Peace Airshed Zone Association

Ambient Air Monitoring Network Summary

Continuous Ambient Air Quality Monitoring Program
Monthly Report
April 2017

Peace Airshed Zone Association
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May 31, 2017

Alberta Environment
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RE: Peace Airshed Zone Association (PAZA) – April 2017 Ambient Air Report

Enclosed is the PAZA Ambient Monitoring Network Report for the month of April 2017.

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

Company	Facility	LSD	EPEA Approval Number
	Teepee Creek	SE-2-074-04-W6	00001635-02-00
	Sturgeon/Valleyview	02-02-069-22-W5	1633-02-00
Canfor Forest Products	Grande Prairie	SW-23-071-06-W6	152645-01-00
Conocophillips Canada Energy Partnership	Wembley	06-19-073-08-W6	00000212-01-00
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

Company	Facility	LSD	EPEA Approval Number
	Pouce Coupe	16-07-078-11-W6	00000614-01-00
Petrus Resources	Rycroft	08-25-077-06-W6	11351-02-00
	Spirit River	08-34-077-06-W6	11096-02-00
Spectra Energy Midstream Corporation	Fourth Creek	16-11-082-09-W6	00000263-01-00
	Gordondale	11-26-079-09-W6	00011495-01-01
	Pouce Coupe/Bonanza	3-23-080-13-W6	00070203-01-01
Suncor Energy Inc.	Progress	07-22-078-09-W6	00011428-02-00
TAQA North Ltd.	Valhalla	13-21-076-09-W6	00017620-01-00
Veresen Energy	Hythe Brainard	11-18-074-12-W6	00010910-02-00
Weyerhaeuser Canada	Grande Prairie Pulp and Wood Plant	01-14-070-05-W6	00000113-02-00

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

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

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

Henry Pirker Station:

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

Evergreen Park Station:

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

Smoky Heights Station:

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

Beaverlodge Station:

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

Valleyview Station:

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

Donnelly Station:

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

Rycroft-Portable Station:

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

- **Passive Monitoring - 27 Stations throughout the PAZA zone:**

There were six duplicate sites sampled in the month of April: Eaglesham and Clairmont Lake (SO_2), Kinuso (O_3), Gordondale and Wanham (NO_2), and Guy (H_2S). The passive sample analyses were performed by MAXXAM Analytics Inc.

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

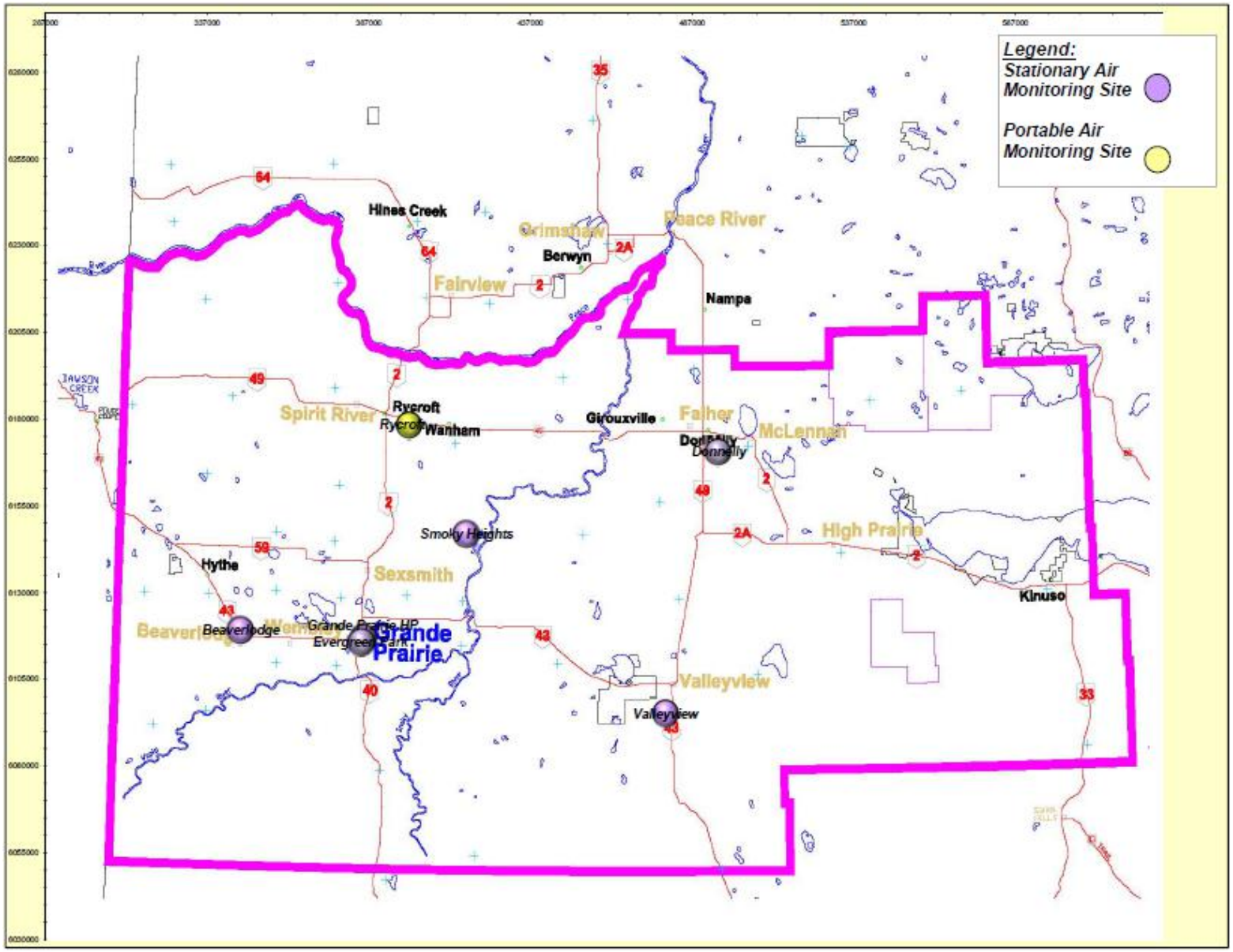
- Monthly average concentrations for SO_2 passives ranged from 0.1 ppb to 0.3 ppb, with a mean of 0.2 ppb.
- Monthly average concentrations for NO_2 passives ranged from 0.1 ppb to 3.6 ppb, with a mean of 0.7 ppb.
- Monthly average concentrations for O_3 passives were 44.1 ppb at all sites.
- Monthly average concentrations for H_2S passives ranged from 0.1 ppb to 0.3 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

Apr-2017	Peace Airshed Zone Assocation						Maximum Recorded Values					
							1-hr		24-hr / 8-hr			
Pollutant (units)	**Objectives**		**Station**	**Monthly Average**	**Exceedence**		Conc	Day	Conc	Day	**Operational Time (%)**	**Calibration Date**
	1-hr	24-hr			1-hr	24-hr						
SO_2 (ppb)	172	48	Henry Pirker	0.1	0	0	3.2	Apr-09 10:00	0.3	Apr-15	100.0%	Apr-18
SO_2 (ppb)	172	48	Evergreen Park	0.1	0	0	0.9	Apr-21 16:00	0.2	Apr-05	100.0%	Apr-06
SO_2 (ppb)	172	48	Smoky Heights	0.2	0	0	8.6	Apr-03 11:00	0.9	Apr-03	99.4%	Apr-26
SO_2 (ppb)	172	48	Beaverlodge	0.2	0	0	3.2	Apr-19 19:00	0.8	Apr-19	99.6%	Apr-04
SO_2 (ppb)	172	48	Valleyview	0.5	0	0	22.1	Apr-20 10:00	3.5	Apr-02	100.0%	Apr-05
SO_2 (ppb)	172	48	Donnelly	0.1	0	0	1.6	Apr-22 11:00	0.4	Apr-09	93.3%	Apr-25
SO_2 (ppb)	172	48	Rycroft-Portable	0.2	0	0	2.1	Apr-06 01:00	0.4	Apr-06	100.0%	Apr-20
NO (ppb)			Henry Pirker	1.2	-	-	44.1	Apr-25 08:00	9.3	Apr-25	100.0%	Apr-18
NO_2 (ppb)	159	106	Henry Pirker	5.0	0	0	33.6	Apr-25 02:00	10.3	Apr-25	100.0%	Apr-18
NO_X (ppb)			Henry Pirker	6.6	-	-	71.6	Apr-25 03:00	20.0	Apr-25	100.0%	Apr-18
NO (ppb)			Beaverlodge	0.2	-	-	5.9	Apr-27 08:00	0.9	Apr-19	99.4%	Apr-04
NO_2 (ppb)	159	106	Beaverlodge	1.8	0	0	11.8	Apr-20 02:00	5.3	Apr-05	99.4%	Apr-04
NO_X (ppb)			Beaverlodge	2.1	-	-	14.6	Apr-27 06:00	6.1	Apr-05	99.4%	Apr-04
NO (ppb)			Rycroft-Portable	0.2	-	-	1.8	Apr-19 09:00	0.4	Apr-16	100.0%	Apr-20
NO_2 (ppb)	159	106	Rycroft-Portable	1.3	0	0	4.6	Apr-04 04:00	2.0	Apr-10	100.0%	Apr-20
NO_X (ppb)			Rycroft-Portable	1.4	-	-	5.9	Apr-10 09:00	2.3	Apr-16	100.0%	Apr-20
O_3 (ppb)	82		Henry Pirker	32.1	0	-	50.0	Apr-04 17:00	39.8	Apr-03	100.0%	Apr-18
O_3 (ppb) - 8-hr			Henry Pirker		0				47.5	Apr-04		-
O_3 (ppb)	82		Beaverlodge	37.2	0	-	53.3	Apr-06 15:00	42.6	Apr-03	99.6%	Apr-04
O_3 (ppb) - 8-hr			Beaverlodge		0				50.2	Apr-25		-
O_3 (ppb)	82		Rycroft-Portable	37.5	0	-	59.8	Apr-12 18:00	45.6	Apr-06	99.2%	Apr-21
O_3 (ppb) - 8-hr			Rycroft-Portable		0				54.3	Apr-12		-
CO (ppm)	13		Henry Pirker	0.20	0	-	0.7	Apr-10 07:00	0.3	Apr-05	100.0%	Apr-19
CO (ppm) - 8-hr	5		Henry Pirker		0				0.4	Apr-25		-

PAZA Monthly Continuous Data Summary – continued

Apr-2017			Peace Airshed Zone Assocation				Maximum Recorded Values					
							1-hr		24-hr / 8-hr			
THC (ppm)			Henry Pirker	2.1	-	-	4.1	Apr-01 07:00	2.4	Apr-01	95.1%	Apr-08
CH_4 (ppm)			Henry Pirker	2.0	-	-	4.1	Apr-01 07:00	2.4	Apr-01	95.1%	Apr-08
NMHC (ppm)			Henry Pirker	0.0	-	-	0.0	Apr-21 05:00	0.0	Apr-21	95.1%	Apr-08
THC (ppm)			Rycroft-Portable	1.8	-	-	2.0	Apr-20 05:00	1.9	Apr-20	99.7%	Apr-21
CH_4 (ppm)			Rycroft-Portable	1.8	-	-	1.9	Apr-20 05:00	1.9	Apr-20	99.7%	Apr-21
NMHC (ppm)			Rycroft-Portable	0.0	-	-	0.0	Apr-21 20:00	0.0	Apr-24	99.7%	Apr-21
TRS (ppb)			Henry Pirker	0.2	-	-	0.8	Apr-27 03:00	0.3	Apr-05	99.9%	Apr-19
TRS (ppb)			Evergreen Park	0.3	-	-	0.6	Apr-11 11:00	0.5	Apr-01	100.0%	Apr-06
TRS (ppb)			Smoky Heights	0.1	-	-	0.3	Apr-19 07:00	0.2	Apr-19	99.4%	Apr-26
TRS (ppb)			Rycroft-Portable	0.1	-	-	1.0	Apr-29 00:00	0.2	Apr-11	100.0%	Apr-20
H_2S (ppb)	10	3	Valleyview	0.1	0	0	1.1	Apr-21 13:00	0.3	Apr-03	100.0%	Apr-05
H_2S (ppb)	10	3	Donnelly	0.1	0	0	2.2	Apr-22 22:00	0.5	Apr-22	99.9%	Apr-25
$PM_{2.5}$ (µg/m3)	80	30	Henry Pirker	3.1	0	0	29.0	Apr-26 07:00	6.5	Apr-28	100.0%	Dec-20
$PM_{2.5}$ (µg/m3)	80	30	Evergreen Park	1.9	0	0	16.3	Apr-05 21:00	4.9	Apr-05	99.6%	Mar-13
$PM_{2.5}$ (µg/m3)	80	30	Smoky Heights	3.1	0	0	41.0	Apr-19 21:00	12.7	Apr-21	99.7%	Mar-27
$PM_{2.5}$ (µg/m3)	80	30	Beaverlodge	2.5	0	0	13.2	Apr-05 18:00	6.0	Apr-05	99.6%	Mar-23
$PM_{2.5}$ (µg/m3)	80	30	Rycroft-Portable	1.3	0	0	7.5	Apr-20 20:00	4.3	Apr-27	99.4%	Mar-07
RH (%)			Henry Pirker	65.3	-	-	89.4	Apr-14 01:00	87.5	Apr-14	100.0%	-
RH (%)			Evergreen Park	71.1	-	-	99.9	Apr-14 05:00	97.4	Apr-14	100.0%	-
RH (%)			Beaverlodge	77.3	-	-	100.0	Apr-07 01:00	100.0	Apr-13	99.6%	-
RH (%)			Valleyview	61.9	-	-	100.0	Apr-14 08:00	99.4	Apr-14	100.0%	-
SR (W/m^2)			Henry Pirker	149.5	-	-	743.9	Apr-29 13:00	255.1	Apr-26	100.0%	-
Temp (°C)			Henry Pirker	3.6	-	-	15.2	Apr-29 15:00	9.1	Apr-29	100.0%	-
Temp (°C)			Evergreen Park	3.2	-	-	13.8	Apr-29 18:00	8.4	Apr-29	100.0%	-
Temp (°C)			Smoky Heights	3.0	-	-	13.8	Apr-29 17:00	8.1	Apr-29	99.6%	-
Temp (°C)			Beaverlodge	2.9	-	-	12.9	Apr-29 17:00	7.8	Apr-30	99.6%	-
Temp (°C)			Valleyview	3.9	-	-	15.2	Apr-05 18:00	9.0	Apr-29	100.0%	-
Temp (°C)			Donnelly	3.0	-	-	14.3	Apr-29 18:00	8.2	Apr-29	100.0%	-
Temp (°C)			Rycroft-Portable	3.2	-	-	14.3	Apr-05 17:00	8.4	Apr-30	100.0%	-

PAZA Monthly Continuous Data Summary – continued

Apr-2017	Peace Airshed Zone Assocation						Maximum Recorded Values					
							1-hr		24-hr / 8-hr			
WSPD s (km/hr)			Henry Pirker	8.2	-	-	24.0	Apr-01 16:00	17.2	Apr-02	98.2%	-
WSPD s (km/hr)			Evergreen Park	11.1	-	-	44.0	Apr-01 17:00	31.3	Apr-02	100.0%	-
WSPD s (km/hr)			Smoky Heights	11.6	-	-	32.0	Apr-01 17:00	22.0	Apr-02	100.0%	-
WSPD s (km/hr)			Beaverlodge	10.6	-	-	40.0	Apr-13 16:00	32.8	Apr-13	99.4%	-
WSPD s (km/hr)			Valleyview	5.6	-	-	21.0	Apr-30 20:00	9.1	Apr-17	100.0%	-
WSPD s (km/hr)			Donnelly	10.0	-	-	28.0	Apr-02 10:00	18.5	Apr-17	99.3%	-
WSPD s (km/hr)			Rycroft-Portable	10.6	-	-	34.0	Apr-13 10:00	21.4	Apr-17	96.8%	-
WSPD v (km/hr)			Henry Pirker	1.9	-	-	23.0	Apr-01 16:00	16.6	Apr-02	98.2%	-
WSPD v (km/hr)			Evergreen Park	2.5	-	-	43.0	Apr-01 17:00	30.5	Apr-02	100.0%	-
WSPD v (km/hr)			Smoky Heights	2.5	-	-	32.0	Apr-01 17:00	20.8	Apr-02	100.0%	-
WSPD v (km/hr)			Beaverlodge	3.9	-	-	40.0	Apr-13 16:00	32.6	Apr-13	99.4%	-
WSPD v (km/hr)			Valleyview	1.3	-	-	19.0	Apr-20 18:00	8.8	Apr-17	100.0%	-
WSPD v (km/hr)			Donnelly	2.8	-	-	28.0	Apr-02 10:00	18.3	Apr-17	99.3%	-
WSPD v (km/hr)			Rycroft-Portable	3.2	-	-	34.0	Apr-13 10:00	20.8	Apr-17	96.8%	-
WDIR			Henry Pirker	N	-	-	-	-	-	-	98.2%	-
WDIR			Evergreen Park	N	-	-	-	-	-	-	100.0%	-
WDIR			Smoky Heights	NNW	-	-	-	-	-	-	100.0%	-
WDIR			Beaverlodge	NE	-	-	-	-	-	-	99.4%	-
WDIR			Valleyview	N	-	-	-	-	-	-	100.0%	-
WDIR			Donnelly	E	-	-	-	-	-	-	99.3%	-
WDIR			Rycroft-Portable	NNE	-	-	-	-	-	-	96.8%	-

Continuous Network Equipment Summary

PAZA – Henry Pirker Station

General Station Issues:

Parameter	Make	Model	Notes
SO_2	TEI	43i	No operational issues observed.
NOx/NO/NO_2	TEI	42i	No operational issues observed.
O_3	TEI	49i	No operational issues observed.
CO	TEI	48C	No operational issues observed.
THC/CH_4/NMHC	TEI	55I	Invalid data was recorded April 7-8, due to a low hydrogen cylinder. Uptime was 95.1% for the month of April.
TRS	TEI	45C	One hour of data is flagged as “maintenance”, resulting in an uptime of 99.9%. The baseline was adjusted to account for drift.
$PM_{2.5}$	Sharp	5030	No operational issues observed.
RH	Met One	083D	No operational issues observed.
ET	Met One	083D	No operational issues observed.
SR	Met One	096-1	No operational issues observed.
WS / WD	Met One	010C/020C	Instrument malfunctioning resulted in an uptime of 98.2%, attributed to precipitation causing the instrument to freeze up.

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	Routine maintenance resulted in an uptime of 99.6%.
ET	Met One/Gill	083D	No operational issues observed.
RH	Met One/Gill		No operational issues observed.
WS / WD	Met One/ Gill		No operational issues observed.

PAZA – Smoky Heights Station

General Station Issues

Power disruption on April 2.

Parameter	Make	Model	Notes
SO_2	TEI	43C	A power disruption at the station resulted in an uptime of 99.4%.
TRS	TEI	43i	A power disruption at the station resulted in an uptime of 99.4%.
$PM_{2.5}$	Sharp	5030	A power disruption at the station resulted in an uptime of 99.4%.
ET	Met One	083D	A power disruption at the station resulted in an uptime of 99.6%.
WS / WD	Met One	010C/020C	No operational issues observed.

PAZA – Beaverlodge Station

General Station Issues

Power disruptions April 13 and 17.

Parameter	Make	Model	Notes
SO_2	TEI	43CTL	Intermittent power disruptions at the station resulted in an uptime of 99.6%.
NOx/NO/NO_2	TEI	42C	Intermittent power disruptions at the station resulted in an uptime of 99.4%.
O_3	TEI	49C	Intermittent power disruptions at the station resulted in an uptime of 99.6%.
$PM_{2.5}$	Sharp	5030	Intermittent power disruptions at the station resulted in an uptime of 99.6%.
ET	n/a	n/a	Intermittent power disruptions at the station resulted in an uptime of 99.6%.
RH	n/a	n/a	Intermittent power disruptions at the station resulted in an uptime of 99.6%.
WS / WD	Met One	50.5H	Intermittent power disruptions at the station and instrument malfunctioning resulted in an uptime of 99.4%.

PAZA – Valleyview Station

General Station Issues

Parameter	Make	Model	Notes
SO_2	TEI	43i	No operational issues observed.
H_2S	TEI	43A	No operational issues observed.
ET	Gill	Met Pak 3	No operational issues observed.
RH	Gill	Met Pak 3	No operational issues observed.
WS / WD	Gill	Met Pak 3	No operational issues observed.

PAZA – Donnelly Station

General Station Issues

Parameter	Make	Model	Notes
SO_2	TEI	43i	Instrument malfunctioning and maintenance due to a pump failure and analyzer stabilization resulted in an uptime of 93.3%.
H_2S	Thermo	450i	Invalid data resulted in an uptime of 99.9%
ET	Gill	RM Young 5103	No operational issues observed.
WS / WD	Gill	RM Young 5103	Instrument malfunctioning resulted in an uptime of 99.3%, attributed to precipitation causing the instrument to freeze up.

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 due to analyzer repairs resulted in an uptime of 99.2%.
TRS	TEI	43i	No operational issues observed.
THC/CH_4/NMHC	TEI	55i	Maintenance due to daily span issues resulted in an uptime of 99.7%.
$PM_{2.5}$	Sharp	5030	Routine maintenance resulted in an uptime of 99.4%.
ET	Gill	Met Pak 3	No operational issues observed.
WS / WD	Gill	Met Pak 3	Instrument malfunctioning resulted in an uptime of 96.8%, attributed to precipitation causing the instrument to freeze up.

PAZA
Henry Pirker Station
Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Henry Pirker - April 2017

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 3.2 ppb on Apr 9 10:00 Maximum Daily Average: 0.3 ppb on Apr 15

Minimum Value: 0 ppb on Apr 1 15:00 Minimum Daily Average: 0.0 ppb on Apr 2

Maximum Diurnal Average: 0.3 ppb at hour 10 Minimum Diurnal Average: 0.0 ppb at hour 4

Monthly Average: 0.10 ppb Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.0 Q_3 = 0.1 P_{90} = 0.3 P_{99} = 0.8

Hours in Service:	720
Hours of Data:	684
Hours of Missing Data:	36
Hours of Calibration:	36
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
2-Apr	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
3-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
4-Apr	0	0	0	0	A	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.0
5-Apr	0	0	0	A	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
6-Apr	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
7-Apr	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
8-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.0	0.1
9-Apr	0	0	0	0	0	0	0	0	0	3	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0.2	3.2
10-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.4
11-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	0.4
12-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.1	0.3
13-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.0	0.0
14-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	0	1	0	0	0.2	0.9
15-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	A	0	0	0	0	0	0	0	0.3	0.9
16-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	1	0	0.1	0.5
17-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.1	0.3
18-Apr	0	0	0	0	0	0	0	0	C	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0.1	0.2
19-Apr	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
20-Apr	0	0	0	0	0	0	0	0	0	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
21-Apr	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	1	0	0	0	0	0	0	0	0	0.1	0.7
22-Apr	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
23-Apr	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
24-Apr	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
25-Apr	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
26-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
27-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
28-Apr	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
29-Apr	0	0	A	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.8
30-Apr	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	Diurnal Average	
	0.2	0.2	0.3	0.2	0.2	0.2	0.3	0.4	0.8	3.2	1.3	0.7	0.5	0.9	0.8	0.7	0.4	0.4	0.3	0.6	0.5	0.9	0.5	0.5	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

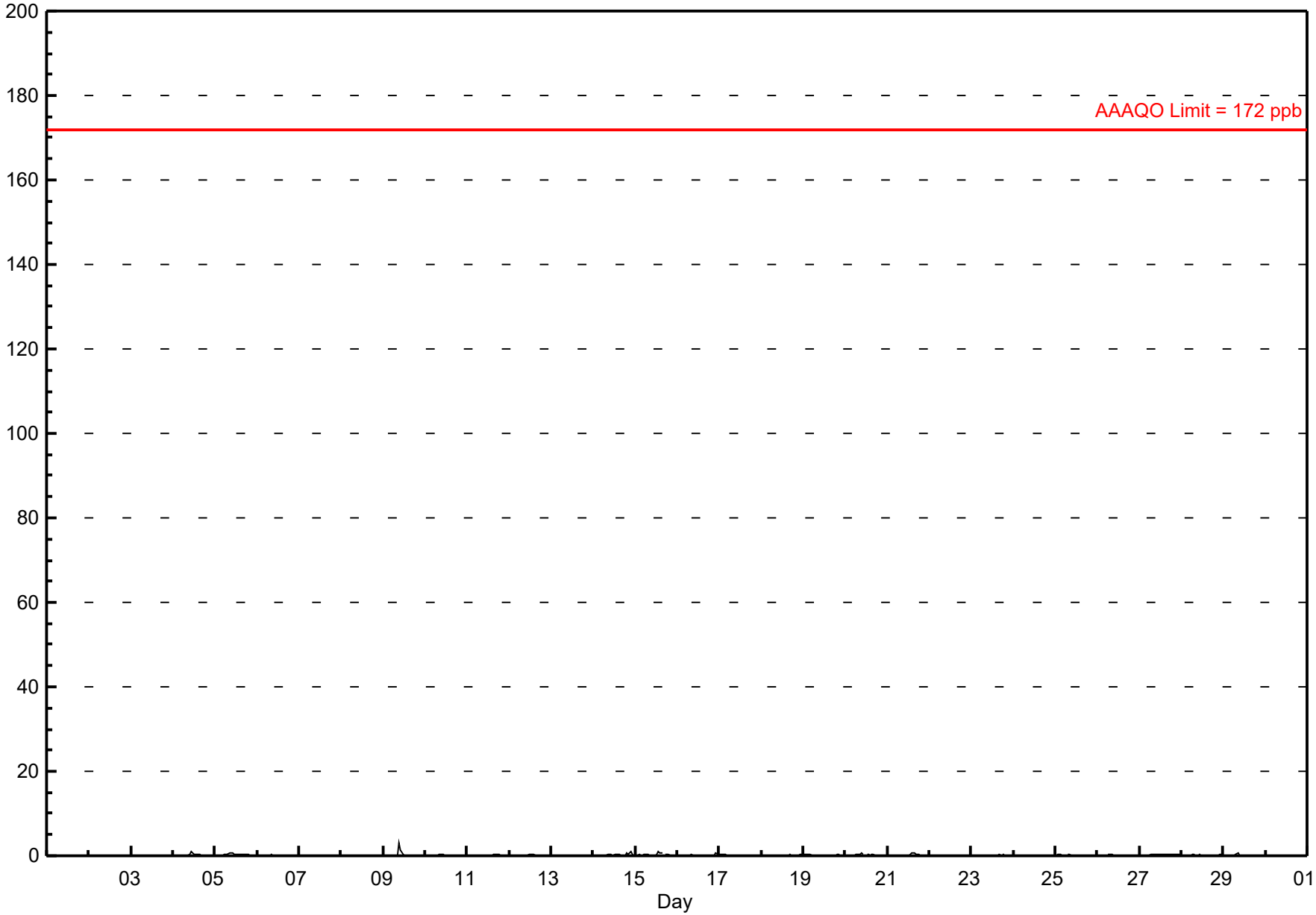
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Henry Pirker - April 2017



Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Henry Pirker - April 2017

Maximum Value: 4.6 ppb on Apr 9 10:00

Maximum Daily Average: 0.5 ppb on Apr 9

Minimum Value: 0 ppb on Apr 8 08:00

Minimum Daily Average: 0.1 ppb on Apr 13

Maximum Diurnal Average: 0.4 ppb at hour 10

Minimum Diurnal Average: 0.1 ppb at hour 6

Monthly Average: 0.22 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.1$ Median = 0.2 $Q_3 = 0.3$ $P_{90} = 0.4$ $P_{99} = 1.2$

Hours in Service:	720
Hours of Data:	684
Hours of Missing Data:	36
Hours of Calibration:	36
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
2-Apr	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
3-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
4-Apr	0	0	0	0	A	0	0	0	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.5
5-Apr	0	0	0	A	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.4	1.0
6-Apr	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
7-Apr	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
8-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.1	0.3
9-Apr	0	0	0	0	0	0	0	0	1	5	3	0	0	0	0	0	0	0	0	0	0	0	A	0	0.5	4.6
10-Apr	0	0	0	0	0	0	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	A	0	0	0.2	0.6
11-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	A	0	0	0	0.2	0.7
12-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.2	0.4
13-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.1	0.2
14-Apr	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	A	0	1	1	2	1	0	0.5	1.7
15-Apr	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	A	0	0	0	0	0	0	0	0.4	1.2
16-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	1	1	0.2	1.2
17-Apr	0	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.2	0.7
18-Apr	0	0	0	0	0	0	0	0	C	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0.2	0.3
19-Apr	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	1	1	0	0	0	0.3	0.9
20-Apr	0	0	0	0	0	0	0	0	1	1	1	A	0	0	0	1	0	0	0	0	0	0	0	0	0.3	0.7
21-Apr	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	1	0	1	0	0	0	0	0	0	0.3	1.2
22-Apr	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
23-Apr	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
24-Apr	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
25-Apr	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
26-Apr	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.9
27-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
28-Apr	0	0	0	A	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0.3	0.7
29-Apr	0	0	A	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	2.2
30-Apr	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.4	0.4	0.2	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	Diurnal Average	
	0.3	0.7	0.4	0.4	0.4	0.3	0.9	1.3	2.2	4.6	3.2	1.2	0.9	1.2	1.2	1.2	0.7	0.6	0.4	1.4	0.9	1.7	1.2	1.2	Diurnal Maximum	

C - Calibration

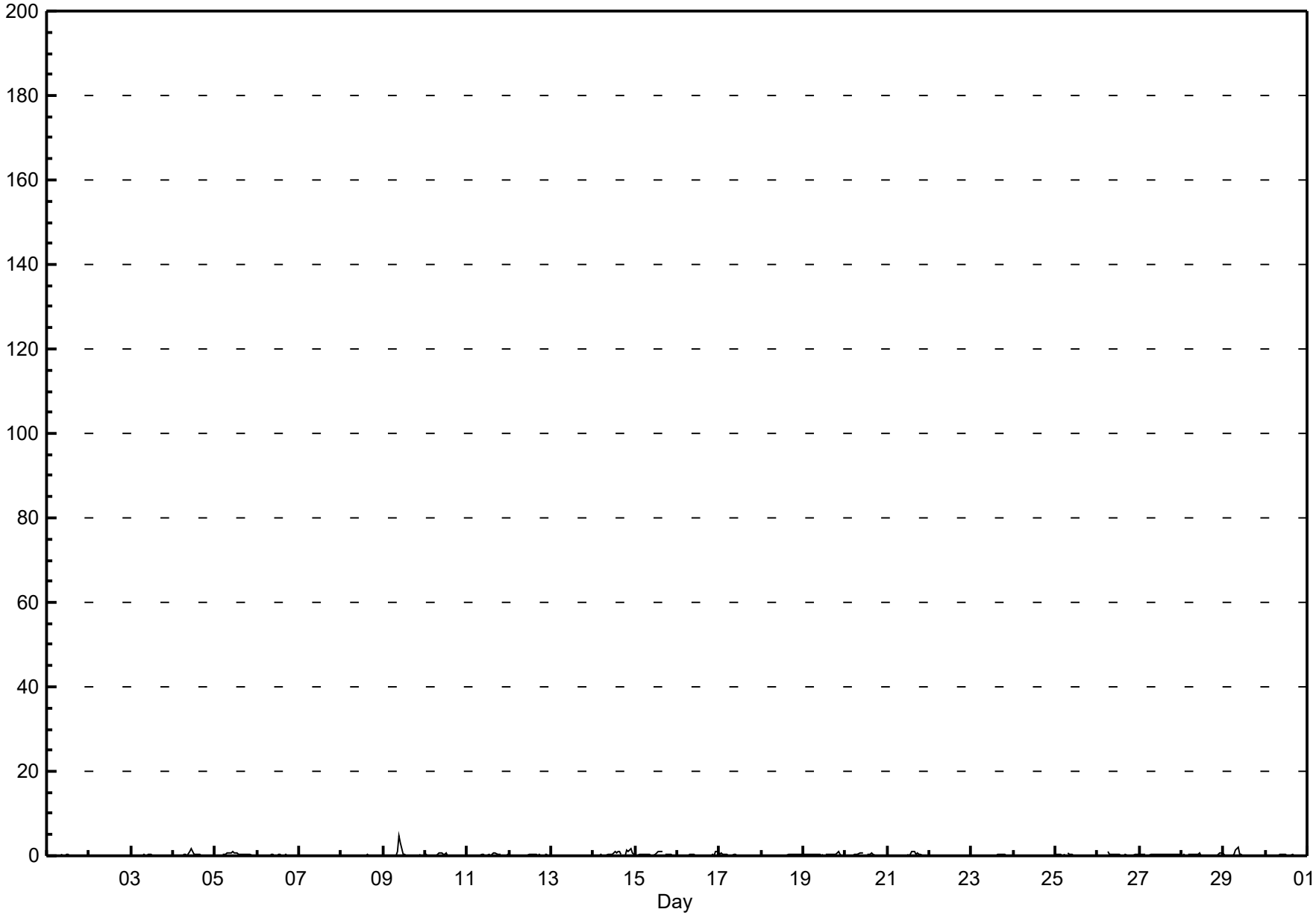
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

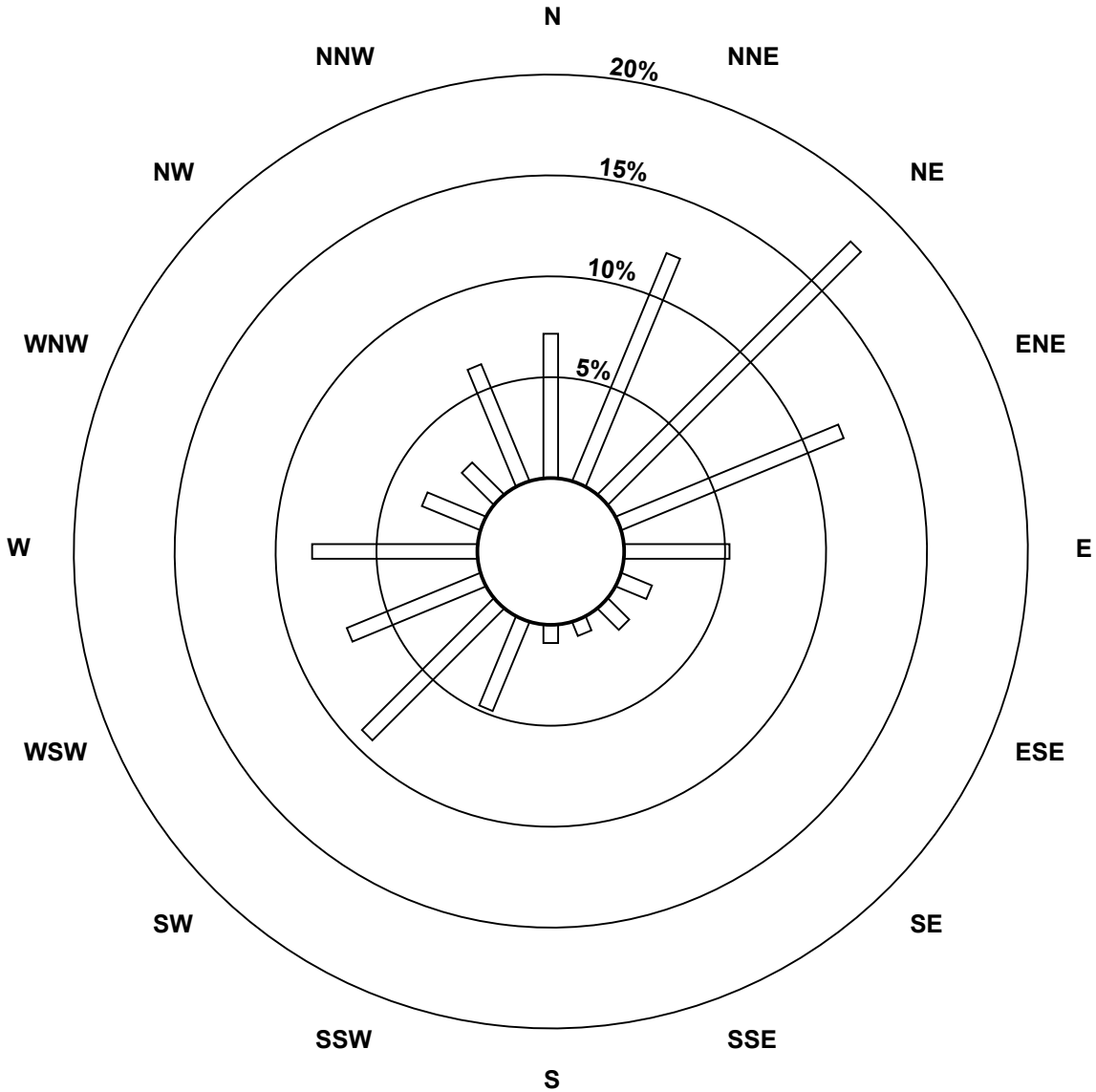
Henry Pirker - April 2017



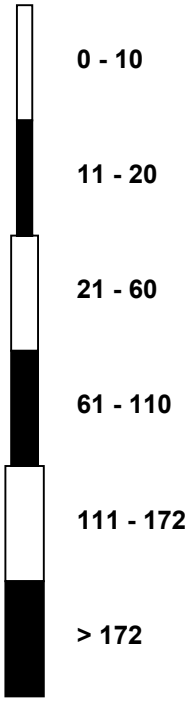
Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Henry Pirker - April 2017



Pollutant Classes (ppb)

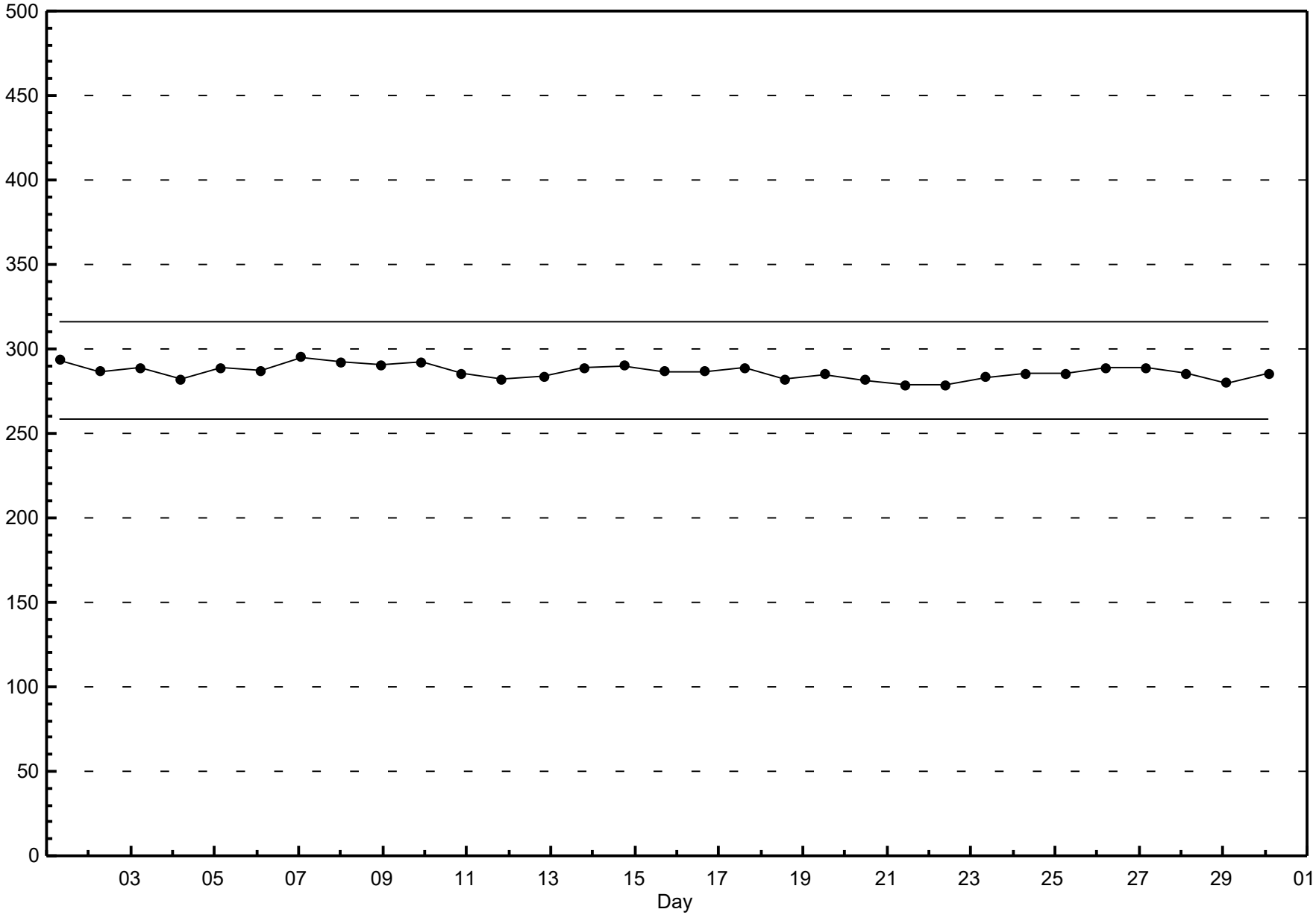


Peace Airshed Zone Association

Span Responses

Sulphur Dioxide (SO_2)

Henry Pirker - April 2017



Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - April 2017

Maximum Value: 0.8 ppb on Apr 27 03:00

Maximum Daily Average: 0.3 ppb on Apr 5

Minimum Value: 0 ppb on Apr 2 05:00

Minimum Daily Average: 0.0 ppb on Apr 2

Maximum Diurnal Average: 0.2 ppb at hour 8

Minimum Diurnal Average: 0.1 ppb at hour 23

Monthly Average: 0.16 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.1$ $Q_1 = 0.1$ Median = 0.2 $Q_3 = 0.2$ $P_{90} = 0.3$ $P_{99} = 0.5$

Hours in Service:	720
Hours of Data:	685
Hours of Missing Data:	35
Hours of Calibration:	34
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
2-Apr	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
3-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
4-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
5-Apr	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
6-Apr	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
7-Apr	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
8-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	M	0	0	0	0	0	0	0	0	0	A	0.1	0.3
9-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.2	0.5
10-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.2	0.3
11-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	0.3
12-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.2	0.2
13-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.2	0.3
14-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.2	0.2
15-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.1	0.2
16-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.1	0.2
17-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.2	0.3
18-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.2	0.3
19-Apr	0	0	0	0	0	0	0	0	0	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
20-Apr	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
21-Apr	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
22-Apr	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
23-Apr	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
24-Apr	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
25-Apr	0	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
26-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
27-Apr	0	0	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.8
28-Apr	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
29-Apr	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
30-Apr	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.2	0.5
	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.1	0.2	Diurnal Average	
	0.4	0.4	0.8	0.5	0.4	0.3	0.4	0.6	0.4	0.5	0.3	0.4	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.5	0.3	0.3	0.3	Diurnal Maximum	

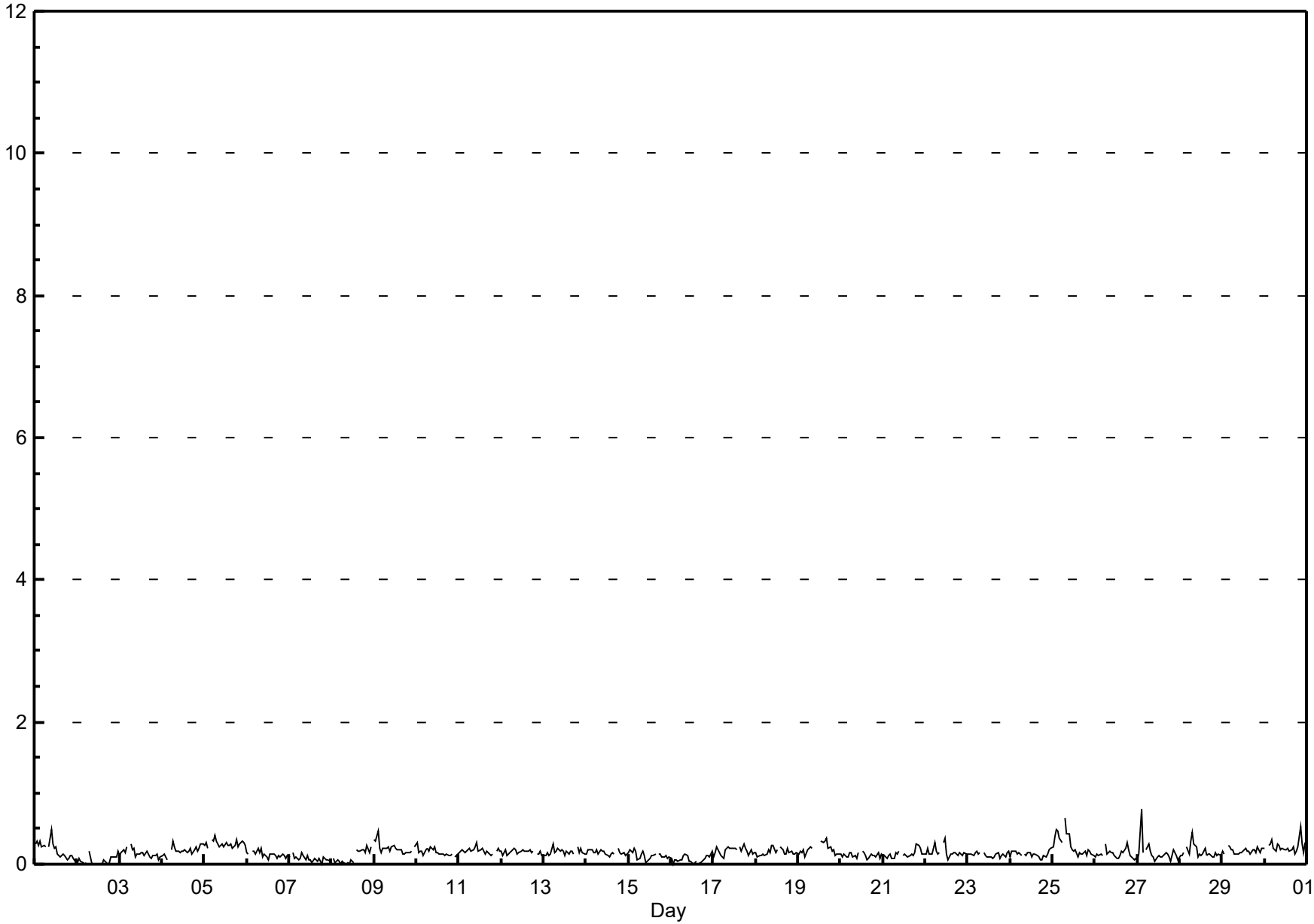
C - Calibration M - Maintenance A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - April 2017



Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - April 2017

Maximum Value: 1.8 ppb on Apr 30 21:00

Maximum Daily Average: 0.8 ppb on Apr 5

Minimum Value: 0 ppb on Apr 2 11:00

Maximum Diurnal Average: 0.6 ppb at hour 8

Monthly Average: 0.59 ppb

Minimum Daily Average: 0.4 ppb on Apr 16

Minimum Diurnal Average: 0.5 ppb at hour 14

Percentiles: $P_1 = 0.3$ $P_{10} = 0.4$ $Q_1 = 0.5$ Median = 0.6 $Q_3 = 0.7$ $P_{90} = 0.8$ $P_{99} = 1.0$

Hours in Service:	720
Hours of Data:	685
Hours of Missing Data:	35
Hours of Calibration:	34
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	1	1	1	1	1	1	1	A	1	1	1	1	1	0	1	1	0	1	0	1	0	1	1	0	0.6	0.9
2-Apr	0	1	0	1	0	1	A	1	0	1	0	0	0	0	0	1	1	0	1	1	1	1	1	1	0.6	0.9
3-Apr	0	1	1	1	1	A	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0.7	1.0
4-Apr	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0	1	0	1	1	1	1	1	1	0.7	0.9
5-Apr	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.2
6-Apr	1	1	A	1	1	1	1	1	1	1	1	0	1	1	0	0	1	1	0	1	1	1	1	1	0.6	0.8
7-Apr	0	A	1	0	0	0	1	1	1	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0.5	0.7
8-Apr	A	0	0	1	0	0	0	0	0	0	0	0	1	M	1	1	1	0	1	1	1	1	1	A	0.5	0.7
9-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	0	1	1	A	1	0.6	0.9
10-Apr	1	1	0	0	0	1	1	1	1	1	1	1	1	0	1	0	1	1	1	1	1	A	1	1	0.6	0.8
11-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	0	0	A	1	1	1	0.7	0.9
12-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	0	1	1	A	1	0	1	1	0.6	0.8
13-Apr	0	0	0	0	0	1	1	1	1	1	1	1	0	0	1	1	0	1	A	1	1	1	0	0	0.5	0.9
14-Apr	1	1	1	1	1	0	1	1	1	1	0	1	0	1	1	0	1	A	1	0	0	1	0	0	0.5	0.6
15-Apr	1	1	0	1	0	0	1	1	1	1	0	0	0	0	0	0	A	1	0	0	1	0	1	0	0.5	0.7
16-Apr	1	0	0	0	0	0	1	1	0	0	0	0	0	0	1	A	0	0	0	0	1	0	0	1	0.4	0.7
17-Apr	0	1	1	1	0	1	0	1	1	1	1	1	1	1	A	1	1	1	1	1	0	1	1	1	0.6	0.8
18-Apr	1	0	0	0	1	1	0	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0	0	0	0.6	1.1
19-Apr	1	1	0	1	0	1	1	1	1	C	C	C	C	1	1	1	1	1	1	1	1	0	1	1	0.6	1.0
20-Apr	1	1	0	0	0	1	1	1	1	0	1	A	1	1	1	0	0	0	0	0	1	1	0	1	0.6	0.8
21-Apr	1	1	0	1	1	0	1	1	0	1	A	0	1	0	1	1	1	1	1	1	1	1	1	1	0.6	1.0
22-Apr	1	1	1	1	0	1	1	1	1	A	1	1	0	0	1	1	1	1	1	1	1	1	1	1	0.6	1.1
23-Apr	0	1	1	1	1	1	1	1	A	1	1	1	1	0	0	0	1	0	0	1	1	0	1	1	0.5	0.7
24-Apr	1	1	1	1	1	1	1	A	1	1	1	1	0	1	1	1	1	0	0	0	0	0	1	1	0.5	0.8
25-Apr	1	1	1	1	1	1	A	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	0.7	1.0
26-Apr	1	1	1	1	1	A	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0	0	1	1	0.6	1.0
27-Apr	0	0	2	1	A	1	1	1	0	0	0	0	1	0	0	0	0	1	0	1	1	1	1	0	0.6	1.5
28-Apr	0	0	1	A	1	1	1	1	1	1	1	1	1	0	0	0	1	1	1	1	1	1	0	0	0.6	0.9
29-Apr	1	1	A	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0.6	1.2
30-Apr	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	2	1	1	1	0.7	1.8
	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	Diurnal Average	
	0.9	1.0	1.5	1.2	1.0	0.9	1.2	1.0	0.9	0.9	0.9	1.1	1.0	0.9	0.9	0.8	1.0	1.0	1.1	1.0	1.8	1.0	0.8	0.8	Diurnal Maximum	

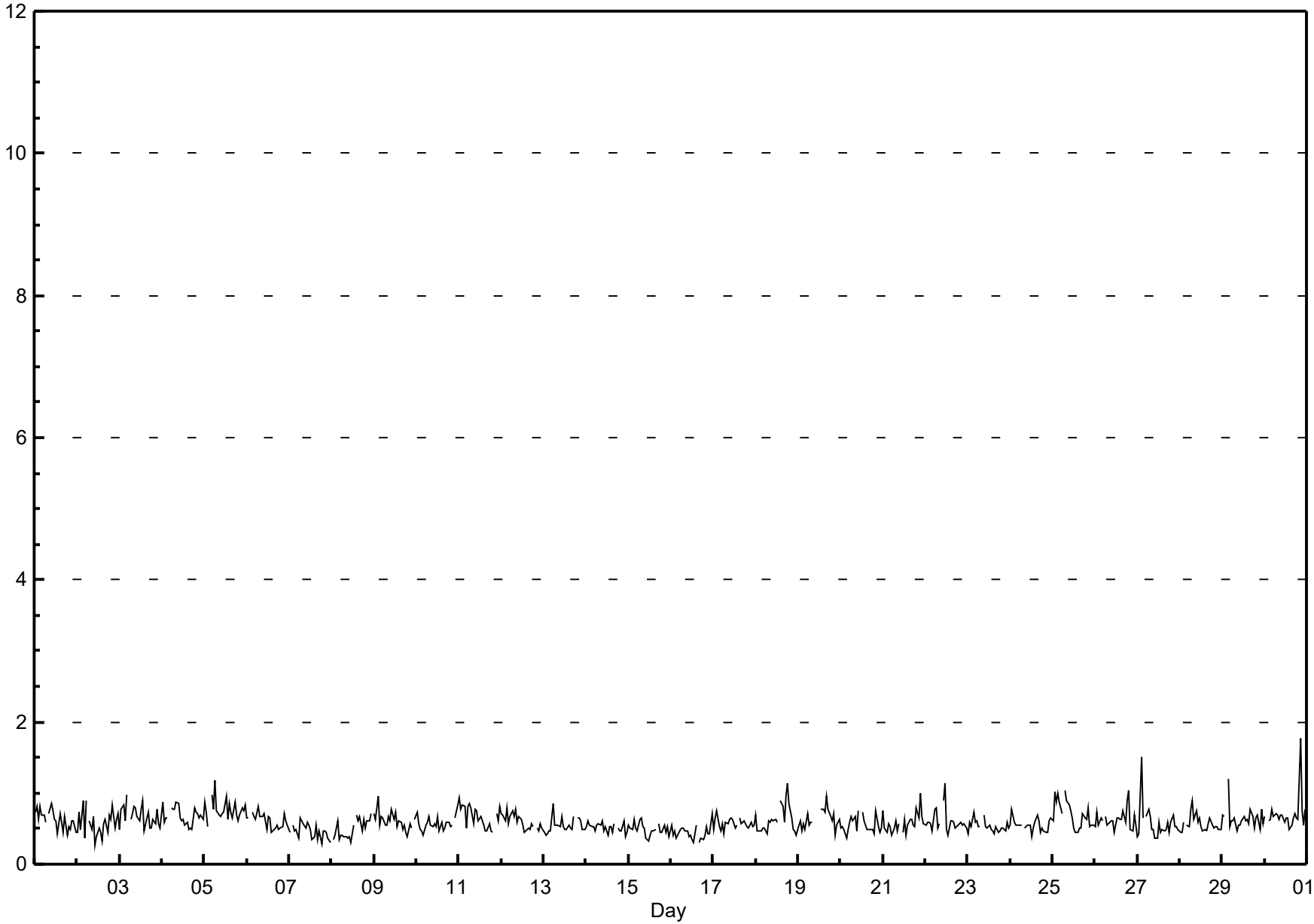
C - Calibration M - Maintenance A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

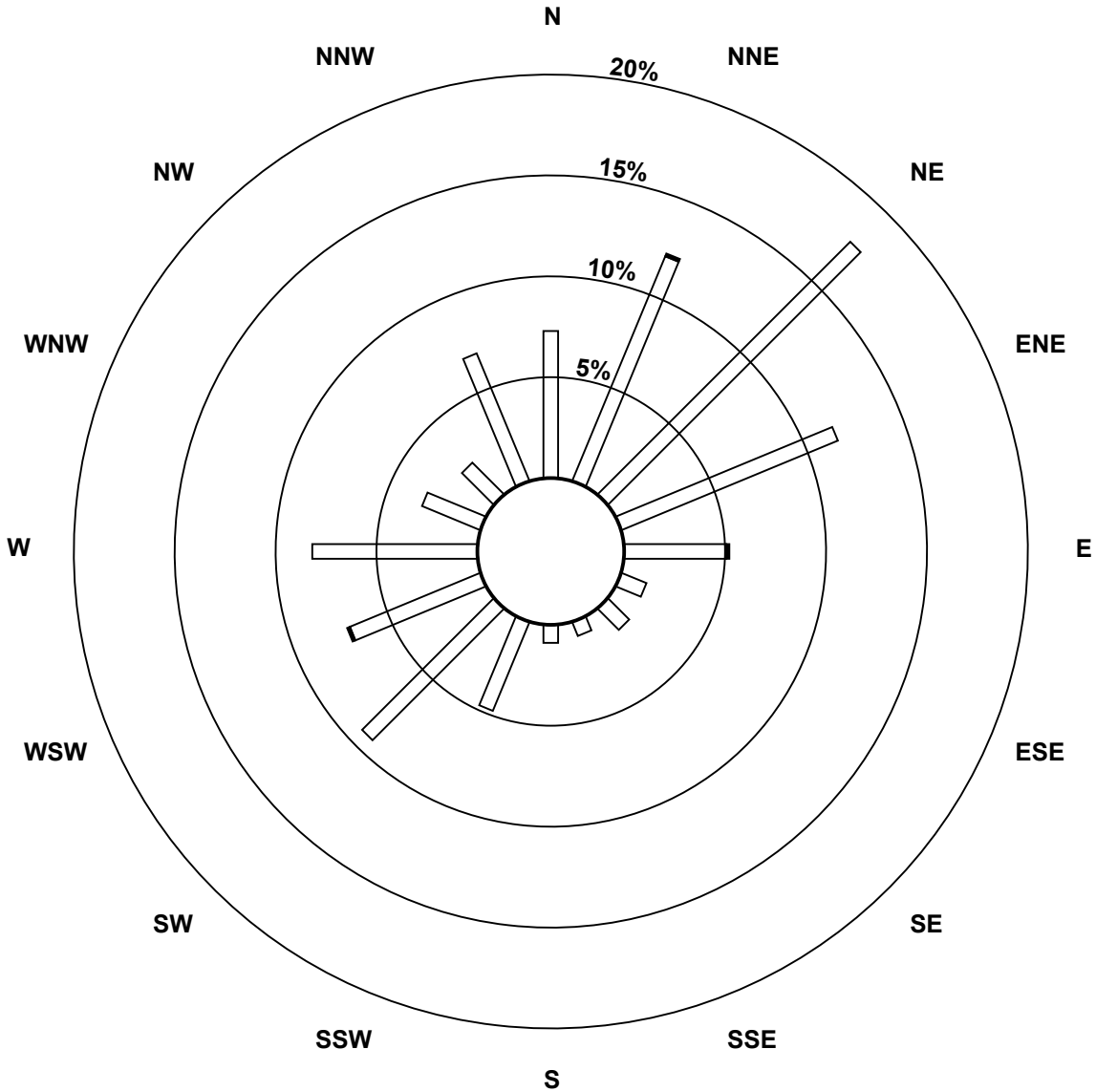
Henry Pirker - April 2017



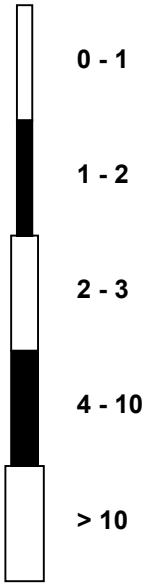
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - April 2017



Pollutant Classes (ppb)

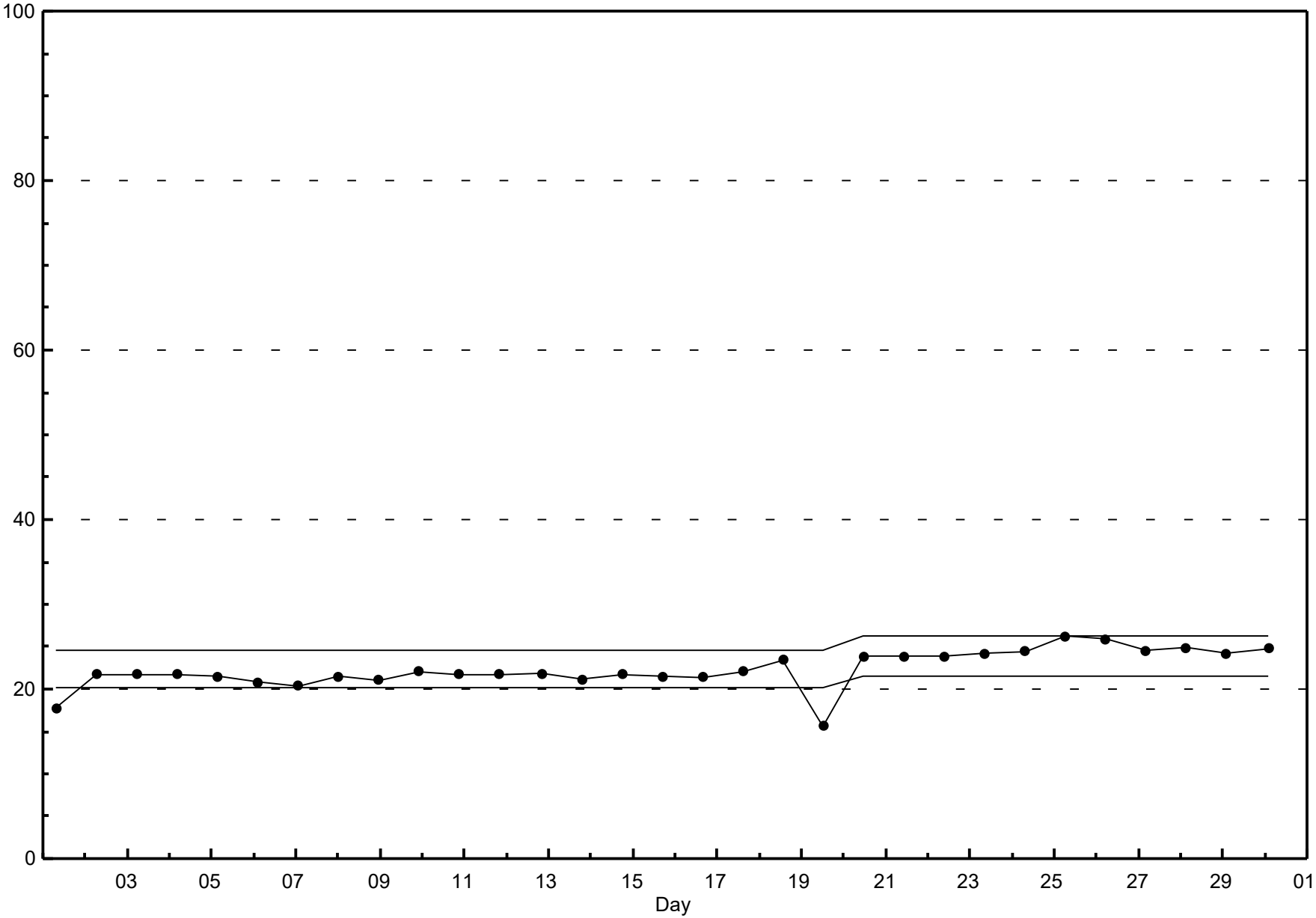


Peace Airshed Zone Association

Span Responses

Total Reduced Sulphur (TRS)

Henry Pirker - April 2017



Peace Airshed Zone Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Henry Pirker - April 2017

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 33.6 ppb on Apr 25 02:00

Maximum Daily Average: 10.3 ppb on Apr 25

Minimum Value: 0 ppb on Apr 3 16:00

Minimum Daily Average: 2.2 ppb on Apr 2

Maximum Diurnal Average: 10.2 ppb at hour 7

Minimum Diurnal Average: 2.1 ppb at hour 14

Monthly Average: 5.04 ppb

Percentiles: $P_1 = 0.7$ $P_{10} = 1.6$ $Q_1 = 2.1$ Median = 3.2 $Q_3 = 5.6$ $P_{90} = 11.5$ $P_{99} = 25.4$

Hours in Service:	720
Hours of Data:	683
Hours of Missing Data:	37
Hours of Calibration:	37
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	6	11	16	22	26	19	22	A	19	14	13	6	2	2	2	1	2	3	3	3	3	2	2	2	8.7	26.3
2-Apr	2	3	2	1	2	3	A	3	2	2	2	1	2	2	2	2	1	1	2	4	4	3	4	3	2.2	4.4
3-Apr	3	3	2	3	5	A	11	9	6	3	2	1	1	1	1	0	1	1	3	7	8	5	4	4	3.7	10.7
4-Apr	2	3	4	6	A	20	31	21	12	7	8	7	4	3	2	2	2	2	3	4	3	3	3	2	6.7	31.0
5-Apr	3	5	4	A	5	7	11	10	8	8	15	15	11	7	6	4	4	5	7	11	21	30	14	11	9.6	29.8
6-Apr	3	2	A	4	6	17	18	15	17	12	7	3	3	2	2	2	2	3	4	8	10	5	3	5	6.7	18.4
7-Apr	4	A	3	5	5	6	8	12	7	4	4	3	3	3	3	4	4	4	4	5	4	4	4	4	4.7	11.7
8-Apr	A	3	3	2	2	2	3	3	3	3	3	2	2	2	2	3	2	3	4	4	8	7	6	A	3.3	8.3
9-Apr	13	12	9	6	6	11	15	8	7	5	4	3	2	1	1	1	1	1	2	8	10	10	A	10	6.3	15.1
10-Apr	10	7	6	9	9	12	17	20	21	12	5	2	2	3	5	5	4	3	6	4	8	A	11	6	8.0	20.8
11-Apr	5	7	7	8	9	15	17	13	7	3	3	2	2	2	2	2	2	2	3	4	A	3	2	2	5.4	16.5
12-Apr	2	2	2	2	2	3	4	5	4	3	3	3	3	2	2	2	2	2	2	A	3	2	2	2	2.6	4.6
13-Apr	1	1	1	2	2	3	4	5	4	3	3	4	3	3	3	3	3	3	A	4	3	2	2	2	2.7	4.6
14-Apr	2	2	3	3	4	6	4	3	3	2	3	2	2	2	1	2	2	A	3	3	3	3	3	2	2.8	5.7
15-Apr	2	3	2	3	4	4	3	5	3	4	3	2	2	1	1	2	A	2	4	6	8	8	7	8	3.9	8.1
16-Apr	6	6	4	6	7	12	12	12	11	5	2	2	2	2	2	A	2	2	4	6	12	20	8	5	6.6	20.5
17-Apr	3	2	2	2	2	2	3	3	3	2	3	3	3	3	A	4	4	3	3	3	3	3	2	2	2.7	4.2
18-Apr	2	2	3	3	4	4	5	5	C	C	C	C	C	C	C	3	3	3	4	4	4	4	3	4	--	5.2
19-Apr	4	3	3	7	8	10	9	9	7	5	6	3	A	3	2	3	4	4	8	10	9	13	10	11	6.5	12.6
20-Apr	17	13	13	12	12	16	19	17	10	5	3	A	2	2	1	2	2	2	2	3	3	2	2	2	7.2	19.4
21-Apr	2	2	2	2	2	4	6	6	4	3	A	3	2	2	2	2	2	2	2	3	3	3	3	4	2.8	6.0
22-Apr	3	2	2	1	2	2	2	2	2	A	3	2	2	2	2	2	2	2	2	2	3	4	3	4	2.3	3.9
23-Apr	2	2	1	1	2	2	2	2	A	3	2	3	2	2	2	2	2	2	3	4	5	4	6	4	2.7	5.6
24-Apr	5	3	2	2	4	5	7	A	7	4	3	2	2	2	4	2	2	2	2	2	5	13	24	31	6.0	30.9
25-Apr	31	34	30	25	17	17	A	26	15	6	2	1	1	1	1	1	1	1	2	3	4	5	6	6	10.3	33.6
26-Apr	4	5	6	5	5	A	8	5	3	2	2	2	2	2	2	2	2	2	3	3	4	5	5	5	3.7	7.9
27-Apr	5	5	6	8	A	16	12	9	5	4	3	2	2	3	3	3	2	2	3	4	8	10	9	7	5.7	15.9
28-Apr	12	18	26	A	25	22	21	17	10	4	2	2	2	2	2	1	3	1	2	2	3	4	5	4	8.2	25.7
29-Apr	3	2	A	4	6	9	7	4	4	1	1	1	1	1	1	1	1	1	2	3	7	5	4	4	3.1	8.6
30-Apr	6	A	3	4	7	3	3	2	1	1	1	1	1	1	1	1	1	1	1	2	3	3	6	4	2.4	6.7
	5.6	5.9	6.0	5.7	6.8	8.9	10.2	8.9	7.3	4.7	3.9	3.0	2.4	2.1	2.1	2.2	2.3	2.4	3.2	4.4	6.0	6.5	5.6	5.5	Diurnal Average	
	31.0	33.6	29.5	25.4	26.3	21.6	31.0	26.4	20.8	14.2	14.9	14.6	11.0	7.1	5.7	4.8	4.4	5.2	7.5	10.5	20.9	29.8	24.3	30.9	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

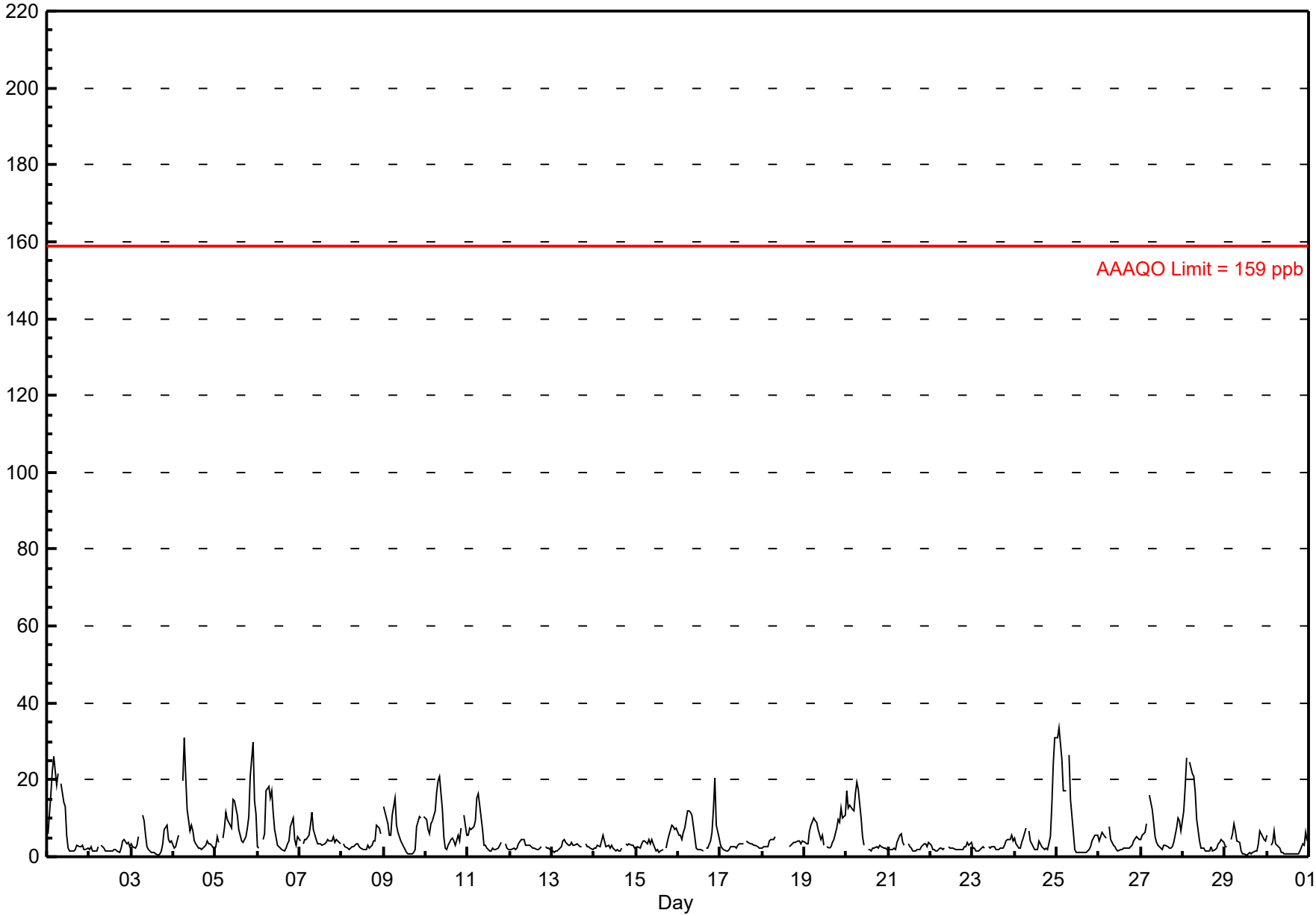
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb 24-hr 106 ppb

Peace Airshed Zone Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Henry Pirker - April 2017



Peace Airshed Zone Association

Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

Henry Pirker - April 2017

Maximum Value: 46.0 ppb on Apr 4 08:00

Maximum Daily Average: 14.3 ppb on Apr 5

Minimum Value: 1 ppb on Apr 30 14:00

Minimum Daily Average: 3.8 ppb on Apr 2

Maximum Diurnal Average: 14.2 ppb at hour 7

Minimum Diurnal Average: 4.1 ppb at hour 14

Monthly Average: 8.03 ppb

Percentiles: $P_1 = 1.2$ $P_{10} = 2.8$ $Q_1 = 3.7$ Median = 5.6 $Q_3 = 9.4$ $P_{90} = 17.5$ $P_{99} = 35.8$

Hours in Service:	720
Hours of Data:	683
Hours of Missing Data:	37
Hours of Calibration:	37
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	9	19	20	37	36	26	24	A	27	19	18	11	4	3	3	4	3	5	4	4	5	3	4	4	12.7	37.4
2-Apr	3	6	2	2	3	3	A	5	3	2	3	2	3	3	4	3	3	3	3	8	7	5	7	4	3.8	7.8
3-Apr	5	3	3	4	8	A	14	12	9	5	18	4	5	3	2	1	5	4	7	15	14	6	5	15	7.2	17.5
4-Apr	4	5	5	8	A	26	43	46	23	8	13	8	6	4	3	6	3	4	7	6	5	4	6	3	10.8	46.0
5-Apr	6	8	5	A	7	15	15	15	10	18	21	20	15	10	9	6	5	9	10	19	35	36	23	16	14.3	36.1
6-Apr	7	4	A	6	12	33	31	21	28	30	9	9	5	4	3	3	4	9	9	12	17	7	5	9	12.0	32.7
7-Apr	7	A	7	8	8	7	11	15	11	6	6	5	6	4	6	6	6	6	7	8	6	7	6	6	7.1	14.7
8-Apr	A	4	7	5	3	5	4	4	5	5	4	4	4	3	3	9	5	6	10	8	17	11	10	A	6.2	17.2
9-Apr	16	13	14	7	7	16	23	11	9	6	6	4	5	2	1	3	1	2	5	15	16	18	A	13	9.3	23.0
10-Apr	13	11	8	14	14	17	24	26	24	19	8	4	6	10	8	11	8	5	9	7	14	A	14	11	12.3	26.2
11-Apr	9	10	10	10	18	18	22	24	10	6	4	3	3	4	5	3	3	5	5	5	A	5	3	2	8.1	23.6
12-Apr	3	3	5	3	4	6	6	7	7	5	5	4	7	5	4	3	3	3	5	A	5	4	3	2	4.4	7.2
13-Apr	2	2	2	2	4	4	7	7	7	5	4	6	5	5	5	4	4	4	A	6	4	4	3	3	4.2	7.0
14-Apr	3	3	10	4	7	9	6	4	6	4	5	3	3	3	2	2	3	A	5	5	6	4	4	4	4.6	9.7
15-Apr	3	4	3	6	7	5	5	7	5	7	6	3	4	2	2	2	A	5	8	10	11	10	10	11	5.9	11.1
16-Apr	8	8	6	16	13	19	14	15	15	10	3	3	2	4	2	A	3	4	25	11	17	28	10	9	10.7	28.0
17-Apr	5	3	2	3	3	3	5	4	4	3	5	5	5	9	A	6	9	6	6	5	5	4	4	4	4.6	8.9
18-Apr	3	3	4	4	7	7	7	8	C	C	C	C	C	C	C	6	32	6	8	7	6	6	5	6	--	32.2
19-Apr	6	6	5	16	11	14	13	11	11	6	10	6	A	4	4	4	7	8	15	14	17	18	14	17	10.2	18.2
20-Apr	24	22	21	17	18	28	22	19	15	8	4	A	3	2	3	4	4	3	3	6	5	7	4	5	10.8	27.6
21-Apr	4	4	4	4	5	7	12	10	5	4	A	5	3	4	2	3	3	4	4	6	5	5	5	6	4.9	12.0
22-Apr	6	3	3	2	3	4	3	3	4	A	5	4	4	4	4	3	3	4	3	3	5	7	6	6	4.1	7.4
23-Apr	3	4	2	2	3	5	4	3	A	4	3	4	12	3	5	4	5	4	4	8	9	6	9	7	5.0	11.8
24-Apr	7	5	4	4	6	8	12	A	11	6	7	3	4	7	12	5	4	4	6	4	9	20	29	33	9.2	33.5
25-Apr	37	39	34	35	22	20	A	33	26	10	4	2	3	3	2	3	3	3	4	4	6	6	9	8	13.6	39.2
26-Apr	7	7	8	7	6	A	10	8	4	4	3	3	3	4	7	4	4	6	5	5	5	7	7	6	5.6	9.9
27-Apr	6	9	9	11	A	19	17	12	8	5	4	6	3	6	7	10	5	6	4	10	12	14	15	9	9.0	18.9
28-Apr	21	21	29	A	27	25	24	21	13	8	3	5	7	3	7	4	8	3	6	4	8	8	7	8	11.7	28.7
29-Apr	5	5	A	6	9	14	14	6	27	2	2	1	1	2	3	2	2	2	3	6	9	7	6	6	6.2	27.1
30-Apr	10	A	5	7	12	7	6	4	3	4	4	2	1	1	1	1	1	1	2	4	6	5	12	9	4.7	12.2
	8.3	8.4	8.5	8.9	10.0	13.1	14.2	12.8	11.8	7.9	6.7	5.0	4.7	4.1	4.3	4.3	5.1	4.6	6.6	7.7	9.9	9.5	8.4	8.4	Diurnal Average	
	36.5	39.2	34.0	37.4	35.9	32.7	42.7	46.0	27.7	30.0	20.9	19.6	14.6	10.2	12.0	10.5	32.2	8.7	24.6	19.3	34.6	36.1	29.5	33.5	Diurnal Maximum	

C - Calibration

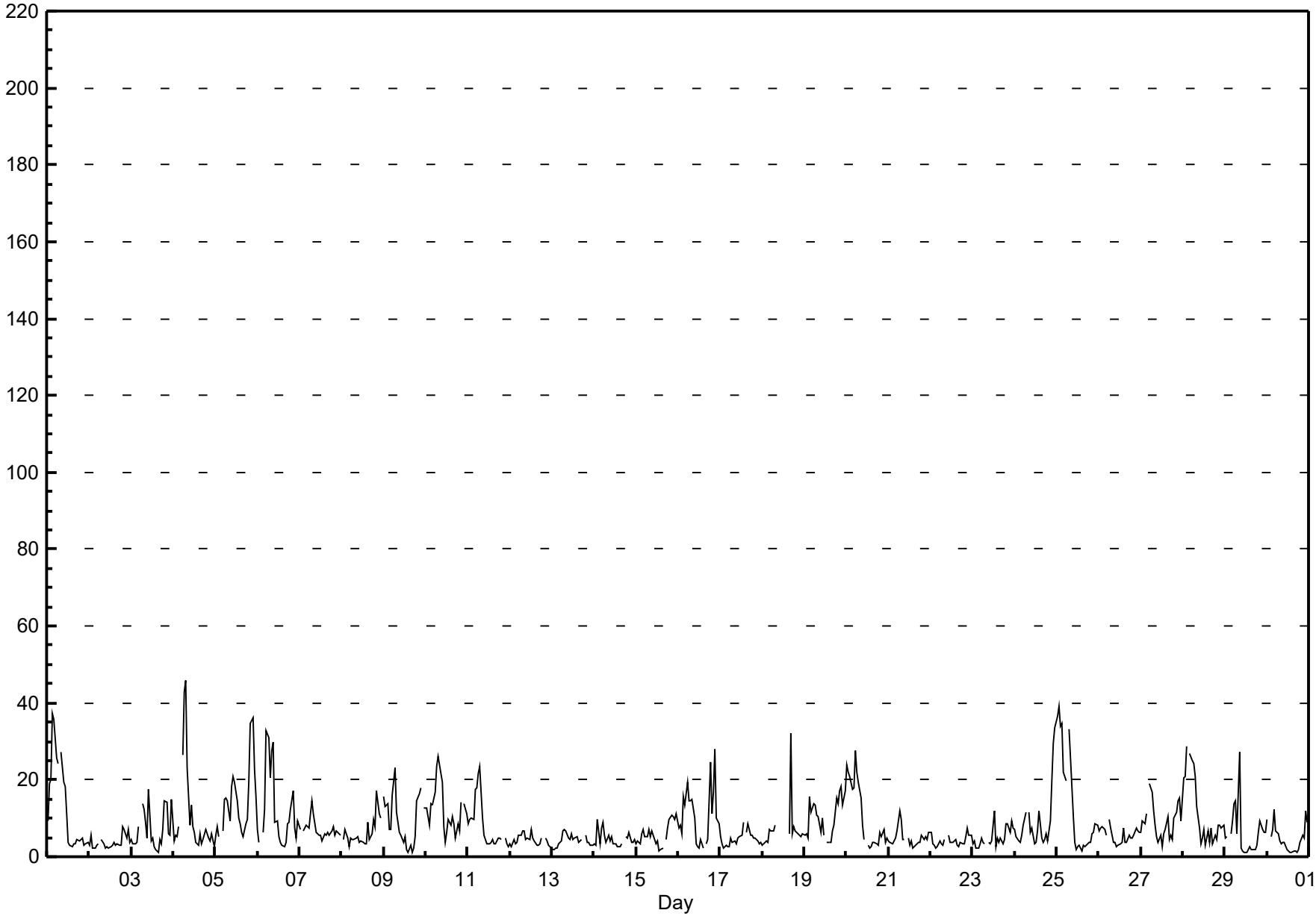
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

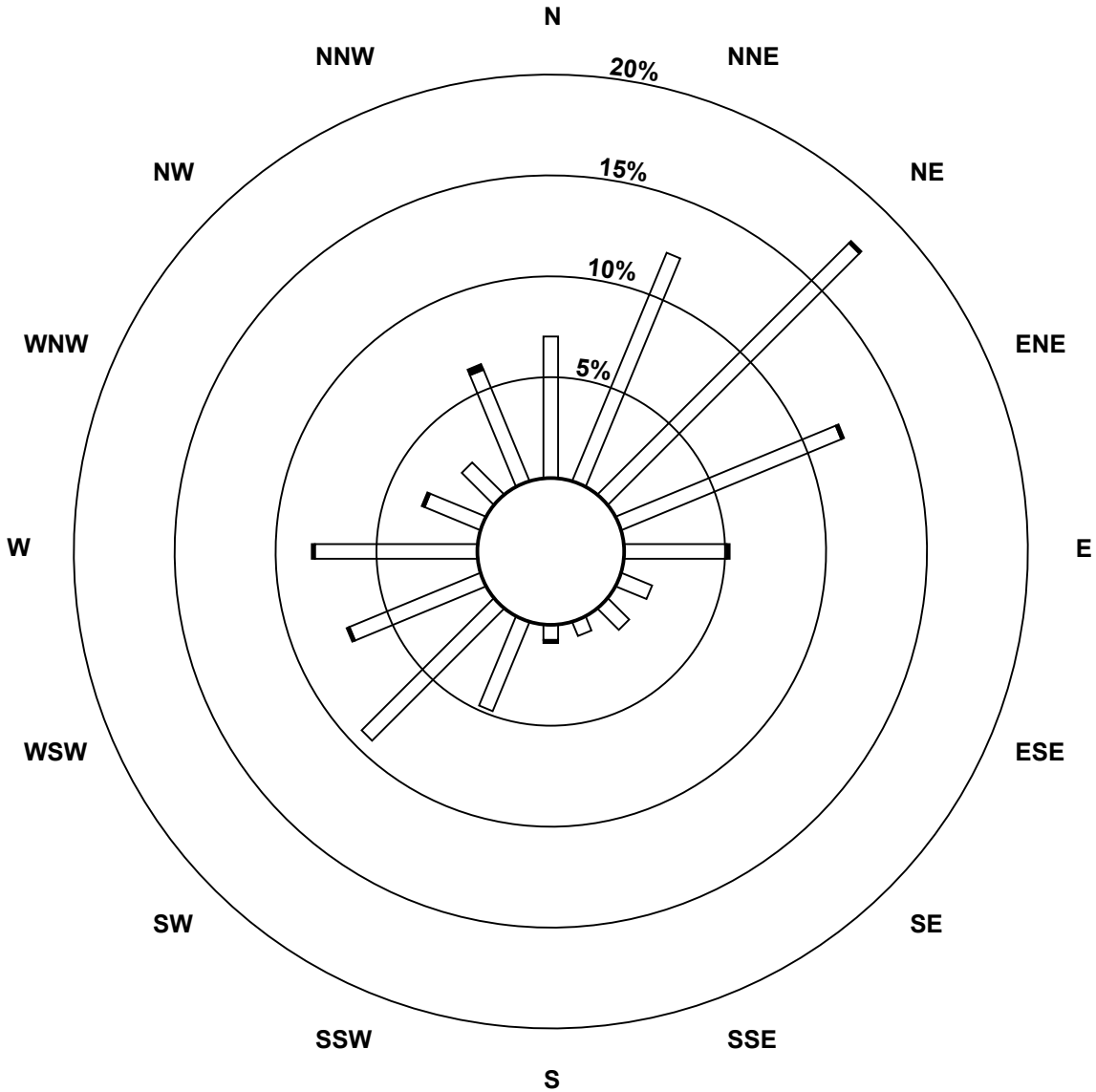
Henry Pirker - April 2017



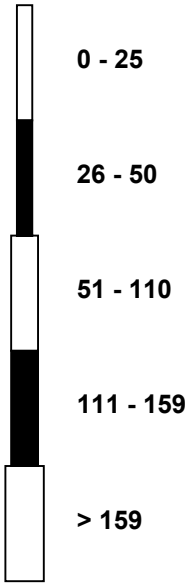
Pollutant Rose

Nitrogen Dioxide (NO_2) - ppb

Henry Pirker - April 2017



Pollutant Classes (ppb)

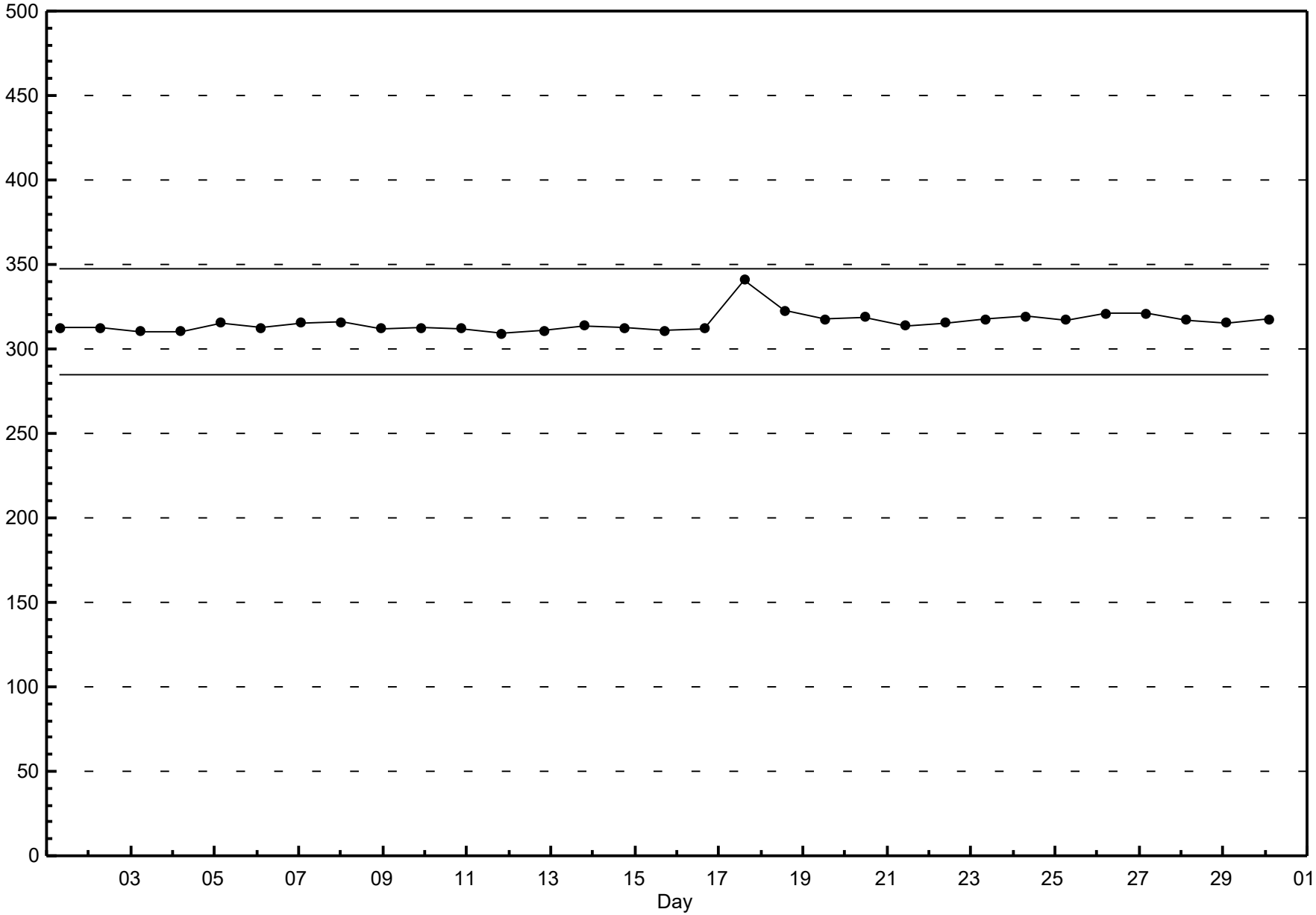


Peace Airshed Zone Association

Span Responses

Nitrogen Dioxide (NO_2)

Henry Pirker - April 2017



Peace Airshed Zone Association

Hourly Averages

Nitrogen Oxide (NO) - ppb

Henry Pirker - April 2017

Maximum Value: 44.1 ppb on Apr 25 08:00

Maximum Daily Average: 9.3 ppb on Apr 25

Minimum Value: 0 ppb on Apr 3 00:00

Minimum Daily Average: 0.1 ppb on Apr 30

Maximum Diurnal Average: 5.3 ppb at hour 8

Minimum Diurnal Average: 0.3 ppb at hour 23

Monthly Average: 1.24 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.1$ $Q_1 = 0.3$ Median = 0.5 $Q_3 = 0.9$ $P_{90} = 1.9$ $P_{99} = 20.7$

Hours in Service:	720
Hours of Data:	683
Hours of Missing Data:	37
Hours of Calibration:	37
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	0	0	2	2	0	0	A	1	2	4	2	1	1	1	1	0	0	0	0	0	0	0	0	0.8	3.7
2-Apr	0	0	0	0	0	0	A	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
3-Apr	0	0	0	0	0	A	1	2	2	2	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0.4	1.6
4-Apr	0	0	0	0	A	1	15	11	5	3	4	3	2	1	1	1	0	0	1	0	0	0	0	0	2.1	15.0
5-Apr	0	0	0	A	0	0	0	1	1	1	2	3	4	2	2	1	1	1	1	0	1	4	1	0	1.2	3.7
6-Apr	0	0	A	0	0	1	3	4	6	4	3	1	1	1	0	0	0	0	1	1	0	0	0	0	1.1	6.1
7-Apr	0	A	0	0	0	0	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	0	0	0	0.5	0.9
8-Apr	A	0	0	0	0	0	0	0	0	1	1	1	0	1	1	1	0	0	0	0	0	0	0	A	0.4	0.7
9-Apr	0	0	0	0	0	0	2	1	2	3	2	1	1	0	0	0	0	0	0	0	0	0	A	0	0.8	3.1
10-Apr	0	0	0	0	0	0	3	8	13	5	2	1	0	1	1	0	1	0	0	0	0	A	0	0	1.6	13.3
11-Apr	0	0	0	0	0	1	2	5	2	1	2	1	1	1	1	1	1	1	1	0	A	0	0	0	0.8	4.8
12-Apr	0	0	1	1	0	1	1	2	1	1	1	1	1	1	1	1	1	0	1	A	0	0	0	0	0.7	1.8
13-Apr	0	0	0	0	0	1	1	1	1	1	1	2	1	1	1	1	1	1	A	1	1	1	0	0	0.8	1.6
14-Apr	0	0	1	0	0	0	0	0	1	1	1	1	1	1	1	1	1	A	0	0	0	0	0	0	0.5	1.5
15-Apr	0	0	0	0	0	0	0	1	1	2	2	1	1	1	1	1	A	1	1	0	0	0	0	0	0.6	1.9
16-Apr	0	1	1	1	1	2	3	11	14	5	2	1	1	1	1	A	0	0	1	0	0	1	0	0	2.1	14.0
17-Apr	0	0	0	0	0	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0	0	0	0	0	0.7	1.5
18-Apr	0	0	0	0	0	0	0	1	C	C	C	C	C	C	C	1	1	1	1	1	0	0	0	0	--	1.3
19-Apr	0	0	0	0	0	0	1	2	2	2	4	3	A	2	2	1	2	1	1	1	0	0	0	0	1.2	4.0
20-Apr	1	1	0	0	0	3	9	12	6	3	1	A	0	0	0	1	1	1	0	0	1	1	0	0	1.9	11.8
21-Apr	0	0	0	0	0	0	0	1	1	1	A	2	1	1	1	1	1	1	1	1	1	1	0	0	0.6	1.7
22-Apr	0	0	0	0	0	1	1	1	1	A	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0.5	0.9
23-Apr	0	0	0	0	0	0	1	1	A	1	1	1	1	1	1	1	1	0	0	1	0	0	0	0	0.5	1.0
24-Apr	0	0	0	0	0	0	1	A	2	2	1	1	1	1	2	1	0	0	0	0	0	0	1	3	0.8	3.2
25-Apr	6	34	41	33	14	22	A	44	11	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	9.3	44.1
26-Apr	0	0	1	1	1	A	2	2	2	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0.8	2.1
27-Apr	0	0	0	0	A	2	4	4	3	2	2	1	1	1	1	1	1	0	0	0	0	0	0	0	1.1	4.1
28-Apr	0	0	3	A	11	10	27	31	5	2	1	1	1	1	0	0	1	0	0	0	0	0	0	0	4.1	31.3
29-Apr	0	0	A	0	0	0	1	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.8
30-Apr	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
	0.4	1.5	1.8	1.5	1.2	1.8	2.9	5.3	3.1	1.9	1.5	1.1	0.9	0.8	0.7	0.6	0.6	0.5	0.5	0.4	0.3	0.4	0.3	0.3	Diurnal Average	
	5.7	34.2	41.4	32.7	14.2	22.2	26.8	44.1	14.0	5.5	4.0	3.0	3.6	2.5	2.1	1.3	2.0	1.5	1.4	0.9	0.6	3.7	1.4	3.2	Diurnal Maximum	

C - Calibration

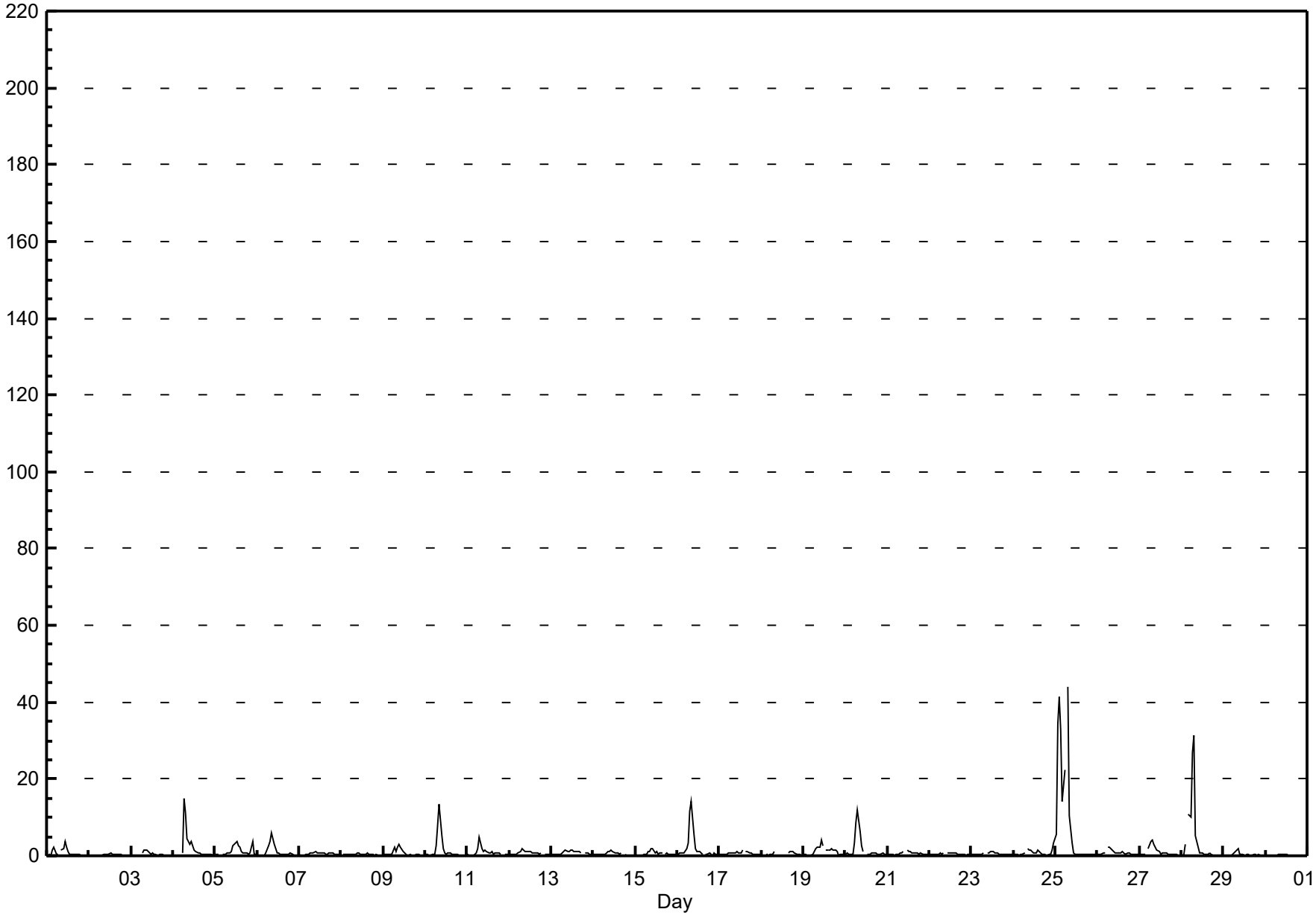
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Nitrogen Oxide (NO) - ppb

Henry Pirker - April 2017



Peace Airshed Zone Association

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Henry Pirker - April 2017

Maximum Value: 76.7 ppb on Apr 4 08:00

Maximum Daily Average: 17.0 ppb on Apr 25

Minimum Value: 0 ppb on Apr 15 00:00

Minimum Daily Average: 0.5 ppb on Apr 30

Maximum Diurnal Average: 12.5 ppb at hour 8

Minimum Diurnal Average: 1.2 ppb at hour 23

Monthly Average: 3.48 ppb

Percentiles: $P_1 = 0.2$ $P_{10} = 0.3$ $Q_1 = 0.8$ Median = 1.6 $Q_3 = 2.9$ $P_{90} = 5.8$ $P_{99} = 52.9$

Hours in Service:	720
Hours of Data:	683
Hours of Missing Data:	37
Hours of Calibration:	37
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	3	1	7	14	3	2	A	3	4	7	5	2	1	1	2	1	1	1	0	0	0	0	0	2.6	14.1
2-Apr	0	0	0	0	0	0	A	0	1	1	1	1	1	2	1	1	1	1	0	1	5	0	0	0	0.8	5.2
3-Apr	0	0	0	0	0	A	1	17	3	35	8	6	15	2	1	0	6	1	1	0	0	0	0	0	4.2	35.4
4-Apr	0	0	0	0	A	3	54	77	18	3	8	4	3	1	1	3	2	2	2	1	1	1	1	1	8.1	76.7
5-Apr	1	1	0	A	0	5	1	1	1	8	4	5	5	5	4	2	1	2	4	1	4	16	2	2	3.3	15.7
6-Apr	0	0	A	0	1	4	12	11	14	18	4	4	1	1	1	1	1	4	3	3	1	1	0	2	3.7	18.2
7-Apr	1	A	1	0	1	1	3	2	2	2	3	2	2	2	2	1	1	3	3	4	3	1	1	1	1.8	3.7
8-Apr	A	1	1	2	1	1	1	2	1	1	1	1	1	1	1	3	2	2	1	0	2	0	1	A	1.3	2.5
9-Apr	2	2	2	1	1	2	4	3	4	4	3	2	20	1	0	2	0	0	1	1	2	1	A	1	2.6	20.1
10-Apr	1	1	1	1	1	2	6	19	17	11	3	1	2	7	2	2	1	1	1	0	0	A	0	0	3.5	19.5
11-Apr	2	0	0	0	3	2	9	18	4	2	3	2	2	2	3	2	3	2	3	2	A	2	1	1	3.0	17.6
12-Apr	2	2	2	2	2	4	3	4	4	2	2	2	4	4	3	1	2	1	2	A	2	1	1	1	2.2	4.5
13-Apr	1	1	1	2	1	2	2	2	4	3	2	4	3	2	3	2	2	2	A	2	3	2	1	2	2.1	3.8
14-Apr	1	1	2	1	1	1	1	1	10	2	3	1	2	1	1	1	1	A	1	0	0	0	0	0	1.5	10.0
15-Apr	0	0	0	0	0	1	1	2	2	3	4	4	16	1	1	1	A	1	2	1	0	1	1	1	2.0	16.4
16-Apr	1	2	2	6	6	9	6	21	22	14	3	3	2	3	1	A	1	1	21	1	1	8	1	0	5.8	21.7
17-Apr	3	2	0	2	1	2	3	4	2	3	3	2	2	16	A	3	6	4	2	1	2	1	1	2	2.9	16.0
18-Apr	0	0	1	1	0	1	1	4	C	C	C	C	C	C	C	2	3	3	5	4	1	2	2	1	--	4.5
19-Apr	1	4	1	0	0	1	2	3	4	3	10	5	A	3	4	2	5	8	6	4	1	2	1	1	3.2	10.2
20-Apr	3	10	2	2	1	21	16	15	11	5	3	A	1	1	1	2	2	2	1	1	3	6	1	3	4.9	21.0
21-Apr	1	1	1	1	1	1	2	1	1	1	A	4	2	4	2	2	2	3	2	3	2	3	3	1	1.9	3.9
22-Apr	3	2	1	2	2	2	3	2	2	A	5	3	2	2	1	2	1	1	1	0	1	0	1	1	1.7	5.0
23-Apr	1	1	1	1	1	1	2	2	A	2	2	4	7	2	4	3	2	2	1	3	4	1	5	2	2.3	6.6
24-Apr	5	0	1	1	1	1	2	A	4	3	8	2	3	5	9	2	1	1	4	1	1	1	4	9	2.9	9.3
25-Apr	12	59	60	60	30	48	A	68	31	6	2	1	2	1	1	2	1	3	1	1	1	1	1	1	17.0	68.0
26-Apr	1	1	1	1	1	A	5	3	3	2	1	2	2	2	4	2	1	3	3	2	1	1	1	1	1.9	5.0
27-Apr	1	3	2	1	A	3	9	6	5	3	2	5	1	2	4	5	2	3	2	2	3	1	1	0	2.9	8.7
28-Apr	3	3	5	A	27	14	49	61	10	13	1	2	3	4	2	2	3	2	1	0	1	0	1	0	9.1	60.6
29-Apr	0	0	A	0	0	1	1	2	33	1	1	0	1	1	2	1	1	0	1	1	2	1	1	1	2.2	32.5
30-Apr	0	A	0	1	0	0	0	1	1	1	2	1	0	0	0	0	0	0	0	0	0	0	1	0	0.5	1.7
	1.6	3.6	3.2	3.4	3.6	4.9	7.3	12.5	7.6	5.7	3.5	2.7	3.8	2.8	2.2	1.9	2.0	2.1	2.5	1.5	1.6	1.9	1.2	1.2	Diurnal Average	
	11.8	58.8	59.6	59.5	30.3	48.0	54.3	76.7	32.5	35.4	10.2	5.9	20.1	16.0	9.3	5.4	6.2	7.6	20.8	4.1	5.2	15.7	5.1	9.0	Diurnal Maximum	

C - Calibration

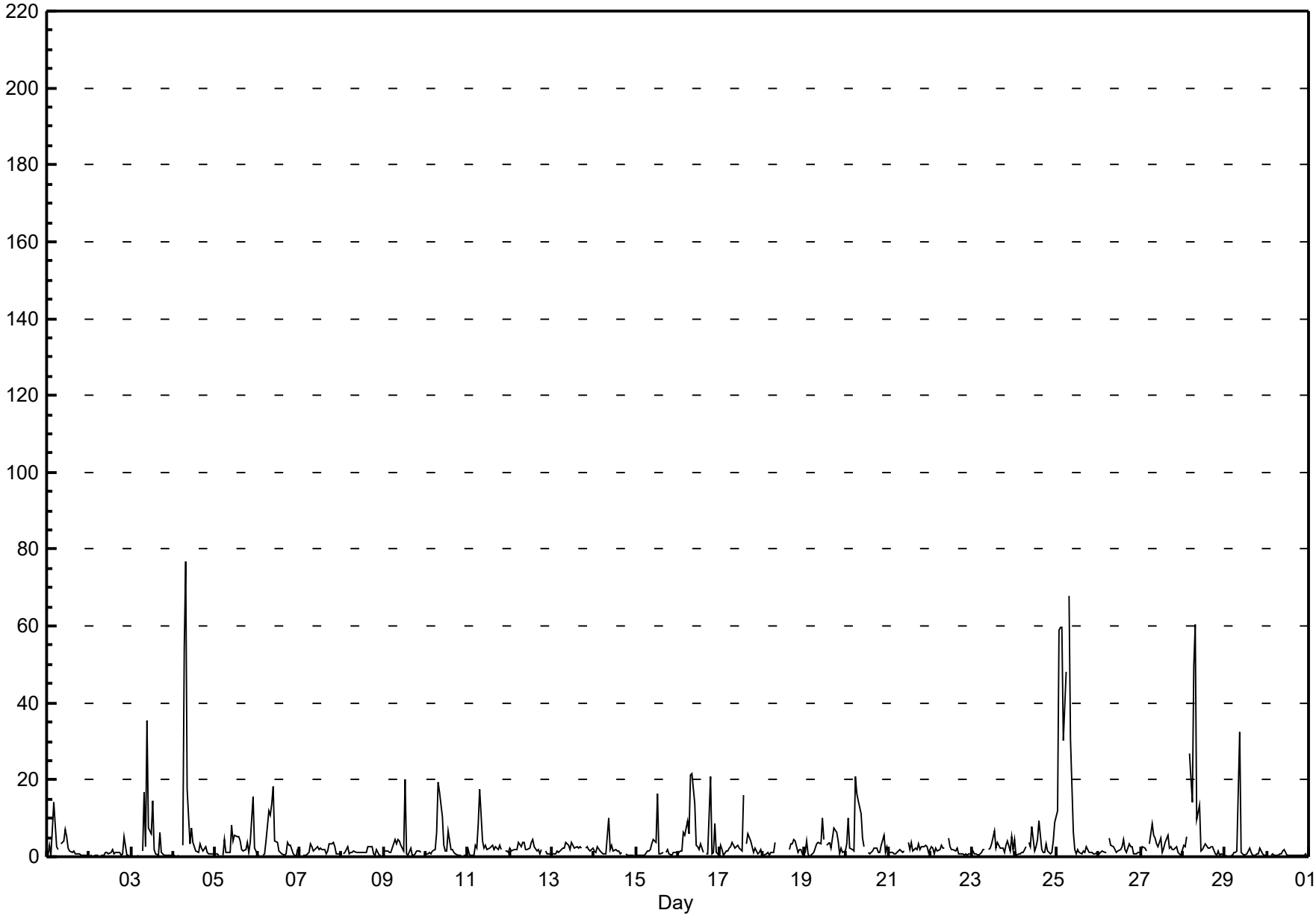
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Henry Pirker - April 2017



Peace Airshed Zone Association

Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Henry Pirker - April 2017

Maximum Value: 71.6 ppb on Apr 25 03:00

Maximum Daily Average: 20.0 ppb on Apr 25

Minimum Value: 1 ppb on Apr 3 16:00

Minimum Daily Average: 2.8 ppb on Apr 2

Maximum Diurnal Average: 14.6 ppb at hour 8

Minimum Diurnal Average: 3.1 ppb at hour 16

Monthly Average: 6.63 ppb

Percentiles: P_1 = 1.2 P_{10} = 2.3 Q_1 = 3.0 Median = 4.2 Q_3 = 6.5 P_{90} = 12.7 P_{99} = 46.1

Hours in Service:	720
Hours of Data:	683
Hours of Missing Data:	37
Hours of Calibration:	37
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	6	12	17	24	29	20	23	A	21	16	17	8	3	2	2	2	3	4	3	3	4	2	2	2	9.8	28.8
2-Apr	2	3	2	2	2	3	A	3	3	2	2	2	3	2	3	2	2	2	3	5	5	4	4	3	2.8	4.8
3-Apr	4	3	3	3	6	A	12	11	8	4	3	2	2	2	1	1	1	2	4	8	9	5	4	4	4.4	11.7
4-Apr	3	3	4	6	A	21	47	33	17	10	13	10	6	5	3	3	3	3	4	5	4	4	4	2	9.2	46.6
5-Apr	3	6	4	A	6	8	12	11	9	9	18	18	15	10	8	5	5	6	9	11	22	34	15	12	11.2	34.0
6-Apr	3	2	A	5	6	18	22	19	24	16	10	4	3	3	2	2	3	4	5	9	11	5	3	6	8.1	23.6
7-Apr	5	A	4	5	5	6	9	13	8	6	4	4	4	4	4	5	5	5	5	6	4	5	5	4	5.4	12.9
8-Apr	A	4	3	3	2	3	3	3	4	4	4	3	2	3	3	4	3	3	5	5	9	8	6	A	3.9	8.9
9-Apr	14	12	9	6	6	12	18	10	9	9	7	4	3	2	1	1	1	2	2	8	11	10	A	11	7.4	17.6
10-Apr	10	8	6	9	10	13	20	28	35	18	7	3	3	4	5	6	5	3	6	4	8	A	11	6	9.9	34.6
11-Apr	6	8	7	8	10	17	19	19	9	4	5	3	3	2	3	2	3	3	4	4	A	4	3	2	6.5	18.7
12-Apr	2	3	3	3	3	4	6	7	6	5	4	5	4	3	3	3	3	3	3	A	3	3	3	2	3.7	6.7
13-Apr	2	2	2	2	3	3	5	6	5	4	4	6	5	4	5	4	4	4	A	5	4	3	3	3	3.8	6.0
14-Apr	3	3	4	3	5	6	5	3	4	4	5	3	3	3	2	2	3	A	4	4	4	3	3	3	3.6	6.3
15-Apr	3	3	3	4	4	5	4	6	5	7	5	3	3	2	2	3	A	3	5	6	9	8	8	8	4.8	8.7
16-Apr	6	6	5	8	8	14	16	23	25	11	4	3	3	3	2	A	3	3	5	7	13	22	9	6	9.0	25.1
17-Apr	4	3	2	2	2	3	4	4	4	3	4	5	4	5	A	6	5	5	4	4	4	3	3	3	3.7	5.7
18-Apr	3	3	3	3	5	5	5	7	C	C	C	C	C	C	C	4	5	5	5	5	5	5	4	5	--	6.6
19-Apr	4	4	4	7	9	11	11	11	10	7	10	6	A	4	4	4	6	6	9	11	9	13	11	12	8.0	13.3
20-Apr	18	14	14	13	13	20	28	30	17	8	4	A	3	2	2	3	4	4	3	4	3	3	3	3	9.4	29.7
21-Apr	2	3	3	3	3	4	6	7	5	4	A	5	4	4	3	3	3	3	3	4	4	4	3	5	3.8	7.2
22-Apr	4	3	2	2	2	3	3	3	3	A	4	3	3	3	3	3	3	3	3	3	3	4	4	4	3.2	4.4
23-Apr	3	3	2	2	2	3	3	3	A	4	3	4	4	3	3	3	3	3	4	5	5	5	6	5	3.6	6.5
24-Apr	6	4	3	3	4	6	9	A	9	6	5	3	3	3	6	3	3	3	3	2	6	14	26	35	7.2	34.7
25-Apr	37	68	72	59	32	40	A	71	26	10	3	2	2	2	2	2	2	2	2	3	5	5	6	6	20.0	71.6
26-Apr	5	6	7	6	6	A	10	7	5	4	3	3	3	3	4	3	3	3	4	4	5	6	6	5	4.8	10.5
27-Apr	5	6	7	9	A	18	16	13	9	6	5	4	3	4	4	4	3	3	3	4	8	11	10	7	7.1	18.3
28-Apr	12	19	29	A	36	32	48	49	15	7	3	3	3	2	2	2	4	2	2	3	4	4	5	4	12.7	48.6
29-Apr	3	3	A	5	7	9	8	6	6	2	1	1	1	1	2	1	1	2	2	4	8	6	5	5	3.9	9.3
30-Apr	6	A	4	4	7	4	3	3	2	2	2	1	1	1	1	1	1	1	1	2	4	4	7	5	2.9	7.2
	6.4	7.7	8.2	7.5	8.3	11.1	13.4	14.6	10.8	6.9	5.7	4.4	3.6	3.2	3.1	3.1	3.2	3.3	4.0	5.1	6.6	7.2	6.3	6.1	Diurnal Average	
	37.2	68.5	71.6	58.7	35.9	39.7	48.3	71.2	34.6	17.5	17.8	18.1	15.0	10.0	8.1	5.7	6.1	6.4	9.3	11.3	21.9	34.0	26.4	34.7	Diurnal Maximum	

C - Calibration

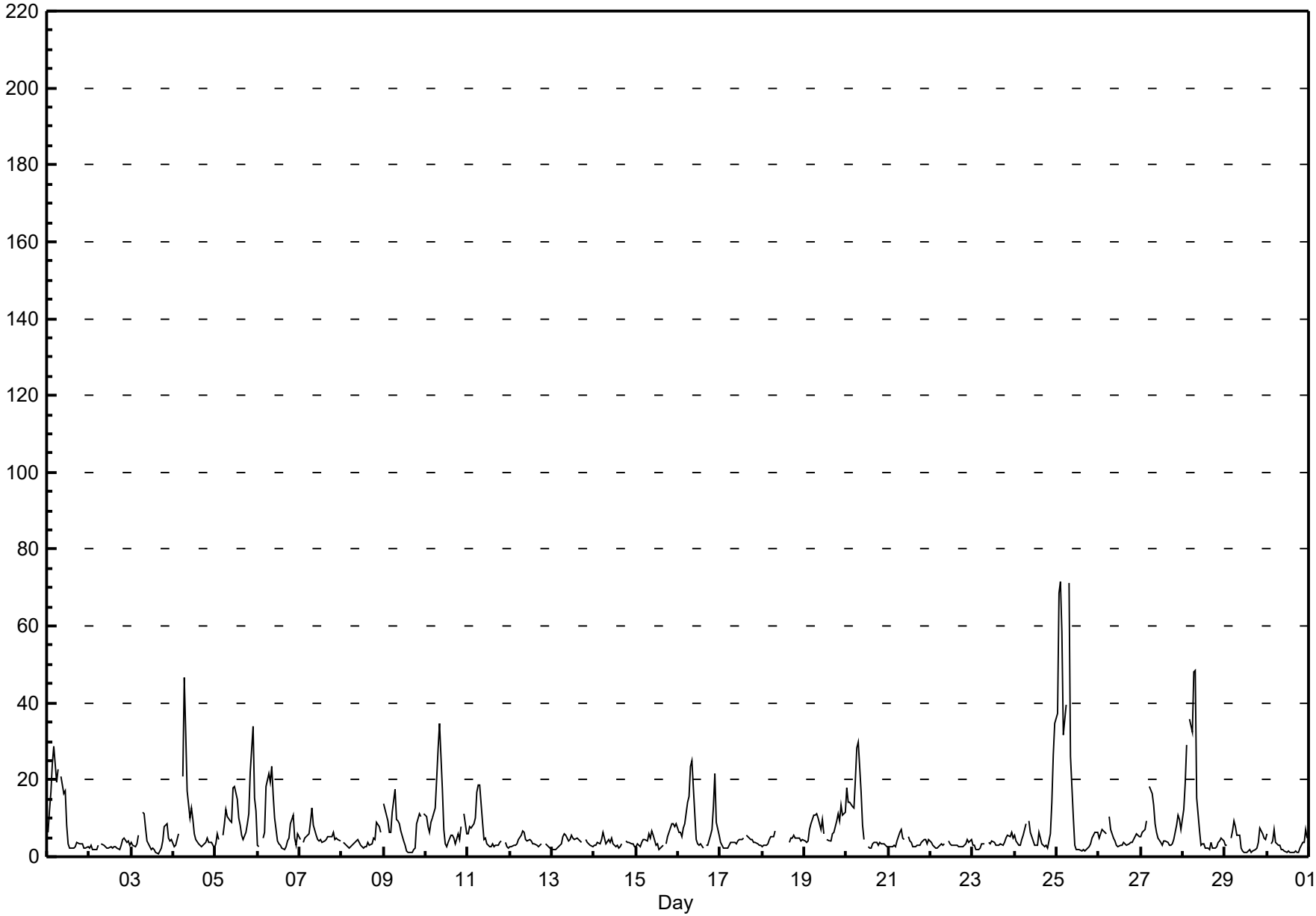
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Henry Pirker - April 2017



Peace Airshed Zone Association

Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

Henry Pirker - April 2017

Maximum Value: 105.2 ppb on Apr 4 08:00

Maximum Daily Average: 30.6 ppb on Apr 25

Minimum Value: 2 ppb on Apr 9 17:00

Minimum Daily Average: 4.8 ppb on Apr 2

Maximum Diurnal Average: 24.2 ppb at hour 8

Minimum Diurnal Average: 6.3 ppb at hour 16

Monthly Average: 11.45 ppb

Percentiles: P_1 = 1.8 P_{10} = 4.1 Q_1 = 5.3 Median = 7.5 Q_3 = 12.1 P_{90} = 21.9 P_{99} = 78.2

Hours in Service:	720
Hours of Data:	683
Hours of Missing Data:	37
Hours of Calibration:	37
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	10	21	21	45	50	28	25	A	31	24	25	15	6	5	4	5	4	6	5	5	5	3	4	4	15.3	50.4
2-Apr	3	6	2	3	3	4	A	5	4	4	4	3	4	5	5	4	5	4	4	8	11	5	8	4	4.8	11.3
3-Apr	5	4	4	4	8	A	15	24	12	16	24	7	19	4	3	2	10	4	8	15	15	6	6	15	10.1	24.3
4-Apr	5	6	5	9	A	29	97	105	41	12	21	12	9	6	4	10	5	6	10	7	6	5	7	3	18.3	105.2
5-Apr	7	9	6	A	8	20	17	16	11	24	26	26	20	14	13	8	7	10	13	20	38	48	25	18	17.5	48.0
6-Apr	7	4	A	6	13	36	41	30	42	49	13	13	6	5	4	3	5	11	12	15	18	8	5	10	15.6	48.6
7-Apr	8	A	7	8	9	9	14	16	12	9	9	7	8	6	8	6	8	9	10	11	8	7	7	6	8.8	16.0
8-Apr	A	5	8	7	4	6	6	5	6	6	5	5	5	5	5	12	7	9	11	8	19	12	11	A	7.6	19.2
9-Apr	18	15	15	9	8	19	28	15	13	11	9	5	24	2	2	6	2	3	6	16	18	19	A	13	11.9	27.6
10-Apr	14	12	9	15	14	18	30	43	39	30	11	5	8	17	9	13	10	6	9	7	15	A	14	12	15.7	42.5
11-Apr	10	10	11	10	21	20	31	40	14	8	7	6	5	6	8	5	6	6	8	6	A	6	5	4	11.0	39.8
12-Apr	6	4	6	5	6	9	8	10	11	7	6	7	12	10	6	5	4	4	6	A	6	5	4	3	6.6	11.6
13-Apr	3	2	3	4	5	6	9	10	9	8	6	10	7	7	8	6	7	6	A	7	6	5	5	6	6.3	9.8
14-Apr	5	4	11	5	9	10	7	5	13	6	9	5	5	4	4	4	5	A	6	5	7	4	4	5	6.2	13.0
15-Apr	4	4	4	7	8	6	7	9	7	11	10	7	19	3	3	4	A	6	10	11	11	12	11	13	8.0	18.7
16-Apr	9	10	8	22	19	28	18	36	37	24	6	5	4	8	4	A	4	5	46	12	18	32	12	9	16.5	45.8
17-Apr	7	5	3	4	4	5	7	6	6	6	8	7	7	23	A	10	15	9	8	5	7	5	5	5	7.3	22.7
18-Apr	4	4	5	5	8	8	8	11	C	C	C	C	C	C	C	7	34	10	13	11	7	7	7	7	--	33.7
19-Apr	7	10	6	16	12	15	15	15	15	10	21	11	A	6	7	6	11	16	22	15	18	21	14	18	13.4	21.9
20-Apr	27	32	22	19	20	49	36	34	26	14	7	A	4	3	4	5	6	5	4	8	8	12	4	8	15.6	49.1
21-Apr	5	5	5	5	6	8	14	11	6	6	A	9	5	9	4	5	5	6	6	7	7	8	8	8	6.8	13.5
22-Apr	9	5	4	4	4	6	6	5	7	A	10	6	5	6	6	6	4	5	4	4	6	8	6	6	5.9	9.9
23-Apr	4	5	3	3	4	6	5	5	A	5	6	8	18	5	9	7	7	6	6	12	13	8	15	10	7.4	17.6
24-Apr	12	6	5	5	6	9	15	A	16	9	16	5	7	12	19	7	5	6	10	6	10	22	32	41	12.2	40.9
25-Apr	47	98	92	94	53	68	A	100	57	17	6	3	5	4	3	4	4	6	5	5	7	7	9	10	30.6	100.3
26-Apr	8	9	9	9	7	A	15	11	7	6	4	5	5	6	12	6	5	9	8	8	6	8	8	8	7.8	15.3
27-Apr	8	11	11	12	A	22	24	18	13	9	6	11	4	9	11	16	7	9	7	12	13	16	16	10	11.9	23.8
28-Apr	24	24	34	A	51	38	69	82	23	21	5	7	10	7	9	6	10	5	7	5	10	9	8	9	20.5	81.7
29-Apr	5	6	A	7	10	15	16	8	60	4	3	2	2	4	5	3	3	3	4	7	12	8	7	7	8.7	60.3
30-Apr	10	A	6	8	13	7	7	5	4	5	6	3	2	2	2	2	2	2	3	4	6	5	13	10	5.5	13.0
	10.0	12.0	11.7	12.5	13.7	18.1	21.1	24.2	19.4	12.8	10.3	7.7	8.5	6.9	6.5	6.3	7.1	6.6	9.3	9.1	11.5	11.1	9.7	9.7	Diurnal Average	
	47.0	97.9	92.4	93.6	53.0	68.4	97.0	105.2	60.3	48.6	25.5	25.5	23.7	22.7	19.2	16.2	33.7	16.1	45.8	20.4	37.9	48.0	32.0	40.9	Diurnal Maximum	

C - Calibration

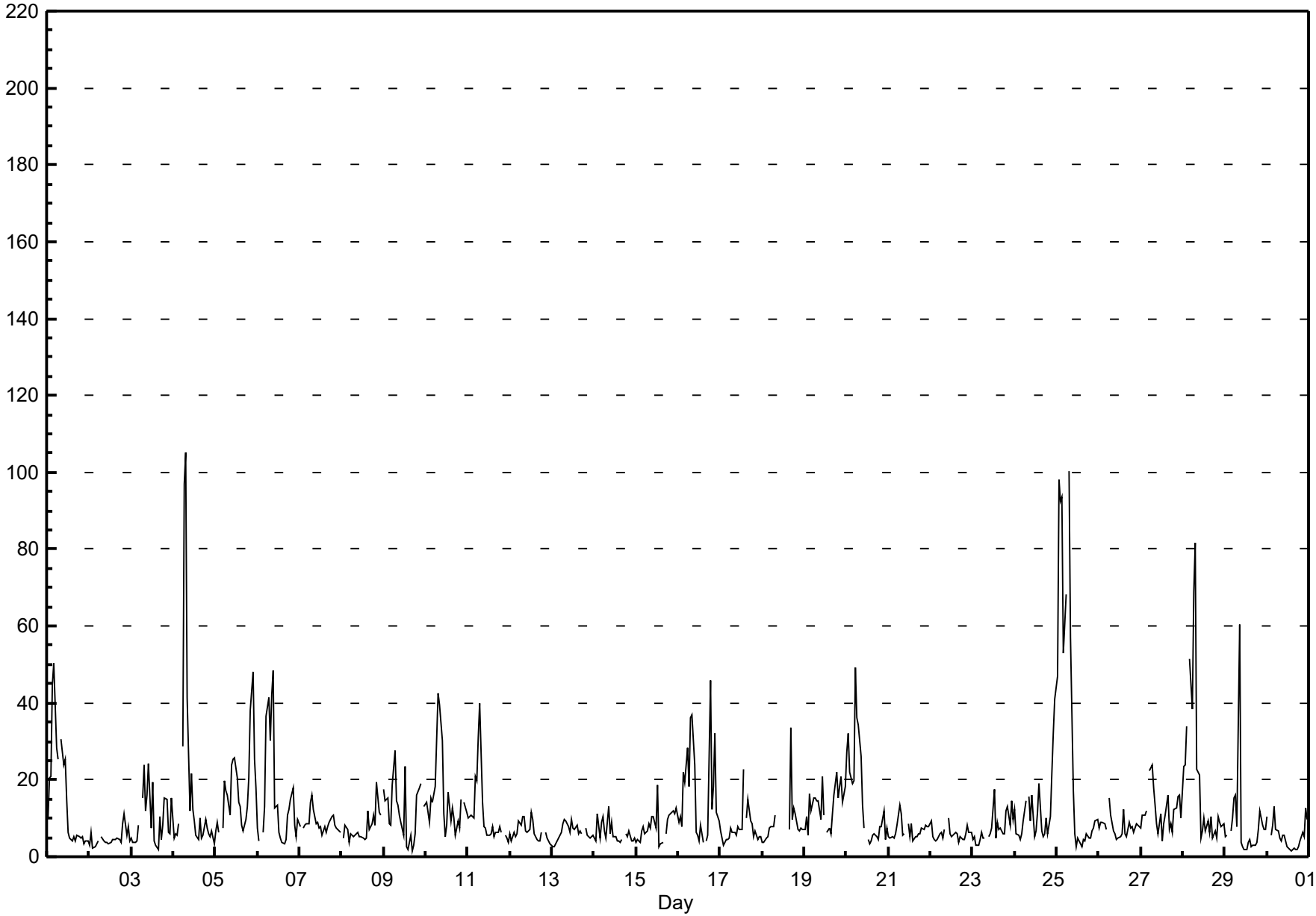
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

Henry Pirker - April 2017

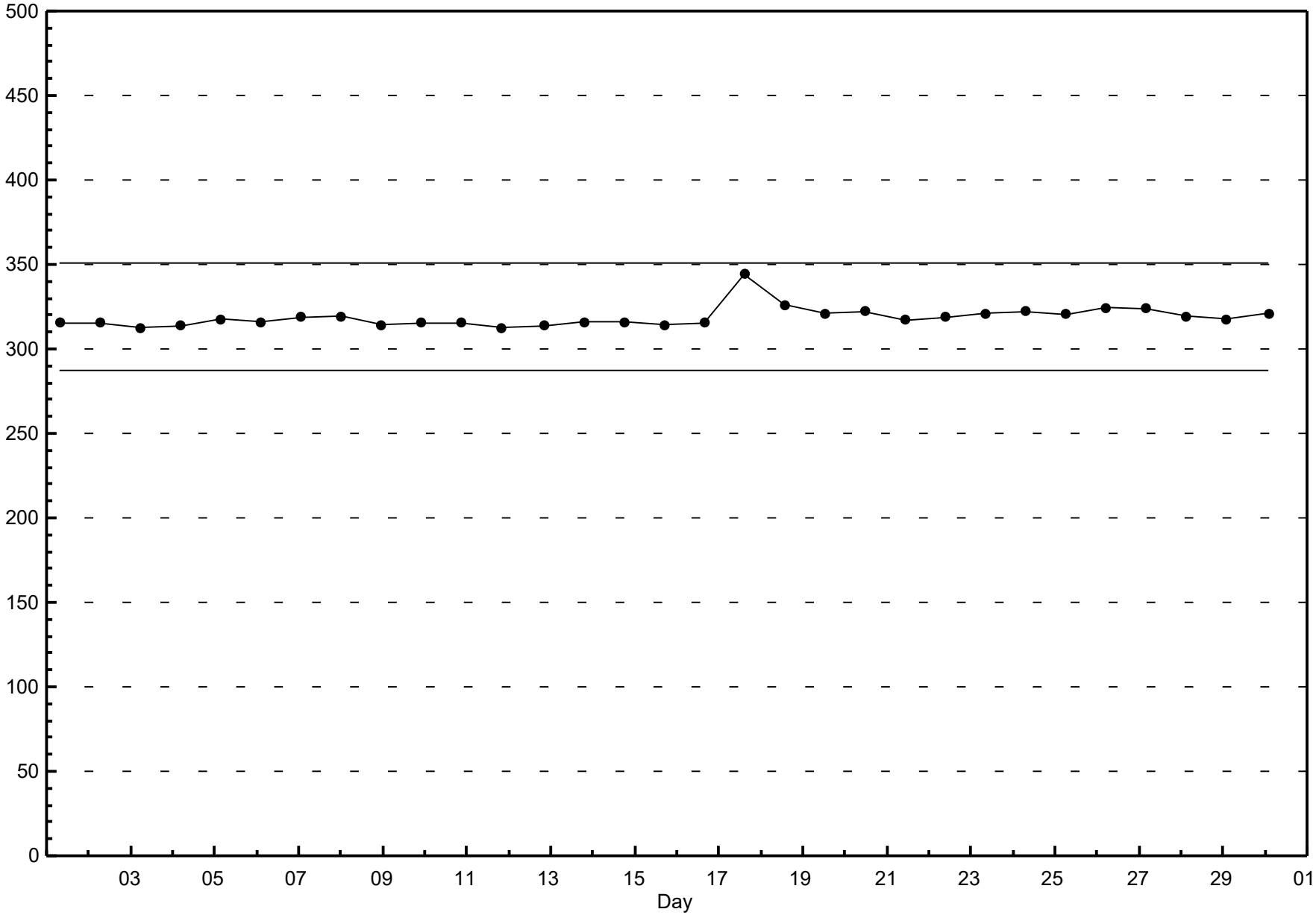


Peace Airshed Zone Association

Span Responses

Oxides of Nitrogen (NO_X)

Henry Pirker - April 2017



Peace Airshed Zone Association

Hourly Averages

Ozone (O_3) - ppb

Henry Pirker - April 2017

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 50.0 ppb on Apr 4 17:00 Maximum Daily Average: 39.8 ppb on Apr 3

Minimum Value: 0 ppb on Apr 25 04:00 Minimum Daily Average: 24.4 ppb on Apr 11

Maximum Diurnal Average: 40.2 ppb at hour 17 Minimum Diurnal Average: 22.0 ppb at hour 7

Monthly Average: 32.07 ppb Percentiles: P_1 = 0.2 P_{10} = 18.9 Q_1 = 27.8 Median = 33.4 Q_3 = 38.6 P_{90} = 42.7 P_{99} = 48.4

Hours in Service:	720
Hours of Data:	686
Hours of Missing Data:	34
Hours of Calibration:	34
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	34	25	17	8	7	18	14	A	17	19	19	31	35	43	46	43	43	41	41	41	40	41	40	38	30.5	45.7
2-Apr	37	36	38	41	42	40	A	40	41	43	43	42	41	41	40	40	40	40	38	35	33	35	34	36	39.0	42.7
3-Apr	35	36	38	38	36	A	30	32	37	41	43	43	45	45	46	47	47	46	44	38	34	37	39	38	39.8	46.7
4-Apr	40	39	37	32	A	15	5	18	27	34	36	41	44	47	48	49	50	50	48	44	43	39	39	40	37.6	50.0
5-Apr	39	37	40	A	40	36	32	33	33	34	27	28	31	36	38	39	39	36	33	29	17	4	11	14	30.7	40.0
6-Apr	35	40	A	35	30	17	16	18	20	24	29	41	44	48	50	49	48	46	44	36	33	42	44	39	36.1	49.6
7-Apr	38	A	42	39	38	35	32	29	32	37	41	39	38	38	38	36	32	32	35	32	34	32	32	32	35.3	42.1
8-Apr	A	31	33	36	38	39	38	37	33	33	35	37	39	39	39	38	38	37	37	31	25	26	30	A	35.0	38.9
9-Apr	16	15	20	22	22	14	8	17	19	22	28	32	37	42	45	44	43	43	41	35	32	28	A	26	28.3	44.7
10-Apr	26	27	26	21	20	15	8	8	11	23	32	39	42	42	40	38	38	39	36	36	31	A	25	24	28.1	42.4
11-Apr	23	20	20	16	14	9	7	13	19	24	25	28	28	29	31	33	36	37	36	33	A	27	28	27	24.4	37.2
12-Apr	27	27	27	26	25	24	23	24	24	27	29	31	32	35	36	37	38	38	39	A	37	34	32	34	30.6	39.1
13-Apr	35	35	33	36	36	34	31	30	31	31	31	31	33	33	33	32	32	33	A	32	34	34	33	33	32.9	36.2
14-Apr	33	32	31	31	30	28	30	30	31	32	32	35	37	39	39	39	38	A	36	35	33	33	32	31	33.3	39.1
15-Apr	31	31	29	26	25	26	27	27	31	33	35	37	38	40	40	41	A	41	39	35	32	32	30	26	32.7	41.2
16-Apr	25	23	22	17	14	7	5	7	10	17	27	30	31	33	37	A	43	45	43	36	27	16	31	34	25.3	44.8
17-Apr	35	37	35	31	32	31	31	30	31	32	31	32	34	35	A	36	36	36	35	33	32	32	32	31	33.0	36.6
18-Apr	32	32	33	34	33	33	32	32	31	31	32	35	36	A	C	C	C	36	36	35	34	34	34	33	33.3	35.9
19-Apr	33	33	32	28	27	24	24	23	23	24	22	25	A	28	28	30	30	30	28	27	27	23	26	24	26.9	32.8
20-Apr	9	12	12	12	11	11	6	11	21	29	40	A	49	47	46	42	36	31	29	28	29	29	31	31	26.2	48.9
21-Apr	31	32	31	30	29	27	24	23	25	26	A	30	32	34	36	37	37	36	35	33	29	28	27	25	30.3	36.7
22-Apr	25	28	29	30	30	32	32	33	34	A	35	35	35	35	37	40	42	42	42	41	39	36	35	33	34.9	42.4
23-Apr	33	33	36	38	37	37	35	34	A	35	35	34	33	34	34	35	37	37	35	32	29	28	26	26	33.6	37.7
24-Apr	25	27	29	30	28	28	25	A	26	28	30	34	35	36	34	37	38	39	40	42	35	23	10	2	29.6	41.5
25-Apr	1	0	0	0	0	0	A	5	20	29	39	43	42	43	46	47	47	46	45	44	41	38	36	36	28.2	46.9
26-Apr	36	33	29	28	25	A	21	20	24	28	31	34	35	39	40	41	42	42	42	40	36	31	26	24	32.5	41.8
27-Apr	24	21	19	16	A	9	13	17	21	24	27	33	40	43	45	45	46	46	44	41	35	31	32	33	30.7	46.0
28-Apr	23	12	2	A	0	1	2	5	12	23	35	36	37	41	42	40	40	41	40	39	37	36	34	33	26.6	41.6
29-Apr	37	35	A	32	30	27	28	31	33	37	40	41	43	44	44	46	46	46	46	46	39	39	40	40	38.7	46.2
30-Apr	39	A	40	36	31	36	38	39	40	41	43	41	41	43	44	45	45	44	43	39	35	32	26	26	38.6	44.7
	29.5	28.2	27.8	27.5	26.1	23.3	22.0	23.8	26.1	29.7	32.8	35.1	37.5	38.9	40.1	40.1	40.2	39.9	39.0	36.2	33.2	31.1	30.9	30.0	Diurnal Average	
	39.6	40.3	42.1	40.8	41.6	40.3	38.1	39.8	41.2	42.6	42.9	43.4	48.9	47.7	49.6	49.4	50.0	49.6	47.8	45.9	42.5	42.2	43.9	40.4	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

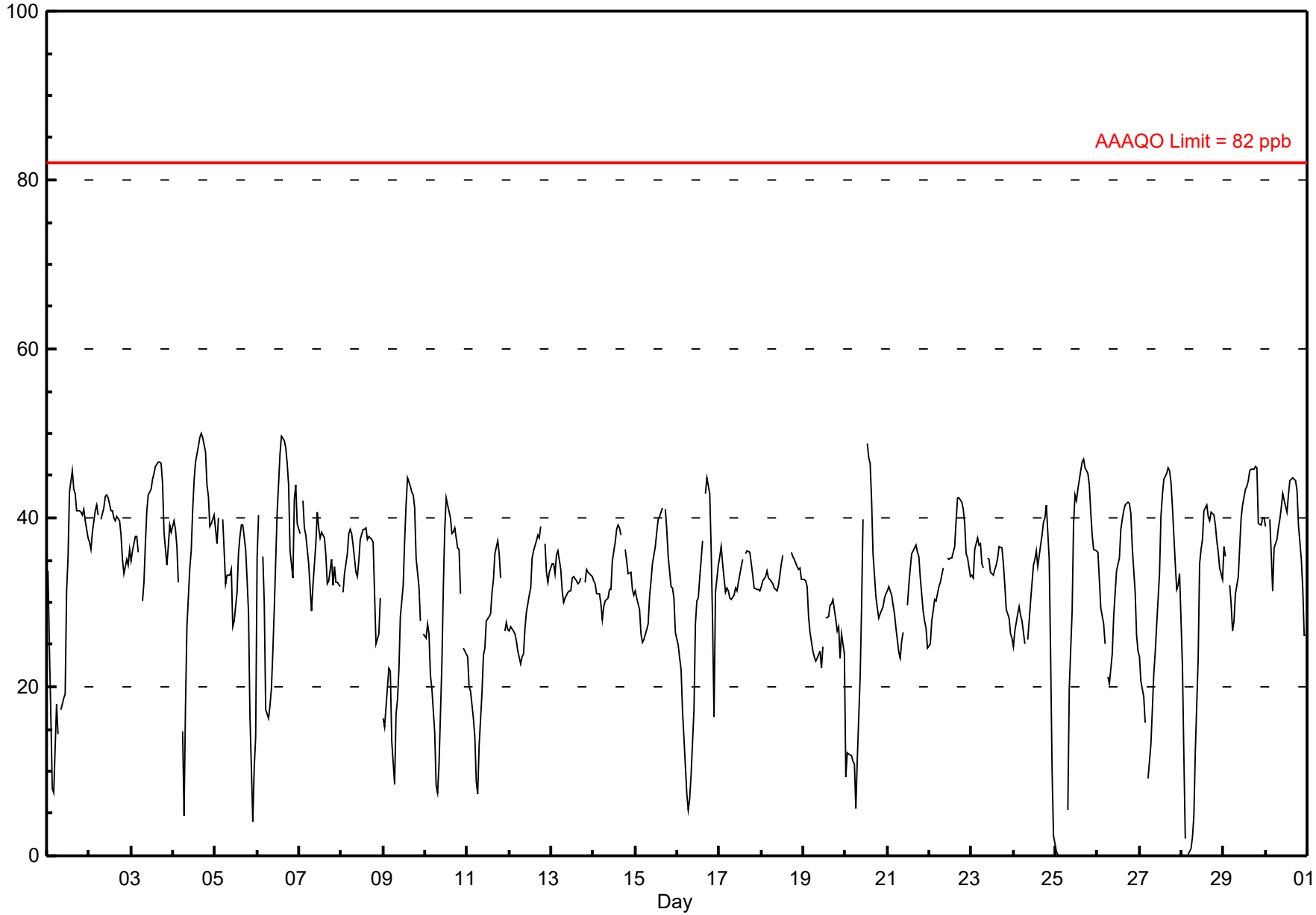
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82 ppb 24-hr na

Peace Airshed Zone Association

Hourly Averages

Ozone (O_3) - ppb

Henry Pirker - April 2017



Peace Airshed Zone Association

Hourly Maximums

Ozone (O_3) - ppb

Henry Pirker - April 2017

Maximum Value: 51.4 ppb on Apr 4 17:00

Maximum Daily Average: 41.8 ppb on Apr 3

Minimum Value: 0 ppb on Apr 25 04:00

Minimum Daily Average: 26.9 ppb on Apr 11

Maximum Diurnal Average: 41.9 ppb at hour 16

Minimum Diurnal Average: 25.5 ppb at hour 7

Monthly Average: 34.50 ppb

Percentiles: P_1 = 3.2 P_{10} = 23.9 Q_1 = 30.6 Median = 35.5 Q_3 = 40.8 P_{90} = 44.6 P_{99} = 50.2

Hours in Service:	720
Hours of Data:	686
Hours of Missing Data:	34
Hours of Calibration:	34
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	36	31	20	18	17	25	17	A	26	22	24	37	39	50	50	45	44	43	42	41	42	42	41	39	34.3	50.3
2-Apr	38	38	40	42	43	41	A	41	43	43	44	44	42	42	41	41	42	41	40	38	38	37	37	38	40.6	43.5
3-Apr	36	38	38	38	38	A	35	34	40	42	44	45	46	46	47	48	48	48	48	43	38	38	41	41	41.8	48.0
4-Apr	41	41	39	35	A	24	11	25	32	37	43	46	46	48	50	51	51	51	50	46	45	41	41	41	40.6	51.4
5-Apr	40	39	42	A	42	38	35	35	35	38	32	31	34	39	40	41	41	38	35	34	26	8	14	27	34.0	41.5
6-Apr	42	43	A	38	33	26	25	23	28	30	33	46	46	50	51	50	50	50	47	41	43	47	47	42	40.4	51.1
7-Apr	41	A	45	42	40	39	46	31	37	40	43	42	40	40	39	38	34	35	38	34	36	35	34	34	38.3	45.6
8-Apr	A	33	35	38	39	39	39	38	35	35	37	40	40	40	41	40	39	40	41	34	30	31	35	A	37.3	41.0
9-Apr	19	17	22	24	24	20	16	20	22	25	32	35	41	45	46	45	44	43	43	40	35	33	A	28	31.2	46.3
10-Apr	29	30	29	25	24	19	13	13	21	27	37	41	45	45	43	41	41	41	40	40	37	A	30	29	32.2	45.5
11-Apr	27	24	23	18	16	11	10	20	22	25	27	29	31	32	33	35	38	39	37	36	A	28	28	27	26.9	39.0
12-Apr	28	28	28	27	26	26	24	26	26	30	30	32	34	37	37	38	39	39	40	A	39	35	33	35	32.1	40.2
13-Apr	35	35	35	37	37	35	33	31	32	32	32	33	34	34	33	33	33	34	A	34	35	34	34	34	33.9	37.3
14-Apr	33	33	32	32	32	30	31	31	31	33	33	37	38	40	40	40	39	A	38	36	35	34	33	32	34.5	40.0
15-Apr	32	32	31	28	29	27	28	31	32	36	36	38	40	41	41	43	A	42	40	39	35	34	33	29	34.6	42.8
16-Apr	27	25	24	21	17	10	7	8	12	24	31	31	32	35	40	A	44	47	46	42	33	31	33	36	28.6	46.9
17-Apr	36	38	37	32	32	32	32	31	32	33	33	34	36	37	A	37	37	37	36	34	32	33	32	32	34.1	37.6
18-Apr	33	34	34	35	35	35	34	33	33	33	33	36	37	A	C	C	C	37	37	36	36	35	36	34	34.7	37.0
19-Apr	34	34	34	32	30	26	26	25	26	26	24	26	A	29	31	31	31	32	31	30	29	27	29	28	29.1	34.2
20-Apr	14	15	18	17	15	17	8	18	28	34	45	A	51	48	47	50	38	32	31	30	30	31	33	32	29.6	51.0
21-Apr	33	33	32	31	30	29	27	27	27	28	A	31	34	36	37	38	38	37	37	35	31	29	28	26	31.9	38.2
22-Apr	27	29	31	31	31	33	34	34	35	A	36	37	36	36	38	42	43	44	43	43	41	38	37	34	36.3	43.6
23-Apr	34	34	38	38	38	39	37	35	A	36	36	35	34	35	36	36	38	38	36	35	32	30	28	27	35.0	38.5
24-Apr	28	29	30	31	30	29	28	A	28	30	32	36	37	38	37	38	40	42	42	43	41	31	18	5	32.3	43.4
25-Apr	2	1	0	0	0	1	A	11	26	35	42	44	43	45	47	48	48	47	48	46	43	40	39	37	30.1	48.1
26-Apr	38	35	31	29	27	A	28	23	26	31	33	37	37	41	42	42	43	43	43	42	39	35	28	26	34.6	43.0
27-Apr	25	24	20	18	A	13	17	20	24	26	30	38	43	45	47	47	48	47	46	45	39	35	35	36	33.4	47.7
28-Apr	29	19	8	A	1	4	4	11	19	33	38	38	40	42	43	41	43	42	44	41	44	42	36	41	30.5	43.9
29-Apr	41	38	A	34	32	30	31	33	36	39	42	43	45	45	46	47	47	47	49	48	43	41	42	42	40.9	49.0
30-Apr	44	A	43	38	36	39	39	41	41	43	45	43	42	44	46	47	47	46	46	42	37	36	32	29	41.2	47.4
	31.8	30.3	29.9	29.7	28.3	26.3	25.5	26.8	29.5	32.6	35.4	37.4	39.3	40.9	41.8	41.9	41.7	41.4	41.1	38.9	36.7	34.1	33.4	32.5	Diurnal Average	
	44.2	42.9	44.6	42.0	42.5	41.2	45.6	41.5	43.3	43.5	45.5	46.1	51.0	50.3	51.1	50.8	51.4	50.9	50.2	48.5	44.5	46.7	47.3	42.0	Diurnal Maximum	

C - Calibration

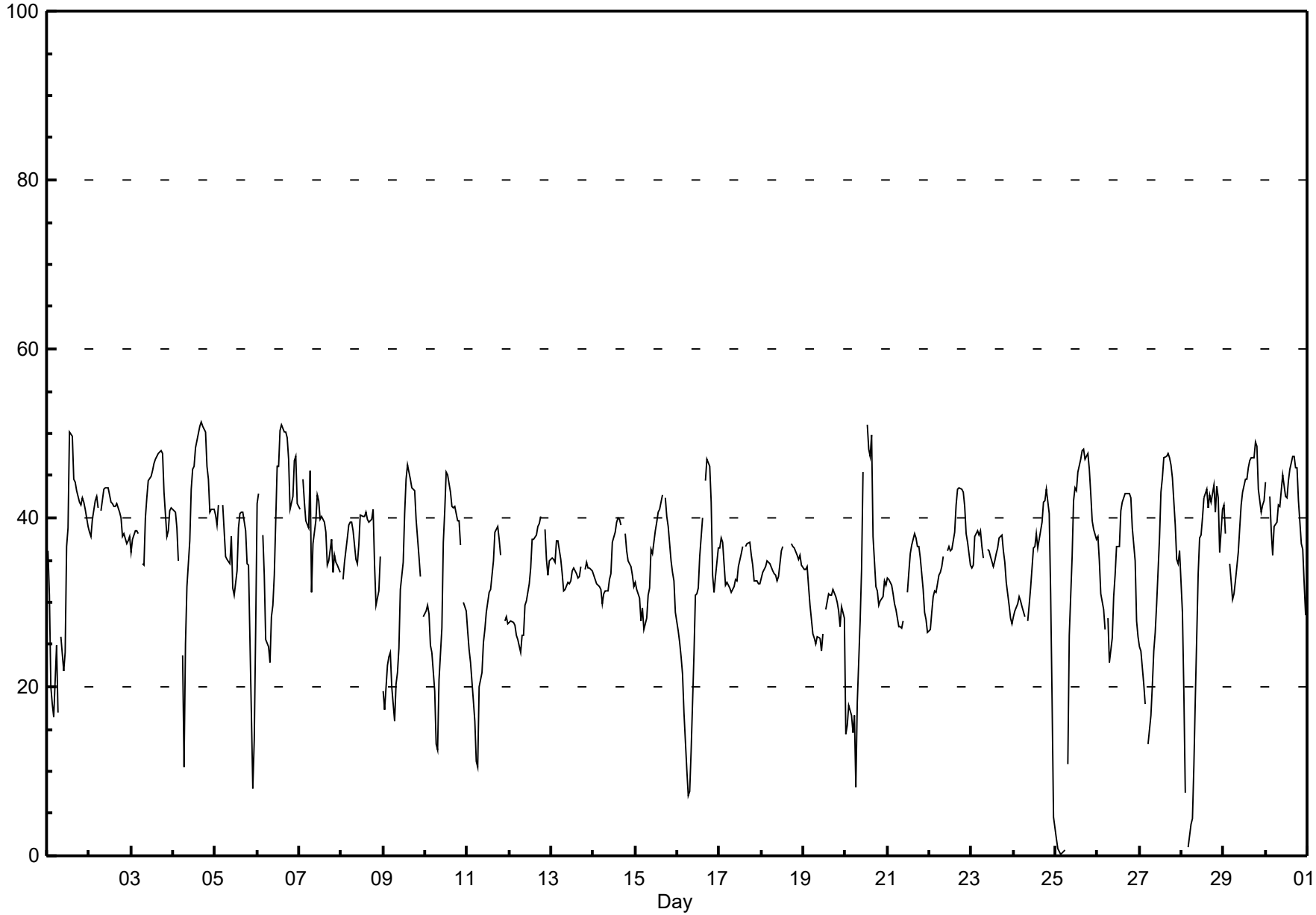
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Ozone (O_3) - ppb

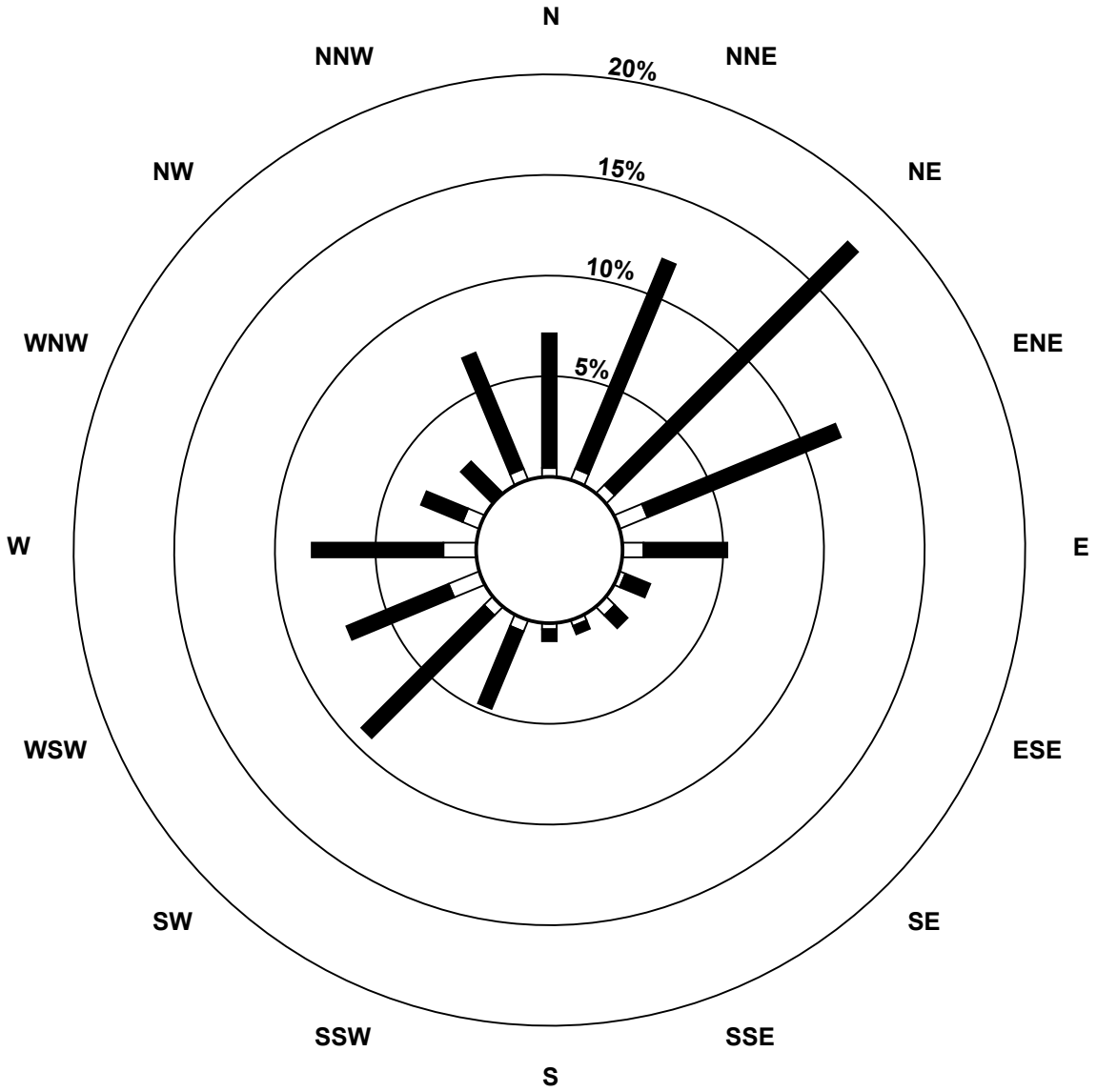
Henry Pirker - April 2017



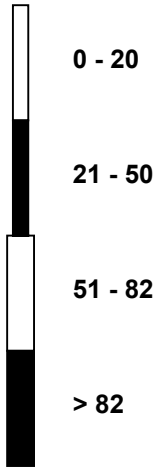
Pollutant Rose

Ozone (O_3) - ppb

Henry Pirker - April 2017



Pollutant Classes (ppb)



Peace Airshed Zone Association

Eight Hour Running Averages

Ozone (O_3) - ppb

Henry Pirker - April 2017

Maximum Value: 47.5 ppb on Apr 4 20:00

Minimum Value: 0.4 ppb on Apr 25 07:00

Percentiles: P_1 = 6.1 P_{10} = 20.7 Q_1 = 27.8 Median = 33.2 Q_3 = 37.2 P_{90} = 41.0 P_{99} = 45.6

Hours in Service:	720
Hours of Data:	713
Hours of Missing Data:	7
Hours of Calibration:	7
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Apr	40	37	34	30	26	23	20	18	15	14	15	18	22	26	30	32	35	38	40	42	42	42	41	40	42.2
2-Apr	40	39	39	39	39	39	39	39	40	41	41	41	41	41	41	41	41	41	40	39	38	38	37	36	41.5
3-Apr	36	35	35	36	36	36	36	35	35	36	37	37	39	40	42	43	45	45	45	45	43	42	42	41	45.4
4-Apr	40	39	38	37	37	34	29	26	25	24	24	25	27	31	37	41	44	46	47	48	47	46	45	44	47.5
5-Apr	43	41	40	40	39	39	38	37	36	35	34	33	32	32	33	33	34	34	35	35	33	29	26	23	42.7
6-Apr	22	23	21	22	24	26	27	27	25	23	24	24	26	30	34	38	42	44	46	46	44	44	43	42	46.2
7-Apr	40	39	39	40	40	39	38	36	35	35	35	35	35	36	36	37	37	37	36	35	35	34	33	33	40.3
8-Apr	33	33	33	33	34	35	35	36	36	36	36	36	36	36	36	37	37	38	38	37	35	34	33	32	38.0
9-Apr	29	26	23	22	22	20	17	17	17	18	19	20	22	26	30	34	37	39	41	41	41	39	38	35	41.2
10-Apr	33	31	29	27	25	23	21	19	17	16	17	19	22	25	29	33	37	39	39	39	38	37	35	33	39.3
11-Apr	31	28	26	23	20	19	17	15	15	15	16	17	19	22	25	27	29	31	32	33	33	33	33	32	33.5
12-Apr	30	29	28	27	27	26	26	25	25	25	25	26	27	28	30	31	33	34	36	36	37	37	36	36	37.2
13-Apr	35	35	34	34	34	34	34	34	33	33	33	32	32	31	32	32	32	32	32	33	33	33	33	33	35.4
14-Apr	33	33	33	33	32	31	31	31	30	30	30	31	32	33	34	35	36	37	38	38	37	36	35	34	37.6
15-Apr	33	33	32	31	30	29	28	28	28	28	29	30	32	33	35	37	38	39	39	39	38	37	36	34	39.4
16-Apr	33	30	28	26	24	21	18	15	13	12	13	15	17	20	24	26	31	35	37	38	38	35	35	35	38.2
17-Apr	34	33	32	31	31	33	33	33	32	32	31	31	32	32	32	33	34	34	35	35	35	34	34	33	35.0
18-Apr	33	32	32	32	32	32	33	33	33	32	32	32	33	33	33	N	N	N	N	N	N	N	35	34	34.8
19-Apr	34	34	33	33	32	30	29	28	27	26	24	24	24	24	25	26	27	28	28	29	28	28	28	27	34.3
20-Apr	24	22	20	18	16	15	12	11	12	14	18	18	24	29	35	39	41	42	40	39	36	34	32	30	41.5
21-Apr	30	30	30	30	30	30	29	28	28	27	26	26	27	28	30	31	33	34	35	35	35	34	33	31	34.9
22-Apr	30	29	28	28	28	28	29	30	31	32	33	33	34	34	35	36	37	38	39	39	40	40	40	39	39.9
23-Apr	38	37	36	35	35	35	35	35	36	36	36	35	35	34	34	34	35	35	35	35	34	33	32	31	37.8
24-Apr	30	28	28	27	27	27	27	27	27	28	28	28	29	31	32	33	34	36	37	38	38	36	33	29	37.7
25-Apr	24	19	14	9	5	2	0	1	4	8	13	19	25	32	33	39	42	44	45	45	45	44	43	42	45.0
26-Apr	40	39	37	35	33	32	30	27	26	25	25	26	28	29	31	34	36	38	39	40	40	39	38	35	40.3
27-Apr	33	31	28	25	23	20	18	17	17	17	18	21	23	27	31	35	38	41	43	44	43	42	40	39	43.7
28-Apr	36	31	26	24	19	15	10	6	5	7	11	14	19	24	29	33	37	39	40	40	40	39	38	37	40.0
29-Apr	37	36	36	35	34	32	32	31	31	31	32	33	35	37	39	41	43	44	45	45	45	44	43	43	45.1
30-Apr	42	41	40	39	38	37	37	37	37	38	38	39	40	41	41	42	43	43	43	43	42	41	39	36	43.3
Diurnal Maximums	42.7	41.4	40.5	39.6	40.3	39.2	38.8	39.2	39.7	40.6	41.3	41.5	41.4	41.5	41.5	43.3	44.5	45.7	47.1	47.5	47.3	46.4	45.2	44.1	

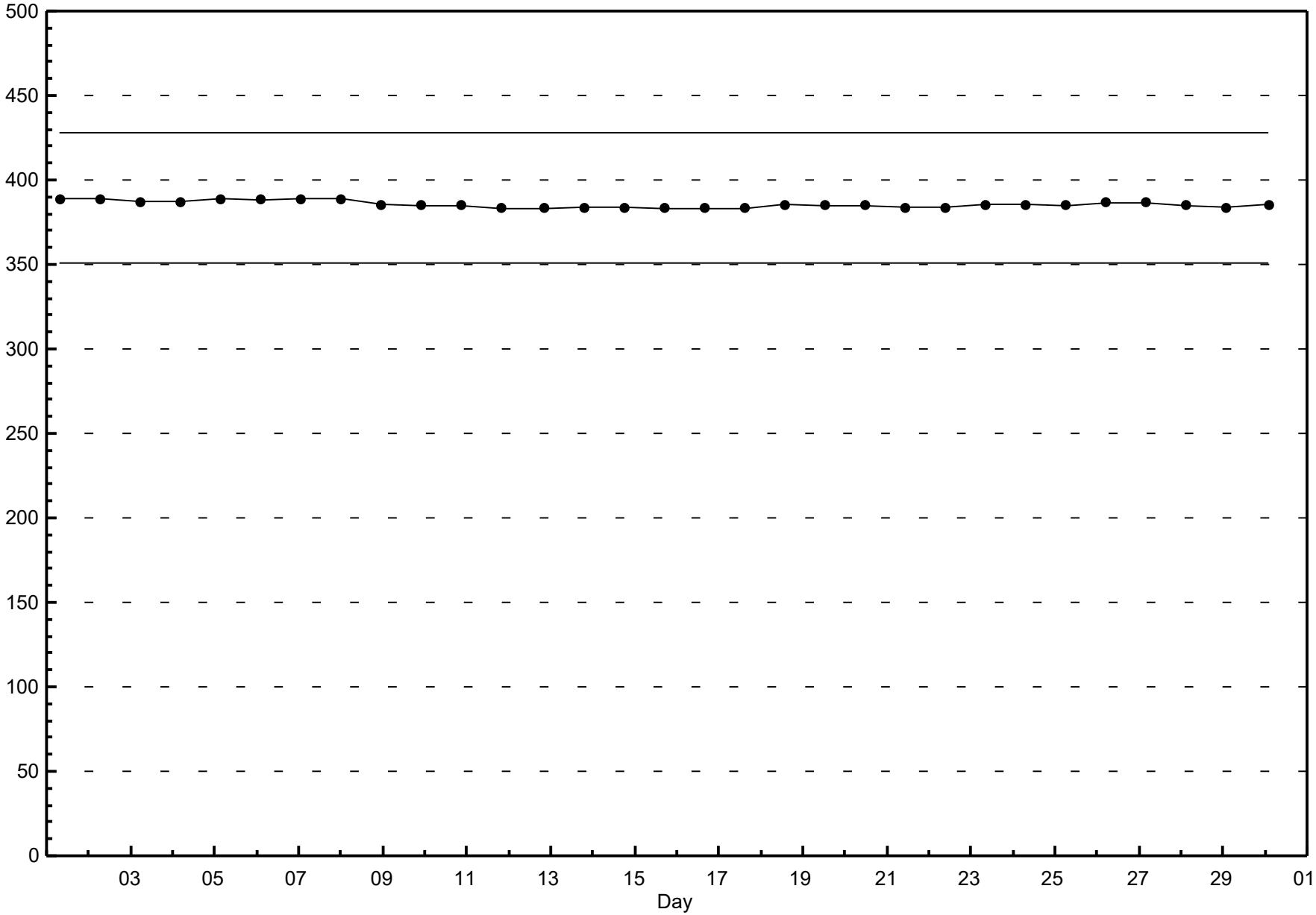
N - Not Valid

Peace Airshed Zone Association

Span Responses

Ozone (O_3)

Henry Pirker - April 2017



Peace Airshed Zone Association

Hourly Averages

Carbon Monoxide (CO) - ppm

Henry Pirker - April 2017

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 0.65 ppm on Apr 10 07:00 Maximum Daily Average: 0.26 ppm on Apr 5

Minimum Value: 0.1 ppm on Apr 25 15:00 Minimum Daily Average: 0.16 ppm on Apr 30
Maximum Diurnal Average: 0.25 ppm at hour 7 Minimum Diurnal Average: 0.17 ppm at hour 14
Monthly Average: 0.195 ppm Percentiles: P_1 = 0.15 P_{10} = 0.16 Q_1 = 0.17 Median = 0.18 Q_3 = 0.20 P_{90} = 0.25 P_{99} = 0.39

Hours in Service:	720
Hours of Data:	686
Hours of Missing Data:	34
Hours of Calibration:	34
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0.2	0.2	0.3	0.3	0.3	0.3	0.3	A	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22	0.32
2-Apr	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.17	0.18
3-Apr	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.17	0.20
4-Apr	0.2	0.2	0.2	0.2	A	0.2	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20	0.36
5-Apr	0.2	0.2	0.2	A	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.5	0.2	0.2	0.26	0.47
6-Apr	0.2	0.2	A	0.2	0.2	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.21	0.30
7-Apr	0.2	A	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21	0.27
8-Apr	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.19	0.20
9-Apr	0.3	0.3	0.2	0.2	0.2	0.3	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	A	0.2	0.22	0.40
10-Apr	0.3	0.2	0.3	0.3	0.3	0.2	0.7	0.5	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	A	0.2	0.2	0.25	0.65
11-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.19	0.26
12-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.18	0.21
13-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.18	0.21
14-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.17	0.18
15-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.19	0.31
16-Apr	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.21	0.31
17-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.17	0.19
18-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.16	0.18
19-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	C	C	C	C	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20	0.25
20-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20	0.30
21-Apr	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	0.2	0.18	0.22
22-Apr	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	0.2	0.2	0.17	0.18
23-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.17	0.18
24-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.4	0.4	0.20	0.39
25-Apr	0.4	0.4	0.5	0.4	0.2	0.3	A	0.5	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.24	0.52
26-Apr	0.2	0.2	0.2	0.2	0.2	A	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19	0.35
27-Apr	0.2	0.2	0.2	0.2	A	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.21	0.33
28-Apr	0.2	0.3	0.3	A	0.4	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22	0.35
29-Apr	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.17	0.25
30-Apr	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.16	0.19
	0.19	0.19	0.20	0.19	0.20	0.21	0.25	0.25	0.21	0.19	0.19	0.18	0.18	0.17	0.18	0.17	0.18	0.18	0.18	0.19	0.21	0.21	0.20	0.20	Diurnal Average	
	0.36	0.44	0.51	0.39	0.35	0.35	0.65	0.52	0.33	0.26	0.26	0.26	0.24	0.23	0.21	0.21	0.22	0.21	0.24	0.32	0.39	0.47	0.36	0.39	Diurnal Maximum	

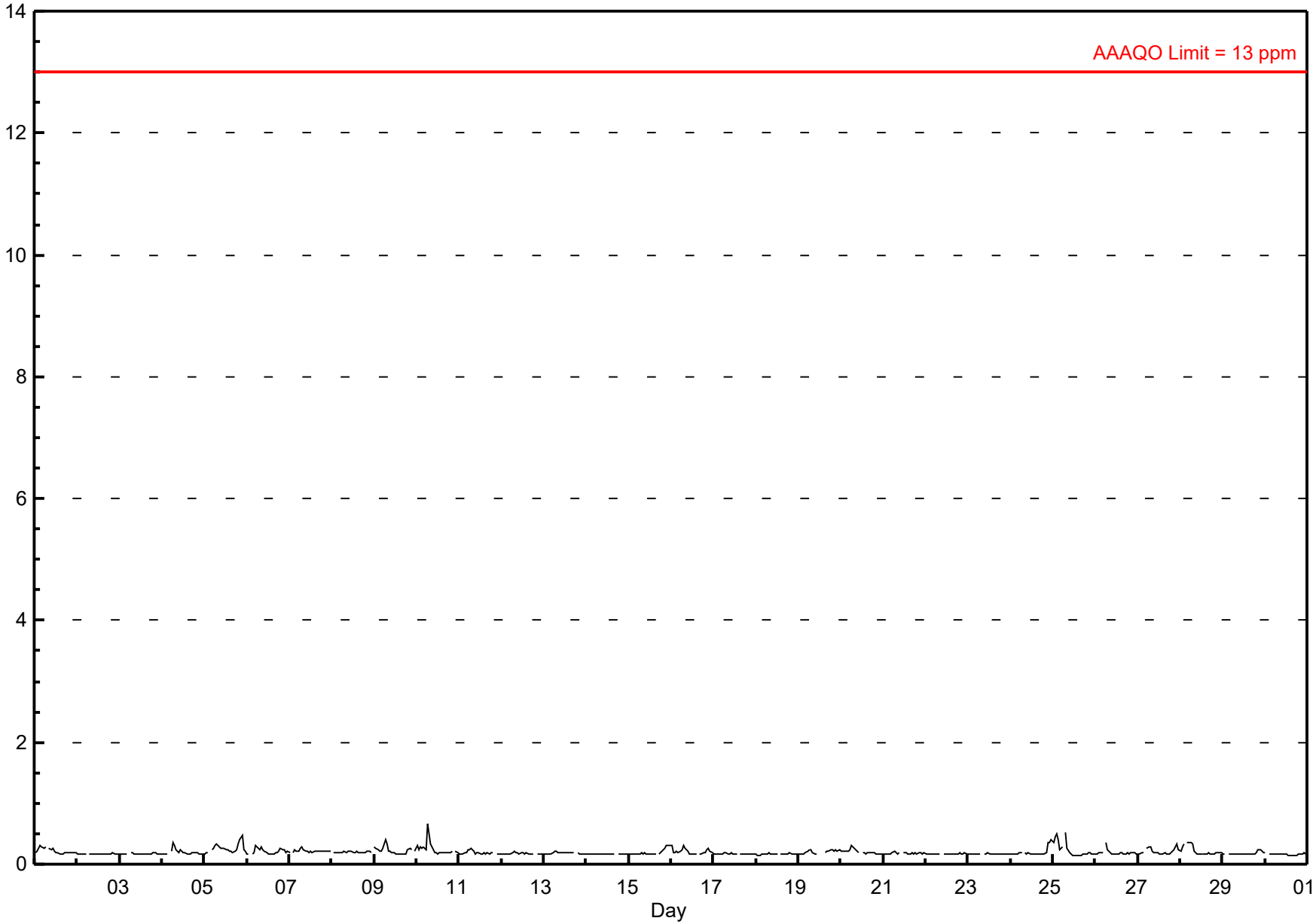
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 13 ppm 24-hr na

Peace Airshed Zone Association

Hourly Averages

Carbon Monoxide (CO) - ppm

Henry Pirker - April 2017



Peace Airshed Zone Association

Hourly Maximums

Carbon Monoxide (CO) - ppm

Henry Pirker - April 2017

Maximum Value: 1.14 ppm on Apr 10 07:00

Maximum Daily Average: 0.37 ppm on Apr 10

Minimum Value: 0.2 ppm on Apr 25 15:00

Minimum Daily Average: 0.19 ppm on Apr 2

Maximum Diurnal Average: 0.38 ppm at hour 7

Minimum Diurnal Average: 0.20 ppm at hour 14

Monthly Average: 0.249 ppm

Percentiles: P_1 = 0.16 P_{10} = 0.18 Q_1 = 0.19 Median = 0.21 Q_3 = 0.26 P_{90} = 0.37 P_{99} = 0.67

Hours in Service:	720
Hours of Data:	686
Hours of Missing Data:	34
Hours of Calibration:	34
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0.2	0.3	0.3	0.5	0.3	0.4	0.4	A	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.26	0.47
2-Apr	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19	0.20
3-Apr	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.19	0.27
4-Apr	0.2	0.2	0.2	0.2	A	0.3	0.6	0.6	0.4	0.2	0.5	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.26	0.58
5-Apr	0.2	0.2	0.3	A	0.4	0.3	0.5	0.5	0.4	0.5	0.3	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.5	0.5	0.7	0.3	0.2	0.35	0.67
6-Apr	0.2	0.2	A	0.2	0.2	0.5	0.5	0.3	0.3	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.3	0.4	0.2	0.3	0.28	0.54
7-Apr	0.2	A	0.2	0.4	0.3	0.3	0.5	0.3	0.4	0.3	0.3	0.2	0.3	0.2	0.3	0.2	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.28	0.48
8-Apr	A	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.2	0.3	0.2	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.23	0.32
9-Apr	0.3	0.3	0.3	0.3	0.3	0.5	0.7	0.6	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.4	A	0.3	0.29	0.67
10-Apr	0.7	0.4	0.5	0.3	0.5	0.3	1.1	1.0	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	A	0.2	0.2	0.37	1.14
11-Apr	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	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	0.23	0.39
12-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.21	0.30
13-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.3	0.2	0.5	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.23	0.49
14-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.19	0.23
15-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.3	0.3	0.4	0.4	0.4	0.4	0.23	0.42
16-Apr	0.4	0.2	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.2	0.3	A	0.2	0.2	0.4	0.2	0.3	0.3	0.3	0.2	0.27	0.42
17-Apr	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.4	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.22	0.39
18-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.3	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.4	0.2	0.2	0.2	0.2	0.21	0.37
19-Apr	0.2	0.2	0.3	0.2	0.4	0.3	0.4	0.4	0.3	0.2	0.2	C	C	C	C	0.2	0.4	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.28	0.44
20-Apr	0.2	0.6	0.2	0.2	0.2	0.4	0.6	0.6	0.3	0.2	0.2	A	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.28	0.58
21-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.4	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	0.3	0.2	0.2	0.2	0.22	0.39
22-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.2	0.21	0.28
23-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.4	0.3	0.23	0.39
24-Apr	0.2	0.2	0.2	0.2	0.2	0.3	0.2	A	0.5	0.2	0.7	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.5	0.4	0.5	0.28	0.65
25-Apr	0.4	0.6	0.7	0.5	0.4	0.4	A	0.7	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.30	0.71
26-Apr	0.2	0.2	0.3	0.2	0.2	A	0.6	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.2	0.2	0.3	0.2	0.2	0.24	0.60
27-Apr	0.2	0.2	0.2	0.3	A	0.6	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.4	0.5	0.6	0.4	0.29	0.61
28-Apr	0.3	0.4	0.4	A	0.5	0.5	0.5	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.27	0.51
29-Apr	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.21	0.28
30-Apr	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19	0.24
	0.24	0.24	0.25	0.23	0.26	0.30	0.38	0.37	0.28	0.24	0.25	0.21	0.22	0.20	0.21	0.20	0.22	0.20	0.23	0.25	0.27	0.27	0.25	0.24	Diurnal Average	
	0.67	0.56	0.70	0.47	0.49	0.61	1.14	1.01	0.48	0.54	0.65	0.37	0.49	0.25	0.32	0.27	0.44	0.27	0.37	0.47	0.52	0.67	0.58	0.50	Diurnal Maximum	

C - Calibration

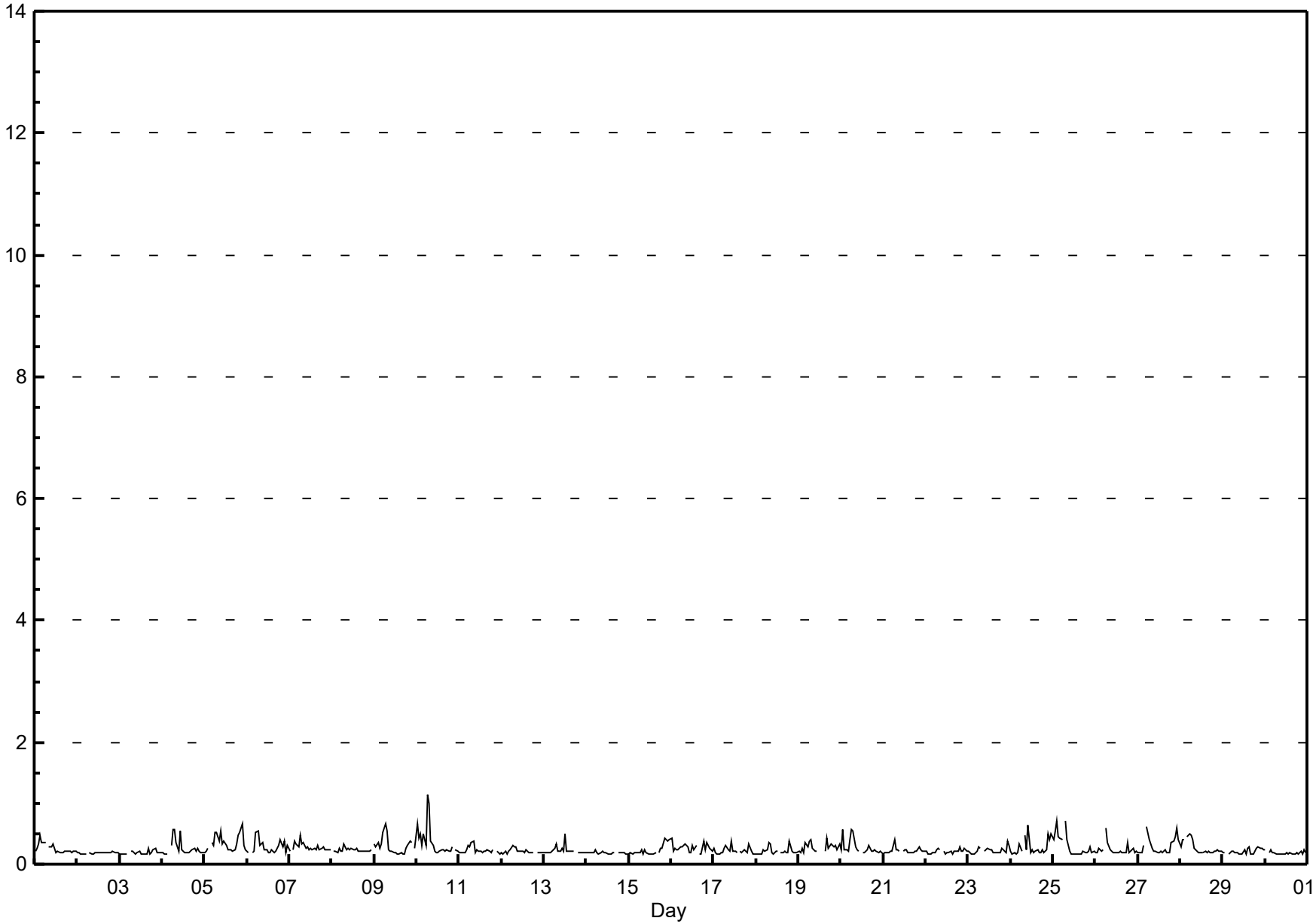
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Carbon Monoxide (CO) - ppm

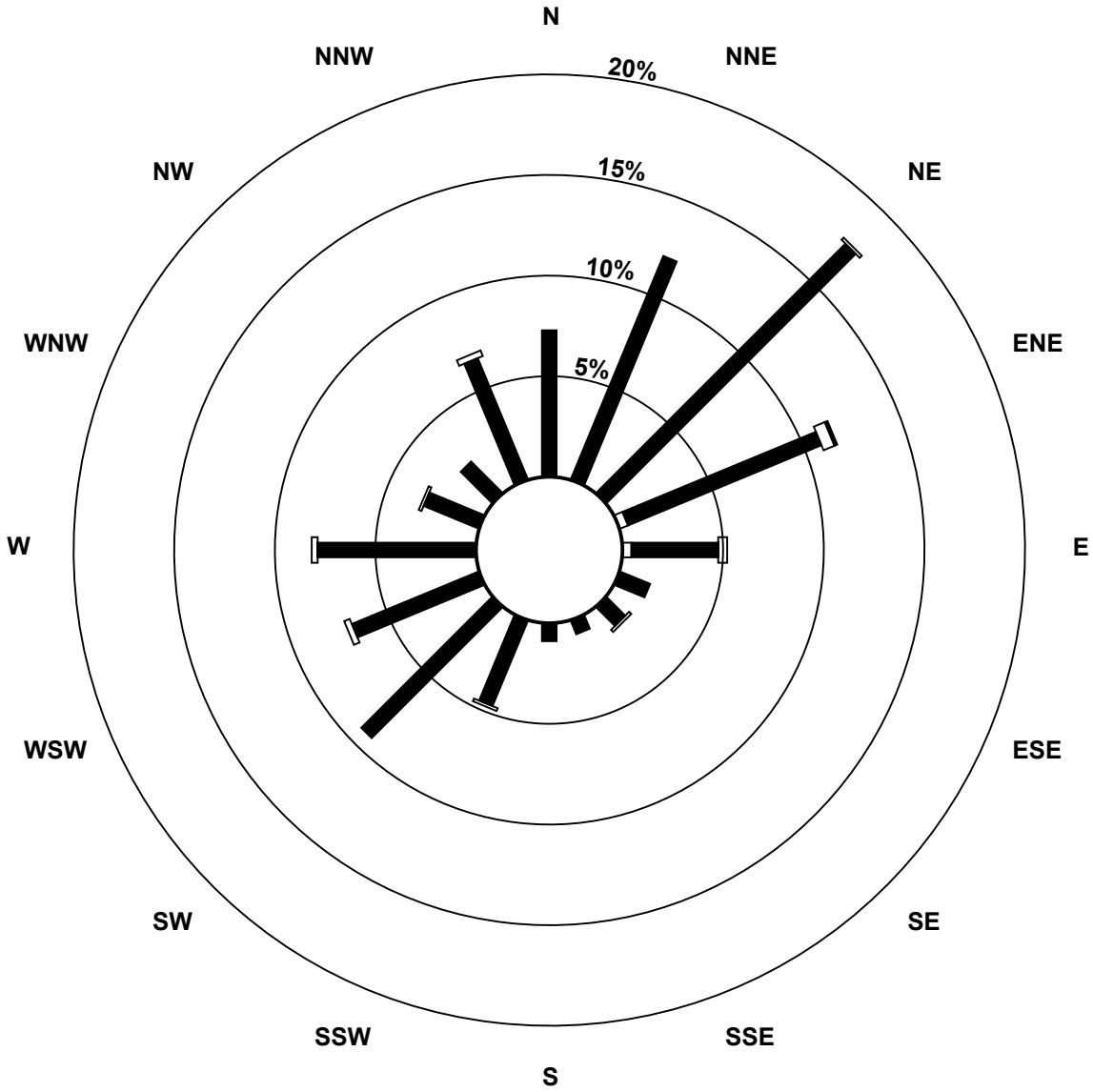
Henry Pirker - April 2017



Pollutant Rose

Carbon Monoxide (CO) - ppm

Henry Pirker - April 2017



Pollutant Classes (ppm)

- 0 - 0.1
- 0.1 - 0.3
- 0.3 - 0.5
- 0.5 - 1
- 1 - 10
- > 10

Peace Airshed Zone Association

Eight Hour Running Averages

Carbon Monoxide (CO) - ppm

Henry Pirker - April 2017

Number of Exceedences (AAAQO): 8-hr: 0
Maximum Value: 0.39 ppm on Apr 25 08:00

Minimum Value: 0.15 ppm on Apr 25 18:00

Percentiles: P_1 = 0.15 P_{10} = 0.17 Q_1 = 0.17 Median = 0.18 Q_3 = 0.21 P_{90} = 0.24 P_{99} = 0.34

Hours in Service:	720
Hours of Data:	713
Hours of Missing Data:	7
Hours of Calibration:	7
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Maximum
1-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.27
2-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18
3-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.17
4-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.25
5-Apr	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	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.29
6-Apr	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.28
7-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.23
8-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21
9-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.27
10-Apr	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.35
11-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21
12-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19
13-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19
14-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.17
15-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.25
16-Apr	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.26
17-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20
18-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.17
19-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	N	N	N	N	N	N	N	0.2	0.2	0.2	0.2	0.23
20-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.24
21-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19
22-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18
23-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.17
24-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.24
25-Apr	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.39
26-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22
27-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.23
28-Apr	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.32
29-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19
30-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20
Diurnal Maximums	0.28	0.30	0.35	0.38	0.38	0.37	0.37	0.39	0.38	0.35	0.34	0.33	0.32	0.31	0.26	0.24	0.23	0.22	0.22	0.23	0.25	0.28	0.29	0.29	

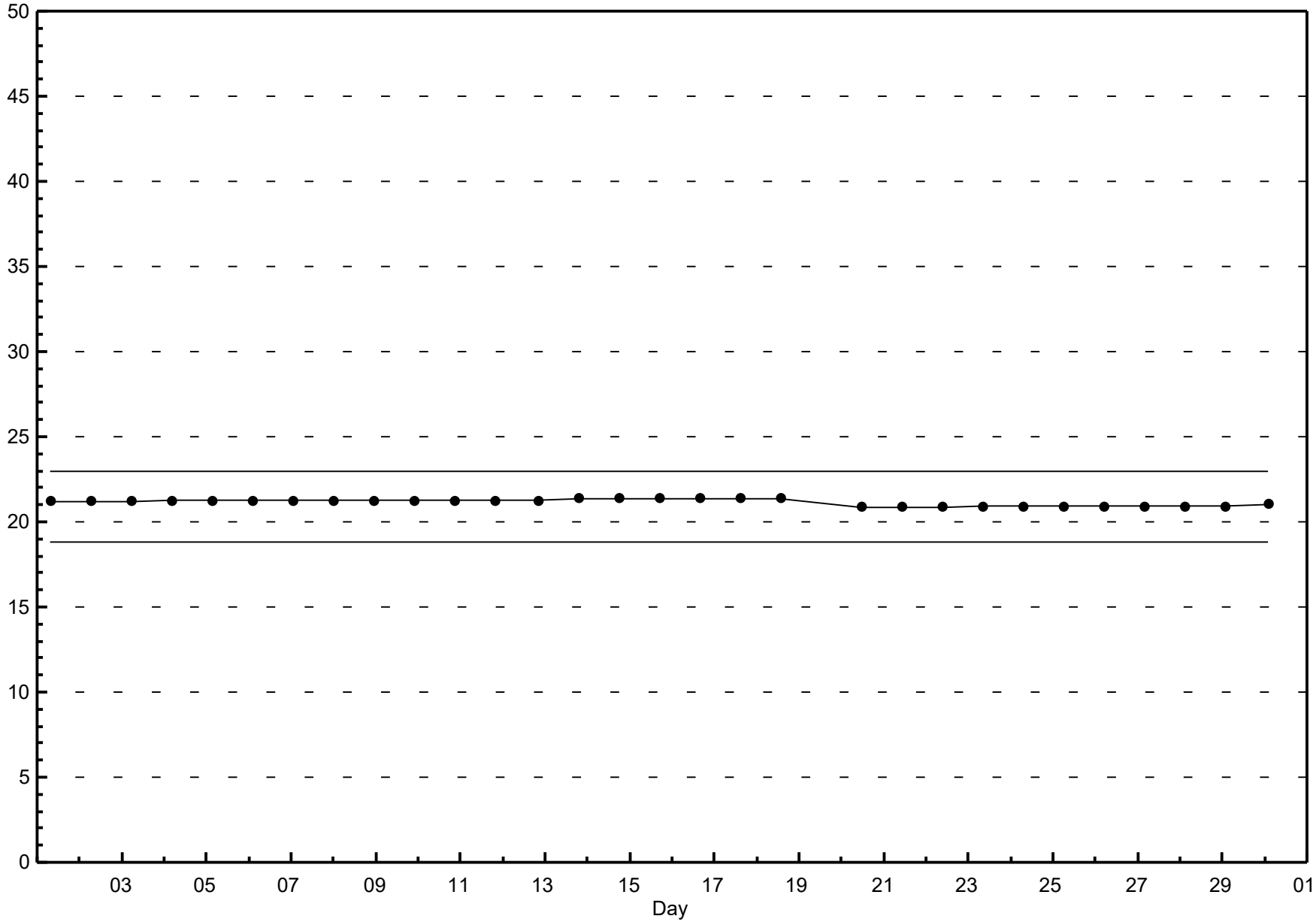
N - Not Valid
Alberta Ambient Air Quality Objectives (AAAQO): 8-hr 5 ppm

Peace Airshed Zone Association

Span Responses

Carbon Monoxide (CO)

Henry Pirker - April 2017



Peace Airshed Zone Association

Hourly Averages

Total Hydrocarbons (THC) - ppm

Henry Pirker - April 2017

Maximum Value: 4.14 ppm on Apr 1 07:00

Maximum Daily Average: 2.36 ppm on Apr 1

Minimum Value: 1.9 ppm on Apr 6 18:00

Minimum Daily Average: 1.97 ppm on Apr 2

Maximum Diurnal Average: 2.16 ppm at hour 7

Minimum Diurnal Average: 1.99 ppm at hour 18

Monthly Average: 2.051 ppm

Percentiles: P_1 = 1.96 P_{10} = 1.98 Q_1 = 1.99 Median = 2.01 Q_3 = 2.04 P_{90} = 2.14 P_{99} = 2.82

Hours in Service:	720
Hours of Data:	653
Hours of Missing Data:	67
Hours of Calibration:	32
Percent Operational Time:	95.1

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	2.0	2.4	2.9	2.6	3.4	3.2	4.1	A	2.8	2.1	2.8	2.3	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.36	4.14
2-Apr	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	2.0	2.0	1.97	2.05
3-Apr	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.00	2.04
4-Apr	2.0	2.0	2.0	2.0	A	2.1	2.1	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	2.0	2.0	2.0	2.0	2.03	2.18
5-Apr	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.1	2.3	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.2	2.2	2.2	2.07	2.26
6-Apr	2.0	2.0	A	2.0	2.0	2.6	2.1	2.6	2.1	2.0	2.0	2.0	2.1	2.0	1.9	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.3	2.2	2.07	2.61
7-Apr	2.0	A	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	1.98
8-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	C	C	2.0	2.0	2.0	2.0	2.6	2.2	2.2	2.1	A	--	2.60
9-Apr	2.2	2.2	2.1	2.0	2.0	2.3	2.3	2.3	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	A	2.1	2.08	2.33
10-Apr	2.1	2.1	2.1	2.2	2.6	2.1	2.2	2.2	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	A	2.3	2.0	2.10	2.64
11-Apr	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.06	2.21
12-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.02	2.04
13-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.00	2.01
14-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.00	2.03
15-Apr	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.03	2.07
16-Apr	2.0	2.0	2.0	2.1	2.1	2.1	2.3	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.08	2.27
17-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.01	2.05
18-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.01	2.03
19-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.2	2.05	2.16
20-Apr	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	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	2.09	2.24
21-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.04	2.05
22-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.02	2.05
23-Apr	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	2.0	2.0	2.0	2.0	2.01	2.02
24-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.3	2.03	2.33
25-Apr	2.2	2.3	2.5	2.5	2.3	2.4	A	2.3	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.11	2.52
26-Apr	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	2.0	2.0	2.0	2.0	2.02	2.06
27-Apr	2.0	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	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.04	2.09
28-Apr	2.1	2.2	2.8	A	2.5	2.5	2.3	2.3	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.12	2.84
29-Apr	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.00	2.12
30-Apr	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	1.98	2.08
	2.04	2.06	2.12	2.08	2.14	2.15	2.16	2.10	2.08	2.03	2.06	2.02	2.01	2.00	2.00	2.00	2.00	1.99	2.00	2.02	2.03	2.04	2.06	2.05	Diurnal Average	
	2.24	2.38	2.85	2.64	3.39	3.21	4.14	2.61	2.82	2.12	2.84	2.34	2.06	2.06	2.04	2.13	2.07	2.04	2.05	2.60	2.23	2.24	2.31	2.33	Diurnal Maximum	

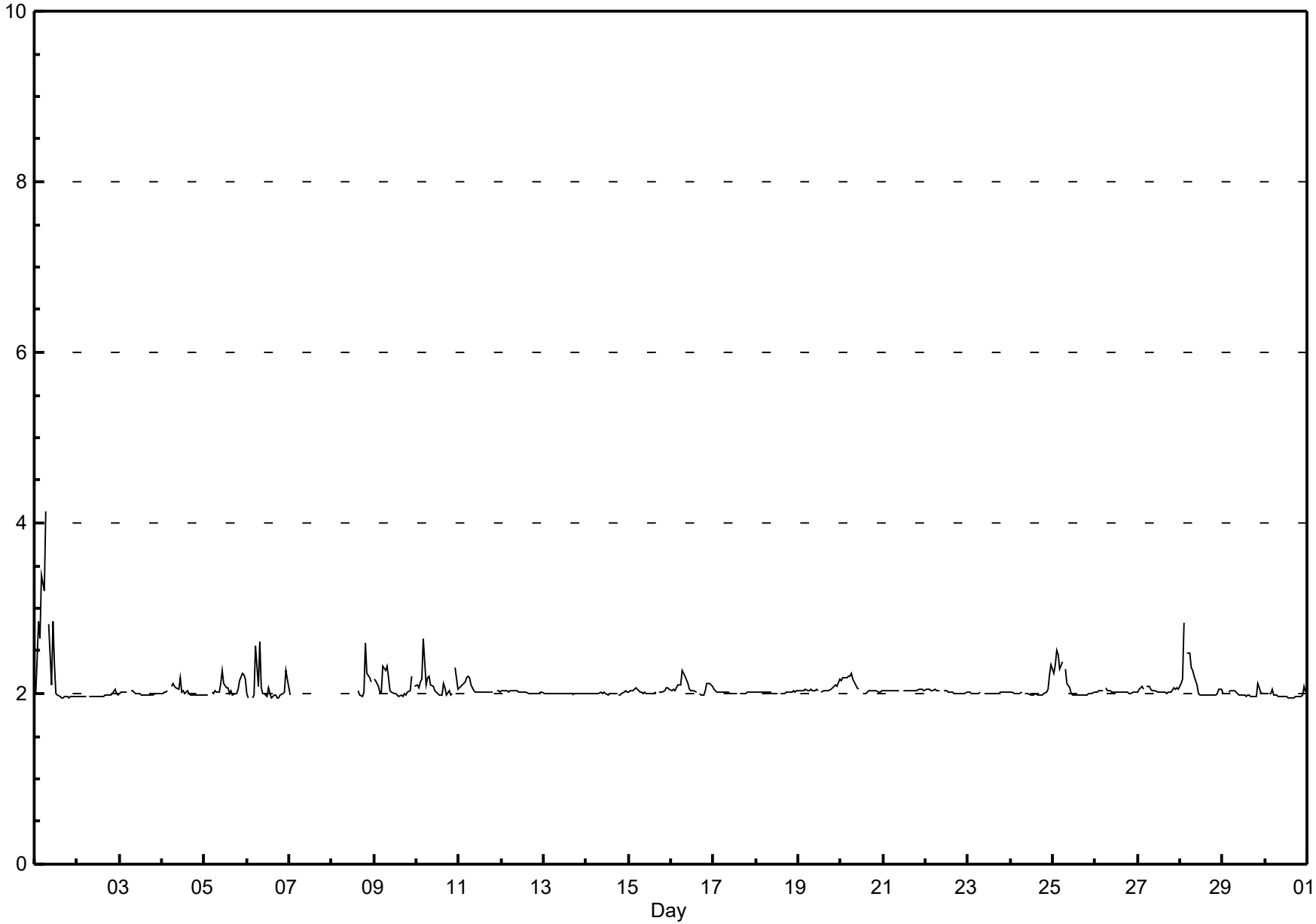
C - Calibration N - Not Valid A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Total Hydrocarbons (THC) - ppm

Henry Pirker - April 2017



Peace Airshed Zone Association

Hourly Maximums

Total Hydrocarbons (THC) - ppm

Henry Pirker - April 2017

Maximum Value: 10.70 ppm on Apr 1 05:00

Maximum Daily Average: 4.01 ppm on Apr 1

Minimum Value: 2.0 ppm on Apr 6 18:00

Minimum Daily Average: 2.02 ppm on Apr 30

Maximum Diurnal Average: 2.66 ppm at hour 6

Minimum Diurnal Average: 2.05 ppm at hour 18

Monthly Average: 2.253 ppm

Percentiles: P_1 = 1.97 P_{10} = 2.00 Q_1 = 2.03 Median = 2.05 Q_3 = 2.15 P_{90} = 2.50 P_{99} = 6.50

Hours in Service:	720
Hours of Data:	653
Hours of Missing Data:	67
Hours of Calibration:	32
Percent Operational Time:	95.1

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	2.0	9.0	5.3	6.5	10.7	7.9	8.5	A	7.0	2.1	5.2	3.8	2.0	2.0	2.3	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	4.01	10.70
2-Apr	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	3.3	2.0	2.0	2.05	3.31
3-Apr	2.0	2.0	2.0	2.0	2.0	A	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.02	2.06
4-Apr	2.0	2.1	2.0	2.1	A	2.2	2.3	2.2	2.2	2.3	3.7	2.1	2.3	2.1	2.8	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.20	3.70
5-Apr	2.0	2.0	2.0	A	2.0	2.0	2.1	2.1	2.1	3.7	5.2	3.3	2.8	3.0	2.1	2.6	2.0	2.1	2.0	2.3	3.2	2.7	2.6	2.2	2.53	5.18
6-Apr	2.1	2.0	A	2.0	2.0	8.0	3.7	5.4	2.3	2.0	2.0	2.0	3.1	3.0	2.0	3.4	3.2	2.0	2.0	2.1	2.1	3.4	4.7	4.5	3.00	8.00
7-Apr	2.1	A	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	2.10
8-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	C	C	2.7	2.4	2.1	3.1	3.7	3.1	2.9	2.8	A	--	3.71
9-Apr	2.9	2.4	2.2	2.1	2.1	3.0	3.7	4.0	3.2	2.1	2.0	2.1	2.3	2.2	2.0	2.2	2.0	2.4	2.0	2.0	2.1	5.3	A	2.6	2.56	5.27
10-Apr	2.6	2.3	2.5	2.5	5.2	2.7	2.8	2.4	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.7	2.4	2.3	2.3	2.0	2.1	A	3.5	2.1	2.48	5.24
11-Apr	2.2	2.1	2.1	2.2	2.6	2.3	2.3	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.1	2.1	A	2.2	2.1	2.1	2.13	2.56
12-Apr	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.07	2.18
13-Apr	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.1	2.2	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.0	A	2.0	2.1	2.1	2.0	2.1	2.06	2.16
14-Apr	2.1	2.3	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.1	2.0	2.05	2.31
15-Apr	2.0	2.1	2.1	2.1	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	A	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.05	2.16
16-Apr	2.1	2.1	2.1	2.1	2.2	2.2	2.8	2.7	2.4	2.2	2.1	2.1	2.1	2.1	2.1	A	2.0	2.0	2.0	2.1	2.5	2.3	2.5	2.2	2.21	2.77
17-Apr	2.2	2.1	2.1	2.0	2.1	2.1	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.06	2.23
18-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.1	2.0	2.1	A	2.0	2.1	2.0	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.06	2.19
19-Apr	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	2.1	2.1	2.1	2.1	2.1	2.1	2.3	2.1	3.0	2.13	3.02
20-Apr	2.3	2.3	2.5	2.3	2.4	2.3	2.3	2.3	2.1	2.1	2.1	A	2.0	2.0	2.0	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.0	2.2	2.16	2.48
21-Apr	2.1	2.4	2.3	2.1	2.1	2.0	2.1	2.0	2.1	2.1	A	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.3	2.3	2.1	2.1	2.12	2.36
22-Apr	2.1	2.2	2.2	2.1	2.1	2.2	2.2	2.2	2.1	A	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	2.2	2.09	2.24
23-Apr	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.1	A	2.0	2.0	2.2	2.0	2.0	2.1	2.1	2.0	2.1	2.0	2.1	2.0	2.0	2.1	2.0	2.05	2.19
24-Apr	2.1	2.1	2.1	2.0	2.1	2.0	2.1	A	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.1	2.1	2.1	2.2	2.4	2.6	2.09	2.61
25-Apr	2.5	2.5	2.8	2.8	2.6	3.1	A	2.4	2.2	2.2	2.0	2.0	2.0	2.2	2.0	2.0	2.1	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.24	3.05
26-Apr	2.0	2.0	2.1	2.1	2.0	A	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.05	2.11
27-Apr	2.0	2.1	2.2	2.1	A	2.2	2.2	2.2	2.1	2.1	2.2	2.0	2.1	2.0	2.0	2.3	2.0	2.1	2.2	2.1	2.2	2.1	2.3	2.1	2.12	2.28
28-Apr	2.3	2.4	3.5	A	2.7	2.7	2.4	2.4	2.3	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.23	3.49
29-Apr	2.1	2.0	A	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.1	2.0	2.0	2.04	2.24
30-Apr	2.1	A	2.0	2.1	2.3	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.1	2.02	2.28
	2.15	2.40	2.32	2.29	2.60	2.66	2.54	2.35	2.33	2.15	2.34	2.15	2.13	2.11	2.07	2.18	2.10	2.05	2.08	2.12	2.16	2.35	2.29	2.23	Diurnal Average	
	2.95	8.97	5.32	6.52	10.70	8.00	8.48	5.37	6.98	3.70	5.20	3.77	3.14	3.03	2.78	3.39	3.23	2.40	3.10	3.71	3.25	5.27	4.74	4.47	Diurnal Maximum	

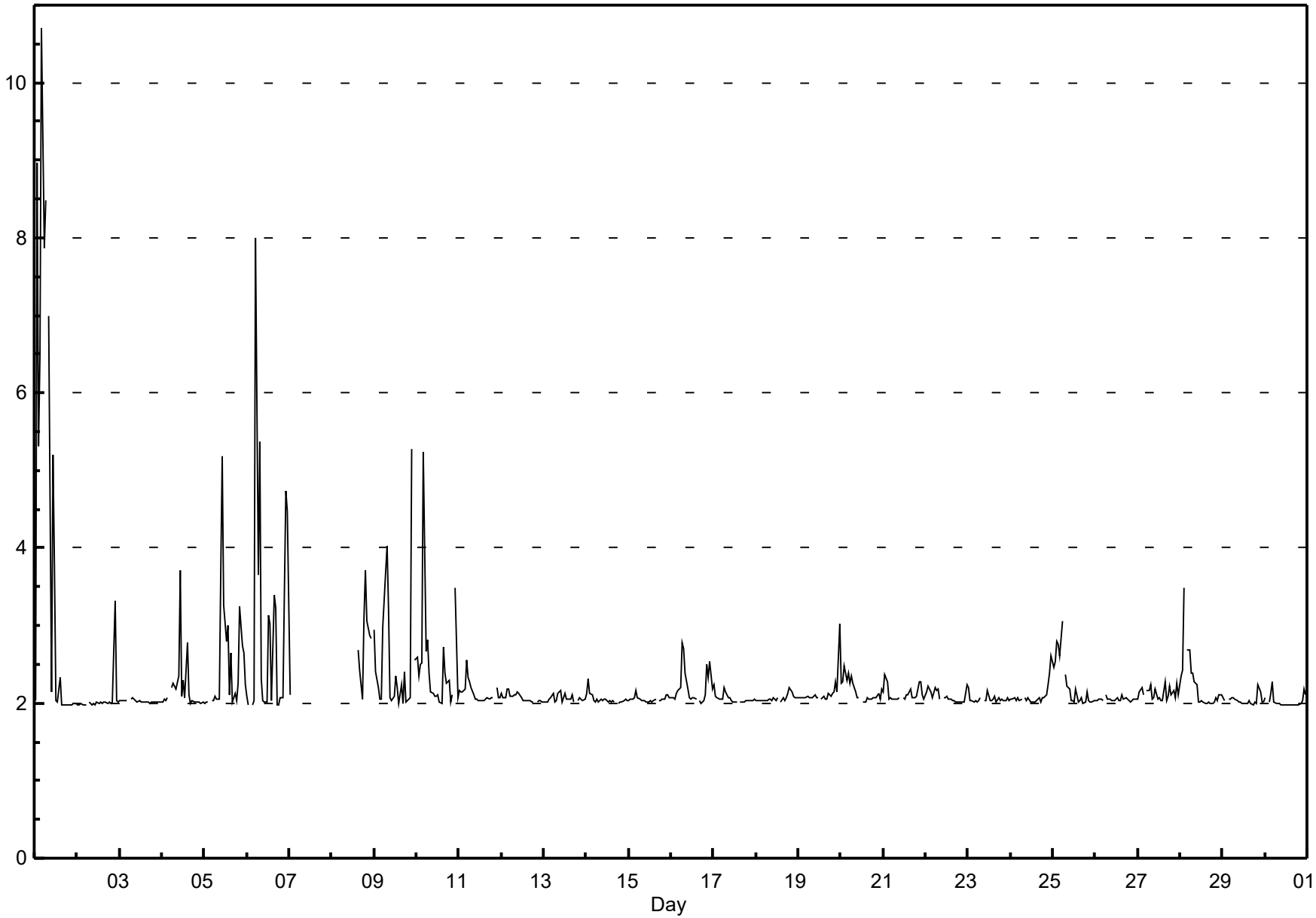
C - Calibration N - Not Valid A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Total Hydrocarbons (THC) - ppm

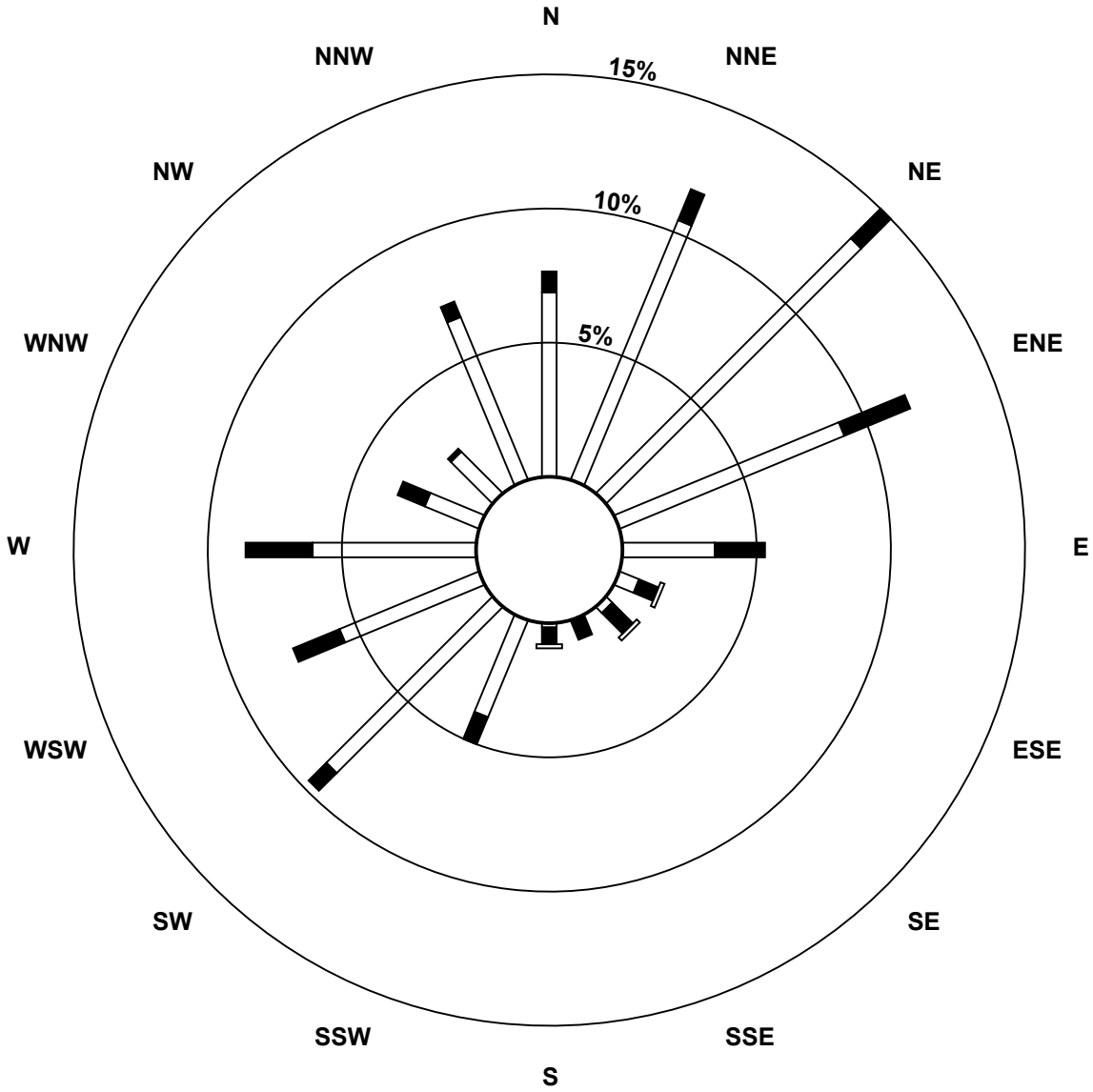
Henry Pirker - April 2017



Pollutant Rose

Total Hydrocarbons (THC) - ppm

Henry Pirker - April 2017



Pollutant Classes (ppm)

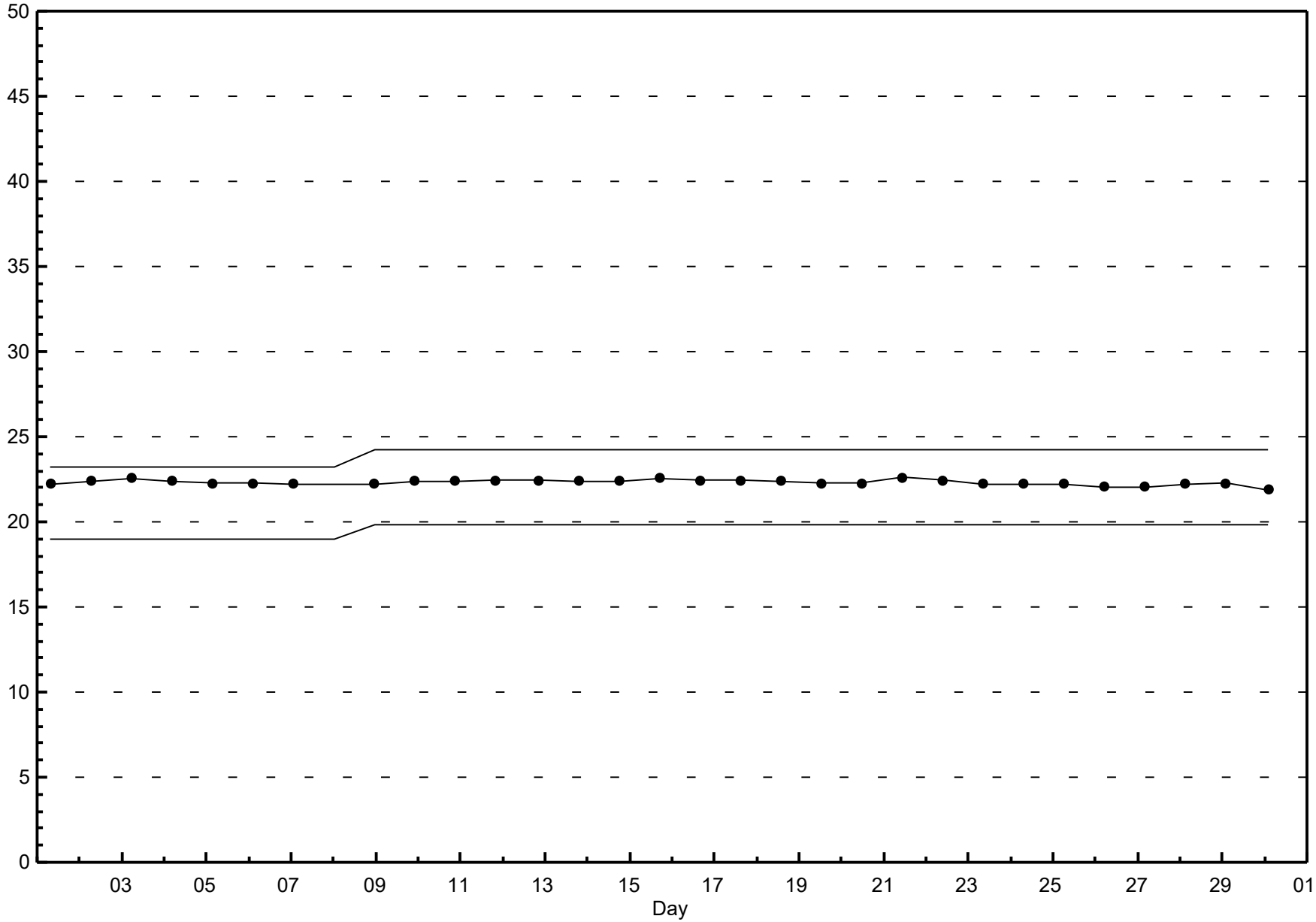
- 1.5 - 2.0
- 2.1 - 3.0
- 3.1 - 10.0
- > 10.0

Peace Airshed Zone Association

Span Responses

Total Hydrocarbons (THC)

Henry Pirker - April 2017



Peace Airshed Zone Association

Hourly Averages

Methane (CH_4) - ppm

Henry Pirker - April 2017

Maximum Value: 4.14 ppm on Apr 1 07:00

Maximum Daily Average: 2.36 ppm on Apr 1

Minimum Value: 1.9 ppm on Apr 6 18:00

Minimum Daily Average: 1.97 ppm on Apr 2

Maximum Diurnal Average: 2.16 ppm at hour 7

Minimum Diurnal Average: 1.99 ppm at hour 18

Monthly Average: 2.049 ppm

Percentiles: P_1 = 1.96 P_{10} = 1.98 Q_1 = 1.99 Median = 2.01 Q_3 = 2.04 P_{90} = 2.13 P_{99} = 2.82

Hours in Service:	720
Hours of Data:	653
Hours of Missing Data:	67
Hours of Calibration:	32
Percent Operational Time:	95.1

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	2.0	2.4	2.9	2.6	3.4	3.2	4.1	A	2.8	2.1	2.8	2.3	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.36	4.14
2-Apr	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	2.0	2.0	1.97	2.05
3-Apr	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.00	2.04
4-Apr	2.0	2.0	2.0	2.0	A	2.1	2.1	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	2.0	2.0	2.0	2.0	2.02	2.18
5-Apr	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.1	2.3	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.2	2.2	2.2	2.06	2.26
6-Apr	2.0	2.0	A	2.0	2.0	2.6	2.1	2.6	2.1	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.3	2.2	2.06	2.61
7-Apr	2.0	A	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	1.98
8-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	C	C	2.0	2.0	2.0	2.0	2.6	2.2	2.2	2.1	A	--	2.59
9-Apr	2.2	2.2	2.1	2.0	2.0	2.3	2.3	2.3	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	A	2.1	2.08	2.33
10-Apr	2.1	2.1	2.1	2.2	2.6	2.1	2.2	2.2	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	A	2.3	2.0	2.10	2.64
11-Apr	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.06	2.20
12-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.02	2.04
13-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.00	2.01
14-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.00	2.03
15-Apr	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.03	2.07
16-Apr	2.0	2.0	2.0	2.1	2.1	2.1	2.3	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.08	2.27
17-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.01	2.04
18-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.01	2.02
19-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.2	2.05	2.16
20-Apr	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	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	2.08	2.24
21-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.03	2.05
22-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.02	2.05
23-Apr	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	2.0	2.0	2.0	2.0	2.00	2.02
24-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.3	2.02	2.33
25-Apr	2.2	2.3	2.5	2.4	2.3	2.4	A	2.3	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.11	2.51
26-Apr	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	2.0	2.0	2.0	2.0	2.02	2.06
27-Apr	2.0	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	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.04	2.09
28-Apr	2.1	2.2	2.8	A	2.5	2.5	2.3	2.3	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.12	2.83
29-Apr	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.00	2.12
30-Apr	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	1.98	2.08
	2.04	2.06	2.11	2.07	2.14	2.15	2.16	2.10	2.08	2.03	2.05	2.02	2.00	2.00	2.00	2.00	2.00	1.99	2.00	2.02	2.03	2.04	2.06	2.05	Diurnal Average	
	2.24	2.38	2.85	2.64	3.39	3.21	4.14	2.61	2.82	2.12	2.84	2.34	2.06	2.06	2.04	2.12	2.07	2.03	2.04	2.59	2.23	2.24	2.31	2.33	Diurnal Maximum	

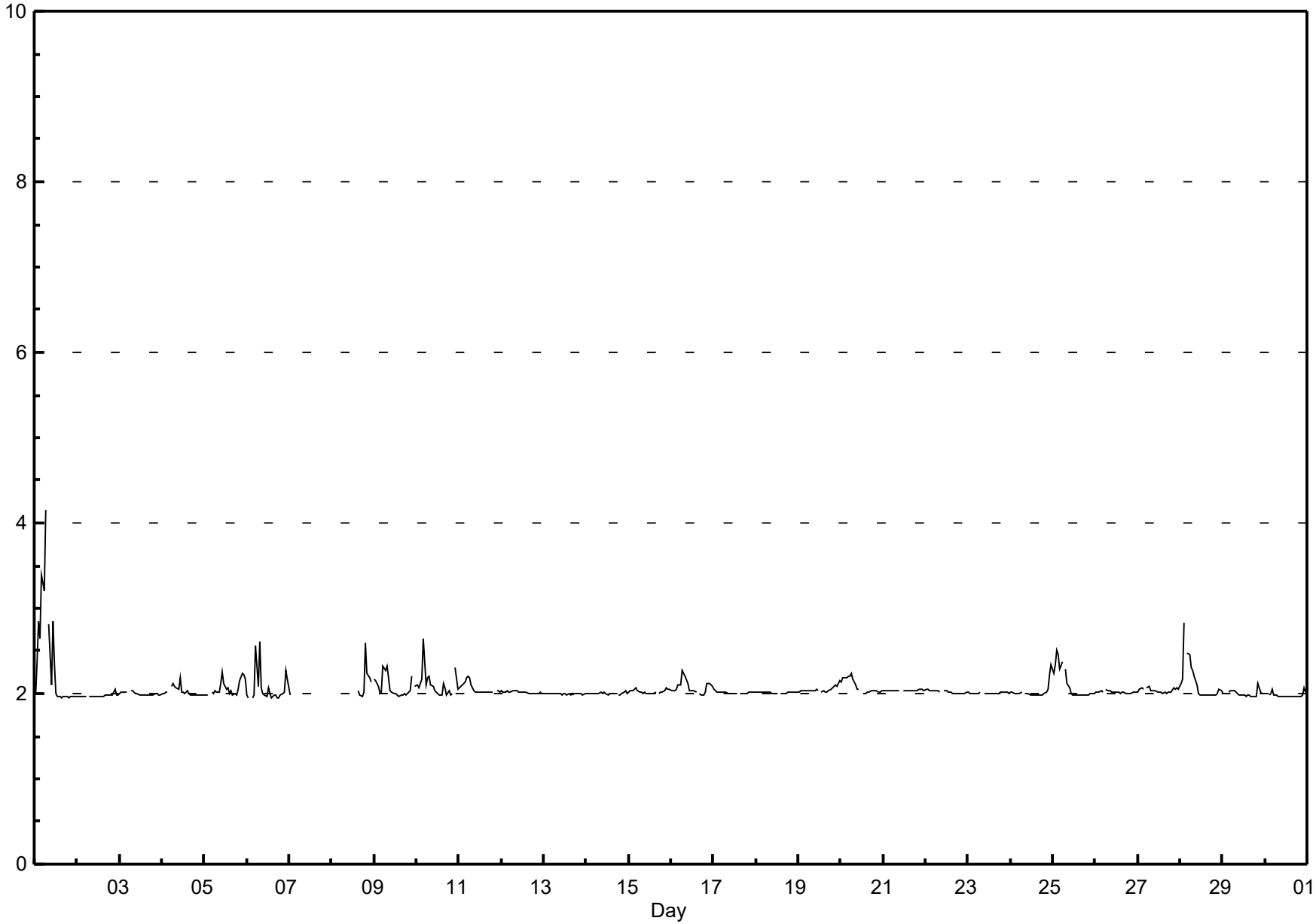
C - Calibration N - Not Valid A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Methane (CH_4) - ppm

Henry Pirker - April 2017



Peace Airshed Zone Association

Hourly Maximums

Methane (CH_4) - ppm

Henry Pirker - April 2017

Maximum Value: 10.70 ppm on Apr 1 05:00

Maximum Daily Average: 4.01 ppm on Apr 1

Minimum Value: 2.0 ppm on Apr 6 19:00

Minimum Daily Average: 2.02 ppm on Apr 3

Maximum Diurnal Average: 2.66 ppm at hour 6

Minimum Diurnal Average: 2.05 ppm at hour 18

Monthly Average: 2.251 ppm

Percentiles: P_1 = 1.97 P_{10} = 2.00 Q_1 = 2.02 Median = 2.05 Q_3 = 2.14 P_{90} = 2.51 P_{99} = 6.50

Hours in Service:	720
Hours of Data:	653
Hours of Missing Data:	67
Hours of Calibration:	32
Percent Operational Time:	95.1

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	2.0	9.0	5.3	6.5	10.7	7.9	8.5	A	7.0	2.1	5.2	3.8	2.0	2.0	2.3	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	4.01	10.70
2-Apr	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	3.3	2.0	2.0	2.05	3.30
3-Apr	2.0	2.0	2.0	2.0	2.0	A	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.02	2.06
4-Apr	2.0	2.0	2.0	2.1	A	2.2	2.3	2.2	2.2	2.4	3.7	2.1	2.3	2.1	2.8	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.19	3.70
5-Apr	2.0	2.0	2.0	A	2.0	2.0	2.1	2.0	2.1	3.7	5.2	3.3	2.8	3.0	2.1	2.6	2.0	2.1	2.0	2.2	3.2	2.7	2.6	2.2	2.53	5.18
6-Apr	2.1	2.0	A	2.0	2.0	8.0	3.7	5.4	2.3	2.0	2.0	2.0	3.1	3.0	2.0	3.4	3.2	2.0	2.0	2.1	2.1	3.4	4.8	4.5	3.00	8.01
7-Apr	2.1	A	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	2.10
8-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	C	C	2.7	2.4	2.0	3.1	3.7	3.1	2.9	2.8	A	--	3.71
9-Apr	3.0	2.4	2.2	2.0	2.0	3.0	3.7	4.0	3.2	2.1	2.0	2.1	2.3	2.2	2.0	2.2	2.0	2.4	2.0	2.0	2.1	5.3	A	2.6	2.56	5.27
10-Apr	2.6	2.3	2.5	2.5	5.2	2.7	2.8	2.4	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.7	2.4	2.2	2.3	2.0	2.1	A	3.5	2.1	2.47	5.25
11-Apr	2.2	2.1	2.1	2.2	2.6	2.3	2.3	2.2	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.1	2.1	A	2.2	2.1	2.1	2.13	2.56
12-Apr	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.07	2.19
13-Apr	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.1	2.2	2.0	2.1	2.1	2.0	2.1	2.1	2.1	2.0	A	2.0	2.1	2.1	2.0	2.0	2.06	2.15
14-Apr	2.1	2.3	2.1	2.1	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	A	2.0	2.0	2.0	2.0	2.1	2.0	2.05	2.31
15-Apr	2.0	2.1	2.0	2.1	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.05	2.15
16-Apr	2.1	2.1	2.0	2.1	2.2	2.2	2.8	2.7	2.4	2.2	2.1	2.1	2.1	2.1	2.0	A	2.0	2.0	2.0	2.1	2.5	2.3	2.5	2.2	2.20	2.77
17-Apr	2.2	2.1	2.1	2.0	2.1	2.1	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.06	2.22
18-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.1	2.0	2.1	A	2.0	2.1	2.0	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.06	2.19
19-Apr	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	2.0	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.3	2.1	3.0	2.13	3.02
20-Apr	2.2	2.3	2.5	2.3	2.4	2.2	2.3	2.2	2.1	2.1	2.1	A	2.0	2.0	2.0	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.0	2.2	2.15	2.48
21-Apr	2.1	2.4	2.3	2.1	2.1	2.0	2.1	2.0	2.0	2.1	A	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.3	2.3	2.1	2.1	2.11	2.35
22-Apr	2.1	2.2	2.2	2.1	2.1	2.2	2.2	2.2	2.0	A	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	2.2	2.09	2.23
23-Apr	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.1	A	2.0	2.0	2.2	2.0	2.0	2.0	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.1	2.0	2.05	2.20
24-Apr	2.1	2.0	2.1	2.0	2.1	2.0	2.1	A	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.1	2.1	2.1	2.2	2.4	2.6	2.09	2.61
25-Apr	2.5	2.5	2.8	2.8	2.6	3.1	A	2.4	2.2	2.2	2.0	2.0	2.0	2.2	2.0	2.0	2.1	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.24	3.05
26-Apr	2.0	2.0	2.0	2.0	2.0	A	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.0	2.0	2.05	2.11
27-Apr	2.0	2.1	2.2	2.1	A	2.2	2.2	2.2	2.1	2.1	2.2	2.0	2.1	2.0	2.0	2.3	2.0	2.1	2.2	2.1	2.2	2.1	2.3	2.1	2.12	2.27
28-Apr	2.3	2.4	3.5	A	2.7	2.7	2.4	2.4	2.3	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.23	3.49
29-Apr	2.1	2.0	A	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.1	2.0	2.0	2.03	2.24
30-Apr	2.1	A	2.0	2.1	2.3	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.1	2.02	2.28
	2.15	2.40	2.32	2.29	2.60	2.66	2.54	2.35	2.32	2.15	2.34	2.15	2.12	2.11	2.07	2.18	2.10	2.05	2.08	2.11	2.16	2.35	2.29	2.23	Diurnal Average	
	2.95	8.98	5.32	6.52	10.70	8.01	8.50	5.36	6.99	3.70	5.20	3.77	3.14	3.03	2.78	3.39	3.23	2.40	3.10	3.71	3.24	5.27	4.75	4.47	Diurnal Maximum	

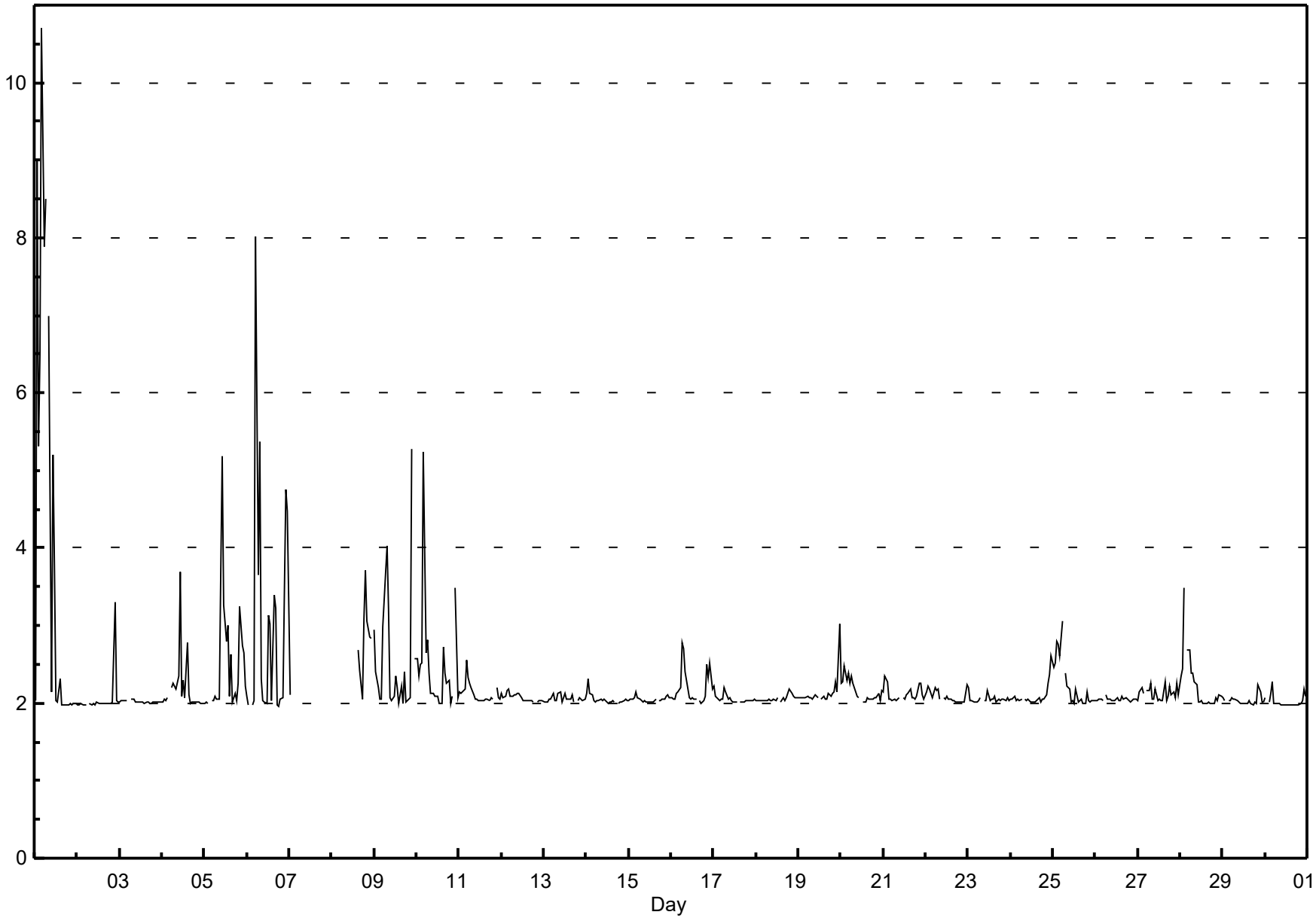
C - Calibration N - Not Valid A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Methane (CH_4) - ppm

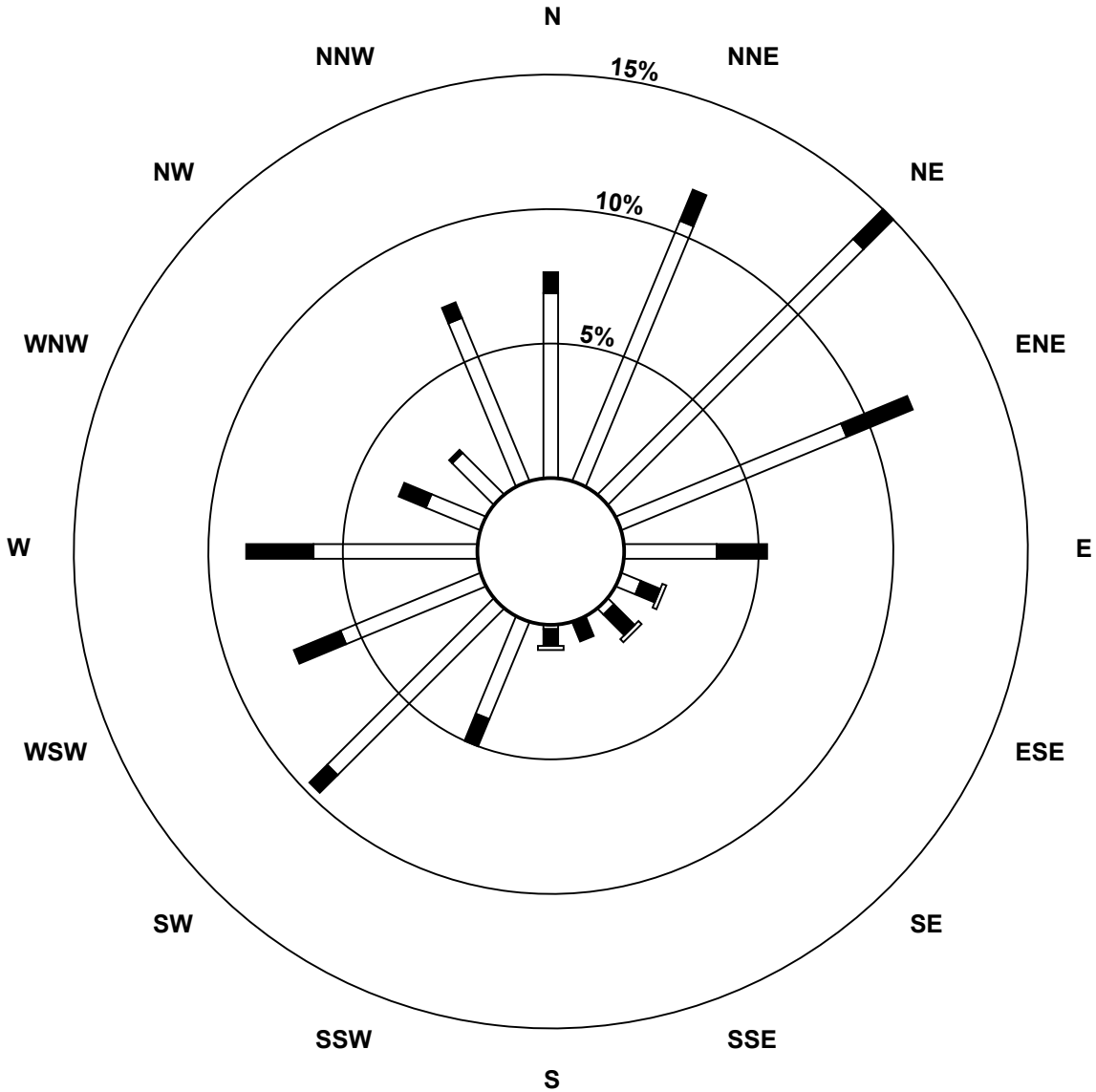
Henry Pirker - April 2017



Pollutant Rose

Methane (CH_4) - ppm

Henry Pirker - April 2017



Pollutant Classes (ppm)

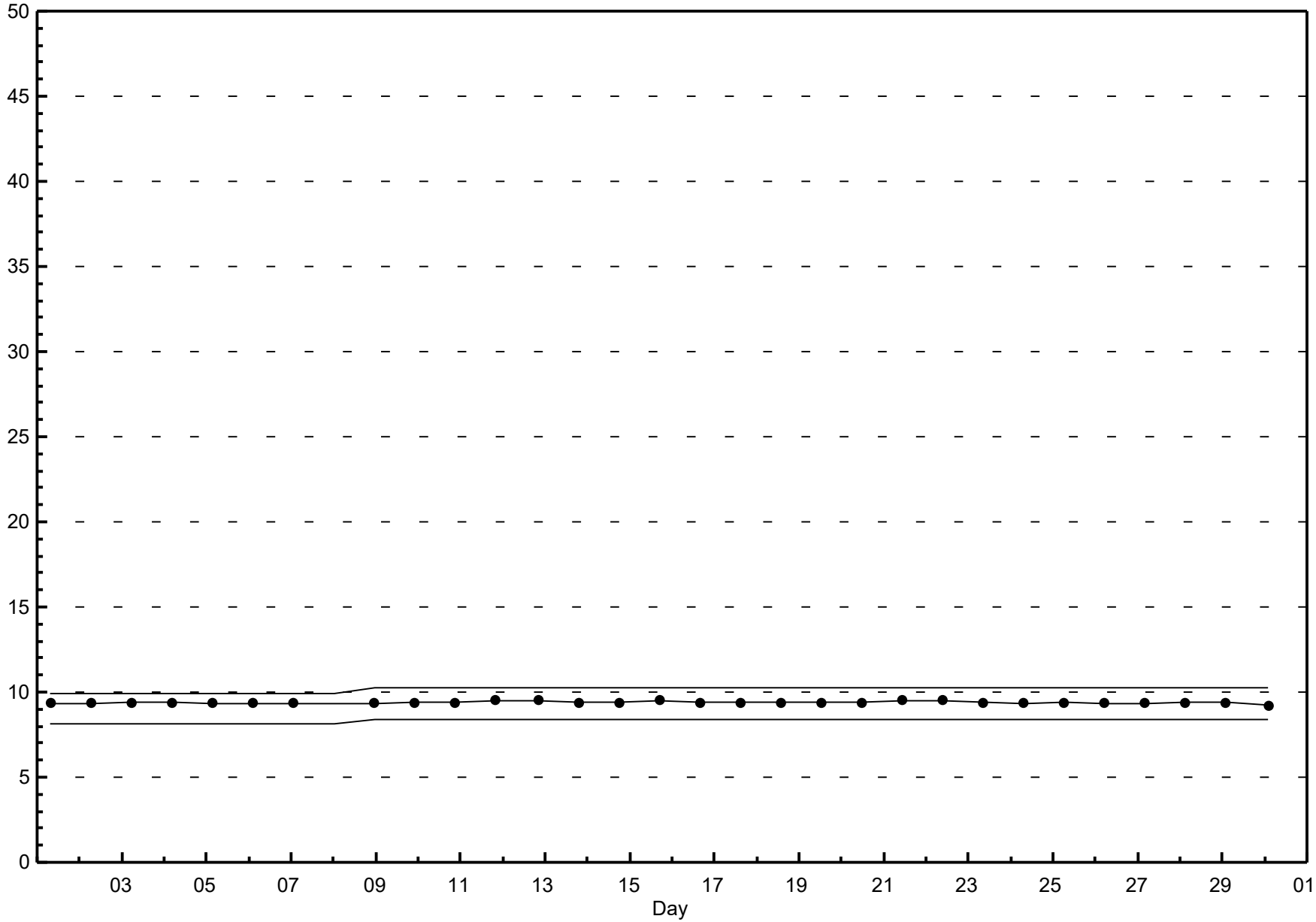
- 1.5 - 2.0
- 2.1 - 3.0
- 3.1 - 10.0
- > 10.0

Peace Airshed Zone Association

Span Responses

Methane (CH_4)

Henry Pirker - April 2017



Peace Airshed Zone Association

Hourly Averages

Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - April 2017

Maximum Value: 0.00 ppm on Apr 21 05:00

Maximum Daily Average: 0.00 ppm on Apr 21

Minimum Value: 0.0 ppm on Apr 1 01:00

Minimum Daily Average: 0.00 ppm on Apr 1

Maximum Diurnal Average: 0.00 ppm at hour 5

Minimum Diurnal Average: 0.00 ppm at hour 4

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:	720
Hours of Data:	653
Hours of Missing Data:	67
Hours of Calibration:	32
Percent Operational Time:	95.1

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
2-Apr	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
3-Apr	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
4-Apr	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
5-Apr	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
6-Apr	0.0	0.0	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
7-Apr	0.0	A	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	0.00
8-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	--	0.00
9-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.00	0.00
10-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.00	0.00
11-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.00	0.00
12-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.00	0.00
13-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.00	0.00
14-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
15-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
16-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
17-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
18-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
19-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
20-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
21-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
22-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
23-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
24-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
25-Apr	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
26-Apr	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
27-Apr	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
28-Apr	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
29-Apr	0.0	0.0	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
30-Apr	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
	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	Diurnal Average	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Diurnal Maximum	

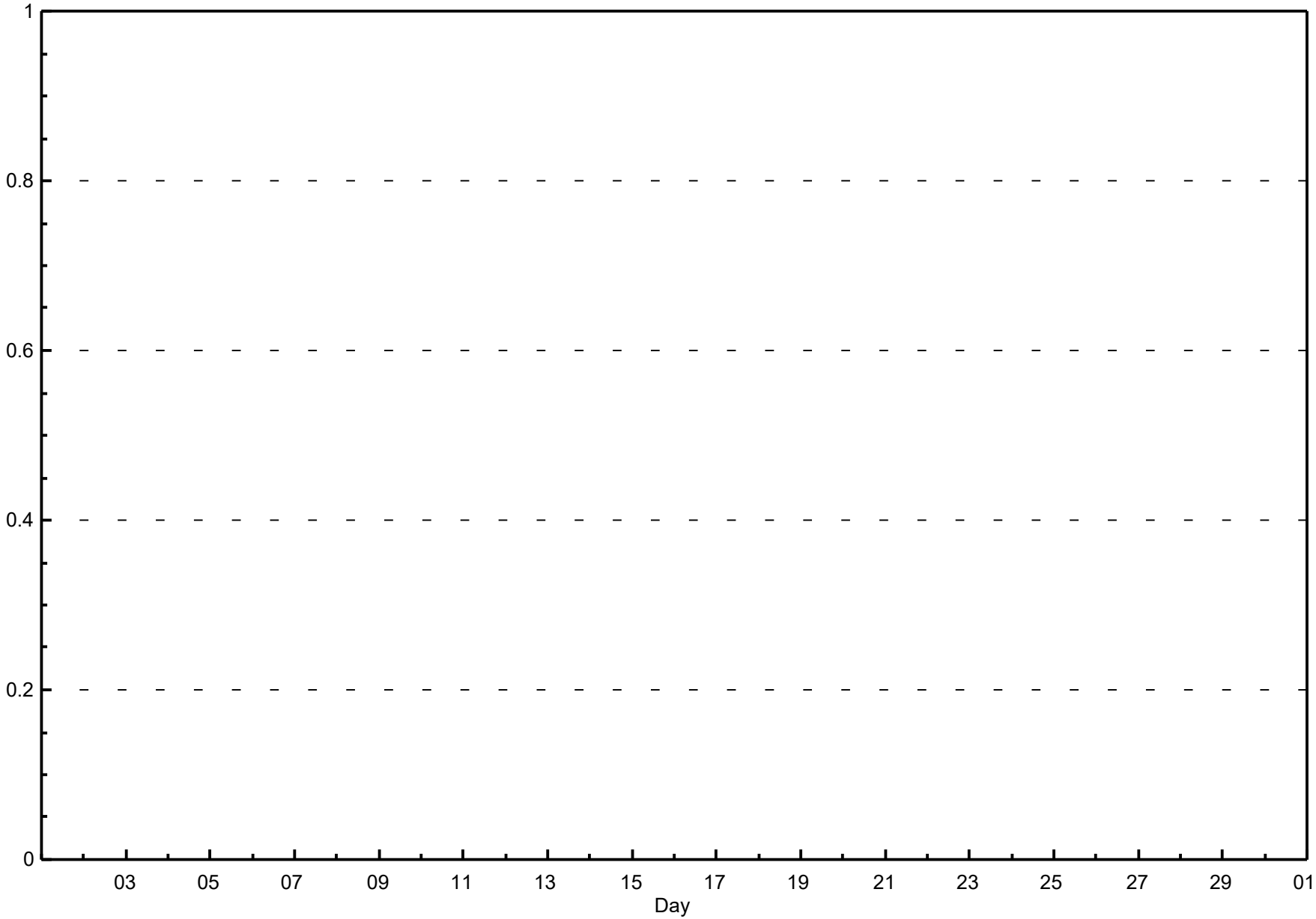
C - Calibration N - Not Valid A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - April 2017



Peace Airshed Zone Association

Hourly Maximums

Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - April 2017

Maximum Value: 0.00 ppm on Apr 22 20:00

Maximum Daily Average: 0.00 ppm on Apr 21

Minimum Value: 0.0 ppm on Apr 19 19:00

Minimum Daily Average: 0.00 ppm on Apr 6

Maximum Diurnal Average: 0.00 ppm at hour 1

Minimum Diurnal Average: 0.00 ppm at hour 16

Monthly Average: 0.001 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:	720
Hours of Data:	653
Hours of Missing Data:	67
Hours of Calibration:	32
Percent Operational Time:	95.1

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
2-Apr	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
3-Apr	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
4-Apr	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
5-Apr	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
6-Apr	0.0	0.0	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
7-Apr	0.0	A	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	0.00
8-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	--	0.00
9-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.00	0.00
10-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.00	0.00
11-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.00	0.00
12-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.00	0.00
13-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.00	0.00
14-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
15-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
16-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
17-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
18-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
19-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
20-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
21-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
22-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
23-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
24-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
25-Apr	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
26-Apr	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
27-Apr	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
28-Apr	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
29-Apr	0.0	0.0	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
30-Apr	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
	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	Diurnal Average	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Diurnal Maximum	

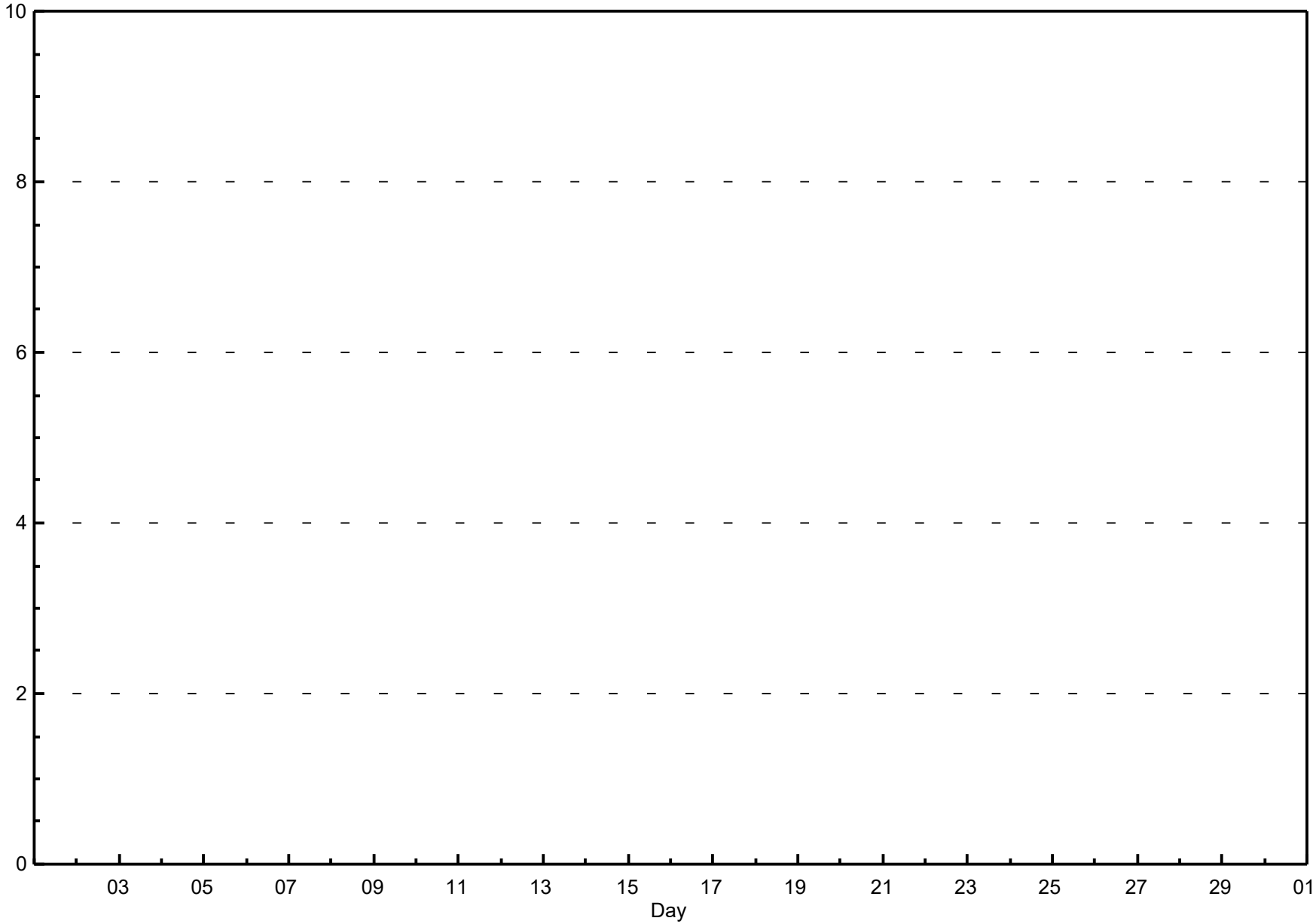
C - Calibration N - Not Valid A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Non Methane Hydrocarbon (NMHC) - ppm

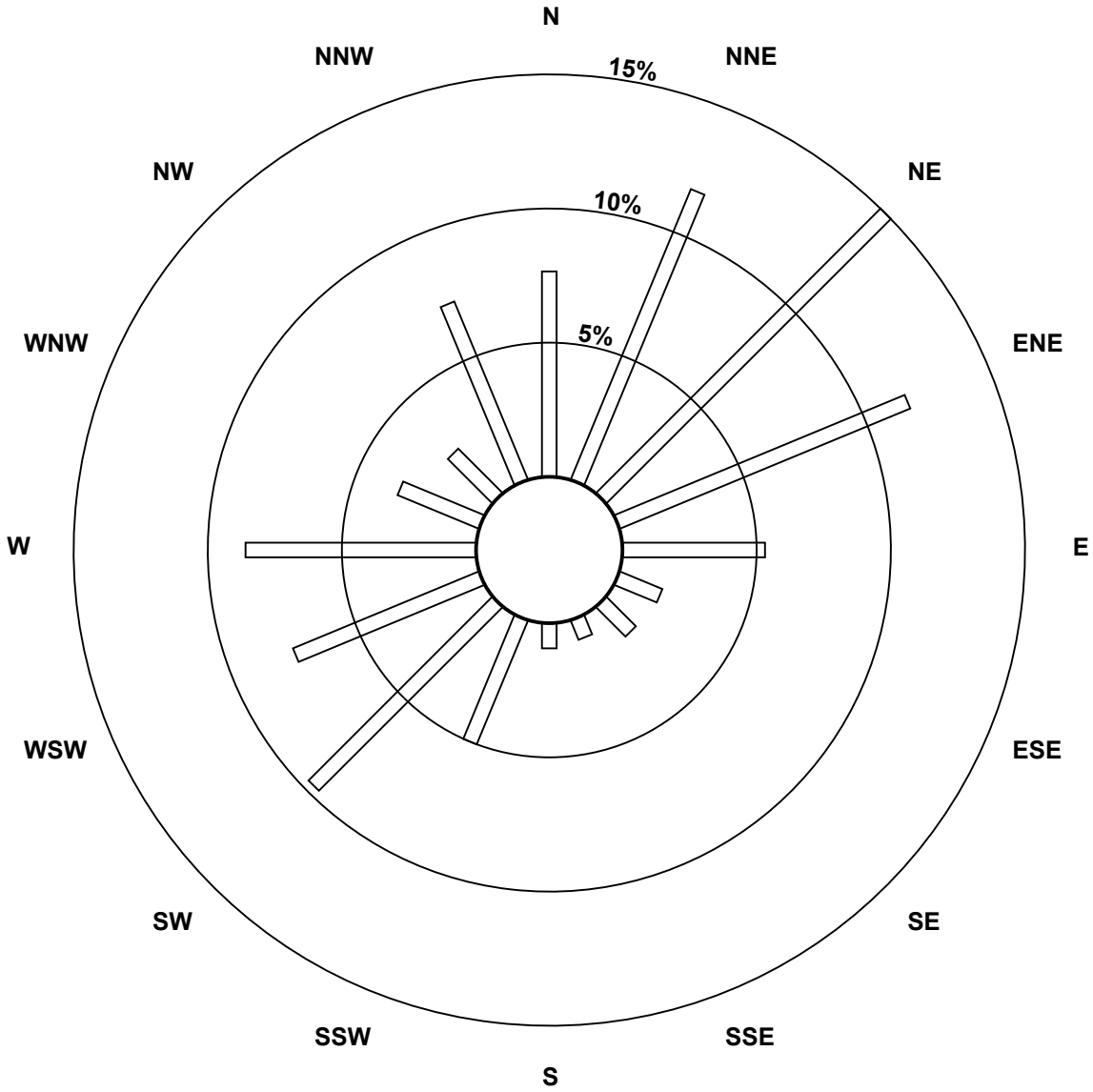
Henry Pirker - April 2017



Pollutant Rose

Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - April 2017



Pollutant Classes (ppm)

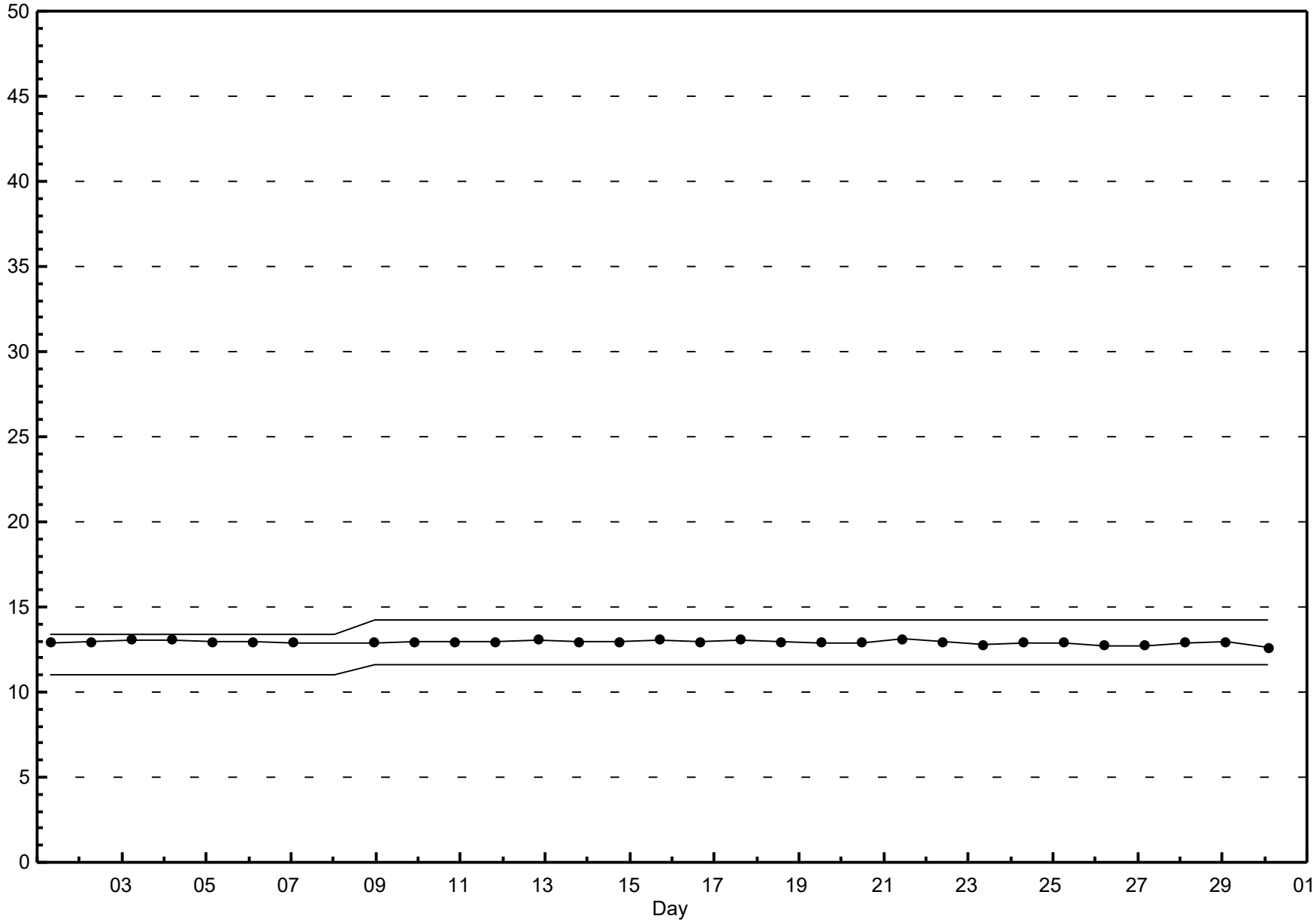
- 0 - 0.05
- 0.06 - 0.1
- 0.11 - 0.30
- > 0.30

Peace Airshed Zone Association

Span Responses

Non Methane Hydrocarbon (NMHC)

Henry Pirker - April 2017



Peace Airshed Zone Association

Hourly Averages

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

Henry Pirker - April 2017

Number of Exceedences: 1-hr: 0 24-hr: 0

Maximum Value: 29.0 $\mu g/m^3$ on Apr 26 07:00

Maximum Daily Average: 6.5 $\mu g/m^3$ on Apr 28

Minimum Value: 1 $\mu g/m^3$ on Apr 9 15:00

Maximum Diurnal Average: 5.1 $\mu g/m^3$ at hour 7

Monthly Average: 3.13 $\mu g/m^3$

Minimum Daily Average: 1.6 $\mu g/m^3$ on Apr 14

Minimum Diurnal Average: 2.0 $\mu g/m^3$ at hour 15

Percentiles: P_1 = 1.2 P_{10} = 1.5 Q_1 = 1.9 Median = 2.5 Q_3 = 3.6 P_{90} = 5.1 P_{99} = 13.8

Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Apr	2	4	3	4	3	3	3	3	3	3	3	2	2	1	1	1	1	2	2	2	2	2	2	1	2.4	3.9
2-Apr	2	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1.9	2.8
3-Apr	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	2	2	2.0	3.3
4-Apr	2	3	3	3	3	4	7	5	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	2	3.2	6.5
5-Apr	2	3	3	3	3	3	4	5	4	4	4	5	5	4	3	3	3	4	5	5	9	15	10	7	4.8	14.9
6-Apr	4	4	3	3	3	3	3	3	3	3	2	2	1	1	1	1	1	2	2	4	4	3	3	3	2.6	4.5
7-Apr	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	3	3	2	2	2	2	2	2	2	2.2	3.0
8-Apr	3	3	2	2	2	2	2	2	2	2	2	2	2	1	1	2	2	2	2	2	2	2	2	4	2.0	4.1
9-Apr	5	5	4	4	3	4	4	4	4	3	3	2	2	1	1	1	1	1	1	2	3	3	3	3	2.8	5.3
10-Apr	4	4	5	5	4	5	5	6	6	4	3	3	2	2	3	3	3	2	2	2	3	3	3	3	3.6	6.4
11-Apr	3	4	5	6	6	6	6	5	3	3	3	3	2	2	2	2	2	3	3	3	4	4	4	4	3.7	6.2
12-Apr	3	2	2	2	2	2	2	3	3	2	2	3	2	2	2	2	2	3	2	2	3	3	3	3	2.5	3.2
13-Apr	4	5	5	5	5	5	4	4	3	3	2	2	2	2	2	1	2	2	2	2	2	2	2	2	2.8	5.4
14-Apr	2	1	1	1	1	1	1	1	1	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	1.6	2.4
15-Apr	4	8	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	3	4	4	5	5	5	3.0	7.8
16-Apr	4	4	4	4	4	5	5	6	6	4	2	2	2	2	2	2	2	3	2	3	5	5	4	3	3.6	5.9
17-Apr	4	4	4	4	4	4	4	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2.6	4.4
18-Apr	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	4	3	3	4	2.1	3.7
19-Apr	3	3	3	3	4	4	5	5	5	5	5	4	3	3	4	4	4	4	5	6	6	7	5	4	4.3	6.8
20-Apr	5	6	7	8	8	8	12	7	5	4	3	3	3	3	2	3	3	3	4	4	3	3	3	3	4.6	12.1
21-Apr	3	3	3	3	3	3	4	4	4	3	2	2	3	3	3	3	3	3	3	4	4	3	3	3	3.2	3.7
22-Apr	3	3	3	3	4	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.5	3.5
23-Apr	2	3	2	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	2	2	2	2.3	2.7
24-Apr	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	2	1	2	2	2	4	5	5	2.0	5.5
25-Apr	7	12	10	10	7	7	7	13	7	4	3	2	2	2	2	2	2	2	2	2	3	3	3	3	4.9	13.0
26-Apr	2	2	2	2	2	2	29	3	2	2	2	2	2	2	2	2	3	3	3	3	4	5	5	6	3.7	29.0
27-Apr	6	6	7	8	8	8	8	6	5	5	4	4	4	4	4	3	4	4	4	4	7	8	8	6	5.6	8.4
28-Apr	8	16	14	14	14	13	14	13	9	5	3	3	3	3	3	3	3	2	2	2	2	3	3	2	6.5	16.2
29-Apr	2	2	2	2	2	3	2	2	1	1	1	1	1	1	1	1	1	1	1	2	4	4	4	3	2.0	4.0
30-Apr	5	6	5	5	5	5	4	3	3	3	2	2	2	2	2	2	2	1	1	1	2	2	2	2	2.9	6.1
	3.5	4.2	3.9	4.0	3.9	4.0	5.1	4.1	3.4	2.8	2.5	2.3	2.2	2.1	2.0	2.1	2.2	2.3	2.4	2.7	3.3	3.6	3.3	3.2	Diurnal Average	
	8.2	16.2	14.0	13.9	14.4	13.3	29.0	13.0	8.7	4.8	5.0	5.0	4.5	3.8	3.6	3.8	4.0	4.5	5.1	5.8	9.3	14.9	9.8	6.8	Diurnal Maximum	

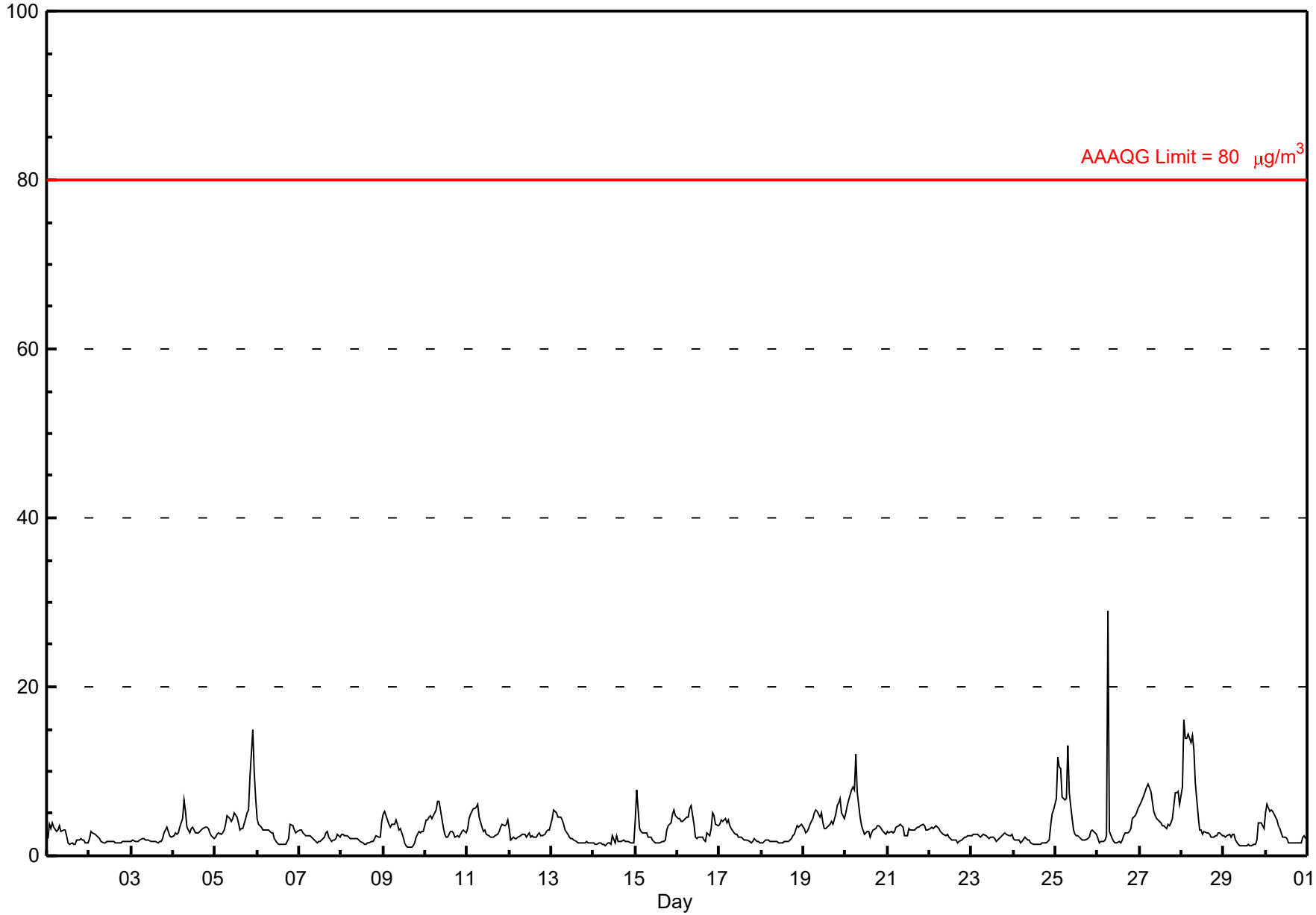
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 $\mu g/m^3$ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 $\mu g/m^3$

Peace Airshed Zone Association

Hourly Averages

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

Henry Pirker - April 2017



Peace Airshed Zone Association

Hourly Maximums

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

Henry Pirker - April 2017

Maximum Value: 76.3 $\mu g/m^3$ on Apr 26 07:00

Maximum Daily Average: 9.0 $\mu g/m^3$ on Apr 28

Minimum Value: 1 $\mu g/m^3$ on Apr 9 15:00

Maximum Diurnal Average: 7.4 $\mu g/m^3$ at hour 7

Monthly Average: 4.02 $\mu g/m^3$

Minimum Daily Average: 2.1 $\mu g/m^3$ on Apr 2

Minimum Diurnal Average: 2.5 $\mu g/m^3$ at hour 15

Percentiles: P_1 = 1.4 P_{10} = 1.8 Q_1 = 2.2 Median = 3.0 Q_3 = 4.3 P_{90} = 7.1 P_{99} = 16.0

Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

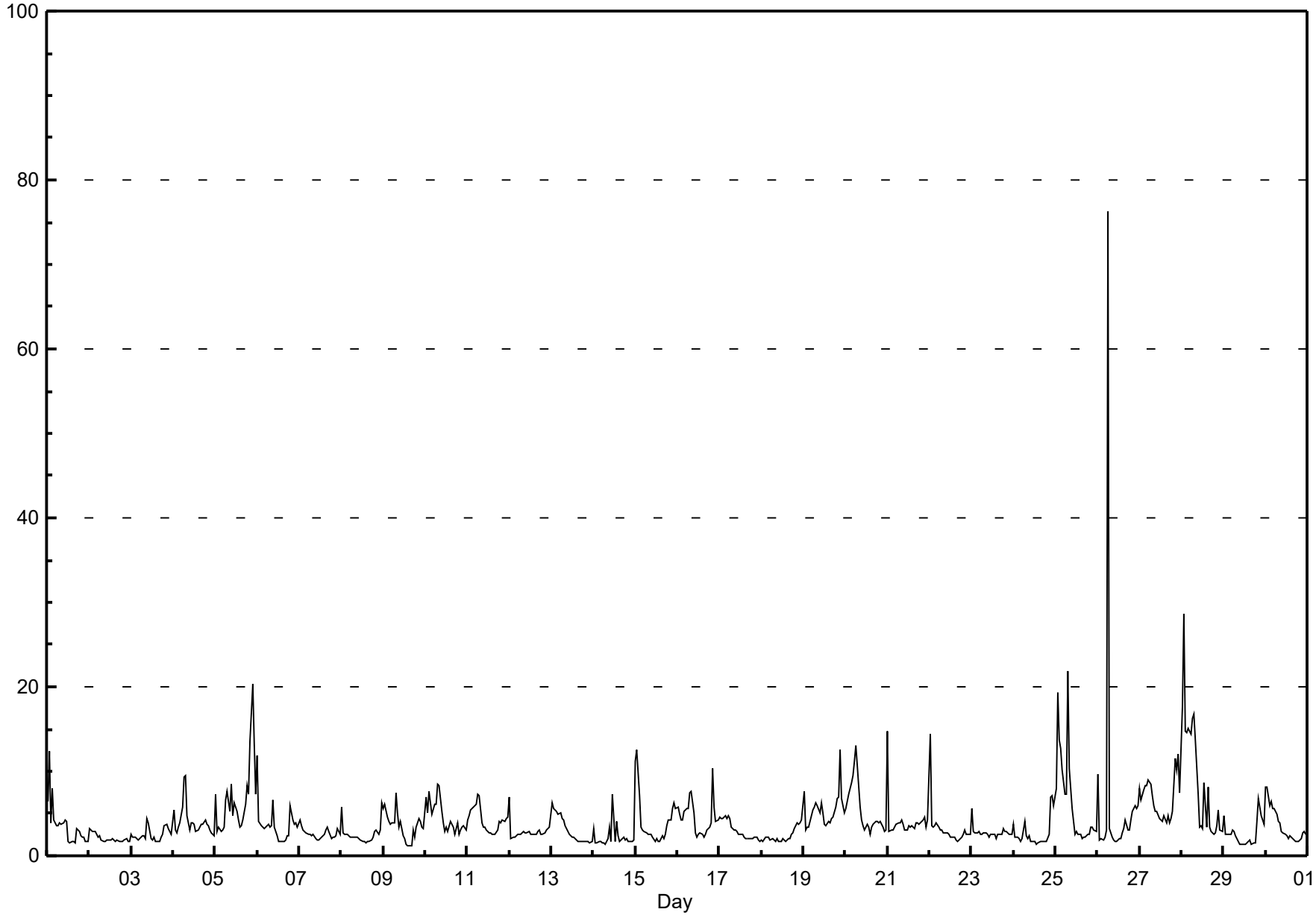
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Apr	6	12	4	8	4	4	4	4	4	4	4	4	2	2	2	2	2	3	3	2	2	2	2	2	3.6	12.4
2-Apr	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.1	3.2
3-Apr	3	2	2	2	2	2	2	2	2	4	4	2	2	2	2	2	2	2	2	4	4	3	3	3	2.5	4.4
4-Apr	6	3	3	3	4	6	9	9	5	3	4	4	4	3	3	3	4	4	4	4	4	3	3	2	4.1	9.4
5-Apr	7	3	3	3	3	3	7	8	5	8	5	6	5	4	3	4	4	6	8	7	14	20	13	7	6.6	20.4
6-Apr	12	4	4	3	3	3	4	3	4	7	3	2	2	2	2	2	2	2	2	6	4	4	4	3	3.6	11.9
7-Apr	4	4	3	3	3	3	2	2	2	2	2	2	2	2	2	3	3	3	2	2	2	2	3	3	2.6	4.2
8-Apr	6	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	2	3	6	2.5	6.4
9-Apr	6	6	5	4	4	4	4	7	5	3	4	2	2	1	1	1	1	3	2	3	4	4	3	3	3.5	7.5
10-Apr	7	5	8	6	5	6	6	8	8	5	4	3	3	3	4	4	3	3	4	2	3	3	4	3	4.6	8.5
11-Apr	4	5	5	6	6	6	7	7	4	3	3	3	3	3	2	3	3	3	4	4	4	4	4	5	4.2	7.2
12-Apr	7	2	2	2	2	2	2	3	3	3	3	3	3	3	2	2	3	3	3	3	3	3	3	3	2.9	6.9
13-Apr	6	6	5	5	5	5	4	4	4	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	3.1	6.3
14-Apr	3	2	2	2	2	2	1	1	2	3	2	7	2	4	2	2	2	2	2	2	2	2	2	2	2.2	7.2
15-Apr	11	13	7	3	3	3	3	3	3	3	2	2	2	2	2	2	2	3	4	4	4	6	6	6	4.0	12.6
16-Apr	6	5	4	4	5	6	6	7	8	5	3	2	2	3	3	2	2	3	3	4	10	6	4	4	4.5	10.4
17-Apr	5	4	4	5	4	5	4	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	3.0	4.8
18-Apr	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	4	4	4	4	2.4	4.3
19-Apr	8	3	3	3	4	5	6	6	6	5	6	5	4	4	4	4	4	5	6	7	7	13	7	5	5.4	12.6
20-Apr	6	6	7	9	10	11	13	11	6	4	3	3	4	3	3	3	4	4	4	4	4	3	3	3	5.5	13.1
21-Apr	15	3	3	3	3	4	4	4	4	4	3	3	4	3	4	3	4	4	4	4	4	5	3	4	4.1	14.8
22-Apr	14	4	3	4	4	3	3	3	3	3	3	2	2	2	2	2	2	2	2	3	3	3	3	3	3.2	14.4
23-Apr	6	3	3	3	3	2	3	3	3	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	2.8	5.7
24-Apr	4	2	2	2	2	2	4	2	2	2	2	2	2	1	1	2	2	2	2	2	2	7	7	6	2.6	7.1
25-Apr	8	19	14	13	10	7	7	22	10	6	4	3	3	3	2	2	2	2	3	3	3	3	3	3	6.5	21.8
26-Apr	10	2	2	2	2	3	76	3	2	2	2	2	2	2	3	3	4	3	3	4	5	6	6	6	6.5	76.3
27-Apr	8	7	8	8	8	9	8	7	6	5	5	4	4	4	5	4	5	4	4	5	12	10	12	7	6.7	12.0
28-Apr	18	29	15	15	15	14	16	17	14	7	3	4	3	9	3	8	3	3	3	3	4	6	3	3	9.0	28.6
29-Apr	5	2	3	3	2	3	3	2	2	1	1	1	1	1	2	2	1	2	2	4	7	5	4	4	2.6	6.7
30-Apr	8	8	6	6	6	6	5	4	4	3	3	2	2	2	2	2	2	2	2	2	2	3	3	3	3.6	8.2
	7.1	5.7	4.6	4.6	4.4	4.5	7.4	5.5	4.3	3.7	3.0	2.9	2.6	2.7	2.5	2.6	2.6	2.8	3.0	3.4	4.3	4.7	4.1	3.7	Diurnal Average	
	17.7	28.6	14.8	14.5	15.0	14.4	76.3	21.8	13.7	8.5	6.3	7.2	5.2	8.6	4.8	8.1	4.7	6.1	8.3	7.4	13.6	20.4	13.2	7.5	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Maximums

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

Henry Pirker - April 2017

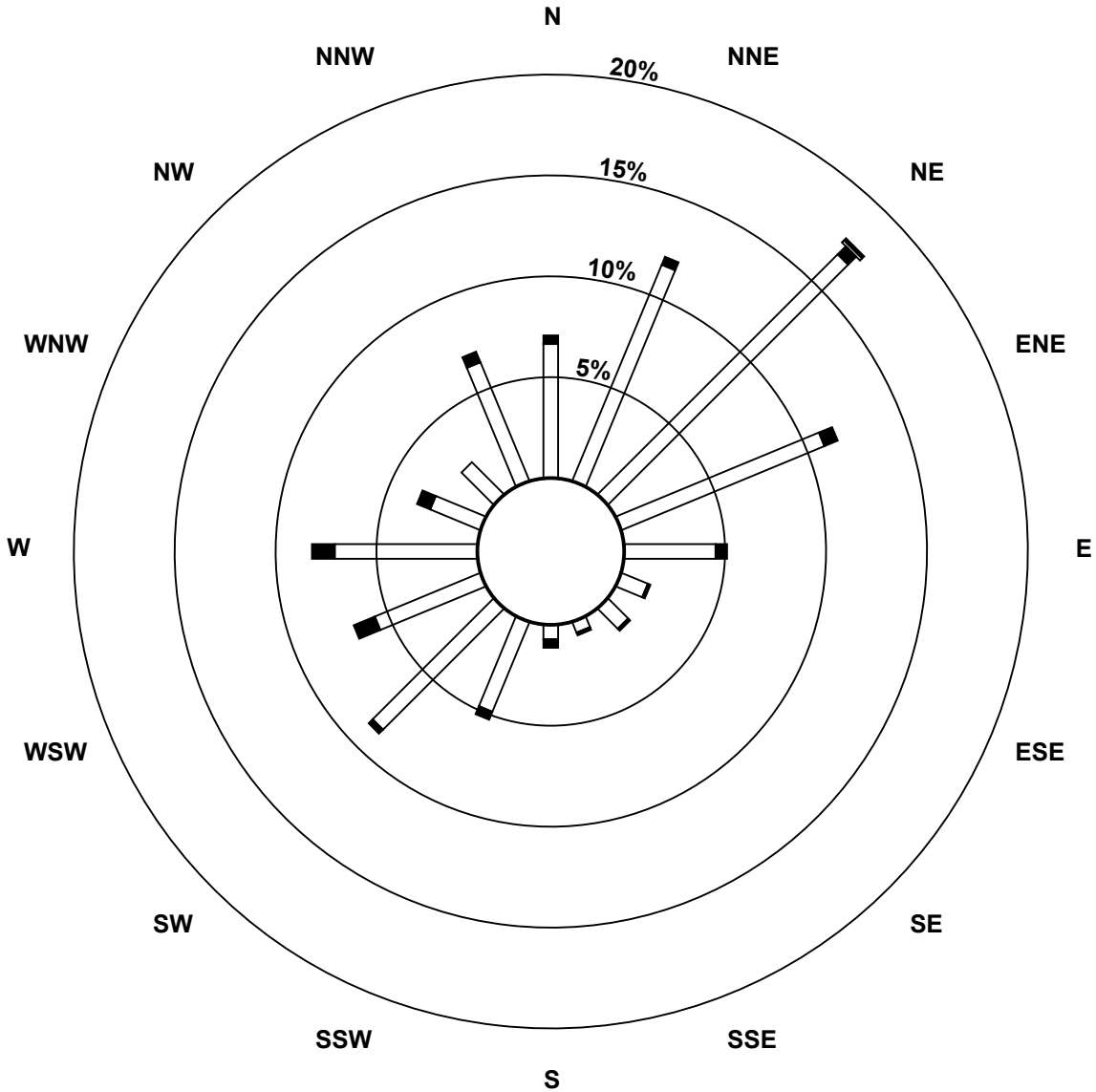


Peace Airshed Zone Association

Pollutant Rose

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

Henry Pirker - April 2017



Pollutant Classes ($\mu g/m^3$)

- 0 - 5
- 6 - 15
- 16 - 25
- 26 - 80
- > 80.0

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - °C

Henry Pirker - April 2017

Maximum Value: 15.2 °C on Apr 29 15:00

Maximum Daily Average: 9.1 °C on Apr 29

Minimum Value: -7 °C on Apr 18 07:00

Minimum Daily Average: -4.2 °C on Apr 18

Maximum Diurnal Average: 7.6 °C at hour 16

Minimum Diurnal Average: -0.2 °C at hour 6

Monthly Average: 3.60 °C

Percentiles: P_1 = -5.8 P_{10} = -1.3 Q_1 = 0.3 Median = 2.9 Q_3 = 6.7 P_{90} = 10.0 P_{99} = 13.7

Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

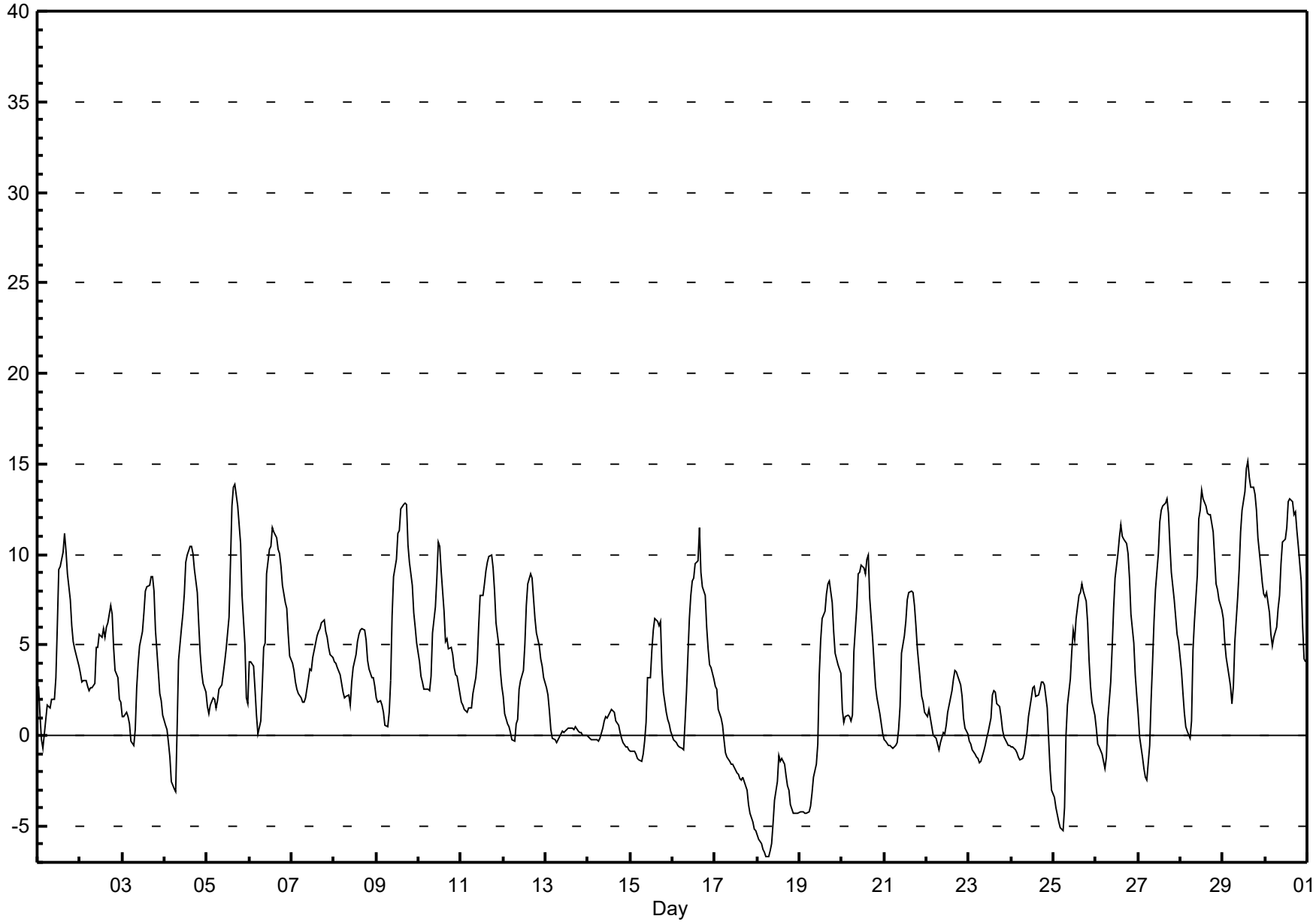
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Apr	3	1	0	-1	0	2	2	2	2	2	3	6	9	9	10	11	10	9	7	6	5	5	4	4	4.7	11.1
2-Apr	3	3	3	3	3	3	3	3	3	5	5	6	5	6	5	6	6	7	7	5	4	3	2	2	4.1	7.1
3-Apr	1	1	1	1	1	0	-1	0	3	4	5	6	7	8	8	8	9	9	8	6	3	2	2	1	3.9	8.8
4-Apr	1	0	0	-1	-3	-3	-3	0	4	6	7	8	10	10	10	10	10	9	8	6	5	4	3	2	4.3	10.5
5-Apr	2	1	2	2	2	1	2	3	3	3	4	5	7	10	13	14	14	13	12	11	8	5	2	2	5.7	13.9
6-Apr	4	4	4	3	1	0	1	3	5	5	9	10	10	11	11	11	10	10	9	8	7	7	6	4	6.5	11.5
7-Apr	4	4	3	3	2	2	2	2	2	3	4	4	4	5	6	6	6	6	6	6	5	5	5	4	4.1	6.4
8-Apr	4	4	4	3	3	2	2	2	2	2	3	4	4	5	6	6	6	6	5	4	4	3	3	3	3.8	5.9
9-Apr	2	2	2	2	1	1	1	1	3	7	9	10	11	11	12	13	13	13	11	10	8	7	6	5	6.6	12.8
10-Apr	4	3	3	3	3	3	2	3	6	7	9	11	10	9	7	5	5	5	5	4	4	3	3	2	5.0	10.7
11-Apr	2	2	1	1	2	2	1	2	3	4	6	8	8	8	9	10	10	10	9	8	6	5	4	3	5.1	9.9
12-Apr	2	1	1	1	0	0	0	1	1	3	3	4	5	7	8	9	9	8	6	6	5	4	4	3	3.7	8.9
13-Apr	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	2.6
14-Apr	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	0	0	0	-1	-1	-1	0.2	1.5
15-Apr	-1	-1	-1	-1	-1	-1	-1	-1	0	1	3	3	5	6	6	6	6	6	4	2	1	1	1	0	1.8	6.5
16-Apr	0	0	0	-1	-1	-1	-1	1	2	6	8	9	9	9	10	11	9	8	8	6	5	4	4	3	4.5	11.5
17-Apr	3	3	1	1	1	0	-1	-1	-1	-2	-2	-2	-2	-2	-2	-2	-2	-3	-3	-4	-4	-5	-5	-5	-1.7	2.7
18-Apr	-5	-6	-6	-6	-6	-7	-7	-6	-6	-5	-4	-3	-1	-1	-1	-2	-2	-3	-3	-4	-4	-4	-4	-4	-4.2	-1.1
19-Apr	-4	-4	-4	-4	-4	-4	-4	-3	-2	-2	0	3	5	6	7	8	8	9	7	6	5	4	4	3	1.6	8.5
20-Apr	1	1	1	1	1	1	1	5	7	9	9	9	9	9	10	10	8	5	4	3	2	1	1	0	4.5	10.0
21-Apr	0	0	-1	-1	-1	-1	-1	0	0	2	5	6	6	8	8	8	8	7	6	5	3	2	2	1	3.0	8.0
22-Apr	1	1	1	0	0	0	0	-1	0	0	0	1	1	2	2	3	4	3	3	3	2	1	0	0	1.2	3.6
23-Apr	0	0	-1	-1	-1	-1	-1	-1	-1	-1	0	0	1	2	2	2	2	2	1	0	0	0	-1	-1	0.1	2.5
24-Apr	-1	-1	-1	-1	-1	-1	-1	-1	0	0	1	2	3	3	2	2	3	3	3	3	1	0	-2	-3	0.5	3.0
25-Apr	-3	-4	-4	-5	-5	-5	-4	0	2	3	5	6	5	6	8	8	8	8	7	6	4	3	2	1	2.2	8.4
26-Apr	0	0	-1	-1	-1	-2	-1	1	3	5	7	9	10	11	12	11	11	11	10	9	7	5	3	2	5.0	11.6
27-Apr	1	0	-1	-2	-2	-2	-1	2	4	6	8	10	12	12	13	13	13	12	11	9	7	7	6	5	5.9	13.0
28-Apr	4	2	1	0	0	0	1	5	6	9	12	12	14	13	13	12	12	12	11	10	8	8	8	7	7.5	13.5
29-Apr	6	5	4	3	3	2	3	5	8	9	11	12	14	15	15	14	14	14	13	12	11	9	8	8	9.1	15.2
30-Apr	8	8	7	6	5	5	6	7	8	9	11	11	11	13	13	13	12	12	11	10	9	6	4	4	8.7	13.1
	1.5	1.1	0.7	0.3	0.0	-0.2	-0.1	1.0	2.2	3.4	4.7	5.6	6.5	7.1	7.5	7.6	7.4	7.1	6.3	5.2	4.0	3.1	2.4	1.9	Diurnal Average	
	7.7	7.9	6.8	5.6	5.0	5.4	6.0	7.0	7.7	9.5	11.9	12.4	13.5	14.7	15.2	14.3	13.9	13.7	13.3	12.4	10.9	9.4	8.5	7.8	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Henry Pirker - April 2017



Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Henry Pirker - April 2017

Maximum Value: 89.4 % on Apr 14 01:00

Maximum Daily Average: 87.5 % on Apr 14

Minimum Value: 22 % on Apr 29 18:00

Minimum Daily Average: 42.1 % on Apr 29

Maximum Diurnal Average: 78.1 % at hour 6

Minimum Diurnal Average: 51.7 % at hour 17

Monthly Average: 65.27 %

Percentiles: P_1 = 28.2 P_{10} = 39.8 Q_1 = 52.1 Median = 68.0 Q_3 = 80.7 P_{90} = 85.7 P_{99} = 89.4

Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

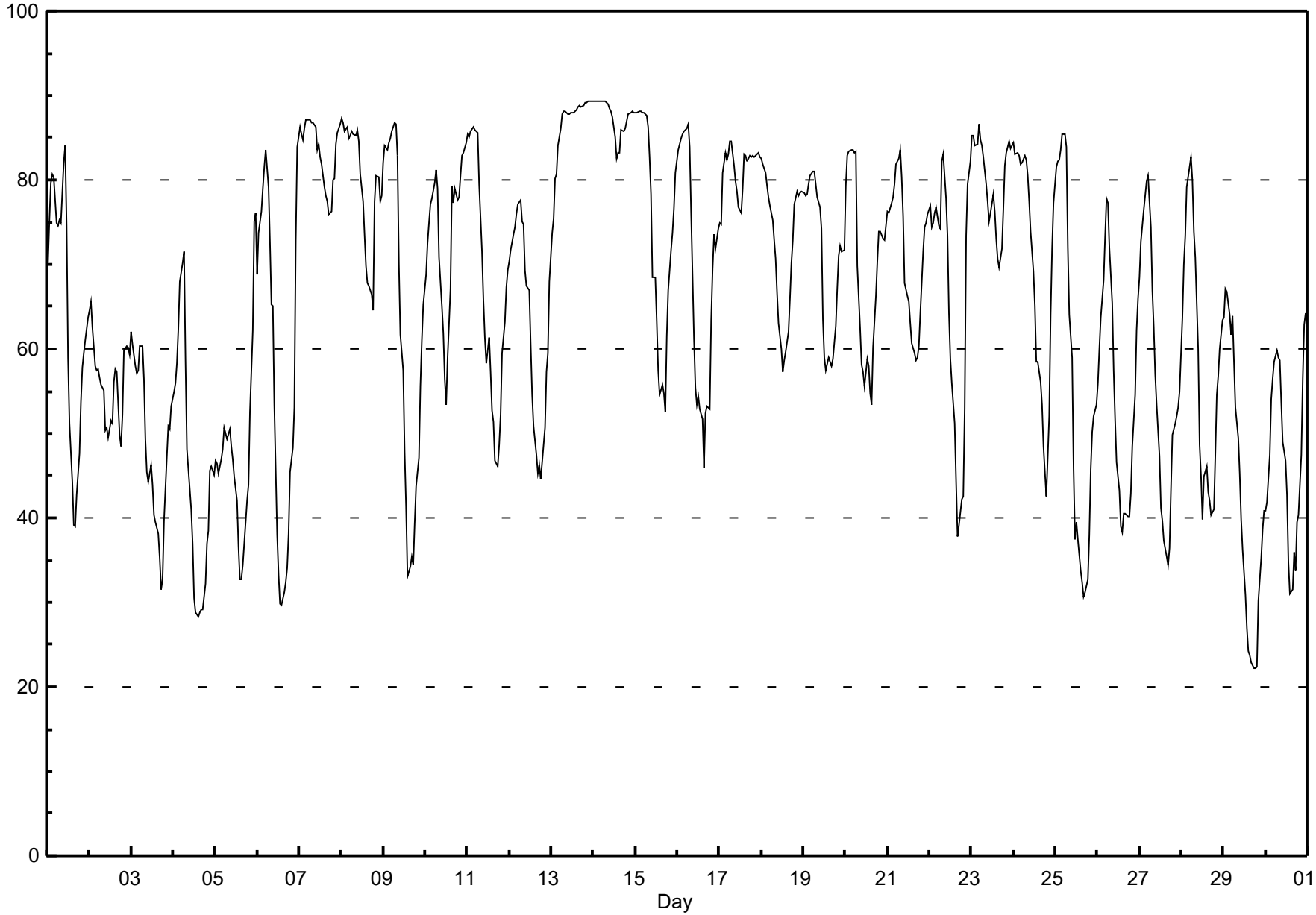
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	70	75	80	81	80	75	75	75	75	82	84	75	59	51	44	39	39	43	48	54	58	60	61	64	64.4	84.1
2-Apr	65	66	63	58	57	58	57	56	55	50	51	49	51	51	56	58	57	50	48	52	60	60	60	59	56.2	65.6
3-Apr	62	61	58	57	57	60	60	56	49	45	44	46	44	40	39	38	35	32	33	40	47	51	50	53	48.3	62.1
4-Apr	55	56	58	62	68	70	72	59	48	43	41	37	30	29	28	29	29	29	32	37	39	46	46	45	45.3	71.6
5-Apr	47	46	45	47	48	51	50	49	51	49	47	45	42	37	33	33	34	40	42	44	53	62	75	76	47.7	76.1
6-Apr	69	74	76	79	82	84	79	73	65	65	53	38	33	30	30	31	32	34	38	45	48	53	73	84	57.0	84.0
7-Apr	86	85	85	86	87	87	87	87	87	86	84	84	83	82	79	78	77	76	76	80	80	84	86	87	83.3	87.1
8-Apr	87	87	86	86	85	85	86	85	85	86	85	81	77	74	70	68	67	66	65	77	81	80	77	78	79.4	87.2
9-Apr	82	84	83	84	85	86	87	87	83	70	62	57	48	41	33	34	35	34	39	44	47	56	61	65	62.0	86.8
10-Apr	69	72	75	77	78	80	81	79	71	65	62	56	53	59	67	79	77	79	78	78	81	83	83	84	73.6	84.5
11-Apr	86	85	86	86	86	86	86	79	72	66	61	58	61	57	53	51	47	46	49	52	59	63	67	69	67.2	86.2
12-Apr	70	72	73	74	76	77	78	75	75	69	68	67	60	55	51	47	45	46	45	47	51	57	59	68	62.7	77.6
13-Apr	74	76	80	81	84	86	88	88	88	88	88	88	88	88	88	89	89	89	89	89	89	89	89	89	86.4	89.4
14-Apr	89	89	89	89	89	89	89	89	89	88	88	87	85	83	83	83	86	86	86	87	88	88	88	88	87.5	89.4
15-Apr	88	88	88	88	88	88	88	86	83	78	68	68	63	57	55	56	55	52	61	67	72	74	77	81	73.7	88.2
16-Apr	84	84	85	85	86	86	87	84	76	61	55	53	54	53	52	46	52	53	53	63	69	74	72	74	68.4	86.6
17-Apr	75	75	81	83	82	83	85	85	82	80	79	77	76	79	83	83	82	83	83	83	83	83	83	83	81.2	84.7
18-Apr	82	82	81	79	78	77	75	73	71	67	63	60	57	59	60	62	66	70	73	77	79	78	78	79	71.9	82.5
19-Apr	78	78	78	80	81	81	81	80	78	77	74	64	59	57	59	58	58	59	63	67	71	72	72	72	70.7	81.0
20-Apr	79	83	83	84	84	83	83	70	62	58	57	56	59	58	55	53	60	66	70	74	74	73	73	75	69.7	83.6
21-Apr	76	76	77	78	79	82	83	84	80	76	68	66	66	63	61	59	59	59	60	64	71	74	75	76	71.4	83.5
22-Apr	77	74	75	76	77	75	74	82	83	78	73	64	59	56	51	44	38	39	42	43	53	73	79	82	65.3	83.0
23-Apr	85	85	84	84	87	85	84	83	80	77	75	76	78	76	73	71	70	72	77	82	83	85	84	84	79.9	86.6
24-Apr	84	83	83	83	82	82	83	82	81	78	74	69	65	59	58	56	53	49	45	43	52	64	72	77	69.1	84.4
25-Apr	81	82	82	84	85	85	84	72	64	59	46	37	40	38	34	32	31	31	33	38	46	50	52	53	55.8	85.4
26-Apr	56	60	64	68	73	78	77	72	65	58	52	47	43	39	38	41	41	40	40	43	48	55	62	66	55.2	77.8
27-Apr	69	73	76	78	80	80	74	67	63	57	53	47	41	40	37	36	34	36	43	50	51	52	53	55	56.1	80.5
28-Apr	64	70	73	79	80	83	80	74	71	60	49	45	40	45	46	43	42	40	41	48	55	57	60	63	58.7	82.7
29-Apr	64	67	67	64	62	64	58	53	49	45	40	36	31	27	24	24	23	22	22	22	30	35	39	41	42.1	67.1
30-Apr	41	42	47	54	56	58	60	59	59	54	49	47	43	35	31	32	36	34	40	40	47	57	63	64	47.8	64.2
	73.1	74.4	75.5	76.5	77.4	78.1	77.6	74.7	71.3	67.2	63.1	59.4	56.3	53.9	52.4	51.8	51.7	51.9	53.8	57.6	62.1	66.3	69.0	71.2	Diurnal Average	
	89.4	89.4	89.4	89.4	89.4	89.4	89.4	89.3	88.9	88.5	88.2	88.0	87.9	87.9	88.3	88.7	88.7	88.7	88.9	89.1	89.1	89.3	89.3	89.4	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Henry Pirker - April 2017



Peace Airshed Zone Association

Hourly Averages

Solar Radiation (SR) - W/m^2

Henry Pirker - April 2017

Maximum Value: 743.9 W/m^2 on Apr 29 13:00

Maximum Daily Average: 255.1 W/m^2 on Apr 26

Minimum Value: 0 W/m^2 on Apr 1 01:00

Maximum Diurnal Average: 470.6 W/m^2 at hour 14

Monthly Average: 149.46 W/m^2

Minimum Daily Average: 40.0 W/m^2 on Apr 13

Minimum Diurnal Average: 0.0 W/m^2 at hour 1

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 39.7 Q_3 = 244.6 P_{90} = 508.1 P_{99} = 693.4

Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

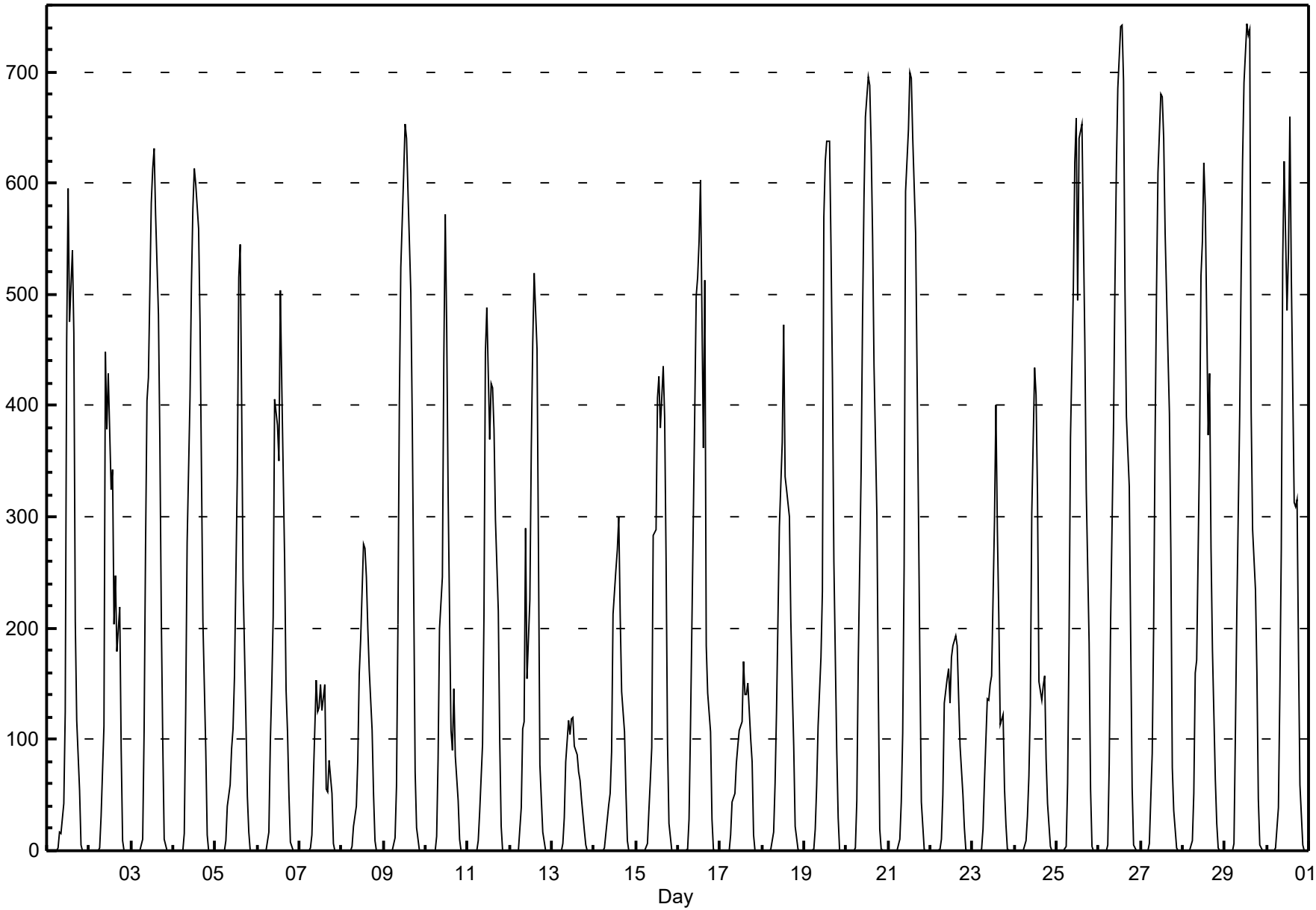
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Apr	0	0	0	0	0	0	2	17	16	43	125	458	595	475	540	464	206	118	54	6	0	0	0	0	129.9	594.8
2-Apr	0	0	0	0	0	0	3	30	112	449	378	429	325	343	204	247	179	219	92	10	0	0	0	0	125.8	448.8
3-Apr	0	0	0	0	0	0	10	108	273	404	425	583	613	631	572	482	366	208	98	10	0	0	0	0	199.3	631.0
4-Apr	0	0	0	0	0	0	16	126	277	407	508	578	613	599	559	475	342	206	90	15	0	0	0	0	200.5	612.9
5-Apr	0	0	0	0	0	0	9	39	59	92	109	156	339	515	545	404	244	117	49	16	0	0	0	0	112.3	544.9
6-Apr	0	0	0	0	0	0	17	96	146	211	406	382	351	503	419	260	144	107	50	7	0	0	0	0	129.1	503.3
7-Apr	0	0	0	0	0	0	3	15	63	154	125	128	149	126	150	55	52	81	51	6	0	0	0	0	48.2	153.7
8-Apr	0	0	0	0	0	0	4	22	40	82	158	190	275	272	246	199	162	109	50	9	0	0	0	0	75.8	275.1
9-Apr	0	0	0	0	0	0	11	58	204	403	525	607	653	641	592	501	385	234	71	21	0	0	0	0	204.5	653.2
10-Apr	0	0	0	0	0	0	13	83	200	247	441	572	470	321	109	90	146	85	44	10	0	0	0	0	117.9	572.1
11-Apr	0	0	0	0	0	0	9	34	95	211	448	488	369	420	416	378	298	216	97	22	0	0	0	0	145.9	488.3
12-Apr	0	0	0	0	0	0	39	109	116	290	154	225	363	456	519	451	270	77	47	16	0	0	0	0	130.5	518.7
13-Apr	0	0	0	0	0	0	7	30	80	117	104	118	120	94	86	71	63	46	19	5	0	0	0	0	40.0	120.1
14-Apr	0	0	0	0	0	0	3	15	41	52	89	212	252	270	300	211	143	107	53	10	0	0	0	0	73.3	299.6
15-Apr	0	0	0	0	0	0	7	37	63	93	283	289	408	426	380	436	389	260	97	24	0	0	0	0	133.0	435.7
16-Apr	0	0	0	0	0	1	28	109	204	397	498	515	547	603	362	513	185	141	107	28	1	0	0	0	176.7	602.5
17-Apr	0	0	0	0	0	0	14	43	51	79	94	108	115	170	141	140	151	100	80	15	1	0	0	0	54.2	170.0
18-Apr	0	0	0	0	0	1	17	60	125	208	291	367	473	336	324	300	206	146	95	22	1	0	0	0	123.7	472.8
19-Apr	0	0	0	0	0	1	19	58	112	174	233	570	619	637	638	542	425	261	90	29	1	0	0	0	183.7	638.1
20-Apr	0	0	0	0	0	2	45	169	341	479	586	660	696	688	634	551	436	302	143	19	1	0	0	0	239.6	695.7
21-Apr	0	0	0	0	0	0	11	43	106	257	593	648	699	694	640	555	432	303	167	43	1	0	0	0	216.3	699.0
22-Apr	0	0	0	0	0	1	11	51	132	154	164	132	173	184	193	184	138	94	50	20	1	0	0	0	70.1	193.4
23-Apr	0	0	0	0	0	1	19	62	136	136	150	157	296	401	289	212	114	123	56	23	1	0	0	0	90.7	400.7
24-Apr	0	0	0	0	0	1	9	30	67	130	303	435	409	320	152	135	148	157	82	42	4	0	0	0	101.0	434.7
25-Apr	0	0	0	0	0	4	61	188	371	506	618	658	495	640	653	555	457	323	186	55	4	0	0	0	240.6	657.9
26-Apr	0	0	0	0	0	5	78	207	380	509	613	685	740	742	692	505	390	327	188	57	5	0	0	0	255.1	741.5
27-Apr	0	0	0	0	0	6	88	203	371	504	610	680	677	640	555	445	393	267	75	36	3	0	0	0	231.4	679.9
28-Apr	0	0	0	0	0	9	51	159	172	361	517	548	618	579	373	429	272	181	65	24	3	0	0	0	181.7	617.9
29-Apr	0	0	0	0	0	7	105	215	391	518	620	691	744	733	738	395	289	234	160	46	5	0	0	0	245.5	743.9
30-Apr	0	0	0	0	0	3	39	142	270	530	620	486	537	659	516	313	309	316	179	59	6	0	0	0	207.6	659.5
	0.0	0.0	0.0	0.0	0.0	1.4	24.8	85.4	167.1	273.2	359.6	425.2	457.8	470.6	418.0	349.9	257.7	182.1	89.5	23.5	1.3	0.0	0.0	0.0	Diurnal Average	
	0.0	0.1	0.0	0.2	0.1	9.0	105.0	215.2	391.5	530.2	619.7	690.9	743.9	741.5	737.6	554.9	457.0	326.8	188.2	58.9	5.7	0.1	0.1	0.0	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

Solar Radiation (SR) - W/m^2

Henry Pirker - April 2017



Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Henry Pirker - April 2017

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1 Spd	5	2	3	1	4	4	4	3	3	3	2	8	11	19	17	23	23	20	21	19	18	17	16	13	9.6	23.4
Dir	246	325	128	99	188	138	107	128	205	257	132	172	222	237	231	236	235	219	215	214	212	212	216	209	217.6	235.6
2 Spd	13	13	16	19	22	20	19	18	20	20	22	21	20	20	19	18	19	18	16	14	7	9	9	13	16.6	21.9
Dir	210	211	216	216	216	214	213	216	219	223	222	225	223	214	227	232	250	240	227	224	256	202	207	218	221.8	221.9
3 Spd	12	14	17	18	17	14	13	13	14	15	13	13	12	11	9	8	7	8	11	8	6	8	10	11	11.0	17.7
Dir	217	220	219	219	217	213	214	217	220	234	248	264	240	237	262	277	279	241	213	200	199	201	197	200	225.7	219.1
4 Spd	10	8	9	7	4	3	3	4	2	1	3	0	4	2	2	4	5	9	12	10	11	12	13	12	1.5	12.7
Dir	204	243	216	240	274	257	241	266	272	222	156	69	215	174	76	19	3	36	41	40	45	50	54	50	33.4	54.4
5 Spd	9	9	11	12	11	9	7	7	5	2	2	3	3	3	4	3	4	6	6	4	1	2	4	7	4.4	11.7
Dir	60	60	70	75	75	72	78	70	75	71	106	91	93	90	54	59	28	37	48	72	85	273	287	255	66.0	74.6
6 Spd	14	9	10	6	4	1	8	1	1	4	3	4	4	6	10	8	7	6	6	4	5	8	7	5	1.0	14.4
Dir	263	234	205	217	271	269	279	235	216	212	229	230	130	70	80	96	86	63	41	32	50	97	112	73	133.4	263.0
7 Spd	4	3	6	3	6	5	4	3	4	6	9	11	10	10	10	10	8	6	7	5	8	8	8	7	6.6	10.9
Dir	30	15	46	81	52	48	36	28	16	30	47	52	49	46	43	55	54	26	28	12	33	53	47	49	42.6	52.1
8 Spd	6	7	8	10	12	13	12	11	11	11	10	13	14	13	10	10	6	5	7	6	6	3	4	3	7.7	13.9
Dir	43	46	39	40	44	51	53	50	45	50	64	69	77	67	75	113	77	70	107	137	149	162	130	53	66.7	76.7
9 Spd	2	2	4	6	5	2	2	3	3	3	4	3	5	7	6	6	4	2	2	5	7	6	6	6	0.9	7.1
Dir	31	32	38	47	66	74	58	89	167	221	230	250	196	203	222	217	264	214	286	51	52	78	94	85	111.3	203.2
10 Spd	5	5	4	1	3	2	4	2	1	5	7	8	6	12	7	6	7	8	5	4	2	2	3	6	0.6	12.2
Dir	71	55	78	41	68	301	72	195	242	198	211	205	206	314	10	132	118	95	256	269	267	187	185	262	185.2	313.9
11 Spd	6	4	5	4	3	2	2	4	5	8	6	6	7	7	7	6	8	8	7	6	8	8	6	9	4.8	9.3
Dir	283	284	261	246	283	304	268	8	352	340	327	326	345	342	2	12	28	11	5	9	5	7	15	4	346.6	3.9
12 Spd	9	9	7	8	7	8	8	10	10	11	12	12	14	16	17	17	17	16	14	12	13	15	13	15	12.0	17.5
Dir	16	17	22	20	15	27	24	31	33	35	39	38	37	43	40	35	40	47	38	35	38	45	49	53	36.4	40.0
13 Spd	16	15	13	12	11	11	11	11	12	13	13	13	14	14	14	15	15	16	14	11	10	N	N	N	13.0	16.4
Dir	50	46	38	27	27	34	33	33	30	32	33	28	23	23	23	23	26	35	34	26	35	N	N	N	31.5	35.5
14 Spd	N	N	N	N	N	N	N	N	N	N	10	11	10	11	12	10	10	8	5	6	6	7	6	6	--	11.7
Dir	N	N	N	N	N	N	N	N	N	N	273	284	270	268	272	270	271	276	290	274	274	278	289	274	--	272.4
15 Spd	6	8	7	5	6	5	6	5	4	3	3	5	4	3	1	3	3	2	4	5	5	6	7	6	2.0	7.9
Dir	273	272	279	281	277	283	282	293	291	316	259	244	242	252	251	304	296	276	67	58	69	71	67	67	296.1	271.7
16 Spd	6	6	7	5	4	2	0	1	3	5	7	7	6	5	3	3	8	4	6	3	2	4	2	4	0.8	7.5
Dir	69	59	61	74	77	82	22	94	148	199	236	246	294	323	296	271	238	224	310	332	267	344	31	8	315.5	238.2
17 Spd	5	8	11	11	12	12	12	11	9	11	10	13	13	13	12	12	12	12	11	12	11	10	9	8	10.1	12.9
Dir	9	7	5	12	19	23	29	26	15	9	1	345	339	330	326	322	324	325	329	336	342	348	344	344	351.7	330.4
18 Spd	9	8	9	8	8	8	8	8	8	7	5	6	4	3	3	5	4	4	3	4	3	3	4	3	5.2	9.0
Dir	341	344	333	350	339	336	340	335	330	341	339	340	360	325	353	25	29	21	21	21	16	37	35	62	351.2	333.4
19 Spd	3	3	2	3	3	3	5	4	6	6	5	4	3	3	5	4	5	4	3	4	2	2	3	3	3.0	5.9
Dir	43	33	55	109	85	77	79	80	104	107	103	68	61	60	15	5	5	17	10	357	12	8	30	47	53.5	104.4
20 Spd	3	2	2	3	4	3	3	3	5	5	8	14	17	19	18	9	10	13	11	6	8	7	7	5	4.4	18.8
Dir	257	254	244	186	260	227	210	233	208	232	279	282	276	278	277	324	9	355	351	9	35	44	52	13	303.4	277.8
21 Spd	5	6	5	4	4	4	4	6	5	5	4	7	7	7	9	9	9	9	9	7	5	6	9	8	5.7	9.4
Dir	23	43	40	48	82	64	84	82	89	80	12	347	356	355	13	26	25	25	29	18	20	19	39	55	32.8	29.1
22 Spd	8	9	8	11	12	10	12	11	11	9	10	11	14	14	14	15	17	18	16	13	12	10	9	8	11.2	17.6
Dir	37	32	40	37	39	22	33	31	37	11	19	26	37	44	54	50	58	65	59	62	83	94	72	55	46.8	65.2

Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Henry Pirker - April 2017

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
23 Spd	10	10	13	15	13	14	11	10	12	11	11	7	8	8	8	6	7	7	6	6	7	5	4	5	7.9	15.1
Dir	47	47	45	49	46	53	43	37	44	44	44	17	357	2	1	359	1	3	356	342	337	336	327	309	25.8	49.2
24 Spd	4	5	4	4	5	5	6	6	7	7	6	8	9	8	8	8	7	7	3	3	5	4	2	0	5.0	8.9
Dir	324	350	3	5	351	347	335	331	338	339	351	340	341	340	341	336	338	340	334	46	51	78	61	69	348.0	341.3
25 Spd	1	1	1	1	2	2	1	2	3	6	7	6	7	6	6	7	6	9	9	11	10	10	9	8	4.6	10.5
Dir	288	337	339	246	257	266	284	94	119	85	85	68	68	69	92	93	84	63	61	48	46	48	61	59	65.8	47.9
26 Spd	10	9	10	11	11	9	9	9	9	8	6	5	6	6	6	7	9	9	9	11	9	8	9	9	8.0	11.5
Dir	60	60	57	59	58	49	54	65	72	89	72	55	36	39	4	4	37	27	24	50	57	54	54	54	50.8	49.9
27 Spd	7	4	2	2	3	3	2	3	3	3	4	4	2	4	6	7	6	7	3	1	5	5	3	4	3.4	7.2
Dir	60	28	20	10	344	347	36	68	47	55	43	51	5	350	350	20	21	27	10	310	48	63	63	73	30.4	60.4
28 Spd	0	1	1	1	0	2	1	3	5	8	10	12	12	13	13	16	8	13	7	6	7	5	3	7	5.1	15.8
Dir	181	44	54	177	89	134	280	267	275	249	243	214	214	303	294	294	315	303	260	259	252	213	245	266	265.9	294.3
29 Spd	5	9	8	10	8	7	8	8	8	10	6	5	1	1	4	5	4	7	7	7	6	9	8	6	2.0	10.4
Dir	247	245	196	210	220	227	235	226	207	224	209	211	234	203	84	143	100	65	65	60	38	48	52	72	190.5	210.1
30 Spd	3	5	3	4	3	9	8	14	18	15	17	17	20	21	18	17	19	22	20	17	12	7	4	7	12.0	22.4
Dir	144	196	222	264	272	242	239	231	244	244	245	250	256	258	267	272	271	265	254	236	239	263	259	237	251.4	265.0
Spd	1.6	1.8	1.6	1.4	1.8	1.6	1.6	1.4	0.8	1.0	1.3	2.2	2.1	3.4	3.4	2.9	3.4	3.6	2.8	2.3	2.7	2.5	2.6	1.9	Diurnal Average	
Dir	12.7	5.9	33.9	33.0	24.3	25.8	20.6	25.6	8.4	329.7	312.8	308.2	312.9	321.3	336.9	342.1	354.0	2.5	2.6	13.7	29.6	50.4	54.9	36.6		
Spd	15.7	15.3	16.9	18.5	21.5	19.9	19.2	18.4	20.1	20.4	21.9	21.2	19.9	21.1	19.3	23.4	22.8	22.4	20.9	19.4	17.5	16.9	16.1	15.1	Diurnal Maximum	
Dir	49.5	45.8	218.8	216.3	215.7	214.0	213.5	216.5	219.3	222.9	221.9	225.0	255.6	258.3	226.9	235.6	234.9	265.0	214.7	214.4	212.5	212.1	216.2	53.0		

Maximum Speed Value: 23 km/h on Apr 1 16:00
Maximum Daily Speed Average: 16.6 km/h on Apr 2
Maximum Diurnal Speed Average: 3.6 km/h at hour 18

Minimum Speed Value: 0 km/h on Apr 25 00:00
Minimum Daily Speed Average: 0.6 km/h on Apr 19
Minimum Diurnal Speed Average: 0.8 km/h at hour 9

Monthly Average Velocity: 1.87 km/h 3.31 deg

Speed Percentiles: $P_1 = 0.8$ $P_{10} = 2.6$ $Q_1 = 4.1$ Median = 6.9 $Q_3 = 10.5$ $P_{90} = 14.0$ $P_{99} = 20.9$

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

Hours in Service:	720
Hours of Data:	707
Hours of Missing Data:	13
Percent Operational Time:	98.2

N - Not Valid

Frequency Distribution

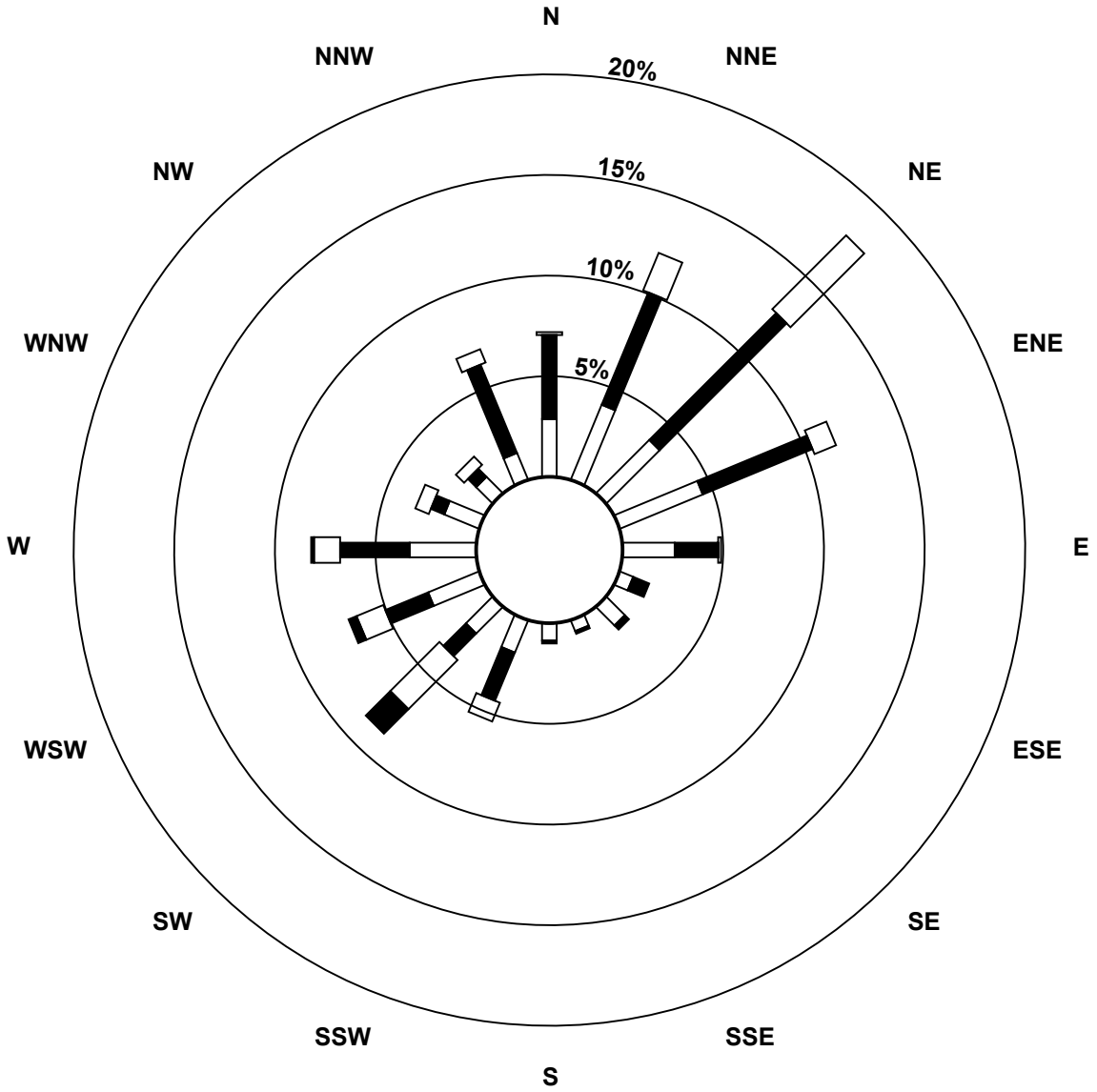
Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	34	76	6	0	0	0	116
NorthEast	45	107	63	0	0	0	215
East	43	37	6	0	0	0	86
SouthEast	11	6	0	0	0	0	17
South	13	9	0	0	0	0	22
SouthWest	28	36	36	16	0	0	116
West	38	35	13	5	0	0	91
NorthWest	16	16	12	0	0	0	44
Total	228	322	136	21	0	0	707

Peace Airshed Zone Association

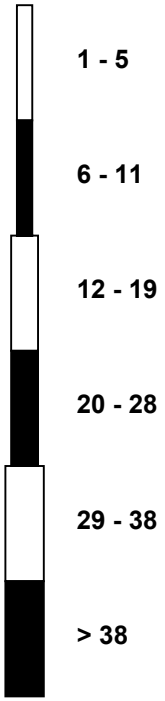
Wind Rose

Wind Speed (WS) (km/h)

Henry Pirker - April 2017



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Henry Pirker - April 2017

Peace Airshed Zone Association

Maximum Speed: 24 km/h on Apr 1 16:00

Maximum Daily Speed Average: 17.2 km/h on Apr 2

Minimum Speed: 1 km/h on Apr 25 00:00

Minimum Daily Speed Average: 4.1 km/h on Apr 19

Maximum Diurnal Speed Average: 10.5 km/h at hour 14

Minimum Diurnal Speed Average: 6.8 km/h at hour 7

Monthly Average Speed: 8.22 km/h

Percentiles: $P_1 = 1.5$ $P_{10} = 3.3$ $Q_1 = 4.7$ Median = 7.5 $Q_3 = 10.7$ $P_{90} = 14.2$ $P_{99} = 21.5$

Hours in Service:	720
Hours of Data:	707
Hours of Missing Data:	13
Percent Operational Time:	98.2

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	6	4	3	2	4	6	4	3	5	4	2	9	11	21	18	24	23	20	21	20	18	17	16	13	11.4	23.8
2-Apr	13	13	16	19	22	20	19	19	20	21	22	22	20	21	20	18	19	18	16	14	9	9	9	13	17.2	22.2
3-Apr	12	14	17	18	17	14	13	13	14	15	13	14	12	12	11	8	8	10	12	8	6	8	10	11	12.0	17.8
4-Apr	11	9	9	8	4	3	3	5	2	2	5	4	5	5	5	6	7	10	12	10	11	12	13	12	7.2	12.8
5-Apr	9	9	11	12	12	9	7	7	5	3	2	3	4	4	5	4	4	6	6	4	2	3	4	7	5.9	11.8
6-Apr	15	11	10	7	5	3	8	2	2	4	3	5	5	7	10	9	8	7	6	4	5	8	8	5	6.5	14.6
7-Apr	4	4	6	4	6	5	4	4	5	6	10	11	10	10	10	11	8	7	7	5	9	8	8	7	6.9	11.1
8-Apr	6	8	9	10	12	13	13	11	11	11	11	13	14	13	10	10	8	6	7	6	7	4	7	3	9.3	14.1
9-Apr	2	2	4	6	6	2	2	3	3	3	4	4	6	8	7	7	6	4	4	6	7	6	6	6	4.8	8.1
10-Apr	5	5	4	2	3	3	4	2	2	5	7	8	7	14	11	7	8	9	6	5	3	2	3	7	5.5	14.0
11-Apr	7	4	5	4	4	2	2	4	5	8	7	7	7	8	8	7	8	9	7	6	8	8	7	10	6.4	9.6
12-Apr	9	9	7	8	8	8	8	10	10	11	12	12	14	17	18	17	18	16	14	12	14	15	14	15	12.4	17.8
13-Apr	16	15	13	12	11	11	11	12	12	13	13	13	15	15	14	15	16	17	14	11	12	N	N	N	13.4	16.6
14-Apr	N	N	N	N	N	N	N	N	N	N	10	11	10	11	12	11	10	8	5	6	6	7	6	6	--	11.8
15-Apr	7	8	7	5	6	5	6	5	4	3	3	5	4	4	2	4	3	3	5	5	5	7	7	6	4.9	7.9
16-Apr	6	6	7	5	4	2	1	2	4	5	8	7	6	5	3	3	8	6	6	3	3	4	3	4	4.6	8.3
17-Apr	5	8	11	12	12	13	12	11	10	11	11	13	13	13	12	12	12	13	11	12	11	10	9	8	11.1	13.3
18-Apr	9	8	9	8	8	9	8	8	8	7	6	6	5	4	4	5	5	4	4	4	3	4	4	3	6.0	9.2
19-Apr	4	3	3	3	3	4	5	4	6	7	6	5	5	4	6	5	5	4	4	4	3	3	3	4	4.1	6.5
20-Apr	3	3	3	4	4	4	3	3	6	6	9	14	18	19	18	12	10	13	12	7	8	8	7	5	8.2	18.9
21-Apr	5	7	6	4	5	4	4	6	5	5	5	8	7	8	9	10	10	9	10	8	6	6	9	8	6.7	9.8
22-Apr	8	9	8	11	12	10	12	12	11	10	11	12	14	14	15	16	17	18	16	13	13	10	9	8	12.0	17.9
23-Apr	10	10	14	15	13	14	11	10	12	11	11	7	8	8	8	7	7	7	6	6	7	6	4	5	9.1	15.2
24-Apr	4	5	4	4	6	5	6	6	7	8	6	9	9	8	9	8	7	7	4	4	5	4	2	1	5.7	9.3
25-Apr	1	1	2	2	2	2	2	2	4	7	7	7	8	8	8	9	8	10	10	11	10	10	9	8	6.1	10.8
26-Apr	10	9	10	11	11	9	9	9	9	8	7	7	7	7	8	8	10	9	9	12	10	8	9	9	8.9	11.7
27-Apr	7	4	3	2	4	3	3	4	3	4	5	5	4	6	7	7	7	7	6	6	5	5	3	4	4.7	7.3
28-Apr	2	1	1	2	1	2	2	4	5	8	11	13	13	15	14	17	9	13	7	7	8	8	4	8	7.3	16.6
29-Apr	6	9	8	10	8	7	9	8	8	10	7	7	5	5	7	7	5	8	7	8	6	9	8	6	7.5	10.5
30-Apr	5	6	5	4	3	9	8	14	18	16	17	17	20	22	19	18	20	23	20	17	12	8	5	7	13.1	23.1
	7.1	7.0	7.4	7.4	7.4	6.9	6.8	7.0	7.5	8.0	8.3	9.2	9.5	10.5	10.2	10.0	9.8	10.0	9.1	8.1	7.6	7.4	7.1	7.2	Diurnal Average	
	15.8	15.4	17.0	18.7	21.6	20.0	19.4	18.5	20.3	20.6	22.2	21.7	20.2	21.7	19.8	23.8	23.1	23.1	21.0	19.6	17.6	17.1	16.1	15.3	Diurnal Maximum	

N - Not Valid

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

Peace Airshed Zone Association

Hourly Standard Deviations

Wind Direction (WD) - deg

Henry Pirker - April 2017

Maximum Value: 96.6 deg on Apr 4 12:00

Minimum Value: 5.3 deg on Apr 3 01:00

Percentiles: P_1 = 5.6 P_{10} = 7.3 Q_1 = 10.6 Median = 15.7 Q_3 = 27.9 P_{90} = 47.3 P_{99} = 82.1

Hours in Service:	720
Hours of Data:	707
Hours of Missing Data:	13
Hours of Calibration:	0
Percent Operational Time:	98.2

Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Apr	24	59	48	78	32	48	17	26	65	31	61	27	16	23	12	10	9	7	6	7	6	8	6	7	77.9
2-Apr	7	6	8	8	6	6	7	7	8	9	9	12	11	12	12	10	6	8	9	8	46	23	9	6	46.2
3-Apr	5	6	6	6	6	6	6	5	8	10	18	16	15	16	28	37	26	34	16	8	6	7	8	7	36.9
4-Apr	13	23	8	24	16	15	9	33	43	75	59	97	42	75	90	58	38	14	9	8	7	6	6	6	96.6
5-Apr	8	6	7	7	5	6	8	10	16	54	41	38	38	58	56	55	29	21	14	19	58	74	24	15	73.8
6-Apr	8	30	16	17	47	87	11	68	34	21	41	27	40	31	22	24	21	21	14	14	17	12	11	23	86.7
7-Apr	14	17	13	28	12	10	14	19	18	17	14	10	12	12	12	11	13	16	13	15	14	8	7	8	28.0
8-Apr	9	9	9	8	8	7	6	7	9	8	11	10	10	16	10	18	42	39	17	10	20	27	67	34	66.6
9-Apr	26	26	11	6	14	26	60	32	46	31	39	50	53	34	29	40	67	63	60	8	7	17	9	8	67.5
10-Apr	13	17	14	56	30	55	14	49	57	17	17	22	35	37	50	20	15	39	26	28	69	65	40	13	68.8
11-Apr	37	10	15	11	33	18	25	38	26	14	31	31	34	28	30	28	21	21	19	14	15	13	28	15	37.8
12-Apr	14	15	12	13	21	11	14	11	11	11	13	10	12	14	12	13	11	8	10	9	9	7	9	9	21.2
13-Apr	7	7	9	12	11	11	10	11	10	11	10	9	11	12	11	11	10	10	9	12	38	N	N	N	38.0
14-Apr	N	N	N	N	N	N	N	N	N	N	7	11	8	8	8	8	8	17	12	8	8	7	8	7	17.4
15-Apr	6	6	7	11	7	7	7	9	10	34	27	11	12	28	59	46	42	70	13	10	11	5	6	7	69.9
16-Apr	9	10	11	11	10	17	70	24	20	17	21	21	21	22	41	38	25	43	14	38	68	15	26	15	69.7
17-Apr	14	12	12	13	13	11	13	14	16	15	18	14	12	9	7	7	8	9	9	11	12	12	11	16	18.1
18-Apr	18	14	11	15	14	11	13	16	14	17	24	20	32	45	44	34	27	21	22	19	18	20	19	34	45.0
19-Apr	17	29	34	22	17	18	14	19	21	33	23	47	48	45	25	27	20	19	27	32	39	40	26	44	48.0
20-Apr	12	32	45	67	33	34	29	20	18	34	16	9	9	8	10	40	18	15	13	25	18	20	13	25	66.9
21-Apr	22	15	15	16	23	18	17	16	20	26	48	32	24	25	20	16	19	15	14	16	16	13	11	9	47.6
22-Apr	15	12	12	12	11	13	12	11	13	14	14	13	10	11	11	12	10	11	12	12	18	10	12	10	18.3
23-Apr	9	11	8	7	8	7	9	11	9	11	11	19	18	18	19	20	16	18	18	13	11	12	16	12	19.9
24-Apr	13	19	17	21	15	18	12	10	14	13	23	21	19	23	18	16	20	20	36	53	20	10	19	67	67.4
25-Apr	49	41	57	38	48	21	48	29	41	26	45	44	36	47	64	37	45	21	22	13	7	6	7	6	64.1
26-Apr	7	6	5	6	7	6	7	11	16	24	38	55	40	42	49	32	24	19	17	11	7	8	6	7	55.4
27-Apr	11	16	14	25	14	24	33	32	42	54	44	56	80	58	34	25	25	18	71	84	11	6	18	30	83.6
28-Apr	82	75	28	52	83	27	64	18	19	20	18	18	20	36	23	19	35	12	25	20	30	44	54	33	82.6
29-Apr	36	18	10	9	11	13	13	11	18	20	32	44	85	86	74	50	56	22	26	14	11	6	10	15	85.7
30-Apr	62	29	50	23	57	11	10	12	7	11	11	12	11	15	16	15	16	15	9	7	16	16	28	16	61.9
	82.1	74.6	57.2	77.9	82.6	86.7	69.7	68.2	65.5	74.9	61.5	96.6	84.7	85.7	90.2	57.9	67.5	69.9	70.9	83.6	68.8	73.8	66.6	67.4	

N - Not Valid

PAZA
Evergreen Park Station
Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Evergreen Park - April 2017

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 0.9 ppb on Apr 21 16:00 Maximum Daily Average: 0.2 ppb on Apr 5

Minimum Value: 0 ppb on Apr 2 20:00 Minimum Daily Average: 0.0 ppb on Apr 7
Maximum Diurnal Average: 0.2 ppb at hour 14 Minimum Diurnal Average: 0.0 ppb at hour 1
Monthly Average: 0.09 ppb Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.1 Q_3 = 0.1 P_{90} = 0.2 P_{99} = 0.5

Hours in Service:	720
Hours of Data:	686
Hours of Missing Data:	34
Hours of Calibration:	34
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
2-Apr	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
3-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
4-Apr	0	0	0	0	A	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
5-Apr	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
6-Apr	0	0	A	0	0	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0	0	0	0.0	0.1
7-Apr	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
8-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.0	0.0
9-Apr	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.1	0.5
10-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.4
11-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	0.3
12-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	A	0	0	0	0	0.1	0.6
13-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.0	0.1
14-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	1	0	0	0	0.1	0.5
15-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.1	0.4
16-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.1	0.2
17-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.0	0.1
18-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.0	0.0
19-Apr	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
20-Apr	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
21-Apr	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	1	0	0	0	0	0	0	0	0	0.2	0.9
22-Apr	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
23-Apr	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
24-Apr	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
25-Apr	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
26-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
27-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
28-Apr	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
29-Apr	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
30-Apr	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
	0.0	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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	Diurnal Average	
	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.5	0.5	0.5	0.6	0.6	0.6	0.9	0.5	0.4	0.4	0.2	0.5	0.2	0.3	0.2	Diurnal Maximum	

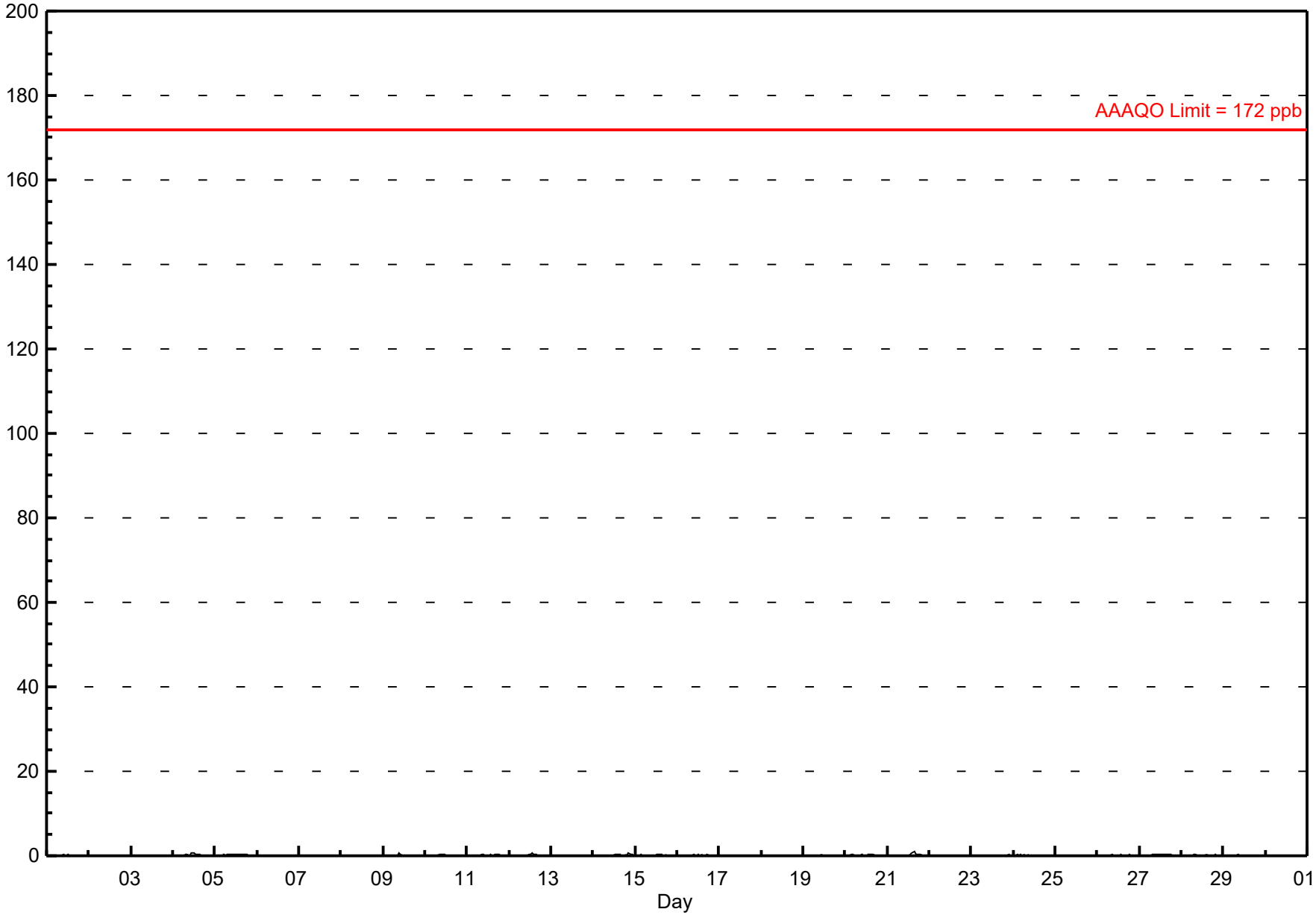
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Evergreen Park - April 2017



Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Evergreen Park - April 2017

Maximum Value: 1.9 ppb on Apr 10 10:00

Maximum Daily Average: 0.8 ppb on Apr 21

Minimum Value: 0 ppb on Apr 8 12:00

Minimum Daily Average: 0.5 ppb on Apr 8

Maximum Diurnal Average: 0.7 ppb at hour 10

Minimum Diurnal Average: 0.6 ppb at hour 6

Monthly Average: 0.65 ppb

Percentiles: $P_1 = 0.4$ $P_{10} = 0.5$ $Q_1 = 0.5$ Median = 0.6 $Q_3 = 0.7$ $P_{90} = 0.9$ $P_{99} = 1.1$

Hours in Service:	720
Hours of Data:	686
Hours of Missing Data:	34
Hours of Calibration:	34
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0.7	1.0
2-Apr	1	1	1	1	1	1	A	1	0	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	0.7	1.8
3-Apr	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.1
4-Apr	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.4
5-Apr	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	0.8	1.2
6-Apr	1	1	A	1	1	1	0	1	1	1	1	C	C	C	1	0	1	1	0	1	1	1	0	1	0.6	0.8
7-Apr	1	A	1	0	0	0	0	0	1	0	0	0	0	1	0	1	1	1	0	0	1	0	0	0	0.5	0.7
8-Apr	A	0	0	1	1	0	1	0	0	0	0	0	1	0	1	1	1	0	0	0	1	1	0	A	0.5	0.7
9-Apr	0	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.7	1.1
10-Apr	1	1	0	1	1	1	1	1	1	2	1	1	1	1	1	0	1	1	1	1	1	A	1	1	0.7	1.9
11-Apr	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.7	1.0
12-Apr	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0	1	1	1	0.7	1.0
13-Apr	0	1	1	0	1	0	1	0	1	1	1	1	1	1	1	1	1	1	A	1	1	0	0	1	0.6	0.8
14-Apr	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0.8	1.4
15-Apr	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0	1	1	1	0.7	1.0
16-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0.7	0.9
17-Apr	1	1	1	1	1	0	1	1	0	1	1	0	0	1	A	1	1	1	0	1	1	1	1	0	0.6	0.8
18-Apr	1	0	1	1	1	0	0	1	0	0	1	0	0	A	0	1	0	1	1	0	1	1	1	0	0.5	0.7
19-Apr	1	0	1	1	1	1	1	1	1	1	1	1	A	0	1	0	1	0	1	1	1	1	1	0	0.6	0.8
20-Apr	1	1	1	1	1	1	0	1	1	1	1	A	1	1	1	1	1	0	1	0	1	1	1	1	0.7	1.1
21-Apr	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	2	1	1	1	1	1	1	1	0	0.8	1.8
22-Apr	1	1	1	0	1	0	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.8
23-Apr	0	1	0	0	1	1	0	0	A	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	0.6	1.0
24-Apr	0	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0	0	0	1	1	1	0.6	1.0
25-Apr	1	1	0	1	1	0	A	1	1	1	1	1	1	0	1	1	1	1	0	1	1	1	0	0	0.6	0.8
26-Apr	0	0	1	0	0	A	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0.6	0.8
27-Apr	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1
28-Apr	1	1	1	A	0	1	1	1	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	0.7	1.1
29-Apr	1	1	A	1	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.1
30-Apr	0	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0.6	1.0
	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	Diurnal Average	
	1.0	0.9	0.8	0.9	0.9	0.8	0.8	1.0	1.1	1.9	1.4	1.0	1.2	1.1	1.4	1.8	1.8	1.1	1.2	1.1	1.4	1.0	1.0	0.8	Diurnal Maximum	

C - Calibration

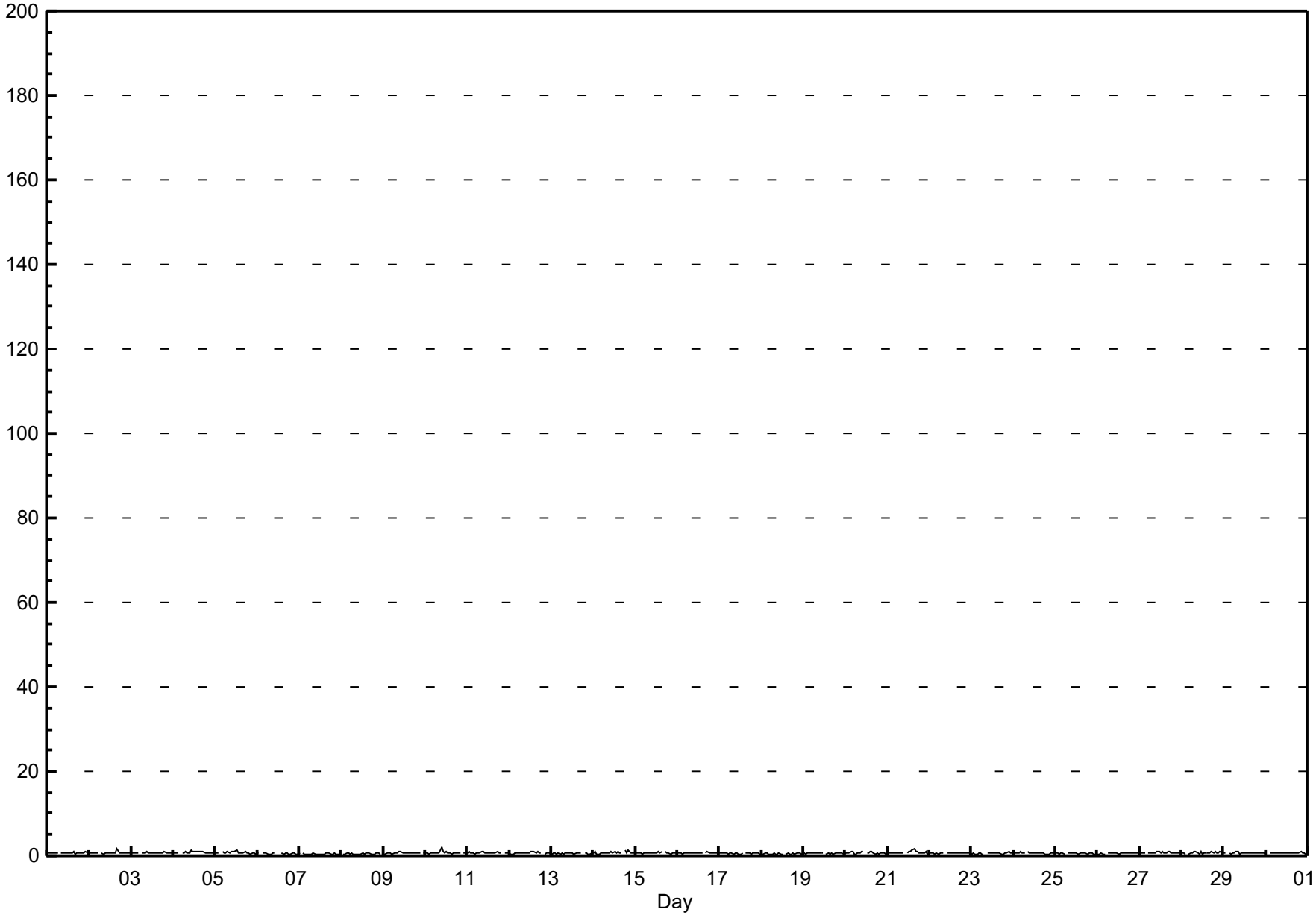
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

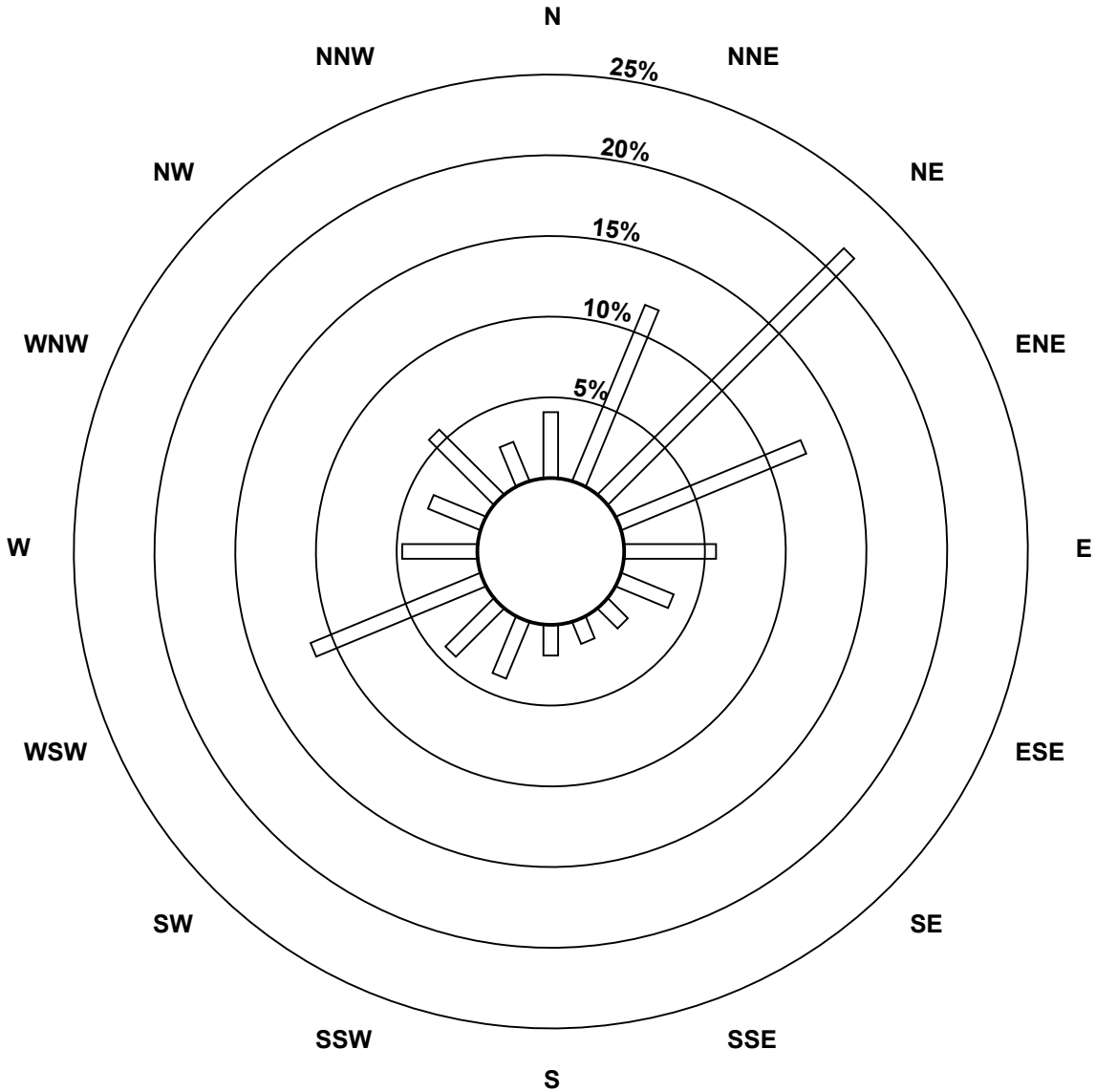
Evergreen Park - April 2017



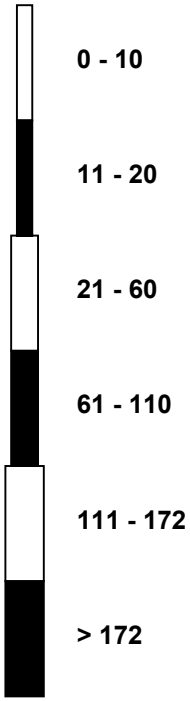
Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Evergreen Park - April 2017



Pollutant Classes (ppb)

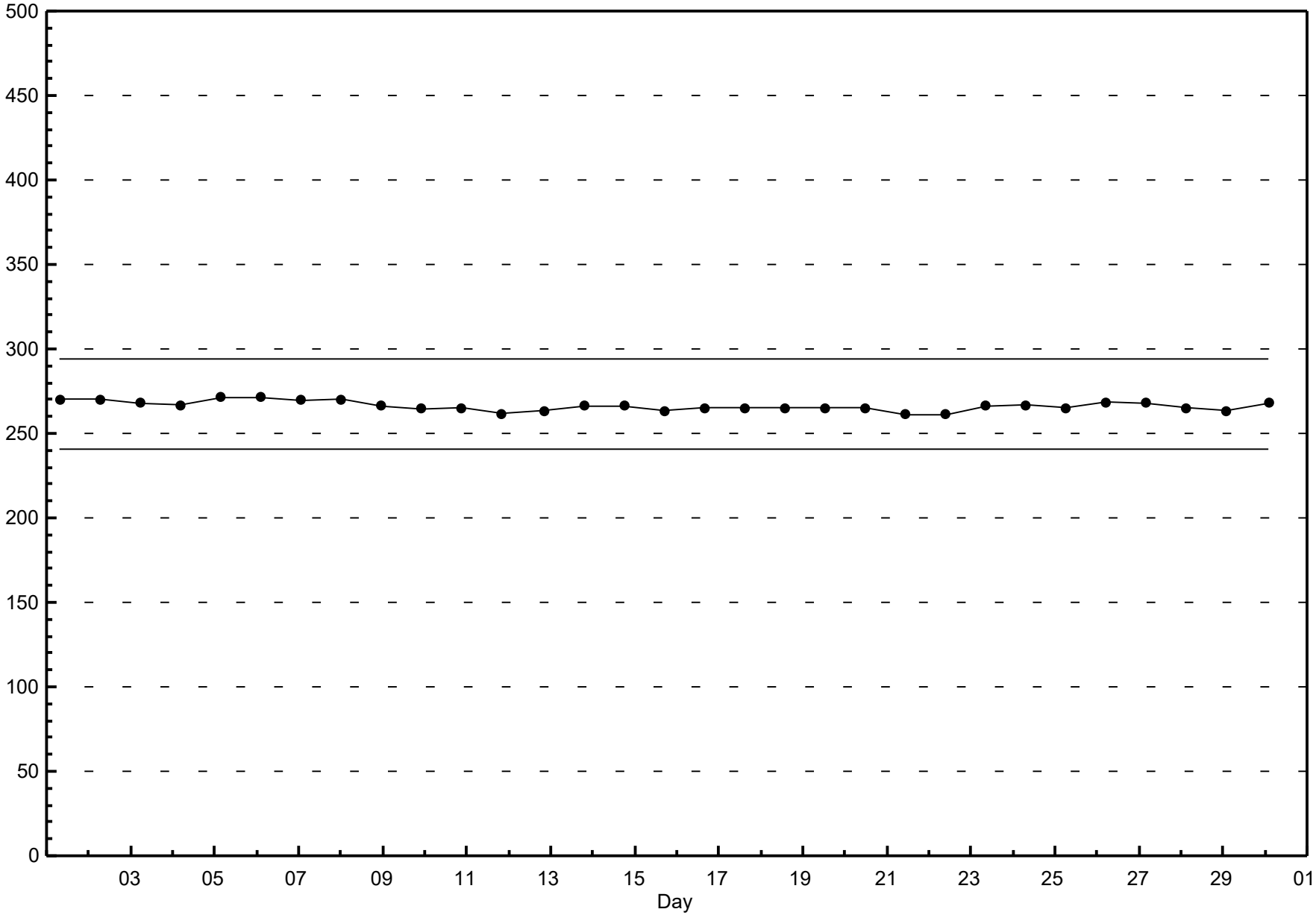


Peace Airshed Zone Association

Span Responses

Sulphur Dioxide (SO_2)

Evergreen Park - April 2017



Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Evergreen Park - April 2017

Maximum Value: 0.6 ppb on Apr 11 11:00

Maximum Daily Average: 0.5 ppb on Apr 1

Minimum Value: 0 ppb on Apr 16 01:00

Maximum Diurnal Average: 0.4 ppb at hour 10

Monthly Average: 0.33 ppb

Minimum Daily Average: 0.2 ppb on Apr 16

Minimum Diurnal Average: 0.3 ppb at hour 2

Percentiles: $P_1 = 0.1$ $P_{10} = 0.2$ $Q_1 = 0.3$ Median = 0.3 $Q_3 = 0.4$ $P_{90} = 0.4$ $P_{99} = 0.5$

Hours in Service:	720
Hours of Data:	685
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	0	0	0	0	0	0	A	1	0	1	0	1	1	1	1	0	1	0	0	0	0	0	0	0.5	0.6
2-Apr	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
3-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
4-Apr	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5
5-Apr	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
6-Apr	0	0	A	0	0	0	0	0	0	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
7-Apr	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
8-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	A	0.4	0.5
9-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.3	0.4
10-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.3	0.4
11-Apr	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0.4	0.6
12-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.3	0.3
13-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.4	0.4
14-Apr	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.4	0.5
15-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.3	0.4
16-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.2	0.4
17-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.3	0.4
18-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.4	0.5
19-Apr	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5
20-Apr	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
21-Apr	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.4
22-Apr	0	0	0	0	0	0	1	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5
23-Apr	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
24-Apr	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
25-Apr	0	0	0	0	0	0	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
26-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
27-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.4
28-Apr	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.4	0.5
29-Apr	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
30-Apr	0	A	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5
	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	Diurnal Average	
	0.5	0.4	0.5	0.4	0.4	0.5	0.5	0.5	0.6	0.6	0.6	0.5	0.5	0.5	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	Diurnal Maximum	

C - Calibration

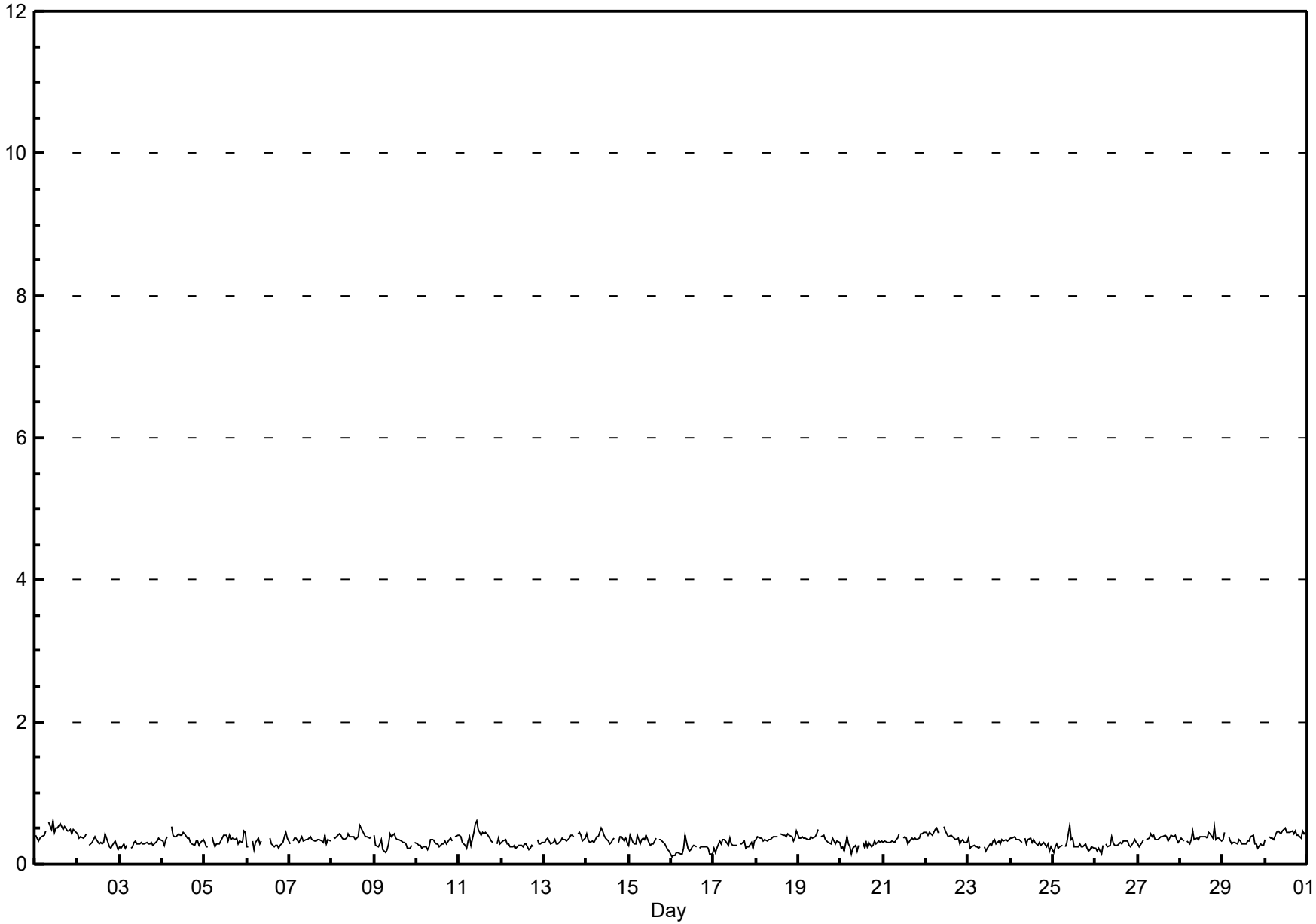
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Evergreen Park - April 2017



Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

Evergreen Park - April 2017

Maximum Value: 1.3 ppb on Apr 26 10:00

Maximum Daily Average: 0.8 ppb on Apr 30

Minimum Value: 0 ppb on Apr 26 04:00

Maximum Diurnal Average: 0.8 ppb at hour 10

Monthly Average: 0.70 ppb

Minimum Daily Average: 0.6 ppb on Apr 16

Minimum Diurnal Average: 0.6 ppb at hour 2

Percentiles: $P_1 = 0.4$ $P_{10} = 0.6$ $Q_1 = 0.6$ Median = 0.7 $Q_3 = 0.8$ $P_{90} = 0.8$ $P_{99} = 1.0$

Hours in Service:	720
Hours of Data:	685
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0
2-Apr	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.1
3-Apr	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.8
4-Apr	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.8
5-Apr	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
6-Apr	1	1	A	1	1	1	1	1	1	C	C	C	C	1	1	1	1	1	1	1	1	1	1	1	0.7	0.8
7-Apr	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
8-Apr	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.8	1.0
9-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.7	0.8
10-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.7	1.0
11-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.7	1.0
12-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.6	0.7
13-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.7	0.9
14-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0.7	0.9
15-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.7	0.9
16-Apr	0	0	0	1	1	0	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0	0	0.6	0.9
17-Apr	1	0	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.6	0.7
18-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.8	1.0
19-Apr	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
20-Apr	0	1	1	1	1	1	1	1	1	0	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.8
21-Apr	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
22-Apr	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	0.9
23-Apr	1	1	1	1	1	1	1	1	A	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.9
24-Apr	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.8
25-Apr	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.9
26-Apr	1	1	1	0	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.3
27-Apr	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
28-Apr	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0
29-Apr	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
30-Apr	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0
	0.7	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	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	Diurnal Average	
	0.9	0.9	0.9	0.8	0.8	0.9	0.9	1.0	1.0	1.3	1.0	1.0	0.9	1.0	1.0	1.0	1.1	0.9	0.9	1.0	1.0	0.9	0.9	1.0	Diurnal Maximum	

C - Calibration

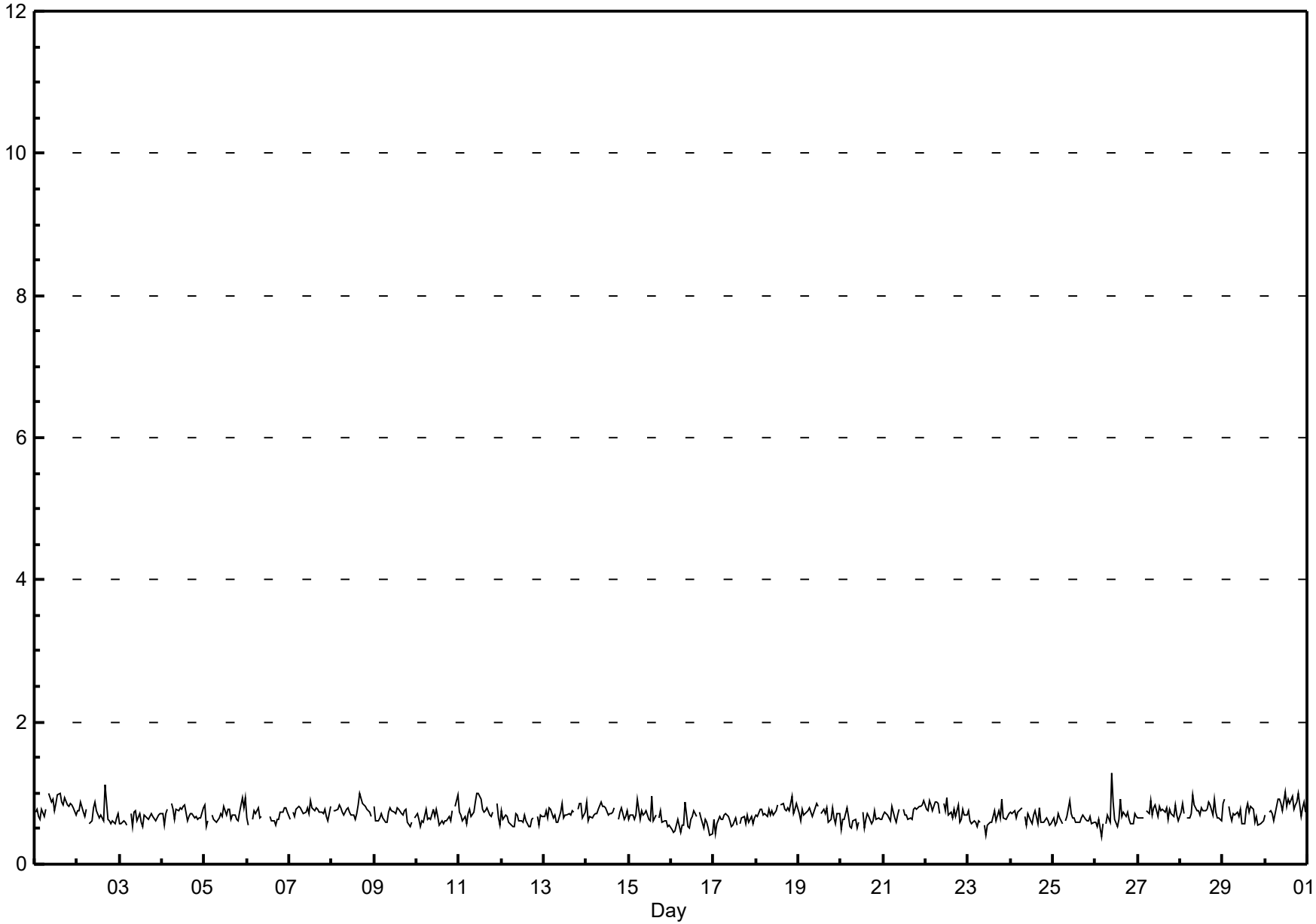
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

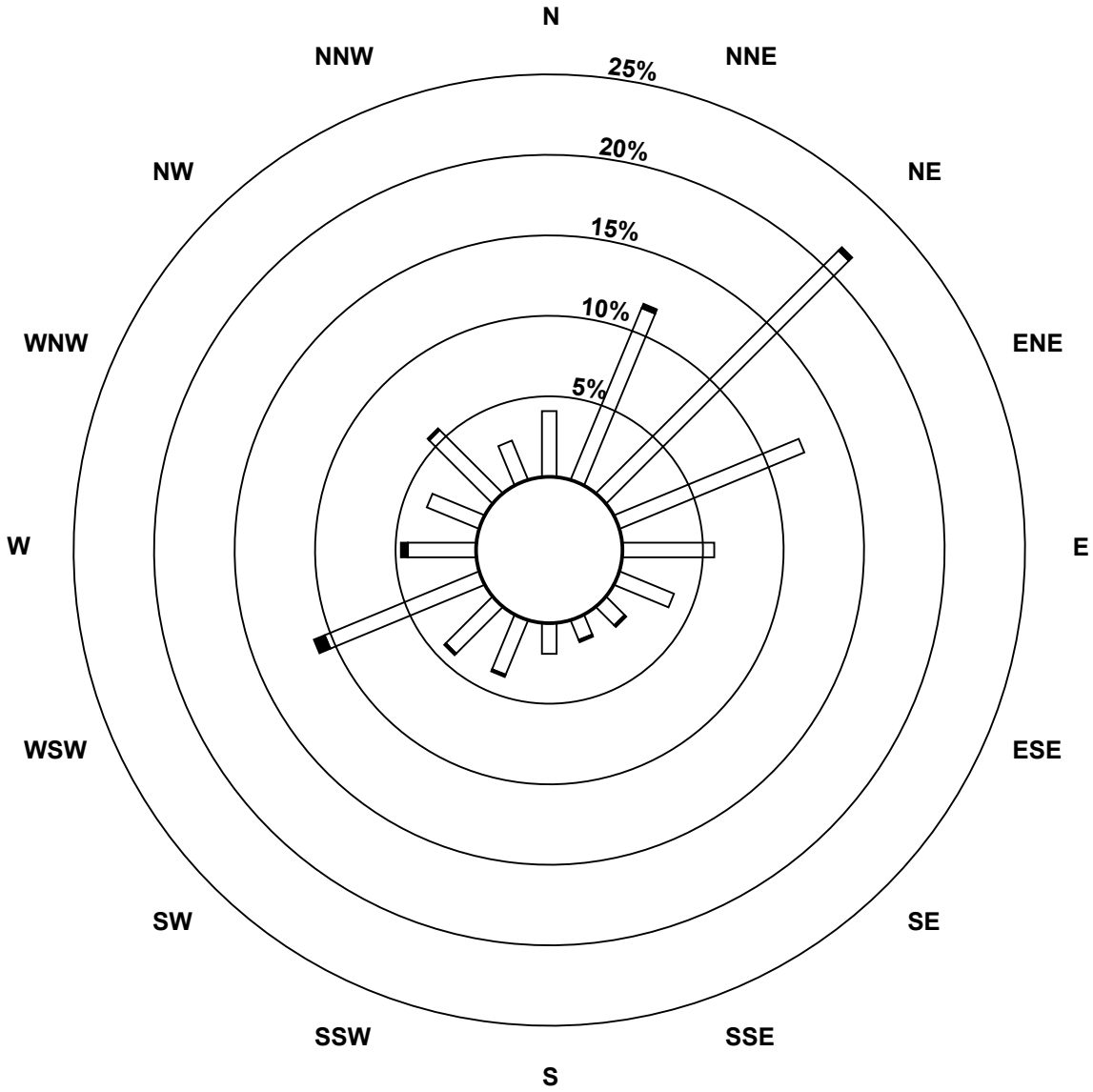
Evergreen Park - April 2017



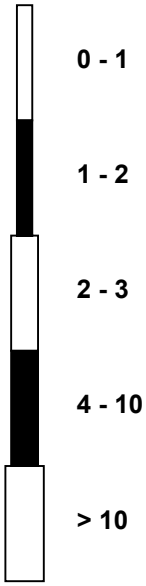
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb

Evergreen Park - April 2017



Pollutant Classes (ppb)

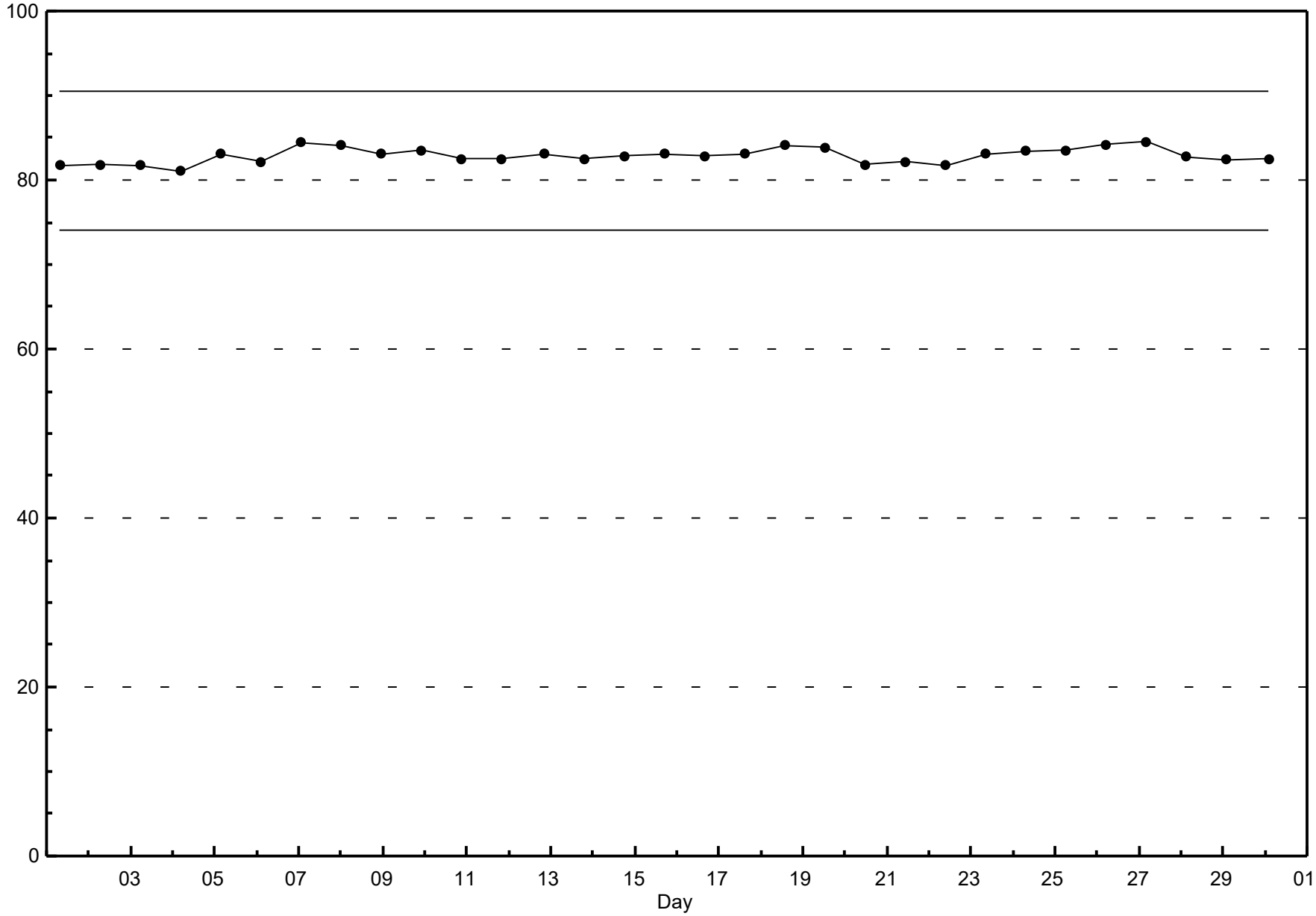


Peace Airshed Zone Association

Span Responses

Total Reduced Sulphur (TRS)

Evergreen Park - April 2017



Peace Airshed Zone Association

Hourly Averages

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

Evergreen Park - April 2017

Number of Exceedences: 1-hr: 0 24-hr: 0

Maximum Value: 16.3 $\mu g/m^3$ on Apr 5 21:00

Maximum Daily Average: 4.9 $\mu g/m^3$ on Apr 5

Minimum Value: 0 $\mu g/m^3$ on Apr 1 02:00

Maximum Diurnal Average: 2.6 $\mu g/m^3$ at hour 21

Monthly Average: 1.87 $\mu g/m^3$

Minimum Daily Average: 0.6 $\mu g/m^3$ on Apr 2

Minimum Diurnal Average: 1.2 $\mu g/m^3$ at hour 13

Percentiles: P_1 = 0.0 P_{10} = 0.1 Q_1 = 0.7 Median = 1.4 Q_3 = 2.4 P_{90} = 3.9 P_{99} = 9.6

Hours in Service:	720
Hours of Data:	717
Hours of Missing Data:	3
Hours of Calibration:	0
Percent Operational Time:	99.6

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	1	0	0	0	2	2	3	3	4	2	2	0	0	0	0	0	1	2	1	1	1	1	1	0	1.1	3.8
2-Apr	0	1	0	0	1	0	0	0	1	1	1	1	1	1	1	1	1	0	0	1	2	0	0	0	0.6	2.0
3-Apr	1	1	1	1	1	1	2	5	2	2	2	1	1	0	0	0	0	1	1	3	3	2	2	1	1.4	4.7
4-Apr	1	2	1	2	2	2	5	6	3	3	2	1	1	1	1	0	0	1	4	1	1	1	0	0	1.7	6.1
5-Apr	0	0	0	1	1	1	4	2	3	4	6	7	4	8	5	0	3	3	8	10	16	13	10	10	4.9	16.3
6-Apr	4	1	0	0	0	0	1	1	1	0	0	M	M	M	10	10	8	0	0	0	1	3	2	1	2.0	9.7
7-Apr	2	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	2	0	2	2	1	2	2	0.8	2.1
8-Apr	2	2	2	2	1	1	1	1	2	2	2	2	1	1	1	1	1	2	1	2	2	2	3	3	1.6	3.2
9-Apr	3	2	2	2	2	1	2	3	3	2	1	0	0	0	0	0	0	0	1	1	1	1	0	1	1.2	2.9
10-Apr	2	2	1	2	2	2	2	6	8	12	3	1	0	2	2	1	1	1	1	1	2	2	2	3	2.4	11.8
11-Apr	1	1	2	2	2	2	3	3	2	1	1	2	2	2	1	2	2	2	2	3	3	3	2	3	2.0	3.3
12-Apr	3	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	2	2	3	2	1.8	2.6
13-Apr	2	2	1	1	1	1	1	1	0	0	0	0	0	0	0	0	1	1	1	0	1	0	0	0	0.6	1.8
14-Apr	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	1	1	1	2	1	2	1	1	1	0.8	1.9
15-Apr	0	1	0	1	2	1	2	2	1	1	2	1	2	1	2	2	3	3	2	2	2	2	1	1	1.5	3.3
16-Apr	1	2	1	1	1	2	2	3	3	2	0	0	0	1	1	1	1	1	1	2	3	2	3	5	1.5	4.7
17-Apr	4	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1.1	3.8
18-Apr	0	0	0	0	1	0	0	0	1	0	1	0	1	1	1	1	2	2	2	2	3	3	3	3	1.2	3.3
19-Apr	3	3	3	3	4	3	3	3	3	3	4	5	2	2	3	2	2	3	2	3	4	4	5	5	3.3	5.4
20-Apr	7	8	6	6	5	5	6	5	5	3	3	2	3	3	3	3	4	3	3	3	2	2	1	1	3.8	7.8
21-Apr	1	1	1	2	1	2	2	2	2	2	2	3	3	2	3	3	2	3	2	3	2	3	1	0	2.0	3.2
22-Apr	1	1	1	1	2	2	2	1	1	1	1	1	0	0	0	0	0	0	0	1	2	1	0	0	0.8	2.4
23-Apr	0	0	0	0	0	0	1	1	1	1	1	2	2	1	1	1	1	2	2	2	2	1	1	1	1.1	2.2
24-Apr	1	0	0	1	1	1	2	2	1	2	1	1	1	1	1	1	1	1	1	2	1	2	1	2	1.2	2.2
25-Apr	2	1	1	3	5	3	4	5	4	3	1	1	1	7	10	9	8	6	5	4	3	1	0	0	3.7	9.7
26-Apr	1	1	1	1	1	1	2	1	1	1	1	1	1	1	2	3	3	3	3	2	3	3	3	4	1.8	4.1
27-Apr	4	4	4	4	5	6	7	4	5	4	4	4	4	4	3	3	3	4	6	5	4	3	5	5	4.3	6.8
28-Apr	6	5	5	4	4	5	8	8	3	3	1	2	2	2	2	2	2	2	1	3	2	2	2	3	3.3	8.2
29-Apr	2	1	1	0	0	1	2	1	1	1	0	0	0	0	0	0	0	0	0	0	1	0	1	2	0.6	2.3
30-Apr	3	3	3	4	4	4	3	3	2	1	1	1	0	0	0	1	3	2	3	2	2	2	2	1	2.1	4.4
	1.9	1.7	1.4	1.5	1.7	1.8	2.4	2.5	2.1	2.0	1.5	1.3	1.2	1.5	1.9	1.7	1.9	1.8	1.9	2.1	2.6	2.2	2.0	2.1	Diurnal Average	
	7.0	7.8	6.1	6.4	5.1	5.9	7.9	8.2	7.5	11.8	6.0	6.7	3.8	7.7	9.7	9.5	8.2	6.1	7.5	9.6	16.3	12.8	10.2	9.9	Diurnal Maximum	

M - Maintenance

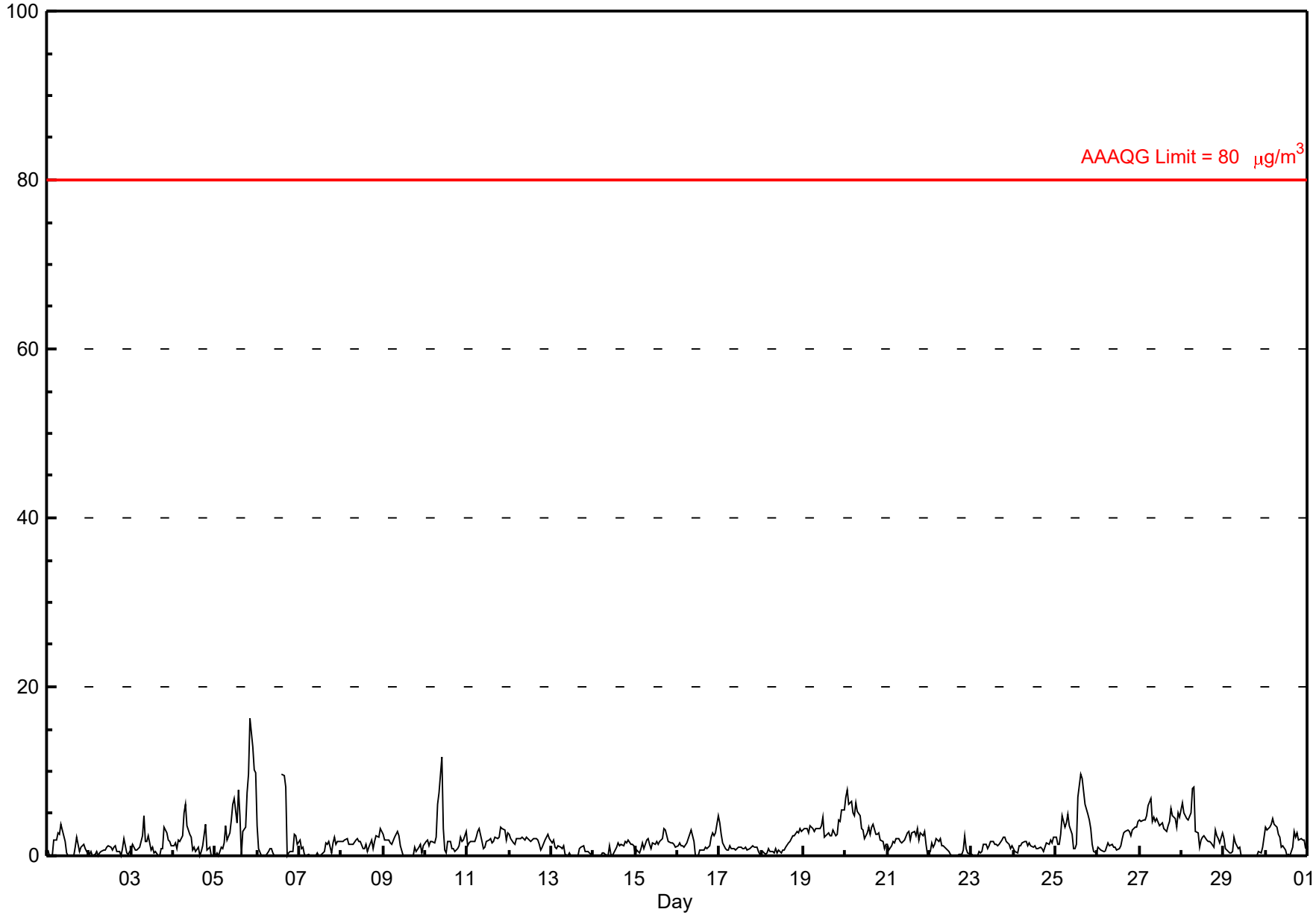
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 $\mu g/m^3$ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 $\mu g/m^3$

Peace Airshed Zone Association

Hourly Averages

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

Evergreen Park - April 2017



Peace Airshed Zone Association

Hourly Maximums

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

Evergreen Park - April 2017

Maximum Value: 22.0 $\mu g/m^3$ on Apr 10 08:00

Maximum Daily Average: 8.3 $\mu g/m^3$ on Apr 5

Minimum Value: 0 $\mu g/m^3$ on Apr 13 13:00

Maximum Diurnal Average: 5.4 $\mu g/m^3$ at hour 8

Monthly Average: 4.01 $\mu g/m^3$

Minimum Daily Average: 2.2 $\mu g/m^3$ on Apr 29

Minimum Diurnal Average: 3.1 $\mu g/m^3$ at hour 13

Percentiles: P_1 = 0.7 P_{10} = 2.0 Q_1 = 2.7 Median = 3.5 Q_3 = 4.7 P_{90} = 6.4 P_{99} = 12.7

Hours in Service:	720
Hours of Data:	717
Hours of Missing Data:	3
Hours of Calibration:	0
Percent Operational Time:	99.6

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	3	2	1	2	4	4	5	6	7	5	4	2	1	3	1	1	3	4	3	3	3	3	3	2	3.2	6.9
2-Apr	2	2	1	2	2	1	2	2	2	2	3	3	5	3	3	4	2	3	2	3	5	3	2	2	2.6	4.7
3-Apr	3	3	3	2	3	3	5	8	4	5	5	3	4	3	3	2	2	3	4	10	5	3	4	3	3.8	10.1
4-Apr	4	4	2	4	3	6	10	10	6	5	5	5	5	4	3	4	3	4	5	5	2	3	2	1	4.4	10.0
5-Apr	3	2	2	3	3	4	6	4	5	7	12	11	8	11	10	4	6	7	11	13	20	18	15	14	8.3	20.2
6-Apr	7	3	2	2	1	2	3	3	3	4	1	M	M	M	11	12	13	0	3	3	2	5	5	4	4.3	13.2
7-Apr	4	3	3	2	2	1	2	1	1	1	3	2	1	1	3	3	3	4	3	3	3	3	6	4	2.7	5.7
8-Apr	4	4	3	4	4	3	3	3	4	4	4	3	3	2	3	3	3	4	3	3	5	4	7	5	3.6	6.6
9-Apr	4	4	4	4	4	3	4	4	5	5	4	2	1	1	1	1	1	1	3	1	4	4	2	4	2.9	5.2
10-Apr	5	5	4	3	4	3	5	22	21	19	5	2	3	5	3	3	2	2	3	4	4	3	4	5	5.8	22.0
11-Apr	3	3	4	3	3	4	6	5	4	3	2	4	3	4	3	3	3	4	4	6	5	5	4	5	3.9	5.7
12-Apr	5	4	3	3	3	3	4	4	4	3	4	4	4	3	3	3	3	3	3	2	4	4	4	4	3.6	5.0
13-Apr	3	4	3	3	3	4	2	3	2	2	2	1	0	1	1	1	3	2	4	3	2	3	2	3	2.4	4.2
14-Apr	2	2	1	1	1	3	2	2	2	3	2	2	3	3	3	3	3	3	4	3	4	3	3	3	2.6	3.7
15-Apr	2	2	2	3	4	3	4	4	3	3	4	3	3	3	4	4	5	5	4	3	3	3	3	3	3.3	5.2
16-Apr	3	3	3	3	3	3	4	4	6	5	2	2	1	2	2	2	2	3	3	3	5	5	5	10	3.6	9.9
17-Apr	5	4	3	2	2	2	3	3	4	3	3	3	3	3	3	3	2	3	3	4	4	3	3	3	3.1	5.4
18-Apr	3	3	2	2	4	3	2	3	3	2	3	3	2	2	3	3	3	4	4	4	6	5	5	6	3.4	5.9
19-Apr	5	5	6	5	6	5	6	6	5	6	6	7	4	4	4	3	4	4	4	4	6	9	11	8	5.7	10.8
20-Apr	9	11	9	10	7	7	9	8	6	6	4	4	5	6	5	6	5	4	4	4	3	3	3	5	5.9	10.8
21-Apr	4	4	4	4	3	4	4	3	4	3	4	5	4	4	5	5	4	5	3	5	5	5	5	3	4.1	5.2
22-Apr	3	3	3	3	4	4	4	4	3	2	3	2	2	1	2	1	1	2	2	2	5	2	2	2	2.6	5.3
23-Apr	3	2	2	1	2	2	2	3	3	2	3	3	3	3	4	3	3	3	4	4	4	3	2	3	2.8	4.4
24-Apr	2	2	2	4	3	3	3	3	3	4	3	3	3	3	3	3	2	2	4	3	3	4	3	6	3.2	6.4
25-Apr	4	3	3	6	7	6	7	10	10	5	4	3	4	9	14	11	9	8	7	6	5	3	2	3	6.2	13.6
26-Apr	3	2	2	3	3	3	3	3	3	2	2	3	4	4	4	4	4	5	5	4	5	5	5	6	3.6	5.6
27-Apr	6	6	6	7	7	8	11	7	6	6	5	5	5	5	5	5	6	6	11	6	6	5	7	8	6.4	10.8
28-Apr	8	7	6	6	6	9	12	13	5	4	4	5	5	7	3	8	8	4	3	6	3	5	3	6	6.1	13.0
29-Apr	4	2	2	2	2	2	4	4	2	3	1	0	0	1	2	2	1	1	2	1	3	2	3	5	2.2	5.4
30-Apr	6	5	6	6	7	5	5	5	4	3	3	2	3	2	2	5	8	6	5	3	4	3	3	2	4.3	8.1
	4.0	3.7	3.2	3.6	3.6	3.8	4.8	5.4	4.6	4.2	3.6	3.4	3.1	3.6	3.8	3.8	4.1	3.7	4.1	4.2	4.6	4.3	4.3	4.6	Diurnal Average	
	9.4	10.8	9.1	9.6	6.9	8.8	12.5	22.0	20.5	19.1	11.6	11.4	7.6	10.6	13.6	11.8	13.2	7.9	11.4	13.3	20.2	17.9	15.4	13.8	Diurnal Maximum	

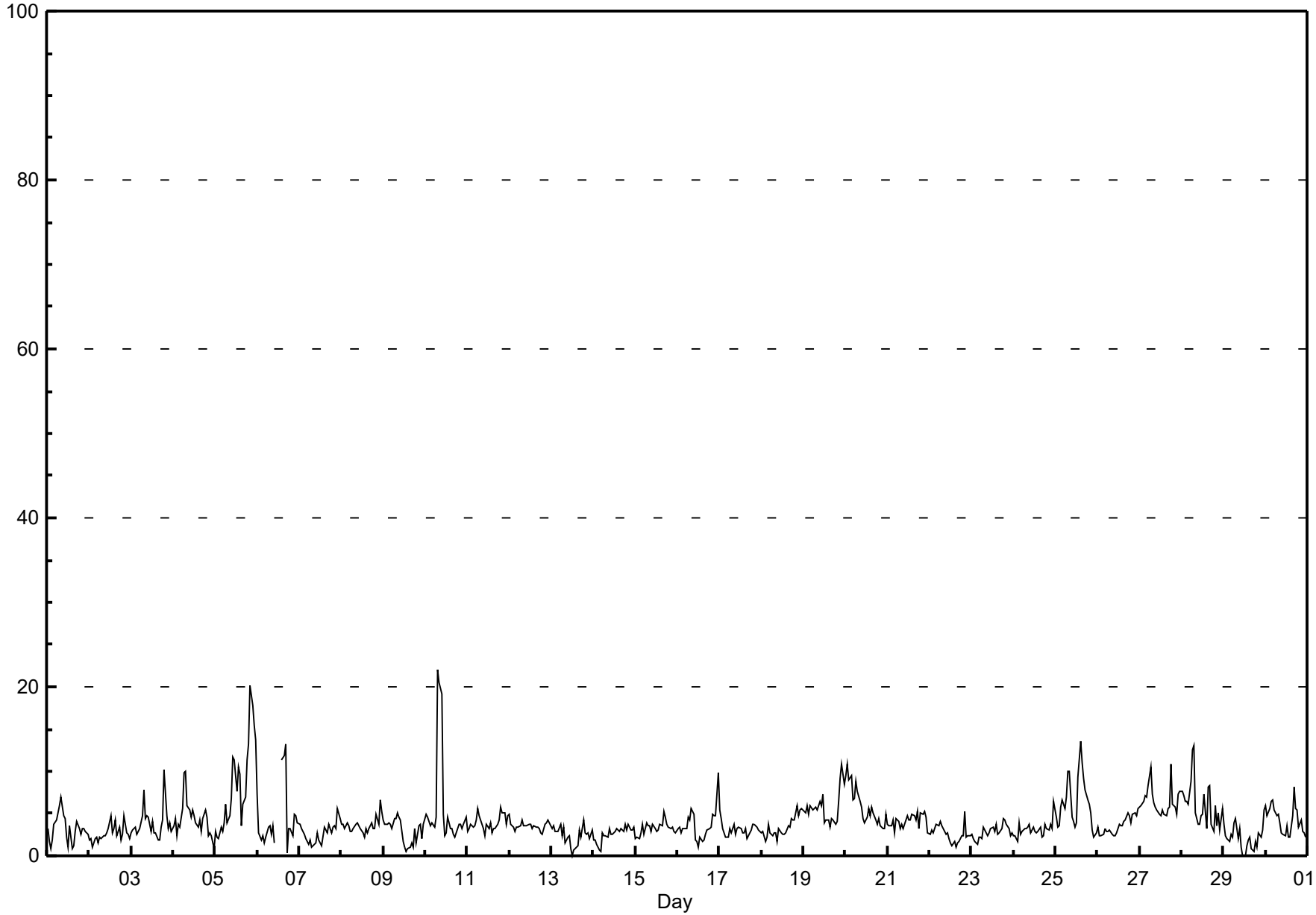
M - Maintenance

Peace Airshed Zone Association

Hourly Maximums

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

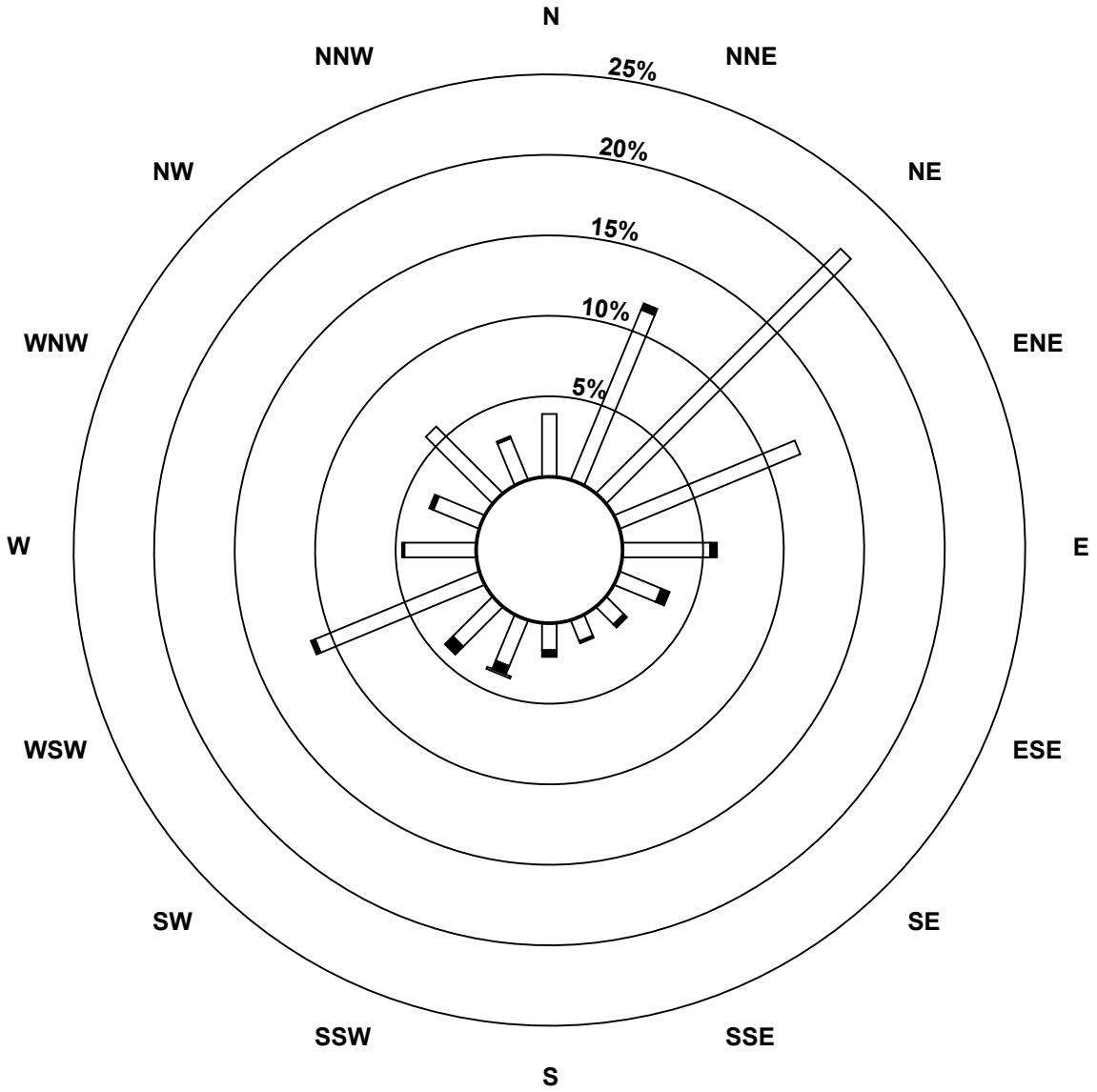
Evergreen Park - April 2017



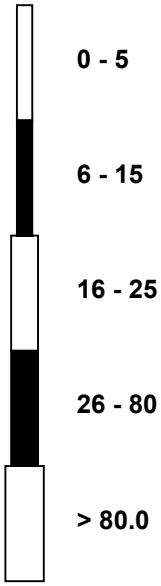
Pollutant Rose

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

Evergreen Park - April 2017



Pollutant Classes ($\mu g/m^3$)



Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - °C

Evergreen Park - April 2017

Maximum Value: 13.8 °C on Apr 29 18:00

Maximum Daily Average: 8.4 °C on Apr 29

Minimum Value: -6 °C on Apr 18 07:00

Minimum Daily Average: -4.6 °C on Apr 18

Maximum Diurnal Average: 7.2 °C at hour 17

Minimum Diurnal Average: -0.5 °C at hour 6

Monthly Average: 3.23 °C

Percentiles: P_1 = -5.8 P_{10} = -1.8 Q_1 = 0.0 Median = 2.6 Q_3 = 6.2 P_{90} = 9.6 P_{99} = 13.4

Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

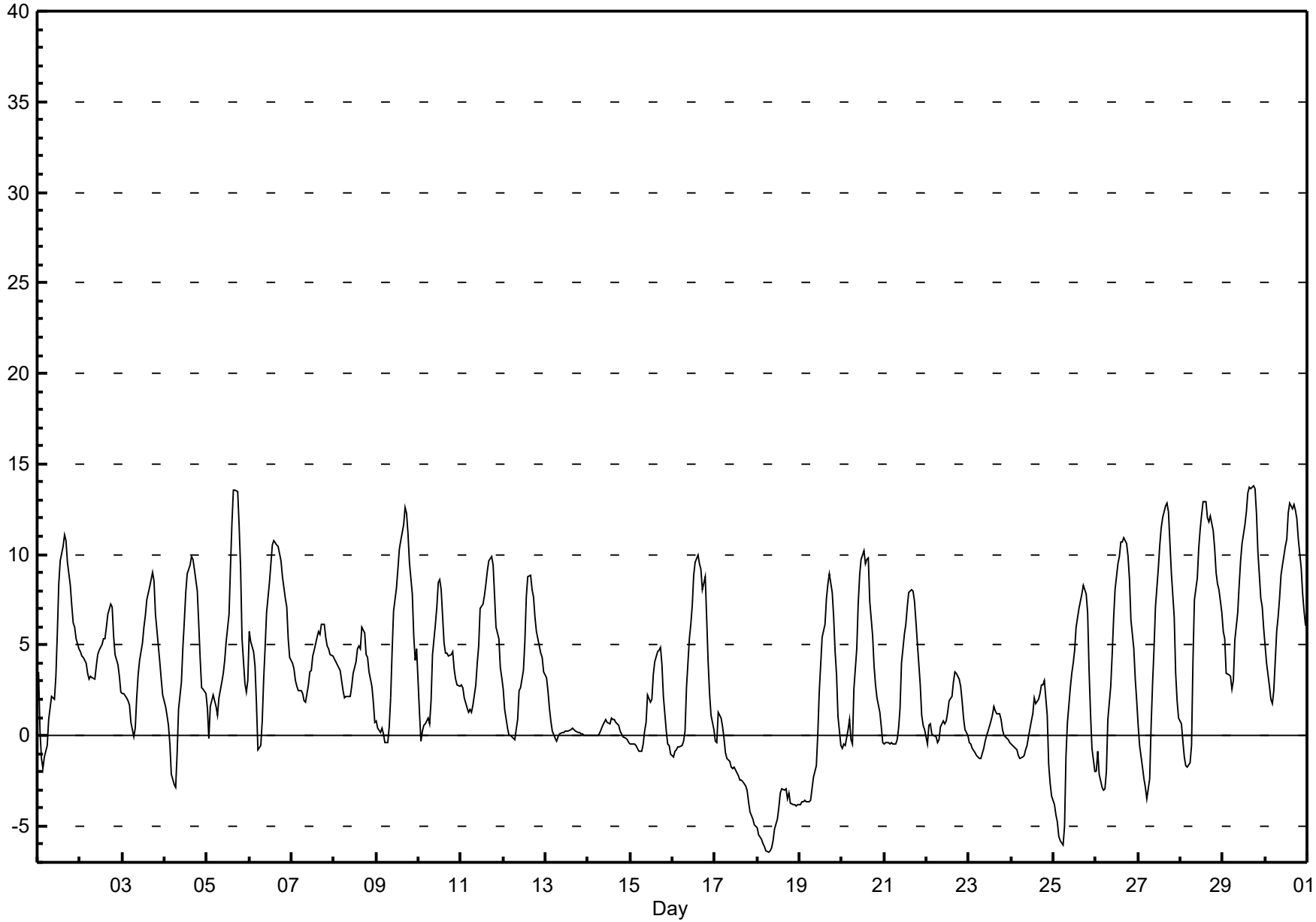
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	4	0	-1	-2	-1	-1	1	2	2	2	3	6	8	10	10	11	11	10	8	7	6	6	5	5	4.7	11.1
2-Apr	5	4	4	4	3	3	3	3	3	4	4	5	5	5	5	6	7	7	7	5	4	4	3	2	4.5	7.2
3-Apr	2	2	2	2	2	1	0	0	2	3	4	5	6	7	7	8	9	9	9	7	5	4	3	2	4.2	9.0
4-Apr	2	1	1	0	-2	-3	-3	-1	1	3	5	6	8	9	9	10	10	9	8	6	4	3	3	2	3.8	9.9
5-Apr	1	0	2	2	2	2	1	2	3	3	4	5	7	9	12	14	14	13	12	9	5	3	2	3	5.4	13.6
6-Apr	6	5	5	4	2	-1	-1	1	3	5	7	8	9	11	11	10	10	10	10	9	8	7	5	4	6.2	10.8
7-Apr	4	4	3	3	3	2	2	2	2	3	3	4	4	5	5	6	6	6	6	5	5	5	4	4	4.0	6.2
8-Apr	4	4	4	4	3	3	2	2	2	2	3	3	4	5	5	5	6	6	4	4	4	3	2	1	3.5	6.0
9-Apr	1	0	0	0	0	0	0	0	2	5	7	8	9	10	11	12	13	12	11	10	8	5	4	5	5.5	12.6
10-Apr	1	0	0	1	1	1	1	2	4	6	7	8	9	8	5	5	5	4	4	5	4	3	3	3	3.7	8.6
11-Apr	3	3	2	2	1	1	1	2	3	4	5	7	7	8	8	9	10	10	9	8	6	5	4	3	5.0	9.9
12-Apr	3	1	0	0	0	0	0	0	1	3	3	4	5	8	9	9	8	8	7	6	5	5	4	4	3.7	8.9
13-Apr	3	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	3.2
14-Apr	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0.3	1.0
15-Apr	0	0	-1	-1	-1	-1	-1	0	0	1	2	2	2	3	4	5	5	5	4	2	0	0	-1	-1	1.2	4.9
16-Apr	-1	-1	-1	-1	-1	-1	0	0	3	5	6	7	9	10	10	9	9	8	9	6	4	2	1	0	4.0	9.9
17-Apr	0	0	1	1	0	0	-1	-1	-1	-2	-2	-2	-2	-2	-2	-2	-3	-3	-3	-4	-4	-5	-5	-5	-2.0	1.3
18-Apr	-5	-5	-6	-6	-6	-6	-6	-6	-6	-6	-5	-5	-4	-3	-3	-3	-3	-3	-3	-4	-4	-4	-4	-4	-4.6	-3.0
19-Apr	-4	-4	-4	-4	-4	-4	-4	-3	-2	-2	0	2	4	5	6	8	8	9	8	7	5	3	1	-1	1.4	8.9
20-Apr	-1	0	-1	0	1	0	0	3	5	7	9	10	10	10	10	10	7	6	4	3	2	1	1	0	3.9	10.2
21-Apr	0	0	0	0	0	0	0	0	0	2	4	6	6	7	8	8	8	7	6	5	3	1	1	0	2.9	8.0
22-Apr	0	1	1	0	0	0	0	0	1	1	1	1	1	2	2	3	3	3	3	3	2	1	0	0	1.1	3.5
23-Apr	0	0	-1	-1	-1	-1	-1	-1	-1	0	0	0	1	1	2	1	1	1	1	0	0	0	0	0	0.0	1.6
24-Apr	0	-1	-1	-1	-1	-1	-1	-1	-1	-1	0	1	1	2	2	2	2	3	3	3	1	-2	-3	-3	0.2	3.0
25-Apr	-4	-4	-5	-6	-6	-6	-5	-1	1	3	3	4	5	6	7	7	8	8	8	7	4	1	-1	-2	1.3	8.3
26-Apr	-2	-1	-2	-3	-3	-3	-2	1	3	4	6	8	10	10	11	11	11	11	10	9	6	5	3	2	4.3	10.9
27-Apr	1	-1	-2	-2	-3	-3	-2	1	3	5	7	9	11	11	12	13	13	12	11	9	7	3	2	1	4.8	12.8
28-Apr	1	0	-1	-2	-2	-2	-1	4	7	9	10	11	12	13	13	12	12	12	11	10	9	8	8	7	6.8	13.0
29-Apr	6	5	3	3	3	3	3	5	7	8	10	11	12	12	13	14	14	14	14	12	10	8	7	6	8.4	13.8
30-Apr	5	4	3	2	2	3	6	7	8	9	9	10	11	12	13	13	13	12	12	11	9	8	7	6	8.0	12.9
	1.0	0.6	0.3	0.0	-0.2	-0.5	-0.3	0.7	1.8	2.9	3.9	4.9	5.7	6.5	6.9	7.2	7.2	7.0	6.4	5.4	3.9	2.8	2.0	1.5	Diurnal Average	
	5.8	5.4	4.6	4.0	3.5	3.1	5.7	6.6	7.6	8.9	10.4	11.4	12.2	13.0	13.4	13.7	13.7	13.8	13.6	12.3	10.1	8.4	8.1	6.8	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Evergreen Park - April 2017



Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Evergreen Park - April 2017

Maximum Value: 99.9 % on Apr 14 05:00

Maximum Daily Average: 97.4 % on Apr 14

Minimum Value: 21 % on Apr 29 19:00

Minimum Daily Average: 43.0 % on Apr 29

Maximum Diurnal Average: 86.3 % at hour 6

Minimum Diurnal Average: 54.1 % at hour 17

Monthly Average: 71.13 %

Percentiles: P_1 = 26.6 P_{10} = 38.5 Q_1 = 52.0 Median = 75.9 Q_3 = 91.4 P_{90} = 96.9 P_{99} = 99.8

Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

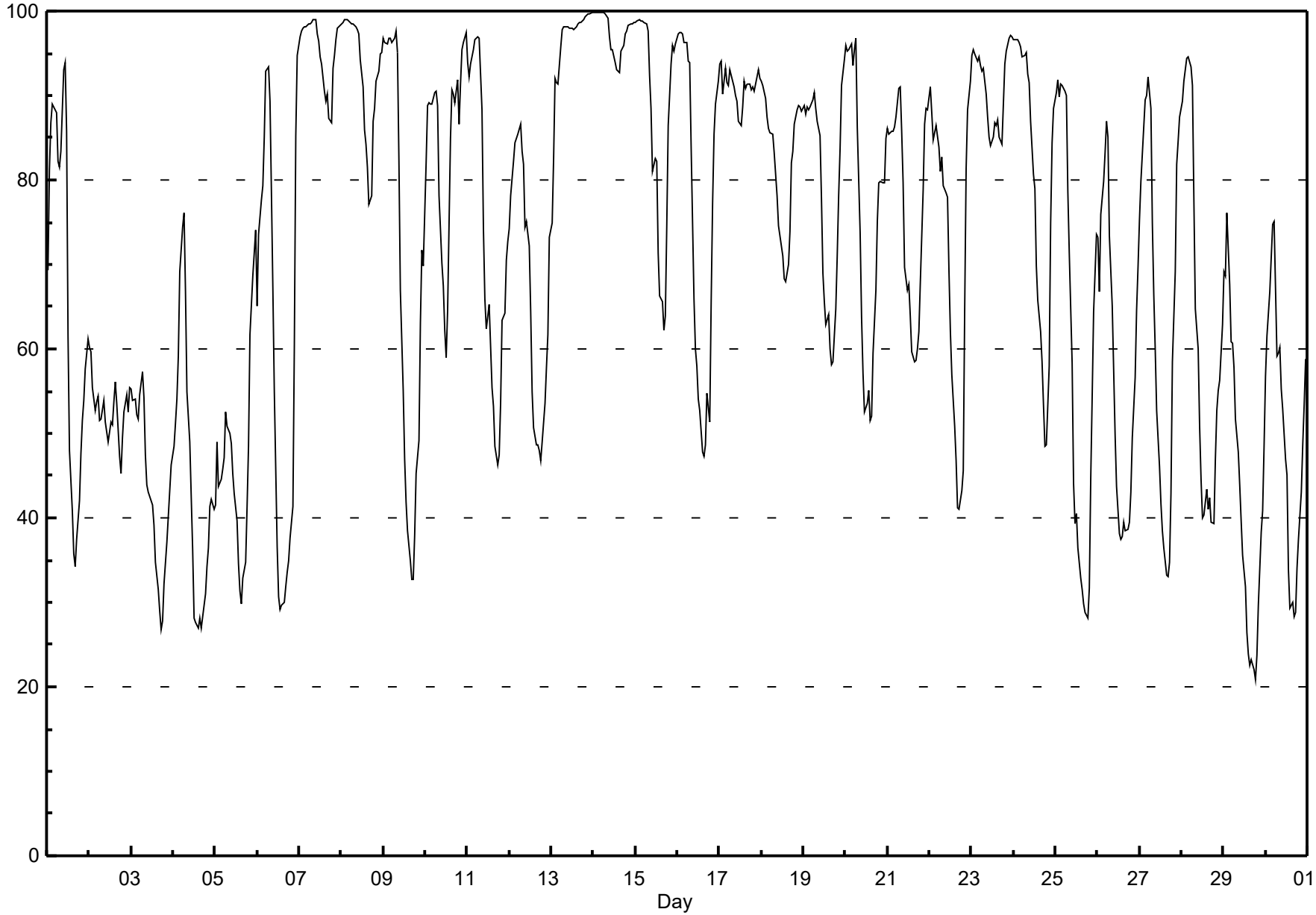
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	69	81	87	89	89	88	82	82	83	93	94	86	62	48	41	36	34	37	42	48	52	54	58	61	66.4	93.9
2-Apr	60	60	55	53	54	54	52	52	54	51	50	49	51	51	54	56	54	47	45	49	52	55	53	55	52.8	60.2
3-Apr	55	54	54	52	52	55	57	54	48	44	43	42	42	39	35	32	29	27	28	32	37	40	43	46	43.3	57.2
4-Apr	48	51	54	59	69	74	76	67	55	49	42	36	28	28	27	28	27	28	31	34	36	41	42	41	44.8	76.1
5-Apr	41	49	44	45	46	47	53	51	50	49	45	43	40	35	31	30	33	35	41	48	62	69	71	74	47.1	74.0
6-Apr	65	74	78	79	85	93	93	89	78	67	55	37	31	29	30	30	32	34	35	38	41	60	85	95	59.7	94.7
7-Apr	97	98	98	98	98	98	99	99	99	99	97	97	95	94	90	89	90	87	87	93	95	97	98	98	95.4	99.0
8-Apr	99	99	99	99	99	99	98	98	98	98	97	94	91	86	84	81	77	78	87	88	92	93	95	95	92.7	99.1
9-Apr	97	96	96	97	97	96	97	98	95	82	67	55	47	42	38	35	33	33	38	45	49	63	72	70	68.2	97.6
10-Apr	82	89	89	89	89	90	91	89	78	70	67	62	59	65	85	91	90	89	92	87	91	95	96	97	84.3	97.5
11-Apr	94	92	94	96	97	97	97	97	88	74	66	62	65	60	55	53	49	46	47	53	63	64	71	73	73.1	96.9
12-Apr	74	78	82	84	85	85	87	83	82	74	75	72	64	55	51	49	49	48	47	49	53	58	62	73	67.5	86.6
13-Apr	75	83	92	92	91	96	98	98	98	98	98	98	98	98	98	99	99	99	99	99	99	100	100	100	95.9	99.8
14-Apr	100	100	100	100	100	100	100	100	99	97	95	95	94	93	93	93	95	96	97	98	98	98	98	99	97.4	99.9
15-Apr	99	99	99	99	99	99	99	98	92	88	81	83	82	71	66	66	62	64	75	87	94	96	95	96	86.9	98.9
16-Apr	97	97	97	97	96	96	94	94	84	66	60	58	54	53	48	47	49	55	51	66	77	85	89	92	75.2	97.5
17-Apr	94	94	90	93	92	91	93	92	91	90	89	87	86	89	92	91	91	91	91	91	91	92	93	92	91.1	94.1
18-Apr	92	91	90	87	86	86	85	83	81	78	75	72	71	68	68	70	74	82	83	87	88	89	89	88	81.8	91.7
19-Apr	89	88	89	88	89	90	90	88	87	85	78	69	66	63	64	60	58	58	65	71	78	84	91	94	78.4	94.2
20-Apr	96	95	95	96	94	95	97	86	74	64	57	53	54	55	52	52	59	67	75	80	80	80	80	85	75.8	96.8
21-Apr	86	85	86	86	86	87	91	91	86	80	70	67	68	64	60	59	59	60	62	68	79	87	88	88	76.7	91.0
22-Apr	91	88	85	86	86	84	81	83	79	78	78	69	62	57	51	47	41	41	43	46	65	81	88	92	70.9	91.6
23-Apr	95	96	95	94	95	94	93	93	90	88	85	84	85	87	86	87	85	84	89	94	95	97	97	97	91.0	97.2
24-Apr	97	97	97	96	96	95	95	95	92	92	87	81	79	70	66	62	58	53	48	49	58	75	84	88	79.6	96.6
25-Apr	90	92	90	91	91	90	90	79	71	58	44	39	40	36	33	32	30	29	28	32	45	54	64	74	59.3	91.9
26-Apr	73	67	76	80	83	87	85	73	65	58	50	44	38	37	38	39	38	39	39	43	50	57	65	70	58.1	86.9
27-Apr	75	80	86	90	90	92	89	75	66	60	53	46	42	39	36	33	33	35	43	58	69	82	85	87	64.3	92.2
28-Apr	89	92	93	94	95	93	91	78	65	60	51	45	40	40	43	41	42	40	39	47	53	55	56	63	62.7	94.5
29-Apr	69	69	76	68	61	61	58	52	48	44	40	36	32	26	24	23	23	22	21	24	30	38	41	49	43.0	76.1
30-Apr	57	61	67	71	75	75	59	59	60	55	53	47	45	34	29	30	28	29	34	38	43	49	53	59	50.4	75.1
	81.5	83.1	84.4	84.9	85.4	86.3	85.6	82.5	78.0	73.0	68.1	63.6	60.3	57.0	55.6	54.6	54.1	54.4	56.8	61.3	67.2	72.9	76.8	79.7	Diurnal Average	
	99.8	99.9	99.9	99.9	99.9	99.9	99.8	99.7	99.1	99.0	98.0	98.0	97.9	97.8	98.1	98.5	98.6	98.7	99.0	99.3	99.4	99.6	99.7	99.8	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Evergreen Park - April 2017



Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Evergreen Park - April 2017

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1 Spd	8	3	1	0	5	2	5	4	4	2	3	10	23	29	22	37	43	36	35	36	30	32	23	23	16.3	43.1
Dir	219	69	115	22	199	158	172	187	246	292	211	208	244	259	266	258	247	246	245	244	243	239	233	235	243.0	247.0
2 Spd	31	31	35	35	41	36	40	38	42	41	42	39	33	32	29	30	26	27	24	23	11	12	21	20	30.5	42.2
Dir	237	240	242	239	240	244	242	242	245	244	245	245	251	245	246	253	263	255	253	247	264	253	235	236	245.1	244.9
3 Spd	24	24	25	25	26	20	16	18	25	24	23	19	20	20	16	16	14	15	18	15	17	21	20	19	19.1	26.1
Dir	241	242	245	244	243	241	238	238	247	257	256	270	264	268	271	290	282	264	252	226	220	225	228	232	248.4	242.7
4 Spd	17	11	13	6	2	3	3	2	5	9	7	5	2	3	3	9	14	17	13	10	10	8	9	8	1.2	16.9
Dir	236	250	245	243	306	260	231	230	259	228	234	254	191	251	329	6	40	43	51	56	59	56	62	61	346.0	236.1
5 Spd	6	7	11	9	8	7	3	4	1	2	2	0	3	3	4	3	8	8	4	0	1	2	5	8	2.2	10.6
Dir	82	77	88	98	98	99	69	75	37	317	283	133	198	180	129	48	18	32	20	167	200	171	299	250	76.9	88.0
6 Spd	20	13	12	13	1	2	3	9	5	8	10	8	3	8	9	10	6	9	6	3	5	10	2	4	2.8	19.9
Dir	267	260	237	241	296	349	194	191	211	249	246	252	244	115	112	122	98	112	102	83	101	133	117	42	200.1	266.9
7 Spd	4	6	8	3	5	4	3	6	8	8	9	10	8	11	10	7	6	7	8	7	8	5	6	6	6.5	10.8
Dir	38	33	33	62	61	56	44	44	43	57	64	70	67	54	49	67	56	49	53	39	62	58	59	60	53.7	53.7
8 Spd	5	5	7	9	12	12	13	10	12	11	10	14	17	15	11	8	6	4	4	4	8	1	4	3	6.9	16.7
Dir	56	47	59	52	59	70	70	67	70	71	82	87	94	90	82	112	158	99	183	201	189	54	180	56	84.0	93.9
9 Spd	1	1	4	4	1	0	1	0	3	3	9	16	15	12	6	4	4	4	6	5	3	3	4	4	2.0	15.7
Dir	68	39	48	54	184	43	97	35	243	262	253	261	257	265	263	319	285	300	35	42	115	168	157	147	267.5	260.8
10 Spd	4	3	1	1	2	0	2	3	3	8	9	13	12	8	7	8	4	6	3	6	3	4	4	6	2.0	12.6
Dir	48	92	127	44	25	111	13	214	227	248	246	259	289	304	71	214	155	117	265	323	176	186	205	287	253.9	258.9
11 Spd	5	4	1	1	1	1	1	2	5	10	11	9	11	13	15	10	11	12	13	9	13	10	5	14	6.8	14.6
Dir	302	262	196	202	243	332	211	28	30	31	14	13	30	35	31	34	35	37	33	36	36	57	47	35	30.2	31.1
12 Spd	13	11	10	10	11	10	11	11	15	15	15	17	19	21	22	22	22	20	17	15	14	13	13	17	14.9	22.1
Dir	45	45	42	41	45	48	49	46	51	51	57	55	53	71	57	55	60	57	55	55	56	61	75	73	55.4	54.7
13 Spd	15	14	15	16	16	15	14	14	16	16	14	17	19	20	20	22	23	18	13	13	13	14	11	13	15.9	23.0
Dir	67	63	62	52	51	52	52	54	53	54	52	52	50	50	47	51	54	59	54	54	52	53	50	46	53.4	53.9
14 Spd	11	10	7	6	4	3	5	5	5	9	12	16	12	10	14	19	14	13	9	6	7	8	10	8	7.9	18.6
Dir	45	45	42	31	18	343	318	315	312	317	308	312	313	302	316	321	311	310	319	314	306	316	323	319	325.4	321.0
15 Spd	7	8	9	8	6	7	8	6	3	4	2	5	3	4	3	4	6	3	3	2	1	1	2	2	3.6	9.1
Dir	302	298	315	317	315	318	323	331	360	360	336	281	307	321	327	2	344	30	58	69	69	82	64	51	329.7	314.7
16 Spd	4	2	2	1	1	0	1	1	3	9	13	11	7	10	8	8	15	7	7	3	1	2	1	1	2.8	14.7
Dir	51	48	50	64	81	52	354	42	211	249	259	256	297	324	281	274	256	233	26	33	14	43	33	323	283.0	256.1
17 Spd	2	8	18	22	23	19	19	18	20	24	24	23	21	23	18	15	15	17	19	19	20	18	17	17	17.9	23.6
Dir	24	35	37	39	42	44	40	43	38	35	34	26	18	17	13	14	10	15	16	20	23	27	23	24	27.9	33.6
18 Spd	17	14	14	14	12	12	10	12	11	10	10	10	11	10	10	8	5	8	4	5	4	3	4	2	8.9	16.9
Dir	22	20	19	20	23	21	22	19	16	7	10	360	350	349	3	5	5	38	40	39	38	42	56	51	16.5	21.9
19 Spd	2	1	1	1	1	1	3	3	6	5	6	5	6	4	9	9	11	8	7	5	3	1	1	0	2.6	10.9
Dir	64	38	50	105	114	80	85	104	138	150	136	135	129	341	1	31	24	41	36	43	26	353	36	10	59.4	23.7
20 Spd	2	3	2	7	4	6	3	3	11	10	14	21	23	26	32	19	23	21	17	14	11	8	7	5	6.9	32.0
Dir	216	199	195	215	242	196	188	231	258	252	303	319	327	323	317	355	33	25	33	39	51	62	43	44	344.0	317.0
21 Spd	5	5	6	4	3	3	4	6	6	3	7	13	16	14	15	17	17	16	14	11	6	6	7	6	8.0	17.5
Dir	62	62	54	75	61	82	79	108	124	82	12	3	22	17	33	42	35	50	45	39	42	37	53	63	43.1	35.4
22 Spd	9	8	8	12	12	16	19	18	17	17	19	17	18	16	21	18	16	15	14	17	10	10	8	9	13.7	20.7
Dir	45	56	61	50	50	46	42	51	49	40	41	50	56	58	71	72	87	87	78	82	108	108	82	74	62.4	71.0

Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Evergreen Park - April 2017

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
23 Spd	9	9	14	14	12	13	13	12	10	10	8	12	12	12	13	13	13	12	8	8	8	6	3	3	9.6	14.4
Dir	60	61	64	71	70	68	68	57	57	54	55	41	33	34	36	28	35	35	31	24	15	13	2	335	46.3	63.7
24 Spd	3	5	5	4	7	7	7	8	10	10	13	11	13	13	13	11	9	9	6	6	4	0	0	0	7.1	13.3
Dir	357	20	28	22	22	16	14	15	22	20	32	14	13	22	14	8	360	17	17	9	89	102	61	181	18.2	13.4
25 Spd	1	1	0	1	1	0	0	2	2	7	7	7	7	6	9	9	8	9	9	8	7	7	5	7	4.1	9.3
Dir	39	52	171	196	193	37	83	208	220	126	157	116	86	94	123	126	115	95	86	87	52	57	73	77	101.8	85.8
26 Spd	7	8	6	6	7	7	6	10	12	8	8	9	5	10	13	14	16	18	17	12	9	9	8	8	8.4	18.3
Dir	81	82	63	56	60	73	75	95	109	129	105	106	64	36	10	32	34	33	40	53	65	76	70	68	61.4	33.3
27 Spd	7	4	2	0	1	1	1	5	3	5	6	6	8	11	12	12	14	11	4	7	1	0	1	1	3.9	13.5
Dir	70	55	348	319	340	19	27	39	3	347	299	330	360	334	10	30	38	42	345	264	316	69	209	222	8.7	37.9
28 Spd	0	0	1	1	1	1	1	6	13	14	17	20	22	14	16	19	14	7	8	1	3	6	4	6	6.1	22.1
Dir	193	192	60	204	45	206	206	261	255	265	277	257	248	294	336	328	12	329	276	216	282	313	323	203	286.1	248.5
29 Spd	2	5	4	12	16	14	9	13	15	18	11	10	5	7	6	2	9	9	7	8	5	6	5	1	3.6	18.0
Dir	312	230	224	238	235	235	248	247	251	250	272	261	324	237	161	137	85	92	92	79	70	62	63	98	236.6	249.6
30 Spd	1	1	0	1	2	5	11	20	21	19	20	21	24	30	23	23	27	26	24	23	17	8	12	16	14.2	29.5
Dir	347	95	155	52	213	225	250	247	260	270	275	278	300	302	306	310	255	285	289	257	251	290	243	247	274.8	302.1
Spd	1.2	1.3	1.6	1.2	1.3	1.4	1.4	0.9	1.6	2.6	3.5	4.2	4.9	5.9	6.3	6.0	5.1	5.1	4.3	2.6	2.0	1.5	0.7	0.9	Diurnal Average	
Dir	349.3	9.4	16.6	12.0	18.6	29.0	18.6	6.6	309.4	307.3	309.5	315.8	334.0	340.1	358.7	359.3	8.8	20.3	13.9	17.7	40.1	47.0	39.6	14.0		
Spd	31.0	30.5	35.1	35.5	41.3	35.8	39.6	37.5	41.7	41.0	42.2	39.1	32.6	31.6	32.0	37.2	43.1	36.2	34.6	35.6	29.8	32.0	22.9	23.0	Diurnal Maximum	
Dir	237.0	239.9	242.3	239.0	239.8	243.5	241.5	242.3	244.9	243.6	244.9	245.2	251.5	245.2	317.0	257.6	247.0	246.3	245.2	243.5	242.8	238.7	233.2	234.9		

Maximum Speed Value: 43 km/h on Apr 1 17:00
Maximum Daily Speed Average: 30.5 km/h on Apr 2
Maximum Diurnal Speed Average: 6.3 km/h at hour 15

Minimum Speed Value: 0 km/h on Apr 25 07:00
Minimum Daily Speed Average: 1.2 km/h on Apr 19
Minimum Diurnal Speed Average: 0.7 km/h at hour 23

Monthly Average Velocity: 2.52 km/h 356.67 deg

Speed Percentiles: $P_1 = 0.2$ $P_{10} = 1.5$ $Q_1 = 4.2$ Median = 8.5 $Q_3 = 14.3$ $P_{90} = 20.6$ $P_{99} = 38.7$

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

Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Percent Operational Time:	100.0

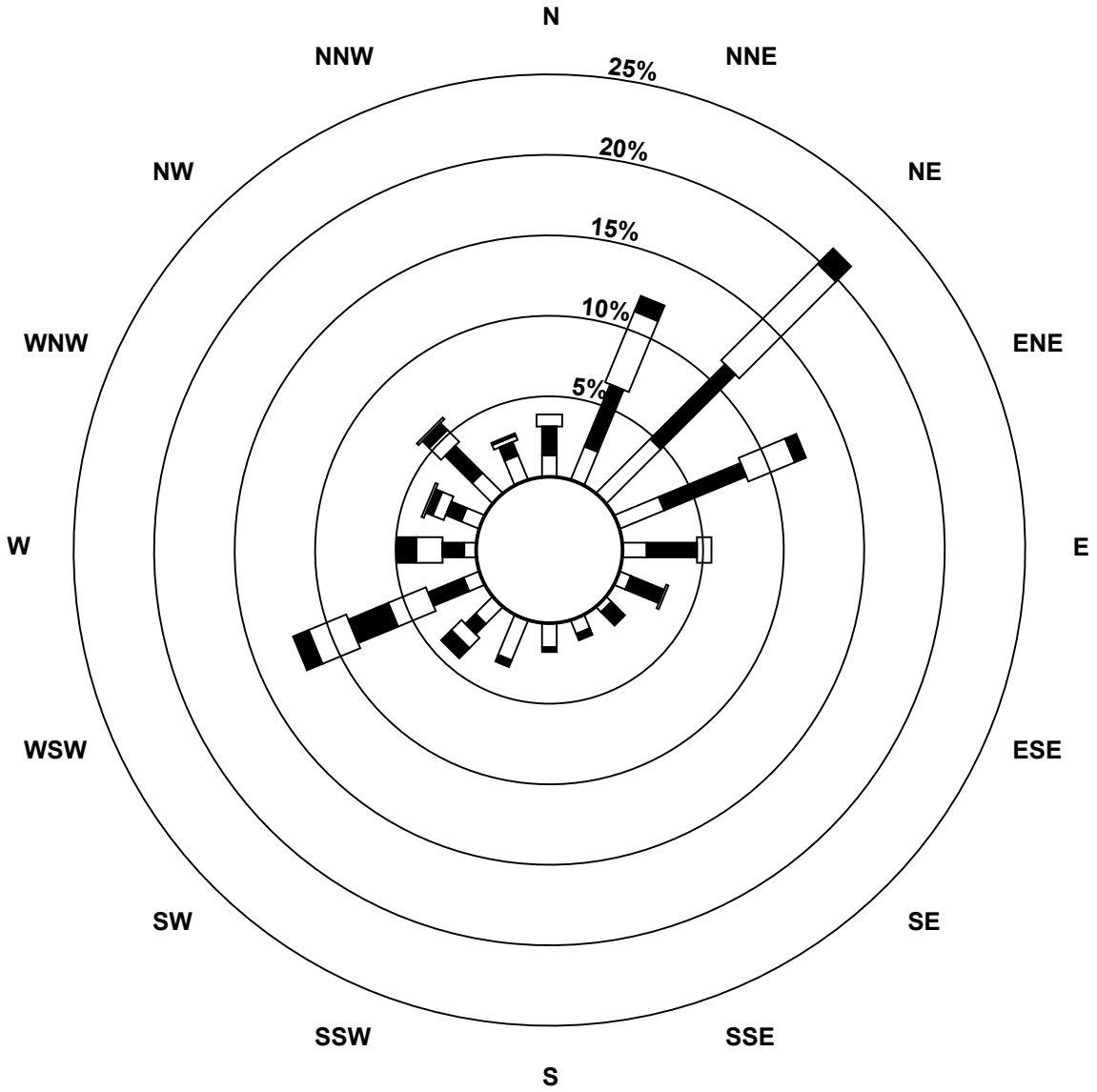
Frequency Distribution

Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	25	29	23	4	0	0	81
NorthEast	60	80	88	19	0	0	247
East	29	42	19	2	0	0	92
SouthEast	13	16	0	0	0	0	29
South	27	7	0	0	0	0	34
SouthWest	26	14	14	17	13	7	91
West	10	22	23	20	4	0	79
NorthWest	18	30	10	7	2	0	67
Total	208	240	177	69	19	7	720

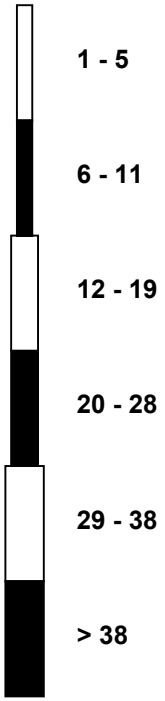
Wind Rose

Wind Speed (WS) (km/h)

Evergreen Park - April 2017



Wind Speed Classes (km/h)



Peace Airshed Zone Association

Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Evergreen Park - April 2017

Maximum Speed: 44 km/h on Apr 1 17:00

Maximum Daily Speed Average: 31.3 km/h on Apr 2

Minimum Speed: 0 km/h on Apr 25 07:00

Minimum Daily Speed Average: 4.9 km/h on Apr 15

Maximum Diurnal Speed Average: 15.8 km/h at hour 14

Minimum Diurnal Speed Average: 7.8 km/h at hour 2

Monthly Average Speed: 11.06 km/h

Percentiles: $P_1 = 0.6$ $P_{10} = 2.3$ $Q_1 = 5.3$ Median = 9.6 $Q_3 = 15.0$ $P_{90} = 21.5$ $P_{99} = 39.7$

Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	9	4	2	3	6	3	7	6	5	3	4	11	23	32	24	38	44	36	35	36	30	32	23	23	18.3	43.7
2-Apr	31	31	35	36	42	36	40	38	42	41	43	40	33	32	29	31	27	27	25	23	14	14	21	20	31.3	42.6
3-Apr	25	24	25	25	26	20	16	18	25	25	24	21	21	22	19	18	15	17	18	15	17	21	20	19	20.8	26.3
4-Apr	17	11	13	6	3	4	3	4	6	9	8	9	6	9	11	12	15	17	14	10	10	9	9	8	9.4	17.2
5-Apr	6	7	11	9	9	8	4	4	2	3	3	1	5	7	6	7	9	9	5	1	2	3	8	9	5.6	10.9
6-Apr	21	14	12	13	5	4	5	9	5	9	11	9	6	11	12	11	8	10	6	4	6	10	3	4	8.6	20.7
7-Apr	4	6	8	4	5	4	4	6	8	8	9	10	9	12	10	7	6	7	8	8	8	5	6	6	7.0	11.6
8-Apr	5	5	7	9	12	12	13	10	13	11	11	15	17	16	12	9	7	7	5	4	8	2	5	4	9.2	17.5
9-Apr	2	1	4	4	1	1	1	1	3	4	10	17	16	14	10	8	9	7	7	5	4	3	4	5	5.9	16.7
10-Apr	4	3	2	2	2	2	2	3	4	8	10	13	14	12	8	8	6	9	8	7	3	4	5	7	6.1	14.1
11-Apr	6	5	1	2	1	1	1	2	5	10	12	11	12	14	16	12	13	13	14	9	13	11	6	14	8.5	15.6
12-Apr	13	11	10	10	11	11	11	12	16	16	16	17	20	23	23	23	22	20	17	15	14	13	14	18	15.6	22.9
13-Apr	15	15	15	17	16	15	14	15	16	16	15	17	20	21	21	23	23	18	14	13	14	14	12	13	16.4	23.4
14-Apr	11	10	7	6	4	3	5	5	6	9	12	16	12	10	15	19	15	13	9	7	7	9	10	9	9.5	18.8
15-Apr	7	8	9	9	7	7	8	6	4	5	2	6	4	4	4	6	6	4	4	2	1	1	2	2	4.9	9.3
16-Apr	4	3	2	2	1	0	1	1	3	9	14	11	10	11	10	9	16	8	7	3	1	2	2	1	5.5	15.6
17-Apr	3	8	18	23	23	19	20	19	21	24	24	23	21	23	18	15	15	18	20	19	20	18	17	17	18.6	24.2
18-Apr	17	15	14	14	12	13	10	12	12	11	11	11	12	11	11	10	7	8	4	6	4	4	4	2	9.8	17.2
19-Apr	3	1	1	1	1	1	3	4	7	7	8	7	8	8	10	11	11	8	7	6	3	1	1	0	4.9	11.4
20-Apr	2	3	3	7	4	6	3	4	11	11	16	21	24	27	33	23	24	22	18	14	12	8	8	5	12.8	32.6
21-Apr	5	5	7	4	3	4	4	6	7	6	9	15	17	15	16	18	18	17	15	12	7	7	7	6	9.6	18.3
22-Apr	9	9	8	12	12	16	20	18	18	18	19	17	19	17	22	20	17	16	15	18	12	11	9	10	15.1	21.9
23-Apr	10	10	15	14	13	13	13	12	10	10	8	12	12	13	13	13	13	12	8	8	8	7	3	4	10.6	14.9
24-Apr	3	5	5	4	8	8	7	8	10	10	14	12	14	14	14	12	10	10	6	7	4	0	1	1	7.8	14.3
25-Apr	1	1	1	2	1	0	0	2	4	9	10	11	11	10	12	13	12	11	10	9	7	7	5	7	6.5	13.3
26-Apr	8	8	6	6	7	7	6	11	13	10	10	11	10	13	15	16	17	19	18	13	9	9	8	8	10.7	19.0
27-Apr	8	4	2	1	1	1	2	5	5	7	7	8	10	12	14	13	15	12	12	8	3	1	2	1	6.4	14.6
28-Apr	0	0	1	1	1	2	1	6	13	15	19	21	23	21	18	21	15	12	13	8	8	7	7	7	10.0	23.2
29-Apr	3	6	4	12	16	14	9	13	16	19	14	12	9	9	12	10	10	10	9	8	5	6	5	3	9.7	18.8
30-Apr	3	2	1	3	3	6	11	20	22	21	22	24	25	32	26	24	29	27	25	24	17	9	13	16	16.9	31.9
	8.4	7.8	8.3	8.7	8.5	8.0	8.2	9.4	11.1	12.1	13.1	14.4	14.8	15.8	15.5	15.3	15.2	14.2	12.5	10.6	9.0	8.3	7.9	8.3	Diurnal Average	
	31.2	30.7	35.3	35.7	41.5	36.0	40.0	37.8	42.2	41.5	42.6	39.8	33.1	32.0	32.6	38.0	43.7	36.5	34.9	35.9	30.0	32.2	23.1	23.2	Diurnal Maximum	

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

Peace Airshed Zone Association

Hourly Standard Deviations

Wind Direction (WD) - deg

Evergreen Park - April 2017

Maximum Value: 96.7 deg on Apr 10 06:00

Minimum Value: 4.8 deg on Apr 29 05:00

Percentiles: P_1 = 6.0 P_{10} = 10.4 Q_1 = 13.9 Median = 20.8 Q_3 = 39.1 P_{90} = 65.7 P_{99} = 92.9

Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Apr	64	48	74	84	56	57	64	75	47	43	43	25	15	23	24	12	10	7	7	7	8	6	7	6	84.3
2-Apr	6	7	7	7	7	7	7	7	9	9	8	11	9	10	10	10	13	11	9	7	43	37	6	6	43.3
3-Apr	5	7	6	6	6	7	5	6	10	15	20	27	22	27	30	30	26	35	12	14	6	7	7	7	34.9
4-Apr	6	16	8	42	50	51	32	76	50	17	35	70	95	81	82	49	25	17	13	12	11	10	13	13	94.8
5-Apr	18	12	14	14	12	13	29	23	80	44	64	95	72	79	63	73	23	19	24	75	82	48	75	23	95.4
6-Apr	16	21	12	10	76	69	88	15	32	29	16	46	70	50	54	31	46	23	16	24	34	22	25	18	87.7
7-Apr	16	11	12	38	16	27	30	19	15	20	23	22	29	22	23	20	24	20	23	10	15	22	19	14	38.4
8-Apr	18	11	16	15	17	17	14	19	19	20	25	19	18	19	26	31	42	60	47	12	21	60	42	50	60.5
9-Apr	55	46	11	10	68	77	74	81	39	59	33	20	23	45	62	82	80	68	26	11	41	30	23	50	81.9
10-Apr	20	42	88	85	56	97	49	25	57	30	28	21	30	50	39	17	39	57	70	13	42	37	42	30	96.7
11-Apr	28	38	44	60	72	45	53	29	17	23	30	44	31	27	24	35	32	29	15	12	9	25	21	14	72.5
12-Apr	13	21	11	13	14	15	14	20	16	15	15	17	17	26	19	18	15	15	14	15	15	15	24	16	25.9
13-Apr	15	17	14	14	14	14	12	17	14	17	14	14	14	12	11	10	11	14	14	17	15	14	16	13	17.4
14-Apr	15	16	23	15	24	27	13	11	14	11	14	14	11	13	14	10	16	13	11	13	12	10	9	10	26.8
15-Apr	17	17	12	8	10	10	10	21	34	26	40	32	47	35	72	58	37	50	20	18	46	49	17	25	71.6
16-Apr	8	16	31	44	54	64	19	18	51	17	18	19	48	33	50	38	22	31	29	33	76	37	22	63	76.5
17-Apr	24	6	9	12	12	14	18	13	13	12	13	13	12	11	13	14	15	13	11	13	11	12	10	11	23.9
18-Apr	11	12	12	13	15	15	16	15	18	22	27	25	25	29	29	38	54	23	38	19	25	19	30	28	53.6
19-Apr	31	43	51	57	45	38	27	37	35	51	49	59	51	77	24	30	19	22	11	17	20	55	62	93	93.4
20-Apr	60	12	87	26	22	18	49	43	19	20	34	17	19	18	13	35	14	13	17	15	17	20	21	20	86.8
21-Apr	28	22	21	29	20	29	28	26	36	74	39	25	25	27	26	23	19	20	20	16	15	12	12	15	73.5
22-Apr	14	15	16	15	15	15	12	15	20	13	15	17	14	17	20	23	20	20	23	17	28	21	16	16	27.7
23-Apr	17	18	16	17	18	18	19	18	21	20	30	18	22	21	20	18	13	14	20	13	13	16	21	15	29.9
24-Apr	20	13	15	15	14	15	15	14	15	16	18	26	21	22	22	25	28	24	27	30	23	77	86	69	86.5
25-Apr	73	56	88	77	63	91	60	66	53	48	50	68	62	67	58	59	58	45	28	22	10	8	11	11	90.8
26-Apr	14	10	9	9	9	10	15	20	24	50	55	56	70	49	34	31	28	18	17	18	14	12	11	11	69.8
27-Apr	10	25	16	49	35	55	61	19	66	56	45	53	44	36	37	29	25	22	68	38	74	94	87	82	93.5
28-Apr	84	69	70	83	78	45	22	55	15	18	27	20	18	51	30	25	23	50	54	96	93	40	76	44	96.0
29-Apr	50	20	46	12	5	6	13	12	14	16	44	39	73	55	75	92	29	32	31	21	13	10	18	71	92.1
30-Apr	79	78	88	80	76	15	17	9	18	25	24	27	20	22	32	20	23	20	20	13	8	23	11	7	88.4
	84.5	78.4	88.4	84.7	78.4	96.7	87.7	80.7	80.5	73.5	64.2	95.4	94.8	81.4	82.4	92.1	80.4	68.0	69.9	96.0	93.1	93.5	87.1	93.4	

PAZA
Smoky Heights Station
Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Smoky Heights - April 2017

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 8.6 ppb on Apr 3 11:00 Maximum Daily Average: 0.9 ppb on Apr 3

Minimum Value: 0 ppb on Apr 1 02:00 Minimum Daily Average: 0.0 ppb on Apr 17
Maximum Diurnal Average: 0.7 ppb at hour 11 Minimum Diurnal Average: 0.0 ppb at hour 23
Monthly Average: 0.17 ppb Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.1 Q_3 = 0.1 P_{90} = 0.3 P_{99} = 1.8

Hours in Service:	720
Hours of Data:	682
Hours of Missing Data:	38
Hours of Calibration:	34
Percent Operational Time:	99.4

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
2-Apr	0	0	0	0	0	0	A	0	1	0	1	0	0	0	0	0	0	0	0	0	P	P	P	P	0.3	1.1
3-Apr	0	0	0	0	0	A	0	0	4	3	9	2	1	0	0	0	0	0	0	0	0	0	0	0	0.9	8.6
4-Apr	0	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.0
5-Apr	0	0	0	A	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.4	0.9
6-Apr	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.9
7-Apr	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
8-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.1	0.4
9-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.1	0.3
10-Apr	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.2	0.8
11-Apr	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	0.7
12-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.1	0.3
13-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.0	0.1
14-Apr	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	A	0	0	1	0	0	0	0.2	0.8
15-Apr	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	A	0	0	0	0	0	0	0	0.2	0.9
16-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	0	0	0	0	1	0	0	0.2	0.9
17-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.0	0.1
18-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.1	0.2
19-Apr	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
20-Apr	0	0	0	0	0	0	0	0	0	2	5	A	0	1	1	0	0	0	0	0	0	0	0	0	0.4	4.9
21-Apr	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
22-Apr	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
23-Apr	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
24-Apr	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
25-Apr	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
26-Apr	0	0	0	0	0	A	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0	0	0.2	0.5
27-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
28-Apr	0	0	0	A	0	0	0	0	0	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0.4	1.9
29-Apr	0	0	A	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.3
30-Apr	0	A	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.4
	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.4	0.4	0.7	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	Diurnal Average	
	0.3	1.0	0.4	0.9	0.8	1.3	1.3	1.4	4.4	3.4	8.6	1.7	1.4	1.2	0.7	0.8	0.7	0.4	0.3	0.2	0.8	0.9	0.2	0.3	Diurnal Maximum	

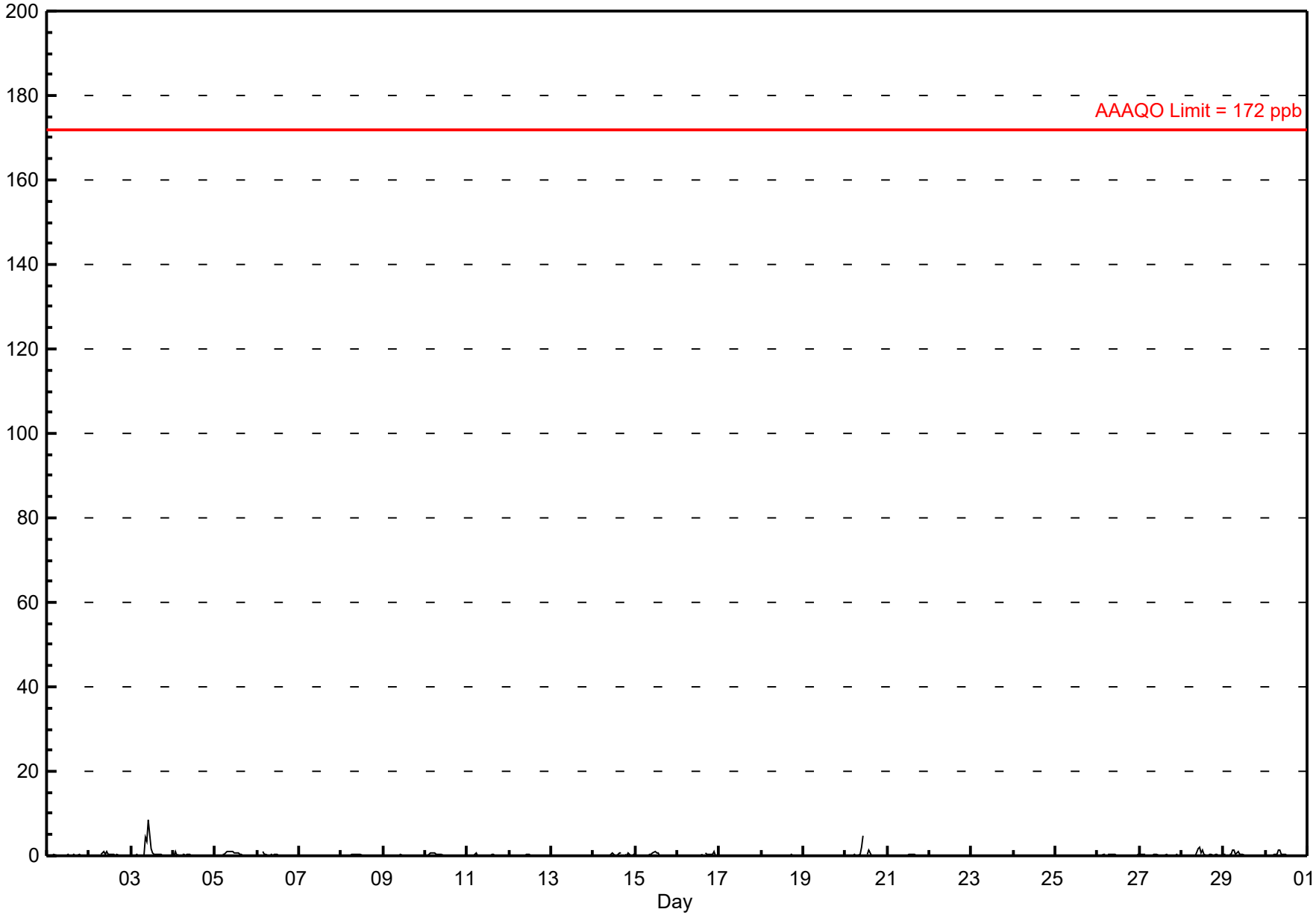
C - Calibration P - Power Failure A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Smoky Heights - April 2017



Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Smoky Heights - April 2017

Maximum Value: 42.5 ppb on Apr 3 11:00

Maximum Daily Average: 3.4 ppb on Apr 3

Minimum Value: 0 ppb on Apr 14 08:00

Minimum Daily Average: 0.3 ppb on Apr 17

Maximum Diurnal Average: 3.0 ppb at hour 11

Minimum Diurnal Average: 0.4 ppb at hour 23

Monthly Average: 0.72 ppb

Percentiles: $P_1 = 0.2$ $P_{10} = 0.3$ $Q_1 = 0.3$ Median = 0.4 $Q_3 = 0.6$ $P_{90} = 1.1$ $P_{99} = 6.2$

Hours in Service:	720
Hours of Data:	682
Hours of Missing Data:	38
Hours of Calibration:	34
Percent Operational Time:	99.4

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	0	0	0	1	0	0	A	0	1	1	0	1	0	0	1	1	0	2	0	0	0	0	0	0.5	2.4
2-Apr	0	0	0	0	1	1	A	1	4	2	2	2	2	1	2	0	1	1	0	0	P	P	P	P	1.2	4.4
3-Apr	1	0	0	1	1	A	1	0	12	8	42	3	2	1	1	1	1	1	1	0	0	0	0	0	3.4	42.5
4-Apr	1	3	0	1	A	1	1	1	1	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0.6	3.3
5-Apr	0	0	0	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0.8	1.5
6-Apr	0	0	A	7	1	3	1	0	1	1	1	2	1	0	0	0	0	0	0	0	0	0	0	0	1.0	7.5
7-Apr	0	A	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0.4	0.6
8-Apr	A	0	0	0	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	A	0.5	0.9
9-Apr	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	A	0	0.4	0.9
10-Apr	0	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	1	0	0	0	A	0	1	0.6	1.5
11-Apr	1	0	0	0	1	2	0	0	0	0	0	0	0	1	1	1	1	0	1	0	A	0	0	0	0.5	1.9
12-Apr	0	0	0	1	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	A	0	0	0	0	0.4	0.7
13-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.4	0.5
14-Apr	0	0	0	0	0	0	0	0	0	0	1	2	0	0	2	2	2	A	1	0	2	0	0	1	0.7	2.1
15-Apr	0	0	1	0	0	1	0	0	1	1	2	2	3	2	0	1	A	0	0	0	0	0	0	0	0.7	2.7
16-Apr	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	A	1	1	1	1	2	3	0	1	0.7	3.3
17-Apr	0	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.3	0.5
18-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	1	1	1	0	1	1	0	0	0.4	0.7
19-Apr	1	0	0	0	0	1	0	0	1	0	0	1	A	0	0	0	0	0	0	0	0	0	0	1	0.4	0.6
20-Apr	1	0	0	0	0	2	1	0	1	4	15	A	1	2	2	1	0	0	0	0	0	0	1	0	1.4	14.9
21-Apr	0	1	0	0	0	0	0	1	0	1	A	0	1	1	1	1	0	0	1	0	0	0	0	0	0.5	0.9
22-Apr	0	0	0	0	0	0	0	0	0	A	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0.4	0.6
23-Apr	0	0	1	0	1	1	1	0	A	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0.4	0.6
24-Apr	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5
25-Apr	0	0	1	0	1	1	A	0	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0.5	0.7
26-Apr	0	0	0	1	1	A	1	1	1	1	1	1	C	C	C	0	0	0	0	0	0	0	0	1	0.6	1.0
27-Apr	1	1	1	1	A	0	1	1	1	1	1	1	1	1	0	1	0	1	1	0	0	1	1	0	0.6	0.8
28-Apr	0	0	1	A	0	0	0	0	1	7	10	2	3	1	1	0	1	1	0	1	1	1	0	0	1.4	9.6
29-Apr	1	1	A	0	1	4	3	1	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.9	4.3
30-Apr	0	A	1	0	0	1	1	3	4	1	1	1	1	1	0	0	1	0	0	0	0	0	0	0	0.8	3.6
	0.5	0.5	0.4	0.7	0.6	0.8	0.6	0.6	1.2	1.2	3.0	0.8	0.8	0.7	0.6	0.5	0.5	0.5	0.5	0.4	0.5	0.5	0.4	0.4	Diurnal Average	
	0.9	3.3	1.2	7.5	1.5	4.3	2.8	3.2	11.6	8.0	42.5	3.2	2.7	2.1	1.8	1.8	1.7	1.4	2.4	0.7	2.1	3.3	0.7	0.8	Diurnal Maximum	

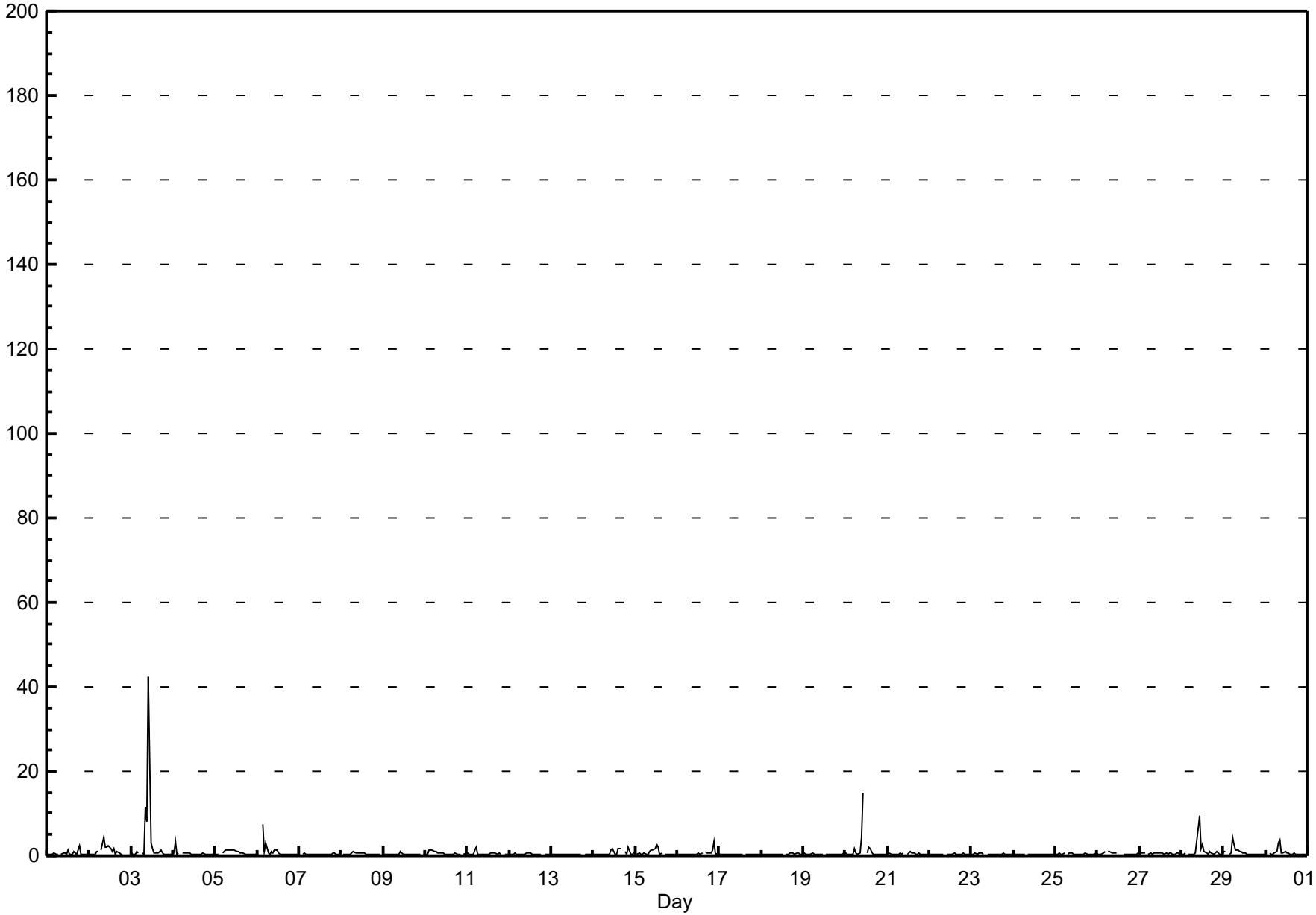
C - Calibration P - Power Failure A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

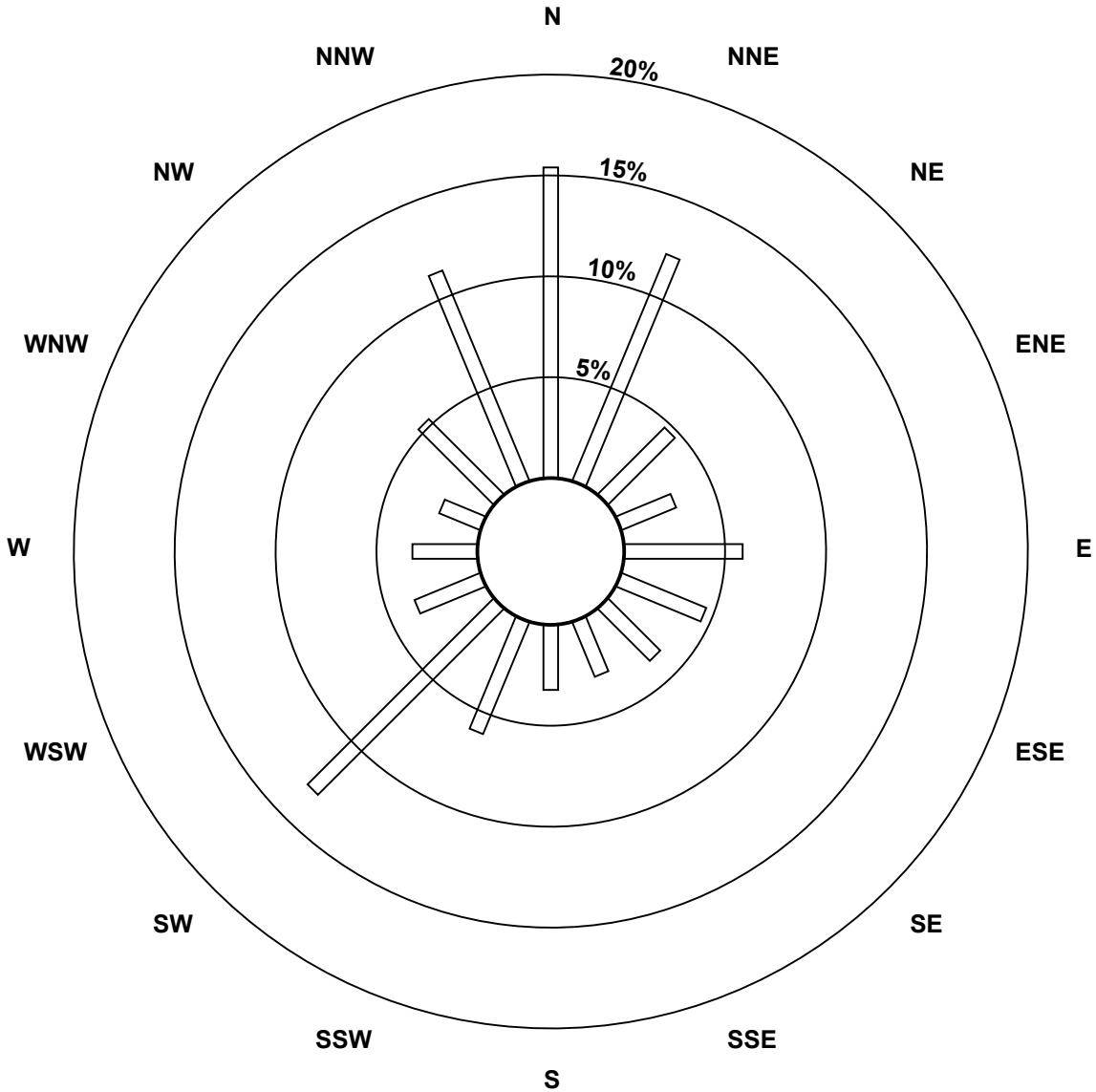
Smoky Heights - April 2017



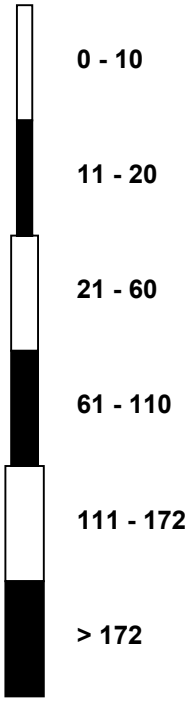
Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Smoky Heights - April 2017



Pollutant Classes (ppb)

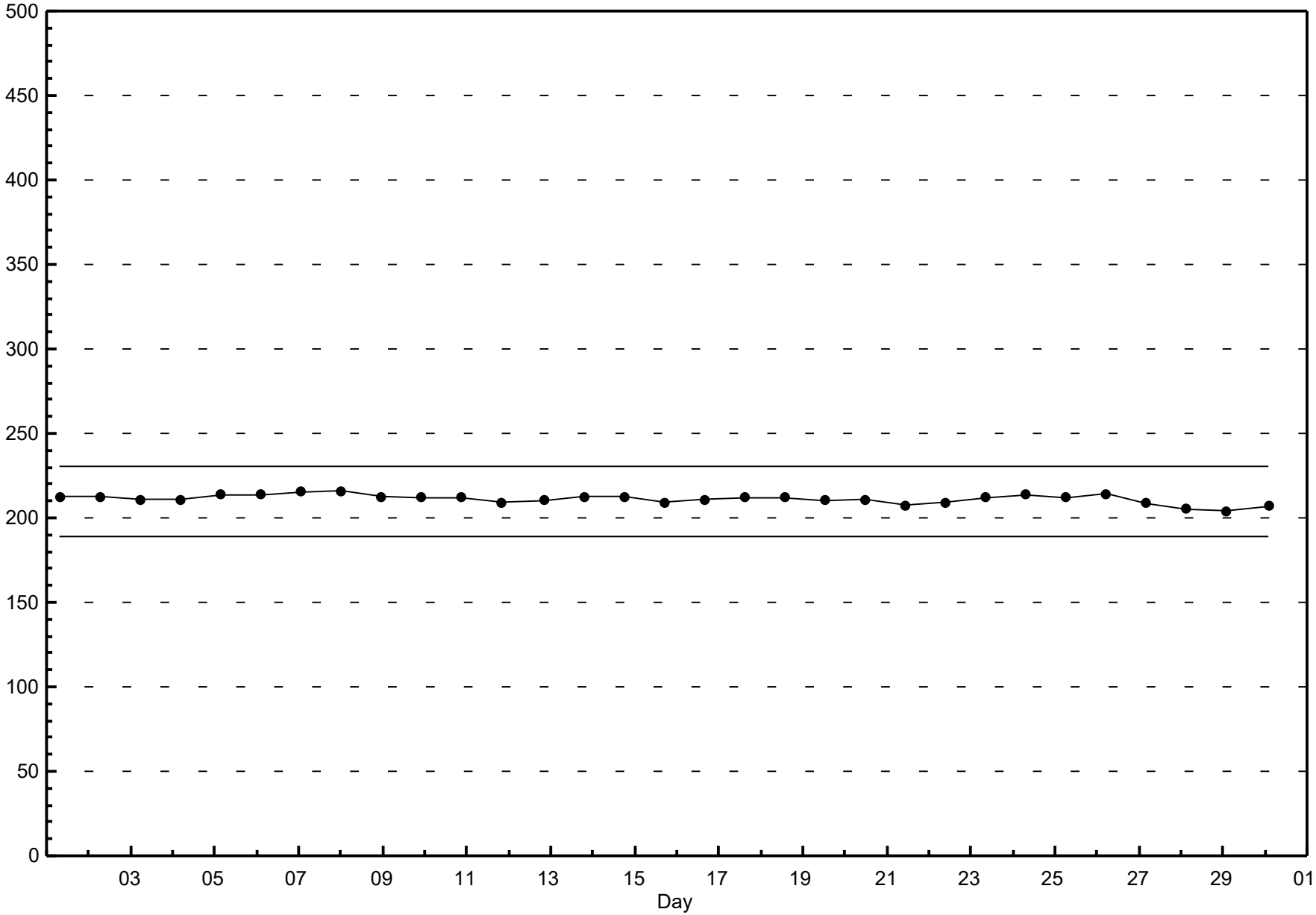


Peace Airshed Zone Association

Span Responses

Sulphur Dioxide (SO_2)

Smoky Heights - April 2017



Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Smoky Heights - April 2017

Maximum Value: 0.3 ppb on Apr 19 07:00

Maximum Daily Average: 0.2 ppb on Apr 19

Minimum Value: 0 ppb on Apr 8 17:00

Maximum Diurnal Average: 0.1 ppb at hour 7

Monthly Average: 0.11 ppb

Minimum Daily Average: 0.0 ppb on Apr 14

Minimum Diurnal Average: 0.1 ppb at hour 17

Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.1$ Median = 0.1 $Q_3 = 0.1$ $P_{90} = 0.2$ $P_{99} = 0.3$

Hours in Service:	720
Hours of Data:	681
Hours of Missing Data:	39
Hours of Calibration:	35
Percent Operational Time:	99.4

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
2-Apr	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	P	P	P	P	0.1	0.1
3-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
4-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
5-Apr	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
6-Apr	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
7-Apr	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
8-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.1	0.1
9-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.1	0.2
10-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.2
11-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	0.2
12-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.1	0.2
13-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.1	0.2
14-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.0	0.1
15-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.1	0.2
16-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.1	0.1
17-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.1	0.2
18-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.2	0.3
19-Apr	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
20-Apr	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
21-Apr	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
22-Apr	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
23-Apr	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
24-Apr	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
25-Apr	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
26-Apr	0	0	0	0	0	A	0	0	0	0	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0.2	0.3
27-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
28-Apr	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
29-Apr	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
30-Apr	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	Diurnal Average	
	0.2	0.3	0.2	0.2	0.3	0.2	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.3	0.3	0.2	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.3	Diurnal Maximum	

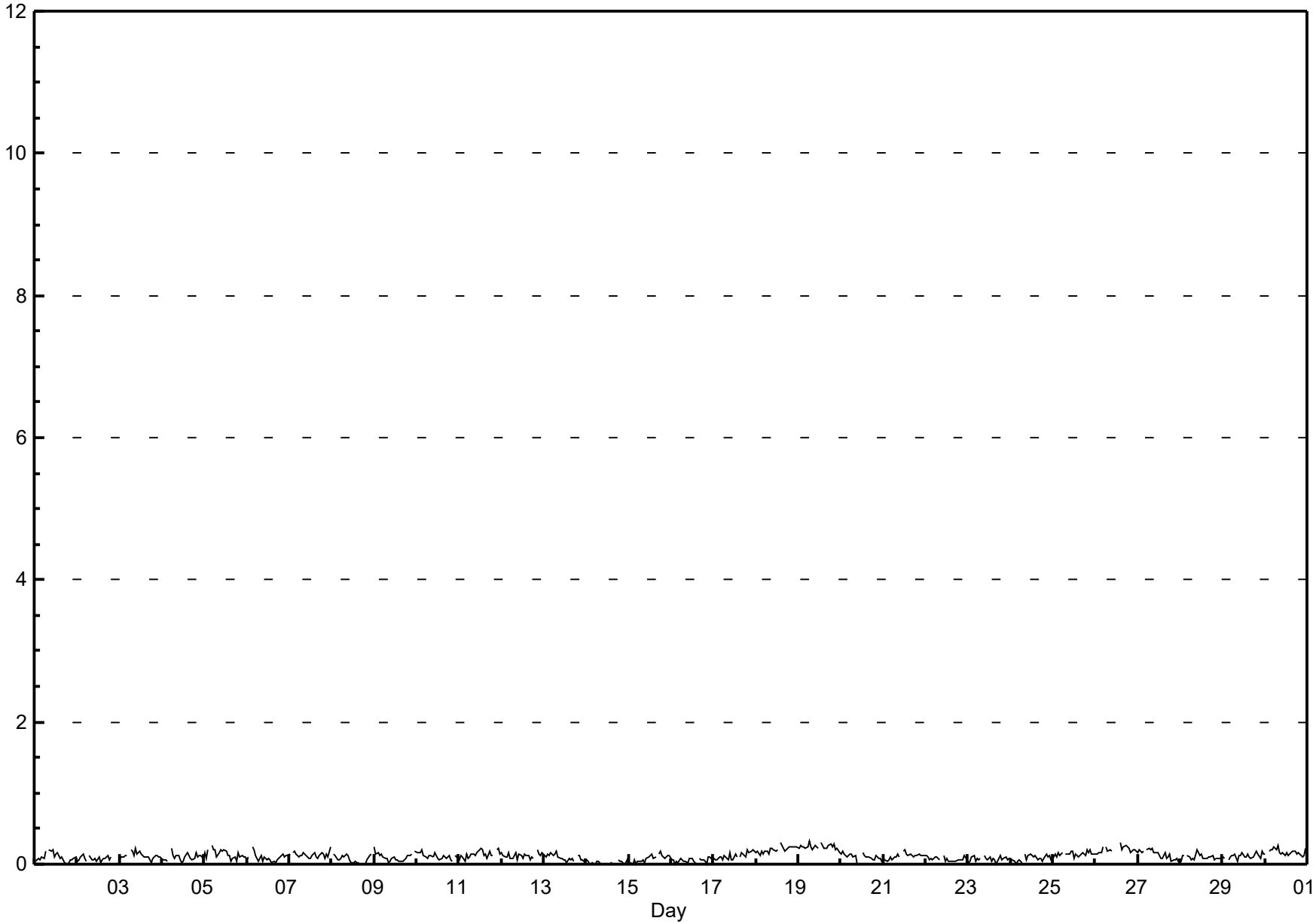
C - Calibration P - Power Failure A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Smoky Heights - April 2017



Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

Smoky Heights - April 2017

Maximum Value: 1.3 ppb on Apr 4 20:00

Maximum Daily Average: 0.7 ppb on Apr 19

Minimum Value: 0 ppb on Apr 6 07:00

Minimum Daily Average: 0.4 ppb on Apr 14

Maximum Diurnal Average: 0.6 ppb at hour 24

Minimum Diurnal Average: 0.5 ppb at hour 17

Monthly Average: 0.56 ppb

Percentiles: $P_1 = 0.4$ $P_{10} = 0.4$ $Q_1 = 0.5$ Median = 0.6 $Q_3 = 0.6$ $P_{90} = 0.7$ $P_{99} = 0.9$

Hours in Service:	720
Hours of Data:	681
Hours of Missing Data:	39
Hours of Calibration:	35
Percent Operational Time:	99.4

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	1	1	1	1	0	1	1	A	1	1	1	1	1	1	1	1	1	0	0	0	1	1	0	1	0.6	0.9
2-Apr	0	1	1	1	0	0	A	1	0	0	1	0	1	0	1	1	1	1	0	1	P	P	P	P	0.5	0.7
3-Apr	1	0	1	0	1	A	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0	1	0.6	1.2
4-Apr	1	0	1	1	A	1	1	1	0	0	1	1	0	0	1	1	1	0	1	1	1	1	1	1	0.6	1.3
5-Apr	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	1	1	0	0	1	0.6	0.8
6-Apr	0	0	A	1	1	1	0	0	1	1	0	1	1	1	1	1	1	0	0	1	1	1	0	1	0.5	0.7
7-Apr	1	A	1	1	1	0	1	0	1	1	0	1	0	0	1	0	0	0	1	0	0	1	1	1	0.6	1.1
8-Apr	A	1	1	1	0	1	1	0	1	1	1	0	1	0	1	0	0	0	0	0	0	1	1	A	0.5	0.7
9-Apr	1	1	1	1	1	1	1	1	0	1	1	1	0	0	1	1	1	0	0	1	1	1	A	1	0.6	0.9
10-Apr	1	1	1	1	0	0	0	1	1	0	0	0	1	1	0	1	0	1	1	1	1	A	1	0	0.5	0.7
11-Apr	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	A	1	1	1	0.6	0.7
12-Apr	1	1	1	0	1	1	0	1	1	0	0	1	1	1	0	1	0	1	0	A	1	1	1	1	0.5	0.7
13-Apr	1	0	1	1	0	1	1	1	1	0	0	0	1	0	0	1	0	0	A	1	1	1	0	0	0.5	0.7
14-Apr	0	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	A	0	1	1	0	0	0	0.4	0.6
15-Apr	0	0	0	0	0	1	1	1	1	0	1	1	0	1	0	1	A	0	1	0	1	1	1	0	0.5	0.7
16-Apr	0	1	0	0	1	1	1	1	0	1	1	1	1	0	1	A	0	1	1	1	1	0	0	1	0.5	0.7
17-Apr	1	0	1	0	1	1	1	1	0	1	1	1	1	1	A	0	1	0	1	1	1	1	1	1	0.6	0.8
18-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.7	1.0
19-Apr	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
20-Apr	1	1	1	1	1	1	1	0	1	0	1	A	1	1	0	1	0	0	1	1	0	0	0	0	0.5	0.8
21-Apr	0	0	1	1	1	1	1	0	1	0	A	1	1	0	1	1	1	1	0	0	1	1	0	1	0.6	1.1
22-Apr	1	0	0	0	0	1	1	0	0	A	1	0	1	0	0	1	1	1	0	0	0	1	1	1	0.5	0.8
23-Apr	1	0	0	1	1	1	1	0	A	1	1	1	0	0	1	1	0	1	1	1	1	0	0	1	0.6	0.9
24-Apr	1	0	0	0	0	1	1	A	1	0	1	0	1	0	1	1	0	0	1	1	1	0	1	0	0.5	0.6
25-Apr	0	1	1	1	0	1	A	1	1	0	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0.6	0.7
26-Apr	1	1	1	1	1	A	1	1	1	1	C	C	C	C	1	1	1	1	1	1	1	1	1	1	0.6	0.7
27-Apr	1	1	1	1	A	1	1	1	1	1	1	1	1	0	0	1	1	0	1	1	0	0	1	0	0.6	0.8
28-Apr	0	1	1	A	0	1	0	1	1	1	1	1	1	1	1	0	1	1	1	0	1	0	1	1	0.5	0.7
29-Apr	1	1	A	0	1	1	0	1	0	0	1	1	1	0	1	0	1	1	1	1	1	0	1	1	0.6	0.8
30-Apr	1	A	1	1	1	1	1	1	1	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	0.6	0.7
	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.6	0.6	0.6	0.5	0.6	0.5	0.6	0.6	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	Diurnal Average	
	1.0	0.8	0.9	0.9	0.8	0.8	0.8	0.7	0.7	1.2	0.9	0.7	0.8	0.9	0.8	0.7	0.9	0.7	0.8	1.3	0.8	0.8	0.8	1.1	Diurnal Maximum	

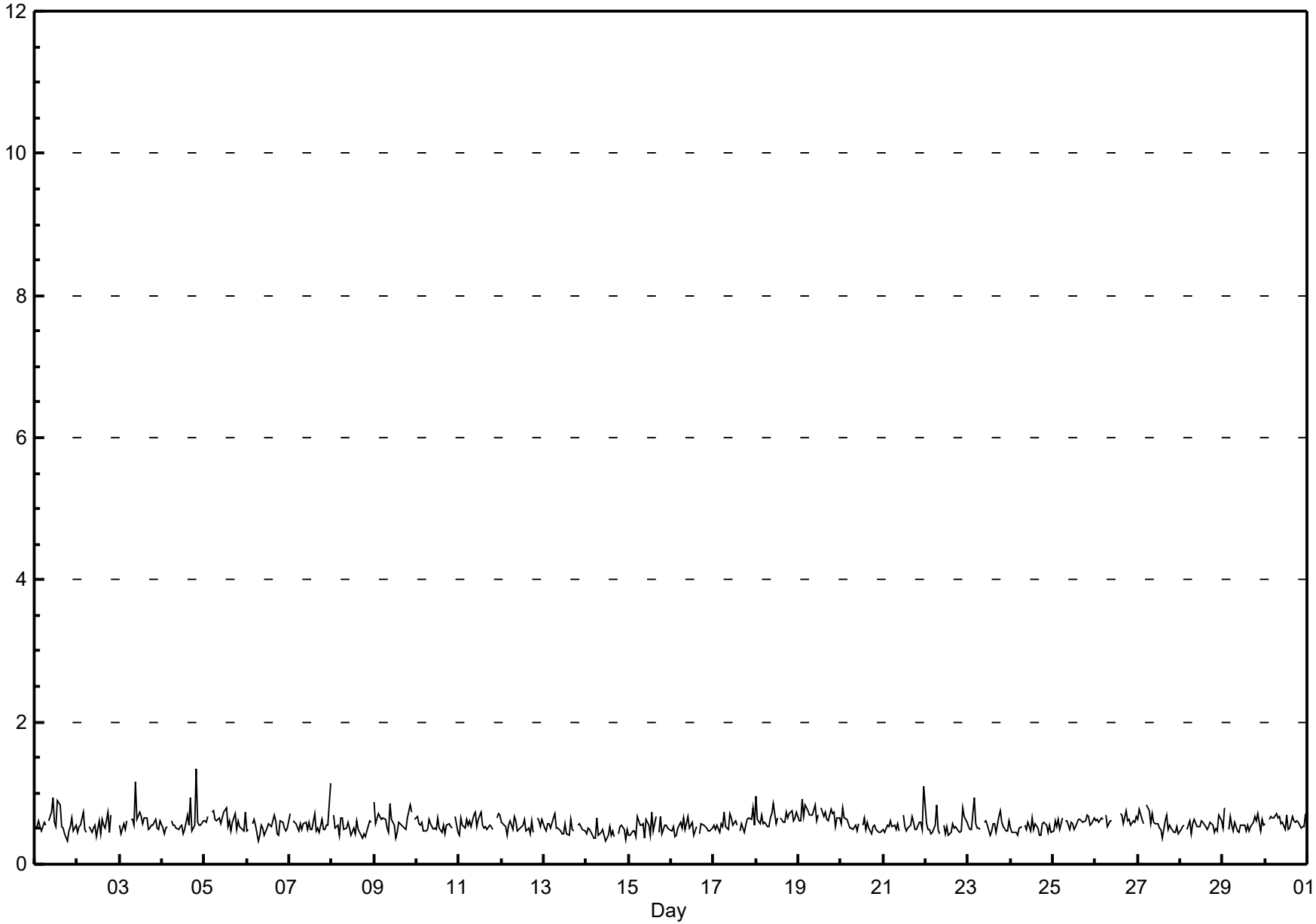
C - Calibration P - Power Failure A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

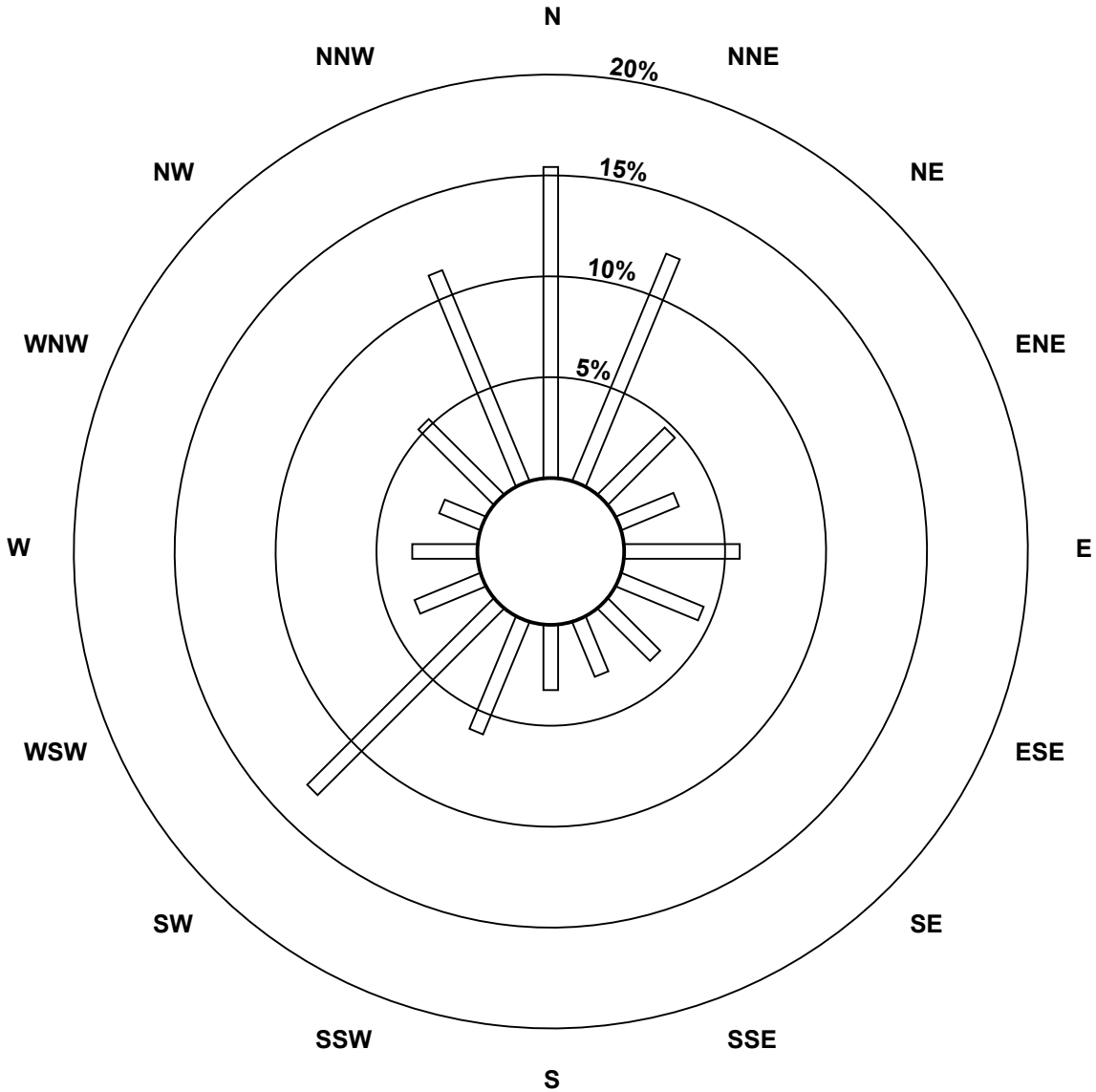
Smoky Heights - April 2017



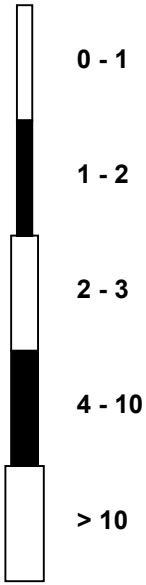
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb

Smoky Heights - April 2017



Pollutant Classes (ppb)

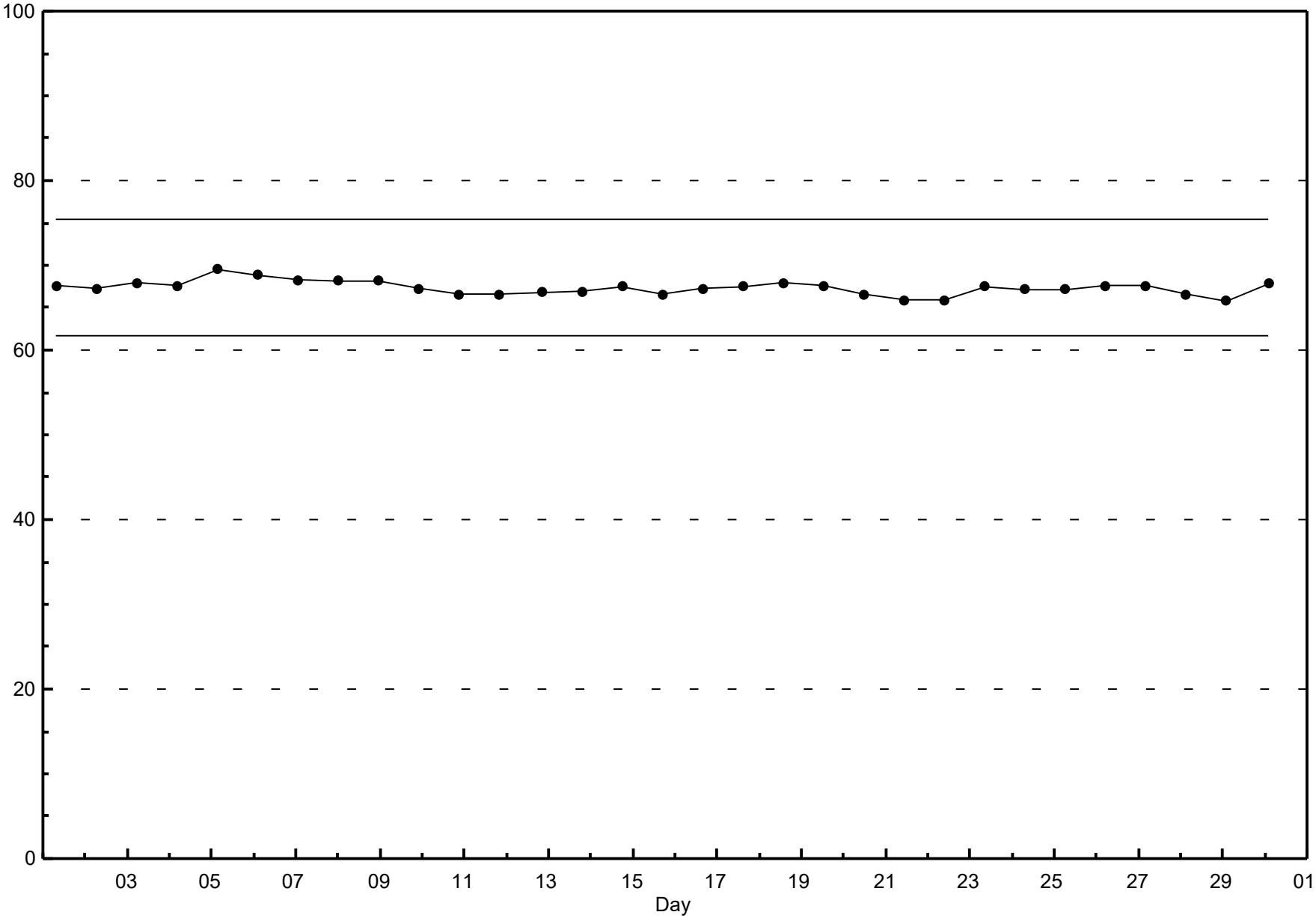


Peace Airshed Zone Association

Span Responses

Total Reduced Sulphur (TRS)

Smoky Heights - April 2017



Peace Airshed Zone Association

Hourly Averages

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

Smoky Heights - April 2017

Number of Exceedences: 1-hr: 0 24-hr: 0

Maximum Value: 41.0 $\mu g/m^3$ on Apr 19 21:00

Maximum Daily Average: 12.7 $\mu g/m^3$ on Apr 21

Minimum Value: 0 $\mu g/m^3$ on Apr 1 01:00

Maximum Diurnal Average: 4.6 $\mu g/m^3$ at hour 21

Monthly Average: 3.14 $\mu g/m^3$

Minimum Daily Average: 0.1 $\mu g/m^3$ on Apr 2

Minimum Diurnal Average: 2.5 $\mu g/m^3$ at hour 15

Percentiles: $P_1 = 0.0$ $P_{10} = 0.9$ $Q_1 = 1.4$ Median = 2.3 $Q_3 = 3.4$ $P_{90} = 5.9$ $P_{99} = 17.6$

Hours in Service:	720
Hours of Data:	716
Hours of Missing Data:	4
Hours of Calibration:	0
Percent Operational Time:	99.4

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	0	0	0	0	0	0	0	1	1	1	0	0	0	1	1	1	1	1	1	1	1	1	1	0.4	1.0
2-Apr	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	P	P	P	P	0.1	0.7
3-Apr	0	0	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	1.4	2.4
4-Apr	2	2	2	2	2	2	2	3	3	2	1	1	1	1	3	4	4	3	3	2	2	1	1	1	2.1	3.7
5-Apr	1	2	2	2	3	3	3	4	4	4	5	4	4	4	3	2	2	1	1	3	3	3	2	2	2.8	4.6
6-Apr	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	8	2	1	1	1.5	8.2
7-Apr	1	1	1	1	1	1	1	2	1	1	1	1	1	1	2	2	1	1	2	2	2	2	2	2	1.5	2.4
8-Apr	2	2	2	1	1	2	2	2	2	1	1	1	1	1	1	1	1	0	0	1	1	1	2	2	1.4	2.3
9-Apr	3	3	3	3	4	3	2	3	3	4	4	4	3	1	1	1	1	1	1	1	3	3	3	3	2.6	4.0
10-Apr	3	3	3	3	3	3	4	4	4	3	2	1	1	1	2	1	1	1	1	1	3	4	2	1	2.3	4.2
11-Apr	1	1	1	1	1	2	2	2	3	3	3	3	3	3	3	3	4	5	6	6	8	7	7	6	3.5	7.5
12-Apr	4	3	3	3	3	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	2	2	2	1.9	3.9
13-Apr	4	11	10	10	10	8	6	4	4	3	3	3	3	3	3	5	4	3	3	3	3	3	3	3	4.8	11.2
14-Apr	3	3	3	3	2	2	1	1	1	2	2	2	2	2	2	2	1	1	1	1	2	1	1	1	1.8	3.0
15-Apr	2	3	3	4	3	3	3	3	3	4	5	3	3	3	3	4	4	4	5	5	4	4	4	2	3.6	5.3
16-Apr	3	2	2	2	2	2	2	3	3	2	3	2	3	3	2	1	1	2	3	3	4	5	4	3	2.5	4.9
17-Apr	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	1	1.4	2.1
18-Apr	1	1	1	1	1	1	1	1	1	2	1	1	2	3	2	2	3	3	5	2	3	3	5	3	2.2	4.9
19-Apr	5	5	6	7	7	7	5	4	5	5	6	5	5	4	8	7	6	9	15	19	41	4	13	28	9.4	41.0
20-Apr	8	3	2	2	1	1	2	4	5	4	3	3	4	4	3	2	2	2	1	1	1	1	1	2	2.7	8.2
21-Apr	2	2	2	2	3	11	33	28	21	17	18	19	18	17	14	28	13	15	11	10	7	6	5	5	12.7	32.7
22-Apr	6	8	7	6	6	5	5	5	3	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3.5	7.9
23-Apr	3	2	3	3	2	2	2	2	3	3	3	3	3	3	2	2	2	2	1	2	3	2	4	3	2.6	4.4
24-Apr	1	2	2	1	2	3	2	2	2	5	3	2	3	2	2	2	2	3	2	2	4	4	3	3	2.4	5.1
25-Apr	13	9	3	6	15	4	2	2	2	2	1	1	1	1	1	1	2	3	2	2	2	2	2	2	3.4	14.8
26-Apr	2	3	4	4	5	5	6	4	3	4	3	3	3	3	2	3	5	6	7	9	11	12	10	9	5.2	11.7
27-Apr	8	8	8	8	9	9	9	8	7	8	6	4	4	4	4	5	4	3	4	5	5	6	6	5	6.1	9.1
28-Apr	5	5	5	6	6	6	7	5	6	7	5	3	3	3	2	2	2	2	2	1	1	1	1	1	3.7	6.9
29-Apr	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	3	3	2	2	2	1	1.5	3.3
30-Apr	2	3	3	3	3	3	3	3	2	2	3	3	3	2	2	2	2	3	3	3	3	4	3	3	2.7	3.9
	3.1	3.1	2.8	3.0	3.3	3.2	3.7	3.6	3.2	3.2	3.0	2.7	2.8	2.7	2.5	3.0	2.6	2.9	3.1	3.2	4.6	3.3	3.4	3.5	Diurnal Average	
	12.9	11.2	9.6	9.9	14.8	10.5	32.7	28.2	20.6	16.8	17.5	18.6	17.7	16.9	13.9	27.6	12.6	14.9	15.1	18.8	41.0	11.7	12.8	27.9	Diurnal Maximum	

P - Power Failure

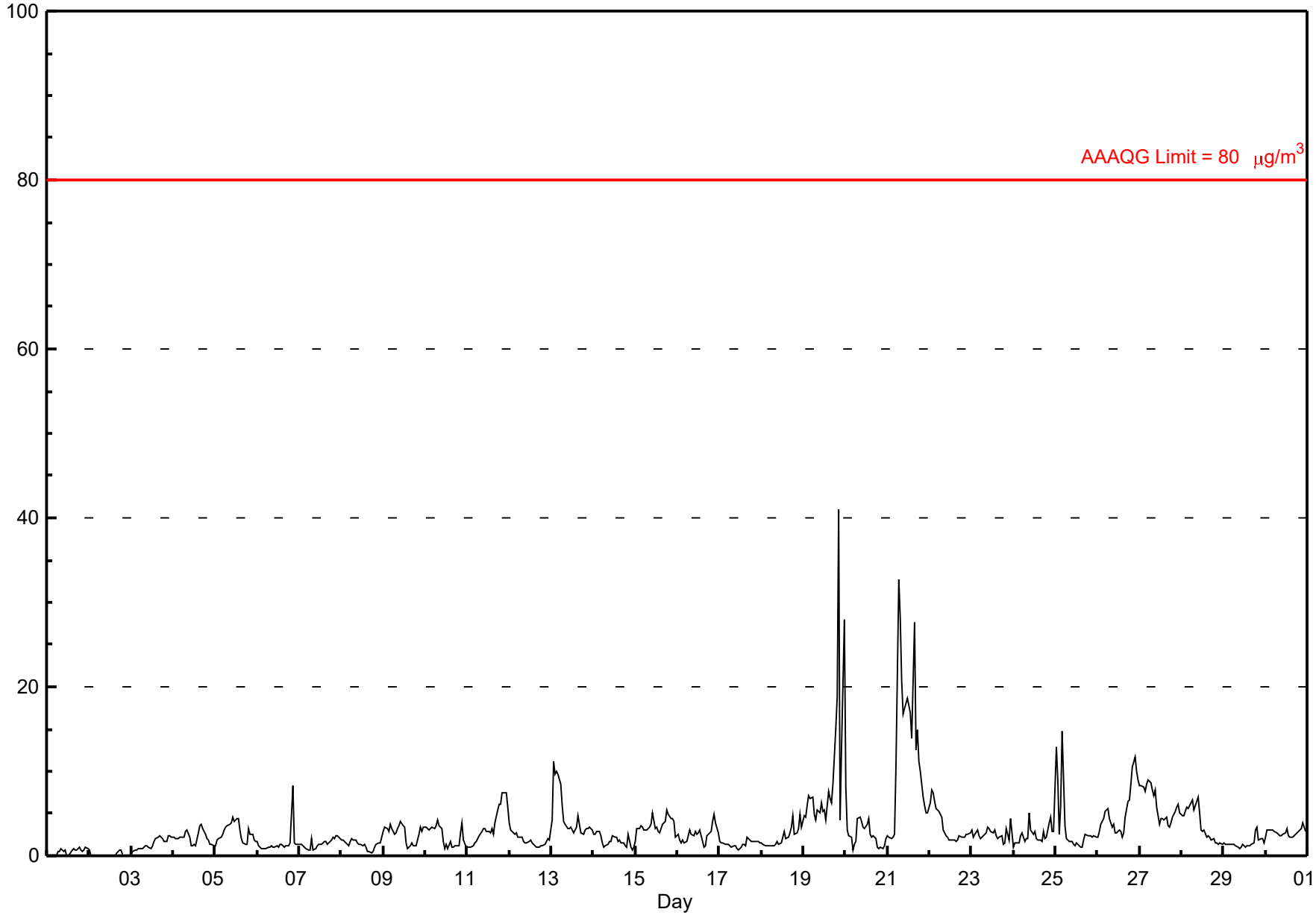
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 $\mu g/m^3$ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 $\mu g/m^3$

Peace Airshed Zone Association

Hourly Averages

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

Smoky Heights - April 2017



Peace Airshed Zone Association

Hourly Maximums

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

Smoky Heights - April 2017

Maximum Value: 217.1 $\mu g/m^3$ on Apr 25 01:00

Maximum Daily Average: 30.0 $\mu g/m^3$ on Apr 19

Minimum Value: 0 $\mu g/m^3$ on Apr 1 01:00

Maximum Diurnal Average: 12.4 $\mu g/m^3$ at hour 1

Monthly Average: 5.94 $\mu g/m^3$

Minimum Daily Average: 0.3 $\mu g/m^3$ on Apr 2

Minimum Diurnal Average: 3.8 $\mu g/m^3$ at hour 17

Percentiles: $P_1 = 0.0$ $P_{10} = 1.2$ $Q_1 = 1.7$ Median = 2.9 $Q_3 = 5.1$ $P_{90} = 8.8$ $P_{99} = 102.5$

Hours in Service:	720
Hours of Data:	716
Hours of Missing Data:	4
Hours of Calibration:	0
Percent Operational Time:	99.4

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	0	0	0	0	0	2	2	1	1	1	0	0	1	1	1	2	1	1	1	1	1	1	1	0.9	1.9
2-Apr	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	P	P	P	P	0.3	1.4
3-Apr	1	1	1	1	1	1	1	1	1	1	2	1	2	2	2	2	3	3	2	2	2	3	3	3	1.8	3.1
4-Apr	2	2	2	2	2	2	3	10	5	3	2	1	2	2	4	9	4	4	3	4	2	2	2	1	3.2	10.2
5-Apr	2	2	2	2	3	3	4	4	4	4	12	4	5	5	5	3	2	2	2	9	6	4	5	2	4.1	12.4
6-Apr	2	2	1	1	1	1	1	1	4	2	1	2	1	2	2	1	1	1	1	2	43	2	2	2	3.3	42.7
7-Apr	2	1	1	1	1	1	1	9	1	1	1	1	1	1	2	2	2	2	2	3	2	3	3	2	2.1	9.3
8-Apr	2	2	2	2	1	2	2	2	2	2	1	1	1	1	1	1	1	0	0	1	2	2	2	3	1.6	2.7
9-Apr	4	4	4	3	5	4	3	3	5	4	5	5	4	2	2	1	2	1	2	1	4	4	4	4	3.4	5.1
10-Apr	4	4	4	4	4	4	5	5	4	4	3	1	2	1	2	2	1	1	1	1	16	6	3	1	3.5	16.1
11-Apr	1	1	1	2	2	2	2	3	4	4	3	3	3	3	4	3	5	6	7	8	8	9	10	7	4.2	9.8
12-Apr	5	3	3	3	3	2	3	5	2	2	2	2	2	2	2	1	1	1	2	1	2	2	2	2	2.4	5.3
13-Apr	13	13	10	11	10	9	7	5	4	4	4	4	4	3	4	6	5	3	3	4	4	4	4	3	5.9	13.4
14-Apr	3	3	3	3	3	2	1	2	2	2	2	3	3	3	2	2	2	2	2	1	4	2	1	1	2.3	3.6
15-Apr	3	4	4	4	4	4	3	4	4	5	13	4	4	3	3	5	4	5	7	7	5	5	5	3	4.7	12.7
16-Apr	3	2	2	3	2	2	3	4	3	3	4	3	4	4	2	1	2	3	3	3	5	6	5	4	3.2	5.6
17-Apr	2	2	2	1	2	1	1	1	1	1	2	1	2	2	3	1	15	3	2	2	2	2	2	2	2.3	15.1
18-Apr	2	1	1	1	1	1	1	1	2	2	2	2	3	4	3	2	4	7	6	3	3	6	6	4	2.8	6.6
19-Apr	7	6	7	8	8	8	7	5	8	7	9	6	6	7	9	8	7	24	57	84	127	5	105	195	30.0	195.2
20-Apr	59	50	16	20	1	2	3	5	6	6	4	6	5	5	4	2	3	4	1	1	1	1	3	5	9.0	59.3
21-Apr	3	2	2	3	3	38	36	34	29	19	22	29	29	34	40	142	15	23	13	11	8	7	6	6	23.1	142.4
22-Apr	7	9	8	7	6	6	6	6	4	3	3	2	2	2	2	2	2	3	2	2	3	3	3	4	4.0	8.5
23-Apr	4	3	3	3	3	3	2	3	4	4	4	3	4	5	5	3	5	6	3	2	10	2	15	12	4.7	15.4
24-Apr	3	6	5	3	7	8	3	5	5	14	7	6	4	2	2	2	3	9	5	3	10	19	3	3	5.7	18.8
25-Apr	217	116	3	31	104	36	3	2	2	2	2	1	2	2	1	1	3	3	3	3	2	3	3	3	22.8	217.1
26-Apr	3	3	5	5	7	7	7	6	4	4	3	3	4	4	3	3	6	7	8	10	12	12	11	9	6.1	12.4
27-Apr	9	9	9	9	9	9	10	12	8	9	7	4	16	17	6	9	5	4	5	5	6	7	9	6	8.3	17.3
28-Apr	5	5	7	7	6	7	8	7	9	8	8	9	6	8	3	3	3	2	3	2	2	1	2	2	5.1	9.5
29-Apr	2	2	2	1	2	1	1	1	1	1	1	2	1	1	1	1	2	2	6	5	2	3	3	2	2.0	6.1
30-Apr	3	3	3	3	3	3	3	3	3	3	7	4	14	5	7	7	4	4	3	6	4	5	4	3	4.5	13.7
	12.4	8.8	3.9	4.9	6.8	5.7	4.4	5.1	4.4	4.1	4.6	3.9	4.6	4.6	4.3	7.6	3.8	4.6	5.3	6.3	10.3	4.4	7.8	10.2	Diurnal Average	
	217.1	116.2	16.3	30.5	103.5	37.8	35.6	33.9	28.8	19.0	22.5	29.3	29.1	34.4	40.0	142.4	15.1	23.7	56.9	83.8	127.3	18.8	105.0	195.2	Diurnal Maximum	

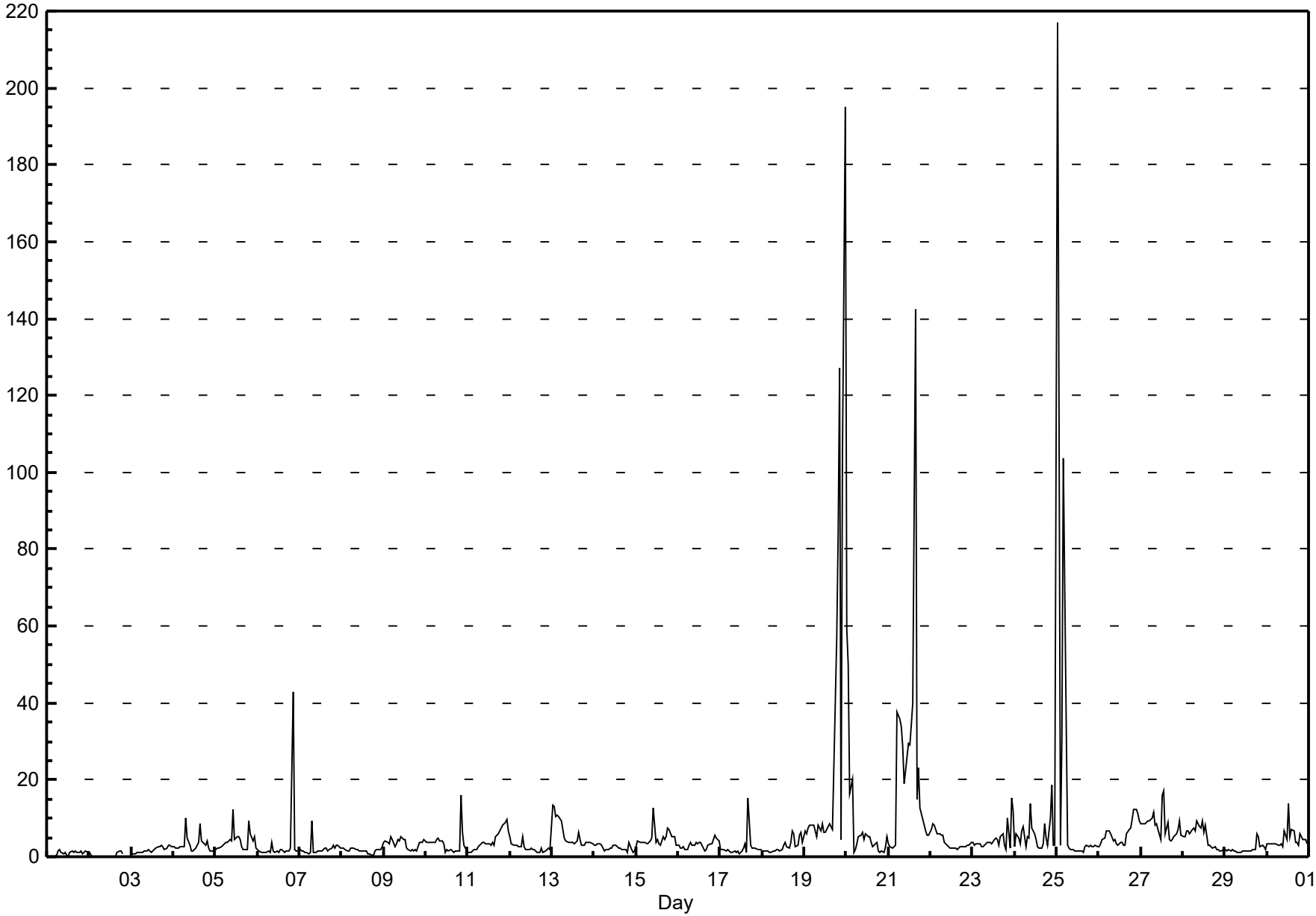
P - Power Failure

Peace Airshed Zone Association

Hourly Maximums

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

Smoky Heights - April 2017

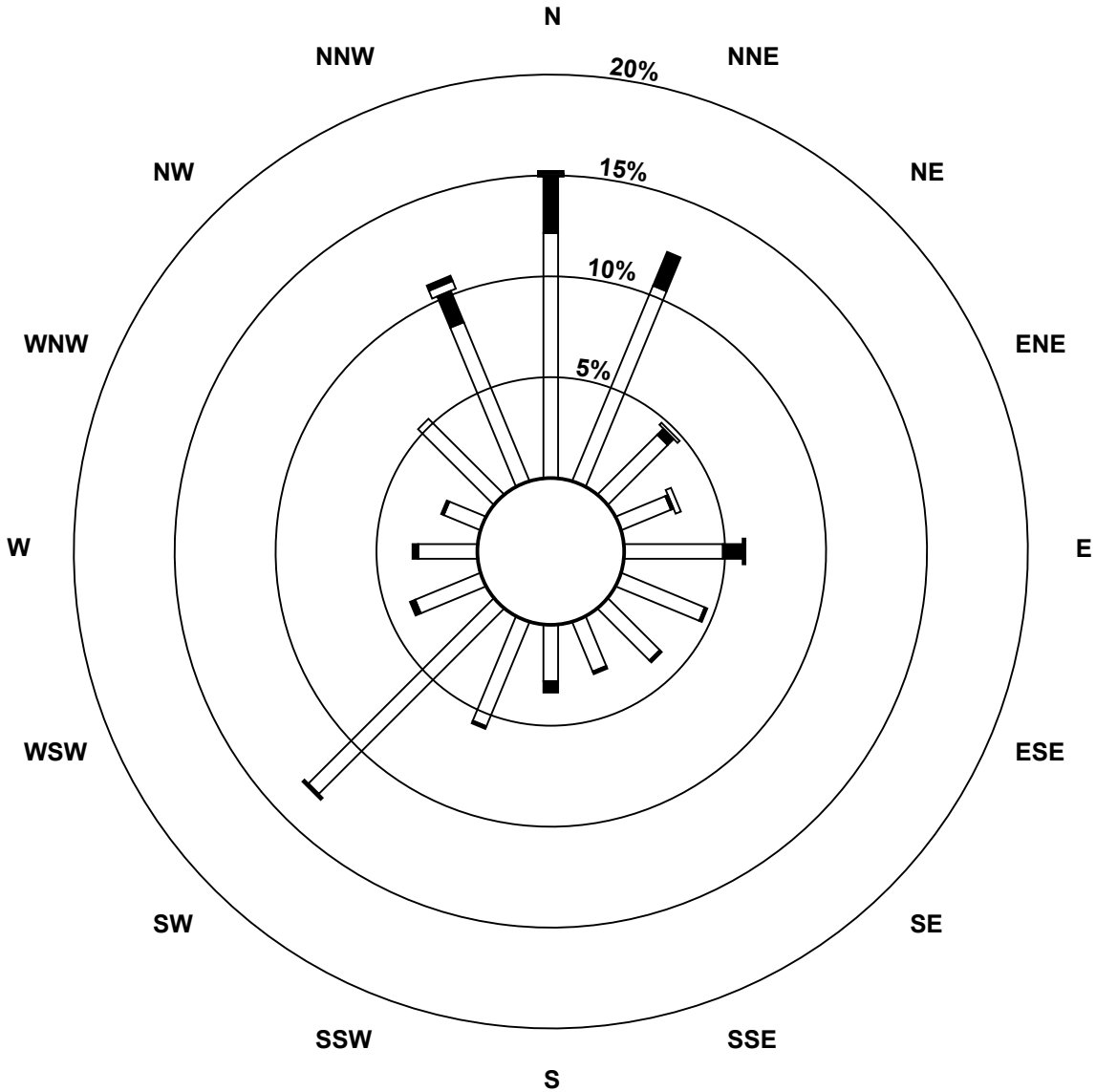


Peace Airshed Zone Association

Pollutant Rose

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

Smoky Heights - April 2017



Pollutant Classes ($\mu g/m^3$)

- 0 - 5
- 6 - 15
- 16 - 25
- 26 - 80
- > 80.0

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - °C

Smoky Heights - April 2017

Maximum Value: 13.8 °C on Apr 29 17:00

Maximum Daily Average: 8.1 °C on Apr 29

Minimum Value: -7 °C on Apr 18 07:00

Minimum Daily Average: -5.0 °C on Apr 18

Maximum Diurnal Average: 7.0 °C at hour 17

Minimum Diurnal Average: -0.5 °C at hour 6

Monthly Average: 3.03 °C

Percentiles: P_1 = -6.4 P_{10} = -1.5 Q_1 = 0.1 Median = 2.5 Q_3 = 5.8 P_{90} = 9.2 P_{99} = 12.1

Hours in Service:	720
Hours of Data:	717
Hours of Missing Data:	3
Hours of Calibration:	0
Percent Operational Time:	99.6

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	3	2	1	1	0	1	1	1	2	3	4	5	7	8	9	10	10	10	8	6	4	4	3	3	4.5	10.4
2-Apr	3	2	1	1	1	1	1	1	2	3	4	5	6	6	6	7	7	6	6	3	P	P	P	1	3.4	6.8
3-Apr	1	0	0	0	0	0	-1	0	1	2	4	5	6	6	6	7	7	7	7	4	2	2	1	0	2.8	7.4
4-Apr	0	0	-1	-1	-2	-3	-3	-1	2	5	6	7	8	8	9	9	10	9	8	6	5	4	3	3	3.7	9.5
5-Apr	2	3	3	3	3	2	2	3	3	4	5	5	6	9	10	12	13	13	12	9	7	4	3	1	5.6	12.9
6-Apr	5	3	3	3	1	1	0	3	4	5	6	8	10	10	11	10	10	10	9	8	7	6	5	5	6.0	10.8
7-Apr	4	4	3	2	2	2	2	2	2	2	3	4	5	5	6	7	7	7	7	7	6	5	6	5	4.3	7.2
8-Apr	5	4	4	4	3	3	3	2	3	4	5	6	6	7	7	8	8	8	6	5	3	2	1	1	4.4	8.0
9-Apr	1	1	1	1	1	0	0	0	2	5	6	8	9	9	10	11	11	11	10	8	6	5	5	3	5.1	10.9
10-Apr	2	2	1	2	2	1	1	1	4	6	8	10	10	7	5	5	6	5	5	5	3	2	2	2	4.0	9.9
11-Apr	1	1	1	1	2	3	2	2	2	3	5	5	6	8	9	10	10	10	9	7	5	4	3	2	4.7	10.0
12-Apr	1	1	1	0	0	-1	-1	-1	0	2	4	5	7	7	8	8	8	8	6	6	5	4	4	3	3.5	8.0
13-Apr	3	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	2.7
14-Apr	0	0	0	0	0	0	0	0	1	1	1	1	2	2	1	2	2	1	0	0	0	0	0	0	0.4	1.6
15-Apr	0	-1	-1	-1	-1	-1	-2	-1	-1	0	2	5	6	3	4	5	5	5	4	1	0	-1	-1	-1	1.1	5.8
16-Apr	-1	-1	-1	-2	-2	-2	-1	-1	1	4	4	4	4	6	9	10	11	9	8	6	4	4	4	3	3.3	10.8
17-Apr	2	2	1	0	0	-1	-2	-2	-2	-2	-2	-1	-1	-1	-1	-2	-2	-3	-3	-4	-5	-5	-5	-5	-1.9	2.3
18-Apr	-6	-6	-6	-6	-7	-7	-7	-7	-7	-7	-6	-5	-4	-3	-2	-2	-2	-3	-3	-4	-5	-5	-5	-5	-5.0	-1.9
19-Apr	-5	-5	-5	-5	-5	-5	-5	-4	-2	0	0	1	4	4	5	6	7	9	9	7	4	4	4	4	1.1	8.7
20-Apr	4	2	1	1	0	0	0	1	3	6	7	9	9	6	5	4	4	3	2	1	0	0	0	-1	2.8	9.5
21-Apr	-1	-1	-1	-1	-1	-1	-1	0	1	2	3	4	5	5	5	6	6	5	5	4	3	2	2	1	2.1	5.6
22-Apr	1	1	0	0	0	-1	-1	-1	-1	0	1	2	2	3	4	4	4	4	4	3	3	2	2	1	1.5	4.3
23-Apr	0	-1	-1	-2	-2	-2	-2	-2	-2	-1	0	0	1	1	2	2	2	2	1	1	0	0	0	-1	-0.2	2.4
24-Apr	-1	-1	-1	-1	-1	-2	-2	-2	-1	0	0	1	1	2	2	3	3	4	3	2	1	-1	-1	-2	0.2	4.0
25-Apr	-3	-3	-3	-4	-5	-5	-3	-1	1	2	4	3	4	5	5	6	6	6	6	5	4	3	2	1	1.6	6.3
26-Apr	1	1	0	0	-1	-1	0	1	3	4	5	6	6	8	9	8	10	10	9	8	5	4	3	1	4.1	9.7
27-Apr	1	0	-1	-1	-2	-2	-1	0	3	5	7	9	10	10	10	11	11	10	9	8	7	5	4	2	4.8	10.8
28-Apr	2	0	-1	1	0	0	1	3	5	7	9	11	11	11	8	10	11	10	10	10	9	8	8	6	6.2	10.9
29-Apr	4	4	3	3	2	2	3	4	6	8	9	11	12	12	12	14	14	13	13	12	10	9	9	8	8.1	13.8
30-Apr	8	7	5	4	4	4	5	6	8	9	10	10	10	10	10	12	12	11	9	10	8	7	4	3	7.8	12.3
	1.2	0.8	0.3	0.0	-0.3	-0.5	-0.4	0.2	1.5	2.8	3.8	4.8	5.5	5.8	6.2	6.7	7.0	6.7	6.0	4.8	3.5	2.7	2.2	1.4	Diurnal Average	
	7.7	6.9	5.5	3.9	3.9	4.1	5.1	6.3	8.0	9.2	10.1	10.9	11.6	12.3	12.3	13.6	13.8	13.4	12.7	11.5	9.9	9.1	8.6	8.1	Diurnal Maximum	

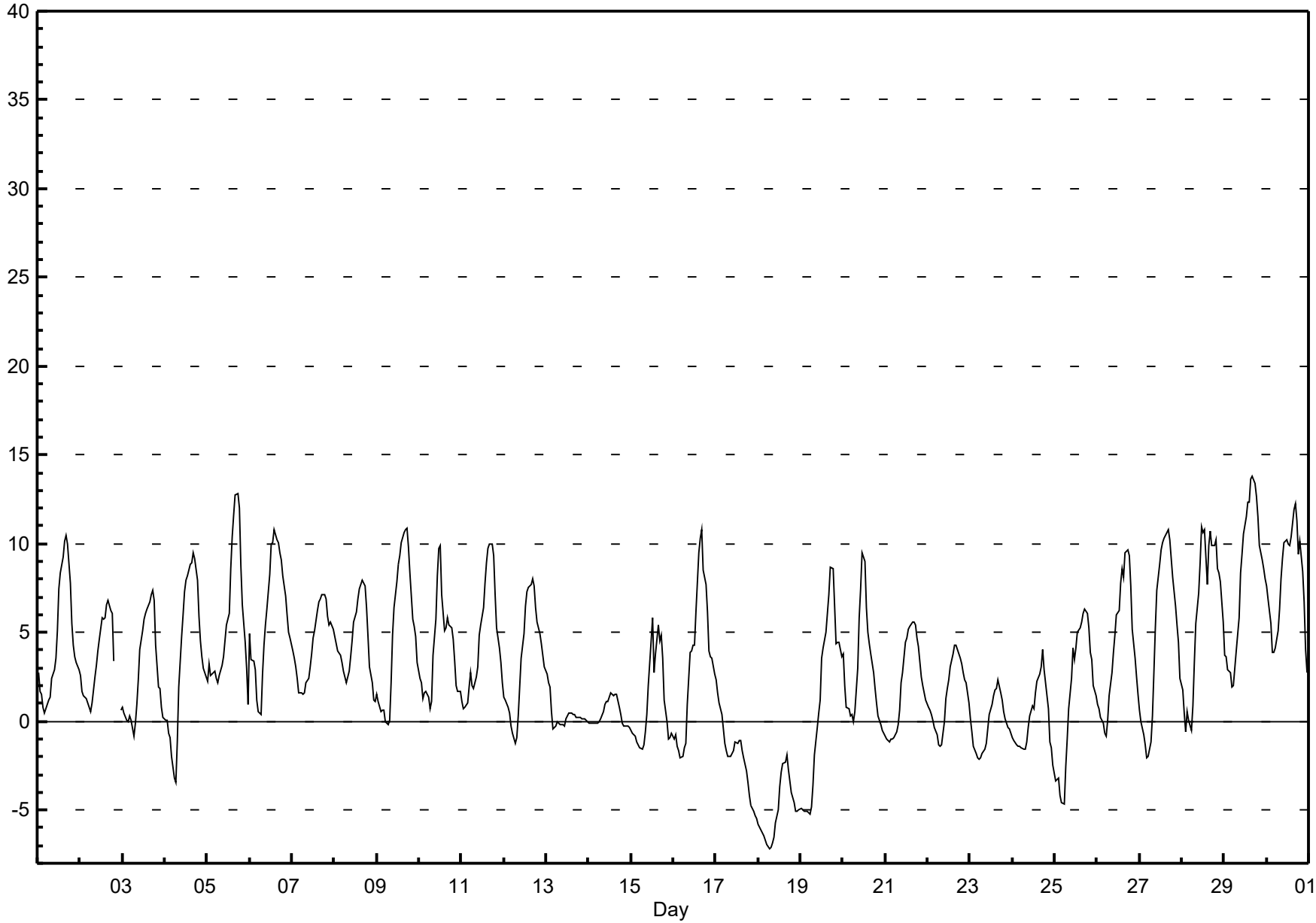
P - Power Failure

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Smoky Heights - April 2017



Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Smoky Heights - April 2017

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1 Spd	19	16	10	3	7	10	8	10	10	20	16	21	26	23	24	27	32	28	21	19	20	24	25	23	18.2	31.8
Dir	201	199	207	209	194	213	230	218	216	211	208	215	217	216	217	225	228	230	224	219	219	220	226	223	218.0	227.6
2 Spd	19	20	21	19	24	20	21	22	27	32	30	29	28	27	27	27	27	23	25	18	5	9	8	13	20.8	31.7
Dir	218	227	221	230	229	227	227	233	233	233	225	224	219	226	217	212	222	236	230	292	287	168	199	222	226.7	233.0
3 Spd	22	25	25	25	26	21	17	18	21	20	14	11	10	10	12	15	18	16	12	7	8	13	18	19	16.4	26.2
Dir	233	228	228	231	235	235	212	215	220	226	217	206	206	209	220	207	213	223	203	198	187	211	214	217	220.0	234.7
4 Spd	19	19	17	3	5	3	4	2	3	3	3	3	1	4	1	3	1	5	9	11	13	11	10	14	0.4	19.2
Dir	226	228	237	256	176	232	301	164	92	126	135	138	218	147	265	343	314	66	38	31	38	42	51	58	82.6	228.3
5 Spd	11	23	24	25	26	20	17	13	9	7	9	7	6	6	8	7	4	5	2	2	4	6	8	5	8.3	25.6
Dir	42	106	109	111	114	119	122	127	123	134	143	141	132	141	111	110	100	120	113	266	261	253	237	249	120.2	114.2
6 Spd	12	12	12	18	16	17	19	15	10	10	7	8	9	12	7	10	7	7	3	4	6	15	10	8	5.7	18.9
Dir	265	240	217	230	229	224	240	257	156	205	207	156	140	146	134	114	114	104	82	86	72	111	113	127	186.2	239.8
7 Spd	7	6	8	7	5	6	5	6	6	7	8	10	9	7	12	11	8	7	13	14	11	9	10	9	7.3	14.4
Dir	148	112	83	68	69	17	355	358	16	5	14	13	23	25	26	42	60	12	24	29	26	16	39	30	32.4	29.2
8 Spd	10	12	13	13	11	10	12	9	7	9	10	10	12	7	11	15	14	12	9	6	8	10	9	6	6.2	14.5
Dir	29	40	44	42	37	20	29	38	34	34	57	75	95	54	45	77	81	98	111	191	211	231	231	242	58.5	76.6
9 Spd	5	5	4	4	5	7	7	6	2	4	4	6	8	11	12	13	11	8	5	2	9	9	13	11	2.3	13.1
Dir	5	1	349	341	351	349	344	351	20	129	176	172	176	200	210	212	214	229	211	223	118	132	136	146	183.3	212.3
10 Spd	4	4	5	1	4	3	4	3	5	8	8	5	8	8	15	15	8	18	11	3	4	7	10	6	3.7	17.9
Dir	150	184	146	230	185	177	204	160	164	221	199	152	92	264	266	124	269	285	275	112	231	230	245	287	223.8	284.6
11 Spd	5	4	1	2	5	9	9	9	14	13	13	14	13	12	11	12	12	13	16	14	13	13	15	14	10.0	15.8
Dir	279	356	231	156	298	322	333	331	346	356	350	13	352	350	358	360	1	14	0	349	349	348	344	351	349.8	0.4
12 Spd	13	16	16	13	12	15	16	18	15	18	19	20	22	20	21	21	23	23	22	17	16	16	14	15	16.7	22.7
Dir	354	0	0	356	355	358	358	360	11	28	31	36	28	29	30	33	29	36	43	33	35	42	32	24	22.2	35.8
13 Spd	15	12	14	17	18	18	18	20	22	20	21	22	23	22	21	22	21	22	23	22	21	21	20	17	19.6	23.1
Dir	22	11	12	19	12	12	21	21	21	20	18	17	16	15	13	15	11	10	14	16	15	13	13	11	15.3	13.8
14 Spd	17	16	15	12	11	12	11	11	11	11	11	11	12	11	11	11	11	9	8	8	8	8	9	8	10.2	16.6
Dir	7	5	2	356	345	348	343	341	340	339	322	314	307	311	314	314	314	318	322	321	310	303	302	320	332.1	7.4
15 Spd	9	9	9	10	7	9	8	6	6	6	5	3	3	5	4	1	2	1	1	5	4	1	2	6	2.9	9.9
Dir	343	340	339	338	325	320	326	341	328	328	351	13	196	219	238	109	99	294	7	98	80	184	168	137	337.1	338.3
16 Spd	8	9	5	4	6	6	8	6	7	8	6	10	12	6	2	2	2	7	4	3	5	7	9	8	3.0	11.6
Dir	142	132	139	161	169	181	187	188	173	161	225	220	224	234	242	245	266	258	247	276	311	342	337	352	208.5	224.3
17 Spd	9	15	20	19	22	25	23	25	26	25	24	25	25	26	22	17	17	16	15	17	17	18	16	16	19.7	26.1
Dir	348	355	359	354	355	358	357	357	355	355	352	350	349	349	348	344	338	333	334	331	330	330	332	329	347.3	354.9
18 Spd	17	16	18	16	15	13	13	12	12	12	12	12	10	10	9	9	7	8	7	5	5	5	6	4	10.5	18.2
Dir	332	335	339	339	339	337	337	334	324	324	325	324	325	324	326	325	336	330	332	332	340	337	337	334	332.0	339.4
19 Spd	5	5	4	2	4	4	2	3	5	7	8	8	5	1	6	5	4	3	4	6	5	6	5	6	1.3	8.5
Dir	336	351	353	345	356	4	31	166	154	145	143	110	86	218	273	249	249	283	338	354	350	333	336	348	348.3	142.7
20 Spd	4	2	1	3	5	5	6	6	9	9	9	5	12	18	20	21	17	14	12	14	12	10	7	5	5.6	20.6
Dir	349	350	335	239	177	193	157	164	196	224	268	277	339	329	320	326	344	359	4	9	6	13	359	347	332.4	326.1
21 Spd	6	7	4	5	2	1	1	3	2	2	2	3	8	13	12	12	12	12	13	10	9	8	8	8	5.9	12.9
Dir	343	20	56	71	86	332	236	88	76	73	42	344	349	342	344	334	335	333	342	349	7	9	14	23	357.2	341.8
22 Spd	9	14	15	16	19	19	19	15	18	16	17	19	16	19	19	22	19	18	18	12	12	10	10	13	14.8	21.5
Dir	16	4	13	13	17	23	14	17	23	24	28	21	37	44	49	34	51	52	61	47	32	34	62	129	33.1	34.0

Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Smoky Heights - April 2017

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
23 Spd	12	10	10	14	14	13	13	13	14	14	15	14	14	13	11	12	13	12	12	10	8	9	8	10	11.3	14.7
Dir	95	29	11	14	17	15	16	11	10	17	18	18	8	360	1	3	354	345	360	0	351	6	355	352	10.1	18.1
24 Spd	11	10	10	9	10	11	13	13	13	14	13	13	13	11	11	11	11	11	13	9	5	2	7	5	9.5	13.6
Dir	359	353	356	358	354	353	356	353	356	348	351	350	326	323	325	319	310	326	5	6	5	260	269	280	342.4	348.2
25 Spd	1	5	3	3	1	2	1	2	3	3	3	7	7	10	11	11	10	12	13	11	9	10	13	14	5.6	14.4
Dir	6	280	272	3	18	296	20	98	126	98	97	128	116	92	100	90	78	105	96	82	59	59	59	90	85.2	89.8
26 Spd	18	19	17	16	9	6	5	11	20	23	20	14	13	10	8	8	5	9	12	12	15	13	14	12	11.0	22.8
Dir	109	109	110	102	90	50	41	95	111	107	101	91	79	67	65	52	30	356	5	17	92	87	101	92	86.5	106.7
27 Spd	12	8	6	3	4	6	8	4	2	2	3	4	6	5	9	10	12	14	12	6	7	5	4	3	4.6	13.7
Dir	98	94	104	95	356	344	351	355	21	355	21	355	354	324	314	332	358	4	5	27	38	44	47	273	12.0	4.1
28 Spd	3	2	2	4	6	7	4	6	6	8	8	11	16	18	8	3	15	17	15	9	16	14	10	10	8.0	18.1
Dir	311	307	196	176	161	184	179	182	175	197	224	229	230	242	252	289	204	219	232	213	233	265	261	197	223.0	241.6
29 Spd	11	12	12	12	12	14	16	9	11	10	17	13	8	5	11	6	4	11	7	7	8	10	12	12	5.6	16.7
Dir	227	241	238	241	218	216	219	206	204	187	212	208	221	193	214	190	81	91	94	71	74	81	87	93	193.0	212.3
30 Spd	7	5	5	6	5	6	5	12	18	12	13	16	17	16	14	14	14	13	17	15	19	9	7	12	8.8	19.0
Dir	85	140	155	189	224	221	228	221	224	248	228	231	237	293	287	306	296	277	230	244	282	322	257	234	251.2	281.7
Spd	1.6	1.7	1.7	2.2	1.9	3.1	3.2	2.5	1.4	1.3	1.5	1.5	2.0	3.5	4.0	3.3	3.4	3.9	3.8	4.6	3.8	2.9	2.0	1.0	Diurnal Average	
Dir	344.6	347.4	354.1	355.0	335.1	327.6	329.5	335.1	345.1	320.7	327.2	342.4	333.7	321.2	321.7	349.2	331.8	332.7	352.1	359.8	1.3	3.3	348.8	357.3		
Spd	21.8	24.8	24.9	25.2	26.2	24.8	22.7	25.1	26.8	31.7	30.2	28.9	27.8	27.3	26.6	27.5	31.8	27.9	24.7	21.9	20.9	24.1	24.8	23.0	Diurnal Maximum	
Dir	233.4	228.1	228.1	231.2	234.7	358.3	356.9	357.2	233.0	233.0	225.1	224.1	218.7	225.9	216.9	225.2	227.6	230.2	229.7	16.2	14.6	219.6	226.3	222.5		

Maximum Speed Value: 32 km/h on Apr 1 17:00
Maximum Daily Speed Average: 20.8 km/h on Apr 2
Maximum Diurnal Speed Average: 4.6 km/h at hour 20

Minimum Speed Value: 1 km/h on Apr 4 13:00
Minimum Daily Speed Average: 0.4 km/h on Apr 19
Minimum Diurnal Speed Average: 1.0 km/h at hour 24

Monthly Average Velocity: 2.51 km/h 341.45 deg

Speed Percentiles: $P_1 = 0.9$ $P_{10} = 3.5$ $Q_1 = 6.2$ Median = 10.4 $Q_3 = 15.0$ $P_{90} = 20.4$ $P_{99} = 27.2$

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

Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Percent Operational Time:	100.0

Frequency Distribution

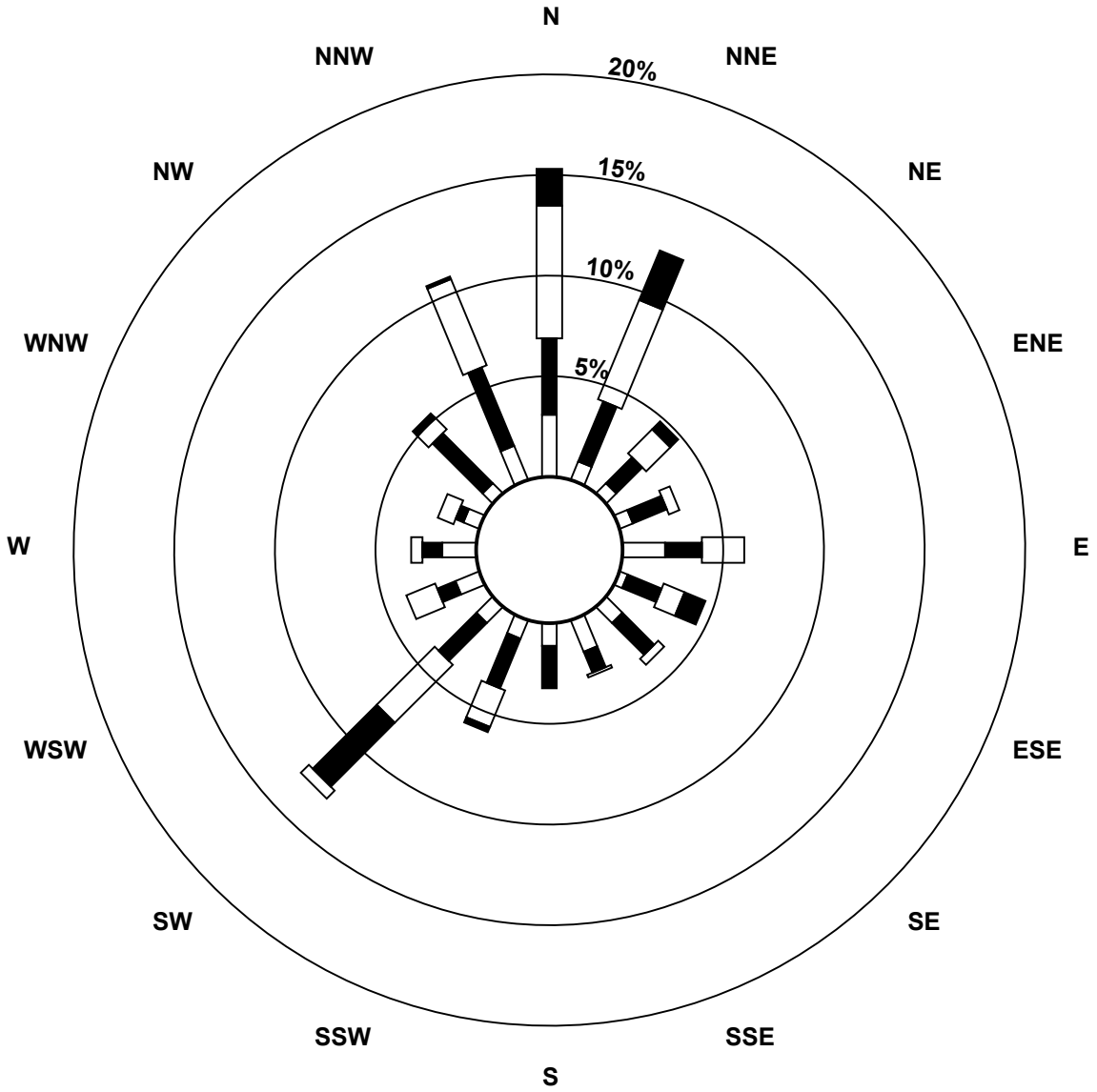
Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	31	56	90	29	0	0	206
NorthEast	7	28	30	13	0	0	78
East	18	25	26	6	0	0	75
SouthEast	15	27	6	2	0	0	50
South	17	29	2	0	0	0	48
SouthWest	16	34	51	35	4	0	140
West	16	14	10	1	0	0	41
NorthWest	12	36	32	2	0	0	82
Total	132	249	247	88	4	0	720

Peace Airshed Zone Association

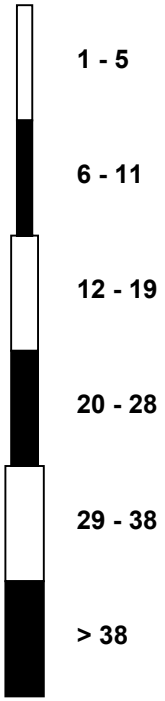
Wind Rose

Wind Speed (WS) (km/h)

Smoky Heights - April 2017



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Smoky Heights - April 2017

Peace Airshed Zone Association

Maximum Speed: 32 km/h on Apr 1 17:00

Maximum Daily Speed Average: 22.0 km/h on Apr 2

Minimum Speed: 1 km/h on Apr 25 07:00

Minimum Daily Speed Average: 5.2 km/h on Apr 19

Maximum Diurnal Speed Average: 13.2 km/h at hour 15

Minimum Diurnal Speed Average: 10.2 km/h at hour 20

Monthly Average Speed: 11.55 km/h

Percentiles: $P_1 = 1.8$ $P_{10} = 4.1$ $Q_1 = 6.6$ Median = 10.8 $Q_3 = 15.3$ $P_{90} = 20.6$ $P_{99} = 27.8$

Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	19	16	11	7	7	10	9	10	10	20	16	22	26	23	24	28	32	28	22	19	20	24	25	23	18.8	31.9
2-Apr	19	20	21	19	24	20	21	22	27	32	30	29	28	27	27	27	28	24	25	19	9	9	8	13	22.0	31.8
3-Apr	22	25	25	25	26	21	17	18	21	20	14	12	10	11	13	15	18	16	12	7	9	13	18	19	17.0	26.3
4-Apr	19	19	17	4	5	5	4	3	3	3	4	5	4	5	3	5	4	6	9	11	13	11	10	14	7.8	19.2
5-Apr	12	23	24	25	26	20	17	13	9	7	9	7	6	6	8	8	5	5	3	3	4	6	8	7	10.9	25.6
6-Apr	14	12	12	18	17	17	19	16	11	10	7	8	10	13	9	11	7	7	3	5	7	15	10	9	11.1	19.2
7-Apr	7	6	8	7	6	7	5	7	6	7	8	10	9	8	12	12	8	7	13	15	11	9	10	9	8.6	14.6
8-Apr	10	12	13	14	12	10	12	9	7	9	10	11	12	8	12	15	14	13	9	7	8	10	9	6	10.5	14.9
9-Apr	5	5	4	4	5	7	7	6	4	5	5	6	9	11	13	14	11	8	5	2	9	9	13	11	7.4	13.9
10-Apr	4	4	5	2	6	4	4	3	5	8	9	6	9	15	16	18	13	18	11	4	5	7	10	7	8.1	18.2
11-Apr	7	4	3	4	6	9	9	9	14	13	13	14	13	12	12	13	13	14	16	14	13	13	16	14	11.1	16.1
12-Apr	13	16	16	13	12	15	16	18	15	18	20	20	22	21	21	21	23	23	22	17	16	16	14	15	17.6	23.0
13-Apr	15	12	14	17	18	18	18	20	22	20	22	22	23	22	21	22	21	22	23	22	21	21	20	17	19.8	23.2
14-Apr	17	16	15	12	11	12	12	11	11	11	11	11	12	11	11	11	11	9	8	8	9	8	9	8	11.0	16.8
15-Apr	9	9	9	10	7	9	8	6	6	6	5	4	3	5	4	2	2	1	2	5	4	1	2	6	5.4	10.0
16-Apr	8	9	5	5	6	6	8	7	7	8	6	10	12	6	3	3	2	7	4	3	5	7	9	8	6.4	11.7
17-Apr	9	16	20	19	22	25	23	25	26	25	24	25	25	26	23	18	17	16	15	17	17	18	16	17	20.2	26.2
18-Apr	17	16	18	16	15	13	13	12	12	12	12	12	10	10	10	9	7	8	7	6	5	5	6	4	10.7	18.4
19-Apr	5	5	4	3	4	4	3	4	5	7	9	8	5	7	7	5	4	4	5	7	5	6	5	6	5.2	8.7
20-Apr	5	2	2	4	6	8	7	6	9	10	10	8	12	18	21	21	17	14	12	14	12	11	8	5	10.0	20.8
21-Apr	6	7	4	5	2	1	2	3	3	2	3	4	8	13	13	13	13	12	13	10	9	8	8	8	7.1	13.1
22-Apr	10	14	15	16	19	19	19	15	18	16	18	19	17	20	19	22	20	18	19	12	12	10	11	13	16.2	21.8
23-Apr	13	11	10	14	14	13	13	13	14	14	15	14	15	13	11	12	13	12	13	10	8	9	8	10	12.1	14.8
24-Apr	11	10	10	9	10	11	13	13	13	14	13	13	13	11	11	11	12	12	13	9	5	3	7	5	10.5	13.7
25-Apr	2	5	3	3	1	3	1	3	3	4	5	8	8	11	12	12	11	13	14	11	9	10	13	15	7.5	14.8
26-Apr	18	19	17	16	9	6	5	12	20	23	20	15	13	11	11	9	7	10	12	12	15	13	14	12	13.3	23.1
27-Apr	12	8	6	4	4	6	8	4	2	3	4	5	7	7	10	11	13	14	12	6	7	5	4	4	6.9	14.0
28-Apr	3	2	2	5	7	7	5	6	7	9	9	12	16	19	13	6	15	18	16	10	17	14	13	10	10.1	18.8
29-Apr	12	12	12	13	12	14	16	10	11	11	17	13	9	7	12	8	6	12	8	8	9	10	12	12	11.1	17.1
30-Apr	8	5	5	6	6	7	6	12	18	13	13	16	18	18	15	15	15	14	17	15	20	9	8	13	12.2	20.4
	11.0	11.4	11.1	10.6	10.8	10.9	10.6	10.5	11.2	12.0	12.0	12.4	12.7	13.2	13.2	13.1	12.7	12.9	12.1	10.2	10.5	10.4	10.8	10.7	Diurnal Average	
	21.8	24.9	24.9	25.2	26.3	24.8	23.1	25.2	26.8	31.8	30.2	29.0	27.9	27.5	26.8	27.6	31.9	27.9	24.8	22.0	21.0	24.2	24.9	23.0	Diurnal Maximum	

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

Peace Airshed Zone Association

Hourly Standard Deviations

Wind Direction (WD) - deg

Smoky Heights - April 2017

Maximum Value: 92.3 deg on Apr 4 13:00

Minimum Value: 2.2 deg on Apr 3 03:00

Percentiles: P_1 = 2.8 P_{10} = 5.1 Q_1 = 6.7 Median = 10.6 Q_3 = 19.2 P_{90} = 41.8 P_{99} = 79.3

Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Apr	4	8	13	70	35	12	22	12	5	8	6	5	8	9	9	7	5	4	12	6	5	4	5	3	70.3
2-Apr	3	5	4	6	4	4	4	3	3	4	4	6	6	7	8	7	13	8	5	15	73	14	8	7	73.2
3-Apr	3	3	2	3	3	8	3	4	5	6	12	16	19	24	21	14	11	11	7	5	14	6	4	3	24.1
4-Apr	6	4	3	51	23	42	67	44	23	29	49	62	92	55	82	67	88	43	10	8	6	8	11	13	92.3
5-Apr	16	12	6	4	4	7	5	8	9	14	8	11	12	33	24	19	31	16	22	73	19	7	12	42	72.7
6-Apr	42	14	17	3	5	6	11	39	23	15	15	24	22	26	47	22	23	12	19	17	21	6	4	17	46.8
7-Apr	9	9	10	9	30	8	12	9	9	8	14	8	8	10	8	13	12	12	6	8	6	6	19	8	29.6
8-Apr	7	10	13	11	13	11	8	11	11	10	14	18	13	29	21	15	11	11	4	29	11	9	4	25	29.0
9-Apr	14	7	8	8	8	8	9	7	55	27	48	27	24	18	23	20	19	17	17	40	5	5	10	4	55.1
10-Apr	54	16	29	65	53	28	17	30	20	17	18	41	43	79	30	43	53	10	10	50	34	13	17	25	79.0
11-Apr	49	15	69	60	37	7	6	7	6	18	11	11	13	17	15	17	18	17	13	5	4	5	5	4	68.6
12-Apr	4	4	9	5	4	5	5	4	8	7	13	10	9	14	13	10	11	10	10	9	7	6	9	5	13.9
13-Apr	5	8	6	6	5	7	7	6	7	5	6	5	5	6	5	6	6	4	5	5	5	4	5	5	8.3
14-Apr	14	4	4	4	6	5	5	6	6	6	8	7	7	7	6	7	7	7	9	8	8	7	7	8	14.2
15-Apr	8	6	6	6	10	6	8	16	10	13	14	56	18	5	13	83	14	81	38	16	28	58	29	7	83.2
16-Apr	3	6	37	14	13	11	13	8	18	6	14	6	7	14	39	29	71	9	14	8	16	9	6	14	70.9
17-Apr	4	7	5	5	4	4	10	5	5	6	5	5	8	5	7	6	7	6	6	6	6	6	7	6	10.2
18-Apr	5	5	7	5	6	6	7	7	7	8	8	8	10	12	13	14	12	9	10	9	9	8	8	9	13.6
19-Apr	9	9	11	24	13	9	48	22	14	15	13	18	12	82	10	14	12	44	13	13	12	6	9	13	82.4
20-Apr	13	40	63	47	36	56	31	13	11	45	21	52	9	8	8	8	11	8	7	8	10	10	15	18	62.8
21-Apr	18	14	20	13	43	71	80	20	33	50	49	41	13	9	10	11	10	7	13	5	17	11	6	22	80.0
22-Apr	10	9	6	6	5	8	6	6	6	7	10	10	11	11	13	10	15	9	8	9	8	6	27	7	27.0
23-Apr	17	20	5	5	5	4	6	5	6	6	7	8	11	11	13	13	11	9	9	8	7	6	8	6	19.9
24-Apr	6	7	8	6	7	8	6	6	9	8	9	12	12	12	10	12	18	21	10	13	12	53	7	11	52.6
25-Apr	40	11	14	26	56	28	63	27	23	39	63	27	35	46	27	23	23	18	13	12	7	11	9	13	63.3
26-Apr	5	5	5	6	13	13	26	16	8	9	10	18	13	28	47	35	55	18	11	8	19	8	7	7	55.1
27-Apr	8	10	9	47	21	8	7	17	56	49	59	48	48	58	24	17	16	10	12	17	8	10	48	45	59.4
28-Apr	21	19	31	19	10	7	22	15	28	15	22	23	11	22	77	63	9	23	24	30	17	17	43	9	77.0
29-Apr	21	12	8	9	8	7	7	55	11	20	12	18	36	64	28	59	55	23	30	17	10	14	6	7	63.7
30-Apr	23	28	15	12	27	18	29	6	11	12	20	14	26	23	22	22	17	28	10	7	25	11	33	12	33.0
	53.9	40.4	68.6	70.3	56.4	71.3	80.0	55.0	56.2	50.2	62.8	61.7	92.3	82.4	82.0	83.2	88.1	81.1	38.0	72.7	73.2	58.2	48.3	44.9	

PAZA
Beaverlodge Station
Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Beaverlodge - April 2017

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 3.2 ppb on Apr 19 19:00 Maximum Daily Average: 0.8 ppb on Apr 19

Minimum Value: 0 ppb on Apr 30 17:00 Minimum Daily Average: 0.0 ppb on Apr 13
Maximum Diurnal Average: 0.3 ppb at hour 19 Minimum Diurnal Average: 0.1 ppb at hour 6
Monthly Average: 0.19 ppb Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.1$ Median = 0.1 $Q_3 = 0.2$ $P_{90} = 0.4$ $P_{99} = 1.1$

Hours in Service:	720
Hours of Data:	684
Hours of Missing Data:	36
Hours of Calibration:	33
Percent Operational Time:	99.6

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
2-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
3-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
4-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0.1	0.2
5-Apr	0	0	0	0	A	0	1	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.3	1.0
6-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
7-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
8-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
9-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
10-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
11-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
12-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
13-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	P	0	0	0	0	0	0	0	0.0	0.1
14-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
15-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
16-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
17-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	P	P	0	0	0	1	1	1	1	0.3	0.7
18-Apr	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0.3	0.7
19-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	1	1	1	1	1	3	3	1	1	1	0	0.8	3.2
20-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0.3	0.8
21-Apr	0	0	0	0	A	0	0	0	0	0	0	1	1	1	1	1	1	1	2	0	0	0	0	0	0.4	1.6
22-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
23-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0.2	0.9
24-Apr	0	0	0	0	A	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.0
25-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
26-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
27-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.4	1.3
28-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
29-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
30-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
	0.2	0.1	0.1	0.1	--	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	Diurnal Average	
	0.5	0.3	0.4	0.5	--	0.3	0.8	0.8	0.6	1.0	0.6	0.6	1.1	1.3	0.8	1.1	1.2	1.3	3.2	2.5	1.1	1.1	0.8	0.6	Diurnal Maximum	

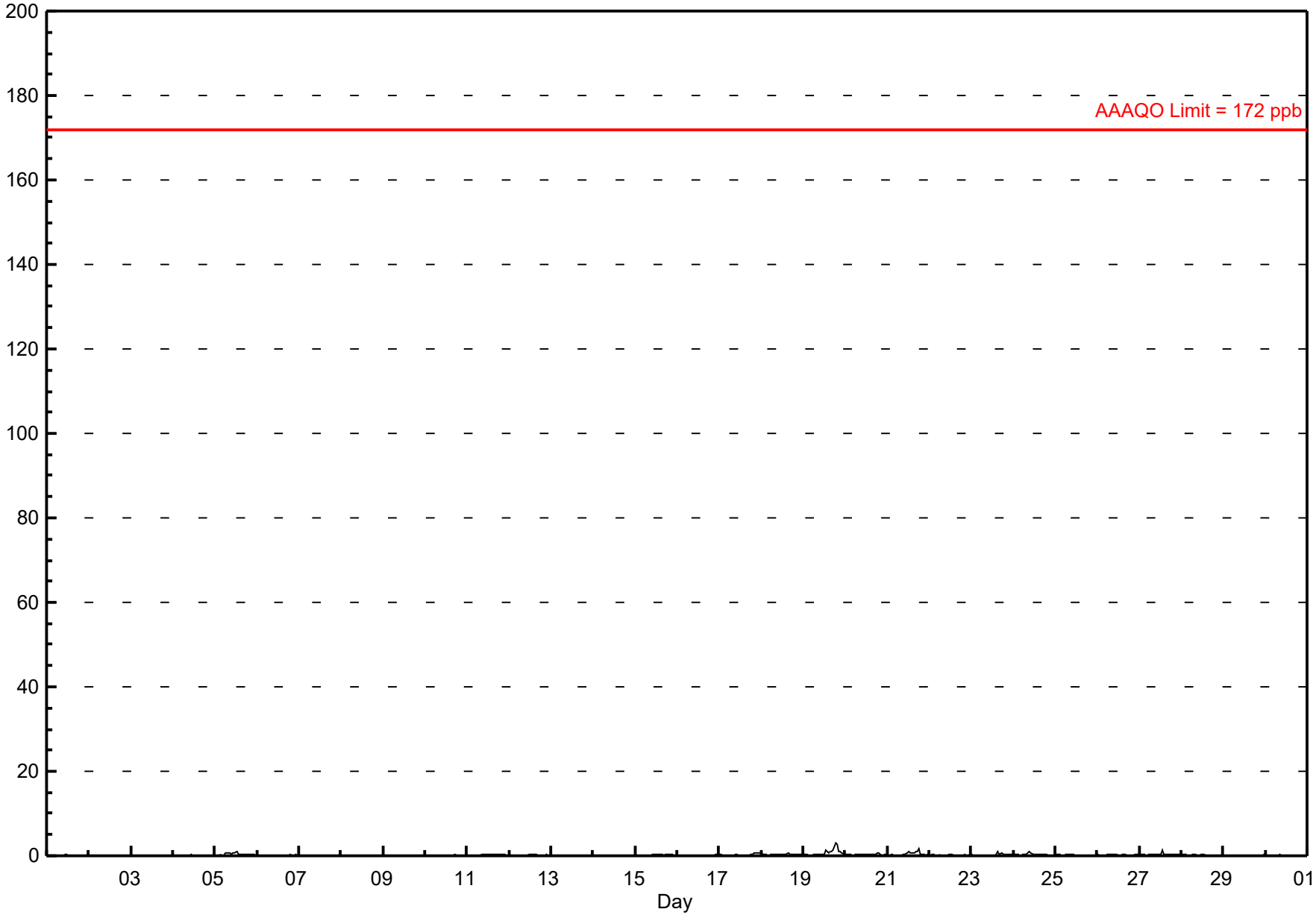
C - Calibration P - Power Failure A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Beaverlodge - April 2017



Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Beaverlodge - April 2017

Maximum Value: 4.1 ppb on Apr 19 19:00

Maximum Daily Average: 1.1 ppb on Apr 19

Minimum Value: 0 ppb on Apr 9 17:00

Minimum Daily Average: 0.1 ppb on Apr 13

Maximum Diurnal Average: 0.5 ppb at hour 19

Minimum Diurnal Average: 0.2 ppb at hour 2

Monthly Average: 0.35 ppb

Percentiles: $P_1 = 0.1$ $P_{10} = 0.1$ $Q_1 = 0.2$ Median = 0.2 $Q_3 = 0.4$ $P_{90} = 0.6$ $P_{99} = 1.9$

Hours in Service:	720
Hours of Data:	684
Hours of Missing Data:	36
Hours of Calibration:	33
Percent Operational Time:	99.6

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
2-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
3-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
4-Apr	0	0	0	1	A	0	0	0	0	0	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0.2	0.7
5-Apr	0	0	0	0	A	0	1	1	1	0	1	1	2	1	1	1	0	0	0	0	0	0	0	0	0.7	1.9
6-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0.3	1.2
7-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.2
8-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
9-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
10-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
11-Apr	0	0	0	0	A	0	0	0	0	0	1	1	1	1	1	1	0	1	1	1	0	0	0	0	0.4	0.9
12-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
13-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	P	0	0	0	0	0	0	0	0.1	0.2
14-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.2
15-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.3	0.5
16-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
17-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	P	P	1	1	1	1	1	1	1	0.4	1.2
18-Apr	1	0	0	1	A	0	0	1	1	1	0	0	1	0	1	1	1	0	0	0	0	0	0	0	0.5	1.2
19-Apr	0	0	0	0	A	0	0	0	0	0	0	1	1	2	1	2	1	3	4	4	1	1	1	1	1.1	4.1
20-Apr	1	0	0	0	A	0	0	1	1	0	0	0	0	0	0	0	0	1	1	1	0	0	1	1	0.5	1.3
21-Apr	0	0	0	0	A	0	0	0	0	0	0	1	4	1	1	1	1	1	2	0	0	0	0	0	0.7	3.5
22-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0.3	0.8
23-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	2	1	1	0	0	0	0	1	0	0.4	2.0
24-Apr	0	0	1	1	A	0	0	0	1	1	1	0	0	0	0	1	1	1	1	1	0	0	1	0	0.6	1.3
25-Apr	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.9
26-Apr	0	0	0	0	A	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0.3	1.0
27-Apr	0	0	0	0	A	0	1	1	0	1	1	0	1	3	1	1	0	0	0	1	1	1	0	0	0.6	2.7
28-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
29-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0.2	0.9
30-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
	0.3	0.2	0.2	0.3	--	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.5	0.4	0.4	0.5	0.4	0.4	0.5	0.5	0.4	0.3	0.3	0.3	Diurnal Average	
	0.8	0.5	0.5	0.7	--	0.9	1.5	1.5	1.5	1.3	1.1	1.1	3.5	2.7	1.3	2.0	1.5	2.6	4.1	3.9	1.5	1.4	1.2	0.8	Diurnal Maximum	

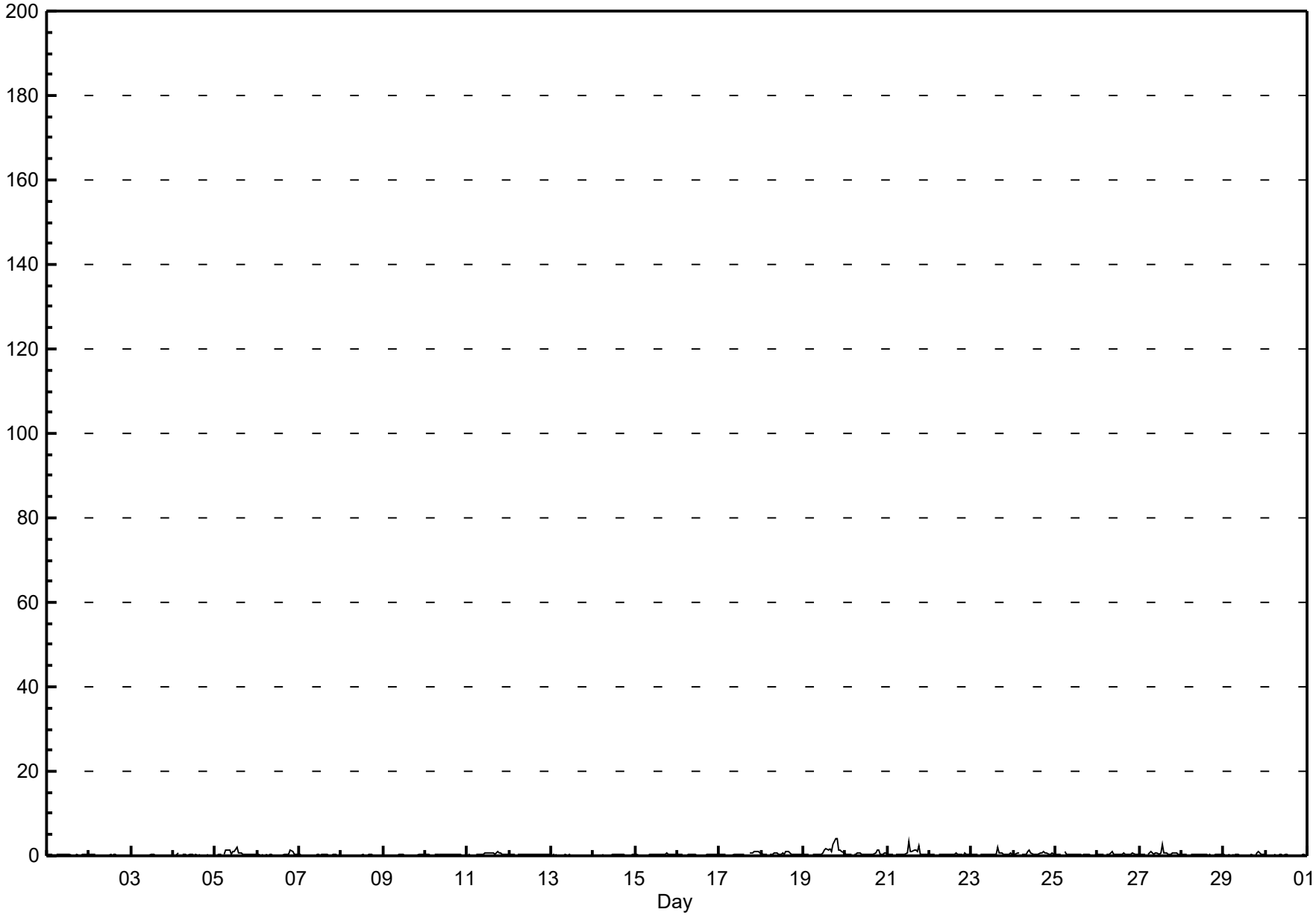
C - Calibration P - Power Failure A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

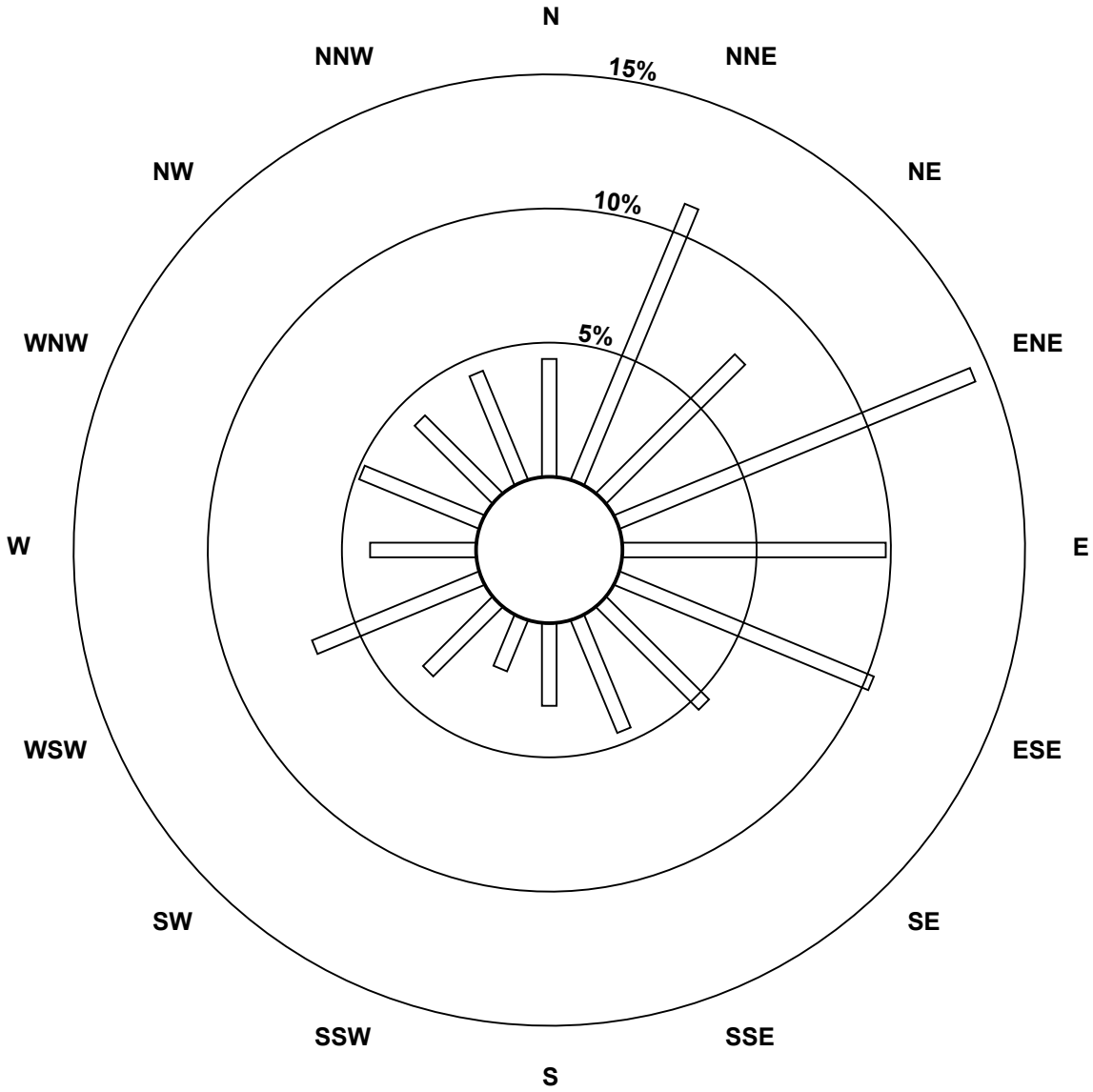
Beaverlodge - April 2017



Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Beaverlodge - April 2017



Pollutant Classes (ppb)

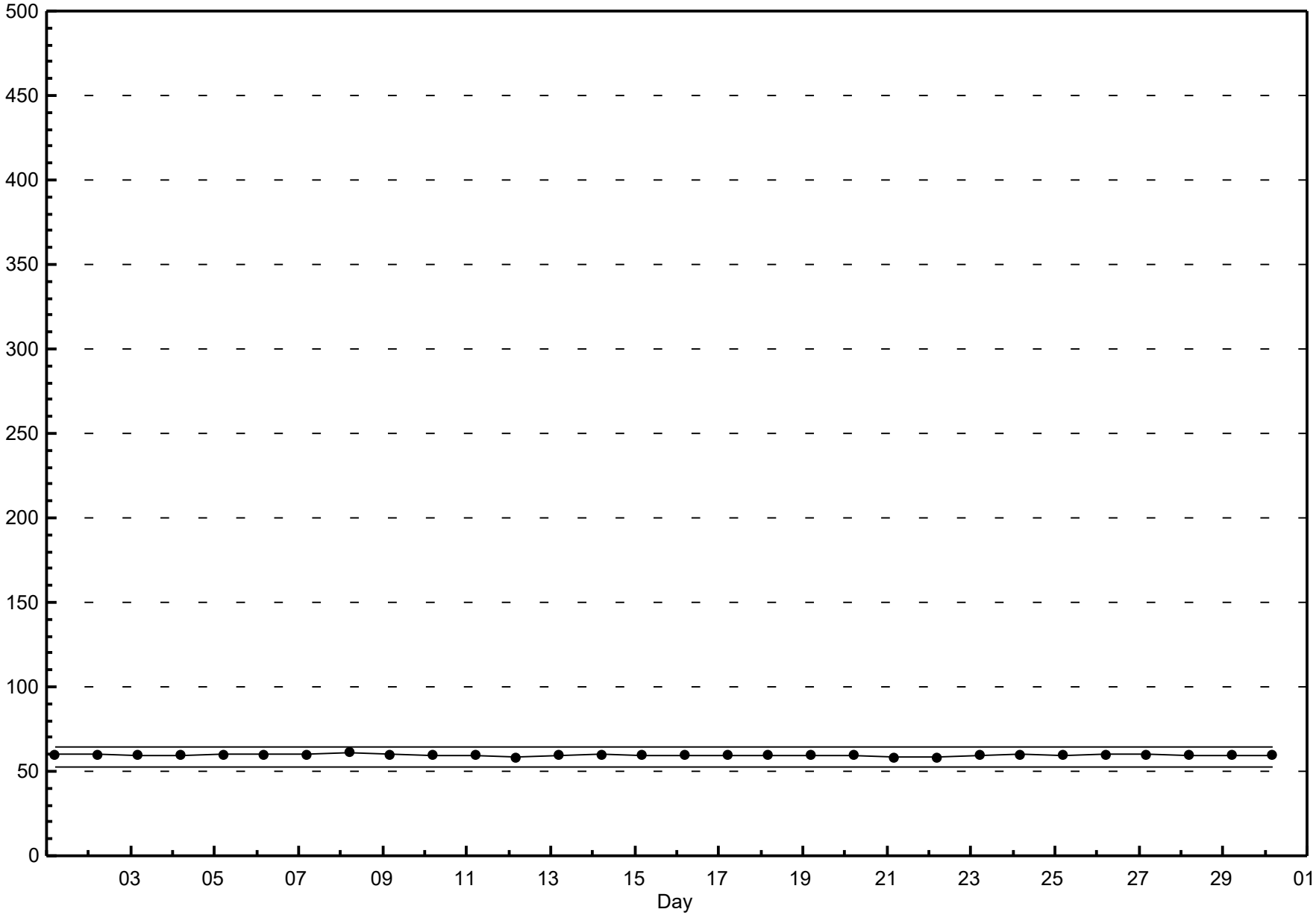
- 0 - 10
- 11 - 20
- 21 - 60
- 61 - 110
- 111 - 172
- > 172

Peace Airshed Zone Association

Span Responses

Sulphur Dioxide (SO_2)

Beaverlodge - April 2017



Peace Airshed Zone Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Beaverlodge - April 2017

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 11.8 ppb on Apr 20 02:00 Maximum Daily Average: 5.3 ppb on Apr 5

Minimum Value: 0 ppb on Apr 3 01:00 Minimum Daily Average: 0.8 ppb on Apr 22
Maximum Diurnal Average: 4.2 ppb at hour 6 Minimum Diurnal Average: 0.9 ppb at hour 16
Monthly Average: 1.83 ppb Percentiles: $P_1 = 0.3$ $P_{10} = 0.5$ $Q_1 = 0.8$ Median = 1.2 $Q_3 = 2.3$ $P_{90} = 4.1$ $P_{99} = 8.0$

Hours in Service:	720
Hours of Data:	679
Hours of Missing Data:	41
Hours of Calibration:	37
Percent Operational Time:	99.4

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	1	1	0	1	A	3	4	5	5	5	3	1	1	1	1	1	0	0	1	1	1	0	0	0	1.5	5.4
2-Apr	1	1	3	1	A	2	1	1	0	0	0	0	0	0	1	1	1	0	0	1	2	1	1	0	0.8	2.6
3-Apr	0	0	0	1	A	3	3	2	1	1	1	1	1	0	0	0	0	1	1	1	1	1	1	1	0.9	3.3
4-Apr	2	2	1	2	A	4	4	4	2	C	C	C	C	C	C	C	3	2	1	1	1	1	1	1	--	4.5
5-Apr	1	1	2	3	A	5	6	6	7	9	7	6	5	5	4	3	4	8	9	7	7	9	6	3	5.3	9.1
6-Apr	1	1	1	1	A	3	2	3	2	1	1	1	1	1	0	1	1	2	2	2	1	2	3	3	1.5	3.3
7-Apr	3	2	2	1	A	4	4	3	2	2	1	1	1	1	1	1	1	2	2	1	2	1	2	1	1.7	4.0
8-Apr	1	1	1	1	A	2	2	1	1	1	2	1	1	1	1	1	1	1	2	2	2	3	2	2	1.4	3.0
9-Apr	2	1	1	3	A	6	8	6	4	3	2	1	1	0	0	0	0	0	0	1	2	2	4	5	2.4	8.2
10-Apr	2	3	2	2	A	5	3	2	4	4	1	1	1	1	1	1	1	2	2	1	2	2	2	2	1.9	4.7
11-Apr	4	4	2	5	A	6	5	3	2	3	2	2	2	2	2	1	1	1	1	1	2	2	1	1	2.3	6.1
12-Apr	1	1	1	1	A	2	2	2	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	0.9	2.3
13-Apr	1	1	1	1	A	2	1	1	1	1	1	1	1	1	1	2	P	1	1	1	1	1	1	1	1.0	2.2
14-Apr	1	1	1	1	A	3	4	4	2	2	2	2	1	1	1	1	2	2	2	3	2	2	2	2	1.9	4.0
15-Apr	2	4	5	3	A	4	2	2	1	1	1	2	1	1	1	1	1	1	3	5	3	6	4	5	2.5	5.6
16-Apr	4	5	4	4	A	7	5	3	2	1	1	1	1	0	1	1	1	1	1	1	2	2	4	2	2.2	7.1
17-Apr	2	2	1	1	A	2	1	1	1	2	2	0	1	1	1	P	P	P	1	1	1	1	1	1	1.1	2.2
18-Apr	1	1	1	1	A	3	1	3	1	1	1	1	1	1	1	1	1	1	2	3	5	2	2	3	1.6	4.8
19-Apr	4	4	5	4	A	4	3	3	2	2	1	2	2	3	4	4	3	3	4	6	6	5	5	5	3.6	6.1
20-Apr	5	12	5	6	A	8	6	5	4	3	1	2	1	1	1	1	1	1	1	1	1	1	1	1	3.0	11.8
21-Apr	1	1	2	2	A	4	3	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1.4	4.0
22-Apr	1	1	1	1	A	2	1	1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	1	1	0.8	2.3
23-Apr	1	1	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1.0	2.1
24-Apr	1	1	1	2	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	5	1	1	1.2	4.7
25-Apr	2	2	2	3	A	5	4	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1.7	5.2
26-Apr	2	2	2	3	A	5	4	3	3	3	3	3	2	1	1	1	1	1	1	1	1	1	2	2	2.1	4.8
27-Apr	3	3	3	5	A	12	5	7	4	3	3	2	1	1	1	1	1	1	1	2	3	1	3	3	3.1	11.5
28-Apr	2	2	3	2	A	4	3	5	2	1	1	0	0	0	0	0	0	0	1	1	1	2	3	0	1.6	4.5
29-Apr	0	1	1	1	A	3	2	2	2	1	0	0	0	0	0	0	0	0	1	1	1	1	1	3	1.0	3.0
30-Apr	2	1	1	1	A	7	2	1	1	1	1	0	0	0	0	0	0	0	0	1	2	2	2	1	1.3	7.3
	1.7	2.0	1.9	2.0	--	4.2	3.2	2.8	2.1	2.0	1.5	1.2	1.1	1.0	1.0	0.9	1.0	1.3	1.5	1.7	1.9	2.0	2.0	1.9	Diurnal Average	
	4.9	11.8	5.3	5.6	--	11.5	8.2	6.8	7.0	8.6	6.9	5.9	5.4	5.0	4.0	3.6	4.2	8.0	9.1	7.3	7.1	8.7	6.3	5.3	Diurnal Maximum	

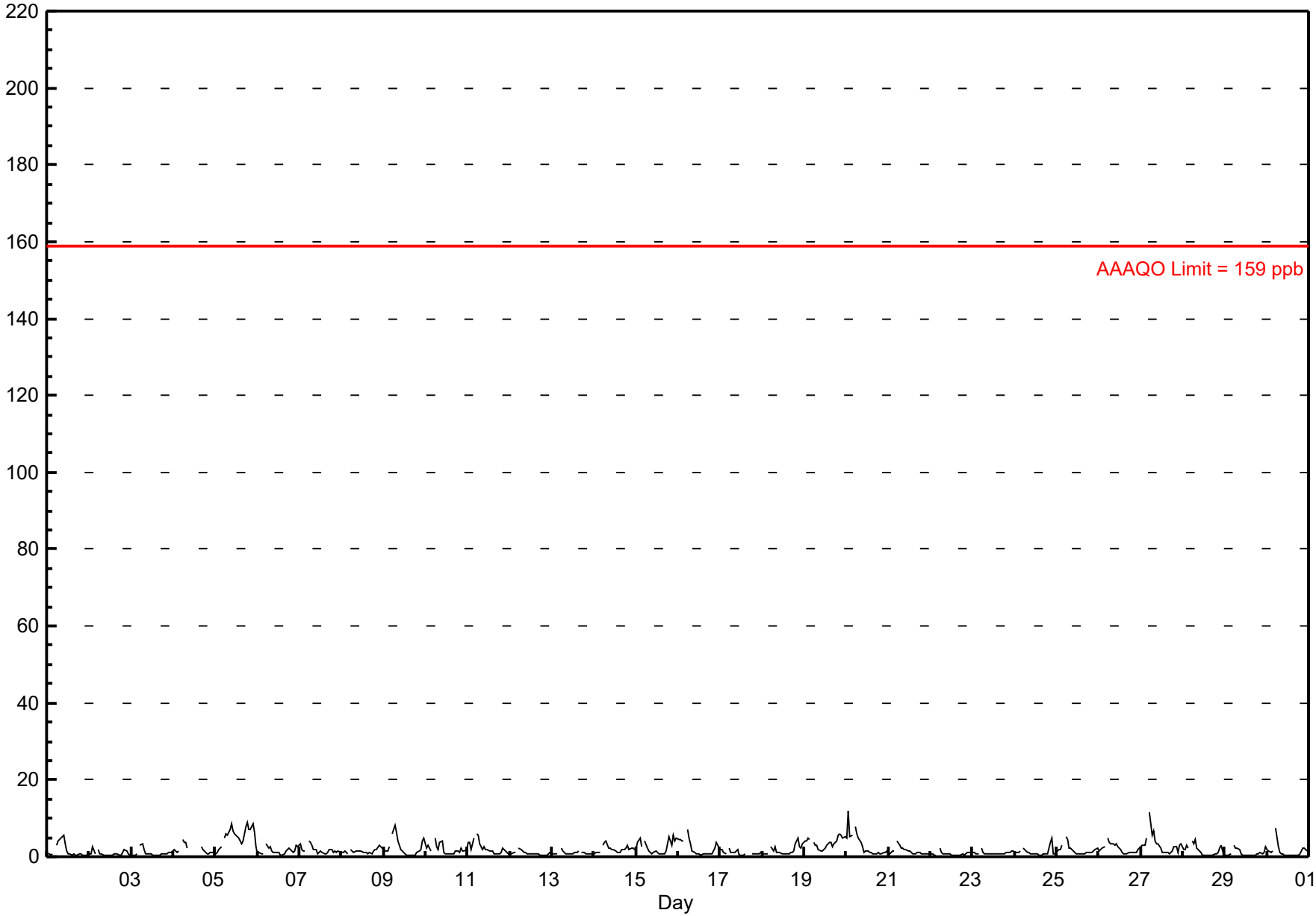
C - Calibration P - Power Failure A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb 24-hr 106 ppb

Peace Airshed Zone Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Beaverlodge - April 2017



Peace Airshed Zone Association

Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

Beaverlodge - April 2017

Maximum Value: 34.4 ppb on Apr 27 08:00

Maximum Daily Average: 7.4 ppb on Apr 5

Minimum Value: 0 ppb on Apr 29 14:00

Minimum Daily Average: 1.4 ppb on Apr 22

Maximum Diurnal Average: 6.8 ppb at hour 6

Minimum Diurnal Average: 1.3 ppb at hour 16

Monthly Average: 3.06 ppb

Percentiles: $P_1 = 0.5$ $P_{10} = 0.9$ $Q_1 = 1.2$ Median = 2.0 $Q_3 = 3.8$ $P_{90} = 6.7$ $P_{99} = 12.2$

Hours in Service:	720
Hours of Data:	679
Hours of Missing Data:	41
Hours of Calibration:	37
Percent Operational Time:	99.4

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	2	1	1	2	A	7	11	10	10	10	5	2	2	1	2	1	1	2	2	3	1	1	1	4	3.6	11.1
2-Apr	2	2	7	3	A	4	2	1	1	1	2	2	1	1	2	2	1	1	1	3	3	3	1	1	2.1	7.0
3-Apr	1	1	1	4	A	4	5	5	1	1	1	1	1	1	1	1	1	2	2	2	3	3	5	2	2.0	5.4
4-Apr	3	2	2	4	A	7	5	9	4	C	C	C	C	C	C	C	7	3	2	1	1	1	2	1	--	9.3
5-Apr	1	2	3	3	A	8	8	8	9	12	8	7	6	6	5	4	6	9	12	11	8	16	12	8	7.4	15.7
6-Apr	2	3	2	2	A	5	3	6	3	1	1	1	1	1	1	1	2	3	3	8	2	5	6	4	2.9	7.9
7-Apr	5	3	2	2	A	6	7	4	3	3	1	1	3	2	1	1	3	2	3	2	2	4	3	1	2.9	7.4
8-Apr	2	2	2	1	A	3	2	1	2	2	2	2	1	2	2	1	2	2	4	5	3	8	4	3	2.4	7.6
9-Apr	3	2	2	3	A	7	10	9	5	4	3	2	1	1	1	0	1	1	1	2	5	5	6	8	3.5	9.7
10-Apr	4	4	4	2	A	6	4	6	6	7	3	1	1	1	1	1	1	3	3	2	11	5	3	7	3.7	11.1
11-Apr	6	9	3	9	A	10	7	6	2	4	3	2	2	3	2	1	1	1	1	3	4	3	2	2	3.7	9.6
12-Apr	2	1	2	2	A	4	2	2	2	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1.4	3.9
13-Apr	1	1	1	1	A	4	2	2	1	1	2	1	1	2	2	2	P	1	1	1	1	1	1	1	1.4	3.7
14-Apr	1	2	1	1	A	4	6	6	3	3	2	3	3	1	1	2	3	2	3	4	3	3	3	3	2.8	5.9
15-Apr	4	6	7	3	A	6	3	2	2	1	2	2	1	1	1	1	2	2	8	8	4	8	5	7	3.6	8.1
16-Apr	5	6	5	6	A	9	7	4	2	2	1	1	1	2	1	1	1	1	1	2	3	3	4	4	3.2	8.9
17-Apr	3	3	2	1	A	4	2	2	2	5	3	1	1	1	2	P	P	P	1	1	1	1	1	2	1.9	5.0
18-Apr	1	1	1	1	A	5	3	7	2	4	4	2	1	2	2	1	1	1	4	5	6	4	4	5	3.0	7.2
19-Apr	6	5	6	6	A	6	4	4	3	2	2	3	4	4	4	4	3	5	6	11	13	14	7	8	5.6	13.8
20-Apr	8	22	12	9	A	14	11	7	5	3	2	2	2	1	1	1	1	1	1	1	1	2	4	2	5.0	21.6
21-Apr	2	1	4	3	A	6	5	4	2	3	2	2	2	2	1	1	1	1	2	1	2	1	1	1	2.2	6.2
22-Apr	1	1	1	1	A	4	2	1	1	1	2	1	1	1	1	1	1	1	2	1	1	2	3	1	1.4	4.0
23-Apr	1	1	1	1	A	4	2	1	1	1	1	1	1	1	1	1	1	1	2	2	2	1	2	2	1.4	4.0
24-Apr	2	2	1	2	A	4	2	2	1	1	1	1	1	1	1	1	1	1	1	2	12	9	3	1	2.3	12.4
25-Apr	2	2	3	7	A	7	6	5	4	2	1	1	1	1	1	1	1	1	2	2	4	2	2	4	2.8	7.4
26-Apr	2	2	5	3	A	7	4	4	4	3	4	3	3	1	1	1	1	1	1	1	3	2	2	3	2.7	6.8
27-Apr	3	3	5	8	A	27	9	34	5	4	4	3	2	1	2	1	2	2	3	6	8	2	5	8	6.4	34.4
28-Apr	3	3	5	3	A	5	7	7	4	3	2	1	1	1	1	1	1	1	1	1	2	3	8	1	2.8	8.2
29-Apr	0	1	1	1	A	5	6	5	3	2	1	0	0	0	0	1	1	1	1	1	4	2	2	4	1.8	5.8
30-Apr	4	3	1	3	A	12	4	3	1	1	1	1	1	1	1	1	1	1	1	2	6	7	3	4	2.7	12.3
	2.7	3.2	3.1	3.2	--	6.8	5.0	5.6	3.2	3.0	2.3	1.7	1.7	1.4	1.4	1.3	1.7	1.9	2.5	3.2	4.0	4.0	3.5	3.4	Diurnal Average	
	8.3	21.6	11.8	8.9	--	27.3	11.1	34.4	9.8	11.9	8.1	6.6	6.4	5.5	5.2	4.3	6.6	9.3	11.8	11.5	12.5	15.7	11.8	8.2	Diurnal Maximum	

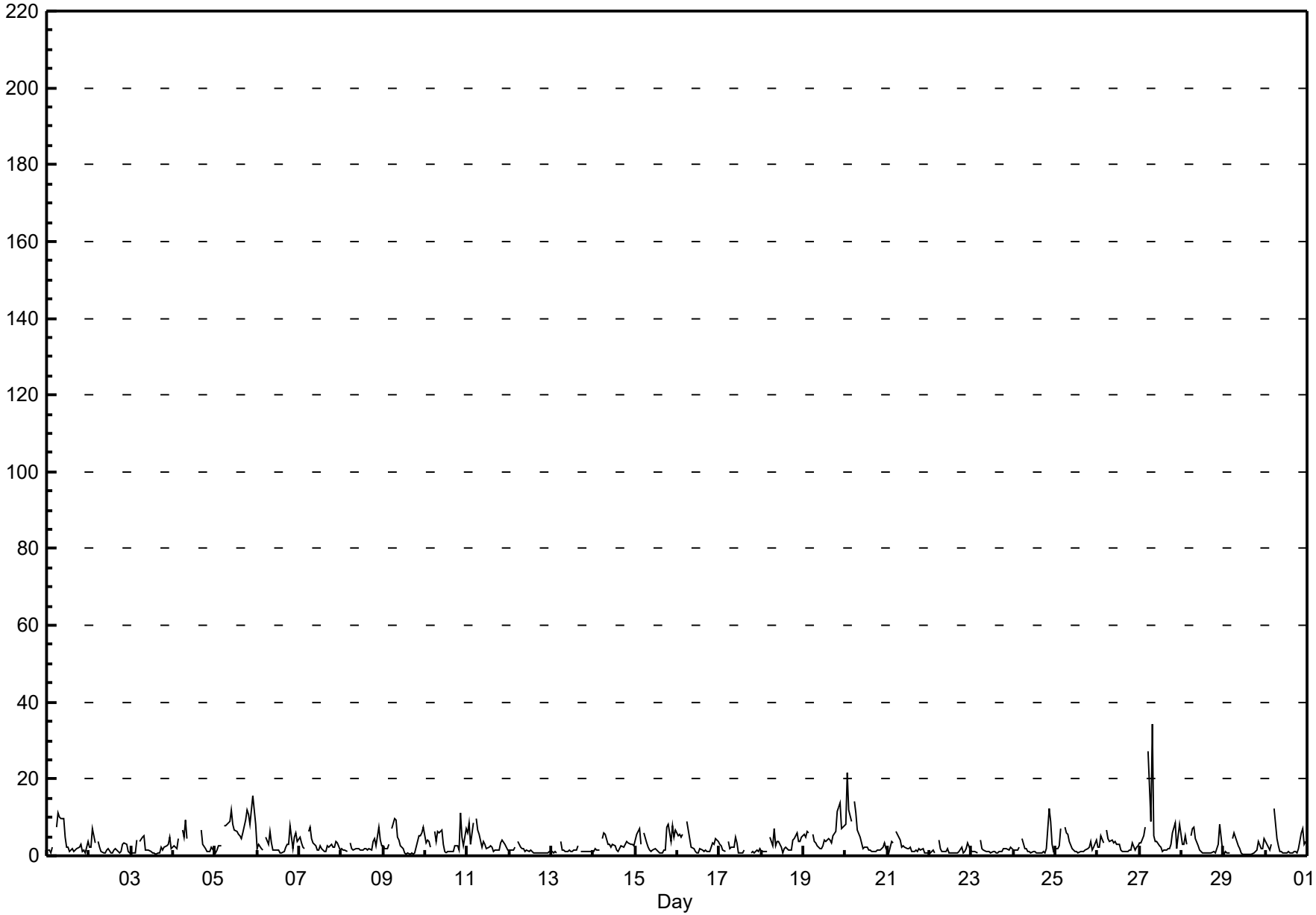
C - Calibration P - Power Failure A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

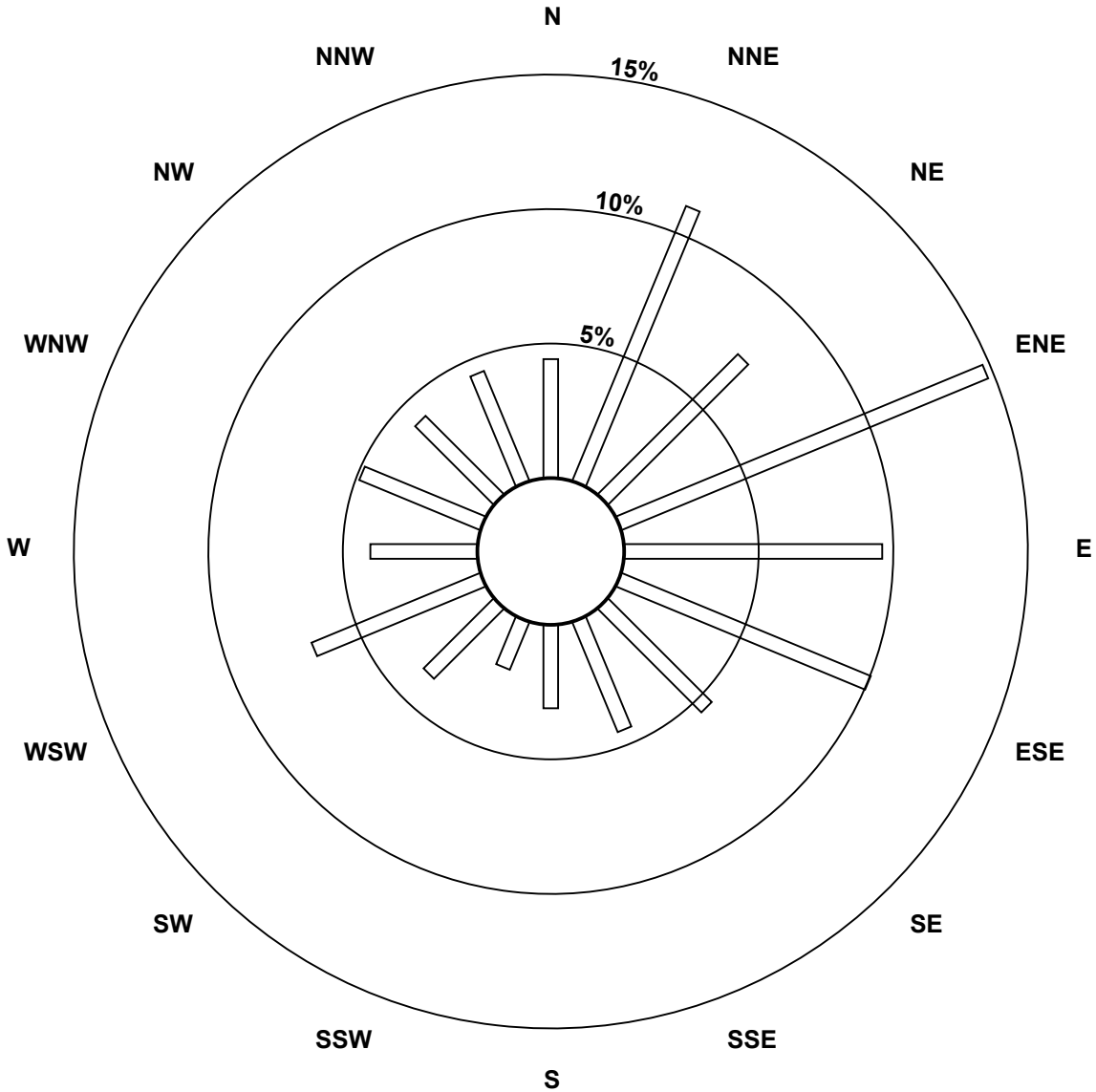
Beaverlodge - April 2017



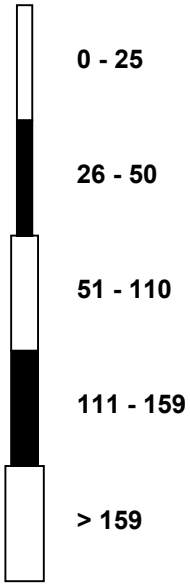
Pollutant Rose

Nitrogen Dioxide (NO_2) - ppb

Beaverlodge - April 2017



Pollutant Classes (ppb)

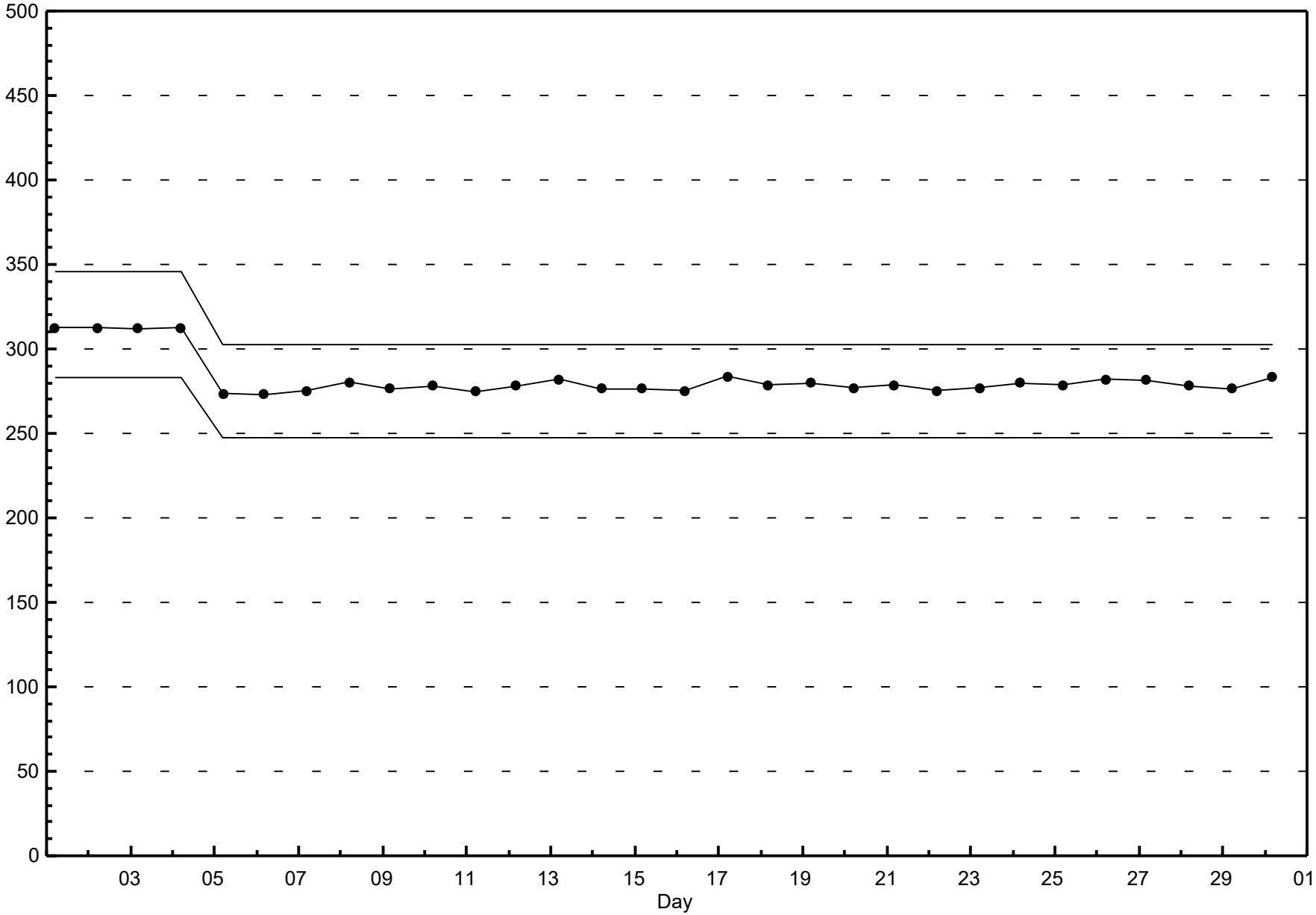


Peace Airshed Zone Association

Span Responses

Nitrogen Dioxide (NO_2)

Beaverlodge - April 2017



Peace Airshed Zone Association

Hourly Averages

Nitrogen Oxide (NO) - ppb

Beaverlodge - April 2017

Maximum Value: 5.9 ppb on Apr 27 08:00

Maximum Daily Average: 0.9 ppb on Apr 19

Minimum Value: 0 ppb on Apr 1 02:00

Minimum Daily Average: 0.0 ppb on Apr 22

Maximum Diurnal Average: 0.7 ppb at hour 8

Minimum Diurnal Average: 0.0 ppb at hour 3

Monthly Average: 0.22 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.0$ Median = 0.0 $Q_3 = 0.2$ $P_{90} = 0.7$ $P_{99} = 2.7$

Hours in Service:	720
Hours of Data:	679
Hours of Missing Data:	41
Hours of Calibration:	37
Percent Operational Time:	99.4

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	0	0	0	A	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.9
2-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
3-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
4-Apr	0	0	0	0	A	0	0	1	1	C	C	C	C	C	C	C	0	0	0	0	0	0	0	0	--	0.6
5-Apr	0	0	0	0	A	0	0	0	1	1	1	2	2	2	2	1	1	1	1	0	0	0	0	0	0.7	2.2
6-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
7-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
8-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
9-Apr	0	0	0	0	A	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.5
10-Apr	0	0	0	0	A	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.1
11-Apr	0	0	0	0	A	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.2	1.1
12-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
13-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	P	0	0	0	0	0	0	0	0.1	0.2
14-Apr	0	0	0	0	A	0	0	1	1	1	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0.4	1.2
15-Apr	0	0	0	0	A	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0.2	1.2
16-Apr	0	0	0	0	A	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.5
17-Apr	0	0	0	0	A	0	0	0	0	1	1	0	0	0	0	P	P	P	0	0	0	0	0	0	0.1	0.8
18-Apr	0	0	0	0	A	0	0	1	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0.2	0.6
19-Apr	0	0	0	0	A	0	0	1	1	1	1	2	3	4	3	2	1	1	1	0	0	0	0	0	0.9	3.5
20-Apr	0	0	0	0	A	0	1	3	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	2.7
21-Apr	0	0	0	0	A	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.2	1.0
22-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
23-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
24-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
25-Apr	0	0	0	0	A	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.2
26-Apr	0	0	0	0	A	0	0	1	2	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0.4	2.0
27-Apr	0	0	0	0	A	3	1	6	3	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0.8	5.9
28-Apr	0	0	0	0	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.1
29-Apr	0	0	0	0	A	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.7
30-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
	0.0	0.0	0.0	0.0	--	0.1	0.2	0.7	0.6	0.6	0.5	0.5	0.4	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	Diurnal Average	
	0.0	0.2	0.0	0.1	--	3.1	1.3	5.9	2.7	2.0	2.0	2.3	2.7	3.5	3.3	2.1	1.0	1.2	1.1	0.3	0.2	0.2	0.1	0.1	Diurnal Maximum	

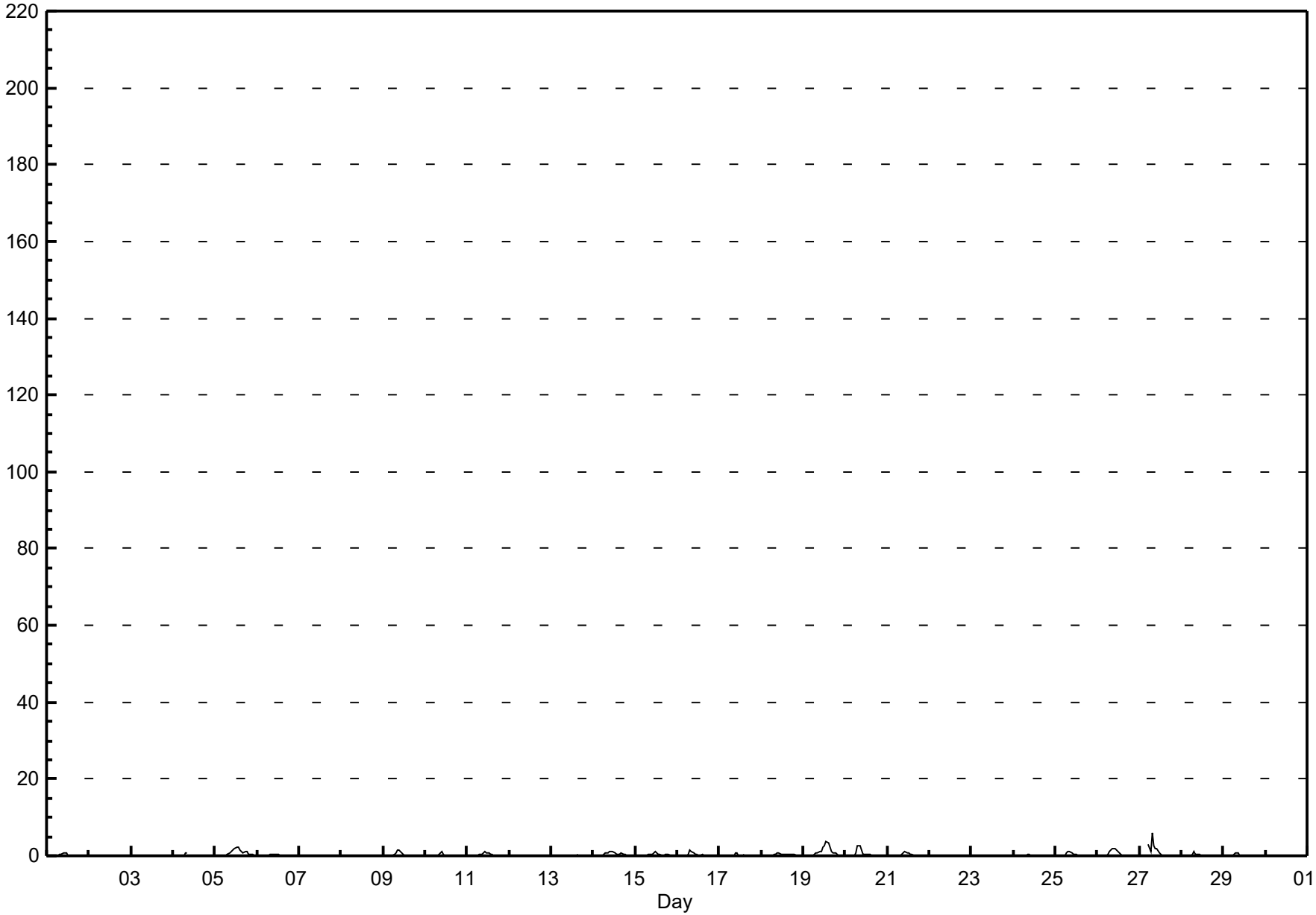
C - Calibration P - Power Failure A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Nitrogen Oxide (NO) - ppb

Beaverlodge - April 2017



Peace Airshed Zone Association

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Beaverlodge - April 2017

Maximum Value: 49.3 ppb on Apr 27 08:00

Maximum Daily Average: 4.1 ppb on Apr 27

Minimum Value: 0 ppb on Apr 9 20:00

Minimum Daily Average: 0.1 ppb on Apr 30

Maximum Diurnal Average: 2.6 ppb at hour 8

Minimum Diurnal Average: 0.1 ppb at hour 1

Monthly Average: 0.56 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.1$ Median = 0.2 $Q_3 = 0.4$ $P_{90} = 1.3$ $P_{99} = 4.4$

Hours in Service:	720
Hours of Data:	679
Hours of Missing Data:	41
Hours of Calibration:	37
Percent Operational Time:	99.4

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	0	0	0	A	0	0	1	1	3	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0.5	2.7
2-Apr	0	0	0	0	A	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
3-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0.2	0.6
4-Apr	0	0	0	0	A	0	0	2	1	C	C	C	C	C	C	C	0	0	0	0	0	0	0	0	--	2.0
5-Apr	0	0	0	0	A	0	0	0	1	2	2	2	3	3	2	2	1	1	2	1	1	0	0	0	1.0	2.8
6-Apr	0	0	0	0	A	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.0
7-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
8-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
9-Apr	0	0	0	0	A	0	1	1	2	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0.5	2.0
10-Apr	0	0	0	0	A	0	0	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.8
11-Apr	0	0	0	0	A	0	0	1	0	3	3	1	1	1	1	1	0	0	0	1	0	0	0	0	0.6	2.7
12-Apr	0	0	0	0	A	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
13-Apr	0	0	0	0	A	0	0	1	0	0	0	0	0	0	0	1	P	0	0	0	0	0	0	0	0.2	0.8
14-Apr	0	0	0	0	A	0	1	1	2	2	1	2	2	1	1	1	1	1	0	0	0	0	0	0	0.7	1.9
15-Apr	0	0	0	0	A	0	0	0	1	0	1	2	1	0	0	0	1	1	1	0	0	0	0	0	0.5	1.6
16-Apr	0	0	0	0	A	0	1	2	2	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0.5	2.0
17-Apr	0	0	0	0	A	0	0	0	0	3	2	0	0	0	1	P	P	P	0	0	0	0	0	0	0.4	2.5
18-Apr	0	0	0	0	A	0	0	2	1	2	3	2	1	3	3	1	0	0	1	1	0	0	0	0	0.9	2.7
19-Apr	0	0	0	0	A	0	0	1	1	1	2	3	4	4	4	3	2	2	1	0	0	0	0	0	1.4	4.4
20-Apr	0	1	0	0	A	0	2	4	4	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.8	4.5
21-Apr	0	0	0	0	A	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.4	1.3
22-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
23-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
24-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
25-Apr	0	0	0	0	A	0	1	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	2.3
26-Apr	0	0	0	0	A	0	1	1	2	2	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0.6	2.3
27-Apr	0	0	0	0	A	25	6	49	3	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	4.1	49.3
28-Apr	0	0	0	0	A	0	1	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	2.3
29-Apr	0	0	0	0	A	0	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.6
30-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
	0.1	0.1	0.1	0.1	--	1.0	0.7	2.6	1.0	1.2	1.0	0.8	0.8	0.7	0.6	0.4	0.3	0.4	0.4	0.2	0.2	0.1	0.1	0.1	Diurnal Average	
	0.3	1.1	0.3	0.3	--	25.4	6.2	49.3	3.8	2.7	2.6	3.3	4.4	4.4	4.4	2.8	1.6	1.9	1.8	0.6	0.6	0.4	0.5	0.3	Diurnal Maximum	

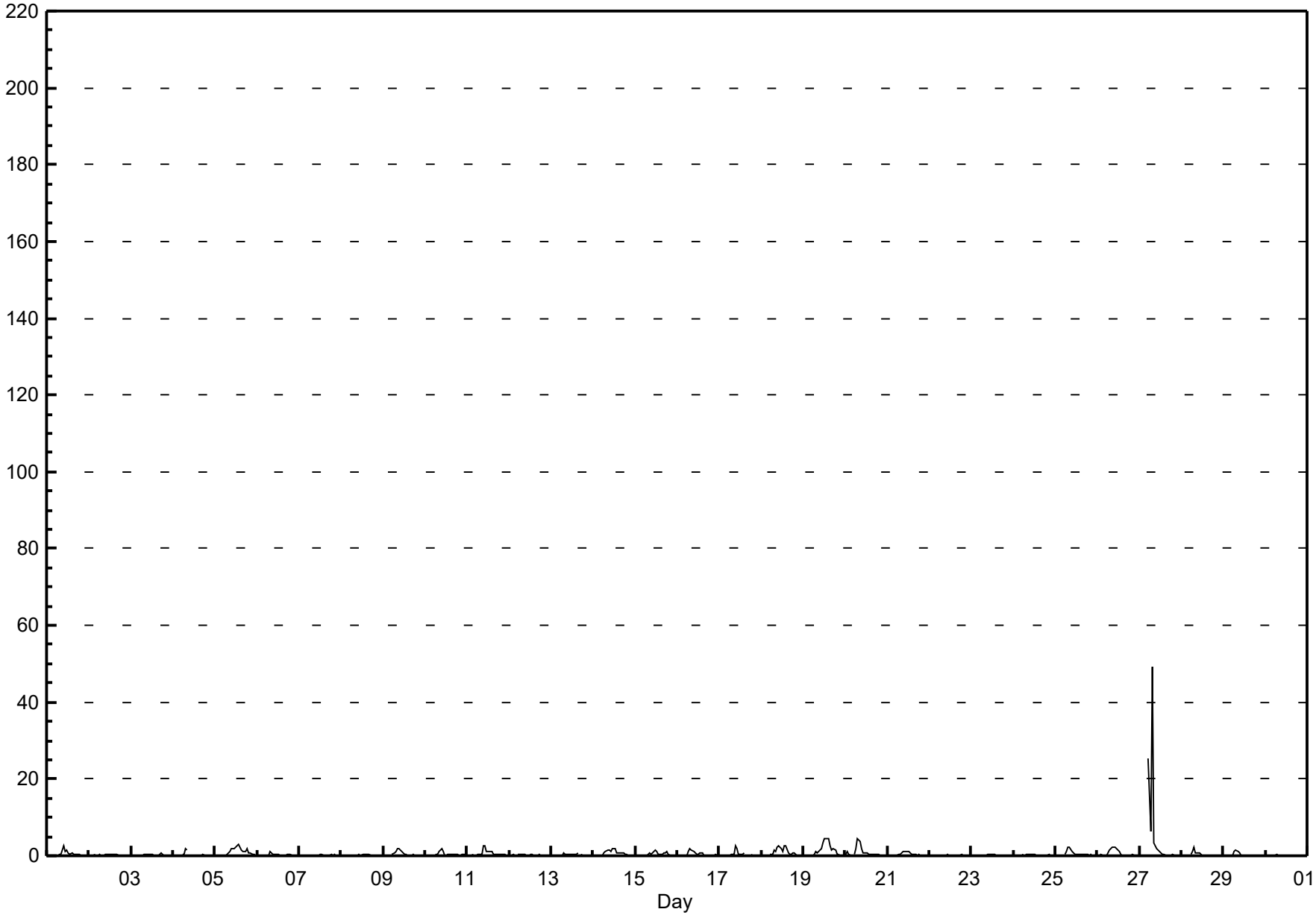
C - Calibration P - Power Failure A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Beaverlodge - April 2017



Peace Airshed Zone Association

Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Beaverlodge - April 2017

Maximum Value: 14.6 ppb on Apr 27 06:00

Maximum Daily Average: 6.1 ppb on Apr 5

Minimum Value: 0 ppb on Apr 3 01:00

Minimum Daily Average: 0.8 ppb on Apr 22

Maximum Diurnal Average: 4.3 ppb at hour 6

Minimum Diurnal Average: 1.1 ppb at hour 16

Monthly Average: 2.07 ppb

Percentiles: $P_1 = 0.3$ $P_{10} = 0.6$ $Q_1 = 0.8$ Median = 1.3 $Q_3 = 2.6$ $P_{90} = 4.8$ $P_{99} = 8.8$

Hours in Service:	720
Hours of Data:	679
Hours of Missing Data:	41
Hours of Calibration:	37
Percent Operational Time:	99.4

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	1	1	0	1	A	3	4	5	5	6	4	2	1	1	1	1	0	1	1	1	1	0	0	0	1.7	6.4
2-Apr	1	1	3	1	A	2	1	1	1	0	1	1	1	1	1	1	1	0	1	1	2	1	1	0	0.9	2.6
3-Apr	0	0	0	1	A	3	3	2	1	1	1	1	1	1	0	0	0	1	1	1	1	1	1	1	0.9	3.3
4-Apr	2	2	1	2	A	4	4	4	3	C	C	C	C	C	C	C	3	2	1	1	1	1	1	1	--	4.5
5-Apr	1	1	2	3	A	5	6	6	8	10	8	8	8	7	6	5	5	9	10	8	7	9	6	3	6.1	10.3
6-Apr	1	1	1	1	A	3	2	3	2	1	1	1	1	1	1	1	2	2	2	2	1	2	3	3	1.6	3.3
7-Apr	3	2	2	1	A	4	4	3	2	2	1	1	2	1	1	1	1	2	2	1	2	1	2	1	1.8	4.0
8-Apr	1	1	1	1	A	2	2	1	1	1	2	2	1	1	1	1	1	1	2	2	2	3	2	2	1.6	3.1
9-Apr	2	1	1	3	A	6	9	7	6	4	3	2	1	0	0	0	0	0	0	1	1	2	4	5	2.6	8.5
10-Apr	2	3	2	2	A	5	3	2	4	5	1	1	1	1	1	1	1	2	2	1	2	2	2	2	2.0	5.4
11-Apr	4	4	2	5	A	6	6	4	2	4	3	3	2	2	2	1	1	1	1	1	2	2	1	1	2.5	6.1
12-Apr	1	1	1	1	A	2	2	2	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	0.9	2.3
13-Apr	1	1	1	1	A	2	1	1	1	1	1	1	1	1	1	2	P	1	1	1	1	1	1	1	1.1	2.2
14-Apr	1	1	1	1	A	3	4	5	3	3	3	3	2	2	1	1	2	2	3	3	2	2	2	2	2.3	4.7
15-Apr	2	4	5	3	A	4	2	2	2	1	1	3	2	1	1	1	1	2	4	6	3	6	4	5	2.8	5.7
16-Apr	4	5	4	4	A	7	5	5	3	2	1	1	1	1	1	1	1	1	1	1	2	2	4	2	2.5	7.1
17-Apr	2	2	1	1	A	2	1	1	1	2	3	1	1	1	1	P	P	P	1	1	1	1	1	1	1.3	2.6
18-Apr	1	1	1	1	A	3	2	3	2	2	2	1	1	1	1	1	1	1	2	4	5	3	2	3	1.9	4.8
19-Apr	4	4	5	4	A	4	3	4	3	3	3	4	5	7	7	6	4	4	5	6	6	5	5	5	4.6	7.1
20-Apr	5	12	5	6	A	8	7	8	6	4	1	2	2	1	1	1	1	1	1	1	1	1	1	1	3.4	12.0
21-Apr	1	1	2	2	A	4	3	3	2	3	3	2	2	2	1	1	1	1	1	1	1	1	1	1	1.7	4.0
22-Apr	1	1	1	1	A	2	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0.8	2.3
23-Apr	1	1	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1.1	2.1
24-Apr	1	1	1	2	A	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	4	5	1	1	1.4	4.7
25-Apr	2	2	2	3	A	5	5	3	4	2	2	1	1	1	1	1	1	1	1	1	1	1	2	2	2.0	5.4
26-Apr	2	2	2	3	A	5	4	5	5	5	5	4	3	1	1	1	1	1	1	1	1	1	2	2	2.6	5.5
27-Apr	3	3	3	5	A	15	7	13	7	5	5	3	2	1	1	1	1	1	2	2	3	1	3	3	3.9	14.6
28-Apr	2	2	3	2	A	4	4	6	3	2	1	1	0	0	1	0	1	0	1	1	1	2	3	0	1.7	5.6
29-Apr	0	1	1	1	A	3	2	3	3	1	0	0	0	0	0	0	0	1	1	1	1	1	1	3	1.1	3.1
30-Apr	2	1	1	1	A	7	3	1	1	1	1	0	0	0	0	1	0	1	0	1	2	2	2	2	1.4	7.3
	1.8	2.1	1.9	2.0	--	4.3	3.4	3.5	2.8	2.6	2.1	1.8	1.5	1.4	1.3	1.1	1.2	1.5	1.6	1.7	1.9	2.1	2.0	1.9	Diurnal Average	
	4.9	12.0	5.3	5.6	--	14.6	8.5	12.8	7.7	10.0	8.4	7.6	7.6	7.2	7.1	5.7	5.0	9.3	10.3	7.6	7.3	8.9	6.5	5.3	Diurnal Maximum	

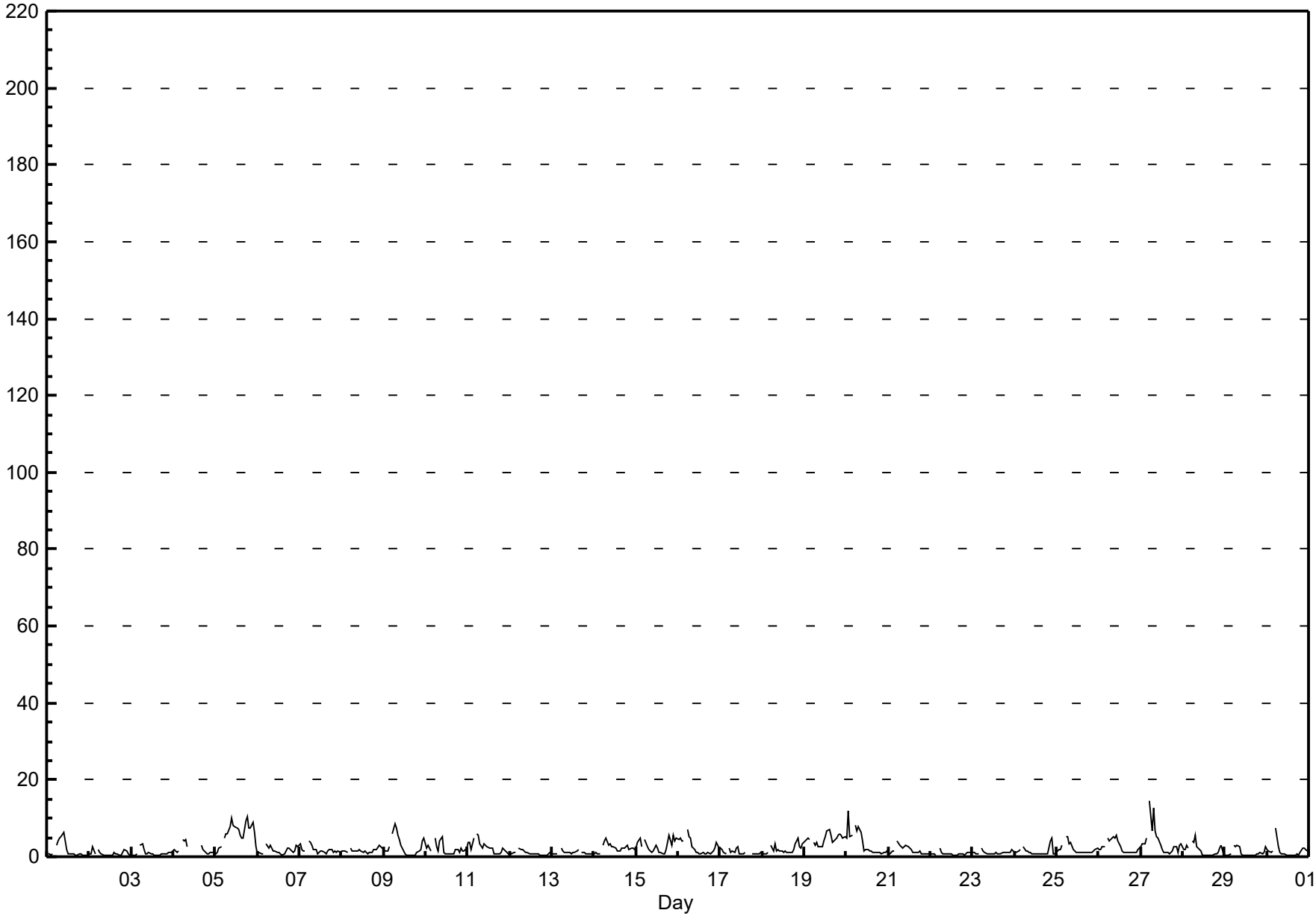
C - Calibration P - Power Failure A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Beaverlodge - April 2017



Peace Airshed Zone Association

Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

Beaverlodge - April 2017

Maximum Value: 78.1 ppb on Apr 27 08:00

Maximum Daily Average: 10.2 ppb on Apr 27

Minimum Value: 0 ppb on Apr 29 13:00

Minimum Daily Average: 1.4 ppb on Apr 22

Maximum Diurnal Average: 7.9 ppb at hour 8

Minimum Diurnal Average: 1.7 ppb at hour 16

Monthly Average: 3.56 ppb

Percentiles: P_1 = 0.5 P_{10} = 0.9 Q_1 = 1.4 Median = 2.4 Q_3 = 4.6 P_{90} = 7.5 P_{99} = 13.8

Hours in Service:	720
Hours of Data:	679
Hours of Missing Data:	41
Hours of Calibration:	37
Percent Operational Time:	99.4

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	2	1	1	2	A	7	11	11	10	13	6	4	3	1	3	2	2	2	3	3	1	1	1	4	4.1	12.5
2-Apr	2	2	7	3	A	4	3	1	1	1	2	2	1	1	2	2	2	1	1	3	3	3	1	1	2.2	7.1
3-Apr	1	1	1	4	A	4	5	6	2	2	2	1	1	1	1	1	1	3	2	3	3	3	5	2	2.2	5.7
4-Apr	3	2	2	4	A	7	5	11	6	C	C	C	C	C	C	C	7	3	2	1	1	1	2	1	--	11.1
5-Apr	1	1	3	3	A	8	8	9	10	14	10	9	8	8	7	6	7	11	14	11	8	16	12	8	8.3	15.9
6-Apr	2	3	2	2	A	5	3	7	4	2	2	2	2	1	1	1	3	3	3	8	2	5	6	4	3.2	8.4
7-Apr	5	3	2	2	A	6	7	5	3	3	2	1	3	2	2	1	3	2	3	2	3	4	3	1	3.0	7.5
8-Apr	2	2	2	1	A	3	2	2	2	2	2	2	2	2	3	2	2	2	4	5	3	8	4	3	2.6	7.6
9-Apr	3	2	2	3	A	7	10	11	6	6	4	3	1	1	1	1	1	1	1	2	5	5	6	8	3.8	10.7
10-Apr	3	4	4	2	A	7	4	6	7	8	4	1	1	1	1	1	1	3	3	2	11	5	3	7	3.9	11.2
11-Apr	6	9	3	9	A	10	7	6	2	7	5	3	4	3	3	2	1	2	2	4	4	3	2	1	4.2	9.8
12-Apr	2	1	2	2	A	4	2	2	2	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1.5	3.9
13-Apr	1	1	1	1	A	4	2	2	2	1	2	1	1	2	2	3	P	2	1	1	1	1	1	1	1.6	3.7
14-Apr	1	2	1	1	A	4	6	6	4	5	3	5	4	2	2	3	3	3	3	4	3	3	3	3	3.3	6.4
15-Apr	4	6	7	3	A	6	3	2	2	1	3	3	3	2	1	1	2	2	9	8	4	8	5	7	4.0	8.6
16-Apr	5	6	5	6	A	9	7	6	4	3	2	1	1	3	2	1	2	2	1	3	3	3	5	4	3.5	8.9
17-Apr	3	3	2	1	A	4	2	3	3	8	5	1	1	1	2	P	P	P	1	1	1	1	1	2	2.3	7.6
18-Apr	1	1	1	1	A	5	3	9	4	6	6	4	2	5	5	2	2	2	5	5	6	4	4	5	3.8	8.6
19-Apr	6	5	6	6	A	6	4	4	4	3	4	6	8	8	9	7	5	7	8	12	13	14	7	8	6.9	13.8
20-Apr	9	23	12	9	A	14	13	10	9	5	2	3	3	2	2	1	1	2	2	2	1	2	4	2	5.8	22.7
21-Apr	2	1	4	3	A	6	5	4	3	4	4	3	3	3	1	1	2	1	2	2	2	1	1	1	2.5	6.4
22-Apr	1	1	2	1	A	4	2	1	1	1	2	1	1	1	1	1	1	1	2	1	1	2	3	1	1.4	4.0
23-Apr	1	1	1	1	A	4	2	1	1	2	2	1	2	1	1	1	1	1	2	2	2	2	2	2	1.6	4.0
24-Apr	2	2	2	2	A	5	2	2	2	1	1	1	2	1	1	1	1	1	1	2	13	9	3	1	2.5	12.8
25-Apr	2	2	3	7	A	8	7	8	6	3	2	1	1	1	1	1	1	2	2	2	4	2	2	4	3.2	7.8
26-Apr	2	2	5	3	A	7	5	5	7	6	6	5	4	2	1	1	1	1	2	1	4	1	2	3	3.4	6.8
27-Apr	3	3	5	8	A	53	15	78	8	6	6	4	3	1	2	2	2	2	3	6	8	2	5	8	10.2	78.1
28-Apr	3	3	5	3	A	5	8	10	5	3	2	1	1	1	1	1	1	1	1	1	2	3	8	1	3.1	9.7
29-Apr	0	1	1	1	A	5	7	6	4	3	1	0	0	0	0	1	1	1	1	2	4	2	2	4	2.0	7.0
30-Apr	4	3	1	3	A	12	5	3	1	1	1	1	1	1	1	1	1	1	1	2	6	7	3	4	2.8	12.3
	2.7	3.3	3.1	3.3	--	7.8	5.5	7.9	4.1	4.1	3.2	2.6	2.4	2.1	2.0	1.7	2.0	2.3	2.8	3.4	4.1	4.0	3.6	3.4	Diurnal Average	
	8.6	22.7	11.8	9.1	--	52.7	15.3	78.1	10.2	13.9	9.8	8.6	8.5	8.2	8.7	7.1	6.7	10.7	13.7	11.9	12.8	15.9	11.9	8.4	Diurnal Maximum	

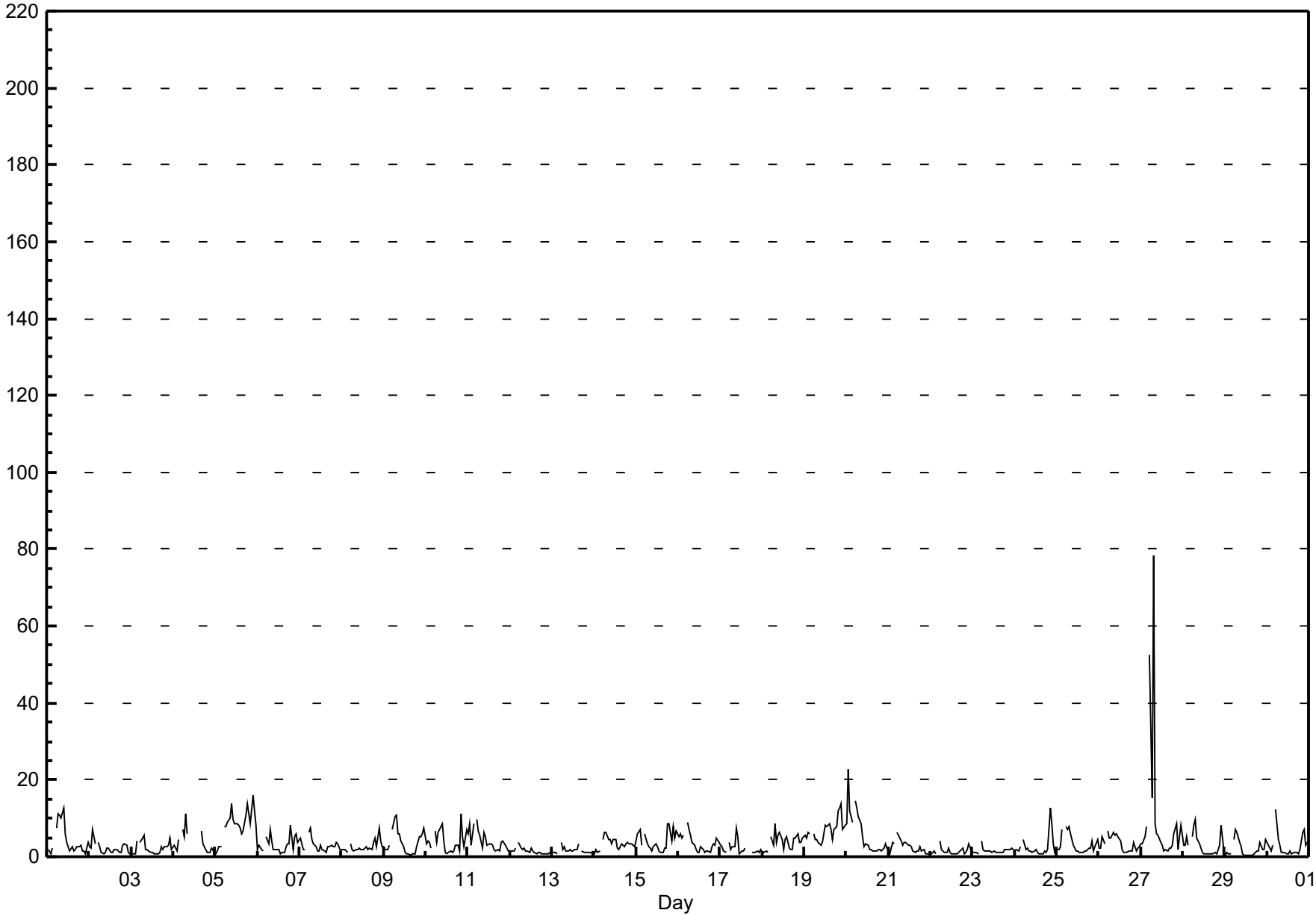
C - Calibration P - Power Failure A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

Beaverlodge - April 2017

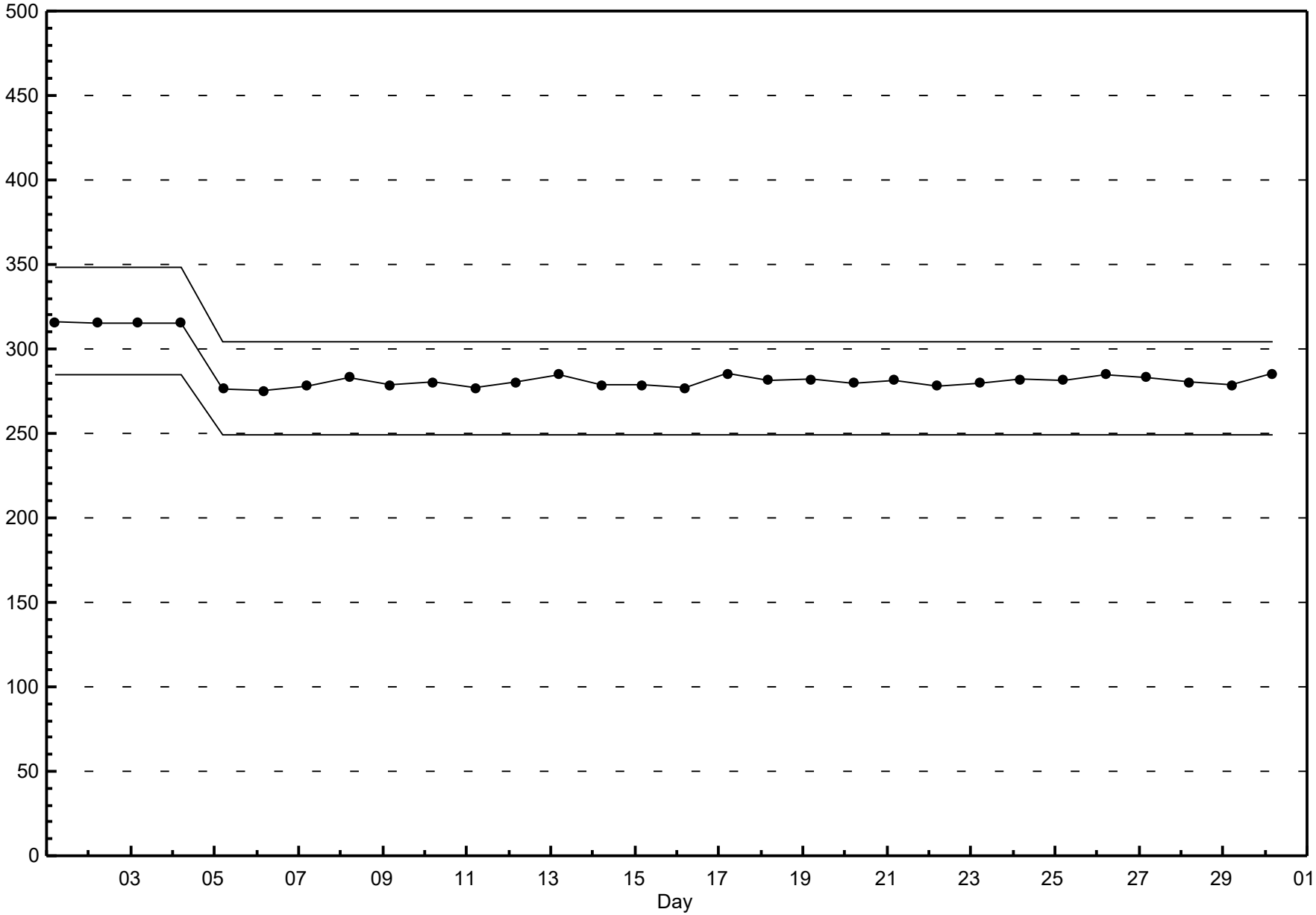


Peace Airshed Zone Association

Span Responses

Oxides of Nitrogen (NO_X)

Beaverlodge - April 2017



Peace Airshed Zone Association

Hourly Averages

Ozone (O_3) - ppb

Beaverlodge - April 2017

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 53.3 ppb on Apr 6 15:00 Maximum Daily Average: 42.6 ppb on Apr 3

Minimum Value: 12 ppb on Apr 27 06:00 Minimum Daily Average: 28.7 ppb on Apr 11
Maximum Diurnal Average: 44.1 ppb at hour 17 Minimum Diurnal Average: 30.0 ppb at hour 8
Monthly Average: 37.19 ppb Percentiles: P_1 = 17.0 P_{10} = 28.5 Q_1 = 32.9 Median = 37.8 Q_3 = 42.1 P_{90} = 45.7 P_{99} = 51.9

Hours in Service:	720
Hours of Data:	684
Hours of Missing Data:	36
Hours of Calibration:	33
Percent Operational Time:	99.6

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	38	38	38	38	A	35	31	27	29	23	28	31	42	44	44	44	43	42	41	40	40	39	37	36	36.9	44.3
2-Apr	35	34	35	40	A	42	41	42	42	43	42	42	41	41	39	39	40	40	39	37	36	34	38	39	39.3	42.9
3-Apr	41	41	41	40	A	38	36	38	43	44	44	45	46	47	47	48	47	46	44	42	42	40	41	41	42.6	47.5
4-Apr	41	37	40	37	A	38	32	29	34	39	42	42	49	48	50	C	C	C	49	50	48	46	44	44	41.9	49.8
5-Apr	44	44	43	43	A	40	38	37	32	32	35	35	36	39	42	42	37	34	33	34	35	28	36	43	37.5	44.3
6-Apr	44	38	37	36	A	37	31	28	39	37	42	42	46	53	53	53	52	50	47	46	45	44	39	38	42.3	53.3
7-Apr	36	37	36	39	A	33	29	36	38	38	44	44	41	40	39	40	37	34	34	36	33	37	36	39	37.3	44.1
8-Apr	37	36	36	37	A	41	40	40	38	36	36	39	41	43	44	44	43	41	38	35	33	31	30	33	37.8	44.2
9-Apr	33	33	33	29	A	23	19	16	20	23	27	32	40	44	46	46	47	47	47	44	40	36	30	30	34.2	47.0
10-Apr	33	32	33	28	A	28	35	40	27	29	43	46	45	45	43	44	44	43	41	41	40	40	37	39	38.1	45.9
11-Apr	33	32	32	25	A	22	19	19	18	17	22	24	26	29	29	36	37	37	36	37	33	32	29	31	28.7	37.4
12-Apr	30	31	31	31	A	30	29	30	31	31	32	35	37	37	39	40	41	42	43	44	44	41	37	35	35.7	43.9
13-Apr	35	36	34	39	A	38	37	36	35	35	36	37	37	38	36	36	P	36	36	37	37	37	37	36	36.4	38.6
14-Apr	36	35	35	35	A	35	32	29	30	32	34	36	39	41	41	42	42	41	40	38	37	36	35	34	36.2	41.7
15-Apr	33	31	28	29	A	26	29	31	35	37	36	35	37	40	41	42	43	42	41	38	39	35	32	29	35.2	42.9
16-Apr	27	24	23	20	A	18	17	16	19	24	29	32	37	42	39	45	47	45	43	44	43	42	39	40	32.7	46.7
17-Apr	40	39	39	35	A	33	34	34	35	36	38	40	41	42	42	P	P	42	42	41	39	37	37	36	38.1	42.4
18-Apr	36	37	37	38	A	38	38	38	39	39	40	41	43	44	44	45	45	43	42	40	37	38	37	36	39.7	44.8
19-Apr	34	33	32	32	A	32	31	30	30	30	30	30	31	31	33	36	39	38	35	32	27	31	30	25	31.8	39.0
20-Apr	25	16	22	23	A	17	14	15	20	34	48	47	46	47	47	46	44	40	35	32	31	29	30	30	32.1	47.9
21-Apr	32	32	32	32	A	28	27	28	28	29	30	32	35	39	43	44	43	42	42	39	34	33	32	31	34.1	43.7
22-Apr	30	30	33	35	A	34	36	36	37	39	39	40	40	40	42	42	45	46	46	46	44	38	38	37	38.8	46.0
23-Apr	38	37	38	40	A	39	40	38	38	39	38	38	38	38	38	38	39	39	38	37	36	33	32	31	37.4	39.8
24-Apr	30	31	30	29	A	31	31	32	33	34	36	38	40	41	44	44	44	46	47	46	38	37	43	43	37.7	46.7
25-Apr	39	37	37	33	A	22	20	25	30	35	41	46	48	49	49	50	53	53	52	48	43	43	42	41	40.8	53.2
26-Apr	41	39	36	33	A	29	28	28	28	28	31	34	40	48	52	50	52	52	48	44	41	41	38	32	38.8	52.1
27-Apr	28	27	25	22	A	12	19	16	22	26	32	37	42	46	47	48	48	46	44	42	37	44	36	38	34.0	48.3
28-Apr	37	34	30	29	A	28	25	18	26	31	33	41	41	42	43	45	44	44	43	39	40	39	37	44	36.2	44.7
29-Apr	45	42	38	34	A	34	34	30	33	38	43	45	47	48	50	49	50	49	48	46	43	44	44	39	42.3	49.7
30-Apr	38	41	42	42	A	36	39	40	41	41	41	42	45	48	50	48	48	44	42	42	38	39	38	36	41.7	49.8
	35.6	34.4	34.2	33.4	--	31.3	30.4	30.0	31.6	33.3	36.4	38.3	40.6	42.3	43.2	43.8	44.1	43.0	41.8	40.5	38.4	37.4	36.3	36.2	Diurnal Average	
	44.5	44.3	42.8	42.8	--	42.2	41.3	41.9	43.2	44.2	47.9	47.2	48.7	52.8	53.3	52.6	52.6	53.2	51.8	49.8	48.4	46.3	44.4	44.2	Diurnal Maximum	

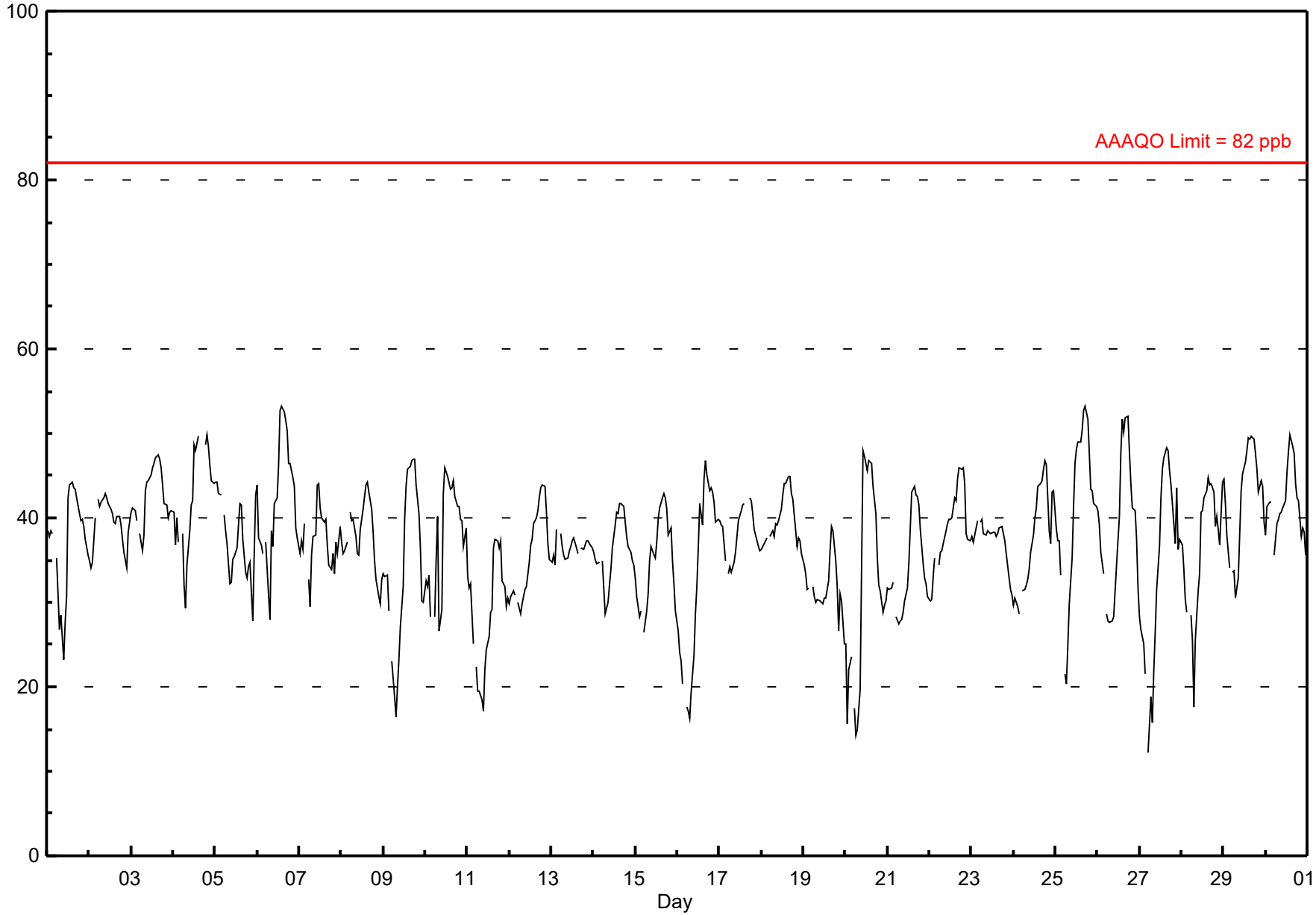
C - Calibration P - Power Failure A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82 ppb 24-hr na

Peace Airshed Zone Association

Hourly Averages

Ozone (O_3) - ppb

Beaverlodge - April 2017



Peace Airshed Zone Association

Hourly Maximums

Ozone (O_3) - ppb

Beaverlodge - April 2017

Maximum Value: 61.9 ppb on Apr 27 16:00

Maximum Daily Average: 45.7 ppb on Apr 6

Minimum Value: 17 ppb on Apr 20 08:00

Minimum Daily Average: 31.7 ppb on Apr 11

Maximum Diurnal Average: 46.2 ppb at hour 17

Minimum Diurnal Average: 32.6 ppb at hour 8

Monthly Average: 39.58 ppb

Percentiles: P_1 = 20.6 P_{10} = 30.8 Q_1 = 35.8 Median = 40.4 Q_3 = 44.2 P_{90} = 47.9 P_{99} = 54.1

Hours in Service:	720
Hours of Data:	684
Hours of Missing Data:	36
Hours of Calibration:	33
Percent Operational Time:	99.6

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	40	39	41	40	A	41	35	29	36	32	31	38	50	48	46	46	45	43	42	43	41	41	39	37	40.2	50.2
2-Apr	37	37	39	41	A	44	43	43	44	44	43	43	42	41	41	41	42	41	40	39	39	39	41	41	41.1	43.8
3-Apr	42	42	42	41	A	41	40	43	44	45	45	46	47	48	48	48	49	47	46	44	43	41	43	43	44.2	48.6
4-Apr	43	42	43	43	A	43	35	33	38	43	44	47	50	49	51	C	C	C	51	51	50	48	46	45	44.7	51.4
5-Apr	45	46	45	44	A	43	40	40	36	37	37	37	38	42	45	45	41	35	37	37	36	36	40	47	40.3	46.9
6-Apr	47	41	40	38	A	41	36	38	44	42	44	44	51	55	55	54	54	52	50	49	47	46	42	42	45.7	54.8
7-Apr	39	40	39	45	A	41	35	41	41	44	46	45	44	42	41	41	40	36	37	38	38	41	38	40	40.5	46.0
8-Apr	39	37	37	38	A	42	40	41	40	38	37	41	42	45	46	46	45	44	41	38	35	34	32	34	39.6	46.5
9-Apr	36	36	36	32	A	25	22	18	21	27	30	37	43	47	47	48	48	48	48	48	43	43	32	33	36.9	48.3
10-Apr	36	36	36	34	A	32	38	43	43	38	47	47	49	47	45	47	47	44	43	44	44	44	41	45	42.2	48.5
11-Apr	37	37	36	34	A	27	22	21	19	21	25	26	31	31	33	38	40	39	38	39	37	33	32	32	31.7	39.7
12-Apr	31	32	32	32	A	32	31	31	32	33	34	37	38	40	41	41	42	44	44	45	44	43	38	37	37.1	44.8
13-Apr	35	37	36	42	A	39	37	36	36	36	37	38	38	38	37	37	P	37	37	38	38	38	38	37	37.4	41.6
14-Apr	37	36	35	35	A	36	34	30	31	33	35	38	41	42	42	43	43	43	41	39	38	37	37	35	37.4	43.1
15-Apr	34	33	30	30	A	27	32	33	38	38	37	36	39	41	42	43	44	43	44	40	40	38	34	31	36.8	43.9
16-Apr	28	26	24	22	A	19	18	19	22	27	30	35	42	46	41	47	49	47	45	46	46	44	41	43	35.2	49.2
17-Apr	43	41	41	38	A	35	35	35	36	37	39	41	42	42	42	P	P	43	43	41	40	38	37	37	39.4	43.5
18-Apr	37	37	38	38	A	39	39	40	40	40	41	42	44	45	45	46	47	44	44	42	39	39	39	37	40.9	46.5
19-Apr	36	35	34	33	A	33	32	31	31	31	31	31	31	32	36	39	47	44	37	39	32	34	37	31	34.5	46.7
20-Apr	33	22	30	29	A	21	18	17	25	44	51	52	48	49	48	48	46	44	40	33	33	32	32	32	35.9	51.7
21-Apr	33	33	34	35	A	30	29	29	29	30	32	33	38	41	46	45	44	44	43	40	36	35	33	33	35.9	45.8
22-Apr	31	34	36	37	A	36	38	38	39	40	41	41	41	42	44	44	46	48	47	47	46	42	39	39	40.7	47.9
23-Apr	39	38	39	41	A	40	41	40	39	39	39	39	40	40	39	39	40	40	39	39	37	35	32	32	38.5	40.8
24-Apr	31	32	31	30	A	32	32	33	33	35	37	40	42	44	45	45	46	47	49	49	42	41	46	45	39.4	49.0
25-Apr	42	38	38	39	A	26	25	27	34	39	46	49	50	51	51	52	54	55	53	52	45	44	44	42	43.4	55.1
26-Apr	42	41	38	36	A	30	29	29	30	31	33	40	44	52	53	52	54	54	50	47	43	43	41	35	41.1	54.5
27-Apr	30	28	27	24	A	23	25	22	25	31	36	38	46	47	48	62	49	49	48	50	44	46	42	45	38.5	61.9
28-Apr	43	41	35	32	A	34	28	23	30	33	37	43	43	44	45	47	45	47	46	41	44	41	42	48	39.6	48.0
29-Apr	48	45	42	37	A	35	36	34	35	41	44	47	49	49	52	50	51	51	50	50	46	47	47	43	44.8	51.8
30-Apr	43	44	44	45	A	40	41	41	41	42	43	43	48	51	52	51	51	47	45	44	41	41	41	37	44.2	52.5
	38.0	36.8	36.6	36.2	--	34.2	32.9	32.6	34.4	36.3	38.4	40.4	43.0	44.3	44.9	46.0	46.2	44.8	44.0	43.0	41.0	40.1	38.8	38.6	Diurnal Average	
	48.0	46.1	44.7	45.3	--	43.6	43.1	43.2	44.4	45.3	51.5	51.7	51.2	54.7	54.8	61.9	54.2	55.1	52.9	51.5	49.9	48.5	47.2	48.0	Diurnal Maximum	

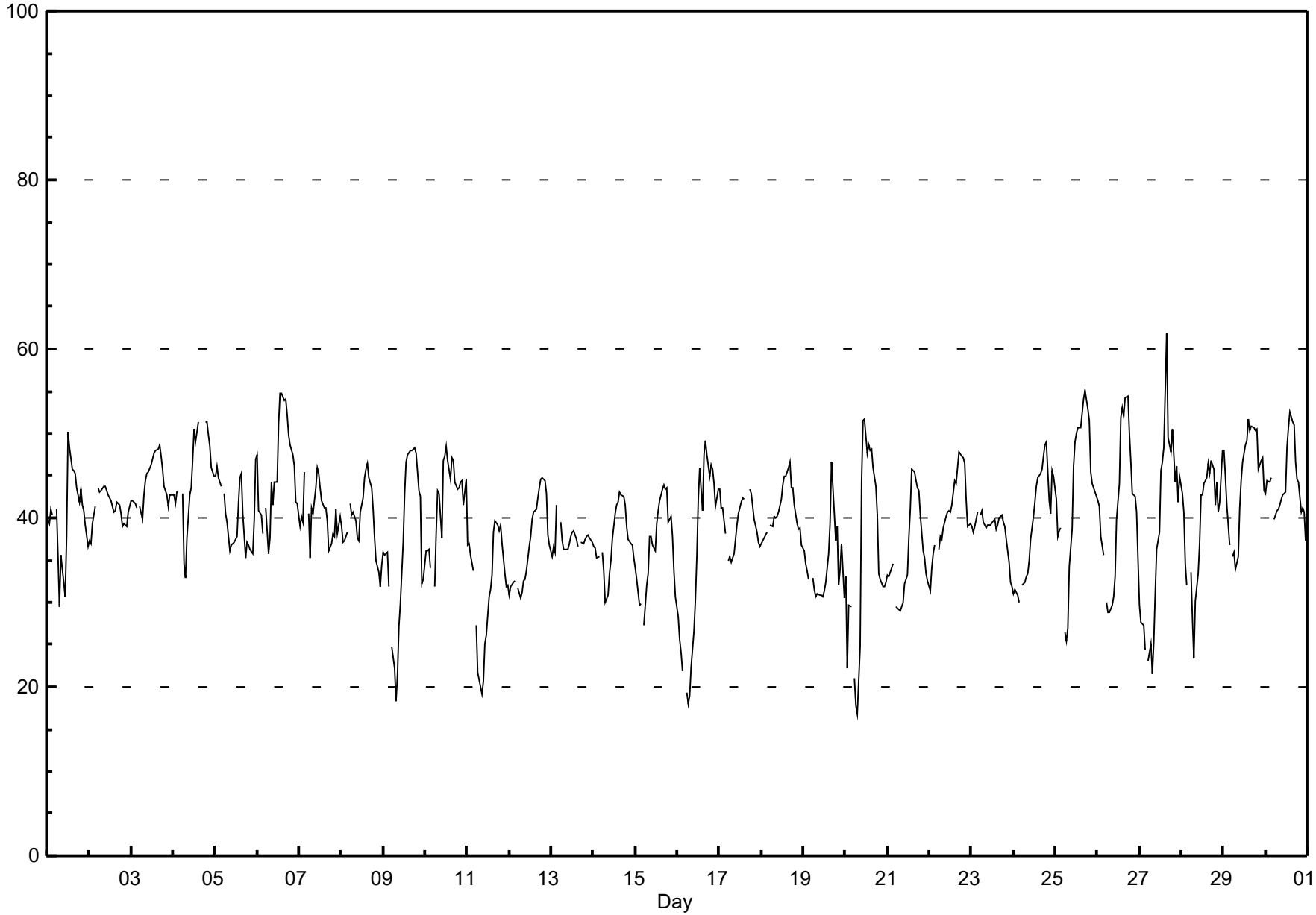
C - Calibration P - Power Failure A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Ozone (O_3) - ppb

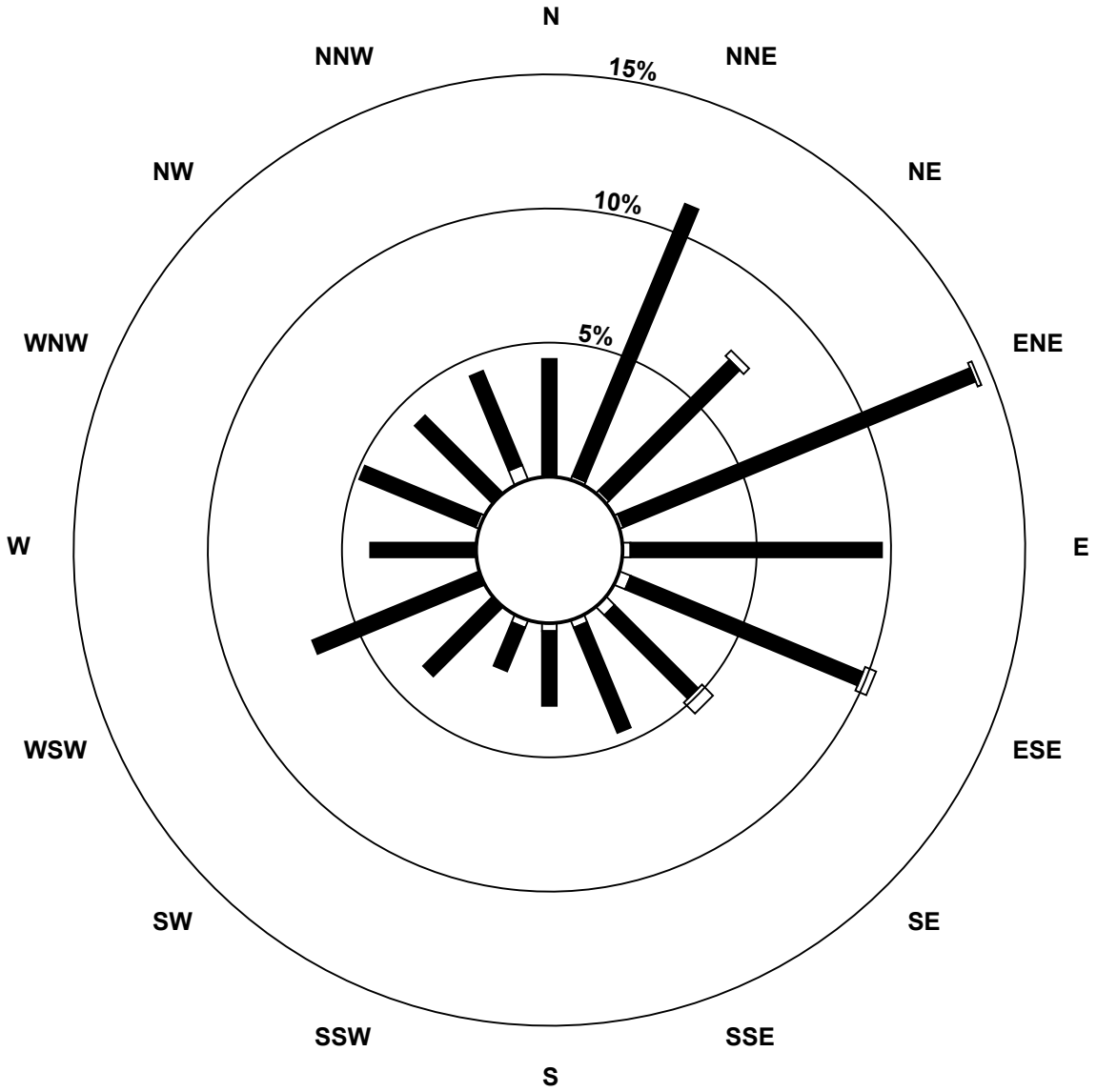
Beaverlodge - April 2017



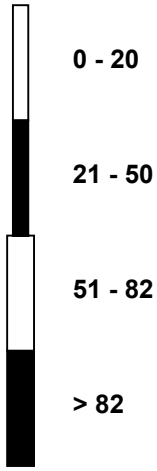
Pollutant Rose

Ozone (O_3) - ppb

Beaverlodge - April 2017



Pollutant Classes (ppb)



Peace Airshed Zone Association

Eight Hour Running Averages

Ozone (O_3) - ppb

Beaverlodge - April 2017

Maximum Value: 50.2 ppb on Apr 25 20:00

Minimum Value: 18.2 ppb on Apr 20 09:00

Percentiles: P_1 = 20.4 P_{10} = 30.1 Q_1 = 33.6 Median = 37.6 Q_3 = 40.8 P_{90} = 43.8 P_{99} = 48.5

Hours in Service:	720
Hours of Data:	714
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-Apr	42	41	40	40	39	38	37	35	34	32	30	29	31	32	33	36	37	40	41	43	42	42	41	40	42.5
2-Apr	39	38	37	37	37	37	38	38	40	41	42	42	42	42	42	41	41	41	40	40	39	38	38	38	42.1
3-Apr	38	38	38	39	39	40	39	39	40	40	41	41	42	43	44	45	46	46	46	46	45	44	44	43	46.2
4-Apr	42	41	40	40	39	39	38	36	35	36	36	37	38	39	42	43	45	N	N	N	N	N	N	47	46.9
5-Apr	47	46	46	45	44	43	42	41	40	38	37	36	36	36	36	37	37	38	37	37	37	35	35	35	46.5
6-Apr	36	36	37	37	37	39	38	36	35	35	35	36	38	40	42	46	47	49	49	50	50	49	47	45	50.0
7-Apr	43	41	40	39	38	37	35	35	35	36	37	37	38	39	40	41	40	40	39	38	37	36	36	36	43.0
8-Apr	36	36	36	36	37	37	38	38	38	38	38	38	39	39	39	40	41	41	42	41	40	39	37	35	41.6
9-Apr	34	33	33	32	32	31	29	27	25	23	22	23	25	28	31	35	38	41	44	45	45	44	42	40	45.1
10-Apr	38	37	35	33	32	31	31	33	32	32	33	35	37	39	40	40	42	44	44	43	43	42	41	41	44.1
11-Apr	39	38	37	35	34	31	29	26	24	22	21	20	21	22	23	25	28	30	32	34	34	35	35	34	39.2
12-Apr	33	32	32	31	31	30	30	30	30	30	31	31	32	33	34	35	37	38	39	41	41	42	41	41	41.8
13-Apr	40	39	38	37	37	36	36	36	36	36	36	36	36	36	36	36	36	37	37	37	37	37	37	37	40.1
14-Apr	37	37	36	36	36	36	35	34	33	32	32	33	33	34	35	37	38	39	40	40	40	39	39	38	40.3
15-Apr	37	35	34	33	32	31	30	30	30	31	32	33	33	35	37	38	39	40	40	41	41	40	39	37	40.8
16-Apr	35	33	31	29	27	25	23	21	20	20	20	22	24	27	30	33	37	39	41	43	43	43	43	43	43.4
17-Apr	42	41	41	40	39	38	37	36	36	35	35	36	36	37	38	39	40	41	41	41	41	40	40	39	41.9
18-Apr	39	38	37	37	37	37	37	37	38	38	39	39	39	40	41	42	43	43	43	43	42	42	41	40	43.3
19-Apr	38	37	36	35	35	34	33	32	31	31	31	30	30	30	31	31	32	33	34	34	34	34	34	32	38.4
20-Apr	30	28	26	25	25	23	20	19	18	21	25	28	30	34	38	42	45	46	44	42	40	38	36	34	45.6
21-Apr	32	31	31	31	31	31	30	30	30	29	29	29	30	31	33	35	37	38	40	41	41	40	39	37	40.7
22-Apr	35	34	33	32	32	32	33	34	35	36	37	37	38	38	39	40	41	42	43	43	44	44	43	42	43.8
23-Apr	42	40	39	39	38	38	38	39	39	39	39	39	39	38	38	38	38	38	38	38	38	37	36	36	41.5
24-Apr	34	33	32	31	31	30	30	30	31	31	32	34	34	36	37	39	40	42	43	44	44	43	43	43	44.0
25-Apr	42	41	40	39	39	36	33	30	29	29	30	31	33	37	41	44	47	49	50	50	50	49	48	47	50.2
26-Apr	45	44	42	40	39	37	35	33	32	30	29	29	31	33	36	39	42	45	47	48	48	47	46	43	48.3
27-Apr	40	37	34	32	30	26	23	21	20	20	21	23	26	30	33	37	41	43	45	45	45	44	43	42	45.3
28-Apr	40	39	37	36	35	33	32	29	27	27	27	29	30	32	34	38	40	42	43	43	43	42	41	41	42.8
29-Apr	41	41	40	40	40	39	39	37	35	34	35	37	38	40	42	44	46	48	48	48	48	47	47	45	48.2
30-Apr	44	43	42	42	42	40	40	40	40	40	40	40	41	42	43	44	45	46	46	46	45	44	42	41	46.0
Diurnal Maximums	46.5	46.3	45.5	44.7	44.1	43.3	42.4	41.4	40.0	40.8	41.9	42.1	42.0	42.9	44.3	45.5	47.1	48.9	50.1	50.2	49.8	48.9	48.0	46.9	

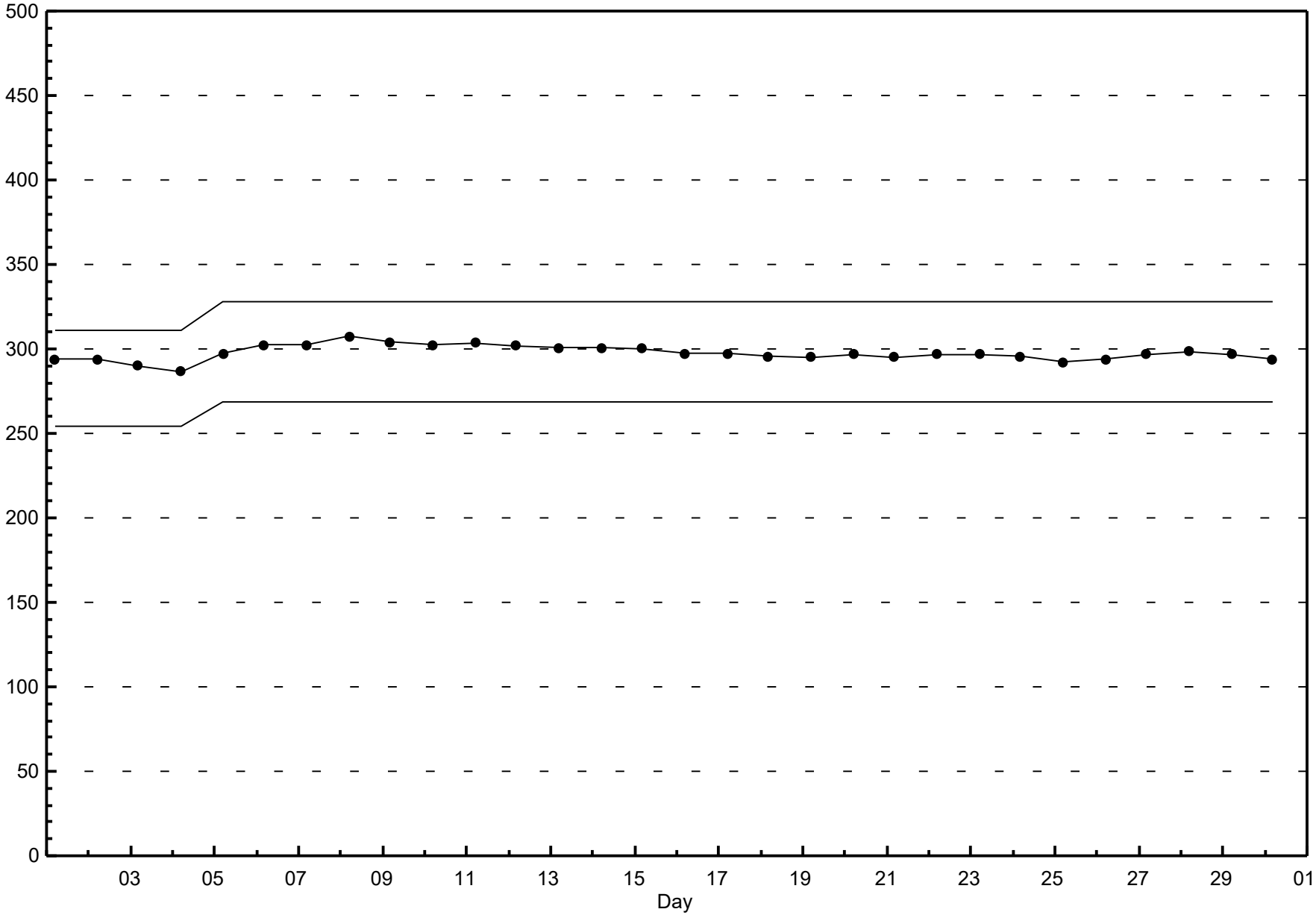
N - Not Valid

Peace Airshed Zone Association

Span Responses

Ozone (O_3)

Beaverlodge - April 2017



Peace Airshed Zone Association

Hourly Averages

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

Beaverlodge - April 2017

Number of Exceedences: 1-hr: 0 24-hr: 0

Maximum Value: 13.2 $\mu g/m^3$ on Apr 5 18:00

Maximum Daily Average: 6.0 $\mu g/m^3$ on Apr 5

Minimum Value: 0 $\mu g/m^3$ on Apr 2 09:00

Maximum Diurnal Average: 3.0 $\mu g/m^3$ at hour 6

Monthly Average: 2.47 $\mu g/m^3$

Minimum Daily Average: 0.3 $\mu g/m^3$ on Apr 2

Minimum Diurnal Average: 1.8 $\mu g/m^3$ at hour 15

Percentiles: P_1 = 0.1 P_{10} = 0.5 Q_1 = 1.1 Median = 2.1 Q_3 = 3.1 P_{90} = 4.7 P_{99} = 10.2

Hours in Service:	720
Hours of Data:	717
Hours of Missing Data:	3
Hours of Calibration:	0
Percent Operational Time:	99.6

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	0	0	0	0	0	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0	0.7	1.5
2-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0.3	1.0
3-Apr	1	0	0	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.4
4-Apr	1	1	1	2	2	2	2	2	2	1	2	1	1	2	2	3	3	4	4	3	3	2	2	1	2.1	4.1
5-Apr	1	1	2	4	4	4	5	5	7	9	8	7	7	6	4	3	6	13	11	9	9	11	6	2	6.0	13.2
6-Apr	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	2	2	4	3	3	3	2	1.4	4.1
7-Apr	2	2	3	2	1	2	3	10	2	1	1	1	2	2	3	3	5	8	6	2	2	2	3	2	2.8	10.1
8-Apr	2	2	1	1	1	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	2	1.1	1.9
9-Apr	2	1	2	4	5	5	7	8	4	4	2	1	0	0	0	0	0	0	0	0	0	1	1	0	2.0	8.5
10-Apr	1	0	0	0	1	1	1	0	1	1	0	0	1	1	0	0	0	1	1	1	1	1	1	1	0.7	1.3
11-Apr	1	2	2	2	2	2	2	2	2	3	3	3	4	3	4	2	2	2	3	3	3	3	3	4	2.5	3.6
12-Apr	5	5	5	4	4	4	4	4	4	4	4	4	4	3	3	3	2	2	1	1	2	2	2	3	3.4	5.2
13-Apr	4	3	3	3	3	2	2	1	1	0	0	0	0	0	0	0	P	1	1	0	0	1	0	0	1.1	3.6
14-Apr	0	0	0	0	0	0	1	1	1	1	1	1	2	1	1	1	1	2	2	2	1	1	1	1	1.0	1.7
15-Apr	1	1	2	1	2	2	1	1	1	1	1	2	2	2	2	1	1	2	3	3	2	4	3	3	1.8	3.8
16-Apr	3	3	2	3	3	4	5	4	3	2	2	2	1	2	2	3	3	3	3	3	3	3	3	3	2.8	5.0
17-Apr	4	4	4	4	4	3	3	2	1	1	1	1	1	1	1	P	P	1	1	2	2	2	2	2	2.1	4.1
18-Apr	2	2	2	2	2	2	2	2	2	2	2	2	3	3	2	3	3	3	3	4	4	4	5	5	2.7	4.8
19-Apr	5	6	7	8	7	5	4	3	3	3	2	2	3	3	3	3	3	2	3	4	6	5	5	6	4.1	8.2
20-Apr	7	9	8	10	10	11	9	6	4	2	1	2	2	2	2	2	2	2	2	3	3	3	2	2	4.4	11.2
21-Apr	2	2	3	4	5	6	5	5	5	6	6	5	5	5	3	3	5	6	6	5	6	5	4	3	4.5	6.4
22-Apr	3	3	3	2	2	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	2.3	2.9
23-Apr	2	2	2	2	2	2	2	2	3	3	3	2	2	2	3	3	3	4	4	4	5	4	4	4	2.9	4.6
24-Apr	4	4	4	4	3	2	3	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	2	2	2.5	4.0
25-Apr	4	4	4	5	5	4	4	4	3	3	3	3	3	3	2	2	2	2	2	2	3	3	3	3	3.2	4.6
26-Apr	2	2	3	3	3	3	3	2	3	5	4	4	3	2	2	2	3	4	6	6	6	6	6	8	3.9	7.6
27-Apr	9	11	10	10	9	10	9	8	7	7	6	4	3	3	3	2	2	2	2	3	3	3	3	3	5.6	10.6
28-Apr	3	3	2	2	3	3	3	2	1	1	1	1	1	1	1	1	1	2	2	2	2	3	3	2	1.9	3.2
29-Apr	2	2	2	2	2	2	1	2	2	1	1	1	1	2	2	2	2	2	2	2	3	2	3	4	1.8	3.8
30-Apr	2	2	2	3	2	3	2	1	1	1	1	1	1	1	2	1	2	1	1	1	2	2	2	1	1.5	3.3
	2.5	2.7	2.7	3.0	3.0	3.0	2.9	2.8	2.4	2.4	2.1	1.9	2.0	1.9	1.8	1.9	2.2	2.6	2.5	2.6	2.7	2.8	2.6	2.4	Diurnal Average	
	9.2	10.6	9.8	10.2	10.3	11.2	9.3	10.1	7.2	9.1	7.7	6.8	7.1	5.6	4.4	3.4	6.0	13.2	11.3	9.2	8.5	10.6	6.5	7.6	Diurnal Maximum	

P - Power Failure

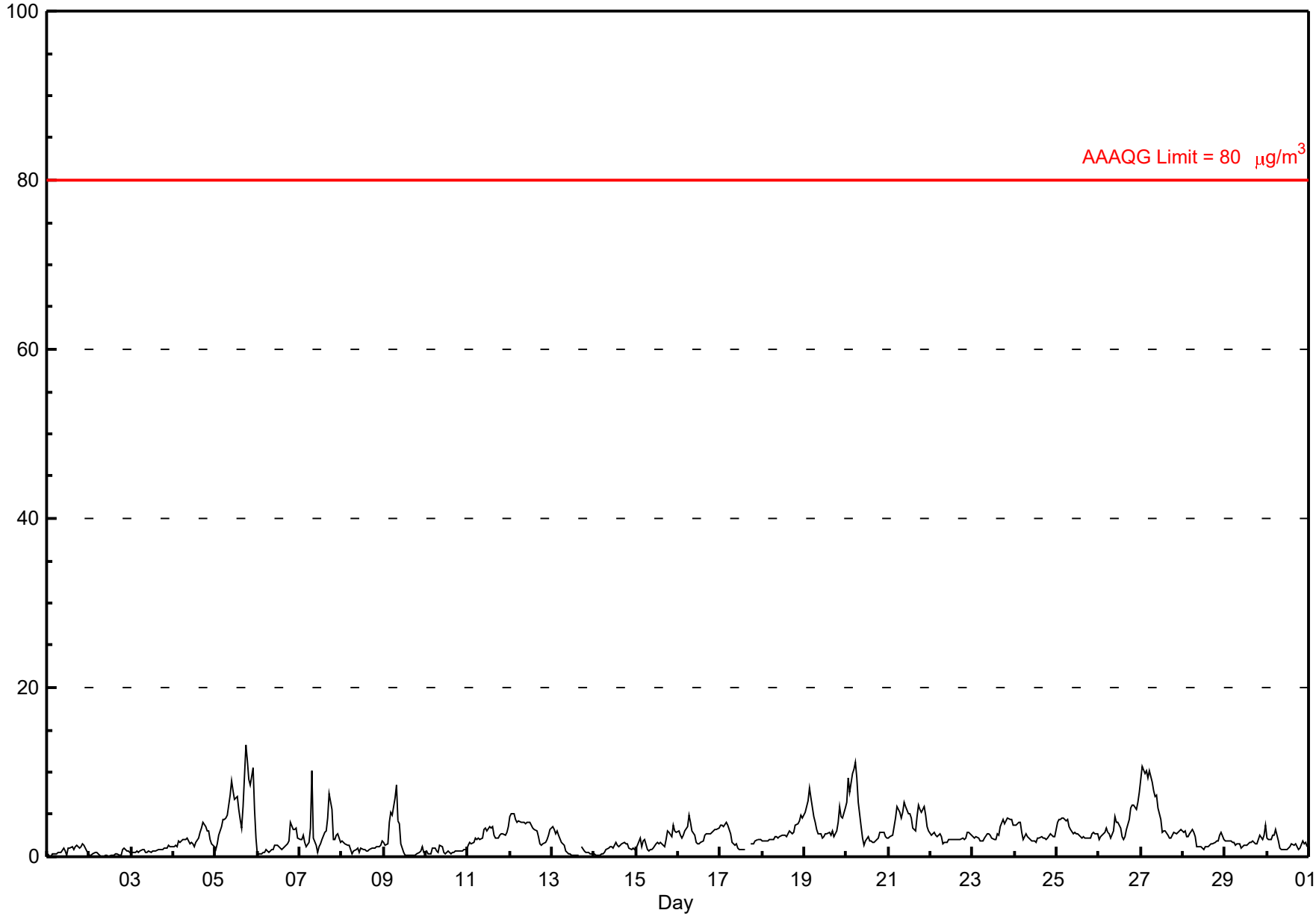
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 $\mu g/m^3$ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 $\mu g/m^3$

Peace Airshed Zone Association

Hourly Averages

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

Beaverlodge - April 2017



Peace Airshed Zone Association

Hourly Maximums

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

Beaverlodge - April 2017

Maximum Value: 15.6 $\mu g/m^3$ on Apr 7 08:00

Maximum Daily Average: 7.6 $\mu g/m^3$ on Apr 5

Minimum Value: 0 $\mu g/m^3$ on Apr 9 18:00

Maximum Diurnal Average: 3.8 $\mu g/m^3$ at hour 8

Monthly Average: 3.17 $\mu g/m^3$

Minimum Daily Average: 0.8 $\mu g/m^3$ on Apr 2

Minimum Diurnal Average: 2.4 $\mu g/m^3$ at hour 14

Percentiles: P_1 = 0.4 P_{10} = 0.9 Q_1 = 1.6 Median = 2.6 Q_3 = 3.9 P_{90} = 6.0 P_{99} = 12.3

Hours in Service:	720
Hours of Data:	717
Hours of Missing Data:	3
Hours of Calibration:	0
Percent Operational Time:	99.6

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	2	0	0	1	1	1	1	1	2	2	1	0	2	1	2	1	7	3	1	2	2	2	1	1	1.5	7.0
2-Apr	0	0	1	1	1	1	0	0	0	0	1	0	1	1	0	1	1	1	1	2	2	1	1	1	0.8	1.7
3-Apr	1	1	1	1	1	1	1	1	1	1	3	1	1	1	1	1	2	2	1	1	1	2	2	2	1.3	2.6
4-Apr	2	2	1	3	2	3	2	3	5	2	2	2	6	2	3	4	7	5	4	3	6	2	2	2	3.1	7.3
5-Apr	1	2	3	4	5	5	5	5	10	11	9	7	8	7	5	4	11	15	13	13	9	13	8	7	7.6	15.1
6-Apr	0	1	1	1	1	1	1	1	1	1	2	2	2	1	1	2	2	2	3	9	6	4	4	3	2.2	9.0
7-Apr	3	3	4	2	2	4	8	16	4	2	1	2	2	3	3	4	7	9	6	3	2	3	3	3	4.1	15.6
8-Apr	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	3	1.4	2.6
9-Apr	2	2	2	6	6	5	8	11	6	5	3	1	0	0	0	0	0	0	0	1	1	1	2	1	2.7	11.0
10-Apr	1	1	1	1	1	1	1	1	2	2	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1.0	2.4
11-Apr	2	2	2	2	3	2	3	2	3	5	4	4	4	4	4	3	3	2	3	5	3	3	3	4	3.2	5.1
12-Apr	6	6	6	5	4	5	4	4	4	4	5	4	4	4	4	4	3	2	2	2	2	2	3	4	3.8	5.6
13-Apr	4	4	3	3	3	2	2	2	1	1	1	0	0	0	0	1	P	1	1	1	1	1	0	1	1.5	3.9
14-Apr	0	0	0	0	1	1	1	1	1	1	2	2	2	2	3	2	2	2	2	2	1	1	1	1	1.4	2.6
15-Apr	2	2	2	2	2	3	2	1	1	1	1	2	2	2	2	2	2	3	6	3	3	5	4	3	2.4	5.6
16-Apr	3	3	2	3	4	4	7	5	4	4	2	2	2	2	2	3	3	3	3	3	3	4	4	4	3.3	6.6
17-Apr	4	4	4	5	4	4	3	2	2	2	2	1	1	1	1	P	P	2	2	2	2	2	2	2	2.5	4.6
18-Apr	2	2	2	2	2	2	2	6	5	3	3	3	3	3	3	4	3	3	3	4	4	5	6	5	3.4	5.6
19-Apr	6	7	7	9	8	6	5	4	3	3	3	3	3	3	4	4	4	3	3	6	9	7	6	7	5.1	9.2
20-Apr	10	11	12	12	11	13	12	9	5	3	2	3	4	2	2	2	2	2	3	3	3	3	3	3	5.6	13.2
21-Apr	3	3	3	4	6	7	7	6	7	8	7	6	6	5	5	4	6	7	6	6	7	6	4	4	5.6	7.8
22-Apr	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	3	2	3	4	4	3	2.7	3.9
23-Apr	3	2	3	2	2	2	2	3	3	3	3	3	2	2	3	3	5	5	4	5	5	5	5	4	3.4	5.1
24-Apr	4	4	5	4	4	3	3	3	3	3	2	2	2	3	3	3	3	3	2	2	4	3	3	3	3.0	4.6
25-Apr	5	5	5	6	6	5	5	4	4	3	4	3	3	3	3	3	2	2	2	3	3	3	3	3	3.7	6.1
26-Apr	2	3	3	3	4	3	3	3	5	6	5	5	4	3	2	3	4	6	6	7	7	6	7	8	4.5	8.3
27-Apr	10	11	11	11	10	12	10	10	8	8	6	5	4	4	4	3	3	4	3	4	3	3	3	5	6.6	12.4
28-Apr	3	4	3	3	3	4	4	3	2	1	1	1	1	2	2	1	2	2	2	2	2	3	4	3	2.5	3.9
29-Apr	2	2	2	2	2	2	2	2	2	1	1	2	2	2	2	2	7	2	2	3	4	3	3	5	2.5	6.8
30-Apr	3	3	2	3	4	6	3	1	1	1	1	1	2	2	3	3	3	2	2	2	5	3	3	3	2.6	6.3
	3.1	3.2	3.2	3.6	3.6	3.8	3.7	3.8	3.4	3.1	2.7	2.4	2.6	2.4	2.4	2.4	3.5	3.3	3.2	3.5	3.5	3.5	3.3	3.2	Diurnal Average	
	10.5	11.5	11.7	11.7	11.2	13.2	12.0	15.6	9.5	11.4	8.8	7.3	7.8	7.3	5.3	4.3	11.5	15.1	12.9	12.7	9.3	13.2	7.5	8.3	Diurnal Maximum	

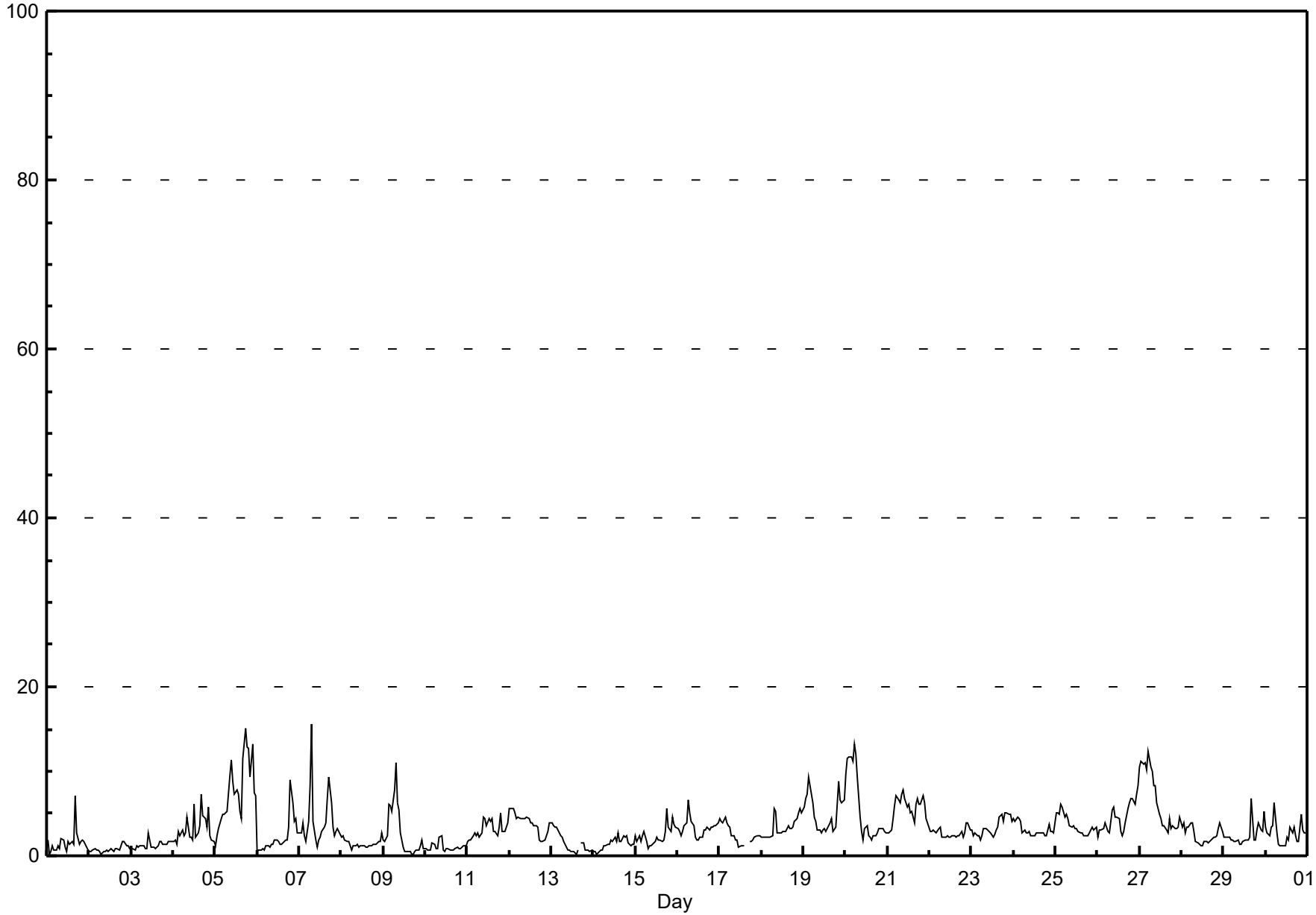
P - Power Failure

Peace Airshed Zone Association

Hourly Maximums

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

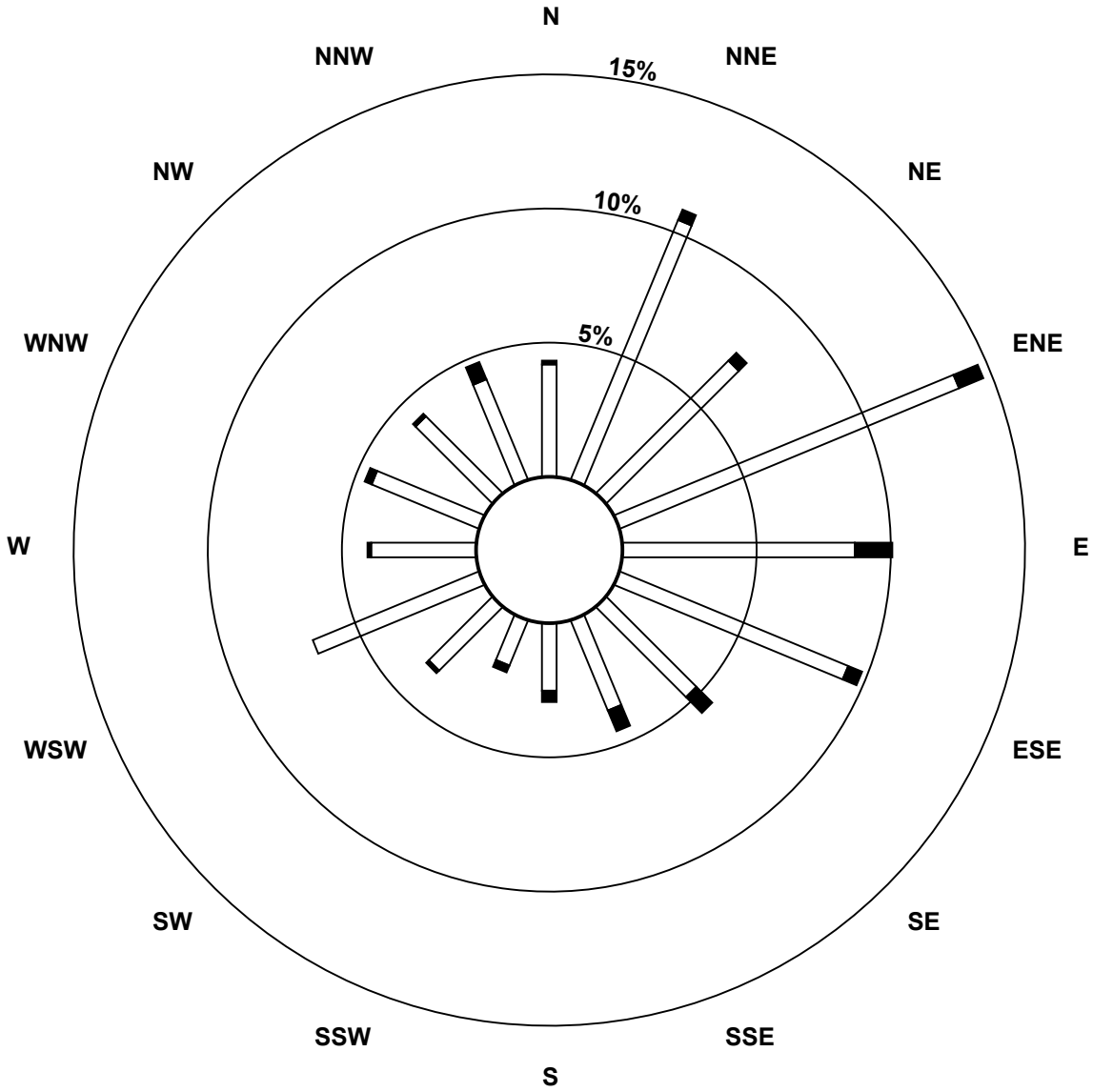
Beaverlodge - April 2017



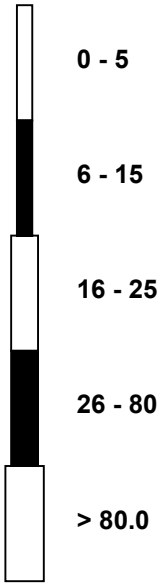
Pollutant Rose

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

Beaverlodge - April 2017



Pollutant Classes ($\mu g/m^3$)



Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - °C

Beaverlodge - April 2017

Maximum Value: 12.9 °C on Apr 29 17:00

Maximum Daily Average: 7.8 °C on Apr 30

Minimum Value: -7 °C on Apr 18 07:00

Minimum Daily Average: -5.5 °C on Apr 18

Maximum Diurnal Average: 6.7 °C at hour 17

Minimum Diurnal Average: -0.1 °C at hour 7

Monthly Average: 2.93 °C

Percentiles: P_1 = -6.5 P_{10} = -1.3 Q_1 = 0.1 Median = 2.5 Q_3 = 5.7 P_{90} = 8.5 P_{99} = 12.0

Hours in Service:	720
Hours of Data:	717
Hours of Missing Data:	3
Hours of Calibration:	0
Percent Operational Time:	99.6

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	3	3	3	2	4	3	2	1	2	2	4	6	8	8	10	10	9	8	6	5	4	4	3	3	4.7	9.8
2-Apr	2	2	2	2	1	2	2	2	2	3	4	4	5	5	5	5	6	6	6	4	3	1	1	1	3.2	6.3
3-Apr	1	1	0	-1	0	-1	-2	-1	2	3	3	3	5	6	7	7	7	7	6	4	2	1	1	0	2.6	7.4
4-Apr	0	-1	-1	-1	-1	-1	-2	-1	0	2	4	5	6	7	8	8	8	7	6	5	4	4	3	2	3.0	8.1
5-Apr	2	2	1	1	1	1	2	2	2	3	3	4	6	8	10	11	11	10	11	10	9	7	7	6	5.4	10.9
6-Apr	4	3	2	2	1	2	1	2	4	6	7	8	9	10	10	9	9	9	9	7	6	6	5	4	5.6	9.6
7-Apr	4	3	3	3	3	2	2	2	2	2	3	3	3	4	4	5	5	5	5	5	5	5	4	4	3.5	5.1
8-Apr	4	4	4	3	3	2	2	2	2	2	2	3	3	4	4	4	4	4	4	4	3	3	2	2	3.0	4.5
9-Apr	2	2	2	1	1	1	1	1	1	3	5	7	8	9	10	11	11	11	11	10	8	6	5	5	5.4	10.8
10-Apr	4	4	4	3	3	3	3	4	3	4	5	7	7	7	4	5	6	6	5	4	4	4	3	3	4.4	7.3
11-Apr	3	3	2	2	2	2	2	2	2	2	3	3	4	6	7	8	8	8	7	7	6	5	4	3	4.2	8.1
12-Apr	2	2	1	1	1	1	0	0	1	1	2	3	5	5	7	7	7	6	6	5	4	4	4	2	3.2	7.0
13-Apr	1	1	0	0	-1	0	0	0	0	0	0	0	0	0	0	0	P	0	0	0	0	0	0	0	0.2	1.4
14-Apr	0	0	0	0	0	-1	-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-1	-1	-1	-0.2	0.2
15-Apr	-1	-1	-1	-1	-1	-1	-1	-1	-1	0	1	2	3	4	3	4	4	4	3	2	2	1	1	1	1.0	4.1
16-Apr	1	1	1	1	1	0	0	1	2	3	5	8	8	9	8	8	8	7	6	5	5	5	4	4	4.1	8.8
17-Apr	4	3	3	2	1	0	-1	-1	-2	-3	-3	-3	-4	-3	-3	P	P	-3	-4	-4	-5	-5	-6	-6	-1.9	3.8
18-Apr	-6	-6	-6	-7	-7	-7	-7	-7	-7	-6	-6	-5	-5	-5	-4	-4	-4	-4	-4	-5	-5	-5	-5	-5	-5.5	-3.9
19-Apr	-4	-5	-5	-5	-4	-4	-4	-4	-4	-3	-2	-1	0	2	4	7	7	7	7	6	5	5	5	3	0.5	7.1
20-Apr	2	2	1	2	1	1	1	2	4	7	9	8	7	7	8	8	7	6	5	3	1	1	1	1	3.9	8.5
21-Apr	0	0	0	-1	-1	-1	-1	0	0	1	3	4	5	6	8	9	9	9	8	5	3	2	2	1	3.0	9.1
22-Apr	1	1	1	1	1	0	-1	-1	-1	-1	-1	0	0	1	1	1	1	2	2	2	1	0	0	0	0.5	2.1
23-Apr	0	-1	-1	-1	-1	-1	-2	-2	-2	-1	-1	-1	0	0	0	0	0	0	0	0	-1	-1	-1	-1	-0.7	0.3
24-Apr	-1	-1	-1	-1	-1	-2	-2	-2	-1	-1	0	0	1	1	1	2	2	2	2	2	1	0	0	-1	0.0	2.5
25-Apr	-1	-1	-2	-3	-4	-5	-4	-3	-2	1	2	3	4	5	6	6	7	7	7	6	3	2	1	1	1.5	6.8
26-Apr	0	0	-1	-1	-1	-2	-1	1	1	3	5	6	8	8	9	9	9	9	9	8	6	5	4	3	4.1	9.4
27-Apr	2	1	0	-1	-1	-2	0	1	3	5	8	9	10	11	12	12	11	9	8	8	7	6	6	6	5.4	11.7
28-Apr	5	5	5	4	4	3	3	4	5	7	9	11	12	12	12	12	12	11	10	8	8	8	7	6	7.7	12.3
29-Apr	5	4	3	2	1	1	1	3	4	7	9	10	11	11	12	13	13	13	12	11	9	9	8	7	7.5	12.9
30-Apr	6	7	6	6	6	5	5	5	7	7	8	10	11	12	12	12	11	10	10	9	7	7	6	5	7.8	12.1
	1.6	1.3	0.9	0.5	0.3	0.0	-0.1	0.3	1.0	1.9	3.0	3.9	4.7	5.3	5.8	6.4	6.7	5.9	5.4	4.5	3.6	3.0	2.5	2.0	Diurnal Average	
	6.2	6.5	6.3	5.8	5.6	5.0	5.1	5.5	6.8	7.4	9.4	10.7	11.6	11.7	12.1	12.6	12.9	12.8	12.1	11.2	9.2	8.9	8.2	7.3	Diurnal Maximum	

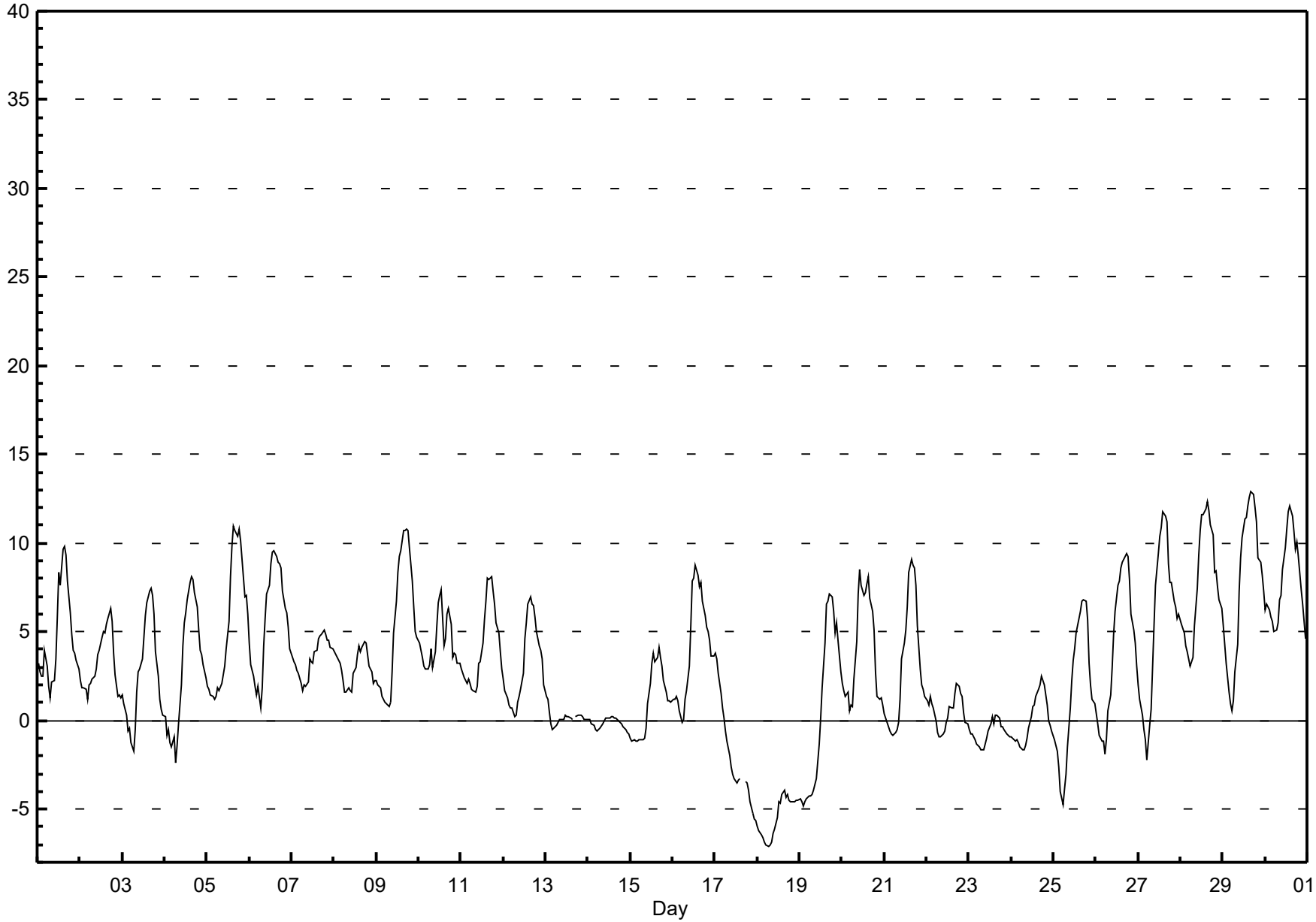
P - Power Failure

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Beaverlodge - April 2017



Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Beaverlodge - April 2017

Maximum Value: 100.0 % on Apr 7 01:00

Maximum Daily Average: 100.0 % on Apr 13

Minimum Value: 25 % on Apr 29 17:00

Minimum Daily Average: 49.5 % on Apr 29

Maximum Diurnal Average: 91.4 % at hour 7

Minimum Diurnal Average: 58.2 % at hour 17

Monthly Average: 77.26 %

Percentiles: P_1 = 31.1 P_{10} = 44.3 Q_1 = 59.0 Median = 81.2 Q_3 = 100.0 P_{90} = 100.0 P_{99} = 100.0

Hours in Service:	720
Hours of Data:	717
Hours of Missing Data:	3
Hours of Calibration:	0
Percent Operational Time:	99.6

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	77	81	80	80	73	79	86	94	92	99	95	79	55	59	44	41	43	48	58	63	69	73	75	77	71.7	98.9
2-Apr	78	80	74	66	66	61	61	59	59	59	57	57	58	59	62	59	55	50	51	55	60	68	61	61	61.5	80.4
3-Apr	58	58	59	62	60	64	67	62	52	48	49	49	47	42	38	35	35	38	44	50	54	58	58	59	51.9	66.8
4-Apr	57	65	61	65	64	60	70	70	66	56	48	45	38	41	35	33	35	38	43	43	46	46	49	50	51.0	70.4
5-Apr	50	48	50	50	51	50	50	53	55	52	51	51	51	46	44	44	49	52	50	49	51	61	57	67	51.2	67.1
6-Apr	89	98	98	98	94	77	93	91	67	64	52	51	43	33	34	36	39	41	47	46	51	52	71	99	65.2	98.8
7-Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	99	100	100	100	100	100	100.0	100.0
8-Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	99	94	94	89	90	92	99	100	100	100	100	98.2	100.0
9-Apr	100	100	100	100	100	100	100	100	100	100	92	75	59	50	44	41	38	36	35	39	48	60	75	77	73.7	100.0
10-Apr	78	81	81	86	91	96	100	94	99	100	90	78	76	74	98	97	86	85	93	100	99	96	100	99	90.7	100.0
11-Apr	100	100	100	100	100	100	100	100	100	100	97	99	92	83	77	64	62	60	63	61	67	68	75	77	85.2	100.0
12-Apr	79	81	84	86	88	89	94	93	90	89	87	81	74	68	63	59	56	53	52	52	53	59	67	93	74.6	93.5
13-Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	P	100	100	100	100	100	100	100	100.0	100.0
14-Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100.0	100.0
15-Apr	100	100	100	100	100	100	100	100	100	100	100	93	74	69	70	68	62	72	79	86	90	92	97	100	89.6	100.0
16-Apr	100	100	100	100	100	100	100	99	99	89	75	63	60	54	63	65	58	68	78	73	72	74	82	82	81.4	100.0
17-Apr	81	83	90	100	100	100	100	100	100	100	100	100	100	100	100	P	P	100	99	100	98	100	99	99	97.7	100.0
18-Apr	100	100	99	98	97	98	97	95	89	85	82	76	70	74	72	80	86	94	97	96	97	96	98	100	90.7	100.0
19-Apr	100	100	100	100	100	100	100	100	100	100	100	96	89	82	72	67	69	70	72	78	90	78	82	98	89.2	100.0
20-Apr	98	100	100	100	100	100	100	98	91	76	63	71	71	64	61	60	65	67	76	91	98	100	100	100	85.4	100.0
21-Apr	100	100	100	100	100	100	100	100	100	100	94	87	80	72	62	61	64	64	65	73	85	87	89	95	86.6	100.0
22-Apr	96	97	90	88	87	91	97	100	100	94	85	72	68	65	66	72	60	50	52	54	56	87	100	100	80.3	100.0
23-Apr	100	100	100	100	100	100	100	100	100	100	100	99	94	93	100	100	99	100	100	100	100	100	100	100	99.4	100.0
24-Apr	100	100	100	100	100	100	100	100	100	98	93	87	72	68	62	60	57	52	49	49	60	63	59	60	78.8	100.0
25-Apr	67	72	76	83	96	100	99	96	84	71	60	48	46	44	43	40	37	36	37	44	56	59	61	61	63.1	100.0
26-Apr	63	66	72	78	81	88	87	82	79	73	64	59	50	40	34	39	37	37	44	51	57	58	61	70	61.2	88.0
27-Apr	76	80	86	94	96	100	95	93	77	66	57	53	49	47	44	44	45	64	73	73	89	83	91	88	73.6	99.9
28-Apr	94	96	95	97	99	100	99	99	85	72	62	45	40	42	40	36	42	42	48	64	59	62	64	67	68.7	99.8
29-Apr	72	75	65	76	73	77	77	76	72	56	44	37	33	30	28	27	25	25	28	31	38	39	41	45	49.5	76.8
30-Apr	48	43	47	52	55	62	71	76	69	65	58	48	37	32	30	32	36	43	41	44	50	53	58	64	50.6	76.3
	85.4	86.7	87.0	88.6	89.0	89.7	91.4	91.0	87.6	83.7	78.5	73.3	67.5	64.4	62.6	60.4	58.2	62.5	65.5	68.8	73.1	75.7	79.0	82.8	Diurnal Average	
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	Diurnal Maximum	

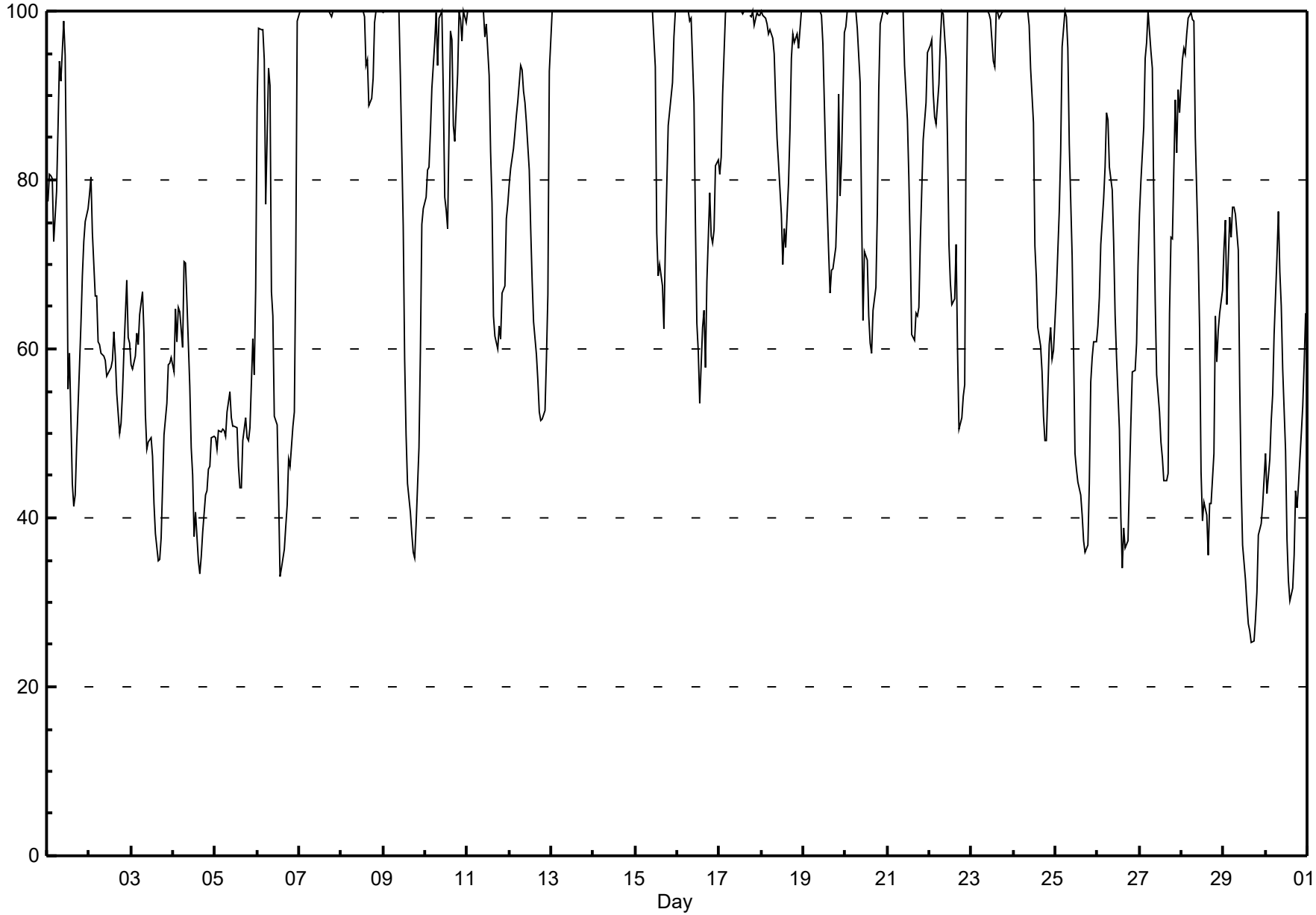
P - Power Failure

Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Beaverlodge - April 2017



Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Beaverlodge - April 2017

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1 Spd	9	7	4	6	2	1	7	7	5	2	3	10	16	8	13	10	26	27	24	18	14	14	14	9	9.2	27.2
Dir	256	224	68	47	248	193	227	224	252	142	162	211	259	278	274	294	255	253	247	248	238	238	239	244	249	253
2 Spd	12	2	10	13	13	20	18	15	8	11	10	10	8	18	16	18	20	8	3	4	3	5	7	8	9.9	20.4
Dir	240	190	222	239	242	251	249	255	243	259	264	270	250	264	291	284	279	251	264	103	190	215	239	256	255	251
3 Spd	14	12	13	11	12	5	3	7	17	17	16	12	8	4	2	1	19	24	20	18	17	12	9	8	10.7	24.1
Dir	267	269	265	257	263	251	232	256	273	286	297	299	307	291	263	33	244	239	233	241	248	251	243	218	259	239
4 Spd	3	3	3	2	1	5	4	2	6	4	4	6	7	8	6	8	12	19	17	18	13	10	12	13	5.8	19.1
Dir	181	178	256	10	342	245	65	63	212	203	157	118	118	100	99	84	82	69	74	79	87	99	105	102	96	69
5 Spd	8	7	4	5	3	7	9	9	3	0	2	2	4	5	7	9	9	8	5	1	4	7	10	18	1.5	17.5
Dir	117	114	150	145	210	234	254	256	220	200	150	147	131	112	146	120	121	94	163	177	56	347	312	295	163	295
6 Spd	13	7	9	12	9	4	2	5	3	3	2	7	4	7	10	14	12	10	6	9	8	5	7	8	2.8	14.4
Dir	311	226	241	248	277	271	31	49	238	165	258	175	169	133	135	131	126	122	94	63	77	89	145	144	150	131
7 Spd	8	6	8	7	2	3	5	6	9	10	13	2	1	6	8	3	2	5	9	10	11	5	3	5	4.0	12.9
Dir	109	67	101	86	310	71	86	75	59	55	77	61	66	4	13	3	234	288	341	351	353	53	307	90	46	77
8 Spd	2	1	2	4	5	5	8	10	3	4	15	17	19	19	22	19	17	13	7	7	5	5	6	5	7.8	22.1
Dir	166	199	332	25	46	59	83	86	62	79	90	99	103	109	112	111	122	127	142	179	189	170	72	71	106	112
9 Spd	4	7	7	7	5	4	5	3	4	3	6	5	7	7	3	1	4	3	4	4	6	9	9	5	2.8	8.8
Dir	74	61	71	93	98	112	129	173	134	153	200	218	233	229	320	235	179	183	159	151	80	92	103	112	127	92
10 Spd	2	4	5	3	4	6	8	7	10	10	7	6	9	9	26	21	8	9	12	8	4	3	3	5	3.8	25.7
Dir	131	56	43	106	97	86	77	55	315	298	263	228	221	19	42	40	67	114	103	57	202	357	2	25	49	42
11 Spd	8	7	7	3	4	9	10	11	9	8	11	12	10	7	7	10	13	11	7	8	14	20	12	9	7.1	19.9
Dir	333	331	349	327	338	329	339	337	346	343	358	352	343	346	357	51	62	70	80	53	48	55	97	35	18	55
12 Spd	14	13	14	16	8	7	12	14	12	13	18	23	28	28	31	33	36	33	28	30	32	30	26	25	21.4	36.4
Dir	51	49	47	33	54	47	49	69	62	64	76	76	73	76	74	74	70	71	74	75	71	77	88	87	70	70
13 Spd	18	24	32	32	35	33	34	33	33	34	32	33	26	39	38	40	P	40	30	35	35	34	32	29	32.6	40.2
Dir	75	72	70	68	67	71	71	70	69	68	72	67	61	67	62	62	P	72	73	71	70	70	72	71	69	62
14 Spd	24	17	14	12	8	9	10	11	12	11	12	12	11	12	13	14	14	13	11	10	7	6	5	6	9.0	23.5
Dir	63	52	42	30	358	332	325	318	318	319	316	319	316	313	323	313	313	317	317	314	337	336	338	349	339	63
15 Spd	6	7	8	8	7	5	4	4	5	4	0	2	1	3	4	6	4	8	8	9	7	9	10	7	2.5	10.3
Dir	333	319	318	317	329	340	359	9	19	30	132	176	155	73	34	28	49	121	118	120	103	105	102	109	52	102
16 Spd	7	5	5	3	4	4	3	2	5	5	3	2	2	4	9	4	6	9	9	6	2	8	12	10	2.0	12.1
Dir	111	106	132	139	126	118	98	124	202	197	213	21	345	277	116	235	258	8	32	32	44	21	20	31	64	20
17 Spd	11	13	11	13	18	12	14	9	11	13	10	19	19	16	N	P	P	16	13	15	17	17	16	13	12.3	19.0
Dir	32	25	15	41	36	16	28	61	135	167	31	22	22	21	N	P	P	32	30	31	33	31	31	22	33	22
18 Spd	11	12	10	9	10	6	7	8	8	8	9	7	7	10	9	6	6	7	7	5	7	7	5	6	5.0	11.9
Dir	13	9	9	5	19	17	14	12	18	19	22	19	30	17	24	145	186	116	115	142	129	113	110	118	39	9
19 Spd	4	5	5	7	8	7	9	9	7	6	6	8	8	7	5	4	5	9	6	3	1	0	4	5	4.6	9.5
Dir	116	130	129	140	155	163	162	146	147	136	122	138	126	117	125	118	77	124	124	359	11	261	321	347	131	124
20 Spd	3	2	5	5	3	3	2	2	2	6	11	19	19	21	20	17	20	18	17	16	12	6	12	14	7.6	21.5
Dir	27	299	4	340	60	180	119	81	147	280	336	349	349	340	343	2	21	23	33	50	51	107	106	105	17	340
21 Spd	14	13	14	14	12	11	10	9	9	8	7	12	11	13	15	14	15	13	15	6	4	13	14	17	9.2	17.3
Dir	110	113	119	117	125	127	136	142	141	101	82	28	22	18	23	42	55	76	63	70	90	62	66	89	82	89
22 Spd	14	14	14	15	15	16	17	15	15	20	23	24	22	19	9	7	6	6	8	12	7	9	3	19	12.4	23.7
Dir	61	57	78	63	70	54	60	61	73	67	64	68	68	77	93	107	88	99	107	107	131	187	156	99	76	68

Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Beaverlodge - April 2017

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
23 Spd	10	7	8	21	20	21	21	12	5	3	4	5	6	12	13	14	14	12	11	7	7	7	5	6	8.6	21.0
Dir	102	97	85	89	92	97	91	79	23	349	346	330	9	39	25	34	33	32	32	26	13	22	4	29	56	97
24 Spd	6	8	6	5	9	11	11	12	13	14	14	15	14	11	10	9	7	8	8	8	5	2	3	6	8.5	14.7
Dir	22	31	30	9	25	29	27	29	31	34	31	38	25	23	28	42	44	35	50	57	148	91	65	46	35	38
25 Spd	5	4	4	1	2	4	4	5	6	6	9	9	9	10	11	12	12	12	13	12	13	16	14	14	7.9	16.1
Dir	56	73	66	111	80	124	155	167	166	162	139	126	118	120	106	114	114	118	109	94	81	94	94	103	110	94
26 Spd	11	10	11	12	0	5	7	6	4	7	8	8	8	9	9	11	10	10	13	13	9	10	10	10	6.8	12.7
Dir	92	83	80	83	72	270	290	286	177	88	98	81	79	56	48	62	45	63	90	92	66	45	74	84	72	90
27 Spd	9	7	4	3	4	3	2	2	2	2	3	5	8	10	10	4	13	18	9	6	9	4	3	2	1.5	17.6
Dir	77	83	84	270	339	22	38	195	163	149	116	86	37	36	35	330	255	282	285	115	88	110	106	273	36	282
28 Spd	1	4	8	0	1	2	1	2	3	3	5	16	11	8	14	8	13	11	12	10	6	6	7	14	4.2	16.3
Dir	95	220	261	232	57	72	201	76	218	233	216	263	296	318	316	295	9	359	15	23	358	339	284	267	312	263
29 Spd	10	8	7	3	1	2	6	3	9	8	5	4	5	1	4	5	6	8	9	8	11	10	11	9	2.4	11.4
Dir	64	239	224	89	141	190	254	155	201	245	257	240	188	189	154	168	90	93	98	71	65	76	94	152	133	94
30 Spd	8	10	3	6	4	7	9	11	15	17	17	19	23	21	24	22	26	15	8	3	3	8	6	7	11.7	25.7
Dir	241	303	324	315	309	289	284	292	298	299	295	302	288	293	282	282	295	301	280	327	40	291	279	267	292	295
Spd	3.9	3.4	3.5	3.9	3.3	2.3	2.9	2.7	1.2	1.9	3.2	3.8	3.9	5.5	6.1	5.5	2.8	4.9	5.2	6.0	5.7	5.4	4.8	4.6	Diurnal Average	
Dir	63	57	58	58	53	53	56	57	52	38	45	36	32	36	39	51	42	63	71	68	67	68	76	78		
Spd	23.5	24.5	31.6	32.3	34.8	32.6	34.2	32.6	33.1	34.0	31.7	33.5	28.3	39.1	38.2	40.2	36.4	39.5	29.9	35.5	35.2	33.9	32.2	29.2	Diurnal Maximum	
Dir	63	72	70	68	67	71	71	70	69	68	72	67	73	67	62	62	70	72	73	71	70	70	72	71		

Maximum Speed Value: 40 km/h on Apr 13 16:00
Maximum Daily Speed Average: 32.6 km/h on Apr 13
Maximum Diurnal Speed Average: 6.1 km/h at hour 15

Minimum Speed Value: 0 km/h on Apr 5 10:00
Minimum Daily Speed Average: 1.5 km/h on Apr 9
Minimum Diurnal Speed Average: 1.2 km/h at hour 9

Monthly Average Velocity: 3.90 km/h 56.2 deg

Speed Percentiles: $P_1 = 0.6$ $P_{10} = 2.8$ $Q_1 = 5.2$ Median = 8.3 $Q_3 = 12.9$ $P_{90} = 18.6$ $P_{99} = 35.1$

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

Hours in Service:	720
Hours of Data:	716
Hours of Missing Data:	4
Percent Operational Time:	99.4

P - Power Failure N - Not Valid

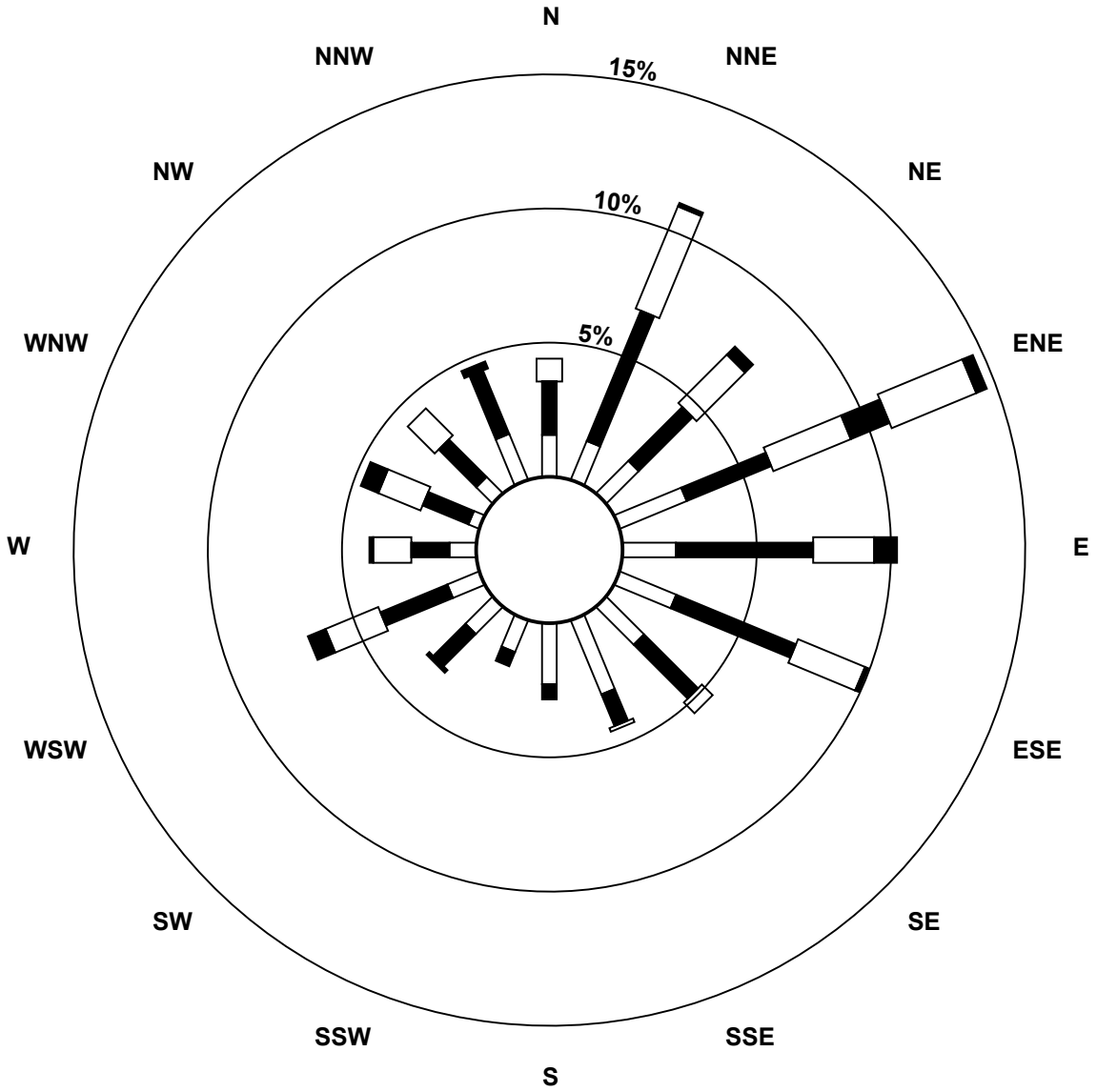
Frequency Distribution

Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	19	45	14	3	0	0	81
NorthEast	26	50	55	7	2	3	143
East	28	63	39	14	24	1	169
SouthEast	33	49	12	0	0	0	94
South	29	14	1	0	0	0	44
SouthWest	16	24	8	3	0	0	51
West	12	32	22	7	0	0	73
NorthWest	11	27	21	2	0	0	61
Total	174	304	172	36	26	4	716

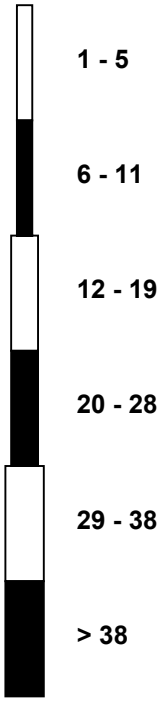
Wind Rose

Wind Speed (WS) (km/h)

Beaverlodge - April 2017



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Beaverlodge - April 2017

Peace Airshed Zone Association

Maximum Speed: 40 km/h on Apr 13 16:00

Maximum Daily Speed Average: 32.8 km/h on Apr 13

Minimum Speed: 1 km/h on Apr 5 10:00

Minimum Daily Speed Average: 5.9 km/h on Apr 9

Maximum Diurnal Speed Average: 14.0 km/h at hour 18

Minimum Diurnal Speed Average: 8.4 km/h at hour 6

Monthly Average Speed: 10.61 km/h

Percentiles: P_1 = 2.1 P_{10} = 3.9 Q_1 = 5.9 Median = 8.9 Q_3 = 13.2 P_{90} = 19.0 P_{99} = 35.1

Hours in Service:	720
Hours of Data:	716
Hours of Missing Data:	4
Percent Operational Time:	99.4

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	10	8	5	6	4	3	7	7	6	3	4	10	18	11	14	12	26	27	24	18	14	14	14	9	11.4	27.5
2-Apr	12	4	10	13	13	20	18	16	9	11	11	11	8	19	16	19	20	9	5	4	9	6	7	8	11.6	20.5
3-Apr	14	12	13	11	12	6	4	7	17	17	16	12	8	7	7	4	20	24	20	18	17	12	9	8	12.4	24.2
4-Apr	6	4	4	4	3	6	4	3	6	4	5	7	8	8	7	9	12	19	17	18	13	10	12	13	8.4	19.2
5-Apr	8	8	5	6	4	7	9	9	4	1	3	3	4	6	8	9	9	9	6	4	4	9	10	18	6.8	17.6
6-Apr	14	8	9	12	9	6	4	6	7	4	4	7	6	8	11	15	13	10	7	9	8	6	7	9	8.3	14.6
7-Apr	8	6	8	7	2	3	6	6	9	10	13	4	3	7	8	4	3	5	9	10	11	7	4	6	6.6	13.2
8-Apr	4	3	4	5	5	6	8	11	4	5	15	18	19	20	22	19	17	13	8	7	5	6	6	5	9.8	22.2
9-Apr	4	7	7	7	6	4	5	3	4	3	6	6	8	9	6	6	5	4	5	5	6	9	9	7	5.9	9.2
10-Apr	2	4	6	3	4	6	8	8	11	10	8	7	9	12	26	21	10	9	15	8	5	4	5	5	8.6	25.8
11-Apr	8	7	8	6	4	9	10	11	9	8	11	13	10	8	8	10	14	12	8	8	14	20	13	9	9.9	19.9
12-Apr	14	14	14	17	10	8	12	14	12	14	18	23	28	28	32	33	36	33	28	30	32	30	26	25	22.2	36.5
13-Apr	18	25	32	32	35	33	34	33	33	34	32	34	27	39	38	40	P	40	30	36	35	34	32	29	32.8	40.3
14-Apr	24	17	14	12	8	9	10	11	12	11	12	12	11	12	14	14	14	14	11	10	7	6	5	6	11.5	23.6
15-Apr	6	7	8	8	7	5	4	4	5	4	1	2	2	4	5	6	4	8	8	9	7	9	10	7	5.9	10.3
16-Apr	7	5	5	4	5	4	3	2	5	5	3	3	6	8	10	14	7	11	9	7	4	8	12	10	6.5	13.6
17-Apr	11	13	11	13	19	13	14	14	13	14	15	19	19	16	N	P	P	16	14	15	17	17	16	14	14.9	19.0
18-Apr	11	12	10	10	10	6	7	8	8	8	9	8	7	10	9	7	7	7	7	5	7	7	6	6	8.0	12.0
19-Apr	4	5	5	7	8	7	10	10	8	7	7	8	8	8	6	5	6	10	7	5	4	2	5	7	6.5	9.9
20-Apr	5	4	6	7	4	3	3	2	3	6	12	19	19	22	20	18	20	18	18	16	12	7	12	14	11.2	21.9
21-Apr	14	13	15	14	12	11	10	10	9	8	7	13	12	13	15	15	15	14	16	7	7	13	15	17	12.2	17.4
22-Apr	14	14	14	15	16	17	17	15	16	20	23	24	22	19	10	8	7	8	8	13	8	9	4	19	14.2	23.8
23-Apr	11	7	9	21	20	21	21	13	5	4	5	6	8	12	13	15	14	12	11	7	7	7	5	7	10.9	21.1
24-Apr	6	8	6	5	9	11	11	12	13	14	15	15	14	12	10	10	8	9	8	8	5	3	3	6	9.2	14.9
25-Apr	5	4	4	3	2	4	4	5	6	7	10	10	11	12	13	13	13	12	13	12	13	16	14	14	9.2	16.1
26-Apr	11	10	11	12	7	6	8	7	9	7	8	8	8	10	11	12	11	11	13	13	9	10	10	10	9.6	13.0
27-Apr	9	7	4	4	6	5	3	3	3	3	4	6	10	11	11	10	13	18	10	7	10	5	4	4	7.1	18.2
28-Apr	2	5	8	2	2	2	3	2	3	3	5	17	13	10	16	10	14	13	12	10	6	7	8	17	7.9	17.3
29-Apr	12	8	7	4	2	3	7	4	9	8	8	7	8	6	8	7	7	9	9	8	11	10	12	11	7.6	11.9
30-Apr	8	11	4	6	4	7	10	11	15	17	17	20	23	22	24	23	26	16	8	4	5	9	7	7	12.7	26.0
	9.4	8.6	8.8	9.1	8.4	8.4	9.1	8.8	9.0	9.1	10.3	11.7	12.0	12.9	13.7	13.3	13.3	14.0	12.1	11.1	10.4	10.4	10.1	10.9	Diurnal Average	
	23.6	24.6	31.7	32.3	34.9	32.6	34.3	32.6	33.1	34.1	31.8	33.6	28.5	39.2	38.4	40.3	36.5	39.6	30.0	35.5	35.3	33.9	32.3	29.3	Diurnal Maximum	

P - Power Failure N - Not Valid

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

Peace Airshed Zone Association

Hourly Standard Deviations

Wind Direction (WD) - deg

Beaverlodge - April 2017

Maximum Value: 96.0 deg on Apr 9 16:00

Minimum Value: 2.9 deg on Apr 26 00:00

Percentiles: P_1 = 3.1 P_{10} = 5.2 Q_1 = 8.0 Median = 14.5 Q_3 = 31.1 P_{90} = 58.3 P_{99} = 87.5

Hours in Service:	720
Hours of Data:	716
Hours of Missing Data:	4
Hours of Calibration:	0
Percent Operational Time:	99.4

Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Apr	17	46	57	25	63	90	10	10	19	56	41	18	33	86	25	29	7	8	4	6	7	7	4	10	89.6
2-Apr	6	74	12	7	6	5	6	18	29	14	22	20	29	18	13	10	8	30	65	26	71	21	19	11	73.7
3-Apr	4	4	4	6	4	57	67	10	5	11	10	13	40	83	88	77	32	6	4	5	3	5	16	16	87.6
4-Apr	74	38	75	58	77	60	37	56	12	28	35	32	32	25	35	26	13	5	5	5	8	9	6	7	76.8
5-Apr	17	20	27	19	53	14	9	13	50	94	48	58	38	39	19	13	12	14	25	89	17	41	12	6	94.4
6-Apr	20	24	9	9	13	56	82	58	74	30	72	22	53	39	30	9	12	9	13	5	14	33	14	20	81.5
7-Apr	18	10	11	13	60	29	18	11	14	13	18	77	86	42	16	52	66	26	13	12	15	62	57	43	86.3
8-Apr	73	69	70	34	49	31	34	17	47	44	27	7	8	8	6	11	6	7	18	15	16	18	11	17	73.3
9-Apr	11	7	7	8	30	18	19	17	22	42	20	48	31	53	63	96	54	43	21	26	12	11	14	48	96.0
10-Apr	69	40	17	21	12	19	12	11	39	10	17	34	21	65	4	6	45	13	29	11	45	66	61	16	69.1
11-Apr	22	21	25	64	19	13	6	10	11	12	17	19	19	30	25	16	13	15	16	14	9	3	16	20	63.8
12-Apr	9	14	8	14	66	34	9	10	13	12	7	6	6	8	8	7	5	4	4	3	3	4	8	9	65.5
13-Apr	10	7	3	3	3	3	3	4	3	4	4	4	9	4	6	4	P	3	6	3	3	4	3	4	10.3
14-Apr	4	5	6	14	9	9	5	5	5	6	6	9	7	7	7	6	6	10	9	10	6	7	7	8	14.2
15-Apr	8	6	5	6	6	7	10	11	8	10	74	28	72	33	17	11	32	15	6	8	3	4	4	6	74.3
16-Apr	8	7	15	15	11	15	12	30	12	12	39	70	70	70	14	74	28	36	9	29	84	15	3	13	84.3
17-Apr	7	9	18	14	11	25	5	46	29	29	62	5	6	6	N	P	P	5	6	5	4	4	5	9	61.9
18-Apr	8	7	7	8	8	8	5	6	6	7	8	8	17	9	13	29	32	32	17	14	8	10	21	10	32.1
19-Apr	9	7	8	11	8	9	14	21	22	24	26	21	12	15	21	29	33	10	29	57	69	86	44	41	86.5
20-Apr	48	79	31	57	67	33	35	28	56	33	21	12	11	11	12	14	7	7	11	7	6	28	10	8	78.9
21-Apr	8	5	5	6	5	8	10	11	13	19	20	22	21	12	12	28	17	17	14	64	83	6	11	4	82.8
22-Apr	16	14	10	10	15	8	9	10	12	6	7	7	5	11	25	36	53	65	30	21	27	15	51	18	64.7
23-Apr	13	18	18	10	7	8	7	41	24	46	37	19	42	16	8	8	7	6	6	9	7	4	7	10	45.7
24-Apr	7	5	5	10	6	5	4	6	7	8	9	11	14	13	16	23	28	31	12	26	16	33	10	10	33.4
25-Apr	7	9	7	66	44	17	28	11	13	20	23	27	39	35	26	24	21	14	15	14	6	3	3	3	66.1
26-Apr	8	6	5	5	84	39	12	19	68	26	22	26	28	28	39	24	25	23	13	8	16	10	10	6	84.4
27-Apr	6	9	55	38	46	54	68	37	49	59	76	52	50	26	25	70	13	16	30	21	27	34	58	62	75.6
28-Apr	64	42	10	88	58	47	73	54	36	56	21	19	27	37	27	39	22	32	11	8	41	24	24	52	87.8
29-Apr	64	13	14	39	83	59	31	46	15	20	57	79	59	94	80	48	37	23	19	24	5	7	13	39	94.0
30-Apr	16	11	72	10	19	14	12	7	11	12	14	18	10	14	11	12	9	22	24	60	48	10	18	23	72.4
	73.5	78.9	74.9	87.8	84.4	89.6	81.5	58.3	74.4	94.4	75.6	78.9	86.3	94.0	87.6	96.0	65.7	64.7	64.5	89.0	84.3	86.5	61.2	61.8	

P - Power Failure N - Not Valid

PAZA
Valleyview Station
Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Valleyview - April 2017

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 22.1 ppb on Apr 20 10:00 Maximum Daily Average: 3.5 ppb on Apr 2

Minimum Value: 0 ppb on Apr 6 08:00 Minimum Daily Average: 0.0 ppb on Apr 7
Maximum Diurnal Average: 1.5 ppb at hour 10 Minimum Diurnal Average: 0.1 ppb at hour 6
Monthly Average: 0.54 ppb Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.0$ Median = 0.1 $Q_3 = 0.2$ $P_{90} = 0.8$ $P_{99} = 8.6$

Hours in Service:	720
Hours of Data:	686
Hours of Missing Data:	34
Hours of Calibration:	34
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	2	0	0	0	0	0	0	A	0	1	4	0	2	0	4	1	3	0	3	7	5	6	5	2	2.0	6.7
2-Apr	1	9	2	6	0	0	A	0	7	5	5	5	1	0	5	1	4	6	7	1	0	1	6	8	3.5	8.9
3-Apr	9	8	4	6	7	A	8	9	6	3	1	1	1	1	0	0	0	0	0	0	0	0	0	0	2.8	8.8
4-Apr	0	0	0	0	A	0	0	0	6	5	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0.8	6.4
5-Apr	0	0	0	A	0	1	2	2	1	1	1	1	1	1	C	C	C	0	0	0	0	0	0	0	0.6	1.9
6-Apr	0	11	A	1	0	0	0	0	0	4	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0.8	11.3
7-Apr	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
8-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.0	0.1
9-Apr	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0.2	0.7
10-Apr	0	0	0	0	0	0	0	0	1	1	1	0	0	0	5	1	0	2	1	0	0	A	0	0	0.5	4.6
11-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	0.2
12-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.1	0.3
13-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.0	0.1
14-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.1	0.4
15-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.0	0.2
16-Apr	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0.1	0.8
17-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.0	0.0
18-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.1	0.4
19-Apr	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	3	0	0	0	0	0	0	0.3	3.0
20-Apr	0	1	1	0	0	0	0	0	3	22	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1.3	22.1
21-Apr	0	0	0	0	0	0	0	0	0	0	A	13	14	1	1	0	0	0	0	0	0	0	0	0	1.3	13.5
22-Apr	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
23-Apr	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
24-Apr	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
25-Apr	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
26-Apr	0	0	0	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
27-Apr	0	0	0	0	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
28-Apr	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
29-Apr	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
30-Apr	0	A	0	0	0	0	0	0	0	1	1	1	4	7	0	0	0	0	1	1	0	0	0	0	0.8	6.7
	0.4	1.1	0.3	0.6	0.3	0.1	0.4	0.5	0.9	1.5	0.7	0.8	0.9	0.4	0.6	0.2	0.4	0.5	0.5	0.4	0.3	0.3	0.5	0.4	Diurnal Average	
	8.6	11.3	4.0	6.2	6.5	0.7	8.1	8.8	6.6	22.1	4.8	13.4	13.5	6.7	4.8	1.2	3.6	6.4	6.6	6.7	5.5	5.8	6.0	7.8	Diurnal Maximum	

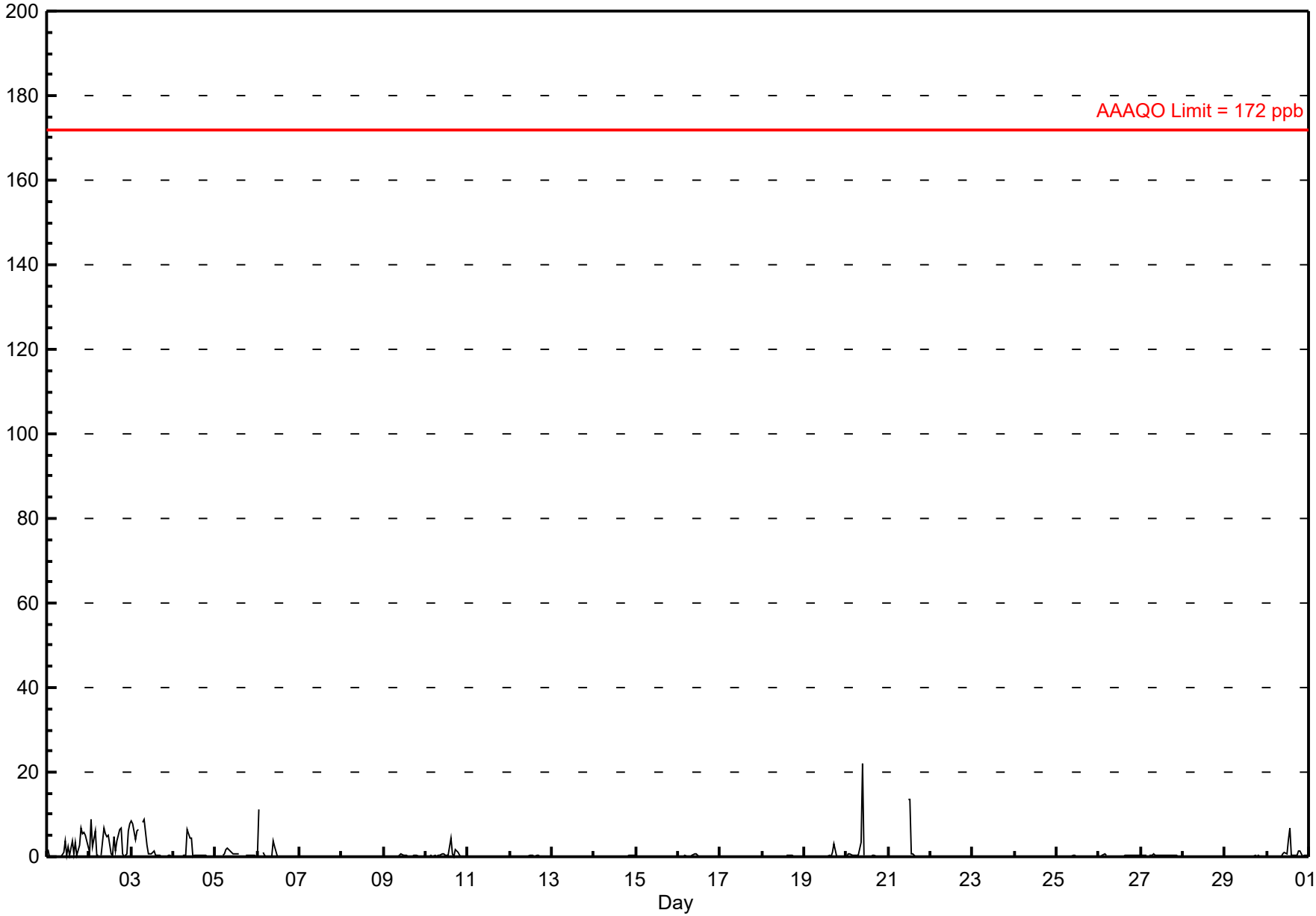
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Valleyview - April 2017



Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Valleyview - April 2017

Maximum Value: 114.2 ppb on Apr 6 02:00

Maximum Daily Average: 12.6 ppb on Apr 2

Minimum Value: 0 ppb on Apr 17 20:00

Minimum Daily Average: 0.3 ppb on Apr 17

Maximum Diurnal Average: 5.8 ppb at hour 13

Minimum Diurnal Average: 0.6 ppb at hour 6

Monthly Average: 2.45 ppb

Percentiles: $P_1 = 0.2$ $P_{10} = 0.3$ $Q_1 = 0.4$ Median = 0.6 $Q_3 = 0.8$ $P_{90} = 3.8$ $P_{99} = 37.0$

Hours in Service:	720
Hours of Data:	686
Hours of Missing Data:	34
Hours of Calibration:	34
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	8	1	1	1	1	1	1	A	1	11	11	1	15	1	17	9	22	1	15	19	10	17	10	8	7.8	22.3
2-Apr	5	18	10	12	1	1	A	1	13	12	14	17	7	9	25	10	16	15	14	4	2	4	43	39	12.6	42.8
3-Apr	17	13	11	11	16	A	15	17	16	8	15	5	9	8	8	3	4	2	0	0	0	1	1	1	8.0	17.2
4-Apr	0	0	1	1	A	1	1	2	29	19	18	1	1	1	1	1	1	1	1	1	1	0	0	0	3.5	28.8
5-Apr	0	0	0	A	1	1	3	3	2	2	1	1	1	1	C	C	C	1	1	1	1	1	1	1	1.2	2.7
6-Apr	1	114	A	3	2	1	1	0	1	15	12	1	1	0	0	0	0	0	0	1	1	1	1	0	6.8	114.2
7-Apr	0	A	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
8-Apr	A	0	1	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	1	0	1	A	0.5	0.9
9-Apr	0	1	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.7	1.3
10-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	10	2	1	9	7	1	0	A	0	0	1.9	9.6
11-Apr	1	1	0	0	0	1	1	1	1	1	1	0	0	0	1	1	1	1	1	1	A	1	1	1	0.6	0.8
12-Apr	1	1	1	0	0	0	1	0	1	0	1	1	1	1	1	1	1	1	1	A	0	1	0	1	0.6	0.8
13-Apr	0	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	A	1	0	0	1	0	0.4	0.7
14-Apr	1	1	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	A	0	0	1	1	1	1	0.6	1.5
15-Apr	1	1	0	0	0	1	1	1	0	0	0	0	0	0	1	1	A	0	0	0	0	0	0	0	0.5	0.8
16-Apr	0	0	0	1	1	1	0	1	1	1	2	1	1	0	1	A	1	0	1	0	0	1	0	0	0.6	1.7
17-Apr	0	0	0	0	1	1	0	0	0	0	0	1	0	0	A	0	1	0	0	0	0	0	0	0	0.3	0.6
18-Apr	0	0	0	1	0	0	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.6	1.1
19-Apr	1	1	1	1	0	1	1	1	0	1	1	1	A	1	1	1	17	22	1	1	1	1	1	0	2.3	21.6
20-Apr	1	1	1	1	1	1	1	1	35	57	1	A	1	0	1	1	1	1	0	1	0	1	1	1	4.7	57.4
21-Apr	0	0	0	1	0	0	0	1	1	0	A	63	97	5	7	1	1	0	1	1	0	0	1	1	7.8	96.6
22-Apr	1	1	0	0	0	0	0	0	0	A	1	1	0	0	0	1	1	1	0	0	1	0	0	0	0.5	0.9
23-Apr	0	1	0	0	0	0	1	1	A	1	1	0	0	1	1	0	1	0	0	0	0	1	0	0	0.4	0.7
24-Apr	0	0	0	0	0	0	0	A	1	0	0	1	0	0	0	1	0	1	0	0	0	0	1	1	0.4	0.8
25-Apr	0	1	1	1	1	0	A	0	0	1	1	0	1	1	1	1	1	0	1	0	1	1	1	1	0.6	0.9
26-Apr	0	1	1	1	1	A	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.3
27-Apr	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.1
28-Apr	1	0	1	A	1	1	0	1	1	1	1	1	1	1	1	0	1	1	0	0	0	0	0	0	0.6	0.8
29-Apr	0	0	A	1	0	1	1	1	1	1	0	0	1	1	1	1	1	1	0	1	1	1	1	1	0.6	0.8
30-Apr	1	A	1	1	1	1	1	1	1	3	4	4	26	73	2	1	1	1	8	6	1	1	1	1	6.0	73.4
	1.5	5.7	1.3	1.5	1.1	0.6	1.1	1.3	3.8	4.8	3.2	3.7	5.8	3.8	2.9	1.4	2.7	2.2	2.0	1.5	0.9	1.3	2.4	2.1	Diurnal Average	
	17.2	114.2	10.8	12.3	16.4	1.4	14.7	17.2	34.5	57.4	18.1	63.2	96.6	73.4	24.7	9.6	22.3	21.6	15.3	19.1	9.8	16.8	42.8	38.5	Diurnal Maximum	

C - Calibration

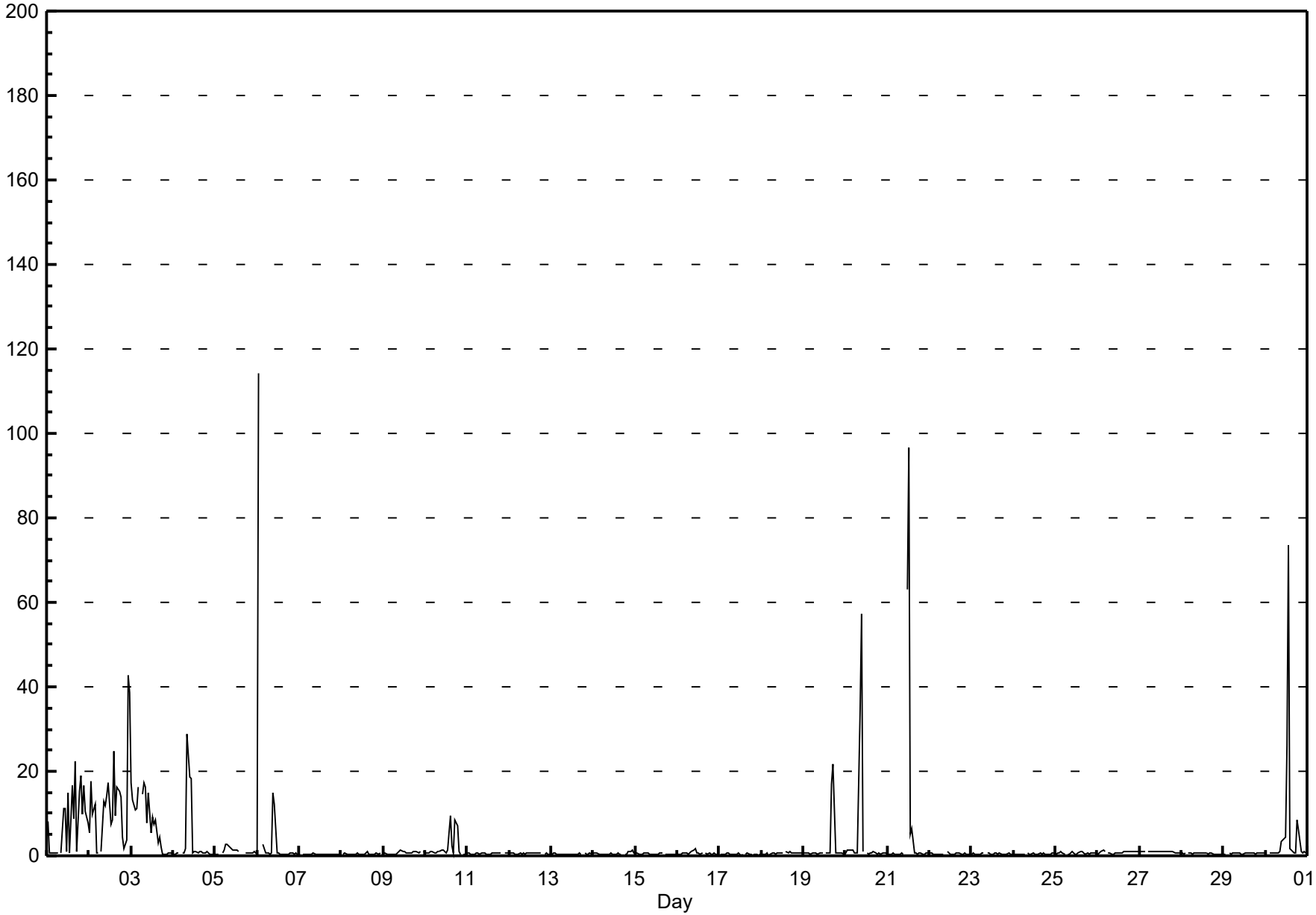
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

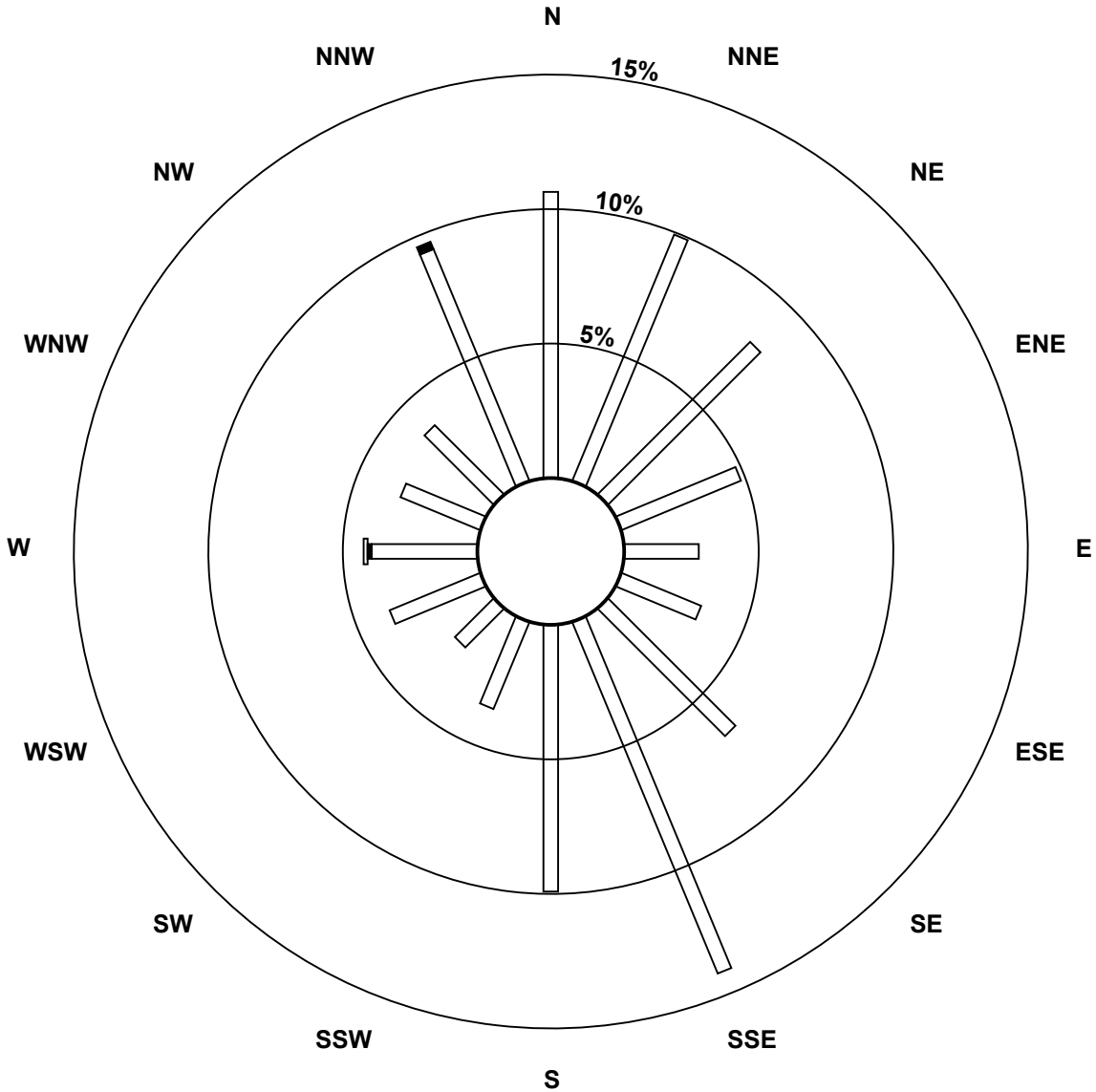
Valleyview - April 2017



Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Valleyview - April 2017



Pollutant Classes (ppb)

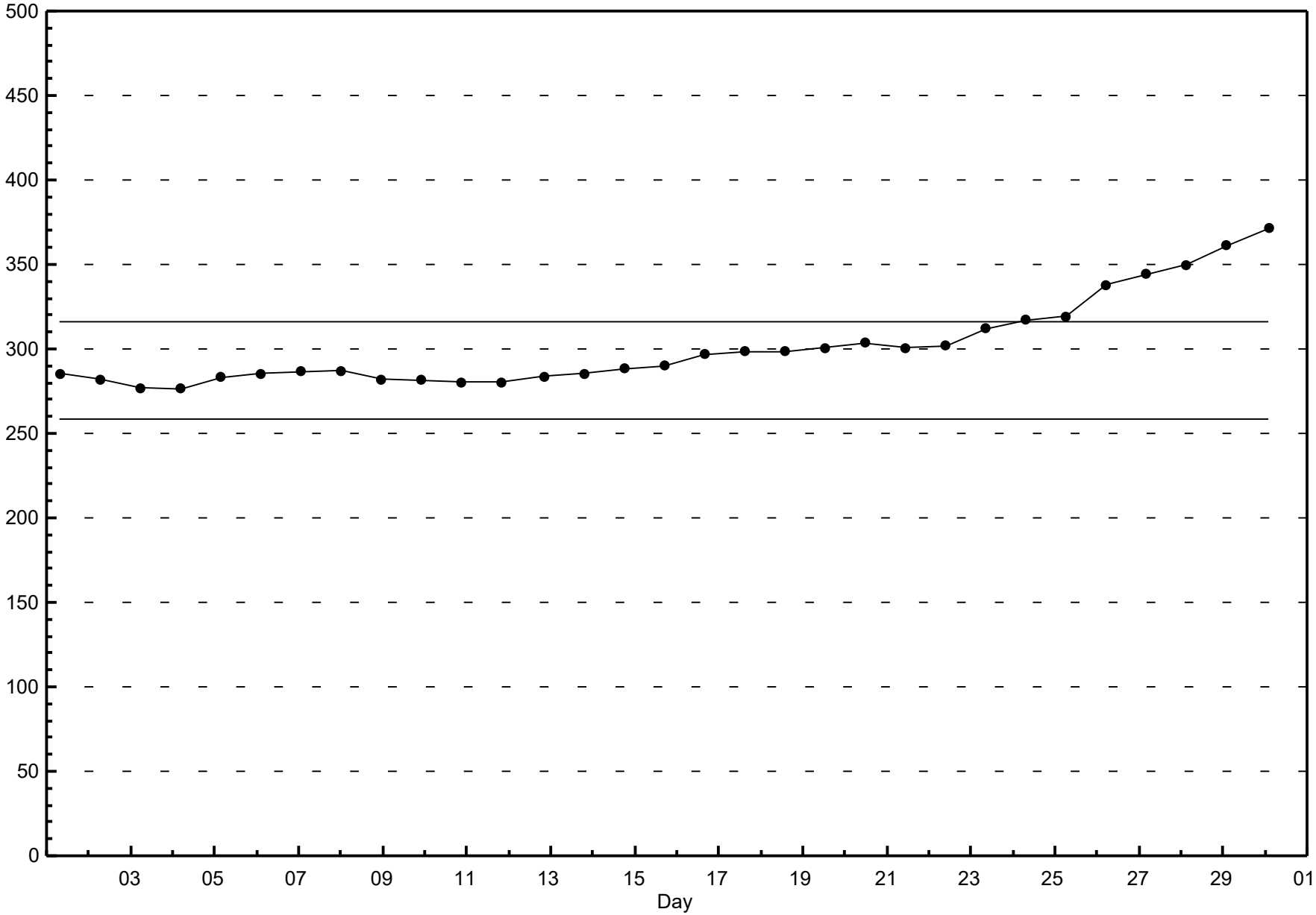
- 0 - 10
- 11 - 20
- 21 - 60
- 61 - 110
- 111 - 172
- > 172

Peace Airshed Zone Association

Span Responses

Sulphur Dioxide (SO_2)

Valleyview - April 2017



Peace Airshed Zone Association

Hourly Averages

Hydrogen Sulphide (H_2S) - ppb

Valleyview - April 2017

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 1.1 ppb on Apr 21 13:00 Maximum Daily Average: 0.3 ppb on Apr 3

Minimum Value: 0 ppb on Apr 2 06:00 Minimum Daily Average: 0.0 ppb on Apr 12
Maximum Diurnal Average: 0.2 ppb at hour 22 Minimum Diurnal Average: 0.1 ppb at hour 16
Monthly Average: 0.14 ppb Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.1 Median = 0.1 Q_3 = 0.2 P_{90} = 0.3 P_{99} = 0.5

Hours in Service:	720
Hours of Data:	686
Hours of Missing Data:	34
Hours of Calibration:	34
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
2-Apr	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
3-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.3	0.5
4-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
5-Apr	0	0	0	A	0	0	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0	0	0.1	0.3
6-Apr	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
7-Apr	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
8-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.2	0.4
9-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	0.2	0.6
10-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	A	0	0	0.2	0.7
11-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	0.2
12-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.0	0.1
13-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.1	0.2
14-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.1	0.2
15-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.1	0.1
16-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	1	0.1	0.5
17-Apr	1	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	0.5
18-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.1	0.2
19-Apr	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
20-Apr	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
21-Apr	0	0	0	0	0	0	0	0	0	0	A	0	1	0	0	0	0	0	0	0	0	0	0	0	0.2	1.1
22-Apr	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
23-Apr	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
24-Apr	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
25-Apr	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
26-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
27-Apr	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
28-Apr	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
29-Apr	0	0	A	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
30-Apr	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	Diurnal Average	
	0.5	0.4	0.3	0.4	0.5	0.7	0.4	0.3	0.6	0.3	0.3	0.2	1.1	0.2	0.2	0.3	0.2	0.7	0.4	0.5	0.4	0.5	0.5	0.6	Diurnal Maximum	

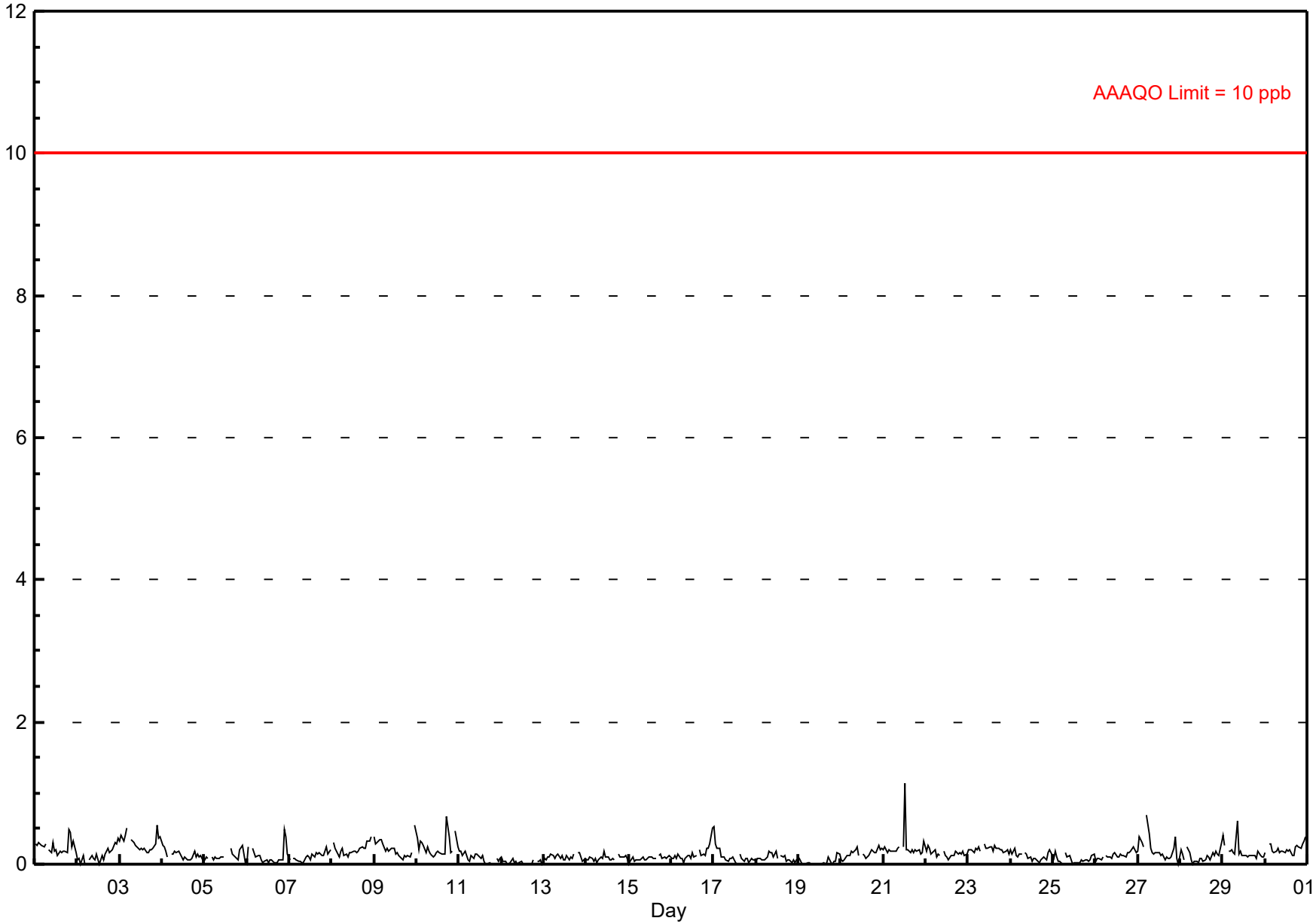
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb

Peace Airshed Zone Association

Hourly Averages

Hydrogen Sulphide (H_2S) - ppb

Valleyview - April 2017



Peace Airshed Zone Association

Hourly Maximums

Hydrogen Sulphide (H_2S) - ppb

Valleyview - April 2017

Maximum Value: 13.2 ppb on Apr 21 13:00

Maximum Daily Average: 1.3 ppb on Apr 21

Minimum Value: 0 ppb on Apr 25 06:00

Minimum Daily Average: 0.5 ppb on Apr 12

Maximum Diurnal Average: 1.0 ppb at hour 13

Minimum Diurnal Average: 0.6 ppb at hour 16

Monthly Average: 0.68 ppb

Percentiles: $P_1 = 0.4$ $P_{10} = 0.5$ $Q_1 = 0.5$ Median = 0.6 $Q_3 = 0.7$ $P_{90} = 0.9$ $P_{99} = 1.4$

Hours in Service:	720
Hours of Data:	686
Hours of Missing Data:	34
Hours of Calibration:	34
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.2
2-Apr	1	1	1	1	0	0	A	0	1	1	1	1	0	0	1	0	1	1	1	1	1	1	1	1	0.6	1.0
3-Apr	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.3
4-Apr	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	0	1	1	0.6	0.8
5-Apr	0	1	2	A	1	1	1	1	1	1	1	1	C	C	C	1	1	1	1	0	1	1	1	0	0.7	1.5
6-Apr	1	1	A	1	1	1	1	1	1	1	0	0	1	0	1	0	0	0	0	0	1	2	1	1	0.7	2.2
7-Apr	1	A	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.8
8-Apr	A	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.7	1.1
9-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	A	1	0.7	1.3
10-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	A	1	1	0.8	2.5
11-Apr	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	1	1	0	1	A	1	0	1	0.6	0.9
12-Apr	1	1	1	0	1	0	1	0	1	0	0	1	0	1	0	0	1	0	1	A	0	0	0	1	0.5	0.6
13-Apr	1	1	1	1	1	1	0	1	1	1	1	1	0	1	1	1	1	1	A	1	1	1	0	1	0.6	0.7
14-Apr	1	1	1	1	0	1	1	0	1	0	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0.6	0.9
15-Apr	0	1	1	1	1	1	1	1	1	1	1	0	0	1	1	0	A	1	1	0	1	1	1	1	0.6	0.7
16-Apr	1	1	1	1	1	1	0	0	1	1	1	1	1	1	0	A	1	1	1	0	1	1	1	1	0.7	1.3
17-Apr	1	1	1	1	1	1	1	1	0	1	0	1	1	0	A	1	1	1	0	1	1	0	1	1	0.6	1.0
18-Apr	0	1	1	0	0	0	1	1	1	1	1	1	0	A	1	1	1	0	1	1	1	0	0	1	0.6	0.8
19-Apr	1	1	1	1	0	0	0	1	0	0	1	0	A	0	0	0	1	1	0	0	1	0	1	1	0.6	1.0
20-Apr	1	1	1	1	1	1	1	1	1	1	0	A	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.8
21-Apr	1	1	1	1	1	1	1	1	1	1	A	1	13	1	1	1	1	1	1	1	1	1	1	1	1.3	13.2
22-Apr	1	1	1	1	1	1	1	1	1	A	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
23-Apr	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.8
24-Apr	1	1	1	1	1	1	0	A	1	1	1	1	0	1	1	0	1	0	0	0	1	1	1	1	0.6	0.8
25-Apr	1	1	0	1	1	0	A	1	1	1	1	1	0	0	1	0	1	1	1	0	1	0	1	1	0.6	0.8
26-Apr	0	1	1	1	0	A	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.9
27-Apr	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0.7	1.3
28-Apr	1	1	1	A	1	1	1	0	1	1	0	1	1	0	1	1	0	0	1	1	1	1	1	1	0.6	1.3
29-Apr	1	1	A	1	1	1	1	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	2.5
30-Apr	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0
	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.6	1.0	0.6	0.6	0.6	0.6	0.7	0.6	0.6	0.7	0.8	0.7	0.8	Diurnal Average	
	1.4	1.1	1.5	1.2	1.0	1.2	1.3	0.9	2.5	1.0	1.0	1.0	13.2	0.9	0.8	1.3	1.0	2.5	1.4	0.9	1.1	2.2	1.2	1.4	Diurnal Maximum	

C - Calibration

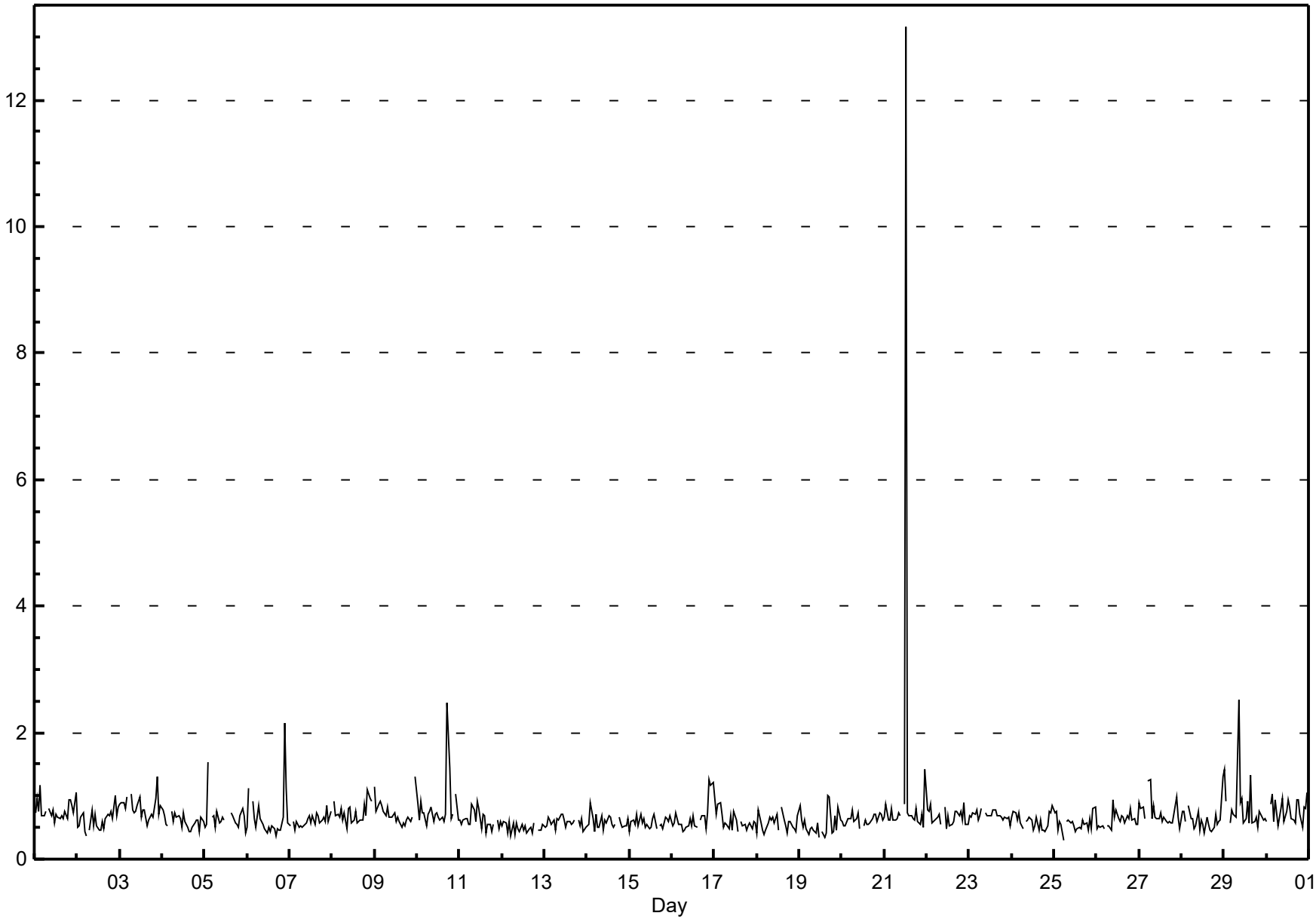
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Hydrogen Sulphide (H_2S) - ppb

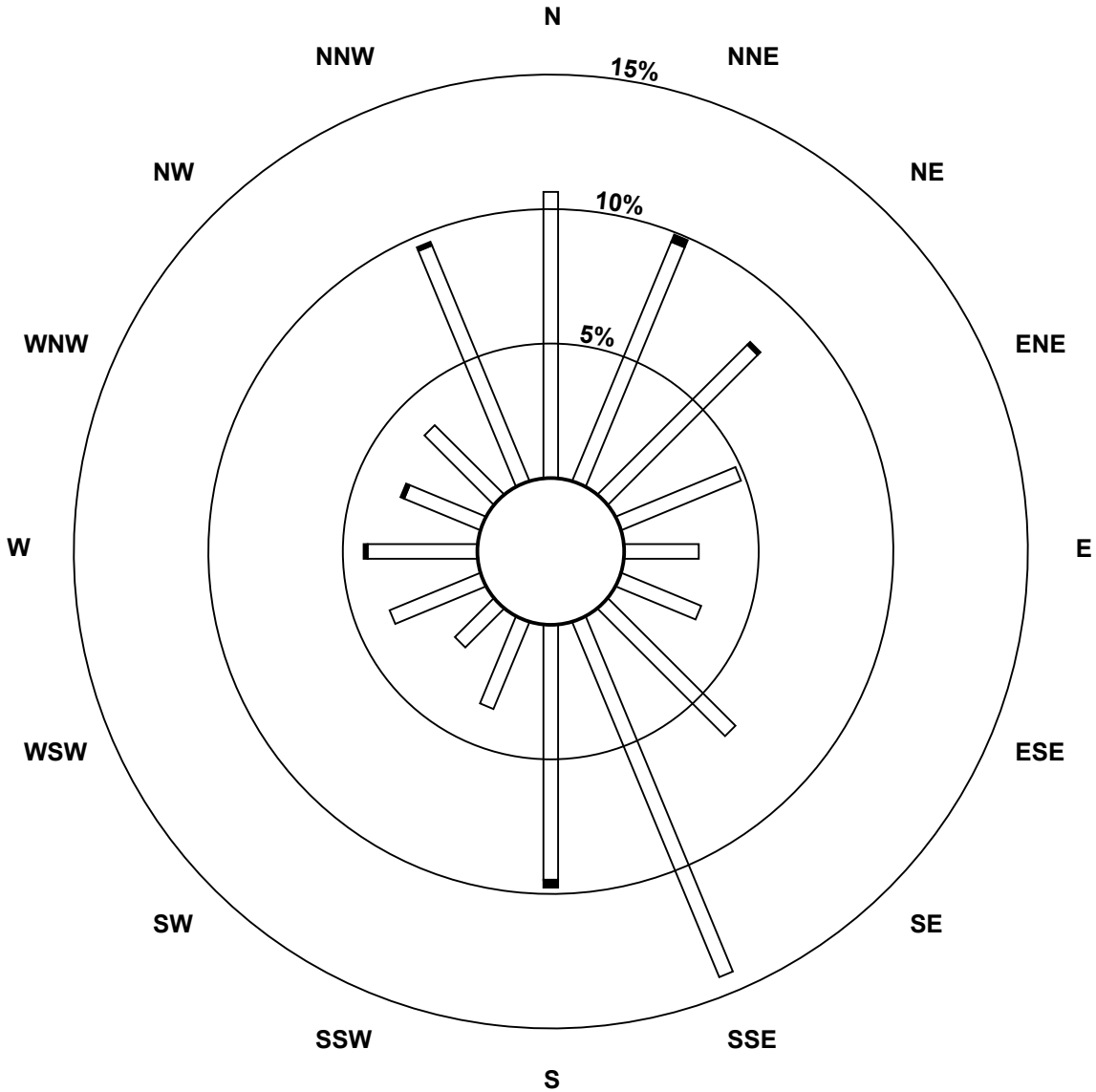
Valleyview - April 2017



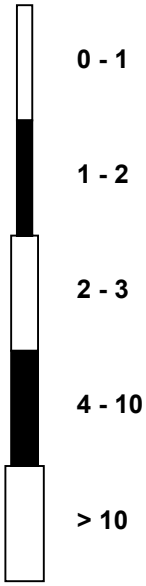
Pollutant Rose

Hydrogen Sulphide (H_2S) - ppb

Valleyview - April 2017



Pollutant Classes (ppb)

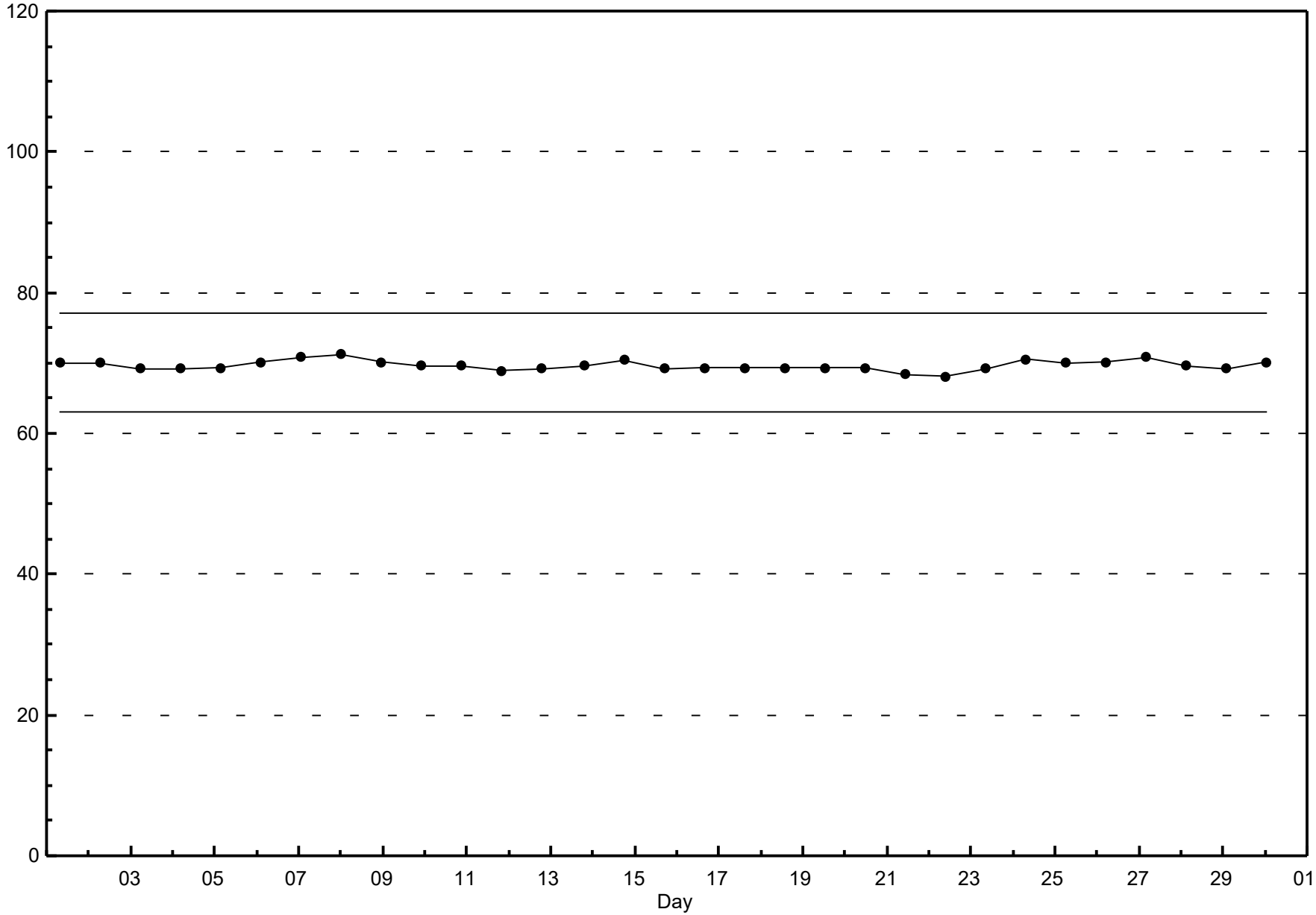


Peace Airshed Zone Association

Span Responses

Hydrogen Sulphide (H_2S)

Valleyview - April 2017



Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - °C

Valleyview - April 2017

Maximum Value: 15.2 °C on Apr 5 18:00

Maximum Daily Average: 9.0 °C on Apr 29

Minimum Value: -4 °C on Apr 18 08:00

Minimum Daily Average: -2.8 °C on Apr 18

Maximum Diurnal Average: 7.4 °C at hour 17

Minimum Diurnal Average: 0.8 °C at hour 7

Monthly Average: 3.89 °C

Percentiles: P_1 = -3.4 P_{10} = -0.5 Q_1 = 0.9 Median = 3.2 Q_3 = 6.5 P_{90} = 9.5 P_{99} = 12.9

Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

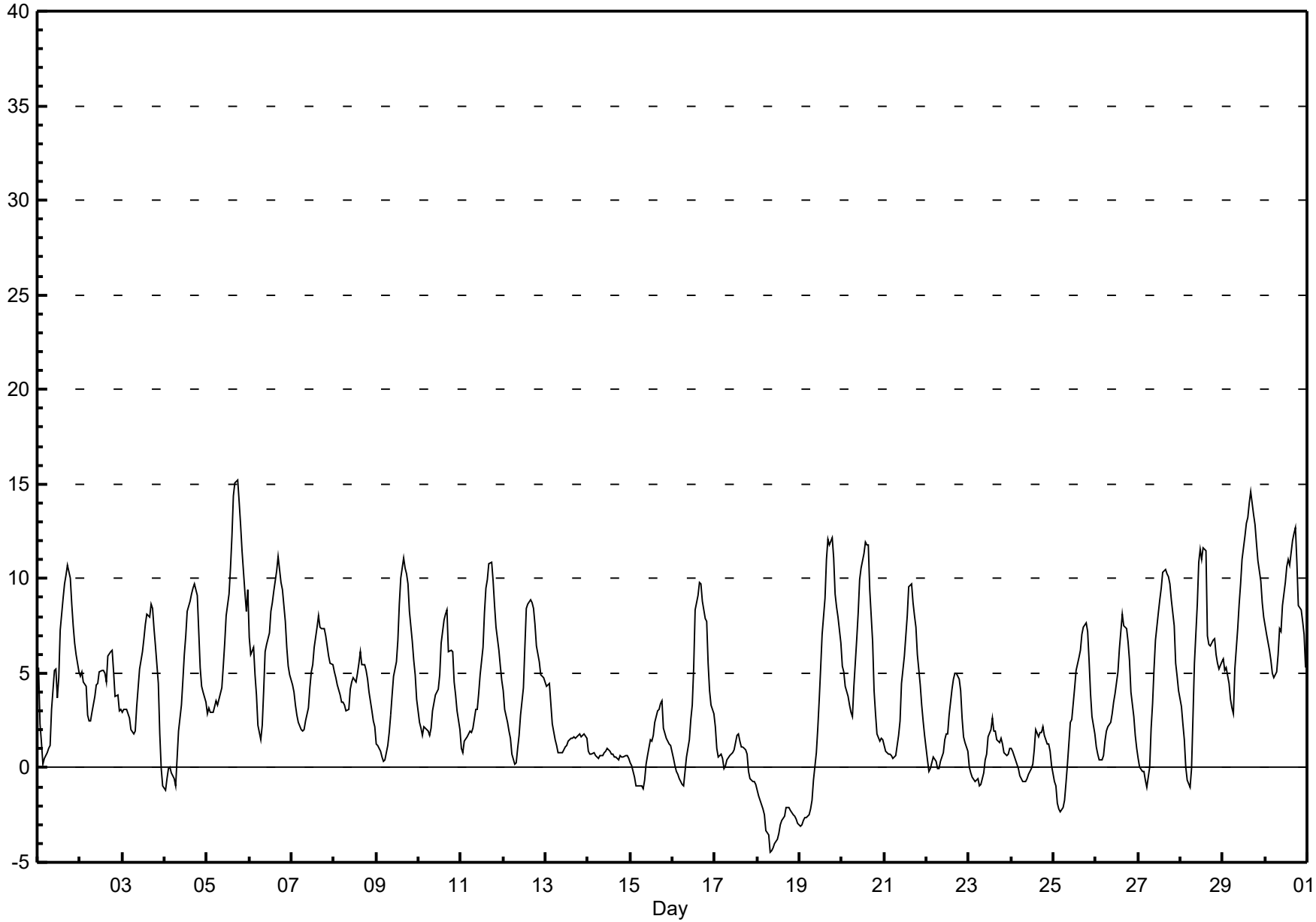
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	5	2	1	0	0	1	1	1	3	5	5	4	5	7	9	10	10	11	10	9	8	7	6	5	5.2	10.7
2-Apr	5	5	5	4	3	2	2	3	4	4	4	5	5	5	5	5	6	6	6	5	4	4	3	3	4.3	6.2
3-Apr	3	3	3	3	3	2	2	2	3	4	5	6	7	8	8	8	9	8	7	6	4	2	0	-1	4.4	8.6
4-Apr	-1	-1	0	0	0	-1	-1	0	2	3	5	6	7	8	9	9	10	10	9	7	5	4	4	3	4.1	9.7
5-Apr	3	3	3	3	3	4	3	4	4	5	7	8	9	11	12	14	15	15	14	13	12	9	8	9	8.0	15.2
6-Apr	7	6	6	5	4	2	1	2	4	6	6	7	8	9	9	10	11	10	10	9	8	6	5	5	6.7	11.2
7-Apr	4	4	3	3	2	2	2	2	2	3	4	5	5	6	7	8	7	7	7	7	6	6	6	5	4.9	8.1
8-Apr	5	5	4	4	3	3	3	3	3	4	5	5	5	5	6	6	5	5	5	5	4	3	2	2	4.2	6.1
9-Apr	1	1	1	1	0	0	1	2	3	4	5	6	7	9	10	11	11	10	10	8	7	6	5	4	5.0	11.1
10-Apr	2	2	2	2	2	2	2	2	3	4	4	4	5	7	8	8	8	6	6	6	5	4	3	2	4.1	8.3
11-Apr	1	1	1	2	2	2	2	2	3	3	4	5	6	8	9	10	11	11	10	9	7	6	5	5	5.2	10.9
12-Apr	4	3	2	2	2	1	0	0	1	2	3	4	6	8	9	9	9	8	8	6	6	5	5	5	4.5	8.9
13-Apr	4	4	4	3	2	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	1.9	4.5
14-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0	0.7	1.0
15-Apr	0	0	-1	-1	-1	-1	-1	-1	-1	0	1	1	1	2	2	3	3	3	4	2	2	1	1	1	0.9	3.6
16-Apr	0	0	0	0	-1	-1	-1	0	1	2	3	3	5	8	9	10	10	9	8	8	6	4	3	3	3.7	9.8
17-Apr	2	1	1	1	0	0	0	0	1	1	1	1	2	2	1	1	1	1	1	0	-1	-1	-1	-1	0.6	2.2
18-Apr	-1	-2	-2	-2	-2	-3	-4	-4	-4	-4	-4	-4	-3	-3	-3	-3	-2	-2	-2	-2	-2	-3	-3	-3	-2.8	-1.2
19-Apr	-3	-3	-3	-3	-3	-3	-2	-2	-1	1	2	4	5	7	9	11	12	12	12	11	9	8	8	7	4.0	12.1
20-Apr	5	5	4	4	3	3	3	4	7	8	10	11	11	12	12	12	9	7	4	3	2	1	2	1	6.0	11.9
21-Apr	1	1	1	1	1	0	1	1	2	3	4	6	7	8	10	10	9	8	7	6	4	3	2	2	4.1	9.7
22-Apr	0	0	0	0	1	0	0	0	0	1	1	2	2	3	4	5	5	5	5	4	3	2	1	1	1.8	5.0
23-Apr	0	0	-1	-1	-1	-1	-1	-1	0	0	1	2	2	3	2	2	1	1	2	1	1	1	1	1	0.6	2.6
24-Apr	1	1	0	0	0	0	-1	-1	-1	-1	0	0	0	1	2	2	2	2	2	2	1	1	1	0	0.6	2.2
25-Apr	-1	-1	-2	-2	-2	-2	-2	-1	0	2	3	3	4	5	6	6	7	7	8	7	6	4	3	2	2.5	7.6
26-Apr	1	1	0	0	1	1	2	2	2	3	3	4	5	6	7	8	8	7	7	6	4	3	2	1	3.5	8.1
27-Apr	1	0	0	0	-1	-1	0	2	3	5	7	8	9	9	10	11	10	10	10	9	8	6	5	4	5.2	10.5
28-Apr	3	2	1	0	-1	-1	0	3	5	9	11	12	11	12	11	7	6	6	7	7	6	6	5	6	5.6	11.6
29-Apr	6	5	5	4	4	3	3	5	7	9	10	11	12	13	13	14	15	13	13	12	11	10	9	8	9.0	14.6
30-Apr	7	7	6	6	5	5	5	6	7	7	9	10	11	11	11	12	12	13	11	9	8	8	7	5	8.2	12.7
	2.3	1.9	1.6	1.3	1.0	0.8	0.8	1.3	2.2	3.2	4.0	4.7	5.4	6.4	7.0	7.3	7.4	7.2	6.7	5.9	4.8	3.9	3.4	2.9	Diurnal Average	
	7.5	7.0	6.3	5.7	5.0	4.8	5.0	5.9	7.4	8.6	10.8	11.5	12.3	12.9	13.2	14.4	15.1	15.2	14.1	12.8	11.5	9.8	8.7	9.4	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Valleyview - April 2017



Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Valleyview - April 2017

Maximum Value: 100.0 % on Apr 14 08:00

Maximum Daily Average: 99.4 % on Apr 14

Minimum Value: 7 % on Apr 29 17:00

Minimum Daily Average: 21.5 % on Apr 5

Maximum Diurnal Average: 78.5 % at hour 6

Minimum Diurnal Average: 43.8 % at hour 17

Monthly Average: 61.86 %

Percentiles: P_1 = 9.8 P_{10} = 20.3 Q_1 = 35.4 Median = 70.7 Q_3 = 87.6 P_{90} = 95.3 P_{99} = 100.0

Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

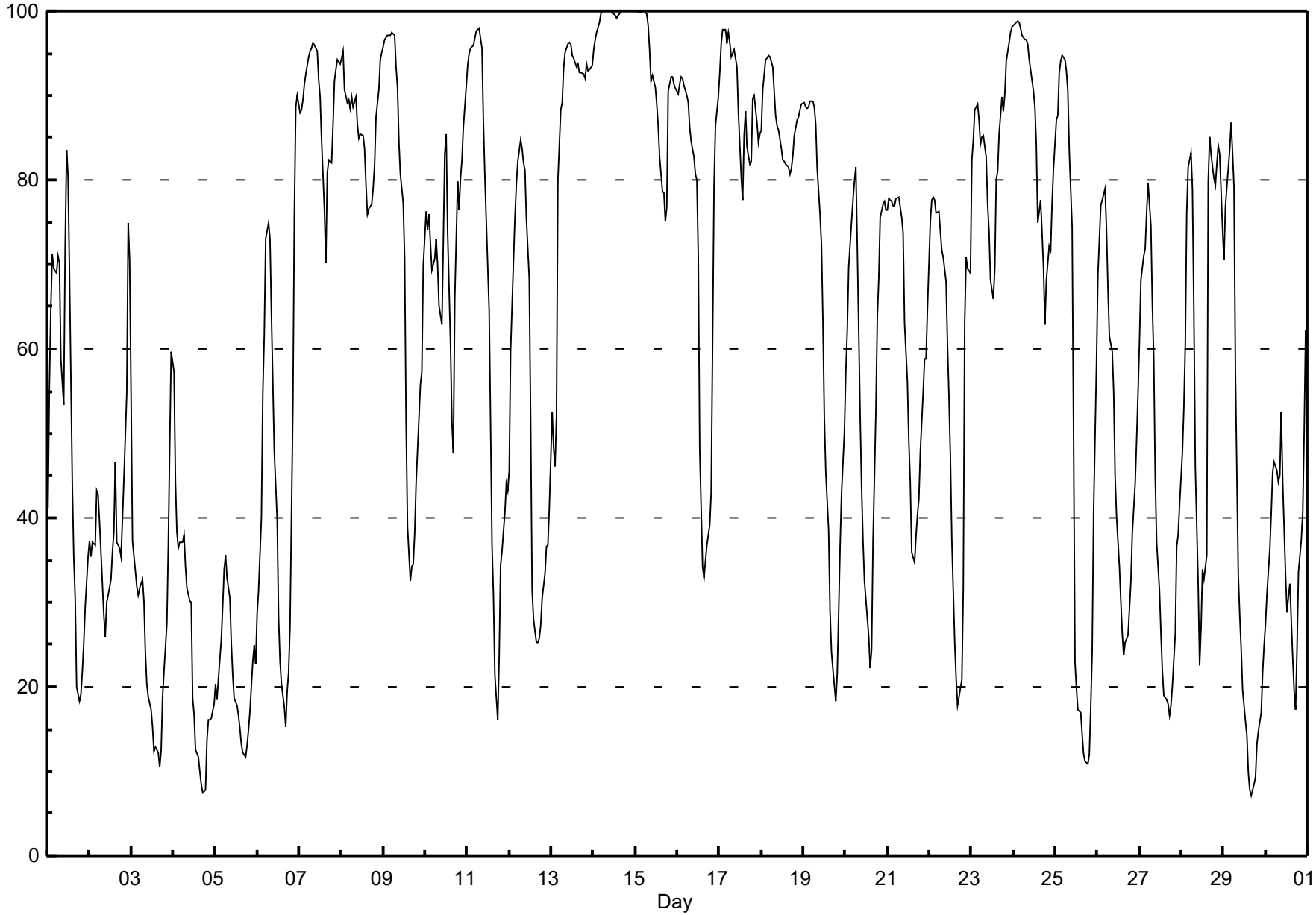
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	41	56	65	71	69	69	71	70	59	53	72	83	80	69	44	35	30	20	18	19	22	25	29	35	50.4	83.5
2-Apr	37	35	37	37	43	43	39	36	28	26	30	31	33	36	38	47	37	36	35	40	45	55	75	70	40.4	74.9
3-Apr	55	37	34	32	31	32	33	30	24	20	19	17	15	12	13	12	11	12	19	22	27	37	48	60	27.2	59.7
4-Apr	57	44	38	36	37	37	38	34	32	30	30	19	17	13	12	10	8	7	8	14	16	16	16	18	24.5	57.2
5-Apr	20	19	21	26	30	34	36	33	30	25	21	19	18	17	15	13	12	12	13	15	17	23	25	23	21.5	35.5
6-Apr	29	31	40	55	62	73	75	73	64	56	48	40	28	23	20	18	15	20	22	27	53	76	89	90	46.9	90.0
7-Apr	88	88	89	91	93	95	95	96	96	96	95	92	90	85	76	70	81	82	82	86	92	93	94	94	89.2	96.3
8-Apr	94	95	91	89	89	88	90	89	90	87	85	85	85	84	79	76	77	77	79	82	87	91	94	95	86.6	95.3
9-Apr	96	97	97	97	97	97	97	93	91	85	81	77	71	51	39	32	34	35	38	44	52	56	57	70	70.2	97.4
10-Apr	76	74	76	73	69	71	73	70	65	63	73	83	85	74	61	51	48	66	80	76	80	82	86	91	72.8	91.0
11-Apr	94	95	96	96	97	98	98	98	96	87	81	75	65	51	37	31	21	16	24	34	36	41	44	43	64.6	97.9
12-Apr	46	60	71	76	79	82	85	84	82	81	75	68	51	32	28	25	25	26	27	30	33	37	37	41	53.4	84.7
13-Apr	52	48	46	52	80	88	89	93	95	96	96	96	95	94	93	94	93	93	92	92	94	93	93	94	85.5	96.3
14-Apr	95	97	97	99	100	100	100	100	100	100	100	100	99	99	100	100	100	100	100	100	100	100	100	100	99.4	100.0
15-Apr	100	100	100	100	100	100	100	98	95	92	92	91	89	86	83	79	79	75	77	91	92	92	91	91	91.3	100.0
16-Apr	90	91	92	92	91	90	89	86	85	83	81	80	71	48	34	33	35	37	39	43	61	79	86	90	71.1	92.3
17-Apr	93	96	98	98	96	97	96	95	95	94	93	88	80	78	85	88	84	82	82	90	90	87	84	85	89.8	97.9
18-Apr	86	91	94	94	95	95	93	90	88	86	86	84	82	82	82	81	81	81	83	85	87	87	88	89	87.2	94.8
19-Apr	89	89	88	89	89	89	89	87	81	76	72	63	52	45	38	29	24	22	18	22	29	37	43	50	58.8	89.3
20-Apr	57	62	70	75	78	80	82	72	52	44	37	32	28	26	22	24	37	53	64	68	76	77	78	76	57.1	81.6
21-Apr	76	78	77	77	77	78	78	77	76	74	63	56	49	44	36	35	38	40	42	48	55	59	59	65	60.7	78.0
22-Apr	75	78	78	78	76	76	74	72	71	68	60	54	47	37	25	21	18	19	21	31	63	71	70	69	56.3	78.0
23-Apr	82	85	88	89	87	84	85	85	83	77	74	68	66	69	80	81	85	90	88	90	94	96	97	98	84.3	98.1
24-Apr	98	98	99	99	98	97	97	97	96	94	93	91	89	84	75	78	74	70	63	68	72	72	77	81	85.8	98.8
25-Apr	87	88	93	94	95	94	93	91	83	74	50	23	20	17	17	14	12	11	11	12	18	24	41	58	50.8	94.7
26-Apr	69	73	77	78	79	74	67	62	60	55	45	40	34	30	26	24	25	26	29	32	38	44	49	55	49.7	79.0
27-Apr	61	68	71	72	76	80	75	65	59	45	37	31	26	22	19	18	18	17	18	20	26	37	38	41	43.3	79.7
28-Apr	48	53	60	76	82	83	79	64	46	32	22	27	34	33	36	80	85	83	80	79	82	84	83	74	62.7	85.1
29-Apr	71	77	79	84	87	83	79	57	33	28	25	20	16	14	10	8	7	9	9	13	15	17	22	25	36.9	86.7
30-Apr	27	31	36	41	45	47	46	44	45	53	44	33	29	31	32	23	20	17	25	34	37	41	50	62	37.2	62.2
	69.7	71.1	73.3	75.5	77.6	78.5	78.0	74.7	70.0	66.0	62.7	58.9	54.8	49.6	45.2	44.4	43.8	44.4	46.2	50.3	56.3	60.9	64.8	67.8	Diurnal Average	
	100.0	100.0	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9	99.4	99.1	99.6	99.6	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Valleyview - April 2017



Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Valleyview - April 2017

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1 Spd	2	1	1	2	2	1	0	2	2	3	10	8	6	6	9	7	6	11	10	10	9	8	8	8	4.8	10.6
Dir	235	188	223	195	199	195	344	194	180	227	273	300	270	219	264	250	293	307	282	273	270	264	267	250	266	307
2 Spd	5	6	3	3	2	2	2	3	8	18	16	16	16	14	12	11	13	12	8	4	4	9	13	7	8.0	18.1
Dir	241	254	231	256	141	178	225	222	271	278	280	271	251	247	260	249	257	266	257	240	241	312	272	259	262	278
3 Spd	11	13	13	14	14	10	3	7	13	15	11	9	9	7	7	8	5	8	9	2	1	1	1	1	7.3	15.4
Dir	266	279	282	280	274	263	241	251	275	279	296	297	290	290	300	306	307	322	341	349	177	185	176	166	285	279
4 Spd	2	2	3	3	2	2	2	1	2	2	2	3	3	2	2	3	2	2	3	3	3	2	3	4	0.8	4.3
Dir	162	180	170	166	173	158	134	208	240	295	4	330	326	326	57	72	31	24	73	72	69	81	105	144	95	144
5 Spd	4	6	9	10	9	9	7	9	10	9	8	8	5	5	6	5	4	4	5	2	1	3	3	4	5.8	9.9
Dir	147	157	157	152	160	160	162	170	162	164	169	170	170	168	159	153	147	124	130	133	222	170	192	239	161	162
6 Spd	1	4	9	1	1	1	2	2	1	1	3	4	2	2	2	5	3	7	4	1	1	1	2	5	0.5	8.6
Dir	184	270	304	203	169	24	165	140	162	258	179	168	162	149	37	0	76	346	348	129	208	358	29	27	349	304
7 Spd	5	6	7	7	5	6	4	5	4	2	0	1	2	3	5	2	4	4	2	1	1	2	1	0	3.0	7.2
Dir	24	31	25	13	14	8	5	7	15	11	11	119	354	9	78	96	64	56	63	70	58	33	358	53	28	13
8 Spd	2	2	3	3	2	1	1	2	2	1	1	1	2	3	3	3	3	3	2	1	0	0	0	1	0.9	3.5
Dir	0	41	91	92	50	23	18	79	86	145	194	174	174	189	184	188	172	187	188	169	95	166	64	36	138	91
9 Spd	2	1	3	0	0	1	3	2	3	7	7	5	5	3	3	2	6	8	8	6	5	5	2	0	3.1	8.4
Dir	30	23	343	307	5	41	142	142	159	161	160	149	149	149	140	158	150	164	161	161	153	159	175	172	153	164
10 Spd	1	1	0	0	0	0	1	1	2	2	2	1	2	3	2	3	2	1	1	6	6	1	1	1	0.1	5.9
Dir	172	197	23	74	118	160	161	154	115	135	162	176	220	253	59	95	91	286	202	327	318	317	232	214	211	318
11 Spd	1	1	1	1	1	1	0	0	3	7	5	7	5	3	6	13	11	10	3	3	3	5	5	4	3.5	12.7
Dir	171	132	203	256	175	202	169	50	11	20	10	7	3	346	6	351	20	28	87	18	23	29	27	2	15	351
12 Spd	4	5	5	5	5	4	3	3	6	7	8	6	6	8	7	8	9	7	12	9	4	4	4	8	4.6	11.7
Dir	15	23	33	19	8	15	21	26	16	26	36	51	69	65	76	109	112	105	124	123	108	77	87	121	70	124
13 Spd	4	3	4	4	6	6	7	8	8	8	8	8	9	10	11	11	11	8	7	8	8	7	6	7	7.2	11.3
Dir	108	88	76	83	81	49	49	46	51	48	43	46	44	47	46	47	53	49	47	52	49	46	39	28	51	53
14 Spd	7	7	6	6	5	4	5	6	7	7	8	6	6	6	9	10	8	7	8	8	7	5	7	9	6.5	10.2
Dir	15	15	11	15	11	353	335	332	340	331	325	322	334	336	337	341	333	338	337	335	328	326	324	336	341	341
15 Spd	9	9	8	6	6	7	9	10	10	10	9	12	10	8	8	7	6	3	1	2	1	1	3	3	5.8	11.5
Dir	342	337	359	356	346	341	339	347	345	342	346	342	336	316	318	327	348	349	51	79	112	130	145	154	343	342
16 Spd	5	2	3	4	4	5	4	4	4	6	6	6	6	3	3	3	4	4	4	1	1	0	1	0	3.3	6.5
Dir	157	166	172	166	165	168	161	162	170	168	166	165	163	179	237	212	200	176	178	184	198	205	163	47	172	166
17 Spd	1	2	2	2	8	12	13	12	11	11	11	12	11	13	11	10	10	10	10	10	10	9	7	7	8.8	13.2
Dir	33	353	3	14	5	16	19	38	38	37	37	39	36	37	19	21	33	41	40	37	30	34	34	25	31	37
18 Spd	9	8	9	9	9	10	11	14	14	13	12	11	10	10	10	10	7	6	6	5	5	4	4	4	8.5	14.5
Dir	27	25	17	15	3	355	345	339	338	340	342	341	341	342	348	358	3	353	351	344	0	2	2	358	353	338
19 Spd	5	3	2	1	2	1	1	0	1	1	3	4	3	4	3	0	1	2	1	1	1	4	1	2	0.6	5.3
Dir	357	2	29	346	341	348	347	34	152	114	164	171	186	174	153	204	309	170	54	94	150	164	101	146	142	357
20 Spd	4	5	4	3	2	1	1	3	1	2	10	10	11	14	19	18	19	19	16	12	11	7	8	6	5.9	19.4
Dir	164	170	173	174	179	192	194	164	201	281	308	316	314	321	325	340	6	6	7	10	1	25	331	334	342	6
21 Spd	5	6	5	2	2	2	1	1	2	3	3	3	7	9	9	10	14	13	11	8	5	5	5	3	4.6	13.7
Dir	326	339	351	13	45	39	50	71	151	154	130	331	347	348	8	16	4	10	11	35	60	49	44	19	13	4
22 Spd	4	6	6	7	7	10	12	11	8	8	8	9	8	7	8	7	7	7	8	5	2	7	5	6	5.3	11.8
Dir	5	26	25	25	38	22	35	40	35	52	59	57	58	70	78	99	93	108	127	132	195	166	144	128	66	35

Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Valleyview - April 2017

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
23 Spd	3	4	5	5	2	2	4	5	4	4	5	4	3	0	7	6	5	6	6	6	5	4	2	0	3.0	6.6
Dir	89	64	70	81	64	56	32	52	66	118	119	129	137	107	8	23	8	358	25	8	8	3	4	67	45	8
24 Spd	0	0	2	2	3	4	6	8	9	10	10	12	11	12	11	11	13	10	8	8	7	4	2	2	6.4	12.6
Dir	153	175	286	281	305	311	327	337	348	4	358	3	1	3	11	13	3	3	8	356	343	326	301	294	353	3
25 Spd	0	0	1	0	1	0	0	0	0	1	2	4	1	4	5	7	5	4	4	5	5	3	8	8	2.1	8.5
Dir	327	280	168	182	171	176	184	192	156	21	352	317	66	172	197	173	179	174	177	158	148	146	139	142	163	142
26 Spd	7	7	6	6	6	8	9	10	11	11	12	13	12	10	10	8	11	9	11	9	8	5	5	3	8.6	13.0
Dir	146	155	157	159	144	141	143	152	146	146	151	144	159	155	163	159	129	133	124	125	129	134	132	136	145	144
27 Spd	1	0	1	2	1	0	1	2	5	4	5	3	4	5	5	7	10	9	8	5	4	1	6	3	1.4	10.0
Dir	147	335	160	151	12	29	346	147	168	151	148	144	33	14	45	360	8	13	10	354	323	108	158	163	43	8
28 Spd	0	1	0	0	0	0	2	3	4	3	4	2	2	4	6	8	5	7	6	3	4	2	2	1	2.5	7.9
Dir	254	156	180	265	180	230	167	169	164	177	170	273	75	148	171	183	170	153	164	158	168	166	166	301	168	183
29 Spd	1	3	2	1	1	2	2	2	5	6	6	4	3	3	2	1	5	6	6	5	3	3	2	3	1.8	6.2
Dir	300	187	180	167	163	164	144	157	276	241	258	207	224	299	225	265	175	117	132	123	124	126	140	142	181	117
30 Spd	2	1	1	2	2	2	2	2	12	7	5	8	10	11	16	19	15	13	11	19	4	1	1	1	5.2	19.0
Dir	147	189	178	186	193	177	178	184	249	260	279	297	290	281	334	330	329	323	283	297	336	50	24	214	299	330
Spd	0.6	0.8	1.0	0.6	0.8	1.2	1.4	1.0	0.9	1.1	1.3	1.7	1.7	1.7	2.7	2.9	3.0	3.0	1.8	1.7	1.3	1.0	0.4	0.4	Diurnal Average	
Dir	16	358	13	37	23	17	29	37	344	332	332	340	336	335	353	358	18	15	36	25	22	44	46	65		
Spd	10.5	13.1	12.5	13.8	14.1	11.8	12.8	14.0	14.5	18.1	16.3	15.8	15.8	14.3	19.1	19.0	18.9	19.4	15.9	18.9	10.6	9.1	12.8	8.5	Diurnal Maximum	
Dir	266	279	282	280	274	16	19	339	338	278	280	271	251	321	325	330	6	6	7	297	1	312	272	336		

Maximum Speed Value: 19 km/h on Apr 20 18:00
Maximum Daily Speed Average: 8.8 km/h on Apr 17
Maximum Diurnal Speed Average: 3.0 km/h at hour 18

Minimum Speed Value: 0 km/h on Apr 27 02:00
Minimum Daily Speed Average: 0.1 km/h on Apr 10
Minimum Diurnal Speed Average: 0.4 km/h at hour 24

Monthly Average Velocity: 1.31 km/h 7.8 deg

Speed Percentiles: $P_1 = 0.2$ $P_{10} = 0.8$ $Q_1 = 2.1$ Median = 4.6 $Q_3 = 7.9$ $P_{90} = 10.7$ $P_{99} = 18.0$

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

Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Percent Operational Time:	100.0

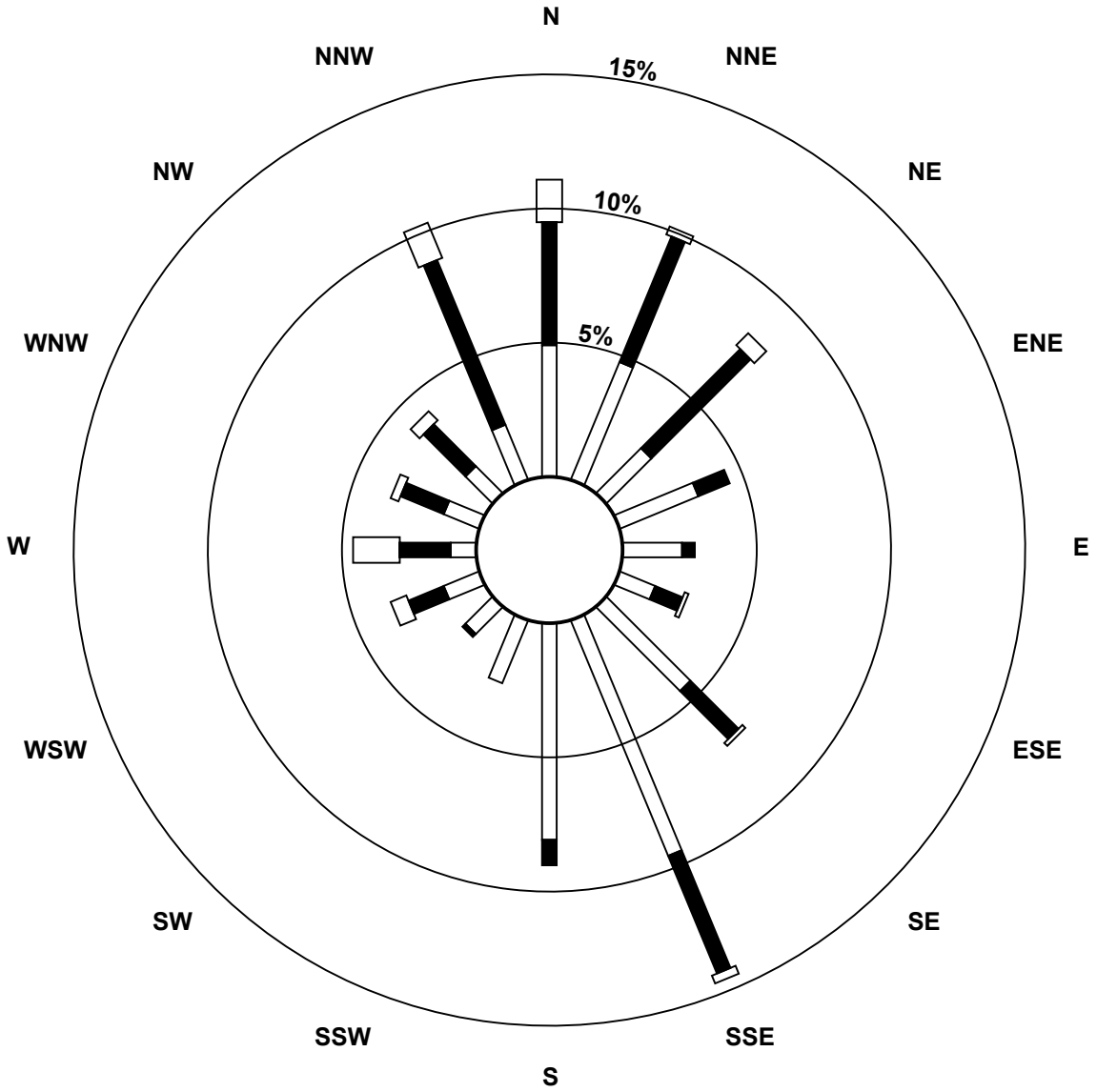
Frequency Distribution

Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	53	70	23	1	0	0	147
NorthEast	49	57	8	0	0	0	114
East	37	11	0	0	0	0	48
SouthEast	56	38	4	0	0	0	98
South	121	33	1	0	0	0	155
SouthWest	29	2	1	0	0	0	32
West	14	25	17	0	0	0	56
NorthWest	22	39	8	1	0	0	70
Total	381	275	62	2	0	0	720

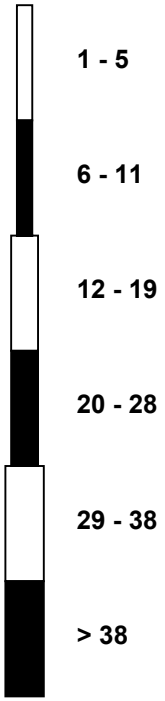
Wind Rose

Wind Speed (WS) (km/h)

Valleyview - April 2017



Wind Speed Classes (km/h)



Peace Airshed Zone Association

Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Valleyview - April 2017

Maximum Speed: 21 km/h on Apr 30 20:00

Maximum Daily Speed Average: 9.1 km/h on Apr 17

Minimum Speed: 0 km/h on Apr 27 02:00

Minimum Daily Speed Average: 1.9 km/h on Apr 8

Maximum Diurnal Speed Average: 8.2 km/h at hour 16

Minimum Diurnal Speed Average: 3.8 km/h at hour 1

Monthly Average Speed: 5.62 km/h

Percentiles: $P_1 = 0.3$ $P_{10} = 1.1$ $Q_1 = 2.4$ Median = 5.0 $Q_3 = 8.1$ $P_{90} = 10.8$ $P_{99} = 18.1$

Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	3	1	1	2	2	2	1	2	2	4	11	8	7	6	10	9	8	11	11	10	9	8	8	8	6.0	10.8
2-Apr	5	6	3	4	2	2	2	3	8	18	17	16	16	14	13	12	13	13	8	4	4	10	13	8	8.9	18.3
3-Apr	11	13	13	14	14	10	3	7	13	16	12	10	10	8	9	8	7	9	9	2	1	1	1	1	8.4	15.7
4-Apr	2	2	3	3	2	2	2	2	2	3	3	4	4	4	4	4	4	3	4	4	3	3	3	4	3.1	4.5
5-Apr	4	7	9	10	9	9	8	9	10	9	8	8	5	5	6	5	5	4	5	2	1	3	3	4	6.2	10.0
6-Apr	1	5	9	2	1	1	3	2	2	1	3	4	2	2	3	6	4	7	5	3	1	1	2	5	3.2	8.9
7-Apr	6	7	7	7	5	6	4	5	4	2	1	1	2	4	5	3	4	5	2	2	1	2	1	0	3.6	7.3
8-Apr	2	2	4	4	2	1	1	2	2	1	1	1	2	3	3	3	3	3	2	1	0	0	1	1	1.9	3.7
9-Apr	2	2	3	1	0	1	3	2	3	7	7	5	6	4	4	3	6	9	8	6	5	5	2	0	3.9	8.6
10-Apr	1	1	1	0	1	0	1	1	2	3	2	2	2	4	3	4	3	5	1	6	6	1	1	1	2.1	6.0
11-Apr	1	1	1	1	1	1	0	1	3	7	6	7	6	4	7	13	12	11	5	5	3	5	5	4	4.6	13.1
12-Apr	4	5	5	5	5	4	3	3	6	7	8	6	6	8	8	9	10	8	12	9	5	4	4	8	6.4	11.8
13-Apr	4	3	4	6	6	6	7	8	8	8	8	9	9	10	11	11	12	8	7	8	8	7	6	7	7.6	11.5
14-Apr	7	7	6	6	5	4	5	6	7	7	8	6	6	6	9	10	8	7	8	8	7	6	7	9	6.9	10.2
15-Apr	9	9	8	6	6	7	9	10	10	10	9	12	10	9	8	7	6	3	2	2	1	1	3	3	6.8	11.6
16-Apr	5	2	3	4	4	5	4	4	4	6	7	6	6	4	4	4	4	5	4	1	1	0	1	1	3.7	6.6
17-Apr	1	2	2	2	8	12	13	12	11	12	11	12	11	13	11	10	11	10	10	10	10	9	7	7	9.1	13.3
18-Apr	9	8	9	10	9	10	11	14	15	13	12	11	10	10	10	10	7	7	6	5	5	5	4	5	8.9	14.5
19-Apr	5	3	2	1	2	1	1	1	1	1	3	4	4	5	3	2	2	2	2	1	1	4	1	2	2.3	5.4
20-Apr	4	5	4	3	2	1	1	3	2	3	10	11	12	15	19	19	19	20	16	12	11	8	8	6	8.9	19.6
21-Apr	5	6	5	3	2	2	1	1	2	3	4	5	8	9	10	11	14	13	11	9	5	5	5	3	5.9	14.1
22-Apr	4	6	6	7	7	11	12	11	9	8	8	9	8	8	8	8	8	8	9	6	2	7	5	6	7.5	12.0
23-Apr	4	4	5	5	3	3	4	5	4	4	5	4	3	2	7	6	6	6	6	6	5	4	2	0	4.4	6.8
24-Apr	0	1	2	2	3	5	6	8	9	10	11	12	12	12	11	12	13	10	8	9	7	4	2	2	7.1	12.9
25-Apr	1	0	1	0	1	0	0	0	0	2	3	5	3	5	6	7	5	4	4	5	5	4	8	9	3.3	8.6
26-Apr	7	7	6	6	6	8	9	10	11	11	13	13	13	11	10	9	11	9	11	10	8	5	5	3	8.9	13.2
27-Apr	1	0	1	2	1	0	1	3	5	5	6	4	5	6	7	8	11	10	8	5	4	2	6	3	4.3	10.8
28-Apr	1	1	0	1	1	0	2	3	4	3	4	4	5	4	6	8	5	8	6	3	4	2	2	2	3.3	8.2
29-Apr	3	3	2	1	1	2	2	2	6	7	7	5	4	5	5	5	7	7	6	5	3	3	2	3	4.0	7.5
30-Apr	2	1	1	2	2	2	2	3	12	7	6	9	11	14	17	20	15	14	12	21	5	1	1	1	7.5	21.3
	3.8	4.1	4.2	4.0	3.8	3.9	4.2	4.7	6.0	6.6	7.0	7.1	7.0	7.2	7.9	8.2	8.1	7.9	7.0	6.0	4.4	4.0	4.0	3.9	Diurnal Average	
	10.7	13.2	12.7	13.9	14.3	12.0	13.0	14.0	14.5	18.3	16.5	16.2	16.3	15.0	19.5	19.5	19.1	19.6	16.1	21.3	10.8	10.0	13.1	8.6	Diurnal Maximum	

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

Peace Airshed Zone Association

Hourly Standard Deviations

Wind Direction (WD) - deg

Valleyview - April 2017

Maximum Value: 96.0 deg on Apr 23 14:00

Minimum Value: 4.9 deg on Apr 18 08:00

Percentiles: P_1 = 5.7 P_{10} = 8.1 Q_1 = 10.4 Median = 16.8 Q_3 = 31.2 P_{90} = 54.9 P_{99} = 86.6

Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Apr	37	16	45	10	46	47	85	23	37	33	14	13	30	24	21	41	43	12	14	8	10	9	9	10	84.6
2-Apr	18	23	28	49	22	33	43	22	32	10	11	14	15	13	18	16	12	17	14	15	18	25	13	13	49.4
3-Apr	11	8	9	7	10	8	39	12	13	11	16	24	27	31	46	29	55	20	8	47	26	33	41	46	55.2
4-Apr	9	5	6	7	9	11	31	50	47	48	36	56	58	83	73	58	67	54	28	15	13	21	16	18	82.6
5-Apr	12	9	8	9	8	8	10	8	10	9	8	9	10	10	16	19	22	15	10	19	85	13	22	42	85.4
6-Apr	15	48	13	62	40	76	66	38	48	52	15	12	22	33	65	34	44	23	14	74	75	39	21	8	76.0
7-Apr	8	12	17	9	12	9	9	10	17	17	88	54	37	32	31	40	23	24	19	20	44	31	33	55	88.4
8-Apr	23	33	21	16	19	29	38	37	38	48	24	49	43	19	11	19	27	11	19	22	72	32	86	65	86.4
9-Apr	38	60	14	64	71	53	12	10	13	10	11	18	18	41	53	69	22	14	10	9	10	8	40	73	72.9
10-Apr	16	29	72	67	20	27	16	31	27	28	22	25	29	48	54	39	67	82	70	13	14	21	34	15	81.6
11-Apr	18	58	32	66	25	18	18	74	30	15	28	22	35	67	44	16	19	18	53	85	14	12	12	16	84.8
12-Apr	25	12	7	11	11	9	17	19	11	10	14	23	25	25	24	21	17	19	7	7	21	15	22	15	25.4
13-Apr	26	23	29	44	19	9	8	7	7	7	7	8	8	7	8	8	12	10	9	10	8	9	8	9	44.1
14-Apr	8	10	8	8	9	13	6	8	8	7	6	11	12	15	5	6	7	6	5	7	6	8	7	8	15.1
15-Apr	7	8	12	8	9	6	8	6	6	8	12	7	9	11	10	13	10	11	47	22	18	18	15	11	46.6
16-Apr	8	11	8	6	8	6	11	11	9	8	8	10	11	45	37	41	26	13	11	18	19	75	53	55	75.3
17-Apr	49	17	60	86	7	8	9	9	11	11	12	10	12	9	10	9	13	10	8	7	8	8	12	9	86.4
18-Apr	9	10	9	8	8	8	7	5	6	7	6	7	10	10	9	10	15	13	11	13	19	11	15	12	19.2
19-Apr	9	17	16	23	27	24	33	83	55	87	30	28	34	17	38	91	82	31	57	20	27	9	72	17	90.7
20-Apr	9	7	7	9	16	21	22	15	56	51	20	17	17	18	12	13	9	9	10	12	13	20	11	13	55.9
21-Apr	19	13	13	29	29	21	36	64	34	31	43	70	25	19	25	21	13	11	15	14	15	11	22	22	69.8
22-Apr	64	12	11	9	8	12	11	11	12	18	18	19	21	21	22	22	21	26	12	36	15	10	11	10	63.8
23-Apr	27	14	22	22	32	26	8	15	22	14	12	19	43	96	15	18	22	15	13	14	9	10	23	51	96.0
24-Apr	17	47	16	17	13	12	8	7	9	11	10	10	11	13	20	15	12	10	14	11	8	11	15	20	46.9
25-Apr	77	64	17	30	41	21	24	66	86	69	49	32	87	52	33	15	30	42	27	16	9	10	8	9	87.3
26-Apr	9	10	9	9	10	10	9	10	10	12	12	12	15	16	16	21	14	19	8	8	9	13	9	12	21.4
27-Apr	58	96	20	27	42	47	69	40	15	28	28	49	66	45	46	35	23	24	16	10	17	77	8	23	95.7
28-Apr	63	13	55	67	43	33	20	14	18	26	38	68	63	47	18	16	11	12	17	18	9	20	15	64	68.0
29-Apr	63	12	25	13	14	14	12	18	37	26	32	39	55	67	79	91	40	36	18	8	5	9	27	13	91.2
30-Apr	14	19	28	15	24	17	17	14	12	16	37	29	27	39	18	14	16	15	21	27	36	36	82	10	81.5
	76.8	95.7	71.8	86.4	70.8	76.0	84.6	83.2	85.7	86.9	88.4	69.8	87.3	96.0	78.9	91.2	81.9	81.6	70.3	84.8	85.4	77.2	86.4	72.9	

PAZA
Donnelly Station
Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Donnelly - April 2017

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 1.6 ppb on Apr 22 11:00

Maximum Daily Average: 0.4 ppb on Apr 9

Minimum Value: 0 ppb on Apr 1 01:00

Minimum Daily Average: 0.0 ppb on Apr 24

Maximum Diurnal Average: 0.3 ppb at hour 11

Minimum Diurnal Average: 0.1 ppb at hour 23

Monthly Average: 0.12 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.0$ Median = 0.1 $Q_3 = 0.2$ $P_{90} = 0.3$ $P_{99} = 0.8$

Hours in Service:	720
Hours of Data:	640
Hours of Missing Data:	80
Hours of Calibration:	32
Percent Operational Time:	93.3

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
2-Apr	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
3-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
4-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
5-Apr	0	0	0	A	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.3	0.9
6-Apr	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
7-Apr	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
8-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.2	0.4
9-Apr	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	1	0	A	1	0.4	1.0
10-Apr	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.2	0.7
11-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.0	0.2
12-Apr	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.2	0.6
13-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.1	0.3
14-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.0	0.3
15-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.2	0.3
16-Apr	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.3	0.6
17-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.1	0.1
18-Apr	0	0	0	0	0	0	0	0	1	1	1	1	1	A	0	1	1	0	1	0	0	0	0	0	0.3	0.8
19-Apr	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	N	N	N	N	N	N	--	0.1
20-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
21-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	M	M	M	M	0	0	0	0	0	0	0	--	0.1
22-Apr	0	0	0	0	0	0	0	0	0	A	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.6
23-Apr	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
24-Apr	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
25-Apr	0	0	0	0	0	0	A	0	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0.1	0.3
26-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
27-Apr	0	0	0	0	A	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
28-Apr	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
29-Apr	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.3
30-Apr	0	A	0	0	0	0	0	0	0	0	0	N	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	Diurnal Average	
	0.4	0.4	0.5	0.3	0.5	0.5	0.6	0.6	0.7	0.9	1.6	1.0	1.0	0.8	0.6	0.6	0.5	0.5	0.5	0.4	0.6	0.5	0.3	0.9	Diurnal Maximum	

C - Calibration M - Maintenance N - Not Valid A - Automated Daily Zero Span

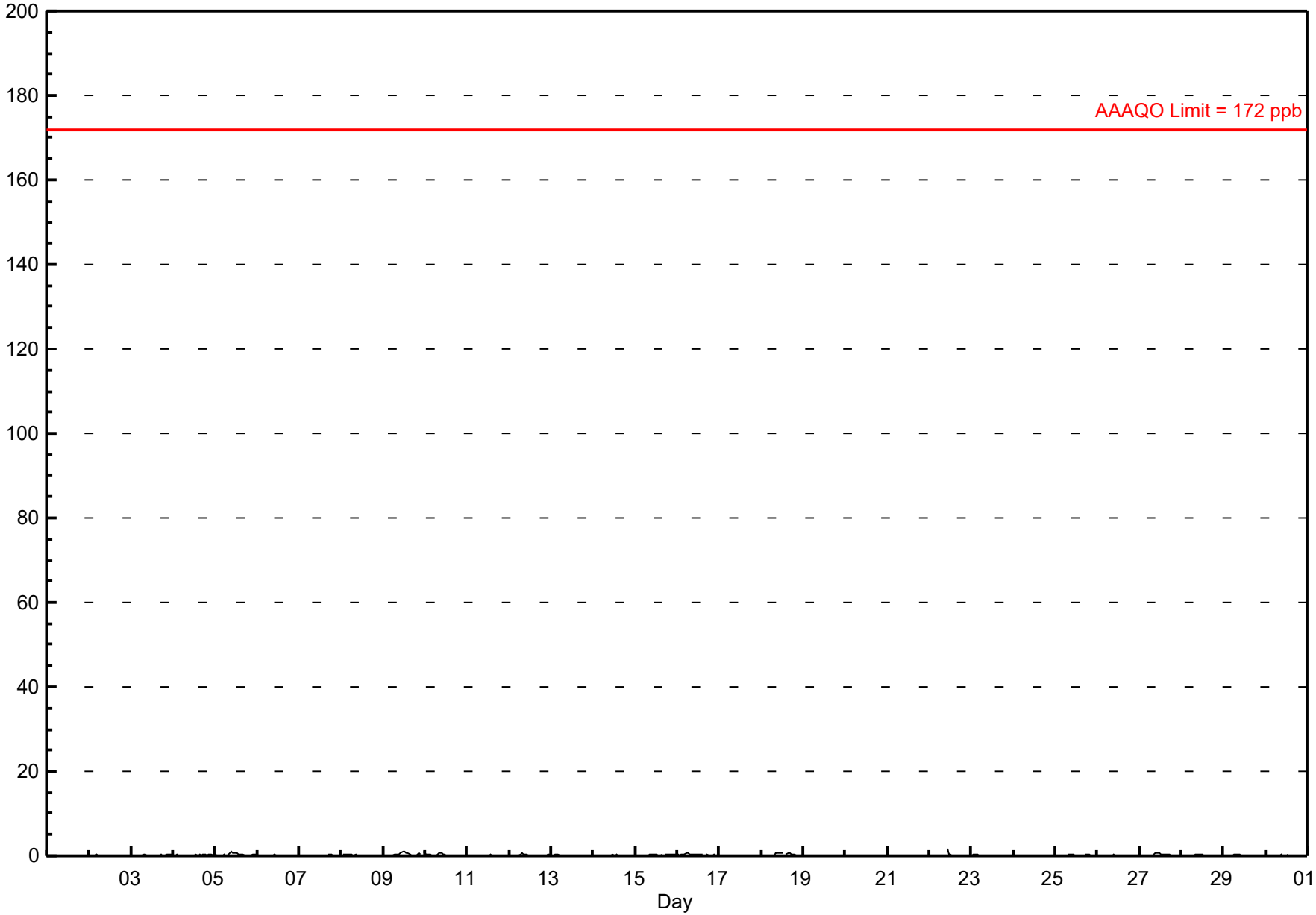
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Donnelly - April 2017



Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Donnelly - April 2017

Maximum Value: 14.3 ppb on Apr 22 11:00

Maximum Daily Average: 1.5 ppb on Apr 22

Minimum Value: 0 ppb on Apr 29 15:00

Minimum Daily Average: 0.4 ppb on Apr 29

Maximum Diurnal Average: 1.4 ppb at hour 11

Minimum Diurnal Average: 0.6 ppb at hour 23

Monthly Average: 0.66 ppb

Percentiles: $P_1 = 0.3$ $P_{10} = 0.4$ $Q_1 = 0.5$ Median = 0.6 $Q_3 = 0.7$ $P_{90} = 0.9$ $P_{99} = 1.5$

Hours in Service:	720
Hours of Data:	640
Hours of Missing Data:	80
Hours of Calibration:	32
Percent Operational Time:	93.3

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	0	0	0	0	1	1	A	1	1	0	1	1	1	1	0	1	0	0	0	0	1	1	1	0.5	0.7
2-Apr	0	1	0	1	1	1	A	1	1	1	1	1	0	1	1	1	1	1	0	1	1	0	1	1	0.6	0.7
3-Apr	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.8
4-Apr	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
5-Apr	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.5
6-Apr	1	1	A	0	1	0	1	0	0	1	1	1	1	1	1	0	1	1	0	1	1	1	1	1	0.6	0.8
7-Apr	1	A	1	0	1	1	1	0	1	1	0	1	1	0	0	1	1	1	1	1	0	0	1	1	0.6	0.9
8-Apr	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.7	1.0
9-Apr	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	A	1	0.9	1.6
10-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	1	0	0	1	A	0	0	0.7	1.2
11-Apr	0	0	0	1	1	0	1	1	0	0	1	0	1	1	1	1	1	1	1	1	A	0	1	1	0.5	0.8
12-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.7	1.0
13-Apr	1	1	1	1	1	1	1	1	0	1	0	1	0	0	1	1	0	0	A	0	1	1	0	1	0.6	0.8
14-Apr	0	1	1	0	0	1	1	0	1	1	1	1	1	1	1	1	1	A	0	1	1	0	0	1	0.6	0.9
15-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.7	0.9
16-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0.8	1.0
17-Apr	1	1	1	1	1	1	1	0	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.6	0.8
18-Apr	1	1	1	1	1	1	0	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.8	1.5
19-Apr	1	0	1	0	0	0	0	1	1	1	1	1	A	0	1	0	1	0	N	N	N	N	N	N	--	0.7
20-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
21-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	M	M	M	M	1	1	1	1	1	1	1	--	0.7
22-Apr	1	1	1	1	1	1	1	1	1	A	14	2	4	1	1	1	1	1	1	1	1	1	1	1	1.5	14.3
23-Apr	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0	0	0	0	1	0	1	1	1	0.6	0.9
24-Apr	1	1	0	1	0	0	1	A	1	1	1	0	1	1	1	1	1	0	1	1	1	1	1	1	0.6	0.8
25-Apr	1	1	1	1	1	1	A	1	1	1	5	1	1	1	C	C	C	1	1	1	0	0	1	0	0.9	5.4
26-Apr	0	0	0	0	1	A	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.7
27-Apr	0	0	0	0	A	0	0	0	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0.6	1.4
28-Apr	0	0	0	A	0	0	0	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0.4	0.7
29-Apr	0	0	A	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.8
30-Apr	0	A	0	0	0	0	0	0	1	0	0	N	1	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6
	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.8	1.4	0.8	0.8	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	Diurnal Average	
	0.9	1.0	1.0	0.8	1.0	1.2	1.0	1.0	1.2	1.5	14.3	2.4	4.0	1.3	1.1	0.9	1.0	0.9	1.0	0.9	1.1	0.9	0.9	1.4	Diurnal Maximum	

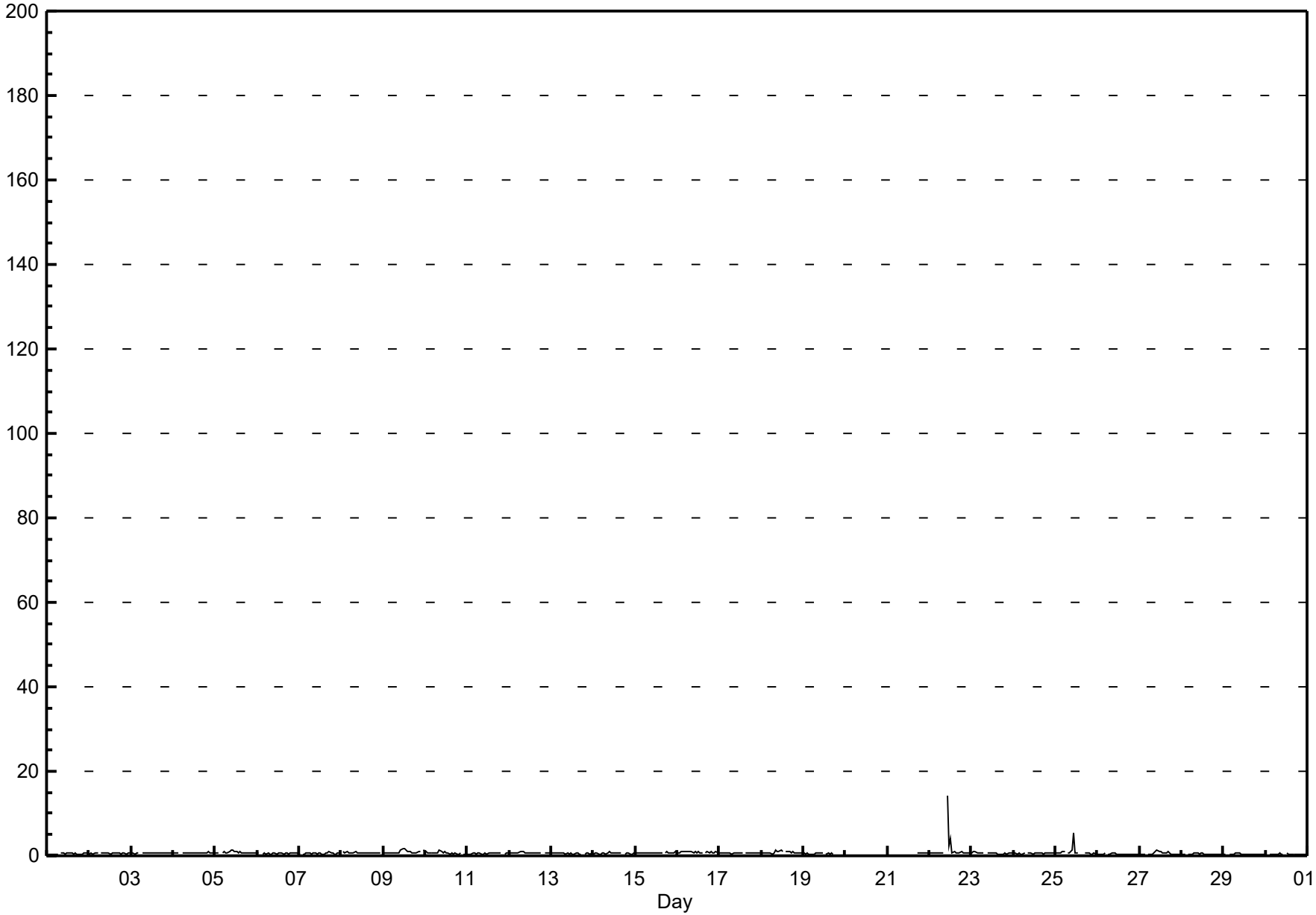
C - Calibration M - Maintenance N - Not Valid A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

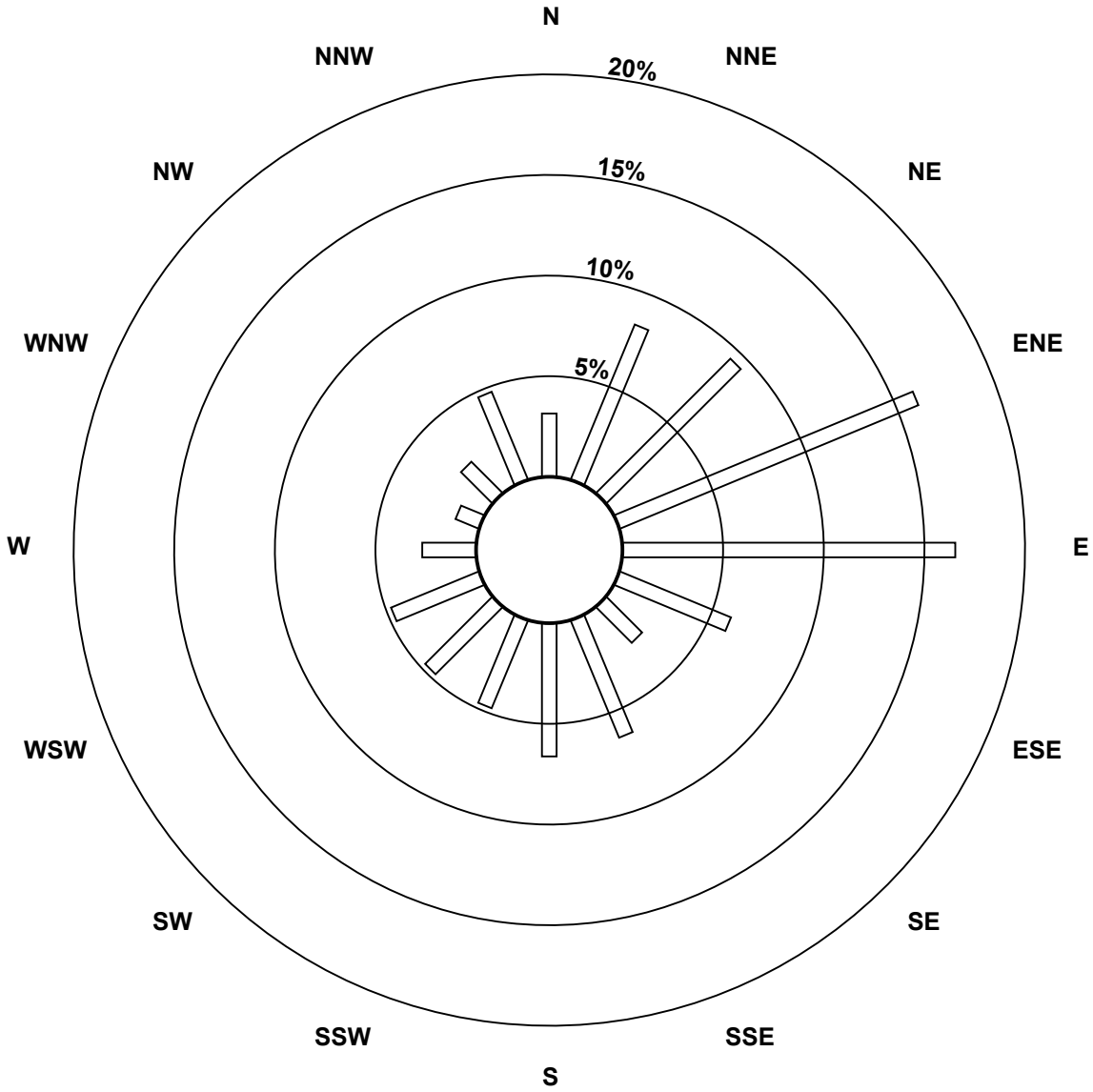
Donnelly - April 2017



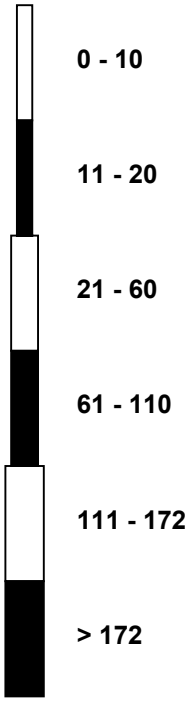
Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Donnelly - April 2017



Pollutant Classes (ppb)

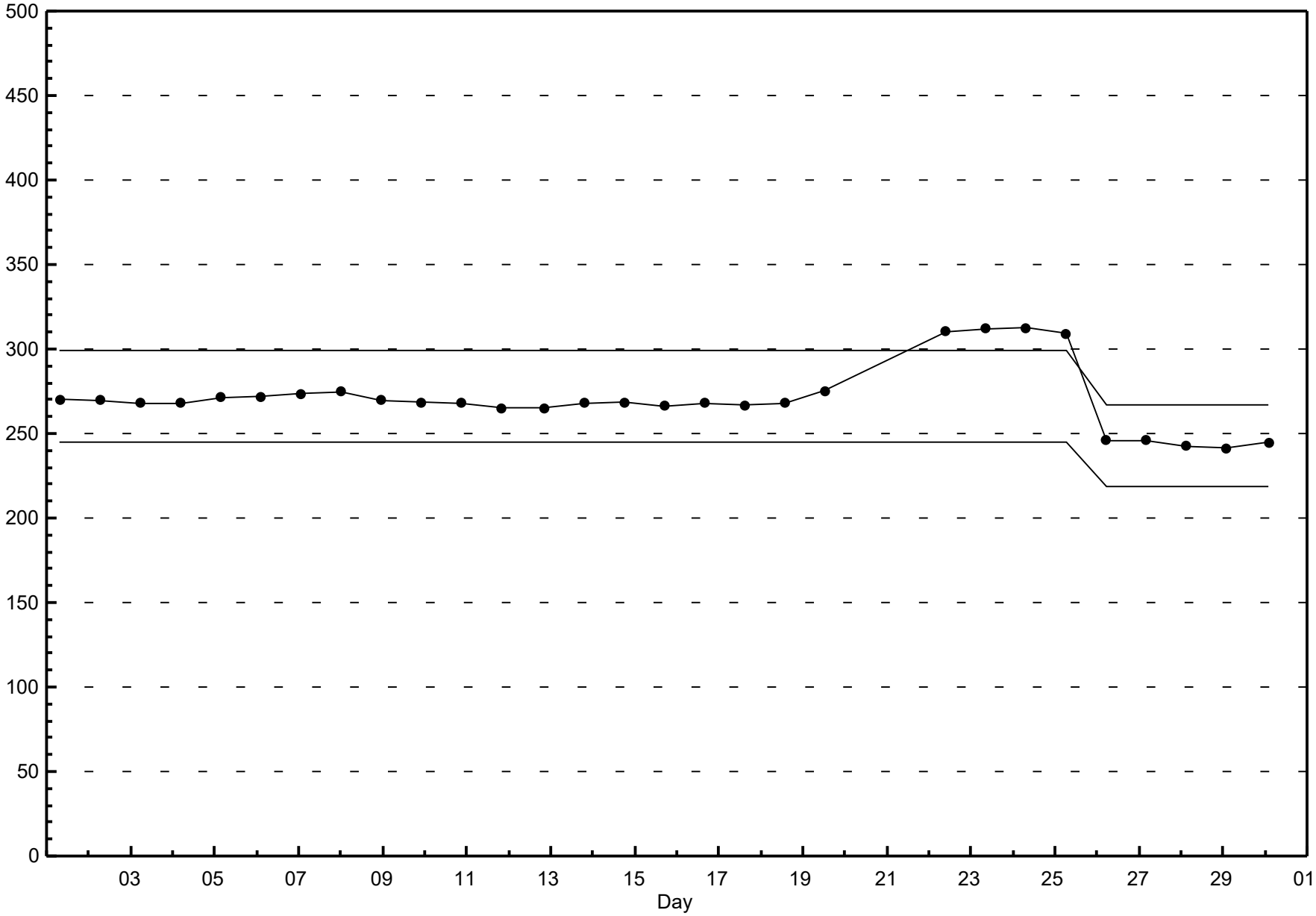


Peace Airshed Zone Association

Span Responses

Sulphur Dioxide (SO_2)

Donnelly - April 2017



Peace Airshed Zone Association

Hourly Averages

Hydrogen Sulphide (H_2S) - ppb

Donnelly - April 2017

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 2.2 ppb on Apr 22 22:00 Maximum Daily Average: 0.5 ppb on Apr 22

Minimum Value: 0 ppb on Apr 2 11:00 Minimum Daily Average: 0.0 ppb on Apr 18
Maximum Diurnal Average: 0.2 ppb at hour 22 Minimum Diurnal Average: 0.0 ppb at hour 16
Monthly Average: 0.09 ppb Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.0$ Median = 0.0 $Q_3 = 0.1$ $P_{90} = 0.2$ $P_{99} = 0.8$

Hours in Service:	720
Hours of Data:	683
Hours of Missing Data:	37
Hours of Calibration:	36
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
2-Apr	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
3-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
4-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
5-Apr	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
6-Apr	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
7-Apr	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
8-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.0	0.1
9-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.1	0.2
10-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	1	0.1	0.8
11-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.3	0.5
12-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	0	0	0.2	0.8
13-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.1	0.2
14-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.1	0.2
15-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.0	0.1
16-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.1	0.2
17-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.0	0.2
18-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.0	0.0
19-Apr	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.0	0.4
20-Apr	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
21-Apr	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
22-Apr	0	0	1	1	0	1	0	0	0	A	0	1	0	0	0	0	0	0	0	0	0	2	1	0	0.5	2.2
23-Apr	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.1	1.3
24-Apr	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
25-Apr	0	0	0	0	0	0	A	0	0	0	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0.0	0.1
26-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
27-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
28-Apr	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
29-Apr	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
30-Apr	0	A	0	0	0	0	0	0	0	0	0	N	0	0	0	0	0	0	0	0	2	1	0	0	0.2	1.5
	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	Diurnal Average	
	0.3	0.4	0.9	0.7	0.4	0.7	0.3	0.4	0.4	0.4	0.4	0.6	0.3	0.2	0.3	0.2	0.3	0.3	0.2	1.3	1.5	2.2	1.0	0.5	Diurnal Maximum	

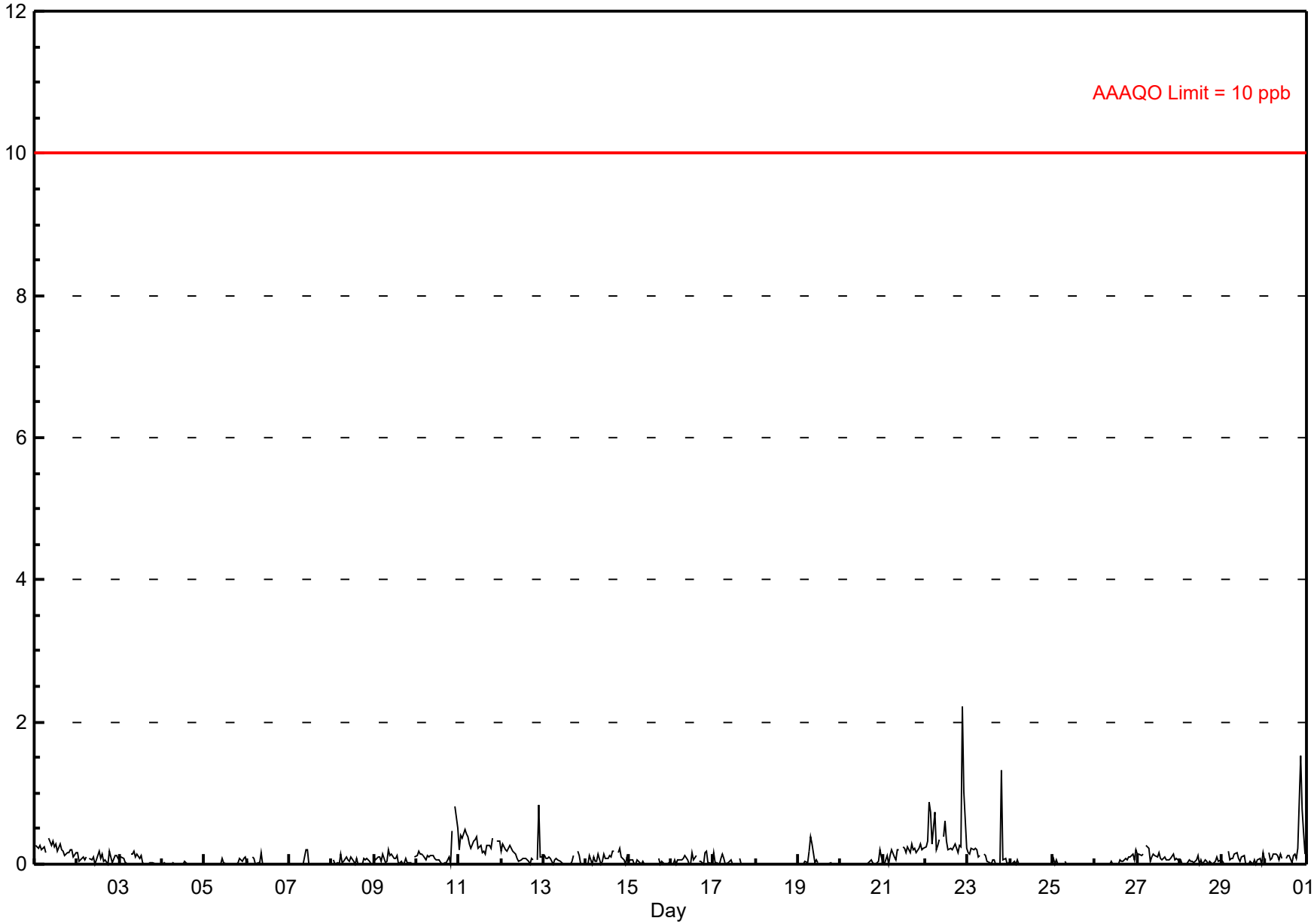
C - Calibration N - Not Valid A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb

Peace Airshed Zone Association

Hourly Averages

Hydrogen Sulphide (H_2S) - ppb

Donnelly - April 2017



Peace Airshed Zone Association

Hourly Maximums

Hydrogen Sulphide (H_2S) - ppb

Donnelly - April 2017

Maximum Value: 3.9 ppb on Apr 22 03:00

Maximum Daily Average: 1.4 ppb on Apr 22

Minimum Value: 0 ppb on Apr 25 16:00

Maximum Diurnal Average: 0.8 ppb at hour 22

Monthly Average: 0.68 ppb

Minimum Daily Average: 0.4 ppb on Apr 25

Minimum Diurnal Average: 0.6 ppb at hour 18

Percentiles: $P_1 = 0.3$ $P_{10} = 0.4$ $Q_1 = 0.5$ Median = 0.6 $Q_3 = 0.7$ $P_{90} = 0.9$ $P_{99} = 2.8$

Hours in Service:	720
Hours of Data:	683
Hours of Missing Data:	37
Hours of Calibration:	36
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0.8	1.1
2-Apr	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
3-Apr	1	1	1	1	0	A	1	1	1	1	1	0	1	1	0	1	0	1	1	1	0	0	0	0	0.6	0.9
4-Apr	0	1	1	1	A	1	1	0	0	0	0	1	0	1	1	1	1	1	0	1	1	1	0	1	0.5	0.6
5-Apr	1	0	0	A	1	1	1	0	0	1	1	1	1	0	0	0	1	1	0	0	1	1	1	1	0.6	0.8
6-Apr	1	1	A	1	1	1	1	1	1	0	0	1	1	0	0	0	0	0	1	0	1	0	1	1	0.6	0.9
7-Apr	0	A	0	0	0	0	0	0	1	3	2	0	0	0	1	0	1	1	1	1	0	0	0	1	0.6	2.9
8-Apr	A	1	0	0	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	0	1	1	1	A	0.6	1.2
9-Apr	1	1	1	1	0	1	1	0	2	1	1	1	1	1	1	1	1	0	1	1	1	1	A	1	0.7	1.8
10-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	1	1	3	A	2	2	0.9	3.5
11-Apr	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1.0	1.8
12-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	3	1	1	0.8	2.6
13-Apr	1	1	1	1	1	1	1	1	1	0	1	1	1	0	1	1	1	1	A	1	1	1	0	1	0.6	0.9
14-Apr	0	0	1	0	1	0	0	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0.7	1.0
15-Apr	1	1	1	0	1	1	1	0	0	0	0	0	1	1	1	1	A	1	1	1	1	0	1	1	0.6	0.9
16-Apr	1	0	1	1	0	1	1	1	1	1	1	0	1	1	1	A	1	1	1	1	1	1	1	1	0.6	1.1
17-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	0	A	1	0	0	1	1	0	1	1	1	0.6	0.7
18-Apr	0	0	1	1	0	0	1	1	1	1	1	0	0	A	1	1	1	0	1	0	0	0	1	1	0.5	0.8
19-Apr	1	1	1	0	1	1	1	1	1	1	1	1	A	0	1	1	0	0	1	1	1	1	0	1	0.6	1.0
20-Apr	1	0	1	1	1	1	1	1	0	1	0	A	1	1	1	1	1	1	1	1	0	1	2	1	0.6	1.8
21-Apr	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0
22-Apr	1	1	4	2	1	2	1	1	1	A	1	2	1	1	1	1	1	1	1	1	1	4	4	1	1.4	3.9
23-Apr	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0	1	1	3	1	1	0	1	0.8	3.4
24-Apr	1	1	1	1	1	1	1	A	0	0	1	0	1	1	0	1	0	1	0	1	0	0	1	0	0.6	1.0
25-Apr	1	0	1	0	1	1	A	1	1	1	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0.4	0.8
26-Apr	0	0	0	0	1	A	1	0	0	1	0	0	1	1	0	0	1	1	1	1	1	1	1	1	0.5	0.8
27-Apr	1	1	1	1	A	1	1	0	1	1	1	1	1	0	0	1	1	1	1	1	1	0	1	1	0.6	0.8
28-Apr	1	0	0	A	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	1	1	0	1	0.6	0.8
29-Apr	1	0	A	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1	0	0	1	1	1	0.6	0.7
30-Apr	1	A	1	1	1	1	1	1	1	1	0	N	1	1	1	1	1	1	1	1	3	2	1	1	0.8	2.8
	0.6	0.6	0.8	0.7	0.7	0.7	0.7	0.6	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.8	0.8	0.8	0.7	Diurnal Average	
	1.0	1.8	3.9	1.6	1.2	2.5	0.9	1.0	1.8	2.9	2.3	1.9	0.9	1.0	0.8	0.8	1.0	1.0	1.2	3.4	3.5	3.8	3.7	1.9	Diurnal Maximum	

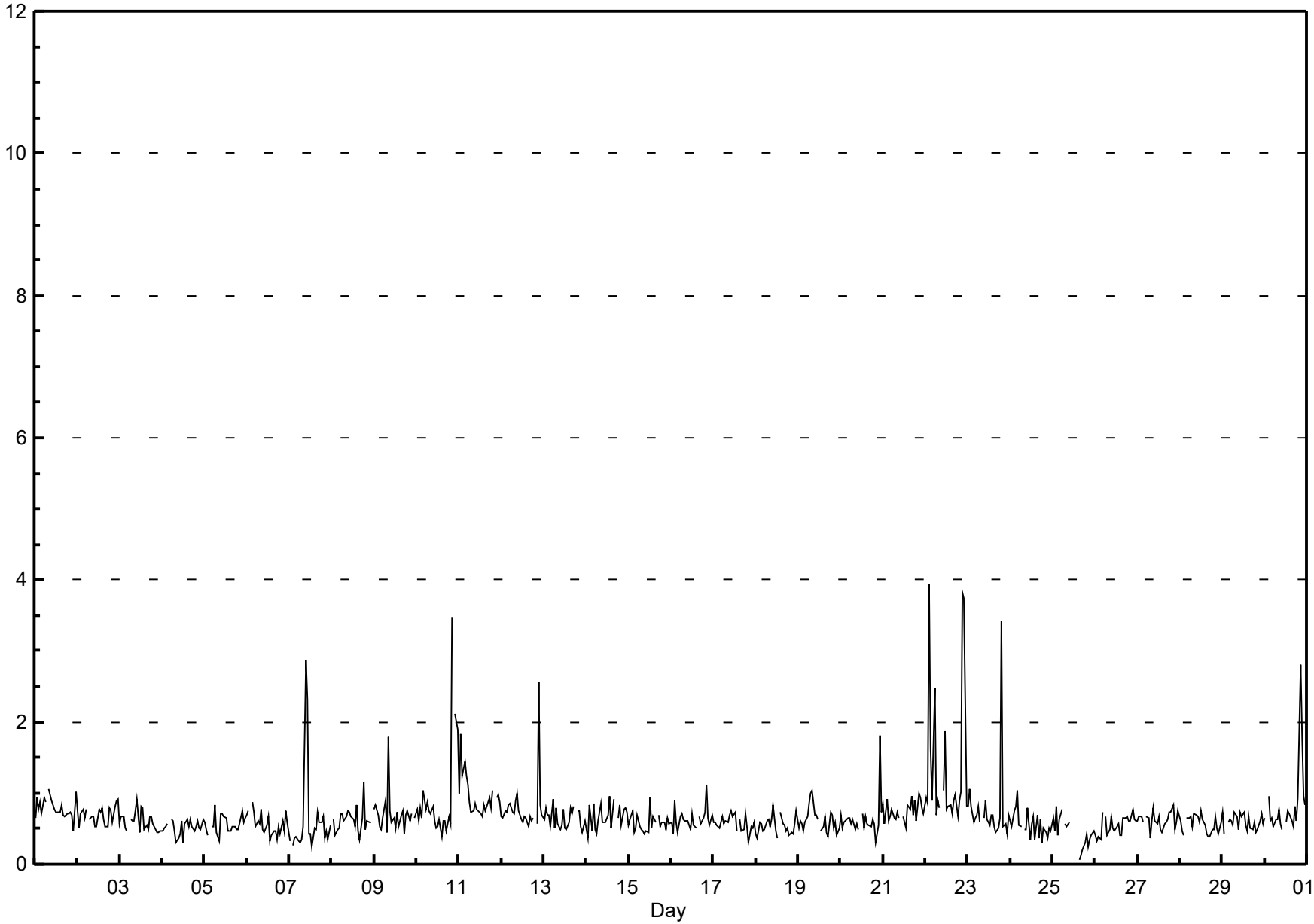
C - Calibration N - Not Valid A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Hydrogen Sulphide (H_2S) - ppb

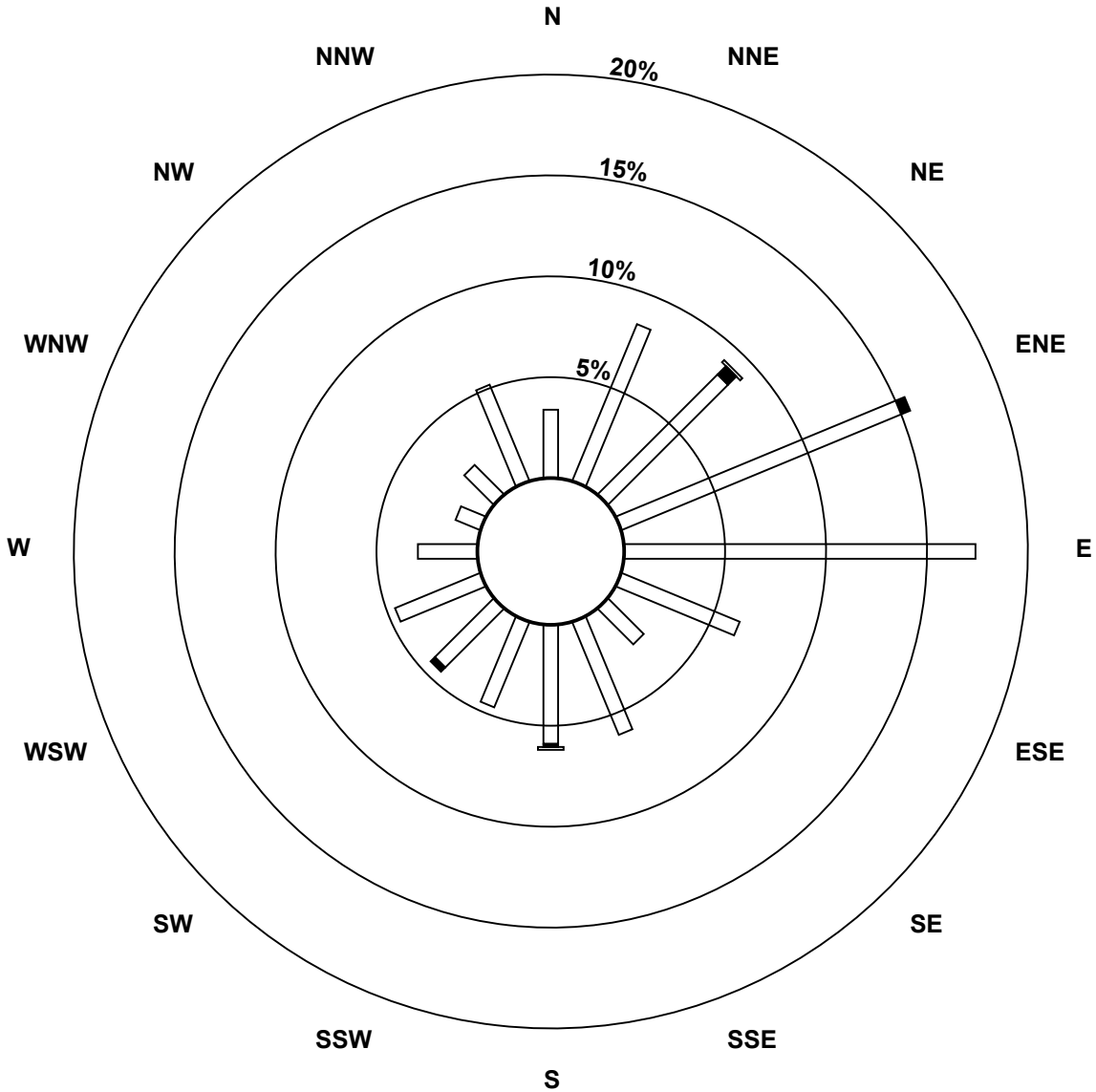
Donnelly - April 2017



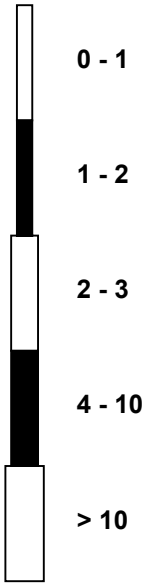
Pollutant Rose

Hydrogen Sulphide (H_2S) - ppb

Donnelly - April 2017



Pollutant Classes (ppb)

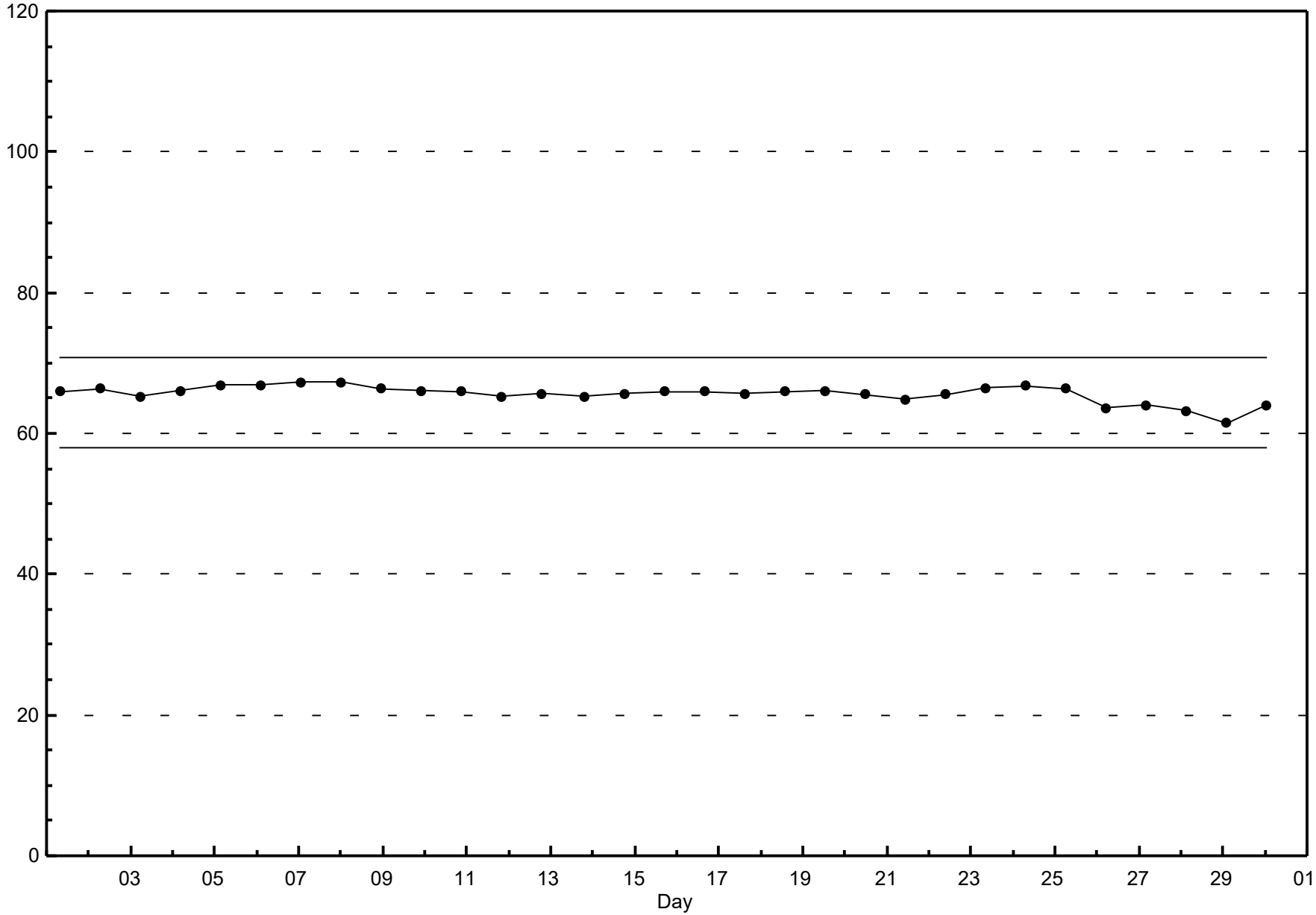


Peace Airshed Zone Association

Span Responses

Hydrogen Sulphide (H_2S)

Donnelly - April 2017



Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - °C

Donnelly - April 2017

Maximum Value: 14.3 °C on Apr 29 18:00

Maximum Daily Average: 8.2 °C on Apr 29

Minimum Value: -6 °C on Apr 18 07:00

Minimum Daily Average: -4.2 °C on Apr 18

Maximum Diurnal Average: 7.1 °C at hour 16

Minimum Diurnal Average: -0.6 °C at hour 6

Monthly Average: 3.00 °C

Percentiles: P_1 = -5.7 P_{10} = -1.6 Q_1 = 0.0 Median = 2.2 Q_3 = 6.0 P_{90} = 8.9 P_{99} = 12.9

Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

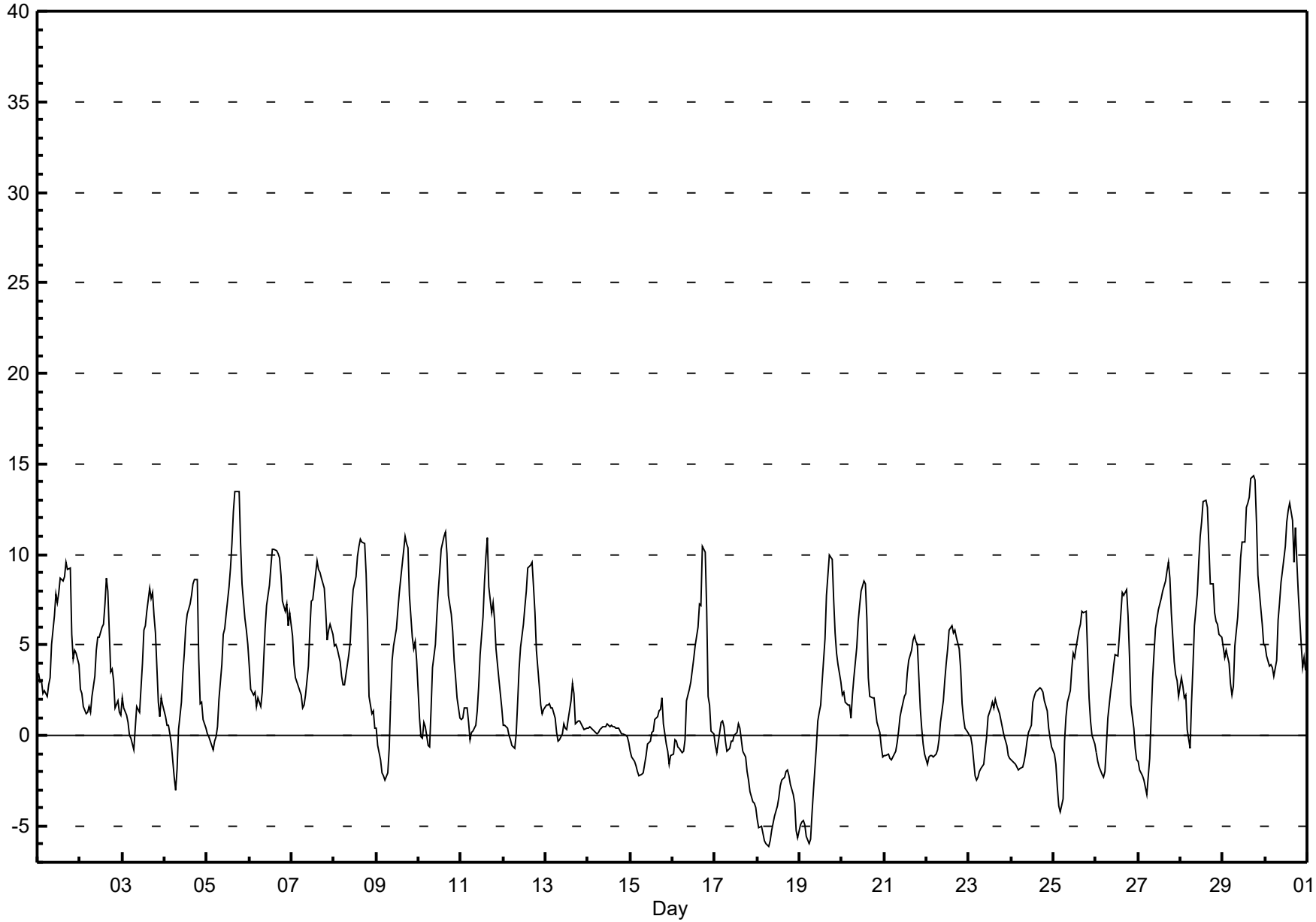
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Apr	3	3	3	2	3	2	3	3	5	7	8	7	8	9	9	9	10	9	9	6	4	5	5	4	5.6	9.5
2-Apr	3	2	2	1	1	2	1	2	3	5	5	5	6	6	7	9	8	3	4	3	2	2	1	1	3.5	8.7
3-Apr	2	2	1	1	0	0	-1	0	2	1	1	4	6	6	7	8	8	8	7	6	2	1	2	2	3.1	8.1
4-Apr	1	1	1	0	0	-2	-3	-2	0	2	3	5	6	7	7	8	8	9	9	4	2	2	1	0	2.8	8.7
5-Apr	0	0	0	-1	0	0	0	2	4	6	6	7	8	9	11	12	13	13	14	11	8	6	6	5	5.8	13.5
6-Apr	4	3	2	2	2	2	2	2	4	6	7	8	9	10	10	10	10	10	9	7	7	7	6	7	6.1	10.3
7-Apr	6	4	3	3	3	2	2	2	2	4	6	7	8	8	10	9	9	9	8	7	5	6	6	6	5.5	9.7
8-Apr	5	5	5	4	3	3	3	3	5	5	7	8	9	10	10	11	11	11	9	6	2	1	1	0	5.7	10.9
9-Apr	0	-1	-1	-2	-2	-2	-2	-1	2	4	5	6	7	8	9	10	11	11	10	8	5	5	5	4	4.1	11.0
10-Apr	1	0	0	1	0	-1	-1	1	4	5	7	8	9	10	11	11	10	8	7	6	4	3	2	1	4.5	11.2
11-Apr	1	1	2	1	1	0	0	0	1	1	3	4	7	8	10	11	8	7	7	6	5	3	2	2	3.8	10.9
12-Apr	1	1	0	0	0	-1	-1	0	2	4	5	6	7	8	9	9	10	8	7	5	3	2	1	1	3.6	9.6
13-Apr	2	2	2	2	1	1	0	0	0	0	1	0	0	1	2	3	2	1	1	1	1	0	0	0	0.9	2.9
14-Apr	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0.3	0.6
15-Apr	-1	-1	-1	-2	-2	-2	-2	-2	-2	-1	-1	0	0	0	1	1	1	1	2	1	0	-1	-2	-1	-0.5	2.1
16-Apr	-1	0	0	-1	-1	-1	-1	0	2	3	3	4	4	5	6	7	7	10	10	7	2	2	0	0	2.8	10.5
17-Apr	-1	-1	0	1	1	1	0	-1	-1	0	0	0	0	1	0	0	-1	-1	-2	-2	-3	-4	-4	-4	-0.9	0.8
18-Apr	-5	-5	-5	-5	-6	-6	-6	-6	-5	-5	-4	-4	-3	-3	-2	-2	-2	-2	-2	-3	-3	-4	-5	-6	-4.2	-1.9
19-Apr	-5	-5	-5	-5	-6	-6	-6	-4	-3	-1	1	1	2	3	5	8	9	10	10	8	6	5	4	3	1.2	10.0
20-Apr	2	2	2	2	2	1	2	3	5	6	7	8	9	8	6	3	2	2	2	1	1	0	-1	-1	3.2	8.5
21-Apr	-1	-1	-1	-1	-1	-1	-1	0	0	1	1	2	2	3	4	5	5	6	5	5	2	0	0	-1	1.4	5.5
22-Apr	-2	-1	-1	-1	-1	-1	-1	0	1	2	3	4	5	6	6	6	6	5	5	4	2	1	0	0	2.0	6.1
23-Apr	0	0	-1	-2	-2	-2	-2	-2	-2	-1	0	1	1	2	2	2	2	1	1	0	0	-1	-1	-1	-0.2	2.0
24-Apr	-1	-1	-2	-2	-2	-2	-2	-1	-1	0	0	1	2	2	2	3	3	3	2	2	1	0	0	-1	0.2	2.6
25-Apr	-1	-2	-3	-4	-4	-4	0	1	2	3	4	5	4	5	6	6	7	7	7	4	2	1	0	0	1.9	6.9
26-Apr	-1	-1	-2	-2	-2	-2	-1	1	2	3	4	4	4	6	7	8	8	8	7	4	2	0	-1	-1	2.3	8.1
27-Apr	-1	-2	-2	-2	-3	-3	-1	1	3	5	6	7	7	8	8	9	9	10	9	7	4	3	3	2	3.5	9.6
28-Apr	3	3	2	2	0	-1	2	4	6	8	10	11	12	13	13	13	10	8	8	7	6	6	6	5	6.6	13.0
29-Apr	5	4	5	4	3	2	3	5	7	8	10	11	11	13	13	13	14	14	14	12	9	7	6	5	8.2	14.3
30-Apr	5	4	4	4	4	3	4	6	7	8	9	10	12	12	13	12	10	11	10	8	5	4	4	4	7.2	12.9
	0.8	0.5	0.3	0.0	-0.3	-0.6	-0.3	0.6	1.8	2.9	3.9	4.7	5.4	6.2	6.7	7.1	6.9	6.7	6.2	4.6	2.8	2.1	1.6	1.2	Diurnal Average	
	5.5	5.0	4.8	4.0	3.8	3.2	4.2	6.4	7.3	8.4	9.8	11.0	11.8	12.9	13.0	13.1	14.2	14.3	14.1	11.8	8.9	7.3	6.2	6.8	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Donnelly - April 2017



Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Donnelly - April 2017

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1 Spd	15	15	16	15	18	17	16	15	14	16	24	26	25	22	17	16	19	14	11	8	13	21	20	17	15.5	26.4
Dir	181	178	183	187	182	185	189	195	198	210	239	229	234	236	256	242	222	263	267	241	220	206	211	212	216	229
2 Spd	15	10	12	14	15	16	15	18	21	28	26	24	25	26	26	25	24	12	12	13	10	12	7	8	15.5	27.6
Dir	199	191	194	202	203	207	202	217	232	251	255	248	231	220	206	230	244	337	265	262	217	221	240	223	228	251
3 Spd	14	10	11	13	12	13	11	13	14	12	8	2	5	7	8	6	6	7	6	2	4	5	8	13	7.3	14.0
Dir	219	213	192	207	204	208	196	221	245	250	225	251	241	239	258	256	279	254	250	261	127	154	155	166	218	245
4 Spd	13	12	12	12	11	8	3	5	5	4	3	3	3	4	4	5	3	6	4	4	6	9	11	12	1.4	13.2
Dir	178	177	182	203	235	256	199	230	269	281	337	317	346	263	301	324	334	39	43	63	74	85	89	89	185	178
5 Spd	11	12	14	12	13	14	15	13	18	14	9	8	9	8	12	13	6	6	3	6	7	6	7	8	9.3	17.9
Dir	86	87	90	91	90	90	90	95	110	112	101	104	116	132	164	177	128	111	87	91	92	91	100	107	105	110
6 Spd	5	11	7	7	6	10	11	9	10	10	10	9	6	9	10	9	5	1	2	0	3	3	1	6	5.0	10.8
Dir	213	224	220	194	168	155	173	182	185	206	247	289	226	183	164	168	177	57	75	113	138	47	168	125	190	224
7 Spd	4	7	5	6	7	4	3	3	3	7	6	6	8	7	9	12	11	12	9	7	7	9	10	7	4.6	12.1
Dir	151	183	197	175	195	216	301	342	352	41	73	78	106	89	74	62	66	59	60	64	63	66	79	81	80	62
8 Spd	8	9	8	6	5	6	8	7	10	13	10	8	8	7	8	6	5	5	6	3	8	6	6	5	7.0	13.5
Dir	57	68	86	79	73	60	57	62	58	57	73	80	70	83	85	85	81	92	59	81	51	68	78	86	70	57
9 Spd	8	8	4	4	6	8	8	10	8	8	12	13	14	15	11	7	8	8	10	8	10	12	14	14	8.3	14.6
Dir	87	87	93	79	85	88	92	89	86	93	130	137	131	154	160	158	160	137	118	112	108	125	155	163	124	154
10 Spd	5	5	4	4	3	4	4	4	11	17	13	6	6	5	6	6	6	11	7	9	4	6	3	1	2.1	17.4
Dir	83	74	92	91	96	67	87	99	155	173	179	179	178	122	92	92	30	324	305	6	180	250	225	226	132	173
11 Spd	3	3	5	3	3	2	9	10	9	11	9	9	6	7	10	8	11	4	5	2	8	14	16	15	5.0	15.5
Dir	197	222	215	222	216	345	5	348	346	342	331	317	343	335	13	349	19	155	321	18	39	42	48	48	4	48
12 Spd	14	12	12	12	10	11	10	12	13	13	14	13	13	15	12	12	11	11	11	8	8	7	8	8	11.1	14.9
Dir	50	54	54	49	59	59	64	57	60	67	62	65	60	59	70	67	81	85	82	78	61	69	66	67	64	59
13 Spd	10	11	12	12	13	14	16	16	16	16	16	16	18	19	18	16	20	23	23	24	21	17	18	16	16.5	23.5
Dir	61	62	64	63	65	65	66	68	65	65	66	60	58	58	56	54	52	43	43	50	52	57	57	55	57	50
14 Spd	14	13	11	9	9	9	5	7	8	8	9	9	9	9	9	7	8	6	6	6	7	7	8	12	7.6	14.4
Dir	56	56	53	45	24	21	3	6	13	355	352	358	354	345	357	334	342	332	331	332	351	346	358	23	9	56
15 Spd	13	8	4	6	9	7	7	8	8	10	10	11	11	12	11	8	7	3	2	4	5	6	8	8	4.3	13.0
Dir	29	15	339	346	345	339	333	337	328	312	308	303	296	290	298	313	290	311	61	111	117	130	158	159	325	29
16 Spd	7	16	14	13	15	15	15	13	6	4	10	12	12	11	8	5	5	2	2	3	4	3	5	3	7.5	16.5
Dir	157	163	156	154	157	156	151	151	121	107	160	167	174	181	177	176	164	133	72	61	68	101	47	59	153	163
17 Spd	4	6	9	12	14	21	25	24	21	18	18	20	22	25	20	21	22	22	21	21	20	21	16	17	18.3	25.2
Dir	64	22	37	30	25	28	29	36	36	44	38	37	32	34	37	37	29	27	25	28	24	24	22	24	31	29
18 Spd	18	20	16	14	14	12	12	12	16	13	14	11	10	10	7	7	6	4	5	4	3	1	N	N	10.0	19.8
Dir	19	22	23	18	17	14	16	16	28	29	26	19	13	33	23	21	8	339	319	320	322	332	N	N	17	22
19 Spd	N	N	N	3	3	2	1	0	3	1	3	9	10	8	5	4	6	6	5	4	5	9	8	7	2.7	9.5
Dir	N	N	N	253	262	253	233	194	27	45	201	186	186	189	159	112	100	94	91	96	94	90	93	83	129	186
20 Spd	7	7	5	6	7	3	8	10	10	13	14	17	20	21	19	17	15	13	13	14	11	11	11	4	4.7	20.7
Dir	86	90	92	99	106	83	172	176	200	238	265	278	274	275	302	330	330	335	332	344	358	21	36	62	312	275
21 Spd	1	3	3	2	4	4	3	3	4	6	6	7	7	5	7	9	8	10	11	7	7	6	6	6	4.2	10.6
Dir	95	149	126	65	36	69	85	99	114	107	65	54	22	11	20	26	4	357	6	46	70	84	87	85	49	6
22 Spd	5	7	9	10	10	9	7	8	12	10	11	10	11	12	12	11	11	9	8	5	9	14	14	13	9.6	13.6
Dir	55	54	49	52	50	49	65	66	64	75	76	76	83	76	71	69	72	82	87	82	53	46	51	55	64	46

Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Donnelly - April 2017

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
23 Spd	12	8	11	11	9	10	10	12	12	11	12	12	12	11	11	9	10	10	11	10	9	8	10	11	10.3	12.0
Dir	58	75	99	87	78	73	70	64	63	72	77	74	81	76	68	77	74	63	61	62	58	58	53	51	70	63
24 Spd	11	10	10	10	9	10	12	14	11	11	11	14	14	16	12	10	9	9	9	7	8	6	5	4	9.6	15.5
Dir	53	54	51	42	30	26	25	23	20	23	357	19	30	21	21	18	352	337	348	6	17	30	41	62	23	21
25 Spd	1	1	1	1	0	1	2	5	3	3	2	5	4	5	10	10	10	8	9	8	11	13	11	10	4.7	12.7
Dir	135	276	326	77	89	82	49	52	49	35	45	80	177	177	136	121	113	106	115	94	91	89	90	93	101	89
26 Spd	10	10	10	10	11	9	8	8	11	14	12	14	10	10	11	10	11	12	12	12	11	9	8	7	10.2	14.1
Dir	93	91	91	91	91	90	94	95	102	112	106	113	110	105	98	88	81	78	83	81	86	88	93	88	94	112
27 Spd	9	8	7	6	5	4	5	8	6	6	6	6	4	5	4	6	7	6	8	5	4	6	6	7	5.6	9.1
Dir	90	90	90	89	91	87	87	90	95	118	101	87	106	55	51	43	52	70	56	58	90	91	92	100	83	90
28 Spd	12	13	13	14	5	5	5	8	9	14	14	13	8	6	7	4	9	8	18	15	11	11	9	8	8.2	17.7
Dir	152	166	167	162	123	108	109	117	142	143	151	183	191	242	263	341	198	106	147	137	123	122	118	148	150	147
29 Spd	12	10	9	3	8	9	11	12	13	12	10	11	9	1	2	3	9	7	8	10	5	6	5	6	5.4	12.9
Dir	178	188	200	221	179	189	186	202	228	238	239	260	294	43	270	188	192	165	149	149	109	95	92	91	194	228
30 Spd	7	8	8	6	7	6	8	8	14	15	16	16	20	24	22	26	21	18	19	8	4	9	10	7	6.0	25.6
Dir	91	89	90	94	98	95	109	170	222	256	256	262	267	252	254	271	251	281	358	31	184	186	191	199	248	271
Spd	4.5	4.3	4.4	3.5	3.2	3.3	3.8	3.3	2.6	1.5	0.6	0.5	0.3	0.4	1.2	1.8	1.8	3.8	4.2	4.3	4.8	4.9	5.1	5.1	Diurnal Average	
Dir	98	106	111	105	100	88	90	90	88	95	84	61	104	125	63	37	43	33	40	56	70	79	85	91		
Spd	17.8	19.8	16.5	14.9	17.7	20.8	25.2	23.7	21.4	27.6	25.5	26.4	25.3	25.7	26.2	25.6	24.5	22.8	23.5	23.5	21.0	21.5	20.0	17.5	Diurnal Maximum	
Dir	19	22	23	187	182	28	29	36	36	251	255	229	234	220	206	271	244	43	43	50	52	24	211	24		

Maximum Speed Value: 28 km/h on Apr 2 10:00
Maximum Daily Speed Average: 18.3 km/h on Apr 17
Maximum Diurnal Speed Average: 5.1 km/h at hour 23

Minimum Speed Value: 0 km/h on Apr 25 05:00
Minimum Daily Speed Average: 1.4 km/h on Apr 19
Minimum Diurnal Speed Average: 0.3 km/h at hour 13

Monthly Average Velocity: 2.80 km/h 81.2 deg

Speed Percentiles: $P_1 = 0.9$ $P_{10} = 3.7$ $Q_1 = 5.9$ Median = 9.0 $Q_3 = 12.3$ $P_{90} = 16.3$ $P_{99} = 25.2$

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

Hours in Service:	720
Hours of Data:	715
Hours of Missing Data:	5
Percent Operational Time:	99.3

N - Not Valid

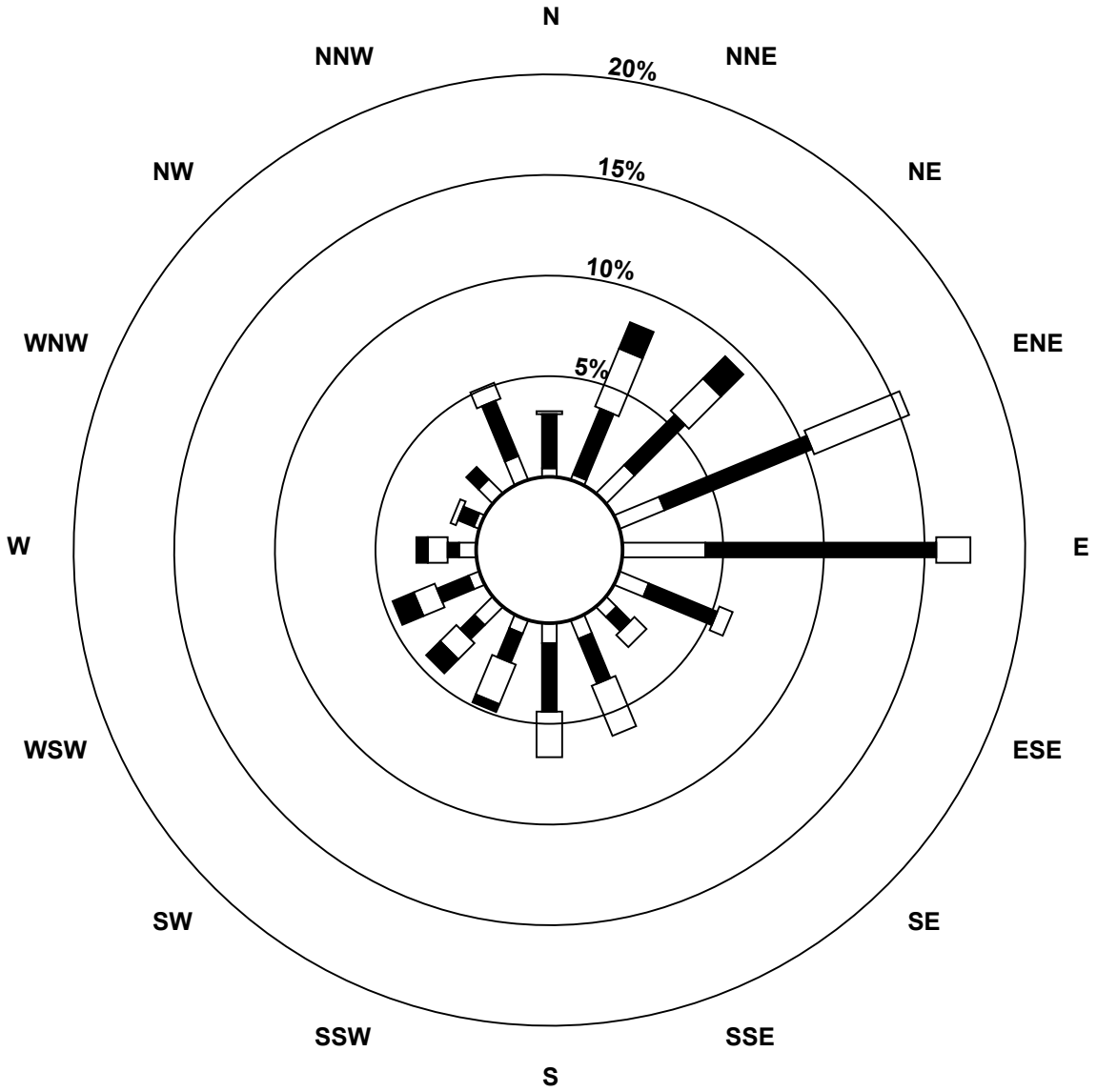
Frequency Distribution

Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	9	43	14	2	0	0	68
NorthEast	25	58	63	20	0	0	166
East	36	122	35	0	0	0	193
SouthEast	12	25	20	0	0	0	57
South	11	45	33	0	0	0	89
SouthWest	12	14	20	13	0	0	59
West	10	11	13	10	0	0	44
NorthWest	12	19	7	1	0	0	39
Total	127	337	205	46	0	0	715

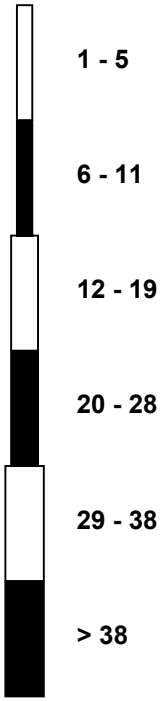
Wind Rose

Wind Speed (WS) (km/h)

Donnelly - April 2017



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Donnelly - April 2017

Peace Airshed Zone Association

Maximum Speed: 28 km/h on Apr 2 10:00

Maximum Daily Speed Average: 18.5 km/h on Apr 17

Minimum Speed: 0 km/h on Apr 25 05:00

Minimum Daily Speed Average: 5.0 km/h on Apr 19

Maximum Diurnal Speed Average: 12.1 km/h at hour 14

Minimum Diurnal Speed Average: 8.0 km/h at hour 20

Monthly Average Speed: 10.01 km/h

Percentiles: $P_1 = 1.2$ $P_{10} = 4.1$ $Q_1 = 6.6$ Median = 9.3 $Q_3 = 12.5$ $P_{90} = 16.5$ $P_{99} = 25.9$

Hours in Service:	720
Hours of Data:	715
Hours of Missing Data:	5
Percent Operational Time:	99.3

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	15	15	16	15	18	17	16	15	14	17	24	27	25	23	18	17	20	14	11	8	13	21	20	17	17.3	26.6
2-Apr	15	10	12	14	15	16	15	18	21	28	26	24	25	26	27	26	27	14	12	13	10	12	8	8	17.6	27.9
3-Apr	14	10	11	13	12	13	11	13	14	12	8	4	6	8	9	7	7	8	6	3	4	5	8	13	9.0	14.1
4-Apr	13	12	13	13	11	8	4	5	5	4	4	4	4	6	7	7	5	6	4	4	6	9	11	12	7.4	13.3
5-Apr	11	12	14	12	13	14	15	13	18	14	9	8	9	9	12	13	7	7	3	6	7	6	7	8	10.3	18.0
6-Apr	8	11	8	7	6	10	11	9	10	11	11	9	7	10	10	10	5	2	2	1	3	4	5	7	7.3	11.4
7-Apr	6	7	6	6	7	4	3	3	4	8	6	6	8	7	9	12	11	12	9	7	7	9	10	7	7.2	12.2
8-Apr	8	9	8	6	5	6	8	7	10	14	10	8	8	8	9	7	7	6	7	3	8	6	7	5	7.5	13.7
9-Apr	8	8	5	4	6	8	8	10	8	8	12	13	15	15	11	8	8	8	10	8	10	12	14	14	9.7	15.3
10-Apr	5	5	4	4	3	4	4	4	12	17	13	7	7	6	7	7	6	12	8	9	4	6	4	3	6.7	17.5
11-Apr	4	4	5	3	3	4	9	10	9	11	9	9	7	7	11	9	15	7	8	3	8	14	16	15	8.3	15.6
12-Apr	14	12	12	12	10	11	10	12	13	13	14	13	14	15	12	13	11	11	11	8	8	7	8	8	11.3	15.2
13-Apr	10	11	12	12	13	14	16	16	16	16	16	16	18	19	18	16	20	23	23	24	21	17	18	16	16.7	23.5
14-Apr	14	13	11	9	9	9	5	7	8	8	9	9	9	9	9	7	8	6	6	6	7	7	8	12	8.7	14.4
15-Apr	13	8	4	6	9	7	7	8	8	10	10	12	11	13	11	8	7	5	2	4	5	6	8	8	7.9	13.0
16-Apr	7	16	14	13	15	15	15	13	6	5	11	12	12	11	8	5	5	2	2	3	4	3	6	4	8.7	16.5
17-Apr	4	6	9	12	14	21	25	24	21	18	19	20	22	25	20	21	22	22	21	21	20	22	16	18	18.5	25.3
18-Apr	18	20	17	14	14	12	12	12	16	13	14	11	10	10	7	7	6	4	5	4	3	1	N	N	10.4	19.8
19-Apr	N	N	N	3	3	2	1	0	3	2	3	9	10	8	5	5	6	6	5	4	5	9	8	7	5.0	9.6
20-Apr	8	7	5	6	7	3	9	10	10	13	15	18	21	21	20	17	15	13	13	15	11	12	11	5	11.9	21.2
21-Apr	1	3	4	2	4	4	3	3	4	6	6	7	7	5	7	10	9	11	11	8	7	6	6	6	5.8	11.0
22-Apr	5	7	9	10	10	9	7	8	12	10	11	10	11	12	12	11	11	9	8	5	9	14	14	13	10.0	13.6
23-Apr	12	9	11	11	9	10	10	12	12	11	12	12	12	11	11	10	10	10	11	10	9	8	11	11	10.6	12.1
24-Apr	11	10	10	10	9	10	12	14	12	11	12	14	15	16	13	10	10	10	10	7	8	6	5	4	10.3	15.7
25-Apr	2	1	1	1	0	1	2	5	3	4	3	7	5	7	11	11	11	8	11	8	11	13	11	10	6.1	12.7
26-Apr	10	10	10	10	11	9	8	8	12	14	12	14	10	10	11	11	11	12	12	12	11	9	8	7	10.5	14.2
27-Apr	9	8	7	6	5	4	5	8	7	7	7	7	6	6	6	7	7	7	8	5	4	6	6	7	6.4	9.1
28-Apr	12	13	13	14	7	6	6	8	10	14	14	14	10	8	9	5	12	9	18	16	11	12	9	8	10.7	18.2
29-Apr	12	10	9	5	8	9	11	13	13	13	11	11	9	6	7	6	10	8	8	10	6	6	5	6	8.8	13.1
30-Apr	7	8	9	6	7	6	8	9	14	15	16	16	20	24	23	26	21	18	21	8	5	9	11	7	13.2	26.0
	9.5	9.5	9.3	8.6	8.7	8.9	9.2	9.9	10.8	11.6	11.5	11.8	11.8	12.1	11.8	10.9	11.1	9.7	9.6	8.0	8.2	9.2	9.5	9.2	Diurnal Average	
	17.8	19.8	16.5	14.9	17.7	20.8	25.3	23.7	21.5	27.9	25.8	26.6	25.5	26.1	26.7	26.0	26.5	22.8	23.5	23.5	21.0	21.5	20.0	17.5	Diurnal Maximum	

N - Not Valid

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

Peace Airshed Zone Association

Hourly Standard Deviations

Wind Direction (WD) - deg

Donnelly - April 2017

Maximum Value: 92.7 deg on Apr 29 14:00

Minimum Value: 2.0 deg on Apr 28 03:00

Percentiles: P_1 = 2.5 P_{10} = 3.9 Q_1 = 5.5 Median = 9.2 Q_3 = 17.6 P_{90} = 33.6 P_{99} = 74.6

Hours in Service:	720
Hours of Data:	715
Hours of Missing Data:	5
Hours of Calibration:	0
Percent Operational Time:	99.3

Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Apr	3	2	3	3	2	3	2	5	4	12	7	7	7	10	15	9	13	17	7	7	14	6	5	9	17.4
2-Apr	5	5	8	2	3	2	5	5	6	9	8	8	9	10	11	12	26	30	12	8	10	6	23	14	29.6
3-Apr	9	11	4	5	5	4	6	8	6	6	19	75	55	33	31	37	25	31	16	41	15	4	6	7	75.2
4-Apr	4	3	4	13	8	8	43	20	23	32	42	54	48	50	63	45	70	21	21	7	11	6	4	4	69.7
5-Apr	4	5	4	4	4	4	4	6	6	7	12	8	16	14	12	9	29	26	13	5	5	4	9	4	28.6
6-Apr	55	34	12	21	20	14	7	5	7	18	23	15	43	27	20	12	10	47	10	31	43	40	83	38	83.2
7-Apr	45	10	13	8	7	21	19	14	20	11	12	10	12	15	10	8	8	7	4	6	8	6	6	11	45.0
8-Apr	7	5	8	9	7	7	5	5	9	11	10	18	23	22	26	34	44	24	12	17	9	3	9	6	44.4
9-Apr	5	4	59	32	16	6	7	5	10	11	16	13	10	18	23	44	22	28	9	5	3	13	7	18	59.1
10-Apr	12	11	8	6	8	21	13	12	21	6	10	33	34	42	25	31	25	14	23	14	40	52	19	66	66.5
11-Apr	20	29	12	11	13	56	9	6	6	12	15	17	31	21	28	42	80	66	65	56	14	4	2	3	79.9
12-Apr	2	4	3	3	6	4	4	5	7	9	9	13	13	12	13	12	9	9	7	10	6	4	3	4	13.0
13-Apr	4	5	4	4	3	4	4	4	4	4	4	4	3	4	4	5	5	3	2	3	3	4	3	3	5.2
14-Apr	3	3	4	11	3	5	8	7	6	7	6	7	8	6	11	6	6	8	8	8	9	8	15	9	14.9
15-Apr	4	11	10	8	5	9	9	7	11	7	9	6	10	8	9	13	15	48	20	9	8	8	19	8	47.8
16-Apr	13	4	4	4	3	4	4	6	26	39	13	5	6	4	5	7	8	49	25	13	12	8	28	11	48.8
17-Apr	11	12	7	3	9	3	5	4	5	5	6	6	8	6	9	5	6	5	5	3	3	3	4	5	12.0
18-Apr	4	4	3	4	4	5	4	5	8	8	5	7	12	9	14	12	17	31	14	10	11	10	N	N	31.0
19-Apr	N	N	N	32	15	24	22	32	39	58	28	19	8	6	27	27	16	12	8	7	6	5	5	9	57.5
20-Apr	7	5	7	8	5	15	23	8	17	11	18	15	10	13	11	13	10	10	8	7	11	14	14	36	35.6
21-Apr	71	25	33	43	18	19	21	19	18	16	19	15	25	38	27	30	27	27	13	33	5	9	9	17	71.0
22-Apr	8	7	8	7	6	10	6	7	9	8	9	9	12	14	11	11	11	10	9	12	8	3	3	3	13.8
23-Apr	5	7	11	6	8	6	5	4	5	6	7	10	9	9	8	10	11	7	7	6	5	5	4	3	11.4
24-Apr	4	4	3	6	4	3	3	3	7	12	15	15	14	8	12	15	18	10	20	8	12	7	7	14	19.7
25-Apr	46	64	34	37	18	25	16	12	43	65	75	47	61	64	21	20	16	16	31	5	5	5	5	4	75.4
26-Apr	5	5	4	4	3	4	7	7	10	8	11	11	14	16	15	18	13	8	7	6	6	7	8	8	18.0
27-Apr	4	4	4	4	5	9	6	7	13	32	29	34	60	36	56	36	26	32	11	12	9	5	5	7	60.2
28-Apr	15	3	2	3	44	18	19	9	18	16	14	24	37	66	53	62	77	22	12	15	17	9	4	20	76.6
29-Apr	6	10	10	60	8	5	5	13	10	12	22	18	20	93	84	81	39	42	22	10	26	7	5	5	92.7
30-Apr	4	4	5	5	7	6	7	28	19	13	12	13	12	12	14	10	7	14	21	31	31	21	9	11	31.1
	71.0	63.9	59.1	60.0	44.1	55.9	42.6	31.9	42.6	65.0	75.4	75.2	60.9	92.7	84.4	80.9	79.9	66.5	65.4	55.8	42.6	51.6	83.2	66.5	

N - Not Valid

PAZA
Portable – Rycroft Station
Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Portable Rycroft - April 2017

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 2.1 ppb on Apr 6 01:00 Maximum Daily Average: 0.4 ppb on Apr 6

Minimum Value: 0 ppb on Apr 2 05:00 Minimum Daily Average: 0.0 ppb on Apr 17

Maximum Diurnal Average: 0.3 ppb at hour 9 Minimum Diurnal Average: 0.1 ppb at hour 3

Monthly Average: 0.15 ppb Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.1 Q_3 = 0.2 P_{90} = 0.3 P_{99} = 0.7

Hours in Service:	720
Hours of Data:	686
Hours of Missing Data:	34
Hours of Calibration:	34
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	0	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
2-Apr	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
3-Apr	0	0	0	0	0	A	0	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0.3	0.7
4-Apr	0	0	0	0	A	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.7
5-Apr	0	0	0	A	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	0.3	1.5
6-Apr	2	0	A	0	0	0	0	0	1	1	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0.4	2.1
7-Apr	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.2
8-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.2	0.4
9-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	A	0	0.2	0.5
10-Apr	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	A	0	0	0.2	1.3
11-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	0.2
12-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.1	0.2
13-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.1	0.1
14-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.1	0.2
15-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.1	0.3
16-Apr	0	0	0	0	0	0	0	0	1	1	0	0	0	1	0	A	0	0	0	0	0	0	0	0	0.2	0.6
17-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.0	0.1
18-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.0	0.1
19-Apr	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
20-Apr	0	0	0	0	0	0	0	0	C	C	C	A	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
21-Apr	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
22-Apr	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
23-Apr	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
24-Apr	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
25-Apr	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
26-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
27-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
28-Apr	0	0	0	A	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
29-Apr	0	0	A	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
30-Apr	0	A	0	0	0	0	0	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.8
	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	Diurnal Average	
	2.1	0.3	0.2	0.6	0.4	0.5	0.7	0.8	0.7	1.3	0.6	0.8	0.7	0.5	0.4	0.6	0.5	1.0	0.4	0.4	0.5	0.3	0.5	1.5	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

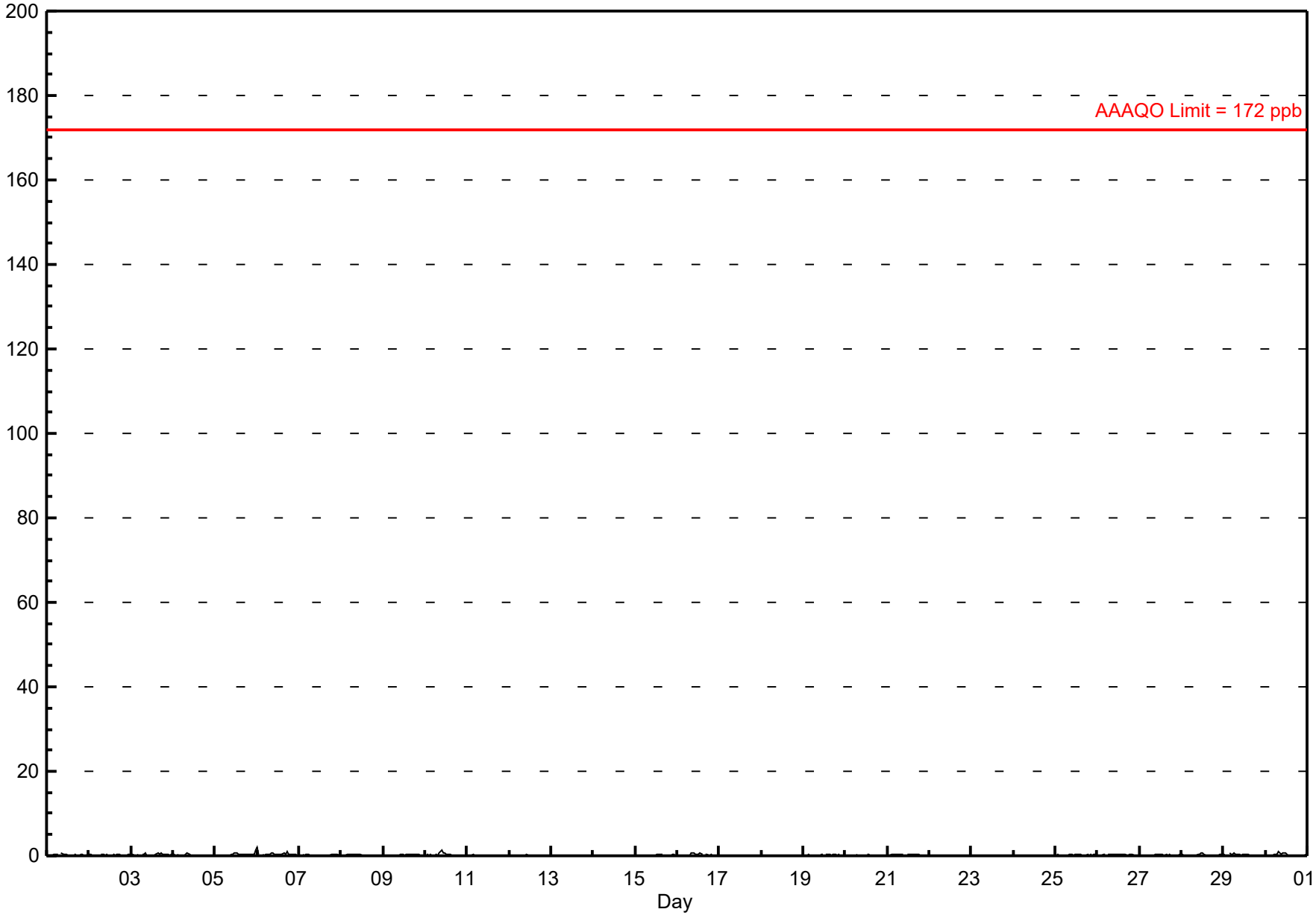
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Portable Rycroft - April 2017



Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Portable Rycroft - April 2017

Maximum Value: 12.0 ppb on Apr 6 00:00

Maximum Daily Average: 1.6 ppb on Apr 6

Minimum Value: 0 ppb on Apr 30 22:00

Maximum Diurnal Average: 1.3 ppb at hour 9

Monthly Average: 0.89 ppb

Minimum Daily Average: 0.5 ppb on Apr 17

Minimum Diurnal Average: 0.7 ppb at hour 4

Percentiles: $P_1 = 0.4$ $P_{10} = 0.5$ $Q_1 = 0.6$ Median = 0.7 $Q_3 = 0.9$ $P_{90} = 1.1$ $P_{99} = 5.4$

Hours in Service:	720
Hours of Data:	686
Hours of Missing Data:	34
Hours of Calibration:	34
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	1	1	1	1	1	1	1	A	2	1	1	1	1	1	1	1	8	1	1	2	3	1	1	1	1.3	7.6
2-Apr	1	1	1	1	0	0	A	1	1	1	3	3	1	1	4	1	2	1	1	1	1	1	6	1	1.4	5.6
3-Apr	1	1	1	1	1	A	1	1	6	1	1	1	1	1	1	3	1	2	1	1	1	1	1	1	1.2	6.5
4-Apr	5	1	1	1	A	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	4.7
5-Apr	1	1	1	A	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	12	1.4	12.0
6-Apr	10	1	A	1	1	2	1	1	2	4	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1.6	9.6
7-Apr	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.1
8-Apr	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.8	1.2
9-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.8	1.1
10-Apr	1	1	1	1	1	1	1	1	4	9	2	1	1	1	1	1	1	1	1	0	1	A	0	0	1.3	9.3
11-Apr	0	1	1	1	0	1	1	1	0	0	0	1	1	1	1	1	1	1	1	1	A	1	1	1	0.7	1.0
12-Apr	1	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	0	0	A	1	1	1	1	0.7	1.0
13-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.7	1.0
14-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0.6	1.0
15-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.8	1.0
16-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0	1	1	0.9	1.5
17-Apr	0	1	0	0	1	1	0	1	0	0	0	0	0	0	A	0	0	1	0	0	0	0	0	0	0.5	0.8
18-Apr	0	0	1	0	0	0	0	0	0	0	0	0	0	A	1	1	1	1	1	1	1	0	0	0	0.5	0.8
19-Apr	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1
20-Apr	1	1	1	1	1	1	1	1	C	C	C	A	1	1	0	1	0	1	1	1	1	1	1	1	0.7	1.3
21-Apr	1	1	1	1	1	1	1	1	1	1	A	1	1	1	2	1	1	1	1	1	1	1	1	1	0.9	2.1
22-Apr	1	1	1	0	0	0	0	0	0	A	1	0	1	1	0	0	1	1	1	0	0	0	1	0	0.5	0.9
23-Apr	0	0	0	0	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0.6	1.0
24-Apr	1	1	1	0	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	1.1
25-Apr	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0
26-Apr	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1
27-Apr	1	1	1	1	A	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0
28-Apr	1	1	1	A	1	1	1	1	1	1	1	1	4	1	1	2	1	1	1	1	1	1	2	2	1.1	4.2
29-Apr	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	1	0.9	1.5
30-Apr	1	A	1	0	1	1	1	6	5	2	3	3	2	2	1	1	1	1	1	1	1	0	1	1	1.5	6.4
	1.1	0.7	0.7	0.7	0.7	0.8	0.8	1.0	1.3	1.3	1.0	1.0	1.0	0.8	0.9	0.9	1.0	0.8	0.7	0.8	0.8	0.7	0.9	1.1	Diurnal Average	
	9.6	1.1	1.1	1.3	1.1	1.5	1.5	6.4	6.5	9.3	3.2	3.1	4.2	1.5	4.4	3.1	7.6	2.1	1.1	2.2	2.5	1.1	5.6	12.0	Diurnal Maximum	

C - Calibration

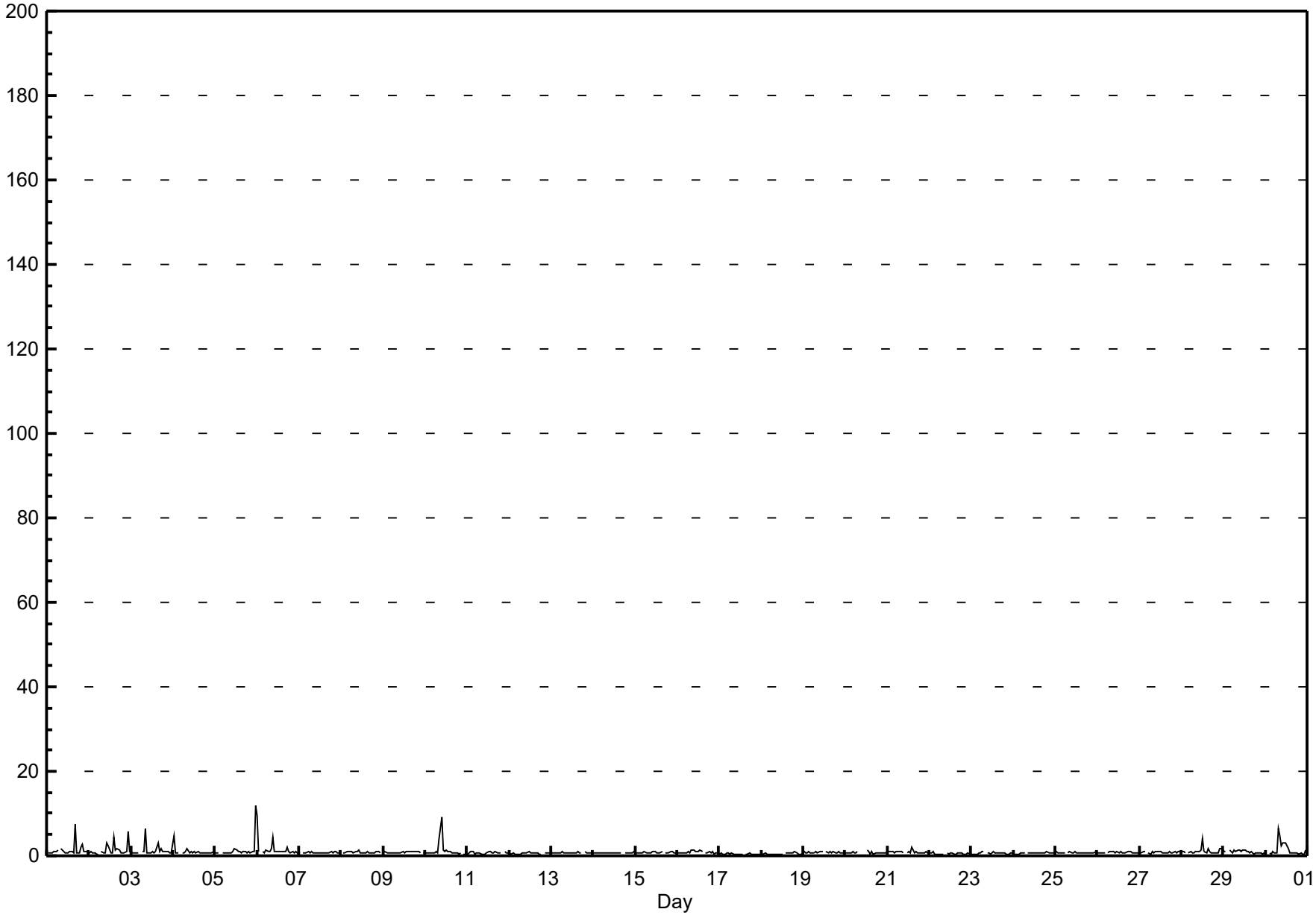
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

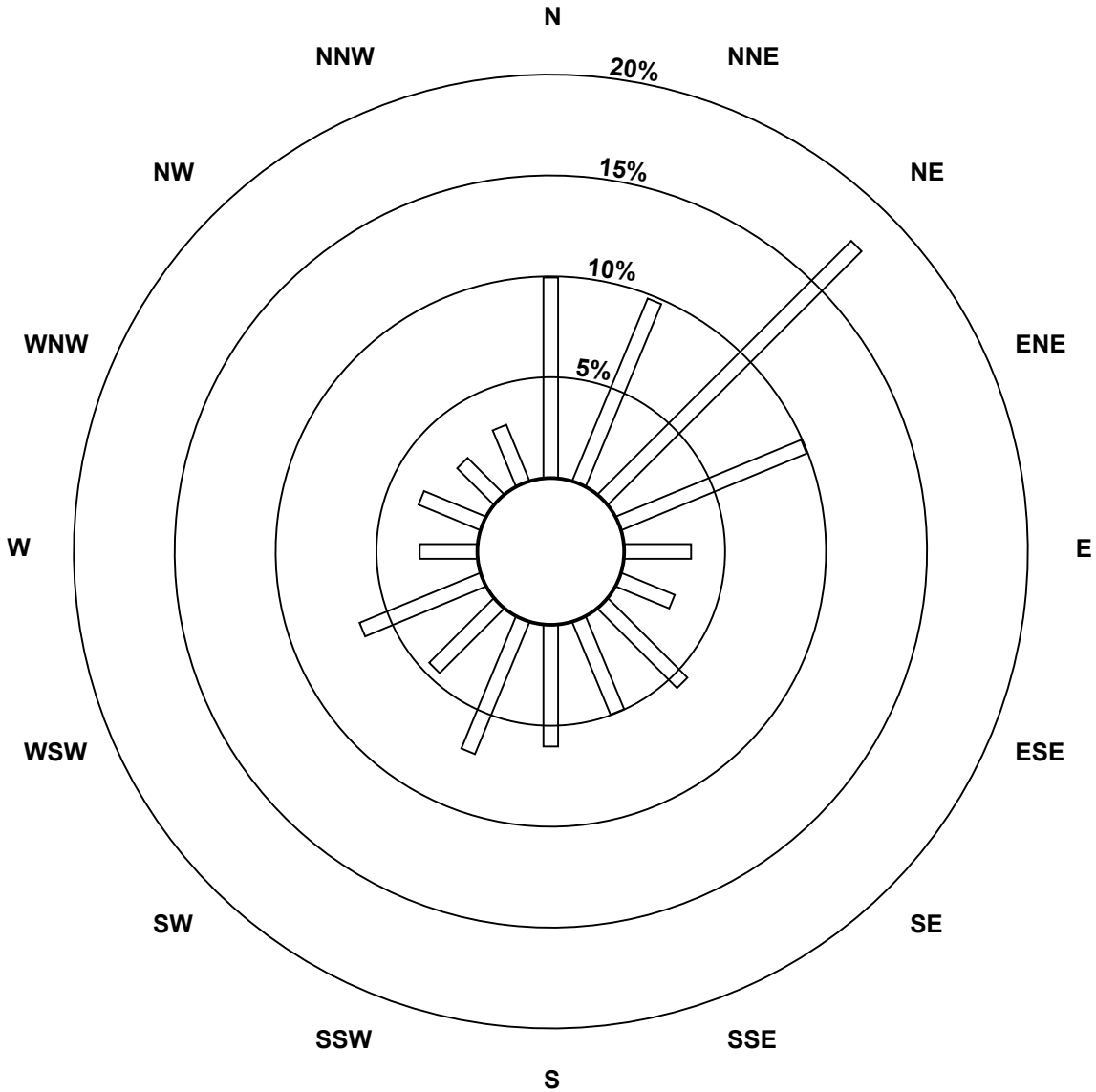
Portable Rycroft - April 2017



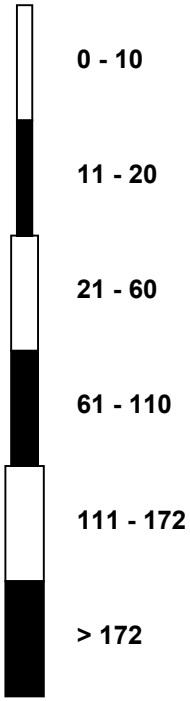
Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Portable Rycroft - April 2017



Pollutant Classes (ppb)

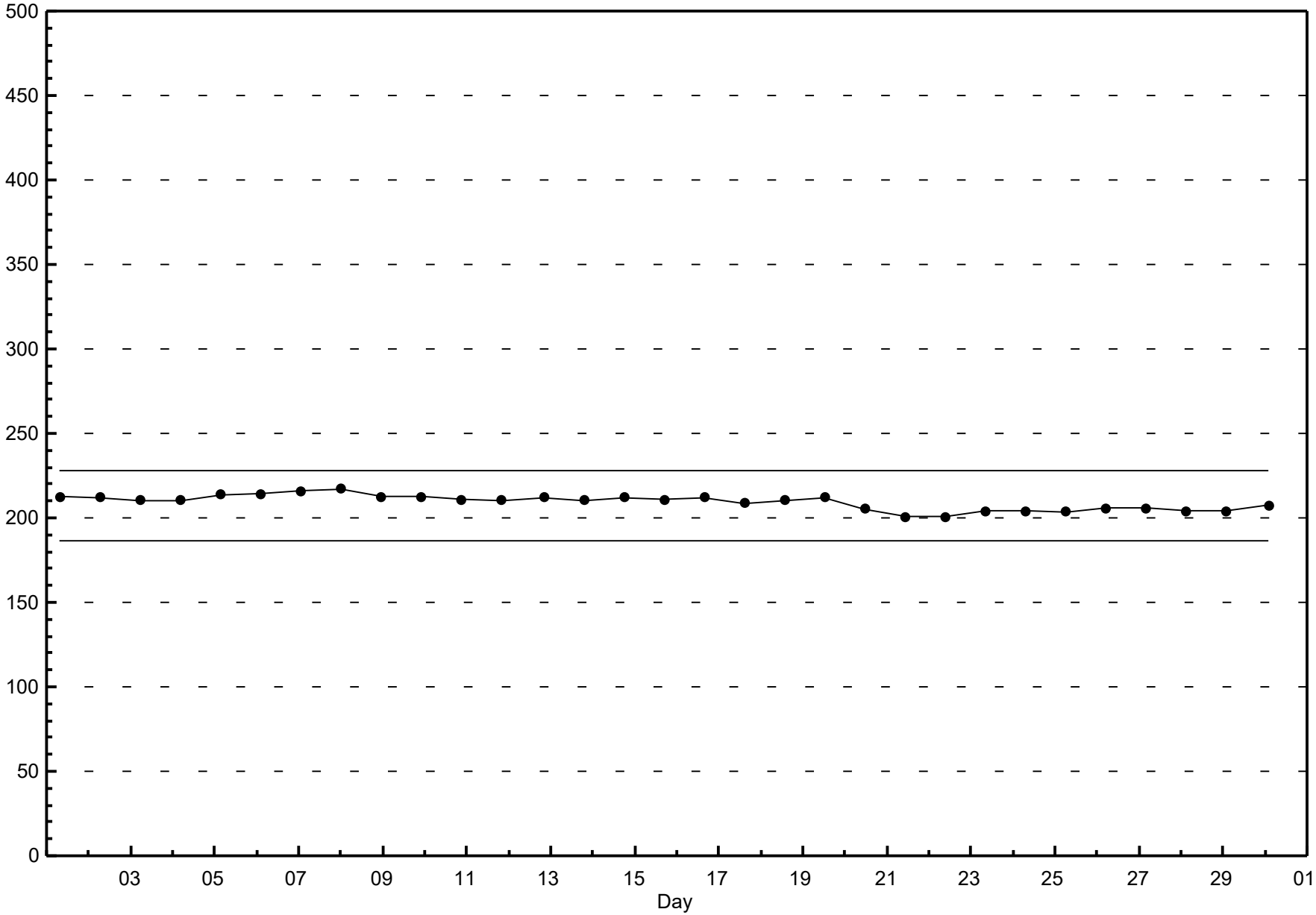


Peace Airshed Zone Association

Span Responses

Sulphur Dioxide (SO_2)

Portable Rycroft - April 2017



Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Portable Rycroft - April 2017

Maximum Value: 1.0 ppb on Apr 29 00:00

Maximum Daily Average: 0.2 ppb on Apr 11

Minimum Value: 0 ppb on Apr 4 14:00

Minimum Daily Average: 0.0 ppb on Apr 7

Maximum Diurnal Average: 0.1 ppb at hour 24

Minimum Diurnal Average: 0.1 ppb at hour 16

Monthly Average: 0.08 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.0$ Median = 0.1 $Q_3 = 0.1$ $P_{90} = 0.2$ $P_{99} = 0.3$

Hours in Service:	720
Hours of Data:	686
Hours of Missing Data:	34
Hours of Calibration:	34
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	0	0	0	0	0	0	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.6
2-Apr	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
3-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
4-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
5-Apr	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	0.6
6-Apr	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
7-Apr	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
8-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.1	0.2
9-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.1	0.2
10-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.2
11-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	0.3
12-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.0	0.2
13-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.0	0.1
14-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.1	0.2
15-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.1	0.2
16-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.1	0.1
17-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.1	0.1
18-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.0	0.1
19-Apr	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
20-Apr	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	C	C	C	0	0	0	0	0	0	0.1	0.2
21-Apr	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
22-Apr	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
23-Apr	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
24-Apr	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
25-Apr	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
26-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
27-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
28-Apr	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.2	1.0
29-Apr	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
30-Apr	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	Diurnal Average	
	0.4	0.5	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.6	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.6	1.0	Diurnal Maximum	

C - Calibration

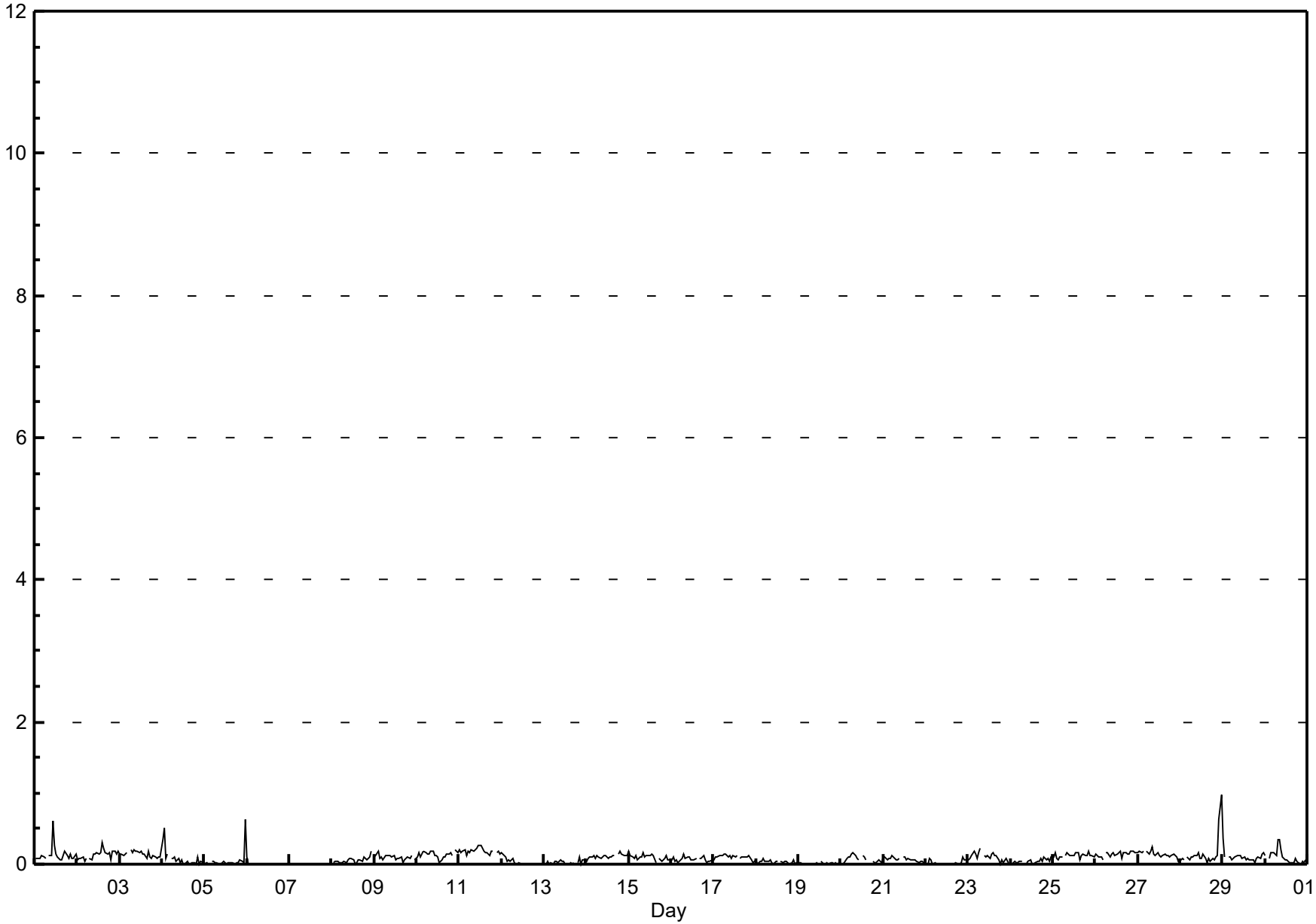
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Portable Rycroft - April 2017



Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

Portable Rycroft - April 2017

Maximum Value: 17.7 ppb on Apr 6 00:00

Maximum Daily Average: 1.2 ppb on Apr 5

Minimum Value: 0 ppb on Apr 12 16:00

Minimum Daily Average: 0.4 ppb on Apr 7

Maximum Diurnal Average: 1.2 ppb at hour 24

Minimum Diurnal Average: 0.5 ppb at hour 16

Monthly Average: 0.56 ppb

Percentiles: $P_1 = 0.3$ $P_{10} = 0.4$ $Q_1 = 0.4$ Median = 0.5 $Q_3 = 0.6$ $P_{90} = 0.7$ $P_{99} = 1.4$

Hours in Service:	720
Hours of Data:	686
Hours of Missing Data:	34
Hours of Calibration:	34
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	1	0	0	1	1	1	A	0	1	2	1	1	1	0	0	1	1	1	1	1	0	1	1	0.6	1.6
2-Apr	0	0	1	0	0	1	A	0	1	1	0	1	0	1	2	1	1	1	1	1	1	1	1	1	0.6	2.1
3-Apr	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0	0	1	1	1	0	1	1	0	0.6	0.9
4-Apr	7	3	1	1	A	1	1	0	0	1	1	1	1	0	1	0	1	1	0	1	1	0	0	0	0.9	7.2
5-Apr	0	0	0	A	0	0	0	1	0	1	0	0	0	0	0	0	1	1	1	1	0	0	0	18	1.2	17.7
6-Apr	1	0	A	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	1	0.4	0.9
7-Apr	0	A	1	0	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0.4	0.7
8-Apr	A	0	1	0	0	0	0	0	1	0	0	1	0	0	0	0	1	0	1	1	1	1	1	A	0.5	1.0
9-Apr	0	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	1	0	1	0	1	1	A	1	0.6	0.8
10-Apr	1	1	1	1	1	1	1	0	1	1	0	0	1	0	0	0	1	1	0	1	1	A	1	1	0.5	0.7
11-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	A	1	1	1	0.6	1.0
12-Apr	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0.4	0.6
13-Apr	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	A	0	0	0	0	0	0.5	0.8
14-Apr	1	0	1	0	0	0	1	1	0	1	1	0	1	1	1	1	1	A	0	1	0	1	0	0	0.5	0.7
15-Apr	1	1	0	0	0	0	1	0	1	0	0	1	0	0	0	0	A	0	0	0	1	1	0	1	0.5	0.6
16-Apr	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	A	1	1	1	1	0	1	0	1	0.5	0.6
17-Apr	1	1	0	1	1	0	1	0	1	1	1	1	1	0	A	0	1	1	1	1	1	1	0	0	0.5	0.7
18-Apr	1	0	0	0	0	1	0	0	0	1	1	0	0	A	0	0	1	1	0	0	0	1	1	1	0.5	0.8
19-Apr	1	0	0	1	0	0	0	0	1	0	1	0	A	0	1	0	0	0	0	0	0	0	0	0	0.4	0.7
20-Apr	0	0	0	0	0	1	1	1	1	1	0	A	0	1	0	C	C	C	1	0	0	0	0	0	0.5	0.6
21-Apr	0	0	0	0	0	0	0	1	0	0	A	1	0	1	0	0	0	1	0	0	0	0	0	0	0.5	0.8
22-Apr	1	0	0	1	0	0	0	0	0	A	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0.4	0.6
23-Apr	0	0	0	1	0	0	1	1	A	1	1	1	0	1	1	1	1	1	1	1	1	0	1	0	0.6	1.1
24-Apr	0	0	1	0	0	1	1	A	0	1	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0.5	0.8
25-Apr	0	1	1	0	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0.6	1.0
26-Apr	1	1	1	1	1	A	1	1	1	1	1	0	0	1	1	1	1	1	0	1	1	1	1	1	0.6	0.8
27-Apr	1	1	0	1	A	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0	0.6	0.9
28-Apr	1	0	0	A	0	0	0	0	1	1	0	1	1	1	0	1	0	0	1	0	1	1	2	2	0.7	2.2
29-Apr	1	0	A	1	1	0	0	1	1	1	1	1	0	1	0	1	0	0	0	1	1	1	1	1	0.6	1.2
30-Apr	1	A	0	1	1	1	0	1	1	1	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0.5	0.9
	0.8	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.5	0.5	0.5	0.5	0.6	1.2	Diurnal Average	
	7.2	3.2	0.8	0.7	0.7	0.9	0.8	0.8	0.9	1.0	1.6	1.2	0.8	0.9	2.1	0.8	1.0	1.0	1.1	0.8	0.7	0.7	2.2	17.7	Diurnal Maximum	

C - Calibration

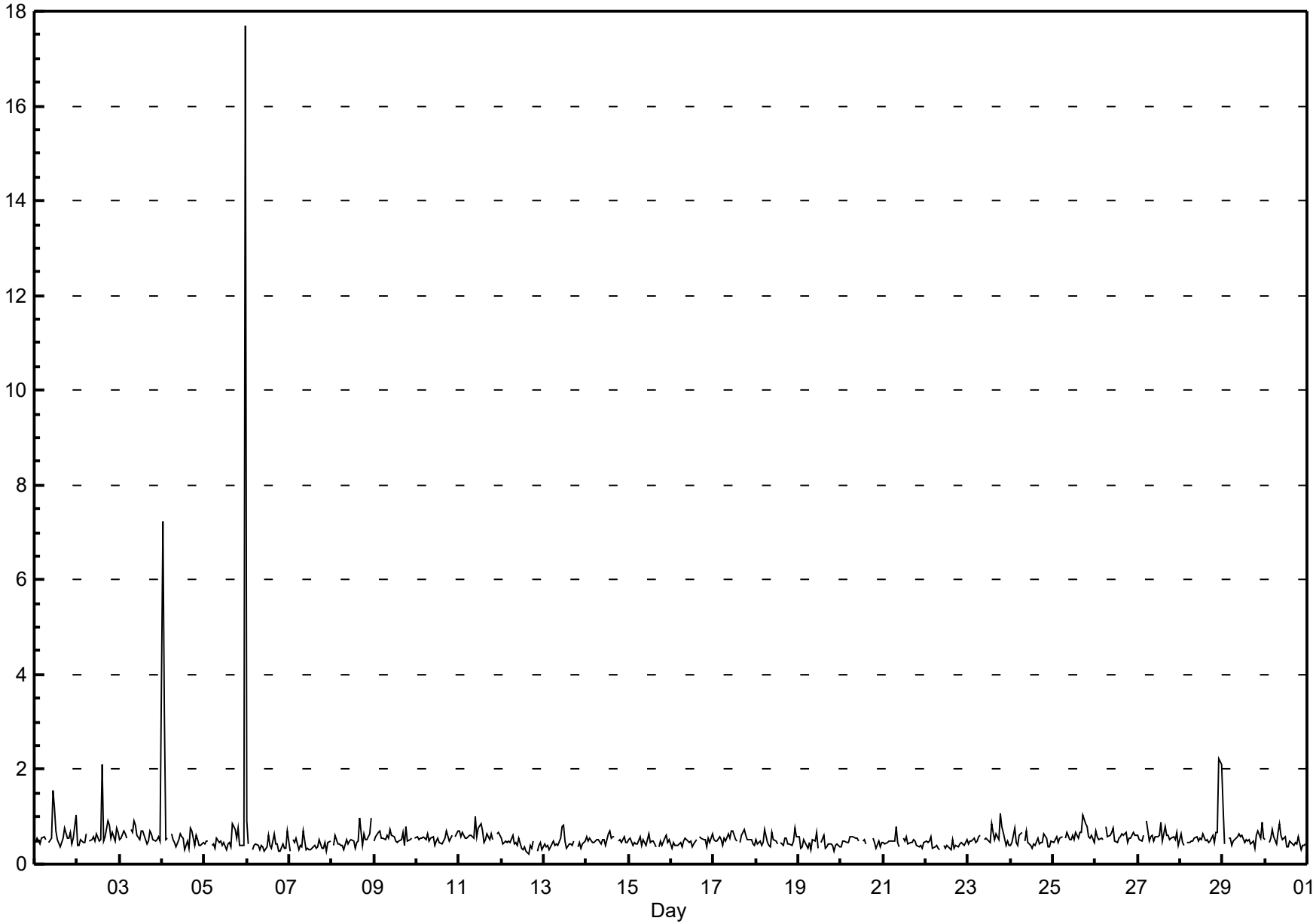
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

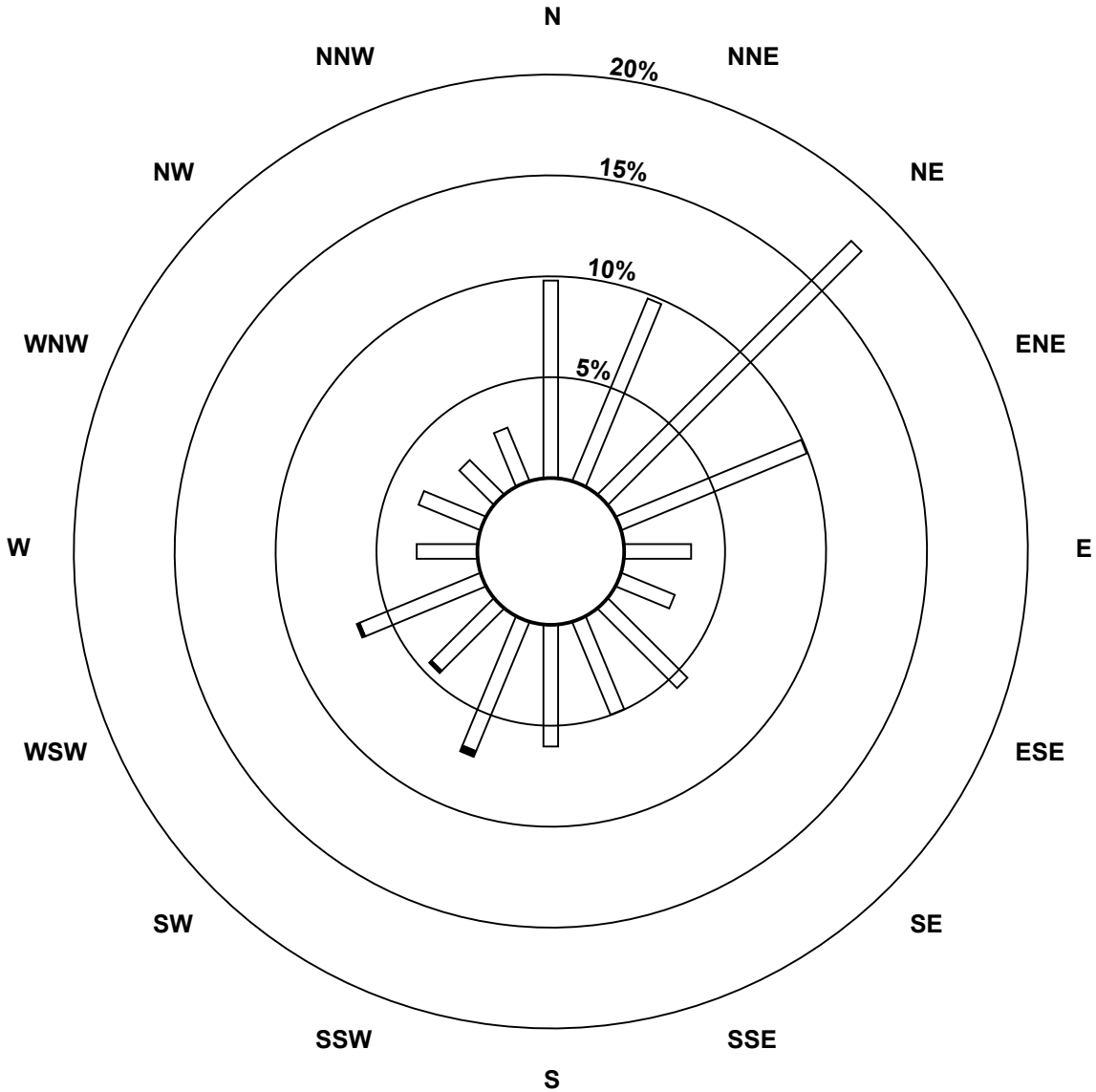
Portable Rycroft - April 2017



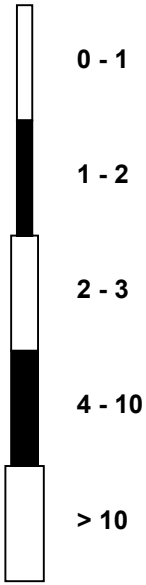
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb

Portable Rycroft - April 2017



Pollutant Classes (ppb)

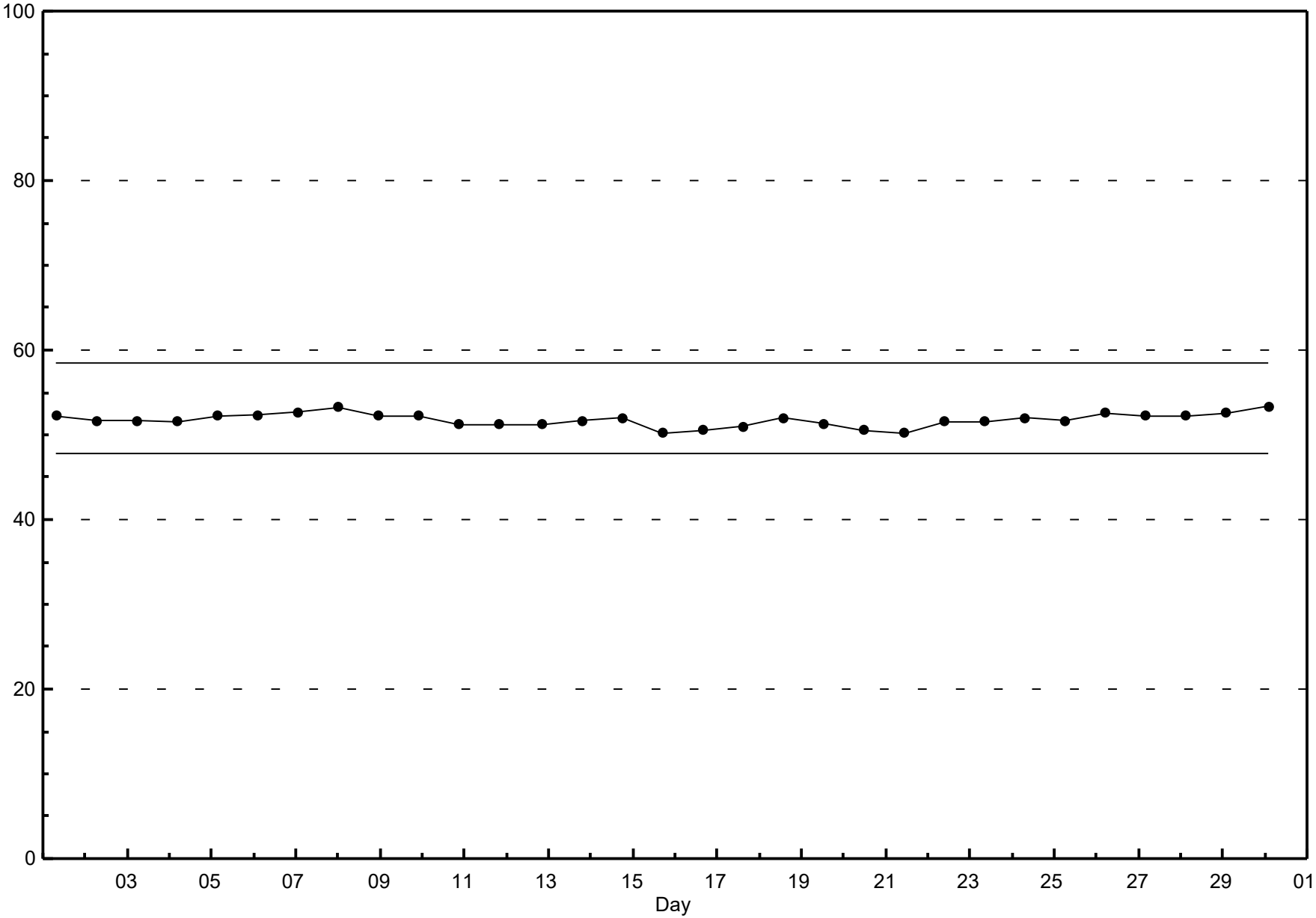


Peace Airshed Zone Association

Span Responses

Total Reduced Sulphur (TRS)

Portable Rycroft - April 2017



Peace Airshed Zone Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Portable Rycroft - April 2017

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 4.6 ppb on Apr 4 04:00 Maximum Daily Average: 2.0 ppb on Apr 10

Minimum Value: 0 ppb on Apr 4 14:00 Minimum Daily Average: 0.7 ppb on Apr 17

Maximum Diurnal Average: 1.7 ppb at hour 9 Minimum Diurnal Average: 0.9 ppb at hour 16

Monthly Average: 1.28 ppb Percentiles: $P_1 = 0.5$ $P_{10} = 0.7$ $Q_1 = 0.9$ Median = 1.1 $Q_3 = 1.5$ $P_{90} = 2.2$ $P_{99} = 3.8$

Hours in Service:	720
Hours of Data:	685
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	1	1	1	1	1	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.6
2-Apr	1	1	1	1	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.7
3-Apr	1	1	1	1	1	A	2	2	3	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1.0	2.6
4-Apr	3	3	2	5	A	3	2	4	3	1	1	1	0	0	1	1	0	0	0	1	1	1	1	1	1.5	4.6
5-Apr	1	1	0	A	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	4	4	1.9	4.4
6-Apr	3	1	A	1	1	2	2	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	3.0
7-Apr	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.5
8-Apr	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	A	0.9	1.5
9-Apr	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	2	1.1	1.7
10-Apr	1	1	2	2	2	2	2	3	4	4	3	2	2	1	1	1	1	2	2	1	1	A	2	3	2.0	4.2
11-Apr	2	2	3	4	2	2	3	3	1	1	1	1	1	1	1	1	1	1	1	1	A	2	1	1	1.5	3.9
12-Apr	1	1	1	1	2	3	3	2	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1.2	2.8
13-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1.0	1.4
14-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1.0	1.5
15-Apr	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	A	1	1	1	1	1	1	1	1.1	1.6
16-Apr	1	1	1	1	1	2	2	2	3	2	2	2	2	2	1	A	2	3	2	4	2	2	3	3	2.0	3.8
17-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.7	1.2
18-Apr	1	1	1	1	1	1	1	1	3	1	1	1	1	A	1	1	1	1	2	1	1	2	3	2	1.2	3.0
19-Apr	2	2	2	1	1	1	1	1	3	3	1	1	A	2	2	1	1	2	2	1	2	2	2	3	1.7	3.2
20-Apr	2	2	3	3	4	4	3	2	C	C	C	C	C	1	1	1	1	1	1	1	1	1	1	1	1.8	4.2
21-Apr	1	1	1	1	1	1	1	1	1	1	A	2	1	1	1	1	1	1	1	1	2	2	2	2	1.2	1.9
22-Apr	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.4
23-Apr	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.3
24-Apr	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.3
25-Apr	1	1	1	2	1	2	A	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.6
26-Apr	1	1	1	1	1	A	2	1	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1.3	2.1
27-Apr	1	2	2	2	A	2	2	1	1	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1.4	2.3
28-Apr	1	1	1	A	2	2	2	2	2	3	3	3	2	2	2	1	1	1	1	1	2	2	3	3	1.8	3.2
29-Apr	3	1	A	2	2	2	1	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	2	1	1.4	3.4
30-Apr	1	A	1	2	2	3	4	2	2	3	2	2	1	1	1	1	1	1	1	1	1	1	1	3	1.6	4.0
	1.4	1.2	1.3	1.6	1.3	1.5	1.5	1.6	1.7	1.5	1.4	1.2	1.1	1.0	1.0	0.9	1.0	1.0	1.1	1.2	1.2	1.2	1.4	1.5	Diurnal Average	
	3.4	2.7	3.4	4.6	3.5	4.2	4.0	3.6	4.2	3.7	3.2	2.9	2.4	2.2	1.9	1.6	2.3	2.5	2.0	3.8	2.4	2.6	3.7	4.4	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

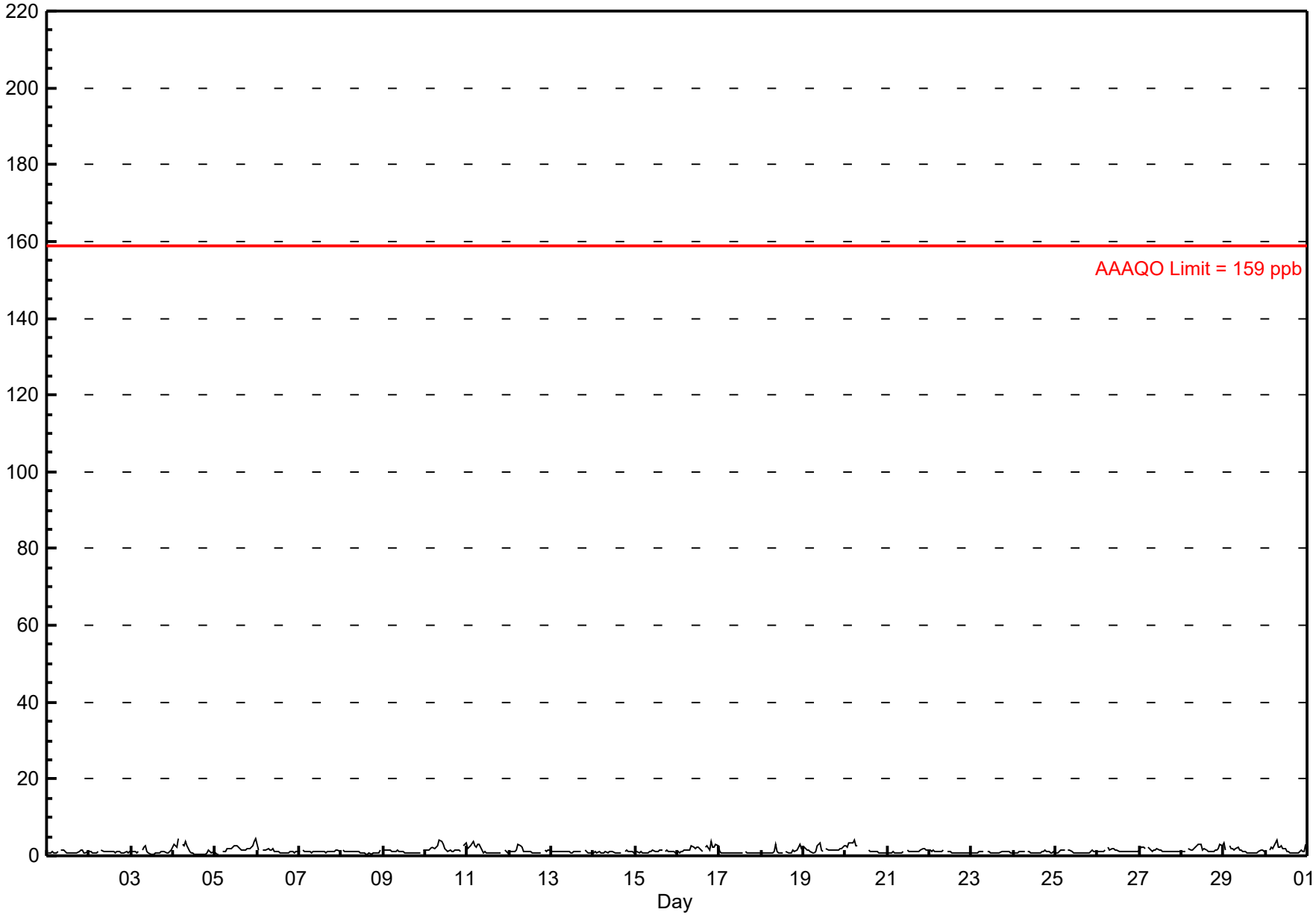
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb 24-hr 106 ppb

Peace Airshed Zone Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Portable Rycroft - April 2017



Peace Airshed Zone Association

Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

Portable Rycroft - April 2017

Maximum Value: 19.5 ppb on Apr 16 09:00

Maximum Daily Average: 4.4 ppb on Apr 16

Minimum Value: 1 ppb on Apr 3 13:00

Minimum Daily Average: 1.2 ppb on Apr 17

Maximum Diurnal Average: 3.8 ppb at hour 9

Minimum Diurnal Average: 1.4 ppb at hour 16

Monthly Average: 2.08 ppb

Percentiles: $P_1 = 0.7$ $P_{10} = 1.0$ $Q_1 = 1.2$ Median = 1.6 $Q_3 = 2.2$ $P_{90} = 3.8$ $P_{99} = 9.6$

Hours in Service:	720
Hours of Data:	685
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	1	1	1	1	1	1	2	A	2	2	1	1	1	1	1	2	1	2	3	4	4	1	1	3	1.7	4.2
2-Apr	1	2	1	1	1	1	A	5	1	2	2	2	2	2	2	2	3	2	1	1	1	1	4	3	1.9	4.6
3-Apr	3	1	1	1	2	A	2	3	5	2	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1.5	4.6
4-Apr	9	14	4	6	A	4	4	4	3	2	1	1	1	1	1	1	1	1	1	2	2	2	1	2	2.8	14.1
5-Apr	1	1	1	A	1	2	4	5	4	4	5	3	3	2	2	2	2	2	2	2	2	3	5	13	3.1	13.0
6-Apr	6	2	A	2	2	2	2	2	2	3	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1.8	6.0
7-Apr	2	A	2	1	1	2	1	1	2	4	2	1	1	1	1	1	1	1	5	2	1	2	2	2	1.7	4.7
8-Apr	A	2	1	1	1	1	1	2	1	1	1	1	1	1	1	2	1	1	1	1	1	1	2	A	1.3	1.9
9-Apr	2	2	2	2	2	1	1	1	2	1	2	1	1	1	1	1	1	1	1	1	1	1	A	2	1.5	2.5
10-Apr	2	2	2	4	4	2	2	4	10	5	4	2	2	1	2	1	2	3	3	2	2	A	3	8	3.2	9.8
11-Apr	2	2	4	6	3	4	4	6	4	1	1	1	1	1	1	1	1	1	1	2	A	3	3	1	2.4	5.9
12-Apr	2	1	1	2	4	6	3	3	2	1	1	1	1	1	1	1	1	1	1	A	2	1	2	2	1.8	5.8
13-Apr	1	1	1	1	1	1	2	1	1	2	2	1	1	2	1	1	1	2	A	2	1	1	1	1	1.4	2.1
14-Apr	1	2	1	2	1	1	1	1	2	1	2	2	1	1	2	2	2	A	2	3	3	5	3	1	1.9	4.6
15-Apr	1	2	3	2	1	1	1	1	2	2	4	2	2	2	2	2	A	2	2	2	1	1	1	1	1.7	3.9
16-Apr	1	1	2	2	2	7	2	2	19	3	4	6	4	3	5	A	8	5	3	7	5	3	5	5	4.4	19.5
17-Apr	2	1	1	1	1	1	2	1	1	1	1	1	1	1	A	1	1	1	1	2	1	1	1	1	1.2	2.0
18-Apr	3	1	1	1	1	2	2	2	6	4	2	2	1	A	2	1	1	1	3	2	2	3	11	2	2.5	10.9
19-Apr	3	2	2	2	1	1	1	2	10	9	2	2	A	2	2	2	2	2	2	2	2	2	2	5	2.7	10.4
20-Apr	4	3	5	5	4	16	3	4	C	C	C	C	C	2	2	2	2	3	2	2	1	1	1	1	3.3	15.8
21-Apr	1	1	1	1	1	1	1	1	8	4	A	3	2	2	1	2	2	2	2	2	2	2	2	2	2.0	7.5
22-Apr	3	2	2	2	1	2	1	2	2	A	2	1	1	1	1	1	1	1	1	2	1	1	1	1	1.5	3.3
23-Apr	1	1	1	1	1	1	1	1	A	2	1	1	1	1	1	1	1	1	2	1	2	2	2	1	1.3	2.1
24-Apr	2	1	1	1	1	2	3	A	2	2	1	1	1	1	1	1	2	2	2	2	1	1	1	2	1.5	3.1
25-Apr	1	1	2	2	2	2	A	2	2	2	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1.4	2.2
26-Apr	1	1	1	1	2	A	4	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1.6	4.0
27-Apr	2	5	3	2	A	3	2	1	2	2	2	2	2	2	1	1	1	1	1	4	2	1	2	1	2.0	5.0
28-Apr	2	1	1	A	2	2	2	2	3	3	4	4	2	3	3	2	1	3	2	3	5	4	5	5	2.7	5.0
29-Apr	6	2	A	3	2	2	2	2	3	2	2	2	1	1	1	1	1	1	1	1	2	2	3	2	1.9	5.7
30-Apr	1	A	2	9	3	8	7	3	3	4	3	4	3	2	1	1	1	1	1	2	5	1	2	4	3.0	9.4
	2.3	2.1	1.8	2.4	1.9	2.8	2.3	2.4	3.8	2.6	2.1	1.8	1.5	1.5	1.5	1.4	1.7	1.6	1.7	2.0	1.9	1.9	2.4	2.7	Diurnal Average	
	8.6	14.1	5.4	9.4	4.1	15.8	7.1	5.8	19.5	8.8	5.1	5.5	4.3	2.6	4.6	2.3	8.5	5.1	4.7	6.9	5.1	4.6	10.9	13.0	Diurnal Maximum	

C - Calibration

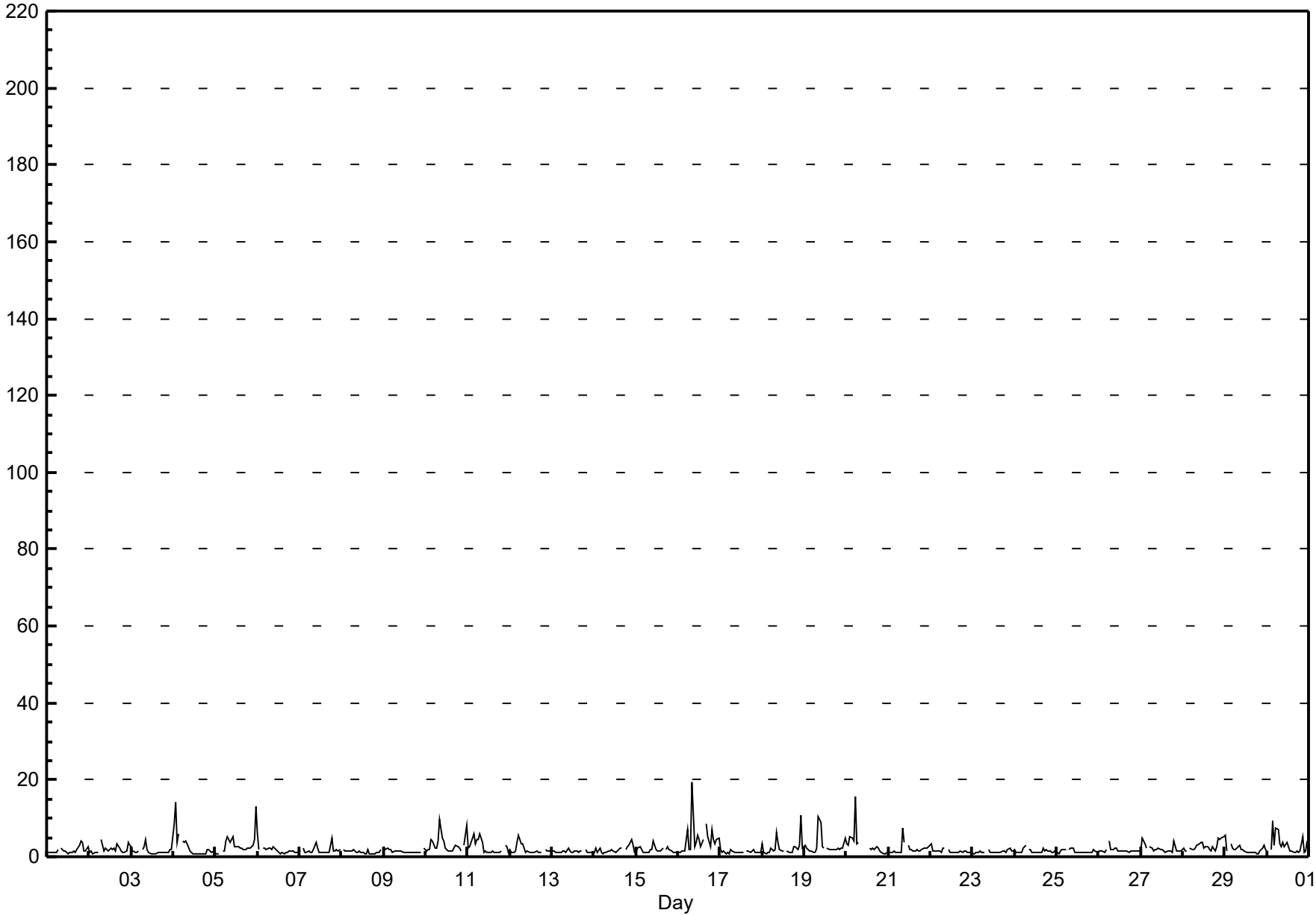
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

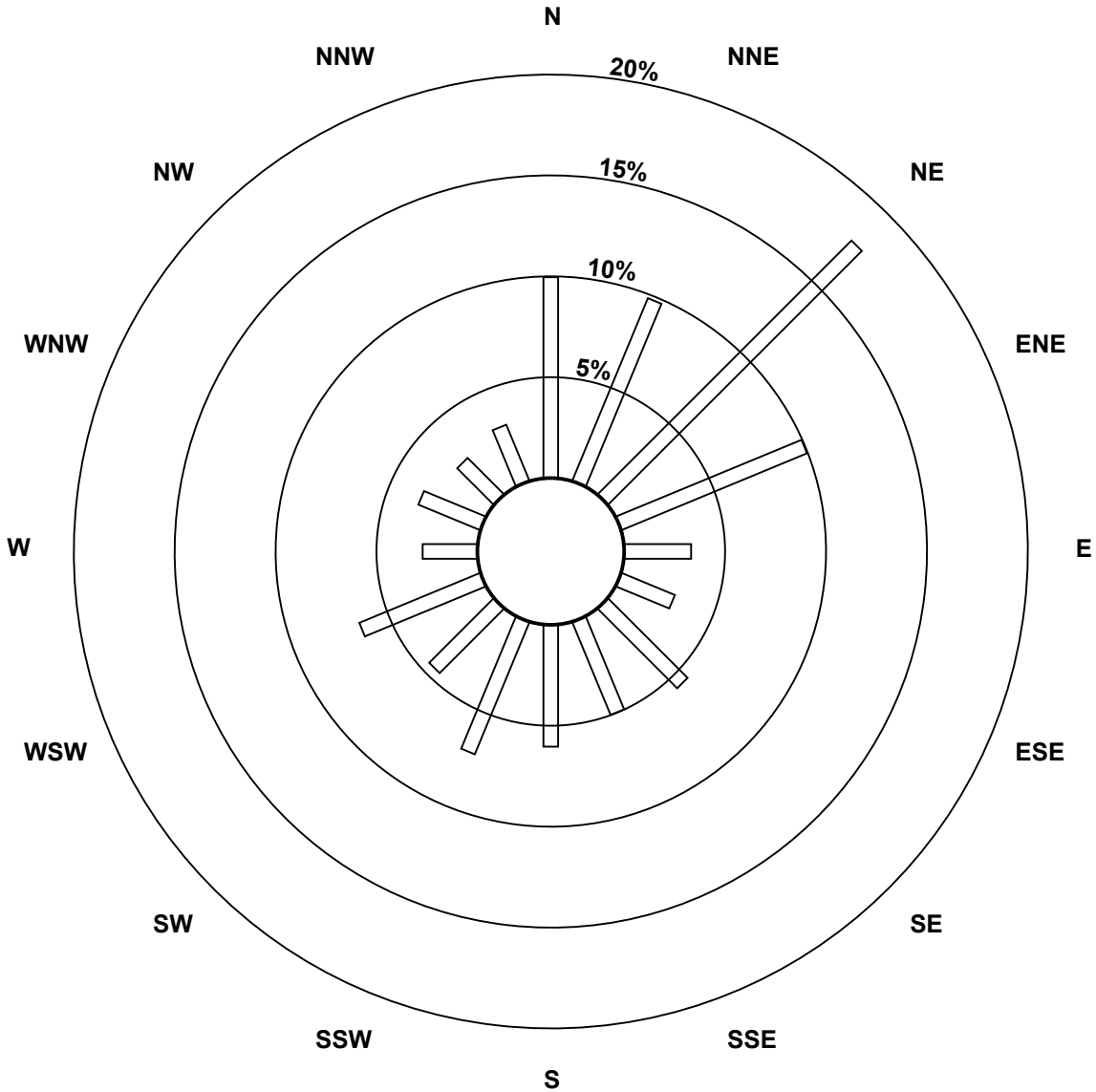
Portable Rycroft - April 2017



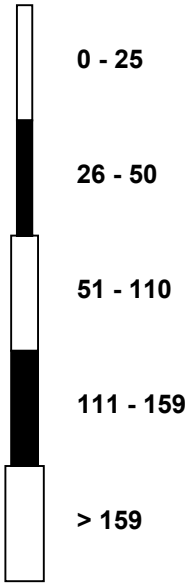
Pollutant Rose

Nitrogen Dioxide (NO_2) - ppb

Portable Rycroft - April 2017



Pollutant Classes (ppb)

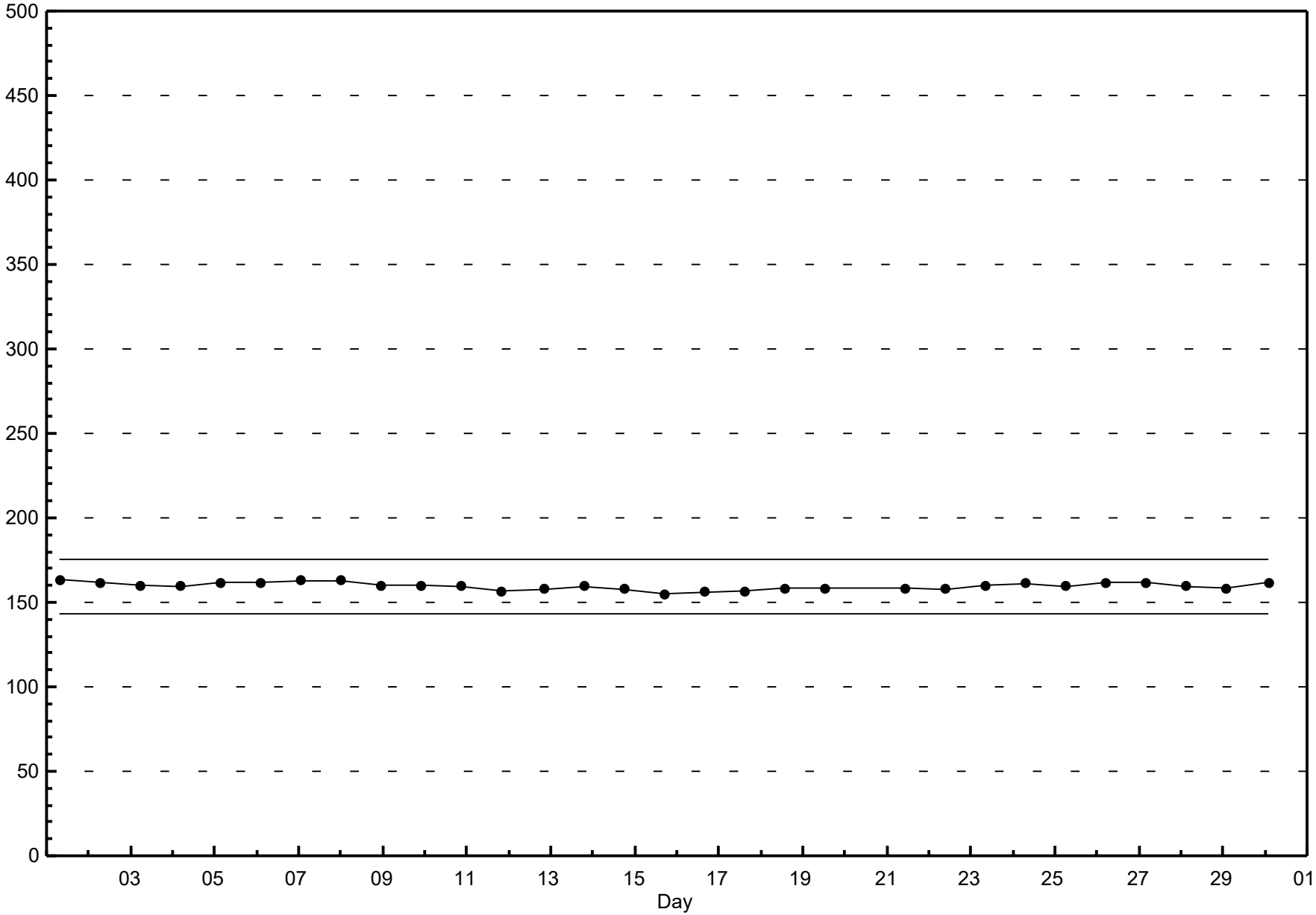


Peace Airshed Zone Association

Span Responses

Nitrogen Dioxide (NO_2)

Portable Rycroft - April 2017



Peace Airshed Zone Association

Hourly Averages

Nitrogen Oxide (NO) - ppb

Portable Rycroft - April 2017

Maximum Value: 1.8 ppb on Apr 19 09:00

Maximum Daily Average: 0.4 ppb on Apr 16

Minimum Value: 0 ppb on Apr 12 00:00

Minimum Daily Average: 0.0 ppb on Apr 12

Maximum Diurnal Average: 0.5 ppb at hour 9

Minimum Diurnal Average: 0.0 ppb at hour 5

Monthly Average: 0.16 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.1$ Median = 0.1 $Q_3 = 0.2$ $P_{90} = 0.3$ $P_{99} = 1.0$

Hours in Service:	720
Hours of Data:	685
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
2-Apr	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
3-Apr	0	0	0	0	0	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
4-Apr	0	0	0	0	A	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.9
5-Apr	0	0	0	A	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0.2	0.7
6-Apr	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
7-Apr	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
8-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.1	0.2
9-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.1	0.3
10-Apr	0	0	0	0	0	0	0	1	2	1	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0.3	1.7
11-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	0.3
12-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.0	0.3
13-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.1	0.1
14-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.2	0.4
15-Apr	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0.1	0.7
16-Apr	0	0	0	0	0	0	0	0	2	1	1	1	1	0	0	A	1	1	0	0	0	0	0	0	0.4	1.6
17-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.1	0.1
18-Apr	0	0	0	0	0	0	0	0	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.2	1.4
19-Apr	0	0	0	0	0	0	0	0	2	2	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.3	1.8
20-Apr	0	0	0	0	0	1	0	1	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0.2	0.9
21-Apr	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
22-Apr	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
23-Apr	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
24-Apr	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
25-Apr	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
26-Apr	0	0	0	0	0	A	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8
27-Apr	0	0	0	0	A	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.8
28-Apr	0	0	0	A	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.8
29-Apr	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
30-Apr	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.3	0.5	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	Diurnal Average	
	0.3	0.3	0.2	0.1	0.1	0.9	0.3	0.7	1.8	1.8	1.1	0.9	1.0	0.7	0.5	0.4	0.6	0.5	0.3	0.3	0.2	0.2	0.1	0.5	Diurnal Maximum	

C - Calibration

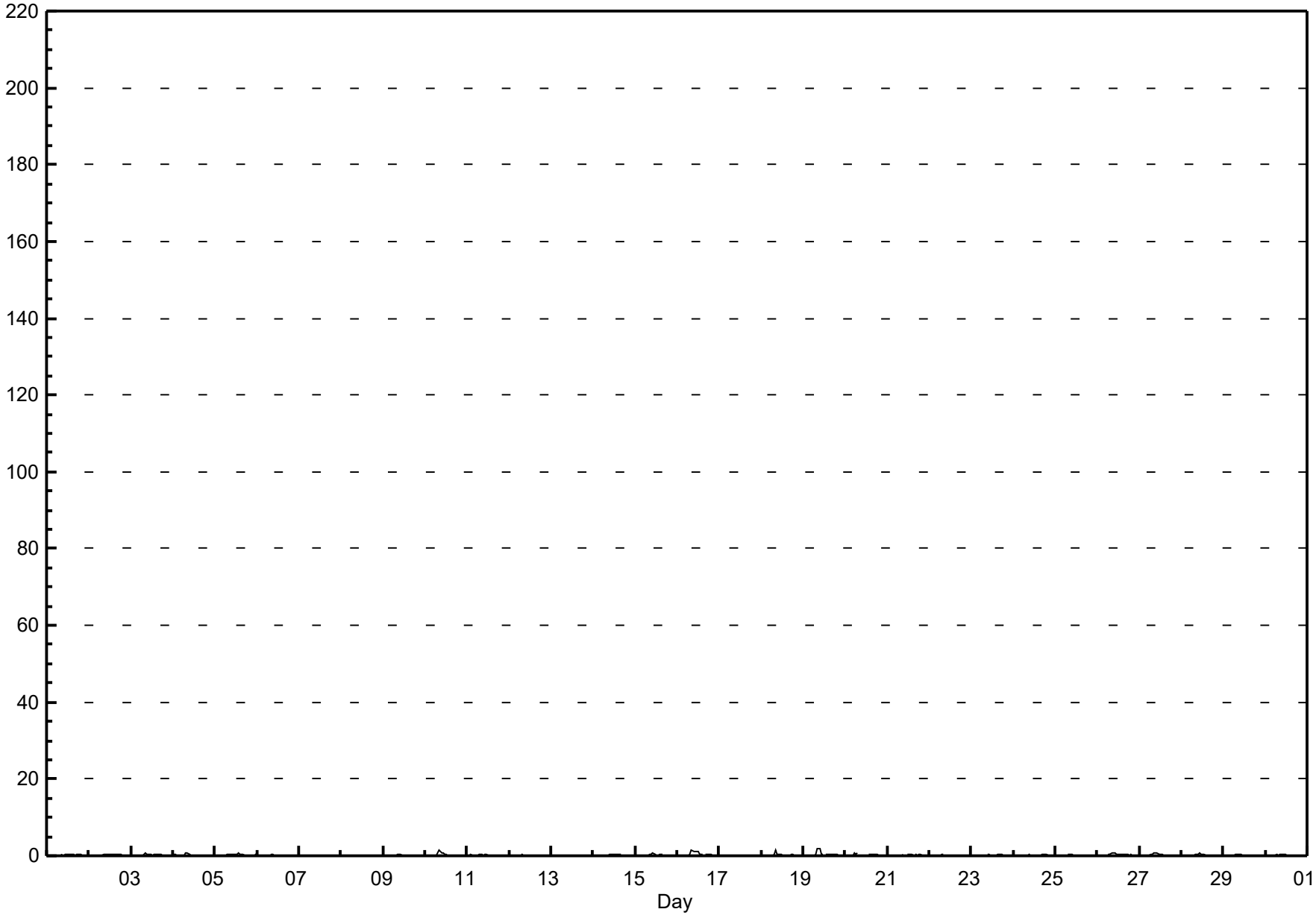
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Nitrogen Oxide (NO) - ppb

Portable Rycroft - April 2017



Peace Airshed Zone Association

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Portable Rycroft - April 2017

Maximum Value: 27.9 ppb on Apr 20 06:00

Maximum Daily Average: 2.8 ppb on Apr 16

Minimum Value: 0 ppb on Apr 12 02:00

Minimum Daily Average: 0.3 ppb on Apr 8

Maximum Diurnal Average: 1.9 ppb at hour 9

Minimum Diurnal Average: 0.2 ppb at hour 5

Monthly Average: 0.61 ppb

Percentiles: $P_1 = 0.1$ $P_{10} = 0.2$ $Q_1 = 0.2$ Median = 0.3 $Q_3 = 0.5$ $P_{90} = 1.0$ $P_{99} = 7.5$

Hours in Service:	720
Hours of Data:	685
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	0	0	0	0	0	0	A	0	0	0	0	0	1	1	0	0	1	1	0	0	0	0	0	0.4	0.8
2-Apr	0	0	0	0	0	0	A	0	0	1	1	1	1	1	1	1	1	1	0	0	0	0	1	0	0.5	1.3
3-Apr	0	0	0	0	0	A	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.3
4-Apr	2	2	0	0	A	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	2.1
5-Apr	0	0	0	A	0	0	1	1	1	1	4	1	1	1	1	0	0	0	0	0	0	0	0	3	0.8	4.4
6-Apr	0	0	A	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
7-Apr	0	A	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0.4	1.5
8-Apr	A	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0.3	0.6
9-Apr	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.3	0.5
10-Apr	0	0	0	1	0	0	0	2	6	1	2	1	1	0	0	0	0	0	0	0	0	A	0	0	0.8	6.4
11-Apr	0	0	9	0	0	0	0	1	1	0	1	0	4	0	0	0	0	1	0	0	A	0	2	0	1.0	9.1
12-Apr	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	0	0	0	0	A	0	0	0	0	0.3	0.9
13-Apr	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	A	1	0	0	0	0	0.3	1.0
14-Apr	1	0	0	0	0	0	0	0	0	0	1	1	1	1	1	2	1	A	0	0	0	0	0	0	0.5	1.6
15-Apr	0	0	0	0	0	0	0	0	1	1	3	1	0	0	0	1	A	0	0	0	0	0	0	0	0.5	3.3
16-Apr	0	0	0	0	0	8	2	1	17	2	5	7	3	1	6	A	8	2	0	1	0	0	0	0	2.8	17.5
17-Apr	0	0	0	0	0	0	1	0	0	1	0	0	1	1	A	1	1	0	0	0	0	0	0	0	0.4	0.9
18-Apr	0	0	0	0	0	0	0	1	4	3	2	1	1	A	0	0	0	0	1	0	0	0	0	0	0.7	4.1
19-Apr	0	0	0	0	0	0	0	1	12	8	1	2	A	1	1	1	2	1	0	0	0	0	0	0	1.4	11.5
20-Apr	0	0	0	0	0	28	1	2	C	C	C	C	C	1	1	1	1	1	1	0	0	0	0	0	2.1	27.9
21-Apr	0	0	0	0	0	0	0	0	0	4	A	2	1	1	1	0	1	0	0	0	0	0	0	0	0.6	3.7
22-Apr	0	0	0	0	0	0	0	1	1	A	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0.4	2.2
23-Apr	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
24-Apr	0	0	0	0	0	0	0	A	0	1	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0.4	1.0
25-Apr	0	0	0	0	0	0	A	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.5
26-Apr	0	0	0	0	0	A	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.5	1.4
27-Apr	0	0	0	0	A	0	0	1	1	1	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0.4	1.1
28-Apr	0	0	0	A	0	0	0	0	0	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0.4	1.1
29-Apr	0	0	A	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
30-Apr	0	A	0	1	0	0	1	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.4	1.5
	0.3	0.3	0.5	0.2	0.2	1.5	0.4	0.6	1.9	1.2	1.1	0.8	0.7	0.6	0.6	0.4	0.8	0.5	0.4	0.3	0.3	0.2	0.3	0.3	Diurnal Average	
	1.6	2.1	9.1	0.9	0.3	27.9	2.0	2.0	17.5	8.3	4.7	7.0	4.5	1.5	5.6	1.6	8.4	2.1	1.5	1.0	2.2	0.4	1.6	3.1	Diurnal Maximum	

C - Calibration

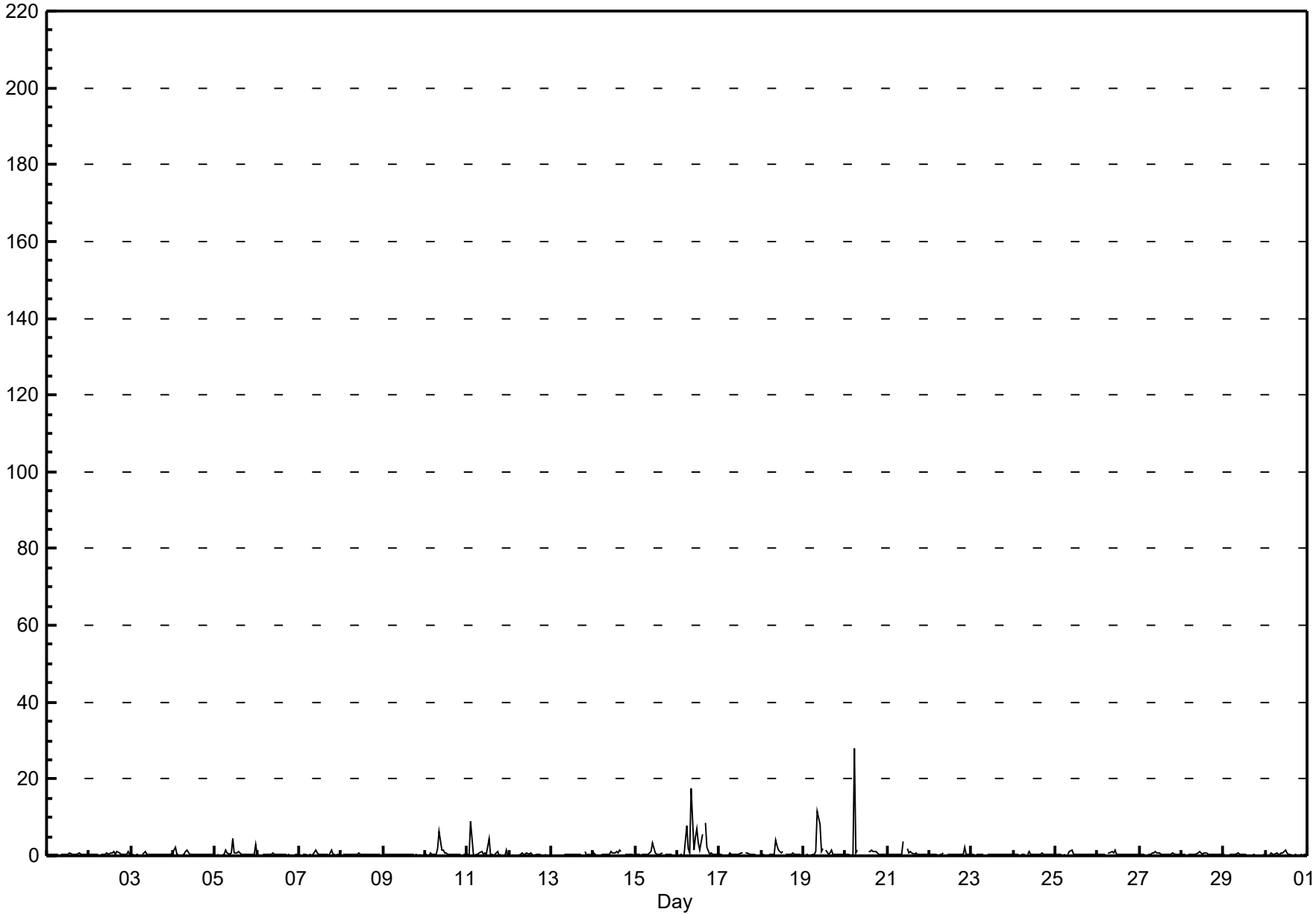
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Portable Rycroft - April 2017



Peace Airshed Zone Association

Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Portable Rycroft - April 2017

Maximum Value: 5.9 ppb on Apr 10 09:00

Maximum Daily Average: 2.3 ppb on Apr 16

Minimum Value: 1 ppb on Apr 5 03:00

Minimum Daily Average: 0.7 ppb on Apr 17

Maximum Diurnal Average: 2.1 ppb at hour 9

Minimum Diurnal Average: 1.1 ppb at hour 16

Monthly Average: 1.41 ppb

Percentiles: $P_1 = 0.6$ $P_{10} = 0.7$ $Q_1 = 0.9$ Median = 1.2 $Q_3 = 1.6$ $P_{90} = 2.4$ $P_{99} = 4.3$

Hours in Service:	720
Hours of Data:	685
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	1	1	1	1	1	1	1	A	2	2	1	1	1	1	1	1	1	1	2	2	2	1	1	1	1.1	1.8
2-Apr	1	1	1	1	1	1	A	2	1	2	2	1	2	2	1	1	1	1	1	1	1	1	1	1	1.2	1.8
3-Apr	1	1	1	1	1	A	2	2	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	3.2
4-Apr	3	3	2	5	A	3	3	4	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.7	4.7
5-Apr	1	1	1	A	1	1	1	2	2	2	3	3	3	3	2	2	2	2	2	2	2	3	4	5	2.1	4.9
6-Apr	3	1	A	1	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.3	3.1
7-Apr	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.5
8-Apr	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	A	1.0	1.6
9-Apr	2	2	2	2	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	A	2	1.2	1.7
10-Apr	1	1	2	2	2	2	2	3	6	5	4	2	2	1	1	1	1	2	2	1	1	A	3	3	2.2	5.9
11-Apr	2	2	3	4	2	2	3	3	1	1	1	1	1	1	1	1	1	1	1	1	A	2	1	1	1.5	3.9
12-Apr	1	1	1	1	1	3	2	3	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1.2	2.7
13-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1.0	1.4
14-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	2	1	1	1	1	1.1	1.6
15-Apr	1	1	1	1	1	1	1	1	1	1	2	1	1	1	2	2	A	1	2	1	1	1	1	1	1.1	2.2
16-Apr	1	1	1	1	1	2	2	2	4	3	3	3	3	2	1	A	3	3	2	4	3	2	3	3	2.3	4.1
17-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.7	1.2
18-Apr	1	1	1	1	1	1	1	1	4	1	1	1	1	A	1	1	1	1	2	1	1	2	3	2	1.3	4.3
19-Apr	2	2	2	1	1	1	1	1	4	5	2	2	A	2	2	2	2	2	2	2	2	2	2	3	1.9	4.9
20-Apr	2	2	3	3	4	5	3	3	C	C	C	C	C	2	1	1	1	1	1	1	1	1	1	1	2.0	5.0
21-Apr	1	1	1	1	1	1	1	1	1	1	A	2	1	1	1	1	1	1	1	2	2	2	2	2	1.3	2.1
22-Apr	1	1	1	1	1	1	1	1	2	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.7
23-Apr	1	1	1	1	1	1	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.5
24-Apr	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	2	2	2	2	1	1	1	1	1.1	1.7
25-Apr	1	1	1	2	2	2	A	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	2.0
26-Apr	1	1	1	1	1	A	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1.5	2.5
27-Apr	1	2	2	2	A	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1.7	2.5
28-Apr	1	1	1	A	2	2	2	2	2	3	4	3	2	2	2	1	1	1	1	1	2	2	3	3	2.0	3.9
29-Apr	4	1	A	2	2	2	2	2	3	2	2	1	1	1	1	1	1	1	1	1	1	1	2	1	1.5	3.6
30-Apr	1	A	1	2	2	3	4	2	2	3	2	2	1	1	1	1	1	1	1	1	1	1	1	3	1.7	4.2
	1.4	1.3	1.3	1.6	1.3	1.5	1.6	1.8	2.1	1.9	1.6	1.4	1.2	1.2	1.1	1.1	1.1	1.2	1.2	1.3	1.3	1.3	1.5	1.6	Diurnal Average	
	3.6	3.0	3.4	4.7	3.5	5.0	4.2	4.2	5.9	4.9	3.9	3.4	3.3	2.9	2.4	1.9	2.8	3.0	2.1	4.1	2.5	2.7	3.8	4.9	Diurnal Maximum	

C - Calibration

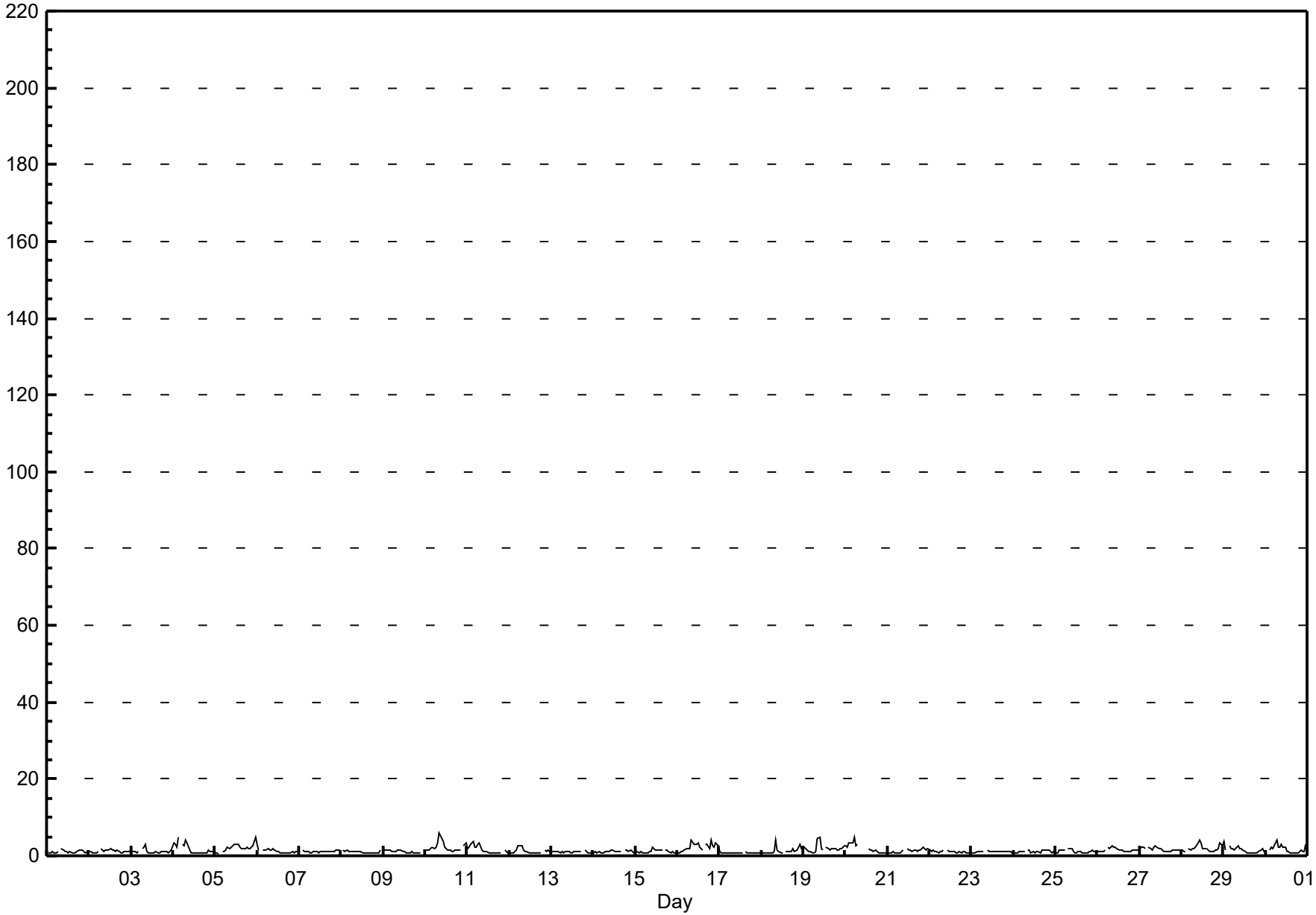
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Portable Rycroft - April 2017



Peace Airshed Zone Association

Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

Portable Rycroft - April 2017

Maximum Value: 41.6 ppb on Apr 20 06:00

Maximum Daily Average: 6.8 ppb on Apr 16

Minimum Value: 1 ppb on Apr 4 17:00

Minimum Daily Average: 1.3 ppb on Apr 8

Maximum Diurnal Average: 5.4 ppb at hour 9

Minimum Diurnal Average: 1.7 ppb at hour 16

Monthly Average: 2.48 ppb

Percentiles: $P_1 = 0.8$ $P_{10} = 1.0$ $Q_1 = 1.3$ Median = 1.8 $Q_3 = 2.6$ $P_{90} = 4.6$ $P_{99} = 16.3$

Hours in Service:	720
Hours of Data:	685
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	1	1	1	1	1	1	2	A	2	2	2	1	1	2	2	2	1	2	4	4	4	2	1	3	1.9	4.4
2-Apr	1	2	1	1	1	1	A	5	2	2	3	2	3	3	3	2	5	3	2	1	1	1	5	3	2.3	4.7
3-Apr	3	1	1	1	2	A	2	3	6	2	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1.7	5.9
4-Apr	10	17	4	6	A	4	4	5	5	2	1	1	1	1	1	1	1	1	1	2	2	2	1	2	3.1	16.6
5-Apr	1	1	1	A	1	2	6	6	4	5	9	3	3	3	3	3	2	2	2	2	2	3	5	16	3.7	16.2
6-Apr	6	2	A	2	2	2	2	2	2	3	2	2	1	1	1	1	1	1	2	1	1	1	1	1	1.8	6.3
7-Apr	2	A	2	1	1	1	1	1	2	5	3	1	1	1	1	1	1	1	6	2	1	2	2	2	1.9	6.3
8-Apr	A	2	1	1	1	1	1	2	1	1	2	1	1	1	1	2	1	1	1	1	1	1	2	A	1.3	2.2
9-Apr	3	2	2	2	2	1	1	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	A	2	1.5	2.5
10-Apr	2	2	2	5	4	2	3	6	16	6	5	3	2	2	2	1	2	3	3	2	2	A	3	8	3.7	16.4
11-Apr	2	2	9	6	3	4	5	7	5	1	2	1	1	1	2	1	1	1	1	2	A	3	4	1	2.9	9.0
12-Apr	2	1	1	1	4	6	3	4	2	1	2	1	2	1	1	2	2	1	1	A	2	1	2	1	1.9	5.5
13-Apr	1	1	1	1	1	1	1	1	1	2	2	1	1	2	2	2	2	2	A	2	1	1	1	1	1.4	2.3
14-Apr	2	2	1	2	1	1	1	1	2	2	3	2	2	2	3	4	3	A	2	3	3	5	3	1	2.2	4.7
15-Apr	1	2	3	2	1	1	1	1	2	3	7	3	2	2	2	3	A	2	3	2	1	1	1	1	2.0	7.1
16-Apr	1	1	1	1	1	15	2	2	32	4	8	13	7	4	10	A	17	7	3	7	5	3	5	5	6.8	32.0
17-Apr	2	1	1	1	1	1	2	2	1	2	1	1	2	2	A	2	2	2	2	2	1	1	1	1	1.5	2.3
18-Apr	3	1	1	1	1	2	2	2	10	6	4	2	2	A	2	1	1	2	3	3	2	3	11	2	3.0	11.1
19-Apr	3	2	2	1	1	1	1	3	22	17	3	4	A	3	2	2	3	2	2	2	2	2	2	5	3.9	21.9
20-Apr	4	3	5	5	4	42	3	5	C	C	C	C	C	3	3	3	3	4	3	2	1	1	1	1	5.0	41.6
21-Apr	1	1	1	1	1	1	1	1	8	7	A	5	3	3	2	2	2	2	2	2	2	2	2	3	2.4	7.7
22-Apr	3	2	2	2	1	2	1	3	3	A	2	1	2	1	1	1	1	2	2	2	2	1	1	1	1.7	3.4
23-Apr	1	1	1	1	1	1	1	1	A	2	1	1	1	1	1	2	1	2	2	1	2	2	2	1	1.4	2.2
24-Apr	2	1	1	1	1	3	3	A	2	3	1	1	1	2	1	1	3	2	2	2	2	1	1	2	1.8	3.5
25-Apr	1	1	2	2	2	2	A	2	3	4	1	1	1	1	1	1	1	1	1	1	2	2	2	1	1.6	3.5
26-Apr	1	1	1	1	2	A	5	2	3	3	4	2	2	2	2	1	2	1	2	1	2	2	2	2	1.9	4.8
27-Apr	2	5	3	2	A	3	2	2	2	3	3	2	2	2	2	1	1	2	1	5	2	2	2	2	2.3	5.2
28-Apr	2	1	1	A	2	2	2	2	3	4	4	4	3	3	3	2	2	3	2	3	5	5	5	5	3.0	5.1
29-Apr	6	2	A	3	2	2	2	3	3	2	2	2	1	1	1	1	1	1	1	1	1	2	3	2	2.0	5.8
30-Apr	1	A	2	10	3	8	8	4	3	5	3	5	3	2	2	1	1	1	1	2	5	1	2	4	3.3	10.1
	2.4	2.2	2.0	2.4	1.8	4.0	2.5	2.8	5.4	3.6	3.0	2.4	1.9	1.8	2.0	1.7	2.3	1.9	2.0	2.2	2.0	1.9	2.5	2.8	Diurnal Average	
	10.1	16.6	9.0	10.1	4.2	41.6	7.6	6.6	32.0	17.1	9.5	12.7	7.1	3.8	10.2	3.6	17.0	7.1	6.3	7.5	5.4	4.7	11.1	16.2	Diurnal Maximum	

C - Calibration

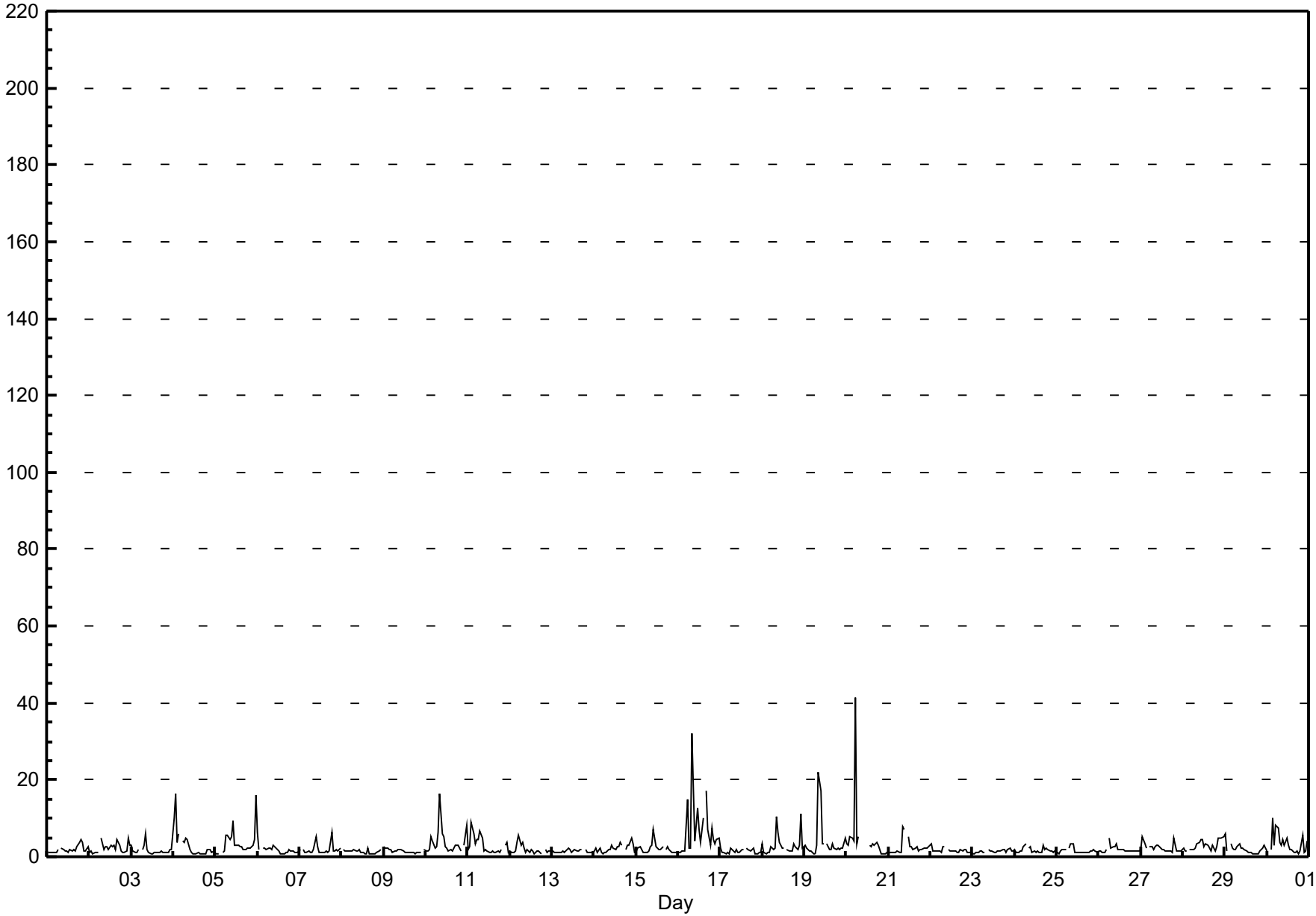
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

Portable Rycroft - April 2017

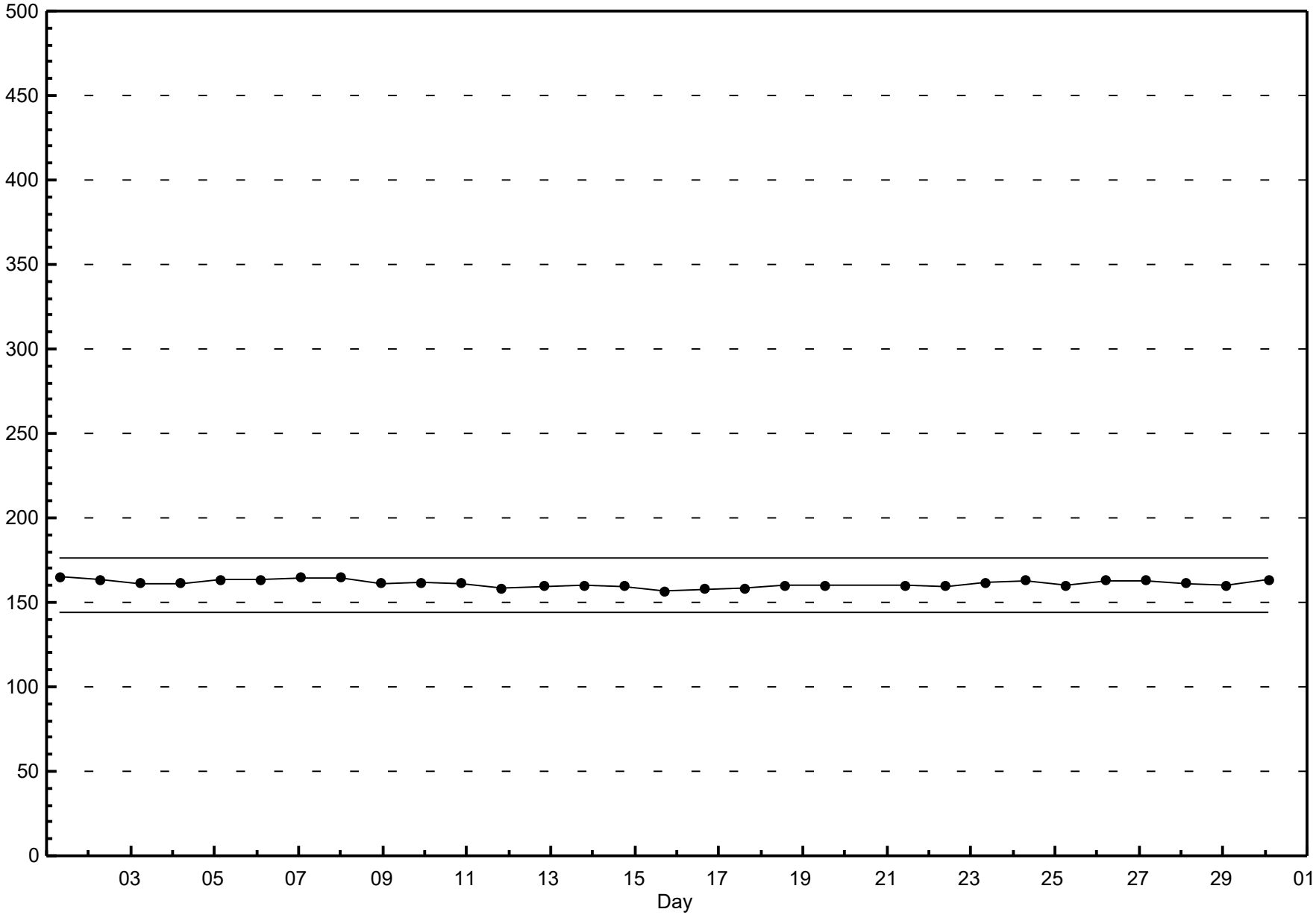


Peace Airshed Zone Association

Span Responses

Oxides of Nitrogen (NO_X)

Portable Rycroft - April 2017



Peace Airshed Zone Association

Hourly Averages

Ozone (O_3) - ppb

Portable Rycroft - April 2017

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 59.8 ppb on Apr 12 18:00 Maximum Daily Average: 45.6 ppb on Apr 6

Minimum Value: 14 ppb on Apr 11 03:00 Minimum Daily Average: 27.3 ppb on Apr 11
Maximum Diurnal Average: 44.6 ppb at hour 15 Minimum Diurnal Average: 30.9 ppb at hour 8
Monthly Average: 37.46 ppb Percentiles: P_1 = 17.7 P_{10} = 27.1 Q_1 = 32.3 Median = 38.3 Q_3 = 42.5 P_{90} = 47.2 P_{99} = 54.2

Hours in Service:	720
Hours of Data:	677
Hours of Missing Data:	43
Hours of Calibration:	37
Percent Operational Time:	99.2

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	39	37	37	35	34	36	33	A	35	36	41	42	47	50	52	51	49	46	44	40	37	38	37	36	40.5	52.1
2-Apr	35	35	35	34	34	34	A	36	39	41	42	44	45	46	48	49	49	49	44	38	33	29	39	29	39.5	49.5
3-Apr	27	32	40	39	37	A	39	36	36	39	44	47	48	47	48	49	49	49	50	50	47	44	33	32	41.9	50.1
4-Apr	37	36	34	26	A	27	29	27	31	45	49	49	51	53	55	54	54	53	51	48	42	41	41	40	42.3	54.6
5-Apr	43	44	42	A	38	38	29	29	30	30	34	39	40	41	42	43	43	41	40	40	33	33	26	34	37.2	43.8
6-Apr	40	39	A	39	35	34	36	35	37	45	50	52	53	54	54	53	54	53	52	49	48	48	45	44	45.6	54.2
7-Apr	43	A	41	40	39	37	35	35	34	36	42	42	42	44	43	45	47	48	47	43	44	43	39	37	41.2	47.5
8-Apr	A	43	40	40	38	37	37	33	35	38	40	42	43	45	47	49	49	50	46	43	44	36	29	A	41.2	50.2
9-Apr	25	27	25	24	24	26	26	25	24	25	31	37	39	44	45	47	48	49	48	47	46	40	A	30	34.8	48.5
10-Apr	28	28	28	22	19	20	18	14	19	31	30	37	40	45	43	43	42	37	34	31	32	A	19	17	29.5	45.3
11-Apr	18	15	14	16	19	20	20	21	24	25	26	27	30	34	37	40	40	41	38	36	A	30	29	29	27.3	40.6
12-Apr	26	25	26	24	24	22	24	25	30	34	38	42	44	47	50	54	59	60	59	A	51	45	46	48	39.3	59.8
13-Apr	48	49	49	47	45	41	38	39	40	40	41	42	42	43	42	41	42	42	A	42	43	43	43	42	42.8	49.1
14-Apr	42	42	41	40	39	39	39	39	41	42	42	41	42	42	42	42	42	A	40	38	38	37	36	36	40.0	42.1
15-Apr	36	37	39	40	40	41	42	41	41	43	44	47	48	50	52	50	A	48	48	46	43	41	43	42	43.6	52.4
16-Apr	40	39	36	34	33	32	31	28	28	28	31	33	37	45	48	A	48	48	50	43	46	43	42	40	38.5	50.0
17-Apr	39	36	39	39	39	39	39	39	40	40	41	41	42	42	A	41	40	39	38	37	36	36	36	37	39.0	42.4
18-Apr	38	39	39	39	39	38	39	39	38	39	39	39	40	A	40	41	41	42	40	40	39	38	37	36	39.2	41.6
19-Apr	34	32	33	34	35	37	36	34	33	32	35	37	A	40	41	42	43	42	42	40	37	35	33	30	36.4	42.7
20-Apr	31	30	27	27	27	26	26	30	35	39	43	A	M	M	M	M	M	M	28	30	32	32	32	32	--	43.3
21-Apr	32	32	33	32	31	30	30	30	C	C	C	C	C	C	C	31	33	33	34	33	31	31	31	30	--	33.6
22-Apr	30	30	30	32	33	34	35	34	32	A	37	39	40	41	41	41	41	41	41	41	41	41	39	37	37.0	41.5
23-Apr	35	34	34	36	36	35	35	35	A	36	36	38	38	38	37	37	36	35	35	34	33	32	32	32	35.2	38.3
24-Apr	33	33	33	32	32	32	32	A	34	35	36	36	38	39	39	40	39	39	38	37	37	35	33	30	35.2	39.9
25-Apr	33	30	28	26	28	30	A	27	29	33	40	43	43	44	43	43	43	42	41	38	38	37	35	28	35.7	43.6
26-Apr	28	30	30	28	22	A	20	21	23	25	27	31	34	36	38	40	41	42	41	39	34	30	27	24	30.9	41.6
27-Apr	24	20	20	19	A	19	15	18	21	24	28	33	38	41	44	44	44	44	45	43	41	38	38	38	32.1	44.7
28-Apr	39	38	31	A	29	30	31	29	27	26	29	40	45	44	45	46	45	45	44	41	36	35	27	31	36.2	45.5
29-Apr	27	28	A	28	27	28	29	31	35	39	40	43	43	45	45	45	45	46	46	45	40	39	34	37	37.7	46.1
30-Apr	36	A	38	27	27	25	30	35	38	39	41	45	47	48	44	43	44	44	45	43	39	35	37	30	38.3	47.5
	34.0	33.6	33.6	32.1	32.3	31.7	31.2	30.9	32.4	35.2	37.8	40.3	42.2	44.0	44.6	44.5	44.6	44.5	43.1	40.6	39.4	37.4	35.2	34.1	Diurnal Average	
	48.3	49.1	48.9	47.1	45.4	41.3	41.7	41.3	41.2	45.0	49.8	52.1	53.3	54.2	54.6	54.3	59.1	59.8	59.1	49.9	51.4	48.1	46.0	48.0	Diurnal Maximum	

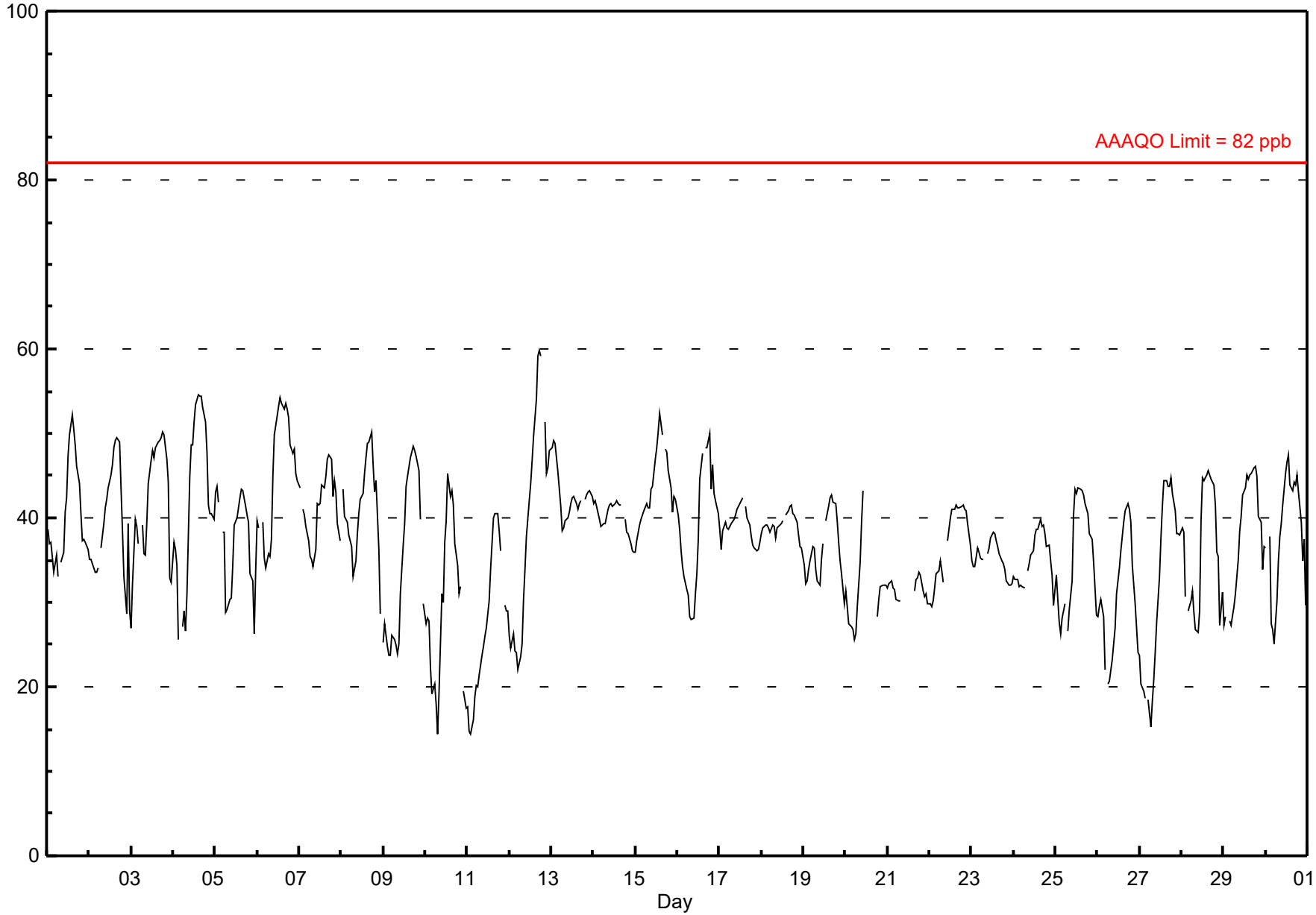
C - Calibration M - Maintenance A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82 ppb 24-hr na

Peace Airshed Zone Association

Hourly Averages

Ozone (O_3) - ppb

Portable Rycroft - April 2017



Peace Airshed Zone Association

Hourly Maximums

Ozone (O_3) - ppb

Portable Rycroft - April 2017

Maximum Value: 61.0 ppb on Apr 12 17:00

Maximum Daily Average: 47.7 ppb on Apr 6

Minimum Value: 17 ppb on Apr 11 02:00

Minimum Daily Average: 29.5 ppb on Apr 11

Maximum Diurnal Average: 46.1 ppb at hour 15

Minimum Diurnal Average: 32.6 ppb at hour 8

Monthly Average: 39.31 ppb

Percentiles: P_1 = 20.0 P_{10} = 29.3 Q_1 = 34.2 Median = 39.8 Q_3 = 43.9 P_{90} = 48.9 P_{99} = 55.6

Hours in Service:	720
Hours of Data:	677
Hours of Missing Data:	43
Hours of Calibration:	37
Percent Operational Time:	99.2

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	40	38	39	38	37	37	34	A	37	37	43	46	50	51	54	53	51	47	47	43	39	40	39	37	42.4	54.4
2-Apr	36	37	36	34	35	35	A	38	42	42	44	45	46	49	50	50	51	51	49	45	36	33	44	32	41.8	51.2
3-Apr	29	34	42	41	42	A	42	39	38	42	47	48	49	48	49	50	50	51	51	51	50	46	40	37	44.2	51.3
4-Apr	39	39	38	44	A	31	34	30	45	47	50	50	53	55	56	56	56	54	54	50	43	41	42	43	45.7	56.2
5-Apr	44	45	43	A	43	42	32	31	32	32	39	41	41	42	43	44	44	43	41	41	39	35	30	42	39.6	44.8
6-Apr	42	42	A	42	40	37	38	37	40	50	52	53	54	55	56	54	55	54	54	50	49	49	48	46	47.7	55.6
7-Apr	46	A	42	43	40	40	38	37	37	42	44	44	44	45	45	47	48	49	49	45	46	46	40	39	43.3	49.5
8-Apr	A	45	43	41	40	39	39	34	37	39	43	43	44	47	49	50	50	52	51	44	45	43	30	A	43.1	51.8
9-Apr	30	31	27	26	25	27	26	26	25	28	35	38	43	46	47	48	49	49	49	48	48	43	A	32	36.9	49.5
10-Apr	31	30	29	28	22	23	20	18	24	36	38	41	43	46	47	47	46	44	39	35	34	A	26	20	33.3	46.8
11-Apr	20	17	17	20	21	23	23	25	27	27	27	29	33	36	40	42	41	41	40	39	A	32	30	30	29.5	41.6
12-Apr	28	26	28	27	27	26	27	27	34	36	41	43	46	49	52	58	61	61	61	A	55	48	48	49	41.6	61.0
13-Apr	49	50	50	48	47	44	39	40	40	41	42	42	43	43	43	42	42	42	A	43	43	43	44	43	43.6	50.3
14-Apr	42	42	42	41	39	40	40	40	42	42	42	42	42	42	42	42	42	A	41	39	39	38	37	36	40.8	42.5
15-Apr	37	38	40	41	41	41	43	43	43	45	45	48	50	52	54	54	A	51	49	47	46	43	43	43	45.1	54.4
16-Apr	41	40	38	36	34	33	32	29	30	30	33	35	40	49	49	A	50	51	51	48	48	46	44	42	40.4	51.1
17-Apr	42	38	40	40	39	39	40	40	40	41	42	42	42	43	A	42	41	40	39	37	37	37	38	38	39.8	42.8
18-Apr	39	39	40	40	39	39	40	40	39	39	39	40	40	A	41	42	42	42	41	41	40	39	38	38	39.9	42.2
19-Apr	36	34	34	36	36	37	37	36	35	34	37	37	A	41	42	43	44	43	42	41	38	37	36	32	37.8	43.8
20-Apr	33	32	31	29	28	29	28	32	39	42	45	A	M	M	M	M	M	M	29	32	32	33	32	33	--	45.2
21-Apr	32	33	33	32	32	31	31	31	C	C	C	C	C	C	C	33	34	34	34	34	32	31	32	31	--	34.5
22-Apr	30	30	31	33	34	35	36	35	34	A	38	40	41	42	42	42	42	42	42	42	42	41	40	38	37.9	42.2
23-Apr	35	35	37	37	37	36	35	36	A	37	37	38	39	39	38	37	37	36	35	35	33	33	33	33	36.0	39.0
24-Apr	34	33	33	32	32	32	32	A	35	36	36	37	39	40	40	41	40	40	39	39	39	38	35	33	36.4	41.4
25-Apr	35	33	29	28	30	31	A	28	32	39	43	45	44	45	44	44	44	43	42	40	39	39	40	30	37.8	45.4
26-Apr	30	31	32	32	26	A	21	22	24	26	29	33	36	37	39	41	42	43	42	41	39	32	29	26	32.8	42.8
27-Apr	25	24	21	20	A	20	18	19	23	25	30	39	40	44	46	46	45	45	45	46	43	39	40	40	33.9	45.8
28-Apr	40	39	37	A	31	32	32	31	28	29	32	43	46	46	46	46	46	45	45	44	40	37	33	33	38.4	46.3
29-Apr	29	29	A	29	29	32	32	34	37	40	41	44	45	46	46	46	46	47	47	47	44	40	40	43	39.8	47.4
30-Apr	41	A	41	37	30	28	34	36	40	41	43	48	48	49	45	45	45	45	47	46	42	38	41	32	41.0	49.4
	35.7	35.2	35.5	34.8	34.2	33.6	32.9	32.6	35.0	37.3	40.0	42.0	43.8	45.5	46.1	45.9	45.9	45.9	44.7	42.5	41.4	39.4	37.7	36.3	Diurnal Average	
	49.3	50.3	50.1	48.0	46.8	44.2	43.2	42.8	45.1	49.6	52.3	53.4	54.1	55.4	56.2	57.9	61.0	60.9	60.9	50.6	54.5	48.8	48.4	48.7	Diurnal Maximum	

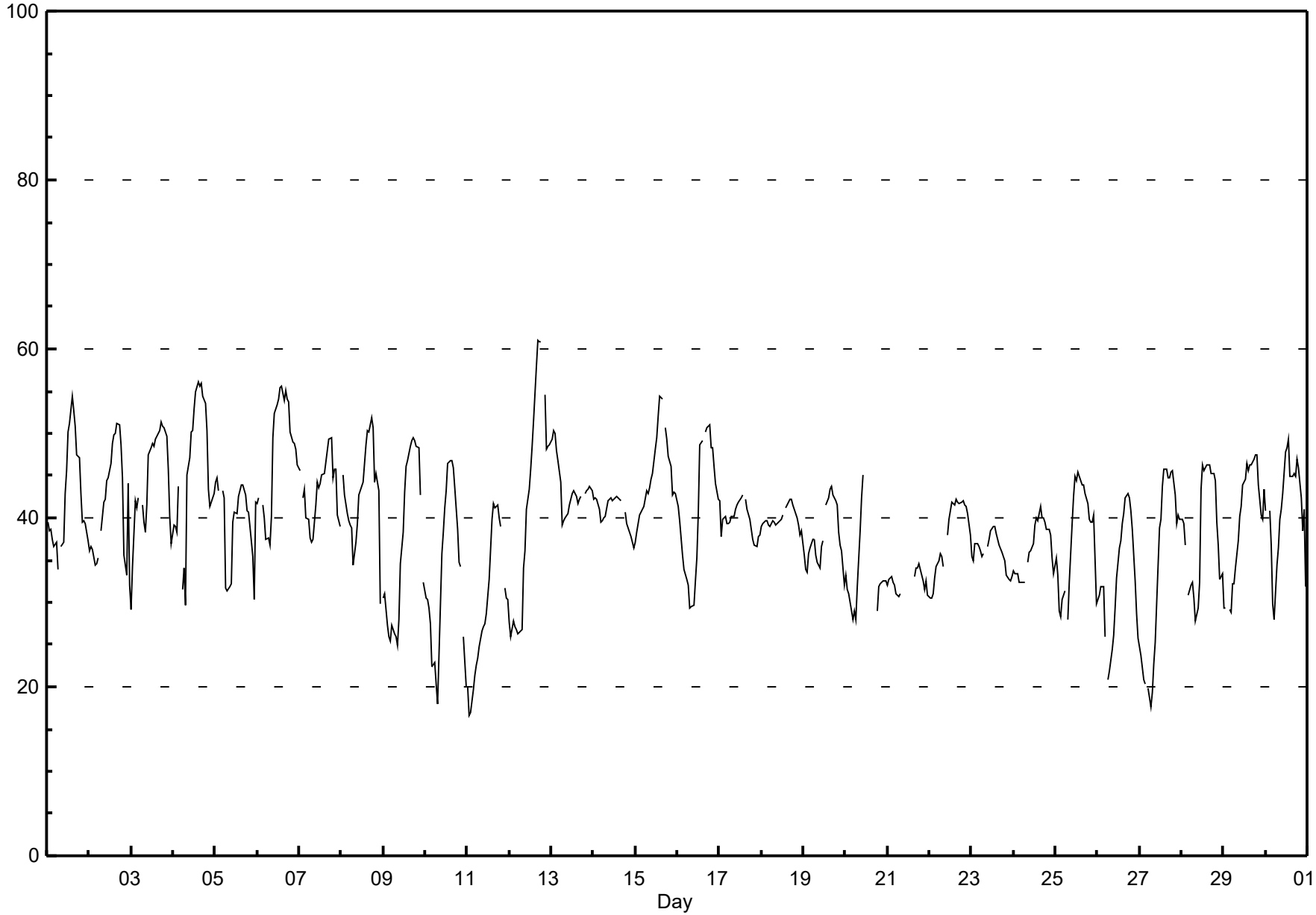
C - Calibration M - Maintenance A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Ozone (O_3) - ppb

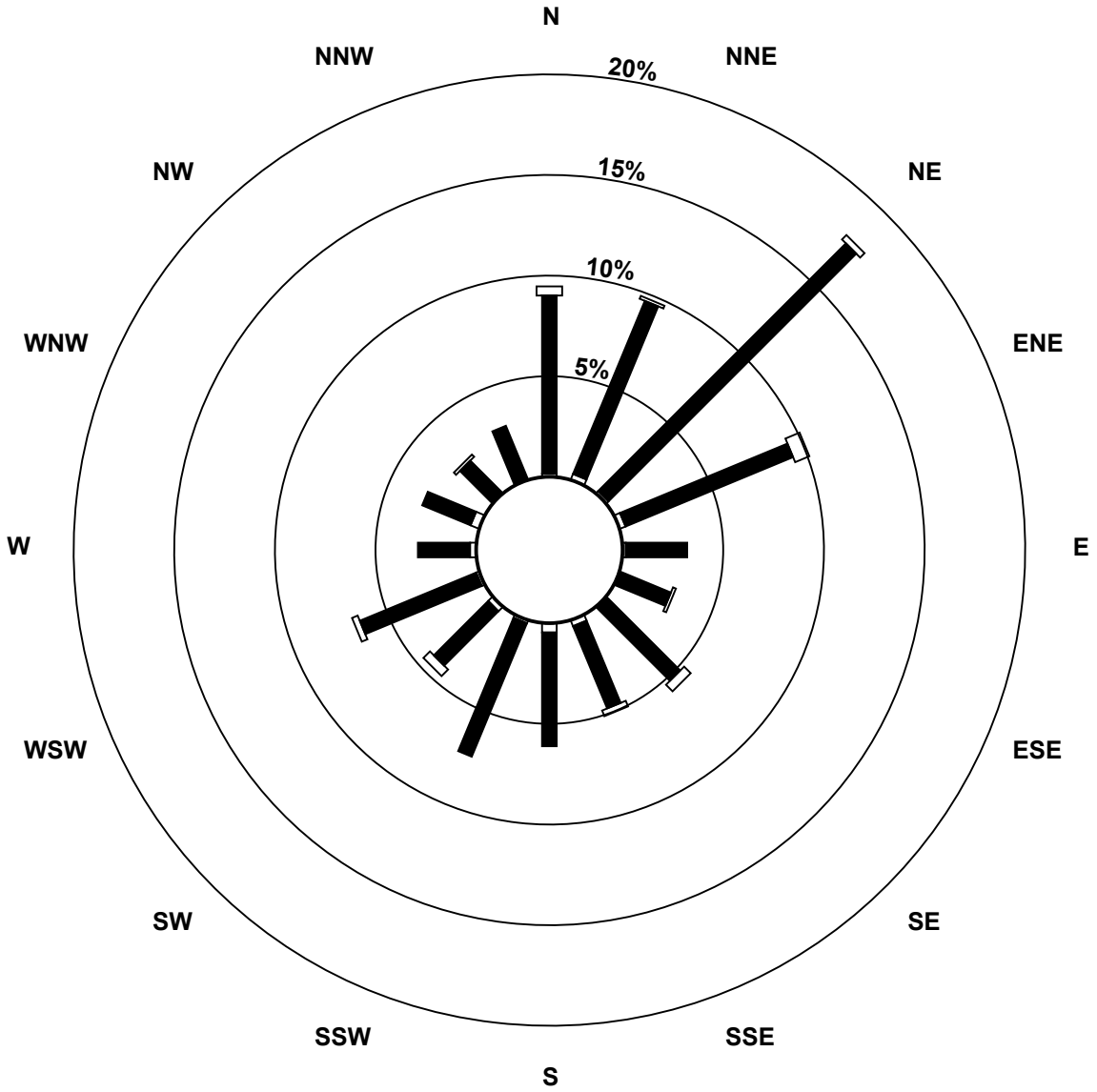
Portable Rycroft - April 2017



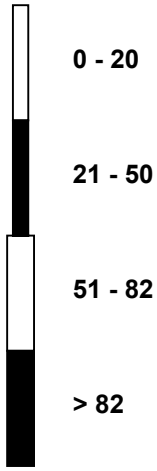
Pollutant Rose

Ozone (O_3) - ppb

Portable Rycroft - April 2017



Pollutant Classes (ppb)



Peace Airshed Zone Association

Eight Hour Running Averages

Ozone (O_3) - ppb

Portable Rycroft - April 2017

Maximum Value: 54.3 ppb on Apr 12 21:00

Minimum Value: 16.9 ppb on Apr 11 05:00

Percentiles: P_1 = 19.1 P_{10} = 28.8 Q_1 = 33.4 Median = 38.1 Q_3 = 41.5 P_{90} = 45.7 P_{99} = 52.6

Hours in Service:	720
Hours of Data:	700
Hours of Missing Data:	20
Hours of Calibration:	16
Percent Operational Time:	99.4

Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Apr	43	42	41	39	38	37	36	36	35	35	36	37	38	41	43	44	46	47	48	47	46	45	43	41	47.6
2-Apr	39	38	37	36	35	35	35	35	35	36	37	39	40	42	43	44	46	47	47	46	45	42	41	39	46.8
3-Apr	36	34	33	33	34	35	35	36	37	38	39	40	41	42	43	45	46	48	48	49	49	48	46	44	48.9
4-Apr	43	41	39	36	35	32	32	31	30	31	33	37	38	42	45	48	51	52	53	53	51	50	48	46	52.7
5-Apr	45	44	42	42	41	41	39	38	36	34	33	34	34	34	36	38	39	41	41	41	41	40	37	36	44.7
6-Apr	36	36	35	35	35	35	37	37	37	37	39	41	43	45	48	50	52	53	53	53	52	51	50	49	53.0
7-Apr	48	47	46	44	43	42	40	39	37	37	37	38	38	39	40	41	43	44	45	45	45	45	44	43	47.8
8-Apr	43	42	41	41	40	39	39	38	38	37	37	38	38	39	41	42	44	46	46	47	47	46	43	43	46.7
9-Apr	39	36	33	30	27	26	25	25	25	25	26	27	29	31	34	36	39	42	45	46	47	46	46	44	46.6
10-Apr	41	38	35	32	28	25	24	22	21	22	22	24	26	29	32	36	39	40	40	39	38	37	34	30	40.9
11-Apr	27	24	21	19	17	17	17	18	19	20	21	23	24	26	28	30	32	34	36	37	38	37	36	35	38.1
12-Apr	33	30	29	27	27	26	25	25	25	26	28	30	32	35	39	42	46	49	52	53	54	54	54	53	54.3
13-Apr	51	50	48	48	47	47	46	45	44	42	41	41	40	41	41	41	41	42	42	42	42	42	42	42	51.1
14-Apr	42	42	42	42	42	41	41	40	40	40	40	40	41	41	41	42	42	42	41	41	40	40	39	38	42.5
15-Apr	37	37	37	37	38	38	39	40	40	41	42	42	43	45	46	47	48	49	49	49	48	47	45	44	49.1
16-Apr	44	43	41	40	38	37	36	34	33	31	31	31	31	33	35	36	39	42	44	46	47	47	46	45	46.9
17-Apr	44	42	41	41	40	39	39	39	39	39	40	40	40	41	41	41	41	41	41	40	39	38	38	37	44.0
18-Apr	37	37	37	38	38	38	39	39	39	39	39	39	39	39	39	39	40	40	41	41	41	40	40	39	40.7
19-Apr	38	37	36	35	35	35	35	34	34	34	34	35	35	35	36	37	39	40	41	41	41	40	39	38	41.3
20-Apr	36	35	33	31	30	29	28	28	28	30	32	32	33	N	N	N	N	N	N	N	N	N	N	31	36.3
21-Apr	31	31	32	32	32	32	32	31	31	31	N	N	N	N	N	N	N	N	N	N	32	32	32	32	32.5
22-Apr	32	31	31	30	31	31	32	32	32	33	34	35	36	37	38	39	40	40	41	41	41	41	41	40	41.2
23-Apr	40	39	38	37	37	36	35	35	35	35	36	36	36	37	37	37	37	37	37	36	35	35	34	34	39.6
24-Apr	33	33	33	32	32	32	32	32	32	33	33	34	35	36	36	37	38	38	38	39	38	38	37	36	38.5
25-Apr	35	34	33	32	30	30	29	29	28	29	30	33	35	37	38	40	41	43	43	42	41	41	40	38	42.7
26-Apr	36	34	33	32	30	29	27	26	25	24	24	24	26	27	29	32	34	36	38	39	39	38	37	35	38.8
27-Apr	33	30	27	25	23	22	20	19	19	19	20	23	24	27	31	34	37	39	42	43	43	43	42	41	43.3
28-Apr	41	40	38	38	36	35	34	32	31	29	29	30	32	34	36	38	40	42	44	44	43	42	40	38	44.4
29-Apr	36	34	32	30	29	28	29	29	30	31	32	34	36	38	40	42	43	44	45	45	45	44	43	42	45.1
30-Apr	40	40	38	36	34	32	31	31	31	32	33	35	38	40	42	43	44	45	45	45	44	42	41	40	45.0
Diurnal Maximums	51.1	49.6	48.1	48.0	47.2	46.8	45.8	44.7	43.6	42.5	41.5	42.4	43.4	45.4	47.6	49.8	51.8	52.8	53.0	53.2	54.3	54.1	53.5	52.7	

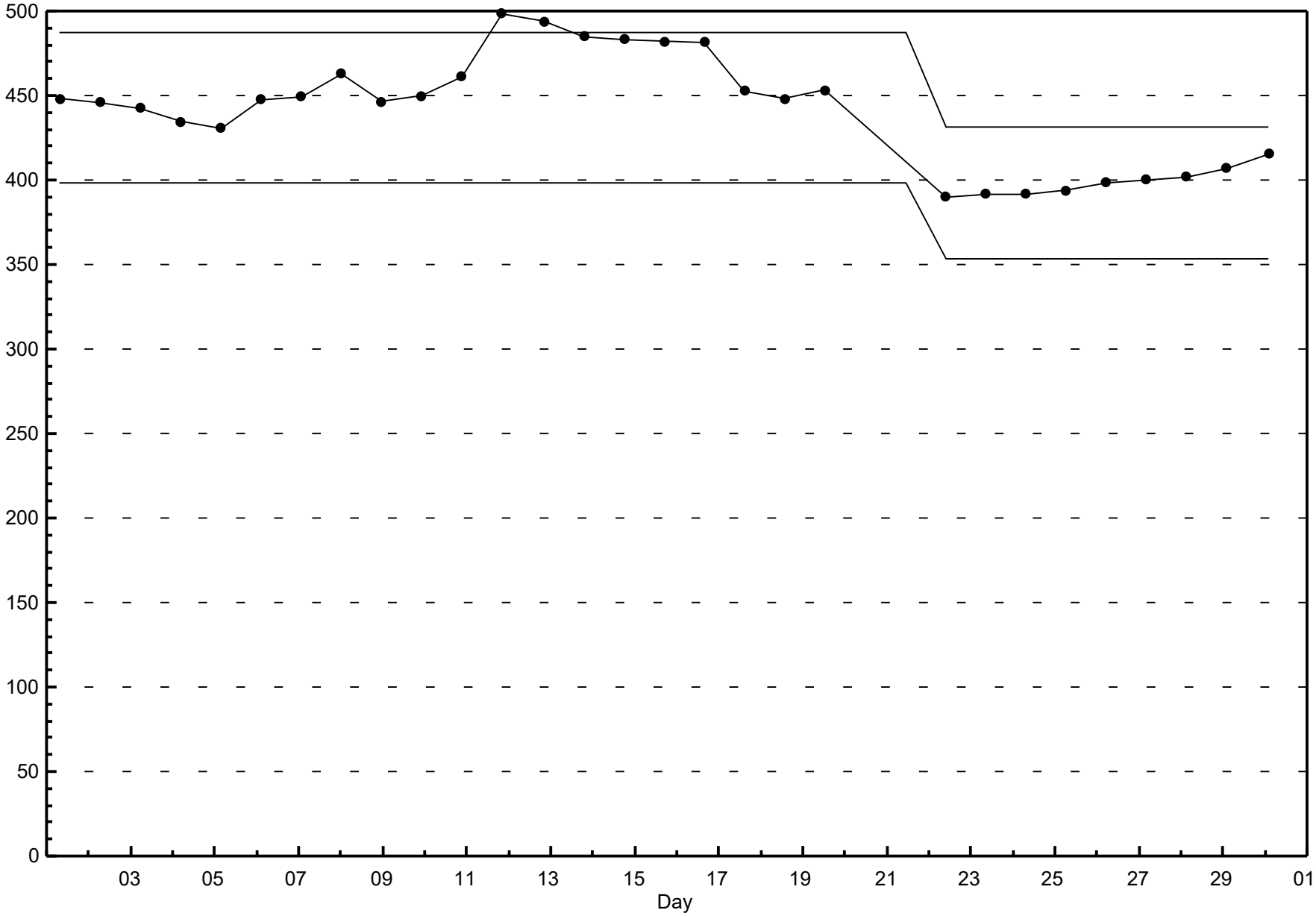
N - Not Valid

Peace Airshed Zone Association

Span Responses

Ozone (O_3)

Portable Rycroft - April 2017



Peace Airshed Zone Association

Hourly Averages

Total Hydrocarbons (THC) - ppm

Portable Rycroft - April 2017

Maximum Value: 1.95 ppm on Apr 20 05:00

Maximum Daily Average: 1.88 ppm on Apr 20

Minimum Value: 1.7 ppm on Apr 24 09:00

Minimum Daily Average: 1.78 ppm on Apr 17

Maximum Diurnal Average: 1.85 ppm at hour 15

Minimum Diurnal Average: 1.82 ppm at hour 2

Monthly Average: 1.833 ppm

Percentiles: P_1 = 1.77 P_{10} = 1.78 Q_1 = 1.81 Median = 1.84 Q_3 = 1.86 P_{90} = 1.87 P_{99} = 1.91

Hours in Service:	720
Hours of Data:	685
Hours of Missing Data:	35
Hours of Calibration:	33
Percent Operational Time:	99.7

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.8	1.8	1.83	1.85
2-Apr	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.8	1.8	1.8	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.84	1.86
3-Apr	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.85	1.88
4-Apr	1.9	1.8	1.9	1.9	A	1.9	1.8	1.8	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	1.8	1.8	1.8	1.85	1.86
5-Apr	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	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	1.84	1.88
6-Apr	1.9	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.84	1.86
7-Apr	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.82	1.84
8-Apr	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.83	1.84
9-Apr	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.84	1.85
10-Apr	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.9	1.8	A	1.9	1.9	1.85	1.89
11-Apr	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.9	M	M	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.8	1.8	1.86	1.92
12-Apr	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.8	1.8	1.9	1.9	A	1.9	1.9	1.9	1.8	1.84	1.87
13-Apr	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.79	1.83
14-Apr	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.79	1.81
15-Apr	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8	A	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.82	1.85
16-Apr	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.8	A	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.9	1.84	1.89
17-Apr	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.78	1.83
18-Apr	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.80	1.85
19-Apr	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.83	1.88
20-Apr	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.88	1.95
21-Apr	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	C	C	C	1.9	1.9	1.9	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.86	1.89
22-Apr	1.9	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.84	1.86
23-Apr	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.81	1.85
24-Apr	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.7	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.8	1.8	1.81	1.85
25-Apr	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.9	1.8	1.8	1.8	1.83	1.86
26-Apr	1.8	1.8	1.8	1.8	1.8	A	1.8	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	1.8	1.8	1.85	1.87
27-Apr	1.8	1.8	1.8	1.8	A	1.8	1.8	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	1.9	1.9	1.85	1.88
28-Apr	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	1.8	1.9	1.9	1.9	1.9	1.87	1.91
29-Apr	1.9	1.9	A	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.84	1.87
30-Apr	1.8	A	1.8	1.8	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.83	1.89
	1.82	1.82	1.82	1.83	1.82	1.82	1.82	1.82	1.82	1.83	1.83	1.84	1.84	1.85	1.85	1.84	1.84	1.85	1.85	1.84	1.84	1.84	1.83	1.83	Diurnal Average	
	1.87	1.87	1.90	1.95	1.95	1.94	1.91	1.89	1.89	1.91	1.91	1.88	1.89	1.88	1.87	1.87	1.88	1.88	1.88	1.89	1.89	1.88	1.88	1.88	Diurnal Maximum	

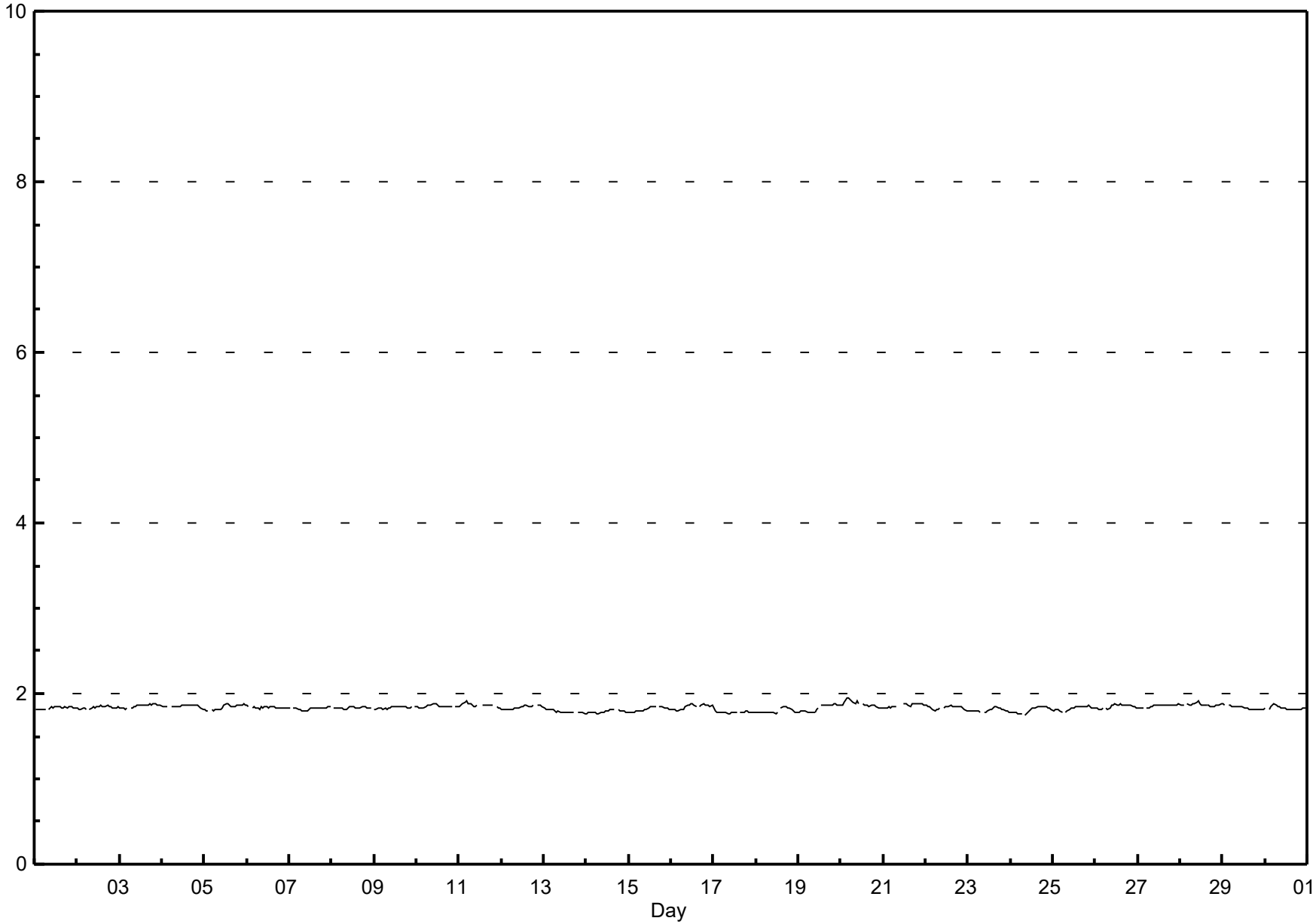
C - Calibration M - Maintenance A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Total Hydrocarbons (THC) - ppm

Portable Rycroft - April 2017



Peace Airshed Zone Association

Hourly Maximums

Total Hydrocarbons (THC) - ppm

Portable Rycroft - April 2017

Maximum Value: 2.00 ppm on Apr 20 04:00

Maximum Daily Average: 1.90 ppm on Apr 20

Minimum Value: 1.8 ppm on Apr 14 07:00

Minimum Daily Average: 1.80 ppm on Apr 17

Maximum Diurnal Average: 1.86 ppm at hour 19

Minimum Diurnal Average: 1.84 ppm at hour 2

Monthly Average: 1.850 ppm

Percentiles: P_1 = 1.78 P_{10} = 1.81 Q_1 = 1.83 Median = 1.85 Q_3 = 1.87 P_{90} = 1.88 P_{99} = 1.94

Hours in Service:	720
Hours of Data:	685
Hours of Missing Data:	35
Hours of Calibration:	33
Percent Operational Time:	99.7

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.85	1.88
2-Apr	1.8	1.8	1.8	1.8	1.8	1.8	A	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	1.8	1.8	1.9	1.85	1.88
3-Apr	1.8	1.9	1.8	1.8	1.8	A	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	1.9	1.87	1.89
4-Apr	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	1.8	1.8	1.87	1.89
5-Apr	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	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	1.85	1.89
6-Apr	1.9	1.9	A	1.8	1.8	1.9	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.85	1.88
7-Apr	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.83	1.86
8-Apr	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.8	1.9	1.8	A	1.85	1.87
9-Apr	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.8	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.9	A	1.9	1.85	1.87
10-Apr	1.9	1.8	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	1.9	1.9	A	1.9	1.9	1.87	1.90
11-Apr	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	M	M	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.8	1.88	1.95
12-Apr	1.8	1.8	1.9	1.8	1.8	1.8	1.8	1.9	1.8	1.9	1.8	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	1.86	1.88
13-Apr	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.82	1.86
14-Apr	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.81	1.83
15-Apr	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.83	1.87
16-Apr	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	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	1.86	1.94
17-Apr	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.80	1.86
18-Apr	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.81	1.87
19-Apr	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.86	1.99
20-Apr	1.9	1.9	1.9	2.0	2.0	2.0	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	1.8	1.8	1.90	2.00
21-Apr	1.8	1.9	1.8	1.8	1.9	1.9	1.9	1.8	C	C	C	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.88	1.90
22-Apr	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	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	1.8	1.8	1.8	1.85	1.88
23-Apr	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.82	1.86
24-Apr	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.83	1.86
25-Apr	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.9	1.84	1.87
26-Apr	1.8	1.8	1.8	1.8	1.8	A	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	1.9	1.86	1.89
27-Apr	1.8	1.8	1.8	1.8	A	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	1.9	1.9	1.9	1.87	1.89
28-Apr	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	1.93
29-Apr	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.85	1.89
30-Apr	1.8	A	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.85	1.93
	1.84	1.84	1.84	1.85	1.84	1.84	1.84	1.84	1.84	1.85	1.85	1.85	1.86	1.86	1.86	1.85	1.86	1.86	1.86	1.86	1.86	1.86	1.85	1.85	Diurnal Average	
	1.89	1.90	1.95	2.00	1.98	1.98	1.93	1.94	1.91	1.93	1.94	1.91	1.90	1.89	1.89	1.89	1.89	1.89	1.94	1.90	1.90	1.99	1.94	1.91	Diurnal Maximum	

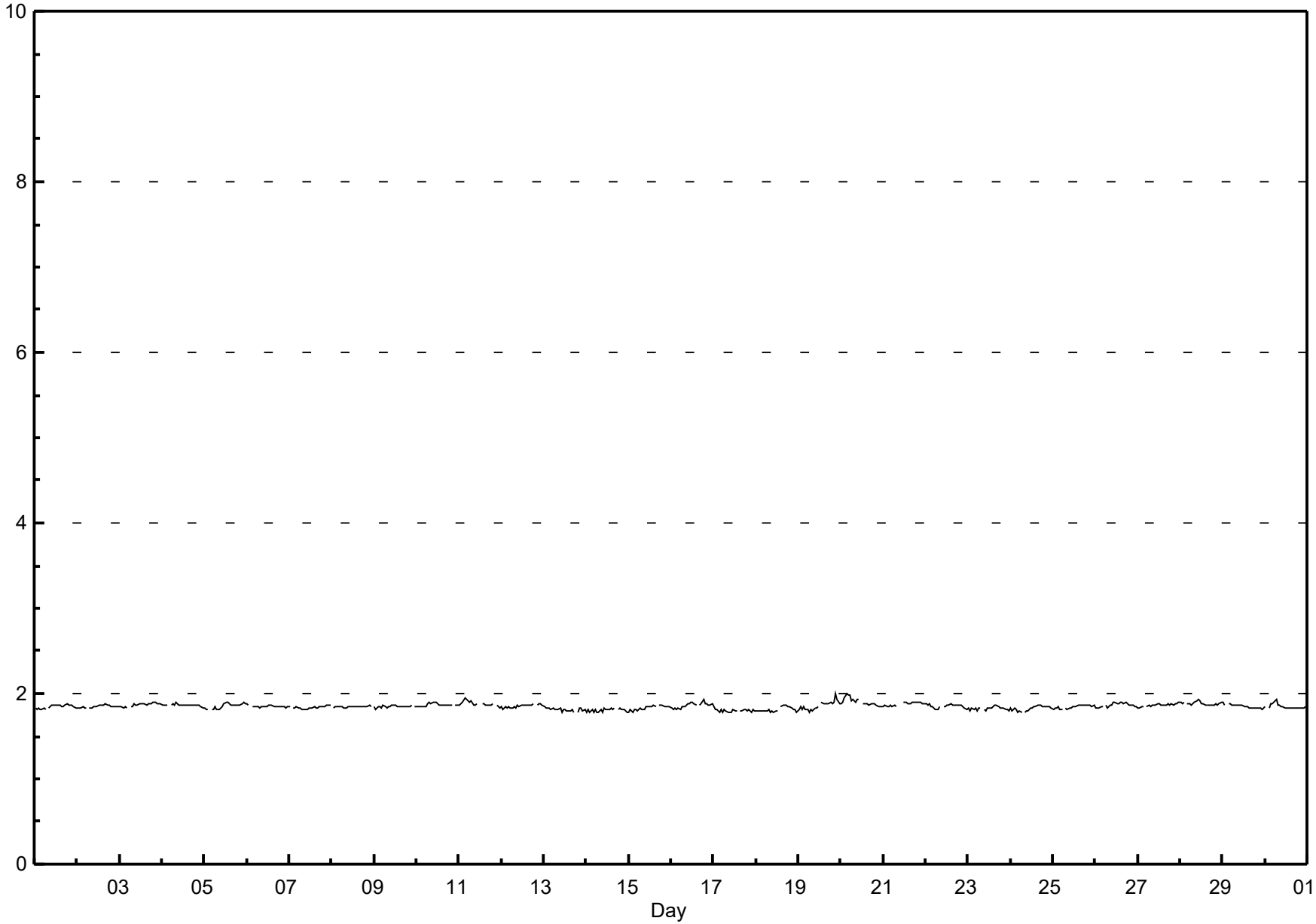
C - Calibration M - Maintenance A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Total Hydrocarbons (THC) - ppm

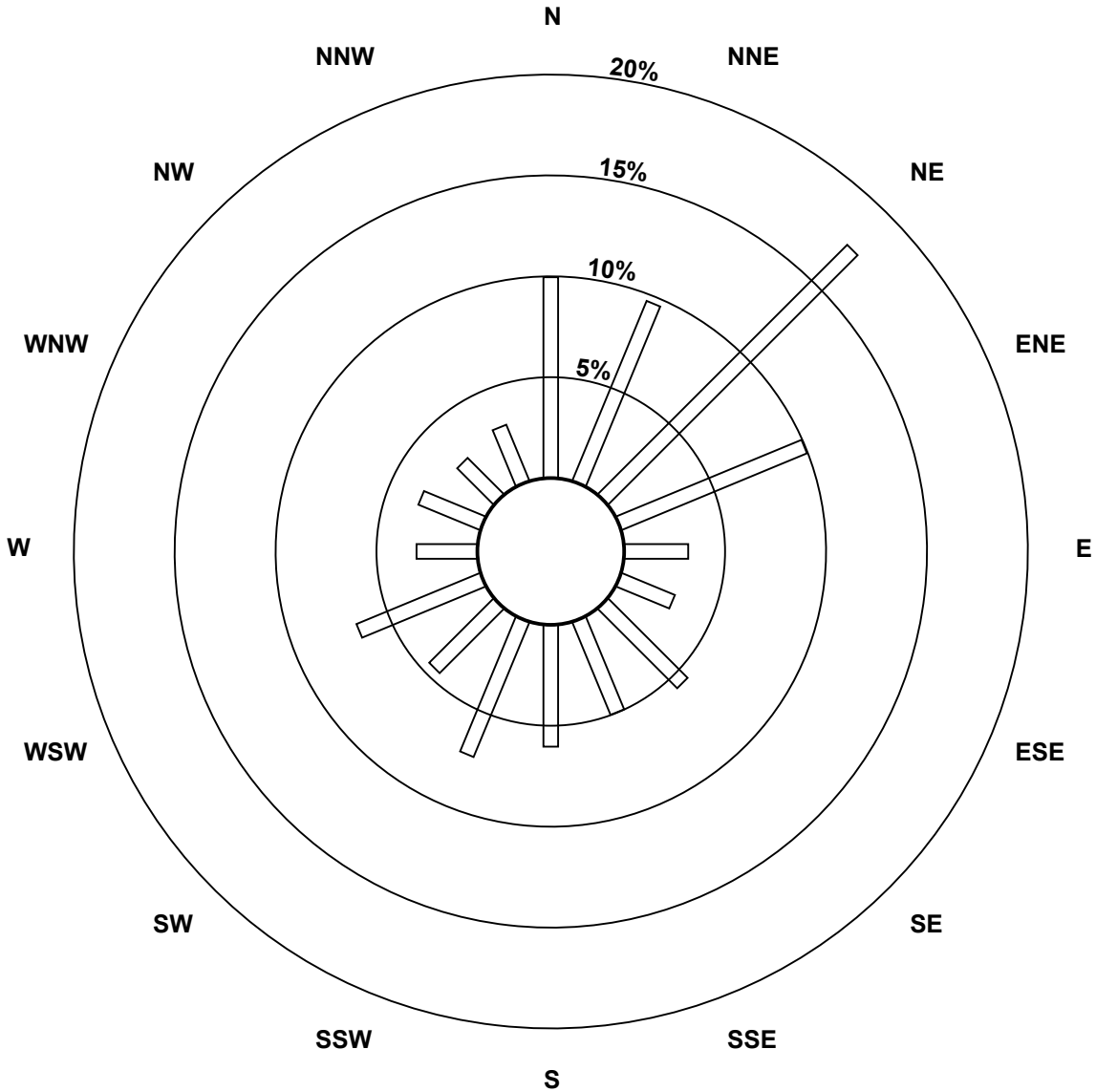
Portable Rycroft - April 2017



Pollutant Rose

Total Hydrocarbons (THC) - ppm

Portable Rycroft - April 2017



Pollutant Classes (ppm)

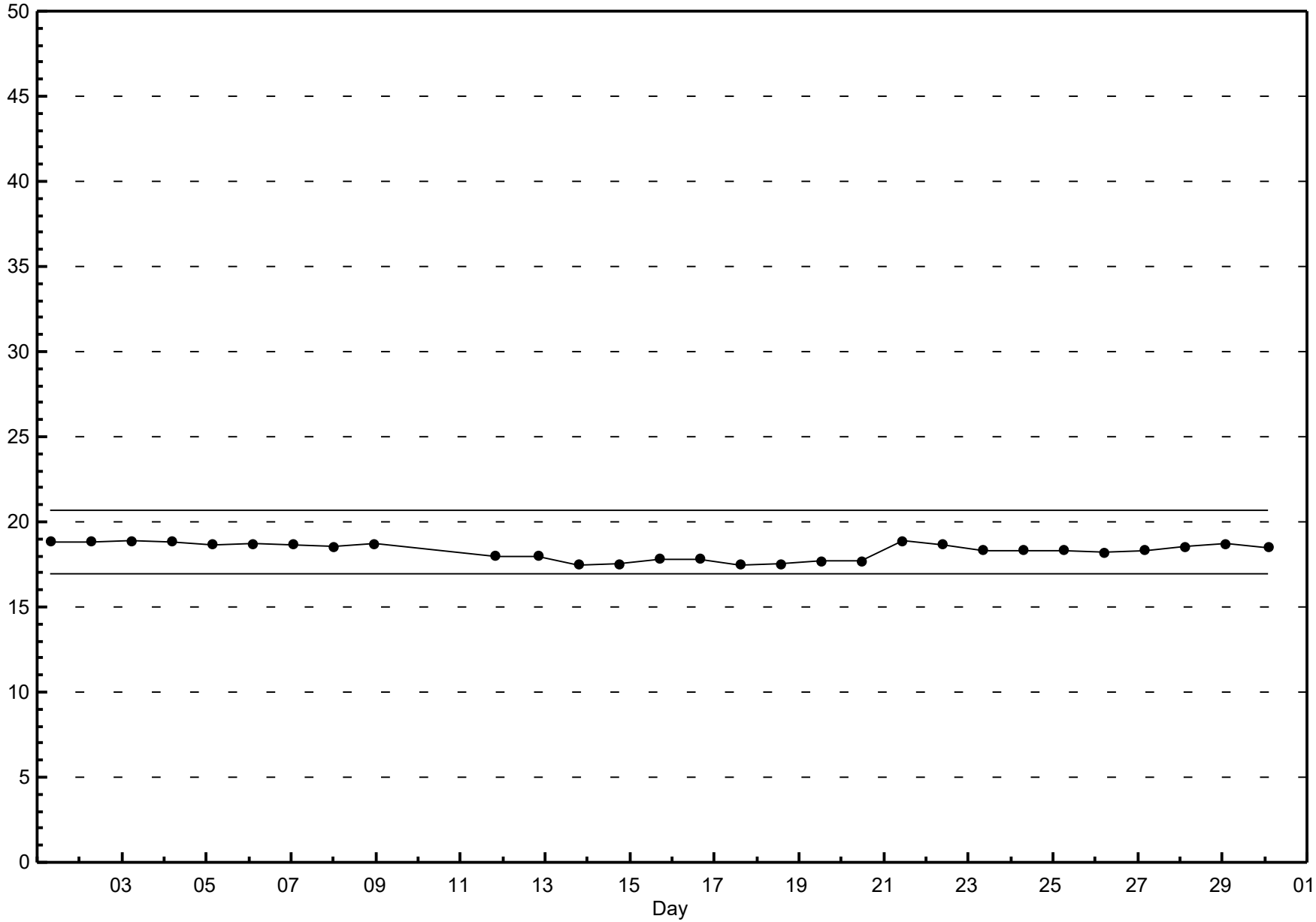
- 1.5 - 2.0
- 2.1 - 3.0
- 3.1 - 10.0
- > 10.0

Peace Airshed Zone Association

Span Responses

Total Hydrocarbons (THC)

Portable Rycroft - April 2017



Peace Airshed Zone Association

Hourly Averages

Methane (CH_4) - ppm

Portable Rycroft - April 2017

Maximum Value: 1.94 ppm on Apr 20 05:00

Maximum Daily Average: 1.87 ppm on Apr 20

Minimum Value: 1.7 ppm on Apr 24 09:00

Minimum Daily Average: 1.78 ppm on Apr 17

Maximum Diurnal Average: 1.84 ppm at hour 15

Minimum Diurnal Average: 1.81 ppm at hour 2

Monthly Average: 1.826 ppm

Percentiles: P_1 = 1.76 P_{10} = 1.78 Q_1 = 1.81 Median = 1.83 Q_3 = 1.85 P_{90} = 1.86 P_{99} = 1.90

Hours in Service:	720
Hours of Data:	685
Hours of Missing Data:	35
Hours of Calibration:	33
Percent Operational Time:	99.7

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.82	1.84
2-Apr	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.83	1.85
3-Apr	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	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	1.9	1.85	1.87
4-Apr	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	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	1.84	1.86
5-Apr	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.9	1.9	1.8	1.9	1.9	1.9	1.83	1.88
6-Apr	1.9	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.83	1.86
7-Apr	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.82	1.84
8-Apr	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.83	1.84
9-Apr	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.83	1.84
10-Apr	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.85	1.88
11-Apr	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.9	M	M	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.8	1.8	1.8	1.86	1.91
12-Apr	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.8	1.8	1.9	A	1.9	1.9	1.9	1.8	1.83	1.86
13-Apr	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.78	1.83
14-Apr	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.78	1.80
15-Apr	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.81	1.85
16-Apr	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.8	A	1.8	1.9	1.9	1.9	1.9	1.9	1.8	1.9	1.84	1.88
17-Apr	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.78	1.82
18-Apr	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.79	1.84
19-Apr	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.82	1.88
20-Apr	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	1.8	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.87	1.94
21-Apr	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	C	C	C	1.9	1.9	1.9	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.85	1.88
22-Apr	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.83	1.85
23-Apr	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.80	1.84
24-Apr	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.7	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.80	1.84
25-Apr	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.82	1.85
26-Apr	1.8	1.8	1.8	1.8	1.8	A	1.8	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	1.8	1.8	1.8	1.84	1.87
27-Apr	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.8	1.9	1.9	1.9	1.9	1.8	1.9	1.9	1.9	1.9	1.85	1.87
28-Apr	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	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.86	1.91
29-Apr	1.9	1.9	A	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.83	1.87
30-Apr	1.8	A	1.8	1.8	1.8	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.82	1.88
	1.82	1.81	1.81	1.82	1.82	1.82	1.82	1.81	1.82	1.82	1.83	1.83	1.83	1.84	1.84	1.83	1.83	1.84	1.84	1.84	1.83	1.83	1.83	1.82	Diurnal Average	
	1.87	1.87	1.90	1.94	1.94	1.93	1.90	1.89	1.88	1.90	1.91	1.88	1.88	1.88	1.87	1.86	1.87	1.87	1.88	1.88	1.88	1.88	1.87	1.87	Diurnal Maximum	

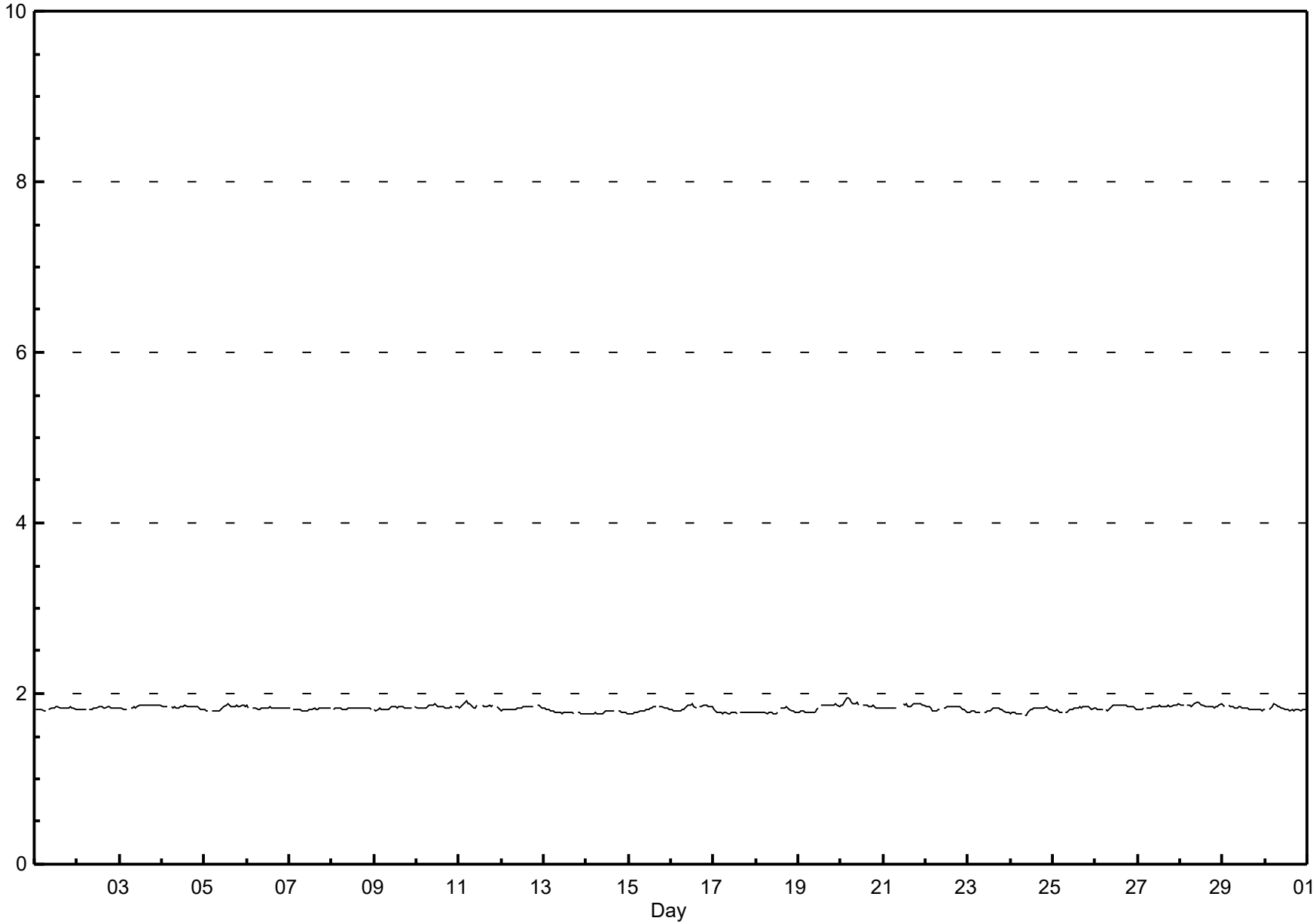
C - Calibration M - Maintenance A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Methane (CH_4) - ppm

Portable Rycroft - April 2017



Peace Airshed Zone Association

Hourly Maximums

Methane (CH_4) - ppm

Portable Rycroft - April 2017

Maximum Value: 1.99 ppm on Apr 20 04:00

Maximum Daily Average: 1.90 ppm on Apr 20

Minimum Value: 1.8 ppm on Apr 24 09:00

Minimum Daily Average: 1.80 ppm on Apr 17

Maximum Diurnal Average: 1.85 ppm at hour 19

Minimum Diurnal Average: 1.83 ppm at hour 2

Monthly Average: 1.843 ppm

Percentiles: P_1 = 1.77 P_{10} = 1.80 Q_1 = 1.82 Median = 1.85 Q_3 = 1.86 P_{90} = 1.88 P_{99} = 1.93

Hours in Service:	720
Hours of Data:	685
Hours of Missing Data:	35
Hours of Calibration:	33
Percent Operational Time:	99.7

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.8	1.8	1.84	1.87
2-Apr	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.9	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.9	1.84	1.87
3-Apr	1.8	1.8	1.8	1.8	1.8	A	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	1.9	1.9	1.9	1.86	1.88
4-Apr	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	1.8	1.8	1.86	1.88
5-Apr	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	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	1.85	1.89
6-Apr	1.9	1.9	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.84	1.88
7-Apr	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.83	1.85
8-Apr	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.9	1.8	A	1.84	1.86
9-Apr	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.8	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	A	1.9	1.84	1.86
10-Apr	1.8	1.8	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	1.8	1.9	1.8	1.9	1.9	1.8	A	1.9	1.9	1.86	1.89
11-Apr	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	M	M	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.8	1.8	1.88	1.95
12-Apr	1.8	1.8	1.8	1.8	1.8	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	A	1.9	1.9	1.9	1.8	1.85	1.87
13-Apr	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.81	1.85
14-Apr	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.80	1.82
15-Apr	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.9	1.8	1.9	1.9	A	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.83	1.86
16-Apr	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	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	1.86	1.94
17-Apr	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.80	1.85
18-Apr	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.9	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.81	1.86
19-Apr	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.85	1.99
20-Apr	1.9	1.9	1.9	2.0	2.0	2.0	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	1.8	1.8	1.8	1.90	1.99
21-Apr	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8	C	C	C	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.87	1.89
22-Apr	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.9	A	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.84	1.88
23-Apr	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.82	1.85
24-Apr	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.8	1.8	1.82	1.85
25-Apr	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.83	1.86
26-Apr	1.8	1.8	1.8	1.8	1.8	A	1.8	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	1.8	1.8	1.86	1.89
27-Apr	1.8	1.8	1.8	1.8	A	1.8	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	1.9	1.86	1.89
28-Apr	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	1.8	1.9	1.8	1.9	1.9	1.9	1.9	1.88	1.92
29-Apr	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.84	1.89
30-Apr	1.8	A	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.84	1.92
	1.84	1.83	1.83	1.84	1.83	1.84	1.84	1.83	1.83	1.84	1.84	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.84	1.84	Diurnal Average	
	1.89	1.89	1.94	1.99	1.98	1.98	1.92	1.93	1.90	1.92	1.94	1.90	1.89	1.89	1.88	1.88	1.88	1.89	1.94	1.89	1.89	1.99	1.92	1.90	Diurnal Maximum	

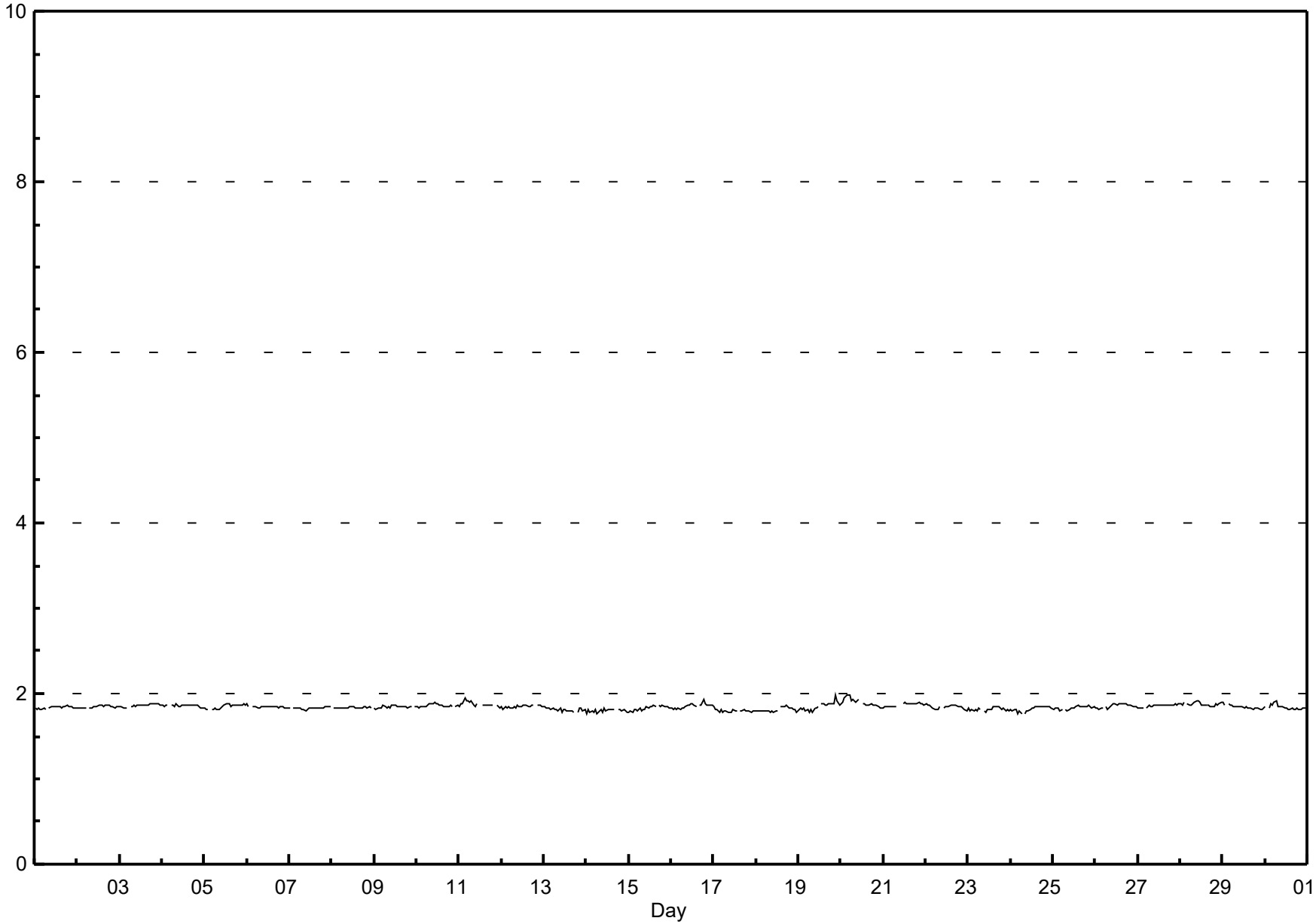
C - Calibration M - Maintenance A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Methane (CH_4) - ppm

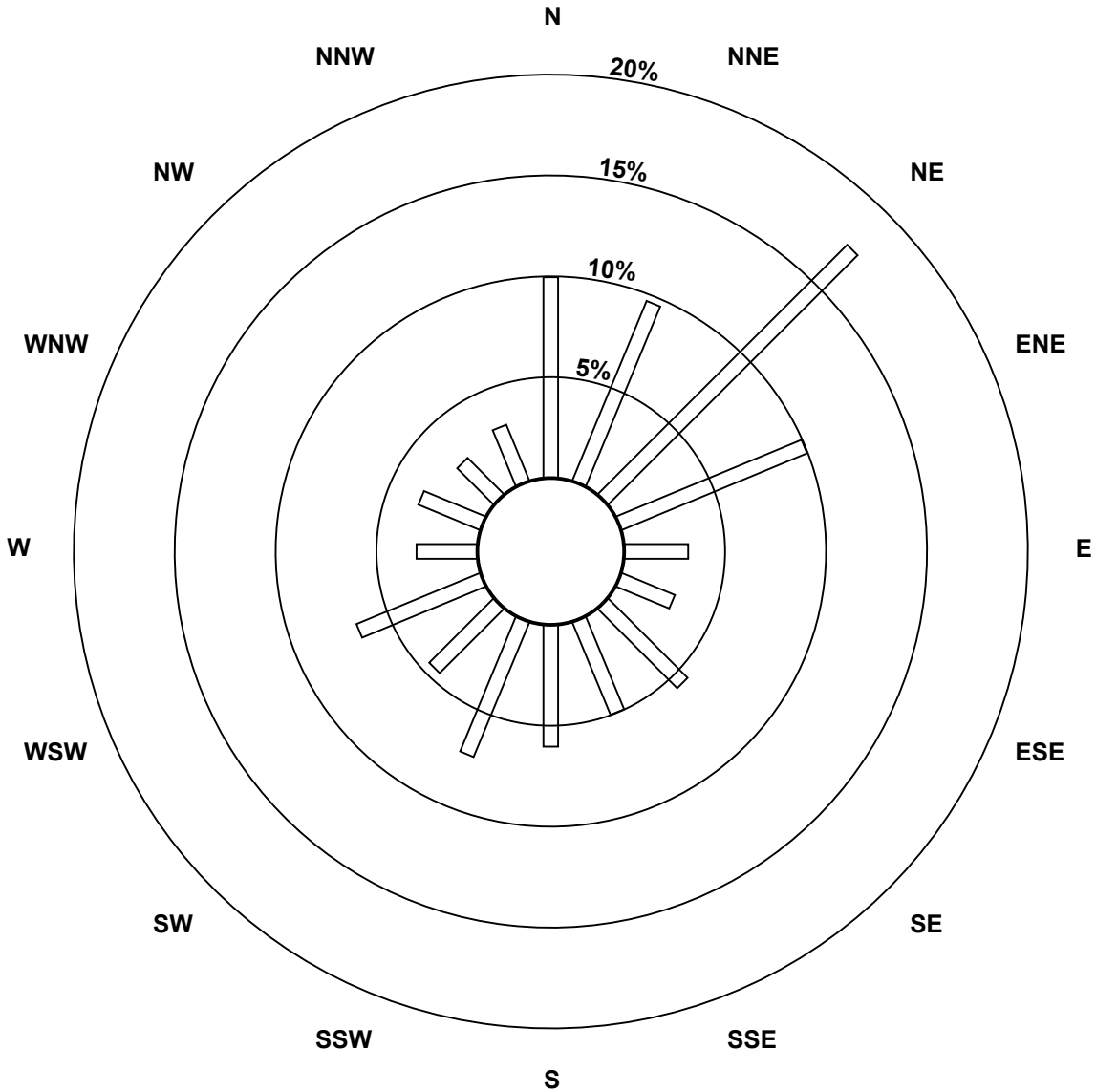
Portable Rycroft - April 2017



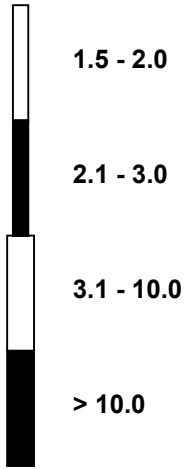
Pollutant Rose

Methane (CH_4) - ppm

Portable Rycroft - April 2017



Pollutant Classes (ppm)

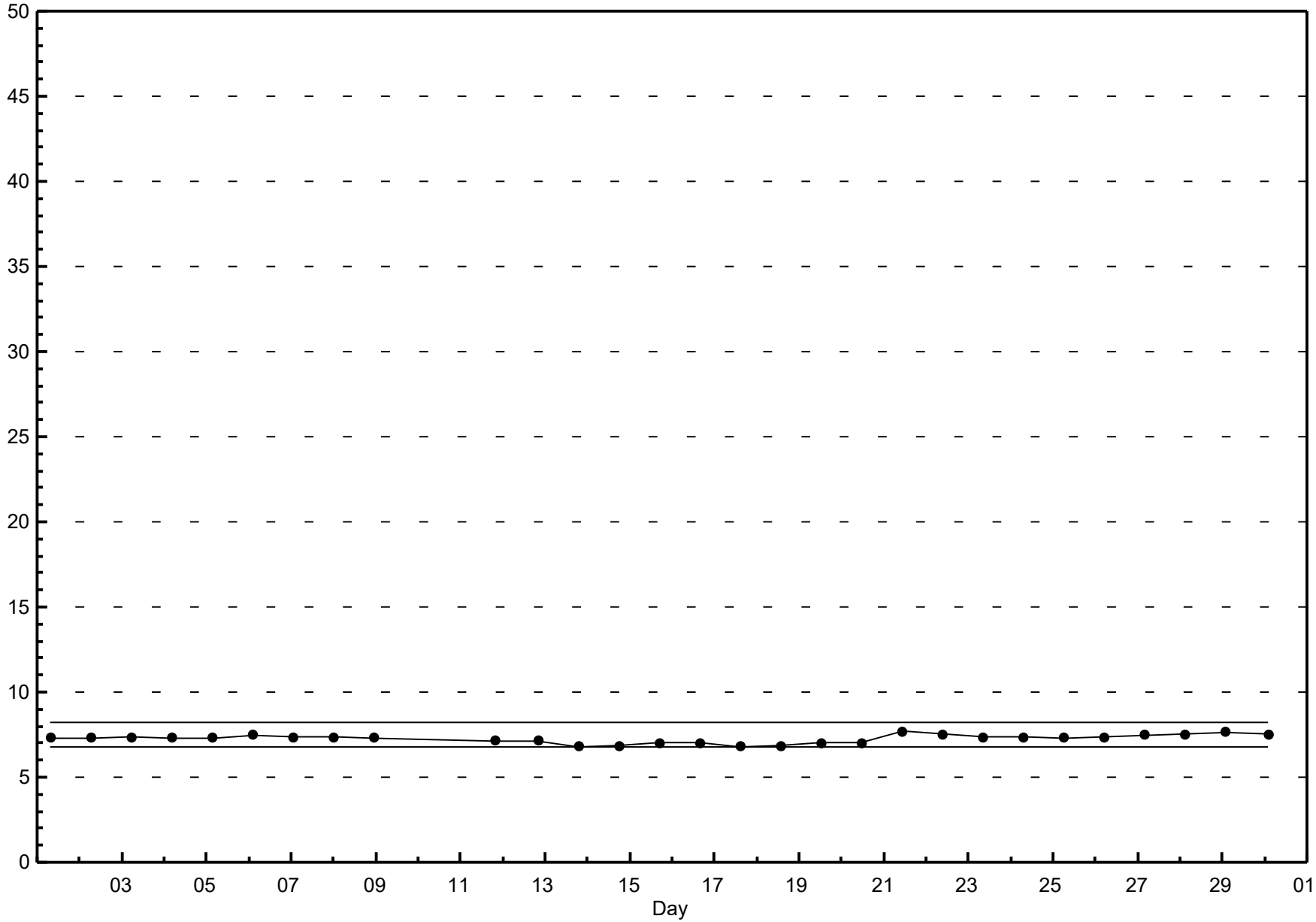


Peace Airshed Zone Association

Span Responses

Methane (CH_4)

Portable Rycroft - April 2017



Peace Airshed Zone Association

Hourly Averages

Non Methane Hydrocarbon (NMHC) - ppm

Portable Rycroft - April 2017

Maximum Value: 0.00 ppm on Apr 21 20:00

Maximum Daily Average: 0.00 ppm on Apr 24

Minimum Value: 0.0 ppm on Apr 1 01:00

Minimum Daily Average: 0.00 ppm on Apr 5

Maximum Diurnal Average: 0.00 ppm at hour 17

Minimum Diurnal Average: 0.00 ppm at hour 6

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:	720
Hours of Data:	685
Hours of Missing Data:	35
Hours of Calibration:	33
Percent Operational Time:	99.7

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
2-Apr	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
3-Apr	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
4-Apr	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
5-Apr	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
6-Apr	0.0	0.0	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
7-Apr	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
8-Apr	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.00	0.00
9-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.00	0.00
10-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.00	0.00
11-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	M	M	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
12-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.00	0.00
13-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.00	0.00
14-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
15-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
16-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
17-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
18-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
19-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
20-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
21-Apr	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	0.0	0.0	0.0	0.0	0.00	0.00
22-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
23-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
24-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
25-Apr	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
26-Apr	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
27-Apr	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
28-Apr	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
29-Apr	0.0	0.0	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
30-Apr	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
	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	Diurnal Average	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Diurnal Maximum	

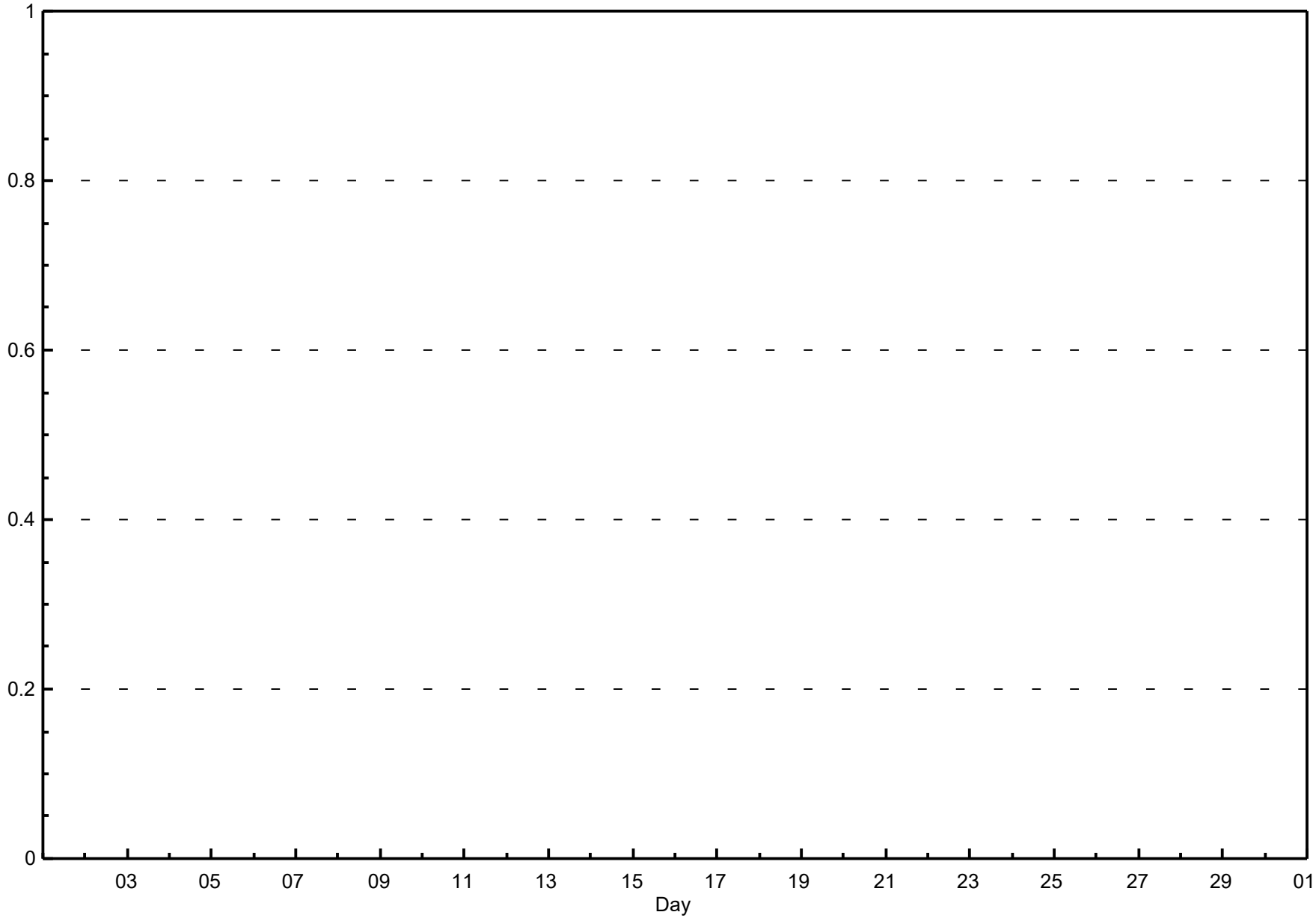
C - Calibration M - Maintenance A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Non Methane Hydrocarbon (NMHC) - ppm

Portable Rycroft - April 2017



Peace Airshed Zone Association

Hourly Maximums

Non Methane Hydrocarbon (NMHC) - ppm

Portable Rycroft - April 2017

Maximum Value: 0.00 ppm on Apr 6 14:00

Maximum Daily Average: 0.00 ppm on Apr 22

Minimum Value: 0.0 ppm on Apr 5 05:00

Minimum Daily Average: 0.00 ppm on Apr 7

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:	720
Hours of Data:	685
Hours of Missing Data:	35
Hours of Calibration:	33
Percent Operational Time:	99.7

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
2-Apr	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
3-Apr	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
4-Apr	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
5-Apr	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
6-Apr	0.0	0.0	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
7-Apr	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
8-Apr	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.00	0.00
9-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.00	0.00
10-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.00	0.00
11-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	M	M	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
12-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.00	0.00
13-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.00	0.00
14-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
15-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
16-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
17-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
18-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
19-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
20-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
21-Apr	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	0.0	0.0	0.0	0.0	0.00	0.00
22-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
23-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
24-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
25-Apr	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
26-Apr	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
27-Apr	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
28-Apr	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
29-Apr	0.0	0.0	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
30-Apr	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
	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	Diurnal Average	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Diurnal Maximum	

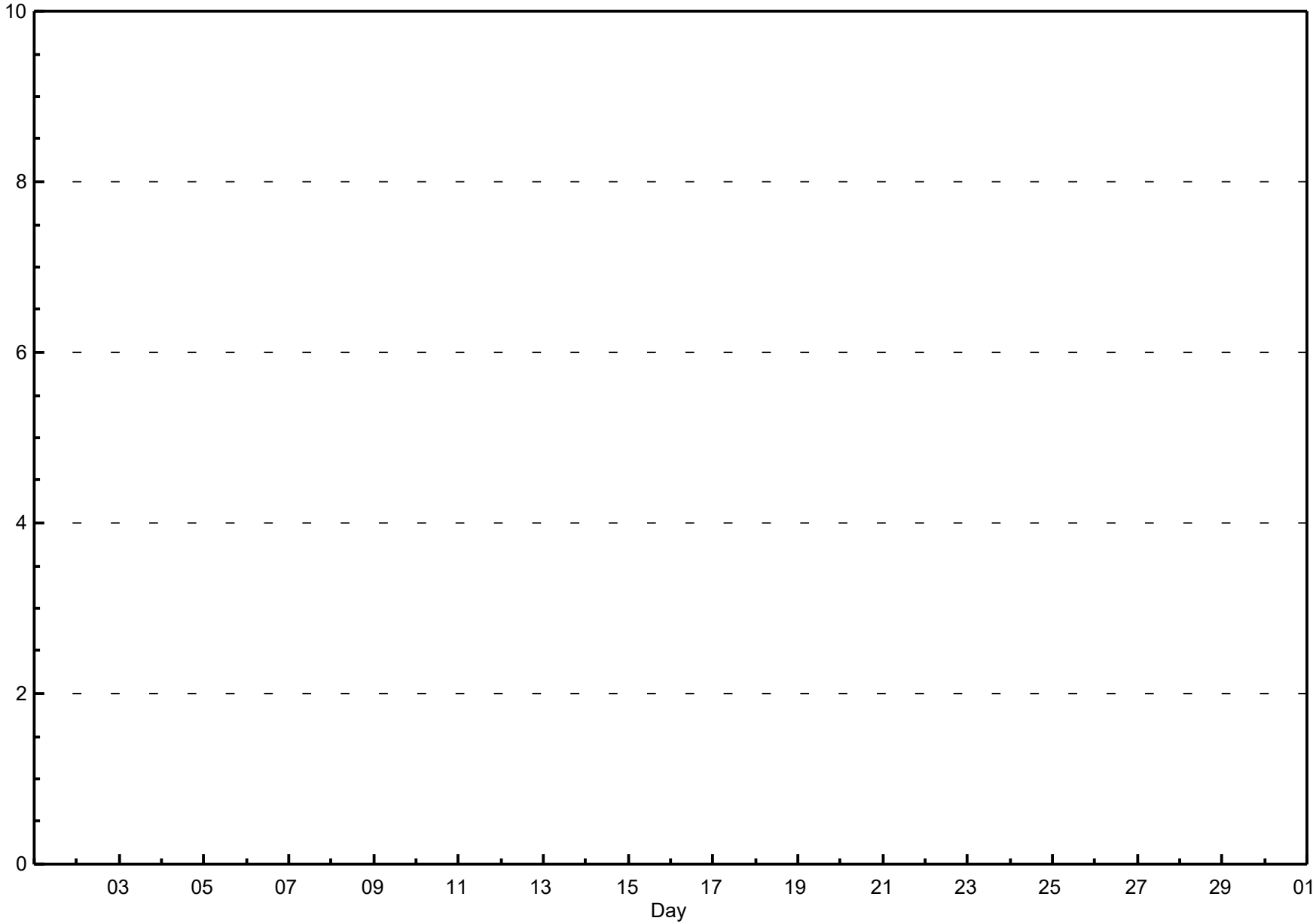
C - Calibration M - Maintenance A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Non Methane Hydrocarbon (NMHC) - ppm

Portable Rycroft - April 2017



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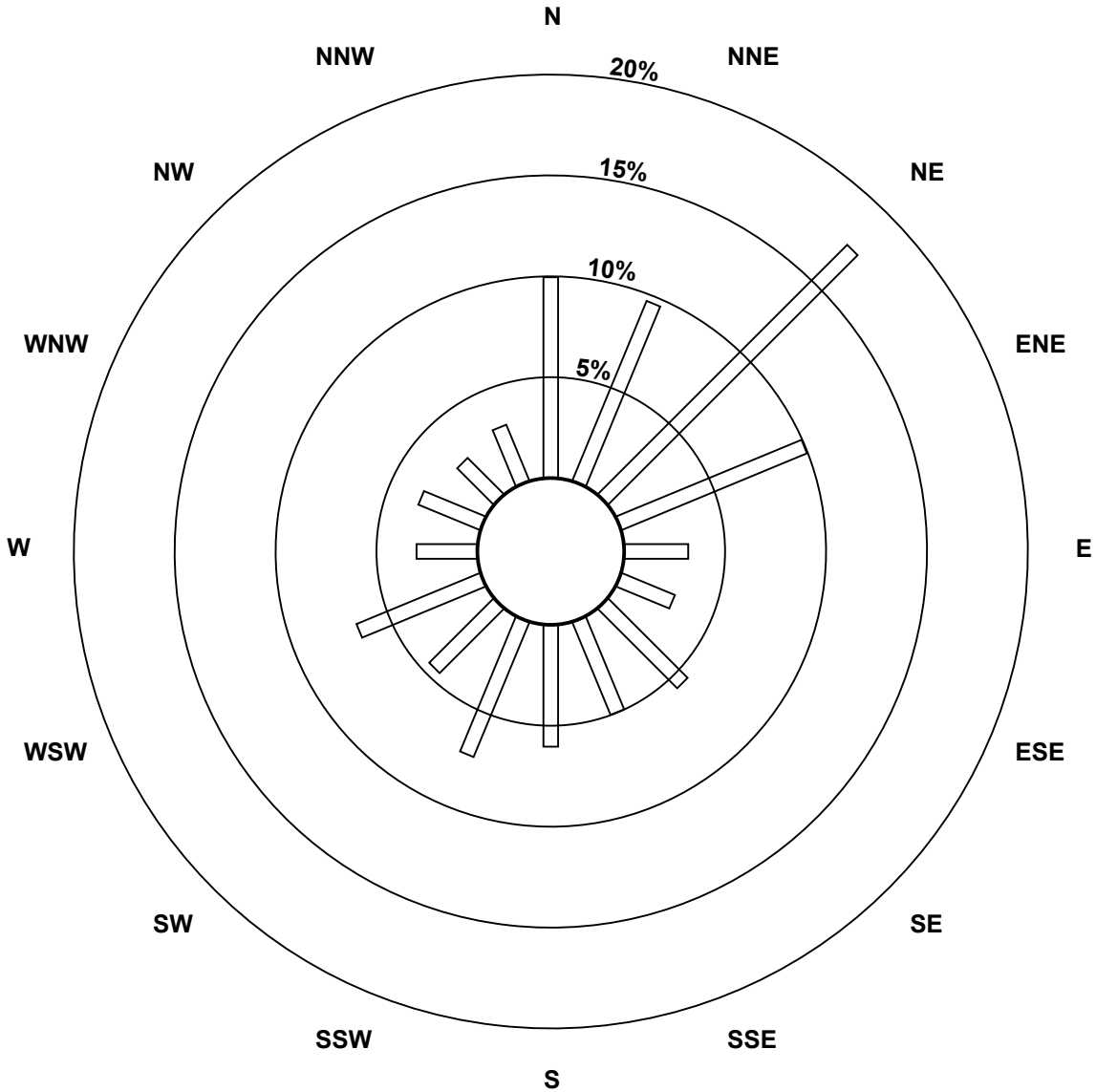
Pollutant Rose

Non Methane Hydrocarbon (NMHC) - ppm

Portable Rycroft - April 2017



Pollutant Classes (ppm)

- 0 - 0.05
- 0.06 - 0.1
- 0.11 - 0.30
- > 0.30

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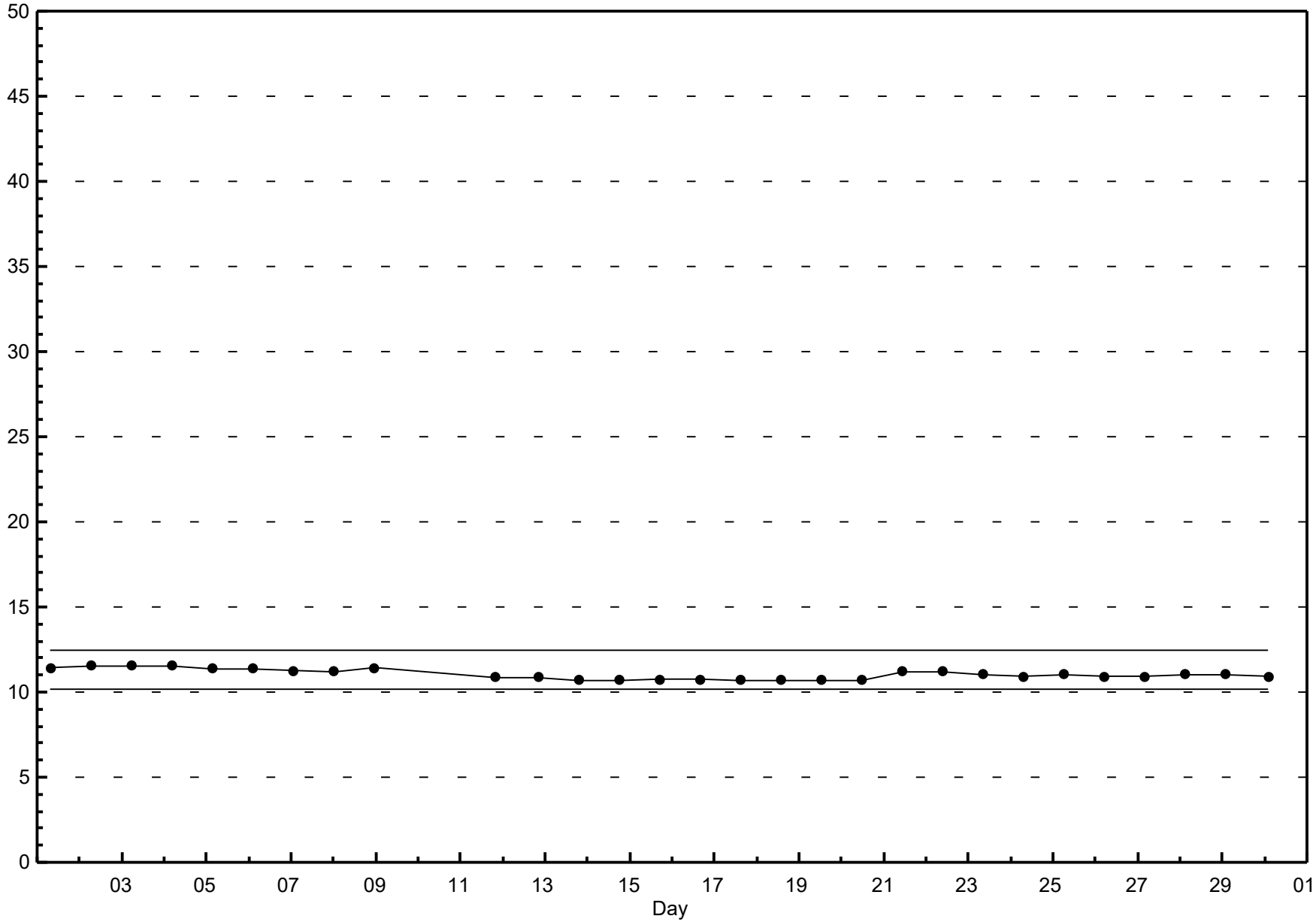
Span Responses

Non Methane Hydrocarbon (NMHC)

Portable Rycroft - April 2017



Peace Airshed Zone Association

Hourly Averages

PM2.5 ($PM_{2.5}$) - $\mu g/m^3$

Portable Rycroft - April 2017

Number of Exceedences: 1-hr: 0 24-hr: 0

Maximum Value: 7.5 $\mu g/m^3$ on Apr 20 20:00

Maximum Daily Average: 4.3 $\mu g/m^3$ on Apr 27

Minimum Value: 0 $\mu g/m^3$ on Apr 1 01:00

Maximum Diurnal Average: 1.7 $\mu g/m^3$ at hour 21

Monthly Average: 1.33 $\mu g/m^3$

Minimum Daily Average: 0.2 $\mu g/m^3$ on Apr 14

Minimum Diurnal Average: 0.9 $\mu g/m^3$ at hour 16

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.3 Median = 1.0 Q_3 = 1.9 P_{90} = 3.2 P_{99} = 5.2

Hours in Service:	720
Hours of Data:	716
Hours of Missing Data:	4
Hours of Calibration:	0
Percent Operational Time:	99.4

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	0	0.4	1.4
2-Apr	0	0	0	0	0	0	0	1	0	0	0	1	1	1	1	1	1	3	2	0	0	0	0	1	0.6	2.8
3-Apr	0	0	0	1	2	0	1	1	1	1	0	0	0	0	0	0	0	0	0	1	2	1	2	1	0.6	1.9
4-Apr	2	3	2	2	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	2.7
5-Apr	0	0	0	0	0	0	1	1	1	1	2	1	2	2	2	1	1	1	1	1	2	2	3	3	1.1	3.1
6-Apr	3	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	2	2	0.4	3.0
7-Apr	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	1	2	2	1	0.6	1.8
8-Apr	2	2	1	2	2	2	2	1	0	1	2	1	1	0	0	0	0	0	2	1	1	2	4	2	1.3	3.6
9-Apr	1	1	0	1	1	1	1	1	2	1	1	1	0	0	1	0	0	0	0	0	0	1	1	2	0.8	1.8
10-Apr	1	0	1	1	1	1	3	4	2	1	1	1	1	0	4	2	1	2	0	2	2	1	1	1	1.4	3.9
11-Apr	2	1	1	2	2	2	3	2	1	2	1	1	1	1	1	2	2	2	2	3	3	3	3	3	1.8	3.2
12-Apr	2	2	2	1	1	1	2	1	1	1	1	1	1	0	0	0	0	0	1	2	3	3	0	2	1.1	2.7
13-Apr	1	1	1	3	3	2	1	1	0	1	1	0	1	0	0	0	0	0	1	1	0	1	0	0	0.8	2.8
14-Apr	0	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0.2	0.8
15-Apr	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	0	0	1	1	1	1	2	1	1	1.1	2.3
16-Apr	1	1	1	0	0	1	1	1	1	1	1	2	1	0	1	1	1	0	1	2	2	2	2	2	1.1	2.1
17-Apr	2	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	0	1	2	1	1	1	0	0	0.5	1.9
18-Apr	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	1	2	1	2	3	2	1	0	1	0.7	2.7
19-Apr	1	1	2	2	2	1	1	3	1	2	2	1	2	2	2	2	2	3	3	3	3	3	3	3	2.2	3.4
20-Apr	3	2	3	3	3	3	3	2	3	3	3	3	4	3	2	M	M	M	M	8	7	6	5	5	3.6	7.5
21-Apr	4	3	4	4	4	3	3	3	4	5	4	3	4	3	3	2	2	1	2	2	2	2	1	2	3.0	4.7
22-Apr	2	2	3	3	3	2	1	2	2	1	1	1	0	0	0	0	0	0	0	0	1	0	0	1	1.0	3.0
23-Apr	0	0	1	1	2	2	2	2	1	2	1	1	1	1	1	1	2	2	2	1	1	1	1	0	1.2	2.5
24-Apr	1	0	0	1	2	2	2	2	1	1	1	1	1	1	1	1	1	1	2	1	1	2	1	1	1.2	1.9
25-Apr	1	1	1	1	1	1	1	2	1	1	1	2	2	1	1	1	1	1	1	1	1	1	2	1	1.1	2.0
26-Apr	0	0	1	0	0	1	2	2	2	2	2	2	2	3	3	3	3	4	3	3	5	4	4	3	2.2	4.6
27-Apr	4	4	4	4	5	6	5	4	4	5	5	4	4	4	3	4	4	4	4	5	4	4	4	4	4.3	5.5
28-Apr	5	5	4	4	4	4	5	5	5	4	3	3	2	3	2	2	2	2	2	3	3	1	1	1	3.3	5.0
29-Apr	1	1	1	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0.4	1.3
30-Apr	1	0	1	2	1	2	2	2	2	2	2	2	2	2	1	0	1	1	1	4	2	1	1	1	1.5	3.5
	1.4	1.1	1.2	1.4	1.5	1.4	1.6	1.6	1.4	1.3	1.2	1.1	1.2	1.0	1.1	0.9	1.0	1.1	1.4	1.7	1.7	1.6	1.5	1.5	Diurnal Average	
	5.0	4.5	4.4	4.4	4.9	5.5	5.3	5.0	4.7	5.3	4.9	3.6	4.3	3.9	3.5	3.6	3.9	3.9	4.0	7.5	6.5	5.6	4.9	5.3	Diurnal Maximum	

M - Maintenance

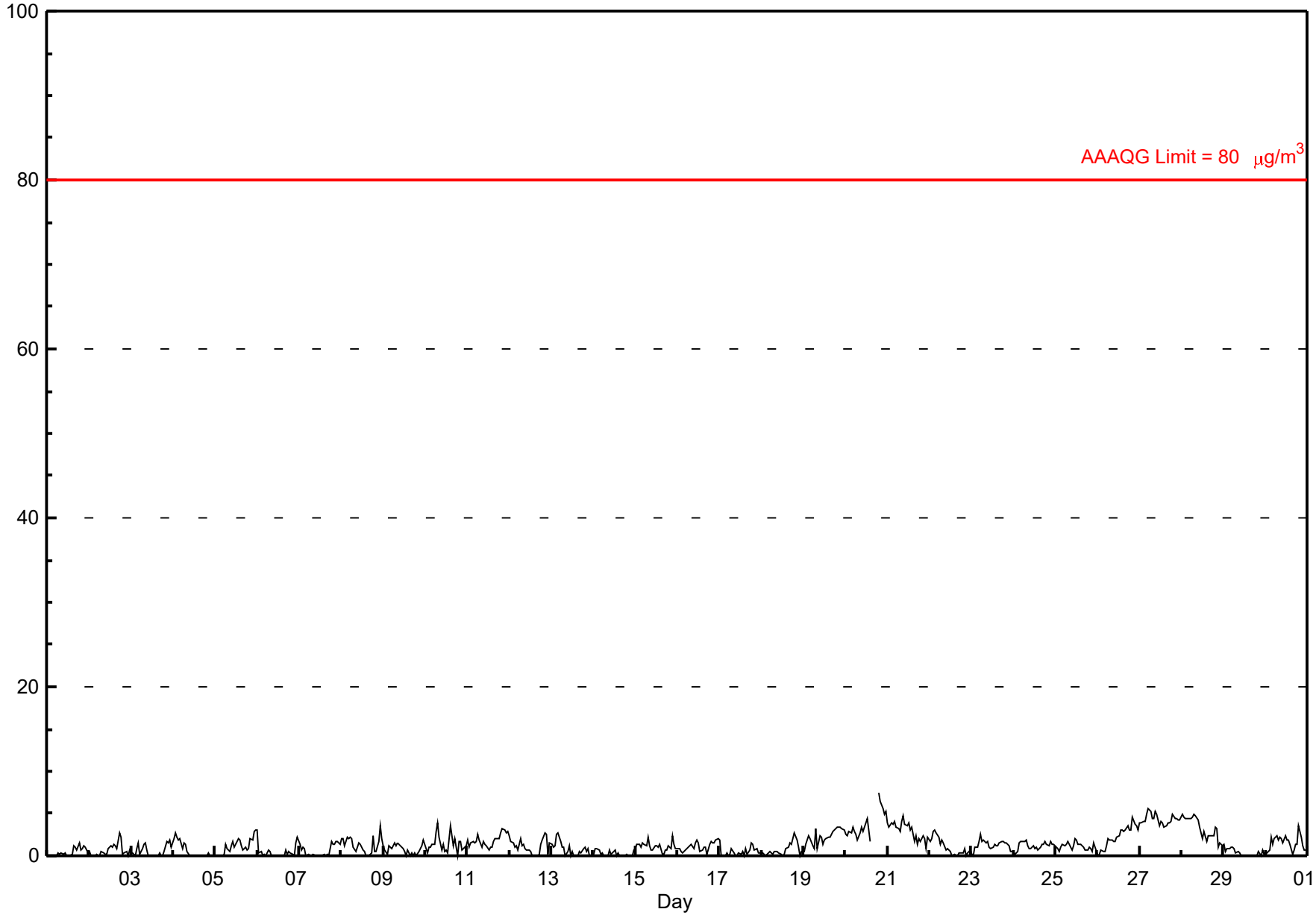
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 $\mu g/m^3$ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 $\mu g/m^3$

Peace Airshed Zone Association

Hourly Averages

PM2.5 ($PM_{2.5}$) - $\mu g/m^3$

Portable Rycroft - April 2017



Peace Airshed Zone Association

Hourly Maximums

PM2.5 ($PM_{2.5}$) - $\mu g/m^3$

Portable Rycroft - April 2017

Maximum Value: 26.3 $\mu g/m^3$ on Apr 21 09:00

Maximum Daily Average: 6.3 $\mu g/m^3$ on Apr 21

Minimum Value: 0 $\mu g/m^3$ on Apr 1 04:00

Maximum Diurnal Average: 3.7 $\mu g/m^3$ at hour 9

Monthly Average: 2.86 $\mu g/m^3$

Minimum Daily Average: 1.5 $\mu g/m^3$ on Apr 14

Minimum Diurnal Average: 2.4 $\mu g/m^3$ at hour 16

Percentiles: P_1 = 0.1 P_{10} = 1.1 Q_1 = 1.7 Median = 2.5 Q_3 = 3.7 P_{90} = 5.0 P_{99} = 7.6

Hours in Service:	720
Hours of Data:	716
Hours of Missing Data:	4
Hours of Calibration:	0
Percent Operational Time:	99.4

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	1	1	0	0	1	1	2	1	2	2	2	1	0	4	3	3	3	4	4	2	2	2	2	1	1.8	3.8
2-Apr	2	1	1	1	1	1	1	2	2	1	1	3	3	2	4	3	3	10	5	3	1	3	1	2	2.4	9.8
3-Apr	2	1	2	3	3	2	2	3	4	3	1	2	1	1	1	1	2	2	1	2	4	2	3	3	2.1	3.8
4-Apr	4	5	3	3	4	2	3	3	3	1	2	2	0	1	1	2	2	2	1	1	2	1	0	0	2.0	4.8
5-Apr	1	0	0	0	2	4	4	3	3	3	4	4	4	3	3	4	2	2	2	2	4	3	5	4	2.8	5.1
6-Apr	4	2	2	1	2	1	2	1	0	1	1	1	1	0	2	1	4	1	2	1	1	0	4	4	1.6	4.3
7-Apr	2	2	2	2	3	1	1	1	2	2	1	2	1	1	1	0	1	1	3	3	2	3	2	2	1.8	3.1
8-Apr	3	3	2	3	4	4	4	3	2	2	3	2	2	2	1	1	2	2	5	2	2	6	6	4	2.9	6.3
9-Apr	3	2	2	3	3	2	3	3	3	2	2	2	2	1	2	2	3	1	3	1	1	2	2	3	2.2	3.1
10-Apr	2	2	3	3	2	4	4	5	3	3	5	3	2	1	8	5	4	4	2	3	3	2	3	2	3.3	7.7
11-Apr	3	2	2	3	3	3	4	4	3	5	3	4	2	3	3	3	3	3	4	4	4	4	4	4	3.3	4.8
12-Apr	4	4	3	3	3	2	4	3	3	2	2	2	2	1	1	0	1	2	4	3	4	4	2	2	2.5	4.1
13-Apr	3	3	3	4	4	3	2	2	1	2	2	2	4	1	0	1	1	1	3	2	3	2	2	1	2.2	3.9
14-Apr	2	3	2	2	2	2	0	1	3	3	2	2	2	0	2	1	0	1	1	1	1	1	1	2	1.5	3.2
15-Apr	3	2	3	2	3	2	2	3	3	3	2	3	4	2	3	3	1	3	2	3	2	4	3	2	2.6	4.4
16-Apr	2	2	1	2	2	2	2	3	3	2	3	3	3	2	2	2	2	2	3	4	4	3	4	4	2.5	4.3
17-Apr	3	1	1	2	2	1	1	2	1	1	1	2	2	2	1	2	1	2	3	3	2	3	2	2	1.9	3.3
18-Apr	1	3	2	2	1	2	1	2	2	2	2	1	2	1	2	2	3	2	3	4	4	3	1	2	2.1	4.1
19-Apr	3	4	3	4	4	3	2	7	5	5	5	3	4	4	3	4	4	4	5	5	5	6	5	5	4.1	6.8
20-Apr	4	5	5	5	6	4	4	3	4	5	4	5	8	14	3	M	M	M	M	9	8	7	6	7	5.8	14.3
21-Apr	7	5	5	5	6	6	5	4	26	20	6	5	5	4	5	3	4	3	4	4	4	4	6	6	6.3	26.3
22-Apr	4	4	4	4	5	4	3	4	3	2	2	2	2	0	1	1	1	1	1	2	2	1	1	2	2.4	4.7
23-Apr	2	1	2	2	3	4	3	4	3	3	2	2	2	2	3	3	3	3	3	3	2	2	2	2	2.5	3.8
24-Apr	2	2	2	3	3	3	3	4	3	2	2	2	2	2	2	3	2	2	3	3	2	3	2	2	2.5	4.1
25-Apr	2	3	2	3	3	2	3	3	3	2	2	3	3	3	3	3	2	1	2	2	2	2	3	1	2.4	3.3
26-Apr	1	1	2	2	2	3	4	3	4	2	3	4	4	5	4	4	5	5	5	4	7	5	5	4	3.6	6.5
27-Apr	5	5	5	5	6	7	7	6	6	6	6	5	5	5	4	5	5	5	5	7	5	6	5	5	5.5	7.0
28-Apr	6	6	6	5	6	5	6	7	6	6	5	4	4	5	4	4	4	4	5	5	4	3	3	2	4.7	6.5
29-Apr	2	1	2	2	3	3	2	2	3	2	1	1	0	2	2	1	2	0	0	1	3	1	3	2	1.6	3.1
30-Apr	3	2	2	5	3	4	4	3	4	3	4	4	4	5	4	2	3	3	3	6	5	3	2	2	3.4	5.9
	2.8	2.6	2.5	2.8	3.0	2.9	2.9	3.1	3.7	3.3	2.7	2.6	2.6	2.7	2.6	2.4	2.5	2.7	3.0	3.1	3.2	3.0	3.1	2.8	Diurnal Average	
	6.6	5.5	5.7	5.3	6.2	7.0	7.0	6.8	26.3	19.9	5.8	5.0	7.7	14.3	7.7	5.4	5.2	9.8	5.3	8.9	7.5	7.2	6.3	7.0	Diurnal Maximum	

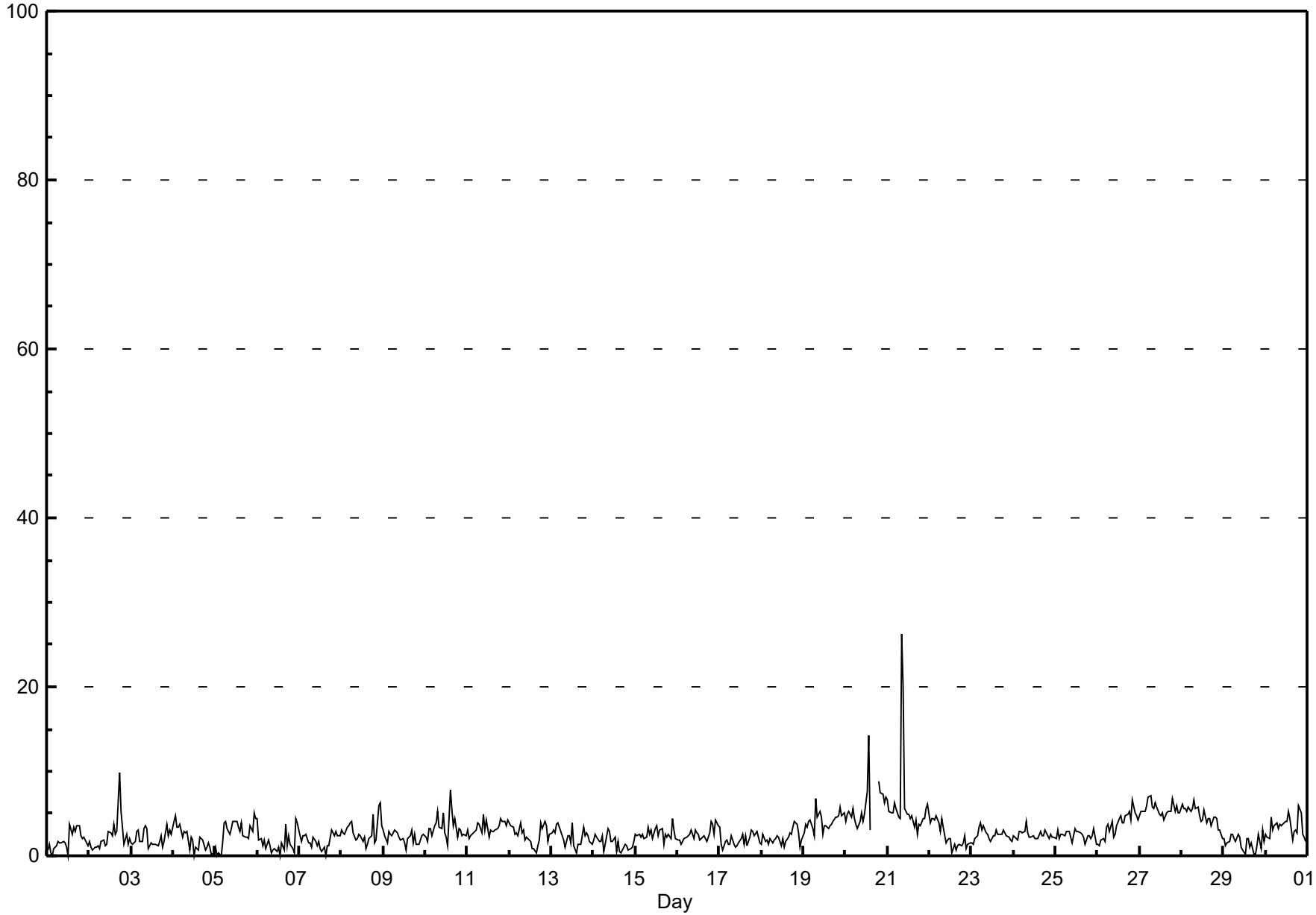
M - Maintenance

Peace Airshed Zone Association

Hourly Maximums

PM2.5 ($PM_{2.5}$) - $\mu g/m^3$

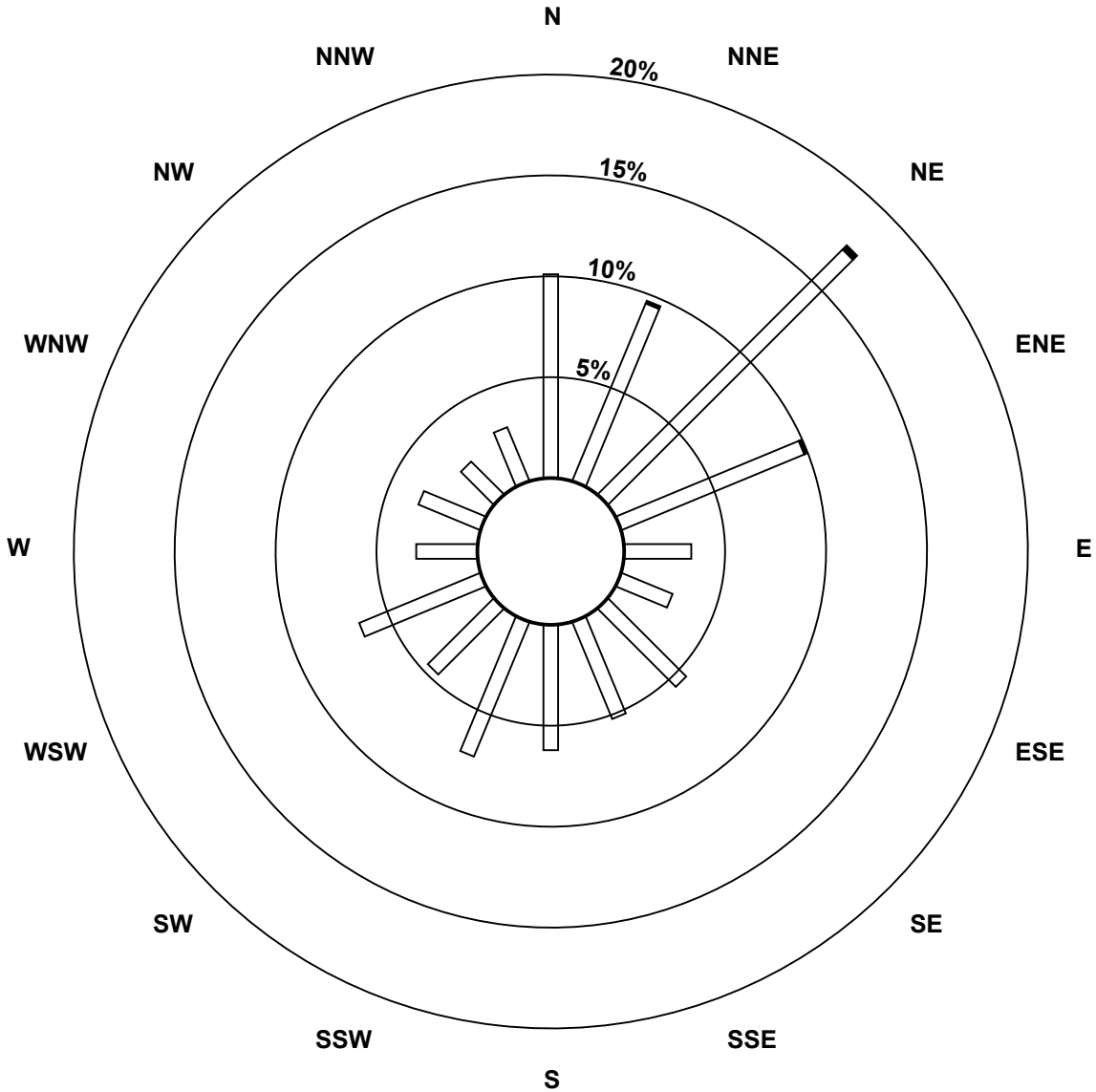
Portable Rycroft - April 2017



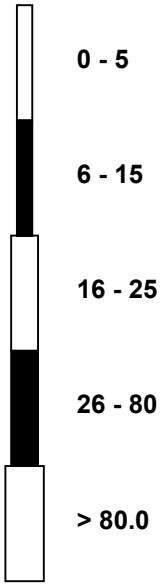
Pollutant Rose

PM2.5 ($PM_{2.5}$) - $\mu g/m^3$

Portable Rycroft - April 2017



Pollutant Classes ($\mu g/m^3$)



Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - °C

Portable Rycroft - April 2017

Maximum Value: 14.3 °C on Apr 5 17:00

Maximum Daily Average: 8.4 °C on Apr 30

Minimum Value: -11 °C on Apr 19 02:00

Minimum Daily Average: -4.8 °C on Apr 18

Maximum Diurnal Average: 8.1 °C at hour 16

Minimum Diurnal Average: -1.0 °C at hour 6

Monthly Average: 3.23 °C

Percentiles: P_1 = -7.7 P_{10} = -2.0 Q_1 = 0.0 Median = 2.6 Q_3 = 6.4 P_{90} = 10.2 P_{99} = 13.6

Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

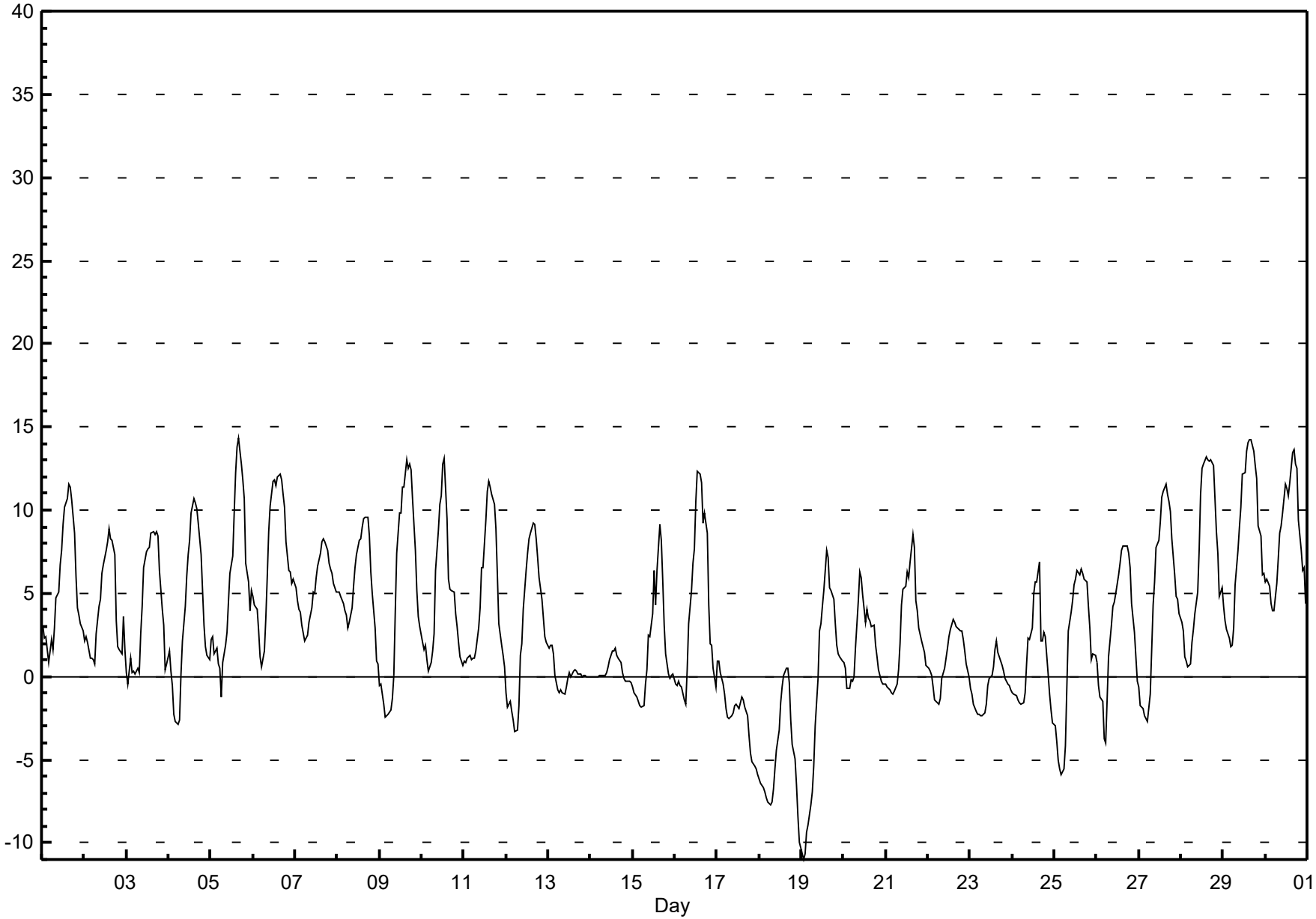
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Apr	3	2	2	2	1	2	2	3	5	5	7	8	9	10	11	12	11	11	9	6	4	4	3	3	5.5	11.5
2-Apr	2	2	2	1	1	1	1	3	4	5	6	7	8	8	9	8	8	7	3	2	2	1	4	2	4.0	8.9
3-Apr	0	0	1	0	0	0	1	0	3	4	7	8	8	8	9	9	9	9	8	6	4	3	0	1	4.0	8.7
4-Apr	2	0	-1	-2	-3	-3	-3	0	2	4	6	7	8	10	11	10	10	9	7	5	3	2	1	1	3.7	10.7
5-Apr	2	2	1	2	1	0	-1	1	2	3	5	6	7	10	12	14	14	13	12	11	7	6	4	5	5.8	14.3
6-Apr	5	4	4	3	1	1	2	4	6	9	10	12	12	11	12	12	12	11	10	8	6	6	6	6	7.2	12.2
7-Apr	5	5	4	4	3	2	2	3	3	4	5	5	6	7	7	8	8	8	8	7	6	6	6	5	5.3	8.3
8-Apr	5	5	5	4	4	4	3	3	4	5	7	7	8	8	9	9	10	10	8	6	5	3	1	1	5.6	9.6
9-Apr	-1	0	-2	-2	-2	-2	-2	-1	0	4	7	10	10	11	11	13	12	13	12	11	8	5	4	3	5.1	13.0
10-Apr	2	2	2	1	0	1	2	3	6	9	10	11	13	13	10	6	5	5	5	4	3	2	1	1	4.8	13.1
11-Apr	1	1	1	1	1	1	1	2	3	4	7	7	9	11	12	11	11	10	9	6	3	2	1	1	4.8	11.7
12-Apr	-1	-2	-1	-2	-3	-3	-3	-2	1	2	4	6	7	8	9	9	9	8	7	6	5	4	2	2	3.0	9.2
13-Apr	2	2	2	1	0	-1	-1	-1	-1	-1	-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.9
14-Apr	0	0	0	0	0	0	0	0	0	0	1	1	2	2	2	1	1	1	0	0	0	0	0	0	0.4	1.7
15-Apr	-1	-1	-1	-1	-2	-2	-2	0	0	2	2	4	6	4	6	9	8	6	3	1	0	0	0	0	1.8	9.2
16-Apr	0	-1	0	-1	-1	-1	-2	0	3	5	7	8	11	12	12	12	9	10	9	4	2	2	1	-1	4.2	12.3
17-Apr	1	1	0	0	-1	-2	-2	-3	-2	-2	-2	-2	-2	-2	-1	-1	-2	-2	-4	-5	-5	-5	-6	-6	-2.3	0.9
18-Apr	-6	-6	-7	-7	-7	-8	-8	-8	-7	-6	-4	-3	-2	-1	0	1	1	0	-3	-4	-5	-7	-8	-10	-4.8	0.5
19-Apr	-11	-11	-11	-9	-9	-8	-7	-5	-3	0	3	3	4	5	8	7	5	5	5	3	2	1	1	1	-0.8	7.6
20-Apr	1	0	-1	-1	0	0	0	2	5	6	6	5	3	4	3	3	3	3	2	1	0	0	0	0	1.9	6.3
21-Apr	0	-1	-1	-1	-1	-1	0	0	2	4	5	5	6	6	7	9	8	5	4	3	2	2	1	1	2.7	8.5
22-Apr	1	0	0	-1	-1	-2	-2	-1	0	1	1	2	2	3	3	3	3	3	3	3	2	2	1	0	1.1	3.5
23-Apr	-1	-1	-2	-2	-2	-2	-2	-2	-2	-2	-1	0	0	1	2	2	1	1	1	0	0	0	-1	-1	-0.6	2.1
24-Apr	-1	-1	-1	-1	-2	-2	-2	-1	1	2	2	3	5	6	6	7	2	2	3	2	0	-1	-2	-3	1.0	6.9
25-Apr	-3	-4	-5	-6	-6	-6	-4	-1	3	4	5	5	6	6	6	6	6	6	6	4	3	1	1	1	1.5	6.4
26-Apr	1	-1	-1	-1	-4	-4	-1	1	3	4	4	5	6	7	8	8	8	8	7	7	4	3	1	0	3.0	7.9
27-Apr	-1	-2	-2	-2	-3	-3	-1	2	4	6	8	8	9	11	11	12	11	11	10	8	6	5	5	4	4.8	11.6
28-Apr	3	3	1	1	1	1	2	3	4	5	8	11	12	13	13	13	13	13	13	11	9	7	5	5	7.0	13.2
29-Apr	4	3	3	2	2	2	3	6	8	9	10	12	12	14	14	14	14	14	13	12	9	8	6	6	8.3	14.3
30-Apr	6	6	5	4	4	4	6	7	9	9	10	12	11	11	12	13	14	13	13	9	8	6	7	4	8.4	13.6
	0.7	0.3	0.0	-0.5	-0.9	-1.0	-0.7	0.5	2.2	3.5	4.8	5.7	6.6	7.2	7.8	8.1	7.5	7.0	6.1	4.6	3.1	2.2	1.5	1.0	Diurnal Average	
	5.7	5.9	5.5	4.4	4.0	3.9	5.6	7.0	8.7	9.0	10.3	12.2	12.7	13.6	14.1	14.3	14.3	13.5	12.7	11.9	9.1	8.5	6.6	6.2	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Portable Rycroft - April 2017



Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Portable Rycroft - April 2017

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1 Spd	11	6	6	4	7	11	9	10	9	9	14	14	24	22	16	24	28	27	19	11	9	9	6	8	11.5	28.5
Dir	197	191	178	174	183	193	188	174	195	199	197	211	230	231	218	252	262	255	247	225	192	197	205	190	220.2	261.9
2 Spd	8	9	8	9	11	10	8	9	11	17	22	23	23	22	25	28	26	25	17	14	10	8	16	6	13.5	27.6
Dir	193	195	192	181	190	200	203	203	223	237	251	250	247	246	248	241	239	265	292	215	176	190	232	199	232.7	241.4
3 Spd	6	5	12	7	6	7	9	5	11	11	7	4	4	5	4	5	6	2	3	2	5	4	8	7	4.0	11.8
Dir	192	208	228	211	210	223	227	224	261	284	3	47	101	211	199	213	216	213	167	120	134	129	174	210	214.5	227.7
4 Spd	18	11	7	5	3	5	4	2	4	4	3	5	5	2	7	8	8	7	12	11	14	12	13	11	2.2	18.1
Dir	249	236	232	227	238	184	196	191	166	94	115	124	72	317	358	1	10	30	58	61	61	60	58	65	57.8	248.6
5 Spd	16	16	9	12	7	6	6	5	8	8	4	5	5	5	5	7	8	5	7	9	7	7	10	20	3.6	20.1
Dir	61	54	56	65	0	36	20	4	24	23	59	119	106	106	95	88	90	103	130	146	182	157	238	249	75.9	248.7
6 Spd	17	6	10	12	8	8	8	10	8	12	15	11	6	7	5	3	7	9	5	2	1	2	4	11	6.0	17.1
Dir	250	182	185	188	193	203	206	184	189	240	243	247	217	165	166	116	144	143	132	123	121	110	129	154	193.8	250.3
7 Spd	6	5	4	10	5	1	5	4	5	8	14	13	12	15	18	19	19	16	16	15	15	9	10	10	8.7	19.4
Dir	141	138	124	148	141	123	144	150	356	7	29	50	56	47	51	50	51	54	46	40	44	63	64	57	57.6	51.4
8 Spd	16	12	11	18	14	15	9	9	13	15	13	16	13	17	17	14	9	9	4	3	2	5	7	2	9.8	17.9
Dir	56	66	65	67	65	60	66	54	54	57	55	52	52	46	46	54	75	66	132	142	135	174	156	153	63.2	66.6
9 Spd	7	5	6	6	6	8	8	6	4	4	5	1	3	4	3	3	4	3	3	2	3	8	8	9	2.8	8.8
Dir	52	68	54	56	47	54	59	55	45	26	56	6	25	62	82	214	196	204	178	148	120	146	168	163	84.3	162.6
10 Spd	6	7	5	1	2	2	5	3	1	4	9	12	10	4	13	1	7	4	7	5	1	4	2	6	1.1	12.9
Dir	156	150	143	337	5	99	159	281	228	259	313	324	329	350	175	112	39	299	199	162	146	228	220	181	219.9	174.7
11 Spd	4	6	5	6	6	5	1	5	10	8	9	11	11	10	10	14	14	18	20	16	11	13	15	15	8.0	20.5
Dir	203	182	189	255	275	296	284	15	27	13	7	35	15	0	9	14	27	31	34	26	13	16	17	23	16.3	33.7
12 Spd	10	8	6	7	3	3	1	2	14	16	20	24	25	26	26	24	24	23	23	21	19	16	15	19	15.3	26.3
Dir	17	22	22	11	8	19	8	7	55	54	47	46	39	44	47	49	58	64	60	55	51	53	54	54	48.0	44.2
13 Spd	19	20	19	21	23	23	25	30	32	34	32	N	N	N	N	N	N	N	N	N	N	N	N	N	--	34.2
Dir	51	50	50	53	58	49	43	38	38	37	38	N	N	N	N	N	N	N	N	N	N	N	N	N	--	37.1
14 Spd	N	N	N	N	N	N	N	N	N	N	7	11	12	12	11	11	11	12	9	8	9	9	11	11	--	12.5
Dir	N	N	N	N	N	N	N	N	N	N	293	286	296	303	307	317	313	338	341	311	297	301	335	358	--	303.2
15 Spd	13	12	11	8	9	8	8	3	5	3	5	4	3	3	3	2	4	1	4	4	3	5	9	11	2.2	12.7
Dir	352	351	354	339	322	327	345	335	308	281	246	212	238	188	229	308	356	270	33	79	92	129	143	142	341.0	351.7
16 Spd	10	12	13	9	10	8	7	6	5	2	4	5	6	8	7	5	7	4	2	4	6	4	3	5	1.8	13.0
Dir	141	142	141	140	140	153	166	142	147	212	327	319	359	7	11	4	354	6	290	321	7	86	29	8	95.5	140.8
17 Spd	17	20	20	21	21	22	23	22	20	22	24	23	24	23	25	24	24	24	21	19	19	19	18	16	20.8	25.2
Dir	33	28	23	23	22	16	17	11	7	358	358	353	352	351	354	354	355	0	0	355	358	352	356	354	4.0	354.1
18 Spd	17	15	18	18	17	15	15	13	14	13	10	9	7	6	6	5	5	5	4	4	3	2	2	4	8.4	17.8
Dir	354	350	347	352	351	348	348	337	337	347	344	340	323	304	326	305	282	273	283	268	299	317	231	182	337.0	351.8
19 Spd	5	4	3	2	4	6	7	1	0	4	3	7	7	7	5	7	10	10	9	7	4	1	0	2	3.6	10.4
Dir	185	183	163	138	52	57	67	110	327	334	25	110	99	88	70	37	64	67	67	70	66	76	251	9	74.2	64.2
20 Spd	3	2	3	4	3	4	5	6	5	6	11	26	29	22	21	16	13	9	11	17	17	13	13	4	4.3	28.8
Dir	17	173	206	205	246	164	172	196	201	253	274	272	269	283	289	321	346	350	42	32	53	53	56	71	311.7	269.3
21 Spd	5	5	7	8	5	4	3	4	4	3	10	10	9	11	10	7	6	8	7	7	9	10	7	7	5.8	10.6
Dir	34	76	65	69	89	127	100	91	89	49	22	9	8	358	13	360	10	40	77	67	65	65	64	37	44.7	358.0
22 Spd	8	9	11	19	18	17	17	12	12	19	21	25	25	25	26	28	29	23	19	18	13	18	21	23	18.9	28.8
Dir	33	57	53	35	42	32	45	37	33	44	49	41	36	40	41	41	37	40	43	50	62	51	49	47	42.7	37.0

Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Portable Rycroft - April 2017

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
23 Spd	22	19	17	18	20	20	20	21	21	22	21	21	21	18	15	13	14	11	12	9	8	8	9	12	15.9	22.4
Dir	46	47	53	49	45	47	47	49	44	46	44	37	34	35	30	15	31	20	7	9	10	20	19	23	37.5	46.0
24 Spd	11	8	11	10	11	11	11	11	12	10	13	13	11	10	7	3	15	11	5	3	3	4	4	5	5.4	14.8
Dir	22	20	23	12	16	5	355	349	1	360	23	18	15	18	21	1	252	249	231	205	193	162	167	143	3.3	252.0
25 Spd	5	6	5	5	4	6	5	1	1	6	6	5	6	7	9	7	8	11	11	9	6	5	9	13	4.6	12.5
Dir	173	170	178	176	150	165	174	181	300	15	117	102	126	98	85	88	78	66	64	44	65	63	74	71	94.9	70.7
26 Spd	11	9	7	7	7	5	6	7	5	7	10	15	14	14	12	14	14	14	16	15	14	10	12	11	10.3	15.7
Dir	67	41	39	44	18	10	15	16	85	90	58	51	48	49	51	40	56	55	61	53	49	54	48	46	49.2	60.9
27 Spd	5	3	5	7	8	5	2	1	4	7	7	5	5	6	10	8	9	12	14	6	2	3	7	7	4.7	13.8
Dir	60	26	49	63	60	68	146	278	358	358	2	86	73	28	23	22	41	69	52	77	108	141	142	152	55.2	52.3
28 Spd	3	3	4	5	7	9	8	7	7	7	6	11	17	19	21	18	18	16	14	18	10	8	5	9	8.4	20.6
Dir	121	157	146	154	185	159	156	156	172	184	202	231	257	249	241	240	242	238	227	253	272	239	205	234	225.4	240.8
29 Spd	7	7	4	4	6	5	6	4	6	11	8	6	6	6	5	7	7	6	2	4	6	7	8	7	2.6	10.5
Dir	202	192	199	191	193	187	161	176	250	251	236	250	197	226	197	143	129	140	97	55	52	64	47	48	180.8	251.4
30 Spd	6	5	1	3	5	6	14	16	28	25	26	21	12	19	22	25	19	21	27	13	11	9	8	9	13.2	27.7
Dir	45	72	149	231	218	233	259	264	264	256	258	254	241	253	252	270	282	264	274	298	283	261	236	219	261.2	263.9
Spd	3.4	3.5	3.1	3.8	3.2	2.9	2.5	2.5	3.2	4.2	4.8	3.9	3.9	4.1	3.8	4.7	4.4	3.8	4.2	3.8	4.0	3.2	2.9	2.9	Diurnal Average	
Dir	50.2	66.1	63.1	58.4	48.8	52.2	49.5	31.7	13.9	2.1	4.0	356.8	351.6	353.0	1.7	355.0	5.6	10.5	28.5	36.1	44.5	61.2	62.6	67.1		
Spd	22.3	20.2	20.2	21.4	22.7	22.7	25.0	29.7	32.0	34.2	31.9	26.0	28.8	26.3	25.8	27.6	28.8	26.9	26.7	21.2	19.4	19.0	20.9	22.9	Diurnal Maximum	
Dir	46.1	50.1	22.9	53.2	58.0	49.3	43.0	38.2	38.5	37.1	37.7	271.8	269.3	44.2	46.9	241.4	37.0	255.0	273.9	55.0	50.7	351.7	48.9	47.1		

Maximum Speed Value: 34 km/h on Apr 13 10:00
Maximum Daily Speed Average: 20.8 km/h on Apr 17
Maximum Diurnal Speed Average: 4.8 km/h at hour 11

Minimum Speed Value: 0 km/h on Apr 19 23:00
Minimum Daily Speed Average: 1.1 km/h on Apr 19
Minimum Diurnal Speed Average: 2.5 km/h at hour 7

Monthly Average Velocity: 3.23 km/h 27.29 deg
All monthly, daily, and diurnal averages have been calculated using vector methods

Speed Percentiles: $P_1 = 0.8$ $P_{10} = 3.2$ $Q_1 = 5.1$ Median = 8.4 $Q_3 = 13.9$ $P_{90} = 20.9$ $P_{99} = 28.3$

Hours in Service:	720
Hours of Data:	697
Hours of Missing Data:	23
Percent Operational Time:	96.8

N - Not Valid

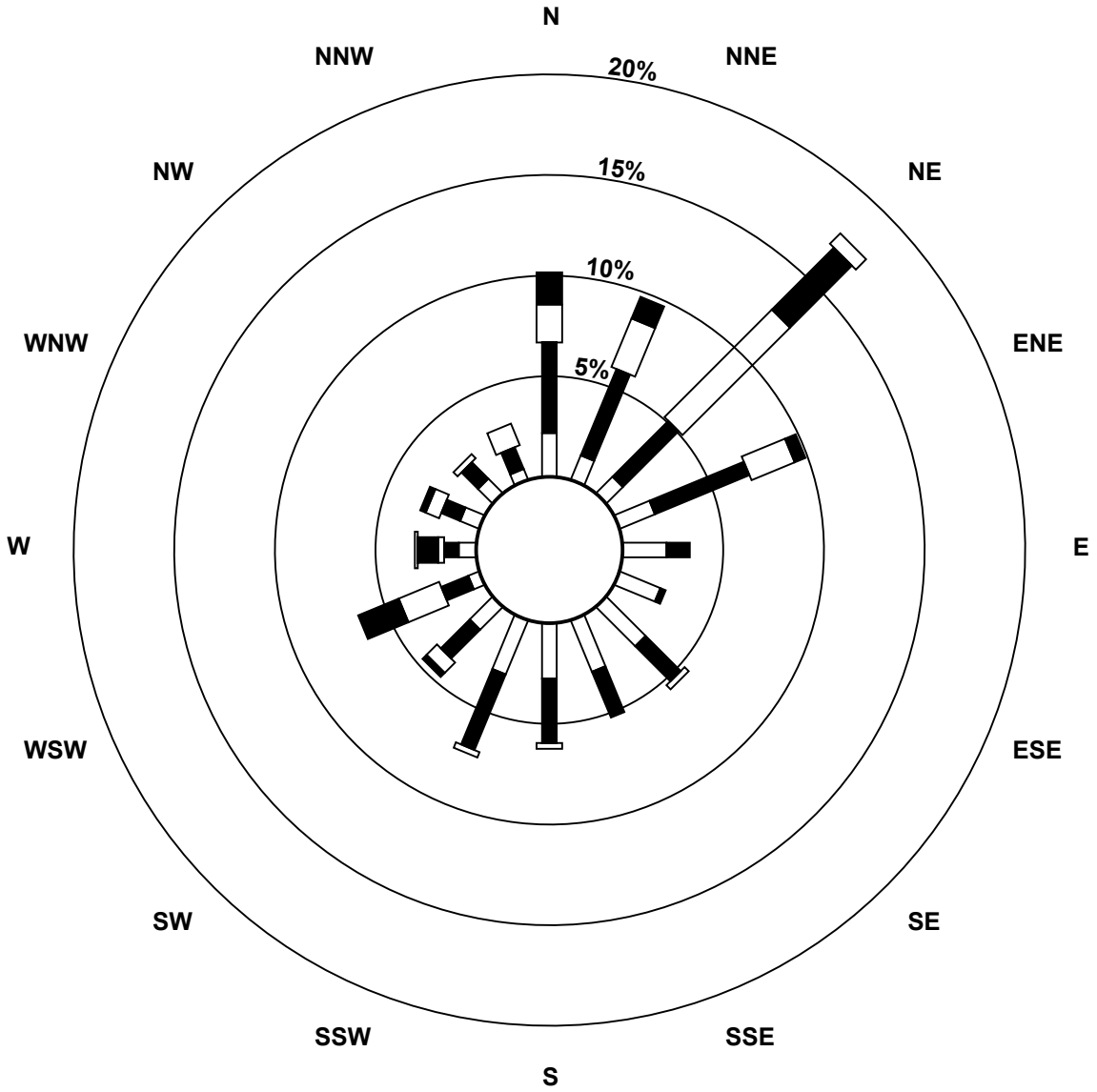
Frequency Distribution

Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	16	55	31	16	0	0	118
NorthEast	17	61	77	44	5	0	204
East	26	22	2	0	0	0	50
SouthEast	33	33	2	0	0	0	68
South	28	55	5	0	0	0	88
SouthWest	20	32	14	8	0	0	74
West	12	10	13	20	2	0	57
NorthWest	13	16	9	0	0	0	38
Total	165	284	153	88	7	0	697

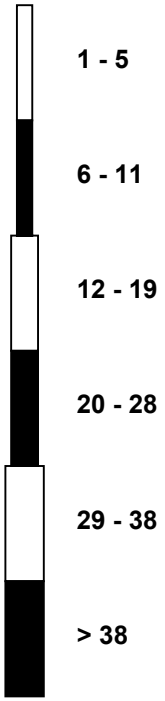
Wind Rose

Wind Speed (WS) (km/h)

Portable Rycroft - April 2017



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Portable Rycroft - April 2017

Peace Airshed Zone Association

Maximum Speed: 34 km/h on Apr 13 10:00

Maximum Daily Speed Average: 21.4 km/h on Apr 17

Minimum Speed: 1 km/h on Apr 19 22:00

Minimum Daily Speed Average: 5.5 km/h on Apr 19

Maximum Diurnal Speed Average: 13.3 km/h at hour 17

Minimum Diurnal Speed Average: 8.2 km/h at hour 22

Monthly Average Speed: 10.62 km/h

Percentiles: P_1 = 2.0 P_{10} = 3.9 Q_1 = 5.7 Median = 8.6 Q_3 = 14.3 P_{90} = 21.0 P_{99} = 28.5

Hours in Service:	720
Hours of Data:	697
Hours of Missing Data:	23
Percent Operational Time:	96.8

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	11	6	6	4	7	11	9	10	9	9	14	14	24	22	16	25	29	27	19	11	9	9	6	8	13.2	28.6
2-Apr	8	9	8	9	11	10	8	9	12	17	22	23	24	22	25	28	26	28	18	15	10	9	17	6	15.6	27.9
3-Apr	6	5	12	7	6	8	10	5	11	11	8	5	6	7	6	6	7	3	3	2	5	5	9	7	6.7	11.9
4-Apr	18	11	7	5	3	5	4	2	4	5	5	6	7	6	9	8	9	8	13	11	14	12	13	11	8.3	18.1
5-Apr	16	16	9	12	8	7	6	5	8	8	5	6	6	6	6	8	8	5	7	9	8	7	10	20	8.6	20.2
6-Apr	17	7	10	12	8	8	8	10	8	13	15	12	8	8	7	6	8	9	5	2	2	2	4	11	8.4	17.2
7-Apr	6	5	4	10	5	2	5	4	5	8	14	13	12	16	18	19	20	16	16	15	15	9	10	10	10.7	19.7
8-Apr	16	12	11	18	14	15	9	9	13	15	13	16	14	17	18	15	9	10	6	3	3	5	7	4	11.3	18.0
9-Apr	7	5	7	6	6	8	8	6	4	5	6	5	4	5	6	6	5	4	4	3	4	8	8	9	5.7	8.9
10-Apr	6	7	5	3	3	4	6	3	2	5	10	12	11	6	14	10	9	7	8	6	2	5	3	6	6.5	13.9
11-Apr	4	6	5	7	6	5	2	5	10	9	10	11	12	11	11	14	15	18	21	17	12	13	15	15	10.5	20.6
12-Apr	10	8	6	7	3	3	2	2	14	17	21	25	26	27	26	24	25	23	23	21	19	16	15	19	15.9	26.7
13-Apr	19	20	19	22	23	23	25	30	32	34	32	N	N	N	N	N	N	N	N	N	N	N	N	N	--	34.2
14-Apr	N	N	N	N	N	N	N	N	N	N	11	11	12	13	11	11	11	12	10	8	9	9	11	11	--	12.5
15-Apr	13	12	11	8	9	8	8	4	5	4	5	4	3	4	3	3	4	2	5	4	3	5	9	11	6.0	12.7
16-Apr	10	12	13	9	10	8	7	7	5	3	4	5	6	8	7	5	8	4	3	5	7	4	3	6	6.6	13.1
17-Apr	17	20	20	21	21	22	23	23	20	22	24	23	24	24	25	24	24	24	21	19	19	19	18	16	21.4	25.2
18-Apr	17	15	18	18	17	15	15	13	14	13	11	9	8	6	6	5	5	5	4	5	3	2	2	4	9.6	17.9
19-Apr	5	4	3	2	4	6	7	3	2	4	6	8	7	7	6	8	11	10	9	8	4	1	2	4	5.5	10.7
20-Apr	5	2	4	4	4	5	5	6	5	7	11	26	29	22	21	17	13	10	11	18	17	13	13	5	11.4	28.8
21-Apr	5	5	7	9	5	4	3	4	5	6	10	11	9	11	10	7	6	8	8	7	9	10	7	8	7.2	10.8
22-Apr	9	9	11	19	19	17	17	12	12	20	21	25	25	25	26	28	29	23	19	18	13	18	21	23	19.1	28.8
23-Apr	22	19	17	18	20	20	20	21	21	23	21	22	21	18	15	13	14	11	12	9	8	8	9	12	16.4	22.5
24-Apr	11	8	11	10	11	11	11	11	12	10	13	13	11	11	8	4	15	11	6	3	3	4	4	5	9.1	15.0
25-Apr	5	6	5	5	5	6	5	3	3	7	7	6	8	9	9	9	9	11	11	9	6	5	9	13	7.1	12.6
26-Apr	11	10	7	8	7	5	6	7	6	7	10	15	14	15	13	15	14	14	16	15	14	10	12	11	11.0	15.9
27-Apr	5	4	5	7	8	5	2	2	4	7	8	7	7	8	11	8	10	12	14	7	3	4	8	7	6.7	14.1
28-Apr	3	3	5	5	7	9	8	7	7	7	6	11	18	20	21	18	18	16	14	19	10	8	5	9	10.6	20.7
29-Apr	7	7	5	4	6	5	6	4	6	11	8	7	7	7	7	8	8	7	3	4	6	7	8	7	6.5	10.9
30-Apr	6	5	2	4	6	7	14	16	28	25	26	22	13	20	23	26	20	21	27	16	12	10	9	9	15.2	27.8
	10.3	8.9	8.6	9.5	9.0	9.1	8.9	8.4	10.0	11.4	12.6	12.9	13.0	13.0	13.2	13.0	13.3	12.4	11.5	9.9	8.5	8.2	9.2	9.9	Diurnal Average	
	22.4	20.2	20.3	21.5	22.9	22.7	25.1	29.8	32.0	34.2	32.0	26.1	28.8	26.7	26.3	27.9	28.8	27.7	26.9	21.3	19.5	19.0	21.0	22.9	Diurnal Maximum	

N - Not Valid

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

Peace Airshed Zone Association

Hourly Standard Deviations

Wind Direction (WD) - deg

Portable Rycroft - April 2017

Maximum Value: 95.7 deg on Apr 10 16:00

Minimum Value: 2.1 deg on Apr 12 00:00

Percentiles: P_1 = 2.7 P_{10} = 4.4 Q_1 = 6.4 Median = 11.1 Q_3 = 21.9 P_{90} = 41.3 P_{99} = 81.5

Hours in Service:	720
Hours of Data:	697
Hours of Missing Data:	23
Hours of Calibration:	0
Percent Operational Time:	96.8

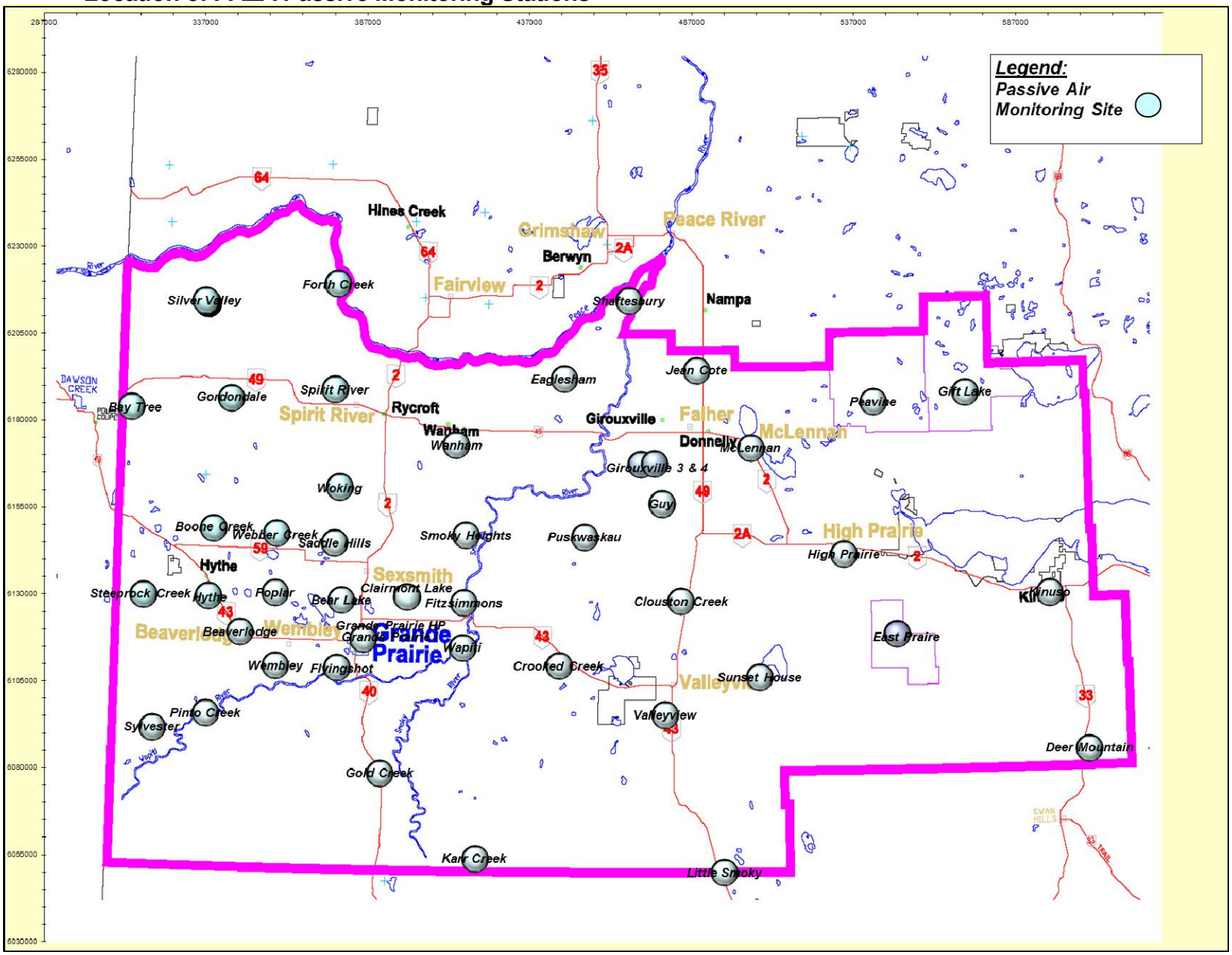
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Apr	4	10	13	49	8	4	8	6	8	5	5	6	6	9	10	17	5	5	6	15	9	6	5	8	48.8
2-Apr	8	6	11	5	4	6	5	5	19	6	9	10	7	10	8	8	7	25	21	20	10	23	17	12	24.6
3-Apr	10	6	5	6	13	11	16	10	6	11	36	64	59	37	65	38	29	56	24	16	10	19	20	9	65.1
4-Apr	4	10	4	6	25	15	14	26	20	37	73	53	49	79	43	28	20	38	8	4	4	4	4	4	78.8
5-Apr	6	7	9	7	50	32	25	14	8	9	48	22	21	39	38	27	19	16	16	11	15	11	20	6	49.7
6-Apr	9	16	9	5	7	12	7	6	8	28	10	23	43	25	64	67	45	14	15	27	46	11	23	13	67.1
7-Apr	9	8	16	8	22	56	7	28	14	17	13	8	11	9	10	10	10	8	8	4	5	8	5	5	56.0
8-Apr	5	6	8	7	7	7	11	6	8	9	13	13	21	12	14	14	18	25	49	15	18	6	11	64	63.9
9-Apr	20	7	10	15	12	6	7	11	24	23	53	83	65	55	68	67	56	47	44	30	12	4	12	6	82.7
10-Apr	14	8	34	72	53	64	45	34	76	31	23	14	23	69	31	96	34	57	22	36	68	14	70	16	95.7
11-Apr	34	13	17	46	12	9	85	20	13	28	22	18	21	23	28	12	15	9	5	6	4	4	3	2	85.1
12-Apr	5	11	14	7	14	17	88	18	10	10	12	13	13	10	12	14	10	7	7	6	4	4	5	4	88.0
13-Apr	4	5	5	7	6	5	4	3	3	3	2	N	N	N	N	N	N	N	N	N	N	N	N	N	6.8
14-Apr	N	N	N	N	N	N	N	N	N	N	42	5	5	5	7	6	4	16	8	9	4	9	9	7	42.1
15-Apr	3	3	3	4	3	4	11	29	11	29	14	16	40	15	37	25	14	57	22	13	11	19	4	4	56.8
16-Apr	7	3	4	6	5	19	23	11	11	52	13	14	8	4	6	34	11	11	46	29	28	20	41	19	52.5
17-Apr	6	5	4	3	3	4	4	6	8	9	5	4	3	3	4	4	5	6	6	5	3	4	6	6	8.6
18-Apr	5	10	4	4	4	6	8	3	5	5	8	7	17	10	22	17	16	9	9	6	23	35	40	8	40.0
19-Apr	6	13	33	75	19	12	5	80	93	23	67	25	18	23	37	24	12	11	7	12	20	89	88	74	93.4
20-Apr	72	58	48	21	53	17	18	7	14	16	12	6	4	5	5	22	5	12	5	18	8	7	8	40	72.4
21-Apr	22	16	14	7	13	17	23	25	26	61	12	8	9	12	7	7	13	18	16	9	7	10	29	19	61.2
22-Apr	25	9	9	4	6	6	6	10	6	9	7	7	6	6	8	6	3	3	3	5	9	6	5	4	25.3
23-Apr	4	5	5	5	4	4	4	5	5	5	9	6	5	5	6	7	7	11	4	6	3	4	4	3	10.8
24-Apr	5	5	7	4	5	4	6	4	10	14	7	8	12	9	15	56	10	10	18	12	24	16	8	22	55.6
25-Apr	14	11	5	8	24	12	11	67	72	35	36	41	39	35	24	37	29	16	11	12	8	8	5	3	71.7
26-Apr	12	16	11	32	6	10	11	8	36	22	14	14	15	18	18	12	14	13	10	7	8	8	4	7	35.8
27-Apr	10	23	9	5	3	9	37	56	22	11	18	39	47	51	18	23	19	15	13	20	25	19	31	9	56.1
28-Apr	27	17	18	12	6	7	6	8	10	12	7	17	13	10	7	12	11	12	14	16	22	11	8	9	26.8
29-Apr	12	5	32	11	30	31	13	17	24	15	21	37	33	39	56	48	40	39	35	12	7	6	14	14	56.0
30-Apr	21	28	69	47	31	32	8	9	5	5	5	9	28	20	15	11	12	9	6	32	27	30	15	7	69.1
	72.4	57.7	69.1	75.4	53.5	63.5	88.0	79.9	93.4	61.2	72.9	82.7	65.2	78.8	68.5	95.7	56.3	57.4	48.5	35.8	67.6	89.4	88.3	74.0	

N - Not Valid

PAZA

Monthly Passive Data Summary

Location of PAZA Passive Monitoring Stations



PAZA Passive Results for March 2017

Station Number	Station Name	SO2 ppb	O3 ppb	NO2 ppb	H2S ppb	Site Legal
Duplicates						
4a	Gordondale			**0.5**		
4b	Gordondale			**0.4**		
19a	Wanham			**0.4**		
19b	Wanham			**0.4**		
21a	Eaglesham	**0.3**				
21b	Eaglesham	**0.1**				
28a	Clairmont Lake	**0.2**				
28b	Clairmont Lake	**0.3**				
47a	Kinuso		**41.6**			
47b	Kinuso		**37.4**			
36a	Guy				**0.1**	
36b	Guy				**0.1**	
2	Bay Tree	**0.2**	**44.1**	**0.8**		13-16-078-13 W6M
4	Gordondale	**0.2**		**0.4**		04-34-078-10 W6M
5	Boone Creek	**0.3**		**0.5**		16-36-074-11 W6M
9	Spirit River	**0.1**		**0.2**		08-12-079-07 W6M
14	Sylvester	**0.1**		**0.5**		08-06-069-12 W6M
16	Beaverlodge	**0.2**		**0.8**		15-36-071-10 W6M
18	Saddle Hills	**0.2**		**0.3**		04-25-074-07 W6M
19	Wanham	**0.1**		**0.4**		16-22-077-03 W6M
21	Eaglesham	**0.2**		**0.5**		16-21-079-25 W5M
24	Wembley	**0.2**		**0.8**		12-31-070-08 W6M
25	Pinto Creek	**0.1**		**0.9**		04-24-069-11 W6M
27	Grande Prairie I	**0.1**		**3.6**		08-15-071-06 W6M
28	Clairmont Lake	**0.2**		**0.9**		09-06-073-04 W6M
29	Smoky Heights	**0.2**		**0.5**		04-06-075-02 W6M
32	Gold Creek	**0.3**		**1.9**		06-33-067-05 W6M
35	Jean Cote	**0.1**		**0.7**		12-35-079-21 W5M
36	Guy	**0.1**		**0.1**	**0.1**	03-04-076-22 W5M
37	Crooked Creek	**0.2**		**0.4**		16-01-071-26 W5M
39	Clouston Creek	**0.2**		**0.2**		12-01-073-22 W5M
40	McLennan	**0.2**		**0.5**		03-29-077-19 W5M
43	High Prairie	**0.1**		**0.6**		16-13-074-17 W5M
44	Peavine	**0.1**		**0.2**		03-05-079-15 W5M
46	Little Smoky	**0.1**		**1.7**		12-01-065-21 W5M
47	Kinuso	**0.2**	**44.1**	**0.6**		12-10-073-10 W5M
50	East Prairie	**0.1**		**0.2**		13-02-072-15 W5M
63	Girouxville 3				**0.3**	14-02-077-23 W5M
64	Girouxville 4				**0.1**	4-08-077-22 W5M

*BDL = Below Detection Level

*N/S - No sample

Passive Summary for March 2017

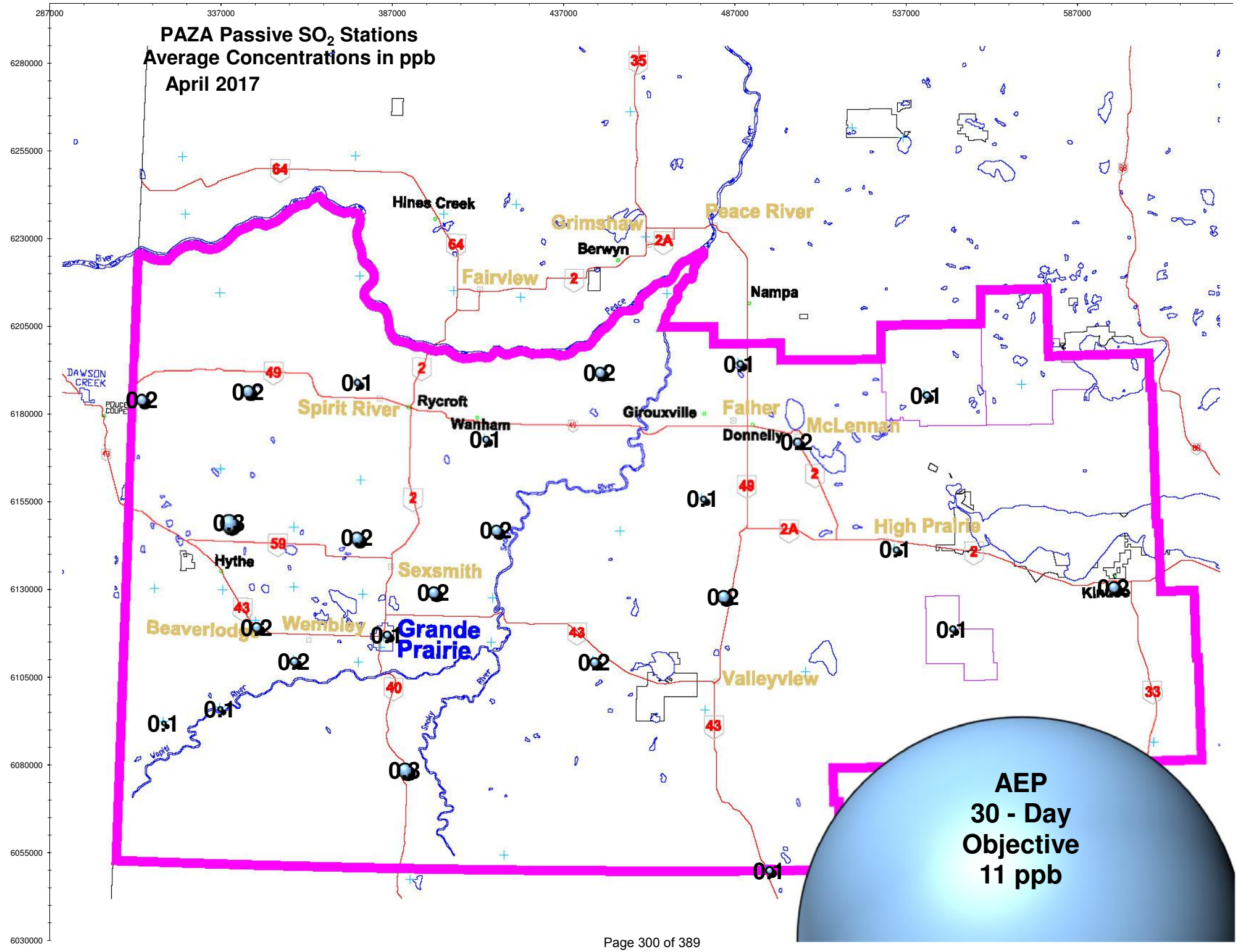
Stats	Sulphur Dioxide SO_2	Ozone O_3	Nitrogen Dioxide NO_2	Hydrogen Sulphide H_2S
	ppb	ppb	ppb	ppb
	Passive Summary for April 2017 (PAZA Zone)			
Mean	**0.2**	**44.1**	**0.7**	**0.2**
Standard Deviation	**0.1**	**0.0**	**0.7**	**0.1**
Minimum	**0.1**	**44.1**	**0.1**	**0.1**
Minimum At	**Sylvester (#14)**	**Bay Tree (#2)**	**Guy (#36)**	**Guy (#36)**
Maximum	**0.3**	**44.1**	**3.6**	**0.3**
Maximum At	**Boone Creek (#5)**	**Bay Tree (#2)**	**Grande Prairie I (#27)**	**Girouxville 3 (#63)**

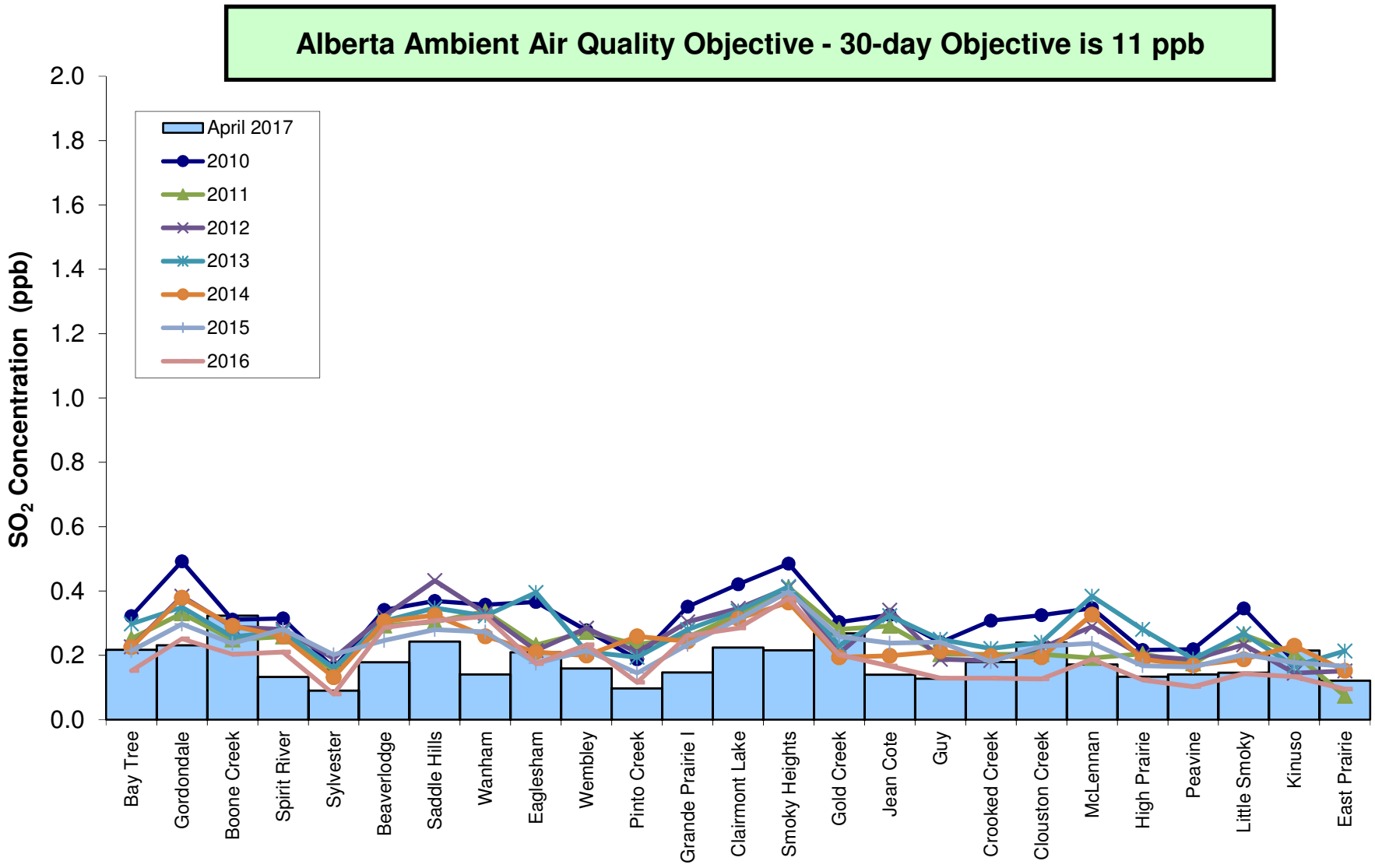
Comparison between Continuous and Passive monitoring at Beaverlodge (passive #16 Beaverlodge)

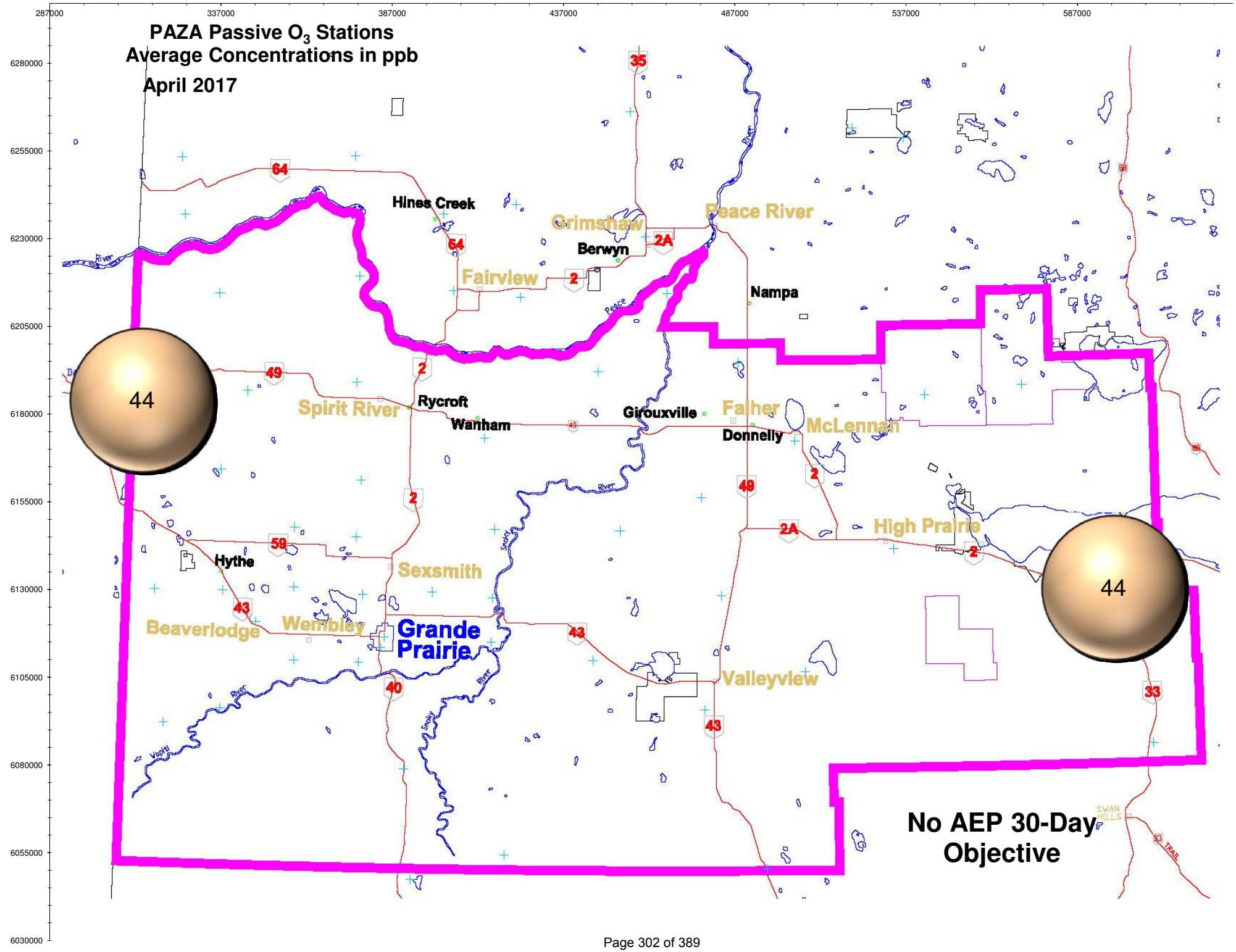
	SO_2	NO_2
PAZA Beaverlodge station	**0.2**	**1.8**
PAZA Beaverlodge passive	**0.2**	**0.8**

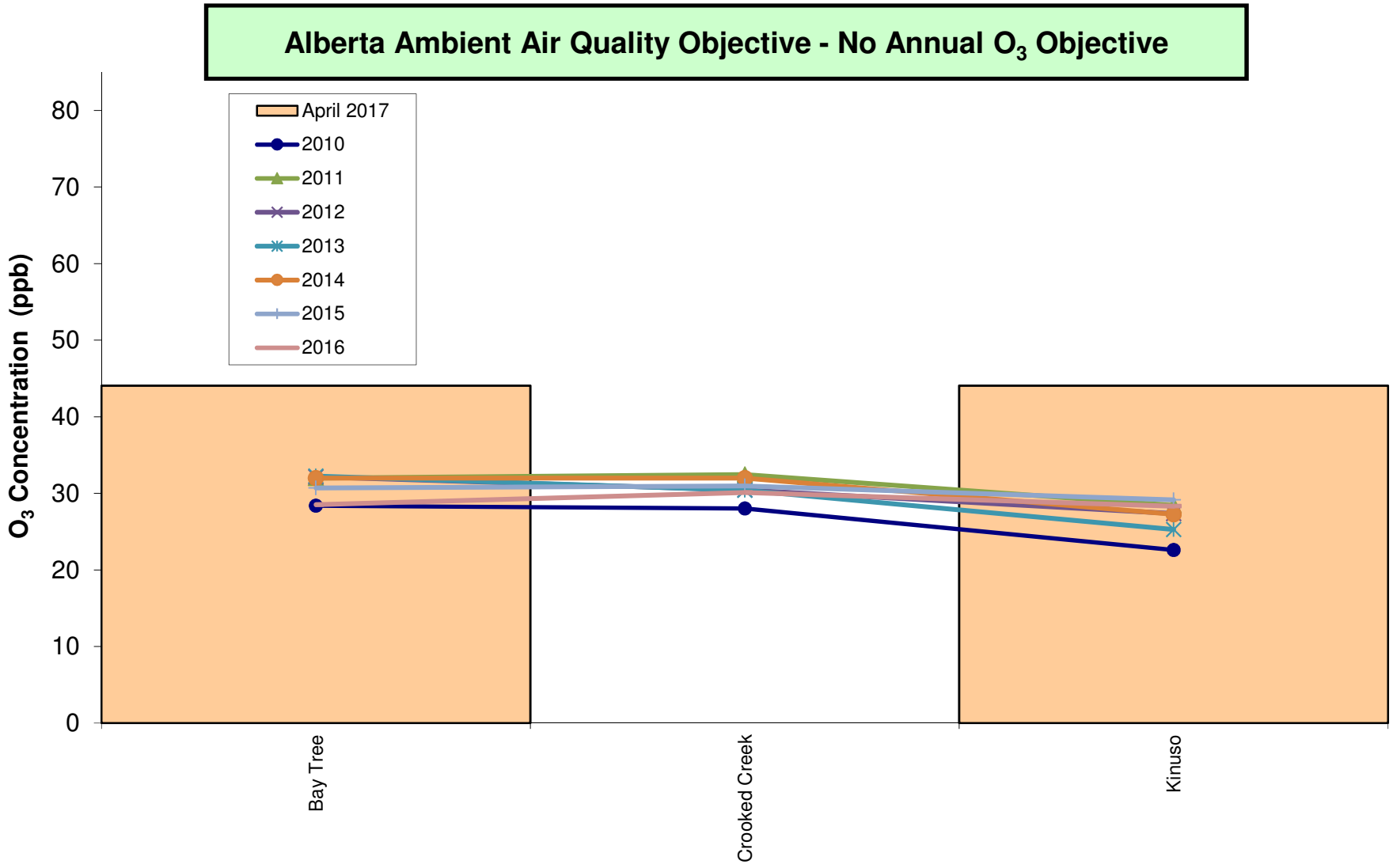
Comparison between Continuous and Passive monitoring at Henry Pirker (passive #49 Grande Prairie HP)

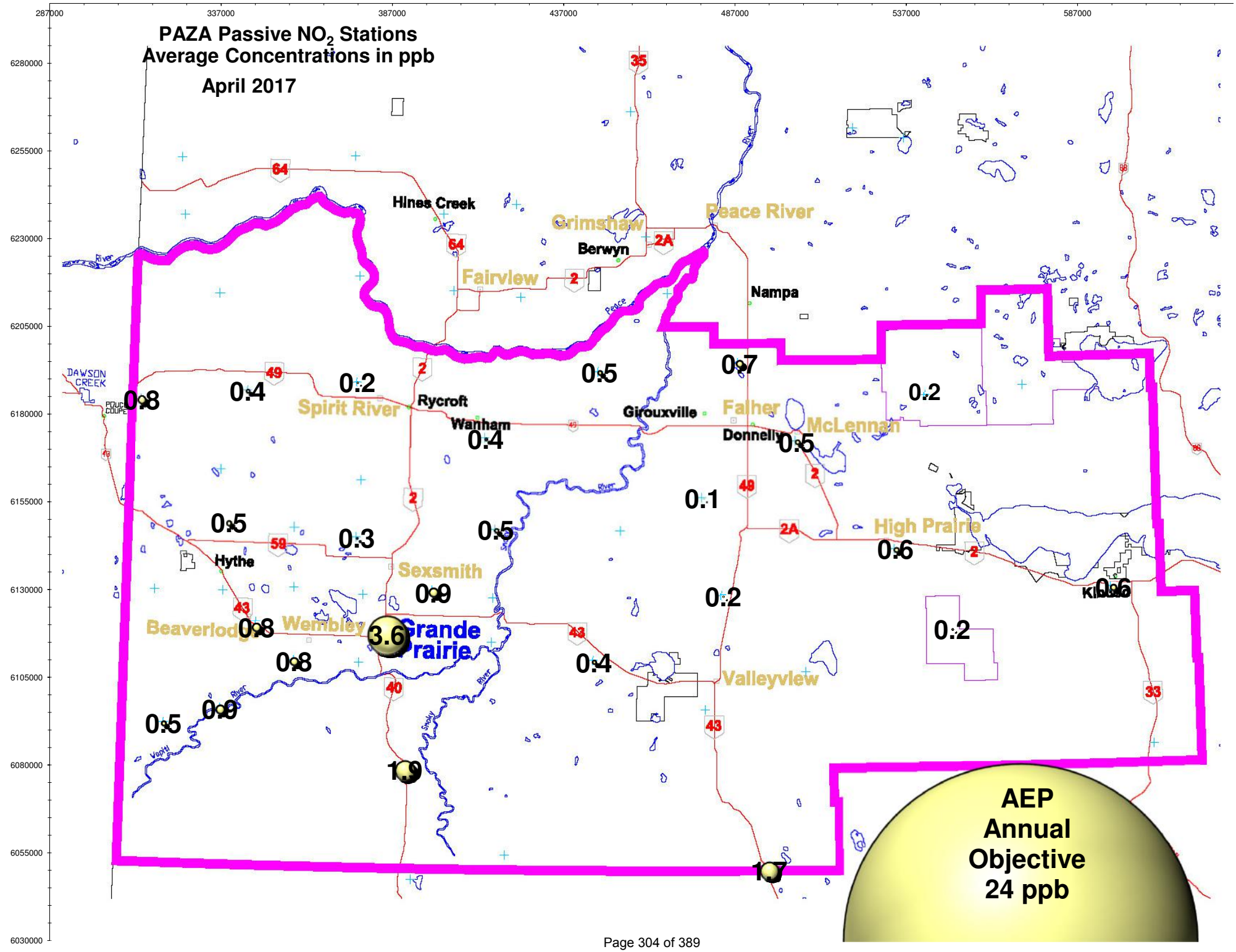
	SO_2	NO_2
PAZA Henry Pirker station	**0.1**	**5.0**
PAZA Grande Prairie passive	**0.1**	**3.6**

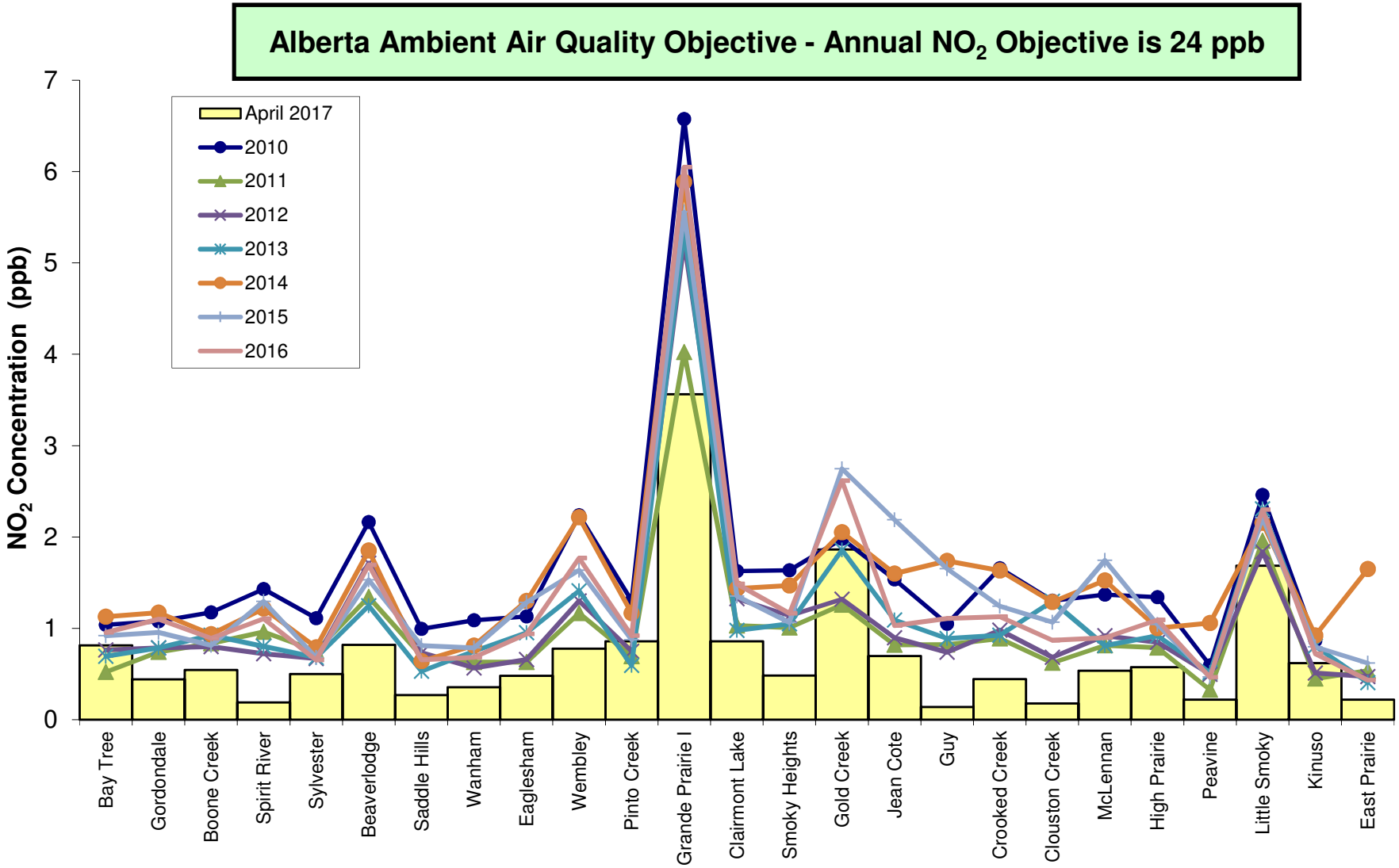

PAZA Passive SO_2 Stations
Average Concentrations in ppb
April 2017
287000
337000
387000
437000
487000
537000
587000
6280000
6255000
6230000
6205000
6180000
6155000
6130000
6105000
6080000
6055000
6030000
Hines Creek
Grimshaw
Berwyn
Peace River
Fairview
Nampa
DAWSON CREEK
Spirit River
Rycroft
Wanham
Girouxville
Falher
Donnelly
McLennan
High Prairie
Hythe
Sexsmith
Beaverlodge
Wembley
Grande Prairie
Valleyview
0.2
0.1
0.3
AEP
30 - Day
Objective
11 ppb

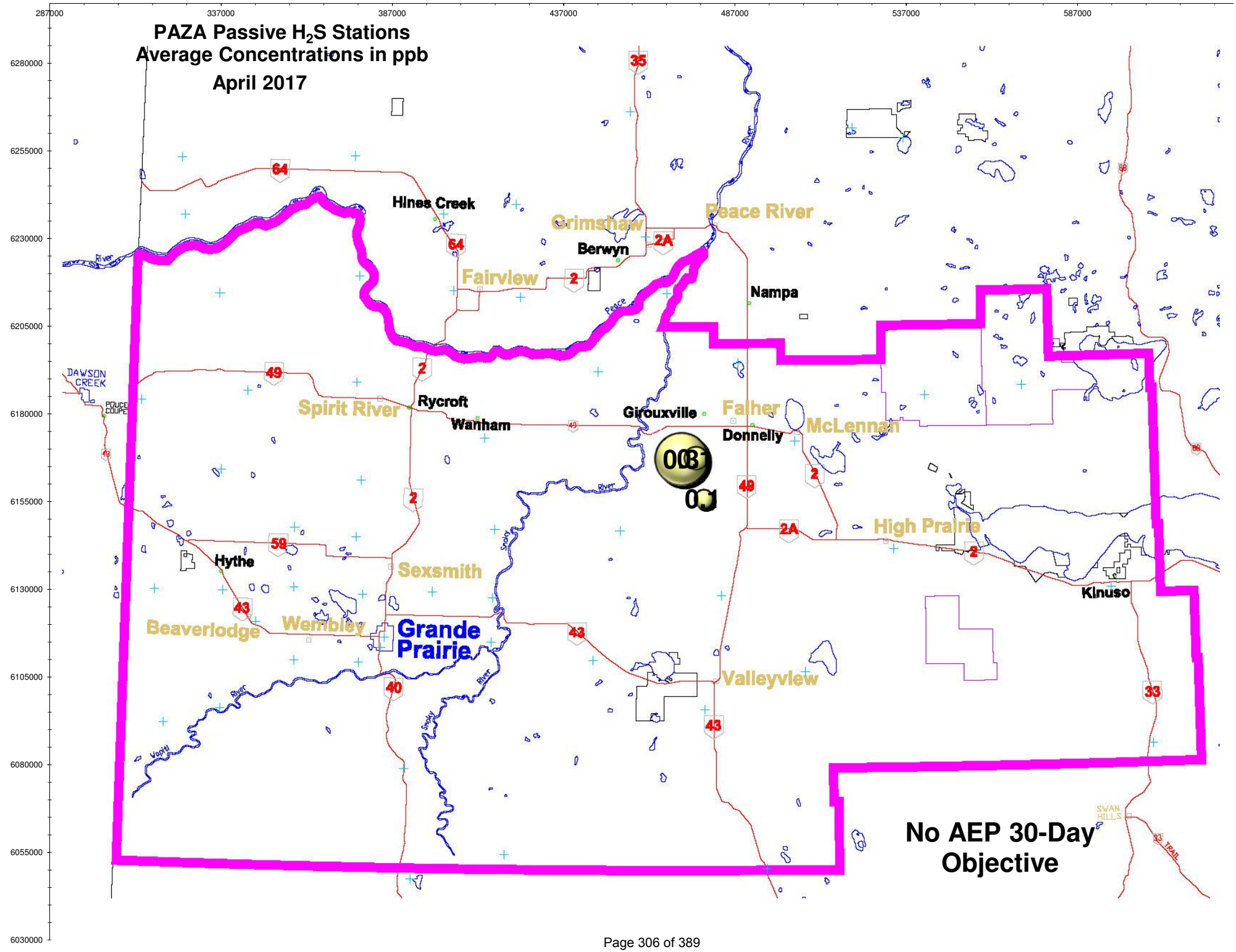

Alberta Ambient Air Quality Objective - 30-day Objective is 11 ppb
SO_2 Concentration (ppb)
2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
April 2017
2010
2011
2012
2013
2014
2015
2016
Bay Tree
Gordondale
Boone Creek
Spirit River
Sylvester
Beaverlodge
Saddle Hills
Wanham
Eaglesham
Wembley
Pinto Creek
Grande Prairie I
Clairmont Lake
Smoky Heights
Gold Creek
Jean Cote
Guy
Crooked Creek
Clouston Creek
McLennan
High Prairie
Peavine
Little Smoky
Kinuso
East Prairie

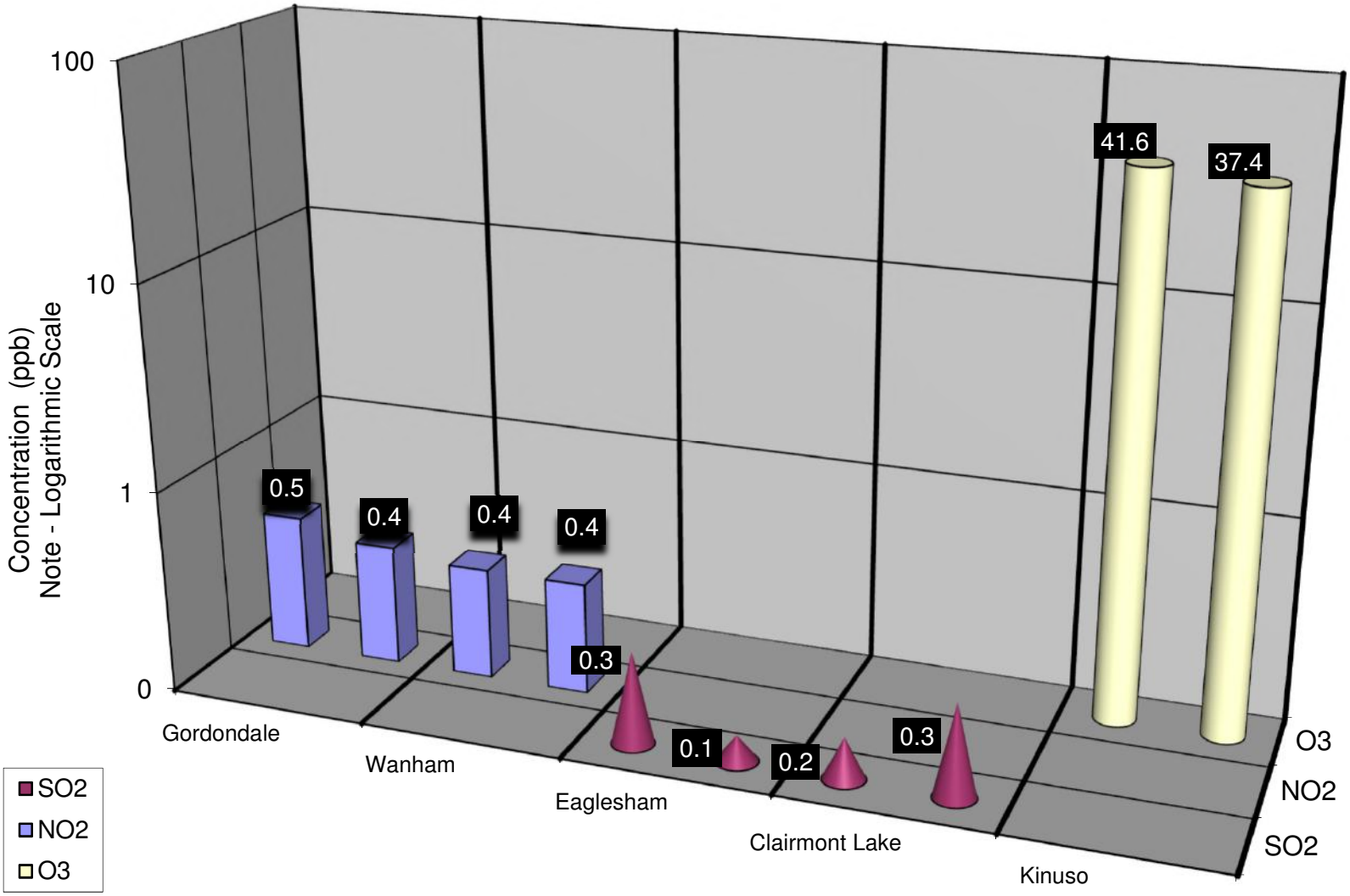

PAZA Passive O_3 Stations
Average Concentrations in ppb
April 2017
287000
337000
387000
437000
487000
537000
587000
6280000
6255000
6230000
6205000
6180000
6155000
6130000
6105000
6080000
6055000
6030000
Hines Creek
Grimshaw
Berwyn
Peace River
Fairview
Nampa
Spirit River
Rycroft
Wanham
Girouxville
Falher
Donnelly
McLennan
High Prairie
Hythe
Sexsmith
Beaverlodge
Wembley
Grande Prairie
Valleyview
44
44
No AEP 30-Day Objective


Alberta Ambient Air Quality Objective - No Annual O_3 Objective
April 2017
2010
2011
2012
2013
2014
2015
2016
O_3 Concentration (ppb)
0
10
20
30
40
50
60
70
80
Bay Tree
Crooked Creek
Kinuso


PAZA Passive NO_2 Stations
Average Concentrations in ppb
April 2017
287000
337000
387000
437000
487000
537000
587000
6280000
6255000
6230000
6205000
6180000
6155000
6130000
6105000
6080000
6055000
6030000
Hines Creek
Grimshaw
Berwyn
Peace River
Fairview
Nampa
DAWSON CREEK
Spirit River
Rycroft
Wanham
Girouxville
Falher
Donnelly
McLennan
High Prairie
Hythe
Sexsmith
Beaverlodge
Wembley
Grande Prairie
Valleyview
0.8
0.4
0.2
0.5
0.7
0.2
0.4
0.5
0.1
0.5
0.3
0.5
0.6
0.9
0.2
0.6
0.8
3.6
0.2
0.8
0.4
0.5
0.9
1.9
1.7
AEP
Annual
Objective
24 ppb


Alberta Ambient Air Quality Objective - Annual NO2 Objective is 24 ppb
NO2 Concentration (ppb)
0
1
2
3
4
5
6
7
April 2017
2010
2011
2012
2013
2014
2015
2016
Bay Tree
Gordondale
Boone Creek
Spirit River
Sylvester
Beaverlodge
Saddle Hills
Wanham
Eaglesham
Wembley
Pinto Creek
Grande Prairie I
Clairmont Lake
Smoky Heights
Gold Creek
Jean Cote
Guy
Crooked Creek
Clouston Creek
McLennan
High Prairie
Peavine
Little Smoky
Kinuso
East Prairie


PAZA Passive H_2S Stations
Average Concentrations in ppb
April 2017
287000
337000
387000
437000
487000
537000
587000
6280000
6255000
6230000
6205000
6180000
6155000
6130000
6105000
6080000
6055000
6030000
Hines Creek
Grimshaw
Berwyn
Peace River
Fairview
Nampa
DAWSON CREEK
Spirit River
Rycroft
Wanham
Girouxville
Falher
Donnelly
McLennan
High Prairie
Hythe
Sexsmith
Beaverlodge
Wembley
Grande Prairie
Valleyview
Kinuso
SWAN HILLS
No AEP 30-Day Objective



Duplicate Summary Chart

April 2017 Calibration Reports

PAZA - Henry Pirker Station with the following calibrations:
SO_2, NO, NO_2, NO_x, O_3, CO, THC, and TRS

PAZA – Evergreen Park Station with the following calibrations:
SO_2 and TRS

PAZA – Smoky Heights Station with the following calibrations:
SO_2 and TRS

PAZA – Beaverlodge Station with the following calibrations:
SO_2, NO, NO_2, NO_x, and O_3

PAZA – Valleyview Station with the following calibrations:
SO_2 and H_2S

PAZA – Donnelly Station with the following calibrations:
SO_2 and H_2S

PAZA – Rycroft Station with the following calibrations:
SO_2, NO, NO_2, NO_x, O_3, THC, and TRS

Calibration Report

Parameter **SO2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	April 18, 2017	Previous Calibration	March 2, 2017
Station Number	1	Station Location	Henry Pirker
Reason:	Routine / Install	Removal	Other:
Start Time (MST)	8:37	End Time (MST)	11:21
Barometric Pressure	721.000 mm	Station Temperature	23.0 Deg C
Calibrator	Environics	Serial Number	6586
Cal Gas Conc	50 ppm	Cal Gas Cert Date	October 5, 2018
		Cal Gas Cylinder #	LL103793
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 1 volt	DACS channel #	10
	Before		After
Calculated slope	0.983184	Calculated slope	1.001127
Calculated intercept	2.580842	Calculated intercept	3.386263
Analyzer make	TEI 43I-TLE	Analyzer serial #	1507864682 (AMU 2006)

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	1.43		1.39	
Coefficient	0.920		0.903	
Pressure	672.2	mm Hg	677.6	mm Hg
Flow	0.443	lpm	0.443	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)
4941	0.00	0.0	0.3	N/A
4987	40.01	398.0	396.0	1.0049
4967	20.05	201.0	195.2	1.0300
4944	10.06	101.5	94.7	1.0720
4941	0.00	0.0	0.3	As Found Zero
4987	40.01	398.0	404.9	As Found Span
			Average Correction Factor	1.0356

Calculated value of As Found Response: 400.4 ppb Percent Change of As Found: -0.6%

	before calibration		after calibration	
Auto zero	0.1	ppb	0.4	ppb
Auto span	287.1	ppb	283.3	ppb

Notes: Span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **SO2**

Air Monitoring Network **PAZA**

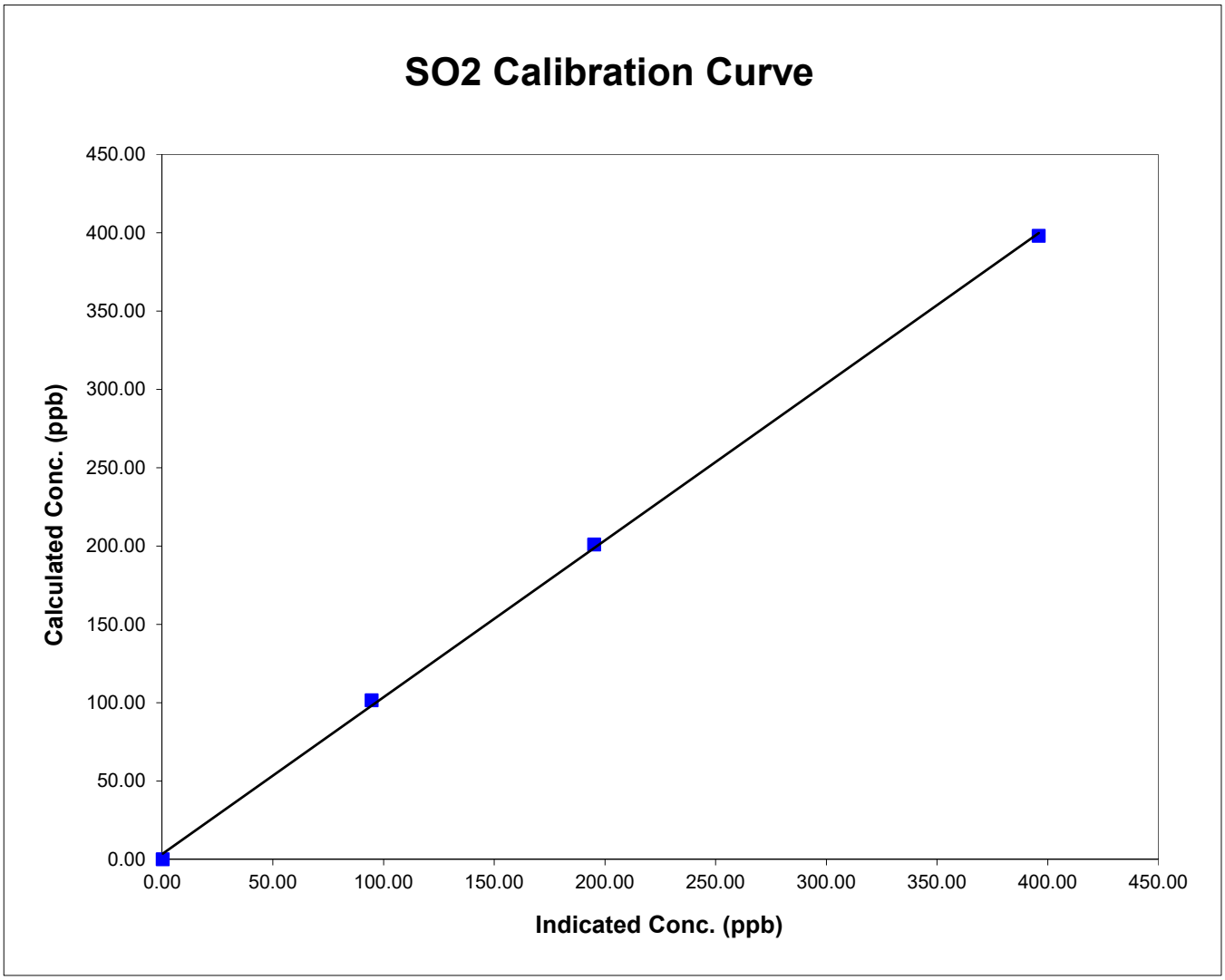
WSP AIR QUALITY MONITORING

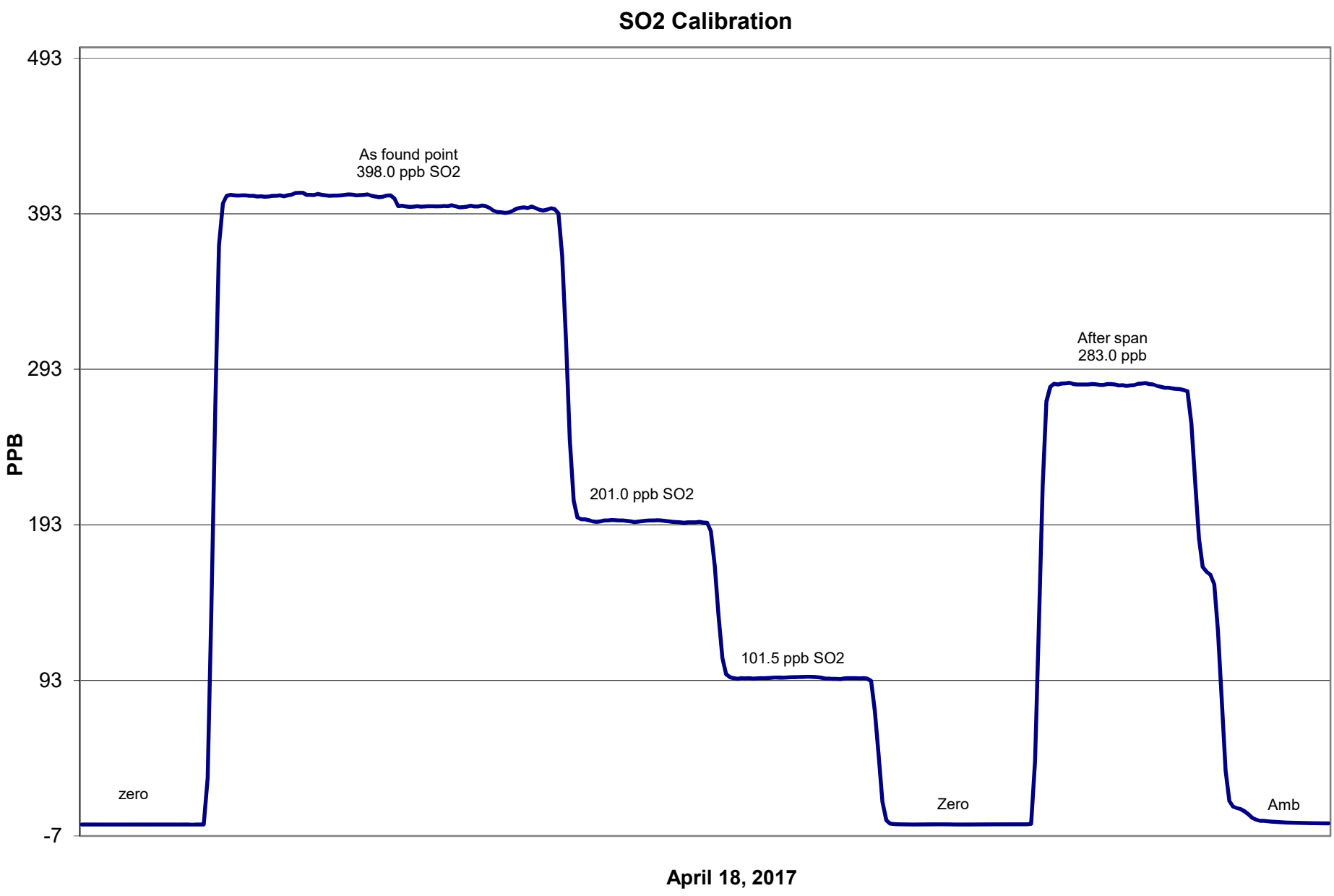
Station Information

Calibration Date	April 18, 2017	Previous Calibration	March 2, 2017
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	8:37	End Time (MST)	11:21
Analyzer make/model	TEI 43I-TLE	Analyzer serial #	1507864682 (AMU 2006)

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	N/A		
398.0	396.0	1.0049	Correlation Coefficient	0.999615
201.0	195.2	1.0300		
101.5	94.7	1.0720	Slope	1.001127
			Intercept	3.386263




SO2 Calibration
493
393
293
193
93
-7
PPB
As found point
398.0 ppb SO2
201.0 ppb SO2
101.5 ppb SO2
After span
283.0 ppb
zero
Zero
Amb
April 18, 2017

Calibration Report

Parameter **NO_X-NO-NO_2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	April 18, 2017	Previous Calibration	March 2, 2017
Station Number	1	Station Location	Henry Pirker

Reason: Routine Installation Removal Other:

Start Time (MST)	9:55		End Time (MST)	15:10	
Barometric Pressure	721.000	mm	Station Temperature	20.5	Deg C
Calibrator	Environics		Serial Number	906535067(AMU 197	
NO Cal Gas Conc	48.6	ppm	Cal Gas Expiry Date	October 5, 2018	
NOx Cal Gas Conc	48.9	ppm	Cal Gas Serial #	LL103793	

DACS Information

DACS make: CR3000 DACS serial No.: 5408

Parameter		NO2	NOx	NO
Before	Data Slope	1.005044	0.990175	0.983540
	Data Offset	0.368667	2.486730	2.207633
After	Data Slope	1.005983	1.001695	0.995616
	Data Offset	1.145800	3.331528	2.816754
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	6.0	mV	6.1	mV
NOx bkgnd	6.5	mV	6.6	mV
NO coefficient	0.946		0.970	
NOx coefficient	1.000		1.000	
NO2 conv temp	321.6	Deg C	322.2	Deg C
Cooler Temp	-2.9	Deg C	-2.9	Deg C
PMT Volt	-844.3	mV	-844.4	mV
R Cell Press	172.8	in Hg	172.8	in Hg
Sample Flow	0.610	LPM	0.616	LPM

Notes: Span adjustments made

Calibration Report

Parameter **NOX-NO-NO2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date: April 18, 2017 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	4941	0.00	0.0	0.0	0.0	0.5	1.0	0.0	N/A	N/A
1	4987	40.01	389.2	386.8	2.4	387.1	387.7	-0.2	1.0053	0.9978
2	4967	20.05	196.6	195.4	1.2	190.7	191.0	0.0	1.0310	1.0231
3	4944	10.06	99.3	98.7	0.6	92.3	92.9	0.0	1.0754	1.0618
AFZ	4941	0.00	0.0	0.0	0.0	0.5	1.0	0.0	0.0000	0.0000
AFS	4987	40.01	389.2	386.8	0.8	378.4	379.0	-0.1	1.0287	1.0206
							Average Correction Factor		1.0372	1.0276

As Found Concentrations: NO_X= 376.7 NO= 374.0 As Found Percent Change NO_X= -3.2% NO= -3.3%

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	1.0	1.0	0.0	0.5	1.0	0.0	N/A	N/A	N/A	N/A
NO point	386.9	386.9	0.0	386.3	386.9	-0.2	1.0015	1.0000	N/A	N/A
300	386.9	50.7	336.2	385.3	50.7	334.2	1.0043	1.0000	1.0059	99.4%
200	386.9	155.5	231.4	384.0	155.5	227.7	1.0077	1.0000	1.0160	98.4%
100	386.9	274.5	112.5	385.0	274.5	109.5	1.0050	1.0000	1.0274	97.3%
					Average Correction Factor		1.0057	1.0000	1.0164	98.4%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	0.5	0.0	1.0	ppb	1.0	0.1	1.0	ppb
Auto span	318.8	315.7	2.9	ppb	331.1	327.4	3.2	ppb

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **NO_2**

Air Monitoring Network **PAZA**

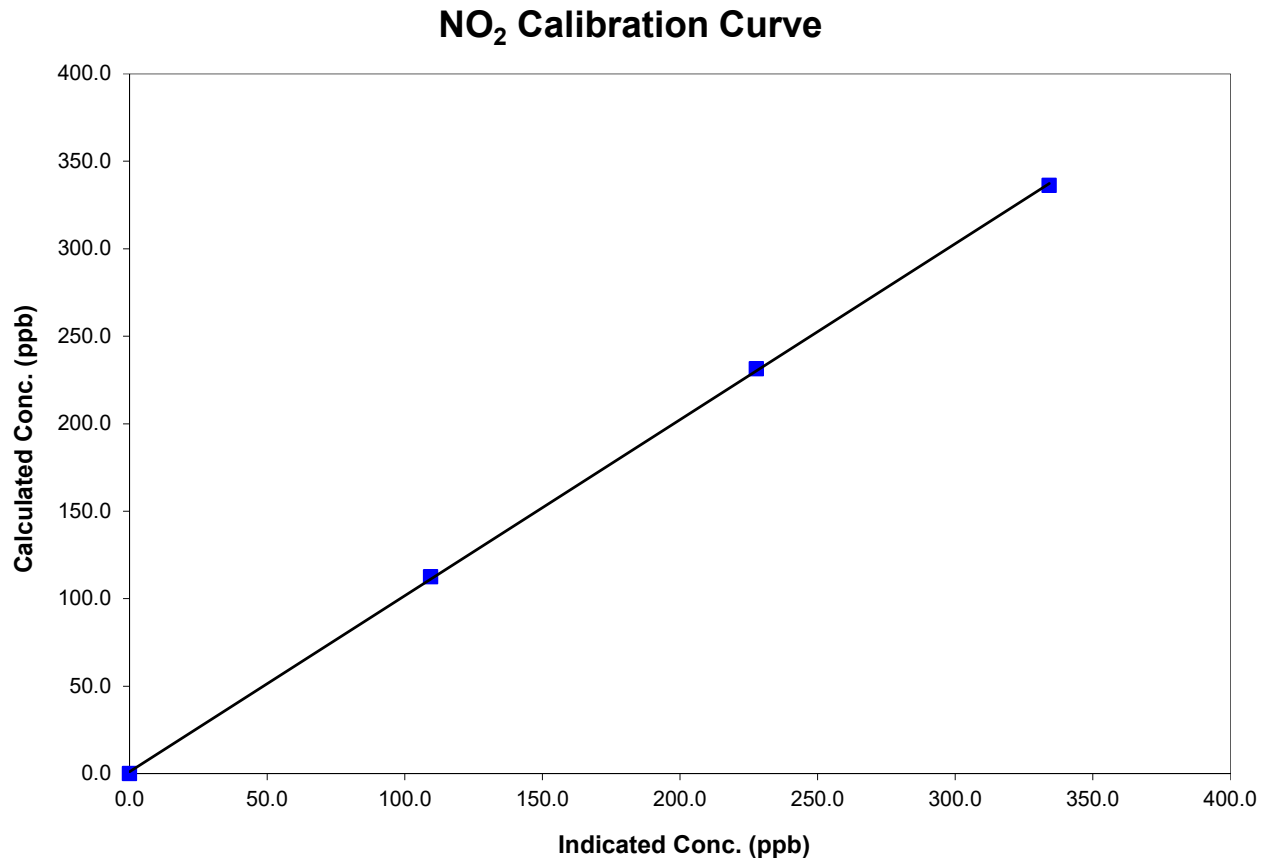
WSP AIR QUALITY MONITORING

Station Information

Calibration Date	April 18, 2017	Previous Calibration	March 2, 2017
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:55	End Time (MST)	15:10
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		
336.2	334.2	1.0059	Correlation Coefficient	0.999914
231.4	227.7	1.0160		
112.5	109.5	1.0274	Slope	1.005983
			Intercept	1.145800



Calibration Summary

Parameter **NO_x**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

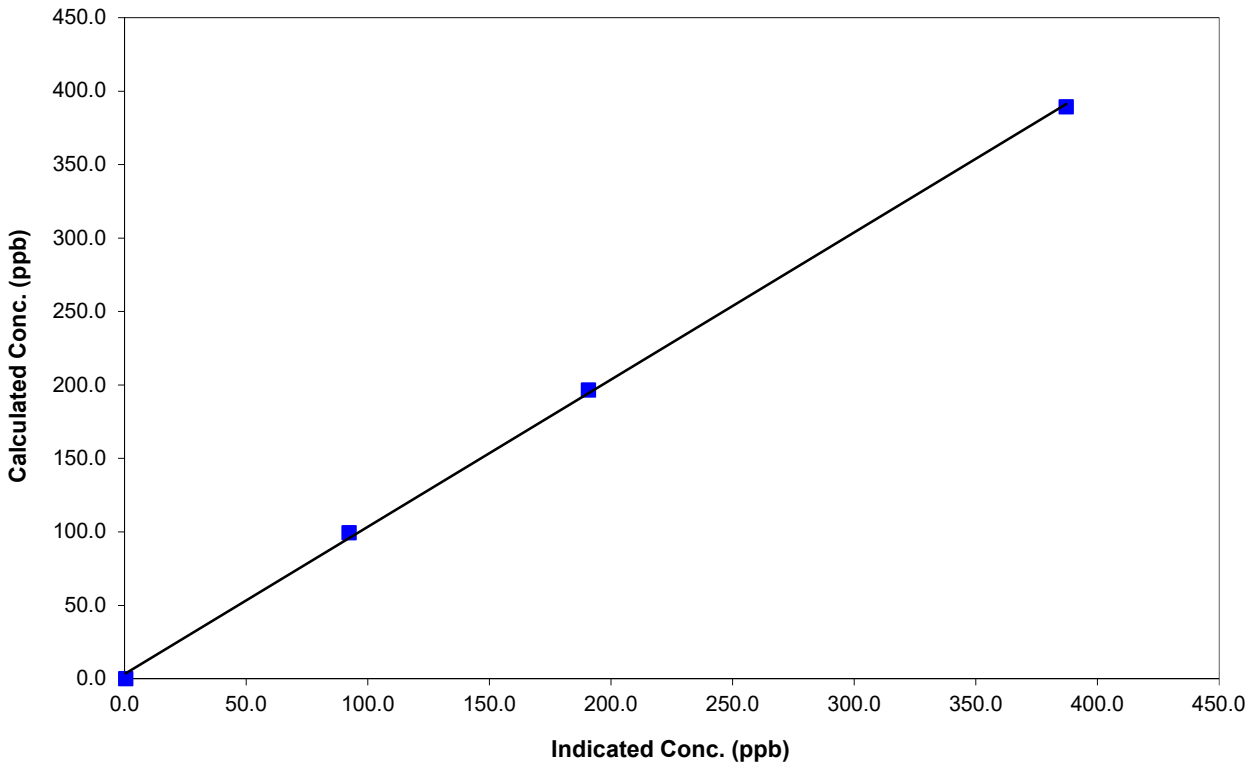
Station Information

Calibration Date	April 18, 2017	Previous Calibration	March 2, 2017
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:55	End Time (MST)	15:10
Analyzer make	42i	Analyzer serial #	906535087

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.5	N/A		
389.2	387.1	1.0053	Correlation Coefficient	0.999574
196.6	190.7	1.0310		
99.3	92.3	1.0754	Slope	1.001695
			Intercept	3.331528

NOx Calibration Curve



Calibration Summary

Parameter **NO**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

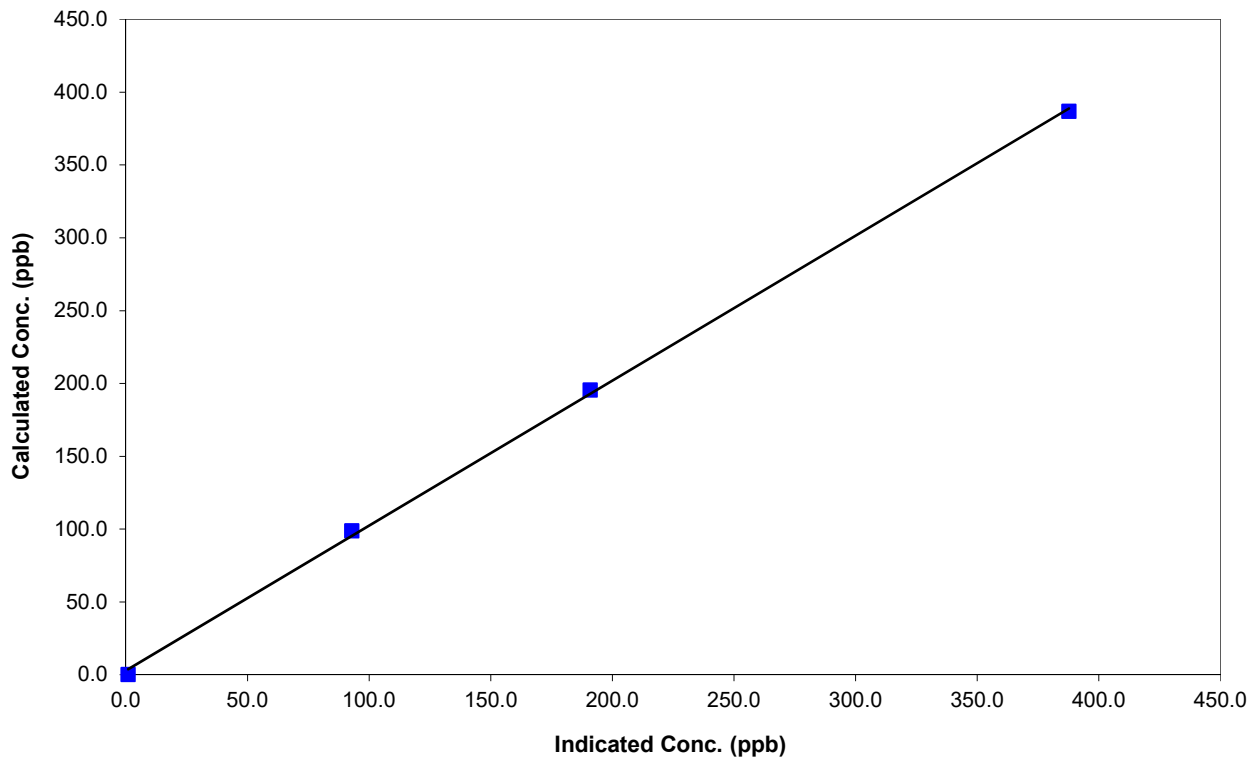
Station Information

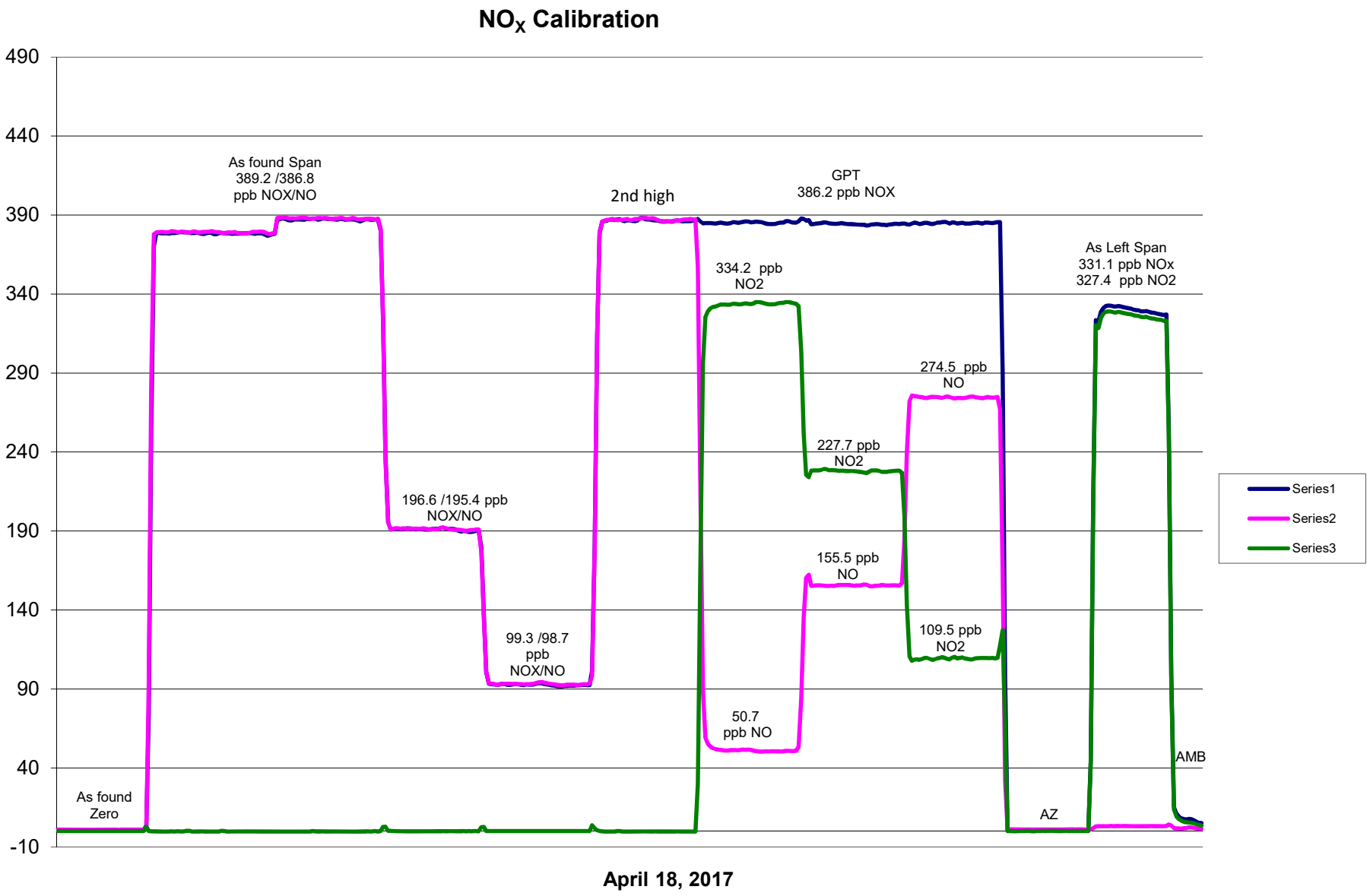
Calibration Date	April 18, 2017	Previous Calibration	March 2, 2017
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:55	End Time (MST)	15:10
Analyzer make	42i	Analyzer serial #	906535087

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	1.0	N/A		
386.8	387.7	0.9978	Correlation Coefficient	0.999568
195.4	191.0	1.0231		
98.7	92.9	1.0618	Slope	0.995616
			Intercept	2.816754

NO Calibration Curve




NOx Calibration
490
440
390
340
290
240
190
140
90
40
-10
As found Span
389.2 /386.8
ppb NOX/NO
2nd high
GPT
386.2 ppb NOX
As Left Span
331.1 ppb NOx
327.4 ppb NO2
334.2 ppb
NO2
274.5 ppb
NO
227.7 ppb
NO2
196.6 /195.4 ppb
NOX/NO
155.5 ppb
NO
99.3 /98.7
ppb
NOX/NO
109.5 ppb
NO2
50.7
ppb NO
AMB
As found
Zero
AZ
Series1
Series2
Series3
April 18, 2017

Calibration Report

Parameter **O3**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	April 18, 2017	Previous Calibration	March 2, 2017
Station Number	1	Station Location	Henry Pirker
Reason: Routine	Install	Removal	Other:
Start Time (MST)	14:20:00 PM	End Time (MST)	16:29
Barometric Pressure	721.000 mm	Station Temperature	23.0 Deg C
Calibrator	Environics	Serial Number	6586
Cal Gas Concentration	NA	Cal Gas Expiry Date	NA
DACS make	CR3000	DACS serial No.	5237
DACS voltage range	0 - 5 volt	DACS channel #	9
	Before		After
Calculated slope	1.000414	Calculated slope	0.989010
Calculated intercept	2.168275	Calculated intercept	2.838425
Analyzer make	Teco 49I	Analyzer serial #	1507964699 (AMU:2015)

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
offset	0.20	ppb	0.20	ppb
slope	1.017		1.017	
Lamp temp	53.7	mV	53.7	mV
Lamp Intensity A/B	71180/77435	mV	71589/78173	mV
Pressure	691.3	mm Hg	691	mm Hg
Flow A	0.732	ccm	0.736	ccm
Flow B	0.734	ccm	0.735	ccm

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4981	0.0	0.0	-0.2	N/A
4990	0.3	336.2	340.7	0.9869
4979	0.2	231.4	226.6	1.0214
4984	0.1	112.5	109.1	1.0307
4981	0.0	0.0	-0.2	As found zero
4990	0.3	336.2	340.7	As found span
			Average Correction Factor	1.0130

Calculated value of As Found Response: 343.1 ppm Percent Change of As Found: 2.1%

	before calibration		after calibration	
Auto zero	-0.2	ppb	0.2	ppb
Auto span	388.8	ppb	386.2	ppb

Notes:

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **O3**

Air Monitoring Network **PAZA**

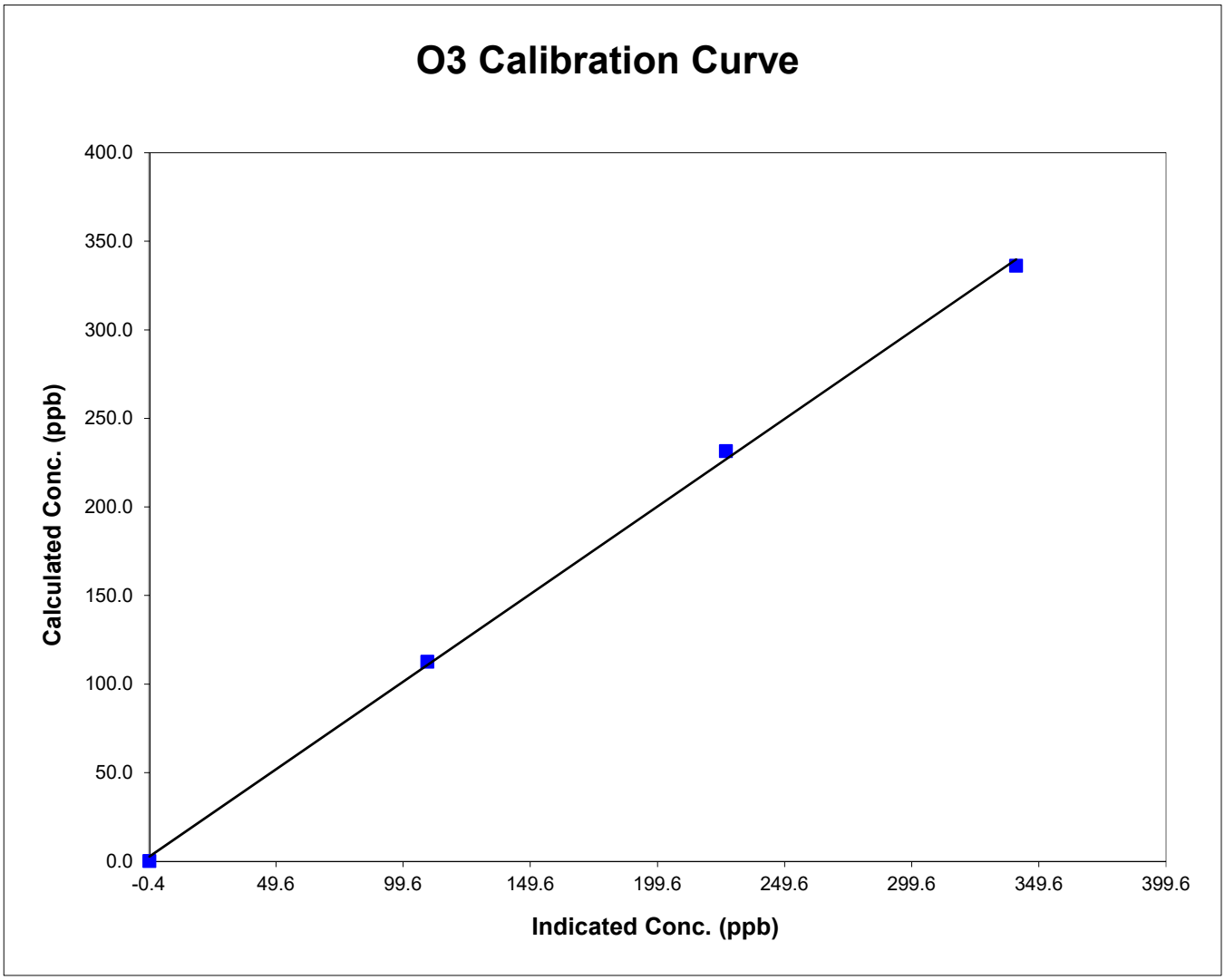
WSP AIR QUALITY MONITORING

Station Information

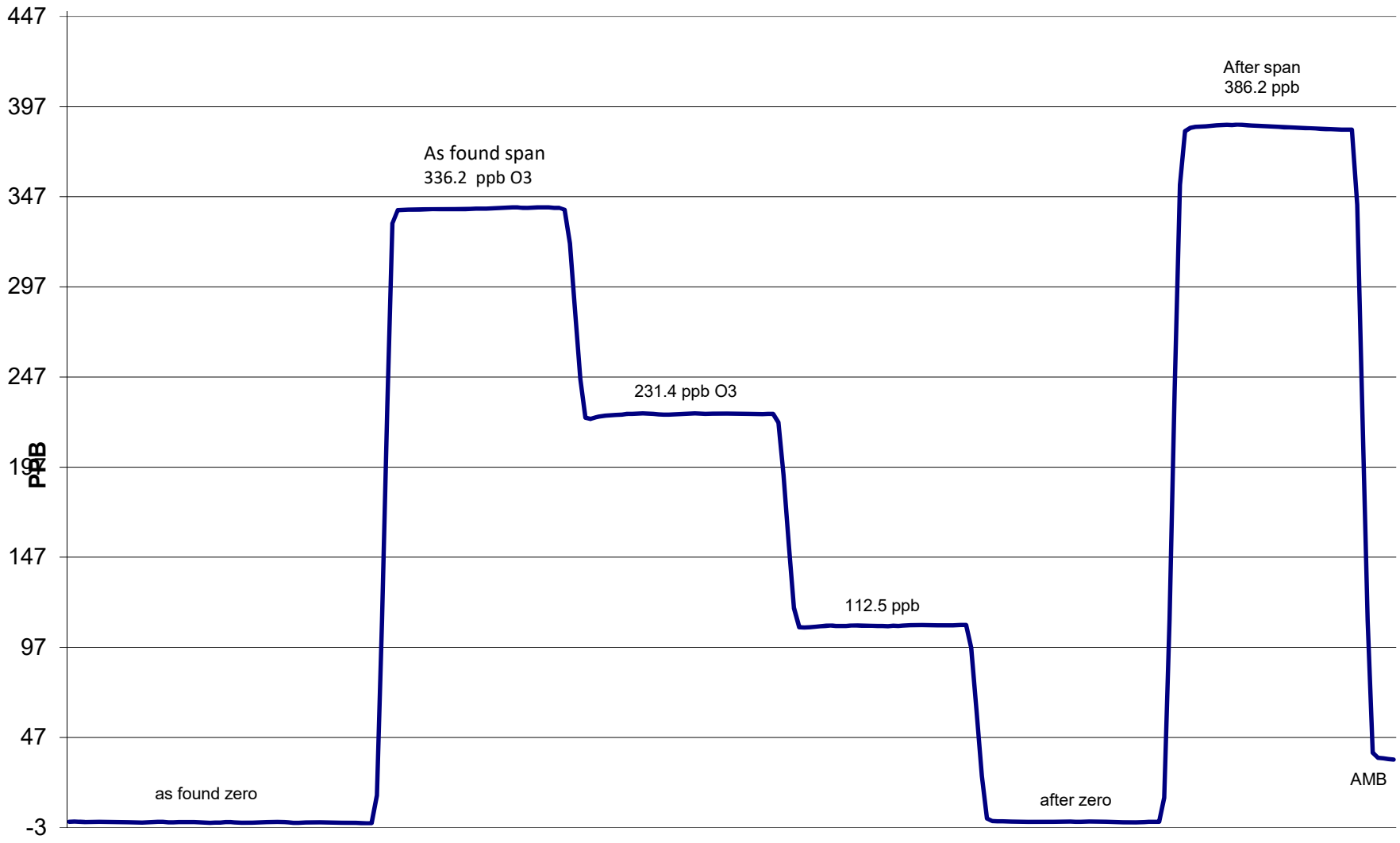
Calibration Date	April 18, 2017	Previous Calibration	March 2, 2017
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	14:20:00 PM	End Time (MST)	16:29
Analyzer make/model	Teco 49I	Analyzer serial #	1507964699 (AMU:2015)

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.2	NA		
336.2	340.7	0.9869	Correlation Coefficient	0.999325
231.4	226.6	1.0214		
112.5	109.1	1.0307	Slope	0.989010
			Intercept	2.838425



O3 Calibration



April 18, 2017

Calibration Report

Parameter **CO**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	April 19, 2017	Previous Calibration	March 3, 2017
Station Number	1	Station Location	Henry Pirker
Reason: Routine	Install	Removal	Other:
Start Time (MST)	12:35	End Time (MST)	14:52
Barometric Pressure	724.0 mm/hg	Station Temperature	22.0 Deg C
Calibrator	Environics 6100	Serial Number	6586
Cal Gas Conc	2906 ppm	Cal Gas Expiry Date	7/7/2023
		Cal Gas Cylinder #	LL109096
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 5 volt	DACS channel #	9
	Before		After
Calculated slope	0.990514	Calculated slope	0.997174
Calculated intercept	-0.165560	Calculated intercept	-0.134220
Analyzer make	Model 48I-TLE	Analyzer serial #	1408761378

	before		after	
Concentration range	0 - 50	ppm	0 - 50	ppm
CO zero setting	8.043		8.305	
CO span setting	1.082		1.082	
Sample pressure	698.3	mm Hg	702.2	mm Hg
Sample Flow	0.446	LPM	0.450	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)
4995	0.00	0.00	0.01	N/A
5003	70.35	40.30	40.43	0.9967
5002	34.89	20.13	20.53	0.9804
5001	18.01	10.43	10.62	0.9815
4995	0.00	0.00	0.01	As Found Zero
5003	70.35	40.30	40.43	As Found Span
			Average Correction Factor	0.9862

Calculated value of As Found Response: 39.874 ppm Percent Change of As Found: 1.0%

	before calibration		after calibration	
Auto zero	-0.04	ppm	0.01	ppm
Auto span	20.87	ppm	20.90	ppm

Notes:

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **CO**

Air Monitoring Network **PAZA**

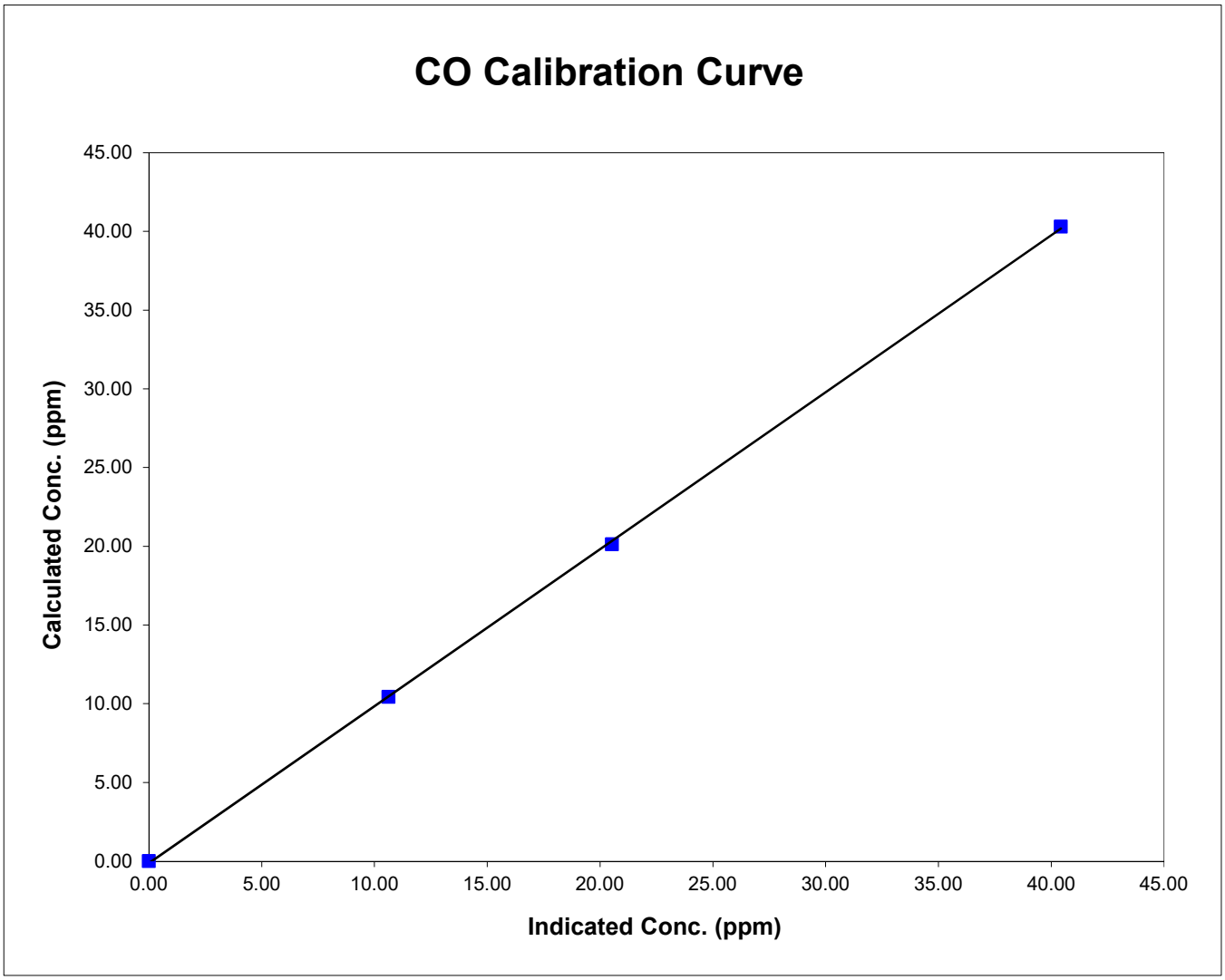
WSP AIR QUALITY MONITORING

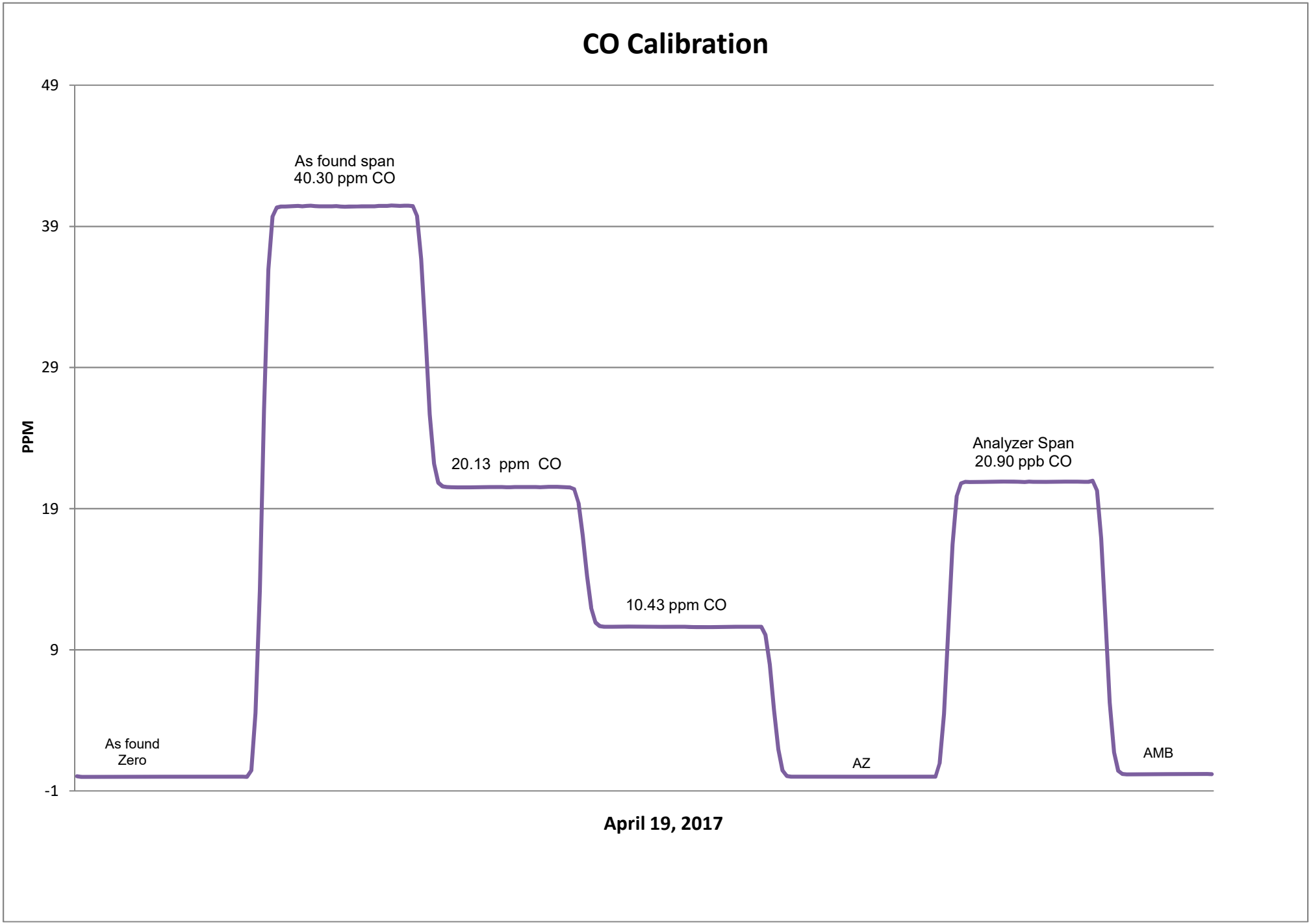
Station Information

Calibration Date	April 19, 2017	Previous Calibration	March 3, 2017
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	12:35	End Time (MST)	14:52
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	0.007	N/A		
40.296	40.430	0.9967	Correlation Coefficient	0.999915
20.130	20.532	0.9804		
10.428	10.625	0.9815	Slope	0.997174
			Intercept	-0.134220




CO Calibration
49
39
29
19
9
-1
PPM
As found span
40.30 ppm CO
20.13 ppm CO
10.43 ppm CO
Analyzer Span
20.90 ppb CO
As found
Zero
AZ
AMB
April 19, 2017

Calibration Report

Parameter **CH4 / NMHC / THC**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	April 8, 2017	Previous Calibration	March 3, 2017
Station Number	1	Station Location	Henry Pirker
Reason: Routine	Install	Removal	Other:Main

Start Time (MST)	12:32	End Time (MST)	14:49
Barometric Pressure	724.00 mm/hg	Station Temperature	23.0 Deg C
Calibrator	Environics 6103	Serial Number	6586
Cal Gas CH4 Conc	386 ppm CH4	Cal Gas Expiry Date	7/5/2015
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)
1995	0.00	0.00	0.02	N/A
1998	68.96	12.88	12.89	0.9987
2001	40.93	7.74	7.72	1.0025
1999	15.97	3.06	2.99	1.0215
1995	0.00	0.00	0.02	As Found Zero
1995	68.93	12.89	12.89	As Found Span
			Average Correction Factor	1.0076

Calculated value of As Found Response: 12.819 ppm Percent Change of As Found: 0.6%

	Before		After
Calculated slope	0.995851	Calculated slope	0.998348
Calculated intercept	-0.003053	Calculated intercept	0.021783

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.03	ppm	0.03	ppm
Auto span	8.69	ppm	9.30	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)
1995	0.00	0.00	0.02	N/A
1997	68.96	19.00	18.98	1.0012
2001	40.93	11.41	11.50	0.9925
1999	15.97	4.51	4.46	1.0111
1995	0.00	0.00	0.02	As Found Zero
1995	68.93	19.01	18.98	As Found Span
			Average Correction Factor	1.0016

Calculated value of As Found Response: 18.873 ppm Percent Change of As Found: 0.7%

	Before		After
Calculated slope	0.995718	Calculated slope	0.999817
Calculated intercept	-0.003622	Calculated intercept	-0.006634

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.02	ppm	0.02	ppm
Auto span	11.92	ppm	12.76	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)
1995	0.00	0.00	0.03	N/A
1998	68.96	31.87	31.85	1.0007
2001	40.93	19.15	19.20	0.9974
1999	15.97	7.57	7.45	1.0169
1995	0.00	0.00	0.03	As Found Zero
1995	68.93	31.90	31.85	As Found Span
			Average Correction Factor	1.0050

Calculated value of As Found Response: 31.694 ppm Percent Change of As Found: 0.7%

	Before		After
Calculated slope	0.996124	Calculated slope	0.999504
Calculated intercept	0.001669	Calculated intercept	0.023341

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.02	ppm	0.02	ppm
Auto span	20.60	ppm	22.07	ppm

Notes: No adjustment made
Hydrogen cylinder replaced

Calibration Performed By: Dmytro Doloti

Calibration Summary

Parameter **CH4**

Air Monitoring Network **PAZA**

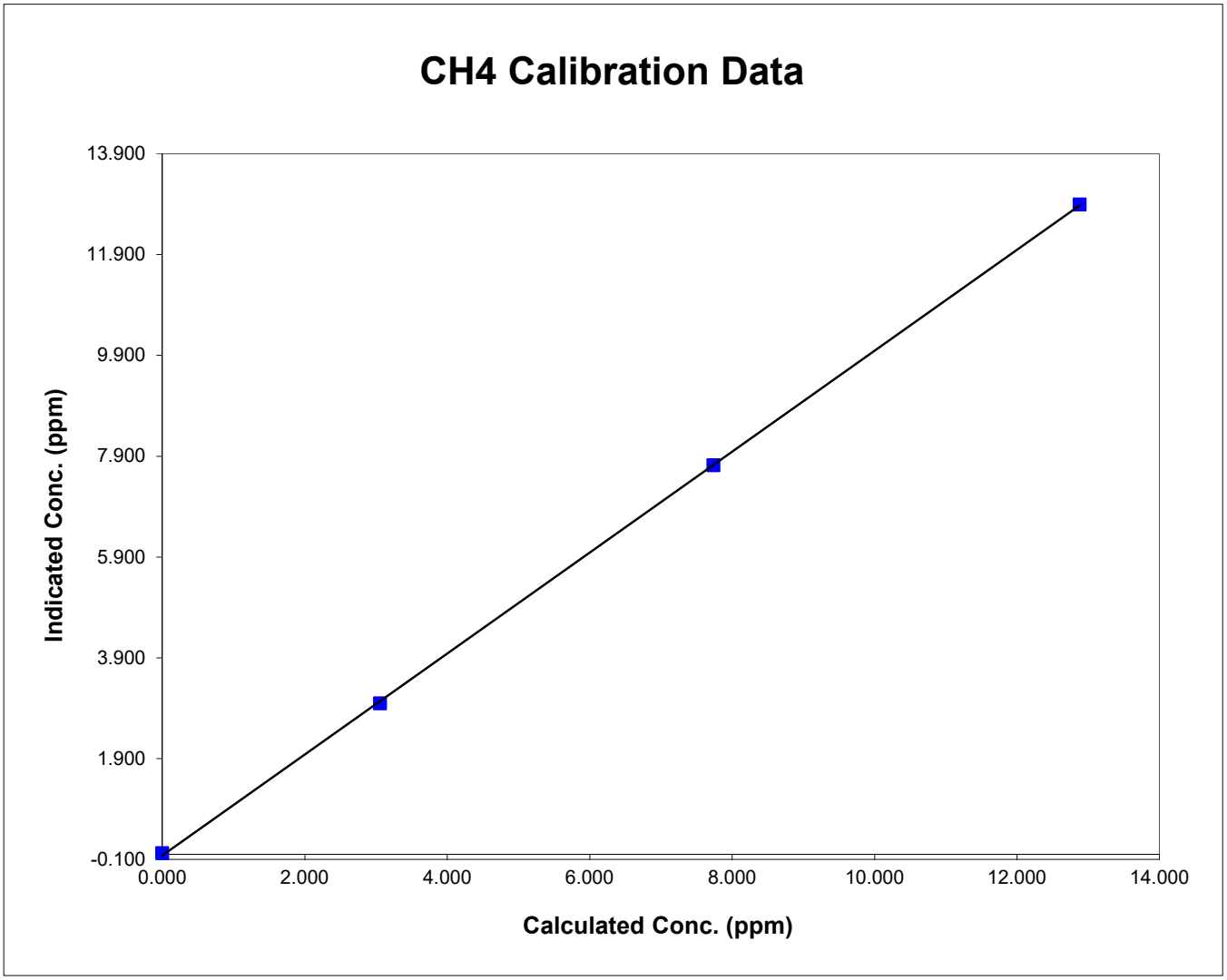
WSP AIR QUALITY MONITORING

Station Information

Calibration Date	April 8, 2017	Previous Calibration	March 3, 2017
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	12:32	End Time (MST)	14:49
Analyzer make/model	TEI 55I	Analyzer serial #	1134650658

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.019	N/A		
12.878	12.895	0.9987	Correlation Coefficient	0.999954
7.737	7.718	1.0025		
3.059	2.995	1.0215	Slope	0.998348
			Intercept	0.021783



Calibration Summary

Parameter **NMHC**

Air Monitoring Network **PAZA**

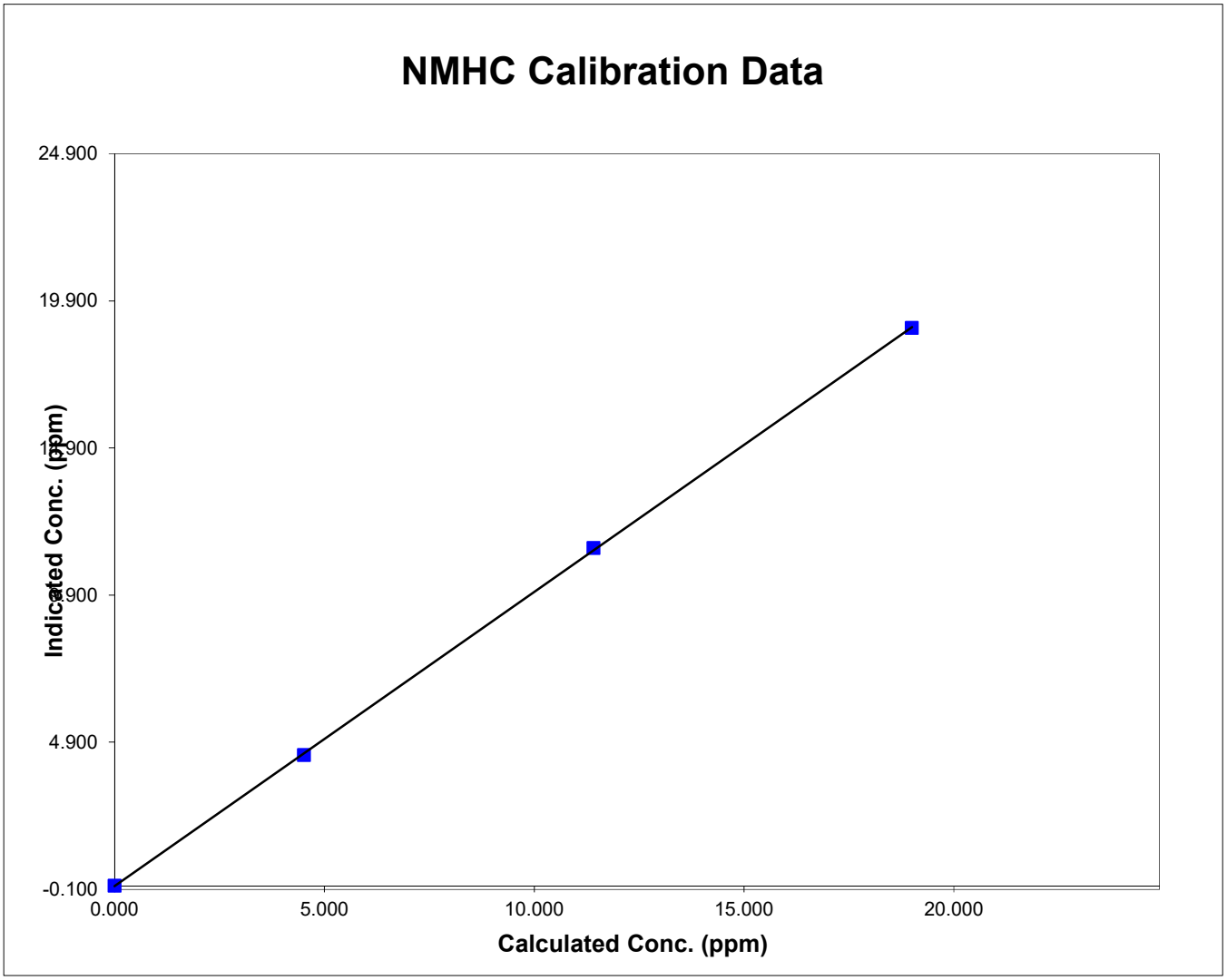
WSP AIR QUALITY MONITORING

Station Information

Calibration Date	April 8, 2017	Previous Calibration	March 3, 2017
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	12:32	End Time (MST)	14:49
Analyzer make/model	TEI 55I	Analyzer serial #	1134650658

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.020	N/A		
19.001	18.978	1.0012	Correlation Coefficient	0.999949
11.410	11.497	0.9925		
4.512	4.462	1.0111	Slope	0.999817
			Intercept	-0.006634



Calibration Summary

Parameter **THC**

Air Monitoring Network **PAZA**

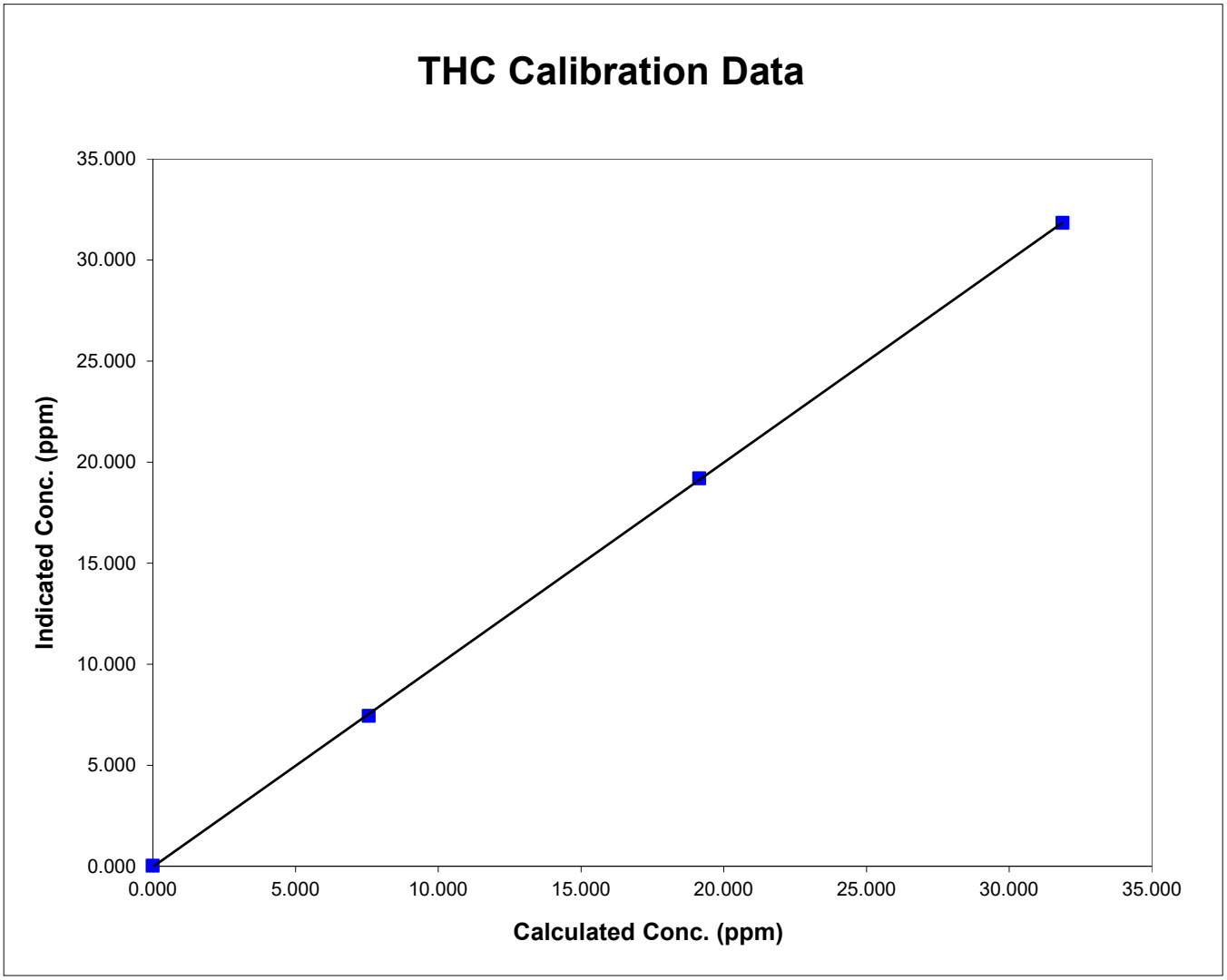
WSP AIR QUALITY MONITORING

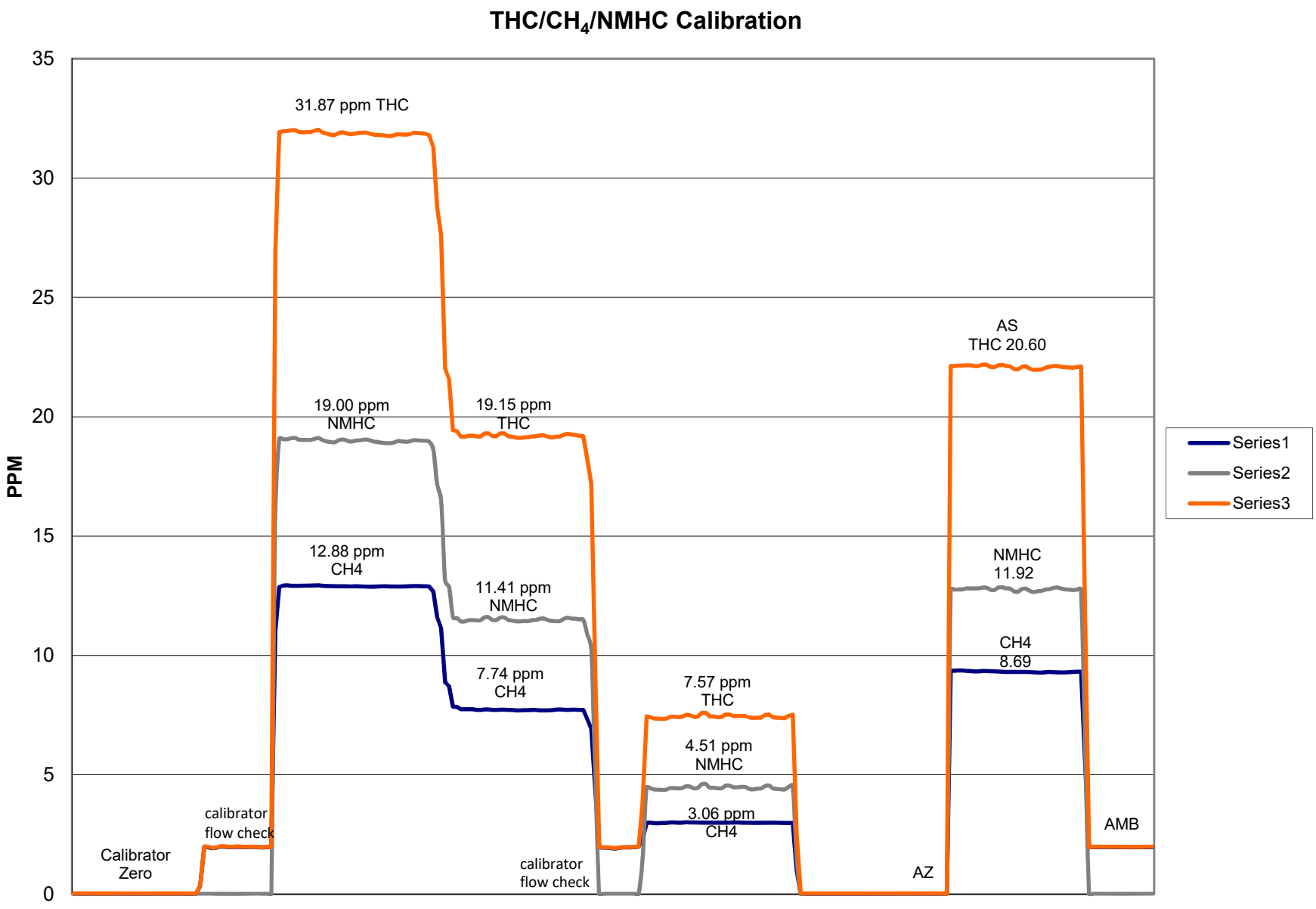
Station Information

Calibration Date	April 8, 2017	Previous Calibration	March 3, 2017
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	12:32	End Time (MST)	14:49
Analyzer make/model	TEI 55I	Analyzer serial #	1134650658

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.033	N/A		
31.870	31.849	1.0007	Correlation Coefficient	0.999968
19.148	19.198	0.9974		
7.571	7.445	1.0169	Slope	0.999504
			Intercept	0.023341




THC/CH4/NMHC Calibration
PPM
35
30
25
20
15
10
5
0
31.87 ppm THC
19.00 ppm NMHC
19.15 ppm THC
12.88 ppm CH4
11.41 ppm NMHC
7.74 ppm CH4
7.57 ppm THC
4.51 ppm NMHC
3.06 ppm CH4
AS THC 20.60
NMHC 11.92
CH4 8.69
Calibrator Zero
calibrator flow check
calibrator flow check
AZ
AMB
Series1
Series2
Series3

Calibration Report

Parameter **TRS**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	April 19, 2017	Previous Calibration	March 21, 2017
Station Number	1	Station Location	Henry Pirker
Reason: Routine	Install	Removal	Other:
Start Time (MST)	9:30	End Time (MST)	12:30
Barometric Pressure	724.00 mm/Hg	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	0.988098	Calculated slope	0.982858
Calculated intercept	0.534966	Calculated intercept	0.756586
Analyzer make	TEI 45C	Analyzer serial #	630718528

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Coefficient	1.017		1.165	
Background	12.8		14.6	
Pressure	661.3	mm Hg	668.7	mm Hg
Flow	0.438	ccm	0.44	ccm
Lamp Voltage	905	V	906	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)
4998	0.00	0.00	0.20	N/A
4993	39.98	81.02	82.21	0.9856
4994	19.92	40.52	39.53	1.0252
6998	10.01	14.56	13.47	1.0810
4998	0.00	0.00	0.20	As Found Zero
4993	39.98	81.02	69.83	As Found Span
			Average Correction Factor	1.0306

Calculated value of As Found Response: 69.3 ppb Percent Change of As Found: 14.4%

	before calibration		after calibration	
Auto zero	-0.26	ppb	0.16	ppb
Auto span	27.34	ppb	27.19	ppb

Notes: Span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **TRS**

Air Monitoring Network **PAZA**

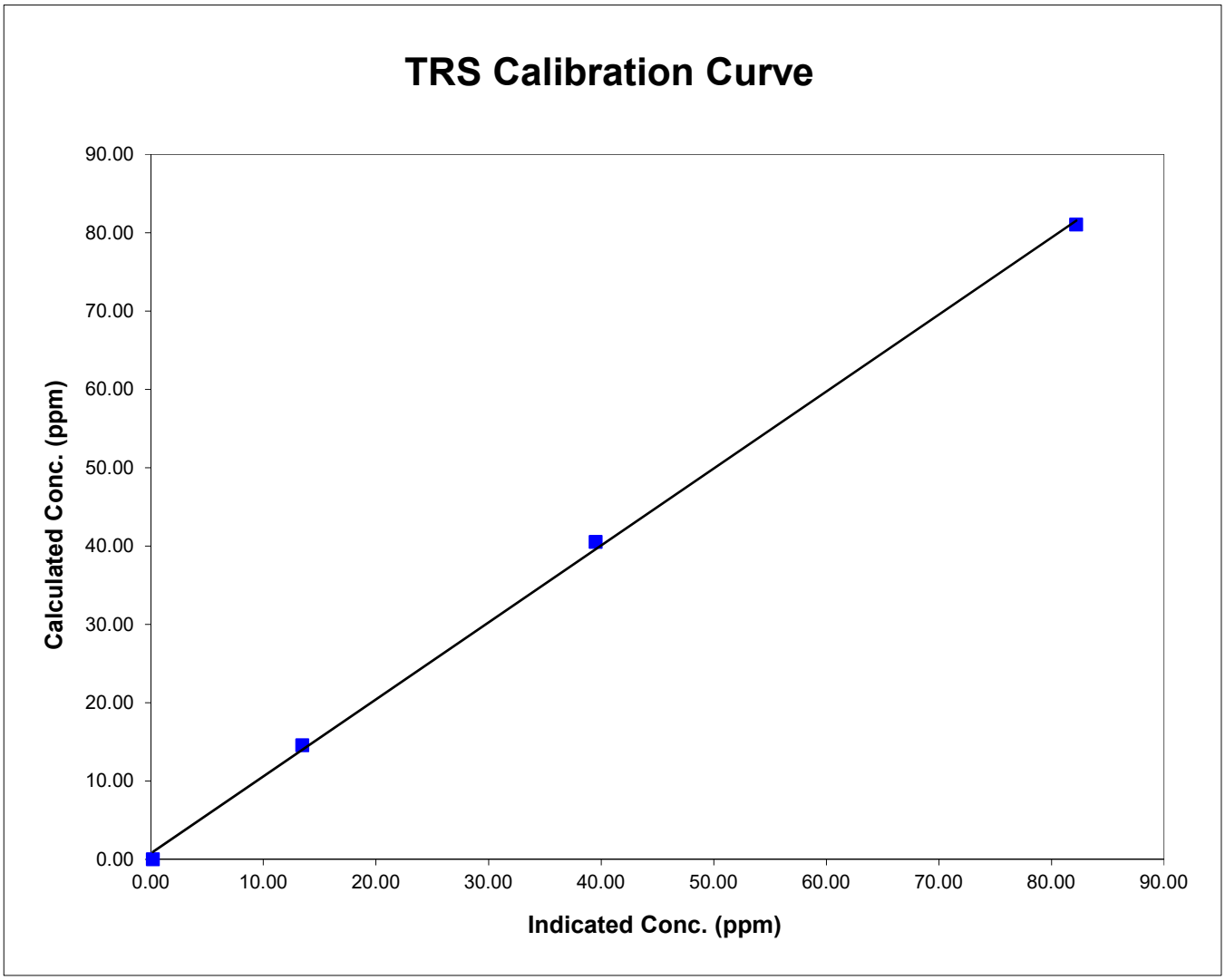
WSP AIR QUALITY MONITORING

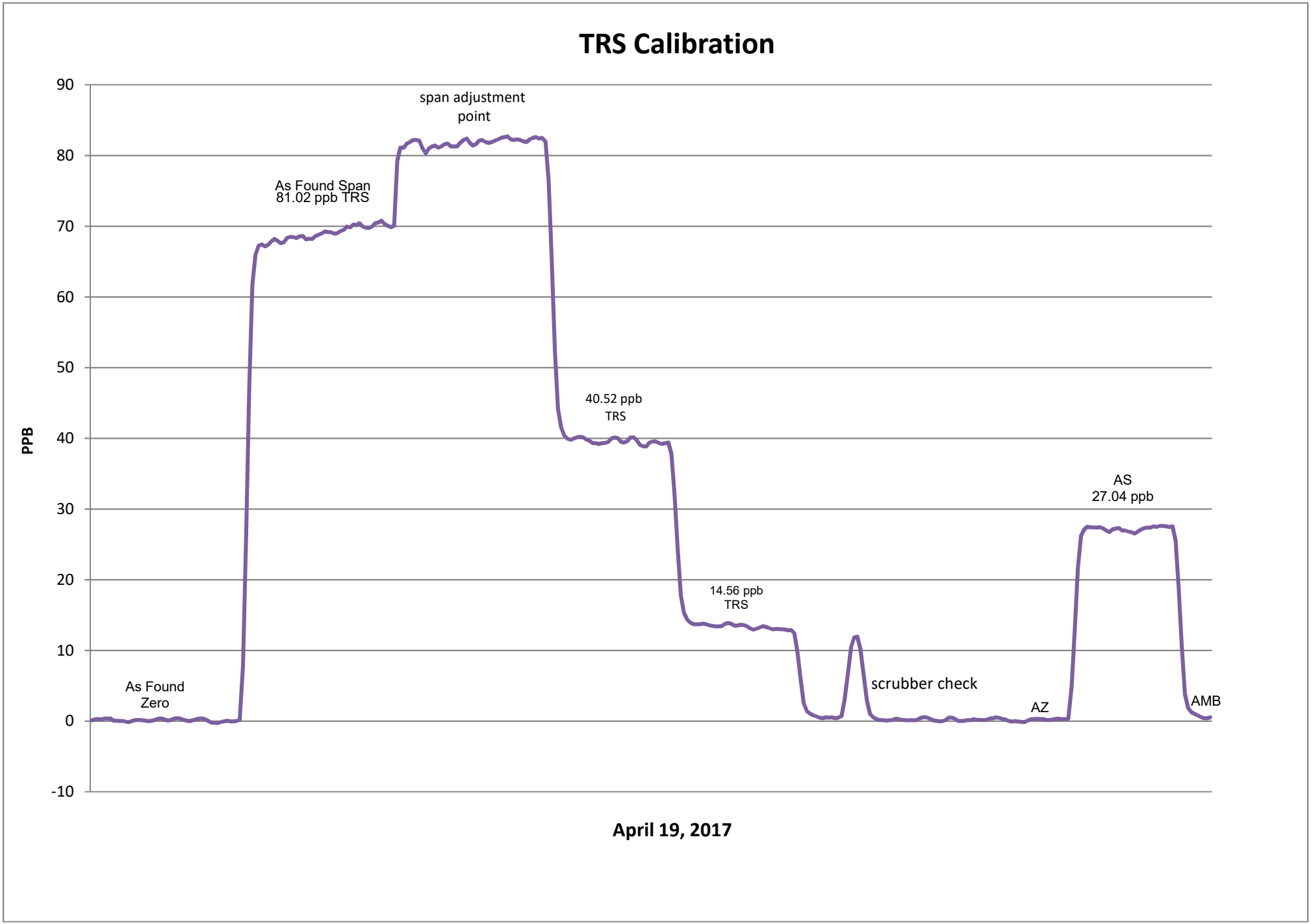
Station Information

Calibration Date	April 19, 2017	Previous Calibration	March 21, 2017
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:30	End Time (MST)	12:30
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	0.199	N/A		
81.025	82.210	0.9856	Correlation Coefficient	0.999378
40.524	39.526	1.0252		
14.562	13.470	1.0810	Slope	0.982858
			Intercept	0.756586




TRS Calibration
90
80
70
60
50
40
30
20
10
0
-10
PPB
span adjustment point
As Found Span 81.02 ppb TRS
40.52 ppb TRS
14.56 ppb TRS
AS 27.04 ppb
As Found Zero
scrubber check
AZ
AMB
April 19, 2017

Calibration Report

Parameter **SO_2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	April 6 2017	Previous Calibration	March 13 2017
Station Number	2	Station Location	Evergreen Park
Reason: Routine	Install	Removal	Other:
Start Time (MST)	11:20	End Time (MST)	13:55:00 PM
Barometric Pressure	0.917 ATM	Station Temperature	20.0 Deg C
Calibrator	Environics	Serial Number	6586
Cal Gas Concentration	50 ppm	Cal Gas Expiry Date	8/2/2019
Correction factor	0.031171	Cal Gas Cylinder #	LL105132
DACS make	CR3000	DACS serial No.	5236
DACS voltage range	0 - 5 volt	DACS channel #	6
	Before		After
Calculated slope	0.991197	Calculated slope	0.996249
Calculated intercept	1.853052	Calculated intercept	2.450791
Analyzer make	Teco 43i	Analyzer serial #	701120008

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	12.1		11.8	
coefficient	1.272		1.252	
Lamp Voltage	832	volts	835	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	664.1	mm Hg	662.8	mm Hg
Sample Flow	0.441	ccm	0.441	ccm
Lamp Intensity	89	%	89	%

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4999	0.0	0.00	1.1	N/A
5010	40.07	396.7	397.8	0.9973
5008	20.19	200.8	196.2	1.0234
5012	10.05	100.1	95.3	1.0501
5010	0.0	0.0	1.1	As Found Zero
4999	39.93	400.3	402.4	As Found Span
			Average Correction Factor	1.0236

Calculated value of As Found Response: 399.619 ppm Percent Change of As Found: 0.2%

	before calibration		after calibration	
Auto zero	0.9	ppm	1.0	ppm
Auto span	269.6	ppm	267.6	ppm

Notes: Slght span adjustment

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **SO2**

Air Monitoring Network **PAZA**

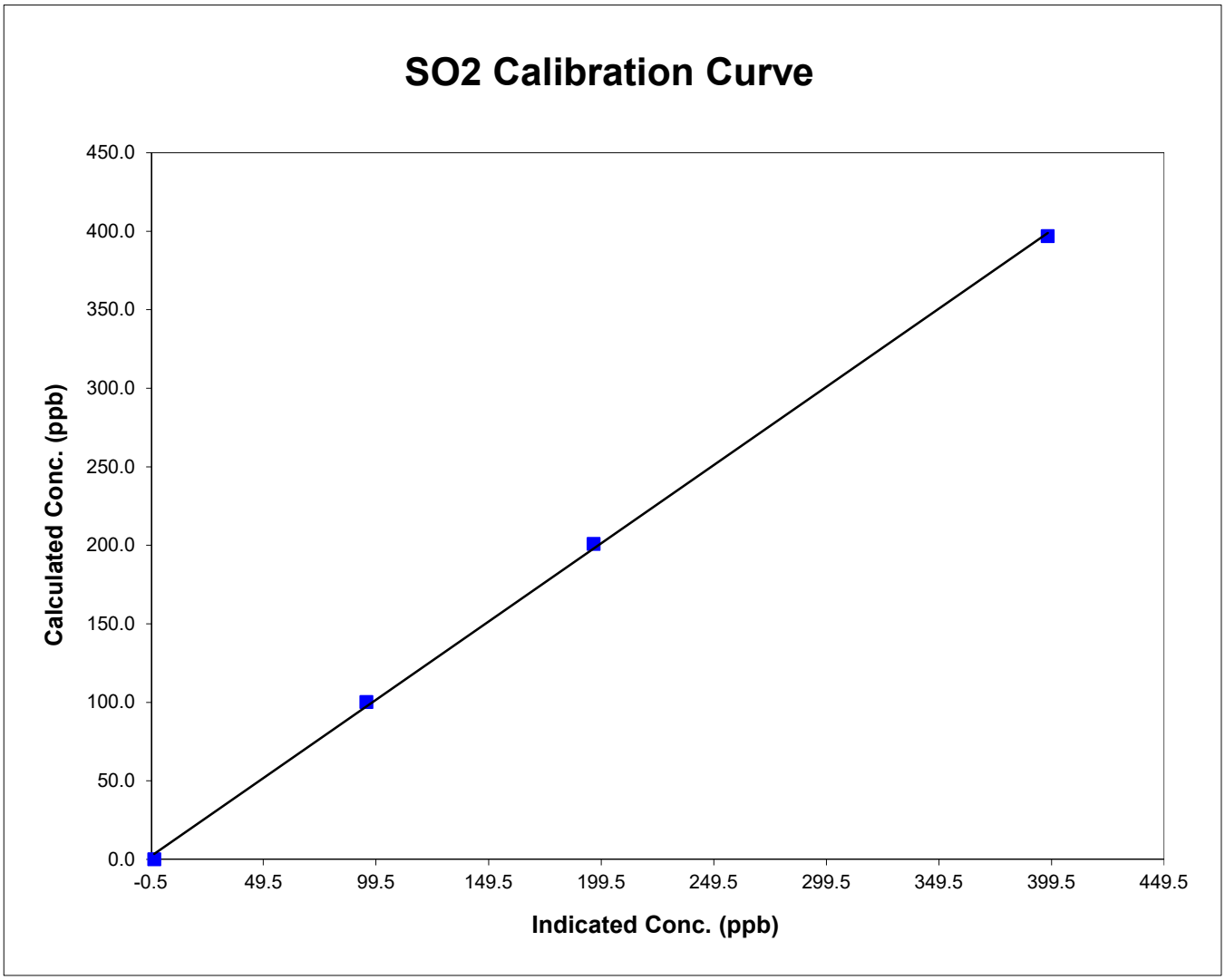
WSP AIR QUALITY MONITORING

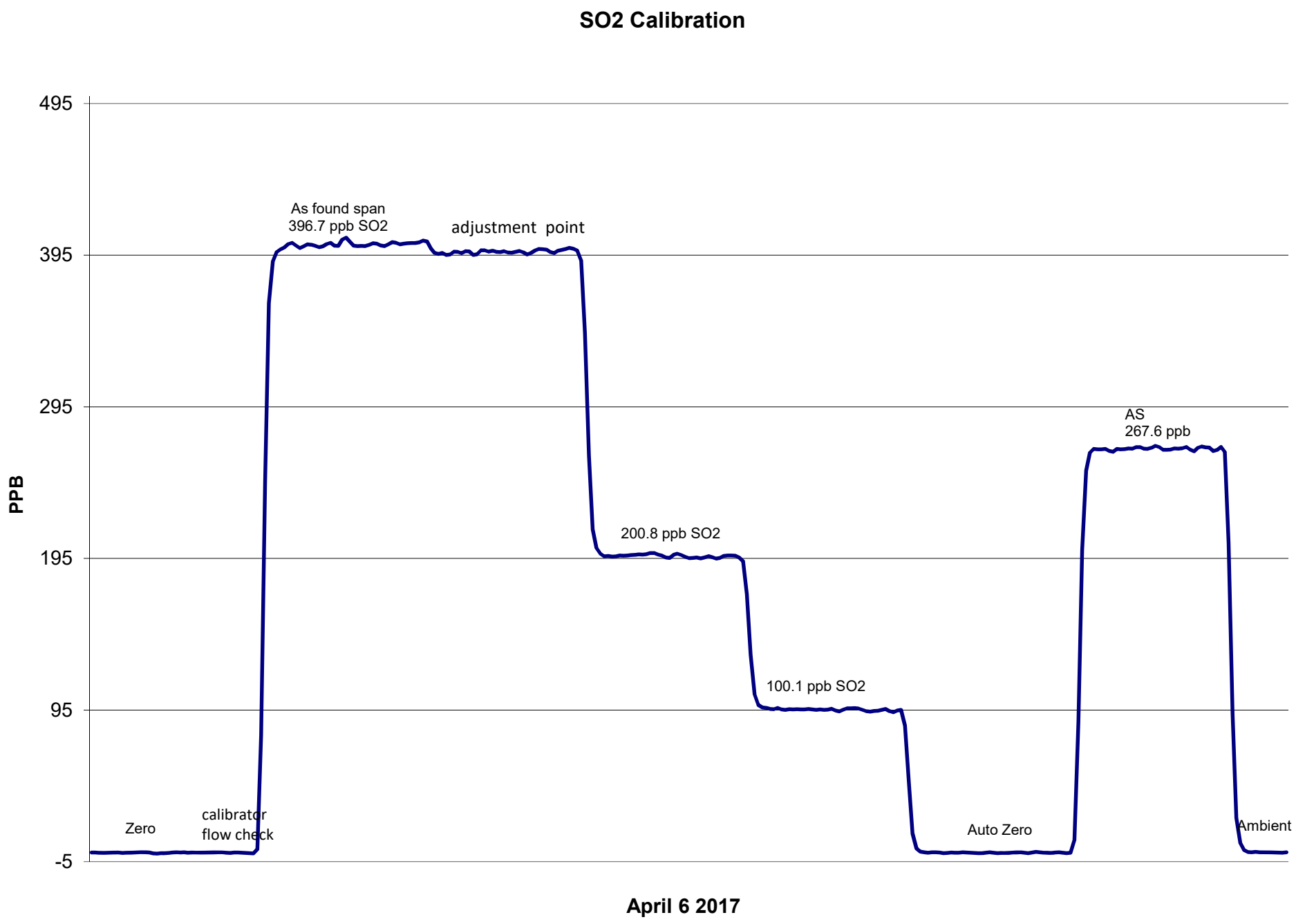
Station Information

Calibration Date	April 6 2017	Previous Calibration	March 13 2017
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	11:20	End Time (MST)	13:55:00 PM
Analyzer make/model	Teco 43i	Analyzer serial #	701120008

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	1.1	N/A		
396.7	397.8	0.9973	Correlation Coefficient	0.999629
200.8	196.2	1.0234		
100.1	95.3	1.0501	Slope	0.996249
			Intercept	2.450791




SO2 Calibration
495
395
295
195
95
-5
PPB
As found span
396.7 ppb SO2
adjustment point
200.8 ppb SO2
100.1 ppb SO2
AS
267.6 ppb
Zero
calibrator
flow check
Auto Zero
Ambient
April 6 2017

Calibration Report

Parameter **TRS**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	April 6 2017	Previous Calibration	March 13 2017
Station Number	2	Station Location	Evergreen Park
Reason: Routine	Install	Removal	Other:

Start Time (MST)	9:10	End Time (MST)	12:40
Barometric Pressure	0.918 ATM	Station Temperature	20.0 Deg C
Calibrator	Environics	Serial Number	6586
Cal Gas Conc	10.2 ppm	Cal Gas Expiry Date	02/23/2019
Correction factor	0.031205	Cal Gas Cylinder #	EY0000380
DACS make	CR3000	DACS serial No.	5236
DACS voltage range	0 - 5 volt	DACS channel #	5
	Before		After
Calculated slope	1.012176	Calculated slope	1.003160
Calculated intercept	0.021875	Calculated intercept	-0.052982

Analyzer make	TEI Model 43C	Analyzer serial #	3.199E+13

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	15.5	ppb	15.9	ppb
coefficient	0.940		0.961	
Lamp Voltage	1012	volts	1011	volts
Chamber Temp	44.3	Deg C	44.4	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	648.6	mm Hg	647.1	mm Hg
Sample Flow	0.504	ccm	0.511	ccm
Lamp Intensity	37,120	mv	37,064	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)
4999	0.00	0.00	0.7	N/A
5010	40.19	81.17	81.2	0.9992
4999	20.04	40.73	40.3	1.0114
6991	10.07	14.67	14.2	1.0342
4998	9.98		0.9	Sox Test
4999	0.00	0.00	0.7	As Found Zero
5010	40.19	81.17	79.3	As Found Span
			Average Correction Factor	1.0149

Calculated value of As Found Response: 79.60 ppm Percent Change of As Found: 1.9%

	before calibration		after calibration	
Auto zero	0.5	ppm	0.4	ppm
Auto span	84.3	ppm	85.3	ppm

Notes: Slight span adjustment made
Sox scrubber check performed

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **TRS**

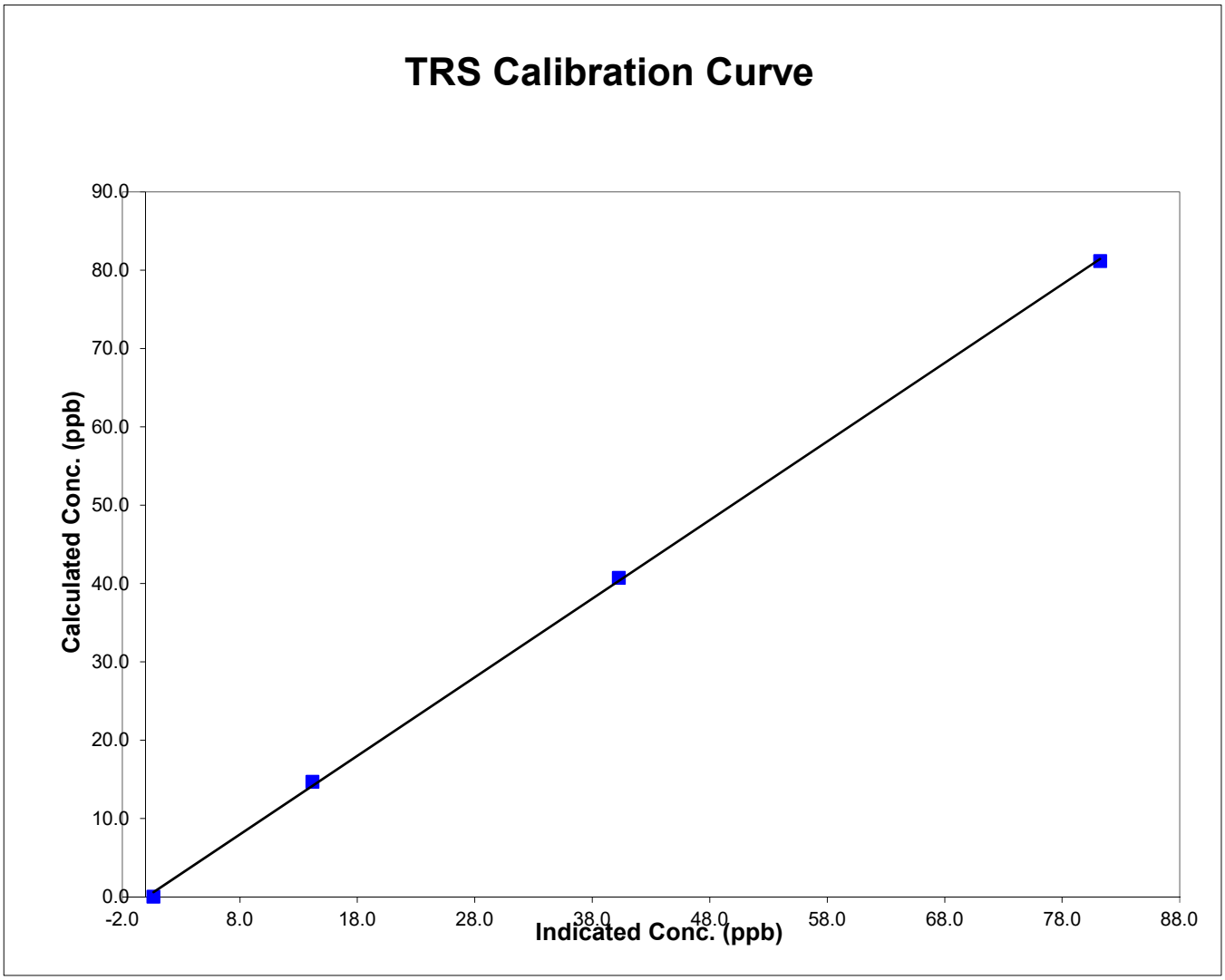
Air Monitoring Network **PAZA**

Station Information

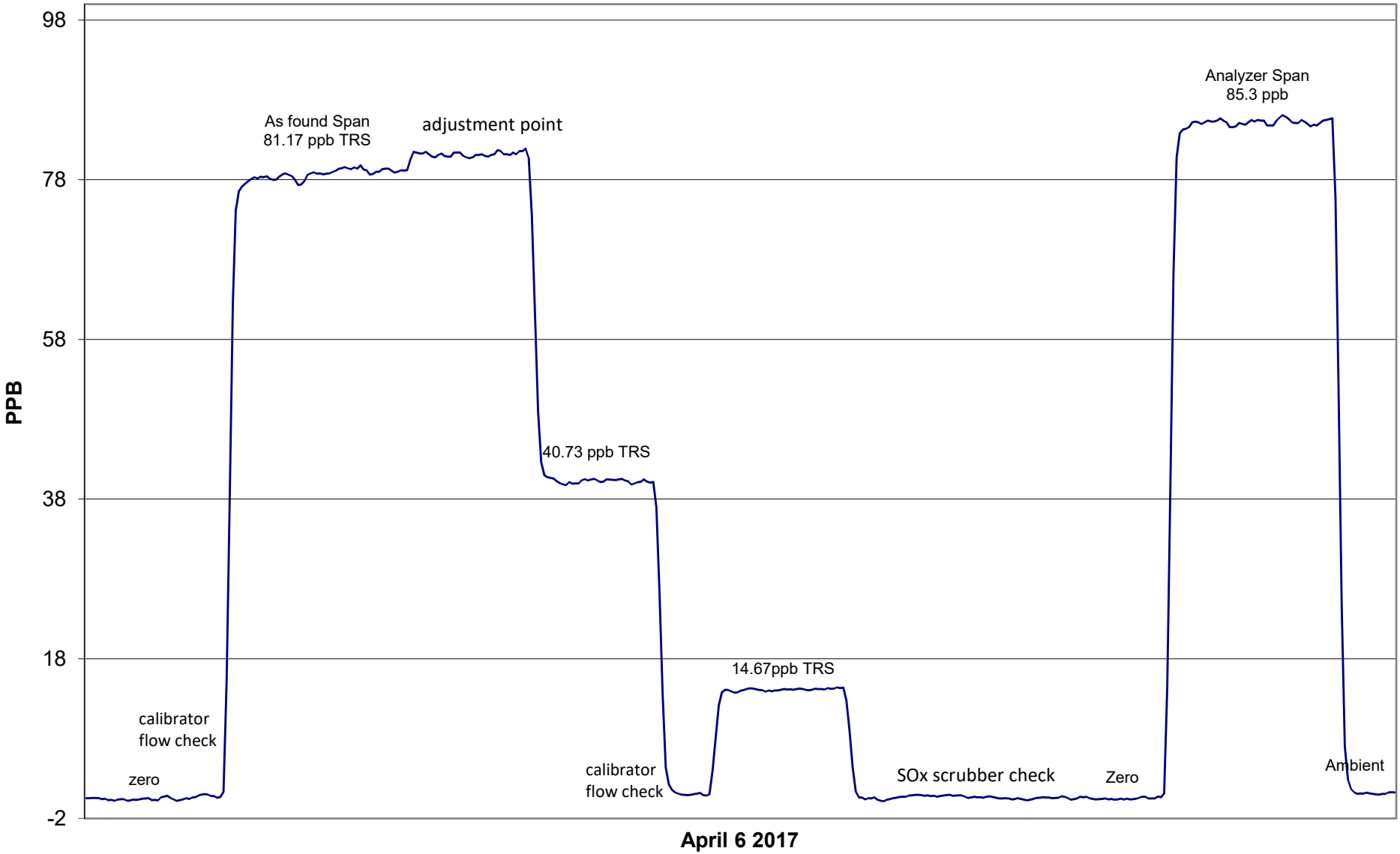
Calibration Date	April 6 2017	Previous Calibration	March 13 2017
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	9:10	End Time (MST)	12:40
Analyzer make/model	TEI Model 43C	Analyzer serial #	31990000000491

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.7	N/A		
81.2	81.2	0.9992	Correlation Coefficient	0.999782
40.7	40.3	1.0114		
14.7	14.2	1.0342	Slope	1.003160
			Intercept	-0.052982



TRS Calibration



Calibration Report

Parameter **SO_2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	April 26, 2017	Previous Calibration	March 27, 2017
Station Number	3	Station Location	Smokey Heights
Reason: Routine	Install	Removal	Other:

Start Time (MST)	11:43	End Time (MST)	14:24
Barometric Pressure	0.922 ATM	Station Temperature	20.0 Deg C
Calibrator	Environics	Serial Number	6586
Cal Gas Concentration	50 ppm	Cal Gas Cert Date	2/8/2019
Correction factor	0.031341	Cal Gas Cylinder #	LL105132
DACS make	CR3000	DACS serial No.	5238
DACS voltage range	0 - 5 volt	DACS channel #	6
	Before		After
Calculated slope	0.993691	Calculated slope	0.998429
Calculated intercept	2.148091	Calculated intercept	1.783593

Analyzer make	Teco 43i	Analyzer serial #	701120009

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	14.3		13.7	
coefficient	0.955		0.925	
Lamp Voltage	946	volts	946	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	661.5	mm Hg	664.8	mm Hg
Sample Flow	0.442	lpm	0.445	lpm
Lamp Intensity	87	%	88	%

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.0	0.00	0.0	N/A
4995	39.94	396.63	396.5	1.0004
4995	19.97	199.10	196.4	1.0137
4995	9.97	99.60	96.4	1.0335
4995	0.0	0.00	0.0	As Found Zero
4995	39.94	396.63	408.3	As Found Span
			Average Correction Factor	1.0159

Calculated value of As Found Response: 407.825 ppm Percent Change of As Found: -2.8%

	before calibration		after calibration	
Auto zero	0.2	ppb	0.0	ppb
Auto span	210.1	ppb	207.0	ppb

Notes: Lamp voltage & intensity moving around by 4 volts. May need new lamp or socket soon.
Slight span adjustment made.

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **SO2**

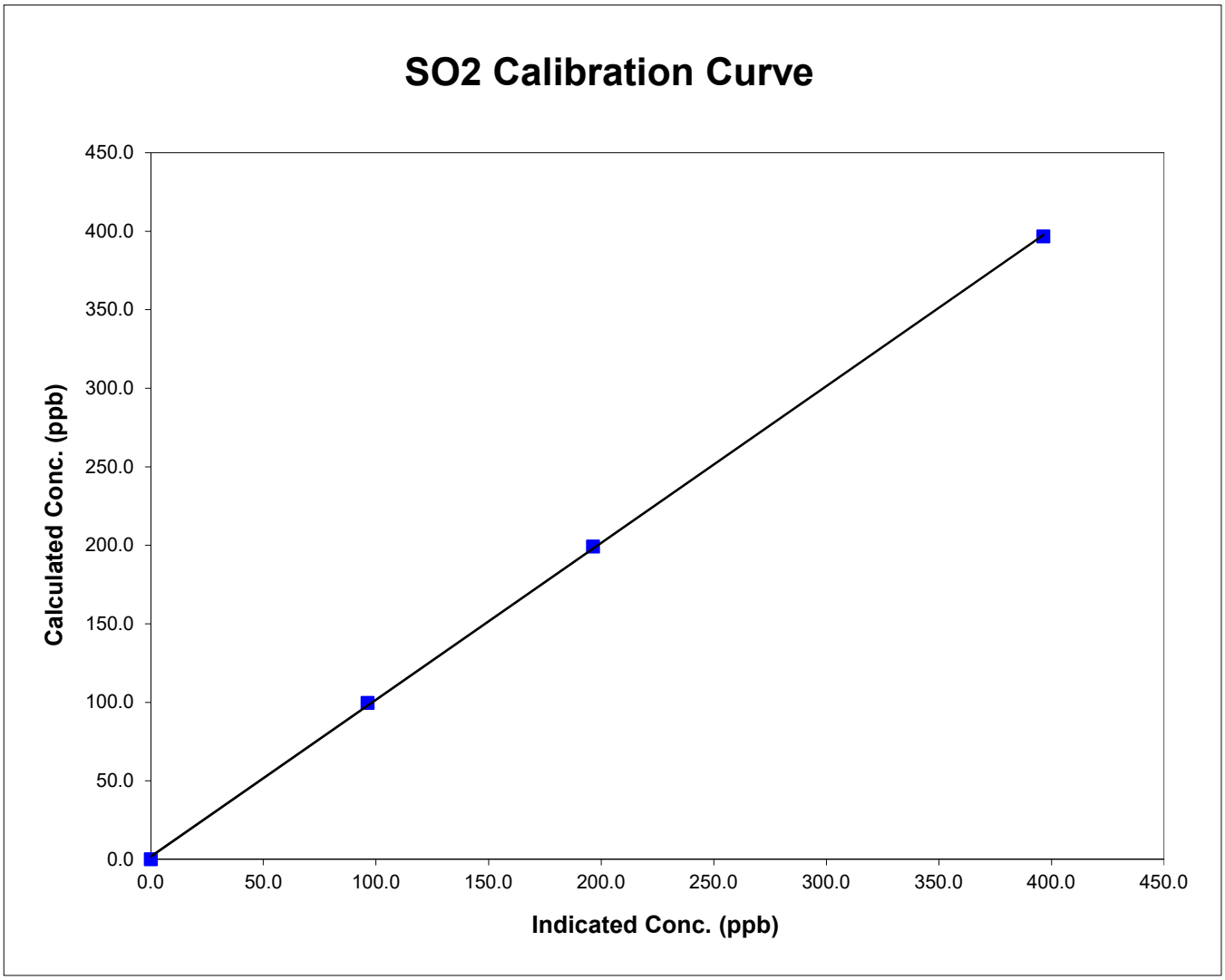
Air Monitoring Network **PAZA**

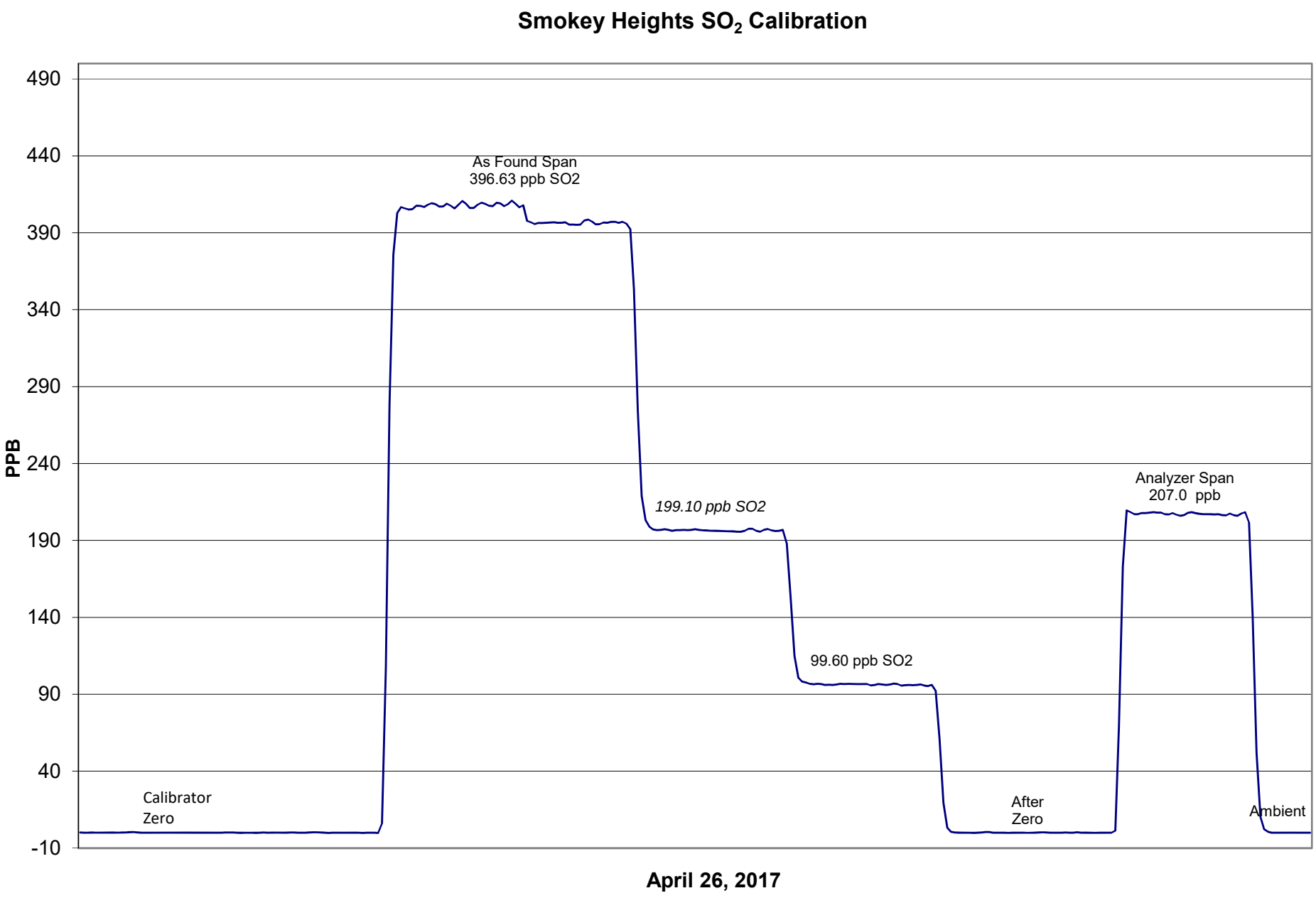
Station Information

Calibration Date	April 26, 2017	Previous Calibration	March 27, 2017
Station Number	3	Station Location	Smokey Heights
Start Time (MST)	11:43	End Time (MST)	14:24
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	0.0	N/A		
396.6	396.5	1.0004	Correlation Coefficient	0.999904
199.1	196.4	1.0137		
99.6	96.4	1.0335	Slope	0.998429
			Intercept	1.783593




Smokey Heights SO_2 Calibration
490
440
390
340
290
240
190
140
90
40
-10
PPB
As Found Span
396.63 ppb SO2
199.10 ppb SO2
99.60 ppb SO2
Analyzer Span
207.0 ppb
Calibrator
Zero
After
Zero
Ambient
April 26, 2017

Calibration Report

Parameter **TRS**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	April 26, 2017	Previous Calibration	March 27, 2017
Station Number	3	Station Location	Smokey Heights
Reason: Routine	Install	Removal	Other:

Start Time (MST)	10:08	End Time (MST)	12:56
Barometric Pressure	0.922 ATM	Station Temperature	20.0 Deg C
Calibrator	Environics	Serial Number	3016
Cal Gas Conc	10.2 ppm	Cal Gas Expiry Date	7/8/2016
Correction factor	0.031341	Cal Gas Cylinder #	BLM00586
DACS make	CR3000	DACS serial No.	5238
DACS voltage range	0 - 5 volt	DACS channel #	5
	Before		After
Calculated slope	1.003439	Calculated slope	0.976444
Calculated intercept	1.090945	Calculated intercept	1.181733

Analyzer make	TEI Model 43I APSAA	Analyzer serial #	1153630151

	before		after	
Concentration range	100	ppb	100	ppb
Background	15.1	ppb	15	ppb
coefficient	0.981		0.981	
Lamp Voltage	805	volts	805	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	666.1	mm Hg	666.1	mm Hg
Sample Flow	0.419	lpm	0.418	lpm
Lamp Intensity	90	mv	90	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)
4994	0.0	0.00	-0.1	N/A
4995	39.95	80.93	82.3	0.9835
4995	19.97	40.62	39.3	1.0329
6995	9.97	14.52	13.0	1.1173
4990	9.95		0.5	Sox test
4994	0.0	0.00	-0.1	As Found Zero
4995	39.95	80.93	82.3	As Found Span
			Average Correction Factor	1.0446

Calculated value of As Found Response: 83.76 ppm Percent Change of As Found: -3.5%

	before calibration		after calibration	
Auto zero	0.4	ppm	0.1	ppm
Auto span	70.3	ppm	69.7	ppm

Notes: No adjustments needed.

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **TRS**

Air Monitoring Network **PAZA**

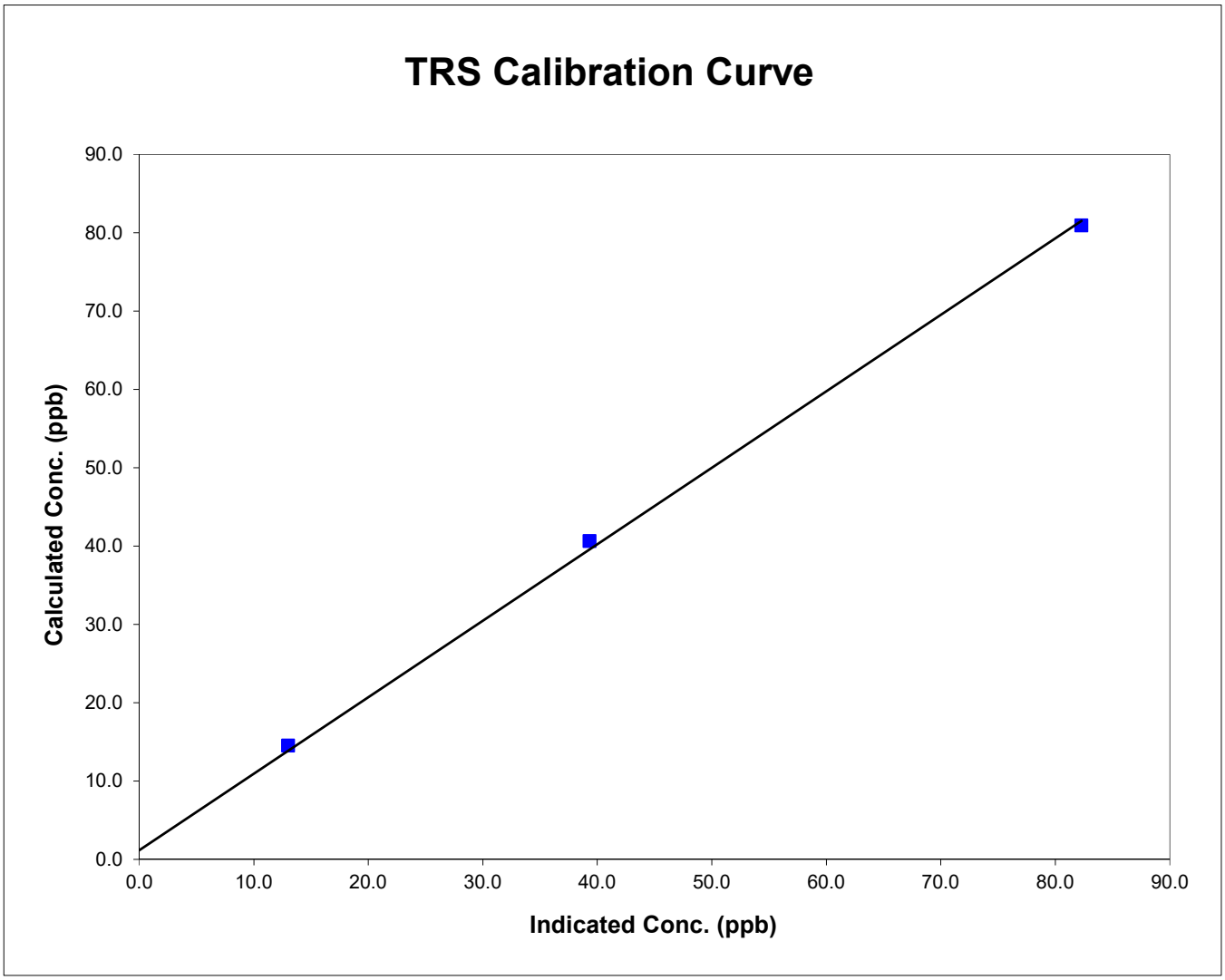
WSP AIR QUALITY MONITORING

Station Information

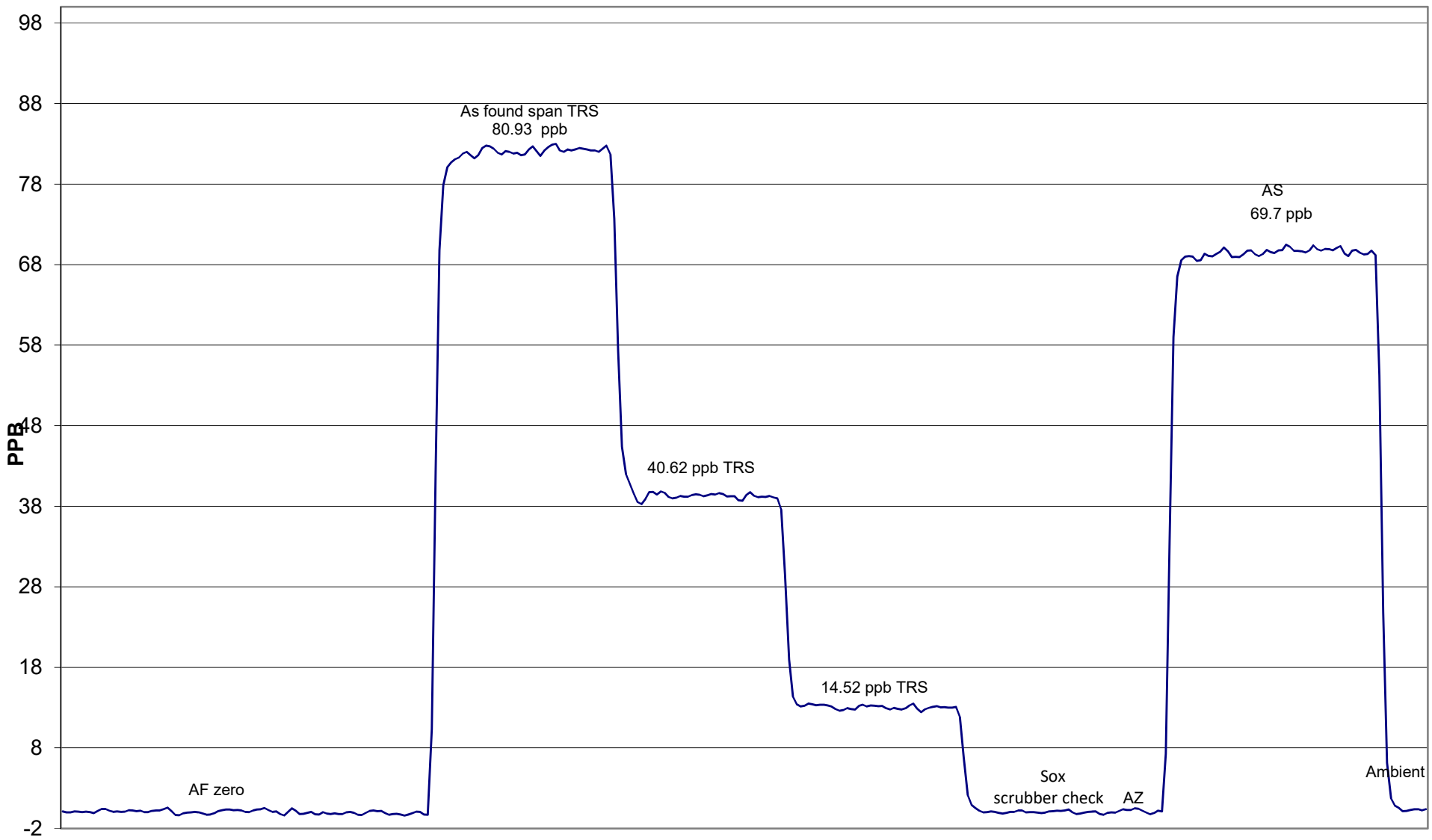
Calibration Date	April 26, 2017	Previous Calibration	March 27, 2017
Station Number	3	Station Location	Smokey Heights
Start Time (MST)	10:08	End Time (MST)	12:56
Analyzer make/model	TEI Model 43I APSAA	Analyzer serial #	1153630151

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	N/A		
80.9	82.3	0.9835	Correlation Coefficient	0.999196
40.6	39.3	1.0329		
14.5	13.0	1.1173	Slope	0.976444
			Intercept	1.181733



Smokey Heights TRS Calibration



April 26, 2017

Calibration Report

Parameter **SO2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	April 4, 2017	Previous Calibration	March 5, 2017
Station Number	4	Station Location	Beaverlodge
Reason: Routine	Install	Removal	Other:
Start Time (MST)	17:00:00 PM	End Time (MST)	19:20:00 PM
Barometric Pressure	0.908 atm	Station Temperature	20.0 Deg C
Calibrator	Environics	Serial Number	3474
Cal Gas Concentration	10.5 ppm	Cal Gas Expiry Date	1/12/2019
Gas Cert Reference	FF16108		
DACS make	CR3000	DACS serial No.	5237
DACS voltage range	0 - 5 volt	DACS channel #	5
	Before		After
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	1.009429	Calculated slope	1.007261
Calculated intercept	-0.233715	Calculated intercept	-0.060057
Analyzer make	TEI Model 43i-TLE	Analyzer serial #	713021137

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	2.53		2.56	
Coefficient	0.969		0.969	
PMT	-767.8	V	-767.5	V
UV Lamp Voltage	1118	V	1118	V
Chamber Temp	45	Deg C	45	Deg C
Pressure	664	mm Hg	669	mm Hg
Sample Flow	0.455	LPM	0.455	LPM
Lamp Intensity	96	%	96	%

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)
4989	0.00	0.0	0.4	N/A
4992	39.91	83.3	82.9	1.0050
4995	19.90	41.7	41.4	1.0072
4991	9.96	20.9	20.4	1.0249
4989	0.00	0.0	0.4	As found zero
4989	39.84	83.2	82.9	As found span
			Average Correction Factor	1.0124

Calculated value of As Found Response: 83.008 ppm Percent Change of As Found: 0.2%

	before calibration		after calibration	
Auto zero	0.1	ppb	0.3	ppb
Auto span	59.4	ppb	59.5	ppb

Notes: No adjustment made

Calibration Summary

Parameter **SO2**

Air Monitoring Network **PAZA**

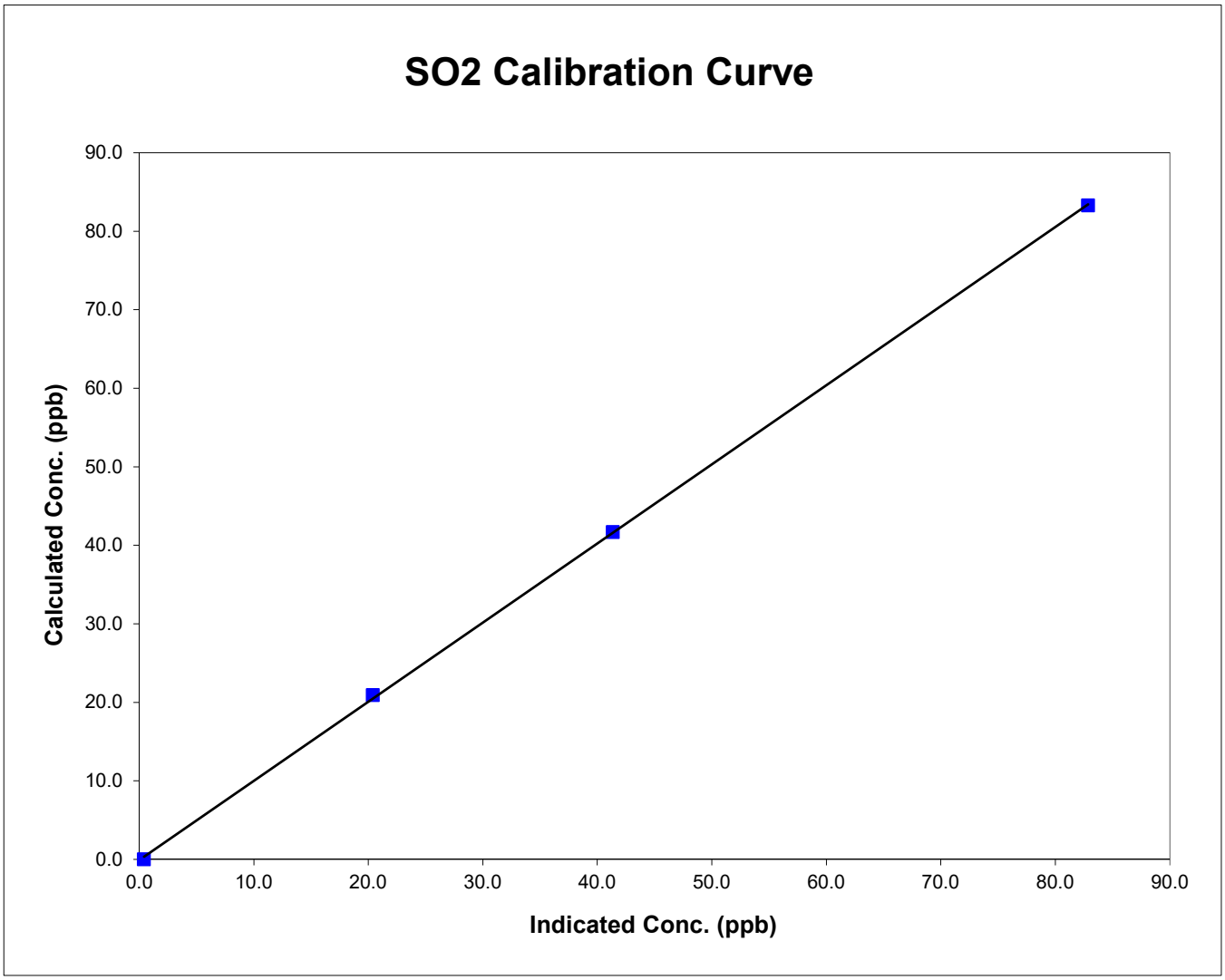
WSP AIR QUALITY MONITORING

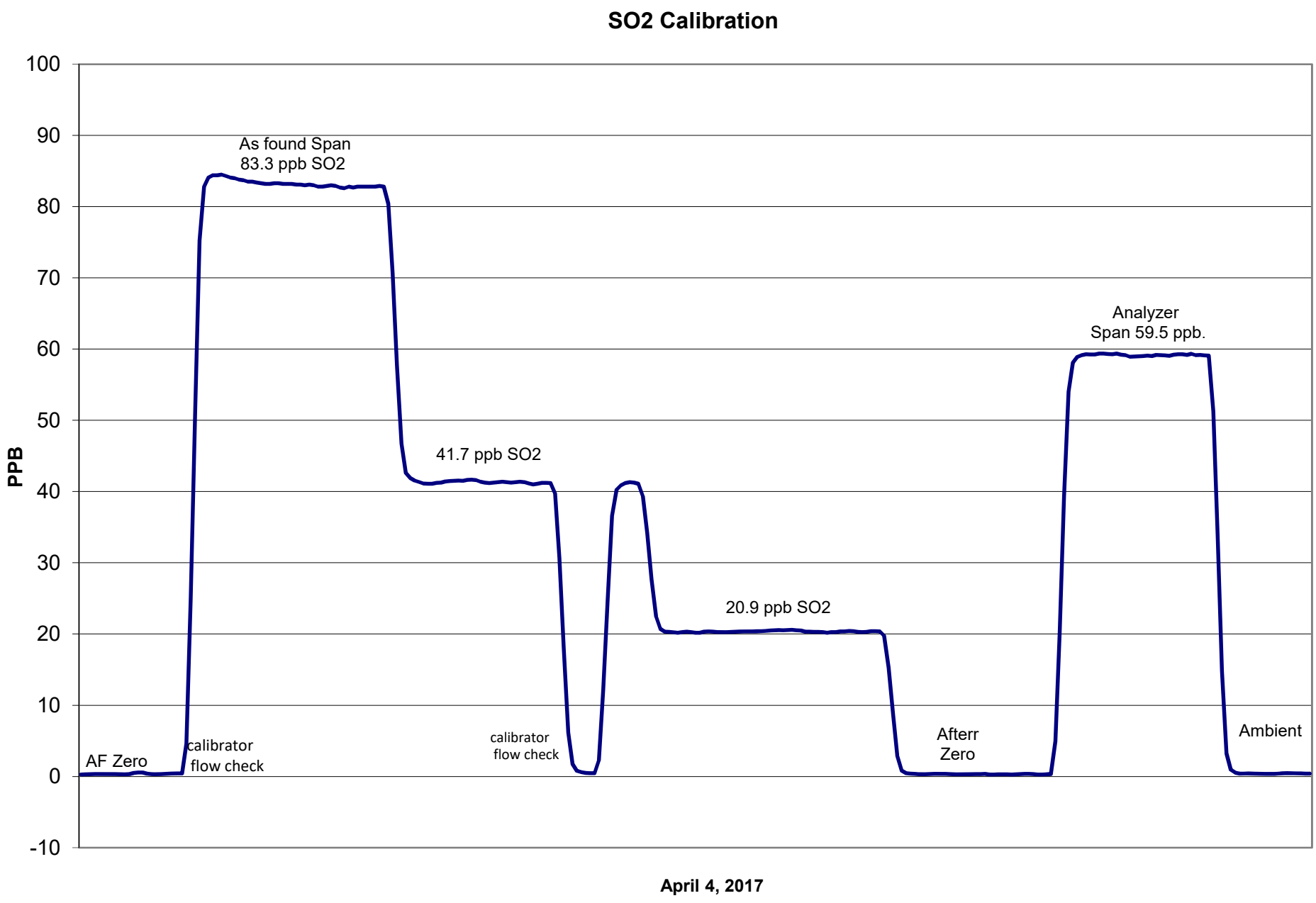
Station Information

Calibration Date	April 4, 2017	Previous Calibration	March 5, 2017
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	17:00:00 PM	End Time (MST)	19:20:00 PM
Analyzer make/model	TEI Model 43i-TLE	Analyzer serial #	713021137

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.4	N/A		
83.3	82.9	1.0050	Correlation Coefficient	0.999916
41.7	41.4	1.0072		
20.9	20.4	1.0249	Slope	1.007261
			Intercept	-0.060057




SO2 Calibration
100
90
80
70
60
50
40
30
20
10
0
-10
PPB
As found Span
83.3 ppb SO2
41.7 ppb SO2
20.9 ppb SO2
Analyzer
Span 59.5 ppb.
AF Zero
calibrator
flow check
calibrator
flow check
Afterr
Zero
Ambient
April 4, 2017

Calibration Report

Parameter **NO_X-NO-NO_2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	April 4, 2017	Previous Calibration	March 6, 2017
Station Number	4	Station Location	Beaverlodge

Reason: Routine Installation Removal Other:

Start Time (MST)	9:10		End Time (MST)	16:10:00 PM	
Barometric Pressure	0.908	Atm	Station Temperature	20.0	Deg C
Calibrator	Environics		Serial Number	3474	
NO Cal Gas Conc	48.6	ppm	Cal Gas Expiry Date	August 2, 2019	
NOx Cal Gas Conc	48.9	ppm	Cal Gas Serial #	LL105132	

DACS Information

DACS make	CR3000	DACS serial No.	5237

Parameter		NO2	NOx	NO
Before	Data Slope	1.002539	1.005262	0.998816
	Data Offset	-0.205421	1.762431	1.675758
After	Data Slope	1.000046	1.002625	0.995401
	Data Offset	-0.332433	2.458175	2.522904
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	2.9	mV	2.8	mV
NOx bkgnd	3.4	mV	3.1	mV
NO coefficient	1.216		1.032	
NOx coefficient	0.999		0.999	
NO2 conv temp	323.9	Deg C	326.8	Deg C
PMT Temp	-3.0	Deg C	-3.0	Deg C
PMT Volt	-730.0	mV	-743.0	mV
R Cell Press	184.9	in Hg	206.1	in Hg
Sample Flow	0.623	LPM	0.711	LPM

Notes: Zero, Span & PMT adjustment made
Sample capillary cleaned

Calibration Report

Parameter **NOX-NO-NO2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date: April 4, 2017 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	4973	0.00	0.0	0.0	0.0	-0.2	0.0	-0.3	N/A	N/A
1	4984	39.99	389.2	386.8	2.4	386.9	387.4	-1.3	1.0061	0.9986
2	4981	20.02	195.8	194.6	1.2	191.5	191.5	-0.7	1.0220	1.0161
3	4990	10.01	97.9	97.3	0.6	93.1	92.9	0.1	1.0517	1.0474
AFZ	4973	0.00	0.0	0.0	0.0	-0.2	-0.1	-0.3	0.0000	0.0000
AFS	4993	39.92	387.9	385.5	0.8	369.5	369.4	-0.8	1.0498	1.0437
							Average Correction Factor		1.0266	1.0207

As Found Concentrations: NO_X= 373.3 NO= 370.7 As Found Percent Change NO_X= -3.7% NO= -3.8%

GPT Calibration Data

Dilution Flow 4995 ccm Source Gas Flow 39.93 ccm

O3 Setpoint (ppb)	Indicated NOx high point (ppb)	Indicated NO drop conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor	NO2 Correction factor	Converter Efficiency
0	-0.1	-0.1	0.0	-0.2	0.0	-0.3	N/A	N/A	N/A	N/A
NO point	388.8	388.8	0.0	388.4	388.8	-1.3	1.0011	1.0000	N/A	N/A
300	388.8	47.9	340.9	389.6	47.9	340.7	0.9981	1.0000	1.0006	99.9%
200	388.8	158.3	230.5	390.4	158.3	231.2	0.9960	1.0000	0.9970	100.3%
100	388.8	279.0	109.9	390.7	279.0	111.0	0.9952	1.0000	0.9898	101.0%
					Average Correction Factor		0.9964	1.0000	0.9958	100.4%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	-0.3	-0.3	0.0	ppb	-0.1	-0.1	-0.1	ppb
Auto span	322.6	319.8	1.9	ppb	292.3	289.7	1.7	ppb

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **NO_2**

Air Monitoring Network **PAZA**

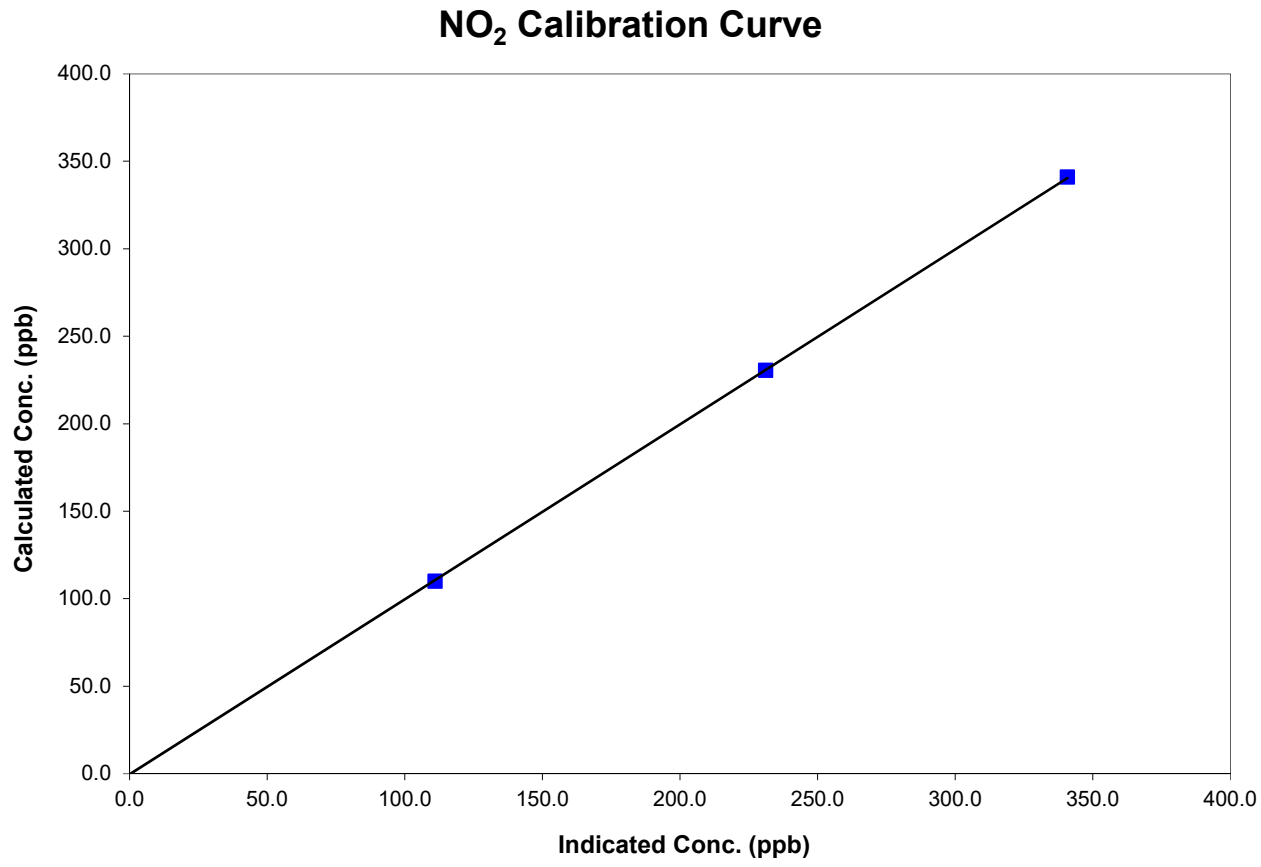
WSP AIR QUALITY MONITORING

Station Information

Calibration Date	April 4, 2017	Previous Calibration	March 6, 2017
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	9:10	End Time (MST)	16:10:00 PM
Analyzer make	TEI 42i	Analyzer serial #	906535068

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.3	N/A		
340.9	340.7	1.0006	Correlation Coefficient	0.999977
230.5	231.2	0.9970		
109.9	111.0	0.9898	Slope	1.000046
			Intercept	-0.332433



Calibration Summary

Parameter **NO_x**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

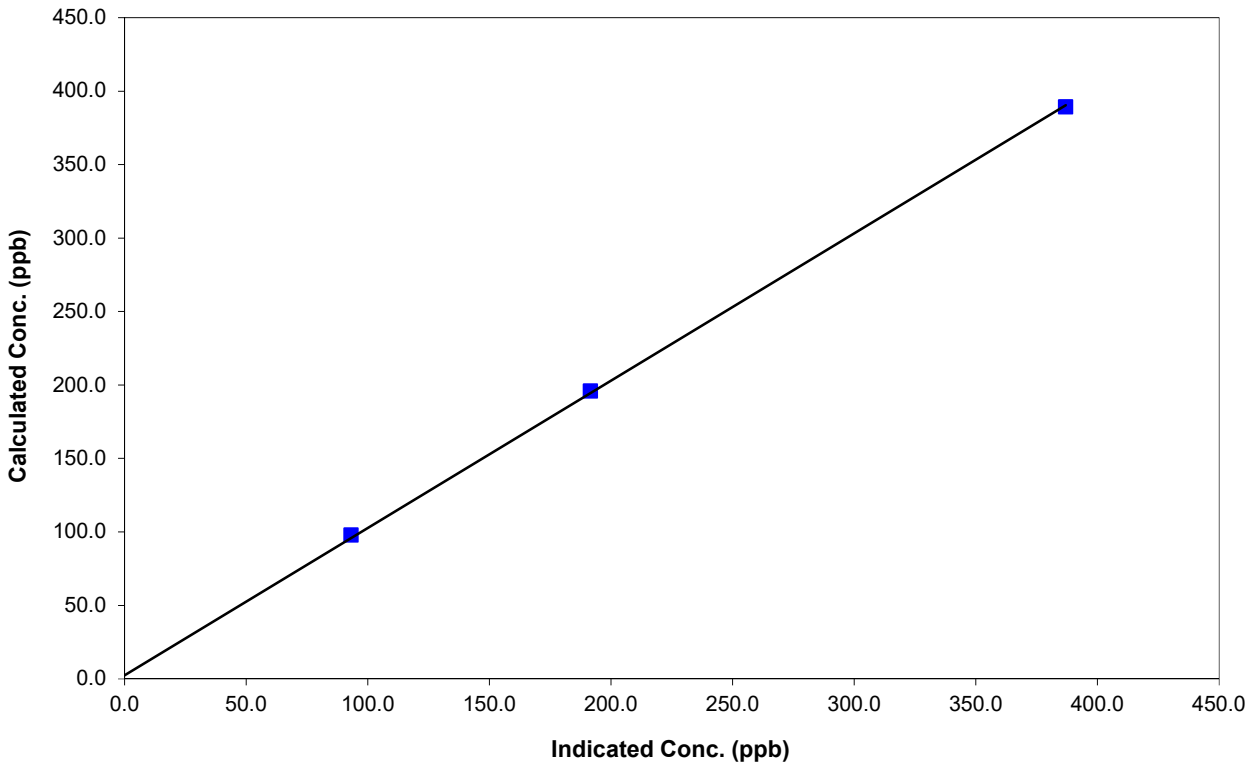
Station Information

Calibration Date	April 4, 2017	Previous Calibration	March 6, 2017
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	9:10	End Time (MST)	16:10:00 PM
Analyzer make	TEI 42i	Analyzer serial #	906535068

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.2	N/A		
389.2	386.9	1.0061	Correlation Coefficient	0.999851
195.8	191.5	1.0220		
97.9	93.1	1.0517	Slope	1.002625
			Intercept	2.458175

NOx Calibration Curve



Calibration Summary

Parameter **NO**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

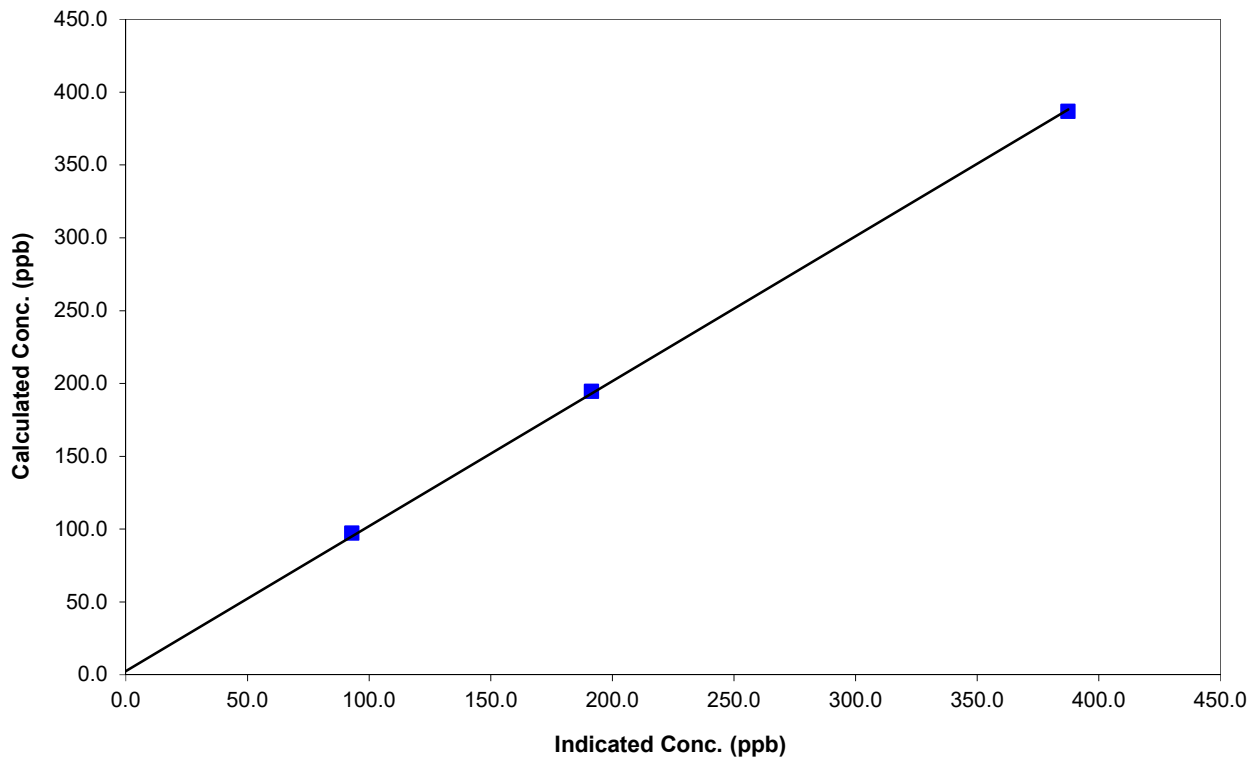
Station Information

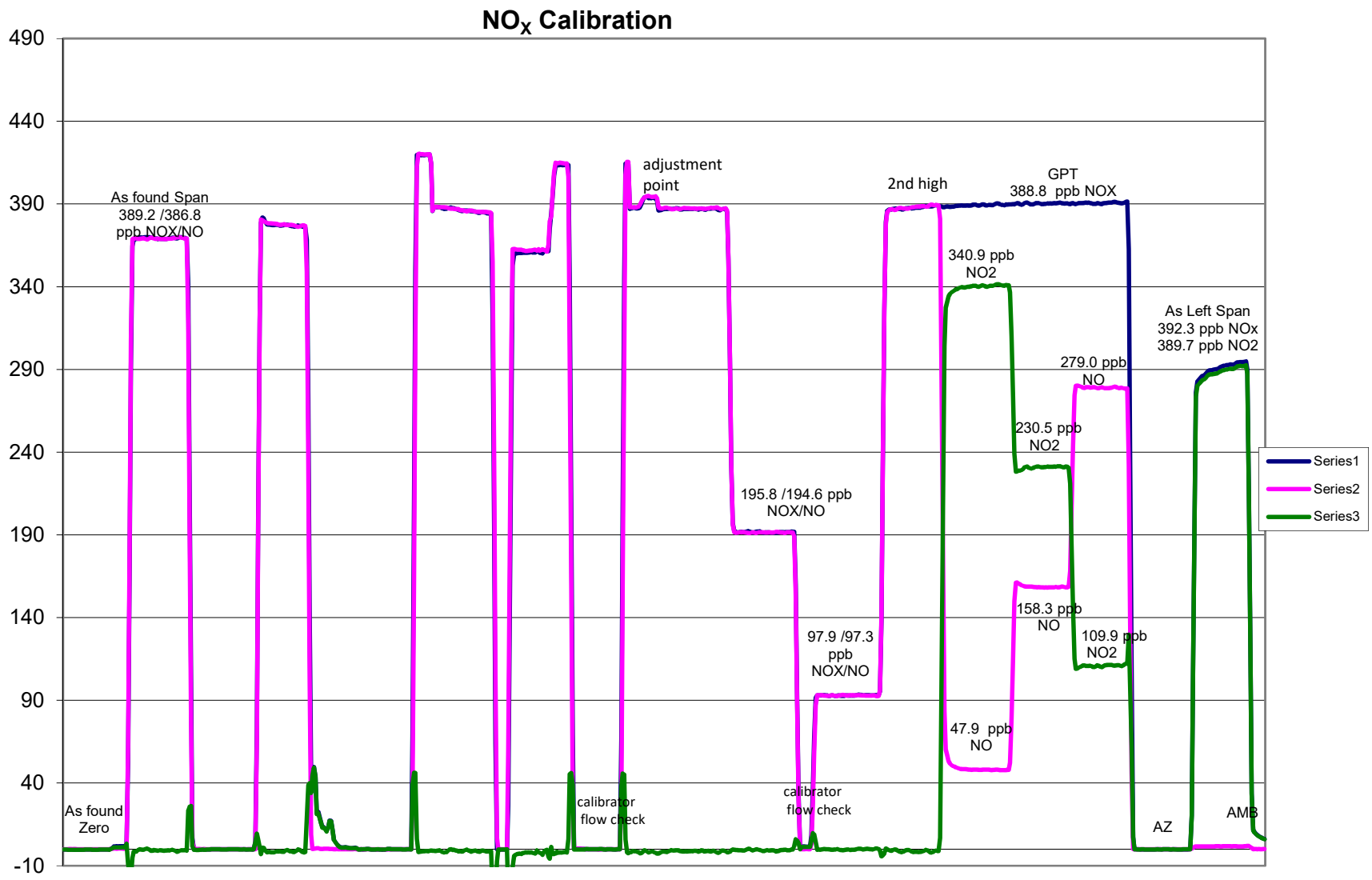
Calibration Date	April 4, 2017	Previous Calibration	March 6, 2017
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	9:10	End Time (MST)	16:10:00 PM
Analyzer make	TEI 42i	Analyzer serial #	906535068

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A		
386.8	387.4	0.9986	Correlation Coefficient	0.999815
194.6	191.5	1.0161		
97.3	92.9	1.0474	Slope	0.995401
			Intercept	2.522904

NO Calibration Curve




NOx Calibration
490
440
390
340
290
240
190
140
90
40
-10
As found Span
389.2 /386.8
ppb NOX/NO
adjustment
point
2nd high
GPT
388.8 ppb NOX
340.9 ppb
NO2
As Left Span
392.3 ppb NOx
389.7 ppb NO2
279.0 ppb
NO
230.5 ppb
NO2
195.8 /194.6 ppb
NOX/NO
158.3 ppb
NO
109.9 ppb
NO2
97.9 /97.3
ppb
NOX/NO
47.9 ppb
NO
As found
Zero
calibrator
flow check
calibrator
flow check
AZ
AMB
Series1
Series2
Series3

April 4, 2017

Calibration Report

Parameter **O3**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	April 4, 2017	Previous Calibration	March 6, 2017
Station Number	4	Station Location	Beaverlodge
Reason:	Routine / Install	Removal	Other:
Start Time (MST)	15:07:00 PM	End Time (MST)	17:50:00 PM
Barometric Pressure	0.908 atm	Station Temperature	20.0 Deg C
Calibrator	Environics	Serial Number	3474
Cal Gas Concentration	NA	Cal Gas Expiry Date	NA
DACS make	CR3000	DACS serial No.	5237
DACS voltage range	0 - 5 volt	DACS channel #	9
	Before		After
Calculated slope	1.010085	Calculated slope	1.008737
Calculated intercept	0.085947	Calculated intercept	-0.216666

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

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
offset	-0.30	ppb	-0.30	ppb
slope	1.141		1.188	
Lamp temp	53.8	mV	53.8	mV
Lamp Intensity A/B	58166/66914	mV	58490/67090	mV
Pressure	679.9	mm Hg	678.2	mm Hg
Flow A	0.799	LPM	0.798	LPM
Flow B	0.739	LPM	0.737	LPM

Calibration Data

Dilution air flow rate (cc/min)	Calibrator Setting	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
5018	0.00	0.0	0.6	N/A
5015	0.30	340.9	339.6	1.0039
5020	0.20	230.5	226.4	1.0183
5016	0.10	109.9	109.7	1.0018
5018	0.00	0.0	0.6	As found zero
5018	0.30	340.9	325.6	As found span
			Average Correction Factor	1.0080

Calculated value of As Found Response: 328.4 ppm — Percent Change of As Found: -3.7%

	before calibration		after calibration	
Auto zero	0.7	ppb	0.8	ppb
Auto span	283.0	ppb	295.3	ppb

Notes: Span adjustment made
Loose line caused the spike on the first point

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **O3**

Air Monitoring Network **PAZA**

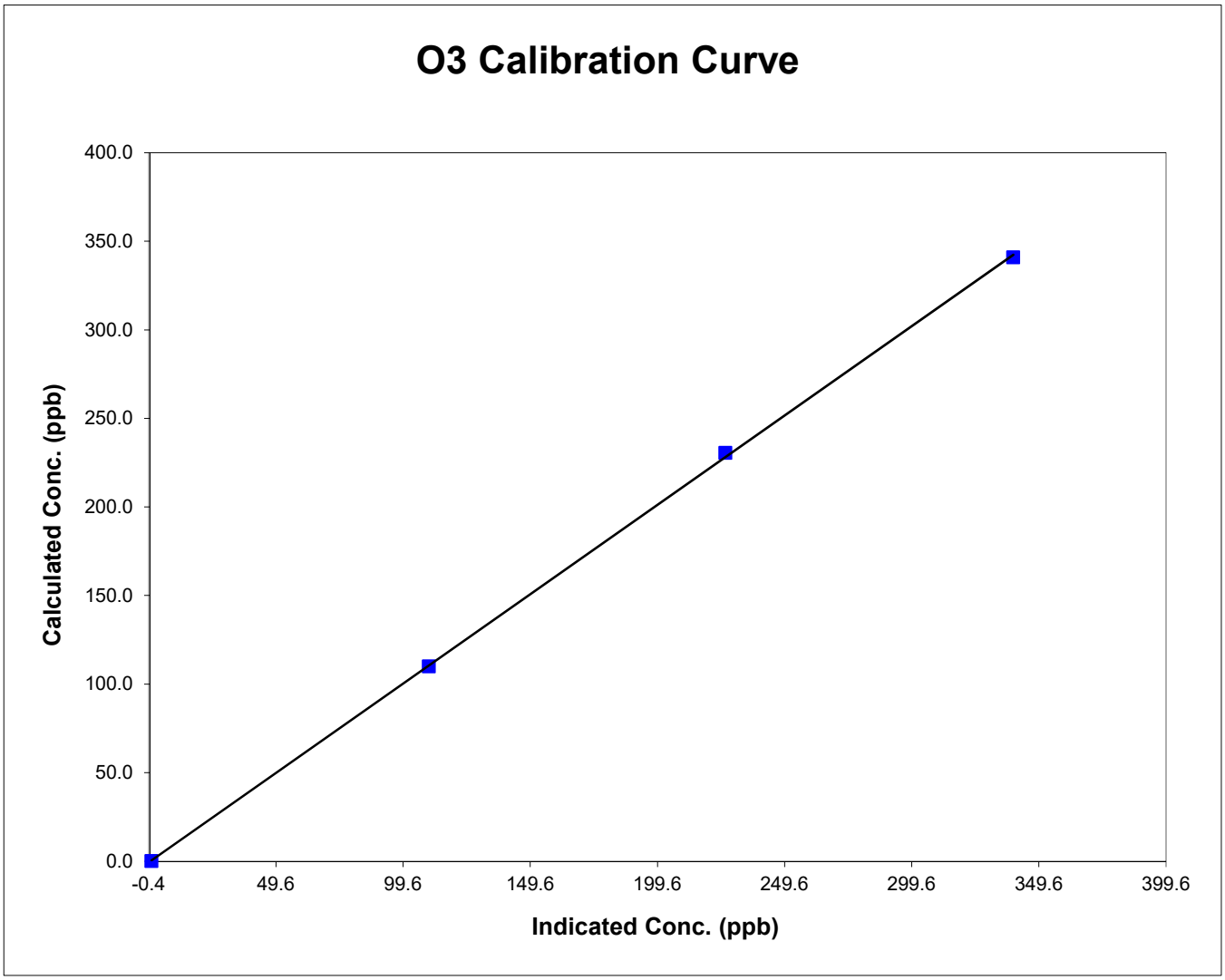
WSP AIR QUALITY MONITORING

Station Information

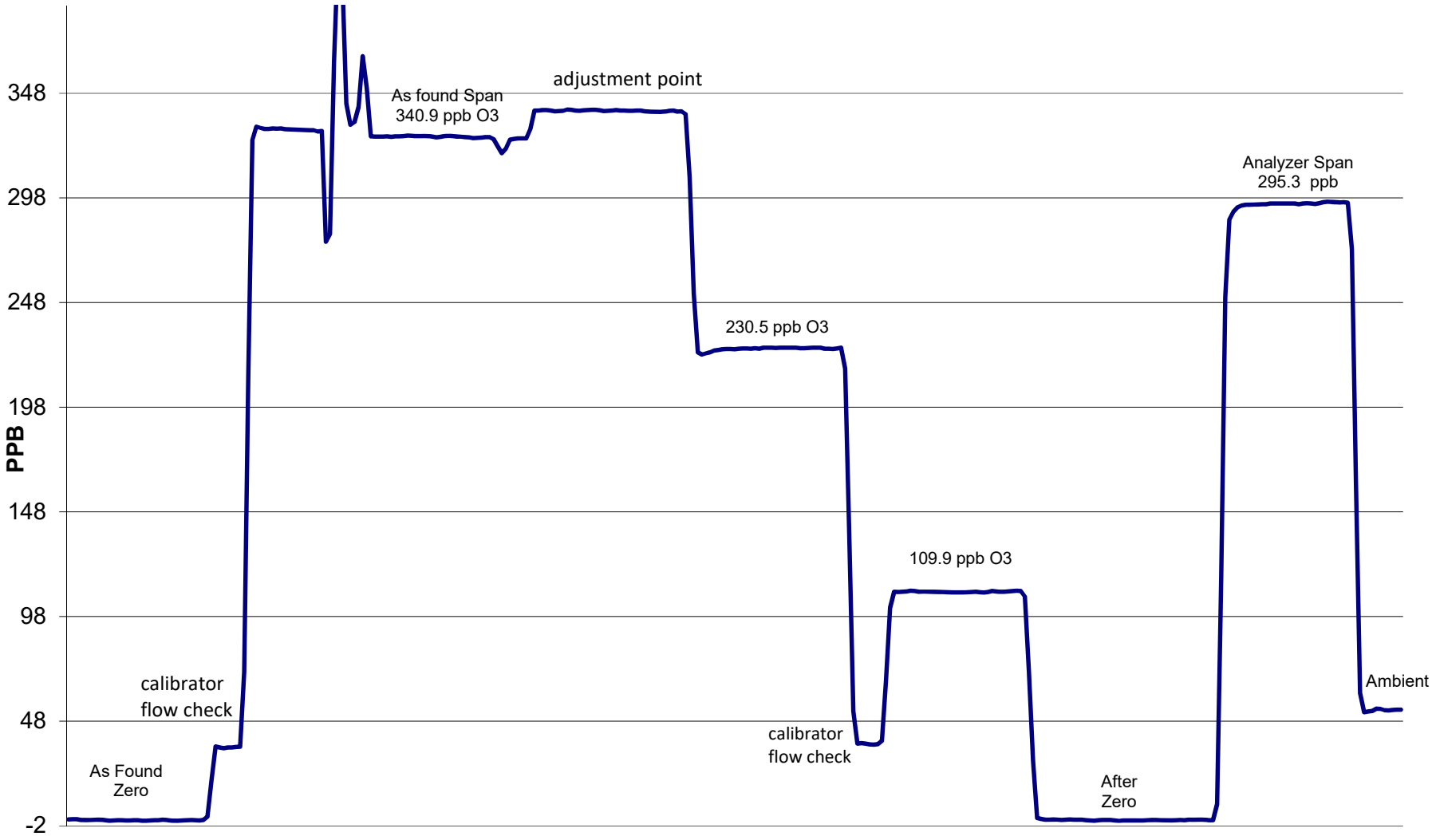
Calibration Date	April 4, 2017	Previous Calibration	March 6, 2017
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	15:07:00 PM	End Time (MST)	17:50:00 PM
Analyzer make/model	Teco 49i	Analyzer serial #	1136451236,AMU 1879

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.6	NA		
340.9	339.6	1.0039	Correlation Coefficient	0.999875
230.5	226.4	1.0183		
109.9	109.7	1.0018	Slope	1.008737
			Intercept	-0.216666



O3 Calibration



April 4, 2017

Calibration Report

Parameter **SO2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	April 5 2017	Previous Calibration	March 25 2017
Station Number	6	Station Location	Valleyview
Reason: Routine	Install	Removal	Other:
Start Time (MST)	14:10:00 PM	End Time (MST)	16:55:00 PM
Barometric Pressure	0.922 atm	Station Temperature	22.0 Deg C
Calibrator	Environics	Serial Number	6586
Cal Gas Concentration	50 ppm	Cal Gas Exp Date	February 18, 2019
Gas Cylinder Num.	LL105132		
DACS make	CR3000	DACS serial No.	5409
DACS voltage range	0 - 5 volt	DACS channel #	4
	Before		After
DACS Scale High	500	DACS slope	500
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.992129	Calculated slope	1.009342
Calculated intercept	2.329120	Calculated intercept	3.250415
Analyzer make	TEI 43C	Analyzer serial #	609716239

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Background	16.7		16.7	
Coefficient	1.021		1.021	
UV Lamp Voltage	740	LPM	742	LPM
Chamber Temp	43	V	43	V
Perm Gas Temp	45	C	45	C
Pressure	665.8	in Hg	666.4	in Hg
Sample Flow	0.479	LPM	0.480	LPM
Lamp Intensity	47597	Hz	47223	Hz

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)
4995	0.00	0.0	0.1	N/A
4998	39.97	396.7	391.5	1.0134
4998	19.98	199.1	192.2	1.0360
4998	10.01	99.9	92.6	1.0790
4995	0.00	0.0	0.1	As found zero
4998	39.97	396.7	391.5	As found span
			Average Correction Factor	1.0428

Calculated value of As Found Response: 390.6 ppm Percent Change of As Found: 1.5%

	before calibration		after calibration	
Auto zero	0.5	ppm	0.3	ppm
Auto span	288.8	ppm	288.4	ppm

Notes: No adjustment made

Calibration Summary

Parameter **SO2**

Air Monitoring Network **PAZA**

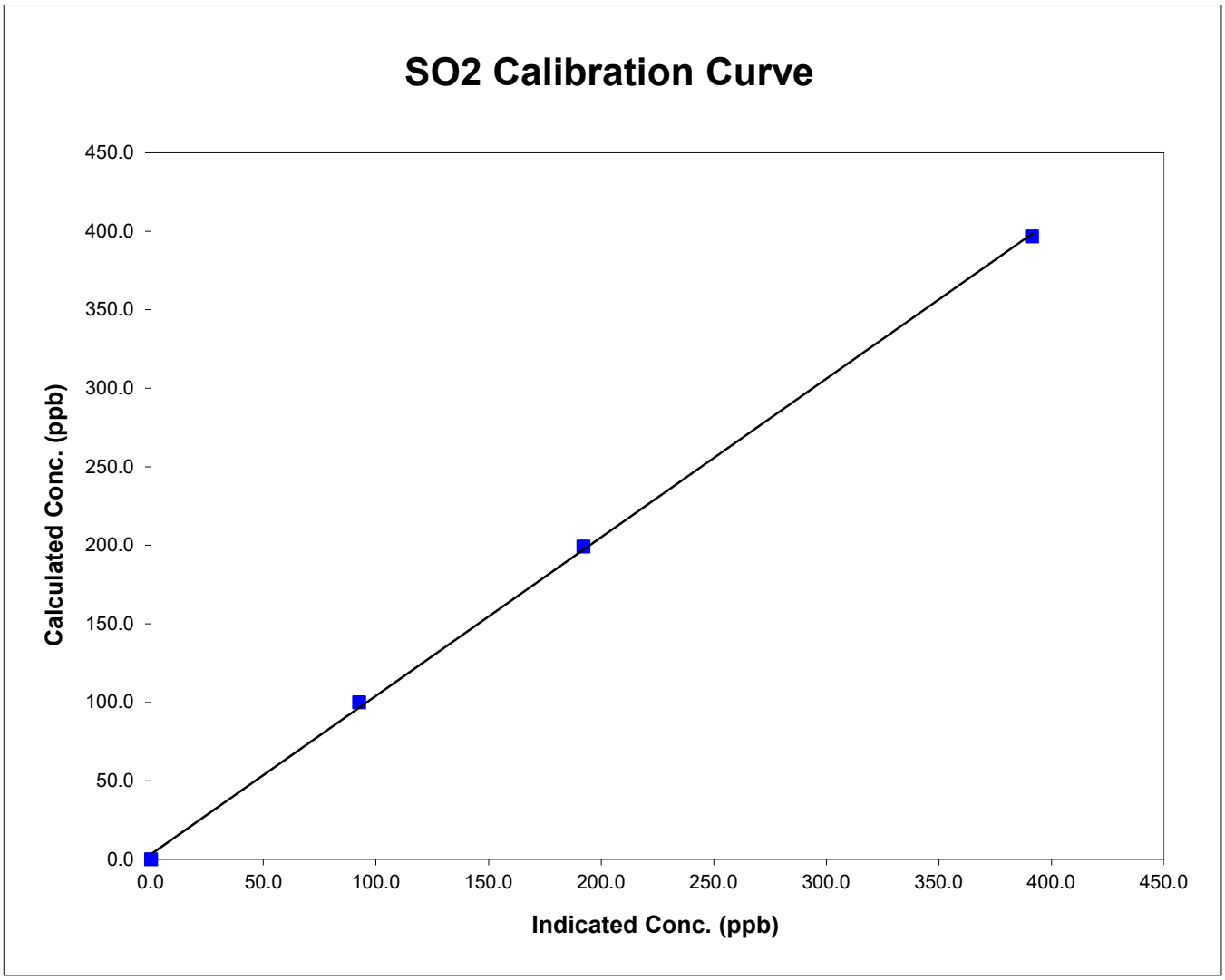
WSP AIR QUALITY MONITORING

Station Information

Calibration Date	April 5 2017	Previous Calibration	March 25 2017
Station Number	6	Station Location	Valleyview
Start Time (MST)	14:10:00 PM	End Time (MST)	16:55:00 PM
Analyzer make/model	TEI 43C	Analyzer serial #	609716239

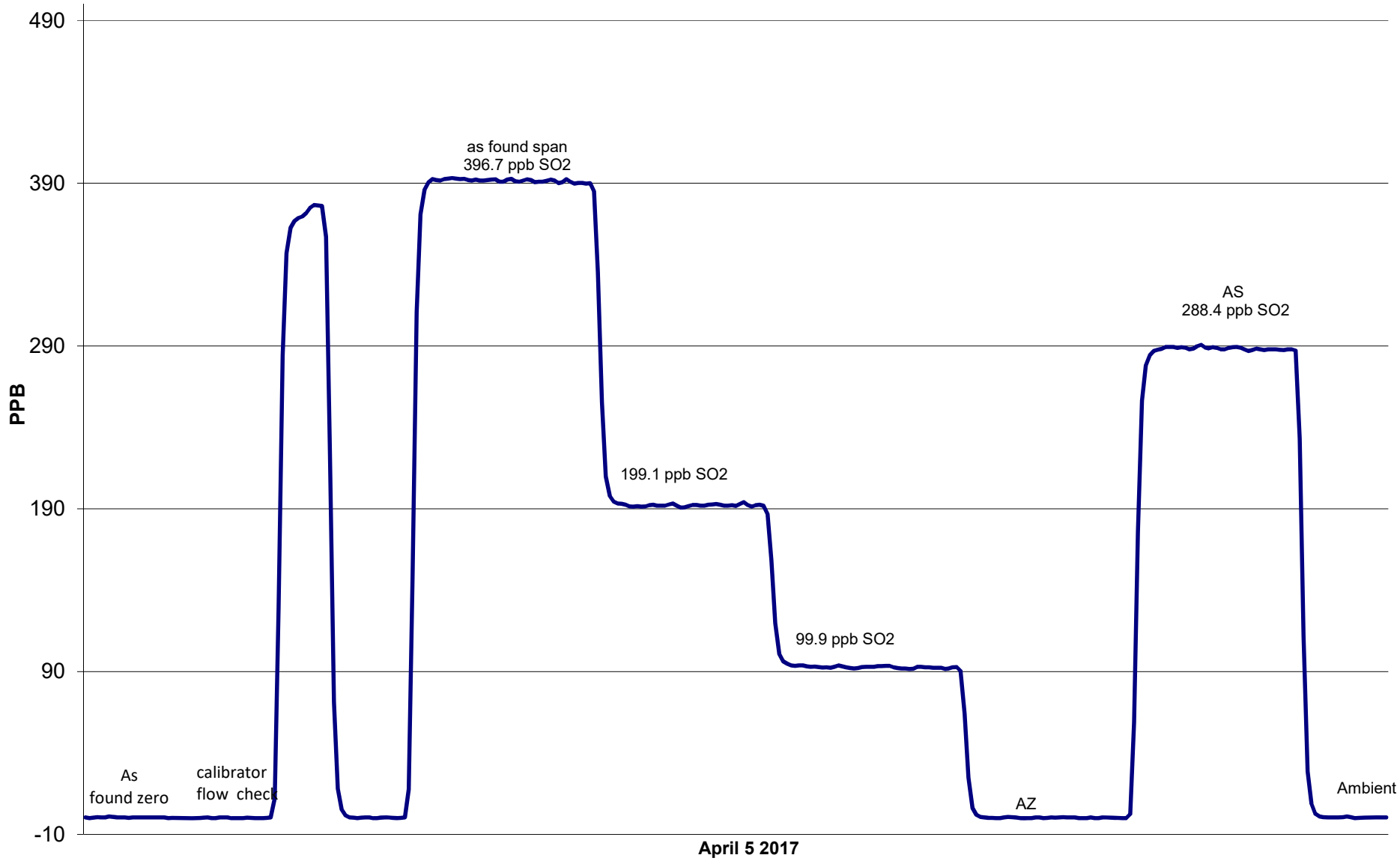
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A		
396.7	391.5	1.0134	Correlation Coefficient	0.999673
199.1	192.2	1.0360		
99.9	92.6	1.0790	Slope	1.009342
			Intercept	3.250415



AZ

SO2 Calibration



Calibration Report

Parameter **H2S**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	April 5 2017	Previous Calibration	March 25 2017
Station Number	6	Station Location	Valleyview
Reason: Routine	Install	Removal	Other:
Start Time (MST)	12:40	End Time (MST)	15:20:00 PM
Barometric Pressure	0.925 atm	Station Temperature	22.0 Deg C
Calibrator	Environics	Serial Number	6586
Cal Gas Concentration	10.2 ppm	Cal Gas Expiry Date	July 03 2016
Gas Cert Reference	LL110781		
DACS make	CR3000	DACS serial No.	5409
DACS voltage range	0 - 5 volt	DACS channel #	9
	Before		After
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.985232	Calculated slope	0.995810
Calculated intercept	0.503835	Calculated intercept	0.745926
Analyzer make	TEI Model 43i - APSCB	Analyzer serial #	701120010

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Back Ground	9.3	ppb	9.3	ppb
Coefficient	0.873		0.873	
Lamp Voltage	795	V	795	V
Chamber Temp	45	c	45	c
Perm Oven Temp	45	c	45	c
Pressure	516.30	mm Hg	520.20	mm Hg
Sample Flow	0.357	ccm	0.357	lpm
Lamp Intensity	91	%	91	%

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)
5020	0.00	0.0	-0.1	N/A
5013	40.15	81.0	81.0	1.0005
5018	20.01	40.5	39.3	1.0300
7005	10.01	14.6	13.4	1.0858
5015	9.97		69.0	Sox Test
5020	0.00	0.0	-0.1	As found zero
5013	39.93	80.6	81.0	As found span
			Average Correction Factor	1.0388

Calculated value of As Found Response: 80.37 ppm Percent Change of As Found: 0.3%

	before calibration		after calibration	
Auto zero	0.5	ppm	-0.1	ppm
Auto span	71.7	ppm	70.6	ppm

Notes: No adjustment made

Calibration Summary

Parameter **H2S**

Air Monitoring Network **PAZA**

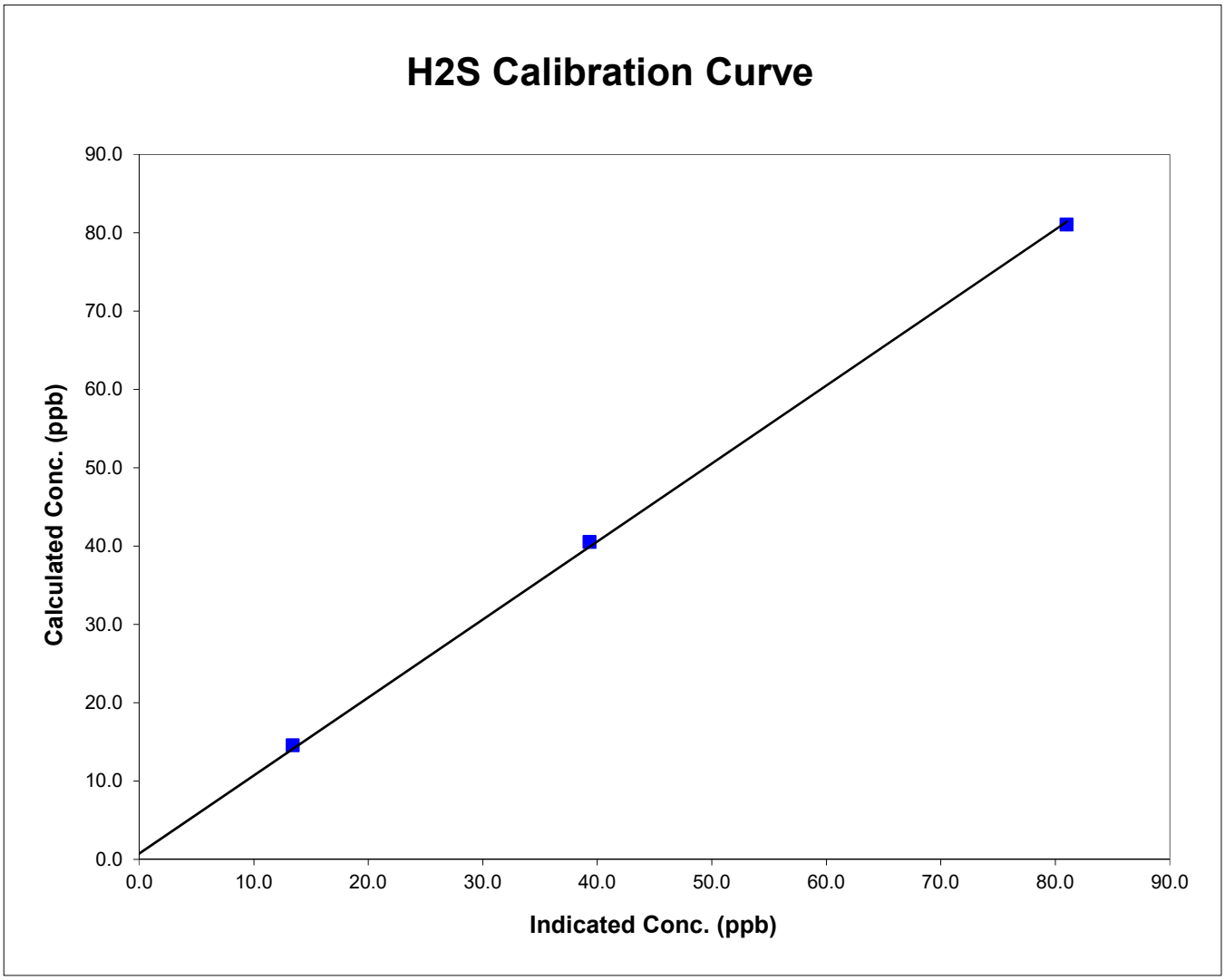
WSP AIR QUALITY MONITORING

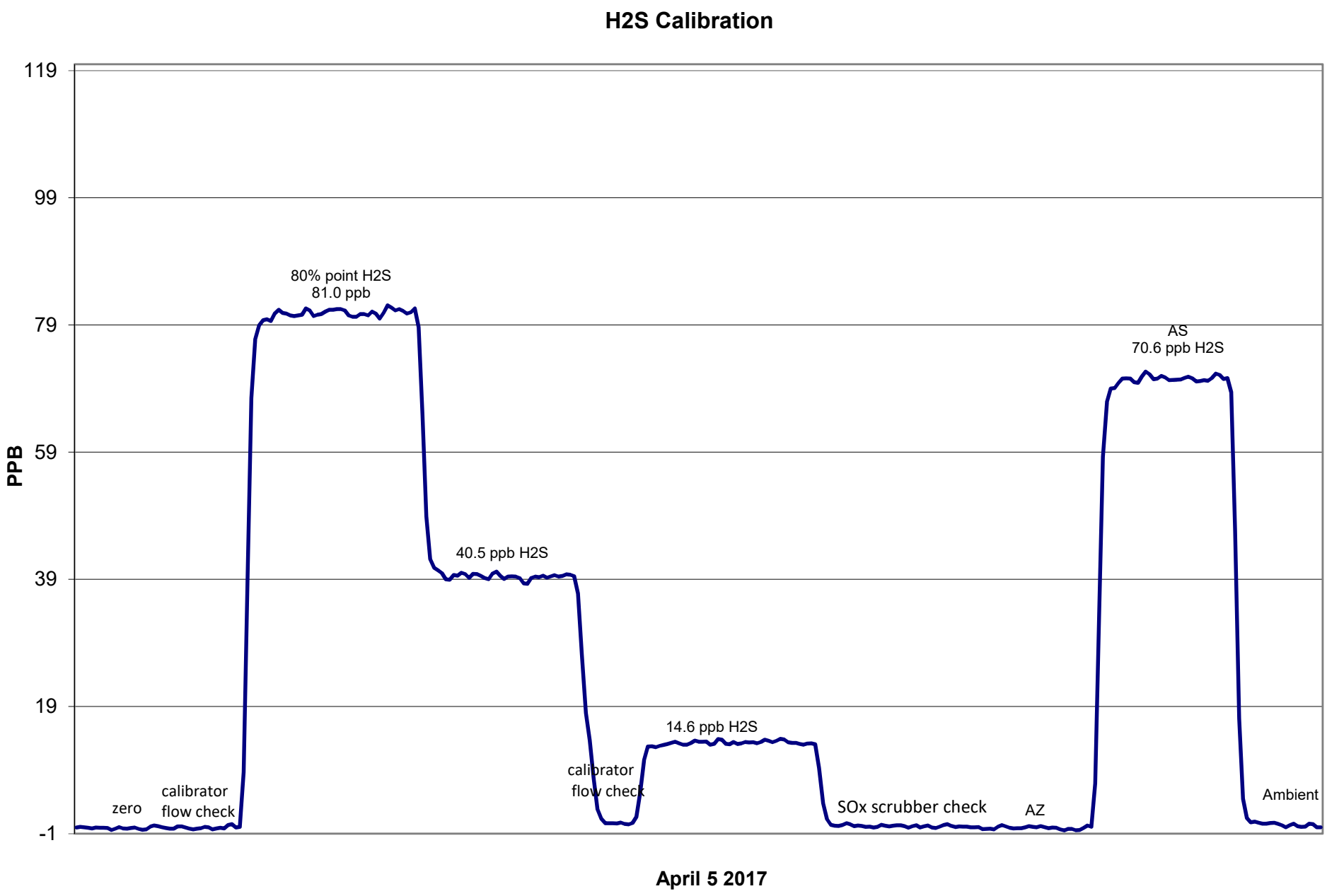
Station Information

Calibration Date	April 5 2017	Previous Calibration	March 25 2017
Station Number	6	Station Location	Valleyview
Start Time (MST)	12:40	End Time (MST)	15:20:00 PM
Analyzer make/model	TEI Model 43i - APSCB	Analyzer serial #	701120010

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	N/A		
81.0	81.0	1.0005	Correlation Coefficient	0.999688
40.5	39.3	1.0300		
14.6	13.4	1.0858	Slope	0.995810
			Intercept	0.745926




H2S Calibration
119
99
79
59
39
19
-1
PPB
80% point H2S
81.0 ppb
40.5 ppb H2S
14.6 ppb H2S
AS
70.6 ppb H2S
zero
calibrator
flow check
calibrator
flow check
SOx scrubber check
AZ
Ambient
April 5 2017

Calibration Report

Parameter **SO_2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	April 25, 2017	Previous Calibration	March 31, 2017
Station Number	1	Station Location	Donnely
Reason: Routine	Install	Removal	Other:

Start Time (MST)	14:15:00 PM	End Time (MST)	17:12
Barometric Pressure	0.921 mm	Station Temperature	18.0 Deg C
Calibrator	Environics	Serial Number	3016
Cal Gas Concentration	50 ppm	Cal Gas Expiry Date	2/8/2019
Correction factor	0.031523	Cal Gas Cylinder #	LL105132
DACS make	CR1000	DACS serial No.	3980
DACS voltage range	0 - 5 volt	DACS channel #	6
	Before		After
Calculated slope	0.989678	Calculated slope	0.997172
Calculated intercept	3.611122	Calculated intercept	0.356045

Analyzer make	Teco 43i	Analyzer serial #	1207452008

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	10.2		7.2	
coefficient	0.916		1.030	
Lamp Voltage	853	volts	853	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	677.9	mm Hg	677.9	mm Hg
Sample Flow	0.438	ccm	0.438	ccm
Lamp Intensity	97	%	97	%

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.0	0.00	0.6	N/A
4994	39.93	396.6	397.9	0.9968
4994	19.97	199.1	198.9	1.0014
4994	9.97	99.6	98.5	1.0110
4995	0.0	0.0	0.5	As Found Zero
4994	39.93	396.6	504.8	As Found Span
			Average Correction Factor	1.0031

Calculated value of As Found Response: 502.704 ppm Percent Change of As Found: -26.8%

	before calibration		after calibration	
Auto zero	0.3	ppm	0.7	ppm
Auto span	271.9	ppm	244.3	ppm

Notes: First as found span went off scale at 504 ppb. PMT adj, zero adj, span adjust and calibrate.
Looks good now, holding closer to calculated than before.

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **SO2**

Air Monitoring Network **PAZA**

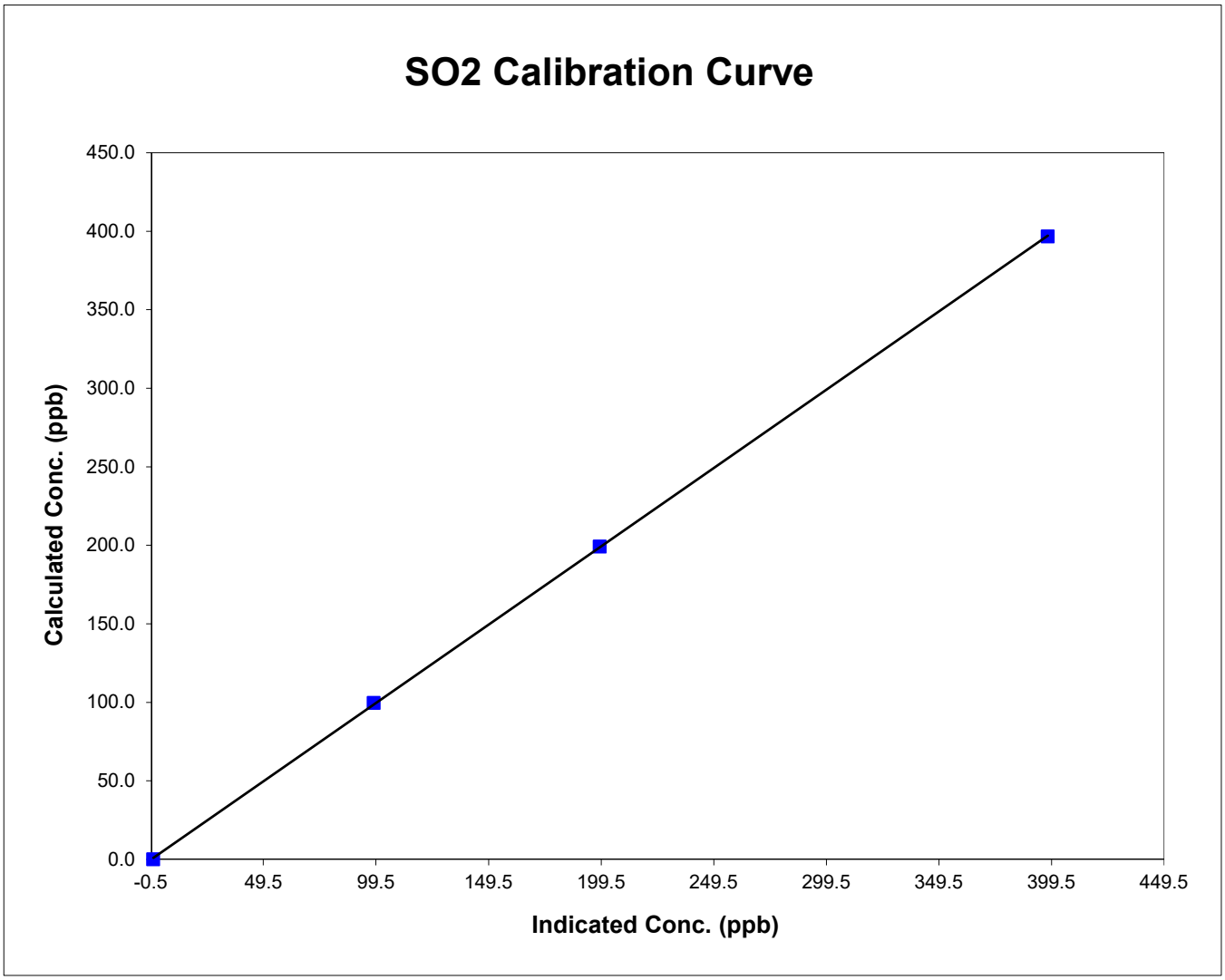
WSP AIR QUALITY MONITORING

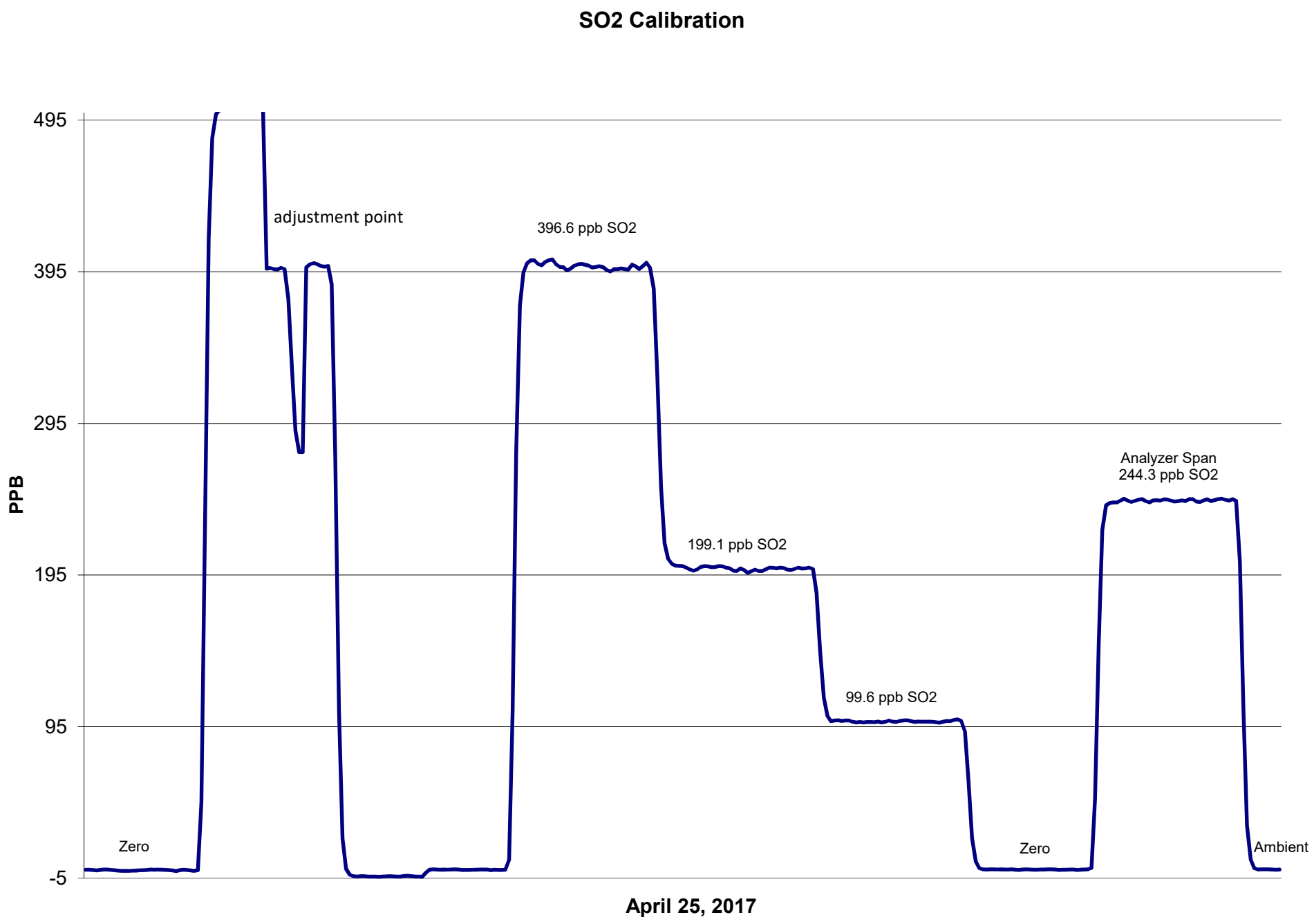
Station Information

Calibration Date	April 25, 2017	Previous Calibration	March 31, 2017
Station Number	1	Station Location	Donnely
Start Time (MST)	14:15:00 PM	End Time (MST)	17:12
Analyzer make/model	Teco 43i	Analyzer serial #	1207452008

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.6	N/A		
396.6	397.9	0.9968	Correlation Coefficient	0.999971
199.1	198.9	1.0014		
99.6	98.5	1.0110	Slope	0.997172
			Intercept	0.356045




SO2 Calibration
495
395
295
195
95
-5
PPB
adjustment point
396.6 ppb SO2
199.1 ppb SO2
99.6 ppb SO2
Analyzer Span
244.3 ppb SO2
Zero
Zero
Ambient
April 25, 2017

Calibration Report

Parameter **H2S**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	April 25, 2017	Previous Calibration	March 31, 2017
Station Number	1	Station Location	Donnely
Reason: Routine	Install	Removal	Other:

Start Time (MST)	10:30	End Time (MST)	15:04
Barometric Pressure	0.928 mm	Station Temperature	18.0 Deg C
Calibrator	Environics	Serial Number	3016
Cal Gas Conc	10.2 ppm	Cal Gas Expiry Date	3/23/2019
Correction factor	0.031762	Cal Gas Cylinder #	EY0000380
DACS make	CR1000	DACS serial No.	3980
DACS voltage range	0 - 5 volt	DACS channel #	5
	Before		After
Calculated slope	0.992341	Calculated slope	1.005607
Calculated intercept	0.293702	Calculated intercept	0.572512

Analyzer make	Thermo 450i	Analyzer serial #	1207452006

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	16.9	ppb	16.5	ppb
coefficient	1.073		1.027	
Lamp Voltage	809	volts	809	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	485.1	mm Hg	486	mm Hg
Sample Flow	0.766	lpm	0.750	lpm
Lamp Intensity	90	mv	90	mv

Calibration Data

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.00	-0.3	N/A
4996	39.95	80.92	79.9	1.0122
4996	19.96	40.59	39.8	1.0194
6996	9.97	14.52	13.6	1.0707
4995	0.00	0.00	-0.5	As Found Zero
4996	39.95	80.92	84.5	As Found Span
			Average Correction Factor	1.0341

Calculated value of As Found Response: 84.65 ppm Percent Change of As Found: -4.6%

	before calibration		after calibration	
Auto zero	0.2	ppm	-0.5	ppm
Auto span	64.4	ppm	63.4	ppm

Notes: Slight span adjust. Problems with calibrator at the start.

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **H2S**

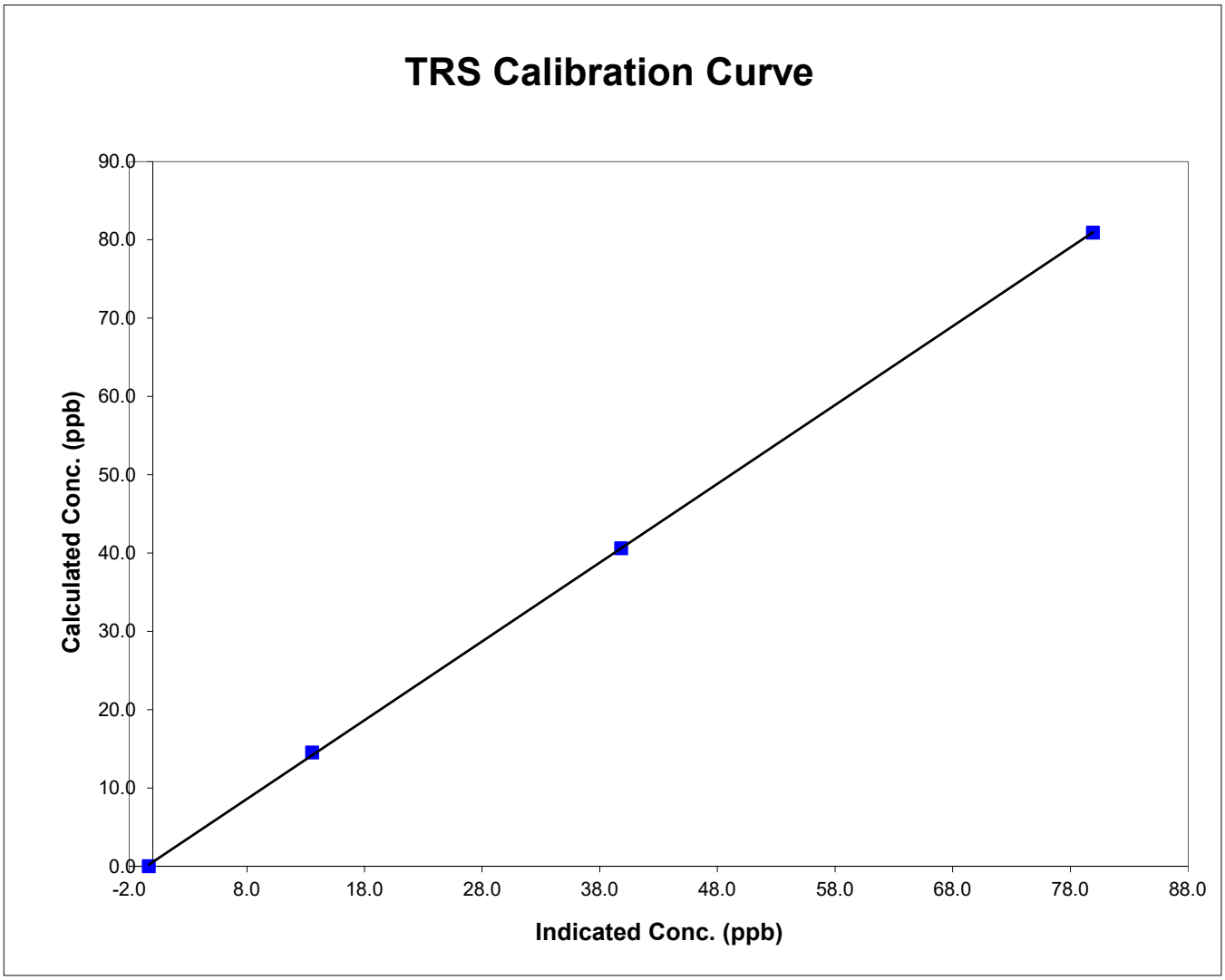
Air Monitoring Network **PAZA**

Station Information

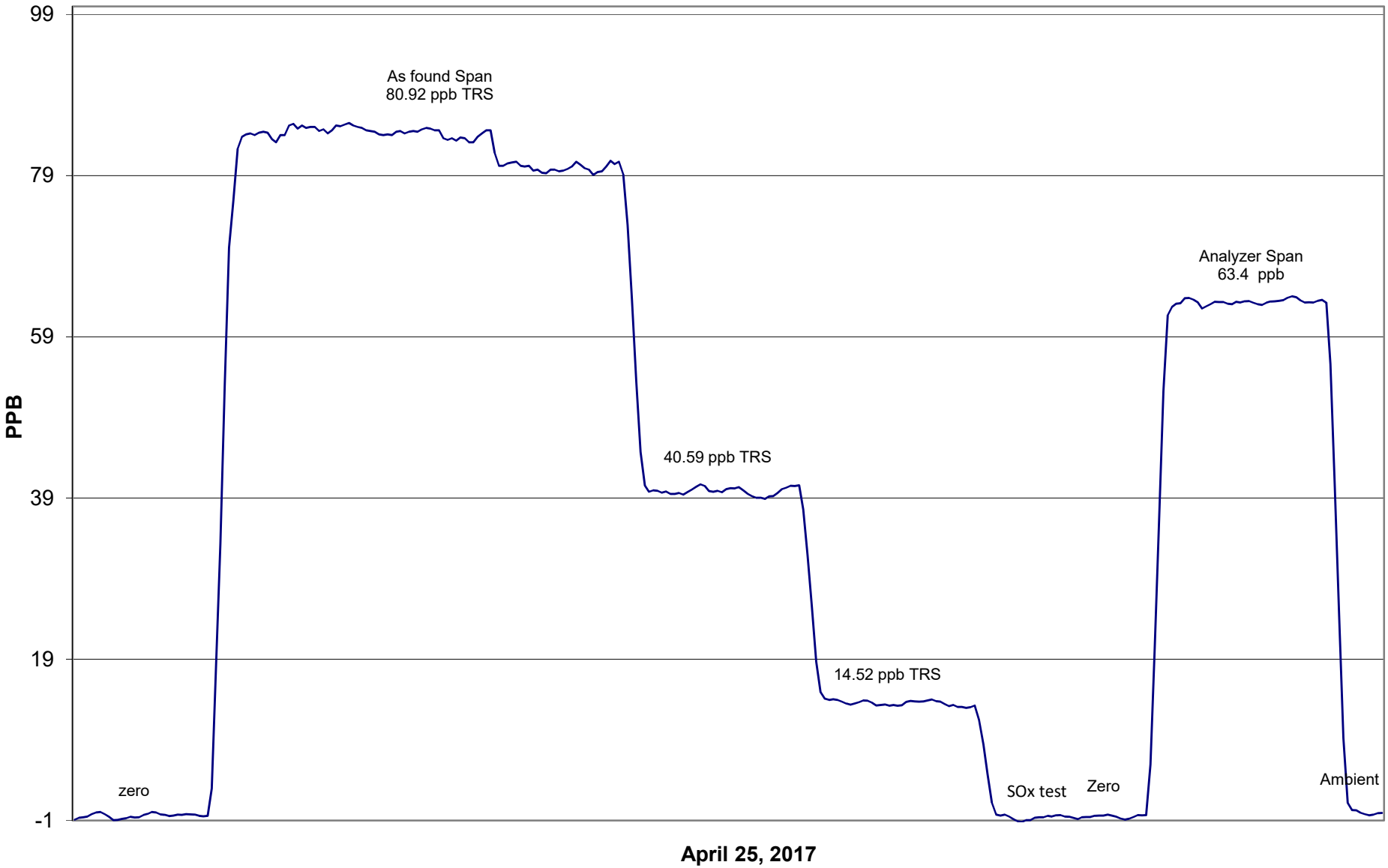
Calibration Date	April 25, 2017	Previous Calibration	March 31, 2017
Station Number	1	Station Location	Donnely
Start Time (MST)	10:30	End Time (MST)	15:04
Analyzer make/model	Thermo 450i	Analyzer serial #	1207452006

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.3	N/A		
80.9	79.9	1.0122	Correlation Coefficient	0.999958
40.6	39.8	1.0194		
14.5	13.6	1.0707	Slope	1.005607
			Intercept	0.572512



H2S Calibration



Calibration Report

Parameter **SO2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	April 20, 2017	Previous Calibration	March 7, 2017
Station Number	10	Station Location	Clairmont
Reason: Routine	Install	Removal	Other:
Start Time (MST)	11:00	End Time (MST)	
Barometric Pressure	0.929 Atm	Station Temperature	20.5 Deg C
Calibrator	Environics 6103	Serial Number	6586
Cal Gas Concentratior	50 ppm	Cal Gas Expiry Date	8/2/2019
Gas Cert Reference	LL105132		
DACS make	CR3000	DACS serial No.	5407
DACS voltage range	0 - 5 Volt	DACS channel #	2
	Before		After
DACS Scale High	500	DACS slope	500
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.984799	Calculated slope	0.977109
Calculated intercept	3.408187	Calculated intercept	3.220115
Analyzer make	TEI 43C	Analyzer serial #	436610005

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Background	24.4		23.5	
Coefficient	1.102		1.066	
UV Lamp Voltage	893	V	893	V
Chamber Temp	44.5	C	44.4	C
Perm Gas Temp	45	C	45	C
Pressure	676.5	mm Hg	678.7	mm Hg
Sample Flow	0.468	LPM	0.469	LPM
Lamp Intesity	30147	Hz	30376	Hz

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)
4999	0.00	0.0	0.1	N/A
5001	40.14	398.1	406.1	0.9805
5004	20.30	202.0	201.0	1.0052
4998	10.07	100.5	96.8	1.0384
4999	0.00	0.0	0.1	As found zero
5001	40.14	398.1	383.4	As found span
			Average Correction Factor	1.0080

Calculated value of As Found Response: 380.858 ppm Percent Change of As Found: 4.3%

	before calibration		after calibration	
Auto zero	0.3	ppm	0.3	ppm
Auto span	207.9	ppm	207.9	ppm

Notes: Span adjustments made

Calibration Summary

Parameter **SO2**

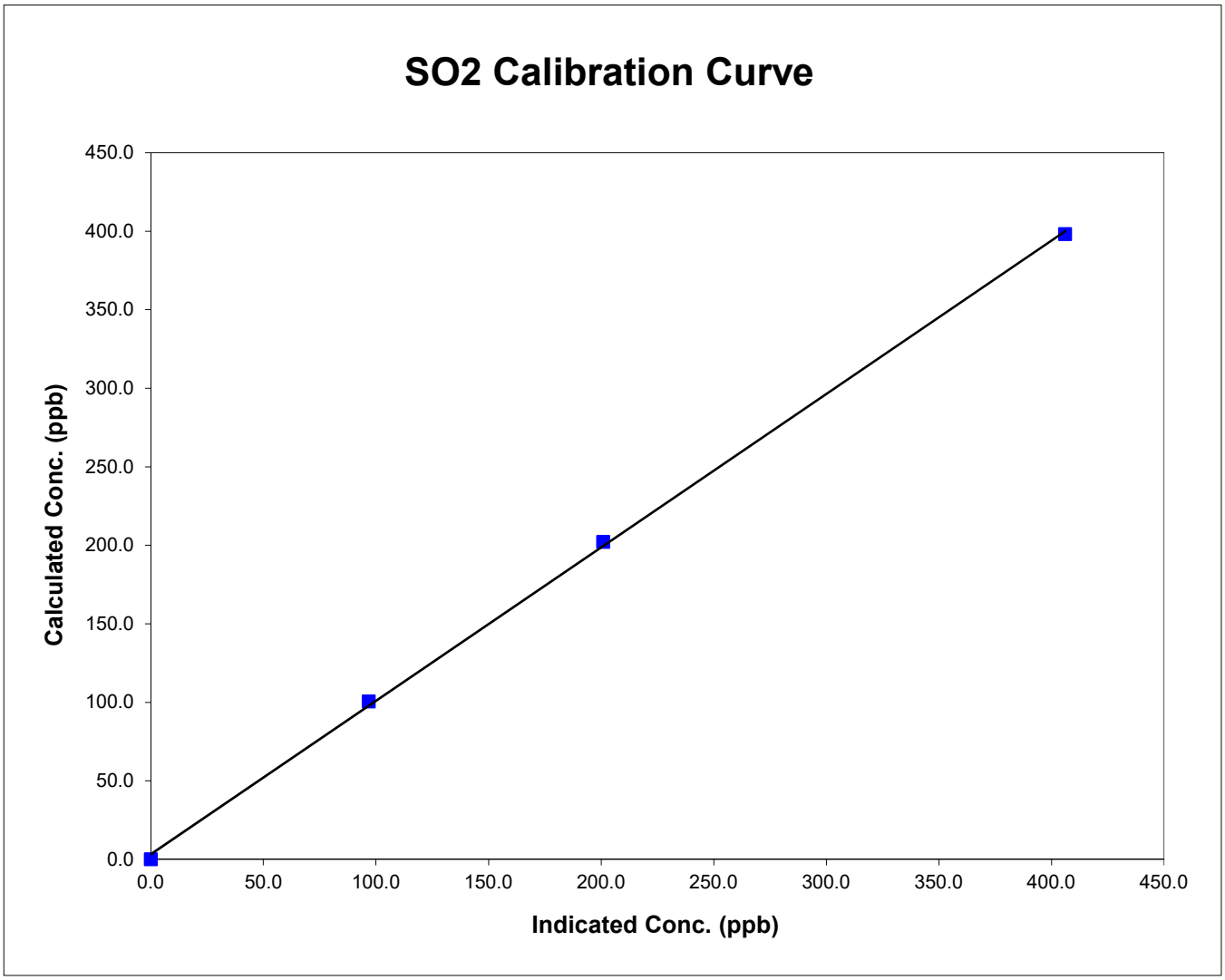
Air Monitoring Network **PAZA**

Station Information

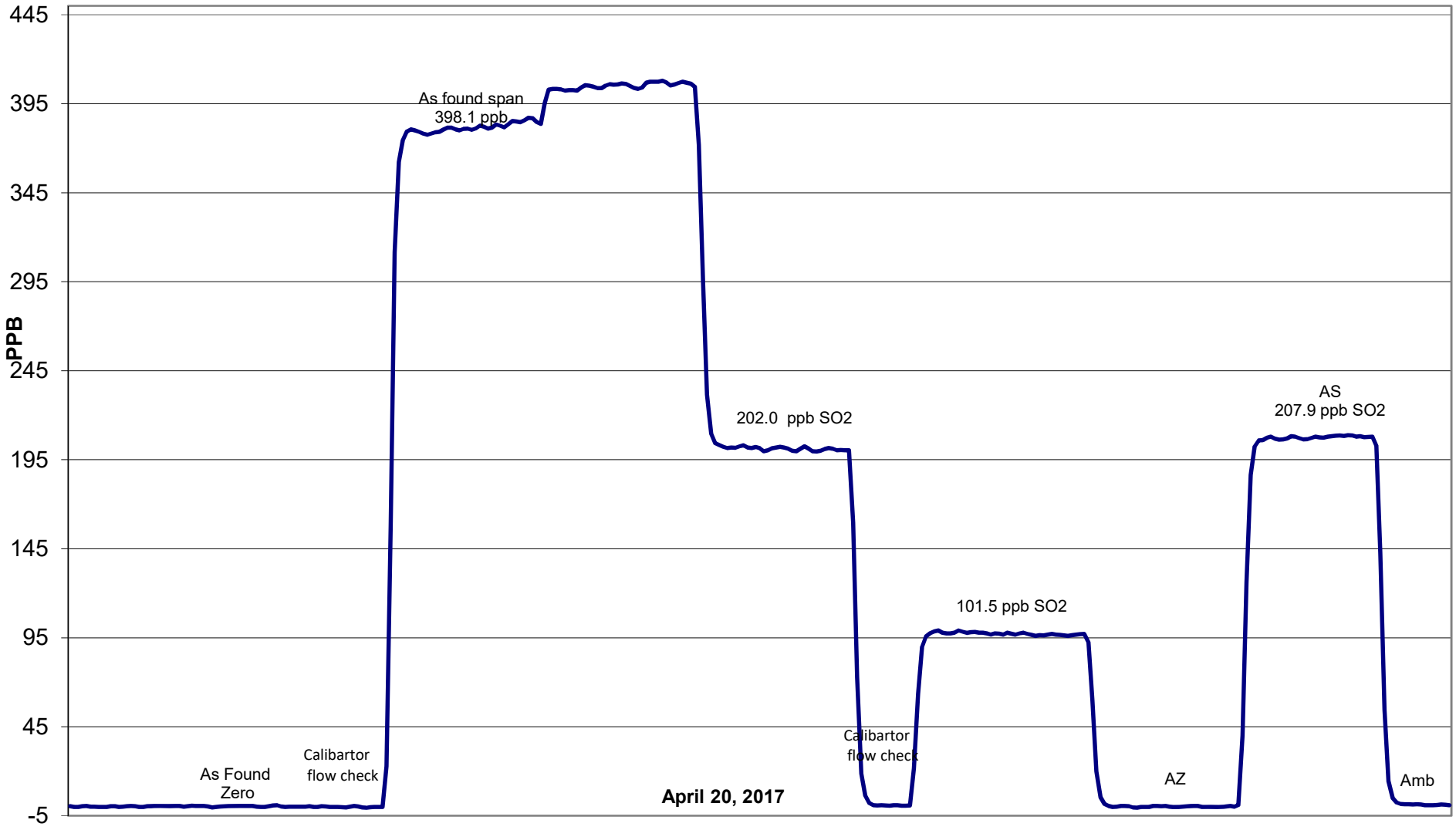
Calibration Date	April 20, 2017	Previous Calibration	March 7, 2017
Station Number	10	Station Location	Clairmont
Start Time (MST)	11:00	End Time (MST)	0:00
Analyzer make/model	TEI 43C	Analyzer serial #	436610005

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A		
398.1	406.1	0.9805	Correlation Coefficient	0.999682
202.0	201.0	1.0052		
100.5	96.8	1.0384	Slope	0.977109
			Intercept	3.220115



SO2 Calibration



Calibration Report

Parameter **NO_X-NO-NO_2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	April 20, 2017	Previous Calibration	March 7, 2017
Station Number	10	Station Location	Rycroft

Reason: Routine Installation Removal Other:

Start Time (MST)	8:15		End Time (MST)	12:25	
Barometric Pressure	0.929	Atm	Station Temperature	20.5	Deg C
Calibrator	Environics		Serial Number	6586	
NO Cal Gas Conc	48.6	ppm	Cal Gas Expiry Date	August 2, 2019	
NOx Cal Gas Conc	48.9	ppm	Cal Gas Serial #	LL105132	

DACS Information

DACS make	CR3000	DACS serial No.	5407

Parameter		NO2	NOx	NO
Before	Data Slope	0.993252	1.000424	0.995944
	Data Offset	-0.367524	2.351947	2.519440
After	Data Slope	0.995752	0.996612	0.996089
	Data Offset	-0.132461	3.568925	3.797016
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	5.7	mV	5.9	mV
NOx bkgnd	5.8	mV	6.0	mV
NO coefficient	0.939		0.975	
NOx coefficient	1.000		1.000	
NO2 conv temp	323.7	Deg C	323.2	Deg C
PMT Temp	-3.0	Deg C	-3.0	Deg C
PMT Volt	-835.1	mV	-835.1	mV
R Cell Press	171.4	in Hg	173.8	in Hg
Sample Flow	0.830	LPM	0.838	LPM

Notes: Span adjustments made

Calibration Report

Parameter **NOX-NO-NO2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date: April 20, 2017 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	4999	0.00	0.0	0.0	0.0	-0.5	-0.5	-0.5	N/A	N/A
1	5001	40.14	389.4	387.0	2.4	389.1	386.8	0.1	1.0008	1.0004
2	5004	20.30	197.6	196.4	1.2	191.7	190.0	0.5	1.0308	1.0337
3	4998	10.07	98.3	97.7	0.6	93.1	92.2	0.5	1.0565	1.0600
AFZ	4999	0.00	0.0	0.0	0.0	-0.5	-0.5	-0.5	0.0000	0.0000
AFS	5001	40.14	389.4	387.0	0.8	375.7	373.5	0.1	1.0363	1.0362
							Average Correction Factor		1.0294	1.0314

As Found Concentrations: NO_X= 378.8 NO= 375.0 As Found Percent Change NO_X= -2.7% NO= -3.1%

GPT Calibration Data

Dilution Flow 4995 ccm Source Gas Flow 39.93 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	-0.5	-0.5	0.0	-0.5	-0.5	-0.5	N/A	N/A	N/A	N/A
NO point	384.0	384.0	0.0	386.0	384.0	-0.4	0.9950	1.0000	N/A	N/A
300	384.0	46.8	337.2	387.2	46.8	338.6	0.9917	1.0000	0.9961	100.4%
200	384.0	156.5	227.5	387.8	156.5	228.6	0.9902	1.0000	0.9954	100.5%
100	384.0	275.2	108.8	387.8	275.2	110.3	0.9903	1.0000	0.9863	101.4%
					Average Correction Factor		0.9907	1.0000	0.9926	100.7%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	-0.3	-0.2	-0.3	ppb	-0.3	-0.3	-0.4	ppb
Auto span	161.5	160.1	0.6	ppb	163.5	161.8	0.5	ppb

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **NO_2**

Air Monitoring Network **PAZA**

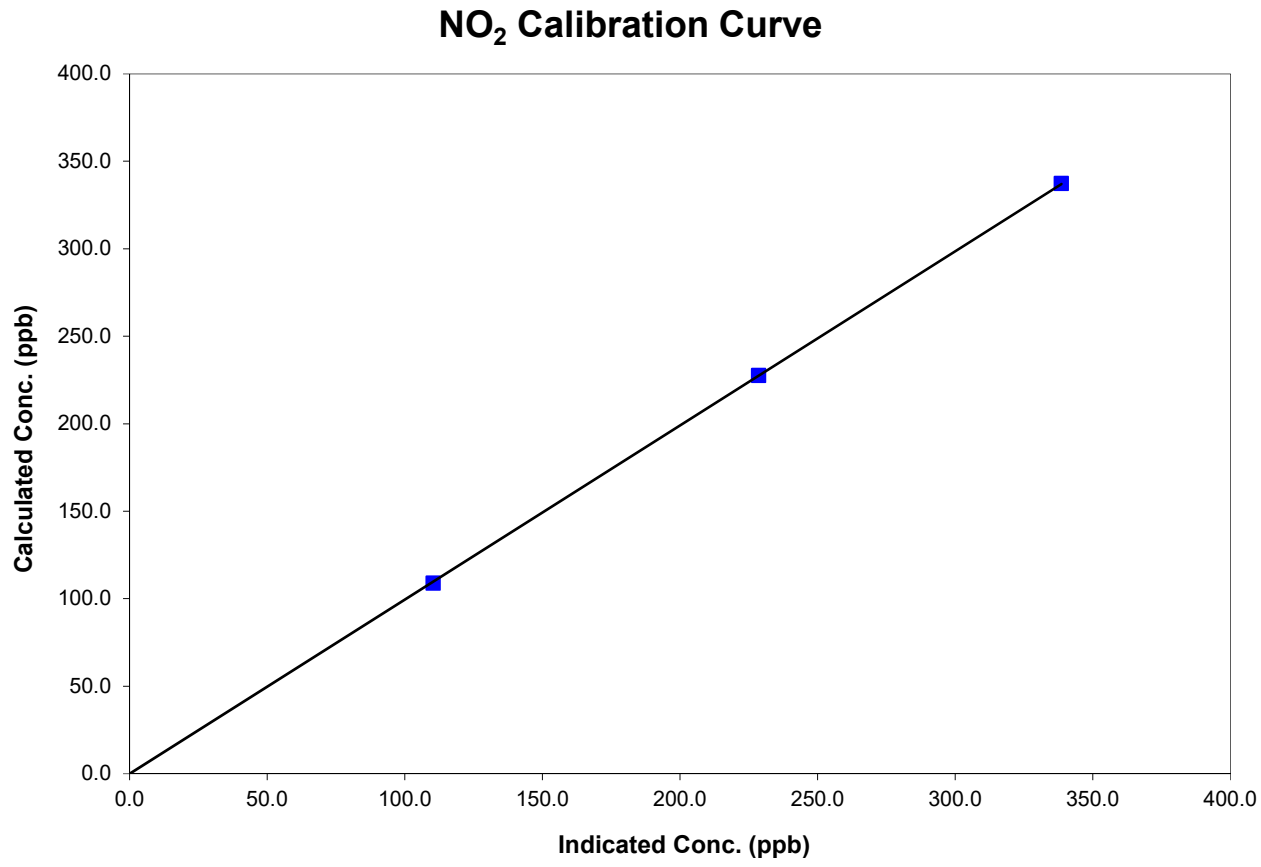
WSP AIR QUALITY MONITORING

Station Information

Calibration Date	April 20, 2017	Previous Calibration	March 7, 2017
Station Number	10	Station Location	Rycroft
Start Time (MST)	8:15	End Time (MST)	12:25
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	-0.5	N/A		
337.2	338.6	0.9961	Correlation Coefficient	0.999981
227.5	228.6	0.9954		
108.8	110.3	0.9863	Slope	0.995752
			Intercept	-0.132461



Calibration Summary

Parameter **NO_x**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

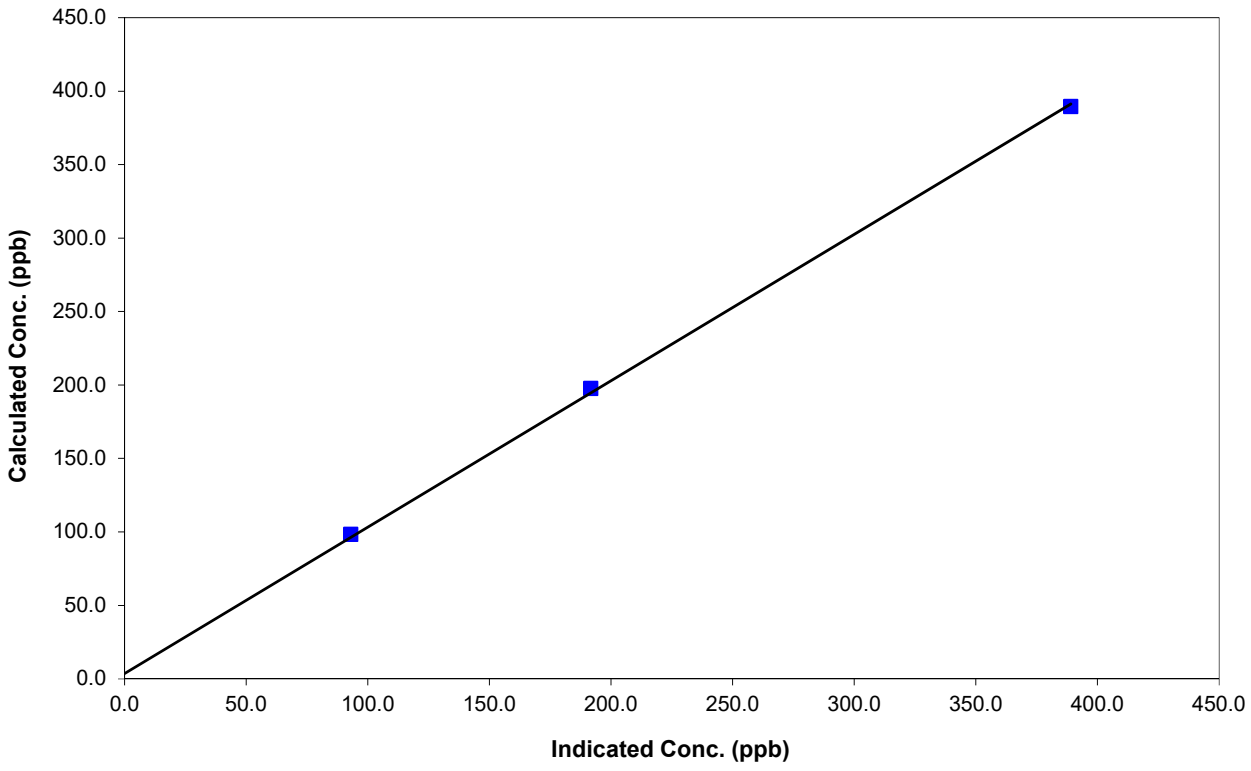
Station Information

Calibration Date	April 20, 2017	Previous Calibration	March 7, 2017
Station Number	10	Station Location	Rycroft
Start Time (MST)	8:15	End Time (MST)	12:25
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	-0.5	N/A		
389.4	389.1	1.0008	Correlation Coefficient	0.999687
197.6	191.7	1.0308		
98.3	93.1	1.0565	Slope	0.996612
			Intercept	3.568925

NOx Calibration Curve



Calibration Summary

Parameter **NO**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

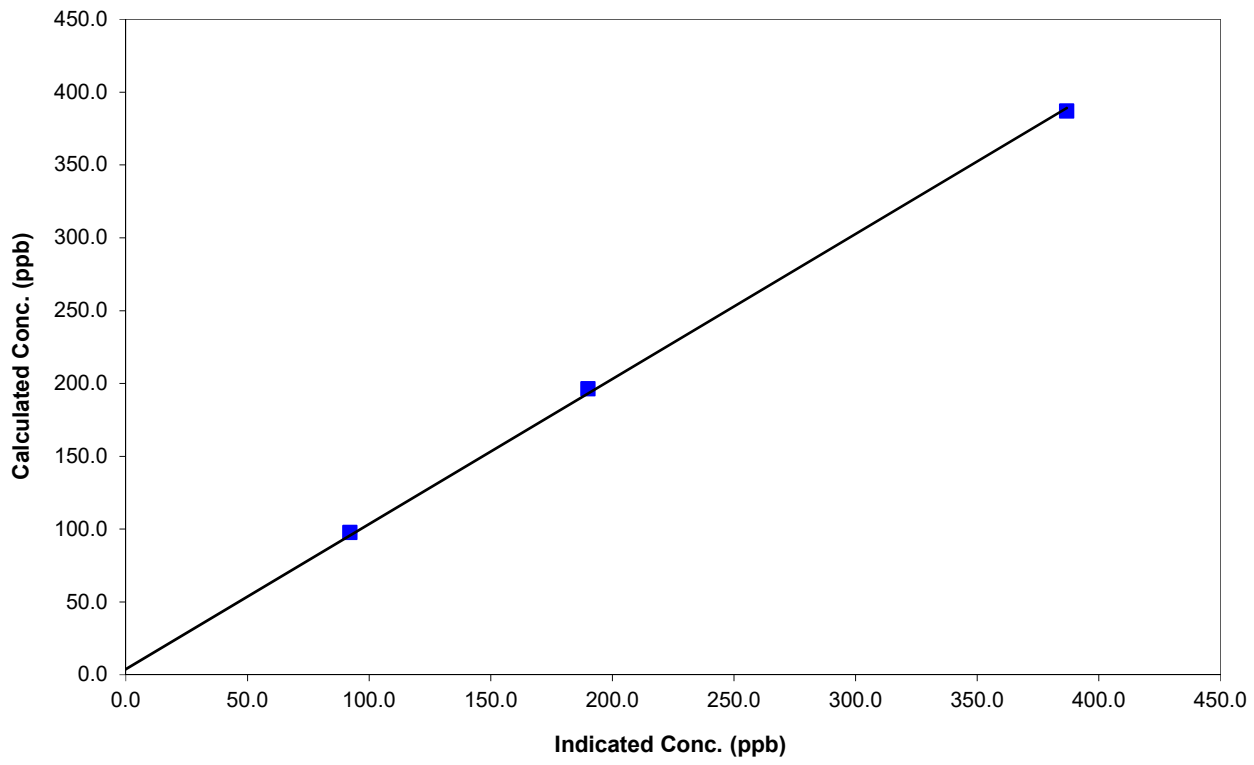
Station Information

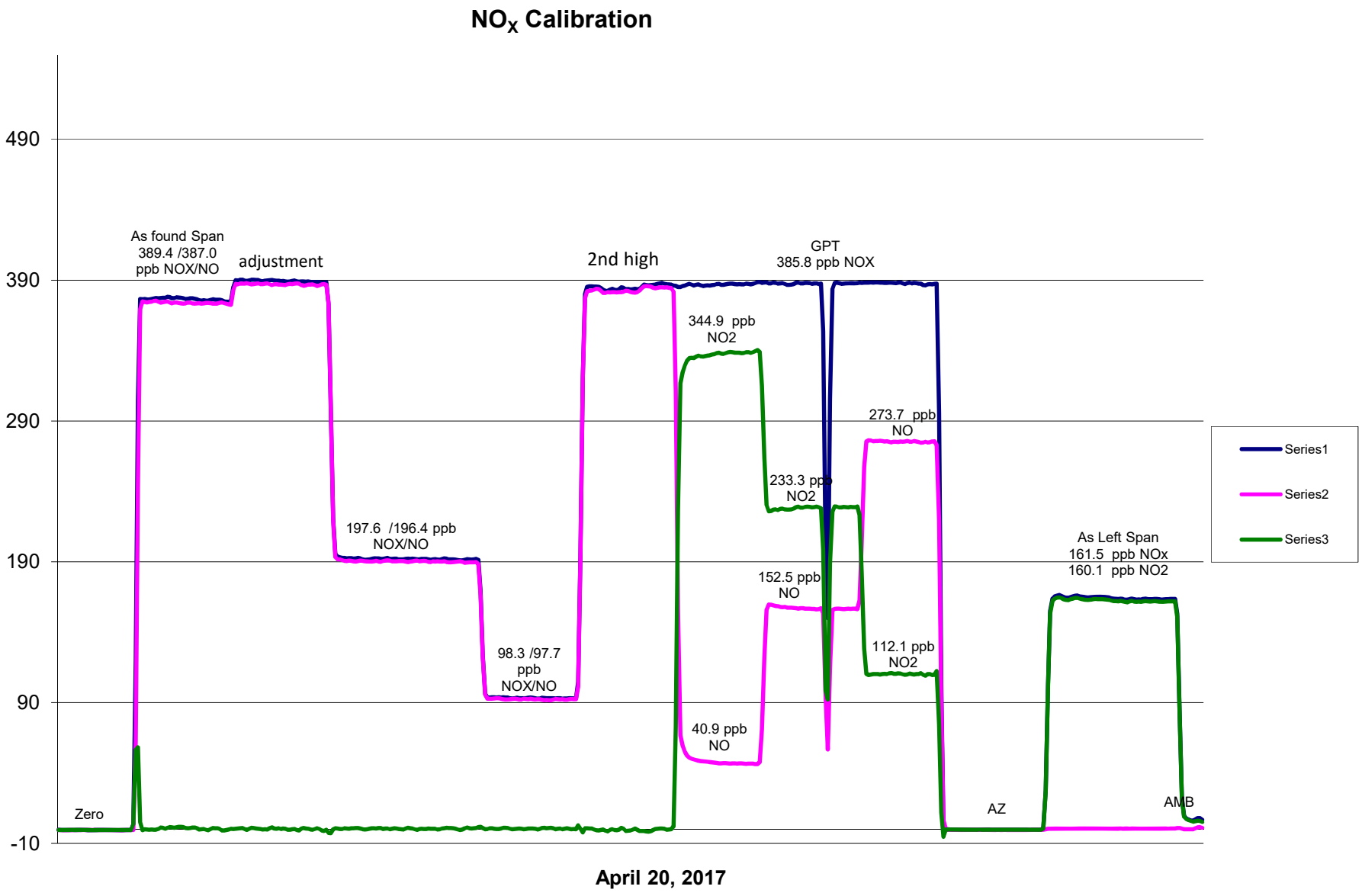
Calibration Date	April 20, 2017	Previous Calibration	March 7, 2017
Station Number	10	Station Location	Rycroft
Start Time (MST)	8:15	End Time (MST)	12:25
Analyzer make	TEI 42i	Analyzer serial #	0701120011

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.5	N/A		
387.0	386.8	1.0004	Correlation Coefficient	0.999620
196.4	190.0	1.0337		
97.7	92.2	1.0600	Slope	0.996089
			Intercept	3.797016

NO Calibration Curve




NOx Calibration
490
390
290
190
90
-10
As found Span
389.4 /387.0
ppb NOX/NO
adjustment
2nd high
GPT
385.8 ppb NOX
344.9 ppb
NO2
273.7 ppb
NO
233.3 ppb
NO2
197.6 /196.4 ppb
NOX/NO
152.5 ppb
NO
As Left Span
161.5 ppb NOx
160.1 ppb NO2
98.3 /97.7
ppb
NOX/NO
112.1 ppb
NO2
40.9 ppb
NO
Zero
AZ
AMB
Series1
Series2
Series3
April 20, 2017

Calibration Report

Parameter **O3**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	April 21 2017	Previous Calibration	March 17 2017
Station Number	10	Station Location	Rycroft
Reason: Routine	Install	Removal	Other:
Start Time (MST)	12:44	End Time (MST)	15:00
Barometric Pressure	0.929 atm	Station Temperature	20.5 Deg C
Calibrator	Environics 6103	Serial Number	6586
DACS make	CR3000	DACS serial No.	5407
DACS voltage range	0 - 5 Volts	DACS channel #	6
	Before		After
Calculated slope	1.003925	Calculated slope	1.000041
Calculated intercept	-1.102725	Calculated intercept	0.070848
Analyzer make	TEI Model 49C	Analyzer serial #	49C-0609716240

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Offset	-0.5	ppb	0.2	ppb
Span	0.988		1.281	
Cell A intensity	77253	Hz	77123	Hz
Cell B intensity	76025	Hz	75998	Hz
Pressure	685.90	in Hg	689.10	in Hg
CellA Flow	0.719	ccm	0.718	ccm
Cell B Flow	0.708	cmm	0.708	cmm

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
5065	0.00	0.0	0.4	N/A
5071	0.30	337.2	338.5	0.9963
5071	0.20	227.5	225.2	1.0104
5071	0.10	108.8	109.2	0.9964
5005	0.00	0.0	0.4	As found zero
5008	0.30	337.2	338.5	As found span
			Average Correction Factor	1.0010

Calculated value of As Found Response: 338.3 ppm Percent Change of As Found: 0.3%

	before calibration		after calibration	
Auto zero	0.5	ppb	0.4	ppb
Auto span	430.2	ppb	390.8	ppb

Notes: No span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **O3**

Air Monitoring Network **PAZA**

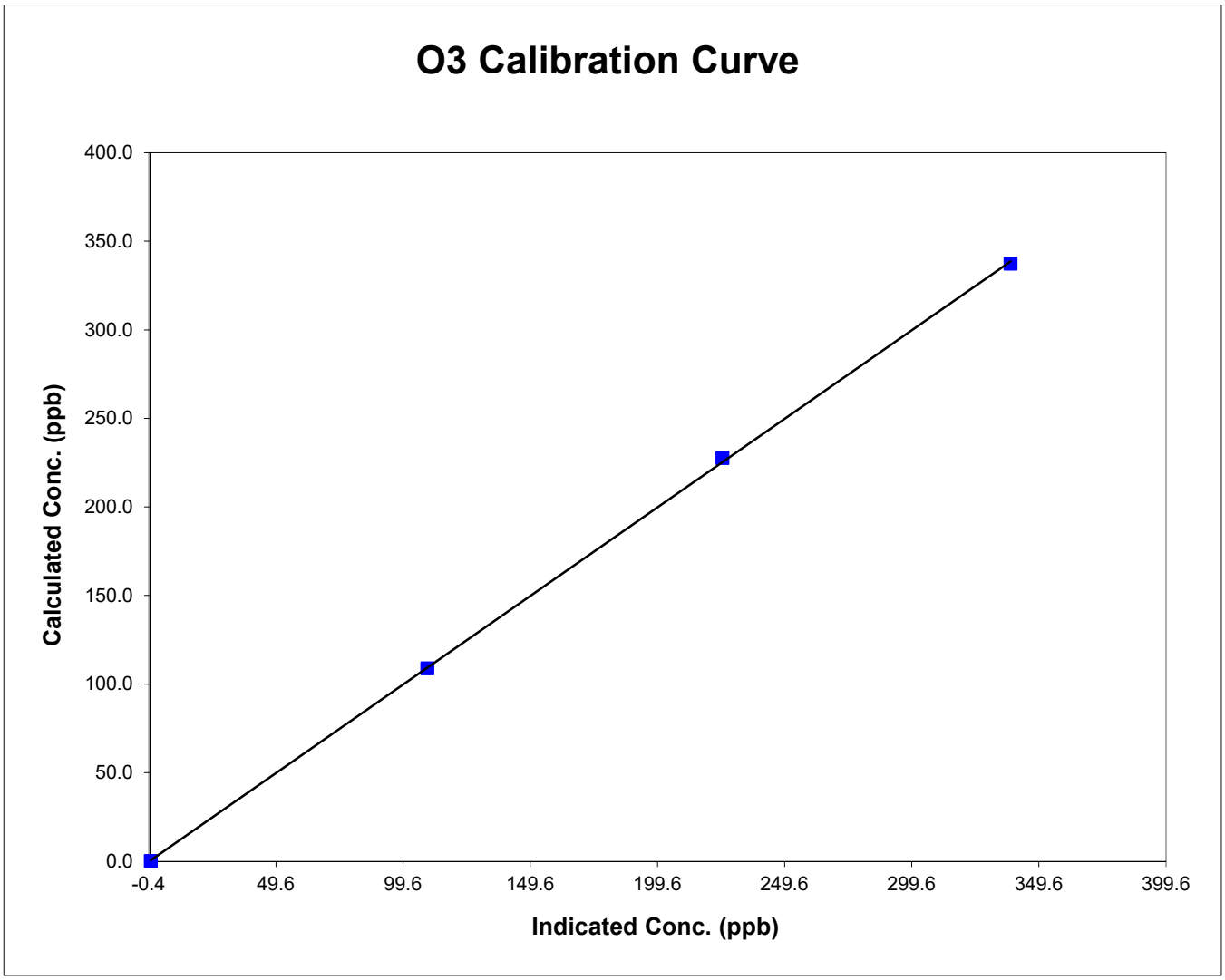
WSP AIR QUALITY MONITORING

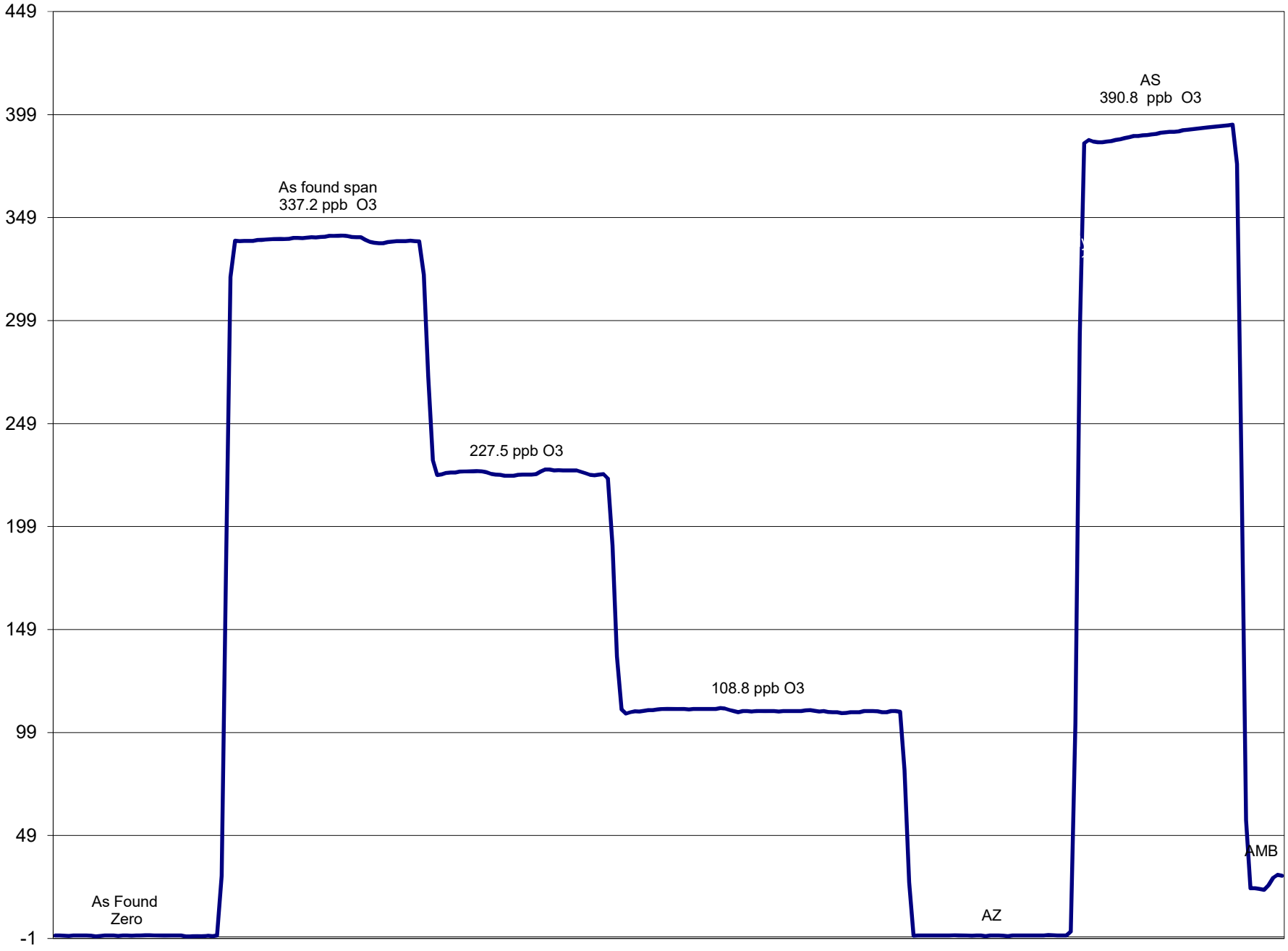
Station Information

Calibration Date	April 21 2017	Previous Calibration	March 17 2017
Station Number	10	Station Location	Rycroft
Start Time (MST)	12:44	End Time (MST)	15:00
Analyzer make/model	TEI Model 49C	Analyzer serial #	49C-0609716240

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.4	NA		
337.2	338.5	0.9963	Correlation Coefficient	0.999885
227.5	225.2	1.0104		
108.8	109.2	0.9964	Slope	1.000041
			Intercept	0.070848





April 21 2017

Calibration Report

Parameter **CH4 / NMHC / THC**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	April 21, 2017	Previous Calibration	March 8, 2017
Station Number	1	Station Location	Rycroft
Reason: Routine	Install	Removal	Other:

Start Time (MST)	8:18	End Time (MST)	10:52
Barometric Pressure	942.00 atm	Station Temperature	19.0 Deg C
Calibrator	Environics 6103	Serial Number	6586
Cal Gas CH4 Conc	386 ppm CH4	Cal Gas Expiry Date	3/28/2014
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 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)
1999	0.00	0.00	0.00	N/A
2001	68.72	12.82	12.79	1.0020
1998	40.93	7.75	7.67	1.0102
2002	15.99	3.06	2.96	1.0340
1999	0.00	0.00	0.01	As Found Zero
2001	68.93	12.85	11.61	As Found Span
			Average Correction Factor	1.0154

Calculated value of As Found Response: 11.718 ppm Percent Change of As Found: 8.8%

	Before		After
Calculated slope	1.007008	Calculated slope	1.000461
Calculated intercept	0.033425	Calculated intercept	0.047986

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.00	ppm	0.19	ppm
Auto span	7.59	ppm	7.69	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)
1999	0.00	0.00	0.00	N/A
1997	68.72	18.94	18.93	1.0004
1998	40.93	11.43	11.32	1.0097
2002	15.99	4.51	4.26	1.0599
1999	0.00	0.00	0.01	As Found Zero
2001	68.93	18.96	18.29	As Found Span
			Average Correction Factor	1.0233

Calculated value of As Found Response: 18.097 ppm Percent Change of As Found: 4.5%

	Before		After
Calculated slope	0.982982	Calculated slope	0.996441
Calculated intercept	0.126906	Calculated intercept	0.123525

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.00	ppm	0.00	ppm
Auto span	11.24	ppm	11.16	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)
1999	0.00	0.00	0.02	N/A
2001	68.72	31.72	31.77	0.9983
1998	40.93	19.18	18.98	1.0104
2002	15.99	7.57	7.24	1.0462
1999	0.00	0.00	0.02	As Found Zero
2001	68.93	31.81	29.94	As Found Span
			Average Correction Factor	1.0183

Calculated value of As Found Response: 29.805 ppm Percent Change of As Found: 6.3%

	Before		After
Calculated slope	0.990724	Calculated slope	0.996275
Calculated intercept	0.163289	Calculated intercept	0.168548

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.00	ppm	0.19	ppm
Auto span	18.81	ppm	18.83	ppm

Notes: Span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **CH4**

Air Monitoring Network **PAZA**

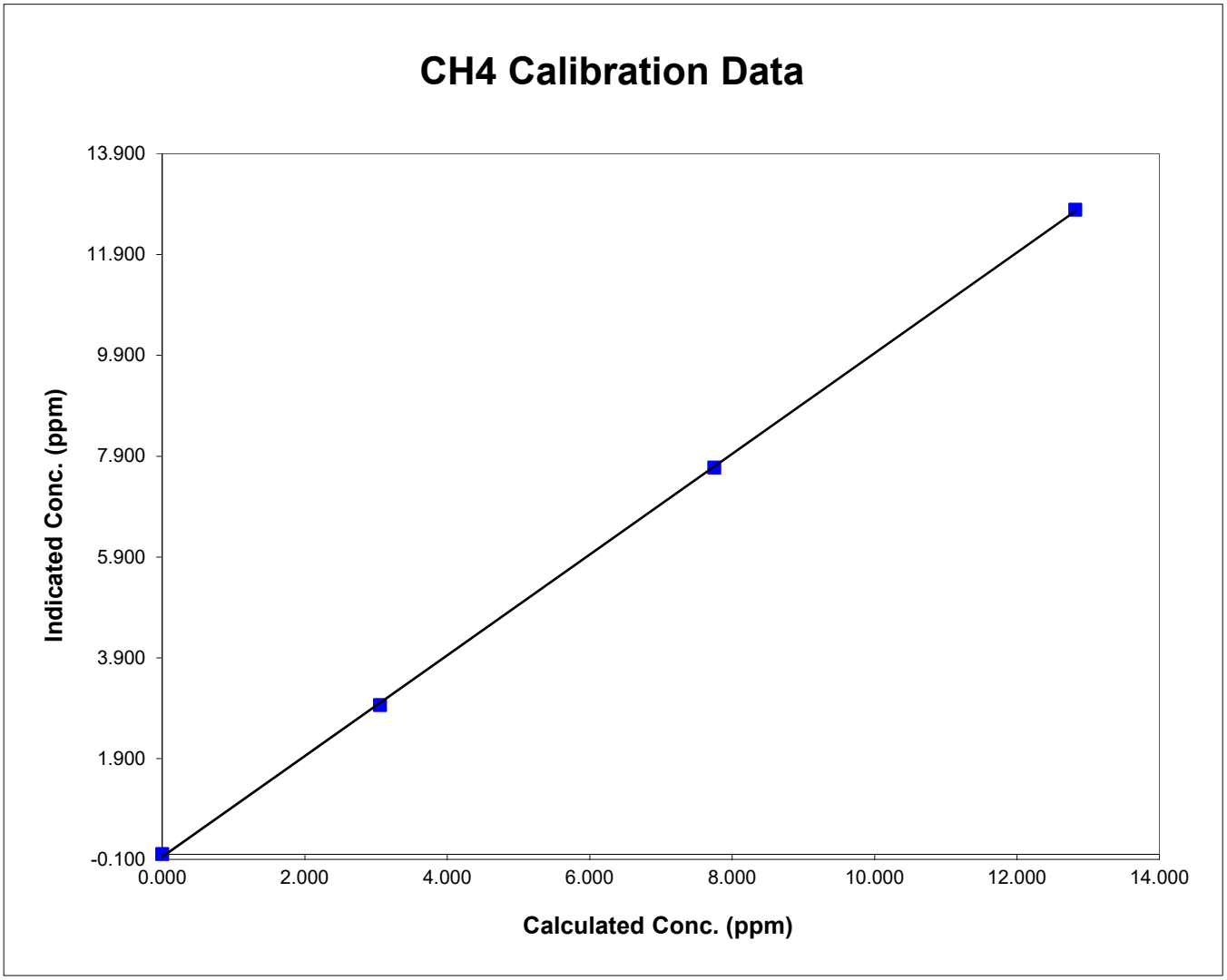
WSP AIR QUALITY MONITORING

Station Information

Calibration Date	April 21, 2017	Previous Calibration	March 8, 2017
Station Number	1	Station Location	Rycroft
Start Time (MST)	8:18	End Time (MST)	10:52
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	0.002	N/A		
12.816	12.790	1.0020	Correlation Coefficient	0.999930
7.749	7.671	1.0102		
3.059	2.958	1.0340	Slope	1.000461
			Intercept	0.047986



Calibration Summary

Parameter **NMHC**

Air Monitoring Network **PAZA**

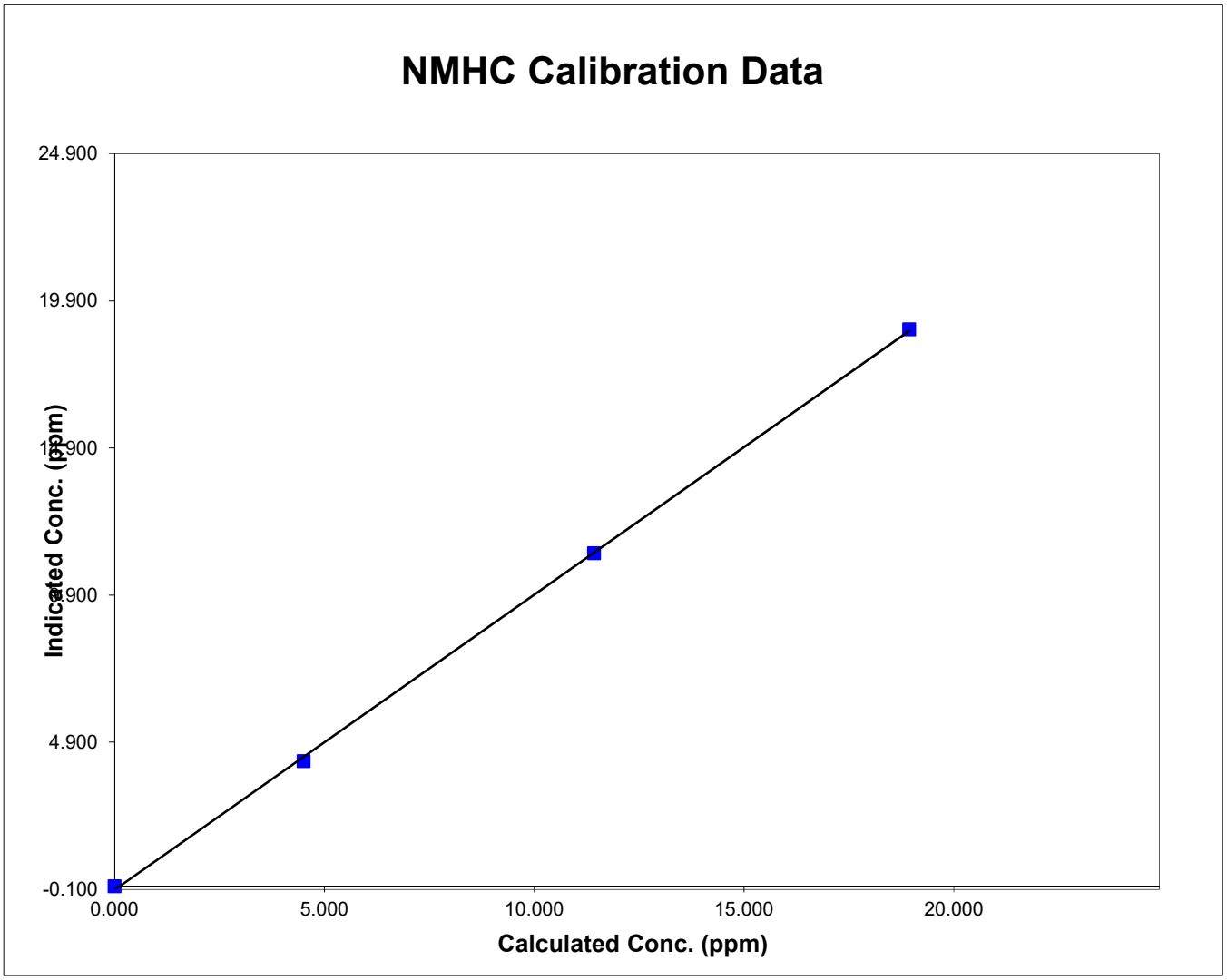
WSP AIR QUALITY MONITORING

Station Information

Calibration Date	April 21, 2017	Previous Calibration	March 8, 2017
Station Number	1	Station Location	Rycroft
Start Time (MST)	8:18	End Time (MST)	10:52
Analyzer make/model	TEI 55I-A3PHAA	Analyzer serial #	1151980005

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.001	N/A		
18.937	18.930	1.0004	Correlation Coefficient	0.999805
11.427	11.317	1.0097		
4.511	4.256	1.0599	Slope	0.996441
			Intercept	0.123525



Calibration Summary

Parameter **THC**

Air Monitoring Network **PAZA**

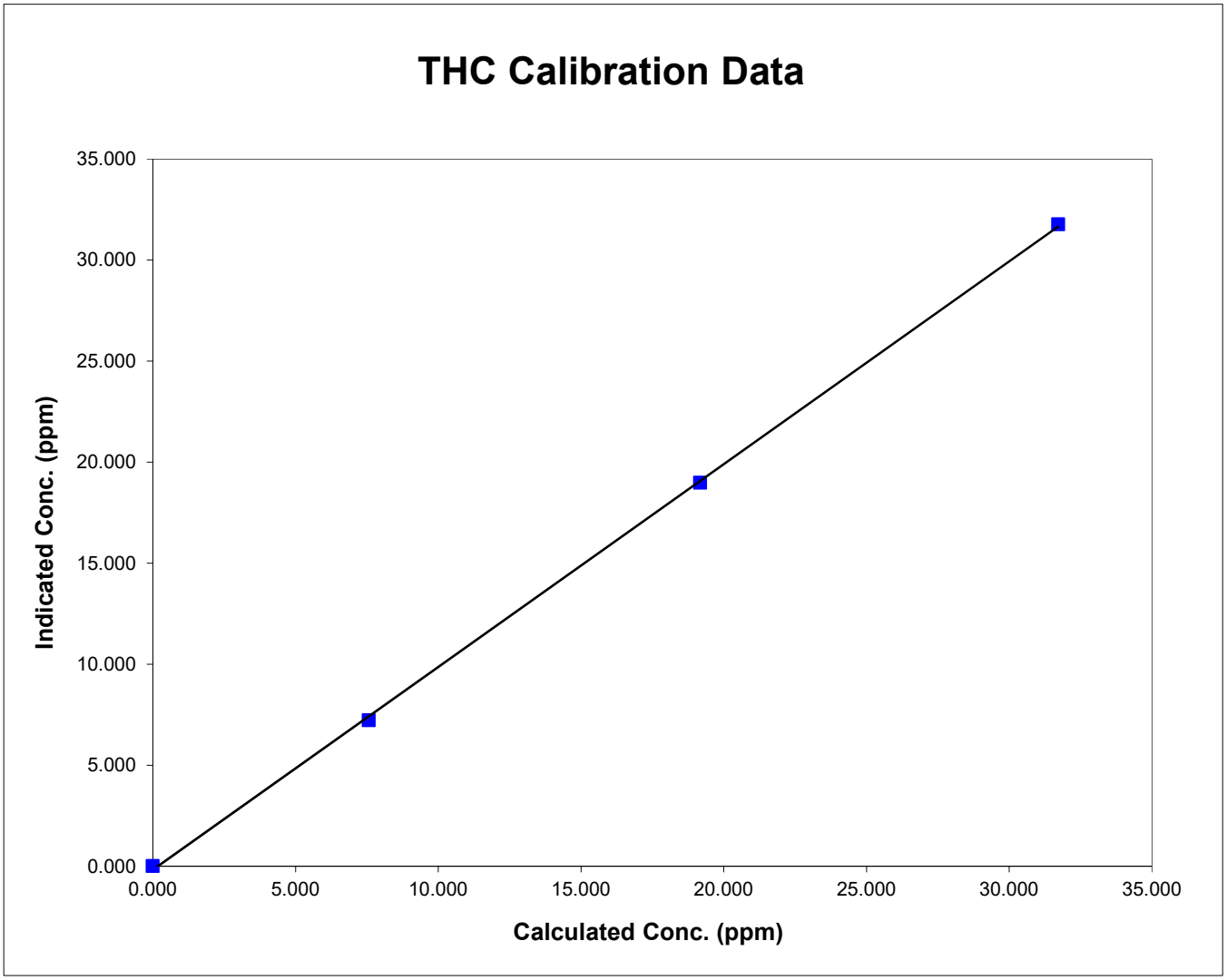
WSP AIR QUALITY MONITORING

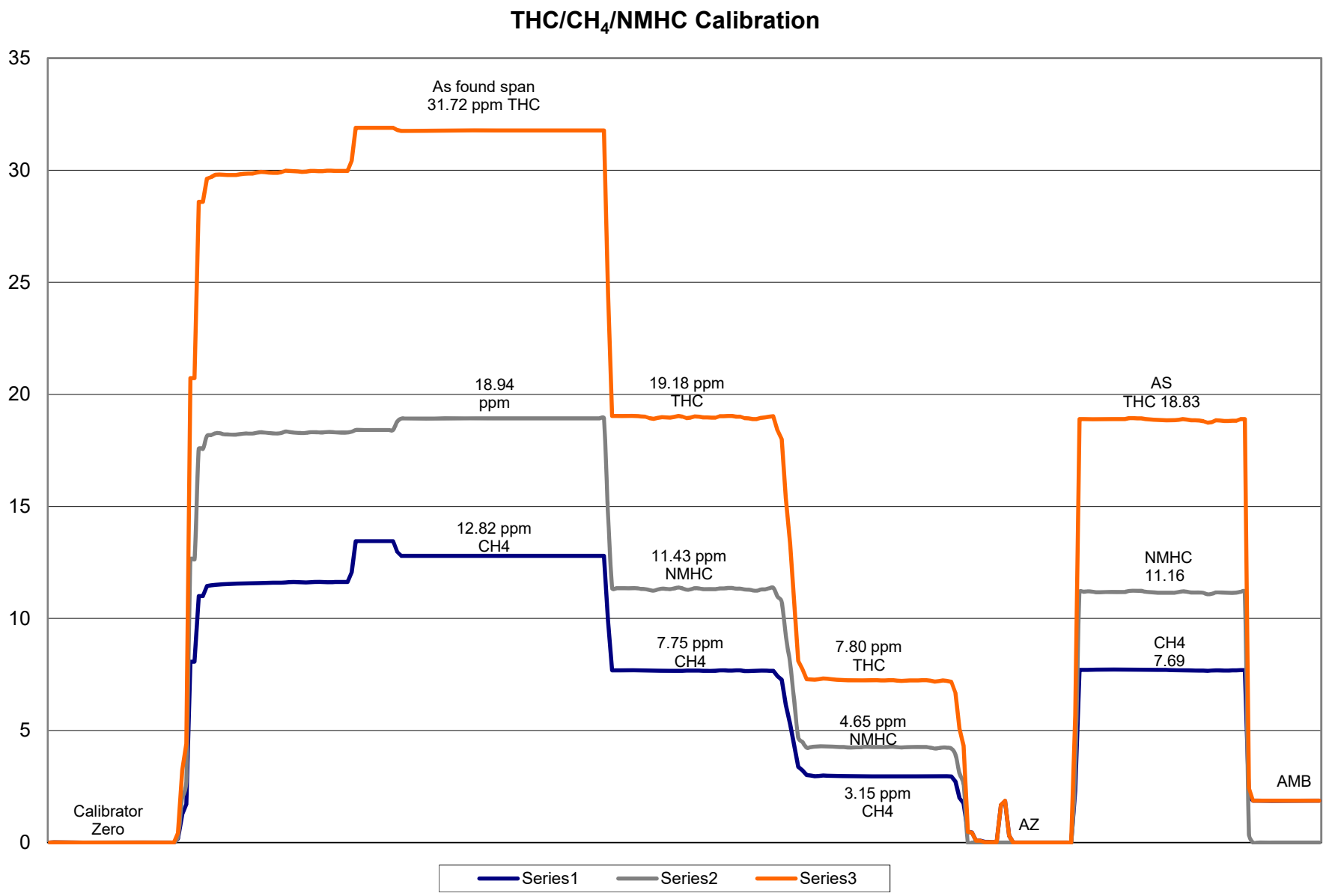
Station Information

Calibration Date	April 21, 2017	Previous Calibration	March 8, 2017
Station Number	1	Station Location	Rycroft
Start Time (MST)	8:18	End Time (MST)	10:52
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	0.021	N/A		
31.717	31.770	0.9983	Correlation Coefficient	0.999838
19.176	18.978	1.0104		
7.569	7.235	1.0462	Slope	0.996275
			Intercept	0.168548




THC/CH4/NMHC Calibration
35
30
25
20
15
10
5
0
As found span
31.72 ppm THC
18.94
ppm
19.18 ppm
THC
AS
THC 18.83
12.82 ppm
CH4
11.43 ppm
NMHC
NMHC
11.16
7.75 ppm
CH4
7.80 ppm
THC
CH4
7.69
4.65 ppm
NMHC
3.15 ppm
CH4
AMB
Calibrator
Zero
AZ
Series1
Series2
Series3

Calibration Report

Parameter **TRS**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	April 20, 2017	Previous Calibration	March 20, 2017
Station Name	PAZA Rover	Station Location	Rycroft
Reason: Routine	Install	Removal	Other: Troubleshooting
Start Time (MST)	15:20:00 AM	End Time (MST)	17:31
Barometric Pressure	0.932 Atm	Station Temperature	22.0 Deg C
Calibrator	Environics	Serial Number	6586
Cal Gas Concentratior	10.2 ppm	Cal Gas Expiry Date	02/23/2019
Gas Cert Reference	EY0000380		
DACS make	CR3000	DACS serial No.	5407
DACS voltage range	0 - 5 Volt	DACS channel #	1
	Before		After
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.992398	Calculated slope	0.991797
Calculated intercept	0.986663	Calculated intercept	1.480607
Analyzer make	TEI 43I	Analyzer serial #	1153630152

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	12.6	ppb	12.6	ppb
Coefficient	1.043		1.043	
Lamp Voltage	782	V	782	V
Chamber Temp	45	C	45	C
Perm gas Temp	45	C	45	C
Pressure	678.0	mmHg	678.2	mmHg
Sample Flow	0.391	lpm	0.391	lpm
Lamp Intensity	88	Hz	88	Hz

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)
5027	0.0	0.0	-0.4	N/A
5011	40.01	80.8	80.7	1.0018
5010	19.92	40.4	38.0	1.0641
7050	9.71	14.0	12.2	1.1546
			-0.4	Sox Test
5027	0.00	0.0	-0.4	As found zero
5011	40.14	81.1	80.7	As found span
			Average Correction Factor	1.0735

Calculated value of As Found Response: 81.42 ppm Percent Change of As Found: -0.4%

	before calibration		after calibration	
Auto zero	0.0	ppm	-0.3	ppm
Auto span	51.5	ppm	51.8	ppm

Notes: No adjustment made
Skipped on the Sox scrubber check-new oxydizer just been installed on the last visit.

Calibration Summary

Parameter **TRS**

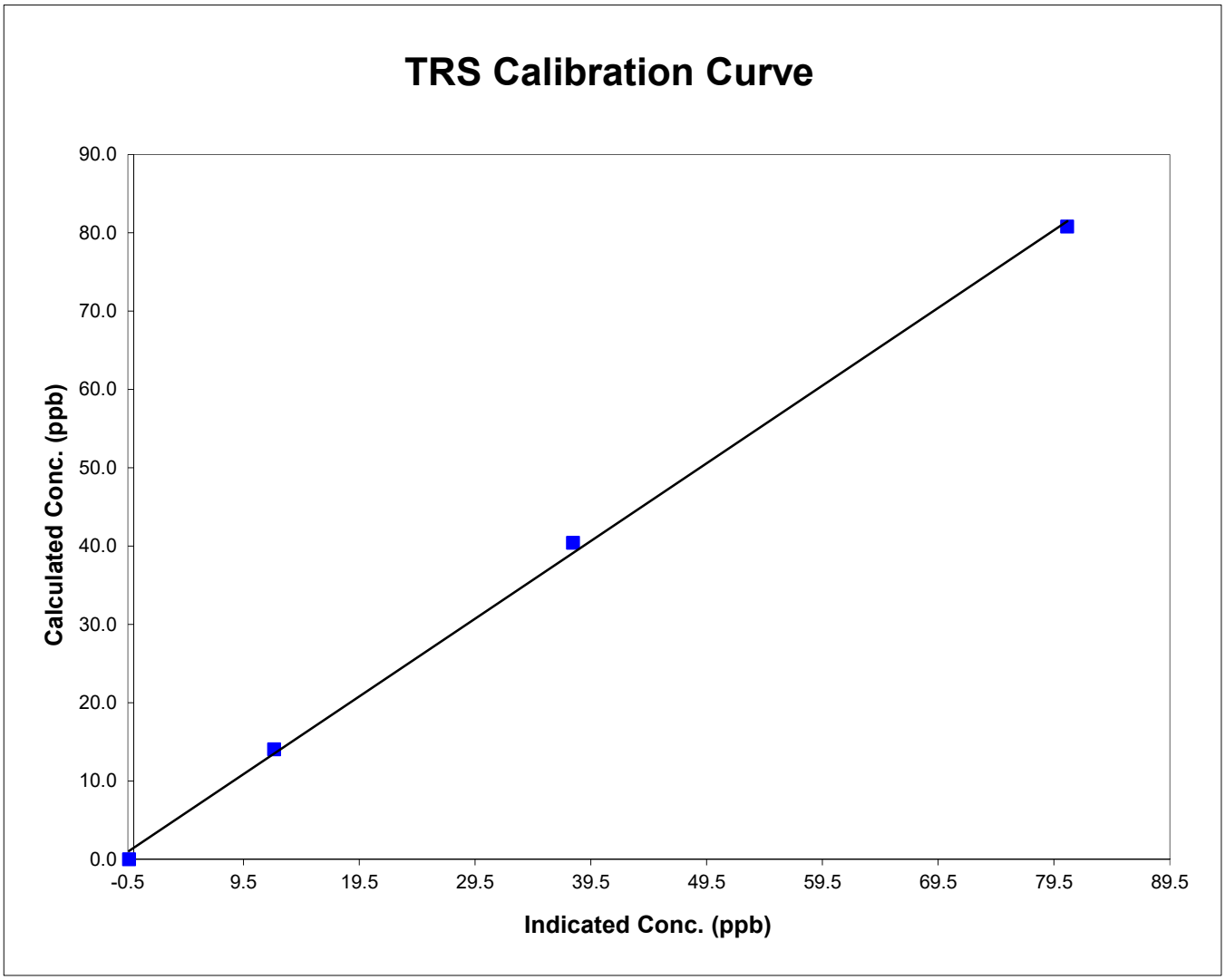
Air Monitoring Network **PAZA**

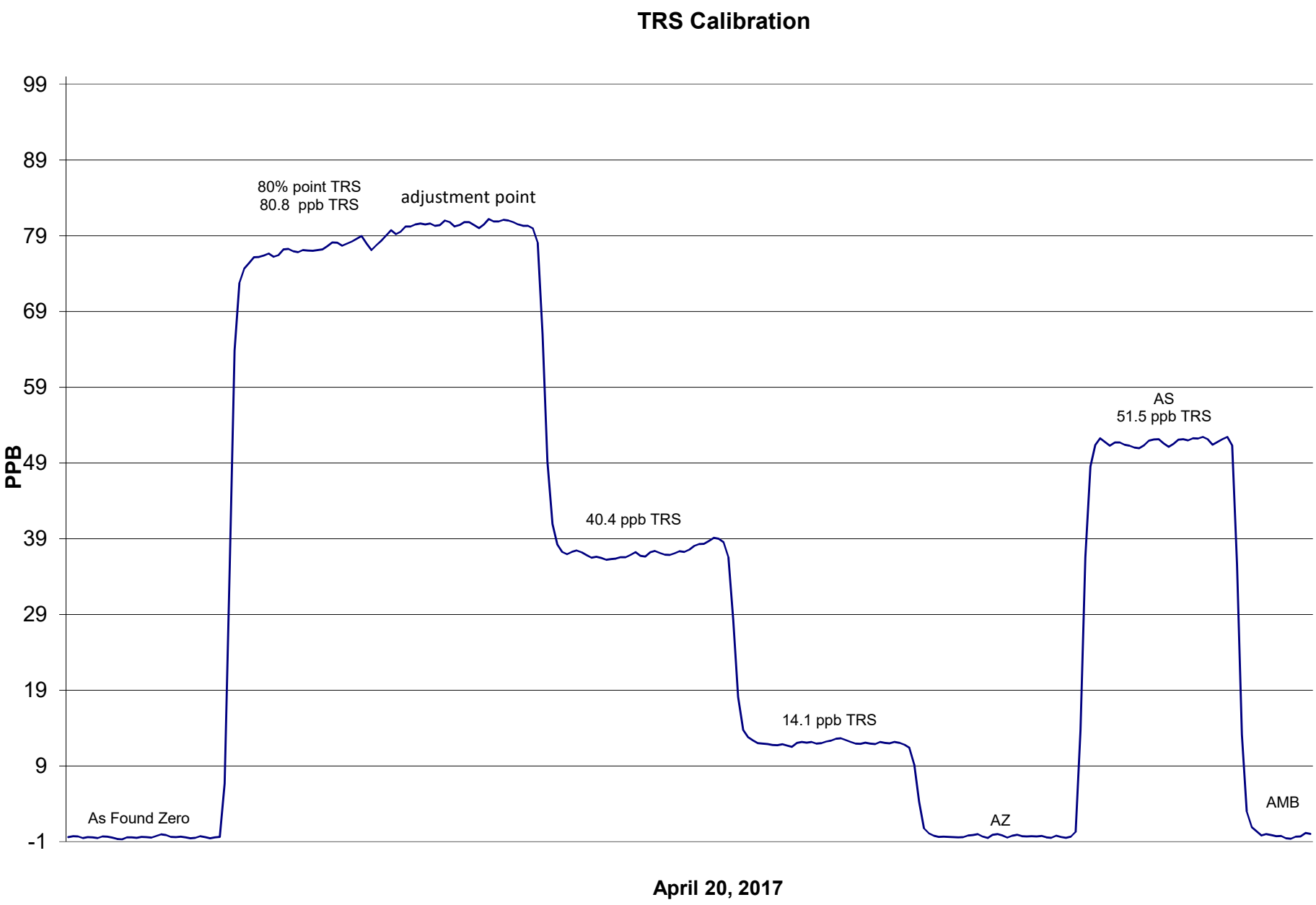
Station Information

Calibration Date	April 20, 2017	Previous Calibration	March 20, 2017
Station Number	PAZA Rover	Station Location	Rycroft
Start Time (MST)	15:20:00 AM	End Time (MST)	17:31
Analyzer make/model	TEI 43I	Analyzer serial #	1153630152

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.4	N/A		
80.8	80.7	1.0018	Correlation Coefficient	0.999080
40.4	38.0	1.0641		
14.0	12.2	1.1546	Slope	0.991797
			Intercept	1.480607




TRS Calibration
PPB
99
89
79
69
59
49
39
29
19
9
-1
80% point TRS
80.8 ppb TRS
adjustment point
40.4 ppb TRS
14.1 ppb TRS
AS
51.5 ppb TRS
As Found Zero
AZ
AMB
April 20, 2017