



Peace Airshed Zone Association

Ambient Air Monitoring Network Summary

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

March 31, 2018

Alberta Environment and Parks

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

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

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

Henry Pirker Station:

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

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 February.

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 February.

Beaverlodge Station:

- ◆ The measured ambient air quality was within the AAAQO for the Beaverlodge station.
- ◆ All analyzers and meteorological sensors at the Beaverlodge station had an operational uptime greater than 90% for the month of February, with the exception of the wind sensor which returned an uptime of 29.8% due to instrument malfunctioning and the RH sensor, which was offline for replacement.

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 February, 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 February.

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 February.

Passive Monitoring - 27 Stations throughout the PAZA zone:

There were six duplicate sites sampled in the month of February: Sylvester and Fitzsimmons (SO₂), Kinuso (O₃), Smoky Heights and Wembley (NO₂), and Girouxville 3 (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 0.7 ppb, with a mean of 0.3 ppb.
- Monthly average concentrations for NO₂ passives ranged from 0.2 ppb to 7.5 ppb, with a mean of 1.4 ppb.
- Monthly average concentrations for O₃ passives ranged from 41.5 ppb to 48.1 ppb, with a mean of 44.0 ppb.
- Monthly average concentrations for H₂S passives ranged from 0.1 ppb to 0.2 ppb, with a mean of 0.2 ppb.

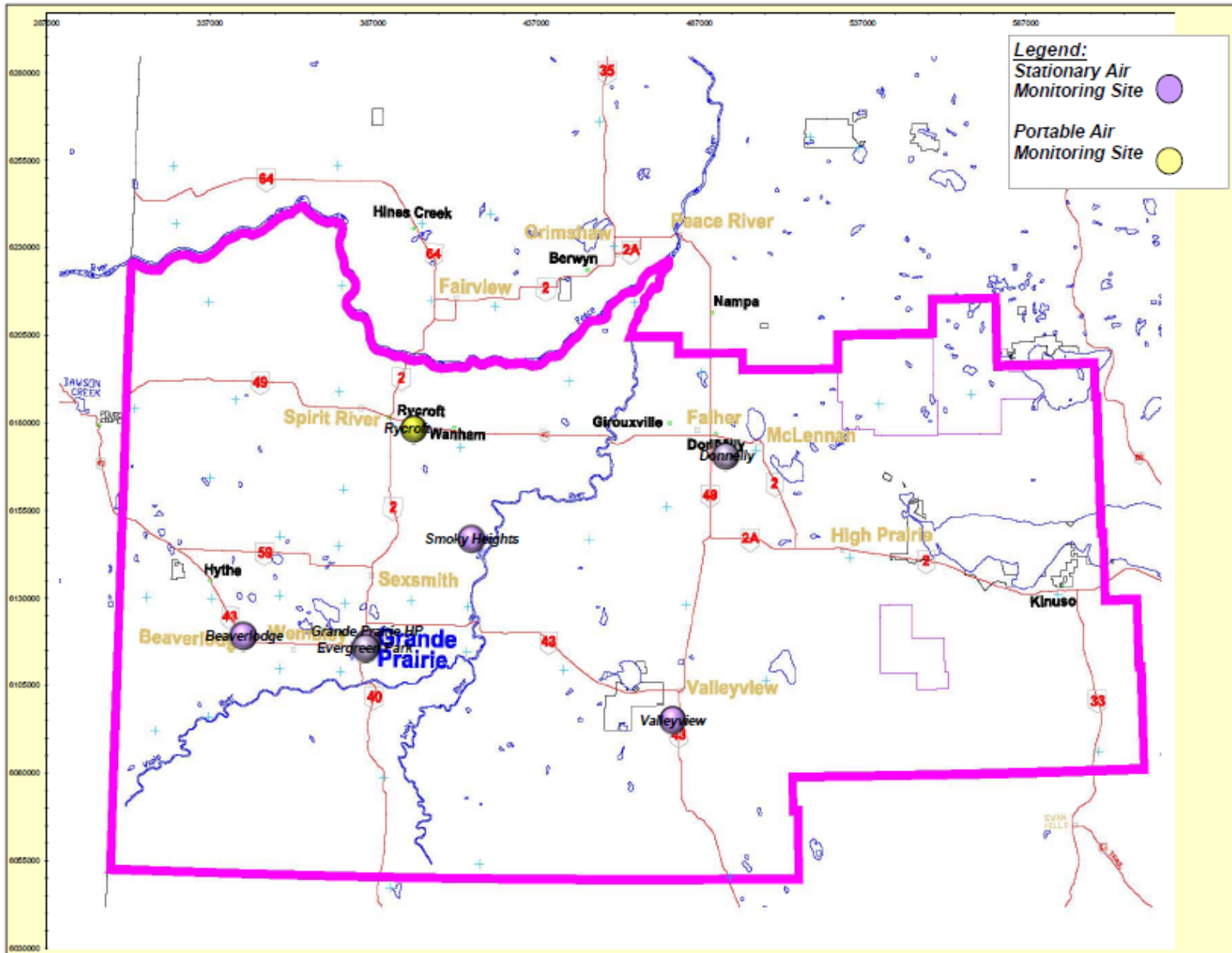
If you have any questions or concerns, please contact Patrick Andersen at 403.505.1041 or the PAZA office at 780.833.4343.

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

Feb-2018 Peace Airshed Zone Association							Maximum Recorded Values				Operational Time (%)	Calibration Date
Pollutant (units)	Objectives		Station	Monthly Average	Exceedence		1-hr		24-hr / 8-hr			
	1-hr	24-hr			1-hr	24-hr	Conc	Day	Conc	Day		
SO ₂ (ppb)	172	48	Henry Pirker	0.8	0	0	16.0	Feb-27 05:00	2.7	Feb-27	98.7%	Feb-05
SO ₂ (ppb)	172	48	Evergreen Park	0.6	0	0	26.0	Feb-19 09:00	3.8	Feb-19	100.0%	Feb-27
SO ₂ (ppb)	172	48	Smoky Heights	0.8	0	0	7.4	Feb-10 02:00	2.8	Feb-10	100.0%	Feb-16
SO ₂ (ppb)	172	48	Beaverlodge	0.5	0	0	8.8	Feb-11 18:00	2.0	Feb-11	100.0%	Feb-07
SO ₂ (ppb)	172	48	Valleyview	0.6	0	0	8.8	Feb-23 21:00	1.9	Feb-13	100.0%	Feb-14
SO ₂ (ppb)	172	48	Donnelly	0.3	0	0	2.0	Feb-09 09:00	1.3	Feb-09	100.0%	Feb-21
SO ₂ (ppb)	172	48	Rycroft-Portable	0.5	0	0	3.8	Feb-27 19:00	1.1	Feb-09	100.0%	Feb-08
NO (ppb)			Henry Pirker	11.7	-	-	151.3	Feb-08 22:00	56.4	Feb-05	100.0%	Feb-05
NO ₂ (ppb)	159	106	Henry Pirker	19.0	0	0	63.7	Feb-05 07:00	44.2	Feb-05	100.0%	Feb-05
NO _x (ppb)			Henry Pirker	30.9	-	-	213.1	Feb-08 22:00	101.1	Feb-05	100.0%	Feb-05
NO (ppb)			Beaverlodge	0.9	-	-	23.5	Feb-05 16:00	3.7	Feb-05	100.0%	Feb-07
NO ₂ (ppb)	159	106	Beaverlodge	4.3	0	0	35.7	Feb-06 19:00	13.5	Feb-06	100.0%	Feb-07
NO _x (ppb)			Beaverlodge	5.2	-	-	43.4	Feb-05 16:00	16.0	Feb-06	100.0%	Feb-07
NO (ppb)			Rycroft-Portable	0.8	-	-	13.7	Feb-05 13:00	3.5	Feb-05	100.0%	Feb-08
NO ₂ (ppb)	159	106	Rycroft-Portable	3.9	0	0	35.1	Feb-07 22:00	12.2	Feb-05	100.0%	Feb-08
NO _x (ppb)			Rycroft-Portable	4.7	-	-	44.0	Feb-07 22:00	15.8	Feb-05	100.0%	Feb-08
O ₃ (ppb)	82		Henry Pirker	24.6	0	-	44.4	Feb-28 15:00	38.9	Feb-13	100.0%	Feb-05
O ₃ (ppb) - 8-hr			Henry Pirker		0				41.7	Feb-13		-
O ₃ (ppb)	82		Beaverlodge	37.2	0	-	46.6	Feb-12 16:00	44.2	Feb-23	100.0%	Feb-07
O ₃ (ppb) - 8-hr			Beaverlodge		0				46.2	Feb-12		-
O ₃ (ppb)	82		Rycroft-Portable	37.1	0	-	50.1	Feb-28 17:00	45.5	Feb-27	97.3%	Feb-09
O ₃ (ppb) - 8-hr			Rycroft-Portable		0				48.0	Feb-28		-
CO (ppm)	13		Henry Pirker	0.26	0	-	1.4	Feb-22 09:00	0.5	Feb-05	100.0%	Feb-06
CO (ppm) - 8-hr	5		Henry Pirker		0				0.6	Feb-05		-

PAZA Monthly Continuous Data Summary – continued

Feb-2018			Peace Airshed Zone Association				Maximum Recorded Values						
							1-hr		24-hr / 8-hr				
THC (ppm)			Henry Pirker	2.1	-	-	3.0	Feb-20 22:00	2.6	Feb-04	100.0%	Feb-02	
CH ₄ (ppm)			Henry Pirker	2.1	-	-	3.0	Feb-20 22:00	2.6	Feb-04	100.0%	Feb-02	
NMHC (ppm)			Henry Pirker	0.0	-	-	0.0	Feb-08 12:00	0.0	Feb-08	100.0%	Feb-02	
THC (ppm)			Rycroft-Portable	1.9	-	-	2.2	Feb-05 11:00	2.1	Feb-05	100.0%	Feb-09	
CH ₄ (ppm)			Rycroft-Portable	1.9	-	-	2.2	Feb-05 11:00	2.0	Feb-05	100.0%	Feb-09	
NMHC (ppm)			Rycroft-Portable	0.0	-	-	0.0	Feb-23 12:00	0.0	Feb-23	100.0%	Feb-09	
TRS (ppb)			Henry Pirker	0.2	-	-	0.9	Feb-09 21:00	0.5	Feb-06	100.0%	Feb-06	
TRS (ppb)			Evergreen Park	0.3	-	-	1.5	Feb-10 00:00	0.6	Feb-04	100.0%	Feb-27	
TRS (ppb)			Smoky Heights	0.5	-	-	1.4	Feb-20 04:00	0.7	Feb-06	100.0%	Feb-16	
TRS (ppb)			Rycroft-Portable	0.1	-	-	0.7	Feb-12 09:00	0.2	Feb-12	100.0%	Feb-09	
H ₂ S (ppb)	10	3	Valleyview	0.1	0	0	1.2	Feb-25 22:00	0.3	Feb-05	100.0%	Feb-14	
H ₂ S (ppb)	10	3	Donnelly	0.1	0	0	1.0	Feb-16 18:00	0.5	Feb-17	100.0%	Feb-21	
PM _{2.5} (µg/m3)	80	30	Henry Pirker	4.3	0	0	38.5	Feb-05 09:00	10.7	Feb-05	98.5%	Dec-20	
PM _{2.5} (µg/m3)	80	30	Evergreen Park	2.1	0	0	40.2	Feb-12 12:00	8.1	Feb-12	100.0%	Feb-27	
PM _{2.5} (µg/m3)	80	30	Smoky Heights	2.7	0	0	59.5	Feb-07 23:00	10.9	Feb-06	99.7%	Dec-15	
PM _{2.5} (µg/m3)	80	30	Beaverlodge	2.2	0	0	13.1	Feb-08 03:00	4.9	Feb-11	100.0%	Dec-20	
PM _{2.5} (µg/m3)	80	30	Rycroft-Portable	0.9	0	0	9.6	Feb-08 13:00	2.4	Feb-08	100.0%	Feb-08	
RH (%)			Henry Pirker	61.2	-	-	84.1	Feb-26 03:00	71.4	Feb-14	100.0%	-	
RH (%)			Evergreen Park	65.8	-	-	91.5	Feb-26 03:00	77.7	Feb-14	100.0%	-	
RH (%)			Beaverlodge	-	-	-	-	-	-	-	-	-	
RH (%)			Valleyview	-	-	-	-	-	-	-	-	-	
SR (W/m ²)			Henry Pirker	66.9	-	-	465.1	Feb-28 14:00	117.1	Feb-27	100.0%	-	
Temp (°C)			Henry Pirker	-13.5	-	-	5.6	Feb-28 14:00	2.3	Feb-13	100.0%	-	
Temp (°C)			Evergreen Park	-12.9	-	-	4.0	Feb-13 15:00	3.1	Feb-13	100.0%	-	
Temp (°C)			Smoky Heights	-14.5	-	-	2.9	Feb-13 15:00	1.5	Feb-13	100.0%	-	
Temp (°C)			Beaverlodge	-12.3	-	-	3.4	Feb-13 11:00	2.2	Feb-13	100.0%	-	
Temp (°C)			Valleyview	-12.9	-	-	4.6	Feb-13 09:00	2.1	Feb-13	100.0%	-	
Temp (°C)			Donnelly	-13.9	-	-	5.6	Feb-28 15:00	0.2	Feb-13	100.0%	-	
Temp (°C)			Rycroft-Portable	-13.5	-	-	7.9	Feb-28 14:00	1.3	Feb-13	100.0%	-	

PAZA Monthly Continuous Data Summary – continued

Feb-2018		Peace Airshed Zone Association					Maximum Recorded Values						
							1-hr		24-hr / 8-hr				
WSPD s (km/hr)			Henry Pirker	8.1	-	-	45.0	Feb-12 02:00	23.3	Feb-13	93.9%	-	
WSPD s (km/hr)			Evergreen Park	12.2	-	-	55.0	Feb-13 05:00	35.6	Feb-13	99.7%	-	
WSPD s (km/hr)			Smoky Heights	14.3	-	-	50.0	Feb-13 15:00	38.9	Feb-13	100.0%	-	
WSPD s (km/hr)			Beaverlodge	16.4	-	-	43.0	Feb-26 14:00	27.3	Feb-23	29.8%	-	
WSPD s (km/hr)			Valleyview	5.0	-	-	25.0	Feb-14 03:00	10.8	Feb-14	100.0%	-	
WSPD s (km/hr)			Donnelly	11.6	-	-	41.0	Feb-26 23:00	24.3	Feb-27	100.0%	-	
WSPD s (km/hr)			Rycroft-Portable	10.5	-	-	38.0	Feb-13 03:00	19.2	Feb-13	100.0%	-	
WSPD v (km/hr)			Henry Pirker	4.4	-	-	42.0	Feb-12 02:00	22.8	Feb-13	93.9%	-	
WSPD v (km/hr)			Evergreen Park	7.9	-	-	55.0	Feb-13 05:00	34.9	Feb-13	99.7%	-	
WSPD v (km/hr)			Smoky Heights	8.8	-	-	49.0	Feb-13 15:00	38.2	Feb-13	100.0%	-	
WSPD v (km/hr)			Beaverlodge	12.1	-	-	43.0	Feb-26 14:00	26.4	Feb-23	29.8%	-	
WSPD v (km/hr)			Valleyview	2.6	-	-	25.0	Feb-14 03:00	10.1	Feb-14	100.0%	-	
WSPD v (km/hr)			Donnelly	6.9	-	-	41.0	Feb-26 23:00	22.4	Feb-27	100.0%	-	
WSPD v (km/hr)			Rycroft-Portable	5.7	-	-	38.0	Feb-13 03:00	16.2	Feb-13	100.0%	-	
WDIR			Henry Pirker	W	-	-	-	-	-	-	93.9%	-	
WDIR			Evergreen Park	W	-	-	-	-	-	-	99.7%	-	
WDIR			Smoky Heights	W	-	-	-	-	-	-	100.0%	-	
WDIR			Beaverlodge	WSW	-	-	-	-	-	-	29.8%	-	
WDIR			Valleyview	NW	-	-	-	-	-	-	100.0%	-	
WDIR			Donnelly	SW	-	-	-	-	-	-	100.0%	-	
WDIR			Rycroft-Portable	SW	-	-	-	-	-	-	100.0%	-	

Continuous Network Equipment Summary

PAZA – Henry Pirker Station

General Station Issues:

Parameter	Make	Model	Notes
SO ₂	TEI	43i	Analyzer malfunctioning resulted in an uptime of 98.7%.
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	No operational issues observed.
TRS	TEI	45C	No operational issues observed.
PM _{2.5}	Sharp	5030	Analyzer malfunctioning resulted in an uptime of 98.5%.
RH	Met One	083D	No operational issues observed.
ET	Met One	083D	No operational issues observed.
SR	Met One	096-1	No operational issues observed.
WS / WD	Met One	010C/020C	Intermittent instrument malfunctioning due to cold temperatures and precipitation resulted in an uptime of 93.9%.

PAZA – Evergreen Park Station

General Station Issues

Parameter	Make	Model	Notes
SO ₂	TEI	43i	No operational issues observed.
TRS	TEI	43C	No operational issues observed.
PM _{2.5}	Sharp	5030	No operational issues observed.
ET	Met One/Gill	083D	No operational issues observed.
RH	Met One/Gill		No operational issues observed.
WS / WD	Met One/ Gill		Intermittent instrument malfunctioning due to cold temperatures and precipitation resulted in an uptime of 99.7%.

PAZA – Smoky Heights Station

General Station Issues

Parameter	Make	Model	Notes
SO ₂	TEI	43C	No operational issues observed.
TRS	TEI	43i	No operational issues observed.
PM _{2.5}	Sharp	5030	Instrument malfunctioning resulted in an uptime of 99.7%.
ET	Met One	083D	No operational issues observed.
WS / WD	Met One	010C/020C	No operational issues observed.

PAZA – Beaverlodge Station

General Station Issues

Parameter	Make	Model	Notes
SO ₂	TEI	43CTL	No operational issues observed.
NOx/NO/NO ₂	TEI	42C	No operational issues observed.
O ₃	TEI	49C	No operational issues observed.
PM _{2.5}	Sharp	5030	No operational issues observed.
ET	n/a	n/a	No operational issues observed.
RH	n/a	n/a	RH offline for replacement
WS / WD	Met One	50.5H	Instrument malfunctioning resulted in an uptime of 29.8%.

PAZA – Valleyview Station

General Station Issues

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

PAZA – Donnelly Station

General Station Issues

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

PAZA – Portable-Rycroft

General Station Issues

Parameter	Make	Model	Notes
SO ₂	TEI	43i	No operational issues observed.
NOx/NO/NO ₂	TEI	42i	No operational issues observed.
O ₃	TEI	49i	Maintenance performed Feb 8, allowed to stabilize and recalibrated resulting in an uptime of 97.3%
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.

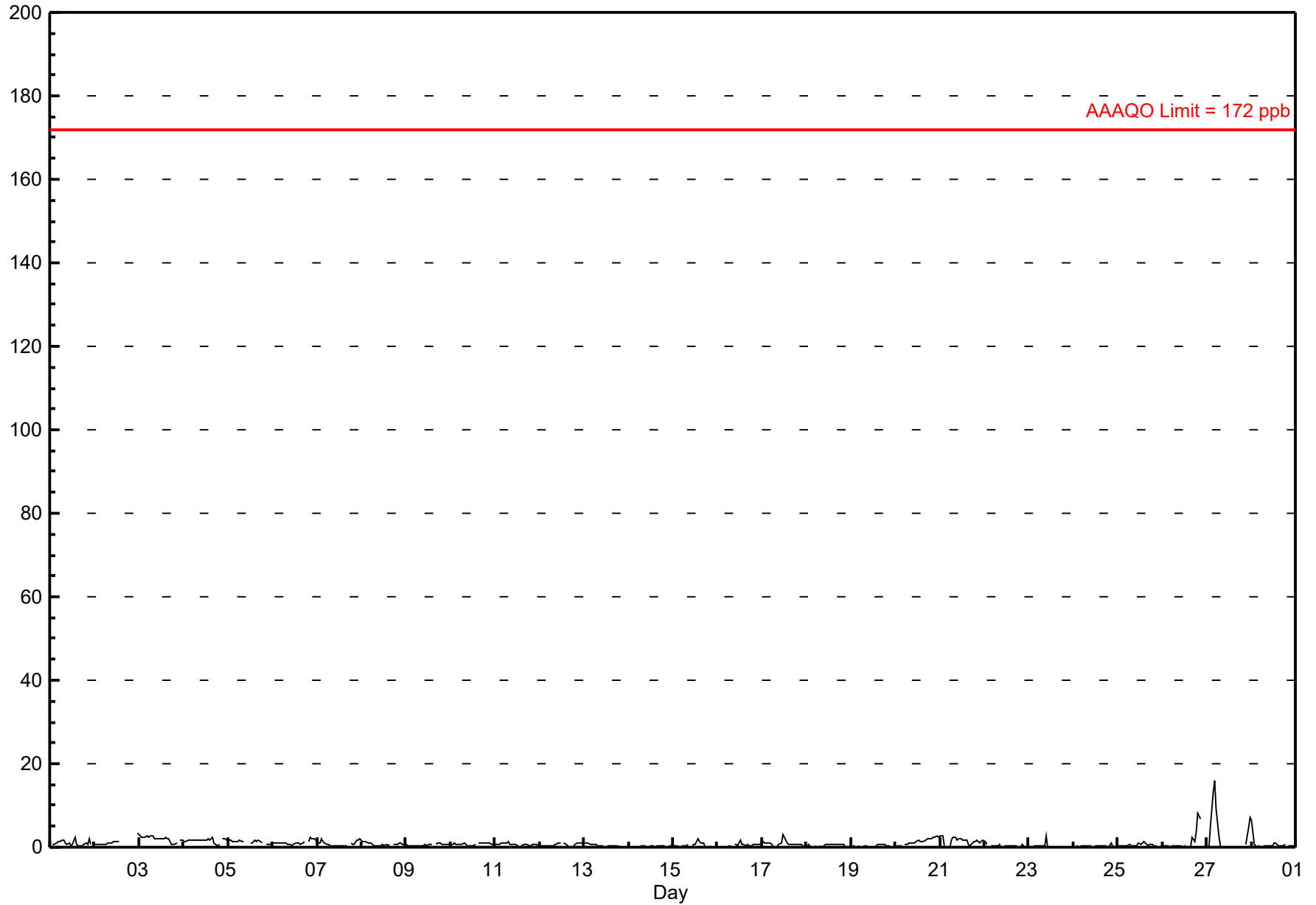
PAZA

Henry Pirker Station

Monthly Summary Tables, Graphs and
Roses

Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Henry Pirker - February 2018



Hourly Maximums

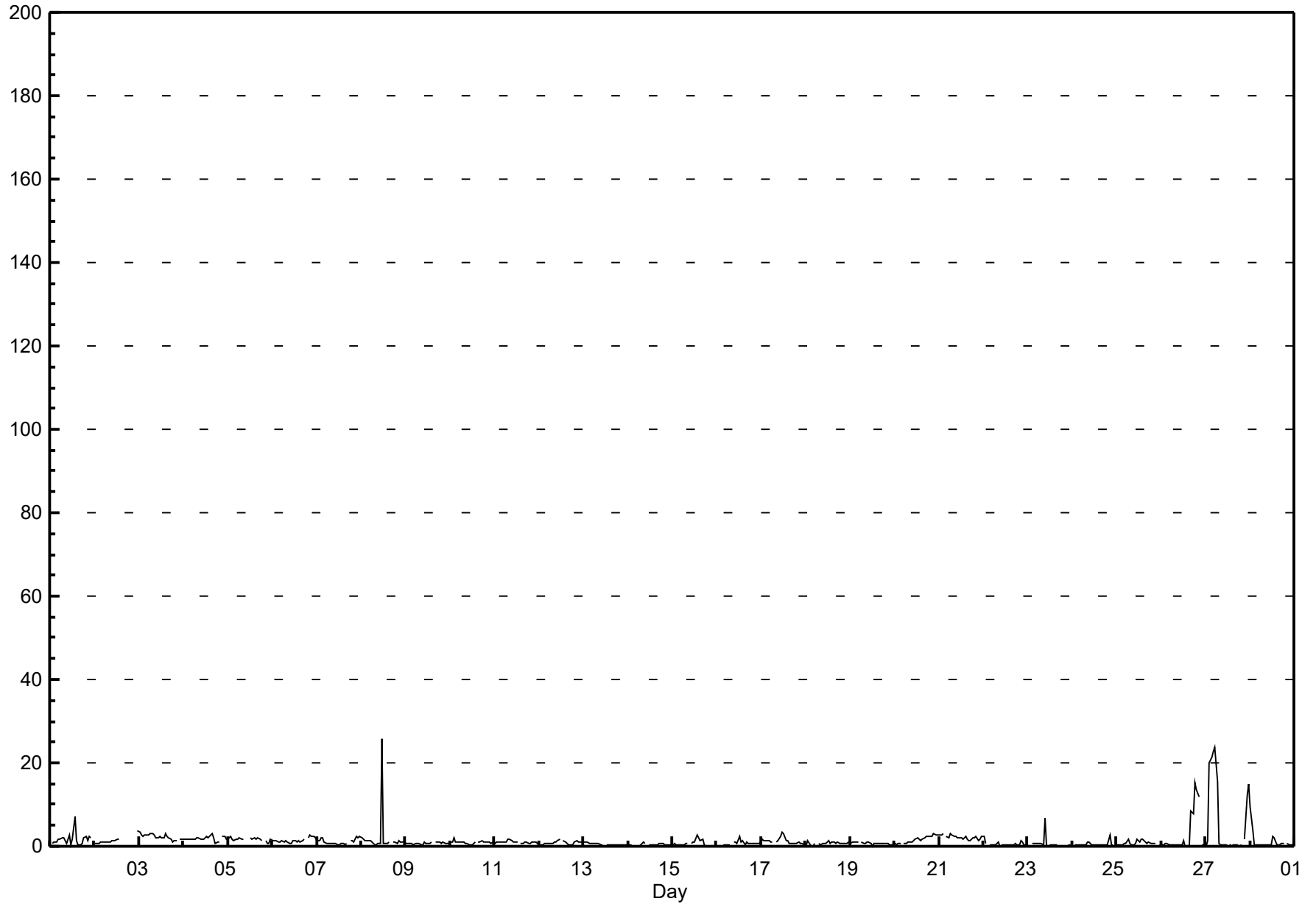
Sulphur Dioxide (SO₂) - ppb

Henry Pirker - February 2018

Maximum Value: 25.7 ppb on Feb 8 12:00		Maximum Daily Average: 6.0 ppb on Feb 27		Hours in Service: 672																							
Minimum Value: 0 ppb on Feb 18 01:00		Minimum Daily Average: 0.4 ppb on Feb 14		Hours of Data: 631																							
Maximum Diurnal Average: 2.0 ppb at hour 12		Minimum Diurnal Average: 0.9 ppb at hour 16		Hours of Missing Data: 41																							
Monthly Average: 1.35 ppb		Percentiles: P ₁ = 0.1 P ₁₀ = 0.3 Q ₁ = 0.4 Median = 0.8 Q ₃ = 1.5 P ₉₀ = 2.3 P ₉₉ = 15.3		Hours of Calibration: 32																							
				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-Feb	A	1	1	1	2	2	2	2	1	1	3	0	2	7	1	0	0	1	2	2	1	3	2	A	1.7	7.0	
2-Feb	1	1	1	1	1	1	1	1	1	1	1	1	2	2	N	N	N	N	N	N	N	N	N	4	--	3.7	
3-Feb	3	3	3	3	3	3	3	3	3	2	2	2	2	2	3	2	2	2	1	1	1	A	2	2	2.3	3.2	
4-Feb	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2	1	1	1	A	2	3	2	1.8	2.9	
5-Feb	2	2	2	2	2	2	2	2	2	C	C	C	2	2	2	2	2	2	1	A	1	1	1	2	1.6	2.2	
6-Feb	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	A	2	3	2	2	2	1.4	2.6	
7-Feb	1	1	2	2	1	1	1	1	1	1	1	0	0	1	1	0	1	A	1	1	1	2	2	2	1.1	2.4	
8-Feb	2	2	2	1	1	1	1	1	1	1	1	26	1	1	1	1	A	1	1	1	1	1	1	1	2.1	25.7	
9-Feb	1	1	1	1	0	1	1	1	1	0	0	1	1	1	1	A	1	1	1	1	1	1	1	1	0.8	1.1	
10-Feb	1	1	2	1	1	1	1	1	1	1	0	0	0	1	A	1	1	1	1	1	1	1	1	1	1.0	2.2	
11-Feb	1	1	1	1	1	1	1	2	2	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1.0	1.8	
12-Feb	0	0	1	1	1	1	1	1	1	1	1	2	A	1	1	1	0	0	0	1	1	1	1	1	0.8	1.5	
13-Feb	1	1	1	1	1	1	1	1	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.5	1.1	
14-Feb	0	0	0	0	0	0	0	0	1	1	A	0	0	0	0	0	0	1	1	1	0	0	0	0	0.4	1.1	
15-Feb	0	1	0	0	0	0	0	1	1	A	1	1	1	3	2	1	2	0	0	0	0	0	0	0	0.7	2.6	
16-Feb	0	0	0	0	0	0	0	0	A	1	1	1	2	1	1	0	1	1	1	1	1	1	1	1	0.7	2.4	
17-Feb	2	1	1	1	1	1	1	A	1	1	2	4	3	1	1	1	1	1	1	1	1	1	0	1.3	3.5		
18-Feb	0	1	0	0	0	1	A	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.4	
19-Feb	1	1	1	1	1	A	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0	0	0	0.7	1.1	
20-Feb	1	0	1	1	A	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	3	3	1.6	2.9	
21-Feb	3	3	3	A	2	2	3	3	2	2	2	2	2	2	2	2	1	1	2	2	2	1	2	2	2.1	3.0	
22-Feb	3	1	A	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0.6	2.5	
23-Feb	0	A	1	1	1	1	1	1	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	6.7	
24-Feb	A	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	3	0	0	A	0.5	2.7	
25-Feb	0	0	0	0	1	1	2	1	0	0	1	2	1	2	2	1	1	1	1	1	1	1	A	0	0.8	1.7	
26-Feb	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	0	8	8	15	14	12	A	0	0	2.8	15.4	
27-Feb	0	1	20	21	23	24	15	1	0	0	0	0	0	0	0	0	0	0	0	0	A	2	12	15	6.0	23.9	
28-Feb	9	4	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	1	1	A	1	0	0	0	1.1	9.4	
	1.4	1.1	1.7	1.6	1.7	1.8	1.6	1.0	1.0	1.1	1.0	2.0	1.2	1.3	1.1	0.9	1.2	1.2	1.4	1.4	1.6	1.1	1.5	1.6		Diurnal Average	
	9.4	3.6	20.1	21.3	22.8	23.9	15.5	3.1	2.6	6.7	2.6	25.7	3.1	7.0	3.1	2.9	8.3	7.8	15.4	13.7	11.9	2.9	12.4	15.0		Diurnal Maximum	
C - Calibration		N - Not Valid						A - Automated Daily Zero Span																			

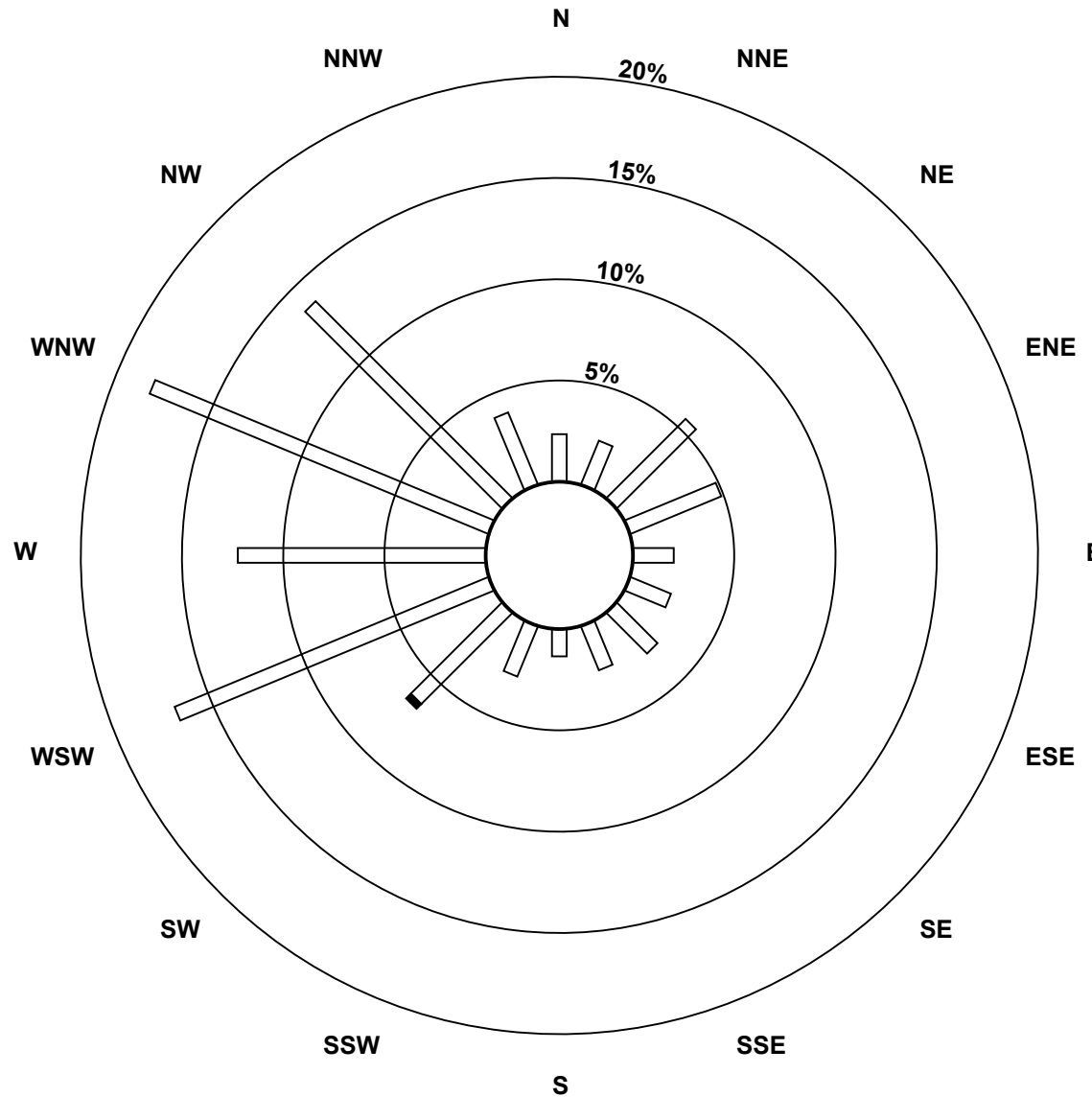
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Henry Pirker - February 2018



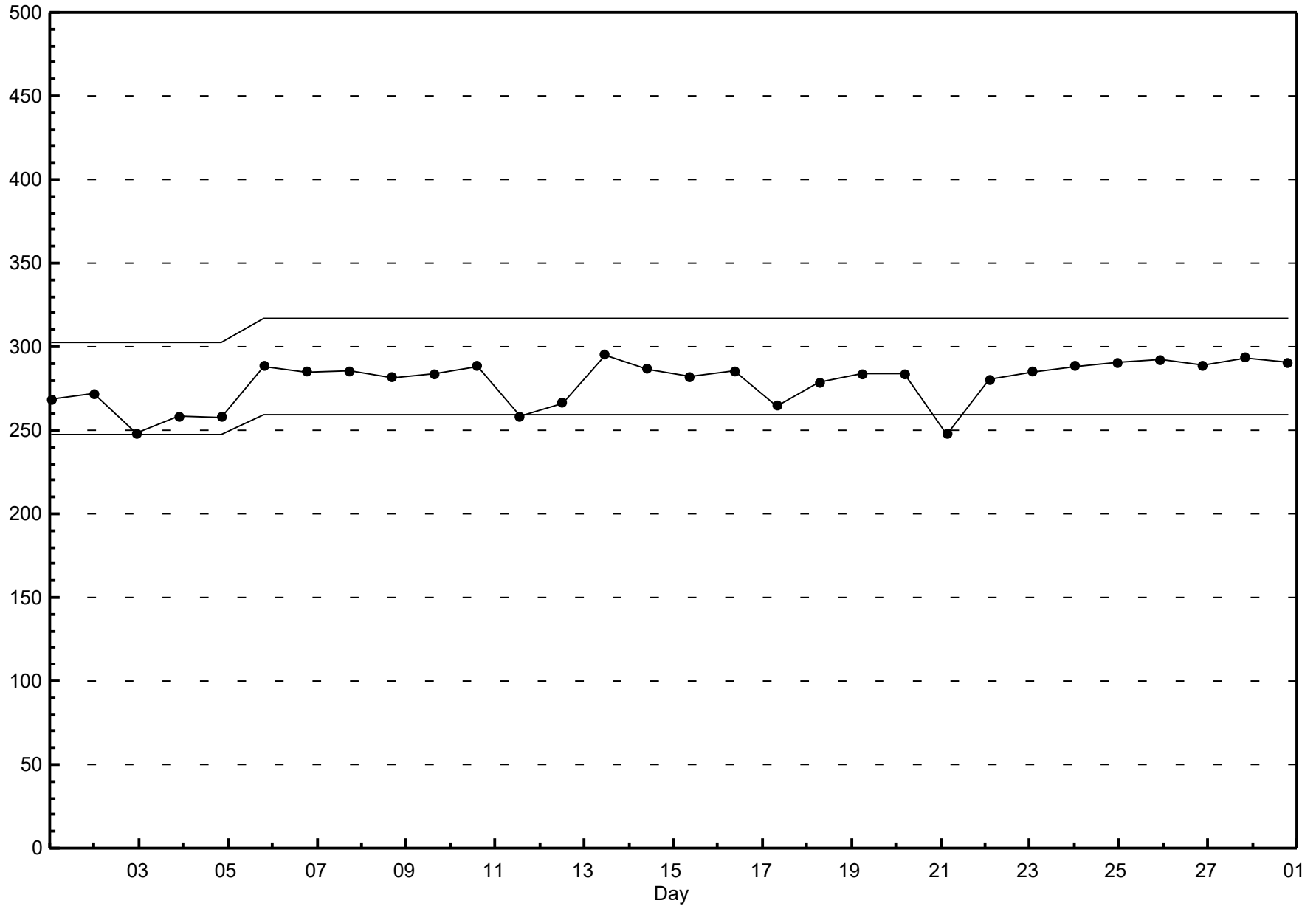
Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Henry Pirker - February 2018



Span Responses

Sulphur Dioxide (SO₂)
Henry Pirker - February 2018

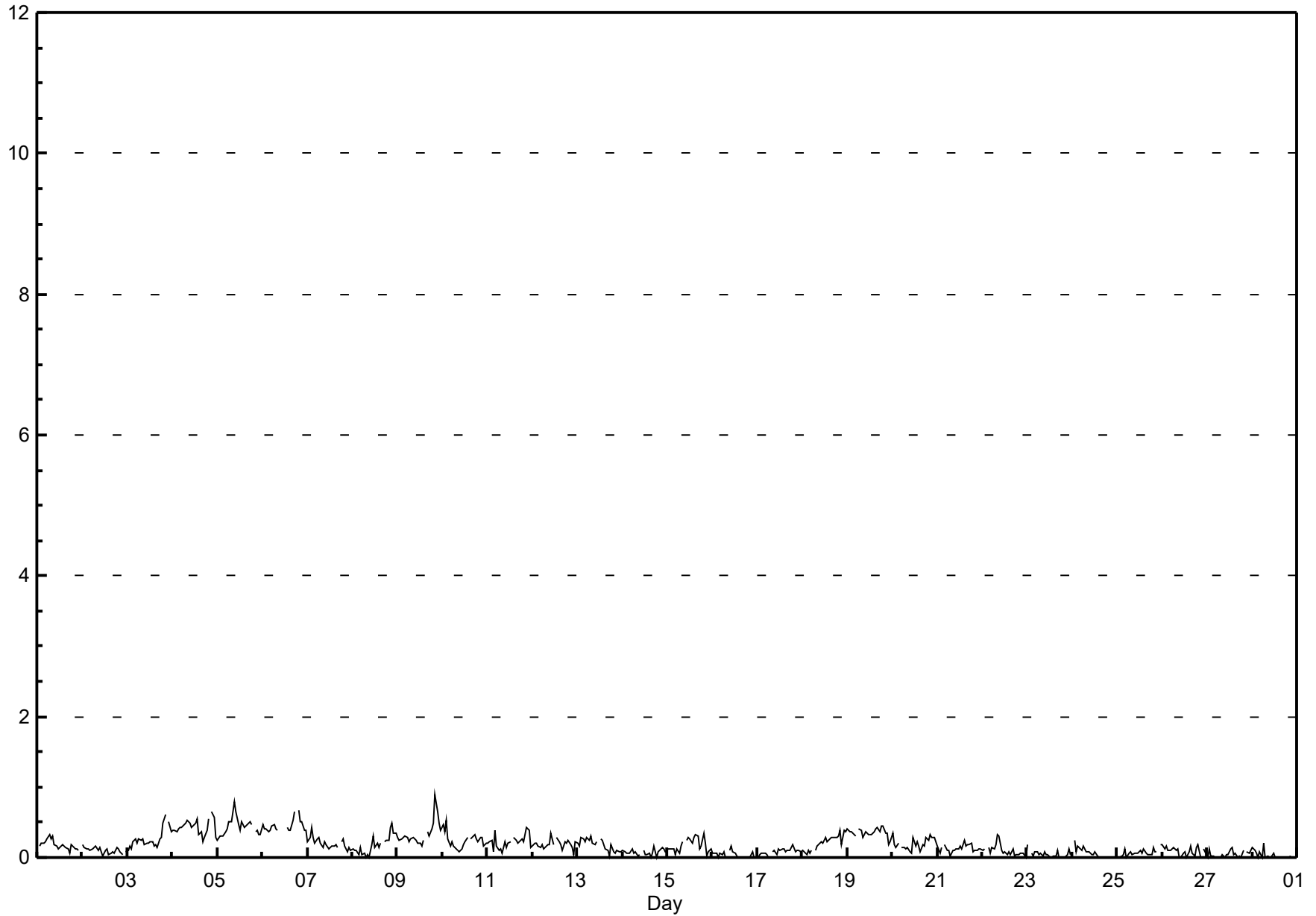


Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - February 2018

Maximum Value: 0.9 ppb on Feb 9 21:00		Maximum Daily Average: 0.5 ppb on Feb 6		Hours in Service: 672																							
Minimum Value: 0 ppb on Feb 14 16:00		Minimum Daily Average: 0.0 ppb on Feb 28		Hours of Data: 638																							
Maximum Diurnal Average: 0.2 ppb at hour 20		Minimum Diurnal Average: 0.2 ppb at hour 4		Hours of Missing Data: 34																							
Monthly Average: 0.18 ppb		Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.1 Q ₃ = 0.3 P ₉₀ = 0.4 P ₉₉ = 0.6		Hours of Calibration: 34																							
				Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Feb	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	
2-Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.1	0.2	
3-Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	1	0	0.3	0.6	
4-Feb	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1	A	1	1	1	0	0.4	0.6	
5-Feb	0	0	0	0	0	0	1	1	1	1	1	0	0	1	0	0	0	1	A	0	0	0	0	0	0.4	0.8	
6-Feb	0	0	0	0	0	0	0	0	0	C	C	C	C	0	0	0	1	1	A	1	1	1	0	0	0.5	0.7	
7-Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	A	0	0	0	0	0	0.2	0.4	
8-Feb	0	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	0.5	
9-Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	A	0	0	0	1	1	0	0.3	0.9	
10-Feb	0	0	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.2	0.5	
11-Feb	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	
12-Feb	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	
13-Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.2	0.3	
14-Feb	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-Feb	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	
16-Feb	0	0	0	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	
17-Feb	0	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	
18-Feb	0	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	0.4	
19-Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.4	
20-Feb	0	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	0.3	
21-Feb	0	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	
22-Feb	0	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	0.3	
23-Feb	0	0	0	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	
24-Feb	0	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	
25-Feb	0	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	
26-Feb	0	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	
27-Feb	0	0	0	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	
28-Feb	0	0	0	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	
		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	Diurnal Average	
		0.5	0.4	0.5	0.4	0.4	0.4	0.5	0.5	0.6	0.8	0.6	0.5	0.5	0.6	0.4	0.5	0.5	0.6	0.5	0.7	0.9	0.7	0.6	0.4	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

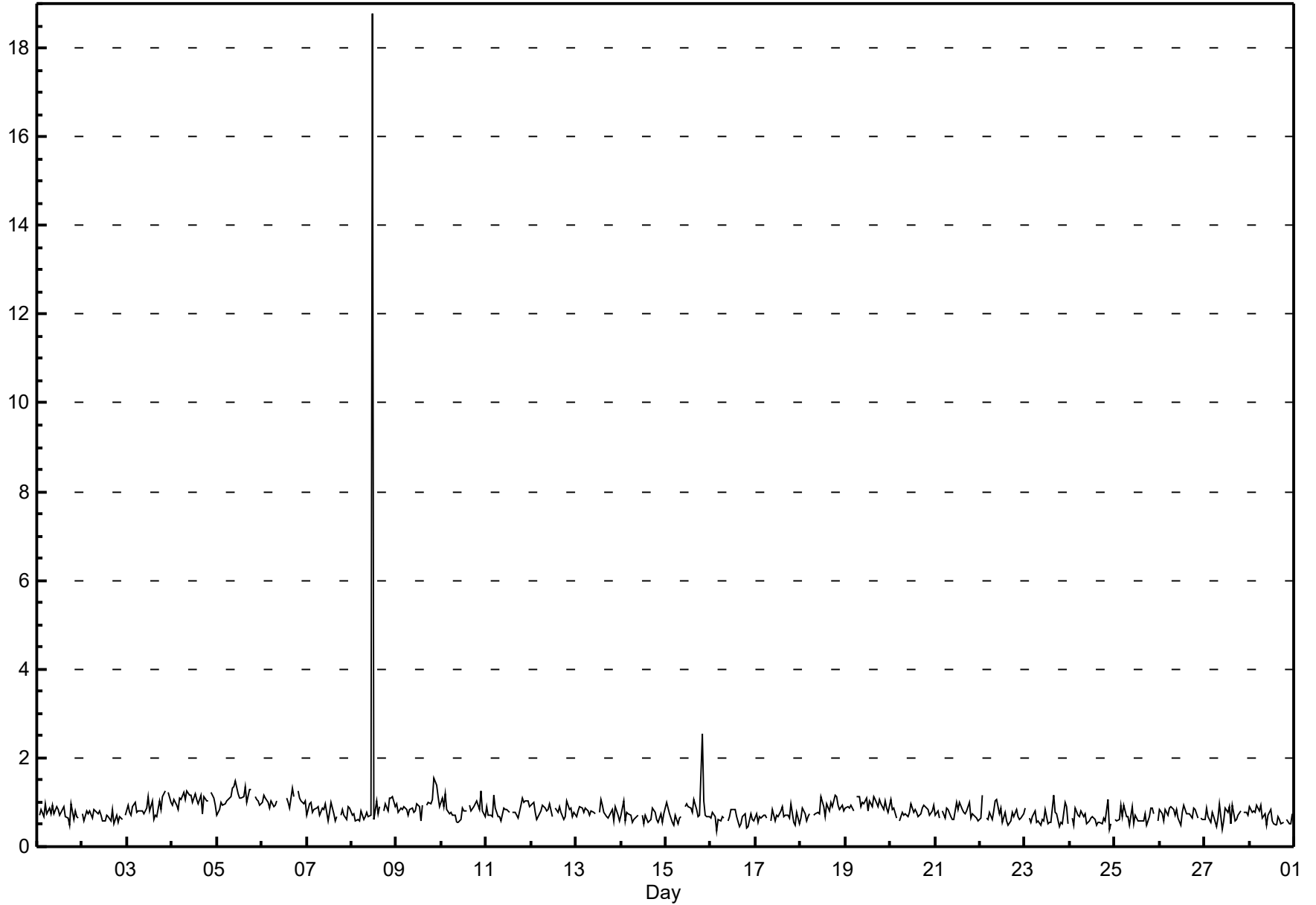


Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

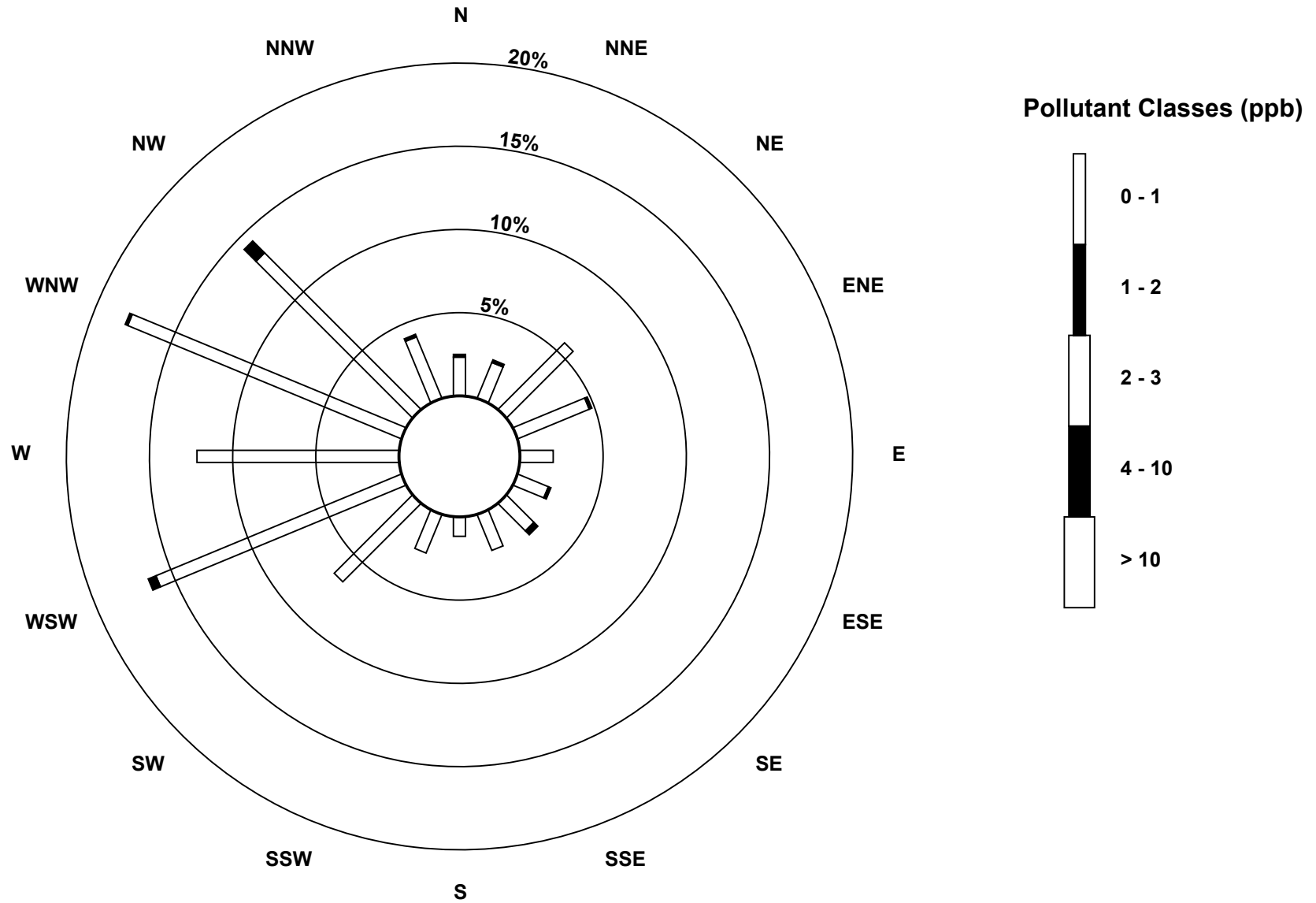
Henry Pirker - February 2018

Maximum Value: 18.8 ppb on Feb 8 12:00		Maximum Daily Average: 1.6 ppb on Feb 8		Hours in Service: 672																							
Minimum Value: 0 ppb on Feb 16 04:00		Minimum Daily Average: 0.6 ppb on Feb 24		Hours of Data: 638																							
Maximum Diurnal Average: 1.5 ppb at hour 12		Minimum Diurnal Average: 0.7 ppb at hour 4		Hours of Missing Data: 34																							
Monthly Average: 0.83 ppb		Percentiles: P ₁ = 0.5 P ₁₀ = 0.6 Q ₁ = 0.7 Median = 0.8 Q ₃ = 0.9 P ₉₀ = 1.1 P ₉₉ = 1.3		Hours of Calibration: 34																							
				Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Feb	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	A			
2-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1			
3-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1			
4-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1			
5-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1			
6-Feb	1	1	1	1	1	1	1	1	1	C	C	C	C	1	1	1	1	1	A	1	1	1	1	1			
7-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1			
8-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
9-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
10-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
11-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
12-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
13-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
14-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
15-Feb	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
16-Feb	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	0	1	1			
17-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1			
18-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
19-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
20-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
21-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
22-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1			
23-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
24-Feb	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1			
25-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1			
26-Feb	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1			
27-Feb	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
28-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1			
	0.8	0.8	0.8	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.5	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.9	0.8	0.8	0.8	0.8	Diurnal Average	
	1.1	1.2	1.2	1.0	1.2	1.1	1.2	1.1	1.3	1.4	1.5	18.8	1.2	1.1	1.1	1.3	1.3	1.3	1.3	1.3	2.6	1.5	1.4	1.2	1.0	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									



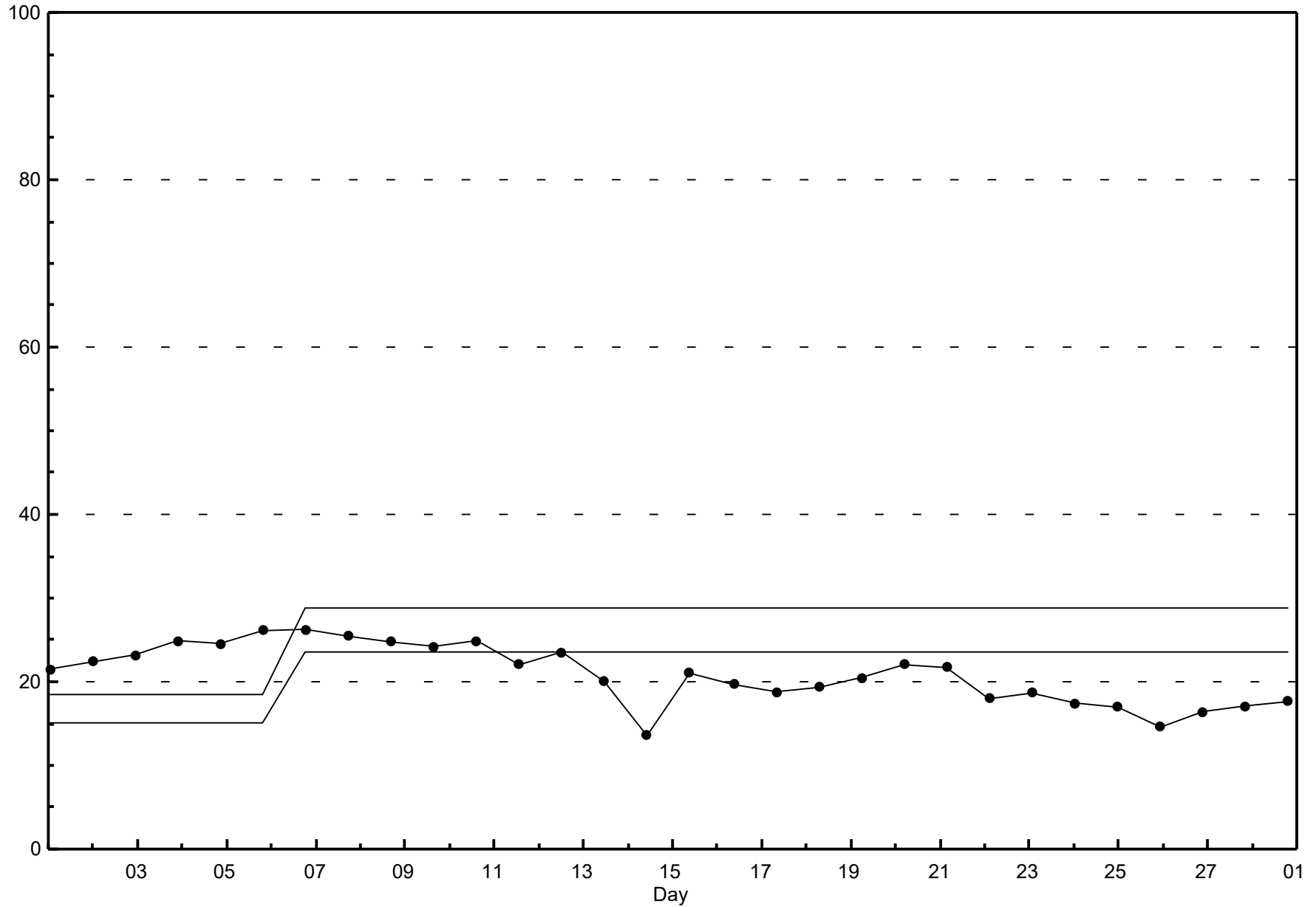
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb
Henry Pirker - February 2018



Span Responses

Total Reduced Sulphur (TRS)
Henry Pirker - February 2018



Hourly Averages

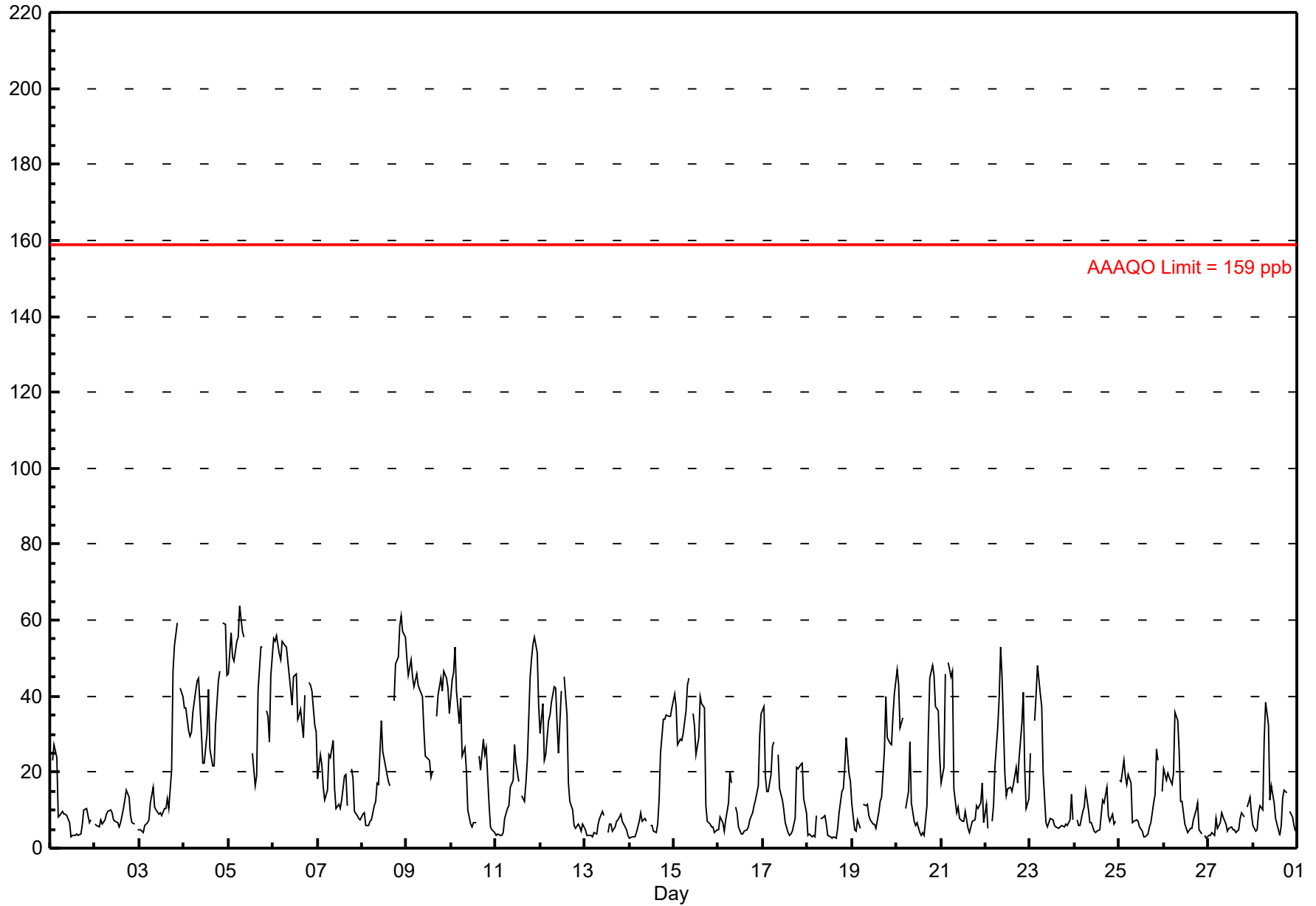
Nitrogen Dioxide (NO₂) - ppb

Henry Pirker - February 2018

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0	Hours in Service: 672
Maximum Value: 63.7 ppb on Feb 5 07:00	Maximum Daily Average: 44.2 ppb on Feb 5
Minimum Value: 3 ppb on Feb 27 00:00	Hours of Data: 638
Maximum Diurnal Average: 25.4 ppb at hour 7	Hours of Missing Data: 34
Monthly Average: 19.03 ppb	Hours of Calibration: 34
Minimum Daily Average: 5.7 ppb on Feb 13	Percent Operational Time: 100.0
Minimum Diurnal Average: 11.2 ppb at hour 13	
Percentiles: P ₁ = 2.8 P ₁₀ = 4.3 Q ₁ = 6.6 Median = 12.1 Q ₃ = 29.7 P ₉₀ = 44.6 P ₉₉ = 57.0	

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-Feb	A	23	27	24	8	9	10	9	9	9	7	3	3	4	4	3	4	6	10	10	9	7	7	A	9.3	27.4																							
2-Feb	6	6	6	7	6	7	9	10	10	9	7	7	7	6	7	10	13	15	14	9	7	6	A	5	8.2	15.4																							
3-Feb	5	4	4	6	7	8	12	16	11	10	9	9	9	10	10	13	11	20	47	53	59	A	42	40	18.1	59.1																							
4-Feb	37	37	31	29	31	36	41	44	45	31	22	22	30	42	26	21	22	33	44	47	A	59	59	46	36.3	59.3																							
5-Feb	46	57	50	49	54	56	64	57	56	C	C	C	C	25	16	19	42	53	53	A	36	35	28	45	44.2	63.7																							
6-Feb	55	54	56	51	50	54	53	53	49	42	38	45	46	34	35	37	29	40	A	44	43	41	33	30	44.1	55.9																							
7-Feb	18	25	22	16	13	15	25	24	28	16	11	12	10	13	19	19	11	A	21	18	10	9	8	7	16.1	28.2																							
8-Feb	9	9	6	6	7	8	11	12	17	17	33	26	23	19	18	17	A	39	49	50	59	61	57	56	26.5	61.1																							
9-Feb	50	45	50	45	42	46	43	42	40	31	24	24	23	19	20	A	34	40	45	42	47	45	42	35	38.0	49.8																							
10-Feb	44	46	53	41	33	39	24	26	20	10	6	6	7	7	A	24	20	29	24	27	12	6	5	4	22.4	53.0																							
11-Feb	3	4	3	4	4	8	11	11	16	18	27	22	17	A	14	12	17	23	45	50	54	56	51	38	22.1	55.6																							
12-Feb	30	38	23	25	34	35	39	42	42	33	25	41	A	45	35	17	12	10	6	5	6	6	4	6	24.4	45.1																							
13-Feb	5	3	3	3	3	4	4	6	8	10	8	A	4	6	6	5	6	7	7	9	7	7	5	3	5.7	9.7																							
14-Feb	3	3	3	3	4	7	9	7	8	7	A	6	6	4	4	6	13	25	34	34	35	35	35	37	14.2	36.9																							
15-Feb	41	37	27	29	28	30	36	43	45	A	36	32	24	29	40	38	37	11	7	6	6	6	4	5	26.0	44.9																							
16-Feb	5	8	7	4	8	12	20	17	A	11	9	6	4	4	4	5	6	8	9	11	13	16	30	35	10.9	35.3																							
17-Feb	37	19	15	15	19	27	28	A	25	16	13	10	7	4	3	4	4	8	21	21	22	23	13	9	15.8	37.2																							
18-Feb	4	4	3	4	3	9	A	8	8	9	6	3	3	3	3	5	9	15	16	21	29	20	18	8.8	29.0																								
19-Feb	11	5	5	7	5	A	12	11	12	9	7	6	6	5	9	12	13	26	40	29	28	27	35	41	15.8	40.7																							
20-Feb	47	43	32	34	A	11	15	28	12	7	6	7	4	3	4	3	11	30	45	48	45	37	36	24	23.2	48.2																							
21-Feb	17	21	46	A	49	45	47	16	9	11	8	7	7	10	5	4	6	7	8	11	11	12	17	7	16.5	48.8																							
22-Feb	12	5	A	7	11	22	32	40	53	45	19	14	16	16	15	17	21	17	24	33	41	21	10	13	21.9	52.9																							
23-Feb	25	A	34	40	48	41	37	20	7	6	7	8	7	6	6	5	6	6	5	6	6	7	14	8	15.4	48.2																							
24-Feb	A	7	6	6	10	11	15	10	7	7	5	4	4	5	9	13	12	16	9	7	9	6	7	A	8.4	15.9																							
25-Feb	18	18	23	19	17	19	17	7	7	8	7	6	4	3	3	4	5	7	12	14	26	23	A	15	12.3	26.3																							
26-Feb	21	18	20	18	17	20	36	34	25	12	12	6	5	4	5	5	7	10	12	5	4	A	3	3	13.2	36.0																							
27-Feb	3	3	4	3	8	5	7	9	8	7	4	5	6	5	5	4	5	8	9	8	A	11	14	9	6.6	13.5																							
28-Feb	6	5	5	9	11	10	29	39	33	13	16	12	8	6	3	6	13	15	15	A	10	8	6	5	12.3	38.5																							
																								21.5	20.3	20.9	18.8	19.6	21.9	25.4	23.7	22.5	15.4	14.4	13.5	11.2	12.5	12.2	12.1	14.3	19.2	23.3	23.6	24.0	23.0	22.5	20.9	Diurnal Average	
																								55.4	56.7	55.9	50.9	54.3	55.5	63.7	56.9	55.6	45.1	37.7	45.2	45.9	45.1	40.0	38.0	41.5	52.8	52.9	53.5	59.1	61.1	59.0	55.6	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span
 Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb 24-hr 106 ppb



Hourly Maximums

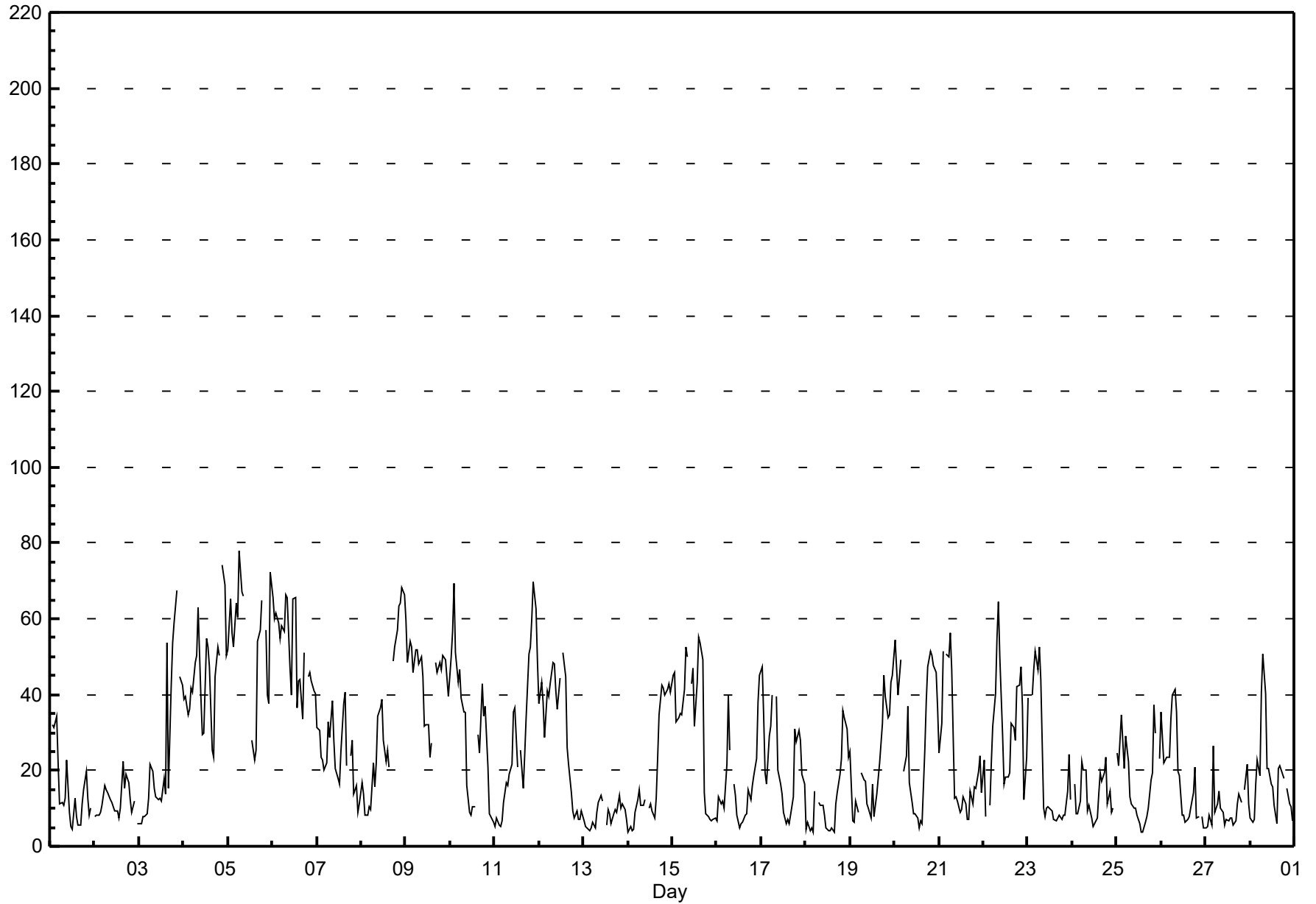
Nitrogen Dioxide (NO₂) - ppb

Henry Pirker - February 2018

Maximum Value: 78.1 ppb on Feb 5 07:00		Maximum Daily Average: 53.7 ppb on Feb 5		Hours in Service: 672																						
Minimum Value: 4 ppb on Feb 25 14:00		Minimum Daily Average: 8.3 ppb on Feb 13		Hours of Data: 638																						
Maximum Diurnal Average: 33.5 ppb at hour 7		Minimum Diurnal Average: 16.3 ppb at hour 13		Hours of Missing Data: 34																						
Monthly Average: 25.10 ppb		Percentiles: P ₁ = 4.1 P ₁₀ = 6.8 Q ₁ = 9.7 Median = 19.7 Q ₃ = 39.7 P ₉₀ = 51.1 P ₉₉ = 68.0		Hours of Calibration: 34																						
				Percent Operational Time: 100.0																						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Feb	A	32	31	34	22	11	12	11	13	23	9	5	5	13	8	6	6	11	15	20	13	8	10	A	14.4	34.3
2-Feb	8	8	8	9	11	16	15	14	12	12	10	9	9	8	10	22	15	19	17	12	9	12	A	6	11.8	22.3
3-Feb	6	6	8	8	9	13	22	20	15	13	12	13	12	18	14	54	15	43	54	59	68	A	45	43	24.7	67.7
4-Feb	39	39	35	36	42	41	49	50	63	39	29	30	55	52	47	25	23	45	53	50	A	74	69	50	45.1	74.4
5-Feb	52	65	56	53	64	60	78	67	66	C	C	C	C	28	23	25	54	57	65	A	57	40	38	72	53.7	78.1
6-Feb	66	60	62	59	55	58	57	66	65	47	40	65	66	37	44	44	33	51	A	45	46	44	41	40	51.7	66.3
7-Feb	31	30	24	23	20	22	33	29	38	28	20	18	16	25	38	41	21	A	24	28	14	16	9	11	24.3	40.8
8-Feb	17	14	8	8	10	10	22	16	22	34	37	39	28	22	25	21	A	49	52	57	63	64	68	67	32.8	68.2
9-Feb	60	49	54	52	46	52	52	48	50	45	32	32	32	23	27	A	48	46	48	47	51	49	44	39	44.6	59.6
10-Feb	50	57	69	51	43	47	39	36	35	16	9	8	11	11	A	30	25	43	34	37	21	9	8	6	30.2	69.4
11-Feb	5	7	6	5	7	12	17	16	19	21	35	37	21	A	26	15	24	34	51	53	60	70	63	49	28.3	69.7
12-Feb	38	43	38	29	41	40	43	49	48	41	36	44	A	51	45	26	22	14	9	8	9	7	7	9	30.3	51.0
13-Feb	7	5	5	4	5	6	5	9	12	13	12	A	6	10	9	6	9	10	9	13	10	11	10	7	8.3	13.4
14-Feb	4	5	4	5	9	12	15	11	11	12	A	10	11	9	8	13	23	35	43	42	40	42	43	40	19.4	42.7
15-Feb	45	46	33	34	35	35	41	53	50	A	43	47	32	43	55	54	49	14	9	8	7	7	7	7	32.7	55.2
16-Feb	7	13	11	12	10	22	40	25	A	16	13	8	5	6	6	8	9	15	12	16	19	23	38	45	16.6	45.3
17-Feb	47	34	19	17	29	32	40	A	40	20	16	14	9	6	7	6	8	13	31	28	31	28	19	16	22.2	47.4
18-Feb	4	6	4	5	4	14	A	12	11	11	8	5	4	4	5	4	11	14	19	23	36	34	31	24	12.7	35.7
19-Feb	25	7	6	12	9	A	19	18	17	11	10	7	16	8	14	18	22	33	45	40	34	35	43	45	21.5	45.2
20-Feb	54	47	40	49	A	20	24	37	17	12	8	9	8	5	7	6	26	38	47	52	50	48	46	37	29.8	54.4
21-Feb	25	33	51	A	51	50	56	47	13	13	12	9	10	13	11	7	7	15	11	16	15	20	24	14	22.7	56.4
22-Feb	23	8	A	11	22	32	40	55	65	50	29	16	18	18	19	32	31	28	42	43	47	37	12	23	30.5	64.7
23-Feb	39	A	40	47	51	46	53	44	10	8	10	11	10	9	7	7	7	8	7	8	8	14	24	12	20.9	52.7
24-Feb	A	16	9	9	12	22	20	20	9	11	8	5	6	7	14	20	17	20	24	11	15	9	10	A	13.3	23.7
25-Feb	25	21	35	28	20	29	22	13	11	10	10	8	6	4	4	6	8	10	18	19	37	30	A	23	17.3	37.2
26-Feb	35	22	23	24	23	33	40	41	35	20	19	8	8	6	7	8	10	14	21	7	8	A	8	5	18.5	41.5
27-Feb	5	5	8	6	27	9	11	15	10	9	6	7	7	7	7	5	7	11	14	11	A	15	22	11	10.2	26.6
28-Feb	7	6	7	16	23	19	41	51	40	20	21	17	16	11	6	21	21	20	18	A	15	11	10	7	18.4	50.5
		27.8	25.4	25.7	23.8	25.9	28.3	33.5	32.2	29.6	21.4	19.0	18.5	16.3	16.8	18.2	19.6	20.5	26.3	29.3	28.9	30.1	29.1	28.8	27.3	Diurnal Average
		65.6	65.4	69.4	59.0	64.1	60.4	78.1	67.0	65.8	49.8	42.7	65.4	65.5	52.4	55.2	53.9	54.2	57.0	65.0	59.1	67.7	74.4	68.8	72.3	Diurnal Maximum
C - Calibration		A - Automated Daily Zero Span																								

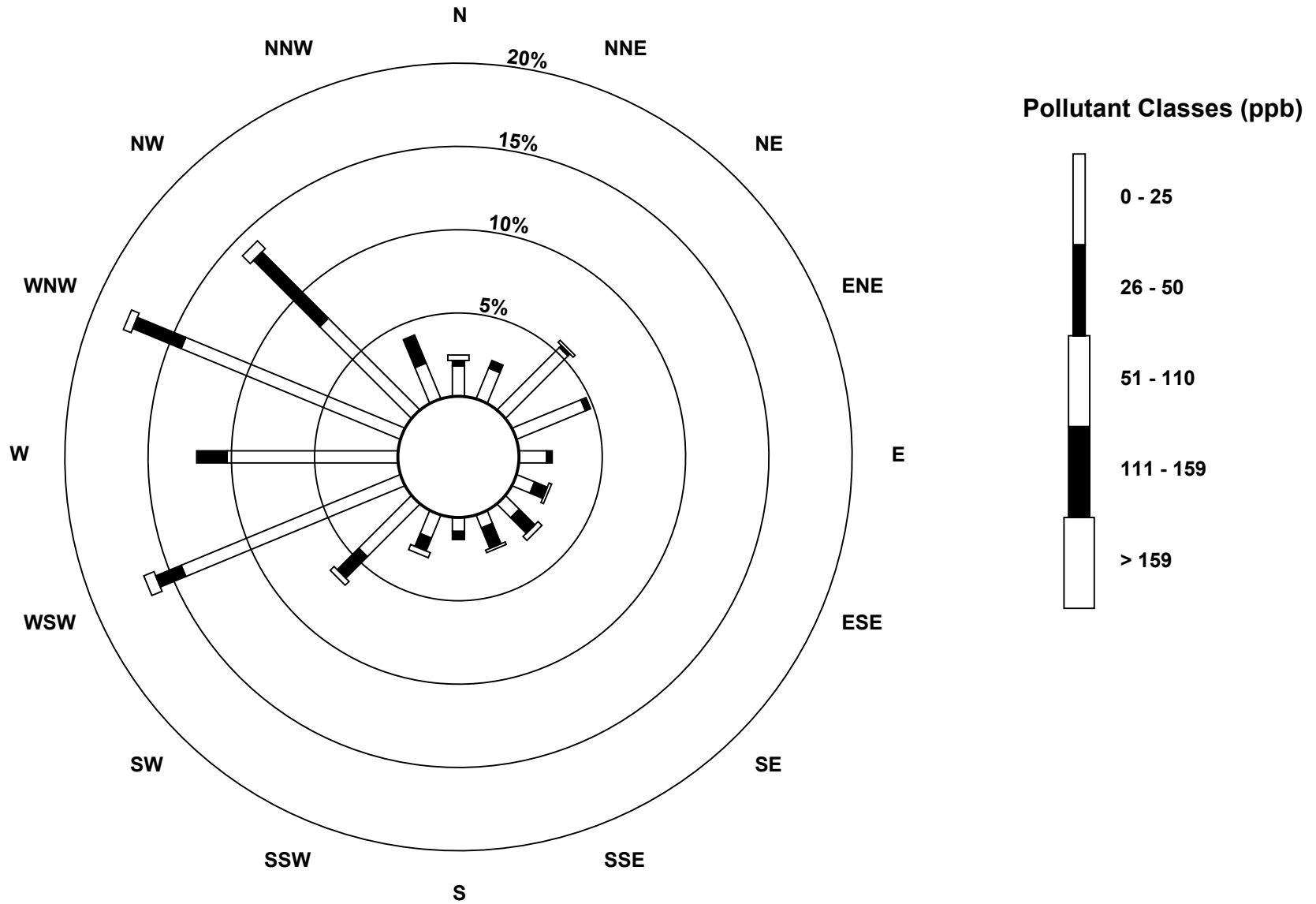
Hourly Maximums

Nitrogen Dioxide (NO₂) - ppb
Henry Pirker - February 2018



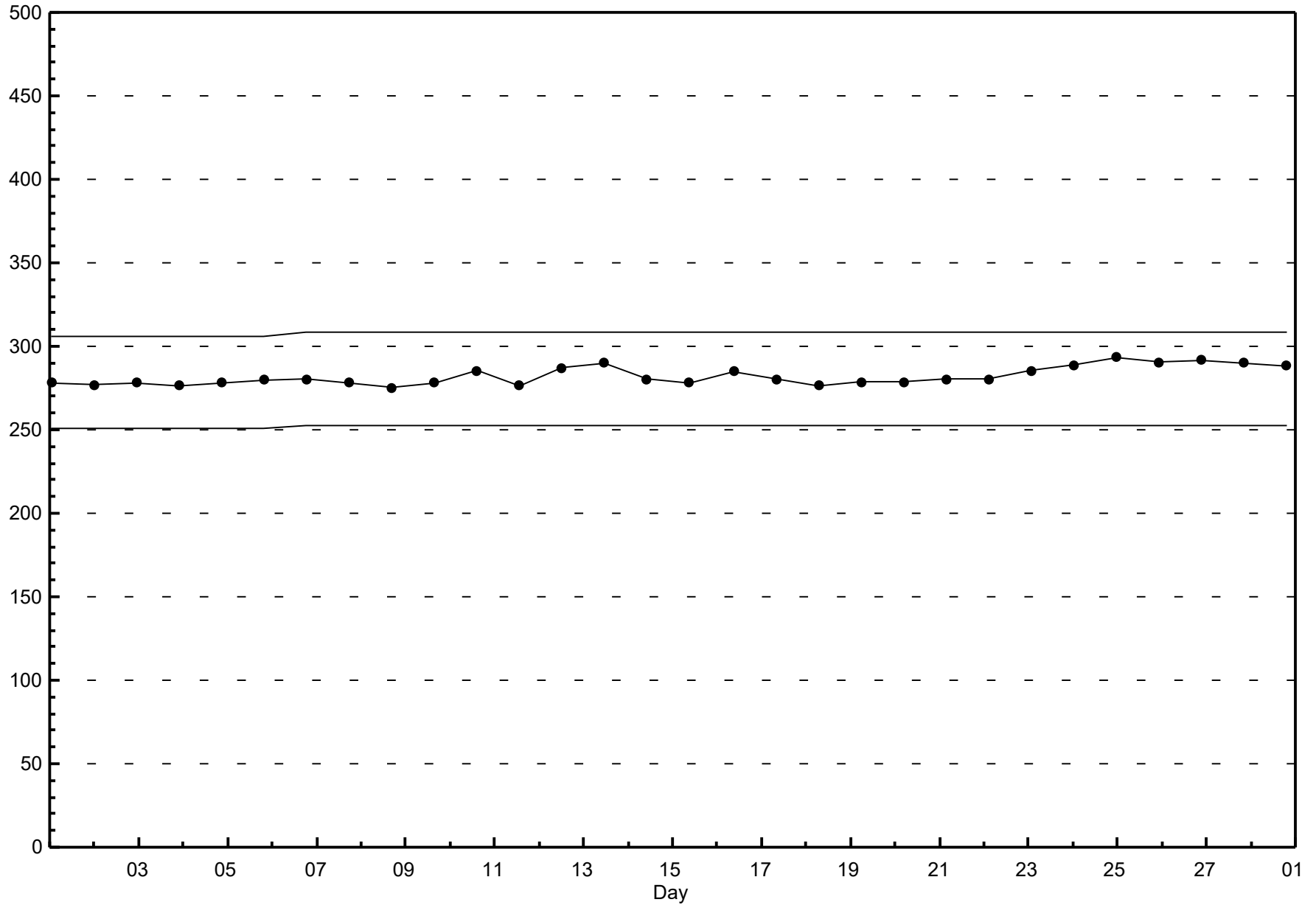
Pollutant Rose

Nitrogen Dioxide (NO₂) - ppb
Henry Pirker - February 2018



Span Responses

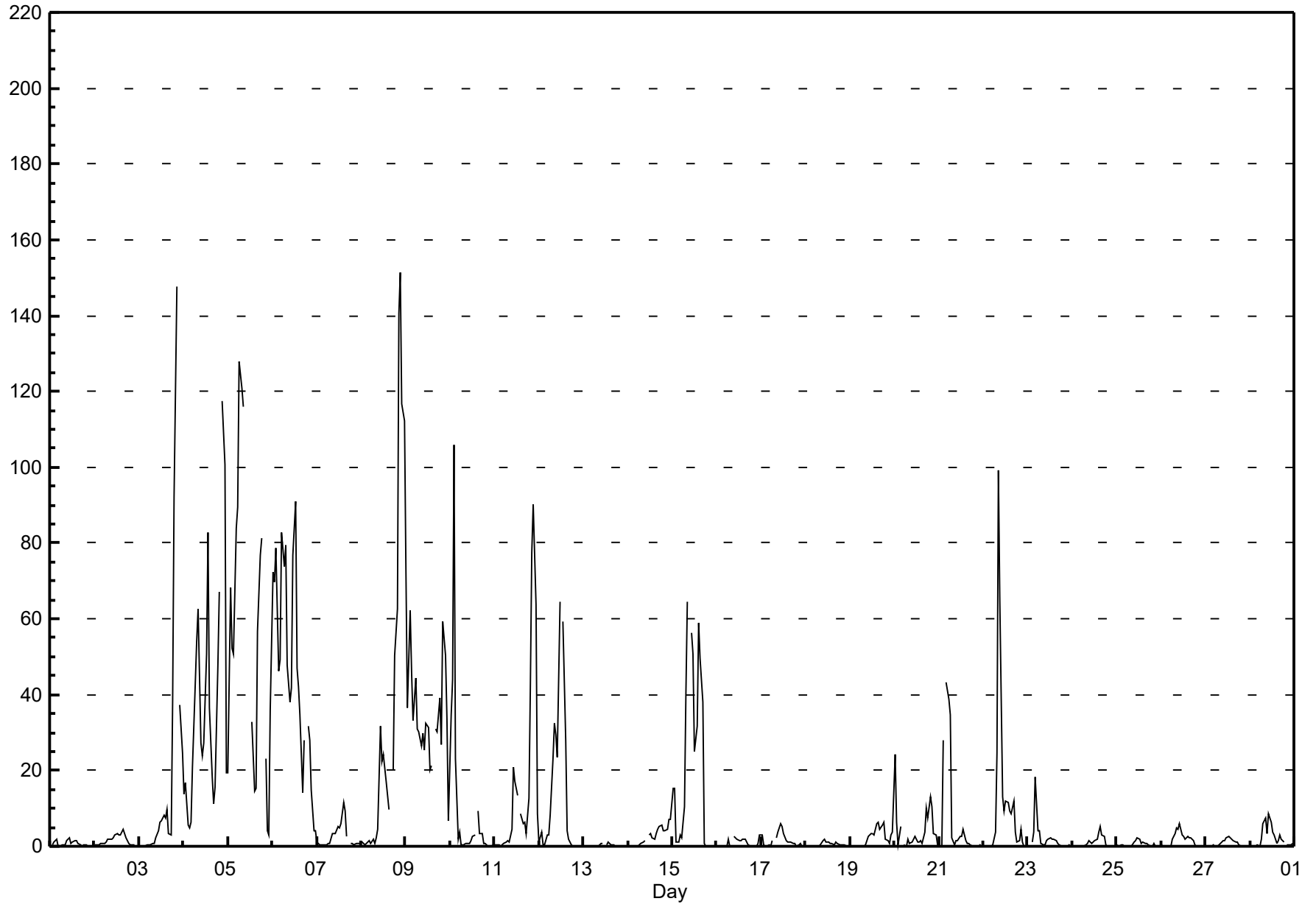
Nitrogen Dioxide (NO₂)
Henry Pirker - February 2018



Hourly Averages

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

Maximum Value: 151.3 ppb on Feb 8 22:00		Maximum Daily Average: 56.4 ppb on Feb 5		Hours in Service: 672																							
Minimum Value: 0 ppb on Feb 22 23:00		Minimum Daily Average: 0.2 ppb on Feb 13		Hours of Data: 638																							
Maximum Diurnal Average: 19.2 ppb at hour 21		Minimum Diurnal Average: 6.9 ppb at hour 4		Hours of Missing Data: 34																							
Monthly Average: 11.67 ppb		Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.3 Median = 1.5 Q ₃ = 7.4 P ₉₀ = 40.8 P ₉₉ = 116.4		Hours of Calibration: 34																							
				Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Feb	A	0	1	2	0	0	0	0	1	2	2	1	1	2	1	1	0	0	0	1	0	0	0	A	0.7	2.1	
2-Feb	0	0	1	1	1	1	1	2	2	2	2	3	3	3	3	5	3	2	1	0	0	1	A	0	1.6	4.5	
3-Feb	0	0	0	0	0	0	0	1	1	2	4	6	7	8	8	10	3	3	38	92	148	A	37	25	17.1	147.6	
4-Feb	14	17	6	5	6	21	43	54	63	27	24	27	51	83	37	18	11	16	48	67	A	118	101	19	38.0	117.6	
5-Feb	19	68	52	51	84	89	128	121	116	C	C	C	C	33	14	15	57	77	81	A	23	4	3	36	56.4	127.9	
6-Feb	72	70	79	46	49	83	74	79	48	38	42	77	91	47	42	35	14	28	A	32	28	15	4	4	47.7	90.9	
7-Feb	1	0	0	0	0	0	1	1	3	3	3	5	5	6	12	9	3	A	1	1	0	1	1	1	2.5	11.6	
8-Feb	1	1	1	1	1	1	2	1	2	5	32	22	24	17	14	10	A	20	51	63	141	151	117	112	34.3	151.3	
9-Feb	72	36	62	46	33	45	31	30	27	30	25	32	31	20	21	A	31	30	39	27	59	50	33	7	35.6	72.2	
10-Feb	35	44	106	23	2	4	0	0	1	1	1	1	3	3	A	9	3	3	1	1	0	0	0	0	10.5	105.7	
11-Feb	0	0	0	0	0	1	1	1	1	4	21	17	14	A	9	6	6	3	13	43	78	90	64	8	16.6	90.1	
12-Feb	1	4	0	0	3	3	8	23	33	29	24	64	A	59	28	4	2	0	0	0	0	0	0	0	12.4	64.4	
13-Feb	0	0	0	0	0	0	0	0	0	1	1	A	0	1	1	0	0	0	0	0	0	0	0	0	0.2	1.2	
14-Feb	0	0	0	0	0	0	0	1	1	1	A	3	3	2	2	3	5	5	5	4	4	4	7	7	2.6	7.3	
15-Feb	15	15	1	1	3	2	11	40	65	A	56	51	25	32	59	50	38	1	0	0	0	0	0	0	20.2	64.6	
16-Feb	0	0	0	0	0	0	2	0	A	2	2	2	1	2	2	2	1	1	0	0	0	0	1	3	0.9	2.9	
17-Feb	3	0	0	0	0	0	1	A	2	4	6	5	3	2	1	1	1	1	1	0	0	1	0	0	1.5	6.1	
18-Feb	0	0	0	0	0	0	A	0	0	2	2	1	1	1	0	1	1	0	0	0	0	0	0	0	0.5	2.0	
19-Feb	0	0	0	0	0	A	0	0	0	2	2	3	3	3	6	7	5	6	6	2	2	1	3	4	2.4	6.5	
20-Feb	24	6	0	5	A	0	0	2	1	1	2	2	1	1	1	1	4	10	8	13	11	3	3	0	4.4	24.4	
21-Feb	0	0	28	A	43	39	35	2	0	2	2	3	3	4	1	1	1	0	0	0	0	0	0	0	7.2	43.4	
22-Feb	0	0	A	0	0	1	4	25	99	65	13	9	12	12	9	8	12	4	1	1	4	1	0	0	12.2	99.0	
23-Feb	0	A	1	4	18	4	4	1	0	1	1	2	2	2	2	1	1	0	0	0	0	0	0	0	2.0	18.3	
24-Feb	A	0	0	0	0	0	0	0	1	1	1	1	2	2	4	5	3	2	0	0	0	0	0	A	1.0	5.4	
25-Feb	0	0	1	0	0	0	0	0	0	1	1	2	2	1	1	1	1	0	0	0	1	0	A	0	0.6	2.1	
26-Feb	0	0	0	0	0	0	2	3	5	4	6	3	3	2	3	2	2	1	0	0	0	A	0	0	1.6	6.0	
27-Feb	0	0	0	0	0	0	0	0	1	1	1	2	3	2	2	1	1	1	0	0	A	0	0	0	0.8	2.8	
28-Feb	0	0	0	0	0	0	2	6	7	3	9	6	4	3	1	2	3	2	1	A	0	1	0	1	2.2	8.7	
		10.0	9.8	12.5	6.9	9.1	10.9	13.0	14.6	17.7	9.0	11.0	13.6	11.5	13.0	10.5	7.7	7.9	8.1	11.0	13.3	19.2	17.0	14.4	8.8	Diurnal Average	
		72.4	69.8	105.7	50.6	84.0	89.4	127.9	120.8	116.0	65.0	56.4	77.0	90.9	82.7	59.0	49.7	56.6	76.6	81.2	92.0	147.6	151.3	116.7	112.4	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									



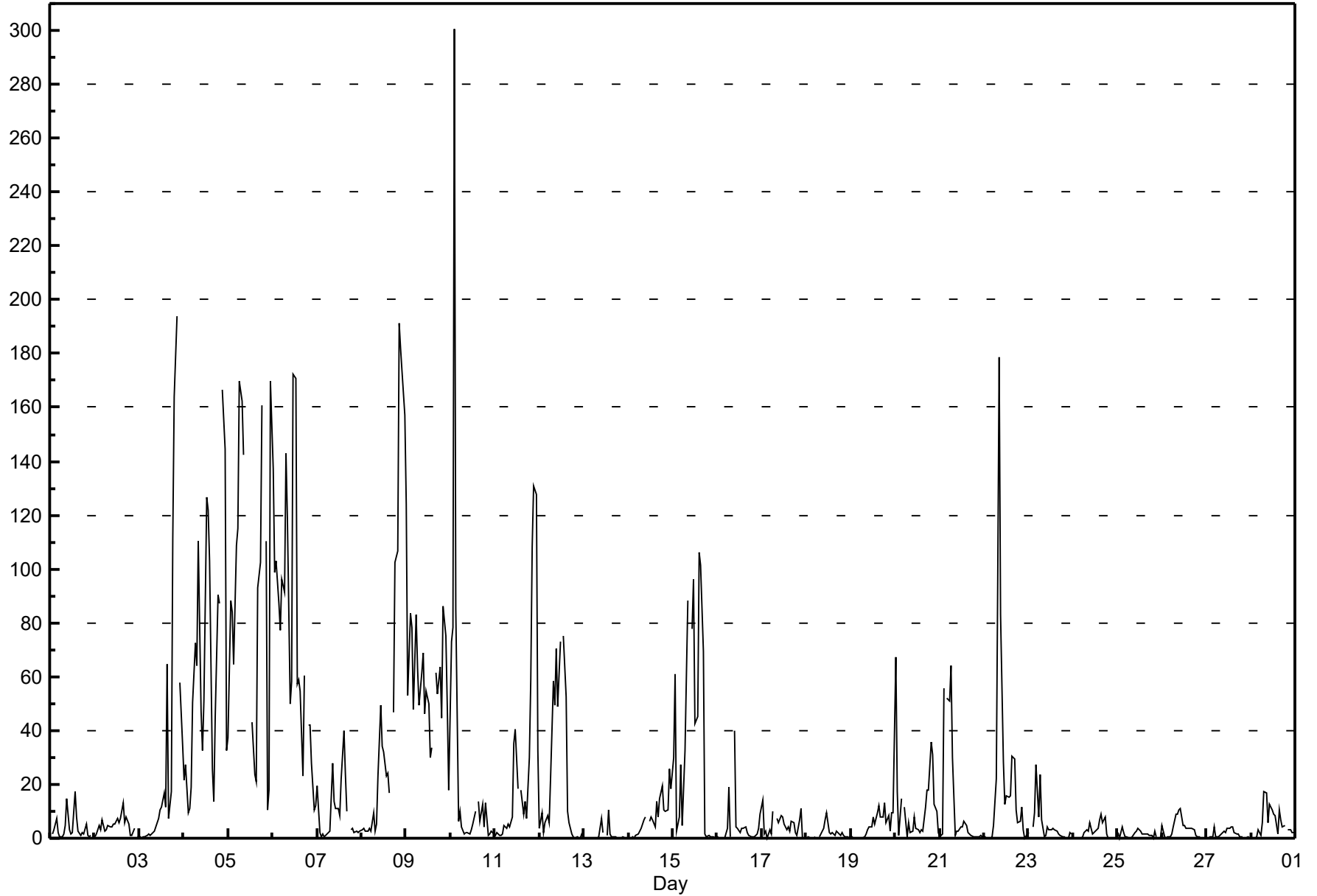
Hourly Maximums

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

Maximum Value: 300.6 ppb on Feb 10 03:00		Maximum Daily Average: 90.8 ppb on Feb 5		Hours in Service: 672																							
Minimum Value: 0 ppb on Feb 13 05:00		Minimum Daily Average: 1.2 ppb on Feb 13		Hours of Data: 638																							
Maximum Diurnal Average: 31.6 ppb at hour 9		Minimum Diurnal Average: 14.3 ppb at hour 4		Hours of Missing Data: 34																							
Monthly Average: 21.21 ppb		Percentiles: P ₁ = 0.0 P ₁₀ = 0.3 Q ₁ = 1.3 Median = 4.2 Q ₃ = 18.2 P ₉₀ = 70.9 P ₉₉ = 171.8		Hours of Calibration: 34																							
				Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Feb	A	2	3	7	2	0	1	2	5	15	3	2	2	17	8	3	1	2	1	5	1	0	1	A	3.8	17.5	
2-Feb	1	1	5	3	7	3	3	5	4	4	5	5	7	6	7	13	6	8	5	1	1	3	A	1	4.6	13.2	
3-Feb	1	0	1	1	1	1	1	2	3	4	7	11	11	17	12	64	7	17	111	164	194	A	58	34	31.4	193.7	
4-Feb	22	28	10	11	19	51	72	64	111	47	33	51	127	122	103	26	14	45	90	87	A	167	145	32	64.1	166.7	
5-Feb	37	88	84	65	109	115	169	162	142	C	C	C	C	43	24	21	93	103	161	A	110	10	18	170	90.8	169.9	
6-Feb	137	99	103	87	77	96	92	143	119	50	58	172	171	57	59	55	23	60	A	42	42	28	11	12	78.0	172.5	
7-Feb	20	2	1	2	1	1	2	3	28	13	11	11	9	22	40	24	10	A	3	4	2	3	2	2	9.3	39.7	
8-Feb	3	3	3	3	4	3	10	3	5	23	49	34	32	23	24	17	A	47	103	107	191	182	173	157	52.1	191.2	
9-Feb	124	53	84	79	48	83	63	50	61	69	46	55	50	30	34	A	61	54	63	44	86	75	49	18	60.0	123.8	
10-Feb	73	78	301	85	6	10	4	2	2	2	2	3	5	10	A	14	6	13	4	13	1	2	3	2	27.8	300.6	
11-Feb	1	2	1	1	2	5	4	5	4	8	35	41	18	A	18	9	13	7	30	59	108	131	127	33	28.8	130.7	
12-Feb	4	9	2	6	9	6	23	58	49	70	49	73	A	75	52	10	6	1	0	0	0	0	0	2	22.0	74.9	
13-Feb	0	0	0	0	0	0	0	0	1	8	2	A	1	10	2	1	1	1	0	0	0	1	0	0	1.2	10.4	
14-Feb	0	0	0	0	1	2	2	4	7	8	A	6	8	7	4	13	8	14	19	11	10	10	26	18	7.8	25.9	
15-Feb	30	61	3	8	27	5	33	61	88	A	78	96	43	45	106	101	70	1	1	1	0	0	0	0	37.3	106.4	
16-Feb	0	0	0	0	0	4	19	1	A	40	4	4	2	3	4	4	2	1	1	1	1	2	4	9	4.6	39.8	
17-Feb	14	2	2	0	3	2	10	A	8	6	8	8	5	3	4	3	7	6	2	1	7	11	0	0	4.9	14.0	
18-Feb	0	0	0	0	0	1	A	0	1	4	7	9	2	2	1	3	2	1	2	1	1	1	0	0	1.7	9.5	
19-Feb	1	0	0	0	0	A	0	0	2	3	4	4	8	5	10	12	8	8	13	6	8	3	9	10	5.0	13.2	
20-Feb	67	18	1	15	A	12	1	6	2	3	8	4	3	2	3	3	12	18	18	36	31	12	10	2	12.4	67.2	
21-Feb	1	1	56	A	52	51	64	30	1	3	3	4	4	6	5	2	2	1	0	1	1	1	1	0	12.6	64.1	
22-Feb	1	0	A	0	0	5	22	96	179	83	28	13	16	15	16	31	29	11	6	6	11	3	0	2	24.9	178.9	
23-Feb	2	A	4	9	28	8	24	7	1	1	4	3	3	4	3	3	2	1	0	0	0	0	2	1	4.8	27.5	
24-Feb	A	0	0	0	0	0	2	3	2	6	1	2	3	4	7	9	6	8	2	0	0	0	0	A	2.5	8.7	
25-Feb	2	0	4	2	1	0	0	0	0	2	3	4	3	2	1	2	1	1	1	0	3	0	A	0	1.4	4.3	
26-Feb	4	0	0	1	1	1	4	9	9	10	11	5	5	4	4	4	4	3	1	1	0	A	0	0	3.5	10.9	
27-Feb	0	0	0	0	4	0	0	1	2	2	2	4	4	4	4	2	2	2	1	1	A	0	0	0	1.6	4.3	
28-Feb	0	0	0	0	3	1	6	18	17	6	13	11	9	9	2	10	7	4	5	A	3	3	2	2	5.6	17.5	
20.9		16.6	24.7	14.3	15.0	17.2	23.4	27.1	31.6	18.8	18.3	24.4	21.2	20.3	20.6	16.8	14.9	16.2	23.8	22.8	31.3	24.9	24.7	19.5	Diurnal Average		
137.3		98.7	300.6	87.4	108.7	114.9	169.5	162.5	178.9	83.1	77.8	172.5	170.8	121.7	106.4	101.4	93.1	102.6	160.8	163.9	193.7	181.8	173.3	169.9	Diurnal Maximum		
C - Calibration		A - Automated Daily Zero Span																									

Hourly Maximums

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

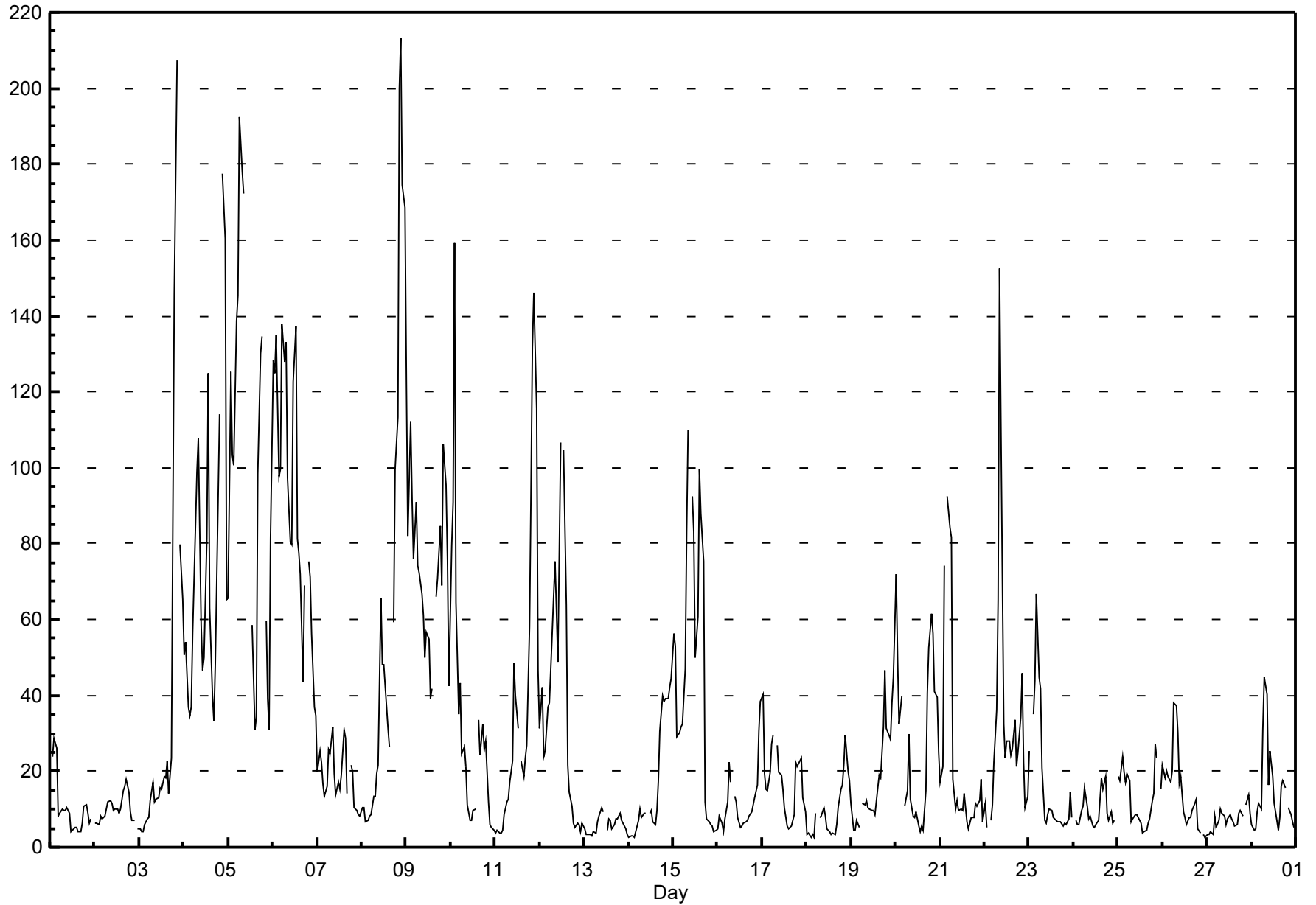


Hourly Averages

Oxides of Nitrogen (NO_x) - ppb

Henry Pirker - February 2018

Maximum Value: 213.1 ppb on Feb 8 22:00		Maximum Daily Average: 101.1 ppb on Feb 5		Hours in Service: 672																							
Minimum Value: 3 ppb on Feb 14 01:00		Minimum Daily Average: 5.9 ppb on Feb 13		Hours of Data: 638																							
Maximum Diurnal Average: 43.4 ppb at hour 21		Minimum Diurnal Average: 20.0 ppb at hour 16		Hours of Missing Data: 34																							
Monthly Average: 30.89 ppb		Percentiles: P ₁ = 3.0 P ₁₀ = 5.0 Q ₁ = 7.5 Median = 15.0 Q ₃ = 38.4 P ₉₀ = 82.4 P ₉₉ = 173.6		Hours of Calibration: 34																							
				Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Feb	A	24	29	26	8	9	10	10	10	10	9	4	5	5	4	4	6	11	11	9	7	8	A	10.1	28.7		
2-Feb	6	6	6	8	7	8	10	12	12	11	10	10	10	9	10	15	16	18	15	9	7	7	A	5	10.0	17.8	
3-Feb	5	4	4	6	7	8	12	17	12	13	13	16	15	19	18	23	14	24	86	146	207	A	80	65	35.4	207.4	
4-Feb	51	54	37	35	37	57	85	99	108	58	46	50	81	125	63	40	33	49	92	114	A	178	160	65	74.6	177.6	
5-Feb	65	125	103	101	139	146	192	178	172	C	C	C	C	58	31	34	99	130	135	A	60	39	31	82	101.1	192.3	
6-Feb	128	125	135	98	99	138	128	133	97	80	80	123	137	81	78	72	44	69	A	76	71	56	37	35	92.2	137.9	
7-Feb	20	25	22	17	13	16	26	25	32	19	14	17	15	19	31	29	14	A	22	20	10	10	8	8	18.8	31.8	
8-Feb	10	10	7	7	8	9	13	13	19	22	66	48	48	37	31	26	A	59	100	114	200	213	174	169	61.0	213.1	
9-Feb	122	82	112	92	76	91	74	72	67	61	50	57	55	39	42	A	66	71	84	69	106	96	76	42	74.0	122.5	
10-Feb	79	91	159	65	35	43	25	27	21	11	7	7	10	10	A	34	24	33	26	28	12	6	5	5	33.1	159.3	
11-Feb	4	4	4	4	5	9	12	13	17	23	48	40	31	A	23	19	23	27	58	93	132	146	116	47	38.9	146.2	
12-Feb	31	42	24	25	37	38	47	66	75	63	49	107	A	105	64	22	15	11	6	5	6	6	4	6	37.1	106.5	
13-Feb	5	3	3	3	3	4	4	7	8	11	9	A	5	8	7	5	6	7	7	9	7	6	5	3	5.9	10.6	
14-Feb	3	3	3	3	4	7	10	8	9	9	A	9	10	7	6	10	17	31	40	38	39	39	42	44	17.0	44.4	
15-Feb	56	53	29	30	32	33	47	84	110	A	92	83	50	61	99	88	75	12	7	7	6	6	4	5	46.5	110.0	
16-Feb	5	8	6	4	8	12	22	17	A	14	12	8	5	6	6	7	7	8	9	11	13	17	31	38	11.9	38.4	
17-Feb	40	19	15	15	20	27	29	A	27	20	19	15	10	6	5	5	6	9	22	21	23	24	13	9	17.4	40.3	
18-Feb	3	4	3	3	3	9	A	8	8	10	8	5	4	3	4	3	6	10	15	16	22	30	20	18	9.4	29.6	
19-Feb	11	4	4	7	5	A	12	11	12	10	10	10	10	9	16	19	18	32	46	31	30	28	38	45	18.2	46.5	
20-Feb	72	50	32	40	A	11	15	30	13	8	8	9	6	4	6	4	15	41	52	62	56	41	39	25	27.8	71.9	
21-Feb	17	21	74	A	93	84	82	18	10	12	10	10	10	14	7	5	7	8	8	12	11	12	18	7	23.8	92.6	
22-Feb	12	5	A	7	11	22	36	65	152	111	32	24	28	28	24	26	33	21	25	34	46	22	10	13	34.3	152.4	
23-Feb	25	A	35	44	67	45	42	21	7	6	8	10	10	8	7	7	7	7	6	6	6	7	15	8	17.5	66.9	
24-Feb	A	7	6	6	10	11	16	11	7	8	5	5	6	7	13	18	15	19	9	7	9	6	7	A	9.5	18.6	
25-Feb	19	18	24	20	17	19	17	7	7	9	9	8	6	4	4	5	6	7	12	14	27	23	A	15	12.9	27.1	
26-Feb	22	18	20	19	17	20	38	37	30	17	19	9	8	6	8	8	10	12	13	5	4	A	3	3	15.0	38.0	
27-Feb	3	3	4	3	8	5	7	10	9	8	6	7	8	7	7	6	6	9	10	8	A	11	14	9	7.4	13.7	
28-Feb	6	4	5	9	12	10	31	45	40	16	25	18	12	9	4	8	16	17	16	A	10	9	7	5	14.6	44.8	
		31.6	30.2	33.6	25.8	28.9	33.0	38.6	38.6	40.5	24.6	25.6	27.2	22.9	25.7	22.9	20.0	22.3	27.6	34.5	37.2	43.4	40.2	37.1	29.8	Diurnal Average	
		128.4	125.3	159.3	100.6	138.9	145.5	192.3	178.4	172.3	110.6	92.4	122.7	137.3	124.8	99.5	88.1	98.5	130.0	134.8	145.9	207.4	213.1	174.4	168.6	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									



Hourly Maximums

Oxides of Nitrogen (NO_x) - ppb

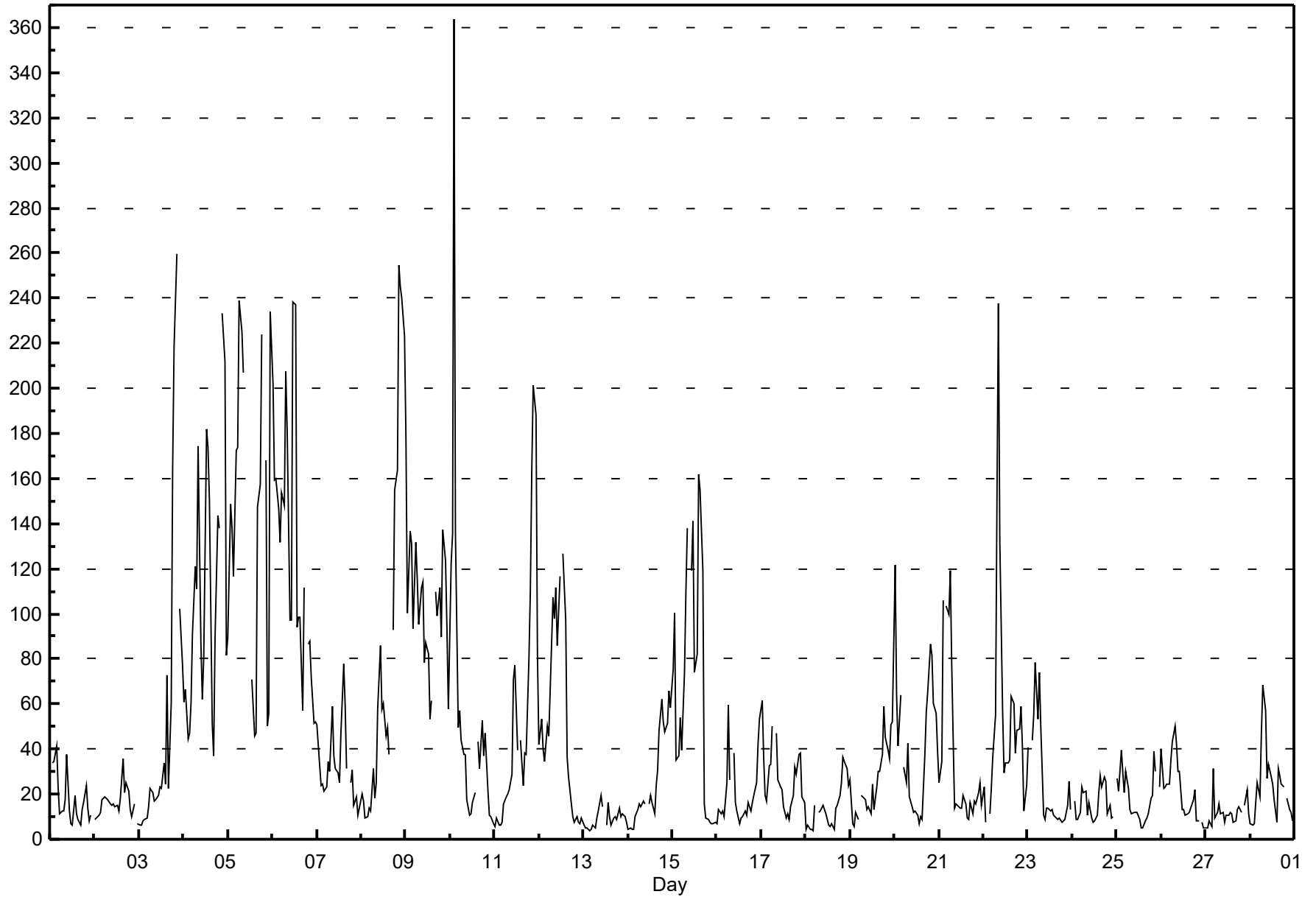
Henry Pirker - February 2018

Maximum Value: 363.7 ppb on Feb 10 03:00		Maximum Daily Average: 142.7 ppb on Feb 5		Hours in Service: 672																							
Minimum Value: 4 ppb on Feb 18 05:00		Minimum Daily Average: 9.2 ppb on Feb 13		Hours of Data: 638																							
Maximum Diurnal Average: 61.0 ppb at hour 21		Minimum Diurnal Average: 34.5 ppb at hour 16		Hours of Missing Data: 34																							
Monthly Average: 45.75 ppb		Percentiles: P ₁ = 4.5 P ₁₀ = 8.0 Q ₁ = 11.9 Median = 23.6 Q ₃ = 56.5 P ₉₀ = 119.3 P ₉₉ = 237.9		Hours of Calibration: 34																							
				Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Feb	A	34	35	41	23	12	12	12	17	38	12	7	6	19	11	9	6	13	16	24	14	8	11	A	17.3	41.1	
2-Feb	9	9	11	12	17	19	18	18	16	15	16	14	15	13	18	36	21	25	21	13	10	16	A	7	16.0	35.6	
3-Feb	6	6	8	9	10	14	23	21	17	17	19	23	23	34	25	73	23	60	164	218	260	A	102	77	53.6	259.6	
4-Feb	61	67	44	47	60	91	121	111	174	87	62	81	182	174	150	52	37	90	143	138	A	233	212	82	108.7	233.0	
5-Feb	90	149	138	117	173	174	239	225	207	C	C	C	C	71	46	47	147	157	224	A	168	50	56	234	142.7	239.1	
6-Feb	202	159	160	147	132	154	148	208	181	97	97	238	237	94	99	99	57	112	A	86	88	72	51	52	129.1	238.2	
7-Feb	51	33	24	24	21	23	35	30	59	37	32	29	25	47	78	59	31	A	25	31	15	19	11	14	32.8	77.9	
8-Feb	20	17	9	10	14	12	31	18	25	58	86	58	60	46	50	38	A	93	155	163	255	245	240	223	83.8	254.6	
9-Feb	178	101	137	131	93	131	115	96	111	114	78	87	82	53	61	A	110	99	112	90	137	123	93	57	104.0	178.3	
10-Feb	123	135	364	136	50	57	44	38	38	18	11	12	16	21	A	44	32	53	37	47	21	10	10	7	57.5	363.7	
11-Feb	6	9	6	7	7	16	19	20	22	29	71	77	39	A	44	24	38	38	80	111	164	201	188	82	56.4	201.2	
12-Feb	42	53	40	34	50	46	66	107	98	112	86	117	A	126	97	36	28	16	10	8	10	7	7	10	52.4	126.5	
13-Feb	7	5	5	4	5	7	5	10	12	20	14	A	7	16	10	7	9	10	9	14	10	11	10	7	9.2	19.6	
14-Feb	4	5	4	4	10	13	16	14	17	16	A	16	19	16	11	24	31	48	62	52	48	52	66	58	26.4	65.7	
15-Feb	75	101	35	37	54	40	74	110	138	A	119	141	74	82	162	155	119	16	9	9	7	7	7	8	68.6	161.9	
16-Feb	7	13	11	12	10	25	60	26	A	39	16	12	7	9	10	12	11	16	13	17	20	25	42	53	20.3	59.5	
17-Feb	62	36	20	17	33	33	50	A	47	26	23	22	14	9	11	9	15	19	32	29	38	38	19	17	26.9	61.6	
18-Feb	4	6	4	5	4	15	A	12	12	15	13	12	6	6	7	5	14	15	20	25	36	35	32	24	14.2	36.1	
19-Feb	26	7	6	12	9	A	20	18	18	13	14	11	25	13	23	30	30	38	59	45	40	36	51	52	25.9	58.7	
20-Feb	122	64	41	64	A	32	25	43	19	14	12	12	11	7	10	9	38	56	65	87	82	60	56	39	42.0	121.9	
21-Feb	25	34	106	A	103	100	119	77	14	16	15	14	14	19	16	9	9	16	11	17	16	21	25	15	35.2	118.9	
22-Feb	23	8	A	11	22	37	55	151	238	132	57	29	34	34	35	63	60	39	48	49	59	41	12	24	54.8	237.5	
23-Feb	41	A	44	55	78	53	74	49	11	9	14	14	12	13	10	9	9	9	7	8	9	15	26	13	25.4	78.1	
24-Feb	A	17	9	9	12	23	21	21	11	16	9	7	8	11	21	28	23	28	26	12	15	9	10	A	15.6	28.0	
25-Feb	27	21	39	30	21	30	23	13	12	12	12	12	8	5	5	8	10	11	18	20	39	30	A	23	18.6	39.2	
26-Feb	40	23	23	24	24	35	43	50	42	30	30	13	13	10	11	12	14	17	22	8	8	A	8	5	22.0	50.3	
27-Feb	5	5	8	6	31	10	12	16	11	12	7	11	11	12	12	8	8	13	14	12	A	15	22	11	11.8	31.3	
28-Feb	7	6	7	16	25	19	47	68	57	27	33	27	25	18	8	31	28	24	23	A	18	13	12	8	23.8	68.2	
		48.6	41.6	49.6	37.8	40.5	45.2	56.1	58.6	60.1	39.1	36.9	42.2	37.5	36.3	38.6	34.5	35.4	41.9	52.8	51.2	61.0	53.5	53.1	46.2	Diurnal Average	
		201.9	159.1	363.7	146.9	172.6	173.7	239.1	225.2	237.5	132.3	119.4	238.2	237.0	173.9	161.9	154.9	147.4	157.4	223.8	218.1	259.6	245.4	240.5	234.1	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

Hourly Maximums

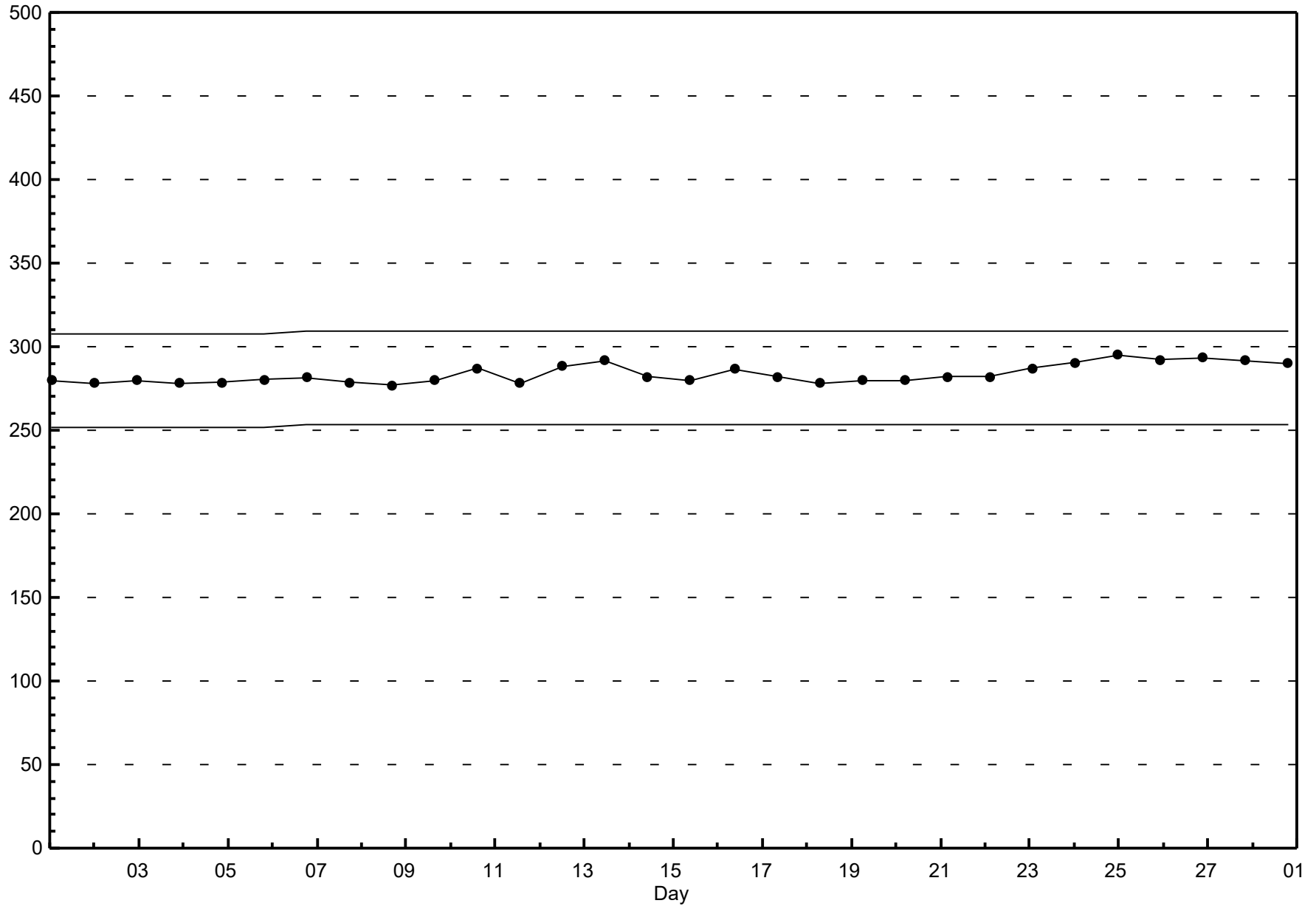
Oxides of Nitrogen (NO_x) - ppb

Henry Pirker - February 2018



Span Responses

Oxides of Nitrogen (NO_x)
Henry Pirker - February 2018





Peace Airshed Zone Association

Hourly Averages

Ozone (O₃) - ppb

Henry Pirker - February 2018

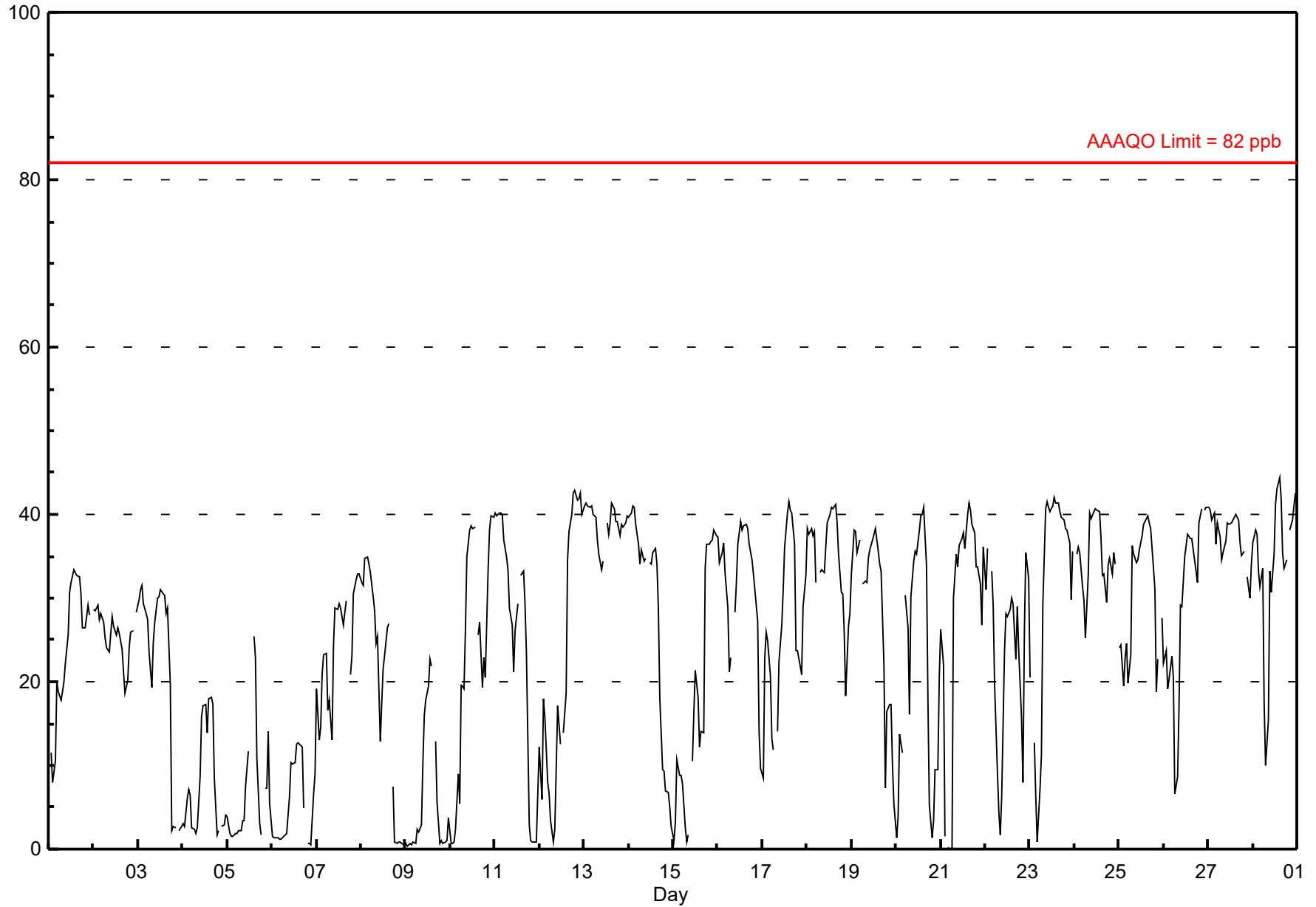
Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0	Hours in Service: 672
Maximum Value: 44.4 ppb on Feb 28 15:00	Maximum Daily Average: 38.9 ppb on Feb 13
Minimum Value: 0 ppb on Feb 21 06:00	Hours of Data: 640
Maximum Diurnal Average: 32.4 ppb at hour 16	Hours of Missing Data: 32
Monthly Average: 24.63 ppb	Hours of Calibration: 32
Minimum Daily Average: 5.3 ppb on Feb 6	Percent Operational Time: 100.0
Minimum Diurnal Average: 17.7 ppb at hour 7	
Percentiles: P ₁ = 0.6 P ₁₀ = 2.4 Q ₁ = 13.1 Median = 28.4 Q ₃ = 36.1 P ₉₀ = 39.9 P ₉₉ = 42.0	

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-Feb	A	12	8	11	20	19	18	19	20	22	26	31	32	33	33	33	31	26	26	28	29	28	A	24.4	33.4																							
2-Feb	29	28	29	27	28	27	25	24	24	26	28	27	26	27	26	24	21	19	20	24	26	26	A	25.6	29.1																							
3-Feb	30	31	32	29	28	27	24	19	25	27	30	30	31	30	30	28	29	20	2	3	3	A	22.3	31.6																								
4-Feb	3	3	6	7	6	2	2	2	3	9	16	17	17	14	18	18	17	9	2	2	A	3	7.9	18.1																								
5-Feb	4	2	2	2	2	2	2	2	3	3	7	12	C	C	25	23	11	3	2	A	7	7	14	5	6.7	25.5																						
6-Feb	1	1	1	1	1	1	1	2	2	6	10	10	10	13	13	13	12	5	A	1	1	1	7	9	5.3	12.7																						
7-Feb	19	13	15	21	23	23	17	18	13	24	29	29	29	29	27	28	30	A	21	23	31	32	33	33	24.3	32.9																						
8-Feb	32	31	35	35	34	33	30	29	25	25	13	18	22	25	26	27	A	7	1	1	1	1	1	0	19.6	35.0																						
9-Feb	1	0	1	0	1	1	2	2	3	10	16	18	19	23	22	A	13	6	1	1	1	1	1	4	6.3	22.7																						
10-Feb	1	1	1	2	9	5	20	19	26	35	38	39	38	38	A	26	27	19	23	20	33	38	40	40	23.4	39.9																						
11-Feb	40	40	40	40	40	37	35	33	29	27	21	26	29	A	33	33	29	23	3	1	1	1	1	7	24.8	40.1																						
12-Feb	12	6	18	16	8	7	3	1	2	10	17	13	A	14	19	35	38	40	43	43	42	42	42	40	22.1	42.8																						
13-Feb	41	41	41	41	41	40	40	37	35	33	34	A	39	38	39	41	41	39	39	37	39	39	39	40	38.9	41.4																						
14-Feb	40	40	41	41	39	36	34	36	34	35	A	34	34	35	36	34	29	18	9	9	7	7	5	3	27.7	41.0																						
15-Feb	1	3	11	9	9	8	3	1	2	A	11	16	21	18	12	14	14	34	36	36	37	37	38	37	17.7	38.1																						
16-Feb	37	34	35	37	33	29	21	23	A	28	32	36	39	38	39	39	38	36	35	33	31	27	14	10	31.5	39.1																						
17-Feb	9	23	26	25	21	13	12	A	14	22	27	31	36	40	41	40	40	36	24	24	22	21	29	33	26.5	41.5																						
18-Feb	38	38	38	37	38	32	A	33	33	33	36	39	40	41	41	41	39	35	31	31	26	18	27	28	34.5	41.1																						
19-Feb	33	38	38	35	37	A	32	32	32	35	36	37	38	38	36	34	33	22	7	16	17	17	10	5	28.7	38.4																						
20-Feb	1	4	14	12	A	30	26	16	30	34	36	35	38	40	40	41	34	18	5	1	3	10	9	20	21.7	40.8																						
21-Feb	26	22	1	A	0	0	0	30	35	34	36	37	38	36	40	41	40	39	38	34	34	32	27	36	28.6	41.3																						
22-Feb	31	36	A	33	29	20	9	4	2	6	24	28	28	29	30	29	23	29	24	16	8	26	35	32	23.1	36.0																						
23-Feb	21	A	13	7	1	7	11	29	41	41	41	40	41	42	41	41	40	40	39	38	38	37	30	36	31.1	42.0																						
24-Feb	A	35	36	35	31	30	25	33	40	40	40	41	40	40	37	33	33	30	34	35	33	35	34	A	35.0	40.8																						
25-Feb	24	24	19	23	25	20	23	36	35	34	35	36	37	39	39	40	39	38	33	31	19	23	A	28	30.5	39.9																						
26-Feb	22	24	19	20	23	21	7	9	17	29	29	35	36	38	37	37	36	33	32	39	41	A	41	41	28.9	40.8																						
27-Feb	41	41	39	40	36	39	37	35	35	37	39	39	39	39	40	40	39	37	35	36	A	33	30	34	37.4	40.8																						
28-Feb	37	38	38	33	31	33	17	10	15	33	31	35	41	43	44	42	35	34	35	A	38	39	41	43	34.2	44.4																						
																								22.0	22.6	22.1	23.0	22.0	20.1	17.7	19.8	21.3	25.9	27.3	29.2	32.3	32.3	32.0	32.4	30.1	25.9	22.2	21.6	21.7	22.3	22.3	23.0	Diurnal Average
																								41.0	41.3	41.0	40.8	41.0	40.0	39.6	36.9	40.6	41.5	40.8	40.8	41.3	43.1	44.4	41.9	40.7	39.9	42.6	42.8	41.8	41.8	42.5	42.5	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 - February 2018



Hourly Maximums

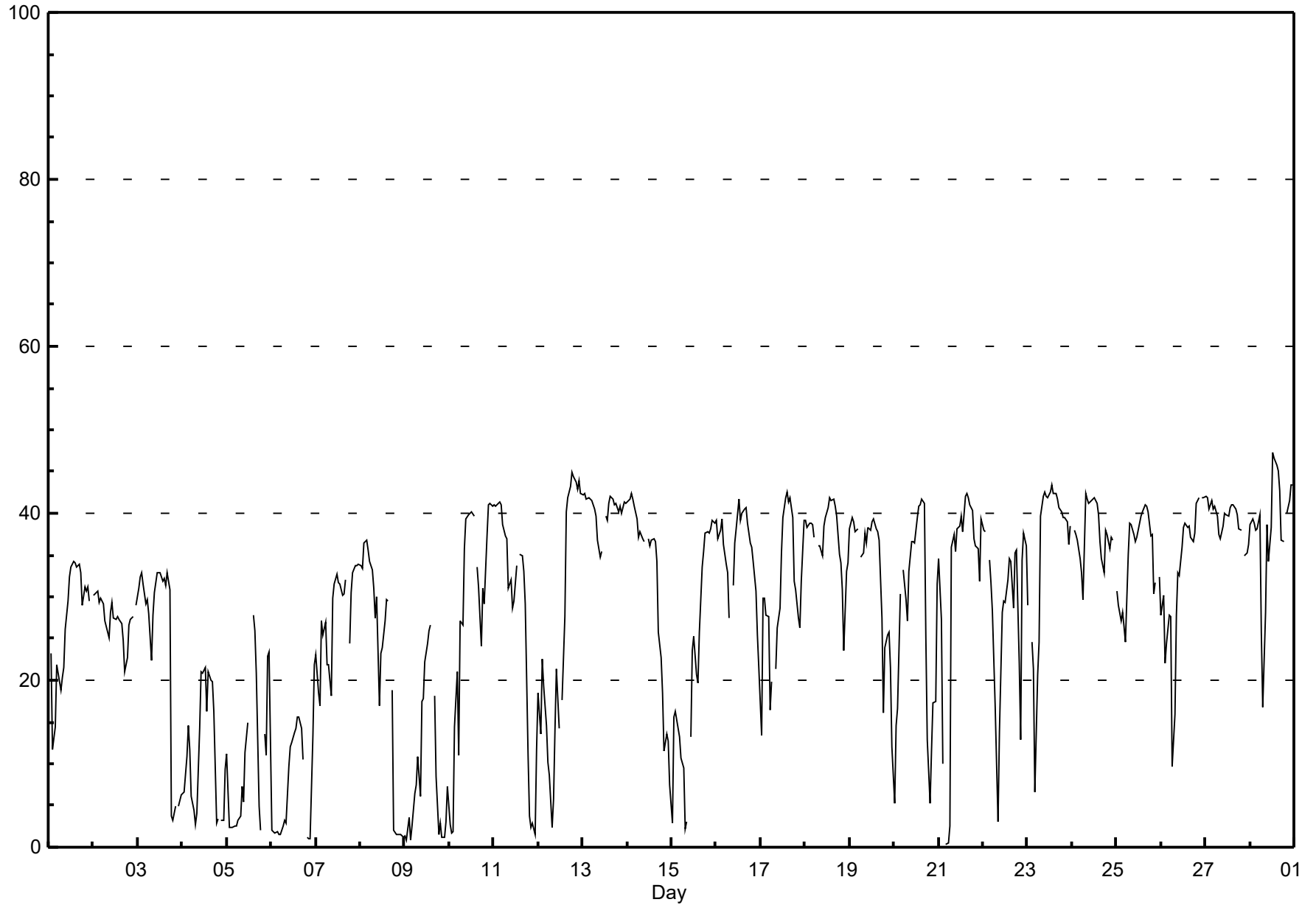
Ozone (O₃) - ppb

Henry Pirker - February 2018

Maximum Value: 47.3 ppb on Feb 28 13:00		Maximum Daily Average: 40.3 ppb on Feb 13		Hours in Service: 672																							
Minimum Value: 0 ppb on Feb 21 05:00		Minimum Daily Average: 7.6 ppb on Feb 6		Hours of Data: 640																							
Maximum Diurnal Average: 35.2 ppb at hour 16		Minimum Diurnal Average: 22.5 ppb at hour 7		Hours of Missing Data: 32																							
Monthly Average: 28.12 ppb		Percentiles: P ₁ = 1.2 P ₁₀ = 5.3 Q ₁ = 20.6 Median = 31.9 Q ₃ = 38.5 P ₉₀ = 41.2 P ₉₉ = 43.9		Hours of Calibration: 32																							
				Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Feb	A	23	12	14	22	21	19	20	22	26	29	32	34	34	34	34	33	29	31	31	31	29	A	27.0	34.2		
2-Feb	30	30	31	29	30	29	27	26	25	28	29	27	27	28	27	25	21	23	27	27	28	A	29	27.4	30.6		
3-Feb	31	32	33	32	29	30	28	22	28	30	33	33	33	32	32	31	33	31	4	3	5	A	5	25.0	32.9		
4-Feb	6	7	11	14	12	6	4	3	4	14	21	21	22	16	21	20	20	16	3	3	A	3	9	11.3	21.6		
5-Feb	11	2	2	2	3	3	3	4	7	5	11	15	C	C	28	26	21	5	2	A	14	11	23	10.6	27.8		
6-Feb	2	2	2	2	1	2	3	3	3	10	12	13	14	14	16	16	14	10	A	1	1	1	13	7.6	21.8		
7-Feb	23	19	17	27	25	27	22	22	18	30	31	33	32	31	30	30	32	A	24	30	33	34	34	27.8	33.9		
8-Feb	34	33	36	37	36	34	33	31	27	30	17	23	24	27	30	29	A	19	2	1	2	1	1	22.2	36.8		
9-Feb	1	1	3	1	2	7	7	11	6	17	18	22	24	26	27	A	18	8	1	3	1	1	3	9.5	26.6		
10-Feb	3	2	2	14	21	11	27	27	36	39	40	40	40	40	A	34	31	24	31	29	37	41	41	28.3	41.2		
11-Feb	41	41	41	41	41	39	37	37	31	32	29	29	34	A	35	35	33	29	11	4	2	3	2	27.8	41.4		
12-Feb	18	14	23	19	15	10	9	2	6	14	21	14	A	18	28	40	42	43	45	44	44	43	44	26.0	44.9		
13-Feb	42	42	42	42	42	42	40	40	37	35	36	A	40	39	41	42	42	41	41	40	41	40	41	40.3	42.3		
14-Feb	41	42	42	42	41	39	37	38	37	37	A	37	36	37	37	37	34	26	23	19	12	14	13	31.5	42.3		
15-Feb	3	16	16	14	13	11	9	2	3	A	13	24	25	21	20	26	33	36	38	38	38	38	39	22.3	39.2		
16-Feb	39	37	38	39	36	34	33	27	A	31	36	38	42	39	40	40	41	39	36	36	34	31	25	35.4	41.6		
17-Feb	13	30	30	28	28	16	20	A	21	26	29	35	40	42	43	41	42	40	32	31	27	26	32	30.9	42.5		
18-Feb	39	38	39	39	39	37	A	36	36	35	39	40	41	42	42	42	41	40	35	34	31	24	33	37.1	41.8		
19-Feb	38	39	39	38	38	A	35	35	38	36	38	38	39	39	38	38	37	27	16	24	25	26	22	32.9	39.4		
20-Feb	5	15	17	30	A	33	30	27	33	37	37	36	40	41	41	42	41	25	13	5	12	17	18	27.2	41.6		
21-Feb	35	27	10	A	0	0	3	36	37	35	38	39	40	38	42	42	42	41	40	37	36	36	32	31.5	42.3		
22-Feb	38	38	A	34	32	28	17	10	3	14	28	29	29	32	34	34	29	35	36	22	13	34	38	28.0	38.0		
23-Feb	29	A	25	21	7	21	25	40	42	43	42	42	42	43	42	42	42	41	40	40	39	39	36	35.7	43.4		
24-Feb	A	38	37	37	35	33	30	42	42	41	42	42	42	41	40	37	35	33	38	37	36	37	37	A	37.7	42.4	
25-Feb	31	29	27	28	26	25	35	39	39	37	37	37	39	40	40	41	41	40	37	37	30	32	A	32	34.8	40.9	
26-Feb	28	30	22	24	28	28	10	16	28	33	33	36	38	39	38	38	37	37	38	41	42	A	42	32.5	41.9		
27-Feb	42	42	40	41	41	41	40	37	37	38	40	40	40	41	41	41	41	40	38	38	A	35	35	36	39.3	42.0	
28-Feb	39	39	39	38	38	40	26	17	28	39	34	38	47	47	46	45	43	37	37	A	40	42	43	43	38.4	47.3	
		25.5	26.2	25.0	27.0	25.2	23.9	22.5	24.1	25.0	29.4	30.1	31.6	34.7	34.1	34.5	35.2	34.1	30.2	26.4	25.3	25.1	25.6	26.3	27.7	Diurnal Average	
		42.2	42.3	42.3	41.8	41.7	41.6	40.5	42.4	42.1	42.6	42.1	41.8	47.3	46.5	45.7	45.0	42.7	43.1	44.9	44.4	43.7	42.8	44.0	43.5	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

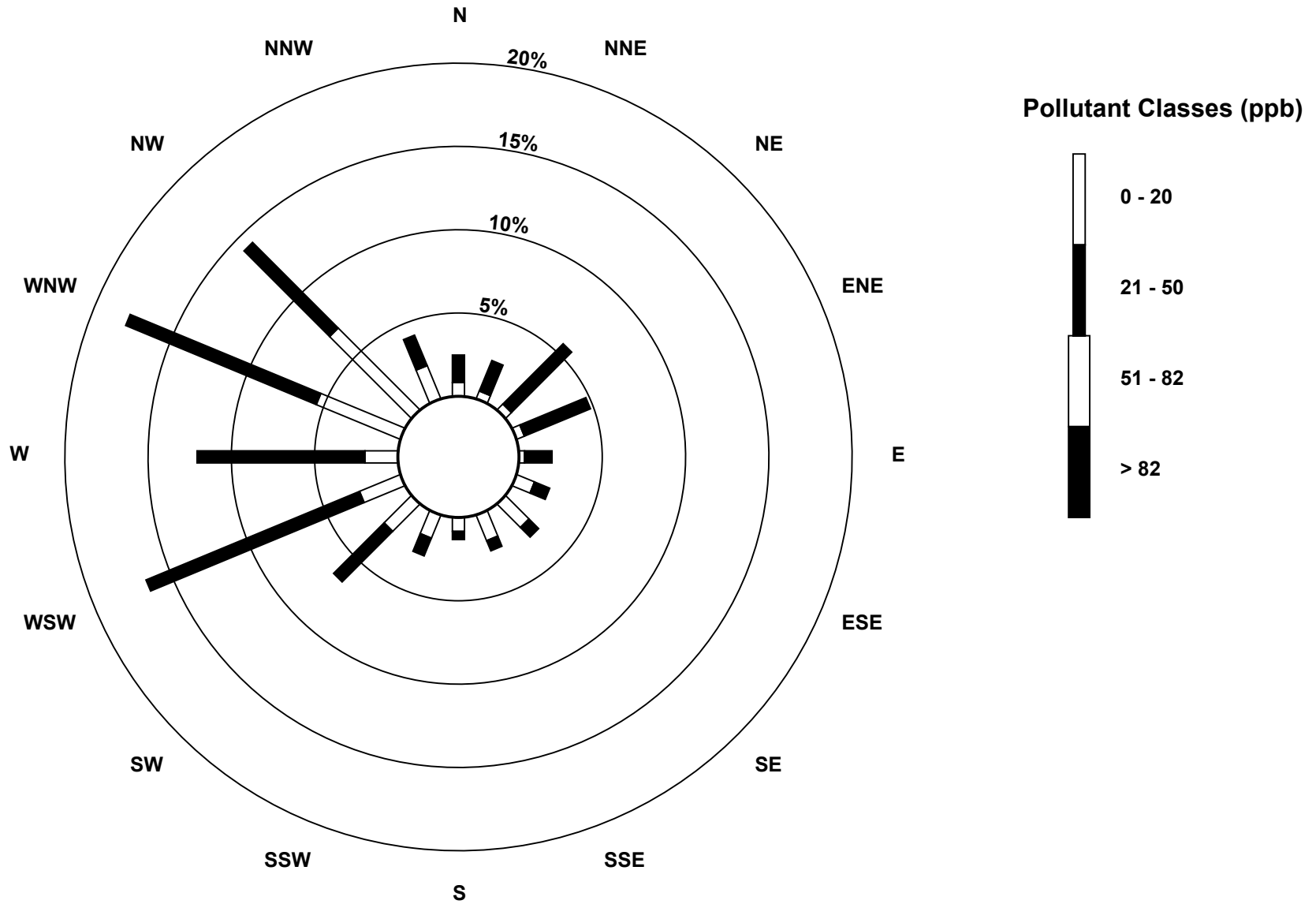
Hourly Maximums

Ozone (O₃) - ppb
Henry Pirker - February 2018



Pollutant Rose

Ozone (O₃) - ppb
Henry Pirker - February 2018



Eight Hour Running Averages

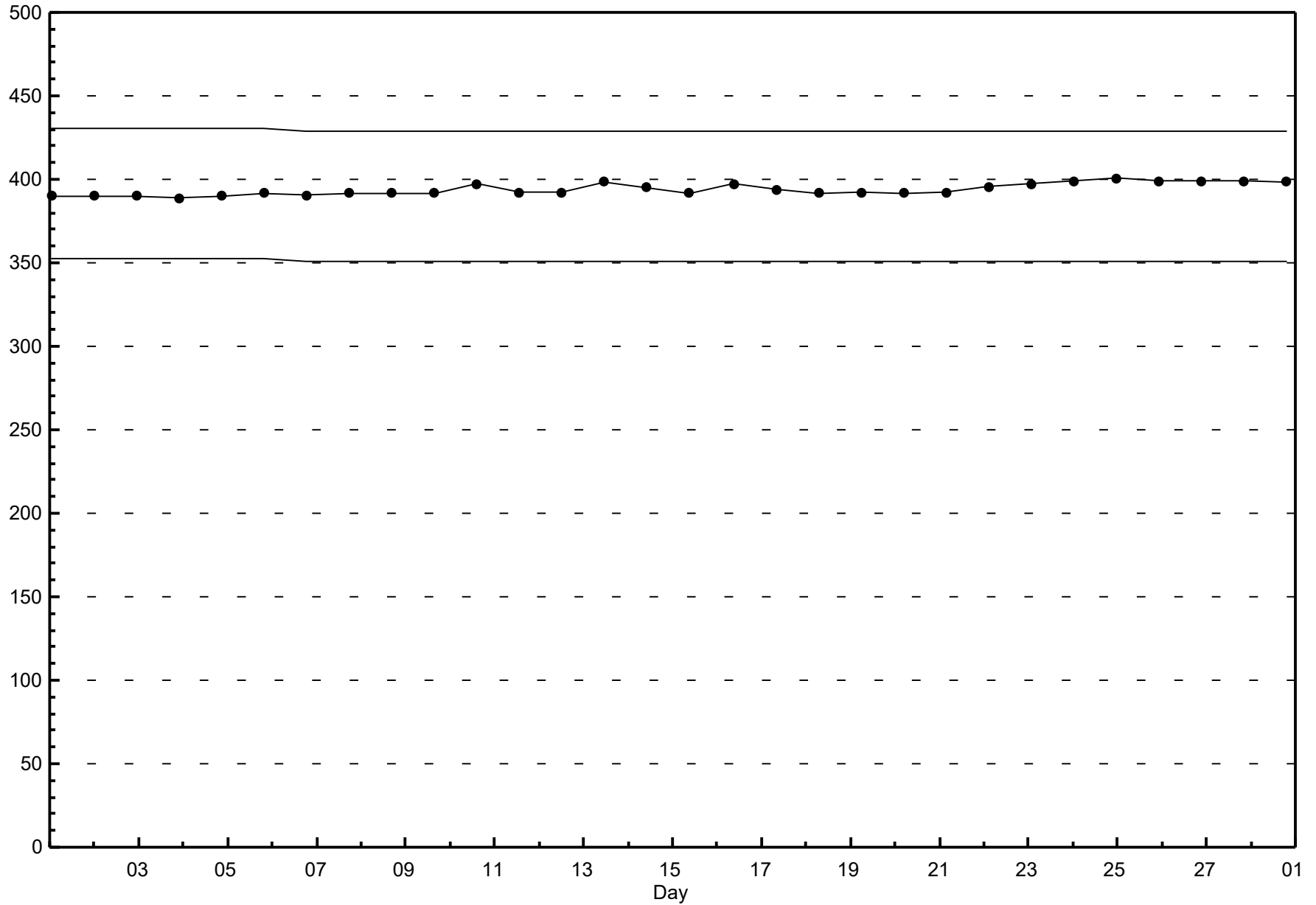
Ozone (O₃) - ppb

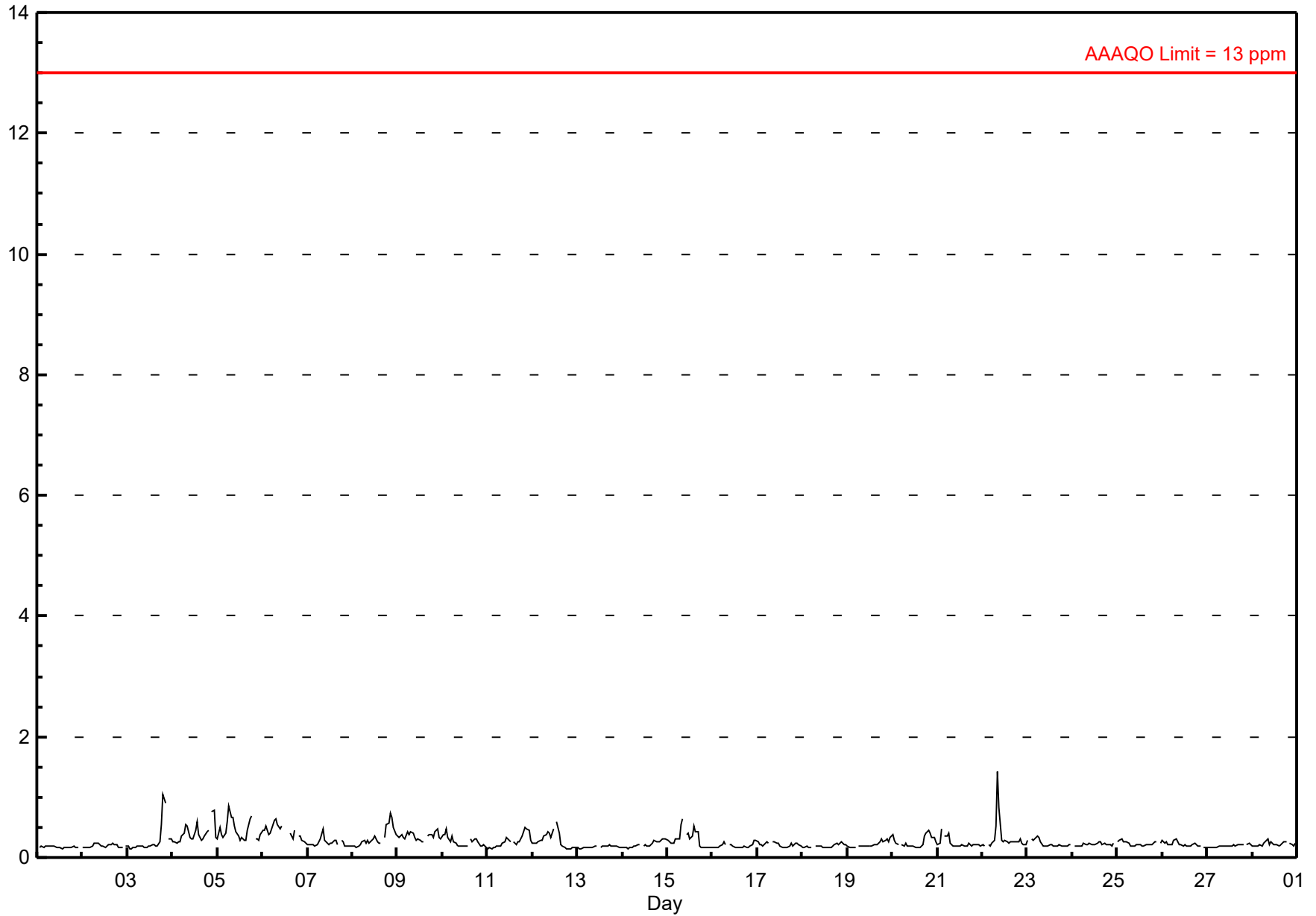
Henry Pirker - February 2018

Maximum Value: 41.7 ppb on Feb 13 02:00																					Hours in Service: 672				
Minimum Value: 0.6 ppb on Feb 9 06:00																					Hours of Data: 671				
Percentiles: P ₁ = 1.1 P ₁₀ = 5.7 Q ₁ = 14.8 Median = 27.4 Q ₃ = 34.8 P ₉₀ = 38.0 P ₉₉ = 41.1																					Hours of Missing Data: 1				
																					Hours of Calibration: 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-Feb	23	21	19	16	16	15	15	15	16	17	19	22	23	25	27	29	30	31	31	31	30	30	29	29	31.4
2-Feb	28	28	28	28	28	28	28	27	27	26	26	26	26	26	26	25	24	24	23	23	23	23	23	23	28.4
3-Feb	25	26	28	29	29	29	29	28	27	26	26	26	27	27	28	29	30	29	25	22	18	16	12	9	29.5
4-Feb	5	3	3	4	4	4	4	4	4	5	6	7	9	10	12	14	16	16	14	12	11	10	8	6	15.8
5-Feb	4	3	3	3	3	2	2	2	2	2	3	4	5	5	9	12	14	14	13	N	12	11	10	7	13.7
6-Feb	6	6	5	5	4	3	2	1	1	2	3	4	5	7	8	10	11	11	11	9	8	6	5	5	10.9
7-Feb	6	7	8	11	13	16	17	19	18	19	21	22	23	23	25	26	28	29	27	27	27	27	28	29	28.9
8-Feb	29	29	31	33	33	33	33	32	31	31	28	26	24	23	23	23	22	20	18	16	13	9	5	2	33.3
9-Feb	2	1	1	1	1	1	1	1	1	3	4	7	9	12	14	16	17	17	14	12	9	6	3	3	17.2
10-Feb	2	1	1	1	2	3	5	7	10	15	19	24	28	32	33	34	34	32	30	27	27	27	28	30	34.5
11-Feb	32	34	36	39	40	40	39	38	37	35	33	31	30	29	28	28	28	28	25	22	18	16	12	8	39.7
12-Feb	6	4	6	8	9	9	10	9	8	8	8	8	8	9	11	16	21	25	29	33	34	38	41	41	41.2
13-Feb	42	42	42	41	41	41	41	40	39	38	38	37	37	37	36	37	38	39	39	39	39	39	39	39	41.7
14-Feb	39	39	39	40	40	39	39	38	38	37	36	36	35	35	35	35	34	32	29	26	22	19	15	11	39.8
15-Feb	7	6	6	6	6	6	6	5	6	6	6	7	9	10	12	13	15	18	21	23	25	28	31	34	33.7
16-Feb	37	37	37	37	36	35	33	31	30	29	29	29	30	31	34	36	36	37	38	37	36	35	32	28	37.6
17-Feb	24	23	22	21	19	18	17	18	19	19	20	22	26	30	32	35	37	36	35	34	31	30	29	29	36.6
18-Feb	28	28	30	32	34	35	36	36	36	35	35	35	35	36	37	38	39	39	38	37	36	33	31	29	39.0
19-Feb	29	29	30	30	32	34	34	35	35	34	34	34	34	35	35	36	36	34	31	28	26	23	20	16	35.8
20-Feb	12	10	11	10	9	11	13	15	19	23	26	30	31	32	34	37	37	35	31	27	23	19	15	13	37.2
21-Feb	12	12	12	13	13	11	10	11	13	14	19	22	26	31	36	37	38	38	39	38	38	37	36	35	38.6
22-Feb	34	33	33	33	32	30	28	23	19	15	16	15	15	16	19	22	25	27	27	26	23	23	24	24	33.7
23-Feb	24	23	22	20	19	16	13	13	15	19	22	26	31	36	40	41	41	41	41	40	40	39	38	37	41.1
24-Feb	37	36	36	35	34	33	33	32	33	34	34	35	36	37	39	39	38	37	36	35	34	34	33	33	38.9
25-Feb	32	31	29	28	26	24	23	24	26	27	29	30	32	34	36	37	37	38	38	37	35	33	32	30	37.9
26-Feb	28	26	24	22	23	22	20	18	17	18	19	21	23	25	29	32	35	35	35	36	37	36	37	37	37.4
27-Feb	38	39	40	40	40	40	39	38	38	37	37	37	37	38	38	39	39	39	39	38	38	37	36	35	40.4
28-Feb	34	35	35	35	34	34	33	30	27	26	26	26	27	28	32	36	38	38	39	39	39	38	38	38	39.2
41.5 41.7 41.5 41.3 41.2 40.9 40.6 40.2 39.5 38.5 37.7 37.2 37.5 37.5 39.6 41.1 41.1 40.9 40.7 40.4 40.1 39.4 40.5 41.2																									
Diurnal Maximums																									
N - Not Valid																									

Span Responses

Ozone (O₃)
Henry Pirker - February 2018





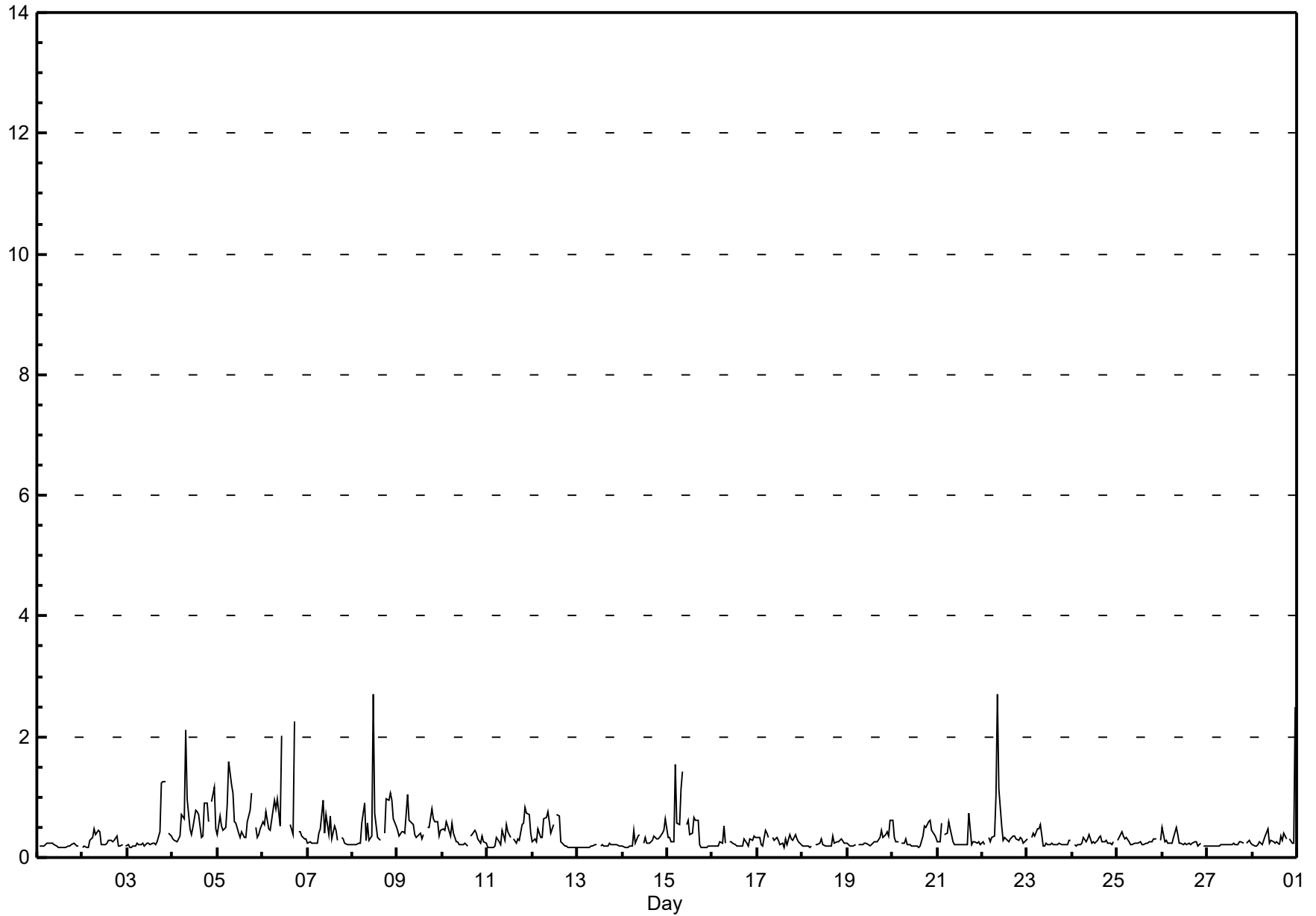
Hourly Maximums

Carbon Monoxide (CO) - ppm
Henry Pirker - February 2018

Maximum Value: 2.70 ppm on Feb 22 09:00		Maximum Daily Average: 0.72 ppm on Feb 6		Hours in Service: 672																																												
Minimum Value: 0.2 ppm on Feb 3 03:00		Minimum Daily Average: 0.19 ppm on Feb 13		Hours of Data: 638																																												
Maximum Diurnal Average: 0.56 ppm at hour 9		Minimum Diurnal Average: 0.27 ppm at hour 4		Hours of Missing Data: 34																																												
Monthly Average: 0.365 ppm		Percentiles: P ₁ = 0.16 P ₁₀ = 0.19 Q ₁ = 0.21 Median = 0.27 Q ₃ = 0.39 P ₉₀ = 0.61 P ₉₉ = 1.58		Hours of Calibration: 34																																												
				Percent Operational Time: 100.0																																												
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum																						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																								
1-Feb	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	A	0.2	0.25																							
2-Feb	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.5	0.4	0.5	0.4	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.2	0.2	A	0.2	0.27																							
3-Feb	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	1.2	1.3	1.3	A	0.4	0.4	0.38																							
4-Feb	0.3	0.3	0.3	0.3	0.3	0.7	0.6	2.1	1.0	0.5	0.4	0.5	0.8	0.8	0.7	0.3	0.3	0.9	0.9	0.6	A	0.9	1.2	0.5	0.66																							
5-Feb	0.4	0.7	0.5	0.4	0.5	0.9	1.6	1.2	1.1	0.6	0.6	0.4	0.3	0.4	0.3	0.3	0.6	0.8	1.1	A	0.5	0.3	0.4	0.5	0.63																							
6-Feb	0.6	0.6	0.8	0.5	0.5	0.6	0.9	0.8	1.0	0.5	2.0	C	C	C	C	0.5	0.4	2.3	A	0.4	0.4	0.4	0.3	0.3	0.72																							
7-Feb	0.2	0.3	0.2	0.2	0.2	0.2	0.4	0.5	0.9	0.4	0.7	0.4	0.7	0.3	0.5	0.5	0.3	A	0.3	0.3	0.2	0.2	0.2	0.2	0.37																							
8-Feb	0.2	0.2	0.2	0.2	0.2	0.6	0.9	0.3	0.6	0.3	0.4	2.7	0.7	0.3	0.3	0.3	A	0.4	1.0	0.9	1.1	1.0	0.7	0.5	0.61																							
9-Feb	0.4	0.4	0.4	0.4	0.4	1.0	0.6	0.6	0.5	0.4	0.3	0.4	0.4	0.3	0.4	A	0.5	0.5	0.8	0.6	0.6	0.6	0.4	0.5	0.50																							
10-Feb	0.5	0.5	0.6	0.5	0.4	0.6	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	A	0.4	0.4	0.5	0.4	0.3	0.2	0.4	0.3	0.2	0.35																							
11-Feb	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.4	0.3	0.5	0.4	0.3	A	0.3	0.2	0.3	0.3	0.5	0.6	0.8	0.7	0.7	0.4	0.37																							
12-Feb	0.3	0.3	0.3	0.5	0.3	0.3	0.6	0.7	0.8	0.6	0.4	0.5	A	0.7	0.7	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.38																							
13-Feb	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																							
14-Feb	0.2	0.2	0.2	0.2	0.2	0.2	0.5	0.2	0.3	0.4	A	0.2	0.3	0.2	0.2	0.3	0.3	0.4	0.3	0.3	0.3	0.4	0.5	0.6	0.30																							
15-Feb	0.3	0.3	0.3	0.3	1.6	0.6	0.6	1.1	1.4	A	0.5	0.6	0.4	0.4	0.7	0.6	0.6	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.50																							
16-Feb	0.2	0.2	0.2	0.2	0.3	0.2	0.5	0.2	A	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.25																							
17-Feb	0.3	0.3	0.2	0.2	0.5	0.4	0.3	A	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.2	0.4	0.3	0.3	0.4	0.3	0.3	0.2	0.29																							
18-Feb	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	0.4	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.23																							
19-Feb	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	0.3	0.3	0.3	0.3	0.4	0.3	0.4	0.4	0.4	0.6	0.28																							
20-Feb	0.6	0.3	0.3	0.3	A	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.5	0.5	0.6	0.6	0.4	0.4	0.3	0.33																							
21-Feb	0.3	0.3	0.6	A	0.4	0.4	0.6	0.5	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.7	0.2	0.3	0.3	0.2	0.3	0.2	0.31																							
22-Feb	0.3	0.2	A	0.3	0.3	0.3	0.4	1.0	2.7	1.1	0.5	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.48																							
23-Feb	0.3	A	0.3	0.4	0.4	0.5	0.5	0.6	0.2	0.2	0.2	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	0.28																							
24-Feb	A	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3	A	0.26																							
25-Feb	0.3	0.3	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	A	0.3	0.27																							
26-Feb	0.5	0.3	0.3	0.2	0.2	0.2	0.3	0.5	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	A	0.2	0.2	0.27																							
27-Feb	0.2	0.2	0.2	0.2	0.2	0.2	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	A	0.2	0.3	0.2	0.22																							
28-Feb	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.3	0.5	0.2	0.3	0.3	0.2	0.3	0.2	0.4	0.3	0.4	0.3	A	0.3	0.2	0.2	2.5	0.37																							
																								0.30	0.27	0.29	0.27	0.33	0.39	0.47	0.50	0.56	0.34	0.39	0.39	0.31	0.29	0.31	0.29	0.30	0.44	0.43	0.37	0.40	0.36	0.35	0.41	Diurnal Average
																								0.63	0.70	0.77	0.52	1.55	1.04	1.60	2.11	2.70	1.15	2.01	2.70	0.77	0.77	0.71	0.63	0.62	2.26	1.23	1.27	1.26	0.95	1.17	2.49	Diurnal Maximum
C - Calibration																								A - Automated Daily Zero Span																								

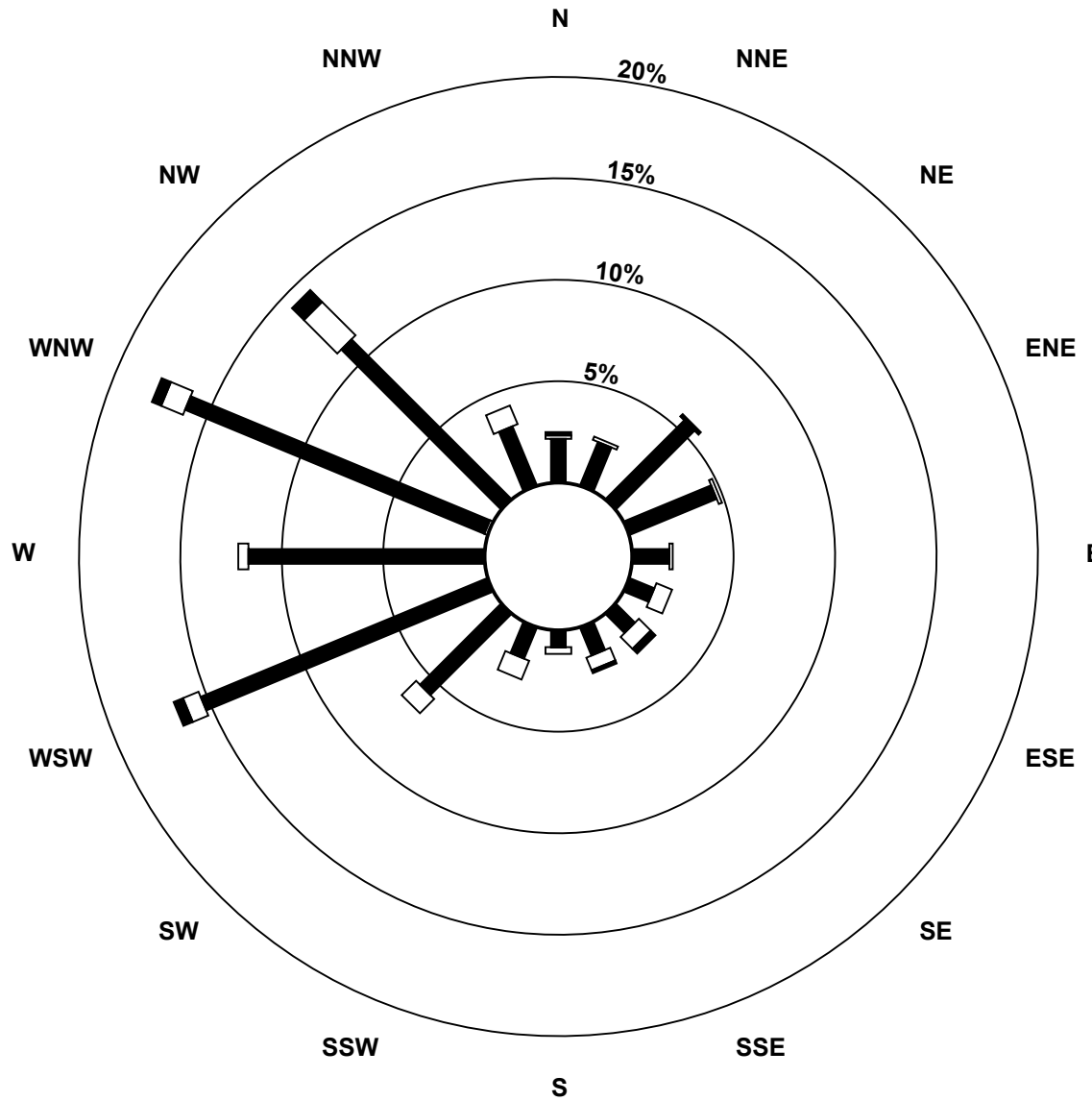
Hourly Maximums

Carbon Monoxide (CO) - ppm
Henry Pirker - February 2018

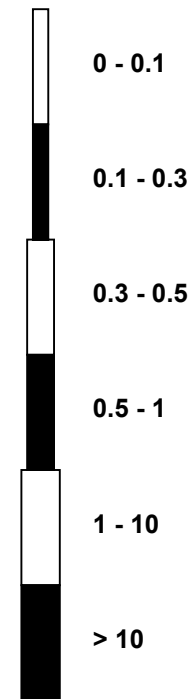


Pollutant Rose

Carbon Monoxide (CO) - ppm
Henry Pirker - February 2018



Pollutant Classes (ppm)



Eight Hour Running Averages

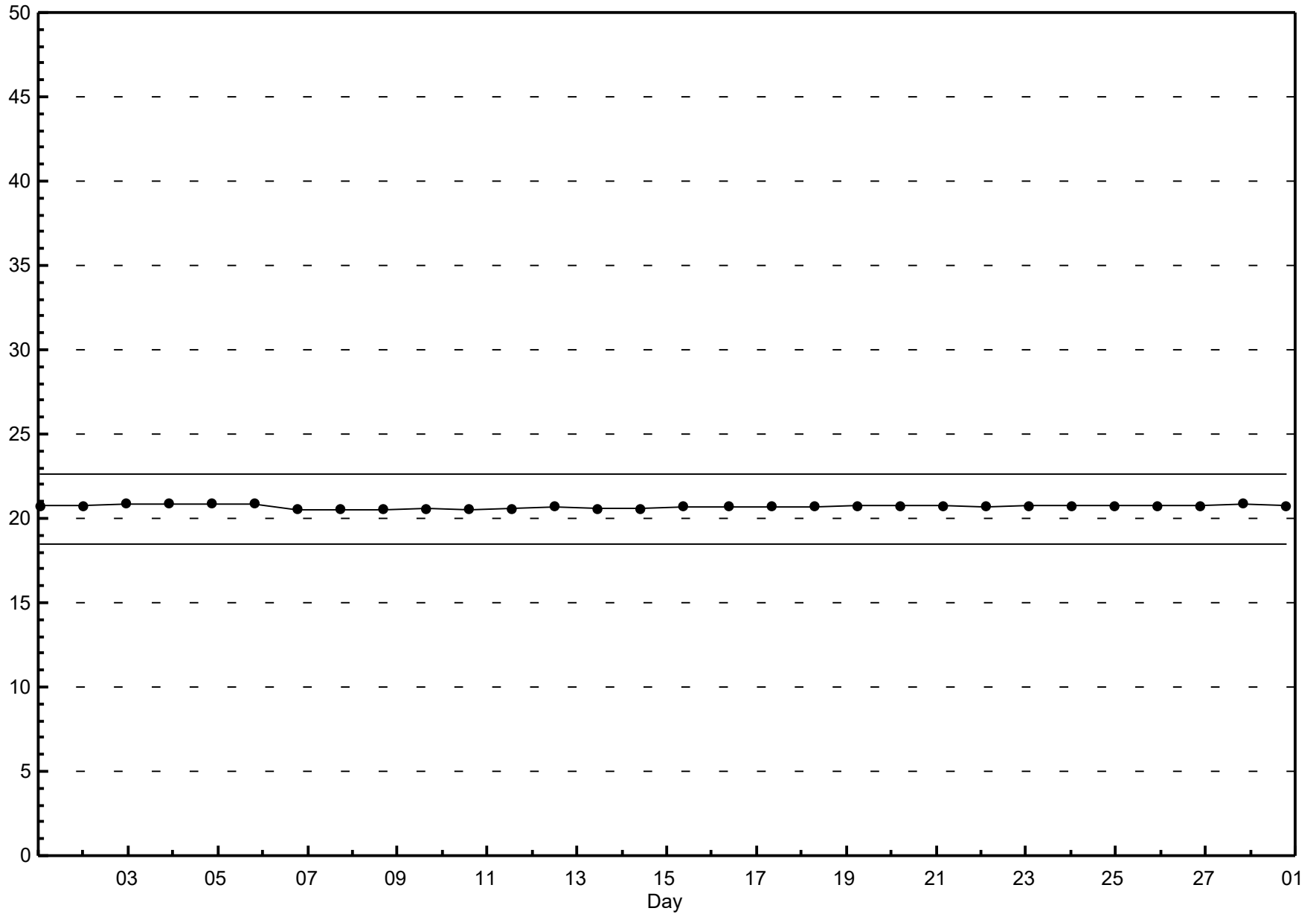
Carbon Monoxide (CO) - ppm

Henry Pirker - February 2018

Number of Exceedences (AAAQO): 8-hr: 0 Maximum Value: 0.56 ppm on Feb 5 12:00																		Hours in Service: 672 Hours of Data: 664 Hours of Missing Data: 8 Hours of Calibration: 8 Percent Operational Time: 100.0							
Minimum Value: 0.15 ppm on Feb 13 03:00																									
Percentiles: P ₁ = 0.16 P ₁₀ = 0.18 Q ₁ = 0.19 Median = 0.23 Q ₃ = 0.30 P ₉₀ = 0.41 P ₉₉ = 0.53																									
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-Feb	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.35
2-Feb	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21
3-Feb	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.4	0.5	0.5	0.5	0.51
4-Feb	0.5	0.5	0.5	0.4	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.52
5-Feb	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.56
6-Feb	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	N	N	N	N	N	N	N	N	0.4	0.3	0.3	0.55
7-Feb	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.31
8-Feb	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.5	0.53
9-Feb	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.51
10-Feb	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.39
11-Feb	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.37
12-Feb	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.43
13-Feb	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19
14-Feb	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.28
15-Feb	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.45
16-Feb	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21
17-Feb	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.25
18-Feb	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22
19-Feb	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.28
20-Feb	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.34
21-Feb	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.34
22-Feb	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.53
23-Feb	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.30
24-Feb	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.23
25-Feb	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.27
26-Feb	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.25
27-Feb	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22
28-Feb	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.24
0.52 0.52 0.50 0.49 0.48 0.46 0.47 0.51 0.55 0.55 0.56 0.56 0.55 0.52 0.51 0.48 0.40 0.38 0.41 0.42 0.44 0.48 0.51 0.53 Diurnal Maximums																									
N - Not Valid Alberta Ambient Air Quality Objectives (AAAQO): 8-hr 5 ppm																									

Span Responses

Carbon Monoxide (CO)
Henry Pirker - February 2018



Hourly Averages

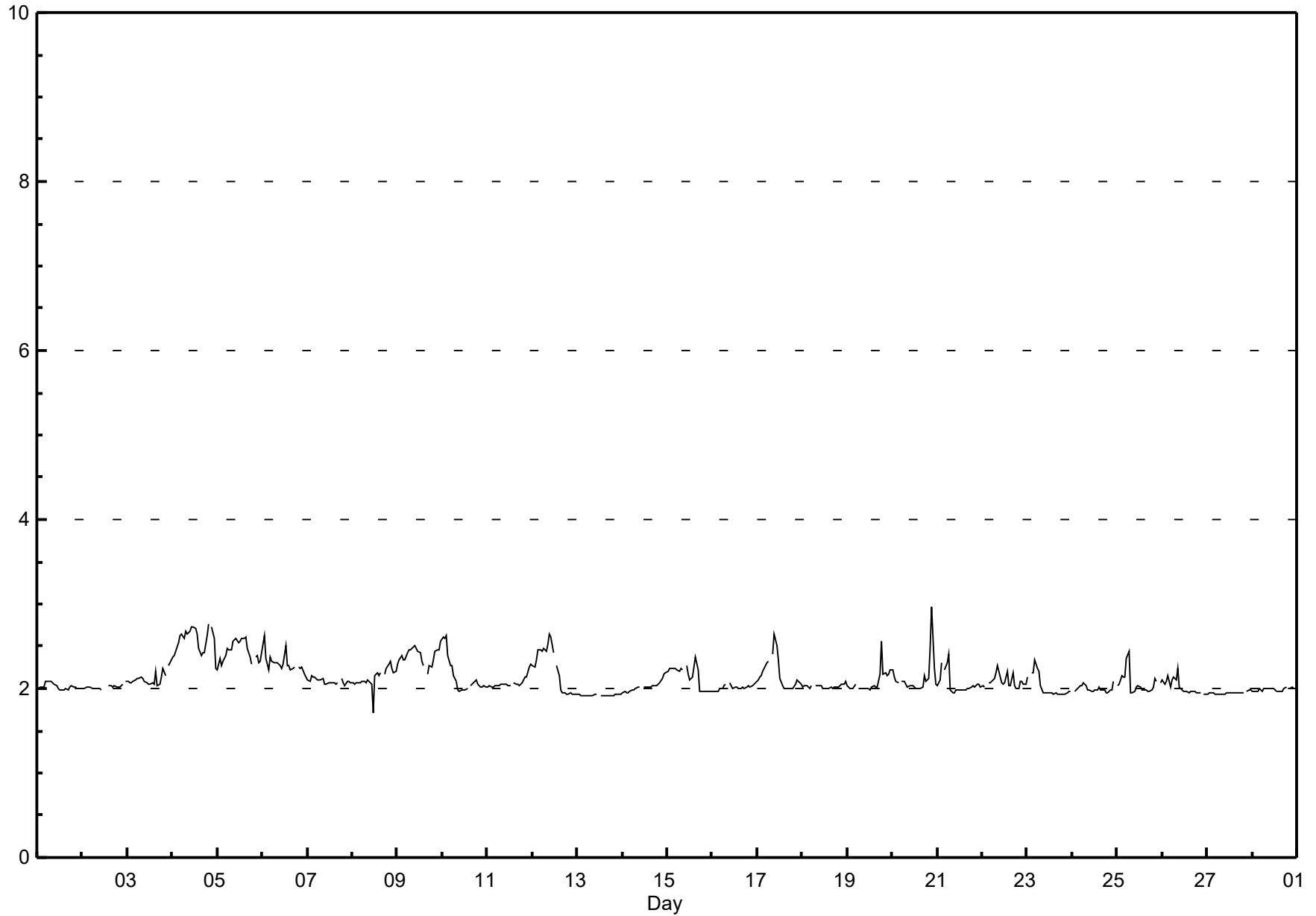
Total Hydrocarbons (THC) - ppm

Henry Pirker - February 2018

Maximum Value: 2.96 ppm on Feb 20 22:00		Maximum Daily Average: 2.57 ppm on Feb 4		Hours in Service: 672 Hours of Data: 639 Hours of Missing Data: 33 Hours of Calibration: 33 Percent Operational Time: 100.0																							
Minimum Value: 1.7 ppm on Feb 8 12:00		Minimum Daily Average: 1.92 ppm on Feb 13																									
Maximum Diurnal Average: 2.17 ppm at hour 7		Minimum Diurnal Average: 2.06 ppm at hour 17																									
Monthly Average: 2.115 ppm		Percentiles: P ₁ = 1.92 P ₁₀ = 1.95 Q ₁ = 1.99 Median = 2.04 Q ₃ = 2.19 P ₉₀ = 2.41 P ₉₉ = 2.68																									
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-Feb	A	2.0	2.0	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	2.0	2.0	2.0	2.0	2.0	A	2.02	2.09	
2-Feb	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	C	C	C	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.1	2.02	2.09	
3-Feb	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.0	2.2	2.0	2.0	2.1	2.2	2.2	A	2.3	2.3	2.12	2.34	
4-Feb	2.4	2.4	2.5	2.5	2.6	2.6	2.6	2.7	2.6	2.7	2.7	2.7	2.7	2.6	2.5	2.4	2.4	2.4	2.6	2.8	A	2.7	2.6	2.2	2.57	2.76	
5-Feb	2.2	2.4	2.3	2.3	2.4	2.5	2.5	2.4	2.6	2.6	2.6	2.5	2.6	2.6	2.6	2.6	2.5	2.4	2.3	A	2.4	2.4	2.3	2.3	2.44	2.62	
6-Feb	2.5	2.6	2.4	2.2	2.4	2.3	2.3	2.3	2.3	2.3	2.2	2.3	2.5	2.3	2.3	2.2	2.2	2.3	A	2.3	2.2	2.2	2.2	2.1	2.30	2.63	
7-Feb	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.0	2.1	2.1	2.1	2.09	2.15	
8-Feb	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	1.7	2.2	2.2	2.2	2.2	A	2.2	2.2	2.3	2.3	2.2	2.2	2.2	2.12	2.32	
9-Feb	2.3	2.3	2.4	2.3	2.3	2.4	2.5	2.5	2.5	2.5	2.5	2.4	2.4	2.3	2.3	A	2.2	2.3	2.3	2.3	2.4	2.5	2.5	2.6	2.39	2.55	
10-Feb	2.6	2.6	2.6	2.4	2.3	2.3	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.14	2.63	
11-Feb	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.1	2.0	2.0	A	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.3	2.3	2.07	2.28	
12-Feb	2.3	2.3	2.3	2.5	2.5	2.4	2.5	2.4	2.5	2.6	2.6	2.4	A	2.3	2.2	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.23	2.64	
13-Feb	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	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.92	1.93	
14-Feb	2.0	2.0	1.9	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	2.1	2.1	2.2	2.2	2.03	2.18	
15-Feb	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	A	2.3	2.2	2.1	2.1	2.3	2.4	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.15	2.37	
16-Feb	2.0	2.0	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	2.0	2.1	2.1	2.01	2.07	
17-Feb	2.1	2.1	2.2	2.2	2.3	2.3	2.3	A	2.4	2.6	2.5	2.3	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.17	2.65	
18-Feb	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	2.1	2.1	2.1	2.02	2.08	
19-Feb	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.6	2.2	2.2	2.2	2.2	2.2	2.2	2.08	2.56	
20-Feb	2.2	2.1	2.1	2.1	A	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.1	2.1	2.5	3.0	2.2	2.1	2.13	2.96		
21-Feb	2.0	2.1	2.3	A	2.2	2.3	2.4	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.06	2.41	
22-Feb	2.0	2.0	A	2.1	2.1	2.1	2.1	2.2	2.3	2.2	2.1	2.1	2.1	2.2	2.0	2.0	2.2	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.09	2.27	
23-Feb	2.1	A	2.2	2.2	2.3	2.2	2.2	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.02	2.35	
24-Feb	A	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.1	A	1.99	2.09	
25-Feb	2.0	2.1	2.2	2.1	2.1	2.3	2.4	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	2.1	2.1	A	2.1	2.06	2.44	
26-Feb	2.1	2.0	2.1	2.2	2.0	2.1	2.1	2.1	2.2	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	2.02	2.23	
27-Feb	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	2.0	2.0	2.0	A	2.0	2.0	2.0	1.95	1.99	
28-Feb	2.0	2.0	2.0	2.0	2.0	2.0	2.0	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	1.99	2.01	
																								2.12 2.12 2.14 2.13 2.15 2.17 2.17 2.13 2.14 2.14 2.13 2.10 2.10 2.10 2.08 2.07 2.06 2.07 2.08 2.08 2.10 2.14 2.12 2.11		Diurnal Average	
																								2.61 2.63 2.63 2.55 2.62 2.64 2.59 2.69 2.64 2.68 2.73 2.72 2.71 2.64 2.59 2.62 2.48 2.43 2.63 2.76 2.47 2.96 2.59 2.55		Diurnal Maximum	
C - Calibration																								A - Automated Daily Zero Span			

Hourly Averages

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



Hourly Maximums

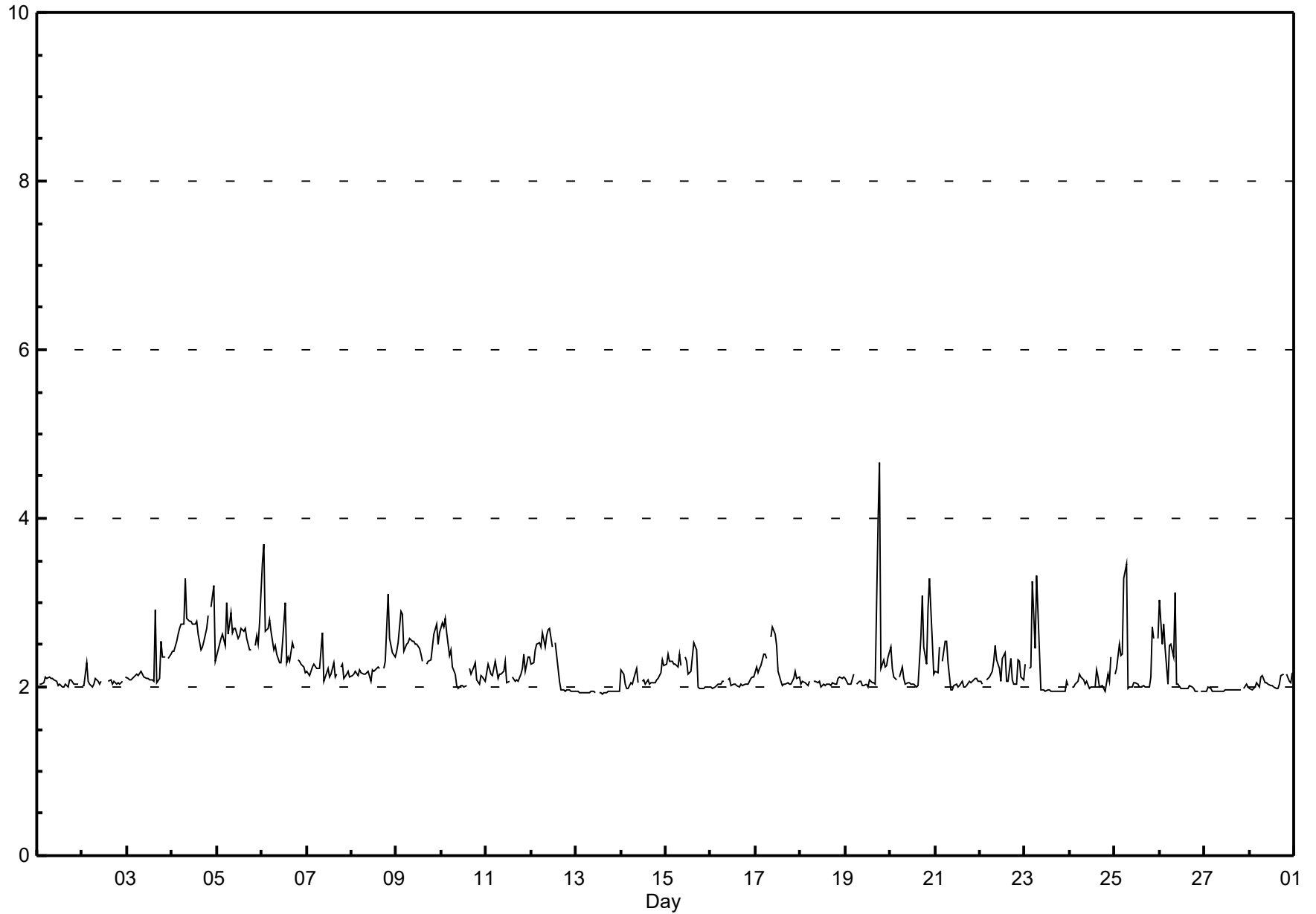
Total Hydrocarbons (THC) - ppm

Henry Pirker - February 2018

Maximum Value: 4.66 ppm on Feb 19 19:00		Maximum Daily Average: 2.71 ppm on Feb 4		Hours in Service: 672																							
Minimum Value: 1.9 ppm on Feb 13 15:00		Minimum Daily Average: 1.94 ppm on Feb 13		Hours of Data: 639																							
Maximum Diurnal Average: 2.33 ppm at hour 7		Minimum Diurnal Average: 2.14 ppm at hour 15		Hours of Missing Data: 33																							
Monthly Average: 2.221 ppm		Percentiles: P ₁ = 1.93 P ₁₀ = 1.97 Q ₁ = 2.03 Median = 2.10 Q ₃ = 2.33 P ₉₀ = 2.62 P ₉₉ = 3.29		Hours of Calibration: 33																							
				Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Feb	A	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	A	2.05	2.11	
2-Feb	2.0	2.0	2.3	2.1	2.0	2.0	2.0	2.1	2.1	2.0	2.1	C	C	C	2.1	2.1	2.0	2.1	2.0	2.1	2.0	2.1	A	2.1	2.06	2.29	
3-Feb	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.9	2.1	2.1	2.5	2.4	2.3	A	2.3	2.4	2.21	2.91		
4-Feb	2.4	2.4	2.6	2.6	2.7	2.7	2.7	3.3	2.8	2.8	2.8	2.7	2.7	2.8	2.6	2.4	2.5	2.5	2.7	2.8	A	2.9	3.2	2.3	2.71	3.29	
5-Feb	2.4	2.5	2.6	2.6	2.5	3.0	2.6	2.9	2.6	2.7	2.7	2.6	2.6	2.7	2.7	2.7	2.6	2.4	2.4	A	2.5	2.6	2.5	2.8	2.61	2.99	
6-Feb	3.5	3.7	2.7	2.7	2.8	2.7	2.4	2.5	2.4	2.3	2.3	2.5	3.0	2.3	2.4	2.3	2.5	2.5	A	2.3	2.3	2.3	2.2	2.2	2.55	3.69	
7-Feb	2.2	2.1	2.2	2.2	2.3	2.2	2.2	2.2	2.6	2.1	2.1	2.2	2.1	2.1	2.3	2.1	2.1	A	2.2	2.3	2.1	2.2	2.2	2.1	2.20	2.64	
8-Feb	2.1	2.2	2.2	2.1	2.2	2.2	2.1	2.1	2.2	2.2	2.1	2.2	2.2	2.2	2.2	A	A	2.2	2.3	3.1	2.6	2.5	2.4	2.4	2.27	3.10	
9-Feb	2.4	2.5	2.9	2.9	2.4	2.5	2.5	2.6	2.5	2.5	2.5	2.5	2.4	2.3	A	A	2.3	2.3	2.3	2.5	2.6	2.7	2.5	2.6	2.52	2.90	
10-Feb	2.8	2.7	2.8	2.6	2.4	2.4	2.2	2.2	2.0	2.0	2.0	2.0	2.0	2.0	A	2.2	2.2	2.2	2.3	2.1	2.0	2.1	2.1	2.1	2.24	2.81	
11-Feb	2.2	2.3	2.2	2.1	2.2	2.3	2.1	2.1	2.2	2.2	2.3	2.1	2.1	A	2.1	2.1	2.1	2.1	2.1	2.2	2.4	2.2	2.4	2.3	2.19	2.39	
12-Feb	2.3	2.3	2.4	2.5	2.5	2.5	2.6	2.5	2.6	2.7	2.7	2.5	A	2.5	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.29	2.69	
13-Feb	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	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.94	1.95	
14-Feb	2.2	2.2	2.0	2.0	2.0	2.1	2.0	2.1	2.2	2.1	A	2.1	2.1	2.0	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.2	2.3	2.3	2.10	2.32	
15-Feb	2.3	2.4	2.3	2.3	2.3	2.3	2.2	2.4	2.3	A	2.4	2.3	2.1	2.2	2.4	2.5	2.4	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.22	2.53	
16-Feb	2.0	2.0	2.0	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	2.1	2.1	2.1	2.04	2.12	
17-Feb	2.2	2.2	2.2	2.3	2.4	2.4	2.3	A	2.6	2.7	2.6	2.5	2.2	2.1	2.0	2.0	2.0	2.1	2.0	2.0	2.1	2.2	2.1	2.1	2.23	2.70	
18-Feb	2.0	2.1	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	2.0	2.0	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.05	2.12	
19-Feb	2.1	2.0	2.0	2.0	2.1	A	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.0	3.9	4.7	2.2	2.3	2.2	2.3	2.3	2.3	2.29	4.66	
20-Feb	2.5	2.2	2.1	2.1	A	2.1	2.2	2.1	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.6	3.1	2.5	2.3	2.9	3.3	2.6	2.2	2.30	3.29	
21-Feb	2.2	2.2	2.5	A	2.3	2.5	2.5	2.3	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.13	2.54	
22-Feb	2.1	2.0	A	2.1	2.1	2.1	2.2	2.3	2.5	2.3	2.2	2.1	2.3	2.4	2.1	2.1	2.3	2.1	2.0	2.0	2.3	2.3	2.1	2.1	2.18	2.49	
23-Feb	2.3	A	2.2	2.2	3.3	2.5	3.3	2.9	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	2.1	2.0	2.18	3.31	
24-Feb	A	2.0	2.0	2.0	2.1	2.2	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.2	2.1	2.0	2.0	2.0	2.0	2.2	2.1	2.4	A	2.06	2.36	
25-Feb	2.1	2.2	2.5	2.4	2.4	3.3	3.5	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.7	2.6	A	2.6	2.28	3.45	
26-Feb	3.0	2.5	2.7	2.5	2.0	2.5	2.5	2.4	3.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.22	3.13	
27-Feb	1.9	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	1.97	2.04	
28-Feb	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	A	2.2	2.1	2.1	2.2	2.05	2.17	
		2.28	2.25	2.28	2.24	2.27	2.32	2.33	2.28	2.26	2.18	2.19	2.17	2.16	2.15	2.14	2.14	2.14	2.21	2.24	2.17	2.22	2.26	2.23	2.20	Diurnal Average	
		3.48	3.69	2.90	2.86	3.25	3.29	3.45	3.29	3.13	2.78	2.78	2.74	2.99	2.78	2.66	2.91	2.59	3.95	4.66	3.10	2.93	3.29	3.20	2.76	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

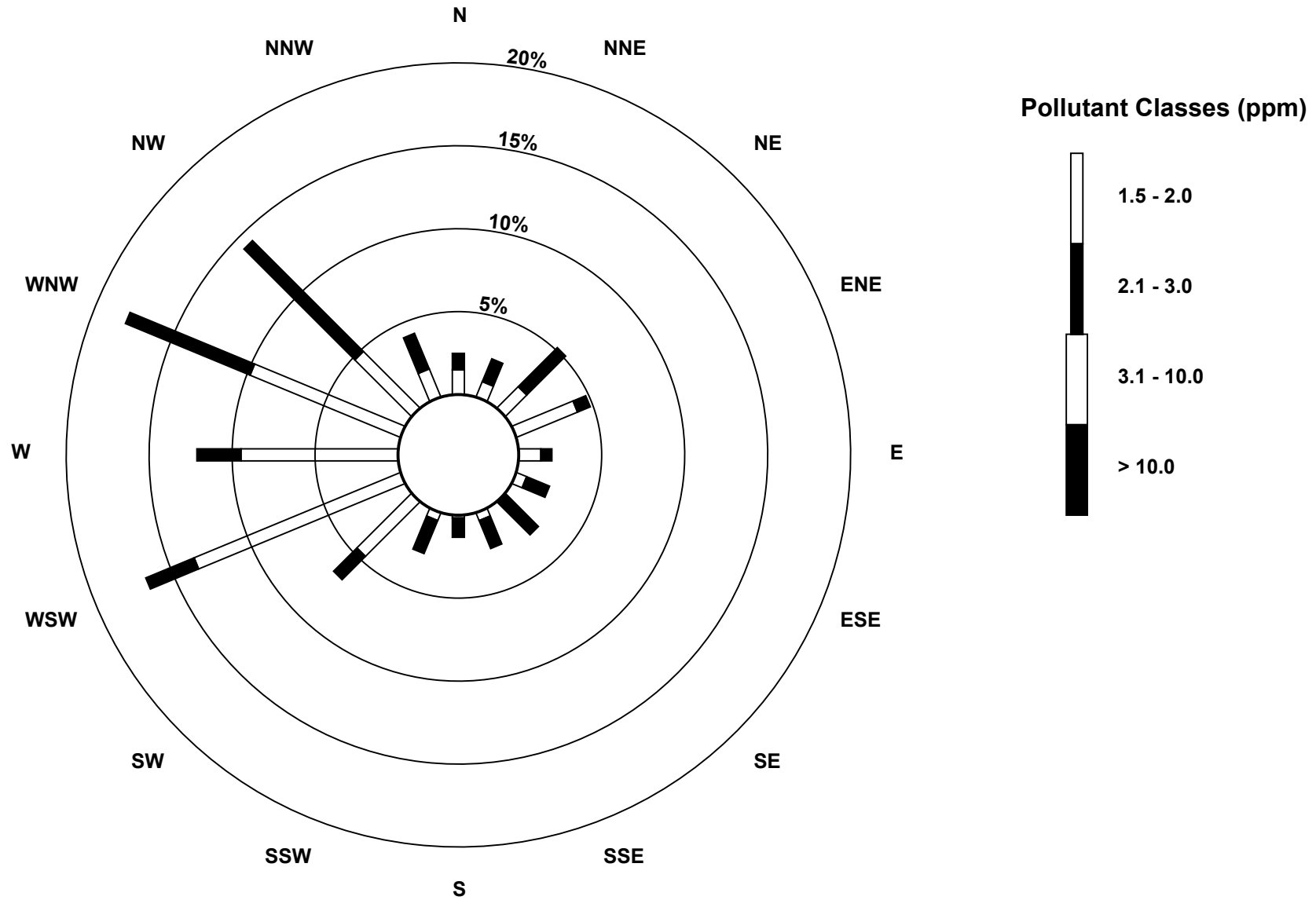
Hourly Maximums

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



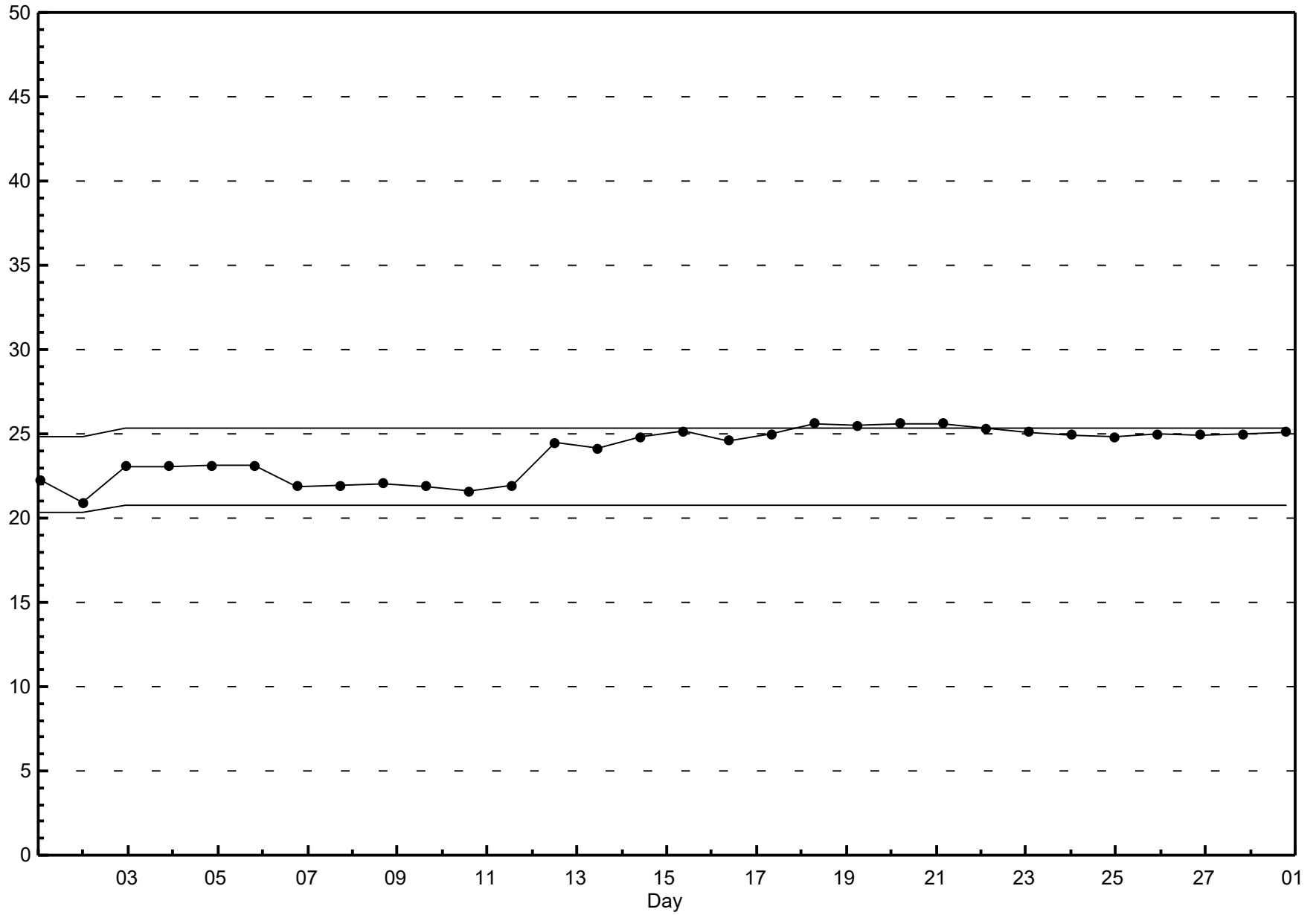
Pollutant Rose

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



Span Responses

Total Hydrocarbons (THC)
Henry Pirker - February 2018



Hourly Averages

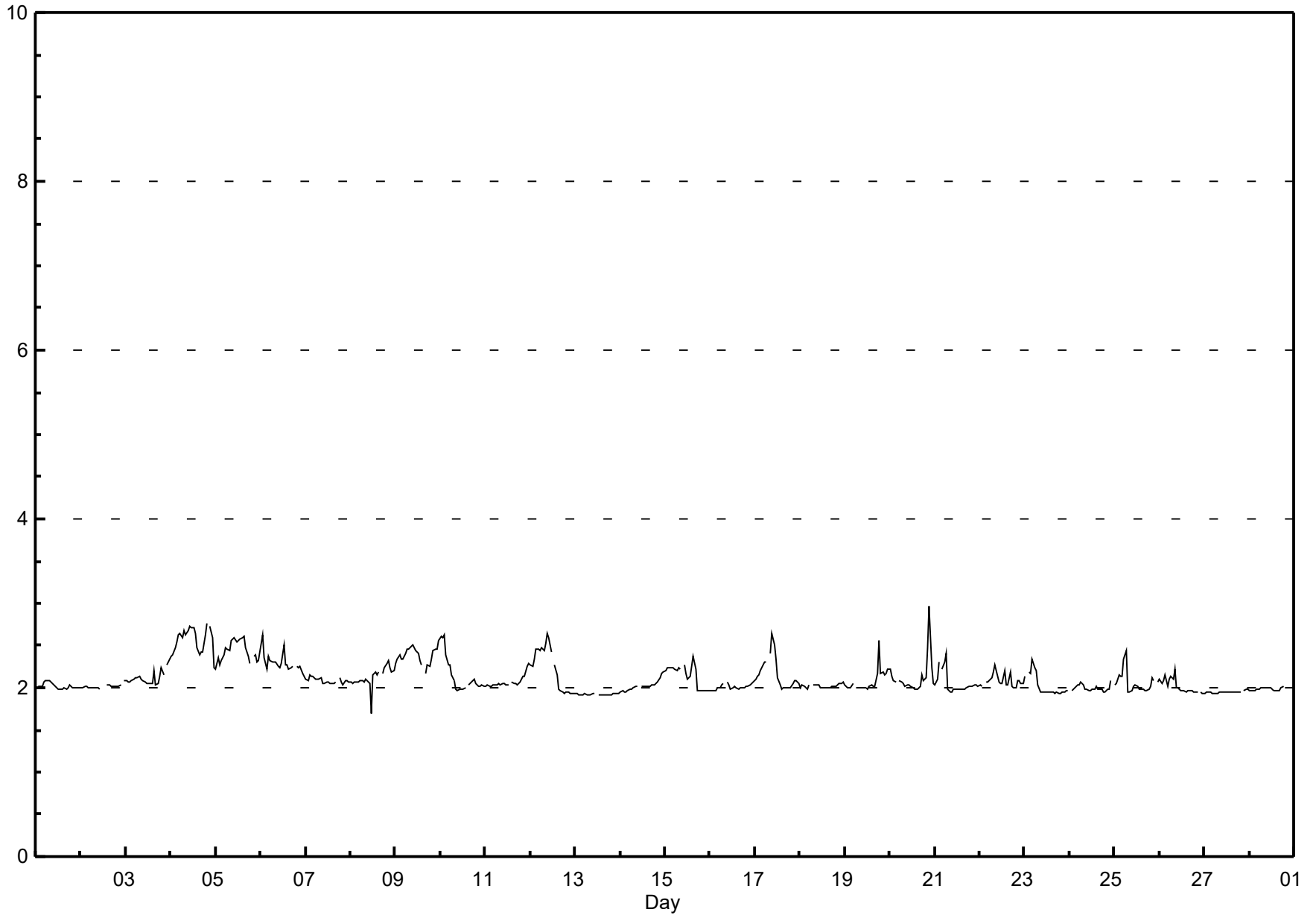
Methane (CH₄) - ppm

Henry Pirker - February 2018

Maximum Value: 2.96 ppm on Feb 20 22:00 Maximum Daily Average: 2.57 ppm on Feb 4 Minimum Value: 1.7 ppm on Feb 8 12:00 Minimum Daily Average: 1.92 ppm on Feb 13 Maximum Diurnal Average: 2.17 ppm at hour 7 Minimum Diurnal Average: 2.06 ppm at hour 17 Monthly Average: 2.114 ppm Percentiles: P ₁ = 1.92 P ₁₀ = 1.95 Q ₁ = 1.99 Median = 2.04 Q ₃ = 2.19 P ₉₀ = 2.41 P ₉₉ = 2.68																								Hours in Service:	672																								
																								Hours of Data:	639																								
																								Hours of Missing Data:	33																								
																								Hours of Calibration:	33																								
																								Percent Operational Time:	100.0																								
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																									
1-Feb	A	2.0	2.0	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	2.0	2.0	2.0	2.0	2.0	A	2.02	2.09																							
2-Feb	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	C	C	C	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.1	2.01	2.08																							
3-Feb	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.0	2.2	2.0	2.0	2.1	2.2	2.2	A	2.3	2.3	2.12	2.34																							
4-Feb	2.4	2.4	2.5	2.5	2.6	2.6	2.6	2.7	2.6	2.7	2.7	2.7	2.7	2.6	2.5	2.4	2.4	2.4	2.6	2.8	A	2.7	2.6	2.2	2.57	2.76																							
5-Feb	2.2	2.4	2.3	2.3	2.4	2.5	2.5	2.4	2.6	2.6	2.6	2.5	2.6	2.6	2.6	2.6	2.5	2.4	2.3	A	2.4	2.4	2.3	2.3	2.44	2.62																							
6-Feb	2.5	2.6	2.4	2.2	2.4	2.3	2.3	2.3	2.3	2.3	2.2	2.3	2.5	2.3	2.3	2.2	2.2	2.3	A	2.3	2.2	2.2	2.2	2.1	2.30	2.62																							
7-Feb	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.0	2.1	2.1	2.1	2.08	2.15																							
8-Feb	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	1.7	2.2	2.2	2.2	2.2	A	2.2	2.2	2.3	2.3	2.2	2.2	2.2	2.12	2.32																							
9-Feb	2.3	2.3	2.4	2.3	2.3	2.4	2.5	2.5	2.5	2.5	2.5	2.4	2.4	2.3	2.3	A	2.2	2.3	2.3	2.3	2.4	2.5	2.5	2.6	2.39	2.55																							
10-Feb	2.6	2.6	2.6	2.4	2.3	2.3	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.14	2.63																							
11-Feb	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.1	2.0	2.0	A	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.3	2.3	2.07	2.28																							
12-Feb	2.3	2.3	2.3	2.5	2.5	2.4	2.5	2.4	2.5	2.6	2.6	2.4	A	2.3	2.2	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.23	2.64																							
13-Feb	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	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.92	1.93																							
14-Feb	2.0	2.0	1.9	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	2.1	2.1	2.2	2.2	2.02	2.18																							
15-Feb	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	A	2.3	2.2	2.1	2.1	2.3	2.4	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.14	2.37																							
16-Feb	2.0	2.0	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	2.0	2.0	2.1	2.01	2.07																							
17-Feb	2.1	2.1	2.2	2.2	2.3	2.3	2.3	A	2.4	2.6	2.5	2.3	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.16	2.64																							
18-Feb	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	2.1	2.1	2.1	2.02	2.08																							
19-Feb	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.6	2.2	2.2	2.2	2.2	2.2	2.2	2.08	2.55																							
20-Feb	2.2	2.1	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	2.2	2.1	2.1	2.5	3.0	2.2	2.1	2.13	2.96																								
21-Feb	2.0	2.1	2.3	A	2.2	2.3	2.4	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.06	2.41																							
22-Feb	2.0	2.0	A	2.1	2.1	2.1	2.1	2.2	2.3	2.2	2.1	2.1	2.1	2.2	2.0	2.0	2.2	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.09	2.27																							
23-Feb	2.1	A	2.2	2.2	2.3	2.2	2.2	2.0	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	2.0	2.0	2.02	2.34																							
24-Feb	A	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.1	A	1.99	2.09																							
25-Feb	2.0	2.1	2.2	2.1	2.1	2.3	2.4	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	A	2.1	2.06	2.44																							
26-Feb	2.1	2.0	2.1	2.2	2.0	2.1	2.1	2.1	2.2	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	2.02	2.23																							
27-Feb	1.9	1.9	2.0	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	1.9	2.0	2.0	2.0	A	2.0	2.0	2.0	1.95	1.99																							
28-Feb	2.0	2.0	2.0	2.0	2.0	2.0	2.0	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	1.99	2.01																							
																								2.12	2.12	2.14	2.13	2.15	2.17	2.17	2.13	2.14	2.14	2.13	2.10	2.10	2.09	2.08	2.07	2.06	2.06	2.08	2.08	2.10	2.14	2.12	2.11	Diurnal Average	
																								2.61	2.62	2.63	2.54	2.62	2.64	2.59	2.68	2.64	2.68	2.73	2.72	2.71	2.64	2.59	2.62	2.47	2.43	2.63	2.76	2.47	2.96	2.59	2.55	Diurnal Maximum	
C - Calibration																								A - Automated Daily Zero Span																									

Hourly Averages

Methane (CH₄) - ppm
Henry Pirker - February 2018



Hourly Maximums

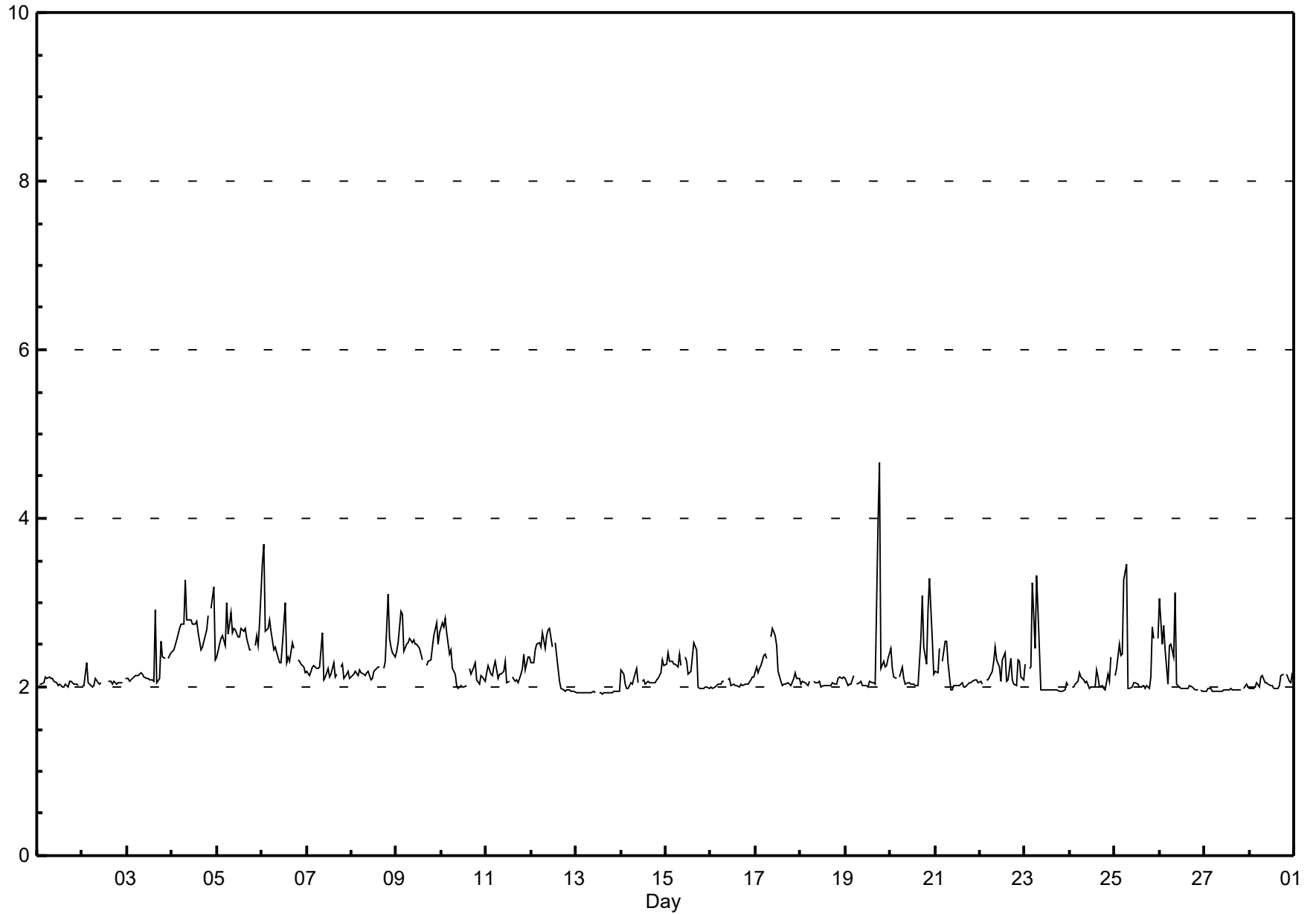
Methane (CH₄) - ppm

Henry Pirker - February 2018

Maximum Value: 4.66 ppm on Feb 19 19:00		Maximum Daily Average: 2.70 ppm on Feb 4		Hours in Service: 672																																												
Minimum Value: 1.9 ppm on Feb 13 15:00		Minimum Daily Average: 1.94 ppm on Feb 13		Hours of Data: 639																																												
Maximum Diurnal Average: 2.33 ppm at hour 7		Minimum Diurnal Average: 2.14 ppm at hour 15		Hours of Missing Data: 33																																												
Monthly Average: 2.219 ppm		Percentiles: P ₁ = 1.93 P ₁₀ = 1.97 Q ₁ = 2.02 Median = 2.10 Q ₃ = 2.33 P ₉₀ = 2.61 P ₉₉ = 3.28		Hours of Calibration: 33																																												
				Percent Operational Time: 100.0																																												
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum																						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																								
1-Feb	A	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	A	2.05	2.12																						
2-Feb	2.0	2.0	2.3	2.1	2.0	2.0	2.0	2.1	2.1	2.0	2.1	C	C	C	2.1	2.1	2.0	2.1	2.0	2.1	2.0	2.1	A	2.1	2.06	2.28																						
3-Feb	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.9	2.0	2.1	2.5	2.4	2.3	A	2.3	2.4	2.20	2.91																							
4-Feb	2.4	2.4	2.6	2.6	2.7	2.7	2.7	3.3	2.8	2.8	2.8	2.7	2.7	2.8	2.6	2.4	2.5	2.5	2.7	2.8	A	2.9	3.2	2.3	2.70	3.28																						
5-Feb	2.4	2.5	2.6	2.6	2.5	3.0	2.6	2.9	2.6	2.7	2.7	2.6	2.6	2.7	2.7	2.7	2.6	2.4	2.4	A	2.5	2.6	2.5	2.8	2.61	2.99																						
6-Feb	3.5	3.7	2.7	2.7	2.8	2.7	2.4	2.5	2.4	2.3	2.3	2.5	3.0	2.3	2.4	2.3	2.5	2.5	A	2.3	2.3	2.3	2.2	2.2	2.55	3.69																						
7-Feb	2.2	2.1	2.2	2.2	2.3	2.2	2.2	2.2	2.6	2.1	2.1	2.2	2.1	2.2	2.3	2.1	2.1	A	2.2	2.3	2.1	2.2	2.2	2.1	2.20	2.64																						
8-Feb	2.1	2.2	2.2	2.1	2.2	2.2	2.1	2.1	2.2	2.2	2.1	2.1	2.2	2.2	2.2	2.2	A	2.2	2.3	3.1	2.6	2.5	2.4	2.4	2.27	3.10																						
9-Feb	2.4	2.5	2.9	2.9	2.4	2.5	2.5	2.6	2.5	2.6	2.5	2.5	2.5	2.4	2.3	A	2.3	2.3	2.3	2.5	2.6	2.8	2.5	2.6	2.52	2.91																						
10-Feb	2.8	2.7	2.8	2.6	2.4	2.4	2.2	2.2	2.0	2.0	2.0	2.0	2.0	2.0	A	2.2	2.2	2.2	2.3	2.1	2.0	2.1	2.1	2.1	2.24	2.81																						
11-Feb	2.2	2.3	2.2	2.1	2.2	2.3	2.1	2.1	2.2	2.2	2.3	2.1	2.1	A	2.1	2.1	2.1	2.1	2.2	2.2	2.4	2.2	2.4	2.4	2.18	2.39																						
12-Feb	2.3	2.3	2.4	2.5	2.5	2.5	2.6	2.5	2.6	2.7	2.7	2.5	A	2.5	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.29	2.69																						
13-Feb	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	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.94	1.95																						
14-Feb	2.2	2.2	2.0	2.0	2.0	2.1	2.0	2.1	2.2	2.0	A	2.1	2.1	2.0	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.2	2.3	2.2	2.10	2.32																						
15-Feb	2.3	2.4	2.3	2.3	2.3	2.3	2.2	2.4	2.3	A	2.4	2.3	2.1	2.2	2.4	2.5	2.4	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.22	2.52																						
16-Feb	2.0	2.0	2.0	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	2.1	2.1	2.1	2.04	2.12																						
17-Feb	2.2	2.2	2.2	2.3	2.4	2.4	2.3	A	2.6	2.7	2.6	2.5	2.2	2.1	2.0	2.0	2.0	2.1	2.0	2.0	2.1	2.2	2.1	2.1	2.23	2.70																						
18-Feb	2.0	2.1	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	2.0	2.0	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.05	2.12																						
19-Feb	2.1	2.0	2.0	2.0	2.1	A	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	3.9	4.7	2.2	2.3	2.2	2.3	2.3	2.29	4.66																						
20-Feb	2.5	2.2	2.1	2.1	A	2.1	2.2	2.1	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.6	3.1	2.5	2.3	2.9	3.3	2.6	2.2	2.30	3.28																						
21-Feb	2.2	2.2	2.5	A	2.3	2.5	2.5	2.3	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.1	2.1	2.13	2.54																						
22-Feb	2.1	2.0	A	2.1	2.1	2.1	2.2	2.3	2.5	2.3	2.2	2.1	2.3	2.4	2.1	2.1	2.3	2.1	2.0	2.0	2.3	2.3	2.1	2.1	2.18	2.48																						
23-Feb	2.3	A	2.2	2.2	3.2	2.5	3.3	2.9	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	2.1	2.0	2.18	3.32																						
24-Feb	A	2.0	2.0	2.0	2.1	2.2	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.2	2.1	2.0	2.0	2.0	2.0	2.2	2.1	2.4	A	2.06	2.36																						
25-Feb	2.1	2.2	2.5	2.4	2.4	3.3	3.5	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.7	2.6	A	2.6	2.28	3.46																						
26-Feb	3.0	2.5	2.7	2.4	2.0	2.5	2.5	2.4	3.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.22	3.12																						
27-Feb	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	1.97	2.03																						
28-Feb	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	A	2.2	2.1	2.1	2.2	2.05	2.17																						
																								2.28	2.25	2.28	2.24	2.27	2.32	2.33	2.28	2.26	2.18	2.19	2.17	2.15	2.15	2.14	2.14	2.14	2.21	2.24	2.17	2.22	2.26	2.23	2.20	Diurnal Average
																								3.47	3.69	2.91	2.87	3.24	3.28	3.46	3.28	3.12	2.79	2.79	2.74	3.00	2.78	2.65	2.91	2.58	3.95	4.66	3.10	2.92	3.28	3.19	2.75	Diurnal Maximum
C - Calibration																								A - Automated Daily Zero Span																								

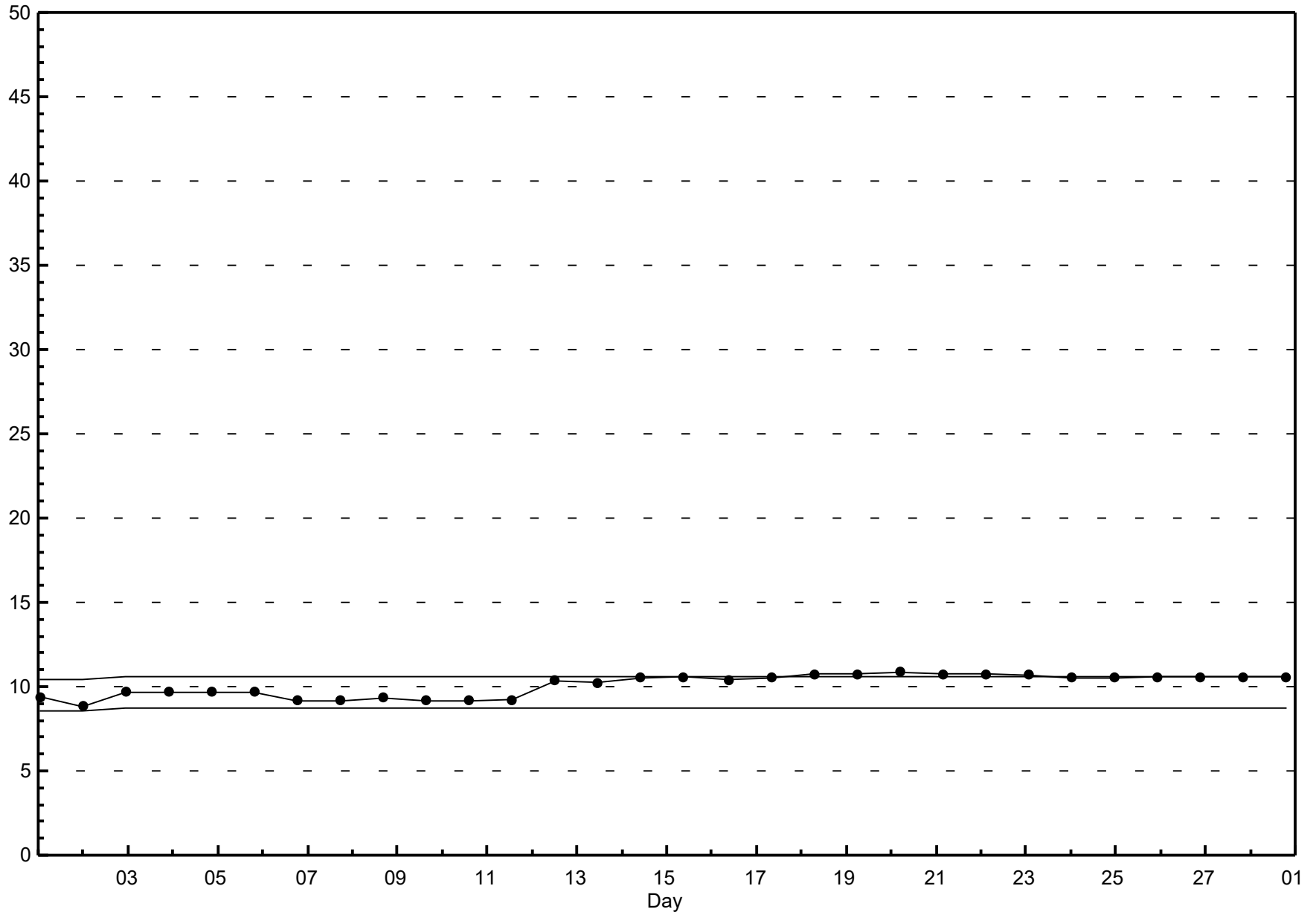
Hourly Maximums

Methane (CH₄) - ppm
Henry Pirker - February 2018



Span Responses

Methane (CH₄)
Henry Pirker - February 2018

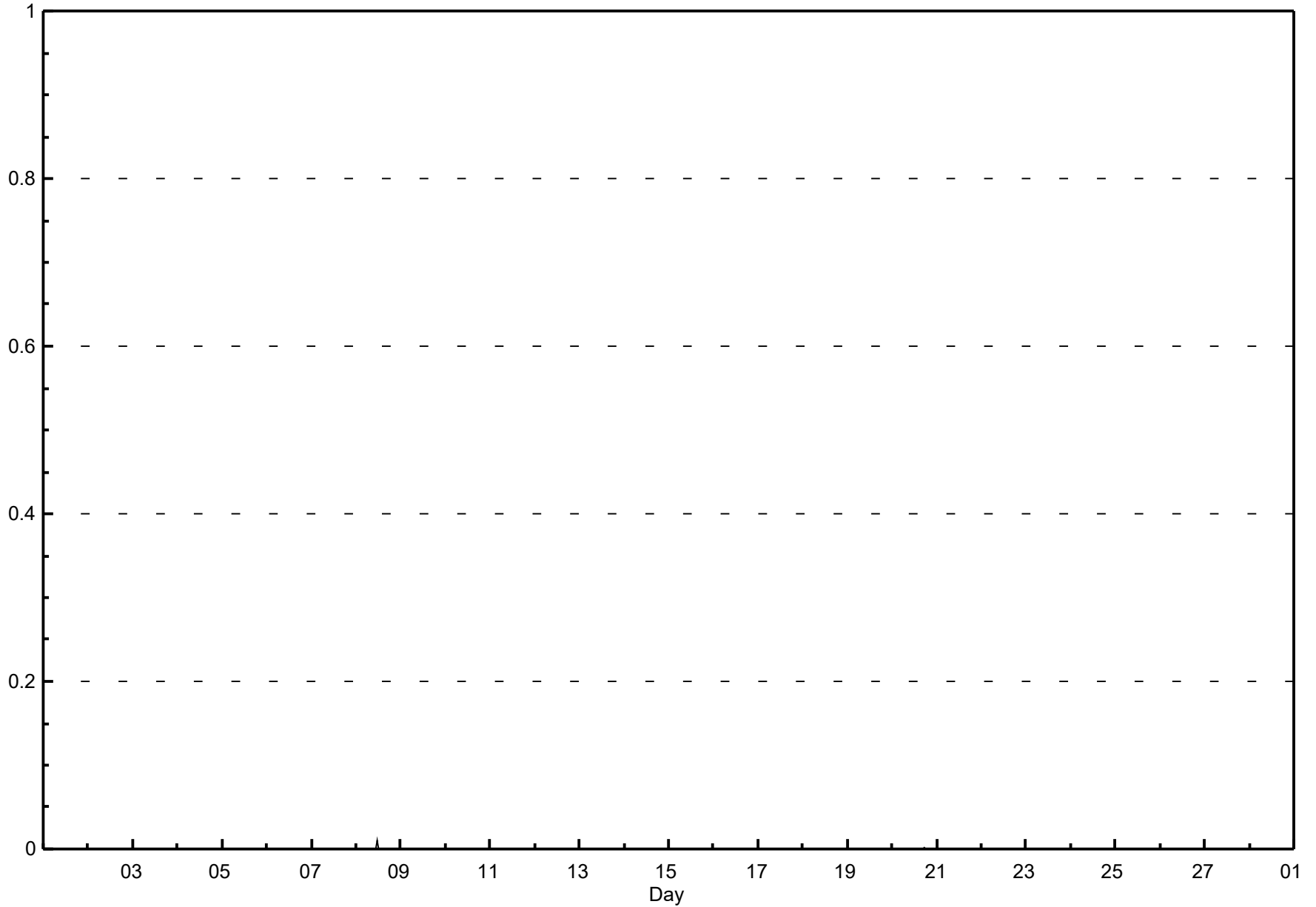


Hourly Averages

Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - February 2018

Maximum Value: 0.01 ppm on Feb 8 12:00 Maximum Daily Average: 0.00 ppm on Feb 8 Minimum Value: 0.0 ppm on Feb 1 02:00 Minimum Daily Average: 0.00 ppm on Feb 1 Maximum Diurnal Average: 0.00 ppm at hour 12 Minimum Diurnal Average: 0.00 ppm at hour 8 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 in Service: 672 Hours of Data: 639 Hours of Missing Data: 33 Hours of Calibration: 33 Percent Operational Time: 100.0		
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Feb	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
2-Feb	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.00	0.00
3-Feb	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	
4-Feb	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.00	
5-Feb	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.00	0.00	
6-Feb	0.0	0.0	0.0	0.0	0.0	0.0	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	0.00	0.00	0.00	0.00	
7-Feb	0.0	0.0	0.0	0.0	0.0	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	0.00	0.00	0.00	0.00	0.00	0.00
8-Feb	0.0	0.0	0.0	0.0	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	0.00	0.00	0.00	0.00	0.00	0.00	0.01
9-Feb	0.0	0.0	0.0	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10-Feb	0.0	0.0	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11-Feb	0.0	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12-Feb	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13-Feb	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14-Feb	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	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
15-Feb	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	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
16-Feb	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	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
17-Feb	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	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
18-Feb	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	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
19-Feb	0.0	0.0	0.0	0.0	0.0	A	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	0.00
20-Feb	0.0	0.0	0.0	0.0	A	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	0.00	0.00
21-Feb	0.0	0.0	0.0	A	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	0.00	0.00	0.00
22-Feb	0.0	0.0	A	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	0.00	0.00	0.00	0.00
23-Feb	0.0	A	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	0.00	0.00	0.00	0.00	0.00
24-Feb	A	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	0.00	0.00	0.00	A	0.00	0.00
25-Feb	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.00
26-Feb	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.00	0.00
27-Feb	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.00	0.00	0.00
28-Feb	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.00	0.00	0.00	0.00
0.00																								Diurnal Average		
0.00																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										

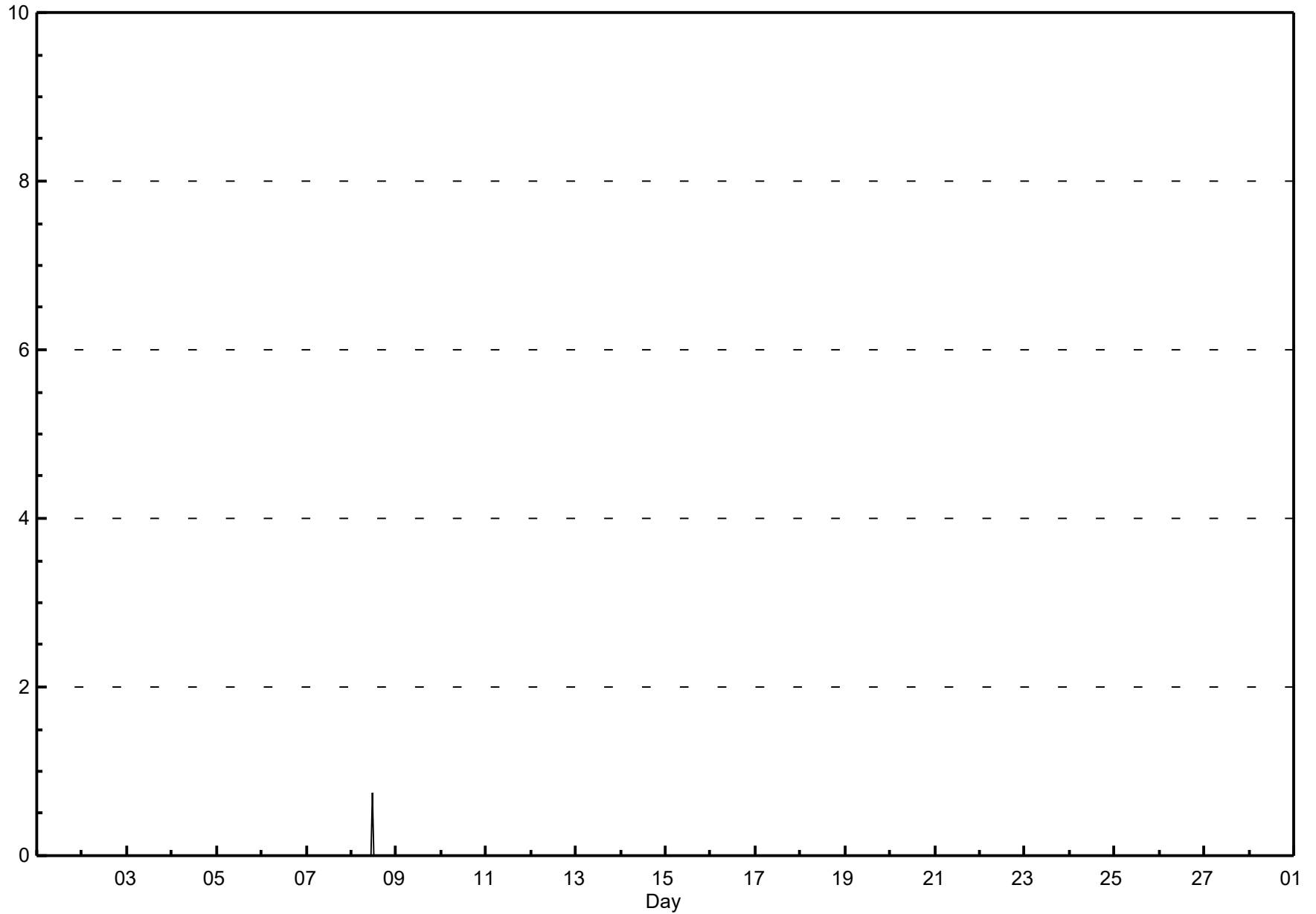


Hourly Maximums

Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - February 2018

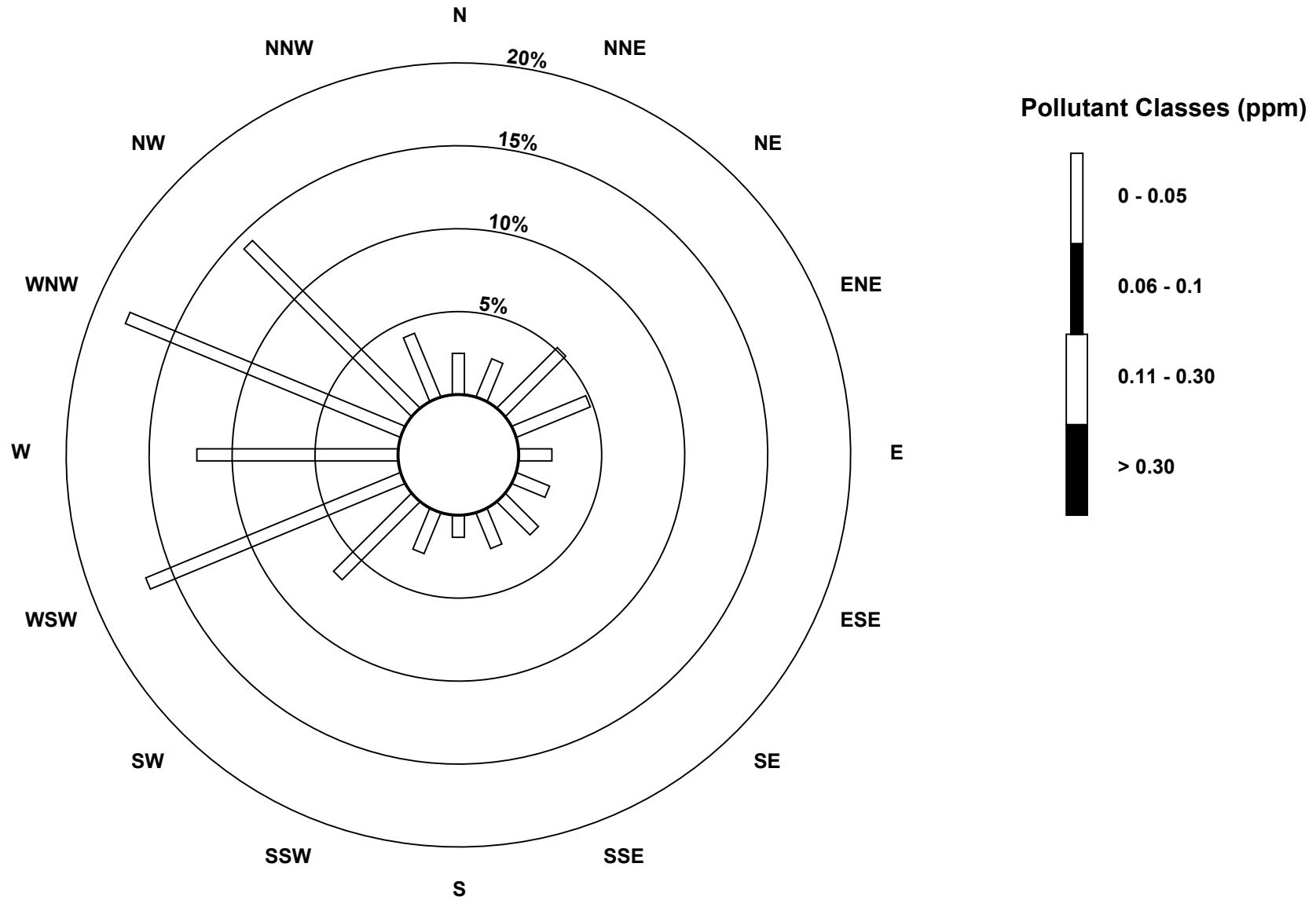
Maximum Value: 0.75 ppm on Feb 8 12:00													Maximum Daily Average: 0.03 ppm on Feb 8													Hours in Service: 672																							
Minimum Value: 0.0 ppm on Feb 10 05:00													Minimum Daily Average: 0.00 ppm on Feb 22													Hours of Data: 639																							
Maximum Diurnal Average: 0.03 ppm at hour 12													Minimum Diurnal Average: 0.00 ppm at hour 8													Hours of Missing Data: 33																							
Monthly Average: 0.002 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: 33																							
																										Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																									
1-Feb	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																							
2-Feb	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.00	0.00																							
3-Feb	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																							
4-Feb	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																							
5-Feb	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																							
6-Feb	0.0	0.0	0.0	0.0	0.0	0.0	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																							
7-Feb	0.0	0.0	0.0	0.0	0.0	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																							
8-Feb	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.03	0.75																							
9-Feb	0.0	0.0	0.0	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																							
10-Feb	0.0	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																							
11-Feb	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																							
12-Feb	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																							
13-Feb	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																							
14-Feb	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																							
15-Feb	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																							
16-Feb	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																							
17-Feb	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																							
18-Feb	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																							
19-Feb	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																							
20-Feb	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																							
21-Feb	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																							
22-Feb	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																							
23-Feb	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																							
24-Feb	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																							
25-Feb	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																							
26-Feb	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																							
27-Feb	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																							
28-Feb	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.75	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																									

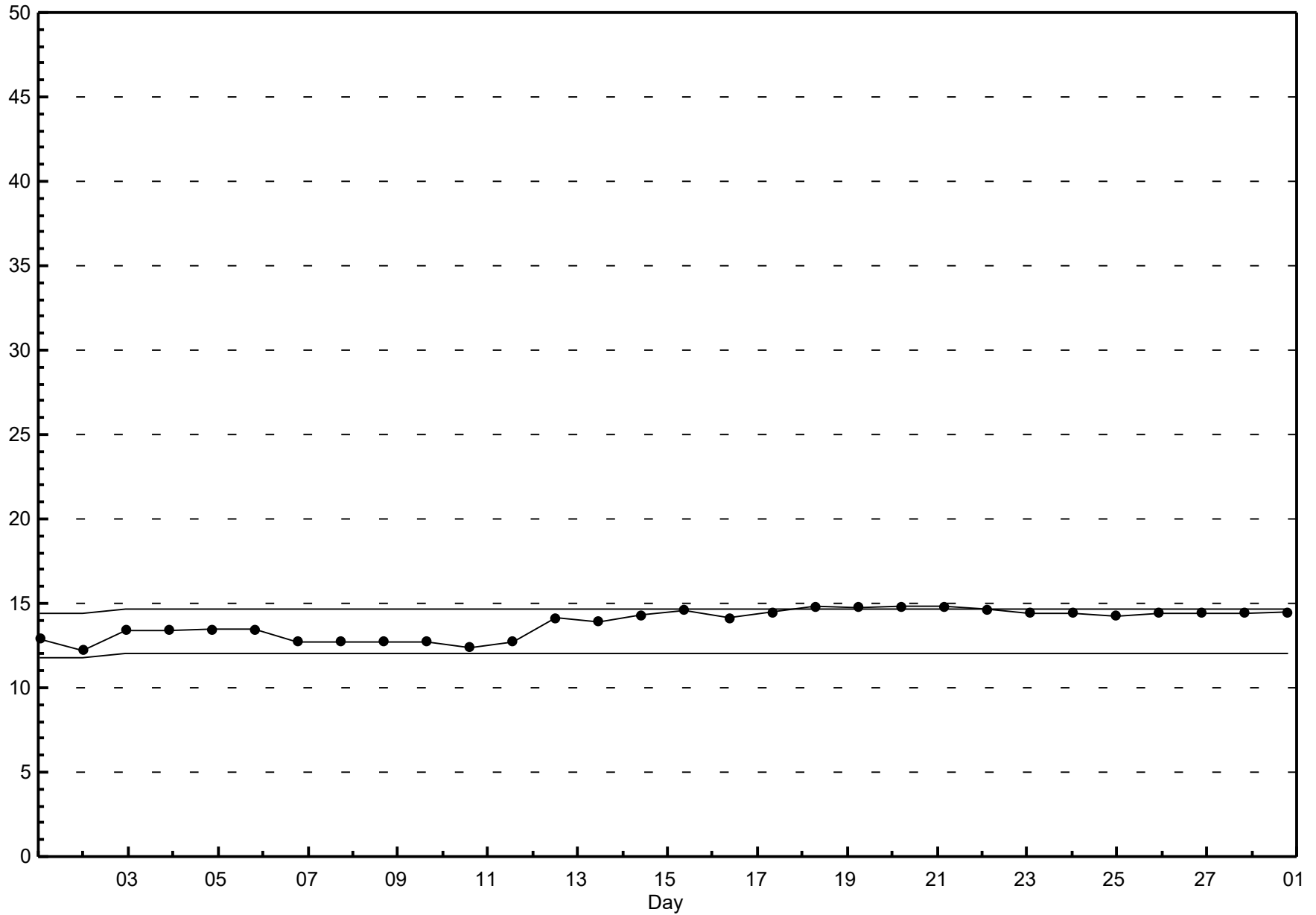


Pollutant Rose

Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - February 2018





Hourly Averages

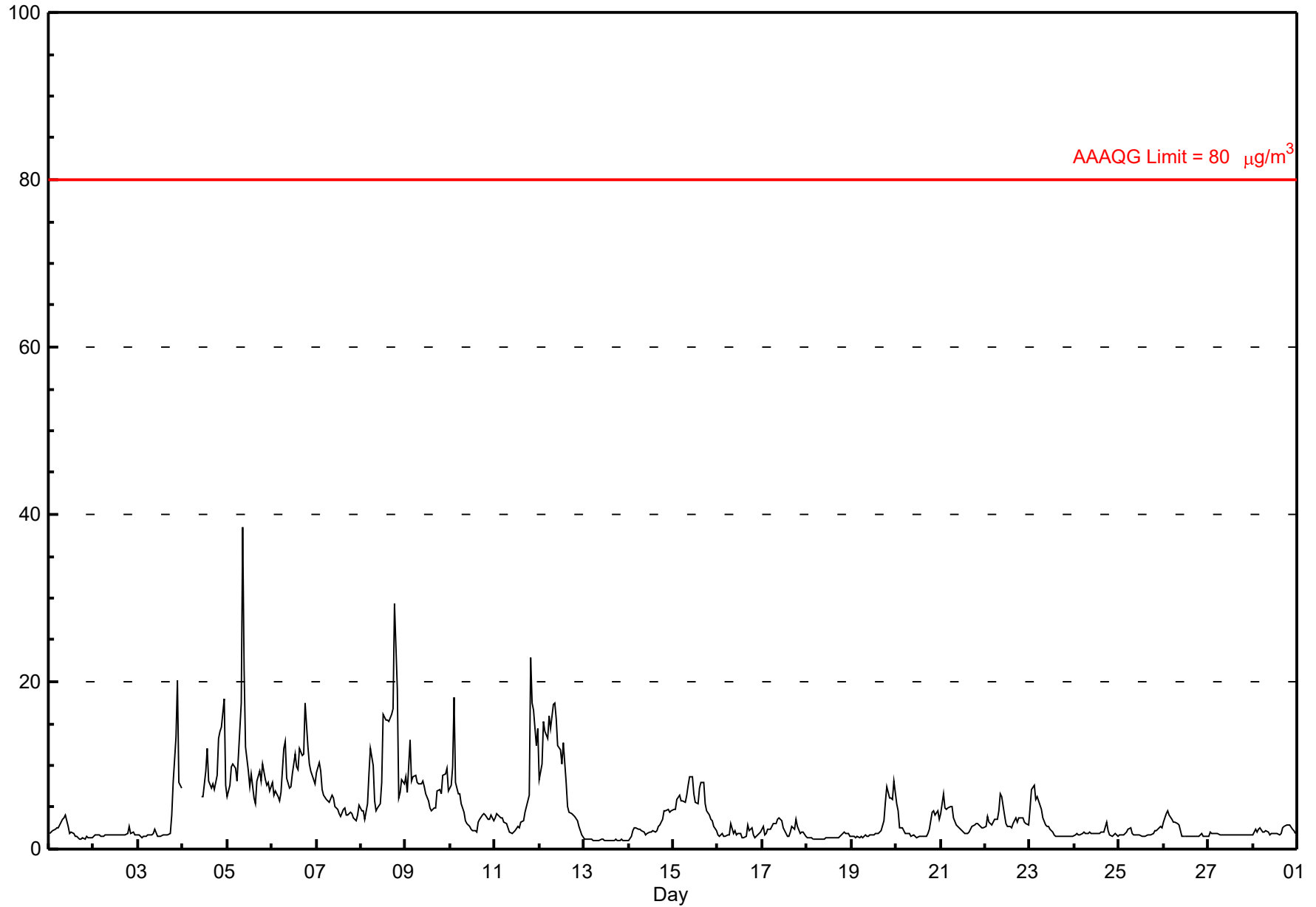
Particulate Matter 2.5 (PM_{2.5}) - µg/m³

Henry Pirker - February 2018

Number of Exceedences: 1-hr: 0 24-hr: 0	Hours in Service: 672
Maximum Value: 38.5 µg/m ³ on Feb 5 09:00	Maximum Daily Average: 10.7 µg/m ³ on Feb 5
Minimum Value: 1 µg/m ³ on Feb 14 00:00	Hours of Data: 662
Maximum Diurnal Average: 5.5 µg/m ³ at hour 20	Hours of Missing Data: 10
Monthly Average: 4.30 µg/m ³	Hours of Calibration: 0
Minimum Daily Average: 1.1 µg/m ³ on Feb 13	Percent Operational Time: 98.5
Minimum Diurnal Average: 3.5 µg/m ³ at hour 15	
Percentiles: P ₁ = 1.1 P ₁₀ = 1.5 Q ₁ = 1.7 Median = 2.6 Q ₃ = 5.6 P ₉₀ = 9.0 P ₉₉ = 18.0	

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-Feb	2	2	2	2	3	3	3	4	4	4	3	2	2	2	1	1	1	1	1	1	2	1	1	1	2.1	4.0
2-Feb	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2	2	2	2	1.7	2.7
3-Feb	2	2	1	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	4	8	13	20	8	7	3.8	20.2
4-Feb	N	N	N	N	N	N	N	N	N	N	6	6	9	12	8	7	8	7	9	13	14	15	18	8	--	18.0
5-Feb	6	8	10	10	10	8	11	17	38	22	12	9	8	9	6	5	8	9	8	10	8	8	8	7	10.7	38.5
6-Feb	8	6	7	6	6	7	12	13	8	7	7	9	11	10	10	12	11	11	17	12	10	9	8	8	9.5	17.4
7-Feb	9	10	9	7	6	6	6	6	6	6	5	5	4	4	5	5	4	4	4	4	4	3	4	5	5.5	10.3
8-Feb	5	5	3	5	9	12	10	6	5	5	5	8	16	15	15	15	16	17	29	19	6	7	8	8	10.4	29.2
9-Feb	9	7	13	8	9	9	8	8	8	8	7	6	5	5	5	5	7	7	7	9	9	10	7	7	7.5	13.1
10-Feb	8	10	18	8	7	7	5	4	3	3	3	2	2	2	3	3	4	4	4	4	4	4	4	3	4.9	18.1
11-Feb	4	4	4	4	4	3	3	3	2	2	2	2	3	3	3	3	4	5	7	23	17	17	12	14	6.2	22.9
12-Feb	8	10	15	14	13	16	14	17	17	16	12	12	10	13	8	5	4	4	4	4	3	3	2	2	9.5	17.5
13-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.3
14-Feb	1	2	2	3	3	2	2	2	2	2	2	2	2	2	2	2	3	3	4	5	5	5	4	5	2.7	4.7
15-Feb	5	5	6	6	6	6	6	6	8	9	9	7	6	5	7	8	8	5	5	4	4	3	3	2	5.7	8.7
16-Feb	2	2	2	1	2	2	2	3	2	2	2	2	2	1	1	1	3	2	3	2	1	2	2	2	1.9	3.0
17-Feb	3	2	2	2	2	3	3	3	3	4	3	3	2	1	2	2	3	2	4	3	2	2	2	1	2.5	3.7
18-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	1.4	2.1
19-Feb	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	3	6	7	6	6	6	8	2.9	8.1
20-Feb	5	5	3	2	2	2	2	2	2	2	2	1	1	2	2	1	2	2	2	4	5	4	5	4	2.6	5.3
21-Feb	4	7	5	5	5	5	5	4	3	3	3	2	2	2	2	2	2	3	3	3	3	3	3	3	3.3	6.7
22-Feb	3	4	3	3	3	4	4	5	7	6	4	3	3	3	3	3	4	3	4	4	4	3	3	3	3.6	6.6
23-Feb	5	7	8	6	6	5	5	4	3	3	3	2	2	2	2	1	1	2	2	2	1	2	2	2	3.1	7.6
24-Feb	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2	1.9	3.2
25-Feb	2	2	2	2	2	2	3	2	2	2	2	2	2	1	2	2	2	2	2	2	2	2	3	3	1.9	2.7
26-Feb	3	4	5	4	4	3	3	3	3	2	2	1	1	2	2	1	1	2	2	1	2	1	1	2	2.3	4.6
27-Feb	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1.7	2.0
28-Feb	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	2	2	2	2.2	2.9
	3.8	4.2	4.9	4.2	4.2	4.3	4.4	4.6	5.2	4.4	3.8	3.6	3.8	3.9	3.5	3.6	3.9	4.0	5.0	5.5	4.9	5.0	4.6	4.0	Diurnal Average	
	9.2	10.3	18.1	14.1	13.2	16.0	14.3	17.5	38.5	21.6	12.4	11.9	16.1	15.5	15.4	15.3	16.2	16.8	29.2	22.9	17.4	20.2	18.0	14.5	Diurnal Maximum	

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

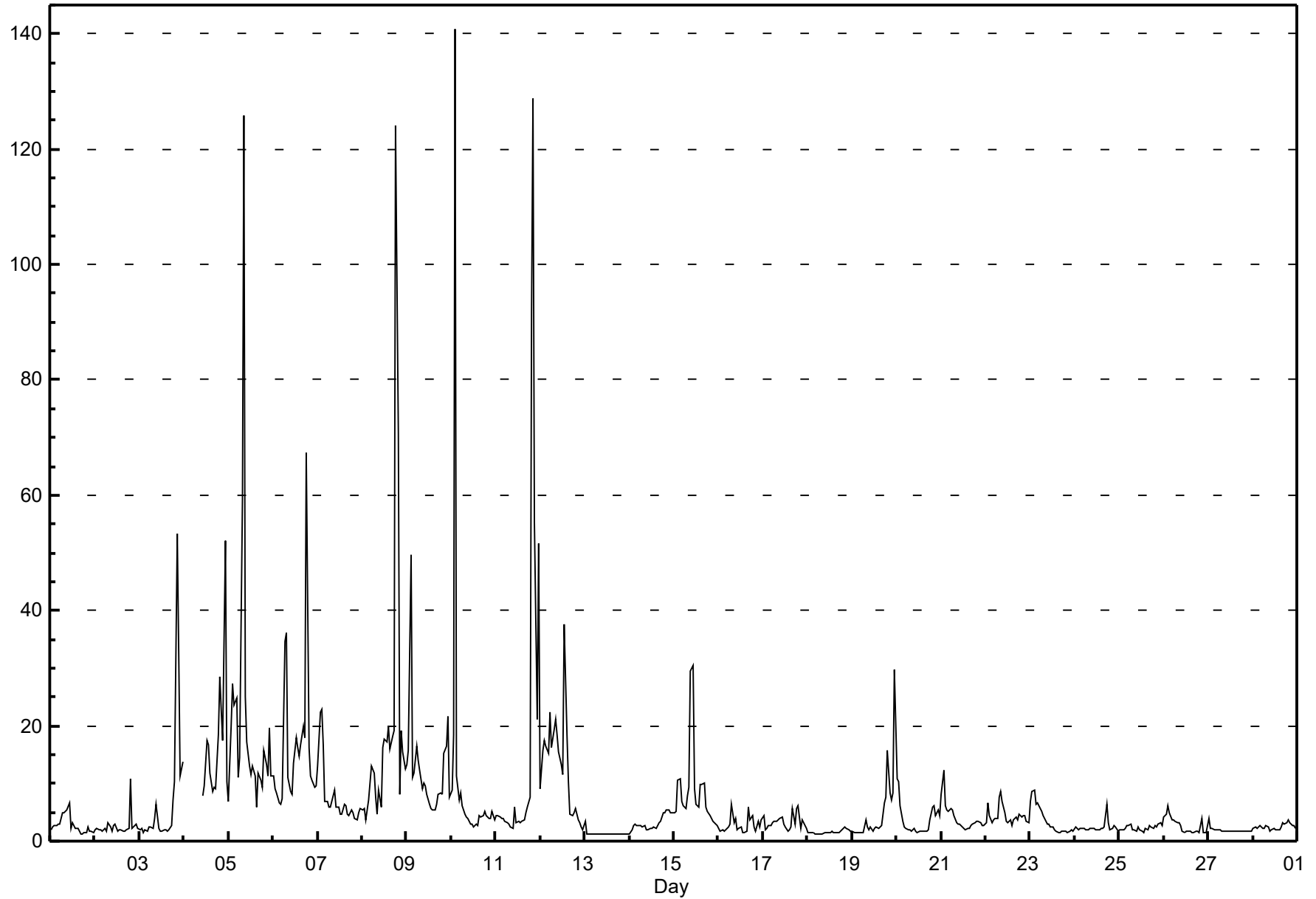


Hourly Maximums

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

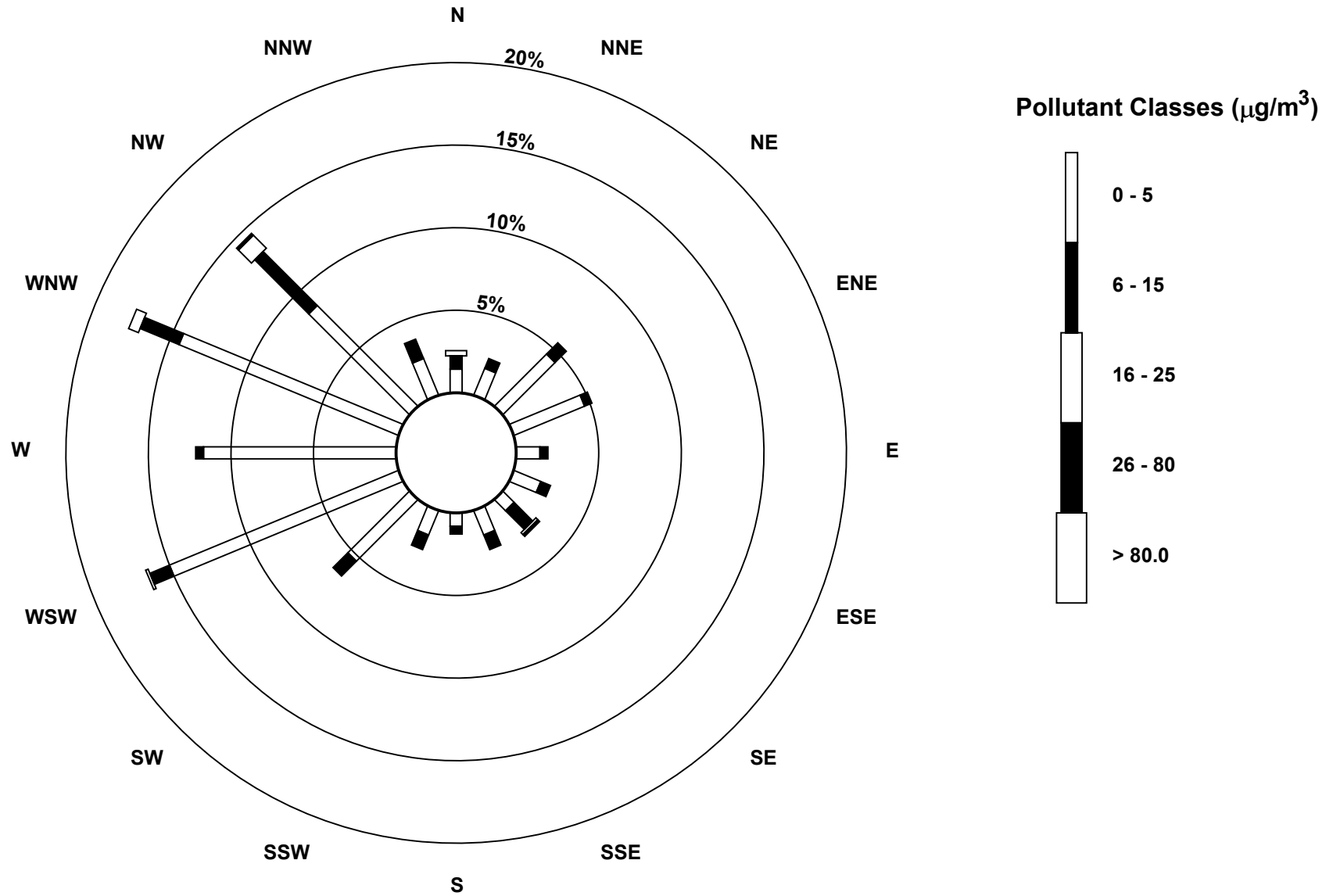
Henry Pirker - February 2018

Maximum Value: 140.7 µg/m³ on Feb 10 03:00		Maximum Daily Average: 21.4 µg/m³ on Feb 5		Hours in Service: 672 Hours of Data: 662 Hours of Missing Data: 10 Hours of Calibration: 0 Percent Operational Time: 98.5																																													
Minimum Value: 1 µg/m³ on Feb 13 03:00 Maximum Diurnal Average: 12.6 µg/m³ at hour 3 Monthly Average: 7.03 µg/m³		Minimum Daily Average: 1.3 µg/m³ on Feb 13 Minimum Diurnal Average: 4.4 µg/m³ at hour 16 Percentiles: P ₁ = 1.2 P ₁₀ = 1.5 Q ₁ = 2.0 Median = 3.2 Q ₃ = 6.8 P ₉₀ = 15.6 P ₉₉ = 62.6																																															
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-Feb	2	2	3	3	3	3	5	5	5	6	7	2	3	2	2	2	1	1	1	1	2	2	2	1	2.8	6.6																							
2-Feb	2	2	2	2	2	2	2	3	2	2	3	3	2	2	2	2	2	2	2	11	2	3	3	2	2.5	10.7																							
3-Feb	2	2	2	2	2	2	2	2	4	6	2	2	2	2	2	2	3	7	10	53	33	11	14	7.1	53.3																								
4-Feb	N	N	N	N	N	N	N	N	N	N	8	10	17	17	12	9	9	9	18	28	23	17	52	10	--	52.0																							
5-Feb	7	20	27	24	25	11	14	60	126	25	17	13	12	13	11	6	12	11	9	16	13	11	20	11	21.4	125.9																							
6-Feb	11	9	8	7	6	7	35	36	11	9	8	13	18	16	15	17	20	18	67	16	11	11	9	10	16.2	67.3																							
7-Feb	13	22	23	17	7	7	6	6	8	9	6	6	5	5	6	6	5	5	6	5	4	4	5	6	7.9	22.9																							
8-Feb	6	6	4	7	10	13	12	8	5	9	6	16	18	17	20	16	18	19	124	71	8	19	15	13	19.1	124.0																							
9-Feb	13	16	50	11	12	17	14	12	9	10	10	8	6	6	5	5	6	8	8	8	15	16	22	8	12.4	49.6																							
10-Feb	9	18	141	11	7	8	6	5	4	4	3	3	2	3	3	5	4	5	5	4	4	4	5	4	11.1	140.7																							
11-Feb	4	4	4	4	4	3	3	3	2	2	6	3	3	3	3	4	5	6	8	92	129	55	21	52	17.7	128.7																							
12-Feb	9	16	17	16	15	22	16	20	21	18	16	13	12	38	18	10	5	4	5	6	4	3	2	2	12.9	37.5																							
13-Feb	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.3	3.5																							
14-Feb	1	2	3	3	3	3	3	2	3	2	2	2	2	2	2	3	3	3	5	5	6	5	5	5	3.1	5.5																							
15-Feb	5	5	11	11	7	6	6	8	9	30	30	9	6	6	10	10	10	6	5	4	4	3	3	3	8.6	30.4																							
16-Feb	2	2	2	2	2	2	3	6	3	4	2	2	2	2	1	2	6	4	4	2	2	4	2	4	2.8	6.5																							
17-Feb	4	2	2	3	3	3	3	3	4	4	4	3	2	2	2	2	6	3	6	6	2	4	3	2	3.3	6.3																							
18-Feb	2	2	1	1	1	1	1	1	1	1	2	2	2	2	2	2	1	2	2	2	2	2	2	2	1.6	2.3																							
19-Feb	2	2	2	2	2	2	2	4	2	2	2	2	2	2	2	2	3	7	8	16	8	7	8	30	4.9	29.6																							
20-Feb	11	10	6	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	4	6	6	4	6	4	3.6	10.7																							
21-Feb	8	12	6	5	5	6	6	5	3	3	3	2	2	2	2	2	3	3	3	3	4	3	3	3	4.0	12.3																							
22-Feb	3	7	4	3	4	4	4	8	9	7	5	3	3	4	3	4	4	4	5	4	4	4	3	3	4.4	8.7																							
23-Feb	7	9	9	6	7	6	5	4	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	3.6	8.8																							
24-Feb	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	6	3	2	2	3	2	2	2.4	6.4																							
25-Feb	2	2	2	2	3	3	3	2	2	2	2	2	2	2	2	2	3	2	2	3	2	3	3	3	2.3	3.1																							
26-Feb	4	5	6	5	4	4	3	3	3	3	2	2	2	2	2	2	2	2	2	2	4	2	2	2	2.7	6.1																							
27-Feb	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1.9	3.9																							
28-Feb	2	2	2	2	3	2	2	3	2	2	2	2	2	2	2	2	3	3	3	4	3	3	3	2	2.5	3.6																							
																								5.2	6.8	12.6	5.8	5.3	5.4	6.0	8.0	9.3	6.2	5.6	4.7	4.9	5.6	4.9	4.4	5.0	5.0	11.3	11.9	11.5	8.2	7.8	7.1	Diurnal Average	
																								13.2	22.3	140.7	23.7	24.9	22.3	34.6	59.6	125.9	29.6	30.4	16.1	17.8	37.5	20.0	16.7	20.0	19.3	124.0	91.8	128.7	55.3	52.0	51.6	Diurnal Maximum	
N - Not Valid																																																	



Pollutant Rose

Particulate Matter 2.5 (PM_{2.5}) - μg/m³
Henry Pirker - February 2018

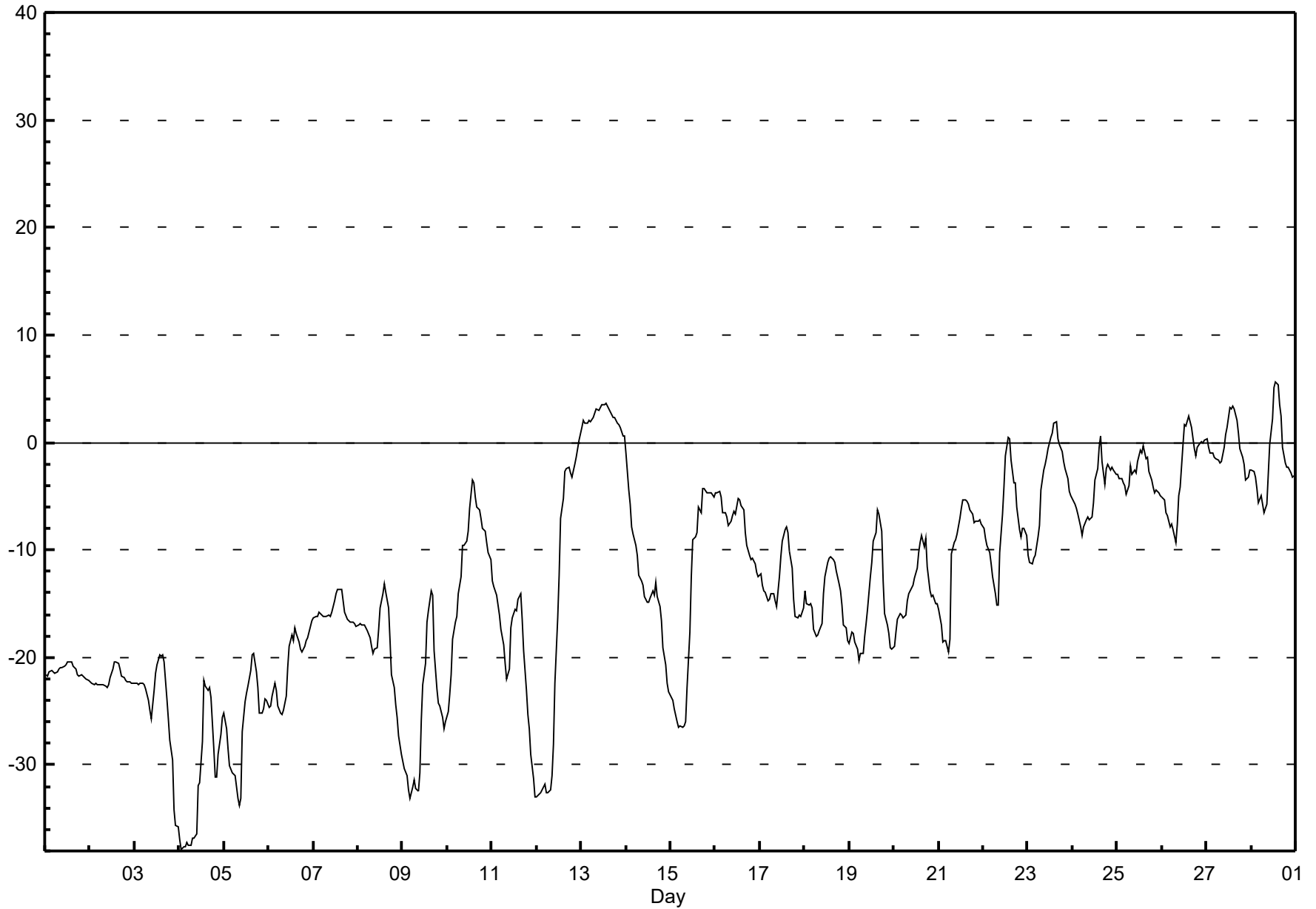


Hourly Averages

External Temperature (ET) - °C

Henry Pirker - February 2018

Maximum Value: 5.6 °C on Feb 28 14:00																				Maximum Daily Average: 2.3 °C on Feb 13																				Hours in Service: 672	
Minimum Value: -38 °C on Feb 4 02:00																				Minimum Daily Average: -31.3 °C on Feb 4																				Hours of Data: 672	
Maximum Diurnal Average: -8.6 °C at hour 16																				Minimum Diurnal Average: -16.7 °C at hour 7																				Hours of Missing Data: 0	
Monthly Average: -13.49 °C																				Percentiles: P₁ = -36.9 P₁₀ = -25.8 Q₁ = -21.1 Median = -14.0 Q₃ = -5.1 P₉₀ = -0.6 P₉₉ = 3.4																				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-Feb	-22	-22	-21	-21	-21	-22	-21	-21	-21	-21	-21	-21	-20	-20	-21	-21	-22	-22	-22	-22	-22	-22	-22	-22	-21.3	-20.4															
2-Feb	-22	-22	-22	-22	-22	-23	-23	-22	-23	-23	-22	-22	-21	-20	-20	-21	-21	-22	-22	-22	-22	-22	-22	-22	-22.0	-20.4															
3-Feb	-22	-22	-23	-22	-22	-22	-23	-24	-25	-26	-23	-21	-21	-20	-20	-20	-20	-24	-26	-28	-30	-34	-36	-36	-24.6	-19.7															
4-Feb	-37	-38	-38	-38	-37	-37	-38	-37	-37	-36	-32	-32	-28	-22	-23	-23	-23	-24	-29	-31	-31	-29	-27	-26	-31.3	-22.1															
5-Feb	-25	-27	-29	-30	-31	-31	-31	-33	-34	-33	-27	-24	-23	-23	-21	-20	-20	-21	-23	-25	-25	-25	-24	-24	-26.2	-19.6															
6-Feb	-25	-25	-24	-22	-23	-24	-25	-25	-25	-24	-21	-19	-18	-18	-17	-18	-19	-19	-19	-19	-18	-18	-17	-17	-20.8	-16.6															
7-Feb	-16	-16	-16	-16	-16	-16	-16	-16	-16	-16	-16	-15	-14	-14	-14	-14	-15	-16	-16	-17	-17	-17	-17	-17	-15.8	-13.6															
8-Feb	-17	-17	-17	-17	-17	-18	-18	-19	-20	-19	-19	-17	-15	-14	-13	-14	-15	-18	-22	-23	-24	-26	-27	-29	-19.0	-13.2															
9-Feb	-30	-30	-31	-32	-33	-32	-31	-32	-32	-31	-26	-23	-21	-17	-16	-14	-14	-19	-23	-24	-25	-26	-27	-26	-25.6	-13.8															
10-Feb	-25	-23	-22	-18	-17	-16	-14	-13	-10	-10	-9	-8	-6	-3	-4	-5	-6	-6	-7	-8	-8	-9	-10	-11	-11.2	-3.4															
11-Feb	-13	-13	-14	-15	-16	-17	-19	-21	-22	-21	-17	-16	-16	-15	-14	-16	-19	-23	-25	-27	-29	-31	-33	-19.5	-12.9																
12-Feb	-33	-33	-33	-32	-32	-33	-33	-32	-31	-28	-22	-16	-12	-7	-5	-3	-2	-2	-3	-3	-2	-1	-1	0	-16.7	0.3															
13-Feb	1	2	2	2	2	2	2	3	3	3	3	3	3	4	3	3	3	2	2	2	2	1	1	1	2.3	3.6															
14-Feb	-1	-4	-6	-8	-9	-10	-11	-12	-13	-13	-14	-15	-15	-14	-14	-14	-13	-14	-15	-17	-19	-21	-22	-23	-13.2	-1.0															
15-Feb	-24	-24	-25	-26	-27	-26	-26	-26	-26	-23	-18	-12	-9	-9	-8	-6	-7	-4	-4	-5	-5	-5	-5	-5	-14.8	-4.2															
16-Feb	-5	-5	-5	-5	-7	-7	-7	-8	-7	-7	-6	-7	-5	-5	-6	-6	-8	-10	-10	-11	-11	-11	-12	-13	-7.6	-4.6															
17-Feb	-12	-13	-14	-14	-15	-15	-14	-14	-15	-15	-13	-11	-9	-8	-8	-8	-10	-12	-15	-16	-16	-16	-16	-15	-13.1	-7.8															
18-Feb	-14	-15	-15	-15	-15	-17	-18	-18	-18	-17	-14	-12	-11	-11	-11	-11	-11	-12	-13	-14	-15	-17	-17	-18	-14.6	-10.6															
19-Feb	-19	-18	-18	-19	-19	-20	-20	-20	-18	-17	-15	-12	-11	-9	-8	-6	-7	-8	-13	-16	-17	-18	-19	-19	-15.2	-6.3															
20-Feb	-19	-18	-16	-16	-16	-16	-16	-15	-14	-13	-13	-13	-12	-10	-9	-9	-10	-9	-12	-14	-14	-14	-15	-15	-13.7	-8.7															
21-Feb	-16	-17	-19	-18	-18	-19	-18	-10	-9	-9	-9	-7	-6	-5	-5	-5	-6	-6	-7	-7	-7	-7	-7	-8	-10.3	-5.3															
22-Feb	-8	-9	-10	-10	-11	-12	-14	-15	-15	-10	-7	-4	-1	1	0	-2	-4	-4	-6	-8	-9	-8	-8	-9	-7.6	0.5															
23-Feb	-11	-11	-11	-11	-11	-9	-8	-4	-3	-2	-1	-1	0	1	2	2	0	0	-1	-2	-2	-3	-5	-5	-3.9	2.0															
24-Feb	-5	-6	-6	-7	-8	-9	-8	-7	-7	-7	-7	-6	-4	-2	0	1	-2	-4	-2	-2	-3	-2	-3	-3	-4.5	0.6															
25-Feb	-3	-3	-3	-4	-4	-5	-4	-2	-3	-3	-3	-2	-1	-1	0	-2	-1	-3	-4	-4	-5	-4	-5	-5	-3.0	-0.3															
26-Feb	-5	-5	-7	-7	-8	-8	-8	-9	-8	-5	-4	0	2	1	2	2	1	-1	-1	0	0	0	0	0	-2.8	2.4															
27-Feb	0	0	-1	-1	-1	-2	-2	-2	-2	-1	1	1	3	3	3	3	2	1	-1	-1	-2	-4	-3	-3	-0.3	3.4															
28-Feb	-3	-3	-3	-4	-6	-5	-6	-7	-6	-3	0	2	5	6	5	3	2	0	-2	-2	-2	-3	-3	-3	-1.5	5.6															
																								Diurnal Average																	
																								Diurnal Maximum																	



Hourly Averages

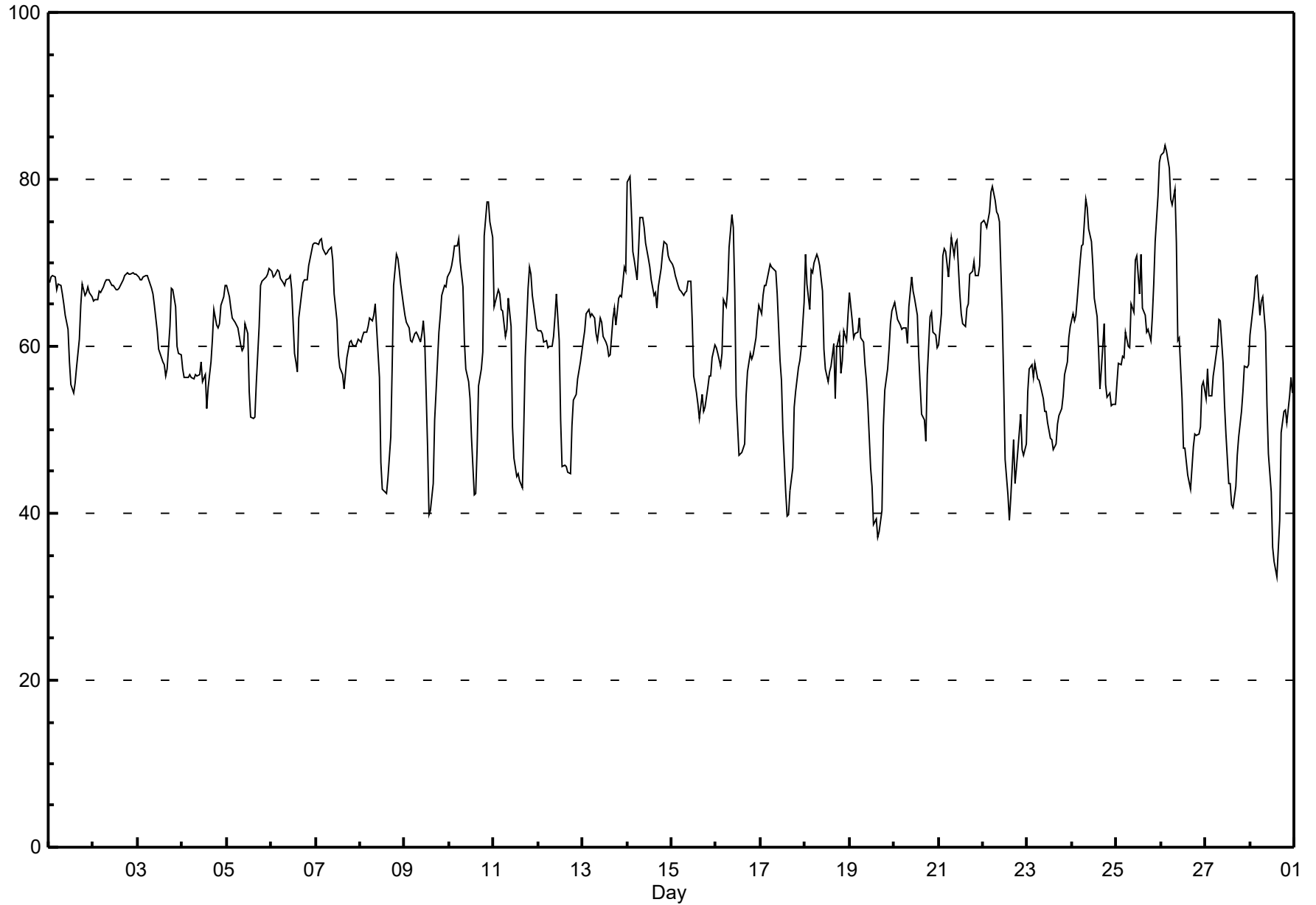
Relative Humidity (RH) - %

Henry Pirker - February 2018

Maximum Value: 84.1 % on Feb 26 03:00		Maximum Daily Average: 71.4 % on Feb 14																		Hours in Service: 672							
Minimum Value: 32 % on Feb 28 15:00		Minimum Daily Average: 52.8 % on Feb 27																		Hours of Data: 672							
Maximum Diurnal Average: 66.3 % at hour 8		Minimum Diurnal Average: 50.8 % at hour 15																		Hours of Missing Data: 0							
Monthly Average: 61.24 %		Percentiles: P ₁ = 39.0 P ₁₀ = 48.4 Q ₁ = 56.2 Median = 62.2 Q ₃ = 67.5 P ₉₀ = 71.1 P ₉₉ = 79.8																		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-Feb	68	68	68	68	67	67	67	66	65	64	62	58	55	54	56	57	61	65	67	66	66	67	66	66	64.1	68.5	
2-Feb	65	66	66	67	66	67	68	68	68	68	67	67	67	67	67	68	68	68	69	69	69	69	69	69	67.5	68.7	
3-Feb	68	68	68	68	68	68	68	67	66	65	62	60	59	58	58	56	57	62	67	67	65	60	59	59	63.5	68.5	
4-Feb	57	56	56	56	57	56	56	57	56	57	58	56	57	52	55	58	61	64	63	62	63	65	66	67	58.8	67.3	
5-Feb	67	66	65	63	63	62	62	60	59	60	63	62	55	52	51	52	56	62	67	68	68	68	69	69	62.0	69.4	
6-Feb	69	68	68	69	69	68	68	67	68	68	68	67	59	58	57	63	66	68	68	68	70	71	72	72	67.1	72.4	
7-Feb	72	72	73	73	72	71	71	72	72	70	66	63	59	57	57	55	57	59	60	61	60	60	60	61	64.7	72.9	
8-Feb	61	61	62	62	62	63	63	64	65	62	56	46	43	42	42	44	49	58	67	71	71	69	67	65	59.0	71.1	
9-Feb	64	63	62	61	61	61	62	61	61	62	63	61	48	40	40	44	51	55	62	64	66	67	67	68	58.8	68.4	
10-Feb	69	70	71	72	72	73	70	67	61	57	56	54	49	42	42	48	55	57	59	73	77	77	75	73	63.3	77.2	
11-Feb	65	66	67	66	64	64	61	62	66	62	50	47	44	45	44	43	51	59	67	69	69	66	64	62	59.3	69.4	
12-Feb	62	62	62	61	61	60	60	60	61	63	66	61	51	46	46	46	45	45	51	54	54	56	57	58	56.1	66.3	
13-Feb	61	62	64	64	64	64	63	61	61	63	63	61	60	60	59	59	63	65	63	66	66	66	70	69	63.2	69.5	
14-Feb	80	80	76	71	70	68	71	75	75	74	72	70	69	68	66	66	65	67	69	71	72	72	71	70	71.4	80.3	
15-Feb	70	69	68	67	67	67	66	66	67	68	68	63	56	54	53	51	54	52	53	55	56	57	59	60	61.1	69.8	
16-Feb	60	59	58	59	66	65	67	72	76	74	67	54	47	47	47	48	54	57	59	58	59	61	63	65	60.1	75.7	
17-Feb	64	66	67	67	69	70	69	69	69	66	58	56	50	43	40	40	43	45	53	55	57	58	60	65	58.3	69.9	
18-Feb	71	67	64	69	69	70	71	70	70	67	60	57	56	57	58	60	54	60	61	57	58	62	61	64	63.0	71.1	
19-Feb	66	63	61	62	62	63	61	61	58	56	53	45	43	39	39	37	38	40	50	55	57	60	63	64	54.0	66.4	
20-Feb	65	64	63	63	62	62	62	60	65	68	67	66	64	59	55	52	51	49	57	64	64	62	61	60	61.0	68.2	
21-Feb	60	64	71	72	71	68	71	73	71	72	73	66	64	63	62	65	65	69	69	70	68	69	70	75	68.4	74.8	
22-Feb	75	75	74	76	78	79	77	76	76	75	64	56	46	42	39	42	49	43	46	50	52	48	47	48	59.7	79.1	
23-Feb	55	57	58	56	58	56	56	55	54	52	52	51	49	49	48	48	51	52	53	54	57	58	61	62	54.2	62.4	
24-Feb	64	63	64	66	70	72	72	78	77	74	73	70	66	64	60	55	57	63	55	54	54	53	53	53	63.7	77.7	
25-Feb	56	58	58	59	59	62	60	60	65	64	70	71	66	71	65	64	62	62	61	64	67	73	78	82	64.7	82.0	
26-Feb	83	83	84	83	81	78	77	79	72	61	61	54	48	48	45	44	43	48	49	49	49	50	55	56	61.7	84.1	
27-Feb	54	57	54	54	56	58	60	63	63	58	53	49	44	43	41	41	43	47	49	52	55	58	57	58	52.8	63.2	
28-Feb	61	64	66	68	69	64	65	66	62	53	47	43	36	34	32	36	39	50	52	52	51	54	56	54	53.1	68.6	
		65.4	65.7	65.6	65.8	66.2	66.0	65.9	66.3	66.0	64.4	62.1	58.3	54.0	51.9	50.8	51.5	53.8	56.8	59.5	61.3	62.2	62.7	63.4	64.2	Diurnal Average	
		82.8	83.2	84.1	83.4	81.4	79.1	77.5	78.8	76.6	74.9	72.8	70.9	69.5	71.0	66.9	67.6	68.0	68.6	69.4	73.2	77.2	77.2	77.9	82.0	Diurnal Maximum	

Hourly Averages

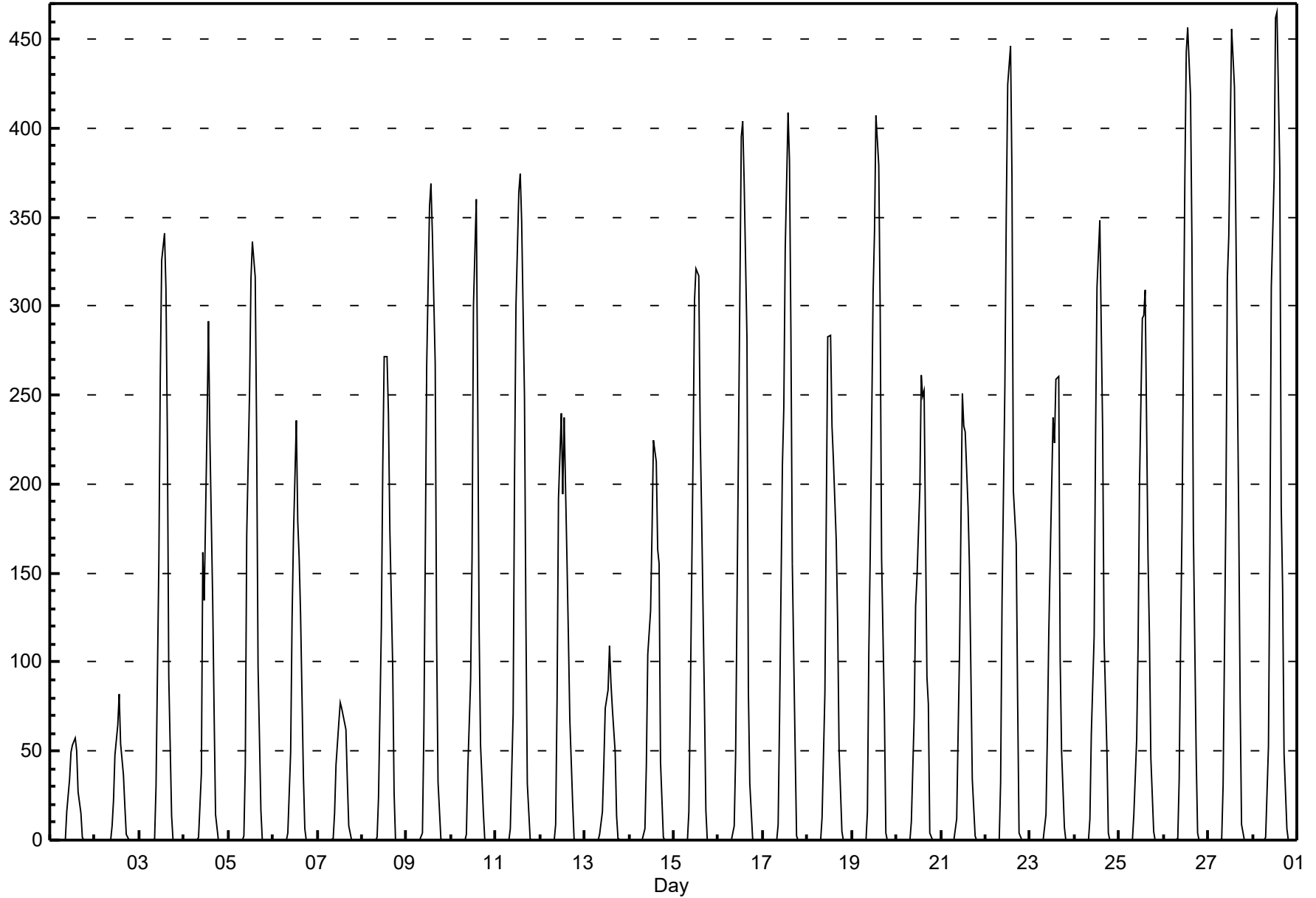
Relative Humidity (RH) - %
Henry Pirker - February 2018



Hourly Averages

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

Maximum Value: 465.1 W/m² on Feb 28 14:00		Maximum Daily Average: 117.1 W/m² on Feb 27		Hours in Service: 672																						
Minimum Value: 0 W/m² on Feb 1 01:00		Minimum Daily Average: 12.7 W/m² on Feb 1		Hours of Data: 672																						
Maximum Diurnal Average: 294.3 W/m² at hour 14		Minimum Diurnal Average: 0.0 W/m² at hour 3		Hours of Missing Data: 0																						
Monthly Average: 66.86 W/m²		Percentiles: P₁ = 0.0 P₁₀ = 0.0 Q₁ = 0.0 Median = 0.0 Q₃ = 88.8 P₉₀ = 258.2 P₉₉ = 428.8		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-Feb	0	0	0	0	0	0	0	0	0	16	34	50	54	57	50	27	15	2	0	0	0	0	0	0	12.7	57.3
2-Feb	0	0	0	0	0	0	0	0	0	8	22	48	64	82	54	36	19	3	0	0	0	0	0	0	14.0	81.9
3-Feb	0	0	0	0	0	0	0	0	1	30	157	260	325	341	310	227	92	13	0	0	0	0	0	0	73.2	340.6
4-Feb	0	0	0	0	0	0	0	0	2	37	162	135	234	292	226	134	71	14	0	0	0	0	0	0	54.4	291.7
5-Feb	0	0	0	0	0	0	0	0	2	42	172	252	316	336	316	227	97	17	0	0	0	0	0	0	74.0	336.4
6-Feb	0	0	0	0	0	0	0	0	4	49	124	171	236	180	159	127	36	6	0	0	0	0	0	0	45.5	235.6
7-Feb	0	0	0	0	0	0	0	0	1	16	42	66	78	74	66	62	34	8	0	0	0	0	0	0	18.6	77.6
8-Feb	0	0	0	0	0	0	0	0	2	24	119	210	272	271	240	174	98	27	0	0	0	0	0	0	59.9	271.9
9-Feb	0	0	0	0	0	0	0	0	4	61	160	267	356	369	341	267	113	32	0	0	0	0	0	0	82.1	368.9
10-Feb	0	0	0	0	0	0	0	0	3	39	90	159	301	360	248	118	53	15	0	0	0	0	0	0	57.7	359.9
11-Feb	0	0	0	0	0	0	0	0	6	71	206	300	364	374	348	249	124	32	1	0	0	0	0	0	86.5	374.5
12-Feb	0	0	0	0	0	0	0	0	9	79	192	240	194	237	157	114	68	21	0	0	0	0	0	0	54.6	240.0
13-Feb	0	0	0	0	0	0	0	0	3	16	43	74	85	109	88	74	49	13	1	0	0	0	0	0	23.1	109.2
14-Feb	0	0	0	0	0	0	0	0	6	42	105	129	173	225	213	163	155	44	1	0	0	0	0	0	52.4	224.8
15-Feb	0	0	0	0	0	0	0	0	16	76	220	303	321	317	230	183	78	17	0	0	0	0	0	0	73.4	320.7
16-Feb	0	0	0	0	0	0	0	0	8	47	134	221	395	404	370	282	84	32	1	0	0	0	0	0	82.4	403.6
17-Feb	0	0	0	0	0	0	0	0	8	68	210	243	332	408	381	286	155	51	2	0	0	0	0	0	89.4	408.3
18-Feb	0	0	0	0	0	0	0	0	13	83	185	283	283	232	214	168	122	51	5	0	0	0	0	0	68.3	283.2
19-Feb	0	0	0	0	0	0	0	0	16	106	161	308	341	407	379	298	158	71	4	0	0	0	0	0	93.8	407.0
20-Feb	0	0	0	0	0	0	0	0	10	70	132	148	198	261	249	253	91	76	4	0	0	0	0	0	62.2	261.1
21-Feb	0	0	0	0	0	0	0	0	12	59	106	251	233	229	187	154	96	34	2	0	0	0	0	0	56.8	250.8
22-Feb	0	0	0	0	0	0	0	0	32	135	255	354	424	446	373	196	167	79	4	0	0	0	0	0	102.7	446.4
23-Feb	0	0	0	0	0	0	0	0	14	59	117	158	238	223	259	261	103	50	7	0	0	0	0	0	62.1	260.7
24-Feb	0	0	0	0	0	0	0	0	12	60	114	227	311	348	287	229	113	50	4	0	0	0	0	0	73.2	348.0
25-Feb	0	0	0	0	0	0	0	0	15	57	110	200	293	295	309	160	115	46	5	0	0	0	0	0	66.8	308.9
26-Feb	0	0	0	0	0	0	0	0	34	112	177	372	443	457	418	336	175	47	4	0	0	0	0	0	107.2	456.5
27-Feb	0	0	0	0	0	0	0	1	31	190	315	339	455	440	423	346	182	80	8	0	0	0	0	0	117.1	455.3
28-Feb	0	0	0	0	0	0	0	2	53	164	310	372	462	465	377	187	141	48	6	0	0	0	0	0	107.8	465.1
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	11.4	64.9	149.2	219.3	277.8	294.3	259.7	190.6	100.2	35.0	2.2	0.0	0.0	0.0	0.0	0.0	Diurnal Average
		0.0	0.1	0.0	0.0	0.0	0.0	0.1	1.6	52.8	189.6	315.3	372.2	461.8	465.1	423.3	345.6	182.3	79.7	8.4	0.1	0.0	0.1	0.0	0.0	Diurnal Maximum



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Henry Pirker - February 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	N	N	3	4	6	7	8	7	7	7	6	10	10	11	9	9	7	6	6	5	4	1	4	4	5.5	10.9
Dir	N	N	259	243	297	298	299	305	300	299	301	293	296	297	304	301	297	299	309	336	313	246	109	108	298.8	297.2
2 Spd	5	5	5	4	5	7	7	5	6	5	5	4	5	5	6	5	7	8	7	7	8	8	10	10	3.6	9.9
Dir	101	94	70	67	77	79	73	60	53	43	40	44	43	45	37	29	7	342	330	307	308	308	304	297	18.9	296.6
3 Spd	12	9	8	8	7	5	5	7	8	7	7	10	10	9	12	7	N	N	1	0	2	N	N	N	6.8	11.8
Dir	294	289	282	288	308	302	293	296	305	307	286	274	266	242	259	272	N	N	267	283	305	N	N	N	283.6	293.9
4 Spd	3	N	3	N	N	N	N	4	2	5	N	3	N	N	4	3	4	3	N	3	N	2	2	3	--	4.8
Dir	319	N	328	N	N	N	N	340	313	321	N	286	N	N	238	199	170	230	N	305	N	254	237	227	--	320.6
5 Spd	2	0	0	N	3	1	9	N	26	1	N	N	N	N	27	7	4	2	1	4	4	4	5	3	2.9	26.5
Dir	234	243	261	N	225	47	138	N	132	304	N	N	N	N	133	150	147	241	296	316	325	336	314	226	144.6	132.5
6 Spd	1	2	10	4	2	4	N	N	3	3	1	2	10	9	0	5	4	2	2	1	3	2	3	3	1.2	10.2
Dir	213	225	107	202	229	167	N	N	230	236	206	182	137	142	302	81	71	20	1	296	317	309	350	15	138.6	136.5
7 Spd	2	2	3	2	2	2	1	1	1	4	3	2	2	3	3	2	3	3	1	3	4	4	5	5	2.2	5.1
Dir	1	301	317	5	32	32	36	69	70	100	75	48	40	24	24	19	50	61	39	34	28	47	41	44	36.9	44.1
8 Spd	5	5	6	6	6	5	3	4	3	3	4	3	23	31	4	4	3	3	1	1	0	N	N	N	2.6	30.7
Dir	52	65	44	40	42	45	48	35	42	26	320	265	136	132	299	304	315	315	314	302	322	N	N	N	81.2	132.4
9 Spd	N	N	10	2	3	10	3	1	2	3	2	3	17	2	N	3	3	2	8	N	5	3	4	4	0.8	16.9
Dir	N	N	140	319	316	115	314	321	316	317	286	299	142	285	N	235	265	308	136	N	116	327	309	313	158.2	141.7
10 Spd	3	2	2	2	2	3	4	6	9	9	12	13	10	6	4	2	2	1	2	2	7	9	6	7	3.1	12.5
Dir	326	337	351	321	330	340	284	265	257	265	262	269	273	281	271	287	355	23	63	11	14	29	35	42	302.7	269.2
11 Spd	9	7	8	9	6	6	5	5	3	1	1	5	4	N	4	2	3	3	1	0	4	1	3	5	2.5	9.5
Dir	57	60	67	72	60	58	59	56	71	149	310	325	297	N	329	303	324	314	291	292	296	315	317	326	27.1	72.0
12 Spd	2	42	34	2	3	2	2	2	3	1	3	1	0	1	3	11	13	18	17	15	23	24	22	16	5.1	41.6
Dir	325	129	131	325	325	323	337	319	315	291	293	241	268	312	297	262	262	263	278	293	261	262	250	251	246.4	128.8
13 Spd	22	27	37	35	32	21	32	26	23	15	18	24	35	22	24	32	26	19	18	14	15	13	11	15	22.8	36.5
Dir	257	262	262	255	251	273	245	254	257	241	245	250	259	250	251	250	246	250	254	245	245	265	270	286	254.8	262.4
14 Spd	11	15	15	18	10	6	8	5	5	6	8	7	6	4	3	3	1	3	4	4	4	0	3	3	4.1	18.5
Dir	314	11	360	351	347	11	4	47	47	61	72	65	64	69	97	96	175	213	234	252	301	130	317	291	9.9	350.8
15 Spd	N	N	N	2	N	N	N	N	2	1	1	1	0	2	1	4	7	16	25	26	25	20	16	11	--	25.6
Dir	N	N	N	299	N	N	N	N	322	306	298	210	244	126	185	201	244	258	261	261	263	264	267	272	--	261.2
16 Spd	13	10	11	8	4	5	4	4	6	4	10	11	9	13	14	13	10	8	6	6	5	3	3	3	7.0	14.3
Dir	265	252	254	291	289	289	320	298	315	312	342	332	297	290	280	279	295	297	299	297	288	305	286	272	291.1	280.5
17 Spd	4	3	4	2	3	1	2	3	4	6	6	6	9	13	13	11	10	5	5	6	3	3	4	7	4.6	13.3
Dir	290	328	332	305	312	303	296	307	305	315	307	288	281	288	341	341	342	339	321	150	302	318	297	288	312.1	288.2
18 Spd	10	10	10	9	11	8	10	9	9	7	7	11	12	12	10	9	9	9	9	9	5	5	5	2	7.9	12.0
Dir	292	305	301	299	301	312	309	310	311	313	314	301	292	285	287	291	278	245	240	245	245	253	251	250	288.4	285.3
19 Spd	6	10	10	8	11	9	9	9	11	11	8	6	7	6	7	4	4	3	4	5	5	3	N	6	6.3	11.2
Dir	280	276	270	271	271	276	244	273	267	270	274	278	286	280	277	251	223	265	302	306	328	332	N	150	273.1	266.5
20 Spd	2	4	5	6	7	5	4	7	10	11	15	12	16	15	14	13	7	4	2	3	4	4	2	5	6.3	15.9
Dir	306	297	266	276	292	307	280	276	282	299	287	282	292	291	282	286	280	259	183	148	155	157	167	271	280.9	291.7
21 Spd	2	0	3	2	2	1	1	12	16	14	15	13	13	12	17	17	16	13	11	9	10	8	9	10	8.5	17.0
Dir	288	350	104	106	126	119	211	254	248	254	265	263	256	257	280	283	284	284	286	277	274	277	263	281	268.7	279.8
22 Spd	7	6	6	4	5	5	3	2	1	1	4	4	3	2	5	5	3	9	8	6	5	8	5	1	3.5	9.0
Dir	272	287	312	305	296	275	282	349	352	162	224	235	272	213	247	228	308	250	239	231	210	198	195	160	253.4	250.2

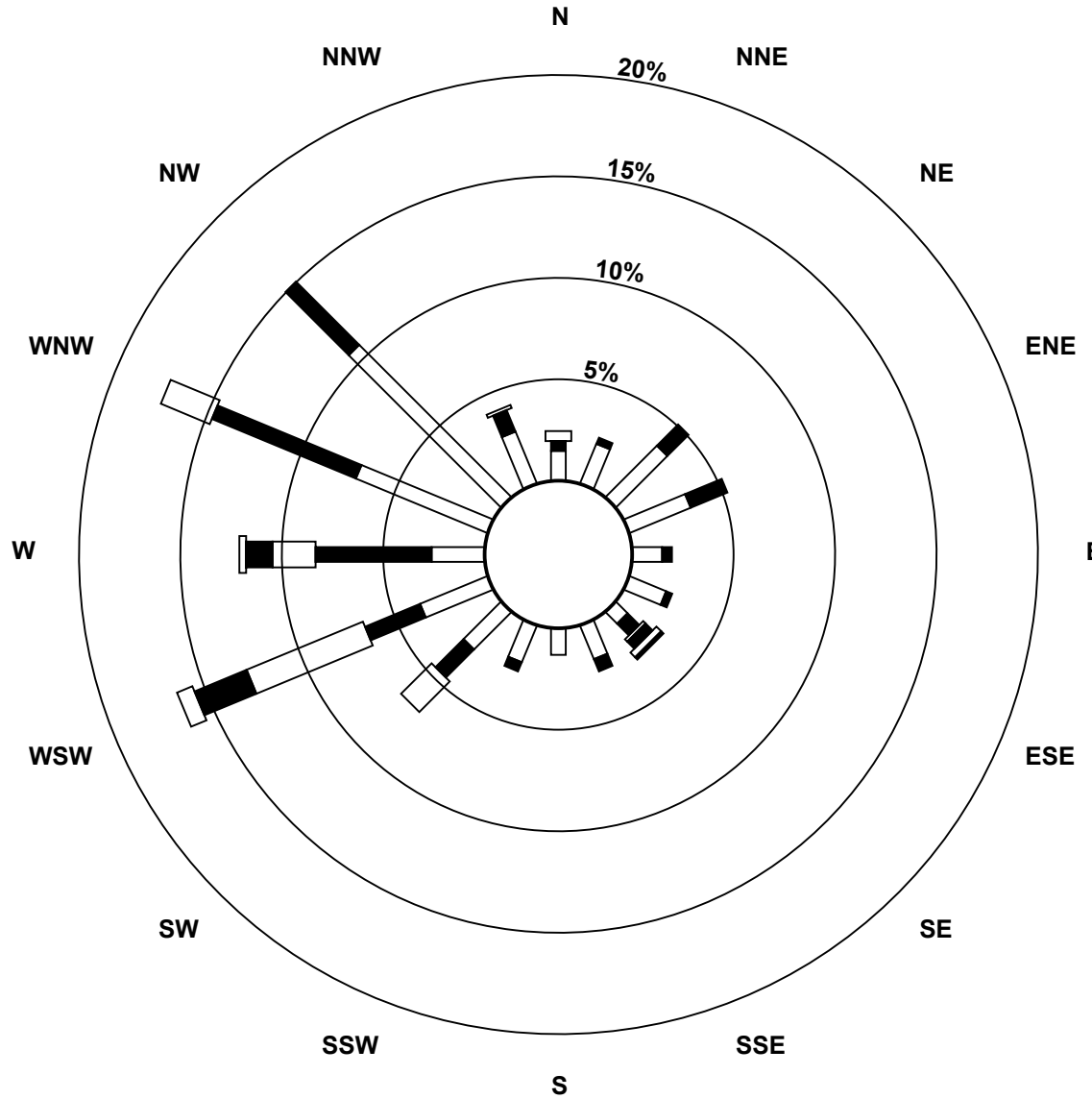
Hourly Averages

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

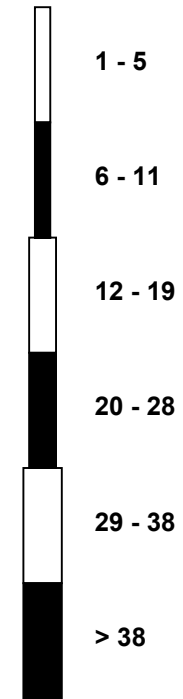
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
23 Spd	2	3	6	3	2	1	2	11	19	20	19	19	12	21	19	18	21	20	24	18	16	10	3	6	11.2	23.9	
Dir	177	156	146	123	85	52	252	241	245	245	237	234	245	246	245	249	247	245	246	239	234	231	264	300	240.9	245.6	
24 Spd	5	8	6	7	4	4	5	4	4	5	6	6	4	4	2	4	9	3	16	12	9	9	4	4	1.8	15.6	
Dir	289	279	286	313	325	306	321	30	59	63	96	99	95	75	118	240	285	317	247	236	203	205	173	142	256.8	246.9	
25 Spd	3	2	2	3	2	5	5	12	9	6	6	6	10	10	10	8	4	6	4	3	3	3	2	2	3.0	12.0	
Dir	98	124	104	95	109	162	199	246	279	314	306	305	298	298	292	297	310	308	314	307	225	213	151	142	282.4	246.4	
26 Spd	3	3	3	3	4	2	2	2	6	7	11	17	16	22	14	14	13	11	9	15	18	13	21	29	10.1	29.3	
Dir	114	122	172	224	271	239	254	248	249	256	227	232	236	257	251	258	247	257	226	227	227	242	256	249	242.4	248.9	
27 Spd	23	16	13	17	14	15	16	16	18	17	20	19	15	18	18	19	19	14	12	13	11	6	7	7	14.8	22.9	
Dir	249	227	215	221	224	231	233	234	238	240	243	248	254	247	245	245	249	248	240	240	242	232	215	219	238.4	249.2	
28 Spd	8	7	7	5	5	7	7	6	3	6	4	3	2	3	1	2	3	5	5	4	6	5	6	7	1.4	8.1	
Dir	229	236	233	245	288	258	229	229	287	242	245	295	278	268	348	3	12	57	61	61	71	54	42	50	270.5	228.6	
Spd	4.0	2.0	1.8	3.5	3.5	2.2	3.2	4.3	4.1	4.3	5.1	5.8	5.3	5.8	5.7	6.2	5.8	5.8	5.8	5.3	5.1	4.3	4.0	3.8	Diurnal Average		
Dir	276.8	252.5	246.9	282.9	286.6	287.0	267.0	273.6	266.8	275.4	270.5	269.7	258.0	258.9	267.1	267.8	271.5	269.1	261.8	261.5	260.4	263.3	267.7	270.5	Diurnal Maximum		
Spd	22.9	41.6	36.5	34.6	31.9	20.7	31.8	25.9	26.3	20.1	19.7	23.9	35.1	30.7	26.5	31.7	25.9	20.0	25.5	25.6	25.1	24.1	21.9	29.3	Diurnal Maximum		
Dir	249.2	128.8	262.4	255.1	250.8	273.4	244.9	254.0	132.4	244.5	243.0	249.8	259.4	132.4	132.5	250.2	250.1	245.2	260.7	261.2	263.3	261.6	250.2	248.9	Diurnal Maximum		
Maximum Speed Value: 42 km/h on Feb 12 02:00																		Minimum Speed Value: 0 km/h on Feb 12 13:00						Hours in Service:		672	
Maximum Daily Speed Average: 22.8 km/h on Feb 13																		Minimum Daily Speed Average: 0.8 km/h on Feb 7						Hours of Data:		631	
Maximum Diurnal Speed Average: 6.2 km/h at hour 16																		Minimum Diurnal Speed Average: 1.8 km/h at hour 3						Hours of Missing Data:		41	
Monthly Average Velocity: 4.44 km/h 267.89 deg																		Speed Percentiles: P ₁ = 0.4 P ₁₀ = 1.9 Q ₁ = 3.0 Median = 5.4 Q ₃ = 9.9 P ₉₀ = 16.2 P ₉₉ = 31.8						Percent Operational Time:		93.9	
All monthly, daily, and diurnal averages have been calculated using vector methods																											
N - Not Valid																											
Frequency Distribution																											
		Speed Range (km/h)																									
Direction	0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total																				
North	18	10	4	0	0	0	32																				
NorthEast	34	29	0	0	0	0	63																				
East	23	10	0	0	0	0	33																				
SouthEast	19	10	1	3	2	1	36																				
South	17	2	0	0	0	0	19																				
SouthWest	37	25	32	9	1	0	104																				
West	44	61	48	20	6	0	179																				
NorthWest	101	60	4	0	0	0	165																				
Total	293	207	89	32	9	1	631																				

Wind Rose

Wind Speed (WS) (km/h)
Henry Pirker - February 2018



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Henry Pirker - February 2018

Maximum Speed: 45 km/h on Feb 12 02:00	Maximum Daily Speed Average: 23.3 km/h on Feb 13	Hours in Service: 672
Minimum Speed: 0 km/h on Feb 12 13:00	Minimum Daily Speed Average: 2.8 km/h on Feb 7	Hours of Data: 631
Maximum Diurnal Speed Average: 11.1 km/h at hour 13	Minimum Diurnal Speed Average: 6.5 km/h at hour 6	Hours of Missing Data: 41
Monthly Average Speed: 8.06 km/h	Percentiles: P ₁ = 0.7 P ₁₀ = 2.3 Q ₁ = 3.5 Median = 5.8 Q ₃ = 10.4 P ₉₀ = 17.0 P ₉₉ = 32.2	Percent Operational Time: 93.9

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-Feb	N	N	4	4	7	7	8	7	7	7	7	10	10	11	9	9	8	6	6	5	4	5	4	4	6.7	11.0
2-Feb	5	5	5	4	5	7	7	6	6	6	5	5	4	5	6	6	7	8	7	7	8	8	10	10	6.3	9.9
3-Feb	12	9	8	8	7	5	5	7	8	7	7	10	11	9	12	9	N	N	4	0	2	N	N	N	7.5	11.9
4-Feb	3	N	3	N	N	N	N	4	2	6	N	6	N	N	4	4	4	4	N	3	N	2	3	3	--	6.2
5-Feb	2	3	3	N	10	1	11	N	28	4	N	N	N	N	29	17	9	2	2	4	4	4	5	9	8.1	28.6
6-Feb	3	2	19	16	2	9	N	N	3	3	1	4	19	18	1	5	4	2	2	4	3	3	3	3	5.8	19.4
7-Feb	2	3	3	2	2	2	1	1	2	4	3	2	3	3	3	2	3	3	1	3	4	5	5	5	2.8	5.3
8-Feb	5	5	6	6	6	5	3	4	3	4	4	8	28	33	5	5	4	4	1	1	0	N	N	N	6.7	33.1
9-Feb	N	N	17	2	3	15	3	2	2	4	4	4	25	5	N	3	4	2	12	N	12	3	4	4	6.5	24.8
10-Feb	3	2	2	2	2	5	4	6	9	9	12	13	10	6	4	3	2	2	2	2	7	9	6	7	5.5	12.7
11-Feb	9	7	8	10	6	6	5	5	4	2	3	5	5	N	4	3	3	3	1	2	10	2	4	5	4.8	10.0
12-Feb	3	45	35	3	3	6	3	4	4	3	3	1	0	1	3	11	13	18	17	15	23	24	22	16	11.5	44.7
13-Feb	23	27	37	35	32	22	32	26	23	16	18	24	35	22	25	32	26	19	18	14	15	14	11	15	23.3	36.7
14-Feb	15	15	15	19	10	6	9	6	5	6	8	8	6	4	4	3	1	3	4	5	4	7	3	4	7.1	18.8
15-Feb	N	N	N	3	N	N	N	N	2	1	1	2	1	3	2	5	7	16	26	26	25	20	16	11	--	25.7
16-Feb	13	10	11	9	4	5	4	4	6	5	10	11	9	13	14	13	10	8	6	6	5	3	3	4	7.7	14.3
17-Feb	4	3	4	2	3	2	2	3	4	6	6	6	9	13	13	11	11	5	5	13	6	3	4	7	6.1	13.5
18-Feb	10	10	10	9	11	8	10	9	9	7	7	11	12	12	11	9	9	10	9	9	5	5	6	3	8.8	12.1
19-Feb	7	10	10	9	11	9	9	9	11	11	8	6	7	6	7	4	4	4	4	5	5	3	N	9	7.4	11.4
20-Feb	3	5	5	6	7	5	4	7	10	12	15	12	16	15	14	13	7	4	2	3	4	4	3	5	7.5	15.9
21-Feb	3	1	3	2	2	4	2	12	16	14	15	13	13	12	17	17	16	13	11	9	10	9	9	10	9.7	17.1
22-Feb	7	6	6	4	5	5	4	2	1	1	4	4	3	3	5	5	4	9	8	6	5	8	5	3	4.7	9.1
23-Feb	2	3	6	3	2	1	3	11	19	20	19	19	12	21	19	18	21	20	24	18	16	11	4	6	12.5	24.1
24-Feb	5	8	6	7	4	4	5	6	4	5	7	6	4	4	3	5	10	3	16	12	9	9	4	4	6.2	15.7
25-Feb	4	2	2	3	2	5	6	12	9	6	6	6	10	10	10	8	4	6	4	3	3	3	2	2	5.4	12.2
26-Feb	3	3	4	3	4	2	3	3	6	7	11	17	16	23	14	14	13	12	9	15	18	13	21	30	11.0	29.8
27-Feb	23	16	13	17	14	15	16	16	18	17	20	19	15	18	18	19	19	14	12	13	11	6	7	8	15.1	23.0
28-Feb	8	7	7	6	6	8	7	6	4	6	4	3	2	3	2	2	3	5	5	4	6	5	6	8	5.2	8.1
	7.0	8.7	9.3	7.5	6.6	6.5	6.6	7.1	8.1	7.1	8.1	8.7	11.1	10.9	9.5	9.1	8.2	7.5	8.1	7.7	8.4	7.2	6.8	7.5	Diurnal Average	
	23.0	44.7	36.7	34.9	32.3	21.6	31.9	26.1	28.0	20.2	19.8	24.3	35.4	33.1	28.6	32.0	26.0	20.1	25.6	25.7	25.2	24.3	22.1	29.8	Diurnal Maximum	

N - Not Valid
 All monthly, daily, and diurnal averages have been calculated using scalar methods

Hourly Standard Deviations

Wind Direction (WD) - deg
Henry Pirker - February 2018

Maximum Value: 93.5 deg on Feb 9 03:00																								Hours in Service:	672
Minimum Value: 0.2 deg on Feb 15 07:00																								Hours of Data:	655
Percentiles: P ₁ = 4.4 P ₁₀ = 6.4 Q ₁ = 8.6 Median = 13.9 Q ₃ = 26.0 P ₉₀ = 57.8 P ₉₉ = 86.4																								Hours of Missing Data:	17
																								Hours of Calibration:	0
																								Percent Operational Time:	97.5
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-Feb	N	N	22	15	9	7	7	7	7	7	10	7	9	7	9	9	11	8	10	18	12	54	16	16	54.4
2-Feb	12	14	12	18	12	8	10	12	11	16	18	16	15	18	18	19	16	10	11	9	7	6	5	7	18.7
3-Feb	4	8	5	9	6	6	10	10	5	7	14	7	19	14	9	26	N	N	64	89	21	N	N	N	88.8
4-Feb	11	N	11	N	N	N	N	37	54	30	N	38	N	N	11	27	17	38	N	11	N	42	40	11	54.0
5-Feb	27	58	65	29	74	48	75	13	75	58	80	37	53	63	65	77	67	42	32	12	38	15	18	63	79.9
6-Feb	73	74	82	71	11	60	22	66	17	16	53	53	81	78	69	11	18	22	27	52	11	14	19	18	81.9
7-Feb	29	12	15	33	19	16	42	39	33	16	21	27	22	19	25	22	20	14	36	20	18	14	16	17	42.3
8-Feb	13	15	16	12	15	15	23	18	15	29	7	45	78	73	17	21	22	26	14	74	92	85	67	14	91.8
9-Feb	2	87	93	12	23	89	17	61	13	30	31	37	82	38	68	10	44	12	79	52	75	21	12	11	93.5
10-Feb	9	29	31	25	28	35	18	10	9	14	9	10	9	12	10	53	30	46	19	18	17	14	17	17	53.1
11-Feb	11	10	10	12	13	12	12	13	18	56	57	18	18	67	19	16	21	15	53	86	75	75	26	21	86.0
12-Feb	45	52	78	37	22	49	44	45	13	36	14	57	78	62	18	13	8	10	8	10	10	7	8	7	77.7
13-Feb	8	7	6	8	9	16	5	8	8	9	6	10	7	7	6	7	6	7	9	8	6	11	10	7	15.9
14-Feb	45	11	11	10	11	18	13	14	18	17	15	15	17	27	30	27	51	21	14	33	12	79	35	41	78.9
15-Feb	86	15	93	66	2	1	0	80	14	10	65	42	58	63	62	45	19	7	7	6	5	5	6	6	93.5
16-Feb	7	10	9	21	14	10	10	9	10	13	10	10	12	7	4	5	7	6	10	14	17	14	40	31	39.8
17-Feb	22	6	9	39	41	42	58	41	8	9	13	17	7	10	12	11	9	14	16	60	35	18	10	8	60.3
18-Feb	8	6	5	6	7	6	5	5	6	5	9	6	8	9	10	8	6	11	10	6	21	21	25	44	43.9
19-Feb	35	11	9	10	7	14	8	14	11	8	9	6	8	12	6	25	9	34	10	8	7	18	65	61	64.8
20-Feb	23	30	17	19	6	11	21	10	5	7	5	5	6	7	8	8	11	15	27	15	11	11	20	23	30.2
21-Feb	62	86	20	26	18	64	52	10	6	7	6	7	9	11	8	5	4	5	6	7	5	9	8	8	86.4
22-Feb	18	11	8	9	14	13	19	26	51	78	16	18	14	35	21	23	32	8	9	8	15	6	15	78	78.5
23-Feb	73	16	6	19	29	81	62	13	8	6	9	7	11	6	6	9	6	6	6	6	6	9	67	22	80.7
24-Feb	11	9	10	11	10	20	15	46	17	13	15	12	17	27	39	45	16	34	10	12	8	16	21	15	45.6
25-Feb	23	25	25	15	15	7	24	11	13	8	16	10	7	8	8	8	13	7	7	12	33	12	28	49	48.8
26-Feb	18	17	17	14	22	16	30	57	16	21	8	7	10	10	9	8	13	15	10	8	8	13	12	10	56.7
27-Feb	7	7	7	8	6	8	8	7	6	7	6	8	9	9	8	6	6	6	9	10	10	9	9	7	10.3
28-Feb	7	11	10	26	25	24	6	8	43	15	28	27	24	19	63	39	21	17	11	15	14	13	12	11	62.6
86.5 86.5 93.5 70.7 73.7 89.2 75.2 79.7 75.4 77.8 79.9 56.6 82.2 77.9 68.6 77.2 67.2 46.0 78.8 88.8 91.8 85.3 66.9 78.5																									
N - Not Valid																									

PAZA

Evergreen Park Station

Monthly Summary Tables, Graphs and
Roses

Hourly Averages

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

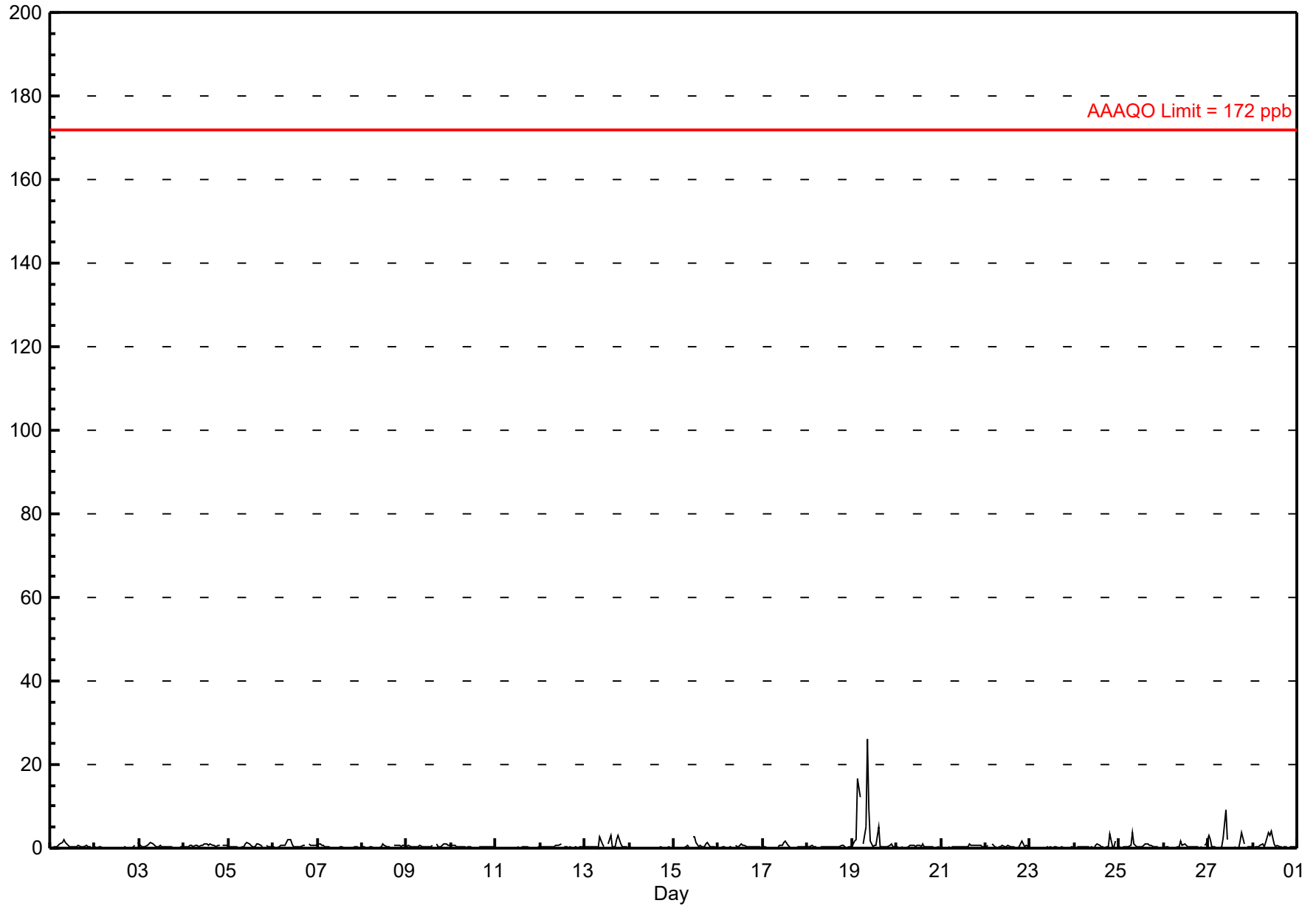
Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	672
Maximum Value: 26.0 ppb on Feb 19 09:00	Maximum Daily Average: 3.8 ppb on Feb 19		Hours of Data:	639
Minimum Value: 0 ppb on Feb 2 18:00	Minimum Daily Average: 0.1 ppb on Feb 14		Hours of Missing Data:	33
Maximum Diurnal Average: 1.7 ppb at hour 9	Minimum Diurnal Average: 0.3 ppb at hour 6		Hours of Calibration:	33
Monthly Average: 0.59 ppb	Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.2 Median = 0.3 Q ₃ = 0.6 P ₉₀ = 1.0 P ₉₉ = 4.8		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-Feb	A	0	0	0	1	1	1	2	1	1	0	0	1	0	0	1	0	0	0	1	0	0	0	A	0.6	2.0
2-Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	1	0.2	1.3
3-Feb	1	1	0	0	1	1	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	A	0	0.5	1.3	
4-Feb	0	0	0	1	1	0	1	1	0	1	1	1	1	1	1	1	1	0	1	1	A	1	1	0.7	1.1	
5-Feb	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	1	1	1	0	A	1	0	0	0.5	1.5	
6-Feb	0	0	0	0	1	1	1	1	2	2	1	0	0	0	0	1	1	1	A	1	1	1	1	0.7	2.1	
7-Feb	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.3	1.1	
8-Feb	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	A	1	1	1	1	0	1	0.4	0.9	
9-Feb	0	1	0	0	0	0	0	1	0	0	0	0	0	0	1	A	1	0	0	1	1	1	1	0.5	0.9	
10-Feb	1	1	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.3	0.8	
11-Feb	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	
12-Feb	0	0	0	0	0	0	0	0	1	1	1	1	A	0	0	0	0	0	0	0	0	0	0	0.4	1.1	
13-Feb	0	0	0	0	0	0	0	0	3	1	0	A	1	2	3	0	0	2	3	1	0	0	0	0.8	3.1	
14-Feb	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	
15-Feb	0	0	0	0	0	0	0	1	0	A	3	3	1	0	1	0	0	1	1	0	0	0	0	0.6	2.8	
16-Feb	0	0	0	0	0	0	0	0	A	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0.3	0.9	
17-Feb	0	0	0	0	0	0	0	A	0	1	1	1	2	1	0	0	0	0	0	0	0	0	0	0.4	1.6	
18-Feb	0	0	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0.3	0.8	
19-Feb	0	2	2	16	12	A	1	5	26	10	2	0	1	1	5	0	0	0	0	0	1	1	0	3.8	26.0	
20-Feb	0	0	0	0	A	0	0	1	1	1	0	1	1	0	1	0	0	0	0	0	0	0	0	0.4	1.0	
21-Feb	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	0	0.4	1.1	
22-Feb	0	1	A	1	1	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	1	0	1	0.4	1.5	
23-Feb	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	
24-Feb	A	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	3	0	0	2	0.5	3.3	
25-Feb	0	0	0	0	0	0	1	4	1	0	0	0	0	1	1	1	1	1	0	0	0	0	A	0.6	3.7	
26-Feb	0	0	0	0	0	0	0	0	0	2	1	1	1	0	0	0	0	0	1	0	0	A	1	0.4	1.7	
27-Feb	3	2	0	0	0	0	0	0	2	9	2	C	C	C	0	0	0	2	4	1	A	0	0	1.4	9.0	
28-Feb	0	0	0	0	1	1	0	1	4	3	4	1	0	1	0	0	0	0	0	A	0	0	0	0.9	4.0	
	0.4	0.4	0.3	0.9	0.7	0.3	0.4	0.8	1.7	1.3	0.8	0.6	0.6	0.5	0.7	0.4	0.4	0.5	0.6	0.6	0.4	0.4	0.4	0.4	Diurnal Average	
	2.9	2.2	2.1	16.4	12.3	1.2	1.5	5.2	26.0	9.5	4.0	2.5	1.6	2.1	5.2	1.1	1.0	2.0	3.6	3.3	0.9	1.0	1.8	1.3	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 - February 2018



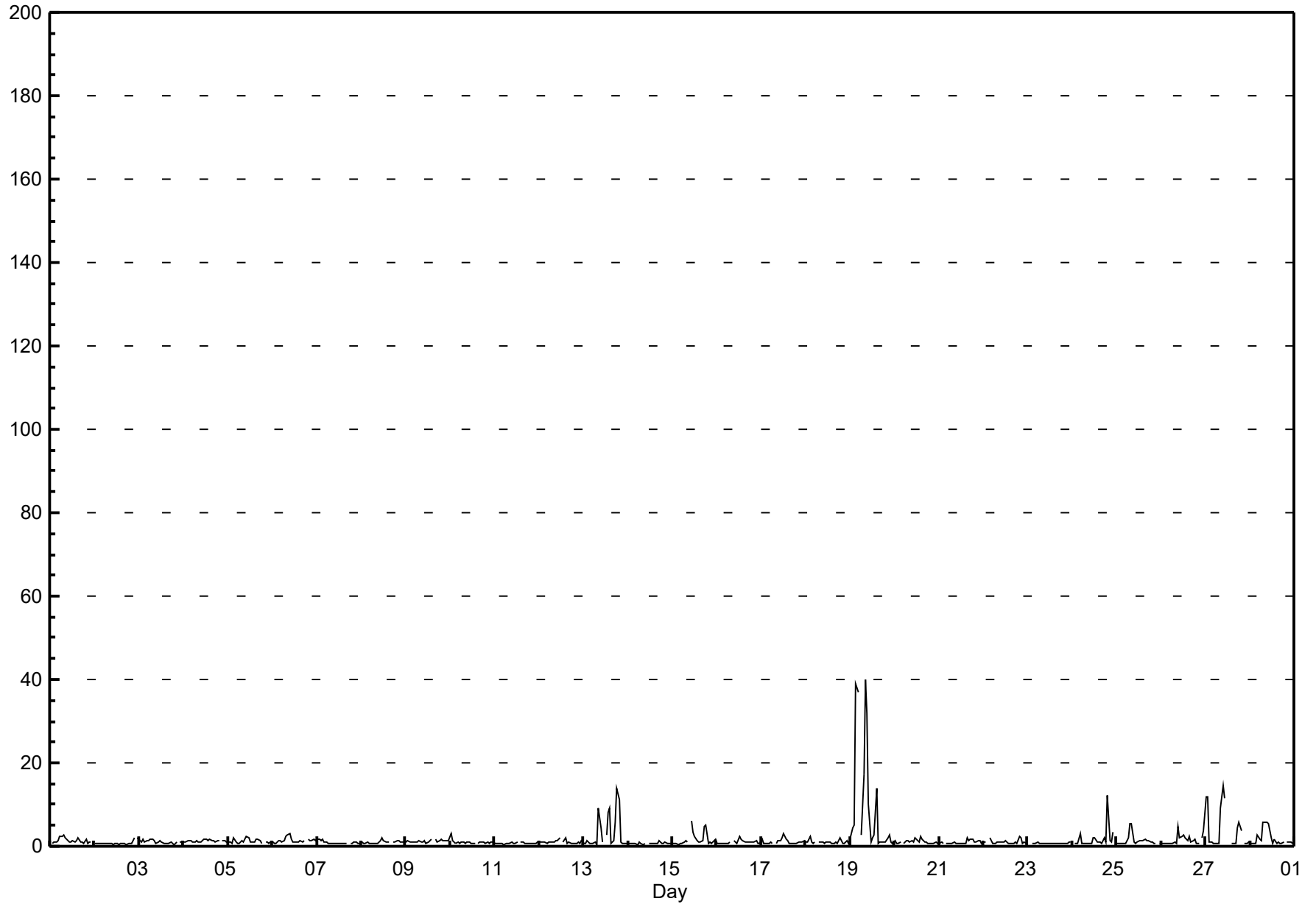
Hourly Maximums

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

Maximum Value: 40.0 ppb on Feb 19 09:00		Maximum Daily Average: 9.6 ppb on Feb 19		Hours in Service: 672																						
Minimum Value: 0 ppb on Feb 15 04:00		Minimum Daily Average: 0.7 ppb on Feb 11		Hours of Data: 639																						
Maximum Diurnal Average: 3.4 ppb at hour 9		Minimum Diurnal Average: 0.9 ppb at hour 6		Hours of Missing Data: 33																						
Monthly Average: 1.63 ppb		Percentiles: P ₁ = 0.5 P ₁₀ = 0.6 Q ₁ = 0.7 Median = 0.9 Q ₃ = 1.3 P ₉₀ = 2.2 P ₉₉ = 13.9		Hours of Calibration: 33																						
				Percent Operational Time: 100.0																						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Feb	A	1	1	1	1	2	2	3	2	2	1	1	1	1	1	2	1	1	1	2	1	1	1	A		
2-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	1	1	1	2	A	2		
3-Feb	1	1	2	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	0	1	A	1	1		
4-Feb	1	1	1	1	1	1	1	1	1	1	2	2	1	2	1	1	1	1	1	1	A	1	2	1		
5-Feb	1	1	1	2	1	1	1	1	1	2	2	2	1	1	1	2	2	1	1	A	1	1	1	1		
6-Feb	1	1	1	1	1	1	1	2	3	3	2	1	1	1	1	1	1	1	A	2	1	1	2	1		
7-Feb	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1		
8-Feb	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	A	1	1	1	1	1	1	1		
9-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	A	2	1	1	2	2	1	1	1		
10-Feb	3	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1		
11-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1		
12-Feb	1	1	1	1	1	1	1	1	1	2	1	2	A	1	2	1	1	1	1	1	1	1	1	1		
13-Feb	1	1	1	1	1	1	1	1	9	4	1	A	3	8	9	1	2	6	14	11	1	1	1	1		
14-Feb	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1		
15-Feb	1	1	1	0	1	1	1	1	1	A	6	4	2	1	1	1	1	5	5	1	1	1	1	2		
16-Feb	1	1	1	1	1	1	1	1	A	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1		
17-Feb	2	1	1	1	1	1	1	A	1	1	1	2	3	2	1	1	1	1	1	1	1	1	1	1		
18-Feb	1	1	2	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1		
19-Feb	2	4	5	39	37	A	3	17	40	32	10	1	2	3	14	1	1	1	1	1	2	3	1	1		
20-Feb	1	1	1	1	A	1	1	1	1	1	2	1	1	2	2	1	1	1	1	1	1	1	1	1		
21-Feb	1	1	1	A	1	1	1	1	1	1	1	1	1	1	2	1	2	2	2	1	1	1	1	1		
22-Feb	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	2	1	1	1	1		
23-Feb	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
24-Feb	A	1	1	1	3	1	1	1	1	1	1	2	2	1	1	1	1	2	1	12	2	1	3	A		
25-Feb	1	1	1	1	1	1	2	5	6	1	1	1	1	1	2	1	1	1	1	1	1	A	1	1		
26-Feb	1	1	1	1	1	1	1	1	1	5	2	2	3	2	1	2	1	1	2	1	1	A	2	4		
27-Feb	12	12	1	1	1	1	1	1	9	14	11	C	C	C	1	1	1	4	6	4	A	1	1	1		
28-Feb	1	1	1	1	3	2	1	6	6	6	6	2	1	2	1	1	1	1	1	A	1	1	1	1		
		1.5	1.4	1.1	2.4	2.3	0.9	1.1	2.0	3.4	3.2	2.2	1.4	1.4	1.4	1.9	1.1	1.0	1.5	1.8	2.0	1.0	1.1	1.1	Diurnal Average	
		11.8	11.9	5.2	39.1	37.1	2.3	2.6	17.4	40.0	31.8	11.4	3.5	3.0	8.0	13.8	2.2	1.8	5.7	14.0	12.1	2.1	2.6	3.3	3.6	Diurnal Maximum
C - Calibration		A - Automated Daily Zero Span																								

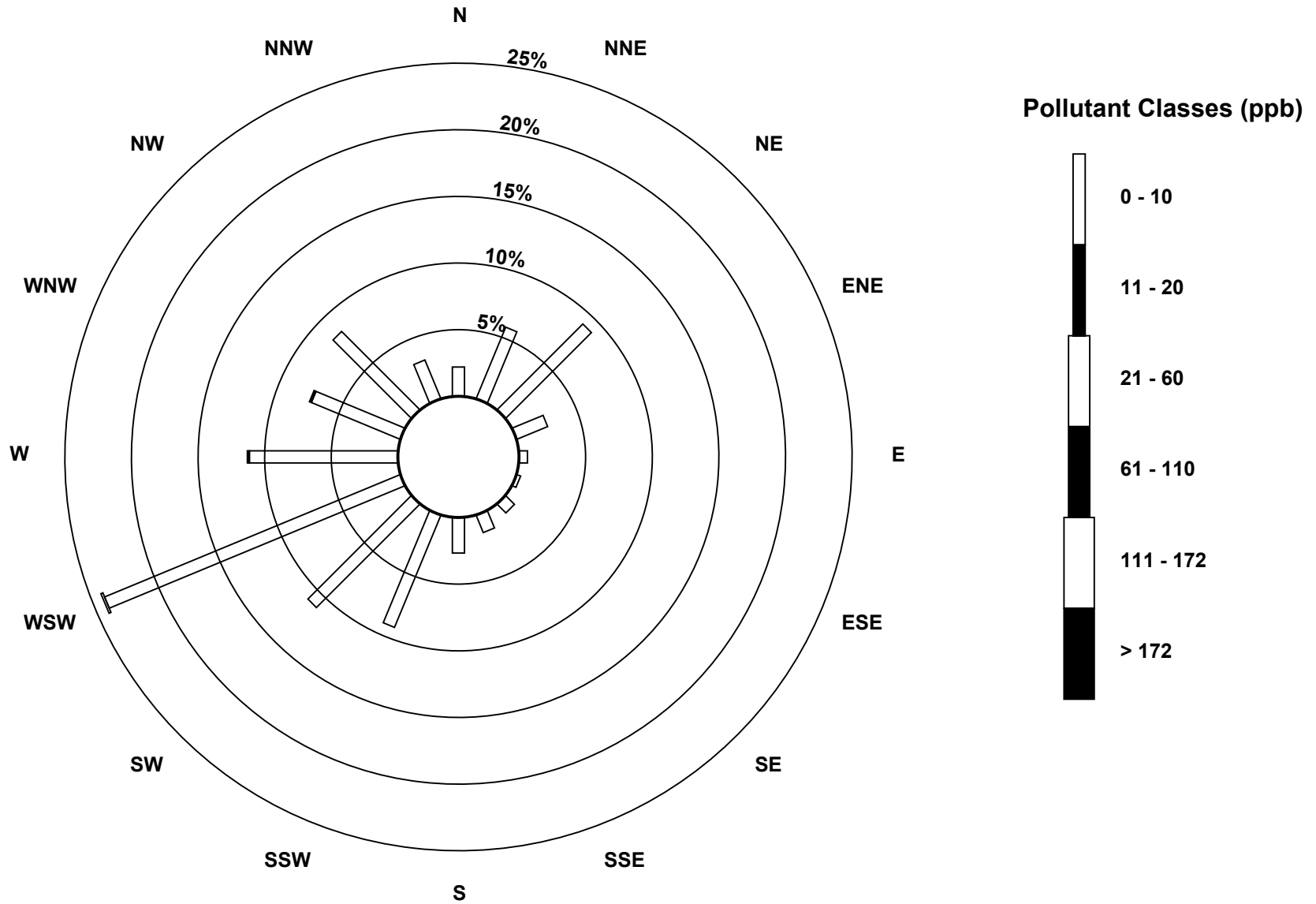
Hourly Maximums

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



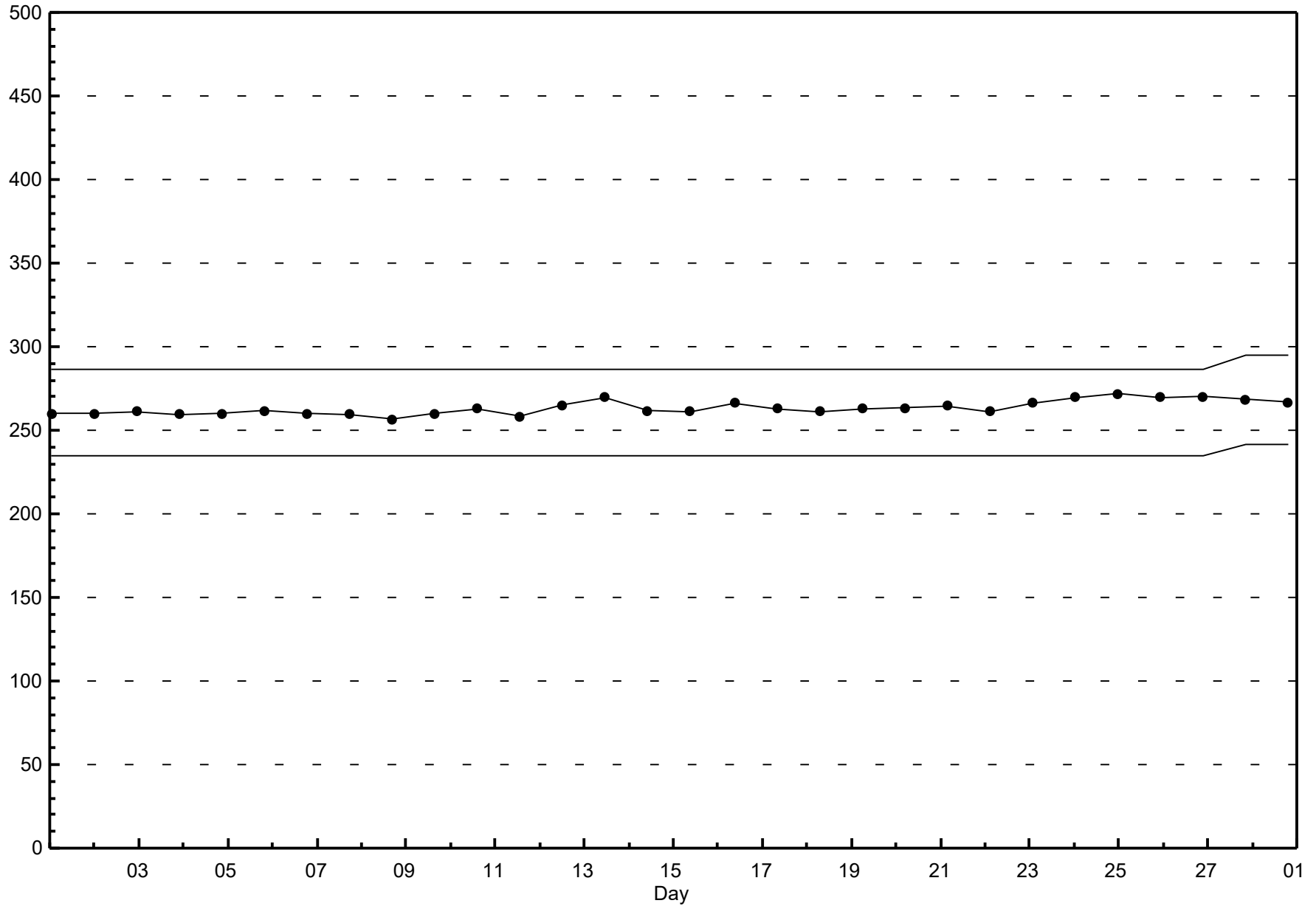
Pollutant Rose

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



Span Responses

Sulphur Dioxide (SO₂)
Evergreen Park - February 2018

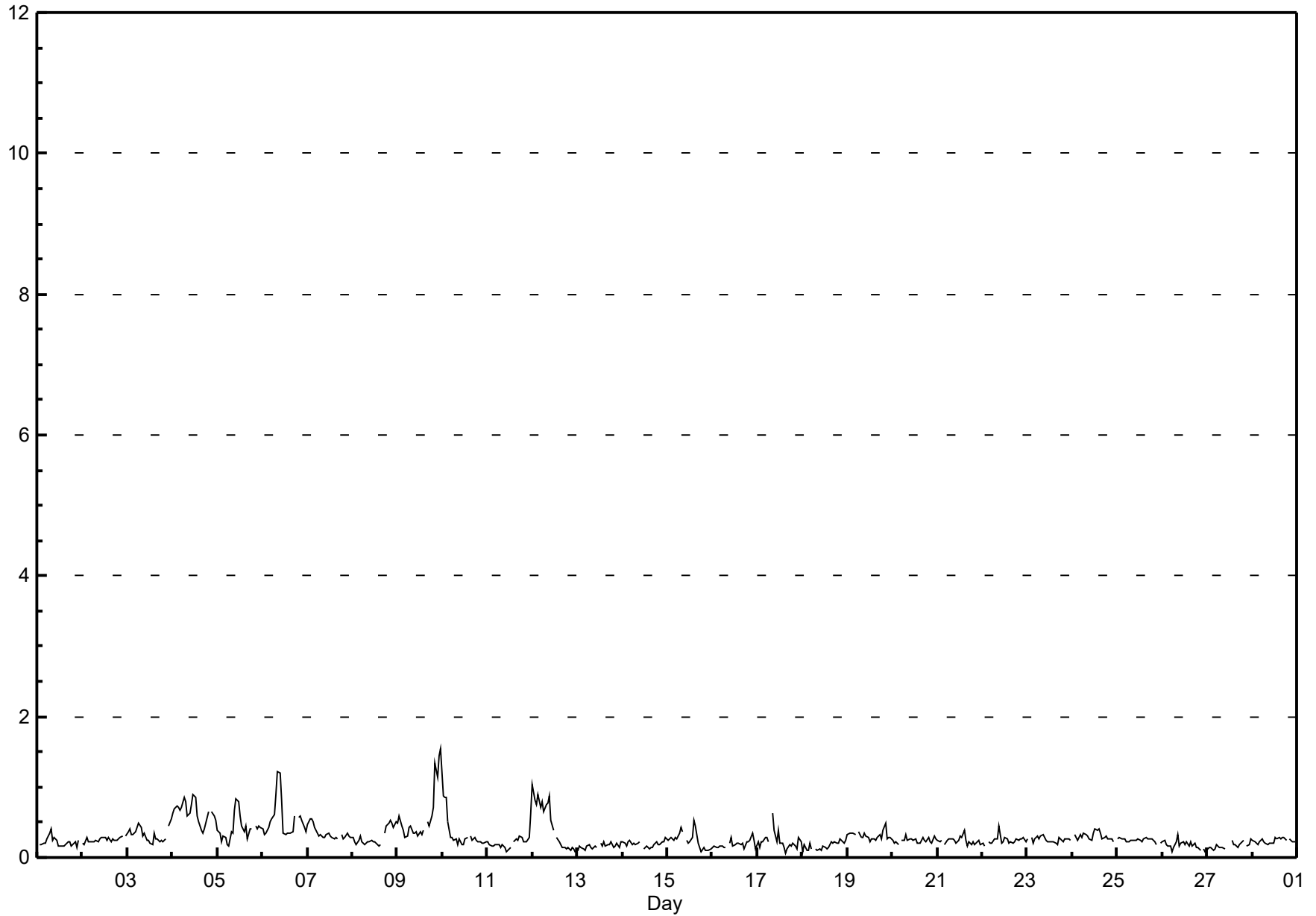


Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Evergreen Park - February 2018

Maximum Value: 1.5 ppb on Feb 10 00:00 Minimum Value: 0 ppb on Feb 17 16:00 Maximum Diurnal Average: 0.3 ppb at hour 10 Monthly Average: 0.30 ppb		Maximum Daily Average: 0.6 ppb on Feb 4 Minimum Daily Average: 0.2 ppb on Feb 13 Minimum Diurnal Average: 0.2 ppb at hour 17 Percentiles: P ₁ = 0.1 P ₁₀ = 0.1 Q ₁ = 0.2 Median = 0.2 Q ₃ = 0.3 P ₉₀ = 0.5 P ₉₉ = 1.0		Hours in Service: 672 Hours of Data: 639 Hours of Missing Data: 33 Hours of Calibration: 33 Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Feb	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.2	0.4
2-Feb	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	0.3	0.3
3-Feb	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	0.5	
4-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	1	A	1	1	1	1	0.6	0.9
5-Feb	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0.4	0.8
6-Feb	0	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0	1	A	1	1	1	0	0	0	0.5	1.2
7-Feb	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.3	0.5
8-Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	0	0	1	0.3	0.5	
9-Feb	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	0	1	1	1	1	1	2	0.6	1.5	
10-Feb	1	1	1	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.3	0.9
11-Feb	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	0.6	
12-Feb	1	1	1	1	1	1	1	1	1	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.5	1.0
13-Feb	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	0.2	0.2
14-Feb	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	0.2	0.3
15-Feb	0	0	0	0	0	0	0	0	0	A	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.2	0.5
16-Feb	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	0.3
17-Feb	0	0	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
18-Feb	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
19-Feb	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	0.3	0.5
20-Feb	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	0.2	0.3
21-Feb	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
22-Feb	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	0.2	0.5
23-Feb	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	0.3
24-Feb	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.3	0.4
25-Feb	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	0.3
26-Feb	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	0.2	0.3
27-Feb	0	0	0	0	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0	0	A	0	0	0	0	0.2	0.3
28-Feb	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	0.3
	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	Diurnal Average	
	1.0	0.9	0.9	0.9	0.7	0.8	0.8	0.9	1.2	1.2	0.8	0.9	0.9	0.6	0.5	0.4	0.5	0.6	0.6	0.7	1.3	1.1	1.4	1.5	Diurnal Maximum		
C - Calibration																								A - Automated Daily Zero Span			



Hourly Maximums

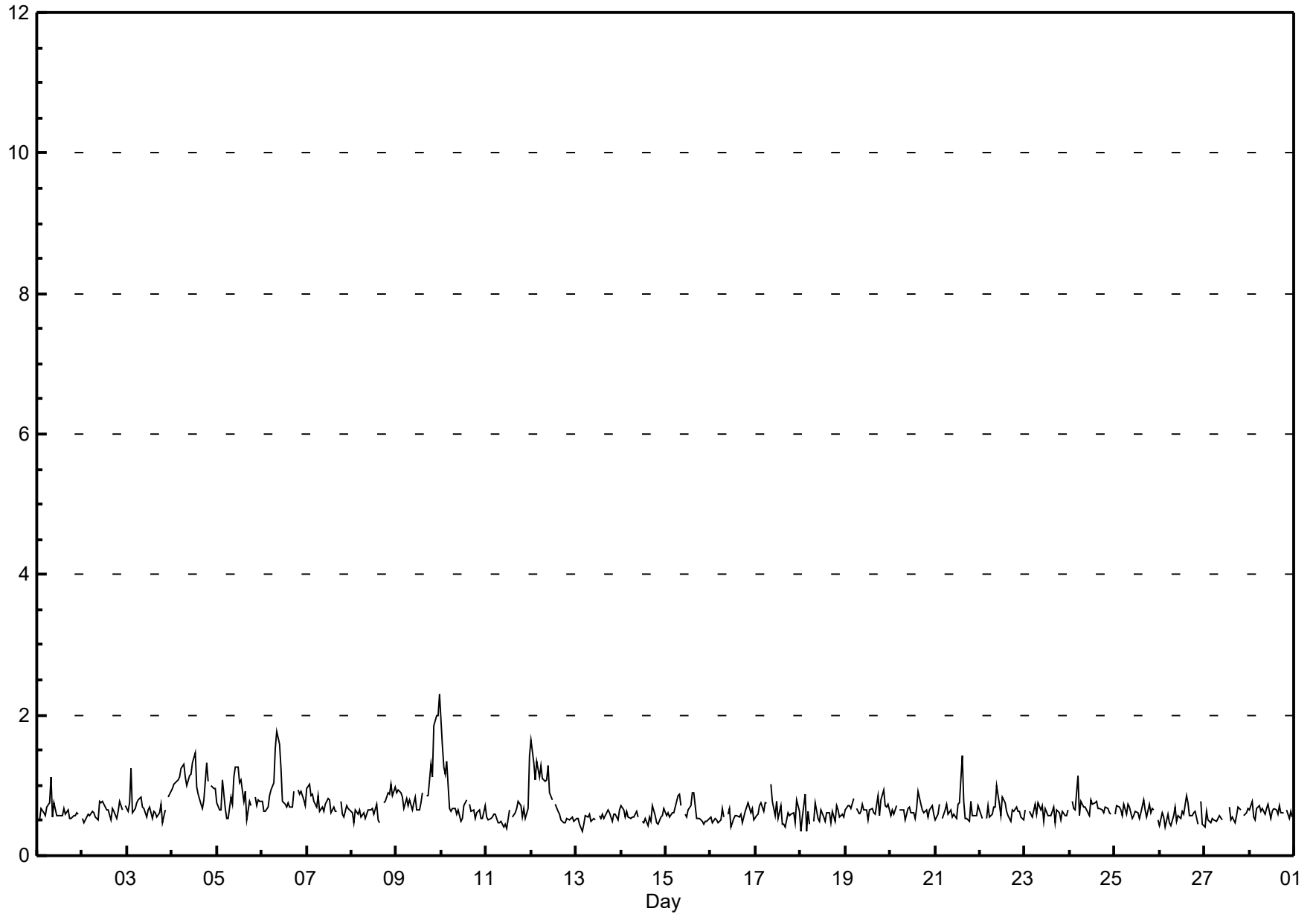
Total Reduced Sulphur (TRS) - ppb

Evergreen Park - February 2018

Maximum Value: 2.3 ppb on Feb 10 00:00		Maximum Daily Average: 1.1 ppb on Feb 4		Hours in Service: 672																							
Minimum Value: 0 ppb on Feb 13 04:00		Minimum Daily Average: 0.5 ppb on Feb 13		Hours of Data: 639																							
Maximum Diurnal Average: 0.8 ppb at hour 24		Minimum Diurnal Average: 0.6 ppb at hour 17		Hours of Missing Data: 33																							
Monthly Average: 0.69 ppb		Percentiles: P ₁ = 0.4 P ₁₀ = 0.5 Q ₁ = 0.6 Median = 0.6 Q ₃ = 0.7 P ₉₀ = 0.9 P ₉₉ = 1.6		Hours of Calibration: 33																							
				Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Feb	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.6	1.1	
2-Feb	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.6	0.8	
3-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	A	1	0.7	1.2		
4-Feb	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	1.5		
5-Feb	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	1.3		
6-Feb	1	1	1	1	1	1	1	2	2	2	1	1	1	1	1	1	1	1	A	1	1	1	1	0.9	1.8		
7-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.7	1.0		
8-Feb	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	A	1	1	1	1	1	1	0.7	1.0		
9-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	2	2	2	1.0	2.3		
10-Feb	2	1	1	1	1	1	1	1	1	1	0	1	1	1	A	1	1	1	1	1	1	1	1	0.8	1.6		
11-Feb	1	1	1	1	1	1	0	0	0	0	0	0	1	A	1	1	1	1	1	1	1	1	1	0.6	1.4		
12-Feb	2	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0	0	1	1	1	0	0.9	1.7		
13-Feb	1	1	0	0	0	1	1	1	0	1	1	A	1	1	1	1	1	1	1	0	1	1	1	0.5	0.7		
14-Feb	1	1	1	1	1	1	1	1	1	1	A	0	0	1	0	1	0	1	1	0	0	1	1	0.6	0.7		
15-Feb	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0	0	0	0	0.6	0.9		
16-Feb	1	0	1	0	0	1	1	1	A	1	1	0	1	1	1	1	0	1	1	1	1	1	1	0.6	0.7		
17-Feb	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0	0	0	1	1	1	1	0	1	0.6	1.0		
18-Feb	0	1	1	0	1	0	A	0	1	1	0	1	1	0	1	1	0	1	0	1	1	1	1	0.6	0.9		
19-Feb	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9		
20-Feb	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.9		
21-Feb	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0.7	1.4		
22-Feb	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0.6	1.0		
23-Feb	1	A	1	1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	1	1	1	1	1	0.6	0.8		
24-Feb	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.1		
25-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.6	0.8		
26-Feb	0	1	1	0	1	0	0	1	1	0	1	1	1	1	1	1	1	1	1	1	0	A	1	0.6	0.9		
27-Feb	0	1	1	0	1	1	0	1	1	1	C	C	C	1	1	1	0	1	1	1	A	1	1	0.6	0.7		
28-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.6	0.8		
	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.8	Diurnal Average		
	1.7	1.3	1.2	1.3	1.1	1.3	1.3	1.5	1.8	1.6	1.3	1.3	1.5	1.1	1.4	0.9	0.9	0.9	0.9	1.3	1.1	1.8	2.0	2.3	Diurnal Maximum		
C - Calibration		A - Automated Daily Zero Span																									

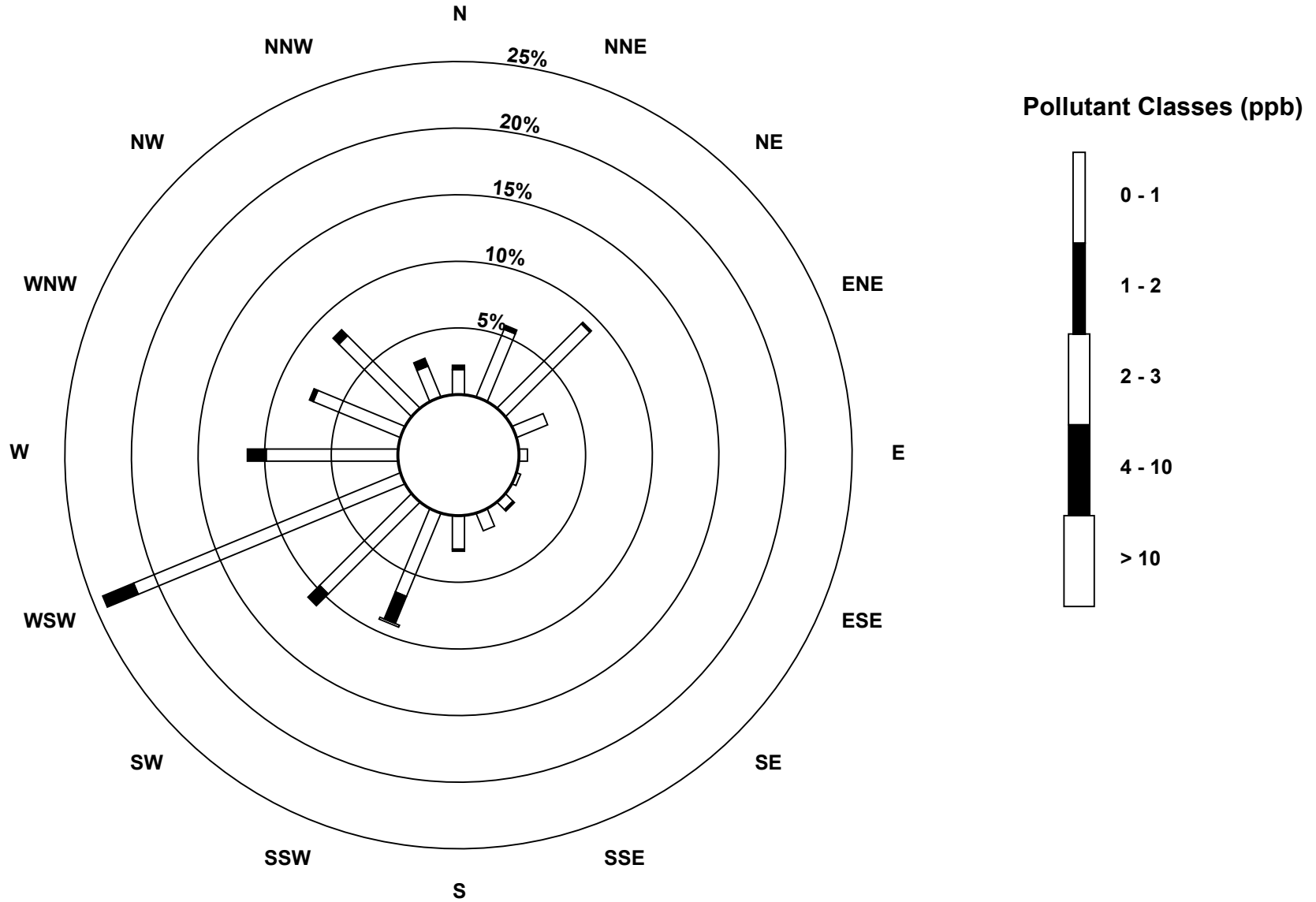
Hourly Maximums

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



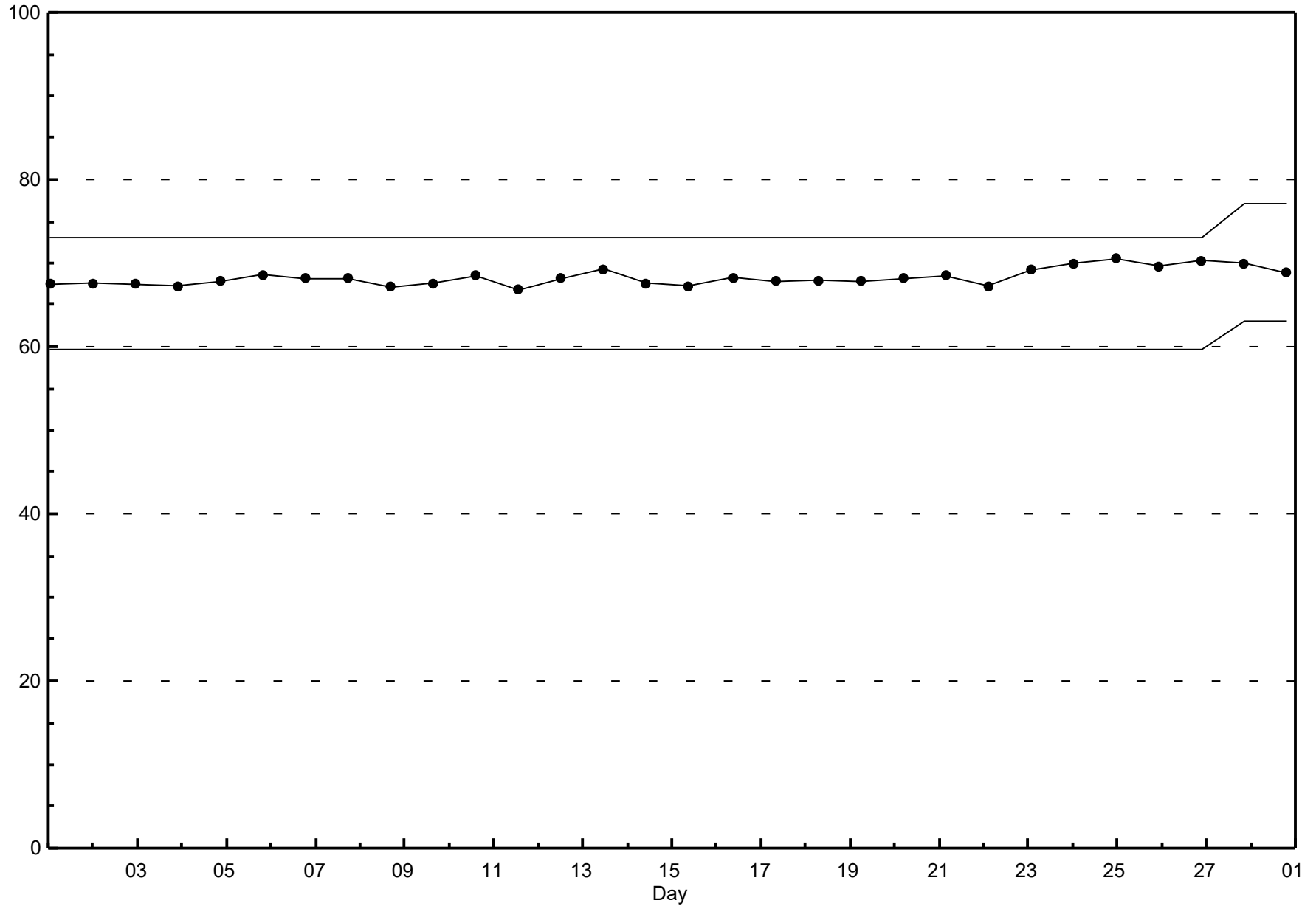
Pollutant Rose

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



Span Responses

**Total Reduced Sulphur (TRS)
Evergreen Park - February 2018**





Peace Airshed Zone Association

Hourly Averages

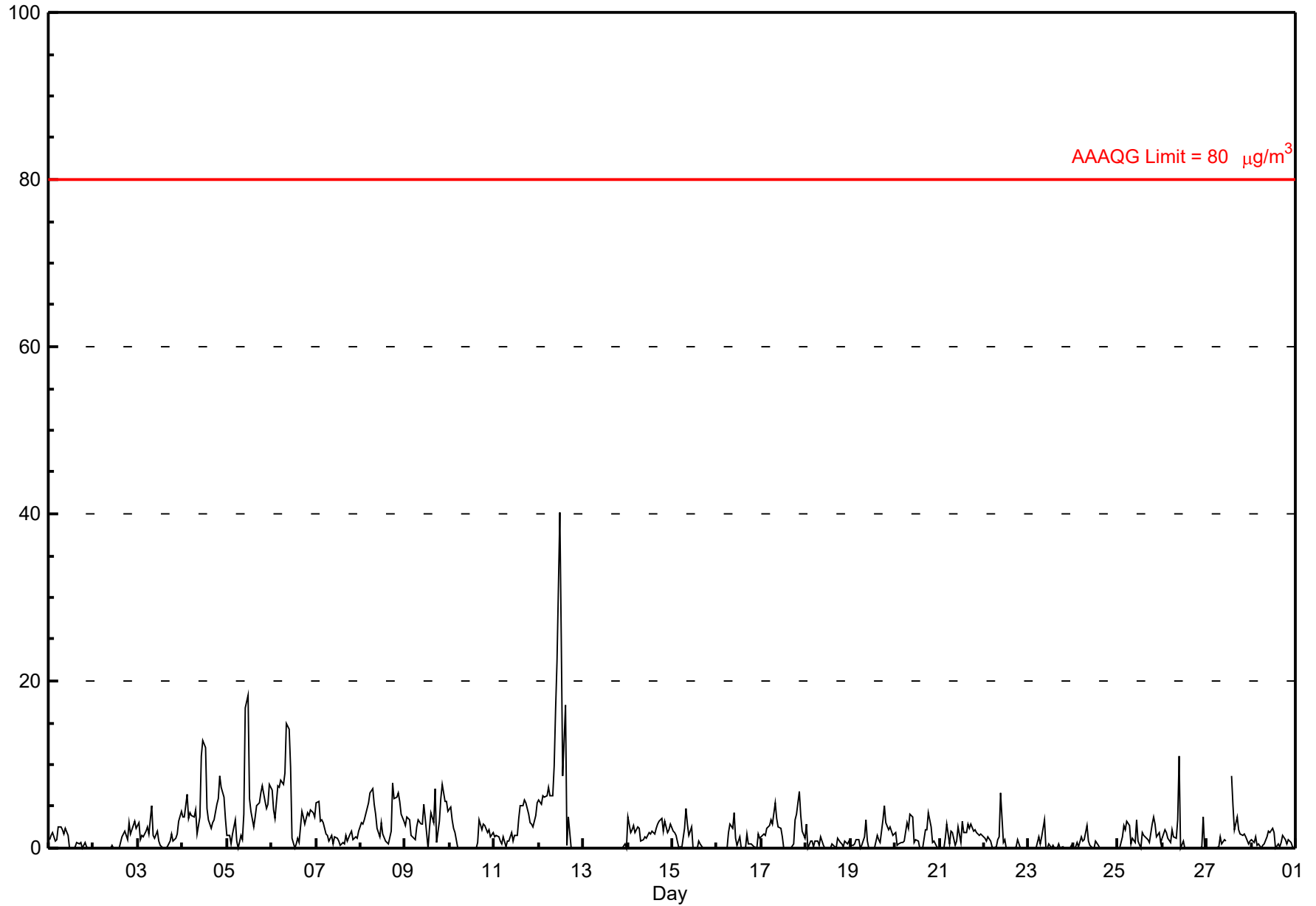
Particulate Matter 2.5 (PM_{2.5}) - µg/m³

Evergreen Park - February 2018

Number of Exceedences: 1-hr: 0 24-hr: 0	Hours in Service: 672
Maximum Value: 40.2 µg/m ³ on Feb 12 12:00	Maximum Daily Average: 8.1 µg/m ³ on Feb 12
Minimum Value: 0 µg/m ³ on Feb 1 13:00	Hours of Data: 670
Maximum Diurnal Average: 3.5 µg/m ³ at hour 12	Hours of Missing Data: 2
Monthly Average: 2.07 µg/m ³	Hours of Calibration: 2
Minimum Daily Average: 0.0 µg/m ³ on Feb 13	Percent Operational Time: 100.0
Minimum Diurnal Average: 1.1 µg/m ³ at hour 16	
Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 1.2 Q ₃ = 2.8 P ₉₀ = 5.1 P ₉₉ = 15.4	

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-Feb	1	2	2	1	1	2	3	2	2	2	2	0	0	0	1	0	1	0	1	0	0	0	0	0	0.9	2.6																						
2-Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	2	1	3	2	3	3	2	0.8	3.3																							
3-Feb	3	1	2	1	2	3	2	5	2	1	2	1	0	0	0	0	1	2	1	1	2	3	4	1.6	5.0																							
4-Feb	4	4	6	4	4	4	4	5	2	4	11	13	12	5	3	2	3	3	5	6	9	7	6	4	5.4	12.9																						
5-Feb	2	2	0	2	3	1	0	2	1	4	17	18	6	4	3	4	5	5	7	8	6	5	5	8	4.8	18.4																						
6-Feb	7	5	4	7	7	8	8	9	15	14	10	1	0	1	1	4	4	3	4	4	5	4	4	5.4	14.9																							
7-Feb	5	6	3	3	3	2	1	1	2	1	1	1	0	1	0	2	1	2	2	1	1	1	2	1.8	5.7																							
8-Feb	3	3	3	5	5	7	7	5	4	2	1	3	2	1	1	2	8	6	6	7	6	4	3	3.9	7.8																							
9-Feb	3	4	3	2	1	1	3	3	3	3	5	4	0	2	4	3	7	1	3	6	8	6	6	4	3.5	7.6																						
10-Feb	5	3	2	2	0	0	0	0	0	0	0	0	0	0	1	3	2	3	3	2	2	1	2	1.3	4.9																							
11-Feb	1	2	1	1	1	1	0	1	1	2	1	2	1	4	5	5	6	5	4	3	3	3	4	5	2.6	5.7																						
12-Feb	6	5	6	6	6	7	6	6	10	17	22	40	25	9	17	0	4	0	0	0	0	0	0	0	8.1	40.2																						
13-Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.5																						
14-Feb	4	2	2	3	2	3	2	1	1	1	1	2	2	2	2	3	3	4	2	3	2	2	3	2.2	3.8																							
15-Feb	2	2	2	0	0	0	2	5	3	2	3	0	0	0	1	0	0	0	0	0	0	0	0	0.9	4.7																							
16-Feb	0	0	0	0	0	0	2	3	2	4	1	0	1	0	0	2	0	1	0	0	0	2	1	0.8	4.3																							
17-Feb	2	2	1	2	3	3	3	5	4	3	2	1	0	0	0	0	1	3	4	7	4	2	1	2.2	6.7																							
18-Feb	3	0	1	1	0	1	1	0	1	0	0	0	0	0	0	0	1	1	0	0	1	0	1	0.6	2.8																							
19-Feb	0	0	0	1	1	0	0	1	3	1	0	0	0	0	2	1	1	3	5	3	2	3	2	2	1.4	5.1																						
20-Feb	2	0	1	1	1	1	3	2	4	4	1	1	1	0	0	0	2	2	4	3	1	1	0	0	1.4	4.2																						
21-Feb	0	0	0	1	3	0	2	2	0	1	2	1	3	2	2	3	2	3	2	2	2	1	2	2	1.6	3.2																						
22-Feb	1	1	1	1	0	0	0	1	1	7	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0.7	6.7																						
23-Feb	0	0	0	0	0	1	0	1	3	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0.4	3.4																						
24-Feb	0	0	1	0	1	1	1	3	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.4	2.8																						
25-Feb	0	0	1	3	2	3	3	0	1	1	3	1	0	2	1	1	1	1	3	4	3	1	2	1	1.6	3.7																						
26-Feb	1	2	2	1	1	2	1	1	3	11	0	1	0	0	0	0	0	0	0	0	0	4	0	1.3	11.0																							
27-Feb	0	0	0	0	0	0	0	1	0	1	1	C	C	9	5	2	4	2	2	2	2	1	1	1	1.5	8.6																						
28-Feb	1	1	1	0	1	0	0	1	1	2	2	2	2	0	1	0	1	1	1	1	1	1	0	0	0.8	2.4																						
																								2.0	1.6	1.7	1.7	1.8	1.8	2.0	2.4	2.5	3.1	3.2	3.5	2.1	1.5	1.7	1.1	1.9	1.8	2.2	2.2	2.2	1.9	2.0	1.8	Diurnal Average
																								6.9	5.7	6.5	7.5	7.2	8.1	7.6	8.9	14.9	16.5	22.4	40.2	25.1	8.7	17.1	5.1	7.1	7.8	6.6	7.5	8.6	7.2	6.0	7.7	Diurnal Maximum

C - Calibration
 Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 µg/m³ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 µg/m³

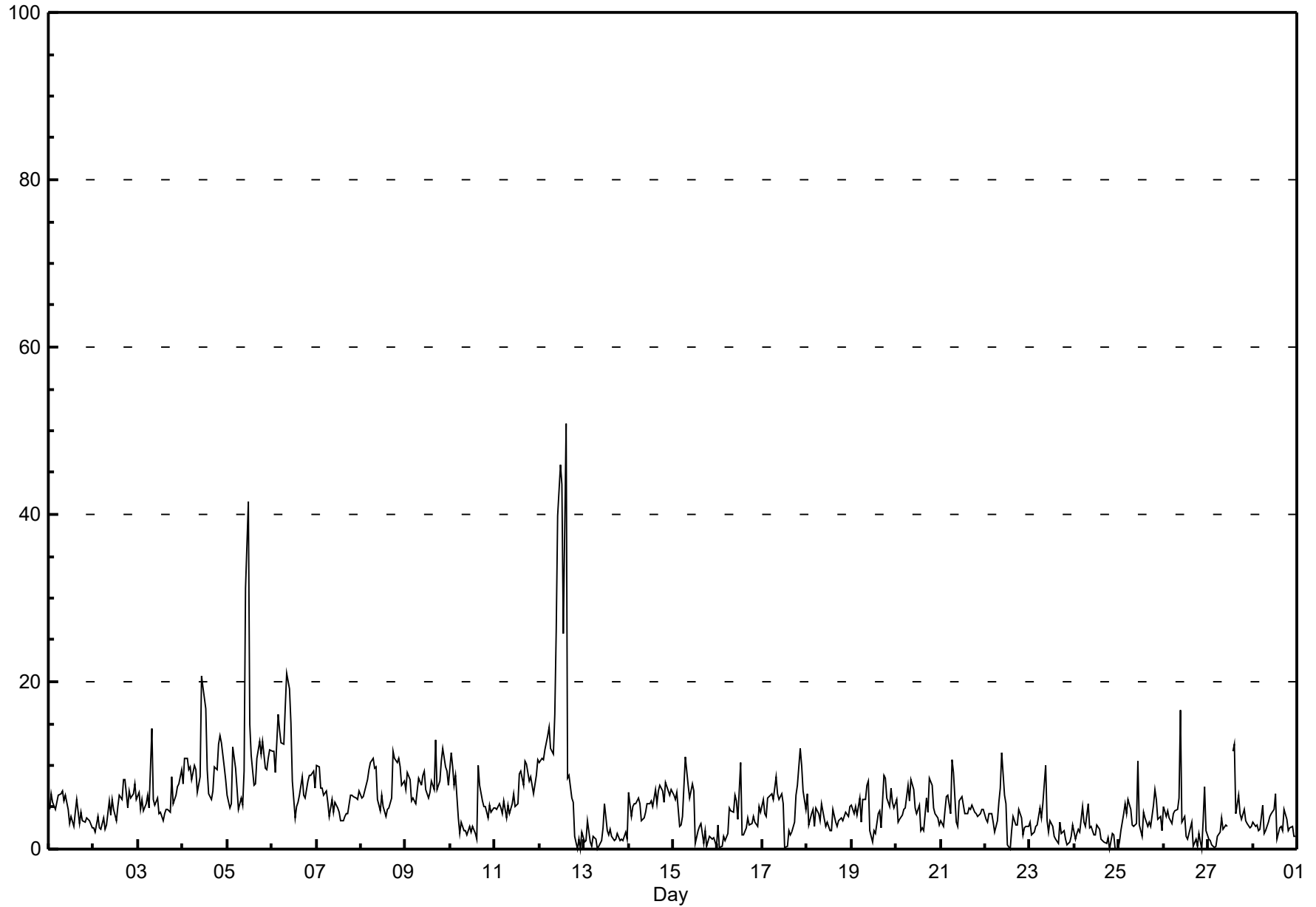


Hourly Maximums

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

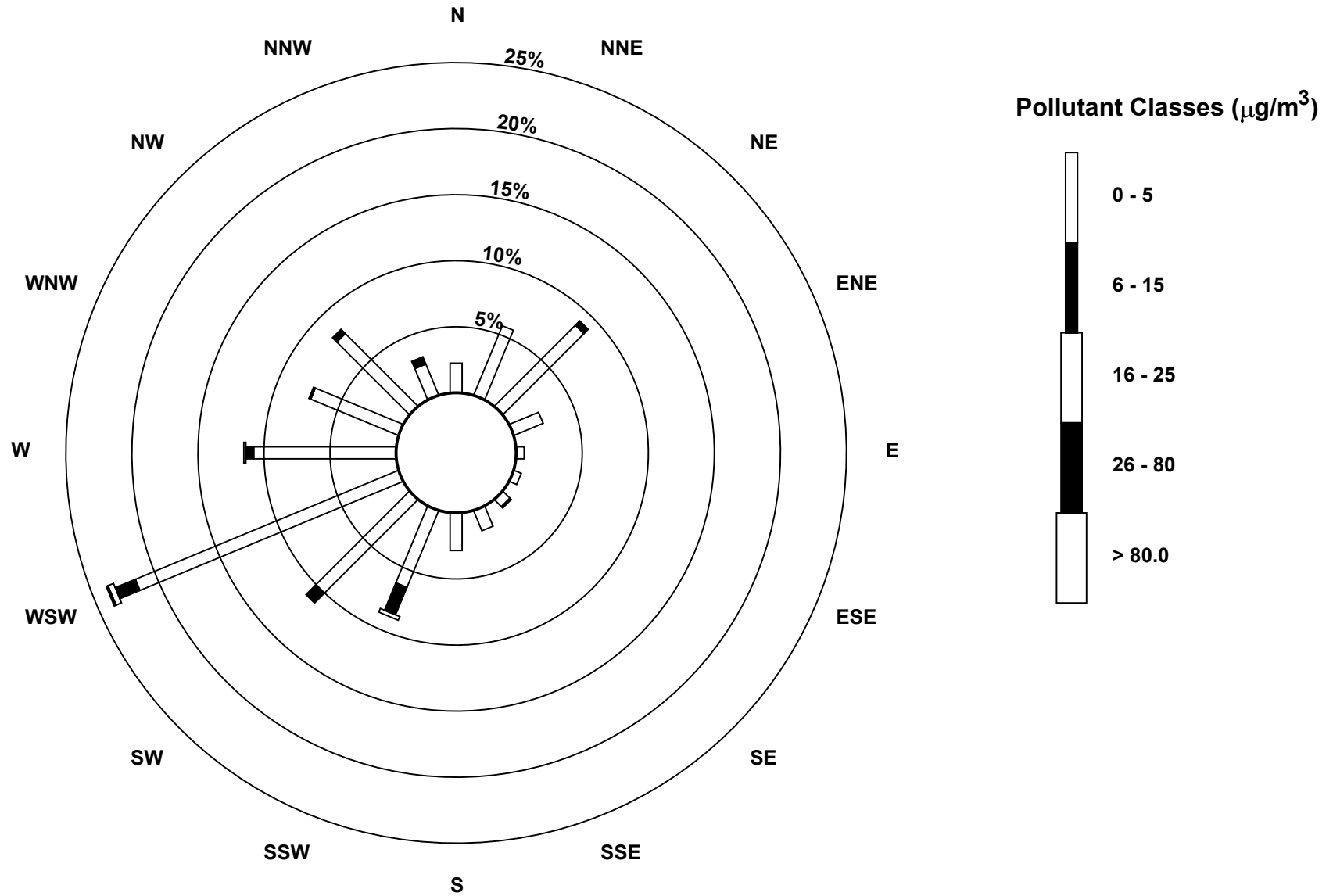
Evergreen Park - February 2018

Maximum Value: 50.9 µg/m ³ on Feb 12 15:00																	Maximum Daily Average: 15.7 µg/m ³ on Feb 12																	Hours in Service: 672															
Minimum Value: 0 µg/m ³ on Feb 12 21:00																	Minimum Daily Average: 1.5 µg/m ³ on Feb 13																	Hours of Data: 670															
Maximum Diurnal Average: 8.1 µg/m ³ at hour 11																	Minimum Diurnal Average: 4.5 µg/m ³ at hour 16																	Hours of Missing Data: 2															
Monthly Average: 5.69 µg/m ³																	Percentiles: P ₁ = 0.0 P ₁₀ = 1.5 Q ₁ = 2.8 Median = 4.8 Q ₃ = 6.9 P ₉₀ = 10.1 P ₉₉ = 25.9																	Hours of Calibration: 2															
																	Percent Operational Time: 100.0																																
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																									
1-Feb	5	7	6	5	6	6	7	7	6	6	5	3	4	3	4	6	3	4	3	3	4	4	3	2	4.6	6.9																							
2-Feb	3	2	4	2	2	4	2	3	6	4	6	5	3	5	6	6	8	8	5	7	6	7	8	6	5.0	8.3																							
3-Feb	7	5	6	5	5	6	5	14	6	5	6	4	4	3	4	5	5	4	9	5	6	7	8	9	6.1	14.4																							
4-Feb	8	11	11	10	10	8	10	10	7	9	21	19	17	10	7	6	7	10	10	13	13	13	10	8	10.6	20.7																							
5-Feb	6	5	5	12	10	7	5	6	5	9	31	42	15	11	8	8	11	13	11	13	10	9	11	12	11.5	41.6																							
6-Feb	12	12	9	16	14	13	13	17	21	19	15	8	4	5	6	6	9	6	6	8	9	9	9	7	10.5	21.0																							
7-Feb	10	10	7	7	6	7	6	4	6	4	6	5	4	3	3	4	4	4	6	6	6	6	6	7	5.8	10.0																							
8-Feb	6	6	7	8	10	10	11	10	10	6	5	6	5	4	5	5	6	12	11	10	11	10	8	8	7.9	11.6																							
9-Feb	7	9	8	6	6	5	7	8	8	9	9	7	6	7	8	7	13	7	8	11	12	10	9	8	8.2	13.0																							
10-Feb	12	10	8	9	4	2	3	2	2	2	3	2	3	2	1	10	8	6	5	5	4	5	4	5	4.8	11.5																							
11-Feb	5	5	5	5	4	6	4	5	4	5	7	5	5	9	9	8	11	10	8	9	8	7	9	11	6.8	10.8																							
12-Feb	10	11	11	12	14	15	12	11	16	26	40	46	44	26	51	8	9	6	6	2	0	1	0	2	15.7	50.9																							
13-Feb	1	1	3	1	0	2	1	0	0	1	2	5	2	2	2	2	1	1	2	1	1	1	2	1	1.5	5.5																							
14-Feb	7	4	5	5	5	6	5	3	4	4	5	5	6	5	7	5	7	8	7	6	8	7	6	7	5.8	7.9																							
15-Feb	6	6	7	3	3	4	11	9	8	6	8	7	1	2	3	3	1	2	0	2	1	1	1	0	4.0	11.0																							
16-Feb	3	0	0	2	1	2	5	5	4	6	6	4	10	2	2	2	4	3	3	4	3	3	5	4	3.5	10.3																							
17-Feb	6	4	4	6	6	7	6	9	7	6	7	5	0	0	2	2	2	3	6	8	12	10	7	5	5.4	12.0																							
18-Feb	7	3	4	5	3	5	4	3	5	3	3	2	2	2	5	3	3	3	4	3	4	4	4	5	3.8	6.7																							
19-Feb	5	4	5	4	6	3	6	6	8	8	2	1	2	2	4	5	2	9	9	6	5	7	6	5	5.0	8.8																							
20-Feb	6	3	4	4	5	5	8	6	8	7	5	4	5	2	2	2	6	4	9	8	5	4	4	3	5.0	8.5																							
21-Feb	3	3	4	6	6	4	11	9	3	3	6	6	5	4	4	5	5	5	4	4	4	4	5	5	5.0	10.6																							
22-Feb	4	3	4	4	3	2	3	6	7	12	6	5	0	0	2	4	3	3	5	4	2	3	3	3	3.8	11.5																							
23-Feb	3	2	2	3	3	5	4	5	10	3	2	3	3	1	1	1	3	2	2	1	0	1	2	3	2.7	10.1																							
24-Feb	1	2	2	2	5	3	3	5	3	3	2	2	3	2	1	1	1	1	1	0	2	2	0	0	1.9	5.5																							
25-Feb	1	2	4	5	4	6	5	3	3	3	11	3	1	4	4	3	3	3	5	7	6	4	4	2	4.0	10.6																							
26-Feb	5	4	5	4	3	4	4	5	6	17	3	4	1	1	2	3	0	1	0	2	0	3	7	2	3.7	16.7																							
27-Feb	1	1	0	0	0	1	2	4	2	3	3	C	C	12	12	4	6	4	3	5	3	3	3	3	3.5	12.5																							
28-Feb	3	3	3	2	2	5	2	2	3	4	4	5	7	1	2	3	2	5	3	2	3	3	2	1	3.0	6.6																							
																								5.4	4.9	5.2	5.5	5.3	5.5	5.8	6.3	6.4	7.0	8.1	8.0	6.1	4.7	6.1	4.5	5.1	5.3	5.4	5.5	5.3	5.3	5.2	4.8	Diurnal Average	
																								11.8	11.7	10.8	16.2	14.2	14.5	12.6	16.9	21.0	26.2	39.9	46.0	43.5	25.8	50.9	10.1	13.0	12.9	11.3	12.8	13.5	12.7	10.9	11.8	Diurnal Maximum	
C - Calibration																																																	



Pollutant Rose

Particulate Matter 2.5 (PM_{2.5}) - μg/m³
Evergreen Park - February 2018



Hourly Averages

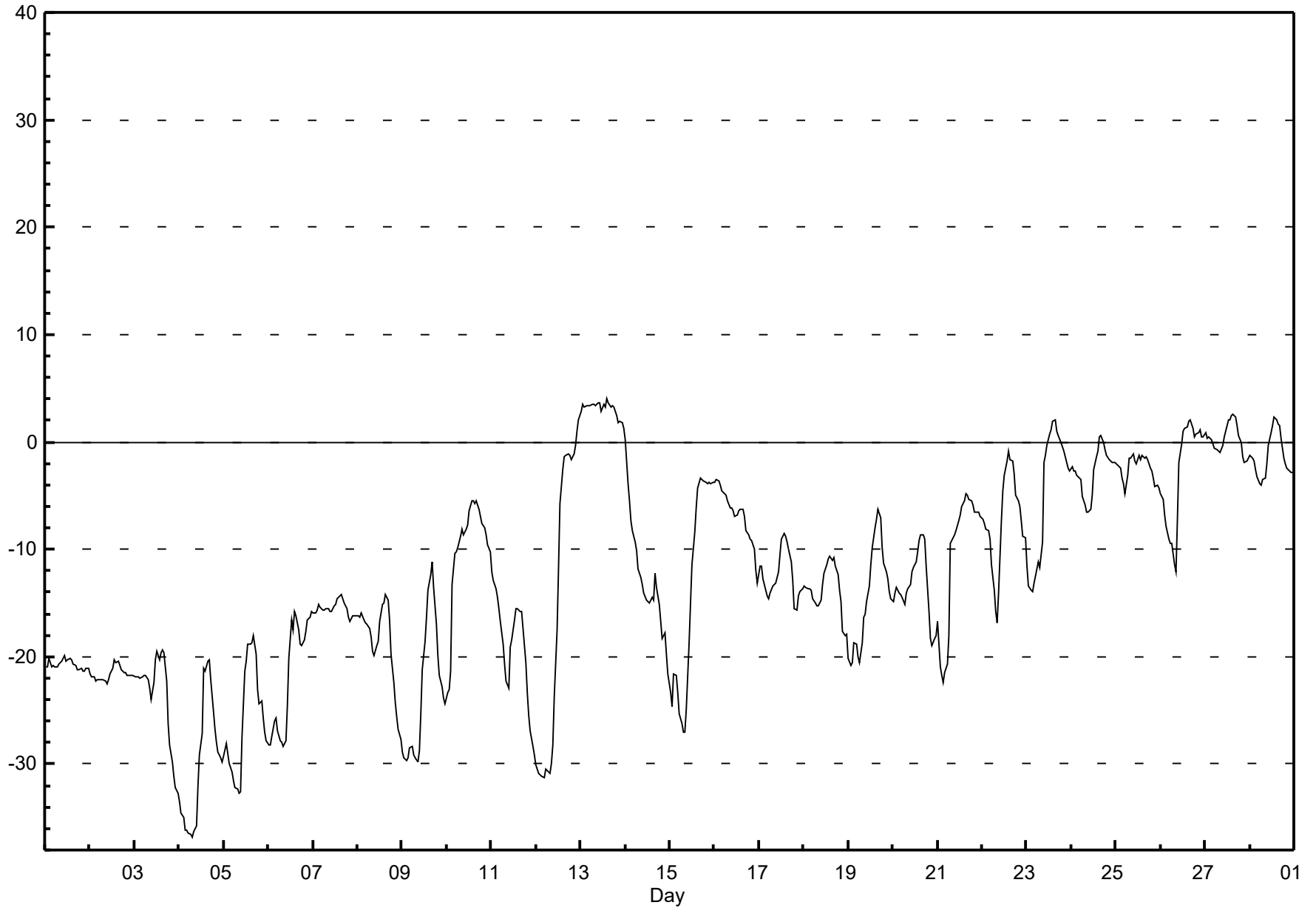
External Temperature (ET) - °C

Evergreen Park - February 2018

Maximum Value: 4.0 °C on Feb 13 15:00 Minimum Value: -37 °C on Feb 4 08:00 Maximum Diurnal Average: -8.4 °C at hour 17 Monthly Average: -12.93 °C																			Maximum Daily Average: 3.1 °C on Feb 13 Minimum Daily Average: -29.9 °C on Feb 4 Minimum Diurnal Average: -16.1 °C at hour 7 Percentiles: P ₁ = -35.2 P ₁₀ = -26.9 Q ₁ = -20.5 Median = -13.6 Q ₃ = -4.0 P ₉₀ = -0.1 P ₉₉ = 3.5																			Hours in Service: 672 Hours of Data: 672 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum													
1-Feb	-21	-21	-20	-21	-21	-21	-21	-21	-21	-20	-20	-20	-20	-20	-21	-21	-21	-21	-21	-21	-21	-21	-21	-21	-21	-20.8	-19.8												
2-Feb	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	-21	-20	-20	-20	-21	-21	-22	-21	-22	-22	-22	-22	-22	-21.6	-20.3												
3-Feb	-22	-22	-22	-22	-22	-22	-22	-22	-23	-24	-22	-20	-20	-20	-20	-19	-20	-22	-26	-28	-30	-31	-32	-33	-23.6	-19.3													
4-Feb	-33	-35	-35	-36	-36	-36	-37	-37	-36	-36	-32	-29	-27	-21	-21	-20	-20	-22	-25	-27	-28	-29	-29	-30	-29.9	-20.3													
5-Feb	-29	-28	-29	-30	-31	-32	-32	-32	-33	-33	-28	-21	-20	-19	-19	-19	-18	-20	-23	-24	-24	-26	-27	-28	-26.0	-18.0													
6-Feb	-28	-28	-27	-26	-26	-27	-28	-28	-28	-28	-24	-20	-17	-18	-16	-16	-18	-19	-19	-18	-18	-17	-16	-16	-21.9	-15.8													
7-Feb	-16	-16	-16	-15	-15	-16	-16	-16	-16	-16	-16	-15	-15	-15	-14	-14	-15	-15	-16	-16	-17	-16	-16	-16	-15.5	-14.2													
8-Feb	-16	-16	-16	-17	-17	-17	-17	-18	-19	-20	-19	-19	-17	-15	-15	-14	-15	-17	-20	-22	-24	-26	-27	-28	-18.7	-14.3													
9-Feb	-29	-29	-30	-29	-28	-28	-29	-29	-30	-29	-25	-21	-19	-16	-14	-12	-11	-14	-17	-20	-22	-23	-24	-24	-23.1	-11.1													
10-Feb	-23	-23	-21	-13	-10	-10	-10	-9	-8	-9	-8	-8	-6	-6	-5	-6	-6	-6	-7	-8	-8	-9	-10	-10	-9.9	-5.5													
11-Feb	-12	-13	-14	-15	-15	-17	-19	-21	-22	-23	-19	-18	-17	-16	-15	-16	-16	-17	-21	-23	-25	-27	-28	-29	-19.1	-12.0													
12-Feb	-30	-31	-31	-31	-31	-31	-31	-31	-31	-30	-28	-24	-18	-12	-6	-3	-1	-1	-1	-1	-2	-1	0	1	2	-15.5	2.0												
13-Feb	3	3	3	3	3	3	3	4	3	4	4	3	3	3	4	4	3	3	3	2	2	2	2	1	3.1	4.0													
14-Feb	0	-4	-5	-7	-8	-9	-10	-12	-13	-13	-14	-15	-15	-15	-14	-15	-12	-14	-15	-17	-18	-18	-20	-22	-12.7	0.2													
15-Feb	-23	-25	-22	-22	-23	-25	-26	-27	-27	-25	-19	-15	-11	-8	-6	-4	-3	-3	-4	-4	-4	-4	-4	-4	-14.1	-3.4													
16-Feb	-4	-4	-4	-4	-5	-5	-5	-5	-6	-6	-6	-7	-7	-6	-6	-6	-7	-8	-9	-9	-9	-10	-12	-13	-6.8	-3.5													
17-Feb	-12	-12	-13	-13	-14	-15	-14	-13	-13	-13	-12	-11	-9	-9	-9	-9	-10	-11	-13	-16	-16	-14	-14	-14	-12.4	-8.6													
18-Feb	-13	-14	-14	-14	-14	-15	-15	-15	-15	-13	-12	-11	-11	-11	-11	-11	-12	-12	-14	-15	-18	-18	-18	-18	-13.7	-10.6													
19-Feb	-20	-21	-21	-19	-19	-20	-21	-19	-16	-16	-15	-13	-11	-10	-8	-7	-6	-7	-10	-11	-12	-13	-14	-15	-14.3	-6.2													
20-Feb	-15	-14	-14	-14	-14	-14	-15	-14	-14	-13	-12	-12	-11	-10	-9	-9	-9	-9	-12	-16	-18	-19	-18	-18	-13.5	-8.6													
21-Feb	-17	-21	-22	-22	-22	-21	-18	-9	-9	-9	-8	-7	-7	-6	-5	-5	-5	-5	-6	-6	-7	-6	-7	-7	-10.7	-4.8													
22-Feb	-7	-8	-8	-8	-9	-11	-14	-16	-17	-14	-7	-5	-3	-2	-1	-2	-2	-3	-5	-5	-6	-7	-9	-9	-7.4	-0.8													
23-Feb	-12	-13	-14	-14	-13	-12	-11	-12	-9	-2	-1	0	1	1	2	2	1	1	0	0	-1	-2	-2	-3	-4.8	2.0													
24-Feb	-2	-3	-3	-3	-3	-3	-5	-6	-7	-7	-6	-5	-3	-1	-1	0	1	0	-1	-1	-2	-2	-2	-2	-2.8	0.7													
25-Feb	-2	-2	-2	-3	-4	-5	-3	-1	-2	-1	-2	-2	-1	-2	-1	-1	-1	-2	-2	-3	-3	-4	-4	-4	-2.5	-1.1													
26-Feb	-5	-5	-7	-8	-9	-9	-10	-11	-12	-7	-2	0	1	1	1	2	2	1	0	1	1	1	0	0	-3.0	2.1													
27-Feb	1	0	0	0	0	-1	-1	-1	-1	0	1	1	2	2	2	3	2	1	1	0	-1	-2	-2	-2	0.3	2.6													
28-Feb	-1	-1	-2	-3	-3	-4	-4	-4	-3	-2	0	1	2	2	2	2	2	0	-1	-2	-2	-3	-3	-3	-1.3	2.3													
																								Diurnal Average															
																								Diurnal Maximum															
-14.7 -15.2 -15.3 -15.3 -15.5 -15.9 -16.1 -16.0 -16.0 -16.0 -15.2 -13.4 -11.8 -10.4 -9.3 -8.7 -8.4 -8.4 -9.4 -10.8 -11.9 -12.6 -13.0 -13.5 -13.7 2.9 3.5 3.3 3.3 3.3 3.4 3.5 3.5 3.4 3.6 3.6 2.8 3.5 3.3 4.0 3.7 3.3 3.4 3.3 2.5 1.8 1.9 1.7 2.0																																							

Hourly Averages

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



Hourly Averages

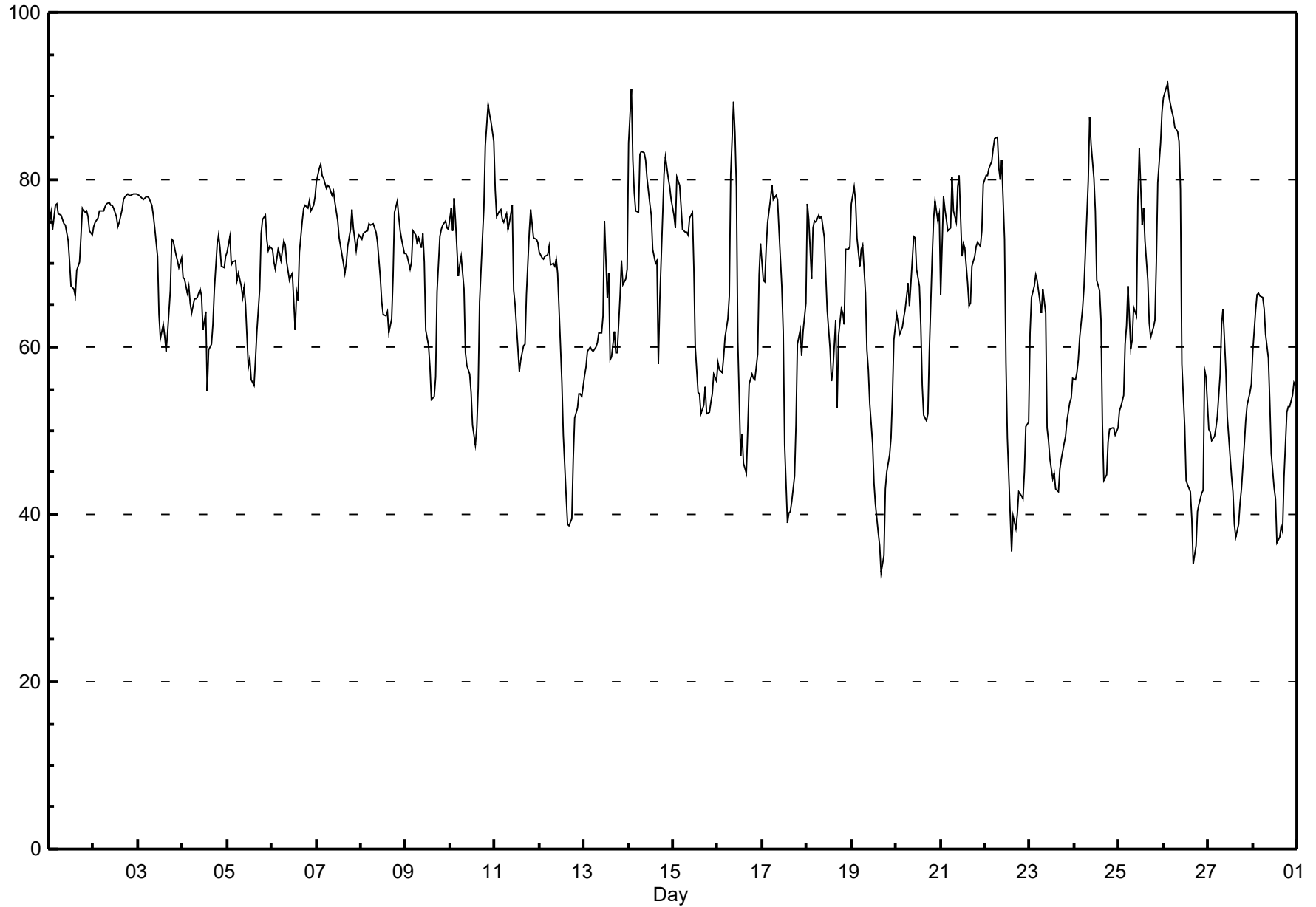
Relative Humidity (RH) - %

Evergreen Park - February 2018

Maximum Value: 91.5 % on Feb 26 03:00		Maximum Daily Average: 77.7 % on Feb 14		Hours in Service: 672 Hours of Data: 672 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0																							
Minimum Value: 33 % on Feb 19 17:00		Minimum Daily Average: 49.7 % on Feb 27																									
Maximum Diurnal Average: 72.5 % at hour 8		Minimum Diurnal Average: 54.7 % at hour 17																									
Monthly Average: 65.82 %		Percentiles: P ₁ = 37.0 P ₁₀ = 48.3 Q ₁ = 57.6 Median = 68.4 Q ₃ = 75.0 P ₉₀ = 78.5 P ₉₉ = 88.4																									
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-Feb	75	76	74	77	77	76	76	75	75	75	73	70	67	67	66	69	70	73	77	76	76	76	74	73	73.5	77.1	
2-Feb	74	75	75	76	76	76	77	77	77	77	77	77	77	76	74	75	76	78	78	78	78	78	78	78	78	76.7	78.4
3-Feb	78	78	78	78	78	78	78	77	76	74	71	64	61	63	61	60	62	67	73	73	71	70	70	71	71.1	78.1	
4-Feb	68	68	66	67	65	64	66	66	66	67	66	62	64	55	60	60	63	67	72	73	72	70	69	71	66.2	73.4	
5-Feb	71	73	70	70	70	68	69	67	66	67	65	58	59	56	55	58	62	67	74	75	76	73	72	72	67.2	75.8	
6-Feb	72	70	69	72	71	70	73	72	70	68	68	69	62	67	66	71	75	77	77	77	77	76	77	78	71.9	78.0	
7-Feb	80	81	82	81	80	79	79	79	78	79	77	75	73	72	70	69	70	72	74	76	74	72	73	73	75.8	81.8	
8-Feb	73	74	74	74	75	75	75	74	74	72	68	65	64	64	62	63	68	76	77	76	74	73	71	71	71.0	77.4	
9-Feb	71	71	69	70	74	73	72	73	72	74	70	62	60	58	54	54	56	67	73	74	75	75	74	74	68.6	75.1	
10-Feb	77	74	78	75	68	70	71	67	59	58	57	55	51	48	50	55	65	73	77	84	89	88	87	85	69.1	89.0	
11-Feb	79	76	76	76	75	75	76	74	75	77	67	65	60	57	59	60	60	66	74	76	75	73	73	72	70.7	78.8	
12-Feb	71	71	71	71	71	72	70	70	70	71	69	60	56	49	42	39	39	40	47	51	53	54	54	54	58.9	72.1	
13-Feb	57	58	59	60	60	60	60	60	62	62	64	75	66	69	59	59	62	59	59	66	70	67	68	69	62.9	75.0	
14-Feb	84	91	82	78	76	76	83	83	83	82	80	77	76	72	70	70	58	66	76	81	83	80	79	78	77.7	90.8	
15-Feb	76	74	80	79	77	74	74	74	73	75	76	70	60	55	54	52	53	55	52	52	53	54	57	56	64.8	80.3	
16-Feb	58	57	57	59	61	63	66	81	89	86	79	61	47	50	46	45	50	56	57	56	56	59	69	72	61.7	89.4	
17-Feb	68	68	72	75	78	79	78	78	78	74	67	62	48	39	40	40	42	45	51	60	62	59	62	65	62.0	79.3	
18-Feb	77	75	68	74	75	75	76	75	76	73	69	64	60	56	57	63	53	61	65	64	63	72	72	72	68.1	77.2	
19-Feb	77	79	77	73	70	72	72	66	60	57	53	48	44	41	38	36	33	35	43	45	47	49	54	61	55.5	79.1	
20-Feb	64	63	62	62	64	65	68	65	68	73	73	69	67	62	55	52	51	52	59	71	75	78	75	76	65.4	77.5	
21-Feb	66	78	76	75	74	74	80	76	75	79	81	71	72	72	68	65	65	70	71	72	73	72	74	79	73.3	80.5	
22-Feb	81	81	81	82	84	85	85	81	80	82	73	58	49	40	36	40	38	40	43	42	42	45	50	51	61.2	85.0	
23-Feb	62	66	67	69	68	65	64	67	64	50	49	47	44	45	43	43	46	47	48	49	51	53	54	56	54.9	68.7	
24-Feb	56	57	58	61	65	67	71	80	88	84	80	76	68	67	63	51	44	45	49	50	50	50	50	50	61.7	87.5	
25-Feb	52	53	54	60	62	67	60	61	65	64	78	84	75	77	73	68	63	61	62	63	70	80	84	88	67.7	88.1	
26-Feb	90	91	92	90	88	87	86	86	85	79	58	51	44	44	43	40	34	36	40	41	43	43	57	56	62.6	91.5	
27-Feb	50	50	49	49	50	52	57	63	65	57	52	49	45	43	39	37	39	41	43	48	51	53	55	56	49.7	64.6	
28-Feb	59	64	66	66	66	66	65	61	59	53	47	43	42	37	37	39	38	44	52	53	53	54	56	56	53.2	66.5	
	70.2	71.1	70.9	71.5	71.4	71.6	72.3	72.5	72.3	71.1	68.1	63.8	59.2	57.0	55.1	54.8	54.7	58.1	62.2	64.5	65.5	66.0	67.5	68.4	Diurnal Average		
	89.9	90.9	91.5	89.9	88.1	87.4	86.3	85.7	89.4	85.6	80.5	83.7	75.8	76.7	74.9	76.4	77.6	77.9	78.2	84.0	89.0	87.8	86.9	88.1	Diurnal Maximum		

Hourly Averages

**Relative Humidity (RH) - %
Evergreen Park - February 2018**



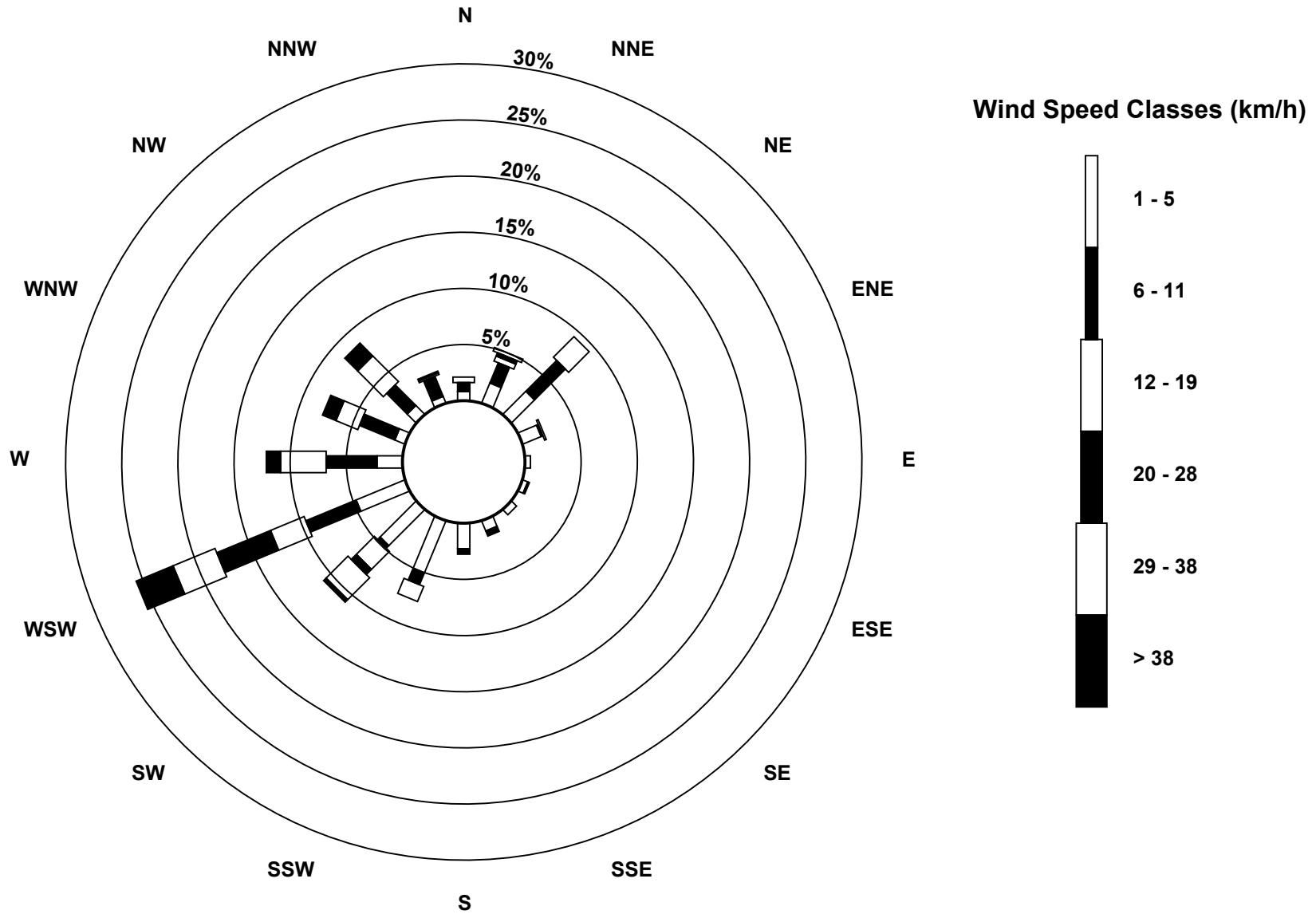
Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Evergreen Park - February 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	1	1	3	1	4	2	3	3	27	27	25	32	35	44	50	43	42	39	36	31	21	18	6	19.3	50.2	
Dir	157	163	131	62	142	35	58	48	247	241	243	241	239	242	241	246	243	243	243	241	236	223	222	283	240.6	246.0	
24 Spd	12	11	13	12	9	8	7	7	7	7	6	7	4	8	5	18	33	31	28	17	18	18	11	10	8.5	32.6	
Dir	262	272	260	262	291	291	345	346	28	50	68	111	153	209	276	245	247	247	245	232	211	204	189	167	243.1	247.1	
25 Spd	9	7	4	2	1	4	16	29	25	15	14	11	19	20	16	15	10	11	6	1	5	5	2	2	6.3	28.7	
Dir	167	167	156	87	69	169	213	236	243	276	295	317	311	317	313	316	312	319	331	232	226	191	122	142	274.3	235.6	
26 Spd	2	1	4	1	1	0	0	1	2	14	34	36	33	31	25	24	39	34	32	40	37	33	42	39	20.4	41.6	
Dir	80	148	190	185	41	181	26	2	261	242	233	234	241	251	249	245	231	232	229	227	229	232	248	240	236.2	248.0	
27 Spd	34	32	33	34	33	32	33	34	34	35	39	37	32	37	33	36	36	29	27	27	14	17	19	18	30.0	38.8	
Dir	236	228	226	225	222	220	231	234	235	242	246	248	249	247	250	250	248	245	240	242	228	221	220	223	237.1	246.4	
28 Spd	23	21	19	14	8	10	12	14	13	8	19	14	11	7	8	9	9	10	8	7	6	9	12	14	4.5	23.1	
Dir	230	232	230	231	258	245	230	226	229	245	240	259	257	305	357	20	20	38	56	51	47	44	46	48	257.3	230.1	
Spd	6.6	5.3	5.6	5.3	4.9	4.3	5.0	6.3	6.6	7.5	9.0	9.7	11.2	12.4	11.9	11.4	11.2	10.1	9.3	9.0	8.2	7.5	7.5	6.8	Diurnal Average		
Dir	252.1	259.8	266.3	263.7	268.4	270.2	259.5	259.1	260.7	265.6	268.7	267.0	270.6	268.6	273.2	272.8	263.7	256.7	251.0	247.0	245.4	241.4	245.6	247.5	Diurnal Maximum		
Spd	46.0	49.4	51.1	51.4	54.7	47.0	49.5	35.2	34.4	35.2	38.8	36.8	37.5	37.2	44.1	50.2	42.8	41.9	38.8	40.5	37.2	41.9	47.8	43.4	Diurnal Maximum		
Dir	251.8	251.7	255.7	254.9	252.3	253.8	245.2	248.2	235.3	242.2	246.4	248.1	238.2	247.3	241.2	246.0	243.2	243.3	243.4	227.0	228.8	240.9	245.5	250.3	Diurnal Maximum		
Maximum Speed Value: 55 km/h on Feb 13 05:00																		Minimum Speed Value: 0 km/h on Feb 15 01:00						Hours in Service:		672	
Maximum Daily Speed Average: 34.9 km/h on Feb 13												Minimum Daily Speed Average: 0.7 km/h on Feb 4						Hours of Data:		670							
Maximum Diurnal Speed Average: 12.4 km/h at hour 14												Minimum Diurnal Speed Average: 4.3 km/h at hour 6						Hours of Missing Data:		2							
Monthly Average Velocity: 7.92 km/h 260.82 deg												Speed Percentiles: P ₁ = 0.2 P ₁₀ = 1.3 Q ₁ = 3.1 Median = 8.1 Q ₃ = 16.1 P ₉₀ = 28.5 P ₉₉ = 47.4						Percent Operational Time:		99.7							
All monthly, daily, and diurnal averages have been calculated using vector methods																											
N - Not Valid																											
Frequency Distribution																											
		Speed Range (km/h)																									
Direction	0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total																				
North	19	14	6	3	1	0	43																				
NorthEast	42	30	19	0	1	0	92																				
East	11	2	0	0	0	0	13																				
SouthEast	11	0	0	0	0	0	11																				
South	36	11	3	0	0	0	50																				
SouthWest	70	26	26	21	32	13	188																				
West	32	59	45	29	11	11	187																				
NorthWest	11	31	28	16	0	0	86																				
Total	232	173	127	69	45	24	670																				

Wind Rose

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



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Evergreen Park - February 2018

Maximum Speed: 55 km/h on Feb 13 05:00	Maximum Daily Speed Average: 35.6 km/h on Feb 13	Hours in Service: 672
Minimum Speed: 0 km/h on Feb 8 22:00	Minimum Daily Speed Average: 2.8 km/h on Feb 4	Hours of Data: 670
Maximum Diurnal Speed Average: 17.0 km/h at hour 14	Minimum Diurnal Speed Average: 8.3 km/h at hour 6	Hours of Missing Data: 2
Monthly Average Speed: 12.17 km/h	Percentiles: P ₁ = 0.6 P ₁₀ = 1.8 Q ₁ = 3.7 Median = 8.6 Q ₃ = 16.6 P ₉₀ = 28.8 P ₉₉ = 47.7	Percent Operational Time: 99.7

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-Feb	3	3	1	5	5	8	9	9	8	7	10	13	14	13	13	10	10	9	6	7	5	3	1	2	7.2	14.0
2-Feb	4	4	4	8	4	5	6	16	9	12	12	9	9	8	11	8	9	10	9	13	14	12	13	11	9.2	15.6
3-Feb	13	11	10	9	10	10	7	7	15	13	13	14	16	23	20	14	8	5	2	1	1	1	1	3	9.5	23.5
4-Feb	2	3	2	3	1	5	N	N	2	3	4	4	3	3	5	2	1	1	3	5	3	1	2	3	2.8	5.0
5-Feb	2	4	2	2	3	2	3	1	1	2	1	4	6	9	10	6	5	3	1	4	7	2	1	3	3.5	9.9
6-Feb	3	2	1	1	2	1	2	2	2	1	2	6	7	5	2	6	7	5	2	2	1	1	1	1	2.8	7.1
7-Feb	3	4	4	1	3	2	1	1	2	4	5	6	9	9	7	7	6	3	1	2	7	3	5	2	4.0	9.1
8-Feb	4	5	1	8	5	6	7	5	5	4	5	6	8	7	8	6	7	4	1	2	0	0	1	1	4.4	7.8
9-Feb	3	1	1	3	5	5	3	6	7	8	11	11	14	11	9	7	4	5	4	3	3	2	1	3	5.5	14.4
10-Feb	4	2	6	12	13	13	14	20	25	23	21	24	21	21	16	11	3	3	4	4	14	19	12	13	13.2	24.8
11-Feb	17	14	15	12	9	8	5	7	4	2	4	7	6	6	7	6	5	4	1	1	2	1	2	1	6.1	17.0
12-Feb	2	2	1	2	3	3	3	1	2	3	4	2	1	8	17	21	23	22	26	26	35	42	48	44	14.2	48.1
13-Feb	46	50	52	52	55	47	50	35	28	26	29	32	38	37	39	48	41	34	29	14	13	20	21	19	35.6	55.1
14-Feb	23	30	32	25	23	16	13	14	14	14	14	15	14	11	8	8	3	6	6	4	7	7	4	2	12.9	31.7
15-Feb	2	2	8	5	5	2	2	3	3	5	7	6	5	7	9	14	20	18	27	39	37	32	26	24	12.9	39.5
16-Feb	23	26	22	16	7	4	5	14	12	13	16	17	24	25	24	22	18	11	10	8	6	3	2	4	13.8	25.6
17-Feb	5	3	2	2	4	3	2	3	3	8	11	9	18	24	23	18	18	8	7	4	6	6	6	7	8.3	23.7
18-Feb	10	14	20	15	12	16	17	14	20	20	24	23	26	23	20	19	15	17	13	8	6	4	6	7	15.4	25.6
19-Feb	4	3	7	8	9	8	9	10	15	14	17	15	15	15	13	14	10	7	8	8	8	9	12	9	10.3	16.8
20-Feb	7	10	10	9	8	5	4	11	14	10	19	18	23	25	25	20	13	10	3	1	5	5	10	13	11.6	25.3
21-Feb	10	4	1	3	1	1	11	28	26	29	27	28	27	26	24	21	21	17	14	13	14	16	16	16	16.4	28.7
22-Feb	14	11	10	10	7	3	3	1	0	2	3	6	14	18	15	12	16	16	11	18	17	16	14	9	10.2	17.7
23-Feb	3	2	2	4	2	4	4	4	6	27	27	25	32	35	44	51	43	42	39	37	32	21	18	8	21.4	50.5
24-Feb	13	11	13	13	10	8	8	9	7	8	7	8	6	8	8	18	33	32	28	17	18	18	12	10	13.5	32.9
25-Feb	10	7	4	2	2	4	17	29	25	16	14	12	20	21	16	16	11	11	7	1	6	5	2	2	10.8	28.9
26-Feb	2	2	4	2	1	0	0	1	2	15	34	37	34	32	25	25	39	34	32	41	37	34	43	39	21.5	42.6
27-Feb	34	32	34	34	33	33	33	34	35	36	39	37	32	38	33	36	36	29	27	27	14	17	19	18	30.8	39.1
28-Feb	23	21	19	14	10	12	12	15	13	8	19	15	12	10	10	9	10	10	8	7	7	9	12	15	12.5	23.3
	10.3	10.1	10.2	10.0	9.1	8.3	9.2	11.0	10.9	11.9	14.2	14.6	16.2	17.0	16.4	16.3	15.5	13.4	11.8	11.3	11.5	11.1	11.2	10.4	Diurnal Average	
	46.3	49.8	51.5	51.7	55.1	47.3	49.9	35.4	34.7	35.6	39.1	37.0	37.8	37.6	44.5	50.5	43.2	42.2	39.0	40.8	37.4	42.1	48.1	43.7	Diurnal Maximum	

N - Not Valid
 All monthly, daily, and diurnal averages have been calculated using scalar methods

Hourly Standard Deviations

Wind Direction (WD) - deg
Evergreen Park - February 2018

Maximum Value: 96.8 deg on Feb 11 22:00																								Hours in Service: 672	
Minimum Value: 4.7 deg on Feb 22 20:00																								Hours of Data: 670	
Percentiles: P ₁ = 5.9 P ₁₀ = 7.4 Q ₁ = 11.6 Median = 19.7 Q ₃ = 39.3 P ₉₀ = 67.2 P ₉₉ = 93.4																								Hours of Missing Data: 2	
																								Hours of Calibration: 0	
																								Percent Operational Time: 99.7	
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-Feb	15	21	71	18	20	17	19	18	16	17	18	19	22	18	13	17	21	20	20	25	27	35	67	41	70.6
2-Feb	16	30	25	21	41	35	32	22	23	17	20	31	27	31	32	29	19	16	27	21	11	14	14	18	41.3
3-Feb	16	18	19	17	17	11	17	14	15	19	18	18	11	10	12	27	29	43	54	58	94	82	56	80	93.8
4-Feb	94	62	61	73	68	69	N	N	45	57	34	34	53	40	36	65	67	93	43	16	77	49	51	37	94.4
5-Feb	54	17	37	60	46	79	93	91	84	63	66	57	25	24	33	33	49	61	79	57	39	93	69	68	93.2
6-Feb	50	68	80	64	35	88	87	44	29	89	64	40	19	25	70	32	18	18	30	62	66	32	24	62	88.6
7-Feb	21	22	37	43	50	45	50	48	39	26	32	30	19	25	26	29	24	26	71	61	10	34	20	49	70.6
8-Feb	49	25	68	17	23	24	21	23	20	27	22	19	21	37	23	30	22	24	28	36	85	75	89	91	91.4
9-Feb	28	67	26	11	22	13	46	24	10	17	9	12	13	22	15	17	46	35	37	53	68	44	77	19	76.6
10-Feb	76	56	31	21	18	21	18	11	9	9	16	11	11	12	11	46	56	23	19	30	9	14	20	20	75.6
11-Feb	15	14	15	17	17	18	34	28	73	77	41	18	40	28	28	19	23	17	45	77	87	97	63	58	96.8
12-Feb	95	60	66	67	67	40	69	90	48	65	40	46	87	37	15	12	11	12	7	6	7	6	6	7	94.5
13-Feb	7	7	7	7	6	7	7	6	8	8	7	8	7	9	7	6	7	8	8	11	8	9	13	17	17.5
14-Feb	37	10	11	14	13	13	19	18	17	23	16	20	20	19	51	39	51	18	18	36	22	25	38	67	67.3
15-Feb	94	68	35	13	18	49	46	18	20	11	9	15	29	18	18	21	7	10	8	6	7	9	10	8	93.7
16-Feb	9	7	7	45	27	27	36	10	11	12	25	23	13	16	22	22	12	15	18	27	26	96	82	50	96.3
17-Feb	9	22	95	63	69	72	81	55	57	16	18	27	28	20	26	21	21	19	27	15	14	29	26	20	94.7
18-Feb	21	16	12	12	14	12	10	12	9	8	11	13	14	24	30	19	22	11	8	12	9	13	11	21	30.4
19-Feb	32	38	9	23	26	20	12	21	12	13	11	13	17	12	11	11	15	10	15	18	14	21	20	12	37.6
20-Feb	21	16	19	19	15	39	27	8	8	17	20	19	17	18	18	20	22	7	57	44	33	17	5	7	56.9
21-Feb	61	50	84	32	68	78	78	7	8	8	10	10	11	11	15	16	14	18	15	11	10	13	11	11	83.6
22-Feb	13	13	14	8	24	51	85	61	56	40	23	30	18	13	17	26	10	9	11	5	6	7	5	21	84.6
23-Feb	74	84	58	66	86	36	75	39	84	7	8	8	8	7	7	7	7	6	7	6	6	8	7	45	86.0
24-Feb	17	16	12	26	23	25	29	41	19	25	43	33	64	28	64	10	9	7	7	11	8	7	19	14	63.8
25-Feb	12	18	20	45	60	19	24	7	7	26	19	18	19	14	14	17	32	15	29	74	19	10	47	52	73.9
26-Feb	41	70	45	77	67	93	86	81	46	25	7	7	10	10	10	15	8	8	8	8	7	10	12	11	93.0
27-Feb	6	5	6	7	7	6	6	7	7	9	7	6	9	8	10	7	7	8	7	6	10	5	7	6	9.9
28-Feb	7	7	7	9	42	41	15	8	7	30	7	15	23	51	31	27	21	13	17	12	13	14	11	12	51.1
94.5 83.7 94.7 77.4 86.0 93.0 92.7 91.0 84.3 88.6 66.2 56.7 86.9 51.1 69.7 64.7 67.1 92.5 78.8 76.7 93.8 96.8 89.5 91.4																									
N - Not Valid																									

PAZA

Smoky Heights Station

Monthly Summary Tables, Graphs and
Roses

Hourly Averages

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

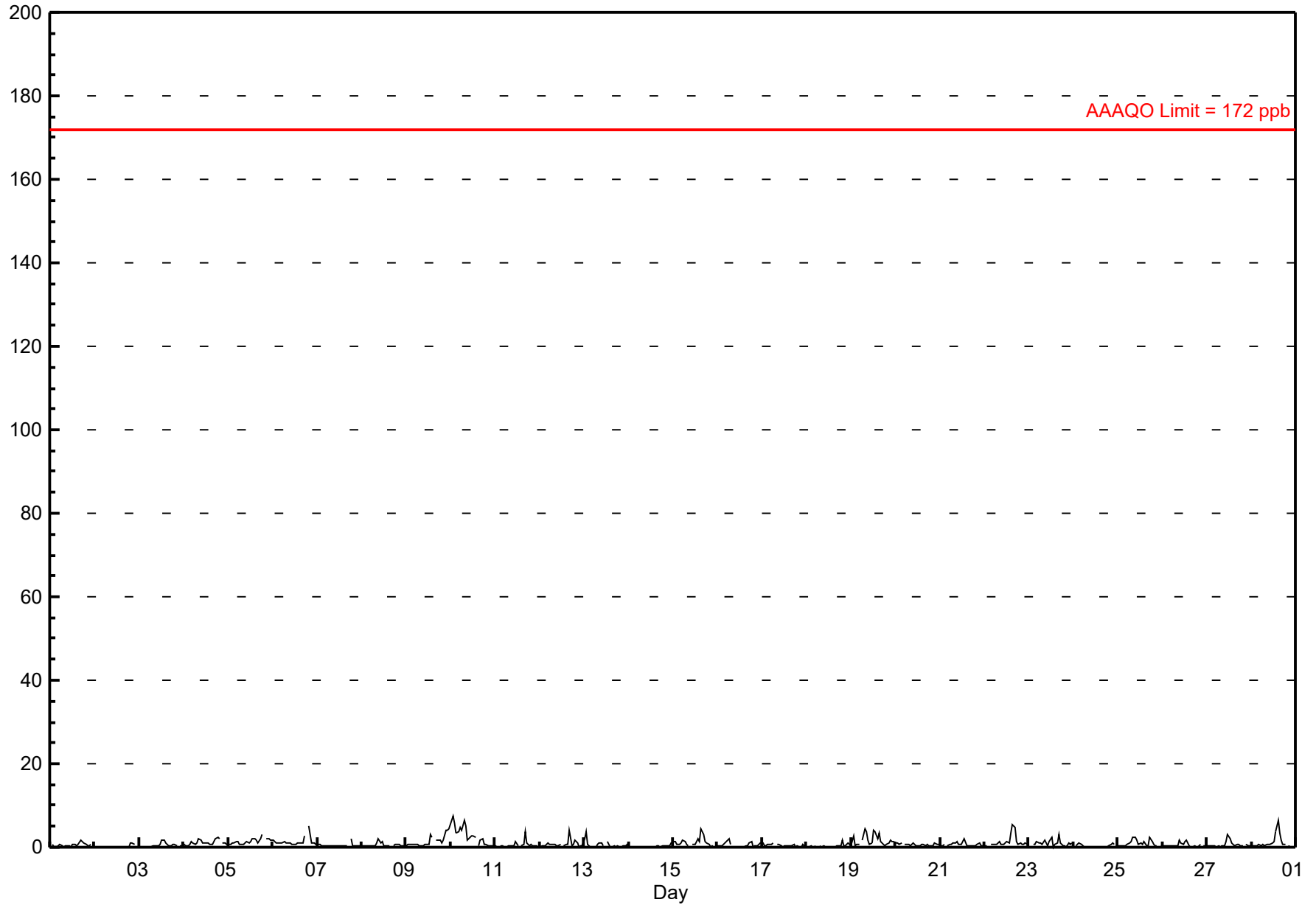
Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0	Hours in Service: 672
Maximum Value: 7.4 ppb on Feb 10 02:00	Maximum Daily Average: 2.8 ppb on Feb 10
Minimum Value: 0 ppb on Feb 2 10:00	Hours of Data: 639
Maximum Diurnal Average: 1.3 ppb at hour 17	Hours of Missing Data: 33
Monthly Average: 0.84 ppb	Hours of Calibration: 33
Minimum Daily Average: 0.2 ppb on Feb 2	Percent Operational Time: 100.0
Minimum Diurnal Average: 0.6 ppb at hour 4	
Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.2 Median = 0.5 Q ₃ = 1.0 P ₉₀ = 1.9 P ₉₉ = 5.2	

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-Feb	A	1	0	0	0	1	0	0	0	0	0	1	1	0	1	2	1	1	1	1	0	0	1	A	0.5	1.6
2-Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	A	0	0.2	1.0
3-Feb	0	0	0	0	0	0	0	0	0	0	1	2	2	1	1	0	0	1	1	1	0	A	0	0	0.5	1.8
4-Feb	1	0	0	1	1	1	1	1	2	2	1	1	1	1	1	1	2	2	2	2	A	1	1	1	1.2	2.3
5-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	1	2	3	A	2	2	2	2	1.4	3.1
6-Feb	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	A	5	3	1	1	1	1	1.3	5.2
7-Feb	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	2	0	0	0	0	0	0	0.4	1.9
8-Feb	0	0	0	0	0	0	0	0	1	2	1	1	0	0	0	0	A	0	1	1	1	0	0	0	0.5	1.9
9-Feb	0	1	1	1	1	1	1	1	0	0	1	1	1	3	2	A	2	2	2	1	2	4	4	4	1.4	4.4
10-Feb	6	7	6	3	4	5	4	7	5	2	2	3	3	2	A	0	2	2	1	1	0	0	0	0	2.8	7.4
11-Feb	0	0	0	0	0	0	0	0	0	0	0	1	0	A	0	1	4	1	1	1	0	0	0	0	0.5	3.6
12-Feb	0	0	0	0	1	1	1	1	1	0	0	1	A	0	1	1	4	0	1	2	1	0	0	0	0.7	3.9
13-Feb	2	4	1	0	0	0	0	1	1	1	0	A	2	1	0	0	0	0	0	0	0	0	0	1	0.6	3.7
14-Feb	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	0.9
15-Feb	1	1	1	1	1	2	1	1	0	A	1	1	1	2	1	4	3	2	1	1	0	0	0	0	1.1	4.5
16-Feb	0	0	0	1	1	2	2	1	A	1	C	C	C	0	0	0	0	1	1	0	0	0	1	1	0.6	2.0
17-Feb	1	0	0	1	1	1	1	A	1	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0.5	1.1
18-Feb	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	2	0	0	1	1	1	0.3	1.6
19-Feb	0	3	0	1	1	A	2	5	4	2	1	1	4	4	2	3	1	1	1	1	2	1	1	1	1.8	4.6
20-Feb	1	1	1	1	A	1	1	1	0	1	1	0	0	1	1	0	1	0	0	0	0	1	1	1	0.6	1.0
21-Feb	0	0	1	A	0	1	1	1	1	1	1	1	2	2	0	0	0	0	0	0	1	1	0	0	0.7	2.0
22-Feb	0	0	A	1	1	1	1	1	1	1	1	1	1	1	3	6	5	1	1	1	1	1	1	1	1.3	5.6
23-Feb	1	A	1	1	1	1	1	1	2	1	0	1	2	0	1	1	3	1	0	0	0	1	1	1	0.9	2.9
24-Feb	A	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	A	0.3	0.9
25-Feb	0	0	0	0	0	1	1	1	3	2	2	1	1	1	1	0	0	2	1	1	0	0	A	0	0.9	2.5
26-Feb	0	0	0	0	0	0	0	0	1	2	1	1	1	2	0	0	0	0	0	0	1	A	0	0	0.5	1.7
27-Feb	0	0	0	0	0	0	0	0	0	0	1	3	2	1	1	0	1	1	0	0	A	1	0	0	0.6	2.9
28-Feb	0	0	0	0	1	0	1	0	1	1	1	1	1	4	6	3	2	1	1	A	0	0	0	0	1.1	6.4
	0.8	0.9	0.6	0.6	0.7	0.7	0.8	0.9	1.0	0.8	0.7	0.8	1.1	1.1	1.0	1.0	1.3	1.0	0.8	0.8	0.7	0.7	0.7	0.7	Diurnal Average	
	6.5	7.4	5.8	3.3	3.8	4.8	4.1	6.6	5.2	2.4	2.2	2.9	4.1	3.8	6.4	5.6	4.9	2.6	3.1	5.2	3.0	4.1	4.0	4.4	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span
 Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Hourly Averages

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



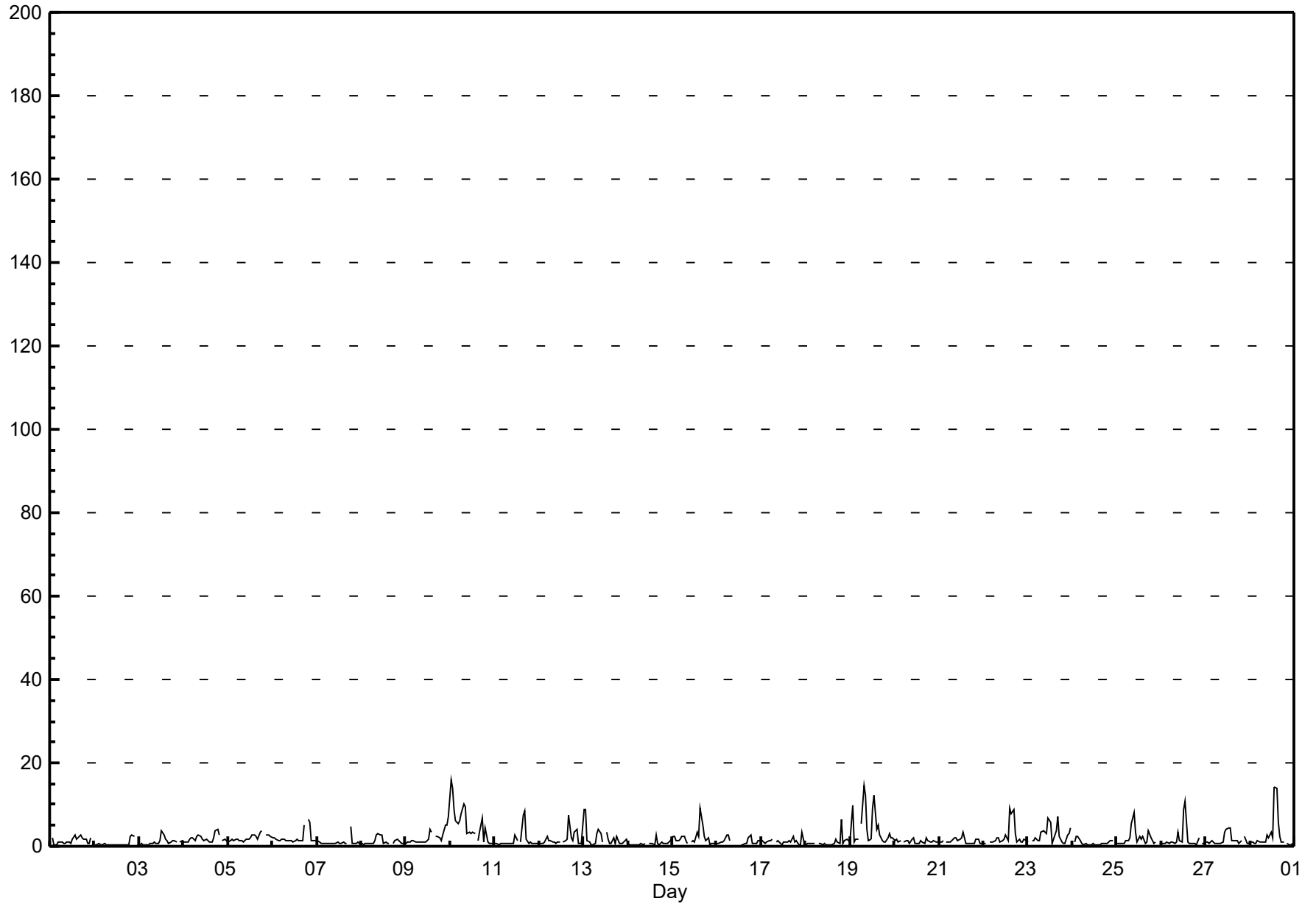
Hourly Maximums

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

Maximum Value: 15.9 ppb on Feb 10 01:00		Maximum Daily Average: 5.2 ppb on Feb 10		Hours in Service: 672																							
Minimum Value: 0 ppb on Feb 2 10:00		Minimum Daily Average: 0.7 ppb on Feb 14		Hours of Data: 639																							
Maximum Diurnal Average: 2.9 ppb at hour 14		Minimum Diurnal Average: 1.2 ppb at hour 3		Hours of Missing Data: 33																							
Monthly Average: 1.82 ppb		Percentiles: P ₁ = 0.4 P ₁₀ = 0.5 Q ₁ = 0.7 Median = 1.1 Q ₃ = 2.0 P ₉₀ = 3.5 P ₉₉ = 11.6		Hours of Calibration: 33																							
				Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Feb	A	2	1	0	1	1	1	1	1	1	1	2	3	2	2	3	2	2	2	2	1	1	2	A	1.3	2.8	
2-Feb	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	2	A	0	0.7	2.7	
3-Feb	0	1	1	0	1	0	1	1	1	1	1	1	4	3	2	1	1	1	1	1	1	A	1	1	1.1	3.6	
4-Feb	1	1	1	2	2	2	1	2	3	3	2	1	2	2	1	1	2	4	4	3	A	1	2	1	1.9	4.1	
5-Feb	1	1	2	2	2	2	1	1	1	1	2	2	2	3	3	2	2	3	4	A	3	3	3	2	2.0	3.7	
6-Feb	2	2	2	1	1	2	2	1	1	1	1	1	1	2	1	1	1	5	A	6	6	1	1	1	2.0	6.4	
7-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	5	1	1	1	1	1	1.0	4.9	
8-Feb	1	0	1	1	1	1	1	1	3	3	3	3	1	1	1	1	A	1	1	2	1	1	1	1	1.2	3.0	
9-Feb	1	1	1	1	1	1	1	1	1	1	1	1	2	4	3	A	2	2	2	2	3	5	5	7	2.1	7.0	
10-Feb	16	14	9	6	5	6	8	10	10	3	3	3	3	A	1	3	7	1	4	1	1	1	1	1	5.2	15.9	
11-Feb	1	1	0	1	1	1	1	1	1	1	1	3	1	A	1	7	8	2	1	1	1	1	1	1	1.5	8.3	
12-Feb	1	1	1	1	2	1	1	1	1	1	1	1	A	1	1	2	7	2	1	4	4	1	1	1	1.6	7.4	
13-Feb	9	9	1	1	0	0	1	3	4	3	1	A	3	2	1	1	2	1	2	1	1	1	1	2	2.2	9.0	
14-Feb	0	0	1	0	0	0	0	1	0	1	A	1	1	1	0	3	1	0	1	1	1	1	1	1	0.7	2.6	
15-Feb	2	2	1	1	2	2	2	1	1	A	1	1	1	4	2	9	5	2	1	2	0	1	1	1	2.1	9.2	
16-Feb	1	1	1	1	1	3	3	1	A	3	C	C	C	0	0	1	1	2	3	1	1	1	1	1	1.3	3.5	
17-Feb	1	1	1	1	1	1	1	A	1	1	1	0	1	1	1	1	1	2	1	1	0	0	3	0	1.2	3.4	
18-Feb	0	1	1	1	1	1	1	A	1	1	0	1	0	0	0	1	2	1	1	7	1	1	2	1	1.0	6.5	
19-Feb	1	10	1	2	2	A	5	15	12	4	1	2	9	12	4	5	3	1	1	1	2	3	2	2	4.4	14.5	
20-Feb	1	2	1	1	A	1	1	1	1	2	2	1	1	1	1	1	1	2	1	1	1	1	1	1	1.2	2.1	
21-Feb	1	1	1	A	1	1	1	1	2	2	1	2	2	3	1	1	1	1	1	1	2	2	1	1	1.3	3.4	
22-Feb	1	1	A	1	1	1	1	2	2	1	1	2	3	1	9	8	9	3	1	2	1	1	2	1	2.4	9.0	
23-Feb	1	A	1	1	2	1	1	3	4	3	3	7	6	1	2	4	7	3	1	1	1	3	3	4	2.7	7.1	
24-Feb	A	1	2	2	1	1	0	1	0	1	0	1	0	1	0	0	1	1	1	1	1	1	1	A	0.9	2.5	
25-Feb	1	1	1	1	1	1	1	2	5	8	3	1	2	2	2	1	1	4	2	1	1	1	A	1	2.0	8.0	
26-Feb	1	1	1	1	1	1	1	1	1	3	2	1	9	11	1	1	1	1	1	0	2	A	1	1	1.8	10.8	
27-Feb	1	1	1	1	1	1	1	1	1	1	3	4	4	4	1	1	1	1	1	1	A	2	1	1	1.6	4.4	
28-Feb	1	1	1	1	1	1	1	1	1	3	2	3	2	14	14	6	2	1	1	A	1	1	0	1	2.6	14.2	
		1.8	2.1	1.2	1.2	1.3	1.3	1.5	2.1	2.2	2.0	1.5	1.7	2.4	2.9	2.1	2.3	2.5	2.1	1.6	1.8	1.5	1.4	1.5	1.4	Diurnal Average	
		15.9	14.0	8.8	6.2	5.3	6.1	7.8	14.5	12.2	8.0	3.3	6.9	9.3	14.2	13.8	9.2	8.8	6.9	4.9	6.5	5.8	5.0	5.2	7.0	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

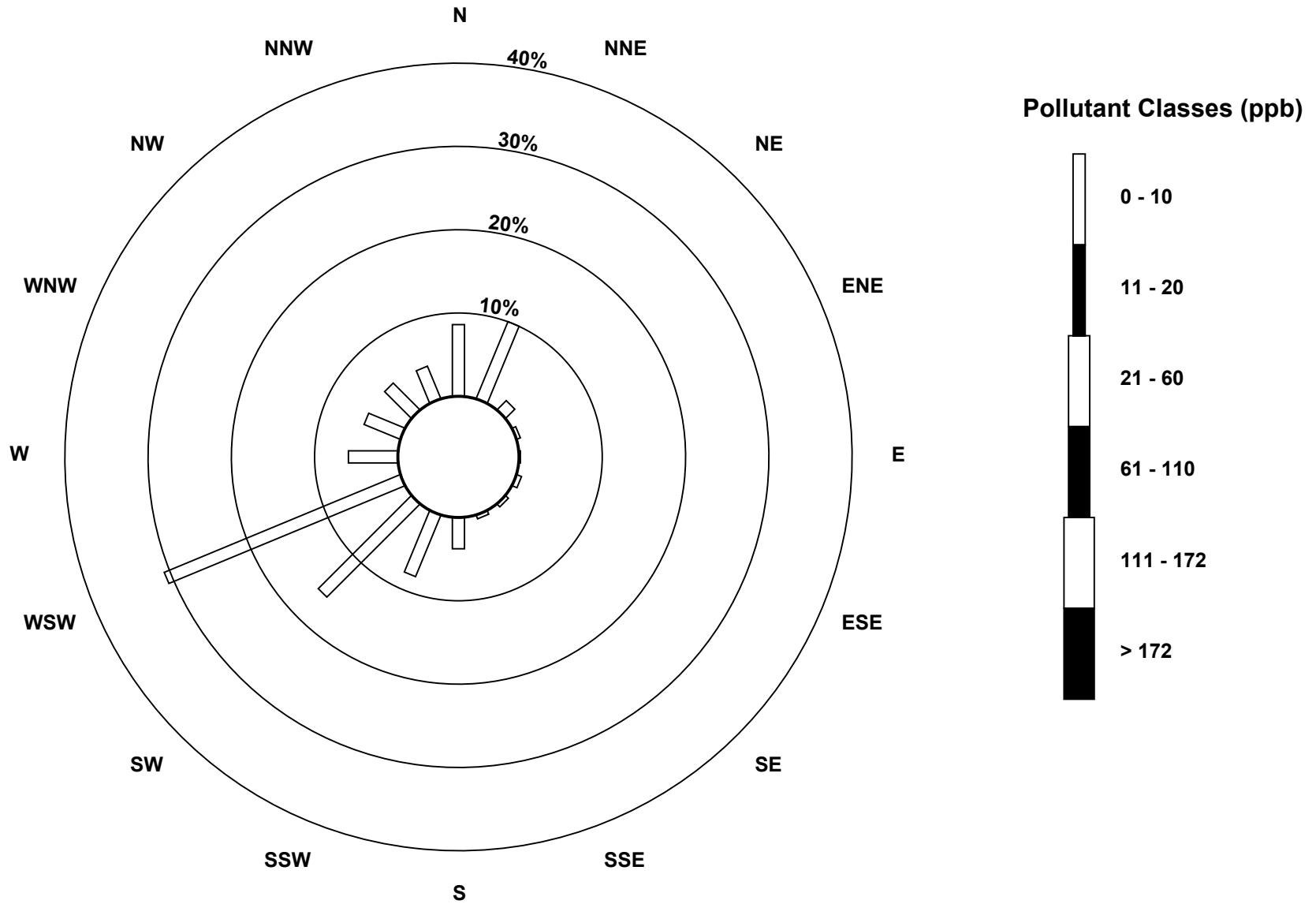
Hourly Maximums

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



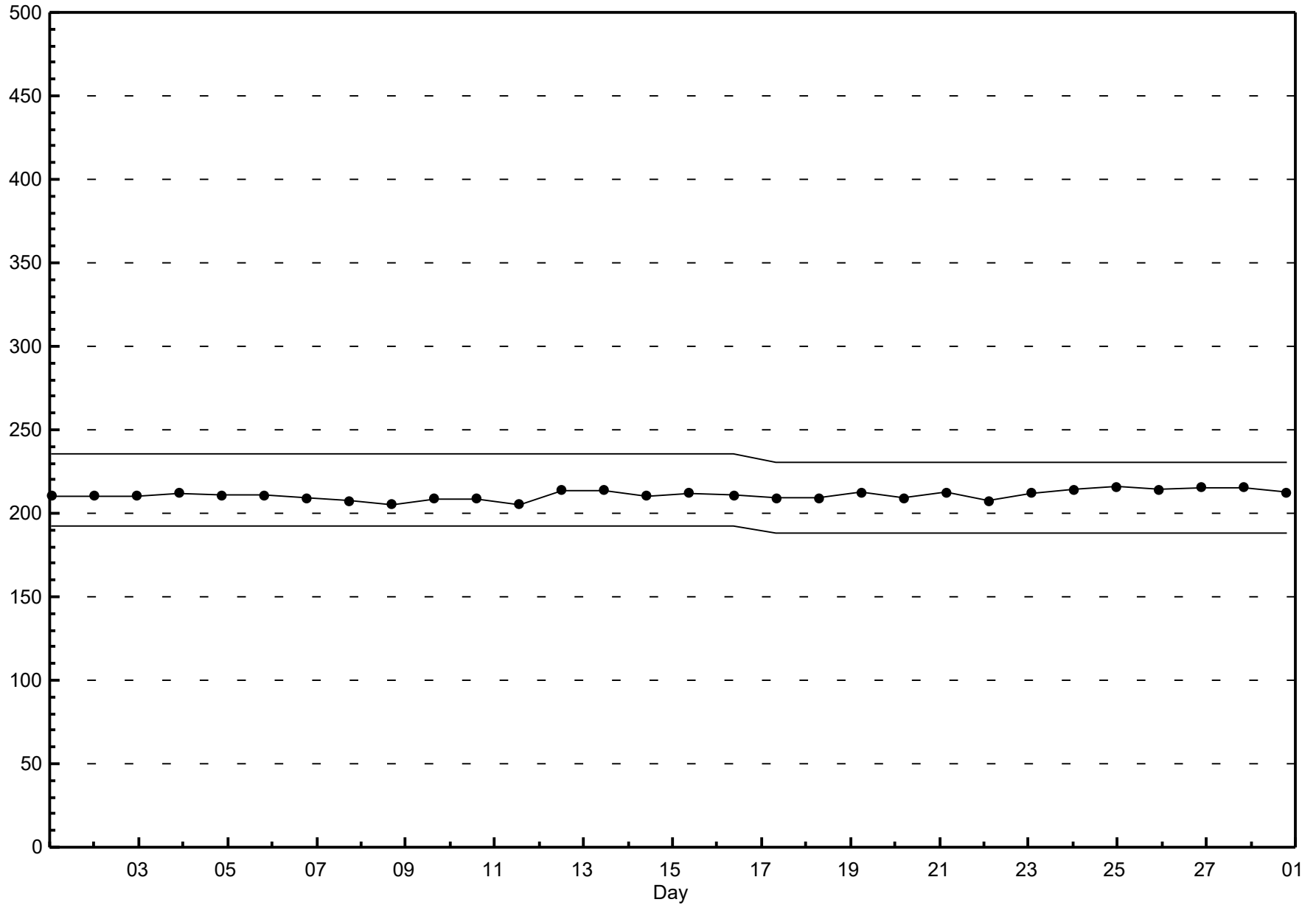
Pollutant Rose

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



Span Responses

Sulphur Dioxide (SO₂)
Smoky Heights - February 2018

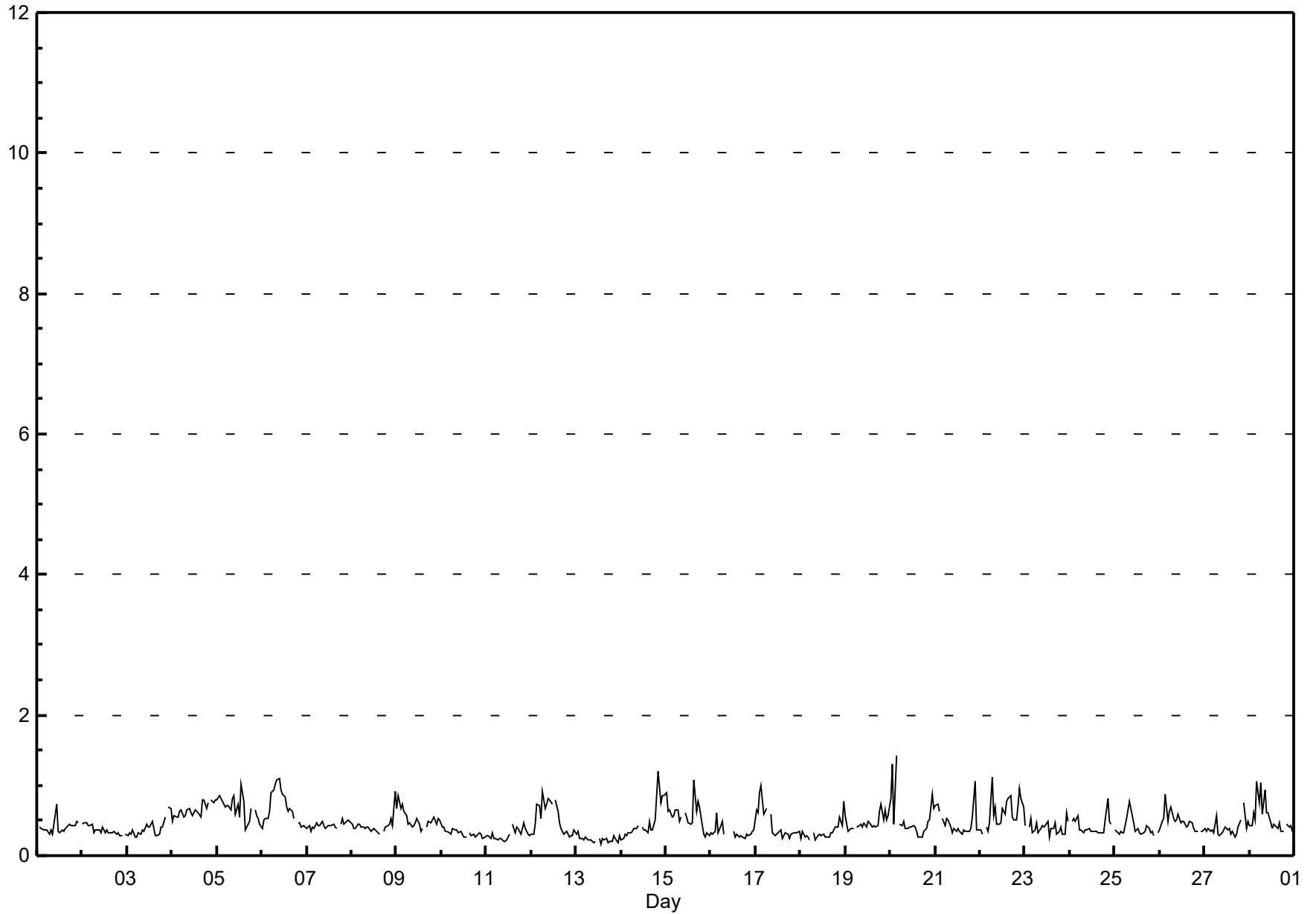


Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Smoky Heights - February 2018

Maximum Value: 1.4 ppb on Feb 20 04:00		Maximum Daily Average: 0.7 ppb on Feb 6		Hours in Service: 672																							
Minimum Value: 0 ppb on Feb 13 14:00		Minimum Daily Average: 0.2 ppb on Feb 13		Hours of Data: 639																							
Maximum Diurnal Average: 0.5 ppb at hour 7		Minimum Diurnal Average: 0.4 ppb at hour 18		Hours of Missing Data: 33																							
Monthly Average: 0.46 ppb		Percentiles: P ₁ = 0.2 P ₁₀ = 0.3 Q ₁ = 0.3 Median = 0.4 Q ₃ = 0.5 P ₉₀ = 0.7 P ₉₉ = 1.1		Hours of Calibration: 33																							
				Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Feb	A	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.4	0.7	
2-Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.4	0.5	
3-Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	1	1	0.4	0.7	
4-Feb	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.6	0.8	
5-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	1	A	1	1	1	0	0.7	1.0	
6-Feb	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0	0	0	0	0	0	0.7	1.1	
7-Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	0	0	1	0	0.4	0.5	
8-Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0.4	0.9	
9-Feb	1	1	1	1	1	1	0	0	0	0	0	1	0	0	0	A	0	0	0	1	1	0	1	1	0.5	0.9	
10-Feb	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	
11-Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.3	0.5	
12-Feb	0	0	0	1	1	1	1	1	1	1	1	A	1	1	0	0	0	0	0	0	0	0	0	0	0.5	0.9	
13-Feb	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3	
14-Feb	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	1	1	1	1	1	0.5	1.2	
15-Feb	1	1	1	1	1	1	1	0	1	A	1	1	0	0	0	1	1	1	1	0	0	0	0	0	0.6	1.1	
16-Feb	0	0	0	1	0	0	0	0	A	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6	
17-Feb	1	1	1	1	1	1	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.0	
18-Feb	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0.3	0.8	
19-Feb	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0.5	0.7	
20-Feb	1	1	0	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0.5	1.4	
21-Feb	1	1	1	A	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0.5	1.1	
22-Feb	0	0	A	0	0	0	1	1	1	0	0	0	1	1	1	1	1	1	0	1	1	1	1	1	0.6	1.1	
23-Feb	0	A	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.4	0.6	
24-Feb	A	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	A	0.4	0.8	
25-Feb	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.4	0.8	
26-Feb	0	0	1	1	0	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0.5	0.9	
27-Feb	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	0	0	0.4	0.7	
28-Feb	0	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0.5	1.0	
		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	Diurnal Average	
		0.9	1.3	0.9	1.4	1.0	0.9	1.1	1.0	1.1	1.1	0.9	0.9	0.8	1.0	0.8	1.1	0.9	0.8	0.7	0.9	1.2	1.1	0.9	0.9	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									



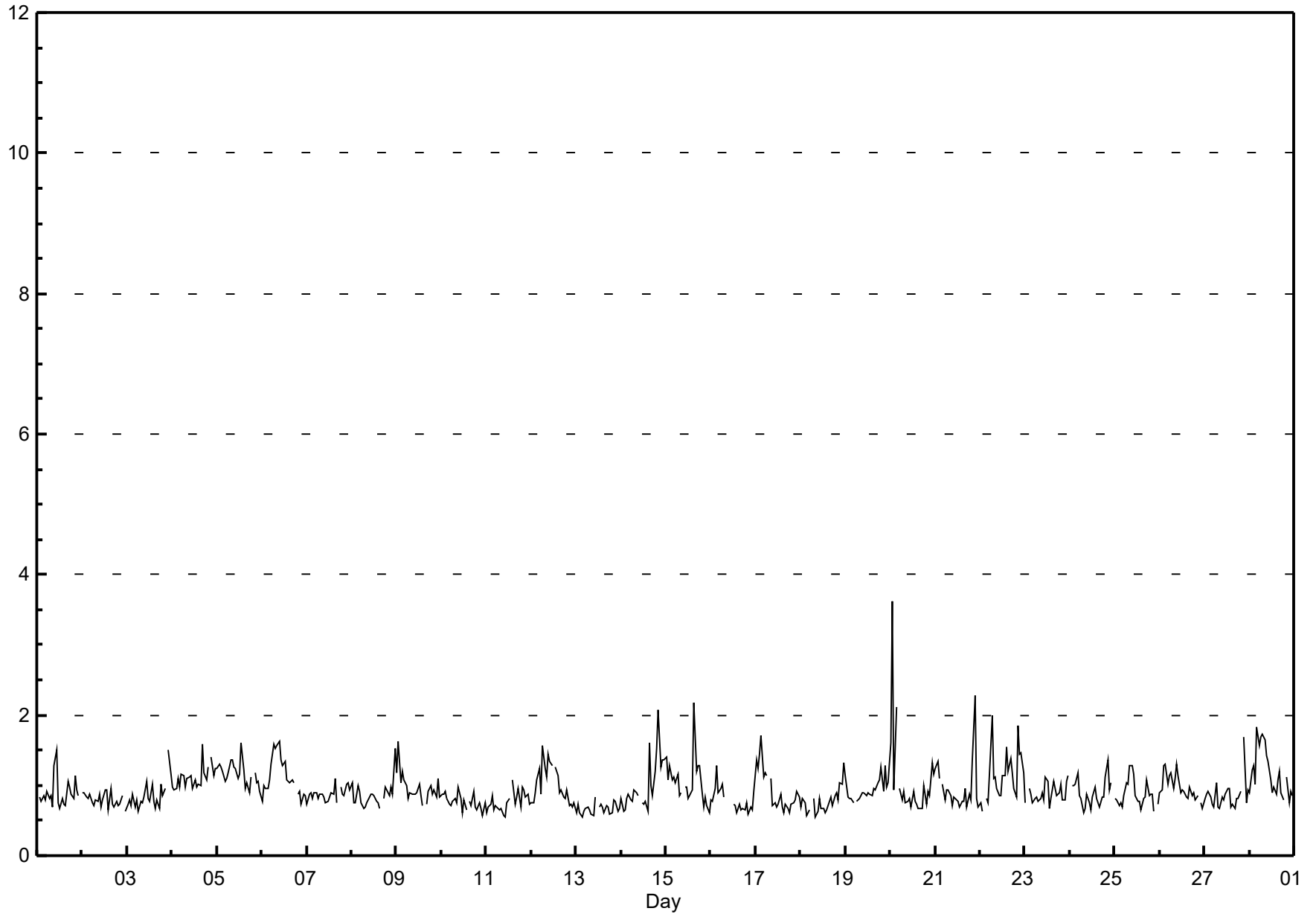
Hourly Maximums

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

Maximum Value: 3.6 ppb on Feb 20 02:00		Maximum Daily Average: 1.2 ppb on Feb 28		Hours in Service: 672																							
Minimum Value: 1 ppb on Feb 11 11:00		Minimum Daily Average: 0.7 ppb on Feb 13		Hours of Data: 639																							
Maximum Diurnal Average: 1.0 ppb at hour 2		Minimum Diurnal Average: 0.8 ppb at hour 15		Hours of Missing Data: 33																							
Monthly Average: 0.94 ppb		Percentiles: P ₁ = 0.6 P ₁₀ = 0.7 Q ₁ = 0.8 Median = 0.9 Q ₃ = 1.0 P ₉₀ = 1.3 P ₉₉ = 1.8		Hours of Calibration: 33																							
				Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Feb	A	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	A	0.9	1.5	
2-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.8	1.0	
3-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	2	0.9	1.5		
4-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	A	1	1	1.1	1.6		
5-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	A	1	1	1	1.2	1.6		
6-Feb	1	1	1	1	1	1	2	2	2	2	1	1	1	1	1	1	1	1	A	1	1	1	1	1.1	1.6		
7-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.9	1.1		
8-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0.9	1.5		
9-Feb	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1.0	1.6		
10-Feb	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	1.0		
11-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.8	1.1		
12-Feb	1	1	1	1	1	1	2	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1.0	1.6		
13-Feb	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.7	0.8		
14-Feb	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	2	1	1	1	2	2	1	1	1.0	2.1		
15-Feb	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	2	1	1	1	1	1	1	1	1.0	2.2		
16-Feb	1	1	1	1	1	1	1	1	1	A	C	C	C	1	1	1	1	1	1	1	1	1	1	0.8	1.3		
17-Feb	1	1	1	2	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.7		
18-Feb	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	1.3		
19-Feb	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.3		
20-Feb	2	4	1	2	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	3.6		
21-Feb	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1.0	2.3		
22-Feb	1	1	A	1	1	1	2	1	1	1	1	1	1	2	1	1	1	1	1	1	2	1	1	1.1	2.0		
23-Feb	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	1.1		
24-Feb	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.9	1.4		
25-Feb	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	1.3		
26-Feb	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	1.3		
27-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	2	1	0.9	1.7		
28-Feb	1	1	1	1	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1.2	1.8		
		0.9	1.0	0.9	1.0	0.9	0.9	1.0	0.9	0.9	1.0	1.0	0.9	0.9	0.9	0.8	0.9	0.9	0.9	0.9	0.9	1.0	1.0	1.0	0.9	Diurnal Average	
		1.6	3.6	1.4	2.1	1.8	1.6	2.0	1.7	1.6	1.6	1.5	1.3	1.3	1.6	1.5	2.2	1.6	1.3	1.3	1.5	2.1	2.3	1.5	1.5	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

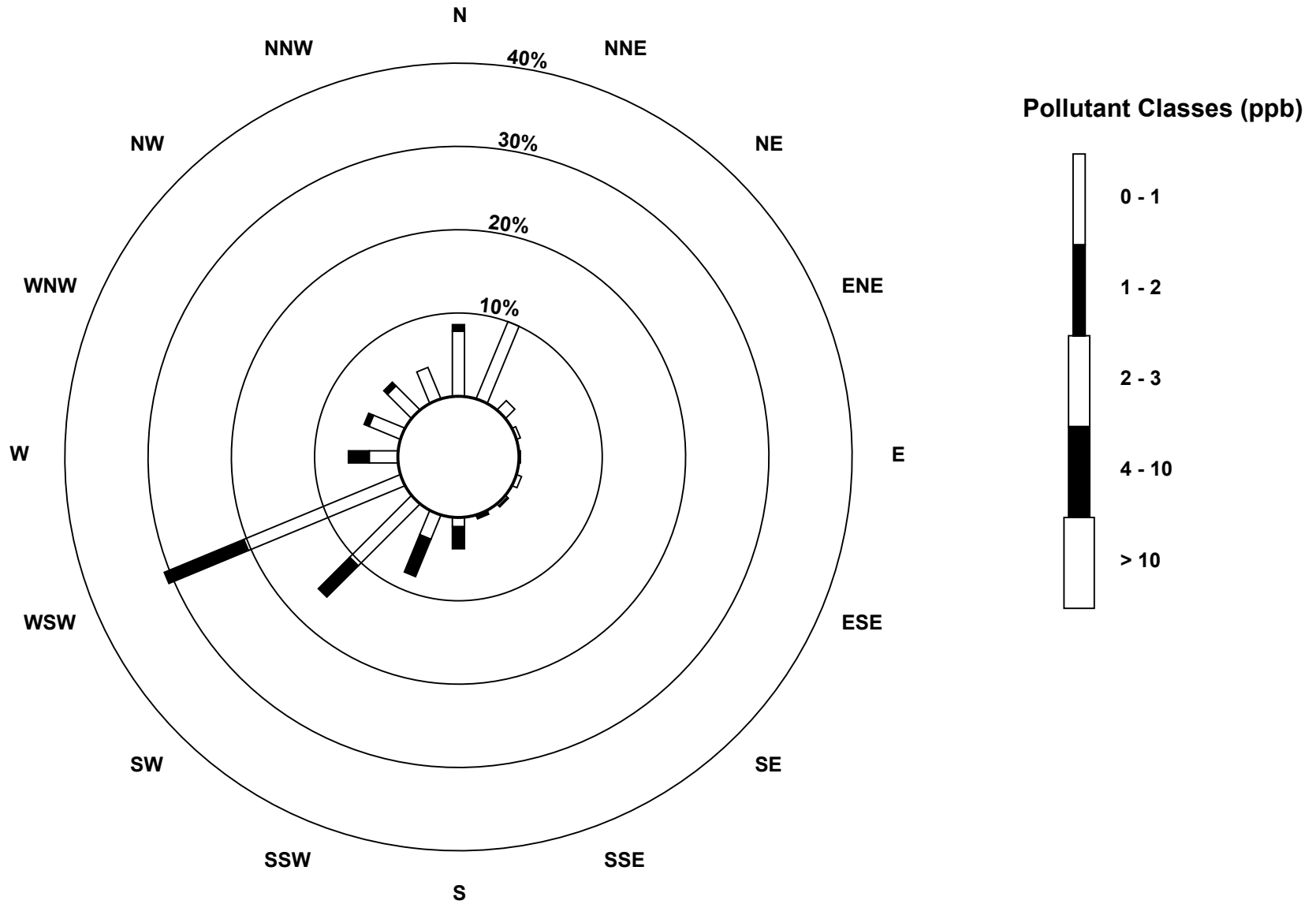
Hourly Maximums

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



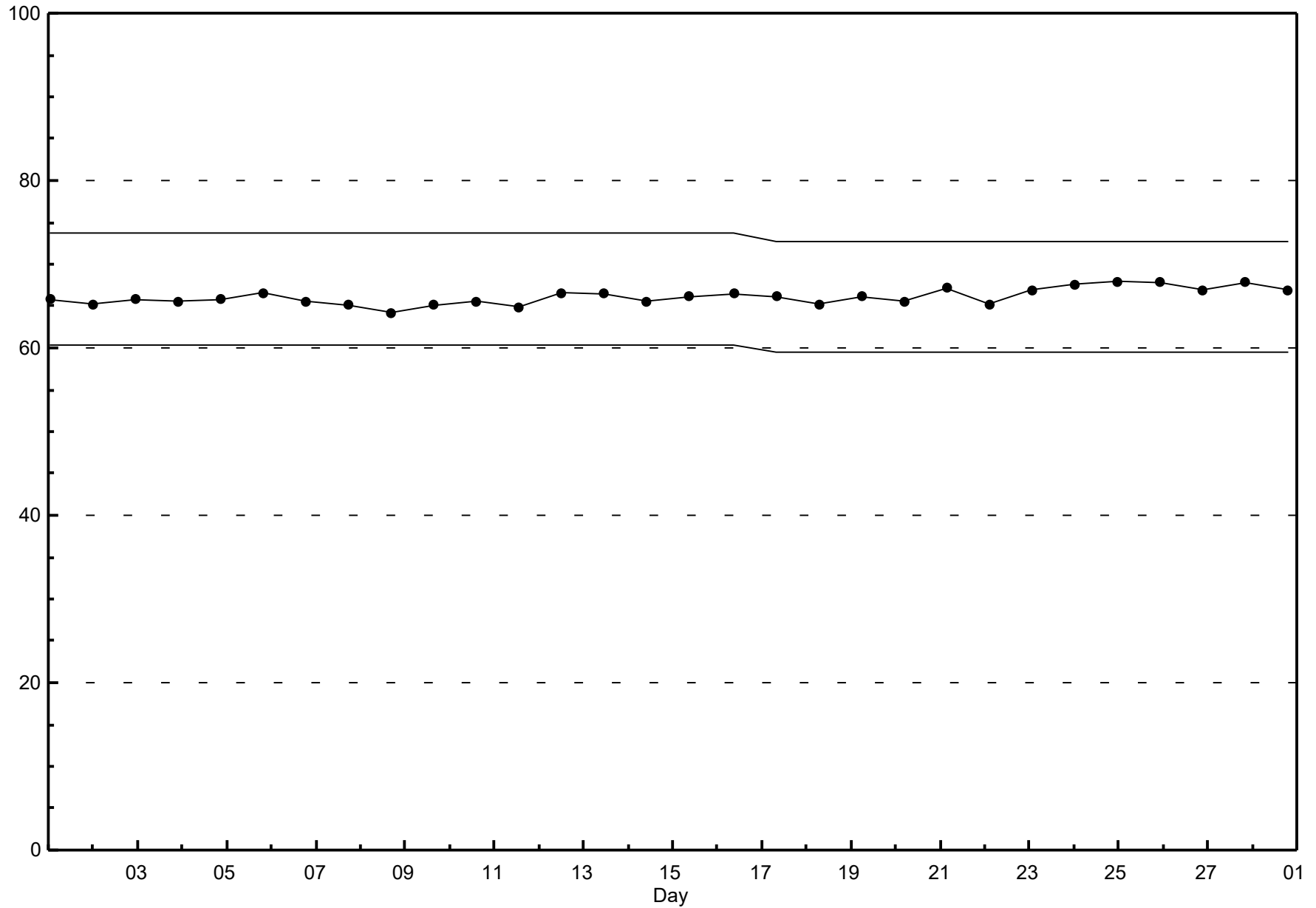
Pollutant Rose

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



Span Responses

**Total Reduced Sulphur (TRS)
Smoky Heights - February 2018**



Hourly Averages

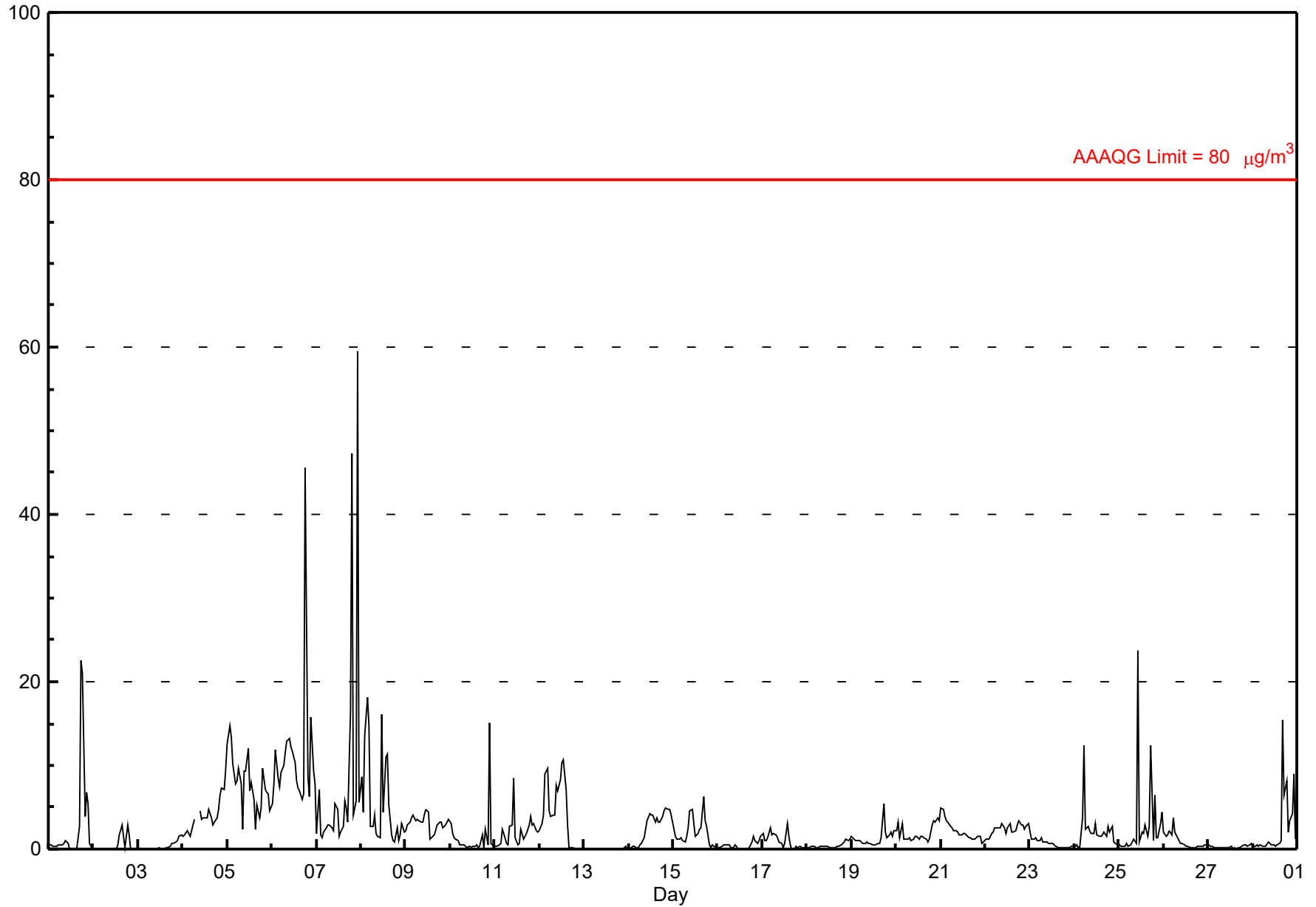
Particulate Matter 2.5 (PM_{2.5}) - µg/m³

Smoky Heights - February 2018

Number of Exceedences: 1-hr: 0 24-hr: 0	Hours in Service: 672
Maximum Value: 59.5 µg/m ³ on Feb 7 23:00	Maximum Daily Average: 10.9 µg/m ³ on Feb 6
Minimum Value: 0 µg/m ³ on Feb 1 12:00	Hours of Data: 670
Maximum Diurnal Average: 4.7 µg/m ³ at hour 19	Hours of Missing Data: 2
Monthly Average: 2.65 µg/m ³	Hours of Calibration: 0
Minimum Daily Average: 0.0 µg/m ³ on Feb 13	Percent Operational Time: 99.7
Minimum Diurnal Average: 1.8 µg/m ³ at hour 16	
Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.4 Median = 1.3 Q ₃ = 3.1 P ₉₀ = 6.8 P ₉₉ = 17.0	

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-Feb	1	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	3	23	21	4	7	5	1	0	2.9	22.6
2-Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	2	0	3	2	0	0	0	0	0.5	2.9
3-Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	2	0.3	1.8
4-Feb	2	2	2	2	1	2	4	N	N	5	4	4	4	4	5	4	3	3	4	5	6	7	7	9	4.0	9.5
5-Feb	13	15	13	10	8	8	10	8	2	9	9	12	7	8	6	2	5	4	5	10	7	7	7	5	7.9	14.7
6-Feb	5	8	12	9	7	9	10	12	13	13	12	12	10	8	7	7	6	7	46	9	6	16	9	8	10.9	45.6
7-Feb	2	7	2	1	2	2	3	3	3	2	5	5	2	2	3	6	5	3	16	47	4	6	60	6	8.2	59.5
8-Feb	9	4	13	18	15	3	3	4	2	1	1	16	4	11	11	5	2	1	1	2	1	2	3	2	5.6	18.1
9-Feb	2	3	3	4	4	3	4	3	3	3	4	5	4	1	1	2	2	3	3	3	3	3	3	4	3.1	4.7
10-Feb	3	2	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	2	0	2	0	15	1	0	1.4	15.0
11-Feb	0	0	1	1	2	2	1	1	3	3	8	1	0	1	2	1	2	2	3	4	3	3	2	2	2.0	8.4
12-Feb	2	3	4	9	10	5	4	4	4	8	7	8	10	11	7	3	0	0	0	0	0	0	0	0	4.1	10.6
13-Feb	0	0	0	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
14-Feb	0	0	0	0	0	0	0	1	1	2	3	4	4	4	3	4	3	3	4	5	5	5	5	4	2.6	4.9
15-Feb	2	2	1	1	1	1	1	2	3	5	5	3	2	2	2	3	6	3	3	1	0	1	0	0	2.0	6.3
16-Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	1	1	1	2	0.4	1.6
17-Feb	2	1	1	1	3	2	2	2	1	1	1	0	1	3	2	0	0	0	0	0	0	0	0	0	1.0	3.1
18-Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0.4	1.2
19-Feb	2	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	5	2	1	2	2	2	2	1.3	5.4
20-Feb	2	3	1	3	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	3	3	3	4	3	1.9	3.7
21-Feb	5	5	4	3	3	3	3	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	2.1	5.0
22-Feb	1	1	1	2	2	3	3	3	3	3	2	2	3	3	2	2	2	3	3	3	3	2	3	3	2.4	3.4
23-Feb	2	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.7	2.1
24-Feb	0	0	0	0	4	12	2	3	2	2	2	3	2	2	2	2	2	2	3	2	3	1	1	0	2.1	12.4
25-Feb	0	0	0	0	1	0	1	1	1	1	24	1	2	2	3	2	3	12	1	6	1	1	3	4	3.0	23.8
26-Feb	2	1	2	2	2	4	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1.0	3.8
27-Feb	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0.3	0.6
28-Feb	0	0	0	0	0	0	0	0	1	1	0	1	0	1	1	1	15	6	8	2	3	4	9	1	2.4	15.4
	2.1	2.2	2.4	2.6	2.5	2.3	2.0	2.0	1.8	2.4	3.4	2.9	2.2	2.4	2.3	1.8	2.4	3.1	4.7	4.1	2.3	3.2	4.4	2.2		Diurnal Average
	12.6	14.7	13.5	18.1	14.7	12.4	10.0	11.5	12.8	13.2	23.8	16.1	10.3	11.0	11.4	6.9	15.4	22.6	45.6	47.2	7.1	15.8	59.5	9.5		Diurnal Maximum

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

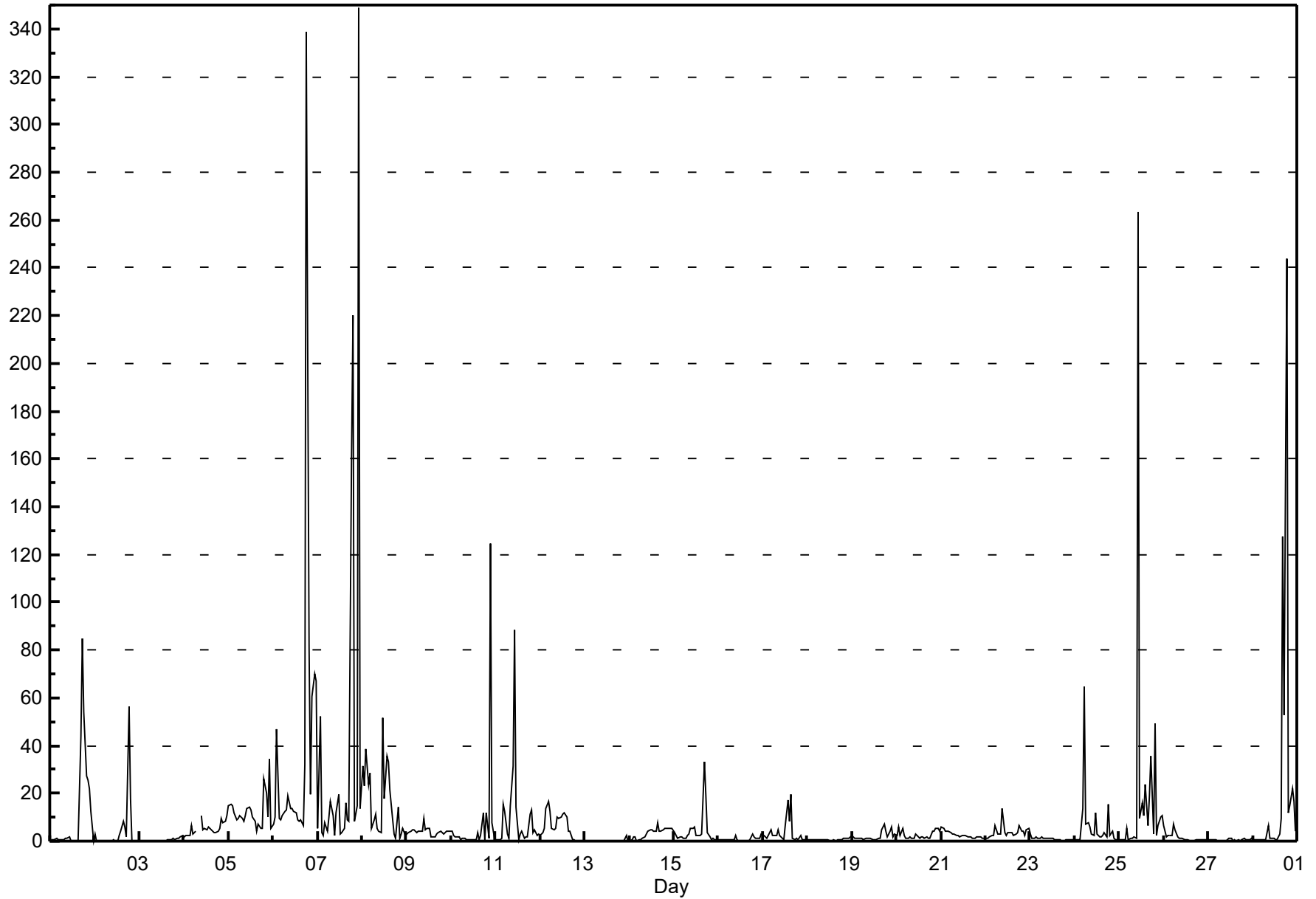


Hourly Maximums

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

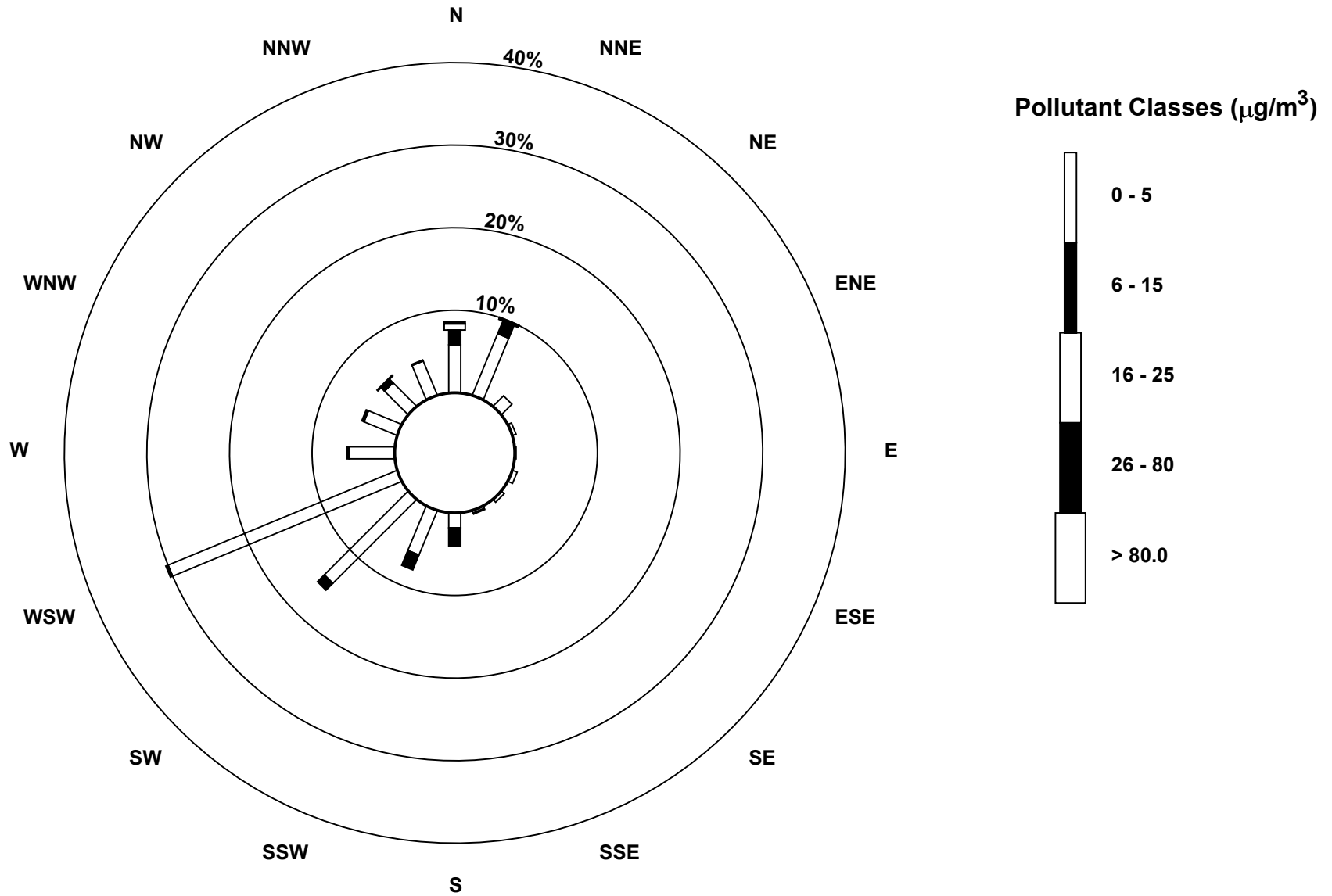
Smoky Heights - February 2018

Maximum Value: 349.0 µg/m ³ on Feb 7 23:00 Minimum Value: 0 µg/m ³ on Feb 1 12:00 Maximum Diurnal Average: 33.3 µg/m ³ at hour 19 Monthly Average: 8.21 µg/m ³		Maximum Daily Average: 40.0 µg/m ³ on Feb 7 Minimum Daily Average: 0.1 µg/m ³ on Feb 13 Minimum Diurnal Average: 3.2 µg/m ³ at hour 7 Percentiles: P ₁ = 0.0 P ₁₀ = 0.2 Q ₁ = 0.7 Median = 2.2 Q ₃ = 5.3 P ₉₀ = 14.1 P ₉₉ = 125.3		Hours in Service: 672 Hours of Data: 670 Hours of Missing Data: 2 Hours of Calibration: 0 Percent Operational Time: 99.7																							
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-Feb	1	1	1	1	0	1	1	1	1	1	2	0	0	0	0	0	44	85	54	27	25	22	12	0	11.6	84.7	
2-Feb	3	0	0	0	0	0	0	0	0	0	1	0	0	2	4	8	6	2	56	18	0	0	0	0	4.2	56.1	
3-Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	2	2	0.4	2.2	
4-Feb	2	3	3	2	6	3	4	N	N	10	5	5	5	6	6	4	4	4	4	5	9	8	8	11	5.3	10.7	
5-Feb	15	15	15	12	9	10	11	9	8	11	14	14	13	10	8	4	7	5	6	26	20	10	34	5	12.2	34.4	
6-Feb	7	10	47	9	9	10	12	13	19	14	13	12	12	9	8	9	7	32	339	81	20	61	70	67	37.1	338.5	
7-Feb	5	52	3	2	8	4	10	17	11	2	12	19	3	3	5	16	9	8	163	220	8	15	349	14	40.0	349.0	
8-Feb	32	23	39	24	28	5	9	11	5	4	4	52	18	36	33	21	9	3	1	14	1	3	5	2	16.0	51.8	
9-Feb	3	4	4	5	5	4	4	4	4	9	5	5	2	2	2	3	3	4	4	3	4	4	4	4	4.0	9.5	
10-Feb	4	3	2	2	2	1	1	1	0	0	0	0	1	1	4	0	3	12	0	12	1	124	8	1	7.6	124.3	
11-Feb	0	0	1	1	16	12	3	1	15	32	89	14	1	3	4	1	2	2	11	13	4	5	3	3	9.8	88.6	
12-Feb	3	3	6	14	17	12	5	5	6	10	10	10	11	12	10	4	4	0	0	0	0	0	0	0	5.9	16.6	
13-Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0.1	2.4	
14-Feb	0	1	2	2	0	0	1	1	2	3	4	5	5	4	4	8	4	4	5	6	6	5	6	5	3.3	7.5	
15-Feb	3	2	1	2	2	1	1	2	3	5	5	6	2	3	3	3	33	19	4	2	0	1	1	0	4.4	33.2	
16-Feb	0	0	1	1	1	1	1	0	0	3	1	0	0	0	0	0	0	0	3	2	1	1	1	3	0.9	2.9	
17-Feb	2	2	1	2	5	2	2	2	5	2	1	0	6	17	8	19	1	1	1	1	3	1	0	0	3.7	19.5	
18-Feb	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	1	1	1	1	2	0.6	1.7	
19-Feb	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5	7	4	2	4	6	2	3	2.1	7.1	
20-Feb	3	6	2	5	2	1	1	2	1	1	3	2	1	2	2	1	2	1	1	4	4	5	5	4	2.7	6.1	
21-Feb	6	6	4	4	4	3	3	3	2	2	2	2	2	2	2	2	2	1	1	2	2	2	1	1	2.5	6.1	
22-Feb	1	1	2	2	3	6	3	3	3	14	4	3	3	4	4	3	3	3	7	4	4	2	5	5	3.8	13.6	
23-Feb	3	1	1	2	1	1	2	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0.9	2.9	
24-Feb	0	1	0	0	14	65	7	8	6	3	2	12	3	2	2	2	4	2	15	2	4	1	1	1	6.5	64.9	
25-Feb	1	1	1	1	5	0	1	1	2	1	264	10	16	11	24	7	19	35	3	49	2	7	10	11	20.0	263.5	
26-Feb	7	2	2	3	2	7	5	2	1	1	1	1	1	1	0	0	0	0	1	0	1	1	1	1	1.6	7.3	
27-Feb	1	1	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	1	1	0	1	1	0.5	0.9	
28-Feb	0	1	0	0	0	1	0	0	6	1	1	1	0	1	3	9	128	53	244	12	15	22	17	4	21.7	244.0	
		3.8	5.0	5.0	3.5	5.0	5.5	3.2	3.3	3.8	4.8	15.9	6.4	4.0	4.7	4.9	4.6	10.7	10.2	33.3	18.2	5.1	11.0	19.6	5.4	Diurnal Average	
		31.7	52.0	46.9	23.9	28.3	64.9	12.4	16.6	18.8	31.7	263.5	51.8	18.0	35.6	33.2	21.2	127.5	84.7	338.5	220.3	25.4	124.3	349.0	67.1	Diurnal Maximum	
N - Not Valid																											



Pollutant Rose

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



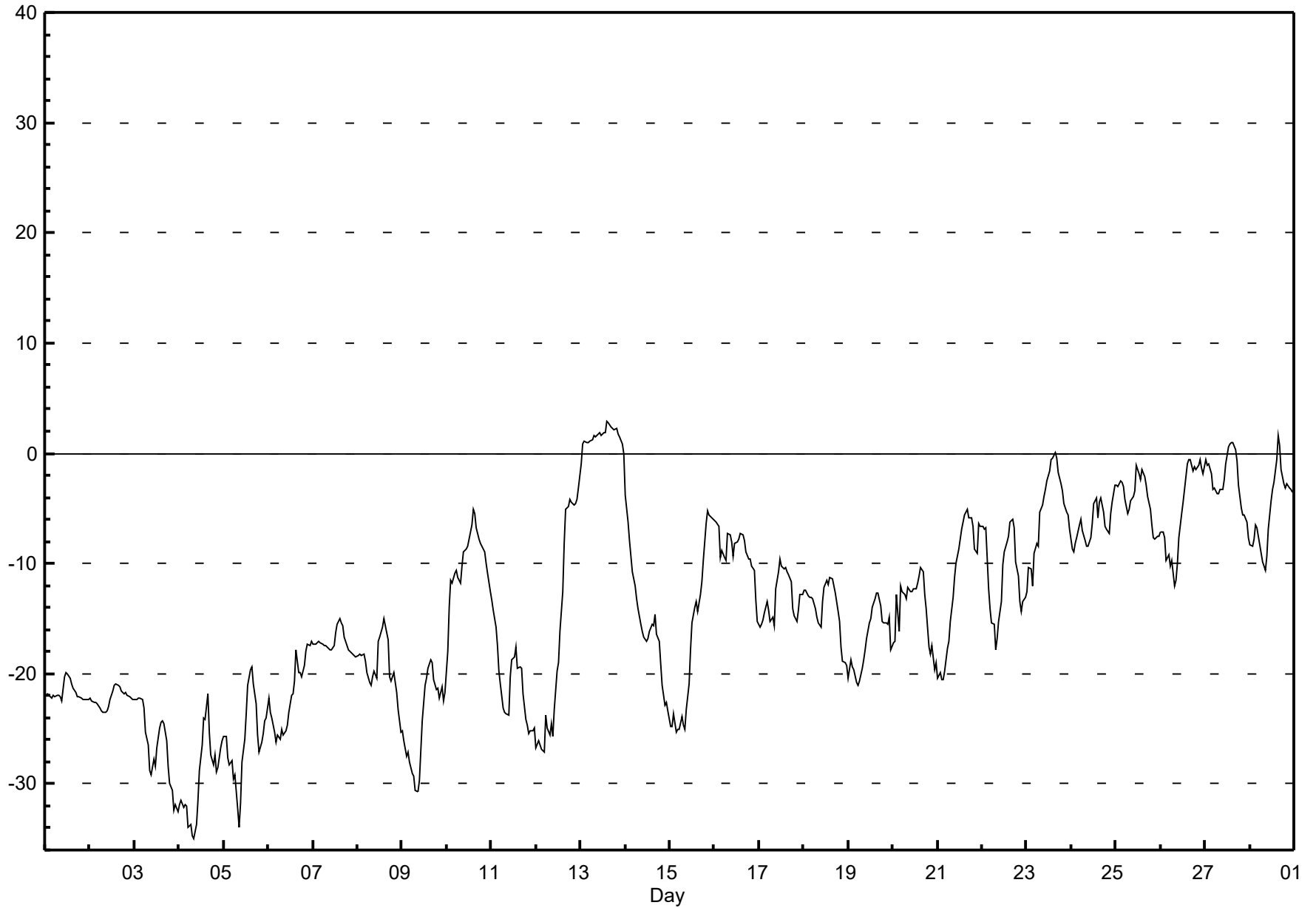
Hourly Averages

External Temperature (ET) - °C
Smoky Heights - February 2018

Maximum Value: 2.9 °C on Feb 13 15:00 Maximum Daily Average: 1.5 °C on Feb 13																			Hours in Service: 672 Hours of Data: 672							
Minimum Value: -35 °C on Feb 4 09:00 Minimum Daily Average: -29.4 °C on Feb 4 Maximum Diurnal Average: -10.9 °C at hour 16 Minimum Diurnal Average: -17.1 °C at hour 8 Monthly Average: -14.45 °C Percentiles: P ₁ = -32.4 P ₁₀ = -25.5 Q ₁ = -21.7 Median = -14.9 Q ₃ = -7.3 P ₉₀ = -2.8 P ₉₉ = 1.9																			Hours of Missing Data: 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-Feb	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	-20	-20	-20	-20	-21	-21	-22	-22	-22	-22	-22	-22	-22	-22	-21.7	-19.9
2-Feb	-22	-22	-23	-23	-23	-23	-23	-23	-24	-23	-23	-22	-22	-21	-21	-21	-21	-22	-22	-22	-22	-22	-22	-22	-22.3	-20.9
3-Feb	-22	-22	-22	-22	-22	-23	-25	-27	-29	-29	-28	-28	-27	-25	-24	-24	-25	-26	-28	-30	-31	-32	-32	-33	-26.5	-22.2
4-Feb	-32	-31	-32	-32	-32	-34	-34	-35	-35	-34	-31	-29	-26	-24	-24	-22	-25	-27	-28	-27	-29	-28	-27	-26	-29.4	-21.9
5-Feb	-26	-26	-28	-28	-28	-30	-29	-32	-34	-32	-28	-26	-24	-21	-20	-19	-21	-23	-26	-27	-26	-25	-24	-24	-26.1	-19.4
6-Feb	-22	-23	-24	-25	-26	-26	-26	-25	-26	-25	-25	-24	-22	-22	-21	-18	-20	-20	-20	-19	-18	-17	-17	-17	-22.0	-17.0
7-Feb	-17	-17	-17	-17	-17	-17	-17	-17	-18	-18	-18	-17	-16	-15	-15	-15	-16	-17	-17	-18	-18	-18	-18	-19	-17.2	-15.0
8-Feb	-18	-18	-18	-18	-19	-20	-21	-21	-20	-20	-17	-17	-16	-15	-16	-17	-20	-21	-20	-21	-22	-22	-23	-25	-19.3	-15.0
9-Feb	-25	-26	-28	-27	-28	-29	-29	-31	-31	-30	-27	-24	-21	-20	-19	-19	-19	-21	-21	-21	-22	-21	-23	-22	-24.4	-18.8
10-Feb	-18	-14	-12	-12	-11	-11	-11	-12	-10	-9	-9	-8	-8	-7	-5	-6	-7	-8	-8	-8	-9	-10	-11	-13	-9.8	-5.1
11-Feb	-13	-14	-16	-17	-20	-21	-23	-23	-24	-24	-20	-19	-18	-18	-20	-19	-20	-22	-24	-25	-25	-25	-25	-25	-20.9	-13.4
12-Feb	-27	-26	-26	-27	-27	-24	-25	-26	-25	-26	-23	-20	-19	-16	-13	-8	-5	-5	-4	-4	-5	-5	-4	-3	-16.3	-3.1
13-Feb	-1	1	1	1	1	1	1	2	1	2	2	2	2	3	3	2	2	2	2	2	2	1	1	0	1.5	2.9
14-Feb	-4	-6	-8	-9	-11	-12	-13	-14	-16	-16	-17	-17	-17	-16	-15	-16	-15	-16	-17	-19	-21	-23	-23	-23	-15.2	-3.8
15-Feb	-25	-25	-24	-25	-25	-25	-24	-25	-25	-23	-21	-18	-15	-14	-14	-14	-13	-12	-10	-6	-5	-6	-6	-6	-16.8	-5.2
16-Feb	-6	-6	-7	-9	-9	-9	-10	-7	-7	-8	-9	-8	-8	-8	-7	-7	-8	-9	-10	-10	-10	-11	-13	-15	-8.9	-6.2
17-Feb	-16	-15	-15	-15	-13	-14	-15	-15	-16	-12	-11	-10	-10	-11	-10	-11	-11	-12	-14	-15	-15	-14	-13	-13	-13.2	-9.6
18-Feb	-12	-12	-13	-13	-13	-13	-14	-15	-15	-16	-13	-12	-12	-12	-11	-11	-12	-13	-14	-15	-18	-19	-19	-19	-14.1	-11.3
19-Feb	-20	-19	-19	-20	-21	-21	-21	-20	-19	-18	-17	-15	-15	-14	-13	-13	-13	-14	-15	-15	-15	-16	-15	-18	-16.9	-12.7
20-Feb	-17	-17	-13	-16	-12	-13	-13	-13	-12	-13	-13	-12	-12	-12	-11	-10	-11	-13	-14	-18	-18	-17	-20	-19	-14.1	-10.4
21-Feb	-20	-20	-21	-21	-20	-18	-17	-15	-13	-11	-10	-9	-8	-7	-6	-5	-5	-6	-6	-7	-9	-9	-6	-7	-11.4	-5.1
22-Feb	-7	-7	-7	-12	-14	-15	-16	-18	-17	-15	-13	-10	-9	-8	-8	-6	-6	-7	-10	-11	-13	-14	-13	-13	-11.2	-6.0
23-Feb	-13	-10	-10	-12	-9	-8	-8	-5	-5	-4	-3	-2	-2	-1	0	0	0	-2	-3	-3	-5	-5	-6	-7	-5.2	0.1
24-Feb	-9	-9	-8	-8	-7	-6	-7	-8	-8	-8	-8	-6	-5	-4	-6	-4	-4	-5	-7	-7	-7	-5	-5	-3	-6.4	-3.0
25-Feb	-3	-3	-2	-3	-3	-4	-5	-5	-4	-4	-3	-1	-2	-2	-1	-2	-3	-4	-5	-7	-8	-8	-8	-7	-4.1	-1.1
26-Feb	-7	-7	-8	-10	-9	-10	-10	-12	-12	-10	-8	-5	-4	-3	-1	-1	-1	-2	-1	-1	-1	-1	-1	-2	-5.3	-0.6
27-Feb	-1	-1	-1	-2	-3	-3	-4	-4	-3	-3	-2	-1	1	1	1	1	0	-1	-3	-5	-6	-6	-6	-8	-2.4	1.0
28-Feb	-8	-8	-8	-7	-7	-8	-9	-10	-11	-9	-7	-4	-3	-3	-1	2	1	-1	-3	-3	-3	-3	-3	-4	-5.0	1.6
																								Diurnal Average		
																								Diurnal Maximum		

Hourly Averages

External Temperature (ET) - °C
Smoky Heights - February 2018





Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Smoky Heights - February 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	4	4	2	3	4	4	3	4	5	6	4	5	7	9	10	9	7	6	6	7	6	4	4	2	3.1	10.0
Dir	351	358	70	196	197	214	231	252	236	249	289	326	11	2	358	346	1	6	8	21	12	356	16	37	345.2	357.9
2 Spd	2	5	8	9	10	9	10	13	15	17	18	20	18	16	15	16	16	15	15	15	15	13	10	10	12.3	19.8
Dir	60	33	29	35	41	31	29	27	25	25	22	24	23	13	4	6	1	351	350	347	339	339	341	329	9.3	24.1
3 Spd	9	9	12	10	9	6	3	8	9	8	10	11	11	16	19	14	15	19	16	11	15	14	14	12	9.9	19.1
Dir	321	320	312	319	332	332	274	289	265	262	260	251	242	231	240	251	238	239	246	232	243	229	235	227	256.9	239.4
4 Spd	13	13	9	9	9	10	9	9	9	9	8	7	6	2	4	3	13	8	8	10	6	6	5	5	7.2	13.1
Dir	220	235	240	213	207	196	208	210	213	208	241	212	199	178	130	161	255	252	238	241	182	206	207	220	218.6	219.8
5 Spd	7	7	7	7	7	6	8	8	9	9	11	9	13	9	8	8	11	11	8	4	1	5	2	4	7.0	12.8
Dir	218	186	187	207	240	217	214	190	215	215	214	217	213	210	212	232	251	238	246	270	355	177	165	187	216.8	213.3
6 Spd	4	5	4	5	6	4	3	2	5	4	4	5	26	43	46	3	6	4	6	6	7	9	10	11	5.4	45.8
Dir	202	192	182	191	184	208	184	207	213	229	191	169	310	310	297	291	310	310	17	2	7	11	14	17	308.9	310.1
7 Spd	13	13	12	11	10	11	10	11	11	12	10	10	10	11	11	12	12	13	14	13	13	13	13	13	11.6	13.8
Dir	21	6	16	21	17	17	16	22	23	25	14	14	18	11	4	1	2	352	355	9	4	7	4	10	10.6	354.8
8 Spd	10	12	13	13	13	10	10	9	12	11	3	9	10	10	7	6	4	4	9	9	10	10	11	14	6.5	14.4
Dir	6	10	15	18	14	10	12	10	353	354	14	7	16	7	9	12	24	260	260	271	265	271	260	256	344.7	256.4
9 Spd	13	12	14	16	17	15	12	9	10	9	7	7	7	16	17	16	13	11	14	13	13	11	11	7	11.4	17.1
Dir	261	261	250	247	251	252	239	232	223	230	194	190	193	232	233	231	229	229	213	208	192	234	238	238	232.3	250.6
10 Spd	18	18	13	16	15	11	18	18	24	28	23	23	16	3	7	13	10	9	13	13	18	19	22	25	8.8	28.0
Dir	251	236	248	249	247	247	253	254	253	250	246	241	256	308	0	336	339	347	337	8	24	23	27	31	283.8	249.6
11 Spd	22	18	18	7	4	8	7	7	7	5	4	4	3	2	10	11	10	8	6	9	10	9	10	12	2.7	22.0
Dir	31	37	41	32	354	350	345	334	355	343	0	43	128	193	251	256	247	217	222	245	247	246	228	222	314.8	30.8
12 Spd	12	10	12	9	14	18	17	18	14	11	15	15	20	17	13	15	24	20	25	30	19	19	23	25	16.1	29.7
Dir	213	195	208	220	243	242	244	246	231	189	207	179	182	188	193	207	242	226	234	244	239	235	233	227	223.2	244.0
13 Spd	28	38	46	48	45	41	37	35	44	40	38	35	43	49	49	49	48	40	39	42	32	31	20	11	38.2	49.5
Dir	247	251	253	257	258	260	253	249	244	249	251	250	247	246	251	252	251	245	250	257	260	263	267	308	252.8	250.8
14 Spd	25	26	25	25	28	23	24	16	15	14	16	17	17	12	7	4	2	7	11	13	9	9	10	11	9.6	28.0
Dir	13	12	0	3	7	19	16	34	32	25	29	28	16	16	355	61	192	242	230	235	229	215	226	239	6.3	7.2
15 Spd	11	10	9	9	10	10	11	10	11	13	12	11	13	11	12	13	12	11	16	26	35	31	26	20	13.1	34.7
Dir	222	215	214	213	218	238	224	195	185	177	176	192	186	184	228	252	263	246	241	239	251	254	258	255	229.6	250.6
16 Spd	19	18	12	9	9	8	7	13	9	12	17	17	19	16	15	15	15	18	14	14	12	9	10	8	10.4	19.1
Dir	250	245	247	243	244	225	277	336	340	342	330	334	320	324	313	321	310	302	294	303	278	296	221	239	294.7	320.5
17 Spd	2	3	5	1	3	3	7	10	6	15	13	13	15	13	13	17	15	8	8	9	10	10	9	11	7.5	16.5
Dir	212	223	220	84	7	205	233	257	294	309	298	319	336	349	337	338	336	333	313	323	289	297	317	297	312.1	338.4
18 Spd	12	15	17	20	19	19	18	19	19	16	19	17	15	17	16	15	15	17	17	15	15	15	17	16	14.8	19.9
Dir	311	305	292	297	307	310	313	304	294	285	296	304	325	322	303	258	248	237	238	253	257	260	261	260	286.2	297.4
19 Spd	20	25	24	25	23	23	21	26	25	21	18	15	25	21	15	15	18	14	15	17	18	16	16	18	19.6	26.3
Dir	258	257	256	251	255	254	251	252	254	250	234	243	248	243	247	253	260	256	268	268	260	262	262	264	254.1	251.6
20 Spd	16	18	10	11	13	10	12	9	10	13	8	9	8	6	4	2	5	11	10	10	9	11	12	12	6.5	17.6
Dir	253	257	300	268	304	258	253	269	326	335	1	5	23	23	41	109	192	234	263	256	233	236	240	229	273.5	257.0
21 Spd	13	13	13	13	15	16	15	18	19	22	20	24	27	20	20	20	22	20	20	18	17	15	20	20	16.5	26.7
Dir	223	246	244	244	243	235	234	239	239	238	239	243	245	255	288	300	302	298	290	280	258	256	294	295	261.1	245.1
22 Spd	20	19	18	16	17	15	9	8	8	9	11	11	12	13	14	11	8	9	11	12	14	15	11	9	11.6	19.8
Dir	295	296	289	251	257	255	246	211	233	226	233	221	243	253	259	266	257	241	242	243	250	249	243	240	254.3	295.3

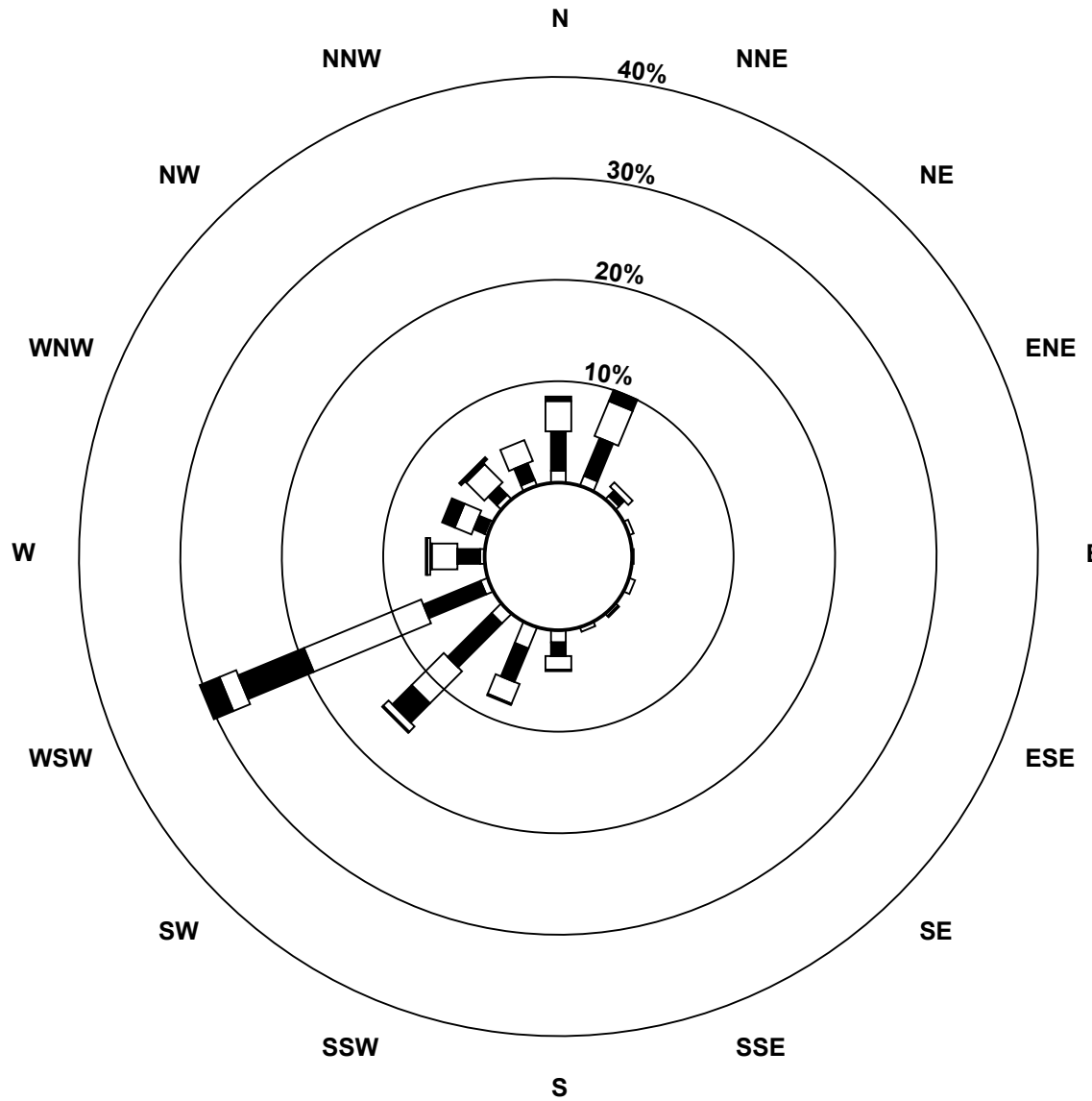
Hourly Averages

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

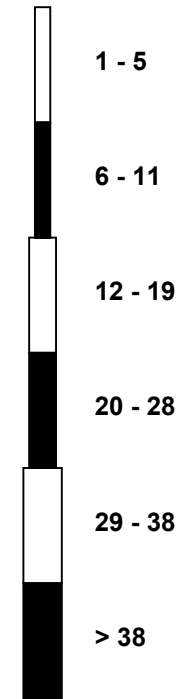
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
23 Spd	13	20	17	8	18	14	11	20	23	22	21	27	24	22	15	23	30	27	24	26	25	22	21	18	19.4	30.4	
Dir	202	198	192	210	186	208	222	234	242	248	246	251	247	243	229	242	247	241	231	236	239	249	248	255	234.7	247.2	
24 Spd	17	17	14	13	5	13	12	12	11	12	7	3	2	3	7	5	2	1	7	10	11	16	15	14	3.0	17.4	
Dir	253	241	239	235	3	12	16	6	16	37	43	31	114	112	124	107	350	240	230	236	253	232	227	213	262.6	253.2	
25 Spd	10	16	17	17	15	11	9	13	15	19	4	2	9	9	10	11	9	7	5	3	4	5	4	2	4.2	19.0	
Dir	202	186	205	181	182	212	260	255	258	250	320	345	341	345	358	10	4	356	343	337	243	249	257	234	249.9	249.5	
26 Spd	7	5	5	7	9	5	13	13	17	14	18	20	17	17	24	25	25	27	31	27	23	26	42	33	18.5	42.1	
Dir	230	210	233	241	233	199	231	244	261	251	232	230	238	228	233	234	229	229	223	224	217	217	241	235	231.8	241.2	
27 Spd	34	36	39	27	26	31	31	31	31	28	23	27	21	26	27	25	21	23	18	15	16	20	17	14	25.1	38.8	
Dir	232	236	232	234	238	233	238	243	243	242	246	245	251	240	240	231	232	237	237	245	254	252	238	231	238.9	231.7	
28 Spd	12	7	15	20	19	17	14	13	15	15	15	14	15	11	6	1	4	5	6	9	9	12	13	13	6.3	20.4	
Dir	225	223	244	241	252	246	258	249	254	254	244	234	239	256	270	169	26	22	17	51	38	30	31	22	261.1	240.8	
Spd	8.1	8.4	8.6	8.6	8.3	8.0	8.2	8.7	9.4	8.9	7.9	7.3	8.2	8.5	9.3	8.3	9.9	9.8	10.2	10.3	9.8	9.7	9.5	8.2	Diurnal Average		
Dir	257.3	254.6	256.6	254.4	260.6	258.6	260.4	260.6	261.2	261.9	259.0	259.8	267.1	271.1	273.4	269.1	266.8	258.8	258.0	260.2	258.3	259.5	260.8	260.1	Diurnal Maximum		
Spd	34.3	38.2	45.7	48.2	45.1	41.3	36.9	34.9	44.4	39.6	37.7	35.2	42.6	48.8	49.5	48.6	47.7	39.5	38.7	42.2	34.7	31.2	42.1	33.4	Diurnal Maximum		
Dir	232.1	251.2	253.3	256.7	258.4	260.0	253.4	248.6	244.4	248.6	251.4	250.2	246.8	246.4	250.8	252.4	250.5	245.3	249.6	257.0	250.6	253.7	241.2	235.4	Diurnal Maximum		
Maximum Speed Value: 49 km/h on Feb 13 15:00																		Minimum Speed Value: 1 km/h on Feb 5 21:00						Hours in Service:		672	
Maximum Daily Speed Average: 38.2 km/h on Feb 13																		Minimum Daily Speed Average: 2.7 km/h on Feb 1						Hours of Data:		672	
Maximum Diurnal Speed Average: 10.3 km/h at hour 20																		Minimum Diurnal Speed Average: 7.3 km/h at hour 12						Hours of Missing Data:		0	
Monthly Average Velocity: 8.82 km/h 261.18 deg																		Speed Percentiles: P ₁ = 1.8 P ₁₀ = 4.8 Q ₁ = 8.7 Median = 12.6 Q ₃ = 17.5 P ₉₀ = 24.6 P ₉₉ = 45.2						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	12	54	40	7	0	0	113																				
NorthEast	8	13	17	4	0	0	42																				
East	5	0	0	0	0	0	5																				
SouthEast	3	1	0	0	0	0	4																				
South	15	20	14	2	0	0	51																				
SouthWest	14	78	91	44	11	6	244																				
West	7	24	69	24	9	11	144																				
NorthWest	5	19	33	10	0	2	69																				
Total	69	209	264	91	20	19	672																				

Wind Rose

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



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Smoky Heights - February 2018

Maximum Speed: 50 km/h on Feb 13 15:00		Maximum Daily Speed Average: 38.9 km/h on Feb 13		Hours in Service: 672																																													
Minimum Speed: 2 km/h on Feb 24 13:00		Minimum Daily Speed Average: 5.6 km/h on Feb 1		Hours of Data: 672																																													
Maximum Diurnal Speed Average: 15.6 km/h at hour 13		Minimum Diurnal Speed Average: 13.4 km/h at hour 7		Hours of Missing Data: 0																																													
Monthly Average Speed: 14.33 km/h		Percentiles: P ₁ = 2.7 P ₁₀ = 5.7 Q ₁ = 8.9 Median = 12.7 Q ₃ = 17.6 P ₉₀ = 24.8 P ₉₉ = 45.3		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-Feb	5	4	3	7	5	4	3	4	5	6	5	5	7	9	10	9	7	7	6	7	6	4	4	2	5.6	10.2																							
2-Feb	2	6	8	9	10	9	10	13	15	17	18	20	18	17	15	16	17	16	16	15	15	15	14	10	13.3	19.8																							
3-Feb	9	9	12	10	9	6	10	8	9	8	11	11	11	16	19	15	15	19	17	12	15	14	14	12	12.2	19.1																							
4-Feb	13	13	10	9	9	10	9	9	10	9	8	7	6	3	4	4	13	8	8	10	7	6	6	8	8.3	13.3																							
5-Feb	7	7	7	7	7	7	9	8	10	10	11	9	13	10	9	8	11	12	8	6	4	6	3	5	8.0	12.9																							
6-Feb	5	6	5	5	6	5	3	5	5	4	4	5	29	43	46	4	6	7	6	6	7	9	10	11	10.1	45.8																							
7-Feb	13	13	12	11	10	11	10	11	11	12	10	10	10	11	11	12	12	13	14	13	14	13	14	13	11.8	13.9																							
8-Feb	10	12	13	13	13	10	10	9	12	11	5	9	10	10	8	6	4	5	9	9	11	10	11	14	9.7	14.4																							
9-Feb	13	12	14	17	17	15	12	9	10	9	7	7	8	16	17	16	13	11	14	13	13	12	11	8	12.2	17.1																							
10-Feb	18	18	14	16	15	11	18	18	25	28	23	23	16	7	8	13	10	9	13	14	18	19	22	25	16.7	28.0																							
11-Feb	22	18	18	7	5	8	7	7	8	6	5	5	4	5	10	11	10	8	6	9	10	9	10	12	9.1	22.1																							
12-Feb	12	10	12	10	14	18	17	18	15	11	15	15	20	17	14	15	24	20	25	30	19	19	23	25	17.5	30.0																							
13-Feb	28	38	46	48	45	41	37	35	44	40	38	35	43	49	50	49	48	40	39	42	32	31	20	17	38.9	49.6																							
14-Feb	25	30	25	25	28	24	24	16	15	15	16	18	17	12	7	5	3	7	11	13	10	9	10	11	15.6	29.6																							
15-Feb	11	11	10	9	10	10	11	11	11	13	12	11	13	11	13	13	12	11	16	26	35	31	26	20	14.9	34.8																							
16-Feb	19	18	13	9	9	8	9	13	9	12	17	17	19	16	15	16	15	18	14	14	12	10	10	8	13.3	19.2																							
17-Feb	3	3	6	4	5	4	7	10	7	16	13	14	15	13	13	17	15	8	8	9	11	12	9	11	9.7	16.7																							
18-Feb	12	15	17	20	19	19	18	19	19	16	19	18	15	17	17	15	15	17	17	15	15	15	17	17	16.7	20.0																							
19-Feb	20	25	24	26	23	23	21	26	25	21	18	15	25	21	16	15	18	14	15	17	18	16	16	18	19.8	26.3																							
20-Feb	16	18	11	12	13	10	12	9	10	13	8	9	9	6	4	3	7	11	10	10	9	11	12	12	10.1	17.6																							
21-Feb	14	13	13	13	15	16	15	18	19	22	20	24	27	20	21	20	22	20	21	18	17	15	20	20	18.4	26.7																							
22-Feb	20	19	18	16	17	15	11	9	8	10	11	11	12	13	14	11	8	9	11	12	14	15	11	9	12.7	19.9																							
23-Feb	14	20	17	9	18	14	11	20	23	23	21	27	24	22	16	23	30	27	24	26	25	22	21	18	20.6	30.4																							
24-Feb	17	17	14	13	9	13	12	12	11	12	7	3	2	3	7	5	3	3	8	11	11	16	15	14	9.9	17.5																							
25-Feb	10	16	17	17	15	12	9	13	15	19	9	4	10	9	10	12	9	7	6	4	5	5	4	2	10.0	19.0																							
26-Feb	7	6	5	8	9	6	13	14	17	14	18	20	17	17	24	25	25	27	31	27	24	26	42	34	19.0	42.2																							
27-Feb	34	36	39	27	26	31	31	31	31	28	23	27	22	27	27	25	21	23	18	15	17	20	17	14	25.4	39.0																							
28-Feb	12	7	15	20	19	17	14	13	15	15	15	14	15	11	8	2	4	5	7	9	10	12	13	13	11.9	20.5																							
																								14.0	14.9	14.8	14.1	14.4	13.5	13.4	13.8	14.7	15.0	13.8	14.0	15.6	15.4	15.3	13.7	14.2	13.6	14.1	14.7	14.4	14.4	14.5	13.7	Diurnal Average	
																								34.5	38.2	45.7	48.2	45.1	41.3	37.0	35.0	44.4	39.7	37.8	35.3	42.6	48.8	49.6	48.7	47.8	39.6	38.8	42.3	34.8	31.2	42.2	33.8	Diurnal Maximum	
All monthly, daily, and diurnal averages have been calculated using scalar methods																																																	

Hourly Standard Deviations

Wind Direction (WD) - deg
Smoky Heights - February 2018

Maximum Value: 92.8 deg on Feb 5 21:00																								Hours in Service: 672	
Minimum Value: 0.4 deg on Feb 6 14:00																								Hours of Data: 672	
Percentiles: P ₁ = 1.9 P ₁₀ = 3.2 Q ₁ = 4.8 Median = 7.7 Q ₃ = 12.1 P ₉₀ = 23.4 P ₉₉ = 73.5																								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-Feb	20	15	57	42	26	5	16	15	6	9	40	12	22	13	10	14	13	12	11	9	13	17	23	32	56.9
2-Feb	43	11	4	6	5	7	5	4	3	4	3	3	4	9	7	11	8	8	8	12	6	6	11	8	43.4
3-Feb	10	8	5	6	7	10	50	9	10	14	18	5	13	4	10	10	4	3	13	9	12	7	5	12	50.5
4-Feb	10	10	7	7	9	15	6	6	10	12	20	15	10	55	23	42	9	6	17	11	17	8	28	29	54.7
5-Feb	10	14	6	10	5	20	17	9	11	16	9	8	7	16	9	19	10	17	8	76	93	26	60	31	92.8
6-Feb	32	42	52	22	17	28	41	43	21	19	26	14	83	0	1	77	5	55	9	12	12	9	5	5	83.5
7-Feb	6	6	8	5	7	7	5	6	6	4	8	5	5	5	8	7	8	7	8	4	12	6	6	5	11.9
8-Feb	9	6	6	4	7	4	4	5	8	7	72	12	7	8	9	10	12	42	11	8	14	5	3	3	72.4
9-Feb	5	12	5	5	2	3	16	12	12	9	20	14	17	3	4	5	7	10	7	7	4	13	7	11	19.6
10-Feb	3	5	11	7	7	5	3	3	2	3	5	3	11	59	32	9	10	11	5	17	5	9	7	4	59.2
11-Feb	5	11	8	26	38	10	10	11	13	17	22	47	13	72	4	5	11	3	9	4	4	8	8	7	71.6
12-Feb	4	9	7	18	5	5	6	5	21	15	11	4	7	4	16	13	6	4	11	8	10	8	5	7	20.7
13-Feb	6	3	3	3	3	3	4	3	3	4	3	3	3	3	3	3	4	3	3	4	3	5	3	44	44.0
14-Feb	19	32	9	8	7	9	6	10	8	8	6	4	5	8	24	36	41	10	7	8	18	10	5	14	41.4
15-Feb	8	10	16	10	7	5	7	13	4	4	2	14	9	10	23	3	9	7	7	8	3	3	3	3	23.4
16-Feb	3	3	11	6	13	12	30	7	7	9	5	6	7	10	12	11	16	6	8	8	7	35	12	22	35.3
17-Feb	45	20	23	82	71	77	18	11	41	12	13	16	10	14	19	8	7	11	11	5	21	34	14	11	81.6
18-Feb	9	11	5	5	6	7	6	4	7	5	7	9	9	9	16	8	7	4	5	3	3	6	6	9	15.9
19-Feb	3	2	2	2	2	2	4	2	3	3	4	5	2	4	10	20	4	4	7	5	8	4	4	3	19.8
20-Feb	6	3	25	18	10	12	6	10	10	8	13	12	11	6	31	25	40	9	7	11	17	7	6	7	40.4
21-Feb	8	4	8	5	5	4	4	4	4	2	2	3	3	12	7	8	6	8	4	4	5	8	4	2	11.7
22-Feb	3	3	11	5	4	5	54	23	10	20	7	8	8	7	4	6	9	4	7	7	5	3	13	11	53.5
23-Feb	15	5	9	23	6	11	9	7	4	4	5	4	6	3	11	11	3	7	2	2	3	7	4	6	22.9
24-Feb	3	7	13	8	54	12	9	9	4	13	9	18	26	13	10	19	60	72	26	16	7	6	5	10	72.0
25-Feb	17	3	13	6	7	26	12	8	8	3	61	79	19	11	17	7	9	9	10	43	35	6	17	47	78.9
26-Feb	14	26	12	10	8	25	6	8	3	6	7	4	6	4	10	4	3	4	5	9	5	6	3	9	25.9
27-Feb	6	3	5	3	3	2	3	2	2	2	3	5	14	7	4	3	3	2	7	10	5	5	10	7	14.1
28-Feb	7	10	5	5	7	3	4	9	9	5	12	9	9	3	43	49	17	17	21	15	17	9	4	6	49.0
45.0	41.9	56.9	81.6	71.0	76.9	53.5	42.6	40.8	20.1	72.4	78.9	83.5	71.6	42.6	76.9	59.6	72.0	26.5	76.2	92.8	35.3	59.7	46.5		

PAZA

Beaverlodge Station

Monthly Summary Tables, Graphs and
Roses

Hourly Averages

Sulphur Dioxide (SO₂) - ppb

Beaverlodge - February 2018

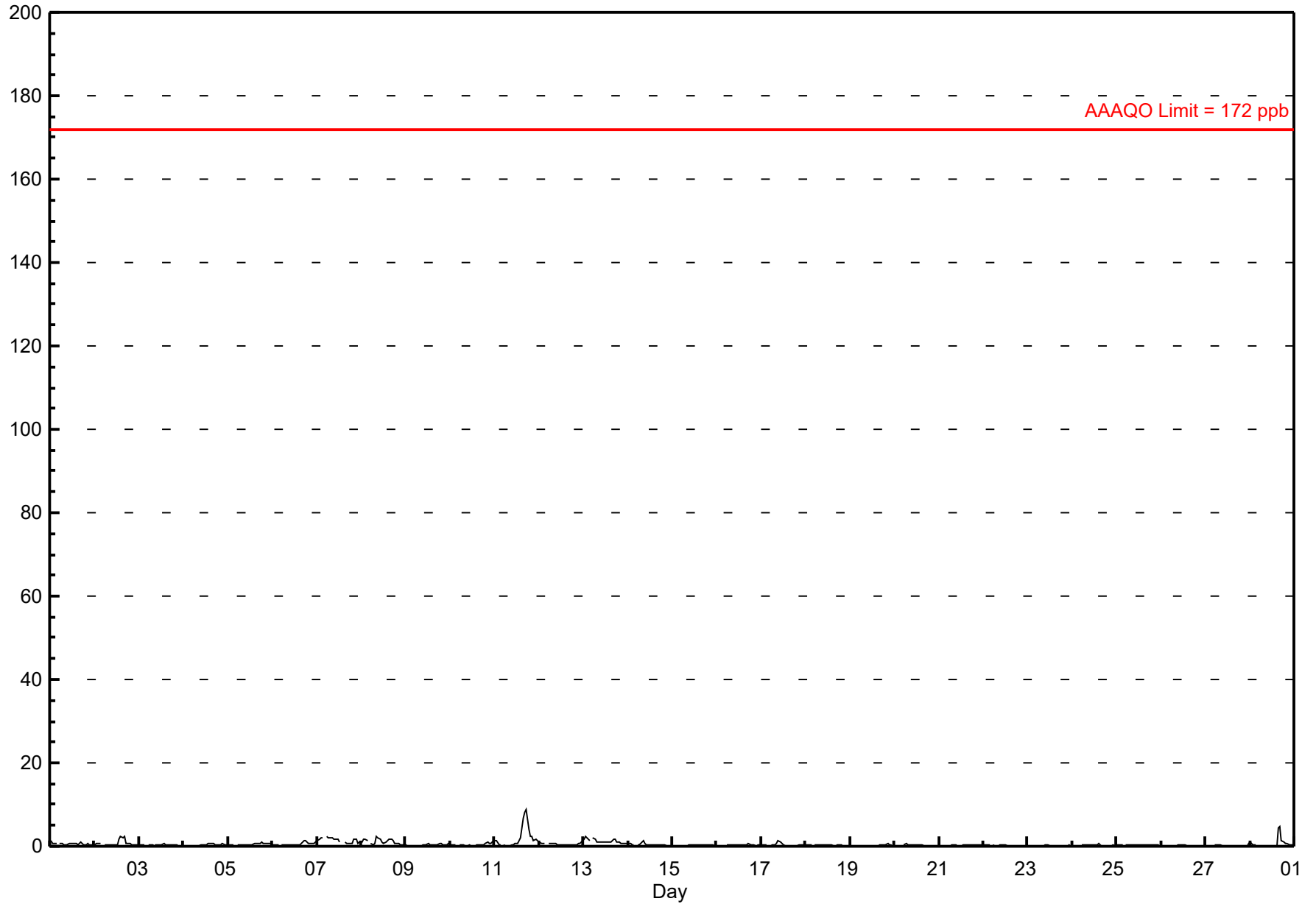
Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	672
Maximum Value: 8.8 ppb on Feb 11 18:00	Maximum Daily Average: 2.0 ppb on Feb 11		Hours of Data:	642
Minimum Value: 0 ppb on Feb 27 18:00	Minimum Daily Average: 0.1 ppb on Feb 27		Hours of Missing Data:	30
Maximum Diurnal Average: 0.9 ppb at hour 17	Minimum Diurnal Average: 0.4 ppb at hour 13		Hours of Calibration:	30
Monthly Average: 0.49 ppb	Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.2 Median = 0.3 Q ₃ = 0.5 P ₉₀ = 1.0 P ₉₉ = 2.5		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-Feb	1	1	1	1	A	1	1	1	0	0	1	1	1	1	1	1	1	1	0	0	1	0	0	0	0.6	1.3
2-Feb	0	1	1	1	A	0	0	0	0	0	0	0	0	2	2	2	2	1	1	1	0	0	0	0	0.7	2.3
3-Feb	0	0	0	0	A	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.3	0.6
4-Feb	0	0	0	0	A	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	1	0	0	0.3	0.8
5-Feb	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	0.5	0.9
6-Feb	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	0.6	1.3
7-Feb	1	2	2	2	A	2	2	2	2	2	2	2	1	C	C	1	1	1	1	1	2	2	1	1	1.5	2.2
8-Feb	1	2	2	1	A	1	0	1	2	2	2	1	1	1	1	2	2	1	1	1	1	0	0	0	1.1	2.5
9-Feb	0	0	0	0	A	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	0	1	0.3	0.6
10-Feb	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0.4	1.3
11-Feb	1	1	0	0	A	0	0	0	0	0	0	1	1	1	2	7	8	9	4	3	2	1	2	1	2.0	8.8
12-Feb	1	1	1	1	A	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0.5	1.0
13-Feb	2	2	2	1	A	2	2	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1.2	2.4
14-Feb	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	1.3
15-Feb	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
16-Feb	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	0.6
17-Feb	0	0	0	0	A	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.3
18-Feb	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
19-Feb	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.2	0.7
20-Feb	0	0	0	0	A	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
21-Feb	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
22-Feb	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
23-Feb	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
24-Feb	0	0	0	0	A	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0.3	0.6
25-Feb	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
26-Feb	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-Feb	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	0.5
28-Feb	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	4	5	1	1	1	1	0	0	0	0.7	4.7
	0.5	0.5	0.5	0.4	--	0.4	0.4	0.4	0.5	0.5	0.4	0.4	0.4	0.4	0.5	0.8	0.9	0.8	0.5	0.5	0.5	0.4	0.4	0.4	Diurnal Average	
	1.5	2.4	2.1	2.2	--	2.2	2.2	2.1	2.5	2.1	1.9	1.7	1.0	1.7	2.3	6.9	8.2	8.8	4.2	2.5	2.5	1.8	1.5	1.3	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
Beaverlodge - February 2018



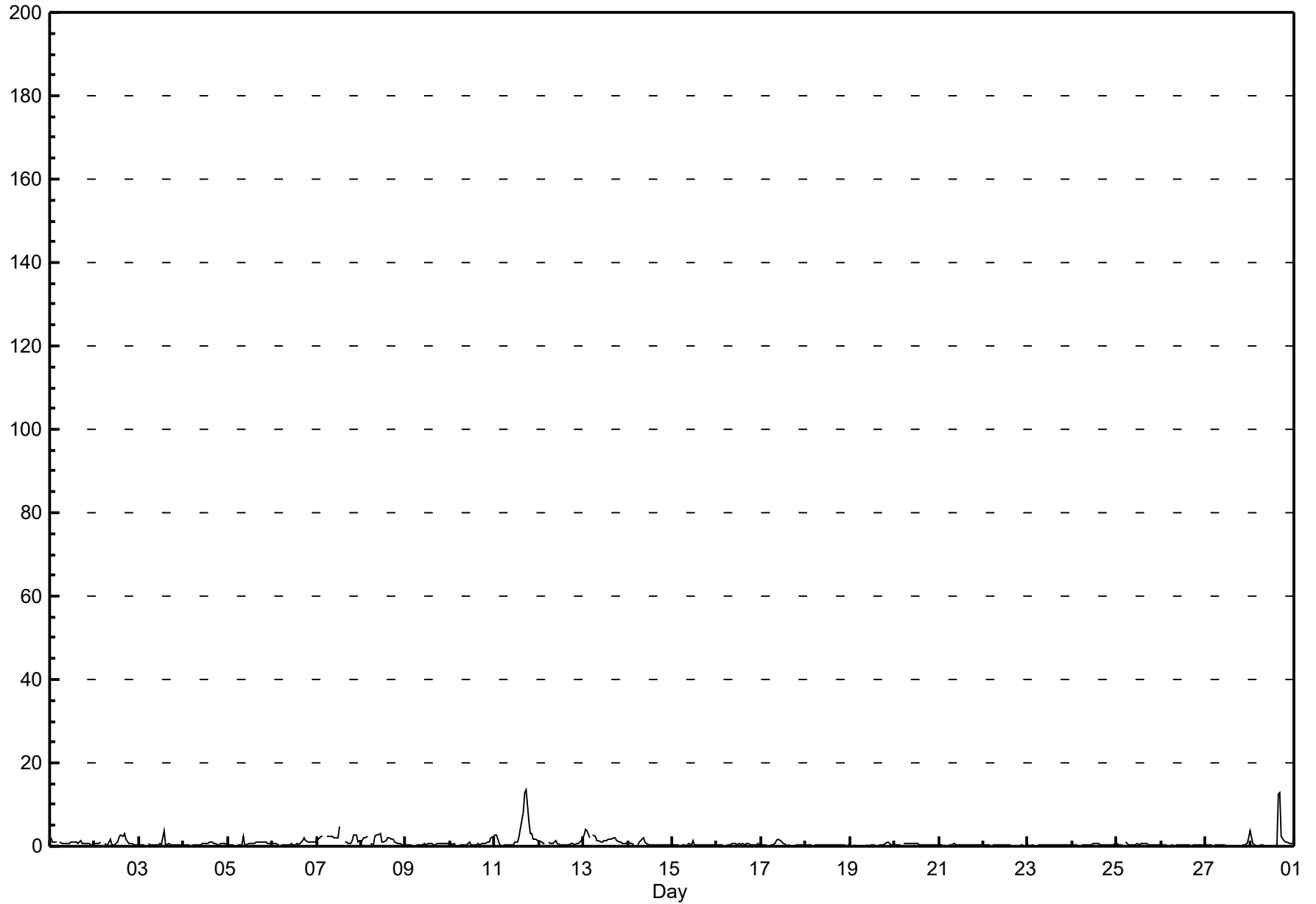
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb Beaverlodge - February 2018

Maximum Value: 13.6 ppb on Feb 11 18:00		Maximum Daily Average: 3.0 ppb on Feb 11		Hours in Service: 672																								
Minimum Value: 0 ppb on Feb 27 19:00		Minimum Daily Average: 0.2 ppb on Feb 26		Hours of Data: 642																								
Maximum Diurnal Average: 1.6 ppb at hour 17		Minimum Diurnal Average: 0.5 ppb at hour 7		Hours of Missing Data: 30																								
Monthly Average: 0.75 ppb		Percentiles: P ₁ = 0.1 P ₁₀ = 0.2 Q ₁ = 0.3 Median = 0.4 Q ₃ = 0.7 P ₉₀ = 1.6 P ₉₉ = 4.6		Hours of Calibration: 30																								
				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-Feb	2	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0.8	2.1			
2-Feb	1	1	1	1	A	1	1	0	2	0	0	0	1	2	3	2	3	2	1	1	1	0	0	1.0	2.9			
3-Feb	0	0	0	0	A	1	0	0	0	0	0	1	0	4	0	0	1	0	0	0	0	0	0	0.5	3.7			
4-Feb	0	0	0	0	A	0	0	0	0	0	1	1	1	1	1	1	1	1	0	0	1	1	1	0.5	1.1			
5-Feb	0	0	0	0	A	0	0	0	2	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0.7	2.3			
6-Feb	1	1	1	0	A	0	0	0	0	0	1	0	0	1	0	1	1	2	2	1	1	1	1	0.8	2.0			
7-Feb	2	2	2	2	A	2	2	2	2	2	2	2	5	C	C	1	1	1	1	2	3	3	1	1.9	4.7			
8-Feb	1	2	2	2	A	1	1	2	3	3	3	1	1	1	2	2	2	2	1	1	1	0	0	1.5	2.9			
9-Feb	0	0	0	0	A	0	0	0	0	0	1	0	1	1	1	0	0	1	1	1	1	1	1	0.4	0.7			
10-Feb	1	0	1	0	A	0	0	0	0	0	1	0	0	0	1	0	1	1	1	1	1	1	2	0.7	2.4			
11-Feb	3	3	1	0	A	0	0	0	0	0	0	1	1	3	4	8	13	14	6	3	3	2	2	3.0	13.6			
12-Feb	1	1	1	1	A	1	1	1	1	1	1	0	0	0	0	0	0	1	1	0	1	1	1	0.7	1.3			
13-Feb	3	4	4	2	A	3	2	1	1	1	1	2	1	2	2	2	2	2	1	1	1	1	1	1.7	4.0			
14-Feb	1	1	1	1	A	0	1	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.6	2.1			
15-Feb	0	0	0	0	A	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0.3	1.3			
16-Feb	0	0	0	0	A	0	0	0	1	1	1	0	1	0	1	0	1	1	0	0	0	0	1	0.4	0.7			
17-Feb	0	0	0	0	A	0	0	1	1	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0.5	1.6			
18-Feb	0	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5			
19-Feb	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0.3	0.9			
20-Feb	0	0	0	0	A	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0.4	0.7			
21-Feb	0	0	0	0	A	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0.3	0.5			
22-Feb	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5			
23-Feb	0	0	0	0	A	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5			
24-Feb	0	0	0	0	A	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	1	0.4	0.8			
25-Feb	1	0	0	0	A	1	0	0	0	0	0	1	0	1	1	1	1	0	0	0	0	0	0	0.4	1.1			
26-Feb	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3			
27-Feb	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.3	1.9			
28-Feb	4	1	0	0	A	0	0	0	0	0	0	0	0	0	0	12	13	2	1	1	1	1	1	1.7	13.0			
		0.8	0.7	0.6	0.6	--	0.6	0.5	0.6	0.8	0.6	0.7	0.6	0.7	0.8	0.8	1.3	1.6	1.2	0.7	0.6	0.7	0.6	0.6	Diurnal Average			
		3.7	4.0	3.8	2.3	--	2.7	2.5	2.3	2.7	2.6	2.9	1.9	4.7	3.7	4.4	12.4	13.0	13.6	5.7	3.2	3.1	2.7	2.2	2.4	Diurnal Maximum		
C - Calibration					A - Automated Daily Zero Span																							

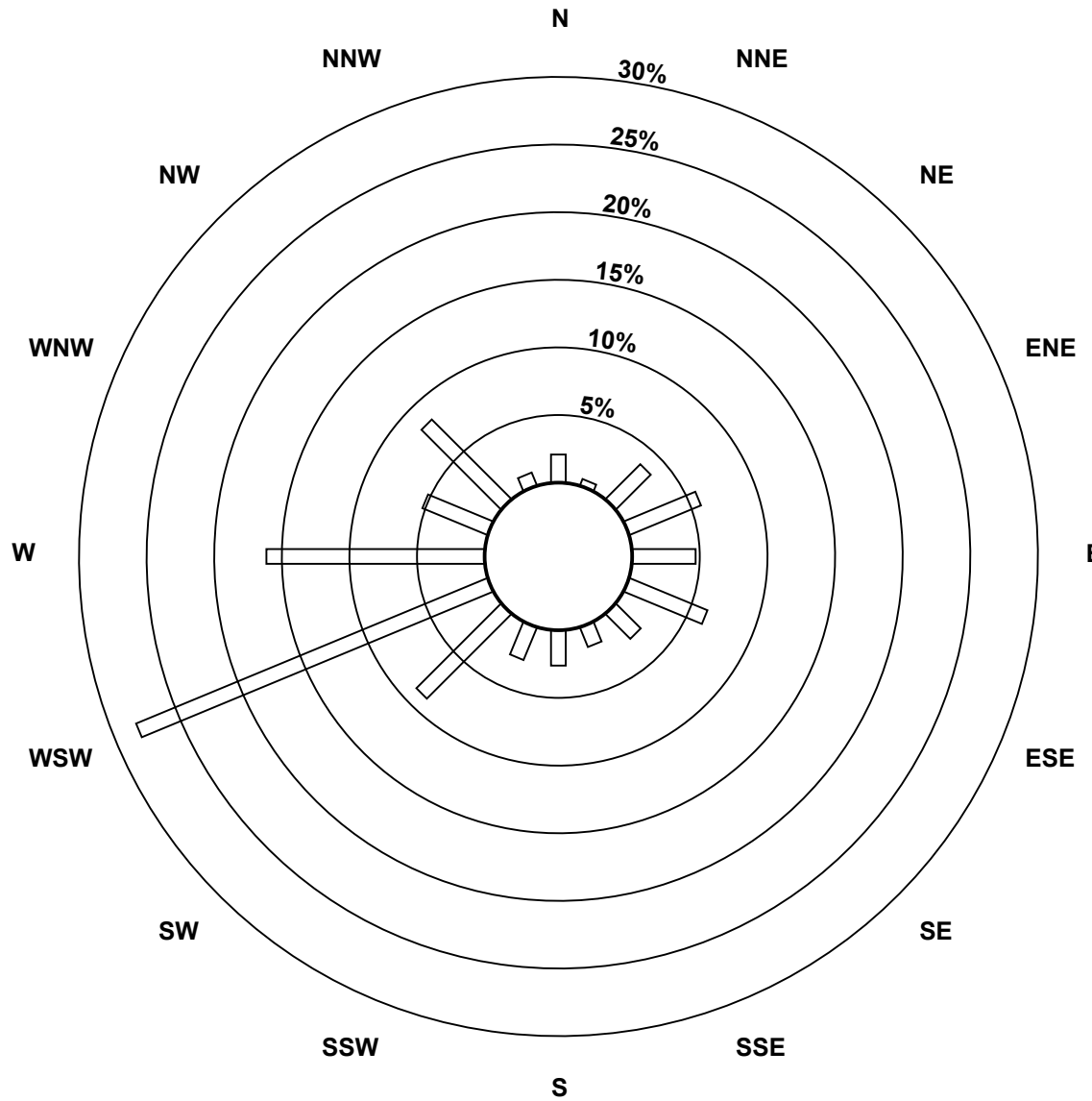
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Beaverlodge - February 2018

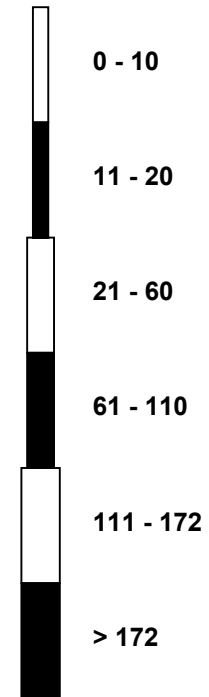


Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Beaverlodge - February 2018

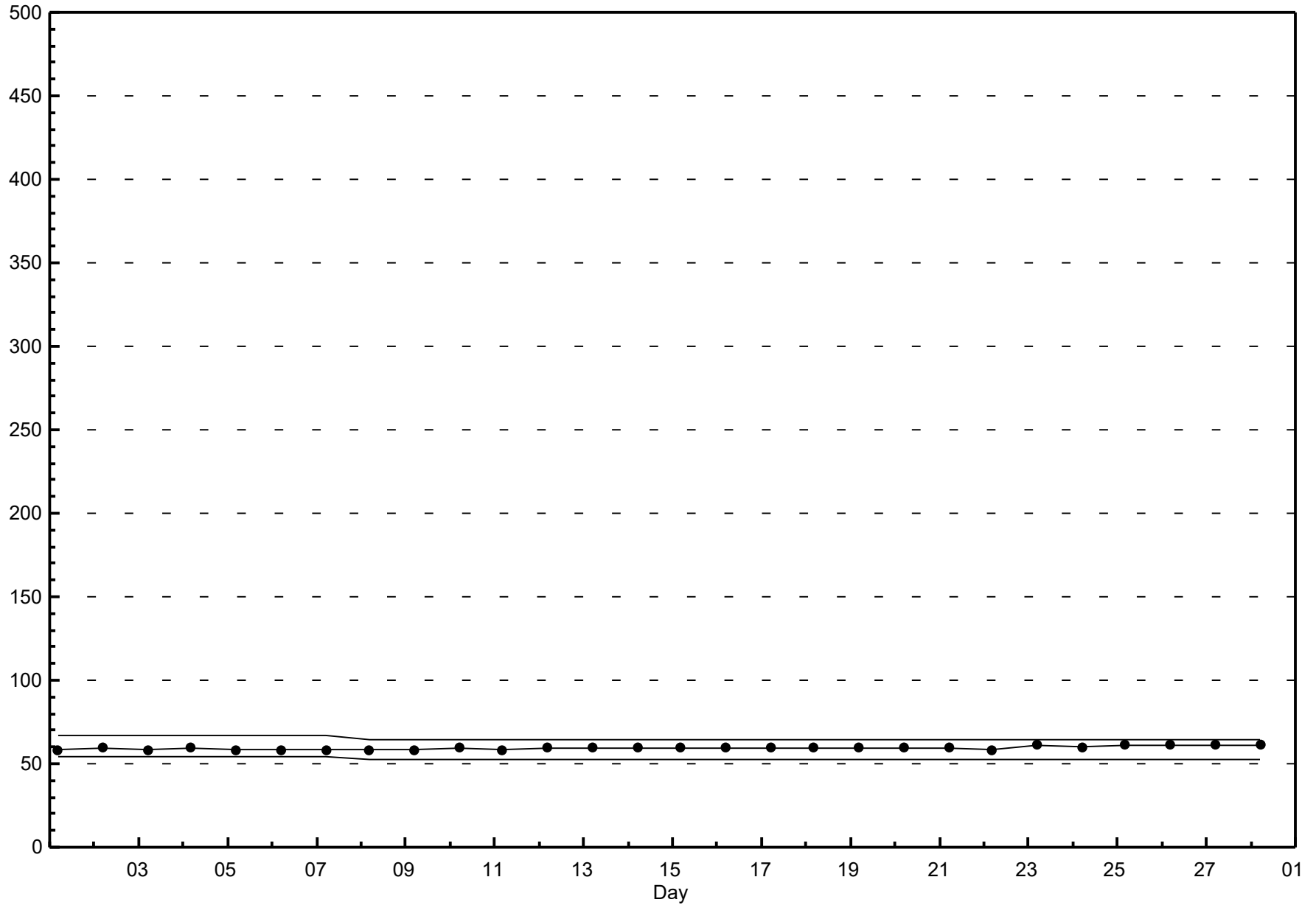


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Beaverlodge - February 2018



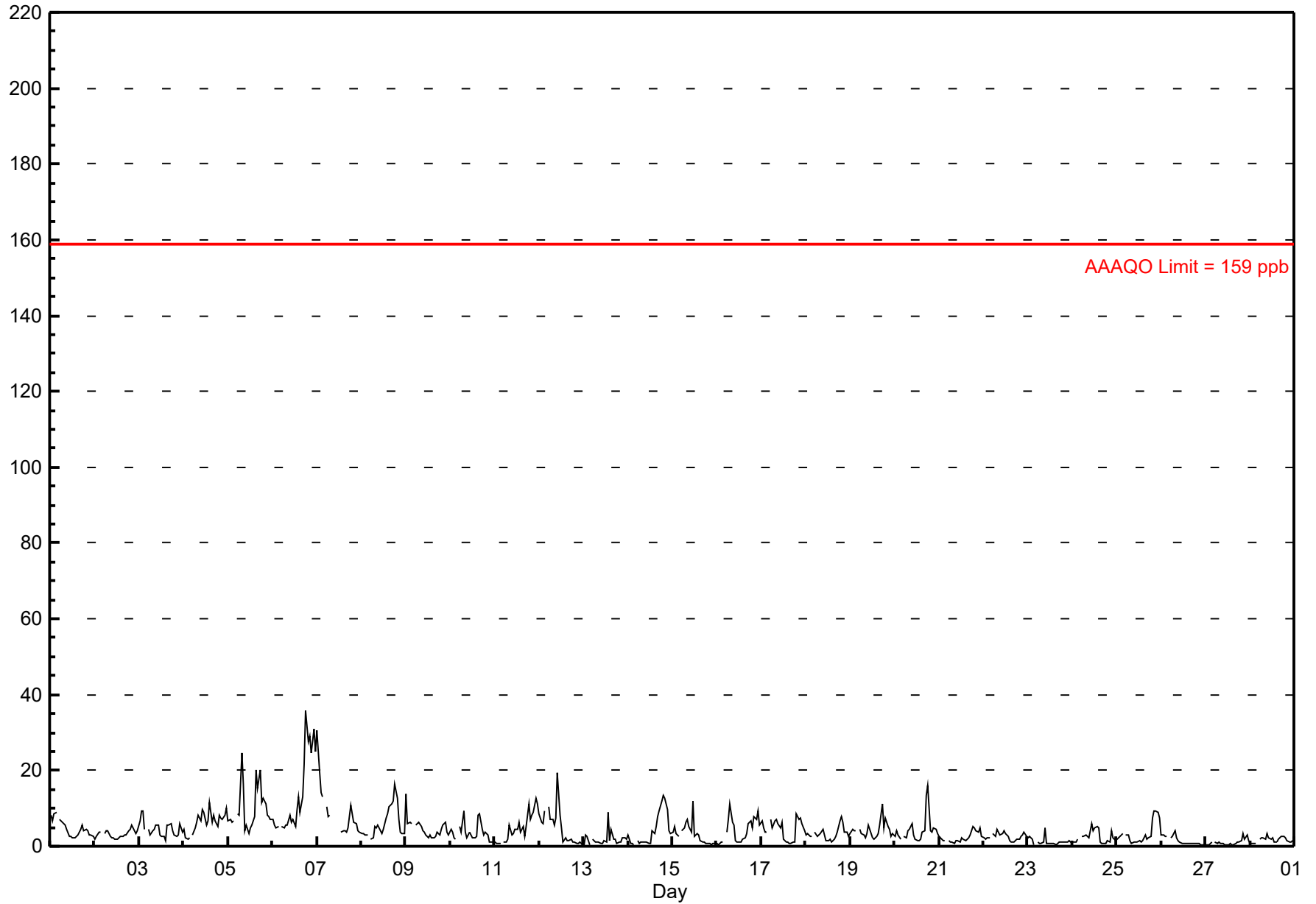
Hourly Averages

Nitrogen Dioxide (NO₂) - ppb Beaverlodge - February 2018

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 35.7 ppb on Feb 6 19:00 Maximum Daily Average: 13.5 ppb on Feb 6		Hours in Service: 672 Hours of Data: 639 Hours of Missing Data: 33 Hours of Calibration: 33 Percent Operational Time: 100.0																																															
Minimum Value: 0 ppb on Feb 27 03:00 Maximum Diurnal Average: 6.3 ppb at hour 19 Monthly Average: 4.33 ppb		Minimum Daily Average: 1.0 ppb on Feb 27 Minimum Diurnal Average: 2.6 ppb at hour 13 Percentiles: P ₁ = 0.5 P ₁₀ = 0.9 Q ₁ = 1.6 Median = 3.2 Q ₃ = 5.6 P ₉₀ = 8.6 P ₉₉ = 24.7																																															
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-Feb	8	7	9	9	A	7	6	6	5	4	3	3	2	2	3	3	4	6	4	4	4	3	3	2	4.7	8.8																							
2-Feb	2	3	4	4	A	3	4	4	3	2	2	2	2	2	3	2	3	3	4	5	6	4	3	4	3.2	5.7																							
3-Feb	7	9	9	5	A	5	3	4	5	6	5	3	3	3	2	6	6	6	4	3	3	3	6	4	4.7	9.4																							
4-Feb	4	2	2	2	A	3	5	6	8	7	10	9	6	7	11	6	8	7	5	8	7	7	8	10	6.5	11.5																							
5-Feb	7	7	6	7	A	9	8	25	17	4	6	3	5	6	8	20	15	20	12	13	11	8	8	7	10.0	24.6																							
6-Feb	7	6	5	5	A	5	5	5	6	8	6	7	5	10	13	9	13	22	36	27	29	25	31	25	13.5	35.7																							
7-Feb	31	19	14	13	A	10	8	8	C	C	C	C	C	4	4	4	4	5	11	9	6	6	4	4	9.1	30.6																							
8-Feb	3	3	3	3	A	2	2	5	5	6	4	3	5	7	9	11	11	12	16	13	7	4	4	3	6.1	16.5																							
9-Feb	14	6	6	6	A	6	6	6	5	4	4	3	2	3	2	2	3	4	3	4	6	6	4	3	4.7	13.9																							
10-Feb	5	4	2	2	A	5	4	9	4	2	4	3	2	2	3	8	9	5	3	4	3	1	1	1	3.7	9.4																							
11-Feb	1	1	1	1	A	1	1	2	6	3	3	4	4	7	4	5	3	5	11	7	8	9	13	11	4.8	12.6																							
12-Feb	9	6	6	9	A	10	7	7	5	8	20	8	5	1	2	2	2	2	1	1	1	1	1	1	5.0	19.5																							
13-Feb	0	3	3	0	A	2	1	1	1	1	1	2	1	9	1	5	2	2	1	1	1	2	2	2	1.9	9.0																							
14-Feb	3	1	1	1	A	1	1	1	1	1	1	1	1	4	3	5	8	9	12	14	13	10	4	3	4.3	13.6																							
15-Feb	4	5	3	3	A	4	5	6	7	5	4	12	3	3	3	1	1	1	1	1	1	1	1	1	3.2	12.1																							
16-Feb	1	1	1	1	A	4	7	11	6	6	2	1	1	1	2	2	3	6	7	5	8	7	9	6	4.2	11.0																							
17-Feb	7	5	4	4	A	7	5	7	7	6	5	6	2	1	1	1	1	1	1	9	7	7	6	4	4.5	8.6																							
18-Feb	3	3	2	3	A	4	3	3	3	4	3	2	2	2	1	2	2	4	7	8	6	4	4	3	3.3	7.7																							
19-Feb	3	4	4	4	A	4	3	3	2	3	6	3	2	2	3	3	6	11	5	7	5	4	3	3	4.1	11.3																							
20-Feb	3	4	3	2	A	3	2	4	4	6	3	2	2	1	2	4	4	13	16	4	4	5	4	3	4.3	16.2																							
21-Feb	3	2	2	2	A	2	1	1	1	1	1	1	2	2	1	2	2	3	5	5	4	4	5	3	2.4	5.2																							
22-Feb	2	2	2	2	A	3	3	5	4	3	3	4	3	3	1	1	1	2	2	2	3	3	4	3	2.6	4.6																							
23-Feb	2	3	2	0	A	1	1	1	1	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	4.7																							
24-Feb	1	1	1	2	A	3	3	3	2	2	6	4	5	5	5	1	1	1	1	1	1	4	2	2	2.5	6.0																							
25-Feb	2	2	3	3	A	3	3	2	1	1	1	1	1	1	3	2	2	3	7	9	9	9	7	7	3.4	9.5																							
26-Feb	3	3	2	2	A	2	3	4	2	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1.4	4.2																							
27-Feb	0	0	0	1	A	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	3	2	3	1	1.0	3.2																							
28-Feb	1	1	1	1	A	2	2	2	2	3	2	2	2	1	1	2	2	3	3	2	2	1	1	1	1.7	3.2																							
																								4.8	4.1	3.7	3.4	--	4.0	3.7	5.1	4.2	3.9	3.9	3.5	2.6	3.3	3.3	4.0	4.2	5.6	6.3	5.9	5.7	5.1	5.1	4.3	Diurnal Average	
																								30.6	19.3	14.3	12.9	--	10.4	8.2	24.6	16.5	8.3	19.5	12.1	5.8	9.5	12.9	19.9	15.2	21.5	35.7	27.5	29.1	24.7	30.9	24.9	Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb 24-hr 106 ppb																																																	

Hourly Averages

Nitrogen Dioxide (NO₂) - ppb
Beaverlodge - February 2018



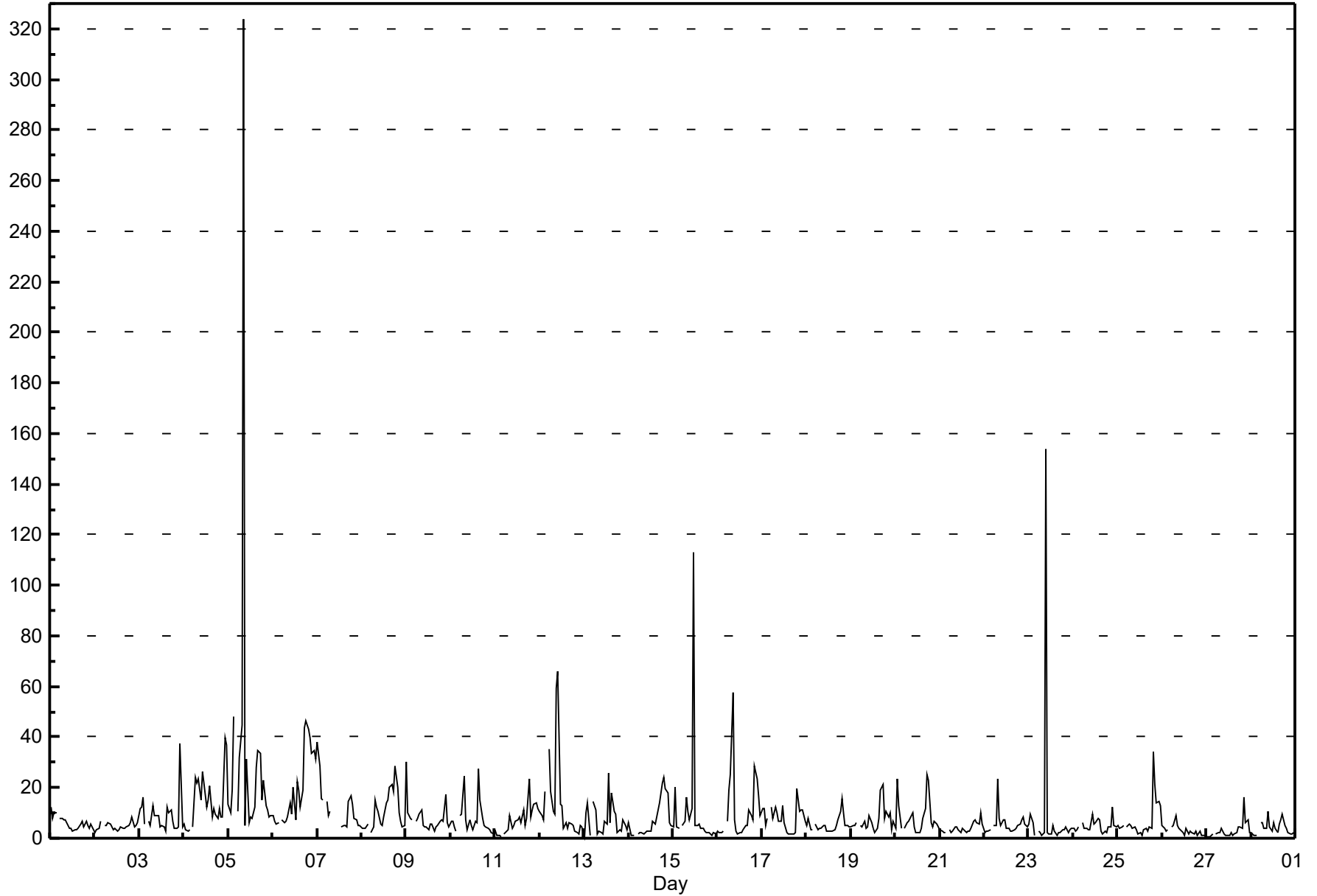
Hourly Maximums

Nitrogen Dioxide (NO₂) - ppb Beaverlodge - February 2018

Maximum Value: 323.9 ppb on Feb 5 09:00		Maximum Daily Average: 32.5 ppb on Feb 5		Hours in Service: 672																							
Minimum Value: 1 ppb on Feb 13 01:00		Minimum Daily Average: 3.1 ppb on Feb 26		Hours of Data: 639																							
Maximum Diurnal Average: 20.7 ppb at hour 9		Minimum Diurnal Average: 4.8 ppb at hour 13		Hours of Missing Data: 33																							
Monthly Average: 9.01 ppb		Percentiles: P ₁ = 1.0 P ₁₀ = 2.1 Q ₁ = 3.3 Median = 5.2 Q ₃ = 9.4 P ₉₀ = 18.8 P ₉₉ = 47.5		Hours of Calibration: 33																							
				Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Feb	12	8	10	10	A	8	8	7	7	6	4	4	3	3	3	4	6	7	5	7	5	4	6	3	6.1	12.4	
2-Feb	2	3	4	7	A	5	5	6	5	5	3	4	3	3	5	4	4	4	5	6	8	5	5	6	4.7	8.3	
3-Feb	12	12	16	5	A	7	5	13	9	9	9	4	5	4	3	12	10	11	7	4	4	4	38	5	9.1	37.6	
4-Feb	6	4	3	3	A	5	24	22	24	15	26	22	12	15	20	8	12	9	8	12	8	8	40	37	14.9	39.9	
5-Feb	13	10	19	48	A	11	32	45	324	5	31	6	9	8	12	28	35	34	15	23	13	11	8	9	32.5	323.9	
6-Feb	9	7	6	6	A	7	6	7	9	14	10	20	7	22	19	12	19	44	47	43	40	34	35	31	19.7	46.6	
7-Feb	38	29	16	15	A	15	9	11	C	C	C	C	C	5	5	5	4	15	17	13	8	7	5	5	12.2	37.9	
8-Feb	4	4	4	5	A	2	4	15	12	10	6	5	8	14	15	20	21	18	28	20	10	7	5	5	10.6	28.3	
9-Feb	30	10	8	7	A	7	8	10	11	5	5	5	3	5	5	3	4	5	7	7	7	18	6	5	7.9	30.4	
10-Feb	7	6	4	3	A	9	9	25	7	4	7	5	4	7	6	27	15	8	5	4	4	3	2	2	7.6	27.2	
11-Feb	3	1	1	1	A	2	3	4	9	4	5	7	7	8	6	11	5	8	23	9	11	13	14	12	7.3	23.3	
12-Feb	11	9	7	19	A	35	19	10	9	59	66	13	13	4	6	4	6	6	5	3	2	2	5	4	13.8	66.0	
13-Feb	1	10	14	1	A	14	11	2	3	2	2	7	5	26	6	18	10	10	2	3	3	7	5	4	7.2	25.9	
14-Feb	6	1	1	1	A	2	2	2	2	2	3	3	3	7	5	8	11	14	22	24	19	18	6	5	7.3	23.9	
15-Feb	4	20	4	4	A	5	7	16	11	7	12	113	5	5	5	4	4	3	2	2	2	1	2	1	10.4	112.9	
16-Feb	3	2	2	3	A	7	19	25	58	7	3	2	2	2	3	5	5	11	9	8	29	23	17	9	11.0	57.7	
17-Feb	11	12	5	8	A	13	8	13	10	7	7	13	6	2	1	2	2	2	2	20	11	11	11	6	7.9	19.9	
18-Feb	5	8	3	3	A	6	3	4	4	5	5	3	3	3	3	5	7	11	16	10	5	5	5	5	5.4	15.6	
19-Feb	5	5	5	6	A	5	4	7	4	4	9	6	4	2	4	8	19	21	8	11	8	10	3	7	7.1	21.1	
20-Feb	4	23	13	4	A	4	6	7	8	10	4	2	2	2	4	8	12	25	23	6	5	7	6	5	8.2	24.9	
21-Feb	4	3	2	2	A	3	2	3	4	4	3	2	4	3	2	3	3	4	6	7	6	5	10	6	4.1	9.9	
22-Feb	2	3	3	4	A	5	5	24	8	5	8	7	4	4	3	3	3	4	5	6	7	8	6	5	5.7	23.5	
23-Feb	6	9	6	1	A	3	2	1	2	154	2	2	2	5	3	1	2	2	3	3	4	2	3	4	9.7	153.7	
24-Feb	4	3	4	4	A	6	4	4	3	3	9	6	6	8	7	3	2	3	2	5	5	12	5	4	4.9	12.1	
25-Feb	5	4	4	5	A	4	6	5	4	5	3	2	2	1	3	4	3	4	4	34	21	14	15	13	7.3	34.1	
26-Feb	5	4	3	3	A	4	5	9	5	4	3	2	1	4	2	3	2	2	3	1	3	1	1	1	3.1	8.7	
27-Feb	1	1	1	2	A	2	2	2	4	2	1	1	1	2	1	2	2	4	4	4	16	6	7	2	3.1	16.4	
28-Feb	2	1	1	1	A	6	6	4	4	11	4	3	6	4	2	6	7	9	5	4	2	2	1	2	4.1	10.6	
		7.7	7.6	6.1	6.5	--	7.2	8.0	10.8	20.7	13.6	9.3	9.9	4.8	6.5	5.8	7.8	8.4	10.5	10.1	10.9	9.8	8.9	9.7	7.2	Diurnal Average	
		37.9	28.6	19.0	48.1	--	35.2	31.7	44.5	323.9	153.7	66.0	112.9	12.6	25.9	20.4	27.8	34.8	43.5	46.6	43.2	39.9	33.5	39.9	37.1	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

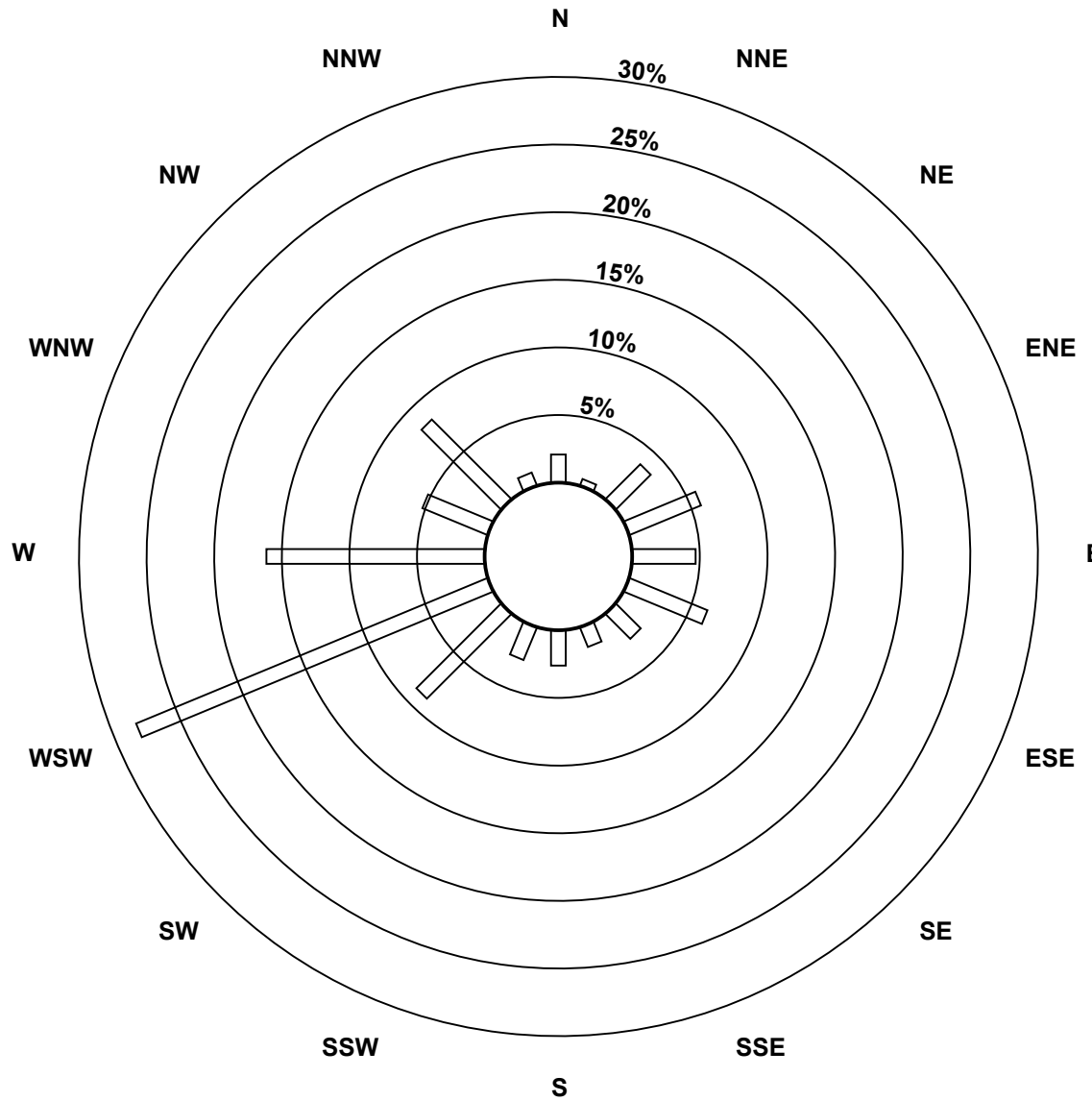
Hourly Maximums

Nitrogen Dioxide (NO₂) - ppb
Beaverlodge - February 2018

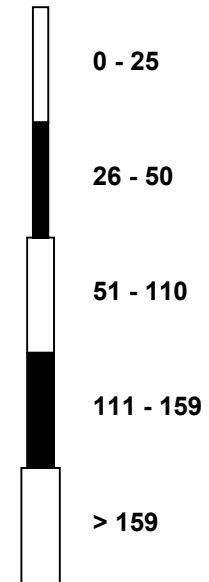


Pollutant Rose

Nitrogen Dioxide (NO₂) - ppb
Beaverlodge - February 2018

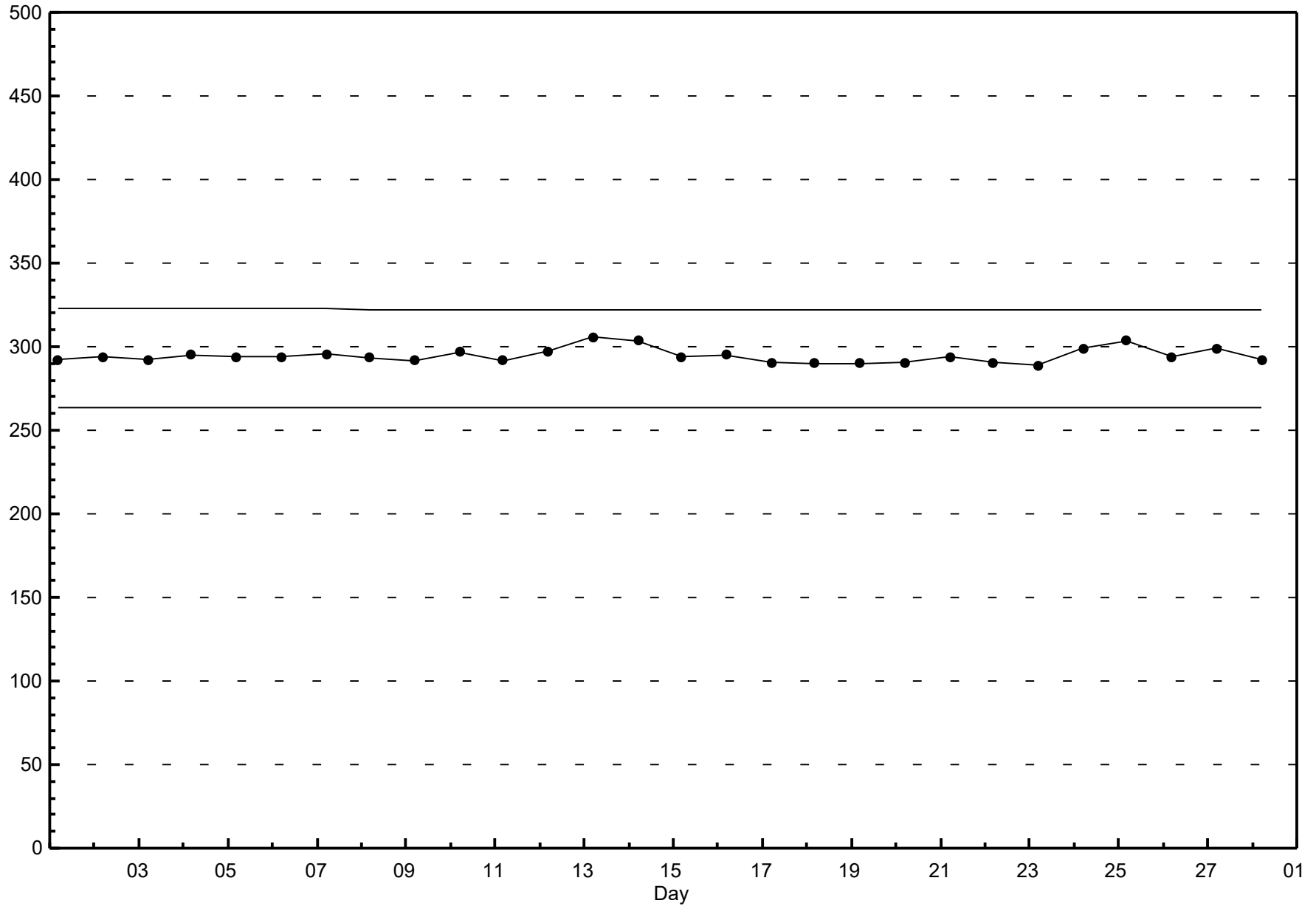


Pollutant Classes (ppb)



Span Responses

Nitrogen Dioxide (NO₂)
Beaverlodge - February 2018



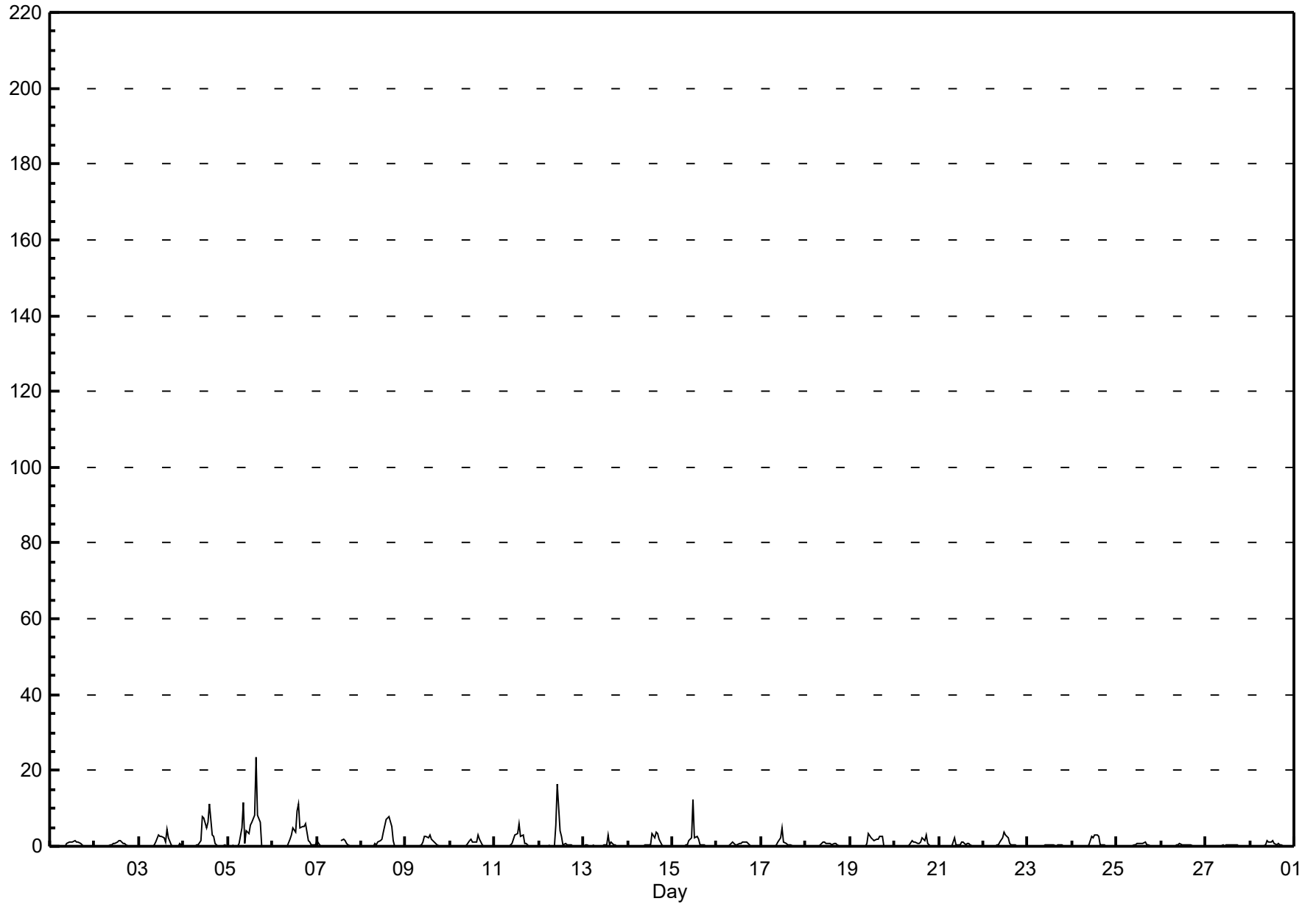
Hourly Averages

Nitrogen Oxide (NO) - ppb Beaverlodge - February 2018

Maximum Value: 23.5 ppb on Feb 5 16:00		Maximum Daily Average: 3.7 ppb on Feb 5		Hours in Service: 672																										
Minimum Value: 0 ppb on Feb 1 01:00		Minimum Daily Average: 0.1 ppb on Feb 23		Hours of Data: 639																										
Maximum Diurnal Average: 2.5 ppb at hour 16		Minimum Diurnal Average: 0.0 ppb at hour 24		Hours of Missing Data: 33																										
Monthly Average: 0.84 ppb		Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.7 P ₉₀ = 2.4 P ₉₉ = 9.0		Hours of Calibration: 33																										
				Percent Operational Time: 100.0																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24						
1-Feb	0	0	0	0	A	0	0	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0.4	1.3				
2-Feb	0	0	0	0	A	0	0	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0.4	1.4				
3-Feb	0	0	0	0	A	0	0	0	0	1	3	2	3	2	1	5	2	1	0	0	0	0	1	0	0.9	4.5				
4-Feb	0	0	0	0	A	0	0	0	0	1	8	7	5	6	11	3	3	1	0	0	0	0	0	0	2.0	11.1				
5-Feb	0	0	0	0	A	0	1	5	12	1	4	3	5	6	8	23	8	6	0	0	0	0	0	0	3.7	23.5				
6-Feb	0	0	0	0	A	0	0	0	0	2	3	5	4	9	11	5	5	5	6	1	1	0	0	0	2.6	11.2				
7-Feb	2	0	0	0	A	0	0	0	C	C	C	C	C	2	2	1	1	0	0	0	0	0	0	0	0.5	1.8				
8-Feb	0	0	0	0	A	0	0	1	0	1	2	2	4	7	7	8	5	2	0	0	0	0	0	0	1.7	7.9				
9-Feb	0	0	0	0	A	0	0	0	0	1	3	3	2	3	2	1	1	0	0	0	0	0	0	0	0.7	3.0				
10-Feb	0	0	0	0	A	0	0	0	0	0	1	2	1	1	1	3	2	0	0	0	0	0	0	0	0.5	3.0				
11-Feb	0	0	0	0	A	0	0	0	0	1	2	3	3	6	3	3	1	1	0	0	0	0	0	0	1.0	5.9				
12-Feb	0	0	0	0	A	0	0	0	0	6	16	4	2	0	1	0	0	0	0	0	0	0	0	0	1.4	16.5				
13-Feb	0	0	0	0	A	0	0	0	0	0	0	0	0	3	0	1	0	1	0	0	0	0	0	0	0.4	2.9				
14-Feb	0	0	0	0	A	0	0	0	0	0	0	0	0	3	2	4	3	2	0	0	0	0	0	0	0.7	3.6				
15-Feb	0	0	0	0	A	0	0	0	0	1	2	12	2	3	2	1	0	0	0	0	0	0	0	0	1.1	12.3				
16-Feb	0	0	0	0	A	0	0	0	1	1	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0.4	1.3				
17-Feb	0	0	0	0	A	0	0	0	0	1	2	5	1	1	1	0	0	0	0	0	0	0	0	0	0.6	5.0				
18-Feb	0	0	0	0	A	0	0	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0.4	1.3				
19-Feb	0	0	0	0	A	0	0	0	0	1	3	2	2	1	2	2	2	3	0	0	0	0	0	0	0.8	3.3				
20-Feb	0	0	0	0	A	0	0	0	0	2	1	1	1	1	1	2	2	3	1	0	0	0	0	0	0.6	3.0				
21-Feb	0	0	0	0	A	0	0	0	2	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0.4	2.3				
22-Feb	0	0	0	0	A	0	0	0	0	1	2	4	3	2	1	1	0	0	0	0	0	0	0	0	0.7	3.6				
23-Feb	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				
24-Feb	0	0	0	0	A	0	0	0	0	0	2	2	3	3	3	0	0	0	0	0	0	0	0	0	0.7	3.0				
25-Feb	0	0	0	0	A	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0.3	1.3				
26-Feb	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	0.7				
27-Feb	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				
28-Feb	0	0	0	0	A	0	0	0	0	1	1	1	1	1	0	1	1	0	0	0	0	0	0	0	0.4	1.4				
		0.1	0.0	0.0	0.0	--	0.1	0.1	0.3	0.8	1.0	2.3	2.4	1.9	2.4	2.3	2.5	1.5	1.0	0.3	0.1	0.1	0.1	0.1	0.0	Diurnal Average				
		1.7	0.3	0.5	0.5	--	0.3	0.7	4.9	11.7	5.6	16.5	12.3	5.4	9.3	11.2	23.5	8.4	6.2	6.0	1.3	1.2	0.2	0.6	0.2	Diurnal Maximum				
C - Calibration					A - Automated Daily Zero Span																									

Hourly Averages

Nitrogen Oxide (NO) - ppb
Beaverlodge - February 2018



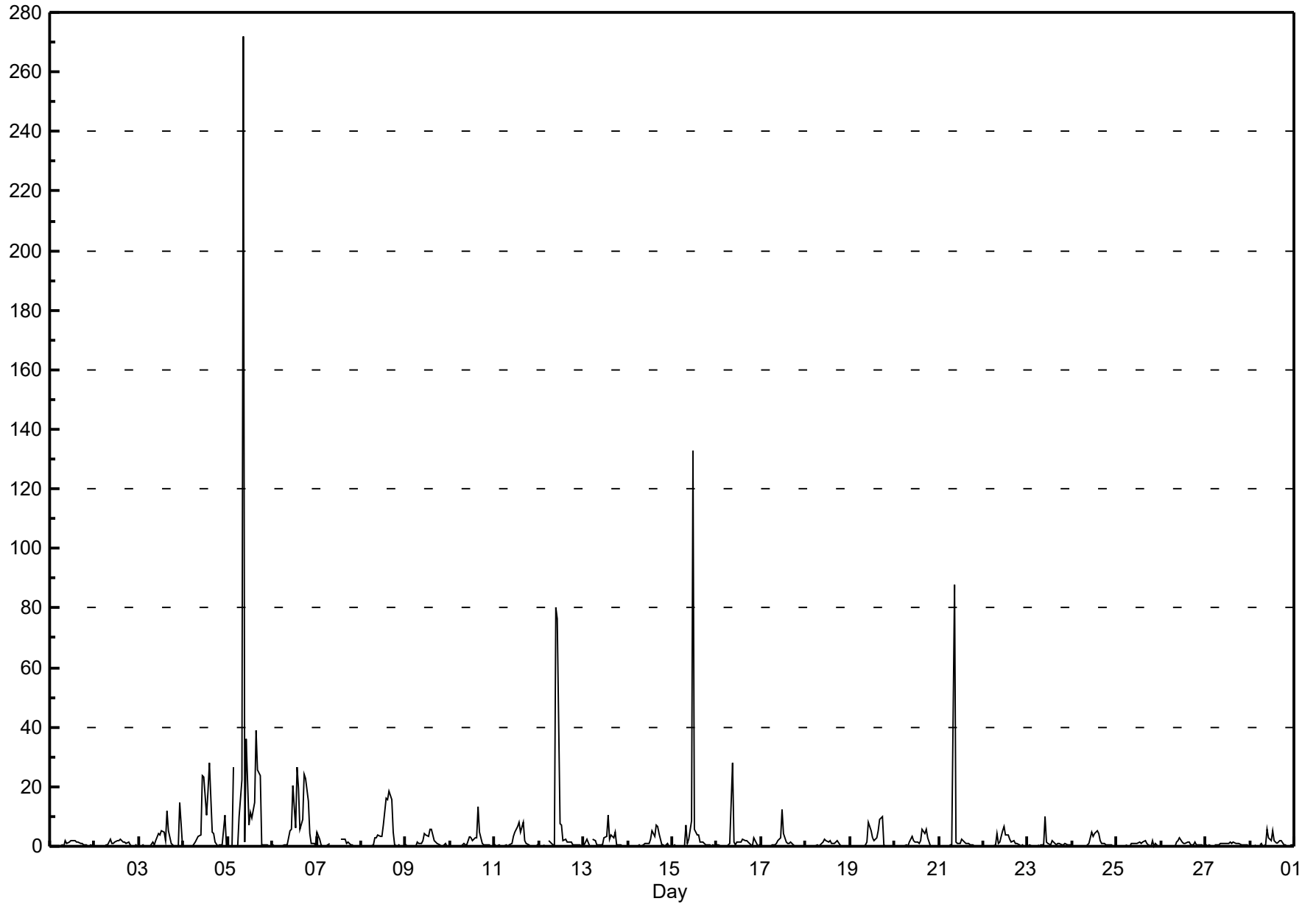
Hourly Maximums

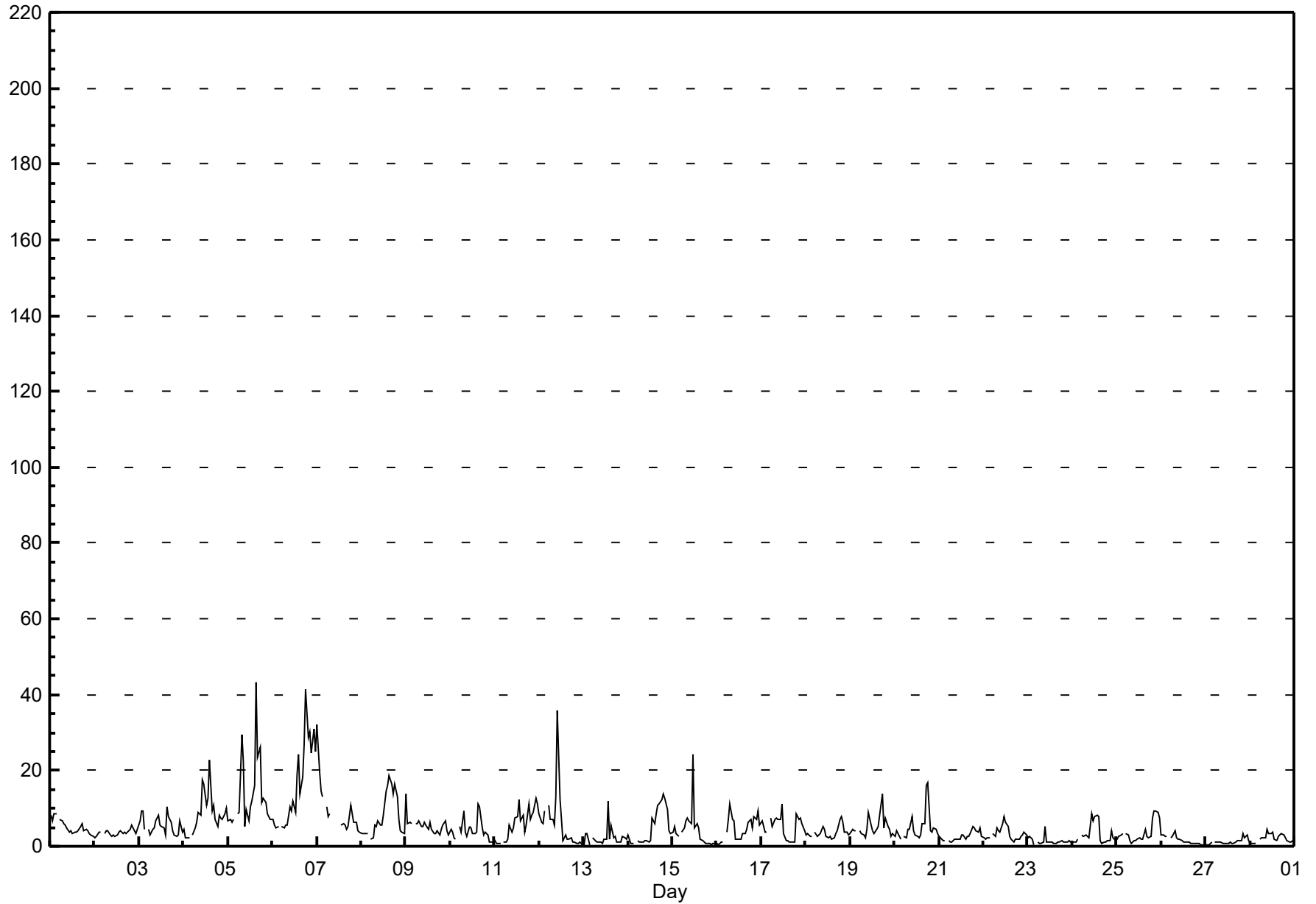
Nitrogen Oxide (NO) - ppb Beaverlodge - February 2018

Maximum Value: 271.8 ppb on Feb 5 09:00 Minimum Value: 0 ppb on Feb 1 01:00 Maximum Diurnal Average: 15.3 ppb at hour 9 Monthly Average: 3.16 ppb		Maximum Daily Average: 21.8 ppb on Feb 5 Minimum Daily Average: 0.6 ppb on Feb 27 Minimum Diurnal Average: 0.2 ppb at hour 24 Percentiles: P ₁ = 0.1 P ₁₀ = 0.2 Q ₁ = 0.2 Median = 0.6 Q ₃ = 1.9 P ₉₀ = 5.3 P ₉₉ = 33.0		Hours in Service: 672 Hours of Data: 639 Hours of Missing Data: 33 Hours of Calibration: 33 Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Feb	0	0	0	0	A	0	0	0	2	1	2	2	2	2	2	1	1	1	0	0	0	0	0	0	0.7	2.0	
2-Feb	0	0	0	0	A	0	0	0	2	1	1	1	2	2	2	2	1	1	1	0	0	0	0	0	0.8	2.4	
3-Feb	0	0	0	0	A	0	0	2	1	2	4	4	5	5	2	12	5	1	0	0	0	0	15	0	2.6	14.8	
4-Feb	0	0	0	0	A	0	1	2	3	4	24	23	10	19	28	5	4	2	0	0	0	0	11	1	6.0	27.8	
5-Feb	0	0	0	27	A	0	10	22	272	1	36	7	11	10	15	39	26	24	0	1	0	0	0	0	21.8	271.8	
6-Feb	0	0	0	0	A	0	0	0	1	5	6	20	6	27	20	6	9	24	23	15	4	1	1	0	7.4	26.8	
7-Feb	5	2	0	0	A	1	0	1	C	C	C	C	C	2	2	2	1	1	0	0	0	0	0	0	1.1	5.0	
8-Feb	0	0	0	0	A	0	0	3	3	4	3	3	7	16	16	19	16	5	0	0	0	0	0	0	4.2	18.6	
9-Feb	0	0	0	0	A	0	2	1	1	2	4	4	3	6	6	2	1	1	1	0	0	1	0	0	1.5	5.8	
10-Feb	0	0	0	0	A	0	0	1	0	1	3	3	2	3	3	13	5	1	0	1	0	1	0	0	1.6	13.4	
11-Feb	0	0	0	0	A	0	0	0	0	1	3	5	6	8	5	8	2	1	0	0	0	0	0	0	1.8	8.0	
12-Feb	0	0	0	0	A	2	2	1	1	80	76	8	7	2	3	1	1	1	1	0	0	0	0	0	8.2	80.1	
13-Feb	0	1	3	0	A	2	2	0	0	0	0	3	4	11	2	4	3	5	0	0	0	0	0	0	1.9	10.5	
14-Feb	0	0	0	0	A	0	1	0	0	1	1	1	2	5	3	7	7	4	1	0	0	1	0	0	1.5	6.9	
15-Feb	0	0	0	0	A	0	0	7	1	2	9	133	6	4	4	2	1	1	1	0	0	0	0	0	7.5	132.7	
16-Feb	1	0	0	0	A	0	1	1	28	1	1	1	1	1	2	2	2	1	0	0	3	1	0	0	2.1	28.0	
17-Feb	0	0	0	0	A	0	1	0	1	2	3	13	4	1	1	1	1	0	0	0	0	0	0	0	1.3	12.5	
18-Feb	0	0	0	0	A	0	0	0	1	2	2	2	2	2	1	1	1	2	0	0	0	0	0	0	0.8	2.2	
19-Feb	0	0	0	0	A	0	0	0	1	1	8	5	3	2	3	5	9	10	0	0	0	0	0	0	2.2	9.9	
20-Feb	0	0	0	0	A	0	0	0	1	3	2	2	1	1	2	6	4	6	3	0	0	0	0	0	1.4	5.7	
21-Feb	0	0	0	0	A	0	0	0	88	1	1	1	2	2	1	1	1	1	0	0	0	0	0	0	4.4	87.6	
22-Feb	0	0	0	0	A	0	0	4	1	1	5	7	4	4	2	1	2	1	1	1	0	0	0	0	1.5	6.7	
23-Feb	0	0	0	0	A	0	0	0	0	10	1	1	1	2	1	1	1	1	1	1	1	0	0	0	1.0	9.9	
24-Feb	0	0	0	0	A	0	0	0	0	1	5	4	4	5	4	2	1	1	0	1	0	1	0	0	1.3	5.1	
25-Feb	0	0	0	0	A	0	0	0	1	1	1	1	1	1	2	2	1	1	0	2	0	1	0	0	0.7	2.0	
26-Feb	0	0	0	0	A	0	0	0	1	2	3	2	1	1	1	2	1	1	1	0	0	0	0	0	0.7	2.7	
27-Feb	0	0	0	0	A	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0.6	1.5	
28-Feb	0	0	0	0	A	1	1	0	1	6	3	2	5	2	1	1	2	2	0	0	0	0	0	0	1.2	5.7	
	0.4	0.3	0.3	1.1	--	0.3	0.8	1.7	15.3	5.1	7.7	9.5	3.9	5.2	4.8	5.3	4.0	3.5	1.3	0.9	0.5	0.4	1.1	0.2	Diurnal Average		
	5.0	2.2	2.6	26.5	--	2.3	9.8	22.2	271.8	80.1	76.4	132.7	11.2	26.8	27.8	38.7	25.8	24.2	22.6	15.4	4.1	1.1	14.8	0.6	Diurnal Maximum		
C - Calibration		A - Automated Daily Zero Span																									

Hourly Maximums

Nitrogen Oxide (NO) - ppb
Beaverlodge - February 2018





Hourly Maximums

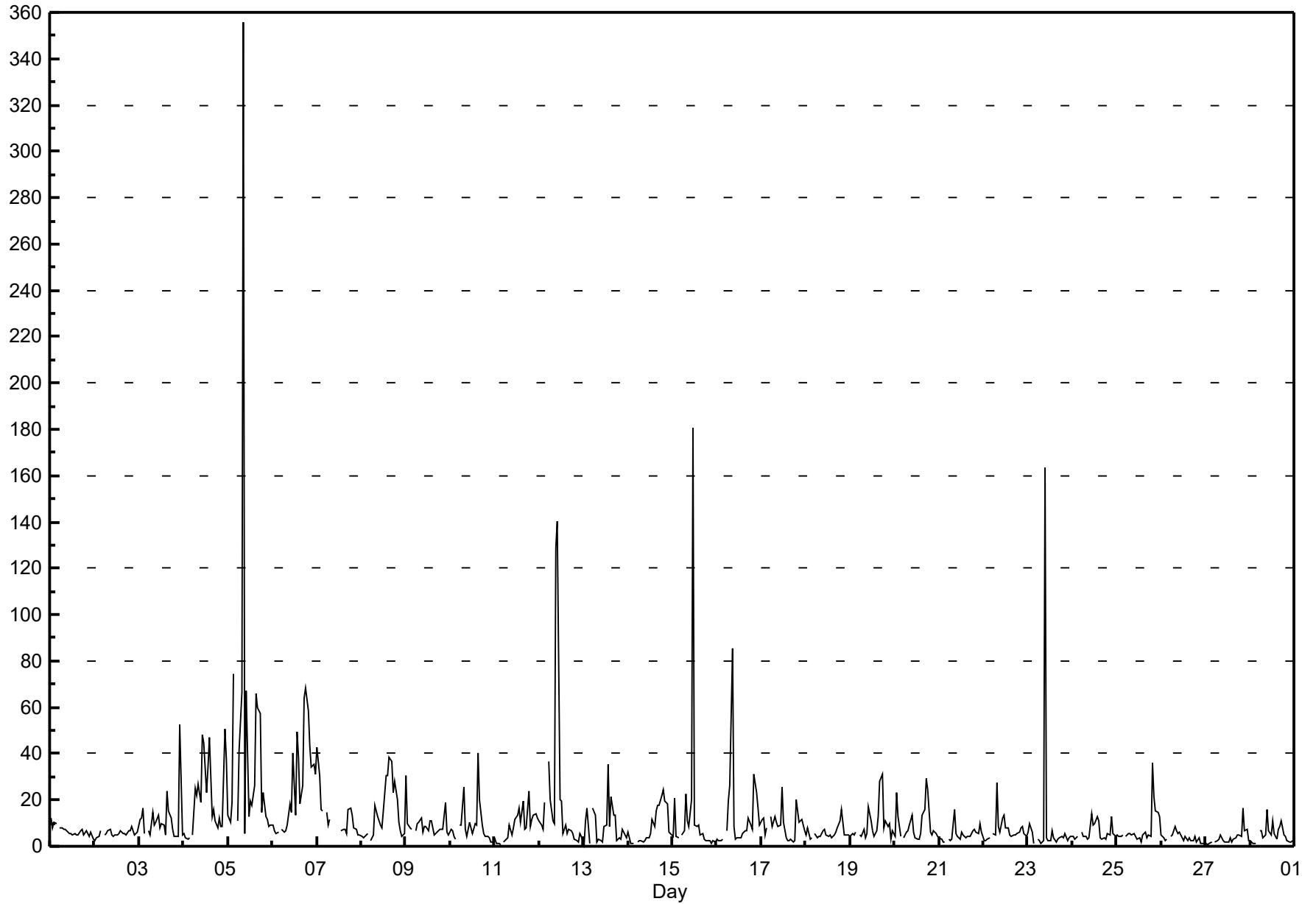
Oxides of Nitrogen (NO_x) - ppb

Beaverlodge - February 2018

Maximum Value: 355.9 ppb on Feb 5 09:00		Maximum Daily Average: 43.7 ppb on Feb 5		Hours in Service: 672																							
Minimum Value: 1 ppb on Feb 11 04:00		Minimum Daily Average: 3.7 ppb on Feb 27		Hours of Data: 639																							
Maximum Diurnal Average: 24.1 ppb at hour 9		Minimum Diurnal Average: 6.2 ppb at hour 3		Hours of Missing Data: 33																							
Monthly Average: 11.40 ppb		Percentiles: P ₁ = 1.1 P ₁₀ = 2.5 Q ₁ = 4.0 Median = 6.3 Q ₃ = 11.3 P ₉₀ = 22.0 P ₉₉ = 72.1		Hours of Calibration: 33																							
				Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Feb	12	8	10	10	A	8	8	7	7	6	6	5	5	5	5	7	7	5	7	5	4	6	3	6.7	12.3		
2-Feb	3	3	4	7	A	5	6	6	8	5	4	5	5	7	5	5	5	7	6	8	5	5	6	5.5	8.4		
3-Feb	12	12	17	5	A	7	5	15	9	10	13	8	10	9	5	24	15	12	7	4	4	4	52	5	11.5	52.3	
4-Feb	6	4	3	3	A	5	25	22	27	19	48	44	23	34	47	13	16	11	8	12	8	9	50	37	20.6	50.4	
5-Feb	13	10	19	75	A	11	41	67	356	6	67	13	19	18	26	66	60	57	15	23	13	11	8	9	43.7	355.9	
6-Feb	9	7	6	6	A	7	6	7	9	18	15	40	13	49	39	18	26	64	68	58	43	34	35	31	26.5	68.1	
7-Feb	43	31	16	15	A	15	9	11	C	C	C	C	C	7	7	7	5	16	17	13	8	7	5	5	13.2	42.6	
8-Feb	4	4	4	5	A	3	5	18	15	13	9	8	15	30	31	39	37	23	28	20	10	7	5	5	14.7	38.5	
9-Feb	30	10	8	7	A	7	10	11	12	6	9	8	7	11	11	5	6	6	7	7	7	19	6	5	9.3	30.4	
10-Feb	7	6	4	3	A	9	9	26	7	4	10	8	5	9	9	40	20	9	6	5	4	4	2	2	9.1	40.5	
11-Feb	3	1	1	1	A	2	3	4	9	5	8	11	14	16	11	19	7	8	24	9	11	14	14	12	9.0	23.6	
12-Feb	11	9	8	19	A	37	20	11	10	129	141	20	19	6	9	5	7	7	5	3	3	2	5	4	21.3	140.6	
13-Feb	1	11	17	1	A	16	13	2	3	3	2	9	9	35	8	21	13	14	3	4	3	7	5	4	8.8	35.2	
14-Feb	6	1	1	1	A	2	3	2	2	3	4	4	5	12	9	15	17	18	22	24	19	18	6	5	8.7	24.3	
15-Feb	4	21	4	4	A	5	7	23	11	8	20	181	9	9	9	5	6	3	3	2	2	1	2	2	14.8	180.7	
16-Feb	3	2	2	3	A	7	20	26	85	8	3	3	3	3	5	7	6	12	9	8	31	23	17	9	13.0	85.3	
17-Feb	12	12	5	8	A	13	8	13	10	9	9	25	10	4	2	3	3	2	2	20	11	11	11	6	9.1	25.4	
18-Feb	5	8	3	4	A	6	4	4	4	6	7	5	4	5	4	5	6	8	11	16	10	5	5	5	6.0	15.6	
19-Feb	5	5	5	6	A	5	4	7	4	5	17	11	7	4	7	13	28	31	8	11	8	10	3	6	9.2	31.0	
20-Feb	4	23	13	4	A	4	6	7	9	13	6	4	3	3	5	13	16	29	24	6	5	7	6	5	9.4	29.4	
21-Feb	4	3	2	2	A	3	3	3	16	6	4	3	6	5	3	4	4	4	7	7	6	5	10	6	5.1	16.1	
22-Feb	2	3	3	4	A	5	5	27	8	6	12	14	8	8	5	4	5	5	6	6	8	8	5	5	7.0	27.5	
23-Feb	6	10	6	1	A	3	2	1	3	164	4	3	2	7	4	2	3	3	4	4	5	2	4	4	10.7	163.7	
24-Feb	4	3	4	5	A	6	4	4	3	4	14	9	10	13	11	4	3	4	3	5	5	13	5	4	6.1	14.0	
25-Feb	5	4	4	5	A	5	6	5	5	5	4	3	4	2	5	6	4	5	4	36	21	15	15	13	7.8	35.7	
26-Feb	5	4	3	3	A	5	5	9	6	6	6	4	2	4	2	4	2	3	4	2	3	1	1	1	3.7	8.8	
27-Feb	1	1	1	2	A	2	3	3	5	3	2	2	2	4	2	3	4	5	5	4	17	7	7	2	3.7	16.8	
28-Feb	2	1	1	1	A	7	7	4	5	16	7	5	11	6	3	7	9	11	5	4	3	2	2	2	5.2	15.6	
		7.9	7.8	6.2	7.5	--	7.4	8.8	12.3	24.1	18.0	16.7	16.9	8.6	11.6	10.4	12.9	12.2	13.7	11.2	11.6	10.2	9.1	10.7	7.3	Diurnal Average	
		42.6	30.8	19.1	74.6	--	36.8	41.3	66.7	355.9	163.7	140.6	180.7	23.0	49.1	47.2	65.8	59.6	63.8	68.1	58.4	43.4	34.3	52.3	37.3	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

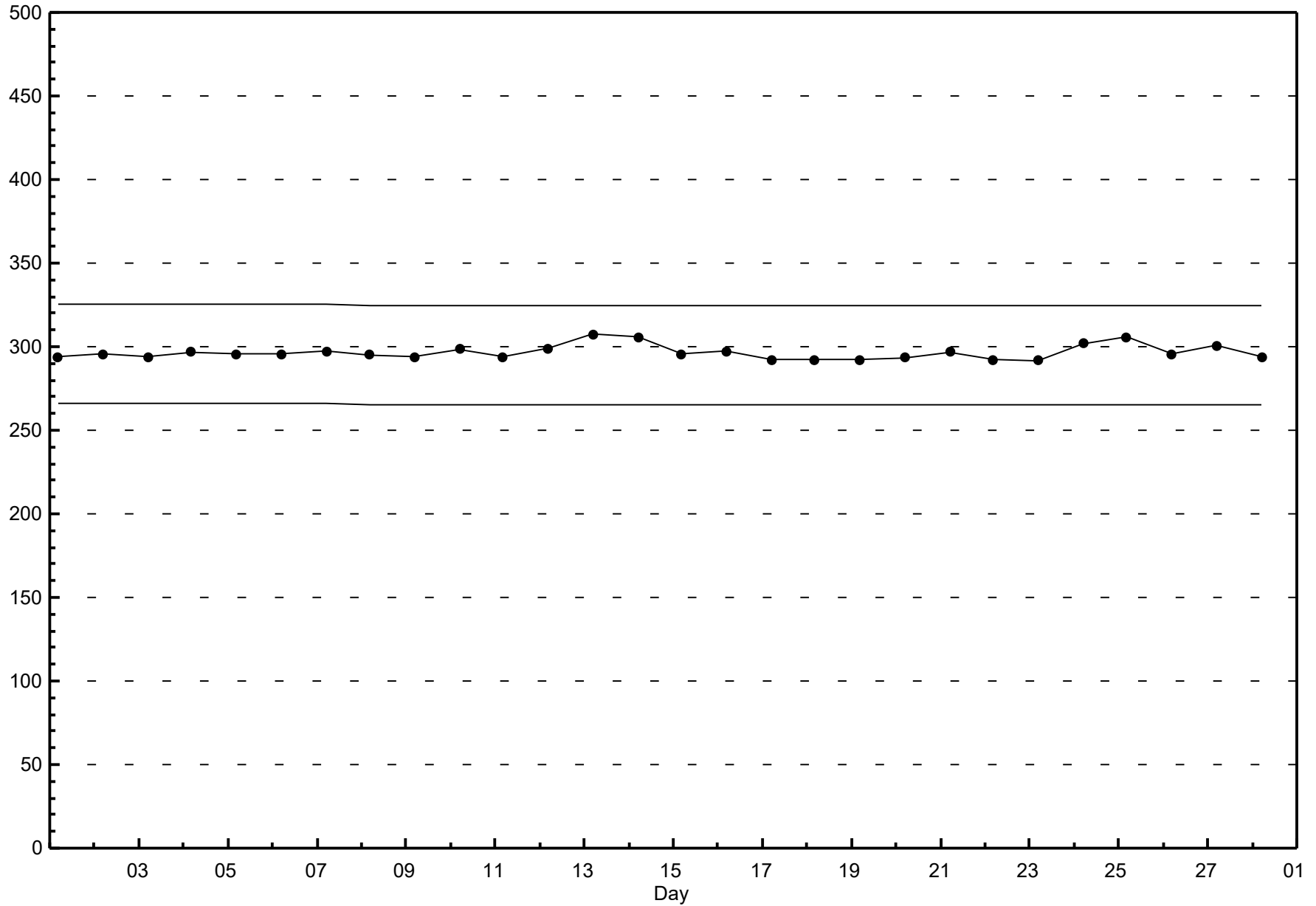
Hourly Maximums

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



Span Responses

Oxides of Nitrogen (NO_x)
Beaverlodge - February 2018



Hourly Averages

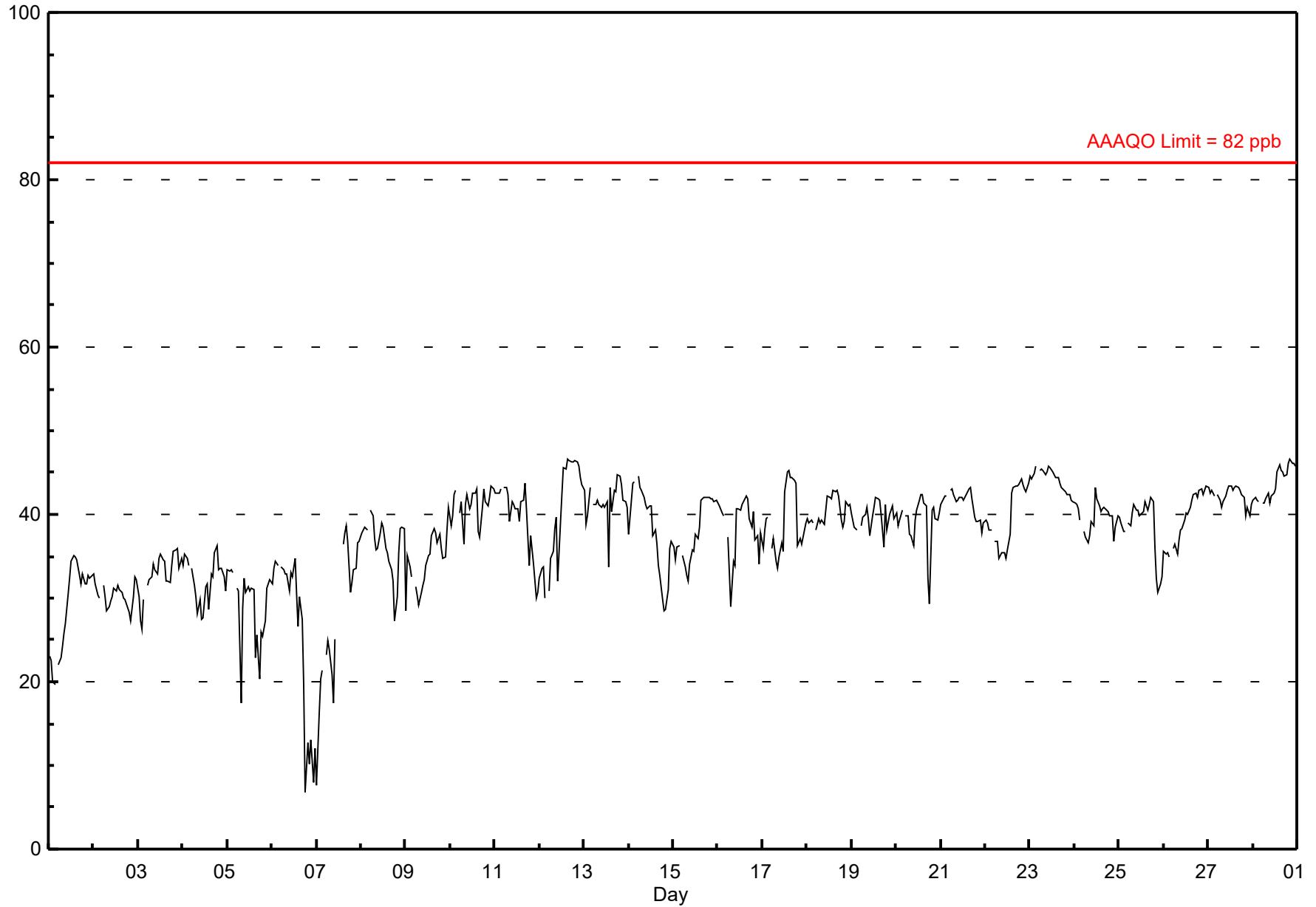
Ozone (O₃) - ppb

Beaverlodge - February 2018

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 46.6 ppb on Feb 12 16:00 Maximum Daily Average: 44.2 ppb on Feb 23		Hours in Service: 672 Hours of Data: 641 Hours of Missing Data: 31 Hours of Calibration: 31 Percent Operational Time: 100.0																											
Minimum Value: 7 ppb on Feb 6 19:00 Maximum Diurnal Average: 39.3 ppb at hour 15 Monthly Average: 37.24 ppb		Minimum Daily Average: 25.9 ppb on Feb 6 Minimum Diurnal Average: 35.2 ppb at hour 8 Percentiles: P ₁ = 14.4 P ₁₀ = 30.1 Q ₁ = 33.6 Median = 38.7 Q ₃ = 41.7 P ₉₀ = 43.3 P ₉₉ = 46.2																											
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-Feb	23	23	20	20	A	22	23	24	26	27	30	32	34	35	35	35	33	32	33	32	32	33	32	33	29.0	35.1			
2-Feb	33	32	30	30	A	31	30	29	29	30	30	31	31	31	31	30	30	29	28	27	30	33	32	30.4	32.9				
3-Feb	30	27	26	30	A	32	32	33	34	33	33	35	35	35	34	32	32	32	34	36	36	36	34	35	32.8	36.0			
4-Feb	34	35	35	34	A	34	32	30	28	30	27	28	31	32	29	33	33	36	36	33	34	34	33	31	32.1	36.2			
5-Feb	33	33	33	33	A	31	31	18	29	32	31	31	31	31	31	23	26	20	26	25	27	31	32	32	29.2	33.4			
6-Feb	32	34	34	34	A	34	33	33	33	31	33	33	35	30	27	30	27	20	7	13	10	13	8	12	25.9	34.8			
7-Feb	8	16	20	21	A	23	25	24	21	17	25	C	C	C	36	38	39	37	31	32	33	34	37	37	27.7	38.6			
8-Feb	38	38	38	38	A	41	40	37	36	36	38	39	38	36	35	34	33	32	27	30	35	38	39	38	36.4	40.6			
9-Feb	29	35	34	32	A	31	30	29	31	32	32	34	35	35	38	38	38	37	38	36	35	35	38	41	34.4	40.9			
10-Feb	39	40	42	43	A	40	42	37	41	42	41	41	43	43	43	38	37	41	43	42	41	42	43	43	41.1	43.3			
11-Feb	43	43	43	43	A	43	43	42	39	42	41	41	41	39	42	42	44	41	34	38	36	34	30	31	39.6	43.8			
12-Feb	32	34	34	30	A	31	35	36	38	40	32	39	42	46	45	47	46	46	46	46	46	46	44	44	40.2	46.6			
13-Feb	43	39	40	43	A	41	41	42	41	41	41	41	42	34	43	40	43	43	45	45	44	42	42	41	41.5	44.8			
14-Feb	38	42	44	44	A	45	43	43	42	41	41	41	41	37	38	36	34	33	30	28	29	31	36	37	37.9	44.5			
15-Feb	36	35	36	36	A	35	34	33	32	34	36	36	38	37	38	42	42	42	42	42	42	42	42	42	37.9	42.1			
16-Feb	41	41	40	40	A	37	33	29	34	34	41	41	40	41	41	42	42	40	39	40	37	37	34	38	38.4	42.3			
17-Feb	36	38	39	40	A	36	37	34	34	35	37	36	43	45	45	44	44	44	44	36	37	36	37	39	39.0	45.3			
18-Feb	40	39	39	39	A	38	39	39	39	39	41	42	42	42	43	43	43	42	39	39	39	42	41	41	40.4	42.9			
19-Feb	40	38	38	38	A	39	40	40	41	39	37	40	41	42	42	42	40	36	41	38	40	41	41	40	39.7	42.0			
20-Feb	40	39	39	41	A	40	40	38	37	36	39	41	42	42	42	41	41	32	29	40	41	39	39	40	39.1	42.4			
21-Feb	41	42	42	42	A	43	43	42	42	42	42	42	42	42	43	43	43	42	40	39	39	39	38	39	41.4	43.2			
22-Feb	39	39	38	38	A	37	37	35	35	35	35	35	36	38	43	43	43	43	44	44	44	43	43	44	39.6	44.2			
23-Feb	45	44	45	46	A	45	45	45	45	45	46	46	45	45	44	44	44	43	43	43	42	42	42	42	44.2	45.8			
24-Feb	41	41	41	39	A	38	37	37	38	39	39	43	42	41	40	41	41	41	40	40	40	37	38	40	39.7	43.2			
25-Feb	40	39	38	38	A	39	39	40	41	41	41	40	40	40	42	40	41	42	42	36	32	31	32	33	38.5	42.0			
26-Feb	36	35	35	35	A	36	36	35	37	38	38	39	40	40	41	42	42	43	42	43	43	42	43	43	39.4	43.4			
27-Feb	43	43	43	42	A	42	42	41	41	42	43	43	43	43	43	43	43	43	42	42	40	41	40	41	42.2	43.4			
28-Feb	42	42	42	41	A	41	41	42	43	41	42	43	43	45	46	45	45	45	45	46	47	46	46	46	43.7	46.5			
		36.2	36.6	36.8	36.8	--	36.6	36.6	35.2	35.9	36.2	36.8	38.2	39.1	38.8	39.3	39.0	38.9	37.7	36.8	36.9	36.7	37.0	36.9	37.6	Diurnal Average			
		44.5	44.3	44.9	45.8	--	45.2	45.4	45.2	44.8	45.1	45.7	45.6	45.2	45.6	45.9	46.6	46.4	46.3	46.2	46.4	46.5	46.1	46.1	45.7	Diurnal Maximum			
C - Calibration		A - Automated Daily Zero Span																											
Alberta Ambient Air Quality Objectives (AAAQO):		1-hr 82 ppb		24-hr na																									

Hourly Averages

Ozone (O₃) - ppb
Beaverlodge - February 2018



Hourly Maximums

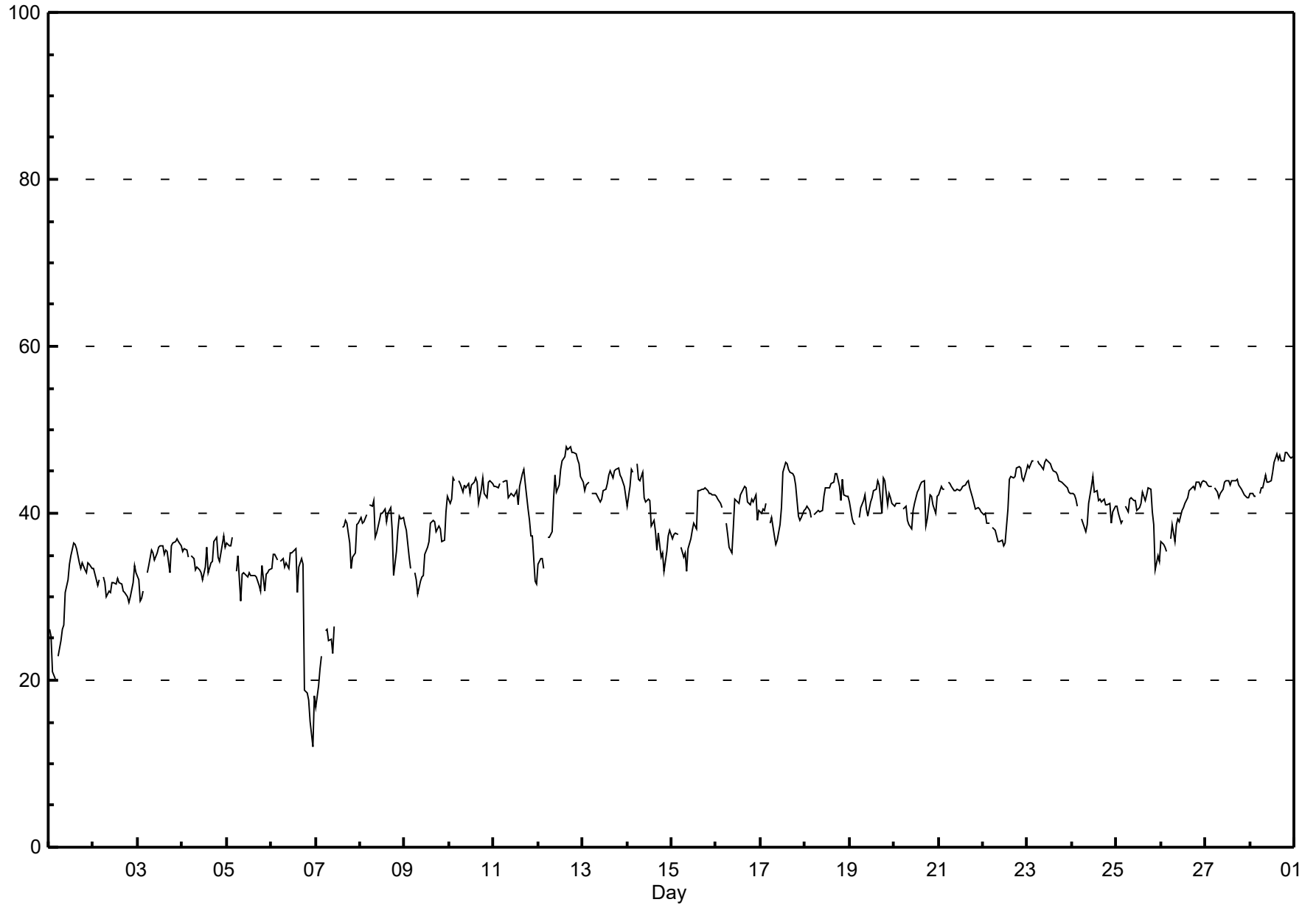
Ozone (O₃) - ppb

Beaverlodge - February 2018

Maximum Value: 48.0 ppb on Feb 12 18:00		Maximum Daily Average: 45.0 ppb on Feb 23		Hours in Service: 672																										
Minimum Value: 12 ppb on Feb 6 23:00		Minimum Daily Average: 29.7 ppb on Feb 6		Hours of Data: 641																										
Maximum Diurnal Average: 41.1 ppb at hour 16		Minimum Diurnal Average: 37.6 ppb at hour 8		Hours of Missing Data: 31																										
Monthly Average: 39.10 ppb		Percentiles: P ₁ = 19.0 P ₁₀ = 32.5 Q ₁ = 35.7 Median = 40.6 Q ₃ = 43.1 P ₉₀ = 44.5 P ₉₉ = 47.2		Hours of Calibration: 31																										
				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-Feb	26	25	21	20	A	23	25	26	27	30	32	34	35	36	36	36	34	33	34	33	33	34	34	33	30.5	36.5				
2-Feb	33	33	31	32	A	32	32	30	31	31	32	32	32	32	32	32	31	31	30	29	30	32	34	33	31.5	33.7				
3-Feb	32	30	30	31	A	33	34	36	35	34	35	36	36	36	35	36	35	33	36	36	37	37	37	36	34.6	37.0				
4-Feb	35	36	36	35	A	35	34	33	34	33	33	32	34	36	33	34	34	37	37	35	34	35	37	36	34.7	37.2				
5-Feb	36	36	36	37	A	33	35	29	33	33	33	32	33	32	32	32	32	31	31	34	31	33	33	33	33.1	37.1				
6-Feb	33	35	35	34	A	34	35	34	34	33	35	35	36	36	31	34	35	34	19	18	18	15	12	18	29.7	35.7				
7-Feb	17	19	21	23	A	26	26	25	25	23	26	C	C	C	38	39	39	39	36	33	35	35	39	39	30.2	39.2				
8-Feb	39	39	39	40	A	41	41	41	37	38	39	40	40	41	39	40	41	38	32	35	38	40	39	40	39.0	41.4				
9-Feb	39	38	35	33	A	33	32	30	32	32	33	35	36	37	39	39	39	38	38	38	37	37	40	42	36.1	42.1				
10-Feb	41	42	44	44	A	44	44	43	43	43	43	42	43	44	44	44	41	43	44	42	42	44	44	44	43.1	44.3				
11-Feb	43	43	43	44	A	44	44	44	42	42	42	42	43	41	43	45	45	44	41	39	37	37	32	31	41.4	45.3				
12-Feb	34	35	35	33	A	37	37	38	42	45	42	43	45	46	47	48	48	48	47	47	47	46	46	44	42.7	48.0				
13-Feb	44	43	43	44	A	42	42	42	42	41	42	43	43	44	45	45	44	45	45	45	45	44	43	42	43.4	45.4				
14-Feb	41	43	45	45	A	46	44	44	45	42	41	42	42	39	39	38	36	38	35	35	33	35	37	38	40.1	45.9				
15-Feb	37	37	38	37	A	36	35	35	33	36	37	38	39	38	43	43	43	43	43	43	42	42	42	42	39.2	43.0				
16-Feb	42	42	41	41	A	39	38	36	35	38	42	42	41	42	43	43	43	41	41	42	41	42	39	40	40.6	43.3				
17-Feb	40	41	40	41	A	39	39	37	36	37	39	41	45	46	46	45	45	45	44	43	40	39	39	40	41.2	46.1				
18-Feb	41	41	40	39	A	40	40	40	40	40	42	43	43	43	44	45	45	43	42	44	42	42	42	42	42.0	44.7				
19-Feb	41	39	39	39	A	39	41	42	42	41	40	41	42	43	43	44	43	40	44	44	41	42	42	41	41.4	44.2				
20-Feb	41	41	41	41	A	41	41	39	39	38	40	41	43	43	43	44	44	39	39	42	42	41	40	42	41.1	43.9				
21-Feb	42	43	43	43	A	44	44	43	43	43	43	43	43	43	44	44	44	43	42	41	41	41	41	40	42.5	44.0				
22-Feb	40	40	39	39	A	38	38	37	37	37	37	36	36	41	44	44	44	44	45	46	45	44	44	45	40.9	45.6				
23-Feb	46	45	46	46	A	46	46	46	45	46	46	46	46	45	45	45	45	44	44	43	43	43	43	42	45.0	46.5				
24-Feb	42	42	42	41	A	39	39	38	39	41	43	44	43	43	42	42	41	42	41	41	41	39	40	41	41.1	44.4				
25-Feb	41	40	39	39	A	41	40	42	42	42	42	40	41	41	42	41	42	43	43	40	39	33	35	34	40.1	43.1				
26-Feb	37	36	36	35	A	37	39	37	39	39	39	40	41	41	42	43	43	43	43	44	44	43	44	44	40.3	43.9				
27-Feb	44	43	43	43	A	43	43	42	42	43	44	44	44	43	44	44	44	44	43	43	43	42	42	42	43.1	44.1				
28-Feb	42	42	42	42	A	42	43	43	45	44	44	44	45	46	47	46	47	46	46	47	47	47	47	47	44.9	47.4				
		38.2	38.2	38.0	37.9	--	38.1	38.1	37.6	37.8	38.1	38.8	39.7	40.3	40.7	40.8	41.1	41.0	40.4	39.6	39.4	38.9	38.8	38.8	39.1	Diurnal Average				
		45.8	45.4	46.2	46.3	--	46.3	46.0	45.8	45.3	46.1	46.5	46.3	45.9	46.3	47.0	47.9	47.7	48.0	47.2	47.3	47.4	46.8	46.7	46.8	Diurnal Maximum				
C - Calibration					A - Automated Daily Zero Span																									

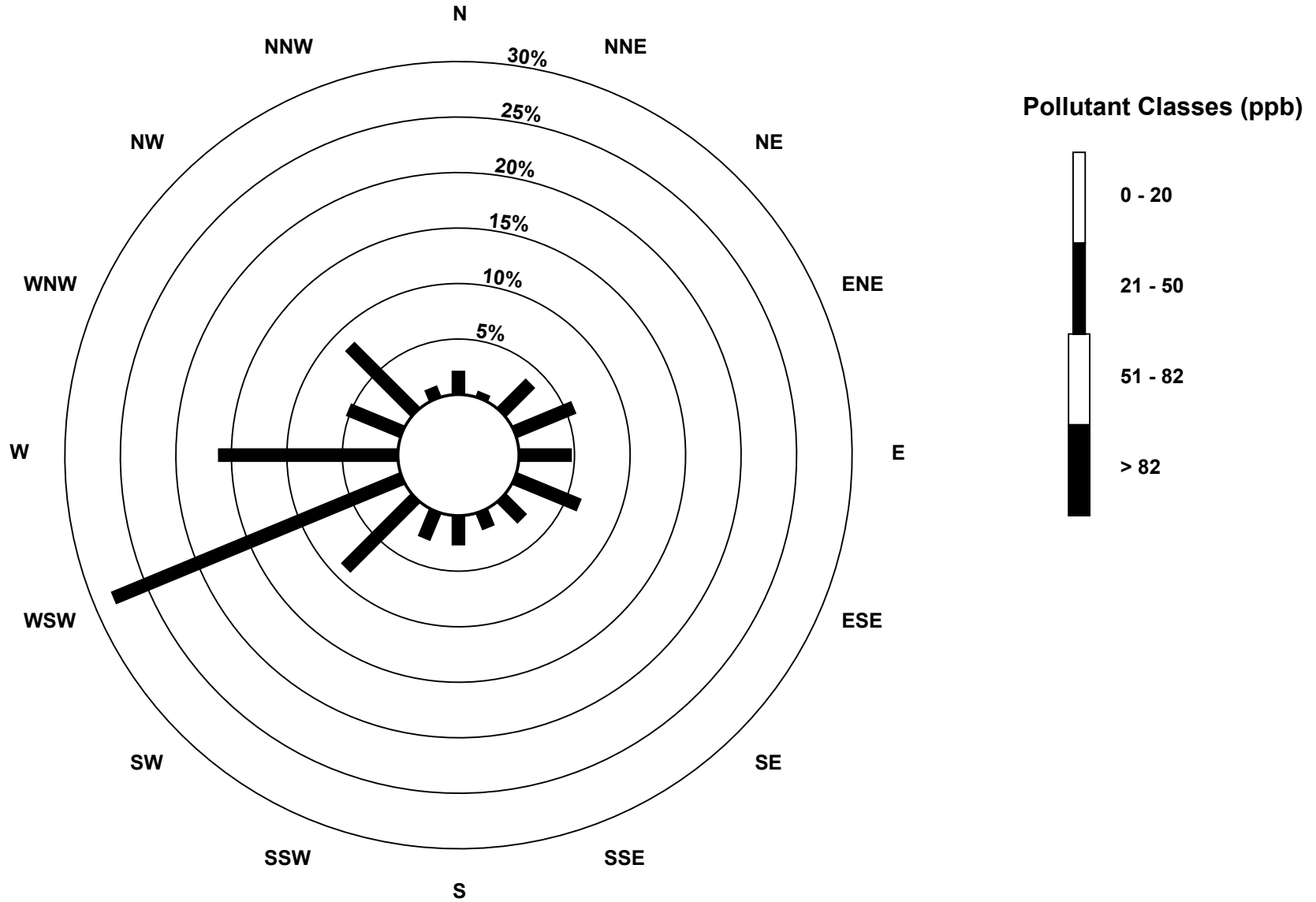
Hourly Maximums

Ozone (O₃) - ppb
Beaverlodge - February 2018



Pollutant Rose

Ozone (O₃) - ppb
Beaverlodge - February 2018



Eight Hour Running Averages

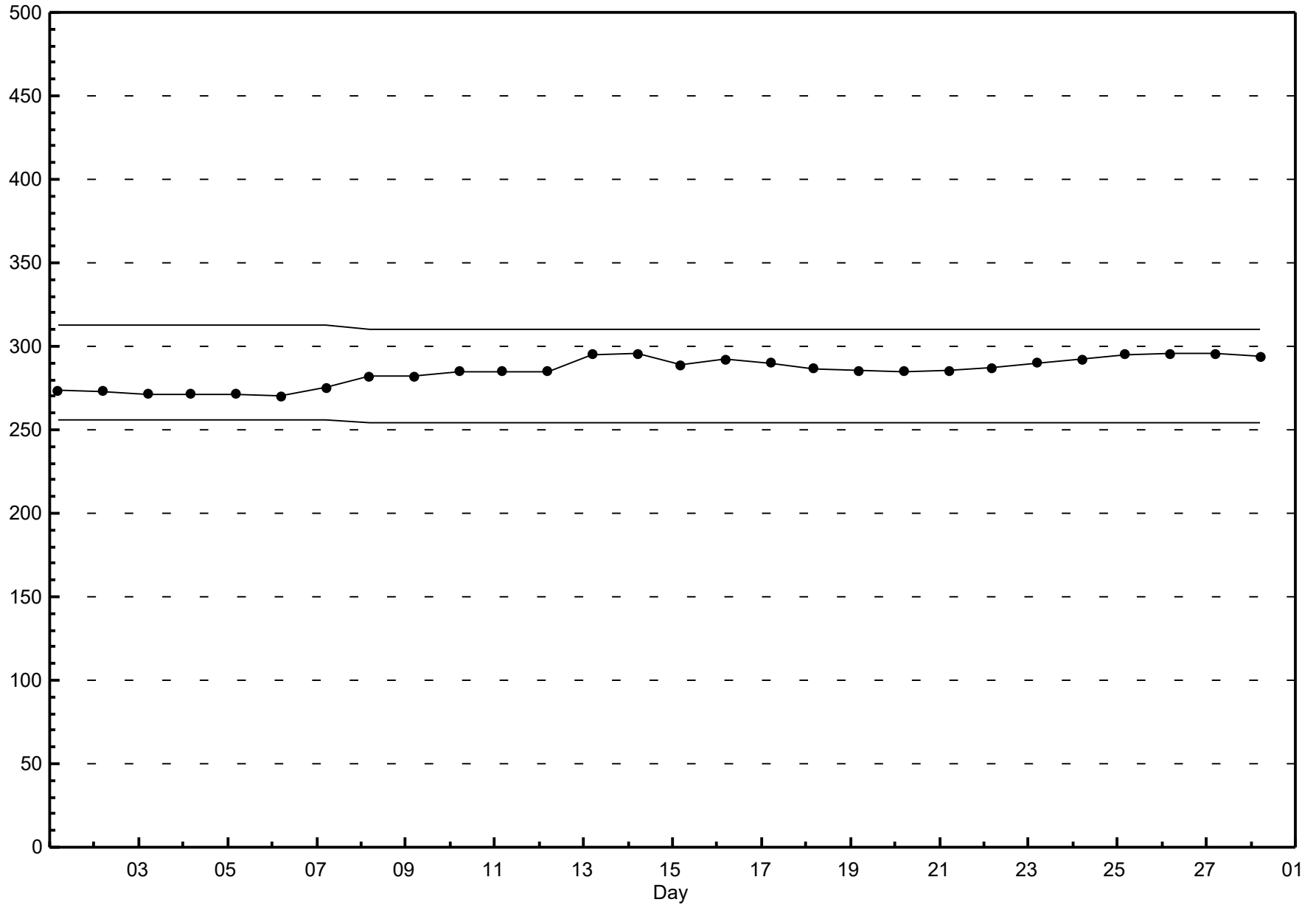
Ozone (O₃) - ppb

Beaverlodge - February 2018

Maximum Value: 46.2 ppb on Feb 12 22:00																					Hours in Service:	672			
Minimum Value: 10.9 ppb on Feb 7 02:00																					Hours of Data:	666			
Percentiles: P ₁ = 15.9 P ₁₀ = 29.9 Q ₁ = 33.6 Median = 38.8 Q ₃ = 41.2 P ₉₀ = 42.8 P ₉₉ = 45.5																					Hours of Missing Data:	6			
																					Hours of Calibration:	6			
																					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-Feb	24	24	24	23	23	23	22	22	22	23	25	26	27	29	31	32	33	33	34	34	33	33	33	32	33.6
2-Feb	32	32	32	32	32	32	31	31	30	30	30	30	30	30	30	30	31	31	30	30	30	29	30	30	
3-Feb	30	30	29	29	30	30	30	30	31	31	32	33	33	34	34	34	34	33	34	34	34	34	34	34.2	
4-Feb	34	35	35	35	35	34	34	33	32	32	31	30	30	30	29	30	30	31	32	33	33	33	34	34	
5-Feb	34	33	33	33	33	33	32	30	30	30	29	29	29	29	29	30	29	28	27	27	26	26	26	33.6	
6-Feb	28	30	31	32	33	33	33	33	34	33	33	33	33	33	32	31	31	29	26	24	21	18	16	33.5	
7-Feb	11	11	13	14	14	16	18	20	22	22	22	23	N	N	N	N	N	N	35	35	35	35	35	35.4	
8-Feb	35	35	36	37	37	38	39	39	38	38	38	38	37	37	37	36	36	35	33	33	33	34	34	38.6	
9-Feb	34	34	35	35	35	34	33	32	32	31	31	31	32	32	33	34	35	36	36	37	37	37	37	37.1	
10-Feb	37	38	38	39	40	40	41	40	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41.5	
11-Feb	42	42	42	43	43	43	43	43	42	42	42	42	42	41	41	41	41	41	40	40	39	39	37	42.9	
12-Feb	34	33	33	33	32	32	32	33	34	35	34	36	37	38	40	41	42	43	45	46	46	46	46	46.2	
13-Feb	45	44	43	43	43	42	42	41	41	41	41	41	41	40	41	40	41	41	41	42	42	43	43	45.2	
14-Feb	42	42	42	42	42	42	42	43	43	43	43	42	42	41	41	40	39	38	36	35	33	32	32	43.2	
15-Feb	32	33	33	34	35	36	36	35	34	34	34	34	35	35	35	37	38	39	40	40	41	41	42	41.9	
16-Feb	42	42	41	41	41	40	39	37	36	35	35	36	36	37	38	39	40	41	41	41	40	40	39	41.8	
17-Feb	38	37	37	37	37	37	38	37	37	36	36	36	36	37	39	40	41	42	43	43	43	41	40	43.3	
18-Feb	39	39	38	38	39	39	39	39	39	39	40	40	40	41	41	42	42	42	42	41	41	41	41	42.2	
19-Feb	40	40	40	40	40	39	39	39	39	39	39	39	40	40	40	40	40	40	40	40	40	40	40	40.5	
20-Feb	40	40	40	40	40	40	40	39	39	39	39	39	39	39	40	40	41	40	39	39	39	38	38	40.6	
21-Feb	38	39	41	41	41	41	42	42	42	42	42	42	42	42	42	42	42	42	42	42	41	41	40	42.3	
22-Feb	39	39	39	39	39	38	38	38	37	36	36	36	36	36	36	37	39	40	41	42	43	43	43	43.5	
23-Feb	44	44	44	44	44	44	45	45	45	45	45	45	45	45	45	45	45	45	44	44	44	43	43	45.3	
24-Feb	42	42	42	41	41	41	40	39	39	38	38	39	39	39	40	40	41	41	41	41	40	40	40	42.2	
25-Feb	39	39	39	39	38	39	39	39	39	39	40	40	40	41	41	41	41	41	41	40	39	38	37	40.9	
26-Feb	35	34	34	34	34	34	35	36	36	36	37	37	38	38	39	39	40	41	41	42	42	42	42	42.7	
27-Feb	43	43	43	43	43	43	43	42	42	42	42	42	42	42	43	43	43	43	43	43	42	42	42	43.1	
28-Feb	41	41	41	41	41	41	42	42	42	42	42	42	42	43	43	44	44	44	45	45	45	46	46	45.6	
45.2 44.3 43.9 44.1 44.1 44.5 44.9 45.1 45.1 45.2 45.3 45.3 45.3 45.2 45.1 45.0 44.9 44.6 44.7 45.7 46.2 46.2 46.0 45.7																									
Diurnal Maximums																									
N - Not Valid																									

Span Responses

Ozone (O₃)
Beaverlodge - February 2018



Hourly Averages

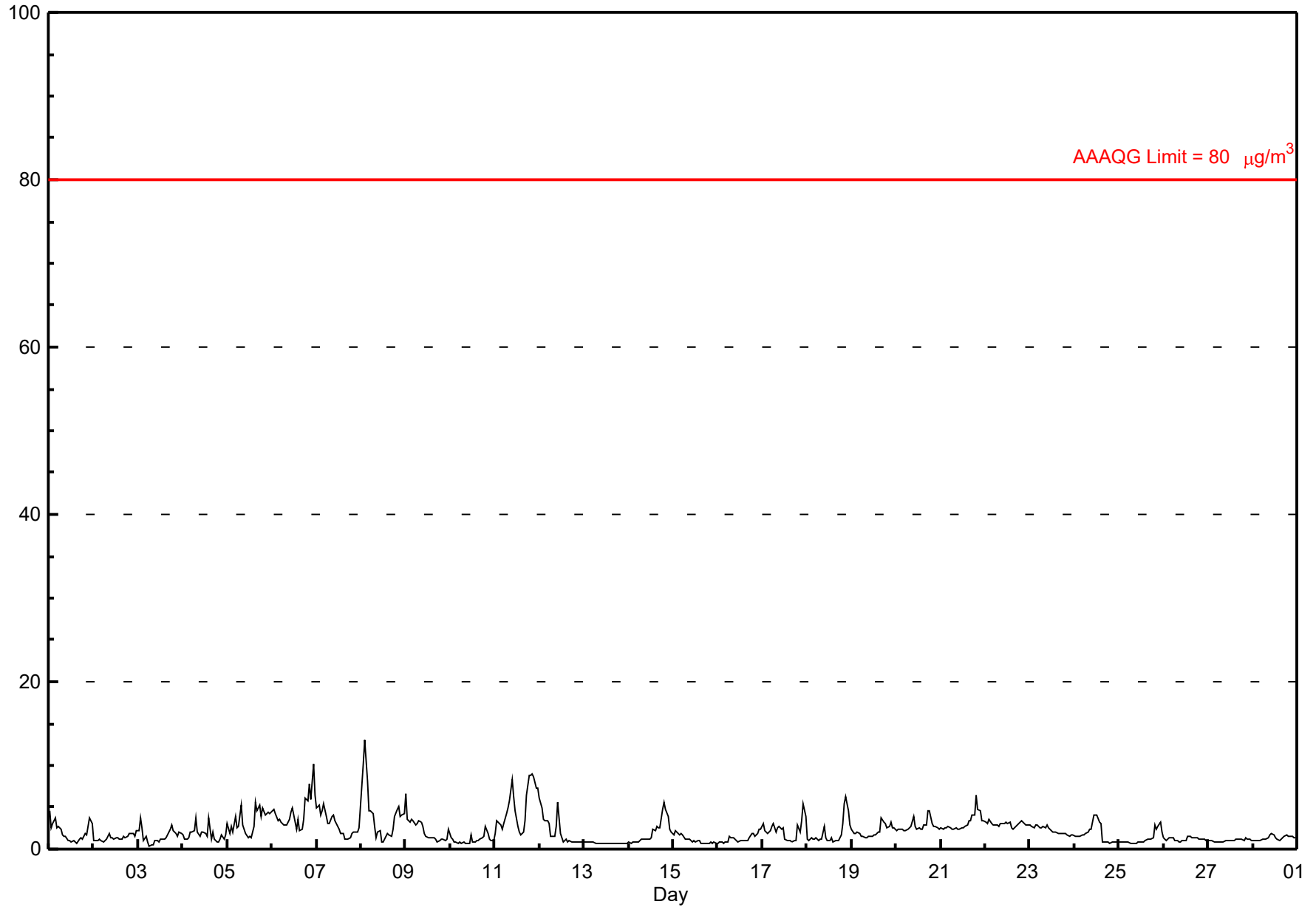
Particulate Matter 2.5 (PM_{2.5}) - µg/m³

Beaverlodge - February 2018

Number of Exceedences: 1-hr: 0 24-hr: 0	Hours in Service: 672
Maximum Value: 13.1 µg/m ³ on Feb 8 03:00	Maximum Daily Average: 4.9 µg/m ³ on Feb 11
Minimum Value: 0 µg/m ³ on Feb 3 07:00	Hours of Data: 672
Maximum Diurnal Average: 2.7 µg/m ³ at hour 20	Hours of Missing Data: 0
Monthly Average: 2.18 µg/m ³	Hours of Calibration: 0
Minimum Daily Average: 0.7 µg/m ³ on Feb 13	Percent Operational Time: 100.0
Minimum Diurnal Average: 1.6 µg/m ³ at hour 14	
Percentiles: P ₁ = 0.6 P ₁₀ = 0.8 Q ₁ = 1.1 Median = 1.7 Q ₃ = 2.8 P ₉₀ = 4.1 P ₉₉ = 8.4	

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-Feb	5	3	3	4	3	3	2	2	2	1	1	1	1	1	1	1	1	1	1	2	2	3	4	3	2.0	4.6
2-Feb	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	2	2	2	2	1	2	1.4	2.1
3-Feb	2	4	3	1	2	1	0	0	1	1	1	1	1	1	1	1	2	2	3	2	2	1	2	2	1.5	3.7
4-Feb	2	1	1	1	2	2	2	4	2	1	2	2	2	2	4	1	2	1	1	1	1	2	1	2	1.7	3.8
5-Feb	3	2	3	2	4	3	3	5	3	2	2	1	1	1	3	6	5	5	4	5	4	4	4	4	3.3	5.5
6-Feb	5	5	4	3	4	3	3	3	3	4	4	5	3	2	4	2	2	4	6	6	8	6	10	6	4.4	10.2
7-Feb	5	5	4	5	5	4	3	3	4	4	3	3	2	2	2	1	1	1	1	2	2	2	2	3	2.9	5.5
8-Feb	8	10	13	8	5	5	4	3	1	2	2	1	1	1	2	2	2	2	4	5	5	4	4	4	4.1	13.1
9-Feb	7	4	3	4	3	3	3	3	3	3	2	1	1	1	1	1	1	1	1	1	1	1	1	2	2.3	6.6
10-Feb	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	3	2	1	1	1	1.1	2.7
11-Feb	2	3	3	3	2	3	4	5	6	8	6	5	3	2	2	2	3	6	9	9	9	9	7	7	4.9	9.0
12-Feb	6	5	4	3	3	3	2	2	1	3	6	2	1	1	1	1	1	1	1	1	1	1	1	1	2.1	6.2
13-Feb	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	0.9
14-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	3	3	3	5	6	5	4	2	2	2.1	5.6
15-Feb	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	2.3
16-Feb	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	2	2	1	2	2	2	1.3	2.3
17-Feb	3	2	2	2	2	3	3	2	2	3	2	3	1	1	1	1	1	1	1	3	2	3	5	4	2.3	5.3
18-Feb	1	1	1	1	1	1	1	1	1	3	1	1	1	1	1	1	1	1	2	3	5	6	5	3	1.9	6.3
19-Feb	2	2	2	2	2	2	1	1	1	2	2	1	2	2	2	2	4	3	3	3	3	3	3	3	2.1	3.7
20-Feb	2	2	2	2	2	2	2	2	3	4	3	2	2	2	2	3	3	5	5	3	3	3	2	2	2.7	4.6
21-Feb	2	2	3	3	3	2	2	2	3	2	2	3	3	3	3	3	3	4	4	6	5	5	3	3	3.1	6.4
22-Feb	3	3	4	3	3	3	3	3	3	3	3	3	3	3	3	2	3	3	3	3	3	3	3	3	3.0	3.6
23-Feb	3	3	3	3	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2.2	2.9
24-Feb	2	2	1	2	2	2	2	2	2	2	4	4	4	3	3	1	1	1	1	1	1	1	1	1	1.8	4.1
25-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	2	3	3	2	1.3	3.3
26-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1.2	1.5
27-Feb	1	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	1.4
28-Feb	1	1	1	1	1	1	1	1	1	2	2	2	1	1	1	1	1	2	2	2	1	2	1	1	1.3	1.9
	2.6	2.5	2.5	2.2	2.2	2.0	1.9	2.0	1.9	2.2	2.1	1.9	1.6	1.6	1.7	1.6	1.8	2.1	2.4	2.7	2.7	2.7	2.7	2.5	Diurnal Average	
	7.7	10.2	13.1	8.2	5.5	4.6	4.3	5.3	5.8	8.3	6.3	4.9	4.1	3.3	3.8	5.5	4.6	6.4	8.9	8.8	9.0	8.7	10.2	7.2	Diurnal Maximum	

Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 µg/m³ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 µg/m³

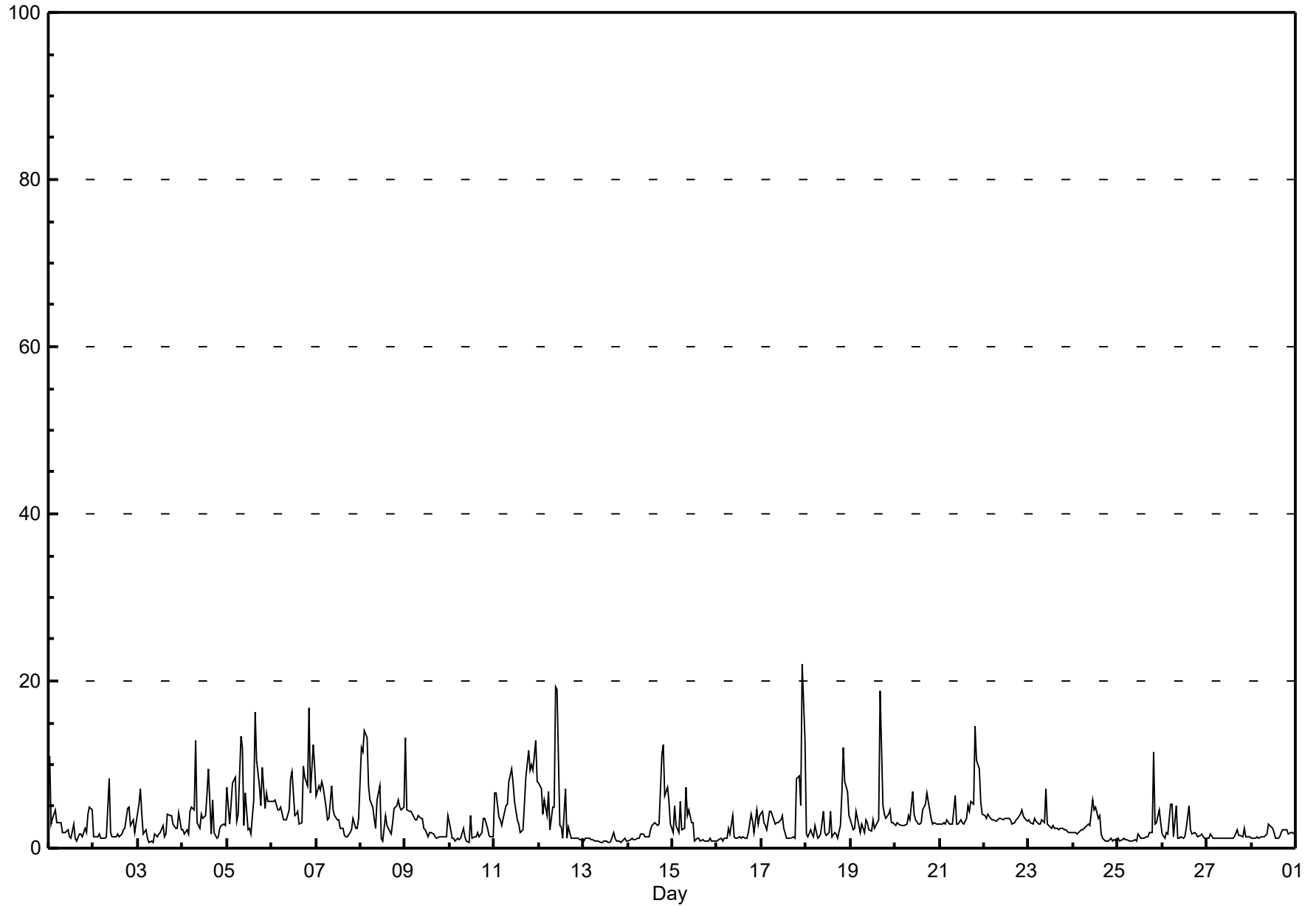


Hourly Maximums

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

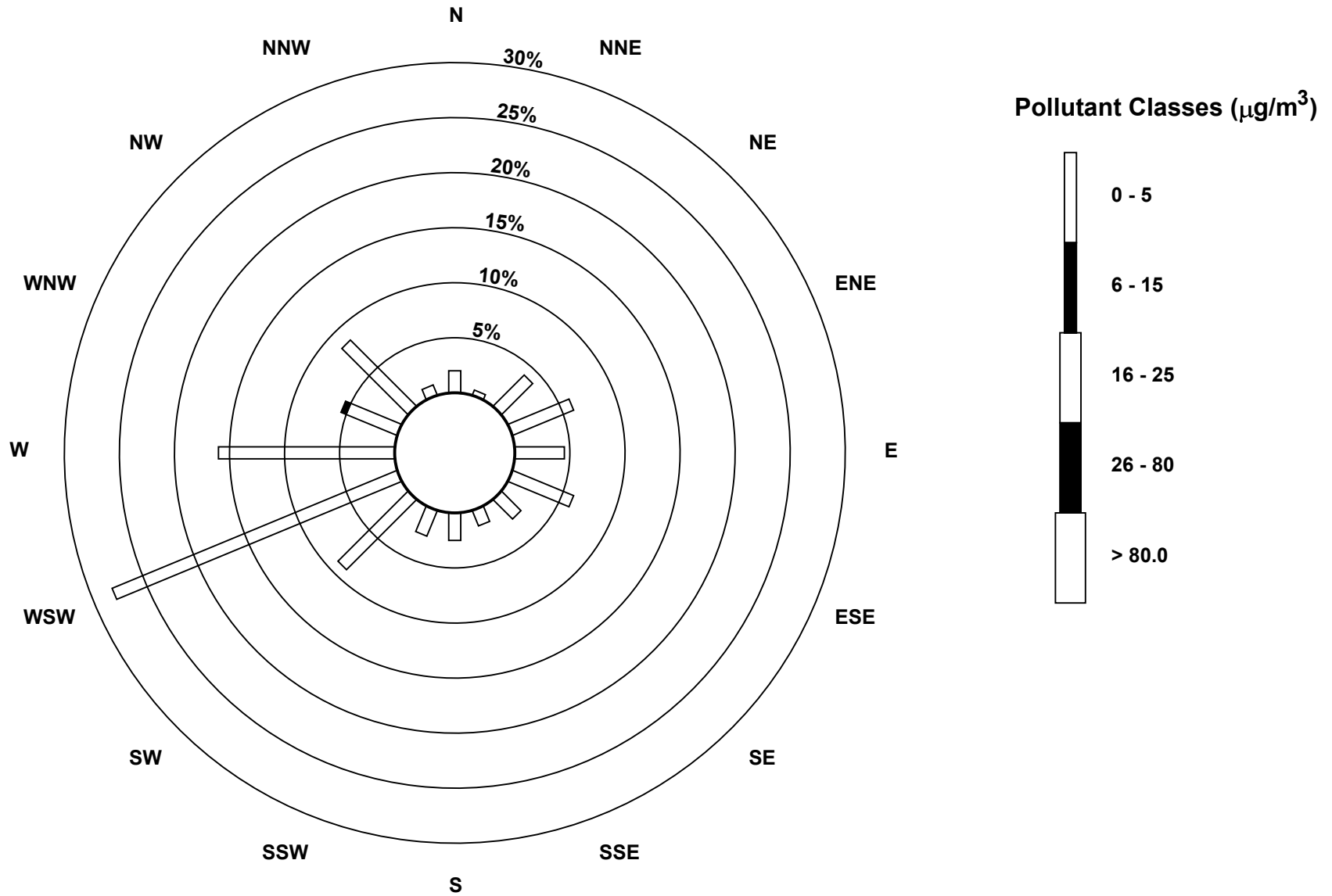
Beaverlodge - February 2018

Maximum Value: 22.0 µg/m ³ on Feb 17 23:00 Maximum Daily Average: 6.6 µg/m ³ on Feb 5																	Hours in Service: 672 Hours of Data: 672																									
Minimum Value: 1 µg/m ³ on Feb 3 07:00 Minimum Daily Average: 1.0 µg/m ³ on Feb 13 Maximum Diurnal Average: 4.6 µg/m ³ at hour 20 Minimum Diurnal Average: 2.3 µg/m ³ at hour 13 Monthly Average: 3.35 µg/m ³ Percentiles: P ₁ = 0.7 P ₁₀ = 1.2 Q ₁ = 1.4 Median = 2.6 Q ₃ = 4.1 P ₉₀ = 6.8 P ₉₉ = 14.3																	Hours of Missing Data: 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-Feb	11	3	4	5	3	3	3	2	2	2	2	1	1	3	1	1	2	2	1	2	2	4	5	5	2.9	11.0																
2-Feb	1	1	1	2	1	1	1	1	8	2	1	1	1	2	1	2	2	2	5	5	3	3	2	3	2.3	8.2																
3-Feb	5	7	4	2	2	1	1	1	1	2	1	2	2	3	1	2	4	4	4	3	2	2	4	2	2.6	7.0																
4-Feb	2	2	2	2	4	5	5	13	3	2	4	4	4	7	9	2	6	2	1	1	2	3	3	3	3.7	12.9																
5-Feb	7	3	5	8	8	3	4	13	12	3	7	2	2	2	6	16	10	8	5	10	5	7	6	6	6.6	16.3																
6-Feb	6	6	6	5	5	5	3	3	3	5	8	9	4	4	4	3	3	10	8	8	17	7	12	10	6.4	16.8																
7-Feb	6	8	7	8	7	5	3	4	8	5	4	3	3	2	2	1	1	1	2	2	4	2	2	4	4.0	8.0																
8-Feb	12	11	14	13	8	6	5	4	2	6	8	1	1	4	3	2	2	3	5	5	6	5	5	5	5.6	14.1																
9-Feb	13	5	4	4	4	3	3	4	4	4	2	2	1	2	2	2	1	1	1	1	1	1	1	4	3.1	13.2																
10-Feb	2	1	1	1	1	1	1	2	1	1	1	4	1	1	1	2	1	2	4	4	2	1	1	1	1.7	3.9																
11-Feb	7	7	4	3	3	4	5	5	8	9	8	6	3	3	2	2	5	8	12	9	10	9	13	8	6.4	12.9																
12-Feb	8	7	4	6	4	7	2	5	5	19	19	3	3	1	7	1	3	1	1	1	1	1	1	1	4.6	19.3																
13-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1.0	1.9																
14-Feb	1	1	1	1	1	1	1	2	2	1	1	1	2	3	3	3	3	3	11	12	6	7	6	3	3.2	12.4																
15-Feb	2	5	3	2	6	2	2	7	4	5	3	3	1	1	1	1	1	1	1	1	1	1	1	1	2.3	7.3																
16-Feb	1	1	1	1	1	1	2	2	4	1	1	1	1	1	1	1	1	2	4	3	2	5	3	4	1.9	4.6																
17-Feb	4	3	3	2	4	4	4	3	3	3	3	4	2	1	1	1	1	1	1	8	9	5	22	13	4.5	22.0																
18-Feb	2	1	2	2	1	3	1	1	2	4	2	1	2	4	1	2	2	1	3	7	12	8	7	4	3.1	12.0																
19-Feb	3	2	2	4	3	2	3	2	3	3	2	2	3	2	3	3	19	5	4	4	4	5	3	3	3.8	18.8																
20-Feb	3	3	3	3	3	3	3	4	3	7	4	3	3	3	3	5	5	7	6	4	3	3	3	3	3.6	6.8																
21-Feb	3	3	3	3	3	3	3	3	6	3	3	3	3	3	4	5	4	6	5	15	10	9	6	4	4.7	14.6																
22-Feb	4	4	4	4	3	3	3	3	4	4	3	4	4	4	3	3	3	3	4	4	5	4	4	3	3.6	4.6																
23-Feb	3	3	3	4	3	3	3	3	3	7	3	3	2	3	2	2	2	2	2	2	2	2	2	2	2.8	7.0																
24-Feb	2	2	2	2	2	2	2	3	3	3	6	5	5	4	4	2	1	1	1	1	1	1	1	1	2.3	5.8																
25-Feb	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	2	2	11	3	3	5	3	2.0	11.5																
26-Feb	2	1	2	2	5	5	1	5	1	1	1	1	2	5	2	2	2	2	2	1	1	2	1	1	2.2	5.3																
27-Feb	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	2	1	1	1	1.4	2.4																
28-Feb	1	1	1	1	1	1	1	1	2	3	3	2	2	1	1	1	2	2	2	2	2	2	2	2	1.7	2.9																
																	4.1	3.4	3.2	3.2	3.3	2.9	2.5	3.6	3.6	3.8	3.7	2.7	2.3	2.4	2.8	2.5	3.3	3.0	3.6	4.6	4.3	3.7	4.4	3.5	Diurnal Average	
																	13.2	11.5	14.1	13.2	8.5	6.8	5.1	13.4	12.0	19.3	19.1	9.2	4.8	6.5	9.5	16.3	18.8	9.8	11.7	14.6	16.8	9.5	22.0	12.9	Diurnal Maximum	



Pollutant Rose

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



Hourly Averages

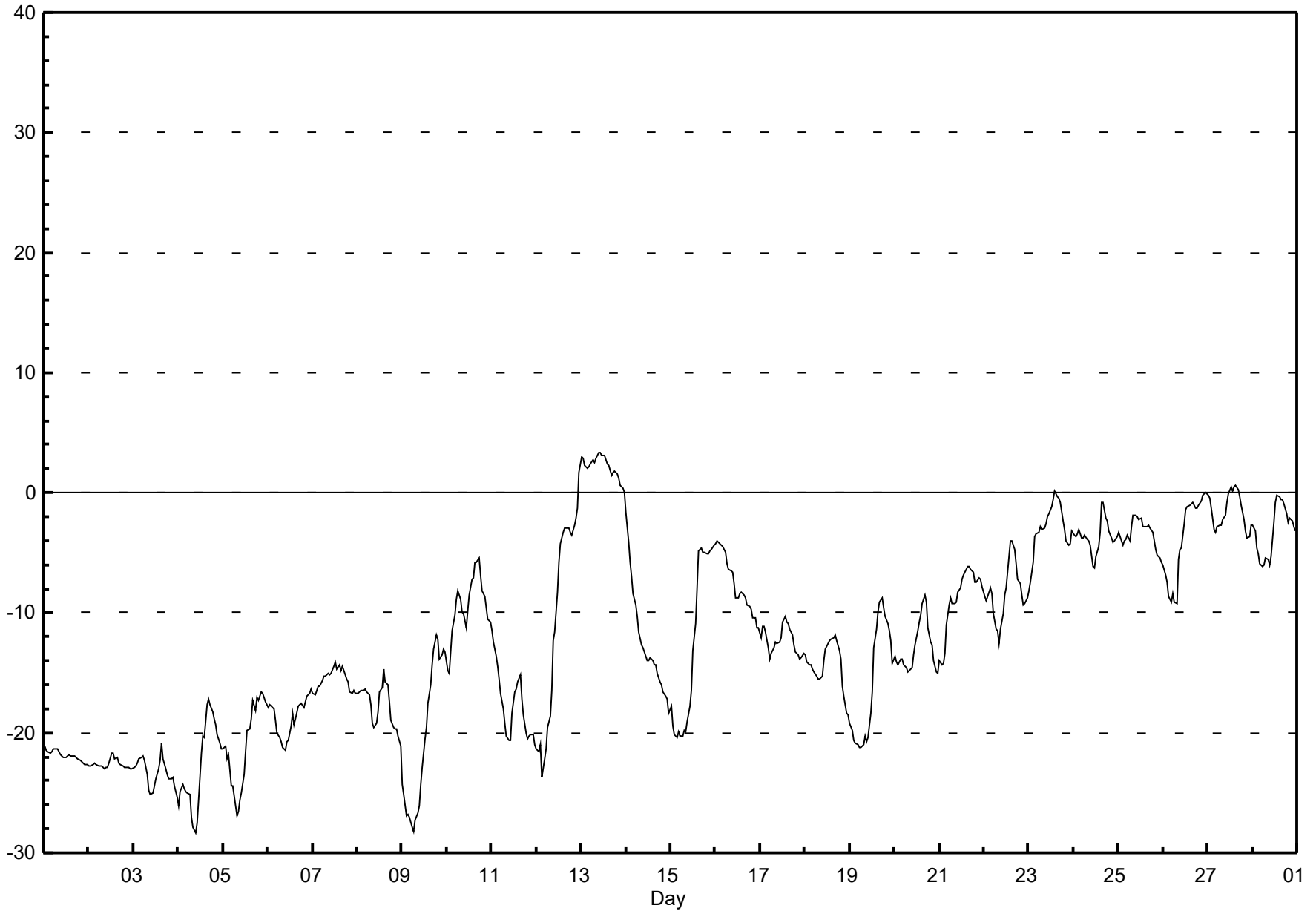
External Temperature (ET) - °C

Beaverlodge - February 2018

Maximum Value: 3.4 °C on Feb 13 11:00 Maximum Daily Average: 2.2 °C on Feb 13																			Hours in Service: 672 Hours of Data: 672								
Minimum Value: -28 °C on Feb 4 10:00 Minimum Daily Average: -23.3 °C on Feb 3 Maximum Diurnal Average: -9.7 °C at hour 17 Minimum Diurnal Average: -14.2 °C at hour 8 Monthly Average: -12.27 °C Percentiles: P ₁ = -27.1 P ₁₀ = -22.6 Q ₁ = -19.3 Median = -12.8 Q ₃ = -4.9 P ₉₀ = -1.8 P ₉₉ = 2.7																			Hours of Missing Data: 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-Feb	-21	-21	-22	-22	-22	-21	-21	-21	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	-23	-23	-23	-21.9	-21.1		
2-Feb	-23	-23	-23	-22	-23	-23	-23	-23	-23	-23	-23	-23	-22	-22	-22	-22	-22	-23	-23	-23	-23	-23	-23	-22.6	-21.7		
3-Feb	-23	-23	-22	-22	-22	-22	-22	-23	-25	-25	-25	-24	-24	-23	-22	-21	-22	-23	-23	-24	-24	-24	-24	-25	-23.3	-20.9	
4-Feb	-26	-25	-24	-25	-25	-25	-25	-27	-28	-28	-27	-26	-22	-20	-20	-18	-17	-18	-18	-19	-19	-20	-21	-21	-22.7	-17.2	
5-Feb	-21	-21	-22	-22	-24	-24	-25	-27	-27	-26	-25	-23	-22	-20	-20	-19	-17	-18	-17	-17	-17	-17	-17	-21.1	-16.5		
6-Feb	-18	-18	-18	-18	-19	-20	-20	-21	-21	-21	-21	-21	-19	-18	-19	-19	-18	-18	-18	-18	-17	-17	-17	-16	-18.8	-16.4	
7-Feb	-17	-17	-16	-16	-16	-16	-15	-15	-15	-15	-15	-14	-14	-15	-14	-15	-14	-15	-16	-16	-17	-17	-16	-17	-15.5	-14.0	
8-Feb	-17	-17	-17	-17	-16	-17	-17	-18	-19	-20	-19	-18	-17	-16	-15	-16	-16	-17	-19	-20	-20	-20	-20	-21	-17.7	-14.7	
9-Feb	-24	-25	-27	-27	-27	-28	-28	-27	-27	-26	-24	-23	-20	-20	-17	-16	-14	-13	-12	-12	-14	-14	-13	-13	-20.5	-11.8	
10-Feb	-15	-15	-13	-12	-10	-9	-8	-9	-10	-10	-11	-10	-9	-7	-7	-6	-6	-5	-7	-8	-9	-10	-11	-11	-9.4	-5.4	
11-Feb	-11	-12	-14	-14	-15	-17	-18	-19	-20	-21	-21	-18	-17	-16	-16	-15	-17	-18	-20	-21	-20	-20	-20	-21	-17.6	-11.4	
12-Feb	-21	-22	-21	-24	-22	-21	-20	-19	-16	-12	-12	-8	-6	-4	-3	-3	-3	-3	-3	-4	-3	-2	-1	2	-10.5	1.7	
13-Feb	3	3	2	2	2	2	3	3	3	3	3	3	3	3	2	2	1	2	2	2	1	1	0	0	2.2	3.4	
14-Feb	-2	-4	-6	-7	-8	-9	-10	-12	-13	-13	-13	-14	-14	-14	-14	-14	-14	-15	-16	-16	-17	-17	-17	-18	-12.4	-1.7	
15-Feb	-18	-19	-20	-20	-20	-20	-20	-20	-20	-19	-18	-16	-13	-11	-8	-5	-5	-5	-5	-5	-5	-5	-5	-4	-12.8	-4.4	
16-Feb	-4	-4	-4	-4	-5	-5	-6	-6	-6	-7	-8	-9	-9	-8	-8	-9	-9	-9	-9	-10	-10	-10	-11	-11	-7.6	-4.0	
17-Feb	-12	-11	-11	-12	-13	-14	-13	-13	-12	-13	-12	-12	-11	-10	-11	-11	-11	-12	-13	-13	-13	-14	-14	-13	-12.3	-10.3	
18-Feb	-14	-14	-14	-14	-15	-15	-15	-16	-15	-15	-14	-13	-13	-12	-12	-12	-12	-12	-13	-14	-16	-17	-18	-18	-14.4	-11.9	
19-Feb	-19	-20	-21	-21	-21	-21	-21	-21	-21	-20	-21	-20	-18	-17	-13	-11	-10	-9	-9	-10	-10	-11	-11	-12	-14	-15.9	-8.8
20-Feb	-14	-14	-14	-14	-14	-14	-15	-15	-15	-15	-13	-13	-11	-11	-10	-9	-9	-9	-11	-12	-13	-14	-15	-15	-12.9	-8.5	
21-Feb	-14	-14	-14	-13	-11	-9	-9	-9	-9	-9	-8	-8	-7	-7	-6	-6	-6	-6	-7	-7	-8	-7	-7	-8	-8.8	-6.1	
22-Feb	-9	-9	-9	-8	-8	-10	-11	-11	-13	-11	-10	-9	-8	-5	-4	-4	-5	-6	-7	-8	-9	-9	-9	-9	-8.4	-4.0	
23-Feb	-8	-7	-6	-4	-3	-3	-3	-3	-3	-3	-2	-2	-1	-1	0	0	0	-1	-2	-3	-4	-4	-4	-3	-3.0	0.1	
24-Feb	-4	-4	-3	-3	-4	-4	-4	-4	-4	-4	-6	-6	-5	-5	-3	-1	-1	-2	-2	-3	-4	-4	-4	-4	-3.6	-0.8	
25-Feb	-3	-4	-4	-4	-4	-4	-4	-3	-2	-2	-2	-2	-2	-3	-3	-3	-3	-3	-3	-4	-5	-5	-5	-6	-3.4	-1.8	
26-Feb	-6	-7	-7	-9	-9	-8	-9	-9	-6	-5	-5	-3	-1	-1	-1	-1	-1	-1	-1	-1	-1	0	0	0	-3.9	0.0	
27-Feb	0	0	-1	-3	-3	-3	-3	-3	-2	-2	-1	0	1	0	0	1	0	0	-1	-2	-3	-4	-4	-3	-1.5	0.6	
28-Feb	-3	-3	-5	-5	-6	-6	-6	-5	-6	-6	-5	-2	-1	0	0	-1	-1	-1	-2	-2	-2	-2	-3	-3	-3.2	-0.2	
																								Diurnal Average			
																								Diurnal Maximum			
-13.0 -13.2 -13.5 -13.5 -13.7 -13.8 -13.9 -14.2 -14.1 -13.9 -13.6 -12.7 -11.5 -10.8 -10.3 -9.8 -9.7 -10.1 -10.7 -11.2 -11.5 -11.8 -12.0 -12.1 3.0 2.9 2.2 2.1 2.1 2.4 2.7 2.6 2.9 3.3 3.4 3.1 3.0 2.7 2.3 2.2 1.5 1.6 1.8 1.6 1.2 0.6 0.3 1.7																											

Hourly Averages

External Temperature (ET) - °C
Beaverlodge - February 2018



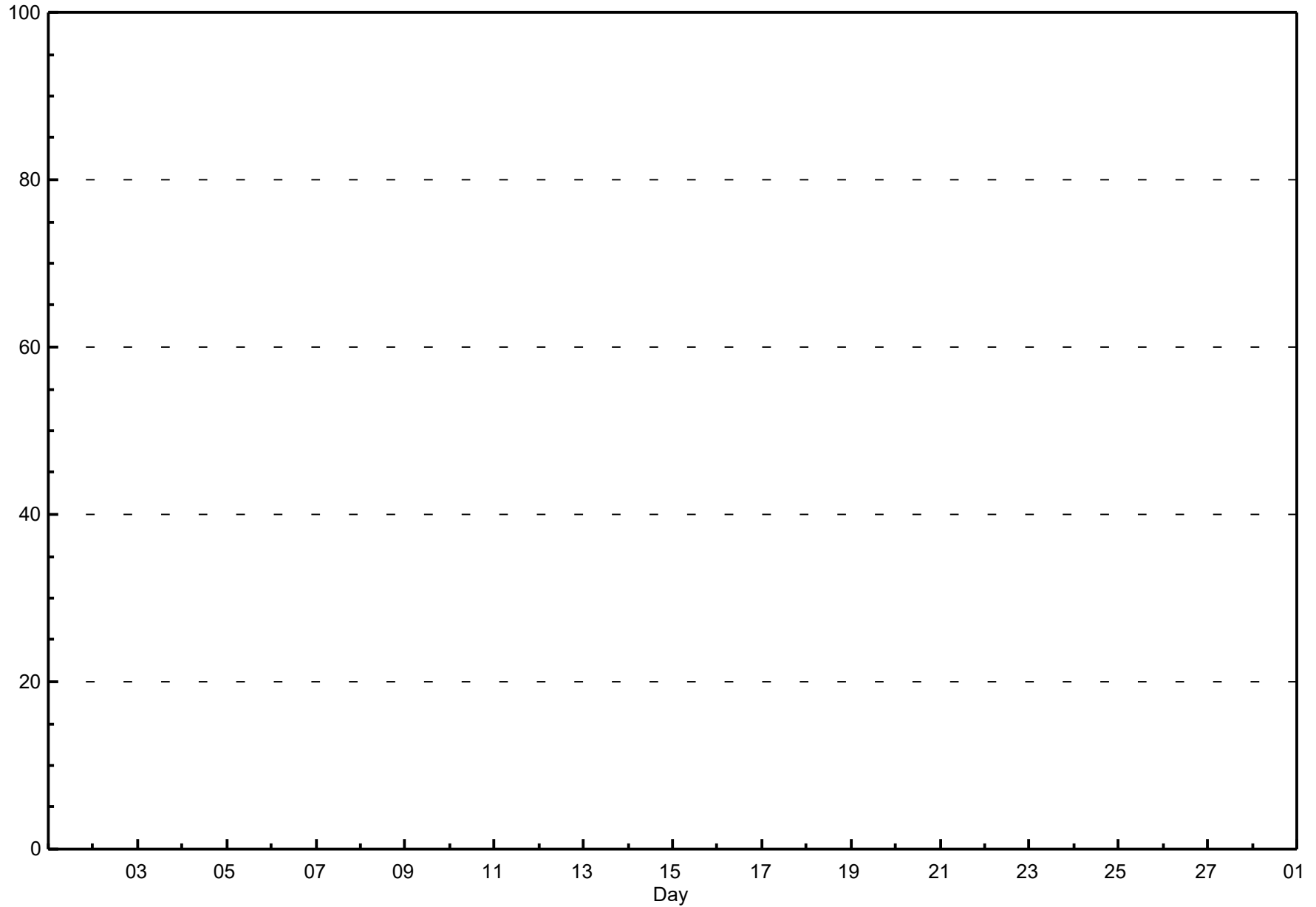
Hourly Averages

Relative Humidity (RH) - %
Beaverlodge - February 2018

Maximum Value: -- % on Feb 1 00:00 Minimum Value: -- % on Feb 1 00:00 Maximum Diurnal Average: -- % at hour 0 Monthly Average: -- %		Maximum Daily Average: -- % on Jan 31 Minimum Daily Average: -- % on Jan 31 Minimum Diurnal Average: -- % at hour 0 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.0 Q ₃ = 0.0 P ₉₀ = 0.0 P ₉₉ = 0.0		Hours in Service: 672 Hours of Data: 0 Hours of Missing Data: 672 Hours of Calibration: 0 Percent Operational Time: 0.0																								
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
1-Feb	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--	
2-Feb	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	N	--	--
3-Feb	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	N	--	--
4-Feb	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	N	--	--
5-Feb	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	N	--	--
6-Feb	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	N	--	--
7-Feb	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	N	--	--
8-Feb	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	N	--	--
9-Feb	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	N	--	--
10-Feb	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	N	--	--
11-Feb	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	N	--	--
12-Feb	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	N	--	--
13-Feb	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	N	--	--
14-Feb	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	N	--	--
15-Feb	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	N	--	--
16-Feb	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	N	--	--
17-Feb	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	N	--	--
18-Feb	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	N	--	--
19-Feb	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	N	--	--
20-Feb	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	N	--	--
21-Feb	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	N	--	--
22-Feb	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	N	--	--
23-Feb	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	N	--	--
24-Feb	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	N	--	--
25-Feb	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	N	--	--
26-Feb	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	N	--	--
27-Feb	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	N	--	--
28-Feb	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	N	--	--
	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Diurnal Average	Diurnal Maximum	
	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				

Hourly Averages

**Relative Humidity (RH) - %
Beaverlodge - February 2018**





Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Beaverlodge - February 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	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		
1 Dir	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		
2 Spd	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		
2 Dir	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		
3 Spd	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		
3 Dir	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		
4 Spd	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		
4 Dir	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 Spd	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 Dir	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 Spd	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 Dir	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 Spd	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 Dir	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		
8 Spd	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		
8 Dir	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		
9 Spd	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		
9 Dir	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		
10 Spd	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		
10 Dir	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		
11 Spd	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		
11 Dir	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		
12 Spd	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		
12 Dir	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		
13 Spd	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		
13 Dir	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		
14 Spd	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		
14 Dir	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		
15 Spd	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		
15 Dir	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		
16 Spd	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		
16 Dir	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		
17 Spd	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		
17 Dir	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		
18 Spd	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		
18 Dir	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		
19 Spd	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		
19 Dir	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		
20 Spd	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	5	3	3	4	2	2	3	1		
20 Dir	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	299	132	89	93	129	77	86	223			
21 Spd	5	0	3	2	10	16	26	22	20	16	18	18	17	20	20	19	19	15	12	10	12	9	8	11		
21 Dir	245	196	51	37	264	261	261	257	270	268	274	278	284	286	303	307	313	309	308	301	306	296	287	298		
22 Spd	10	11	10	9	8	2	4	3	3	2	3	3	3	2	17	19	22	22	21	20	13	11	11	7		
22 Dir	318	312	315	311	313	324	59	43	66	85	97	114	94	104	234	247	237	241	241	242	234	228	222	216		

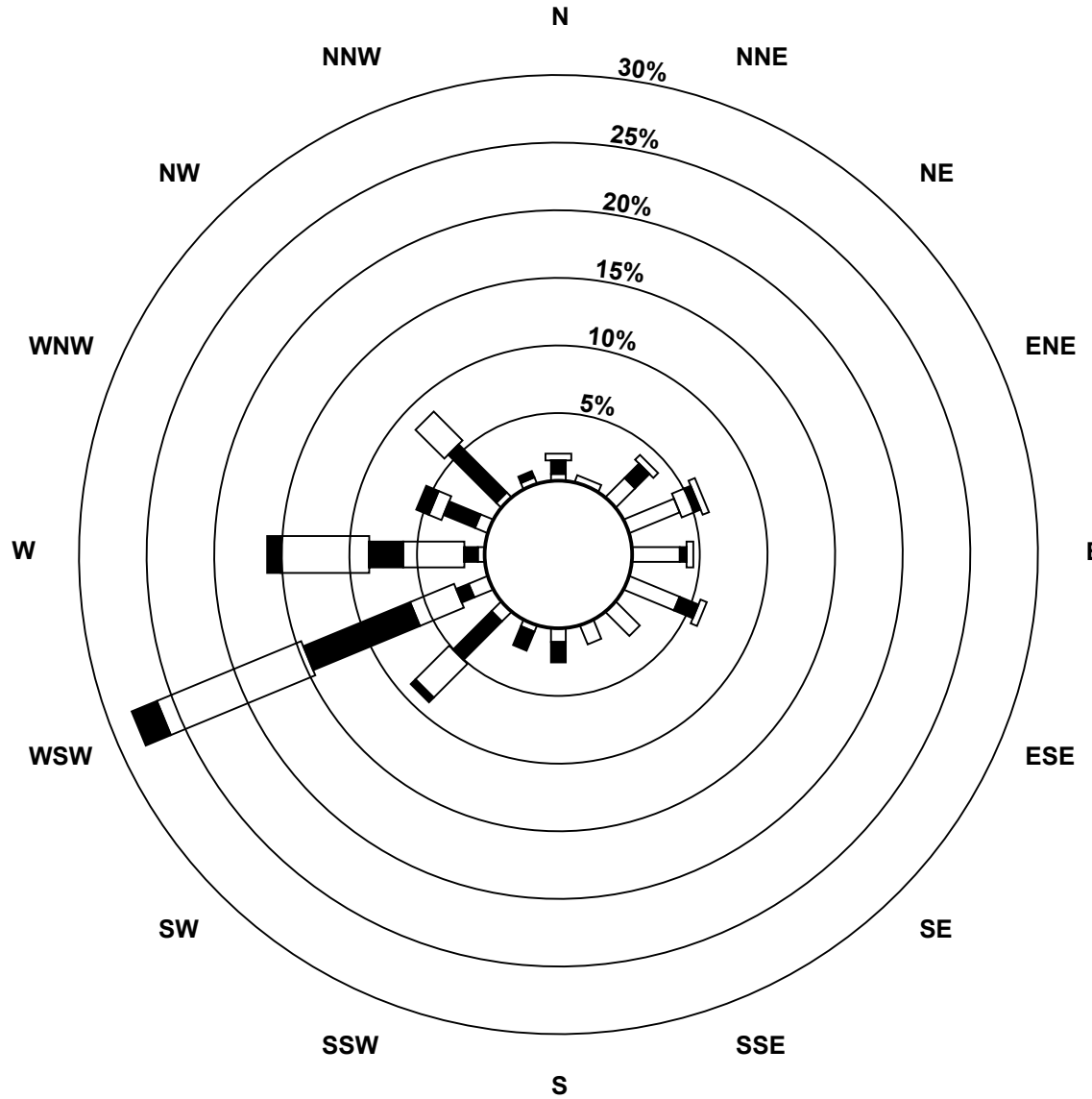
Hourly Averages

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

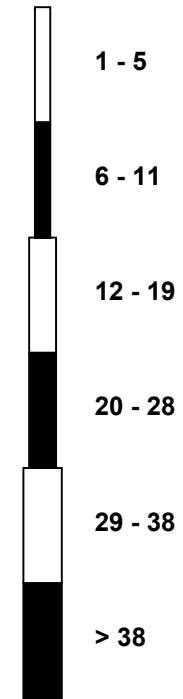
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
23 Spd	9	11	18	34	33	23	24	36	38	38	34	32	31	33	41	41	38	33	29	26	22	17	3	1	26.4	41.1	
Dir	218	212	235	251	248	248	252	259	260	260	251	245	252	260	267	267	263	252	249	246	247	249	242	249	253	267	
24 Spd	8	9	13	15	9	12	9	8	9	6	12	10	7	6	4	29	31	26	27	22	17	8	4	7	8.3	31.1	
Dir	233	259	273	281	295	287	310	318	321	357	119	117	108	112	168	260	252	250	245	236	232	213	168	174	251	252	
25 Spd	6	4	5	3	3	3	7	18	24	18	14	11	13	13	9	9	7	4	4	4	4	2	4	4	3.8	24.4	
Dir	178	161	128	123	68	180	227	269	268	272	309	324	353	13	351	319	326	356	333	285	196	121	133	130	298	268	
26 Spd	3	3	7	4	6	4	4	3	19	24	27	27	33	43	42	39	36	43	38	33	30	37	38	31	21.2	43.2	
Dir	109	85	92	73	51	62	109	174	259	249	243	243	248	249	254	257	256	256	247	245	250	259	263	258	252	249	
27 Spd	35	35	33	24	31	33	31	27	30	30	34	36	31	29	32	30	27	23	21	18	12	15	11	7	25.6	35.6	
Dir	259	258	255	246	245	242	244	249	259	263	270	275	269	245	247	259	255	259	260	249	221	217	216	180	253	275	
28 Spd	9	5	2	7	19	14	18	8	13	14	11	4	2	4	5	7	4	7	12	16	16	15	22	30	0.9	30.4	
Dir	199	219	61	251	232	246	240	251	258	241	229	262	72	103	45	34	104	47	44	79	76	66	62	60	93	60	
Spd	8.0	7.4	6.5	9.4	11.8	11.8	13.0	14.1	18.4	16.9	14.6	13.5	12.0	13.2	17.5	21.4	18.5	16.2	14.3	11.9	9.2	7.8	4.5	2.0	Diurnal Average		
Dir	244	252	257	259	255	252	252	260	265	262	257	260	266	259	263	268	262	259	256	246	242	246	244	239	Diurnal Maximum		
Spd	34.9	34.6	33.5	33.9	33.5	33.0	31.1	36.0	37.8	37.8	34.3	35.6	32.5	43.2	42.5	40.8	37.6	42.5	38.3	32.5	29.6	36.8	38.4	30.5	Diurnal Maximum		
Dir	259	258	255	251	248	242	244	259	260	260	270	275	248	249	254	267	263	256	247	245	250	259	263	258	Diurnal Maximum		
Maximum Speed Value: 43 km/h on Feb 26 14:00																		Minimum Speed Value: 0 km/h on Feb 21 02:00						Hours in Service:		672	
Maximum Daily Speed Average: 26.4 km/h on Feb 23																		Minimum Daily Speed Average: 0.9 km/h on Feb 25						Hours of Data:		200	
Maximum Diurnal Speed Average: 21.4 km/h at hour 16																		Minimum Diurnal Speed Average: 2.0 km/h at hour 24						Hours of Missing Data:		472	
Monthly Average Velocity: 12.08 km/h 257.5 deg																		Speed Percentiles: P ₁ = 1.2 P ₁₀ = 2.9 Q ₁ = 5.7 Median = 12.7 Q ₃ = 25.7 P ₉₀ = 33.5 P ₉₉ = 42.5						Percent Operational Time:		29.8	
All monthly, daily, and diurnal averages have been calculated using vector methods																											
N - Not Valid																											
Frequency Distribution																											
		Speed Range (km/h)																									
Direction	0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total																				
North	1	2	2	0	0	0	5																				
NorthEast	7	4	2	1	1	0	15																				
East	16	3	2	0	0	0	21																				
SouthEast	7	2	1	0	0	0	10																				
South	7	4	0	0	0	0	11																				
SouthWest	3	7	14	12	7	1	44																				
West	3	5	13	14	27	7	69																				
NorthWest	3	15	6	1	0	0	25																				
Total	47	42	40	28	35	8	200																				

Wind Rose

Wind Speed (WS) (km/h)
Beaverlodge - February 2018



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Beaverlodge - February 2018

Maximum Speed: 43 km/h on Feb 26 14:00		Maximum Daily Speed Average: 27.3 km/h on Feb 23		Hours in Service: 672																																	
Minimum Speed: 2 km/h on Feb 20 21:00		Minimum Daily Speed Average: 8.3 km/h on Feb 25		Hours of Data: 200																																	
Maximum Diurnal Speed Average: 24.2 km/h at hour 16		Minimum Diurnal Speed Average: 10.1 km/h at hour 2		Hours of Missing Data: 472																																	
Monthly Average Speed: 16.35 km/h		Percentiles: P ₁ = 2.6 P ₁₀ = 3.5 Q ₁ = 5.9 Median = 12.9 Q ₃ = 25.8 P ₉₀ = 33.7 P ₉₉ = 42.6		Percent Operational Time: 29.8																																	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum											
1-Feb	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	N	N	N	--	--							
2-Feb	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	N	N	N	N	N	--	--					
3-Feb	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	N	N	N	N	N	--	--					
4-Feb	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	N	N	N	N	N	N	--	--				
5-Feb	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	N	N	N	N	N	N	--	--				
6-Feb	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	N	N	N	N	N	N	N	--	--			
7-Feb	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	N	N	N	N	N	N	N	--	--			
8-Feb	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	N	N	N	N	N	N	N	N	--	--		
9-Feb	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	N	N	N	N	N	N	N	N	--	--		
10-Feb	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	N	N	N	N	N	N	N	N	--	--		
11-Feb	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	N	N	N	N	N	N	N	N	N	--	--	
12-Feb	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	N	N	N	N	N	N	N	N	N	--	--	
13-Feb	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	N	N	N	N	N	N	N	N	N	--	--	
14-Feb	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	N	N	N	N	N	N	N	N	N	--	--	
15-Feb	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	N	N	N	N	N	N	N	N	N	--	--	
16-Feb	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	N	N	N	N	N	N	N	N	N	--	--	
17-Feb	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	N	N	N	N	N	N	N	N	N	--	--	
18-Feb	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	N	N	N	N	N	N	N	N	N	--	--	
19-Feb	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	N	N	N	N	N	N	N	N	N	--	--	
20-Feb	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	N	N	N	N	N	N	N	N	N	N	--	4.7
21-Feb	6	3	3	3	10	16	26	22	20	16	18	18	17	20	20	19	19	15	12	10	12	9	8	11	13.9	25.9											
22-Feb	10	11	10	9	8	3	4	3	3	2	4	3	3	3	17	20	22	22	21	20	13	11	11	7	10.0	22.4											
23-Feb	9	11	18	34	34	24	24	36	38	38	34	33	31	33	41	41	38	33	29	26	23	17	7	4	27.3	41.2											
24-Feb	8	9	13	15	10	12	10	8	9	7	12	10	7	7	5	29	31	26	27	22	17	8	4	7	13.1	31.4											
25-Feb	6	4	6	3	3	3	8	18	24	18	15	11	13	13	10	9	7	5	4	4	4	3	4	4	8.3	24.4											
26-Feb	3	3	8	4	6	4	6	4	20	24	27	27	33	43	43	39	36	43	38	33	30	37	39	31	24.2	43.3											
27-Feb	35	35	34	24	31	33	31	27	30	30	34	36	31	29	33	30	27	23	21	18	12	15	12	8	26.7	35.7											
28-Feb	10	6	5	13	19	14	18	9	14	14	11	5	3	4	6	7	4	7	12	17	16	15	22	30	11.6	30.4											
		10.9	10.1	11.9	13.1	15.0	13.7	15.9	16.0	19.9	18.6	19.5	17.9	17.3	19.0	21.8	24.2	21.1	19.6	18.6	17.0	14.3	13.2	12.2	11.8	Diurnal Average											
		35.0	34.7	33.6	34.0	33.5	33.0	31.3	36.1	37.9	37.9	34.5	35.7	32.7	43.3	42.6	40.9	37.8	42.7	38.4	32.6	29.7	36.9	38.6	30.6	Diurnal Maximum											
N - Not Valid All monthly, daily, and diurnal averages have been calculated using scalar methods																																					

Hourly Standard Deviations

Wind Direction (WD) - deg
 Beaverlodge - February 2018

Maximum Value: 90.8 deg on Feb 21 02:00 Minimum Value: 2.0 deg on Feb 26 11:00 Percentiles: P ₁ = 2.2 P ₁₀ = 3.7 Q ₁ = 4.6 Median = 7.8 Q ₃ = 19.9 P ₉₀ = 43.0 P ₉₉ = 89.2																		Hours in Service: 672 Hours of Data: 200 Hours of Missing Data: 472 Hours of Calibration: 0 Percent Operational Time: 29.8									
Day	Hourly Period Ending At (MST)																								Daily Maximum		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Feb	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	
2-Feb	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	
3-Feb	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	
4-Feb	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-Feb	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-Feb	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-Feb	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	
8-Feb	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	
9-Feb	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	
10-Feb	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	
11-Feb	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	
12-Feb	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	
13-Feb	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	
14-Feb	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	
15-Feb	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	
16-Feb	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	
17-Feb	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	
18-Feb	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	
19-Feb	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	
20-Feb	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	16	70	32	15	26	27	23	90	89.7	
21-Feb	60	91	20	61	9	4	5	4	6	6	6	6	8	7	4	7	5	7	6	5	4	7	4	7	90.8		
22-Feb	6	3	4	5	6	54	52	20	45	56	17	19	17	54	10	14	3	3	4	4	6	3	6	9	55.6		
23-Feb	51	7	6	4	4	5	8	4	4	3	7	3	4	12	4	4	5	5	4	5	6	3	89	82	89.2		
24-Feb	13	9	4	11	21	7	10	7	8	24	15	7	21	14	37	9	8	4	2	5	10	21	12	15	37.4		
25-Feb	13	25	27	31	27	10	21	13	3	7	21	10	13	10	18	7	18	22	13	16	37	53	33	33	52.7		
26-Feb	29	20	20	28	9	15	66	48	33	7	2	2	6	4	4	4	4	6	4	4	4	4	6	4	65.5		
27-Feb	5	5	5	3	3	2	6	4	3	4	4	5	6	6	9	6	5	8	6	8	19	6	23	31	31.4		
28-Feb	16	43	85	83	8	5	4	25	12	12	8	52	73	20	21	6	20	7	8	11	11	12	4	3	85.3		
	60.2	90.8	85.3	82.6	26.8	54.3	65.5	48.3	45.5	55.6	20.9	52.1	73.4	53.6	37.4	13.7	20.5	69.9	31.9	16.3	36.8	52.7	89.2	89.7			
N - Not Valid																											

PAZA

Valleyview Station

Monthly Summary Tables, Graphs and
Roses

Hourly Averages

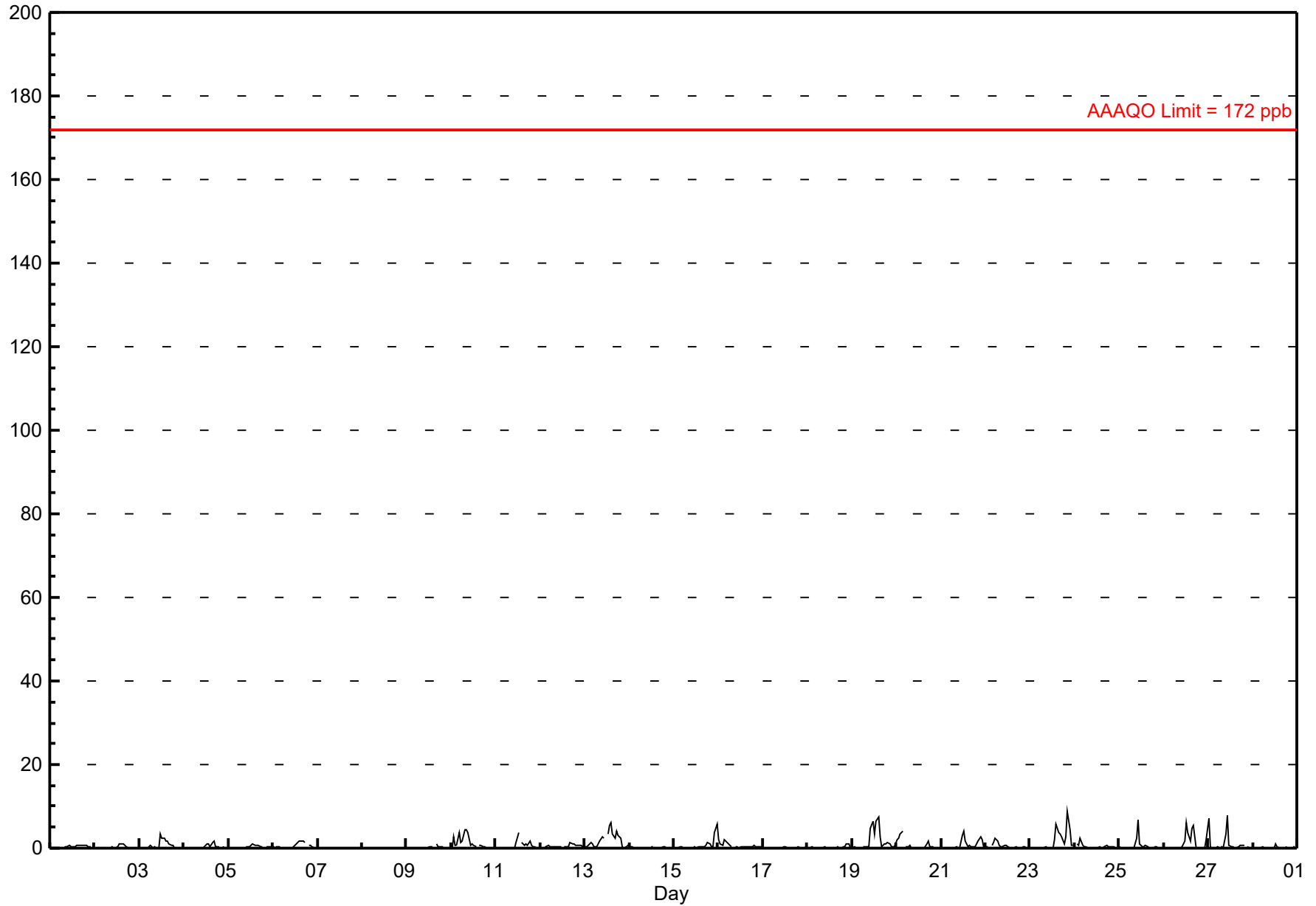
Sulphur Dioxide (SO₂) - ppb

Valleyview - February 2018

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 8.8 ppb on Feb 23 21:00 Maximum Daily Average: 1.9 ppb on Feb 13		Hours in Service: 672 Hours of Data: 639 Hours of Missing Data: 33 Hours of Calibration: 33 Percent Operational Time: 100.0																																														
Minimum Value: 0 ppb on Feb 2 20:00 Maximum Diurnal Average: 1.2 ppb at hour 15 Monthly Average: 0.62 ppb		Minimum Daily Average: 0.0 ppb on Feb 7 Minimum Diurnal Average: 0.3 ppb at hour 7 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.2 Q ₃ = 0.5 P ₉₀ = 1.7 P ₉₉ = 6.3																																														
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-Feb	A	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	1	1	1	0	0	0	A	0.3	0.6																						
2-Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	A	0	0.3	1.1																						
3-Feb	0	0	0	0	0	0	1	0	0	0	0	3	2	2	2	2	1	1	1	0	0	A	0	0	0.7	3.4																						
4-Feb	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	2	0	0	0	0	A	0	0	0	0.3	1.6																						
5-Feb	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0	A	0	0	0	0	0.3	1.1																						
6-Feb	0	0	0	0	0	0	0	0	0	0	0	1	1	2	2	2	1	1	A	1	1	0	0	0	0.5	1.7																						
7-Feb	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																						
8-Feb	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	0.1																						
9-Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	0	0	0	0	0	0	0.1	1.0																						
10-Feb	0	3	1	1	4	1	2	4	4	4	1	1	1	0	A	1	1	1	0	0	0	0	0	0	1.2	4.5																						
11-Feb	0	0	0	0	0	0	0	0	0	0	0	1	4	A	1	1	1	1	2	1	0	0	0	0	0.5	3.8																						
12-Feb	0	0	0	0	1	0	0	0	0	0	0	0	A	0	0	0	1	1	1	1	1	1	1	0	0.5	1.3																						
13-Feb	0	0	1	1	1	0	0	1	2	3	2	A	3	6	6	4	3	4	3	2	0	0	0	1	1.9	6.3																						
14-Feb	0	0	0	0	0	0	0	0	0	0	A	0	0	0	C	C	C	0	0	0	0	0	0	0	0.1	0.4																						
15-Feb	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	1	1	1	0	0	4	6	0.7	5.9																						
16-Feb	2	1	1	2	2	1	1	0	A	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.6	2.1																						
17-Feb	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																						
18-Feb	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0.2	1.1																						
19-Feb	0	0	0	0	0	A	0	0	0	0	5	6	3	6	7	3	0	1	1	1	1	0	0	0	1.7	7.4																						
20-Feb	2	3	3	4	A	0	0	1	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0.8	4.0																						
21-Feb	0	0	0	A	0	0	0	0	0	0	0	3	4	2	0	1	0	0	0	1	2	3	2	0	0.8	3.9																						
22-Feb	0	0	A	1	2	2	2	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.5	2.4																						
23-Feb	0	A	0	0	0	0	0	0	0	0	0	0	0	2	6	4	3	3	1	3	9	5	1	1	1.6	8.8																						
24-Feb	A	1	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	A	0.4	2.2																						
25-Feb	0	0	0	0	0	0	0	0	0	2	7	1	0	0	1	0	0	0	0	0	0	0	A	0	0.6	6.9																						
26-Feb	0	0	0	0	0	0	0	0	0	0	2	6	4	2	5	6	0	0	0	0	0	A	0	2	1.2	6.1																						
27-Feb	7	0	0	0	0	0	0	0	0	3	8	1	0	0	0	0	0	1	1	1	A	0	0	0	1.0	7.9																						
28-Feb	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	A	0	0	0	0	0.1	0.9																						
																								0.6	0.3	0.3	0.5	0.4	0.3	0.3	0.3	0.3	0.6	1.0	0.8	1.1	1.1	1.2	1.0	1.0	0.7	0.5	0.6	0.7	0.5	0.4	0.5	Diurnal Average
																								7.2	2.6	3.3	4.0	3.8	2.4	1.8	4.5	4.4	3.8	7.9	6.3	6.1	6.3	7.4	4.7	5.5	3.9	3.2	2.6	8.8	4.5	3.8	5.9	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
Valleyview - February 2018



Hourly Maximums

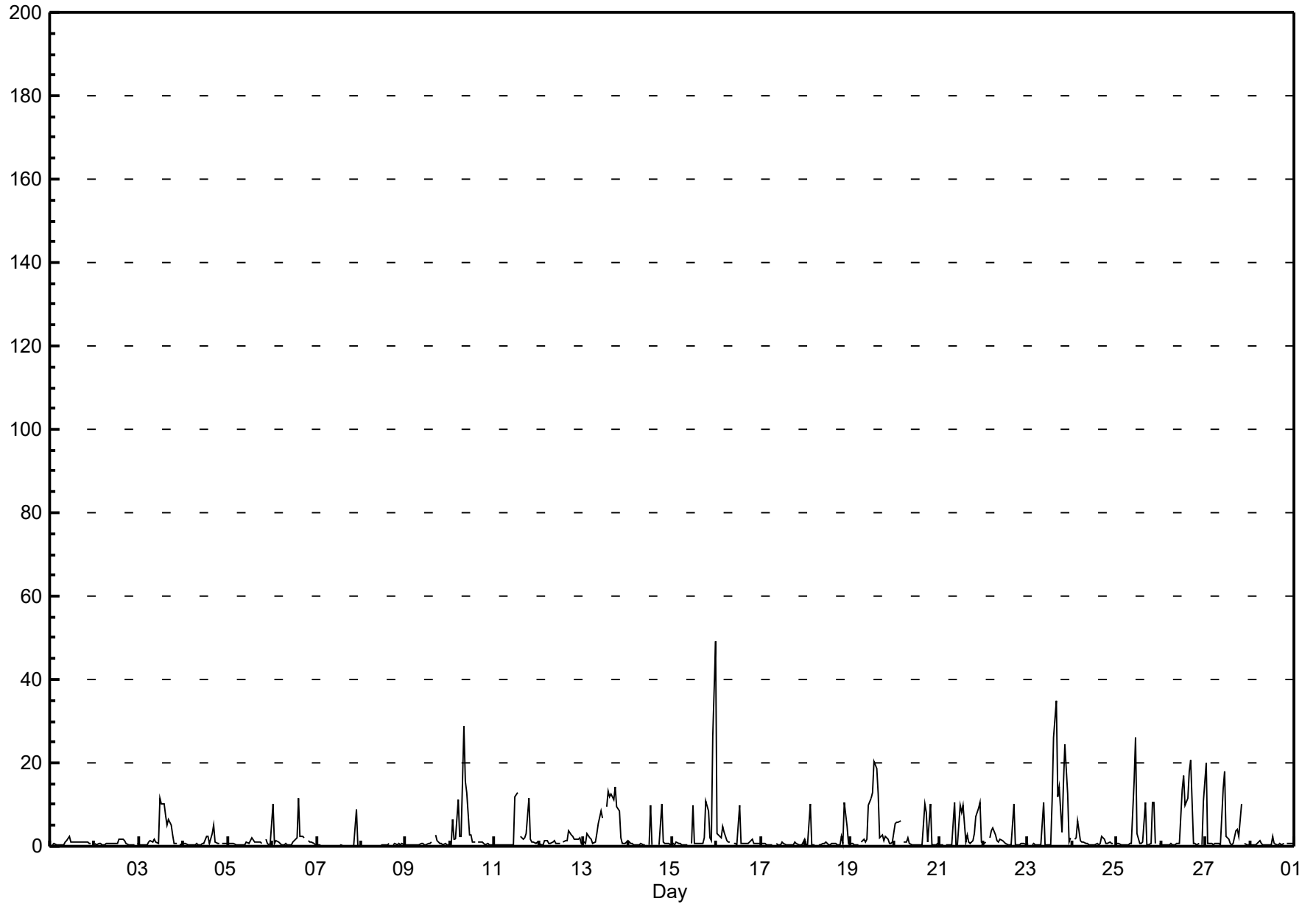
Sulphur Dioxide (SO₂) - ppb

Valleyview - February 2018

Maximum Value: 49.3 ppb on Feb 16 00:00		Maximum Daily Average: 7.5 ppb on Feb 23		Hours in Service: 672																							
Minimum Value: 0 ppb on Feb 7 04:00		Minimum Daily Average: 0.2 ppb on Feb 8		Hours of Data: 639																							
Maximum Diurnal Average: 4.4 ppb at hour 16		Minimum Diurnal Average: 0.7 ppb at hour 7		Hours of Missing Data: 33																							
Monthly Average: 2.42 ppb		Percentiles: P ₁ = 0.0 P ₁₀ = 0.4 Q ₁ = 0.5 Median = 0.6 Q ₃ = 1.6 P ₉₀ = 9.6 P ₉₉ = 22.9		Hours of Calibration: 33																							
				Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Feb	A	0	1	0	0	0	0	0	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	A	0.9	2.2	
2-Feb	1	0	1	1	0	1	1	1	1	1	1	1	1	2	2	2	1	1	1	0	0	0	A	1	0.7	1.7	
3-Feb	0	0	0	0	0	1	1	1	2	1	1	12	10	10	7	5	7	5	3	1	1	A	0	1	3.0	11.6	
4-Feb	1	1	0	0	0	0	0	1	0	0	1	1	2	2	1	3	5	1	1	1	A	1	1	1	1.0	4.9	
5-Feb	1	1	1	1	0	0	0	0	0	0	1	1	1	2	1	1	1	1	1	A	2	1	0	1	0.8	2.0	
6-Feb	10	1	1	1	1	0	0	1	0	0	0	1	2	2	11	2	2	2	A	1	1	1	1	0	1.9	11.5	
7-Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	9	0	0	0.4	8.9	
8-Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	0	1	0	1	0	1	0	0.2	0.8	
9-Feb	0	0	0	0	0	0	0	0	1	1	0	1	1	1	1	A	3	1	1	1	0	1	0	0	0.6	2.6	
10-Feb	0	6	2	2	11	2	3	29	16	13	3	3	1	1	A	1	1	1	1	0	1	0	0	0	4.2	28.8	
11-Feb	0	0	0	0	0	0	0	0	0	0	0	12	13	A	2	2	2	3	12	2	1	1	1	1	2.4	12.9	
12-Feb	1	0	0	1	1	1	1	1	1	1	1	1	A	1	1	1	4	3	2	2	2	2	2	1	1.3	3.6	
13-Feb	1	1	3	2	2	1	1	3	5	9	7	A	10	13	12	12	11	14	10	9	2	1	1	1	5.6	14.2	
14-Feb	1	1	1	0	0	1	0	1	0	0	A	0	10	0	C	C	C	0	10	1	1	1	1	0	1.5	10.2	
15-Feb	1	0	1	1	1	0	1	1	1	1	A	1	10	1	1	1	1	2	11	8	2	1	27	49	5.2	49.3	
16-Feb	3	3	2	5	3	2	1	1	A	1	1	0	10	1	1	1	1	1	1	2	1	1	1	1	1.7	10.0	
17-Feb	1	1	1	0	0	0	0	A	1	0	0	1	1	0	0	0	0	0	1	1	0	0	2	2	0.6	1.8	
18-Feb	0	0	10	0	0	0	A	1	0	1	1	0	0	1	1	1	0	0	2	1	11	5	1	1	1.6	10.7	
19-Feb	1	1	0	0	0	A	1	2	1	2	10	12	13	20	19	13	2	3	1	2	2	1	1	1	4.6	20.3	
20-Feb	6	6	6	6	A	1	1	2	1	0	0	0	0	0	0	10	8	1	10	0	0	0	1	1	2.7	10.2	
21-Feb	0	0	0	A	0	0	0	0	10	0	0	10	8	10	1	3	1	1	1	3	7	9	10	1	3.5	10.5	
22-Feb	1	1	A	2	4	4	3	2	1	2	1	1	1	0	0	0	10	0	0	0	1	1	1	0	1.6	10.2	
23-Feb	1	A	0	1	0	0	0	0	10	0	0	0	0	11	26	35	12	14	3	15	24	13	1	2	7.5	34.8	
24-Feb	A	2	2	6	1	1	1	1	1	0	0	0	0	1	1	1	2	2	1	1	1	1	1	A	1.2	6.1	
25-Feb	1	1	0	0	0	0	0	1	1	16	26	3	1	1	1	10	0	1	1	11	11	1	A	1	3.8	26.1	
26-Feb	0	1	0	0	1	1	0	0	1	1	1	14	17	10	12	18	21	1	1	0	1	A	0	11	4.8	20.6	
27-Feb	20	1	1	1	0	1	1	1	0	14	18	3	2	1	0	1	4	4	2	10	A	1	0	0	3.6	19.9	
28-Feb	0	0	0	0	1	1	1	0	0	0	0	0	2	1	1	0	1	0	1	A	1	1	1	1	0.6	2.3	
		1.9	1.0	1.3	1.2	1.1	0.8	0.7	1.8	2.1	2.4	2.9	3.2	4.0	3.4	4.0	4.4	4.0	2.6	2.5	3.2	2.4	2.2	2.1	3.0	Diurnal Average	
		19.9	6.5	10.0	6.1	11.2	4.3	2.8	28.8	15.5	15.7	26.1	13.6	16.8	20.3	26.2	34.8	20.6	14.3	11.5	14.8	24.4	12.6	26.6	49.3	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

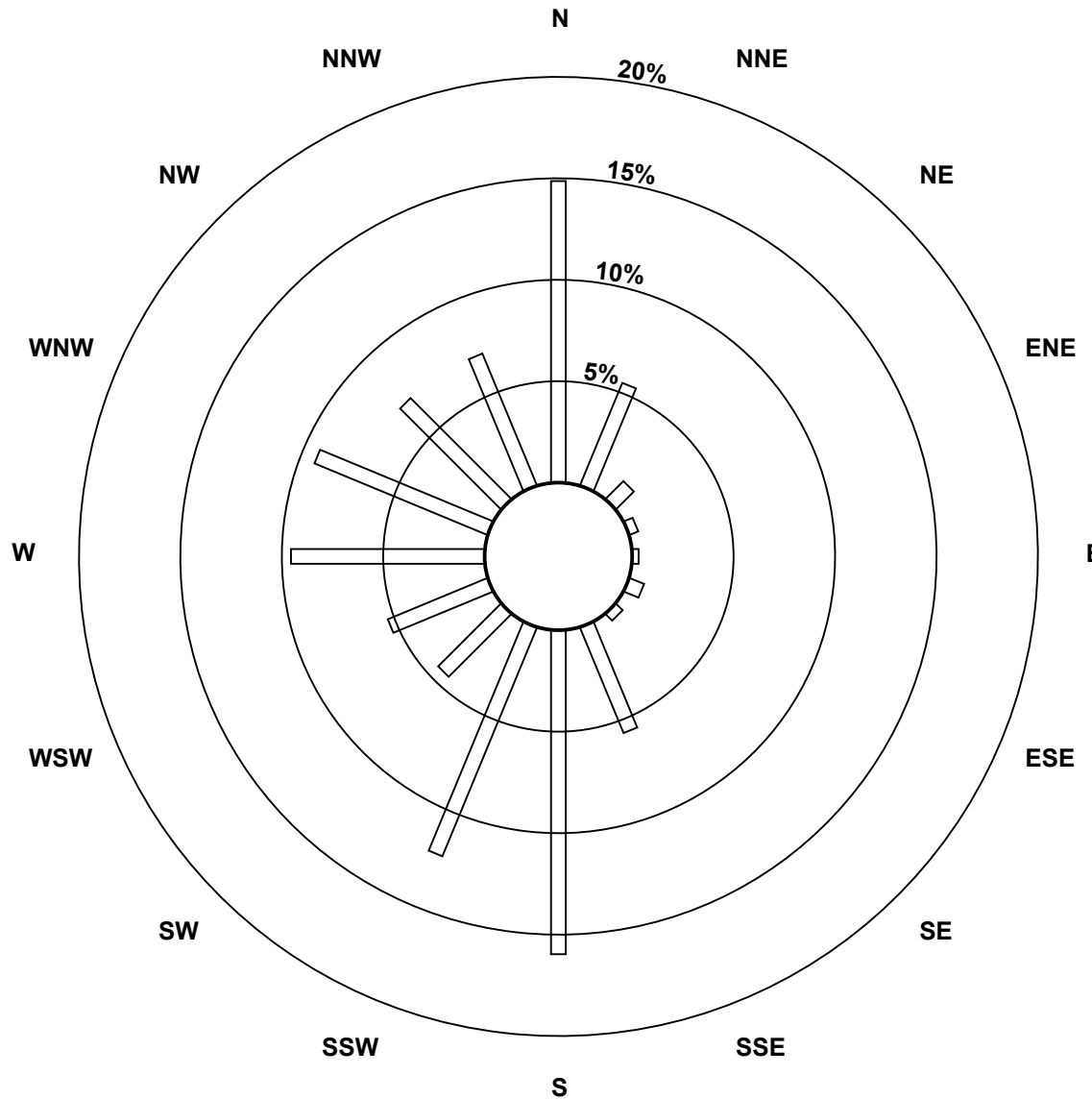
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Valleyview - February 2018

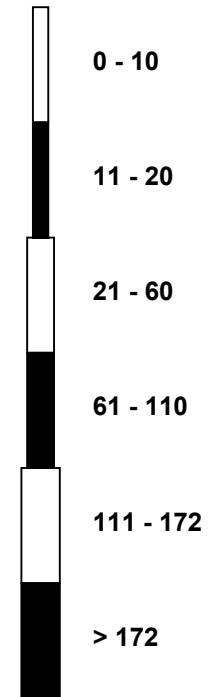


Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Valleyview - February 2018

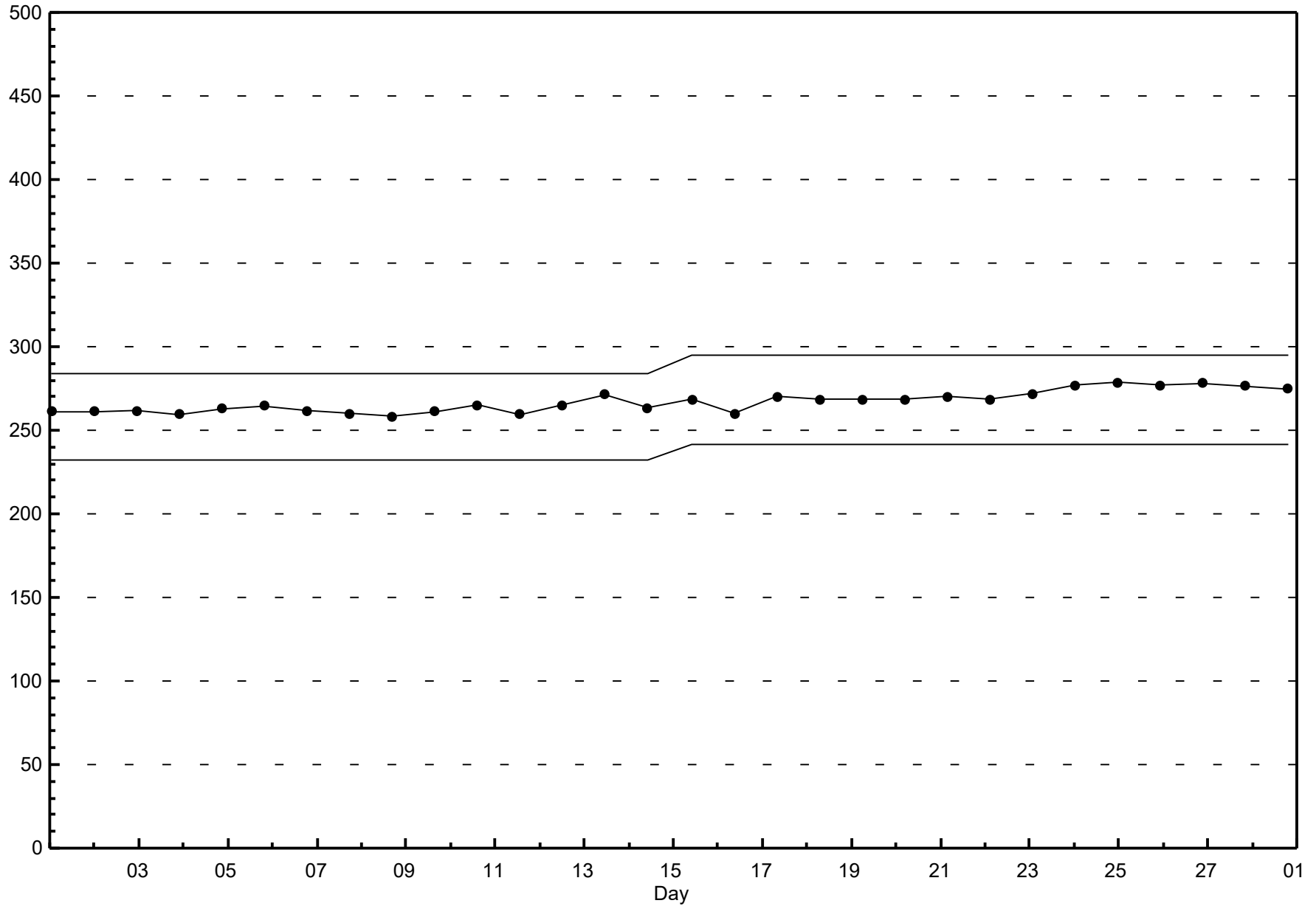


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Valleyview - February 2018



Hourly Averages

Hydrogen Sulphide (H₂S) - ppb

Valleyview - February 2018

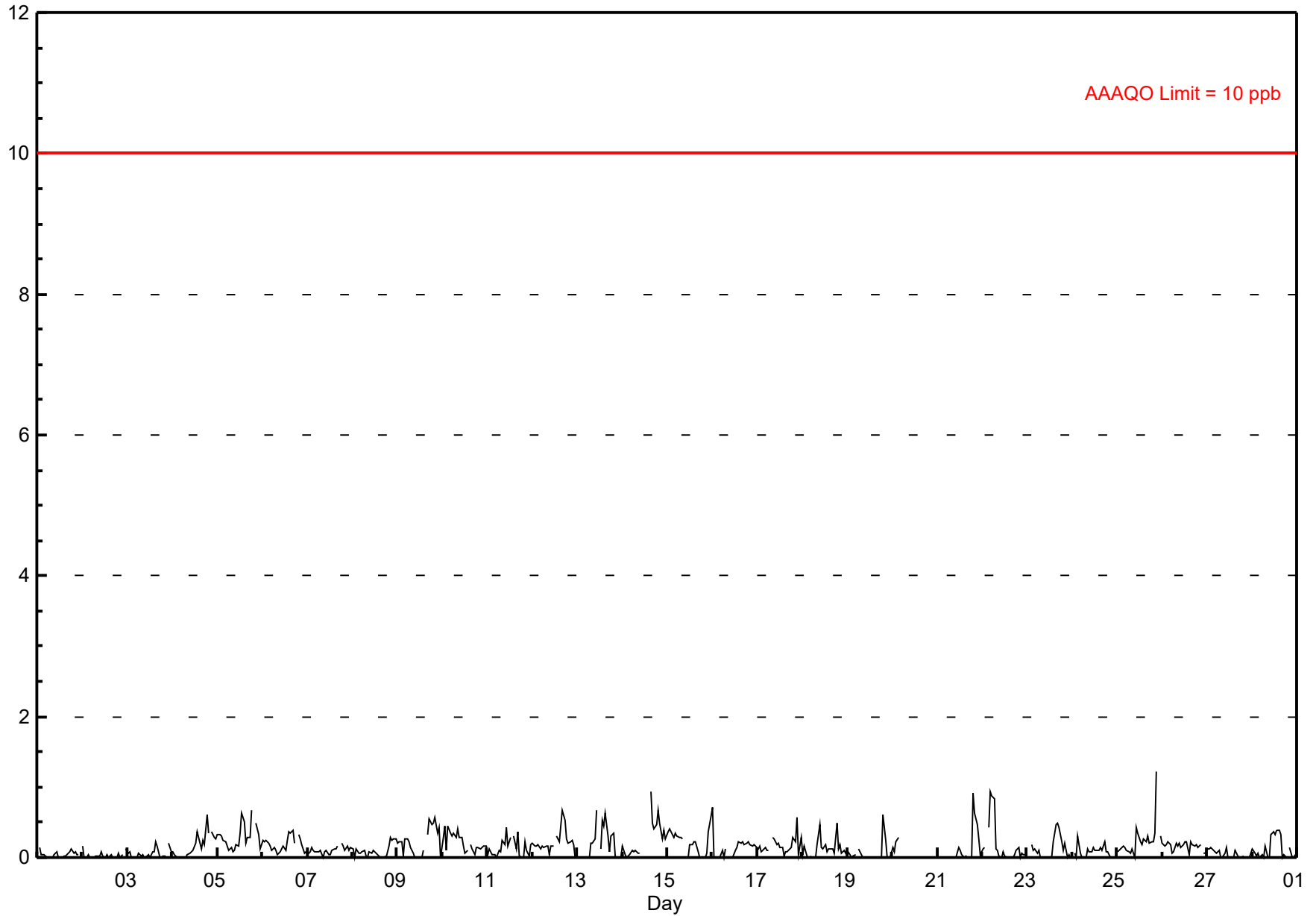
Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	672
Maximum Value: 1.2 ppb on Feb 25 22:00	Maximum Daily Average: 0.3 ppb on Feb 5		Hours of Data:	638
Minimum Value: 0 ppb on Feb 1 06:00	Minimum Daily Average: 0.0 ppb on Feb 2		Hours of Missing Data:	34
Maximum Diurnal Average: 0.2 ppb at hour 20	Minimum Diurnal Average: 0.1 ppb at hour 8		Hours of Calibration:	34
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		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-Feb	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
2-Feb	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	0.2
3-Feb	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
4-Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	A	0	0	0	0.2	0.6
5-Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	A	0	0	0	0	0.3	0.7
6-Feb	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
7-Feb	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
8-Feb	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	0.3
9-Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	1	0	0	1	0	0	0.2	0.6
10-Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.2	0.5
11-Feb	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	0.4
12-Feb	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	1	0	0	0	0	0	0	0.2	0.7
13-Feb	0	0	0	0	0	0	0	0	0	1	A	0	0	1	0	1	0	0	0	0	0	0	0	0	0.2	0.7
14-Feb	0	0	0	0	0	0	0	0	0	0	A	C	C	C	C	1	0	0	0	1	0	0	0	0	0.3	0.9
15-Feb	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	0.6
16-Feb	1	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	0.7
17-Feb	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.2	0.6
18-Feb	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
19-Feb	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.1	0.6
20-Feb	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.3
21-Feb	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0.1	0.9
22-Feb	0	0	A	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.9
23-Feb	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
24-Feb	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
25-Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	0	0	0.2	1.2
26-Feb	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	0.2
27-Feb	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	0.1
28-Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.1	0.4
	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	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.1		Diurnal Average
	0.7	0.5	0.4	0.4	0.9	0.9	0.8	0.3	0.4	0.5	0.7	0.4	0.4	0.6	0.5	0.9	0.7	0.6	0.7	0.9	0.6	1.2	0.4	0.6		Diurnal Maximum

C - Calibration A - Automated Daily Zero Span
 Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb

Hourly Averages

Hydrogen Sulphide (H₂S) - ppb
Valleyview - February 2018



Hourly Maximums

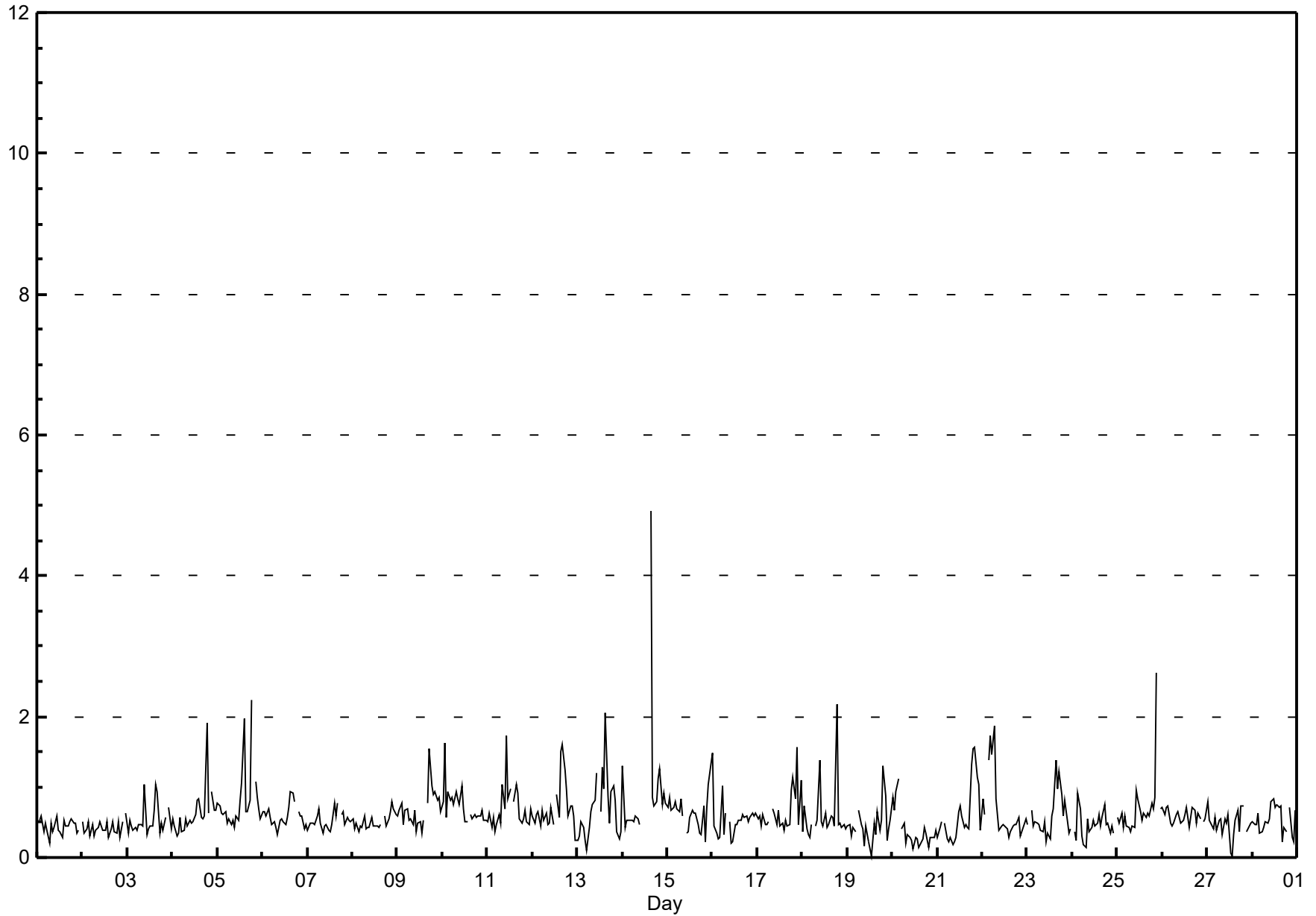
Hydrogen Sulphide (H₂S) - ppb

Valleyview - February 2018

Maximum Value: 4.9 ppb on Feb 14 16:00		Maximum Daily Average: 1.0 ppb on Feb 14		Hours in Service: 672																						
Minimum Value: 0 ppb on Feb 27 14:00		Minimum Daily Average: 0.4 ppb on Feb 20		Hours of Data: 638																						
Maximum Diurnal Average: 0.9 ppb at hour 16		Minimum Diurnal Average: 0.5 ppb at hour 12		Hours of Missing Data: 34																						
Monthly Average: 0.60 ppb		Percentiles: P ₁ = 0.1 P ₁₀ = 0.3 Q ₁ = 0.4 Median = 0.5 Q ₃ = 0.7 P ₉₀ = 0.9 P ₉₉ = 1.9		Hours of Calibration: 34																						
				Percent Operational Time: 100.0																						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Feb	A	1	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	1	0	0	0	0	A		
2-Feb	1	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	1	0	0	1	0	1	A	1		
3-Feb	0	1	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	0	0	1	A	1	0		
4-Feb	1	0	0	0	1	0	0	1	0	1	0	1	1	1	1	1	1	1	2	1	A	1	1	1		
5-Feb	1	1	1	1	1	0	1	0	1	0	1	1	1	1	2	1	1	1	2	A	1	1	1	1		
6-Feb	1	1	1	1	1	0	1	0	0	1	1	1	0	1	1	1	1	1	A	1	1	1	0	0		
7-Feb	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	1	1	A	1	1	0	1	1	1		
8-Feb	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1	1	1	1		
9-Feb	1	1	1	0	1	1	1	1	0	1	0	0	0	0	1	A	1	2	1	1	1	1	1	1		
10-Feb	1	2	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1		
11-Feb	1	1	0	1	0	0	1	0	1	1	2	1	1	A	1	1	1	1	0	1	1	1	0	1		
12-Feb	1	0	1	1	0	1	1	1	0	0	1	0	A	1	1	1	2	1	1	1	1	1	0	0		
13-Feb	0	0	1	0	0	0	0	1	1	1	1	A	1	1	1	2	1	0	1	1	1	0	0	0		
14-Feb	1	0	1	1	1	1	0	1	1	0	A	C	C	C	C	5	1	1	1	1	1	1	1	1		
15-Feb	1	1	1	1	1	1	1	1	1	1	A	0	0	1	1	1	0	0	0	1	0	1	1	1		
16-Feb	1	0	0	0	0	1	0	1	A	1	0	0	0	0	1	1	1	1	1	1	1	1	1	1		
17-Feb	1	1	0	1	0	0	1	A	1	1	0	1	0	0	0	1	0	0	1	1	1	2	0	1		
18-Feb	0	1	0	0	0	0	A	1	0	1	1	0	1	0	0	1	1	0	2	0	0	0	0	0		
19-Feb	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	1	0	1	1	1	0	0	1		
20-Feb	1	1	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
21-Feb	0	0	1	A	0	0	0	0	0	0	0	1	1	1	0	0	0	0	1	2	2	1	1	0		
22-Feb	1	1	A	1	2	1	2	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1		
23-Feb	0	A	1	0	0	0	0	0	0	1	0	0	0	1	1	1	1	1	1	1	1	1	0	0		
24-Feb	A	0	0	1	1	0	0	0	1	0	0	1	0	0	1	0	1	1	0	0	0	0	0	A		
25-Feb	1	0	1	0	1	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	3	A	1		
26-Feb	1	1	1	1	0	0	0	1	1	1	0	1	1	1	0	1	1	1	0	1	1	A	1	1		
27-Feb	1	1	0	0	1	0	1	1	0	1	0	1	0	0	0	1	1	0	1	1	A	0	0	0		
28-Feb	1	0	0	1	0	0	0	1	0	1	1	1	1	1	1	1	0	0	0	A	1	0	0	1		
	0.6	0.6	0.5	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.5	0.5	0.5	0.6	0.9	0.7	0.6	0.8	0.7	0.7	0.7	0.5	0.6	Diurnal Average	
	1.5	1.6	0.9	1.4	1.7	1.5	1.9	0.9	1.0	1.4	1.7	0.8	1.0	1.3	2.0	4.9	1.6	1.6	2.2	1.6	1.6	2.6	1.0	1.3	Diurnal Maximum	
C - Calibration																								A - Automated Daily Zero Span		

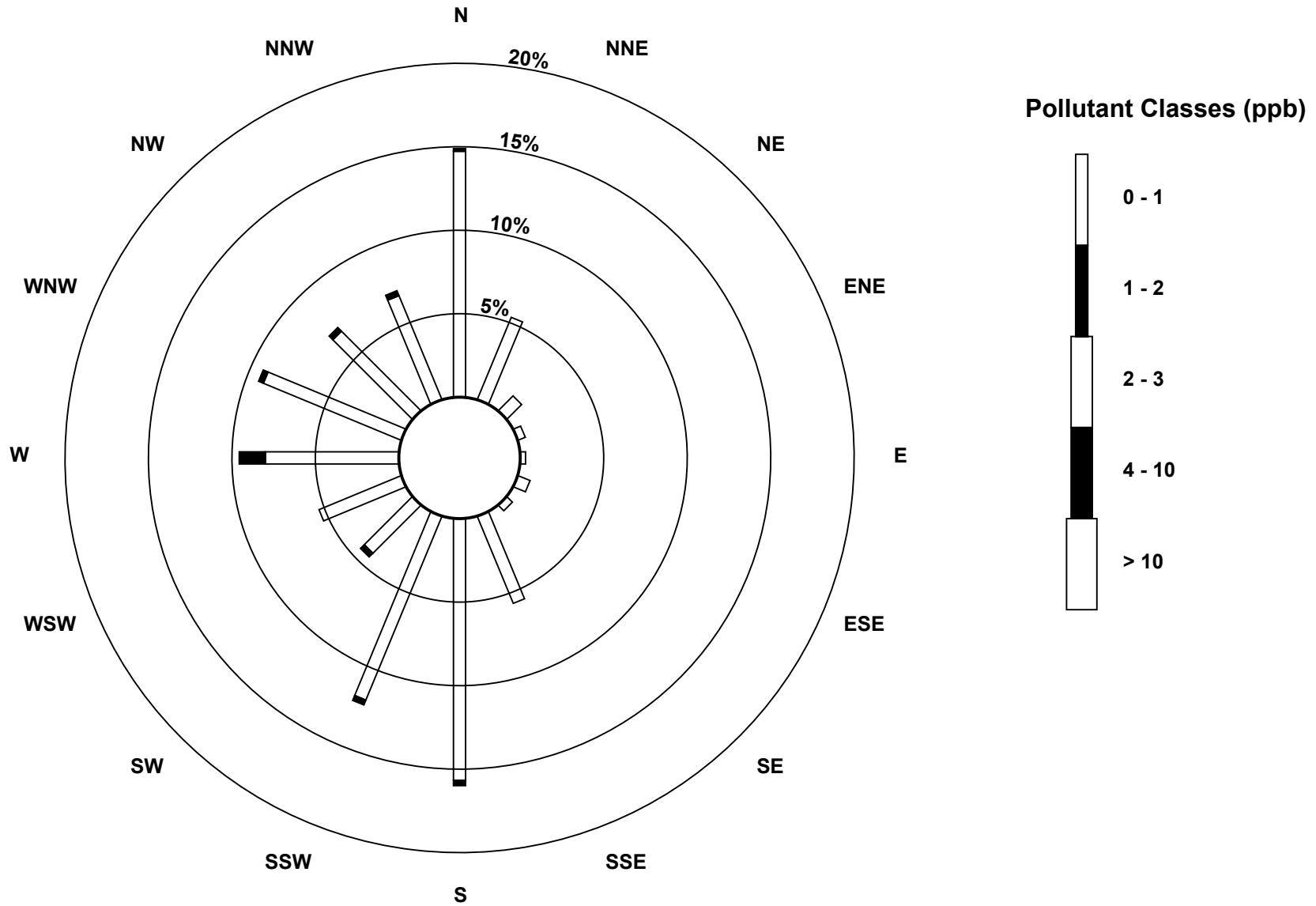
Hourly Maximums

Hydrogen Sulphide (H₂S) - ppb
Valleyview - February 2018



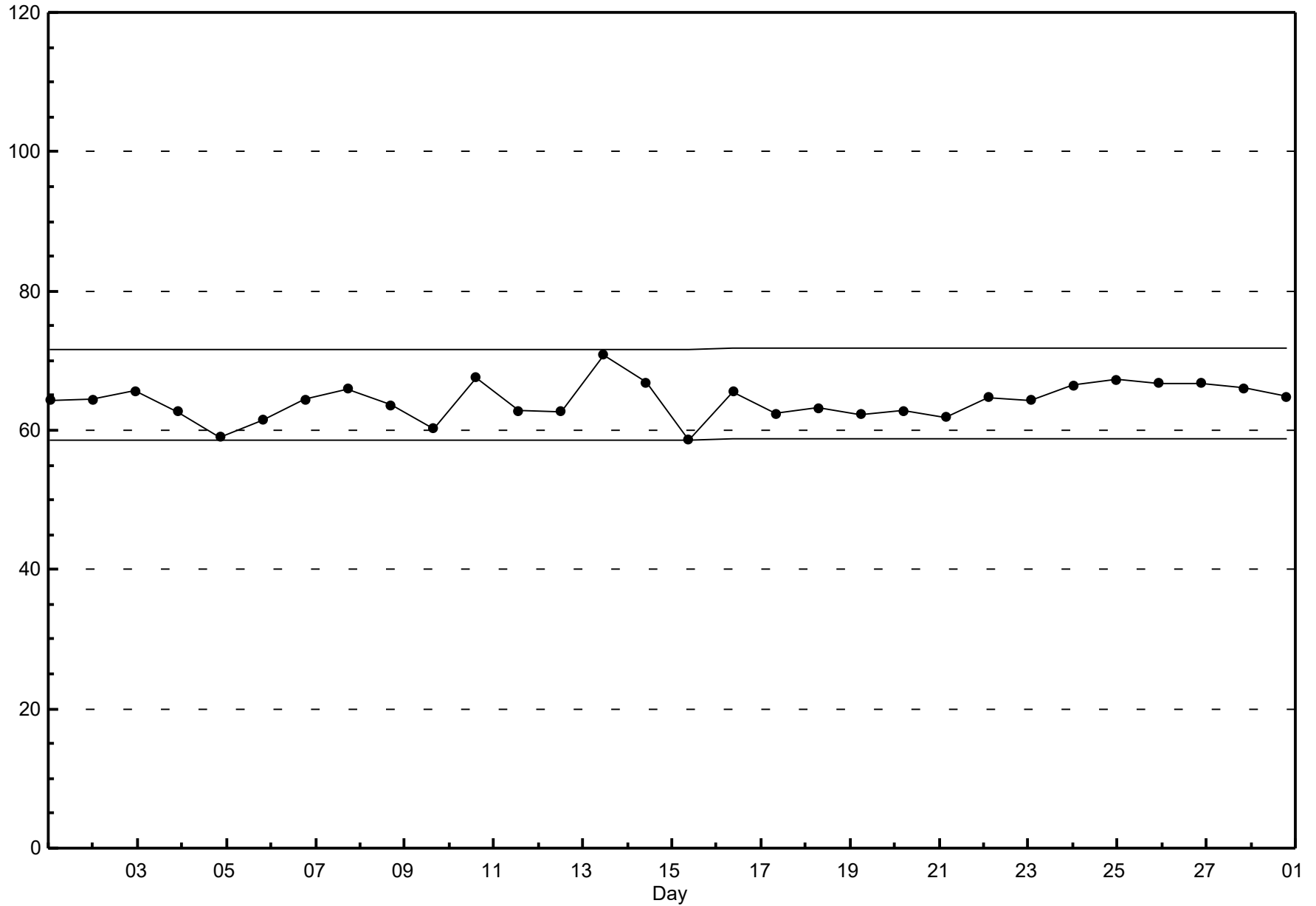
Pollutant Rose

Hydrogen Sulphide (H₂S) - ppb
Valleyview - February 2018



Span Responses

Hydrogen Sulphide (H₂S)
Valleyview - February 2018



Hourly Averages

External Temperature (ET) - °C

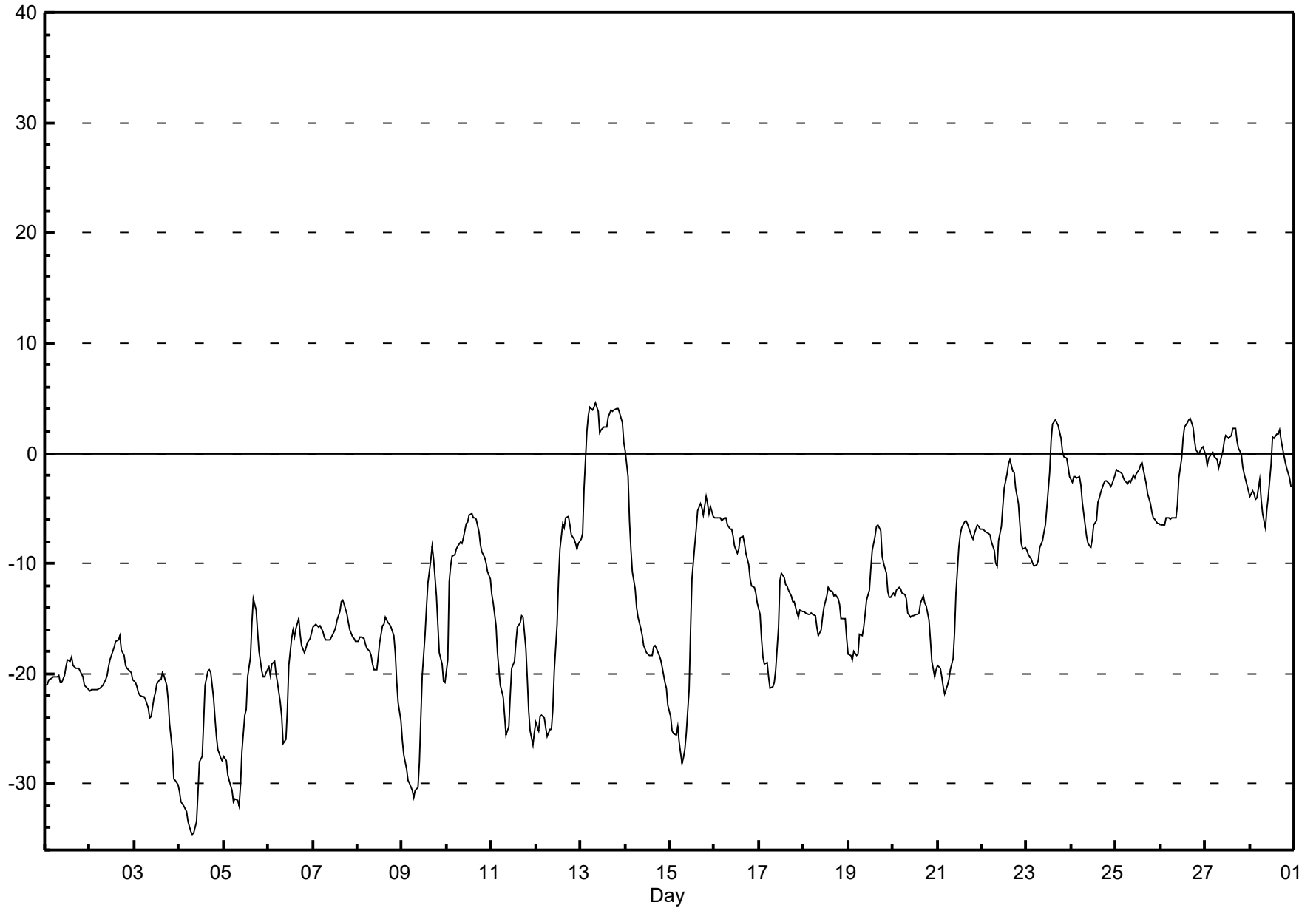
Valleyview - February 2018

Maximum Value: 4.6 °C on Feb 13 09:00 Maximum Daily Average: 2.1 °C on Feb 13																			Hours in Service: 672 Hours of Data: 672							
Minimum Value: -35 °C on Feb 4 08:00 Minimum Daily Average: -28.1 °C on Feb 4 Maximum Diurnal Average: -8.7 °C at hour 17 Minimum Diurnal Average: -16.3 °C at hour 9 Monthly Average: -12.88 °C Percentiles: P ₁ = -32.1 P ₁₀ = -24.0 Q ₁ = -19.6 Median = -13.8 Q ₃ = -5.9 P ₉₀ = -0.5 P ₉₉ = 4.0																			Hours of Missing Data: 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-Feb	-21	-21	-21	-20	-20	-20	-20	-20	-21	-21	-20	-19	-19	-19	-18	-19	-19	-20	-20	-20	-20	-21	-21	-21	-20.1	-18.5
2-Feb	-22	-21	-21	-21	-21	-21	-21	-21	-21	-20	-19	-19	-18	-18	-17	-17	-17	-18	-18	-19	-20	-20	-20	-21	-19.6	-16.6
3-Feb	-21	-21	-22	-22	-22	-22	-22	-23	-24	-24	-22	-22	-21	-21	-20	-20	-20	-21	-22	-25	-27	-30	-30	-30	-23.1	-19.9
4-Feb	-31	-32	-32	-32	-33	-33	-34	-35	-34	-33	-31	-28	-27	-24	-21	-20	-20	-20	-22	-24	-26	-27	-28	-28	-28.1	-19.6
5-Feb	-27	-28	-29	-30	-31	-32	-31	-32	-32	-30	-27	-24	-23	-20	-19	-15	-13	-14	-16	-18	-20	-20	-20	-20	-23.8	-13.2
6-Feb	-19	-20	-19	-19	-20	-21	-23	-24	-26	-26	-23	-19	-17	-16	-17	-16	-15	-16	-17	-18	-18	-17	-17	-16	-19.2	-15.0
7-Feb	-16	-16	-16	-16	-16	-16	-17	-17	-17	-17	-17	-16	-16	-15	-14	-13	-13	-14	-15	-15	-16	-17	-17	-17	-15.7	-13.4
8-Feb	-17	-17	-17	-17	-17	-18	-18	-18	-19	-20	-20	-18	-17	-16	-15	-15	-15	-16	-16	-17	-18	-21	-23	-24	-17.8	-14.9
9-Feb	-26	-27	-29	-30	-30	-31	-31	-31	-30	-28	-24	-20	-16	-14	-12	-10	-8	-10	-13	-16	-18	-19	-21	-21	-21.4	-8.5
10-Feb	-19	-12	-10	-9	-9	-9	-8	-8	-8	-8	-6	-6	-6	-5	-6	-6	-6	-7	-8	-9	-9	-10	-11	-11	-8.6	-5.5
11-Feb	-13	-14	-16	-18	-20	-21	-22	-24	-26	-25	-22	-19	-19	-17	-16	-15	-15	-15	-18	-20	-23	-25	-27	-25	-19.7	-12.8
12-Feb	-24	-25	-24	-24	-24	-25	-26	-25	-25	-23	-20	-16	-12	-9	-6	-7	-6	-6	-7	-7	-8	-8	-9	-8	-15.5	-5.8
13-Feb	-8	-7	-3	2	3	4	4	4	5	4	2	2	2	2	3	4	4	4	4	4	4	4	3	1	2.1	4.6
14-Feb	0	-2	-6	-9	-11	-12	-14	-15	-16	-17	-18	-18	-18	-18	-18	-17	-18	-18	-19	-19	-21	-21	-23	-15.2	0.2	
15-Feb	-24	-25	-25	-26	-25	-26	-28	-28	-27	-25	-21	-16	-11	-8	-7	-5	-5	-5	-6	-4	-5	-5	-6	-6	-15.3	-4.0
16-Feb	-6	-6	-6	-6	-6	-6	-6	-7	-7	-7	-8	-8	-9	-9	-8	-8	-8	-9	-10	-11	-12	-12	-13	-14	-8.3	-5.8
17-Feb	-15	-17	-19	-19	-19	-20	-21	-21	-21	-20	-16	-12	-11	-11	-12	-12	-12	-13	-13	-13	-15	-15	-14	-14	-15.6	-10.9
18-Feb	-14	-14	-15	-15	-15	-15	-15	-16	-17	-16	-15	-14	-13	-12	-12	-13	-13	-13	-13	-14	-15	-15	-17	-17	-14.3	-12.1
19-Feb	-18	-18	-19	-18	-18	-18	-16	-17	-16	-15	-13	-12	-10	-9	-8	-7	-6	-7	-9	-10	-11	-13	-13	-13	-13.1	-6.5
20-Feb	-13	-13	-12	-12	-12	-13	-13	-13	-14	-15	-15	-15	-15	-15	-14	-14	-13	-14	-14	-15	-17	-19	-20	-20	-14.5	-12.1
21-Feb	-19	-19	-20	-21	-22	-21	-21	-20	-19	-16	-13	-9	-7	-7	-6	-6	-6	-7	-7	-8	-7	-7	-7	-7	-12.6	-6.2
22-Feb	-7	-7	-7	-7	-7	-8	-9	-10	-10	-8	-7	-5	-3	-2	-1	-1	-2	-2	-3	-5	-6	-8	-9	-9	-5.9	-0.5
23-Feb	-9	-9	-10	-10	-10	-10	-10	-9	-8	-7	-6	-5	-2	1	3	3	3	3	1	0	0	0	-1	-2	-4.0	3.0
24-Feb	-3	-2	-2	-2	-2	-3	-4	-6	-8	-8	-9	-8	-6	-6	-4	-4	-4	-3	-2	-2	-3	-3	-3	-2	-4.2	-2.0
25-Feb	-1	-2	-2	-2	-2	-3	-3	-2	-3	-2	-2	-2	-1	-1	-1	-2	-3	-4	-5	-5	-6	-6	-6	-6	-3.0	-0.8
26-Feb	-6	-6	-6	-6	-6	-6	-6	-6	-6	-5	-2	0	1	2	3	3	3	2	1	0	0	0	0	1	-1.8	3.2
27-Feb	0	-1	0	0	0	0	-1	-1	-1	0	1	2	1	2	2	2	2	1	0	0	-1	-2	-3	-3	0.0	2.3
28-Feb	-4	-3	-4	-4	-4	-2	-4	-6	-7	-5	-4	-1	1	1	2	2	2	1	0	-1	-1	-2	-3	-3	-2.0	2.1
																								Diurnal Average		
																								Diurnal Maximum		

Hourly Averages

External Temperature (ET) - °C

Valleyview - February 2018



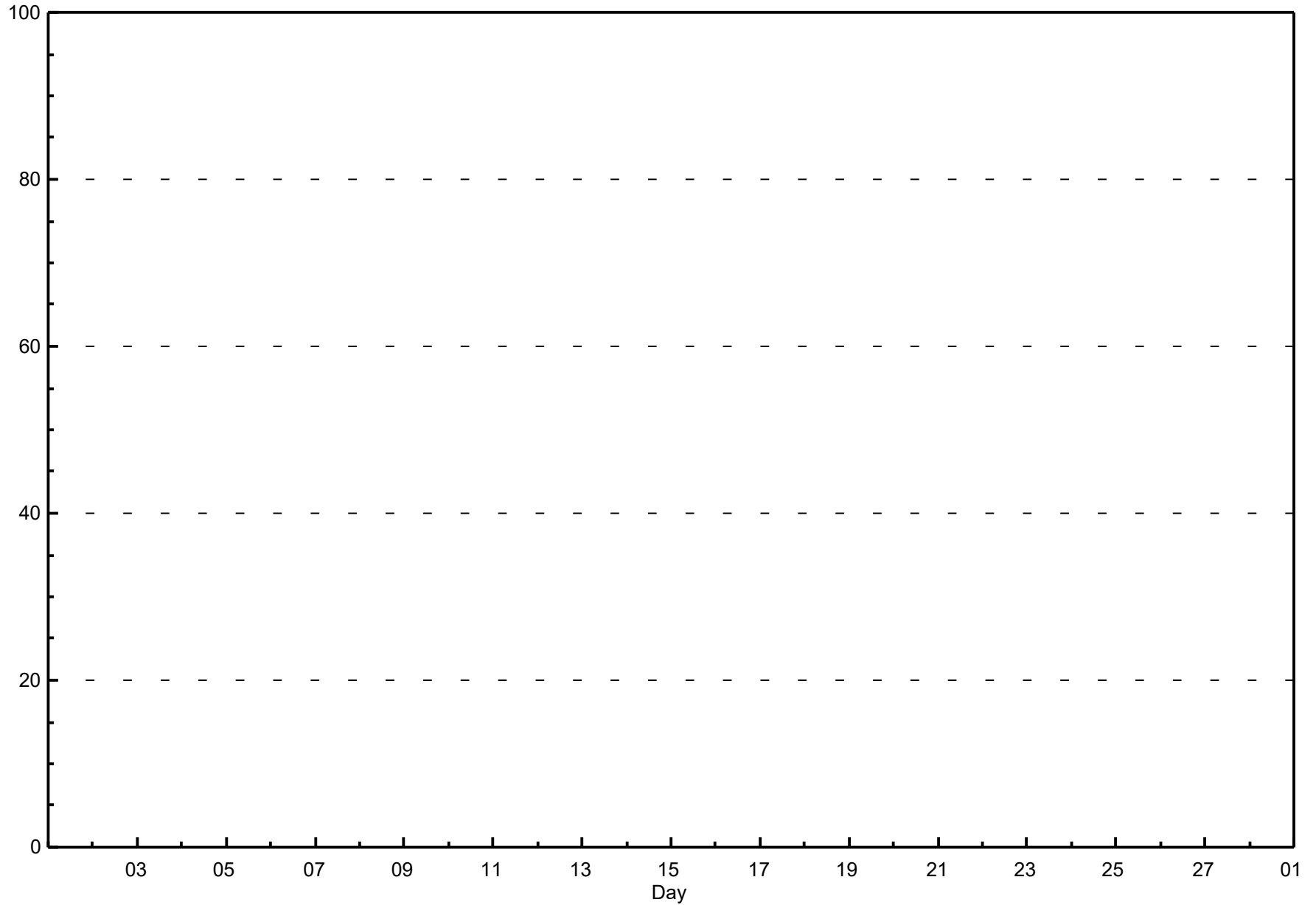
Hourly Averages

Relative Humidity (RH) - %
Valleyview - February 2018

Maximum Value: -- % on Feb 1 00:00		Maximum Daily Average: -- % on Jan 31		Hours in Service: 672																								
Minimum Value: -- % on Feb 1 00:00		Minimum Daily Average: -- % on Jan 31		Hours of Data: 0																								
Maximum Diurnal Average: -- % at hour 0		Minimum Diurnal Average: -- % at hour 0		Hours of Missing Data: 672																								
Monthly Average: -- %		Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.0 Q ₃ = 0.0 P ₉₀ = 0.0 P ₉₉ = 0.0		Hours of Calibration: 0																								
				Percent Operational Time: 0.0																								
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
1-Feb	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--	
2-Feb	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	N	--	--
3-Feb	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	N	--	--
4-Feb	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	N	--	--
5-Feb	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	N	--	--
6-Feb	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	N	--	--
7-Feb	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	N	--	--
8-Feb	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	N	--	--
9-Feb	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	N	--	--
10-Feb	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	N	--	--
11-Feb	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	N	--	--
12-Feb	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	N	--	--
13-Feb	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	N	--	--
14-Feb	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	N	--	--
15-Feb	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	N	--	--
16-Feb	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	N	--	--
17-Feb	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	N	--	--
18-Feb	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	N	--	--
19-Feb	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	N	--	--
20-Feb	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	N	--	--
21-Feb	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	N	--	--
22-Feb	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	N	--	--
23-Feb	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	N	--	--
24-Feb	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	N	--	--
25-Feb	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	N	--	--
26-Feb	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	N	--	--
27-Feb	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	N	--	--
28-Feb	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	N	--	--
																								--	--			
																								--	--			
																								Diurnal Average				
																								Diurnal Maximum				
N - Not Valid																												

Hourly Averages

**Relative Humidity (RH) - %
Valleyview - February 2018**



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Valleyview - February 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	4	3	1	1	1	1	0	0	2	2	1	1	1	2	2	3	3	3	4	4	3	3	3	3	1.8	4.2
Dir	349	342	10	40	28	19	22	335	294	274	300	355	359	356	9	327	312	321	342	354	33	25	25	14	351	354
2 Spd	3	2	2	2	2	2	2	2	3	3	4	7	4	5	4	4	2	5	7	8	8	9	11	12	3.2	11.9
Dir	0	8	22	20	27	28	17	23	36	39	90	118	116	115	110	109	65	19	11	359	352	0	353	342	25	342
3 Spd	10	7	8	6	5	6	6	3	4	1	1	3	6	8	7	5	5	4	1	1	0	1	2	3	3.7	9.5
Dir	334	319	316	311	312	324	325	309	305	300	230	250	283	280	281	284	274	253	223	194	209	181	205	212	296	334
4 Spd	2	1	2	2	1	1	1	1	1	1	2	1	2	1	0	1	2	0	0	1	1	1	0	2	0.7	2.2
Dir	213	201	221	196	210	199	209	217	236	209	181	335	347	298	305	12	256	196	321	177	189	174	180	193	219	196
5 Spd	1	1	1	1	0	1	1	0	1	1	0	1	3	2	4	2	1	3	1	1	1	1	1	1	0.5	4.1
Dir	182	193	200	194	190	202	193	232	199	217	221	352	336	341	332	327	39	323	315	331	13	128	164	253	313	332
6 Spd	1	1	2	0	1	1	1	1	1	1	1	1	2	1	2	1	2	4	2	2	2	3	2	2	0.7	3.6
Dir	267	228	287	192	162	164	187	187	187	195	160	168	173	315	319	342	359	343	348	360	352	339	20	7	332	343
7 Spd	4	5	6	6	5	6	6	4	3	2	2	3	4	5	5	6	7	6	6	6	6	6	6	7	5.0	7.1
Dir	4	6	357	2	351	4	3	359	1	358	8	332	332	334	347	344	357	2	7	9	5	1	9	6	358	2
8 Spd	7	6	7	8	8	9	6	6	3	3	4	4	6	6	10	7	7	4	2	1	0	1	1	1	4.5	10.2
Dir	6	9	0	3	3	10	2	11	12	23	16	1	343	333	340	336	335	9	27	289	201	168	188	181	357	340
9 Spd	0	0	0	0	0	0	1	1	1	2	4	3	2	3	3	2	1	0	0	0	0	1	0	1	1.1	3.6
Dir	197	204	187	202	254	59	178	195	205	186	170	160	168	148	160	175	214	189	218	205	198	190	175	228	175	170
10 Spd	2	8	6	5	12	12	7	6	7	4	6	9	6	8	7	5	3	5	9	8	8	11	13	12	5.5	13.0
Dir	198	265	284	273	266	284	280	287	267	270	283	305	315	333	323	321	347	346	3	17	2	7	5	8	318	5
11 Spd	16	13	13	12	6	3	2	0	1	0	0	2	2	2	1	3	2	1	1	0	1	1	1	1	3.0	15.8
Dir	23	23	355	357	4	329	327	188	183	197	151	358	9	345	350	345	359	5	337	168	187	218	181	210	4	23
12 Spd	1	1	3	2	1	1	1	2	2	4	3	4	2	3	2	2	1	2	1	2	2	2	2	3	1.8	3.9
Dir	204	237	192	205	205	261	213	221	206	190	177	183	185	185	214	16	222	195	208	211	202	214	206	193	200	190
13 Spd	3	3	3	3	8	14	10	11	14	18	11	2	2	4	11	12	17	20	14	14	11	9	13	10	9.2	19.7
Dir	192	181	211	255	323	314	309	279	275	274	274	228	238	264	273	277	276	274	276	278	287	293	298	291	281	274
14 Spd	7	19	25	24	22	20	20	16	14	12	13	11	10	10	8	5	4	1	1	1	1	0	1	1	10.1	25.2
Dir	297	349	359	0	0	359	358	357	357	359	10	5	18	9	351	4	353	10	308	179	185	175	185	182	358	359
15 Spd	1	0	1	2	1	0	1	1	1	2	3	3	3	3	3	3	1	3	12	13	8	9	7	7	2.3	13.2
Dir	174	183	181	206	210	221	189	196	209	197	184	182	178	162	168	165	168	190	248	283	287	288	279	277	248	287
16 Spd	5	3	1	4	4	3	1	3	9	10	14	14	13	8	7	12	11	13	11	6	6	1	1	1	5.4	14.3
Dir	274	254	225	242	242	258	351	336	334	353	355	2	12	13	345	322	312	338	332	318	299	332	166	183	333	2
17 Spd	1	1	1	1	1	1	2	1	1	1	1	1	9	9	11	11	12	6	2	2	3	5	6	8	2.4	11.6
Dir	145	171	177	164	192	185	190	188	183	181	161	350	1	16	14	16	7	11	343	279	281	283	293	286	347	7
18 Spd	5	6	8	8	7	8	9	9	7	6	8	7	5	8	12	12	7	6	4	4	2	5	3	2	6.0	11.6
Dir	308	288	302	304	296	293	303	314	306	295	317	331	311	307	312	321	326	306	279	243	220	247	240	171	302	312
19 Spd	2	1	2	2	2	2	2	3	3	3	5	9	4	9	10	8	7	6	5	7	3	4	5	2	3.1	9.8
Dir	137	177	152	160	158	146	206	165	165	176	269	264	282	269	270	288	297	293	293	274	290	295	305	277	266	270
20 Spd	8	9	10	12	11	9	7	7	7	7	7	9	8	7	5	1	0	2	2	1	0	0	1	1	3.7	11.9
Dir	277	274	276	280	309	307	289	311	16	3	3	1	14	15	7	43	248	224	186	152	148	191	192	197	318	280
21 Spd	1	1	0	0	0	1	3	3	2	2	3	5	7	10	12	11	9	9	6	7	10	10	10	9	4.7	12.4
Dir	205	192	221	251	213	214	200	186	184	181	166	266	269	286	284	284	300	307	291	272	278	278	284	297	276	284
22 Spd	9	10	9	8	8	9	6	1	1	2	5	4	6	6	6	5	8	3	3	2	2	2	4	6	3.6	9.5
Dir	293	286	284	288	282	277	276	152	168	180	235	204	174	179	182	206	241	200	181	194	212	201	186	177	240	286

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Valleyview - February 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	7	5	5	5	5	5	3	5	4	3	4	3	1	4	10	11	11	8	8	7	9	8	7	2	3.9	10.6
Dir	170	173	172	172	174	176	178	174	175	179	180	182	181	270	278	281	278	282	284	263	266	258	251	238	236	278
24 Spd	6	2	1	6	7	10	9	11	7	9	10	6	4	2	1	3	3	2	3	1	1	1	2	3	2.9	10.8
Dir	251	227	235	269	293	322	346	0	0	356	358	1	326	346	352	340	331	179	181	157	209	190	197	196	328	0
25 Spd	3	4	4	3	2	4	2	2	2	5	9	8	8	9	9	7	7	5	3	2	1	1	1	2.2	9.5	
Dir	175	168	174	174	173	172	201	197	191	251	278	286	296	311	307	352	1	3	2	339	292	228	210	205	295	278
26 Spd	2	1	1	3	2	3	3	3	3	2	5	8	13	15	15	12	10	7	4	4	4	3	3	13	4.8	15.1
Dir	174	182	165	169	191	179	169	159	175	181	238	251	265	262	248	259	258	241	212	197	181	200	187	270	238	262
27 Spd	14	7	7	6	5	6	9	2	10	14	17	20	17	16	13	9	9	6	7	8	4	7	2	3	7.5	20.4
Dir	261	215	186	188	195	224	240	206	244	258	268	283	297	298	304	301	304	251	262	255	235	246	179	163	263	283
28 Spd	2	3	2	1	3	5	2	2	2	2	1	2	2	5	5	3	3	4	3	2	2	2	2	3	0.5	5.1
Dir	175	186	190	176	228	246	203	193	170	184	168	154	81	37	1	5	14	43	60	52	25	347	4	35	45	246
Spd	1.9	1.9	2.1	2.2	2.5	3.0	2.4	1.7	1.7	1.9	2.3	2.6	2.9	3.5	4.5	4.3	4.0	3.2	2.4	2.4	2.4	2.2	2.0	2.0	Diurnal Average	
Dir	294	300	309	307	306	306	305	314	300	292	299	306	318	313	307	314	308	312	310	294	294	295	298	291	Diurnal Maximum	
Spd	15.8	19.2	25.2	23.7	21.7	19.6	19.8	15.8	14.5	17.8	17.3	20.4	17.2	16.4	15.0	12.1	17.5	19.7	14.2	13.6	13.2	11.4	13.0	13.2	Diurnal Maximum	
Dir	23	349	359	0	0	359	358	357	357	274	268	283	297	298	248	277	276	274	276	278	287	7	5	270	Diurnal Maximum	
Maximum Speed Value: 25 km/h on Feb 14 03:00																		Minimum Speed Value: 0 km/h on Feb 9 06:00						Hours in Service: 672		
Maximum Daily Speed Average: 10.1 km/h on Feb 14																		Minimum Daily Speed Average: 0.5 km/h on Feb 4						Hours of Data: 672		
Maximum Diurnal Speed Average: 4.5 km/h at hour 15																		Minimum Diurnal Speed Average: 1.7 km/h at hour 8						Hours of Missing Data: 0		
Monthly Average Velocity: 2.55 km/h 305.1 deg																		Speed Percentiles: P ₁ = 0.2 P ₁₀ = 0.8 Q ₁ = 1.5 Median = 3.2 Q ₃ = 7.2 P ₉₀ = 10.5 P ₉₉ = 19.3						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	65	62	18	6	0	0	151																			
NorthEast	22	0	2	0	0	0	24																			
East	4	0	0	0	0	0	4																			
SouthEast	14	1	0	0	0	0	15																			
South	170	11	0	0	0	0	181																			
SouthWest	73	9	0	0	0	0	82																			
West	29	62	23	2	0	0	116																			
NorthWest	34	56	9	0	0	0	99																			
Total	411	201	52	8	0	0	672																			

Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Valleyview - February 2018

Maximum Speed: 25 km/h on Feb 14 03:00	Maximum Daily Speed Average: 10.8 km/h on Feb 14	Hours in Service: 672
Minimum Speed: 0 km/h on Feb 9 06:00	Minimum Daily Speed Average: 1.2 km/h on Feb 9	Hours of Data: 672
Maximum Diurnal Speed Average: 7.0 km/h at hour 15	Minimum Diurnal Speed Average: 4.0 km/h at hour 21	Hours of Missing Data: 0
Monthly Average Speed: 4.95 km/h	Percentiles: P ₁ = 0.3 P ₁₀ = 0.9 Q ₁ = 1.7 Median = 3.4 Q ₃ = 7.3 P ₉₀ = 10.7 P ₉₉ = 19.8	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-Feb	4	3	1	1	1	1	0	0	2	2	1	1	1	2	2	3	3	3	4	4	3	3	3	3	2.2	4.3
2-Feb	3	2	2	2	2	2	2	2	3	3	5	7	4	5	5	4	3	5	7	9	8	9	11	12	4.8	12.0
3-Feb	10	7	8	6	6	7	6	4	4	2	1	4	7	8	8	6	6	4	1	1	0	1	2	3	4.5	9.6
4-Feb	2	1	2	2	1	1	1	1	1	1	2	2	2	2	1	2	2	0	1	1	1	1	0	2	1.3	2.4
5-Feb	1	1	1	1	0	1	1	0	1	1	1	1	3	3	4	3	1	4	2	2	2	1	1	1	1.4	4.2
6-Feb	1	1	2	1	1	1	1	1	1	1	1	1	2	2	3	2	2	4	3	2	3	4	2	2	1.8	3.6
7-Feb	4	5	6	6	5	6	6	5	3	3	2	3	4	5	5	5	6	7	6	6	6	6	6	7	5.1	7.2
8-Feb	7	6	7	8	8	9	6	6	3	3	4	4	6	6	10	7	7	4	2	2	0	1	1	1	4.9	10.2
9-Feb	0	0	0	0	0	0	1	1	1	2	4	3	2	3	3	2	1	0	0	1	1	1	0	1	1.2	3.7
10-Feb	2	9	6	6	12	12	7	6	7	5	6	10	6	8	8	5	3	5	9	8	8	11	13	12	7.7	13.1
11-Feb	16	13	13	12	7	4	2	1	1	0	0	2	2	2	2	3	2	2	1	0	1	1	1	1	3.7	16.0
12-Feb	1	1	3	2	1	1	1	2	2	4	3	4	2	3	2	2	1	2	1	2	2	2	2	3	2.1	3.9
13-Feb	3	3	3	4	9	15	11	11	14	18	11	2	2	4	11	12	18	20	14	14	12	9	13	10	10.1	19.9
14-Feb	7	20	25	24	22	20	20	16	15	13	13	12	11	10	10	8	5	4	1	1	1	1	1	1	10.8	25.3
15-Feb	1	1	2	2	1	0	1	1	1	2	3	3	3	3	3	3	3	1	4	12	13	9	9	7	3.7	13.4
16-Feb	5	3	1	4	5	4	1	3	9	10	14	15	13	9	7	12	11	13	11	6	6	2	1	2	7.0	14.5
17-Feb	1	1	1	1	1	1	2	1	1	1	1	2	10	10	11	12	12	6	3	2	3	5	6	8	4.3	11.7
18-Feb	5	7	9	8	8	8	9	9	7	6	8	7	5	8	12	12	7	6	4	4	2	5	4	2	6.7	12.3
19-Feb	2	1	2	2	2	3	3	3	3	3	5	9	5	9	10	8	7	6	5	7	4	5	5	3	4.7	10.1
20-Feb	8	9	10	12	11	9	7	8	7	7	7	9	8	7	5	2	1	2	3	1	0	0	1	1	5.6	12.0
21-Feb	1	1	0	0	0	1	3	3	2	2	3	5	7	10	13	12	9	9	6	8	10	11	10	9	5.7	12.7
22-Feb	9	10	10	9	8	9	6	1	1	2	5	5	6	6	6	6	9	3	3	2	2	2	4	6	5.4	9.6
23-Feb	7	6	5	5	6	5	3	5	4	3	4	3	1	5	10	11	11	8	9	7	9	8	7	2	5.9	10.8
24-Feb	6	2	1	7	7	10	9	11	8	9	10	7	4	2	2	3	3	2	3	1	2	1	2	3	4.7	10.9
25-Feb	3	4	4	3	2	4	3	2	2	5	10	8	8	9	9	10	7	7	5	3	2	1	1	1	4.8	9.9
26-Feb	2	1	1	3	2	3	3	3	3	2	6	8	14	15	15	12	10	7	4	4	4	3	3	14	5.9	15.4
27-Feb	15	9	7	6	5	6	9	3	10	15	18	21	18	17	14	10	10	6	7	8	4	7	2	3	9.4	20.6
28-Feb	2	3	2	1	3	5	2	2	2	2	1	2	3	5	6	6	3	3	4	3	2	2	3	3	2.9	5.6
	4.5	4.6	4.9	4.9	4.9	5.3	4.5	4.0	4.1	4.5	5.3	5.6	5.8	6.4	7.0	6.5	5.8	5.1	4.3	4.3	4.0	4.0	4.1	4.4	Diurnal Average	
	16.0	20.0	25.3	23.8	21.9	19.8	20.0	15.9	14.6	17.9	17.5	20.6	17.7	16.7	15.2	12.3	17.7	19.9	14.4	13.8	13.4	11.5	13.1	13.8	Diurnal Maximum	

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

Hourly Standard Deviations

Wind Direction (WD) - deg
Valleyview - February 2018

Maximum Value: 94.1 deg on Feb 6 04:00																								Hours in Service:	672
Minimum Value: 3.2 deg on Feb 8 15:00																								Hours of Data:	672
Percentiles: P ₁ = 5.4 P ₁₀ = 8.1 Q ₁ = 10.0 Median = 14.0 Q ₃ = 24.4 P ₉₀ = 43.4 P ₉₉ = 80.4																								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-Feb	16	11	23	20	19	12	21	39	19	17	21	30	28	17	26	30	17	20	9	13	18	11	11	13	39.4
2-Feb	16	14	14	12	14	14	14	13	9	12	34	8	11	11	20	24	38	11	11	9	17	8	8	7	37.9
3-Feb	8	9	9	13	11	8	8	16	12	87	62	22	33	18	15	16	24	11	22	22	16	15	6	7	86.7
4-Feb	9	25	13	5	26	19	43	52	57	74	21	88	34	47	50	79	29	43	68	15	21	26	33	15	88.0
5-Feb	16	18	13	18	45	20	9	24	10	28	55	90	12	10	10	43	79	21	79	68	53	74	36	60	90.2
6-Feb	45	54	29	94	22	22	22	32	23	33	35	18	35	87	14	29	49	9	21	11	30	24	12	20	94.1
7-Feb	12	11	9	8	10	8	10	12	20	30	25	15	6	10	10	8	6	6	7	7	6	6	9	7	29.6
8-Feb	5	6	7	7	8	7	7	7	46	9	12	6	6	3	8	8	16	15	50	42	42	21	14	50.4	
9-Feb	19	24	23	11	66	83	28	24	14	11	10	11	23	21	21	27	57	59	56	67	45	43	70	32	83.3
10-Feb	19	13	15	18	10	17	26	26	25	66	20	21	22	14	14	18	39	21	9	10	10	8	8	10	66.3
11-Feb	8	13	11	8	8	20	60	77	44	33	71	52	25	46	22	13	23	27	25	73	19	33	18	8	77.4
12-Feb	23	30	10	14	15	39	16	16	17	6	18	9	20	17	38	63	38	11	14	16	16	17	14	8	63.2
13-Feb	11	14	32	51	65	11	16	12	8	8	11	31	28	28	12	11	9	9	10	9	11	11	11	13	64.8
14-Feb	13	23	5	7	7	8	8	7	9	11	10	9	14	9	9	12	13	13	50	36	30	24	36	25	50.3
15-Feb	36	36	27	9	9	16	18	18	22	17	11	12	12	13	26	11	13	23	41	11	10	16	12	9	40.5
16-Feb	11	12	21	12	9	39	79	25	6	12	13	10	10	12	18	8	10	5	5	12	9	87	22	35	86.9
17-Feb	64	27	17	45	24	19	12	8	49	35	33	71	28	12	12	13	9	13	37	27	16	12	12	10	70.8
18-Feb	15	9	9	11	10	9	10	7	14	15	9	14	17	14	19	10	15	9	18	19	13	17	41	17	40.8
19-Feb	15	16	13	13	12	30	16	39	25	32	46	20	48	22	13	16	12	13	12	8	43	19	44	48	48.0
20-Feb	27	10	8	10	11	15	10	26	10	9	12	14	20	17	20	47	75	28	14	35	53	20	24	14	74.9
21-Feb	11	13	13	39	30	17	7	6	5	8	10	35	23	16	12	11	12	10	14	11	8	9	10	19	39.2
22-Feb	14	8	10	10	11	9	11	37	27	15	26	28	11	8	15	25	12	14	6	10	8	9	5	6	37.3
23-Feb	6	10	6	12	8	8	13	9	8	10	7	8	11	55	15	11	9	13	13	12	9	9	9	23	55.4
24-Feb	24	14	16	19	14	10	16	10	12	8	9	16	22	20	24	13	27	51	11	49	34	12	14	16	50.7
25-Feb	13	14	6	22	14	7	33	18	16	32	11	13	13	11	10	20	9	11	8	20	10	50	19	15	49.6
26-Feb	12	13	23	50	23	11	9	6	10	8	19	17	14	13	9	14	15	14	12	9	8	12	12	20	50.0
27-Feb	12	30	7	8	8	14	10	16	10	13	10	8	13	11	11	15	30	11	10	9	9	8	18	10	30.2
28-Feb	9	14	10	33	32	11	9	10	20	20	23	12	50	16	26	31	26	15	11	18	39	52	28	12	52.1
64.3	53.7	31.6	94.1	66.5	83.3	79.1	77.4	56.9	86.7	71.2	90.2	49.9	87.5	50.0	79.2	79.1	59.4	79.2	72.8	53.4	86.9	69.7	59.7		

PAZA

Donnelly Station

Monthly Summary Tables, Graphs and
Roses

Hourly Averages

Sulphur Dioxide (SO₂) - ppb

Donnelly - February 2018

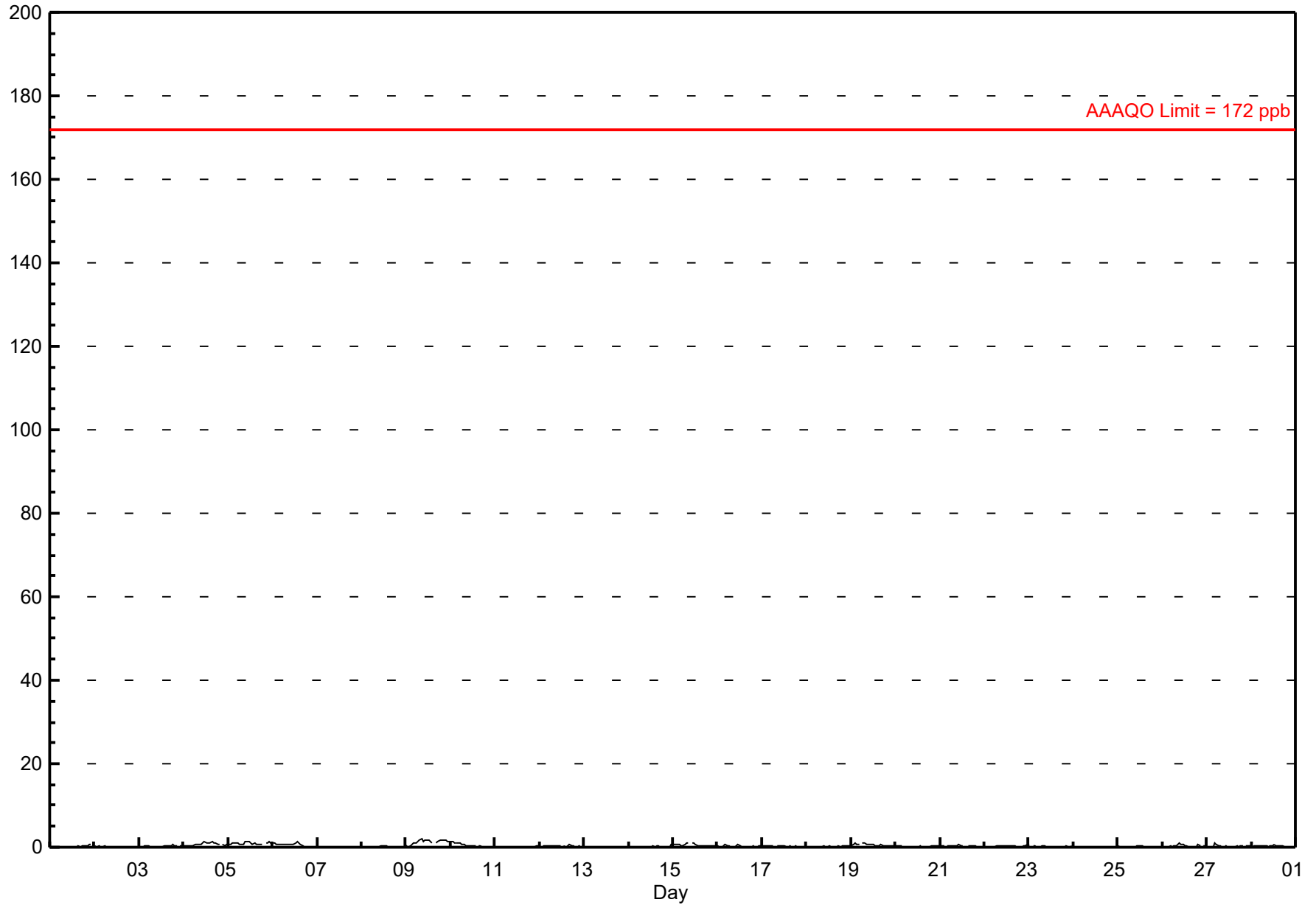
Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	672
Maximum Value: 2.0 ppb on Feb 9 09:00	Maximum Daily Average: 1.3 ppb on Feb 9		Hours of Data:	640
Minimum Value: 0 ppb on Feb 1 02:00	Minimum Daily Average: 0.0 ppb on Feb 13		Hours of Missing Data:	32
Maximum Diurnal Average: 0.4 ppb at hour 12	Minimum Diurnal Average: 0.2 ppb at hour 20		Hours of Calibration:	32
Monthly Average: 0.31 ppb	Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.2 Q ₃ = 0.4 P ₉₀ = 0.8 P ₉₉ = 1.6		Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Feb	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	A	0.2	0.7
2-Feb	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
3-Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	A	0	0	0.2	0.7
4-Feb	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.7	1.3
5-Feb	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1.0	1.5
6-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	A	0	0	0	0	0	0	0.6	1.2
7-Feb	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	0.1
8-Feb	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
9-Feb	0	0	0	1	1	1	1	2	2	1	2	2	2	1	1	A	1	1	2	2	2	2	1	1	1.3	2.0
10-Feb	1	1	1	1	1	1	1	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.5	1.4
11-Feb	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	0.2
12-Feb	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	0	0	0	0	0	0	0	0.3	0.5
13-Feb	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
14-Feb	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	0.5
15-Feb	1	1	1	1	0	0	1	1	1	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.5	1.0
16-Feb	0	0	0	0	1	0	0	0	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
17-Feb	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	0.5
18-Feb	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
19-Feb	0	1	1	1	1	A	1	1	1	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0.6	1.0
20-Feb	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
21-Feb	0	0	0	A	0	0	0	0	0	0	1	0	0	C	C	0	0	0	0	0	0	0	0	0	0.3	0.6
22-Feb	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	0.6
23-Feb	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
24-Feb	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
25-Feb	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	0.5
26-Feb	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	1	0	A	0	0	0.3	1.0
27-Feb	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.3	1.1
28-Feb	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	A	0	0	0	0	0.3	0.6
	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.4	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.3	0.3	0.3	Diurnal Average	
	1.4	1.3	1.0	1.1	1.2	1.1	1.4	1.7	2.0	1.5	1.6	1.9	1.6	1.5	1.1	1.2	1.0	1.4	1.6	1.6	1.7	1.6	1.4	1.4	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span
 Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Donnelly - February 2018



Hourly Maximums

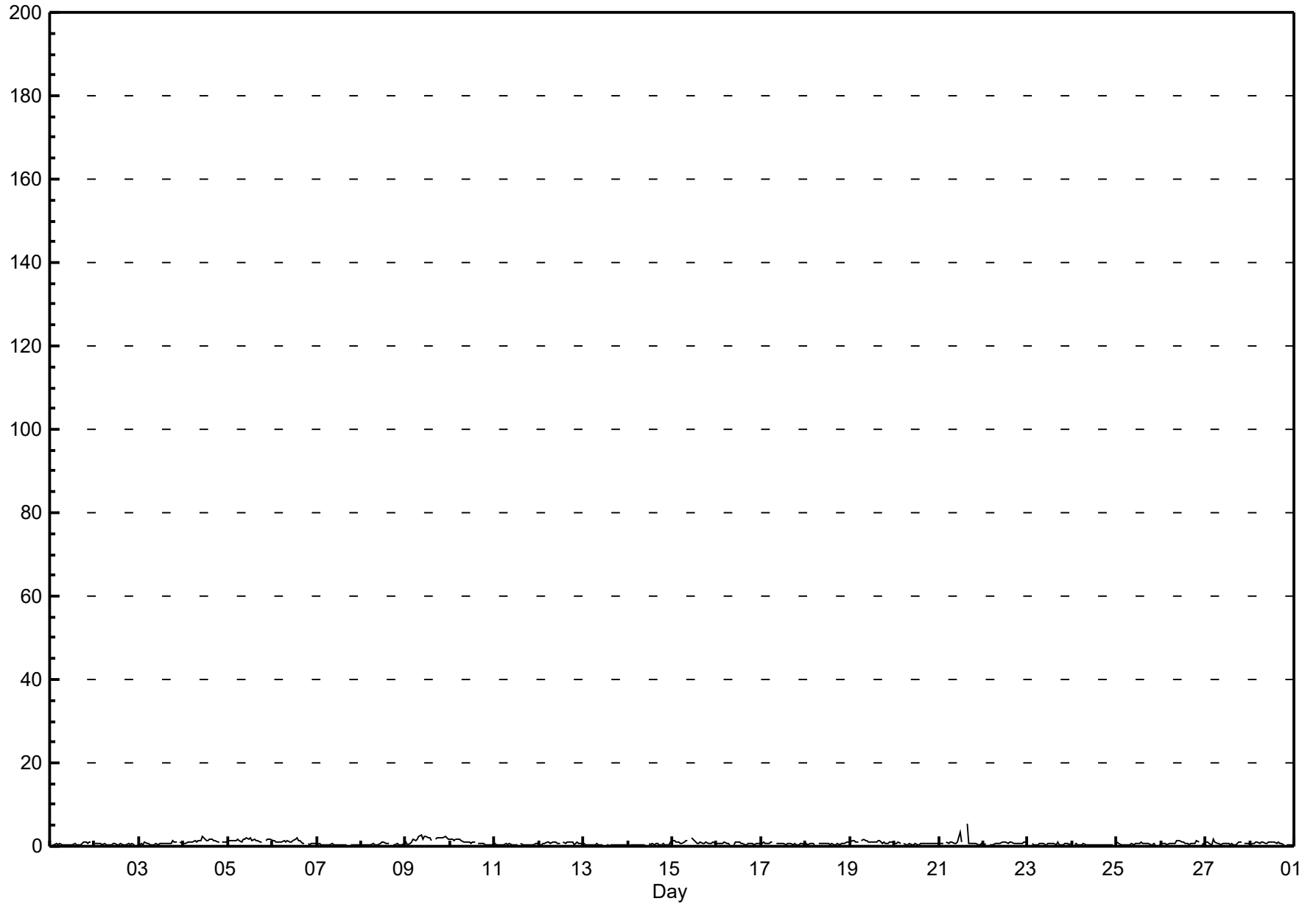
Sulphur Dioxide (SO₂) - ppb

Donnelly - February 2018

Maximum Value: 5.4 ppb on Feb 21 16:00		Maximum Daily Average: 1.8 ppb on Feb 9		Hours in Service: 672																							
Minimum Value: 0 ppb on Feb 14 01:00		Minimum Daily Average: 0.3 ppb on Feb 13		Hours of Data: 640																							
Maximum Diurnal Average: 1.0 ppb at hour 12		Minimum Diurnal Average: 0.7 ppb at hour 22		Hours of Missing Data: 32																							
Monthly Average: 0.77 ppb		Percentiles: P ₁ = 0.2 P ₁₀ = 0.4 Q ₁ = 0.5 Median = 0.6 Q ₃ = 0.9 P ₉₀ = 1.4 P ₉₉ = 2.2		Hours of Calibration: 32																							
				Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Feb	A	0	0	1	0	1	0	0	0	0	0	0	1	0	1	1	1	1	1	1	1	1	1	A	0.6	1.1	
2-Feb	1	1	1	1	0	1	0	1	0	0	1	1	0	1	1	0	0	0	1	0	1	0	A	0	0.5	0.7	
3-Feb	0	1	0	1	1	1	0	0	0	1	0	1	1	1	1	1	1	1	2	1	1	A	1	0.7	1.5		
4-Feb	1	1	1	1	1	1	1	1	1	1	2	2	1	1	2	2	1	1	1	1	1	A	1	1.3	2.2		
5-Feb	1	1	1	2	1	2	1	1	2	2	2	2	2	1	2	1	1	1	1	1	A	1	2	1.5	2.0		
6-Feb	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	A	1	0	1	1.1	1.9		
7-Feb	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.4	0.8	
8-Feb	0	0	0	0	0	0	1	0	0	0	1	1	1	1	1	1	A	1	0	1	0	0	0	1	0.5	0.9	
9-Feb	1	0	1	1	2	1	2	2	3	2	2	2	2	2	1	A	2	2	2	2	2	2	2	2	1.8	2.8	
10-Feb	2	2	1	2	2	2	1	1	1	1	1	1	1	1	A	1	1	1	1	0	0	0	0	0	0.9	1.8	
11-Feb	1	0	0	0	0	0	1	0	1	0	0	0	0	A	1	0	0	0	0	0	1	0	1	0.5	0.7		
12-Feb	0	0	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0	1	1	1	0.7	1.0		
13-Feb	1	0	0	0	0	0	0	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8		
14-Feb	0	0	0	0	0	0	0	1	0	0	A	1	0	1	0	1	1	0	0	1	0	0	0	0.5	1.0		
15-Feb	1	1	1	1	1	1	1	1	1	A	2	2	1	1	1	1	1	1	1	1	1	1	1	1.0	2.1		
16-Feb	1	1	1	1	1	1	1	0	A	0	1	1	1	1	1	0	0	1	1	1	0	1	1	0.6	1.1		
17-Feb	1	1	1	1	1	1	1	A	1	1	1	1	1	0	1	1	1	0	1	0	0	1	0	0.7	1.0		
18-Feb	1	0	1	1	1	0	A	1	1	1	1	1	0	1	0	0	1	0	1	1	1	1	1	0.6	1.0		
19-Feb	1	1	1	1	1	A	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.6		
20-Feb	1	1	1	1	A	1	0	0	1	0	0	1	0	0	1	1	1	1	1	1	1	1	1	0.6	0.9		
21-Feb	1	1	1	A	1	1	1	1	1	1	1	4	1	C	C	5	1	1	1	1	1	0	0	1.1	5.4		
22-Feb	0	1	A	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.1		
23-Feb	1	A	1	1	0	0	1	1	1	0	0	1	1	1	0	1	0	0	0	0	1	1	0	0.6	0.9		
24-Feb	A	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5		
25-Feb	1	1	0	0	0	0	0	0	1	0	1	1	1	1	1	1	1	1	0	0	1	0	A	0	0.6	1.2	
26-Feb	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	A	1	0.8	1.5		
27-Feb	1	1	1	0	2	1	1	1	0	1	1	1	1	0	1	0	0	1	1	1	1	A	1	0.7	1.8		
28-Feb	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	A	0	0	0	0	0.7	1.2	
		0.8	0.7	0.7	0.7	0.8	0.7	0.8	0.8	0.8	0.7	0.9	1.0	0.9	0.8	0.7	0.9	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	Diurnal Average	
		1.8	1.6	1.5	1.6	1.8	1.6	1.8	2.3	2.8	1.9	2.4	3.6	2.2	2.0	1.7	5.4	1.6	2.0	2.0	2.0	2.0	2.1	2.2	1.9	1.8	Diurnal Maximum
C - Calibration		A - Automated Daily Zero Span																									

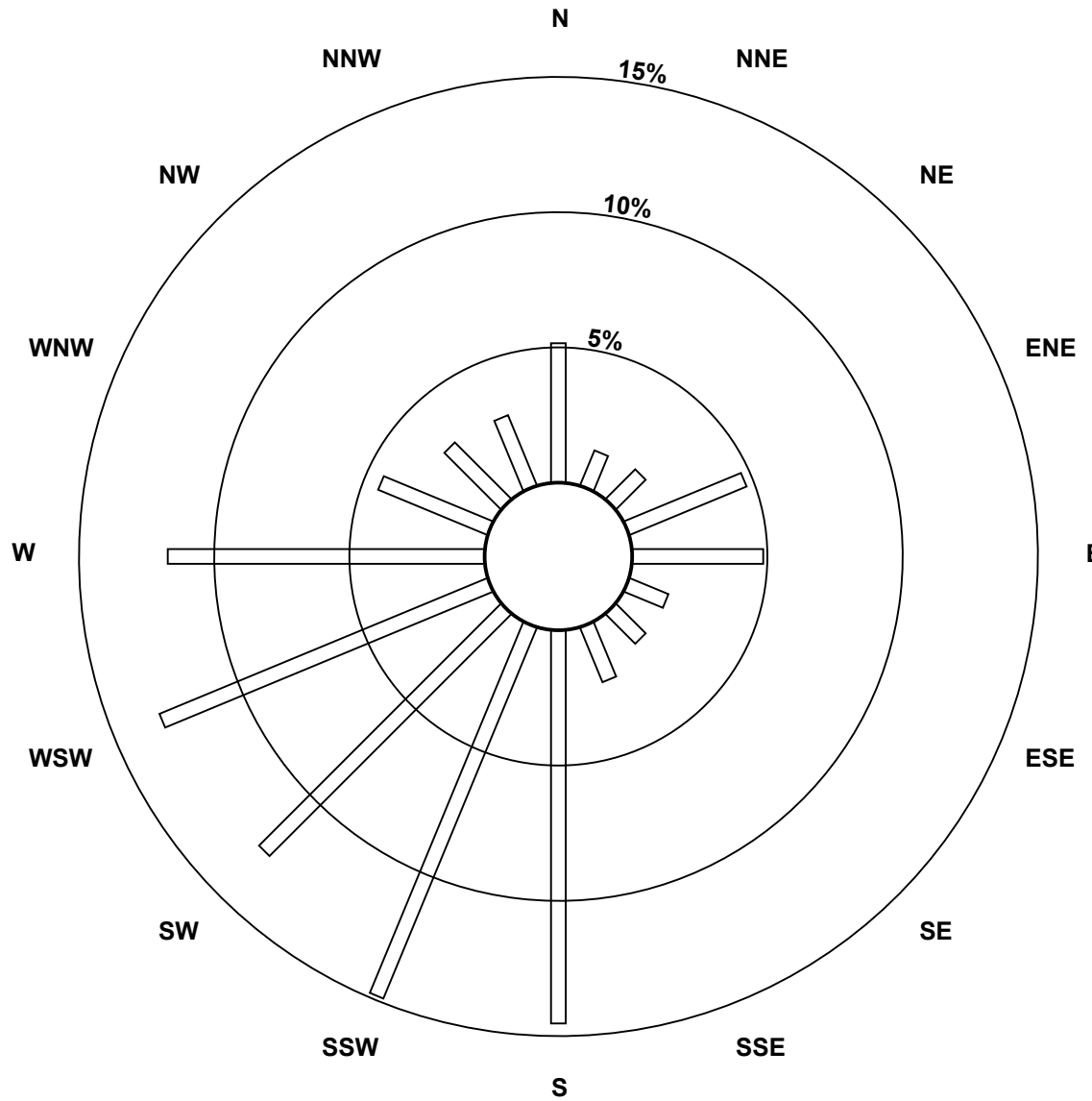
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Donnelly - February 2018

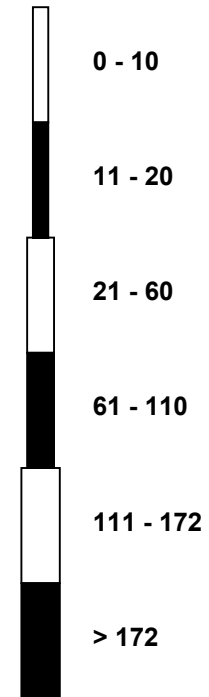


Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Donnelly - February 2018

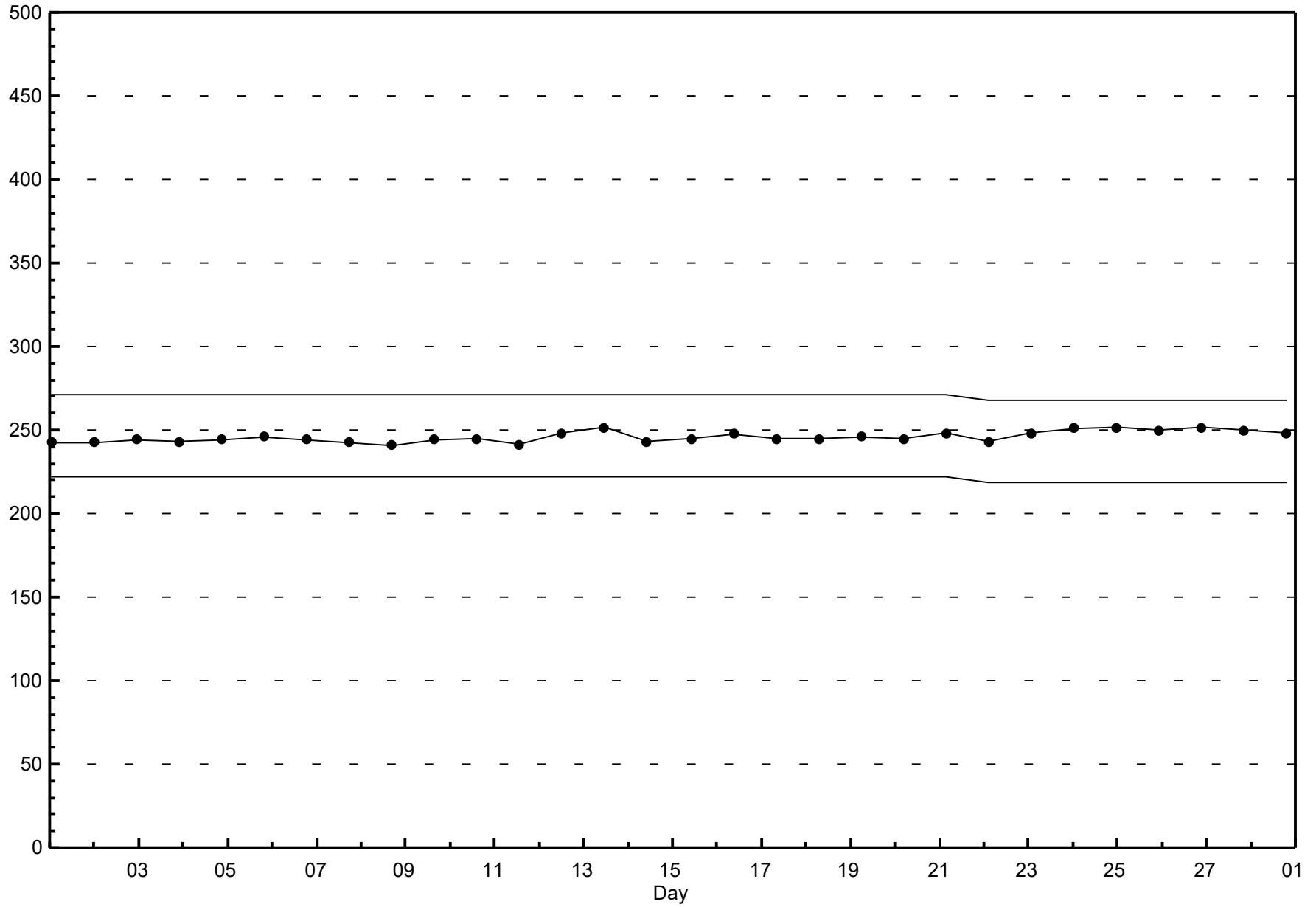


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Donnelly - February 2018



Hourly Averages

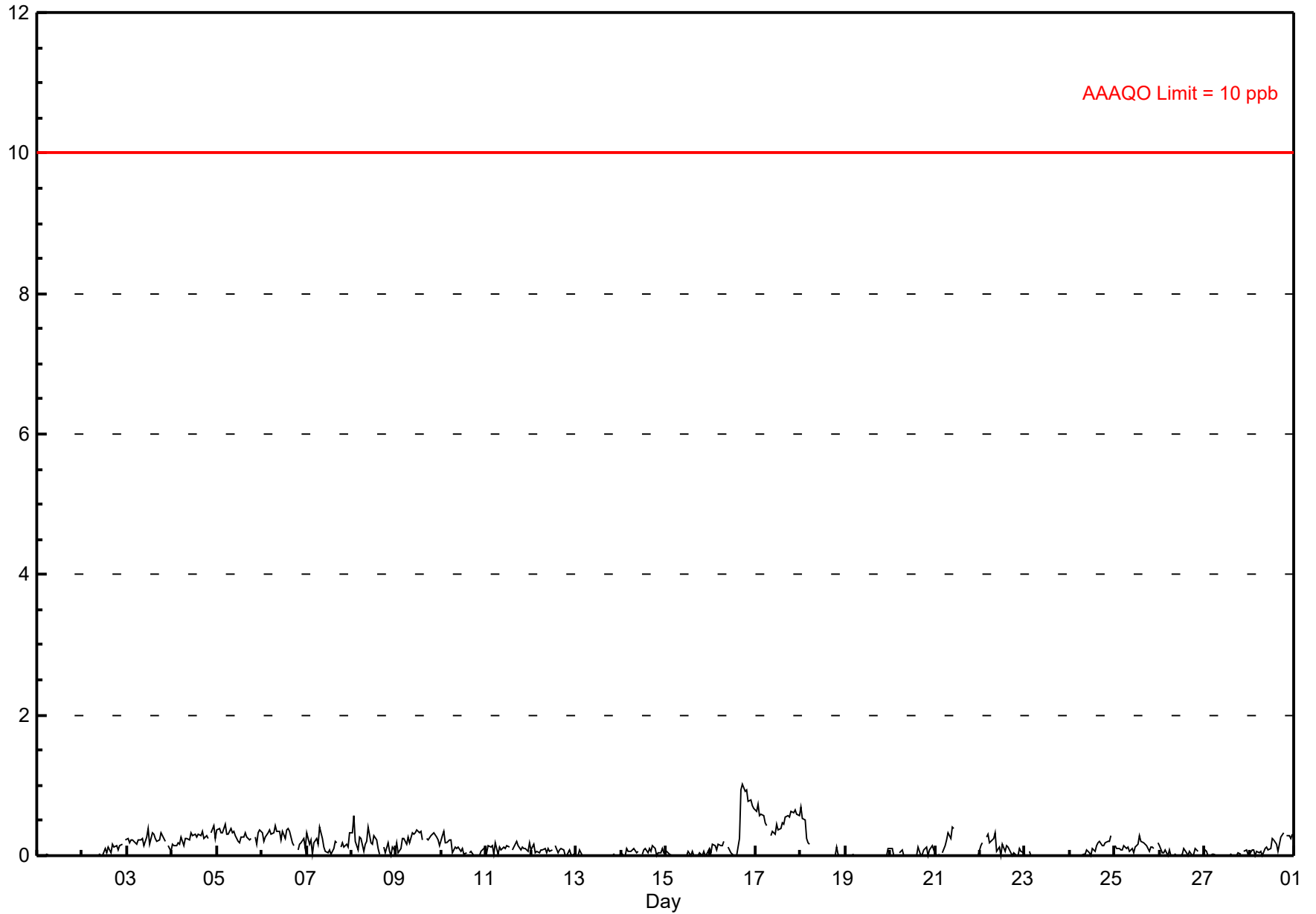
Hydrogen Sulphide (H₂S) - ppb

Donnelly - February 2018

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 1.0 ppb on Feb 16 18:00 Maximum Daily Average: 0.5 ppb on Feb 17		Hours in Service: 672 Hours of Data: 639 Hours of Missing Data: 33 Hours of Calibration: 33 Percent Operational Time: 100.0																																															
Minimum Value: 0 ppb on Feb 1 02:00 Maximum Diurnal Average: 0.2 ppb at hour 1 Monthly Average: 0.13 ppb		Minimum Daily Average: 0.0 ppb on Feb 1 Minimum Diurnal Average: 0.1 ppb at hour 11 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																																															
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-Feb	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	0.0																							
2-Feb	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																							
3-Feb	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																							
4-Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.3	0.4																							
5-Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.3	0.5																							
6-Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.3	0.4																							
7-Feb	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																							
8-Feb	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.2	0.6																							
9-Feb	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																							
10-Feb	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																							
11-Feb	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																							
12-Feb	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																							
13-Feb	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																							
14-Feb	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2																							
15-Feb	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																							
16-Feb	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.0																							
17-Feb	1	1	1	1	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0.7																							
18-Feb	1	1	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.7																							
19-Feb	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1																							
20-Feb	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																							
21-Feb	0	0	0	A	0	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0	0	0	0.1	0.4																							
22-Feb	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																							
23-Feb	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																							
24-Feb	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																							
25-Feb	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																							
26-Feb	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																							
27-Feb	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																							
28-Feb	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																							
																								0.2	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	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	Diurnal Average
																								0.7	0.7	0.6	0.6	0.6	0.5	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.9	1.0	0.9	0.9	0.8	0.8	0.7	0.7	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 - February 2018



Hourly Maximums

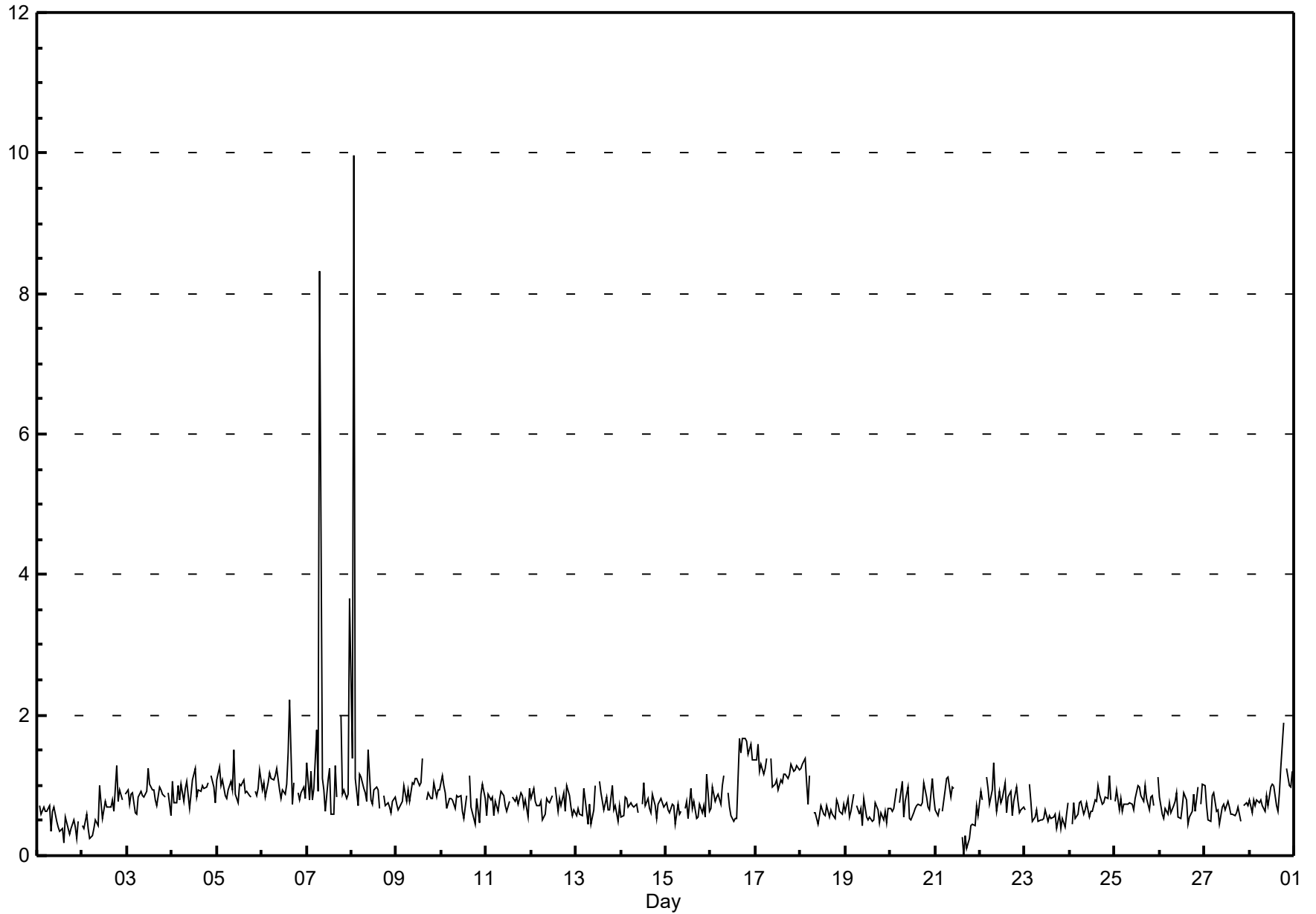
Hydrogen Sulphide (H₂S) - ppb

Donnelly - February 2018

Maximum Value: 10.0 ppb on Feb 8 02:00		Maximum Daily Average: 1.5 ppb on Feb 7		Hours in Service: 672																							
Minimum Value: 0 ppb on Feb 21 16:00		Minimum Daily Average: 0.5 ppb on Feb 1		Hours of Data: 639																							
Maximum Diurnal Average: 1.2 ppb at hour 2		Minimum Diurnal Average: 0.8 ppb at hour 11		Hours of Missing Data: 33																							
Monthly Average: 0.83 ppb		Percentiles: P ₁ = 0.3 P ₁₀ = 0.5 Q ₁ = 0.6 Median = 0.8 Q ₃ = 0.9 P ₉₀ = 1.1 P ₉₉ = 1.7		Hours of Calibration: 33																							
				Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Feb	A	1	1	1	1	1	1	0	1	1	0	0	0	0	0	1	0	0	0	1	0	0	0	A	0.5	0.7	
2-Feb	0	0	1	0	0	0	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.6	1.3	
3-Feb	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	
4-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.9	1.2	
5-Feb	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1.0	1.5	
6-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	A	1	1	1	1	1	1.0	2.2	
7-Feb	1	1	1	1	1	2	1	8	1	1	1	1	1	1	1	1	1	A	2	1	1	1	1	4	1.5	8.3	
8-Feb	1	10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1.3	10.0	
9-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0.9	1.4	
10-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0	1	0	1	1	0.8	1.1	
11-Feb	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	1.0	
12-Feb	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0	
13-Feb	1	1	1	1	1	1	0	1	0	1	1	A	1	1	1	1	1	1	1	1	1	1	0	1	0.7	1.1	
14-Feb	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0	
15-Feb	1	1	1	1	1	0	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.2	
16-Feb	1	1	1	1	1	1	1	1	A	1	1	1	0	1	1	2	1	2	2	2	1	2	1	1	1.1	1.7	
17-Feb	1	2	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	1.6	
18-Feb	1	1	1	1	1	1	A	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.4	
19-Feb	1	1	1	1	1	A	1	1	1	0	1	1	1	1	0	1	1	1	1	0	1	1	0	1	0.6	0.9	
20-Feb	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1	
21-Feb	1	1	1	A	1	1	1	1	1	1	1	C	C	C	0	0	0	0	0	0	0	0	1	1	0.6	1.1	
22-Feb	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.3	
23-Feb	1	A	1	1	0	1	1	0	1	1	1	1	0	1	1	1	0	1	0	1	0	1	1	1	0.6	1.0	
24-Feb	A	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.7	1.1	
25-Feb	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	
26-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	A	1	1	0.7	1.0	
27-Feb	1	1	0	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0	A	1	1	1	0.7	1.0	
28-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	A	1	1	1	1	0.9	1.9	
		0.9	1.2	0.8	0.8	0.8	0.8	1.0	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.9	0.8	0.8	0.8	0.8	1.0	Diurnal Average	
		1.4	10.0	1.4	1.3	1.2	1.8	1.4	8.3	1.4	1.5	1.1	1.2	1.2	1.1	1.5	2.2	1.5	1.7	2.0	1.6	1.4	1.6	1.4	3.7	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

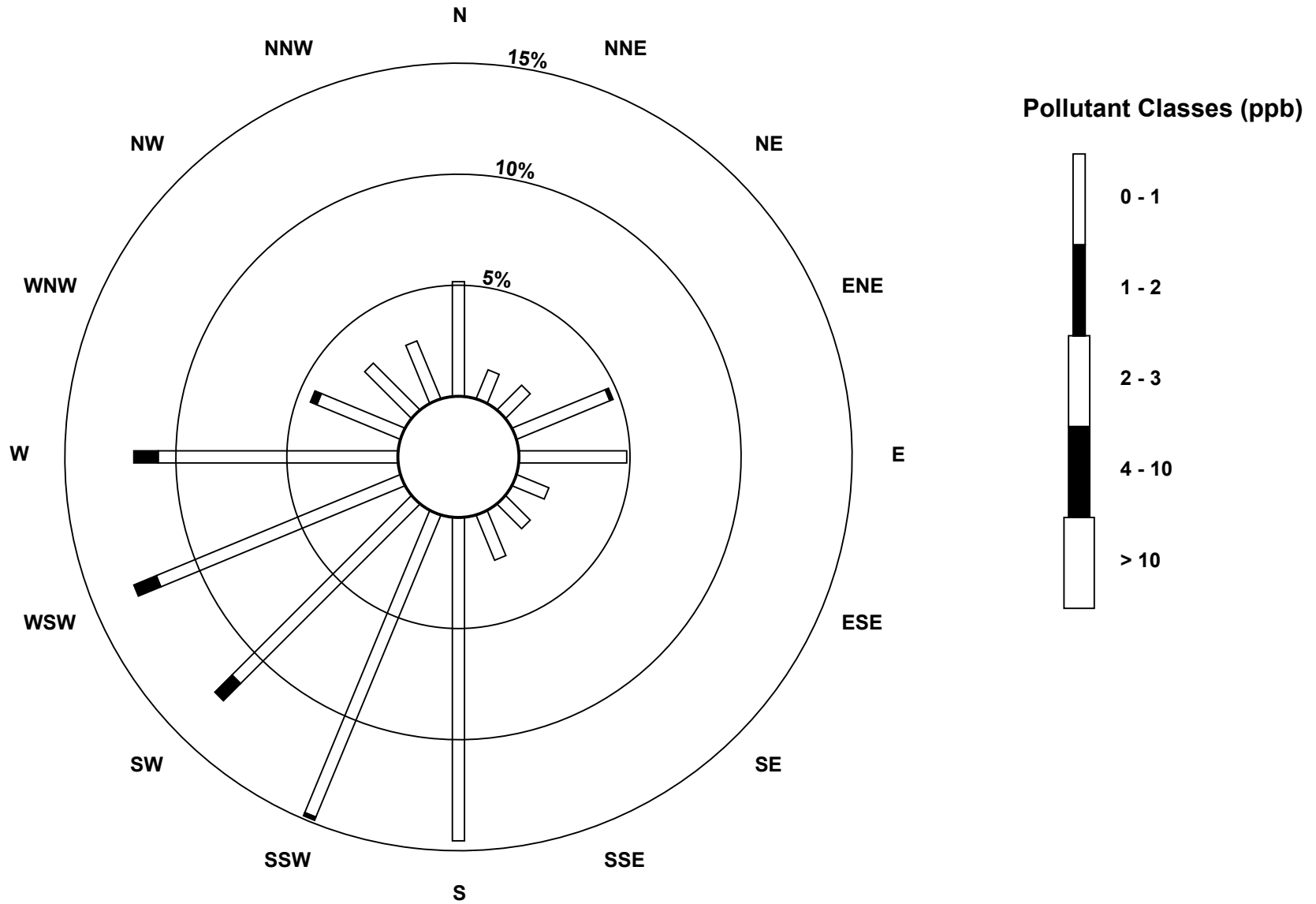
Hourly Maximums

Hydrogen Sulphide (H₂S) - ppb
Donnelly - February 2018



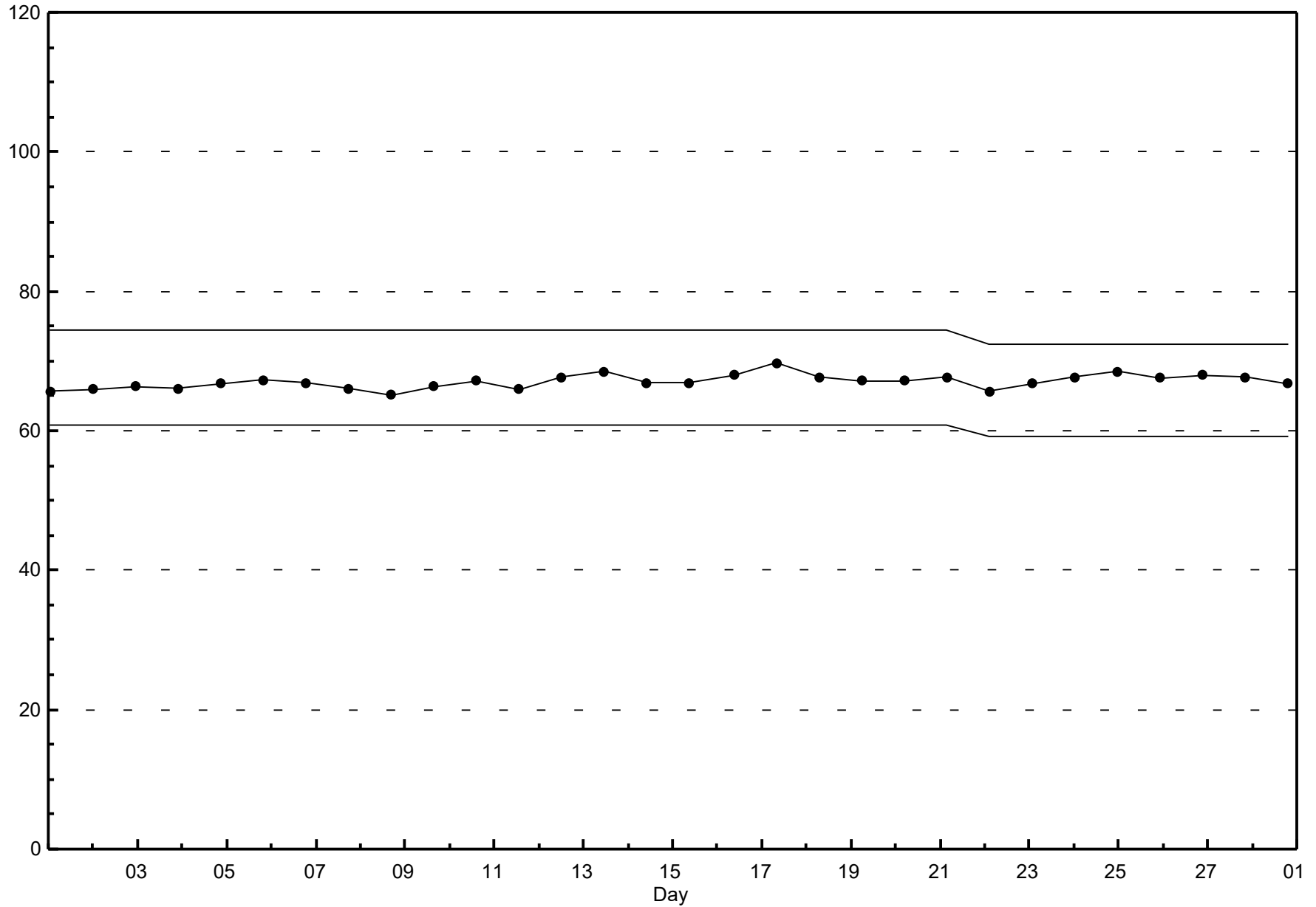
Pollutant Rose

Hydrogen Sulphide (H₂S) - ppb
Donnelly - February 2018



Span Responses

Hydrogen Sulphide (H₂S)
Donnelly - February 2018

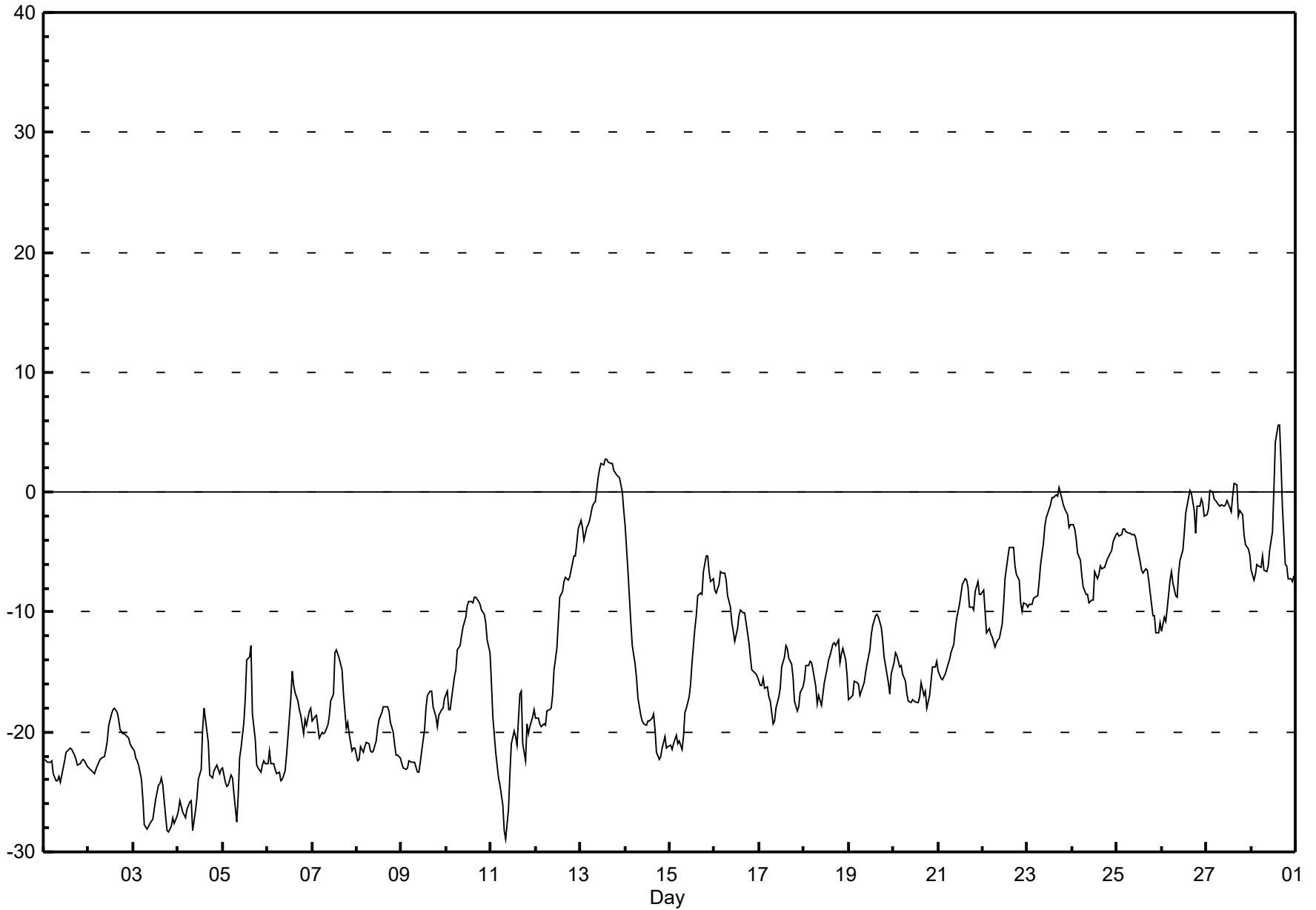


Hourly Averages

External Temperature (ET) - °C

Donnelly - February 2018

Maximum Value: 5.6 °C on Feb 28 15:00 Maximum Daily Average: 0.2 °C on Feb 13																			Hours in Service: 672 Hours of Data: 672 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0							
Minimum Value: -29 °C on Feb 11 09:00 Minimum Daily Average: -25.8 °C on Feb 3 Maximum Diurnal Average: -10.7 °C at hour 16 Minimum Diurnal Average: -16.2 °C at hour 8 Monthly Average: -13.92 °C Percentiles: P ₁ = -27.9 P ₁₀ = -23.2 Q ₁ = -20.5 Median = -15.1 Q ₃ = -7.4 P ₉₀ = -2.4 P ₉₉ = 2.4																										
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-Feb	-22	-22	-23	-23	-22	-23	-24	-24	-24	-24	-23	-22	-22	-21	-21	-21	-22	-22	-23	-23	-22	-22	-22	-23	-22.6	-21.4
2-Feb	-23	-23	-23	-23	-23	-23	-22	-22	-22	-21	-21	-19	-19	-18	-18	-18	-19	-20	-20	-20	-20	-21	-21	-21	-20.9	-18.1
3-Feb	-22	-22	-22	-23	-24	-26	-28	-28	-28	-28	-27	-26	-26	-24	-24	-24	-24	-27	-28	-28	-28	-27	-28	-27	-25.8	-21.5
4-Feb	-27	-26	-27	-27	-27	-26	-26	-26	-28	-27	-25	-24	-23	-20	-18	-20	-21	-24	-24	-23	-23	-23	-23	-23	-24.2	-18.0
5-Feb	-23	-24	-25	-24	-24	-24	-25	-27	-25	-22	-21	-19	-17	-14	-14	-13	-18	-21	-23	-23	-23	-23	-22	-23	-21.6	-12.8
6-Feb	-23	-22	-23	-23	-23	-23	-23	-24	-24	-23	-22	-20	-17	-15	-16	-17	-17	-18	-19	-20	-19	-19	-18	-18	-20.3	-14.9
7-Feb	-19	-19	-19	-20	-21	-20	-20	-20	-19	-19	-17	-17	-13	-13	-14	-14	-15	-17	-20	-19	-20	-22	-21	-21	-18.3	-13.2
8-Feb	-22	-22	-21	-22	-21	-21	-21	-22	-22	-22	-21	-20	-19	-18	-18	-18	-18	-18	-19	-20	-21	-22	-22	-22	-20.5	-17.9
9-Feb	-23	-23	-23	-23	-22	-23	-22	-22	-22	-23	-23	-22	-20	-18	-17	-17	-17	-18	-19	-20	-19	-18	-18	-17	-20.4	-16.5
10-Feb	-17	-18	-18	-17	-15	-15	-13	-13	-12	-11	-10	-9	-9	-9	-9	-9	-9	-9	-10	-10	-11	-12	-13	-12.1	-8.7	
11-Feb	-16	-19	-22	-23	-24	-24	-26	-28	-29	-26	-23	-21	-20	-20	-21	-17	-17	-21	-22	-19	-20	-20	-19	-18	-21.5	-15.9
12-Feb	-19	-19	-19	-20	-19	-19	-18	-18	-18	-17	-15	-13	-11	-9	-8	-8	-7	-7	-7	-6	-5	-5	-4	-3	-12.3	-3.0
13-Feb	-2	-3	-4	-3	-3	-2	-1	-1	-1	1	2	2	2	3	3	2	2	2	2	1	1	1	0	-2	0.2	2.7
14-Feb	-3	-7	-9	-11	-13	-14	-16	-17	-19	-19	-19	-19	-19	-19	-19	-20	-22	-22	-22	-21	-20	-21	-21	-17.1	-2.8	
15-Feb	-21	-21	-21	-20	-21	-21	-21	-20	-18	-18	-17	-16	-14	-11	-10	-9	-8	-8	-7	-5	-5	-7	-8	-7	-14.0	-5.3
16-Feb	-8	-8	-8	-7	-7	-7	-7	-9	-10	-11	-12	-12	-11	-10	-10	-10	-10	-11	-13	-14	-15	-15	-15	-15	-10.6	-6.6
17-Feb	-16	-16	-16	-16	-16	-17	-17	-19	-19	-18	-17	-16	-15	-14	-13	-13	-14	-14	-15	-17	-18	-18	-17	-16	-16.2	-12.8
18-Feb	-16	-14	-14	-14	-14	-15	-16	-18	-17	-18	-17	-16	-15	-14	-14	-13	-13	-13	-12	-14	-13	-13	-14	-15	-14.7	-12.3
19-Feb	-17	-17	-17	-16	-16	-16	-17	-16	-16	-15	-14	-13	-12	-11	-10	-10	-10	-11	-12	-14	-15	-16	-17	-15	-14.4	-10.2
20-Feb	-14	-13	-14	-15	-14	-15	-16	-17	-17	-18	-17	-17	-18	-18	-17	-16	-17	-17	-18	-17	-16	-15	-15	-14	-16.0	-13.4
21-Feb	-15	-16	-16	-15	-15	-14	-14	-13	-13	-12	-11	-9	-9	-8	-7	-7	-8	-10	-10	-10	-8	-7	-9	-9	-11.0	-7.2
22-Feb	-8	-10	-12	-11	-12	-12	-13	-13	-12	-12	-11	-9	-7	-5	-5	-5	-5	-6	-7	-7	-9	-10	-9	-9	-9.2	-4.6
23-Feb	-10	-9	-9	-9	-9	-9	-7	-6	-4	-3	-2	-2	-1	0	0	0	0	0	-1	-1	-1	-2	-3	-3	-3.8	0.3
24-Feb	-3	-3	-4	-5	-6	-7	-8	-8	-9	-9	-9	-9	-7	-7	-7	-6	-6	-6	-6	-6	-5	-5	-4	-4	-6.2	-2.7
25-Feb	-3	-4	-3	-3	-3	-3	-3	-3	-4	-4	-4	-5	-6	-7	-7	-6	-7	-7	-9	-10	-10	-12	-12	-11	-6.1	-3.0
26-Feb	-12	-10	-11	-10	-7	-7	-8	-9	-9	-7	-6	-5	-3	-2	-1	0	0	-2	-3	-1	-1	-1	-1	-2	-4.8	0.1
27-Feb	-2	-1	0	0	-1	-1	-1	-1	-1	-1	-1	-1	-1	-2	0	1	1	-2	-2	-2	-4	-4	-5	-5	-1.5	0.8
28-Feb	-6	-7	-7	-6	-6	-6	-5	-7	-7	-6	-5	-3	0	4	6	6	2	-1	-6	-6	-7	-7	-7	-7	-4.0	5.6
																								Diurnal Average		
																								Diurnal Maximum		





Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Donnelly - February 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	6	7	7	8	9	8	7	3	3	2	1	2	3	4	5	3	5	4	3	3	3	4	4	4	3.3	8.9
Dir	284	286	282	273	273	267	266	266	206	223	237	274	306	307	343	336	318	319	341	3	32	355	21	24	297	273
2 Spd	2	3	4	5	4	3	3	5	7	8	10	8	8	8	7	7	10	14	11	7	8	9	9	7	5.9	13.6
Dir	356	5	29	43	64	82	92	79	76	80	79	86	88	86	89	84	65	57	54	27	11	8	1	351	56	57
3 Spd	6	6	7	9	7	5	6	5	4	5	6	9	8	7	7	6	10	8	14	15	13	13	12	13	5.9	14.5
Dir	336	319	321	325	318	283	280	296	274	245	249	257	255	260	258	273	261	222	204	212	199	202	199	183	245	212
4 Spd	16	16	14	13	12	14	17	12	10	11	9	9	10	2	1	3	3	4	6	6	6	8	7	9	8.7	16.9
Dir	183	187	193	199	195	189	189	188	205	184	190	191	207	223	234	243	263	229	243	246	235	230	219	206	201	189
5 Spd	6	10	12	10	7	7	3	2	4	9	11	9	13	2	5	3	4	1	4	8	7	8	7	7	5.1	12.8
Dir	206	193	192	194	199	185	142	107	141	172	174	165	169	94	114	105	279	316	220	264	245	232	239	253	194	169
6 Spd	4	5	6	5	6	5	5	6	5	4	4	5	4	2	3	2	4	3	3	6	3	4	3	4	1.8	6.2
Dir	245	240	252	233	245	230	218	220	207	212	204	189	184	89	80	83	140	118	93	67	90	61	90	80	190	245
7 Spd	6	6	5	1	3	3	5	4	4	3	3	4	3	2	5	6	4	5	5	4	2	4	5	3	3.7	6.3
Dir	74	82	80	73	326	49	60	75	76	50	94	61	83	69	75	73	77	69	63	67	66	73	79	87	71	74
8 Spd	5	5	4	6	6	2	0	3	5	4	3	4	6	6	5	5	5	5	5	10	12	12	14	15	3.5	14.9
Dir	68	72	67	63	65	62	3	229	208	216	264	257	262	260	252	245	231	204	182	189	198	203	206	201	206	201
9 Spd	15	12	13	14	16	15	16	18	15	15	16	17	17	16	13	11	10	9	6	7	9	10	10	10	12.7	17.7
Dir	204	205	204	203	198	194	193	196	192	189	193	188	193	191	194	192	203	220	225	210	217	205	207	216	199	196
10 Spd	13	7	9	12	11	11	13	11	6	9	14	14	12	9	9	8	6	7	6	8	14	17	17	15	6.4	17.3
Dir	243	253	219	221	242	244	252	252	292	272	265	260	269	283	273	298	334	3	2	9	4	8	16	5	290	8
11 Spd	20	13	5	1	3	4	1	2	1	3	3	1	2	4	4	0	2	2	6	9	9	15	18	20	1.7	20.1
Dir	0	359	351	335	38	35	34	49	162	73	61	94	229	195	49	155	146	74	153	170	165	172	176	171	139	0
12 Spd	21	24	26	25	23	22	21	22	23	24	22	20	19	15	7	15	15	15	17	16	21	21	18	19	18.8	25.9
Dir	170	169	172	173	178	179	180	182	181	186	188	189	184	195	209	204	197	190	200	194	212	215	222	229	189	172
13 Spd	19	15	11	15	15	11	16	13	9	21	23	26	21	27	30	30	28	26	22	17	24	21	14	16	18.1	30.4
Dir	233	242	269	270	270	240	247	231	223	241	234	240	233	237	246	256	258	248	259	267	266	274	285	346	253	256
14 Spd	24	28	24	26	24	20	17	17	16	11	12	11	11	12	9	5	6	4	7	12	18	17	15	13	7.9	27.7
Dir	18	357	357	0	358	355	353	351	355	350	348	342	341	351	333	328	295	241	192	182	185	195	208	207	344	357
15 Spd	12	11	10	14	16	16	12	13	12	7	14	20	19	19	22	18	17	18	16	25	24	13	13	15	13.3	24.8
Dir	196	200	194	195	184	194	206	196	179	163	177	183	183	182	183	182	182	192	236	242	245	271	280	276	204	242
16 Spd	10	7	13	14	10	10	9	6	11	8	4	8	9	12	9	13	20	15	15	8	11	13	10	7	8.7	19.7
Dir	265	230	209	242	249	281	305	323	2	357	335	293	291	291	292	276	275	277	270	276	252	250	254	240	273	275
17 Spd	7	4	7	10	10	10	10	7	13	4	4	7	7	10	8	7	9	5	4	4	7	5	9	10	6.6	13.1
Dir	237	218	238	220	209	208	235	257	257	290	235	286	278	286	308	278	266	266	278	233	216	219	217	228	247	257
18 Spd	10	14	11	17	18	14	14	13	14	11	11	12	14	17	15	17	19	18	18	15	14	15	15	12	13.9	19.2
Dir	258	283	283	275	279	285	287	277	274	260	267	257	271	272	265	268	262	254	247	253	244	229	232	239	263	262
19 Spd	7	10	11	15	17	17	16	14	14	14	14	14	9	13	10	11	14	21	22	19	11	10	12	12	12.3	21.9
Dir	201	197	203	202	203	216	220	222	224	229	228	234	238	251	267	243	256	263	267	266	283	270	258	255	239	267
20 Spd	14	14	10	6	11	8	7	9	11	9	7	8	8	7	5	1	3	4	4	9	13	14	16	17	0.9	17.3
Dir	249	253	291	320	356	4	10	28	28	26	360	337	312	289	273	100	98	144	151	167	169	166	167	167	262	167
21 Spd	20	18	17	17	16	19	21	20	18	14	15	15	16	16	17	14	9	7	10	11	13	12	11	14	11.4	21.1
Dir	173	178	179	177	178	181	183	186	187	202	221	232	247	265	278	278	278	260	244	255	274	272	254	273	219	183
22 Spd	17	15	9	8	8	8	5	7	10	11	11	13	15	13	12	13	18	13	11	13	16	17	18	21	11.1	21.3
Dir	274	273	246	209	216	240	216	205	198	191	184	187	182	179	179	203	223	209	192	186	190	188	179	182	202	182

Hourly Averages

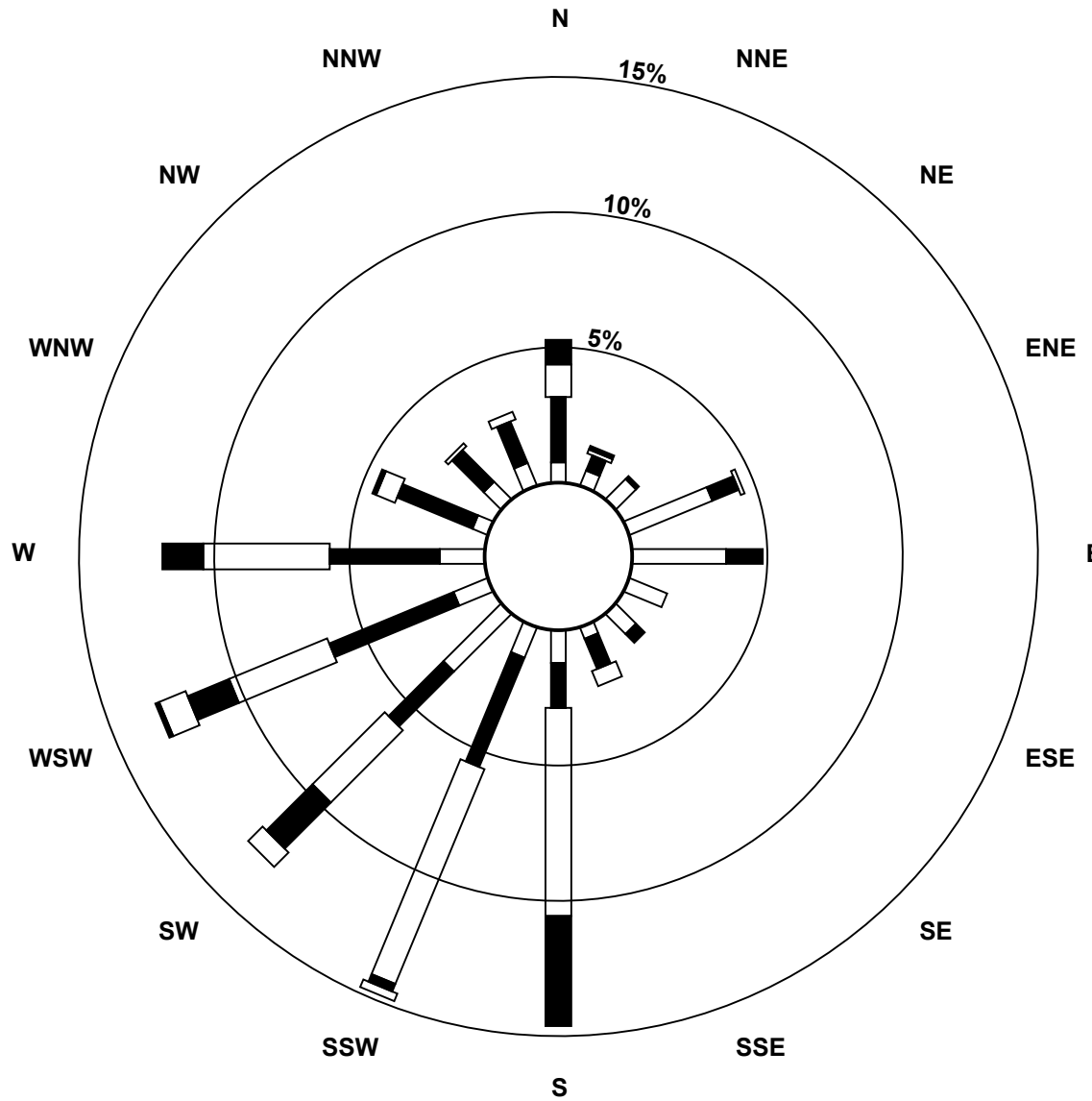
Wind Speed (km/h)
Wind Direction (deg)
Donnelly - February 2018

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	23	21	20	20	20	20	22	21	21	22	22	19	18	21	22	23	12	16	21	26	27	22	17	19	17.9	26.8	
Dir	182	181	179	179	178	178	181	184	217	228	236	244	254	245	256	264	255	245	239	232	236	233	230	231	220	236	
24 Spd	18	15	12	11	10	10	9	9	10	6	4	4	2	4	2	1	4	6	6	4	11	10	12	17	1.9	17.9	
Dir	232	258	308	340	348	348	329	348	355	356	315	267	227	232	226	107	120	126	132	141	165	159	182	188	258	232	
25 Spd	22	14	9	12	17	15	11	9	3	7	9	9	10	11	11	8	6	4	1	3	2	2	3	4	5.5	21.6	
Dir	218	200	188	182	197	213	200	197	270	253	274	293	324	307	295	299	291	296	217	180	179	184	147	108	232	218	
26 Spd	5	10	4	5	11	13	15	13	17	16	15	16	12	12	17	25	27	21	20	28	26	30	41	31	15.4	40.8	
Dir	112	126	111	128	152	157	170	177	186	190	190	186	185	221	233	236	234	223	204	222	215	222	241	230	209	241	
27 Spd	33	30	35	31	31	31	34	34	32	29	25	25	24	18	13	23	20	13	11	16	15	19	21	16	22.4	34.7	
Dir	210	211	238	236	234	240	240	236	238	238	252	268	283	270	236	271	277	257	239	217	197	201	216	210	238	238	
28 Spd	8	5	12	16	15	15	16	15	15	14	13	9	5	1	0	0	2	2	4	5	3	4	5	7	6.5	16.2	
Dir	206	203	197	190	196	202	211	202	190	187	192	188	183	175	53	206	116	90	93	90	97	87	92	87	184	211	
Spd	7.3	6.4	6.4	6.8	6.8	7.0	7.4	6.7	6.0	6.5	7.1	7.4	6.8	6.8	6.1	6.9	7.0	6.0	6.4	7.6	8.4	8.0	8.3	7.6	Diurnal Average		
Dir	220	220	222	219	219	217	220	216	217	218	222	230	234	246	248	250	248	236	229	226	222	221	222	219	Diurnal Maximum		
Spd	33.5	30.1	34.7	31.4	31.5	30.6	34.1	33.6	32.1	29.3	24.7	25.6	23.6	26.9	29.5	30.4	28.0	26.3	21.9	28.4	26.8	29.9	40.8	31.1	Diurnal Maximum		
Dir	210	211	238	236	234	240	240	236	238	238	252	240	283	237	246	256	258	248	259	222	236	222	241	230	Diurnal Maximum		
Maximum Speed Value: 41 km/h on Feb 26 23:00																		Minimum Speed Value: 0 km/h on Feb 8 07:00						Hours in Service:		672	
Maximum Daily Speed Average: 22.4 km/h on Feb 27																		Minimum Daily Speed Average: 0.9 km/h on Feb 7						Hours of Data:		672	
Maximum Diurnal Speed Average: 8.4 km/h at hour 21																		Minimum Diurnal Speed Average: 6.0 km/h at hour 18						Hours of Missing Data:		0	
Monthly Average Velocity: 6.87 km/h 226.4 deg																		Speed Percentiles: P ₁ = 0.7 P ₁₀ = 3.4 Q ₁ = 5.6 Median = 10.5 Q ₃ = 15.5 P ₉₀ = 20.8 P ₉₉ = 31.4						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	8	21	13	7	0	0	49																				
NorthEast	22	8	2	0	0	0	32																				
East	40	15	0	0	0	0	55																				
SouthEast	14	5	1	0	0	0	20																				
South	10	25	96	29	0	0	160																				
SouthWest	27	57	55	26	14	1	180																				
West	14	52	56	17	1	0	140																				
NorthWest	10	24	2	0	0	0	36																				
Total	145	207	225	79	15	1	672																				

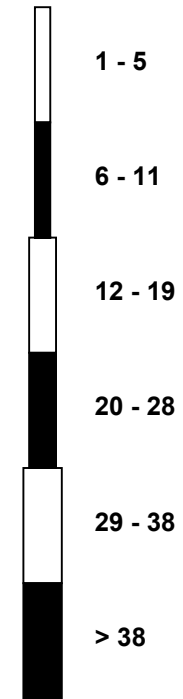
Wind Rose

Wind Speed (WS) (km/h)

Donnelly - February 2018



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Donnelly - February 2018

Maximum Speed: 41 km/h on Feb 26 23:00	Maximum Daily Speed Average: 24.3 km/h on Feb 27	Hours in Service: 672
Minimum Speed: 1 km/h on Feb 28 16:00	Minimum Daily Speed Average: 4.1 km/h on Feb 7	Hours of Data: 672
Maximum Diurnal Speed Average: 13.4 km/h at hour 1	Minimum Diurnal Speed Average: 9.8 km/h at hour 18	Hours of Missing Data: 0
Monthly Average Speed: 11.56 km/h	Percentiles: P ₁ = 1.7 P ₁₀ = 3.6 Q ₁ = 5.8 Median = 10.6 Q ₃ = 15.6 P ₉₀ = 20.9 P ₉₉ = 31.5	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-Feb	6	7	7	8	9	8	7	3	3	2	1	3	4	4	5	3	5	4	3	3	3	4	4	4	4.5	8.9
2-Feb	2	3	4	5	4	3	3	5	7	8	10	8	8	8	7	7	11	14	11	7	8	9	9	7	7.0	13.6
3-Feb	7	6	7	9	7	5	6	5	4	5	6	9	8	7	8	6	10	8	14	15	13	13	12	13	8.5	14.6
4-Feb	16	16	14	13	12	14	17	12	10	11	9	9	10	3	2	3	4	4	6	6	6	8	7	9	9.3	17.0
5-Feb	7	10	12	10	8	7	4	3	5	10	12	9	13	3	5	3	5	3	5	8	7	8	7	7	7.1	13.0
6-Feb	5	5	6	6	6	5	5	6	5	5	4	5	4	3	3	2	4	3	3	6	3	4	3	4	4.4	6.2
7-Feb	6	6	5	2	3	3	5	4	4	3	4	5	3	3	5	6	4	5	5	4	2	4	5	3	4.1	6.3
8-Feb	5	5	4	6	6	3	1	4	6	4	4	4	6	6	5	5	5	5	10	12	12	14	15	15	6.3	14.9
9-Feb	15	12	13	14	16	15	16	18	15	16	17	17	17	16	13	11	10	9	6	7	9	10	11	10	12.9	17.7
10-Feb	13	7	10	12	11	11	14	12	7	9	14	14	12	10	9	8	6	7	6	9	14	17	17	15	10.9	17.4
11-Feb	20	13	6	2	3	4	2	2	2	4	3	2	3	5	4	1	3	3	6	9	9	15	18	20	6.5	20.2
12-Feb	21	24	26	25	23	22	21	22	23	24	23	20	20	15	8	15	15	15	17	16	21	21	18	19	19.7	25.9
13-Feb	19	15	12	15	15	11	16	13	10	21	24	26	21	27	30	31	28	26	22	17	24	21	14	19	19.7	30.5
14-Feb	25	28	24	26	24	20	17	17	16	11	12	11	11	12	9	5	6	4	7	12	18	17	16	13	15.0	27.8
15-Feb	12	11	10	14	16	16	12	13	12	7	14	20	19	19	22	18	17	18	16	25	24	14	13	15	15.7	25.0
16-Feb	10	8	13	14	10	10	9	6	11	8	4	8	9	12	10	13	20	15	15	8	11	13	10	7	10.5	19.7
17-Feb	7	5	7	10	10	10	10	8	14	5	5	7	8	10	8	8	10	6	4	4	7	5	9	10	7.8	13.6
18-Feb	10	14	11	17	18	14	14	13	14	11	11	12	14	17	15	17	19	18	18	15	14	15	15	12	14.5	19.2
19-Feb	7	10	11	15	17	17	16	14	14	14	14	14	9	13	10	11	15	21	22	19	12	10	12	12	13.7	21.9
20-Feb	14	14	10	6	11	8	7	9	11	9	7	8	8	7	5	3	4	4	4	9	13	14	16	17	9.2	17.3
21-Feb	20	18	17	17	16	19	21	20	18	14	15	15	16	17	17	14	9	7	10	11	13	12	11	14	15.1	21.1
22-Feb	17	15	9	8	8	8	6	7	10	11	11	13	15	13	12	13	18	13	11	13	16	17	18	21	12.7	21.3
23-Feb	23	21	20	20	20	20	22	21	22	22	22	19	18	21	22	23	12	16	21	26	27	22	17	19	20.7	26.8
24-Feb	18	16	12	11	10	10	9	9	10	7	4	4	3	4	2	2	4	7	6	5	11	11	12	17	8.5	18.0
25-Feb	22	14	10	12	17	15	12	11	5	7	9	10	10	11	11	8	6	4	1	3	2	2	4	4	8.8	21.9
26-Feb	5	10	5	5	11	13	15	13	17	16	15	16	13	13	17	25	27	21	20	28	26	30	41	31	18.1	41.0
27-Feb	34	31	35	31	32	31	34	34	32	29	25	25	24	18	13	23	20	13	12	16	15	19	21	16	24.3	34.8
28-Feb	9	5	12	16	15	15	16	15	15	15	14	9	5	1	1	1	2	2	4	5	3	4	5	7	8.2	16.3
	13.4	12.4	11.8	12.5	12.8	12.0	12.1	11.3	11.5	11.0	11.1	11.4	11.0	10.5	9.9	10.2	10.6	9.8	10.1	11.4	12.3	12.6	12.8	12.9	Diurnal Average	
	33.7	30.5	34.8	31.5	31.5	30.7	34.2	33.7	32.1	29.3	24.9	25.7	23.7	26.9	29.6	30.5	28.1	26.3	22.0	28.5	26.8	30.0	41.0	31.4	Diurnal Maximum	

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

Hourly Standard Deviations

Wind Direction (WD) - deg

Donnelly - February 2018

Maximum Value: 86.7 deg on Feb 4 15:00																		Hours in Service: 672							
Minimum Value: 1.4 deg on Feb 9 00:00																		Hours of Data: 672							
Percentiles: P ₁ = 1.7 P ₁₀ = 2.7 Q ₁ = 4.0 Median = 7.3 Q ₃ = 12.7 P ₉₀ = 25.5 P ₉₉ = 75.3																		Hours of Missing Data: 0							
																		Hours of Calibration: 0							
																		Percent Operational Time: 100.0							
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Feb	7	7	6	3	3	5	5	28	11	29	50	38	16	14	12	14	10	17	19	14	17	12	11	8	49.8
2-Feb	18	14	12	9	9	11	15	13	6	5	4	7	9	10	10	8	9	5	5	13	7	8	5	7	18.2
3-Feb	14	7	8	6	9	19	11	7	34	10	10	5	6	5	8	12	10	19	5	6	3	4	7	7	34.1
4-Feb	3	5	4	3	3	3	3	7	8	4	3	6	8	77	87	16	39	28	9	6	11	9	10	3	86.7
5-Feb	8	3	2	7	9	6	40	63	30	12	19	16	13	63	22	31	59	80	42	14	13	4	11	8	79.6
6-Feb	22	12	12	15	6	14	13	10	12	12	13	11	12	42	23	44	26	10	26	16	13	15	26	16	44.5
7-Feb	7	10	12	71	35	17	7	12	9	30	43	32	21	42	5	3	5	11	9	24	19	7	6	10	71.2
8-Feb	5	4	6	6	5	21	72	33	9	22	12	10	6	8	9	10	12	10	15	5	4	2	2	1	71.9
9-Feb	2	2	2	3	2	2	2	2	2	2	3	2	3	2	5	4	8	12	24	9	6	6	7	8	23.6
10-Feb	8	14	9	8	7	8	10	13	12	10	6	6	7	8	7	9	18	11	9	17	7	6	4	8	18.0
11-Feb	4	6	19	74	30	42	76	41	62	25	25	73	43	41	6	83	33	32	18	3	5	3	3	3	83.4
12-Feb	3	3	3	2	3	3	2	3	3	2	2	2	2	9	12	4	3	2	5	3	7	3	4	5	11.5
13-Feb	5	10	8	8	10	7	4	11	17	4	2	5	4	3	5	5	6	3	5	3	3	6	6	31	31.2
14-Feb	11	3	4	5	4	4	5	5	5	6	6	6	8	9	8	19	9	20	8	4	3	2	4	3	20.2
15-Feb	6	5	4	3	6	2	6	7	10	35	7	3	4	3	2	2	2	6	14	7	3	17	11	4	34.6
16-Feb	12	19	6	6	4	12	6	13	7	11	23	8	7	6	17	3	3	6	6	14	5	3	3	9	23.3
17-Feb	9	14	9	14	10	9	10	19	15	43	31	16	28	8	11	11	14	8	27	30	16	19	19	11	42.6
18-Feb	11	4	6	3	5	7	6	7	7	3	10	7	10	6	11	7	3	3	3	4	7	6	3	7	11.4
19-Feb	13	6	8	4	3	3	5	7	8	6	8	10	17	4	17	11	10	6	3	4	19	9	3	4	19.4
20-Feb	6	4	13	26	8	10	13	7	6	10	13	8	10	16	24	67	24	35	15	6	3	3	3	3	66.7
21-Feb	5	2	3	2	2	2	2	2	4	7	6	6	4	12	3	4	4	11	6	4	6	9	7	4	11.7
22-Feb	3	2	19	7	8	5	15	7	7	3	5	4	2	3	3	12	5	8	7	5	4	4	3	2	19.5
23-Feb	2	2	3	2	2	3	3	4	14	4	4	3	4	6	5	8	21	5	9	4	2	3	3	6	21.2
24-Feb	4	20	16	15	8	7	8	10	10	18	21	25	58	11	75	65	34	10	9	47	7	14	7	7	74.9
25-Feb	10	2	15	9	13	5	17	46	46	14	6	16	8	11	7	6	9	7	68	21	15	34	26	14	68.0
26-Feb	8	4	33	16	10	6	5	5	3	3	3	4	6	14	4	4	3	6	3	4	5	5	6	7	33.4
27-Feb	7	9	4	3	3	3	3	3	2	3	9	4	4	15	12	4	3	9	17	9	9	6	3	9	17.1
28-Feb	51	13	3	1	2	5	5	4	2	3	2	2	7	84	60	84	60	13	19	6	11	7	6	7	84.1
50.6	20.5	33.4	74.0	34.7	42.4	76.1	62.8	62.3	42.6	49.8	72.7	58.0	84.1	86.7	84.1	59.5	79.6	68.0	47.0	19.4	33.5	26.2	31.2		

PAZA

Portable – Rycroft Station

Monthly Summary Tables, Graphs and
Roses

Hourly Averages

Sulphur Dioxide (SO₂) - ppb

Portable Rycroft - February 2018

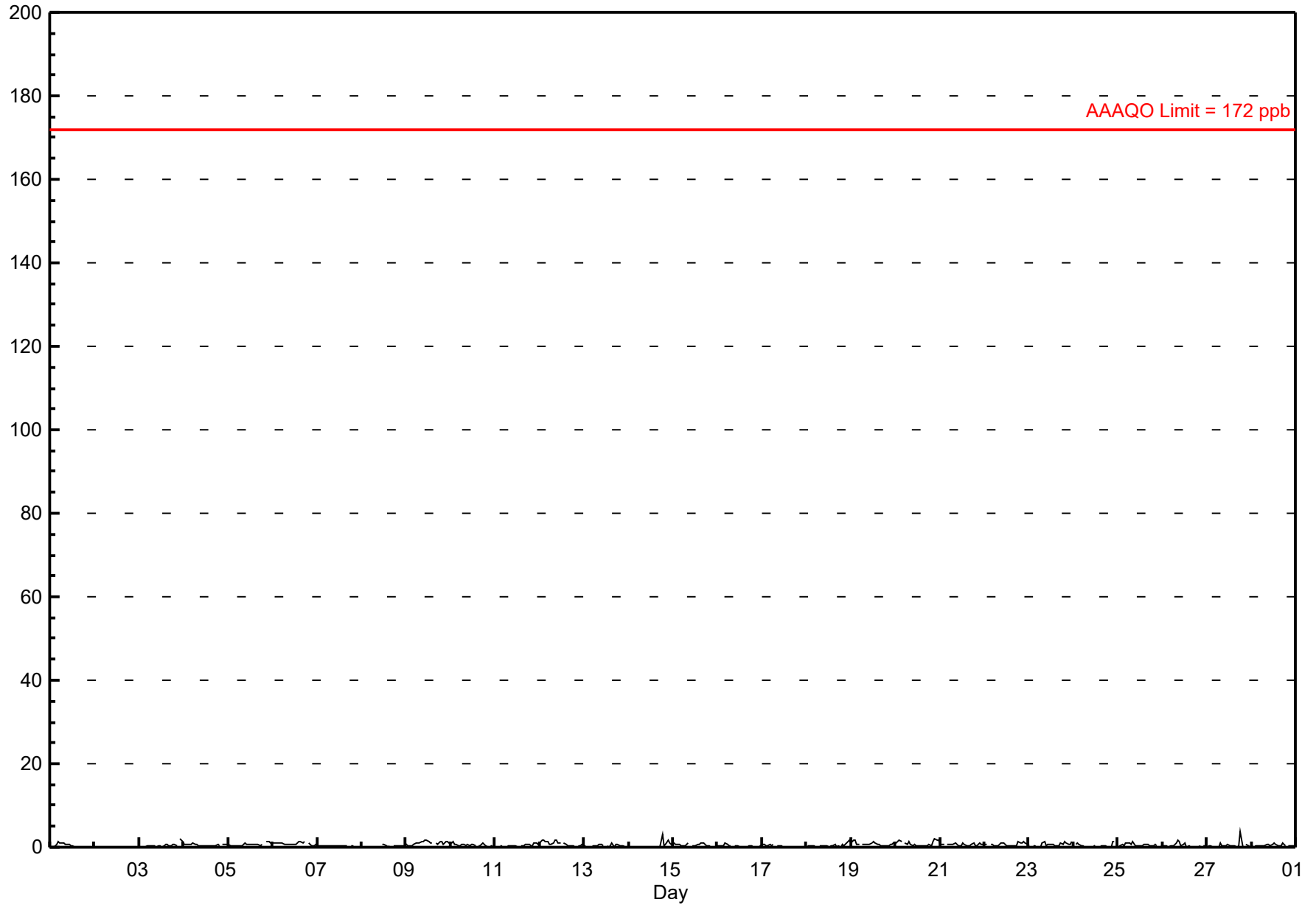
Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0	Hours in Service: 672
Maximum Value: 3.8 ppb on Feb 27 19:00	Maximum Daily Average: 1.1 ppb on Feb 9
Minimum Value: 0 ppb on Feb 1 20:00	Hours of Data: 639
Maximum Diurnal Average: 0.7 ppb at hour 9	Hours of Missing Data: 33
Monthly Average: 0.50 ppb	Hours of Calibration: 33
Minimum Daily Average: 0.0 ppb on Feb 2	Percent Operational Time: 100.0
Minimum Diurnal Average: 0.3 ppb at hour 17	
Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.2 Median = 0.4 Q ₃ = 0.7 P ₉₀ = 1.1 P ₉₉ = 1.7	

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-Feb	A	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0.4	1.4
2-Feb	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
3-Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	1	0	A	2	1	0.4	2.0
4-Feb	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	1	0	A	1	1	1	0.6	1.0
5-Feb	1	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	0	1	A	1	1	1	1	1	0.7	1.5
6-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0	0	1	1	0.9	1.5
7-Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.3	0.5
8-Feb	0	0	0	0	0	0	0	0	C	C	C	1	1	0	0	0	0	A	0	0	0	0	0	0	0.2	0.7
9-Feb	1	0	0	0	1	1	1	1	1	1	2	2	1	1	1	A	1	1	1	1	1	1	1	1	1.1	1.8
10-Feb	1	1	1	1	0	0	1	1	0	1	0	1	1	0	A	0	0	1	1	1	0	0	0	0	0.5	1.4
11-Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	1	1	1	1	0	1	1	1	0.4	1.0
12-Feb	1	2	2	1	1	1	1	1	2	2	1	1	A	1	1	0	0	0	0	0	0	0	0	1	0.8	1.7
13-Feb	0	0	0	0	0	0	0	0	1	1	0	A	0	0	0	1	0	1	1	1	0	0	0	0	0.3	0.9
14-Feb	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	3	0	1	2	1	0.3	3.0
15-Feb	1	1	1	1	0	0	0	1	1	A	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0.5	1.2
16-Feb	0	0	0	0	1	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.9
17-Feb	1	1	0	1	1	0	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8
18-Feb	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	2	0.4	1.7
19-Feb	1	2	2	1	1	A	1	1	1	1	1	1	1	1	1	1	0	0	0	0	1	1	1	1	0.8	1.7
20-Feb	1	2	2	1	A	1	1	1	1	0	1	0	0	0	0	0	0	0	1	0	1	2	2	2	0.9	1.9
21-Feb	1	1	1	A	1	1	1	1	1	1	0	1	1	1	0	0	0	1	1	0	0	1	1	1	0.6	1.2
22-Feb	1	1	A	1	1	0	0	0	1	1	1	1	0	0	0	0	0	0	1	1	1	1	1	1	0.7	1.4
23-Feb	0	A	0	0	0	0	0	1	1	1	1	1	1	0	0	0	1	1	1	1	1	1	1	1	0.6	1.5
24-Feb	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	A	0.4	1.4
25-Feb	0	0	1	0	1	1	1	1	1	0	0	0	0	1	1	1	0	0	0	1	0	A	0	0	0.6	1.4
26-Feb	0	0	0	0	0	0	0	1	2	1	0	1	1	0	0	0	0	0	0	0	0	A	0	0	0.4	1.6
27-Feb	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	4	0	A	1	0	0	0.4	3.8
28-Feb	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	1	0	A	0	0	0	0	0.4	0.9
	0.5	0.5	0.5	0.5	0.5	0.4	0.5	0.5	0.7	0.6	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.4	0.7	0.4	0.4	0.6	0.7	0.6	Diurnal Average	
	1.2	1.7	1.7	1.4	1.4	1.0	1.1	1.2	1.6	1.6	1.6	1.8	1.5	1.1	1.4	1.3	1.0	1.5	3.8	1.5	1.3	1.9	2.0	1.7	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span
 Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Hourly Averages

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



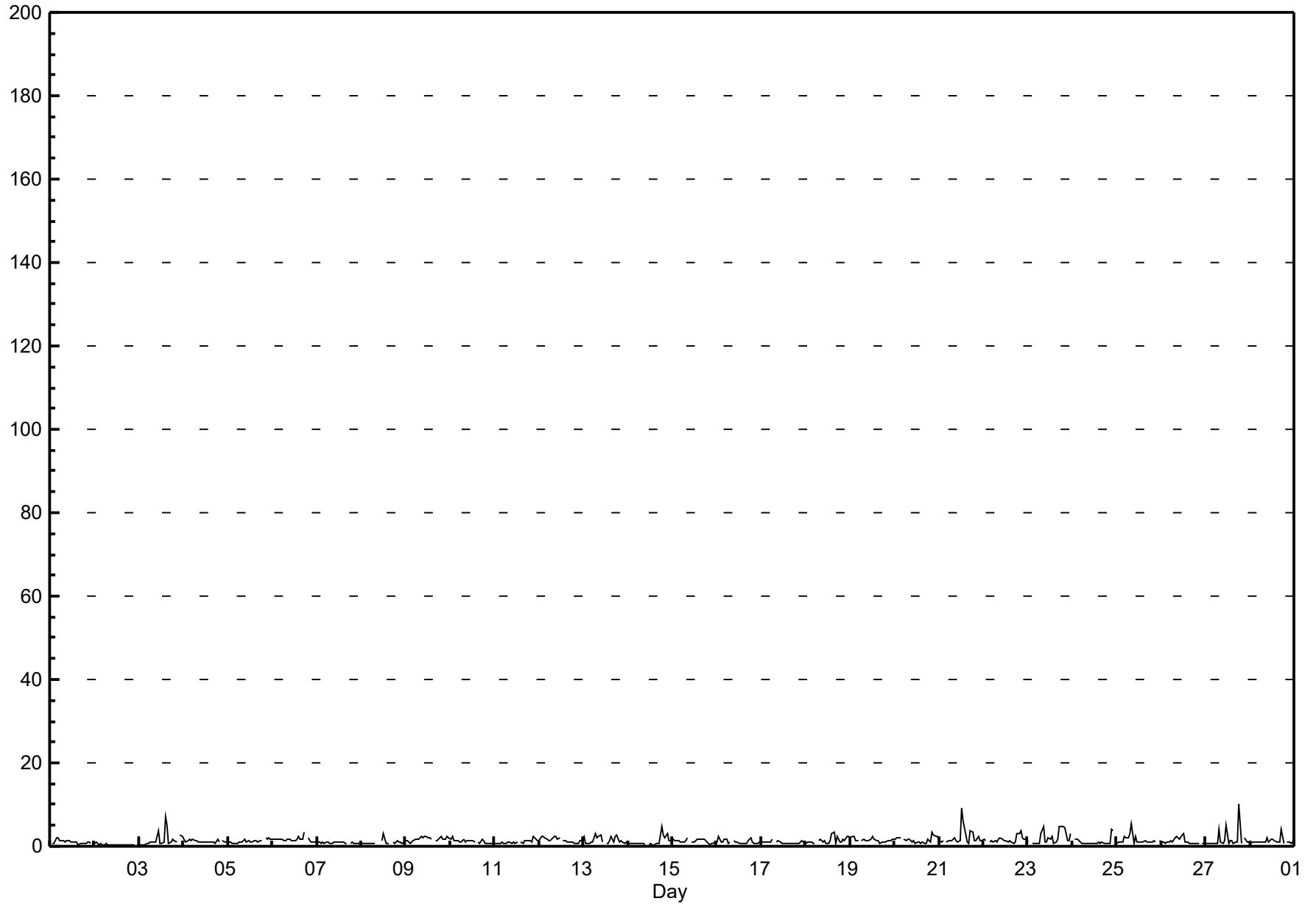
Hourly Maximums

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

Maximum Value: 10.1 ppb on Feb 27 19:00		Maximum Daily Average: 2.1 ppb on Feb 23		Hours in Service: 672 Hours of Data: 639 Hours of Missing Data: 33 Hours of Calibration: 33 Percent Operational Time: 100.0																																												
Minimum Value: 0 ppb on Feb 3 03:00		Minimum Daily Average: 0.5 ppb on Feb 2																																														
Maximum Diurnal Average: 2.0 ppb at hour 19		Minimum Diurnal Average: 1.0 ppb at hour 17																																														
Monthly Average: 1.34 ppb		Percentiles: P ₁ = 0.4 P ₁₀ = 0.6 Q ₁ = 0.8 Median = 1.1 Q ₃ = 1.5 P ₉₀ = 2.3 P ₉₉ = 4.9																																														
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-Feb	A	1	1	2	2	2	2	2	1	1	2	1	1	1	1	0	1	1	1	1	1	1	1	A	1.1	2.0																						
2-Feb	1	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.5	0.9																						
3-Feb	0	0	0	0	1	1	1	1	1	1	4	1	1	1	7	5	1	1	2	1	1	A	3	2	1.6	7.0																						
4-Feb	2	1	1	2	1	2	2	1	1	1	1	1	1	1	1	1	1	1	2	1	A	1	1	1	1.2	1.7																						
5-Feb	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	A	2	2	2	2	1.3	2.2																						
6-Feb	2	2	2	2	2	2	1	1	2	2	1	1	1	2	2	2	2	3	A	2	1	1	1	1	1.6	3.3																						
7-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0.9	1.2																						
8-Feb	1	1	1	1	1	1	1	1	C	C	C	1	3	1	1	1	A	1	1	1	1	1	1	1	1.0	3.2																						
9-Feb	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	A	1	1	2	2	2	2	2	2	1.8	2.4																						
10-Feb	2	2	1	2	1	1	1	2	1	1	1	1	1	1	A	1	1	2	1	1	1	1	1	1	1.2	2.2																						
11-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	2	2	1	1.0	2.4																						
12-Feb	2	2	2	2	2	2	1	2	2	2	2	2	A	1	1	1	1	1	1	1	1	1	1	1	1.5	2.4																						
13-Feb	2	1	1	1	1	1	3	2	2	3	1	A	1	1	1	2	1	2	3	1	1	1	1	1	1.4	3.1																						
14-Feb	1	1	1	1	1	1	1	1	1	0	A	0	1	1	1	1	1	1	5	3	2	3	2	2	1.1	4.7																						
15-Feb	2	1	2	1	1	1	1	2	2	A	1	1	1	2	2	2	2	2	2	1	1	0	1	1	1.2	2.0																						
16-Feb	1	2	1	1	2	2	1	1	A	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1.1	2.4																						
17-Feb	1	1	1	1	1	1	2	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.6																						
18-Feb	1	1	1	1	1	1	1	A	1	2	1	1	1	1	3	4	1	2	1	1	2	1	2	2	1.4	3.5																						
19-Feb	2	2	2	1	1	A	1	2	1	1	1	2	2	2	1	1	1	1	1	1	1	1	1	2	1.5	2.4																						
20-Feb	2	2	2	2	A	2	2	2	2	1	1	1	1	1	1	1	1	1	2	1	3	3	2	2	1.6	3.3																						
21-Feb	1	1	1	A	1	1	1	1	2	1	1	1	9	6	3	1	1	4	3	1	1	2	1	1	2.1	9.0																						
22-Feb	2	1	A	1	1	1	1	1	2	2	2	2	1	1	1	1	1	1	3	3	4	2	2	2	1.6	3.6																						
23-Feb	1	A	1	1	1	1	1	3	5	1	1	2	2	2	1	1	2	5	5	5	4	1	1	3	2.1	4.7																						
24-Feb	A	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	4	A	1.2	4.1																						
25-Feb	1	1	1	1	2	2	2	3	6	1	2	1	1	1	1	1	1	1	1	1	2	1	A	1	1.5	5.5																						
26-Feb	1	1	1	1	1	1	1	2	2	2	2	3	3	1	1	1	1	1	1	1	1	A	1	1	1.2	2.9																						
27-Feb	1	1	1	1	1	1	1	4	1	1	1	5	1	1	1	1	1	1	10	1	A	2	1	1	1.7	10.1																						
28-Feb	1	1	1	1	1	1	1	1	1	2	1	2	2	1	1	1	1	4	1	A	1	1	1	1	1.2	4.0																						
																								1.2	1.2	1.1	1.1	1.1	1.1	1.2	1.5	1.7	1.3	1.3	1.3	1.5	1.3	1.4	1.2	1.0	1.5	2.0	1.3	1.4	1.5	1.4	1.4	Diurnal Average
																								2.3	2.4	2.4	2.2	2.2	1.9	3.1	4.1	5.5	2.7	3.7	5.1	9.0	6.1	7.0	5.0	1.7	4.7	10.1	4.7	4.5	4.1	3.6	3.1	Diurnal Maximum
C - Calibration																								A - Automated Daily Zero Span																								

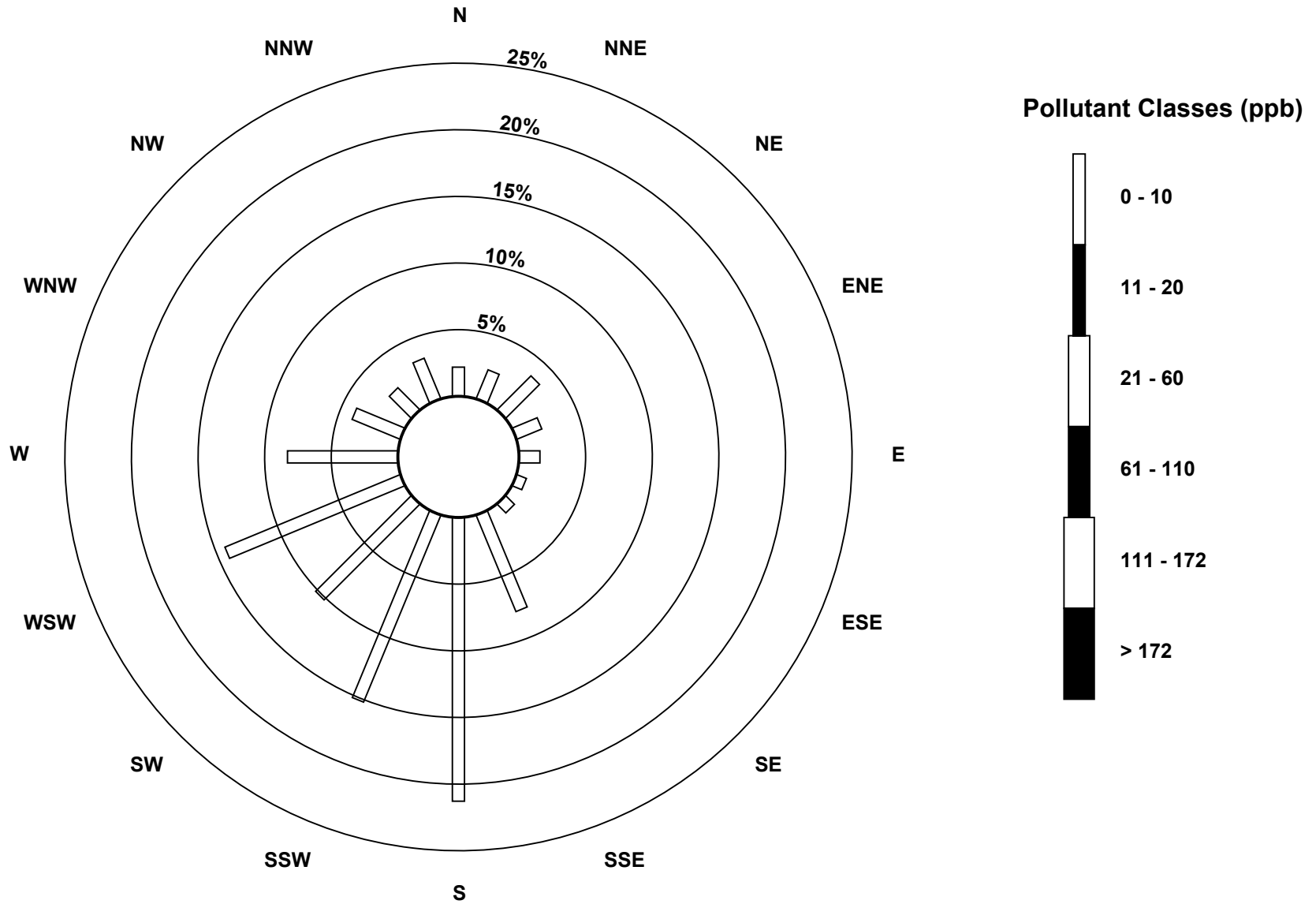
Hourly Maximums

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



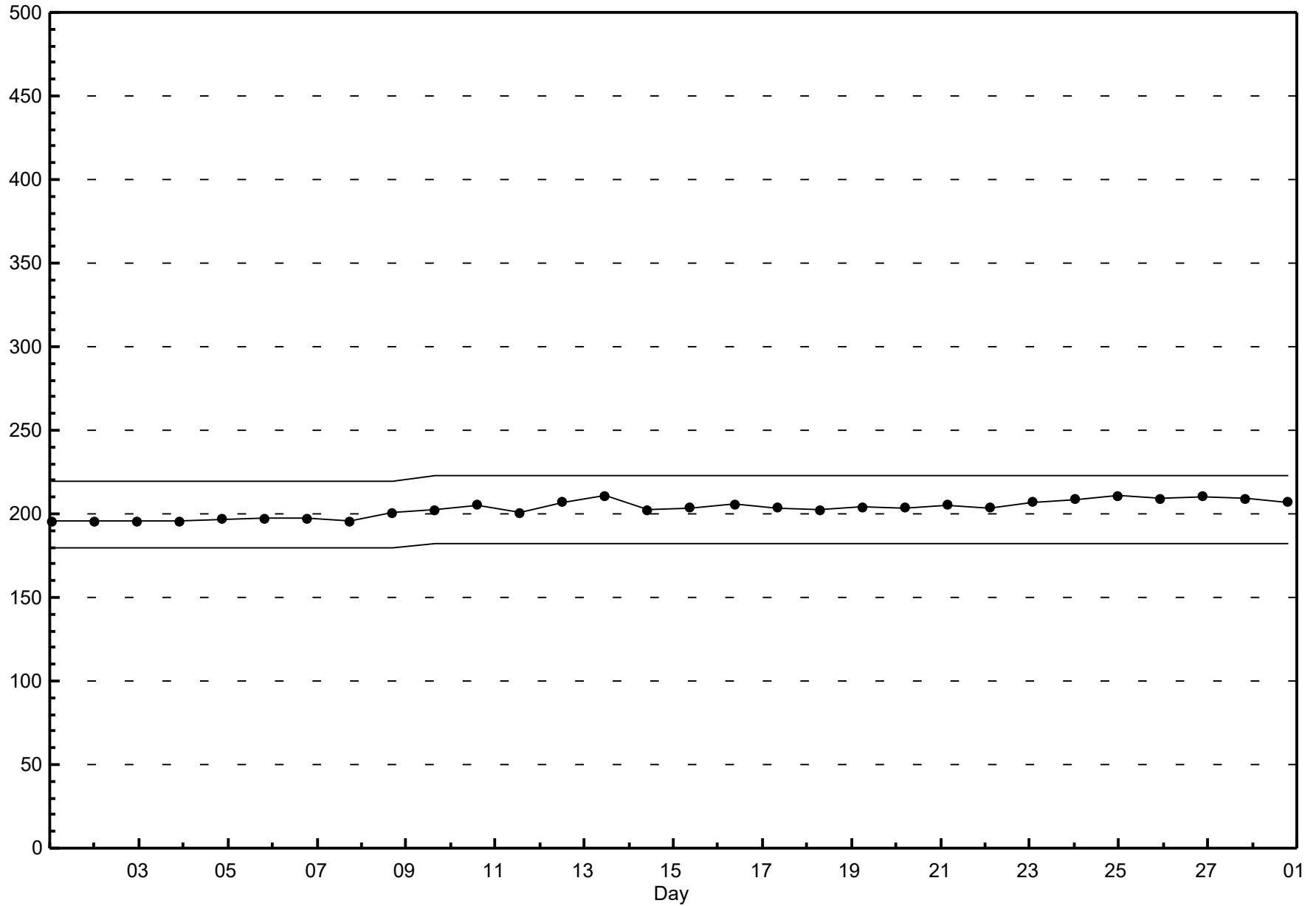
Pollutant Rose

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



Span Responses

Sulphur Dioxide (SO₂)
Portable Rycroft - February 2018

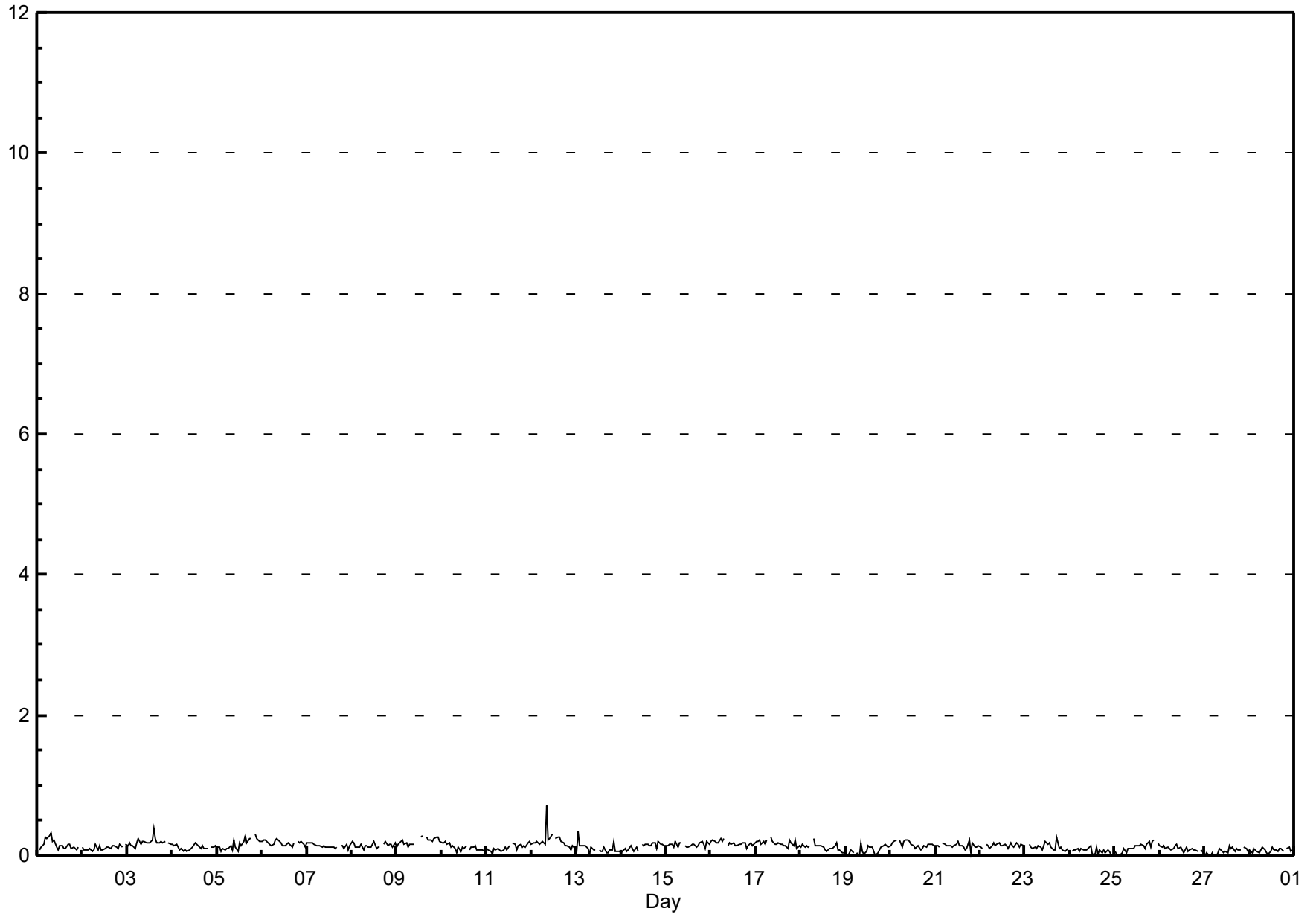


Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Portable Rycroft - February 2018

Maximum Value: 0.7 ppb on Feb 12 09:00		Maximum Daily Average: 0.2 ppb on Feb 12		Hours in Service: 672																							
Minimum Value: 0 ppb on Feb 19 02:00		Minimum Daily Average: 0.1 ppb on Feb 27		Hours of Data: 639																							
Maximum Diurnal Average: 0.2 ppb at hour 9		Minimum Diurnal Average: 0.1 ppb at hour 17		Hours of Missing Data: 33																							
Monthly Average: 0.14 ppb		Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.1 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 0.2 P ₉₉ = 0.3		Hours of Calibration: 33																							
				Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Feb	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	
2-Feb	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	
3-Feb	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	
4-Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	0.2	
5-Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.2	0.3	
6-Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.2	0.2	
7-Feb	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	
8-Feb	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	
9-Feb	0	0	0	0	0	0	0	0	0	0	C	C	C	0	0	A	A	0	0	0	0	0	0	0	0.2	0.3	
10-Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.1	0.2	
11-Feb	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	
12-Feb	0	0	0	0	0	0	0	0	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7	
13-Feb	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	
14-Feb	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	
15-Feb	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.2	
16-Feb	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	0.2	
17-Feb	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3	
18-Feb	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	
19-Feb	0	0	0	0	0	0	A	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
20-Feb	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	0.2	
21-Feb	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-Feb	0	0	A	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	
23-Feb	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	
24-Feb	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	
25-Feb	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	
26-Feb	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	
27-Feb	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	0.1	
28-Feb	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	0.1	
		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	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	Diurnal Average	
		0.2	0.3	0.2	0.2	0.3	0.2	0.3	0.3	0.7	0.2	0.2	0.3	0.2	0.3	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									



Hourly Maximums

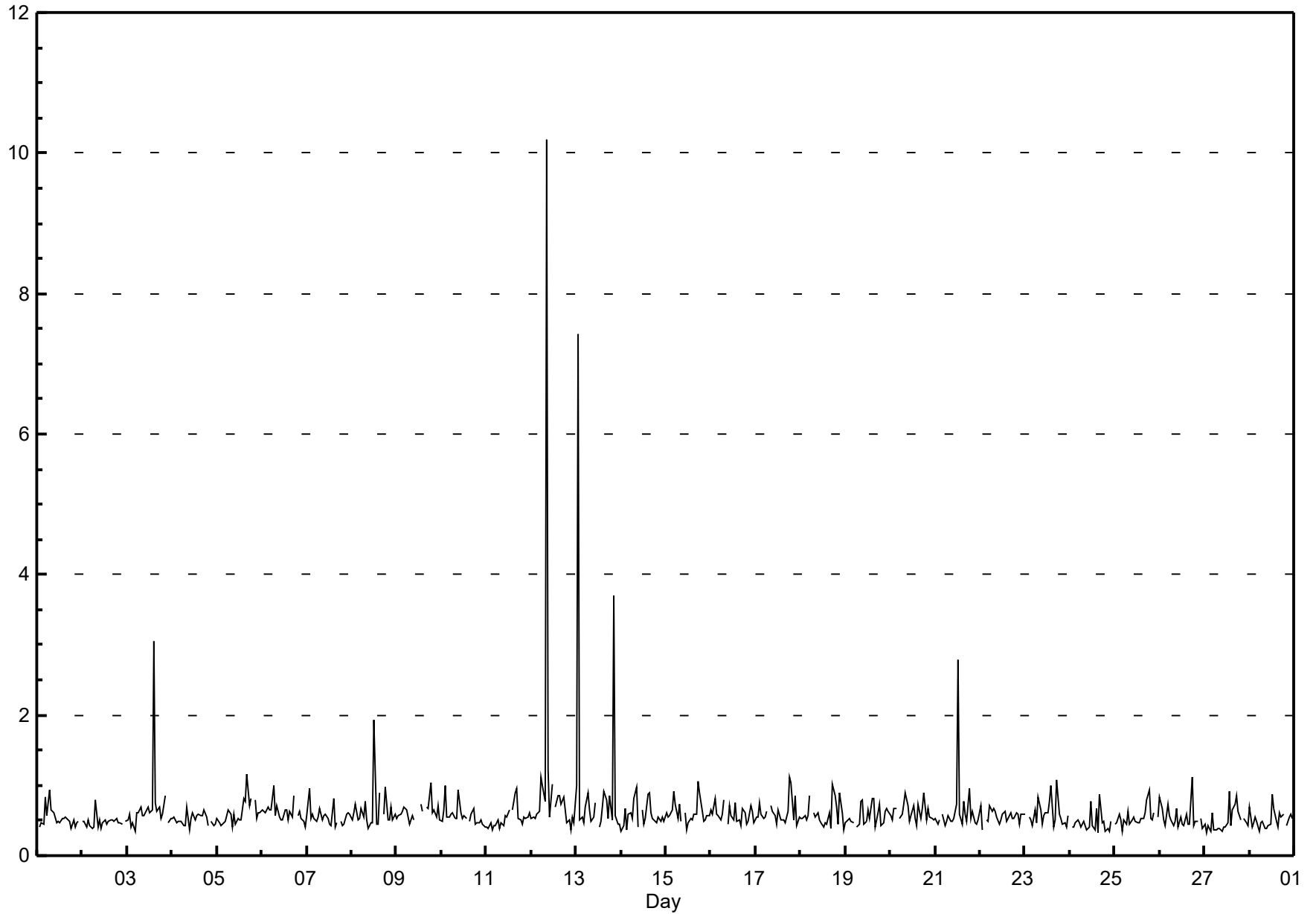
Total Reduced Sulphur (TRS) - ppb

Portable Rycroft - February 2018

Maximum Value: 10.2 ppb on Feb 12 09:00		Maximum Daily Average: 1.1 ppb on Feb 12		Hours in Service: 672																						
Minimum Value: 0 ppb on Feb 24 16:00		Minimum Daily Average: 0.5 ppb on Feb 24		Hours of Data: 639																						
Maximum Diurnal Average: 0.9 ppb at hour 9		Minimum Diurnal Average: 0.5 ppb at hour 24		Hours of Missing Data: 33																						
Monthly Average: 0.61 ppb		Percentiles: P ₁ = 0.3 P ₁₀ = 0.4 Q ₁ = 0.5 Median = 0.5 Q ₃ = 0.6 P ₉₀ = 0.8 P ₉₉ = 1.2		Hours of Calibration: 33																						
				Percent Operational Time: 100.0																						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Feb	A	0	0	0	1	1	1	1	1	1	0	0	0	1	1	1	1	0	0	1	0	0	0	A	0.5	0.9
2-Feb	0	0	0	1	0	0	0	1	0	1	0	0	1	0	0	0	1	0	1	0	0	0	A	0	0.5	0.8
3-Feb	0	1	0	0	0	1	1	1	1	1	1	1	1	3	1	1	1	1	1	1	1	A	0	0.7	3.1	
4-Feb	1	1	0	0	0	0	0	0	1	0	1	1	1	1	1	1	1	1	1	0	A	0	0	0.5	0.7	
5-Feb	1	0	0	0	0	1	1	1	0	1	0	1	1	1	1	1	1	1	1	A	1	1	1	0.6	1.2	
6-Feb	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0	0.6	1.0	
7-Feb	1	1	1	1	1	0	1	1	1	1	1	1	0	0	1	0	0	A	0	0	0	1	1	1	0.6	1.0
8-Feb	1	1	1	1	1	1	1	1	0	0	0	2	0	0	1	0	A	1	1	1	1	1	1	1	0.6	1.9
9-Feb	1	1	1	1	1	1	1	0	1	1	C	C	C	1	1	A	1	1	1	1	1	1	1	1	0.6	1.0
10-Feb	0	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0	1	1	1	0	0	0	1	0	0.6	1.0
11-Feb	0	0	0	0	0	0	1	0	0	0	1	1	1	A	1	1	1	1	1	0	1	1	1	1	0.5	1.0
12-Feb	1	1	1	1	1	1	1	1	10	1	1	1	A	1	1	1	1	1	1	1	0	1	0	1	1.1	10.2
13-Feb	1	7	1	1	0	1	1	1	0	1	1	A	0	0	1	1	1	1	1	0	4	1	0	0	1.1	7.4
14-Feb	0	0	1	0	1	1	1	1	1	0	A	1	0	1	1	1	1	1	0	0	1	0	1	0	0.6	1.0
15-Feb	1	1	1	1	1	1	1	1	0	A	1	0	0	1	1	1	1	1	1	1	0	1	1	1	0.6	1.1
16-Feb	1	1	1	1	1	1	1	1	A	0	1	1	1	1	0	0	0	1	1	0	0	1	1	0	0.6	0.8
17-Feb	1	1	1	1	1	1	1	A	1	1	1	0	1	1	1	0	1	1	1	1	1	1	0	1	0.6	1.1
18-Feb	1	1	1	1	1	1	A	1	1	1	1	0	0	0	0	1	0	1	1	1	1	0	1	1	0.6	1.0
19-Feb	0	1	1	0	0	A	0	0	1	1	0	0	1	1	1	1	0	1	1	1	0	0	1	1	0.6	0.8
20-Feb	1	1	1	1	A	1	1	1	1	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1	0.6	0.9
21-Feb	1	0	1	A	1	0	0	1	0	0	1	1	3	1	0	1	1	0	1	1	1	0	0	1	0.7	2.8
22-Feb	1	0	A	1	0	1	1	1	1	1	0	1	1	1	0	1	1	1	1	1	1	1	0	1	0.6	0.7
23-Feb	1	A	1	1	0	1	0	1	1	0	1	1	1	1	0	1	1	1	1	1	0	0	0	1	0.6	1.1
24-Feb	A	0	0	0	1	0	0	0	0	0	0	1	0	0	1	0	1	0	0	0	0	0	0	A	0.5	0.9
25-Feb	0	0	1	0	0	1	0	1	0	1	1	0	0	0	1	1	1	1	1	1	1	1	A	1	0.5	0.9
26-Feb	1	1	1	0	1	1	1	0	0	1	0	1	0	0	1	0	0	1	0	0	0	A	1	0	0.5	1.1
27-Feb	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1	1	1	1	1	1	A	1	0	0.5	0.9
28-Feb	1	0	0	1	0	0	0	0	0	0	0	0	1	1	0	0	1	1	1	1	A	0	1	1	0.5	0.9
	0.6	0.8	0.6	0.5	0.6	0.6	0.6	0.6	0.9	0.6	0.5	0.6	0.7	0.6	0.7	0.6	0.6	0.7	0.7	0.5	0.7	0.6	0.5	0.5	Diurnal Average	
	1.0	7.4	1.0	0.7	0.9	1.1	1.0	0.8	10.2	1.2	0.8	1.0	2.8	0.9	3.1	0.9	1.2	1.1	1.1	1.0	3.7	0.9	0.7	0.6	Diurnal Maximum	
C - Calibration																								A - Automated Daily Zero Span		

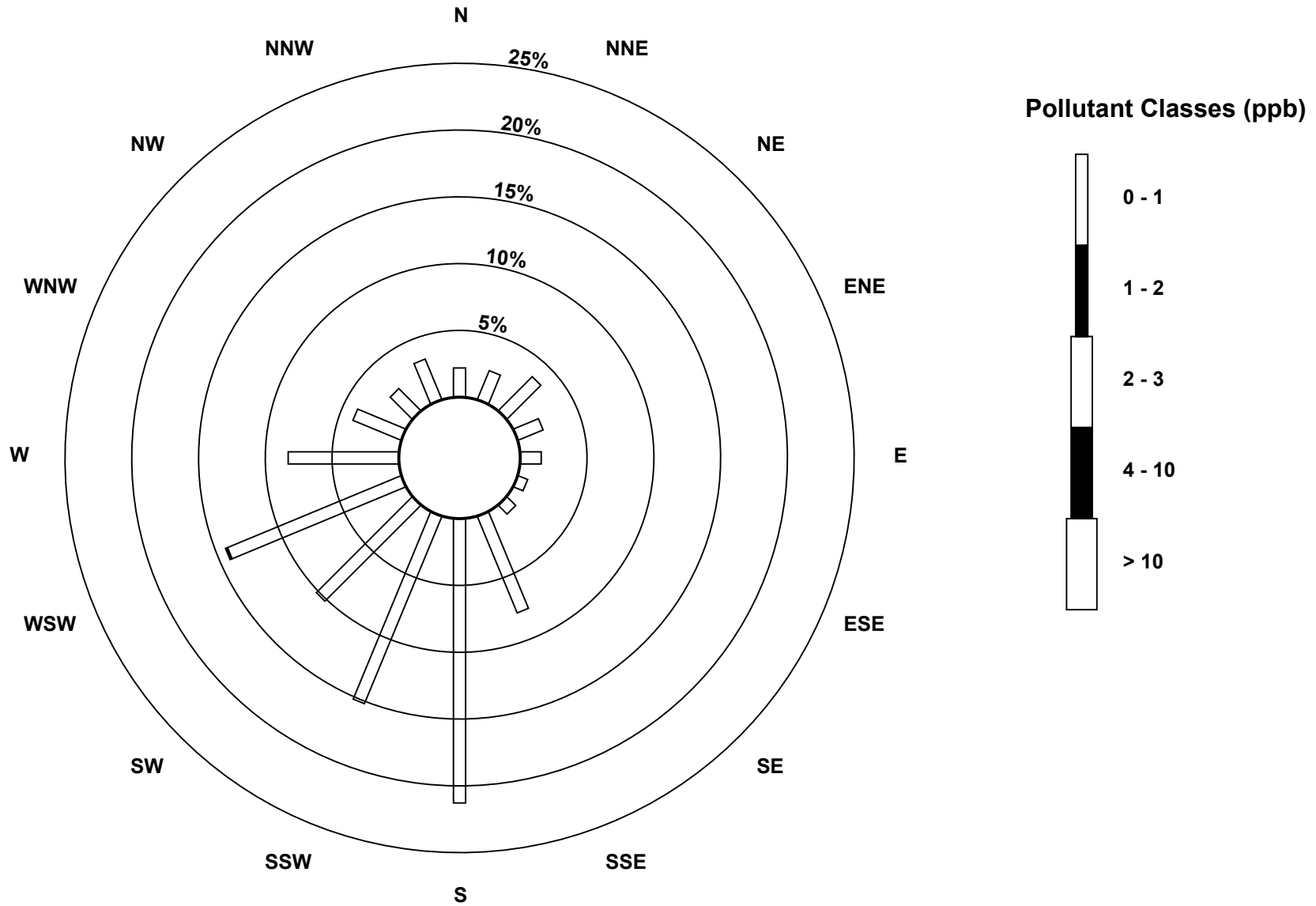
Hourly Maximums

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



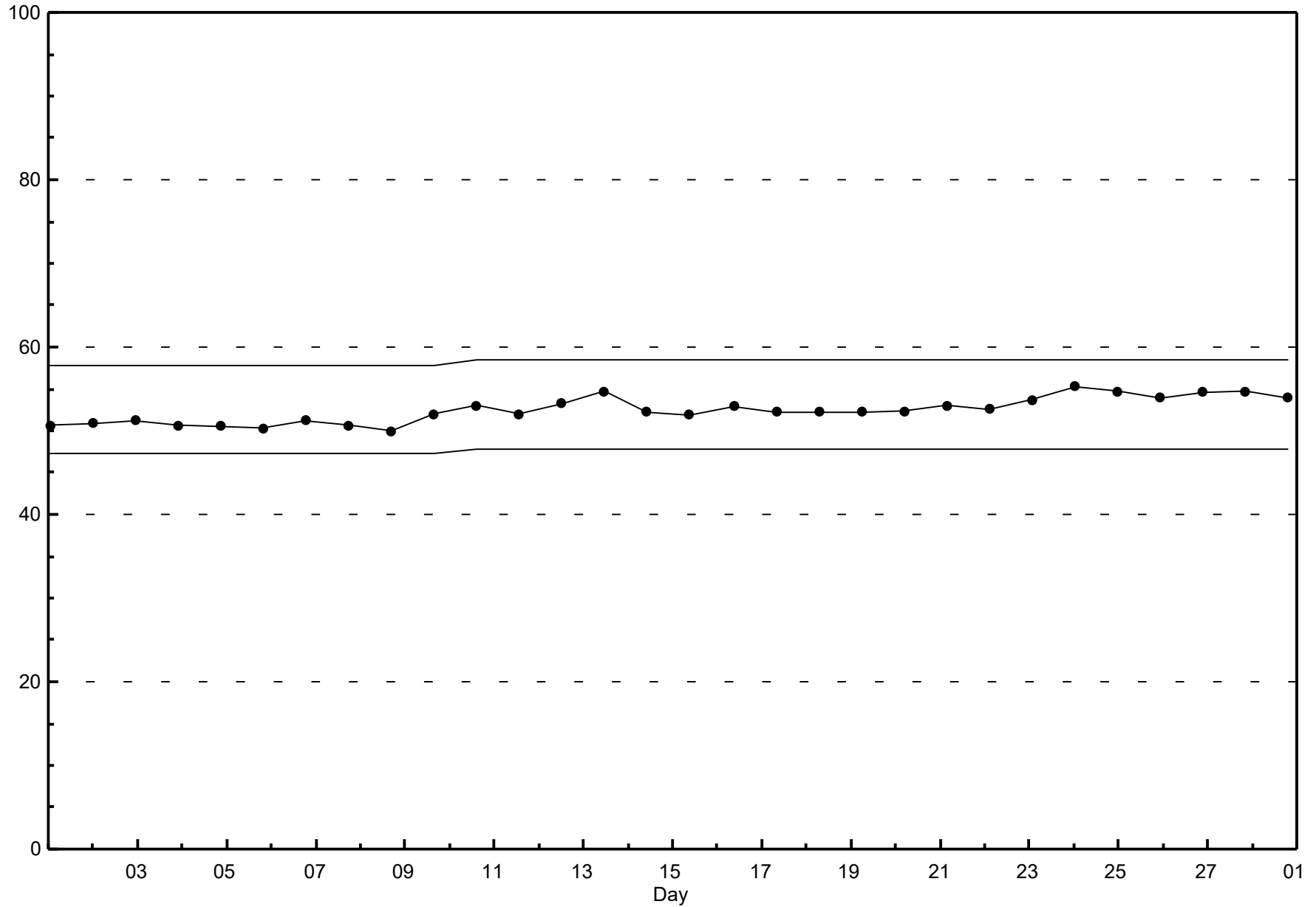
Pollutant Rose

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



Span Responses

**Total Reduced Sulphur (TRS)
Portable Rycroft - February 2018**



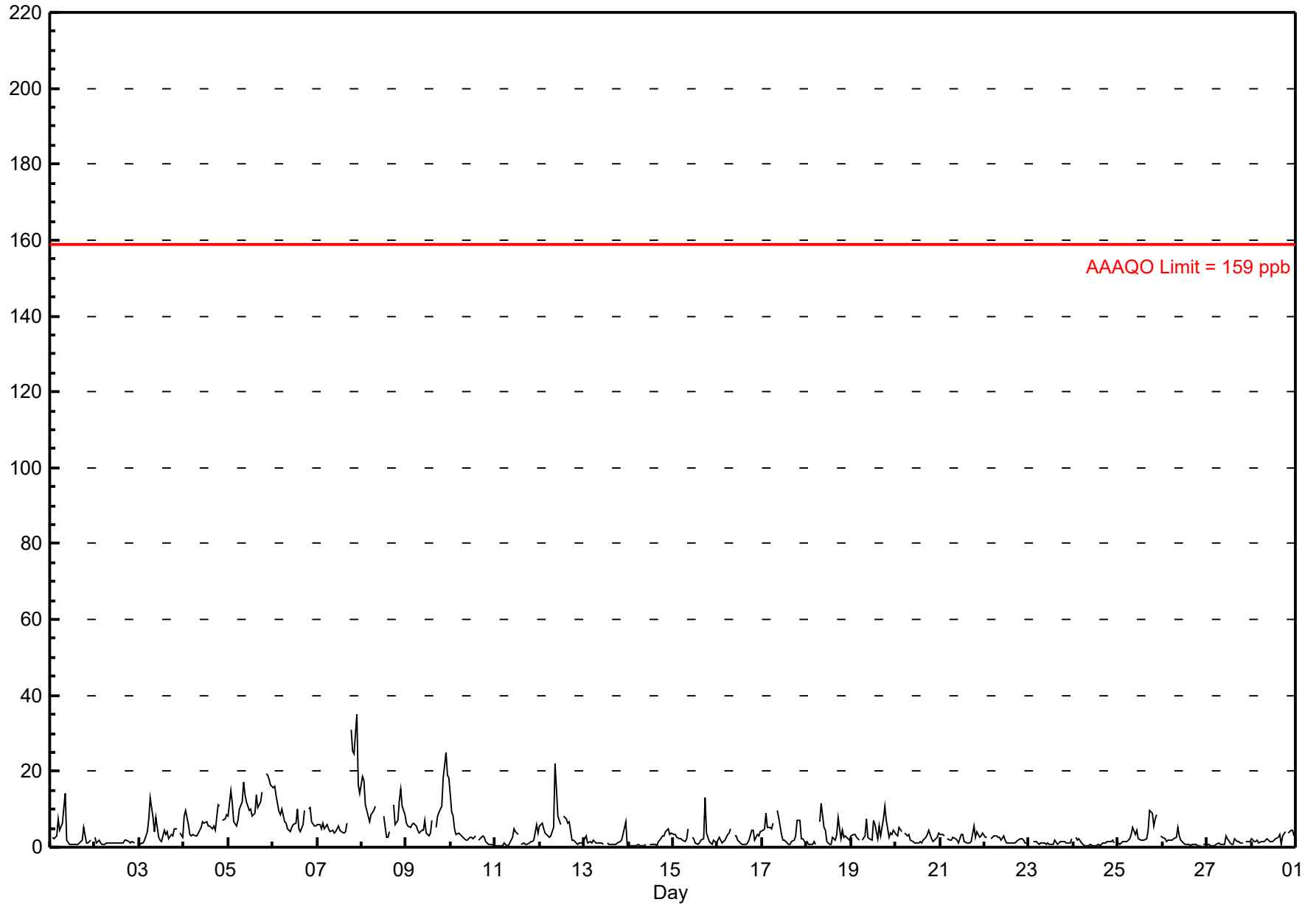
Hourly Averages

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

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0	Hours in Service: 672
Maximum Value: 35.1 ppb on Feb 7 22:00	Maximum Daily Average: 12.2 ppb on Feb 5
Minimum Value: 0 ppb on Feb 11 04:00	Hours of Data: 638
Maximum Diurnal Average: 6.2 ppb at hour 22	Hours of Missing Data: 34
Monthly Average: 3.89 ppb	Hours of Calibration: 34
Minimum Daily Average: 1.1 ppb on Feb 24	Percent Operational Time: 100.0
Minimum Diurnal Average: 2.5 ppb at hour 15	
Percentiles: P ₁ = 0.3 P ₁₀ = 0.8 Q ₁ = 1.2 Median = 2.4 Q ₃ = 4.9 P ₉₀ = 8.8 P ₉₉ = 19.2	

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-Feb	A	3	2	3	7	5	6	10	14	2	1	1	1	1	1	1	2	2	5	1	1	1	2	A	3.2	14.1
2-Feb	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	1	1	1	A	1	1.3	2.5
3-Feb	1	1	1	2	4	7	13	8	4	8	3	2	1	4	3	4	2	3	3	5	5	A	4	3	4.0	13.0
4-Feb	8	10	6	3	3	3	3	3	4	5	7	6	7	6	6	5	6	5	11	11	A	7	8	8	6.1	11.1
5-Feb	8	15	12	7	6	7	10	12	17	14	12	10	10	8	9	14	11	12	15	A	19	19	18	16	12.2	19.4
6-Feb	16	16	14	9	8	10	7	6	5	4	5	6	6	10	5	4	6	10	A	10	10	7	6	6	8.1	16.1
7-Feb	6	6	5	6	5	6	5	4	5	4	4	6	4	4	4	4	6	A	31	25	25	35	17	14	10.0	35.1
8-Feb	18	18	11	8	7	9	10	11	C	C	C	C	8	3	3	4	A	11	6	7	12	15	11	8	9.5	18.5
9-Feb	6	5	5	6	6	6	4	4	5	4	7	4	3	4	7	A	5	8	10	11	18	25	19	18	8.3	25.1
10-Feb	9	8	5	3	4	3	3	2	2	2	3	3	2	3	A	2	2	3	3	1	1	1	1	0	2.9	9.2
11-Feb	0	0	0	0	1	1	0	0	1	2	5	4	4	A	1	1	1	1	1	2	2	2	6	4	1.7	5.9
12-Feb	6	6	5	4	3	3	3	5	22	15	8	6	A	8	8	6	7	2	2	1	1	1	1	1	5.4	22.1
13-Feb	2	3	1	1	1	2	1	1	1	1	1	A	1	1	1	1	1	1	1	2	2	3	7	0	1.5	6.5
14-Feb	0	0	0	0	0	1	0	0	0	1	A	1	1	1	1	1	2	2	3	3	4	5	3	4	1.4	4.9
15-Feb	3	3	3	2	2	2	1	2	5	A	3	2	1	1	1	2	2	13	4	1	1	1	2	1	2.6	13.2
16-Feb	2	3	1	2	2	3	4	5	A	3	3	2	1	1	1	1	1	2	4	4	2	3	3	4	2.5	4.9
17-Feb	5	5	9	5	5	5	6	A	10	8	4	2	2	1	1	1	1	2	3	7	7	2	2	1	4.1	9.6
18-Feb	1	1	1	1	1	1	A	7	12	5	4	1	1	1	3	2	3	8	2	4	3	3	2	2	3.0	11.6
19-Feb	3	3	3	3	2	A	2	3	7	2	2	2	7	6	2	6	3	7	11	7	3	4	3	4	4.2	10.6
20-Feb	3	3	5	4	A	4	3	4	2	2	1	1	1	1	2	3	3	5	2	1	2	3	4	4	2.6	5.2
21-Feb	3	4	3	A	2	2	2	3	2	2	1	3	3	1	1	1	1	1	6	3	4	3	3	4	2.6	5.6
22-Feb	3	3	A	2	3	3	3	3	2	2	3	2	1	1	1	1	1	1	2	2	2	2	1	1	2.0	3.1
23-Feb	1	A	1	2	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	2	1.2	2.1
24-Feb	A	3	2	2	1	1	1	0	0	1	0	0	0	1	1	1	1	1	1	1	2	2	1	A	1.1	2.6
25-Feb	1	1	2	2	1	1	2	3	5	3	4	2	2	2	2	2	5	10	9	6	7	9	A	3	3.6	9.5
26-Feb	3	2	2	2	2	2	2	2	5	3	2	1	1	1	1	1	1	1	1	0	1	A	1	1	1.5	5.2
27-Feb	1	1	0	0	1	1	1	1	1	1	3	2	1	1	1	2	2	2	1	1	A	1	2	2	1.2	3.1
28-Feb	2	1	1	2	1	1	2	2	2	2	2	1	2	2	3	3	1	3	4	A	4	4	4	3	2.3	4.5
	4.4	4.6	3.8	3.1	3.0	3.3	3.6	3.9	5.3	3.7	3.5	2.8	2.7	2.7	2.5	2.7	2.9	4.3	5.4	4.7	5.3	6.2	5.0	4.4	Diurnal Average	
	18.5	17.6	13.5	9.4	8.5	10.1	13.0	12.0	22.1	15.4	11.9	9.8	10.1	10.0	9.0	13.9	10.6	13.2	31.0	25.3	24.7	35.1	18.9	18.3	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span
 Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb 24-hr 106 ppb



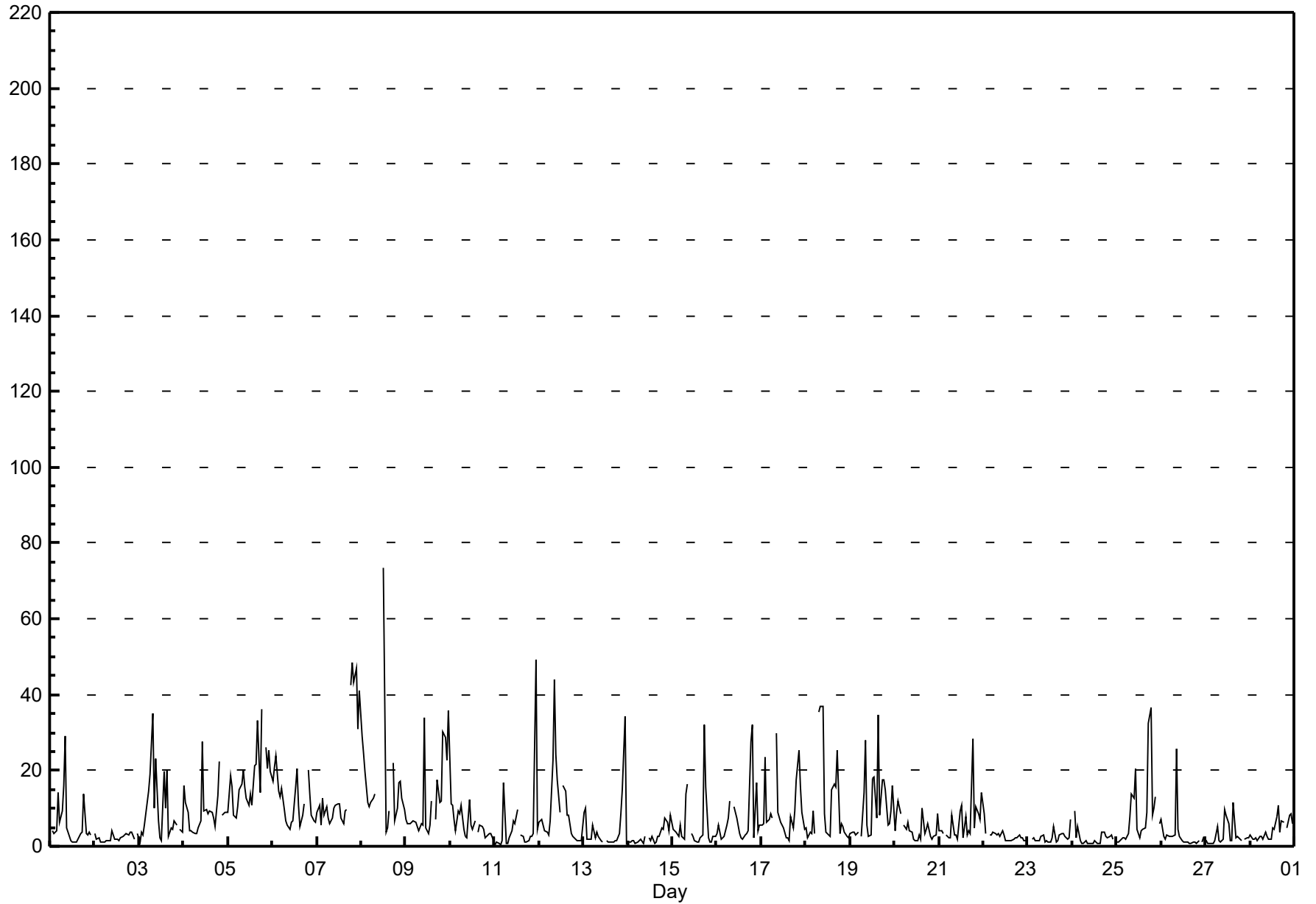
Hourly Maximums

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

Maximum Value: 73.5 ppb on Feb 8 13:00		Maximum Daily Average: 17.7 ppb on Feb 7		Hours in Service: 672																							
Minimum Value: 1 ppb on Feb 11 04:00		Minimum Daily Average: 2.2 ppb on Feb 24		Hours of Data: 638																							
Maximum Diurnal Average: 11.8 ppb at hour 9		Minimum Diurnal Average: 4.6 ppb at hour 4		Hours of Missing Data: 34																							
Monthly Average: 7.59 ppb		Percentiles: P ₁ = 0.7 P ₁₀ = 1.3 Q ₁ = 2.2 Median = 4.1 Q ₃ = 9.3 P ₉₀ = 17.6 P ₉₉ = 42.0		Hours of Calibration: 34																							
				Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Feb	A	4	3	4	14	7	9	16	29	5	2	1	1	1	2	4	4	14	3	3	4	3	A	6.1	29.0		
2-Feb	3	2	2	1	1	1	2	2	1	4	3	2	2	2	2	3	3	3	4	4	2	A	3	2.4	3.9		
3-Feb	1	4	3	6	12	15	19	35	10	23	7	2	2	20	10	20	2	5	5	7	6	A	4	9.6	35.1		
4-Feb	16	12	9	4	4	4	4	3	5	7	28	9	10	9	9	7	5	13	23	A	8	9	9.4	27.7			
5-Feb	9	19	16	8	7	10	15	16	20	16	13	11	14	11	21	22	33	14	36	A	26	20	17.5	36.0			
6-Feb	17	21	24	15	13	15	10	7	6	4	6	7	16	20	11	5	8	11	A	20	14	8	7	11.8	23.8		
7-Feb	9	11	6	13	8	11	8	6	7	10	11	11	11	7	6	9	10	A	43	48	43	47	31	17.7	48.4		
8-Feb	29	25	20	11	11	12	13	14	C	C	C	C	73	4	5	9	A	22	7	10	17	17	13	10	16.8	73.5	
9-Feb	7	6	6	6	7	6	5	4	6	6	34	5	3	6	12	A	7	18	11	12	30	29	23	36	12.4	35.7	
10-Feb	11	11	7	4	9	9	11	4	3	2	12	6	4	7	A	4	6	5	5	2	3	3	3	1	5.8	12.4	
11-Feb	1	1	1	1	1	17	1	1	2	4	7	6	10	A	3	2	1	1	2	3	2	3	49	5	5.3	49.2	
12-Feb	6	7	6	4	4	3	7	23	44	24	17	9	A	16	15	8	8	3	2	2	1	2	2	1	9.3	44.2	
13-Feb	9	10	2	2	2	5	2	4	3	2	1	A	1	1	1	1	2	1	3	8	15	34	1	4.9	34.1		
14-Feb	1	1	1	2	1	1	2	2	1	2	A	2	1	2	1	1	3	3	5	5	7	7	4	8	2.7	8.1	
15-Feb	5	4	4	3	5	3	2	14	16	A	3	3	1	1	1	2	3	32	16	2	1	1	3	3	5.6	32.2	
16-Feb	4	6	2	2	2	6	8	12	A	11	9	8	3	2	2	3	3	4	28	32	2	17	4	5	7.6	32.1	
17-Feb	5	6	23	6	7	9	7	A	30	9	6	6	5	2	2	1	8	5	9	18	26	16	9	4	9.6	29.7	
18-Feb	5	2	4	4	9	3	A	36	37	37	9	4	3	3	15	16	16	25	3	6	5	4	3	2	10.9	37.1	
19-Feb	4	4	4	3	4	A	2	14	28	6	3	3	18	18	7	35	8	18	18	15	6	6	9	16	10.7	34.7	
20-Feb	4	9	12	8	A	5	5	6	4	4	2	2	1	3	2	10	3	5	6	2	2	3	3	9	4.8	12.0	
21-Feb	4	4	3	A	3	2	2	8	3	3	2	9	11	2	8	3	4	3	28	5	10	9	7	14	6.5	28.4	
22-Feb	9	3	A	3	3	4	3	3	3	2	4	3	2	1	2	1	2	2	2	3	2	2	2	1	2.7	8.7	
23-Feb	1	A	2	2	2	2	1	2	3	1	1	1	1	2	5	1	1	3	3	3	2	2	2	7	2.4	7.0	
24-Feb	A	9	2	5	2	1	1	2	1	1	1	1	1	1	1	1	4	4	3	2	3	3	2	A	2.2	9.4	
25-Feb	1	1	2	2	2	2	3	8	14	13	21	4	2	4	5	5	9	32	36	8	10	13	A	6	8.9	36.4	
26-Feb	7	3	2	3	3	3	3	3	26	4	3	2	1	1	1	1	1	1	1	1	1	A	1	2	3.1	25.8	
27-Feb	2	1	1	1	1	1	5	1	1	2	10	8	6	2	2	12	2	2	2	2	A	2	2	2	3.0	11.7	
28-Feb	3	2	2	2	2	2	2	2	4	3	2	2	5	4	8	11	4	7	7	A	5	8	8	6	4.4	10.9	
		6.7	6.9	6.2	4.6	5.1	5.9	5.6	9.2	11.8	7.9	8.3	4.8	7.8	5.7	5.8	7.3	6.0	8.9	11.5	9.3	9.3	9.6	10.1	8.6	Diurnal Average	
		29.0	24.5	23.8	14.6	14.0	16.9	19.2	35.6	44.2	36.9	34.1	11.2	73.5	20.5	21.2	34.7	33.0	32.5	42.6	48.4	43.4	47.2	49.2	41.0	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

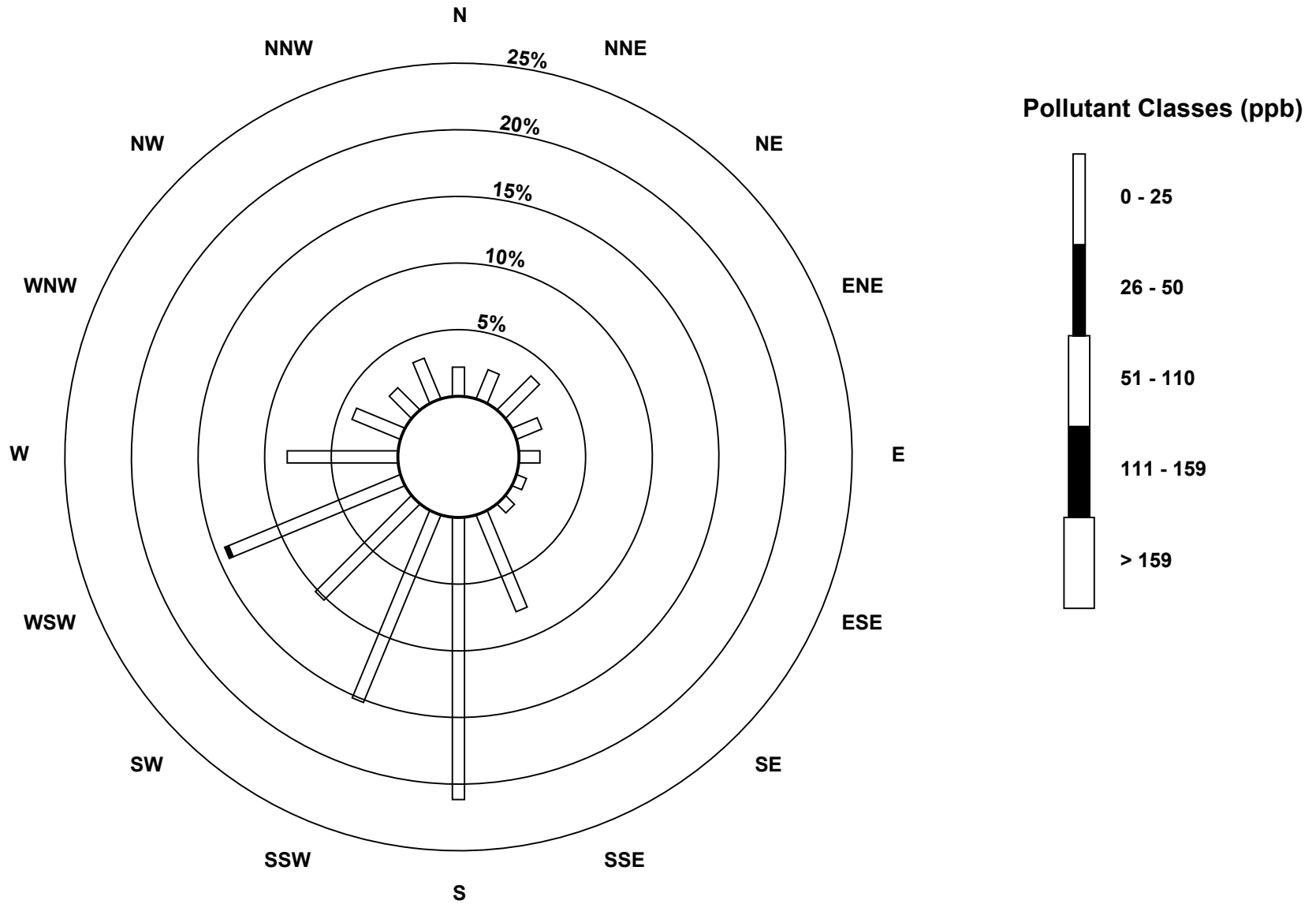
Hourly Maximums

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



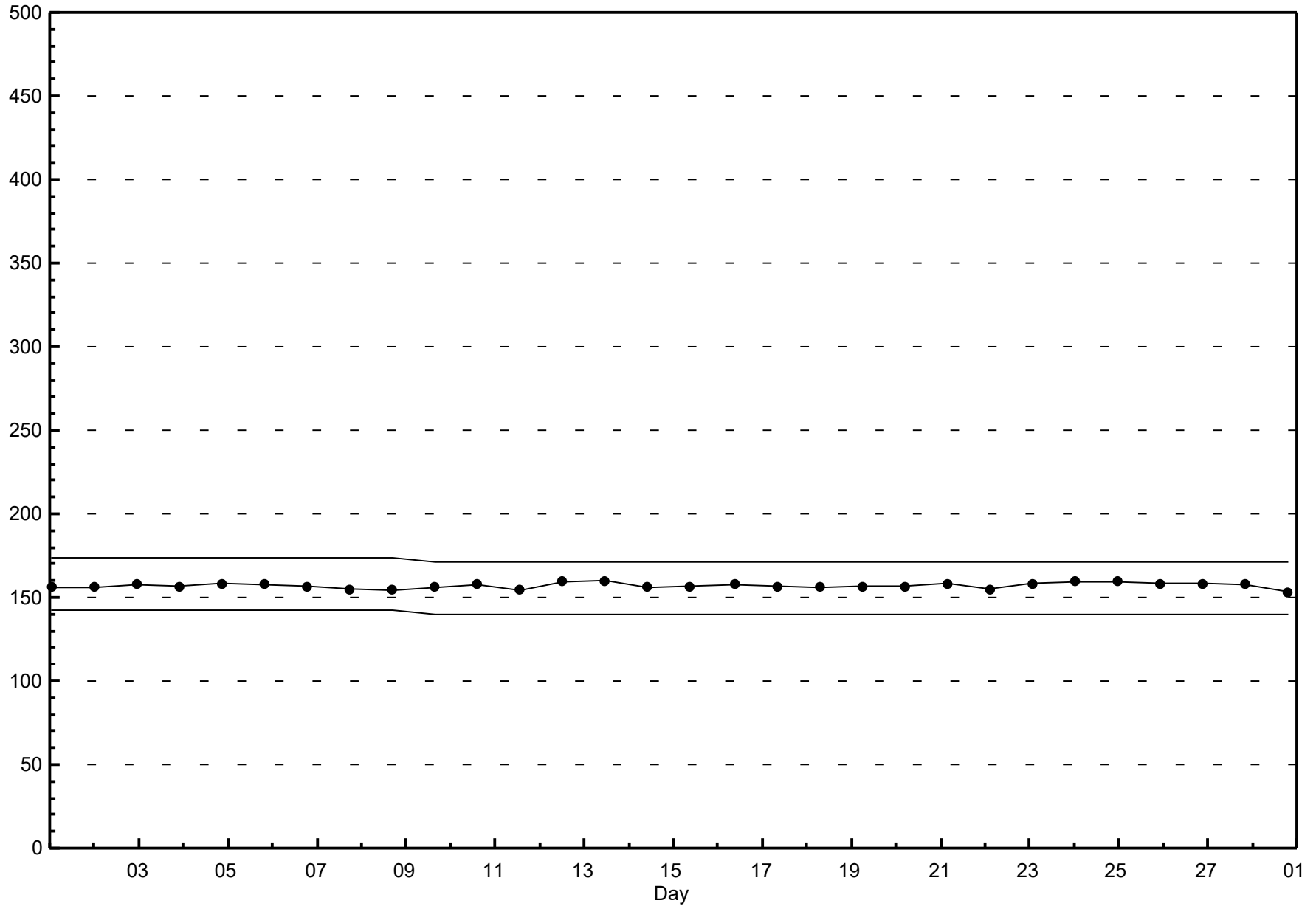
Pollutant Rose

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



Span Responses

Nitrogen Dioxide (NO₂)
Portable Rycroft - February 2018



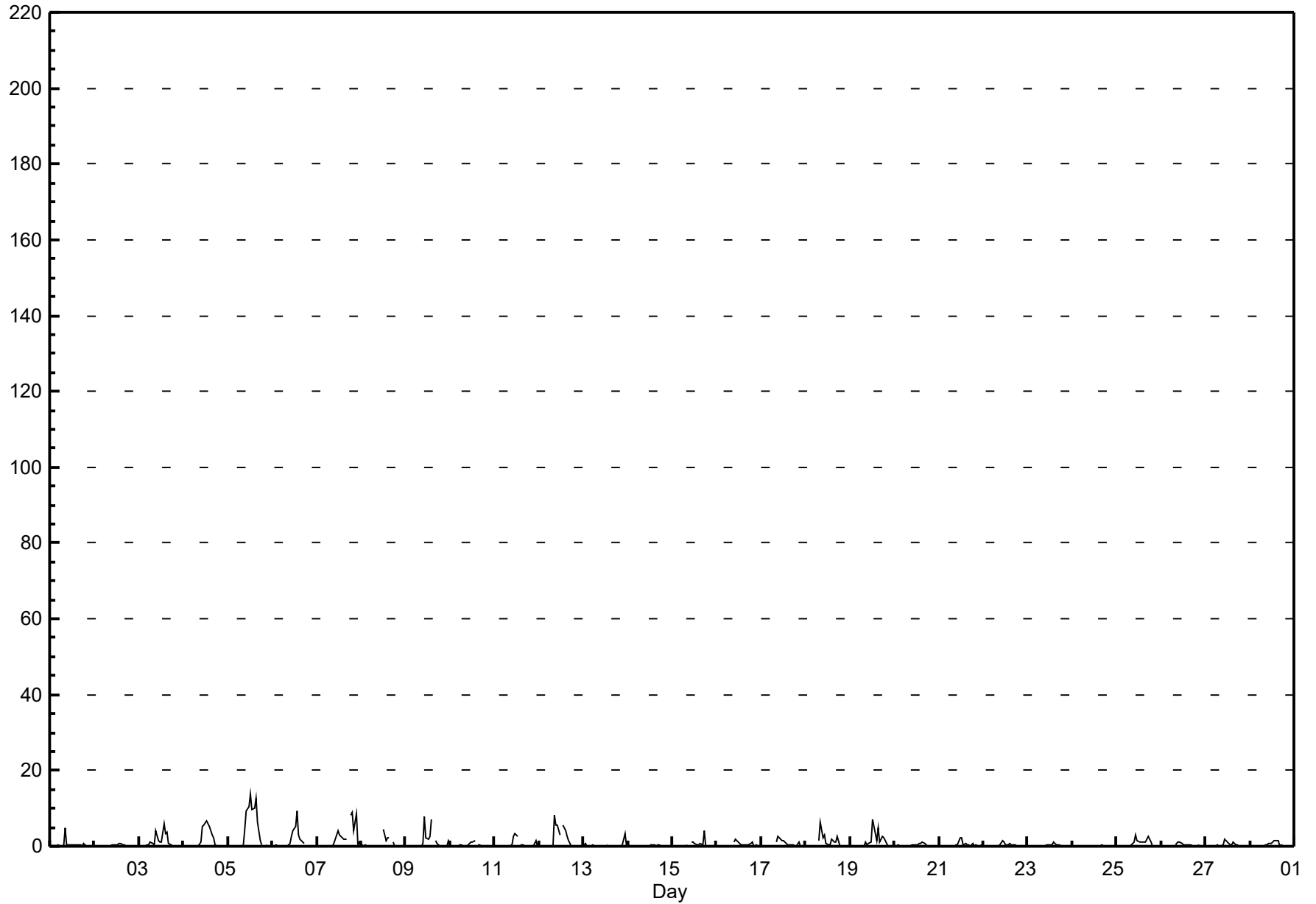
Hourly Averages

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

Maximum Value: 13.7 ppb on Feb 5 13:00		Maximum Daily Average: 3.5 ppb on Feb 5		Hours in Service: 672																							
Minimum Value: 0 ppb on Feb 4 08:00		Minimum Daily Average: 0.1 ppb on Feb 24		Hours of Data: 638																							
Maximum Diurnal Average: 2.2 ppb at hour 14		Minimum Diurnal Average: 0.0 ppb at hour 4		Hours of Missing Data: 34																							
Monthly Average: 0.76 ppb		Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.6 P ₉₀ = 2.1 P ₉₉ = 9.2		Hours of Calibration: 34																							
				Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Feb	A	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	1	0	0	0	0	A	0.4	4.7	
2-Feb	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	A	0	0.2	0.8	
3-Feb	0	0	0	0	0	1	1	1	0	4	1	1	1	6	3	4	1	0	0	0	0	A	0	1.1	5.9		
4-Feb	0	0	0	0	0	0	0	0	0	1	5	6	7	6	5	3	2	0	0	0	A	0	0	1.6	6.9		
5-Feb	0	0	0	0	0	0	0	0	1	5	9	10	14	10	10	13	6	1	0	A	0	0	0	3.5	13.7		
6-Feb	0	0	0	0	0	0	0	0	0	1	2	4	5	9	3	2	1	1	A	0	0	0	0	1.3	9.5		
7-Feb	0	0	0	0	0	0	0	0	0	1	2	4	3	3	2	2	2	A	8	9	4	8	0	2.1	9.0		
8-Feb	0	0	0	0	0	0	0	0	C	C	C	C	4	1	2	2	A	1	0	0	0	0	0	0.6	4.3		
9-Feb	0	0	0	0	0	0	0	0	0	1	8	2	2	3	7	A	1	1	0	0	0	0	0	1.2	8.0		
10-Feb	0	0	0	0	0	0	0	0	0	0	1	1	1	1	A	1	0	0	0	0	0	0	0	0.3	1.4		
11-Feb	0	0	0	0	0	0	0	0	0	1	3	3	3	A	0	0	0	0	0	0	0	0	1	0	0.5	3.3	
12-Feb	0	0	0	0	0	0	0	0	8	6	6	3	A	6	4	3	2	0	0	0	0	0	0	1.6	8.2		
13-Feb	0	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	3	0	0.3	3.3	
14-Feb	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	0.4	
15-Feb	0	0	0	0	0	0	0	0	0	0	A	1	1	1	0	0	1	0	4	0	0	0	0	0	0.4	3.9	
16-Feb	0	0	0	0	0	0	0	0	0	A	1	2	1	1	0	0	0	0	1	1	0	0	0	0	0.4	1.9	
17-Feb	0	0	0	0	0	0	0	0	0	0	A	1	3	2	1	1	1	0	0	0	0	1	0	0	0.5	2.6	
18-Feb	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	6.3	
19-Feb	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	7	5	1	5	1	3	2	1	0	1.3	7.0	
20-Feb	0	0	0	0	0	A	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0.3	1.2	
21-Feb	0	0	0	0	0	0	0	0	0	0	0	0	2	2	1	1	0	0	0	1	0	0	0	0	0.4	2.4	
22-Feb	0	0	0	0	0	0	0	0	0	0	0	0	2	1	1	0	1	0	0	0	0	0	0	0	0.3	1.5	
23-Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0.1	1.0	
24-Feb	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	
25-Feb	0	0	0	0	0	0	0	0	0	1	1	3	1	1	1	1	1	2	3	1	0	0	0	A	0	0.7	3.0
26-Feb	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	A	0	0.3	1.1	
27-Feb	0	0	0	0	0	0	0	0	0	0	2	2	1	0	0	1	0	0	0	0	0	A	0	0	0.3	1.8	
28-Feb	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	2	0	0	0	0	A	0	0	0	0.4	1.6	
		0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.1	1.0	1.1	2.1	1.9	2.2	2.2	1.8	1.6	0.9	0.7	0.5	0.5	0.3	0.4	0.2	0.1	Diurnal Average	
		0.3	0.9	0.3	0.1	0.2	0.5	1.1	1.6	8.2	5.6	9.2	10.3	13.7	9.7	10.1	12.8	6.2	3.9	8.2	9.0	4.1	8.4	3.3	1.5	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

Hourly Averages

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



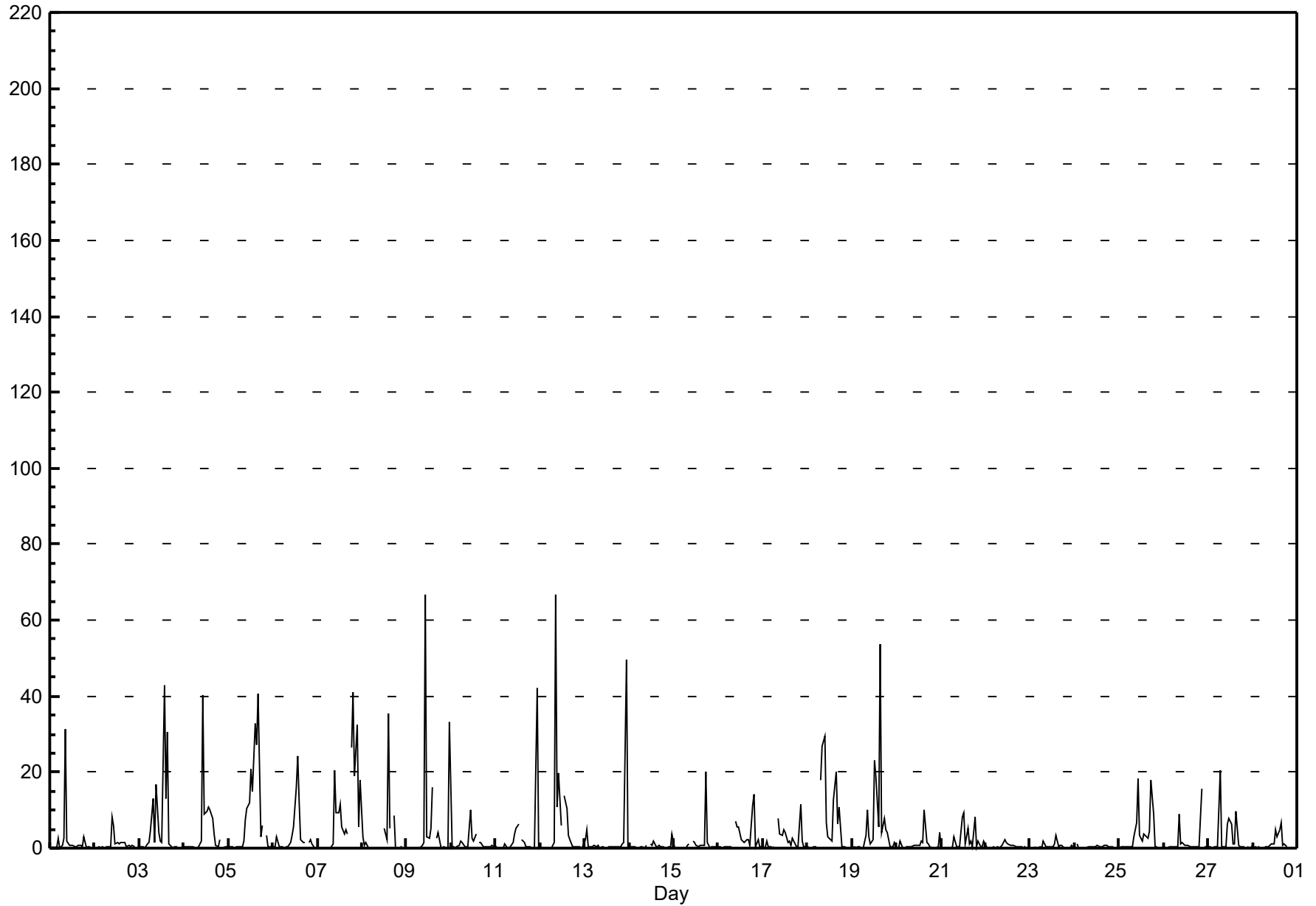
Hourly Maximums

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

Maximum Value: 66.9 ppb on Feb 9 11:00		Maximum Daily Average: 9.3 ppb on Feb 7		Hours in Service: 672																							
Minimum Value: 0 ppb on Feb 7 00:00		Minimum Daily Average: 0.3 ppb on Feb 24		Hours of Data: 638																							
Maximum Diurnal Average: 8.7 ppb at hour 11		Minimum Diurnal Average: 0.2 ppb at hour 4		Hours of Missing Data: 34																							
Monthly Average: 3.17 ppb		Percentiles: P ₁ = 0.1 P ₁₀ = 0.1 Q ₁ = 0.2 Median = 0.4 Q ₃ = 2.0 P ₉₀ = 8.9 P ₉₉ = 40.8		Hours of Calibration: 34																							
				Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Feb	A	0	0	0	3	0	1	3	31	2	1	1	1	1	1	1	1	0	3	0	0	0	0	A	2.2	31.3	
2-Feb	0	0	0	0	0	0	0	0	0	8	6	1	1	1	2	1	2	0	1	1	1	0	A	0	1.2	8.3	
3-Feb	0	0	0	0	1	2	5	13	2	17	4	2	1	43	13	31	1	1	0	0	0	A	0	0	5.9	42.8	
4-Feb	0	0	0	0	0	0	0	0	0	2	40	9	10	11	10	8	4	1	0	2	A	0	0	0	4.3	40.1	
5-Feb	0	0	0	0	0	0	0	0	2	7	10	12	21	15	33	27	41	3	6	A	3	0	0	0	8.0	40.7	
6-Feb	0	0	3	0	0	0	0	0	0	1	3	6	16	24	12	2	2	2	A	2	2	1	0	0	3.4	24.1	
7-Feb	0	0	0	0	0	0	0	0	1	20	9	12	6	4	5	4	A	27	41	19	32	6	18	9.3	40.8		
8-Feb	3	1	2	0	0	0	0	0	C	C	C	C	5	2	35	5	A	9	0	0	0	0	0	0	3.4	35.4	
9-Feb	0	0	0	0	0	0	0	0	1	1	67	3	3	5	16	A	2	4	0	0	0	0	0	33	6.0	66.9	
10-Feb	0	0	0	0	1	2	2	0	0	0	10	2	2	4	A	2	1	0	0	0	0	0	1	0	1.3	10.2	
11-Feb	0	0	0	0	0	1	0	0	0	1	4	5	6	A	2	2	0	0	0	0	0	0	42	0	2.8	42.2	
12-Feb	0	0	0	0	0	0	0	2	67	11	20	6	A	14	10	3	2	0	0	0	0	0	0	0	6.0	66.7	
13-Feb	2	5	0	0	0	1	0	1	0	0	0	A	0	0	0	0	0	0	0	0	1	2	49	0	2.8	49.5	
14-Feb	0	0	0	0	0	0	0	0	0	1	A	1	1	2	1	0	1	1	0	0	0	0	0	4	0.6	3.6	
15-Feb	0	0	0	0	0	0	0	1	1	A	2	2	1	0	1	1	1	20	2	0	0	0	0	0	1.4	20.1	
16-Feb	0	0	0	0	0	0	0	0	A	7	6	5	2	2	2	2	2	1	11	14	0	2	0	0	2.6	14.2	
17-Feb	0	0	2	0	0	0	0	A	8	4	3	5	4	1	2	1	2	1	0	0	12	2	0	0	2.1	11.7	
18-Feb	0	0	0	0	0	0	A	18	27	29	7	3	2	2	13	20	6	11	0	0	0	0	0	0	6.1	29.4	
19-Feb	0	0	0	0	0	A	0	3	10	3	1	2	23	19	6	54	4	8	5	4	0	0	0	1	6.3	53.7	
20-Feb	0	0	2	0	A	0	0	0	1	1	1	1	1	2	1	10	1	1	0	0	0	0	0	4	1.2	10.1	
21-Feb	0	0	0	A	0	0	0	3	0	1	0	8	9	1	5	1	2	0	8	0	2	0	0	2	2.0	9.4	
22-Feb	0	0	A	0	0	0	0	0	0	1	2	2	1	1	1	1	0	0	0	0	0	0	0	0	0.5	2.3	
23-Feb	0	A	0	0	0	0	0	2	0	0	0	0	0	1	3	1	1	1	0	0	0	0	1	0	0.5	3.3	
24-Feb	A	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	A	0.3	0.9	
25-Feb	0	0	0	0	0	0	0	0	3	7	18	3	2	4	3	3	5	18	9	0	0	0	A	0	3.3	18.4	
26-Feb	0	0	0	0	0	0	0	0	9	1	1	1	1	1	0	0	0	0	0	0	16	A	0	0	1.5	15.6	
27-Feb	0	0	0	0	0	0	20	0	0	0	7	8	6	1	1	10	1	0	0	0	0	A	0	0	2.5	20.4	
28-Feb	0	0	0	0	0	0	0	0	0	1	1	1	5	3	5	7	1	1	0	A	0	0	0	0	1.2	6.6	
	0.4	0.4	0.5	0.2	0.3	0.3	1.2	1.8	6.4	4.9	8.7	3.8	5.1	6.1	6.7	7.3	3.3	3.2	2.8	2.6	2.3	1.7	4.0	2.5	Diurnal Average		
	2.9	4.7	3.1	0.3	2.7	1.7	20.4	18.0	66.7	29.4	66.9	12.0	23.3	42.8	35.4	53.7	40.7	20.1	26.5	40.8	18.9	32.3	49.5	33.2	Diurnal Maximum		
C - Calibration		A - Automated Daily Zero Span																									

Hourly Maximums

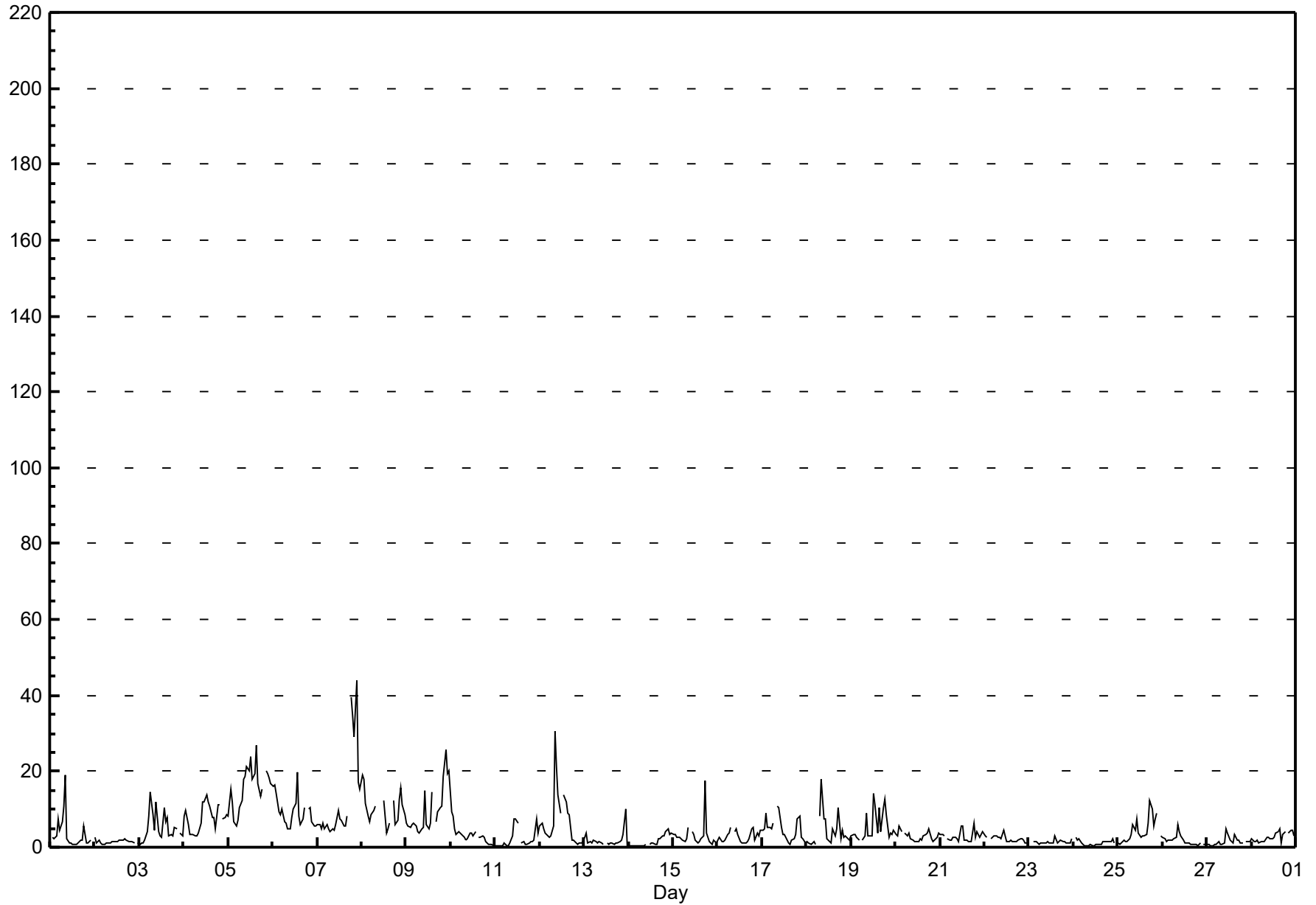
Nitrogen Oxide (NO) - ppb
Portable Rycroft - February 2018



Hourly Averages

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

Maximum Value: 44.0 ppb on Feb 7 22:00		Maximum Daily Average: 15.8 ppb on Feb 5		Hours in Service: 672																							
Minimum Value: 0 ppb on Feb 11 03:00		Minimum Daily Average: 1.1 ppb on Feb 24		Hours of Data: 638																							
Maximum Diurnal Average: 6.6 ppb at hour 22		Minimum Diurnal Average: 3.1 ppb at hour 5		Hours of Missing Data: 34																							
Monthly Average: 4.68 ppb		Percentiles: P ₁ = 0.4 P ₁₀ = 0.9 Q ₁ = 1.4 Median = 2.8 Q ₃ = 5.8 P ₉₀ = 10.9 P ₉₉ = 24.9		Hours of Calibration: 34																							
				Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Feb	A	3	2	3	8	5	7	11	19	2	1	1	1	1	1	1	2	2	6	1	1	1	2	A	3.6	19.0	
2-Feb	3	1	2	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	1	1	1	A	1	1.5	2.6	
3-Feb	1	1	1	2	4	8	14	9	4	12	4	3	2	10	7	8	3	3	3	5	5	A	4	3	5.1	14.4	
4-Feb	8	10	6	3	3	3	3	3	4	6	12	12	14	12	11	8	8	5	11	11	A	7	8	9	7.7	13.8	
5-Feb	8	15	12	7	6	7	10	12	18	19	21	20	24	18	19	27	17	13	15	A	20	19	18	17	15.8	26.8	
6-Feb	16	16	14	9	9	10	7	6	5	5	8	10	12	20	8	6	7	10	A	10	10	7	6	6	9.4	19.6	
7-Feb	6	6	5	6	5	6	5	4	5	4	6	10	8	7	6	6	8	A	40	35	29	44	17	15	12.2	44.0	
8-Feb	19	18	12	8	7	9	10	11	C	C	C	12	4	5	6	A	A	12	6	7	13	16	11	8	10.2	19.1	
9-Feb	6	5	5	6	6	5	4	4	5	5	15	6	5	6	15	A	7	9	10	11	19	26	19	20	9.6	25.5	
10-Feb	9	8	5	3	4	4	3	2	2	2	4	4	3	4	A	2	3	3	3	1	1	1	1	0	3.1	9.2	
11-Feb	0	0	0	0	1	1	0	0	1	3	7	7	6	A	1	1	1	1	1	2	2	2	7	4	2.2	7.5	
12-Feb	6	6	5	4	3	3	3	6	31	21	14	9	A	14	12	9	9	2	2	1	1	1	1	1	7.1	30.6	
13-Feb	2	4	1	2	1	2	1	1	1	1	1	A	1	1	1	1	1	1	1	2	2	4	10	0	1.8	9.9	
14-Feb	0	0	0	0	0	1	0	0	0	1	A	1	1	1	1	1	2	2	3	3	4	5	3	4	1.6	4.9	
15-Feb	3	3	3	2	2	2	1	2	5	A	4	3	2	1	1	2	3	17	4	1	1	1	2	1	3.0	17.3	
16-Feb	2	3	1	2	2	3	4	5	A	4	5	3	2	1	1	1	2	2	5	5	2	4	3	4	2.9	5.4	
17-Feb	5	5	9	5	5	5	6	A	11	11	5	3	3	2	1	1	2	2	3	7	8	3	2	1	4.6	10.8	
18-Feb	1	1	1	1	1	1	A	8	18	7	7	2	1	1	5	3	5	10	2	4	3	3	2	2	4.0	18.0	
19-Feb	3	3	3	3	2	A	2	3	9	3	3	3	14	11	4	10	4	10	13	9	3	4	4	5	5.5	14.0	
20-Feb	3	3	6	4	A	4	3	4	2	2	2	2	2	2	2	3	3	4	5	2	2	2	3	4	2.9	5.5	
21-Feb	3	4	3	A	2	2	2	3	3	2	2	6	6	2	2	2	2	2	6	3	4	3	3	4	3.0	6.4	
22-Feb	3	3	A	2	3	3	3	3	3	2	4	3	2	1	2	2	1	2	2	2	2	2	1	1	2.3	4.4	
23-Feb	1	A	1	2	1	1	1	1	1	1	1	1	1	1	3	1	1	2	1	1	1	1	1	2	1.4	2.9	
24-Feb	A	3	2	2	1	1	1	0	0	1	1	1	1	1	1	1	1	1	2	1	2	2	1	A	1.1	2.7	
25-Feb	1	1	2	2	1	2	2	3	6	4	7	4	3	3	3	3	7	12	10	6	8	9	A	3	4.4	12.4	
26-Feb	3	2	2	2	2	2	2	3	6	4	3	2	1	1	1	1	1	1	1	1	1	A	1	1	1.8	6.0	
27-Feb	1	1	0	1	1	1	2	1	1	1	5	4	2	1	1	3	2	2	1	1	A	1	2	2	1.6	4.9	
28-Feb	2	1	1	2	1	1	2	2	3	3	2	2	3	4	4	5	1	3	4	A	4	5	4	3	2.7	4.8	
		4.5	4.7	3.9	3.1	3.1	3.4	3.7	4.0	6.3	4.9	5.6	4.7	4.9	4.9	4.4	4.3	3.8	5.1	6.0	5.2	5.7	6.6	5.3	4.6	Diurnal Average	
		19.1	18.1	14.0	9.5	8.6	10.2	14.4	12.2	30.6	21.2	21.3	20.2	23.8	19.6	19.2	26.8	16.9	17.3	39.6	34.7	29.2	44.0	19.3	20.1	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									



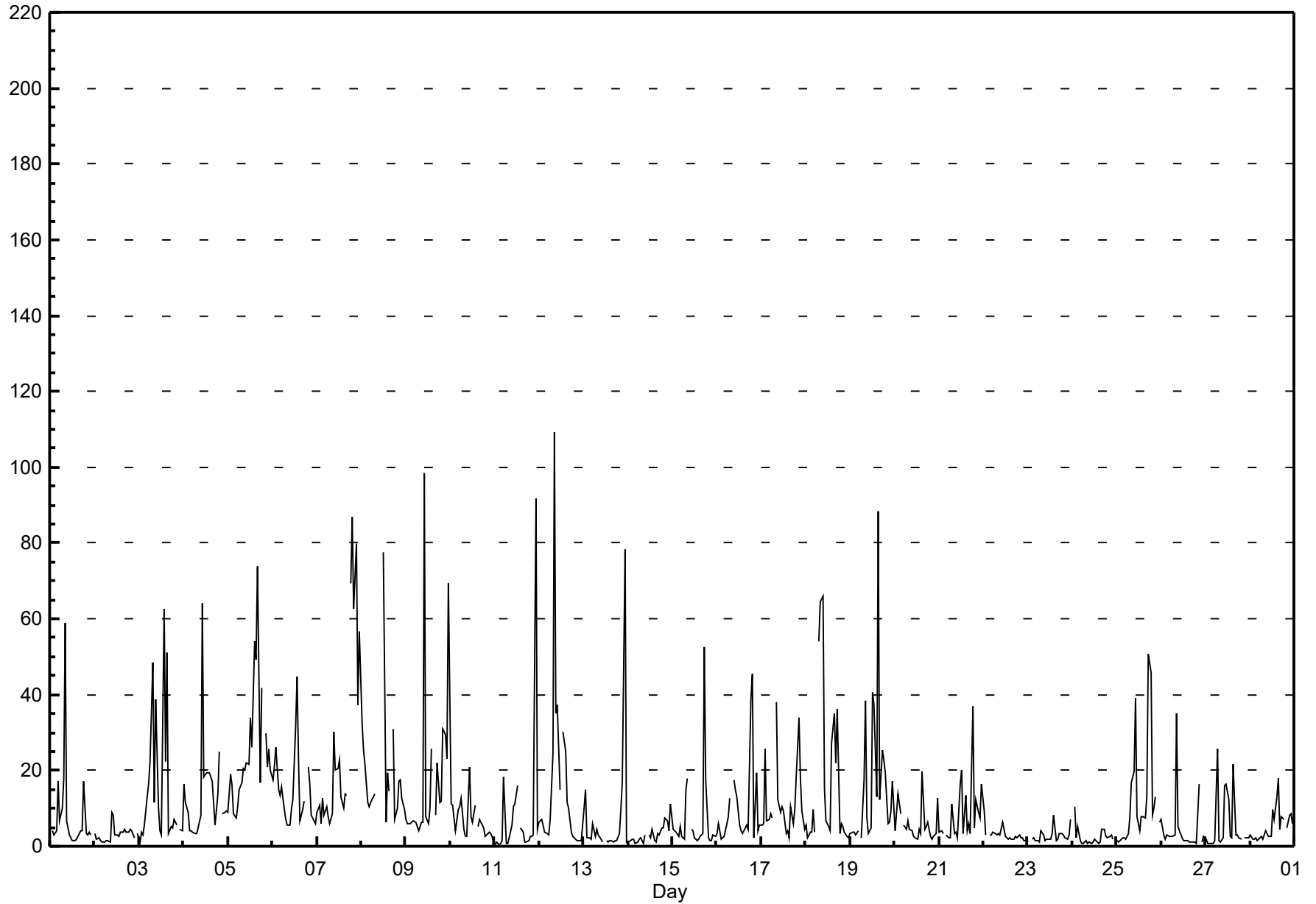
Hourly Maximums

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

Maximum Value: 109.4 ppb on Feb 12 09:00		Maximum Daily Average: 26.8 ppb on Feb 7		Hours in Service: 672																							
Minimum Value: 0 ppb on Feb 11 01:00		Minimum Daily Average: 2.4 ppb on Feb 24		Hours of Data: 638																							
Maximum Diurnal Average: 17.9 ppb at hour 9		Minimum Diurnal Average: 4.7 ppb at hour 4		Hours of Missing Data: 34																							
Monthly Average: 10.58 ppb		Percentiles: P ₁ = 0.8 P ₁₀ = 1.5 Q ₁ = 2.6 Median = 4.8 Q ₃ = 12.3 P ₉₀ = 24.7 P ₉₉ = 78.0		Hours of Calibration: 34																							
				Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Feb	A	4	3	4	17	7	10	18	59	7	3	2	2	2	3	4	4	17	3	3	4	3	A	8.2	58.8		
2-Feb	3	2	2	1	1	1	2	2	1	9	8	3	3	3	4	4	5	4	4	5	4	2	A	3	3.3	9.1	
3-Feb	1	4	3	6	13	17	23	49	12	39	10	4	3	63	23	51	3	5	5	7	6	A	5	4	15.3	62.7	
4-Feb	16	12	9	4	4	4	4	3	5	8	64	18	20	19	19	17	11	5	14	25	A	8	9	9	13.4	64.1	
5-Feb	9	19	16	8	8	11	15	17	21	20	22	22	34	26	54	49	74	17	42	A	30	21	26	20	25.2	73.9	
6-Feb	18	21	26	15	13	16	10	7	6	6	10	12	32	45	23	7	10	12	A	21	16	8	7	6	15.0	44.8	
7-Feb	9	11	6	13	8	11	8	6	9	30	20	21	23	13	10	14	13	A	69	87	63	80	37	57	26.8	86.9	
8-Feb	32	25	22	11	11	12	13	14	C	C	C	C	78	6	19	15	A	31	7	10	17	18	13	10	19.1	77.5	
9-Feb	7	6	6	6	7	6	5	4	6	6	98	8	6	10	26	A	8	22	12	12	31	29	23	69	18.0	98.4	
10-Feb	11	11	7	4	10	10	12	5	3	3	21	8	6	11	A	5	7	6	5	3	3	4	3	1	6.9	21.0	
11-Feb	0	1	0	1	1	18	1	1	2	6	11	11	16	A	5	4	1	1	2	3	3	3	92	5	8.1	91.8	
12-Feb	6	7	5	4	4	3	7	25	109	35	37	15	A	30	25	11	10	4	3	2	1	2	2	1	15.2	109.4	
13-Feb	10	15	2	2	2	6	3	5	3	2	1	A	2	1	2	2	1	2	1	3	10	17	78	1	7.4	78.3	
14-Feb	1	1	2	2	1	1	2	2	1	3	A	3	2	4	1	1	3	3	5	5	7	7	4	11	3.2	11.2	
15-Feb	5	4	4	3	5	3	2	15	18	A	5	4	2	1	2	3	3	53	18	2	1	1	3	3	6.9	52.7	
16-Feb	3	6	2	2	3	6	8	13	A	18	15	13	6	4	3	5	5	5	39	45	2	19	4	6	10.1	45.5	
17-Feb	5	6	26	7	7	9	8	A	38	12	9	11	9	3	4	2	10	6	10	18	34	18	9	4	11.5	38.0	
18-Feb	5	2	4	4	10	4	A	54	64	66	15	7	5	4	27	35	22	36	3	6	5	4	3	2	16.9	65.9	
19-Feb	3	4	4	3	4	A	2	18	38	8	3	5	41	37	13	89	12	26	23	19	6	6	9	17	17.0	88.5	
20-Feb	4	9	14	9	A	6	5	7	4	4	3	2	2	4	3	20	4	5	6	2	2	3	3	13	5.8	19.8	
21-Feb	4	4	3	A	3	2	2	11	3	4	2	17	20	4	13	4	6	3	37	5	12	9	8	16	8.4	37.1	
22-Feb	9	3	A	3	3	4	3	3	3	3	3	6	4	2	2	2	2	2	2	3	2	2	2	1	3.1	9.3	
23-Feb	1	A	2	2	2	2	1	4	3	1	2	2	2	3	8	2	2	3	3	3	2	2	3	7	2.7	8.1	
24-Feb	A	10	2	5	2	1	1	2	1	1	1	1	2	1	1	1	4	4	3	2	3	3	2	A	2.4	10.3	
25-Feb	1	1	2	2	2	2	3	8	17	20	39	8	4	8	8	8	13	51	46	8	10	13	A	6	12.2	50.8	
26-Feb	7	3	2	3	3	3	3	3	35	5	4	2	2	2	2	1	1	1	1	1	16	A	1	3	4.4	35.2	
27-Feb	2	1	1	1	1	2	26	2	1	2	16	16	12	3	2	22	3	3	2	2	A	2	2	2	5.4	25.6	
28-Feb	3	2	2	2	2	2	3	2	4	3	3	3	10	7	13	18	5	8	7	A	5	8	8	6	5.4	17.7	
		6.9	7.2	6.5	4.7	5.3	6.1	6.6	11.0	17.9	12.3	16.5	8.5	12.7	11.8	11.7	14.5	9.1	11.9	14.2	11.6	11.4	11.3	13.8	11.0	Diurnal Average	
		32.3	25.5	26.2	14.9	17.0	18.3	25.6	54.1	109.4	65.9	98.4	21.7	77.5	62.7	54.2	88.5	73.9	52.7	69.2	86.9	62.7	79.6	91.8	69.2	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

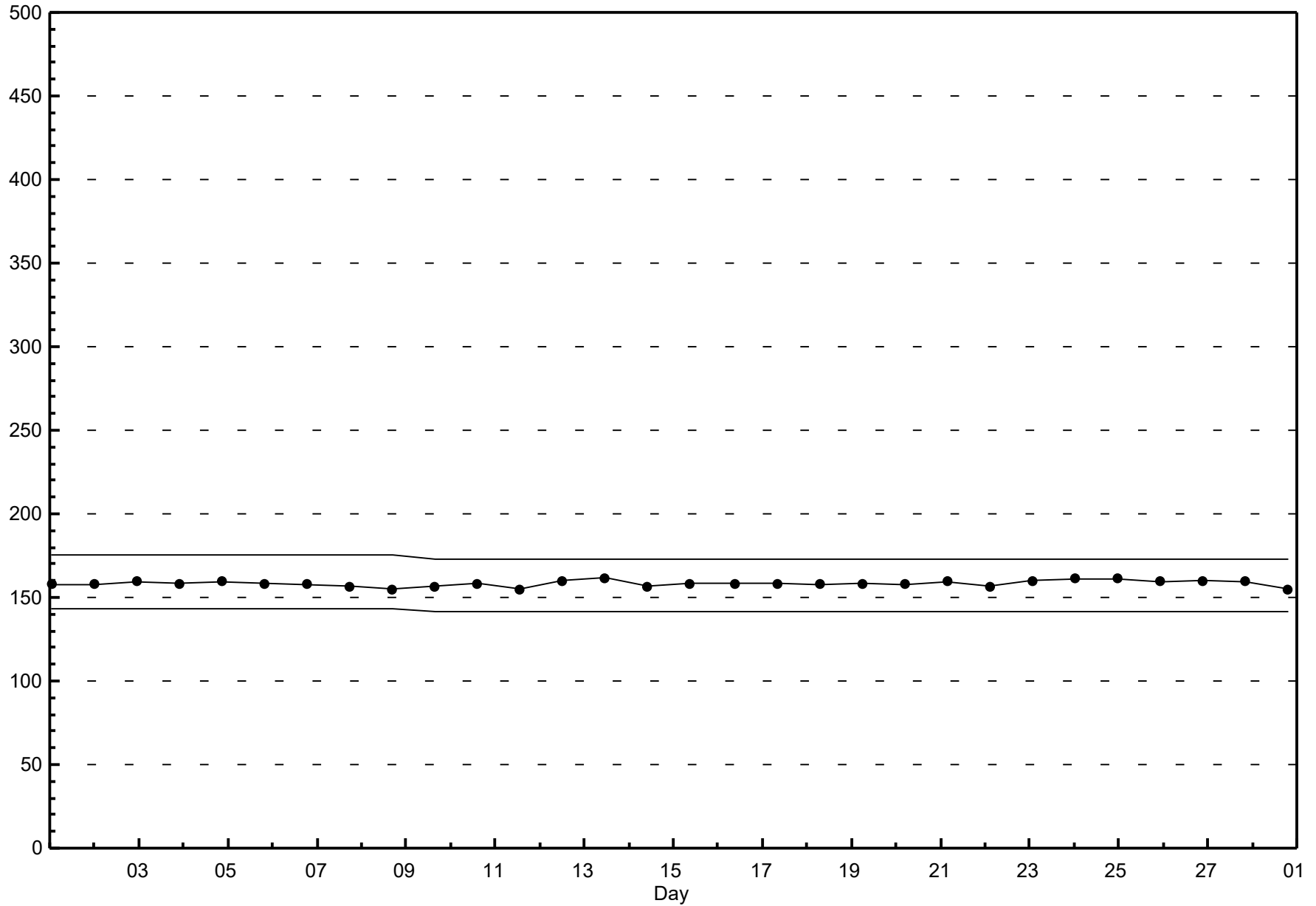
Hourly Maximums

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



Span Responses

Oxides of Nitrogen (NO_x)
Portable Rycroft - February 2018

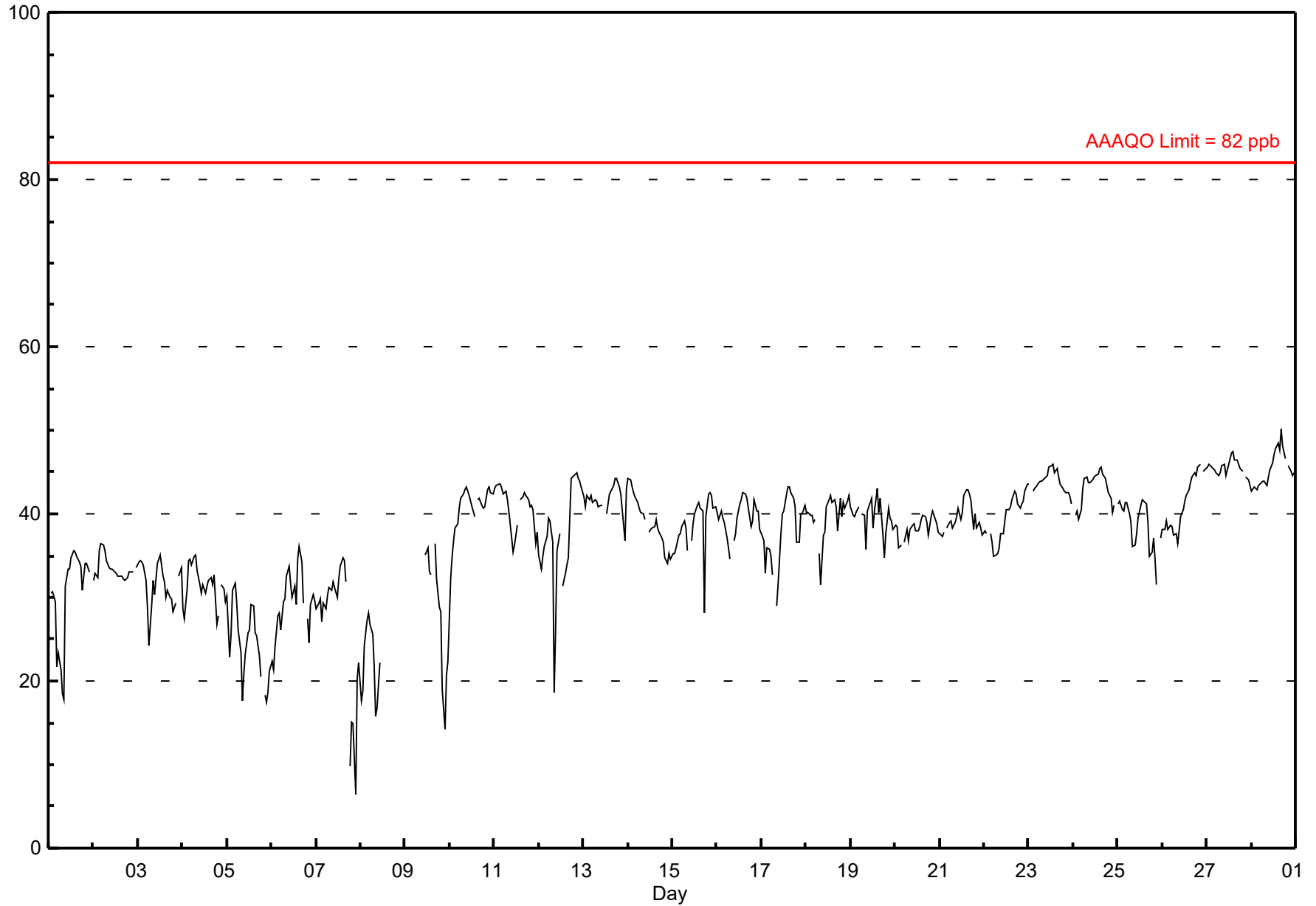


Hourly Averages

Ozone (O₃) - ppb

Portable Rycroft - February 2018

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 50.1 ppb on Feb 28 17:00 Maximum Daily Average: 45.5 ppb on Feb 27		Hours in Service: 672 Hours of Data: 619 Hours of Missing Data: 53 Hours of Calibration: 35 Percent Operational Time: 97.3																								
Minimum Value: 6 ppb on Feb 7 22:00 Maximum Diurnal Average: 39.6 ppb at hour 16 Monthly Average: 37.11 ppb		Minimum Daily Average: 24.5 ppb on Feb 5 Minimum Diurnal Average: 34.3 ppb at hour 9 Percentiles: P ₁ = 16.9 P ₁₀ = 28.6 Q ₁ = 33.4 Median = 38.7 Q ₃ = 41.9 P ₉₀ = 44.2 P ₉₉ = 47.2																								
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-Feb	A	31	31	29	22	23	21	18	18	31	33	33	35	36	35	35	34	34	31	34	34	34	33	A	30.3	35.6
2-Feb	32	33	32	36	36	36	36	34	34	33	33	33	33	33	33	32	32	32	32	33	33	33	A	33	33.4	36.4
3-Feb	34	34	34	34	32	29	24	29	32	30	34	35	35	33	32	30	31	30	30	28	29	A	32	34	31.6	35.0
4-Feb	29	27	31	34	35	34	35	35	33	32	30	32	31	31	32	32	31	33	27	28	A	31	31	29	31.5	35.1
5-Feb	30	23	26	31	32	29	26	23	18	21	23	26	26	29	29	26	26	23	21	A	18	17	19	21	24.5	31.7
6-Feb	22	21	24	28	28	26	29	30	33	34	32	30	31	29	35	36	34	29	A	27	25	29	30	30	29.3	36.2
7-Feb	29	29	30	27	29	29	30	31	31	32	31	30	32	34	35	34	32	A	10	15	15	6	20	22	26.7	34.7
8-Feb	18	19	24	27	28	27	26	22	16	17	22	C	C	C	C	M	M	M	M	M	M	M	M	M	--	28.1
9-Feb	M	M	M	M	M	M	M	M	M	M	C	C	C	C	M	M	M	M	M	M	M	M	M	M	--	36.4
10-Feb	32	35	37	38	39	41	42	42	43	43	42	41	41	40	A	42	42	41	41	41	43	43	43	42	40.6	43.2
11-Feb	43	43	44	44	43	42	43	42	40	37	35	36	39	A	42	42	42	42	42	41	41	40	36	38	40.8	43.6
12-Feb	35	33	35	36	37	39	39	37	19	26	36	38	A	31	33	34	35	44	44	45	45	44	44	43	37.0	44.9
13-Feb	42	41	42	42	42	41	42	41	41	41	41	A	40	41	42	43	43	44	44	43	42	40	37	43	41.8	44.2
14-Feb	44	44	43	43	42	41	41	40	40	39	A	38	38	38	39	39	38	38	37	37	35	34	35	35	39.1	44.2
15-Feb	35	35	36	38	38	38	39	38	36	A	37	39	40	41	41	41	40	28	40	42	43	42	41	41	38.6	42.6
16-Feb	40	39	40	39	39	37	36	34	A	37	38	39	41	42	43	42	42	41	38	39	42	40	40	38	39.5	42.6
17-Feb	37	37	33	36	36	35	33	A	29	32	38	40	40	42	43	43	43	42	41	37	37	40	40	41	38.0	43.2
18-Feb	40	40	40	40	39	39	A	35	32	37	38	41	42	42	41	42	41	38	42	40	41	41	41	42	39.7	42.2
19-Feb	41	40	40	40	41	A	40	40	36	40	41	42	38	40	43	40	42	38	35	38	41	39	39	38	39.6	43.0
20-Feb	39	38	36	36	A	37	38	37	38	39	39	38	38	38	39	40	40	39	37	40	40	40	39	38	38.4	40.3
21-Feb	38	37	38	A	38	39	39	38	39	40	41	39	40	42	43	43	42	42	38	40	38	39	38	37	39.5	42.9
22-Feb	38	38	A	38	37	35	35	35	36	38	38	39	41	41	41	42	43	42	41	41	41	41	43	44	39.3	43.5
23-Feb	44	A	43	43	43	44	44	44	44	44	44	45	46	46	46	45	45	44	44	43	43	42	42	41	43.8	45.9
24-Feb	A	40	40	39	40	43	44	44	44	44	44	44	45	45	45	46	45	44	43	43	42	40	41	A	43.0	45.5
25-Feb	41	41	40	40	41	41	40	39	36	36	38	40	41	42	42	41	39	35	35	37	34	31	A	37	38.7	41.7
26-Feb	38	38	39	38	39	39	37	38	36	38	40	41	42	42	43	44	44	45	45	46	46	A	45	45	41.1	45.9
27-Feb	46	46	46	45	45	45	45	45	46	46	45	45	47	47	47	47	47	46	45	45	A	44	44	43	45.5	47.4
28-Feb	43	43	43	43	43	44	44	44	43	44	45	46	47	48	48	48	50	48	47	A	46	45	45	45	45.3	50.1
36.4 35.7 36.4 37.1 37.1 36.7 36.5 36.1 34.3 35.8 36.8 37.9 38.6 38.7 39.4 39.6 39.2 38.2 36.8 37.2 36.5 35.8 36.8 37.0																								Diurnal Average		
45.6 46.0 45.7 45.4 45.2 44.9 44.5 44.9 45.8 45.9 45.2 46.1 47.1 47.8 48.5 47.6 50.1 48.1 46.6 45.6 45.9 45.1 45.0 45.2																								Diurnal Maximum		
C - Calibration M - Maintenance A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82 ppb 24-hr na																										



Hourly Maximums

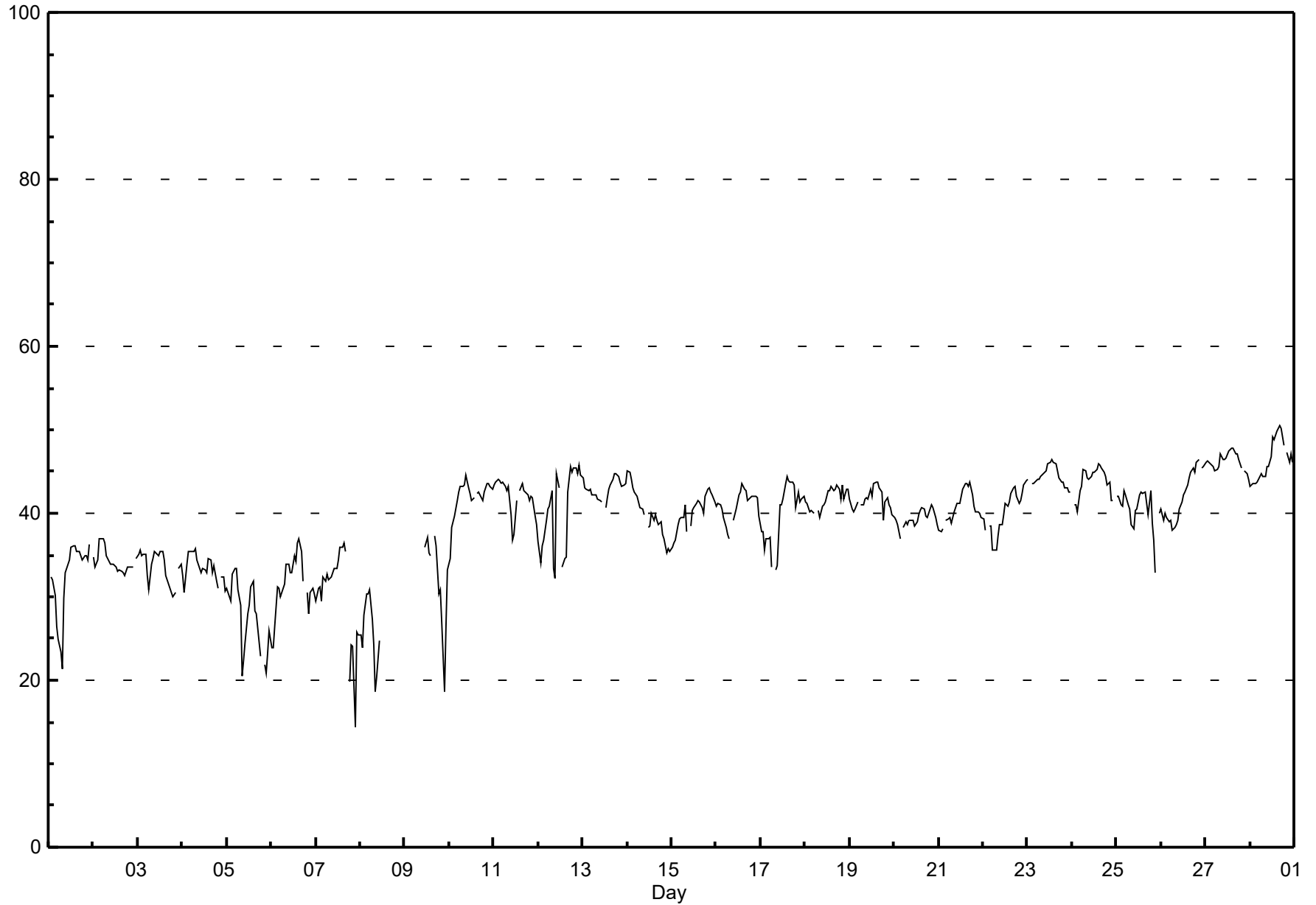
Ozone (O₃) - ppb

Portable Rycroft - February 2018

Maximum Value: 50.6 ppb on Feb 28 17:00		Maximum Daily Average: 46.4 ppb on Feb 28		Hours in Service: 672																																												
Minimum Value: 14 ppb on Feb 7 22:00		Minimum Daily Average: 27.5 ppb on Feb 5		Hours of Data: 619																																												
Maximum Diurnal Average: 40.7 ppb at hour 16		Minimum Diurnal Average: 37.2 ppb at hour 9		Hours of Missing Data: 53																																												
Monthly Average: 38.74 ppb		Percentiles: P ₁ = 21.0 P ₁₀ = 30.9 Q ₁ = 34.9 Median = 40.4 Q ₃ = 43.0 P ₉₀ = 44.9 P ₉₉ = 48.0		Hours of Calibration: 35																																												
				Percent Operational Time: 97.3																																												
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-Feb	A	32	32	30	26	25	23	21	30	33	34	34	36	36	36	35	35	35	34	35	35	34	36	A	32.3	36.2																						
2-Feb	35	34	34	37	37	37	36	35	34	34	34	34	33	33	33	33	33	33	34	34	34	34	A	35	34.3	36.9																						
3-Feb	35	36	35	35	35	33	31	34	34	35	35	35	35	35	34	32	32	31	30	30	30	A	33	34	33.6	35.5																						
4-Feb	32	30	34	35	35	35	35	36	34	33	33	33	33	33	35	34	33	34	32	31	A	32	32	31	33.4	35.8																						
5-Feb	31	30	29	33	33	33	31	29	20	22	24	28	29	31	32	28	28	25	23	A	22	21	23	26	27.5	33.4																						
6-Feb	24	24	26	31	31	30	31	31	34	34	33	33	35	34	36	37	35	32	A	30	28	30	31	30	31.4	37.0																						
7-Feb	29	31	31	29	32	32	33	32	32	33	33	33	34	36	36	36	35	A	20	24	24	14	26	25	30.2	36.4																						
8-Feb	25	24	28	30	30	31	27	24	19	20	25	C	C	C	C	M	M	M	M	M	M	M	M	M	--	30.8																						
9-Feb	M	M	M	M	M	M	M	M	M	M	C	C	C	C	M	M	M	M	M	M	M	M	M	M	--	37.3																						
10-Feb	35	38	39	40	42	43	43	43	43	43	45	43	42	42	42	A	42	42	42	42	42	43	44	44	43	41.9	44.7																					
11-Feb	43	44	44	44	44	44	43	43	43	40	37	37	42	A	43	43	43	43	42	42	42	42	42	40	39	41.9	44.0																					
12-Feb	37	34	36	37	39	40	41	43	33	32	45	43	A	34	35	35	42	46	45	45	45	45	46	45	40.1	45.8																						
13-Feb	44	43	43	43	43	42	42	42	42	42	41	A	41	42	43	43	44	45	45	44	44	43	43	44	42.9	44.7																						
14-Feb	45	45	44	43	43	42	41	41	40	40	A	38	39	40	39	40	39	39	39	37	37	35	36	35	39.9	45.1																						
15-Feb	36	36	37	39	39	39	39	41	38	A	39	40	41	41	42	41	41	40	42	43	43	43	42	41	40.1	43.1																						
16-Feb	41	41	41	41	40	38	37	37	A	39	40	40	42	43	44	43	43	42	42	42	42	42	42	40	40.9	43.5																						
17-Feb	38	38	36	37	37	37	33	A	33	34	41	41	42	44	44	44	44	44	43	41	43	41	42	42	39.9	44.3																						
18-Feb	41	41	40	40	40	40	A	40	39	41	41	41	43	43	43	43	43	43	42	43	42	43	43	43	41.7	43.3																						
19-Feb	42	41	40	41	41	A	41	41	42	42	42	43	42	43	44	44	43	43	39	41	42	41	41	40	41.6	43.8																						
20-Feb	40	39	39	37	A	38	39	39	39	39	39	39	38	39	40	40	41	41	40	39	41	41	41	40	39.4	41.0																						
21-Feb	38	38	38	A	39	39	39	39	40	41	41	41	42	43	44	44	43	44	42	41	40	40	40	40	40.7	43.6																						
22-Feb	39	38	A	38	39	36	36	36	37	39	39	40	41	41	41	42	43	43	42	41	41	42	43	44	40.1	43.9																						
23-Feb	44	A	44	44	44	44	44	44	45	45	45	46	46	46	46	46	45	44	44	44	43	43	43	43	44.4	46.4																						
24-Feb	A	41	41	40	43	43	45	45	44	44	44	45	45	45	46	46	45	45	44	43	44	41	42	A	43.8	45.9																						
25-Feb	42	42	41	41	43	42	41	41	39	38	40	40	42	43	42	43	41	40	43	39	37	33	A	40	40.5	42.8																						
26-Feb	40	39	40	40	39	39	38	38	39	39	40	41	42	43	43	44	45	45	45	46	46	A	45	46	41.9	46.4																						
27-Feb	46	46	46	46	46	45	45	46	47	46	46	47	48	48	48	48	47	47	46	45	A	45	45	44	46.2	47.7																						
28-Feb	43	44	44	44	44	44	45	44	44	46	46	47	49	49	50	50	51	50	48	A	47	46	47	46	46.4	50.6																						
																								37.8	37.3	37.8	38.2	38.6	38.2	37.8	37.9	37.2	37.5	38.5	39.2	40.0	40.1	40.5	40.7	40.5	40.3	39.2	39.0	38.6	37.3	38.8	38.6	Diurnal Average
																								46.2	46.3	46.1	45.8	45.5	45.2	45.2	45.6	47.1	46.4	46.4	46.8	49.1	48.9	49.8	50.2	50.6	50.2	48.1	46.1	47.2	46.1	47.1	46.0	Diurnal Maximum
C - Calibration																								M - Maintenance						A - Automated Daily Zero Span																		

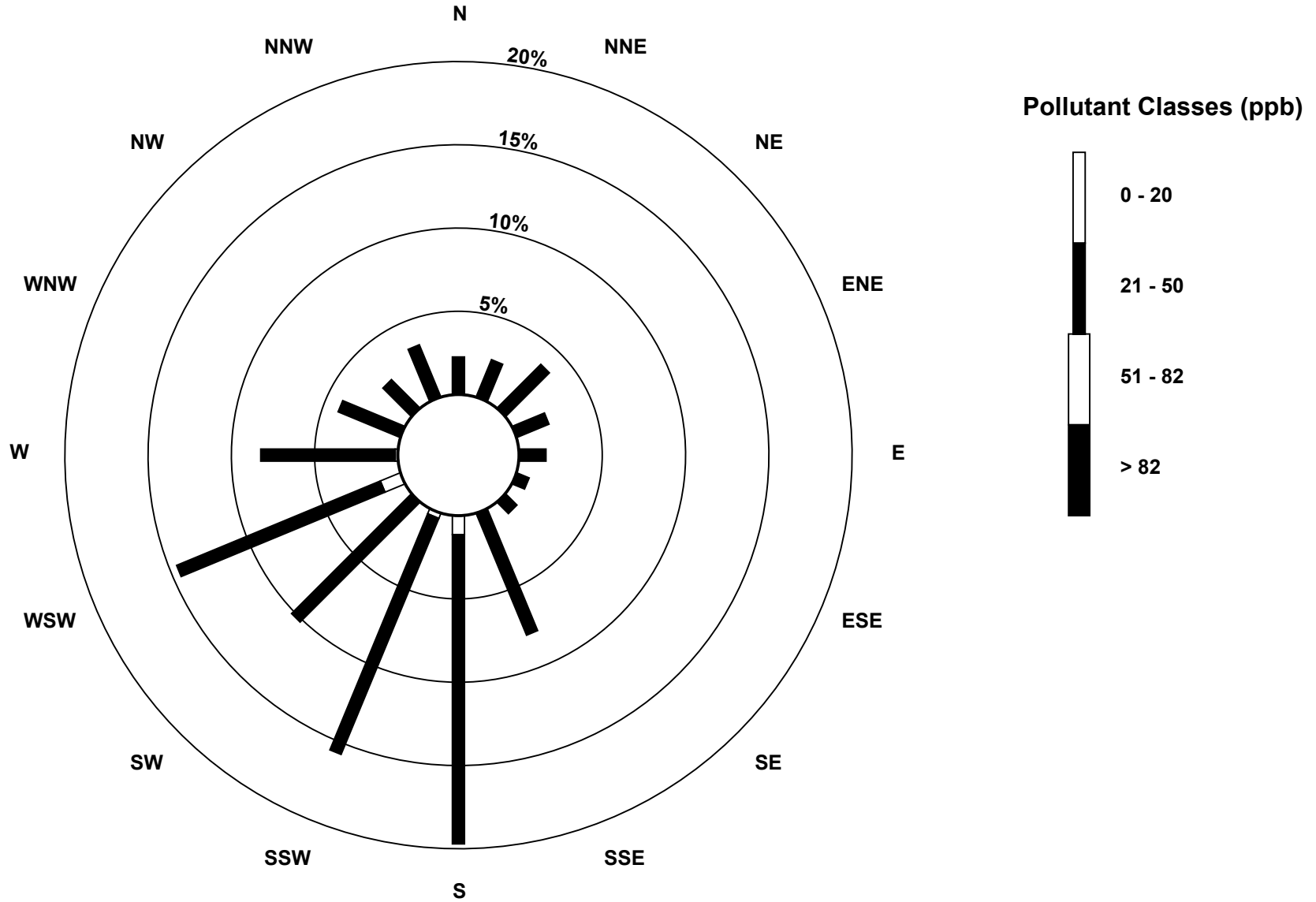
Hourly Maximums

Ozone (O₃) - ppb
Portable Rycroft - February 2018



Pollutant Rose

Ozone (O₃) - ppb
Portable Rycroft - February 2018



Eight Hour Running Averages

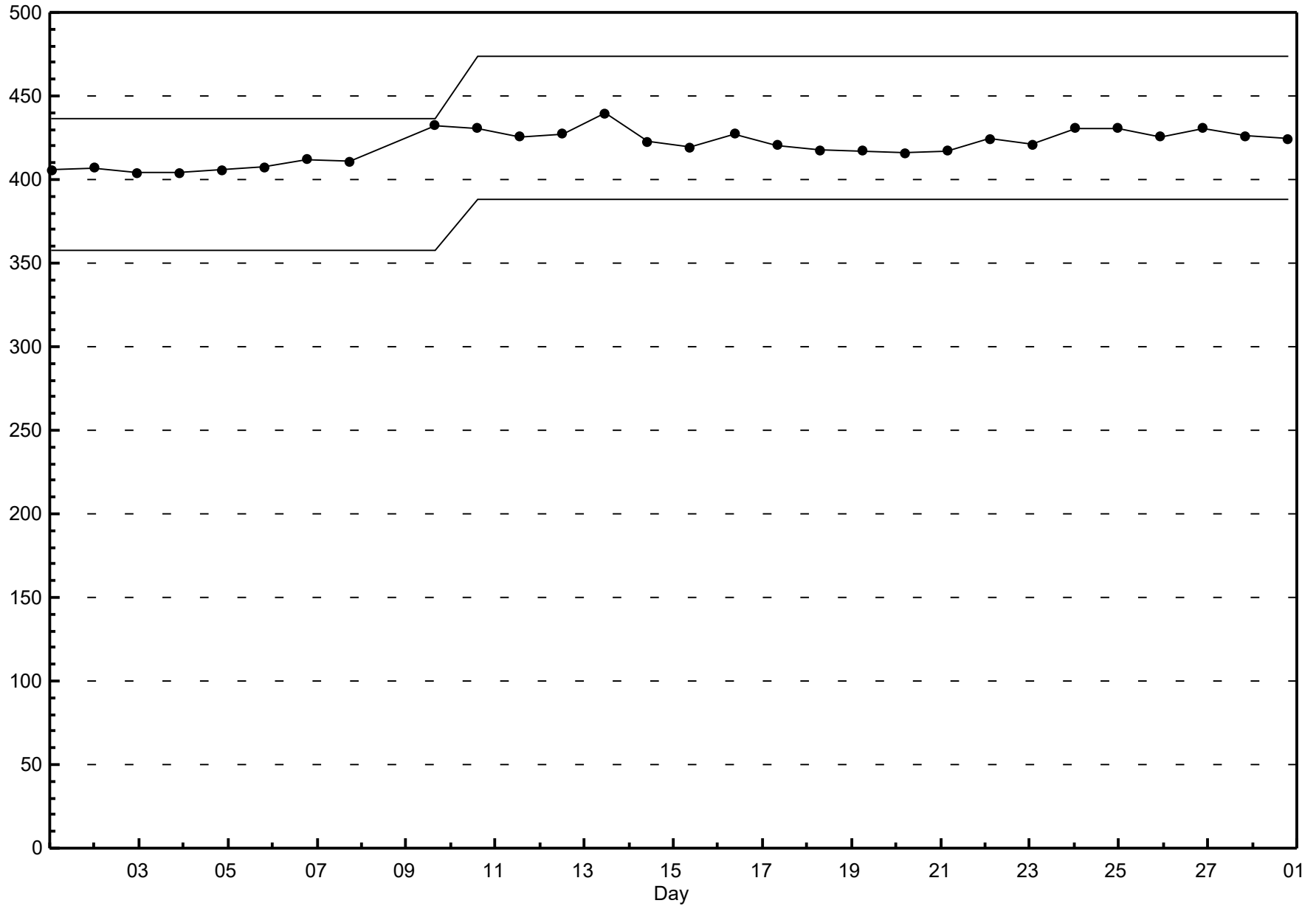
Ozone (O₃) - ppb

Portable Rycroft - February 2018

Maximum Value: 48.0 ppb on Feb 28 20:00																					Hours in Service:	672				
Minimum Value: 15.2 ppb on Feb 8 01:00																					Hours of Data:	644				
Percentiles: P ₁ = 20.1 P ₁₀ = 28.5 Q ₁ = 33.0 Median = 38.7 Q ₃ = 41.4 P ₉₀ = 43.8 P ₉₉ = 46.7																					Hours of Missing Data:	28				
																					Hours of Calibration:	10				
																					Percent Operational Time:	97.3				
Day	Hourly Period Ending At (MST)																								Daily Maximum	
1-Feb	31	31	31	30	29	28	27	25	24	24	25	25	27	28	30	32	34	34	34	34	34	34	34	33	34.4	
2-Feb	33	33	33	33	34	34	34	34	35	35	35	35	34	34	33	33	33	33	33	33	33	33	33	33	34.8	
3-Feb	33	33	34	34	34	33	32	31	31	31	31	31	31	32	32	33	32	32	32	31	30	30	30	31	33.8	
4-Feb	30	30	30	31	32	32	32	32	33	34	34	33	33	32	32	32	31	32	31	31	31	31	31	30	33.6	
5-Feb	30	29	28	29	29	29	28	28	26	26	25	25	24	24	24	25	26	26	26	26	26	24	23	21	21	29.9
6-Feb	20	20	20	21	23	24	25	26	27	29	30	30	31	31	32	32	33	32	32	32	31	31	30	29	32.6	
7-Feb	28	28	29	29	29	29	29	29	30	30	30	30	31	31	32	32	32	33	30	27	25	21	19	17	32.6	
8-Feb	15	16	17	19	21	23	24	24	24	23	23	22	21	N	N	N	N	N	N	N	N	N	N	N	23.8	
9-Feb	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	34.2	
10-Feb	25	25	26	27	30	33	36	38	40	41	41	42	42	42	42	42	42	42	41	41	41	41	42	42	41.9	
11-Feb	42	42	43	43	43	43	43	43	43	42	41	40	39	39	39	39	39	40	41	41	42	42	41	40	43.1	
12-Feb	39	38	37	37	36	36	37	36	34	34	34	34	33	32	31	31	33	36	37	38	39	40	42	43	43.0	
13-Feb	44	44	43	43	43	42	42	42	42	42	41	41	41	41	41	41	42	42	43	43	43	43	42	42	43.9	
14-Feb	42	42	42	42	42	42	43	42	42	41	41	40	40	39	39	39	39	38	38	38	38	37	37	36	42.7	
15-Feb	36	35	35	35	36	36	37	37	37	37	38	38	38	39	39	39	40	38	39	39	40	40	40	40	39.9	
16-Feb	40	41	41	41	40	40	39	38	38	38	37	37	38	38	39	40	40	41	41	41	41	41	41	40	41.1	
17-Feb	39	39	38	38	37	37	36	35	34	33	34	35	35	36	38	38	40	41	42	41	41	41	40	40	41.8	
18-Feb	40	39	39	40	40	40	40	39	38	37	37	37	38	38	39	39	40	41	41	41	41	41	41	41	41.0	
19-Feb	41	41	41	41	41	41	41	40	39	40	40	40	40	40	40	40	41	40	40	39	39	39	39	39	41.0	
20-Feb	38	38	39	38	38	38	37	37	37	37	38	38	38	38	38	39	39	39	39	39	39	39	39	39	39.4	
21-Feb	39	39	39	38	38	38	38	38	38	39	39	39	39	40	40	41	41	42	41	41	41	41	40	39	41.5	
22-Feb	39	38	38	38	38	37	37	36	36	36	36	36	37	37	38	38	39	40	41	41	41	41	42	42	42.0	
23-Feb	42	42	42	43	43	43	43	43	44	44	44	44	44	45	45	45	45	45	45	44	44	44	43	43	45.1	
24-Feb	43	42	42	41	41	41	41	42	42	42	43	44	44	44	44	45	45	45	45	44	44	43	43	43	44.7	
25-Feb	42	42	41	41	41	41	41	41	40	39	39	39	39	39	39	39	40	40	39	39	38	37	36	36	42.1	
26-Feb	36	36	37	37	37	38	38	38	38	38	38	38	39	39	40	41	42	42	43	44	44	45	45	45	45.1	
27-Feb	45	45	46	46	45	45	45	45	45	45	45	45	45	46	46	46	46	46	46	46	46	46	45	45	46.4	
28-Feb	44	44	44	43	43	43	43	43	43	44	44	44	45	45	46	46	47	48	48	48	48	47	47	46	48.0	
45.3 45.4 45.6 45.5 45.4 45.4 45.3 45.3 45.3 45.3 45.1 45.1 45.3 45.6 46.0 46.3 47.1 47.6 47.7 48.0 47.8 47.4 46.9 46.5																										
Diurnal Maximums																										
N - Not Valid																										

Span Responses

Ozone (O₃)
Portable Rycroft - February 2018



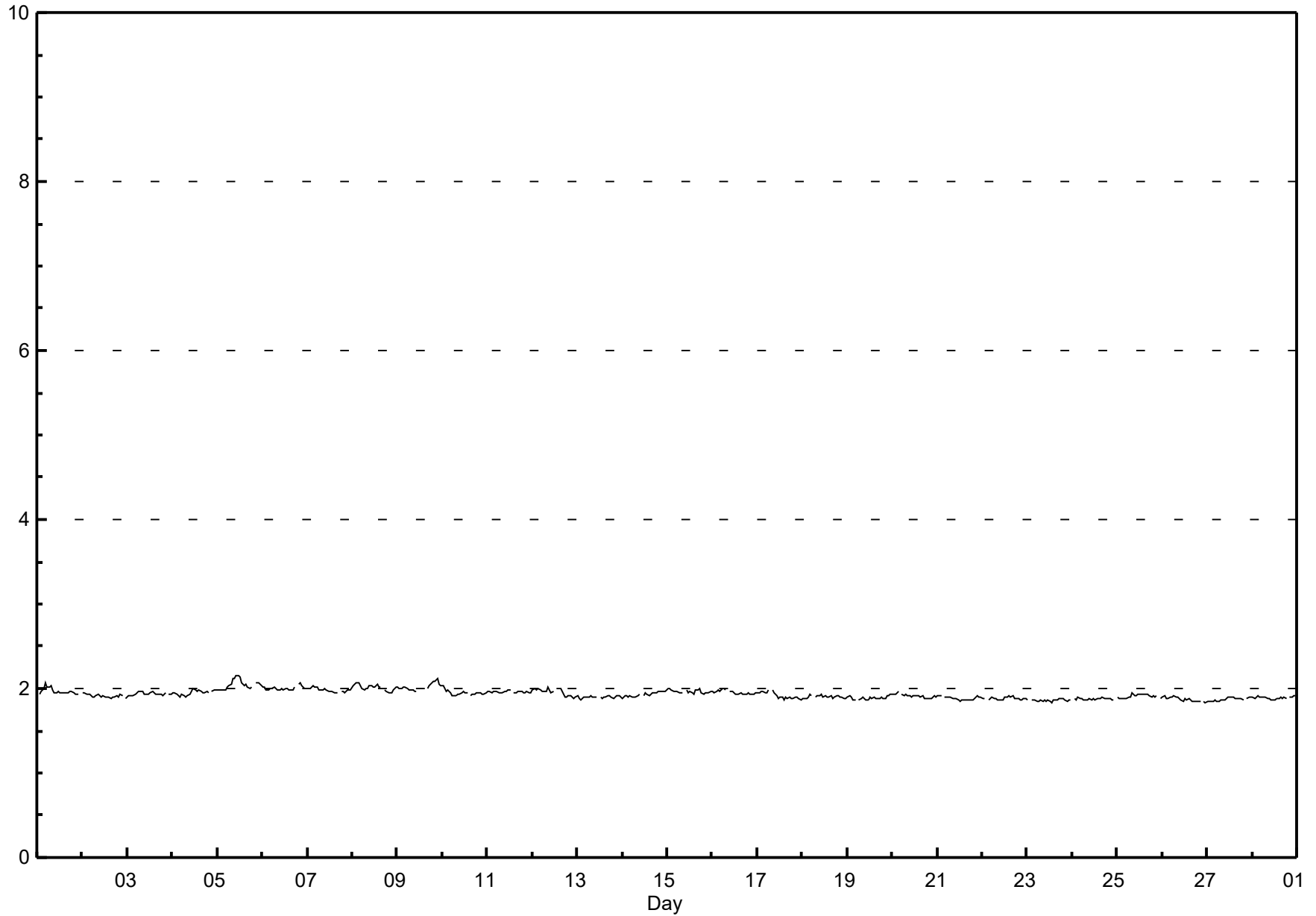
Hourly Averages

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

Maximum Value: 2.15 ppm on Feb 5 11:00		Maximum Daily Average: 2.05 ppm on Feb 5		Hours in Service: 672																							
Minimum Value: 1.8 ppm on Feb 27 00:00		Minimum Daily Average: 1.86 ppm on Feb 23		Hours of Data: 638																							
Maximum Diurnal Average: 1.94 ppm at hour 2		Minimum Diurnal Average: 1.92 ppm at hour 19		Hours of Missing Data: 34																							
Monthly Average: 1.932 ppm		Percentiles: P ₁ = 1.85 P ₁₀ = 1.87 Q ₁ = 1.89 Median = 1.92 Q ₃ = 1.97 P ₉₀ = 2.00 P ₉₉ = 2.08		Hours of Calibration: 34																							
				Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Feb	A	1.9	2.0	2.0	2.1	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	2.0	1.9	1.9	1.9	A	1.9	1.97	2.07	
2-Feb	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	1.9	1.9	1.9	1.9	A	1.9	1.91	1.95	
3-Feb	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	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	A	1.9	1.9	1.94	1.97	
4-Feb	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	1.9	2.0	1.9	A	2.0	2.0	2.0	1.95	1.99	
5-Feb	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	A	2.1	2.1	2.1	2.1	2.05	2.15	
6-Feb	2.0	2.0	2.0	2.0	2.0	2.0	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	2.1	2.0	2.0	2.0	2.00	2.06	
7-Feb	2.0	2.0	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	A	2.0	2.0	1.9	2.0	2.0	2.0	1.98	2.04	
8-Feb	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	A	2.0	2.0	2.0	2.0	1.9	1.9	2.0	2.0	2.01	2.06	
9-Feb	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	C	C	C	C	A	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.0	2.02	2.11	
10-Feb	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	A	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.95	2.03	
11-Feb	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	A	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.96	1.98	
12-Feb	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	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.96	2.02	
13-Feb	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	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.90	1.92	
14-Feb	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	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	1.93	1.97	
15-Feb	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	A	2.0	2.0	2.0	1.9	1.9	2.0	2.0	2.0	1.9	1.9	2.0	2.0	1.9	2.0	1.96	2.01	
16-Feb	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.95	1.99	
17-Feb	2.0	1.9	2.0	2.0	1.9	1.9	2.0	A	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	1.91	1.98	
18-Feb	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.90	1.93	
19-Feb	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.89	1.94	
20-Feb	1.9	1.9	1.9	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.91	1.96	
21-Feb	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.88	1.92	
22-Feb	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.88	1.91	
23-Feb	1.9	A	1.9	1.9	1.9	1.8	1.8	1.9	1.8	1.9	1.9	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.86	1.88	
24-Feb	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.88	1.90	
25-Feb	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	1.9	1.9	1.9	1.9	1.9	A	1.9	1.91	1.94	
26-Feb	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	1.8	1.9	1.9	1.8	1.9	1.9	A	1.9	1.8	1.87	1.91	
27-Feb	1.8	1.8	1.9	1.9	1.9	1.8	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	1.9	1.9	1.87	1.90	
28-Feb	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	1.9	1.9	A	1.9	1.9	1.9	1.9	1.89	1.92	
		1.94	1.94	1.94	1.94	1.94	1.93	1.93	1.93	1.94	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.92	1.93	1.92	1.92	1.93	1.94	1.93	1.93	Diurnal Average	
		2.04	2.05	2.06	2.06	2.07	2.01	2.03	2.04	2.11	2.12	2.15	2.15	2.14	2.07	2.04	2.04	2.01	2.03	2.08	2.08	2.08	2.11	2.07	2.05	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

Hourly Averages

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



Hourly Maximums

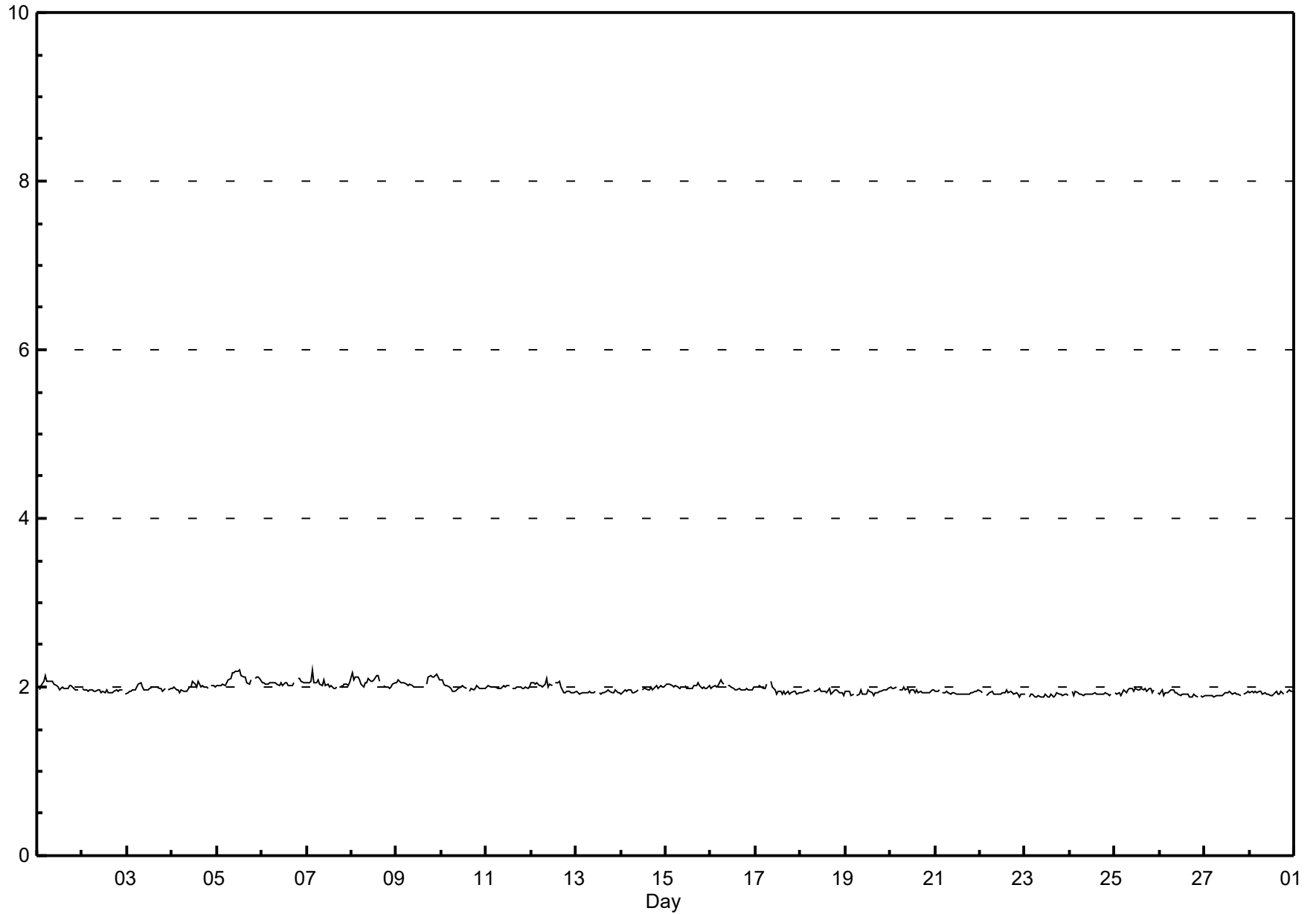
Total Hydrocarbons (THC) - ppm

Portable Rycroft - February 2018

Maximum Value: 2.20 ppm on Feb 5 13:00		Maximum Daily Average: 2.10 ppm on Feb 5		Hours in Service: 672																							
Minimum Value: 1.9 ppm on Feb 23 13:00		Minimum Daily Average: 1.90 ppm on Feb 23		Hours of Data: 638																							
Maximum Diurnal Average: 1.99 ppm at hour 4		Minimum Diurnal Average: 1.96 ppm at hour 17		Hours of Missing Data: 34																							
Monthly Average: 1.977 ppm		Percentiles: P ₁ = 1.88 P ₁₀ = 1.91 Q ₁ = 1.93 Median = 1.97 Q ₃ = 2.01 P ₉₀ = 2.05 P ₉₉ = 2.16		Hours of Calibration: 34																							
				Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Feb	A	2.0	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	2.0	2.0	2.0	2.0	2.0	A	2.0	2.13		
2-Feb	2.0	2.0	2.0	1.9	2.0	2.0	1.9	1.9	2.0	2.0	1.9	1.9	2.0	1.9	1.9	1.9	1.9	2.0	1.9	2.0	2.0	A	1.9	1.98			
3-Feb	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	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.05			
4-Feb	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	1.9	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	2.0	2.07		
5-Feb	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.0	2.0	2.1	A	2.1	2.1	2.1	2.1	2.20		
6-Feb	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	A	2.1	2.1	2.1	2.1	2.0	2.10		
7-Feb	2.0	2.1	2.1	2.2	2.1	2.1	2.1	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.20		
8-Feb	2.2	2.1	2.1	2.1	2.1	2.0	2.0	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	2.0	2.1	2.17		
9-Feb	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	C	C	C	C	A	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.15		
10-Feb	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	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.08		
11-Feb	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.02		
12-Feb	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	A	2.0	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.10		
13-Feb	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	1.9	1.9	1.9	2.0	1.9	1.9	1.9	2.0	1.9	1.9	1.96		
14-Feb	1.9	1.9	2.0	1.9	2.0	2.0	1.9	1.9	1.9	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		
15-Feb	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.06		
16-Feb	2.0	2.0	2.0	2.0	2.0	2.1	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	2.08		
17-Feb	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.1	2.0	2.0	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	2.06		
18-Feb	1.9	1.9	2.0	2.0	2.0	1.9	A	1.9	2.0	2.0	1.9	2.0	1.9	1.9	2.0	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.98		
19-Feb	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	2.0	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	1.98		
20-Feb	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	2.0	1.9	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.00		
21-Feb	2.0	2.0	2.0	A	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	2.0	1.9	2.0	1.97		
22-Feb	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	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.97		
23-Feb	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.93		
24-Feb	A	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	1.9	1.9	A	1.95		
25-Feb	1.9	1.9	1.9	1.9	1.9	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	1.9	1.99		
26-Feb	1.9	2.0	1.9	1.9	1.9	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.96		
27-Feb	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	1.9	1.9	1.9	1.9	A	1.9	2.0	1.95		
28-Feb	1.9	2.0	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	A	1.9	2.0	2.0	2.0	1.96		
		1.98	1.99	1.98	1.99	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.97	1.98	1.97	1.97	1.96	1.97	1.97	1.97	1.97	1.97	1.98	1.97	1.98	Diurnal Average	
		2.17	2.09	2.13	2.20	2.13	2.08	2.09	2.10	2.16	2.17	2.18	2.18	2.20	2.14	2.13	2.12	2.05	2.12	2.14	2.12	2.13	2.15	2.12	2.10	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

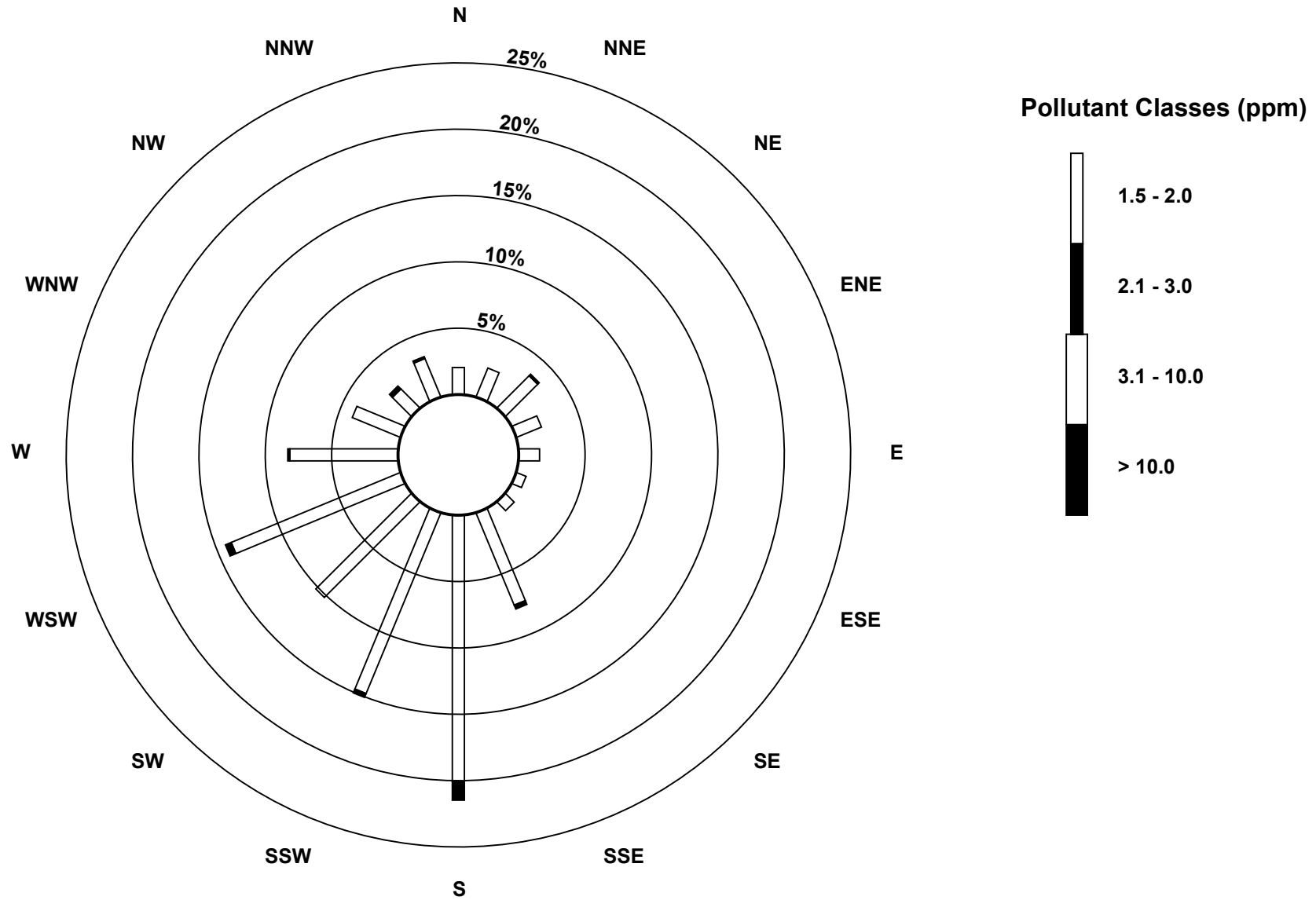
Hourly Maximums

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



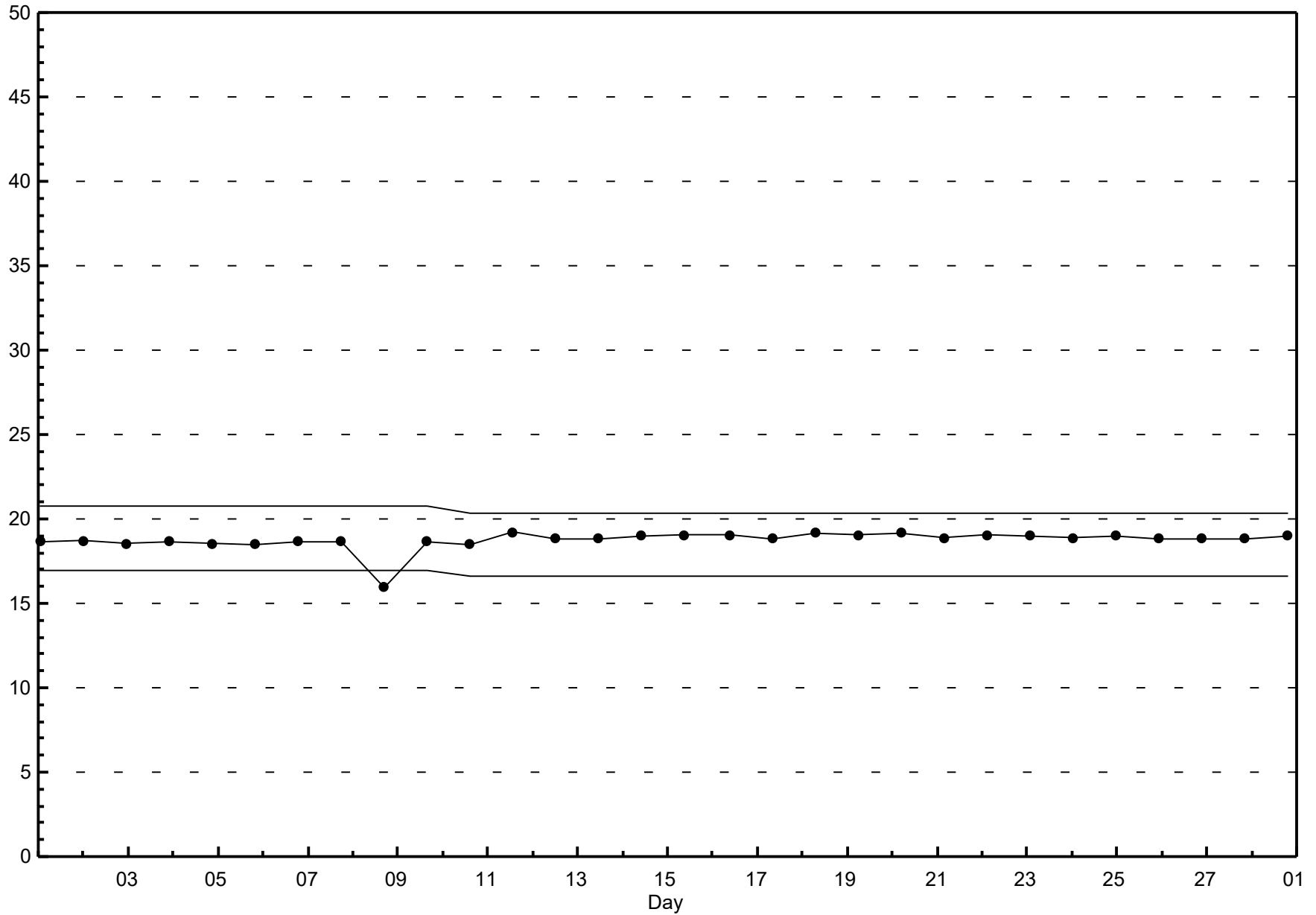
Pollutant Rose

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



Span Responses

**Total Hydrocarbons (THC)
Portable Rycroft - February 2018**



Hourly Averages

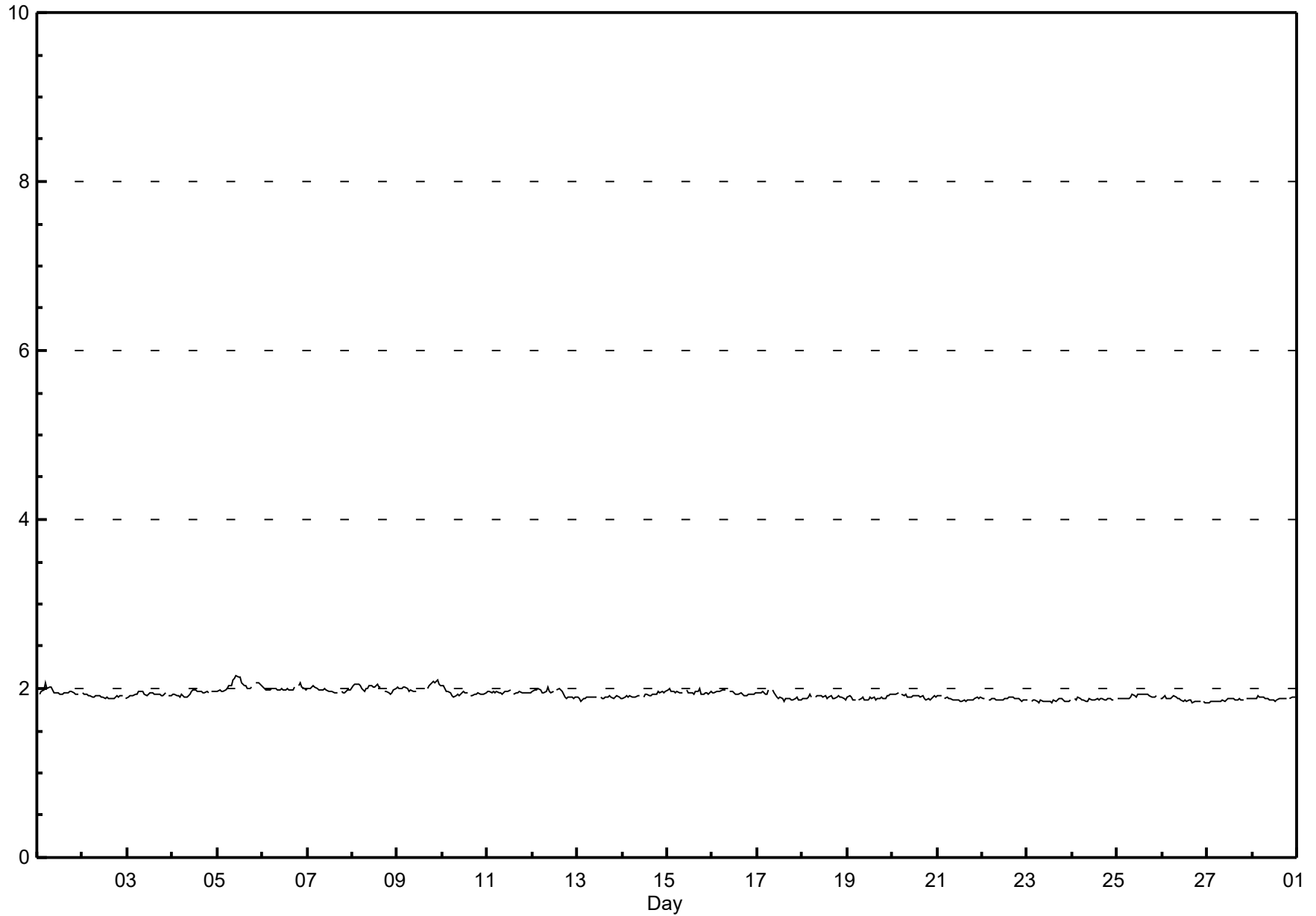
Methane (CH₄) - ppm

Portable Rycroft - February 2018

Maximum Value: 2.15 ppm on Feb 5 11:00		Maximum Daily Average: 2.04 ppm on Feb 5		Hours in Service: 672 Hours of Data: 638 Hours of Missing Data: 34 Hours of Calibration: 34 Percent Operational Time: 100.0																																													
Minimum Value: 1.8 ppm on Feb 27 00:00		Minimum Daily Average: 1.85 ppm on Feb 23																																															
Maximum Diurnal Average: 1.94 ppm at hour 2		Minimum Diurnal Average: 1.92 ppm at hour 19																																															
Monthly Average: 1.926 ppm		Percentiles: P ₁ = 1.84 P ₁₀ = 1.86 Q ₁ = 1.88 Median = 1.92 Q ₃ = 1.96 P ₉₀ = 2.00 P ₉₉ = 2.08																																															
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-Feb	A	1.9	2.0	2.0	2.1	2.0	2.0	2.0	2.0	1.9	1.9	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.9	1.9	1.9	1.9	A	1.96	2.06																							
2-Feb	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	1.9	1.9	1.9	1.9	1.9	A	1.9	1.91	1.95																							
3-Feb	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	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.93	1.97																							
4-Feb	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	1.9	1.9	2.0	1.9	A	2.0	2.0	2.0	1.94	1.99																							
5-Feb	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	A	2.1	2.1	2.1	2.1	2.04	2.15																							
6-Feb	2.0	2.0	2.0	2.0	2.0	2.0	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	2.1	2.0	2.0	2.0	2.00	2.06																							
7-Feb	2.0	2.0	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	A	2.0	2.0	1.9	2.0	2.0	2.0	1.98	2.03																							
8-Feb	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	A	2.0	2.0	2.0	2.0	1.9	1.9	2.0	2.0	2.01	2.06																							
9-Feb	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	C	C	C	C	A	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.0	2.02	2.11																							
10-Feb	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	2.0	A	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.94	2.03																							
11-Feb	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	A	1.9	1.9	2.0	2.0	2.0	1.9	2.0	2.0	1.9	1.9	1.95	1.98																							
12-Feb	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	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.95	2.02																							
13-Feb	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	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.89	1.91																							
14-Feb	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	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	1.92	1.97																							
15-Feb	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	A	2.0	2.0	2.0	1.9	1.9	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	1.96	2.00																							
16-Feb	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.95	1.99																							
17-Feb	1.9	1.9	2.0	2.0	1.9	1.9	2.0	A	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.91	1.98																							
18-Feb	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.90	1.93																							
19-Feb	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.89	1.93																							
20-Feb	1.9	1.9	1.9	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.91	1.96																							
21-Feb	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.88	1.91																							
22-Feb	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.9	1.9	1.87	1.90																							
23-Feb	1.9	A	1.9	1.9	1.9	1.8	1.8	1.9	1.8	1.9	1.8	1.9	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.9	1.9	1.85	1.87																							
24-Feb	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.87	1.90																							
25-Feb	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	1.9	1.9	1.9	1.9	1.9	A	1.9	1.90	1.94																							
26-Feb	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.87	1.91																							
27-Feb	1.8	1.8	1.8	1.8	1.9	1.8	1.8	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	1.9	1.9	1.86	1.89																							
28-Feb	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	1.9	1.9	A	1.9	1.9	1.9	1.9	1.88	1.91																							
																								1.93	1.94	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.93	1.93	1.93	Diurnal Average
																								2.04	2.05	2.05	2.06	2.06	2.01	2.03	2.04	2.11	2.12	2.15	2.14	2.14	2.07	2.03	2.04	2.01	2.03	2.07	2.08	2.07	2.11	2.07	2.05	Diurnal Maximum	
C - Calibration																								A - Automated Daily Zero Span																									

Hourly Averages

Methane (CH₄) - ppm
Portable Rycroft - February 2018



Hourly Maximums

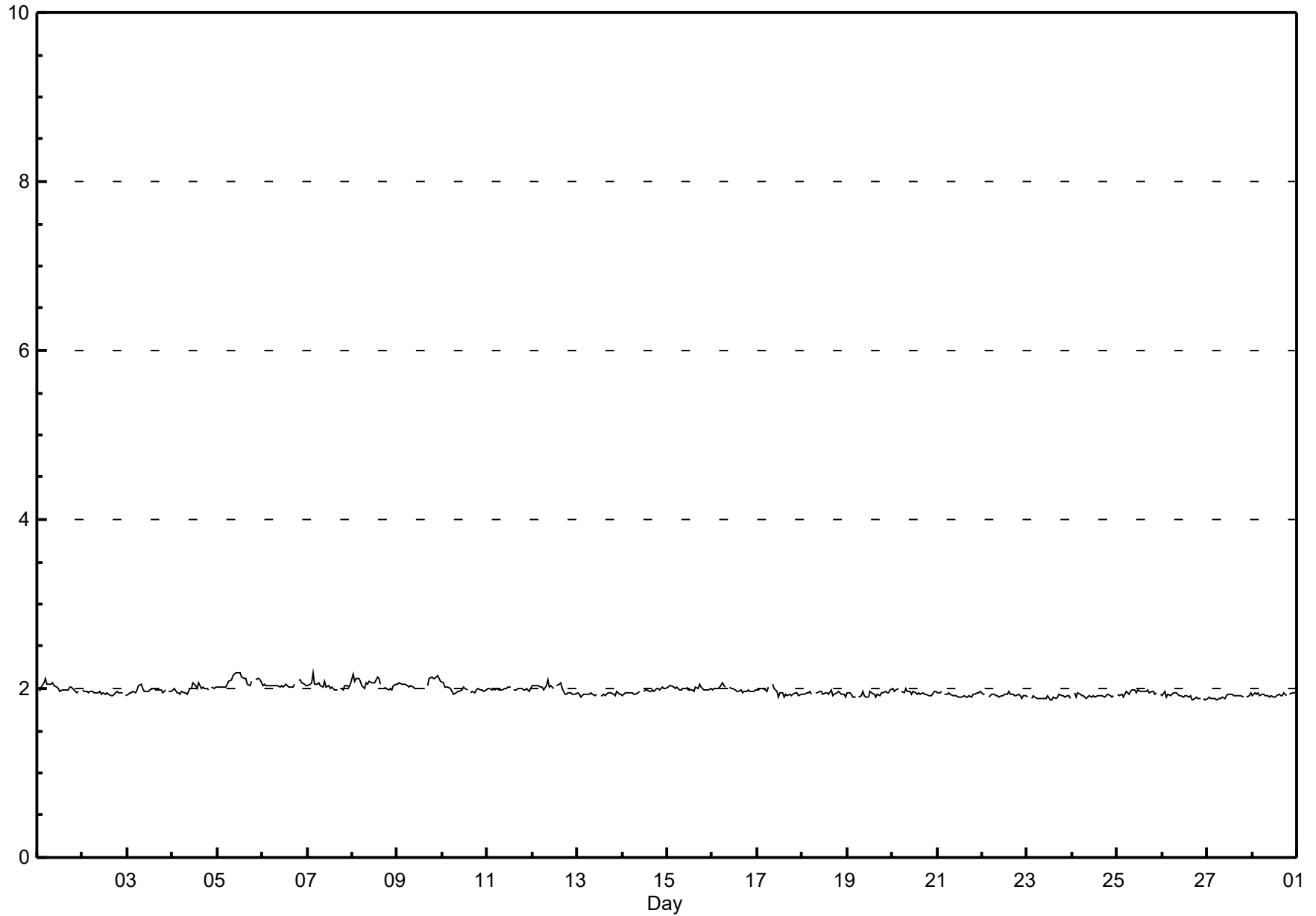
Methane (CH₄) - ppm

Portable Rycroft - February 2018

Maximum Value: 2.19 ppm on Feb 5 13:00		Maximum Daily Average: 2.09 ppm on Feb 5		Hours in Service: 672																							
Minimum Value: 1.9 ppm on Feb 23 14:00		Minimum Daily Average: 1.90 ppm on Feb 23		Hours of Data: 638																							
Maximum Diurnal Average: 1.98 ppm at hour 4		Minimum Diurnal Average: 1.96 ppm at hour 17		Hours of Missing Data: 34																							
Monthly Average: 1.972 ppm		Percentiles: P ₁ = 1.88 P ₁₀ = 1.91 Q ₁ = 1.93 Median = 1.96 Q ₃ = 2.01 P ₉₀ = 2.05 P ₉₉ = 2.15		Hours of Calibration: 34																							
				Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Feb	A	2.0	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	2.0	2.0	2.0	2.0	2.0	A	2.0	2.13		
2-Feb	2.0	2.0	2.0	1.9	2.0	2.0	1.9	1.9	2.0	2.0	1.9	1.9	2.0	1.9	1.9	1.9	1.9	2.0	1.9	2.0	2.0	A	1.9	1.98			
3-Feb	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	2.0	A	2.0	2.05			
4-Feb	2.0	2.0	2.0	2.0	1.9	2.0	2.0	1.9	1.9	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	2.0	2.07		
5-Feb	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.0	2.0	2.1	A	2.1	2.1	2.1	2.1	2.19		
6-Feb	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	A	2.1	2.1	2.1	2.1	2.0	2.10		
7-Feb	2.0	2.1	2.1	2.2	2.1	2.0	2.1	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.18		
8-Feb	2.2	2.1	2.1	2.1	2.1	2.0	2.0	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	2.0	2.1	2.17		
9-Feb	2.0	2.1	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	C	C	C	C	A	2.0	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.15		
10-Feb	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	A	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.07		
11-Feb	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.02		
12-Feb	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	A	2.0	2.0	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.10		
13-Feb	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	1.9	1.9	1.9	2.0	1.9	1.9	1.9	2.0	1.9	1.9	1.96		
14-Feb	1.9	1.9	2.0	1.9	2.0	2.0	1.9	1.9	1.9	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	2.01		
15-Feb	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.05		
16-Feb	2.0	2.0	2.0	2.0	2.0	2.1	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	2.08		
17-Feb	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	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	1.9	2.06		
18-Feb	1.9	1.9	2.0	2.0	2.0	1.9	A	1.9	2.0	2.0	1.9	2.0	1.9	1.9	2.0	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.98		
19-Feb	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	2.0	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	2.0	1.98		
20-Feb	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	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.00		
21-Feb	1.9	1.9	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.0	1.97		
22-Feb	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	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.97		
23-Feb	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.92		
24-Feb	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.95		
25-Feb	1.9	1.9	1.9	1.9	1.9	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	1.9	1.98		
26-Feb	1.9	2.0	1.9	1.9	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	1.9	1.9	1.9	A	1.9	1.9	1.96		
27-Feb	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	1.9	1.9	1.9	1.9	A	1.9	1.9	1.94		
28-Feb	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	2.0	1.9	A	1.9	1.9	1.9	2.0	1.96		
		1.98	1.98	1.98	1.98	1.97	1.98	1.97	1.97	1.98	1.98	1.97	1.97	1.97	1.97	1.97	1.96	1.96	1.96	1.97	1.96	1.97	1.97	1.97	1.97	1.97	Diurnal Average
		2.17	2.09	2.12	2.18	2.13	2.08	2.08	2.10	2.16	2.17	2.19	2.18	2.19	2.14	2.13	2.12	2.05	2.11	2.13	2.12	2.12	2.15	2.12	2.11	2.11	Diurnal Maximum
C - Calibration		A - Automated Daily Zero Span																									

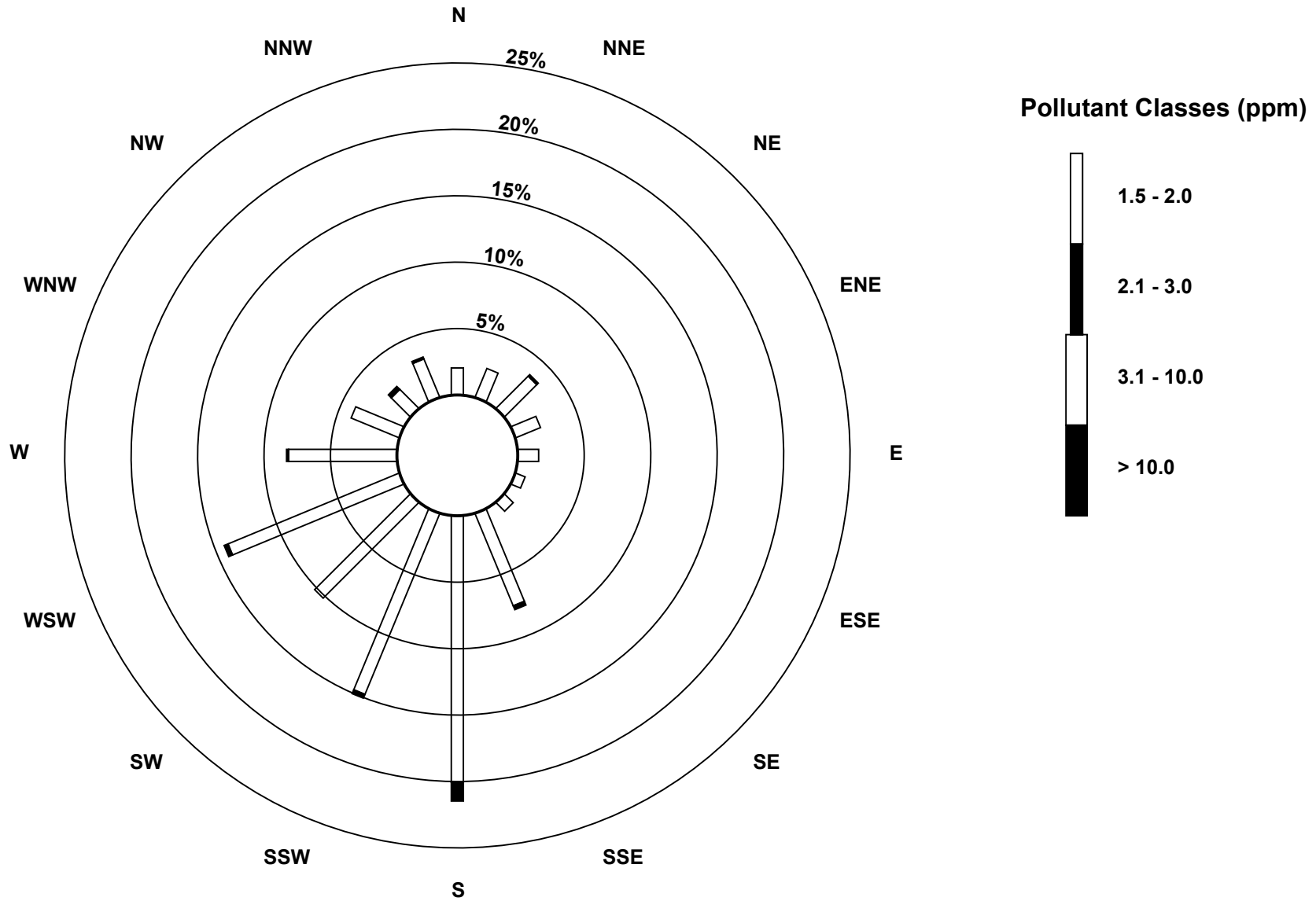
Hourly Maximums

Methane (CH₄) - ppm
Portable Rycroft - February 2018



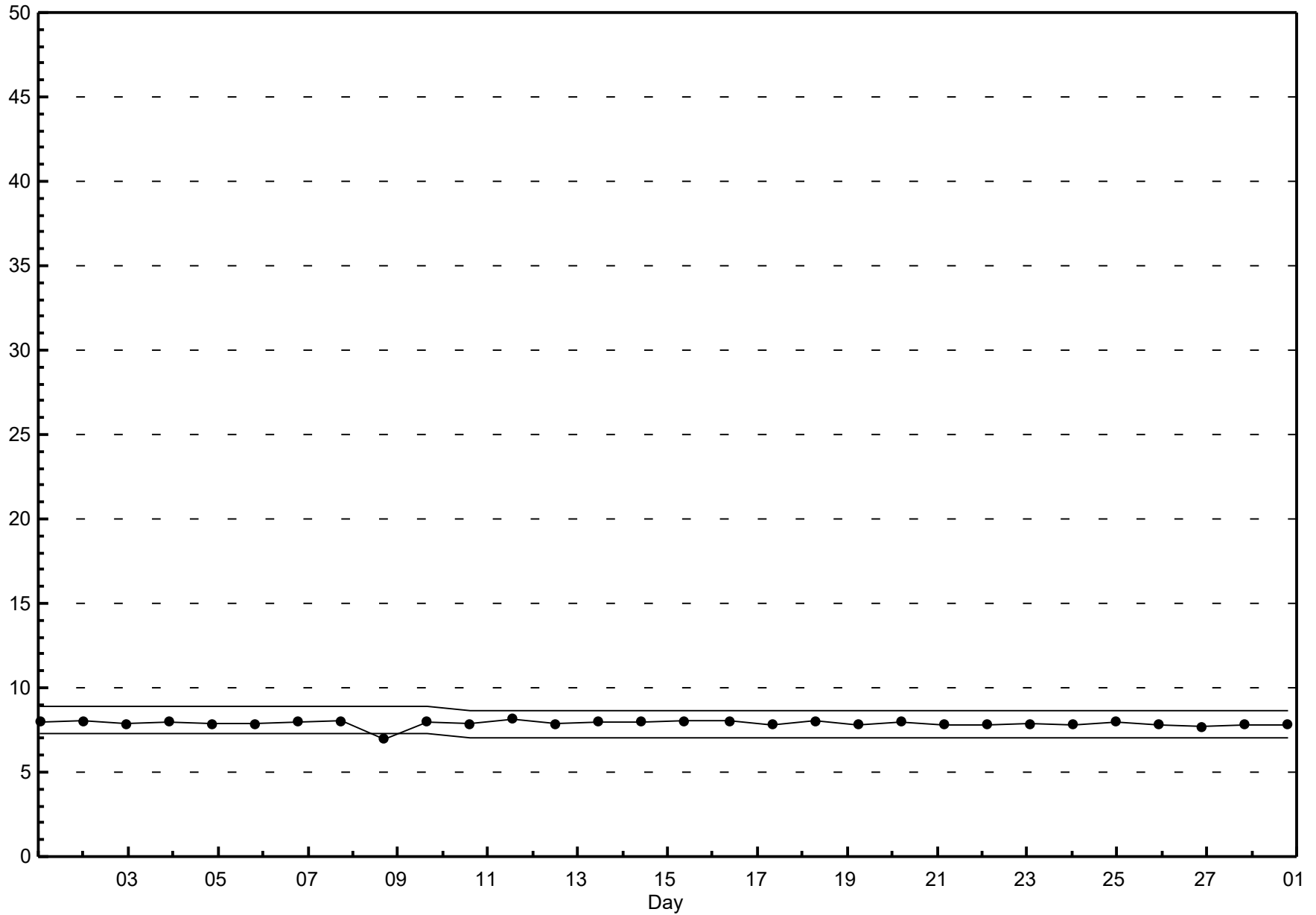
Pollutant Rose

Methane (CH₄) - ppm
Portable Rycroft - February 2018



Span Responses

Methane (CH₄)
Portable Rycroft - February 2018

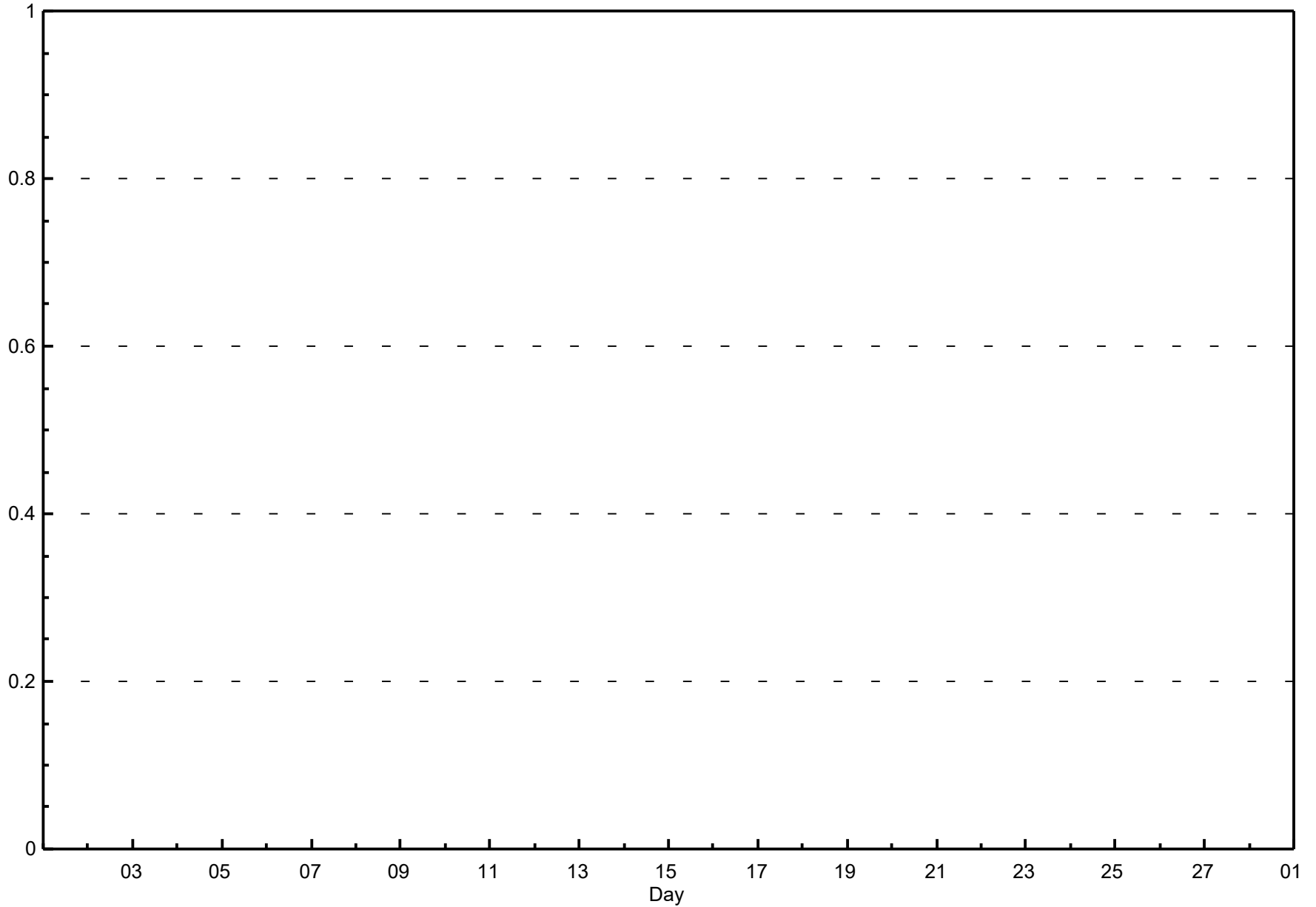


Hourly Averages

Non Methane Hydrocarbon (NMHC) - ppm

Portable Rycroft - February 2018

Maximum Value: 0.00 ppm on Feb 23 12:00 Maximum Daily Average: 0.00 ppm on Feb 23 Minimum Value: 0.0 ppm on Feb 1 02:00 Minimum Daily Average: 0.00 ppm on Feb 1 Maximum Diurnal Average: 0.00 ppm at hour 14 Minimum Diurnal Average: 0.00 ppm at hour 7 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 in Service: 672 Hours of Data: 638 Hours of Missing Data: 34 Hours of Calibration: 34 Percent Operational Time: 100.0		
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Feb	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
2-Feb	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
3-Feb	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
4-Feb	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
5-Feb	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
6-Feb	0.0	0.0	0.0	0.0	0.0	0.0	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
7-Feb	0.0	0.0	0.0	0.0	0.0	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
8-Feb	0.0	0.0	0.0	0.0	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
9-Feb	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	C	C	C	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
10-Feb	0.0	0.0	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
11-Feb	0.0	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
12-Feb	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
13-Feb	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
14-Feb	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
15-Feb	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
16-Feb	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
17-Feb	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
18-Feb	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
19-Feb	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
20-Feb	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
21-Feb	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
22-Feb	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
23-Feb	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
24-Feb	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
25-Feb	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
26-Feb	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
27-Feb	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
28-Feb	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																										

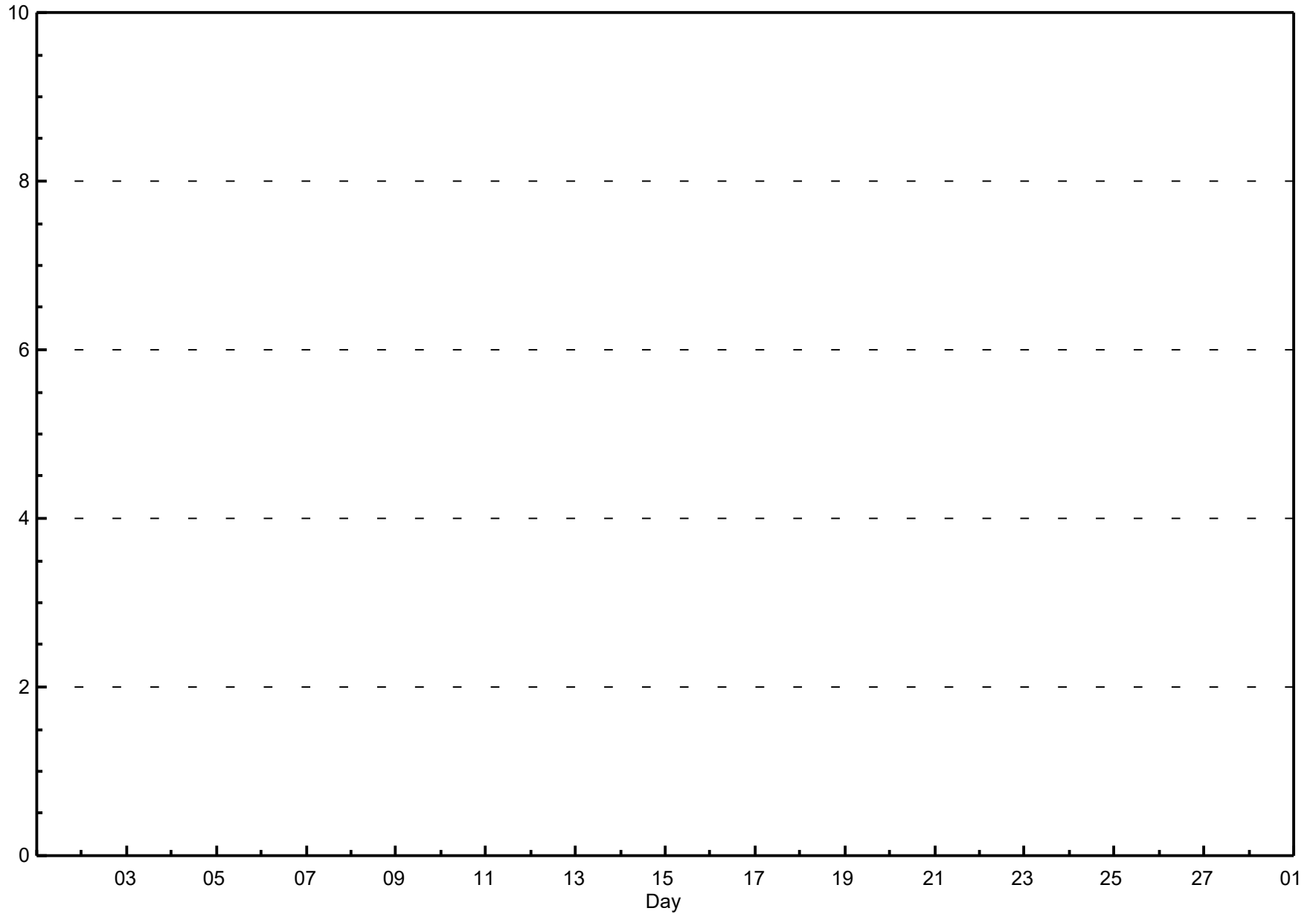


Hourly Maximums

Non Methane Hydrocarbon (NMHC) - ppm

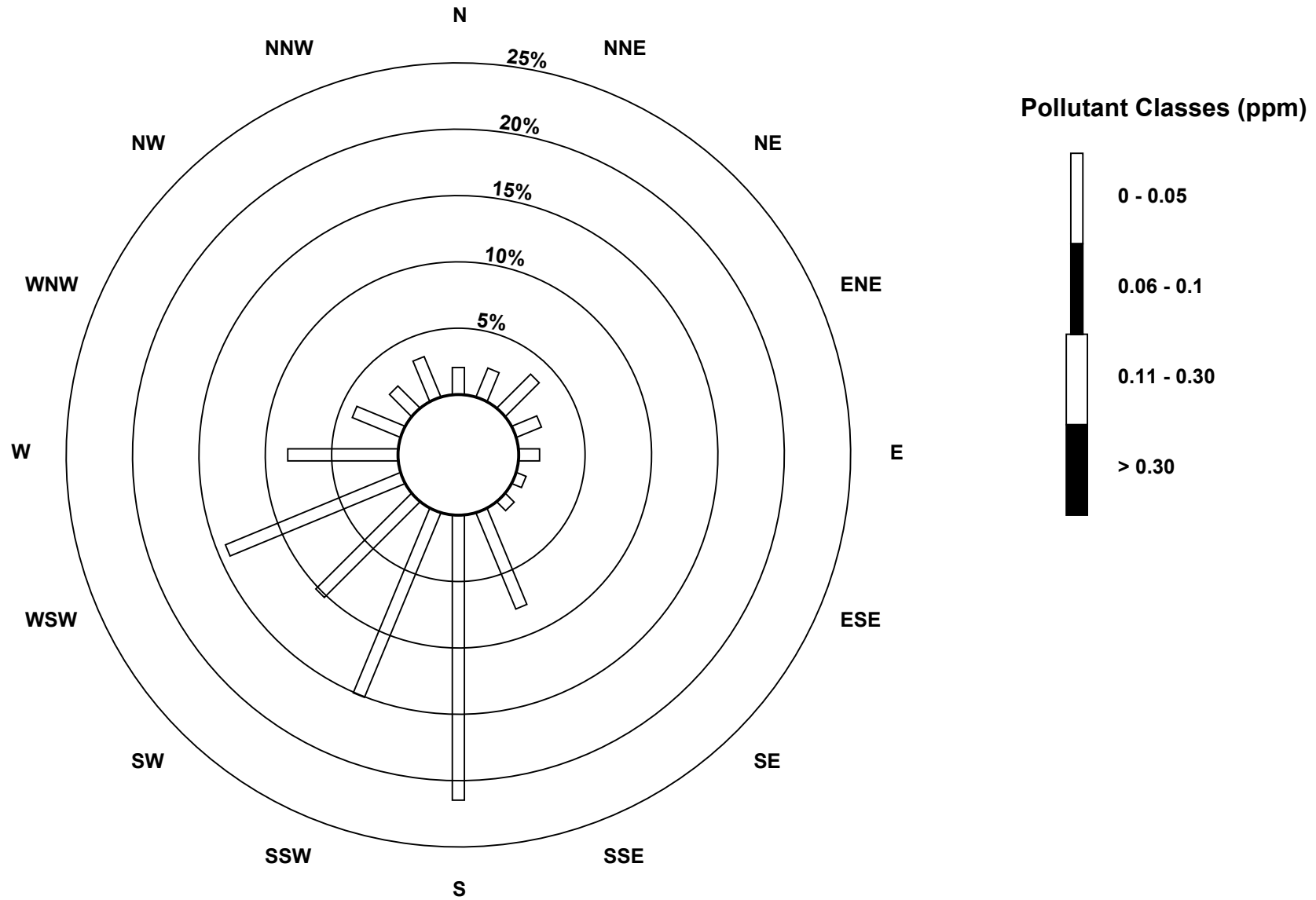
Portable Rycroft - February 2018

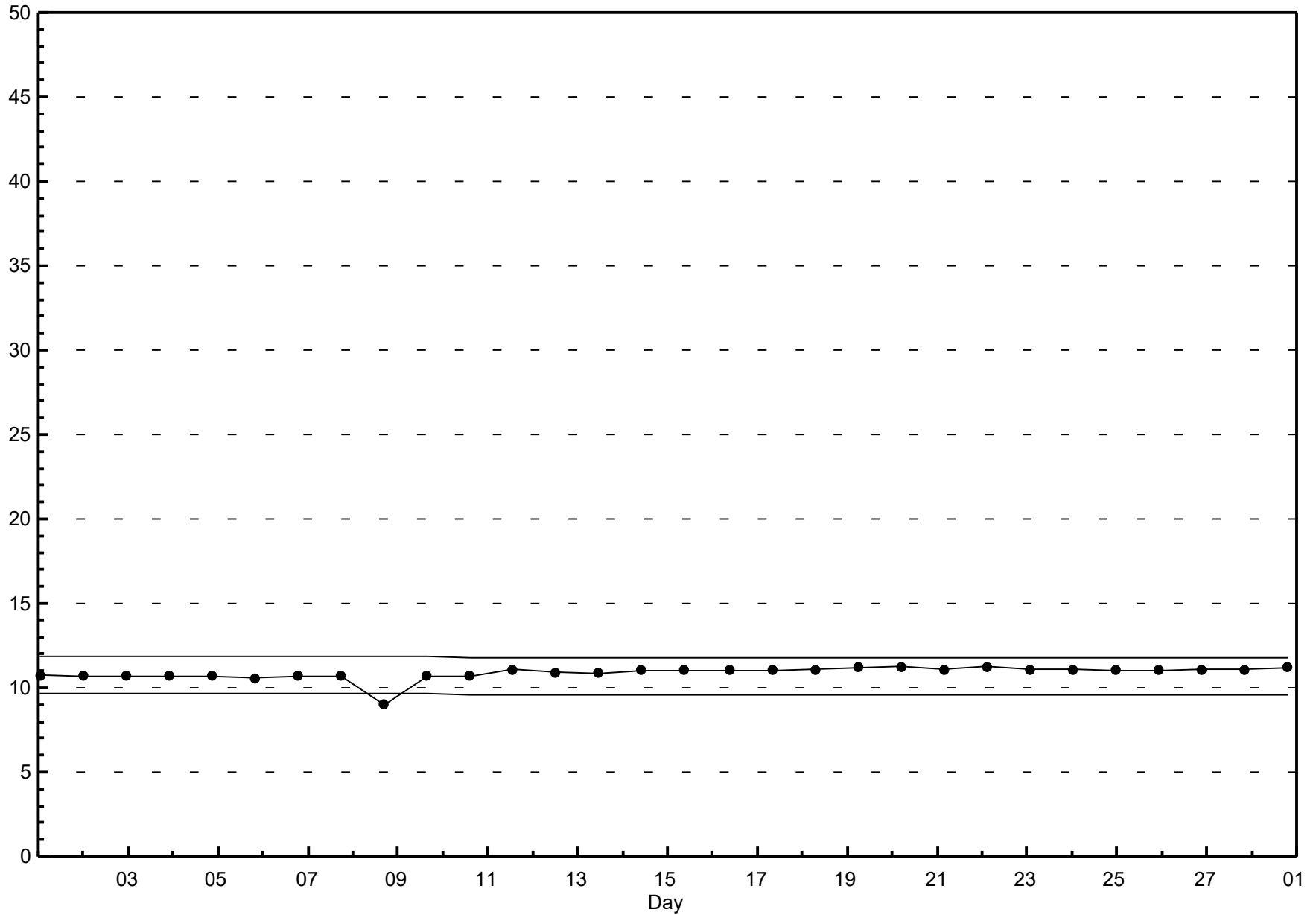
Maximum Value: 0.00 ppm on Feb 22 23:00 Maximum Daily Average: 0.00 ppm on Feb 21 Minimum Value: 0.0 ppm on Feb 1 04:00 Minimum Daily Average: 0.00 ppm on Feb 10 Maximum Diurnal Average: 0.00 ppm at hour 15 Minimum Diurnal Average: 0.00 ppm at hour 23 Monthly Average: 0.000 ppm Percentiles: P ₁ = 0.00 P ₁₀ = 0.00 Q ₁ = 0.00 Median = 0.00 Q ₃ = 0.00 P ₉₀ = 0.00 P ₉₉ = 0.00																								Hours in Service: 672 Hours of Data: 638 Hours of Missing Data: 34 Hours of Calibration: 34 Percent Operational Time: 100.0		
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Feb	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
2-Feb	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
3-Feb	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
4-Feb	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
5-Feb	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
6-Feb	0.0	0.0	0.0	0.0	0.0	0.0	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
7-Feb	0.0	0.0	0.0	0.0	0.0	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
8-Feb	0.0	0.0	0.0	0.0	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
9-Feb	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C	C	C	C	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
10-Feb	0.0	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
11-Feb	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
12-Feb	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
13-Feb	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
14-Feb	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
15-Feb	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
16-Feb	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
17-Feb	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
18-Feb	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
19-Feb	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
20-Feb	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
21-Feb	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
22-Feb	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
23-Feb	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
24-Feb	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
25-Feb	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
26-Feb	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
27-Feb	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
28-Feb	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																										



Pollutant Rose

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





Hourly Averages

PM2.5 (PM_{2.5}) - µg/m³

Portable Rycroft - February 2018

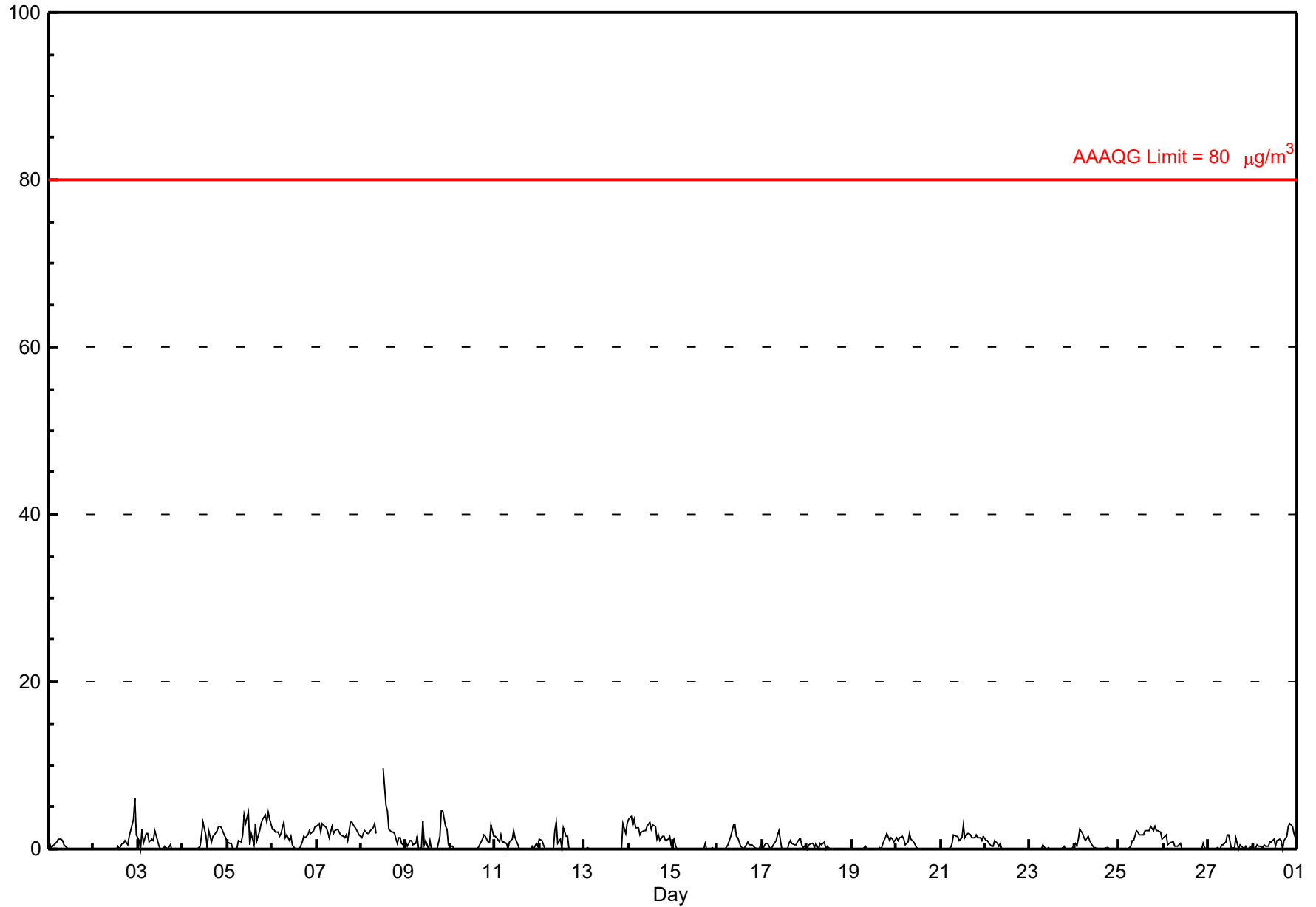
Number of Exceedences: 1-hr: 0 24-hr: 0	Hours in Service: 672
Maximum Value: 9.6 µg/m ³ on Feb 8 13:00	Maximum Daily Average: 2.4 µg/m ³ on Feb 8
Minimum Value: 0 µg/m ³ on Feb 1 11:00	Hours of Data: 669
Minimum Daily Average: 0.1 µg/m ³ on Feb 23	Hours of Missing Data: 3
Maximum Diurnal Average: 1.2 µg/m ³ at hour 10	Hours of Calibration: 3
Monthly Average: 0.85 µg/m ³	Percent Operational Time: 100.0
Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.4 Q ₃ = 1.4 P ₉₀ = 2.4 P ₉₉ = 4.4	

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-Feb	1	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.3
2-Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	2	2	4	6	2	0.8	6.0
3-Feb	1	0	2	1	2	2	1	1	1	2	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0.6	2.4
4-Feb	0	0	0	0	0	0	0	0	0	0	2	3	2	0	2	1	2	2	2	3	3	3	2	1	1.1	3.1
5-Feb	1	1	1	0	0	0	1	1	2	4	3	4	0	2	1	3	1	2	3	4	4	3	4	4	2.0	4.4
6-Feb	2	2	2	2	2	2	3	1	2	1	2	1	0	0	0	0	1	1	1	2	2	2	2	3	1.5	3.2
7-Feb	3	3	2	3	3	3	2	1	3	2	2	2	2	2	1	2	1	3	3	3	2	2	2	2	2.2	3.3
8-Feb	1	2	2	2	2	2	3	3	2	C	C	C	10	5	5	2	2	2	2	1	1	1	1	0	2.4	9.6
9-Feb	1	0	1	1	1	1	2	0	0	3	1	1	0	1	0	0	0	0	2	5	5	3	2	0	1.2	4.7
10-Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	2	1	1	3	2	0.5	3.0
11-Feb	2	1	1	2	1	1	1	0	1	1	2	1	0	0	0	0	0	0	0	0	0	0	1	0	0.7	2.2
12-Feb	1	1	0	0	0	0	0	0	2	3	1	1	0	3	2	1	0	0	0	0	0	0	0	0	0.6	3.2
13-Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	3	0.3	3.0
14-Feb	3	4	3	4	3	3	2	2	2	2	3	3	2	3	3	1	2	1	1	1	1	1	2	1	2.2	3.9
15-Feb	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0.1	1.2
16-Feb	0	0	0	0	0	0	1	1	3	3	2	1	0	0	0	0	1	1	1	0	0	0	0	1	0.7	2.9
17-Feb	0	0	1	1	0	0	0	1	2	2	0	0	0	0	1	1	1	0	0	1	1	0	0	1	0.6	2.2
18-Feb	0	1	1	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.8
19-Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	1	1	1	1	0.4	1.9
20-Feb	1	1	1	2	1	0	1	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	1.8
21-Feb	0	0	0	0	0	0	1	2	1	1	1	1	3	1	2	2	2	1	1	2	1	1	1	1	1.1	2.9
22-Feb	1	1	1	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.1
23-Feb	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
24-Feb	1	0	1	2	2	1	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	2.5
25-Feb	0	0	0	0	0	0	0	1	1	2	2	2	2	2	2	2	2	3	2	3	2	2	2	1	1.4	2.7
26-Feb	1	2	0	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.3	1.7
27-Feb	0	0	0	0	0	0	0	1	1	1	2	2	0	0	0	1	0	1	0	0	0	0	0	0	0.4	1.7
28-Feb	0	0	1	0	0	0	0	0	0	1	1	1	0	1	1	1	0	1	2	3	3	3	2	1	1.0	3.0
	0.8	0.8	0.7	0.8	0.6	0.7	0.7	0.8	1.0	1.2	0.9	0.9	0.8	0.7	0.7	0.7	0.6	0.7	0.9	1.1	1.1	1.1	1.2	0.8	Diurnal Average	
	3.5	3.9	2.8	3.6	2.9	2.6	3.2	3.0	2.9	4.1	3.0	4.4	9.6	5.3	4.6	3.1	2.2	2.7	3.2	4.5	4.7	3.6	6.0	3.6	Diurnal Maximum	

C - Calibration
 Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 µg/m³ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 µg/m³

Hourly Averages

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



Hourly Maximums

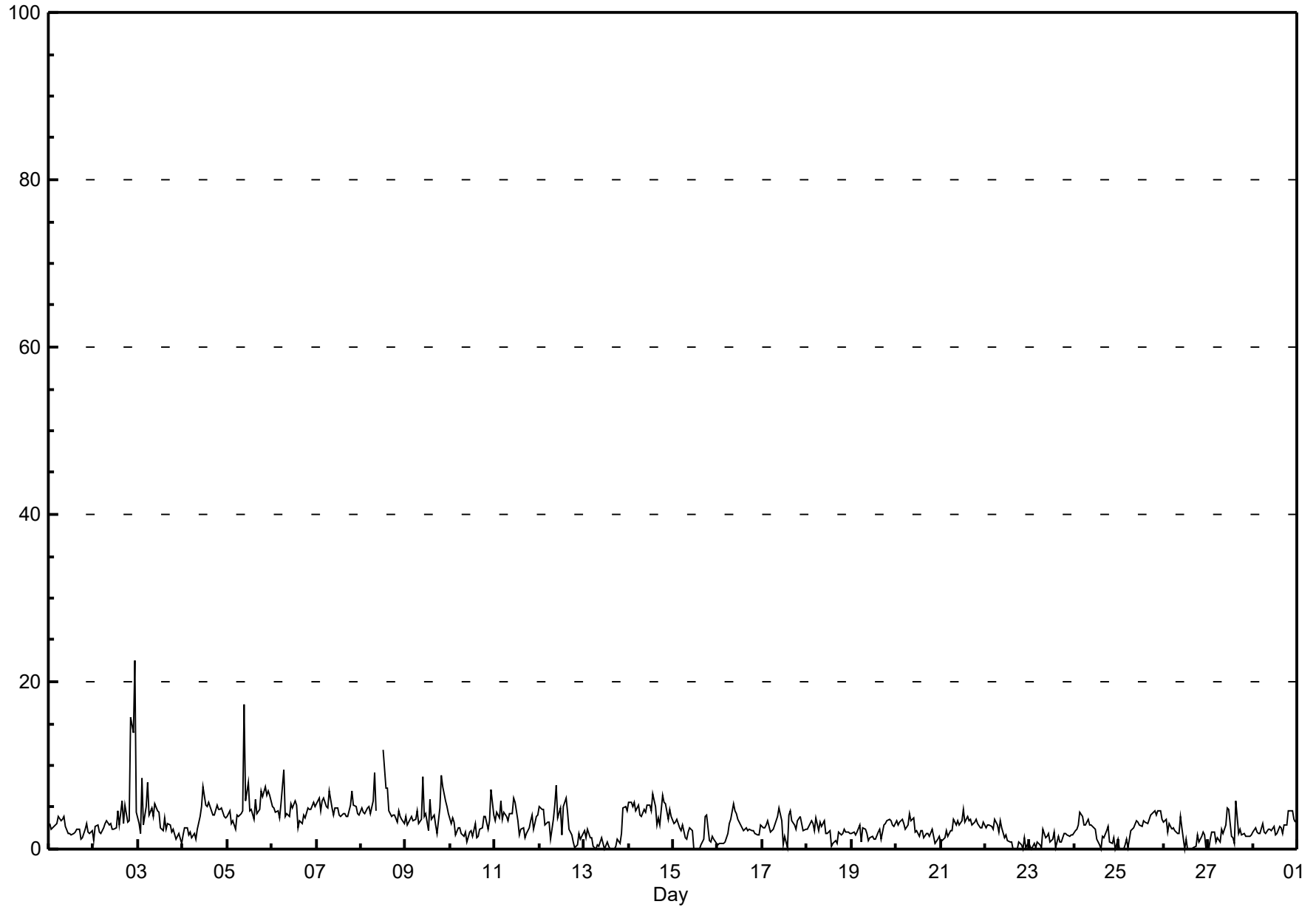
PM2.5 (PM_{2.5}) - µg/m³

Portable Rycroft - February 2018

Maximum Value: 22.5 µg/m ³ on Feb 2 23:00		Maximum Daily Average: 5.6 µg/m ³ on Feb 5		Hours in Service: 672																							
Minimum Value: 0 µg/m ³ on Feb 13 07:00		Minimum Daily Average: 1.2 µg/m ³ on Feb 23		Hours of Data: 669																							
Maximum Diurnal Average: 4.1 µg/m ³ at hour 10		Minimum Diurnal Average: 2.3 µg/m ³ at hour 17		Hours of Missing Data: 3																							
Monthly Average: 3.03 µg/m ³		Percentiles: P ₁ = 0.0 P ₁₀ = 0.8 Q ₁ = 1.8 Median = 2.8 Q ₃ = 4.1 P ₉₀ = 5.1 P ₉₉ = 9.0		Hours of Calibration: 3																							
				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-Feb	3	2	3	3	3	4	3	4	4	3	2	2	2	2	2	2	2	1	1	2	3	2	2	2	2.5	3.8	
2-Feb	1	3	3	2	2	3	3	3	3	3	2	2	3	5	3	6	3	5	3	3	16	14	22	4	4.9	22.5	
3-Feb	3	2	9	3	5	8	4	5	4	5	5	4	3	2	4	2	3	3	2	2	1	2	2	1	3.5	8.5	
4-Feb	2	3	2	2	2	1	2	1	2	4	5	7	5	5	6	5	4	4	5	5	5	5	4	4	3.7	7.4	
5-Feb	4	5	3	3	2	4	4	4	5	17	6	8	5	5	4	6	4	5	7	6	8	6	7	6	5.6	17.3	
6-Feb	5	5	4	5	4	5	10	4	4	4	5	5	6	5	3	3	3	4	4	5	5	5	6	5	4.7	9.6	
7-Feb	6	6	5	6	6	5	5	7	5	4	5	5	4	4	4	4	4	4	5	7	5	5	4	4	4.9	7.0	
8-Feb	5	4	4	5	5	4	6	9	5	C	C	C	12	7	7	5	4	4	4	3	5	4	4	3	5.2	11.9	
9-Feb	4	3	4	4	3	4	5	3	4	9	4	4	2	6	4	4	3	2	5	9	8	6	5	4	4.4	8.8	
10-Feb	3	4	3	2	3	2	2	2	2	1	2	2	2	3	1	2	2	3	4	4	2	3	7	4	2.7	7.1	
11-Feb	3	4	4	6	4	4	4	3	4	4	6	6	3	2	3	1	2	3	3	4	2	4	4	4	3.6	6.2	
12-Feb	5	5	5	3	3	3	1	4	5	8	4	5	2	5	6	4	2	2	1	0	1	2	1	2	3.2	7.5	
13-Feb	2	1	2	1	1	0	0	0	0	1	1	0	1	0	0	0	0	0	1	1	2	5	5	5	1.3	5.1	
14-Feb	6	6	5	6	5	5	4	4	5	4	5	5	5	7	5	3	4	3	6	6	5	4	5	4	4.8	6.5	
15-Feb	3	3	4	2	2	3	1	1	2	2	2	0	0	0	0	1	4	4	4	1	1	2	1	1	1.7	4.0	
16-Feb	0	1	1	1	1	2	3	4	5	5	4	4	3	3	2	2	2	2	2	2	2	2	2	3	2.4	5.4	
17-Feb	3	3	3	3	2	2	2	3	4	5	3	1	2	0	4	5	3	3	2	3	4	3	2	2	2.8	4.8	
18-Feb	2	3	3	3	2	4	2	3	3	3	2	2	2	0	1	1	1	2	2	2	2	2	2	2	2.1	3.7	
19-Feb	2	2	2	2	3	1	3	2	2	1	1	2	1	1	2	2	1	3	3	3	4	3	3	3	2.2	3.6	
20-Feb	3	3	3	4	3	2	3	4	3	4	2	2	2	2	2	1	2	2	2	2	1	1	1	2	2.4	4.2	
21-Feb	1	1	1	2	2	2	2	4	3	3	3	3	5	3	4	3	3	3	3	4	3	3	3	3	2.8	4.8	
22-Feb	3	3	3	3	2	4	3	2	3	3	1	2	1	1	1	0	0	0	1	1	0	1	0	1	1.6	3.6	
23-Feb	0	0	1	0	1	0	0	2	1	1	2	1	1	2	0	2	1	1	2	2	2	2	2	2	1.2	2.4	
24-Feb	2	2	3	4	4	3	3	4	3	3	3	2	1	0	0	2	1	2	3	1	1	1	0	1	2.0	4.5	
25-Feb	0	0	0	0	1	0	2	2	3	3	3	3	3	3	3	3	4	4	4	5	4	5	5	3	2.7	4.6	
26-Feb	3	4	2	3	2	3	2	2	2	4	2	0	1	0	0	0	0	0	2	1	1	2	2	0	1.6	3.9	
27-Feb	0	1	2	2	1	1	1	2	2	3	5	5	2	1	1	6	2	2	2	2	1	1	1	2	2.0	5.8	
28-Feb	2	3	2	2	2	3	2	2	2	2	2	3	2	2	3	3	2	3	3	5	5	5	4	3	2.6	4.6	
		2.7	2.8	3.0	2.9	2.7	3.0	2.9	3.3	3.2	4.1	3.3	3.1	2.8	2.7	2.6	2.8	2.3	2.6	3.1	3.2	3.6	3.4	3.7	2.8	Diurnal Average	
		5.5	6.0	8.5	5.8	6.0	7.9	9.6	9.2	5.4	17.3	6.2	8.0	11.9	7.3	7.2	6.0	4.3	5.3	7.0	8.8	15.8	13.9	22.5	6.5	Diurnal Maximum	
C - Calibration																											

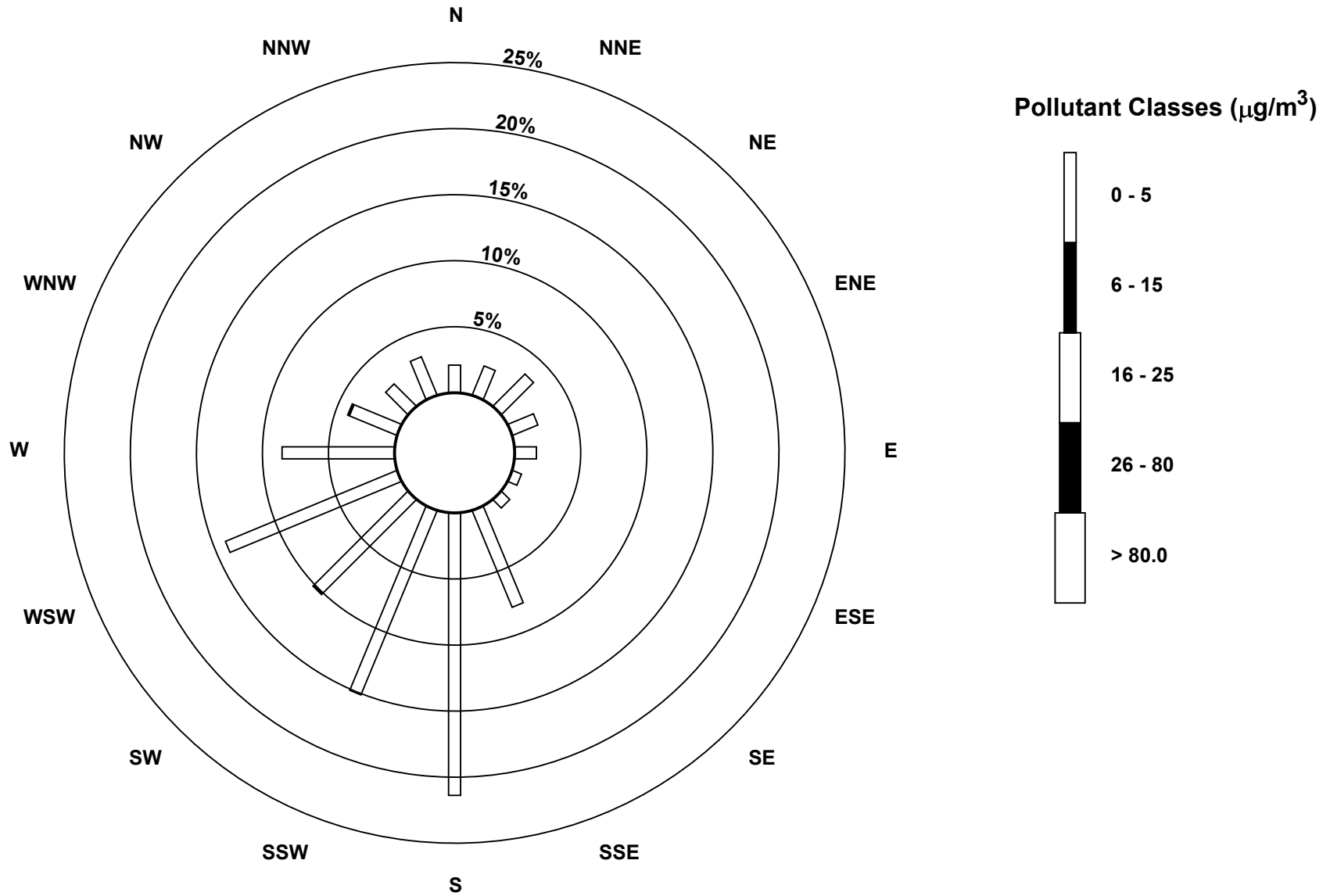
Hourly Maximums

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



Pollutant Rose

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



Hourly Averages

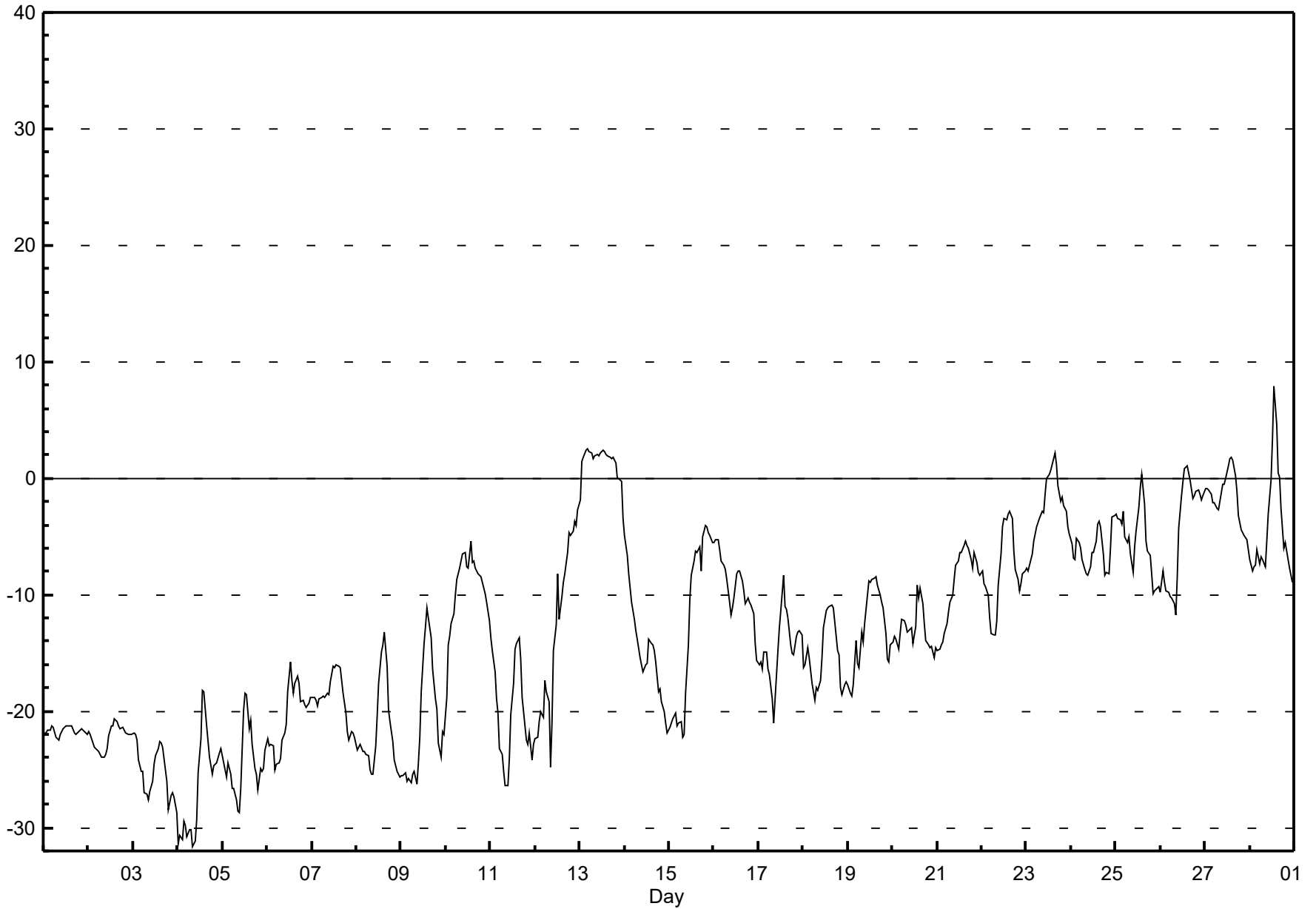
External Temperature (ET) - °C

Portable Rycroft - February 2018

Maximum Value: 7.9 °C on Feb 28 14:00		Maximum Daily Average: 1.3 °C on Feb 13		Hours in Service: 672 Hours of Data: 672 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0																							
Minimum Value: -32 °C on Feb 4 09:00 Maximum Diurnal Average: -9.5 °C at hour 14 Monthly Average: -13.51 °C		Minimum Daily Average: -26.4 °C on Feb 4 Minimum Diurnal Average: -16.4 °C at hour 9 Percentiles: P ₁ = -30.2 P ₁₀ = -24.5 Q ₁ = -21.3 Median = -13.5 Q ₃ = -6.7 P ₉₀ = -2.0 P ₉₉ = 2.3																									
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-Feb	-22	-22	-22	-22	-21	-21	-22	-22	-22	-22	-21	-21	-21	-21	-21	-21	-22	-22	-22	-22	-22	-22	-22	-22	-22	-21.7	-21.3
2-Feb	-22	-22	-23	-23	-23	-23	-24	-24	-24	-24	-23	-22	-21	-21	-21	-21	-21	-21	-21	-22	-22	-22	-22	-22	-22	-22.3	-20.6
3-Feb	-22	-22	-22	-24	-25	-25	-27	-27	-28	-27	-26	-25	-24	-23	-23	-23	-23	-25	-26	-28	-27	-27	-27	-29	-25.2	-21.9	
4-Feb	-31	-31	-31	-29	-30	-31	-30	-30	-32	-31	-29	-25	-22	-18	-18	-21	-23	-24	-25	-25	-25	-24	-24	-23	-26.4	-18.3	
5-Feb	-24	-25	-26	-24	-25	-27	-27	-28	-29	-29	-27	-20	-19	-19	-21	-21	-23	-25	-25	-27	-25	-25	-25	-23	-24.4	-18.5	
6-Feb	-22	-23	-23	-23	-25	-25	-24	-24	-22	-22	-21	-18	-16	-17	-18	-18	-17	-18	-19	-19	-19	-20	-19	-19	-20.5	-15.8	
7-Feb	-19	-19	-19	-20	-19	-19	-19	-19	-18	-19	-18	-16	-16	-16	-16	-16	-17	-18	-20	-22	-22	-22	-22	-22	-18.9	-16.0	
8-Feb	-23	-23	-23	-23	-23	-24	-24	-25	-25	-25	-23	-20	-18	-15	-14	-13	-16	-20	-21	-23	-24	-25	-25	-26	-21.8	-13.2	
9-Feb	-26	-26	-25	-26	-26	-26	-25	-25	-26	-24	-22	-18	-14	-13	-11	-13	-14	-16	-19	-20	-23	-24	-22	-22	-21.1	-11.1	
10-Feb	-19	-14	-14	-12	-12	-10	-9	-8	-7	-6	-6	-8	-8	-5	-7	-7	-8	-8	-8	-8	-9	-10	-11	-12	-9.5	-5.4	
11-Feb	-14	-15	-17	-19	-20	-23	-24	-25	-26	-26	-24	-20	-18	-15	-14	-14	-16	-19	-21	-22	-23	-22	-24	-23	-20.1	-13.7	
12-Feb	-22	-22	-21	-20	-20	-17	-18	-19	-25	-21	-15	-13	-8	-12	-10	-9	-8	-6	-5	-5	-5	-4	-4	-3	-13.0	-2.7	
13-Feb	-2	1	2	2	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	0	0	0	-3	1.3	2.6	
14-Feb	-5	-7	-8	-9	-11	-12	-13	-14	-15	-16	-17	-16	-16	-14	-14	-14	-15	-16	-18	-18	-19	-20	-21	-22	-14.6	-4.8	
15-Feb	-21	-21	-21	-20	-21	-21	-21	-22	-22	-18	-14	-10	-8	-7	-6	-6	-6	-8	-5	-4	-4	-5	-5	-6	-12.7	-4.1	
16-Feb	-5	-5	-5	-6	-7	-8	-8	-9	-11	-12	-11	-10	-8	-8	-8	-9	-10	-11	-10	-11	-11	-12	-14	-16	-9.3	-5.2	
17-Feb	-16	-16	-16	-15	-15	-16	-17	-19	-21	-19	-15	-13	-11	-8	-11	-11	-12	-14	-15	-15	-14	-13	-13	-13	-14.6	-8.3	
18-Feb	-16	-16	-15	-15	-17	-18	-19	-18	-18	-17	-15	-13	-11	-11	-11	-11	-12	-15	-15	-18	-19	-18	-17	-17	-15.3	-10.9	
19-Feb	-18	-18	-19	-18	-14	-16	-16	-13	-14	-12	-11	-9	-9	-9	-9	-8	-9	-10	-11	-11	-13	-16	-16	-14	-13.0	-8.4	
20-Feb	-14	-14	-14	-15	-13	-12	-12	-13	-13	-13	-13	-14	-13	-9	-10	-9	-11	-12	-14	-14	-14	-14	-15	-15	-13.0	-9.2	
21-Feb	-15	-15	-14	-14	-13	-12	-11	-11	-10	-9	-7	-7	-6	-6	-6	-5	-6	-6	-7	-8	-6	-7	-8	-8	-9.1	-5.5	
22-Feb	-8	-9	-9	-10	-12	-13	-13	-13	-12	-9	-6	-4	-3	-4	-3	-3	-3	-6	-8	-9	-10	-9	-8	-8	-8.1	-2.8	
23-Feb	-8	-8	-7	-6	-5	-4	-4	-3	-3	-3	-1	0	0	1	1	2	1	-1	-2	-2	-2	-3	-4	-5	-2.7	2.2	
24-Feb	-6	-7	-7	-5	-6	-6	-7	-8	-8	-8	-8	-6	-6	-5	-4	-4	-4	-6	-8	-8	-8	-6	-3	-3	-6.2	-3.2	
25-Feb	-3	-3	-4	-4	-3	-5	-6	-5	-7	-8	-6	-5	-2	-1	0	-2	-5	-6	-7	-8	-10	-10	-9	-9	-5.3	0.3	
26-Feb	-10	-8	-9	-10	-10	-10	-10	-11	-12	-8	-4	-1	0	1	1	0	0	-2	-2	-1	-1	-1	-2	-2	-4.7	1.1	
27-Feb	-1	-1	-1	-1	-2	-2	-3	-3	-2	-1	0	0	1	2	2	2	0	-1	-3	-4	-5	-5	-6	-6	-1.7	1.8	
28-Feb	-7	-8	-8	-8	-6	-7	-7	-7	-8	-5	-3	0	3	8	5	0	0	-3	-6	-6	-6	-8	-8	-9	-4.3	7.9	
																								Diurnal Average Diurnal Maximum			
																								-15.0 -14.9 -15.0 -15.0 -15.1 -15.4 -15.6 -15.8 -16.4 -15.5 -13.8 -11.9 -10.5 -9.5 -9.5 -9.8 -10.6 -12.0 -12.9 -13.4 -13.8 -14.0 -14.2 -14.4 -0.8 1.4 1.8 2.4 2.6 2.3 2.2 1.6 2.0 2.0 1.9 2.2 3.3 7.9 4.6 2.2 1.8 1.6 1.7 1.4 0.0 0.0 -0.3 -1.6			

Hourly Averages

External Temperature (ET) - °C
Portable Rycroft - February 2018



Hourly Averages

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

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1 Spd	3	3	2	3	6	3	3	7	10	14	16	15	15	14	12	10	10	9	8	7	7	6	2	2	7.2	15.9	
Dir	227	222	200	203	238	215	222	240	250	258	262	276	273	277	286	264	268	262	255	277	274	280	300	151	262.0	261.6	
2 Spd	1	4	12	13	13	12	13	13	13	10	10	9	9	11	10	11	11	9	12	12	14	11	11	11	8.1	13.7	
Dir	66	53	50	58	63	64	52	51	48	37	23	13	1	351	3	0	348	333	344	324	319	314	302	294	10.8	319.3	
3 Spd	10	9	8	10	9	11	11	10	14	13	6	12	12	12	13	9	4	3	5	9	9	12	8	9	7.5	13.6	
Dir	288	286	279	270	258	246	255	243	243	244	213	236	235	238	249	245	203	193	162	180	172	162	161	173	232.9	242.8	
4 Spd	7	5	7	10	10	9	9	9	9	7	3	4	3	2	4	4	6	7	5	2	4	4	4	4	5.1	9.7	
Dir	209	196	172	174	170	179	176	181	181	188	211	207	215	336	356	231	184	188	202	214	182	181	175	168	186.9	174.5	
5 Spd	5	8	8	7	9	7	8	7	6	8	7	2	6	5	7	4	4	4	6	6	4	8	4	5	4.7	8.6	
Dir	181	174	177	173	170	170	178	163	169	181	183	185	344	308	262	242	226	201	186	211	210	180	177	168	188.2	170.0	
6 Spd	5	4	4	4	1	6	8	8	6	6	6	3	2	5	7	9	5	4	2	7	7	9	8	5	2.4	8.7	
Dir	198	203	203	158	346	174	173	162	162	176	176	163	258	23	42	67	84	97	84	57	48	52	39	29	109.8	66.6	
7 Spd	4	3	2	2	1	2	2	1	2	5	4	5	5	6	5	5	5	4	5	4	5	6	3	5	2.5	5.8	
Dir	352	351	337	288	315	272	314	253	22	44	26	328	335	317	312	304	295	296	251	243	250	257	190	234	301.6	256.7	
8 Spd	5	2	4	4	3	3	4	4	6	7	6	6	4	6	4	3	5	6	6	8	10	9	8	8	4.5	10.4	
Dir	280	237	251	304	228	213	192	197	184	179	174	183	216	273	239	265	240	224	187	183	186	183	183	184	204.7	185.9	
9 Spd	9	7	9	8	8	6	8	9	8	8	8	5	3	3	3	2	4	6	6	7	4	6	11	6	6.0	11.0	
Dir	175	181	186	186	180	185	167	180	185	171	185	178	186	200	354	185	188	172	158	169	210	185	173	195	180.1	172.8	
10 Spd	6	6	1	4	13	18	21	18	19	15	4	14	9	2	6	10	9	7	11	21	18	14	16	18	7.2	21.4	
Dir	217	227	303	216	249	249	247	245	239	230	255	310	332	304	267	297	288	300	302	343	352	346	6	26	290.1	343.2	
11 Spd	21	22	18	5	6	3	2	5	5	5	5	4	4	4	4	4	6	10	8	11	10	10	8	10	4.1	21.5	
Dir	31	36	47	68	63	187	183	165	162	155	170	192	201	187	115	130	136	143	156	156	163	159	171	170	122.9	35.9	
12 Spd	10	10	13	12	10	11	6	6	7	4	3	3	3	4	3	2	4	7	12	13	11	15	8	6	6.4	15.2	
Dir	163	151	156	153	164	181	191	206	252	206	220	215	237	309	357	136	197	192	189	192	200	189	187	219	186.5	189.0	
13 Spd	13	38	38	32	23	25	14	11	13	16	13	13	16	15	15	15	16	16	16	18	15	19	15	29	16.2	38.2	
Dir	242	246	242	238	236	243	234	205	212	210	210	208	209	211	213	212	206	218	228	233	241	253	259	6	232.8	242.0	
14 Spd	29	34	33	28	22	22	19	18	20	18	15	8	6	4	2	4	4	4	6	10	10	7	8	8	8.9	33.9	
Dir	353	339	337	335	341	334	340	347	345	356	31	30	55	42	205	212	195	191	200	224	222	193	182	178	338.8	339.3	
15 Spd	10	8	9	9	2	3	3	4	7	8	10	13	16	14	14	16	16	8	14	14	16	19	18	7	9.4	18.6	
Dir	187	182	169	168	113	85	106	195	171	171	163	164	172	176	185	187	185	229	233	225	227	228	234	213	194.3	227.6	
16 Spd	14	10	11	5	4	6	6	7	11	11	14	18	16	20	24	27	24	16	13	15	15	14	8	8	11.9	27.4	
Dir	227	216	229	192	197	268	269	290	310	274	255	257	282	274	275	268	271	256	246	234	236	238	216	182	255.2	267.5	
17 Spd	8	8	5	3	6	6	6	5	7	7	13	16	7	13	14	15	11	11	7	7	14	12	12	19	7.5	19.2	
Dir	178	183	243	171	174	185	198	276	234	202	249	272	272	298	301	304	304	281	290	234	278	259	267	269	261.6	269.0	
18 Spd	17	17	20	18	21	18	16	15	15	14	15	20	21	19	17	15	12	15	8	8	6	6	10	10	13.6	21.2	
Dir	265	261	261	260	269	269	264	249	243	254	253	268	274	263	253	251	237	248	216	217	197	188	184	191	251.9	274.2	
19 Spd	10	9	8	8	19	10	11	14	6	5	6	6	13	16	12	13	18	24	24	24	24	20	15	11	7	11.7	24.0
Dir	184	186	185	196	238	223	214	236	253	192	197	179	248	245	243	244	240	248	251	252	273	258	256	220	237.0	250.6	
20 Spd	9	17	16	15	14	19	22	22	18	22	18	11	4	2	7	6	8	8	6	10	10	15	13	14	7.6	22.2	
Dir	235	266	254	260	259	252	252	266	287	280	300	65	91	19	301	247	227	233	161	144	147	156	166	164	245.4	252.4	
21 Spd	13	12	13	12	12	10	10	7	6	10	16	26	28	24	23	30	25	23	14	12	20	22	21	17	14.3	30.2	
Dir	167	170	170	175	181	181	186	199	215	226	230	243	254	261	263	267	263	259	249	235	248	255	253	243	237.7	266.5	
22 Spd	18	15	18	12	8	7	9	9	10	12	11	10	13	12	8	6	10	8	10	12	12	13	19	16	10.4	19.2	
Dir	251	235	234	229	183	181	173	166	160	166	178	179	187	192	195	196	184	189	179	182	174	174	184	180	192.1	184.1	



Peace Airshed Zone Association

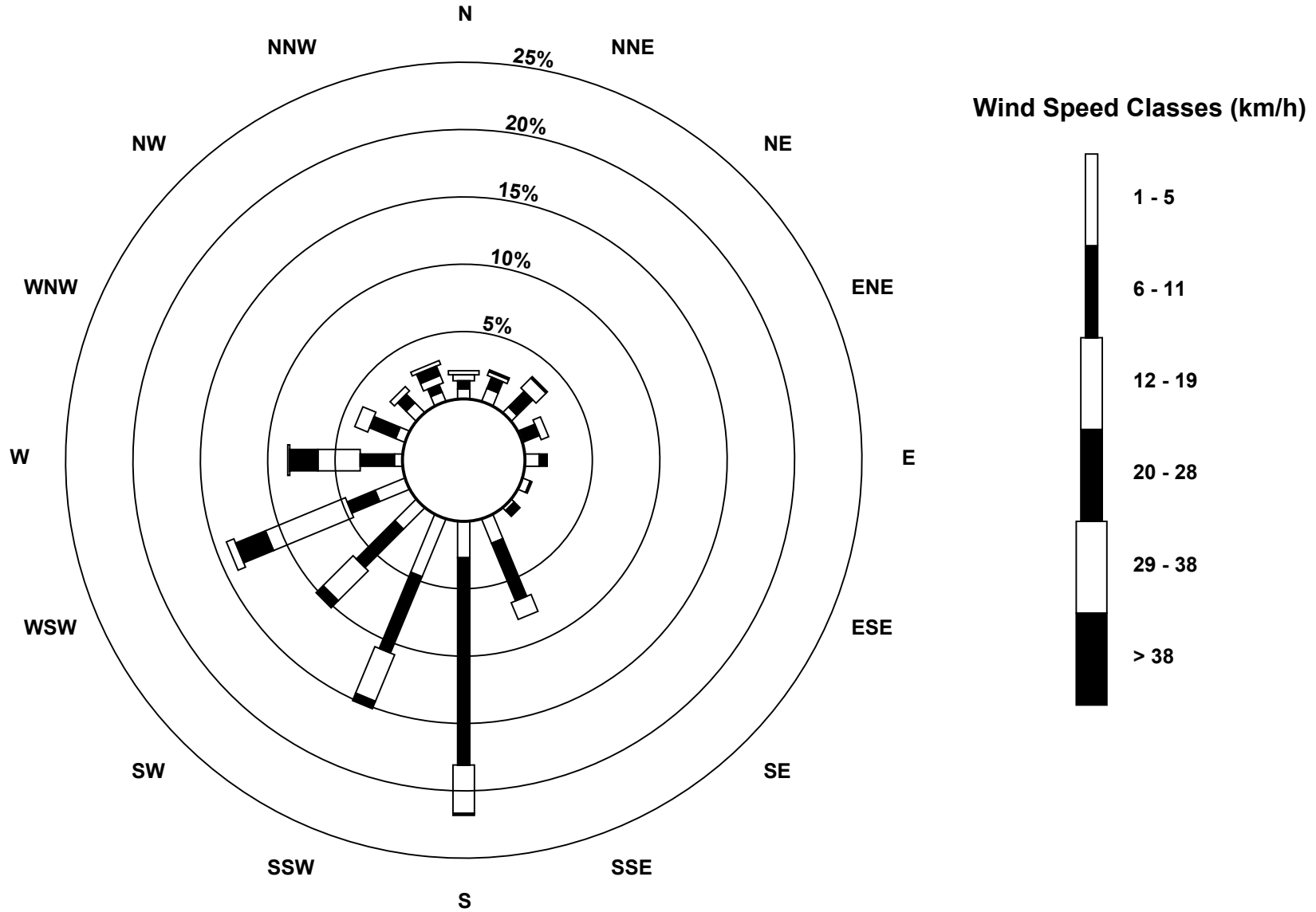
Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Portable Rocroft - February 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	14	10	9	9	9	9	14	11	13	10	9	12	13	24	22	21	20	10	10	11	11	10	8	5	11.8	24.1	
Dir	182	195	203	207	203	201	190	200	210	208	211	217	219	235	240	233	230	215	210	209	204	205	202	218	213.6	235.1	
24 Spd	5	7	6	10	8	13	15	11	8	7	7	6	6	7	7	5	10	6	4	2	9	14	13	3.3	15.3		
Dir	243	217	212	277	34	58	39	42	63	79	81	114	92	83	86	87	41	16	40	112	95	168	179	186	85.2	38.9	
25 Spd	11	6	5	8	9	7	7	7	12	11	13	12	9	8	7	6	7	5	2	5	6	7	6	5	4.5	12.9	
Dir	154	136	158	166	186	195	185	223	265	250	250	272	298	319	324	281	261	244	238	187	183	175	168	156	223.4	250.0	
26 Spd	5	5	6	7	8	8	6	7	3	6	8	10	11	12	11	22	19	18	18	18	18	16	14	18	10.8	21.8	
Dir	165	149	160	158	151	158	153	155	207	167	190	197	194	193	199	187	192	191	196	208	205	207	200	197	189.1	187.5	
27 Spd	18	22	24	21	21	17	14	12	12	27	27	29	22	20	19	15	10	11	8	10	10	10	11	11	15.3	28.6	
Dir	206	202	200	203	195	205	202	206	212	233	246	258	239	238	238	240	226	228	192	177	182	184	179	186	216.8	258.5	
28 Spd	11	10	10	10	11	11	13	12	10	10	8	6	3	3	5	8	6	5	7	6	6	6	9	9	3.5	13.4	
Dir	187	189	183	174	170	179	185	187	175	194	184	192	209	330	16	22	147	17	46	57	65	42	40	30	160.0	184.6	
Spd	5.0	5.5	5.7	5.5	5.2	5.5	5.3	5.3	5.2	6.1	5.9	6.2	6.1	6.6	6.4	6.8	6.9	6.4	5.9	6.3	6.2	6.7	5.9	4.4	Diurnal Average		
Dir	216.4	224.3	221.4	216.2	214.5	218.3	214.5	220.1	228.8	223.2	228.0	240.3	245.8	255.4	259.2	247.1	233.6	234.7	221.0	216.3	224.7	213.4	207.5	202.7	Diurnal Maximum		
Spd	28.7	37.7	38.2	31.6	22.9	24.9	22.2	21.7	19.6	26.7	27.2	28.6	27.8	24.1	24.3	30.2	24.6	23.8	24.0	23.6	20.5	21.9	21.3	29.1	Diurnal Maximum		
Dir	352.7	245.8	242.0	238.0	235.8	243.1	252.4	266.5	344.6	233.2	246.1	258.5	254.4	235.1	275.2	266.5	262.6	248.1	250.6	251.9	273.4	254.7	253.4	6.5	Diurnal Maximum		
Maximum Speed Value: 38 km/h on Feb 13 03:00																		Minimum Speed Value: 1 km/h on Feb 10 03:00						Hours in Service:		672	
Maximum Daily Speed Average: 16.2 km/h on Feb 13																		Minimum Daily Speed Average: 2.4 km/h on Feb 7						Hours of Data:		672	
Maximum Diurnal Speed Average: 6.9 km/h at hour 17																		Minimum Diurnal Speed Average: 4.4 km/h at hour 24						Hours of Missing Data:		0	
Monthly Average Velocity: 5.68 km/h 226.93 deg																		Speed Percentiles: P ₁ = 1.6 P ₁₀ = 3.7 Q ₁ = 5.9 Median = 8.9 Q ₃ = 13.4 P ₉₀ = 18.3 P ₉₉ = 28.8						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	10	8	7	4	3	0	32																				
NorthEast	6	23	13	2	0	0	44																				
East	9	6	0	0	0	0	15																				
SouthEast	7	15	3	0	0	0	25																				
South	32	158	41	5	0	0	236																				
SouthWest	37	47	61	15	2	1	163																				
West	9	33	45	26	2	0	115																				
NorthWest	13	16	10	2	1	0	42																				
Total	123	306	180	54	8	1	672																				

Wind Rose

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



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Portable Rycroft - February 2018

Maximum Speed: 38 km/h on Feb 13 03:00		Maximum Daily Speed Average: 19.2 km/h on Feb 13		Hours in Service: 672																							
Minimum Speed: 1 km/h on Feb 6 05:00		Minimum Daily Speed Average: 4.1 km/h on Feb 7		Hours of Data: 672																							
Maximum Diurnal Speed Average: 11.6 km/h at hour 3		Minimum Diurnal Speed Average: 9.4 km/h at hour 19		Hours of Missing Data: 0																							
Monthly Average Speed: 10.47 km/h		Percentiles: $P_1 = 2.3$ $P_{10} = 4.0$ $Q_1 = 6.2$ Median = 9.1 $Q_3 = 13.5$ $P_{90} = 18.6$ $P_{99} = 29.3$		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-Feb	3	3	2	3	6	3	3	7	10	14	16	15	15	14	12	10	10	9	8	7	7	6	2	2	7.8	16.0	
2-Feb	1	4	12	13	13	13	13	13	13	13	10	9	9	11	10	11	12	9	12	12	14	11	11	11	10.8	13.7	
3-Feb	10	9	8	10	9	11	11	11	14	13	6	12	12	12	13	9	4	3	6	9	9	12	8	9	9.6	13.6	
4-Feb	7	5	8	10	10	9	9	9	9	7	4	4	3	3	5	5	6	7	5	3	4	4	4	4	6.0	9.7	
5-Feb	5	8	8	7	9	8	8	7	6	8	7	3	6	5	7	4	4	4	6	6	5	8	4	5	6.1	8.7	
6-Feb	5	4	4	5	1	6	9	8	6	6	6	3	2	6	8	9	5	4	2	8	7	9	8	5	5.7	8.9	
7-Feb	4	3	2	2	2	3	2	3	3	5	4	5	5	6	6	5	5	5	5	4	5	6	4	5	4.1	5.8	
8-Feb	5	3	4	4	3	3	4	4	6	7	6	6	5	6	4	4	5	6	6	8	10	9	8	8	5.6	10.4	
9-Feb	9	7	9	8	8	6	8	9	8	8	8	5	4	3	4	3	4	6	7	7	4	7	11	6	6.5	11.1	
10-Feb	6	6	3	4	13	18	21	18	19	15	6	14	10	3	6	10	9	7	11	21	18	14	16	18	11.9	21.5	
11-Feb	21	22	18	6	6	4	3	5	5	5	5	4	4	4	5	5	6	10	9	11	10	10	8	11	8.2	21.6	
12-Feb	10	11	13	12	10	11	6	7	7	5	6	5	4	5	4	3	4	7	13	13	11	15	8	6	8.1	15.2	
13-Feb	14	38	38	32	23	25	15	11	13	16	13	13	16	15	15	15	16	16	16	18	16	19	18	29	19.2	38.2	
14-Feb	29	34	33	28	22	22	19	18	20	19	15	8	7	4	3	4	4	4	6	10	11	8	8	8	14.3	34.2	
15-Feb	10	8	9	9	3	3	3	5	8	8	11	13	16	14	14	17	16	8	14	14	16	19	18	8	11.0	18.6	
16-Feb	14	10	12	5	5	6	6	9	11	11	14	18	16	21	24	27	24	16	13	15	15	14	9	8	13.5	27.5	
17-Feb	8	8	5	4	6	6	6	8	8	7	14	16	7	13	14	15	11	11	7	7	15	12	12	19	10.0	19.3	
18-Feb	17	17	20	18	21	18	16	16	15	14	15	20	21	19	17	16	12	15	8	8	6	6	10	11	14.8	21.2	
19-Feb	10	9	8	9	19	10	12	14	6	6	6	6	13	16	13	13	18	24	24	24	21	15	11	8	13.1	24.0	
20-Feb	10	17	16	15	14	19	22	22	18	22	19	11	5	3	7	7	8	8	7	10	10	15	13	14	13.1	22.2	
21-Feb	13	12	13	12	12	10	10	7	7	10	16	26	28	24	23	30	25	23	14	12	20	22	21	17	16.9	30.3	
22-Feb	18	15	18	13	8	7	9	9	10	12	11	10	13	12	8	6	10	8	10	12	12	13	19	16	11.6	19.2	
23-Feb	14	10	9	9	9	9	14	12	13	10	9	12	13	24	22	21	20	10	10	11	11	10	8	5	12.3	24.3	
24-Feb	5	8	6	11	12	13	16	11	8	7	7	7	6	7	7	5	6	10	6	4	3	9	14	13	8.5	15.6	
25-Feb	11	6	6	8	9	7	7	7	12	12	13	12	9	8	8	6	7	5	3	6	6	7	6	5	7.8	13.1	
26-Feb	6	5	6	7	8	8	6	7	4	7	8	10	11	12	11	22	19	18	18	18	18	16	14	18	11.5	21.9	
27-Feb	18	22	24	21	21	17	14	12	12	27	28	29	22	20	19	15	10	12	9	10	10	10	11	11	16.8	28.7	
28-Feb	11	10	10	10	11	11	13	12	10	10	9	6	3	4	5	8	8	6	7	7	6	6	9	9	8.3	13.4	
		10.6	11.2	11.6	10.4	10.4	10.1	10.2	10.0	10.0	10.9	10.5	10.8	10.2	10.5	10.5	10.8	10.4	9.7	9.4	10.5	10.7	11.1	10.5	10.4	Diurnal Average	
		29.4	37.8	38.2	31.7	22.9	24.9	22.2	21.8	19.8	26.7	27.6	28.7	27.9	24.3	24.4	30.3	24.7	23.9	24.0	23.8	20.6	21.9	21.3	29.3	Diurnal Maximum	
All monthly, daily, and diurnal averages have been calculated using scalar methods																											

Hourly Standard Deviations

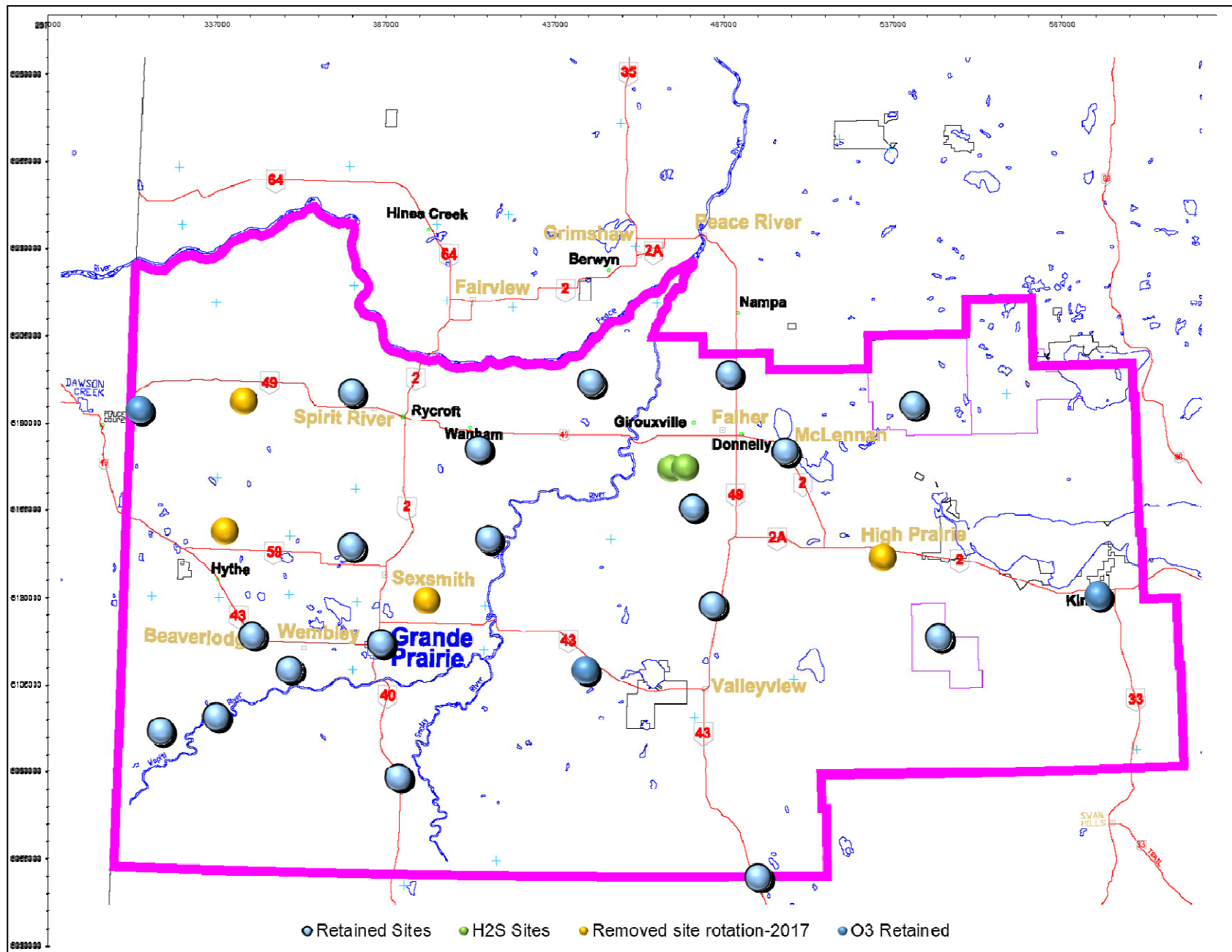
Wind Direction (WD) - deg
 Portable Rycroft - February 2018

Maximum Value: 93.7 deg on Feb 10 03:00																		Hours in Service: 672							
Minimum Value: 1.7 deg on Feb 16 21:00																		Hours of Data: 672							
Percentiles: P ₁ = 2.0 P ₁₀ = 3.3 Q ₁ = 4.8 Median = 7.6 Q ₃ = 14.8 P ₉₀ = 26.6 P ₉₉ = 60.6																		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-Feb	13	8	9	13	7	12	11	6	7	3	4	4	3	5	6	5	7	6	6	6	7	8	66	18	66.3
2-Feb	89	15	9	6	6	6	7	5	5	7	4	7	8	12	7	11	8	9	4	5	4	5	4	4	89.2
3-Feb	6	6	5	6	7	6	5	12	3	18	20	6	5	9	14	19	9	23	13	11	9	7	7	8	22.7
4-Feb	15	12	13	4	6	9	5	5	6	6	24	13	26	68	33	27	5	6	4	45	16	13	8	8	68.1
5-Feb	8	5	5	6	8	13	13	10	14	5	7	82	21	14	19	23	17	10	6	13	23	9	18	16	82.3
6-Feb	18	21	30	29	55	12	6	10	9	10	5	12	42	31	17	9	13	17	53	6	18	11	6	15	55.2
7-Feb	17	20	26	32	52	33	55	82	25	11	20	7	9	11	9	6	11	27	7	8	13	7	21	24	82.4
8-Feb	34	27	26	15	24	14	10	6	6	6	3	6	24	6	21	39	18	19	5	4	3	3	3	4	39.1
9-Feb	4	4	3	4	6	7	8	7	6	8	7	6	22	30	30	56	8	11	7	8	15	18	6	19	56.3
10-Feb	15	13	94	21	8	7	3	14	12	13	44	9	14	50	16	5	7	7	9	6	6	11	17	3	93.7
11-Feb	4	4	9	62	14	55	34	20	25	15	11	15	10	20	41	48	9	5	15	9	12	5	19	10	61.9
12-Feb	8	13	4	8	8	5	20	34	11	16	59	53	53	18	31	60	12	6	4	7	4	3	9	7	60.1
13-Feb	17	3	2	4	3	3	14	6	3	2	3	2	2	2	3	4	6	4	4	4	11	7	26	6	26.4
14-Feb	12	8	5	9	7	4	3	7	8	17	6	6	19	53	55	15	11	16	13	6	13	14	11	8	55.3
15-Feb	4	5	7	8	59	30	21	37	22	11	13	10	5	3	5	3	3	17	10	5	4	3	3	9	58.6
16-Feb	13	13	15	15	15	19	9	33	6	19	4	4	11	13	5	4	4	3	8	5	2	4	20	8	32.8
17-Feb	5	15	15	20	9	15	12	50	29	7	22	2	10	6	4	4	15	13	14	15	18	5	9	6	50.1
18-Feb	4	3	2	3	2	3	4	7	6	8	5	3	4	8	6	9	10	9	6	3	11	8	8	5	11.0
19-Feb	6	3	5	19	3	15	29	16	16	26	12	23	30	6	9	8	2	5	2	6	7	5	7	27	29.6
20-Feb	25	4	3	3	6	3	5	7	5	5	20	12	27	59	29	34	8	7	31	3	8	3	6	3	59.4
21-Feb	3	2	3	6	3	4	4	5	12	17	5	4	4	3	4	3	2	3	11	4	6	2	2	5	17.1
22-Feb	8	2	3	14	12	8	5	3	7	4	5	5	6	5	6	7	3	11	2	2	4	4	2	3	13.9
23-Feb	4	6	4	3	4	4	5	10	4	4	3	5	5	8	5	5	4	5	7	6	6	6	5	31	30.9
24-Feb	21	21	9	26	52	7	11	19	13	9	13	21	16	15	14	19	42	6	27	11	59	32	6	6	58.8
25-Feb	11	7	19	7	19	5	5	17	15	16	8	14	14	3	15	7	8	9	53	7	9	7	18	15	53.3
26-Feb	27	13	8	6	5	12	13	11	24	14	9	4	5	4	8	3	6	4	8	4	5	3	3	5	27.3
27-Feb	3	5	4	3	4	8	3	5	4	4	10	4	3	3	3	6	7	13	14	3	4	6	3	5	13.6
28-Feb	7	7	4	4	7	4	2	3	5	6	7	20	32	34	15	17	59	49	14	30	18	9	6	8	59.4
	89.2	26.8	93.7	61.9	58.6	55.0	54.5	82.4	29.0	26.0	58.9	82.3	53.2	68.1	55.3	60.1	59.4	48.8	53.3	45.2	58.8	31.5	66.3	30.9	

PAZA

Monthly Passive Data Summary

Location of PAZA Passive Monitoring Stations



PAZA Passive Results for February 2018

Station Number	Station Name	SO2 ppb	O3 ppb	NO2 ppb	H2S ppb	Site Legal
Duplicates						
14a	Sylvester	0.3				
14b	Sylvester	0.2				
24a	Wembley			1.3		
24b	Wembley			1.1		
29a	Smoky Heights			1.5		
29b	Smoky Heights			1.8		
30a	Fitzsimmons	0.3				
30b	Fitzsimmons	0.4				
47a	Kinuso		43.0			
47b	Kinuso		42.0			
63a	Girouxville 3				0.2	
63b	Girouxville 3				0.2	
2	Bay Tree	0.3	41.5	0.6		13-16-078-13 W6M
3	Fourth Creek	0.3		0.4		04-13-082-07 W6M
9	Spirit River	0.4		0.7		08-12-079-07 W6M
12	Hythe	0.4		0.9		14-36-072-11 W6M
14	Sylvester	0.3		0.5		08-06-069-12 W6M
16	Beaverlodge	0.5		1.3		15-36-071-10 W6M
18	Saddle Hills	0.7		0.6		04-25-074-07 W6M
19	Wanham	0.5		0.4		16-22-077-03 W6M
21	Eaglesham	0.3		0.5		16-21-079-25 W5M
24	Wembley	0.4		1.3		12-31-070-08 W6M
25	Pinto Creek	0.3		0.4		04-24-069-11 W6M
27	Grande Prairie I	0.4		6.9		08-15-071-06 W6M
29	Smoky Heights	0.7		1.5		04-06-075-02 W6M
30	Fitzsimmons	0.3		1.4		15-36-072-03 W6M
32	Gold Creek	0.5		3.6		06-33-067-05 W6M
35	Jean Cote	0.2		0.7		12-35-079-21 W5M
36	Guy	0.2		0.5	0.1	03-04-076-22 W5M
37	Crooked Creek	0.3	48.1	1.2		16-01-071-26 W5M
39	Clouston Creek	0.2		0.6		12-01-073-22 W5M
40	McLennan	0.2		0.9		03-29-077-19 W5M
42	Sunset House	0.3		0.6		05-32-070-19 W5M
44	Peavine	0.2		0.3		03-05-079-15 W5M
46	Little Smoky	0.2		2.8		12-01-065-21 W5M
47	Kinuso	0.1	42.5	0.8		12-10-073-10 W5M
49	Grande Prairie HP	0.5		7.5		17-26-071-06 W6M
50	East Prairie	0.1		0.2		13-02-072-15 W5M
63	Girouxville 3				0.2	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 February 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 February 2018 (PAZA Zone)				
Mean	0.3	44.0	1.4	0.2
Standard Deviation	0.2	3.5	1.9	0.1
Minimum	0.1	41.5	0.2	0.1
Minimum At	East Prairie (#50)	Bay Tree (#2)	East Prairie (#50)	Guy (#36)
Maximum	0.7	48.1	7.5	0.2
Maximum At	Smoky Heights (#29)	Crooked Creek (#37)	Grande Prairie HP	Girouxville 4 (#64)

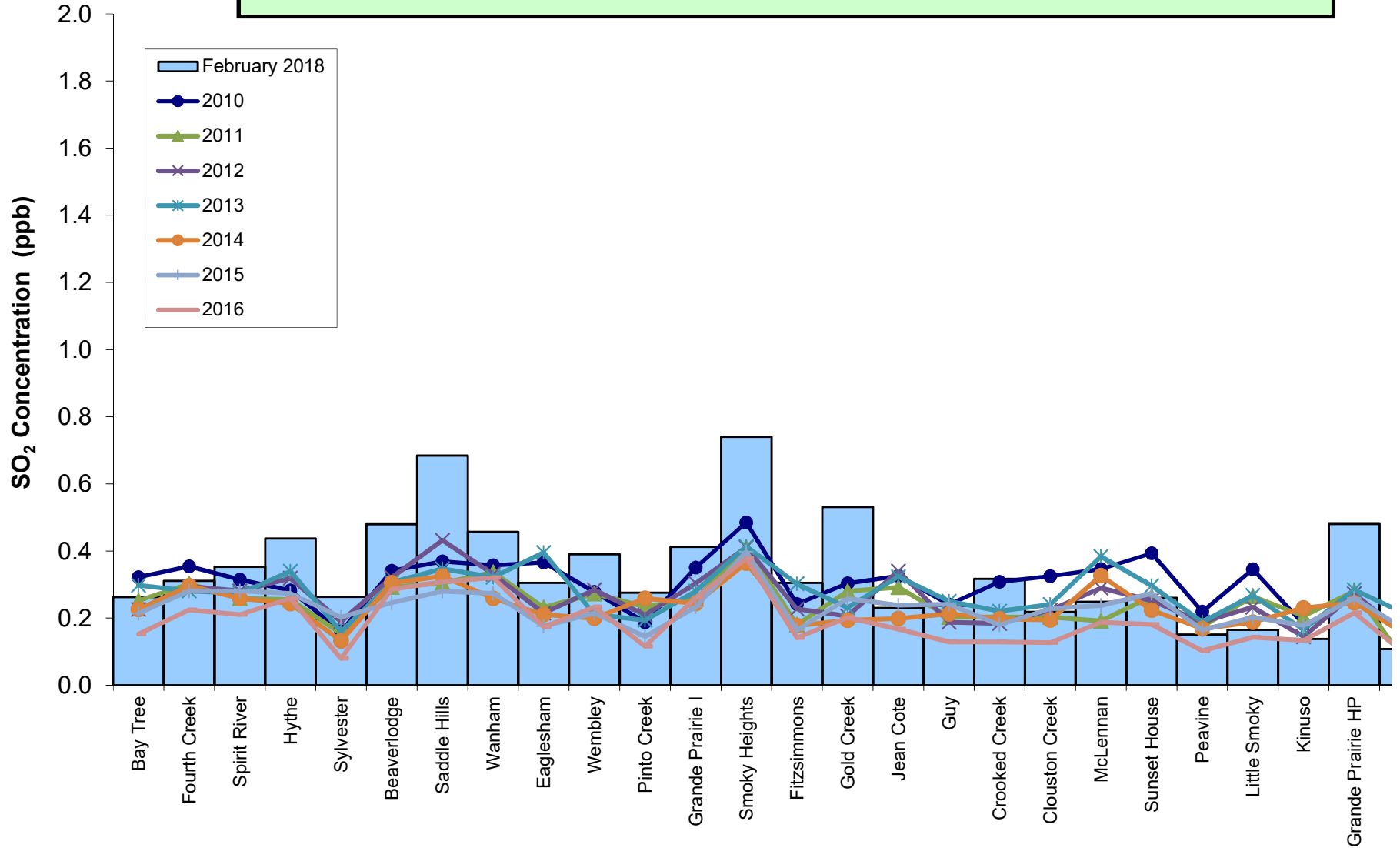
Comparison between Continuous and Passive monitoring at Beaverlodge (passive #16 Beaverlodge)

	SO ₂	NO ₂
PAZA Beaverlodge station	0.5	4.3
PAZA Beaverlodge passive	0.5	1.3

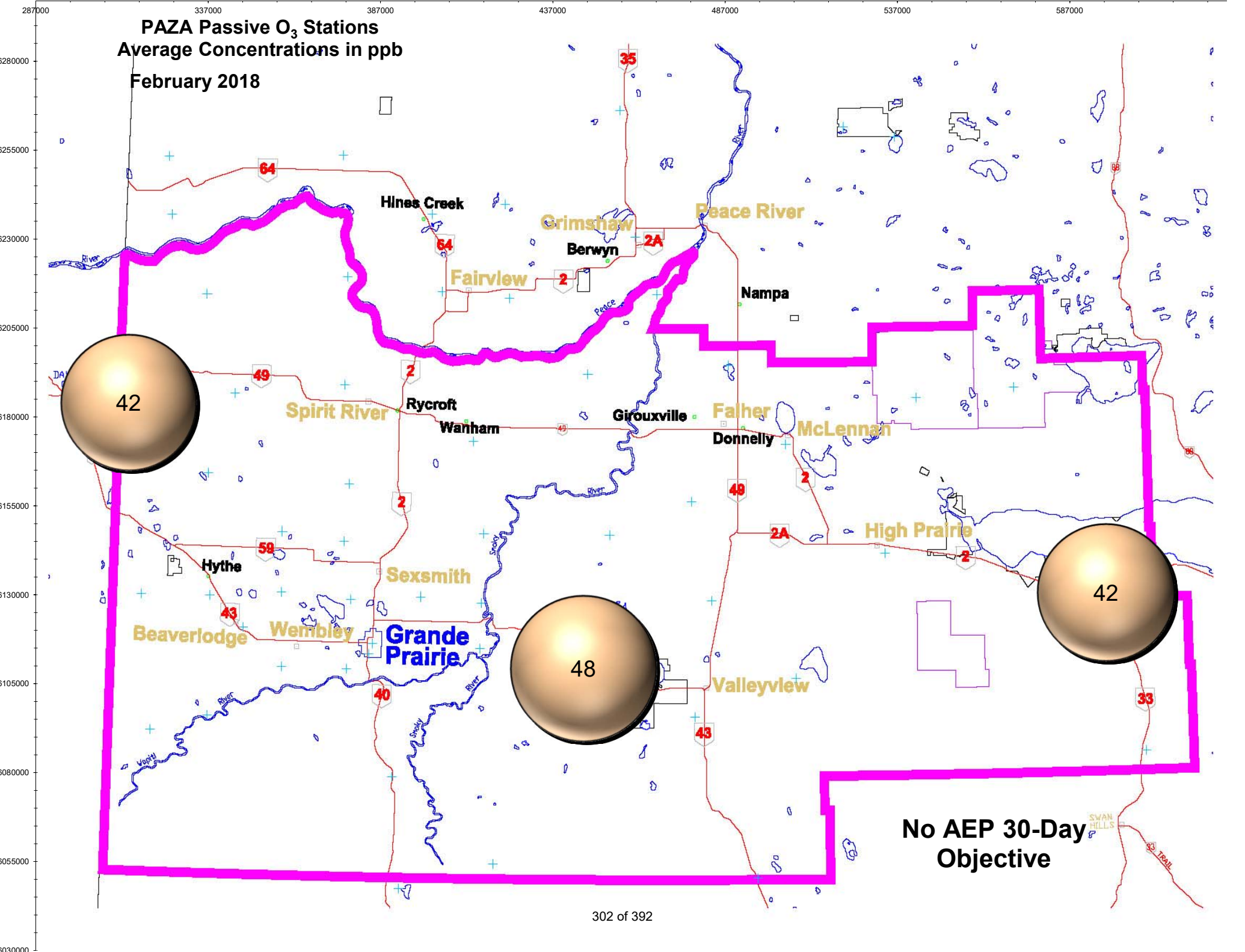
Comparison between Continuous and Passive monitoring at Henry Pirker (passive #49 Grande Prairie HP)

	SO ₂	NO ₂
PAZA Henry Pirker station	0.8	19.0
PAZA Grande Prairie passive	0.4	6.9

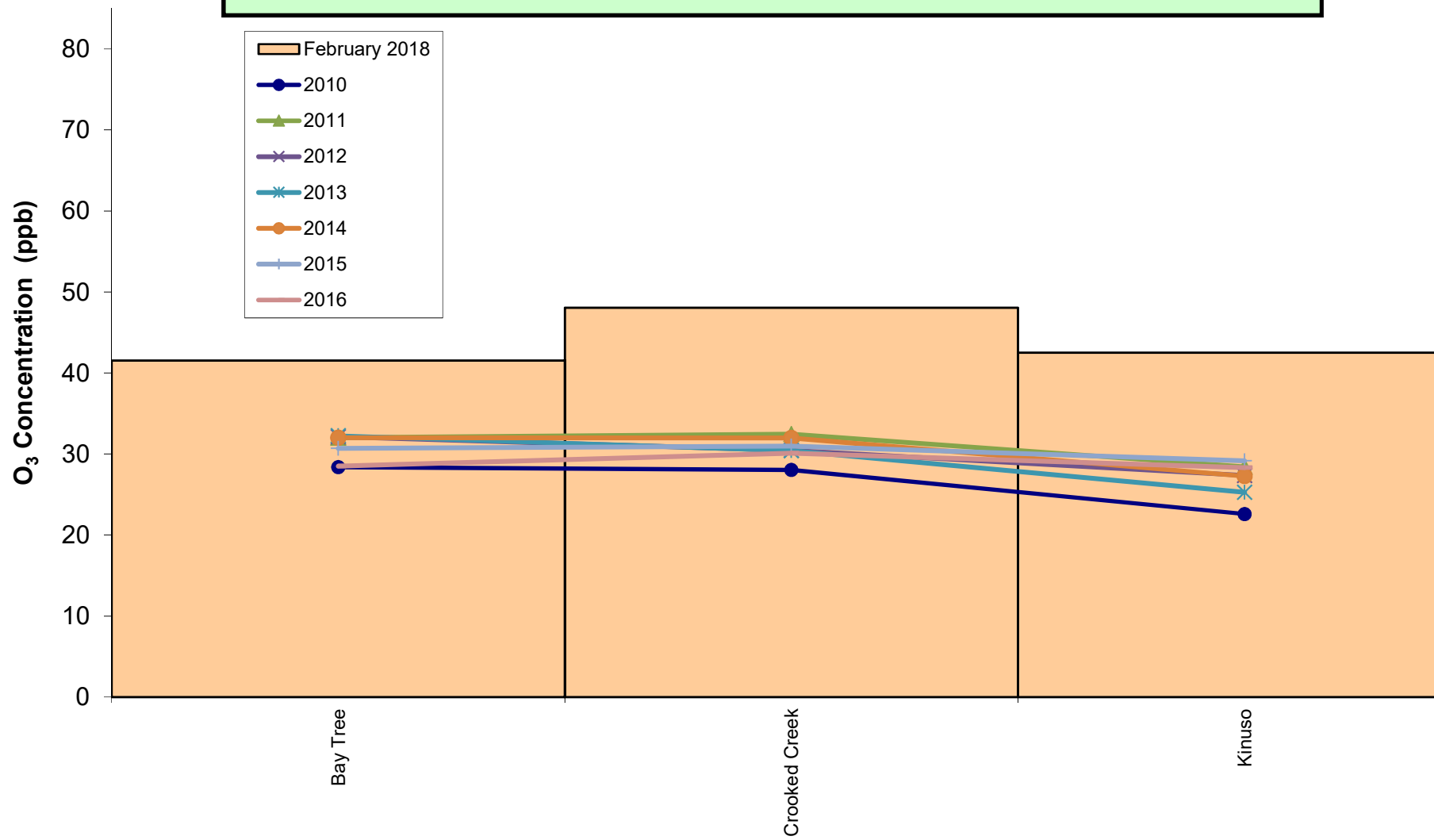
Alberta Ambient Air Quality Objective - 30-day Objective is 11 ppb

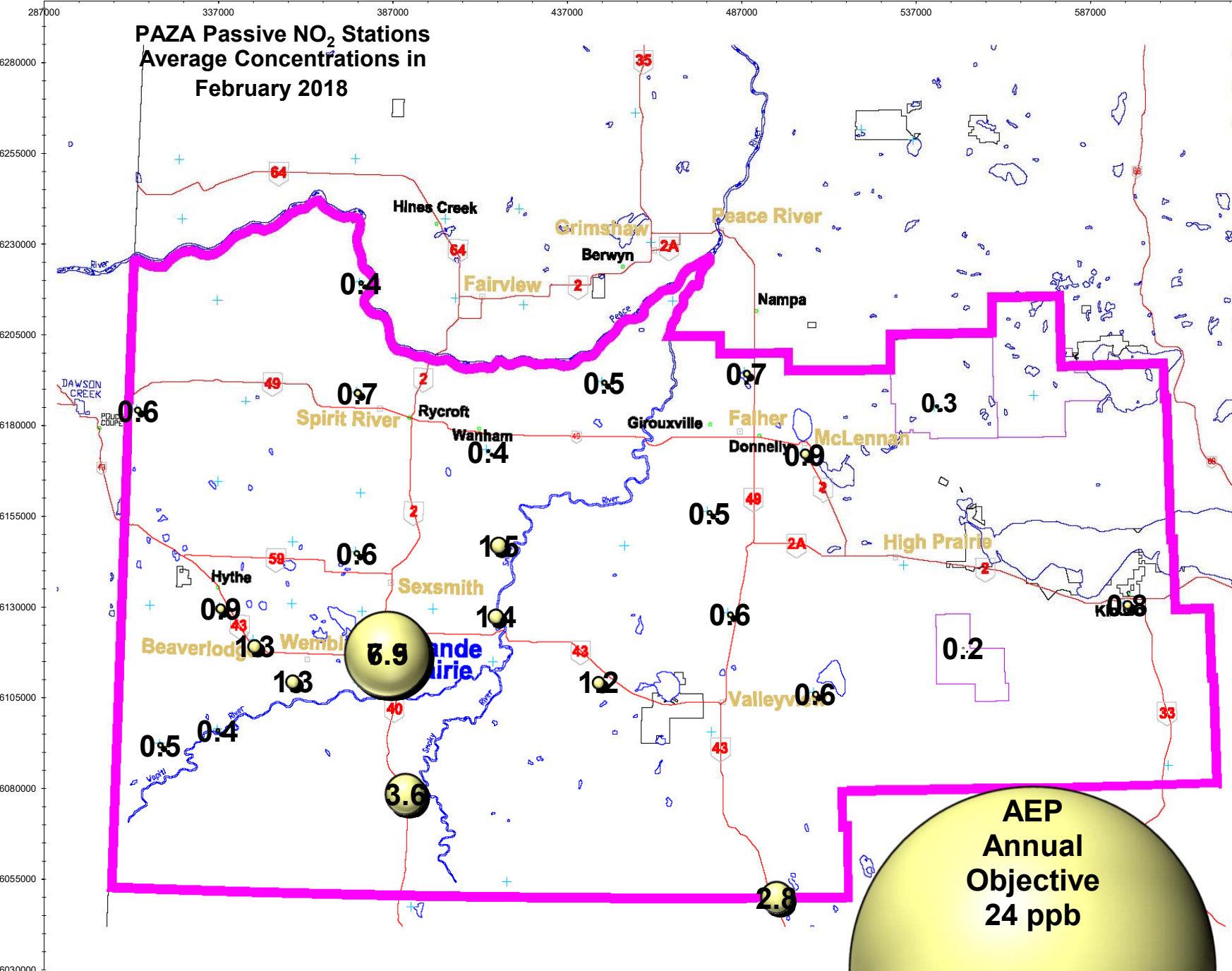


**PAZA Passive O₃ Stations
Average Concentrations in ppb
February 2018**

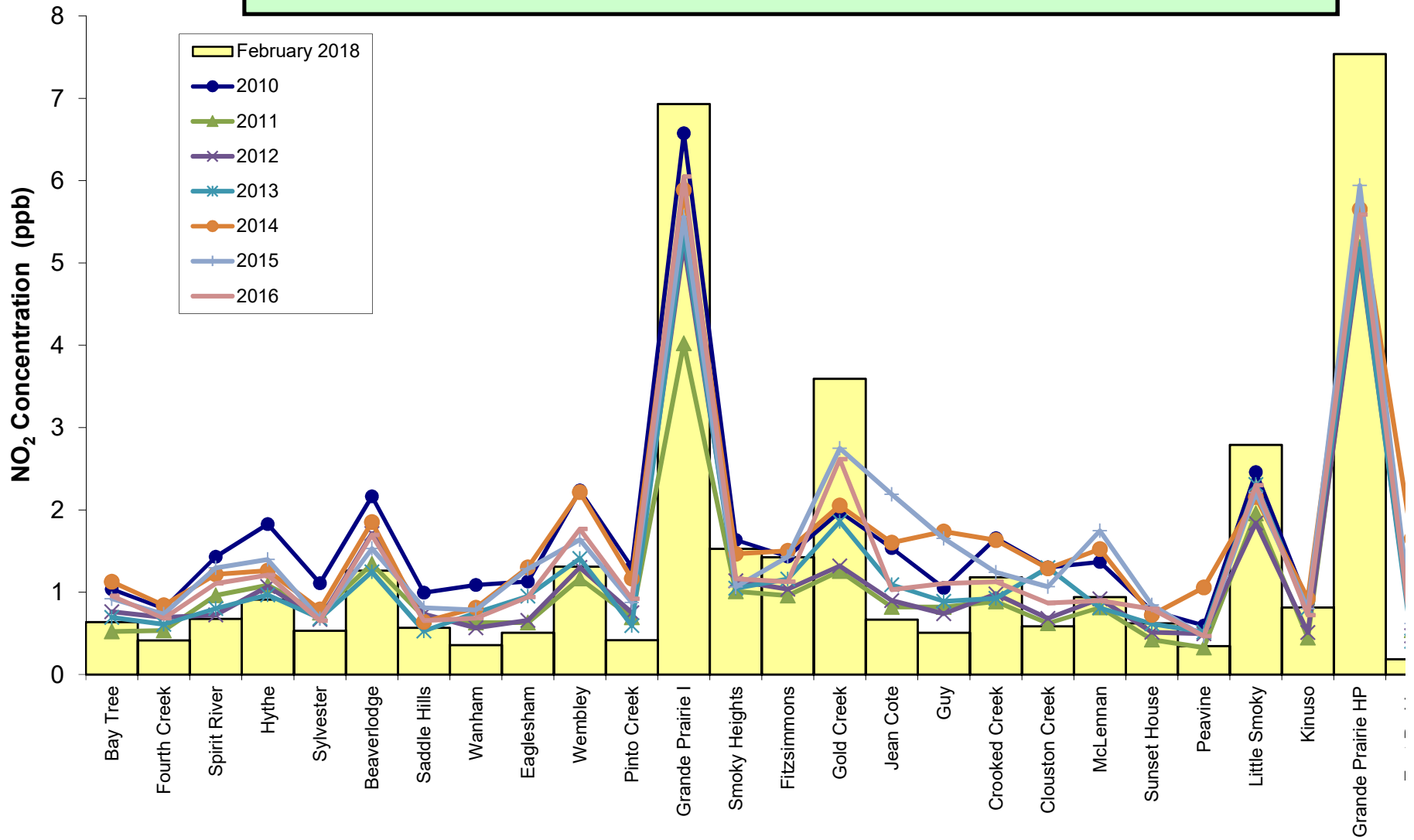


Alberta Ambient Air Quality Objective - No Annual O₃ Objective

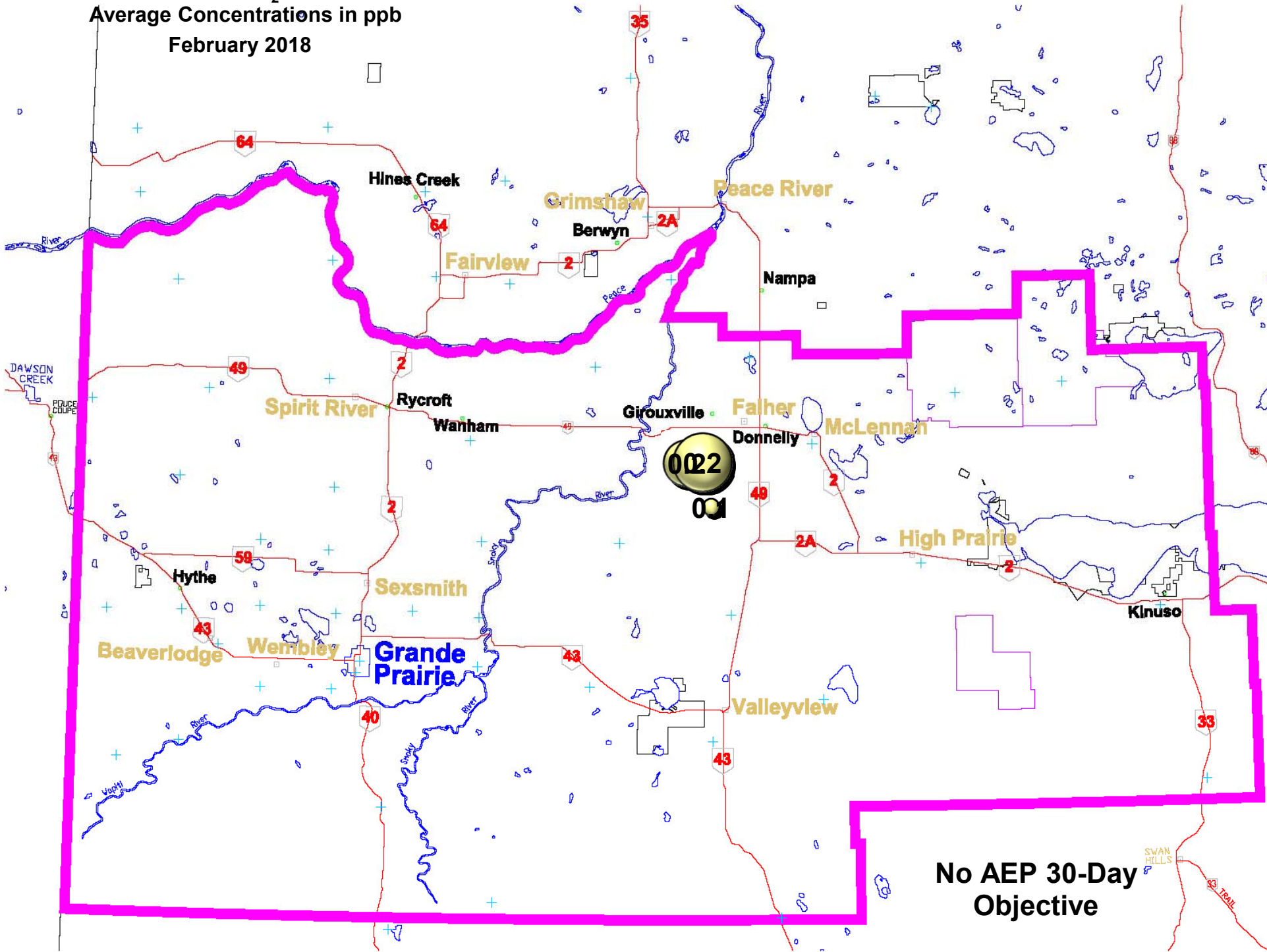


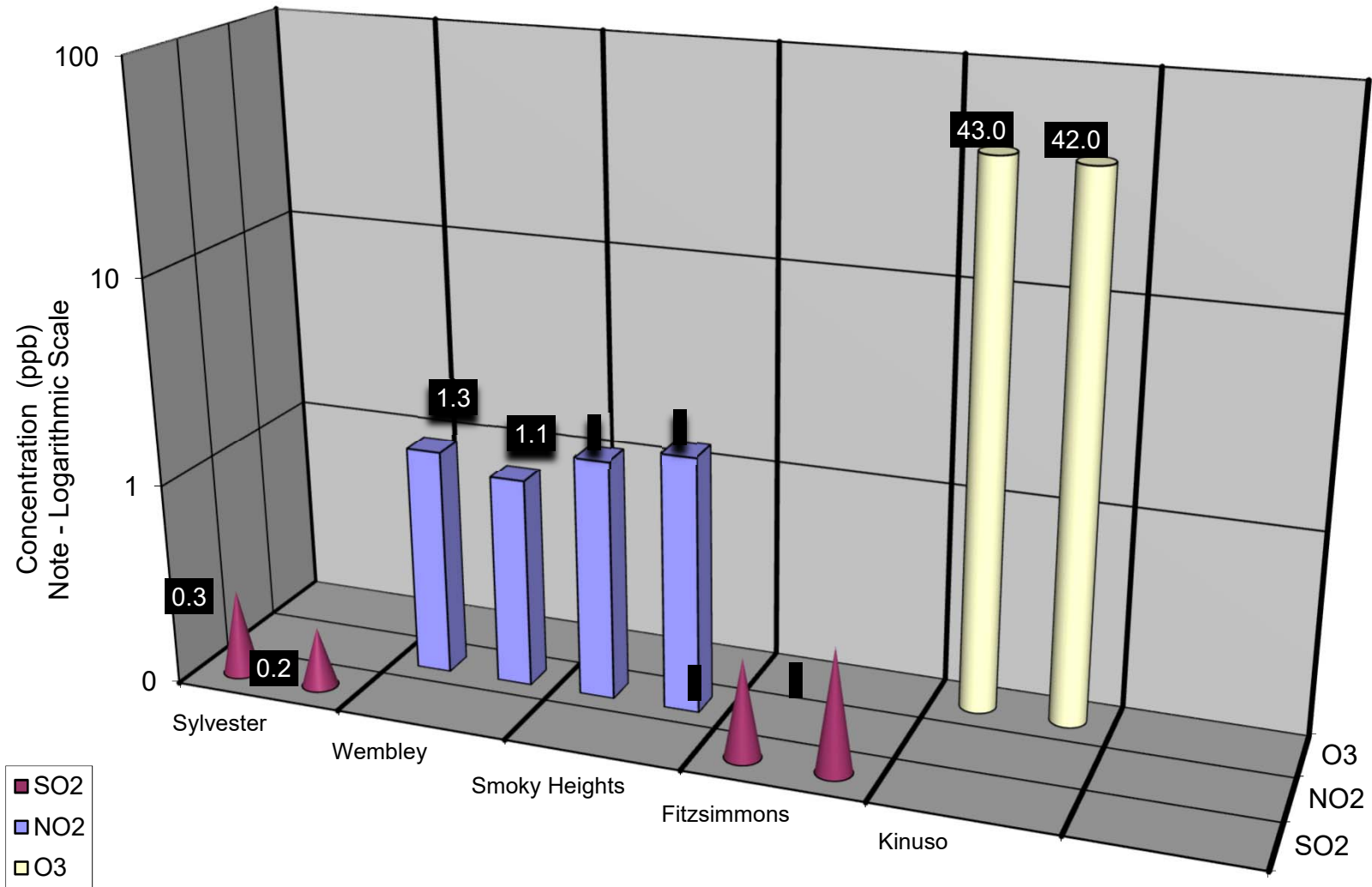


Alberta Ambient Air Quality Objective - Annual NO₂ Objective is 24 ppb



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





Duplicate Summary Chart

February 2018 Calibration Reports

**PAZA - Henry Pirker Station with the following calibrations:
SO₂, NO, NO₂, NO_x, O₃, CO, THC, and TRS**

**PAZA – Evergreen Park Station with the following calibrations:
SO₂ and TRS**

**PAZA – Smoky Heights Station with the following calibrations:
SO₂ and TRS**

**PAZA – Beaverlodge Station with the following calibrations:
SO₂, NO, NO₂, NO_x, O₃, and PM_{2.5}**

**PAZA – Valleyview Station with the following calibrations:
SO₂ and H₂S**

**PAZA – Donnelly Station with the following calibrations:
SO₂ and H₂S**

**PAZA – Rycroft Station with the following calibrations:
SO₂, NO, NO₂, NO_x, O₃, THC, and TRS**

Calibration Report



Parameter SO2
 Air Monitoring Network PAZA

Station Information

Calibration Date	February 5, 2018	Previous Calibration	January 9, 2018
Station Number	1	Station Location	Henry Pirker
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	9:10	End Time (MST)	11:40
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	0.998785	Calculated slope	0.990983
Calculated intercept	1.200331	Calculated intercept	-0.019810
Analyzer make	TEI 43I-TLE	Analyzer serial #	1507864682 (AMU 2006)

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	1.40		1.45	
Coefficient	0.897		0.935	
Pressure	670.7	mm Hg	676.4	mm Hg
Flow	0.442	lpm	0.447	lpm
Lamp intensity	82	Hz	82	Hz

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)
4996	0.00	0.0	0.2	N/A
4996	39.97	393.7	397.3	0.9910
4996	20.06	198.4	200.4	0.9899
4996	10.01	99.2	99.8	0.9939
4996	0.00	0.0	0.2	As Found Zero
4996	39.97	393.7	377.0	As Found Span
Average Correction Factor				0.9916

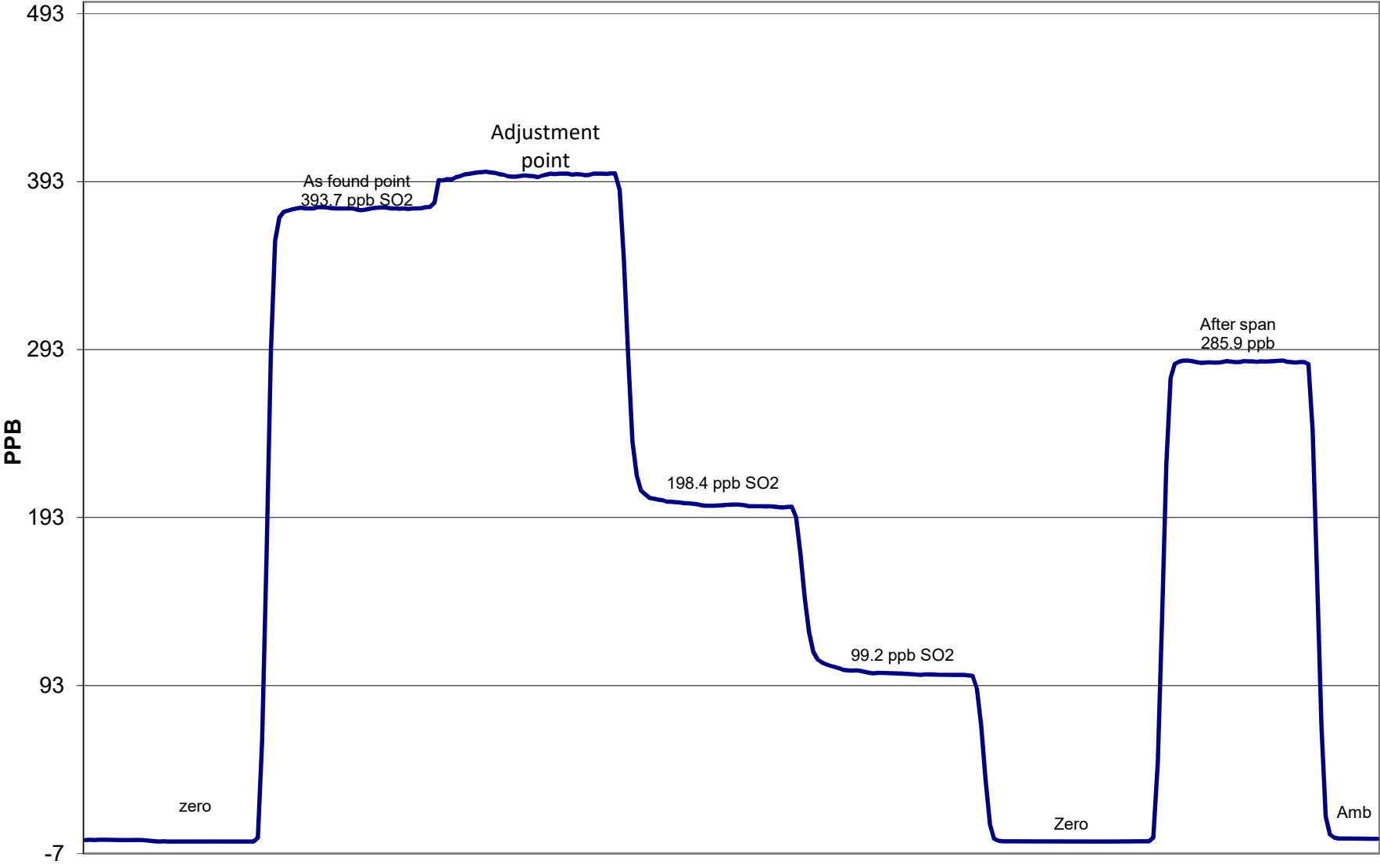
Calculated value of As Found Response: 377.6 ppb Percent Change of As Found: 4.1%

	before calibration		after calibration	
Auto zero	0.2	ppb	0.2	ppb
Auto span	278.2	ppb	285.9	ppb

Notes: Span adjustment made

Calibration Performed By: Dmytro Dolotii

SO2 Calibration



February 5, 2018

Calibration Report

Parameter
 Air Monitoring Network

PAZA



Station Information

Calibration Date	February 6, 2018	Previous Calibration	January 10, 2018
Station Number	1	Station Location	Henry Pirker
Reason:	Routine	Install	Removal
			Other:
Start Time (MST)	9:55	End Time (MST)	12:45
Barometric Pressure	0.919 mBar	Station Temperature	23.0 Deg C
Calibrator	EnviroNics 6103	Serial Number	6586
Cal Gas Conc	10.2 ppb	Cal Gas Expiry Date	02/23/2019
		Cal Gas Cylinder #	EY0000380
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 1 volt	DACS channel #	9
	Before		After
Calculated slope	0.988088	Calculated slope	0.978931
Calculated intercept	-0.084359	Calculated intercept	0.531638
Analyzer make	TEI 45C	Analyzer serial #	630718528

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Coefficient	1.027		0.994	
Background	18.6		18.0	
Pressure	676.8	mm Hg	675.0	mm Hg
Flow	0.431	ccm	0.430	ccm
Lamp Voltage	823	V	822	V

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4997	0.00	0.00	-0.17	N/A
4997	39.98	80.96	82.31	0.9837
4998	20.02	40.69	40.85	0.9962
6997	9.98	14.53	13.96	1.0408
4997	0.00	0.00	-0.17	As Found Zero
4997	41.20	83.41	83.94	As Found Span
Average Correction Factor				1.0069

Calculated value of As Found Response: **83.0 ppb** Percent Change of As Found: **0.5%**

	before calibration		after calibration	
Auto zero	0.08	ppb	-0.30	ppb
Auto span	18.00	ppb	26.28	ppb

Notes: Span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary



Parameter TRS

Air Monitoring Network PAZA

AIR QUALITY MONITORING

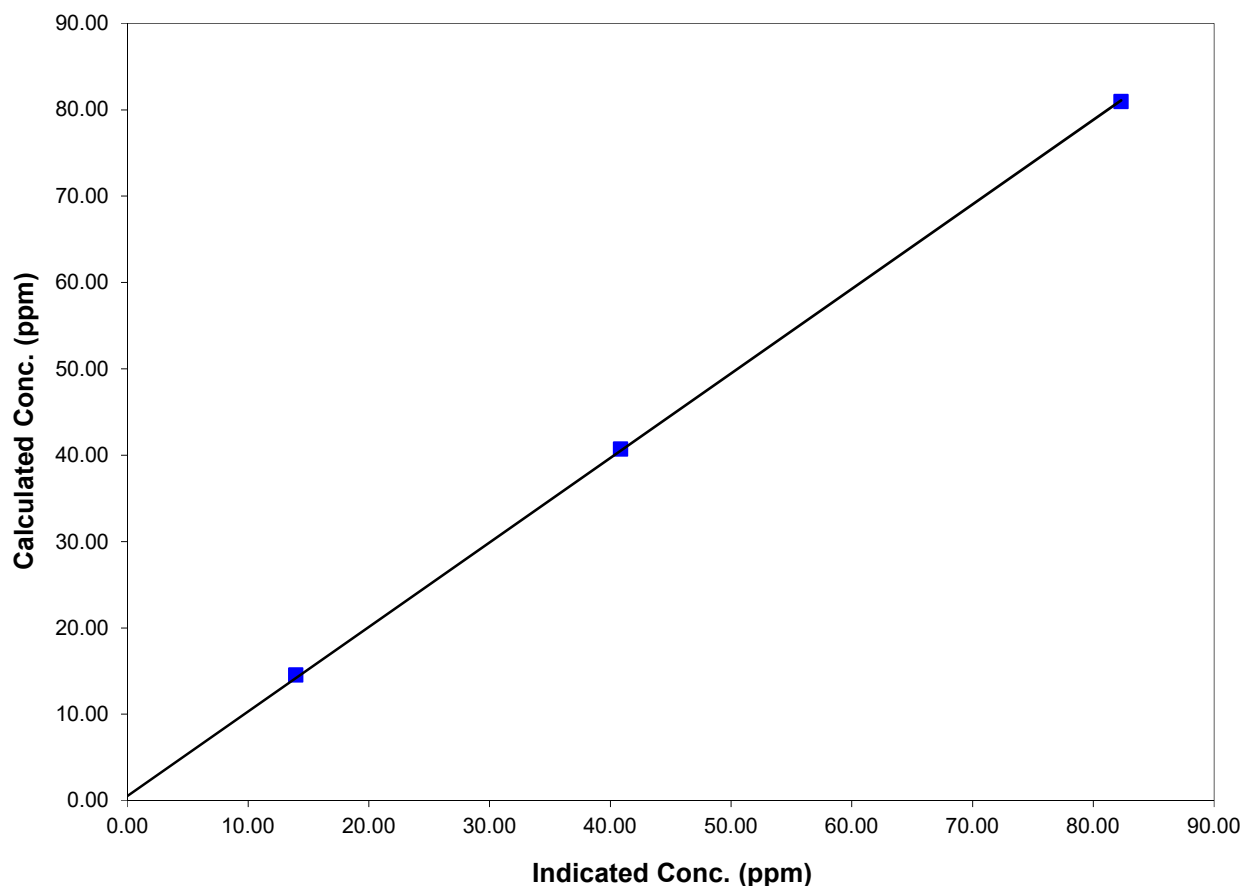
Station Information

Calibration Date	February 6, 2018	Previous Calibration	January 10, 2018
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:55	End Time (MST)	12:45
Analyzer make/model	TEI 45C	Analyzer serial #	630718528

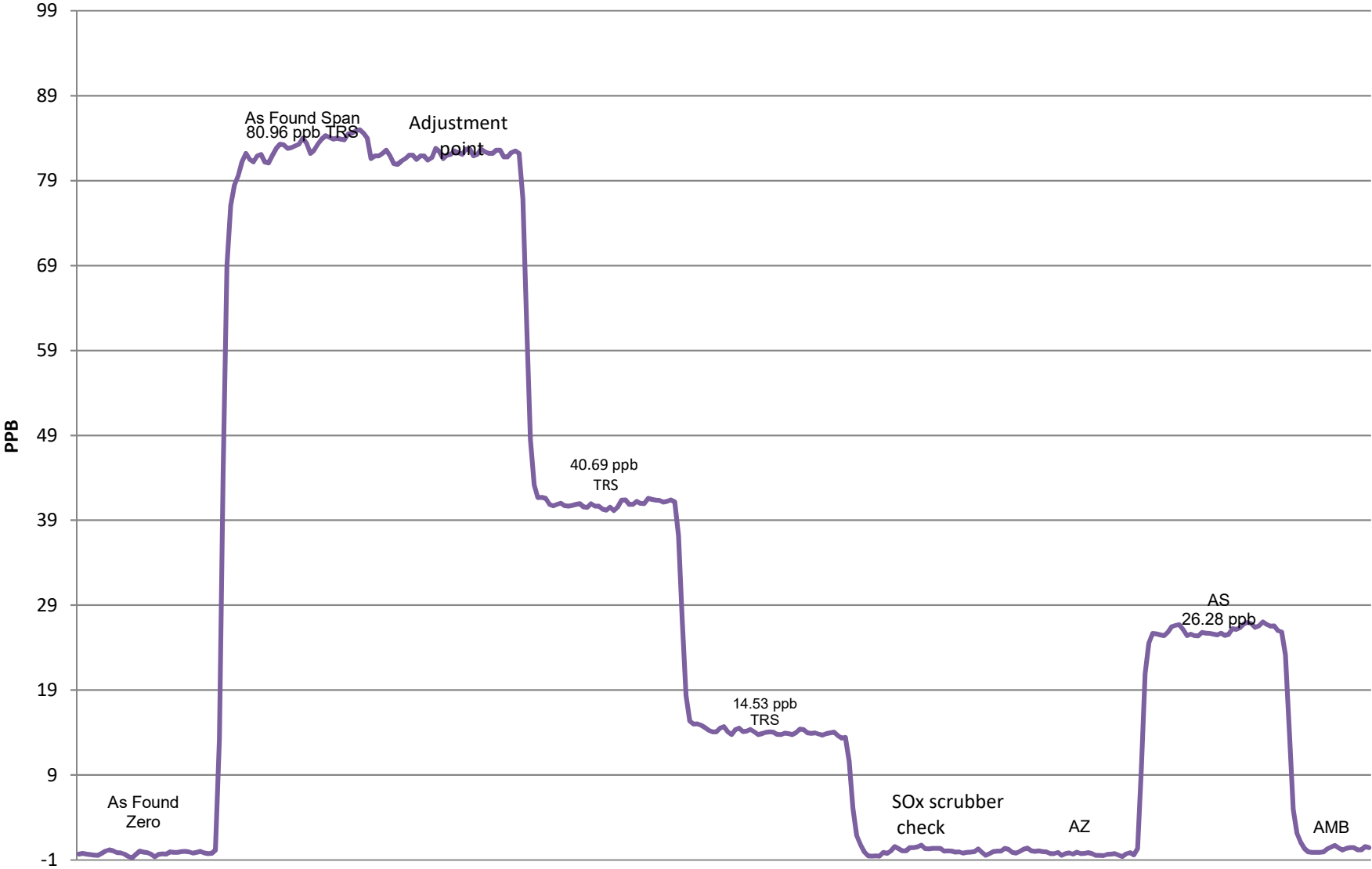
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	-0.174	N/A		
80.960	82.306	0.9837	Correlation Coefficient	0.999923
40.694	40.851	0.9962		
14.528	13.958	1.0408		
			Slope	0.978931
			Intercept	0.531638

TRS Calibration Curve



TRS Calibration



February 6, 2018

Calibration Report

Parameter
Air Monitoring Network

NO_x-NO-NO₂
PAZA



Station Information

Calibration Date	February 5, 2018	Previous Calibration	January 9, 2018		
Station Number	1	Station Location	Henry Pirker		
Reason:	Routine	Installation	Removal	Other:	
Start Time (MST)	9:15	End Time (MST)	13:05:00 AM		
Barometric Pressure	0.923	mbar	Station Temperature	20.0	Deg C
Calibrator	Environics 6103		Serial Number	6586	
NO Cal Gas Conc	51.9	ppm	Cal Gas Expiry Date	10/24/2020	
NO _x Cal Gas Conc	52.0	ppm	Cal Gas Serial #	LL107945	

DACS Information

DACS make	CR3000	DACS serial No.	5408	
Parameter		NO2	NO _x	NO
Before	Data Slope	1.000150	1.006410	1.003845
	Data Offset	-0.509825	1.108802	1.535345
After	Data Slope	0.997766	1.001484	0.997036
	Data Offset	-0.543381	1.418388	1.842250
Channel #		8	6	7
Voltage Range		0 - 5 VDC	0 - 5 VDC	0 - 5 VDC

Analyzer Information

Analyzer make/model	42i	Analyzer serial #	906535087	
Test Point	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
NO offset	8.2	mV	8.3	mV
NO _x bkgnd	8.5	mV	8.6	mV
NO coefficient	1.093		1.105	
NO _x coefficient	1.000		1.000	
NO2 conv temp	322.1	Deg C	322.9	Deg C
Cooler Temp	2.7	Deg C	2.7	Deg C
PMT Volt	-844.3	mV	-843.6	mV
R Cell Press	213.2	in Hg	210.7	in Hg
Sample Flow	0.550	LPM	0.553	LPM

Notes: Span adjustment made

Calibration Report



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

Station Information

Calibration Date: February 5, 2018 Station Location: Henry Pirker

Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor	
zero	4996	0.00	0.0	0.0	0.0	0.0	0.2	0.1	N/A	N/A	
1	4996	39.97	412.7	411.9	0.8	411.5	412.6	-0.1	1.0029	0.9985	
2	4996	20.06	208.0	207.6	0.4	205.0	204.5	0.3	1.0142	1.0149	
3	4996	10.01	104.0	103.8	0.2	101.4	100.8	0.6	1.0258	1.0295	
AFZ	4996	0.00	0.0	0.0	0.0	0.0	0.2	0.1	0.0000	0.0000	
AFS	4996	39.97	412.7	411.9	0.8	406.9	408.0	-0.1	1.0143	1.0095	
									Average Correction Factor	1.0143	1.0143

As Found Concentrations: NO_x= 410.7 NO= 411.0 As Found Percent Change NO_x= -0.5% NO= -0.2%

GPT Calibration Data

Dilution Flow 4995 ccm Source Gas Flow 39.93 ccm

O3 Setpoint (ppb)	Indicated NO 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	0.0	0.2	0.1	N/A	N/A	N/A	N/A	
NO point	411.2	411.2	0.0	411.0	411.2	0.0	1.0005	1.0000	N/A	N/A	
300	411.2	110.5	300.6	412.1	110.5	301.4	0.9979	1.0000	0.9973	100.3%	
200	411.2	211.3	199.9	413.4	211.3	201.3	0.9946	1.0000	0.9931	100.7%	
100	411.2	315.7	95.5	413.3	315.7	96.7	0.9950	1.0000	0.9873	101.3%	
							Average Correction Factor	0.9958	1.0000	0.9926	100.7%

AIC Data

Parameter	Previous calibration				Current calibration			
	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	0.0	0.0	0.1	ppb	0.0	0.0	0.1	ppb
Auto span	282.9	281.4	1.4	ppb	283.1	281.4	1.4	ppb

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter NO₂

Air Monitoring Network PAZA



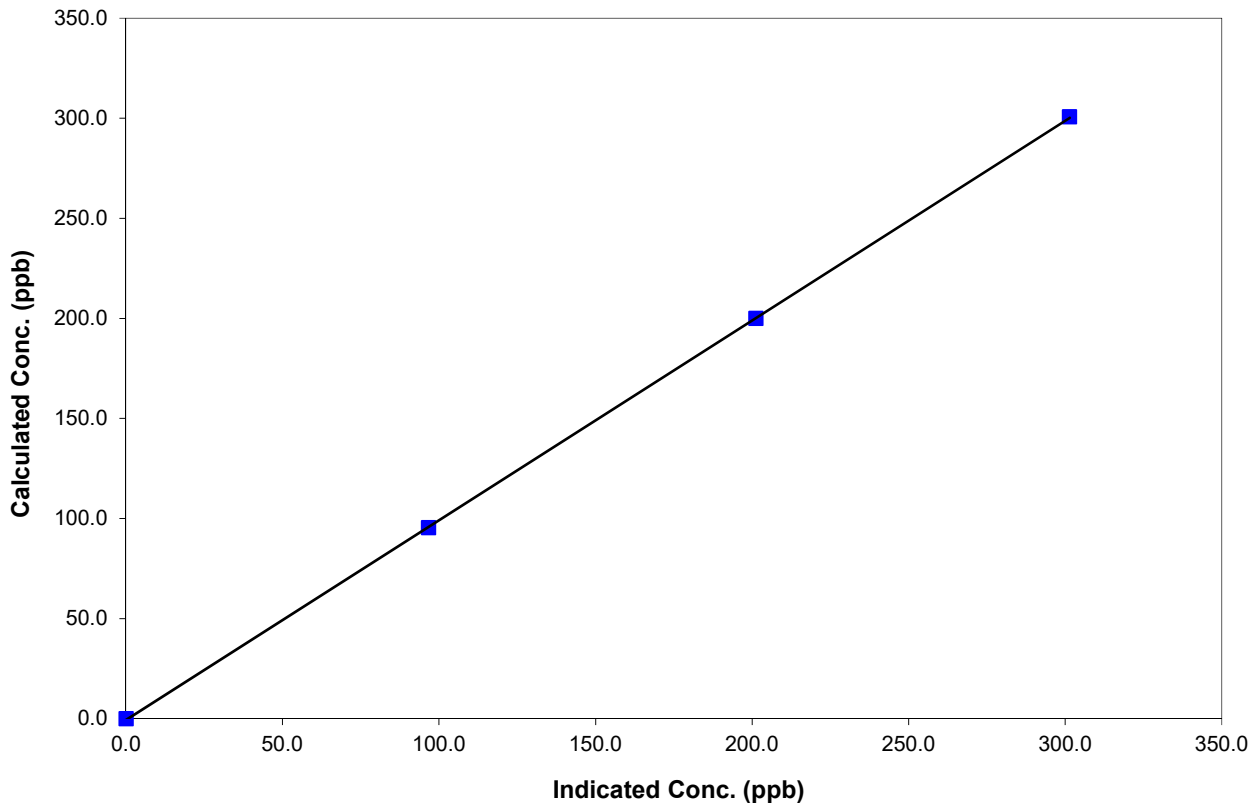
Station Information

Calibration Date	February 5, 2018	Previous Calibration	January 9, 2018
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:15	End Time (MST)	13:05:00 AM
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		
300.6	301.4	0.9973	Correlation Coefficient	0.999985
199.9	201.3	0.9931		
95.5	96.7	0.9873		
			Slope	0.997766
			Intercept	-0.543381

NO₂ Calibration Curve



Calibration Summary

Parameter NO_x

Air Monitoring Network PAZA



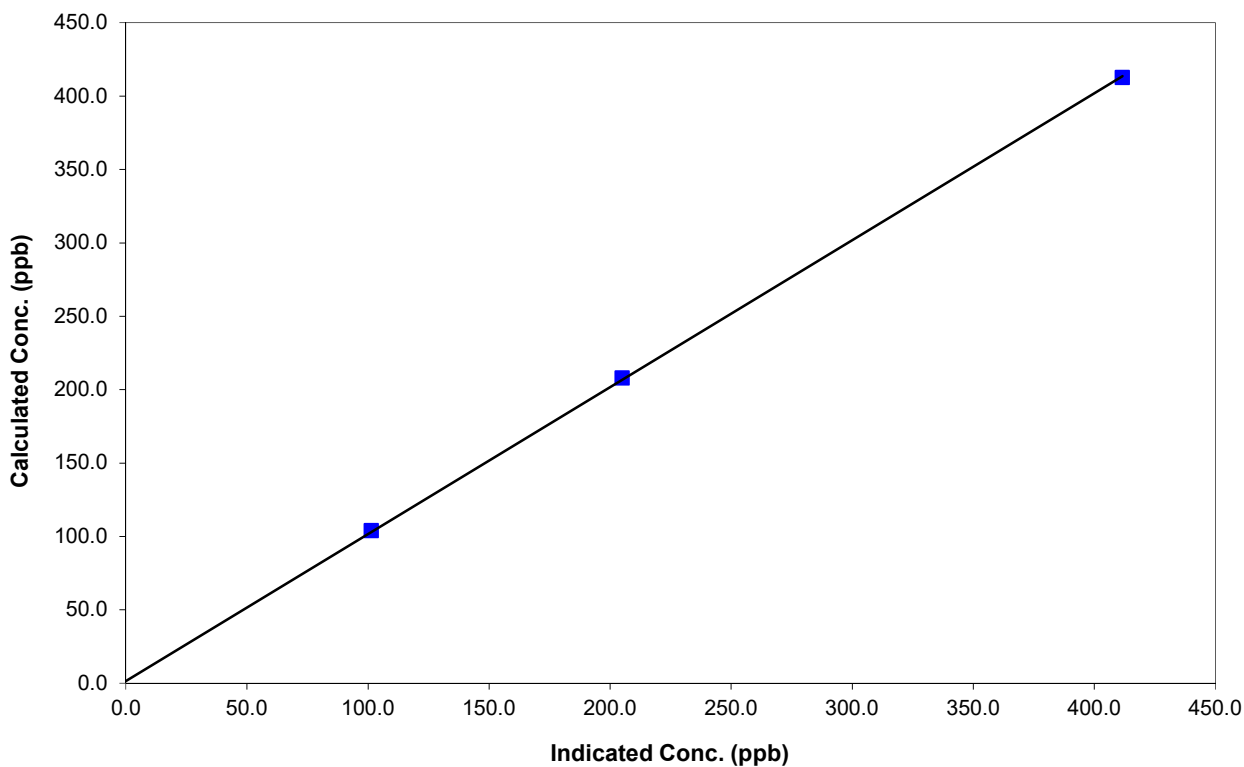
Station Information

Calibration Date	February 5, 2018	Previous Calibration	January 9, 2018
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:15	End Time (MST)	13:05:00 AM
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		
412.7	411.5	1.0029	Correlation Coefficient	0.999945
208.0	205.0	1.0142		
104.0	101.4	1.0258		
			Slope	1.001484
			Intercept	1.418388

NO_x Calibration Curve



Calibration Summary

Parameter NO
Air Monitoring Network PAZA



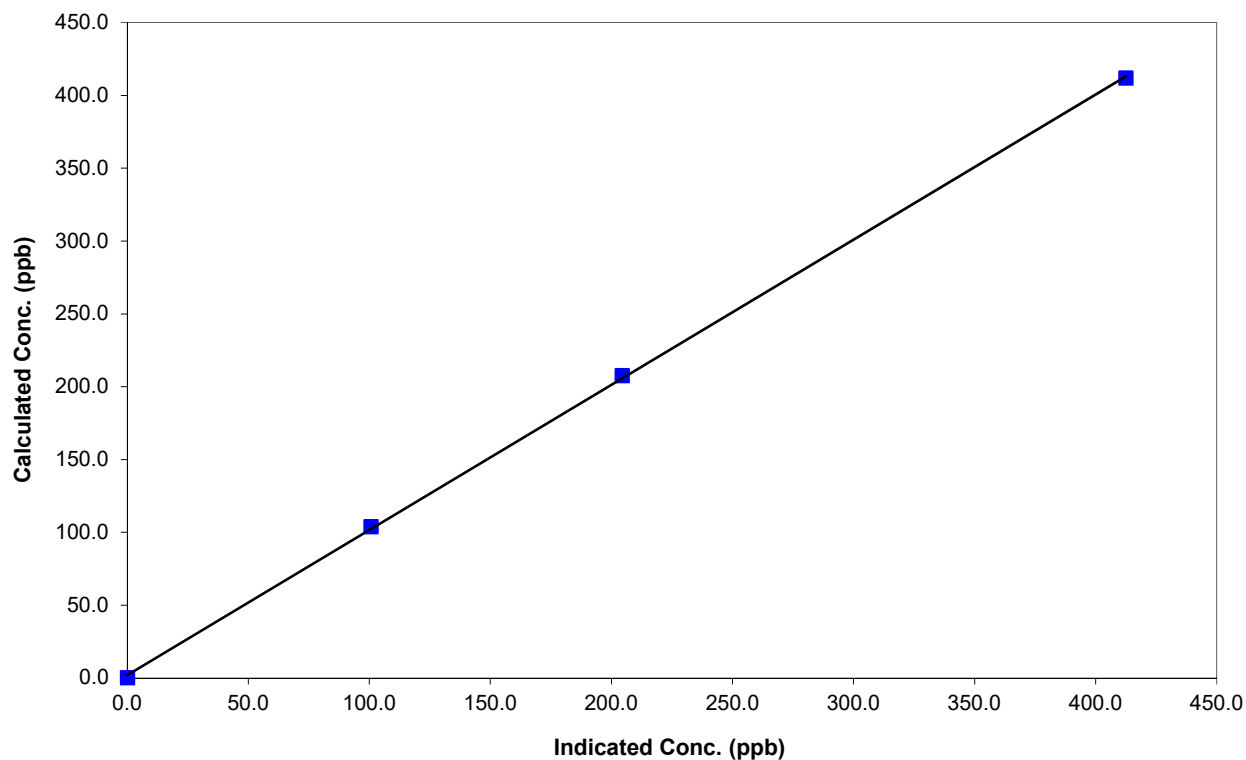
Station Information

Calibration Date	February 5, 2018	Previous Calibration	January 9, 2018
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:15	End Time (MST)	13:05:00 AM
Analyzer make	42i	Analyzer serial #	906535087

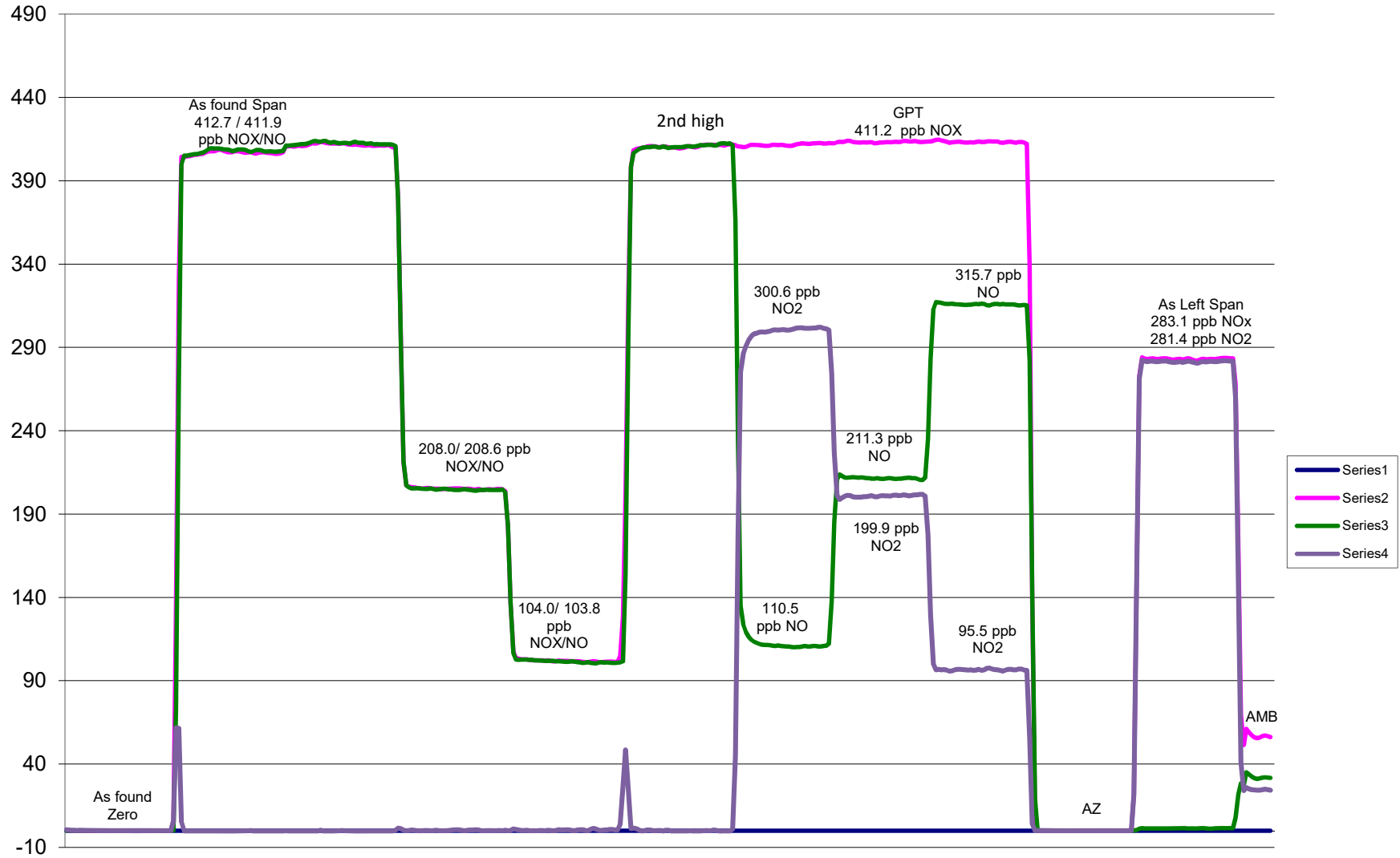
Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A		
411.9	412.6	0.9985	Correlation Coefficient	0.999883
207.6	204.5	1.0149		
103.8	100.8	1.0295		
			Slope	0.997036
			Intercept	1.842250

NO Calibration Curve



NO_x Calibration



February 5, 2018

Calibration Report



Parameter 03
 Air Monitoring Network PAZA

Station Information

Calibration Date	<u>February 5, 2018</u>	Previous Calibration	<u>January 9, 2018</u>
Station Number	<u>1</u>	Station Location	<u>Henry Pirker</u>
Reason:	<u>Routine</u>	<u>Install</u>	<u>Removal</u>
			<u>Other:</u>

Start Time (MST)	<u>11:55</u>	End Time (MST)	<u>14:00:00 PM</u>
Barometric Pressure	<u>920.0</u> mbar	Station Temperature	<u>20.0</u> Deg C
Calibrator	<u>Envionics</u>	Serial Number	<u>6586</u>
Cal Gas Concentration	<u>NA</u>	Cal Gas Expiry Date	<u>NA</u>

DACS make	<u>CR3000</u>	DACS serial No.	<u>5237</u>
DACS voltage range	<u>0 - 5 volt</u>	DACS channel #	<u>9</u>
	<u>Before</u>		<u>After</u>
Calculated slope	<u>0.994798</u>	Calculated slope	<u>0.999195</u>
Calculated intercept	<u>-1.118093</u>	Calculated intercept	<u>-0.637254</u>

Analyzer make	<u>Teco 49I</u>	Analyzer serial #	<u>1507964699 (AMU:2015)</u>
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	before		after	
Concentration range	<u>0 - 500</u>	<u>ppb</u>	<u>0 - 500</u>	<u>ppb</u>
offset	<u>-0.60</u>	<u>ppb</u>	<u>-0.60</u>	<u>ppb</u>
slope	<u>1.024</u>		<u>1.024</u>	
Lamp temp	<u>53.6</u>	<u>mV</u>	<u>53.6</u>	<u>mV</u>
Lamp Intensity A/B	<u>66050/71122</u>	<u>mV</u>	<u>66123/71456</u>	<u>mV</u>
Pressure	<u>697.3</u>	<u>mm Hg</u>	<u>689.4</u>	<u>mm Hg</u>
Flow A	<u>0.733</u>	<u>ccm</u>	<u>0.733</u>	<u>ccm</u>
Flow B	<u>0.735</u>	<u>ccm</u>	<u>0.735</u>	<u>ccm</u>

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	-0.1	N/A
4998	0.3	300.6	301.0	0.9987
4998	0.2	199.9	200.9	0.9948
4998	0.1	95.5	97.2	0.9822
4996	0.0	0.0	-0.1	As found zero
4996	0.3	300.6	301.0	As found span
Average Correction Factor				0.9919

Calculated value of As Found Response: 298.4 ppm Percent Change of As Found: -0.7%

	before calibration		after calibration	
Auto zero	<u>0.9</u>	<u>ppb</u>	<u>0.3</u>	<u>ppb</u>
Auto span	<u>394.2</u>	<u>ppb</u>	<u>394.3</u>	<u>ppb</u>

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter O3
Air Monitoring Network PAZA



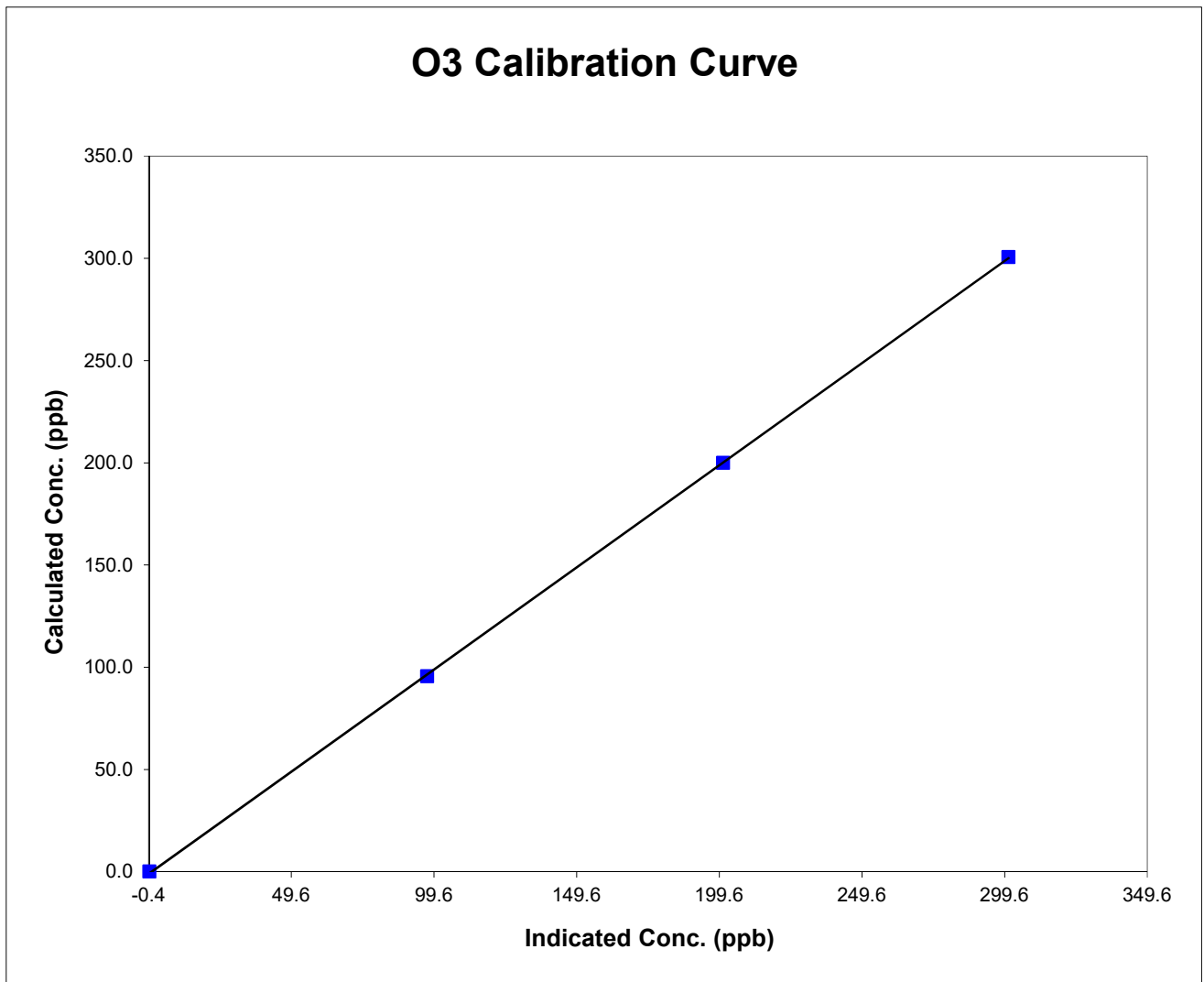
Station Information

Calibration Date	February 5, 2018	Previous Calibration	January 9, 2018
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	11:55	End Time (MST)	14:00:00 PM
Analyzer make/model	Teco 49I	Analyzer serial #	1507964699 (AMU:2015)

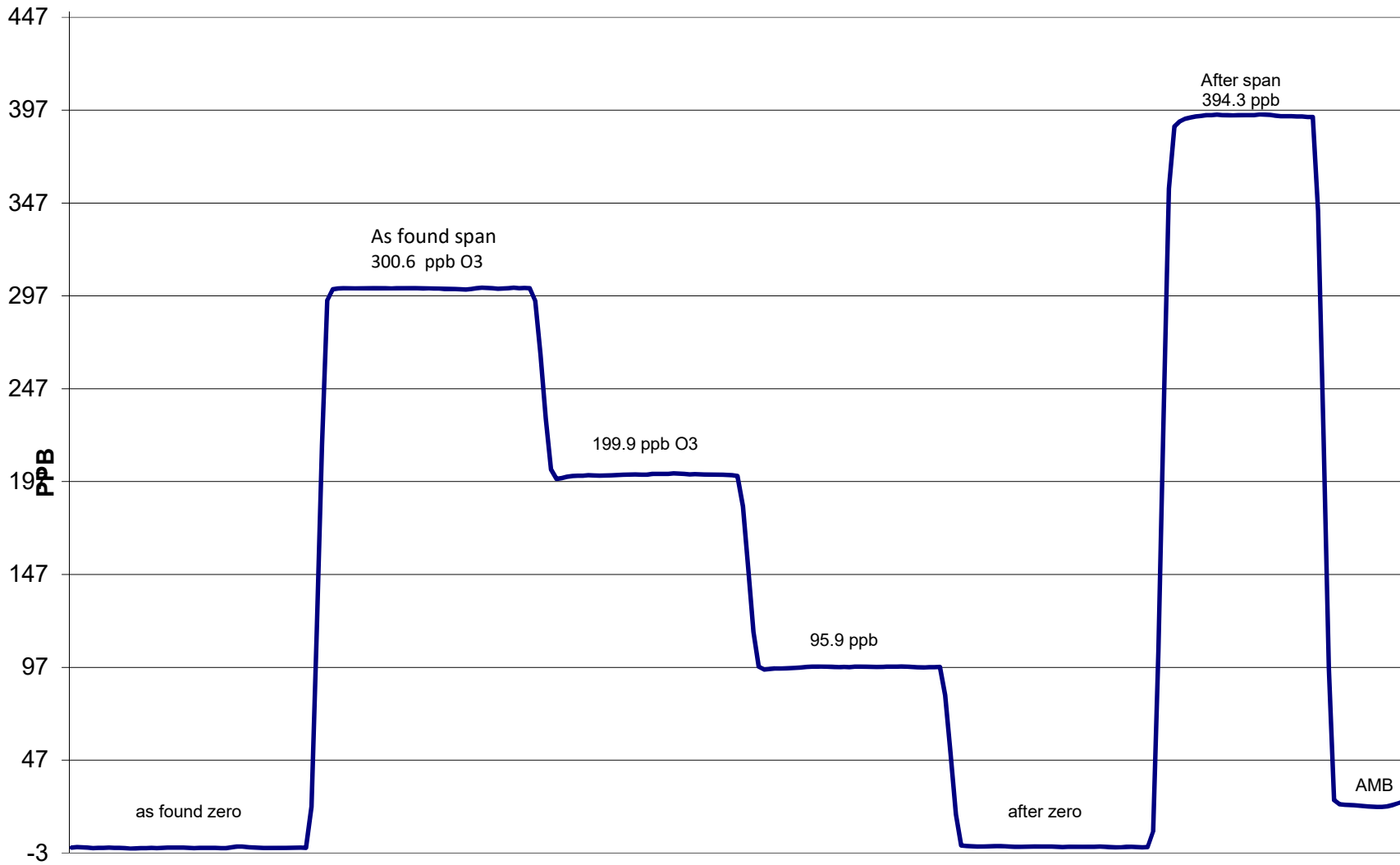
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	NA		
300.6	301.0	0.9987	Correlation Coefficient	0.999962
199.9	200.9	0.9948		
95.5	97.2	0.9822		
			Slope	0.999195
			Intercept	-0.637254

O3 Calibration Curve



O3 Calibration



February 5, 2018

Calibration Report



Parameter CO
 Air Monitoring Network PAZA

Station Information

Calibration Date	February 6, 2018	Previous Calibration	January 10, 2018
Station Number	1	Station Location	Henry Pirker
Reason:	Routine	Install	Removal
Start Time (MST)	11:35	End Time (MST)	14:25:00 PM
Barometric Pressure	0.919 mBar	Station Temperature	23.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	6586
Cal Gas Conc	2906 ppm	Cal Gas Expiry Date	07/07/2023
DACS make	CR3000	Cal Gas Cylinder #	LL109096
DACS voltage range	0 - 5 volt	DACS serial No.	5408
	Before	DACS channel #	9
Calculated slope	1.000614		After
Calculated intercept	-0.151604	Calculated slope	1.002795
		Calculated intercept	-0.229131
Analyzer make	Model 48I-TLE	Analyzer serial #	1408761378

	before		after	
Concentration range	0 - 50	ppm	0 - 50	ppm
CO zero setting	9.925		10.140	
CO span setting	1.080		1.080	
Sample pressure	701	mm Hg	700.1	mm Hg
Sample Flow	0.455	LPM	0.456	LPM

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4997	0.00	0.00	0.01	N/A
4998	69.96	40.12	40.08	1.0008
4998	34.98	20.20	20.57	0.9818
4998	17.99	10.42	10.79	0.9658
4998	0.00	0.00	0.21	As Found Zero
4998	69.96	40.12	40.49	As Found Span
Average Correction Factor				0.9828

Calculated value of As Found Response: 40.157 ppm Percent Change of As Found: -0.1%

	before calibration		after calibration	
Auto zero	0.01	ppm	0.00	ppm
Auto span	20.54	ppm	20.53	ppm

Notes: Zero adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary



Parameter CO
 Air Monitoring Network PAZA

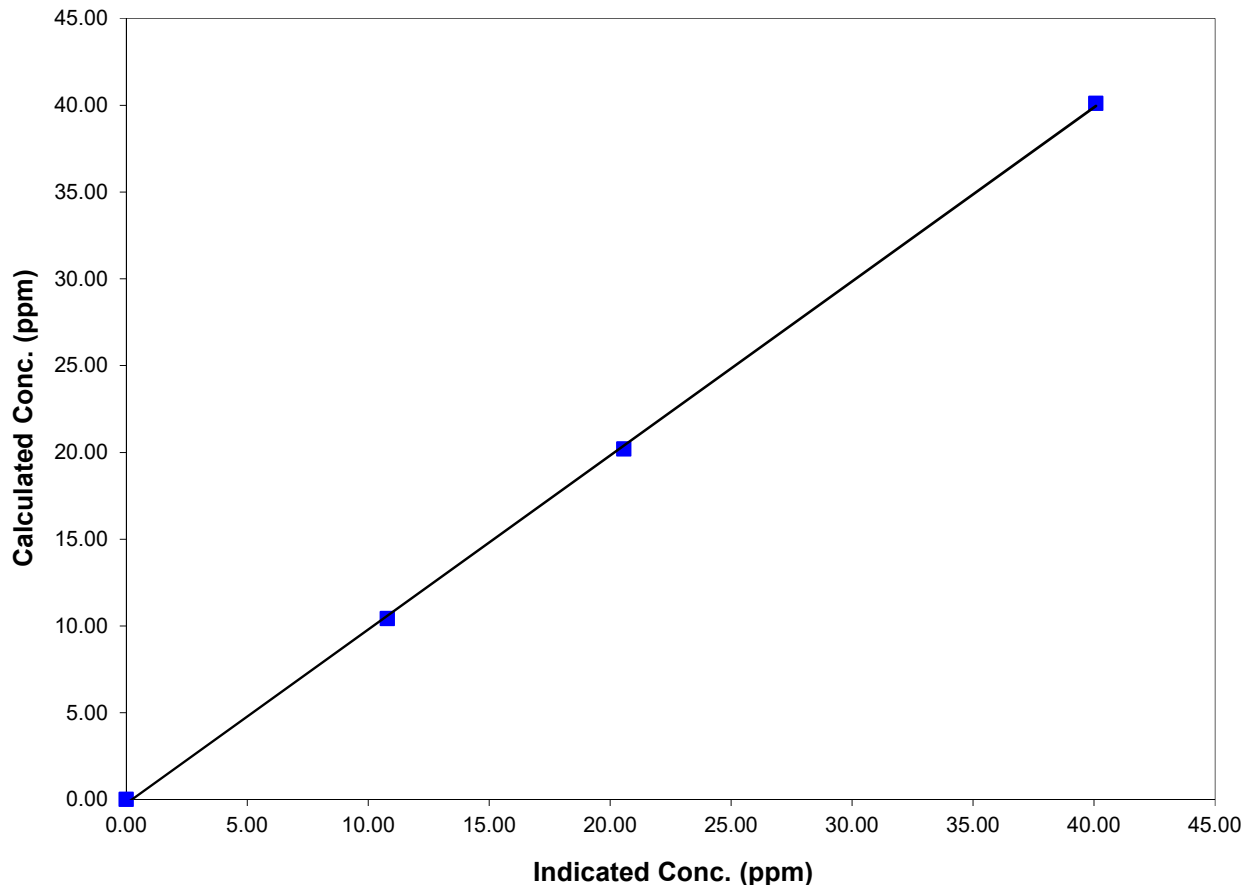
Station Information

Calibration Date	February 6, 2018	Previous Calibration	January 10, 2018
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	11:35	End Time (MST)	14:25:00 PM
Analyzer make/model	Model 48I-TLE	Analyzer serial #	1408761378

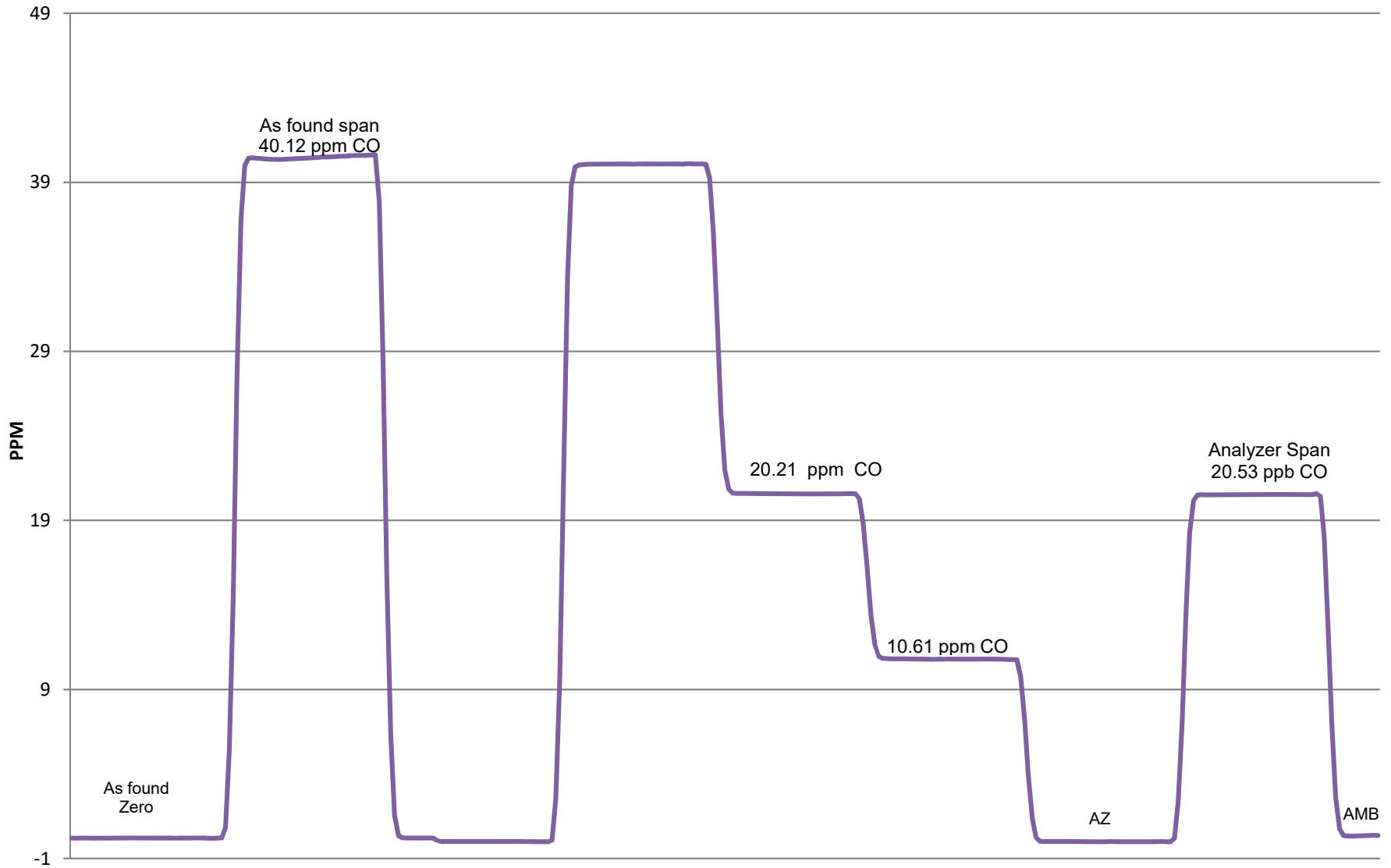
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.006	N/A		
40.116	40.083	1.0008	Correlation Coefficient	0.999837
20.197	20.572	0.9818		
10.422	10.791	0.9658	Slope	1.002795
			Intercept	-0.229131

CO Calibration Curve



CO Calibration



February 6, 2018

Calibration Report



AIR QUALITY MONITORING

Parameter CH4 / NMHC / THC

Air Monitoring Network PAZA

Station Information

Calibration Date	February 2, 2018	Previous Calibration	January 11, 2018
Station Number	1	Station Location	Henry Pirker
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:Mair

Start Time (MST)	11:10	End Time (MST)	14:20:00 PM
Barometric Pressure	0.919 mBar	Station Temperature	23.0 Deg C
Calibrator	EnviroNics 6103	Serial Number	6586
Cal Gas CH4 Conc	386 ppm CH4	Cal Gas Expiry Date	05/07/2015
Cal Gas C3H8 Conc	207 569.25 ppm CH4	Cal Gas Cylinder #	LL34318
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 5 volt	DACS channel #	SE 11,12,13

Analyzer make TEI 55I Analyzer serial # 1134650658

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

CH4 Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
1998	0.00	0.00	0.02	N/A
1998	64.99	12.16	12.16	1.0001
1998	40.97	7.76	7.75	1.0008
1998	15.99	3.06	3.08	0.9956
1998	0.00	0.00	0.02	As Found Zero
1998	70.65	13.18	12.03	As Found Span
Average Correction Factor				0.9988

Calculated value of As Found Response: 12.017 ppm Percent Change of As Found: 8.8%

	Before	After
Calculated slope	1.000644	1.001872
Calculated intercept	-0.004570	-0.016790

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.03	ppm	0.03	ppm
Auto span	9.48	ppm	9.58	ppm

NMHC Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
1998	0.00	0.00	0.02	N/A
1998	64.99	17.93	17.93	1.0001
1998	40.97	11.44	11.47	0.9975
1998	15.99	4.52	4.57	0.9882
1998	0.00	0.00	0.02	As Found Zero
1998	70.65	19.44	17.66	As Found Span
Average Correction Factor				0.9953

Calculated value of As Found Response: 17.594 ppm Percent Change of As Found: 9.5%

	<u>Before</u>		<u>After</u>
Calculated slope	0.999789	Calculated slope	1.001607
Calculated intercept	-0.040991	Calculated intercept	-0.038281

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.02	ppm	0.02	ppm
Auto span	12.98	ppm	13.29	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	30.08	1.0006
1998	40.97	19.19	19.20	0.9998
1998	15.99	7.58	7.64	0.9932
1998	0.00	0.00	0.03	As Found Zero
1998	70.65	32.62	29.68	As Found Span
Average Correction Factor				0.9979

Calculated value of As Found Response: 29.618 ppm Percent Change of As Found: 9.2%

	<u>Before</u>		<u>After</u>
Calculated slope	1.000248	Calculated slope	1.002016
Calculated intercept	-0.036562	Calculated intercept	-0.046087

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.02	ppm	0.02	ppm
Auto span	22.45	ppm	22.86	ppm

Notes: Span cylinder replaced
Span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary



Parameter CH4
 Air Monitoring Network PAZA

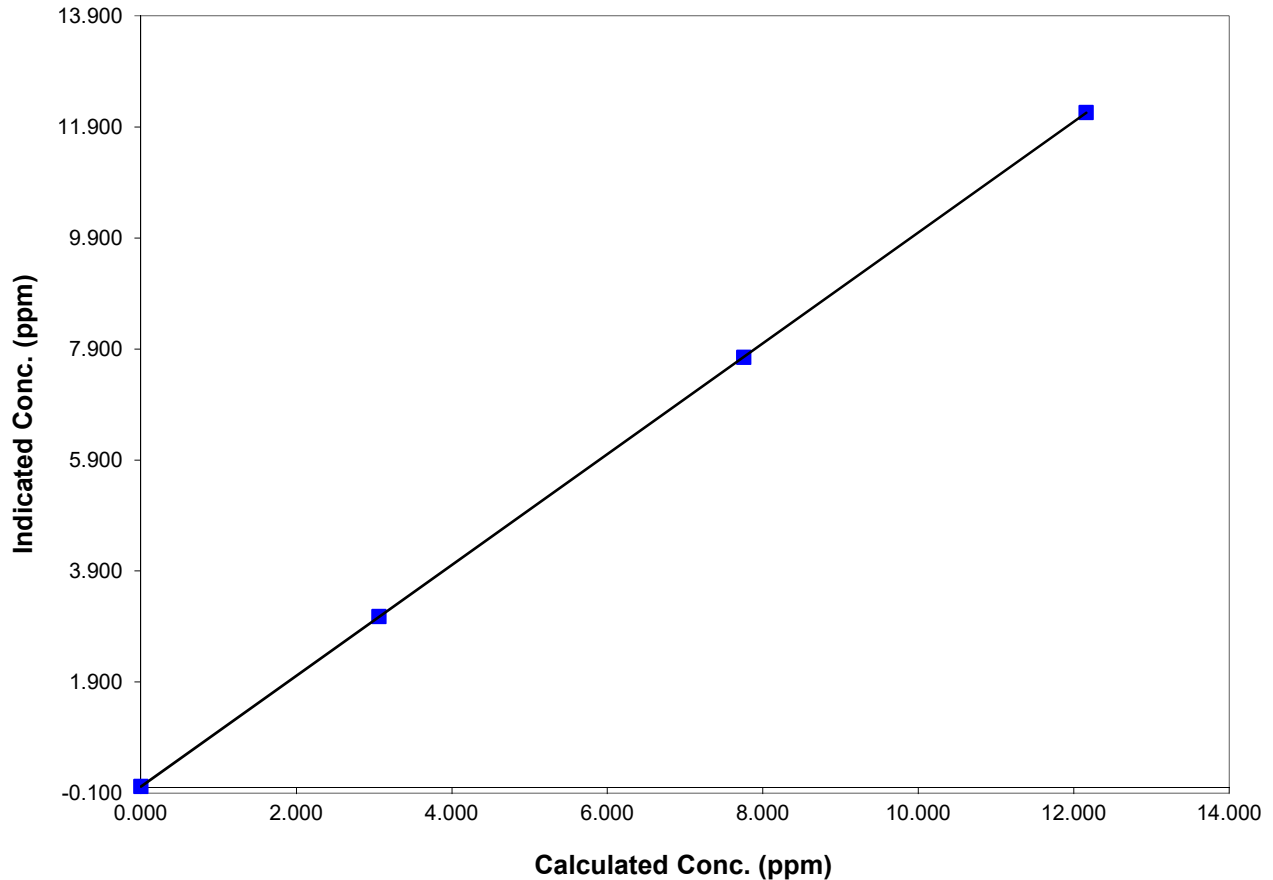
Station Information

Calibration Date	February 2, 2018	Previous Calibration	January 11, 2018
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	11:10	End Time (MST)	14:20:00 PM
Analyzer make/model	TEI 55I	Analyzer serial #	1134650658

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.018	N/A		
12.160	12.159	1.0001	Correlation Coefficient	0.999999
7.756	7.750	1.0008		
3.065	3.078	0.9956	Slope	1.001872
			Intercept	-0.016790

CH4 Calibration Data



Calibration Summary



Parameter NMHC
Air Monitoring Network PAZA

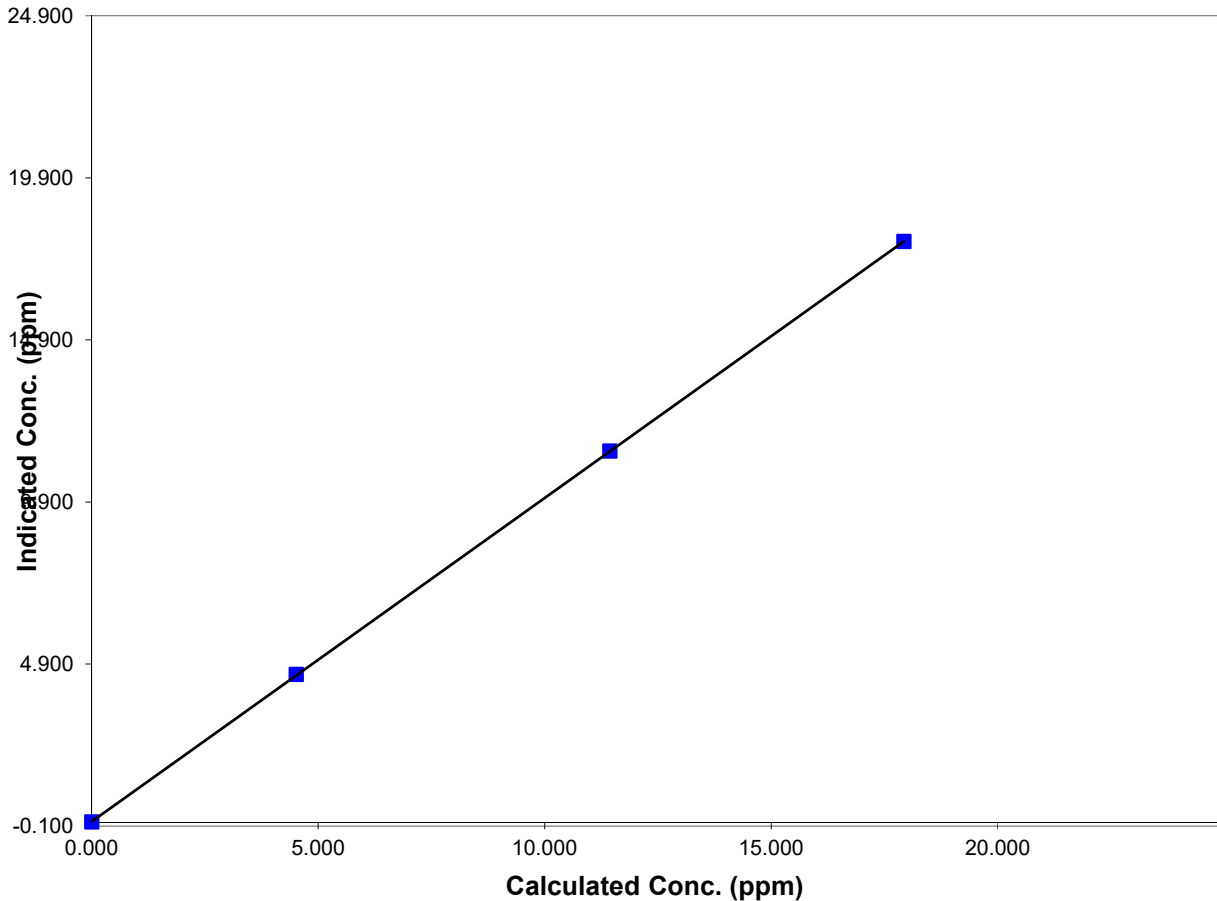
Station Information

Calibration Date	<u> February 2, 2018 </u>	Previous Calibration	<u> January 11, 2018 </u>
Station Number	<u> 1 </u>	Station Location	<u> Henry Pirker </u>
Start Time (MST)	<u> 11:10 </u>	End Time (MST)	<u> 14:20:00 PM </u>
Analyzer make/model	<u> TEI 55I </u>	Analyzer serial #	<u> 1134650658 </u>

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.018	N/A		
17.933	17.931	1.0001	Correlation Coefficient	0.999994
11.438	11.467	0.9975		
4.520	4.573	0.9882	Slope	1.001607
			Intercept	-0.038281

NMHC Calibration Data



Calibration Summary



Parameter THC
 Air Monitoring Network PAZA

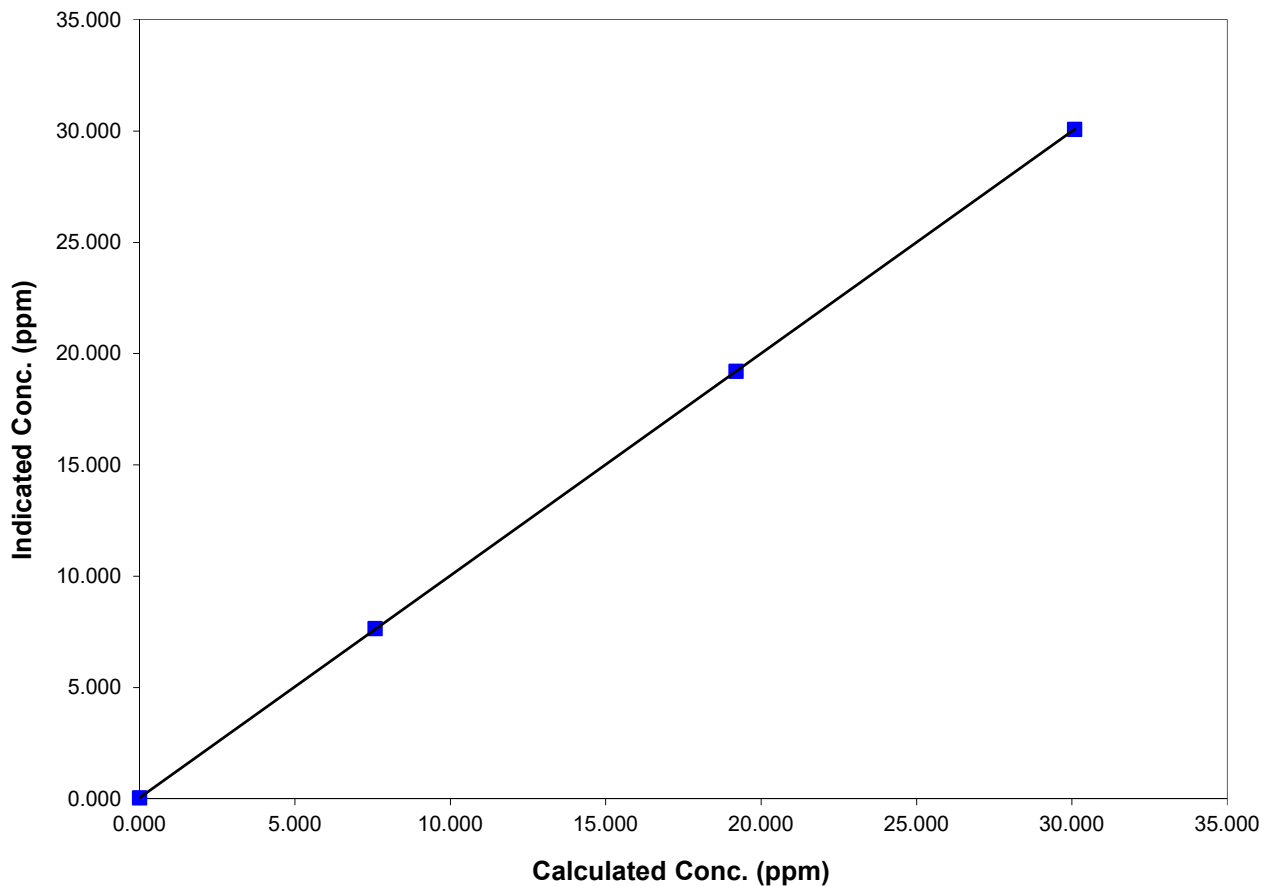
Station Information

Calibration Date	February 2, 2018	Previous Calibration	January 11, 2018
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	11:10	End Time (MST)	14:20:00 PM
Analyzer make/model	TEI 55I	Analyzer serial #	1134650658

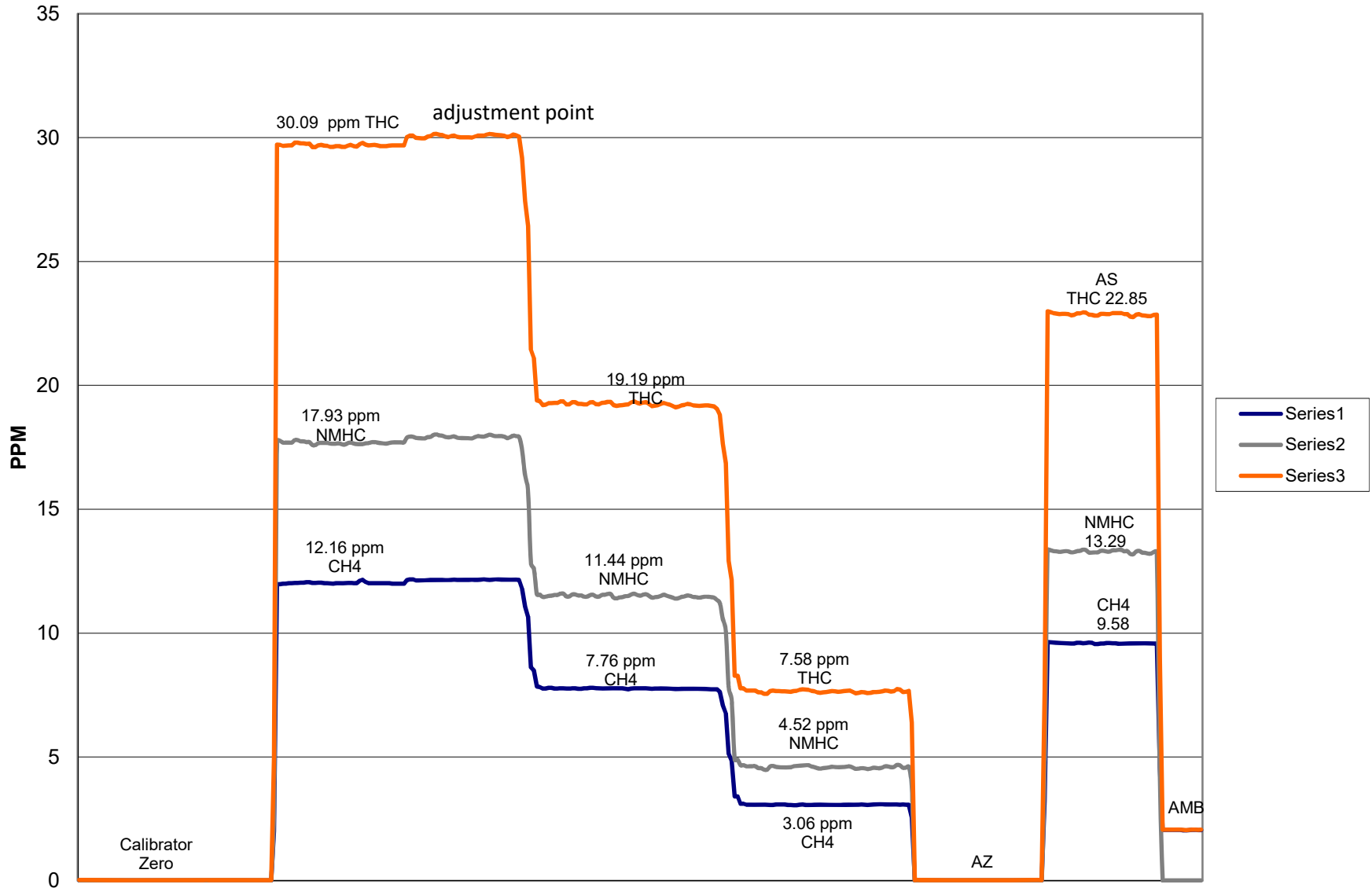
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.031	N/A		
30.093	30.075	1.0006	Correlation Coefficient	0.999999
19.194	19.199	0.9998		
7.584	7.636	0.9932	Slope	1.002016
			Intercept	-0.046087

THC Calibration Data



THC/CH₄/NMHC Calibration



Calibration Report



AIR QUALITY MONITORING

Parameter TRS

Air Monitoring Network PAZA

Station Information

Calibration Date	February 27, 2018	Previous Calibration	January 12, 2018
Station Number	2	Station Location	Evergreen Park
Reason:	Routine	Install	Removal
		Other:	
Start Time (MST)	10:25	End Time (MST)	13:05:00 PM
Barometric Pressure	0.936 ATM	Station Temperature	22.0 Deg C
Calibrator	Evironics 6103	Serial Number	6586
Cal Gas Conc	10.2 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	0.982189	Calculated slope	0.995915
Calculated intercept	0.021346	Calculated intercept	-0.139142
Analyzer make	TEI Model 43C	Analyzer serial #	3.199E+13

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	17.3	ppb	17.3	ppb
coefficient	0.946		0.946	
Lamp Voltage	1029	volts	1029	volts
Chamber Temp	44.4	Deg C	44.3	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	629.6	mm Hg	636.6	mm Hg
Sample Flow	0.584	ccm	0.591	ccm
Lamp Intensity	36,710	mv	36,859	mv

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4996	0.00	0.00	0.3	N/A
4996	39.97	80.96	81.5	0.9931
4996	19.96	40.59	40.8	0.9956
6999	9.97	14.51	14.5	0.9979
4996	10.00	0.00	0.4	Sox Test
4996	0.00	0.00	0.3	As Found Zero
4996	39.97	80.96	81.6	As Found Span
Average Correction Factor				0.9955

Calculated value of As Found Response: 79.78 ppm Percent Change of As Found: **1.4%**

	before calibration		after calibration	
Auto zero	0.1	ppm	0.4	ppm
Auto span	65.8	ppm	70.5	ppm

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary



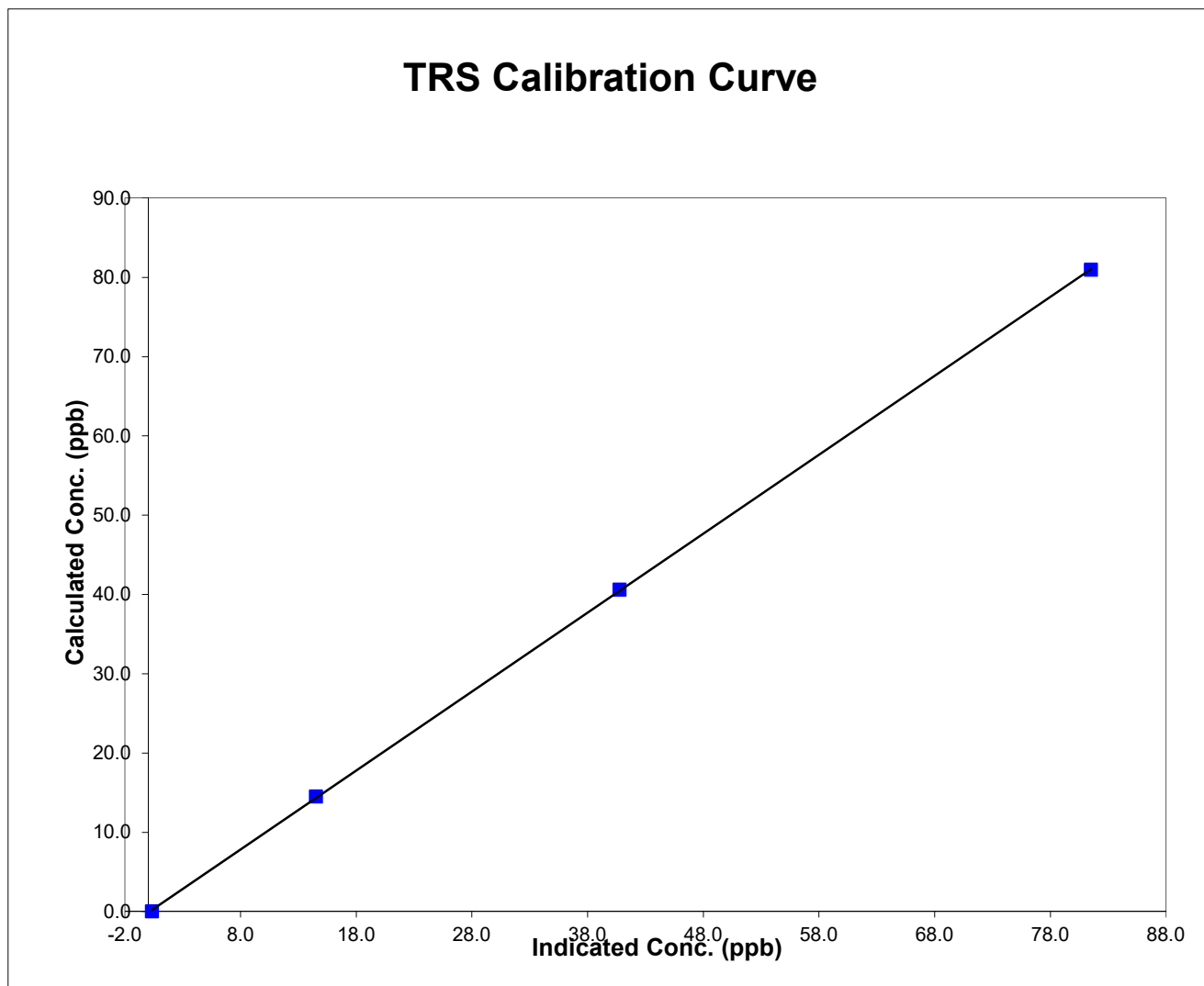
Parameter TRS
 Air Monitoring Network PAZA

Station Information

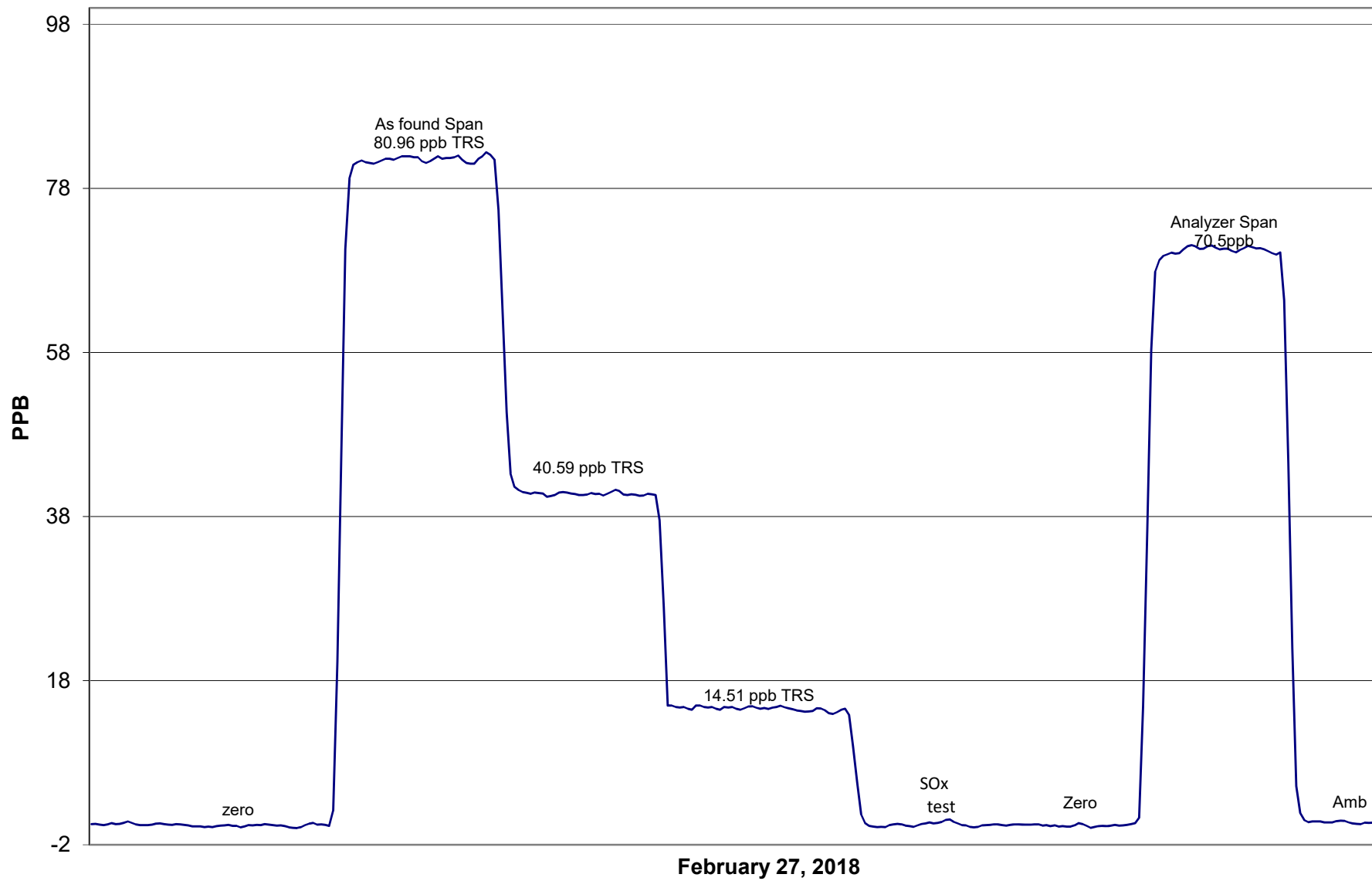
Calibration Date	February 27, 2018	Previous Calibration	January 12, 2018
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	10:25	End Time (MST)	13:05:00 PM
Analyzer make/model	TEI Model 43C	Analyzer serial #	3199000000491

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	N/A	Correlation Coefficient	0.999975
81.0	81.5	0.9931		
40.6	40.8	0.9956	Slope	0.995915
14.5	14.5	0.9979		
			Intercept	-0.139142



TRS Calibration



Calibration Report



AIR QUALITY MONITORING

Parameter SO₂

Air Monitoring Network PAZA

Station Information

Calibration Date	February 27, 2018	Previous Calibration	January 12, 2018
Station Number	2	Station Location	Evergreen Park
Reason:	Routine	Install	Removal
		Other:	
Start Time (MST)	11:05	End Time (MST)	12:05
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
	Before		After
Calculated slope	0.991249	Calculated slope	0.988588
Calculated intercept	0.732770	Calculated intercept	1.288108
Analyzer make	Teco 43i	Analyzer serial #	701120008

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	12.8		12.8	
coefficient	1.246		1.246	
Lamp Voltage	836	volts	835	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	657.4	mm Hg	658.2	mm Hg
Sample Flow	0.432	ccm	0.430	ccm
Lamp Intensity	90	%	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	40.01	394.0	398.1	0.9896
4997	19.99	197.6	197.7	0.9994
4997	9.98	98.9	96.7	1.0220
4997	0.0	0.0	0.6	As Found Zero
4997	39.98	393.7	398.1	As Found Span
Average Correction Factor				1.0037

Calculated value of As Found Response: 394.764 ppm Percent Change of As Found: -0.3%

	before calibration		after calibration	
Auto zero	0.6	ppm	0.6	ppm
Auto span	265.2	ppm	269.4	ppm

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter SO2
 Air Monitoring Network PAZA

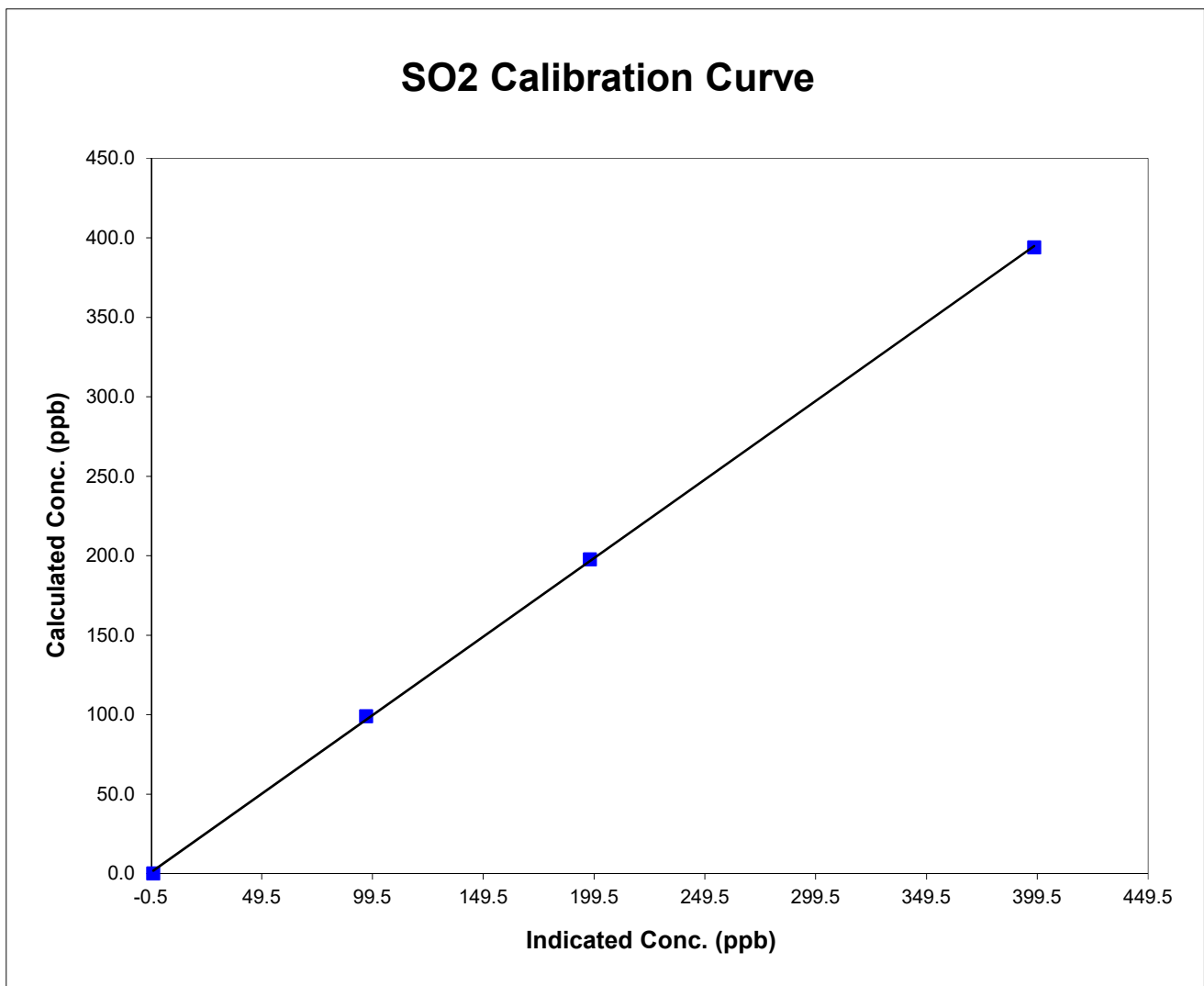


Station Information

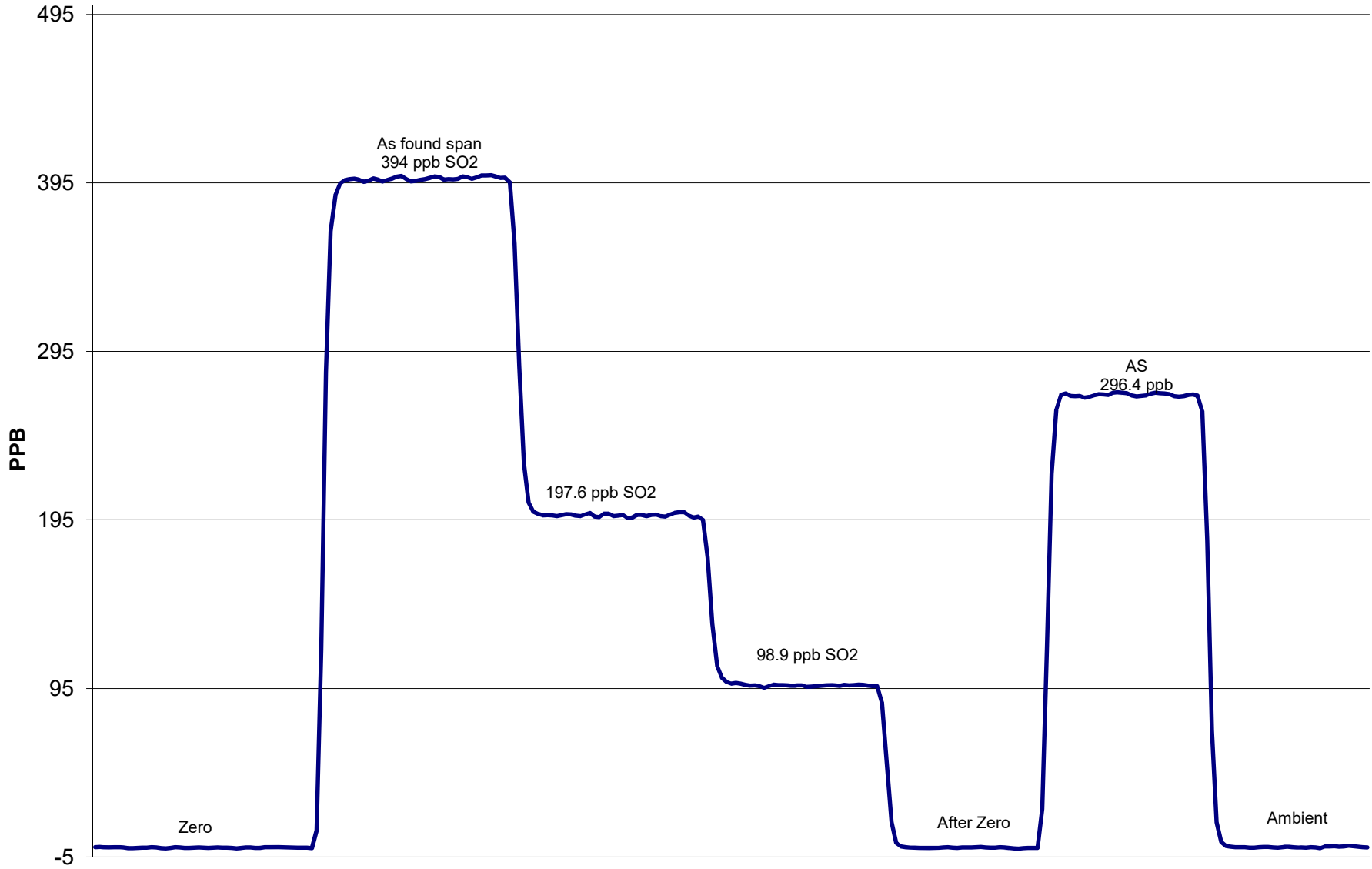
Calibration Date	February 27, 2018	Previous Calibration	January 12, 2018
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	11:05	End Time (MST)	12:05
Analyzer make/model	Teco 43i	Analyzer serial #	701120008

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.6	N/A	Correlation Coefficient	0.999895
394.0	398.1	0.9896		
197.6	197.7	0.9994		
98.9	96.7	1.0220	Slope	0.988588
			Intercept	1.288108



SO2 Calibration



February 27, 2018

Calibration Report



Parameter SO₂

Air Monitoring Network PAZA

Station Information

Calibration Date	February 16, 2018	Previous Calibration	January 16, 2018
Station Number	3	Station Location	Smokey Heights
Reason:	Routine	Install	Removal
			Other:
Start Time (MST)	10:35	End Time (MST)	12:35
Barometric Pressure	0.924 ATM	Station Temperature	19.0 Deg C
Calibrator	Envionics 6103	Serial Number	6586
Cal Gas Concentratio	49.6 ppm	Cal Gas Cert Date	10/10/2020
Correction factor	0.031517	Cal Gas Cylinder #	LL104185
DACS make	CR3000	DACS serial No.	5238
DACS voltage range	0 - 5 volt	DACS channel #	6
	<u>Before</u>		<u>After</u>
Calculated slope	1.005977	Calculated slope	1.005761
Calculated intercept	-0.128308	Calculated intercept	0.037595
Analyzer make	Teco 43i	Analyzer serial #	701120009

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	14		14	
coefficient	0.966		0.966	
Lamp Voltage	949	volts	948	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	665.7	mm Hg	669.6	mm Hg
Sample Flow	0.443	lpm	0.446	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	0.8	N/A
4996	39.94	393.38	391.4	1.0051
4996	19.97	197.47	196.2	1.0066
4996	9.99	98.98	97.4	1.0167
4996	0.0	0.00	0.8	As Found Zero
4996	39.94	393.38	391.4	As Found Span
Average Correction Factor				1.0094

Calculated value of As Found Response: 392.816 ppb Percent Change of As Found: 0.1%

	before calibration		after calibration	
Auto zero	0.7	ppb	0.9	ppb
Auto span	213.4	ppb	209.2	ppb

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary



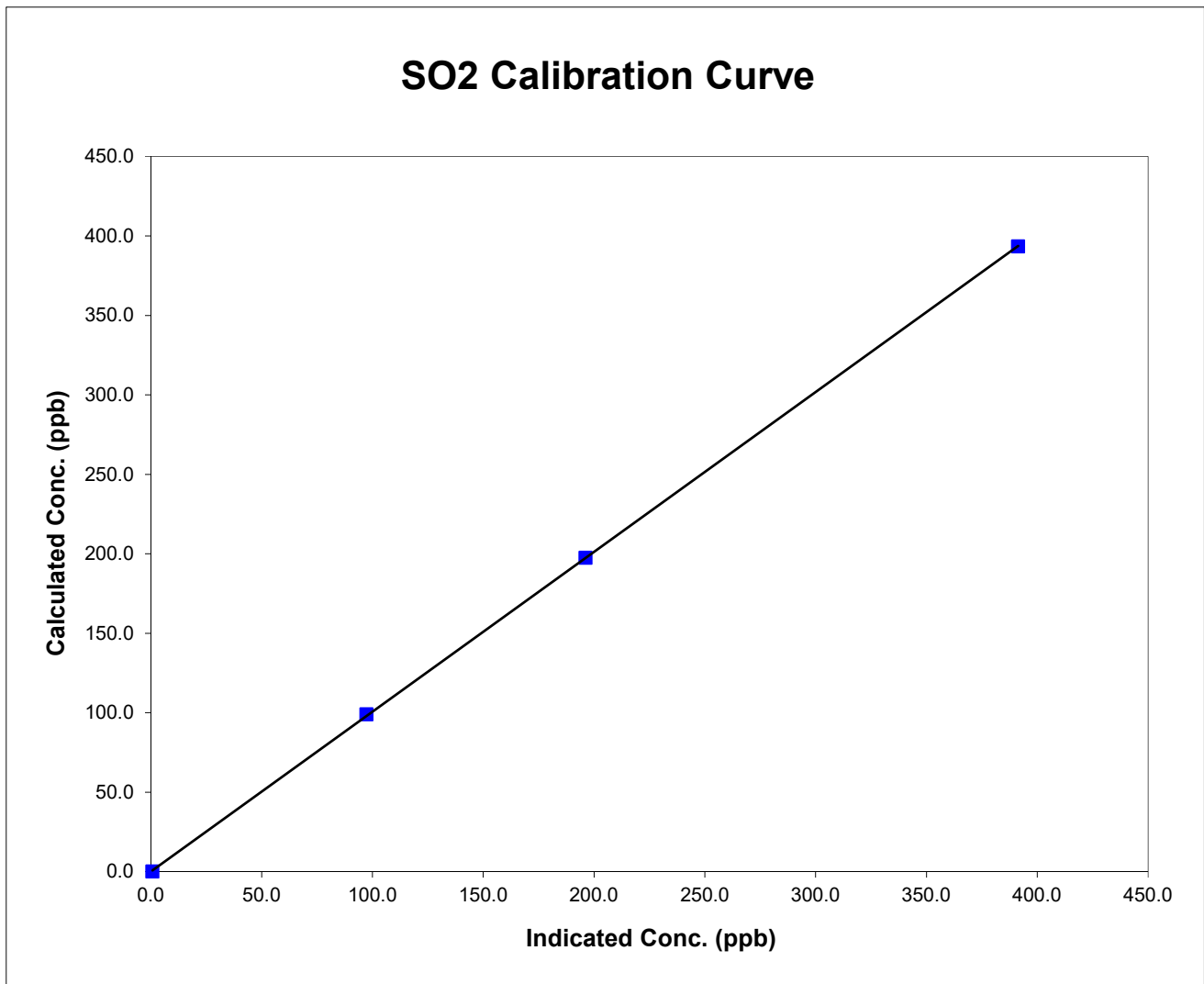
Parameter SO2
 Air Monitoring Network PAZA

Station Information

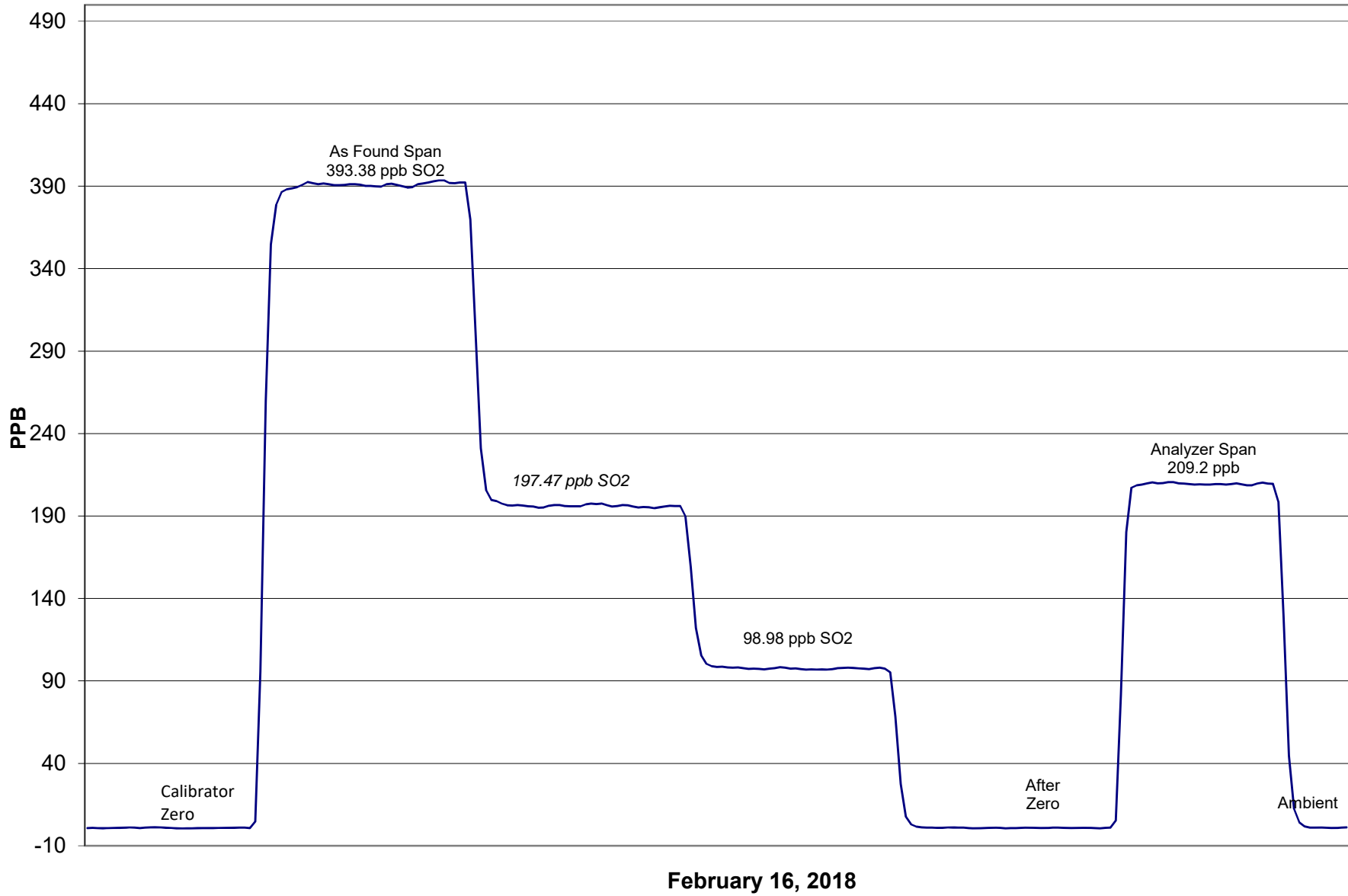
Calibration Date	February 16, 2018	Previous Calibration	January 16, 2018
Station Number	3	Station Location	Smokey Heights
Start Time (MST)	10:35	End Time (MST)	12:35
Analyzer make/model	Teco 43i	Analyzer serial #	701120009

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.8	N/A	Correlation Coefficient	0.999978
393.4	391.4	1.0051		
197.5	196.2	1.0066		
99.0	97.4	1.0167		
			Slope	1.005761
			Intercept	0.037595



Smokey Heights SO₂ Calibration



Calibration Report



Parameter TRS

AIR QUALITY MONITORING

Air Monitoring Network PAZA

Station Information

Calibration Date	February 16, 2018	Previous Calibration	January 16, 2018
Station Number	3	Station Location	Smokey Heights
Reason:	Routine	Install	Removal
			Other:
Start Time (MST)	9:15	End Time (MST)	11:45
Barometric Pressure	0.923 ATM	Station Temperature	19.0 Deg C
Calibrator	EnviroNics 6103	Serial Number	6586
Cal Gas Conc	10.2 ppm	Cal Gas Expiry Date	02/23/2019
Correction factor	0.031483	Cal Gas Cylinder #	EY00003480
DACS make	CR3000	DACS serial No.	5238
DACS voltage range	0 - 5 volt	DACS channel #	5
	<u>Before</u>		<u>After</u>
Calculated slope	0.998389	Calculated slope	1.019658
Calculated intercept	-0.387573	Calculated intercept	-0.839714

Analyzer make TEI Model 43I APSAA Analyzer serial # 1153630151

	before		after	
Concentration range	100	ppb	100	ppb
Background	14.2	ppb	14.2	ppb
coefficient	1.027		1.027	
Lamp Voltage	814	volts	813	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	669.7	mm Hg	673.1	mm Hg
Sample Flow	0.420	lpm	0.421	lpm
Lamp Intensity	93	mv	93	mv

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)
4996	0.0	0.00	0.8	N/A
4996	39.94	80.90	80.1	1.0102
4996	19.97	40.61	40.9	0.9936
6998	9.99	14.54	14.9	0.9741
4996	9.99		0.9	Sox test
4996	0.0	0.00	0.8	As Found Zero
4996	39.94	80.90	80.1	As Found Span
Average Correction Factor				0.9927

Calculated value of As Found Response: 78.72 ppb Percent Change of As Found: 2.7%

	before calibration		after calibration	
Auto zero	0.7	ppb	0.8	ppb
Auto span	66.1	ppb	63.9	ppb

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter TRS

Air Monitoring Network PAZA



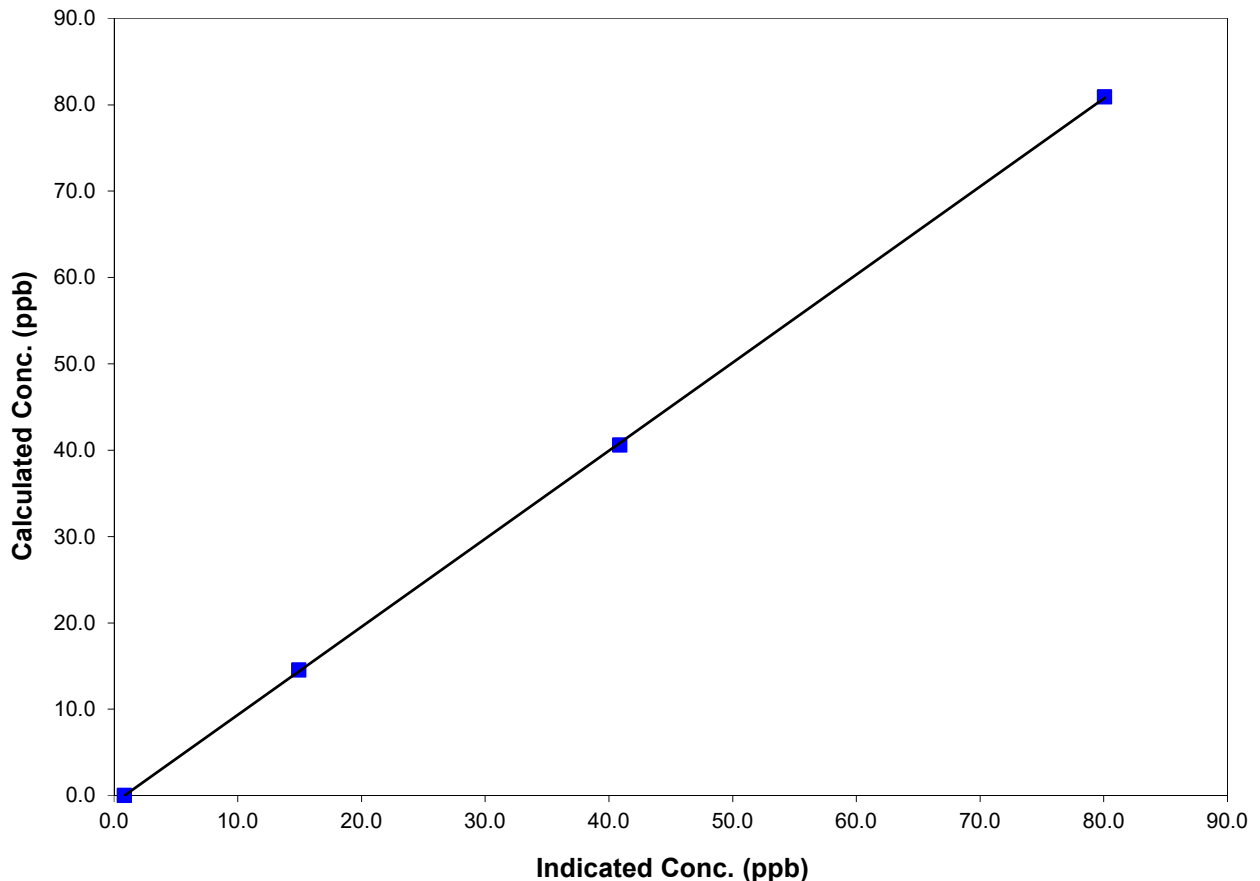
Station Information

Calibration Date	February 16, 2018	Previous Calibration	January 16, 2018
Station Number	3	Station Location	Smokey Heights
Start Time (MST)	9:15	End Time (MST)	11:45
Analyzer make/model	TEI Model 43I APSAA	Analyzer serial #	1153630151

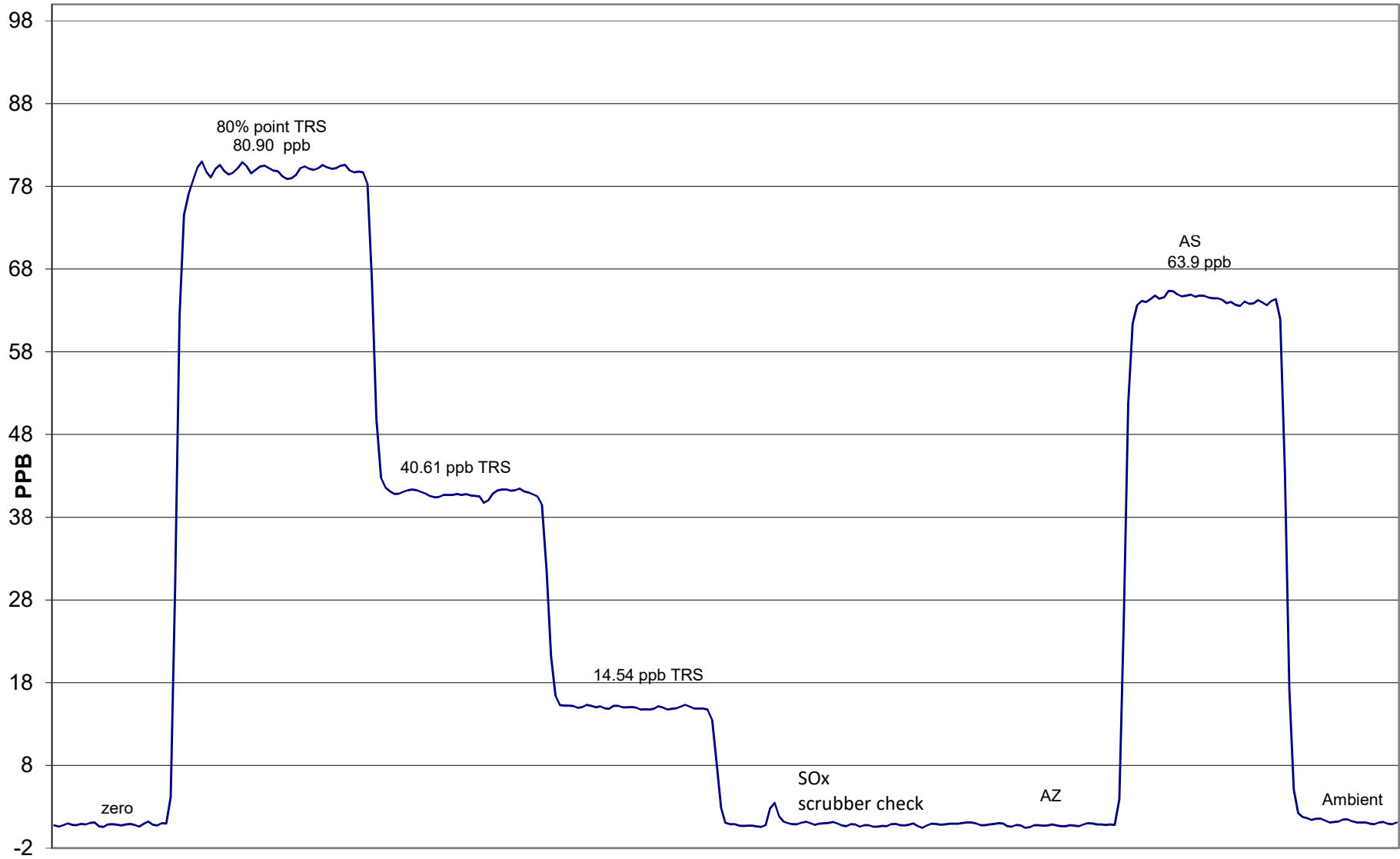
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
			0.0	0.8
80.9	80.1	1.0102	Correlation Coefficient	0.999978
40.6	40.9	0.9936		
14.5	14.9	0.9741		
			Slope	1.019658
			Intercept	-0.839714

TRS Calibration Curve



Smokey Heights TRS Calibration



February 16, 2018

Calibration Report



Parameter SO2
 Air Monitoring Network PAZA

Station Information

Calibration Date	February 7, 2018	Previous Calibration	January 6, 2018
Station Number	4	Station Location	Beaverlodge
Reason:	Routine	Install	Removal
		Other:	
Start Time (MST)	12:30	End Time (MST)	14:35
Barometric Pressure	0.921 atm	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3016
Cal Gas Concentratio	10.5 ppm	Cal Gas Expiry Date	12/01/2019
Gas Cert Reference	FF16108		
DACS make	CR3000	DACS serial No.	5237
DACS voltage range	0 - 5 volt	DACS channel #	5
	<u>Before</u>		<u>After</u>
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.998817	Calculated slope	1.005594
Calculated intercept	0.175073	Calculated intercept	0.134465
Analyzer make	TEI Model 43i-TLE	Analyzer serial #	713021137

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	2.88		2.84	
Coefficient	0.975		0.975	
PMT	-767.4	V	-768.2	V
UV Lamp Voltage	1133	V	1135	V
Chamber Temp	45.3	Deg C	45.1	Deg C
Pressure	672.2	mm Hg	667.6	mm Hg
Sample Flow	0.493	LPM	0.486	LPM
Lamp Intensity	94	%	94	%

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.0	0.1	N/A
4995	39.94	83.3	82.8	1.0060
4995	19.97	41.8	41.4	1.0106
4995	9.97	20.9	20.4	1.0245
4995	0.00	0.0	0.1	As found zero
4995	39.94	83.3	82.8	As found span
Average Correction Factor				1.0137

Calculated value of As Found Response: 82.779 ppm Percent Change of As Found: 0.6%

	before calibration		after calibration	
Auto zero	0.2	ppb	0.2	ppb
Auto span	60.0	ppb	58.9	ppb

Notes: No adjustments needed.

Calibration Performed By: Grover Christiansen

Calibration Summary



Parameter SO2
Air Monitoring Network PAZA

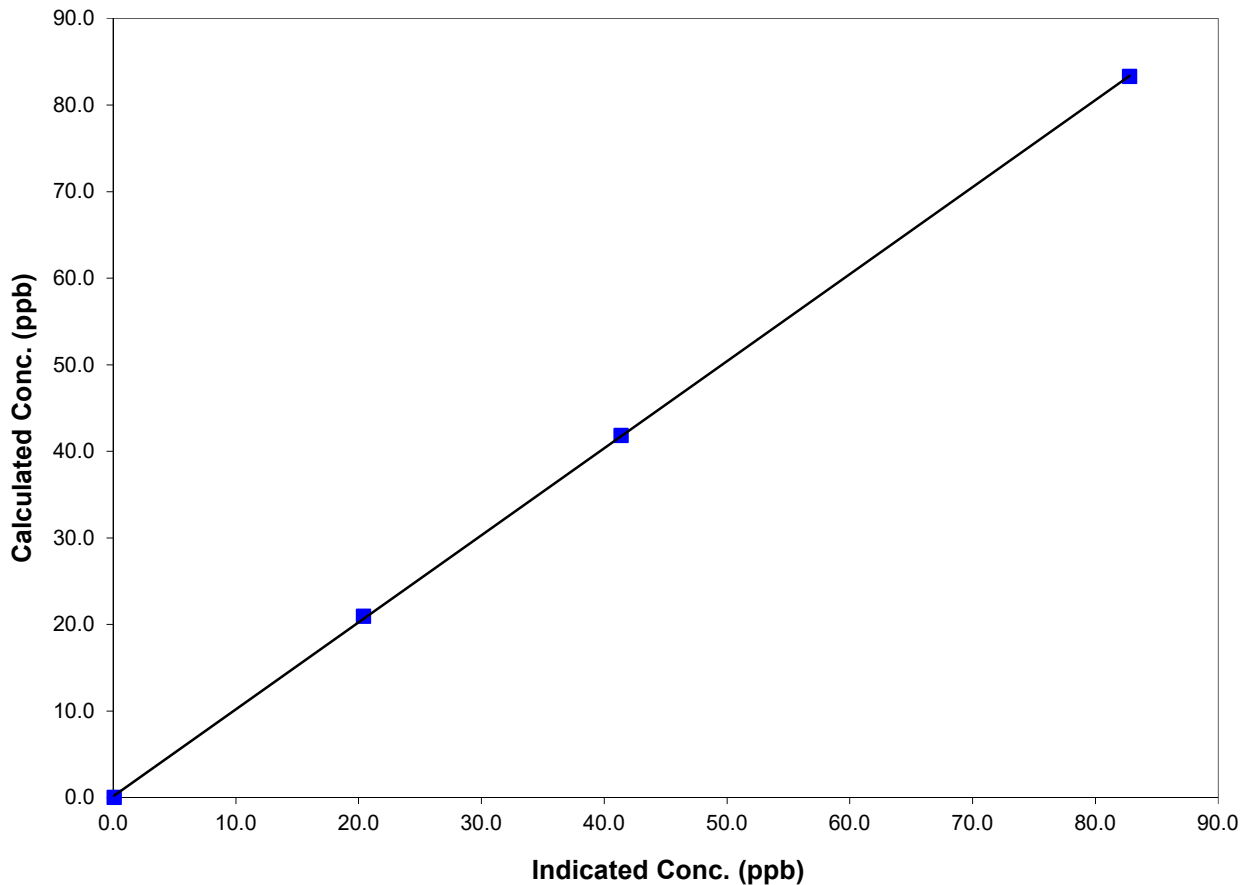
Station Information

Calibration Date	February 7, 2018	Previous Calibration	January 6, 2018
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	12:30	End Time (MST)	14:35
Analyzer make/model	TEI Model 43i-TLE	Analyzer serial #	713021137

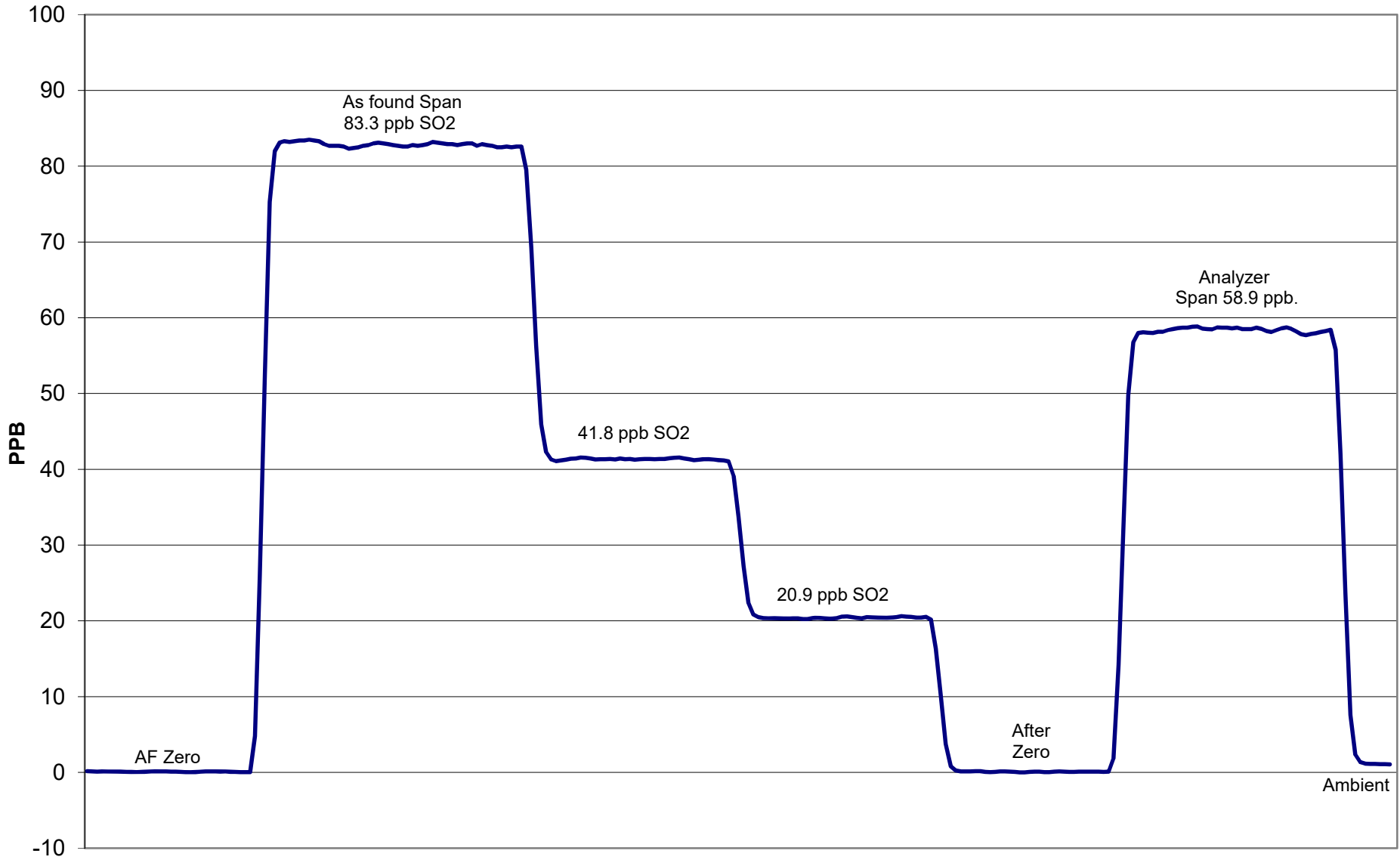
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A	Correlation Coefficient	0.999966
83.3	82.8	1.0060		
41.8	41.4	1.0106		
20.9	20.4	1.0245	Slope	1.005594
			Intercept	0.134465

SO2 Calibration Curve



SO2 Calibration



February 7, 2018

Calibration Report

Parameter
Air Monitoring Network

NO_x-NO-NO₂
PAZA



Station Information

Calibration Date	February 7, 2018	Previous Calibration	January 6, 2018
Station Number	4	Station Location	Beaverlodge
Reason:	Routine Installation Removal Other:		
Start Time (MST)	8:15	End Time (MST)	12:20
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	February 2, 2019
NOx Cal Gas Conc	52 ppm	Cal Gas Serial #	EY0000751

DACS Information

DACS make	CR3000	DACS serial No.	5237	
	Parameter	NO2	NOx	NO
Before	Data Slope	1.003338	1.003979	1.001054
	Data Offset	0.209567	0.408329	0.692265
After	Data Slope	1.005371	1.032093	1.028558
	Data Offset	1.334706	1.808488	1.973485
	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	2.7	mV
NOx bkgnd	3.0	mV	3.0	mV
NO coefficient	1.032		1.032	
NOx coefficient	0.999		0.999	
NO2 conv temp	324.2	Deg C	325.3	Deg C
PMT Temp	-3.0	Deg C	-3.0	Deg C
PMT Volt	-742.6	mV	-742.6	mV
R Cell Press	210.9	in Hg	210.9	in Hg
Sample Flow	0.706	LPM	0.706	LPM

Notes:

Calibration Report



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

Station Information

Calibration Date: February 7, 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	-0.2	-0.2	N/A	N/A	
1	4995	39.94	412.5	411.7	0.8	398.7	399.3	-1.3	1.0347	1.0311	
2	4995	19.97	207.1	206.7	0.4	198.0	197.9	-0.7	1.0456	1.0446	
3	4995	9.97	103.6	103.4	0.2	97.2	97.1	0.0	1.0653	1.0642	
AFZ	4995	0.00	0.0	0.0	0.0	-0.3	-0.2	-0.2	0.0000	0.0000	
AFS	4995	39.94	412.5	411.7	0.8	397.5	397.5	-1.8	1.0377	1.0358	
									Average Correction Factor	1.0485	1.0466

As Found Concentrations: NO_x= 399.8 NO= 398.8 As Found Percent Change NO_x= -3.1% NO= -3.1%

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	-0.2	N/A	N/A	N/A	N/A	
NO point	400.6	396.9	3.7	396.4	396.9	-1.2	1.0105	1.0000	N/A	N/A	
300	400.6	91.6	309.0	399.1	91.6	306.9	1.0038	1.0000	1.0066	99.3%	
200	400.6	187.1	213.5	398.3	187.1	210.4	1.0057	1.0000	1.0145	98.6%	
100	400.6	282.7	117.9	397.8	282.7	114.5	1.0070	1.0000	1.0299	97.1%	
							Average Correction Factor	1.0055	1.0000	1.0170	98.3%

AIC Data

Parameter	Previous calibration				Current calibration			
	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	0.0	-0.1	-0.1	ppb	-0.3	-0.2	-0.2	ppb
Auto span	302.2	298.9	2.6	ppb	296.1	294.1	1.3	ppb

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter NO₂

Air Monitoring Network PAZA



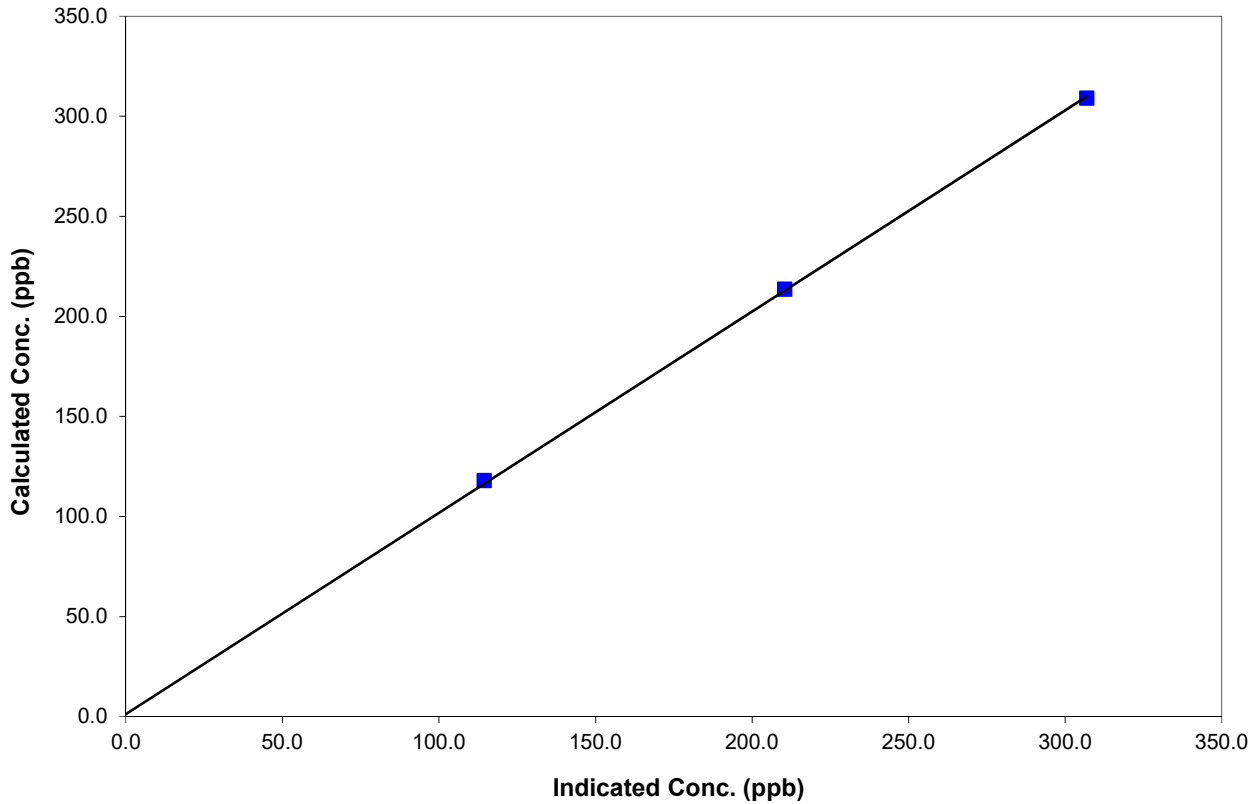
Station Information

Calibration Date	February 7, 2018	Previous Calibration	January 6, 2018
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	8:15	End Time (MST)	12:20
Analyzer make	TEI 42i	Analyzer serial #	906535068

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.2	N/A		
309.0	306.9	1.0066	Correlation Coefficient	0.999911
213.5	210.4	1.0145		
117.9	114.5	1.0299		
			Slope	1.005371
			Intercept	1.334706

NO₂ Calibration Curve



Calibration Summary

Parameter NO_x

Air Monitoring Network PAZA



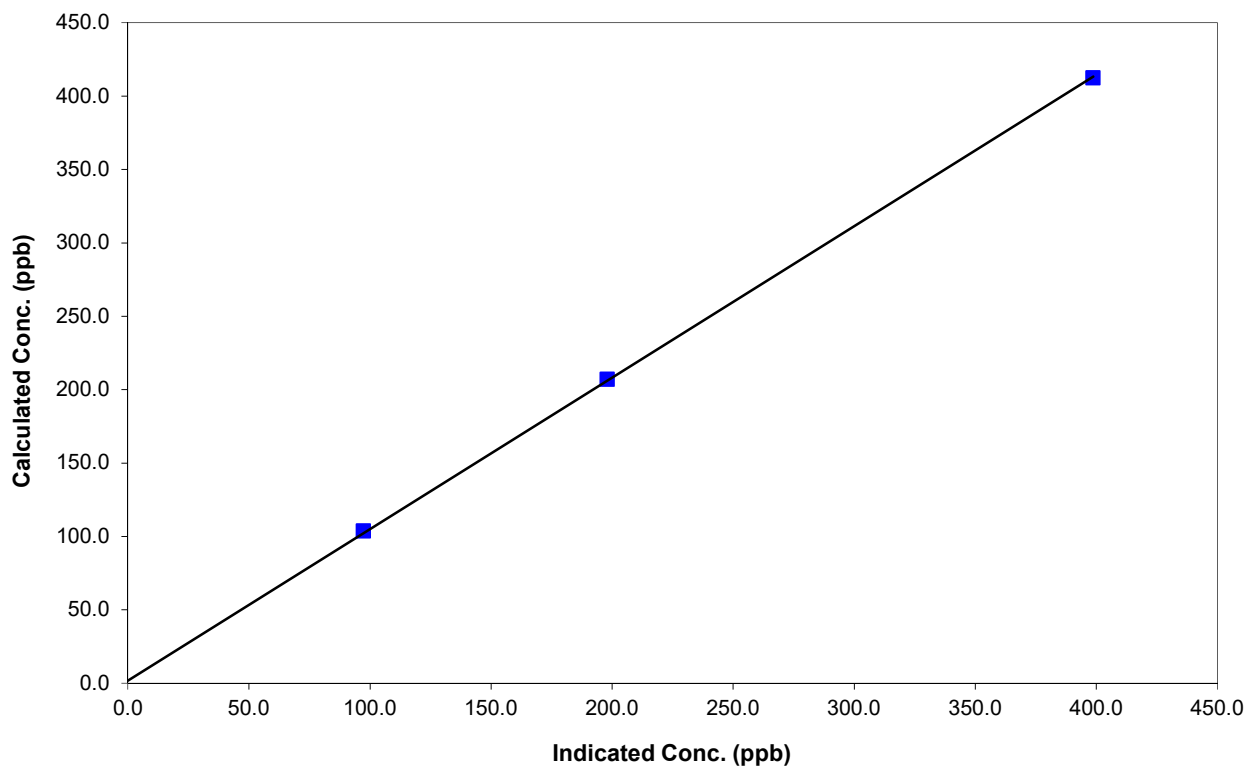
Station Information

Calibration Date	February 7, 2018	Previous Calibration	January 6, 2018
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	8:15	End Time (MST)	12:20
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		
412.5	398.7	1.0347	Correlation Coefficient	0.999939
207.1	198.0	1.0456		
103.6	97.2	1.0653		
			Slope	1.032093
			Intercept	1.808488

NO_x Calibration Curve



Calibration Summary

Parameter NO

Air Monitoring Network PAZA



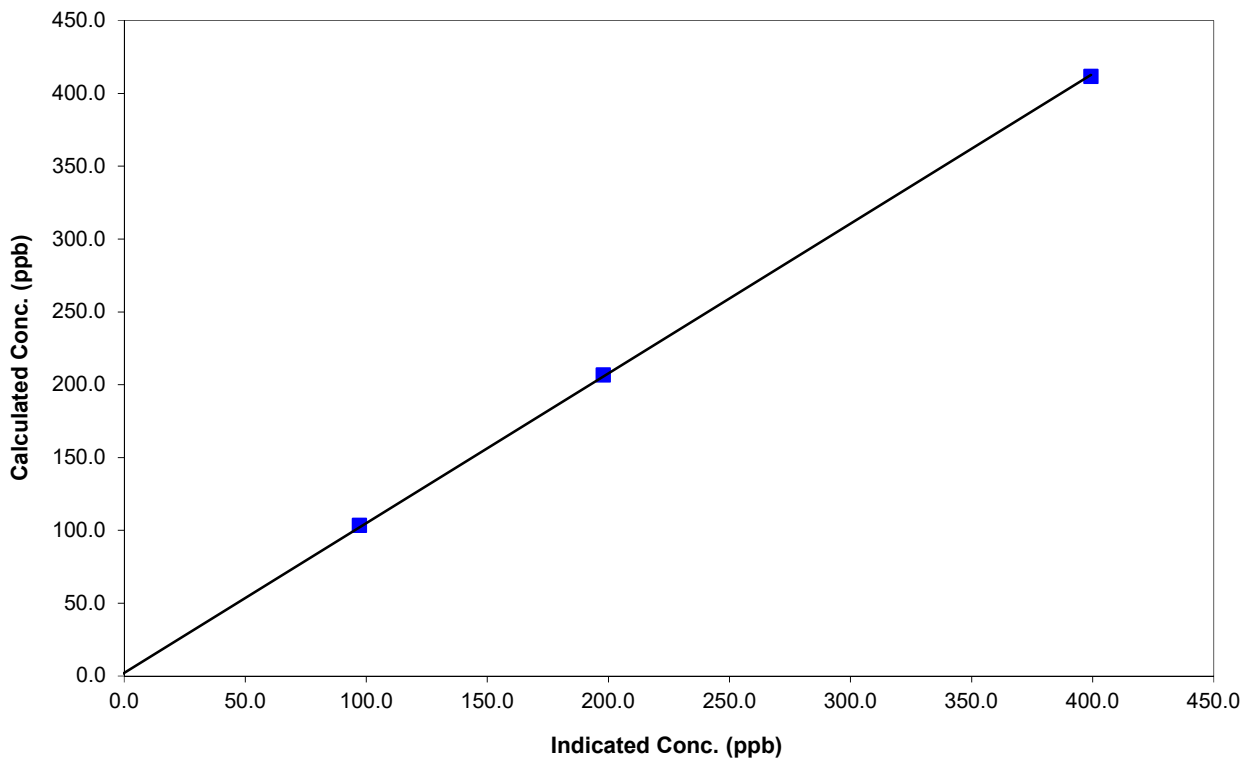
Station Information

Calibration Date	February 7, 2018	Previous Calibration	January 6, 2018
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	8:15	End Time (MST)	12:20
Analyzer make	TEI 42i	Analyzer serial #	906535068

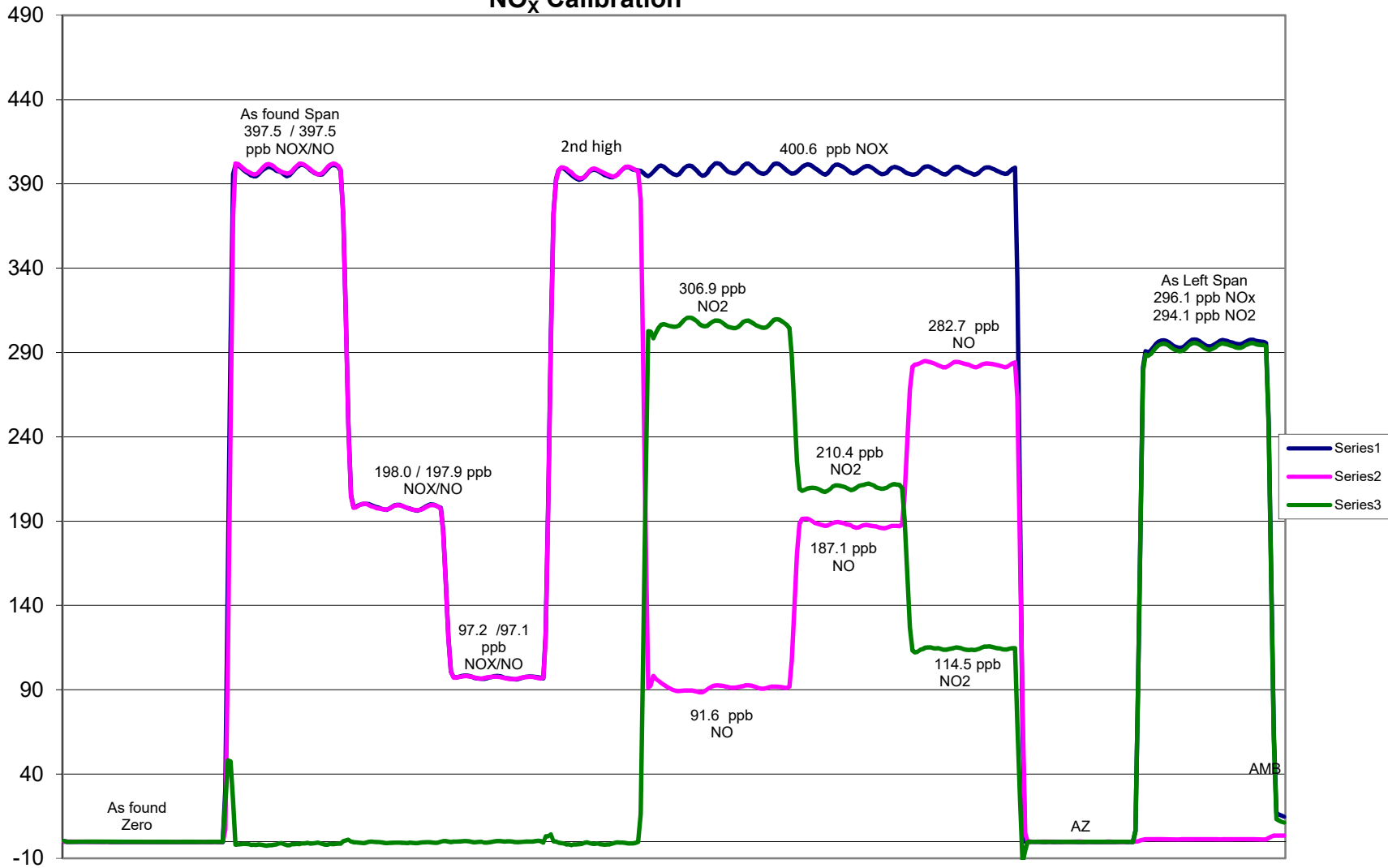
Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.2	N/A		
411.7	399.3	1.0311	Correlation Coefficient	0.999918
206.7	197.9	1.0446		
103.4	97.1	1.0642		
			Slope	1.028558
			Intercept	1.973485

NO Calibration Curve

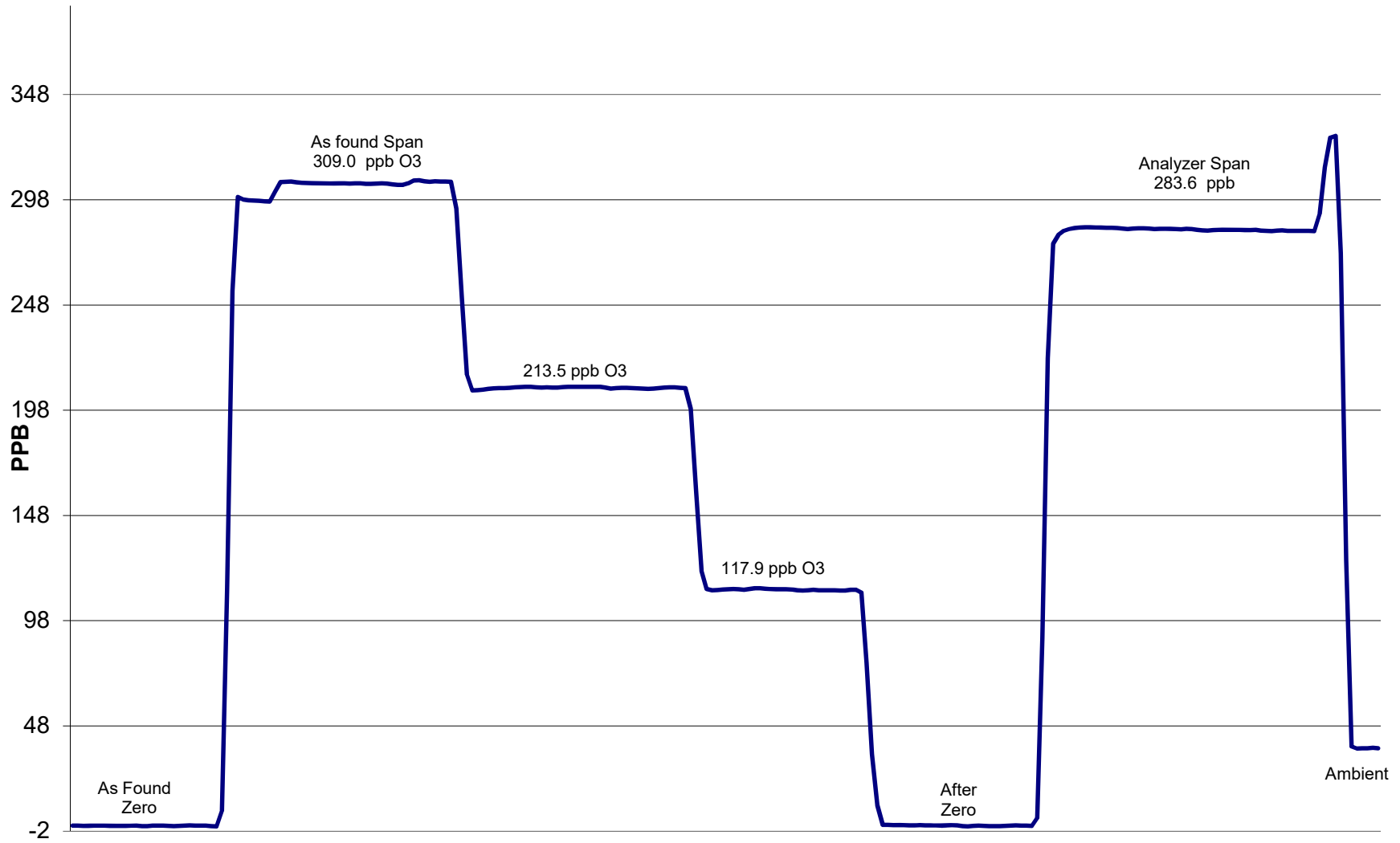


NO_x Calibration



February 7, 2018

O3 Calibration



February 7, 2018

Calibration Report



AIR QUALITY MONITORING

Parameter SO2
Air Monitoring Network _____

PAZA

Station Information

Calibration Date	February 14, 2018	Previous Calibration	January 27, 2018
Station Number	6	Station Location	Valleyview
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
Other:			
Start Time (MST)	14:05:00 PM	End Time (MST)	16:25:00 PM
Barometric Pressure	0.929 atm	Station Temperature	22.0 Deg C
Calibrator	EnviroNics	Serial Number	3016
Cal Gas Concentration	49.6 ppm	Cal Gas Exp Date	February 21, 2020
Gas Cylinder Num.	EY0000751		
DACS make	CR3000	DACS serial No.	5409
DACS voltage range	0 - 5 volt	DACS channel #	4
	<u>Before</u>		<u>After</u>
DACS Scale High	500	DACS slope	500
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.998788	Calculated slope	0.994262
Calculated intercept	1.766036	Calculated intercept	0.443319
Analyzer make	TEI Model 43i - APSCB	Analyzer serial #	701120010

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Background	7.2		7.3	
Coefficient	0.843		0.861	
UV Lamp Voltage	796	LPM	797	LPM
Chamber Temp	44.8	V	45	V
Perm Gas Temp	45	C	45	C
Pressure	681.8	in Hg	684	in Hg
Sample Flow	0.459	LPM	0.460	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	0.5	N/A
4995	39.94	393.5	395.6	0.9947
4995	19.97	197.5	198.3	0.9959
4995	9.97	98.8	97.5	1.0129
4995	0.00	0.0	0.5	As found zero
4995	39.94	393.5	384.0	As found span
Average Correction Factor				1.0012

Calculated value of As Found Response: 384.7 ppb Percent Change of As Found: 2.2%

	before calibration		after calibration	
Auto zero	0.1	ppb	0.7	ppb
Auto span	261.0	ppb	267.7	ppb

Notes: Slight span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter SO2
 Air Monitoring Network PAZA

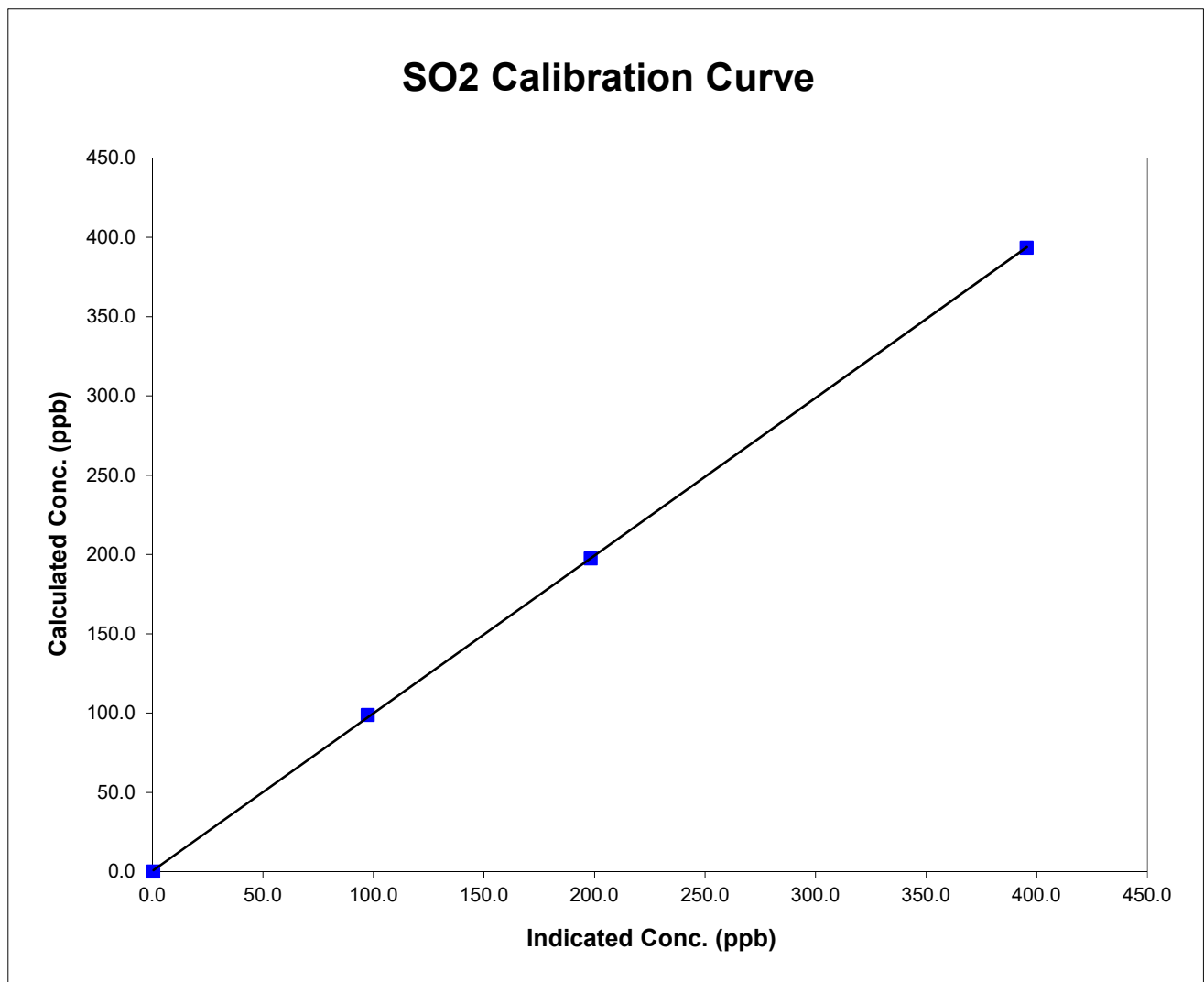


Station Information

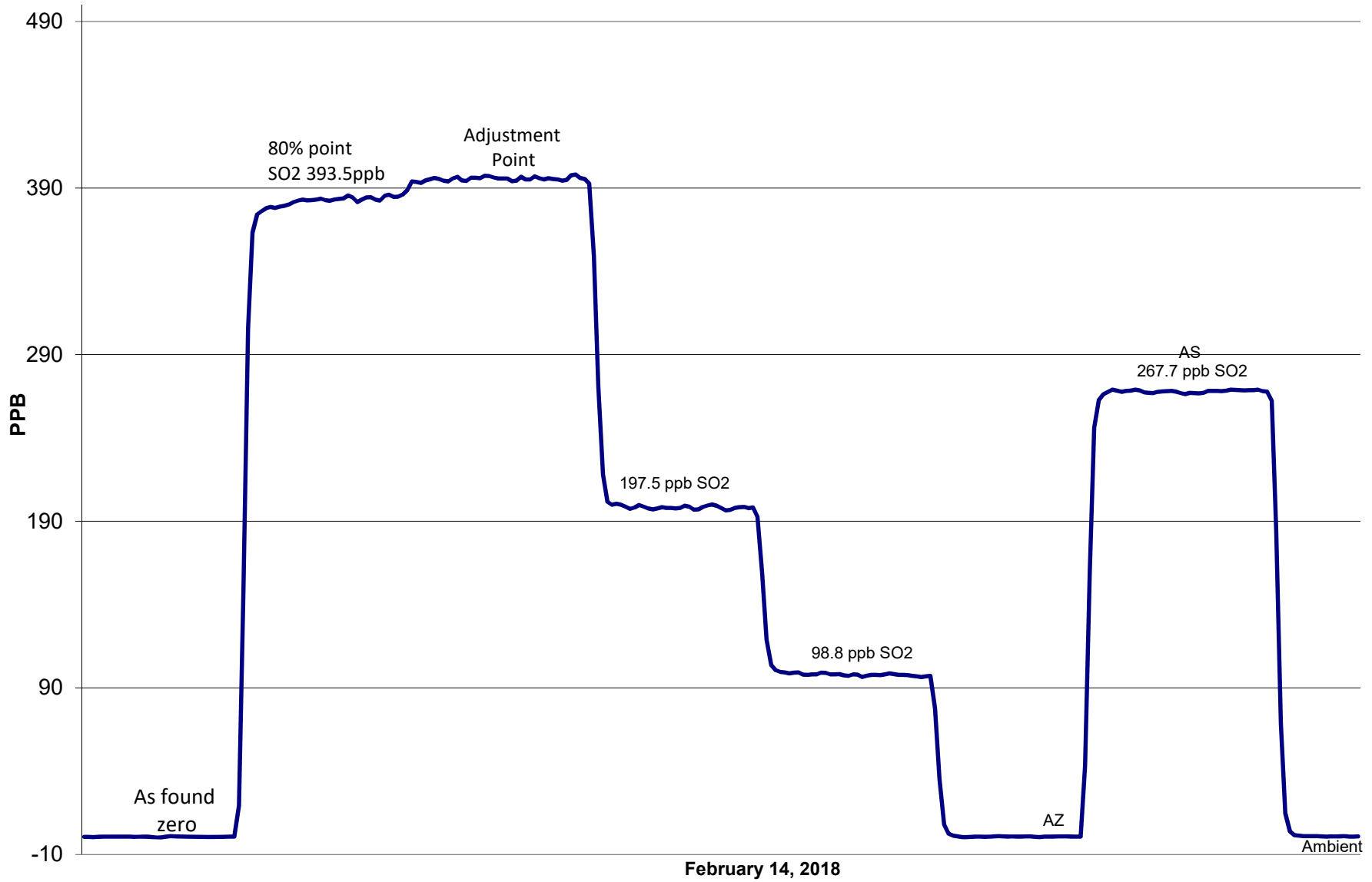
Calibration Date	<u> February 14, 2018 </u>	Previous Calibration	<u> January 27, 2018 </u>
Station Number	<u> 6 </u>	Station Location	<u> Valleyview </u>
Start Time (MST)	<u> 14:05:00 PM </u>	End Time (MST)	<u> 16:25:00 PM </u>
Analyzer make/model	<u> TEI Model 43i - APSCB </u>	Analyzer serial #	<u> 701120010 </u>

Calibration Data

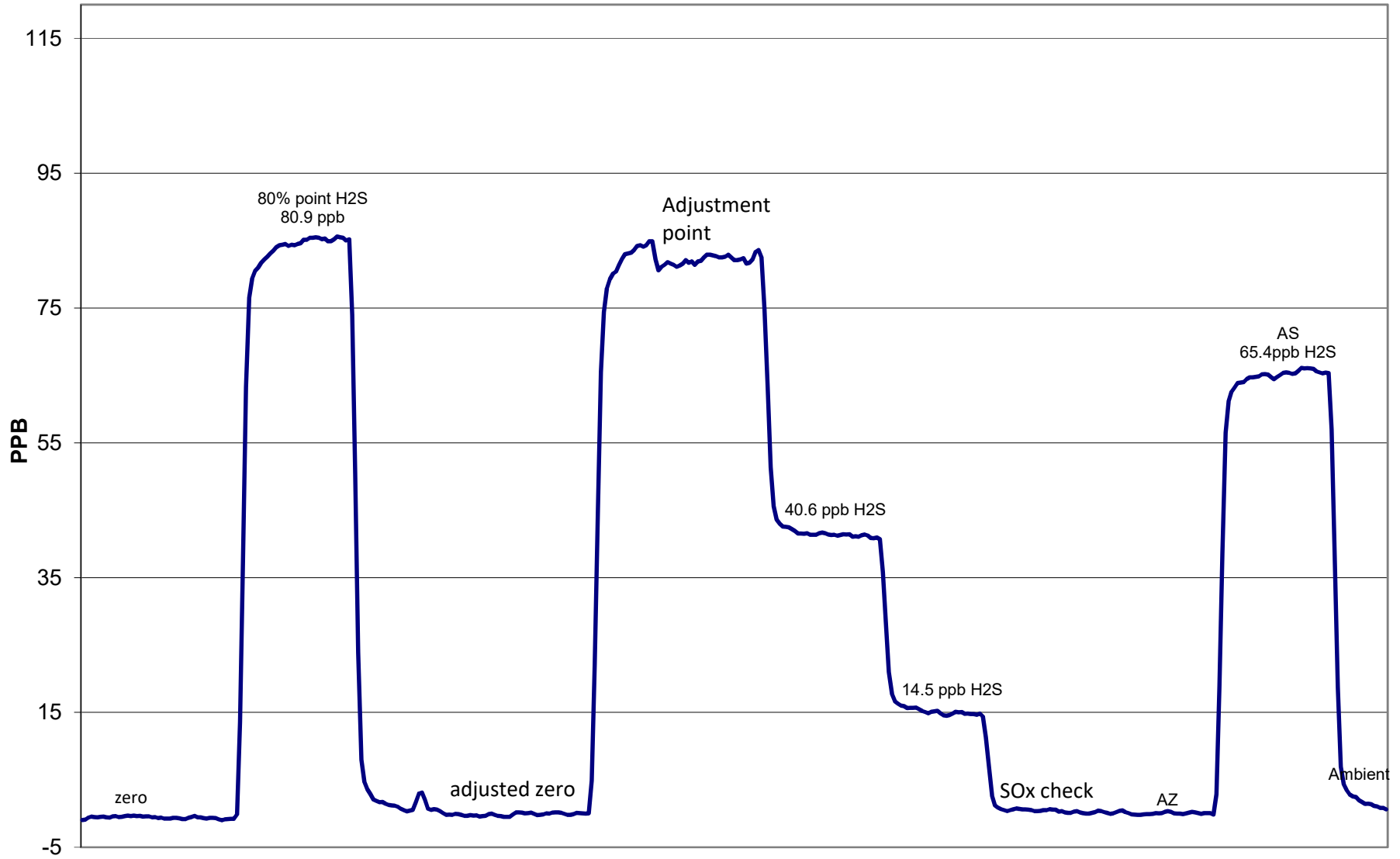
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation			
0.0	0.5	N/A	Correlation Coefficient	0.999965		
393.5	395.6	0.9947				
197.5	198.3	0.9959			Slope	0.994262
98.8	97.5	1.0129				
			Intercept	0.443319		



SO2 Calibration



H2S Calibration



February 14, 2018

Calibration Report

Parameter SO₂

Air Monitoring Network PAZA



Station Information

Calibration Date	February 21, 2018	Previous Calibration	January 19, 2018
Station Number	1	Station Location	Donnelly
Reason:	Routine	Install	Removal
			Other:
Start Time (MST)	13:05:00 PM	End Time (MST)	15:05:00 PM
Barometric Pressure	0.926 atm	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6103	Serial Number	6586
Cal Gas Concentration	49.6 ppm	Cal Gas Expiry Date	10/24/2020
Correction factor	0.031477	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	1.012544	Calculated slope	0.990487
Calculated intercept	-0.098492	Calculated intercept	-0.837822
Analyzer make	Teco 43i	Analyzer serial #	1207452008

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	6.7		6.7	
coefficient	1.020		1.020	
Lamp Voltage	868	volts	867	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	657.8	mm Hg	677	mm Hg
Sample Flow	0.431	ccm	0.432	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)
4997	0.0	0.00	1.1	N/A
4997	39.96	393.5	398.1	0.9885
4997	19.98	197.5	200.6	0.9847
4997	10.01	99.2	100.4	0.9873
4997	0.0	0.0	1.1	As Found Zero
4997	39.99	393.8	398.1	As Found Span
Average Correction Factor				0.9868

Calculated value of As Found Response: 401.890 ppb Percent Change of As Found: **-2.1%**

	before calibration		after calibration	
Auto zero	0.9	ppb	1.2	ppb
Auto span	248.6	ppb	247.2	ppb

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary



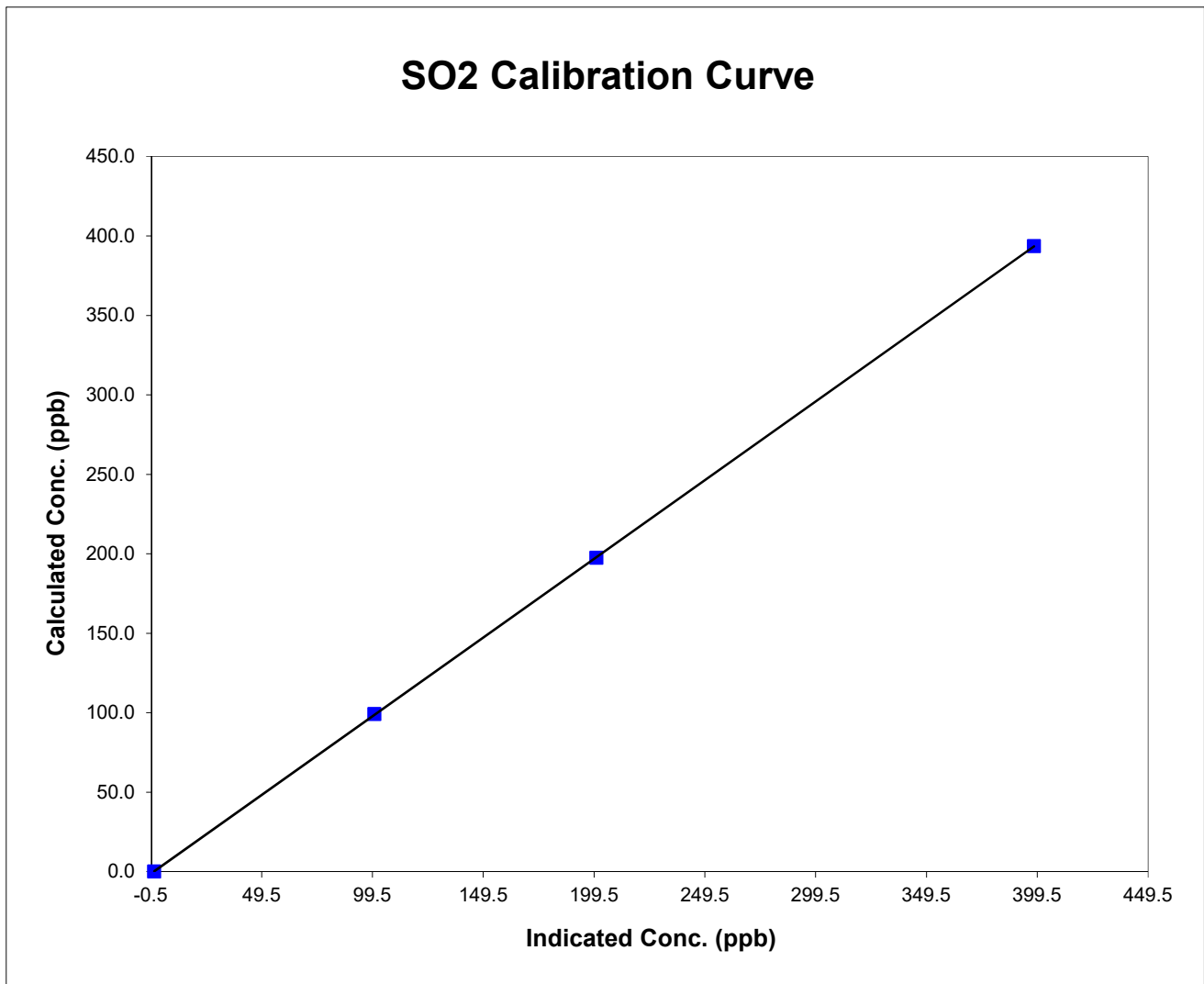
Parameter **SO2**
 Air Monitoring Network **PAZA**

Station Information

Calibration Date	<u> </u> February 21, 2018	Previous Calibration	<u> </u> January 19, 2018
Station Number	<u> </u> 1	Station Location	<u> </u> Donnely
Start Time (MST)	<u> </u> 13:05:00 PM	End Time (MST)	<u> </u> 15:05:00 PM
Analyzer make/model	<u> </u> Teco 43i	Analyzer serial #	<u> </u> 1207452008

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	1.1	N/A		
393.5	398.1	0.9885	Correlation Coefficient	0.999995
197.5	200.6	0.9847		
99.2	100.4	0.9873		
			Slope	0.990487
			Intercept	-0.837822

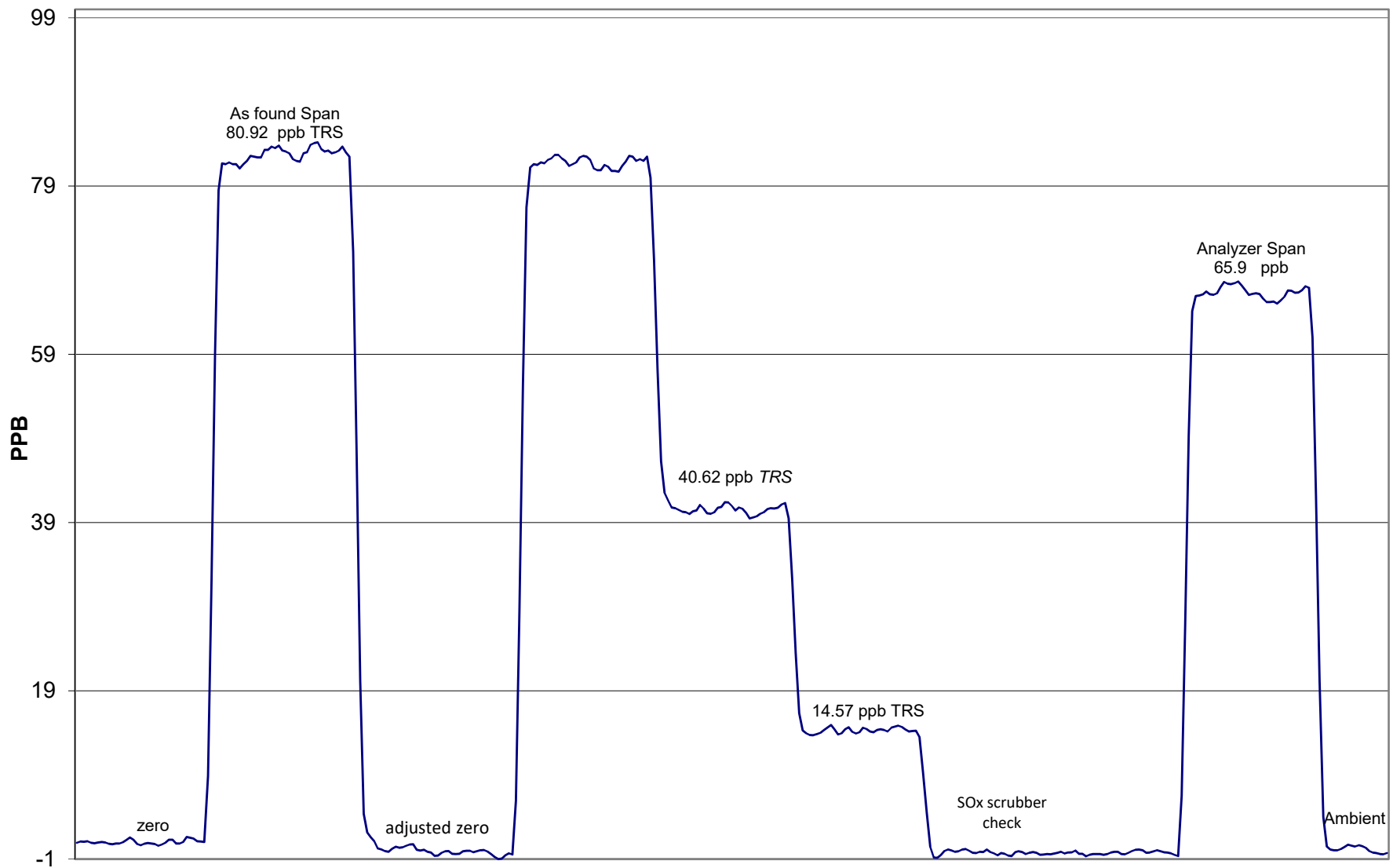


SO2 Calibration



February 21, 2018

H2S Calibration



February 21, 2017

Calibration Report

Parameter SO2
 Air Monitoring Network _____



PAZA

Station Information

Calibration Date	February 8, 2018	Previous Calibration	January 8, 2018
Station Number	10	Station Location	Rycroft
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	8:20	End Time (MST)	10:55
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	10/24/2020
Gas Cert Reference	LL107945		
DACS make	CR3000	DACS serial No.	5407
DACS voltage range	0 - 5 Volt	DACS channel #	2
	Before		After
DACS Scale High	500	DACS slope	500
DACS Scale Low	0	DACS intercept	0
Calculated slope	1.010826	Calculated slope	0.994743
Calculated intercept	0.144431	Calculated intercept	-0.117529
Analyzer make	TEI 43C	Analyzer serial #	436610005

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Background	23.2		24	
Coefficient	1.042		1.076	
UV Lamp Voltage	902	V	902	V
Chamber Temp	44.4	C	44.5	C
Perm Gas Temp	45	C	45	C
Pressure	689.6	mm Hg	692.2	mm Hg
Sample Flow	0.470	LPM	0.470	LPM
Lamp Intesity	30308	Hz	30627	Hz

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)
4996	0.00	0.0	0.3	N/A
4996	39.96	393.6	395.9	0.9941
4996	19.99	197.7	198.6	0.9953
4996	9.98	98.9	99.5	0.9940
4996	0.00	0.0	0.3	As found zero
4996	39.96	393.6	382.3	As found span
Average Correction Factor				0.9945

Calculated value of As Found Response: 386.314 ppb Percent Change of As Found: 1.8%

	before calibration		after calibration	
Auto zero	0.3	ppb	0.3	ppb
Auto span	201.7	ppb	200.2	ppb

Notes: Span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary



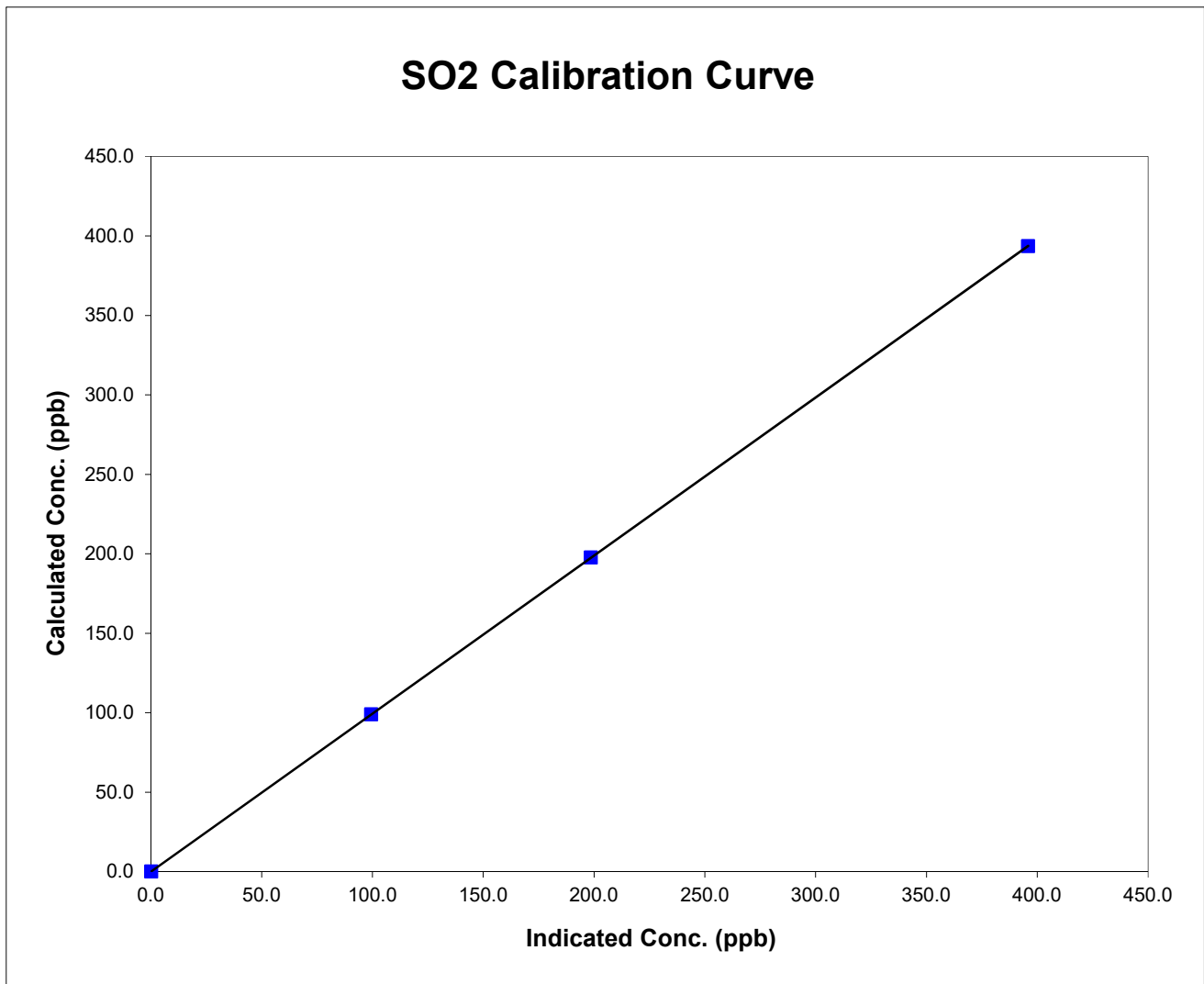
Parameter SO2
 Air Monitoring Network PAZA

Station Information

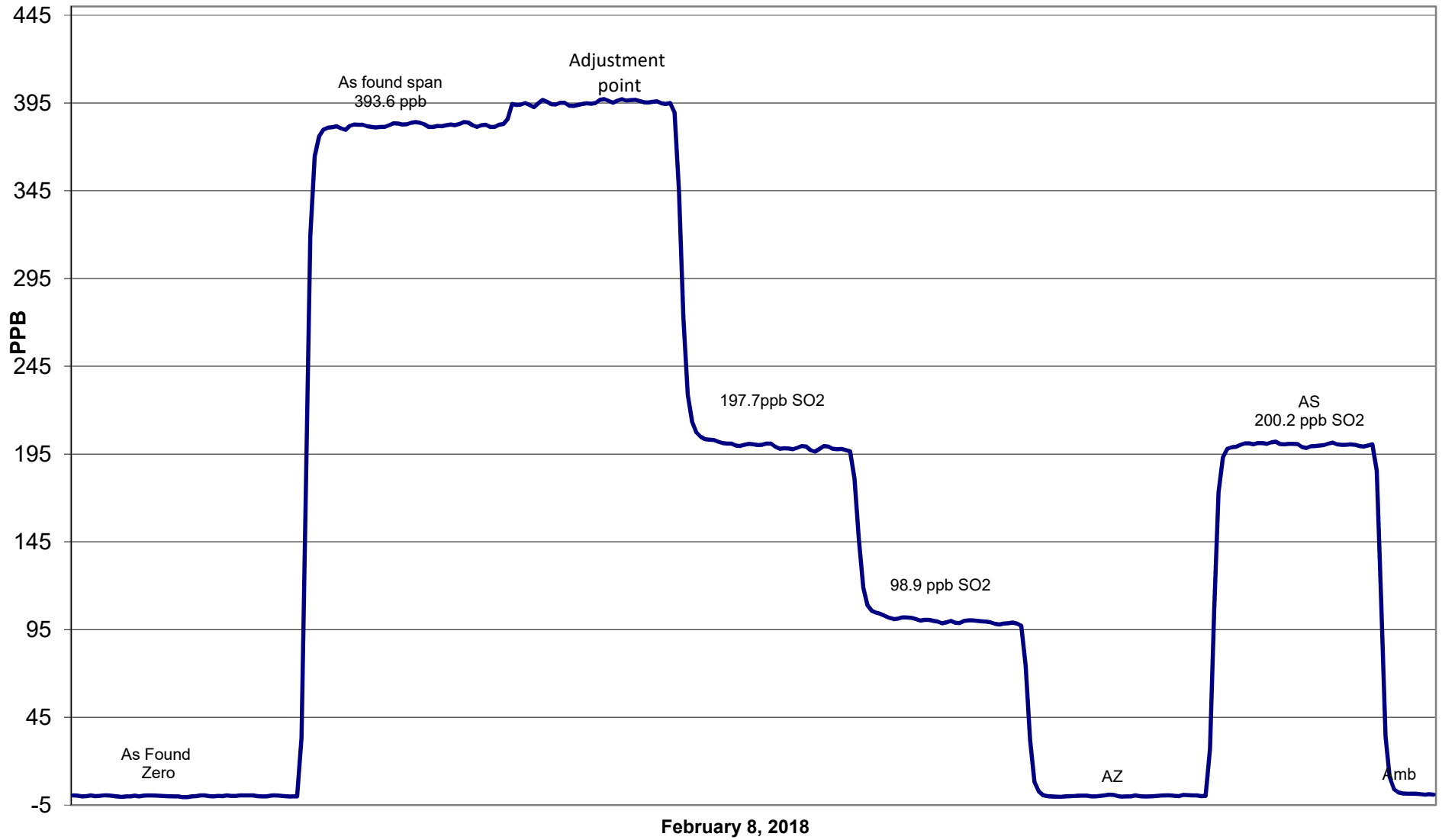
Calibration Date	February 8, 2018	Previous Calibration	January 8, 2018
Station Number	10	Station Location	Rycroft
Start Time (MST)	8:20	End Time (MST)	10:55
Analyzer make/model	TEI 43C	Analyzer serial #	436610005

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	N/A	Correlation Coefficient	0.999999
393.6	395.9	0.9941		
197.7	198.6	0.9953		
98.9	99.5	0.9940	Slope	0.994743
			Intercept	-0.117529



SO2 Calibration



Calibration Report



Parameter TRS
 Air Monitoring Network PAZA

Station Information

Calibration Date	February 9, 2018	Previous Calibration	January 8, 2018
Station Name	PAZA Rover	Station Location	Rycroft
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	10:10 AM	End Time (MST)	13:00:00 PM
Barometric Pressure	0.919 mbar	Station Temperature	21.0 Deg C
Calibrator	EnviroNics 6103	Serial Number	6586
Cal Gas Concentration	10.2 ppm	Cal Gas Expiry Date	02/02/2020
Gas Cert Reference	EY0000340		
DACS make	CR3000	DACS serial No.	5407
DACS voltage range	0 - 5 Volt	DACS channel #	1
	<u>Before</u>		<u>After</u>
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.989011	Calculated slope	0.994101
Calculated intercept	0.230289	Calculated intercept	0.147981
Analyzer make	TEI 43C	Analyzer serial #	

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	11.1	ppb	11.2	ppb
Coefficient	1.084		1.104	
Lamp Voltage	784	V	784	V
Chamber Temp	45.1	C	45	C
Perm gas Temp	45	C	45	C
Pressure	684.8	mmHg	682.0	mmHg
Sample Flow	0.394	lpm	0.393	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	0.2	N/A
4996	39.96	80.9	81.4	0.9942
4998	20.01	40.7	40.6	1.0022
6996	9.97	14.5	14.2	1.0236
			0.5	Sox Test
4996	0.00	0.0	0.2	As found zero
4996	39.96	80.9	79.4	As found span
Average Correction Factor				1.0067

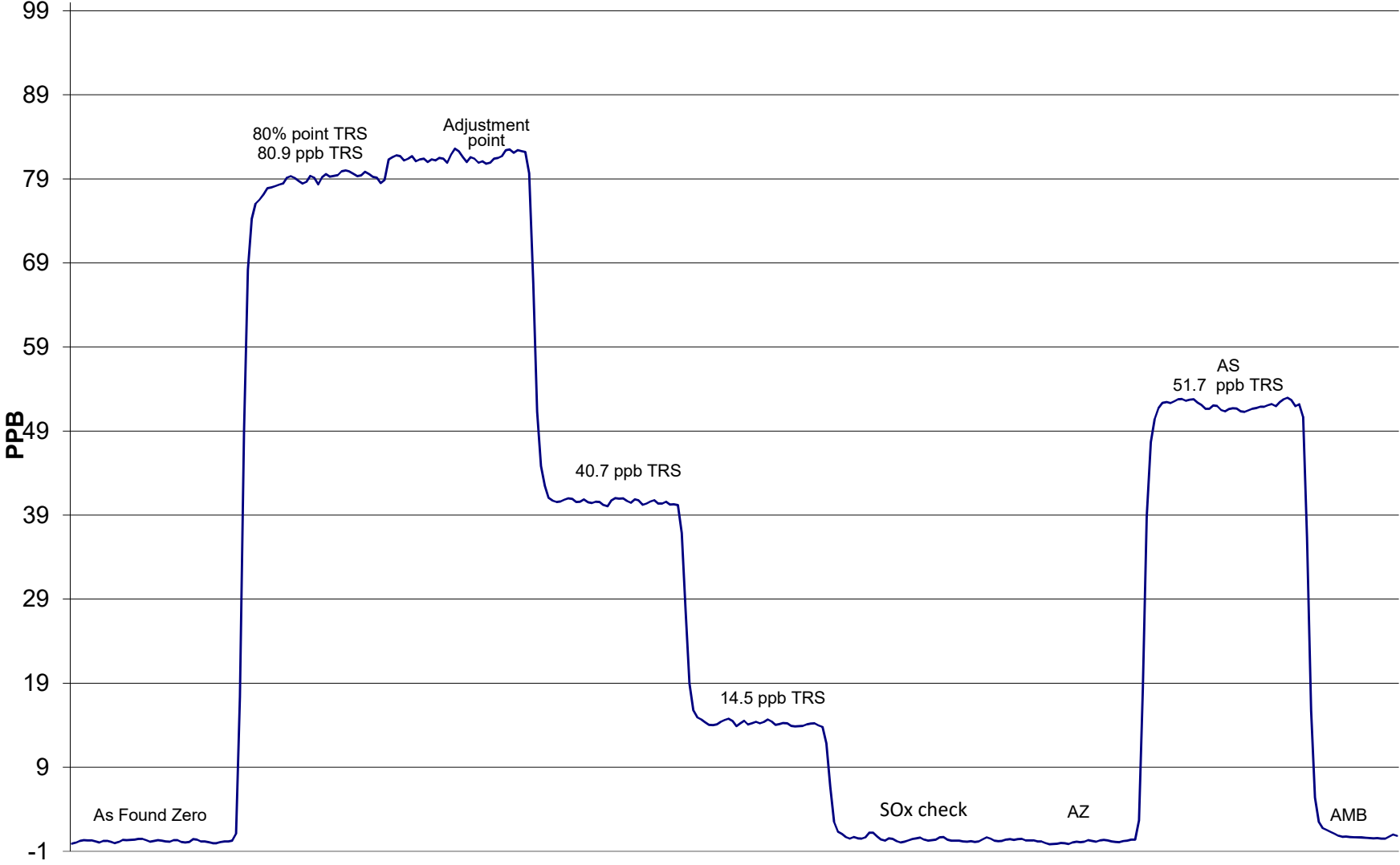
Calculated value of As Found Response: 78.54 ppb Percent Change of As Found: 3.0%

	before calibration		after calibration	
Auto zero	0.2	ppb	0.2	ppb
Auto span	53.8	ppb	51.7	ppb

Notes: Slight span adjustment made

Calibration Performed By: Dmytro Dolotii

TRS Calibration



February 9, 2018

Calibration Report



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

Station Information

Calibration Date	February 8, 2018	Previous Calibration	January 8, 2018
Station Number	10	Station Location	Rycroft
Reason:	Routine Installation Removal Other:		
Start Time (MST)	8:30	End Time (MST)	12:15
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	0.994605	1.009473	1.013588
	Data Offset	-0.793971	0.459866	0.264779
After	Data Slope	0.995467	0.999553	1.000902
	Data Offset	-0.499292	0.620711	0.740108
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	6.3	mV	6.2	mV
NOx bkgnd	6.4	mV	6.3	mV
NO coefficient	0.995		0.995	
NOx coefficient	1.001		1.001	
NO2 conv temp	323.3	Deg C	323.6	Deg C
PMT Temp	-3.0	Deg C	-3.0	Deg C
PMT Volt	-835.1	mV	-834.7	mV
R Cell Press	172.3	in Hg	169.3	in Hg
Sample Flow	0.918	LPM	0.920	LPM

Notes: No adjustment made

Calibration Report



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

Station Information

Calibration Date: February 8, 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	-0.1	-0.1	0.1	N/A	N/A	
1	4996	39.96	412.6	411.8	0.8	412.4	411.1	-0.4	1.0005	1.0018	
2	4996	19.99	207.2	206.8	0.4	206.6	205.4	0.3	1.0032	1.0068	
3	4996	9.98	103.7	103.5	0.2	102.5	102.1	0.6	1.0115	1.0138	
AFZ	4996	0.00	0.0	0.0	0.0	-0.1	-0.1	0.1	0.0000	0.0000	
AFS	4996	39.96	412.6	411.8	0.8	412.4	411.1	-0.4	1.0005	1.0018	
									Average Correction Factor	1.0051	1.0075

As Found Concentrations: NO_x= 416.9 NO= 417.0 As Found Percent Change NO_x= 1.0% NO= 1.3%

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	-0.1	-0.1	0.1	N/A	N/A	N/A	N/A	
NO point	409.2	409.2	0.0	411.3	409.2	0.1	0.9948	1.0000	N/A	N/A	
300	409.2	109.2	300.0	412.6	109.2	301.7	0.9916	1.0000	0.9944	100.6%	
200	409.2	209.3	199.9	412.6	209.3	201.3	0.9916	1.0000	0.9931	100.7%	
100	409.2	313.8	95.4	412.6	313.8	96.9	0.9917	1.0000	0.9837	101.7%	
							Average Correction Factor	0.9917	1.0000	0.9904	101.0%

AIC Data

Parameter	Previous calibration				Current calibration			
	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	0.1	0.1	0.1	ppb	0.0	0.1	0.1	ppb
Auto span	159.1	157.6	0.9	ppb	155.4	153.9	0.8	ppb

Calibration Performed By: Dmytro Dolotii

Calibration Summary



AIR QUALITY MONITORING

Parameter NO₂

Air Monitoring Network PAZA

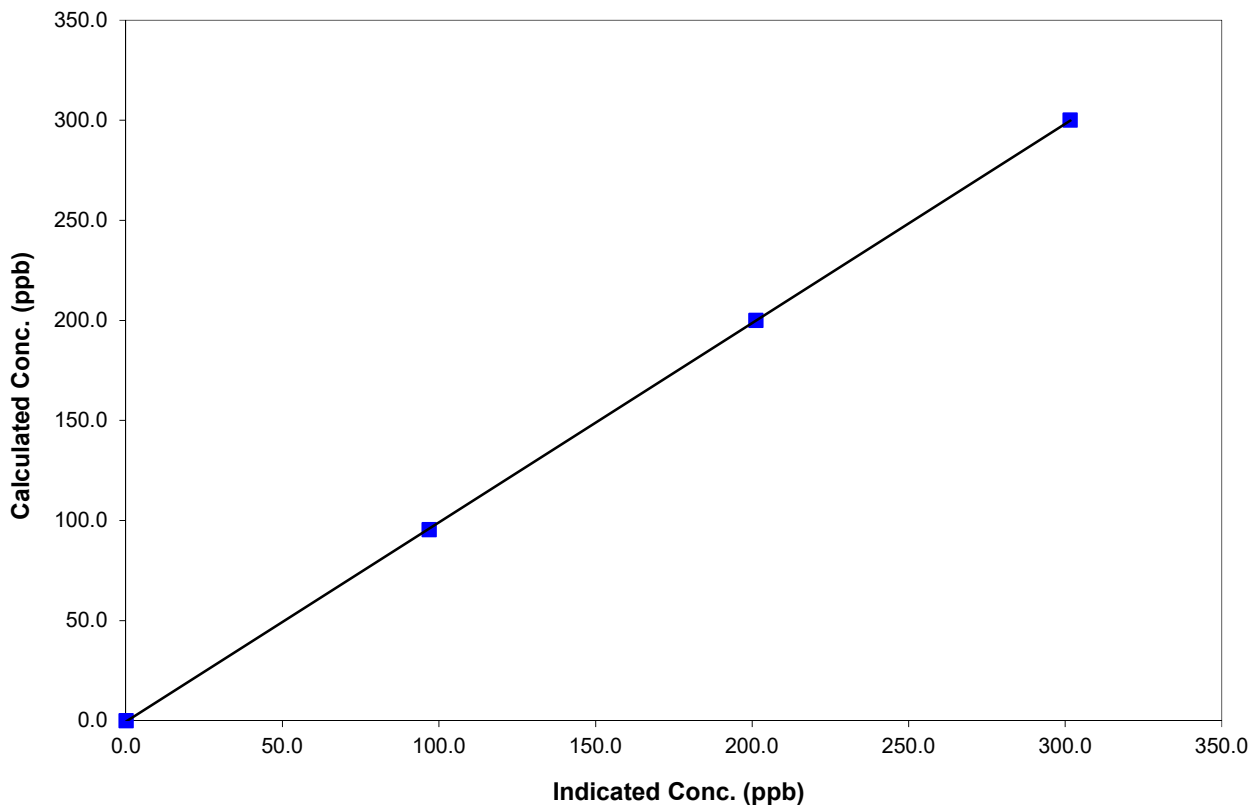
Station Information

Calibration Date	February 8, 2018	Previous Calibration	January 8, 2018
Station Number	10	Station Location	Rycroft
Start Time (MST)	8:30	End Time (MST)	12:15
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		
300.0	301.7	0.9944	Correlation Coefficient	0.999988
199.9	201.3	0.9931		
95.4	96.9	0.9837		
			Slope	0.995467
			Intercept	-0.499292

NO₂ Calibration Curve



Calibration Summary

Parameter NO_x

Air Monitoring Network PAZA



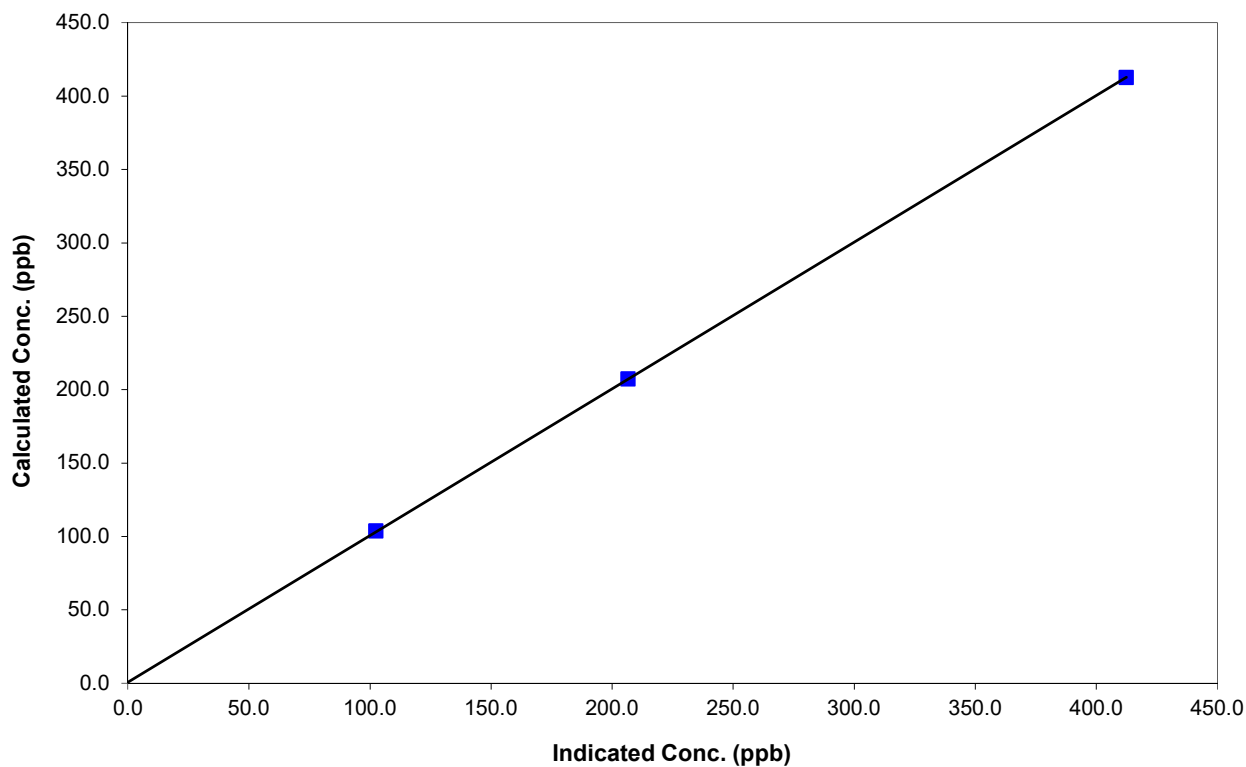
Station Information

Calibration Date	February 8, 2018	Previous Calibration	January 8, 2018
Station Number	10	Station Location	Rycroft
Start Time (MST)	8:30	End Time (MST)	12:15
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		
412.6	412.4	1.0005	Correlation Coefficient	0.999993
207.2	206.6	1.0032		
103.7	102.5	1.0115		
			Slope	0.999553
			Intercept	0.620711

NOx Calibration Curve



Calibration Summary

Parameter NO
 Air Monitoring Network PAZA



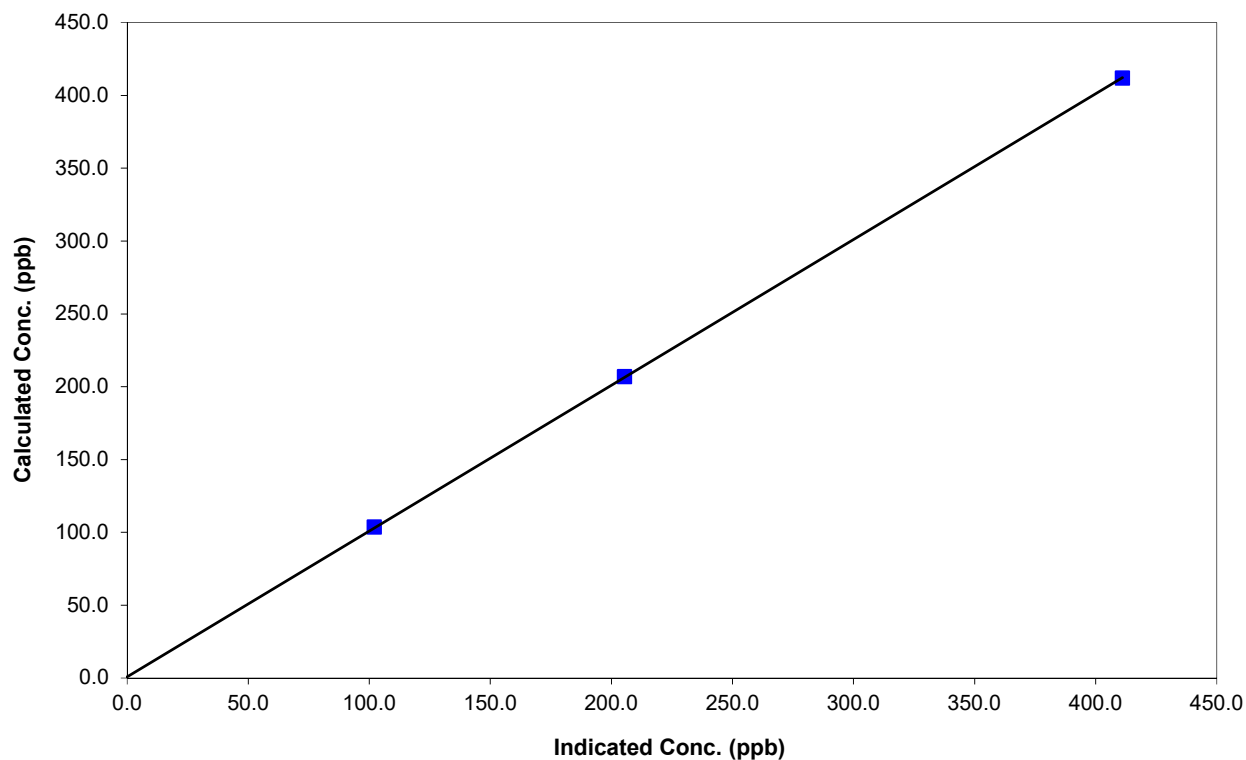
Station Information

Calibration Date	February 8, 2018	Previous Calibration	January 8, 2018
Station Number	10	Station Location	Rycroft
Start Time (MST)	8:30	End Time (MST)	12:15
Analyzer make	TEI 42i	Analyzer serial #	0701120011

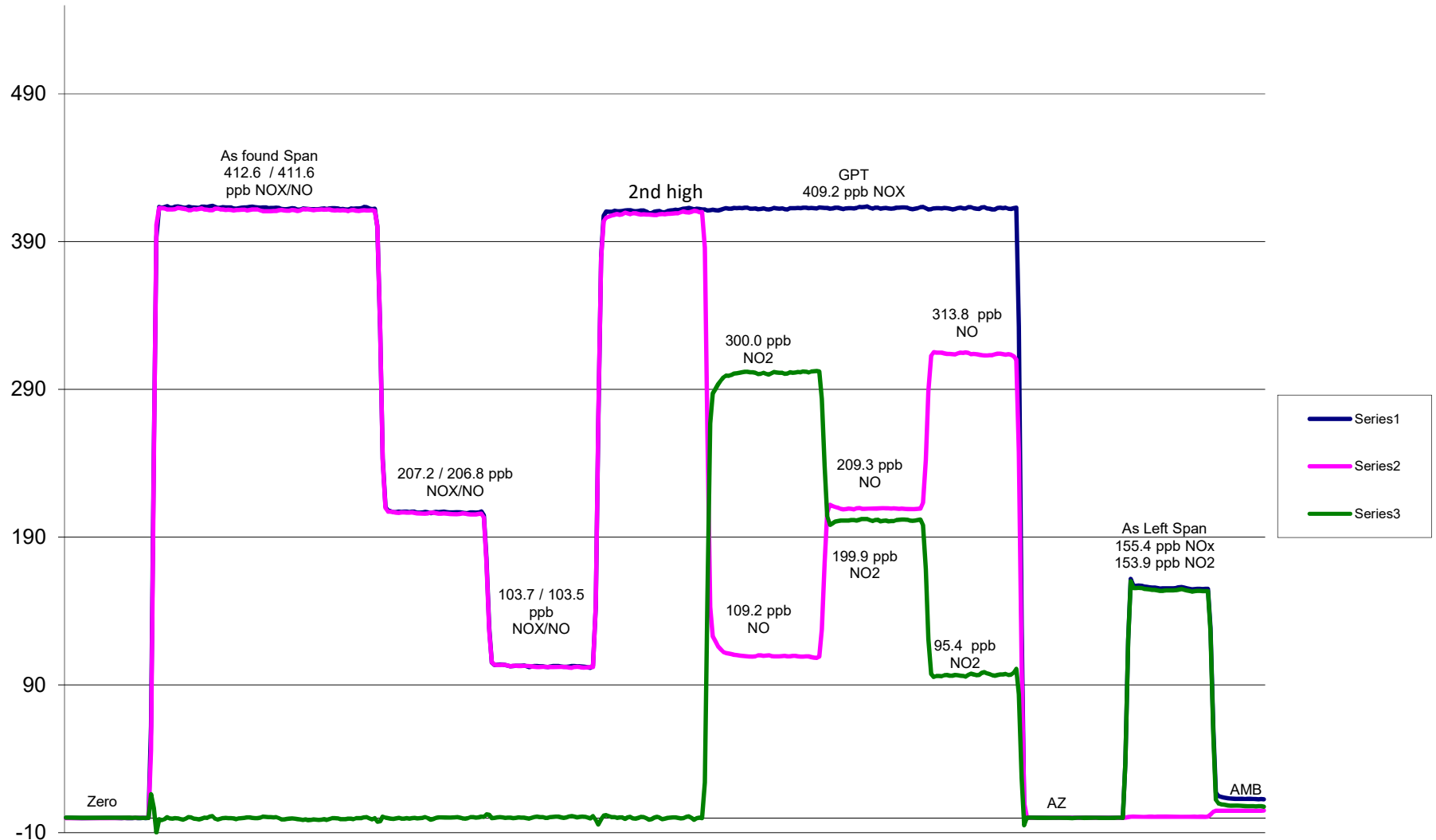
Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	N/A		
411.8	411.1	1.0018	Correlation Coefficient	0.999988
206.8	205.4	1.0068		
103.5	102.1	1.0138		
			Slope	1.000902
			Intercept	0.740108

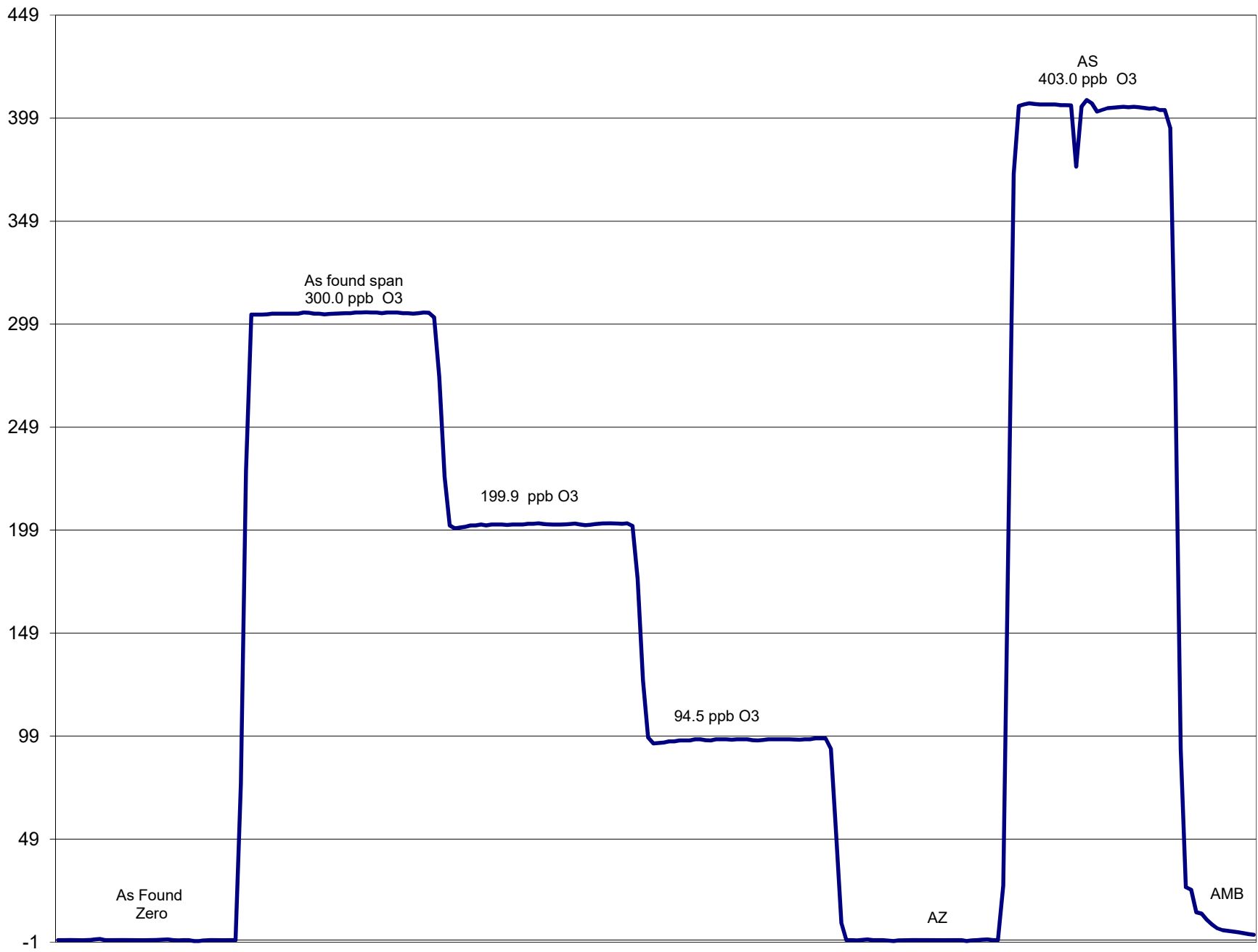
NO Calibration Curve



NO_x Calibration



February 8, 2018



February 8 2017

Calibration Summary



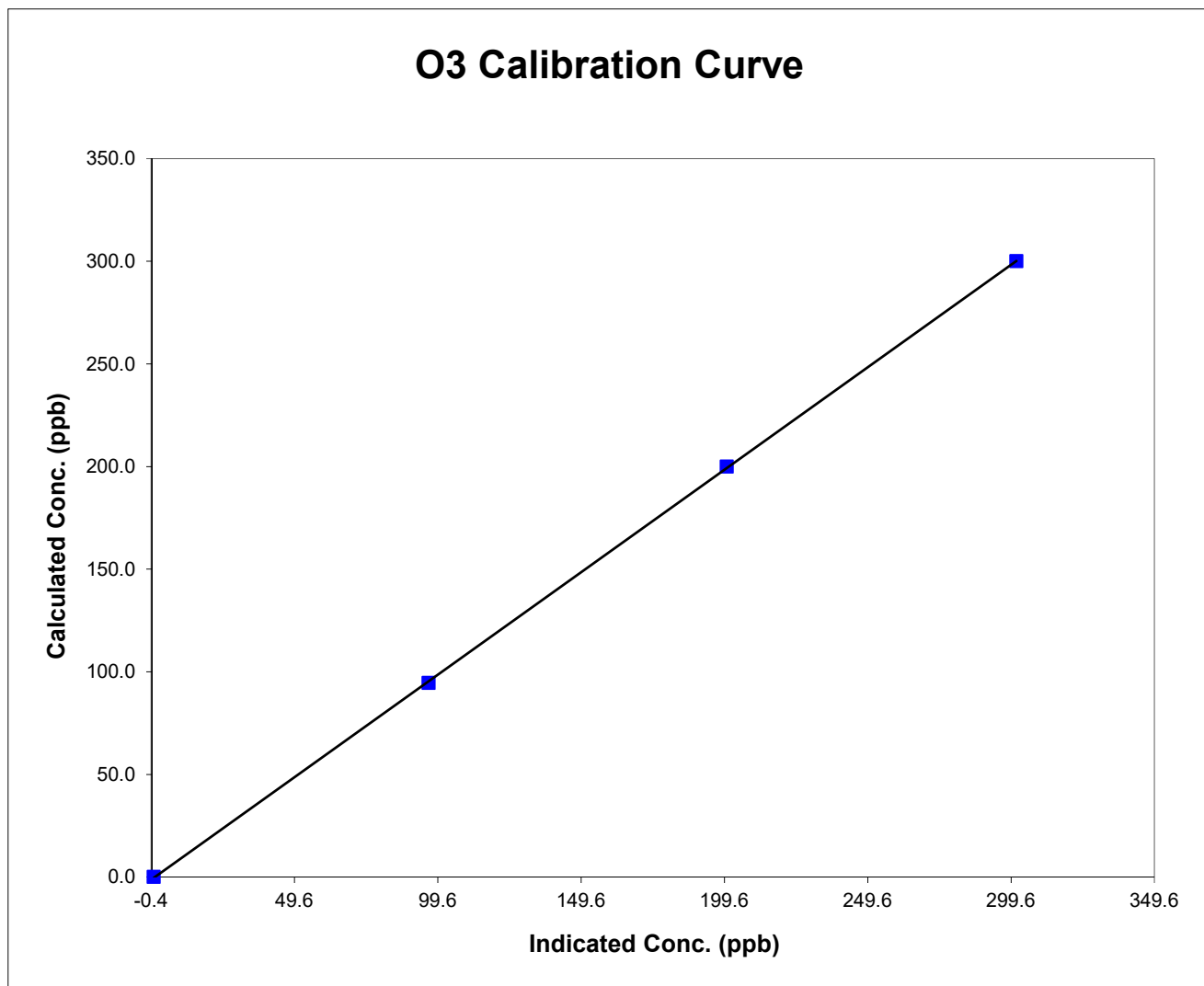
Parameter O3
 Air Monitoring Network PAZA

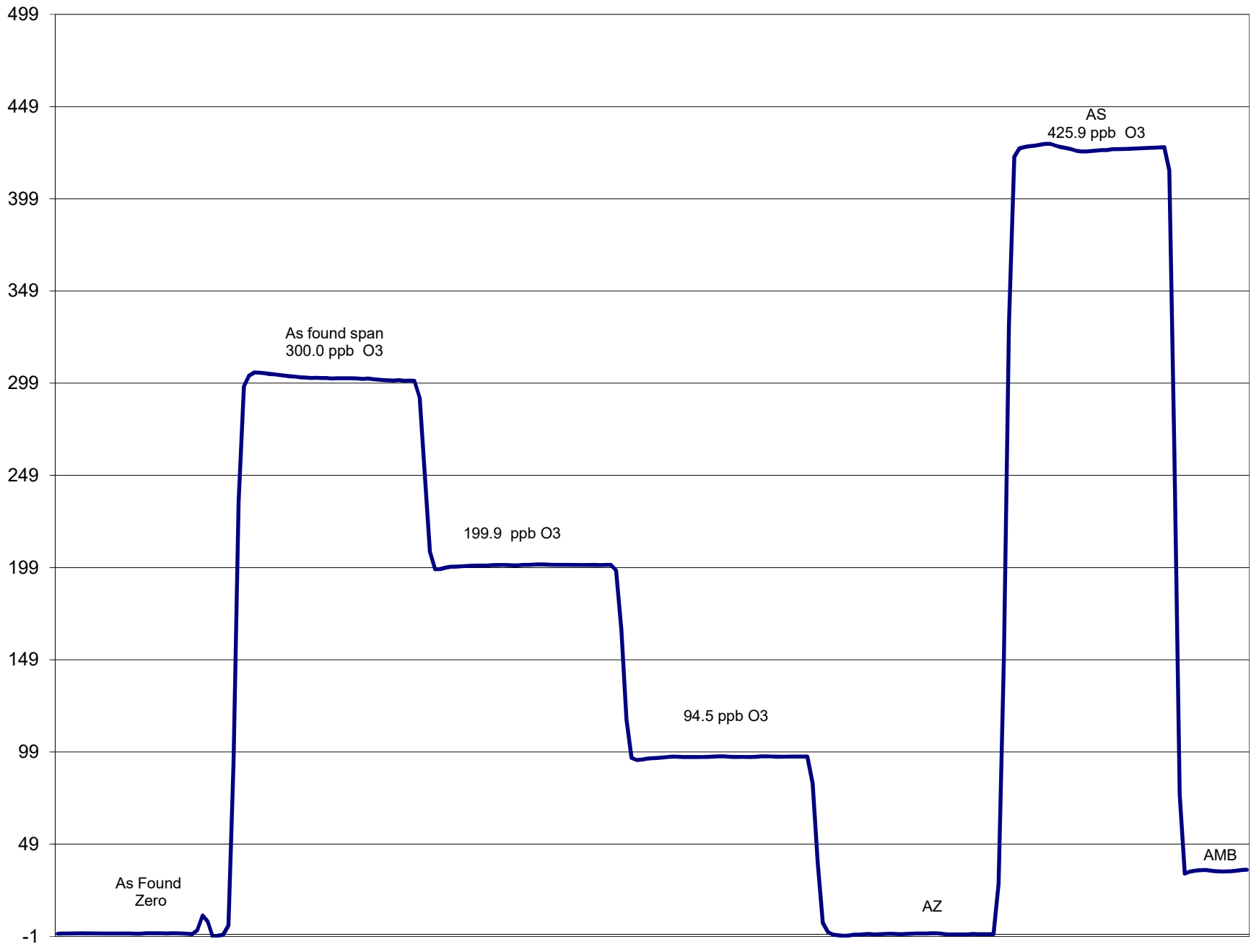
Station Information

Calibration Date	<u>February 9 2017</u>	Previous Calibration	<u></u>
Station Number	<u>10</u>	Station Location	<u>Rycroft</u>
Start Time (MST)	<u>9:05</u>	End Time (MST)	<u>11:00</u>
Analyzer make/model	<u>TEI Model 49C</u>	Analyzer serial #	<u>49I-115363156</u>

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.6	NA		
300.0	301.5	0.9951	Correlation Coefficient	0.999973
199.9	200.5	0.9972		
94.5	96.5	0.9798	Slope	0.998698
			Intercept	-0.944025





February 9 2017

Calibration Report



Parameter CH4 / NMHC / THC
 Air Monitoring Network PAZA

Station Information

Calibration Date	February 9, 2018	Previous Calibration	January 4, 2018
Station Number	1	Station Location	Rycroft
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:

Start Time (MST)	11:55	End Time (MST)	14:55:00 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	0.01	N/A
2000	64.93	12.70	12.66	1.0033
2000	40.97	8.11	8.09	1.0031
2000	15.96	3.20	3.11	1.0294
2000	0.00	0.00	0.02	As Found Zero
2000	64.93	12.70	12.71	As Found Span
Average Correction Factor				1.0119

Calculated value of As Found Response: 12.568 ppm Percent Change of As Found: 1.1%

	Before	After
Calculated slope	0.991061	1.001498
Calculated intercept	-0.004071	0.027630

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.02	ppm	0.00	ppm
Auto span	8.12	ppm	7.90	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	64.93	17.36	17.19	1.0104
2000	40.97	11.10	10.88	1.0195
2000	15.96	4.38	4.16	1.0508
2000	0.00	0.00	0.00	As Found Zero
2000	64.93	17.38	16.85	As Found Span
Average Correction Factor				1.0269

Calculated value of As Found Response: 17.044 ppm Percent Change of As Found: 1.9%

	<u>Before</u>		<u>After</u>
Calculated slope	1.007224	Calculated slope	1.008181
Calculated intercept	0.068891	Calculated intercept	0.084372

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.00	ppm	0.00	ppm
Auto span	10.76	ppm	10.70	ppm

THC Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
2000	0.00	0.00	0.01	N/A
2000	64.93	30.08	29.88	1.0068
2000	40.97	19.21	18.96	1.0129
2000	15.96	7.57	7.29	1.0386
2000	0.00	0.00	0.02	As Found Zero
2000	64.93	30.08	29.59	As Found Span
Average Correction Factor				1.0194

Calculated value of As Found Response: 29.629 ppm Percent Change of As Found: 1.5%

	<u>Before</u>		<u>After</u>
Calculated slope	1.000017	Calculated slope	1.005108
Calculated intercept	0.057448	Calculated intercept	0.108626

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.02	ppm	0.00	ppm
Auto span	18.88	ppm	18.59	ppm

Notes: Nitrogen, hydrogen & span cylinders replaced
Slight span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary



Parameter CH4
 Air Monitoring Network PAZA

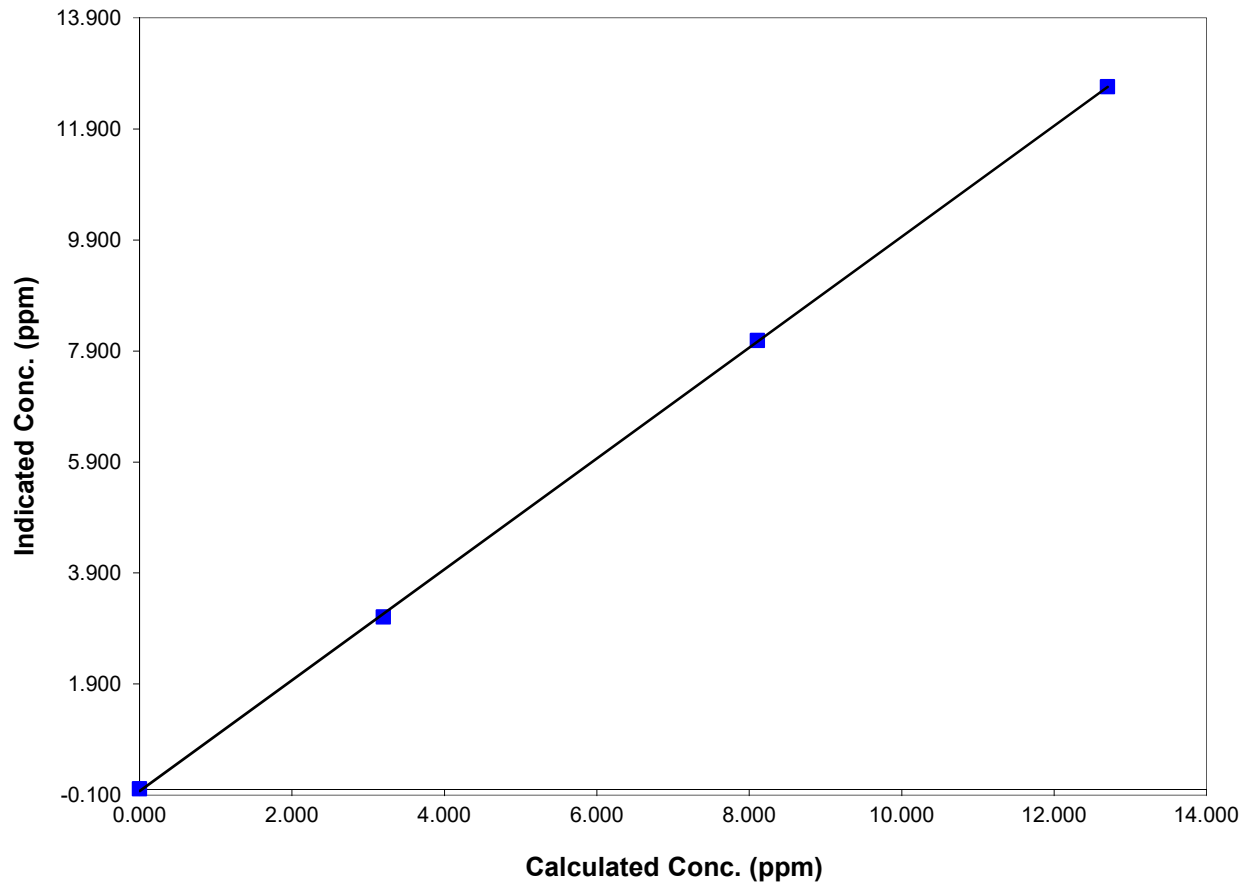
Station Information

Calibration Date	February 9, 2018	Previous Calibration	January 4, 2018
Station Number	1	Station Location	Rycroft
Start Time (MST)	11:55	End Time (MST)	14:55:00 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	0.012	N/A	Correlation Coefficient	0.999943
12.703	12.662	1.0033		
8.110	8.085	1.0031		
3.198	3.107	1.0294		
			Slope	1.001498
			Intercept	0.027630

CH4 Calibration Data



Calibration Summary



Parameter NMHC
 Air Monitoring Network PAZA

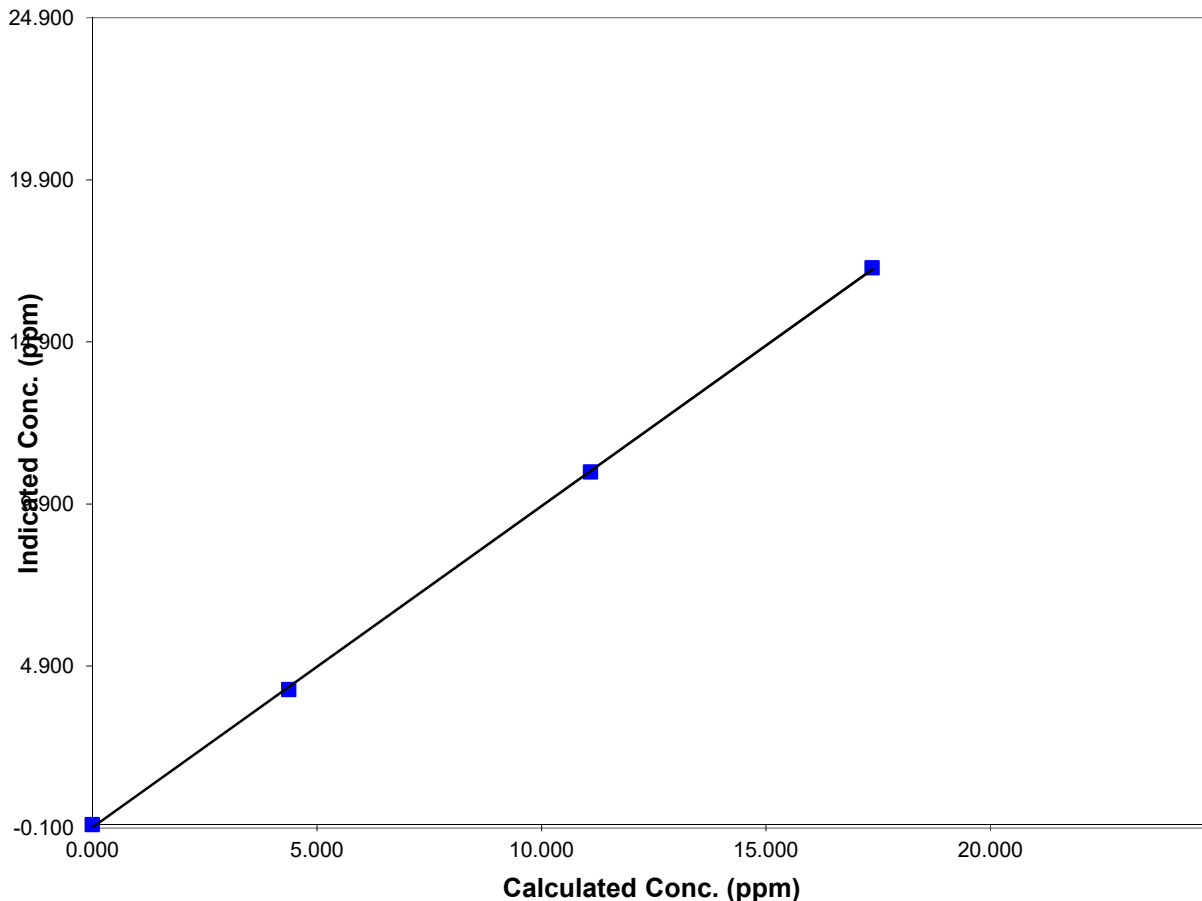
Station Information

Calibration Date	<u> February 9, 2018 </u>	Previous Calibration	<u> January 4, 2018 </u>
Station Number	<u> 1 </u>	Station Location	<u> Rycroft </u>
Start Time (MST)	<u> 11:55 </u>	End Time (MST)	<u> 14:55:00 PM </u>
Analyzer make/model	<u> TEI 55I-A3PHAA </u>	Analyzer serial #	<u> 1151980005 </u>

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation			
0.000	0.000	N/A				
17.364	17.186	1.0104	Correlation Coefficient	0.999888		
11.096	10.884	1.0195				
4.376	4.165	1.0508			Slope	1.008181
					Intercept	0.084372

NMHC Calibration Data



Calibration Summary



Parameter THC
 Air Monitoring Network PAZA

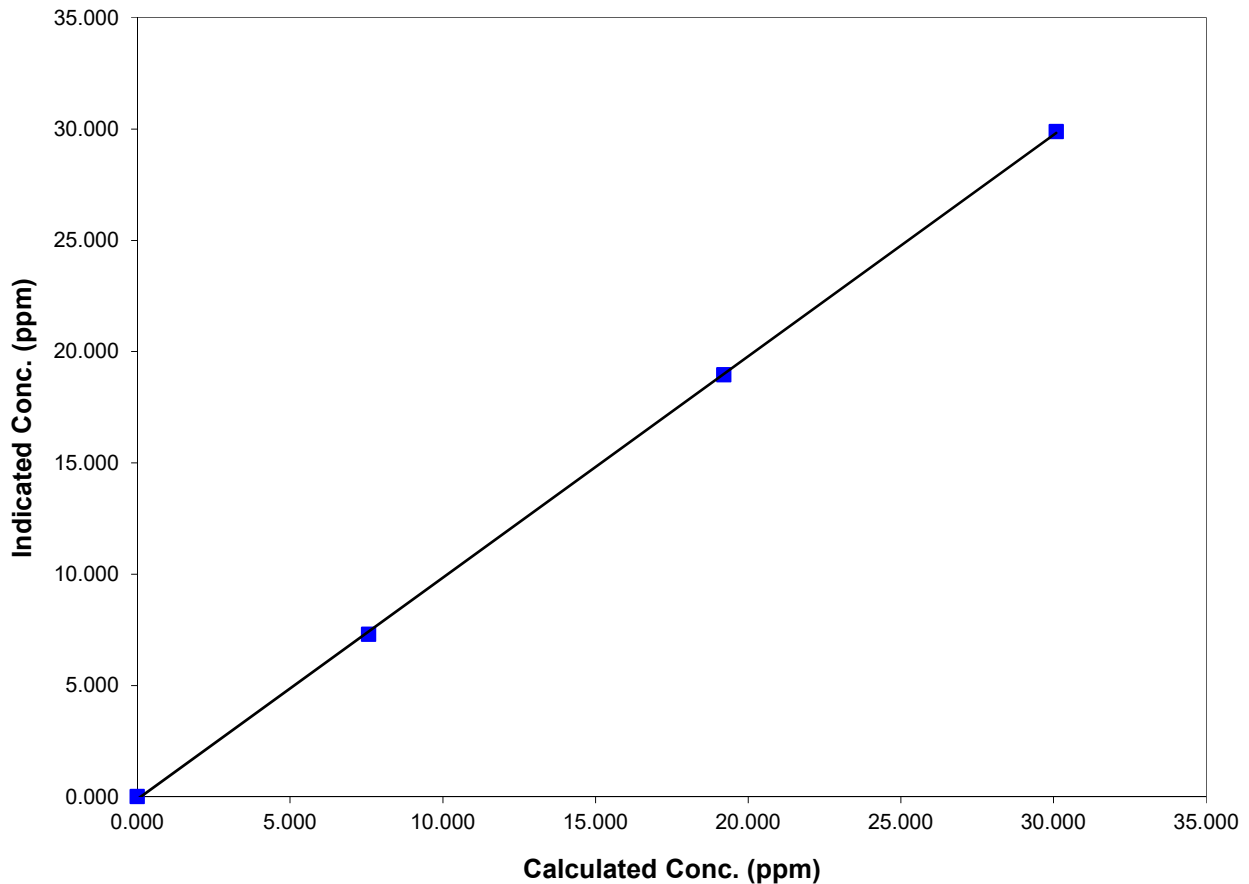
Station Information

Calibration Date	February 9, 2018	Previous Calibration	January 4, 2018
Station Number	1	Station Location	Rycroft
Start Time (MST)	11:55	End Time (MST)	14:55:00 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	0.009	N/A	Correlation Coefficient	0.999929
30.084	29.881	1.0068		
19.206	18.961	1.0129		
7.574	7.293	1.0386		
			Slope	1.005108
			Intercept	0.108626

THC Calibration Data



THC/CH₄/NMHC Calibration

