	0.2				
25a	Pinto Creek	0.2				
25b	Pinto Creek	0.1				
64a	Girouxville 4				0.2	
64b	Girouxville 4				0.1	

2	Bay Tree	0.2	43.6	0.3		13-16-078-13 W6M
3	Fourth Creek	0.2		0.2		04-13-082-07 W6M
9	Spirit River	0.2		1.5		08-12-079-07 W6M
12	Hythe	0.2		0.8		14-36-072-11 W6M
14	Sylvester	0.1		0.6		08-06-069-12 W6M
16	Beaverlodge	0.2		0.6		15-36-071-10 W6M
18	Saddle Hills	0.2		0.4		04-25-074-07 W6M
19	Wanham	0.2		0.6		16-22-077-03 W6M
21	Eaglesham	0.2		1.1		16-21-079-25 W5M
24	Wembley	0.2		1.5		12-31-070-08 W6M
25	Pinto Creek	0.2		0.3		04-24-069-11 W6M
27	Grande Prairie I	0.2		2.5		08-15-071-06 W6M
29	Smoky Heights	0.4		0.9		04-06-075-02 W6M
30	Fitzsimmons	0.1		0.7		15-36-072-03 W6M
32	Gold Creek	0.5		1.3		06-33-067-05 W6M
35	Jean Cote	0.1		0.3		12-35-079-21 W5M
36	Guy	0.2		2.4	0.1	03-04-076-22 W5M
37	Crooked Creek	0.2	47.1	0.7		16-01-071-26 W5M
39	Clouston Creek	0.1		0.7		12-01-073-22 W5M
40	McLennan	0.3		1.3		03-29-077-19 W5M
42	Sunset House	0.2		0.4		05-32-070-19 W5M
44	Peavine	0.1		0.2		03-05-079-15 W5M
46	Little Smoky	0.2		1.0		12-01-065-21 W5M
47	Kinuso	0.1	37.3	0.3		12-10-073-10 W5M
49	Grande Prairie HP	0.2		1.4		17-26-071-06 W6M
50	East Prairie	0.1		0.1		13-02-072-15 W5M
63	Girouxville 3				0.4	14-02-077-23 W5M
64	Girouxville 4				0.2	4-08-077-22 W5M

*BDL = Below Detection Level

*N/S - No sample

Passive Summary for May 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 May 2018 (PAZA Zone)				
Mean	0.2	42.7	0.8	0.2
Standard Deviation	0.1	5.0	0.6	0.1
Minimum	0.1	37.3	0.1	0.1
Minimum At	Sylvester (#14)	Kinuso (#47)	East Prairie (#50)	Guy (#36)
Maximum	0.5	47.1	2.5	0.4
Maximum At	Gold Creek (#32)	Crooked Creek	Grande Prairie I	Girouxville 3

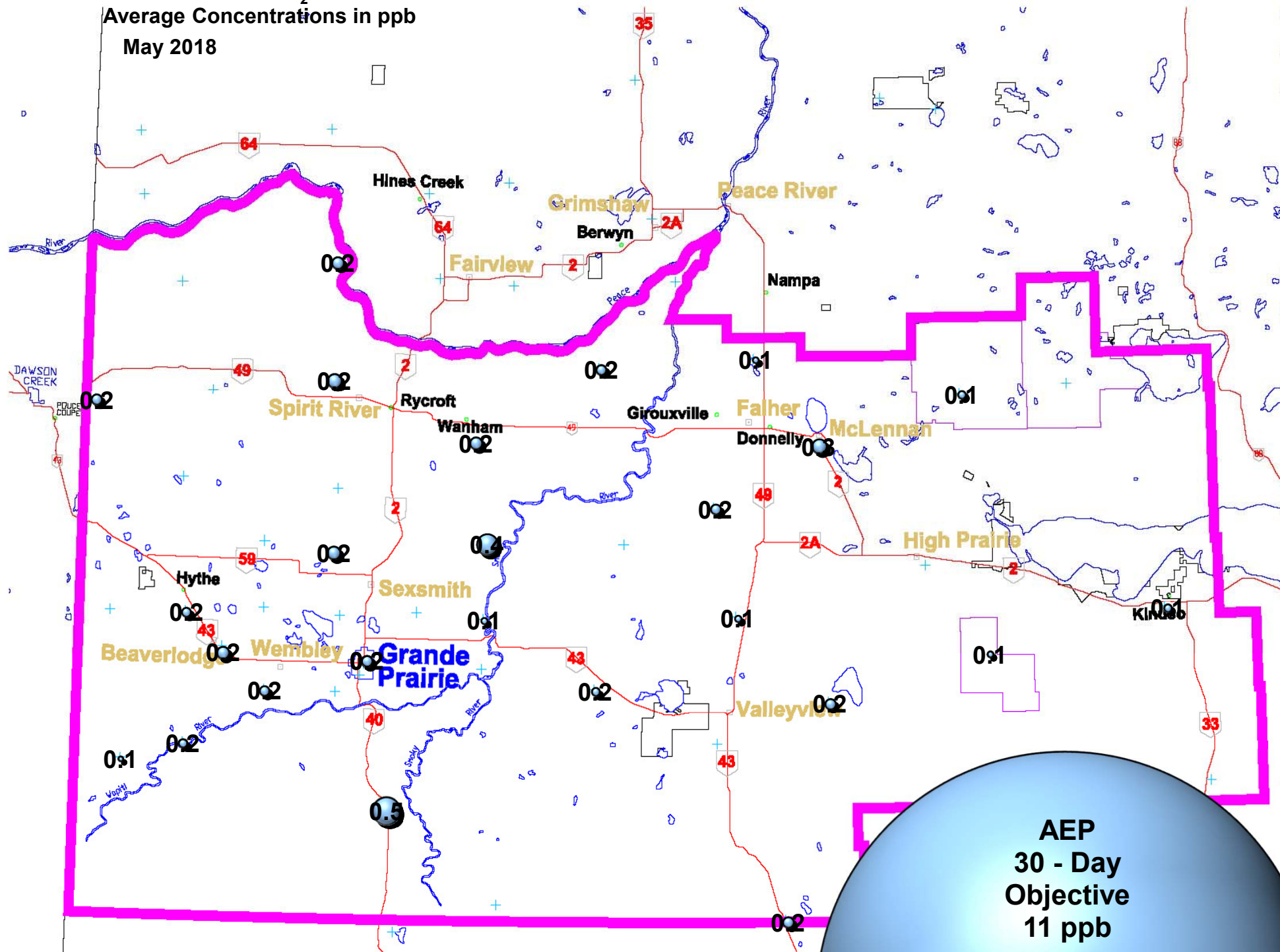
Comparison between Continuous and Passive monitoring at Beaverlodge (passive #16 Beaverlodge)

	SO ₂	NO ₂
PAZA Beaverlodge station	0.5	3.1
PAZA Beaverlodge passive	0.2	0.6

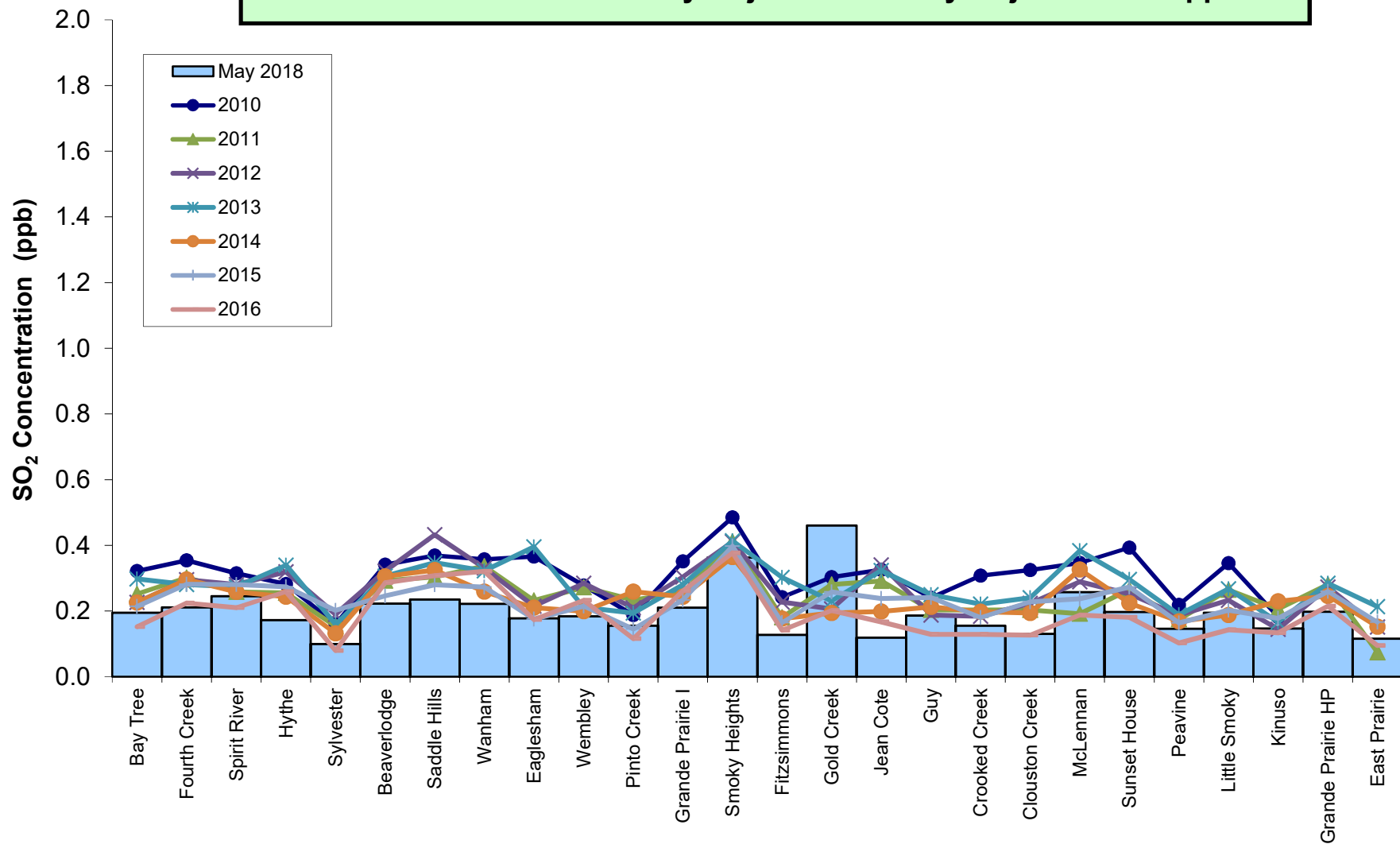
Comparison between Continuous and Passive monitoring at Henry Pirker (passive #49 Grande Prairie HF)

	SO ₂	NO ₂
PAZA Henry Pirker station	0.6	10.4
PAZA Grande Prairie passive	0.2	2.5

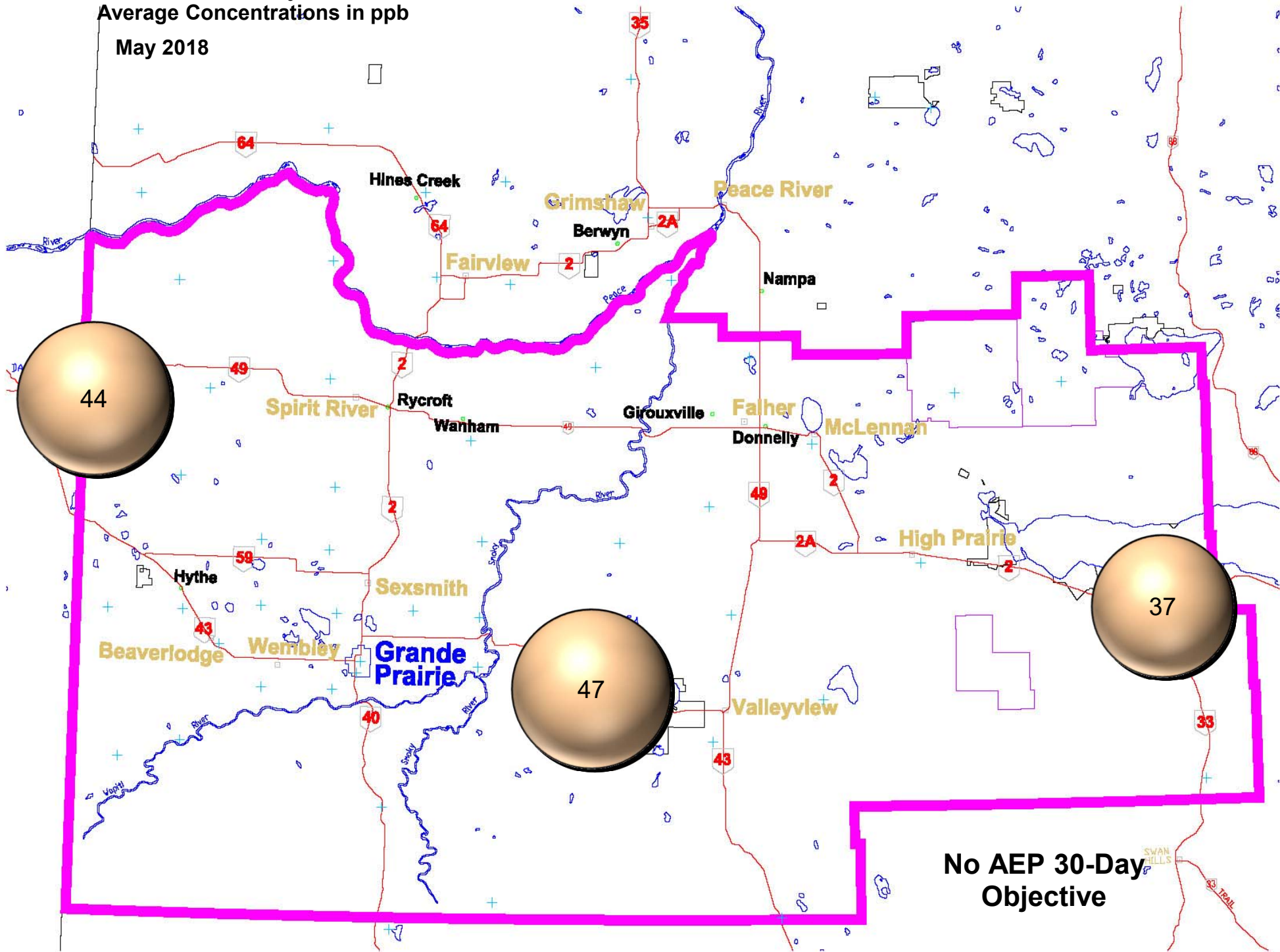
PAZA Passive SO₂ Stations
Average Concentrations in ppb
May 2018



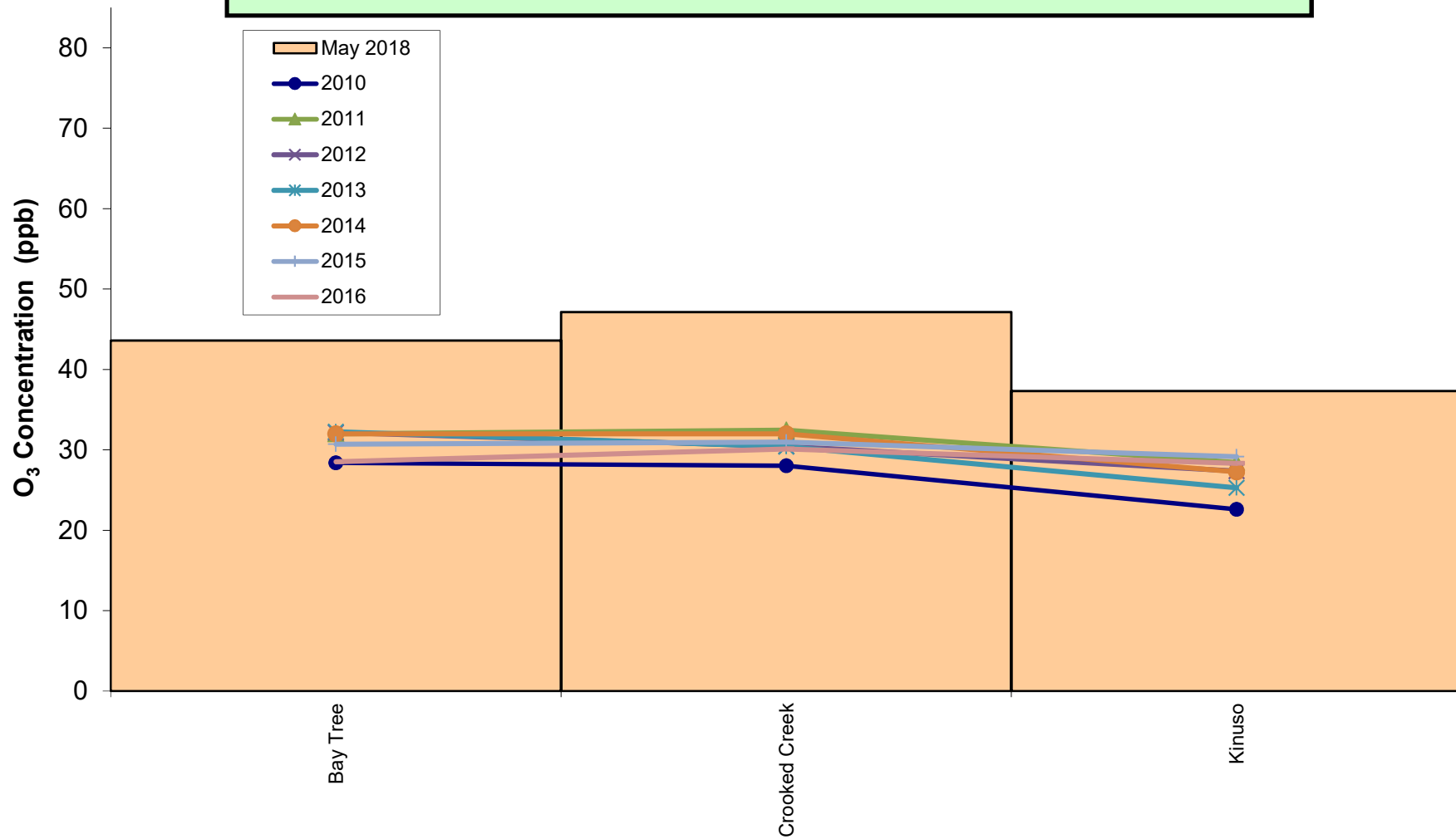
Alberta Ambient Air Quality Objective - 30-day Objective is 11 ppb



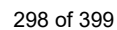
PAZA Passive O₃ Stations
Average Concentrations in ppb
May 2018



Alberta Ambient Air Quality Objective - No Annual O₃ Objective

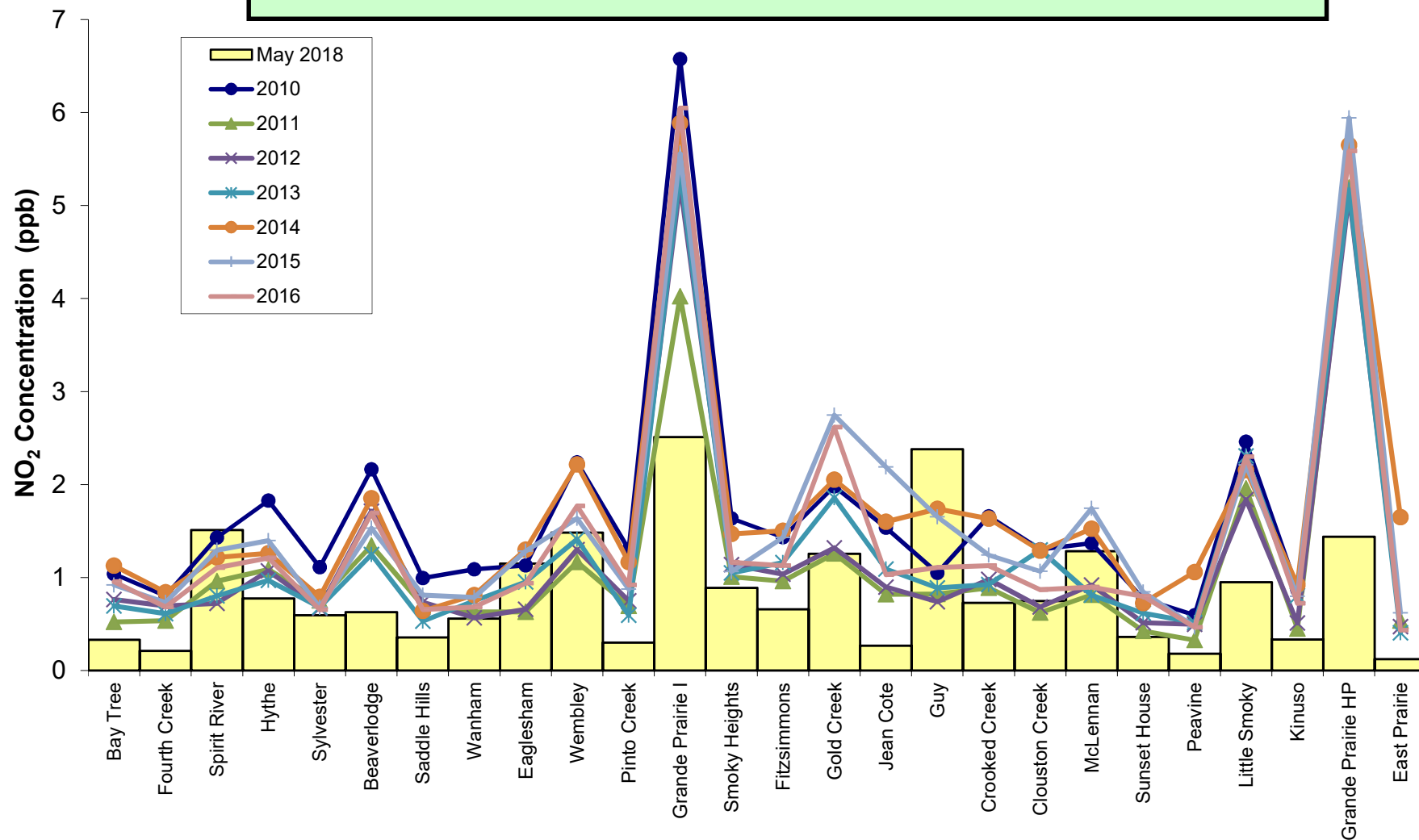


May 2018

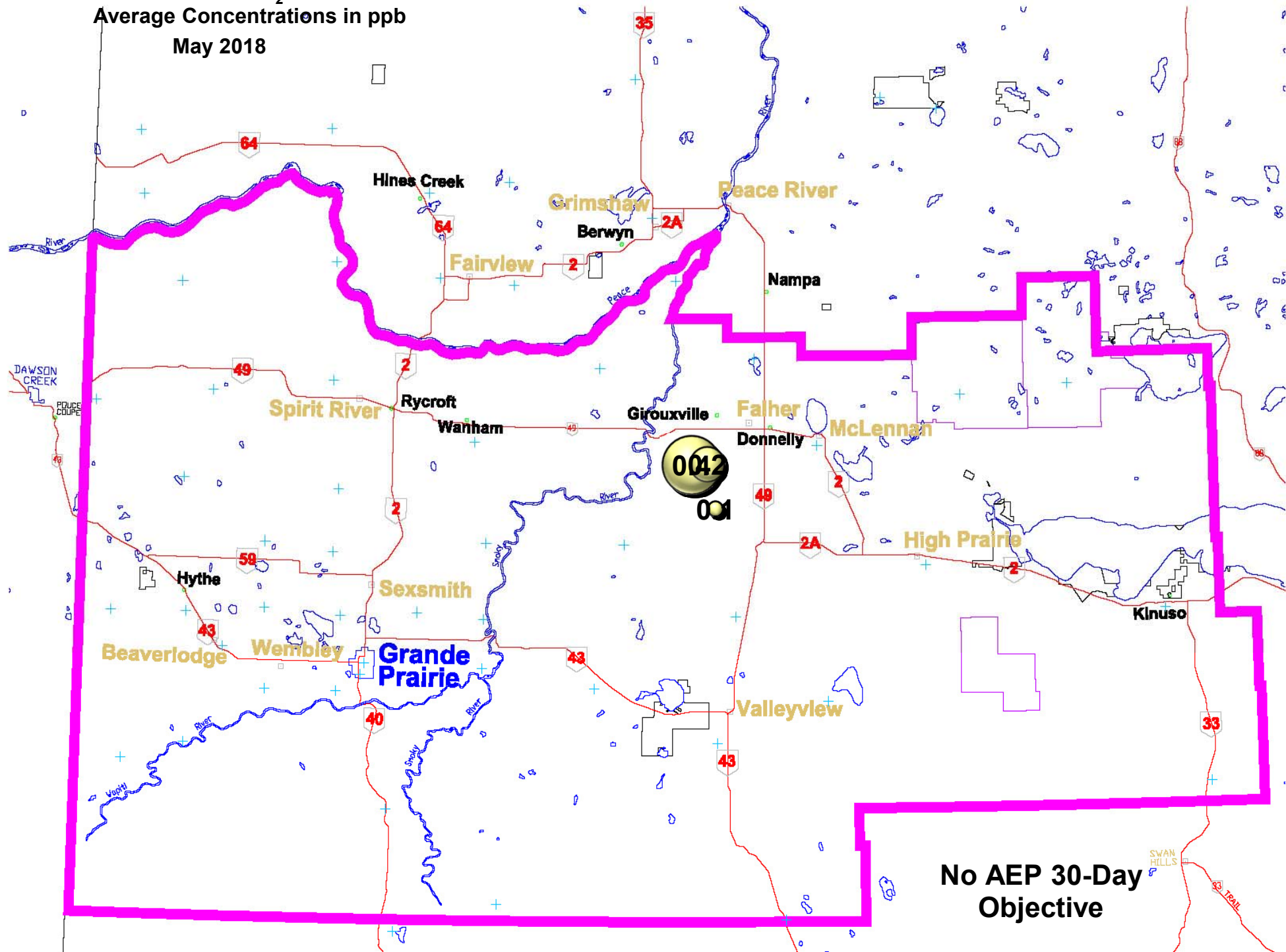


AEP
Annual
Objective
24 ppb

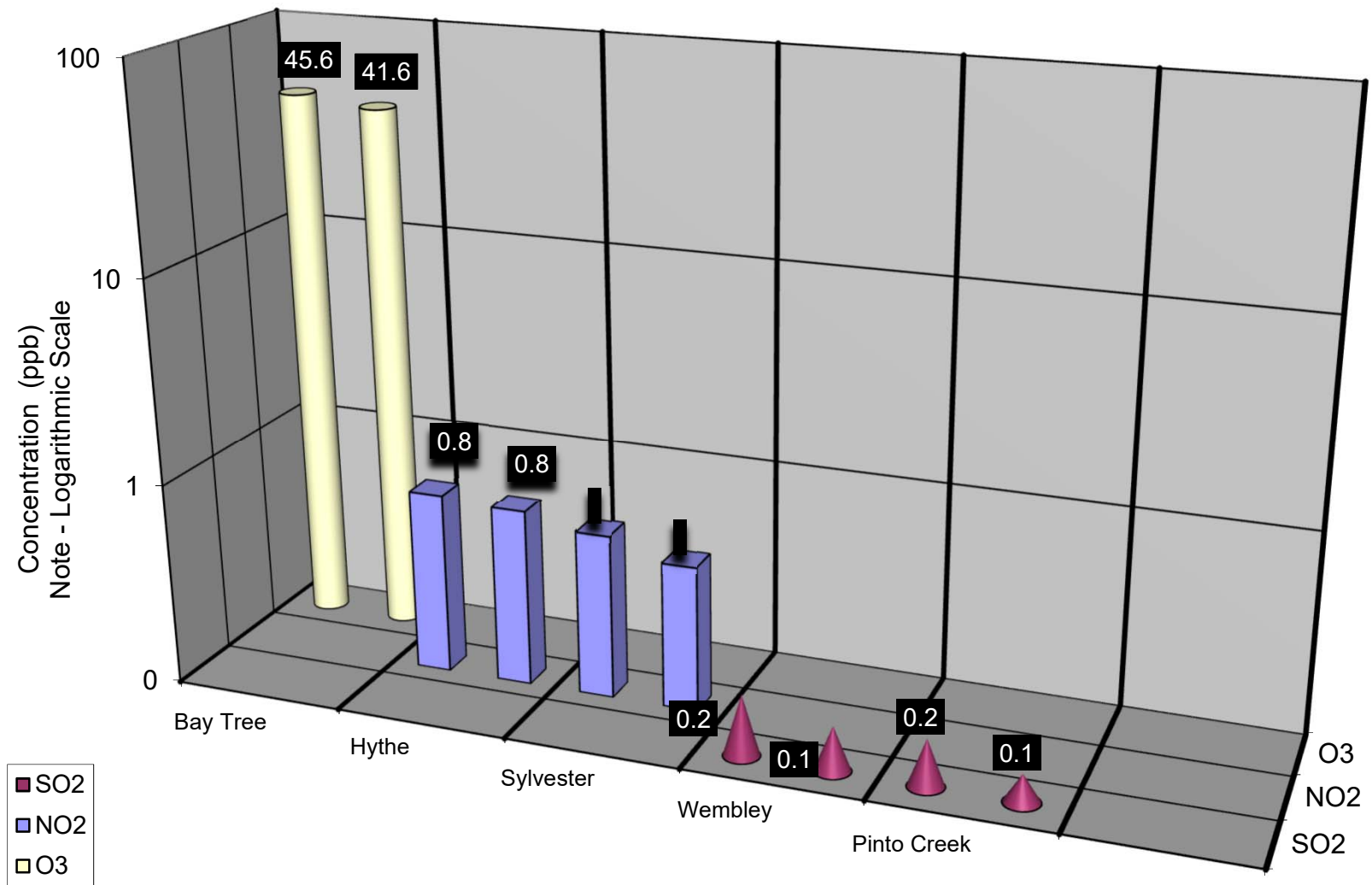
Alberta Ambient Air Quality Objective - Annual NO₂ Objective is 24 ppb



**PAZA Passive H₂S Stations
Average Concentrations in ppb
May 2018**



**No AEP 30-Day
Objective**



Duplicate Summary Chart

May 2018 Calibration Reports

Calibration Report



Parameter SO₂
Air Monitoring Network PAZA

Station Information

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

Start Time (MST)	11:15	End Time (MST)	13:40:00 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	0.998395	Calculated slope	0.997748
Calculated intercept	0.530622	Calculated intercept	0.025257

Analyzer make	Teco 43i	Analyzer serial #	701120008
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	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	12.5		12.1	
coefficient	1.246		1.213	
Lamp Voltage	832	volts	833	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	678.3	mm Hg	676.8	mm Hg
Sample Flow	0.448	ccm	0.446	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	0.6	N/A
4997	39.97	393.6	394.8	0.9969
4997	19.99	197.6	197.6	1.0001
4997	9.98	98.9	98.5	1.0035
4997	0.0	0.0	0.6	As Found Zero
4997	39.98	393.7	405.3	As Found Span
Average Correction Factor				1.0002

Calculated value of As Found Response: 404.583 ppm Percent Change of As Found: -2.8%

	before calibration		after calibration	
Auto zero	0.4	ppm	0.6	ppm
Auto span	263.9	ppm	258.8	ppm

Notes: Span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter SO2
Air Monitoring Network PAZA



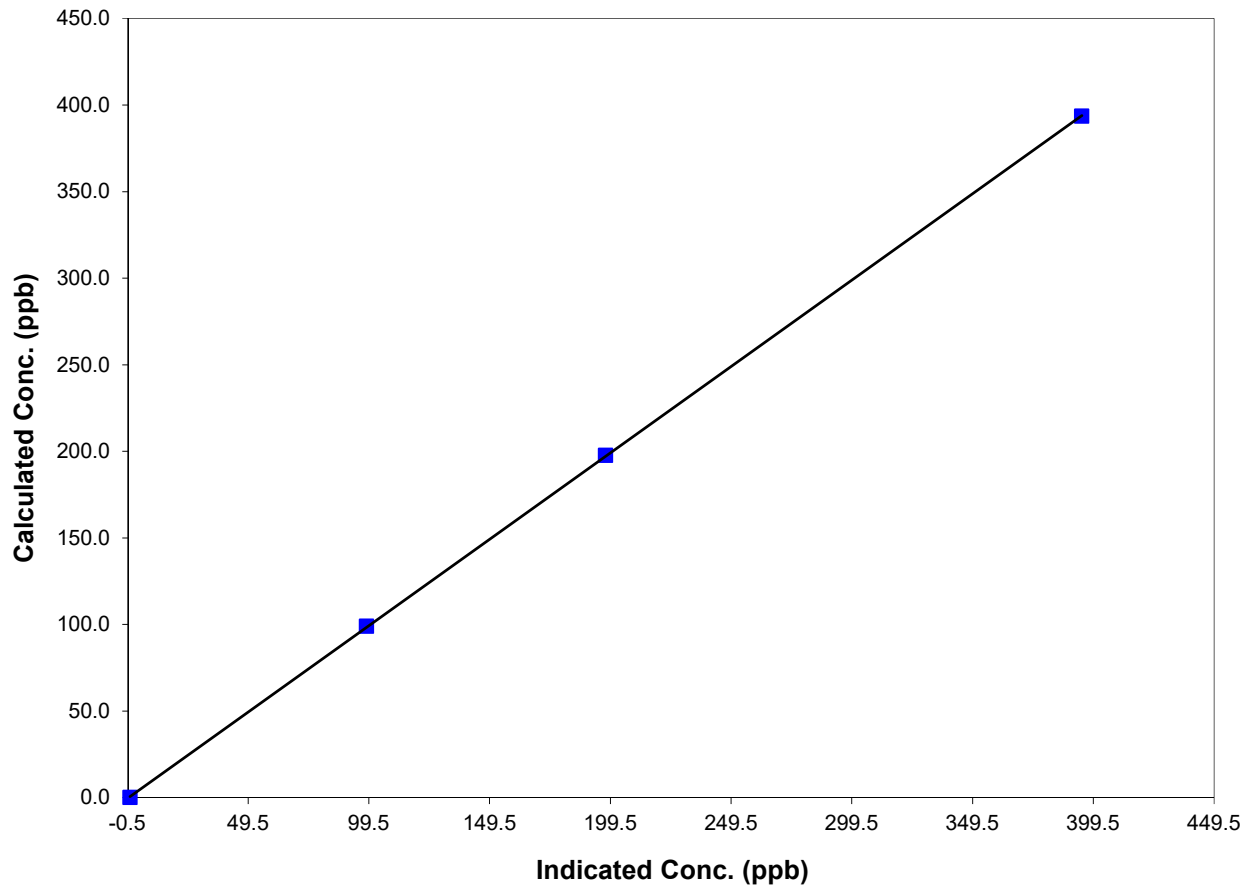
Station Information

Calibration Date	May 18, 2018	Previous Calibration	April 18, 2018
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	11:15	End Time (MST)	13:40:00 PM
Analyzer make/model	Teco 43i	Analyzer serial #	701120008

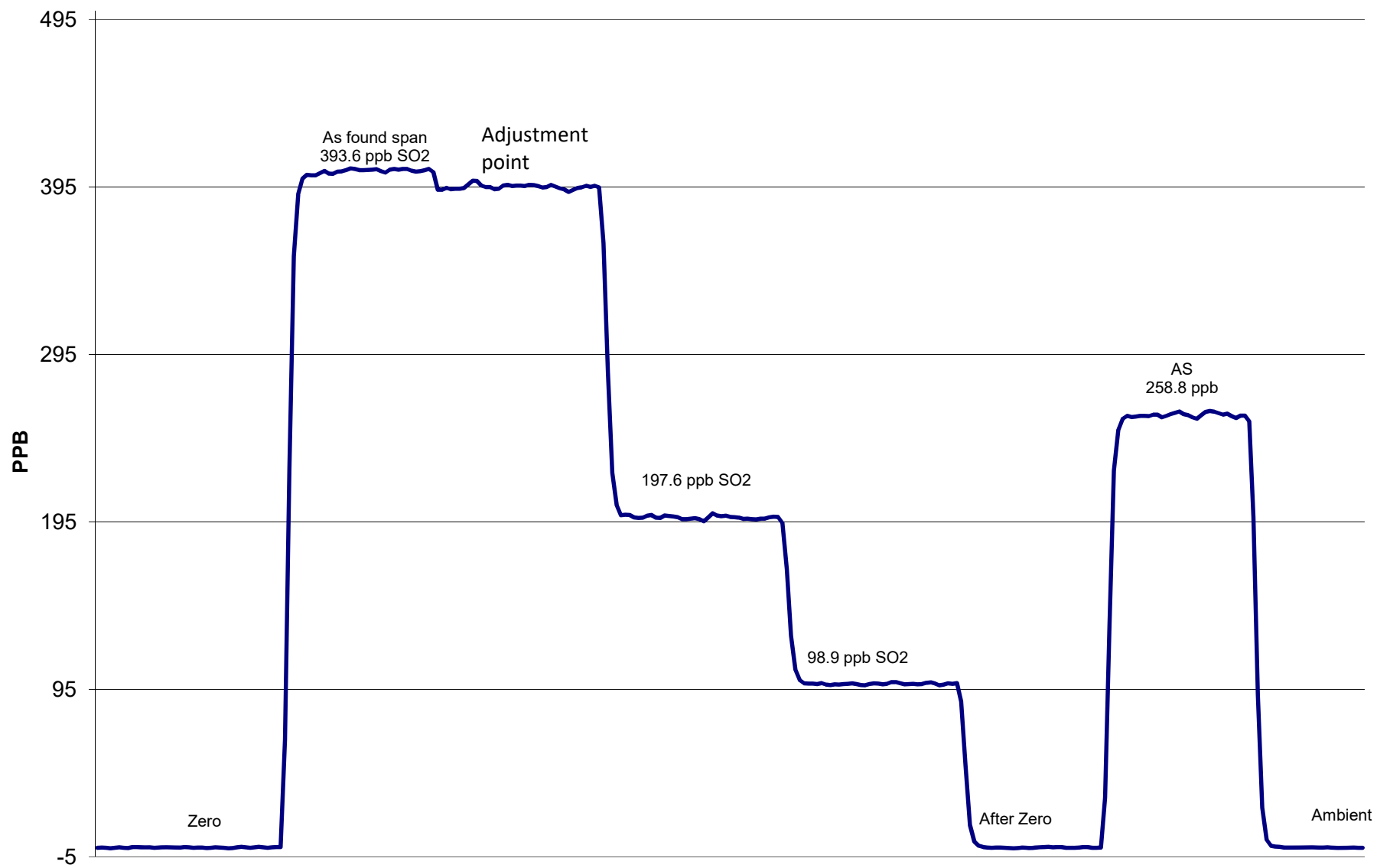
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.6	N/A	Correlation Coefficient	0.999988
393.6	394.8	0.9969		
197.6	197.6	1.0001		
98.9	98.5	1.0035	Slope	0.997748
			Intercept	0.025257

SO2 Calibration Curve



SO2 Calibration



May 18, 2018

Calibration Report



Parameter TRS

Air Monitoring Network PAZA

Station Information

Calibration Date	May 18, 2018	Previous Calibration	April 18, 2018
Station Number	2	Station Location	Evergreen Park
Reason:	Routine	Install	Removal
		Other:	
Start Time (MST)	10:00	End Time (MST)	12:10
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	1.016488	Calculated slope	1.020848
Calculated intercept	0.059154	Calculated intercept	-0.863625
Analyzer make	TEI Model 43C	Analyzer serial #	3.199E+13

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	17	ppb	17	ppb
coefficient	0.946		0.946	
Lamp Voltage	1007	volts	1007	volts
Chamber Temp	44.5	Deg C	44.3	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	649.6	mm Hg	650.2	mm Hg
Sample Flow	0.617	ccm	0.618	ccm
Lamp Intensity	37,146	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	0.9	N/A
4996	39.97	77.62	76.9	1.0093
4996	19.96	38.92	39.0	0.9989
6999	9.97	13.91	14.4	0.9673
4996	10.00	0.00	0.7	Sox Test
4996	0.00	0.00	0.9	As Found Zero
4996	39.97	77.62	76.9	As Found Span
Average Correction Factor				0.9918

Calculated value of As Found Response: 77.29 ppm Percent Change of As Found: **0.4%**

	before calibration		after calibration	
Auto zero	0.5	ppm	0.6	ppm
Auto span	66.8	ppm	64.7	ppm

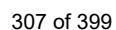
Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

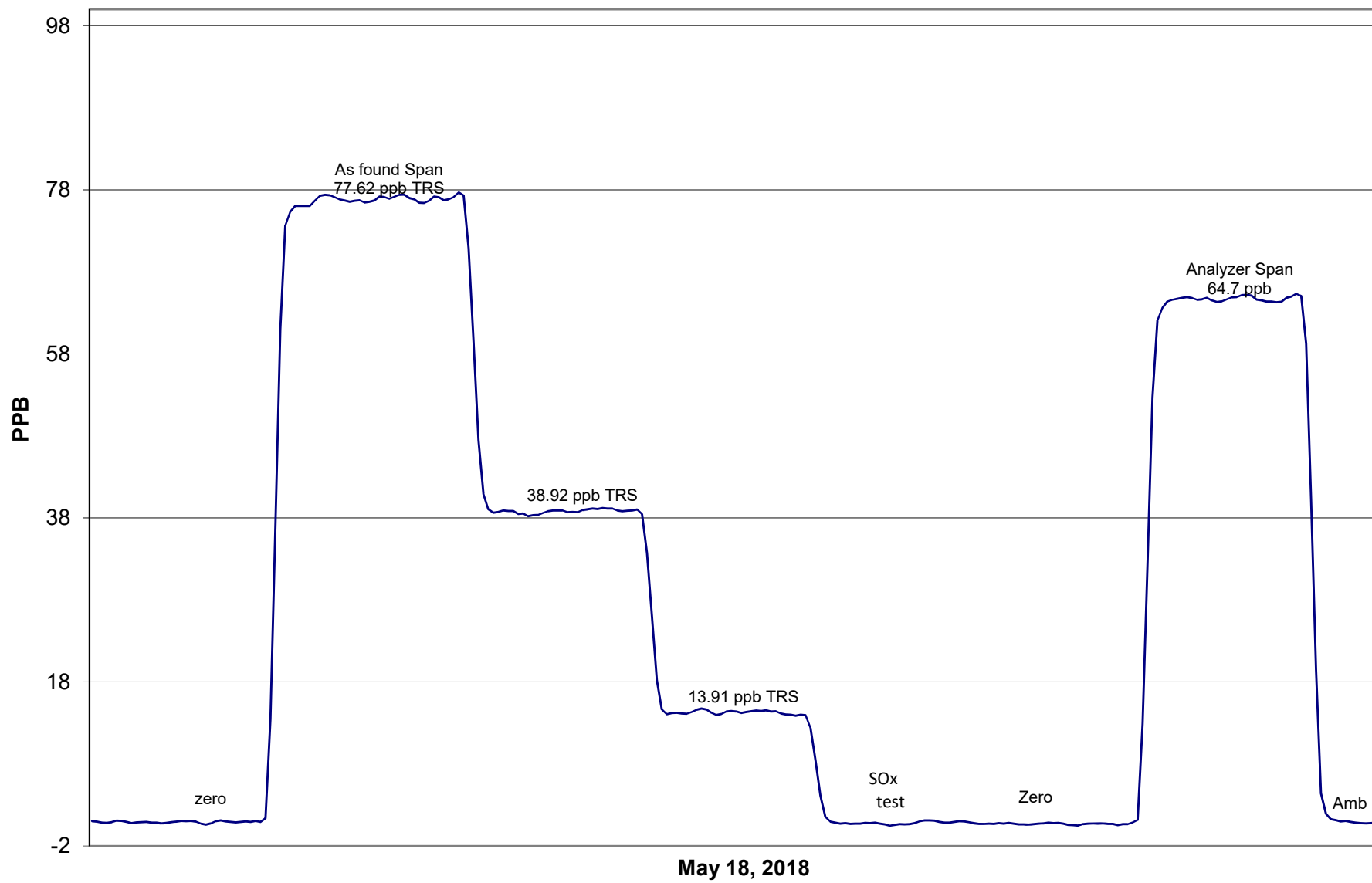


Calibration Date	May 18, 2018	Previous Calibration	April 18, 2018
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	10:00	End Time (MST)	12:10
Analyzer make/model	TEI Model 43C	Analyzer serial #	31990000000491

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.9	N/A		
77.6	76.9	1.0093	Correlation Coefficient	0.999995
38.9	39.0	0.9989		
13.9	14.4	0.9673		
			Slope	1.020848
			Intercept	-0.863625



TRS Calibration



Calibration Report

Parameter SO2

Air Monitoring Network PAZA



Station Information

Calibration Date	May 10, 2018	Previous Calibration	April 6, 2018
Station Number	1	Station Location	Henry Pirker
Reason:	☒ Routine	☐ Install	☐ Removal
		☐ Other:	

Start Time (MST)	8:40	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	0.975839	Calculated slope	0.993903
Calculated intercept	0.953247	Calculated intercept	0.710147

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

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	1.45		1.42	
Coefficient	0.935		0.910	
Pressure	668.5	mm Hg	669.1	mm Hg
Flow	0.442	lpm	0.442	lpm
Lamp intensity	92	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	0.0	N/A
4995	39.99	393.9	395.8	0.9952
4995	19.97	197.5	198.2	0.9967
4995	9.98	98.9	97.7	1.0125
4995	0.00	0.0	0.0	As Found Zero
4995	39.97	393.7	406.4	As Found Span
Average Correction Factor				1.0015

Calculated value of As Found Response: 397.5 ppb Percent Change of As Found: -0.9%

	before calibration		after calibration	
Auto zero	0.1	ppb	0.1	ppb
Auto span	281.8	ppb	282.2	ppb

Notes: Span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter SO2
Air Monitoring Network PAZA



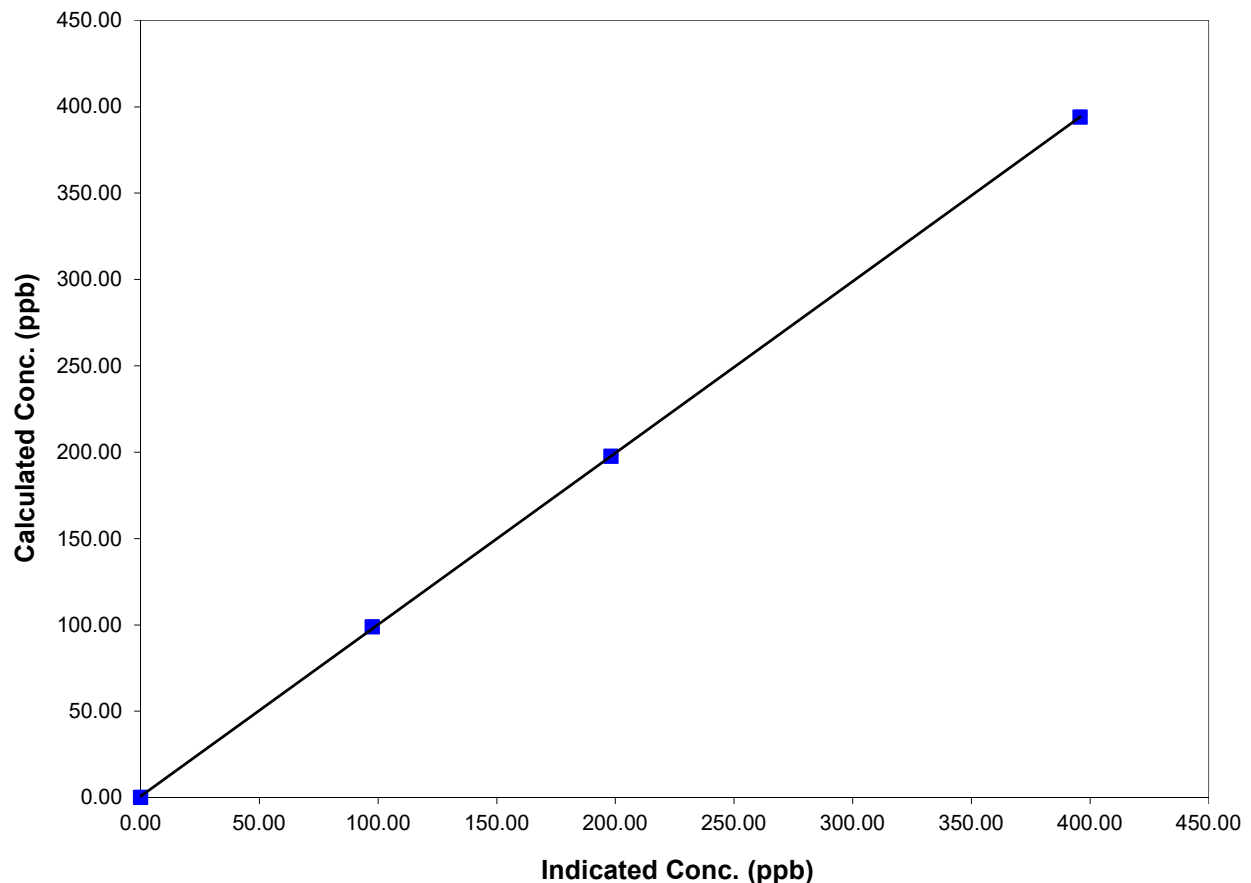
Station Information

Calibration Date	May 10, 2018	Previous Calibration	April 6, 2018
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	8:40	End Time (MST)	11:05
Analyzer make/model	TEI 43I-TLE	Analyzer serial #	1507864682 (AMU 2006)

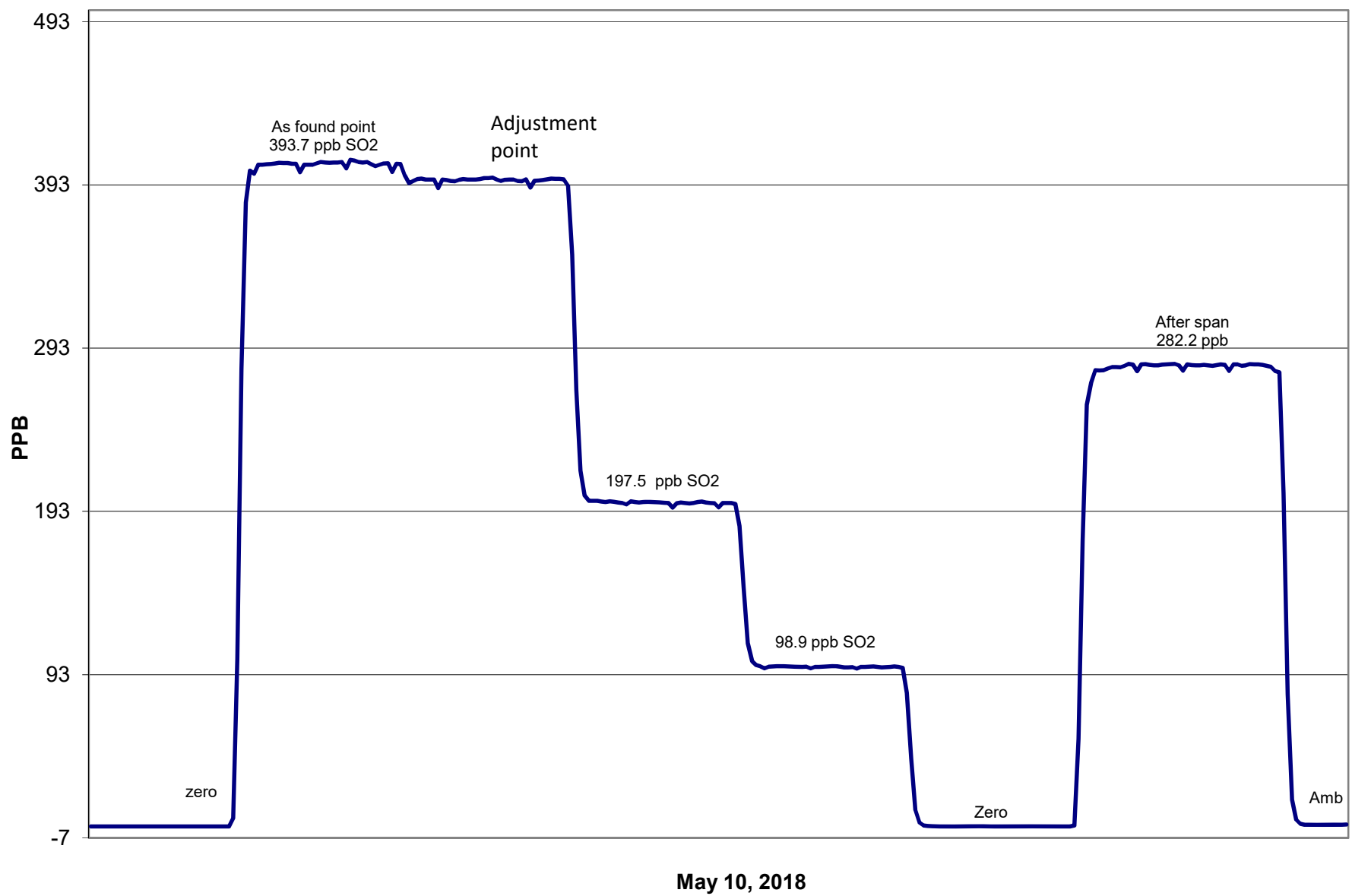
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A	Correlation Coefficient	0.999978
393.9	395.8	0.9952		
197.5	198.2	0.9967		
98.9	97.7	1.0125	Slope	0.993903
			Intercept	0.710147

SO2 Calibration Curve



SO2 Calibration



Calibration Report

Parameter H2S
Air Monitoring Network

PAZA



Station Information

Calibration Date	May 11, 2018	Previous Calibration	April 5, 2018
Station Number	1	Station Location	Henry Pirker
Reason:	☒ Routine	☐ Install	☐ Removal
		☐ Other:	
Start Time (MST)	7:20	End Time (MST)	9:55
Barometric Pressure	0.921 mBar	Station Temperature	22.0 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	1.003448	Calculated slope	1.003760
Calculated intercept	-0.185981	Calculated intercept	-0.187465
Analyzer make	TEI 450i	Analyzer serial #	1170050143(AMU 2198)

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Coefficient	0.862		0.862	
Background	12.7		12.7	
Pressure	555.5	mm Hg	555.6	mm Hg
Flow	0.972	ccm	0.974	ccm
Lamp Voltage	773	V	773	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	77.63	0.9999
4998	19.97	38.92	38.79	1.0034
6997	9.98	13.93	13.91	1.0011
4997	0.00	0.00	0.40	As Found Zero
4997	41.20	79.98	77.63	As Found Span
Average Correction Factor				1.0015

Calculated value of As Found Response: 77.3 ppb Percent Change of As Found: 3.3%

	before calibration		after calibration	
Auto zero	0.26	ppb	0.29	ppb
Auto span	22.17	ppb	27.89	ppb

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter H2S
Air Monitoring Network PAZA



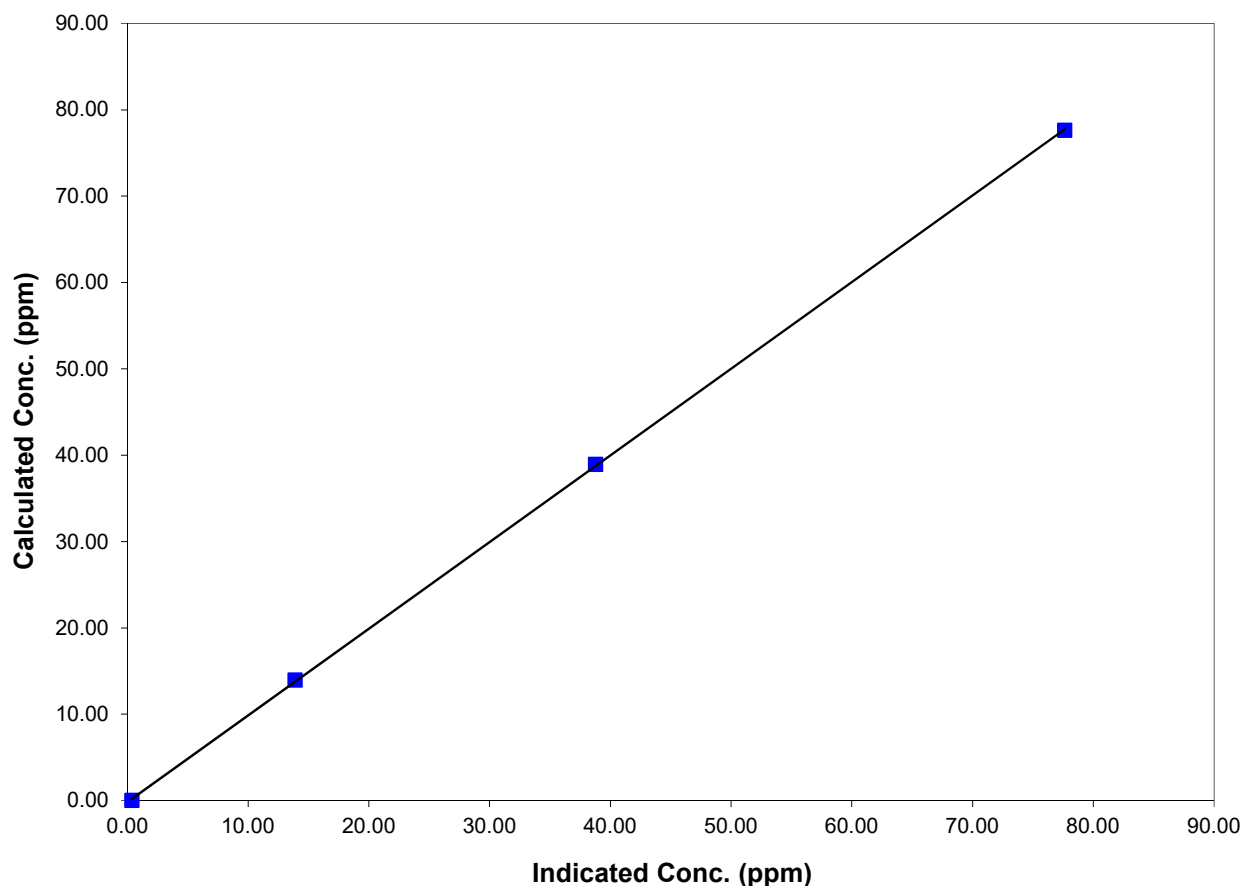
Station Information

Calibration Date	May 11, 2018	Previous Calibration	April 5, 2018
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	7:20	End Time (MST)	9:55
Analyzer make/model	TEI 450i	Analyzer serial #	1170050143(AMU 2198)

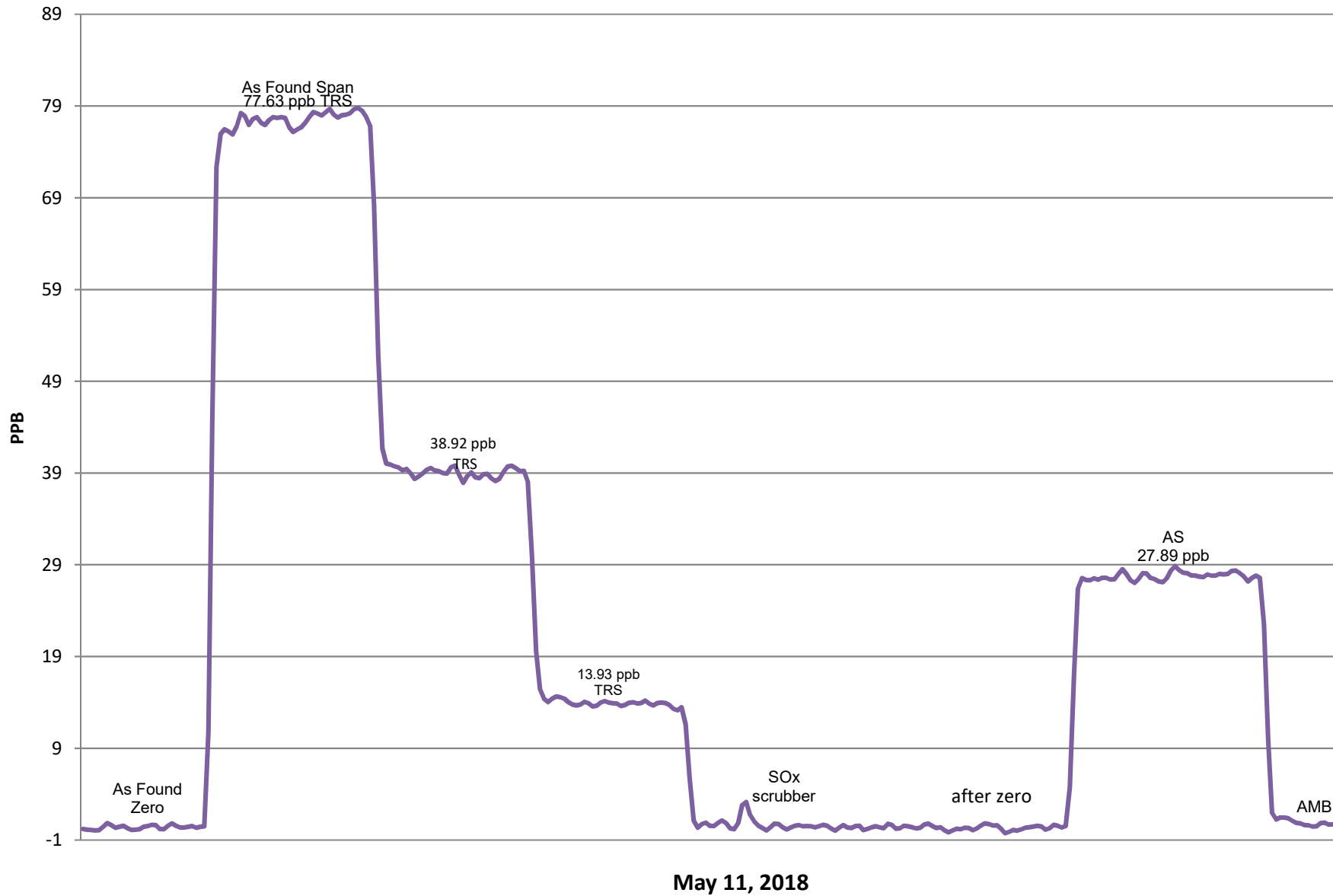
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.397	N/A	Correlation Coefficient	0.999969
77.627	77.634	0.9999		
38.921	38.791	1.0034		
13.930	13.914	1.0011	Slope	1.003760
			Intercept	-0.187465

TRS Calibration Curve



TRS Calibration



Calibration Report

Parameter
Air Monitoring Network

NO_x-NO-NO₂
PAZA



Station Information

Calibration Date	May 10, 2018	Previous Calibration	April 10, 2018
Station Number	1	Station Location	Henry Pirker
Reason:	Routine	Installation	Removal
Start Time (MST)	8:40	End Time (MST)	12:30
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
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Parameter		NO ₂	NO _x	NO
Before	Data Slope	1.006696	0.999173	0.994574
	Data Offset	0.458378	0.944144	1.557514
After	Data Slope	1.009210	1.002563	0.997955
	Data Offset	1.053577	0.156472	0.693090
Channel #		8	6	7
Voltage Range		0 - 5 VDC	0 - 5 VDC	0 - 5 VDC

Analyzer Information

Analyzer make/model	42i	Analyzer serial #	906535087
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Test Point	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
NO offset	8.3	mV	8.2	mV
NO _x bkgnd	8.5	mV	8.3	mV
NO coefficient	1.099		1.083	
NO _x coefficient	1.000		1.000	
NO ₂ conv temp	321.8	Deg C	327.3	Deg C
Cooler Temp	-2.8	Deg C	2.7	Deg C
PMT Volt	-844.3	mV	-843.6	mV
R Cell Press	207.1	in Hg	208.1	in Hg
Sample Flow	0.563	LPM	0.560	LPM

Notes: Span adjustment made

Calibration Report

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



Station Information

Calibration Date: May 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	0.1	0.0	N/A	N/A
1	4996	39.97	412.7	411.9	0.8	411.4	412.4	-0.2	1.0033	0.9989
2	4996	19.98	207.1	206.7	0.4	207.0	206.3	0.2	1.0008	1.0019
3	4996	10.01	104.0	103.8	0.2	103.0	102.3	0.7	1.0093	1.0148
AFZ	4996	0.00	0.0	0.0	0.0	0.0	0.1	0.0	0.0000	0.0000
AFS	4996	39.97	412.7	411.9	0.8	421.9	420.9	1.0	0.9783	0.9787
Average Correction Factor									1.0044	1.0052

As Found Concentrations: NO_x= 422.5 NO= 420.0 As Found Percent Change NO_x= 2.4% NO= 2.0%

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	0.1	0.1	0.0	0.0	0.1	0.0	N/A	N/A	N/A	N/A
NO point	412.4	412.4	0.0	410.5	412.4	-0.2	1.0047	1.0000	N/A	N/A
300	412.4	111.0	301.5	409.6	111.0	298.5	1.0068	1.0000	1.0097	99.0%
200	412.4	211.8	200.6	409.6	211.8	197.0	1.0070	1.0000	1.0186	98.2%
100	412.4	315.6	96.8	410.1	315.6	93.8	1.0056	1.0000	1.0329	96.8%
Average Correction Factor							1.0065	1.0000	1.0204	98.0%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	0.0	0.0	0.2	ppb	0.2	0.3	0.1	ppb
Auto span	282.9	281.2	1.6	ppb	281.4	279.4	1.8	ppb

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter NO₂

Air Monitoring Network PAZA



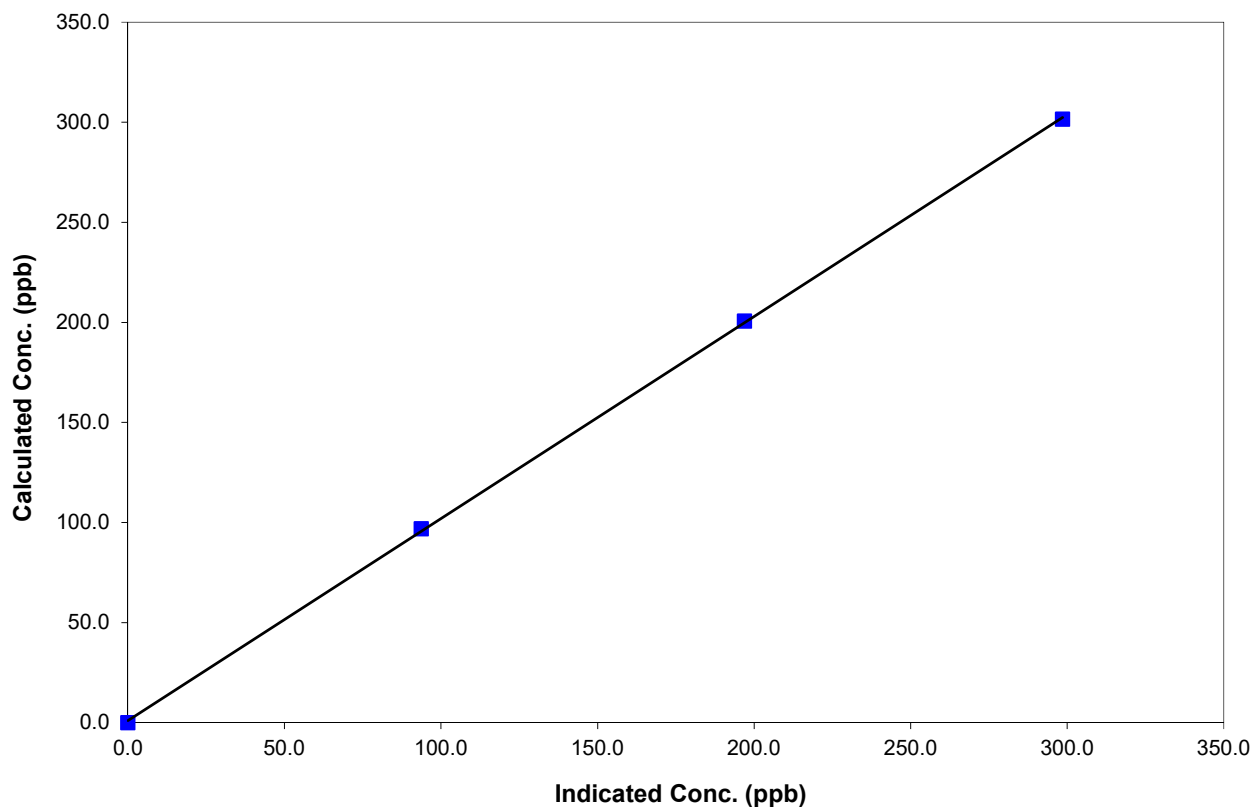
Station Information

Calibration Date	May 10, 2018	Previous Calibration	April 10, 2018
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	8:40	End Time (MST)	12:30
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	0.999922
301.5	298.5	1.0097		
200.6	197.0	1.0186		
96.8	93.8	1.0329	Slope	1.009210
			Intercept	1.053577

NO₂ Calibration Curve



Calibration Summary

Parameter NO_x

Air Monitoring Network PAZA



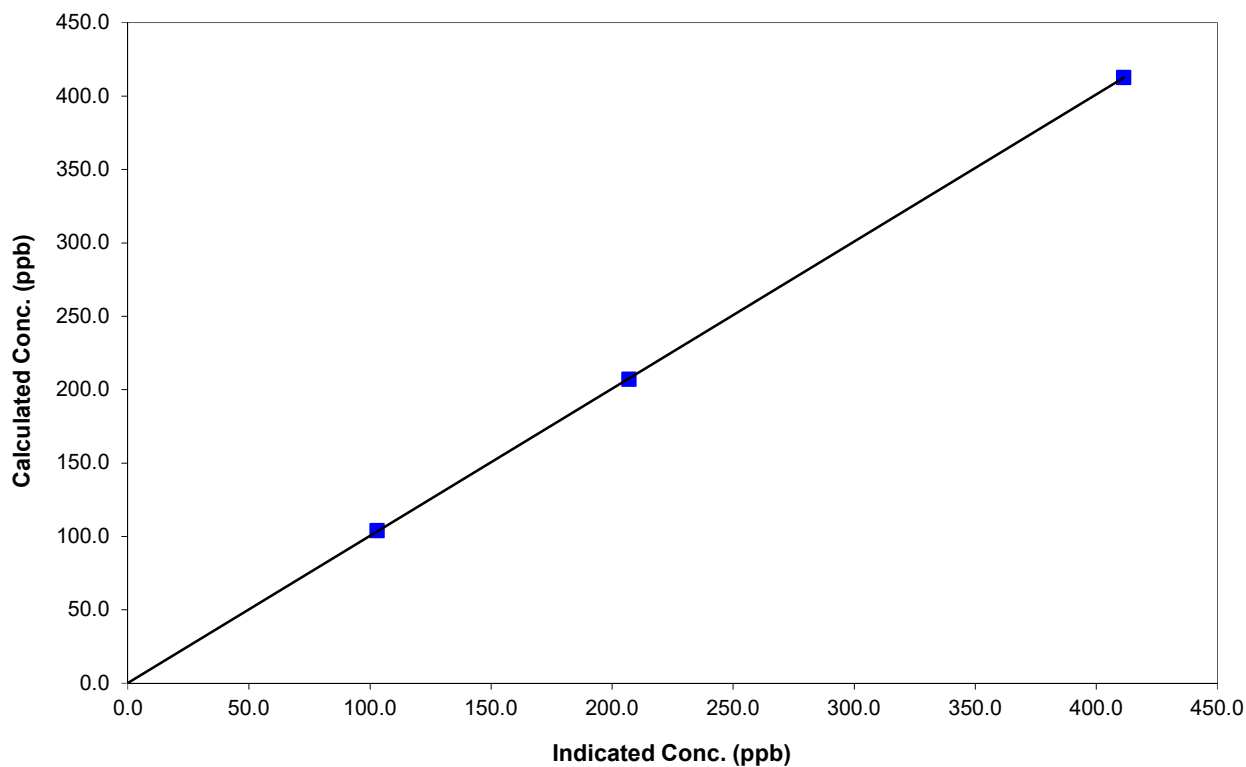
Station Information

Calibration Date	May 10, 2018	Previous Calibration	April 10, 2018
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	8:40	End Time (MST)	12:30
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	0.999994
412.7	411.4	1.0033		
207.1	207.0	1.0008		
104.0	103.0	1.0093	Slope	1.002563
			Intercept	0.156472

NO_x Calibration Curve



Calibration Summary

Parameter NO

Air Monitoring Network PAZA



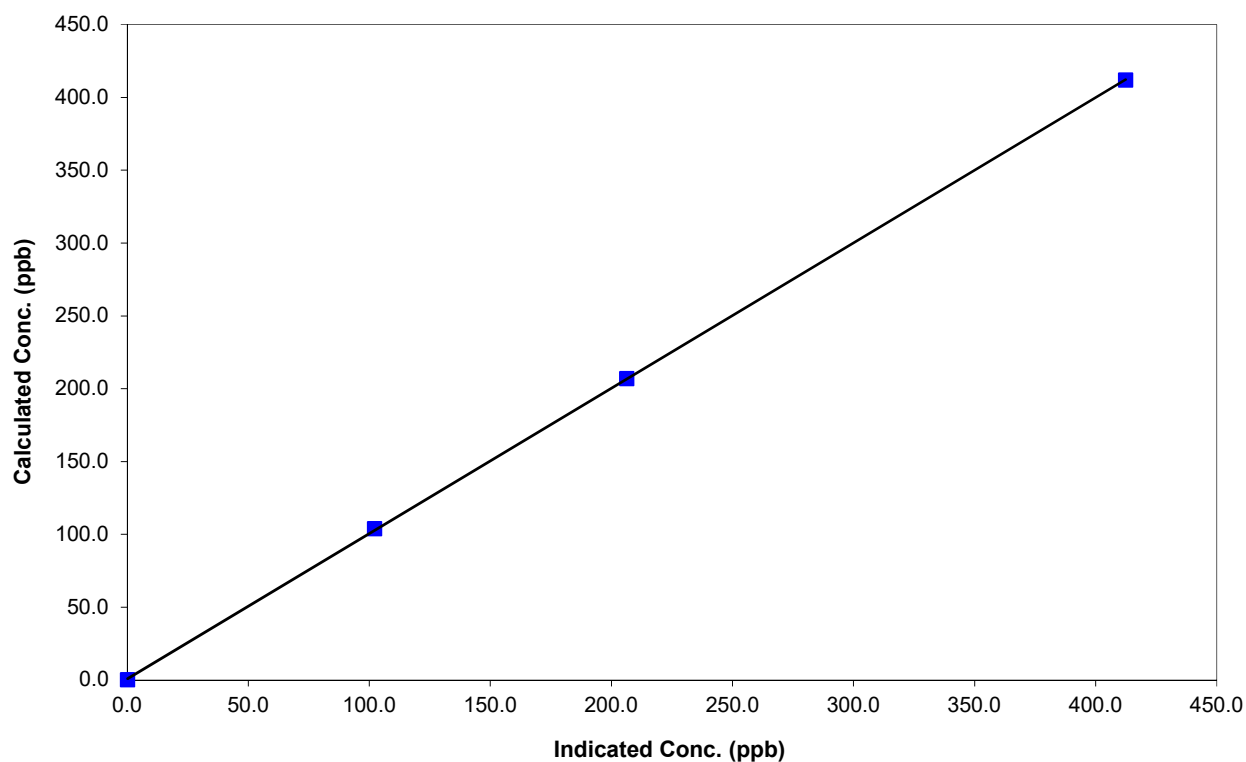
Station Information

Calibration Date	May 10, 2018	Previous Calibration	April 10, 2018
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	8:40	End Time (MST)	12:30
Analyzer make	42i	Analyzer serial #	906535087

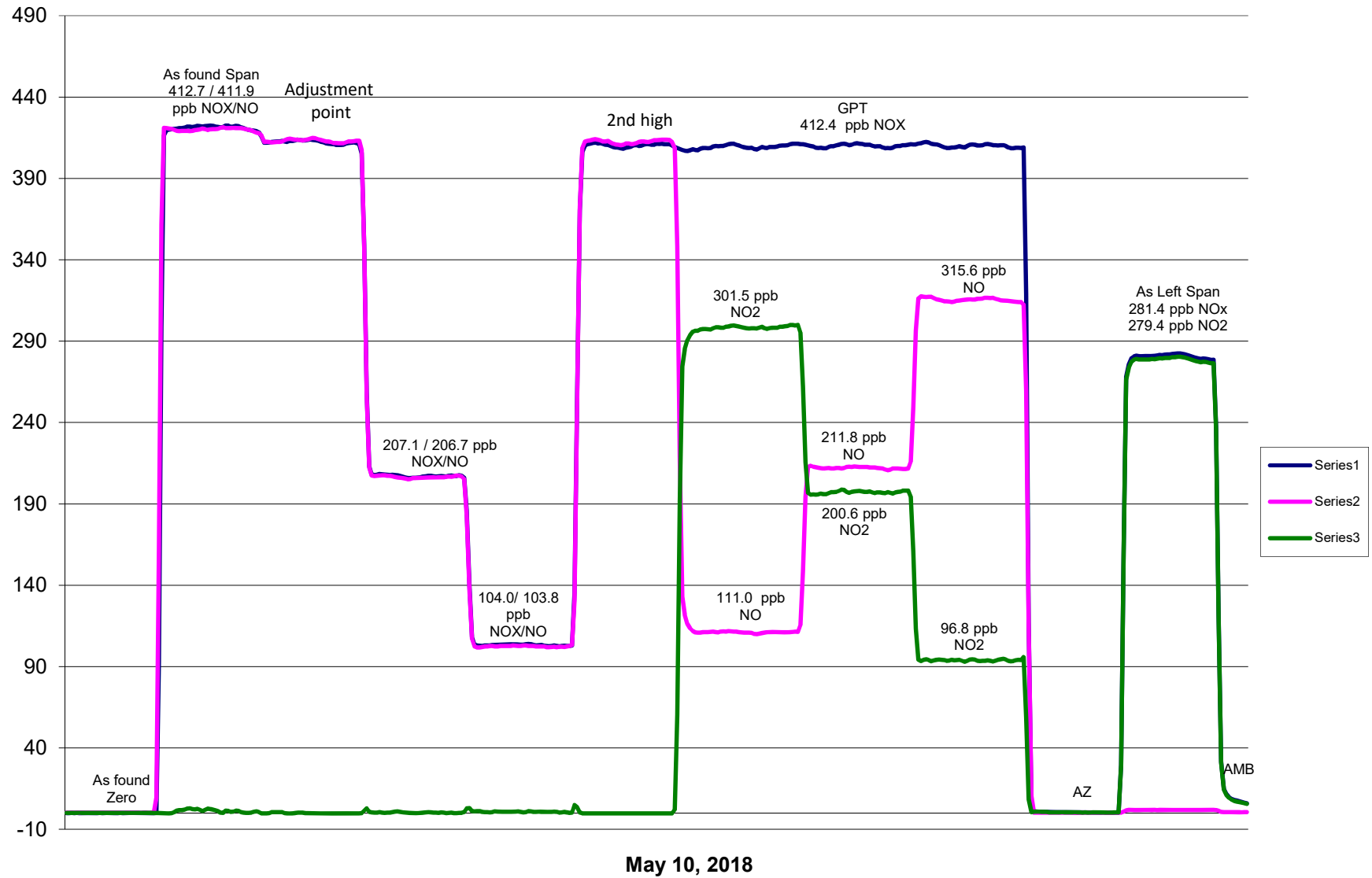
Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A	Correlation Coefficient	0.999980
411.9	412.4	0.9989		
206.7	206.3	1.0019		
103.8	102.3	1.0148	Slope	0.997955
			Intercept	0.693090

NO Calibration Curve



NO_x Calibration



Calibration Report

Parameter 03

Air Monitoring Network PAZA



Station Information

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

Start Time (MST)	11:45	End Time (MST)	13:15:00 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	1.002508	Calculated slope	0.998757
Calculated intercept	-1.162687	Calculated intercept	-0.712235

Analyzer make	Teco 49I	Analyzer serial #	1507964699 (AMU:2015)
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	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
offset	-0.60	ppb	-0.60	ppb
slope	1.024		1.024	
Lamp temp	53.6	mV	53.6	mV
Lamp Intensity A/B	63903/68889	mV	64387/69744	mV
Pressure	688.9	mm Hg	695.8	mm Hg
Flow A	0.729	ccm	0.734	ccm
Flow B	0.735	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	0.5	N/A
4998	0.3	301.5	302.4	0.9972
4998	0.2	200.6	201.9	0.9937
4998	0.1	96.8	97.7	0.9905
4996	0.0	0.0	0.5	As found zero
4996	0.3	301.5	302.4	As found span
Average Correction Factor				0.9938

Calculated value of As Found Response: 301.4 ppm Percent Change of As Found: 0.0%

	before calibration		after calibration	
Auto zero	0.9	ppb	0.6	ppb
Auto span	397.0	ppb	391.9	ppb

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter 03
Air Monitoring Network PAZA



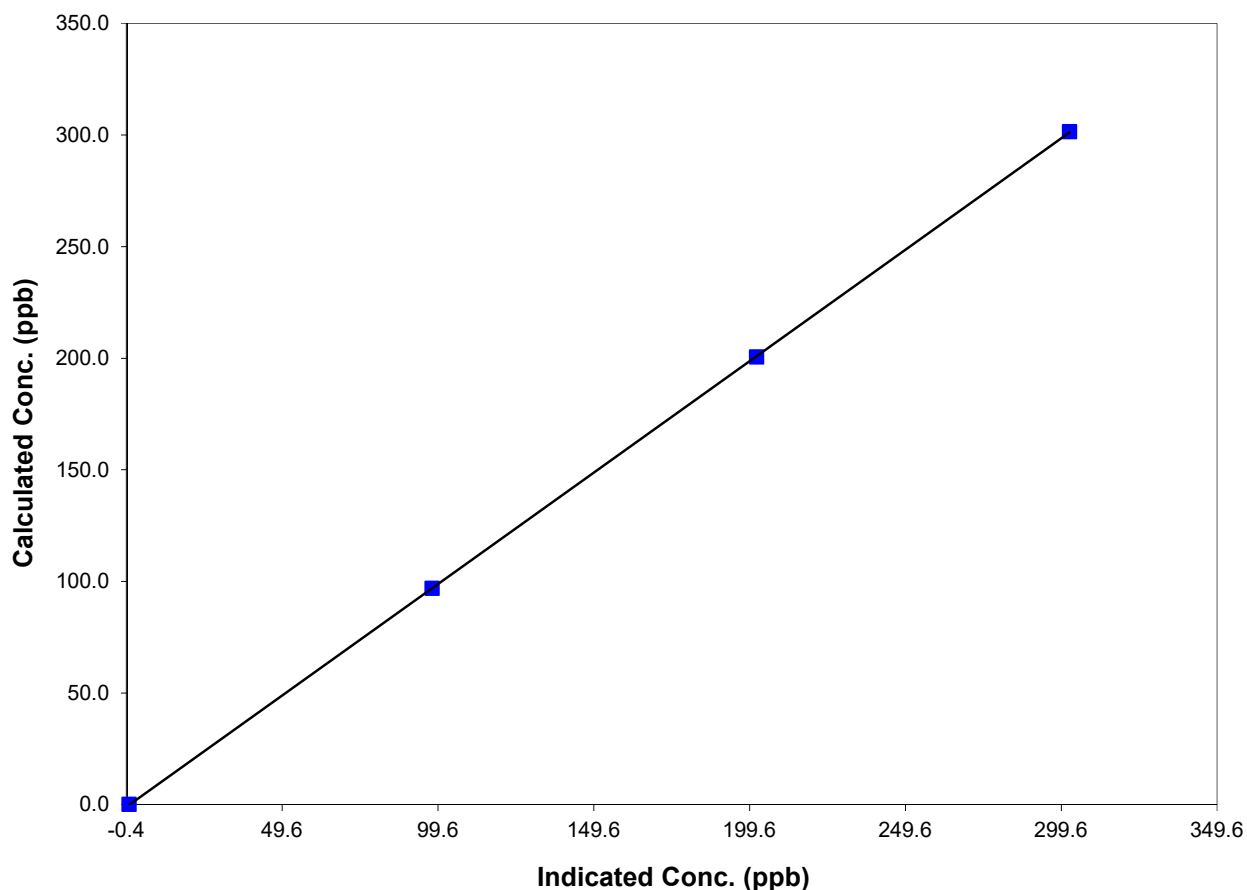
Station Information

Calibration Date	May 10, 2018	Previous Calibration	April 10, 2018
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	11:45	End Time (MST)	13:15:00 PM
Analyzer make/model	Teco 49I	Analyzer serial #	1507964699 (AMU:2015)

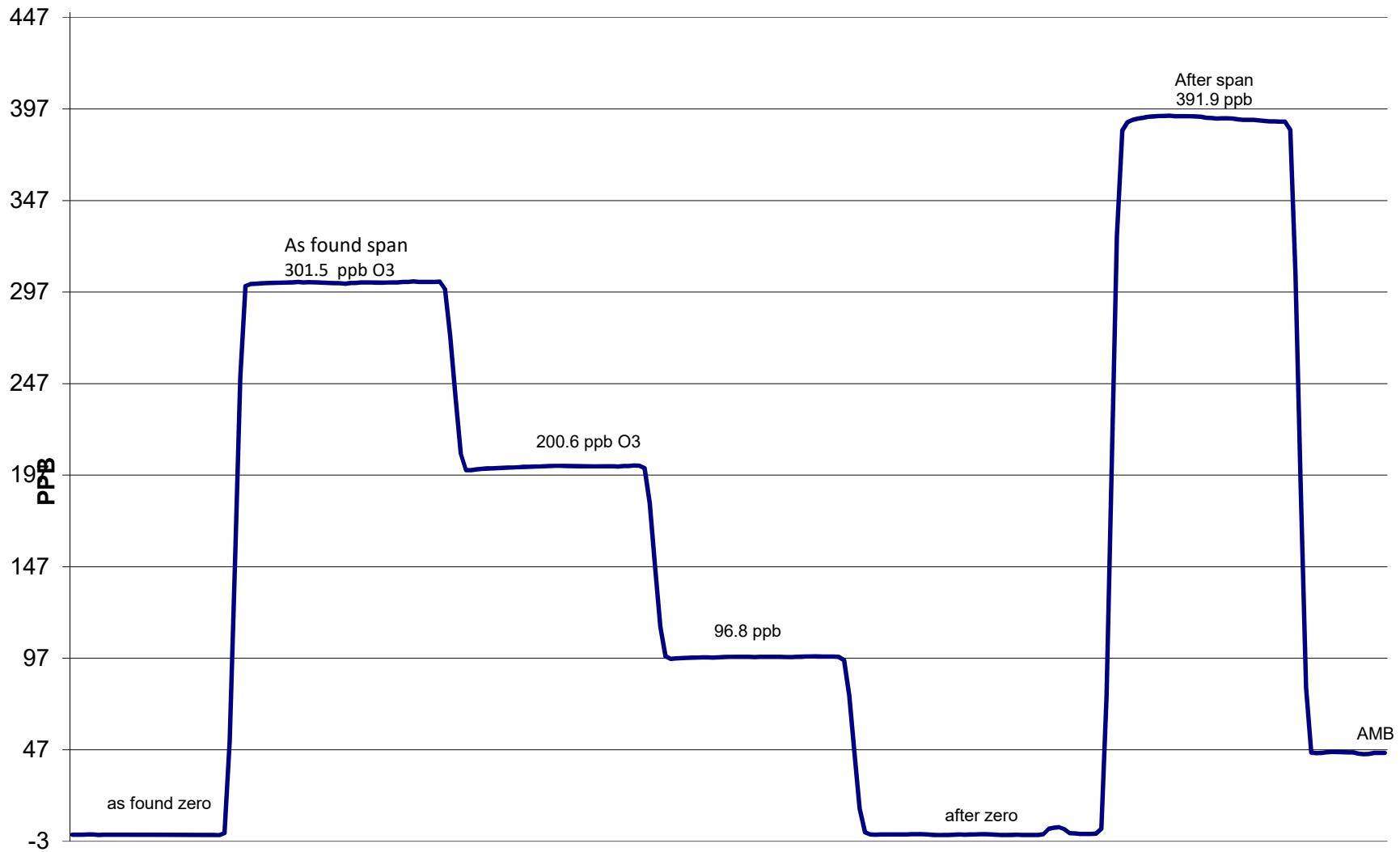
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.5	NA	Correlation Coefficient	0.999996
301.5	302.4	0.9972		
200.6	201.9	0.9937		
96.8	97.7	0.9905	Slope	0.998757
			Intercept	-0.712235

O3 Calibration Curve



O3 Calibration



May 10, 2018

Calibration Report

Parameter CO
Air Monitoring Network PAZA



Station Information

Calibration Date	May 11, 2018	Previous Calibration	April 6, 2018
Station Number	1	Station Location	Henry Pirker
Reason:	Routine	☐ Install	☐ Removal
		☐ Other:	
Start Time (MST)	8:35	End Time (MST)	11:50
Barometric Pressure	0.921 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	1.001600	Calculated slope	1.004406
Calculated intercept	-0.237449	Calculated intercept	-0.227508
Analyzer make	Model 48I-TLE	Analyzer serial #	1408761378

	before		after	
Concentration range	0 - 50	ppm	0 - 50	ppm
CO zero setting	10.637		10.804	
CO span setting	1.085		1.085	
Sample pressure	700.7	mm Hg	699.5	mm Hg
Sample Flow	0.455	LPM	0.453	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	-0.02	N/A
4998	69.96	40.12	40.00	1.0029
4998	34.98	20.20	20.56	0.9823
4998	17.99	10.42	10.79	0.9663
4998	0.00	0.00	0.14	As Found Zero
4998	69.96	40.12	40.41	As Found Span
Average Correction Factor				0.9838

Calculated value of As Found Response: 40.098 ppm Percent Change of As Found: 0.0%

	before calibration		after calibration	
Auto zero	-0.01	ppm	-0.04	ppm
Auto span	20.52	ppm	20.48	ppm

Notes: Zero adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter CO
Air Monitoring Network PAZA



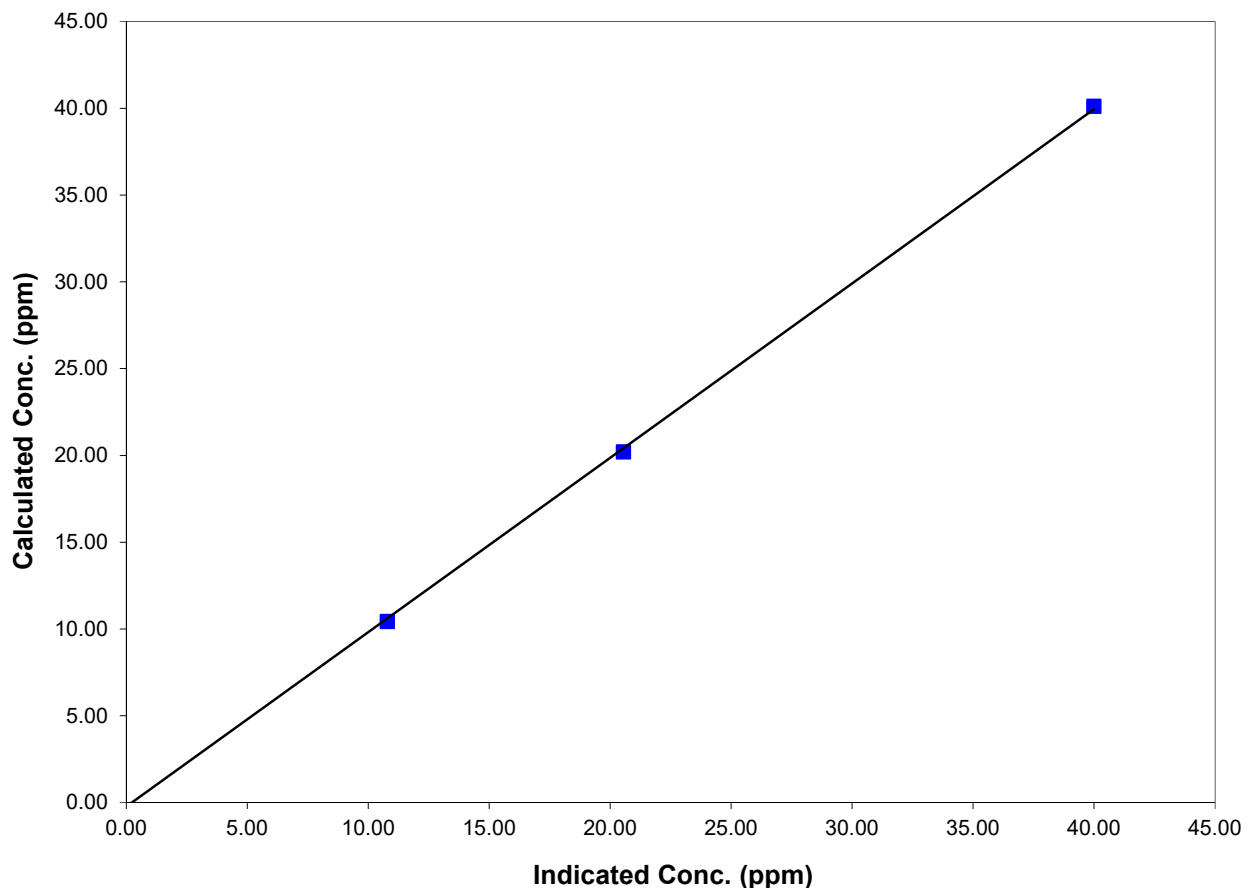
Station Information

Calibration Date	May 11, 2018	Previous Calibration	April 6, 2018
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	8:35	End Time (MST)	11:50
Analyzer make/model	Model 48I-TLE	Analyzer serial #	1408761378

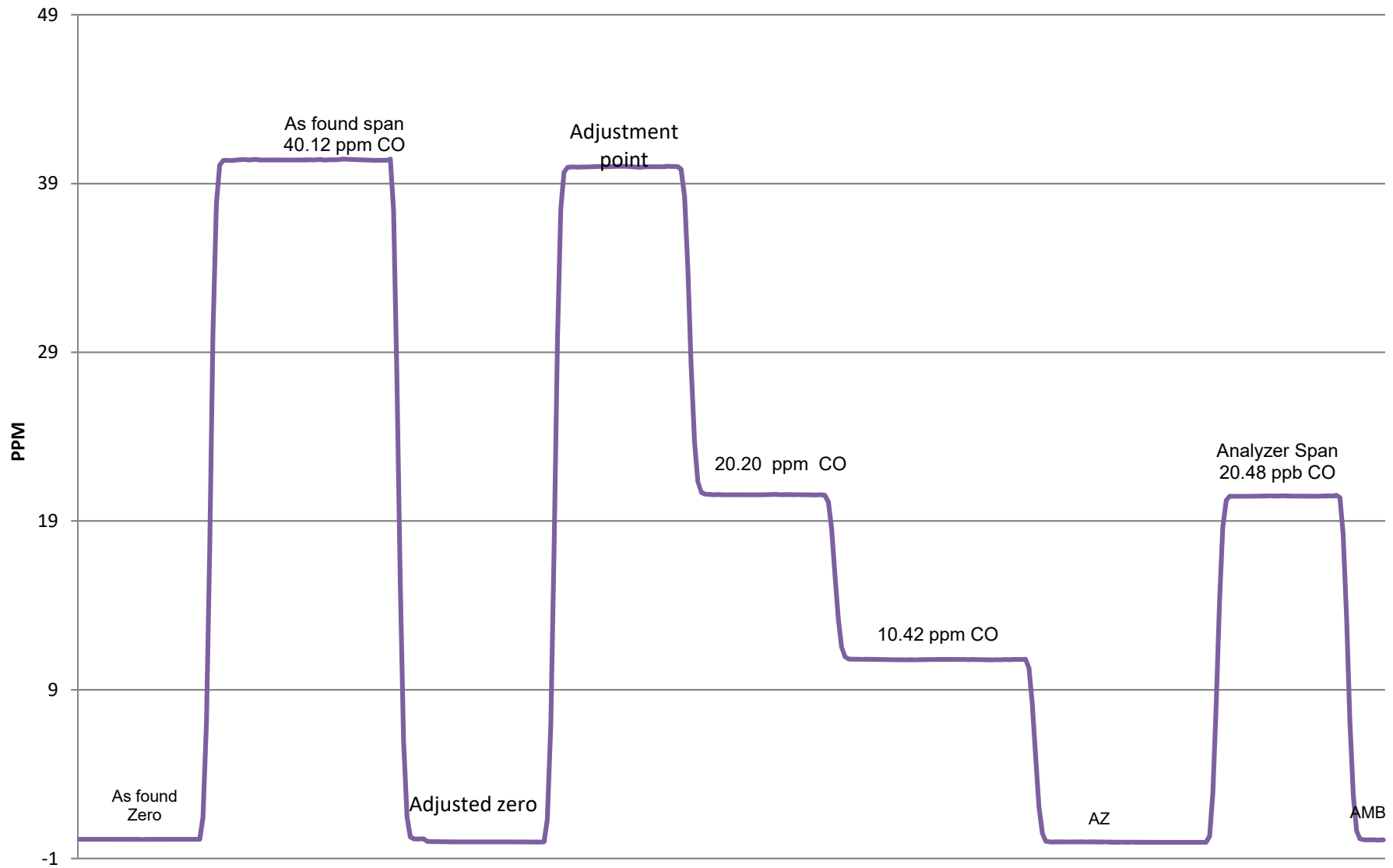
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	-0.017	N/A	Correlation Coefficient	0.999803
40.116	40.001	1.0029		
20.197	20.561	0.9823		
10.422	10.786	0.9663	Slope	1.004406
			Intercept	-0.227508

CO Calibration Curve



CO Calibration



May 11, 2018

Calibration Report



Parameter CH4 / NMHC / THC

Air Monitoring Network PAZA

Station Information

Calibration Date	May 11, 2018	Previous Calibration	April 6, 2018
Station Number	1	Station Location	Henry Pirker
Reason:	Routine	Install	Removal
			Other: Mair

Start Time (MST)	10:45	End Time (MST)	13:35:00 PM
Barometric Pressure	0.921 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	12.23	0.9939
1998	40.97	7.76	7.83	0.9909
1998	15.99	3.06	3.49	0.8781
1998	0.00	0.00	0.02	As Found Zero
1998	70.65	13.18	11.94	As Found Span
Average Correction Factor				0.9543

Calculated value of As Found Response: 11.988 ppm Percent Change of As Found: 9.1%

	Before		After
Calculated slope	1.005538	Calculated slope	1.006268
Calculated intercept	0.002366	Calculated intercept	-0.184533

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.03	ppm	0.03	ppm
Auto span	10.54	ppm	10.62	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	18.14	0.9889
1998	40.97	11.44	11.61	0.9852
1998	15.99	4.52	5.21	0.8683
1998	0.00	0.00	0.02	As Found Zero
1998	70.65	19.44	17.83	As Found Span
Average Correction Factor				0.9474

Calculated value of As Found Response: 17.793 ppm Percent Change of As Found: 8.5%

	Before		After
Calculated slope	1.000289	Calculated slope	1.001118
Calculated intercept	-0.017783	Calculated intercept	-0.279572

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.02	ppm	0.02	ppm
Auto span	14.70	ppm	14.77	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	30.33	0.9922
1998	40.97	19.19	19.43	0.9879
1998	15.99	7.58	8.67	0.8751
1998	0.00	0.00	0.03	As Found Zero
1998	70.65	32.62	29.77	As Found Span
Average Correction Factor				0.9517

Calculated value of As Found Response: 29.806 ppm Percent Change of As Found: 8.6%

	Before		After
Calculated slope	1.002706	Calculated slope	1.003967
Calculated intercept	-0.007265	Calculated intercept	-0.454752

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.02	ppm	0.02	ppm
Auto span	25.21	ppm	25.38	ppm

Notes: Span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter CH4

Air Monitoring Network PAZA



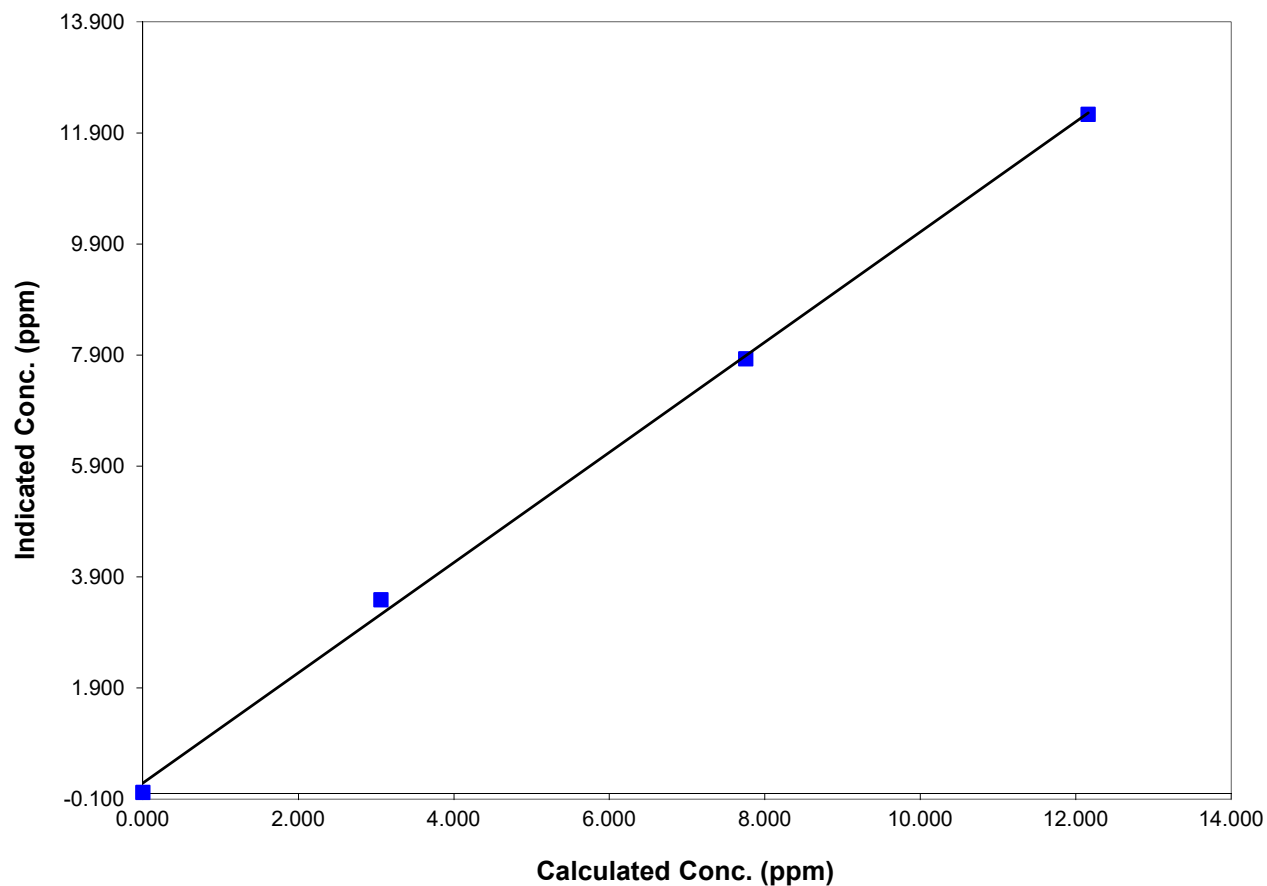
Station Information

Calibration Date	May 11, 2018	Previous Calibration	April 6, 2018
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	10:45	End Time (MST)	13:35:00 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	0.020	N/A	Correlation Coefficient	0.998812
12.160	12.234	0.9939		
7.756	7.827	0.9909	Slope	1.006268
3.065	3.490	0.8781		
			Intercept	-0.184533

CH4 Calibration Data



Calibration Summary

Parameter NMHC

Air Monitoring Network PAZA



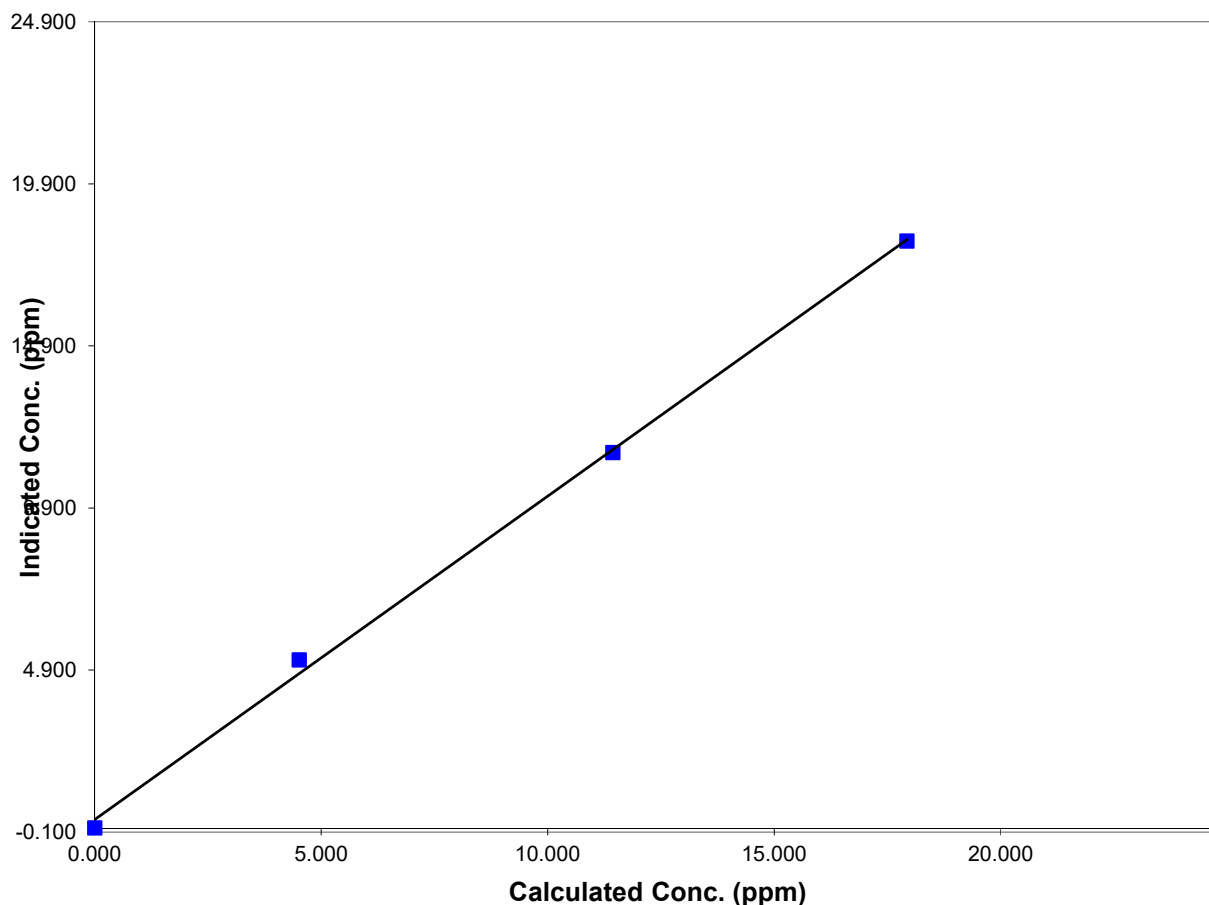
Station Information

Calibration Date	May 11, 2018	Previous Calibration	April 6, 2018
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	10:45	End Time (MST)	13:35:00 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	0.020	N/A	Correlation Coefficient	0.998656
17.933	18.135	0.9889		
11.438	11.610	0.9852		
4.520	5.205	0.8683		
			Slope	1.001118
			Intercept	-0.279572

NMHC Calibration Data



Calibration Summary



Parameter THC
Air Monitoring Network PAZA

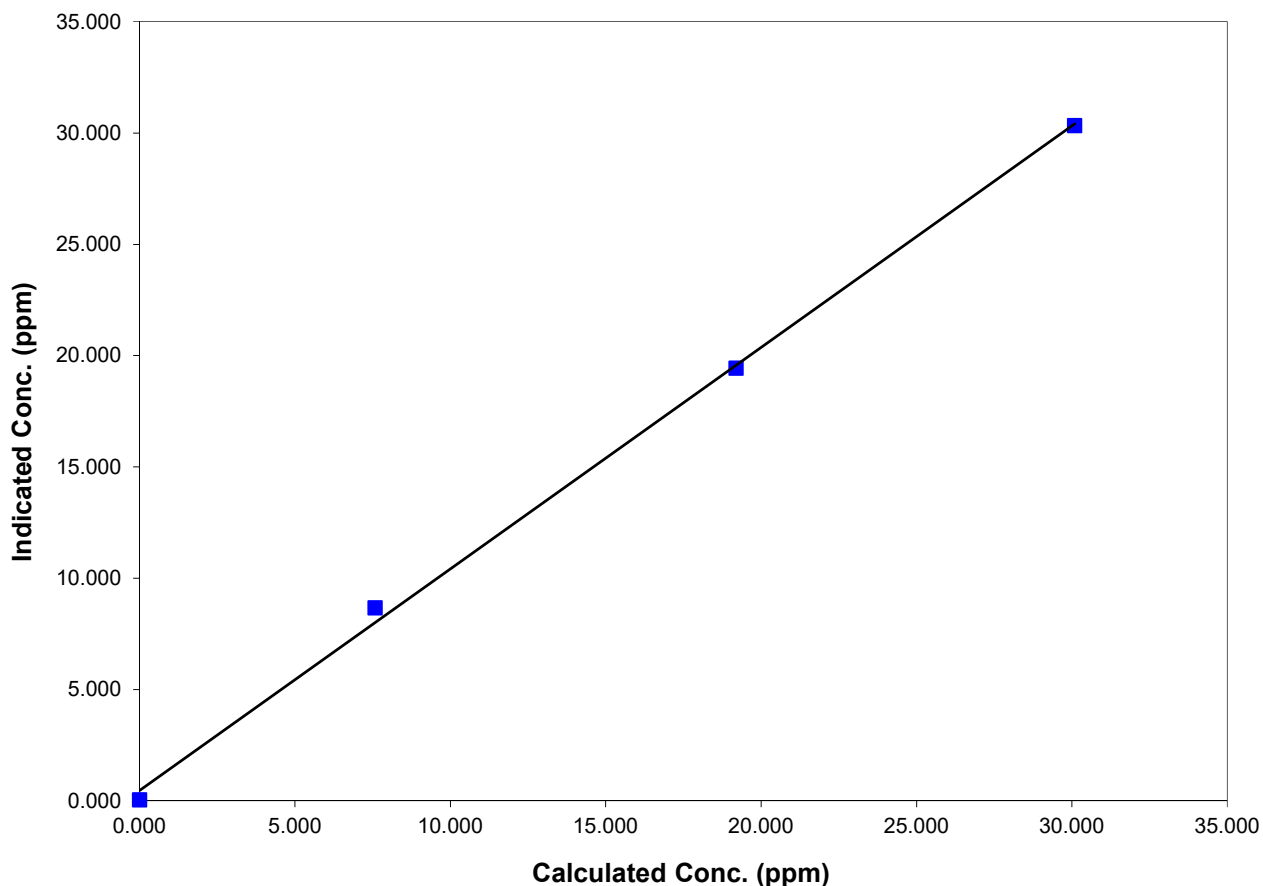
Station Information

Calibration Date	May 11, 2018	Previous Calibration	April 6, 2018
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	10:45	End Time (MST)	13:35:00 PM
Analyzer make/model	TEI 55I	Analyzer serial #	1134650658

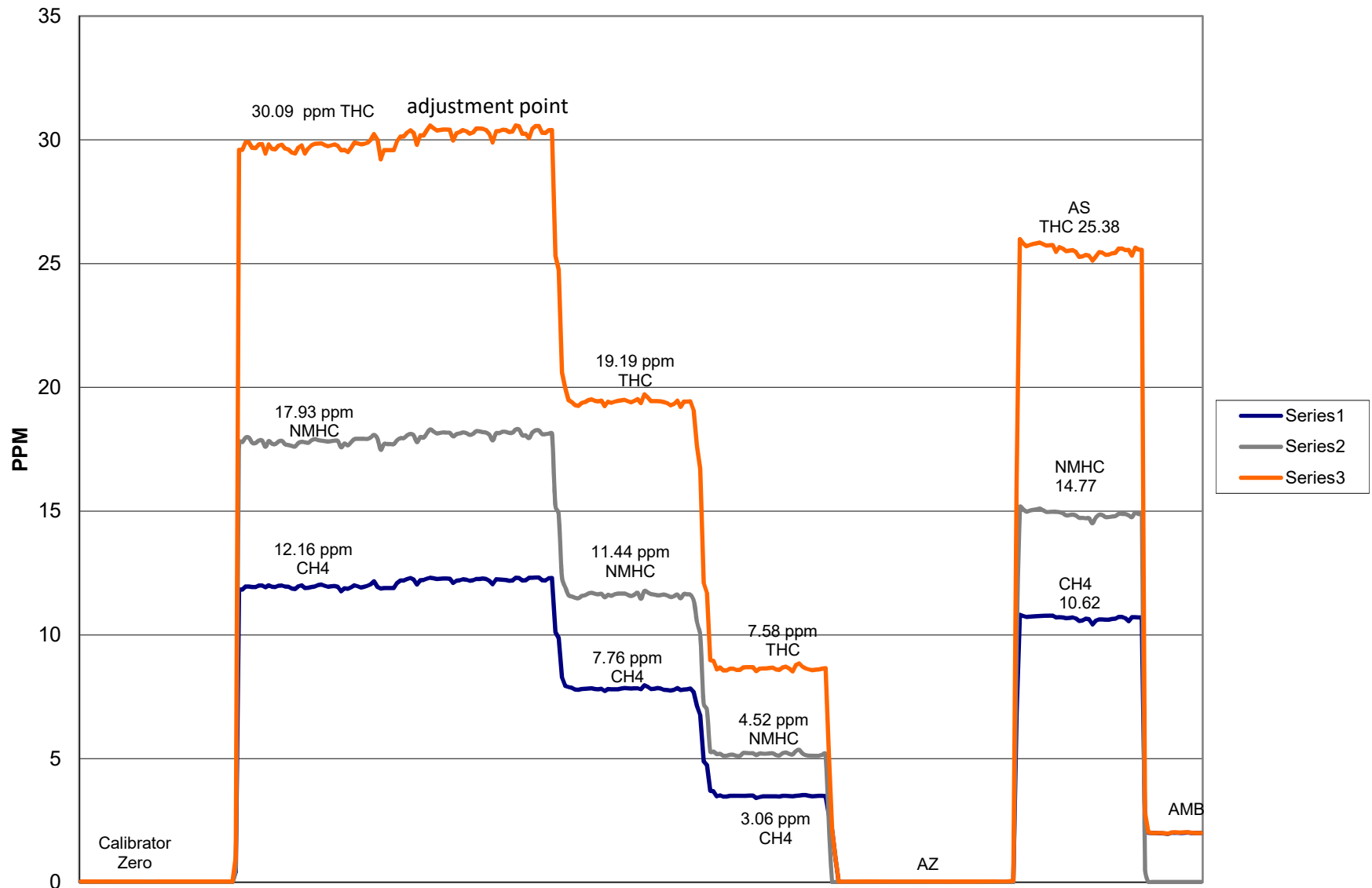
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.033	N/A	Correlation Coefficient	0.998766
30.093	30.331	0.9922		
19.194	19.429	0.9879	Slope	1.003967
7.584	8.666	0.8751		
			Intercept	-0.454752

THC Calibration Data



THC/CH₄/NMHC Calibration



Calibration Report



Parameter CH4 / NMHC / THC

Air Monitoring Network PAZA

Station Information

Calibration Date	May 31, 2018	Previous Calibration	May 11, 2018
Station Number	1	Station Location	Henry Pirker
Reason:	Routine	Install	Removal
			Other: Mair

Start Time (MST)	10:35	End Time (MST)	13:25:00 PM
Barometric Pressure	0.921 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	12.20	0.9964
1998	40.97	7.76	7.77	0.9976
1998	15.99	3.06	3.07	0.9991
1998	0.00	0.00	0.02	As Found Zero
1998	70.65	13.18	12.42	As Found Span
Average Correction Factor				0.9977

Calculated value of As Found Response: 12.471 ppm Percent Change of As Found: 5.4%

	Before		After
Calculated slope	1.005538	Calculated slope	0.997640
Calculated intercept	0.002366	Calculated intercept	-0.007396

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.03	ppm	0.03	ppm
Auto span	10.54	ppm	10.70	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	17.99	0.9970
1998	40.97	11.44	11.49	0.9958
1998	15.99	4.52	4.47	1.0121
1998	0.00	0.00	0.02	As Found Zero
1998	70.65	19.44	18.18	As Found Span
Average Correction Factor				1.0016

Calculated value of As Found Response: 18.150 ppm Percent Change of As Found: 6.6%

	Before		After
Calculated slope	1.000289	Calculated slope	0.996197
Calculated intercept	-0.017783	Calculated intercept	0.015541

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.02	ppm	0.02	ppm
Auto span	14.70	ppm	14.97	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	30.17	0.9975
1998	40.97	19.19	19.24	0.9976
1998	15.99	7.58	7.52	1.0085
1998	0.00	0.00	0.03	As Found Zero
1998	70.65	32.62	30.57	As Found Span
Average Correction Factor				1.0012

Calculated value of As Found Response: 30.616 ppm Percent Change of As Found: 6.2%

	Before		After
Calculated slope	1.002706	Calculated slope	0.997285
Calculated intercept	-0.007265	Calculated intercept	0.015901

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.02	ppm	0.02	ppm
Auto span	25.21	ppm	25.67	ppm

Notes: Hydrogen & span cylinders replaced
Slight span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter CH4

Air Monitoring Network PAZA



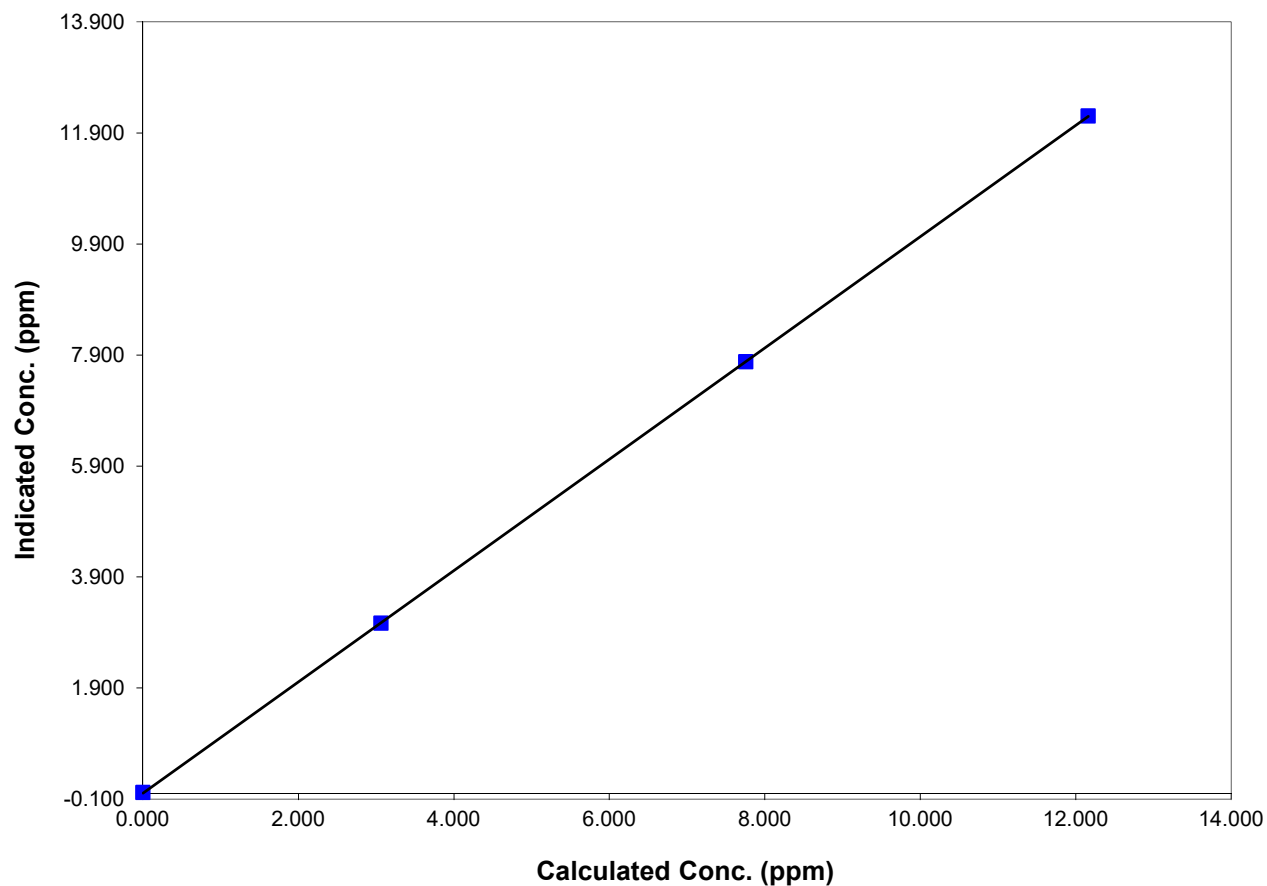
Station Information

Calibration Date	May 31, 2018	Previous Calibration	May 11, 2018
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	10:35	End Time (MST)	13:25:00 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	0.999996
12.160	12.204	0.9964		
7.756	7.775	0.9976		
3.065	3.067	0.9991	Slope	0.997640
			Intercept	-0.007396

CH4 Calibration Data



Calibration Summary

Parameter NMHC

Air Monitoring Network PAZA



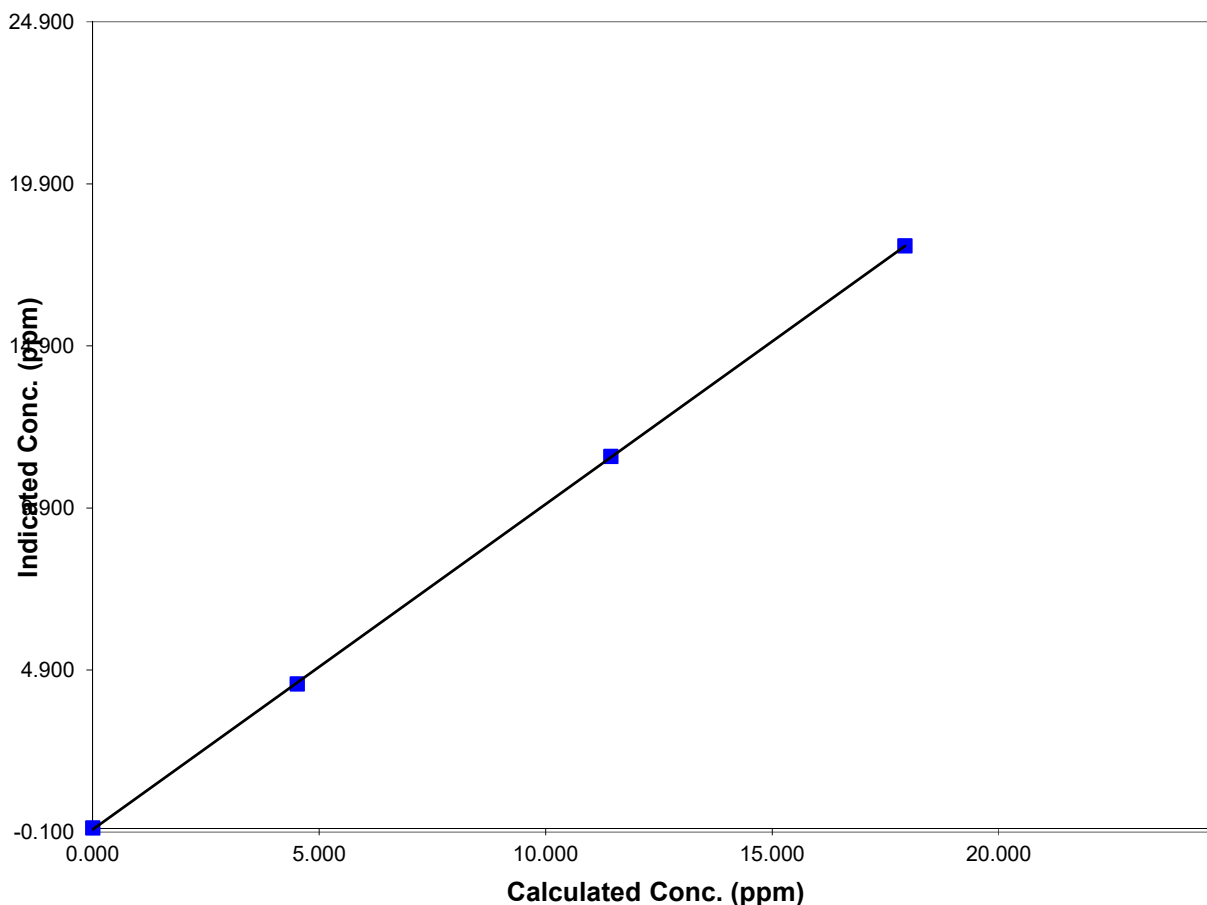
Station Information

Calibration Date	May 31, 2018	Previous Calibration	May 11, 2018
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	10:35	End Time (MST)	13:25:00 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	0.999975
17.933	17.987	0.9970		
11.438	11.486	0.9958		
4.520	4.466	1.0121	Slope	0.996197
			Intercept	0.015541

NMHC Calibration Data



Calibration Summary



Parameter THC
Air Monitoring Network PAZA

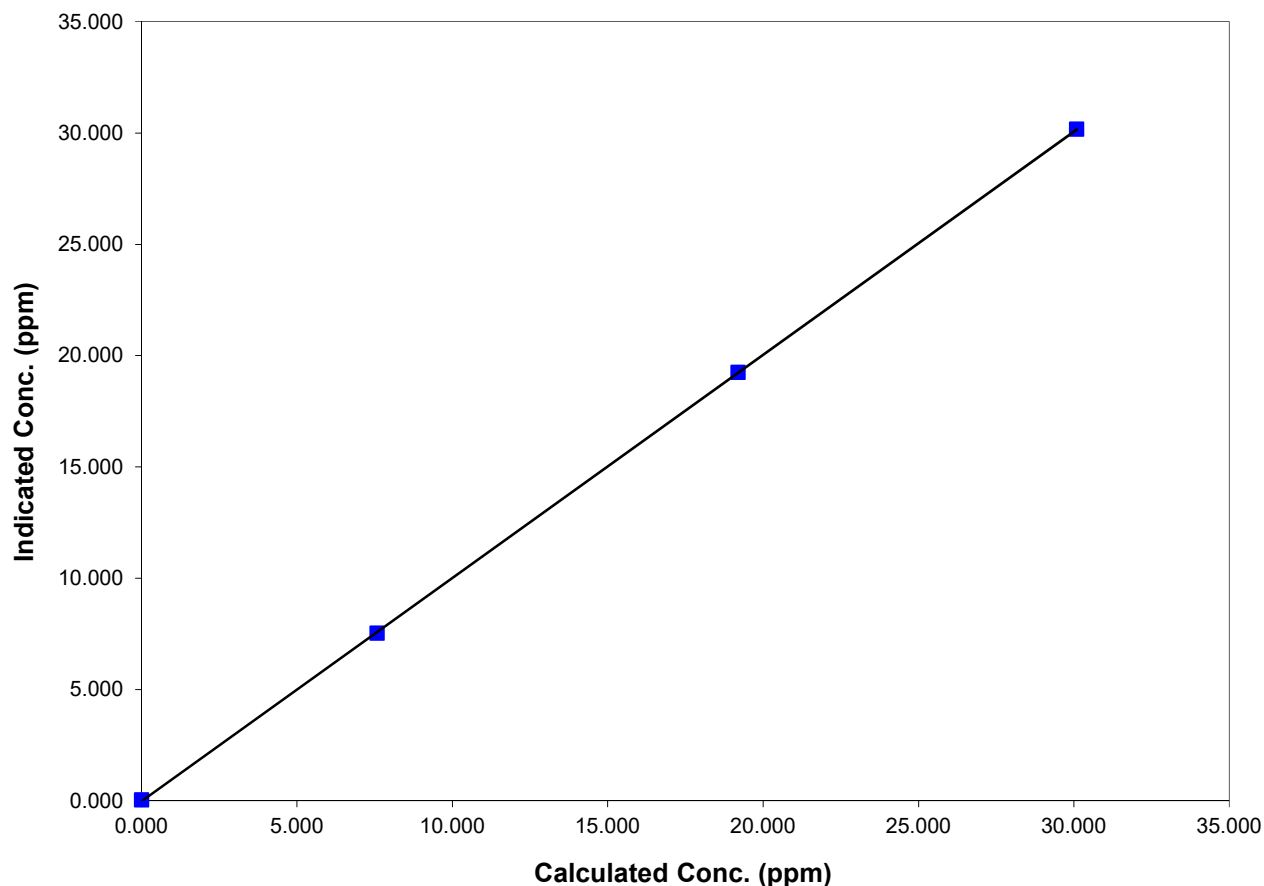
Station Information

Calibration Date	May 31, 2018	Previous Calibration	May 11, 2018
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	10:35	End Time (MST)	13:25:00 PM
Analyzer make/model	TEI 55I	Analyzer serial #	1134650658

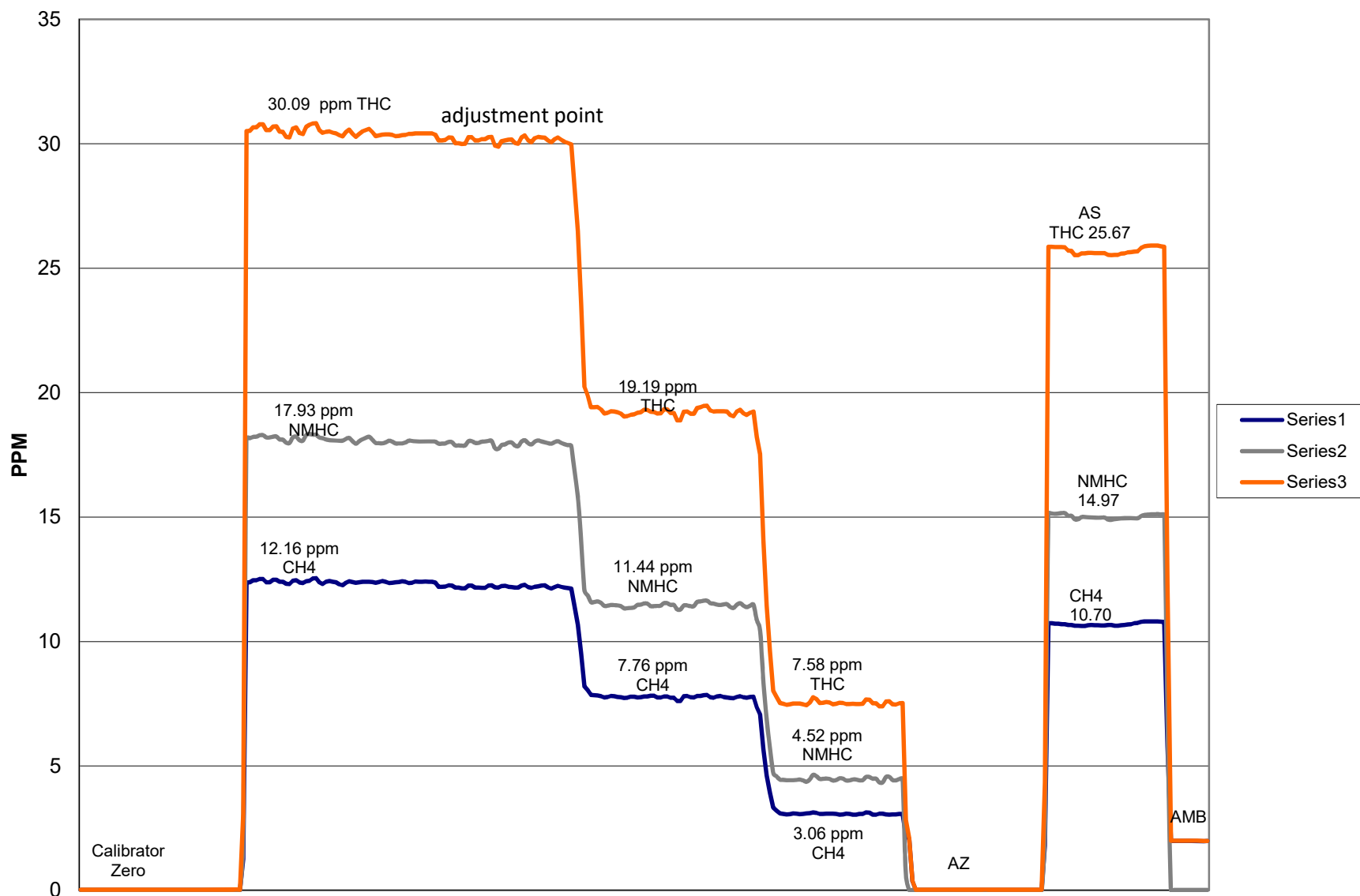
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.032	N/A	Correlation Coefficient	0.999986
30.093	30.169	0.9975		
19.194	19.241	0.9976	Slope	0.997285
7.584	7.520	1.0085		
			Intercept	0.015901

THC Calibration Data



THC/CH₄/NMHC Calibration



Calibration Report



Parameter SO2

Air Monitoring Network PAZA

Station Information

Calibration Date	May 9, 2018	Previous Calibration	April 24, 2018
Station Number	4	Station Location	Beaverlodge
Reason:	Routine	Install	Removal
Other:			
Start Time (MST)	10:10	End Time (MST)	12:15
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
	Before		After
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.994629	Calculated slope	0.991396
Calculated intercept	-0.086074	Calculated intercept	0.097947
Analyzer make	TEI Model 43i-TLE	Analyzer serial #	713021137

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	2.87		2.87	
Coefficient	0.975		0.975	
PMT	-768.1	V	-768.2	V
UV Lamp Voltage	1123	V	1135	V
Chamber Temp	45	Deg C	45	Deg C
Pressure	662.8	mm Hg	663.2	mm Hg
Sample Flow	0.497	LPM	0.499	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	84.0	0.9920
4995	19.97	41.8	42.0	0.9944
4995	9.97	20.9	20.9	1.0028
4995	0.00	0.0	0.0	As found zero
4995	39.94	83.3	84.0	As found span
Average Correction Factor				0.9964

Calculated value of As Found Response: 83.407 ppm Percent Change of As Found: -0.1%

	before calibration		after calibration	
Auto zero	-0.1	ppb	0.1	ppb
Auto span	58.4	ppb	58.7	ppb

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter SO2
Air Monitoring Network PAZA



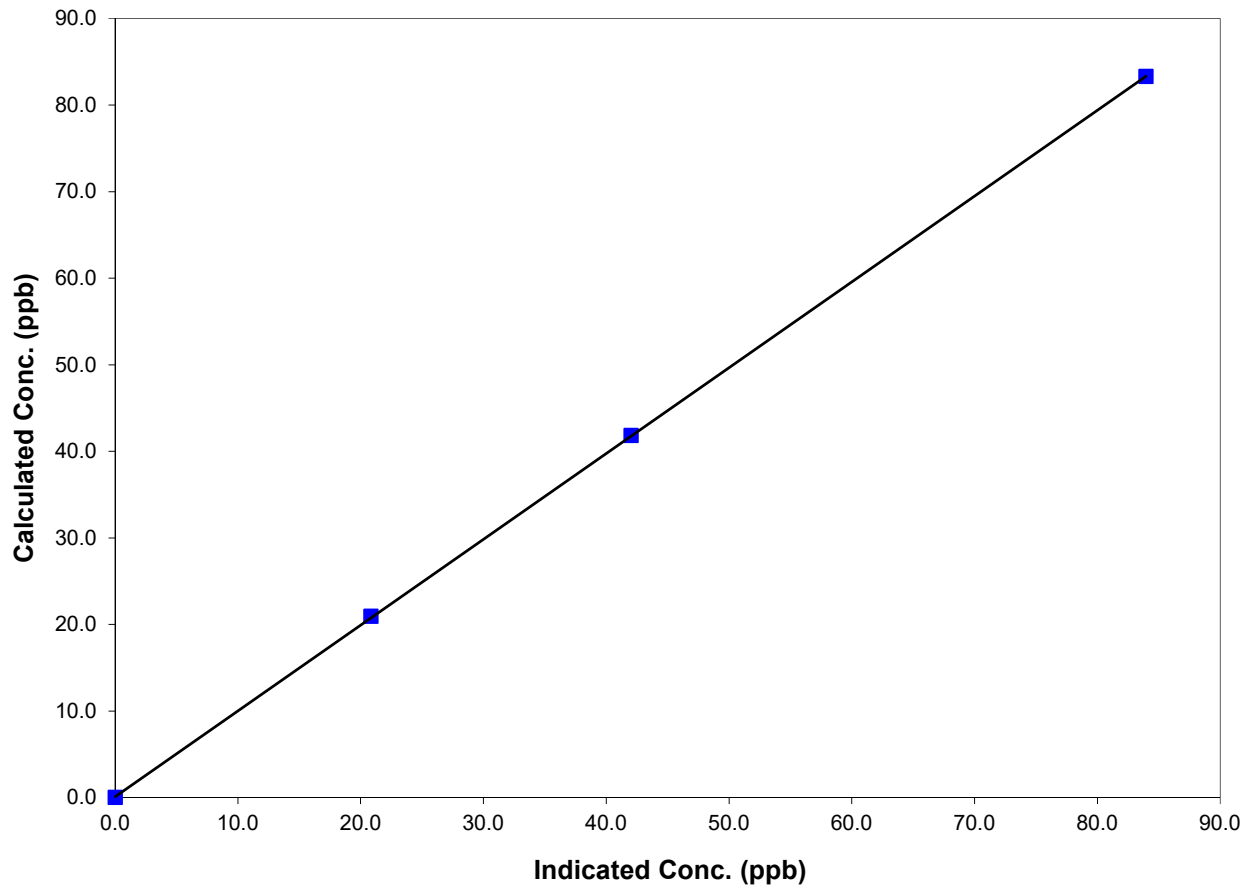
Station Information

Calibration Date	May 9, 2018	Previous Calibration	April 24, 2018
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	10:10	End Time (MST)	12:15
Analyzer make/model	TEI Model 43i-TLE	Analyzer serial #	713021137

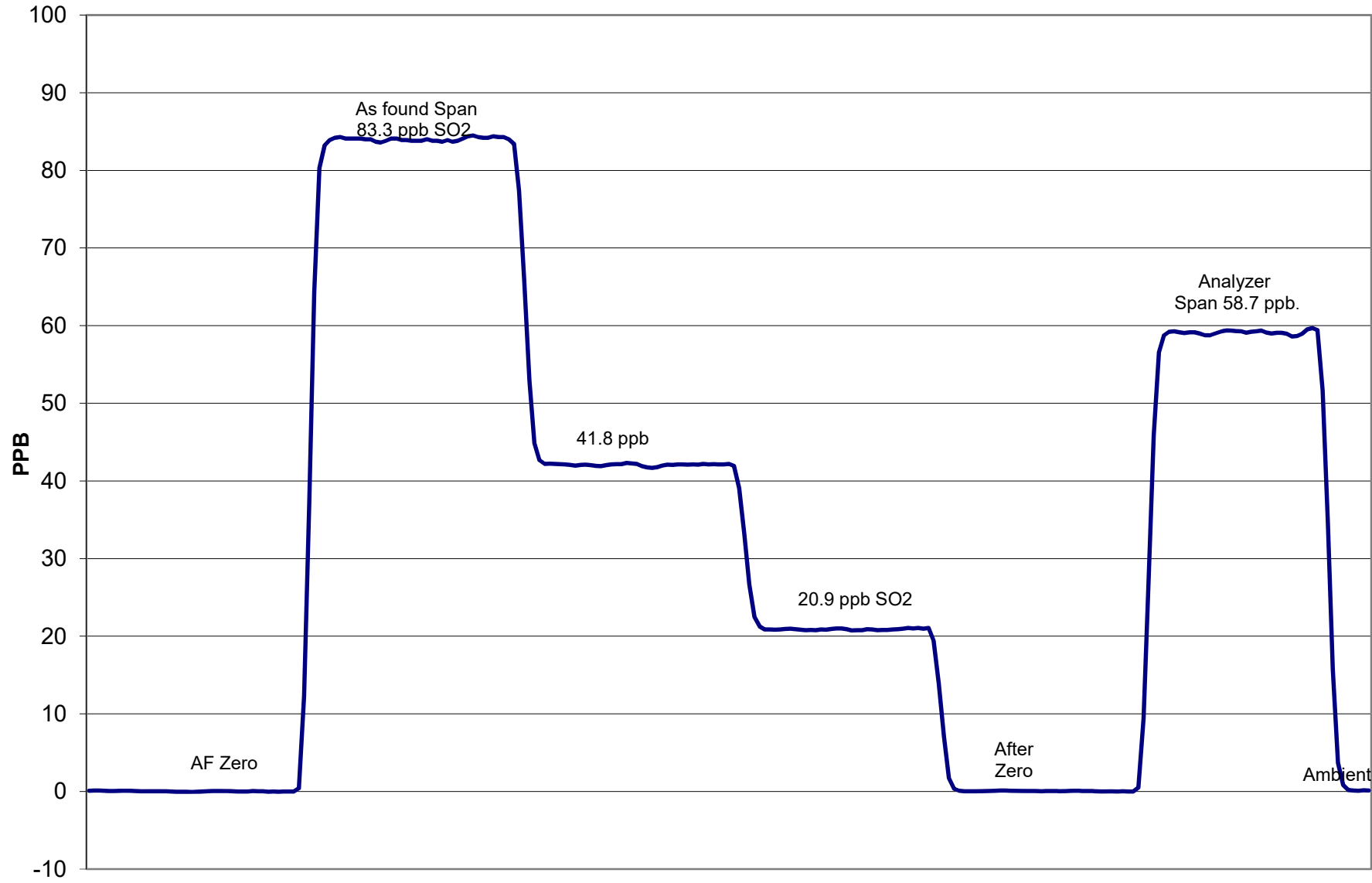
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A	Correlation Coefficient	0.999990
83.3	84.0	0.9920		
41.8	42.0	0.9944		
20.9	20.9	1.0028	Slope	0.991396
			Intercept	0.097947

SO2 Calibration Curve



SO2 Calibration



May 9, 2018

Calibration Report

Parameter
Air Monitoring Network

NO_x-NO-NO₂
PAZA



Station Information

Calibration Date	May 8, 2018	Previous Calibration	April 24, 2018		
Station Number	4	Station Location	Beaverlodge		
Reason:	Routine	Installation	Removal		
Start Time (MST)	8:30	End Time (MST)	13:25:00 PM		
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	
	Parameter	NO2	NOx	NO
Before	Data Slope	0.998955	1.001088	1.000289
	Data Offset	-0.325974	0.738027	1.112046
After	Data Slope	1.001770	0.993309	0.993246
	Data Offset	0.318077	0.200429	-0.257644
	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	ppb
NO offset	2.7	mV	2.4	mV
NOx bkgnd	10.6	mV	4.9	mV
NO coefficient	1.050		1.050	
NOx coefficient	0.999		0.999	
NO2 conv temp	321.8	Deg C	322.4	Deg C
PMT Temp	-3.0	Deg C	-3.0	Deg C
PMT Volt	-743.0	mV	-729.3	mV
R Cell Press	187.0	in Hg	188.2	in Hg
Sample Flow	0.785	LPM	0.781	LPM

Notes: Sample pump replaced.
Analyzer been purged from contamination over night.
PMT, zero & span adjustmetns made.
Zero canister been replaced.

Calibration Report

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



Station Information

Calibration Date: May 8, 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	-0.3	-0.1	-0.3	N/A	N/A
1	4995	39.94	412.5	411.7	0.8	415.2	414.9	-0.5	0.9935	0.9924
2	4995	19.97	207.1	206.7	0.4	207.8	207.7	-0.7	0.9963	0.9951
3	4995	9.97	103.6	103.4	0.2	104.5	105.3	-0.6	0.9916	0.9822
AFZ	4995	0.00	0.0	0.0	0.0	-3.6	-0.1	-3.6	0.0000	0.0000
AFS	4995	39.94	412.5	411.7	0.8	475.6	479.1	-4.6	0.8674	0.8592
Average Correction Factor									0.9938	0.9899

As Found Concentrations: NO_x= 480.4 NO= 480.5 As Found Percent Change NO_x= 16.5% NO= 16.7%

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	-0.3	-0.1	-0.3	N/A	N/A	N/A	N/A
NO point	415.3	415.3	0.0	414.8	415.3	-1.4	1.0013	1.0000	N/A	N/A
300	415.3	115.5	299.8	415.5	115.5	299.1	0.9996	1.0000	1.0021	99.8%
200	415.3	214.9	200.4	415.3	214.9	199.3	1.0001	1.0000	1.0052	99.5%
100	415.3	319.6	95.7	415.5	319.6	95.3	0.9996	1.0000	1.0039	99.6%
Average Correction Factor							0.9998	1.0000	1.0038	99.6%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	-0.2	-0.2	-0.2	ppb	0.1	0.1	-0.1	ppb
Auto span	296.4	294.0	1.6	ppb	325.2	317.0	7.4	ppb

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter NO₂

Air Monitoring Network PAZA



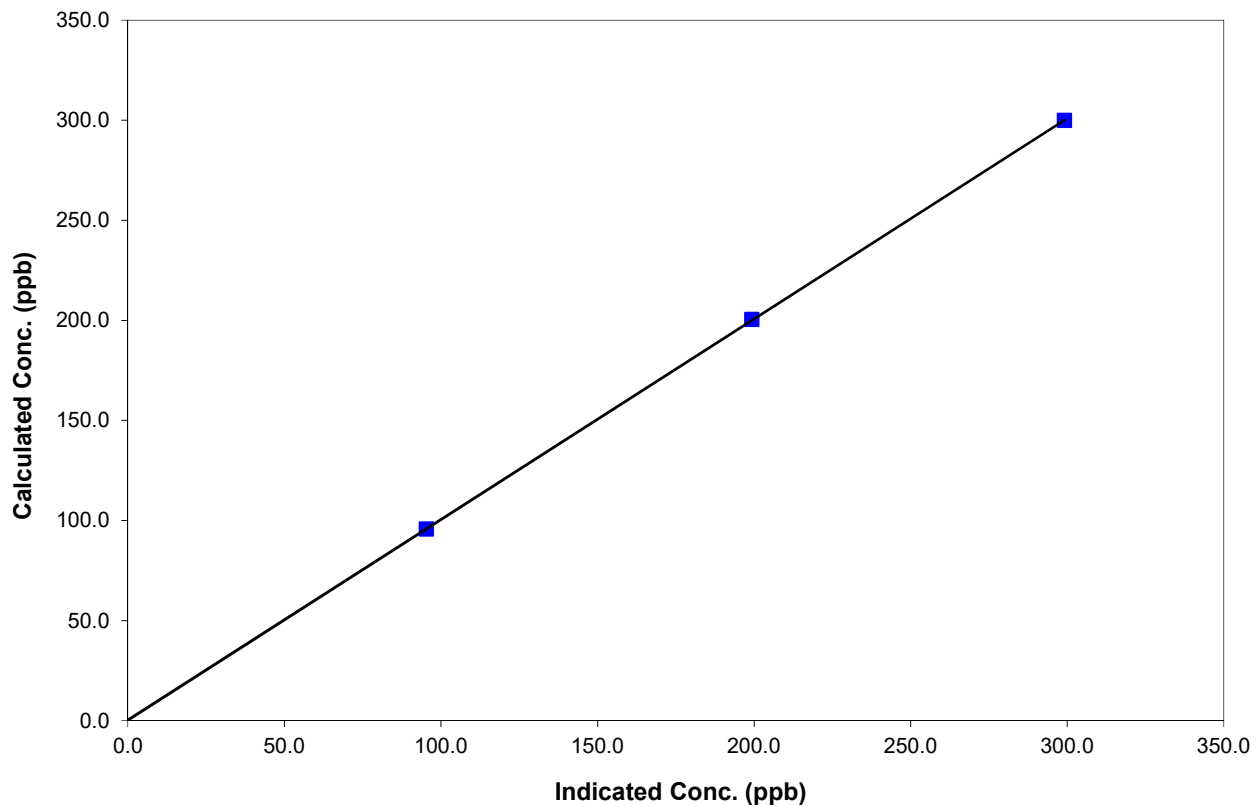
Station Information

Calibration Date	May 8, 2018	Previous Calibration	April 24, 2018
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	8:30	End Time (MST)	13:25:00 PM
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	-0.3	N/A	Correlation Coefficient	0.999996
299.8	299.1	1.0021		
200.4	199.3	1.0052		
95.7	95.3	1.0039	Slope	1.001770
			Intercept	0.318077

NO₂ Calibration Curve



Calibration Summary

Parameter NO_x

Air Monitoring Network PAZA



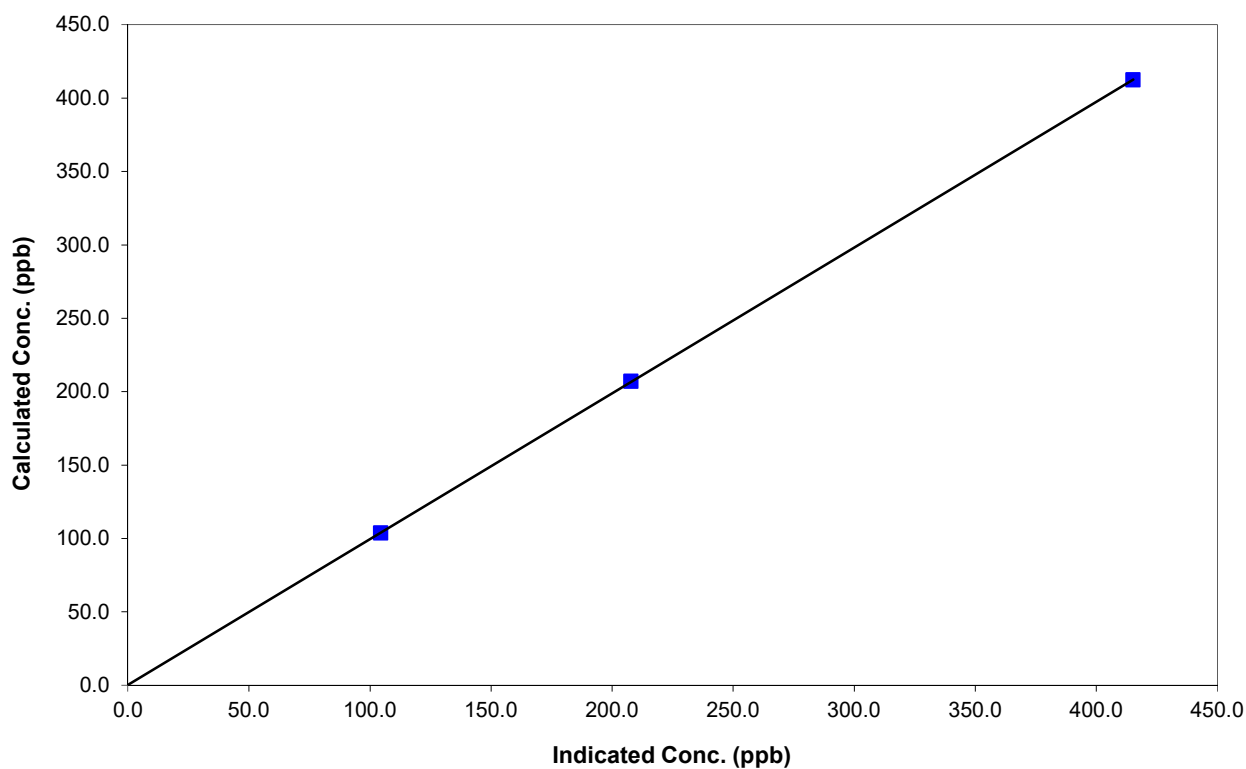
Station Information

Calibration Date	May 8, 2018	Previous Calibration	April 24, 2018
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	8:30	End Time (MST)	13:25:00 PM
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	-0.3	N/A	Correlation Coefficient	0.999996
412.5	415.2	0.9935		
207.1	207.8	0.9963		
103.6	104.5	0.9916	Slope	0.993309
			Intercept	0.200429

NO_x Calibration Curve



Calibration Summary

Parameter NO

Air Monitoring Network PAZA



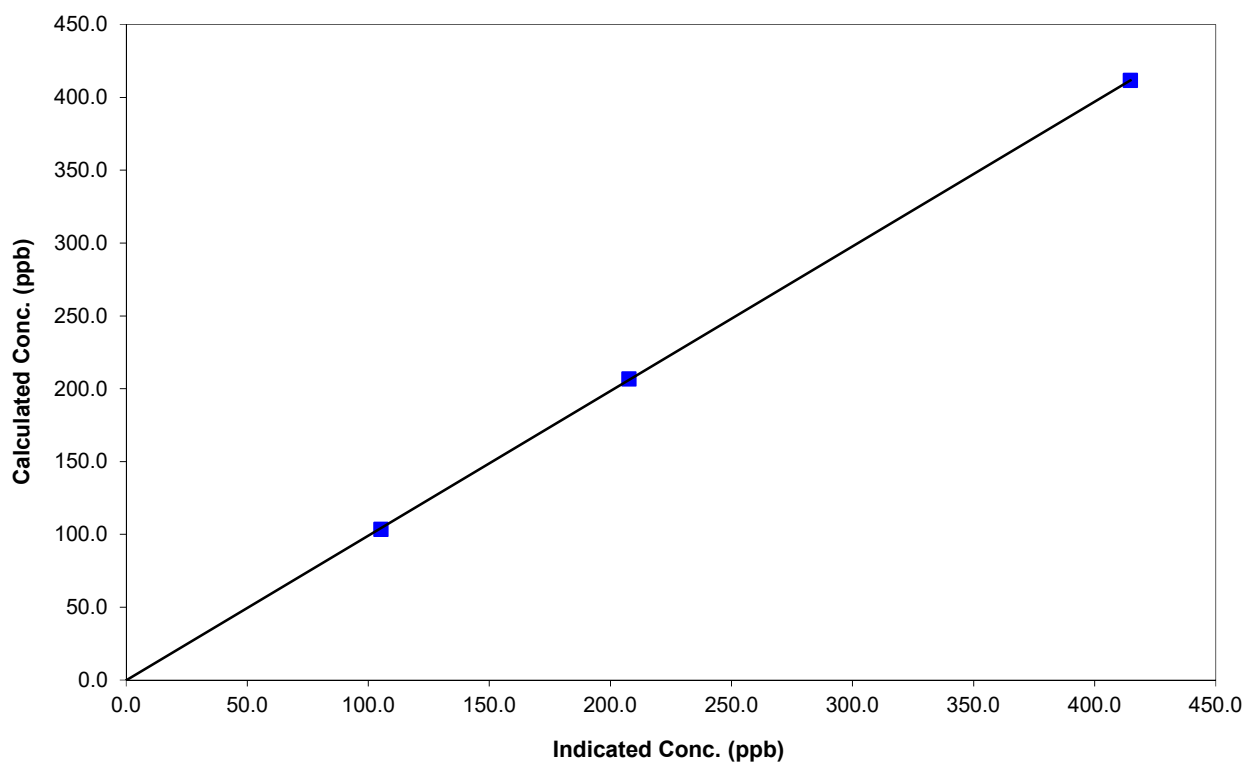
Station Information

Calibration Date	May 8, 2018	Previous Calibration	April 24, 2018
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	8:30	End Time (MST)	13:25:00 PM
Analyzer make	TEI 42i	Analyzer serial #	906535068

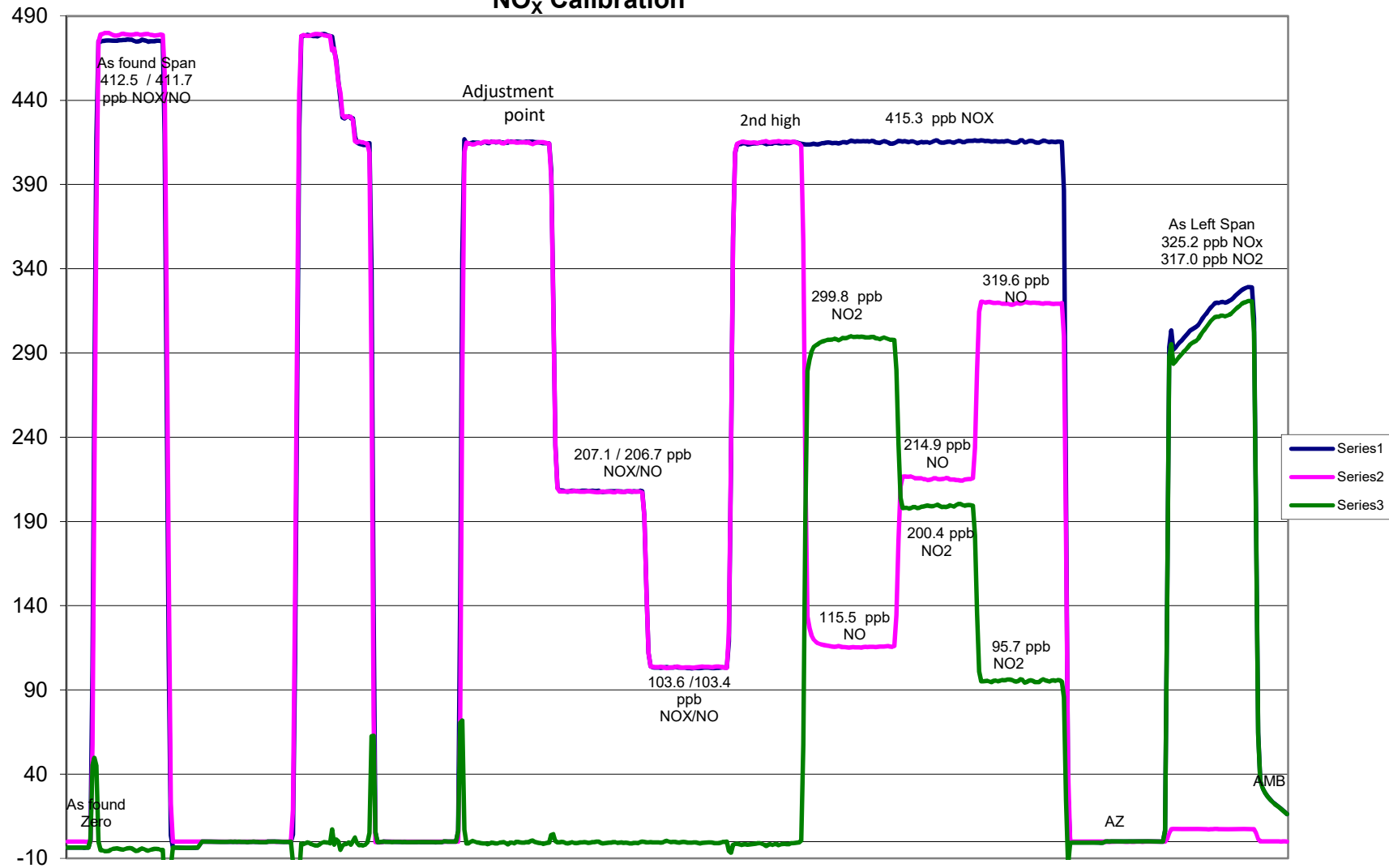
Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	N/A		
411.7	414.9	0.9924	Correlation Coefficient	0.999985
206.7	207.7	0.9951		
103.4	105.3	0.9822		
			Slope	0.993246
			Intercept	-0.257644

NO Calibration Curve



NO_x Calibration



May 8, 2018

Calibration Report

Parameter 03

Air Monitoring Network PAZA



Station Information

Calibration Date	May 8, 2018	Previous Calibration	April 24, 2018
Station Number	4	Station Location	Beaverlodge
Reason:	Routine	Install	Removal
		Other:	
Start Time (MST)	12:20	End Time (MST)	14:50:00 PM
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	1.000949	Calculated slope	1.011752
Calculated intercept	-0.678674	Calculated intercept	-0.236513

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	1.184		1.092	
Lamp temp	53.9	mV	53.9	mV
Lamp Intensity A/B	54566/63791	mV	54547/63780	mV
Pressure	680.5	mm Hg	686.6	mm Hg
Flow A	0.798	LPM	0.810	LPM
Flow B	0.736	LPM	0.740	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	0.5	N/A
5032	0.30	299.8	297.4	1.0080
5032	0.20	200.4	196.9	1.0180
5032	0.10	95.7	95.1	1.0059
5032				
5032	0.00	0.0	0.5	As found zero
5032	0.30	299.8	325.1	As found span
Average Correction Factor				1.0106

Calculated value of As Found Response: 324.2 ppm Percent Change of As Found: 8.2%

	before calibration		after calibration	
Auto zero	0.6	ppb	0.5	ppb
Auto span	286.5	ppb	271.8	ppb

Notes: Span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter 03

Air Monitoring Network PAZA



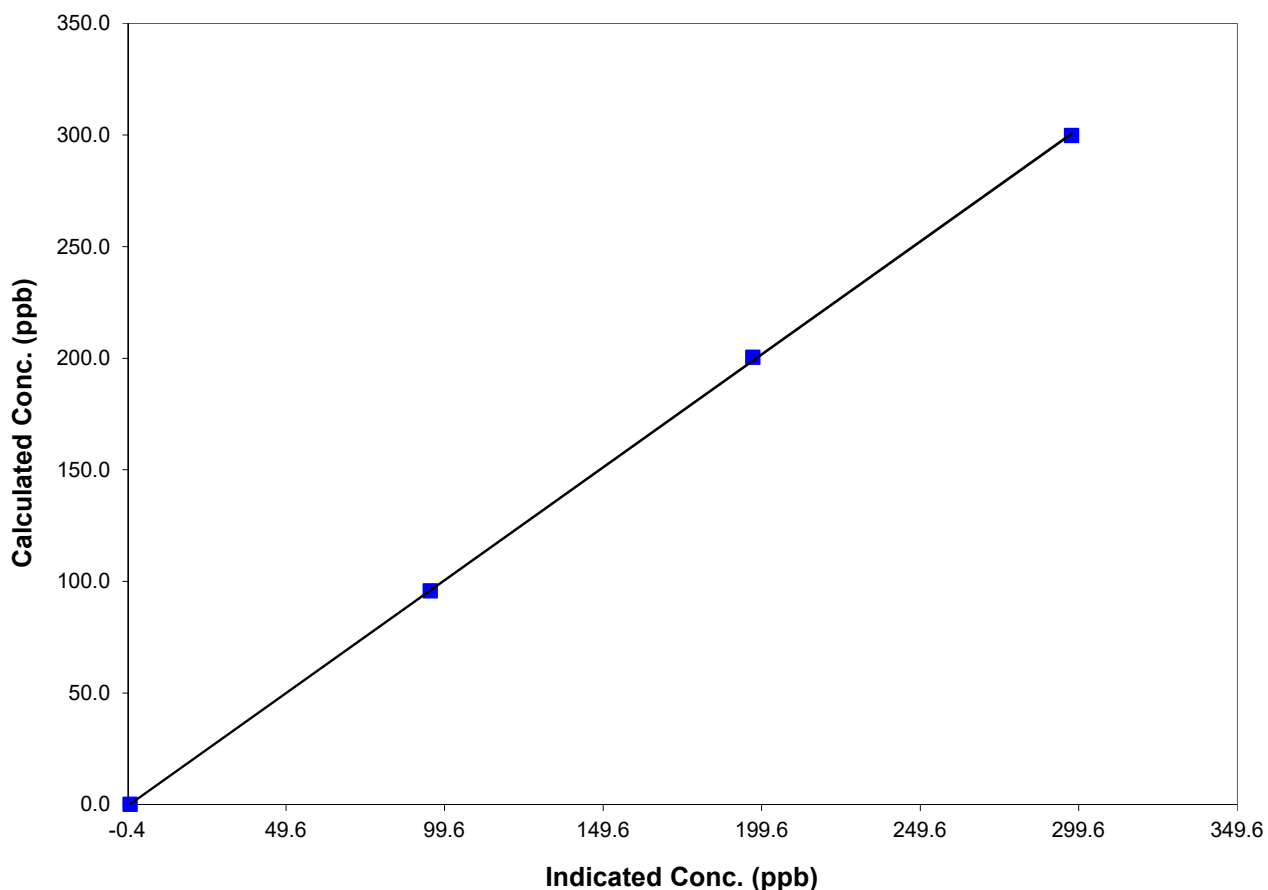
Station Information

Calibration Date	May 8, 2018	Previous Calibration	April 24, 2018
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	12:20	End Time (MST)	14:50:00 PM
Analyzer make/model	Teco 49i	Analyzer serial #	1136451236,AMU 1879

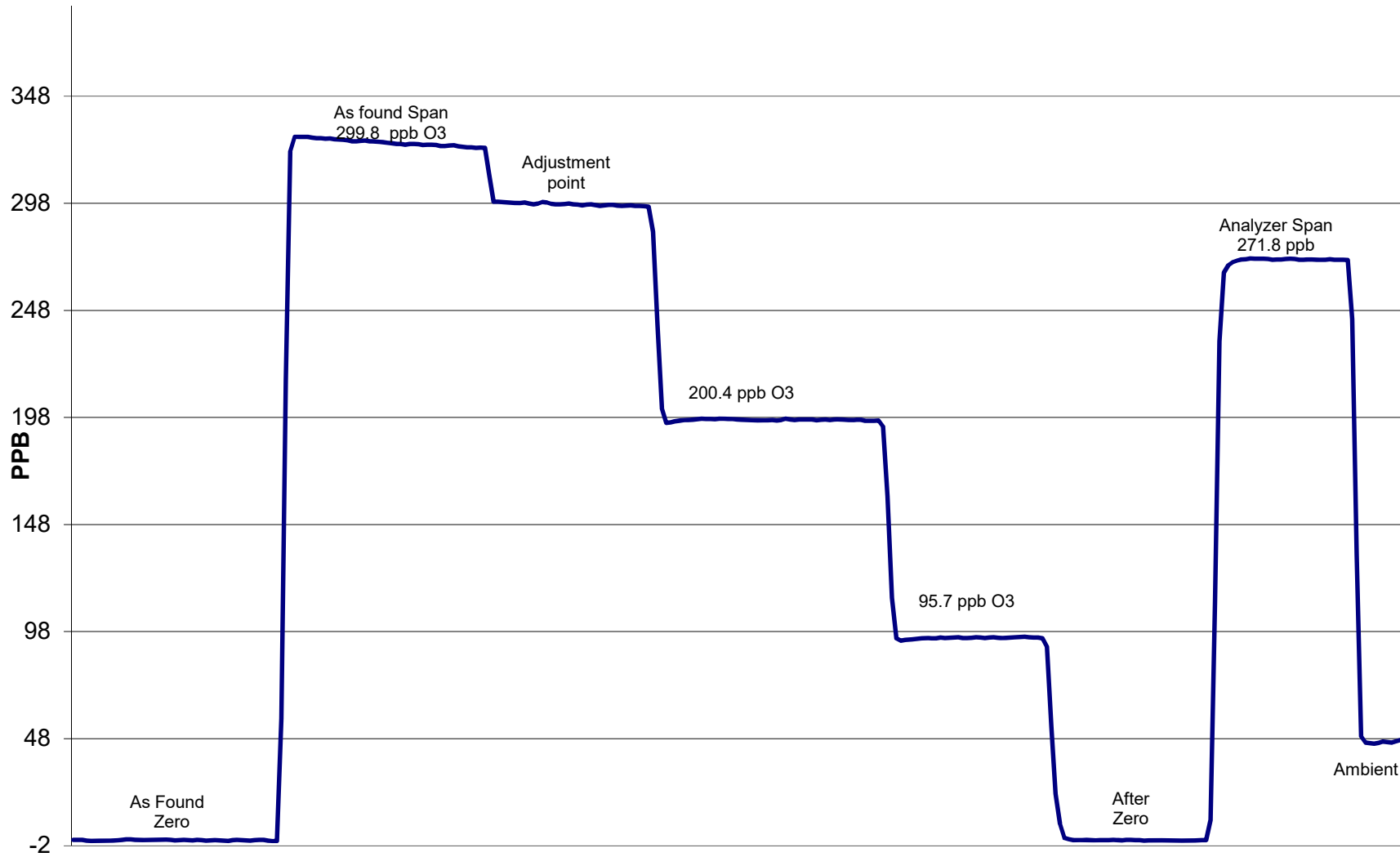
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.5	NA	Correlation Coefficient	0.999939
299.8	297.4	1.0080		
200.4	196.9	1.0180		
95.7	95.1	1.0059	Slope	1.011752
			Intercept	-0.236513

O3 Calibration Curve



O3 Calibration



May 8, 2018

Calibration Report

Parameter SO₂

Air Monitoring Network PAZA



Station Information

Calibration Date	May 22, 2018	Previous Calibration	April 19, 2018
Station Number	3	Station Location	Smokey Heights
Reason:	Routine	Install	Removal
		Other:	
Start Time (MST)	11:55	End Time (MST)	14:50:00 PM
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	1.001582	Calculated slope	1.000318
Calculated intercept	0.519984	Calculated intercept	0.755401
Analyzer make	Teco 43i	Analyzer serial #	701120009

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	13.9		14.4	
coefficient	0.966		1.056	
Lamp Voltage	942	volts	808	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	667.5	mm Hg	671	mm Hg
Sample Flow	0.418	lpm	0.417	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	0.3	N/A
4996	39.96	393.57	393.2	1.0008
4996	19.97	197.47	196.1	1.0072
4996	9.99	98.98	97.2	1.0186
4996	0.0	0.00	1.0	As Found Zero
4996	39.96	393.57	398.5	As Found Span
Average Correction Factor				1.0089

Calculated value of As Found Response: 398.676 ppb Percent Change of As Found: -1.3%

	before calibration		after calibration	
Auto zero	0.9	ppb	0.3	ppb
Auto span	208.8	ppb	208.9	ppb

Notes: Zero/span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter SO2

Air Monitoring Network PAZA



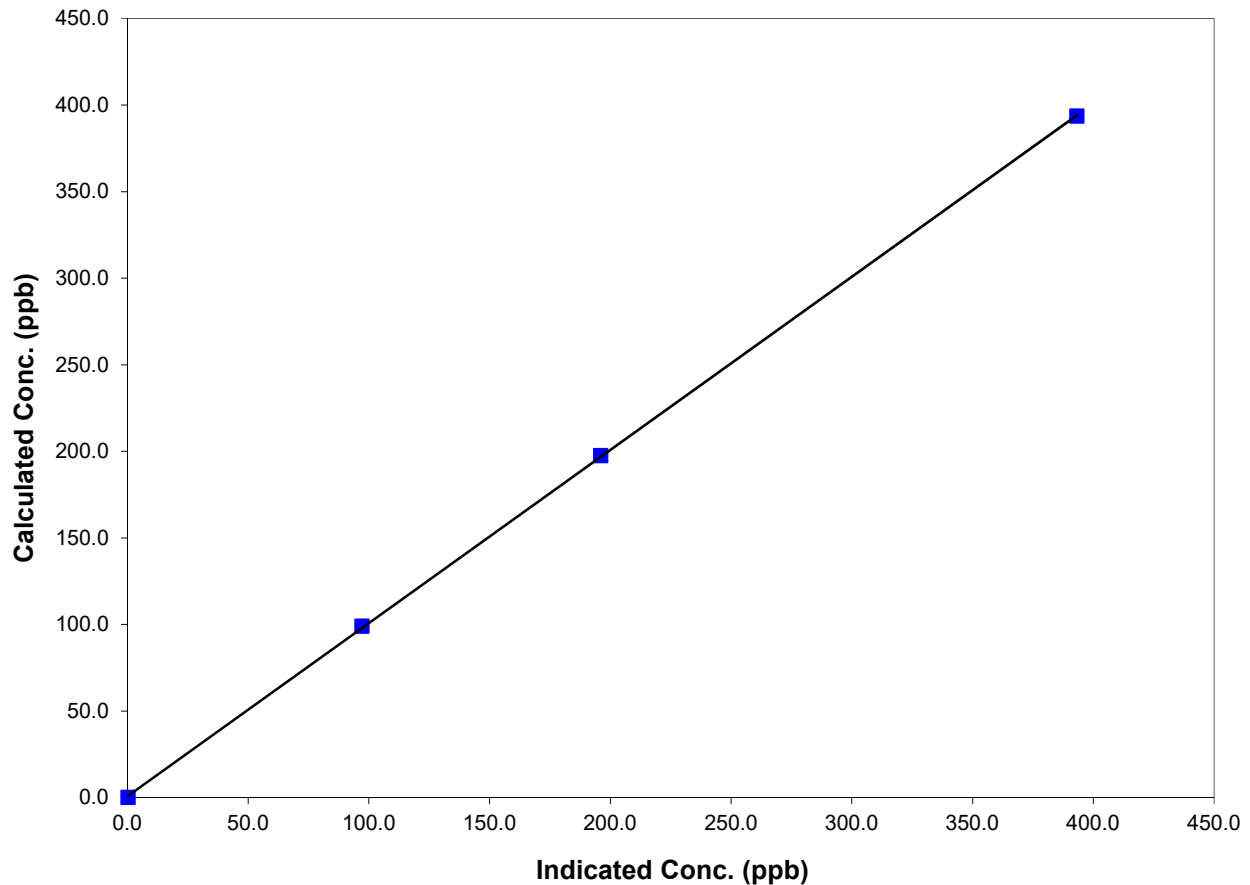
Station Information

Calibration Date	May 22, 2018	Previous Calibration	April 19, 2018
Station Number	3	Station Location	Smokey Heights
Start Time (MST)	11:55	End Time (MST)	14:50:00 PM
Analyzer make/model	Teco 43i	Analyzer serial #	701120009

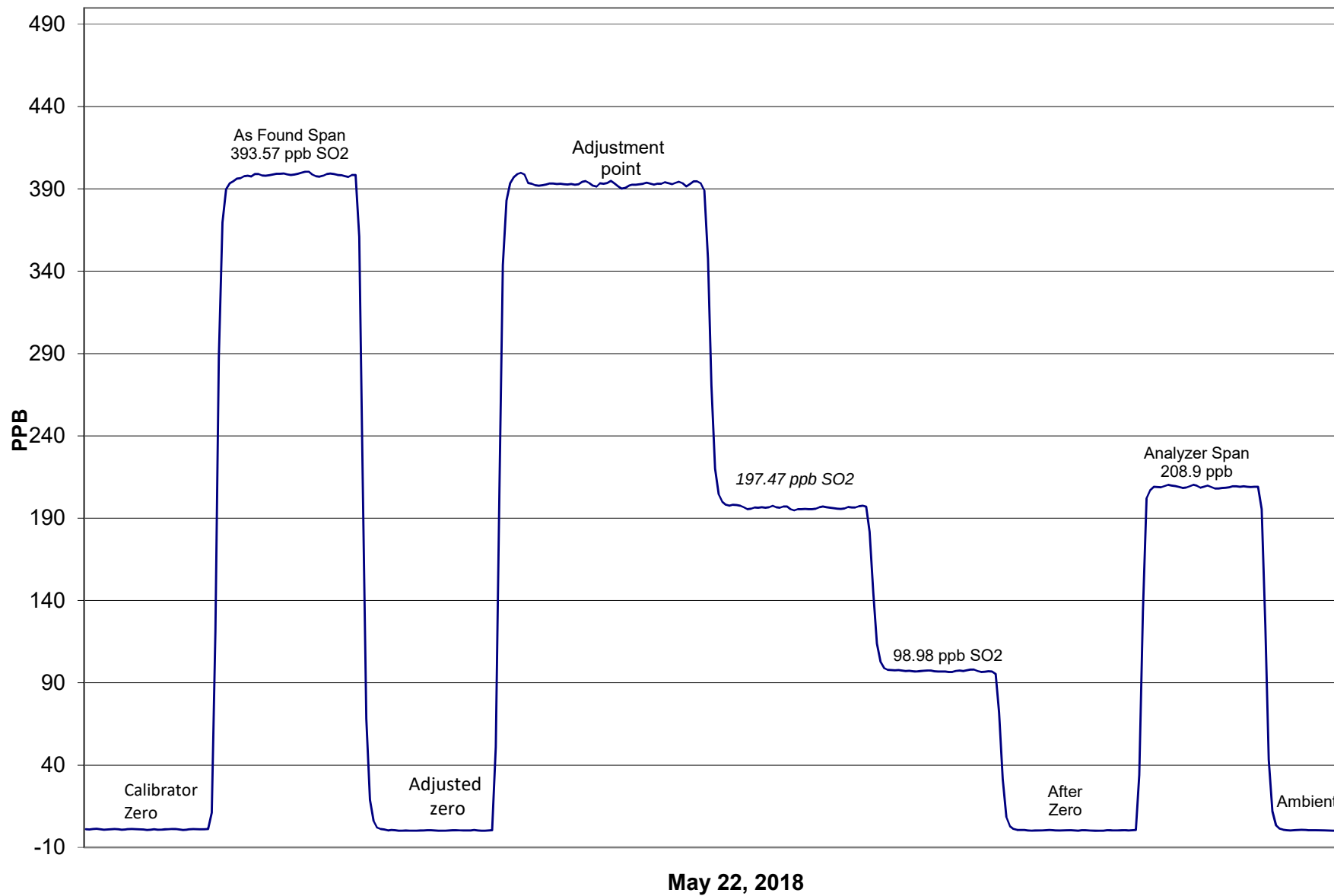
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	N/A	Correlation Coefficient	0.999967
393.6	393.2	1.0008		
197.5	196.1	1.0072		
99.0	97.2	1.0186	Slope	1.000318
			Intercept	0.755401

SO2 Calibration Curve



Smokey Heights SO₂ Calibration



Calibration Report

Parameter TRS

Air Monitoring Network PAZA



Station Information

Calibration Date	May 22, 2018	Previous Calibration	April 19, 2018
Station Number	3	Station Location	Smokey Heights
Reason:	Routine	Install	Removal
		Other:	
Start Time (MST)	9:55	End Time (MST)	13:00:00 PM
Barometric Pressure	0.923 ATM	Station Temperature	19.0 Deg C
Calibrator	EnviroNics 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	1.015208	Calculated slope	0.995805
Calculated intercept	-0.409536	Calculated intercept	-0.058553

Analyzer make TEI Model 43I APSAA Analyzer serial # 1153630151

	before		after	
Concentration range	100	ppb	100	ppb
Background	14.1	ppb	14.4	ppb
coefficient	1.027		1.056	
Lamp Voltage	811	volts	809	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	762.5	mm Hg	670.7	mm Hg
Sample Flow	0.412	lpm	0.417	lpm
Lamp Intensity	92	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	0.2	N/A
4996	39.96	77.60	78.0	0.9948
4996	19.97	38.94	39.2	0.9934
6998	9.99	13.94	13.8	1.0076
4996	9.99		0.4	Sox test
4996	0.0	0.00	0.2	As Found Zero
4996	39.96	77.60	74.7	As Found Span
Average Correction Factor				0.9986

Calculated value of As Found Response: 75.19 ppb Percent Change of As Found: 3.1%

	before calibration		after calibration	
Auto zero	0.6	ppb	0.2	ppb
Auto span	64.9	ppb	66.8	ppb

Notes: Span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter TRS
Air Monitoring Network PAZA



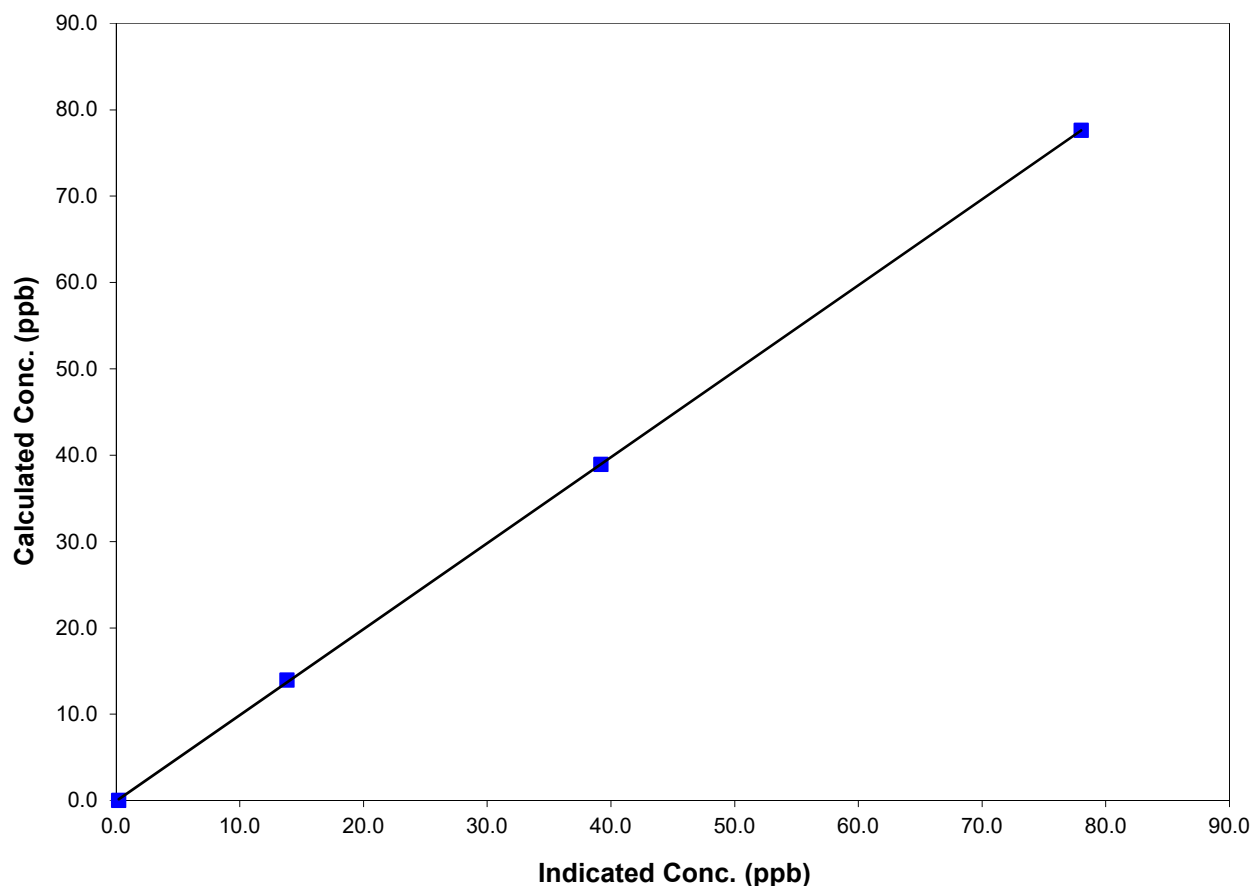
Station Information

Calibration Date	May 22, 2018	Previous Calibration	April 19, 2018
Station Number	3	Station Location	Smokey Heights
Start Time (MST)	9:55	End Time (MST)	13:00:00 PM
Analyzer make/model	TEI Model 43I APSAA	Analyzer serial #	1153630151

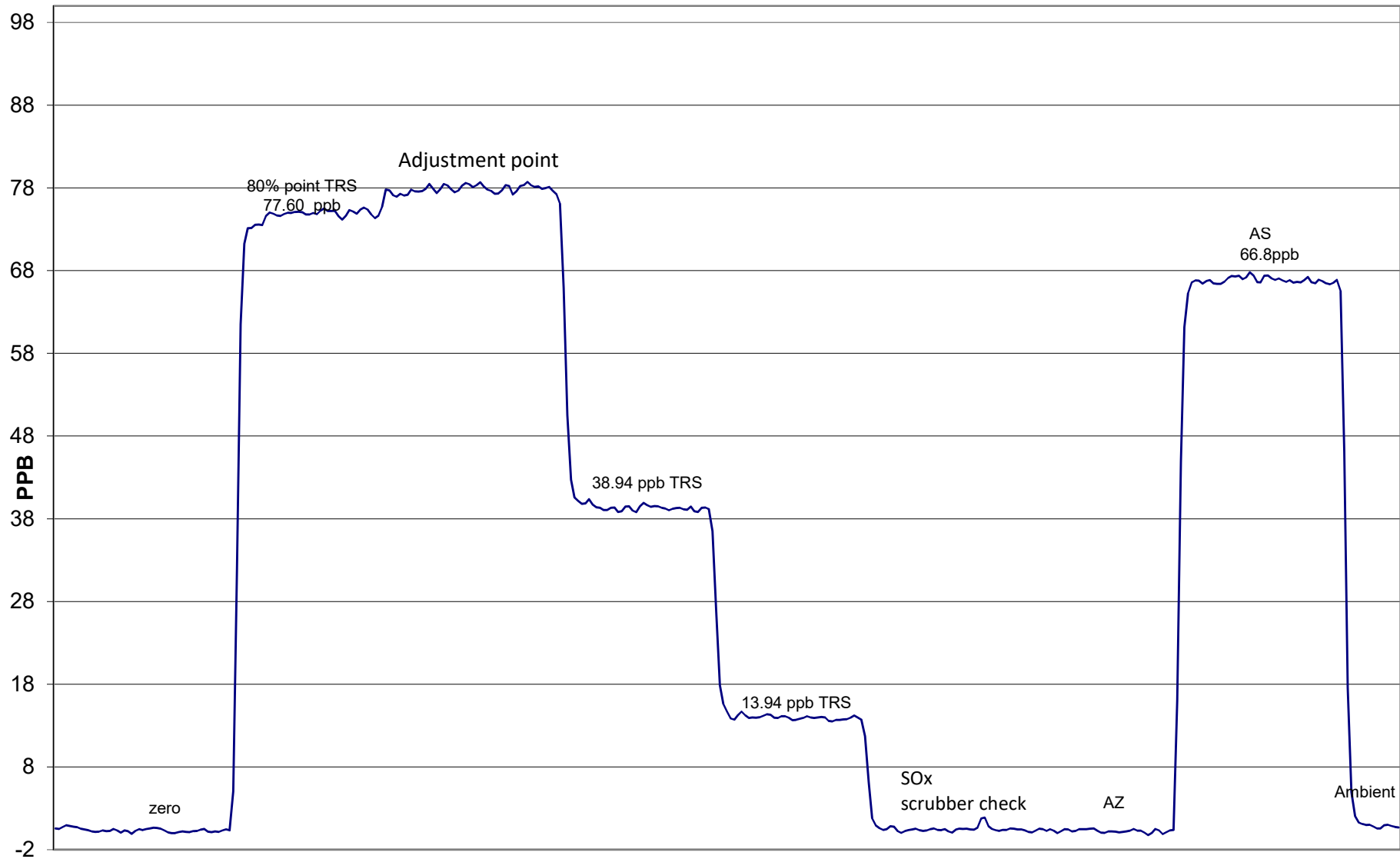
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A	Correlation Coefficient	0.999978
77.6	78.0	0.9948		
38.9	39.2	0.9934		
13.9	13.8	1.0076	Slope	0.995805
			Intercept	-0.058553

TRS Calibration Curve



Smokey Heights TRS Calibration



May 22, 2018

Calibration Report

Parameter SO2
Air Monitoring Network PAZA



Station Information

Calibration Date	May 28, 2018	Previous Calibration	April 23, 2018
Station Number	6	Station Location	Valleyview
Reason:	Routine	Install	Removal
Other:			
Start Time (MST)	11:40:00:AM	End Time (MST)	
Barometric Pressure	0.929 atm	Station Temperature	22.0 Deg C
Calibrator	Envionics	Serial Number	3016
Cal Gas Concentratio	49.4 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
	Before		After
DACS Scale High	500	DACS slope	500
DACS Scale Low	0	DACS intercept	0
Calculated slope	1.005469	Calculated slope	1.000902
Calculated intercept	0.425032	Calculated intercept	0.462263
Analyzer make	TEI Model 43i - APSCB	Analyzer serial #	701120010

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Background	7.2		7.1	
Coefficient	0.861		0.837	
UV Lamp Voltage	797	LPM	790	LPM
Chamber Temp	45	V	45	V
Perm Gas Temp	45	C	45	C
Pressure	686.1	in Hg	674.2	in Hg
Sample Flow	0.462	LPM	0.454	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	39.94	391.9	391.5	1.0009
4995	19.97	196.7	195.7	1.0050
4995	9.97	98.4	96.7	1.0178
4995	0.00	0.0	0.6	As found zero
4995	39.94	391.9	391.5	As found span
Average Correction Factor				1.0079

Calculated value of As Found Response: 393.5 ppb Percent Change of As Found: -0.4%

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

Notes: No adjustment made

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter SO2
Air Monitoring Network PAZA



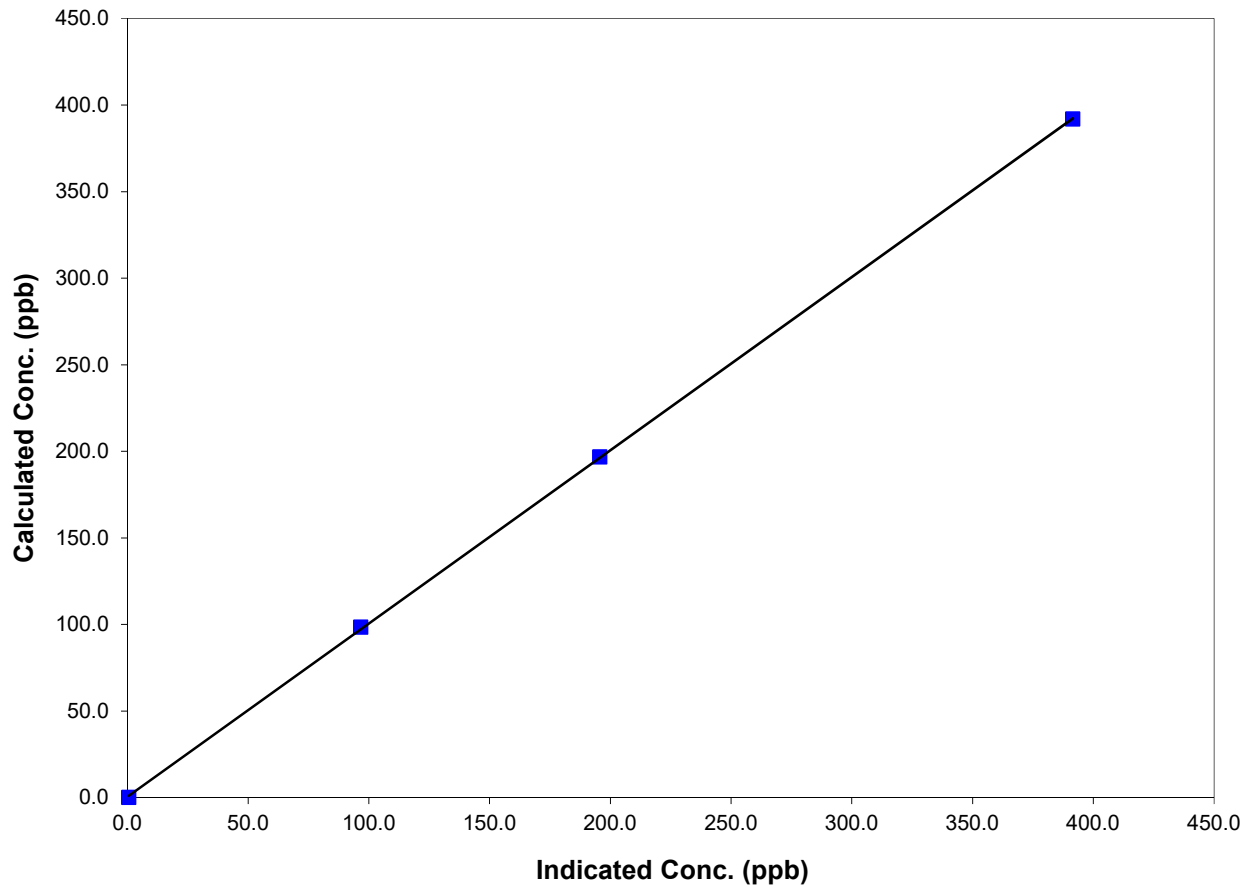
Station Information

Calibration Date	May 28, 2018	Previous Calibration	April 23, 2018
Station Number	6	Station Location	Valleyview
Start Time (MST)	11:40:00:AM	End Time (MST)	0:00
Analyzer make/model	TEI Model 43i - APSCB	Analyzer serial #	701120010

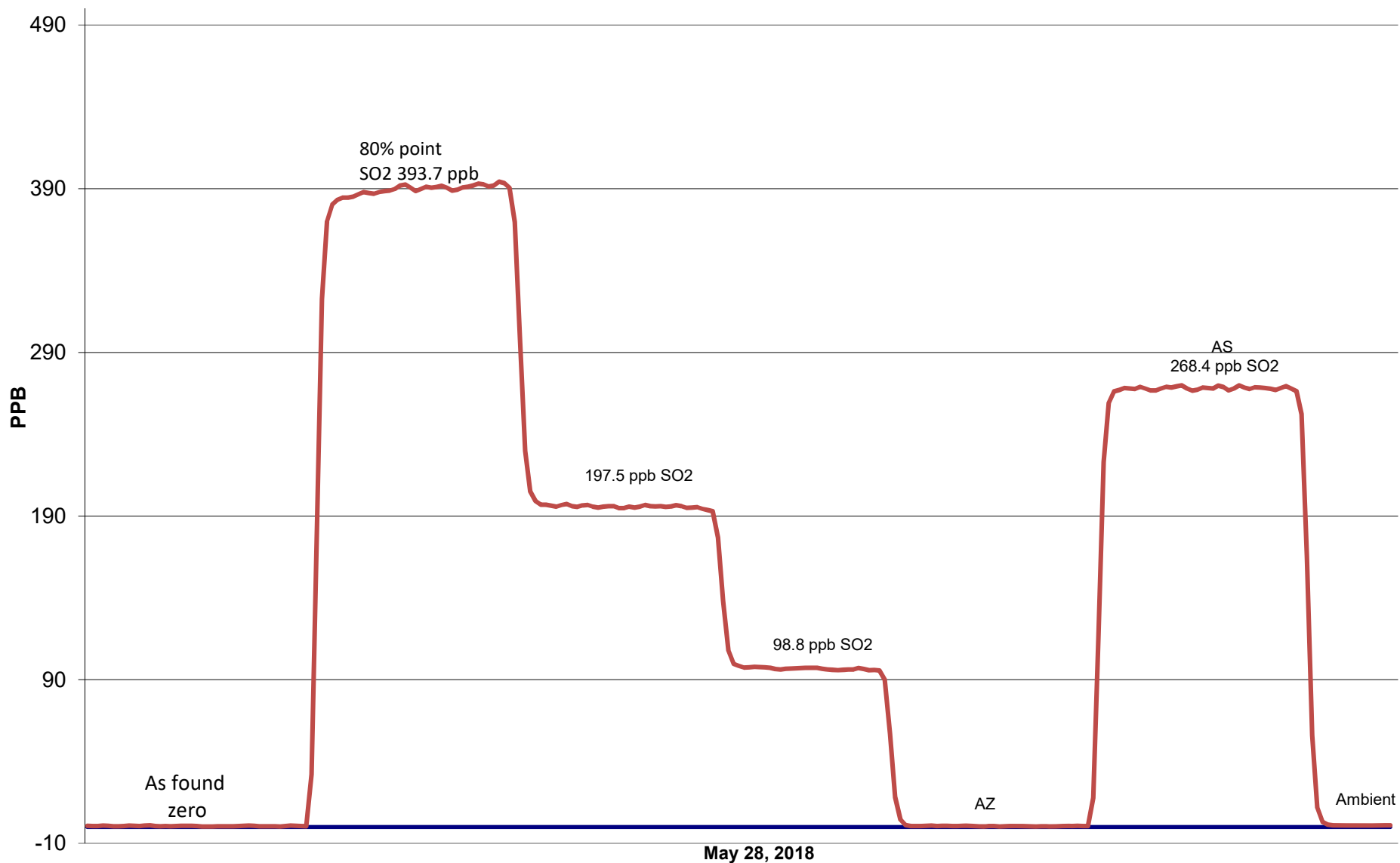
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.6	N/A	Correlation Coefficient	0.999967
391.9	391.5	1.0009		
196.7	195.7	1.0050		
98.4	96.7	1.0178	Slope	1.000902
			Intercept	0.462263

SO2 Calibration Curve



SO2 Calibration



Calibration Report



Parameter H2S

Air Monitoring Network PAZA

Station Information

Calibration Date	May 28, 2018	Previous Calibration	April 23, 2018
Station Number	6	Station Location	Valleyview
Reason:	Routine	Install	Removal
		Other:	
Start Time (MST)	8:50	End Time (MST)	
Barometric Pressure	0.929 atm	Station Temperature	22.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3016
Cal Gas Concentration	10.2 ppm	Cal Gas Expiry Date	19/03/2021
Gas Cert Reference	EY0000943		
DACS make	CR3000	DACS serial No.	5409
DACS voltage range	0 - 5 volt	DACS channel #	9
	Before		After
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	1.033722	Calculated slope	1.032691
Calculated intercept	0.245527	Calculated intercept	0.259110
Analyzer make	TEI Model 450i-APHAA	Analyzer serial #	1170050144

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Back Ground	13.1	ppb	13.5	ppb
Coefficient	1.017		1.044	
Lamp Voltage	779	V	762	V
Chamber Temp	45.5	c	45.5	c
Convertor	233.4	c	227.0	c
Pressure	572.00	mm Hg	561.00	mm Hg
Sample Flow	0.936	ccm	0.926	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	39.94	80.9	78.1	1.0357
4995	19.97	40.6	39.1	1.0400
6995	9.97	14.5	13.8	1.0543
4995	0.00	0.0	-0.2	As found zero
4995	39.94	80.9	78.1	As found span
Average Correction Factor				1.0434

Calculated value of As Found Response: 81.21 ppb Percent Change of As Found: -0.4%

	before calibration		after calibration	
Auto zero	0.0	ppb	0.0	ppb
Auto span	64.9	ppb	64.9	ppb

Notes: Slight span adjustment made.

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter H2S

Air Monitoring Network PAZA



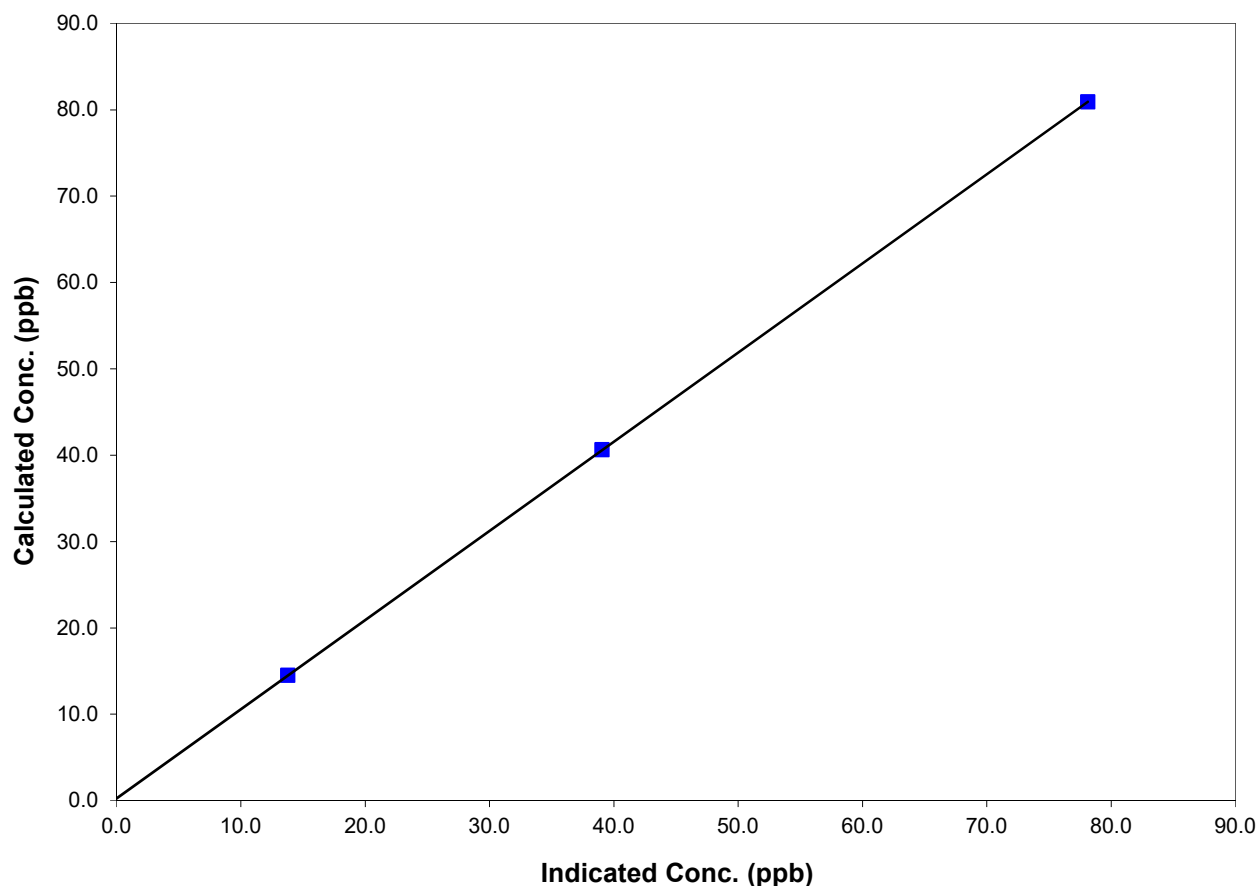
Station Information

Calibration Date	May 28, 2018	Previous Calibration	April 23, 2018
Station Number	6	Station Location	Valleyview
Start Time (MST)	8:50	End Time (MST)	0:00
Analyzer make/model	TEI Model 450i-APHAA	Analyzer serial #	1170050144

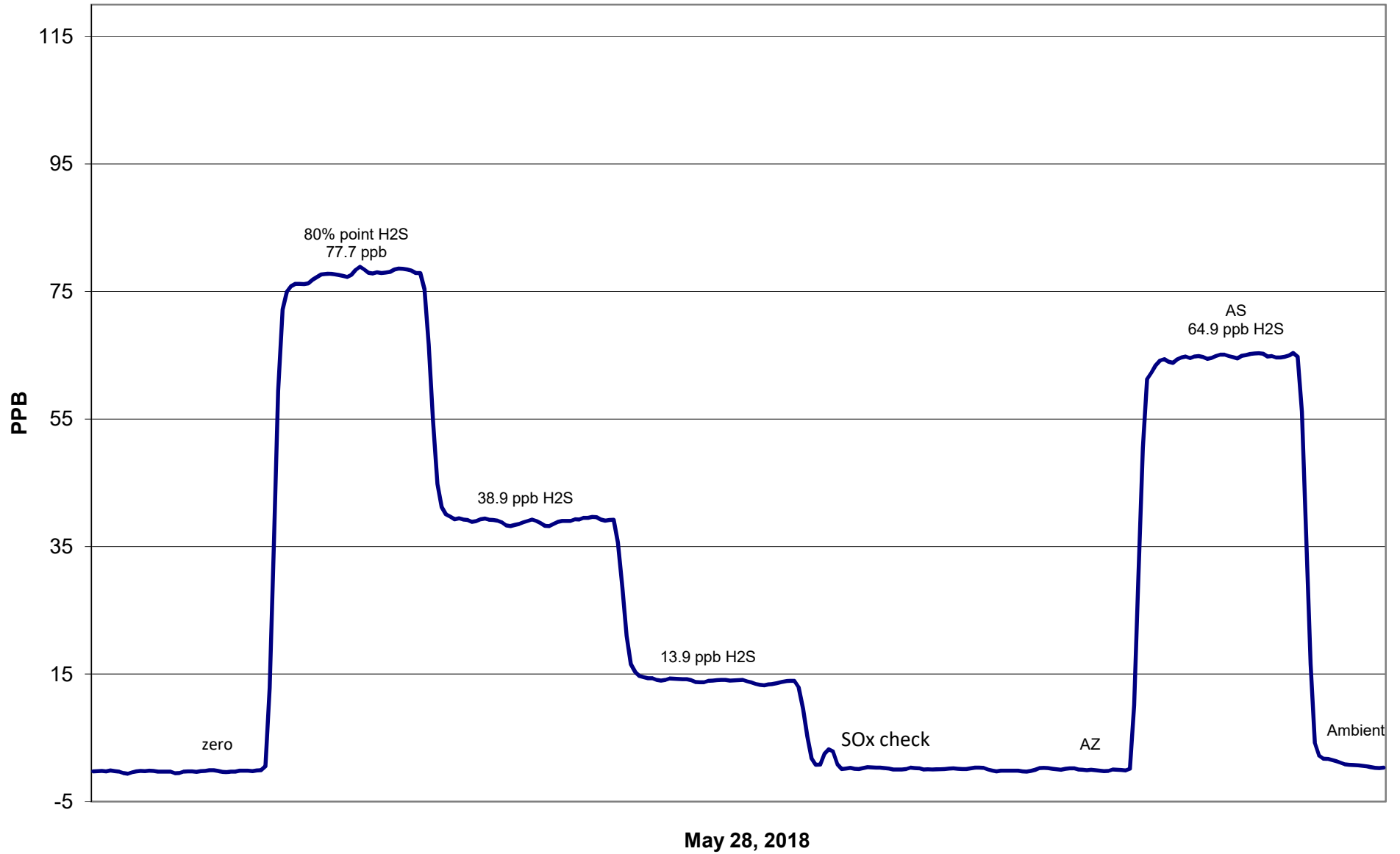
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.2	N/A	Correlation Coefficient	0.999999
80.9	78.1	1.0357		
40.6	39.1	1.0400		
14.5	13.8	1.0543	Slope	1.032691
			Intercept	0.259110

H2S Calibration Curve



H2S Calibration



Calibration Report

Parameter SO₂

Air Monitoring Network PAZA



Station Information

Calibration Date	May 17, 2018	Previous Calibration	April 25, 2018
Station Number	1	Station Location	Donnelly
Reason:	Routine	Install	Removal
		Other:	
Start Time (MST)	9:00	End Time (MST)	11:40
Barometric Pressure	0.934 atm	Station Temperature	21.0 Deg C
Calibrator	EnviroNics 6103	Serial Number	6586
Cal Gas Concentration	49.6 ppm	Cal Gas Expiry Date	October 24, 2020
Correction factor	0.031641	Cal Gas Cylinder #	LL107945
DACS make	CR1000	DACS serial No.	3980
DACS voltage range	0 - 5 volt	DACS channel #	6
	<u>Before</u>		<u>After</u>
Calculated slope	1.001585	Calculated slope	0.988696
Calculated intercept	-1.610686	Calculated intercept	-0.600902
Analyzer make	Teco 43i	Analyzer serial #	1207452008

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	8		7.2	
coefficient	1.029		1.029	
Lamp Voltage	846	volts	847	volts
Chamber Temp	45	Deg C	45.2	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	682.6	mm Hg	685.3	mm Hg
Sample Flow	0.432	ccm	0.434	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)
4995	0.0	0.00	0.2	N/A
4995	39.89	393.0	397.4	0.9889
4995	19.78	195.6	200.1	0.9778
4995	9.90	98.1	99.4	0.9873
4995	0.0	0.0	-0.5	As Found Zero
4995	39.99	393.9	397.4	As Found Span
Average Correction Factor				0.9847

Calculated value of As Found Response: 396.941 ppb Percent Change of As Found: -0.8%

	before calibration		after calibration	
Auto zero	-0.3	ppb	0.4	ppb
Auto span	244.2	ppb	242.1	ppb

Notes: Zero adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter SO2
Air Monitoring Network PAZA



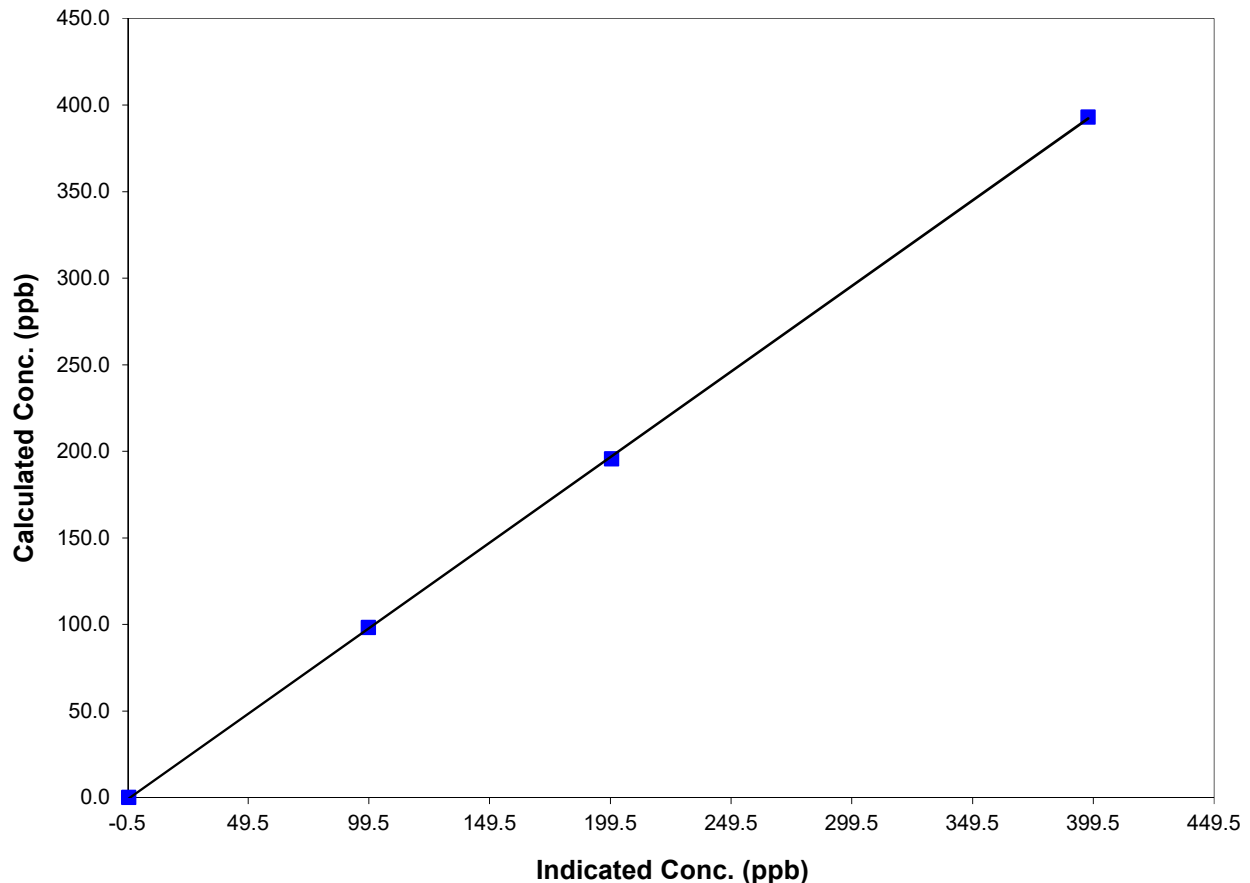
Station Information

Calibration Date	May 17, 2018	Previous Calibration	April 25, 2018
Station Number	1	Station Location	Donnely
Start Time (MST)	9:00	End Time (MST)	11:40
Analyzer make/model	Teco 43i	Analyzer serial #	1207452008

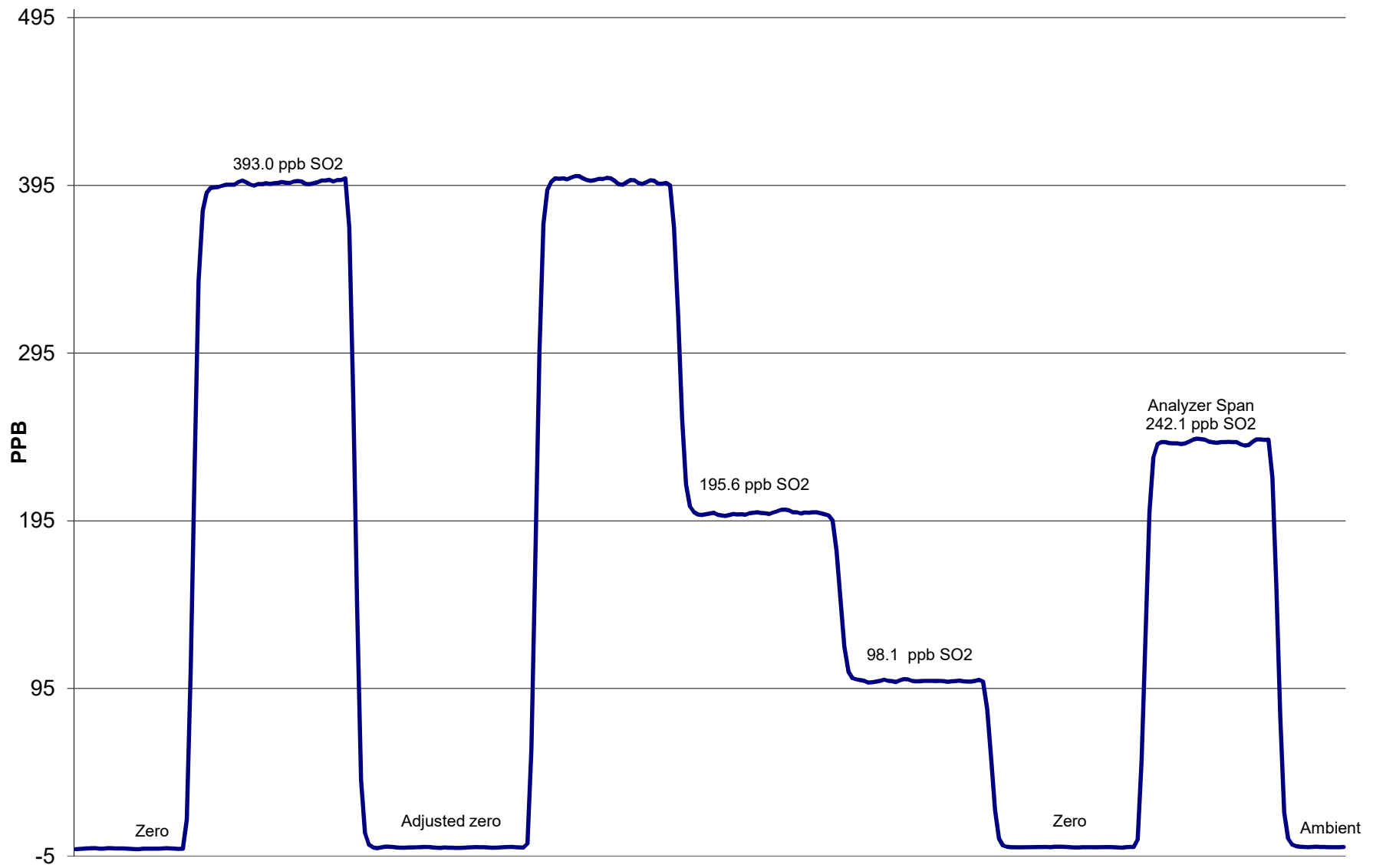
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A	Correlation Coefficient	0.999961
393.0	397.4	0.9889		
195.6	200.1	0.9778		
98.1	99.4	0.9873	Slope	0.988696
			Intercept	-0.600902

SO2 Calibration Curve



SO2 Calibration



May 17, 2018

Calibration Report

Parameter H2S
Air Monitoring Network PAZA



Station Information

Calibration Date	17/05/2018	Previous Calibration	25/04/2018
Station Number	1	Station Location	Donnelly
Reason:	Routine	Install	Removal
Start Time (MST)	7:30	End Time (MST)	10:00
Barometric Pressure	0.926 atm	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6103	Serial Number	6586
Cal Gas Conc	9.78 ppm	Cal Gas Expiry Date	March 19, 2021
Correction factor	0.031477	Cal Gas Cylinder #	LL119574
DACS make	CR1000	DACS serial No.	3980
DACS voltage range	0 - 5 volt	DACS channel #	5
	<u>Before</u>		<u>After</u>
Calculated slope	1.002729	Calculated slope	1.009893
Calculated intercept	-0.520611	Calculated intercept	-0.565633
Analyzer make	Thermo 450i	Analyzer serial #	1207452006

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	16.4	ppb	16.4	ppb
coefficient	1.044		1.044	
Lamp Voltage	810	volts	811	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	499	mm Hg	493.5	mm Hg
Sample Flow	0.720	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)
4996	0.00	0.00	0.5	N/A
4996	39.95	77.58	77.3	1.0038
4996	19.50	38.02	38.4	0.9894
6970	9.70	13.59	13.9	0.9763
4996	0.00	0.00	0.5	As Found Zero
4996	39.95	77.58	77.3	As Found Span
Average Correction Factor				0.9898

Calculated value of As Found Response: 76.45 ppb Percent Change of As Found: **1.5%**

	before calibration		after calibration	
Auto zero	0.6	ppb	0.3	ppb
Auto span	67.1	ppb	66.4	ppb

Notes: No adjustment made.

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter H2S

Air Monitoring Network PAZA



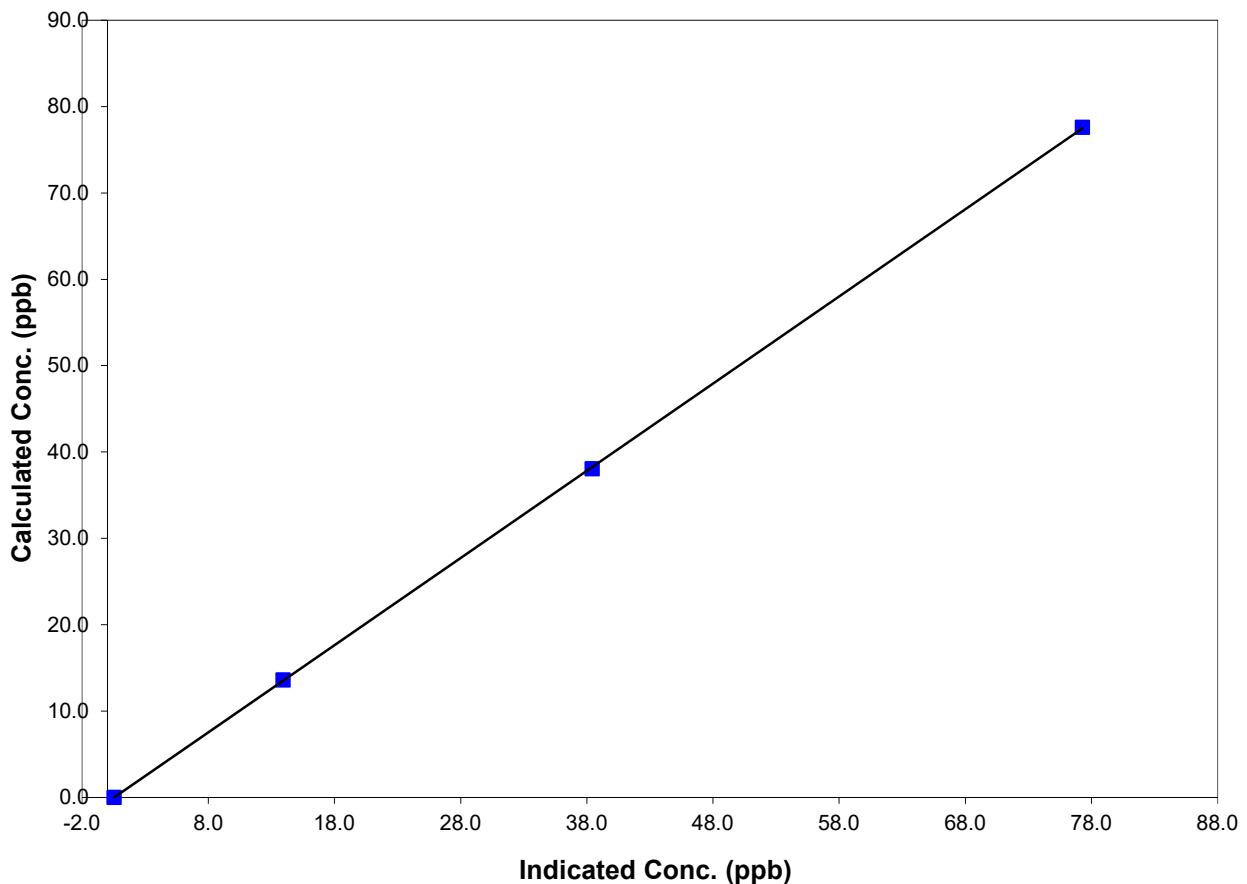
Station Information

Calibration Date	17/05/2018	Previous Calibration	25/04/2018
Station Number	1	Station Location	Donnely
Start Time (MST)	7:30	End Time (MST)	10:00
Analyzer make/model	Thermo 450i	Analyzer serial #	1207452006

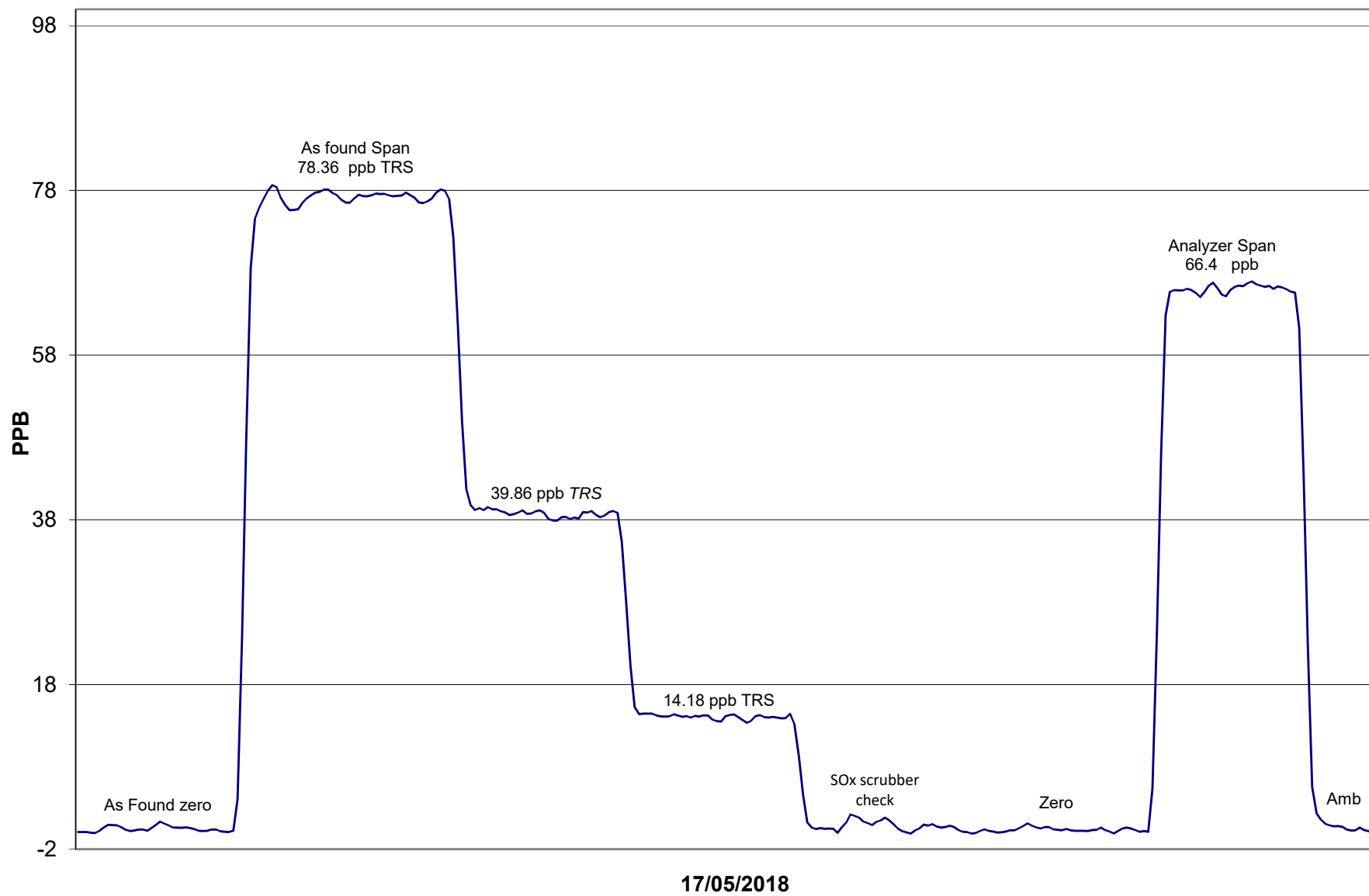
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.5	N/A	Correlation Coefficient	0.999980
77.6	77.3	1.0038		
38.0	38.4	0.9894		
13.6	13.9	0.9763	Slope	1.009893
			Intercept	-0.565633

TRS Calibration Curve



H2S Calibration



Calibration Report

Parameter SO2

Air Monitoring Network PAZA



Station Information

Calibration Date	May 24, 2018	Previous Calibration	April 17, 2018
Station Number	10	Station Location	Rycroft
Reason:	☐ Routine	☐ Install	☒ Removal
Other:			
Start Time (MST)	9:10	End Time (MST)	11:10
Barometric Pressure	0.919 Atm	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6103	Serial Number	6586
Cal Gas Concentration	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
	<u>Before</u>		<u>After</u>
DACS Scale High	500	DACS slope	500
DACS Scale Low	0	DACS intercept	0
Calculated slope	1.005633	Calculated slope	0.976609
Calculated intercept	-0.466668	Calculated intercept	-0.253237
Analyzer make	TEI 43C	Analyzer serial #	436610005

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Background	24.6		24.6	
Coefficient	1.076		1.076	
UV Lamp Voltage	899	V	899	V
Chamber Temp	44.6	C	44.5	C
Perm Gas Temp	45	C	45	C
Pressure	668.2	mm Hg	669.2	mm Hg
Sample Flow	0.464	LPM	0.467	LPM
Lamp Intesity	30229	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	1.2	N/A
4996	39.96	393.6	403.7	0.9749
4996	19.99	197.7	202.2	0.9776
4996	9.98	98.9	100.6	0.9830
4996	0.00	0.0	1.2	As found zero
4996	39.96	393.6	403.7	As found span
Average Correction Factor				0.9785

Calculated value of As Found Response: 404.335 ppb Percent Change of As Found: -2.7%

	before calibration		after calibration	
Auto zero	0.3	ppb	0.3	ppb
Auto span	208.4	ppb	211.4	ppb

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter SO2
Air Monitoring Network PAZA



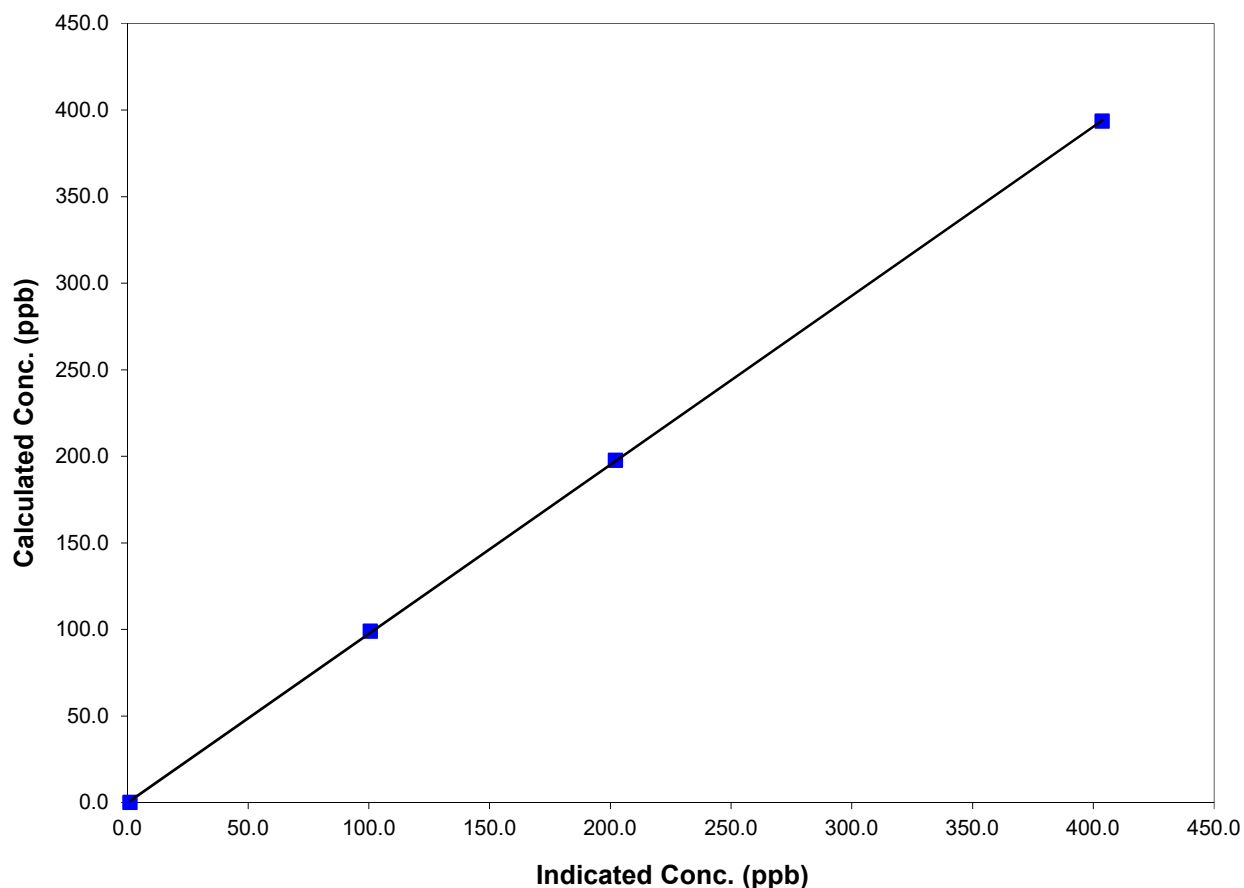
Station Information

Calibration Date	May 24, 2018	Previous Calibration	April 17, 2018
Station Number	10	Station Location	Rycroft
Start Time (MST)	9:10	End Time (MST)	11:10
Analyzer make/model	TEI 43C	Analyzer serial #	436610005

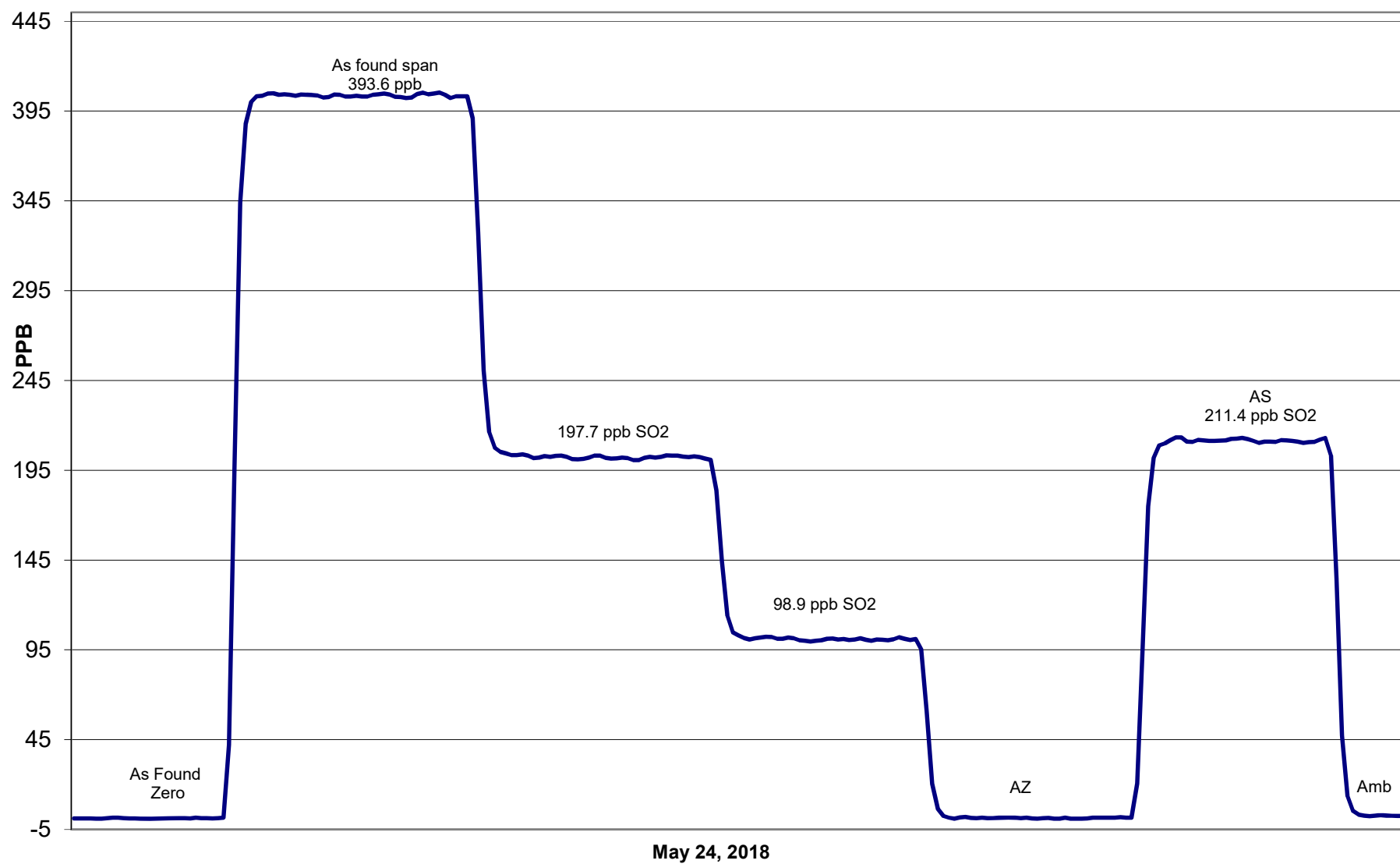
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	1.2	N/A	Correlation Coefficient	0.999976
393.6	403.7	0.9749		
197.7	202.2	0.9776		
98.9	100.6	0.9830	Slope	0.976609
			Intercept	-0.253237

SO2 Calibration Curve



SO2 Calibration



Calibration Report

Parameter SO2

Air Monitoring Network PAZA



Station Information

Calibration Date	May 24, 2018	Previous Calibration	
Station Number	10	Station Location	Rycroft
Reason:	☐ Routine ☒ Install ☐ Removal	Other:	
Start Time (MST)	12:20	End Time (MST)	15:05:00 PM
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
	<u>Before</u>		<u>After</u>
DACS Scale High	500	DACS slope	500
DACS Scale Low	0	DACS intercept	0
Calculated slope		Calculated slope	0.997608
Calculated intercept		Calculated intercept	1.282091
Analyzer make	TEI 43C	Analyzer serial #	436610005

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Background			18.1	
Coefficient			1.026	
UV Lamp Voltage		V	773	V
Chamber Temp		C	45	C
Perm Gas Temp		C	45	C
Pressure		mm Hg	665.6	mm Hg
Sample Flow		LPM	0.440	LPM
Lamp Intesity		Hz	90	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	-0.1	N/A
4996	39.96	393.6	393.9	0.9993
4996	19.99	197.7	196.1	1.0078
4996	9.98	98.9	96.7	1.0224
4996	0.00	0.0	0.0	As found zero
4996	39.96	393.6	376.1	As found span
Average Correction Factor				1.0098

Calculated value of As Found Response: NA

Percent Change of As Found: NA

	before calibration		after calibration	
Auto zero		ppb	0.3	ppb
Auto span		ppb	197.2	ppb

Notes: Instal calibration performed

Leak check done

Zero/span & PMT adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter SO2
Air Monitoring Network PAZA



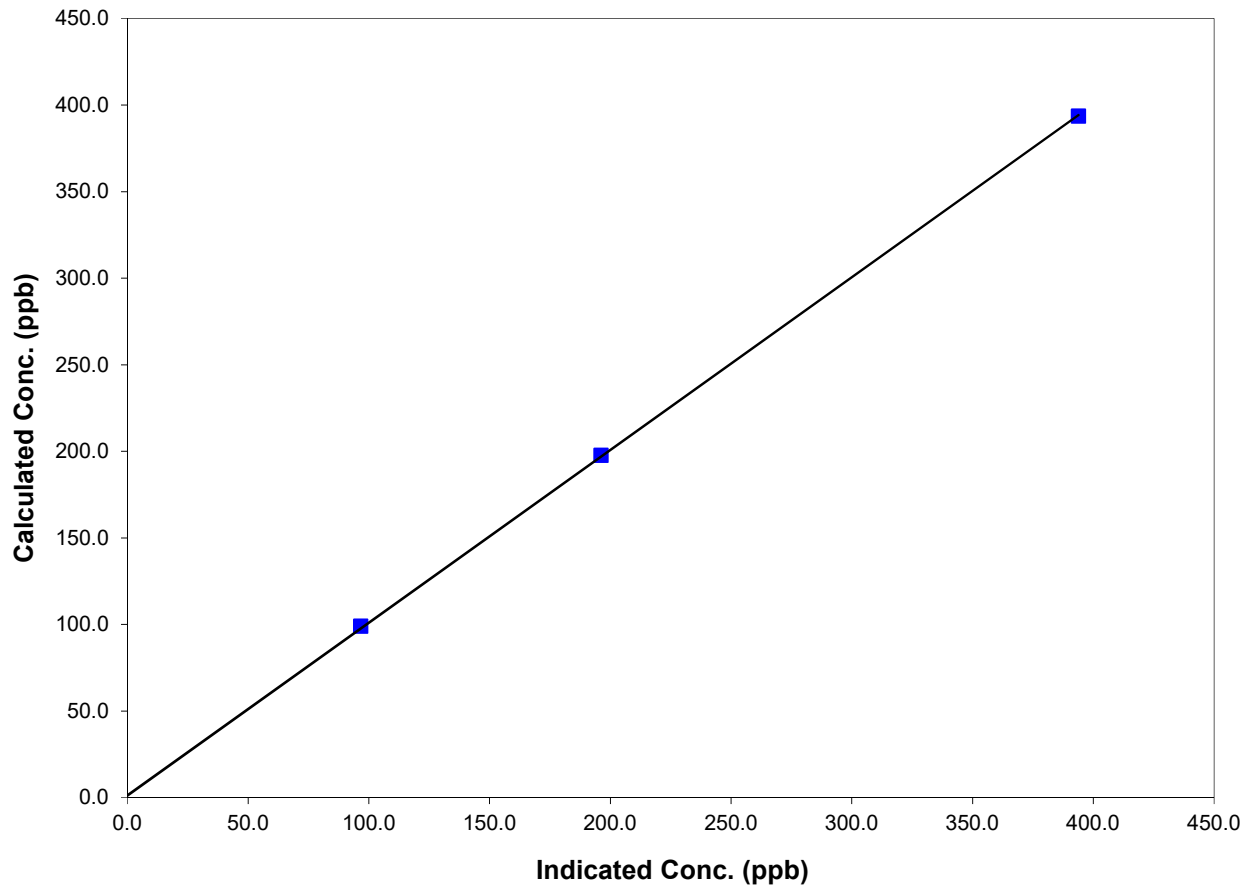
Station Information

Calibration Date	May 24, 2018	Previous Calibration	January 0, 1900
Station Number	10	Station Location	Rycroft
Start Time (MST)	12:20	End Time (MST)	15:05:00 PM
Analyzer make/model	TEI 43C	Analyzer serial #	436610005

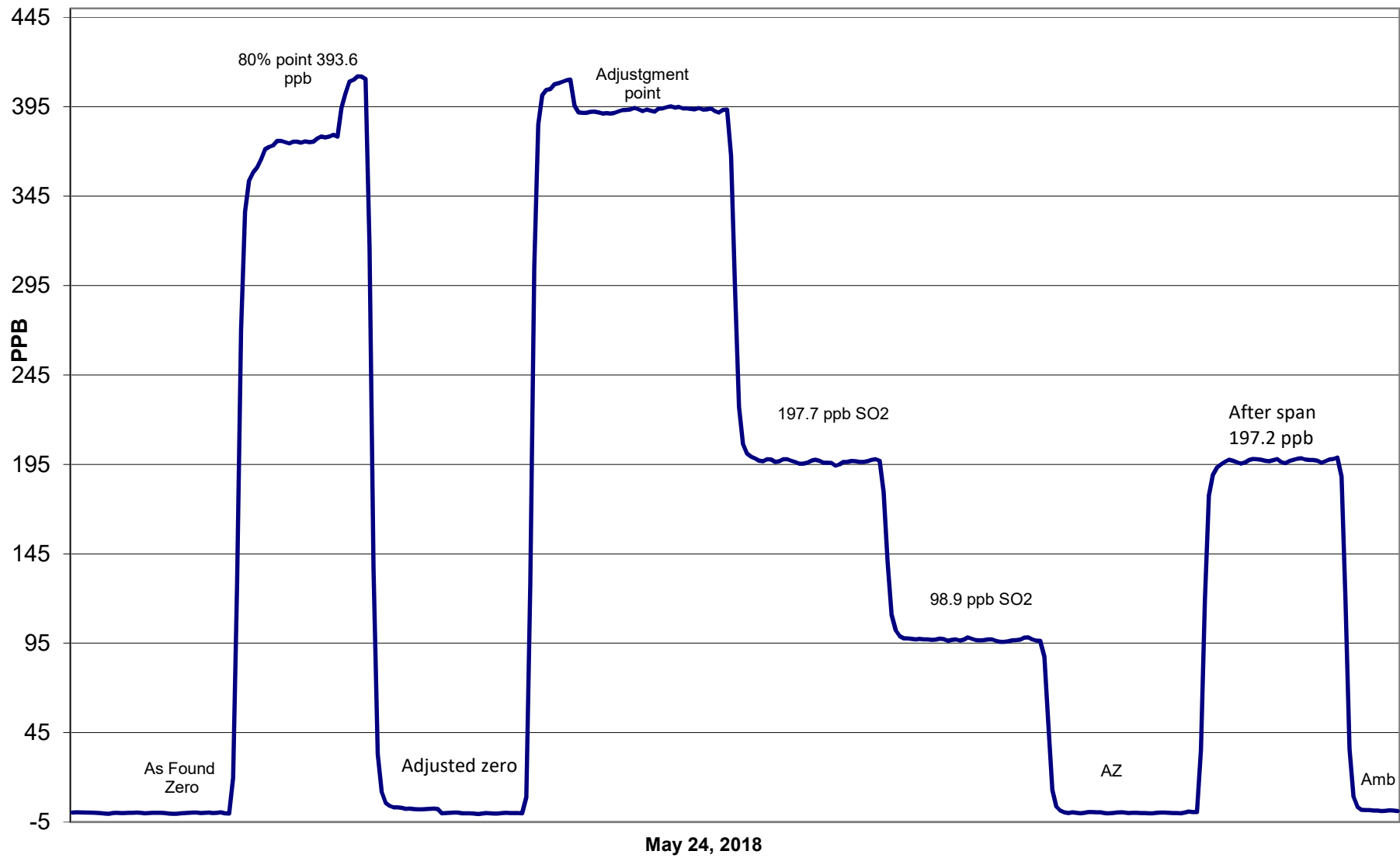
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	N/A	Correlation Coefficient	0.999957
393.6	393.9	0.9993		
197.7	196.1	1.0078		
98.9	96.7	1.0224	Slope	0.997608
			Intercept	1.282091

SO2 Calibration Curve



SO2 Calibration



Parameter

Air Monitoring Network

NO_x-NO-NO₂
PAZA



Station Information

Calibration Date	May 24, 2018		Previous Calibration	April 17, 2018		
Station Number	10		Station Location	Rycroft		
Reason:	Routine Installation Removal	Other: _____				
Start Time (MST)	9:05		End Time (MST)	12:40		
Barometric Pressure	0.919	Atm	Station Temperature	20.0	Deg C	
Calibrator	Enviroicsn 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	0.995112	0.984894	0.989134
	Data Offset	-0.819544	0.741045	0.687726
After	Data Slope	0.995699	1.010659	1.014713
	Data Offset	0.122637	0.428460	0.614622
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	6.6	mV	6.7	mV
NO coefficient	1.053		1.053	
NOx coefficient	1.001		1.001	
NO2 conv temp	325.3	Deg C	323.6	Deg C
PMT Temp	-3.0	Deg C	-3.0	Deg C
PMT Volt	-835.5	mV	-835.4	mV
R Cell Press	173.2	in Hg	172.3	in Hg
Sample Flow	0.877	LPM	0.882	LPM

Notes: No adjustment made

Calibration Report

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



Station Information

Calibration Date: May 24, 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	0.2	0.1	0.2	N/A	N/A
1	4996	39.96	412.6	411.8	0.8	408.1	405.6	0.9	1.0110	1.0153
2	4996	19.99	207.2	206.8	0.4	204.4	202.9	0.8	1.0139	1.0196
3	4996	9.98	103.7	103.5	0.2	101.5	100.7	1.0	1.0214	1.0278
AFZ	4996	0.00	0.0	0.0	0.0	0.2	0.1	0.2	0.0000	0.0000
AFS	4996	39.96	412.6	411.8	0.8	408.1	405.6	0.9	1.0110	1.0153
								Average Correction Factor	1.0155	1.0209

As Found Concentrations: NO_x= 402.5 NO= 401.8 As Found Percent Change NO_x= -2.4% NO= -2.4%

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	0.2	0.1	0.2	N/A	N/A	N/A	N/A
NO point	403.2	403.2	0.0	405.8	403.2	0.8	0.9934	1.0000	N/A	N/A
300	403.2	118.6	284.5	406.2	118.6	286.0	0.9925	1.0000	0.9949	100.5%
200	403.2	213.2	189.9	405.5	213.2	190.2	0.9943	1.0000	0.9985	100.2%
100	403.2	311.1	92.1	404.9	311.1	92.1	0.9956	1.0000	0.9998	100.0%
Average Correction Factor							0.9941	1.0000	0.9977	100.2%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	0.2	0.1	0.2	ppb	0.5	0.3	0.3	ppb
Auto span	162.9	161.4	1.0	ppb	160.0	158.1	1.4	ppb

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter NO₂

Air Monitoring Network PAZA



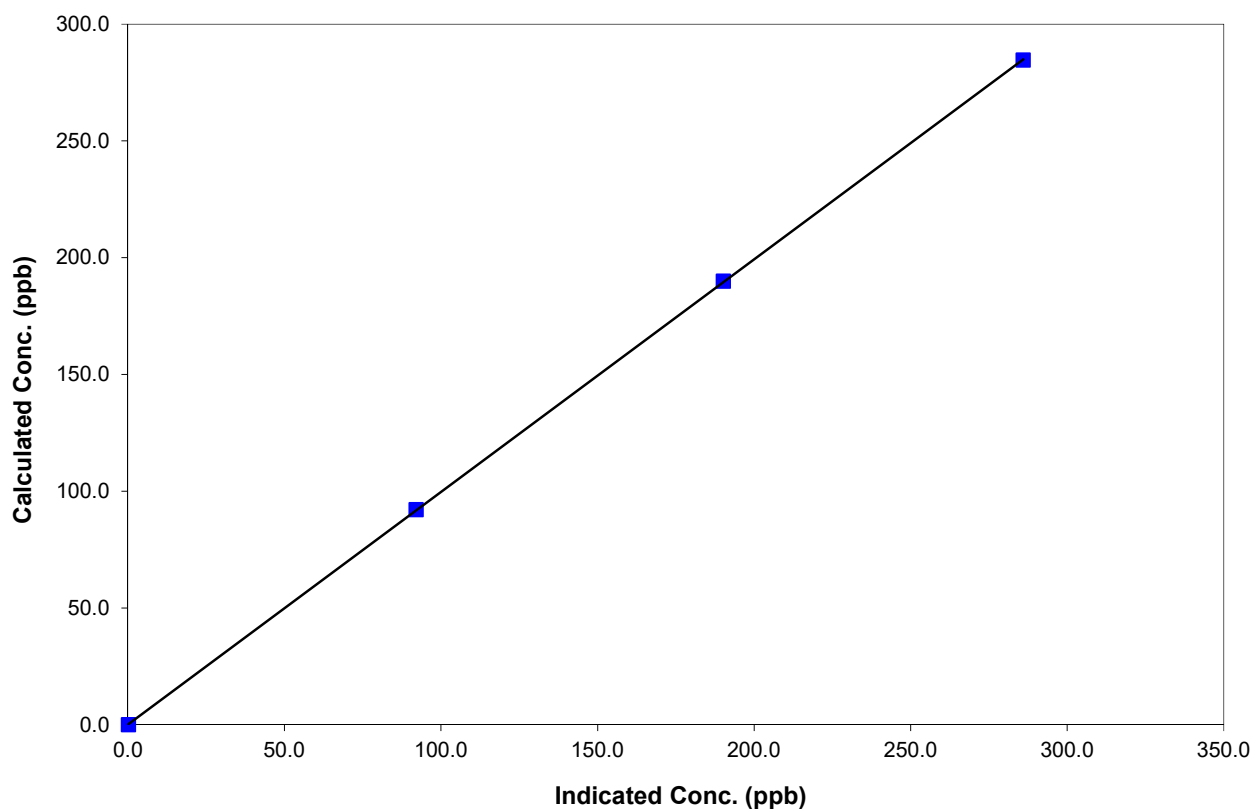
Station Information

Calibration Date	May 24, 2018	Previous Calibration	April 17, 2018
Station Number	10	Station Location	Rycroft
Start Time (MST)	9:05	End Time (MST)	12:40
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	0.2	N/A	Correlation Coefficient	0.999990
284.5	286.0	0.9949		
189.9	190.2	0.9985		
92.1	92.1	0.9998	Slope	0.995699
			Intercept	0.122637

NO₂ Calibration Curve



Calibration Summary

Parameter NO_x

Air Monitoring Network PAZA



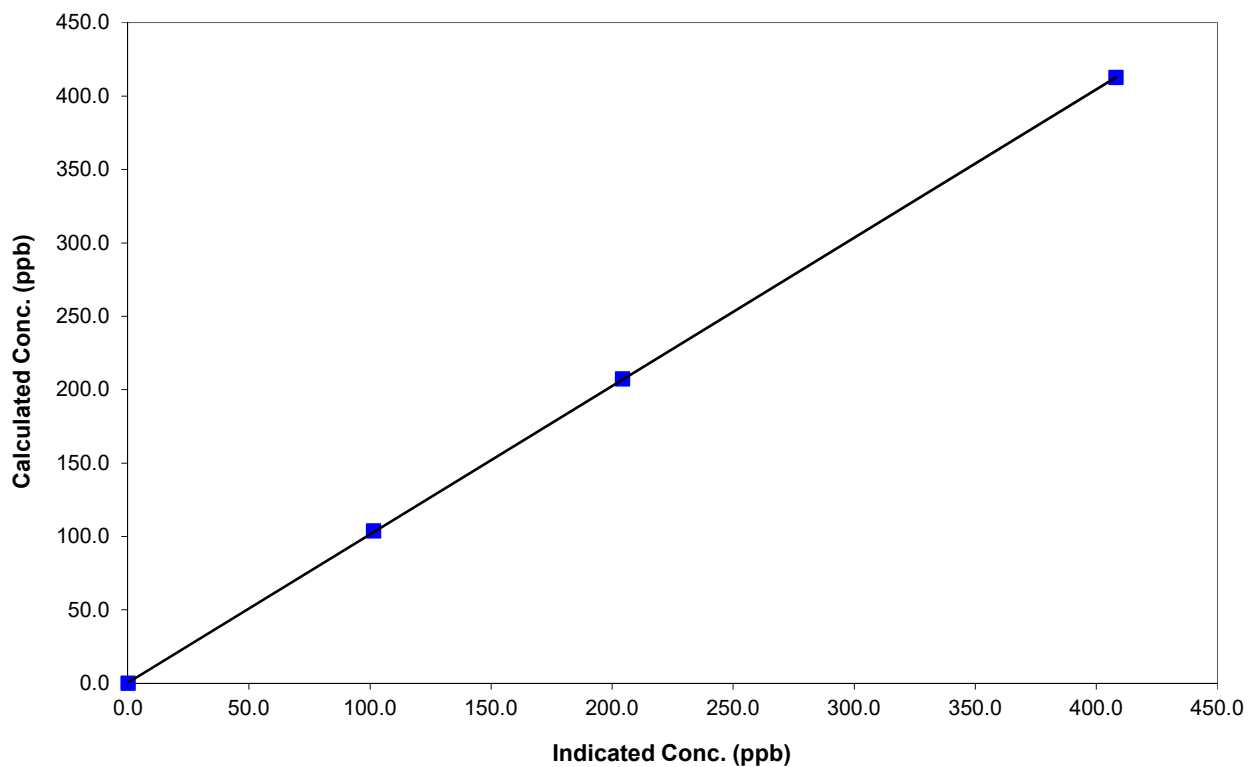
Station Information

Calibration Date	May 24, 2018	Previous Calibration	April 17, 2018
Station Number	10	Station Location	Rycroft
Start Time (MST)	9:05	End Time (MST)	12:40
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	0.2	N/A	Correlation Coefficient	0.999990
412.6	408.1	1.0110		
207.2	204.4	1.0139		
103.7	101.5	1.0214	Slope	1.010659
			Intercept	0.428460

NO_x Calibration Curve



Calibration Summary

Parameter NO

Air Monitoring Network PAZA



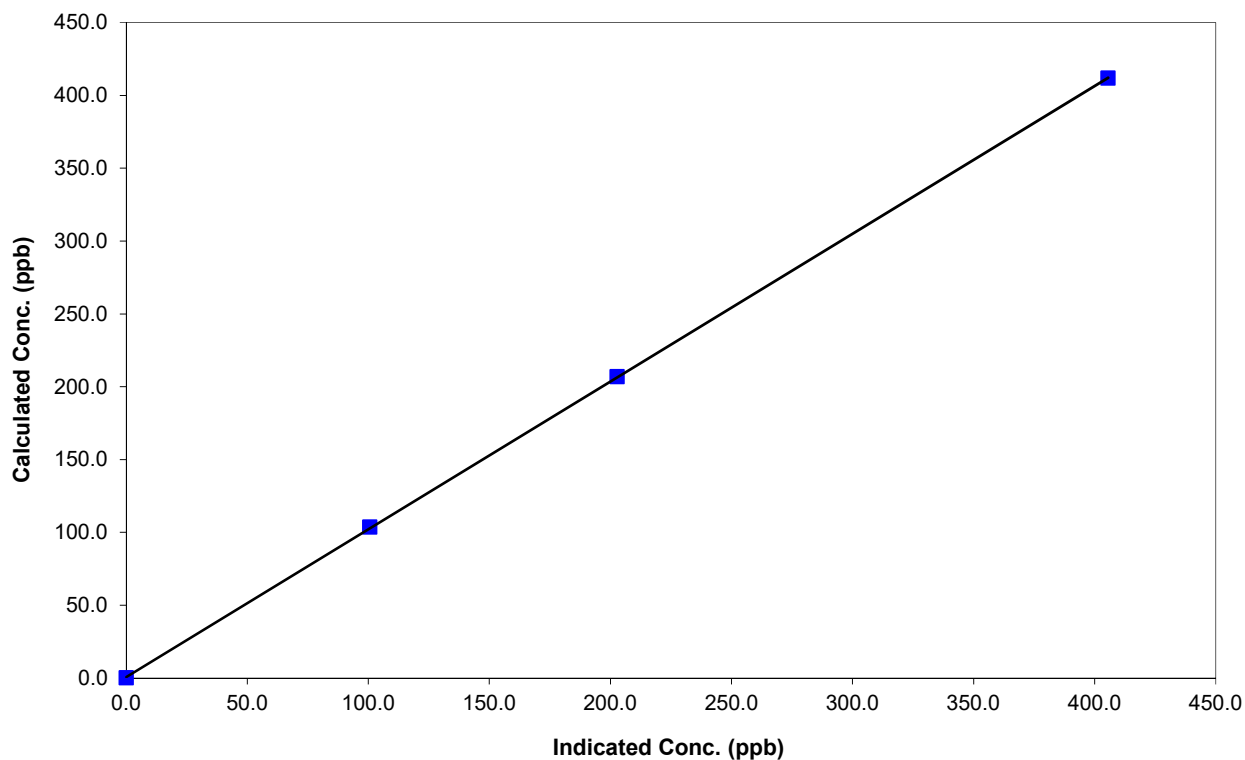
Station Information

Calibration Date	May 24, 2018	Previous Calibration	April 17, 2018
Station Number	10	Station Location	Rycroft
Start Time (MST)	9:05	End Time (MST)	12:40
Analyzer make	TEI 42i	Analyzer serial #	0701120011

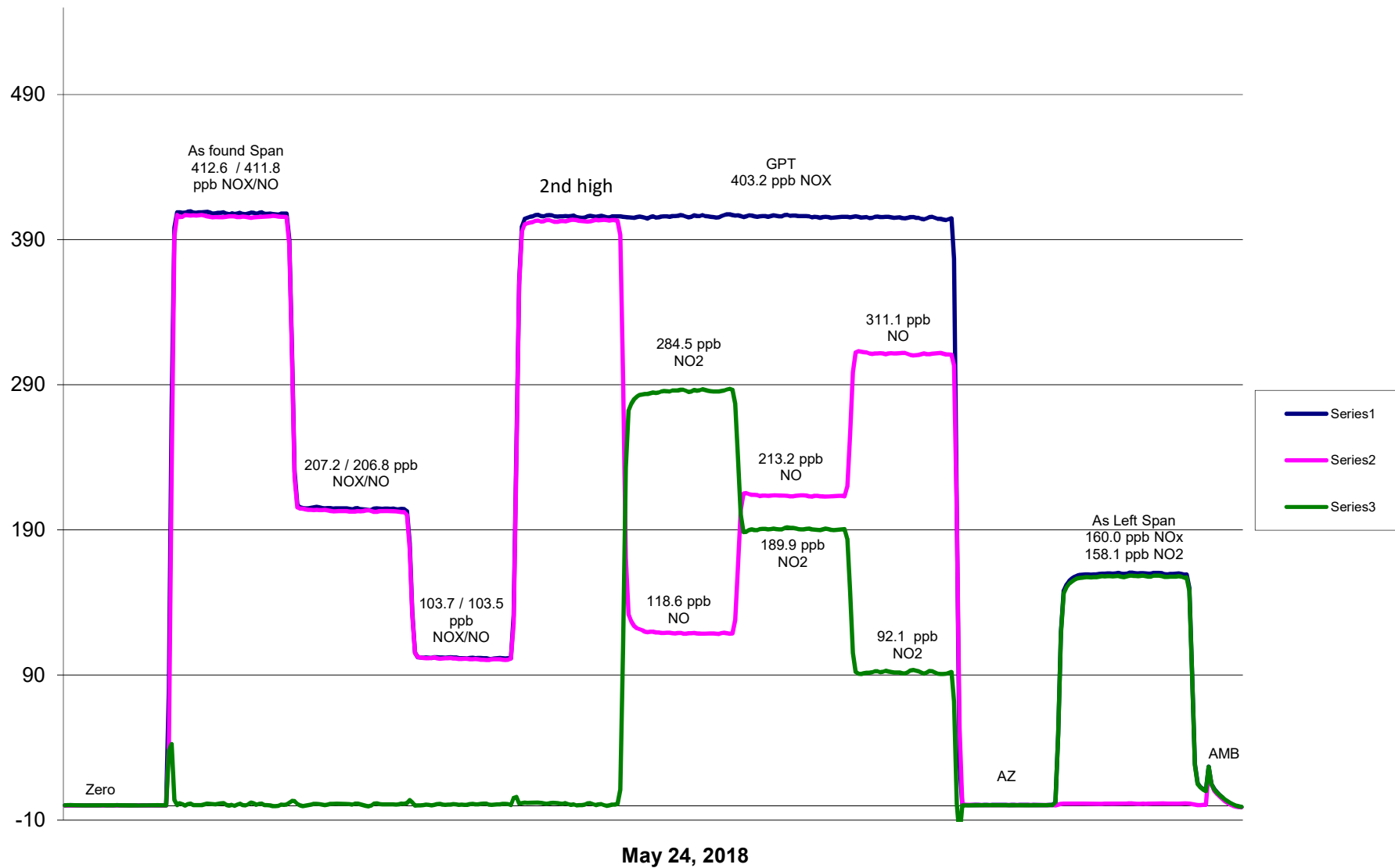
Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A	Correlation Coefficient	0.999986
411.8	405.6	1.0153		
206.8	202.9	1.0196		
103.5	100.7	1.0278	Slope	1.014713
			Intercept	0.614622

NO Calibration Curve



NO_x Calibration



Calibration Report

Parameter
Air Monitoring Network

NO_x-NO-NO₂
PAZA



Station Information

Calibration Date	May 25, 2018	Previous Calibration	May 24, 2018
Station Number	10	Station Location	Rycroft
Reason:	Routine Installation Removal Other: Maintenance		
Start Time (MST)	13:05:00 PM	End Time (MST)	16:20:00 PM
Barometric Pressure	0.919 Atm	Station Temperature	20.0 Deg C
Calibrator	EnviroNicsn 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	0.995112	0.984894	0.989134
	Data Offset	-0.819544	0.741045	0.687726
After	Data Slope	0.995916	0.992102	0.997906
	Data Offset	-0.649695	0.237356	0.424286
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	7.0	mV
NOx bkgnd	6.6	mV	7.3	mV
NO coefficient	1.053		1.053	
NOx coefficient	1.001		1.001	
NO2 conv temp	325.3	Deg C	323.4	Deg C
PMT Temp	-3.0	Deg C	-2.8	Deg C
PMT Volt	-835.5	mV	-839.9	mV
R Cell Press	173.2	in Hg	187.1	in Hg
Sample Flow	0.877	LPM	0.864	LPM

Notes: Rebuilt the convertor. Replaced silica scrubber.
Slight PMT adjust made

Calibration Report

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



Station Information

Calibration Date: May 25, 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	0.3	0.2	0.3	N/A	N/A
1	4996	39.96	412.6	411.8	0.8	415.8	412.6	1.5	0.9924	0.9982
2	4996	19.99	207.2	206.8	0.4	208.8	206.6	1.4	0.9926	1.0014
3	4996	9.98	103.7	103.5	0.2	103.5	102.7	1.0	1.0018	1.0079
AFZ	4996	0.00	0.0	0.0	0.0	0.3	0.2	0.3	0.0000	0.0000
AFS	4996	39.96	412.6	411.8	0.8	415.8	412.6	1.5	0.9924	0.9982
								Average Correction Factor	0.9956	1.0025

As Found Concentrations: NO_x= 410.0 NO= 408.6 As Found Percent Change NO_x= -0.6% NO= -0.8%

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	0.3	0.2	0.3	N/A	N/A	N/A	N/A
NO point	412.5	412.5	0.0	415.0	412.5	0.6	0.9938	1.0000	N/A	N/A
300	412.5	118.2	294.2	415.9	118.2	295.8	0.9918	1.0000	0.9948	100.5%
200	412.5	216.3	196.2	416.3	216.3	197.9	0.9908	1.0000	0.9915	100.9%
100	412.5	317.7	94.8	415.8	317.7	96.3	0.9919	1.0000	0.9843	101.6%
							Average Correction Factor	0.9915	1.0000	0.9902

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	0.2	0.1	0.2	ppb	0.2	0.2	0.2	ppb
Auto span	162.9	161.4	1.0	ppb	160.3	158.5	1.2	ppb

Calibration Performed By: Dmytro Dolotii, Grover Christiansen

Calibration Summary

Parameter NO₂

Air Monitoring Network PAZA



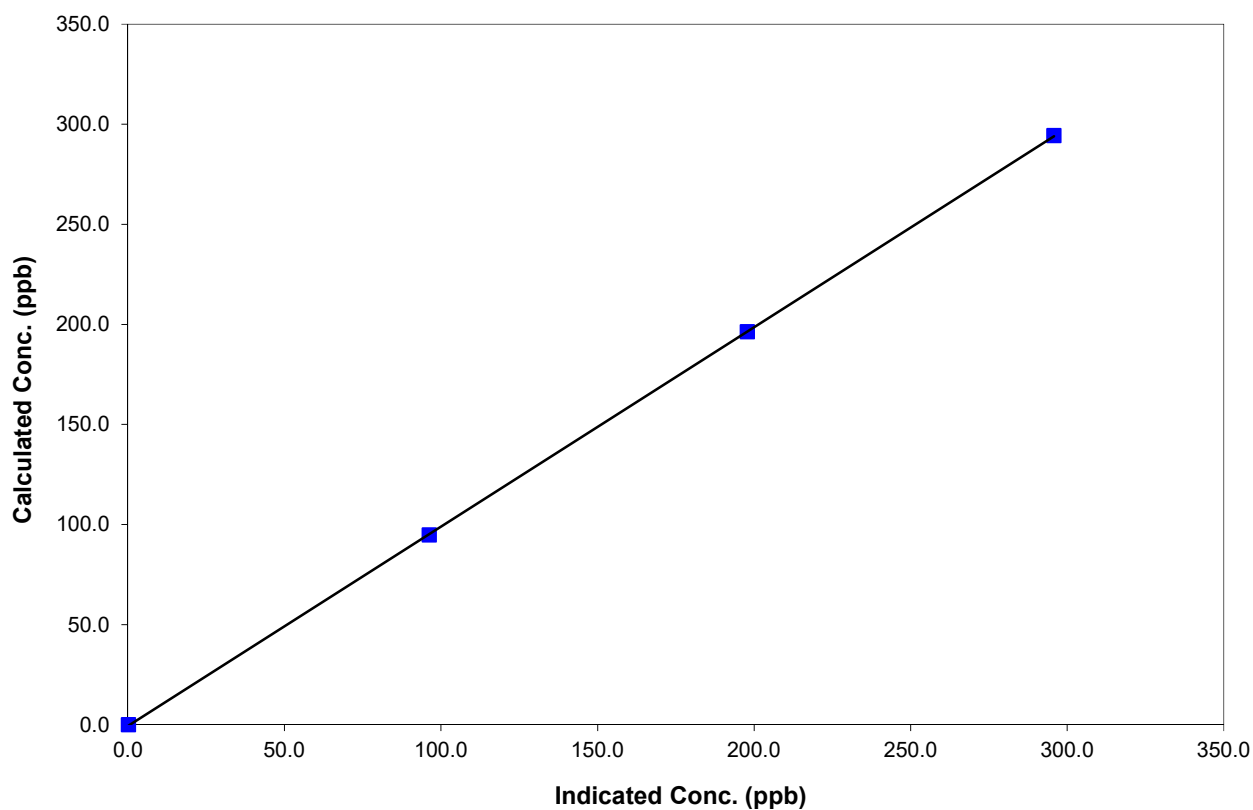
Station Information

Calibration Date	May 25, 2018	Previous Calibration	May 24, 2018
Station Number	10	Station Location	Rycroft
Start Time (MST)	13:05:00 PM	End Time (MST)	16:20:00 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	0.3	N/A	Correlation Coefficient	0.999989
294.2	295.8	0.9948		
196.2	197.9	0.9915		
94.8	96.3	0.9843	Slope	0.995916
			Intercept	-0.649695

NO₂ Calibration Curve



Calibration Summary

Parameter NO_x

Air Monitoring Network PAZA



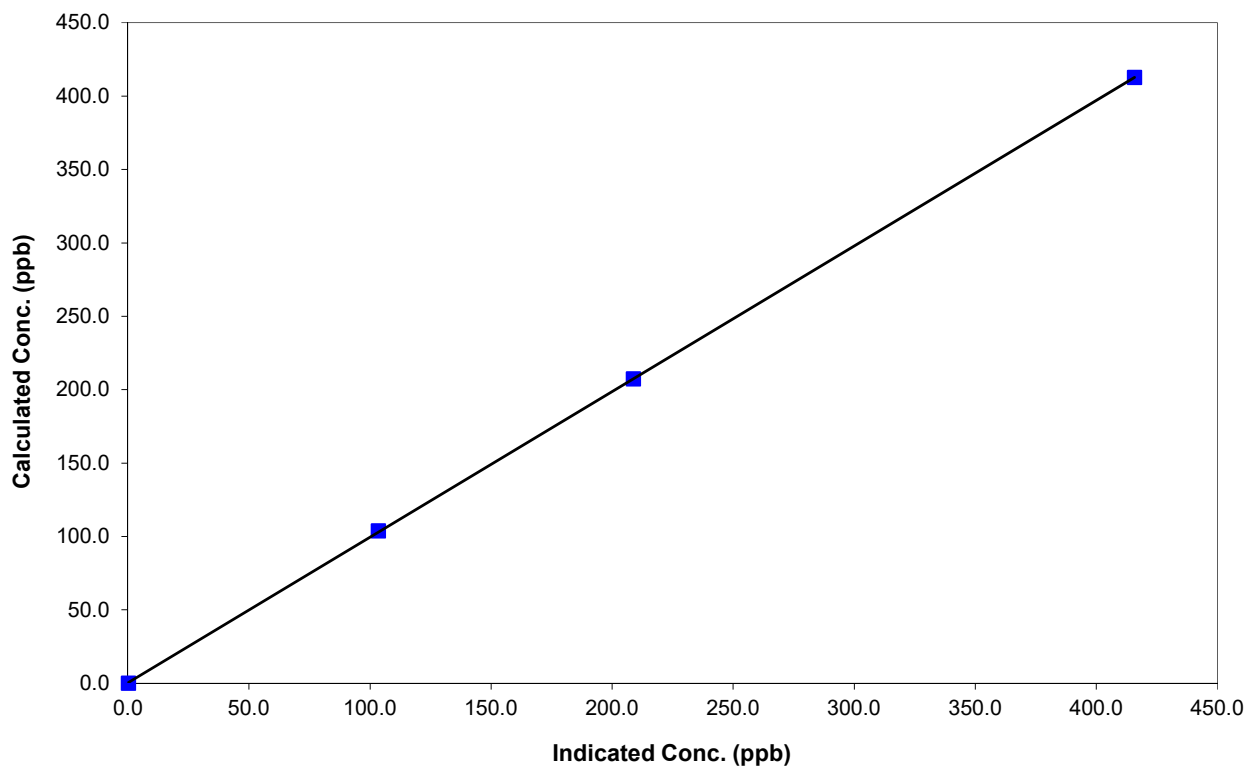
Station Information

Calibration Date	May 25, 2018	Previous Calibration	May 24, 2018
Station Number	10	Station Location	Rycroft
Start Time (MST)	13:05:00 PM	End Time (MST)	16:20:00 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	0.3	N/A	Correlation Coefficient	0.999991
412.6	415.8	0.9924		
207.2	208.8	0.9926		
103.7	103.5	1.0018	Slope	0.992102
			Intercept	0.237356

NO_x Calibration Curve



Calibration Summary

Parameter NO

Air Monitoring Network PAZA



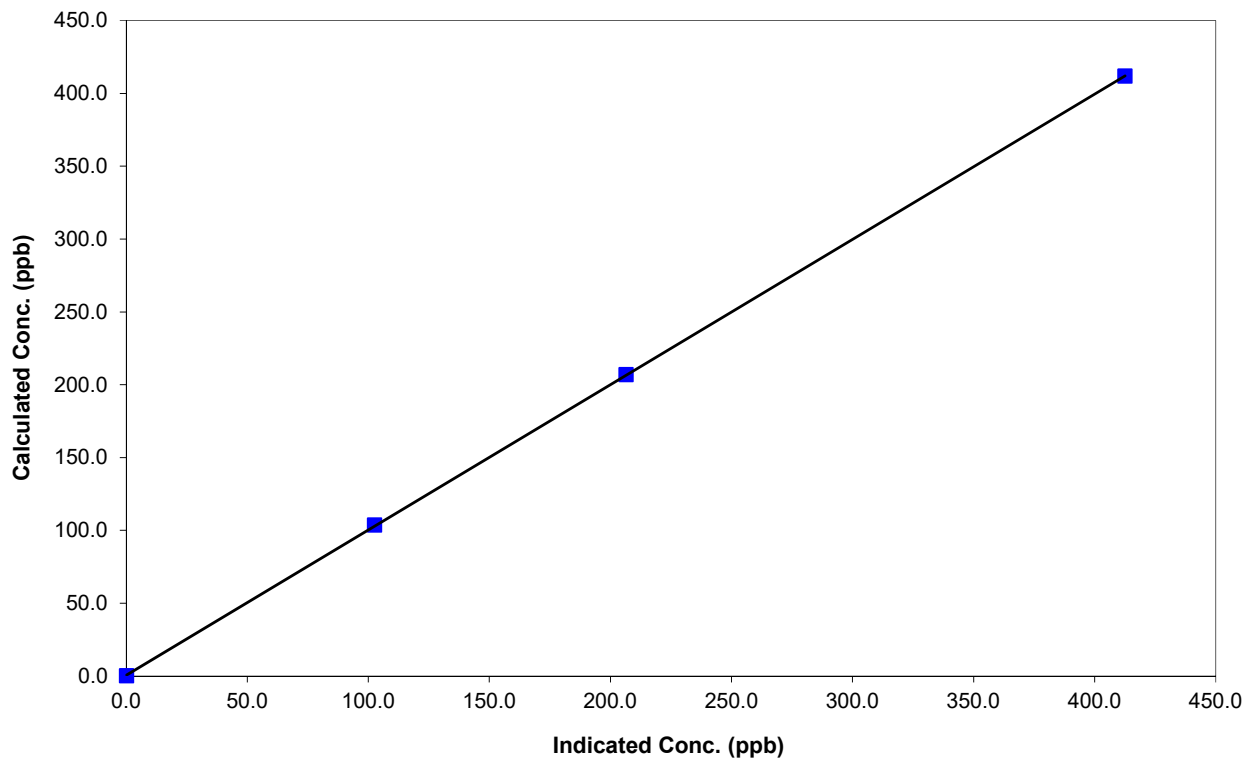
Station Information

Calibration Date	May 25, 2018	Previous Calibration	May 24, 2018
Station Number	10	Station Location	Rycroft
Start Time (MST)	13:05:00 PM	End Time (MST)	16:20:00 PM
Analyzer make	TEI 42i	Analyzer serial #	0701120011

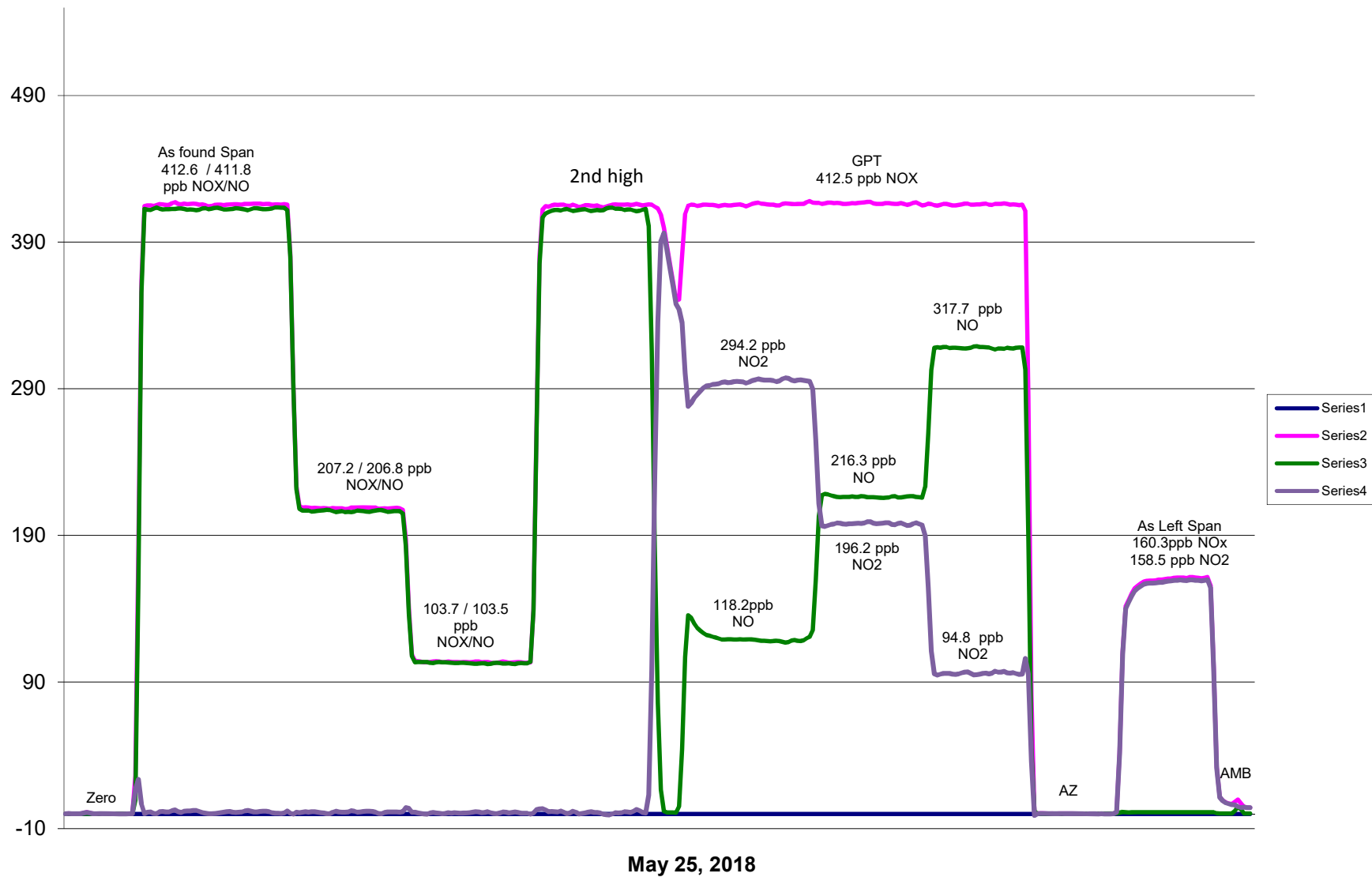
Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A		
411.8	412.6	0.9982	Correlation Coefficient	0.999990
206.8	206.6	1.0014		
103.5	102.7	1.0079		
			Slope	0.997906
			Intercept	0.424286

NO Calibration Curve



NO_x Calibration



Calibration Report



Parameter 03
Air Monitoring Network PAZA

Station Information

Calibration Date	May 24 2018	Previous Calibration	April 17 2018
Station Number	10	Station Location	Rycroft
Reason:	Routine	☐ Install	☐ Removal
		☐ Other:	
Start Time (MST)	12:05	End Time (MST)	14:24:00 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	1.001445	Calculated slope	0.988061
Calculated intercept	0.216238	Calculated intercept	0.139079
Analyzer make	TEI Model 49C	Analyzer serial #	49I-115363156

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Offset	0.6	ppb	-0.4	ppb
Span	1.022		1.022	
Cell A intensity	96434	Hz	96299	Hz
Cell B intensity	85530	Hz	84012	Hz
Pressure	688.70	in Hg	695.00	in Hg
CellA Flow	0.678	ccm	0.686	ccm
Cell B Flow	0.682	cmm	0.682	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	0.4	N/A
4996	0.30	284.5	288.1	0.9873
4996	0.20	189.9	191.9	0.9897
4996	0.10	92.1	92.3	0.9974
4996	0.00	0.0	-1.3	As found zero
4996	0.30	284.5	288.1	As found span
Average Correction Factor				0.9915

Calculated value of As Found Response: 290.1 ppm Percent Change of As Found: 2.0%

	before calibration		after calibration	
Auto zero	-0.1	ppb	0.5	ppb
Auto span	491.5	ppb	487.7	ppb

Notes: Slight zero adjust made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter 03

Air Monitoring Network PAZA



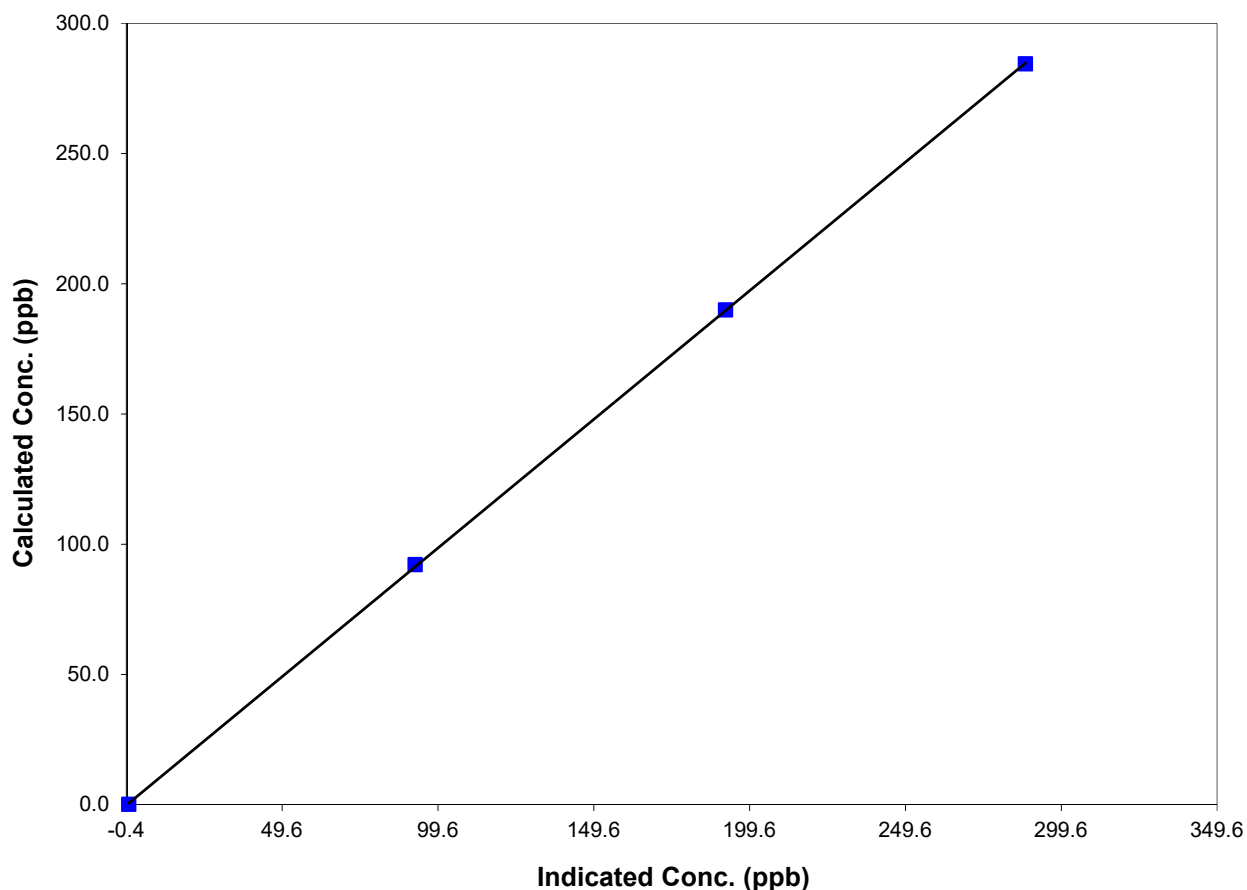
Station Information

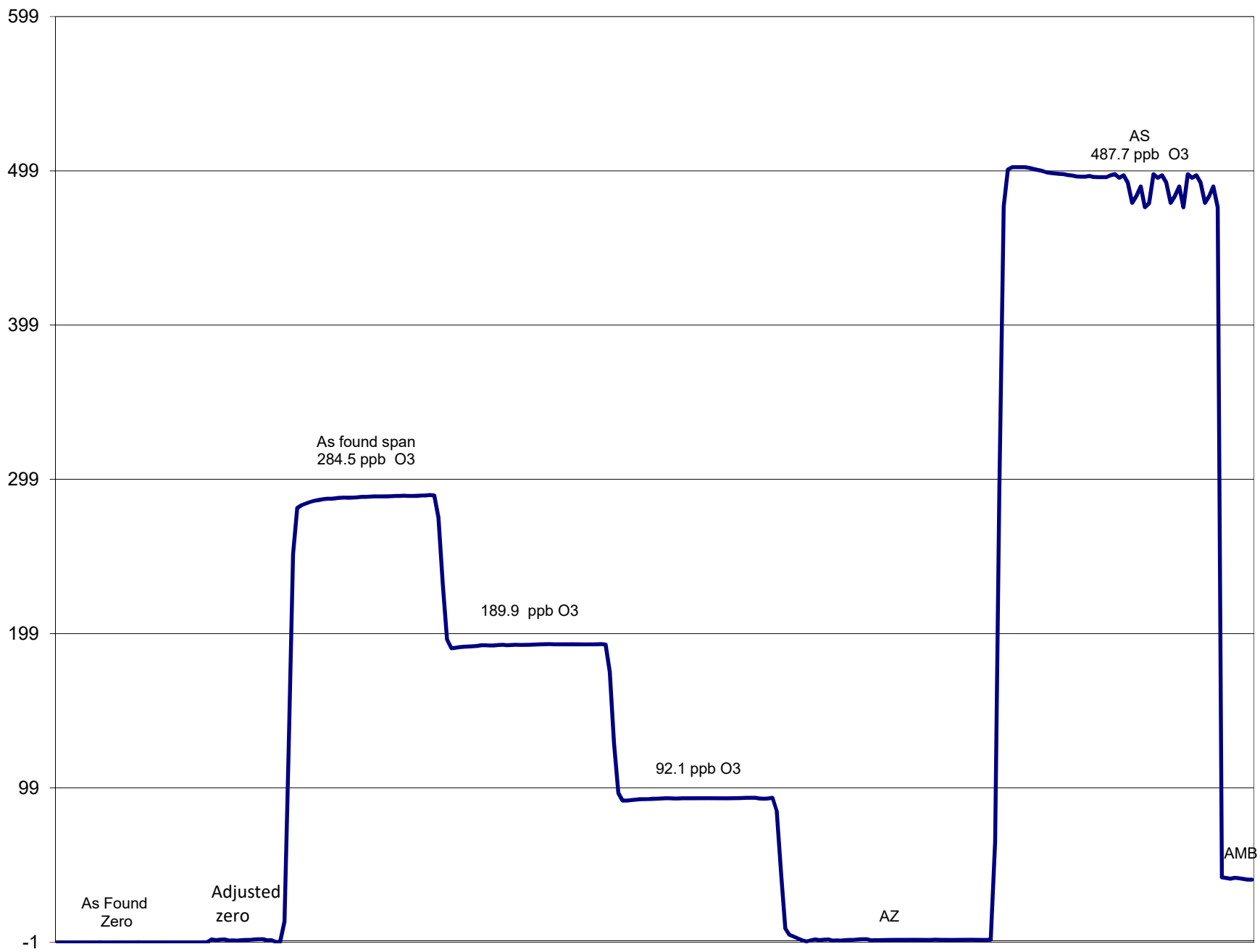
Calibration Date	May 24 2018	Previous Calibration	April 17 2018
Station Number	10	Station Location	Rycroft
Start Time (MST)	12:05	End Time (MST)	14:24:00 PM
Analyzer make/model	TEI Model 49C	Analyzer serial #	49I-115363156

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.4	NA	Correlation Coefficient	0.999978
284.5	288.1	0.9873		
189.9	191.9	0.9897		
92.1	92.3	0.9974	Slope	0.988061
			Intercept	0.139079

O3 Calibration Curve





May 24 2018

Calibration Report



Parameter TR5
Air Monitoring Network PAZA

Station Information

Calibration Date	May 28, 2018	Previous Calibration	April 12, 2018
Station Name	PAZA Rover	Station Location	Rycroft
Reason:	Routine	Install	Removal
		Other:	
Start Time (MST)	9:25 AM	End Time (MST)	11:45
Barometric Pressure	0.919 mbar	Station Temperature	21.0 Deg C
Calibrator	EnviroNics 6103	Serial Number	6586
Cal Gas Concentration	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
	Before		After
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	1.007010	Calculated slope	1.001896
Calculated intercept	0.296010	Calculated intercept	0.527672
Analyzer make	TEI 43C	Analyzer serial #	

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	11.6	ppb	11.6	ppb
Coefficient	1.130		1.130	
Lamp Voltage	782	V	775	V
Chamber Temp	45	C	45	C
Perm gas Temp	45	C	45	C
Pressure	671.1	mmHg	676.1	mmHg
Sample Flow	0.386	lpm	0.390	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	77.1	1.0066
4998	19.98	38.9	38.1	1.0210
6996	9.97	13.9	13.0	1.0729
			-0.1	Sox Test
4996	0.00	0.0	-0.1	As found zero
4996	39.96	77.6	77.1	As found span
Average Correction Factor				1.0335

Calculated value of As Found Response: 78.03 ppb Percent Change of As Found: -0.6%

	before calibration		after calibration	
Auto zero	0.2	ppb	0.0	ppb
Auto span	56.1	ppb	54.5	ppb

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter TRS
Air Monitoring Network PAZA



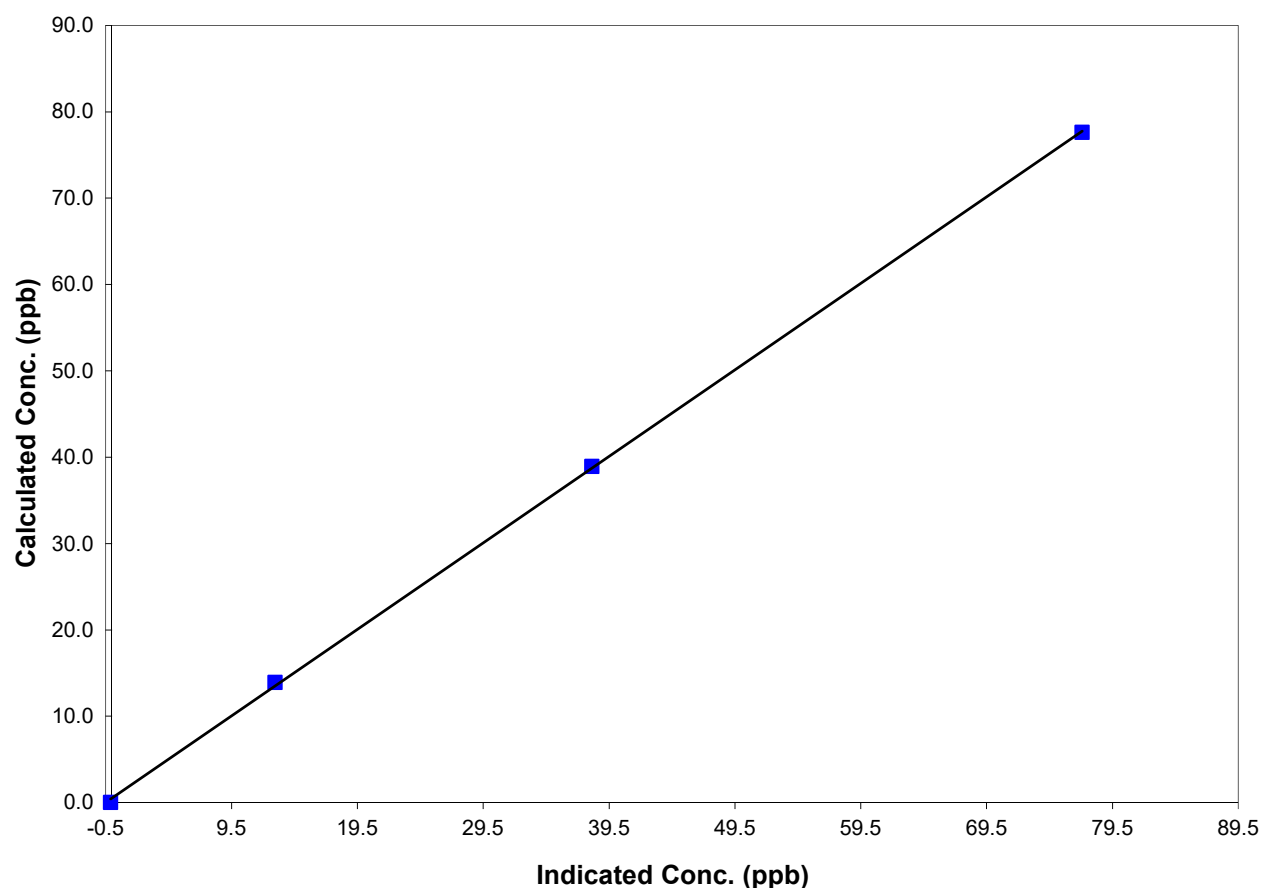
Station Information

Calibration Date	May 28, 2018	Previous Calibration	April 12, 2018
Station Number	PAZA Rover	Station Location	Rycroft
Start Time (MST)	9:25	End Time (MST)	11:45
Analyzer make/model	TEI 43C	Analyzer serial #	0

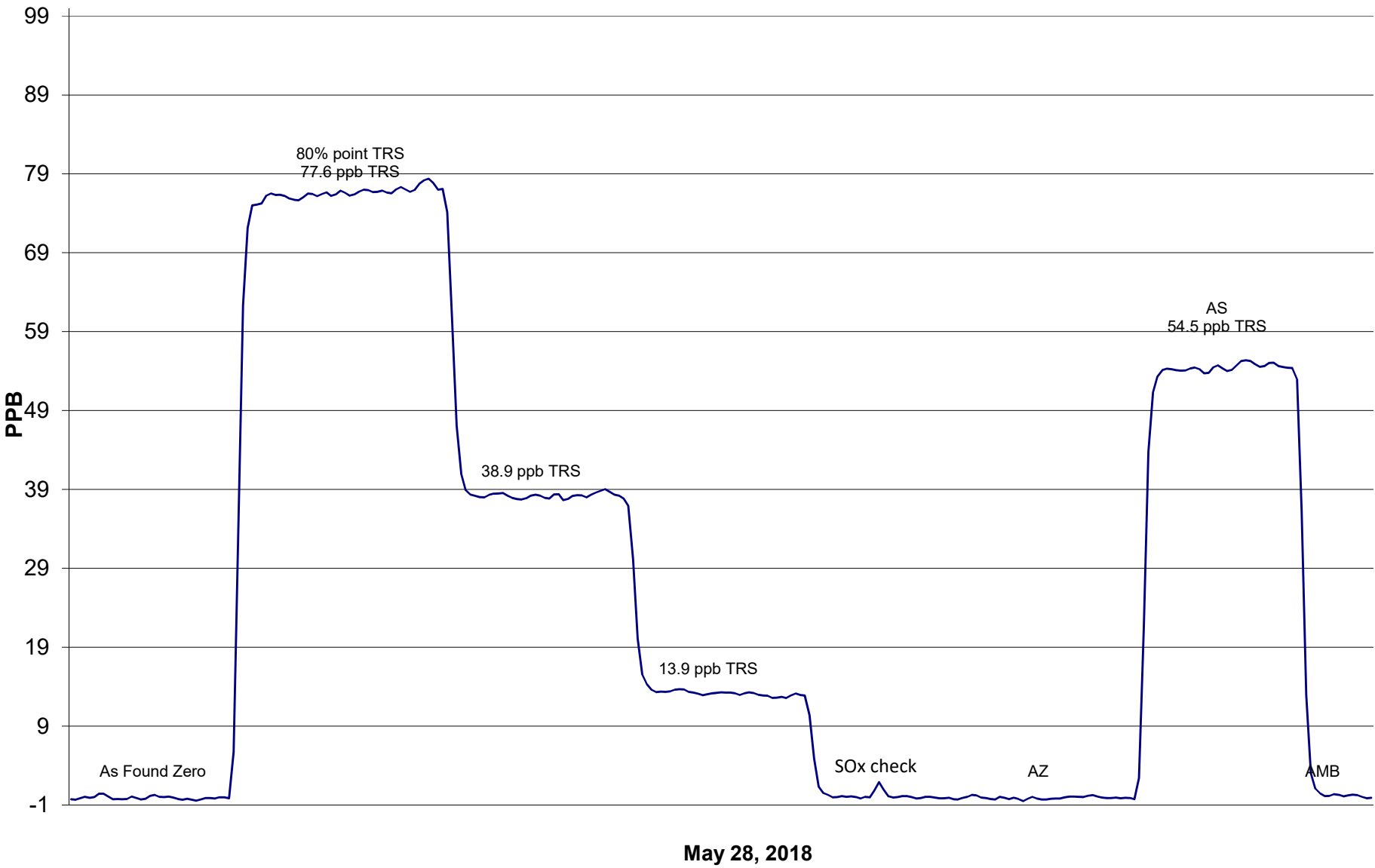
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	N/A	Correlation Coefficient	0.999883
77.6	77.1	1.0066		
38.9	38.1	1.0210		
13.9	13.0	1.0729	Slope	1.001896
			Intercept	0.527672

TRS Calibration Curve



TRS Calibration



Calibration Report



Parameter CH4 / NMHC / THC

Air Monitoring Network PAZA

Station Information

Calibration Date	May 28, 2018	Previous Calibration	April 12, 2018
Station Number	1	Station Location	Rycroft
Reason:	Routine	Install	Removal
		Other:	

Start Time (MST)	11:00	End Time (MST)	13:50:00 PM
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	0.03	N/A
2000	64.96	12.71	12.72	0.9990
2000	40.97	8.11	8.11	0.9994
2000	15.96	3.20	3.20	0.9985
2000	0.00	0.00	0.03	As Found Zero
2000	64.93	12.70	13.18	As Found Span
Average Correction Factor				0.9990

Calculated value of As Found Response: 13.215 ppm Percent Change of As Found: -4.0%

	Before		After
Calculated slope	1.001129	Calculated slope	1.000870
Calculated intercept	0.042014	Calculated intercept	-0.017539

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.00	ppm	0.02	ppm
Auto span	8.04	ppm	8.29	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	17.81	0.9752
2000	40.97	11.10	11.29	0.9831
2000	15.96	4.38	4.31	1.0164
2000	0.00	0.00	0.00	As Found Zero
2000	64.93	17.38	17.54	As Found Span
Average Correction Factor				0.9916

Calculated value of As Found Response: 17.454 ppm Percent Change of As Found: -0.4%

	Before		After
Calculated slope	0.992793	Calculated slope	0.972751
Calculated intercept	0.046352	Calculated intercept	0.086692

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.00	ppm	0.00	ppm
Auto span	11.10	ppm	11.13	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	0.03	N/A
2000	64.96	30.10	30.58	0.9843
2000	40.97	19.21	19.40	0.9899
2000	15.96	7.57	7.54	1.0048
2000	0.00	0.00	0.03	As Found Zero
2000	64.93	30.08	30.76	As Found Span
Average Correction Factor				0.9930

Calculated value of As Found Response: 30.694 ppm Percent Change of As Found: -2.0%

	Before		After
Calculated slope	0.996052	Calculated slope	0.984115
Calculated intercept	0.081333	Calculated intercept	0.061892

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.00	ppm	0.02	ppm
Auto span	19.15	ppm	19.42	ppm

Notes: No adjustment made
Hydrogen cylinder changed

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter CH4
Air Monitoring Network PAZA



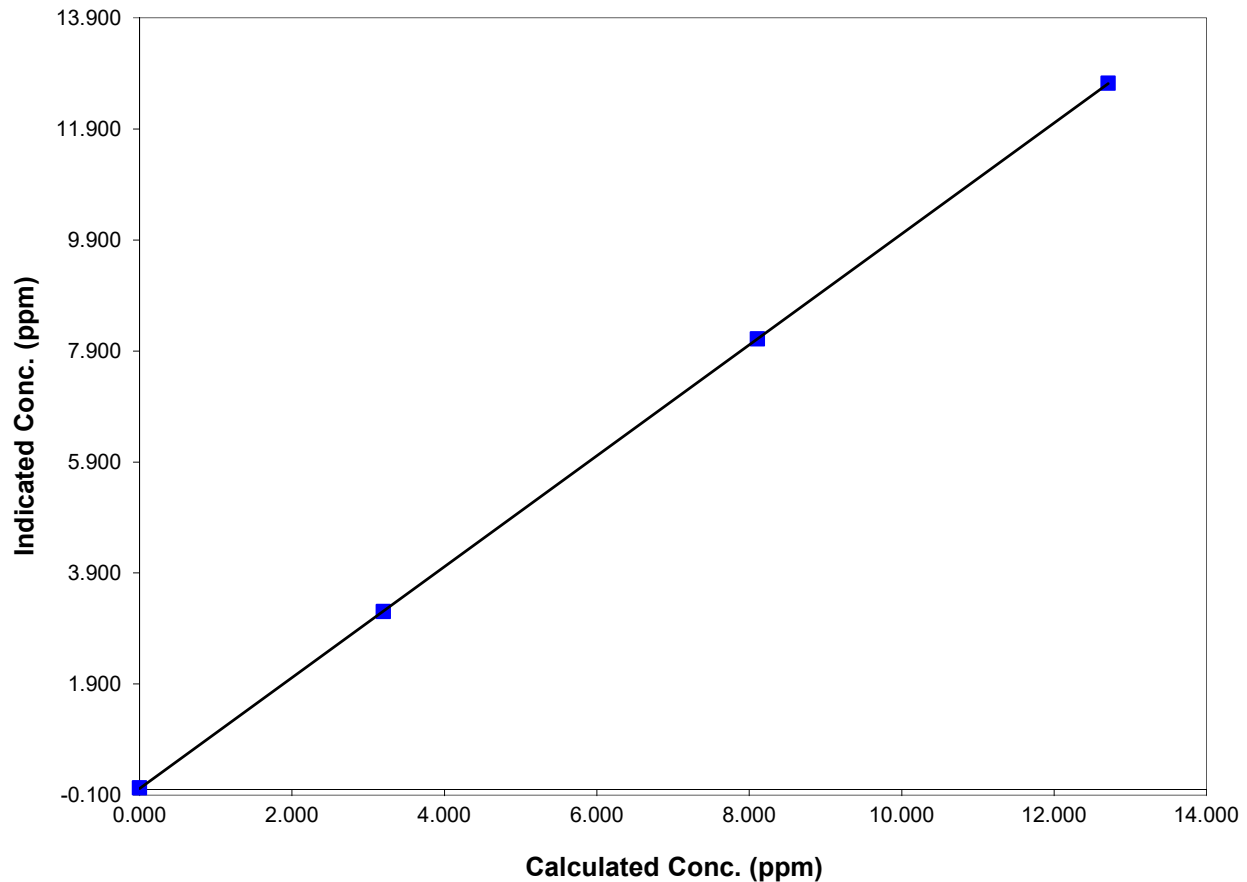
Station Information

Calibration Date	May 28, 2018	Previous Calibration	April 12, 2018
Station Number	1	Station Location	Rycroft
Start Time (MST)	11:00	End Time (MST)	13:50:00 PM
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	0.027	N/A	Correlation Coefficient	0.999997
12.709	12.722	0.9990		
8.110	8.114	0.9994		
3.198	3.203	0.9985	Slope	1.000870
			Intercept	-0.017539

CH4 Calibration Data



Calibration Summary

Parameter NMHC
Air Monitoring Network PAZA



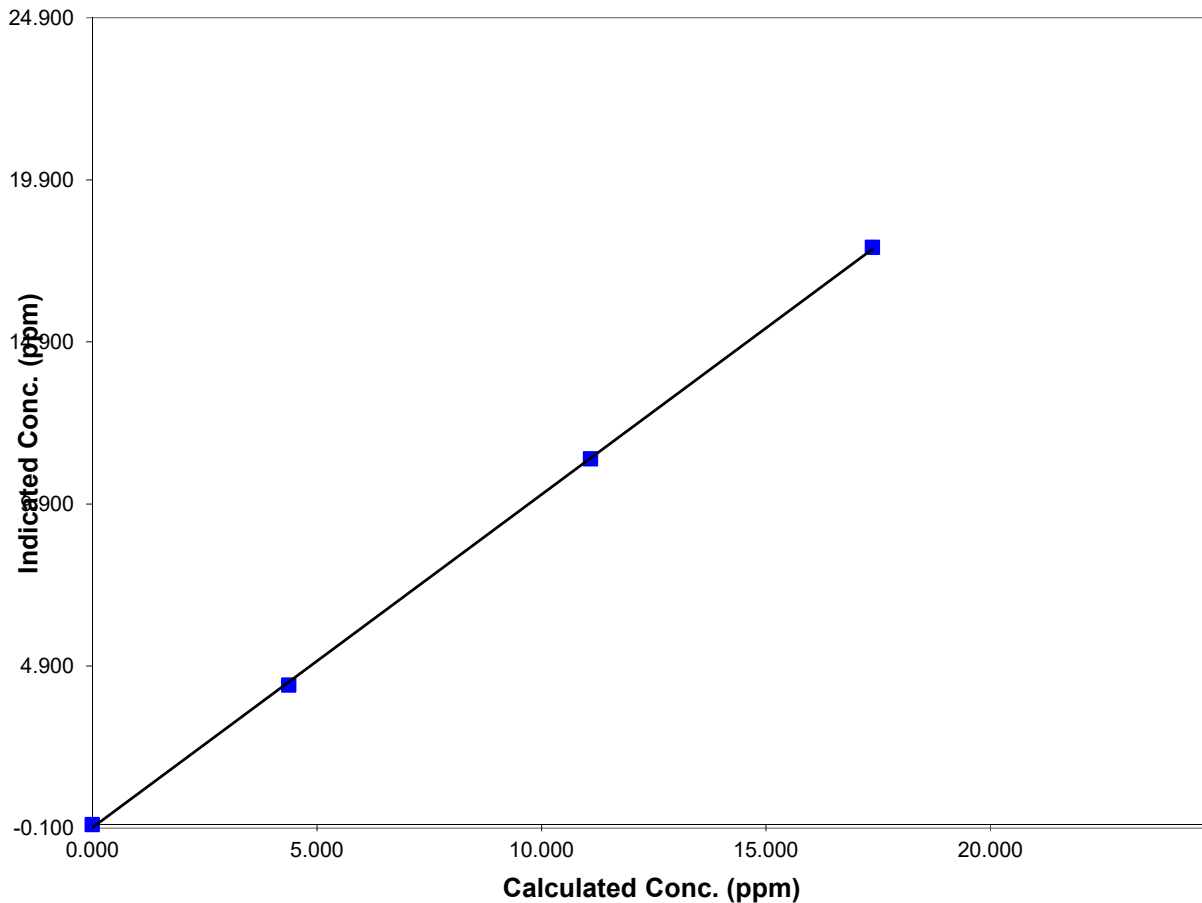
Station Information

Calibration Date	May 28, 2018	Previous Calibration	April 12, 2018
Station Number	1	Station Location	Rycroft
Start Time (MST)	11:00	End Time (MST)	13:50:00 PM
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	0.999881
17.372	17.814	0.9752		
11.096	11.287	0.9831		
4.376	4.305	1.0164	Slope	0.972751
			Intercept	0.086692

NMHC Calibration Data



Calibration Summary

Parameter THC

Air Monitoring Network PAZA



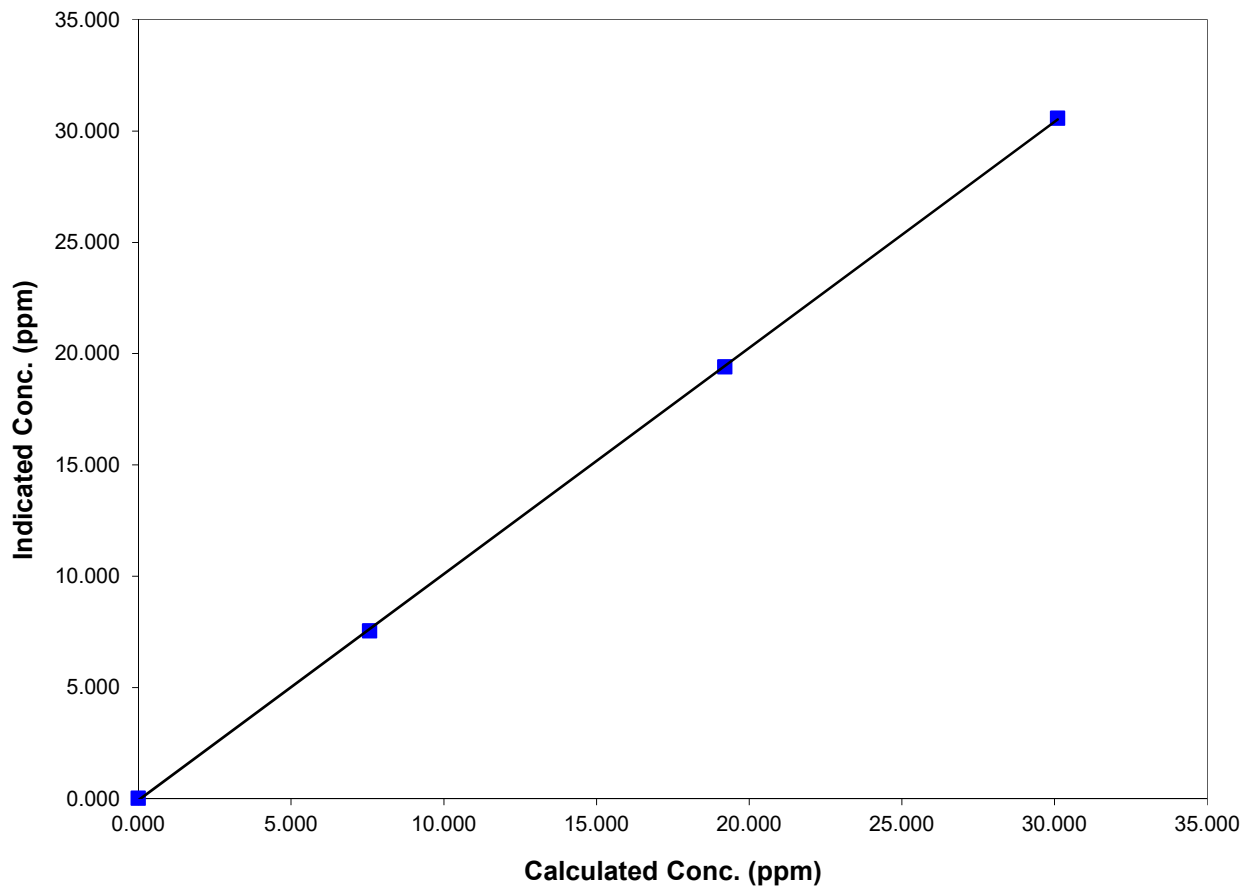
Station Information

Calibration Date	May 28, 2018	Previous Calibration	April 12, 2018
Station Number	1	Station Location	Rycroft
Start Time (MST)	11:00	End Time (MST)	13:50:00 PM
Analyzer make/model	TEI 55I-A3PHAA	Analyzer serial #	1151980005

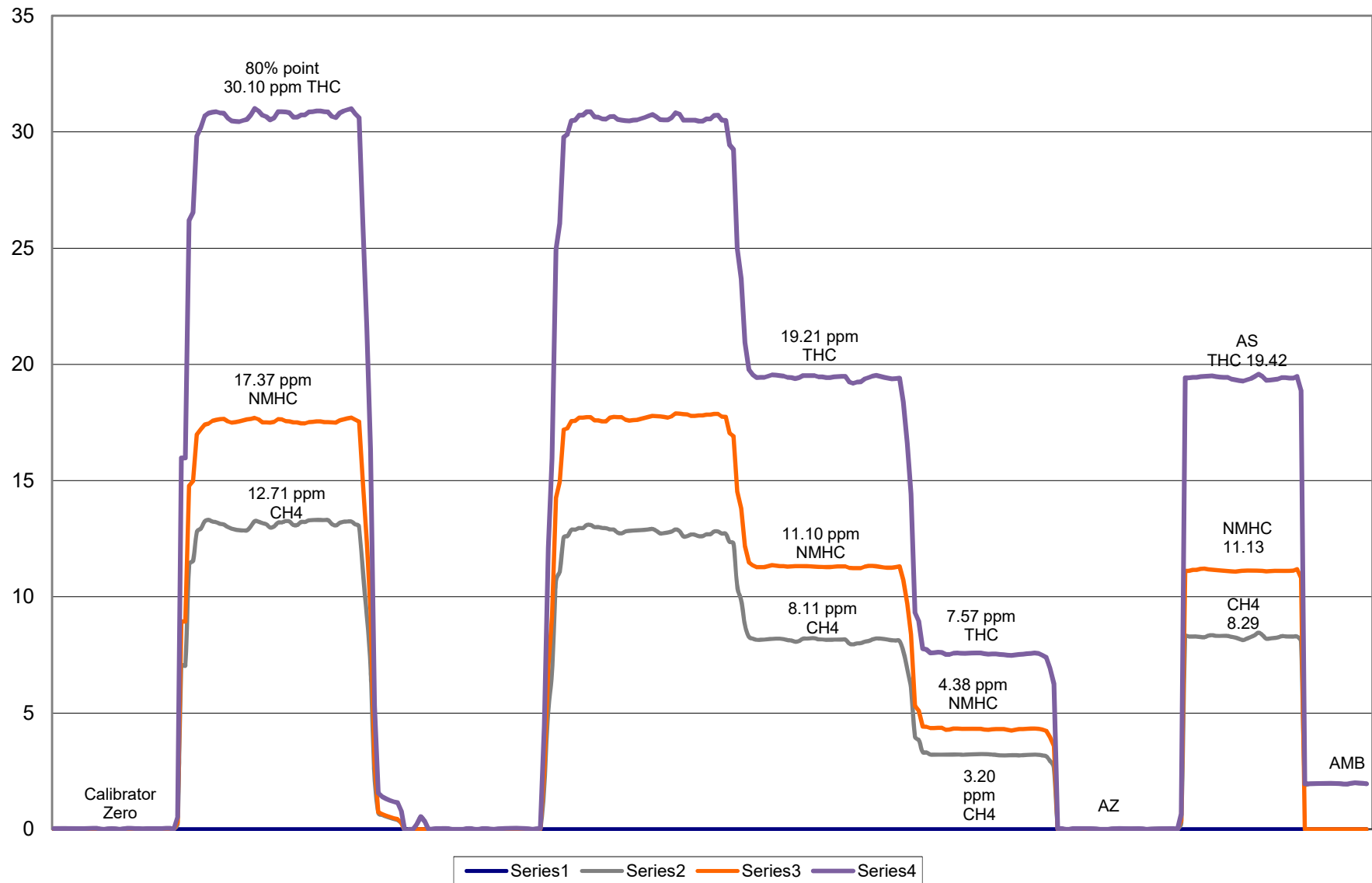
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.028	N/A	Correlation Coefficient	0.999958
30.098	30.576	0.9843		
19.206	19.402	0.9899		
7.574	7.539	1.0048	Slope	0.984115
			Intercept	0.061892

THC Calibration Data



THC/CH₄/NMHC Calibration



AB TEOM PM2.5 Calibration



STATION: **Rover-Rycroft**
 LOCATION: PAZA - Grande Prairie

OPERATOR: Dmytro Dolotii, Grover Christ
 DATE: 25-May-19

MONITOR INFO / PARAMETER VALUES:

Make/Model	TEOM AB
Configuration	PM2.5
Serial Number	140AB245710304
Site Number	10
Inlet Type	PM 10 / SCC
FAdj. Main Setting	1.000
FAdj. Aux. Setting	0.990
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	10-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	0.130	0.350
PUMP OFF	0.080	0.150
NET	0.050	0.200
LIMITS	<0.15	<0.60

	Ambient Temp. (° C)	Ambient Pres. (atm)	Ko *	Bypass flow (lpm)	Sample flow (lpm)
SET POINT (S)	na	na	12122	13.67	3.000
INDICATED (I)	25.3	0.922		13.68	3.010
MEASURED (AF)	24.0	0.922		13.38	3.200
MEASURED (M)	24.0	0.922	12247	13.38	3.200
DIFFERENCE (M-I)	-1.3	0.000	1.0%	-0.29	0.20
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: 0.09687 Serial #: CVK 5445

COMMENTS: Pass

Full audit was performed.

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