Peace Airshed Zone Association

Ambient Air Monitoring Network Summary

Continuous Ambient Air Quality Monitoring Program
Monthly Report
April 2015

Peace Airshed Zone Association
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April 30th, 2015

Alberta Environment
11th Floor, Oxbridge Place
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Edmonton Alberta T5K 2J6

RE: Peace Airshed Zone Association (PAZA) – April 2015 Ambient Air Report

Enclosed is the PAZA Ambient Monitoring Network Report for the month of **April 2015**.

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: **Seven (7) Stations including Henry Pirker (Grande Prairie), Evergreen Park, Smoky Heights, Beaverlodge, Valleyview, Falher, and Portable-Clairmont.**

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.

Falher Station:

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

Clairmont Station:

- The measured ambient air quality was within the AAAQO for the Clairmont station with the exception of the $PM_{2.5}$ analyzer, which recorded one (1) 1-hour exceedence of the guideline of 80 $\mu g/m^3$;
    - o April 10 2000h 92.0 $\mu g/m^3$ Alberta Environment Reference # 296935
- All analyzers and sensors at the Clairmont station had an operational uptime greater than 90% for the month of April.

Passive Monitoring - 46 Stations throughout the PAZA zone:

There were five duplicate sites sampled in the month of April: Fourth Creek, Fitzsimmons, Jean Cote, Karr Creek and Girouxville 4. The passive sample analyses were performed by MAXXAM Analytics Inc.

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

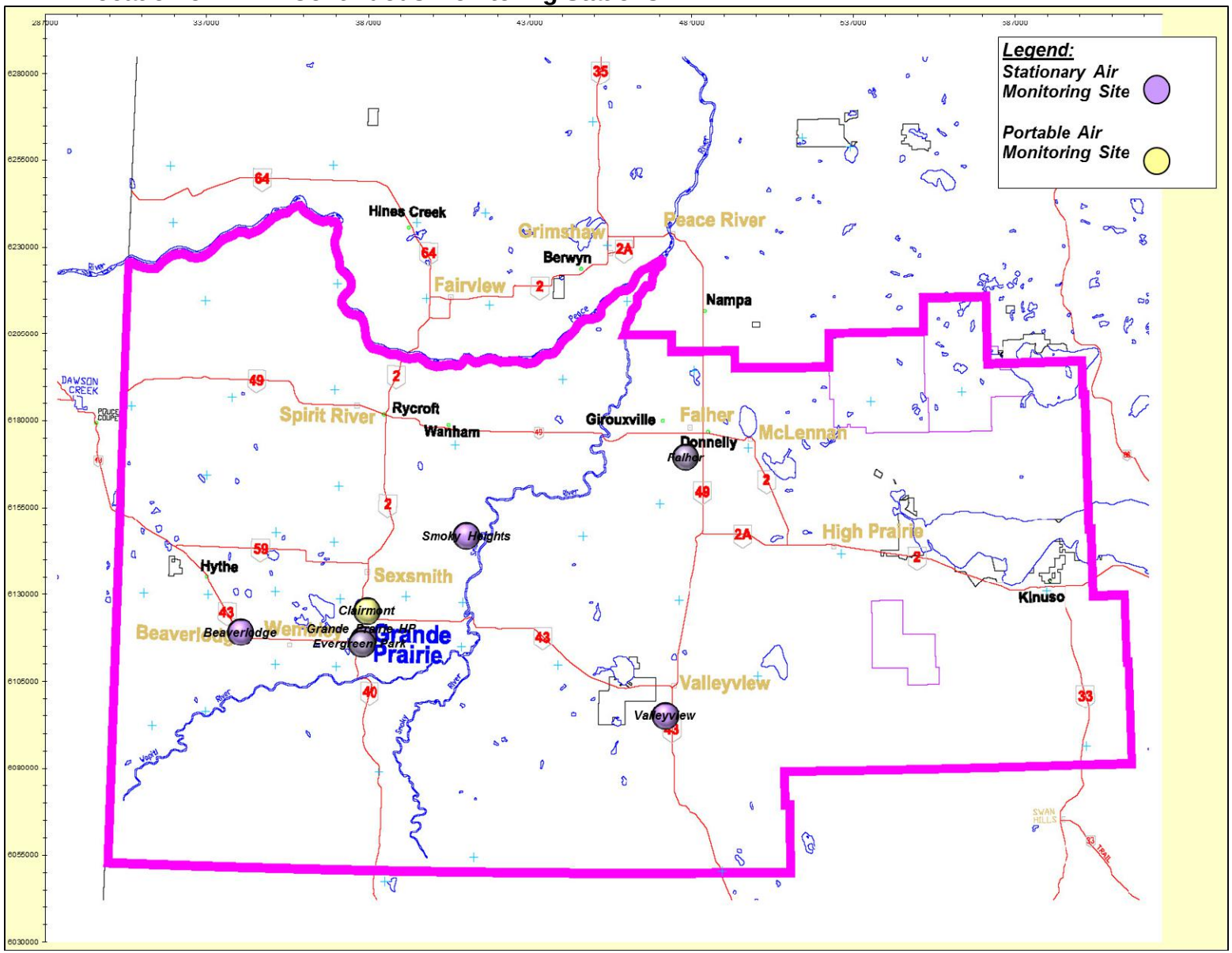
- Monthly average concentrations for SO_2 passives ranged from 0.1 ppb to 0.3 ppb, with a mean of 0.1 ppb.
- Monthly average concentrations for NO_2 passives ranged from 0.2 ppb to 2.9 ppb, with a mean of 0.6 ppb.
- Monthly average concentrations for O_3 passives ranged from 15.5 ppb to 53.3 ppb, with a mean of 40.4 ppb.
- Monthly average concentrations for H_2S were 0.1 ppb.

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

On Behalf of the
Peace Airshed Zone Association

Patrick Andersen, B.Sc.
Program Manager

Location of PAZA Continuous Monitoring Stations



PAZA Monthly Continuous Data Summary

Apr-2014	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 (%)**
	1-hr	24-hr			1-hr	24-hr					
SO_2 (ppb)	172	48	Henry Pirker	0.1	0	0	1.7	Apr-20 15:00	0.3	Apr-20	100%
SO_2 (ppb)	172	48	Evergreen Park	0.1	0	0	2.4	Apr-16 19:00	0.3	Apr-16	100%
SO_2 (ppb)	172	48	Smoky Heights	0.4	0	0	6.6	Apr-12 23:00	1.0	Apr-23	99%
SO_2 (ppb)	172	48	Beaverlodge	0.1	0	0	2.8	Apr-25 07:00	0.8	Apr-25	100%
SO_2 (ppb)	172	48	Valleyview	1.0	0	0	28.9	Apr-29 19:00	4.6	Apr-29	98%
SO_2 (ppb)	172	48	Falher	0.1	0	0	1.5	Apr-14 15:00	0.2	Apr-14	100%
SO_2 (ppb)	172	48	Clairmont	0.2	0	0	1.6	Apr-18 11:00	0.5	Apr-04	100%
NO (ppb)			Henry Pirker	1.5	0	0	60.3	Apr-10 08:00	13.3	Apr-10	100%
NO_2 (ppb)	159	106	Henry Pirker	5.5	0	0	35.4	Apr-10 10:00	12.1	Apr-09	100%
NO_X (ppb)			Henry Pirker	7.1	0	0	87.1	Apr-10 08:00	25.5	Apr-10	100%
NO (ppb)			Beaverlodge	0.1	0	0	2.8	Apr-21 08:00	0.4	Apr-06	100%
NO_2 (ppb)	159	106	Beaverlodge	1.5	0	0	9.7	Apr-02 07:00	2.6	Apr-21	100%
NO_X (ppb)			Beaverlodge	1.7	0	0	10.1	Apr-02 07:00	3.0	Apr-21	100%
NO (ppb)			Clairmont	1.0	0	0	31.0	Apr-13 07:00	3.4	Apr-27	100%
NO_2 (ppb)	159	106	Clairmont	3.5	0	0	29.4	Apr-13 07:00	7.7	Apr-27	100%
NO_X (ppb)			Clairmont	4.5	0	0	60.9	Apr-13 07:00	11.2	Apr-27	100%
O_3 (ppb)	82		Henry Pirker	33.1	0	-	54.1	Apr-27 16:00	46.7	Apr-30	100%
O_3 (ppb) - 8-hr			Henry Pirker		0				50.0	Apr-27	
O_3 (ppb)	82		Beaverlodge	38.2	0	-	55.3	Apr-27 15:00	47.7	Apr-30	100%
O_3 (ppb) - 8-hr			Beaverlodge		0				52.5	Apr-09	
O_3 (ppb)	82		Clairmont	33.6	0	-	54.8	Apr-27 16:00	46.1	Apr-30	100%
O_3 (ppb) - 8-hr			Clairmont		0				50.3	Apr-27	
CO (ppm)	13		Henry Pirker	0.20	0	-	0.7	Apr-10 03:00	0.3	Apr-10	100%
CO (ppm) - 8-hr	5		Henry Pirker		0				0.6	Apr-10	

PAZA Monthly Continuous Data Summary – continued

Apr-2014	Peace Airshed Zone Assocation						Maximum Recorded Values				
							1-hr		24-hr / 8-hr		
THC (ppm)			Henry Pirker	2.0	-	-	5.1	Apr-10 04:00	2.6	Apr-10	100%
CH_4 (ppm)			Henry Pirker	2.0	-	-	5.1	Apr-10 04:00	2.6	Apr-10	100%
NMHC (ppm)			Henry Pirker	0.0	-	-	0.1	Apr-10 01:00	0.0	Apr-10	100%
THC (ppm)			Clairmont	2.13	-	-	2.9	Apr-09 22:00	2.2	Apr-10	100%
TRS (ppb)			Henry Pirker	0.2	-	-	0.7	Apr-10 08:00	0.3	Apr-27	100%
TRS (ppb)			Evergreen Park	0.3	-	-	3.4	Apr-10 03:00	1.0	Apr-10	100%
TRS (ppb)			Smoky Heights	0.1	-	-	0.5	Apr-20 04:00	0.1	Apr-20	99%
TRS (ppb)			Clairmont	0.4	-	-	2.5	Apr-09 00:00	0.6	Apr-09	100%
H_2S (ppb)	10	3	Valleyview	0.3	0	0	3.4	Apr-26 23:00	0.7	Apr-28	98%
H_2S (ppb)	10	3	Falher	0.3	0	0	8.7	Apr-19 07:00	2.2	Apr-19	100%
$PM_{2.5}$ (µg/m3)	80	30	Henry Pirker	3.7	0	0	32.8	Apr-10 03:00	12.2	Apr-10	100%
$PM_{2.5}$ (µg/m3)	80	30	Evergreen Park	2.8	0	0	47.6	Apr-28 15:00	8.3	Apr-12	100%
$PM_{2.5}$ (µg/m3)	80	30	Smoky Heights	1.7	0	0	12.1	Apr-08 18:00	3.9	Apr-10	99%
$PM_{2.5}$ (µg/m3)	80	30	Beaverlodge	2.8	0	0	10.9	Apr-06 06:00	6.7	Apr-06	100%
$PM_{2.5}$ (µg/m3)	80	30	Clairmont	2.4	1	0	92.0	Apr-10 20:00	16.1	Apr-10	100%
RH (%)			Henry Pirker	53.6	-	-	88.5	Apr-01 10:00	83.2	Apr-01	100%
RH (%)			Evergreen Park	54.6	-	-	96.5	Apr-01 13:00	90.1	Apr-01	100%
RH (%)			Beaverlodge	56.8	-	-	97.4	Apr-01 22:00	91.2	Apr-24	100%
RH (%)			Valleyview	50.7	-	-	100.0	Apr-01 13:00	93.4	Apr-01	98%
SR (W/m^2)			Henry Pirker	171.0	-	-	741.5	Apr-18 14:00	250.4	Apr-18	100%
Temp (°C)			Henry Pirker	6.2	-	-	22.8	Apr-28 14:00	13.7	Apr-21	100%
Temp (°C)			Evergreen Park	6.1	-	-	23.6	Apr-28 14:00	13.2	Apr-28	100%
Temp (°C)			Smoky Heights	5.5	-	-	24.1	Apr-28 14:00	13.4	Apr-21	99%
Temp (°C)			Beaverlodge	5.4	-	-	22.2	Apr-28 13:00	13.4	Apr-21	100%
Temp (°C)			Valleyview	6.5	-	-	23.8	Apr-28 16:00	14.3	Apr-21	98%
Temp (°C)			Falher	5.6	-	-	23.2	Apr-28 15:00	14.4	Apr-21	100%
Temp (°C)			Clairmont	5.6	-	-	22.7	Apr-28 14:00	13.3	Apr-21	100%

PAZA Monthly Continuous Data Summary – continued

Apr-2014	Peace Airshed Zone Assocation						Maximum Recorded Values				
							1-hr		24-hr / 8-hr		
WSPD s (km/hr)			Henry Pirker	11.3	-	-	42.0	Apr-12 12:00	27.6	Apr-12	100%
WSPD s (km/hr)			Evergreen Park	16.4	-	-	65.0	Apr-12 15:00	42.3	Apr-12	100%
WSPD s (km/hr)			Smoky Heights	15.4	-	-	52.0	Apr-28 16:00	35.3	Apr-12	99%
WSPD s (km/hr)			Beaverlodge	15.0	-	-	61.0	Apr-28 15:00	37.1	Apr-12	100%
WSPD s (km/hr)			Valleyview	6.4	-	-	26.0	Apr-12 17:00	18.0	Apr-12	98%
WSPD s (km/hr)			Falher	16.5	-	-	46.0	Apr-12 18:00	33.7	Apr-12	100%
WSPD s (km/hr)			Clairmont	11.5	-	-	34.0	Apr-28 15:00	20.9	Apr-12	100%
WSPD v (km/hr)			Henry Pirker	0.9	-	-	37.0	Apr-28 15:00	17.7	Apr-12	100%
WSPD v (km/hr)			Evergreen Park	9.8	-	-	65.0	Apr-12 15:00	41.2	Apr-12	100%
WSPD v (km/hr)			Smoky Heights	8.9	-	-	52.0	Apr-28 16:00	34.9	Apr-12	99%
WSPD v (km/hr)			Beaverlodge	6.8	-	-	60.0	Apr-28 15:00	36.6	Apr-12	100%
WSPD v (km/hr)			Valleyview	3.2	-	-	26.0	Apr-12 17:00	17.1	Apr-12	98%
WSPD v (km/hr)			Falher	5.9	-	-	46.0	Apr-12 18:00	32.3	Apr-12	100%
WSPD v (km/hr)			Clairmont	3.7	-	-	34.0	Apr-28 15:00	20.4	Apr-12	100%
WDIR			Henry Pirker	SSW	-	-	-	-	-	-	100%
WDIR			Evergreen Park	W	-	-	-	-	-	-	100%
WDIR			Smoky Heights	SW	-	-	-	-	-	-	99%
WDIR			Beaverlodge	W	-	-	-	-	-	-	100%
WDIR			Valleyview	W	-	-	-	-	-	-	98%
WDIR			Falher	SSW	-	-	-	-	-	-	100%
WDIR			Clairmont	SW	-	-	-	-	-	-	100%

Continuous Network Equipment Summary

PAZA – Henry Pirker Station

General Station Issues

Routine monthly calibrations were performed on April 1st (SO_2, NO_X, O_3) and 2nd (CO, THC, TRS).

Parameter	Make	Model	Notes
SO_2	TEI	43C	No operational issues observed.
NOx/NO/NO_2	TEI	42C/42i	No operational issues observed.
O_3	TEI	49C	No operational issues observed.
CO	TEI	48C	No operational issues observed.
THC/CH_4/NMHC	TEI	55I	Hydrogen cylinder replaced April 17th, analyzer recalibrated.
TRS	TEI	45C/43C	No operational issues observed.
$PM_{2.5}$	Sharp	5030	No operational issues observed.
RH	Met One	083D	No operational issues observed.
ET	Met One	083D	No operational issues observed.
SR	Met One	096-1	No operational issues observed.
WS / WD	Met One	010C/020C	New wind system installed April 21st.

PAZA – Evergreen Park Station

General Station Issues

Routine monthly calibration performed on April 7th (SO_2, TRS, $PM_{2.5}$).

Parameter	Make	Model	Notes
SO_2	TEI	43i	No operational issues observed.
TRS	TEI	43C	No operational issues observed.
$PM_{2.5}$	R&P	1400AB	No operational issues observed.
ET	Met One/Gill	083D	No operational issues observed.
RH	Met One/Gill		No operational issues observed.
WS / WD	Met One/ Gill		No operational issues observed.

PAZA – Smoky Heights Station

General Station Issues

Routine monthly calibration performed on April 14th (SO_2, TRS). Datalogger failed to capture data for 4 hours on April 14th.

Parameter	Make	Model	Notes
SO_2	TEI	43C	No operational issues observed.
TRS	TEI	43C	No operational issues observed.
$PM_{2.5}$	R&P	1400AB	No operational issues observed.
ET	Met One	083D	No operational issues observed.
WS / WD	Met One	010C/020C	Two hours invalid data on April 10th.

PAZA – Beaverlodge Station

General Station Issues

Routine monthly calibrations performed on April 15th (SO_2, O_3, NO_X).

Parameter	Make	Model	Notes
SO_2	TEI	43CTL	No operational issues observed.
NOx/NO/NO_2	TEI	42C	No operational issues observed.
O_3	TEI	49C	No operational issues observed.
$PM_{2.5}$	R&P/Sharp	1400AB/5030	No operational issues observed.
ET	n/a	n/a	No operational issues observed.
RH	n/a	n/a	No operational issues observed.
WS / WD	Blue Sky	857	No operational issues observed.

PAZA – Valleyview Station			
General Station Issues			
Routine monthly calibrations were performed on April 16th (SO_2 & H_2S). Power outage April 2nd invalidated 14 hours of data.			
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 – Falher Station

General Station Issues

Routine monthly calibrations were performed on April 20th (SO_2 & H_2S).

Parameter	Make	Model	Notes
SO_2	TEI	43i	No operational issues observed.
H_2S	Thermo	450i	No operational issues observed.
ET	Gill	RM Young 5103	No operational issues observed.
WS / WD	Gill	RM Young 5103	No operational issues observed.

PAZA – Portable-Clairmont			
General Station Issues Routine monthly calibrations were performed on April 9th (SO_2, NO_X, O_3) and 10th (THC, TRS, $PM_{2.5}$).			
Parameter	**Make**	**Model**	**Notes**
SO_2	TEI	43i	No operational issues observed.
NO_x	TEI	42i	No operational issues observed.
O_3	TEI	49C	No operational issues observed.
TRS	TEI	39C	No operational issues observed.
THC	TEI	51C	No operational issues observed.
$PM_{2.5}$	R&P	1400AB	One (1) exceedance of the AAAQO observed. **AE Reference #296935.**
ET	Gill	Met Pak 3	Adjustments made during wind instrument install.
WS / WD	Gill	Met Pak 3	New wind instrument installed April 9th.

PAZA
Henry Pirker Station
Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Henry Pirker - April 2015

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

Maximum Value: 1.7 ppb on Apr 20 15:00

Maximum Daily Average: 0.3 ppb on Apr 20

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 10

Minimum Diurnal Average: 0.1 ppb at hour 19

Monthly Average: 0.13 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.0$ Median = 0.1 $Q_3 = 0.2$ $P_{90} = 0.3$ $P_{99} = 0.9$

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	A	0	0	0	0	0	C	C	C	1	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.1
2-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
3-Apr	A	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	A	0.2	1.3
4-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	0.3
5-Apr	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.2	0.8
6-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
7-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
8-Apr	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.2	0.6
9-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
10-Apr	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0.3	0.7
11-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	0.3
12-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
13-Apr	0	0	0	0	0	0	0	0	0	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.2	0.9
14-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
15-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
16-Apr	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	1	0	0	0	0	0	0.1	0.6
17-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
18-Apr	0	0	0	0	0	0	0	0	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.4
19-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
20-Apr	0	0	0	0	0	0	A	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0.3	1.7
21-Apr	0	0	0	0	0	A	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.8
22-Apr	0	0	0	0	A	0	0	0	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
23-Apr	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0.2	0.9
24-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
25-Apr	0	A	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
26-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	A	0.2	0.6
27-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	0.2	1.1
28-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	0.0	0.3
29-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
30-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.1	0.4
	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	Diurnal Average	
	0.3	0.4	0.5	0.8	0.6	0.4	0.5	0.7	0.5	1.1	1.4	1.3	0.6	0.6	1.7	0.4	0.3	0.3	0.6	0.6	0.9	0.3	0.3	0.4	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

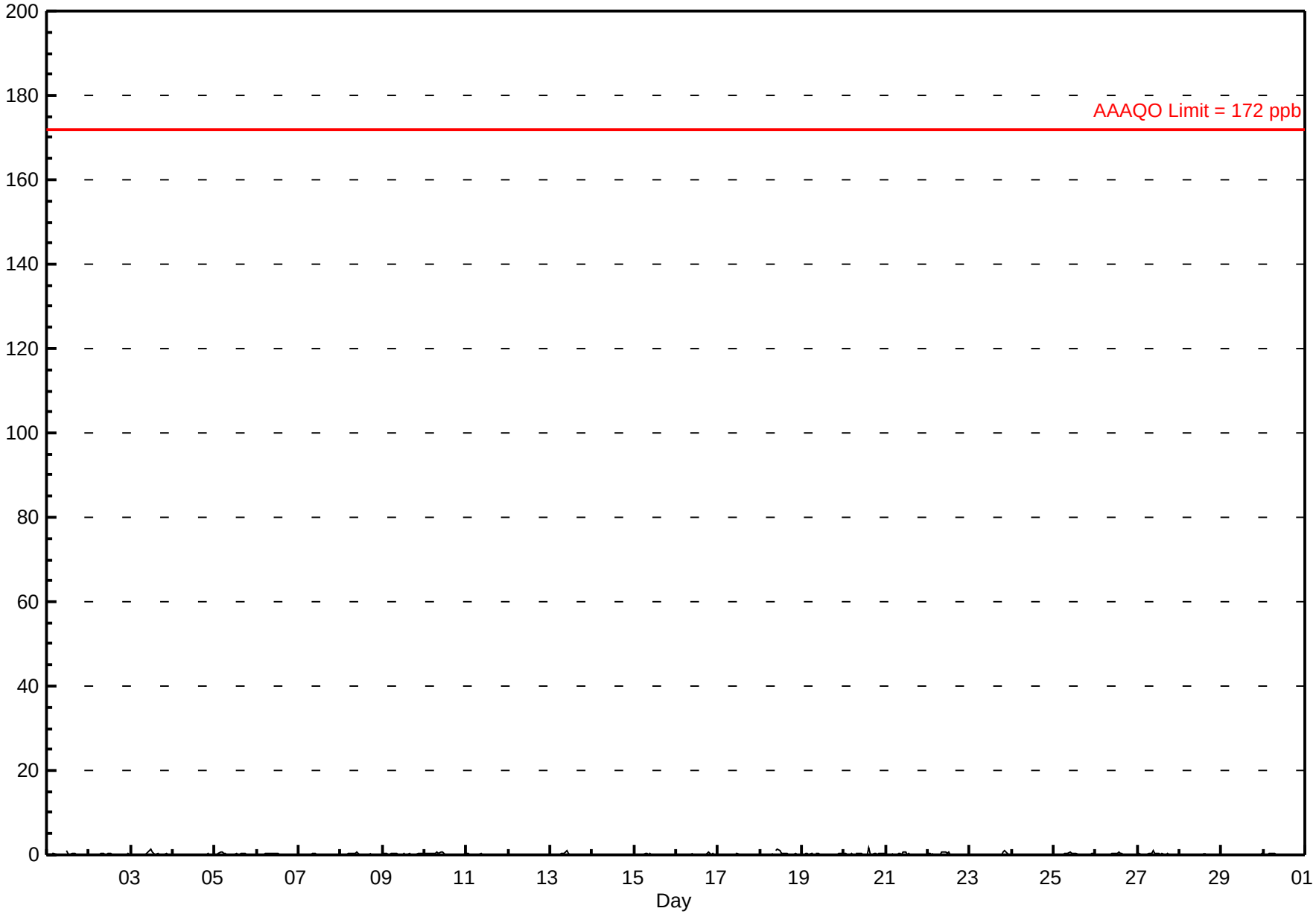
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Henry Pirker - April 2015



Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Henry Pirker - April 2015

Maximum Value: 3.2 ppb on Apr 20 15:00

Maximum Daily Average: 0.7 ppb on Apr 18

Minimum Value: 0 ppb on Apr 14 18:00

Minimum Daily Average: 0.2 ppb on Apr 24

Maximum Diurnal Average: 0.7 ppb at hour 11

Minimum Diurnal Average: 0.4 ppb at hour 18

Monthly Average: 0.50 ppb

Percentiles: $P_1 = 0.1$ $P_{10} = 0.4$ $Q_1 = 0.4$ Median = 0.4 $Q_3 = 0.5$ $P_{90} = 0.8$ $P_{99} = 1.9$

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	A	1	0	0	0	0	C	C	C	2	1	1	1	1	1	1	0	0	0	0	0	0	0.5	1.8
2-Apr	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.4	0.9
3-Apr	A	0	0	0	0	0	0	0	0	0	1	2	1	1	0	0	0	0	0	0	1	0	0	A	0.5	1.9
4-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	A	0	0.4	1.0
5-Apr	0	0	1	1	1	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0	0	A	0	0	0.5	1.4
6-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	0.4	0.5
7-Apr	1	1	1	1	1	0	1	1	1	1	1	1	0	1	0	0	1	0	0	A	0	0	0	1	0.4	1.0
8-Apr	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	1	A	0	0	0	0	0	0.5	2.4
9-Apr	0	0	1	0	0	0	0	0	0	0	0	0	3	0	0	1	0	A	0	0	0	0	0	1	0.6	3.0
10-Apr	1	1	1	0	1	1	1	1	1	1	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0.6	1.4
11-Apr	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	A	1	0	1	1	0	0	0	0	0.5	0.5
12-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	0.4	0.5
13-Apr	0	0	0	0	0	0	0	1	0	2	1	1	1	A	1	1	1	0	0	0	0	0	0	0	0.6	2.0
14-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
15-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	0.5	0.5
16-Apr	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	2	1	0	0	0	0	0.5	1.9
17-Apr	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0.4	0.6
18-Apr	0	0	0	0	0	0	0	1	A	2	2	2	1	1	1	0	0	0	0	0	0	0	0	0	0.7	2.0
19-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	0.5	0.5
20-Apr	0	0	0	0	0	0	A	0	0	0	1	0	0	0	3	1	0	0	0	0	0	1	1	0	0.6	3.2
21-Apr	0	0	0	0	0	A	0	1	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0.5	1.4
22-Apr	0	0	0	0	A	0	0	1	1	1	1	1	2	1	1	1	1	1	0	0	1	1	0	0	0.6	1.5
23-Apr	0	0	0	A	1	0	0	0	1	0	0	1	0	1	0	1	1	1	0	2	2	1	0	0	0.5	2.0
24-Apr	0	1	A	1	0	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	A	0	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.6	1.0
26-Apr	A	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	A	0.5	0.9
27-Apr	0	1	0	0	0	0	1	1	1	2	1	1	0	0	0	0	0	1	0	0	0	0	A	0	0.6	1.7
28-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	A	0	0	0.4	0.9
29-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	1	0.4	0.9
30-Apr	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.5	0.9
	0.4	0.4	0.5	0.5	0.5	0.4	0.5	0.5	0.6	0.7	0.7	0.7	0.6	0.5	0.6	0.5	0.4	0.4	0.4	0.5	0.5	0.5	0.4	0.4	Diurnal Average	
	0.6	0.9	1.4	1.4	0.9	0.8	1.0	1.1	1.4	2.4	2.0	1.9	3.0	0.9	3.2	1.0	0.6	0.7	1.9	2.0	1.6	0.9	0.7	0.9	Diurnal Maximum	

C - Calibration

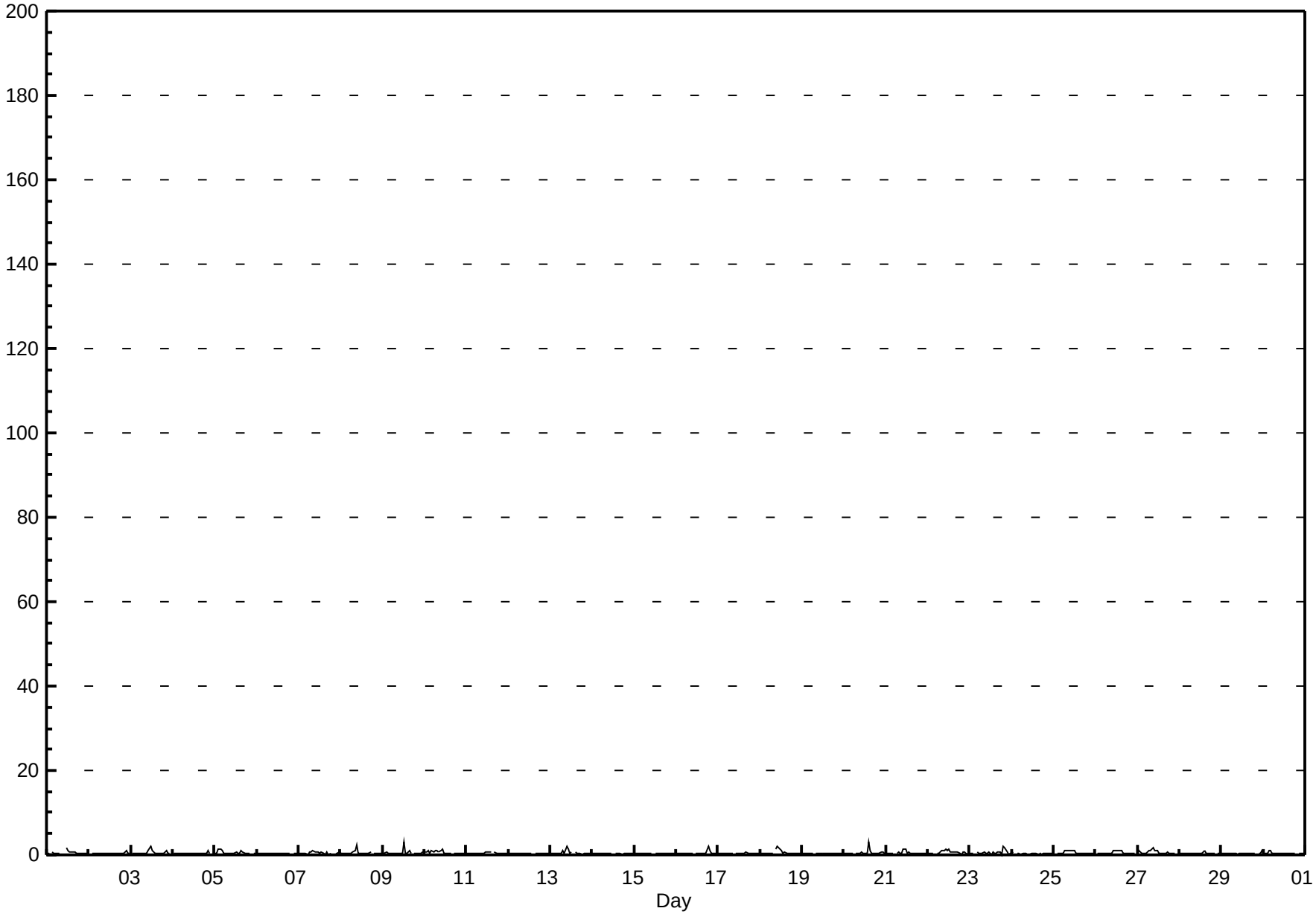
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

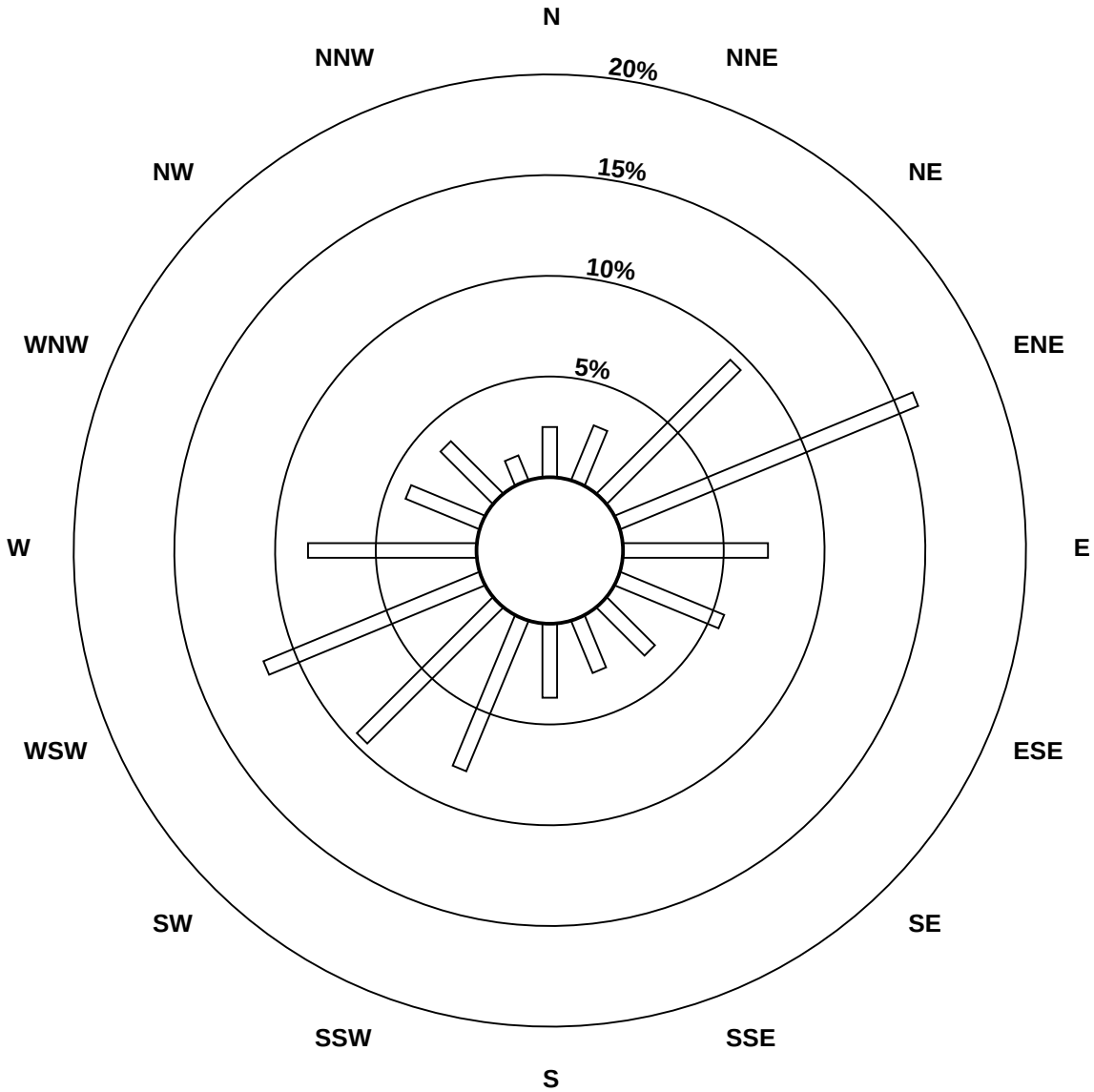
Henry Pirker - April 2015



Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Henry Pirker - April 2015



Pollutant Classes (ppb)

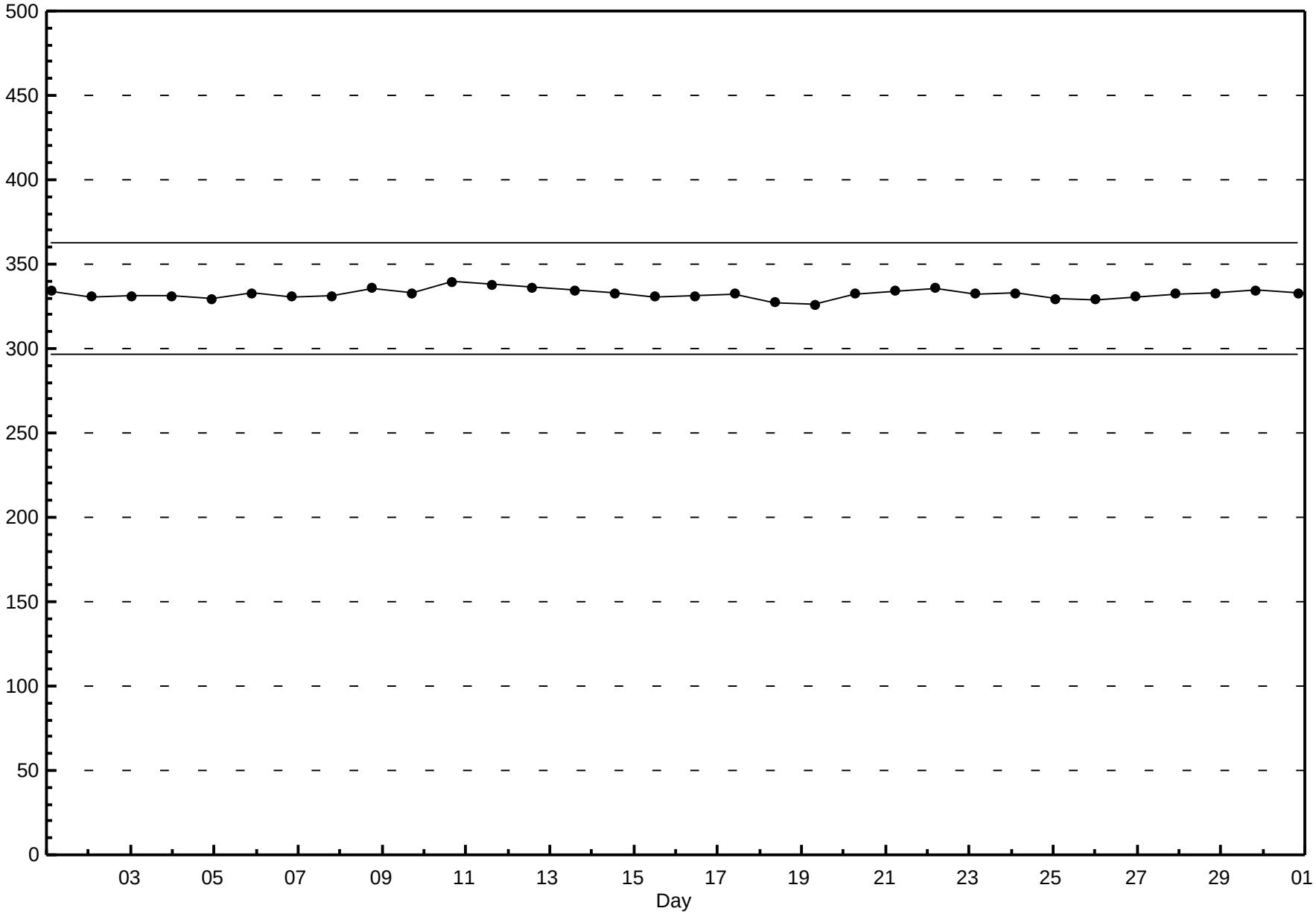
- 0 - 10
- 11 - 20
- 21 - 60
- 61 - 110
- 111 - 172
- > 172

Peace Airshed Zone Association

Span Responses

Sulphur Dioxide (SO_2)

Henry Pirker - April 2015



Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - April 2015

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

Maximum Value: 0.7 ppb on Apr 10 08:00

Maximum Daily Average: 0.3 ppb on Apr 27

Minimum Value: 0 ppb on Apr 1 01:00

Minimum Daily Average: 0.1 ppb on Apr 16

Maximum Diurnal Average: 0.2 ppb at hour 8

Minimum Diurnal Average: 0.1 ppb at hour 16

Monthly Average: 0.17 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:	682
Hours of Missing Data:	38
Hours of Calibration:	38
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	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
2-Apr	0	A	0	0	0	0	0	C	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	--	0.4
3-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
4-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
5-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.3
6-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
7-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	0.5
8-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.1	0.4
9-Apr	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	1	0.2	0.6
10-Apr	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	A	0	0	0	0	1	1	0	0.3	0.7
11-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
12-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	0.4
13-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
14-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
15-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
16-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
17-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
18-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
19-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
20-Apr	0	0	0	0	0	1	A	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
21-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	0.4
22-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
23-Apr	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
24-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
25-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
26-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.2	0.3
27-Apr	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.3	0.6
28-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	0.3
29-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
30-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.2	0.3
	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	Diurnal Average	
	0.4	0.3	0.4	0.3	0.4	0.5	0.7	0.7	0.5	0.5	0.4	0.2	0.2	0.3	0.3	0.2	0.3	0.3	0.3	0.4	0.4	0.6	0.6	0.5	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

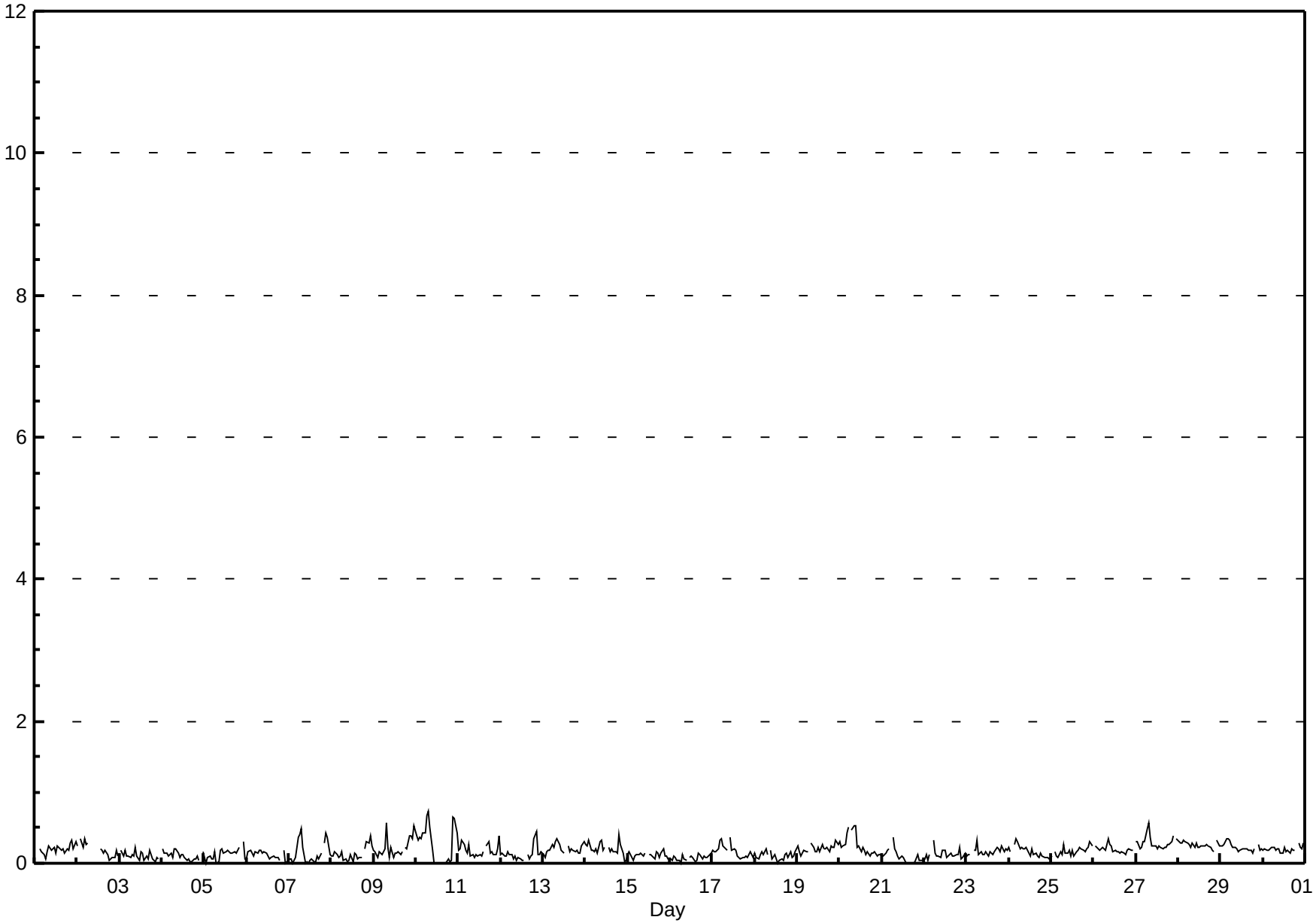
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb

Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - April 2015



Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - April 2015

Maximum Value: 1.8 ppb on Apr 10 08:00

Maximum Daily Average: 0.9 ppb on Apr 10

Minimum Value: 0 ppb on Apr 10 16:00

Minimum Daily Average: 0.5 ppb on Apr 16

Maximum Diurnal Average: 0.7 ppb at hour 8

Minimum Diurnal Average: 0.6 ppb at hour 16

Monthly Average: 0.64 ppb

Percentiles: $P_1 = 0.4$ $P_{10} = 0.5$ $Q_1 = 0.5$ Median = 0.6 $Q_3 = 0.7$ $P_{90} = 0.8$ $P_{99} = 1.3$

Hours in Service:	720
Hours of Data:	682
Hours of Missing Data:	38
Hours of Calibration:	38
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	A	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0.7	1.0
2-Apr	1	A	1	1	1	1	1	C	C	C	C	C	C	1	1	1	1	1	1	1	1	1	1	1	--	1.0
3-Apr	A	1	1	1	1	0	1	1	1	1	0	1	0	1	0	0	0	1	1	0	0	1	1	A	0.5	0.8
4-Apr	1	1	1	1	0	1	1	1	1	0	1	1	1	0	1	1	1	1	1	0	0	0	A	1	0.6	0.8
5-Apr	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.6	0.8
6-Apr	0	1	1	1	1	0	1	1	1	1	1	1	0	0	1	1	1	0	1	1	A	1	1	1	0.6	0.9
7-Apr	0	0	0	0	0	1	1	1	1	0	0	0	1	1	0	0	1	0	1	A	1	1	1	1	0.6	1.2
8-Apr	1	1	1	1	1	1	1	1	0	1	1	1	0	1	1	1	1	1	A	1	1	1	1	1	0.7	1.1
9-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0.7	1.3
10-Apr	1	1	1	1	1	1	1	2	1	1	0	0	1	0	0	0	A	0	1	0	0	2	2	1	0.9	1.8
11-Apr	1	1	1	1	1	1	1	0	0	0	0	1	1	1	1	A	1	1	1	1	1	1	1	1	0.7	1.1
12-Apr	1	1	1	1	1	1	1	0	1	0	1	1	0	0	A	0	0	0	1	1	1	1	0	1	0.6	1.2
13-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0	1	1	1	1	1	0.6	0.8
14-Apr	1	1	2	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0	0	0.7	1.7
15-Apr	1	1	1	0	1	1	1	1	1	0	1	A	1	0	1	1	1	1	1	1	1	0	1	1	0.6	0.7
16-Apr	1	0	1	0	0	1	0	1	0	1	A	1	1	1	0	0	0	1	1	0	0	0	1	1	0.5	0.6
17-Apr	1	1	1	1	1	1	1	1	1	A	1	0	1	1	0	1	1	0	1	1	0	1	0	1	0.6	0.8
18-Apr	1	0	1	1	1	1	1	1	A	1	1	1	1	0	0	1	0	1	1	0	1	0	0	1	0.6	1.0
19-Apr	1	0	1	1	1	1	1	A	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.9
20-Apr	1	1	1	1	1	1	A	1	1	1	1	1	0	1	1	1	1	0	0	1	1	1	1	0	0.7	1.3
21-Apr	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0	0	0	0	0	0	1	1	0	0	0.6	0.8
22-Apr	1	1	0	0	A	1	1	1	1	1	1	1	1	0	1	1	0	1	1	1	1	0	0	1	0.6	1.1
23-Apr	1	1	1	A	1	1	1	1	1	1	0	1	1	1	1	0	1	1	1	1	1	1	1	1	0.6	0.9
24-Apr	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0	0.6	1.0
25-Apr	1	A	1	1	0	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0.6	1.0
26-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	0.9
27-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
28-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.7	1.1
29-Apr	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	A	1	1	1	0.7	0.9
30-Apr	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.6	1.0
	0.6	0.6	0.7	0.6	0.7	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7	Diurnal Average	
	0.9	0.9	1.7	1.1	1.2	1.1	1.3	1.8	1.3	1.0	0.8	1.0	0.7	0.9	0.9	1.1	1.0	0.8	0.9	1.2	1.1	1.7	1.6	1.3	Diurnal Maximum	

C - Calibration

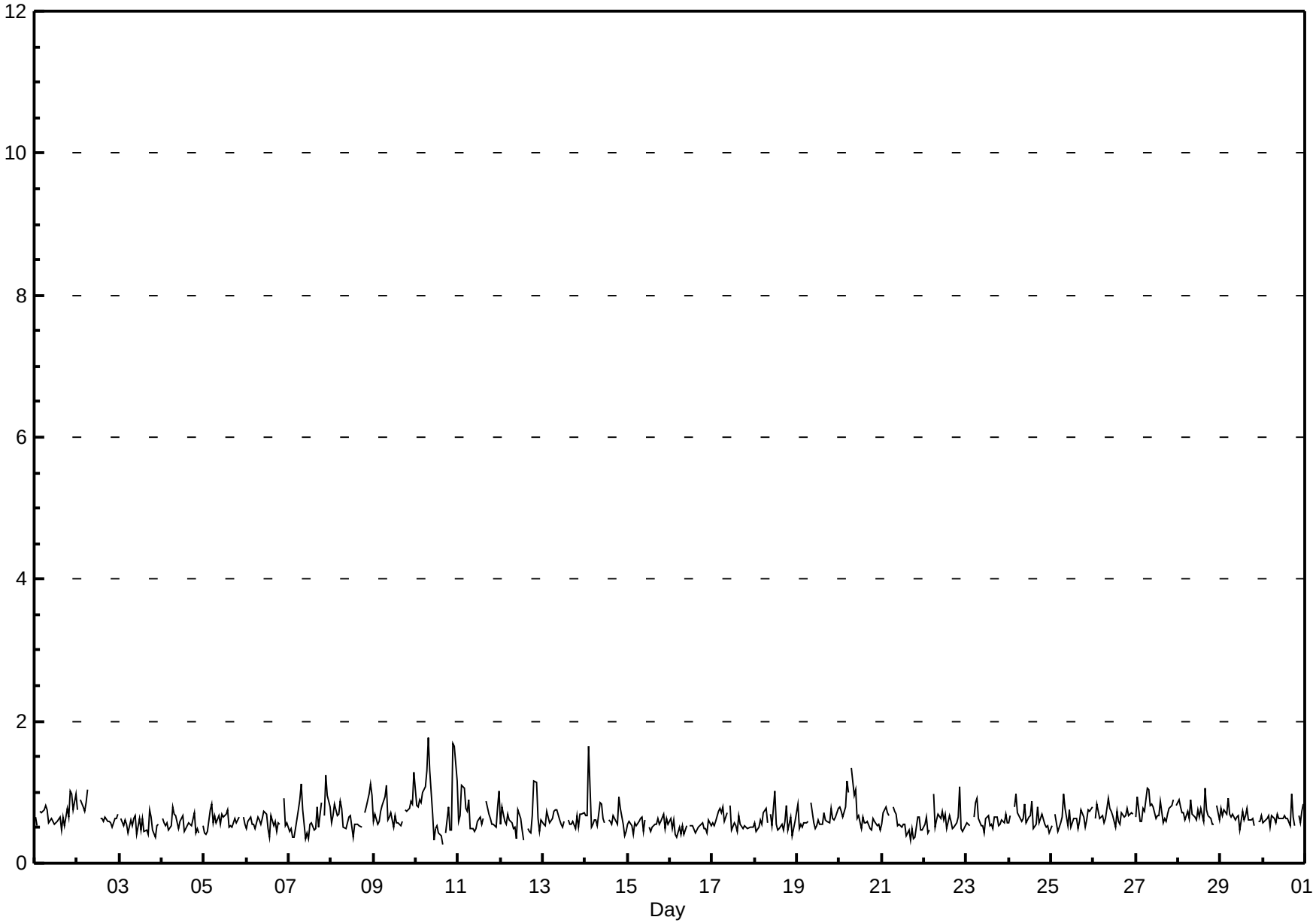
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

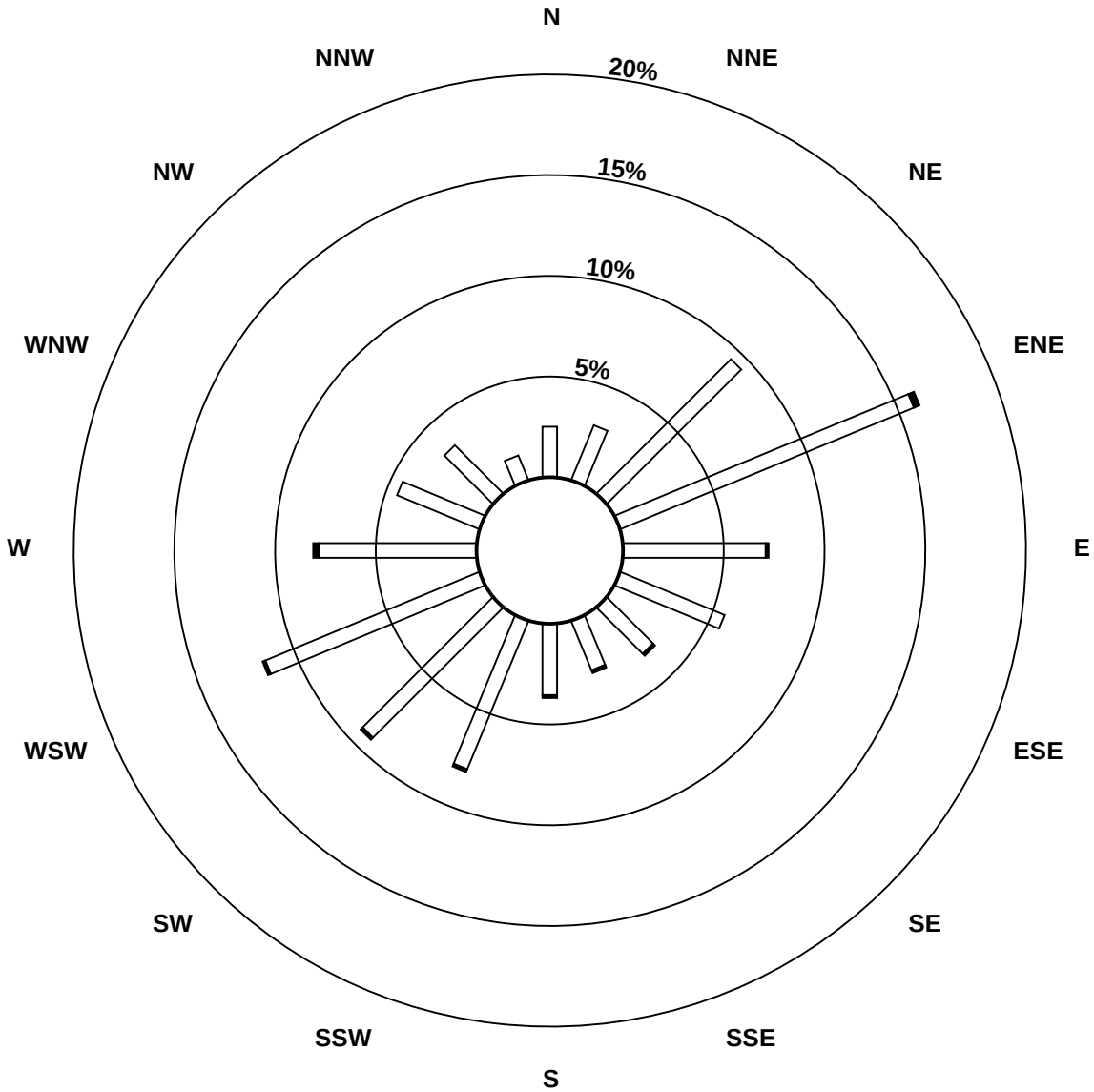
Henry Pirker - April 2015



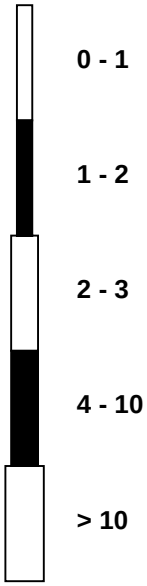
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - April 2015



Pollutant Classes (ppb)

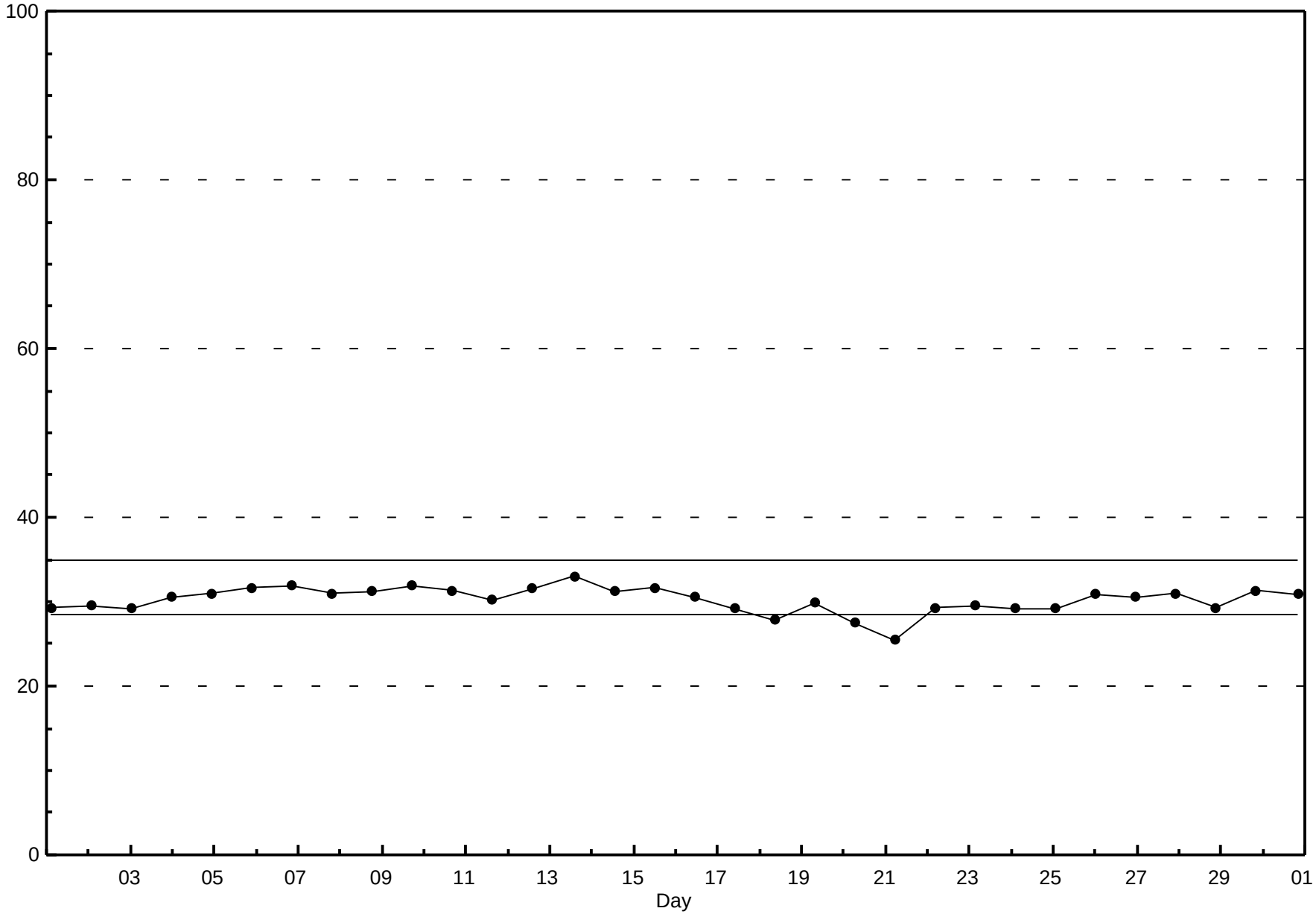


Peace Airshed Zone Association

Span Responses

Total Reduced Sulphur (TRS)

Henry Pirker - April 2015



Peace Airshed Zone Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Henry Pirker - April 2015

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

Maximum Value: 35.4 ppb on Apr 10 00:00

Maximum Daily Average: 12.1 ppb on Apr 9

Minimum Value: 0 ppb on Apr 1 01:00

Minimum Daily Average: 1.6 ppb on Apr 12

Maximum Diurnal Average: 12.9 ppb at hour 7

Minimum Diurnal Average: 1.9 ppb at hour 16

Monthly Average: 5.50 ppb

Percentiles: $P_1 = 0.8$ $P_{10} = 1.4$ $Q_1 = 2.0$ Median = 3.3 $Q_3 = 6.1$ $P_{90} = 13.4$ $P_{99} = 30.5$

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	1	A	2	2	2	2	3	C	C	C	C	C	3	2	2	2	2	4	7	9	9	6	5	3.5	9.4
2-Apr	6	A	7	6	6	14	18	31	22	6	2	1	1	1	1	1	2	2	4	13	12	7	7	11	7.8	30.7
3-Apr	A	14	19	22	20	20	15	11	6	6	3	3	2	2	2	2	2	2	2	3	4	4	3	A	7.6	21.6
4-Apr	3	3	3	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	4	4	3	A	3	2.6	3.8
5-Apr	2	2	3	3	4	4	3	3	3	3	2	2	1	2	2	2	2	2	3	5	6	A	4	4	2.9	6.0
6-Apr	4	4	5	6	7	8	11	8	4	3	3	2	2	2	2	2	2	2	3	6	A	16	10	5	5.1	16.2
7-Apr	6	10	16	20	19	17	18	18	10	6	3	2	3	1	2	2	2	2	3	A	9	7	6	6	8.1	20.0
8-Apr	5	4	6	4	6	11	17	14	6	4	3	1	1	1	1	2	2	2	A	4	5	4	6	6	5.0	16.7
9-Apr	7	7	9	6	11	22	31	22	20	9	3	2	3	1	1	2	2	A	5	11	13	23	32	35	12.1	35.4
10-Apr	29	27	25	22	22	23	24	26	17	9	4	2	2	2	3	3	A	4	4	4	6	4	4	9	12.0	29.0
11-Apr	17	15	12	10	15	13	6	4	3	3	2	2	1	1	1	A	2	2	2	2	3	4	3	2	5.5	17.1
12-Apr	2	2	2	1	1	2	2	1	1	1	1	1	1	1	A	2	1	1	1	1	2	2	3	3	1.6	2.6
13-Apr	2	3	3	9	10	19	35	31	10	6	4	2	1	A	2	2	2	2	5	5	7	8	14	14	8.5	34.8
14-Apr	19	4	2	2	6	10	14	10	3	2	3	3	A	3	2	2	2	2	2	2	3	2	3	4	4.5	19.5
15-Apr	3	3	3	4	5	10	26	14	4	3	2	A	3	4	4	3	3	3	2	2	2	2	3	2	4.8	26.1
16-Apr	3	4	4	2	3	7	10	15	12	6	A	5	4	2	2	1	2	2	1	2	6	7	7	8	5.1	14.8
17-Apr	12	18	18	18	15	6	8	8	5	A	5	5	4	2	2	2	2	1	1	1	1	1	1	1	6.0	18.3
18-Apr	1	2	3	5	6	11	9	6	A	2	1	1	1	1	1	1	1	1	2	4	15	6	2	4	3.7	14.7
19-Apr	4	3	4	6	9	12	16	A	4	3	2	1	1	1	1	1	1	1	2	3	7	3	4	4	4.0	15.6
20-Apr	5	4	5	6	10	19	A	21	19	12	2	1	1	1	2	1	1	2	2	5	11	11	9	5	6.7	20.7
21-Apr	6	12	20	20	17	A	20	16	9	5	6	7	3	3	1	2	2	3	3	4	5	5	4	7	7.8	20.1
22-Apr	3	2	2	3	A	7	6	5	3	3	3	2	2	3	4	5	3	4	3	3	3	2	2	2	3.3	6.5
23-Apr	1	1	1	A	3	3	6	3	4	3	2	2	1	2	2	2	2	2	2	2	2	2	2	3	2.4	6.2
24-Apr	3	3	A	5	4	6	7	7	5	4	4	4	4	3	4	4	4	3	4	4	4	3	4	5	4.2	7.4
25-Apr	3	A	3	3	3	3	4	4	4	4	3	2	1	1	2	2	2	2	3	4	5	5	4	5	3.1	5.5
26-Apr	A	9	11	6	7	5	4	7	6	5	4	2	1	1	1	1	1	1	1	5	11	8	6	A	4.8	11.1
27-Apr	9	6	7	11	20	26	29	29	14	11	3	1	2	2	2	2	3	4	3	5	12	31	A	8	10.4	31.4
28-Apr	6	4	5	8	5	8	14	16	9	3	3	2	2	3	2	2	2	2	3	2	3	A	5	4	4.9	15.7
29-Apr	7	6	8	4	5	9	11	7	3	2	2	2	2	2	2	2	2	2	2	2	A	6	5	3	4.1	10.6
30-Apr	1	1	2	2	3	3	5	5	4	3	4	3	2	2	2	2	2	2	2	A	3	2	2	2	2.6	5.1
	6.1	6.2	7.3	7.5	8.4	10.4	12.9	12.0	7.6	4.7	2.9	2.3	2.0	1.9	1.9	1.9	1.9	2.1	2.6	4.2	6.3	6.7	5.7	6.1	Diurnal Average	
	29.0	26.8	25.2	22.2	21.8	25.6	34.8	31.3	21.7	12.2	5.6	7.0	3.8	3.7	4.0	5.1	4.0	3.8	5.1	13.2	14.7	31.4	31.7	35.4	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

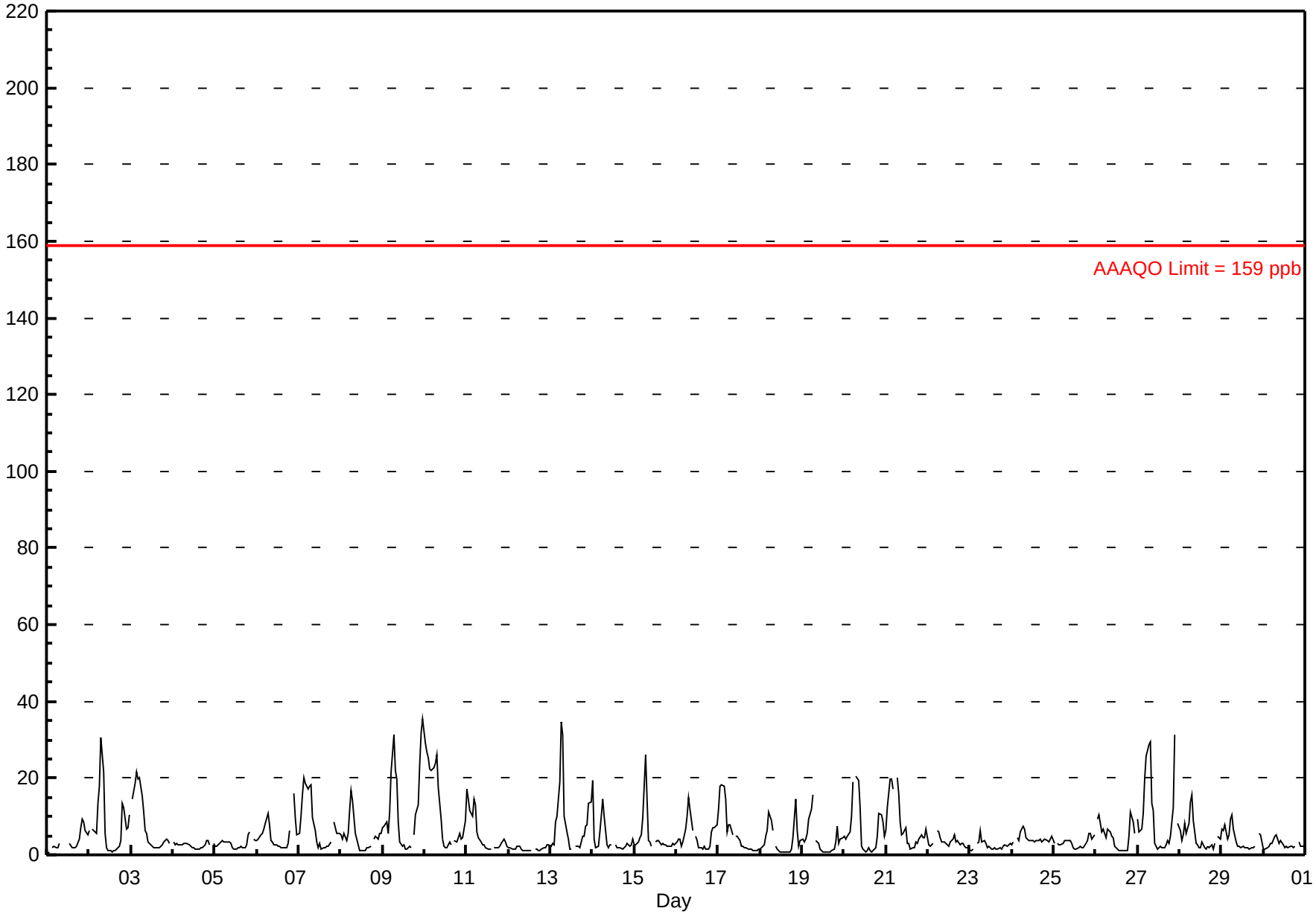
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb 24-hr 106 ppb

Peace Airshed Zone Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Henry Pirker - April 2015



Peace Airshed Zone Association

Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

Henry Pirker - April 2015

Maximum Value: 42.7 ppb on Apr 13 08:00

Maximum Daily Average: 17.5 ppb on Apr 9

Minimum Value: 1 ppb on Apr 18 17:00

Minimum Daily Average: 2.5 ppb on Apr 12

Maximum Diurnal Average: 18.2 ppb at hour 7

Minimum Diurnal Average: 3.5 ppb at hour 16

Monthly Average: 8.62 ppb

Percentiles: P_1 = 1.5 P_{10} = 2.5 Q_1 = 3.5 Median = 5.6 Q_3 = 10.2 P_{90} = 21.2 P_{99} = 39.3

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	1	1	A	3	3	2	3	4	C	C	C	C	C	5	3	2	3	4	8	11	11	14	10	7	5.4	14.1
2-Apr	10	A	9	10	14	19	39	37	30	9	4	3	3	2	2	4	5	5	9	21	23	11	17	16	13.1	39.5
3-Apr	A	19	25	25	24	24	24	19	8	8	5	5	4	3	5	3	3	5	5	5	8	7	4	A	10.8	25.2
4-Apr	5	4	4	4	4	4	5	7	5	4	5	5	4	3	3	2	3	3	5	10	5	4	A	5	4.6	10.4
5-Apr	3	3	4	6	5	5	5	6	6	5	3	4	3	6	3	4	3	3	6	8	7	A	6	5	4.7	8.3
6-Apr	5	6	8	7	9	11	14	12	8	7	3	4	4	6	6	3	3	3	5	10	A	22	14	8	7.8	22.4
7-Apr	8	14	25	26	24	20	21	24	14	10	6	4	27	4	4	3	5	4	5	A	14	11	8	7	12.5	27.0
8-Apr	7	7	8	7	11	17	24	25	10	6	4	3	2	2	3	3	4	4	A	6	7	6	7	8	7.8	24.9
9-Apr	9	10	12	9	19	31	39	31	29	14	6	5	5	3	3	4	6	A	11	21	26	34	36	41	17.5	40.6
10-Apr	35	30	28	25	27	27	28	30	26	12	8	4	7	5	7	8	A	6	5	8	10	6	6	16	15.8	34.7
11-Apr	22	20	14	16	20	25	12	6	5	4	4	3	2	2	2	A	3	3	2	3	6	7	5	3	8.2	25.5
12-Apr	3	2	2	2	2	4	5	2	2	2	2	2	2	2	A	3	2	2	2	2	4	3	4	3	2.5	5.0
13-Apr	4	5	3	14	15	33	39	43	18	8	7	3	3	A	4	4	3	5	10	10	13	12	20	20	12.8	42.7
14-Apr	34	18	2	3	12	16	22	17	5	3	4	5	A	4	3	3	3	3	3	4	5	4	4	6	7.9	33.6
15-Apr	3	4	4	6	8	16	37	23	7	32	3	A	5	6	7	5	7	6	3	4	4	4	9	3	9.0	36.6
16-Apr	6	5	6	3	7	10	14	22	34	14	A	8	8	3	4	3	3	3	3	4	13	11	12	10	8.9	34.1
17-Apr	20	21	27	24	21	10	10	14	8	A	9	8	6	5	4	3	3	5	2	2	2	2	3	3	9.2	26.8
18-Apr	3	3	4	6	8	16	13	12	A	3	2	1	3	4	2	2	1	2	7	8	25	24	3	6	6.9	24.6
19-Apr	9	5	7	7	11	18	21	A	5	5	2	4	2	1	1	2	2	2	3	7	11	4	6	10	6.2	20.6
20-Apr	7	6	9	15	21	24	A	24	23	23	5	3	2	3	12	2	1	3	5	9	22	14	11	8	11.0	24.4
21-Apr	11	18	22	23	22	A	26	19	13	7	9	13	4	6	3	6	4	7	8	7	8	6	7	14	11.5	26.0
22-Apr	3	3	4	5	A	9	12	8	6	5	5	4	4	6	7	7	6	7	5	5	4	3	3	3	5.4	11.9
23-Apr	2	2	3	A	4	5	9	6	6	6	3	3	2	3	3	3	3	3	6	4	6	4	4	6	4.1	8.7
24-Apr	3	5	A	7	6	11	11	10	9	5	5	5	6	5	5	5	6	7	6	6	5	6	9	15	6.9	15.0
25-Apr	6	A	5	4	4	5	5	5	6	6	7	6	2	3	5	4	3	3	5	6	9	8	5	11	5.3	11.1
26-Apr	A	12	16	8	8	8	6	12	9	7	6	3	2	2	2	2	2	3	2	13	16	10	7	A	7.1	16.3
27-Apr	12	8	10	22	26	29	43	37	24	14	6	2	4	4	4	3	9	7	6	9	31	40	A	12	15.8	42.5
28-Apr	9	5	8	12	8	14	19	21	20	4	4	3	4	7	5	4	4	3	4	2	6	A	7	7	7.8	21.3
29-Apr	11	9	13	7	8	14	14	10	5	4	4	3	3	4	4	3	3	4	3	4	A	8	7	6	6.6	14.1
30-Apr	2	2	3	4	4	6	9	7	7	6	14	5	3	3	3	3	3	3	3	A	6	4	4	4	4.7	14.4
	9.0	8.8	10.2	10.7	12.3	14.8	18.2	17.0	12.4	8.3	5.4	4.3	4.5	3.9	4.1	3.5	3.7	4.0	5.1	7.5	10.9	10.3	8.5	9.5	Diurnal Average	
	34.7	30.0	27.7	26.4	27.2	32.7	42.5	42.7	34.1	32.4	14.4	13.2	27.0	7.2	11.5	8.0	9.2	7.4	11.5	20.6	31.5	39.9	35.8	40.6	Diurnal Maximum	

C - Calibration

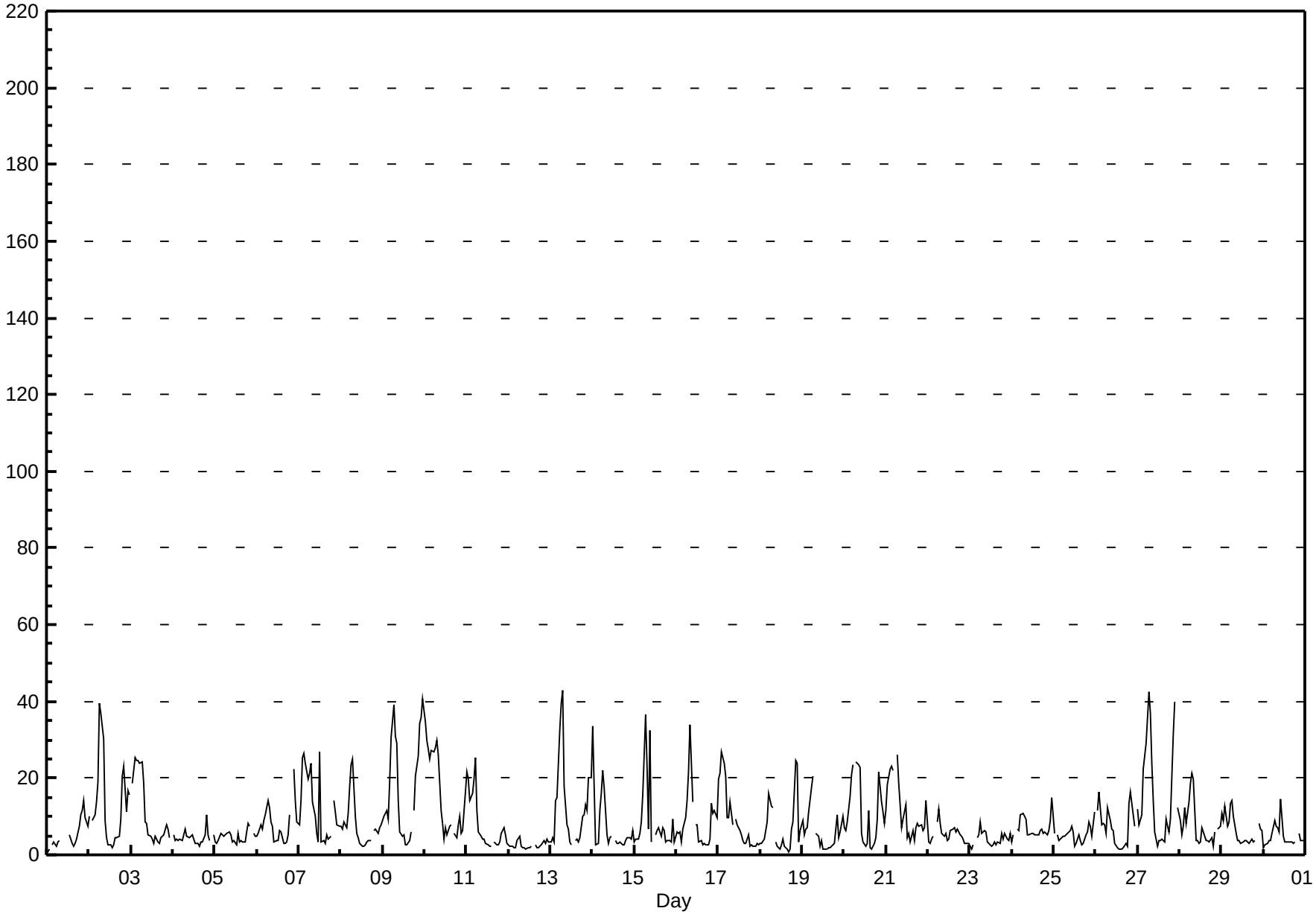
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

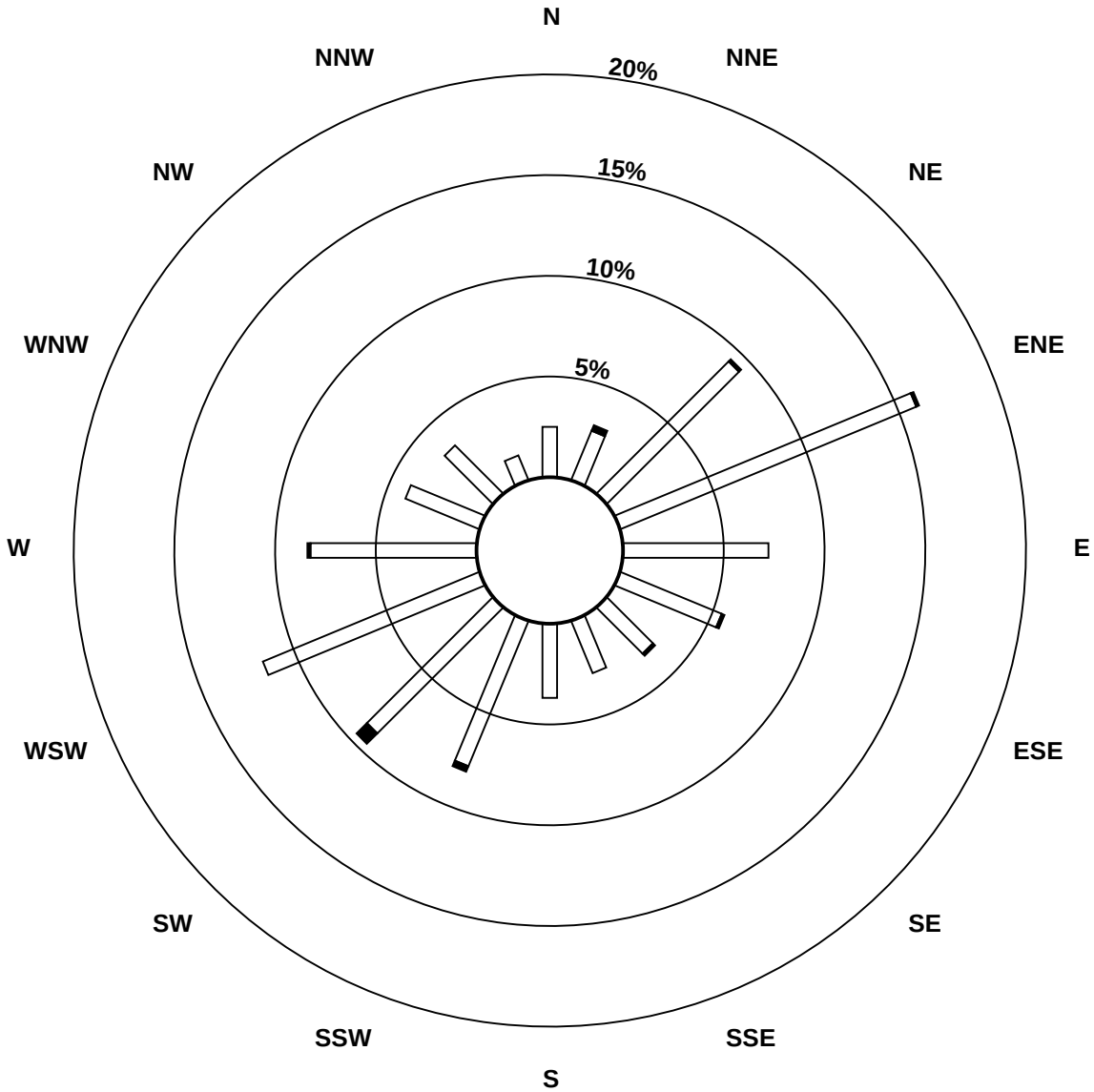
Henry Pirker - April 2015



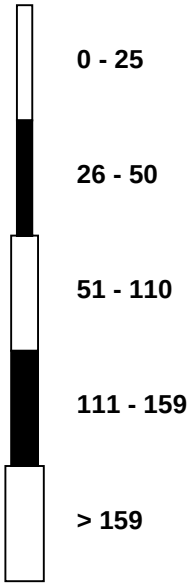
Pollutant Rose

Nitrogen Dioxide (NO_2) - ppb

Henry Pirker - April 2015



Pollutant Classes (ppb)

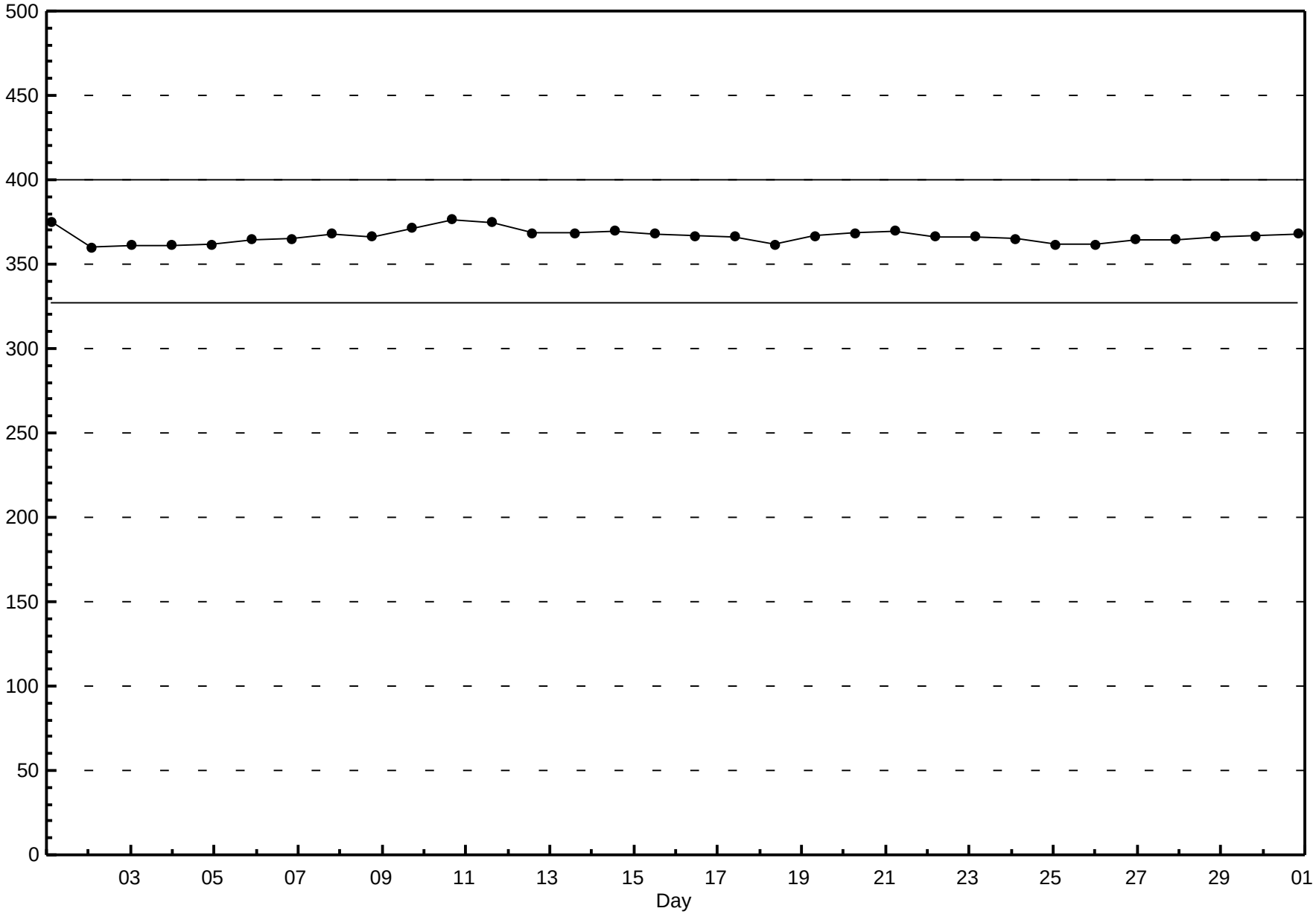


Peace Airshed Zone Association

Span Responses

Nitrogen Dioxide (NO_2)

Henry Pirker - April 2015



Peace Airshed Zone Association

Hourly Averages

Nitrogen Oxide (NO) - ppb

Henry Pirker - April 2015

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

Maximum Value: 60.3 ppb on Apr 10 08:00

Maximum Daily Average: 13.3 ppb on Apr 10

Minimum Value: 0 ppb on Apr 28 21:00

Minimum Daily Average: 0.2 ppb on Apr 12

Maximum Diurnal Average: 8.5 ppb at hour 8

Minimum Diurnal Average: 0.2 ppb at hour 21

Monthly Average: 1.47 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.1$ Median = 0.4 $Q_3 = 0.7$ $P_{90} = 1.8$ $P_{99} = 34.0$

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	A	0	0	0	0	0	C	C	C	C	C	2	1	1	0	0	0	0	0	0	0	0	0.3	1.8
2-Apr	0	A	0	0	0	0	3	34	15	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2.6	33.9
3-Apr	A	0	0	0	1	1	1	3	3	3	1	1	1	1	1	1	1	1	1	0	1	1	0	A	1.0	2.8
4-Apr	0	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	0	A	1	0.7	1.5
5-Apr	0	0	0	1	1	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0	A	0	0	0.5	1.3
6-Apr	0	0	0	1	1	1	1	2	2	2	1	1	1	1	1	0	0	0	0	0	A	1	0	0	0.7	2.4
7-Apr	0	0	1	1	2	3	11	23	5	4	2	1	1	0	1	0	0	0	0	A	0	0	0	0	2.4	22.8
8-Apr	0	0	0	0	0	0	1	3	2	1	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0.5	3.2
9-Apr	0	0	0	0	0	1	5	8	10	4	1	1	1	0	0	0	0	A	0	1	1	3	12	15	2.7	15.0
10-Apr	22	21	35	34	35	31	51	60	9	3	1	0	0	0	0	0	A	0	0	0	0	0	0	0	13.3	60.3
11-Apr	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	A	0	0	0	0	0	0	0	0	0.3	0.6
12-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	0.5
13-Apr	0	0	0	0	0	1	13	26	4	2	2	1	0	A	1	1	0	0	0	0	0	0	0	0	2.3	26.3
14-Apr	2	0	0	0	0	0	1	1	0	0	1	1	A	1	1	1	1	0	0	0	0	0	0	0	0.4	1.8
15-Apr	0	0	0	0	0	0	3	3	1	3	1	A	1	1	1	0	0	0	0	0	0	0	0	0	0.7	3.4
16-Apr	0	0	0	0	0	0	0	1	2	1	A	1	1	1	1	0	1	0	0	0	0	0	0	0	0.4	2.0
17-Apr	0	0	0	0	0	0	0	1	1	A	1	2	1	1	1	1	0	0	0	0	0	0	0	0	0.5	1.7
18-Apr	0	0	0	0	0	0	1	2	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.6
19-Apr	0	0	0	0	0	0	1	A	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.8
20-Apr	0	0	0	0	0	1	A	8	16	9	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1.7	16.0
21-Apr	0	0	3	3	5	A	18	12	6	2	3	3	1	1	0	0	0	0	0	0	0	0	0	0	2.6	17.8
22-Apr	0	0	0	0	A	0	1	1	1	1	1	1	0	1	1	1	1	0	0	0	0	0	0	0	0.4	1.1
23-Apr	0	0	0	A	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0.4	0.9
24-Apr	0	0	A	1	1	1	1	2	2	2	2	2	2	1	1	2	1	1	1	0	0	0	0	1	1.0	1.9
25-Apr	0	A	0	0	0	0	1	1	1	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0.5	1.1
26-Apr	A	0	1	1	1	1	1	4	4	3	3	1	0	0	0	0	0	0	0	0	0	0	0	A	1.0	3.9
27-Apr	0	0	0	0	1	6	41	41	4	6	1	0	0	0	0	0	0	0	0	0	0	2	A	0	4.6	41.5
28-Apr	0	0	0	0	0	0	2	4	2	1	1	1	1	0	0	0	0	0	0	0	0	A	0	0	0.6	3.7
29-Apr	0	0	0	0	0	0	2	2	1	1	1	1	1	1	1	1	1	0	0	0	A	0	0	0	0.5	1.9
30-Apr	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	0	0	A	0	0	0	0	0.4	1.0
	1.0	0.9	1.6	1.5	1.7	1.7	5.6	8.5	3.5	2.1	1.1	0.8	0.7	0.6	0.6	0.5	0.4	0.3	0.3	0.2	0.2	0.3	0.5	0.6	Diurnal Average	
	22.3	21.1	35.3	34.2	34.8	30.7	51.5	60.3	16.0	8.6	3.2	3.0	1.9	1.8	1.5	1.6	1.2	0.9	1.0	0.7	1.3	2.6	12.0	15.0	Diurnal Maximum	

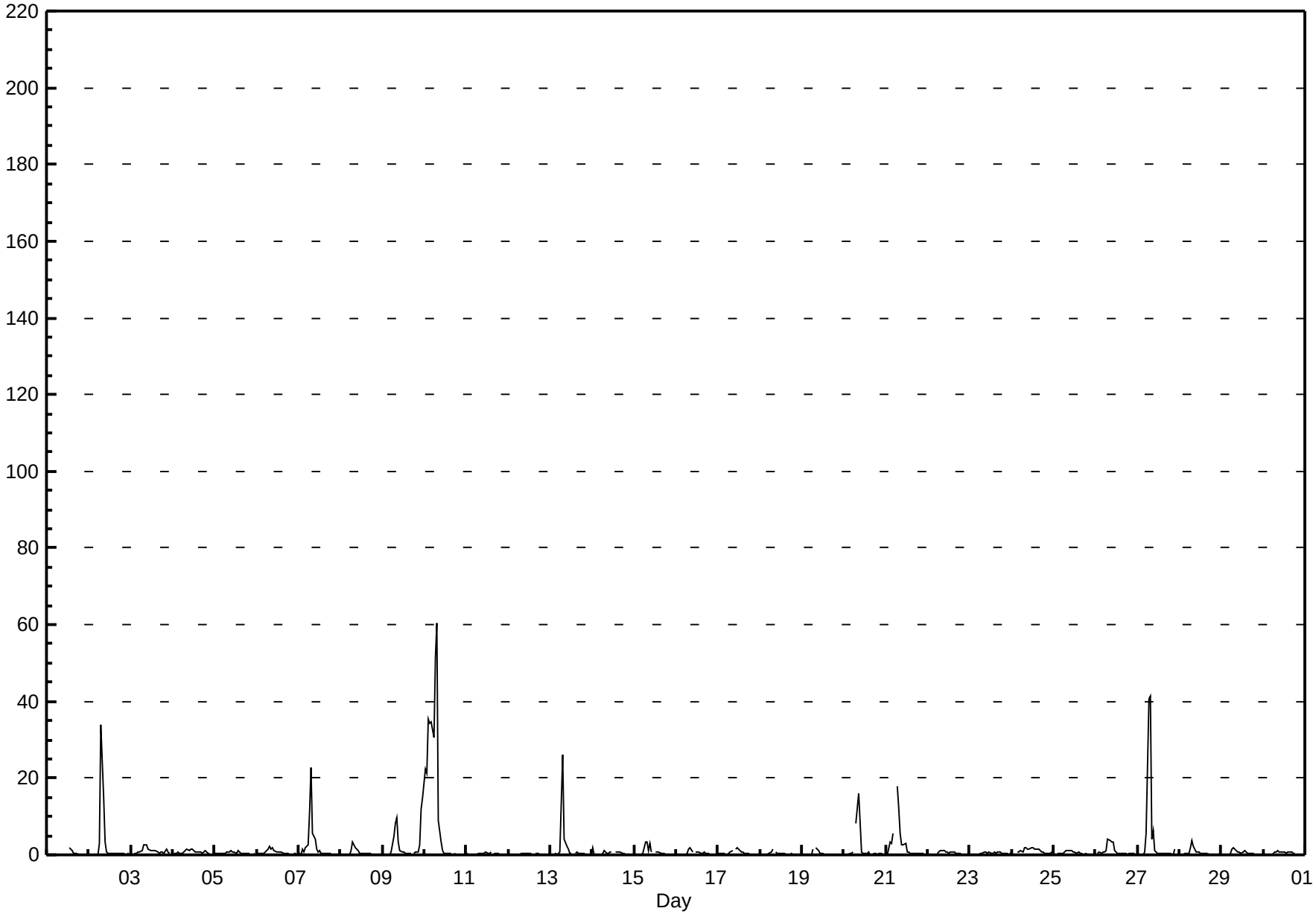
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Nitrogen Oxide (NO) - ppb

Henry Pirker - April 2015



Peace Airshed Zone Association

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Henry Pirker - April 2015

Maximum Value: 139.6 ppb on Apr 27 07:00

Maximum Daily Average: 19.3 ppb on Apr 10

Minimum Value: 0 ppb on Apr 1 01:00

Minimum Daily Average: 0.4 ppb on Apr 12

Maximum Diurnal Average: 16.5 ppb at hour 8

Minimum Diurnal Average: 1.1 ppb at hour 18

Monthly Average: 3.89 ppb

Percentiles: $P_1 = 0.1$ $P_{10} = 0.1$ $Q_1 = 0.4$ Median = 1.1 $Q_3 = 2.8$ $P_{90} = 6.5$ $P_{99} = 57.4$

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	0	0	A	0	0	0	0	0	C	C	C	C	C	4	2	1	1	1	0	0	0	0	0	0	0.6	3.6
2-Apr	0	A	0	0	0	1	39	65	24	13	5	1	1	1	3	4	1	1	2	2	3	1	8	1	7.6	64.9
3-Apr	A	1	2	1	2	2	3	6	4	6	3	4	2	2	3	3	2	3	4	2	4	4	1	A	3.0	6.1
4-Apr	2	1	3	3	3	2	4	5	5	3	4	3	4	2	2	1	2	2	3	4	2	1	A	5	2.8	4.9
5-Apr	3	1	2	3	3	1	2	4	3	5	3	2	2	4	4	1	1	1	1	1	1	A	1	1	2.1	4.8
6-Apr	1	1	1	1	1	3	4	12	6	7	2	2	3	5	3	1	1	1	1	1	A	2	1	1	2.7	11.6
7-Apr	1	1	18	2	8	6	32	56	9	44	3	1	14	1	1	1	1	1	1	A	0	0	0	0	8.7	56.0
8-Apr	0	0	0	0	0	1	4	6	3	2	2	1	1	1	1	1	1	1	A	0	0	0	0	0	1.1	5.6
9-Apr	2	0	1	1	0	3	11	15	18	7	2	2	2	1	1	1	2	A	1	9	11	31	27	37	7.9	37.2
10-Apr	44	38	44	39	47	41	71	84	20	5	3	1	2	1	3	1	A	1	0	0	0	0	0	2	19.3	83.7
11-Apr	3	0	0	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0	0	0	0	0	0	0.8	2.8
12-Apr	0	0	0	0	0	0	0	0	1	1	1	1	1	1	A	1	1	0	0	0	0	0	0	0	0.4	1.0
13-Apr	0	0	0	2	0	4	42	59	10	3	3	1	1	A	1	1	1	1	1	1	1	0	0	1	5.8	59.2
14-Apr	29	0	0	0	0	0	1	8	1	1	1	2	A	1	1	1	1	1	0	0	0	0	0	0	2.2	28.9
15-Apr	0	0	0	0	0	0	8	6	2	91	2	A	1	1	2	1	1	1	0	0	0	0	0	0	5.1	90.6
16-Apr	0	0	0	0	0	0	1	6	32	2	A	1	2	1	1	1	1	1	1	0	0	0	0	0	2.2	32.2
17-Apr	4	3	4	4	0	0	1	2	5	A	3	21	3	2	1	1	1	1	0	0	1	0	0	0	2.5	20.7
18-Apr	0	0	0	0	0	1	2	3	A	1	1	0	1	5	3	1	0	0	4	1	0	1	0	0	1.1	5.3
19-Apr	0	0	0	0	0	0	2	A	33	2	1	11	0	0	0	0	0	0	0	0	0	0	0	1	2.3	33.1
20-Apr	0	0	0	4	5	3	A	13	26	24	3	1	7	2	9	1	0	1	4	0	7	1	1	1	4.9	25.7
21-Apr	0	1	25	8	8	A	28	17	9	4	6	7	2	3	2	3	1	1	2	2	2	1	1	1	5.8	28.0
22-Apr	0	0	0	0	A	1	4	3	2	2	2	2	1	1	1	2	1	1	1	0	0	0	0	0	1.1	3.6
23-Apr	0	0	0	A	0	0	1	1	1	2	1	1	1	1	3	1	2	3	5	2	6	1	1	3	1.6	6.0
24-Apr	1	2	A	3	5	3	2	5	4	4	4	4	5	3	3	3	3	2	3	1	1	1	3	4	3.0	5.4
25-Apr	1	A	1	2	3	1	2	3	3	2	4	6	1	1	3	1	1	0	1	0	0	0	0	0	1.7	6.3
26-Apr	A	1	2	1	1	2	2	9	7	5	5	2	1	1	0	0	1	1	0	1	1	1	1	A	2.1	9.1
27-Apr	0	0	0	2	4	18	140	77	10	9	3	1	1	1	1	0	1	1	1	0	2	6	A	1	12.1	139.6
28-Apr	1	0	1	1	1	1	5	8	9	1	1	1	2	1	1	1	1	0	0	0	0	A	0	0	1.6	8.6
29-Apr	0	0	0	0	0	1	3	3	2	1	1	1	1	20	1	1	1	1	1	0	A	0	0	0	1.7	20.4
30-Apr	0	0	0	0	0	0	2	2	7	8	5	2	7	1	1	1	1	1	0	A	0	0	0	0	1.7	8.3
	3.3	1.9	3.8	2.8	3.3	3.3	14.3	16.5	9.1	9.1	2.7	3.0	2.4	2.4	2.0	1.3	1.1	1.1	1.3	1.2	1.6	1.9	1.7	2.1	Diurnal Average	
	43.6	37.9	44.0	38.7	46.8	40.6	139.6	83.7	33.1	90.6	5.8	20.7	13.8	20.4	9.1	3.9	2.8	3.2	4.6	9.2	10.8	31.3	27.1	37.2	Diurnal Maximum	

C - Calibration

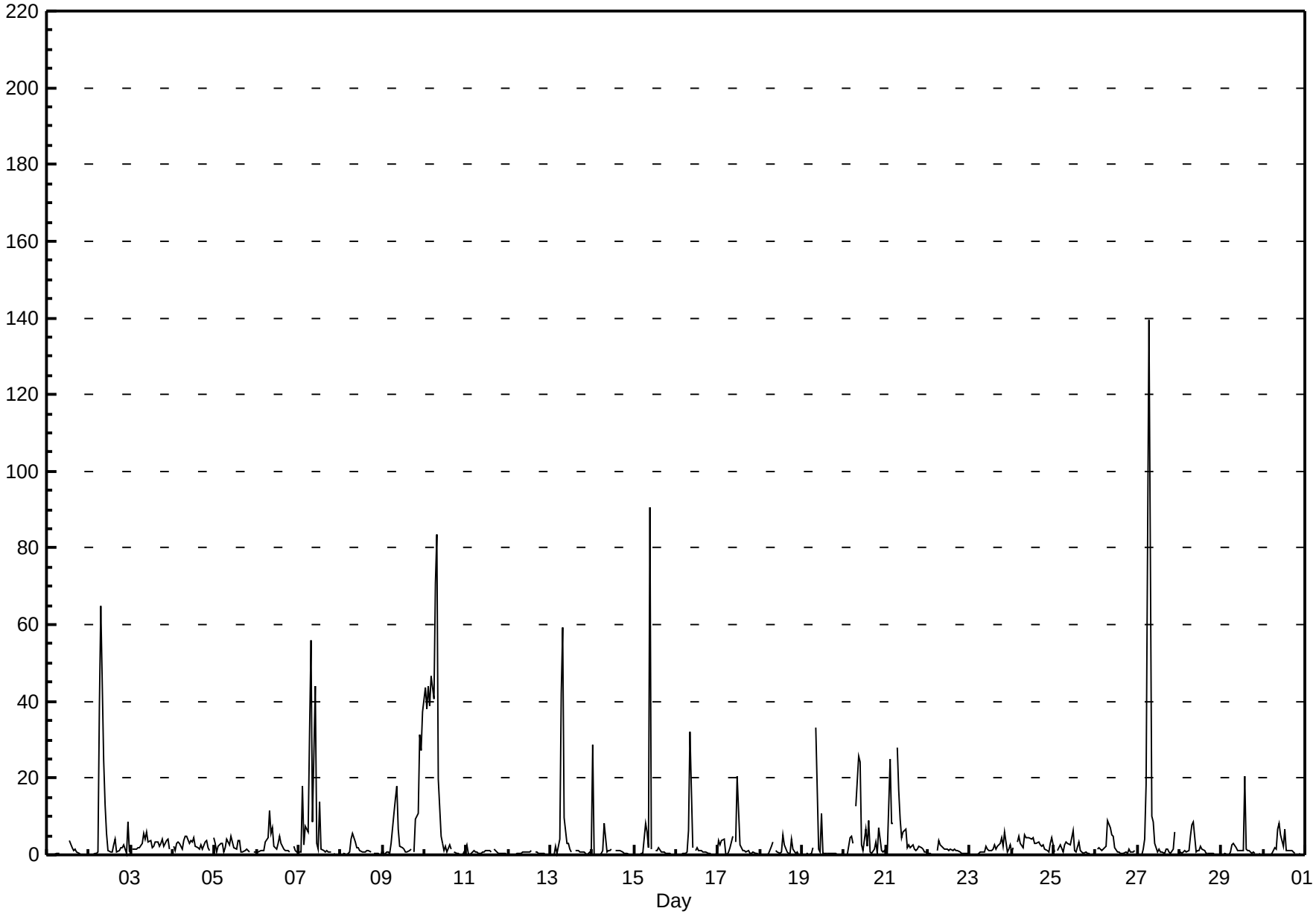
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Henry Pirker - April 2015



Peace Airshed Zone Association

Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Henry Pirker - April 2015

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

Maximum Value: 87.1 ppb on Apr 10 08:00

Maximum Daily Average: 25.5 ppb on Apr 10

Minimum Value: 0 ppb on Apr 1 01:00

Minimum Daily Average: 1.9 ppb on Apr 12

Maximum Diurnal Average: 20.7 ppb at hour 8

Minimum Diurnal Average: 2.4 ppb at hour 17

Monthly Average: 7.06 ppb

Percentiles: P_1 = 1.0 P_{10} = 1.8 Q_1 = 2.5 Median = 3.8 Q_3 = 6.7 P_{90} = 14.9 P_{99} = 56.8

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	0	1	A	2	2	2	2	3	C	C	C	C	C	5	3	2	2	2	4	7	10	9	6	5	3.8	9.6
2-Apr	6	A	7	6	6	14	21	65	37	9	3	2	2	1	2	2	2	3	4	14	13	7	8	11	10.5	65.1
3-Apr	A	15	19	22	21	21	17	14	9	9	5	4	3	3	3	3	2	3	3	4	6	4	3	A	8.8	22.3
4-Apr	4	3	3	3	3	3	4	4	5	4	4	3	3	2	2	2	2	2	4	5	4	3	A	4	3.4	4.6
5-Apr	3	3	3	4	4	4	4	4	4	4	3	2	2	3	3	3	2	2	3	5	6	A	4	4	3.5	6.3
6-Apr	4	4	6	6	7	9	13	10	6	5	4	3	3	3	3	2	2	2	3	6	A	17	10	6	5.9	17.0
7-Apr	6	10	17	21	21	20	29	41	15	10	5	3	4	2	2	2	3	3	4	A	9	7	6	6	10.7	41.5
8-Apr	5	4	6	4	6	12	18	18	7	6	4	2	2	2	2	2	3	3	A	4	5	4	6	6	5.6	18.2
9-Apr	7	7	9	6	12	23	36	31	30	12	4	3	3	2	2	3	2	A	6	11	14	26	44	51	15.0	50.6
10-Apr	52	48	61	57	57	54	76	87	27	13	5	3	2	2	4	3	A	4	4	5	6	4	4	9	25.5	87.1
11-Apr	18	15	12	10	15	14	6	5	4	3	3	3	2	2	2	A	2	2	2	2	3	4	3	2	5.9	17.7
12-Apr	2	2	2	2	1	2	3	2	2	1	2	2	2	2	A	2	2	2	1	1	2	2	3	3	1.9	2.7
13-Apr	2	3	3	9	10	20	48	58	15	8	6	2	2	A	3	3	3	2	5	5	8	8	14	14	10.9	57.9
14-Apr	22	4	2	2	6	10	15	11	3	2	3	4	A	3	3	3	3	2	2	3	3	2	3	4	5.0	21.5
15-Apr	3	3	4	4	5	10	30	18	5	6	3	A	4	4	4	3	3	3	3	2	2	2	3	3	5.5	29.6
16-Apr	4	4	4	2	4	7	10	16	14	7	A	6	5	3	2	2	3	2	2	2	6	7	7	8	5.6	16.5
17-Apr	12	18	19	19	15	6	8	8	6	A	6	6	5	3	3	2	2	2	2	2	1	1	1	1	6.6	19.0
18-Apr	1	2	3	5	6	11	10	8	A	3	2	1	1	1	1	1	1	1	2	5	15	7	2	4	4.1	15.0
19-Apr	4	4	4	6	9	12	17	A	5	4	2	2	1	1	1	1	1	1	2	4	8	3	4	5	4.4	17.3
20-Apr	5	4	5	6	11	20	A	29	36	21	3	2	1	1	3	1	1	2	2	5	12	11	9	5	8.5	35.7
21-Apr	6	12	23	23	23	A	38	29	14	8	8	10	4	4	2	2	2	4	4	4	5	5	5	7	10.5	38.1
22-Apr	3	2	3	3	A	7	7	6	4	5	4	3	3	4	5	6	4	4	3	3	3	2	2	2	3.8	6.9
23-Apr	1	1	1	A	3	4	7	4	4	4	2	3	2	2	3	2	2	2	2	3	3	3	3	3	2.8	6.5
24-Apr	3	4	A	5	5	7	8	9	6	6	5	6	6	5	5	5	5	4	4	4	4	4	4	6	5.2	8.5
25-Apr	3	A	4	3	3	3	5	5	5	5	4	3	2	2	2	3	2	2	3	4	6	5	4	5	3.6	5.6
26-Apr	A	10	11	7	8	6	6	11	10	8	8	4	2	1	1	1	1	1	1	5	12	9	6	A	5.8	11.5
27-Apr	9	6	7	11	21	32	70	71	18	18	4	2	2	3	2	2	3	4	3	5	13	33	A	8	15.1	71.4
28-Apr	6	4	5	8	6	9	16	20	11	4	3	3	3	4	2	2	2	2	3	2	3	A	5	4	5.5	19.6
29-Apr	7	6	8	4	5	10	12	9	4	3	3	2	3	3	3	2	2	2	2	3	A	6	5	3	4.7	12.3
30-Apr	2	2	2	2	3	3	6	6	5	4	5	4	3	3	2	3	3	2	2	A	3	2	2	2	3.1	6.1
	7.2	7.2	9.0	9.1	10.2	12.2	18.7	20.7	11.2	6.8	4.1	3.2	2.8	2.6	2.6	2.4	2.4	2.5	3.0	4.5	6.6	7.1	6.3	6.8	Diurnal Average	
	51.6	48.2	61.0	56.9	57.1	53.8	76.0	87.1	37.0	20.9	8.3	10.2	5.5	4.8	5.1	5.8	5.3	4.2	5.6	13.6	15.0	33.2	44.0	50.6	Diurnal Maximum	

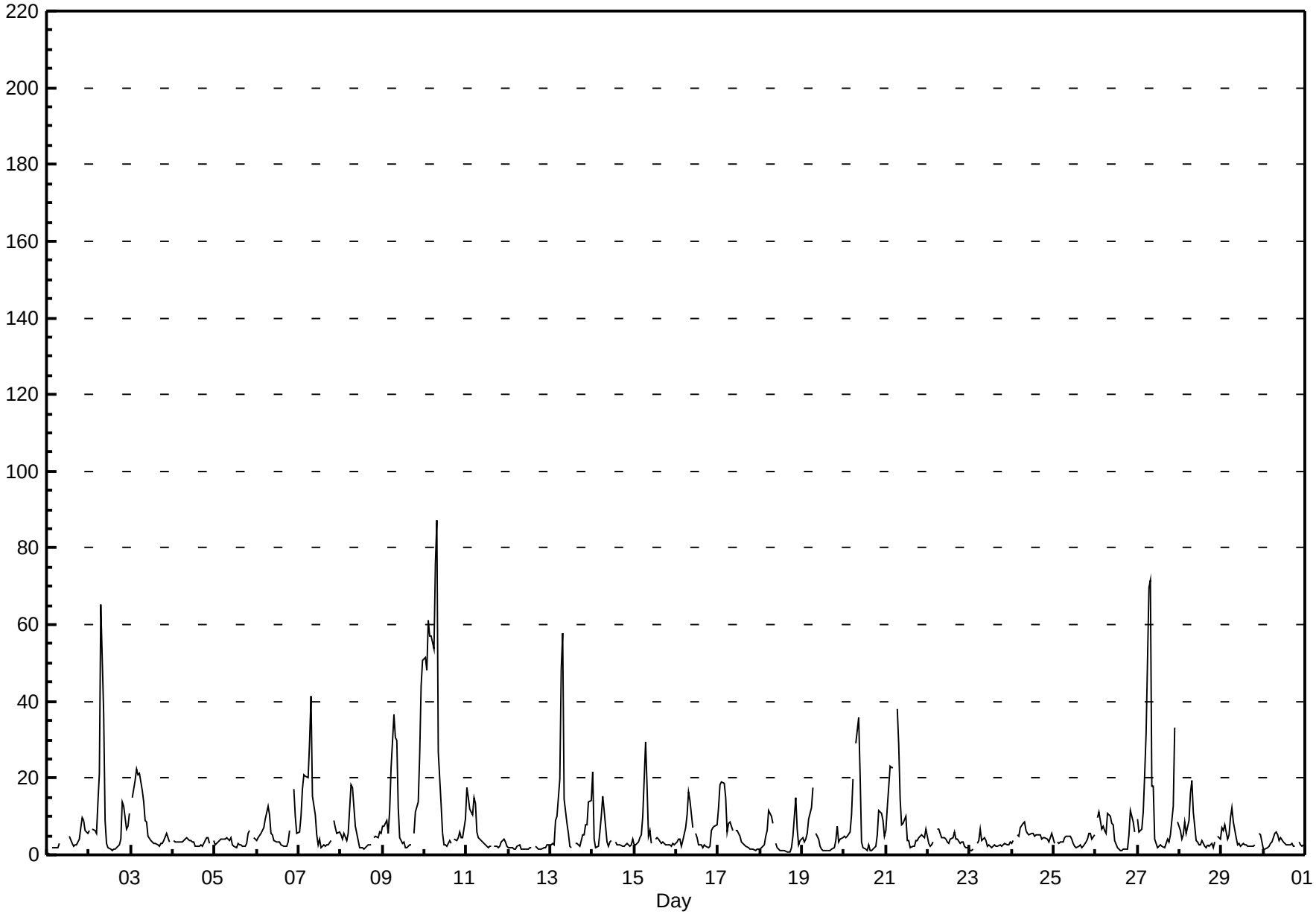
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Henry Pirker - April 2015



Peace Airshed Zone Association

Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

Henry Pirker - April 2015

Maximum Value: 183.1 ppb on Apr 27 07:00

Maximum Daily Average: 34.1 ppb on Apr 10

Minimum Value: 1 ppb on Apr 1 01:00

Minimum Daily Average: 2.9 ppb on Apr 12

Maximum Diurnal Average: 32.4 ppb at hour 8

Minimum Diurnal Average: 4.7 ppb at hour 16

Monthly Average: 12.16 ppb

Percentiles: P_1 = 1.9 P_{10} = 3.2 Q_1 = 4.4 Median = 7.3 Q_3 = 11.9 P_{90} = 25.2 P_{99} = 93.0

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	1	1	A	3	3	3	3	4	C	C	C	C	C	9	5	3	4	5	8	11	12	14	10	7	5.9	14.3
2-Apr	10	A	9	11	14	20	79	102	54	15	7	4	4	3	5	6	5	6	11	21	24	11	23	16	20.0	102.2
3-Apr	A	19	27	26	26	26	27	22	13	12	8	8	6	5	8	6	5	8	9	8	10	10	5	A	13.4	27.4
4-Apr	7	5	7	6	7	5	8	11	9	7	8	8	9	5	4	4	6	5	8	12	7	4	A	9	7.0	11.7
5-Apr	6	4	6	8	8	5	6	8	9	10	6	6	4	9	7	4	4	4	7	9	8	A	6	5	6.6	9.8
6-Apr	5	6	9	8	10	12	18	23	14	14	6	5	6	11	9	4	4	5	6	11	A	24	15	9	10.3	23.9
7-Apr	8	14	41	28	29	26	52	80	23	38	8	5	34	5	5	4	6	5	5	A	15	11	8	7	20.0	80.5
8-Apr	7	7	9	7	11	18	27	31	13	8	6	4	3	3	4	4	5	4	A	7	7	6	7	8	9.0	30.8
9-Apr	11	10	12	10	19	34	50	46	47	21	8	7	7	3	3	5	8	A	12	30	35	66	61	72	25.1	72.4
10-Apr	75	65	69	62	71	66	94	108	46	17	11	5	9	6	10	10	A	6	5	8	10	6	6	18	34.1	108.3
11-Apr	23	20	14	17	21	26	12	7	5	5	5	4	4	3	3	A	5	3	3	3	6	7	5	3	8.9	26.1
12-Apr	3	2	2	2	2	4	5	3	3	2	3	3	3	3	A	3	3	2	2	3	4	3	4	4	2.9	5.2
13-Apr	4	5	4	17	15	37	82	99	28	11	10	5	4	A	5	5	4	5	11	11	13	12	21	22	18.6	98.9
14-Apr	63	18	3	3	12	16	23	19	6	4	5	6	A	5	4	4	5	4	3	4	5	5	4	7	9.9	63.0
15-Apr	4	4	4	6	9	16	45	28	9	112	5	A	6	7	9	5	8	7	4	4	4	4	9	3	13.6	112.4
16-Apr	6	6	6	3	7	10	15	25	64	16	A	9	10	4	4	3	4	3	3	5	14	11	12	10	10.9	63.9
17-Apr	24	23	29	24	21	10	10	16	10	A	13	23	8	7	5	4	4	6	3	3	3	2	3	3	11.1	29.3
18-Apr	3	3	4	7	9	17	14	15	A	4	3	2	3	10	5	2	1	2	11	9	25	24	3	6	7.9	25.1
19-Apr	9	5	7	7	11	18	23	A	22	6	3	13	2	2	2	2	2	3	3	7	11	4	6	11	7.8	22.5
20-Apr	7	6	9	20	26	26	A	37	49	47	8	5	6	5	21	3	2	3	8	10	28	15	12	9	15.7	48.9
21-Apr	12	19	44	30	27	A	52	34	22	11	15	20	6	8	4	9	4	8	9	9	10	7	8	15	16.7	52.3
22-Apr	4	3	4	5	A	9	16	10	8	6	7	6	5	8	8	9	7	8	6	5	4	3	3	3	6.3	15.6
23-Apr	3	2	3	A	4	5	9	7	7	8	5	4	3	4	6	4	5	6	9	6	12	5	5	8	5.6	11.8
24-Apr	4	6	A	10	11	13	12	13	14	9	9	8	10	8	7	8	8	9	8	7	6	7	10	19	9.4	19.1
25-Apr	6	A	7	5	7	6	7	8	7	9	12	12	3	4	9	5	3	3	6	6	9	8	5	12	6.9	12.3
26-Apr	A	12	18	9	10	10	8	22	16	12	11	5	3	2	2	2	2	4	3	15	17	11	8	A	9.1	21.6
27-Apr	12	8	11	24	30	45	183	112	34	22	9	3	5	5	5	4	11	9	7	10	33	44	A	13	27.8	183.1
28-Apr	9	6	8	14	9	15	24	27	27	5	5	4	5	8	5	4	4	4	5	2	6	A	7	7	9.2	27.4
29-Apr	11	9	13	7	9	14	17	12	7	5	5	4	5	12	5	4	4	5	4	4	A	8	7	7	7.8	17.0
30-Apr	2	3	3	4	4	6	11	9	13	9	16	6	8	4	4	4	4	4	4	A	6	4	4	4	5.9	16.4
	12.1	10.4	13.6	13.2	15.3	17.9	32.2	32.4	20.7	16.0	7.8	7.0	6.5	5.8	6.0	4.7	4.7	5.0	6.3	8.6	12.2	12.1	10.0	11.4	Diurnal Average	
	75.3	65.3	69.3	61.8	70.6	65.5	183.1	111.6	63.9	112.4	16.4	23.0	34.4	11.8	20.8	9.6	10.8	9.0	12.3	30.1	34.9	66.1	61.1	72.4	Diurnal Maximum	

C - Calibration

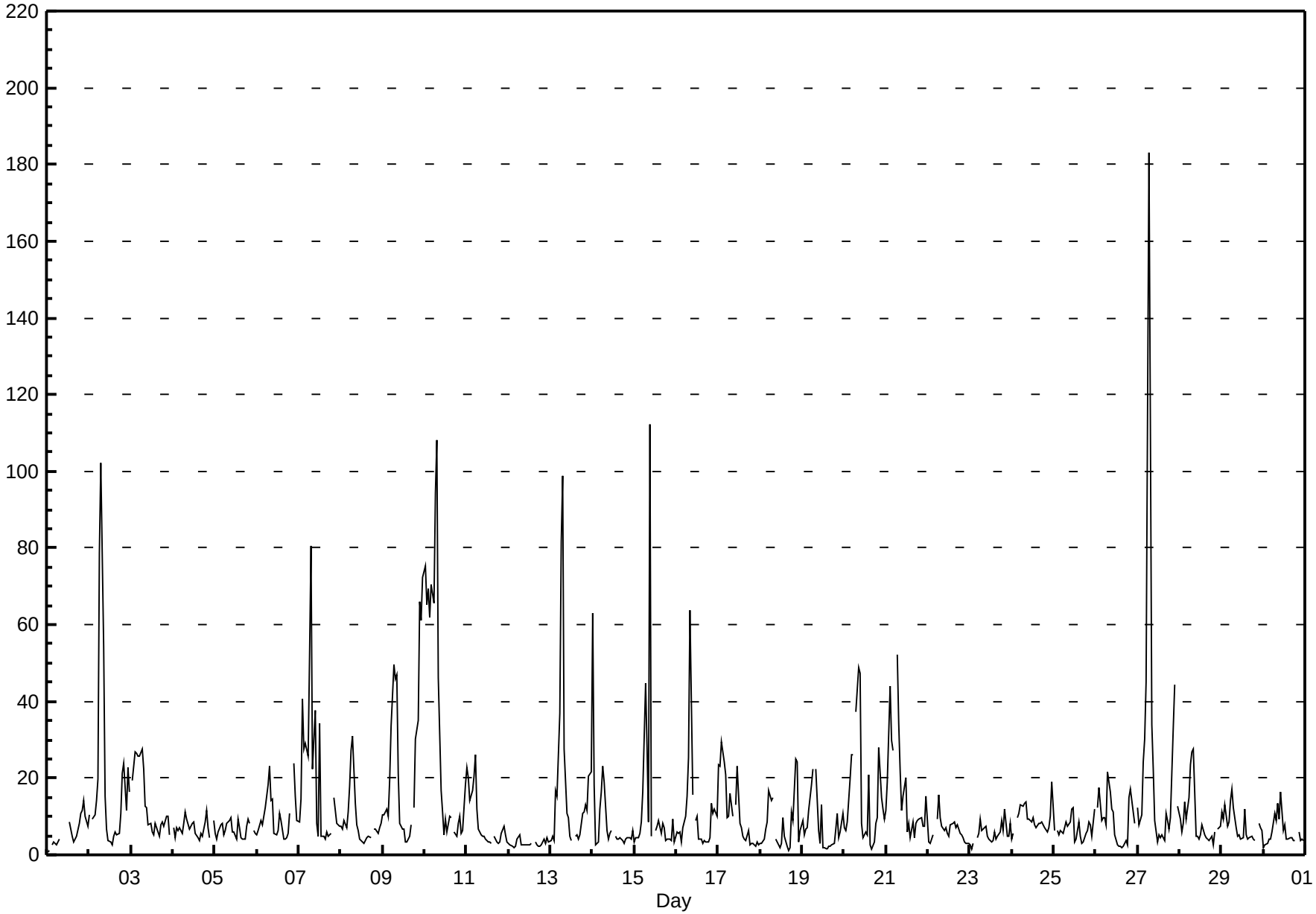
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

Henry Pirker - April 2015

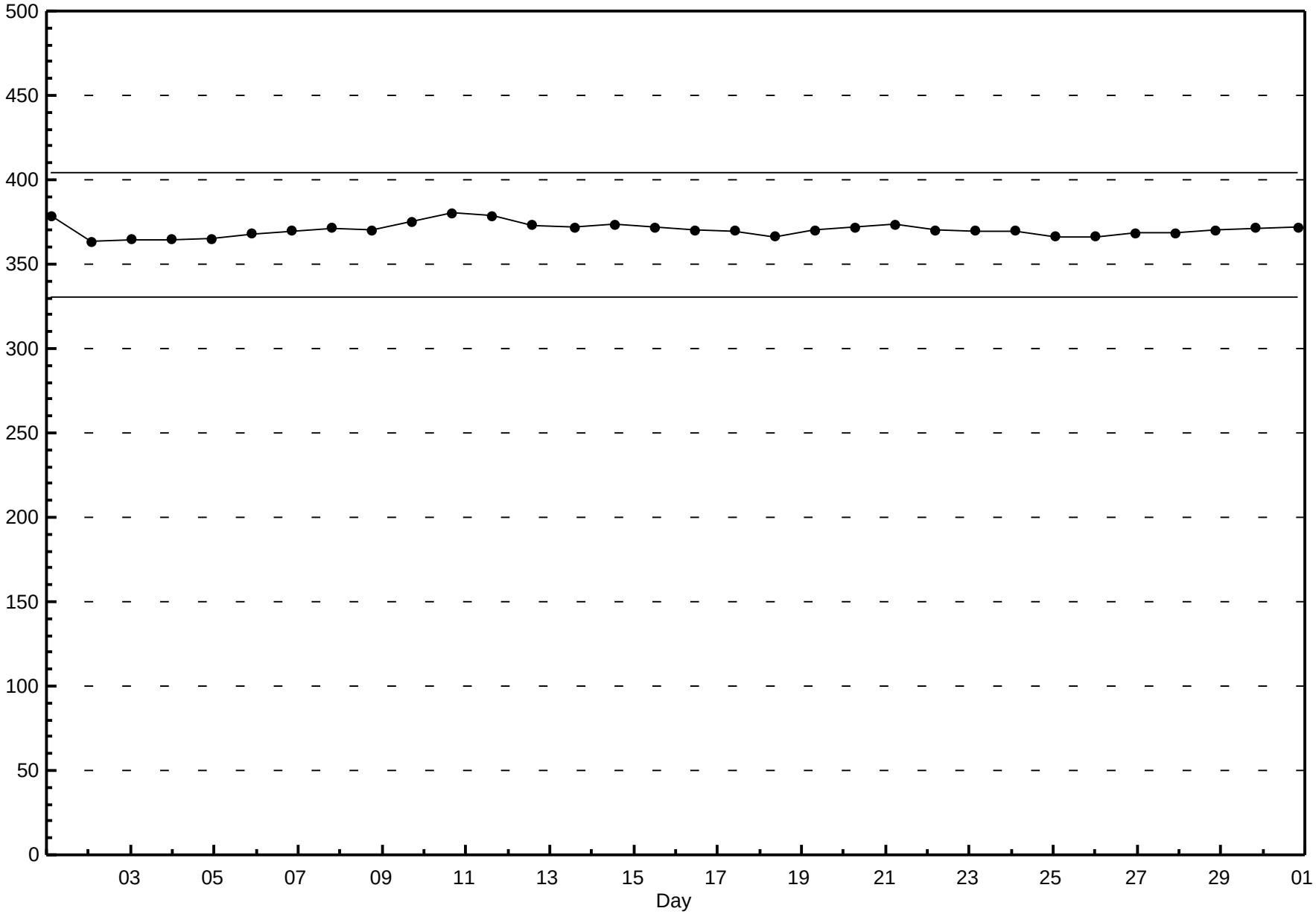


Peace Airshed Zone Association

Span Responses

Oxides of Nitrogen (NO_X)

Henry Pirker - April 2015



Peace Airshed Zone Association

Hourly Averages

Ozone (O_3) - ppb

Henry Pirker - April 2015

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

Maximum Value: 54.1 ppb on Apr 27 16:00

Maximum Daily Average: 46.7 ppb on Apr 30

Minimum Value: 1 ppb on Apr 10 06:00

Minimum Daily Average: 22.2 ppb on Apr 24

Maximum Diurnal Average: 41.9 ppb at hour 16

Minimum Diurnal Average: 20.7 ppb at hour 7

Monthly Average: 33.10 ppb

Percentiles: P_1 = 1.2 P_{10} = 18.4 Q_1 = 27.5 Median = 34.5 Q_3 = 41.4 P_{90} = 45.1 P_{99} = 50.6

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	41	38	A	32	33	32	31	30	30	30	31	C	C	C	33	37	38	37	35	30	26	25	28	28	32.3	40.8
2-Apr	26	A	24	23	24	18	13	4	17	26	33	36	38	39	40	41	41	40	39	27	25	30	30	25	28.6	40.8
3-Apr	A	17	10	5	7	6	13	15	19	25	31	34	34	32	35	37	38	38	37	33	29	29	29	A	25.2	38.3
4-Apr	28	26	25	27	28	29	28	26	28	30	33	34	35	36	36	37	37	37	37	35	34	36	A	34	32.0	37.4
5-Apr	35	34	32	30	28	28	28	28	29	29	33	35	36	37	39	40	40	41	40	36	32	A	34	32	33.7	40.6
6-Apr	32	30	28	27	25	23	19	22	26	28	31	32	35	37	39	40	41	42	39	32	A	23	32	34	31.2	41.5
7-Apr	33	25	17	8	4	4	2	6	20	28	35	40	42	43	44	46	46	46	44	A	34	32	33	31	28.8	46.2
8-Apr	31	33	31	34	31	25	20	23	32	35	38	41	43	44	44	44	44	44	A	38	36	34	31	32	35.2	44.2
9-Apr	28	28	28	31	25	15	9	15	22	32	42	45	48	49	51	51	50	A	46	35	30	15	4	3	30.5	50.8
10-Apr	1	1	2	1	1	1	1	3	21	34	45	50	50	49	48	49	A	48	48	46	42	41	38	31	28.3	50.3
11-Apr	18	20	20	24	18	22	35	34	39	43	43	44	45	44	44	A	43	43	44	42	39	37	37	42	35.6	44.5
12-Apr	40	39	40	40	40	39	39	40	41	42	43	43	43	43	A	44	44	45	45	44	43	40	38	37	41.4	45.3
13-Apr	37	37	37	28	27	20	6	12	30	37	40	44	46	A	48	47	48	46	43	43	40	40	33	31	35.7	47.7
14-Apr	22	40	43	43	36	34	30	33	40	43	43	43	A	42	42	42	42	43	43	43	43	44	43	40	39.9	44.2
15-Apr	42	41	39	37	38	32	18	28	38	41	44	A	45	45	45	46	44	46	46	44	42	41	39	39	40.1	46.4
16-Apr	37	36	35	39	40	36	34	28	32	38	A	38	37	41	43	43	44	45	46	44	37	34	32	31	37.8	45.8
17-Apr	25	15	14	14	18	37	38	37	37	A	34	32	37	43	43	44	42	40	37	40	45	45	44	44	35.0	45.0
18-Apr	44	39	36	29	25	18	22	27	A	37	40	43	44	45	45	46	46	46	45	41	29	34	37	35	37.1	46.2
19-Apr	33	32	32	31	26	24	20	A	33	35	41	44	45	46	47	49	50	50	48	43	35	38	34	33	37.7	50.1
20-Apr	33	34	31	30	26	13	A	12	13	24	35	36	37	37	38	38	39	37	37	33	26	27	28	31	30.2	38.7
21-Apr	26	14	3	1	1	A	3	10	19	26	29	33	38	42	41	41	40	38	38	36	34	33	31	24	26.1	41.5
22-Apr	27	27	26	22	A	19	19	20	23	24	23	25	23	30	32	31	33	34	35	34	34	34	35	32	27.9	34.7
23-Apr	34	35	34	A	30	31	29	31	31	32	33	32	31	27	24	23	23	23	23	21	20	18	17	15	26.9	35.4
24-Apr	14	13	A	12	12	9	7	12	20	18	19	21	23	25	25	26	28	30	30	32	35	35	34	32	22.2	35.5
25-Apr	33	A	28	27	27	27	27	27	27	28	30	33	35	36	36	35	36	36	35	33	30	27	25	23	30.5	36.4
26-Apr	A	17	17	20	19	19	20	18	20	23	24	30	35	37	37	37	39	39	40	36	28	29	31	A	28.0	39.6
27-Apr	27	32	28	19	10	2	2	4	21	26	39	45	47	49	52	54	53	51	48	43	33	12	A	35	31.9	54.1
28-Apr	36	38	36	32	32	27	20	19	27	33	35	38	42	44	42	53	52	49	46	47	43	A	39	38	37.7	53.3
29-Apr	35	33	30	33	31	28	28	33	39	45	45	46	45	45	43	42	42	42	41	40	A	36	35	38	38.1	45.9
30-Apr	43	45	44	44	45	44	41	41	44	46	45	47	48	49	50	50	49	49	50	A	50	50	49	50	46.7	50.3
	30.7	29.3	27.5	25.7	24.3	22.9	20.7	22.1	28.2	32.5	35.9	38.0	39.5	40.6	40.9	41.9	41.8	41.6	40.8	37.7	34.8	32.9	32.9	32.0	Diurnal Average	
	43.8	45.2	44.5	43.7	44.7	43.8	41.2	41.0	44.1	46.1	45.3	49.9	50.3	49.3	51.7	54.1	53.3	51.2	50.3	47.2	50.3	50.0	49.5	49.6	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

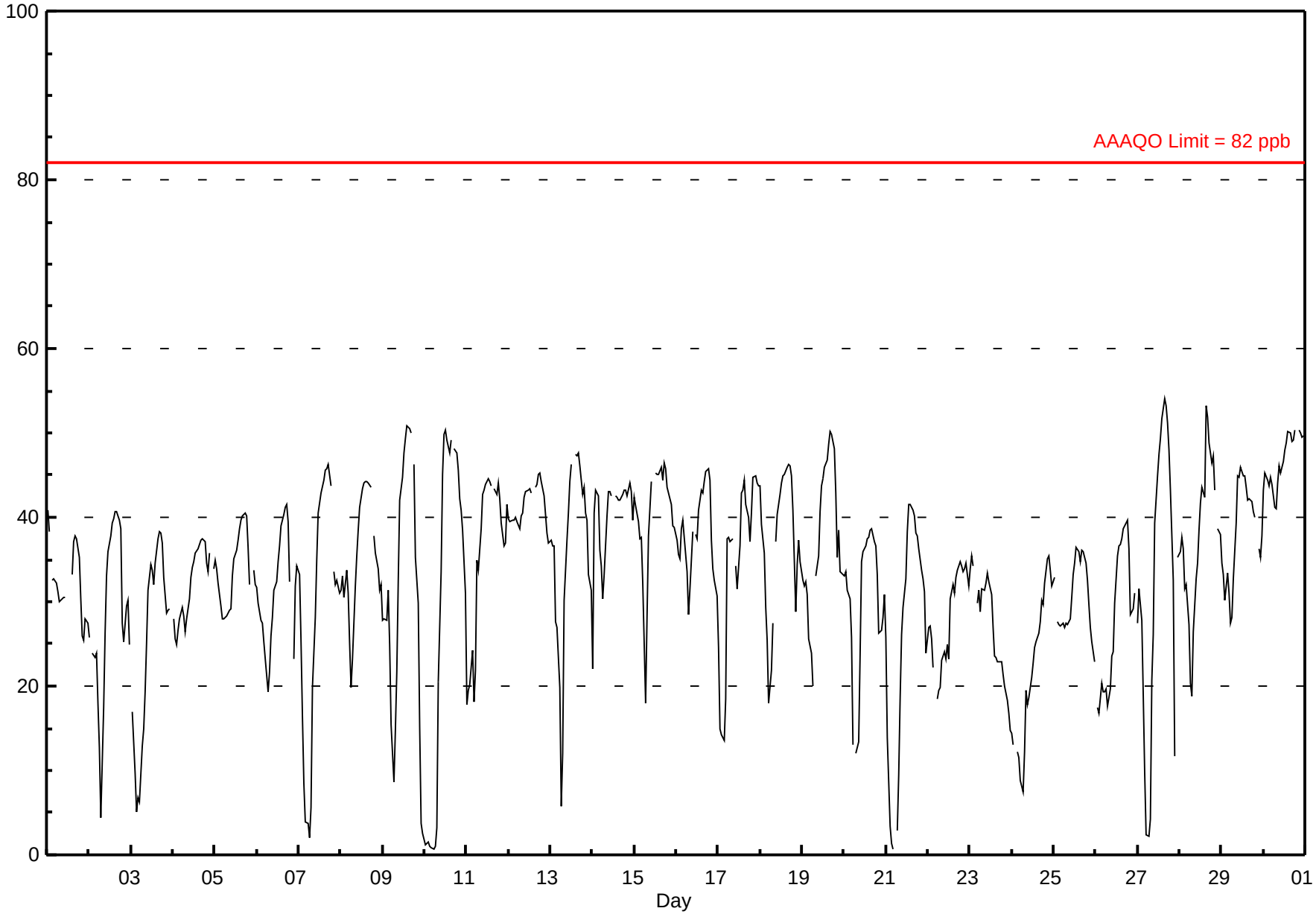
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82 ppb 24-hr na

Peace Airshed Zone Association

Hourly Averages

Ozone (O_3) - ppb

Henry Pirker - April 2015



Peace Airshed Zone Association

Hourly Maximums

Ozone (O_3) - ppb

Henry Pirker - April 2015

Maximum Value: 56.2 ppb on Apr 27 16:00

Maximum Daily Average: 48.6 ppb on Apr 30

Minimum Value: 1 ppb on Apr 10 07:00

Minimum Daily Average: 24.8 ppb on Apr 24

Maximum Diurnal Average: 44.1 ppb at hour 16

Minimum Diurnal Average: 24.4 ppb at hour 7

Monthly Average: 35.99 ppb

Percentiles: P_1 = 4.1 P_{10} = 23.0 Q_1 = 30.6 Median = 37.4 Q_3 = 43.6 P_{90} = 47.2 P_{99} = 53.6

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	42	40	A	34	34	33	33	32	31	31	31	C	C	C	36	39	39	40	38	35	28	30	30	30	34.3	42.4
2-Apr	30	A	27	27	28	21	24	11	30	34	36	38	40	41	42	42	42	42	42	34	29	33	35	33	32.9	42.4
3-Apr	A	21	15	7	10	12	22	19	24	28	35	37	38	34	37	39	40	40	39	36	32	30	30	A	28.3	39.8
4-Apr	30	27	27	28	30	30	30	28	29	33	35	36	36	37	37	37	38	38	38	38	35	37	A	35	33.5	38.5
5-Apr	36	35	33	31	29	29	30	30	31	31	36	36	38	38	40	42	42	43	42	41	34	A	35	34	35.3	42.5
6-Apr	33	32	29	29	27	25	22	25	28	30	33	35	37	40	41	41	42	43	42	37	A	32	36	37	33.6	42.6
7-Apr	35	31	24	15	8	8	5	14	29	32	38	43	45	44	46	47	48	48	47	A	39	34	34	33	32.4	48.3
8-Apr	34	35	33	36	35	31	25	34	35	38	41	43	45	46	46	45	46	46	A	39	37	37	33	35	37.8	45.9
9-Apr	31	30	33	36	33	23	15	19	29	38	45	47	52	51	53	52	52	A	51	42	36	27	11	5	35.1	52.7
10-Apr	2	3	3	2	1	2	1	11	29	41	50	52	52	51	51	52	A	50	50	49	45	42	42	38	31.3	51.9
11-Apr	27	25	27	31	24	34	39	37	43	44	45	45	45	45	45	A	45	44	46	45	41	39	39	44	39.1	45.6
12-Apr	41	40	41	41	41	41	40	42	42	44	44	44	44	44	A	45	45	47	46	46	44	42	40	39	42.6	47.1
13-Apr	39	39	40	36	32	32	10	27	36	39	44	46	47	A	49	49	49	48	46	46	43	43	40	34	39.7	49.1
14-Apr	32	45	45	45	40	37	36	38	43	45	45	44	A	43	43	43	43	44	45	45	44	45	45	41	42.4	45.2
15-Apr	44	43	41	40	40	38	27	36	42	44	46	A	47	47	47	48	47	48	47	46	44	42	42	40	42.9	48.4
16-Apr	39	38	38	40	41	40	36	34	36	42	A	42	41	44	46	46	46	47	47	47	43	38	36	33	40.9	47.4
17-Apr	31	24	24	23	34	41	41	40	40	A	37	33	41	46	46	47	44	45	39	44	48	48	47	46	39.4	48.0
18-Apr	47	42	38	34	28	28	25	31	A	39	42	45	45	46	46	47	47	47	47	46	38	39	38	37	40.1	47.3
19-Apr	37	33	34	32	28	28	26	A	35	38	45	45	46	47	48	51	51	51	50	47	38	40	36	37	40.2	51.0
20-Apr	35	36	34	33	30	25	A	19	16	31	38	37	38	39	40	40	40	39	38	39	31	30	32	32	33.5	40.1
21-Apr	31	20	8	6	4	A	6	14	23	29	33	36	41	43	43	56	44	40	40	39	36	34	34	32	30.0	56.1
22-Apr	29	28	28	25	A	21	23	24	28	29	26	27	28	34	35	33	35	37	38	36	35	35	37	34	30.5	38.0
23-Apr	36	37	36	A	31	34	31	34	34	35	35	35	33	30	25	25	24	25	24	23	22	21	19	16	28.9	36.6
24-Apr	16	15	A	13	13	12	10	21	21	20	21	23	25	27	27	28	30	32	32	36	38	39	38	35	24.8	38.5
25-Apr	35	A	29	29	28	29	28	29	29	30	33	35	36	38	38	37	38	38	38	35	33	29	27	27	32.4	37.9
26-Apr	A	21	22	22	21	21	21	20	23	26	28	33	37	39	38	39	40	41	41	40	33	32	33	A	30.4	40.6
27-Apr	31	33	33	27	14	6	4	20	25	37	46	48	51	51	55	56	56	54	51	47	40	25	A	37	36.8	56.2
28-Apr	39	40	38	34	34	30	24	22	32	34	38	41	45	46	48	56	54	51	48	49	47	A	41	40	40.4	55.6
29-Apr	37	36	33	36	33	31	31	36	44	47	47	48	46	46	46	44	43	44	42	42	A	40	37	43	40.5	47.7
30-Apr	45	46	46	45	46	46	43	44	47	48	47	49	50	51	52	52	51	51	52	A	52	51	52	51	48.6	52.2
	33.7	31.9	30.7	28.7	27.5	27.1	24.4	27.1	32.1	35.7	38.6	40.1	41.7	42.4	42.9	44.1	43.5	43.5	42.9	40.9	38.1	36.2	35.5	34.8	Diurnal Average	
	46.6	46.2	45.7	45.1	46.2	46.2	43.2	44.2	47.2	48.1	50.2	51.7	52.5	51.2	54.7	56.2	56.2	53.7	52.2	49.2	51.7	51.2	51.6	51.3	Diurnal Maximum	

C - Calibration

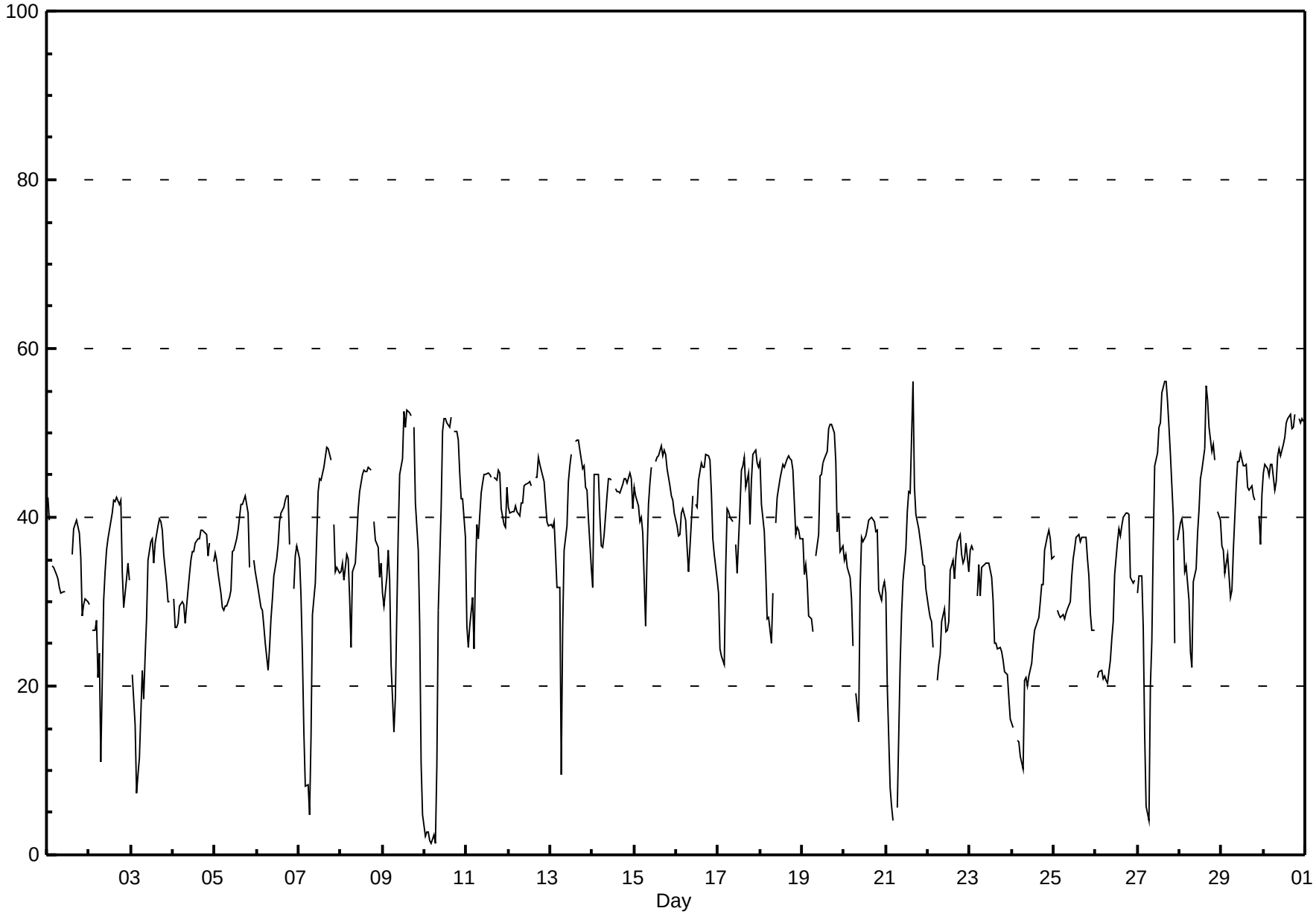
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Ozone (O_3) - ppb

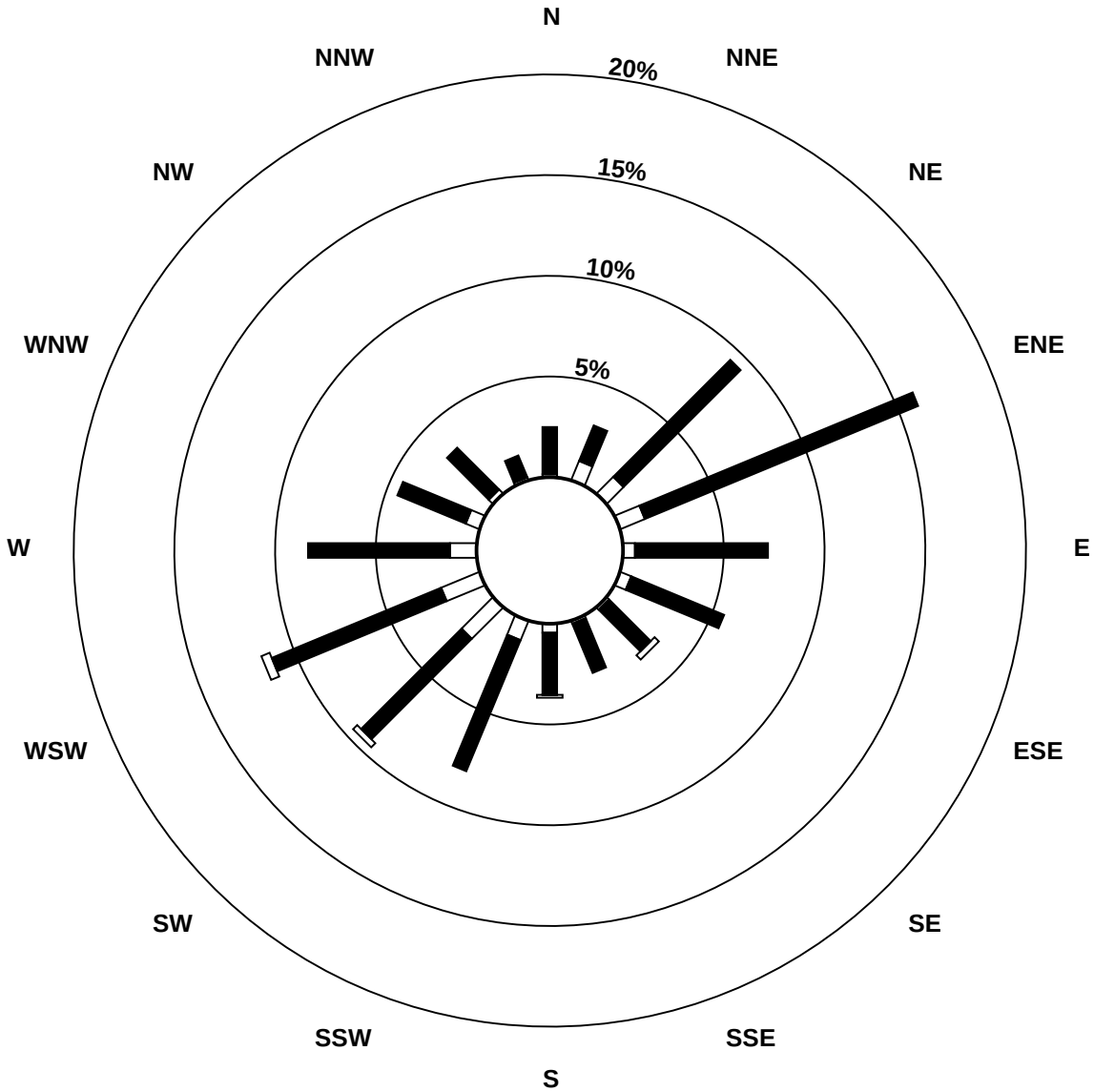
Henry Pirker - April 2015



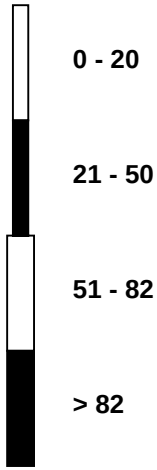
Pollutant Rose

Ozone (O_3) - ppb

Henry Pirker - April 2015



Pollutant Classes (ppb)



Peace Airshed Zone Association

Eight Hour Running Averages

Ozone (O_3) - ppb

Henry Pirker - April 2015

Maximum Value: 50.0 ppb on Apr 27 19:00

Minimum Value: 1.3 ppb on Apr 10 07:00

Percentiles: P_1 = 7.7 P_{10} = 21.3 Q_1 = 28.1 Median = 33.9 Q_3 = 39.9 P_{90} = 43.6 P_{99} = 49.1

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	39	39	39	39	38	37	35	34	32	31	31	31	31	N	N	N	N	N	N	35	34	33	32	31	39.4
2-Apr	29	28	27	26	25	24	22	19	18	19	20	21	23	26	29	34	37	38	39	38	36	35	34	32	39.1
3-Apr	31	28	23	20	18	14	12	10	11	12	15	19	22	25	28	31	33	35	36	36	35	34	34	33	35.7
4-Apr	32	30	28	27	27	27	27	27	27	28	29	30	30	31	32	34	35	36	36	36	36	36	36	36	36.3
5-Apr	35	35	34	33	33	31	31	30	30	29	29	30	31	32	33	35	36	38	38	39	38	38	38	36	38.6
6-Apr	35	34	32	31	30	29	27	26	25	25	25	26	27	29	31	34	35	37	38	38	39	37	36	35	38.7
7-Apr	34	31	28	25	22	20	16	12	11	11	13	17	22	27	32	37	41	43	44	44	43	42	40	38	44.3
8-Apr	36	34	32	32	32	31	29	29	29	29	30	31	32	35	38	40	42	43	44	43	42	40	39	37	43.5
9-Apr	35	32	32	31	30	27	24	22	22	22	24	26	28	33	38	42	46	48	48	47	45	40	33	26	48.5
10-Apr	19	17	11	7	3	2	1	1	4	8	13	19	26	32	37	43	46	48	49	48	47	46	45	42	48.8
11-Apr	39	35	32	29	26	24	23	24	26	29	32	35	38	41	42	43	44	44	44	44	43	42	41	41	43.8
12-Apr	40	40	39	39	39	40	40	40	40	40	40	41	41	42	42	43	43	44	44	44	44	44	43	42	44.0
13-Apr	41	40	39	37	35	32	28	25	24	25	25	27	30	31	37	42	44	46	46	46	45	44	43	41	46.0
14-Apr	37	37	37	37	36	35	35	35	38	38	38	38	38	39	41	42	43	42	43	43	43	43	43	43	42.9
15-Apr	43	42	42	41	41	39	36	35	34	34	35	34	35	37	41	44	44	45	45	45	45	44	44	43	45.4
16-Apr	42	40	39	39	38	38	37	36	35	35	35	35	35	35	37	39	41	42	42	43	43	42	41	39	43.0
17-Apr	37	33	29	25	23	23	24	25	26	28	31	33	36	37	38	39	39	39	40	41	42	42	42	42	42.2
18-Apr	42	42	42	41	38	35	32	30	28	28	28	30	33	37	40	43	43	44	45	45	43	42	41	39	45.0
19-Apr	37	36	34	33	32	31	29	28	28	29	30	32	35	38	41	42	45	46	47	47	46	45	43	41	47.2
20-Apr	39	37	35	34	32	29	29	26	23	21	22	23	24	28	29	32	35	37	37	37	36	34	33	32	39.3
21-Apr	31	28	24	20	16	15	11	8	7	9	13	17	23	25	30	34	36	38	39	39	39	38	36	34	39.3
22-Apr	33	31	30	28	27	25	23	23	22	22	21	22	22	24	25	26	28	29	30	32	33	33	34	34	33.7
23-Apr	34	34	34	34	33	33	32	32	32	31	31	31	31	31	30	29	28	27	26	24	23	22	21	20	34.0
24-Apr	19	18	17	16	14	13	12	11	12	13	14	15	16	18	20	22	23	25	26	27	29	30	31	32	32.0
25-Apr	33	33	33	32	31	30	29	28	27	27	28	28	29	31	32	33	34	35	35	35	34	33	32	30	35.2
26-Apr	30	27	25	23	21	20	19	19	19	20	20	22	24	26	28	30	33	35	37	37	37	36	35	35	37.5
27-Apr	33	32	30	28	25	21	17	16	15	14	16	19	23	29	35	42	46	49	50	50	48	43	42	39	50.0
28-Apr	37	35	33	32	31	34	32	30	29	28	28	29	30	32	35	39	42	44	46	47	47	48	47	45	47.6
29-Apr	42	40	38	36	34	33	32	31	32	33	35	37	39	41	43	44	44	44	43	43	42	41	40	39	44.1
30-Apr	39	40	40	41	41	42	43	43	44	44	44	44	45	45	46	47	48	48	49	49	50	50	50	50	49.8
Diurnal Maximums	42.6	42.5	42.1	41.3	41.3	42.3	43.0	43.4	43.5	43.6	43.7	44.1	44.5	45.1	46.2	47.4	48.0	48.9	50.0	49.8	49.7	49.8	49.7	49.7	

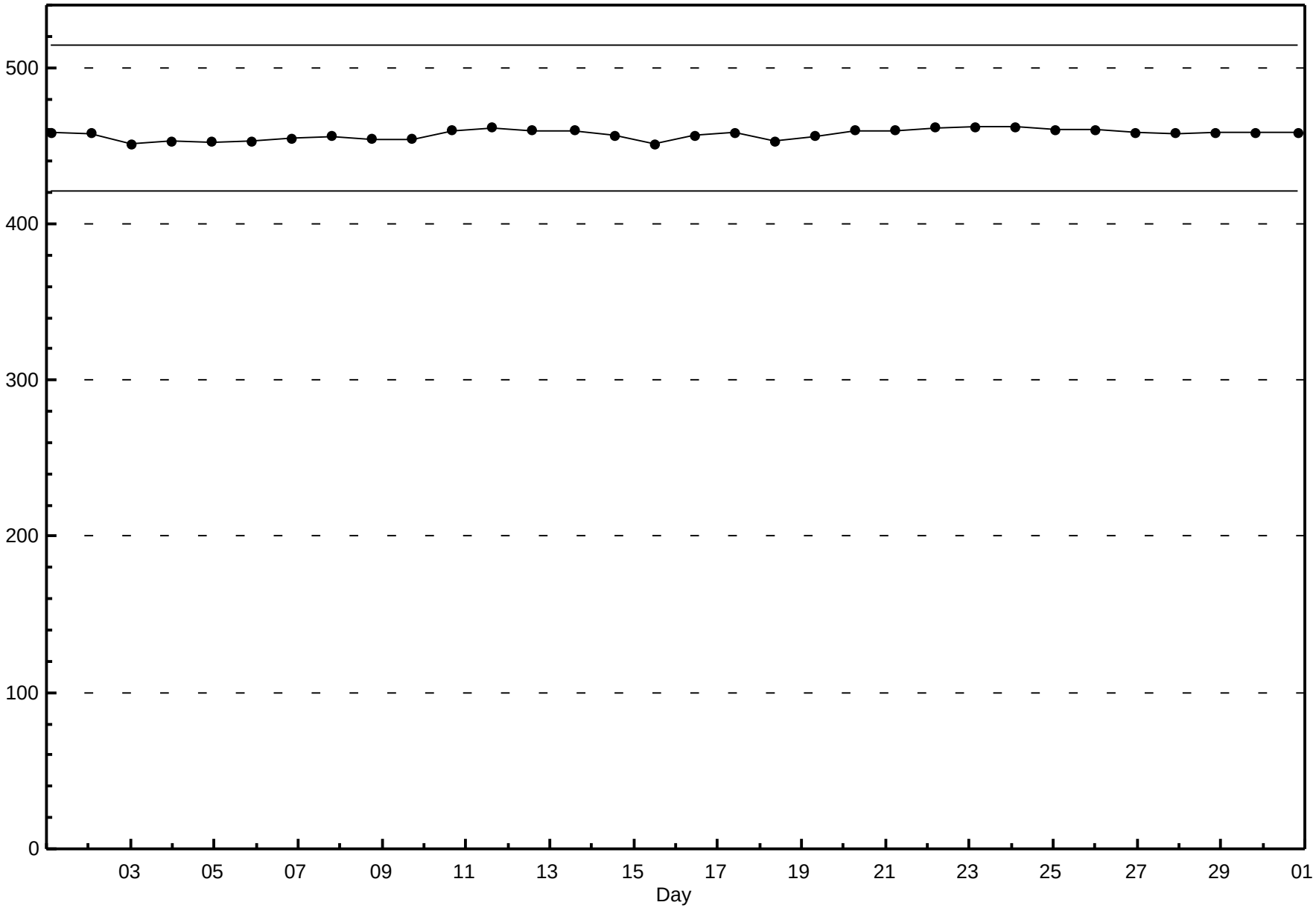
N - Not Valid

Peace Airshed Zone Association

Span Responses

Ozone (O_3)

Henry Pirker - April 2015



Peace Airshed Zone Association

Hourly Averages

Carbon Monoxide (CO) - ppm

Henry Pirker - April 2015

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

Maximum Value: 0.69 ppm on Apr 10 03:00

Maximum Daily Average: 0.31 ppm on Apr 10

Minimum Value: 0.0 ppm on Apr 2 16:00

Minimum Daily Average: 0.16 ppm on Apr 12

Maximum Diurnal Average: 0.27 ppm at hour 8

Minimum Diurnal Average: 0.16 ppm at hour 16

Monthly Average: 0.195 ppm

Percentiles: P_1 = 0.14 P_{10} = 0.16 Q_1 = 0.17 Median = 0.18 Q_3 = 0.20 P_{90} = 0.24 P_{99} = 0.58

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	0.2	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	0.19	0.24
2-Apr	0.2	A	0.2	0.3	0.3	0.4	0.4	0.7	0.5	0.4	0.4	C	C	C	C	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.25	0.68
3-Apr	A	0.2	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	A	0.21	0.28
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	A	0.2	0.18	0.19
5-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	A	0.2	0.2	0.18	0.20
6-Apr	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	0.2	0.2	0.2	0.2	0.2	0.2	A	0.3	0.3	0.2	0.21	0.31
7-Apr	0.2	0.2	0.3	0.2	0.2	0.2	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	A	0.2	0.2	0.2	0.2	0.21	0.46
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	A	0.2	0.2	0.2	0.2	0.2	0.19	0.25
9-Apr	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	0.2	0.2	0.2	A	0.2	0.2	0.3	0.4	0.6	0.7	0.24	0.68
10-Apr	0.6	0.5	0.7	0.5	0.5	0.4	0.5	0.6	0.3	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	0.31	0.69
11-Apr	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18	0.27
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	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.16	0.16
13-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.5	0.6	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	0.21	0.58
14-Apr	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18	0.28
15-Apr	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18	0.24
16-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	0.19	0.22
17-Apr	0.2	0.3	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	0.2	0.2	0.2	0.2	0.2	0.21	0.27
18-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	0.4	0.2	0.2	0.2	0.18	0.36
19-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	0.2	0.2	0.2	0.17	0.20
20-Apr	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.19	0.29
21-Apr	0.2	0.3	0.3	0.3	0.2	A	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	0.21	0.36
22-Apr	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	0.2	0.17	0.21
23-Apr	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.17	0.19
24-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	0.19	0.24
25-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	0.18	0.24
26-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	0.3	0.2	0.2	A	0.19	0.27
27-Apr	0.2	0.2	0.2	0.2	0.3	0.3	0.6	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	0.3	0.5	A	0.2	0.25	0.63
28-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.17	0.24
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	A	0.2	0.2	0.2	0.17	0.20
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	A	0.2	0.2	0.2	0.2	0.17	0.20
	0.20	0.19	0.21	0.20	0.20	0.21	0.25	0.27	0.21	0.19	0.19	0.17	0.17	0.17	0.17	0.16	0.16	0.16	0.17	0.18	0.21	0.21	0.20	0.20	Diurnal Average	
	0.58	0.50	0.69	0.54	0.46	0.39	0.63	0.68	0.53	0.45	0.45	0.22	0.21	0.19	0.20	0.21	0.20	0.19	0.20	0.22	0.36	0.54	0.59	0.68	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

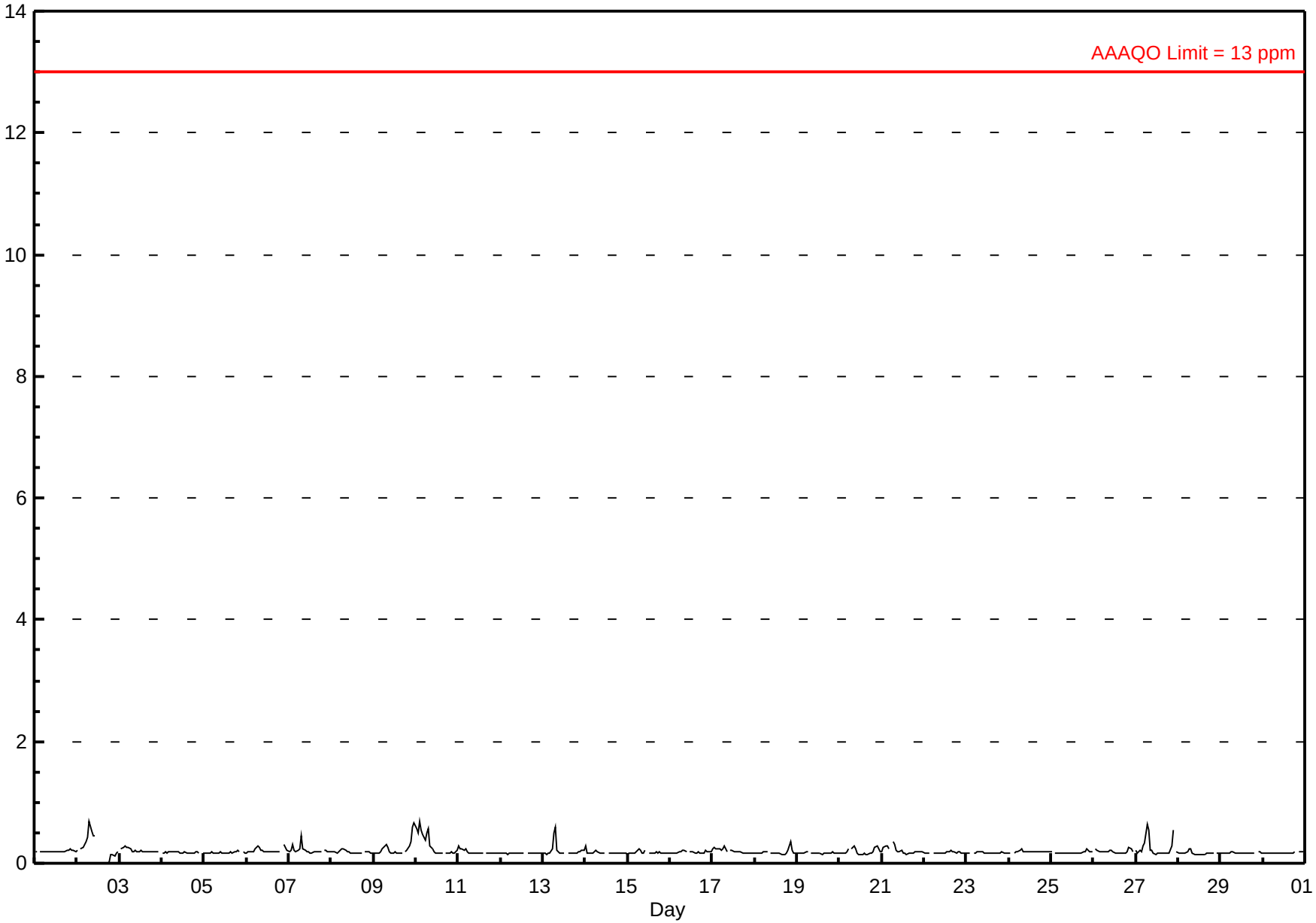
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 13 ppm 24-hr na

Peace Airshed Zone Association

Hourly Averages

Carbon Monoxide (CO) - ppm

Henry Pirker - April 2015



Peace Airshed Zone Association

Hourly Maximums

Carbon Monoxide (CO) - ppm

Henry Pirker - April 2015

Maximum Value: 5.90 ppm on Apr 7 08:00

Maximum Daily Average: 0.51 ppm on Apr 7

Minimum Value: 0.0 ppm on Apr 2 16:00

Minimum Daily Average: 0.17 ppm on Apr 12

Maximum Diurnal Average: 0.54 ppm at hour 8

Minimum Diurnal Average: 0.18 ppm at hour 17

Monthly Average: 0.250 ppm

Percentiles: $P_1 = 0.16$ $P_{10} = 0.17$ $Q_1 = 0.18$ Median = 0.20 $Q_3 = 0.24$ $P_{90} = 0.32$ $P_{99} = 0.97$

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	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.5	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.23	0.51
2-Apr	0.2	A	0.3	0.3	0.4	0.5	0.6	0.9	0.6	0.5	0.5	C	C	C	C	0.0	0.0	0.0	0.1	0.4	0.2	0.2	0.2	0.2	0.32	0.92
3-Apr	A	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	A	0.26	0.33
4-Apr	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	A	0.2	0.22	0.33
5-Apr	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	A	0.2	0.2	0.22	0.32
6-Apr	0.2	0.2	0.2	0.2	0.3	0.6	0.4	0.4	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.4	0.5	0.2	0.29	0.62
7-Apr	0.2	0.2	1.1	0.3	0.2	0.2	0.3	5.9	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.3	0.2	0.2	0.2	0.51	5.90
8-Apr	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	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.21	0.31
9-Apr	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.3	0.3	0.2	0.2	0.2	0.4	0.2	0.2	0.2	0.2	A	0.2	0.4	0.5	0.6	0.8	0.9	0.32	0.88
10-Apr	0.8	0.8	0.8	0.7	0.7	0.6	1.0	0.8	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	0.2	0.3	0.40	1.00
11-Apr	0.4	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	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21	0.39
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	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.17	0.19
13-Apr	0.2	0.2	0.2	0.2	0.2	0.3	1.2	1.2	0.3	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.29	1.21
14-Apr	0.6	0.3	0.2	0.2	0.2	0.2	0.3	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	0.21	0.65
15-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	2.0	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	0.27	2.02
16-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.2	0.21	0.29
17-Apr	0.3	0.3	0.3	0.4	0.3	0.2	0.3	0.5	0.2	A	0.2	0.8	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.27	0.76
18-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	0.3	0.5	0.4	0.2	0.2	0.21	0.46
19-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	0.2	0.2	0.2	0.19	0.22
20-Apr	0.2	0.2	0.2	0.2	0.3	0.3	A	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	0.3	0.4	0.3	0.2	0.24	0.42
21-Apr	0.2	0.3	0.4	0.3	0.3	A	0.7	0.4	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.26	0.69
22-Apr	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20	0.25
23-Apr	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.2	0.20	0.37
24-Apr	0.2	0.2	A	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.23	0.34
25-Apr	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.22	0.32
26-Apr	A	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	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	A	0.22	0.32
27-Apr	0.3	0.2	0.3	0.3	0.4	0.5	1.3	0.7	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.7	0.8	A	0.2	0.35	1.29
28-Apr	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.19	0.31
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	A	0.2	0.2	0.2	0.19	0.24
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	A	0.2	0.2	0.2	0.2	0.19	0.22
	0.24	0.23	0.27	0.23	0.26	0.28	0.38	0.54	0.25	0.23	0.28	0.22	0.21	0.19	0.20	0.19	0.18	0.19	0.20	0.23	0.27	0.27	0.24	0.23	Diurnal Average	
	0.80	0.76	1.10	0.66	0.66	0.62	1.29	5.90	0.59	0.49	2.02	0.76	0.51	0.24	0.28	0.25	0.23	0.28	0.27	0.43	0.71	0.81	0.76	0.88	Diurnal Maximum	

C - Calibration

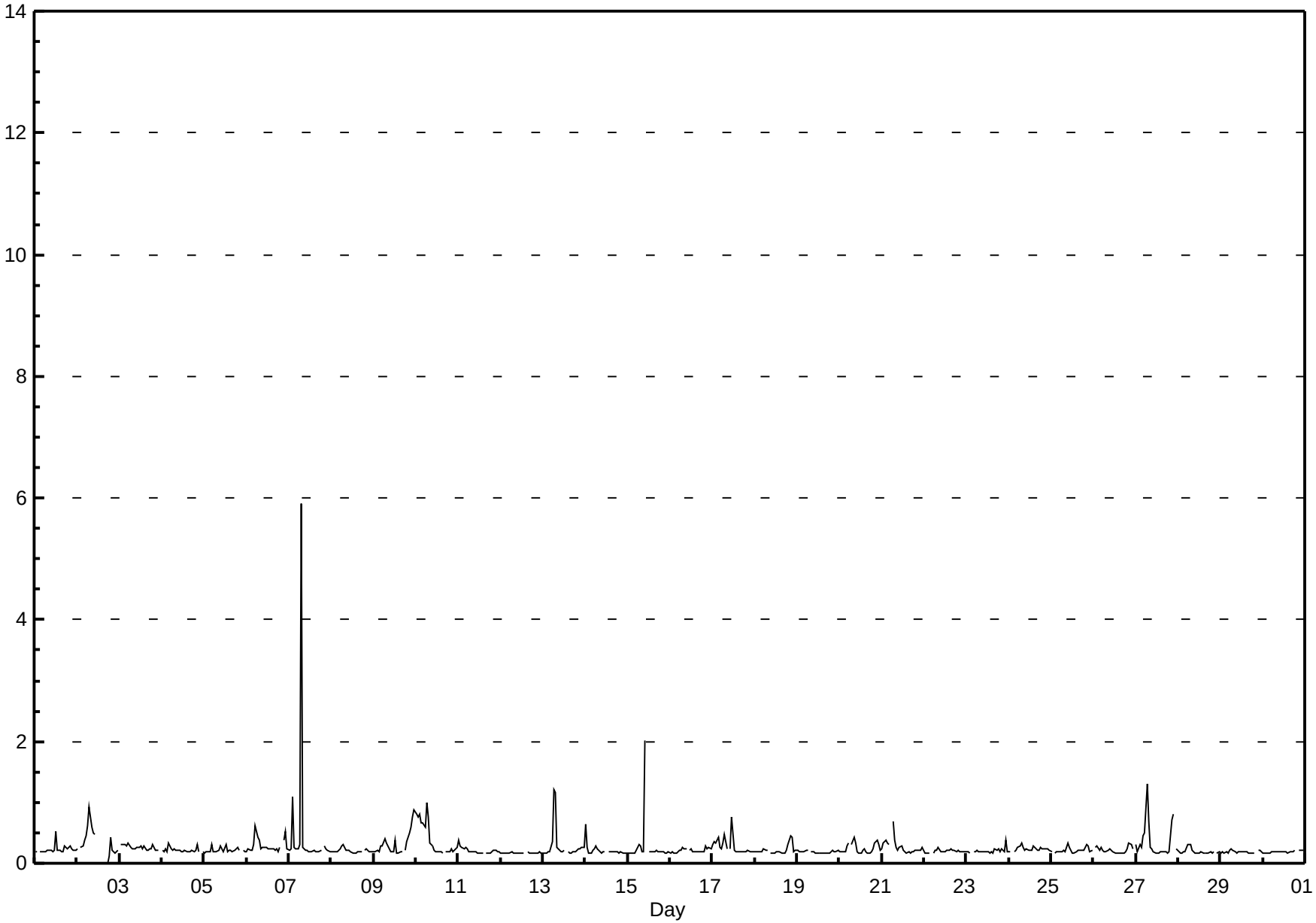
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Carbon Monoxide (CO) - ppm

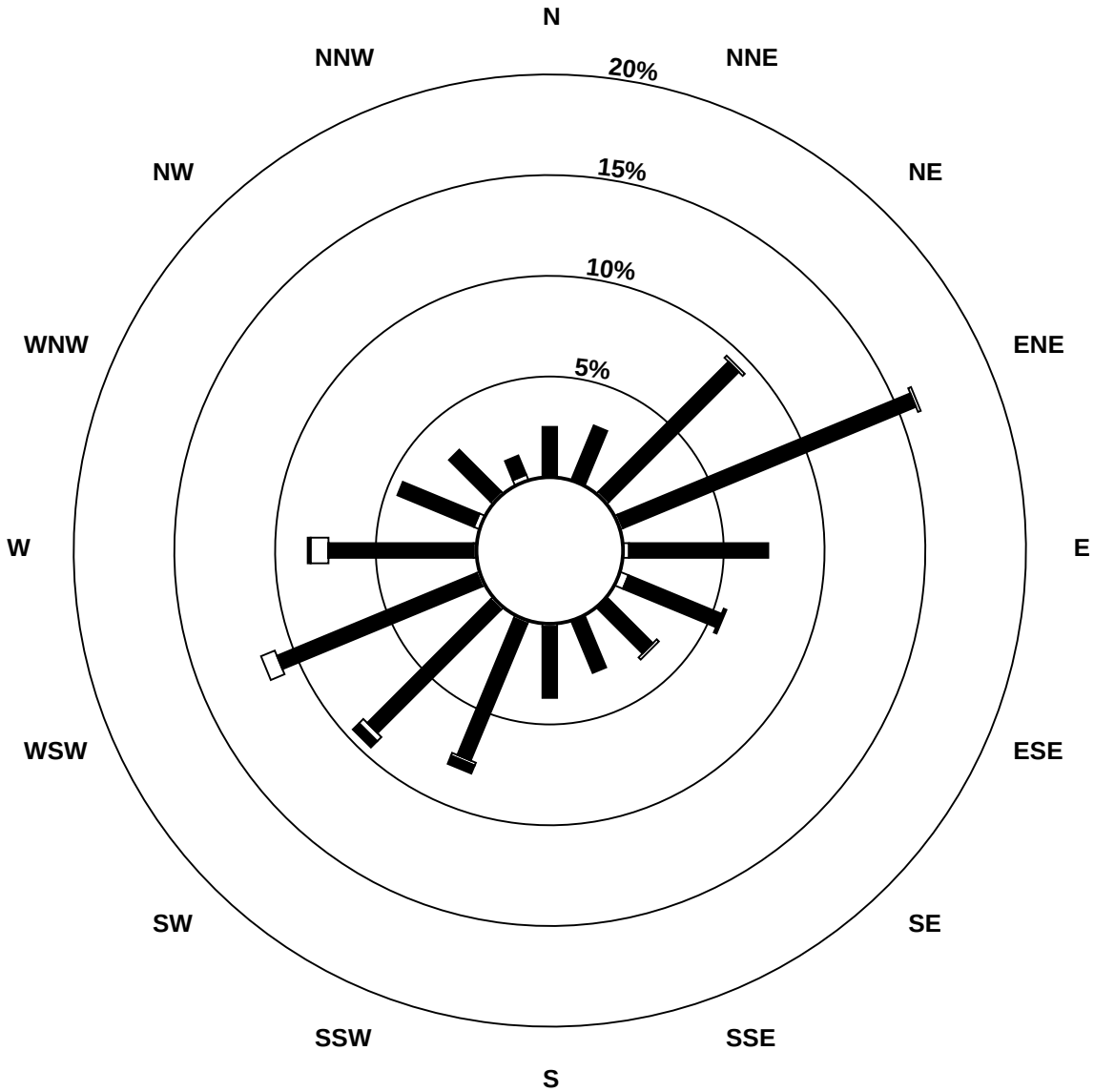
Henry Pirker - April 2015



Pollutant Rose

Carbon Monoxide (CO) - ppm

Henry Pirker - April 2015



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 2015

Number of Exceedences (AAAQO): 8-hr: 0
Maximum Value: 0.55 ppm on Apr 10 06:00

Minimum Value: 0.02 ppm on Apr 2 21:00

Percentiles: P_1 = 0.15 P_{10} = 0.16 Q_1 = 0.17 Median = 0.18 Q_3 = 0.20 P_{90} = 0.23 P_{99} = 0.49

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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21
2-Apr	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.4	0.4	0.5	0.5	N	N	N	N	N	N	N	0.0	0.0	0.1	0.1	0.48
3-Apr	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.25
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	0.19
5-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
6-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22
7-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.26
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	0.20
9-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	0.3	0.4	0.35
10-Apr	0.4	0.4	0.5	0.5	0.5	0.6	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.55
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	0.22
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	0.17
13-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.28
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	0.20
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	0.2	0.19
16-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20
17-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.24
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	0.20
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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20
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	0.22
21-Apr	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	0.2	0.27
22-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19
23-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18
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	0.20
25-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20
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	0.21
27-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.33
28-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
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	0.17
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	0.19
Diurnal Maximums	0.41	0.42	0.49	0.53	0.55	0.55	0.54	0.53	0.49	0.46	0.43	0.45	0.48	0.29	0.25	0.20	0.20	0.19	0.19	0.20	0.20	0.22	0.28	0.35	

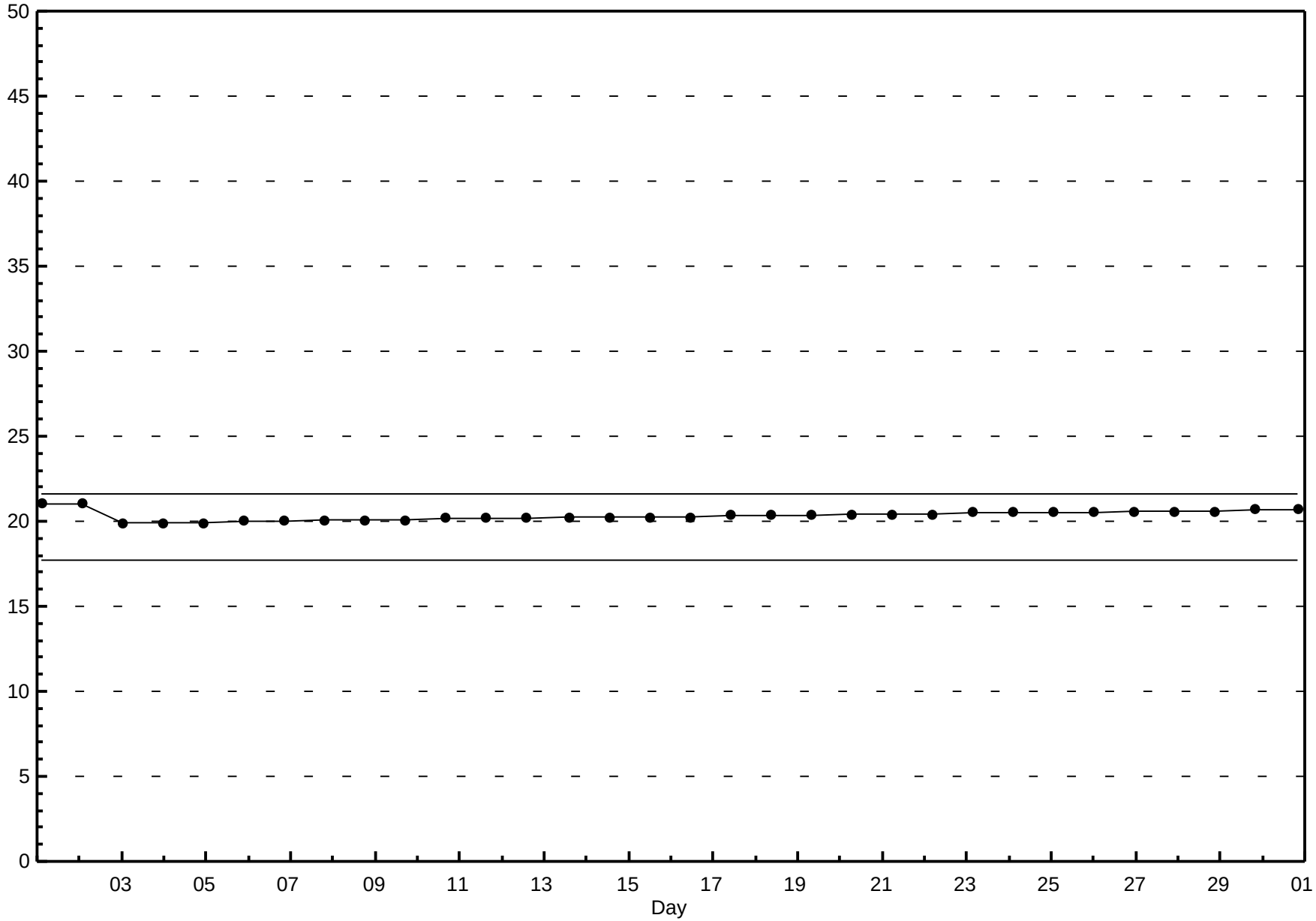
N - Not Valid
Alberta Ambient Air Quality Objectives (AAAQO): 8-hr 5 ppm

Peace Airshed Zone Association

Span Responses

Carbon Monoxide (CO)

Henry Pirker - April 2015



Peace Airshed Zone Association

Hourly Averages

Total Hydrocarbons (THC) - ppm

Henry Pirker - April 2015

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

Maximum Value: 5.09 ppm on Apr 10 04:00

Maximum Daily Average: 2.57 ppm on Apr 10

Minimum Value: 1.8 ppm on Apr 21 20:00

Minimum Daily Average: 1.86 ppm on Apr 30

Maximum Diurnal Average: 2.20 ppm at hour 4

Minimum Diurnal Average: 1.87 ppm at hour 15

Monthly Average: 1.966 ppm

Percentiles: P_1 = 1.84 P_{10} = 1.86 Q_1 = 1.87 Median = 1.89 Q_3 = 1.93 P_{90} = 2.06 P_{99} = 3.40

Hours in Service:	720
Hours of Data:	682
Hours of Missing Data:	38
Hours of Calibration:	38
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	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.3	2.0	1.9	1.9	1.92	2.26
2-Apr	1.9	A	1.9	2.0	2.0	2.0	2.1	3.1	2.1	1.9	1.9	1.9	1.9	C	C	C	1.9	1.9	1.9	2.2	2.0	1.9	1.9	2.4	2.05	3.09
3-Apr	A	2.9	2.4	2.9	2.6	2.3	2.1	2.2	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.11	2.92
4-Apr	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.90	1.92
5-Apr	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	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	1.90	1.91
6-Apr	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1	A	2.0	2.0	1.9	1.94	2.08
7-Apr	1.9	2.7	2.4	3.9	2.6	2.9	2.8	2.8	2.0	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	2.19	3.94
8-Apr	1.9	1.9	1.9	1.9	1.9	2.0	2.4	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.92	2.40
9-Apr	2.0	2.2	2.0	2.0	2.0	2.0	2.0	2.9	2.2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	2.2	2.4	2.2	2.2	2.04	2.95
10-Apr	5.0	4.1	3.2	5.1	3.4	3.5	3.2	3.4	2.1	2.0	1.9	1.9	1.9	1.8	1.8	1.8	A	1.8	1.8	1.8	1.9	1.8	1.9	1.9	2.57	5.09
11-Apr	2.6	2.1	2.3	2.5	2.8	2.2	1.9	1.9	1.9	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	1.9	2.00	2.79
12-Apr	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.87	1.89
13-Apr	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.1	2.0	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1	1.93	2.06
14-Apr	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.90	2.11
15-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	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.90	1.95
16-Apr	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.90	1.95
17-Apr	2.0	2.6	2.4	2.3	2.1	1.9	1.9	1.9	C	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	1.99	2.65
18-Apr	1.9	1.9	1.9	1.9	2.0	2.0	2.0	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	1.92	1.97
19-Apr	1.9	1.9	1.9	1.9	1.9	2.0	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.91	1.99
20-Apr	2.0	2.0	1.9	2.1	2.6	2.5	A	2.1	2.2	1.9	1.9	1.8	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.97	2.64
21-Apr	2.2	2.5	3.3	2.6	3.1	A	2.9	2.2	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	1.9	2.1	2.11	3.26
22-Apr	1.9	1.9	1.9	1.9	A	1.9	1.9	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	1.9	1.9	1.9	1.9	1.87	1.94
23-Apr	1.9	1.9	1.9	A	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.2	1.91	2.15
24-Apr	2.0	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.91	2.02
25-Apr	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1	1.91	2.08
26-Apr	A	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	A	1.93	2.02
27-Apr	2.0	2.0	2.0	2.1	2.1	2.4	2.3	2.2	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	A	1.9	1.97	2.36
28-Apr	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	1.8	1.8	1.9	1.9	1.9	1.9	A	1.9	1.9	1.87	1.90
29-Apr	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	A	1.9	1.9	1.9	1.88	1.98
30-Apr	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.86	1.87
	2.07	2.11	2.07	2.20	2.12	2.07	2.07	2.10	1.95	1.91	1.89	1.88	1.88	1.88	1.87	1.87	1.88	1.88	1.88	1.90	1.91	1.92	1.92	1.96	Diurnal Average	
	5.01	4.07	3.26	5.09	3.40	3.46	3.20	3.40	2.19	2.02	1.99	1.95	1.93	1.93	1.91	1.91	1.94	1.93	1.98	2.24	2.26	2.43	2.17	2.42	Diurnal Maximum	

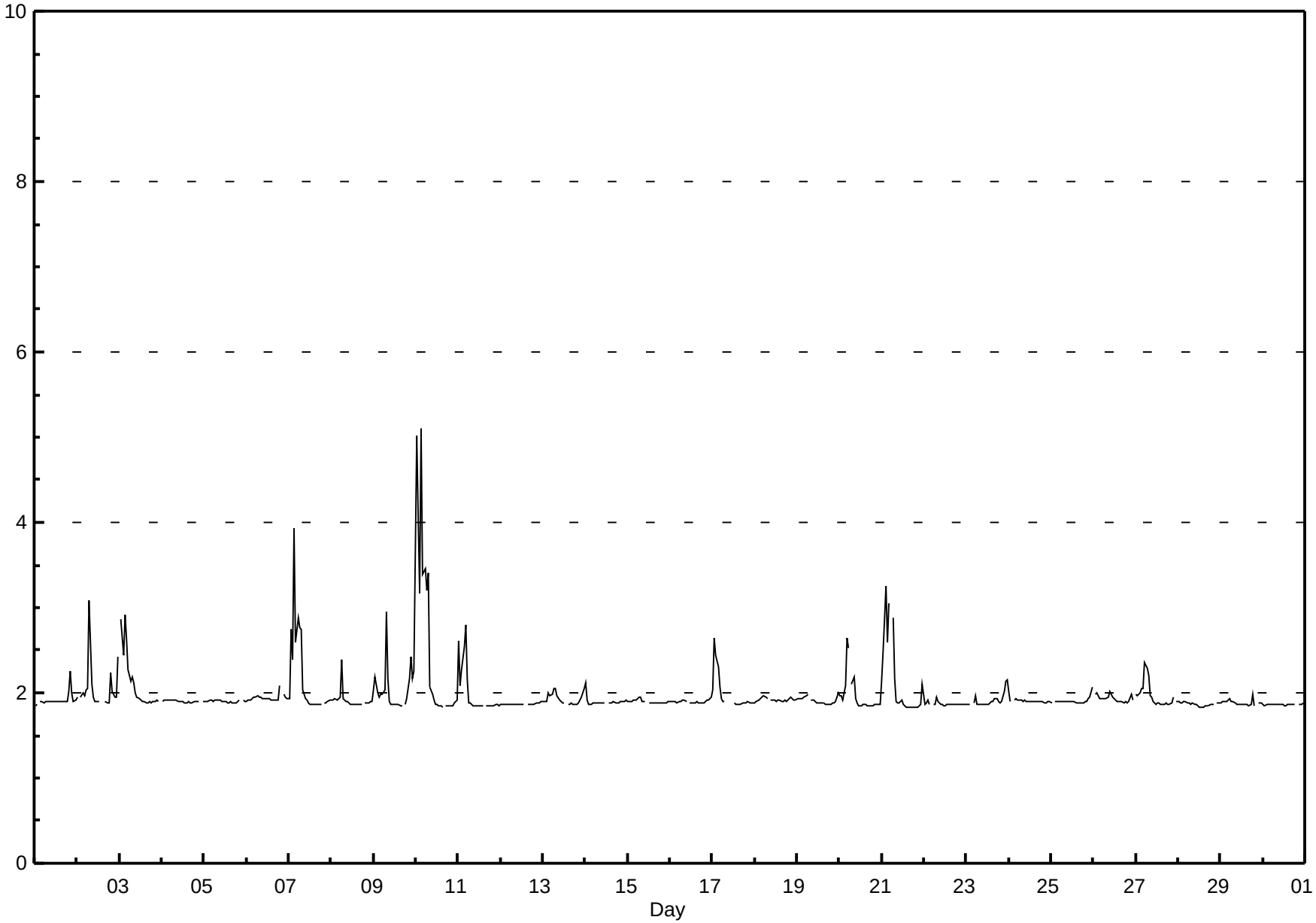
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Total Hydrocarbons (THC) - ppm

Henry Pirker - April 2015



Peace Airshed Zone Association

Hourly Maximums

Total Hydrocarbons (THC) - ppm

Henry Pirker - April 2015

Maximum Value: 11.16 ppm on Apr 10 01:00

Maximum Daily Average: 3.77 ppm on Apr 10

Minimum Value: 1.8 ppm on Apr 21 20:00

Minimum Daily Average: 1.88 ppm on Apr 30

Maximum Diurnal Average: 2.60 ppm at hour 4

Minimum Diurnal Average: 1.91 ppm at hour 15

Monthly Average: 2.149 ppm

Percentiles: P_1 = 1.87 P_{10} = 1.88 Q_1 = 1.89 Median = 1.93 Q_3 = 2.00 P_{90} = 2.37 P_{99} = 6.03

Hours in Service:	720
Hours of Data:	682
Hours of Missing Data:	38
Hours of Calibration:	38
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	1.9	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	2.0	2.0	3.5	3.1	3.2	1.9	1.9	2.10	3.47
2-Apr	2.0	A	2.0	2.1	2.1	2.2	2.4	6.0	2.9	2.0	1.9	1.9	1.9	C	C	C	2.0	1.9	2.0	4.7	2.2	2.1	2.2	5.6	2.60	6.04
3-Apr	A	4.9	3.1	4.8	4.0	2.6	2.3	2.4	2.3	2.0	2.0	2.0	2.0	1.9	2.0	1.9	1.9	2.1	1.9	1.9	2.0	2.0	2.0	A	2.46	4.86
4-Apr	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	2.0	1.9	1.9	1.9	2.1	1.9	1.9	2.0	2.0	1.9	1.9	A	2.0	1.97	2.12
5-Apr	2.0	2.1	1.9	2.0	2.0	1.9	2.0	2.1	2.0	2.1	2.1	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.97	2.09
6-Apr	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	1.9	1.9	1.9	1.9	2.0	1.9	2.1	2.4	A	2.0	2.0	1.9	1.99	2.45
7-Apr	1.9	5.1	3.9	6.1	3.9	4.5	3.1	3.5	2.2	2.0	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	2.66	6.15
8-Apr	1.9	2.0	2.0	2.1	2.0	2.2	3.5	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	2.01	3.45
9-Apr	2.3	2.4	2.2	2.2	2.3	2.1	2.2	3.4	2.6	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	2.3	2.8	3.6	3.1	3.0	2.33	3.57
10-Apr	11.2	8.1	4.1	9.3	5.2	5.2	8.2	6.0	2.2	2.1	2.0	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	2.1	2.1	3.77	11.16
11-Apr	6.5	2.5	2.6	2.7	3.5	2.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.29	6.52
12-Apr	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.89	1.92
13-Apr	1.9	1.9	1.9	2.4	2.2	2.2	2.4	2.3	2.0	2.0	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.2	2.02	2.39
14-Apr	2.3	2.2	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	2.0	2.3	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.96	2.32
15-Apr	1.9	1.9	1.9	1.9	2.0	1.9	2.0	2.0	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.92	2.02
16-Apr	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	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.92	2.00
17-Apr	2.3	4.2	5.2	2.6	2.1	2.0	1.9	1.9	C	C	C	C	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	2.26	5.18
18-Apr	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	A	1.9	2.0	2.0	1.9	1.9	1.9	2.0	1.9	2.0	2.0	1.9	2.0	2.0	1.9	1.9	1.96	2.05
19-Apr	2.0	1.9	1.9	1.9	2.0	2.0	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.3	1.94	2.32
20-Apr	2.3	2.5	1.9	3.2	3.9	4.6	A	2.6	3.3	2.0	2.0	1.9	2.0	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.31	4.61
21-Apr	2.5	3.6	7.5	3.0	5.5	A	3.5	2.6	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	2.0	1.9	1.9	2.8	2.59	7.54
22-Apr	1.9	2.0	2.0	1.9	A	1.9	1.9	2.2	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.91	2.18
23-Apr	1.9	1.9	1.9	A	1.9	3.3	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.1	2.1	1.9	1.9	1.9	2.2	2.3	2.4	2.03	3.25
24-Apr	2.3	1.9	A	1.9	2.1	2.0	1.9	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.98	2.34
25-Apr	1.9	A	2.0	1.9	1.9	1.9	2.0	1.9	1.9	2.0	1.9	1.9	1.9	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.1	1.95	2.14
26-Apr	A	2.0	2.1	2.0	1.9	2.0	1.9	2.0	2.0	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1	1.9	A	1.97	2.08
27-Apr	2.2	2.0	2.2	2.2	2.1	3.3	2.5	2.4	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	A	1.9	2.08	3.26
28-Apr	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	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	1.89	1.92
29-Apr	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.9	1.9	A	1.9	1.9	1.9	1.95	2.94
30-Apr	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.88	1.90
	2.52	2.59	2.49	2.60	2.49	2.41	2.38	2.43	2.08	1.95	1.93	1.92	1.91	1.92	1.91	1.92	1.92	1.91	1.95	2.10	2.01	2.05	2.00	2.18	Diurnal Average	
	11.16	8.11	7.54	9.28	5.48	5.20	8.24	6.04	3.28	2.09	2.06	2.05	2.05	2.06	2.01	2.12	2.32	2.08	2.94	4.72	3.13	3.57	3.10	5.60	Diurnal Maximum	

C - Calibration

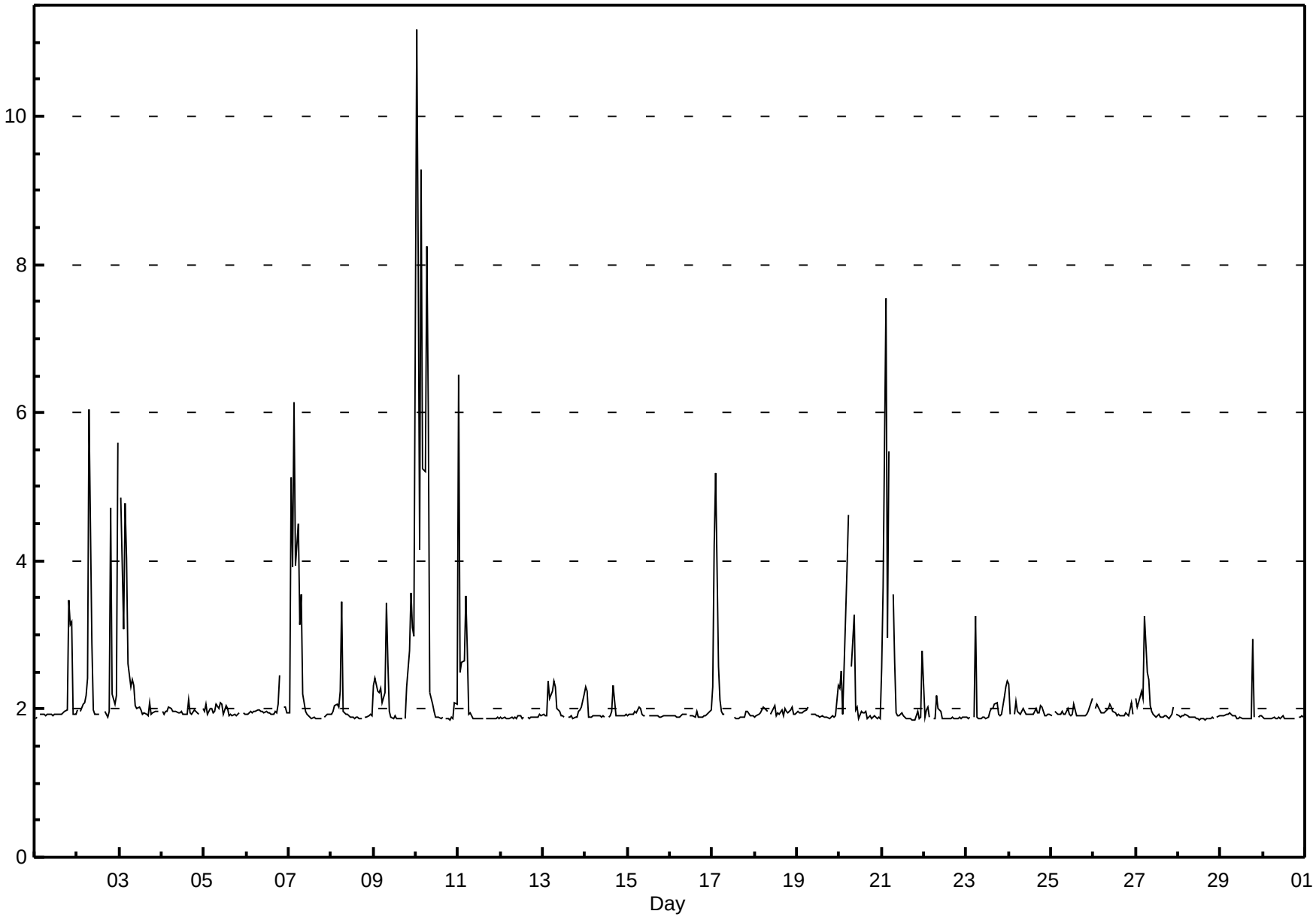
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Total Hydrocarbons (THC) - ppm

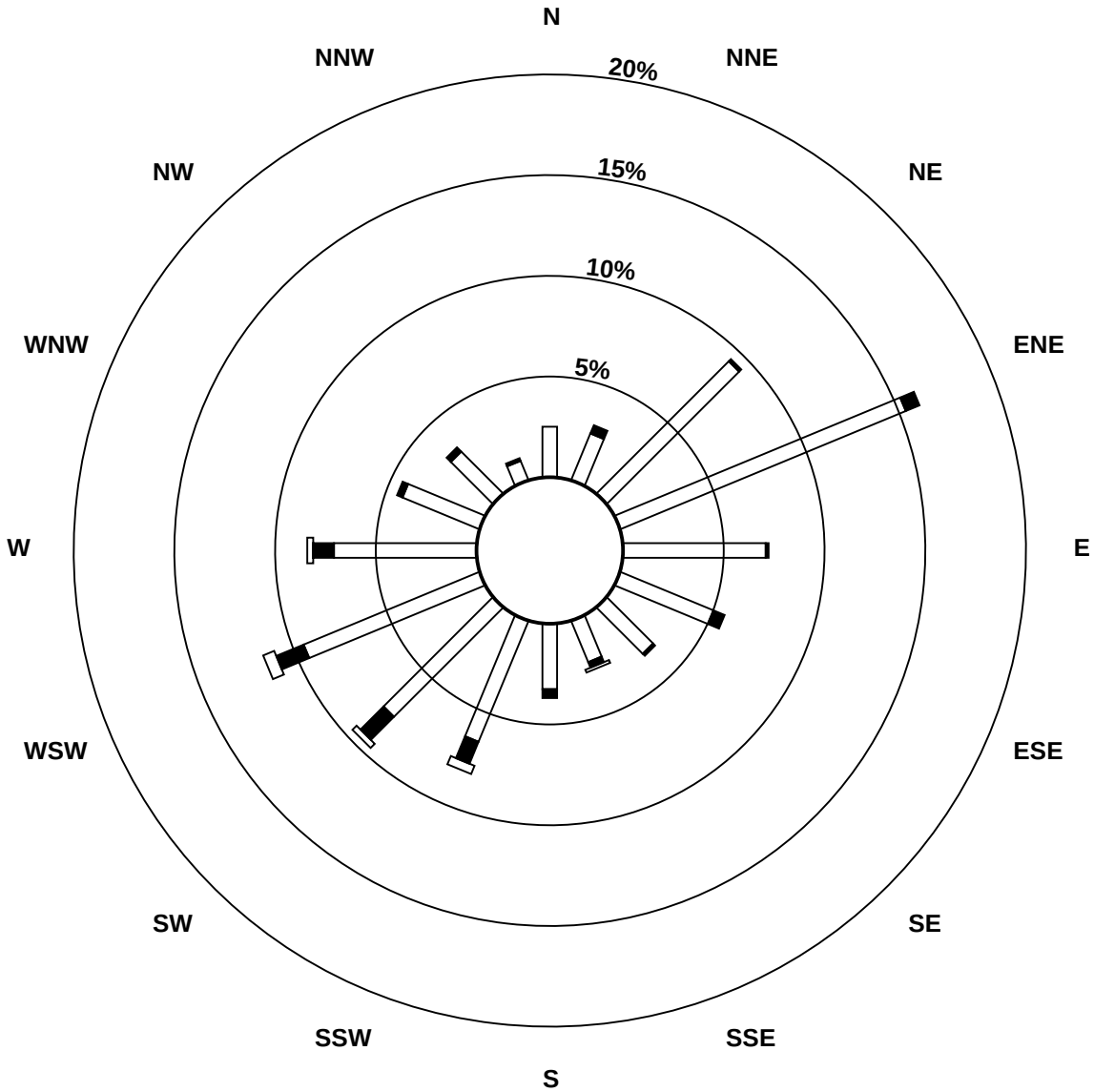
Henry Pirker - April 2015



Pollutant Rose

Total Hydrocarbons (THC) - ppm

Henry Pirker - April 2015



Pollutant Classes (ppm)

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

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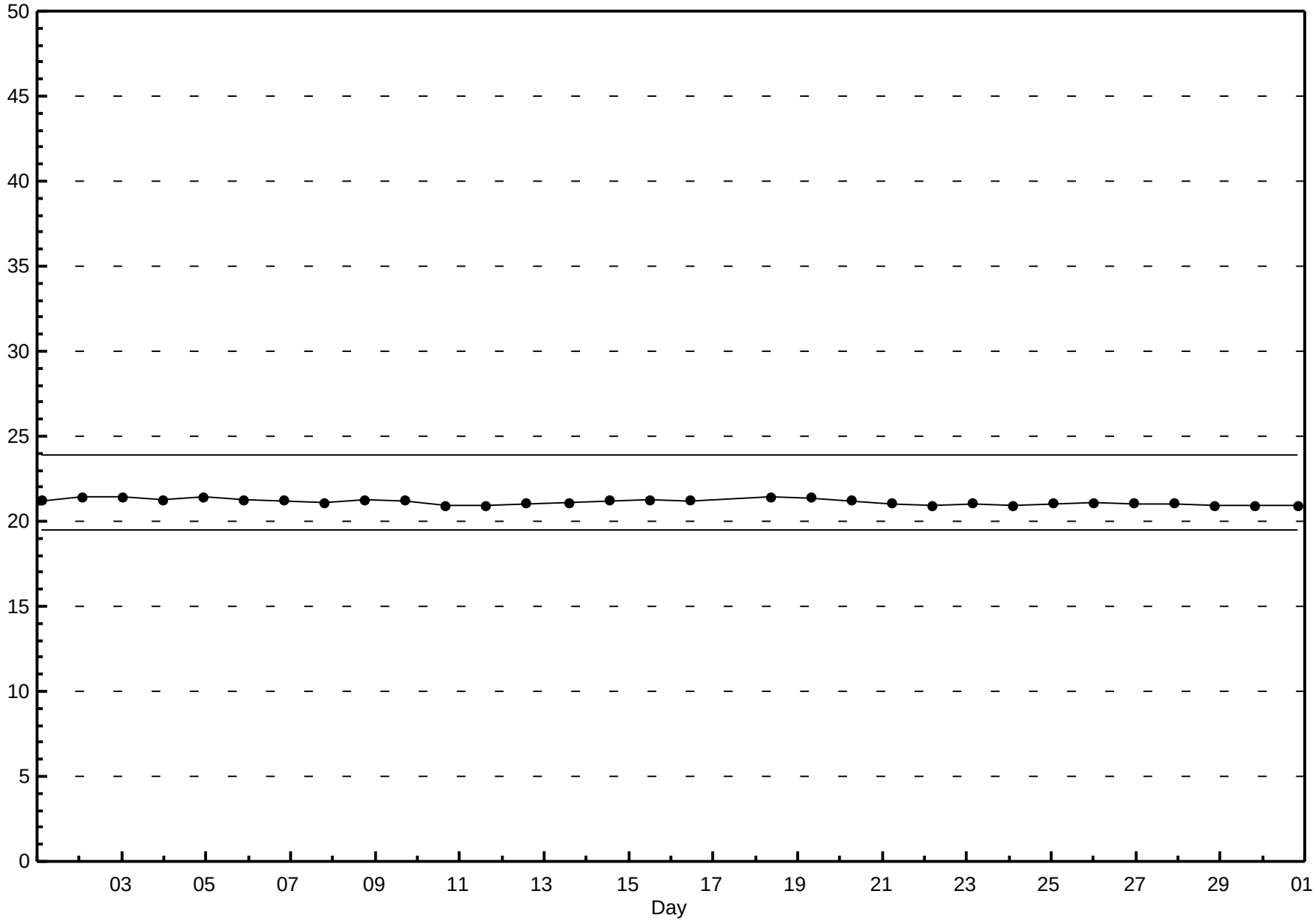
Span Responses

Total Hydrocarbons (THC)

Henry Pirker - April 2015



Peace Airshed Zone Association

Hourly Averages

Methane (CH_4) - ppm

Henry Pirker - April 2015

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

Maximum Value: 5.13 ppm on Apr 10 04:00

Maximum Daily Average: 2.59 ppm on Apr 10

Minimum Value: 1.8 ppm on Apr 21 19:00

Minimum Daily Average: 1.88 ppm on Apr 30

Maximum Diurnal Average: 2.22 ppm at hour 4

Minimum Diurnal Average: 1.89 ppm at hour 15

Monthly Average: 1.984 ppm

Percentiles: P_1 = 1.85 P_{10} = 1.87 Q_1 = 1.89 Median = 1.91 Q_3 = 1.94 P_{90} = 2.08 P_{99} = 3.43

Hours in Service:	720
Hours of Data:	682
Hours of Missing Data:	38
Hours of Calibration:	38
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	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.3	2.0	1.9	1.9	1.94	2.28
2-Apr	2.0	A	2.0	2.0	2.0	2.1	2.1	3.1	2.1	2.0	1.9	1.9	1.9	C	C	C	1.9	1.9	1.9	2.3	2.0	2.0	2.0	2.4	2.07	3.12
3-Apr	A	2.9	2.5	2.9	2.7	2.3	2.2	2.2	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.12	2.95
4-Apr	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	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	1.92	1.93
5-Apr	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	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	1.92	1.93
6-Apr	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1	A	2.0	2.0	1.9	1.96	2.10
7-Apr	1.9	2.8	2.4	4.0	2.6	2.9	2.8	2.8	2.0	2.0	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	2.21	3.97
8-Apr	1.9	1.9	1.9	1.9	1.9	2.0	2.4	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.93	2.42
9-Apr	2.1	2.2	2.0	2.0	2.0	2.0	2.0	3.0	2.2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	2.2	2.4	2.2	2.3	2.06	2.97
10-Apr	5.0	4.1	3.2	5.1	3.4	3.5	3.2	3.4	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.59	5.13
11-Apr	2.6	2.1	2.3	2.6	2.8	2.2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.02	2.82
12-Apr	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.88	1.91
13-Apr	1.9	1.9	1.9	2.0	2.0	2.0	2.1	2.1	2.0	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1	1.94	2.08
14-Apr	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.91	2.13
15-Apr	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.92	1.96
16-Apr	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.91	1.97
17-Apr	2.1	2.7	2.5	2.3	2.1	1.9	1.9	1.9	C	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	2.00	2.67
18-Apr	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.94	1.99
19-Apr	1.9	2.0	1.9	2.0	2.0	2.0	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.92	2.01
20-Apr	2.0	2.0	1.9	2.1	2.7	2.6	A	2.1	2.2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.99	2.66
21-Apr	2.2	2.5	3.3	2.6	3.1	A	2.9	2.2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.9	1.9	1.9	2.1	2.13	3.29
22-Apr	1.9	1.9	1.9	1.9	A	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.89	1.96
23-Apr	1.9	1.9	1.9	A	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	2.0	2.2	2.2	1.93	2.17
24-Apr	2.0	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.92	2.04
25-Apr	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	2.0	2.1	1.92	2.09
26-Apr	A	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	A	1.95	2.04
27-Apr	2.0	2.0	2.0	2.1	2.1	2.4	2.3	2.2	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	A	1.9	1.99	2.38
28-Apr	1.9	1.9	1.9	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	1.9	1.9	A	1.9	1.9	1.88	1.91
29-Apr	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	A	1.9	1.9	1.9	1.90	2.00
30-Apr	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.88	1.89
	2.08	2.13	2.09	2.22	2.14	2.09	2.08	2.12	1.97	1.93	1.91	1.90	1.90	1.89	1.89	1.89	1.89	1.89	1.90	1.92	1.93	1.94	1.93	1.98	Diurnal Average	
	5.01	4.11	3.29	5.13	3.43	3.49	3.23	3.43	2.21	2.04	2.00	1.97	1.94	1.94	1.93	1.93	1.95	1.95	2.00	2.26	2.28	2.45	2.19	2.44	Diurnal Maximum	

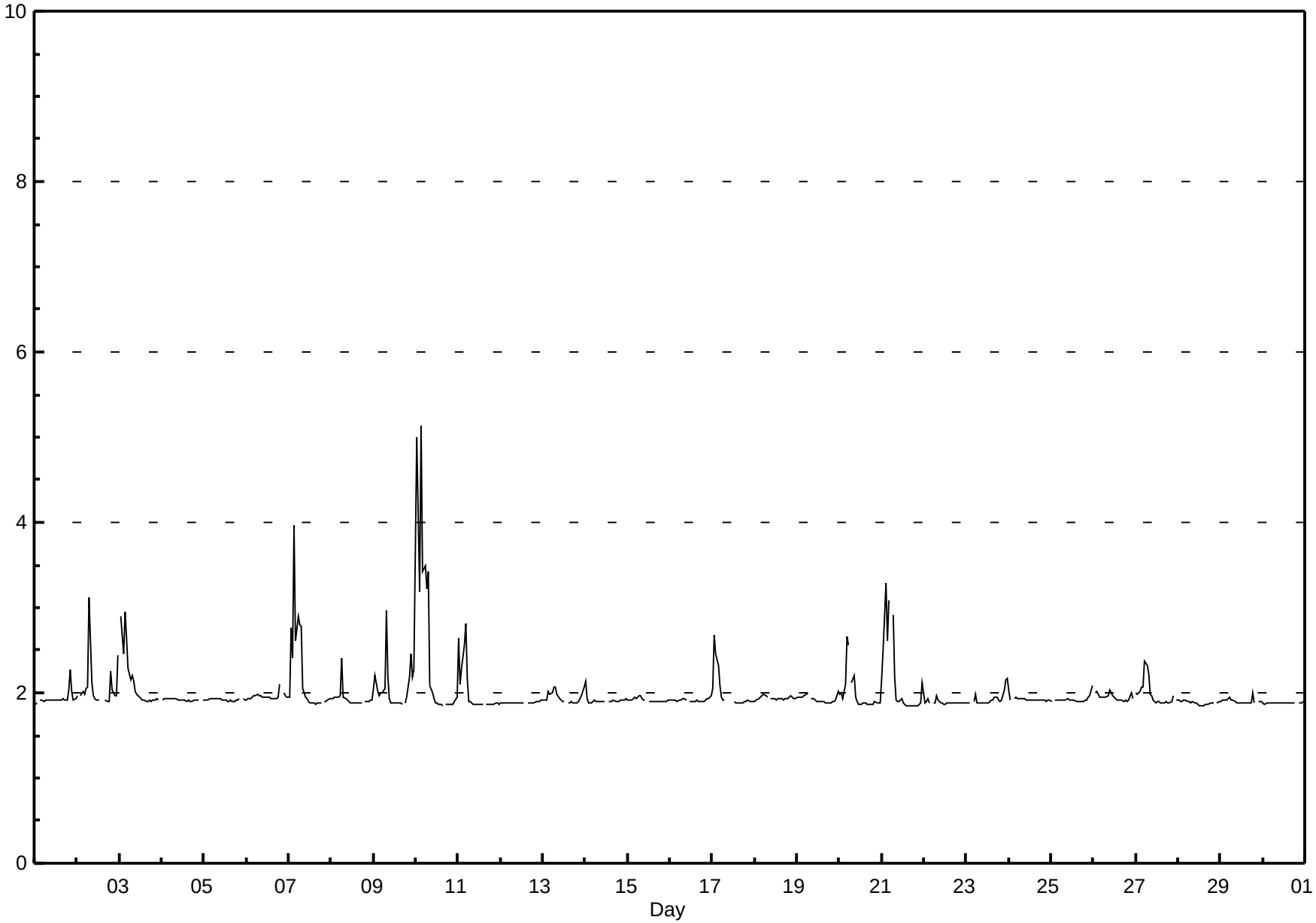
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Methane (CH_4) - ppm

Henry Pirker - April 2015



Peace Airshed Zone Association

Hourly Maximums

Methane (CH_4) - ppm

Henry Pirker - April 2015

Maximum Value: 10.35 ppm on Apr 10 01:00

Maximum Daily Average: 3.72 ppm on Apr 10

Minimum Value: 1.9 ppm on Apr 21 19:00

Minimum Daily Average: 1.90 ppm on Apr 30

Maximum Diurnal Average: 2.61 ppm at hour 2

Minimum Diurnal Average: 1.92 ppm at hour 15

Monthly Average: 2.165 ppm

Percentiles: P_1 = 1.88 P_{10} = 1.90 Q_1 = 1.91 Median = 1.94 Q_3 = 2.01 P_{90} = 2.39 P_{99} = 6.08

Hours in Service:	720
Hours of Data:	682
Hours of Missing Data:	38
Hours of Calibration:	38
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	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	2.0	2.0	2.0	3.5	3.2	3.2	2.0	2.0	2.12	3.51
2-Apr	2.0	A	2.0	2.1	2.1	2.2	2.4	6.1	2.9	2.0	1.9	1.9	1.9	C	C	C	2.0	1.9	2.0	4.8	2.2	2.1	2.2	5.6	2.62	6.10
3-Apr	A	4.9	3.1	4.8	4.1	2.6	2.3	2.4	2.3	2.1	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.1	1.9	2.0	2.0	2.0	2.0	A	2.48	4.91
4-Apr	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.1	2.0	1.9	2.0	2.0	2.0	2.0	A	2.0	1.98	2.13
5-Apr	2.0	2.1	1.9	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.0	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	A	2.0	1.9	1.99	2.11
6-Apr	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.5	A	2.0	2.0	2.0	2.00	2.46
7-Apr	2.0	5.2	3.9	6.2	4.0	4.5	3.2	3.6	2.2	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	2.0	1.9	2.68	6.20
8-Apr	2.0	2.0	2.1	2.1	2.0	2.3	3.5	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	2.03	3.48
9-Apr	2.3	2.4	2.3	2.2	2.3	2.1	2.2	3.5	2.6	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	2.3	2.8	3.6	3.1	3.0	2.35	3.60
10-Apr	10.4	8.2	4.2	8.8	5.3	5.2	8.1	6.1	2.2	2.1	2.0	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	2.1	2.1	3.72	10.35
11-Apr	6.6	2.5	2.6	2.7	3.6	2.8	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.31	6.57
12-Apr	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.91	1.94
13-Apr	1.9	1.9	1.9	2.4	2.2	2.3	2.4	2.3	2.0	2.0	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.1	2.2	2.03	2.41
14-Apr	2.3	2.3	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	2.0	2.3	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.97	2.34
15-Apr	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.94	2.04
16-Apr	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	A	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.94	2.01
17-Apr	2.3	4.2	5.2	2.6	2.1	2.0	2.0	2.0	C	C	C	C	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	2.28	5.23
18-Apr	1.9	1.9	2.0	2.0	2.0	2.1	2.0	2.0	A	1.9	2.0	2.1	1.9	2.0	1.9	2.0	1.9	2.0	2.0	2.0	2.0	2.0	1.9	2.0	1.98	2.06
19-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.1	A	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.3	1.96	2.34
20-Apr	2.3	2.5	2.0	3.3	3.9	4.7	A	2.6	3.3	2.0	2.0	1.9	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.33	4.66
21-Apr	2.6	3.7	7.6	3.0	5.5	A	3.6	2.7	2.0	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	2.8	2.61	7.62
22-Apr	1.9	2.0	2.0	1.9	A	1.9	1.9	2.2	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.93	2.20
23-Apr	1.9	1.9	1.9	A	1.9	3.3	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.1	2.1	2.0	1.9	1.9	2.2	2.3	2.4	2.05	3.28
24-Apr	2.4	1.9	A	2.0	2.1	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.1	2.0	1.9	1.9	2.0	2.0	2.00	2.36
25-Apr	1.9	A	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.2	1.97	2.16
26-Apr	A	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	2.1	2.0	A	1.98	2.09
27-Apr	2.2	2.0	2.2	2.3	2.2	3.3	2.5	2.4	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	A	1.9	2.10	3.29
28-Apr	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	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	1.91	1.94
29-Apr	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	3.0	1.9	A	1.9	1.9	1.9	1.96	2.96
30-Apr	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.90	1.92
	2.50	2.61	2.51	2.60	2.51	2.43	2.39	2.45	2.10	1.97	1.95	1.94	1.93	1.93	1.92	1.94	1.94	1.93	1.97	2.12	2.03	2.07	2.02	2.19	Diurnal Average	
	10.35	8.20	7.62	8.78	5.52	5.25	8.05	6.10	3.30	2.11	2.08	2.06	2.06	2.08	2.02	2.13	2.34	2.10	2.96	4.76	3.16	3.60	3.12	5.65	Diurnal Maximum	

C - Calibration

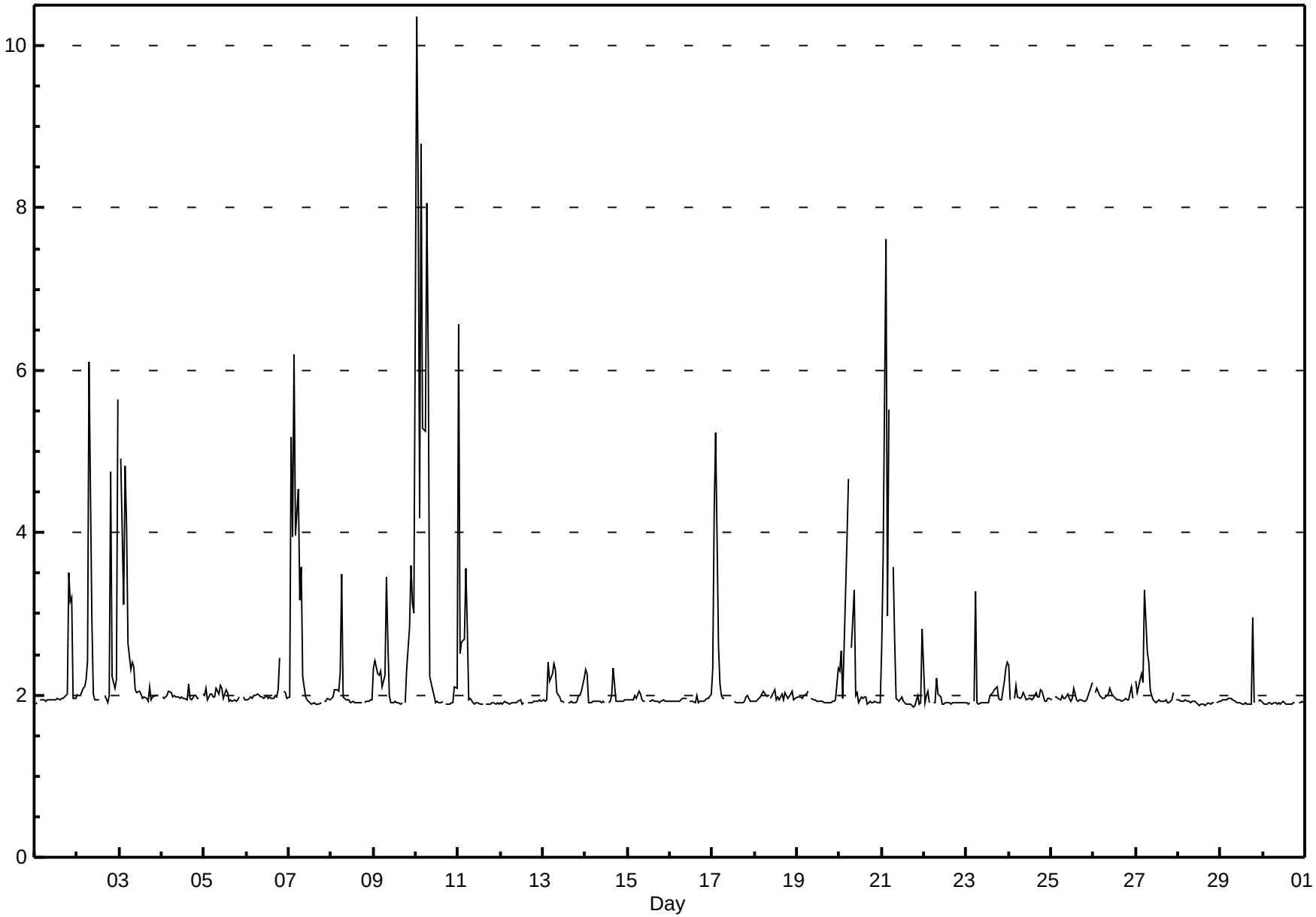
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Methane (CH_4) - ppm

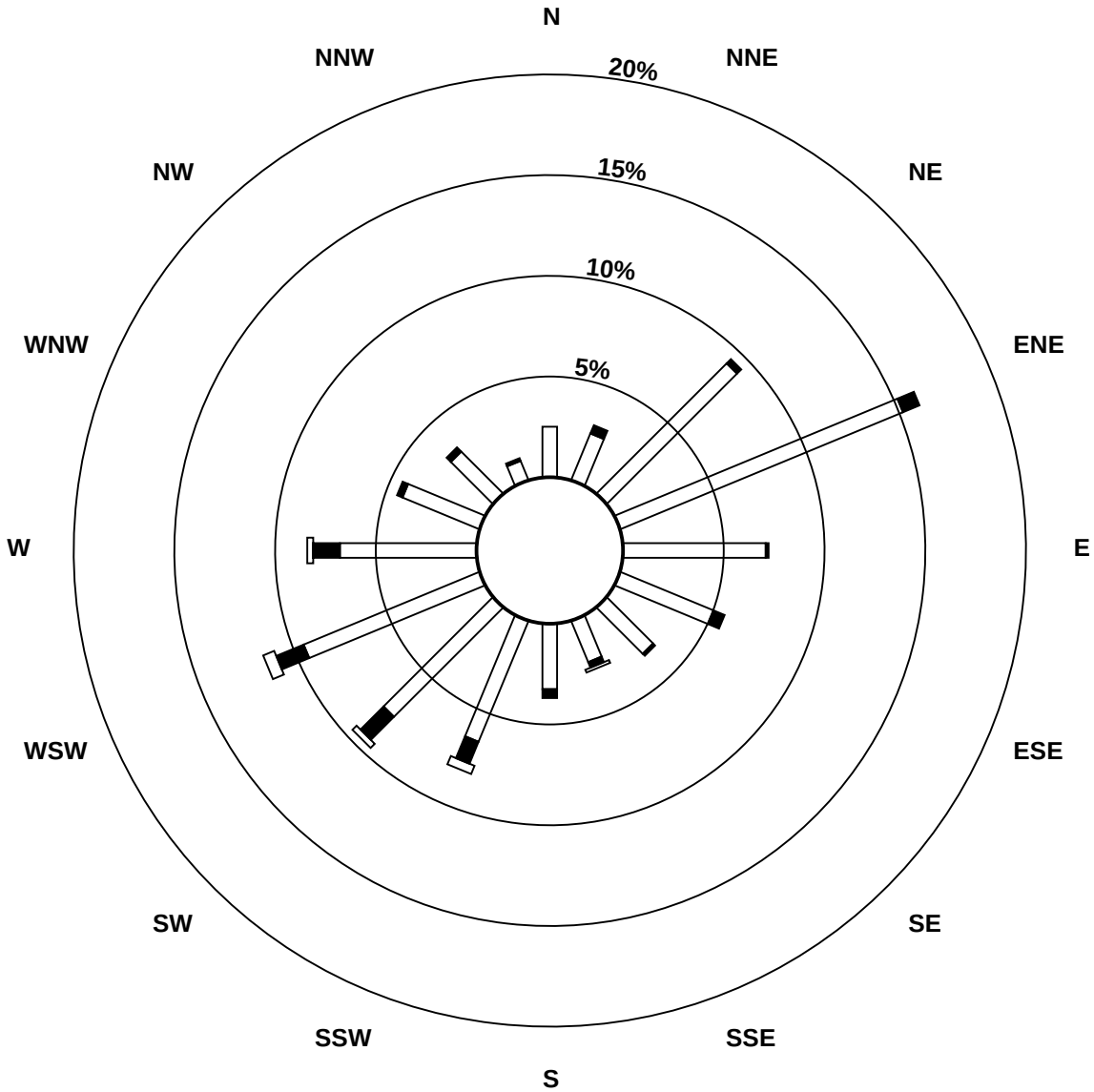
Henry Pirker - April 2015



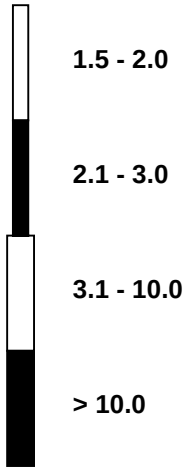
Pollutant Rose

Methane (CH_4) - ppm

Henry Pirker - April 2015



Pollutant Classes (ppm)

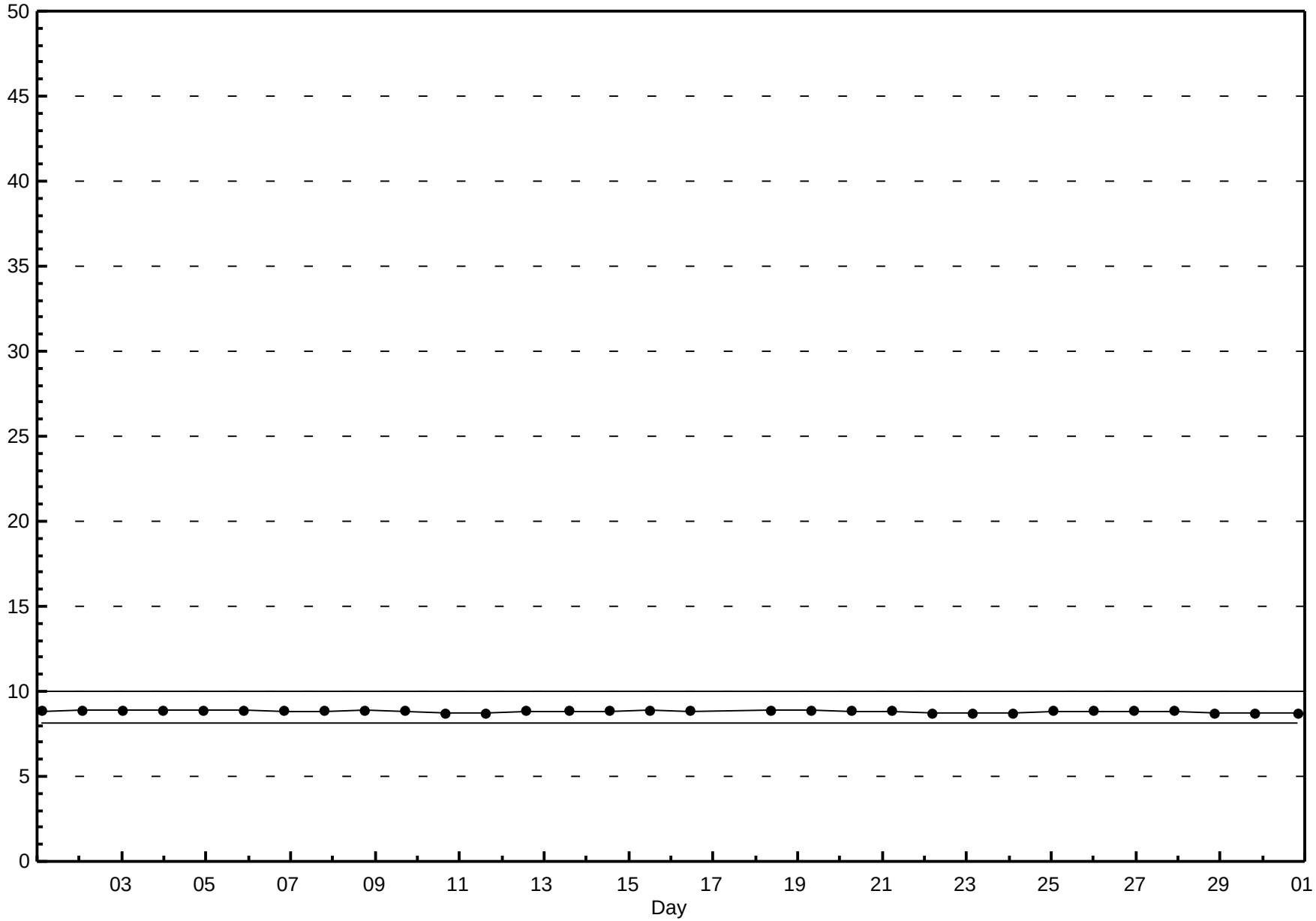


Peace Airshed Zone Association

Span Responses

Methane (CH_4)

Henry Pirker - April 2015



Peace Airshed Zone Association

Hourly Averages

Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - April 2015

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

Maximum Value: 0.05 ppm on Apr 10 01:00

Maximum Daily Average: 0.00 ppm on Apr 10

Minimum Value: 0.0 ppm on Apr 1 02:00

Minimum Daily Average: 0.00 ppm on Apr 5

Maximum Diurnal Average: 0.00 ppm at hour 1

Minimum Diurnal Average: 0.00 ppm at hour 17

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:	682
Hours of Missing Data:	38
Hours of Calibration:	38
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	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
3-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
4-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
5-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
6-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
7-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
8-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
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	A	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
10-Apr	0.1	0.0	0.0	0.0	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	0.05
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	A	0.0	0.0	0.0	0.0	0.0	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	A	0.0	0.0	0.0	0.0	0.0	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	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
14-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
15-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
16-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
17-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
19-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
20-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
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	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	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
27-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
28-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.00	0.00
29-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
30-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
	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	
	0.05	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Diurnal Maximum	

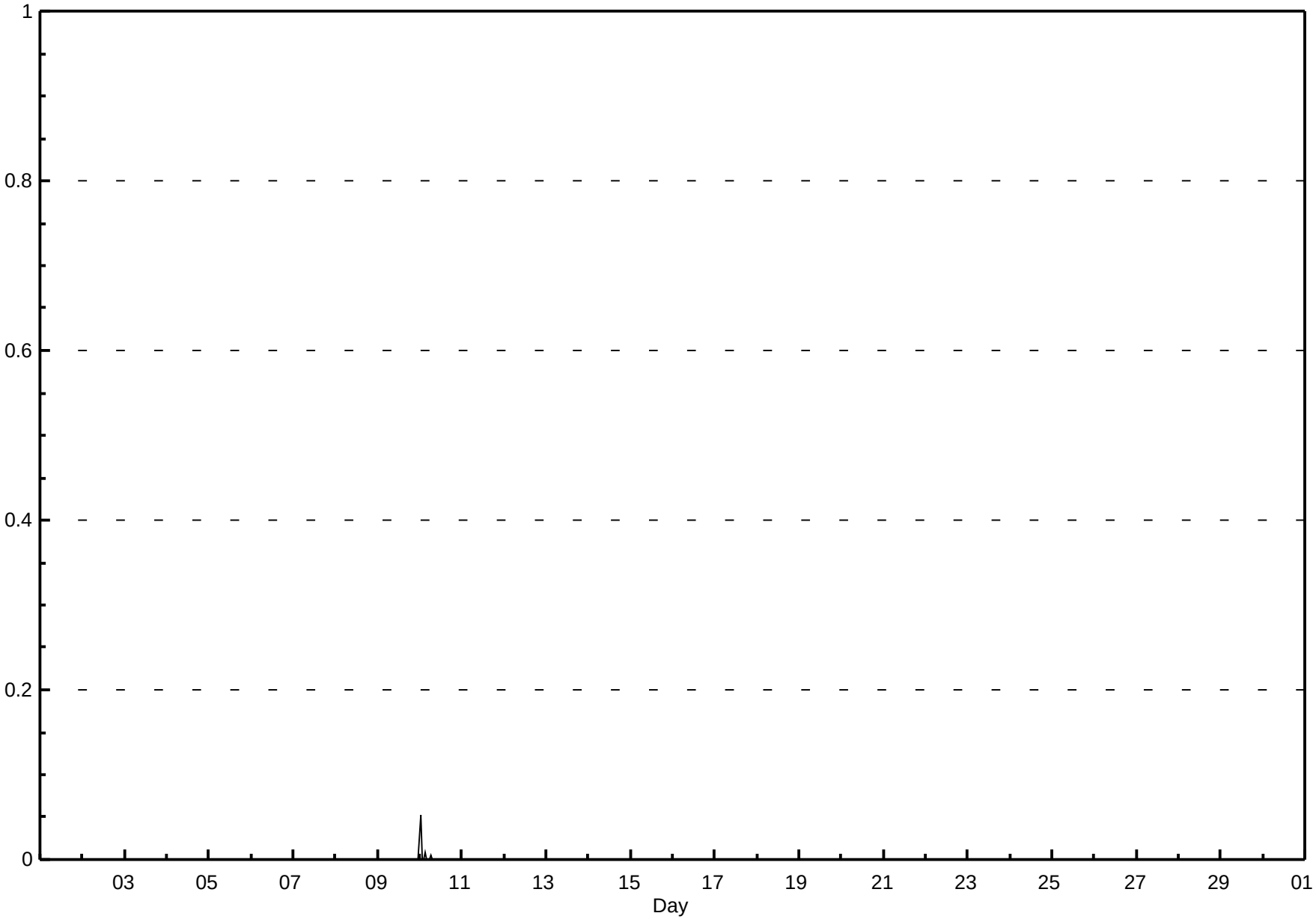
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - April 2015



Peace Airshed Zone Association

Hourly Maximums

Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - April 2015

Maximum Value: 0.91 ppm on Apr 10 01:00

Maximum Daily Average: 0.08 ppm on Apr 10

Minimum Value: 0.0 ppm on Apr 4 05:00

Minimum Daily Average: 0.00 ppm on Apr 28

Maximum Diurnal Average: 0.03 ppm at hour 1

Minimum Diurnal Average: 0.00 ppm at hour 16

Monthly Average: 0.003 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:	682
Hours of Missing Data:	38
Hours of Calibration:	38
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	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
3-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
4-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
5-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
6-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
7-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
8-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
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	A	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
10-Apr	0.9	0.0	0.0	0.6	0.0	0.0	0.3	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	0.08	0.91
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	A	0.0	0.0	0.0	0.0	0.0	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	A	0.0	0.0	0.0	0.0	0.0	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	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
14-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
15-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
16-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
17-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
19-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
20-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
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	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	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
27-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
28-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.00	0.00
29-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
30-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
	0.03	0.00	0.00	0.02	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Diurnal Average	
	0.91	0.00	0.00	0.57	0.00	0.00	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Diurnal Maximum	

C - Calibration

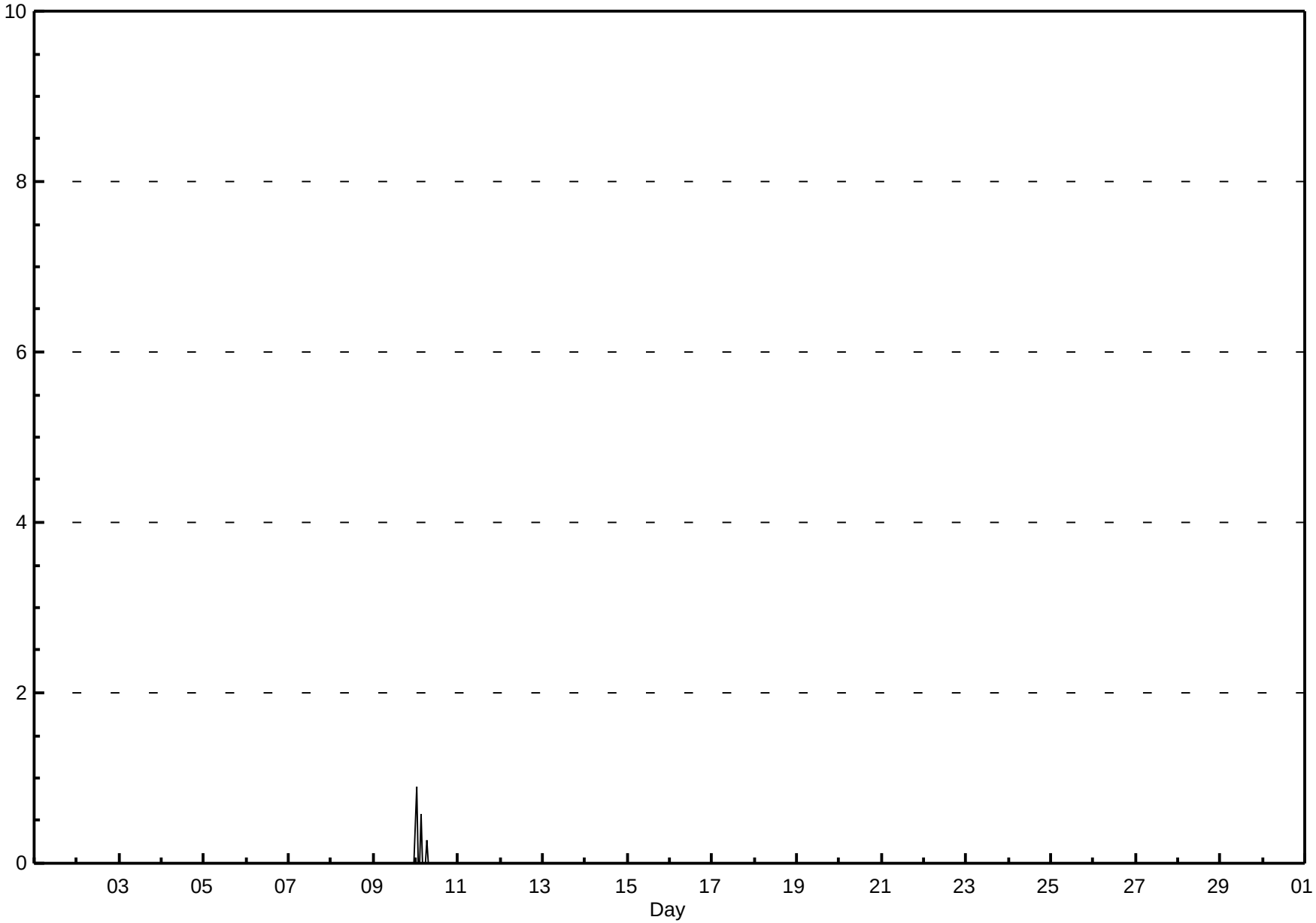
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Non Methane Hydrocarbon (NMHC) - ppm

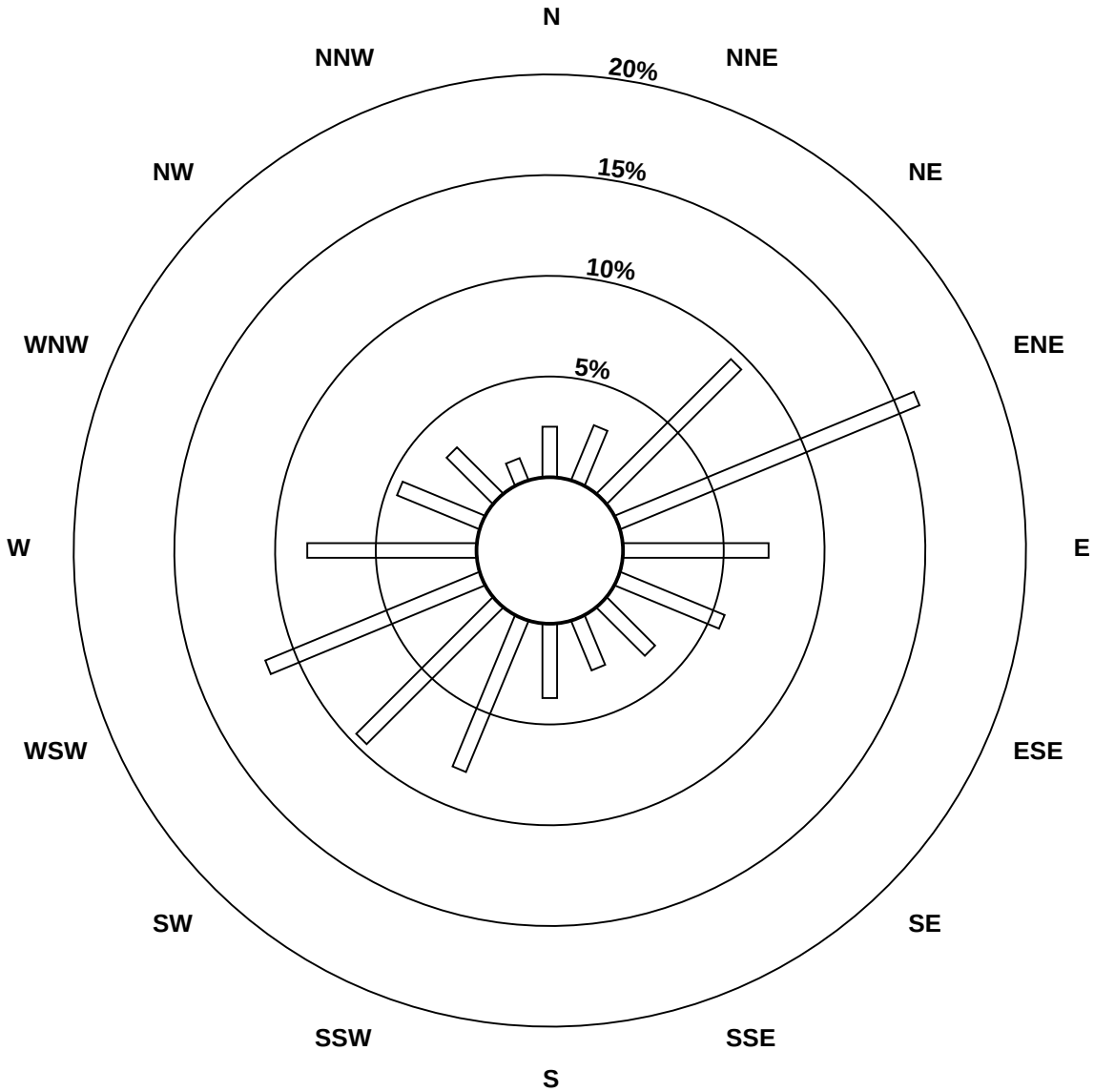
Henry Pirker - April 2015



Pollutant Rose

Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - April 2015



Pollutant Classes (ppm)

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

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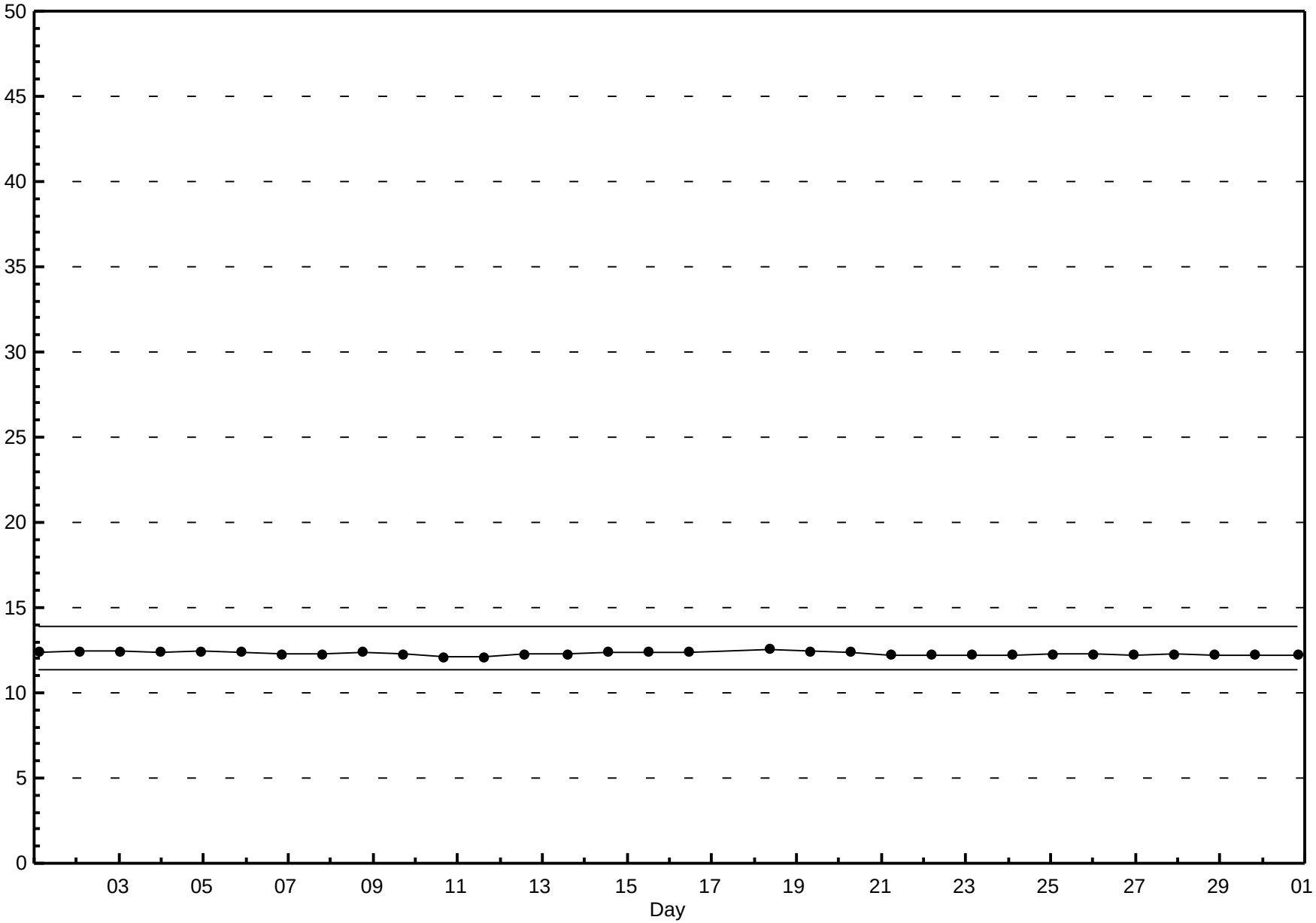
Span Responses

Non Methane Hydrocarbon (NMHC)

Henry Pirker - April 2015



Peace Airshed Zone Association

Hourly Averages

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

Henry Pirker - April 2015

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

Maximum Value: 32.8 $\mu g/m^3$ on Apr 10 03:00

Maximum Daily Average: 12.2 $\mu g/m^3$ on Apr 10

Minimum Value: 1 $\mu g/m^3$ on Apr 2 16:00

Maximum Diurnal Average: 5.8 $\mu g/m^3$ at hour 7

Monthly Average: 3.67 $\mu g/m^3$

Minimum Daily Average: 1.2 $\mu g/m^3$ on Apr 23

Minimum Diurnal Average: 2.1 $\mu g/m^3$ at hour 18

Percentiles: P_1 = 1.1 P_{10} = 1.4 Q_1 = 1.7 Median = 2.9 Q_3 = 4.1 P_{90} = 6.4 P_{99} = 23.4

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	1	1	1	2	2	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1.6	2.2
2-Apr	3	3	3	3	2	3	3	5	3	2	1	1	1	1	1	1	1	1	1	3	3	3	4	3	2.3	4.6
3-Apr	5	7	8	7	7	7	7	6	4	4	3	3	3	3	3	3	3	3	3	4	3	4	4	3	4.4	7.9
4-Apr	3	3	3	3	3	3	4	3	3	3	2	2	2	2	2	2	2	2	2	3	3	4	4	3	2.7	3.8
5-Apr	2	2	2	2	3	3	2	2	2	2	2	2	2	2	2	3	3	2	3	4	4	4	4	3	2.6	4.1
6-Apr	4	4	4	4	5	6	7	8	7	6	5	4	4	4	4	3	3	3	4	5	9	16	6	5	5.4	16.4
7-Apr	4	5	6	6	6	8	9	10	7	5	3	3	3	2	2	2	2	2	2	3	3	3	4	3	4.4	10.3
8-Apr	4	4	4	4	4	5	6	5	4	3	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3.2	5.6
9-Apr	4	4	4	4	5	7	10	11	9	6	4	4	11	4	4	4	4	4	5	8	14	15	28	31	8.5	30.6
10-Apr	27	25	33	27	24	20	21	23	16	13	8	5	5	4	4	5	5	5	4	4	4	4	4	4	12.2	32.8
11-Apr	7	6	7	7	7	5	4	3	2	3	4	3	3	3	2	2	2	2	2	2	2	2	2	1	3.5	7.3
12-Apr	2	2	1	1	1	1	1	1	1	2	3	3	3	2	2	2	2	1	2	2	1	2	2	2	1.8	3.3
13-Apr	3	3	3	3	4	4	7	9	5	3	2	2	1	1	1	1	1	1	1	2	3	3	4	6	3.2	9.2
14-Apr	6	3	2	2	2	3	3	3	2	2	1	2	2	2	1	2	1	1	1	2	2	2	2	2	2.2	6.3
15-Apr	2	2	2	2	3	2	6	4	2	2	1	1	2	2	2	2	2	1	1	2	2	3	3	4	2.1	6.3
16-Apr	3	6	4	4	3	3	3	3	3	2	2	2	1	1	1	1	1	1	1	1	1	2	2	2	2.3	6.4
17-Apr	4	5	5	5	8	6	4	4	3	3	4	2	2	1	1	1	1	1	1	2	2	2	2	1	2.9	8.2
18-Apr	2	2	2	2	2	3	3	2	2	2	1	1	1	1	2	2	2	2	2	3	7	4	3	4	2.4	7.2
19-Apr	4	4	4	4	4	5	5	4	3	2	2	2	2	2	2	2	2	2	2	2	3	4	4	4	3.1	5.0
20-Apr	5	5	6	6	6	7	8	8	10	7	3	3	3	4	3	2	2	2	2	2	4	6	6	4	4.7	9.9
21-Apr	6	10	14	14	12	13	15	13	8	7	6	5	4	4	3	3	3	3	3	3	3	3	4	5	6.9	14.9
22-Apr	5	5	5	5	4	5	3	3	3	3	3	4	3	3	2	2	2	1	1	1	1	1	1	1	2.8	5.1
23-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	1.4
24-Apr	1	1	2	1	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	4	4	4	4	4	2.6	4.2
25-Apr	5	4	3	4	3	3	4	4	3	3	3	3	2	2	3	3	4	4	5	4	5	6	5	7	3.8	6.6
26-Apr	10	9	8	7	6	6	6	6	6	8	5	4	3	2	2	2	2	1	1	2	3	4	3	3	4.6	9.6
27-Apr	5	4	4	6	7	9	20	17	7	6	3	2	2	3	2	3	2	3	2	2	5	10	6	5	5.7	20.4
28-Apr	4	4	4	4	4	4	4	4	3	3	2	2	1	2	4	3	3	2	2	2	2	2	3	2	2.9	4.2
29-Apr	3	3	3	3	3	3	3	2	1	1	1	1	2	1	1	1	1	2	1	1	2	3	3	2	2.0	3.4
30-Apr	2	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.1	2.9
	4.5	4.6	5.0	4.8	4.9	5.0	5.8	5.7	4.2	3.6	2.8	2.5	2.6	2.2	2.2	2.2	2.1	2.1	2.2	2.6	3.5	4.2	4.1	4.1	Diurnal Average	
	27.3	24.5	32.8	27.2	23.9	19.8	20.5	23.5	15.9	13.2	8.2	5.5	10.9	4.2	4.2	4.8	4.7	4.9	5.3	7.6	14.0	16.4	27.8	30.6	Diurnal Maximum	

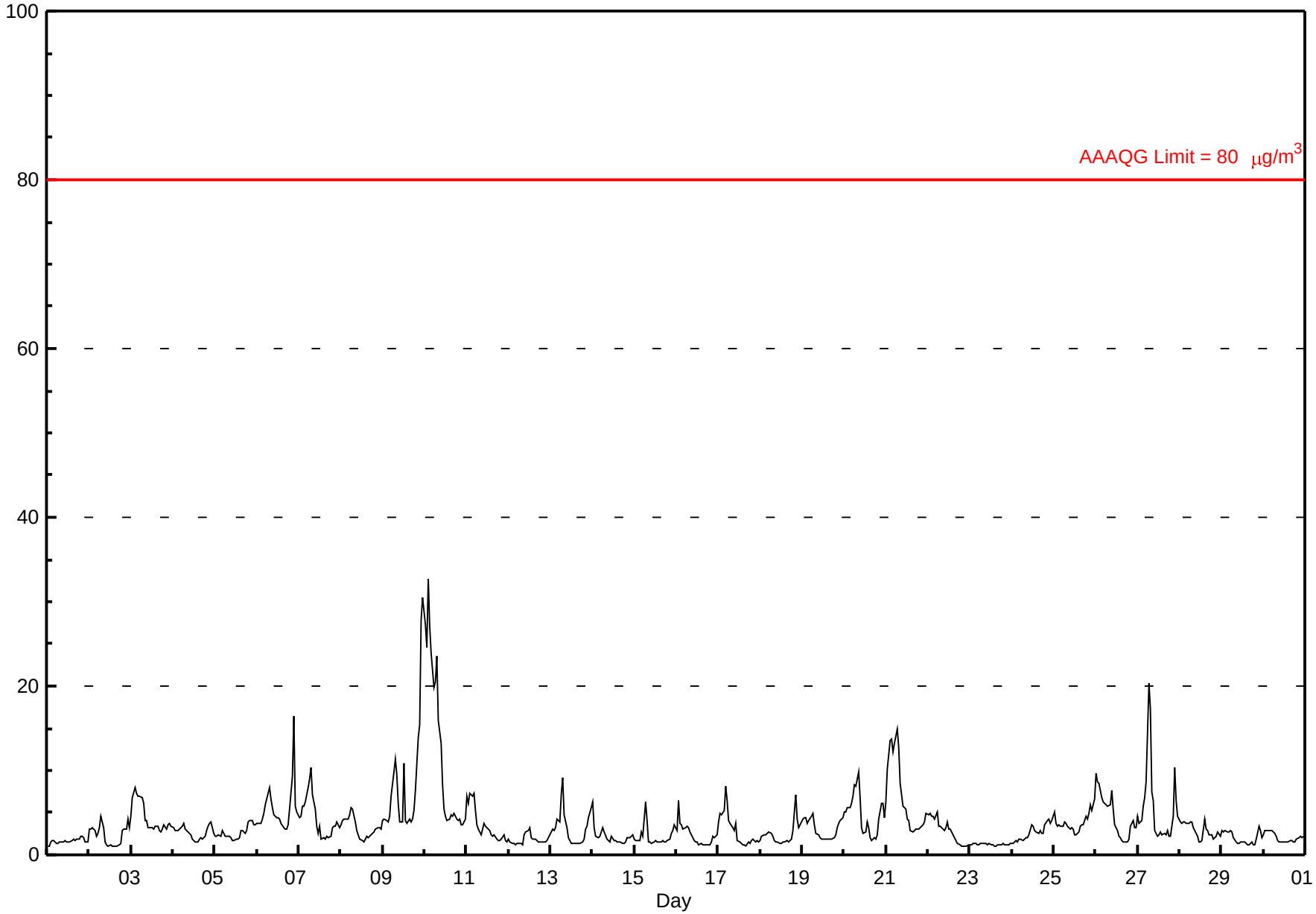
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 $\mu g/m^3$ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 $\mu g/m^3$

Peace Airshed Zone Association

Hourly Averages

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

Henry Pirker - April 2015



Peace Airshed Zone Association

Hourly Maximums

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

Henry Pirker - April 2015

Maximum Value: 100.5 $\mu g/m^3$ on Apr 9 13:00

Maximum Daily Average: 15.9 $\mu g/m^3$ on Apr 10

Minimum Value: 1 $\mu g/m^3$ on Apr 2 14:00

Maximum Diurnal Average: 10.5 $\mu g/m^3$ at hour 1

Monthly Average: 5.40 $\mu g/m^3$

Minimum Daily Average: 1.4 $\mu g/m^3$ on Apr 23

Minimum Diurnal Average: 2.8 $\mu g/m^3$ at hour 17

Percentiles: P_1 = 1.3 P_{10} = 1.6 Q_1 = 2.1 Median = 3.6 Q_3 = 5.8 P_{90} = 10.0 P_{99} = 35.2

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

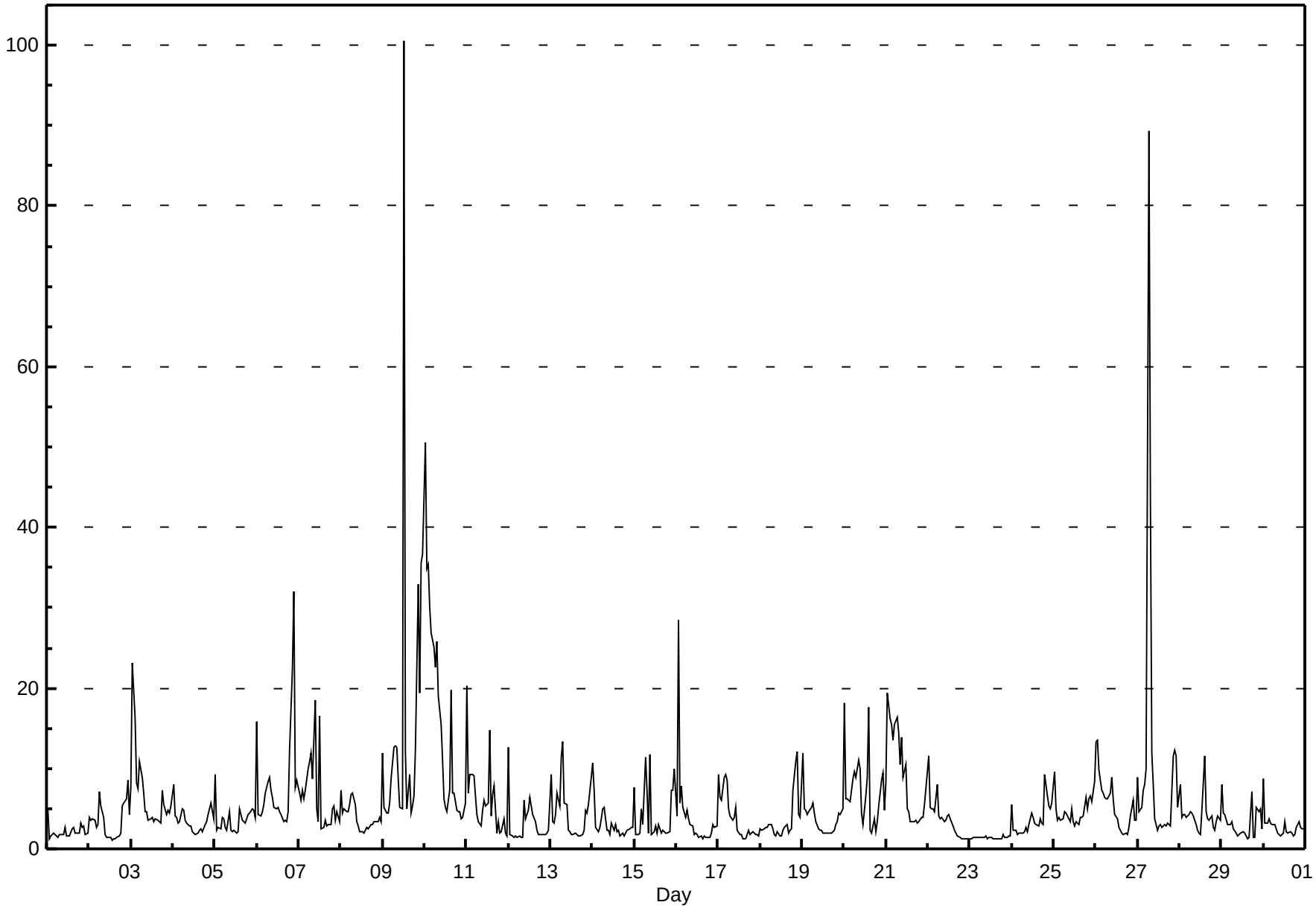
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	5	1	2	2	2	2	1	2	2	2	3	2	2	2	2	3	2	2	2	3	3	3	2	2	2.1	4.8
2-Apr	4	3	4	4	3	3	7	5	4	2	1	1	1	1	1	1	2	2	2	5	6	6	8	4	3.4	8.5
3-Apr	8	23	16	8	7	11	9	7	5	5	4	4	4	3	4	4	3	3	7	6	4	5	4	5	6.6	23.2
4-Apr	8	4	4	3	3	5	5	4	3	3	3	2	2	2	2	2	2	2	3	3	4	5	6	4	3.5	8.0
5-Apr	9	2	3	2	4	4	3	2	5	2	2	2	2	2	5	4	4	3	4	4	4	5	5	4	3.6	9.2
6-Apr	16	4	4	5	6	7	8	9	7	6	5	5	5	5	4	3	4	3	5	12	22	32	8	8	8.1	32.1
7-Apr	7	6	7	6	7	10	11	12	9	18	5	3	17	2	3	4	3	3	3	5	5	4	5	3	6.6	18.4
8-Apr	7	4	5	5	5	6	7	7	6	3	3	2	2	2	2	3	2	3	3	3	3	3	4	3	3.9	7.3
9-Apr	12	5	4	4	6	9	13	13	13	9	5	5	101	12	5	9	4	5	7	12	33	19	36	37	15.7	100.5
10-Apr	51	35	35	30	27	25	23	26	19	16	11	6	5	5	7	20	7	7	5	5	5	4	4	6	15.9	50.6
11-Apr	20	7	9	9	9	7	4	3	3	5	6	5	6	15	4	7	8	2	3	2	2	4	2	2	6.0	20.3
12-Apr	13	2	2	2	2	1	2	2	1	6	4	5	6	5	4	3	2	2	2	2	2	2	2	2	3.1	12.7
13-Apr	9	3	3	4	7	5	11	13	6	6	2	2	2	2	2	2	2	2	2	2	5	4	6	9	4.6	13.3
14-Apr	11	7	3	2	3	4	5	5	2	2	2	3	2	3	2	2	2	2	2	2	2	2	3	3	3.1	10.6
15-Apr	8	2	2	2	5	3	11	7	2	12	2	2	3	2	3	2	2	2	2	2	2	7	7	10	4.3	11.7
16-Apr	4	29	6	8	5	4	5	4	3	3	2	2	2	1	2	1	2	1	1	1	2	3	3	3	4.0	28.6
17-Apr	9	6	6	9	9	9	5	4	4	4	5	2	2	2	1	1	1	2	2	2	2	2	2	2	3.9	9.3
18-Apr	2	2	2	3	3	3	3	2	2	2	2	2	2	2	3	3	2	2	2	7	11	12	4	4	3.5	12.1
19-Apr	12	5	5	4	5	5	6	4	3	2	2	2	2	2	2	2	2	2	2	3	3	4	4	5	3.8	11.9
20-Apr	18	6	6	6	7	9	10	9	11	10	4	3	7	9	18	2	2	4	2	3	5	8	9	5	7.2	18.1
21-Apr	8	19	16	16	14	15	16	14	11	14	9	11	5	5	3	3	3	4	3	3	4	4	6	8	8.9	19.4
22-Apr	12	5	5	5	5	8	4	4	4	3	4	4	4	4	3	2	2	2	1	1	1	1	1	1	3.6	11.6
23-Apr	1	1	1	1	1	1	1	1	1	2	1	2	1	1	1	1	1	1	1	2	1	1	2	2	1.4	1.8
24-Apr	6	2	2	2	2	2	2	2	3	2	3	4	4	3	3	3	4	3	3	9	7	5	5	6	3.6	9.2
25-Apr	10	5	3	4	4	4	5	4	4	3	5	3	3	3	3	4	4	4	6	5	6	7	6	8	4.7	9.7
26-Apr	13	14	10	7	7	6	6	6	7	9	6	4	4	3	2	2	2	2	2	3	4	6	4	4	5.5	13.6
27-Apr	9	5	5	7	8	10	89	44	12	8	4	2	3	3	3	3	3	3	3	3	12	12	12	5	11.1	89.4
28-Apr	8	4	4	4	4	4	5	4	4	3	2	2	2	5	11	5	4	4	4	3	2	3	4	4	4.1	11.5
29-Apr	8	4	4	3	3	3	3	2	2	2	2	2	2	2	2	1	1	7	1	1	5	5	5	2	3.1	8.1
30-Apr	9	3	3	4	3	3	3	2	2	2	2	2	3	2	2	2	2	2	2	3	3	3	2	2	2.8	8.7
	10.5	7.4	6.1	5.7	5.8	6.2	9.4	7.5	5.3	5.5	3.7	3.3	6.8	3.6	3.7	3.5	2.8	2.9	2.9	4.0	5.8	6.1	5.6	5.4	Diurnal Average	
	50.6	34.9	35.4	30.0	27.0	25.1	89.4	44.0	19.1	18.4	11.0	10.5	100.5	14.8	17.6	19.8	7.8	7.1	7.2	12.3	32.9	32.1	35.6	36.7	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Maximums

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

Henry Pirker - April 2015

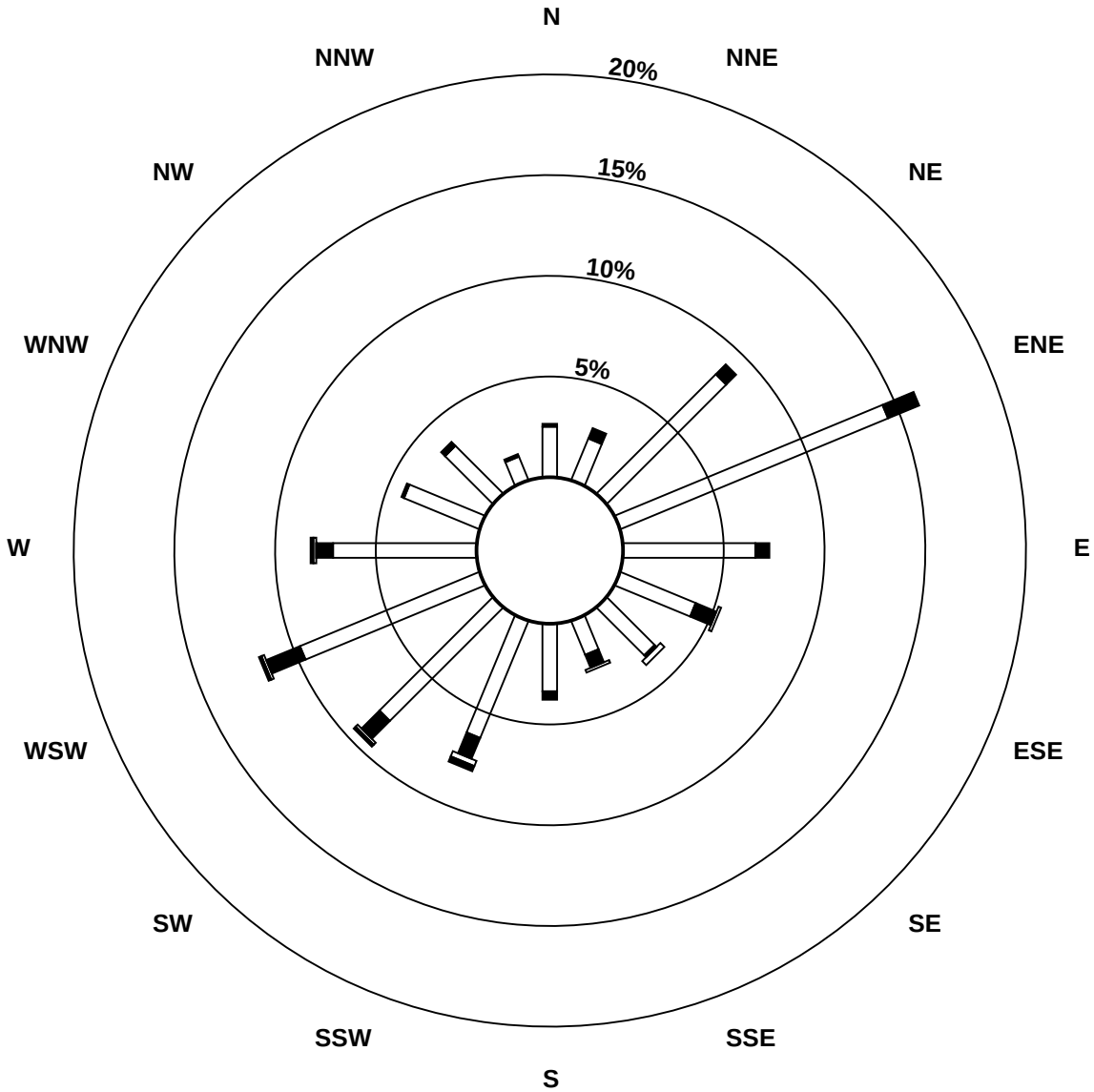


Peace Airshed Zone Association

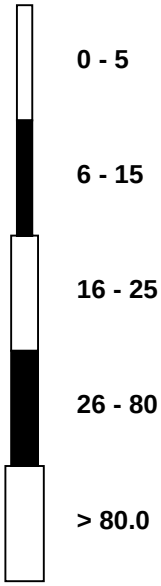
Pollutant Rose

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

Henry Pirker - April 2015



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



Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Henry Pirker - April 2015

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

Maximum Value: 22.8 ^{o}C on Apr 28 14:00

Maximum Daily Average: 13.7 ^{o}C on Apr 21

Minimum Value: -4 ^{o}C on Apr 7 07:00

Maximum Diurnal Average: 10.8 ^{o}C at hour 15

Monthly Average: 6.23 ^{o}C

Minimum Daily Average: 0.6 ^{o}C on Apr 5

Minimum Diurnal Average: 1.2 ^{o}C at hour 6

Percentiles: P_1 = -3.6 P_{10} = 0.2 Q_1 = 2.3 Median = 5.3 Q_3 = 9.9 P_{90} = 13.8 P_{99} = 20.2

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

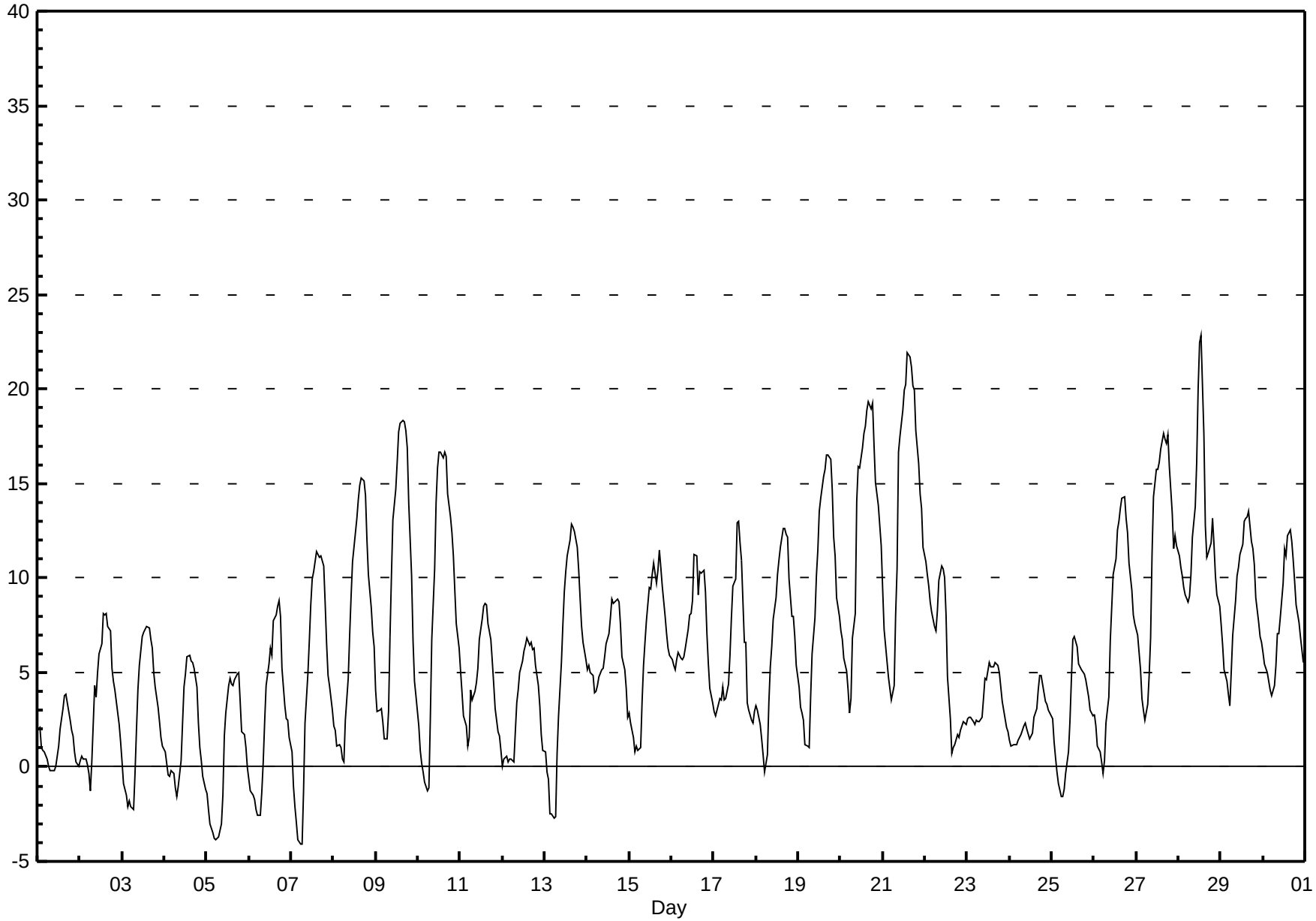
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Apr	2	2	1	1	1	0	0	0	0	0	0	1	1	2	3	4	4	3	3	2	2	1	0	0	1.3	3.9
2-Apr	0	1	0	0	0	0	-1	0	4	4	5	6	7	8	8	8	7	7	5	5	4	3	2	1	3.6	8.1
3-Apr	0	-1	-2	-2	-2	-2	-2	0	2	4	5	7	7	7	7	7	7	6	5	4	3	2	2	1	2.8	7.4
4-Apr	1	0	0	-1	0	0	-1	-2	-1	0	2	4	5	6	6	6	6	5	4	2	1	0	0	-1	1.7	5.9
5-Apr	-1	-2	-3	-3	-4	-4	-4	-4	-3	-1	2	3	4	5	4	4	5	5	5	3	2	2	1	0	0.6	5.0
6-Apr	-1	-1	-2	-2	-2	-3	-3	-1	0	2	4	5	6	6	8	8	8	9	8	5	3	3	3	2	2.8	8.8
7-Apr	1	-1	-2	-3	-4	-4	-4	-1	2	5	7	9	10	10	11	11	11	11	11	9	7	5	4	3	4.5	11.4
8-Apr	2	2	1	1	1	0	0	2	5	7	9	11	12	13	14	15	15	15	14	12	10	8	7	6	7.7	15.3
9-Apr	4	3	3	3	2	1	1	3	7	10	13	15	16	18	18	18	18	18	17	14	10	7	5	4	9.5	18.4
10-Apr	2	1	0	0	-1	-1	-1	3	7	10	14	16	17	17	16	17	16	14	13	12	11	9	8	6	8.6	16.7
11-Apr	5	4	3	2	1	2	4	4	4	4	5	7	8	9	9	9	8	7	6	4	3	2	2	1	4.6	8.7
12-Apr	0	0	1	0	0	0	0	2	3	4	5	6	6	6	7	6	7	6	6	5	4	3	2	1	3.4	6.8
13-Apr	1	0	-1	-2	-2	-3	-3	1	3	6	8	9	10	11	12	13	13	12	12	10	9	7	7	6	5.7	12.9
14-Apr	5	5	5	5	4	4	4	5	5	5	6	7	7	8	9	9	9	9	9	7	6	5	4	3	6.0	8.9
15-Apr	3	2	2	1	1	1	1	4	5	7	8	10	9	10	11	10	10	11	11	10	8	7	6	6	6.4	11.5
16-Apr	6	5	5	6	6	6	6	6	6	7	8	8	9	11	11	9	10	10	10	9	7	5	4	3	7.3	11.2
17-Apr	3	3	3	4	4	4	4	4	4	6	8	10	10	13	13	12	11	7	7	3	3	2	2	3	5.9	13.0
18-Apr	3	3	2	2	1	0	1	3	5	6	8	9	10	11	12	13	13	12	12	10	8	8	7	5	6.8	12.6
19-Apr	4	3	3	2	1	1	1	4	6	8	10	11	14	14	15	16	16	17	16	15	12	11	9	8	9.1	16.5
20-Apr	7	7	6	5	4	3	4	7	8	14	16	16	17	18	18	19	19	19	19	17	15	14	13	12	12.3	19.3
21-Apr	9	7	6	5	4	4	4	8	10	17	18	19	20	20	22	22	21	20	20	18	16	14	14	12	13.7	21.9
22-Apr	11	10	10	9	8	7	7	8	10	11	10	10	8	5	3	1	1	1	2	2	2	2	2	2	5.9	10.9
23-Apr	3	3	3	2	2	2	2	2	3	4	5	5	6	5	5	5	6	5	5	4	3	3	2	2	3.6	5.5
24-Apr	1	1	1	1	1	1	2	2	2	2	2	1	2	2	3	3	4	5	5	4	3	3	3	3	2.5	4.9
25-Apr	3	1	0	0	-1	-2	-2	-1	0	1	2	5	7	7	6	5	5	5	5	5	4	4	3	3	2.7	6.9
26-Apr	3	2	1	1	0	0	0	2	4	7	8	10	11	13	13	14	14	14	13	12	11	9	8	8	7.4	14.3
27-Apr	7	7	5	4	3	3	3	5	7	11	14	16	16	16	17	18	17	17	18	16	13	12	12	12	11.2	17.7
28-Apr	11	11	10	9	9	9	9	10	12	14	16	20	22	23	18	13	11	11	12	13	12	10	9	8	12.6	22.8
29-Apr	7	6	5	5	4	3	5	7	9	10	11	11	12	13	13	13	14	12	12	11	9	8	7	7	8.9	13.6
30-Apr	6	5	5	5	4	4	4	5	7	7	8	10	12	11	12	13	12	11	10	9	8	7	6	6	7.7	12.5
	3.6	3.0	2.4	1.9	1.5	1.2	1.4	2.9	4.6	6.4	7.9	9.1	10.0	10.6	10.8	10.6	10.6	10.2	9.8	8.5	7.0	5.9	5.1	4.4	Diurnal Average	
	11.2	10.6	10.1	9.5	9.1	8.7	9.0	10.2	12.2	16.6	17.5	20.0	22.4	22.8	21.9	21.7	21.2	20.2	19.9	17.8	16.0	14.5	13.7	11.7	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Henry Pirker - April 2015



Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Henry Pirker - April 2015

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

Maximum Value: 88.5 % on Apr 1 10:00 Maximum Daily Average: 83.2 % on Apr 1

Minimum Value: 13 % on Apr 9 16:00 Minimum Daily Average: 33.7 % on Apr 13

Maximum Diurnal Average: 69.3 % at hour 6 Minimum Diurnal Average: 38.7 % at hour 17

Monthly Average: 53.59 % Percentiles: P_1 = 16.7 P_{10} = 28.0 Q_1 = 37.7 Median = 53.5 Q_3 = 69.0 P_{90} = 81.5 P_{99} = 87.9

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

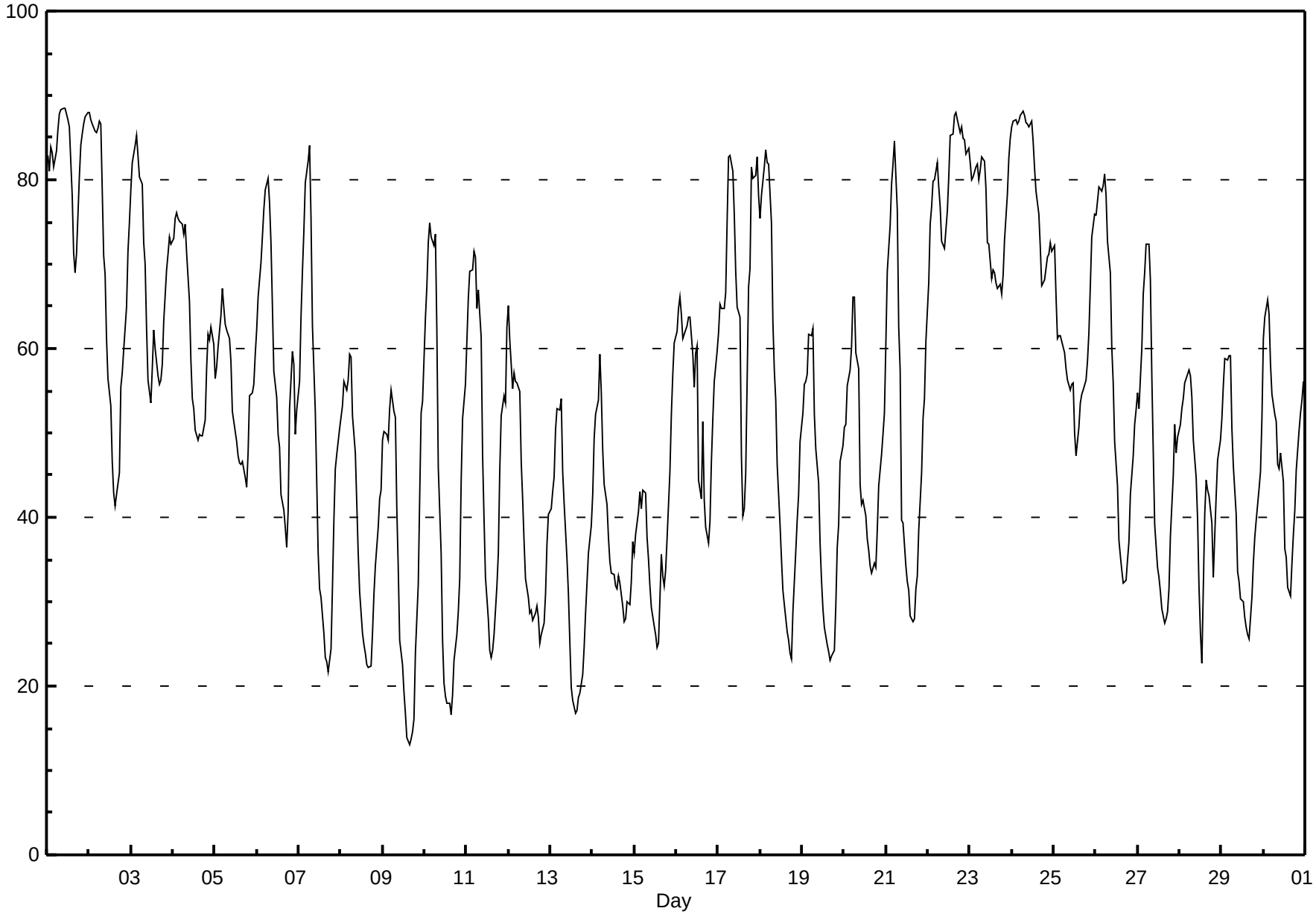
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Apr	83	81	84	83	82	83	86	88	88	88	88	88	87	86	78	71	69	71	80	84	85	87	88	88	83.2	88.5
2-Apr	88	87	87	86	86	86	87	87	71	69	61	56	53	47	43	41	43	45	55	57	60	65	72	75	66.9	88.0
3-Apr	79	82	84	85	83	80	79	72	70	62	56	53	58	62	60	57	56	56	58	63	69	71	73	72	68.5	85.3
4-Apr	73	75	76	75	75	75	74	75	71	66	59	54	53	50	49	50	50	50	52	58	62	61	63	61	62.7	76.0
5-Apr	56	58	60	64	67	65	63	62	61	58	53	51	49	47	47	46	47	45	44	48	54	55	56	59	54.8	67.1
6-Apr	62	66	70	73	76	79	80	77	72	65	57	54	50	48	43	41	39	36	41	53	60	58	50	53	58.5	80.2
7-Apr	56	64	69	74	80	82	84	76	63	52	44	36	32	30	26	23	23	22	24	32	40	46	47	51	49.0	84.0
8-Apr	52	53	56	55	56	59	59	52	48	42	36	31	26	25	24	23	22	22	26	31	34	39	42	43	39.9	59.3
9-Apr	49	50	50	49	53	55	53	52	41	34	26	23	19	17	14	13	14	15	16	24	32	42	52	54	35.3	55.1
10-Apr	64	67	73	75	73	72	74	62	46	36	25	20	19	18	18	17	19	23	26	29	33	44	52	56	43.3	74.9
11-Apr	61	66	69	69	72	71	65	67	61	47	40	33	28	24	23	24	26	32	36	46	52	54	54	63	49.3	71.5
12-Apr	65	61	55	57	56	56	55	47	42	37	33	30	29	29	28	29	29	28	25	26	28	31	37	40	39.7	65.1
13-Apr	41	43	45	50	53	53	54	45	42	35	31	25	20	18	17	17	19	19	21	25	29	32	36	39	33.7	54.0
14-Apr	43	49	52	54	59	55	48	44	41	38	35	33	33	32	32	33	32	30	28	28	30	30	32	37	38.6	59.3
15-Apr	36	38	41	43	41	43	43	38	35	32	29	27	26	25	25	36	33	32	34	37	45	52	57	61	37.8	60.7
16-Apr	62	65	66	64	61	62	63	64	64	59	55	59	60	44	42	51	42	39	37	40	47	52	56	60	54.8	66.1
17-Apr	62	65	65	65	67	75	83	83	81	76	69	65	64	47	40	41	45	67	69	82	80	80	83	78	68.0	82.9
18-Apr	76	78	82	84	82	82	75	63	58	54	46	39	35	31	30	26	25	24	23	29	36	40	43	49	50.4	83.6
19-Apr	52	56	56	57	62	61	62	52	48	44	37	33	29	27	25	24	23	24	24	30	36	39	47	49	41.6	62.3
20-Apr	51	51	56	57	60	66	66	59	58	44	42	42	40	37	36	34	33	35	34	39	44	47	50	52	47.2	66.1
21-Apr	60	69	75	80	82	85	77	63	57	40	39	34	32	31	28	28	28	31	33	39	45	52	54	61	50.9	84.6
22-Apr	68	75	77	80	80	82	79	77	73	72	74	76	80	85	85	88	88	87	86	86	85	85	83	84	80.6	87.9
23-Apr	82	80	80	81	82	80	81	83	82	79	73	72	68	69	69	68	67	68	66	69	73	78	83	85	75.8	84.9
24-Apr	86	87	87	87	87	88	88	88	87	87	86	87	85	81	79	76	72	67	68	68	71	71	73	72	80.2	88.1
25-Apr	72	66	61	61	62	60	60	58	56	55	56	56	50	47	51	54	55	55	56	58	62	67	73	76	59.5	75.9
26-Apr	76	77	79	79	79	81	78	73	69	60	56	49	44	37	35	34	32	32	35	37	43	47	51	53	55.7	80.7
27-Apr	55	53	60	66	69	72	72	68	57	48	39	34	33	31	29	27	28	29	31	38	45	51	48	49	47.2	72.4
28-Apr	51	53	54	56	56	57	57	54	49	45	40	32	26	23	40	44	43	43	39	33	38	43	47	49	44.7	57.4
29-Apr	52	56	59	59	59	59	50	46	40	33	32	30	30	28	27	26	26	31	35	38	40	43	45	52	41.5	59.2
30-Apr	61	64	66	64	58	55	52	51	46	46	48	44	36	35	32	31	35	38	41	46	50	52	54	56	48.4	65.8
	62.4	64.5	66.4	67.8	68.6	69.3	68.2	64.1	59.3	53.4	48.8	45.7	43.2	40.5	39.2	39.1	38.7	39.8	41.5	45.6	50.2	53.8	56.6	59.2	Diurnal Average	
	88.0	87.2	87.2	86.6	87.0	87.7	88.1	87.8	88.3	88.5	88.4	87.8	87.2	86.2	85.5	87.7	87.9	87.2	85.6	86.3	85.4	86.6	87.5	88.0	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Henry Pirker - April 2015



Peace Airshed Zone Association

Hourly Averages

Solar Radiation (SR) - W/m^2

Henry Pirker - April 2015

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

Maximum Value: 741.5 W/m^2 on Apr 18 14:00

Maximum Daily Average: 250.4 W/m^2 on Apr 18

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

Minimum Daily Average: 42.1 W/m^2 on Apr 24

Maximum Diurnal Average: 525.0 W/m^2 at hour 13

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

Monthly Average: 170.98 W/m^2

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 42.0 Q_3 = 306.9 P_{90} = 556.1 P_{99} = 706.7

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

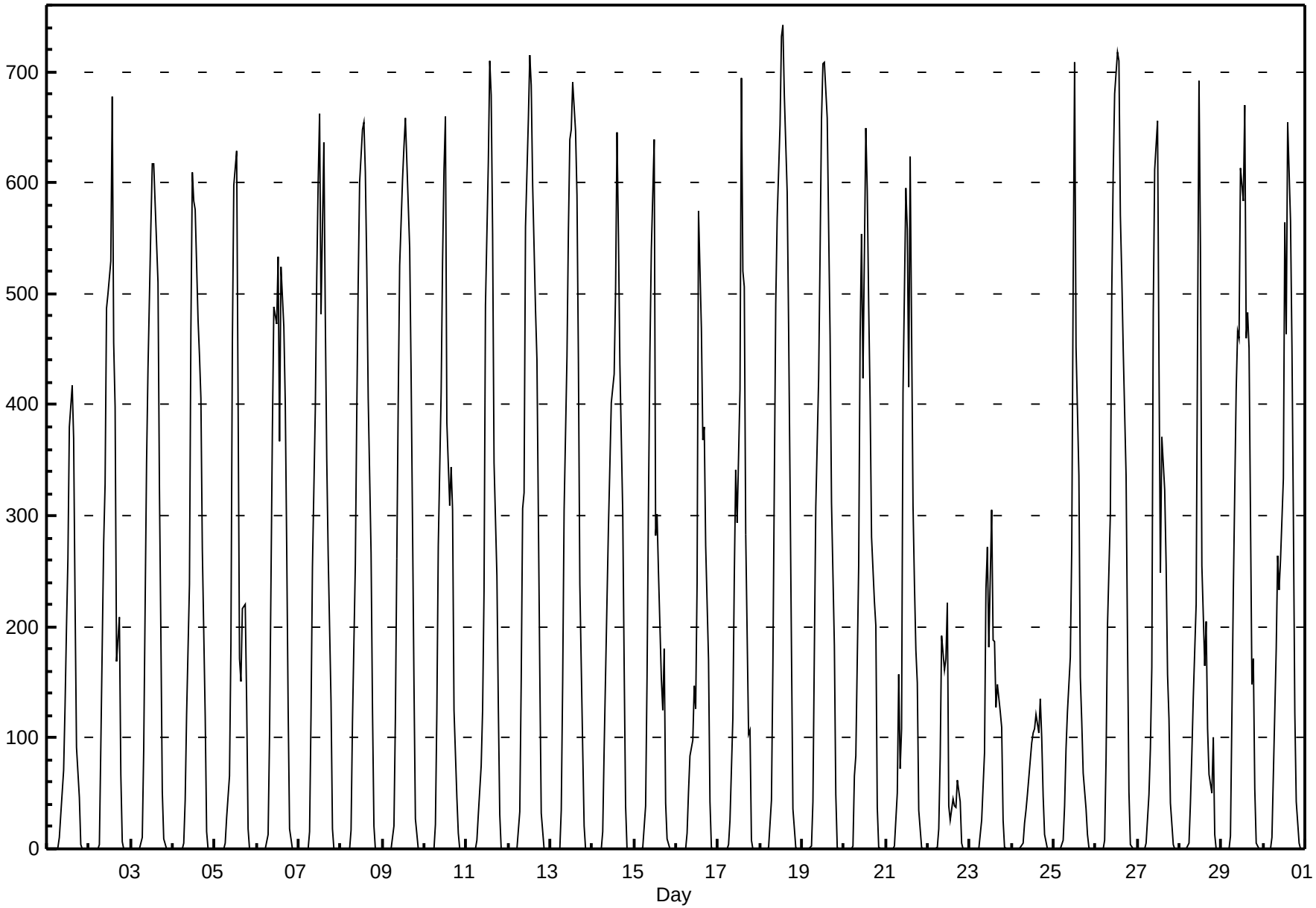
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Apr	0	0	0	0	0	0	1	10	31	71	129	199	262	380	418	370	222	92	46	4	0	0	0	0	93.1	417.7
2-Apr	0	0	0	0	0	0	3	92	276	329	487	500	530	677	456	398	169	209	67	6	0	0	0	0	174.9	677.1
3-Apr	0	0	0	0	0	0	10	89	219	348	433	561	617	617	581	510	325	195	51	9	0	0	0	0	190.2	616.9
4-Apr	0	0	0	0	0	0	6	44	121	239	468	610	584	576	477	444	406	269	120	15	0	0	0	0	182.4	609.9
5-Apr	0	0	0	0	0	0	5	28	66	186	455	597	629	404	172	151	216	221	132	18	0	0	0	0	136.6	628.8
6-Apr	0	0	0	0	0	0	13	101	240	378	489	472	534	367	525	471	402	272	127	18	0	0	0	0	183.7	533.5
7-Apr	0	0	0	0	0	0	16	120	253	396	514	600	662	482	637	478	352	265	133	18	0	0	0	0	205.2	662.1
8-Apr	0	0	0	0	0	0	16	115	256	393	509	600	649	654	610	523	406	266	124	21	0	0	0	0	214.3	654.4
9-Apr	0	0	0	0	0	0	21	117	262	405	526	603	633	658	619	541	428	291	149	27	0	0	0	0	219.9	657.6
10-Apr	0	0	0	0	0	0	21	122	273	411	529	611	659	383	309	344	306	125	46	15	0	0	0	0	173.1	658.9
11-Apr	0	0	0	0	0	0	8	31	75	125	232	490	618	710	679	554	348	247	127	31	0	0	0	0	178.1	710.3
12-Apr	0	0	0	0	0	0	33	152	306	321	560	658	715	687	597	486	441	299	158	33	0	0	0	0	227.0	715.2
13-Apr	0	0	0	0	0	1	34	151	305	443	557	639	648	690	646	589	439	238	90	21	0	0	0	0	228.9	690.1
14-Apr	0	0	0	0	0	0	15	91	224	289	345	403	428	504	646	552	437	303	163	38	1	0	0	0	184.9	645.8
15-Apr	0	0	0	0	0	1	38	155	311	447	540	639	282	302	248	153	125	181	41	9	0	0	0	0	144.7	638.9
16-Apr	0	0	0	0	0	0	14	51	84	98	146	126	240	575	469	368	380	273	170	43	1	0	0	0	126.6	574.9
17-Apr	0	0	0	0	0	0	4	26	118	243	341	294	414	694	521	507	284	104	107	8	0	0	0	0	152.7	694.2
18-Apr	0	0	0	0	0	2	44	165	329	491	568	652	731	741	679	591	470	329	179	37	1	0	0	0	250.4	741.5
19-Apr	0	0	0	0	0	2	43	178	308	424	536	657	707	708	658	559	463	311	183	49	1	0	0	0	241.1	708.1
20-Apr	0	0	0	0	0	2	66	83	255	460	554	424	650	592	490	403	281	223	201	38	2	0	0	0	196.8	649.7
21-Apr	0	0	0	0	0	2	50	157	73	108	411	595	558	416	623	310	238	179	149	35	1	0	0	0	162.7	623.0
22-Apr	0	0	0	0	0	1	18	83	191	162	172	221	39	26	45	39	37	61	43	5	0	0	0	0	47.6	220.9
23-Apr	0	0	0	0	0	1	13	26	87	234	271	182	305	187	187	127	148	124	110	25	1	0	0	0	84.6	305.1
24-Apr	0	0	0	0	0	1	5	23	35	49	65	95	104	109	122	105	135	100	48	13	0	0	0	0	42.1	135.1
25-Apr	0	0	0	0	0	7	39	90	123	172	271	510	708	452	337	155	115	68	36	13	1	0	0	0	129.1	708.2
26-Apr	0	0	0	0	0	8	82	201	301	503	609	680	718	710	571	515	449	337	189	52	4	0	0	0	247.0	718.0
27-Apr	0	0	0	0	0	5	49	90	164	483	612	655	439	249	370	324	256	158	117	41	4	0	0	0	167.4	655.2
28-Apr	0	0	0	0	0	5	42	87	137	221	462	692	542	255	165	205	108	67	50	100	13	0	0	0	131.3	692.0
29-Apr	0	0	0	0	0	12	120	232	413	467	460	613	583	669	460	484	450	149	171	54	5	0	0	0	222.6	669.3
30-Apr	0	0	0	0	0	11	123	181	265	233	260	334	565	464	654	565	452	298	122	42	5	0	0	0	190.5	653.8
	0.0	0.0	0.0	0.0	0.0	2.0	31.8	103.0	203.4	304.3	417.0	497.1	525.0	498.0	465.6	393.9	309.5	208.4	115.0	27.9	1.4	0.0	0.0	0.0	Diurnal Average	
	0.0	0.0	0.0	0.1	0.0	11.6	123.5	231.6	413.1	503.0	612.4	692.0	731.2	741.5	678.7	591.0	469.7	336.8	200.8	100.4	13.4	0.0	0.0	0.0	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

Solar Radiation (SR) - W/m^2

Henry Pirker - April 2015



Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Henry Pirker - April 2015

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	26	23	16	16	21	21	20	17	16	17	15	13	12	11	11	12	9	7	5	3	3	4	6	6	12.3	25.9
Dir	293	295	312	305	298	301	303	299	300	300	302	306	310	311	307	315	323	291	257	236	212	228	237	254	298.0	292.9
2 Spd	5	6	5	5	5	4	0	0	3	7	11	12	13	15	15	14	9	15	9	3	5	2	2	4	5.7	14.9
Dir	262	252	249	289	277	274	240	233	220	265	278	306	318	311	319	329	311	266	337	212	299	231	171	163	292.2	318.6
3 Spd	2	3	2	2	4	3	4	3	4	4	1	4	9	9	9	9	10	10	8	8	7	7	5	4	3.1	10.0
Dir	188	185	202	216	229	245	261	253	265	311	8	116	87	61	58	63	64	65	76	73	59	70	73	74	71.3	64.2
4 Spd	7	8	6	7	7	8	8	9	11	10	11	11	10	10	11	11	11	11	10	8	7	9	10	8	9.0	11.2
Dir	56	69	61	63	80	71	64	69	71	72	61	62	61	54	54	55	53	55	56	60	60	67	68	73	62.7	61.2
5 Spd	11	9	8	4	6	6	5	6	6	2	6	10	9	8	7	9	9	8	9	5	6	7	10	9	7.1	10.9
Dir	72	63	61	69	64	70	88	86	106	102	101	95	99	82	90	112	101	98	95	97	93	89	97	95	88.5	71.5
6 Spd	8	7	9	10	9	8	5	8	9	6	5	4	5	3	4	3	2	2	5	6	3	4	6	7	4.4	10.4
Dir	96	99	102	104	104	105	103	111	120	131	130	100	102	107	118	126	236	187	284	311	349	135	120	121	110.7	104.3
7 Spd	6	2	2	2	2	3	2	3	6	8	14	16	14	12	16	19	19	17	15	13	10	9	9	7	8.8	18.8
Dir	123	226	221	238	243	261	249	262	269	243	252	267	263	261	249	269	264	264	251	252	246	238	238	229	253.8	263.7
8 Spd	8	9	6	8	7	6	6	6	9	12	14	12	11	13	15	14	14	16	15	16	15	13	13	10	10.9	15.7
Dir	233	237	242	287	275	261	275	269	252	254	266	276	266	265	276	262	263	271	247	243	250	252	249	249	259.1	271.1
9 Spd	3	2	3	5	5	6	3	4	4	6	11	14	16	9	12	13	13	14	12	6	5	2	2	2	6.5	15.8
Dir	264	271	250	274	247	215	215	180	200	221	246	250	249	241	255	246	256	266	273	296	320	251	201	220	250.7	249.4
10 Spd	2	1	2	2	1	2	2	2	5	7	12	10	11	13	10	13	16	17	14	11	9	12	8	2	6.5	16.9
Dir	268	229	201	251	196	273	256	200	159	163	161	170	182	171	211	207	225	222	224	221	230	265	266	239	210.4	222.1
11 Spd	2	3	5	3	3	5	16	18	18	24	28	30	32	13	12	19	22	25	17	18	14	10	12	12	3.6	32.0
Dir	254	250	171	194	212	270	266	256	255	255	252	257	263	236	147	145	124	106	110	54	37	28	55	55	224.3	262.7
12 Spd	14	15	13	18	17	17	17	16	17	10	20	19	20	20	24	29	34	25	23	28	23	19	13	13	16.7	34.0
Dir	54	61	93	81	87	78	56	68	84	122	133	134	134	125	129	125	125	130	98	73	71	59	52	50	96.6	125.3
13 Spd	15	11	9	1	6	3	2	1	7	8	9	10	7	10	14	9	14	7	10	11	3	0	0	0	1.0	14.7
Dir	51	60	42	14	354	39	42	221	161	173	154	124	96	126	143	307	265	332	300	241	240	313	189	35	107.6	51.1
14 Spd	0	13	9	12	6	5	8	10	21	25	24	27	30	9	27	28	29	23	15	24	19	22	17	11	14.6	29.6
Dir	26	74	58	98	46	90	138	85	76	100	134	126	140	162	142	137	78	115	60	78	69	73	62	47	100.0	139.7
15 Spd	15	14	10	9	10	9	5	8	13	18	21	18	18	17	18	19	8	22	21	23	21	19	15	11	14.9	23.0
Dir	52	52	43	38	32	41	31	51	53	61	66	59	65	61	60	62	71	62	72	74	77	67	61	57	60.2	74.2
16 Spd	9	8	8	11	14	10	9	6	6	9	11	13	13	5	23	27	24	32	29	22	9	5	5	3	9.1	31.9
Dir	45	46	50	49	54	49	52	49	52	57	61	52	64	72	313	108	309	346	358	357	65	87	62	58	29.2	346.1
17 Spd	2	1	1	2	4	8	10	10	11	9	2	4	4	17	9	29	21	29	18	22	24	20	23	17	8.8	29.0
Dir	77	219	113	15	337	311	242	225	249	269	322	160	16	58	32	330	317	288	276	283	293	292	276	335	298.9	288.0
18 Spd	18	12	8	4	3	5	5	6	9	15	11	6	10	3	1	2	1	0	1	1	1	9	5	7	4.4	18.3
Dir	293	245	240	233	257	235	256	244	256	264	262	266	77	96	162	255	253	108	187	178	270	256	239	206	253.6	293.2
19 Spd	6	8	12	8	5	4	4	8	8	9	10	9	1	5	3	7	5	12	14	10	8	14	10	5	6.6	14.2
Dir	35	31	32	34	42	37	46	40	40	50	64	65	275	61	245	229	63	56	69	56	51	59	52	85	51.3	58.7
20 Spd	6	8	7	5	3	2	2	2	2	1	10	17	16	9	5	1	1	1	2	2	1	1	2	1	3.7	17.0
Dir	64	72	65	66	66	66	86	72	74	90	82	75	92	92	106	70	295	220	202	184	212	203	194	187	85.0	74.7
21 Spd	1	1	1	1	1	1	3	4	C	C	C	C	4	4	6	5	8	10	11	7	7	7	4	5	2.8	11.1
Dir	218	238	151	90	258	252	238	230	C	C	C	C	97	62	76	73	97	88	70	44	39	52	49	236	73.5	70.2
22 Spd	13	19	13	9	9	10	14	10	13	12	15	17	21	22	20	20	20	17	18	17	17	16	15	14	14.2	22.2
Dir	253	272	278	236	214	216	219	284	295	247	244	260	261	238	230	211	232	237	223	204	217	230	231	223	238.8	238.0

Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Henry Pirker - April 2015

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	15	16	13	12	13	12	12	13	14	18	21	19	19	16	13	12	10	10	12	10	8	6	5	4	11.3	20.8
Dir	240	249	242	218	224	222	223	240	232	235	247	250	259	271	271	273	279	290	303	310	308	290	290	288	255.1	246.6
24 Spd	5	4	1	2	2	1	0	4	7	8	9	11	10	11	9	9	8	9	6	9	10	9	6	5	5.9	10.8
Dir	298	308	344	20	39	36	73	47	31	27	7	8	19	18	16	11	10	19	25	46	56	64	45	51	24.2	18.1
25 Spd	5	6	5	7	7	8	6	5	5	6	3	3	2	4	6	8	5	5	6	6	5	5	2	2	3.6	7.7
Dir	56	3	9	360	3	1	7	4	3	352	357	343	342	35	63	78	99	98	87	97	109	120	118	106	39.6	78.1
26 Spd	2	3	4	5	5	6	7	5	5	3	2	4	4	5	6	5	3	5	8	5	4	5	7	5	2.6	7.7
Dir	59	29	47	63	56	68	72	83	94	205	210	202	189	211	210	203	163	147	115	79	59	57	73	88	100.6	114.9
27 Spd	4	5	2	2	1	0	1	2	5	4	6	6	3	2	5	6	4	3	10	7	1	3	5	6	2.8	10.1
Dir	149	193	175	122	206	13	119	133	156	163	189	201	147	145	177	221	133	130	210	198	120	67	68	68	165.6	210.0
28 Spd	7	9	6	6	8	7	8	8	11	16	17	18	16	13	37	36	27	24	18	24	14	10	11	7	6.7	37.2
Dir	70	71	83	66	74	70	78	80	102	114	110	112	109	175	242	240	233	229	217	218	215	210	211	204	187.4	241.9
29 Spd	6	7	7	11	11	11	11	14	18	22	22	23	22	20	19	20	21	15	17	15	9	8	7	10	14.0	22.9
Dir	198	203	205	211	203	212	209	203	217	219	224	221	215	215	215	215	227	213	223	220	188	164	169	200	212.5	221.1
30 Spd	11	15	11	10	13	16	15	14	19	18	14	18	25	25	28	28	28	28	25	22	19	13	12	9	17.7	28.3
Dir	196	191	182	185	185	184	179	191	208	202	206	222	221	227	221	211	204	206	211	210	207	202	200	194	205.3	221.3
Spd	1.0	0.7	1.0	1.0	0.6	0.1	0.8	0.6	1.1	2.5	3.1	2.2	2.2	1.8	3.4	3.4	2.7	1.7	0.9	0.4	0.8	1.2	0.8	1.0	Diurnal Average	
Dir	3.5	357.9	52.3	61.9	39.8	352.2	225.9	207.6	186.9	210.3	201.4	198.6	189.3	192.7	217.2	203.7	228.4	229.3	225.8	147.2	70.4	79.4	102.9	108.3		
Spd	25.9	22.9	16.2	17.7	21.2	21.4	20.0	17.9	21.5	24.7	28.2	29.6	32.0	25.4	37.2	36.3	34.0	31.9	29.1	28.3	24.2	21.5	23.2	16.5	Diurnal Maximum	
Dir	292.9	294.9	311.9	80.9	297.7	301.3	302.8	255.9	76.3	100.1	251.6	256.9	262.7	227.2	241.9	240.3	125.3	346.1	357.7	73.4	292.8	73.2	275.5	335.0		

Maximum Speed Value: 37 km/h on Apr 28 15:00
Maximum Daily Speed Average: 17.7 km/h on Apr 12
Maximum Diurnal Speed Average: 3.4 km/h at hour 15

Minimum Speed Value: 0 km/h on Apr 13 23:00
Minimum Daily Speed Average: 1.0 km/h on Apr 27
Minimum Diurnal Speed Average: 0.1 km/h at hour 6

Monthly Average Velocity: 0.85 km/h 197.54 deg

Speed Percentiles: $P_1 = 0.5$ $P_{10} = 2.1$ $Q_1 = 4.9$ Median = 8.7 $Q_3 = 13.9$ $P_{90} = 19.8$ $P_{99} = 29.5$

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:	100.0

C - Calibration

Frequency Distribution

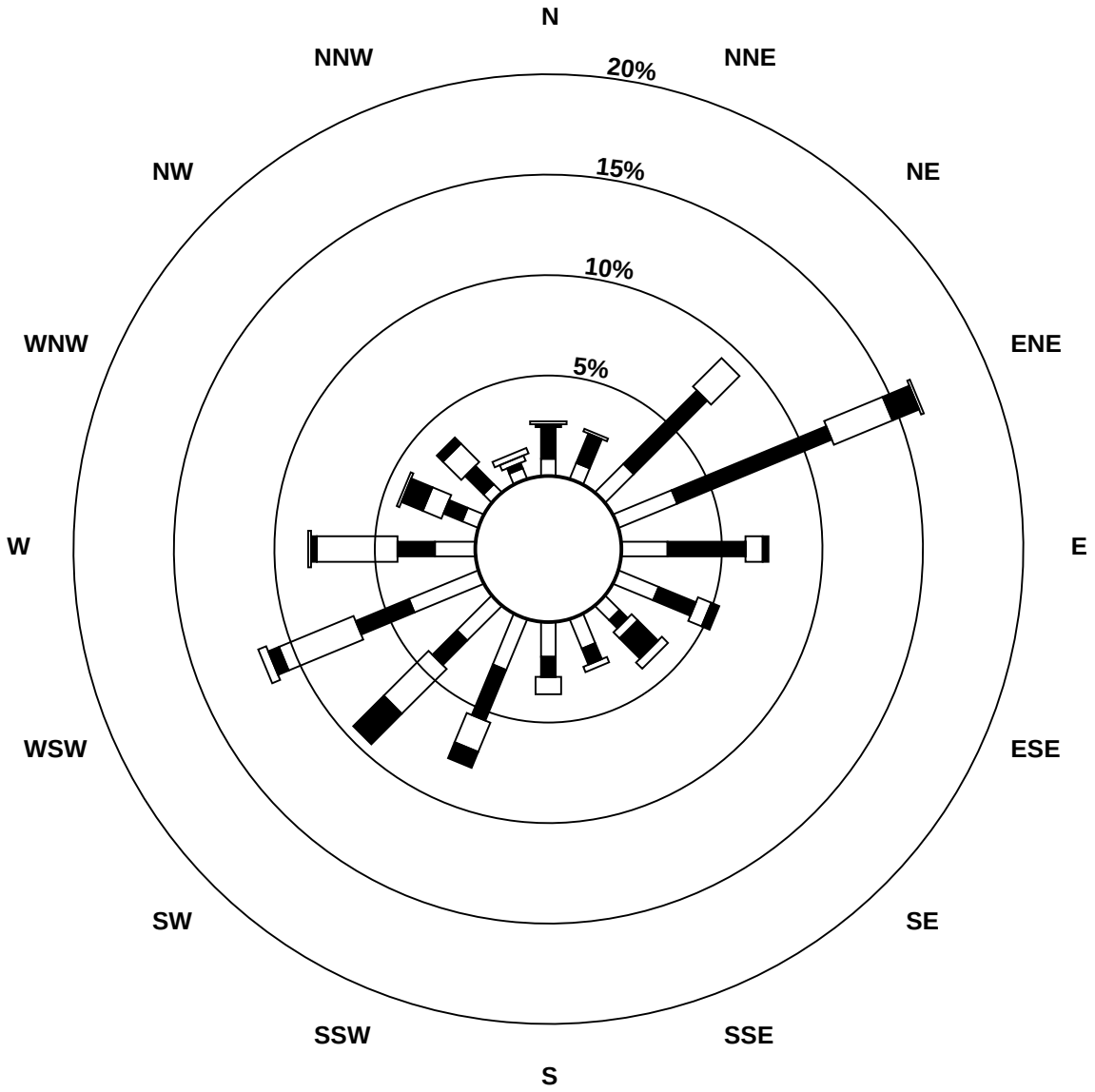
Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	12	17	0	1	2	0	32
NorthEast	25	77	33	3	0	0	138
East	19	78	16	12	2	0	127
SouthEast	17	14	3	13	3	0	50
South	29	18	13	0	0	0	60
SouthWest	41	37	39	24	4	0	145
West	29	29	46	6	4	0	114
NorthWest	9	12	19	9	1	0	50
Total	181	282	169	68	16	0	716

Peace Airshed Zone Association

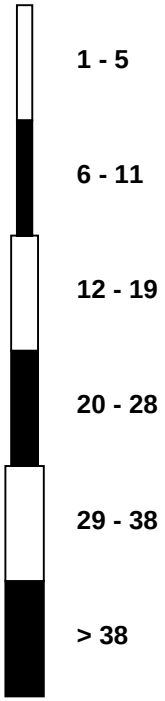
Wind Rose

Wind Speed (WS) (km/h)

Henry Pirker - April 2015



Wind Speed Classes (km/h)



Peace Airshed Zone Association

Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Henry Pirker - April 2015

Maximum Speed: 42 km/h on Apr 12 12:00

Maximum Daily Speed Average: 27.6 km/h on Apr 12

Minimum Speed: 0 km/h on Apr 13 23:00

Minimum Daily Speed Average: 4.4 km/h on Apr 27

Maximum Diurnal Speed Average: 17.1 km/h at hour 16

Minimum Diurnal Speed Average: 7.1 km/h at hour 4

Monthly Average Speed: 11.27 km/h

Percentiles: $P_1 = 0.9$ $P_{10} = 3.0$ $Q_1 = 5.6$ Median = 9.2 $Q_3 = 14.9$ $P_{90} = 22.2$ $P_{99} = 38.1$

Hours in Service: 720

Hours of Data: 716

Hours of Missing Data: 4

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	26	23	16	16	21	22	20	17	16	17	15	13	12	12	11	12	10	7	5	4	3	4	6	6	13.1	26.0
2-Apr	5	6	5	5	5	4	0	0	3	7	11	13	14	15	15	14	11	15	11	3	5	3	3	4	7.5	15.4
3-Apr	3	3	2	2	4	3	4	3	4	5	5	6	10	10	10	10	11	10	9	8	8	7	6	6	6.1	10.6
4-Apr	8	8	7	8	8	9	9	9	11	10	12	11	10	11	12	12	12	11	10	8	8	10	10	8	9.6	11.9
5-Apr	11	9	9	5	6	7	6	7	6	4	7	11	10	9	8	9	10	9	9	5	6	7	10	9	8.0	11.2
6-Apr	8	8	9	10	9	9	5	8	9	7	6	6	7	6	6	6	5	4	7	6	5	5	6	7	6.9	10.5
7-Apr	6	3	2	2	2	3	2	3	6	8	14	17	14	14	17	19	19	17	15	13	11	9	9	7	9.7	19.3
8-Apr	8	9	7	9	8	6	6	7	9	12	14	13	12	14	16	14	15	16	15	16	15	13	13	10	11.5	16.0
9-Apr	4	2	3	5	5	6	3	5	5	6	11	14	16	10	13	14	13	14	12	7	5	2	2	3	7.5	16.4
10-Apr	3	2	2	2	3	2	2	2	5	7	13	11	12	14	12	15	17	17	14	12	9	12	8	2	8.2	17.2
11-Apr	2	3	5	4	4	6	16	18	18	24	28	30	33	32	33	35	36	32	29	20	14	10	12	15	19.1	35.6
12-Apr	15	15	20	19	21	21	18	25	24	36	39	42	42	40	40	41	38	38	32	29	23	19	13	13	27.6	42.3
13-Apr	15	11	9	2	6	3	2	5	8	9	10	11	12	15	16	15	15	13	11	11	3	0	0	0	8.3	15.9
14-Apr	0	13	9	14	6	6	9	11	22	29	27	31	30	32	32	34	30	29	29	24	19	22	17	11	20.2	33.7
15-Apr	15	14	10	9	10	9	5	9	14	19	22	18	19	18	19	21	8	23	22	23	22	19	15	11	15.6	23.3
16-Apr	10	8	8	11	14	10	9	6	7	9	11	14	13	30	31	27	29	32	30	22	10	7	5	3	14.9	32.4
17-Apr	2	2	3	4	5	9	10	10	12	9	7	8	18	22	30	36	30	31	19	22	24	23	24	18	15.8	36.2
18-Apr	22	12	8	4	3	5	5	6	9	16	11	10	11	9	8	5	5	5	4	3	3	10	5	7	7.7	21.8
19-Apr	7	8	12	8	5	4	4	8	8	10	10	10	7	8	8	11	9	12	15	10	8	14	10	6	8.9	15.2
20-Apr	6	8	7	5	3	2	2	2	3	2	10	17	17	13	10	6	5	4	5	4	6	6	7	6	6.7	17.3
21-Apr	2	2	1	2	1	1	3	4	C	C	C	C	4	5	7	6	9	10	11	7	7	7	5	6	5.1	11.3
22-Apr	13	19	13	9	9	11	14	10	13	13	15	17	22	23	21	20	20	18	19	17	17	16	16	14	15.8	22.7
23-Apr	15	16	13	12	13	12	12	13	14	18	21	19	19	16	13	12	10	11	12	10	8	6	5	4	12.7	21.0
24-Apr	5	4	2	2	2	1	1	4	7	9	9	11	10	11	9	10	8	9	6	10	10	9	6	5	6.7	11.1
25-Apr	6	6	6	7	7	8	7	6	5	6	4	4	4	5	7	8	6	5	7	6	6	5	2	2	5.6	8.2
26-Apr	2	3	4	6	5	6	7	6	6	4	4	5	5	6	7	6	4	7	8	5	4	6	7	5	5.3	8.0
27-Apr	4	5	3	2	1	1	1	3	5	5	7	8	4	3	7	6	4	3	10	7	2	3	6	6	4.4	10.4
28-Apr	7	9	6	6	8	7	8	8	11	17	17	18	17	17	38	37	27	24	18	24	14	10	11	7	15.2	37.6
29-Apr	6	7	7	11	11	11	11	14	18	22	22	24	23	21	20	21	21	16	17	15	10	8	7	10	14.7	23.5
30-Apr	11	15	11	10	13	17	15	15	19	18	15	19	26	26	29	29	28	28	25	22	20	13	13	9	18.5	28.9
	8.2	8.4	7.2	7.1	7.3	7.4	7.2	8.1	10.2	12.4	13.7	14.8	15.2	15.5	16.8	17.1	15.5	15.8	14.6	12.5	10.2	9.5	8.7	7.4	Diurnal Average	
	26.0	23.4	20.1	19.5	21.3	21.5	20.1	24.8	23.5	35.8	38.5	42.3	42.2	40.4	39.7	41.0	38.3	37.8	32.3	28.6	24.4	22.7	24.0	18.3	Diurnal Maximum	

C - Calibration

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 2015

Maximum Value: 96.5 deg on Apr 18 18:00

Minimum Value: 0.1 deg on Apr 21 05:00

Percentiles: P_1 = 5.2 P_{10} = 7.6 Q_1 = 10.0 Median = 15.1 Q_3 = 29.7 P_{90} = 57.3 P_{99} = 88.9

Hours in Service:	720
Hours of Data:	716
Hours of Missing Data:	4
Hours of Calibration:	4
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	5	12	6	6	5	6	5	6	6	5	5	6	7	7	8	11	12	21	14	29	11	12	8	14	28.6
2-Apr	16	14	8	11	16	27	6	9	21	15	18	17	16	16	14	15	32	17	56	18	25	38	44	22	55.8
3-Apr	41	14	8	8	4	10	13	11	14	42	87	55	30	34	27	23	26	18	18	22	37	32	44	55	87.4
4-Apr	28	31	42	30	21	16	35	25	13	14	15	29	26	32	25	29	37	24	23	21	40	16	13	18	42.0
5-Apr	13	23	23	42	41	39	49	25	32	74	44	21	28	32	47	25	23	29	14	26	16	19	9	10	74.5
6-Apr	13	14	9	7	7	10	19	15	12	27	42	69	54	66	72	72	66	65	51	20	69	45	15	8	72.3
7-Apr	12	33	18	7	11	13	11	14	11	12	10	15	15	25	13	13	13	11	11	7	9	6	7	5	32.7
8-Apr	5	6	31	25	16	7	13	16	10	10	16	13	23	21	21	15	17	12	9	6	7	7	6	8	30.9
9-Apr	17	32	27	30	18	6	12	16	17	18	15	13	16	24	16	22	14	15	7	24	18	15	13	34	33.9
10-Apr	26	20	18	27	49	28	23	38	18	16	12	24	24	29	32	39	16	10	9	9	18	9	14	18	48.5
11-Apr	24	17	20	20	50	30	11	7	8	9	8	10	11	73	81	75	63	45	58	26	12	9	15	35	80.6
12-Apr	16	13	57	25	38	41	13	53	46	86	71	75	75	71	66	54	32	59	54	8	7	7	10	8	85.9
13-Apr	8	6	8	55	25	41	41	89	23	21	27	24	74	52	25	66	24	60	20	10	18	30	25	18	89.0
14-Apr	11	12	10	34	11	35	11	34	17	31	24	32	11	85	41	46	10	39	67	8	8	10	7	8	84.8
15-Apr	7	7	8	10	12	6	12	13	12	17	13	17	14	13	17	25	18	13	15	9	8	7	10	12	24.9
16-Apr	9	6	17	8	9	8	8	17	13	21	13	16	20	87	48	13	38	10	12	8	19	39	5	13	86.6
17-Apr	21	51	78	79	39	34	15	11	10	18	80	62	82	45	76	47	53	21	10	11	8	30	16	26	82.3
18-Apr	32	14	13	15	8	10	15	11	16	10	14	67	19	87	86	85	91	96	79	93	88	28	11	15	96.5
19-Apr	44	10	7	7	7	11	16	9	13	12	16	23	87	67	84	62	82	14	26	7	7	6	8	57	87.0
20-Apr	15	8	7	9	24	28	15	17	30	54	24	12	15	60	78	93	89	82	79	72	83	93	85	87	93.5
21-Apr	63	65	11	59	0	5	9	10	C	C	C	C	58	37	32	33	23	15	11	12	12	10	67	63	67.4
22-Apr	8	12	16	17	14	9	13	18	9	20	8	9	12	12	13	8	18	14	24	10	7	10	13	13	23.8
23-Apr	7	6	12	12	9	11	8	8	13	10	8	9	9	8	11	10	13	14	9	7	11	10	10	10	14.5
24-Apr	11	8	35	26	14	33	54	25	13	14	16	15	12	13	15	15	13	12	15	11	12	15	10	21	54.4
25-Apr	26	16	15	16	16	13	16	21	22	18	37	50	67	46	25	20	22	22	20	11	11	11	14	23	67.0
26-Apr	30	32	11	11	8	7	8	18	23	46	59	40	48	51	39	38	57	41	18	21	14	8	8	8	59.4
27-Apr	20	13	36	37	53	76	72	47	17	27	27	38	61	74	37	30	30	48	17	8	31	18	6	8	76.4
28-Apr	7	7	7	6	7	6	7	9	14	8	9	10	13	38	8	9	9	10	12	8	10	11	9	9	37.9
29-Apr	8	9	9	7	6	8	8	9	10	11	13	13	14	15	14	13	12	26	14	9	17	7	7	12	25.6
30-Apr	11	8	10	10	8	8	8	11	9	11	13	17	14	9	12	11	9	10	8	7	6	11	8	15	16.7
	63.4	65.4	78.4	78.9	53.1	76.4	71.7	89.0	46.0	85.9	87.4	75.3	87.0	87.1	86.3	92.8	91.3	96.5	79.2	93.1	88.1	93.5	85.5	87.4	

C - Calibration

PAZA
Evergreen Park Station
Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Evergreen Park - April 2015

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

Maximum Value: 2.4 ppb on Apr 16 19:00

Maximum Daily Average: 0.3 ppb on Apr 16

Minimum Value: 0 ppb on Apr 1 20:00

Minimum Daily Average: 0.0 ppb on Apr 24

Maximum Diurnal Average: 0.3 ppb at hour 10

Minimum Diurnal Average: 0.1 ppb at hour 6

Monthly Average: 0.11 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.0$ Median = 0.1 $Q_3 = 0.1$ $P_{90} = 0.2$ $P_{99} = 0.9$

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	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
2-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
3-Apr	A	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	A	0.1	0.6
4-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.0	0.1
5-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.3
6-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
7-Apr	0	0	0	0	0	0	0	0	0	0	0	C	C	C	C	0	0	0	0	A	0	0	0	0	0.0	0.1
8-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
9-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.1	0.3
10-Apr	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.1	0.9
11-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
12-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
13-Apr	0	0	0	0	0	0	0	0	0	2	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0.2	2.2
14-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
15-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
16-Apr	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	2	1	1	0	0	0	0.3	2.4
17-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	0.2
18-Apr	0	0	0	0	0	0	0	0	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.8
19-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	0.5
20-Apr	0	0	0	0	0	0	A	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0.2	1.1
21-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	0.1	1.2
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	0.5
23-Apr	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.1	0.7
24-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
25-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
26-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	0.5
27-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	0.4
28-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.3
29-Apr	1	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	0.6
30-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
	0.1	0.1	0.1	0.1	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	0.2	0.1	0.1	0.1	0.1	0.1	Diurnal Average	
	0.6	0.4	0.2	0.2	0.2	0.2	0.2	0.2	1.2	2.2	0.7	0.6	0.6	0.3	0.3	1.0	0.3	0.4	2.4	1.4	0.7	0.4	0.2	0.3	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

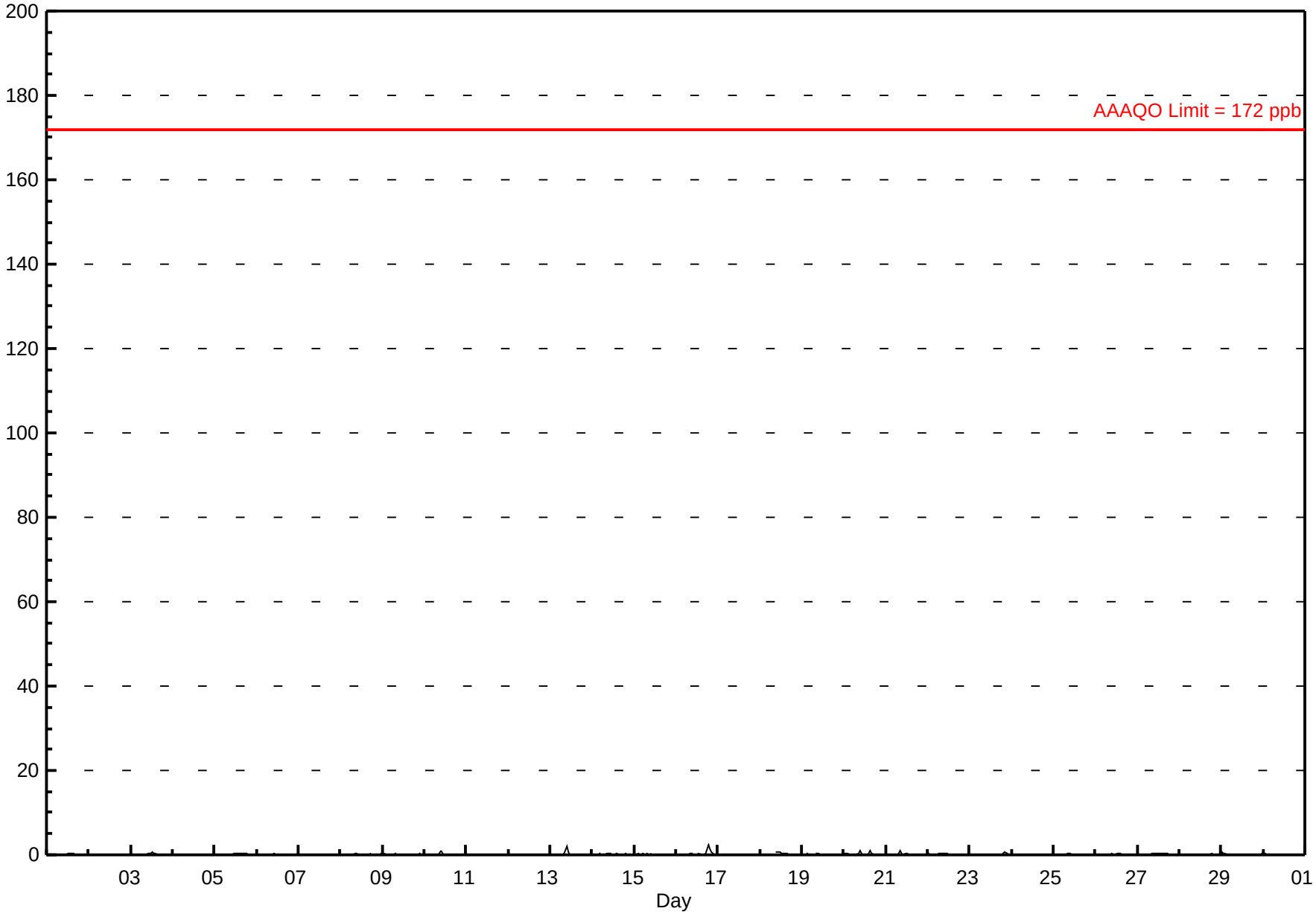
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Evergreen Park - April 2015



Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Evergreen Park - April 2015

Maximum Value: 14.3 ppb on Apr 28 19:00

Maximum Daily Average: 1.2 ppb on Apr 28

Minimum Value: 0 ppb on Apr 7 00:00

Minimum Daily Average: 0.5 ppb on Apr 7

Maximum Diurnal Average: 1.2 ppb at hour 19

Minimum Diurnal Average: 0.5 ppb at hour 4

Monthly Average: 0.65 ppb

Percentiles: $P_1 = 0.3$ $P_{10} = 0.4$ $Q_1 = 0.5$ Median = 0.6 $Q_3 = 0.7$ $P_{90} = 0.8$ $P_{99} = 2.1$

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

Hourly Period Ending At (MST)

Day	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	A	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0	0	0	1	1	0.6	0.8
2-Apr	1	A	1	0	1	0	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.8
3-Apr	A	0	0	0	1	0	1	0	0	0	1	1	1	1	1	1	1	1	0	0	1	0	0	A	0.6	1.3
4-Apr	1	1	0	1	0	0	1	1	1	0	1	1	1	1	1	0	0	1	1	0	0	0	A	1	0.5	0.7
5-Apr	1	1	1	0	1	1	1	0	0	0	1	1	1	1	1	1	1	1	1	0	1	A	0	1	0.6	0.9
6-Apr	1	0	0	0	0	0	0	1	1	1	1	0	0	0	0	1	1	1	1	0	A	0	0	0	0.5	0.7
7-Apr	0	1	0	0	0	1	0	1	1	1	1	C	C	C	C	0	0	0	0	A	0	0	1	0	0.5	0.6
8-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	A	1	0	1	1	1	0.6	0.9
9-Apr	1	1	1	0	1	0	0	1	1	1	1	0	1	1	1	1	1	A	0	0	1	1	0	1	0.6	1.4
10-Apr	1	1	0	0	0	1	1	1	1	2	1	1	1	1	0	0	A	1	1	0	1	1	1	1	0.6	1.6
11-Apr	0	0	0	0	1	0	1	1	0	0	0	1	1	1	1	A	1	0	1	1	1	1	1	1	0.6	1.2
12-Apr	1	0	1	1	1	1	1	0	1	1	0	1	0	1	A	1	1	1	1	1	1	1	0	1	0.6	0.7
13-Apr	1	1	1	1	1	1	1	1	1	4	2	1	1	A	1	1	1	0	1	1	1	0	1	1	0.8	3.7
14-Apr	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0	1	1	0	0.7	1.2
15-Apr	1	1	2	1	1	1	1	1	1	1	1	A	0	1	1	1	1	0	1	1	1	1	1	1	0.7	2.1
16-Apr	1	0	1	1	0	0	0	1	1	1	A	1	1	2	0	0	0	2	5	2	1	1	1	1	1.0	5.2
17-Apr	1	0	1	1	1	1	1	1	0	A	1	1	1	1	1	0	1	1	1	0	0	0	0	0	0.5	0.7
18-Apr	1	0	0	0	1	1	1	1	A	2	2	1	1	1	1	1	1	1	0	0	0	1	0	0	0.7	2.1
19-Apr	0	0	1	1	1	1	1	A	1	1	1	1	1	1	1	0	0	1	1	0	1	1	1	1	0.6	1.3
20-Apr	1	1	1	1	0	0	A	1	1	2	1	1	0	1	1	2	1	1	1	1	1	1	1	1	0.9	2.2
21-Apr	1	1	0	1	0	A	0	1	2	1	1	1	1	1	0	0	1	0	1	0	1	1	0	1	0.7	2.3
22-Apr	1	1	0	1	A	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0	0	0.7	1.5
23-Apr	0	0	1	A	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	2	1	1	0	0.7	1.6
24-Apr	0	0	A	0	1	1	1	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0	0	1	0.5	0.7
25-Apr	0	A	0	1	1	0	1	1	1	1	1	1	1	0	0	1	1	0	0	0	0	1	0	0	0.5	0.8
26-Apr	A	0	1	0	1	0	0	0	1	1	0	1	1	1	1	1	1	0	1	1	0	1	0	A	0.6	1.2
27-Apr	1	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.7	1.1
28-Apr	0	0	1	1	1	1	1	1	1	1	1	1	0	0	1	1	0	0	14	0	0	A	1	1	1.2	14.3
29-Apr	1	1	1	1	1	0	0	1	0	0	1	1	0	1	0	1	0	1	1	1	A	1	0	1	0.6	1.1
30-Apr	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	A	0	0	0	1	0.6	0.8
	0.6	0.6	0.6	0.5	0.6	0.5	0.6	0.6	0.7	0.9	0.8	0.7	0.6	0.7	0.6	0.6	0.6	0.6	1.2	0.6	0.6	0.6	0.5	0.6	Diurnal Average	
	1.4	1.2	2.1	0.7	0.8	0.8	1.2	1.4	2.3	3.7	1.8	1.5	1.3	2.0	1.4	1.7	1.0	1.6	14.3	2.4	1.6	1.4	0.7	0.9	Diurnal Maximum	

C - Calibration

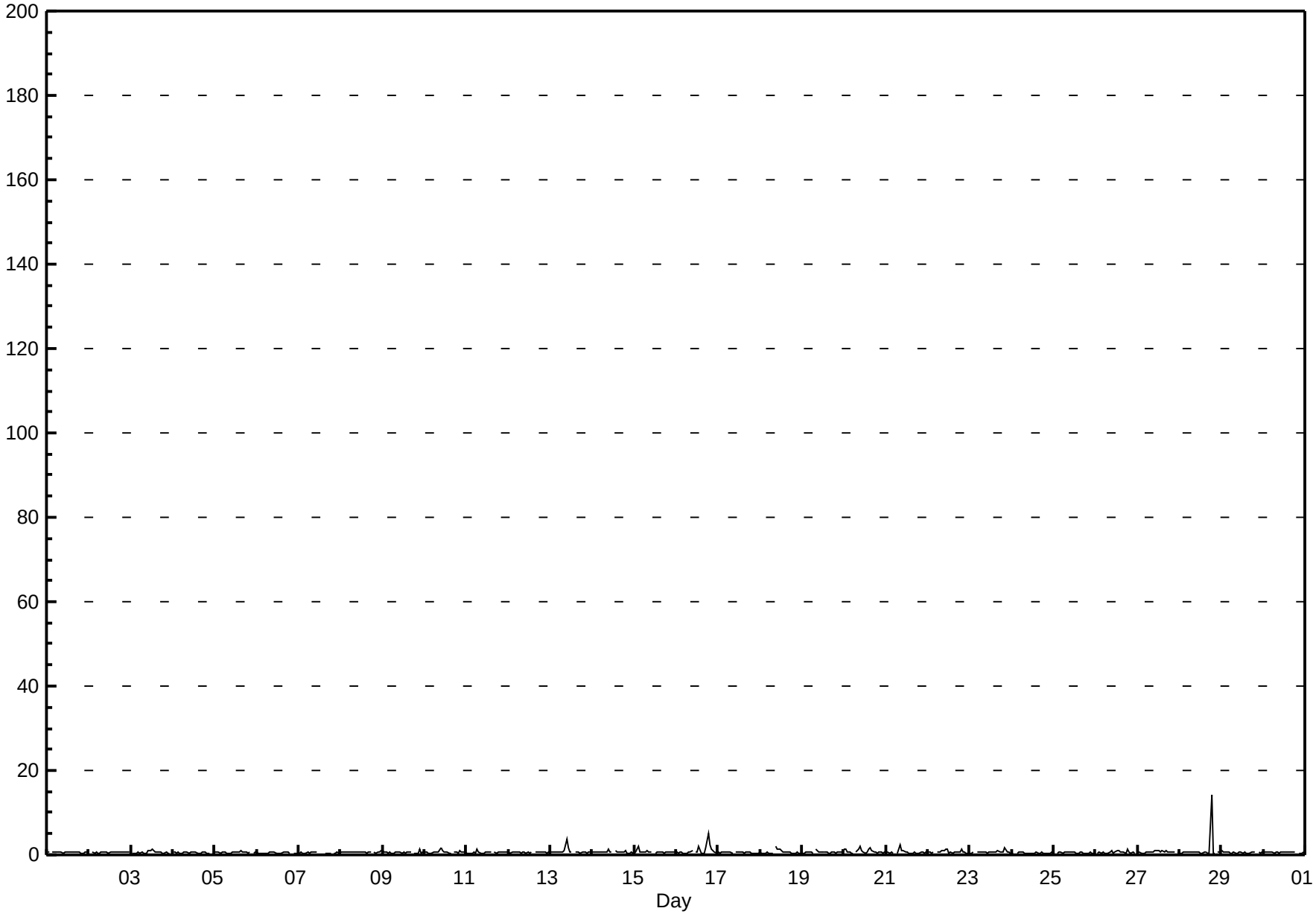
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

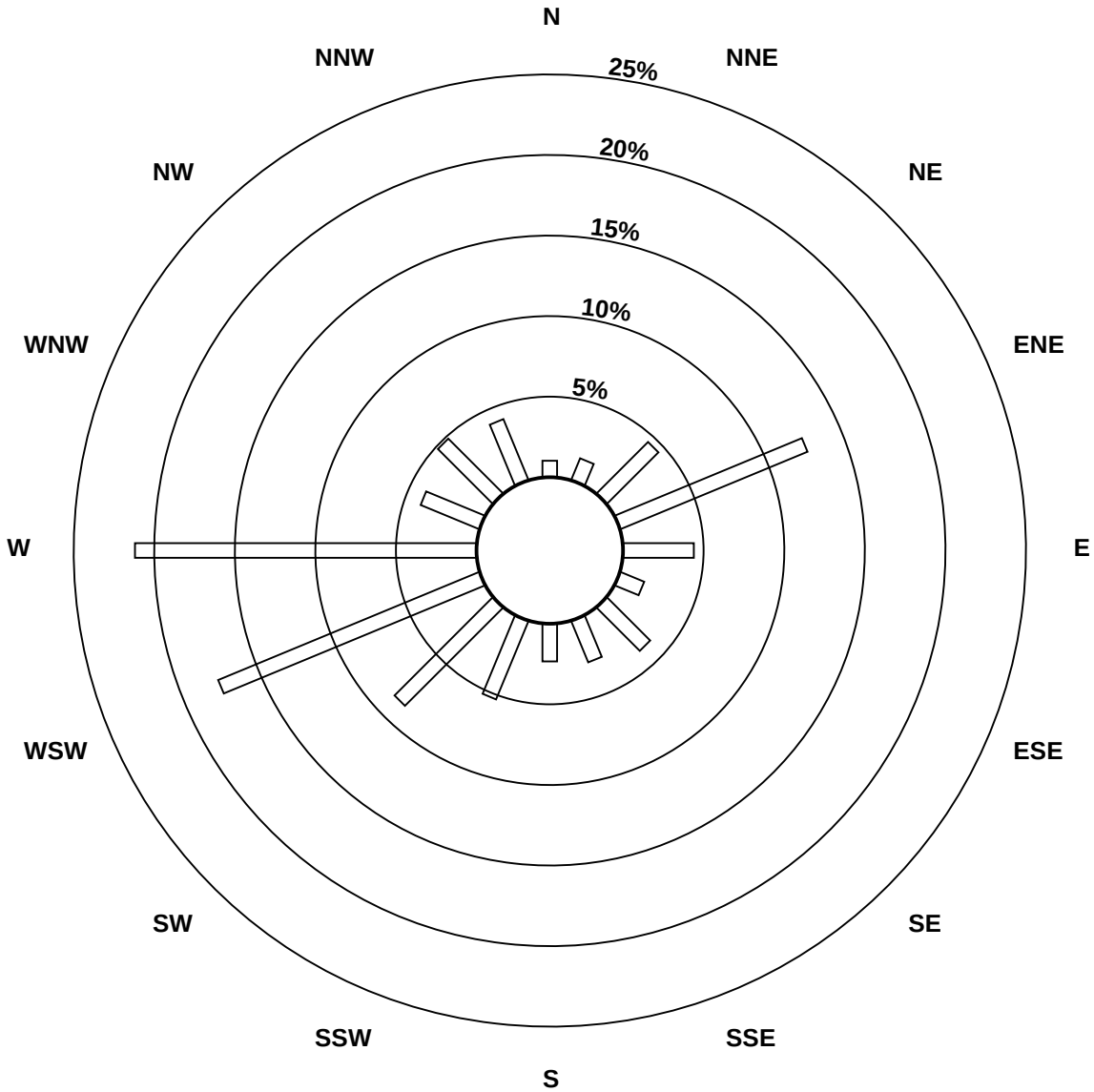
Evergreen Park - April 2015



Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Evergreen Park - April 2015



Pollutant Classes (ppb)

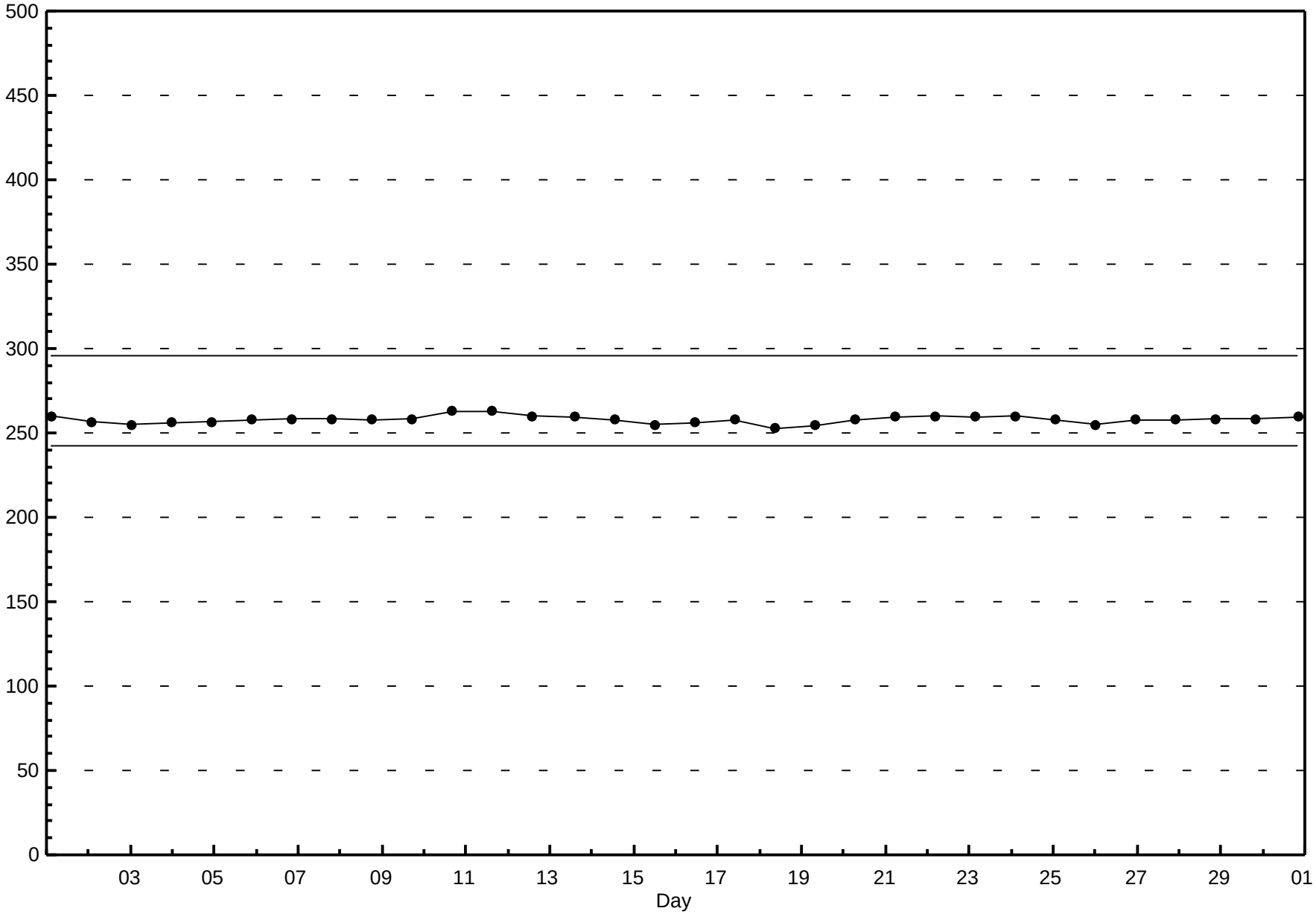
- 0 - 10
- 11 - 20
- 21 - 60
- 61 - 110
- 111 - 172
- > 172

Peace Airshed Zone Association

Span Responses

Sulphur Dioxide (SO_2)

Evergreen Park - April 2015



Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Evergreen Park - April 2015

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

Maximum Value: 3.4 ppb on Apr 10 03:00

Maximum Daily Average: 1.0 ppb on Apr 10

Minimum Value: 0 ppb on Apr 13 17:00

Minimum Daily Average: 0.1 ppb on Apr 13

Maximum Diurnal Average: 0.5 ppb at hour 8

Minimum Diurnal Average: 0.2 ppb at hour 16

Monthly Average: 0.32 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.1$ $Q_1 = 0.2$ Median = 0.3 $Q_3 = 0.4$ $P_{90} = 0.5$ $P_{99} = 1.9$

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	1	A	0	2	1	3	3	2	1	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0.8	2.9
2-Apr	0	A	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.4	0.9
3-Apr	A	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.3	0.6
4-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
5-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.3
6-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	0.4
7-Apr	0	0	0	0	1	1	0	0	0	C	C	C	0	0	0	0	0	0	0	A	0	0	0	0	0.3	0.7
8-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
9-Apr	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	1	A	1	1	1	1	0	1	0.4	0.7
10-Apr	1	3	3	3	2	2	1	1	1	1	1	0	0	0	0	0	A	0	0	0	0	0	0	0	1.0	3.4
11-Apr	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.4	0.6
12-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
13-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
14-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
15-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	0.3
16-Apr	0	0	0	0	0	0	0	0	0	0	A	0	1	1	0	0	0	0	0	0	0	0	0	0	0.3	0.6
17-Apr	0	0	0	0	0	1	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8
18-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
19-Apr	0	0	0	0	0	0	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
20-Apr	0	0	1	1	0	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6
21-Apr	0	0	0	0	0	A	1	1	1	0	0	0	1	0	0	0	0	0	0	0	1	1	1	1	0.5	0.6
22-Apr	1	1	1	1	A	1	1	1	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.5	1.0
23-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
24-Apr	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
25-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
26-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
27-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	0.4
28-Apr	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.3	0.5
29-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
30-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	0.5
	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.3	Diurnal Average	
	0.8	3.2	3.4	2.7	2.0	1.6	2.8	2.9	2.3	0.9	0.6	0.6	0.7	1.0	0.4	0.5	0.5	0.6	1.4	0.5	0.6	0.7	0.5	0.6	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

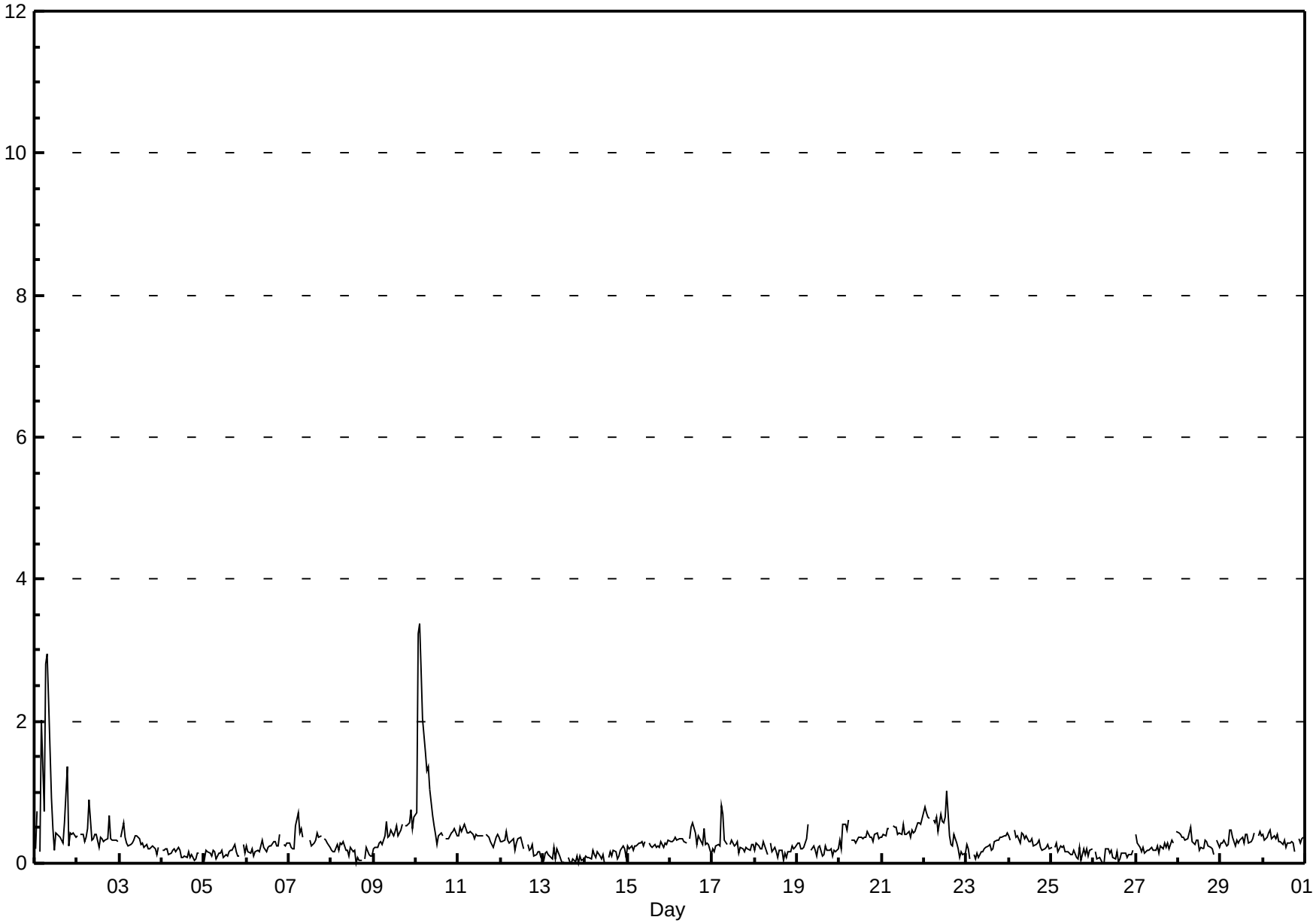
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb

Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Evergreen Park - April 2015



Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

Evergreen Park - April 2015

Maximum Value: 8.3 ppb on Apr 1 19:00

Maximum Daily Average: 2.4 ppb on Apr 1

Minimum Value: 1 ppb on Apr 4 19:00

Minimum Daily Average: 0.8 ppb on Apr 13

Maximum Diurnal Average: 1.4 ppb at hour 8

Minimum Diurnal Average: 1.0 ppb at hour 15

Monthly Average: 1.15 ppb

Percentiles: $P_1 = 0.7$ $P_{10} = 0.8$ $Q_1 = 0.9$ Median = 1.1 $Q_3 = 1.2$ $P_{90} = 1.4$ $P_{99} = 4.6$

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	4	A	1	5	2	5	5	5	2	1	1	1	1	1	1	1	2	8	1	1	1	1	1	2.4	8.3
2-Apr	1	A	1	1	1	1	1	2	1	1	1	1	1	2	1	1	1	1	2	1	1	1	1	1	1.3	2.4
3-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	1.1	1.5
4-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	0.9	1.4
5-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	0.9	1.3
6-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	1.0	1.5
7-Apr	1	1	1	1	2	1	1	1	1	C	C	C	1	1	1	1	1	1	1	A	1	1	1	1	1.1	1.6
8-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	0.9	1.4
9-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	2	1	1	2	1	1	1.2	1.6
10-Apr	2	6	5	4	3	3	2	2	2	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	2.0	6.3
11-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	1.2	1.4
12-Apr	1	1	1	1	1	1	1	1	1	2	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1.1	1.5
13-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
14-Apr	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1.0	1.3
15-Apr	1	1	2	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.7
16-Apr	1	1	1	1	1	1	1	1	1	1	A	1	1	2	1	1	1	1	1	1	1	1	2	1	1.2	1.9
17-Apr	1	1	1	1	1	2	2	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.9
18-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
19-Apr	1	1	1	1	1	2	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.9
20-Apr	1	1	1	1	2	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	1.6
21-Apr	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	2	1.2	1.7
22-Apr	2	1	2	1	A	1	2	2	1	2	1	2	2	3	1	1	1	1	1	1	1	1	1	1	1.4	3.1
23-Apr	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.3
24-Apr	1	1	A	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.5
25-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	1.0	1.3
26-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	0.9	1.4
27-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	1.0	1.3
28-Apr	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1.1	1.6
29-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	1.1	1.5
30-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	1.2	1.4
	1.1	1.4	1.2	1.1	1.3	1.2	1.3	1.4	1.2	1.1	1.1	1.1	1.1	1.1	1.0	1.1	1.1	1.1	1.3	1.0	1.0	1.0	1.1	1.0	Diurnal Average	
	1.9	6.3	4.7	3.9	4.6	2.6	5.1	5.4	5.4	2.1	1.5	1.6	2.1	3.1	1.3	1.5	1.3	1.6	8.3	1.3	1.7	1.6	1.6	1.6	Diurnal Maximum	

C - Calibration

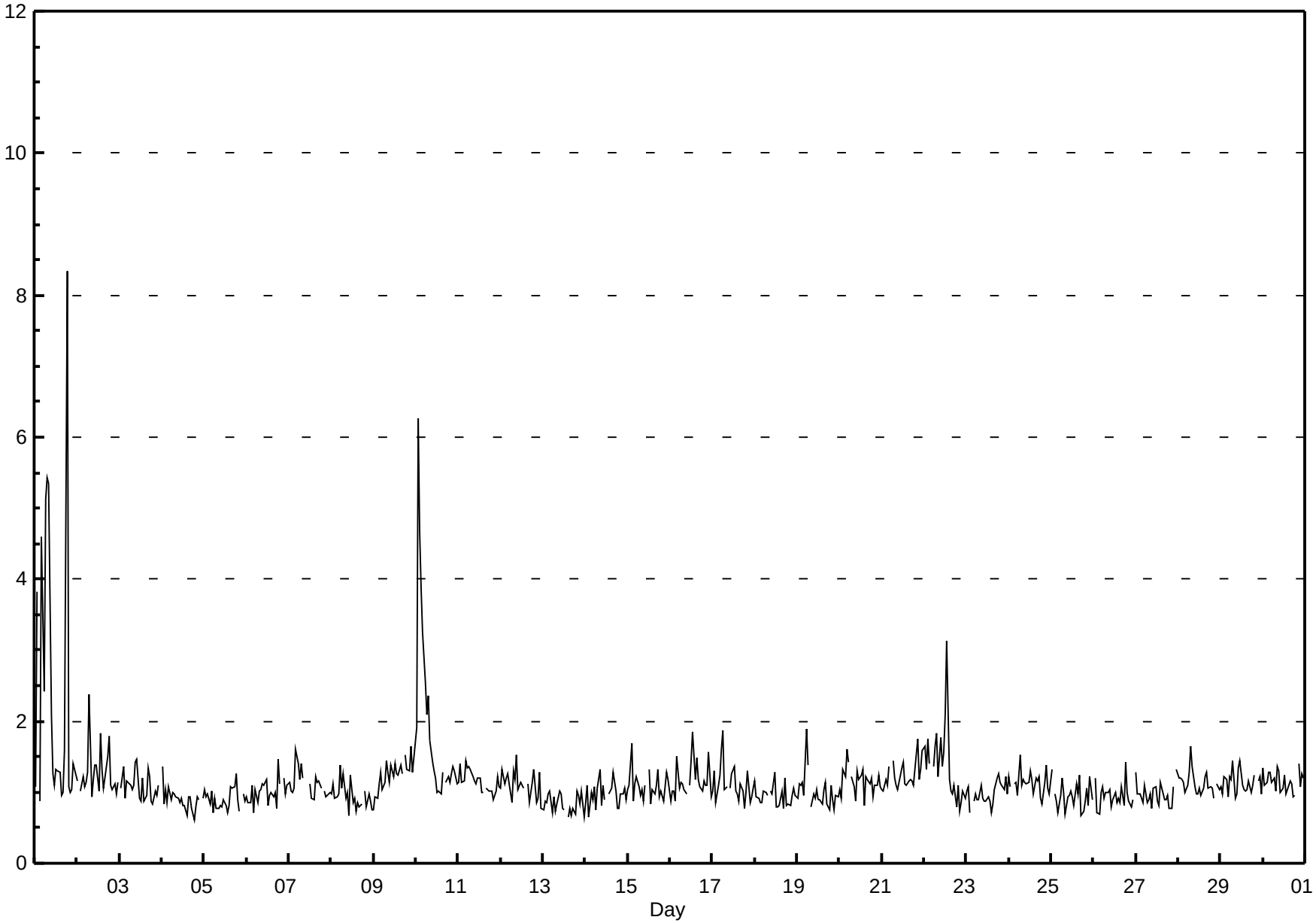
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

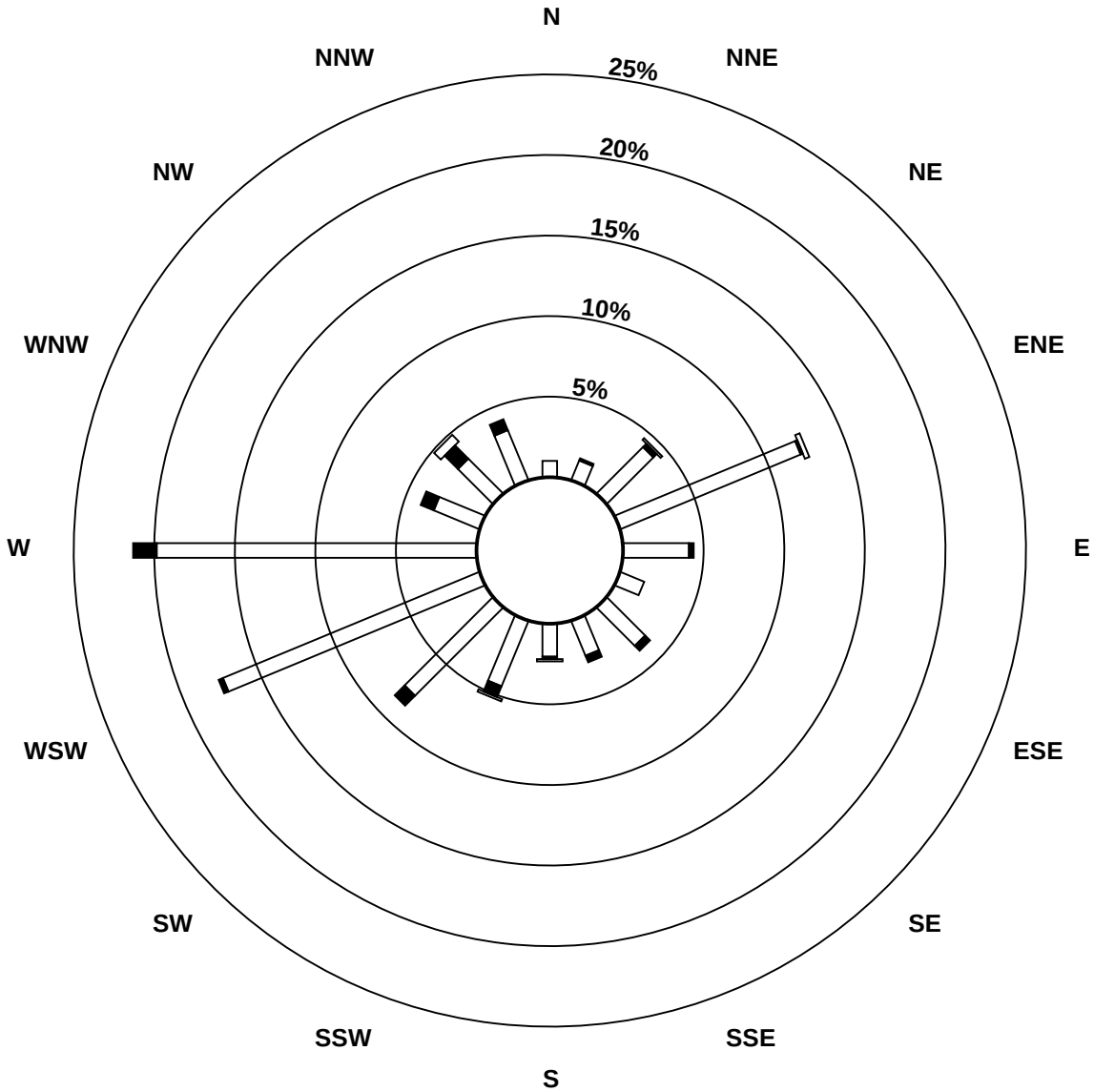
Evergreen Park - April 2015



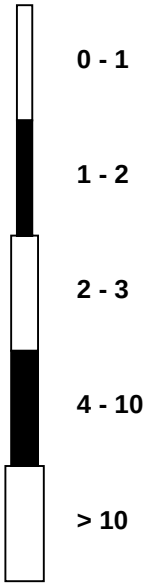
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb

Evergreen Park - April 2015



Pollutant Classes (ppb)

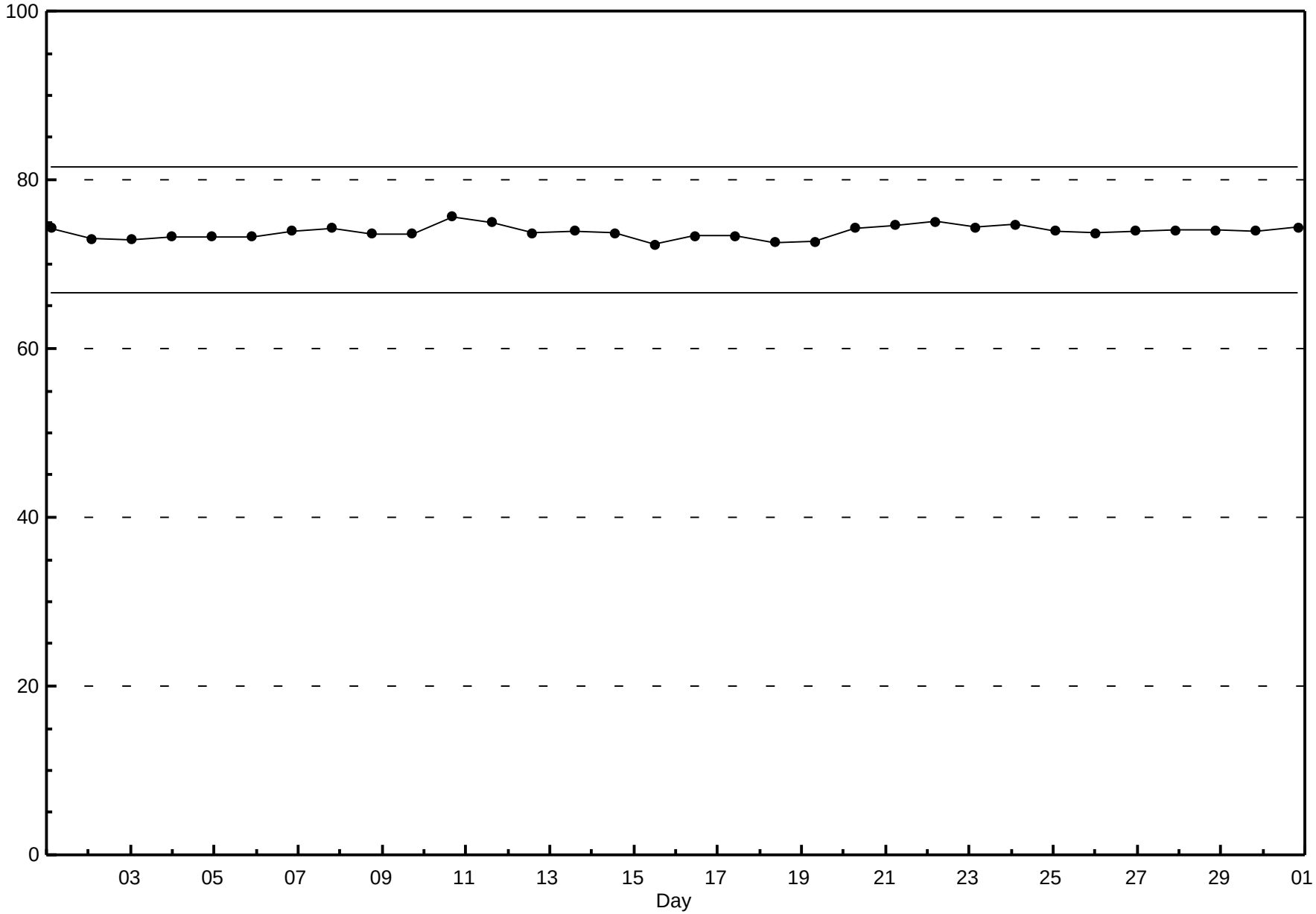


Peace Airshed Zone Association

Span Responses

Total Reduced Sulphur (TRS)

Evergreen Park - April 2015



Peace Airshed Zone Association

Hourly Averages

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

Evergreen Park - April 2015

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

Maximum Value: 47.6 $\mu g/m^3$ on Apr 28 15:00

Maximum Daily Average: 8.3 $\mu g/m^3$ on Apr 12

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

Maximum Diurnal Average: 5.9 $\mu g/m^3$ at hour 15

Monthly Average: 2.80 $\mu g/m^3$

Minimum Daily Average: 0.1 $\mu g/m^3$ on Apr 23

Minimum Diurnal Average: 1.6 $\mu g/m^3$ at hour 3

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.5 Median = 1.6 Q_3 = 3.5 P_{90} = 6.3 P_{99} = 22.0

Hours in Service:	720
Hours of Data:	717
Hours of Missing Data:	3
Hours of Calibration:	3
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	1	2	1	1	1	1	1	1	1	1	1	1	1	0	1	2	2	0	0	0	0	0.8	1.7
2-Apr	0	0	0	0	0	0	3	5	3	0	0	0	0	0	0	0	1	1	2	1	3	4	3	1	1.1	5.0
3-Apr	1	1	2	3	3	1	3	3	3	1	3	2	2	3	2	1	1	1	1	2	1	1	1	0	1.7	3.2
4-Apr	0	0	0	0	1	2	1	2	1	1	1	0	0	0	0	0	0	0	0	1	2	1	0	0	0.6	2.0
5-Apr	0	0	0	0	1	0	0	0	0	0	1	1	1	1	1	2	2	2	2	3	5	4	3	2	1.4	5.5
6-Apr	1	2	1	2	2	2	2	5	3	4	3	2	2	2	2	2	3	3	3	6	8	6	4	4	3.1	7.9
7-Apr	4	3	4	6	4	5	6	10	7	2	1	0	C	C	C	0	1	2	2	3	4	3	2	2	3.5	9.6
8-Apr	3	3	3	2	3	5	6	5	3	3	2	1	1	2	4	4	4	3	2	2	2	1	1	1	2.7	5.8
9-Apr	1	1	1	2	1	3	6	8	7	6	8	9	7	6	9	6	7	6	6	7	7	24	21	17	7.3	23.6
10-Apr	14	11	10	10	10	10	9	12	11	5	4	2	1	2	3	3	6	6	4	4	6	5	1	1	6.2	13.8
11-Apr	2	3	4	5	4	7	6	1	0	1	2	4	29	19	13	13	10	4	6	2	1	1	1	0	5.8	28.9
12-Apr	0	0	0	0	0	1	0	0	2	9	23	26	34	28	26	18	10	7	4	3	3	2	2	2	8.3	34.1
13-Apr	1	1	1	2	1	1	4	1	1	2	0	0	0	0	0	0	0	0	1	2	3	4	12	10	2.0	11.6
14-Apr	7	6	1	1	0	0	2	4	4	7	4	10	9	5	15	22	13	7	4	4	3	3	3	1	5.6	22.1
15-Apr	2	2	2	2	2	2	2	2	3	2	3	5	4	5	6	7	4	6	4	3	4	4	1	1	3.3	6.8
16-Apr	1	0	0	0	0	1	1	2	4	1	2	2	0	0	18	4	1	1	1	2	4	1	1	0	2.0	18.2
17-Apr	0	0	2	1	2	2	0	0	0	0	9	3	1	0	0	2	1	7	1	3	2	2	1	0	1.6	9.2
18-Apr	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2	3	3	1	3	0.7	3.4
19-Apr	4	3	2	1	2	2	2	2	1	0	0	1	1	1	0	1	1	2	2	2	4	3	2	3	1.7	3.7
20-Apr	3	3	3	4	3	4	6	7	13	6	3	6	0	0	1	1	1	1	1	1	4	3	0	0	3.1	12.5
21-Apr	2	2	2	5	6	6	7	6	6	6	4	5	5	1	0	1	2	2	1	1	2	2	0	5	3.3	6.7
22-Apr	4	4	2	1	1	1	0	0	1	2	3	2	2	1	0	0	0	0	1	0	0	0	0	0	1.0	3.6
23-Apr	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0.1	1.0
24-Apr	0	0	1	0	0	0	0	0	0	1	3	5	3	3	3	3	2	3	3	3	4	2	3	2	1.8	5.0
25-Apr	2	2	0	1	0	0	2	6	6	2	5	3	2	2	2	3	2	3	3	3	3	3	3	4	2.5	6.3
26-Apr	5	4	3	3	3	4	5	3	4	6	2	1	1	1	1	1	0	1	1	1	2	0	0	0	2.2	6.3
27-Apr	3	3	2	2	3	3	4	5	4	1	1	0	0	0	1	3	3	3	3	3	2	3	2	2	2.3	4.8
28-Apr	0	0	1	1	1	0	0	0	0	0	0	0	0	1	48	19	4	4	0	1	1	2	2	1	3.5	47.6
29-Apr	0	1	0	0	1	4	5	4	2	2	4	6	5	4	6	6	6	4	1	1	1	1	1	1	2.7	6.0
30-Apr	2	0	0	0	0	0	0	1	1	1	3	5	0	3	10	6	5	4	2	2	1	0	1	0	2.0	9.8
	2.0	1.9	1.6	1.8	1.9	2.3	2.8	3.2	3.1	2.4	3.1	3.4	3.9	3.1	5.9	4.3	3.0	2.7	2.1	2.3	2.9	3.0	2.5	2.1	Diurnal Average	
	13.8	11.4	9.6	9.7	9.5	9.7	9.4	11.5	12.5	8.9	23.1	25.8	34.1	28.4	47.6	22.1	12.9	7.4	6.3	7.4	7.9	23.6	21.5	16.8	Diurnal Maximum	

C - Calibration

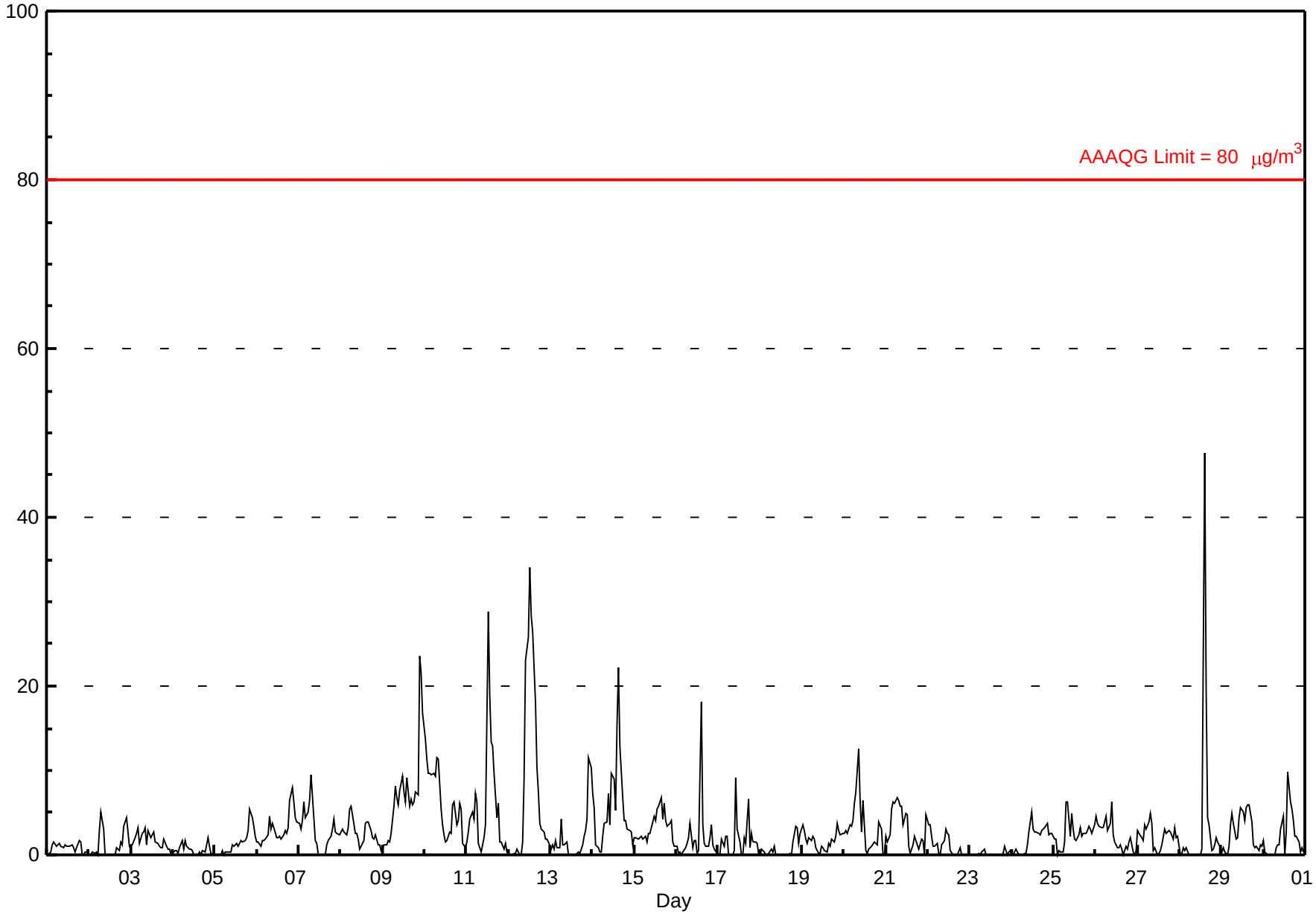
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 $\mu g/m^3$ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 $\mu g/m^3$

Peace Airshed Zone Association

Hourly Averages

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

Evergreen Park - April 2015



Peace Airshed Zone Association

Hourly Maximums

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

Evergreen Park - April 2015

Maximum Value: 67.3 $\mu g/m^3$ on Apr 28 15:00

Maximum Daily Average: 14.3 $\mu g/m^3$ on Apr 12

Minimum Value: 0 $\mu g/m^3$ on Apr 2 10:00

Maximum Diurnal Average: 10.4 $\mu g/m^3$ at hour 15

Monthly Average: 5.62 $\mu g/m^3$

Minimum Daily Average: 1.8 $\mu g/m^3$ on Apr 23

Minimum Diurnal Average: 3.6 $\mu g/m^3$ at hour 4

Percentiles: P_1 = 0.4 P_{10} = 1.6 Q_1 = 2.6 Median = 3.8 Q_3 = 6.3 P_{90} = 10.6 P_{99} = 41.9

Hours in Service:	720
Hours of Data:	717
Hours of Missing Data:	3
Hours of Calibration:	3
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	2	3	3	2	3	2	2	2	2	3	2	3	2	2	4	3	4	4	2	1	2	1	2.4	4.1
2-Apr	2	1	1	2	1	1	11	13	8	0	1	2	1	1	2	2	3	4	5	3	8	10	5	4	3.9	12.6
3-Apr	3	3	3	4	4	4	4	4	6	3	5	5	5	4	4	4	2	2	3	4	2	2	2	1	3.4	6.3
4-Apr	1	3	1	2	2	3	2	3	4	2	3	3	2	3	3	3	2	2	2	3	5	2	1	1	2.4	5.1
5-Apr	0	1	1	1	2	2	2	2	4	2	3	3	4	3	3	4	4	4	4	5	9	6	5	4	3.2	8.7
6-Apr	3	3	3	3	3	3	5	6	6	5	5	4	4	4	4	4	5	6	5	9	10	8	6	6	5.0	10.2
7-Apr	5	4	9	10	5	6	8	12	12	3	3	3	C	C	C	10	3	4	7	6	8	5	4	4	6.3	12.4
8-Apr	5	5	4	5	4	8	9	7	7	5	4	4	4	4	10	7	7	6	4	4	4	3	3	2	5.1	10.4
9-Apr	2	3	2	4	4	4	10	12	12	8	10	11	10	9	14	9	8	8	9	12	12	33	28	19	10.6	33.3
10-Apr	16	14	11	11	11	13	12	15	16	8	6	4	4	4	8	5	9	10	5	7	7	8	6	4	8.9	16.0
11-Apr	4	5	7	7	6	15	13	4	2	4	6	18	43	26	25	25	15	7	10	6	3	3	5	2	10.7	42.6
12-Apr	2	1	1	2	2	2	1	2	4	28	45	46	44	45	36	28	16	11	9	5	5	3	3	3	14.3	45.5
13-Apr	2	2	2	4	2	2	8	4	3	3	2	0	1	3	1	2	2	2	3	5	5	7	20	13	4.1	19.6
14-Apr	9	13	4	3	2	5	6	6	7	11	7	16	13	9	23	30	19	9	7	8	5	5	4	3	9.2	30.1
15-Apr	3	3	6	3	3	3	4	5	5	5	7	7	6	9	10	11	8	8	7	6	7	12	3	2	6.0	12.4
16-Apr	3	2	3	1	2	3	4	12	12	4	5	4	5	6	34	11	6	3	4	3	9	3	3	2	5.9	33.6
17-Apr	1	2	7	5	6	5	2	1	1	7	14	11	7	1	3	4	4	16	5	6	4	4	5	3	5.1	15.5
18-Apr	5	2	3	1	1	2	2	3	3	2	2	4	2	1	2	2	3	2	2	3	8	7	4	6	2.9	7.7
19-Apr	6	6	3	4	4	3	4	3	3	1	2	4	4	3	4	4	3	4	4	4	6	6	4	4	3.8	6.2
20-Apr	4	7	7	6	5	6	10	12	23	17	4	35	4	3	2	4	3	6	5	3	6	5	5	4	7.6	35.3
21-Apr	5	4	5	8	9	9	10	14	8	8	5	8	8	4	2	5	5	4	4	3	3	4	3	12	6.3	13.6
22-Apr	7	6	5	4	3	5	2	0	4	4	8	7	5	6	4	2	3	2	5	1	2	0	1	0	3.5	7.7
23-Apr	2	0	1	1	1	2	2	2	3	2	2	2	2	4	2	2	2	2	1	2	3	2	2	2	1.8	3.8
24-Apr	1	1	3	3	2	1	2	2	2	4	6	8	5	4	4	5	5	5	5	5	5	4	4	4	3.7	8.2
25-Apr	4	4	1	3	2	3	3	10	12	4	7	5	5	3	5	6	5	5	5	5	5	5	4	7	4.8	11.7
26-Apr	6	6	5	4	5	6	7	8	8	10	4	4	4	3	3	2	2	3	4	5	4	2	1	3	4.6	10.2
27-Apr	6	6	4	4	7	5	6	7	7	3	4	3	3	3	3	6	6	5	8	6	4	5	4	5	5.0	8.0
28-Apr	3	3	4	2	3	1	1	1	2	0	3	1	2	5	67	48	8	7	3	4	3	6	4	3	7.7	67.3
29-Apr	2	3	2	2	3	8	12	7	4	6	7	8	8	6	8	11	11	12	5	2	2	3	3	3	5.7	12.2
30-Apr	5	3	1	2	1	1	1	3	4	4	6	14	6	6	15	9	7	6	5	4	4	2	3	2	4.7	15.3
	3.9	3.9	3.6	3.6	3.6	4.4	5.6	6.0	6.5	5.5	6.2	8.2	7.2	6.3	10.4	8.8	6.0	5.6	4.8	4.8	5.4	5.6	4.9	4.3	Diurnal Average	
	15.5	13.6	10.9	10.7	11.1	14.8	13.3	14.6	23.3	27.7	44.6	45.5	43.6	45.3	67.3	47.7	18.9	15.5	9.9	12.3	11.8	33.3	28.4	18.9	Diurnal Maximum	

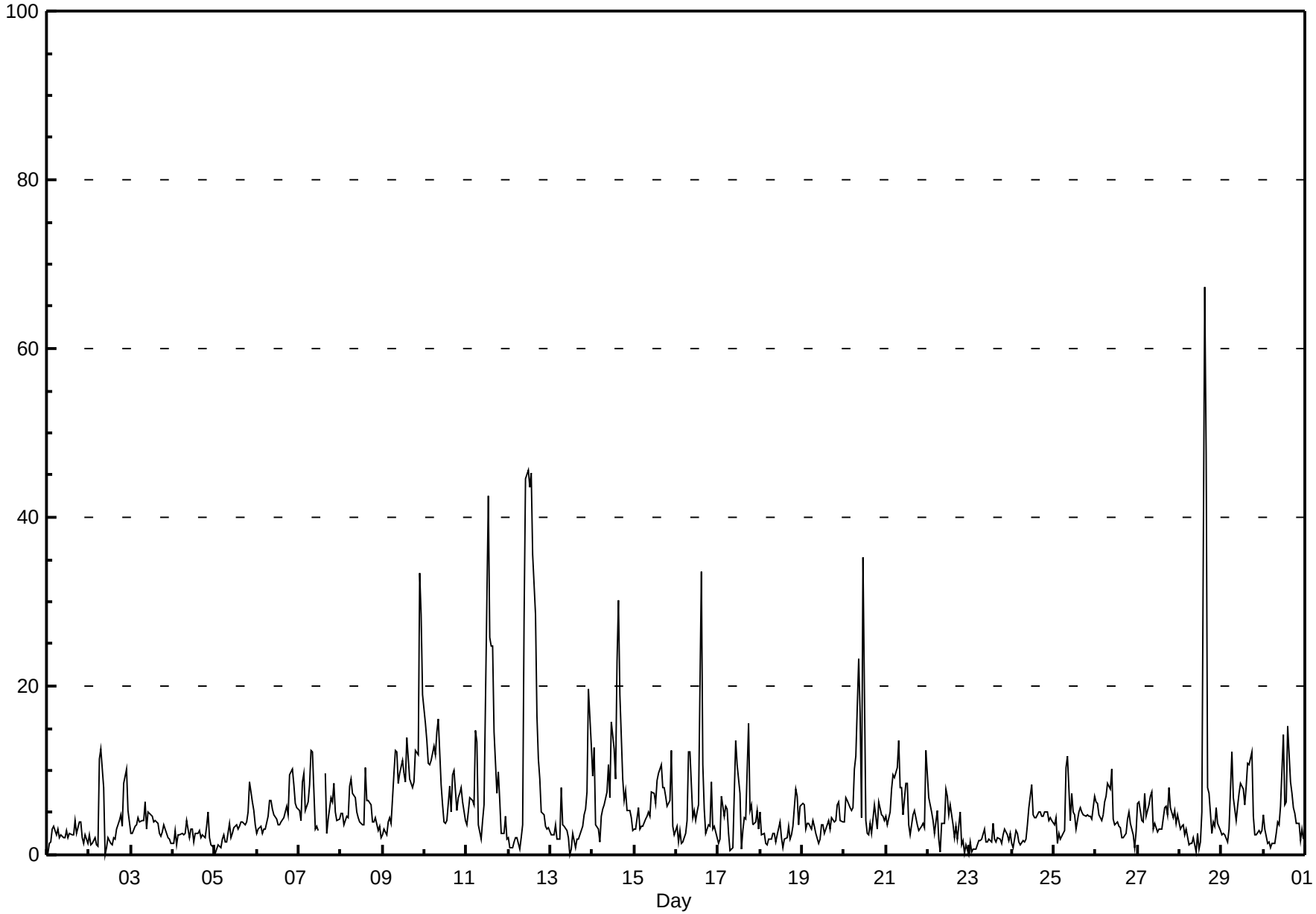
C - Calibration

Peace Airshed Zone Association

Hourly Maximums

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

Evergreen Park - April 2015

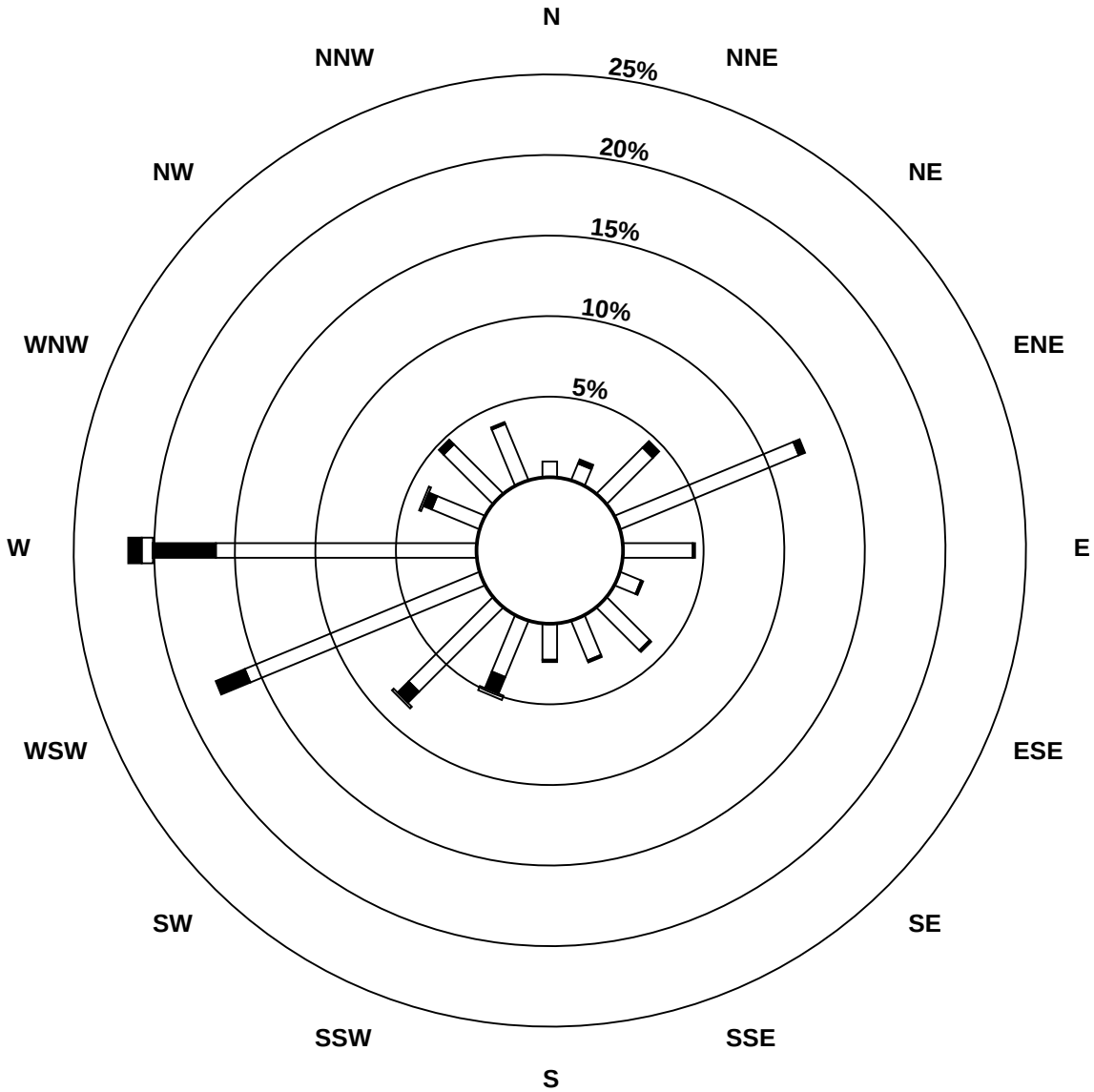


Peace Airshed Zone Association

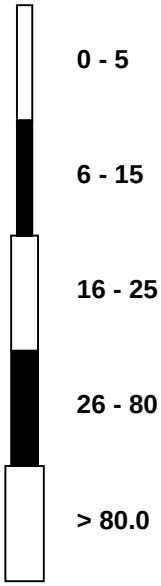
Pollutant Rose

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

Evergreen Park - April 2015



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



Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Evergreen Park - April 2015

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

Maximum Value: 23.6 ^{o}C on Apr 28 14:00

Maximum Daily Average: 13.2 ^{o}C on Apr 28

Minimum Value: -4 ^{o}C on Apr 7 06:00

Maximum Diurnal Average: 10.3 ^{o}C at hour 17

Monthly Average: 6.11 ^{o}C

Minimum Daily Average: 0.4 ^{o}C on Apr 5

Minimum Diurnal Average: 1.1 ^{o}C at hour 6

Percentiles: P_1 = -3.5 P_{10} = 0.0 Q_1 = 2.3 Median = 5.3 Q_3 = 9.8 P_{90} = 13.3 P_{99} = 19.4

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

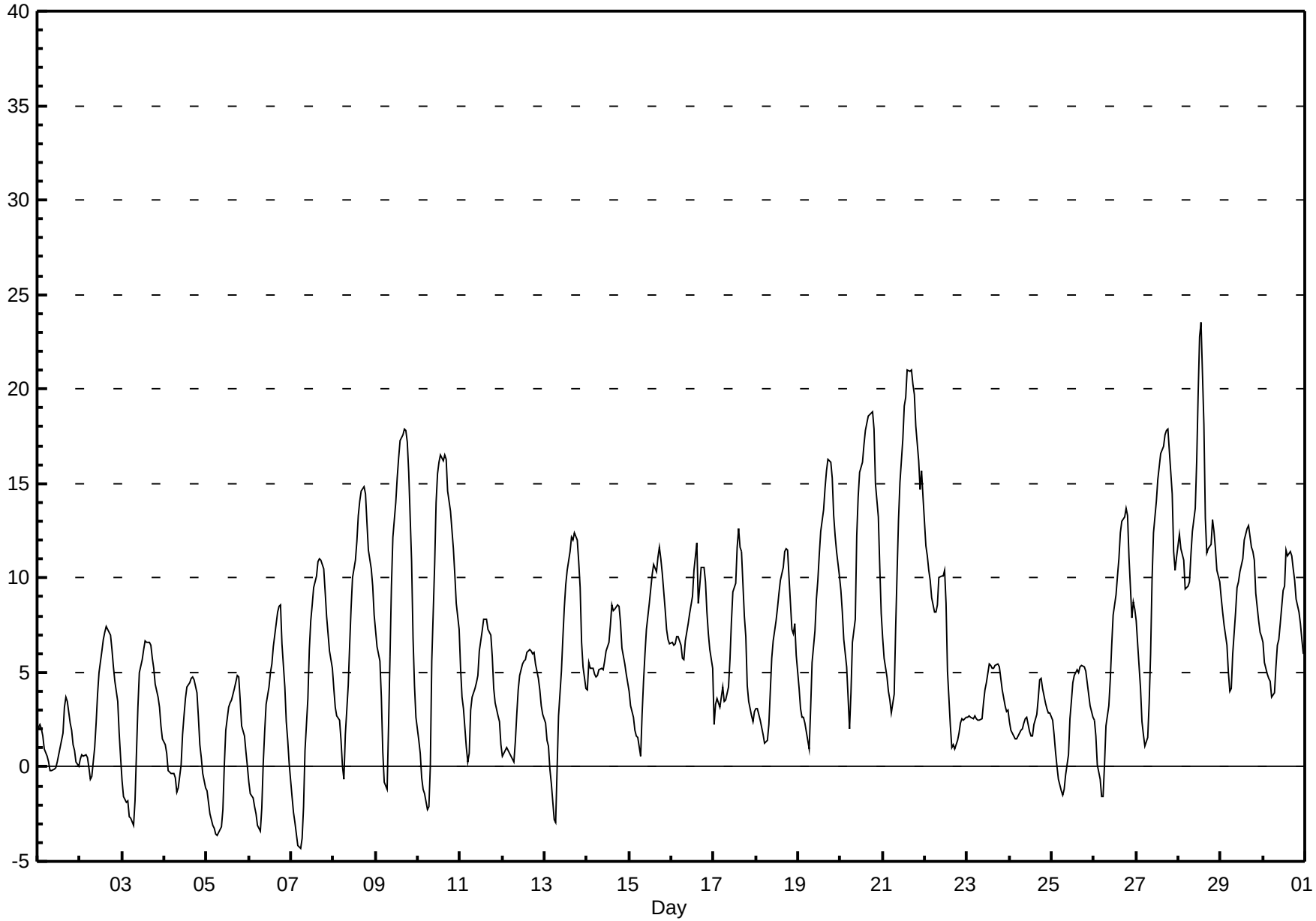
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Apr	2	2	2	2	1	1	0	0	0	0	0	0	1	1	2	3	4	3	2	2	1	1	0	0	1.2	3.7
2-Apr	0	1	1	1	0	0	-1	-1	1	2	4	5	6	7	7	7	7	7	6	5	5	3	2	0	3.2	7.4
3-Apr	-1	-2	-2	-2	-3	-3	-3	-2	1	3	5	6	6	7	7	7	6	6	5	4	4	3	2	1	2.4	6.7
4-Apr	1	1	0	0	0	0	-1	-1	-1	0	2	3	4	4	4	5	5	5	4	3	1	0	0	-1	1.5	4.7
5-Apr	-1	-2	-2	-3	-3	-4	-4	-4	-3	-2	0	2	3	3	4	4	4	5	5	4	2	2	1	0	0.4	4.8
6-Apr	-1	-1	-2	-2	-2	-3	-3	-2	0	2	3	4	5	5	6	8	8	9	9	7	4	2	1	0	2.4	8.6
7-Apr	-2	-2	-3	-4	-4	-4	-4	-2	1	4	6	8	9	10	10	11	11	11	10	9	8	7	6	5	4.2	11.0
8-Apr	4	3	3	2	1	0	-1	2	4	6	8	10	11	12	13	14	15	15	14	13	11	10	10	8	8.0	14.8
9-Apr	7	6	6	4	1	-1	-1	2	6	10	12	14	15	16	17	18	18	18	17	16	11	7	4	3	9.4	17.9
10-Apr	1	1	-1	-1	-1	-2	-2	0	6	11	14	16	16	16	16	16	16	15	14	13	12	10	9	7	8.3	16.5
11-Apr	5	4	3	1	0	1	3	4	4	4	5	6	7	8	8	8	7	7	6	4	3	3	2	1	4.4	7.8
12-Apr	1	1	1	1	1	1	0	1	3	4	5	5	6	6	6	6	6	6	6	5	5	4	3	3	3.6	6.2
13-Apr	2	1	1	0	-1	-3	-3	0	3	5	7	8	10	10	11	12	12	12	12	11	9	7	5	4	5.7	12.4
14-Apr	4	6	5	5	5	5	5	5	5	5	6	6	7	8	9	8	8	9	8	8	6	5	5	4	6.1	8.6
15-Apr	4	3	3	2	2	2	1	3	5	6	7	9	9	10	11	10	11	12	11	10	8	7	7	7	6.6	11.6
16-Apr	7	6	6	7	7	6	6	6	7	8	8	9	9	10	12	9	10	11	11	10	8	7	6	5	7.9	11.9
17-Apr	2	3	4	3	4	4	3	4	4	6	8	9	10	12	13	12	11	8	7	4	3	3	2	3	5.9	12.6
18-Apr	3	3	2	2	2	1	1	2	4	6	7	8	8	9	10	11	11	12	11	10	7	7	8	6	6.3	11.6
19-Apr	4	3	3	3	2	1	1	3	6	7	9	10	11	12	14	15	16	16	16	15	13	12	11	10	8.9	16.3
20-Apr	9	8	7	5	4	2	4	7	8	12	14	16	16	17	18	18	19	19	19	18	15	13	11	8	11.9	18.8
21-Apr	7	6	5	4	4	3	4	7	10	13	15	17	19	20	21	21	21	20	20	18	16	15	16	14	13.1	21.0
22-Apr	12	11	10	10	9	8	8	9	10	10	10	10	9	5	2	1	1	1	1	2	2	3	2	3	6.2	11.7
23-Apr	3	3	3	3	3	3	2	2	3	3	4	4	5	5	5	5	5	5	5	5	4	3	3	3	3.8	5.5
24-Apr	2	2	2	1	2	2	2	2	2	3	3	2	2	2	2	3	4	5	5	4	3	3	3	3	2.6	4.7
25-Apr	3	2	1	0	-1	-1	-1	-1	0	1	3	3	4	5	5	5	5	5	5	5	4	4	3	3	2.6	5.4
26-Apr	3	2	0	-1	-2	-2	0	2	3	5	6	8	9	10	11	12	13	13	14	13	11	8	9	8	6.5	13.7
27-Apr	8	7	4	2	2	1	2	3	6	10	12	14	15	16	17	17	18	18	18	17	14	11	10	11	10.5	17.9
28-Apr	12	12	11	11	9	10	10	11	12	14	16	20	23	24	18	13	11	12	12	13	13	12	10	10	13.2	23.6
29-Apr	9	8	8	6	5	4	4	6	8	9	10	10	11	12	12	13	13	12	11	11	9	8	7	7	8.9	12.7
30-Apr	7	6	5	5	5	4	4	5	6	7	8	9	10	11	11	11	11	11	10	9	8	8	7	6	7.6	11.5
	3.9	3.4	2.8	2.2	1.6	1.1	1.2	2.5	4.1	5.8	7.2	8.4	9.2	9.8	10.1	10.1	10.3	10.1	9.8	8.9	7.5	6.3	5.5	4.8	Diurnal Average	
	12.3	11.6	11.3	11.0	9.4	9.5	9.8	11.2	12.4	13.7	16.2	19.7	22.7	23.6	21.0	20.9	21.0	20.2	19.7	18.1	16.2	14.7	15.7	14.3	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Evergreen Park - April 2015



Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Evergreen Park - April 2015

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

Maximum Value: 96.5 % on Apr 1 13:00 Maximum Daily Average: 90.1 % on Apr 1

Minimum Value: 15 % on Apr 9 16:00 Minimum Daily Average: 33.3 % on Apr 13

Maximum Diurnal Average: 72.5 % at hour 7 Minimum Diurnal Average: 39.0 % at hour 17

Monthly Average: 54.58 % Percentiles: P_1 = 17.9 P_{10} = 26.1 Q_1 = 34.7 Median = 53.2 Q_3 = 73.1 P_{90} = 87.4 P_{99} = 94.9

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

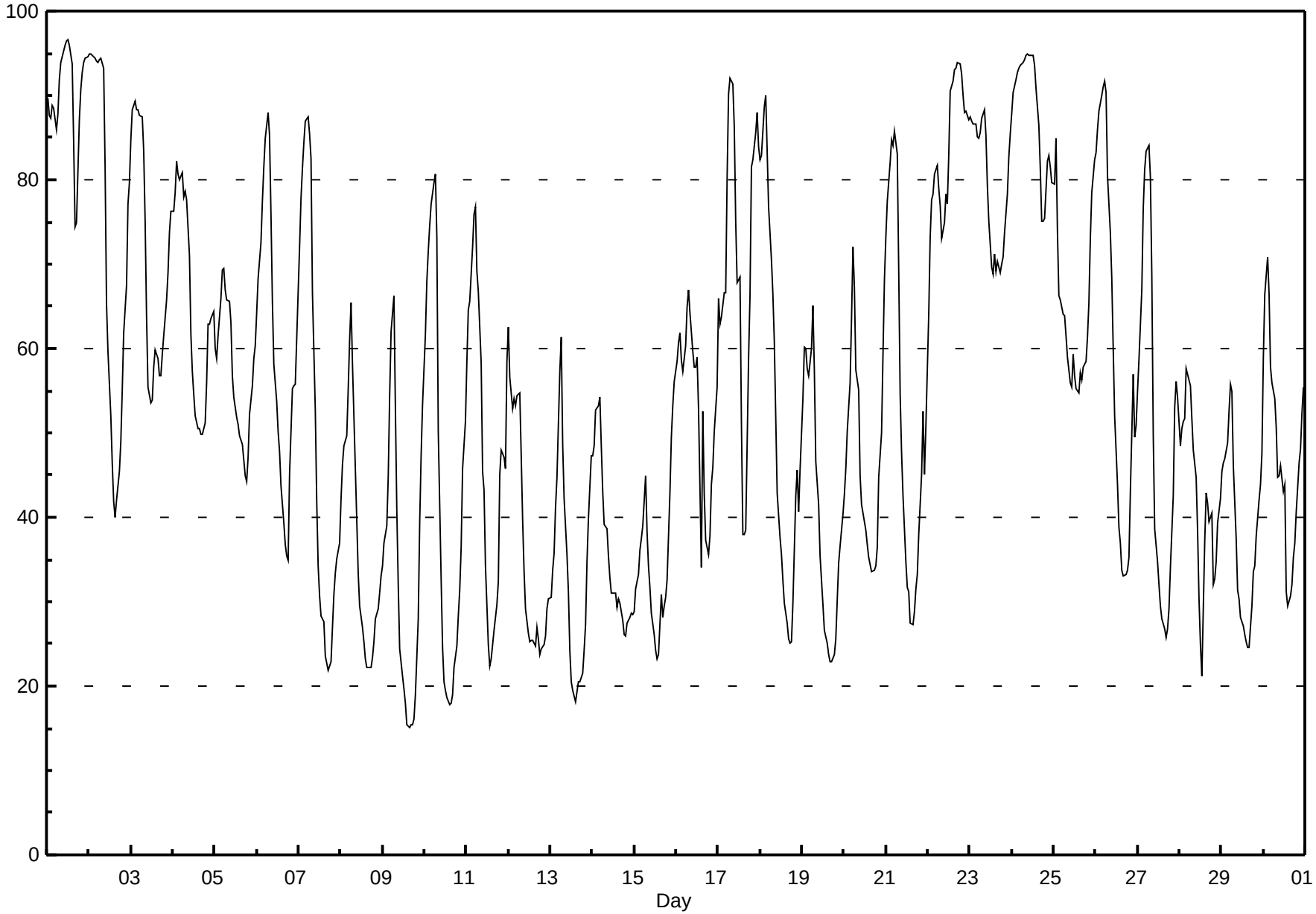
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Apr	90	88	87	89	88	86	88	92	94	95	96	96	97	96	94	84	74	75	87	91	93	94	94	95	90.1	96.5
2-Apr	95	95	95	94	94	94	94	94	93	82	65	60	52	46	42	40	42	45	49	55	62	67	77	80	71.4	95.0
3-Apr	85	88	89	88	88	88	87	83	75	64	55	54	54	58	60	59	57	57	59	62	66	69	74	76	70.6	89.3
4-Apr	76	79	82	81	80	81	78	79	78	71	62	57	55	52	50	51	50	50	51	56	63	63	64	64	65.5	82.2
5-Apr	60	59	62	66	69	70	67	66	66	63	57	54	52	51	50	49	49	45	44	47	52	56	59	60	57.1	69.6
6-Apr	64	68	72	78	81	85	88	85	76	66	58	54	50	48	44	39	37	35	35	45	55	56	56	61	59.8	88.0
7-Apr	72	78	81	84	87	87	85	82	67	53	42	34	31	28	28	24	23	22	23	27	31	33	35	37	49.8	87.4
8-Apr	42	46	48	50	55	61	65	58	46	40	33	29	27	25	23	22	22	22	23	25	28	29	31	33	36.9	65.4
9-Apr	34	37	39	45	54	62	66	53	41	32	24	21	20	18	15	15	15	15	16	19	28	39	47	53	33.8	66.3
10-Apr	62	68	72	75	77	80	81	73	50	33	25	21	19	19	18	18	19	22	25	28	31	36	46	51	43.6	80.6
11-Apr	58	65	66	72	76	77	69	67	58	45	43	34	25	22	23	25	27	30	32	45	48	47	46	58	48.3	76.8
12-Apr	62	57	53	54	53	54	55	47	40	34	29	26	25	25	25	25	27	26	24	24	25	26	29	30	36.5	62.5
13-Apr	30	34	36	41	45	57	61	49	42	36	31	24	21	19	18	19	20	20	22	24	27	35	40	47	33.3	61.4
14-Apr	47	48	53	53	54	48	43	39	39	35	33	31	31	31	29	30	30	28	26	26	27	28	29	28	36.2	54.3
15-Apr	29	31	33	36	37	39	45	38	34	32	29	26	24	23	24	31	28	29	30	33	43	50	53	56	34.8	56.1
16-Apr	58	61	62	59	57	60	65	67	64	60	58	58	59	53	34	53	43	37	36	38	44	46	50	55	53.1	66.9
17-Apr	66	63	64	67	67	80	90	92	91	86	75	68	68	51	38	38	38	59	66	82	82	86	88	84	70.4	92.1
18-Apr	82	83	89	90	83	77	70	66	61	52	43	38	36	33	30	27	26	25	25	30	43	46	41	46	51.7	90.0
19-Apr	54	60	60	58	57	60	65	57	47	41	35	32	30	27	25	24	23	23	24	26	30	35	37	40	40.4	65.0
20-Apr	43	46	50	56	64	72	67	57	55	45	42	40	38	37	35	34	33	34	34	36	45	50	59	68	47.6	72.0
21-Apr	73	78	82	85	84	86	83	69	55	48	43	35	32	31	28	27	29	32	33	38	45	52	45	51	52.6	85.7
22-Apr	64	73	78	78	81	82	79	77	73	75	78	77	83	91	92	93	93	94	94	93	90	88	88	87	83.3	93.9
23-Apr	87	87	87	87	85	85	86	87	88	85	79	75	70	69	71	69	70	69	70	71	74	78	83	85	79.1	88.2
24-Apr	88	90	92	93	93	94	94	94	95	95	95	95	95	94	91	86	81	75	75	75	82	83	81	80	88.1	94.9
25-Apr	80	85	74	66	66	64	64	62	59	56	55	59	57	55	55	57	56	58	58	61	65	73	79	82	64.4	84.9
26-Apr	83	86	88	90	91	92	90	81	74	68	60	52	44	39	37	34	33	33	34	35	43	57	50	51	60.2	91.7
27-Apr	55	59	67	77	81	83	84	80	69	50	39	35	32	30	28	27	26	27	29	34	43	53	56	54	50.7	84.1
28-Apr	49	51	51	52	58	56	56	52	48	45	38	30	25	21	37	43	42	39	41	32	33	35	39	42	42.2	57.7
29-Apr	45	46	47	49	53	56	55	46	37	31	30	28	27	26	25	25	25	29	34	34	38	42	44	48	38.3	55.7
30-Apr	59	66	71	66	58	56	54	51	45	45	46	43	44	31	29	31	32	35	37	41	46	48	52	56	47.6	70.8
	63.1	65.8	67.6	69.2	70.6	72.4	72.5	68.2	61.9	55.4	50.0	46.3	44.0	41.6	39.9	40.0	39.0	39.7	41.2	44.4	49.4	53.3	55.7	58.7	Diurnal Average	
	95.0	94.9	94.8	94.4	94.1	93.9	94.2	94.3	94.7	95.2	95.9	96.4	96.5	96.0	93.7	93.1	93.3	93.9	93.7	92.5	92.8	93.9	94.4	94.6	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Evergreen Park - April 2015



Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Evergreen Park - April 2015

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	26	25	20	24	23	24	21	18	18	19	18	17	17	18	11	11	12	9	7	6	7	6	7	4	13.7	25.8
Dir	288	293	321	322	306	312	305	307	310	315	315	325	328	338	337	341	330	312	263	242	214	237	213	230	308.3	288.3
2 Spd	6	5	10	6	4	1	1	4	6	10	16	15	14	18	23	17	11	16	9	1	2	1	1	1	6.9	23.1
Dir	258	272	256	277	275	241	235	219	227	261	278	282	317	318	334	331	312	276	333	310	264	44	100	171	294.8	334.2
3 Spd	1	1	2	5	7	4	5	4	6	7	4	9	12	16	17	19	15	16	13	12	11	11	9	9	5.6	18.6
Dir	191	183	203	203	211	219	211	215	245	272	37	49	54	53	58	54	63	63	62	64	63	64	62	61	62.6	54.0
4 Spd	7	8	9	11	11	11	12	16	15	16	18	20	21	22	18	18	19	18	18	12	13	14	15	14	14.8	21.8
Dir	58	75	60	63	70	67	67	66	66	63	66	63	58	56	63	58	61	62	59	61	57	62	62	68	62.5	56.4
5 Spd	13	11	10	9	8	12	10	9	7	8	10	12	10	10	12	12	10	10	11	4	5	6	6	7	9.2	12.6
Dir	67	64	60	61	61	61	62	54	61	52	82	61	74	76	58	63	76	71	89	79	69	68	71	70	66.8	67.1
6 Spd	7	6	7	7	5	4	3	3	5	7	8	10	8	7	9	6	6	5	3	6	1	2	3	3	3.6	9.7
Dir	73	74	81	87	83	69	70	71	104	130	130	158	80	67	78	145	226	209	192	329	89	122	78	81	100.3	158.4
7 Spd	1	0	0	0	3	3	3	3	11	16	21	26	26	23	21	27	30	30	24	20	20	14	13	12	14.0	29.7
Dir	67	302	68	234	215	214	211	232	280	270	276	276	276	278	275	269	266	259	262	259	255	248	239	239	264.1	265.6
8 Spd	9	8	9	10	4	3	0	2	16	17	26	20	20	23	23	26	26	26	27	27	23	25	22	17	16.6	27.2
Dir	243	250	254	251	330	331	16	281	266	275	270	290	273	277	280	269	260	255	254	254	254	256	258	252	264.4	254.1
9 Spd	15	6	6	1	1	2	5	7	9	8	19	29	21	16	21	22	21	17	14	6	1	0	1	0	9.5	28.6
Dir	255	252	235	92	92	208	211	200	203	242	271	257	264	282	258	263	263	270	290	291	48	225	206	202	259.3	256.8
10 Spd	1	1	0	0	1	1	0	2	3	9	12	13	17	20	20	23	32	31	25	17	12	10	12	1	9.7	32.2
Dir	320	177	63	37	69	207	17	41	141	165	171	187	206	209	230	211	240	237	229	224	226	251	263	176	221.1	240.2
11 Spd	1	0	4	1	2	3	20	30	28	34	41	42	51	51	48	46	42	39	43	35	25	18	22	20	26.4	51.4
Dir	349	333	167	227	220	259	263	256	261	258	252	254	263	262	264	264	258	269	259	247	239	243	256	255	257.5	262.8
12 Spd	22	26	38	37	38	33	23	33	40	46	54	57	62	64	65	61	58	56	47	36	31	26	26	24	41.2	64.6
Dir	235	237	242	247	252	250	244	254	260	265	267	268	267	266	261	267	265	268	267	264	264	256	250	251	259.6	261.3
13 Spd	27	20	20	1	1	1	1	2	7	10	11	13	14	18	18	18	19	14	12	8	4	1	1	3	6.9	26.7
Dir	244	244	247	259	225	52	189	114	160	168	144	125	137	135	147	155	127	130	149	123	133	144	163	211	165.0	243.7
14 Spd	1	14	18	18	14	14	13	17	29	37	38	51	43	39	47	55	50	46	44	36	24	26	28	26	29.8	54.9
Dir	273	283	268	259	237	231	234	251	273	273	255	252	255	249	270	268	271	265	265	265	267	267	258	248	261.3	267.8
15 Spd	29	24	19	15	14	11	2	10	23	26	31	33	31	30	36	29	33	41	38	37	28	23	20	18	24.7	40.8
Dir	248	245	244	234	228	224	192	244	256	261	258	258	256	256	256	273	251	250	255	256	268	261	251	235	253.1	250.0
16 Spd	19	17	22	26	25	14	13	7	6	12	8	12	16	27	49	31	35	34	34	20	10	10	4	1	16.9	49.4
Dir	242	234	239	246	254	238	223	233	226	246	255	275	259	243	275	333	285	292	277	281	259	234	230	199	263.8	274.8
17 Spd	2	4	3	2	2	6	7	6	9	7	9	13	24	32	50	55	55	41	23	32	35	33	24	25	14.5	55.2
Dir	52	213	45	141	183	161	82	86	123	159	193	243	268	255	262	264	267	304	316	330	337	333	316	279	285.0	263.7
18 Spd	25	13	7	5	8	11	14	13	15	19	17	12	16	11	9	6	6	8	7	3	3	9	4	2	7.7	24.6
Dir	271	257	238	227	297	289	283	278	285	321	331	305	323	325	334	327	19	28	50	59	211	255	270	312	299.6	271.2
19 Spd	4	6	6	7	9	4	2	7	16	18	19	16	14	15	14	16	14	19	23	17	10	16	18	15	12.5	23.3
Dir	266	242	262	285	284	314	256	273	268	275	276	281	268	283	284	269	284	269	263	260	241	261	260	263	270.0	262.9
20 Spd	11	8	4	3	1	1	3	8	8	14	11	15	21	16	11	9	3	3	5	3	2	1	1	1	4.2	20.5
Dir	257	262	336	338	215	209	271	266	264	267	272	313	307	340	9	20	19	69	70	99	104	130	42	74	308.4	306.5
21 Spd	0	0	0	1	3	5	1	5	4	3	3	1	2	9	7	8	9	9	13	9	9	7	5	8	2.7	13.5
Dir	359	232	201	214	205	214	214	235	267	236	222	211	125	113	102	115	145	130	112	69	74	83	127	261	129.6	111.6
22 Spd	17	28	20	13	14	19	17	14	18	18	17	22	25	29	38	39	30	25	28	29	27	24	26	19	21.2	39.3
Dir	287	325	318	272	269	269	276	330	336	280	281	314	305	284	267	253	276	280	250	254	263	275	265	280	280.6	253.5

Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Evergreen Park - April 2015

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	19	17	15	19	20	20	22	19	23	27	24	23	24	21	22	20	15	14	12	7	7	10	4	1	14.2	26.7
Dir	265	269	269	259	270	271	273	278	267	273	283	290	312	321	332	330	333	335	358	14	25	353	5	37	296.2	272.8
24 Spd	5	6	5	5	3	2	1	3	6	10	14	18	20	20	17	19	15	16	9	12	6	6	5	4	9.2	20.3
Dir	45	46	45	47	73	82	80	58	66	74	68	61	61	61	63	56	61	58	67	85	99	90	72	100	64.8	61.5
25 Spd	6	7	9	10	13	13	9	12	10	11	10	10	10	10	8	7	6	5	5	3	3	3	1	1	6.0	13.4
Dir	99	41	49	49	50	52	51	55	56	53	52	18	10	92	95	86	130	176	143	155	158	170	101	75	64.4	49.6
26 Spd	1	2	2	1	1	1	2	4	6	5	7	6	10	10	9	17	12	10	7	5	4	1	5	5	2.9	16.7
Dir	138	29	76	80	70	66	97	133	189	252	227	257	287	270	288	231	223	188	145	153	101	133	121	177	216.8	231.3
27 Spd	2	2	1	0	2	0	1	1	4	7	13	7	14	18	13	10	9	5	24	14	1	1	1	2	5.3	23.7
Dir	230	211	215	38	213	34	203	207	206	222	274	243	196	218	247	275	272	323	250	243	87	141	86	162	240.4	250.1
28 Spd	4	6	8	8	5	3	3	9	14	17	18	20	20	26	52	46	46	34	23	34	24	18	13	11	13.2	52.5
Dir	138	163	173	167	77	145	135	167	171	173	168	173	163	214	277	286	267	270	250	265	265	258	249	244	240.9	277.3
29 Spd	11	15	19	19	15	8	8	22	31	34	39	40	36	34	33	33	31	24	26	27	19	11	10	16	22.9	40.4
Dir	237	245	253	254	258	255	275	260	261	265	263	262	271	264	262	257	257	277	278	248	230	221	227	233	258.3	262.4
30 Spd	18	27	22	15	23	28	23	23	38	30	26	36	37	50	54	51	49	45	43	41	27	23	21	23	31.4	53.6
Dir	245	243	229	232	236	230	229	236	249	252	241	256	255	261	262	259	253	252	263	262	255	240	228	228	249.3	261.8
Spd	7.0	6.5	6.1	5.3	5.3	4.6	4.3	5.6	8.9	11.2	11.9	13.0	13.4	13.9	17.4	16.4	16.8	14.9	13.1	11.5	7.8	7.1	6.7	6.5	Diurnal Average	
Dir	257.0	261.7	258.8	258.2	260.5	256.3	258.1	260.7	261.0	264.2	263.2	269.1	273.7	268.9	274.3	273.9	266.6	270.4	264.4	263.3	262.3	263.9	256.0	248.8		
Spd	29.5	27.9	38.2	37.2	37.5	32.6	23.1	32.6	40.1	45.5	53.7	57.2	62.4	63.6	64.6	61.1	58.3	55.9	46.6	40.6	34.8	33.2	27.6	25.8	Diurnal Maximum	
Dir	248.2	324.5	241.9	247.4	251.5	249.7	243.7	253.8	259.6	264.9	266.7	267.8	267.3	266.0	261.3	266.9	265.3	267.9	267.0	261.5	337.0	333.2	258.3	248.1		

Maximum Speed Value: 65 km/h on Apr 12 15:00
Maximum Daily Speed Average: 41.2 km/h on Apr 12
Maximum Diurnal Speed Average: 17.4 km/h at hour 15

Minimum Speed Value: 0 km/h on Apr 7 02:00
Minimum Daily Speed Average: 2.7 km/h on Apr 21
Minimum Diurnal Speed Average: 4.3 km/h at hour 7

Monthly Average Velocity: 9.75 km/h 265.34 deg

Speed Percentiles: $P_1 = 0.3$ $P_{10} = 1.7$ $Q_1 = 5.9$ Median = 12.6 $Q_3 = 22.3$ $P_{90} = 33.6$ $P_{99} = 55.0$

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

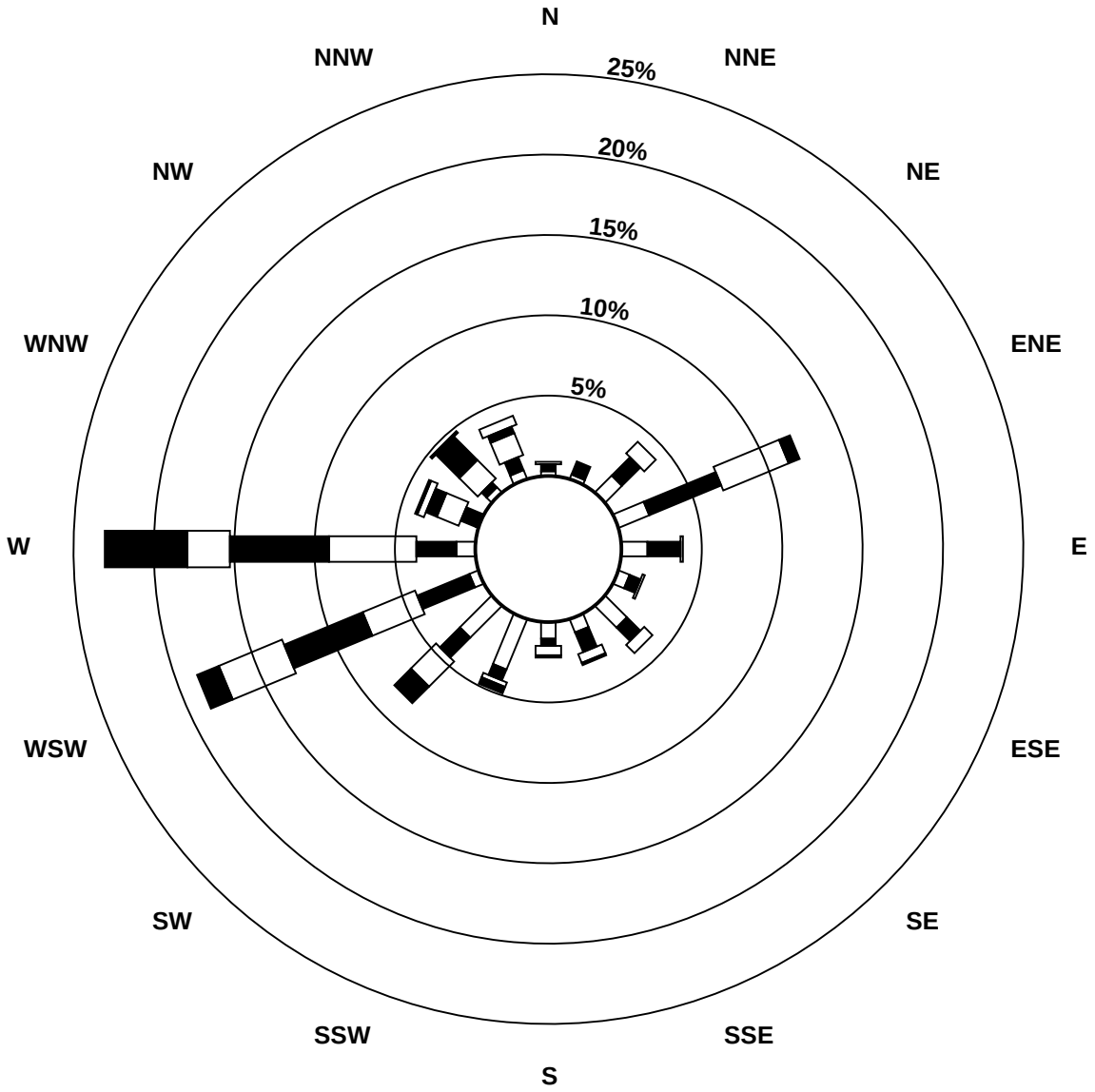
Frequency Distribution

Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	7	8	3	0	0	0	18
NorthEast	21	26	38	7	0	0	92
East	33	30	6	0	0	0	69
SouthEast	18	13	8	1	0	0	40
South	17	16	6	2	0	0	41
SouthWest	42	29	29	28	4	1	133
West	11	35	55	73	46	46	266
NorthWest	10	7	20	19	4	1	61
Total	159	164	165	130	54	48	720

Wind Rose

Wind Speed (WS) (km/h)

Evergreen Park - April 2015



Wind Speed Classes (km/h)

Peace Airshed Zone Association

Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Evergreen Park - April 2015

Maximum Speed: 65 km/h on Apr 12 15:00

Maximum Daily Speed Average: 42.3 km/h on Apr 12

Minimum Speed: 0 km/h on Apr 7 03:00

Minimum Daily Speed Average: 6.6 km/h on Apr 6

Maximum Diurnal Speed Average: 27.3 km/h at hour 15

Minimum Diurnal Speed Average: 8.7 km/h at hour 7

Monthly Average Speed: 16.39 km/h

Percentiles: $P_1 = 0.6$ $P_{10} = 2.6$ $Q_1 = 6.4$ Median = 13.5 $Q_3 = 22.8$ $P_{90} = 34.4$ $P_{99} = 55.9$

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	26	26	21	24	24	25	22	19	18	20	19	18	17	18	11	11	13	10	8	7	8	6	7	4	15.9	26.3
2-Apr	6	6	10	7	5	3	4	4	6	11	17	16	17	21	24	18	14	17	11	4	5	2	3	2	9.6	23.7
3-Apr	3	1	2	5	7	4	5	4	6	8	6	10	13	17	18	19	16	16	13	12	11	12	9	10	9.4	19.1
4-Apr	8	9	9	12	11	11	13	16	16	17	19	21	22	23	19	19	20	19	19	12	13	14	15	14	15.3	22.5
5-Apr	13	12	10	9	9	12	11	10	8	8	11	14	12	12	12	13	11	11	12	5	6	6	7	7	9.9	13.8
6-Apr	7	6	7	7	5	4	4	3	6	9	10	12	11	10	11	10	8	7	5	7	2	3	3	3	6.6	12.0
7-Apr	1	1	0	0	3	3	3	4	12	17	22	27	27	25	22	28	31	30	24	20	20	14	13	12	15.0	30.5
8-Apr	9	8	9	10	5	3	1	3	16	18	26	23	21	25	24	27	27	27	27	27	23	25	22	17	17.7	27.4
9-Apr	15	6	6	3	1	2	5	7	9	11	20	29	22	19	23	24	22	18	14	7	1	1	1	1	11.1	29.1
10-Apr	2	1	1	1	1	3	1	3	4	10	13	15	20	21	21	26	33	32	25	17	12	10	12	2	11.9	33.2
11-Apr	2	2	5	2	3	4	20	30	28	34	41	43	53	52	49	47	43	40	43	35	25	18	24	21	27.6	52.6
12-Apr	23	26	38	37	38	33	23	33	41	47	54	58	64	65	65	62	59	57	47	37	31	26	27	24	42.3	65.3
13-Apr	27	20	20	5	2	2	3	3	8	11	13	16	17	20	21	19	21	15	12	9	5	2	2	3	11.5	26.9
14-Apr	2	15	18	19	14	14	14	18	30	38	38	51	44	40	48	56	51	47	44	36	24	26	28	26	30.9	55.9
15-Apr	30	24	19	15	14	11	2	11	23	27	32	34	32	31	36	31	34	41	38	37	28	23	20	19	25.6	41.3
16-Apr	20	17	22	26	25	14	13	8	6	13	8	13	19	30	52	33	36	36	35	21	11	11	5	1	19.8	52.3
17-Apr	2	7	5	3	3	7	7	7	9	8	10	13	25	33	51	56	55	48	25	32	35	34	26	26	22.0	56.5
18-Apr	26	13	8	5	8	11	14	14	16	20	18	14	19	14	11	12	10	9	7	3	4	9	6	4	11.4	25.6
19-Apr	5	6	6	7	9	5	3	8	16	19	20	18	18	18	17	19	17	21	24	18	10	16	18	16	13.7	23.8
20-Apr	11	8	4	3	1	1	3	8	8	15	14	18	23	18	13	11	6	4	6	3	3	1	1	1	7.7	23.5
21-Apr	1	1	0	1	3	5	1	6	5	5	5	7	8	10	10	10	12	10	15	9	9	8	6	11	6.6	14.7
22-Apr	17	29	22	14	14	19	18	15	19	19	18	24	26	30	38	40	31	26	28	29	27	24	26	19	23.9	39.8
23-Apr	19	17	15	19	20	21	23	19	23	27	25	24	26	22	22	21	16	16	13	8	8	11	5	1	17.6	27.2
24-Apr	5	6	5	5	3	2	2	3	6	11	14	18	21	21	17	20	15	16	10	13	6	6	5	5	9.8	20.8
25-Apr	6	7	9	10	14	13	10	12	11	11	12	12	12	12	9	8	7	6	5	3	3	4	3	1	8.3	13.5
26-Apr	1	2	2	1	1	1	2	4	8	7	9	9	12	13	14	18	15	13	8	6	4	2	5	5	6.8	18.4
27-Apr	3	2	2	1	2	1	3	2	4	8	15	13	15	19	15	12	11	6	24	15	2	2	2	3	7.5	24.4
28-Apr	4	6	8	9	5	3	3	9	14	17	18	21	22	28	54	48	47	34	24	35	25	18	13	11	19.8	53.6
29-Apr	11	15	19	20	15	8	10	22	32	35	40	41	38	35	36	34	32	25	27	28	19	11	10	16	24.2	40.9
30-Apr	19	27	22	15	23	28	23	23	38	31	26	37	38	51	54	52	50	46	43	41	28	23	21	23	32.6	54.4
	10.8	10.9	10.8	9.8	9.7	9.2	8.7	10.9	14.9	17.6	19.7	22.2	23.9	25.1	27.3	26.8	25.3	23.4	21.2	17.8	13.6	12.3	11.5	10.1	Diurnal Average	
	29.7	29.2	38.3	37.5	37.8	32.9	23.4	32.8	40.5	46.6	54.4	58.4	63.9	64.9	65.3	62.2	59.0	56.9	47.2	41.0	35.3	33.9	27.8	26.0	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

Evergreen Park - April 2015

Maximum Value: 96.2 deg on Apr 2 20:00

Minimum Value: 4.1 deg on Apr 3 05:00

Percentiles: P_1 = 5.4 P_{10} = 7.9 Q_1 = 11.0 Median = 17.1 Q_3 = 31.9 P_{90} = 62.6 P_{99} = 90.5

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	11	12	13	12	15	15	14	14	15	15	14	14	14	10	17	19	13	21	29	22	17	23	13	25	28.5
2-Apr	13	35	11	19	25	67	80	36	22	20	16	25	36	32	15	23	36	16	42	96	75	80	81	86	96.2
3-Apr	61	64	56	8	4	7	9	10	19	40	61	43	29	21	19	14	19	15	16	12	12	13	13	13	63.7
4-Apr	11	24	12	14	14	12	18	14	15	14	19	17	17	15	20	18	18	17	14	15	10	12	11	16	24.0
5-Apr	18	15	12	12	14	12	19	18	24	27	34	37	39	36	18	18	43	32	18	19	9	9	9	11	43.1
6-Apr	8	10	9	9	11	8	16	21	32	39	48	43	53	46	32	63	56	61	76	32	96	60	19	18	96.0
7-Apr	73	81	71	87	30	17	14	25	14	14	16	17	21	23	20	13	13	10	9	6	5	6	6	6	87.1
8-Apr	6	9	6	9	41	29	63	44	11	18	12	26	17	23	21	14	12	11	8	7	5	6	6	6	62.7
9-Apr	6	18	9	68	76	40	10	10	14	39	16	11	21	30	24	20	20	19	15	16	83	87	46	77	86.7
10-Apr	89	75	81	64	70	85	80	66	64	26	28	32	31	20	33	36	14	11	9	6	8	14	29	77	88.5
11-Apr	81	95	46	71	74	31	7	6	8	8	8	10	12	13	13	15	10	14	11	8	7	8	22	11	95.2
12-Apr	11	7	5	6	7	7	9	7	9	12	10	12	12	11	9	11	9	11	9	9	6	7	6	6	12.2
13-Apr	7	8	5	85	35	68	63	50	26	28	34	35	43	29	33	25	23	32	24	21	47	49	42	30	85.4
14-Apr	78	23	13	7	7	6	8	13	12	13	12	9	11	12	13	11	9	10	9	8	9	6	7	7	77.6
15-Apr	6	7	8	8	10	15	43	60	11	13	12	11	13	13	10	18	13	9	8	8	9	7	7	13	59.7
16-Apr	10	9	7	7	6	9	14	22	29	26	27	28	35	32	21	21	13	16	11	12	15	13	10	67	66.9
17-Apr	33	91	60	80	78	33	15	25	18	30	24	20	17	13	11	12	9	29	22	11	10	14	25	14	90.9
18-Apr	17	6	31	17	18	12	10	11	22	18	21	34	35	49	59	72	65	40	28	13	39	27	53	49	72.0
19-Apr	44	9	11	15	10	29	39	20	13	16	18	24	37	37	43	32	32	20	11	9	10	6	6	6	43.9
20-Apr	6	17	20	28	77	31	29	19	26	16	39	35	33	31	37	43	71	75	37	29	48	36	41	83	83.0
21-Apr	61	94	79	40	29	8	64	27	43	71	66	92	81	35	52	40	45	29	27	16	14	17	51	72	93.5
22-Apr	17	20	24	18	14	7	16	20	20	16	18	24	17	14	11	9	14	13	10	7	7	9	9	14	24.1
23-Apr	9	10	10	6	13	11	12	12	11	11	16	16	19	17	14	17	19	27	23	23	18	25	33	27	33.4
24-Apr	15	15	14	16	27	32	76	22	16	17	16	14	13	12	13	16	14	13	19	20	15	19	18	25	75.7
25-Apr	25	12	10	10	10	12	18	15	22	22	39	36	41	38	35	33	39	25	20	26	21	16	69	69	68.9
26-Apr	64	25	45	31	47	64	40	32	45	38	46	70	43	51	64	30	40	39	35	30	13	57	21	26	70.4
27-Apr	70	26	74	85	31	91	76	79	22	20	27	64	29	22	27	31	48	53	19	20	84	53	55	54	91.4
28-Apr	23	20	14	22	19	34	28	17	14	15	15	25	24	25	13	14	10	11	10	9	9	9	11	9	33.7
29-Apr	9	7	5	8	7	15	38	8	10	13	11	10	18	15	21	14	15	21	14	16	8	10	5	7	37.5
30-Apr	13	9	7	11	9	6	7	10	9	10	12	13	17	13	9	12	9	8	8	8	11	9	6	5	17.3
	88.5	95.2	81.3	87.1	78.0	91.4	80.4	79.3	63.8	70.5	66.4	92.0	80.8	50.6	63.6	72.0	71.4	74.6	76.2	96.2	96.0	86.7	81.0	85.8	

PAZA
Smoky Heights Station
Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Smoky Heights - April 2015

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

Maximum Value: 6.6 ppb on Apr 12 23:00

Maximum Daily Average: 1.0 ppb on Apr 23

Minimum Value: 0 ppb on Apr 29 15:00

Minimum Daily Average: 0.1 ppb on Apr 5

Maximum Diurnal Average: 0.7 ppb at hour 23

Minimum Diurnal Average: 0.2 ppb at hour 20

Monthly Average: 0.37 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.1$ Median = 0.2 $Q_3 = 0.3$ $P_{90} = 0.8$ $P_{99} = 4.3$

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	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.2	0.9
2-Apr	2	A	0	1	1	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	1	1	0	1	0.6	1.6
3-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
4-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
5-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	0.1
6-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	0.5
7-Apr	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	1	0	A	1	2	0	0	0.4	1.7
8-Apr	0	0	0	2	4	1	0	1	1	1	1	2	1	0	0	1	0	0	A	0	1	0	0	2	0.9	4.4
9-Apr	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.4	2.5
10-Apr	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	0	2	0	0.3	1.9
11-Apr	0	0	0	0	0	0	0	1	2	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.3	1.9
12-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	0	0	0	0	0	1	1	7	5	0.8	6.6
13-Apr	3	1	2	1	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.4	2.7
14-Apr	D	D	D	D	1	0	0	0	1	0	0	C	C	C	0	0	0	0	1	1	5	5	3	0	--	5.2
15-Apr	0	0	1	2	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	1	0	0	1	0.3	2.2
16-Apr	1	0	0	0	0	0	0	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.0
17-Apr	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	1	1	2	0.4	2.4
18-Apr	2	1	1	0	5	2	1	1	A	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0.7	5.3
19-Apr	0	0	0	0	0	0	0	A	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0.4	1.1
20-Apr	0	0	0	0	0	0	A	1	2	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.6	2.3
21-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	0.4
22-Apr	0	0	0	0	A	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0.4	1.6
23-Apr	1	2	2	A	2	5	3	2	1	0	1	0	0	0	1	0	0	1	0	0	0	0	0	0	1.0	4.6
24-Apr	0	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.1
25-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
26-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
27-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	0.6
28-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	A	3	1	0.3	2.8
29-Apr	2	0	1	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.4	1.8
30-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
	0.6	0.4	0.5	0.4	0.7	0.4	0.3	0.4	0.4	0.4	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.5	0.5	0.7	0.6	Diurnal Average	
	2.7	2.4	2.2	2.2	5.3	4.6	2.8	2.3	2.3	1.1	1.0	1.7	1.0	1.1	0.9	0.7	0.5	1.0	0.9	0.6	5.2	4.9	6.6	5.4	Diurnal Maximum	

C - Calibration D - DAS Failure A - Automated Daily Zero Span

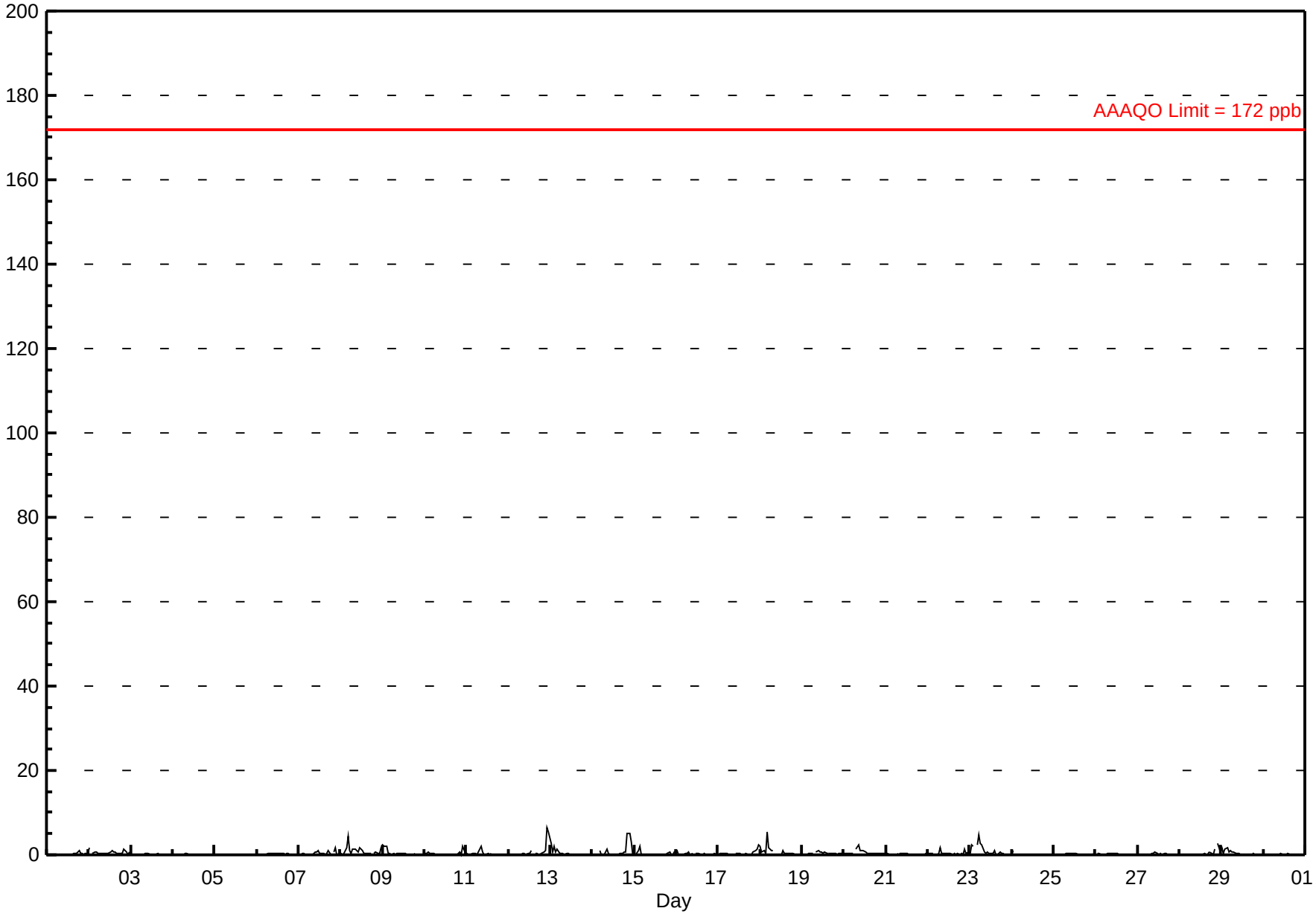
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Smoky Heights - April 2015



Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Smoky Heights - April 2015

Maximum Value: 19.4 ppb on Apr 12 23:00

Maximum Daily Average: 2.8 ppb on Apr 12

Minimum Value: 0 ppb on Apr 5 17:00

Minimum Daily Average: 0.4 ppb on Apr 5

Maximum Diurnal Average: 2.4 ppb at hour 3

Minimum Diurnal Average: 0.7 ppb at hour 16

Monthly Average: 1.21 ppb

Percentiles: $P_1 = 0.3$ $P_{10} = 0.4$ $Q_1 = 0.5$ Median = 0.6 $Q_3 = 0.9$ $P_{90} = 2.5$ $P_{99} = 10.8$

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	1	A	1	0	0	0	0	1	1	1	1	1	1	0	1	1	1	1	1	1	0	1	1	0.6	1.4
2-Apr	4	A	1	2	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	4	3	0	3	1.5	4.3
3-Apr	A	1	1	1	0	0	1	1	1	1	1	0	0	0	0	0	0	1	0	0	0	1	0	A	0.5	0.9
4-Apr	1	0	0	0	0	0	1	1	1	0	0	1	0	0	0	0	1	0	0	0	0	0	A	0	0.5	0.7
5-Apr	0	1	0	1	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	A	0	0	0.4	0.6
6-Apr	1	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	A	0	1	0	0.6	0.8
7-Apr	1	1	1	1	1	1	1	0	0	2	1	2	1	1	1	0	1	3	1	A	2	8	1	1	1.3	8.1
8-Apr	1	1	3	4	9	2	1	4	2	2	1	3	2	2	1	1	1	1	A	2	2	1	1	5	2.2	8.9
9-Apr	5	11	18	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0	0	1	1	2.0	18.1
10-Apr	1	1	1	1	1	1	1	0	1	1	0	1	0	0	0	0	A	0	0	2	3	1	4	1	0.9	3.6
11-Apr	1	0	1	1	1	1	0	3	5	3	0	1	1	0	1	A	1	1	0	1	0	1	0	1	0.9	4.8
12-Apr	1	0	0	0	1	0	0	0	1	1	1	1	1	8	A	1	2	1	1	2	2	6	19	15	2.8	19.4
13-Apr	9	2	14	4	6	1	1	1	0	1	1	1	0	A	0	0	0	1	1	1	1	1	0	0	2.0	13.5
14-Apr	D	D	D	D	5	1	0	0	8	2	1	C	C	C	0	1	1	1	2	2	9	10	9	1	--	10.1
15-Apr	0	0	8	11	1	1	0	0	1	1	0	A	1	0	0	0	0	1	1	2	4	0	0	3	1.6	11.4
16-Apr	3	0	0	0	1	1	4	3	0	2	A	1	1	1	0	1	1	0	1	0	0	1	1	1	1.0	4.1
17-Apr	0	1	1	1	1	1	0	0	0	A	1	1	1	0	1	1	1	0	0	0	2	6	6	7	1.4	7.0
18-Apr	4	2	2	1	8	3	2	2	A	1	0	0	1	2	1	1	1	1	1	1	0	0	0	0	1.5	8.2
19-Apr	0	0	1	1	1	1	1	A	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.8
20-Apr	1	1	1	1	1	1	A	2	4	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	4.1
21-Apr	1	0	0	1	1	A	1	0	1	1	1	1	1	1	1	0	0	0	1	0	1	1	0	1	0.5	0.8
22-Apr	1	1	2	1	A	0	1	4	1	1	2	1	1	1	1	1	0	1	1	1	1	3	0	3	1.1	4.0
23-Apr	2	5	5	A	7	8	5	6	3	1	1	1	1	1	2	1	1	2	1	1	1	0	0	0	2.4	7.6
24-Apr	1	2	A	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	0	0.6	2.3
25-Apr	0	A	0	0	1	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0	1	0	1	1	0.5	0.7
26-Apr	A	1	1	1	1	0	1	1	1	1	1	1	1	0	1	0	1	1	0	1	0	1	0	A	0.6	0.9
27-Apr	1	0	0	0	0	0	0	1	1	1	2	1	1	1	1	1	1	0	1	1	0	0	A	0	0.6	1.6
28-Apr	0	0	0	1	1	1	0	0	0	0	0	0	0	0	1	1	1	2	1	0	4	A	11	3	1.3	10.9
29-Apr	6	1	4	3	3	4	4	3	3	1	1	1	0	1	0	1	0	1	1	1	A	0	1	1	1.7	6.0
30-Apr	0	0	1	0	0	1	0	0	1	1	3	0	1	0	1	1	0	1	0	A	0	0	0	0	0.6	2.7
	1.7	1.3	2.4	1.3	1.8	1.1	1.0	1.3	1.3	1.0	0.9	0.8	0.7	1.0	0.7	0.7	0.7	0.8	0.7	0.8	1.5	1.7	2.2	1.9	Diurnal Average	
	9.1	11.1	18.1	11.4	8.9	7.6	5.2	5.5	8.4	2.7	2.7	3.1	2.2	8.3	2.4	1.5	1.5	2.7	2.5	2.1	9.4	10.1	19.4	15.5	Diurnal Maximum	

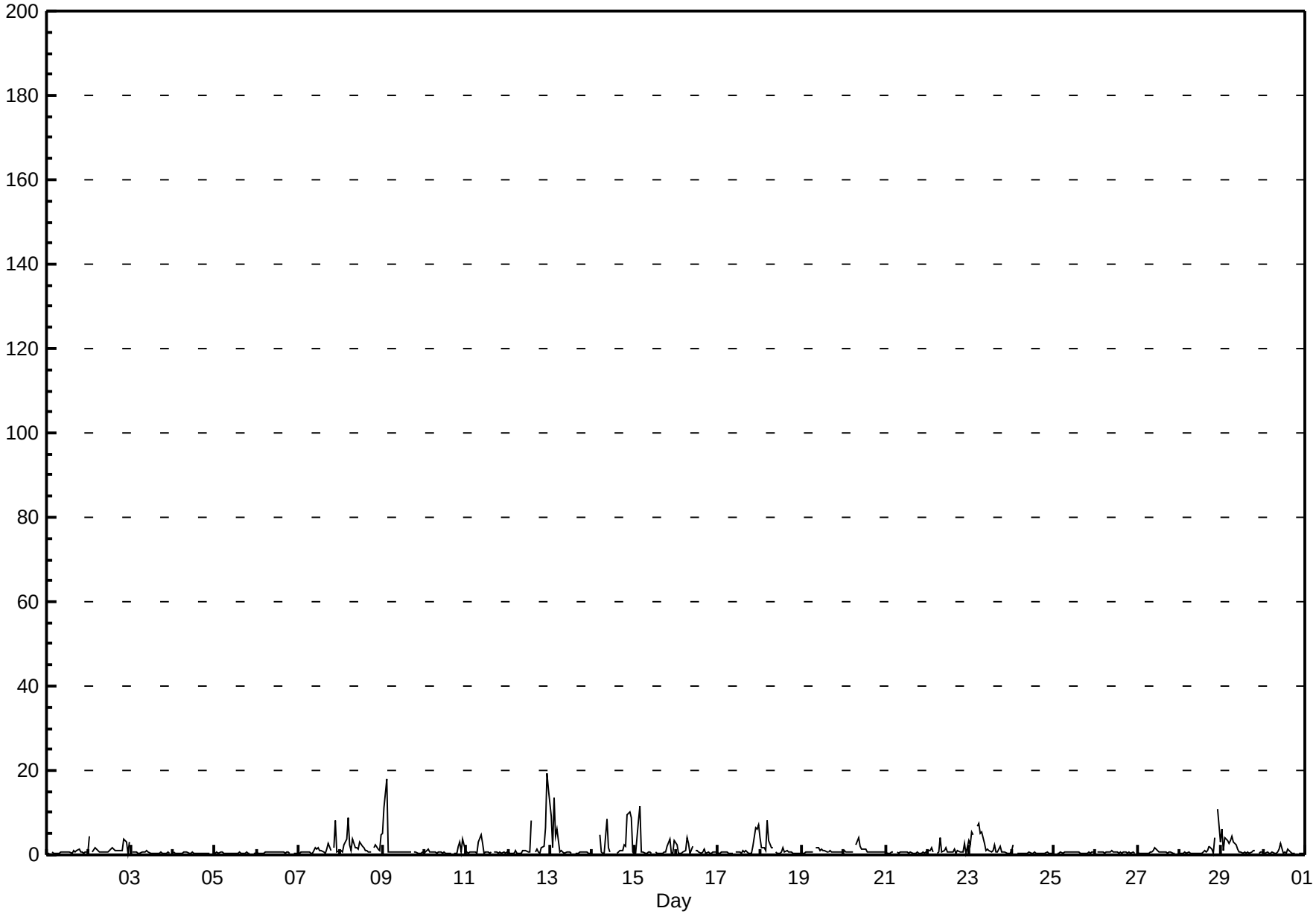
C - Calibration D - DAS Failure A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

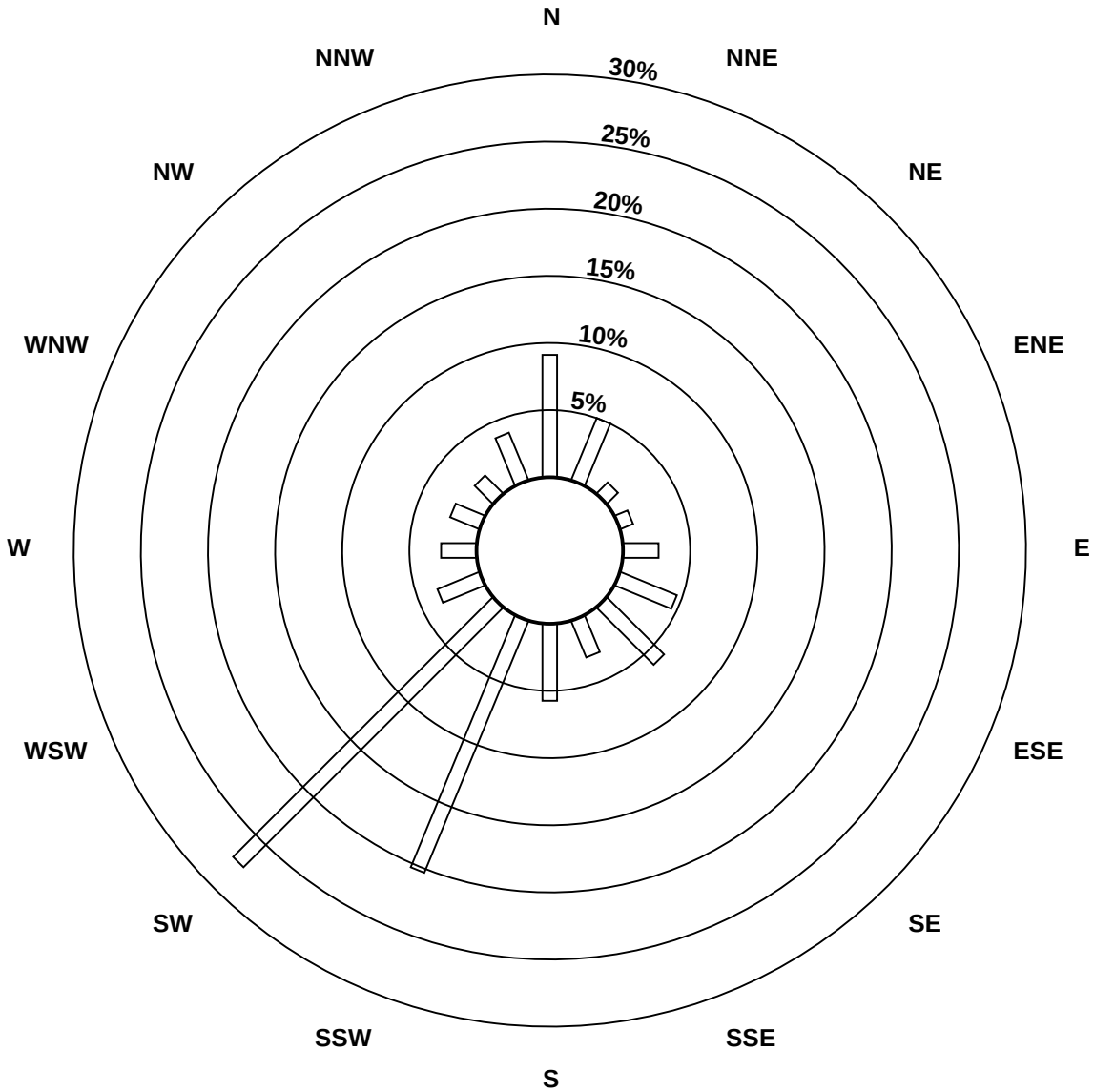
Smoky Heights - April 2015



Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Smoky Heights - April 2015



Pollutant Classes (ppb)

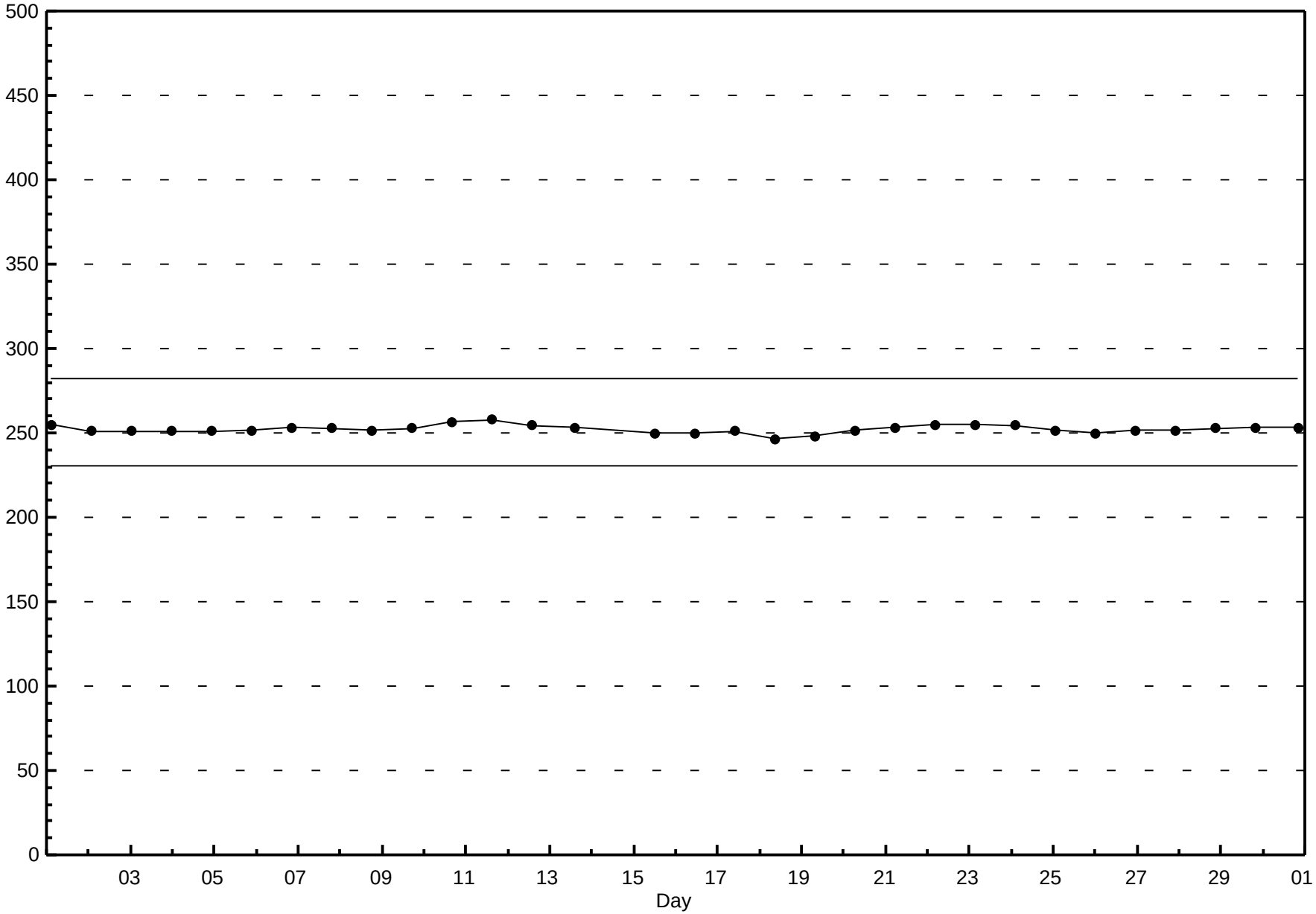
- 0 - 10
- 11 - 20
- 21 - 60
- 61 - 110
- 111 - 172
- > 172

Peace Airshed Zone Association

Span Responses

Sulphur Dioxide (SO_2)

Smoky Heights - April 2015



Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Smoky Heights - April 2015

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

Maximum Value: 0.5 ppb on Apr 20 04:00

Maximum Daily Average: 0.1 ppb on Apr 20

Minimum Value: 0 ppb on Apr 1 01:00

Minimum Daily Average: 0.0 ppb on Apr 30

Maximum Diurnal Average: 0.1 ppb at hour 4

Minimum Diurnal Average: 0.0 ppb at hour 8

Monthly Average: 0.05 ppb

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

Hours in Service:	720
Hours of Data:	680
Hours of Missing Data:	40
Hours of Calibration:	36
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	A	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
2-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
3-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
4-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
5-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
6-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	0.1
7-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	0.1
8-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	0.2
9-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
10-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
11-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	0.4
12-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
13-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
14-Apr	D	D	D	D	0	0	0	0	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	--	0.0
15-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
16-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	0.1
17-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
18-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
19-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	0.5
20-Apr	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
21-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
22-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
23-Apr	0	0	0	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
24-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
25-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
26-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
27-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.0	0.1
28-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	0.0	0.1
29-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	0.1
30-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	0.0
	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	Diurnal Average	
	0.2	0.3	0.4	0.5	0.3	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.3	0.2	0.1	0.2	0.2	0.3	0.2	0.3	0.2	Diurnal Maximum	

C - Calibration D - DAS Failure A - Automated Daily Zero Span

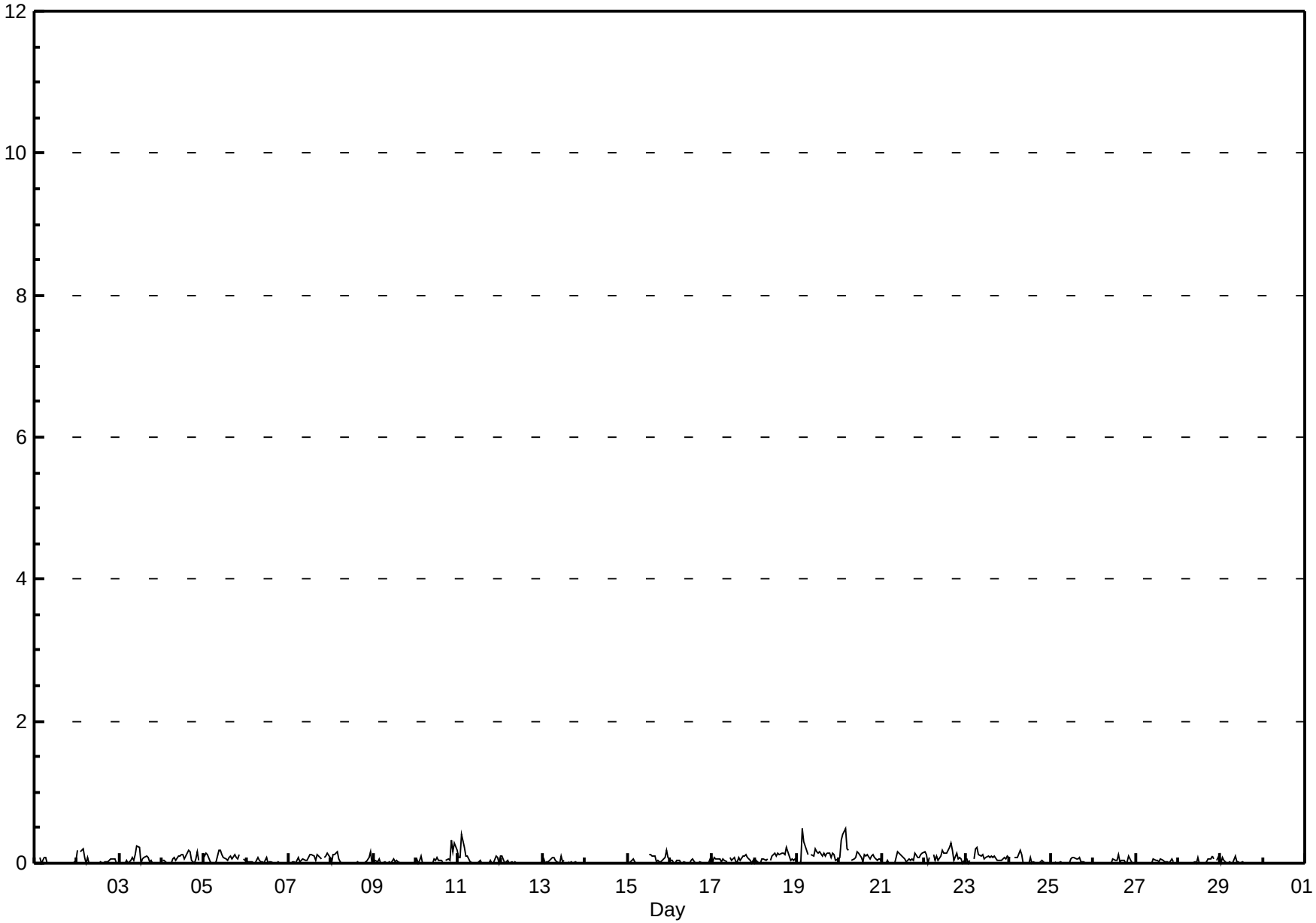
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb

Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Smoky Heights - April 2015



Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

Smoky Heights - April 2015

Maximum Value: 2.1 ppb on Apr 30 08:00

Maximum Daily Average: 0.6 ppb on Apr 20

Minimum Value: 0 ppb on Apr 30 07:00

Maximum Diurnal Average: 0.5 ppb at hour 4

Monthly Average: 0.47 ppb

Minimum Daily Average: 0.4 ppb on Apr 30

Minimum Diurnal Average: 0.4 ppb at hour 9

Percentiles: $P_1 = 0.2$ $P_{10} = 0.3$ $Q_1 = 0.4$ Median = 0.5 $Q_3 = 0.5$ $P_{90} = 0.6$ $P_{99} = 1.1$

Hours in Service:	720
Hours of Data:	680
Hours of Missing Data:	40
Hours of Calibration:	36
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	A	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.4	0.7
2-Apr	1	A	1	1	0	1	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0.4	1.1
3-Apr	A	0	0	1	0	0	1	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0	0	A	0.5	0.7
4-Apr	0	1	0	1	0	1	0	1	0	0	1	1	1	0	1	1	1	0	1	0	1	1	A	1	0.5	0.7
5-Apr	0	1	1	0	0	0	0	0	1	1	1	0	0	1	0	0	0	0	0	0	1	A	0	0	0.5	1.1
6-Apr	0	0	0	0	1	0	0	0	1	1	0	1	0	0	1	1	0	0	1	0	A	0	0	0	0.4	0.6
7-Apr	1	0	0	0	0	0	1	0	1	0	0	1	1	1	1	1	0	0	0	A	1	0	1	0	0.5	0.7
8-Apr	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	1	1	0	0.4	0.8
9-Apr	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	A	0	0	0	0	0	0	0.4	0.6
10-Apr	0	0	0	1	0	0	0	1	0	0	0	0	1	1	0	0	A	1	1	0	1	1	1	1	0.5	1.0
11-Apr	0	1	1	1	0	1	0	1	0	0	0	0	0	0	0	A	0	0	1	0	0	1	1	0	0.5	0.9
12-Apr	0	0	1	0	0	0	0	0	0	0	0	0	0	0	A	1	0	0	0	0	0	1	0	0	0.4	0.5
13-Apr	1	0	0	0	1	0	0	0	0	0	1	0	0	A	0	0	0	0	0	0	0	0	0	1	0.4	0.6
14-Apr	D	D	D	D	0	0	0	0	C	C	C	C	C	0	0	0	0	0	0	1	0	0	0	0	--	0.5
15-Apr	0	0	1	0	0	0	0	0	0	0	0	A	1	1	0	0	1	0	0	0	0	1	1	1	0.5	0.8
16-Apr	1	0	0	0	1	0	0	0	0	1	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0.4	0.6
17-Apr	0	0	0	0	0	0	0	1	0	A	0	1	1	0	0	1	1	1	1	1	0	1	0	0	0.5	0.6
18-Apr	0	0	0	0	1	0	1	0	A	0	1	1	1	1	1	0	0	1	1	1	0	0	0	0	0.5	1.0
19-Apr	1	0	0	1	1	1	1	A	0	1	1	1	1	1	0	1	0	1	1	1	1	0	0	0	0.6	1.1
20-Apr	1	1	1	1	1	1	A	0	0	0	1	0	0	0	1	0	1	0	1	1	1	0	1	1	0.6	1.1
21-Apr	0	0	0	0	0	A	0	0	1	1	1	1	1	0	1	0	0	1	0	1	1	1	1	1	0.5	0.7
22-Apr	1	1	0	0	A	1	0	1	1	1	1	1	1	1	1	1	1	0	1	0	1	1	1	1	0.6	0.8
23-Apr	0	0	1	A	0	1	1	1	1	0	0	1	1	1	1	1	1	0	0	0	0	1	0	0	0.5	0.7
24-Apr	0	1	A	1	1	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	1.6
25-Apr	1	A	1	1	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0.4	0.7
26-Apr	A	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	1	1	0	0	A	0.4	0.7
27-Apr	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	0	0	0	0	1	1	A	0	0.4	0.7
28-Apr	0	0	0	1	0	0	0	0	0	1	0	1	0	0	1	0	1	0	0	1	0	A	1	0	0.4	0.7
29-Apr	0	1	1	0	0	0	0	0	1	0	0	0	1	0	0	1	0	0	0	0	A	0	0	0	0.4	0.6
30-Apr	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.4	2.1
	0.5	0.5	0.5	0.5	0.4	0.4	0.5	0.5	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.5	0.5	0.5	0.5	0.5	0.5	Diurnal Average	
	0.8	1.0	1.1	1.1	0.7	0.7	1.6	2.1	0.6	0.7	0.7	0.7	0.7	0.8	1.1	0.7	0.8	0.7	1.0	0.7	1.1	0.7	0.7	0.7	Diurnal Maximum	

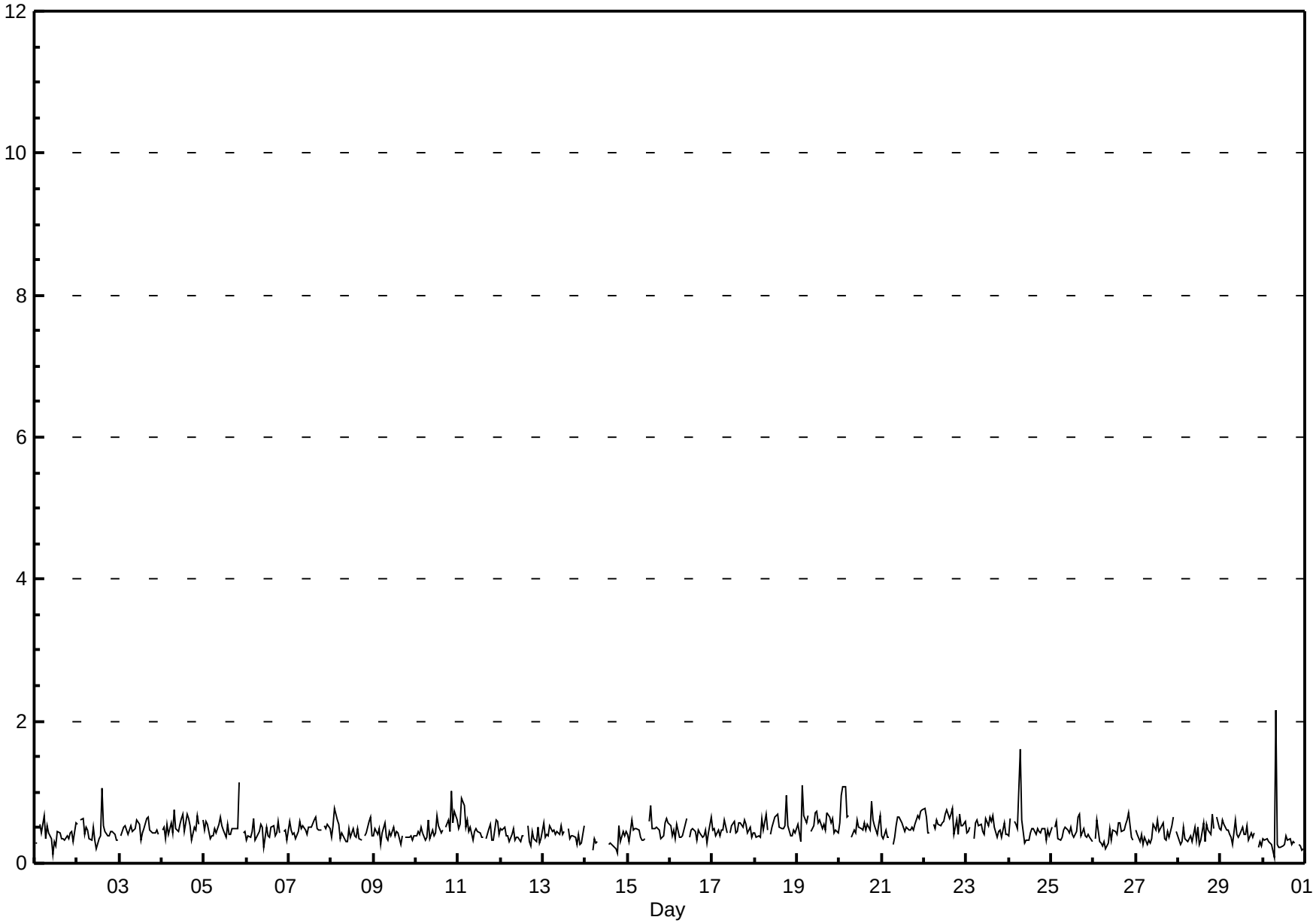
C - Calibration D - DAS Failure A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

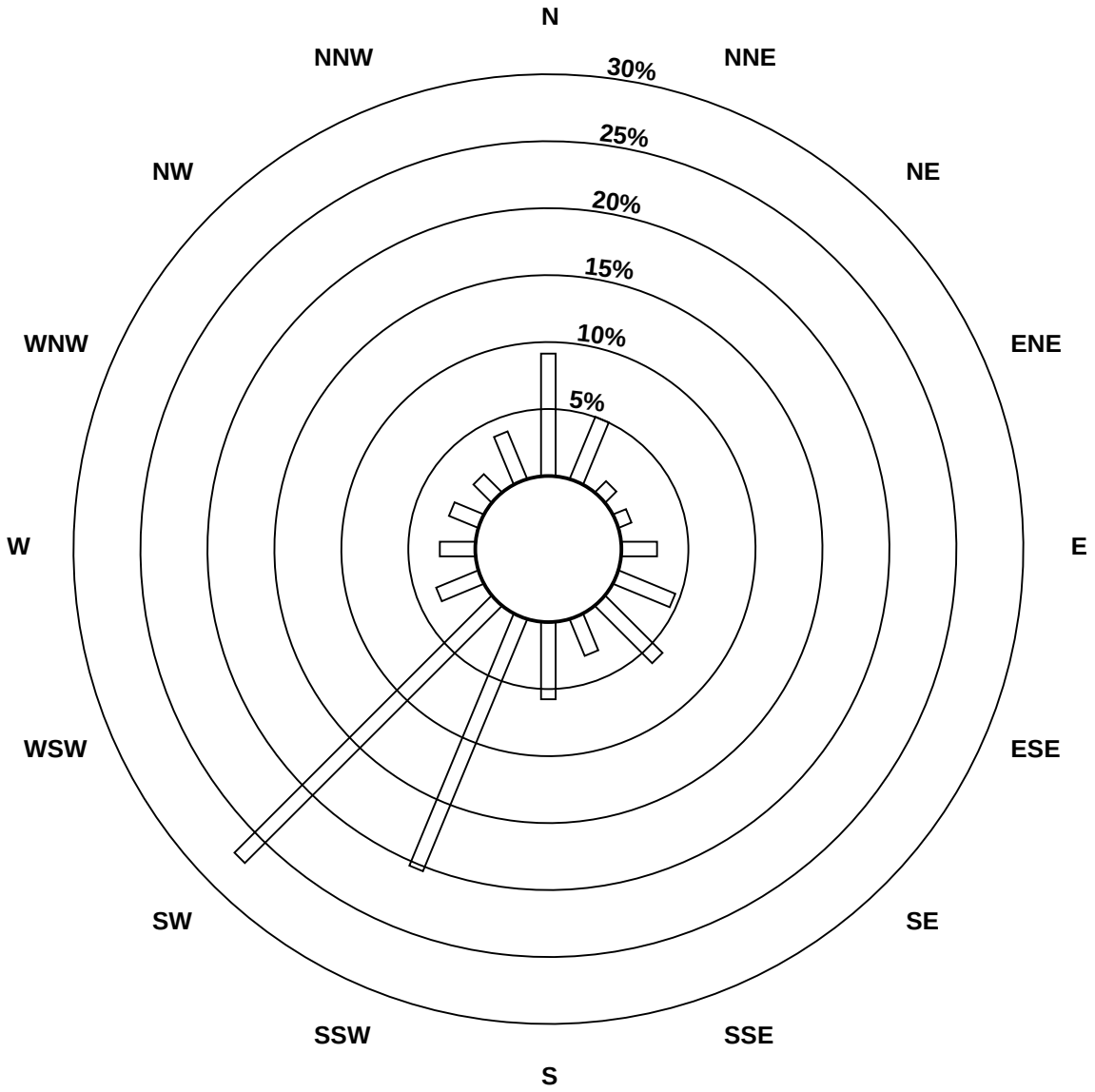
Smoky Heights - April 2015



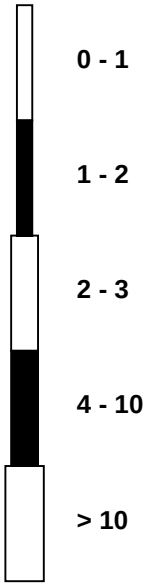
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb

Smoky Heights - April 2015



Pollutant Classes (ppb)

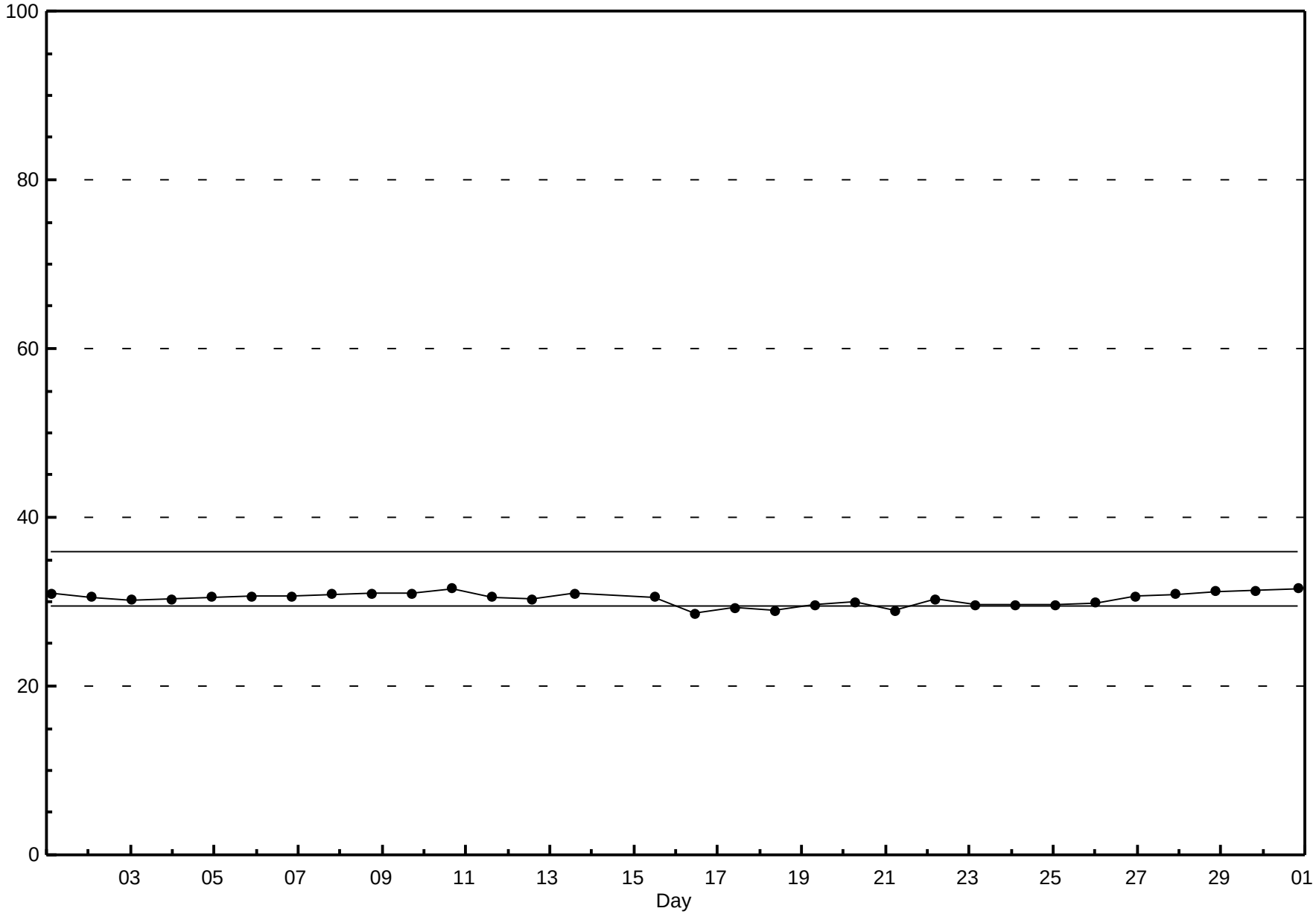


Peace Airshed Zone Association

Span Responses

Total Reduced Sulphur (TRS)

Smoky Heights - April 2015



Peace Airshed Zone Association

Hourly Averages

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

Smoky Heights - April 2015

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

Maximum Value: 12.1 $\mu g/m^3$ on Apr 28 18:00

Maximum Daily Average: 3.9 $\mu g/m^3$ on Apr 10

Minimum Value: 0 $\mu g/m^3$ on Apr 1 22:00

Maximum Diurnal Average: 2.4 $\mu g/m^3$ at hour 21

Monthly Average: 1.73 $\mu g/m^3$

Minimum Daily Average: 0.2 $\mu g/m^3$ on Apr 23

Minimum Diurnal Average: 1.0 $\mu g/m^3$ at hour 13

Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.6$ Median = 1.3 $Q_3 = 2.4$ $P_{90} = 3.7$ $P_{99} = 7.8$

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	1	1	1	1	1	1	1	1	1	1	1	1	1	2	0	1	2	1	1	0	1	2	1.0	2.4
2-Apr	2	2	1	2	1	0	1	0	0	1	3	0	0	0	0	1	0	0	2	1	1	0	0	1	0.8	2.8
3-Apr	0	0	0	0	0	1	0	3	3	2	2	2	1	2	0	0	0	0	1	1	1	1	1	1	0.9	3.0
4-Apr	1	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	0	0	1.4	2.4
5-Apr	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	2	2	1	1	1	1	1.0	1.6
6-Apr	1	1	1	2	2	3	3	4	4	4	3	2	3	3	3	2	3	2	2	3	2	2	3	2	2.6	4.5
7-Apr	2	2	2	3	3	3	3	4	3	4	3	1	1	0	0	1	1	2	3	3	4	2	3	3	2.4	4.0
8-Apr	2	3	2	2	3	2	3	2	2	2	1	1	0	1	4	2	3	3	4	7	4	5	2	1	2.6	6.5
9-Apr	2	2	2	2	1	2	3	3	3	3	2	1	2	1	2	3	4	4	5	8	4	7	11	9	3.6	10.8
10-Apr	5	4	4	5	5	5	5	5	4	4	3	1	1	0	1	2	1	2	6	5	9	8	4	5	3.9	8.8
11-Apr	1	1	2	1	2	1	2	2	0	0	0	0	0	1	1	1	2	2	1	1	1	1	1	0	1.1	2.3
12-Apr	0	1	0	0	1	1	0	0	0	0	0	1	1	2	2	3	2	3	2	1	2	2	2	2	1.2	3.0
13-Apr	2	1	1	1	1	1	3	2	1	1	0	0	0	0	0	0	0	0	1	1	1	1	2	2	0.9	2.8
14-Apr	D	D	D	D	2	1	2	7	2	1	1	1	1	2	4	4	3	3	1	2	3	2	2	2	2.3	7.5
15-Apr	2	1	1	2	2	2	2	1	2	1	0	1	1	1	3	7	1	2	2	1	3	2	1	0	1.7	7.1
16-Apr	1	1	0	0	1	0	2	0	1	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0.4	2.0
17-Apr	0	0	0	0	1	1	2	0	0	0	0	1	2	0	0	0	3	4	1	3	2	1	1	1	1.0	4.2
18-Apr	1	1	1	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	2	1	1	0	0.5	1.7
19-Apr	0	1	1	2	1	1	2	2	1	1	1	1	1	1	2	1	1	2	2	2	6	4	7	3	1.9	6.9
20-Apr	3	3	2	3	3	3	4	5	3	3	2	1	2	1	1	1	1	2	1	2	2	1	2	2	2.2	4.7
21-Apr	2	2	2	2	2	3	3	4	4	3	4	3	1	2	1	0	2	3	5	2	0	1	3	1	2.3	4.5
22-Apr	2	3	6	4	2	2	4	2	1	2	2	1	1	5	3	0	2	0	0	0	0	0	0	0	1.7	5.6
23-Apr	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0.2	0.8
24-Apr	0	0	0	0	1	1	3	3	3	2	2	2	3	2	3	3	3	4	4	4	4	4	3	0	2.3	4.2
25-Apr	1	1	1	2	2	2	1	2	2	3	2	2	2	3	4	2	3	3	4	4	4	3	3	4	2.5	4.1
26-Apr	4	3	3	7	11	10	4	1	2	2	3	2	2	0	2	1	1	1	1	1	2	3	0	0	2.8	11.2
27-Apr	1	2	2	1	2	2	3	2	2	2	0	0	0	0	1	2	2	2	3	3	2	5	3	1	1.9	4.9
28-Apr	2	2	1	0	0	0	0	0	1	1	0	0	0	1	8	12	11	12	8	5	6	5	2	2	3.3	12.1
29-Apr	2	2	1	0	0	1	1	1	0	0	1	1	1	1	0	1	1	1	3	1	1	1	1	1	1.0	2.9
30-Apr	1	1	0	1	0	0	0	1	1	0	1	0	0	0	0	1	2	5	1	2	2	1	1	1	0.9	4.7
	1.4	1.5	1.4	1.6	1.8	1.8	2.0	2.1	1.6	1.6	1.4	1.0	1.0	1.1	1.6	1.8	1.9	2.2	2.2	2.2	2.4	2.2	2.1	1.6	Diurnal Average	
	4.7	4.5	5.6	7.4	11.2	10.3	4.6	7.5	4.5	4.4	4.4	3.5	2.6	4.7	7.5	11.9	11.3	12.1	7.6	8.0	8.8	7.9	10.8	8.5	Diurnal Maximum	

D - DAS Failure

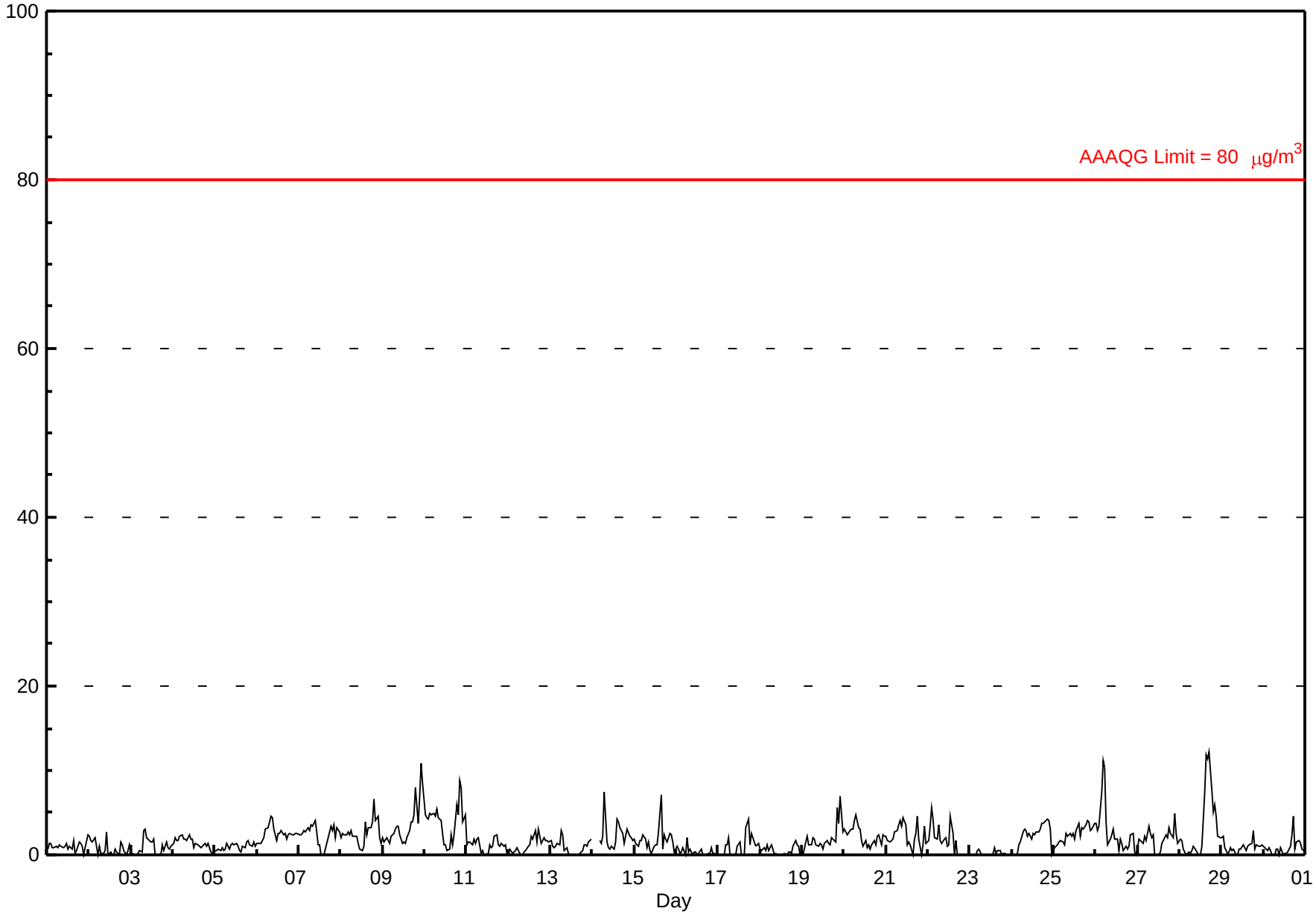
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 $\mu g/m^3$ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 $\mu g/m^3$

Peace Airshed Zone Association

Hourly Averages

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

Smoky Heights - April 2015



Peace Airshed Zone Association

Hourly Maximums

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

Smoky Heights - April 2015

Maximum Value: 30.8 $\mu g/m^3$ on Apr 9 23:00

Maximum Daily Average: 8.3 $\mu g/m^3$ on Apr 9

Minimum Value: 0 $\mu g/m^3$ on Apr 29 10:00

Maximum Diurnal Average: 5.7 $\mu g/m^3$ at hour 20

Monthly Average: 4.50 $\mu g/m^3$

Minimum Daily Average: 1.9 $\mu g/m^3$ on Apr 23

Minimum Diurnal Average: 3.1 $\mu g/m^3$ at hour 12

Percentiles: P_1 = 1.0 P_{10} = 1.9 Q_1 = 2.7 Median = 3.7 Q_3 = 5.0 P_{90} = 7.1 P_{99} = 20.4

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	3	4	3	2	2	3	2	3	2	3	3	3	2	2	2	5	2	4	3	3	3	2	3	4	2.8	4.7
2-Apr	4	3	4	4	3	2	4	3	3	3	20	2	3	2	4	4	5	4	4	4	2	3	4	5	4.1	19.6
3-Apr	2	2	2	2	2	3	3	5	6	4	3	3	3	4	1	1	1	1	3	2	3	2	2	2	2.7	6.2
4-Apr	4	5	4	4	3	4	4	3	4	4	4	3	3	4	3	3	2	2	3	2	3	3	2	1	3.2	5.2
5-Apr	2	2	2	2	3	3	2	5	2	3	3	3	3	4	2	3	3	3	3	3	3	3	4	3	2.9	5.4
6-Apr	4	3	3	3	4	5	6	5	7	7	6	3	4	5	5	4	4	5	5	5	4	4	5	4	4.6	7.4
7-Apr	4	4	4	4	4	5	5	5	6	6	5	3	4	3	2	4	4	6	9	5	6	4	5	6	4.7	8.6
8-Apr	3	4	4	4	4	4	5	4	4	5	3	2	3	3	11	6	7	6	6	22	6	9	4	4	5.5	21.5
9-Apr	4	4	3	4	3	5	5	5	7	5	4	3	4	4	5	7	6	6	9	27	6	14	31	28	8.3	30.8
10-Apr	7	6	7	7	7	8	6	8	7	6	4	4	3	4	5	11	4	4	13	9	23	19	6	15	8.0	23.2
11-Apr	4	3	3	3	4	3	4	5	3	3	2	3	4	4	6	5	6	5	3	3	4	3	4	2	3.7	6.4
12-Apr	2	3	2	2	2	2	1	2	2	3	5	4	7	4	5	8	4	6	8	3	4	3	3	3	3.8	8.4
13-Apr	4	2	2	2	3	4	14	13	3	3	2	2	2	2	3	2	2	2	3	3	3	3	4	3	3.6	13.9
14-Apr	D	D	D	D	4	4	9	24	6	3	2	4	3	4	10	10	10	8	3	5	7	4	4	4	6.4	24.3
15-Apr	3	3	2	4	3	4	4	3	7	2	2	4	3	7	7	20	6	7	4	3	5	4	4	2	4.6	19.8
16-Apr	3	3	2	2	4	2	4	3	2	2	3	3	2	3	8	5	2	2	3	2	3	1	2	2	2.8	8.3
17-Apr	1	2	1	2	6	3	4	3	0	3	4	4	4	2	4	4	9	9	4	7	4	2	3	3	3.8	9.1
18-Apr	2	2	2	2	3	2	4	3	2	1	2	3	2	2	4	4	3	2	2	3	4	4	3	4	2.8	4.5
19-Apr	3	3	4	4	3	3	5	5	2	4	4	4	5	5	5	4	4	4	4	5	11	7	20	6	5.2	20.0
20-Apr	6	6	4	4	4	4	7	8	5	5	5	3	6	3	6	4	4	5	5	8	4	3	4	4	4.9	8.4
21-Apr	4	4	3	4	4	5	6	6	6	6	7	6	5	7	5	3	6	14	13	5	1	4	10	5	5.7	13.7
22-Apr	4	6	9	7	4	4	6	4	4	4	4	3	4	9	6	1	5	2	4	3	1	2	1	1	4.1	9.3
23-Apr	2	1	2	1	1	3	3	2	1	3	3	2	2	2	2	1	2	3	1	2	1	1	1	1	1.9	3.2
24-Apr	2	2	1	2	3	3	4	5	4	4	4	4	5	4	5	4	5	6	5	5	6	6	5	2	4.0	5.7
25-Apr	3	3	3	3	4	3	4	5	4	4	5	5	5	10	9	4	7	5	5	5	6	5	5	5	4.8	10.0
26-Apr	7	5	6	19	24	19	14	5	4	5	5	4	4	3	5	5	4	4	2	4	11	7	2	2	7.1	24.4
27-Apr	2	5	4	4	4	5	5	5	5	6	2	0	2	3	5	4	8	7	8	7	4	16	6	3	5.0	15.6
28-Apr	6	4	3	3	2	2	2	1	3	2	2	1	1	5	21	20	19	17	11	9	10	9	4	5	6.8	21.2
29-Apr	6	4	5	2	2	3	3	3	2	0	4	3	3	3	2	3	4	8	12	3	3	3	4	4	3.7	11.5
30-Apr	3	3	3	3	2	1	2	3	2	1	2	1	5	6	5	6	6	10	6	5	4	3	3	2	3.6	10.0
	3.6	3.6	3.4	3.8	4.2	4.1	4.8	5.1	3.9	3.7	4.1	3.1	3.5	4.1	5.5	5.6	5.2	5.4	5.4	5.7	5.2	5.1	5.2	4.5	Diurnal Average	
	7.4	6.3	9.3	19.5	24.4	18.8	13.9	24.3	7.4	7.1	19.6	5.7	7.1	10.0	21.2	20.3	19.3	16.9	13.2	27.1	23.2	19.1	30.8	28.3	Diurnal Maximum	

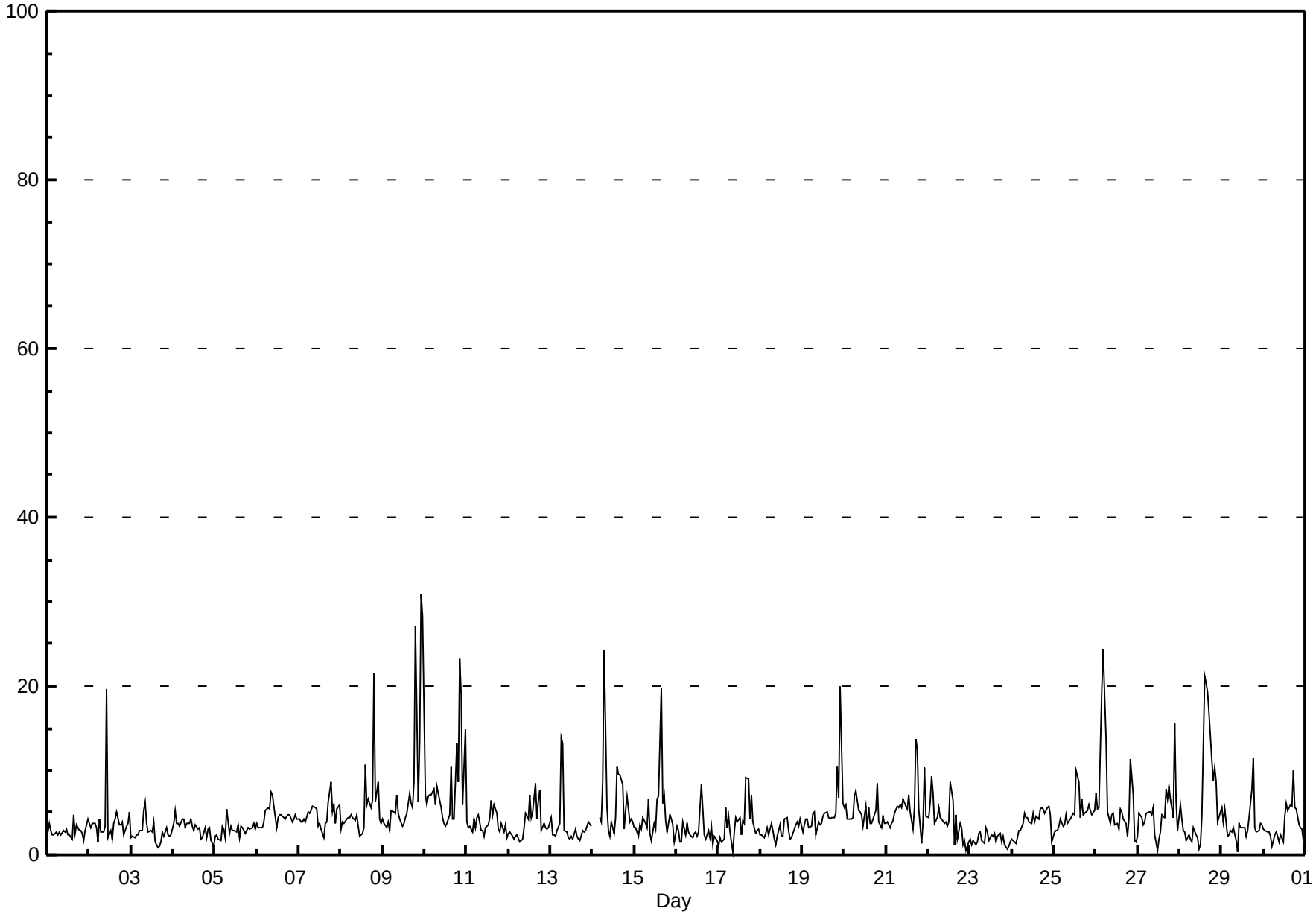
D - DAS Failure

Peace Airshed Zone Association

Hourly Maximums

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

Smoky Heights - April 2015

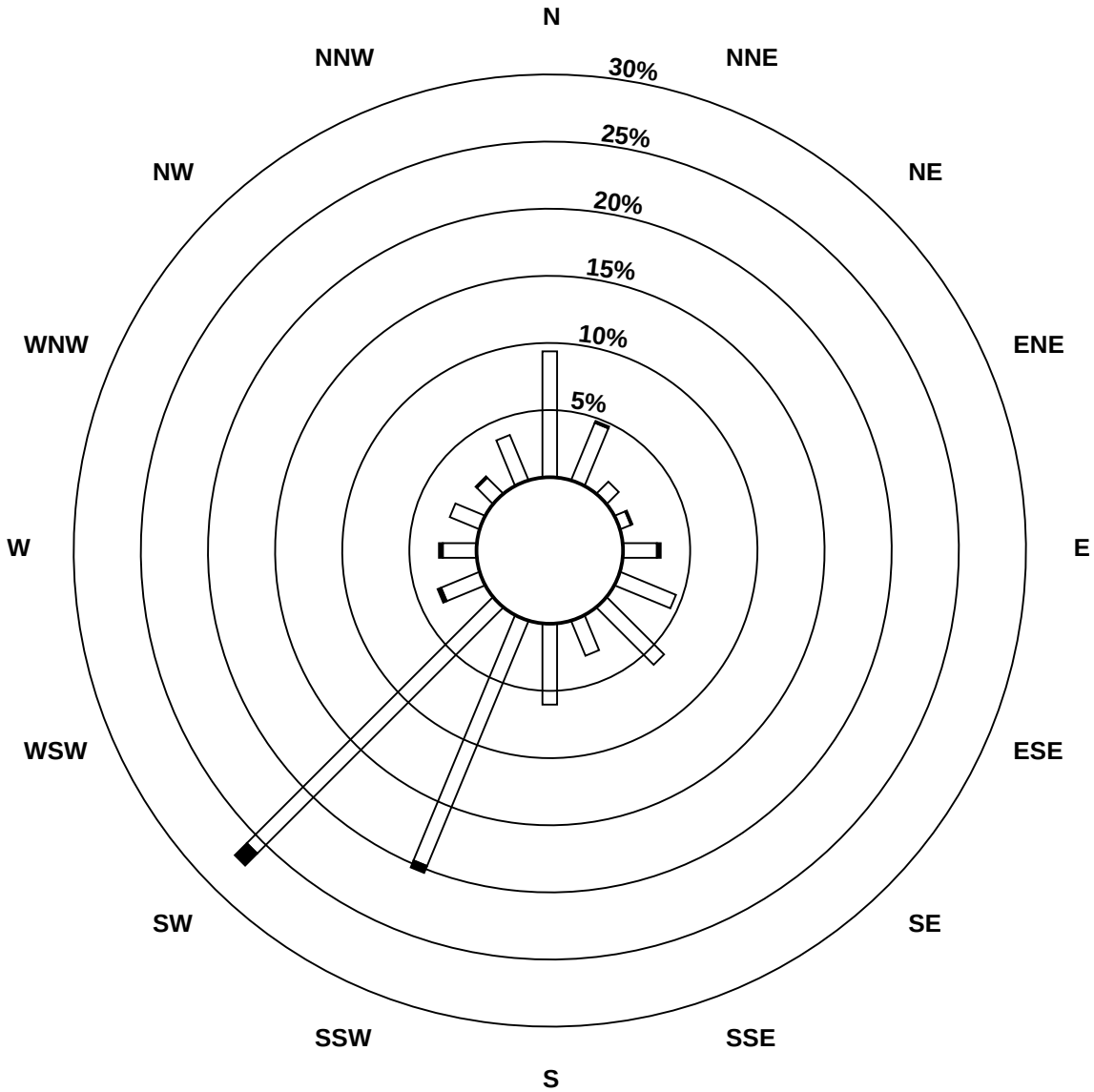


Peace Airshed Zone Association

Pollutant Rose

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

Smoky Heights - April 2015



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) - ^{o}C

Smoky Heights - April 2015

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

Maximum Value: 24.1 ^{o}C on Apr 28 14:00

Maximum Daily Average: 13.4 ^{o}C on Apr 21

Minimum Value: -6 ^{o}C on Apr 13 06:00

Maximum Diurnal Average: 10.2 ^{o}C at hour 16

Monthly Average: 5.54 ^{o}C

Minimum Daily Average: -0.1 ^{o}C on Apr 5

Minimum Diurnal Average: 0.5 ^{o}C at hour 6

Percentiles: P_1 = -4.1 P_{10} = -0.5 Q_1 = 1.8 Median = 4.7 Q_3 = 9.0 P_{90} = 13.0 P_{99} = 20.0

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	1	0	0	0	0	0	0	0	1	1	2	2	3	3	3	3	3	2	2	1	0	0	1.2	3.2
2-Apr	0	0	0	0	0	0	0	0	1	2	3	4	5	5	6	7	7	7	6	4	2	3	2	2	2.8	7.0
3-Apr	1	0	-1	-2	-2	-2	-3	-1	1	2	1	0	1	2	4	5	6	5	4	3	2	1	1	0	1.2	5.5
4-Apr	-1	-1	-1	-1	-2	-3	-3	-3	-2	-1	1	2	3	4	4	4	4	4	3	1	0	-1	-2	-2	0.4	4.1
5-Apr	-3	-3	-4	-4	-4	-5	-5	-4	-3	-1	0	2	3	4	4	5	5	5	4	3	1	0	0	0	-0.1	5.1
6-Apr	-1	-2	-2	-3	-3	-3	-4	-2	0	2	4	5	5	6	7	8	8	8	6	5	4	3	2	1	2.2	8.2
7-Apr	0	-1	-2	-2	-2	-3	-4	-2	0	3	6	8	8	9	10	10	11	11	10	7	5	2	1	1	3.6	10.6
8-Apr	0	0	0	-1	-1	-1	-1	1	4	6	8	10	11	11	12	13	14	14	14	11	8	6	5	4	6.2	14.3
9-Apr	4	3	2	1	0	-1	-1	2	5	9	11	14	15	16	17	17	17	17	16	13	10	6	5	3	8.4	17.5
10-Apr	2	2	0	1	2	1	2	4	7	10	13	16	17	17	17	16	16	16	14	10	8	8	6	4	8.7	16.9
11-Apr	3	3	2	1	1	0	1	4	4	5	5	6	8	8	9	8	9	7	6	4	3	2	1	1	4.1	8.6
12-Apr	1	0	0	0	0	0	0	1	3	4	5	6	7	7	7	6	6	7	6	5	3	2	1	0	3.2	7.0
13-Apr	-1	-1	-3	-3	-4	-6	-5	-1	2	5	7	9	9	10	11	11	12	11	11	8	8	8	7	6	4.5	11.8
14-Apr	D	D	D	D	3	3	4	4	5	6	6	7	7	8	10	10	9	9	9	7	5	4	3	1	6.0	9.9
15-Apr	0	0	0	-1	-1	-1	0	3	5	6	8	9	10	10	11	9	9	10	11	10	8	8	7	6	5.7	10.7
16-Apr	5	5	5	4	4	6	6	6	6	6	6	6	6	6	6	8	10	11	10	8	7	4	2	1	5.9	10.8
17-Apr	1	1	1	2	3	3	3	3	3	5	7	9	10	11	13	13	11	8	7	5	3	3	2	2	5.4	12.8
18-Apr	2	2	3	3	2	1	2	3	6	7	8	9	9	9	9	10	10	11	10	9	6	4	1	2	5.7	10.6
19-Apr	2	2	0	-2	-2	-3	-2	2	5	8	9	11	11	12	13	14	15	15	15	13	10	7	5	4	6.8	15.2
20-Apr	4	3	2	2	2	2	3	7	10	13	15	16	18	17	18	18	18	18	17	16	11	9	7	8	10.6	18.4
21-Apr	6	6	7	6	5	3	4	7	10	14	16	19	20	20	21	22	22	20	19	16	15	15	14	13	13.4	21.6
22-Apr	13	12	11	10	9	8	7	9	11	12	11	13	13	12	9	6	2	3	3	3	2	2	2	2	7.7	12.9
23-Apr	2	2	2	2	2	2	2	2	2	3	4	4	4	4	4	4	4	3	3	3	2	2	2	2	2.8	4.4
24-Apr	2	2	2	2	2	2	2	2	2	2	1	1	1	2	3	4	5	6	5	5	4	4	3	3	2.8	5.6
25-Apr	1	0	0	-1	-2	-2	-2	-1	0	1	3	5	6	6	6	6	7	6	6	5	4	4	4	3	2.7	6.6
26-Apr	2	2	1	0	-1	-1	1	3	4	6	8	9	10	10	11	12	12	13	13	12	9	7	6	6	6.5	12.8
27-Apr	6	4	3	3	2	1	3	6	7	10	13	15	15	16	16	17	17	17	17	15	13	10	8	9	10.1	17.0
28-Apr	8	8	7	7	7	7	9	10	12	14	16	19	22	24	21	16	12	12	11	11	12	10	8	8	12.1	24.1
29-Apr	6	6	5	3	2	2	4	6	8	10	11	11	12	13	13	13	13	12	11	10	9	6	5	4	8.1	13.1
30-Apr	6	6	6	5	4	4	4	6	7	8	8	9	10	11	10	12	12	11	11	9	8	7	6	5	7.6	12.2
	2.6	2.1	1.5	1.1	0.8	0.5	0.9	2.5	4.2	5.9	7.2	8.4	9.3	9.8	10.1	10.2	10.2	10.0	9.4	7.8	6.1	4.8	3.8	3.3	Diurnal Average	
	12.9	11.6	10.6	9.9	9.4	7.5	8.5	10.3	11.9	13.8	16.2	19.4	21.9	24.1	21.2	21.6	21.6	20.4	19.1	16.1	15.4	14.8	13.8	13.5	Diurnal Maximum	

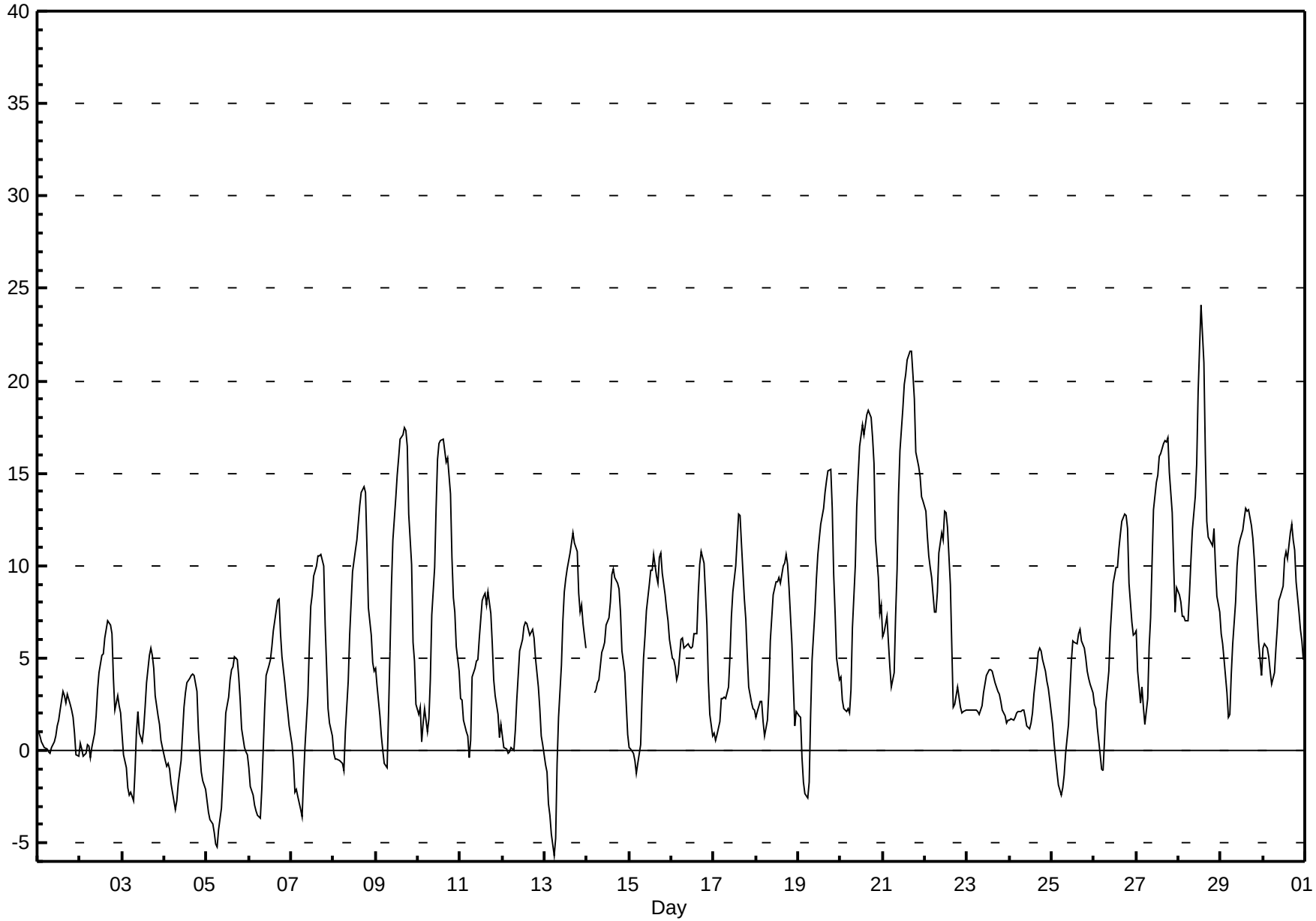
D - DAS Failure

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Smoky Heights - April 2015



Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Smoky Heights - April 2015

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	20	26	23	27	23	21	20	20	21	19	17	15	14	12	8	8	8	3	4	3	3	4	8	7	12.3	27.5
Dir	257	264	268	267	263	261	267	275	280	287	292	294	295	293	281	212	216	337	59	35	146	208	228	234	269.2	266.8
2 Spd	10	10	8	8	8	5	1	3	5	4	5	9	10	7	3	7	8	9	7	3	9	16	5	11	5.3	16.0
Dir	234	238	229	231	230	260	120	196	182	205	177	198	213	214	1	327	312	295	342	283	222	237	219	218	236.2	237.0
3 Spd	11	8	7	7	6	6	6	4	3	8	14	12	14	15	13	13	14	14	13	10	9	10	10	11	5.2	14.9
Dir	176	185	209	205	165	152	158	121	118	3	356	353	360	356	359	1	22	34	22	9	344	349	343	2	7.3	355.5
4 Spd	14	13	12	11	13	12	13	16	17	17	16	15	14	13	15	15	16	15	13	11	12	12	14	12	13.7	17.4
Dir	15	23	20	4	356	353	352	358	4	4	359	5	17	3	359	2	6	4	349	347	352	351	359	357	1.8	3.9
5 Spd	11	12	12	14	13	11	11	13	13	13	14	15	15	14	14	10	10	11	11	11	9	8	8	10	11.2	15.1
Dir	346	344	336	339	344	343	344	350	358	1	359	20	16	7	19	24	14	20	27	23	21	8	24	42	4.5	19.6
6 Spd	6	7	5	5	5	5	6	6	4	6	5	17	14	14	14	9	11	11	13	11	12	15	15	10	6.1	17.3
Dir	357	351	340	342	337	351	349	351	19	92	54	113	105	121	130	144	146	108	111	100	98	113	118	129	98.9	112.5
7 Spd	6	5	5	6	5	5	6	8	9	11	11	20	20	22	19	19	16	18	16	13	12	14	14	14	11.5	21.7
Dir	126	165	198	191	199	195	175	156	178	197	197	202	207	211	226	227	225	213	207	209	215	228	232	235	208.6	211.0
8 Spd	15	15	17	17	17	17	17	17	20	21	24	23	23	20	16	17	18	18	15	7	9	16	17	14	16.9	23.7
Dir	231	232	235	230	228	228	230	222	219	218	211	215	213	215	224	218	228	226	225	251	207	230	237	225	223.9	211.4
9 Spd	17	16	14	12	11	11	5	11	15	22	25	24	23	21	24	17	18	18	14	15	5	8	8	7	13.1	25.1
Dir	223	219	199	186	173	175	192	191	200	203	209	208	211	196	205	211	220	223	220	28	294	246	228	222	208.6	209.0
10 Spd	7	9	4	6	7	7	7	6	N	N	11	16	17	22	18	17	16	23	25	14	9	10	13	11	10.7	24.8
Dir	196	226	192	197	205	200	178	182	N	N	147	142	154	181	137	139	142	190	206	214	216	211	226	224	182.7	205.8
11 Spd	8	11	11	9	6	6	11	23	28	28	36	38	39	43	37	35	42	39	36	32	25	23	24	30	25.5	42.5
Dir	208	226	227	219	166	182	225	226	222	213	208	214	219	222	222	231	227	218	213	210	209	213	212	218	217.4	221.8
12 Spd	27	26	28	24	29	32	28	30	37	47	46	48	46	48	45	44	46	49	42	33	24	22	21	21	34.9	49.1
Dir	212	204	205	218	217	219	217	214	220	221	228	223	223	228	227	228	226	232	229	223	221	229	225	219	222.4	231.6
13 Spd	18	18	16	14	12	12	9	8	10	7	7	7	10	16	21	21	20	21	18	11	11	17	16	13	8.0	20.8
Dir	218	218	226	220	238	240	205	145	143	131	125	140	113	101	96	90	99	86	85	86	87	103	131	127	131.8	95.9
14 Spd	D	D	D	D	8	11	9	4	24	32	34	41	42	39	40	39	42	39	34	29	22	18	15	13	26.3	42.3
Dir	D	D	D	D	184	205	176	260	229	216	211	218	213	210	214	219	221	220	222	221	221	221	216	218	216.5	220.9
15 Spd	13	16	16	15	15	17	20	21	31	37	35	35	33	28	27	36	26	22	34	34	27	26	21	16	24.7	37.5
Dir	211	215	220	227	217	204	204	206	207	210	208	200	202	198	199	217	182	195	230	222	214	214	221	217	209.7	210.2
16 Spd	13	14	10	9	16	24	23	11	9	16	11	10	13	12	11	28	31	30	34	25	21	15	12	15	16.4	33.9
Dir	214	211	197	209	208	216	228	217	186	226	215	214	224	167	160	227	232	243	232	231	222	227	221	233	220.7	231.6
17 Spd	12	6	7	7	5	5	10	5	8	4	12	13	17	26	33	45	46	38	30	27	22	19	20	23	14.9	45.8
Dir	239	197	197	181	203	165	142	89	41	54	141	173	208	208	207	219	229	264	255	251	222	227	227	224	221.3	229.3
18 Spd	25	20	18	17	18	13	14	13	12	14	10	10	11	11	6	3	5	4	6	5	6	4	1	1	7.4	24.6
Dir	224	225	230	237	230	222	218	223	262	293	298	285	270	245	237	177	119	22	10	358	347	345	333	49	246.7	224.3
19 Spd	2	3	6	6	8	4	1	7	12	16	18	19	16	14	14	15	14	11	10	8	6	3	7	12	8.8	18.9
Dir	64	116	167	199	194	201	180	169	199	202	208	203	220	224	201	199	202	202	194	184	195	313	271	241	204.7	203.3
20 Spd	14	15	16	15	16	14	4	7	7	8	9	7	7	1	3	6	3	2	4	2	2	1	2	3	4.0	15.7
Dir	231	229	231	236	232	230	197	171	160	110	104	117	159	171	177	175	220	22	50	16	346	357	249	338	206.5	232.2
21 Spd	2	1	4	4	4	5	7	9	8	5	6	6	5	6	5	7	7	7	8	16	13	12	2	8	3.5	15.8
Dir	354	178	194	219	208	177	171	158	185	171	131	130	131	109	99	99	105	116	143	67	31	30	32	6	112.7	66.7
22 Spd	13	10	12	15	11	4	7	13	7	15	16	15	16	18	21	32	39	29	18	17	25	21	15	13	11.5	39.5
Dir	32	18	317	309	298	244	216	233	295	315	326	316	304	285	256	224	212	234	244	209	219	225	231	216	254.2	212.2

Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Smoky Heights - April 2015

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	16	10	10	9	9	13	14	16	19	20	16	16	14	15	14	12	10	4	6	5	6	4	3	1	9.6	19.8
Dir	233	220	227	233	222	218	225	222	226	230	244	256	262	271	271	278	280	320	299	315	319	316	306	239	248.5	230.0
24 Spd	0	2	4	7	8	11	11	13	15	17	17	19	18	16	14	12	12	12	10	8	6	6	7	14	10.6	19.3
Dir	298	315	349	2	10	3	11	17	19	4	8	5	3	360	3	8	18	37	38	32	15	345	353	359	8.9	4.9
25 Spd	15	15	13	11	12	11	14	13	13	11	10	9	8	4	15	8	7	12	12	10	8	8	8	6	5.1	15.1
Dir	358	2	357	347	341	343	343	352	360	9	26	359	353	81	119	101	119	127	124	128	125	119	138	150	34.3	1.9
26 Spd	3	4	3	2	3	1	3	8	13	14	12	12	8	11	15	18	15	9	12	6	5	6	9	8	5.7	18.2
Dir	123	105	69	86	99	78	92	107	107	117	122	141	188	208	215	208	207	189	146	133	72	73	106	131	147.3	208.4
27 Spd	12	6	8	2	6	8	5	8	12	12	12	23	23	18	12	13	11	12	15	8	4	2	6	1	9.4	23.0
Dir	142	192	165	175	212	199	221	177	164	174	210	203	204	203	187	206	211	195	204	194	204	186	184	91	193.6	203.4
28 Spd	2	2	6	8	6	7	11	13	13	13	13	23	26	27	34	52	45	27	19	12	20	12	12	10	12.7	52.2
Dir	103	133	139	128	130	144	137	139	140	129	119	129	139	147	203	234	229	220	215	202	217	206	212	212	186.4	234.4
29 Spd	8	14	7	11	15	17	17	15	22	31	34	32	31	34	36	33	31	29	28	27	21	12	13	12	21.8	36.3
Dir	217	198	240	219	215	214	221	224	223	228	223	216	217	219	209	209	212	228	216	212	220	199	195	200	216.2	209.1
30 Spd	14	24	27	24	22	21	24	32	36	34	31	27	29	28	34	36	37	35	35	31	27	25	22	21	27.6	37.2
Dir	204	207	205	197	197	195	196	200	207	212	208	207	215	232	236	234	226	209	211	208	204	201	201	203	210.3	226.1
Spd	6.4	7.2	7.2	7.0	7.1	7.4	6.6	6.5	8.1	9.3	8.9	10.6	11.3	11.8	12.0	14.4	14.2	11.5	10.8	7.5	7.3	6.7	7.0	6.7	Diurnal Average	
Dir	224.7	225.7	227.6	232.6	226.0	221.1	216.9	211.3	214.9	220.6	215.3	209.1	214.4	214.1	211.9	219.9	217.5	221.1	217.9	216.2	216.9	219.1	216.3	218.8		
Spd	26.8	26.4	28.0	27.5	28.7	31.9	27.8	31.9	36.5	46.8	45.9	48.1	45.7	48.3	45.3	52.2	46.0	49.1	42.4	34.2	27.5	26.0	23.8	30.0	Diurnal Maximum	
Dir	212.3	263.6	204.6	266.8	217.1	218.9	216.6	199.7	220.1	221.4	227.8	223.1	223.1	228.0	226.7	234.4	226.3	231.6	229.5	222.0	214.0	214.2	211.7	217.9		

Maximum Speed Value: 52 km/h on Apr 28 16:00
Maximum Daily Speed Average: 34.9 km/h on Apr 12
Maximum Diurnal Speed Average: 14.4 km/h at hour 16

Minimum Speed Value: 0 km/h on Apr 24 01:00
Minimum Daily Speed Average: 3.5 km/h on Apr 21
Minimum Diurnal Speed Average: 6.4 km/h at hour 1

Monthly Average Velocity: 8.88 km/h 218.20 deg

Speed Percentiles: P_1 = 1.0 P_{10} = 4.8 Q_1 = 7.8 Median = 13.0 Q_3 = 19.3 P_{90} = 30.0 P_{99} = 45.9

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

Hours in Service:	720
Hours of Data:	714
Hours of Missing Data:	6
Percent Operational Time:	99.2

D - DAS Failure N - Not Valid

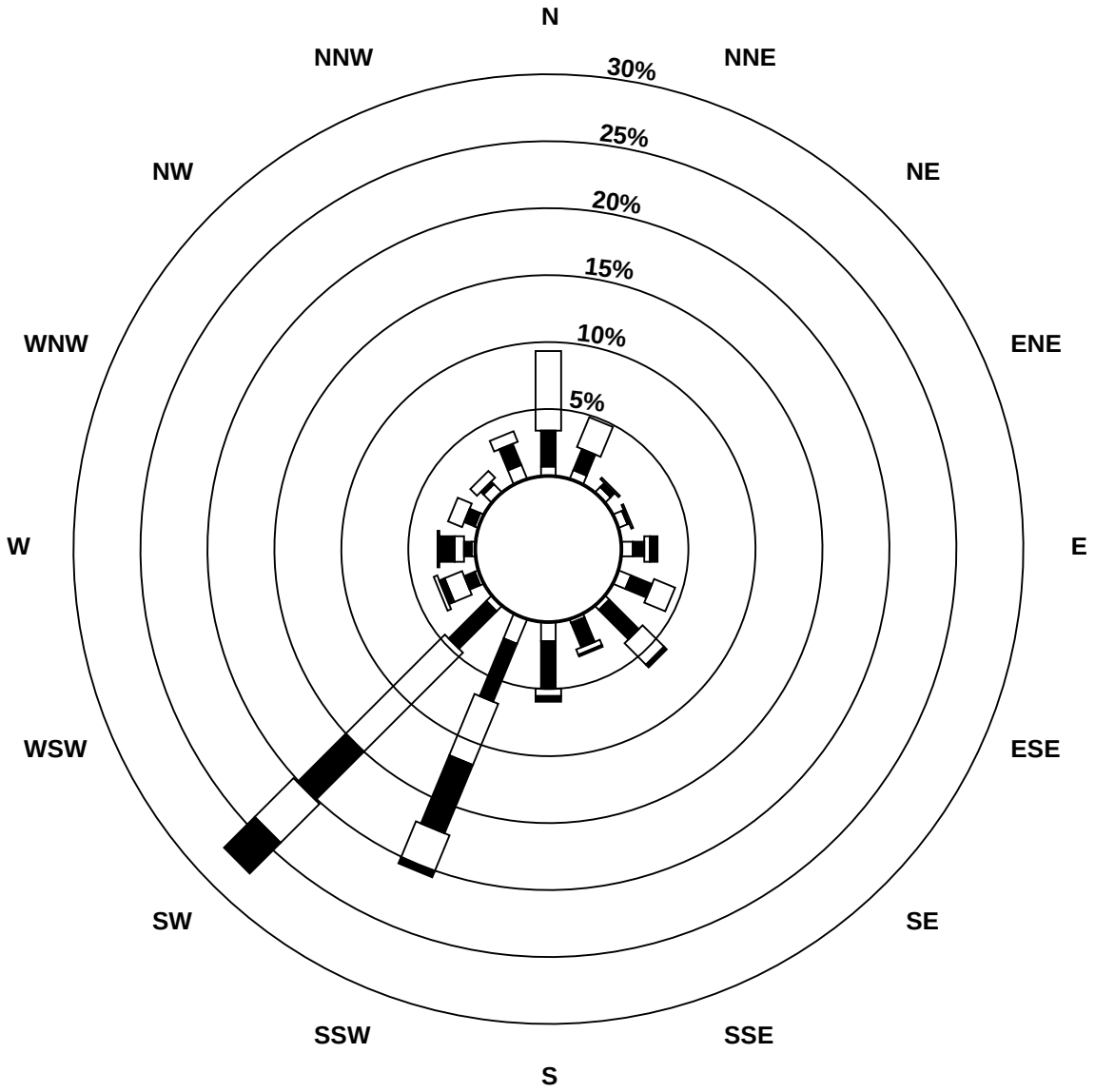
Frequency Distribution

Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	13	31	64	1	0	0	109
NorthEast	7	9	9	0	0	0	25
East	9	16	8	4	0	0	37
SouthEast	7	32	27	3	0	0	69
South	17	54	21	14	3	0	109
SouthWest	10	43	108	64	52	26	303
West	3	6	10	11	2	0	32
NorthWest	10	9	11	0	0	0	30
Total	76	200	258	97	57	26	714

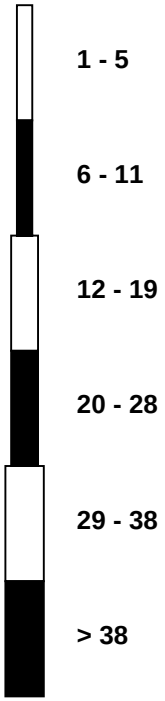
Wind Rose

Wind Speed (WS) (km/h)

Smoky Heights - April 2015



Wind Speed Classes (km/h)



Peace Airshed Zone Association

Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Smoky Heights - April 2015

Maximum Speed: 52 km/h on Apr 28 16:00

Maximum Daily Speed Average: 35.3 km/h on Apr 12

Minimum Speed: 1 km/h on Apr 24 01:00

Minimum Daily Speed Average: 7.5 km/h on Apr 21

Maximum Diurnal Speed Average: 21.6 km/h at hour 16

Minimum Diurnal Speed Average: 11.3 km/h at hour 4

Monthly Average Speed: 15.44 km/h

Percentiles: P_1 = 1.7 P_{10} = 5.5 Q_1 = 8.2 Median = 13.2 Q_3 = 19.4 P_{90} = 30.6 P_{99} = 46.4

Hours in Service: 720

Hours of Data: 714

Hours of Missing Data: 6

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	20	26	24	28	23	21	20	20	21	19	17	15	14	12	9	9	9	4	4	3	5	4	8	7	14.2	27.5
2-Apr	10	10	8	8	8	6	3	4	5	4	6	9	10	8	4	8	8	10	7	5	10	17	6	12	7.9	17.5
3-Apr	11	8	7	7	7	6	6	5	3	9	14	12	15	15	13	14	14	14	13	10	9	10	10	11	10.1	15.1
4-Apr	14	13	12	11	13	12	14	16	17	18	16	16	15	14	16	15	16	15	14	11	12	13	14	12	14.1	17.6
5-Apr	11	12	12	14	13	11	11	13	13	13	15	16	15	15	14	11	11	12	11	11	9	8	8	10	12.0	15.6
6-Apr	7	7	5	5	5	5	6	6	5	6	6	18	15	15	15	10	12	11	13	11	12	15	15	10	9.8	18.5
7-Apr	7	6	5	7	5	5	6	8	9	11	12	20	21	22	20	20	17	18	16	13	12	14	14	14	12.6	22.2
8-Apr	15	15	17	17	17	17	17	17	21	21	24	23	23	21	17	17	19	18	15	8	10	16	17	14	17.3	23.8
9-Apr	17	16	14	12	11	11	11	11	16	22	25	25	23	22	25	18	19	18	14	15	11	8	8	7	15.7	25.3
10-Apr	7	10	6	6	7	7	7	6	N	N	11	16	18	23	19	19	16	23	25	14	9	10	13	12	13.1	24.9
11-Apr	8	11	12	9	6	6	11	24	28	28	36	38	39	43	38	35	42	39	36	32	25	23	24	30	26.0	43.1
12-Apr	27	26	28	24	29	32	28	30	37	47	46	48	46	49	46	45	46	49	43	34	25	22	21	21	35.3	49.3
13-Apr	18	18	16	14	13	12	10	8	10	7	8	8	12	18	22	21	20	21	18	11	11	17	16	13	14.2	21.7
14-Apr	D	D	D	D	8	11	9	5	24	32	34	41	42	39	40	39	43	39	34	29	22	19	15	13	26.9	42.6
15-Apr	13	16	16	16	15	17	20	21	31	38	36	35	34	28	28	37	26	23	34	34	28	26	22	16	25.3	37.7
16-Apr	13	14	10	9	16	25	23	13	9	16	11	11	14	13	12	29	32	30	34	25	21	15	13	15	17.6	34.1
17-Apr	12	6	7	7	6	5	10	6	8	5	12	14	17	26	33	45	46	39	30	28	22	19	20	23	18.7	46.4
18-Apr	25	20	18	17	18	13	14	13	13	15	11	11	12	11	8	6	6	6	7	5	6	4	1	1	10.9	24.7
19-Apr	2	3	7	7	8	5	2	7	12	16	18	19	17	14	15	16	15	11	10	8	7	4	8	12	10.1	19.4
20-Apr	14	15	16	15	16	14	5	8	7	8	10	8	8	4	4	7	5	4	4	2	2	1	2	4	7.6	15.7
21-Apr	2	2	4	5	5	5	7	9	8	6	6	7	7	8	7	7	8	7	11	18	13	12	10	9	7.5	17.8
22-Apr	13	10	13	15	11	5	8	13	8	15	16	16	16	18	21	32	40	29	19	17	25	21	16	13	17.1	39.7
23-Apr	16	10	10	9	9	13	14	16	20	20	16	17	15	15	14	12	11	5	6	6	6	4	3	1	11.1	19.9
24-Apr	1	2	4	7	8	11	11	14	15	17	17	19	18	16	14	12	12	12	10	8	6	6	7	14	11.0	19.4
25-Apr	15	15	14	11	12	11	14	13	13	11	11	10	9	7	15	9	8	12	12	10	8	8	8	6	10.9	15.2
26-Apr	4	4	3	2	3	2	3	8	13	14	13	12	9	12	15	19	15	10	12	7	6	6	9	8	8.8	19.3
27-Apr	12	7	8	3	6	8	5	8	12	12	13	24	23	19	13	13	11	13	15	8	4	3	7	2	10.5	23.9
28-Apr	2	2	6	8	6	7	11	13	13	14	13	23	27	28	41	52	45	27	19	12	20	12	12	11	17.7	52.4
29-Apr	9	14	8	11	15	17	17	15	22	32	34	32	31	34	37	33	32	29	30	27	21	12	13	12	22.5	36.8
30-Apr	14	24	27	24	22	21	24	32	36	35	31	27	29	31	36	37	38	35	36	31	27	25	22	21	28.6	38.1
	11.6	11.8	11.5	11.3	11.3	11.4	11.6	12.7	15.5	17.6	17.9	19.7	19.9	20.0	20.3	21.6	21.4	19.5	18.4	15.1	13.4	12.5	12.1	11.8	Diurnal Average	
	26.9	26.5	28.1	27.5	28.9	32.0	27.8	32.0	36.7	47.2	46.3	48.4	46.2	48.7	45.6	52.4	46.4	49.3	42.7	34.4	27.6	26.3	23.8	30.1	Diurnal Maximum	

D - DAS 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

Smoky Heights - April 2015

Maximum Value: 93.9 deg on Apr 20 14:00

Minimum Value: 2.4 deg on Apr 8 01:00

Percentiles: P_1 = 2.6 P_{10} = 4.5 Q_1 = 6.4 Median = 9.8 Q_3 = 17.7 P_{90} = 31.6 P_{99} = 73.0

Hours in Service:	720
Hours of Data:	714
Hours of Missing Data:	6
Hours of Calibration:	0
Percent Operational Time:	99.2

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	6	5	4	4	4	4	4	5	5	6	6	8	8	10	24	34	19	49	11	33	73	27	5	12	73.2
2-Apr	5	6	17	9	7	44	70	33	28	18	31	23	19	29	65	31	21	32	13	49	20	30	45	16	69.8
3-Apr	7	11	6	19	21	9	7	39	34	29	9	11	13	10	14	13	16	9	12	5	6	6	4	11	38.5
4-Apr	11	10	14	10	6	7	9	8	7	8	10	15	16	17	14	13	11	11	10	5	5	11	6	6	16.8
5-Apr	5	4	5	6	4	4	5	8	11	12	10	15	18	16	16	26	20	15	10	5	5	8	12	9	26.3
6-Apr	26	10	8	10	8	13	8	7	39	24	35	23	18	21	19	33	21	19	5	7	5	5	5	6	39.0
7-Apr	60	33	8	6	7	8	13	7	12	10	15	7	10	13	15	17	19	8	5	5	6	4	3	4	60.3
8-Apr	2	2	3	3	3	3	3	5	4	7	6	9	11	16	16	18	11	9	5	32	45	6	4	5	45.2
9-Apr	6	7	11	7	4	9	59	7	7	11	7	8	9	13	11	16	11	11	6	7	60	6	5	7	60.0
10-Apr	6	17	47	11	15	21	13	7	N	N	12	14	25	16	16	28	13	15	5	8	10	11	4	16	47.3
11-Apr	9	7	10	9	23	13	16	8	4	10	5	8	8	10	9	10	7	10	6	4	4	4	4	5	22.9
12-Apr	3	5	4	5	5	4	4	4	6	7	8	6	8	7	6	10	7	5	6	5	4	3	3	5	9.5
13-Apr	6	5	3	10	6	10	24	12	10	22	25	47	41	24	16	15	14	13	8	11	6	15	7	7	47.4
14-Apr	D	D	D	D	13	8	11	33	14	8	7	8	6	6	8	9	7	5	6	4	3	5	6	3	33.2
15-Apr	4	5	4	7	13	5	5	5	5	7	8	7	8	7	10	13	11	8	7	5	4	8	4	6	13.4
16-Apr	7	7	5	8	10	12	8	22	14	7	14	15	22	26	22	17	13	8	6	4	6	4	8	4	25.9
17-Apr	6	11	14	13	38	31	6	32	8	43	14	19	11	11	10	7	10	12	8	12	5	3	3	4	42.6
18-Apr	4	3	4	4	5	6	7	6	29	16	24	29	29	23	41	58	30	43	36	11	8	13	25	64	64.2
19-Apr	18	15	23	21	7	25	83	7	11	9	10	13	20	19	24	21	23	15	13	9	38	41	25	8	82.9
20-Apr	14	6	2	3	2	5	74	18	19	19	34	36	44	94	61	45	57	66	11	20	28	72	30	29	93.9
21-Apr	22	89	15	15	18	6	10	6	10	29	27	32	52	47	53	33	29	32	58	27	11	14	90	20	89.5
22-Apr	7	16	11	7	9	40	37	15	19	11	12	15	13	10	10	10	6	7	19	13	5	7	6	9	39.6
23-Apr	10	11	7	6	7	4	5	5	5	6	9	8	8	6	8	9	13	20	19	9	10	15	14	55	55.1
24-Apr	76	21	14	11	6	7	6	6	7	7	6	6	7	8	10	9	10	10	8	6	10	4	7	6	75.9
25-Apr	7	7	7	6	5	8	6	9	15	13	17	27	28	61	12	25	36	11	9	7	8	9	9	11	60.8
26-Apr	33	30	13	52	18	21	16	12	9	15	22	20	32	22	18	20	20	38	14	22	18	16	8	24	52.0
27-Apr	6	32	15	52	18	10	22	19	8	17	16	15	15	18	24	14	20	18	7	13	33	41	17	77	77.1
28-Apr	48	52	10	7	9	23	4	5	7	10	6	10	9	11	36	5	5	9	9	6	7	7	12	14	51.8
29-Apr	30	5	22	11	9	5	9	8	8	12	10	8	12	10	10	9	13	8	18	12	6	6	5	8	29.9
30-Apr	9	4	5	4	7	4	6	4	6	7	8	10	14	25	17	8	13	8	5	4	4	4	4	4	25.2
	75.9	89.1	47.3	52.0	38.0	44.0	82.9	38.5	39.0	42.6	34.8	47.4	51.5	93.9	64.6	58.2	57.2	66.2	58.1	48.8	73.2	72.5	89.5	77.1	

D - DAS Failure N - Not Valid

PAZA
Beaverlodge Station
Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Beaverlodge - April 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 2.8 ppb on Apr 25 07:00 Maximum Daily Average: 0.8 ppb on Apr 25

Minimum Value: 0 ppb on Apr 12 04:00 Minimum Daily Average: 0.0 ppb on Apr 12
Maximum Diurnal Average: 0.2 ppb at hour 11 Minimum Diurnal Average: 0.1 ppb at hour 19
Monthly Average: 0.14 ppb Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.1 Q_3 = 0.2 P_{90} = 0.3 P_{99} = 1.1

Hours in Service:	720
Hours of Data:	687
Hours of Missing Data:	33
Hours of Calibration:	33
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	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	0.4
3-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.2	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	0	A	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.2	0.7
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	0.2	0.5
7-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
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	0.4
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	0.3
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	0.5
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	0.0	0.1
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	0	0	0	0	0	0	0	0	0.1	0.3
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	0.0	0.1
15-Apr	0	0	0	0	A	0	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0	0	0.0	0.1
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	0.5
17-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
18-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	1.2
19-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
20-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
21-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
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	0.1	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	0.2
25-Apr	0	0	0	0	A	1	3	2	2	1	1	1	1	1	0	0	0	0	0	1	1	0	0	0	0.8	2.8
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	0.1	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	0.1	0.3
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	0.5
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	0.1
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
	0.1	0.1	0.1	0.1	--	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	Diurnal Average	
	0.4	0.5	0.4	0.3	--	1.1	2.8	2.4	2.3	1.2	1.2	1.1	1.1	1.1	0.5	0.5	0.4	0.2	0.3	1.2	1.1	0.5	0.4	0.4	Diurnal Maximum	

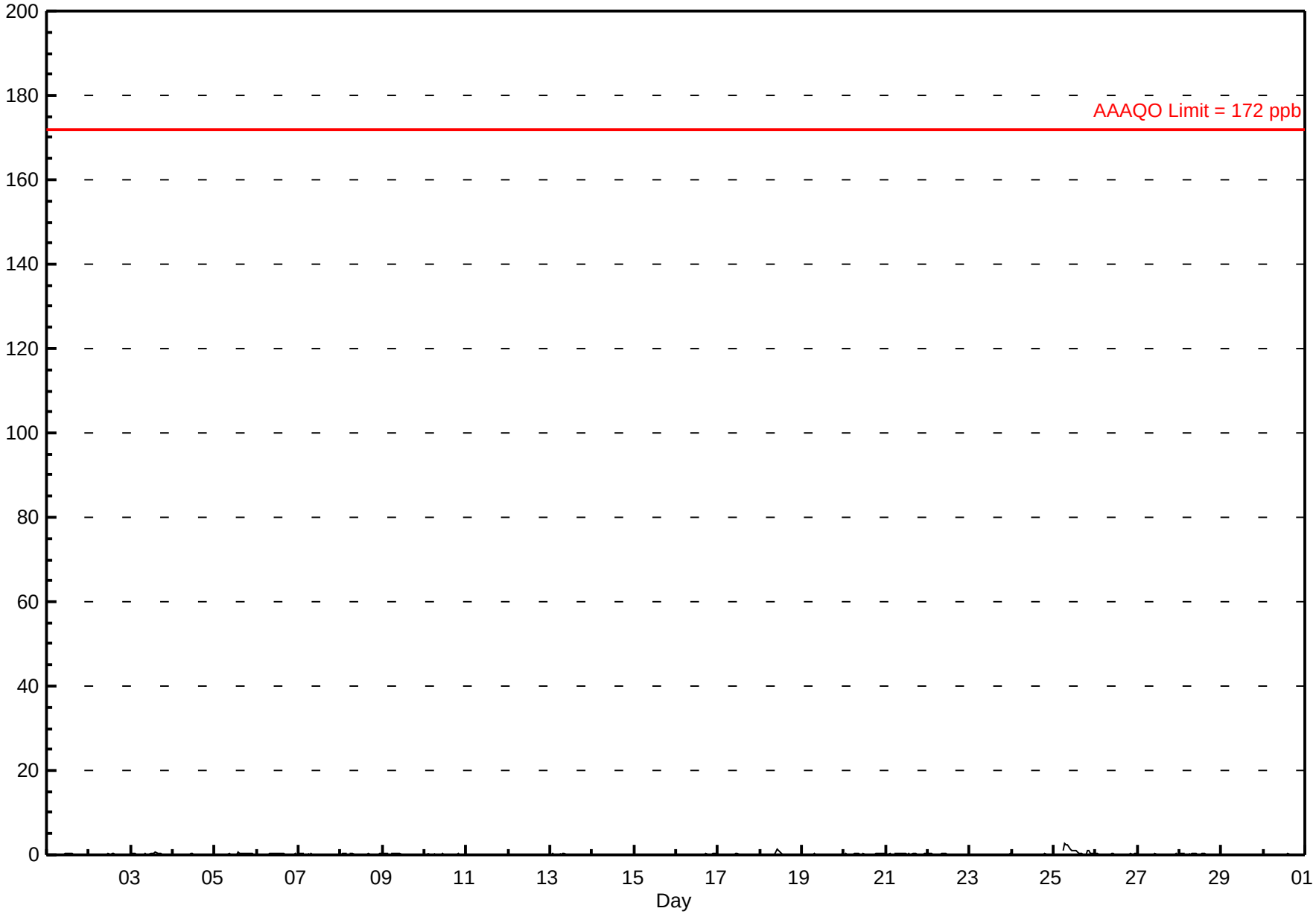
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Beaverlodge - April 2015



Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Beaverlodge - April 2015

Maximum Value: 3.7 ppb on Apr 28 10:00

Maximum Daily Average: 1.3 ppb on Apr 25

Minimum Value: 0 ppb on Apr 16 17:00

Minimum Daily Average: 0.1 ppb on Apr 12

Maximum Diurnal Average: 0.5 ppb at hour 11

Minimum Diurnal Average: 0.2 ppb at hour 19

Monthly Average: 0.30 ppb

Percentiles: $P_1 = 0.1$ $P_{10} = 0.1$ $Q_1 = 0.1$ Median = 0.2 $Q_3 = 0.3$ $P_{90} = 0.5$ $P_{99} = 2.7$

Hours in Service:	720
Hours of Data:	687
Hours of Missing Data:	33
Hours of Calibration:	33
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	A	0	0	0	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	A	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0.3	0.8
3-Apr	0	1	0	0	A	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0.4	1.1
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	0.4
5-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	3	0	0	1	0	0	0	0	1	0	0	0.4	3.4
6-Apr	0	0	0	0	A	0	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.3	0.9
7-Apr	0	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
8-Apr	0	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0.3	0.6
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	0.3	0.5
10-Apr	0	0	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.3	1.0
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	0.1	0.3
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	0.1	0.2
13-Apr	1	1	1	1	A	2	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.8
14-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
15-Apr	0	0	0	0	A	0	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0	0	0.2	0.3
16-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0.3	1.0
17-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
18-Apr	0	0	0	0	A	0	0	0	0	1	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0.4	3.4
19-Apr	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.3	0.8
20-Apr	0	0	0	0	A	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0.4	0.6
21-Apr	0	0	0	0	A	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	1	0.4	1.3
22-Apr	1	0	0	0	A	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.2	0.7
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	0.4
25-Apr	0	0	0	0	A	3	4	3	3	2	2	1	1	1	1	0	0	0	0	3	2	0	0	1	1.3	3.5
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	0.3	0.5
27-Apr	0	0	0	1	A	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0.3	1.3
28-Apr	0	1	0	0	A	1	0	0	0	4	2	0	0	1	1	0	0	0	0	0	0	0	0	0	0.6	3.7
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	0.1	0.5
	0.3	0.3	0.3	0.2	--	0.4	0.4	0.4	0.4	0.5	0.5	0.3	0.3	0.4	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.3	0.3	Diurnal Average	
	0.9	0.8	0.8	0.7	--	2.7	3.5	3.1	2.9	3.7	3.4	1.5	1.3	3.4	1.0	0.6	0.6	1.0	0.5	2.6	2.4	0.8	0.8	0.8	Diurnal Maximum	

C - Calibration

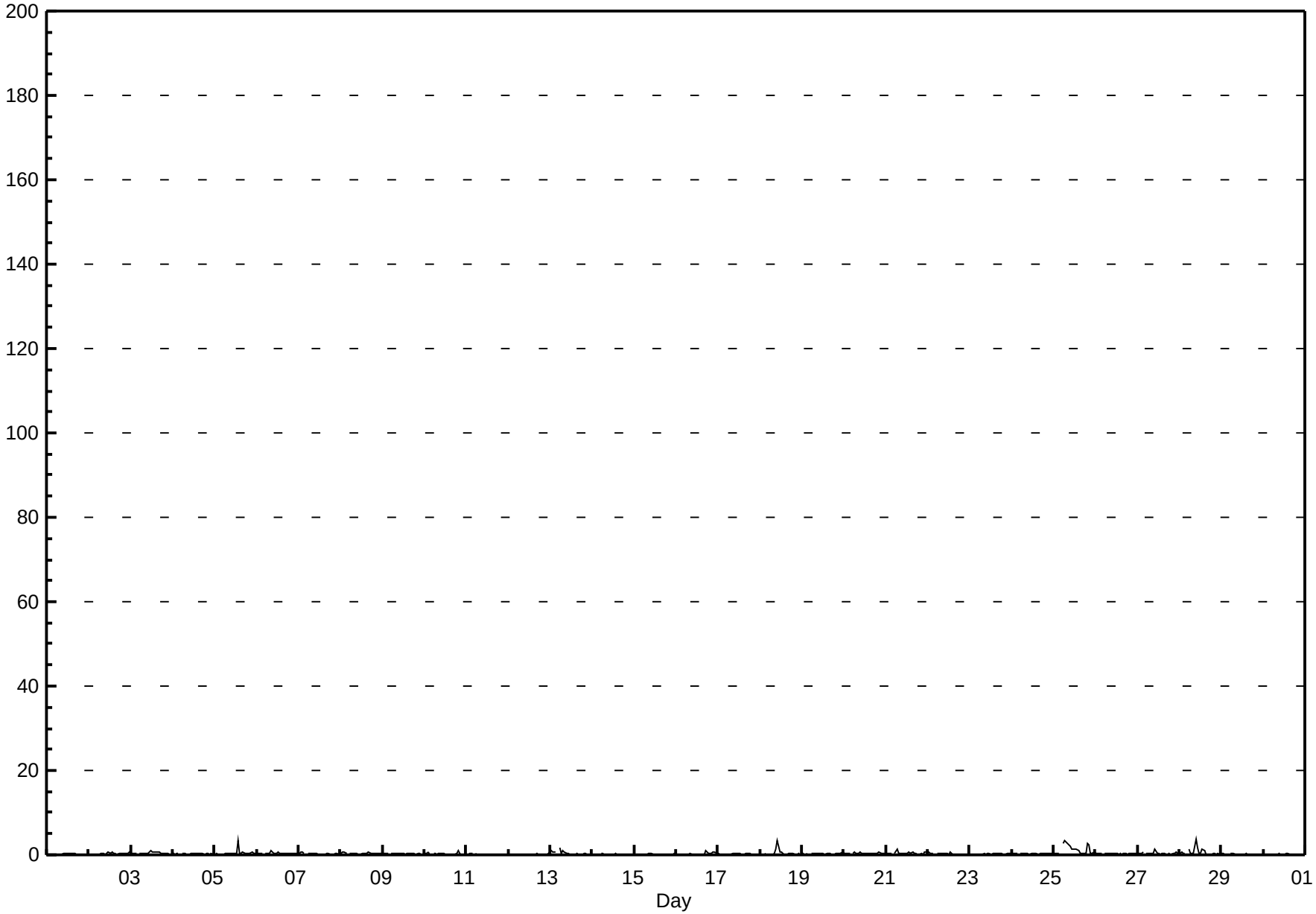
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

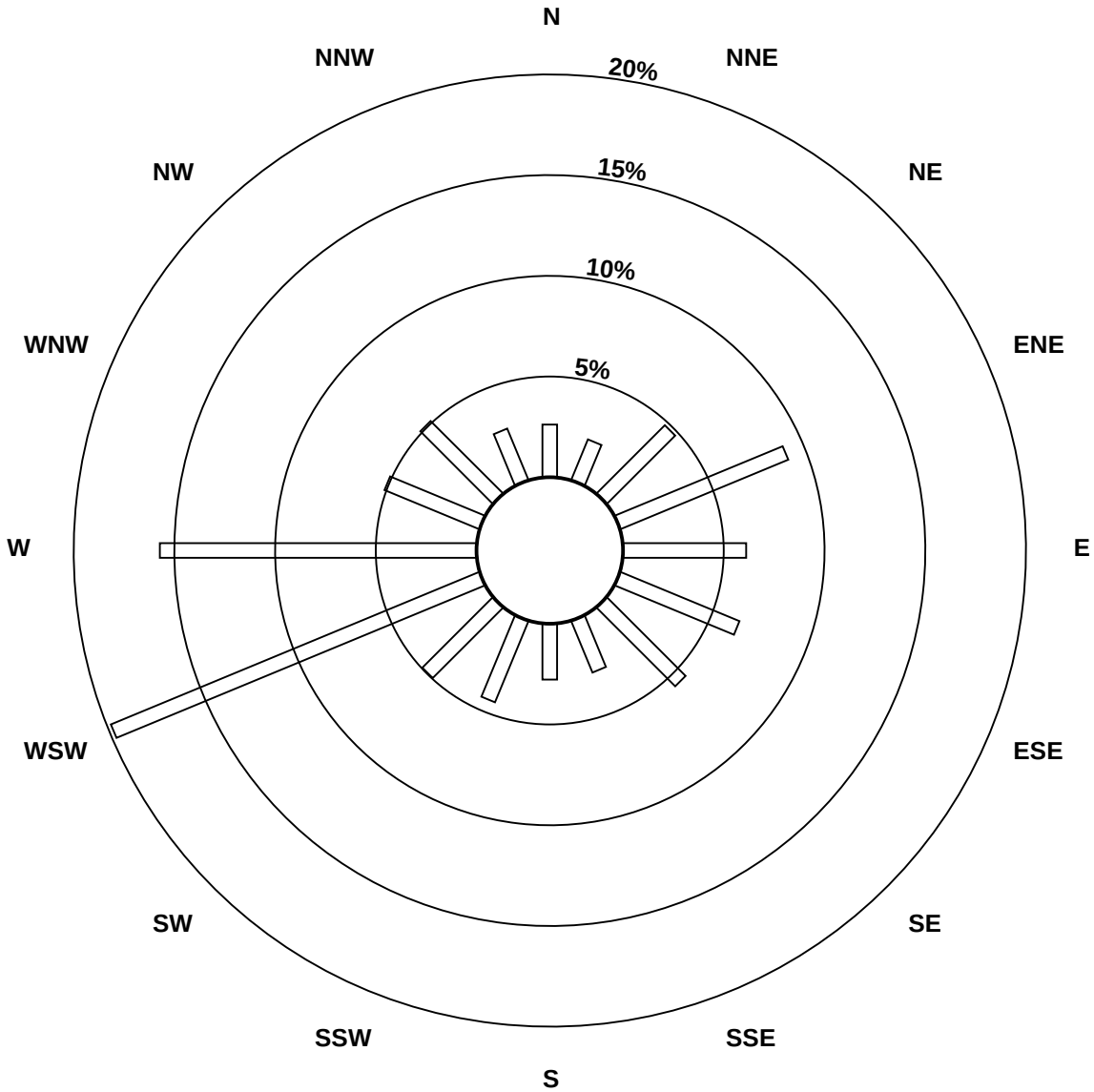
Beaverlodge - April 2015



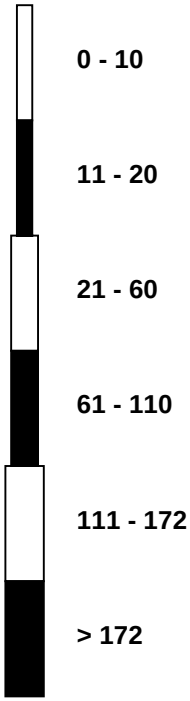
Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Beaverlodge - April 2015



Pollutant Classes (ppb)

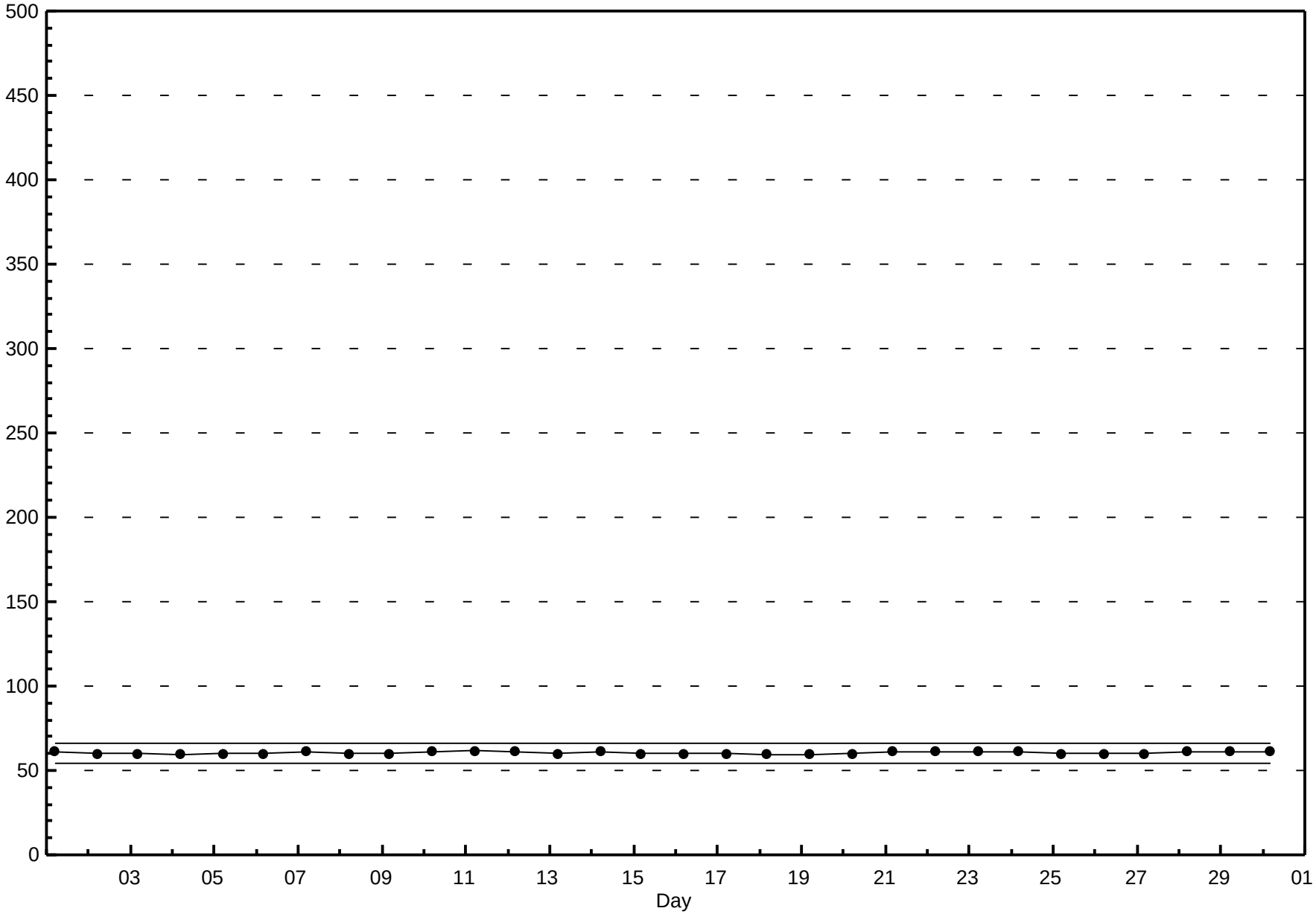


Peace Airshed Zone Association

Span Responses

Sulphur Dioxide (SO_2)

Beaverlodge - April 2015



Peace Airshed Zone Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Beaverlodge - April 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 9.7 ppb on Apr 2 07:00 Maximum Daily Average: 2.6 ppb on Apr 21

Minimum Value: 0 ppb on Apr 18 15:00 Minimum Daily Average: 0.8 ppb on Apr 30
Maximum Diurnal Average: 3.6 ppb at hour 6 Minimum Diurnal Average: 0.8 ppb at hour 19
Monthly Average: 1.54 ppb Percentiles: $P_1 = 0.3$ $P_{10} = 0.5$ $Q_1 = 0.7$ Median = 1.1 $Q_3 = 2.1$ $P_{90} = 3.2$ $P_{99} = 6.0$

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	2	1	1	1	A	3	2	2	2	2	2	1	1	1	1	1	1	2	2	2	5	3	1	2	1.8	5.0
2-Apr	2	2	1	3	A	4	10	8	4	1	1	0	0	0	0	0	0	1	1	1	1	4	2	2	2.2	9.7
3-Apr	1	2	2	2	A	4	3	4	4	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.6	4.1
4-Apr	1	1	1	1	A	2	2	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0	0.9	2.3
5-Apr	0	1	1	1	A	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	2.6
6-Apr	1	1	2	2	A	5	4	4	4	3	3	3	2	2	2	1	2	1	1	2	2	2	2	2	2.3	4.7
7-Apr	3	3	3	3	A	5	5	4	3	2	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1.9	5.5
8-Apr	1	2	2	3	A	3	3	3	3	1	1	0	0	0	1	0	0	1	0	1	1	1	1	1	1.3	3.0
9-Apr	1	3	3	3	A	3	3	4	3	2	1	1	1	1	1	1	1	1	1	3	1	1	1	1	1.7	3.7
10-Apr	1	1	2	2	A	3	3	3	2	3	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1.5	3.3
11-Apr	3	3	2	2	A	5	2	1	1	1	1	1	1	1	2	2	1	1	0	1	2	1	1	1	1.5	4.6
12-Apr	0	0	0	0	A	1	1	0	0	3	3	4	6	4	5	9	6	2	1	1	0	0	0	1	2.2	8.7
13-Apr	1	1	1	1	A	3	3	3	2	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	1.4	3.3
14-Apr	1	0	1	1	A	4	3	1	1	1	1	1	1	1	1	2	1	1	0	0	0	1	1	1	1.1	4.4
15-Apr	1	1	1	1	A	2	1	1	C	C	C	C	2	1	1	1	1	1	1	1	0	1	1	1	0.9	2.5
16-Apr	2	1	3	4	A	3	2	3	2	1	1	0	0	1	1	1	0	0	0	1	2	1	1	1	1.5	3.8
17-Apr	1	1	2	2	A	3	2	2	3	2	2	2	1	1	2	1	1	1	1	1	1	1	2	1	1.4	2.7
18-Apr	2	1	2	1	A	2	1	2	1	1	1	1	0	0	0	0	0	0	1	1	1	1	2	2	1.0	2.4
19-Apr	1	1	1	1	A	3	2	3	2	1	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1.0	2.7
20-Apr	1	1	1	2	A	4	3	4	4	1	1	0	0	0	0	0	1	1	1	1	1	3	4	3	1.6	4.1
21-Apr	3	3	3	5	A	7	6	7	4	3	2	1	1	1	1	1	1	1	1	1	2	2	3	2	2.6	6.8
22-Apr	1	2	2	3	A	6	4	2	2	1	1	2	2	2	2	1	1	1	1	1	1	1	1	1	1.8	5.6
23-Apr	1	1	1	1	A	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	2	1	5	1.4	4.9
24-Apr	2	2	2	2	A	3	3	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.5	3.5
25-Apr	1	1	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	3	1.2	2.9
26-Apr	3	2	2	2	A	5	5	4	3	3	2	2	1	1	1	1	1	0	0	1	1	1	2	2	1.9	5.1
27-Apr	3	3	3	3	A	5	5	6	5	2	1	1	1	1	1	1	1	1	1	1	3	1	2	2	2.2	6.0
28-Apr	3	3	3	3	A	4	4	4	4	3	2	1	1	1	3	1	1	1	1	1	1	1	1	2	2.0	4.4
29-Apr	3	3	2	3	A	3	2	1	1	1	1	1	1	1	0	0	0	0	0	1	1	1	1	1	1.2	3.4
30-Apr	1	1	0	1	A	2	2	2	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	0.8	1.7
	1.7	1.6	1.7	2.0	--	3.6	3.0	2.8	2.3	1.6	1.2	1.0	1.0	0.9	1.0	1.1	0.9	0.8	0.8	1.1	1.3	1.3	1.4	1.5	Diurnal Average	
	3.3	3.5	3.5	4.7	--	6.7	9.7	7.7	4.9	3.4	3.2	3.8	6.3	4.4	4.9	8.7	6.1	2.3	1.6	3.2	5.0	3.7	3.5	4.9	Diurnal Maximum	

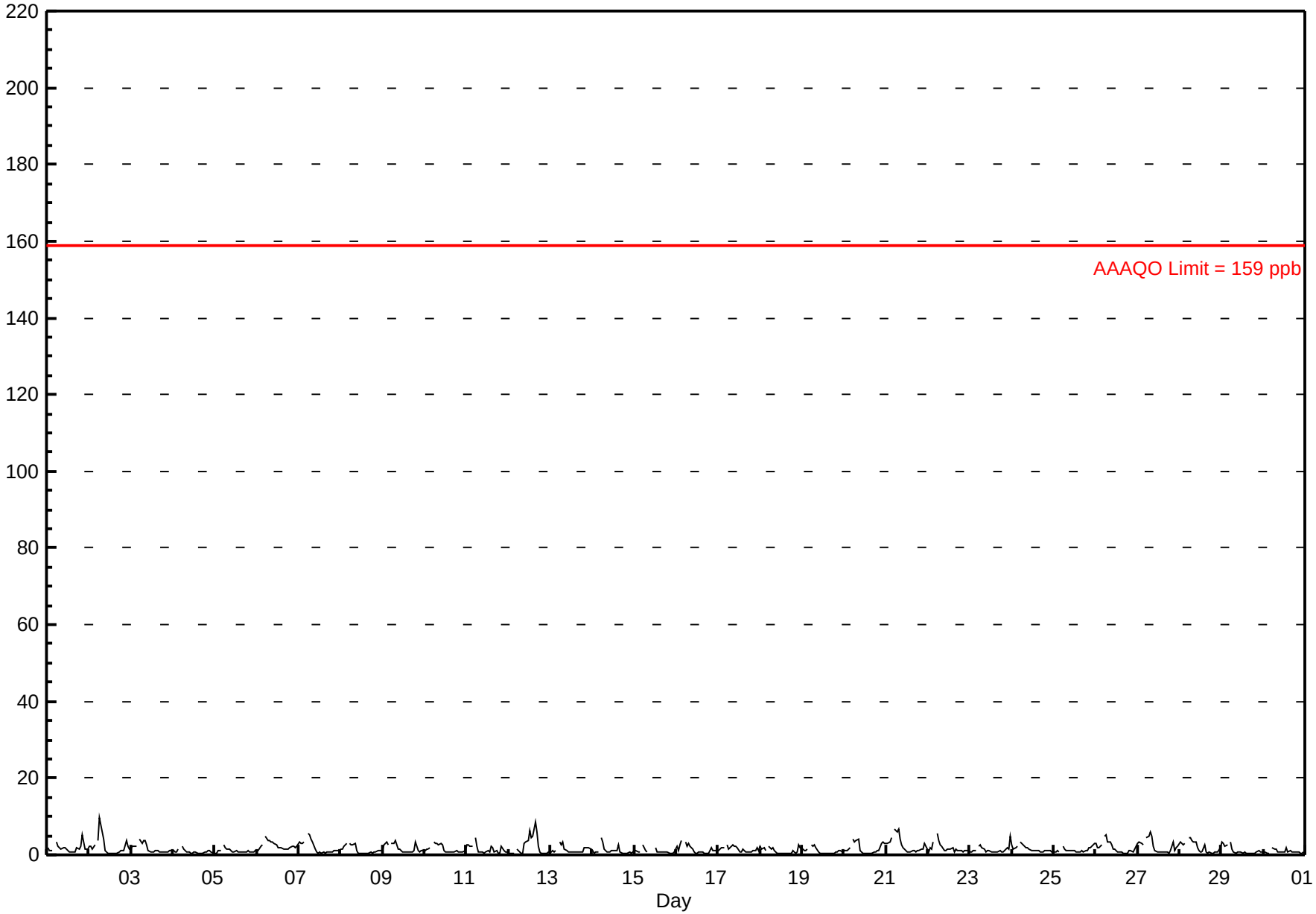
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb 24-hr 106 ppb

Peace Airshed Zone Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Beaverlodge - April 2015



Peace Airshed Zone Association

Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

Beaverlodge - April 2015

Maximum Value: 15.0 ppb on Apr 2 07:00

Maximum Daily Average: 5.9 ppb on Apr 12

Minimum Value: 0 ppb on Apr 18 15:00

Minimum Daily Average: 1.4 ppb on Apr 4

Maximum Diurnal Average: 5.8 ppb at hour 6

Minimum Diurnal Average: 1.6 ppb at hour 19

Monthly Average: 2.81 ppb

Percentiles: P_1 = 0.4 P_{10} = 0.9 Q_1 = 1.2 Median = 2.0 Q_3 = 3.7 P_{90} = 5.7 P_{99} = 13.9

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	2	2	3	A	5	3	3	2	3	3	2	2	1	1	2	2	3	4	4	13	6	2	2	3.1	13.1
2-Apr	3	4	3	5	A	8	15	14	10	2	1	1	1	1	0	1	1	1	3	3	4	8	3	2	4.0	15.0
3-Apr	2	3	3	3	A	15	4	5	5	4	1	1	1	1	1	1	1	1	1	1	2	2	2	1	2.7	14.8
4-Apr	2	1	1	2	A	4	2	2	1	1	1	1	1	1	1	1	1	1	1	2	2	2	1	1	1.4	4.0
5-Apr	1	1	2	3	A	4	2	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.5	3.9
6-Apr	1	2	2	3	A	6	4	4	4	4	4	3	2	2	2	2	2	2	2	3	4	3	3	4	2.9	6.0
7-Apr	5	4	4	4	A	8	8	7	5	3	1	1	1	1	1	1	1	1	2	2	4	2	2	1	3.0	8.0
8-Apr	2	2	4	4	A	5	6	4	5	1	1	1	1	1	1	1	1	1	1	3	2	2	3	2	2.3	5.9
9-Apr	2	6	4	3	A	5	4	6	6	2	2	1	1	1	1	1	1	1	3	7	4	2	2	2	2.9	7.3
10-Apr	1	2	2	2	A	5	5	5	3	4	3	2	1	1	1	1	1	2	2	2	3	3	1	4	2.4	4.8
11-Apr	6	6	5	3	A	8	7	2	2	2	2	2	7	6	7	10	3	12	1	1	6	2	1	2	4.3	11.7
12-Apr	1	1	1	1	A	3	1	1	1	9	12	14	14	14	15	15	12	11	4	1	1	2	1	2	5.9	14.9
13-Apr	2	4	2	2	A	5	6	10	2	2	2	1	1	1	1	1	1	1	1	4	4	3	5	2	2.7	10.2
14-Apr	2	1	1	2	A	9	8	5	2	1	1	5	4	4	6	13	3	1	1	1	1	1	1	2	3.3	12.8
15-Apr	7	4	2	2	A	4	2	1	C	C	C	C	5	1	2	1	1	1	1	2	1	2	1	1	2.2	7.4
16-Apr	4	2	5	5	A	5	3	4	3	2	1	1	1	4	6	1	1	1	1	3	5	4	2	1	2.8	5.7
17-Apr	2	2	3	2	A	4	2	4	4	3	2	2	1	3	6	5	2	1	1	2	2	2	3	2	2.6	5.6
18-Apr	8	3	4	2	A	4	2	2	2	1	1	1	1	0	0	0	0	1	2	3	1	3	5	4	2.1	7.9
19-Apr	2	1	3	2	A	4	3	3	2	1	1	1	0	0	0	1	1	1	1	1	2	3	2	2	1.6	4.3
20-Apr	1	1	1	2	A	5	5	5	8	2	2	1	1	1	1	1	1	1	2	1	2	4	5	3	2.5	7.5
21-Apr	4	4	5	6	A	8	7	10	6	3	2	1	1	1	1	3	3	1	2	2	2	6	5	7	4.0	10.4
22-Apr	1	5	2	7	A	10	7	5	7	2	2	2	2	4	4	2	3	3	4	3	2	2	4	3	3.8	9.5
23-Apr	1	1	3	3	A	4	5	3	3	2	2	2	1	1	1	1	1	2	1	1	2	3	2	8	2.3	7.6
24-Apr	5	2	3	3	A	5	4	3	2	2	2	1	1	1	1	1	1	1	2	1	2	2	1	1	2.2	5.2
25-Apr	1	1	2	1	A	3	2	1	1	1	1	1	1	1	1	1	1	1	1	2	4	2	3	4	1.8	4.0
26-Apr	4	2	2	3	A	7	7	4	4	3	2	2	1	1	1	1	1	1	1	2	2	1	3	3	2.5	7.4
27-Apr	5	4	4	3	A	6	5	10	9	3	2	1	1	1	1	1	1	2	1	2	7	3	2	3	3.4	10.1
28-Apr	5	3	3	4	A	7	5	4	7	4	3	1	2	2	10	4	1	1	1	2	3	5	2	3	3.6	9.9
29-Apr	4	4	3	6	A	6	3	2	1	1	1	1	1	1	1	1	1	1	1	1	2	4	2	1	2.1	6.2
30-Apr	2	1	1	2	A	3	3	3	1	1	1	1	5	9	1	7	1	1	2	1	2	1	1	1	2.3	8.9
	3.0	2.7	2.7	3.1	--	5.8	4.7	4.5	3.8	2.5	2.0	2.0	2.1	2.3	2.5	2.7	1.7	2.0	1.6	2.2	3.0	2.8	2.4	2.5	Diurnal Average	
	7.9	6.3	4.9	7.3	--	14.8	15.0	13.9	9.6	9.4	11.5	14.0	14.2	13.7	14.5	14.9	12.5	11.7	4.2	7.3	13.1	7.8	5.3	7.6	Diurnal Maximum	

C - Calibration

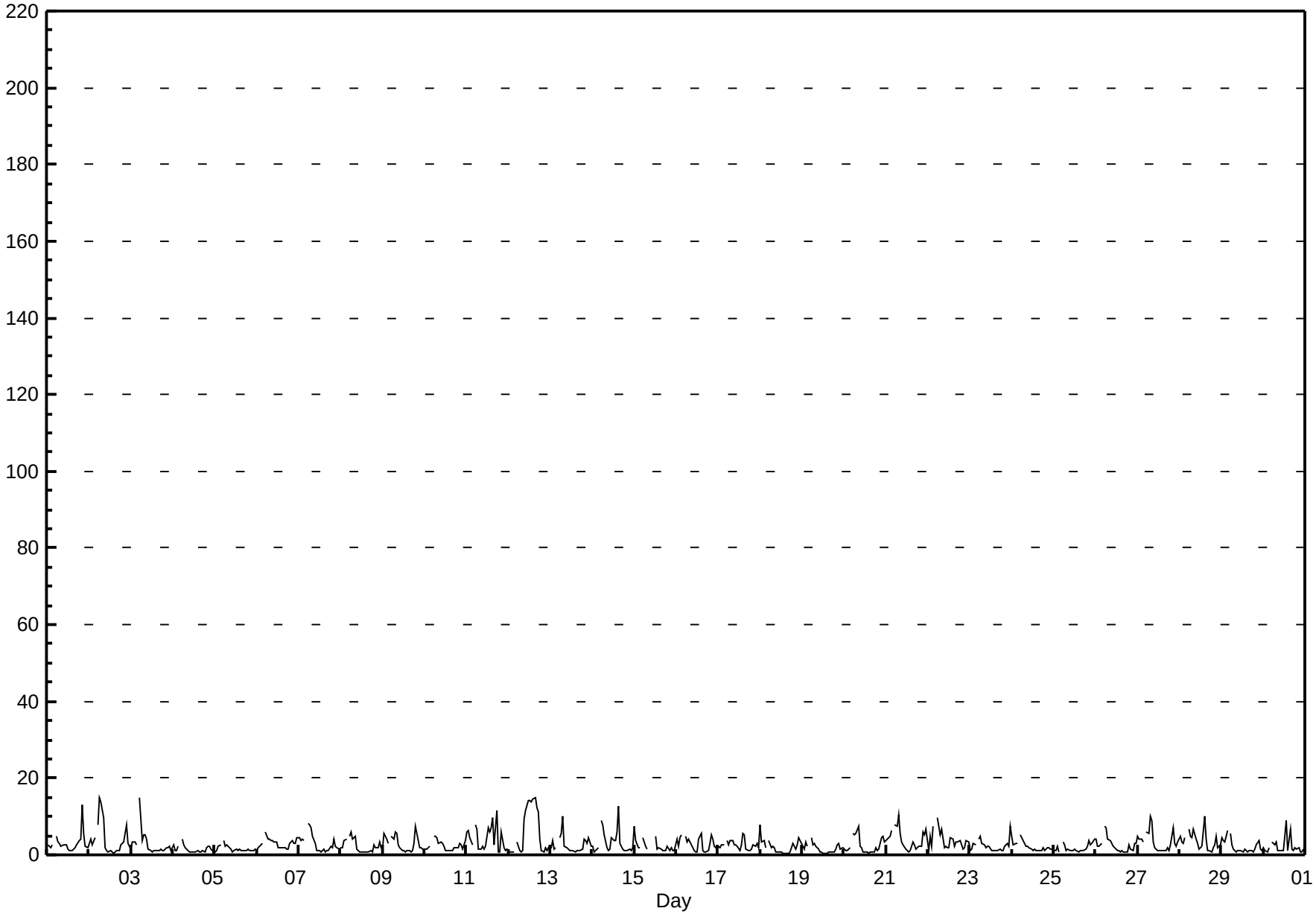
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

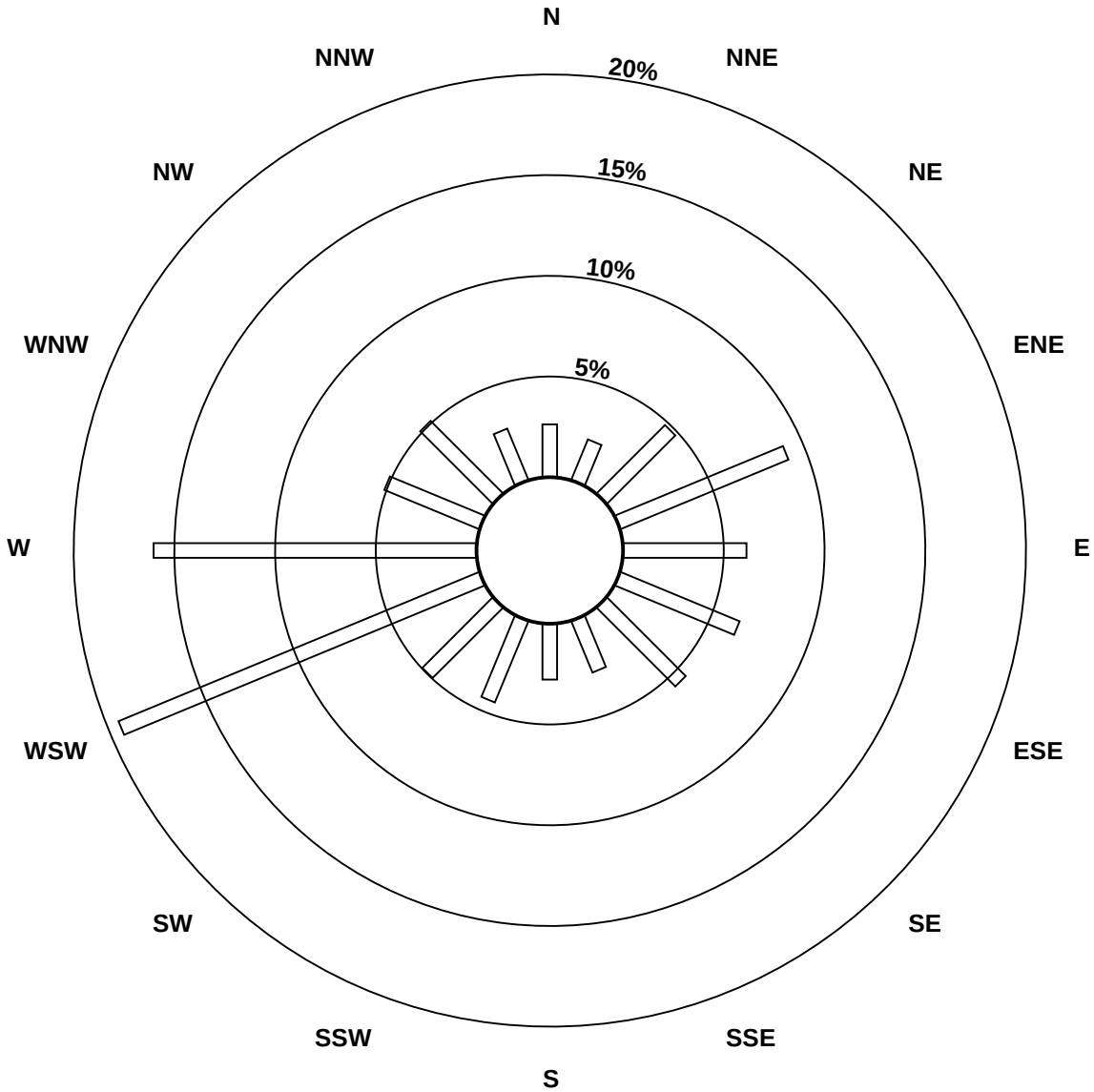
Beaverlodge - April 2015



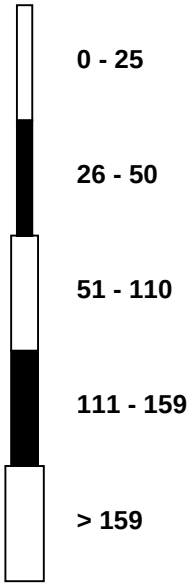
Pollutant Rose

Nitrogen Dioxide (NO_2) - ppb

Beaverlodge - April 2015



Pollutant Classes (ppb)

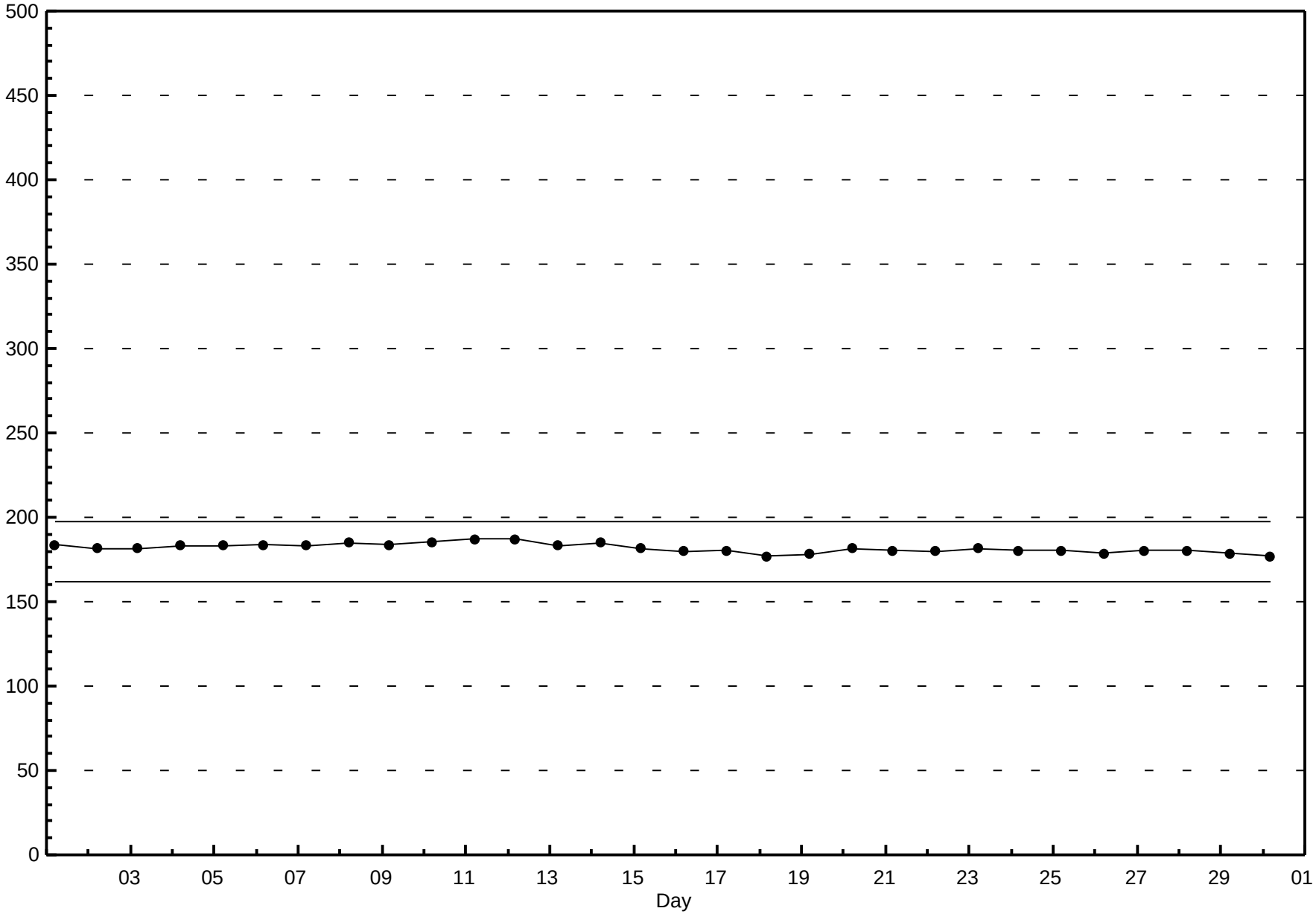


Peace Airshed Zone Association

Span Responses

Nitrogen Dioxide (NO_2)

Beaverlodge - April 2015



Peace Airshed Zone Association

Hourly Averages

Nitrogen Oxide (NO) - ppb

Beaverlodge - April 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 2.8 ppb on Apr 21 08:00 Maximum Daily Average: 0.4 ppb on Apr 6

Minimum Value: 0 ppb on Apr 2 21:00 Minimum Daily Average: 0.0 ppb on Apr 14
Maximum Diurnal Average: 0.7 ppb at hour 9 Minimum Diurnal Average: 0.0 ppb at hour 2
Monthly Average: 0.14 ppb Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.0$ Median = 0.0 $Q_3 = 0.1$ $P_{90} = 0.3$ $P_{99} = 1.6$

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	0	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
2-Apr	0	0	0	0	A	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	2.5
3-Apr	0	0	0	0	A	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.2
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	0.1
5-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
6-Apr	0	0	0	0	A	0	0	1	1	2	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0.4	1.6
7-Apr	0	0	0	0	A	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.2
8-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	0.9
9-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	0.8
10-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	0.1	0.9
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	0.0	0.1
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	0.1	0.1
13-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	0.8
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	0.0	0.0
15-Apr	0	0	0	0	A	0	0	0	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
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	0.3
17-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	0.1	0.7
18-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
19-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	0.5
20-Apr	0	0	0	0	A	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.8
21-Apr	0	0	0	0	A	0	1	3	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	2.8
22-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	0.2	0.6
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	0.4
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	0.4
25-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
26-Apr	0	0	0	0	A	0	1	1	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.8
27-Apr	0	0	0	0	A	0	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.6
28-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	0.9
29-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
30-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
	0.0	0.0	0.0	0.0	--	0.0	0.1	0.5	0.7	0.5	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	Diurnal Average	
	0.1	0.0	0.1	0.0	--	0.1	0.8	2.8	2.5	1.8	1.6	1.2	0.7	0.6	0.4	0.3	0.3	0.2	0.3	0.1	0.0	0.1	0.0	0.1	Diurnal Maximum	

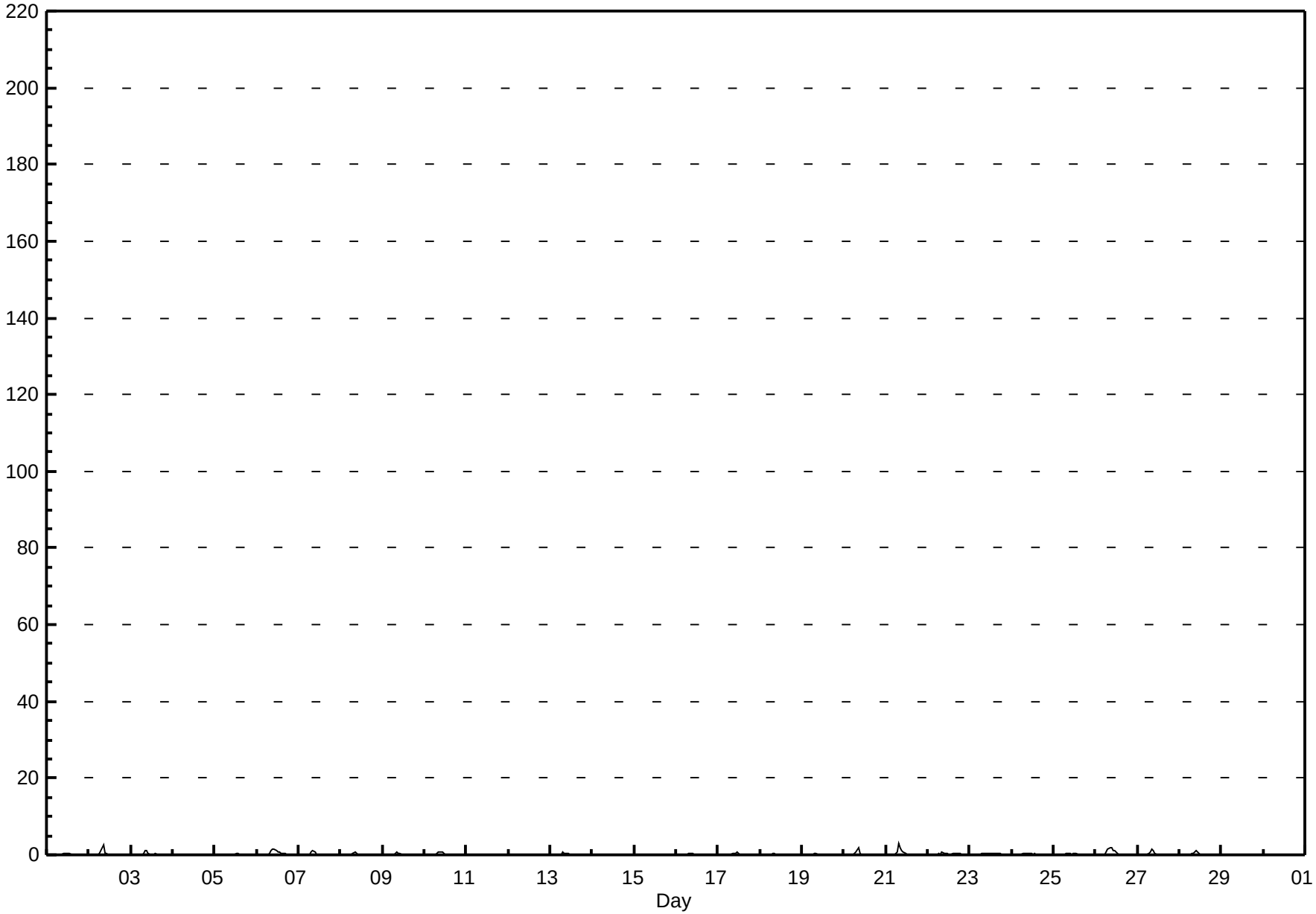
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Nitrogen Oxide (NO) - ppb

Beaverlodge - April 2015



Peace Airshed Zone Association

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Beaverlodge - April 2015

Maximum Value: 8.5 ppb on Apr 2 09:00

Maximum Daily Average: 0.8 ppb on Apr 21

Minimum Value: 0 ppb on Apr 14 21:00

Minimum Daily Average: 0.1 ppb on Apr 19

Maximum Diurnal Average: 1.4 ppb at hour 9

Minimum Diurnal Average: 0.0 ppb at hour 2

Monthly Average: 0.33 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.1$ Median = 0.2 $Q_3 = 0.3$ $P_{90} = 0.7$ $P_{99} = 2.0$

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	0	0	0	0	A	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
2-Apr	0	0	0	0	A	0	1	2	8	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.7	8.5
3-Apr	0	0	0	0	A	1	0	1	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.8
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	0.4
5-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
6-Apr	0	0	0	0	A	0	0	1	1	2	2	2	1	1	1	0	0	0	0	0	0	0	0	0	0.5	1.9
7-Apr	0	0	0	0	A	0	1	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.9
8-Apr	0	0	0	0	A	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.9
9-Apr	0	0	0	0	A	0	0	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	2.0
10-Apr	0	0	0	0	A	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.3
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	0.1	0.2
13-Apr	0	0	0	0	A	0	0	4	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	4.3
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	0.4
15-Apr	0	0	0	0	A	0	0	0	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
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	0.5
17-Apr	0	0	0	0	A	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.0
18-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	0.2	0.6
19-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
20-Apr	0	0	0	0	A	0	1	1	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	4.5
21-Apr	0	0	0	0	A	0	2	7	3	1	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0.8	6.5
22-Apr	0	0	0	0	A	0	0	1	2	0	1	0	0	1	1	1	1	1	1	0	0	0	0	0	0.5	1.7
23-Apr	0	0	0	0	A	0	0	0	1	1	1	1	1	1	0	1	1	0	0	0	0	0	0	0	0.4	1.0
24-Apr	0	0	0	0	A	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.0
25-Apr	0	0	0	0	A	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
26-Apr	0	0	0	0	A	0	2	2	2	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.6	2.2
27-Apr	0	0	0	0	A	0	0	1	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	2.8
28-Apr	0	0	0	0	A	0	0	0	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.6
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	0.2	0.4
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	0.5
	0.1	0.0	0.1	0.1	--	0.2	0.4	1.0	1.4	0.8	0.6	0.4	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	Diurnal Average	
	0.3	0.2	0.2	0.2	--	1.2	1.6	6.5	8.5	2.1	1.9	1.6	0.9	1.4	1.3	1.1	0.8	0.7	1.1	0.3	0.3	0.3	0.2	0.3	Diurnal Maximum	

C - Calibration

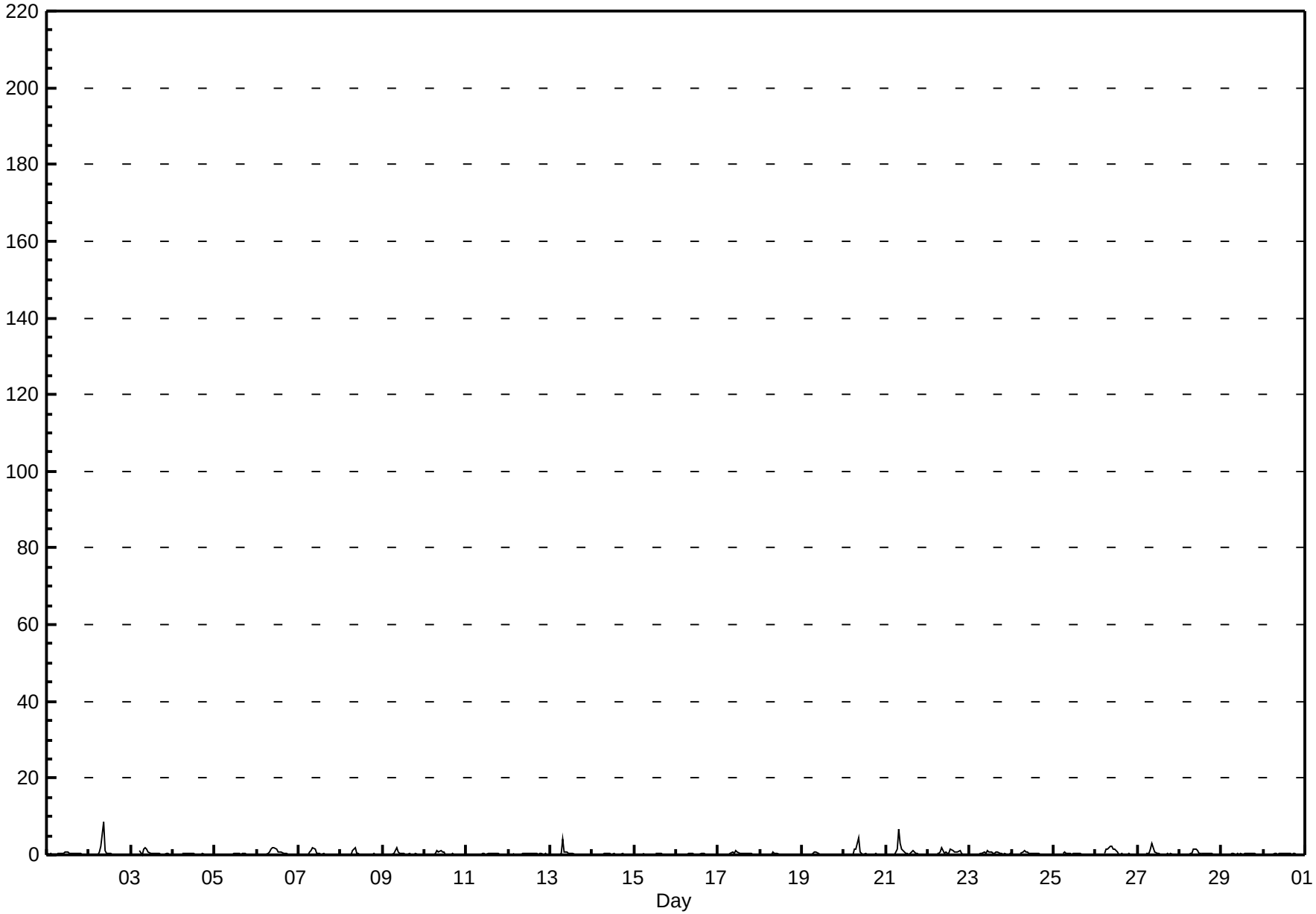
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Beaverlodge - April 2015



Peace Airshed Zone Association

Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Beaverlodge - April 2015

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

Maximum Value: 10.1 ppb on Apr 2 07:00

Maximum Daily Average: 3.0 ppb on Apr 21

Minimum Value: 0 ppb on Apr 18 15:00

Minimum Daily Average: 0.9 ppb on Apr 4

Maximum Diurnal Average: 3.7 ppb at hour 6

Minimum Diurnal Average: 0.9 ppb at hour 19

Monthly Average: 1.73 ppb

Percentiles: $P_1 = 0.4$ $P_{10} = 0.6$ $Q_1 = 0.8$ Median = 1.2 $Q_3 = 2.3$ $P_{90} = 3.5$ $P_{99} = 6.8$

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	1	1	1	A	3	2	2	2	2	3	2	2	1	1	1	1	2	2	2	5	3	1	2	1.9	5.2
2-Apr	2	2	1	3	A	4	10	9	7	2	1	1	1	0	0	0	1	1	1	1	1	4	2	2	2.5	10.1
3-Apr	1	2	2	2	A	4	3	4	5	4	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1.9	5.3
4-Apr	1	1	1	1	A	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0.9	2.4
5-Apr	1	1	1	1	A	3	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	2.7
6-Apr	1	1	2	2	A	5	4	4	5	5	5	4	3	2	2	2	2	2	2	2	2	2	2	2	2.8	5.1
7-Apr	3	3	3	3	A	6	5	5	5	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2.0	5.6
8-Apr	1	2	2	3	A	3	3	3	4	1	1	0	0	0	1	0	0	1	0	1	1	1	1	1	1.4	3.8
9-Apr	1	3	3	3	A	3	3	4	4	2	2	1	1	1	1	1	1	1	1	3	1	1	1	1	1.8	4.3
10-Apr	1	1	2	2	A	3	3	3	3	4	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1.7	3.9
11-Apr	3	3	2	2	A	5	2	1	1	1	1	1	1	1	2	2	1	1	1	1	2	1	1	1	1.5	4.7
12-Apr	0	0	0	0	A	2	1	0	0	3	3	4	6	5	5	9	6	2	1	1	0	0	1	1	2.3	8.9
13-Apr	1	1	1	1	A	3	3	4	2	2	1	1	1	1	1	1	1	1	1	2	2	2	2	2	1.5	4.1
14-Apr	1	0	1	1	A	5	3	1	1	1	1	1	1	1	1	3	1	1	1	0	0	1	1	1	1.1	4.5
15-Apr	1	1	1	1	A	3	1	1	C	C	C	C	2	1	1	1	1	1	1	1	0	1	1	1	0.9	2.6
16-Apr	2	1	3	4	A	4	2	3	3	2	1	1	1	1	1	1	1	0	1	1	2	1	1	1	1.6	3.8
17-Apr	1	2	2	2	A	3	2	2	3	2	3	3	1	1	2	1	1	1	1	1	1	1	2	1	1.6	3.2
18-Apr	2	2	2	1	A	2	2	2	2	1	1	1	0	0	0	0	0	0	1	1	1	1	3	2	1.2	2.5
19-Apr	1	1	1	1	A	3	2	3	3	1	1	0	0	0	0	0	1	0	1	1	1	1	1	1	1.2	3.3
20-Apr	1	1	1	2	A	4	4	5	6	2	1	1	1	0	1	0	1	1	1	1	1	3	4	3	1.9	6.0
21-Apr	3	3	3	5	A	7	7	10	6	4	3	1	1	1	1	1	1	1	1	1	2	2	3	2	3.0	9.7
22-Apr	1	2	2	4	A	6	4	3	3	2	2	2	2	2	2	1	2	2	2	1	1	1	1	1	2.0	5.9
23-Apr	1	1	1	1	A	3	3	2	2	1	2	2	1	1	1	1	1	1	1	1	1	2	2	5	1.6	5.1
24-Apr	3	2	2	2	A	4	3	3	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1.7	3.6
25-Apr	1	1	1	1	A	2	2	1	1	1	1	1	2	1	1	1	1	1	1	1	2	2	2	3	1.4	3.0
26-Apr	3	2	2	3	A	5	6	5	5	4	3	3	1	1	1	1	1	0	0	1	1	1	2	2	2.3	6.1
27-Apr	3	4	3	3	A	5	5	7	7	4	1	1	1	1	1	1	1	1	1	1	3	1	2	2	2.5	6.9
28-Apr	3	3	3	3	A	5	5	4	4	4	2	2	1	1	3	1	1	1	1	1	1	1	1	2	2.2	4.5
29-Apr	3	3	2	3	A	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.3	3.5
30-Apr	1	1	0	1	A	2	2	2	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	0.9	1.9
	1.7	1.7	1.8	2.1	--	3.7	3.2	3.3	3.1	2.1	1.6	1.3	1.2	1.1	1.2	1.2	1.0	0.9	0.9	1.1	1.4	1.4	1.4	1.6	Diurnal Average	
	3.4	3.6	3.5	4.7	--	6.8	10.1	9.7	6.9	5.1	4.9	3.9	6.5	4.6	5.0	8.9	6.3	2.4	1.7	3.3	5.2	3.8	3.6	5.1	Diurnal Maximum	

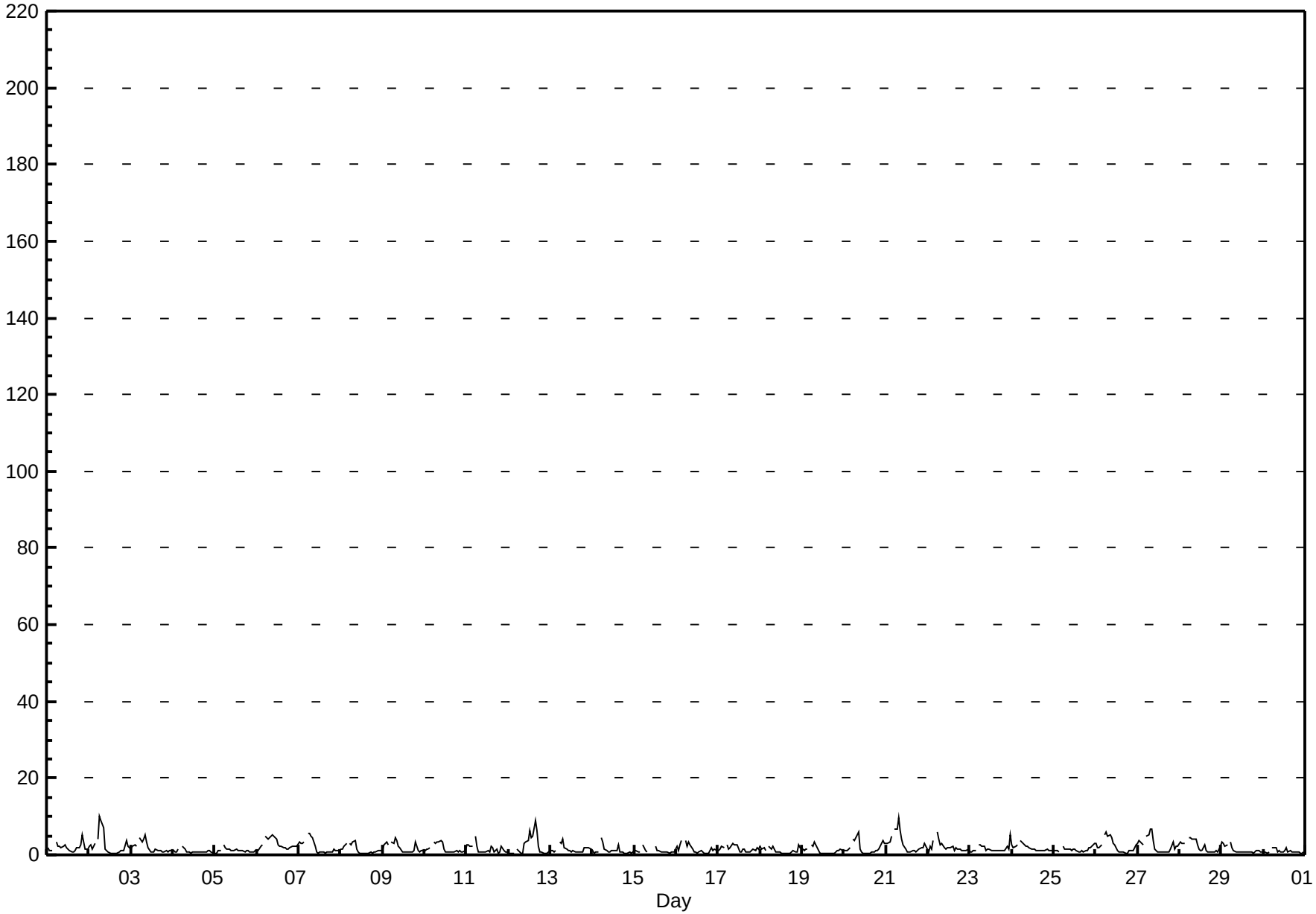
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Beaverlodge - April 2015



Peace Airshed Zone Association

Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

Beaverlodge - April 2015

Maximum Value: 18.4 ppb on Apr 2 09:00

Maximum Daily Average: 6.1 ppb on Apr 12

Minimum Value: 1 ppb on Apr 18 14:00

Minimum Daily Average: 1.6 ppb on Apr 4

Maximum Diurnal Average: 6.0 ppb at hour 6

Minimum Diurnal Average: 1.9 ppb at hour 19

Monthly Average: 3.14 ppb

Percentiles: $P_1 = 0.5$ $P_{10} = 1.0$ $Q_1 = 1.4$ Median = 2.3 $Q_3 = 3.9$ $P_{90} = 6.1$ $P_{99} = 14.8$

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	3	2	2	3	A	5	3	3	3	3	3	3	2	2	1	2	2	3	4	4	13	6	2	2	3.4	13.4
2-Apr	3	4	3	5	A	8	16	15	18	3	2	1	1	1	1	1	1	2	3	3	4	8	3	2	4.7	18.4
3-Apr	2	4	3	3	A	16	4	7	7	6	2	1	1	1	2	1	1	2	1	2	2	2	2	1	3.2	16.3
4-Apr	3	1	1	2	A	4	3	2	2	1	1	1	1	1	1	1	1	1	1	2	2	2	1	1	1.6	4.1
5-Apr	1	1	2	3	A	4	2	3	2	2	1	2	2	2	2	1	1	1	1	2	1	1	1	1	1.7	4.0
6-Apr	1	2	2	3	A	6	4	5	5	5	6	5	3	3	2	2	2	2	2	3	4	3	3	4	3.4	6.1
7-Apr	5	4	4	4	A	8	9	8	7	4	1	1	1	1	2	1	1	1	2	2	4	2	2	1	3.3	8.8
8-Apr	2	2	4	4	A	5	6	6	7	2	2	1	1	1	1	1	1	1	1	3	2	2	4	2	2.6	7.0
9-Apr	2	6	4	3	A	5	4	7	8	3	3	1	2	1	1	2	1	1	3	8	4	2	2	2	3.2	7.9
10-Apr	1	2	2	2	A	5	5	6	4	5	4	3	1	1	1	1	1	2	2	2	3	3	1	4	2.7	5.7
11-Apr	6	6	5	3	A	8	7	2	2	3	2	2	7	6	7	10	3	12	1	1	6	2	1	2	4.5	12.0
12-Apr	1	1	1	1	A	3	1	1	1	10	12	14	14	14	15	15	13	11	4	1	1	2	1	2	6.1	15.2
13-Apr	2	4	2	2	A	5	6	15	3	2	2	2	2	1	1	1	1	1	1	4	4	3	5	2	3.1	14.6
14-Apr	2	1	1	2	A	9	8	5	2	1	1	5	4	4	6	13	3	2	1	1	1	1	1	2	3.4	13.0
15-Apr	8	4	2	2	A	5	2	2	C	C	C	C	5	2	2	2	1	1	1	3	1	2	1	1	2.4	7.7
16-Apr	4	2	5	5	A	5	4	5	4	2	1	1	1	4	6	1	1	1	1	3	5	4	2	2	3.0	5.8
17-Apr	2	2	3	3	A	4	3	4	4	3	4	3	2	3	6	5	2	1	1	2	3	2	3	2	2.9	5.9
18-Apr	8	3	4	2	A	4	2	3	3	1	1	1	1	1	1	1	1	1	2	3	2	3	5	4	2.4	8.2
19-Apr	2	2	4	2	A	4	3	4	3	2	1	1	1	1	1	1	1	1	1	1	3	3	2	2	1.9	4.4
20-Apr	2	1	1	2	A	6	7	7	12	3	2	1	1	1	1	1	1	1	2	1	2	5	5	4	2.9	12.1
21-Apr	4	4	5	6	A	8	9	17	9	5	4	2	1	1	1	3	3	2	2	2	2	6	6	7	4.7	17.1
22-Apr	1	5	3	7	A	10	8	6	9	2	3	3	2	3	5	3	4	4	5	3	2	2	4	3	4.2	9.8
23-Apr	1	1	3	3	A	4	5	4	3	2	3	3	2	2	2	2	2	2	2	1	3	3	2	8	2.7	7.8
24-Apr	5	3	3	3	A	5	5	4	3	3	2	2	2	2	2	2	1	1	2	1	2	2	2	1	2.5	5.3
25-Apr	1	1	2	1	A	4	3	2	2	2	1	2	2	1	1	1	1	1	2	2	4	3	3	4	2.0	4.1
26-Apr	4	2	2	3	A	8	8	6	6	5	4	3	2	1	1	1	1	1	1	3	2	1	3	3	3.0	7.9
27-Apr	5	4	4	3	A	6	6	12	11	5	3	1	1	1	1	2	1	2	1	3	7	3	2	3	3.9	11.8
28-Apr	5	3	3	4	A	7	5	5	8	5	4	2	2	3	10	4	1	2	1	2	3	5	2	3	4.0	10.3
29-Apr	4	4	3	6	A	6	3	2	1	2	1	1	1	2	1	1	1	1	1	2	3	4	2	1	2.3	6.3
30-Apr	2	1	1	2	A	3	3	4	1	2	2	2	5	9	1	7	1	2	2	2	2	1	1	1	2.5	9.2
	3.0	2.8	2.8	3.2	--	6.0	5.1	5.6	5.2	3.3	2.7	2.4	2.4	2.5	2.8	3.0	1.9	2.2	1.9	2.4	3.2	3.0	2.5	2.6	Diurnal Average	
	8.2	6.5	5.0	7.4	--	16.3	15.5	17.1	18.4	9.6	11.9	14.3	14.5	14.1	14.9	15.2	12.8	12.0	5.0	7.6	13.4	8.0	5.5	7.8	Diurnal Maximum	

C - Calibration

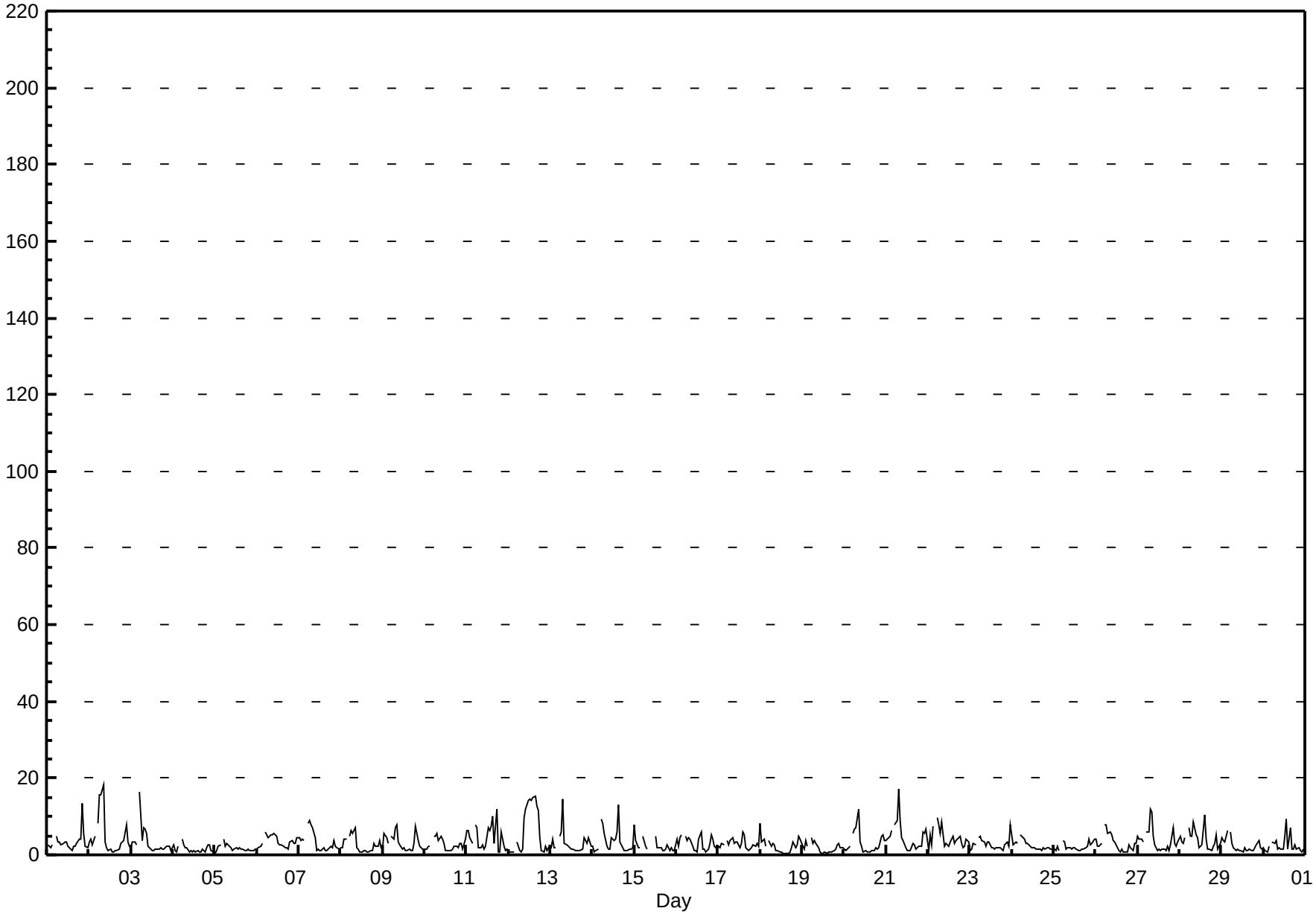
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

Beaverlodge - April 2015

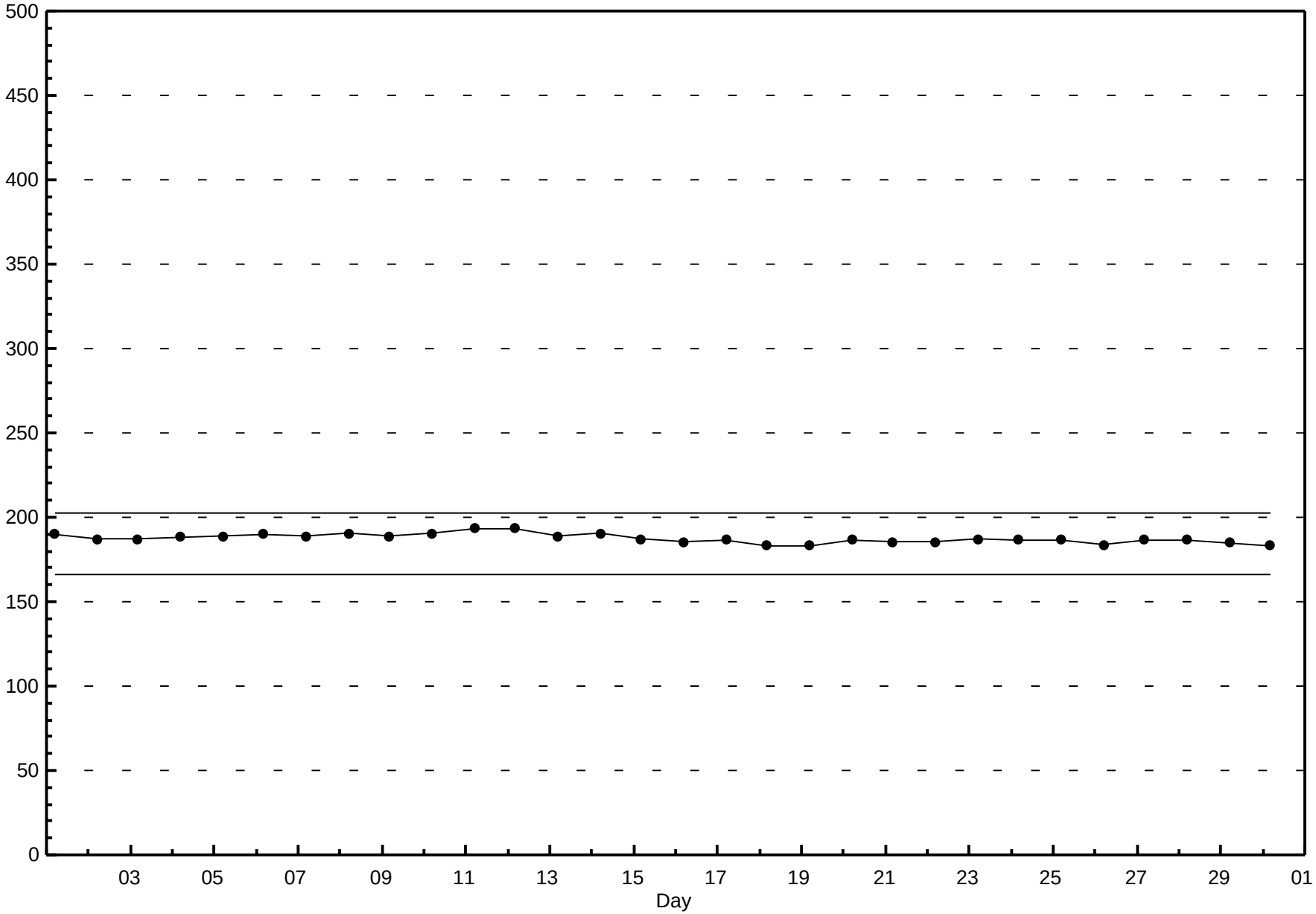


Peace Airshed Zone Association

Span Responses

Oxides of Nitrogen (NO_X)

Beaverlodge - April 2015



Peace Airshed Zone Association

Hourly Averages

Ozone (O_3) - ppb

Beaverlodge - April 2015

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

Maximum Value: 55.3 ppb on Apr 27 15:00

Maximum Daily Average: 47.7 ppb on Apr 30

Minimum Value: 11 ppb on Apr 24 08:00

Minimum Daily Average: 23.4 ppb on Apr 24

Maximum Diurnal Average: 44.0 ppb at hour 16

Minimum Diurnal Average: 31.8 ppb at hour 8

Monthly Average: 38.20 ppb

Percentiles: P_1 = 14.8 P_{10} = 28.1 Q_1 = 33.7 Median = 39.2 Q_3 = 44.0 P_{90} = 47.7 P_{99} = 52.9

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	37	37	37	35	A	35	35	36	36	35	34	35	37	37	39	40	40	40	39	37	28	31	31	29	35.7	40.3
2-Apr	30	31	33	34	A	31	22	20	24	30	36	42	42	44	44	44	43	45	44	42	41	35	34	35	35.9	44.7
3-Apr	32	31	32	32	A	28	30	29	26	32	37	45	47	48	42	43	42	41	39	36	34	34	34	35	35.9	47.9
4-Apr	34	32	30	29	A	32	32	34	36	38	41	41	40	39	41	41	41	41	41	40	39	39	39	40	37.4	41.4
5-Apr	39	39	39	37	A	34	34	35	34	35	36	38	38	40	40	41	41	42	43	40	40	39	38	37	38.3	42.5
6-Apr	36	35	34	32	A	31	31	29	30	31	34	36	40	42	43	44	44	45	45	41	42	43	41	39	37.7	45.5
7-Apr	35	36	32	31	A	24	22	25	27	32	43	46	47	48	48	50	50	50	49	44	40	39	40	40	39.0	50.5
8-Apr	39	40	37	33	A	32	33	32	32	37	45	47	47	47	48	48	48	47	45	41	39	39	38	38	40.5	48.3
9-Apr	38	36	37	37	A	38	37	33	35	41	45	51	53	53	53	54	53	53	51	48	51	50	46	44	45.0	53.5
10-Apr	44	41	40	39	A	38	37	36	38	40	44	50	53	53	53	54	53	50	50	48	48	47	46	46	45.5	53.6
11-Apr	42	41	40	39	A	39	40	45	45	46	46	46	47	47	45	45	46	45	47	44	42	40	46	43	43.7	46.9
12-Apr	45	40	39	42	A	43	43	44	43	42	43	43	41	42	43	39	42	47	48	48	47	46	42	41	43.1	48.3
13-Apr	42	39	40	41	A	35	36	34	40	41	44	46	49	50	50	51	50	49	46	42	41	45	44	44	43.4	51.2
14-Apr	47	48	46	44	A	41	40	43	43	46	45	44	44	44	43	43	45	46	48	49	49	47	47	44	45.0	48.8
15-Apr	43	41	41	40	A	38	41	41	43	46	C	C	C	C	47	47	47	47	45	44	43	42	40	40	43.1	47.2
16-Apr	33	34	30	30	A	34	37	36	38	40	43	41	40	41	46	43	45	46	47	45	42	44	40	37	39.6	46.7
17-Apr	38	38	40	37	A	41	41	40	37	36	34	33	42	43	43	43	42	42	40	41	41	41	40	40	39.6	42.8
18-Apr	36	32	31	35	A	35	35	34	37	41	45	45	45	46	46	47	47	46	46	42	41	40	39	40	40.3	46.7
19-Apr	35	34	33	32	A	30	30	30	32	36	44	46	47	49	51	51	51	51	49	45	41	38	39	39	40.4	51.2
20-Apr	36	37	37	36	A	35	35	30	28	36	38	38	39	39	38	38	38	37	34	31	33	31	31	33	35.1	39.1
21-Apr	31	29	28	25	A	22	21	19	24	27	33	38	39	40	41	43	42	42	38	35	34	36	31	29	32.4	43.3
22-Apr	27	26	24	22	A	20	19	23	23	26	27	25	33	35	34	35	36	37	36	36	35	36	35	33	29.6	36.7
23-Apr	35	34	33	33	A	34	33	34	34	35	35	34	32	28	26	25	25	25	24	22	20	19	18	14	28.4	35.1
24-Apr	15	15	13	12	A	12	12	11	18	19	20	23	24	27	28	29	32	33	33	33	31	32	34	34	23.4	34.1
25-Apr	33	31	30	30	A	30	30	32	32	32	32	32	32	35	39	41	39	38	36	32	28	26	24	23	32.2	41.5
26-Apr	21	23	23	22	A	19	17	15	16	17	21	27	35	37	37	38	39	40	42	40	33	34	34	34	28.9	42.1
27-Apr	34	32	31	31	A	30	28	23	21	31	39	44	49	54	55	52	51	50	47	43	39	39	37	40	39.2	55.3
28-Apr	36	36	35	32	A	30	29	29	29	31	37	40	44	43	49	55	52	48	47	47	43	40	41	38	39.7	54.6
29-Apr	36	35	34	34	A	35	37	41	43	46	47	47	47	45	43	43	43	43	44	44	41	38	37	41	41.1	47.1
30-Apr	41	47	49	47	A	44	42	42	44	45	47	48	50	50	51	51	49	51	50	50	48	50	50	49	47.7	51.4
	35.7	35.0	34.2	33.4	--	32.2	32.0	31.8	33.0	35.7	38.4	40.4	42.1	43.0	43.6	44.0	43.9	43.9	43.1	40.9	39.0	38.6	37.8	37.3	Diurnal Average	
	47.2	47.8	49.0	47.4	--	44.5	42.9	45.4	44.9	46.5	46.9	50.7	52.7	54.5	55.3	54.6	53.1	52.9	51.2	50.0	51.1	49.8	50.2	48.6	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

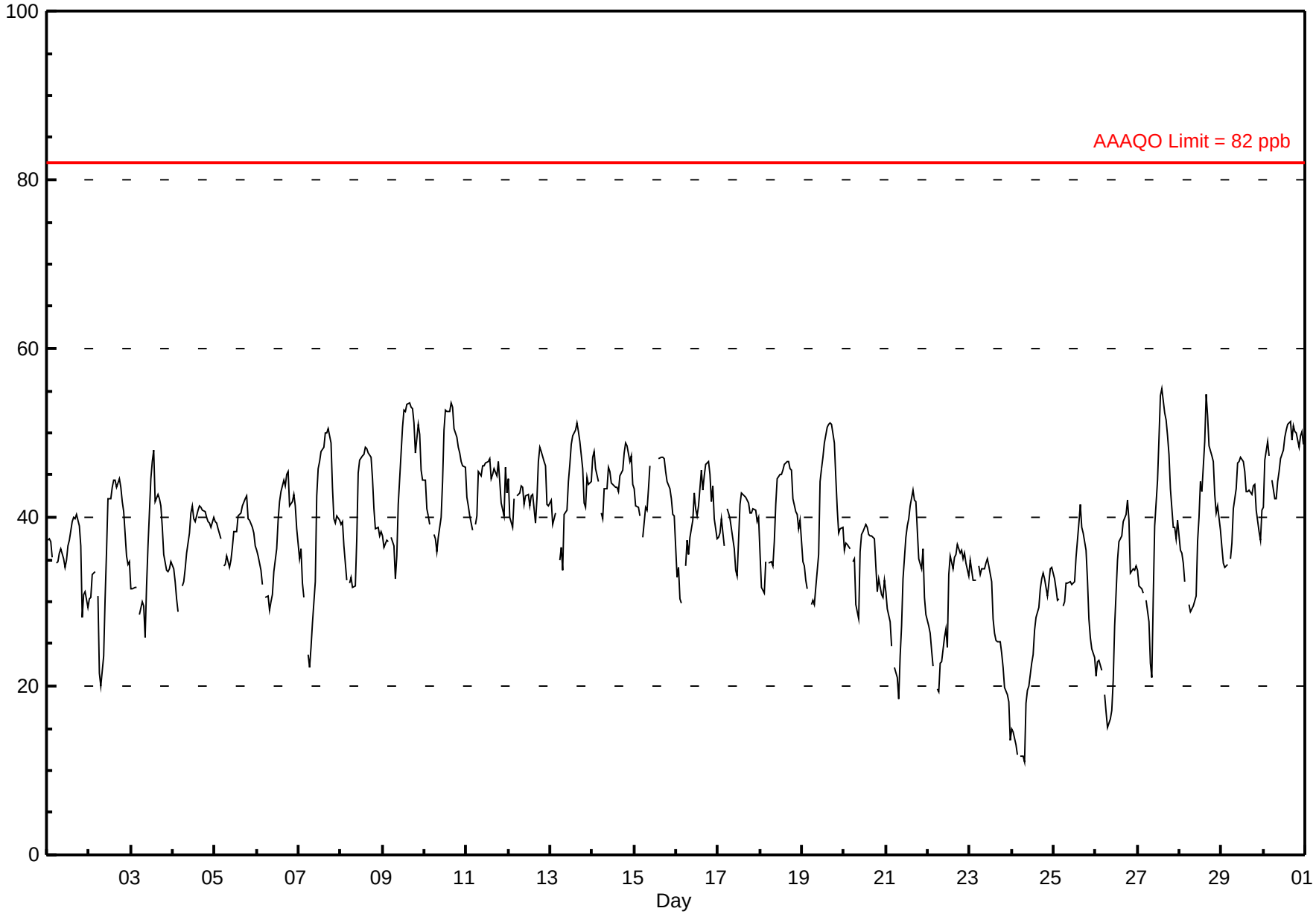
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82 ppb 24-hr na

Peace Airshed Zone Association

Hourly Averages

Ozone (O_3) - ppb

Beaverlodge - April 2015



Peace Airshed Zone Association

Hourly Maximums

Ozone (O_3) - ppb

Beaverlodge - April 2015

Maximum Value: 58.4 ppb on Apr 28 15:00

Maximum Daily Average: 49.8 ppb on Apr 30

Minimum Value: 13 ppb on Apr 24 04:00

Minimum Daily Average: 25.1 ppb on Apr 24

Maximum Diurnal Average: 45.9 ppb at hour 16

Minimum Diurnal Average: 34.3 ppb at hour 7

Monthly Average: 40.47 ppb

Percentiles: P_1 = 16.2 P_{10} = 30.8 Q_1 = 35.6 Median = 41.4 Q_3 = 46.2 P_{90} = 49.7 P_{99} = 54.8

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	38	39	38	36	A	36	36	37	37	36	36	37	38	38	41	41	41	42	42	39	35	34	33	33	37.6	42.2
2-Apr	32	35	37	35	A	39	30	24	28	33	43	44	44	45	46	46	47	48	55	45	42	41	38	38	39.8	55.3
3-Apr	36	35	35	34	A	31	31	31	31	38	39	50	48	50	47	45	46	43	41	38	36	35	35	36	38.7	50.4
4-Apr	35	33	32	30	A	34	34	36	37	40	43	43	41	41	42	43	43	42	42	41	41	40	40	41	38.9	42.7
5-Apr	40	40	41	39	A	36	37	38	36	36	38	41	40	42	41	42	43	43	44	42	41	40	39	37	39.8	43.7
6-Apr	37	36	36	33	A	32	32	30	31	33	36	38	42	44	45	45	45	46	47	45	43	44	44	42	39.4	46.6
7-Apr	38	38	36	34	A	27	26	29	29	39	46	47	48	50	51	51	51	52	51	46	42	41	41	42	41.5	51.8
8-Apr	41	41	40	36	A	34	35	35	38	42	47	48	49	49	50	50	49	49	46	45	40	41	40	41	42.8	49.6
9-Apr	40	39	39	40	A	40	38	37	40	44	47	54	54	54	55	55	54	54	54	51	52	52	50	49	47.5	55.0
10-Apr	46	42	42	41	A	39	39	38	41	44	46	53	54	54	54	55	55	53	51	51	49	49	48	47	47.4	54.9
11-Apr	47	47	46	41	A	43	47	48	47	47	47	48	48	48	48	47	47	48	48	46	44	43	49	46	46.6	48.8
12-Apr	47	43	42	43	A	44	45	45	44	45	45	46	46	46	46	46	48	49	50	49	48	47	44	43	45.7	49.8
13-Apr	44	43	42	42	A	37	38	40	43	44	46	49	50	51	52	52	52	50	49	44	43	47	46	47	45.8	52.3
14-Apr	49	49	48	46	A	43	43	45	46	47	46	46	45	45	45	45	46	47	49	50	50	49	49	45	46.7	50.0
15-Apr	46	44	43	42	A	42	43	43	46	47	C	C	C	C	48	48	49	48	47	45	45	43	42	43	44.9	48.7
16-Apr	35	37	33	31	A	36	40	39	39	44	44	43	41	45	50	47	48	49	48	47	44	46	44	43	42.2	49.6
17-Apr	41	42	43	43	A	43	42	42	39	38	36	36	45	44	48	45	45	44	43	44	42	43	41	43	42.2	47.7
18-Apr	42	34	35	36	A	35	36	36	41	45	47	46	46	46	47	48	48	47	47	46	43	43	41	41	42.4	48.4
19-Apr	41	41	35	33	A	31	32	32	34	42	46	47	49	50	52	52	52	52	51	48	42	41	42	41	43.0	52.4
20-Apr	40	42	38	37	A	36	37	36	34	39	39	40	41	40	39	39	39	38	39	34	34	33	33	34	37.5	41.7
21-Apr	33	31	29	26	A	23	23	22	27	31	36	40	40	41	43	47	44	43	42	39	36	41	41	31	35.1	46.5
22-Apr	29	30	26	26	A	24	22	28	25	29	29	29	36	38	35	37	37	39	37	37	36	37	37	34	32.0	38.5
23-Apr	36	35	34	34	A	35	35	35	35	36	36	36	34	31	27	27	26	27	25	24	21	21	19	17	29.9	36.5
24-Apr	16	16	14	13	A	13	13	14	21	21	22	24	26	28	29	31	33	35	35	34	33	36	36	36	25.1	36.0
25-Apr	34	33	32	31	A	31	32	33	33	35	34	33	34	38	43	44	41	40	38	36	30	28	25	26	34.1	43.5
26-Apr	24	25	24	24	A	21	18	16	17	20	23	32	40	38	39	39	41	42	43	43	35	35	35	35	30.9	43.5
27-Apr	35	34	34	34	A	31	30	28	25	34	46	48	53	58	58	54	53	52	49	46	46	41	39	41	42.2	58.1
28-Apr	39	37	36	34	A	31	30	31	31	35	40	42	48	48	58	56	55	51	48	49	46	43	43	42	42.4	58.4
29-Apr	39	36	35	37	A	37	39	43	46	48	48	48	48	47	44	44	44	45	46	46	44	41	39	43	42.9	48.4
30-Apr	44	49	50	50	A	46	45	45	46	47	50	50	52	53	52	53	52	53	51	52	51	51	52	51	49.8	53.2
	38.2	37.5	36.6	35.4	--	34.3	34.3	34.5	35.6	38.6	40.8	42.7	44.2	45.0	45.8	45.9	45.8	45.7	45.2	43.4	41.1	40.9	40.1	39.6	Diurnal Average	
	49.4	49.5	50.0	49.6	--	45.6	47.1	48.1	46.5	47.6	50.3	54.2	54.4	58.1	58.4	56.5	54.9	54.1	55.3	52.0	52.1	52.3	51.8	51.0	Diurnal Maximum	

C - Calibration

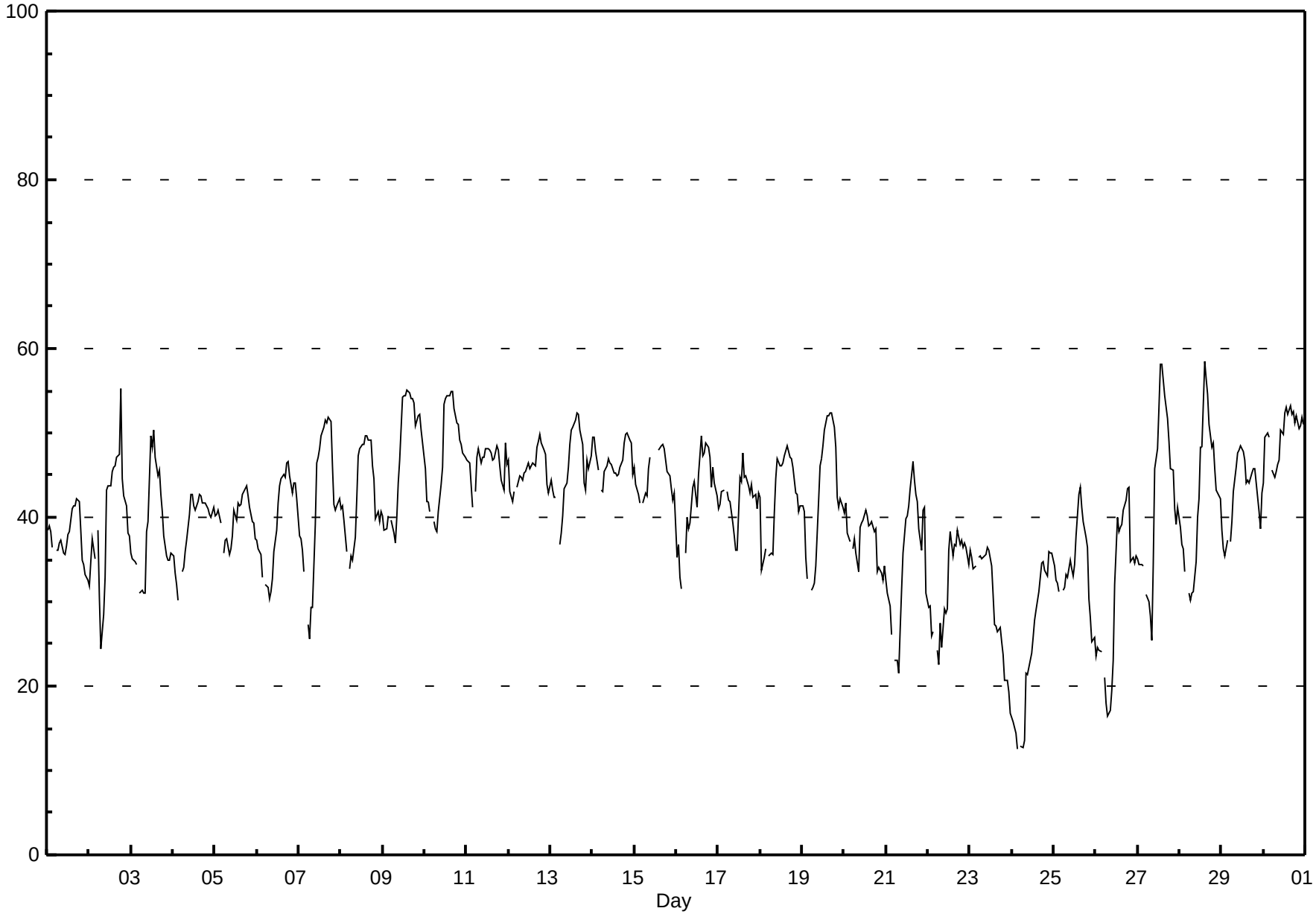
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Ozone (O_3) - ppb

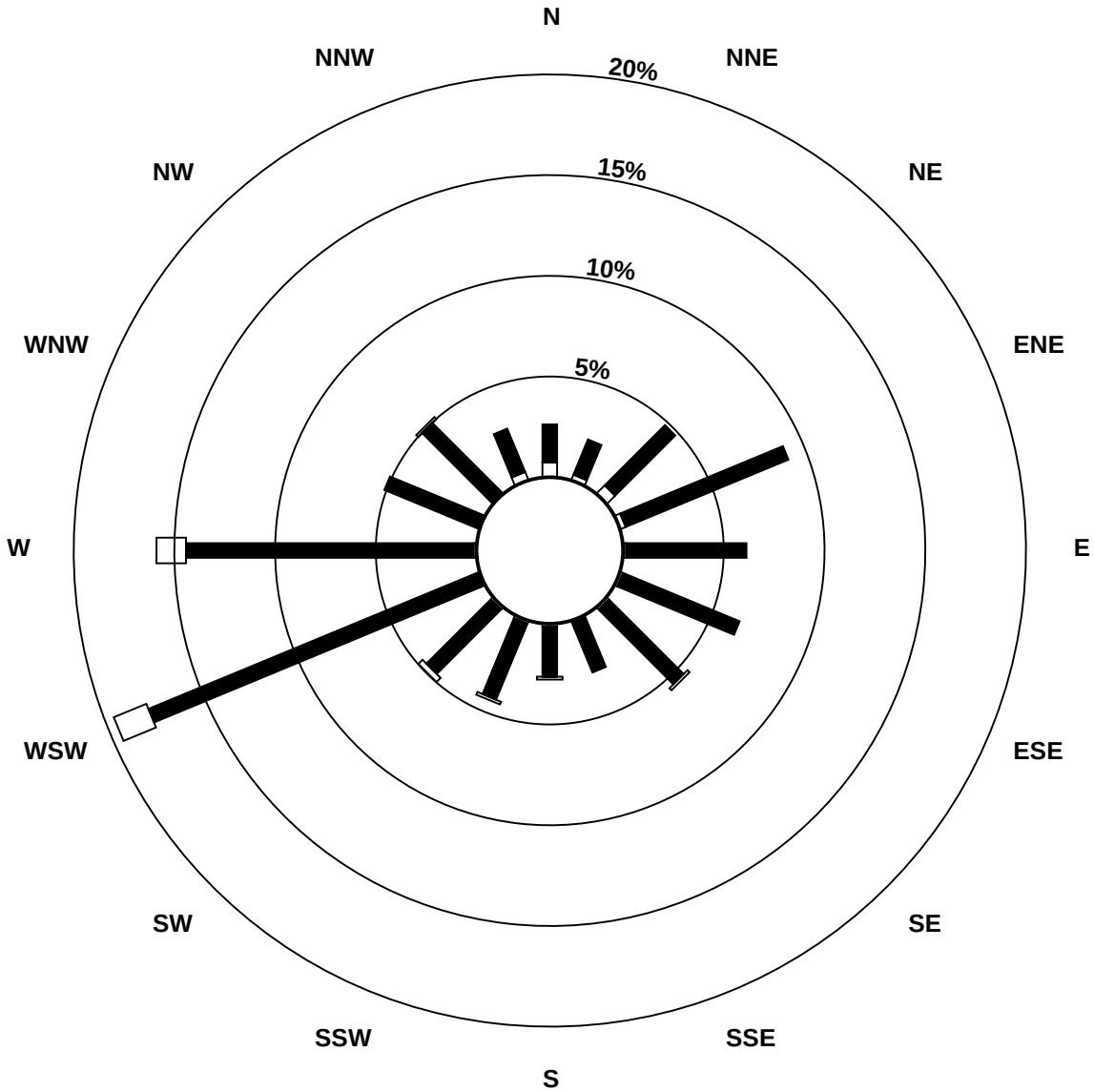
Beaverlodge - April 2015



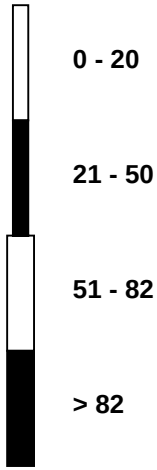
Pollutant Rose

Ozone (O_3) - ppb

Beaverlodge - April 2015



Pollutant Classes (ppb)



Peace Airshed Zone Association

Eight Hour Running Averages

Ozone (O_3) - ppb

Beaverlodge - April 2015

Maximum Value: 52.5 ppb on Apr 9 19:00

Minimum Value: 12.7 ppb on Apr 24 08:00

Percentiles: P_1 = 15.4 P_{10} = 29.0 Q_1 = 33.9 Median = 38.6 Q_3 = 43.3 P_{90} = 46.0 P_{99} = 51.5

Hours in Service:	720
Hours of Data:	712
Hours of Missing Data:	8
Hours of Calibration:	8
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Apr	40	39	39	39	39	37	36	36	36	36	35	35	35	36	36	37	37	38	38	39	38	37	36	34	39.6
2-Apr	33	32	31	31	31	31	30	29	28	28	28	29	31	32	35	38	41	43	44	44	43	42	41	40	43.6
3-Apr	38	37	35	34	33	32	31	31	30	30	31	32	34	37	38	40	42	43	43	42	41	39	38	37	43.3
4-Apr	36	35	34	33	33	32	32	32	32	33	34	36	37	38	39	40	40	41	41	41	40	40	40	40	40.7
5-Apr	40	40	39	39	39	38	38	37	36	36	35	35	36	37	37	38	39	40	40	41	41	41	40	40	40.8
6-Apr	39	38	37	36	36	35	34	33	32	31	31	32	33	34	36	37	39	41	42	43	43	43	43	43	43.4
7-Apr	41	40	39	37	37	34	31	29	28	28	29	31	33	36	39	43	45	48	48	48	47	46	45	44	48.5
8-Apr	43	41	40	38	38	37	36	35	34	34	35	37	38	40	42	44	46	47	47	46	45	44	43	42	47.2
9-Apr	41	39	38	38	38	37	37	37	36	37	38	40	41	43	45	48	50	52	52	52	52	52	51	49	52.5
10-Apr	48	47	46	44	43	42	41	39	38	38	39	41	42	44	46	48	50	51	52	52	51	50	49	48	51.9
11-Apr	47	46	45	44	43	42	41	41	41	42	43	44	44	45	46	46	46	46	46	46	45	44	44	44	47.1
12-Apr	44	43	42	42	42	42	42	42	42	42	43	43	43	43	43	42	42	42	43	44	44	45	45	45	45.0
13-Apr	45	44	43	42	42	40	39	38	38	38	39	40	41	43	44	46	48	49	49	48	47	47	46	45	48.9
14-Apr	45	45	45	45	45	45	44	44	44	43	43	43	43	44	44	44	44	44	45	45	46	46	47	47	46.6
15-Apr	46	46	45	44	43	42	41	41	41	42	42	N	N	N	N	N	N	N	N	46	46	45	45	44	46.4
16-Apr	42	40	38	37	36	35	34	33	34	35	37	38	39	39	40	41	42	43	44	44	44	45	44	43	44.7
17-Apr	42	41	40	39	39	39	39	39	39	39	38	37	38	38	38	39	39	40	41	42	42	42	41	41	42.3
18-Apr	40	39	38	37	36	35	35	34	34	35	37	39	40	41	42	44	45	46	46	45	45	44	43	42	45.8
19-Apr	41	40	38	37	36	34	33	32	31	32	33	35	37	39	42	44	47	49	49	49	48	47	46	44	49.3
20-Apr	42	40	39	38	37	37	36	35	34	34	34	34	35	35	36	37	38	38	38	37	36	35	34	33	42.2
21-Apr	33	32	31	30	30	28	27	25	24	24	24	26	28	30	32	36	38	40	40	40	39	39	38	36	40.4
22-Apr	34	32	30	29	28	26	24	23	22	22	23	23	24	26	28	30	31	33	34	35	35	36	36	35	35.6
23-Apr	35	35	34	34	34	34	33	34	33	34	34	34	34	33	32	31	30	29	28	26	24	23	22	21	35.2
24-Apr	20	18	17	16	15	14	13	13	13	14	15	16	17	19	21	23	25	27	29	30	31	31	32	33	32.6
25-Apr	33	33	32	32	32	32	31	31	31	31	31	32	32	32	33	35	35	36	37	37	36	35	33	31	36.7
26-Apr	29	27	25	24	23	22	21	20	19	18	18	19	21	23	26	28	31	34	37	39	38	38	38	37	38.6
27-Apr	36	35	34	33	33	32	31	30	28	28	29	31	33	36	40	43	47	49	51	50	49	47	45	43	50.5
28-Apr	41	40	38	37	36	35	34	32	31	31	31	32	34	35	38	41	44	46	47	48	48	48	47	45	48.2
29-Apr	43	41	39	38	37	36	36	36	37	39	41	42	43	44	45	45	45	45	44	44	43	42	42	41	45.2
30-Apr	41	42	42	43	43	44	45	45	45	45	45	45	45	46	47	48	49	50	50	50	50	50	50	50	50.3
	48.4	46.9	45.5	44.9	45.4	44.8	44.5	44.7	45.2	45.0	44.7	44.8	45.4	46.1	47.2	48.3	50.3	51.7	52.5	52.1	51.9	51.6	50.6	49.6	
	Diurnal Maximums																								

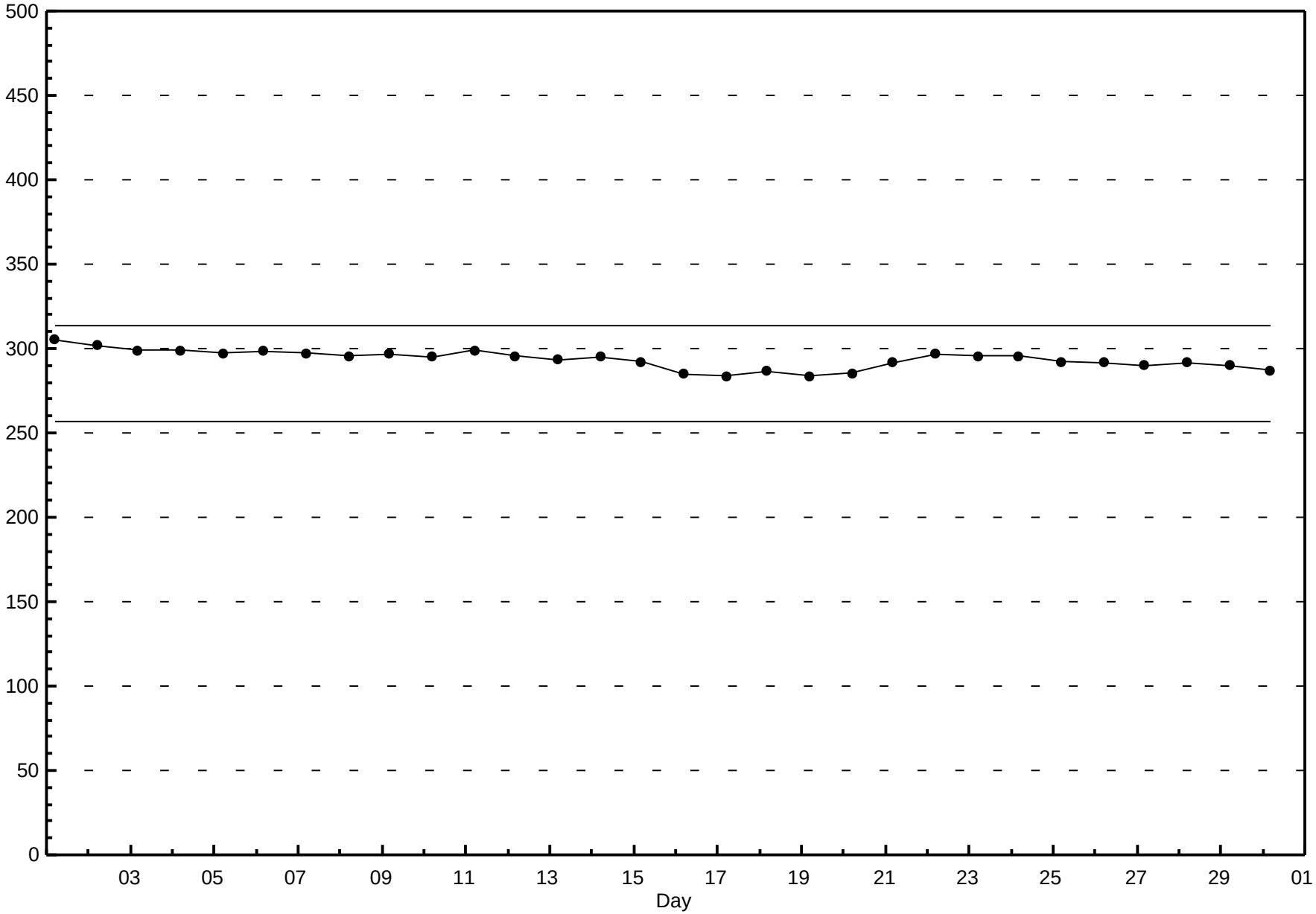
N - Not Valid

Peace Airshed Zone Association

Span Responses

Ozone (O_3)

Beaverlodge - April 2015



Peace Airshed Zone Association

Hourly Averages

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

Beaverlodge - April 2015

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

Maximum Value: 10.9 $\mu g/m^3$ on Apr 6 06:00

Maximum Daily Average: 6.7 $\mu g/m^3$ on Apr 6

Minimum Value: 0 $\mu g/m^3$ on Apr 2 15:00

Minimum Daily Average: 0.5 $\mu g/m^3$ on Apr 1

Maximum Diurnal Average: 3.6 $\mu g/m^3$ at hour 5

Minimum Diurnal Average: 2.1 $\mu g/m^3$ at hour 16

Monthly Average: 2.83 $\mu g/m^3$

Percentiles: P_1 = 0.2 P_{10} = 0.9 Q_1 = 1.3 Median = 2.2 Q_3 = 3.8 P_{90} = 6.0 P_{99} = 9.7

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	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0.5	0.9
2-Apr	1	0	0	0	0	1	1	2	2	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0.6	2.3
3-Apr	2	3	4	4	3	4	4	4	3	2	2	2	3	3	4	4	4	4	3	3	3	2	2	3	3.1	4.2
4-Apr	3	2	3	3	3	3	3	3	2	2	2	2	2	3	2	2	2	3	3	2	2	2	2	2	2.5	3.3
5-Apr	2	2	2	2	2	2	2	2	2	3	3	2	3	4	4	4	4	4	5	6	5	4	4	5	3.3	5.7
6-Apr	6	6	7	7	10	11	11	9	7	6	5	5	5	5	5	5	5	6	6	6	7	7	7	7	6.7	10.9
7-Apr	8	9	8	8	9	10	10	8	5	3	1	1	1	1	2	2	2	2	2	3	4	4	4	4	4.7	10.2
8-Apr	4	5	5	6	5	5	5	4	4	3	2	2	3	3	4	4	3	3	3	3	3	3	3	3	3.7	5.5
9-Apr	3	3	3	3	4	4	4	4	3	3	3	4	4	4	4	4	5	6	7	10	9	8	7	8	4.8	9.9
10-Apr	7	8	7	8	7	7	7	8	5	4	4	3	3	2	2	2	3	4	4	4	3	2	2	2	4.5	7.9
11-Apr	3	2	2	2	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1.5	3.0
12-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	1	1	1	1	2	1.2	1.7
13-Apr	2	2	2	2	2	2	2	3	2	3	2	1	1	1	1	1	1	1	2	2	2	3	3	3	1.9	3.2
14-Apr	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	3	2	2	1.3	2.7
15-Apr	3	2	3	2	2	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2	1	1	1	1.9	3.3
16-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1.1	2.2
17-Apr	2	2	1	1	2	2	2	3	4	4	3	2	2	2	2	1	1	1	1	1	2	2	2	1	1.9	4.5
18-Apr	2	1	1	2	2	2	2	2	2	2	2	1	2	1	2	2	2	2	2	4	3	4	5	5	2.2	4.9
19-Apr	6	6	6	6	6	5	4	3	3	3	3	2	3	3	2	2	2	3	3	4	5	6	6	6	4.0	6.1
20-Apr	6	6	7	6	6	6	5	5	4	4	3	3	3	2	2	2	2	2	3	3	5	6	6	6	4.2	6.6
21-Apr	6	5	6	6	6	6	6	6	4	3	2	2	1	1	2	2	3	3	3	5	5	4	4	5	4.0	6.3
22-Apr	5	5	5	6	4	4	3	4	5	6	7	7	3	2	1	1	1	1	1	1	1	1	1	1	3.1	7.1
23-Apr	1	1	2	2	2	2	2	2	2	8	4	6	1	1	1	1	1	1	1	1	1	1	2	2	2.0	8.0
24-Apr	1	1	1	1	3	3	2	1	2	2	2	6	7	6	6	5	6	6	6	6	6	6	6	5	4.1	7.1
25-Apr	5	5	5	4	4	4	4	4	3	4	4	4	4	4	3	3	6	6	6	7	6	6	6	7	4.8	6.8
26-Apr	6	6	7	7	10	9	8	8	5	6	6	3	2	2	1	1	1	1	1	1	1	1	1	1	4.0	9.8
27-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	1	1	1	1	1	1	2	1.3	2.4
28-Apr	2	3	3	3	3	3	3	3	3	2	2	2	2	3	2	1	1	1	1	2	2	2	2	2	2.2	3.3
29-Apr	3	3	2	2	2	2	2	2	2	2	2	2	2	2	1	1	2	2	1	2	2	2	2	2	2.0	2.7
30-Apr	2	3	3	3	3	2	2	2	2	2	1	1	2	3	2	2	1	2	1	2	2	3	2	3	2.1	3.5
	3.1	3.3	3.3	3.4	3.6	3.6	3.4	3.3	2.7	2.8	2.4	2.4	2.2	2.2	2.2	2.1	2.3	2.4	2.4	2.8	2.9	3.0	3.0	3.1	Diurnal Average	
	8.1	9.3	8.3	8.0	9.9	10.9	10.8	8.8	7.5	8.0	7.0	7.1	7.1	6.3	6.3	5.4	6.1	6.4	6.6	9.9	9.0	8.3	7.2	8.0	Diurnal Maximum	

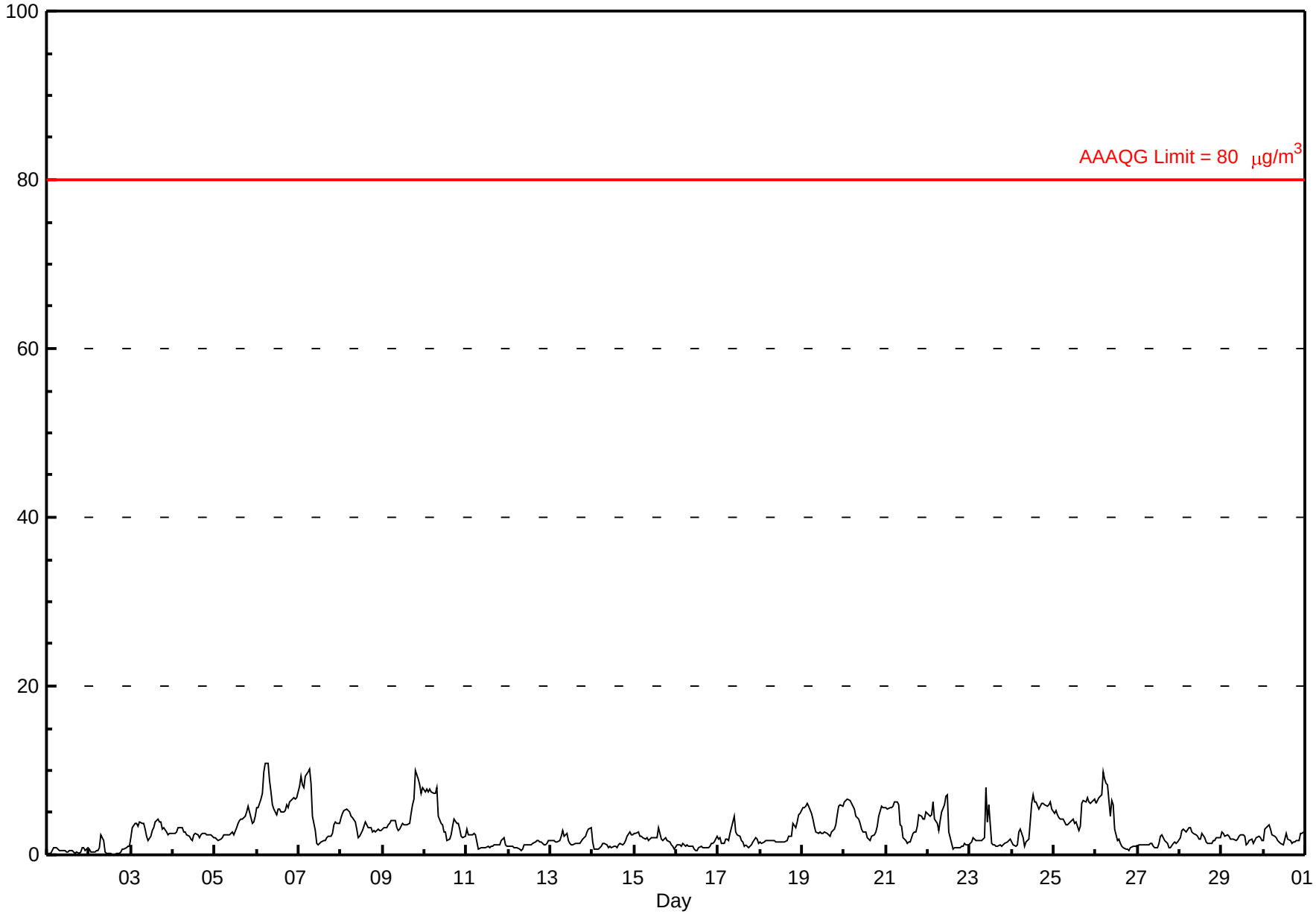
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 $\mu g/m^3$ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 $\mu g/m^3$

Peace Airshed Zone Association

Hourly Averages

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

Beaverlodge - April 2015



Peace Airshed Zone Association

Hourly Maximums

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

Beaverlodge - April 2015

Maximum Value: 39.9 $\mu g/m^3$ on Apr 15 15:00

Maximum Daily Average: 7.6 $\mu g/m^3$ on Apr 6

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

Maximum Diurnal Average: 4.5 $\mu g/m^3$ at hour 8

Monthly Average: 3.78 $\mu g/m^3$

Minimum Daily Average: 0.8 $\mu g/m^3$ on Apr 1

Minimum Diurnal Average: 3.0 $\mu g/m^3$ at hour 13

Percentiles: P_1 = 0.4 P_{10} = 1.2 Q_1 = 1.9 Median = 2.9 Q_3 = 4.8 P_{90} = 7.0 P_{99} = 11.5

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

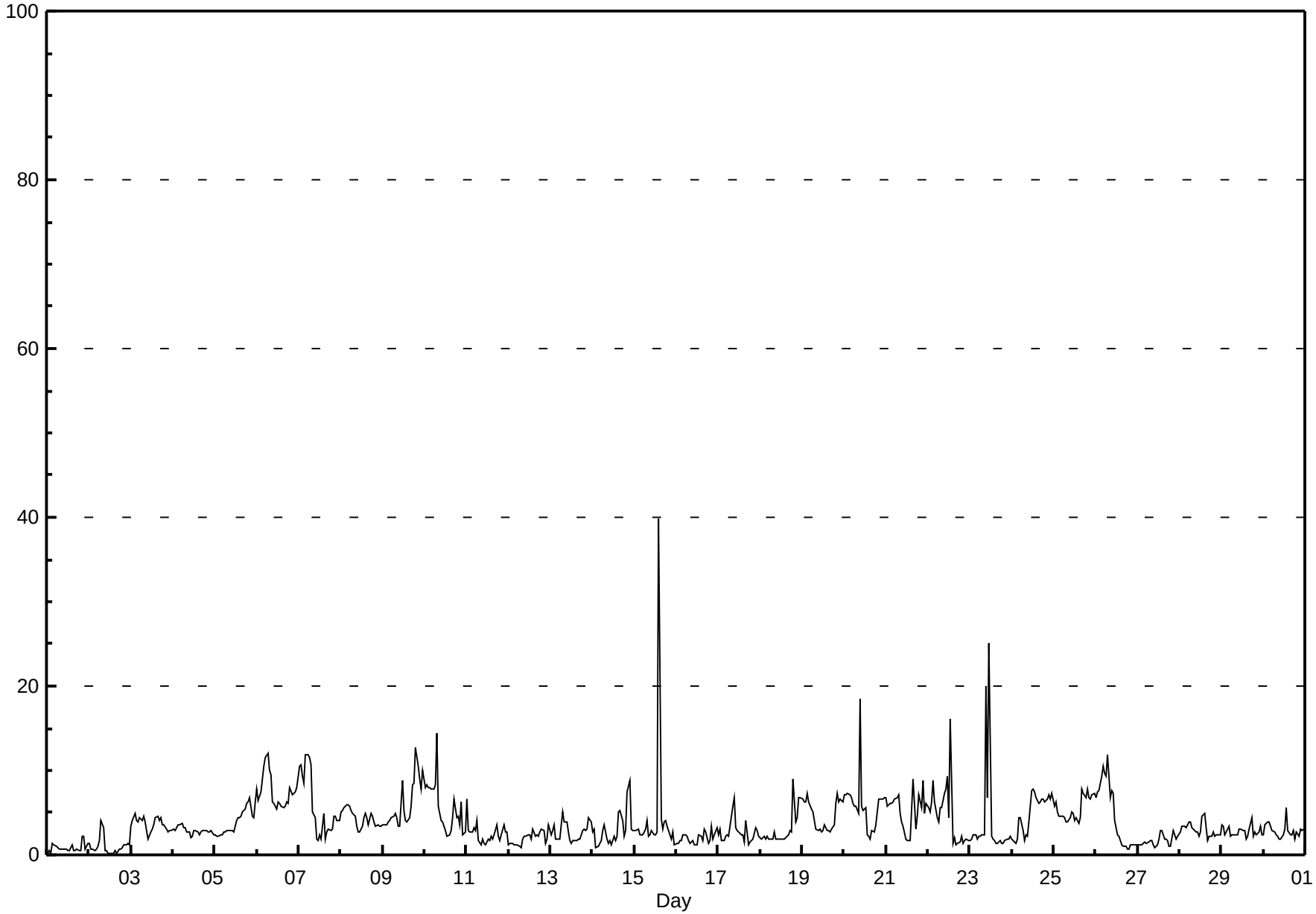
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Apr	0	0	0	1	1	1	1	1	1	1	1	1	0	0	1	0	0	1	0	0	2	2	1	1	0.8	2.2
2-Apr	1	1	1	0	1	1	2	4	3	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1.0	4.1
3-Apr	3	4	5	4	4	4	4	5	4	3	2	3	3	4	4	5	4	4	4	4	3	3	3	3	3.7	4.9
4-Apr	3	3	3	4	4	4	3	3	3	3	2	2	3	3	3	2	3	3	3	3	3	3	3	2	2.9	3.7
5-Apr	2	2	2	2	2	3	3	3	3	3	3	3	4	4	4	5	5	5	6	6	7	5	4	6	3.9	6.8
6-Apr	8	7	8	9	10	11	12	10	10	6	6	5	6	6	6	6	6	6	6	8	7	7	8	8	7.6	12.0
7-Apr	10	11	9	9	12	12	11	11	5	4	2	2	2	2	5	2	3	3	3	3	5	5	4	4	5.8	11.9
8-Apr	5	5	6	6	6	6	5	5	5	3	3	3	3	4	5	4	4	5	5	4	3	4	3	3	4.4	5.9
9-Apr	4	4	4	4	4	4	5	5	4	3	3	9	5	4	4	4	6	8	9	13	10	9	8	10	5.9	12.7
10-Apr	8	8	8	8	8	8	8	14	6	4	4	3	3	2	2	3	4	7	4	5	4	6	2	3	5.5	14.4
11-Apr	7	3	3	3	3	3	4	2	1	2	1	1	2	2	2	2	2	4	2	2	2	4	3	3	2.5	6.5
12-Apr	1	1	1	1	1	1	1	1	2	2	2	2	2	2	3	2	2	2	3	3	3	1	2	4	2.0	3.6
13-Apr	2	3	4	2	2	2	4	5	4	4	3	2	1	2	2	2	2	2	3	3	3	3	4	4	2.7	5.1
14-Apr	3	3	1	1	1	2	3	4	2	1	2	1	2	2	2	5	5	4	2	3	8	9	3	3	3.0	8.8
15-Apr	3	3	3	2	2	2	3	4	2	2	3	2	2	3	40	4	3	4	4	3	2	2	3	1	4.4	39.9
16-Apr	1	1	2	2	2	2	2	2	1	2	1	1	1	2	2	2	3	3	1	2	3	2	2	3	2.0	3.4
17-Apr	2	3	2	2	2	2	2	3	6	7	3	3	3	2	2	1	4	1	1	2	2	3	3	2	2.7	6.8
18-Apr	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2	2	2	3	3	9	4	4	7	7	3.0	9.0
19-Apr	7	6	6	7	6	5	5	4	3	3	3	3	3	4	3	3	3	3	4	6	7	6	7	6	4.7	7.3
20-Apr	7	7	7	7	7	6	6	6	5	19	6	5	6	2	2	2	3	3	4	5	7	7	7	7	5.8	18.6
21-Apr	7	6	6	6	6	7	7	7	5	4	3	2	2	2	2	9	6	3	5	7	6	9	5	6	5.2	9.0
22-Apr	6	5	6	9	6	4	4	6	6	7	8	9	4	16	1	2	1	1	2	2	1	2	2	2	4.7	16.1
23-Apr	2	2	2	2	2	2	2	2	2	20	7	25	2	2	2	1	1	2	1	1	2	2	2	2	3.8	25.2
24-Apr	2	2	1	2	4	4	3	2	2	2	4	8	8	8	7	6	6	7	7	6	7	7	7	7	4.9	7.8
25-Apr	6	6	5	5	5	5	4	4	4	4	5	5	4	4	4	4	8	7	7	8	7	7	7	7	5.5	7.8
26-Apr	7	8	8	9	10	10	9	12	7	8	7	4	2	2	2	1	1	1	1	1	1	1	1	1	4.7	11.9
27-Apr	1	1	1	1	1	1	1	2	2	1	1	1	2	3	3	2	2	2	1	1	3	2	2	2	1.7	2.9
28-Apr	3	3	3	3	3	4	4	3	3	3	3	2	3	5	5	3	2	2	2	3	2	2	2	2	2.9	4.8
29-Apr	4	3	2	3	3	2	2	2	2	2	3	3	3	3	2	2	3	4	2	3	2	3	3	2	2.8	4.3
30-Apr	2	4	4	4	3	3	3	2	2	2	2	2	3	6	3	2	2	3	2	3	2	3	3	3	2.9	5.6
	4.0	3.9	3.9	4.0	4.2	4.1	4.2	4.5	3.6	4.3	3.2	3.8	3.0	3.4	4.1	3.0	3.3	3.4	3.2	4.0	4.0	4.1	3.7	3.9	Diurnal Average	
	10.5	10.7	9.3	9.3	11.9	11.9	12.0	14.4	9.5	20.0	7.8	25.2	7.8	16.1	39.9	9.0	7.8	8.3	8.5	12.7	10.5	9.0	7.8	10.0	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Maximums

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

Beaverlodge - April 2015

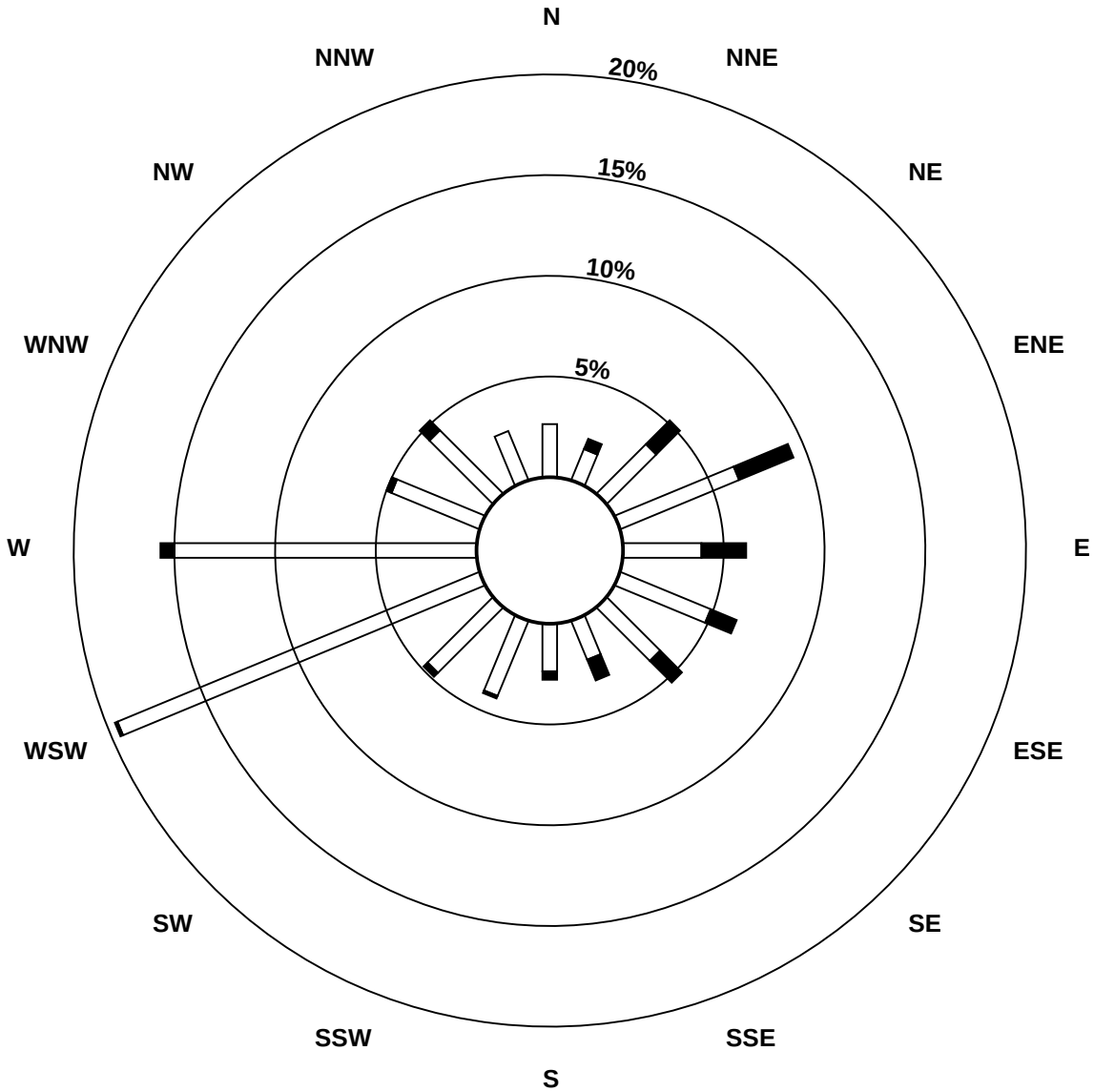


Peace Airshed Zone Association

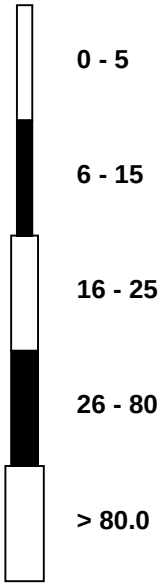
Pollutant Rose

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

Beaverlodge - April 2015



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



Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Beaverlodge - April 2015

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

Maximum Value: 22.2 ^{o}C on Apr 28 13:00

Maximum Daily Average: 13.4 ^{o}C on Apr 21

Minimum Value: -4 ^{o}C on Apr 5 07:00

Maximum Diurnal Average: 9.4 ^{o}C at hour 16

Monthly Average: 5.39 ^{o}C

Minimum Daily Average: -0.1 ^{o}C on Apr 5

Minimum Diurnal Average: 1.2 ^{o}C at hour 6

Percentiles: P_1 = -3.0 P_{10} = -0.3 Q_1 = 1.4 Median = 4.4 Q_3 = 8.8 P_{90} = 12.5 P_{99} = 19.3

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

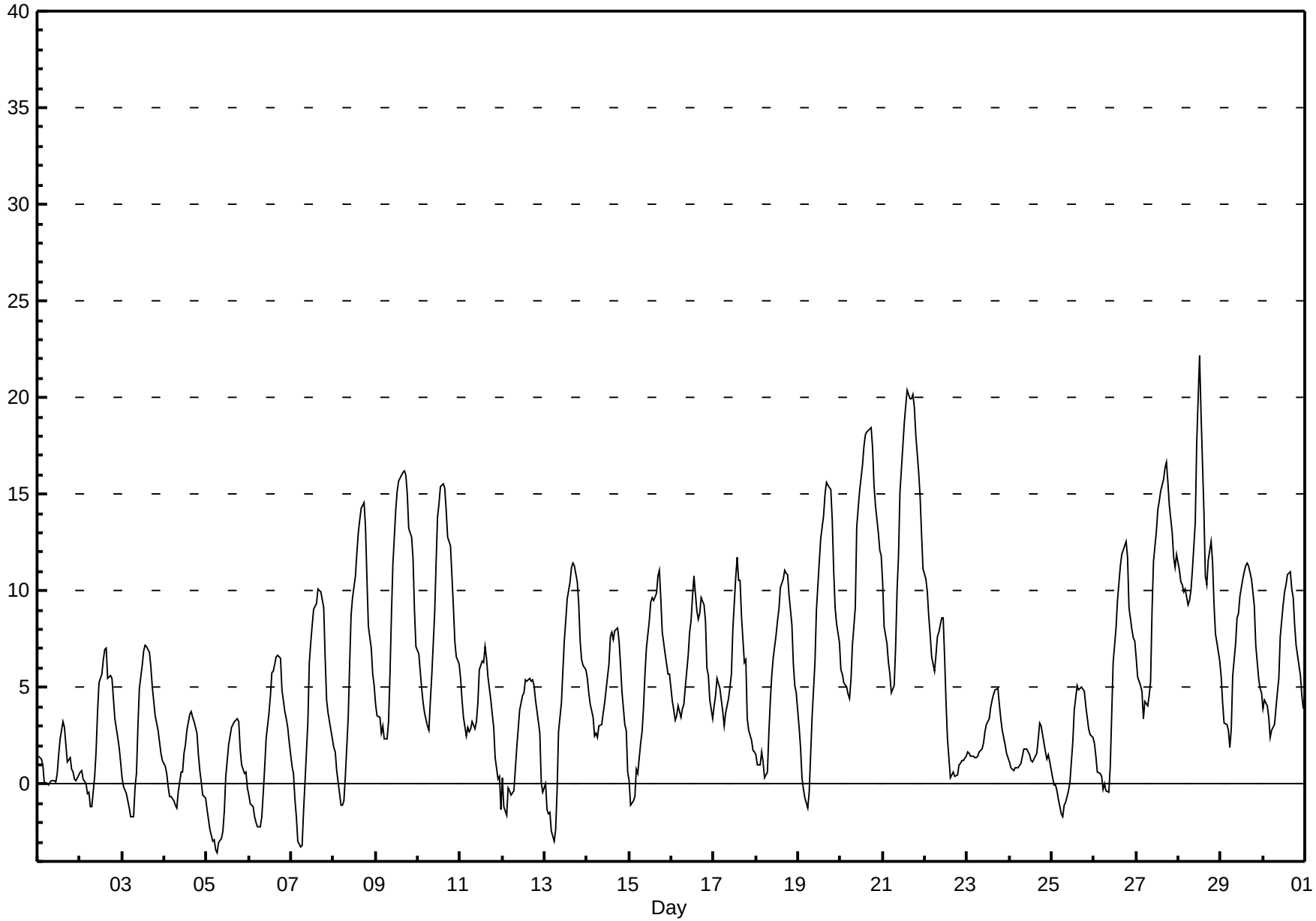
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Apr	1	1	1	1	0	0	0	0	0	0	0	1	2	2	3	3	2	1	1	1	1	0	0	0	1.0	3.3
2-Apr	1	1	0	0	0	0	-1	-1	0	2	4	5	6	6	7	7	5	6	5	4	3	2	2	1	2.7	7.0
3-Apr	0	0	0	-1	-1	-2	-2	0	1	3	5	6	7	7	7	7	6	5	4	4	3	2	2	1	2.6	7.2
4-Apr	1	1	0	-1	-1	-1	-1	-1	0	1	1	2	2	3	4	4	3	3	3	2	1	0	-1	-1	0.9	3.8
5-Apr	-1	-2	-2	-3	-3	-3	-4	-3	-3	-2	-1	0	2	2	3	3	3	3	3	2	1	1	1	0	-0.1	3.4
6-Apr	-1	-1	-1	-2	-2	-2	-2	-2	-1	1	2	4	5	6	6	7	7	7	6	5	4	3	3	2	2.2	6.7
7-Apr	1	1	-1	-2	-3	-3	-3	-1	0	3	6	7	8	9	9	10	10	10	9	7	4	4	3	2	3.8	10.1
8-Apr	2	2	1	0	-1	-1	-1	0	3	6	9	10	11	12	13	14	14	15	13	11	8	7	6	5	6.6	14.6
9-Apr	4	4	3	3	3	2	2	3	6	9	11	14	15	16	16	16	16	16	15	13	13	12	9	7	9.5	16.2
10-Apr	7	6	5	4	4	3	3	4	6	9	11	14	14	15	16	15	14	13	12	11	9	7	7	6	9.0	15.5
11-Apr	5	4	3	2	3	3	3	3	3	3	4	6	6	6	7	7	6	4	4	3	1	0	0	-1	3.6	7.1
12-Apr	0	-1	-2	0	0	-1	0	1	2	3	4	5	5	5	5	5	5	5	5	4	3	3	0	0	2.4	5.4
13-Apr	0	-1	-2	-2	-2	-3	-2	0	3	4	6	7	8	10	10	11	11	11	10	9	7	6	6	6	4.8	11.4
14-Apr	5	5	4	3	2	3	2	3	3	4	4	5	6	8	8	7	8	8	7	6	5	3	3	1	4.8	8.1
15-Apr	0	-1	-1	-1	1	1	2	3	4	6	7	8	9	10	9	10	11	11	10	8	7	6	6	6	5.5	11.0
16-Apr	4	4	3	4	4	3	4	4	5	7	8	8	10	11	9	9	9	10	9	8	6	6	4	3	6.3	10.8
17-Apr	4	5	6	5	4	4	3	4	4	5	6	8	11	12	11	11	9	6	6	3	3	2	2	2	5.6	11.8
18-Apr	2	1	1	2	1	0	1	3	4	6	7	8	8	9	10	11	11	11	11	10	8	6	5	5	5.8	11.1
19-Apr	3	2	0	0	-1	-1	0	2	3	6	9	10	12	13	14	15	16	15	15	14	11	9	8	7	7.6	15.6
20-Apr	6	6	5	5	5	4	5	7	9	13	14	15	16	17	18	18	18	18	17	15	14	13	12	12	11.9	18.4
21-Apr	10	8	7	6	6	5	5	7	10	12	15	18	19	20	20	20	20	20	19	18	16	15	13	11	13.4	20.4
22-Apr	11	10	9	8	7	6	7	8	8	9	9	7	4	2	0	0	1	0	0	1	1	1	1	1	4.6	10.6
23-Apr	2	2	1	1	1	1	1	2	2	2	3	3	3	4	4	5	5	5	4	3	3	2	2	1	2.6	4.9
24-Apr	1	1	1	1	1	1	1	1	2	2	2	2	1	1	1	2	2	3	3	3	2	1	1	1	1.5	3.2
25-Apr	0	0	0	0	-1	-2	-2	-1	-1	0	0	1	2	4	5	5	5	5	5	4	3	3	3	2	1.7	5.1
26-Apr	2	1	1	1	0	0	0	0	0	1	4	6	8	9	10	11	12	12	13	12	9	8	8	7	5.6	12.6
27-Apr	7	6	5	5	3	4	4	5	5	9	12	13	14	15	15	16	16	17	16	14	13	12	11	12	10.3	16.6
28-Apr	11	10	10	10	10	9	9	10	11	13	18	20	22	19	14	11	10	12	13	12	9	8	7	6	11.9	22.2
29-Apr	6	4	3	3	3	2	3	6	7	9	9	10	11	11	11	11	11	11	10	9	7	5	5	5	7.1	11.5
30-Apr	4	4	4	3	2	3	3	4	5	5	8	9	10	10	11	11	10	10	8	7	6	6	5	4	6.4	11.0
	3.3	2.7	2.2	1.9	1.5	1.2	1.4	2.3	3.4	5.0	6.5	7.7	8.6	9.2	9.3	9.4	9.3	9.1	8.7	7.4	6.1	5.1	4.4	3.9	Diurnal Average	
	11.1	10.4	10.3	9.9	10.1	9.3	9.5	10.0	11.1	13.5	17.7	19.9	22.2	19.6	20.4	19.9	19.9	20.1	19.5	18.1	16.1	14.9	12.9	11.9	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Beaverlodge - April 2015



Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Beaverlodge - April 2015

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

Maximum Value: 97.4 % on Apr 1 22:00 Maximum Daily Average: 91.2 % on Apr 24

Minimum Value: 19 % on Apr 9 16:00 Minimum Daily Average: 32.5 % on Apr 9

Maximum Diurnal Average: 71.1 % at hour 6 Minimum Diurnal Average: 42.2 % at hour 16

Monthly Average: 56.78 % Percentiles: P_1 = 20.2 P_{10} = 29.2 Q_1 = 39.7 Median = 55.9 Q_3 = 72.5 P_{90} = 90.1 P_{99} = 96.9

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

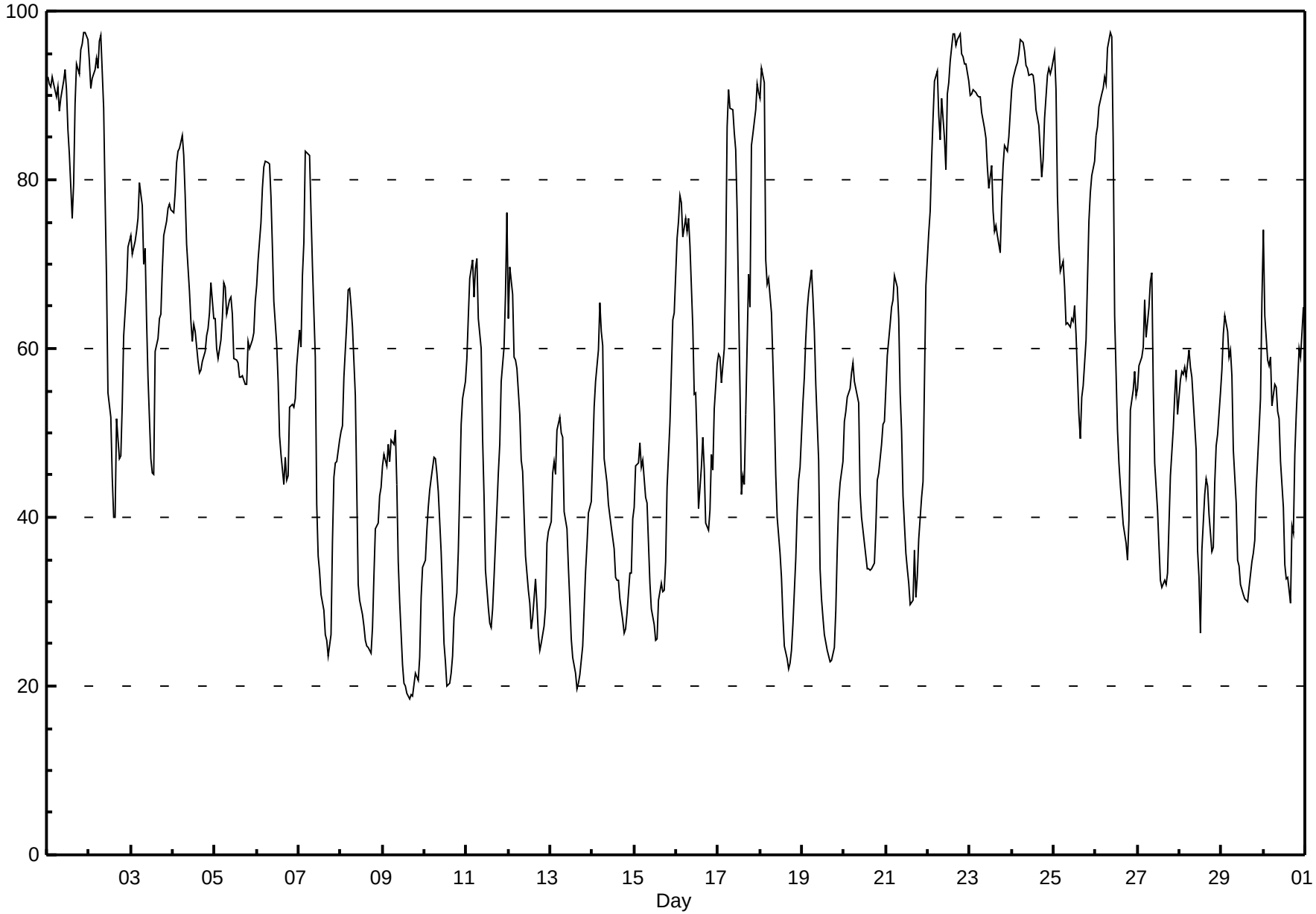
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	92	91	91	92	91	90	91	88	90	92	93	91	86	83	75	79	89	94	93	95	96	97	97	97	90.6	97.4
2-Apr	94	91	92	93	94	93	97	97	88	78	68	55	52	45	40	40	52	47	47	53	62	67	72	73	70.4	97.0
3-Apr	73	71	73	74	75	80	77	70	72	63	57	47	45	45	60	61	64	64	69	73	75	77	77	76	67.5	79.7
4-Apr	76	79	82	83	84	85	83	78	72	67	63	61	63	62	58	57	57	58	60	62	62	64	68	64	68.7	85.2
5-Apr	64	60	59	61	64	68	67	64	66	66	64	59	59	58	57	57	57	56	56	61	60	61	62	66	61.2	67.8
6-Apr	67	70	75	79	82	82	82	82	78	72	66	60	56	50	47	44	47	44	45	53	53	53	54	58	62.5	82.1
7-Apr	62	60	69	73	83	83	83	76	70	59	42	35	34	31	29	26	25	24	26	37	45	46	47	49	50.6	83.3
8-Apr	50	51	57	63	67	67	65	63	54	43	32	30	28	27	25	25	25	24	27	33	39	39	43	44	42.5	67.2
9-Apr	46	47	46	49	47	49	49	50	44	35	30	23	20	20	19	19	19	19	20	22	21	23	31	34	32.5	50.3
10-Apr	35	38	41	43	45	47	47	45	43	36	31	25	23	20	20	21	24	28	31	36	43	51	54	56	36.9	56.1
11-Apr	59	64	68	70	66	69	71	63	60	49	42	34	29	27	27	29	33	41	45	49	56	60	66	76	52.3	76.1
12-Apr	64	70	66	59	59	58	52	47	45	40	35	31	30	27	28	33	30	26	24	25	27	29	37	38	40.9	69.6
13-Apr	40	45	47	45	50	52	50	49	41	39	34	30	26	23	22	20	20	21	25	29	34	37	41	42	35.8	51.9
14-Apr	47	53	56	60	65	62	60	47	44	42	40	39	36	33	33	33	30	28	26	27	29	33	33	40	41.5	65.3
15-Apr	41	46	46	49	46	47	42	42	37	32	29	27	25	26	30	32	31	31	35	44	51	57	63	64	40.6	64.2
16-Apr	73	75	78	77	73	75	74	75	72	63	55	55	49	41	46	50	46	39	38	41	47	46	53	58	58.3	78.1
17-Apr	59	59	56	60	70	86	91	88	88	86	84	76	55	43	45	44	52	69	65	84	85	88	91	90	71.5	91.3
18-Apr	90	93	92	71	68	68	64	59	53	45	40	36	33	28	25	23	22	23	24	27	35	41	44	46	47.9	93.2
19-Apr	54	57	61	65	67	69	66	62	56	47	34	30	28	26	24	24	23	23	25	29	36	42	44	47	43.2	69.3
20-Apr	51	53	54	55	57	58	56	55	54	43	40	38	35	34	34	34	34	34	39	44	45	49	51	51	45.8	58.3
21-Apr	55	59	63	65	66	69	67	63	55	50	43	36	34	32	30	30	36	31	33	37	42	44	56	68	48.5	68.6
22-Apr	74	76	82	87	92	93	88	85	90	85	81	90	92	94	97	97	96	97	97	95	95	94	94	92	90.0	97.3
23-Apr	90	90	91	90	90	90	90	88	86	85	82	79	82	76	74	75	73	71	78	82	84	83	85	88	83.4	90.6
24-Apr	91	92	93	94	95	97	96	95	94	93	92	93	92	91	88	86	84	80	82	87	92	93	93	93	91.2	96.6
25-Apr	95	91	78	72	69	70	67	63	63	63	63	63	65	62	52	49	54	56	61	68	75	78	80	82	68.4	95.1
26-Apr	85	86	89	90	91	92	91	96	97	97	84	64	50	46	44	42	39	37	35	40	53	55	57	54	67.3	97.4
27-Apr	55	58	59	60	66	61	65	68	69	55	46	41	37	33	32	32	32	33	39	45	51	54	57	52	50.1	68.9
28-Apr	56	57	57	58	57	60	58	57	54	48	36	33	26	36	43	45	44	40	36	36	44	48	50	55	47.2	59.7
29-Apr	57	62	64	62	59	60	57	48	42	35	34	32	31	30	30	30	32	35	36	37	43	50	54	66	45.3	65.7
30-Apr	74	64	59	58	59	53	56	55	52	52	47	41	34	33	33	30	39	38	47	52	60	59	62	65	50.9	74.0
	65.7	66.9	68.1	68.6	69.8	71.1	70.1	67.3	64.3	58.6	52.9	48.5	45.2	42.8	42.2	42.2	43.6	43.7	45.5	50.1	54.7	57.4	60.6	62.8	Diurnal Average	
	95.1	93.2	93.4	93.9	95.0	96.6	96.5	97.0	97.4	97.0	93.1	92.6	92.4	94.1	97.2	97.3	95.9	96.5	97.2	95.4	96.1	97.4	97.4	96.7	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Beaverlodge - April 2015



Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Beaverlodge - April 2015

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	16	15	14	12	18	18	16	17	17	12	13	17	17	16	15	14	8	5	8	6	3	7	6	1	11.5	18.1
Dir	293	302	294	310	320	314	308	303	304	313	314	311	312	312	311	299	318	311	352	355	295	255	227	292	307	314
2 Spd	4	5	4	5	3	2	2	1	2	3	7	17	12	15	15	15	21	16	10	12	6	4	3	3	6.4	21.2
Dir	265	297	346	305	349	338	238	57	189	243	291	295	313	294	313	282	250	296	304	289	357	213	56	64	294	250
3 Spd	2	2	1	2	2	1	4	1	1	1	0	3	5	7	17	18	22	18	19	15	15	15	16	19	8.1	22.4
Dir	127	169	154	88	90	83	48	99	138	156	170	72	113	102	90	83	68	74	72	62	61	66	61	69	75	68
4 Spd	15	11	16	15	15	16	17	16	21	22	23	23	22	19	19	21	20	20	20	16	17	18	17	19	18.1	23.4
Dir	68	58	62	54	54	57	57	59	69	73	78	83	86	77	76	65	70	69	70	60	55	53	59	68	67	83
5 Spd	15	13	12	9	3	7	7	1	2	5	8	12	14	16	15	16	18	18	17	12	12	15	20	18	10.6	20.2
Dir	74	54	37	35	16	10	15	129	354	69	102	110	113	112	99	89	91	89	94	89	76	71	89	90	82	89
6 Spd	12	11	11	13	10	7	9	9	10	8	8	7	8	8	5	5	8	4	5	5	7	6	7	5	7.2	12.9
Dir	89	82	81	91	92	75	89	104	101	107	117	97	129	109	97	137	72	72	63	53	32	44	59	85	88	91
7 Spd	3	3	1	3	0	1	3	2	3	7	21	22	21	22	22	27	22	25	22	17	13	8	5	3	10.0	26.7
Dir	178	141	118	51	62	60	51	78	164	207	250	272	278	270	260	258	256	258	269	248	249	250	247	217	257	258
8 Spd	3	5	3	4	6	4	5	4	3	3	17	18	15	17	21	22	21	19	23	18	15	8	9	3	8.5	23.0
Dir	191	207	178	56	51	71	59	58	98	229	278	275	264	272	275	270	256	275	264	255	252	253	254	223	265	264
9 Spd	2	4	3	2	1	3	3	3	5	11	14	25	25	19	19	17	17	17	16	9	6	5	2	2	7.7	24.8
Dir	176	188	203	75	148	102	112	141	192	224	236	255	265	245	261	260	258	262	276	295	308	321	31	102	255	255
10 Spd	5	3	4	4	3	3	4	1	4	4	7	11	4	19	25	25	25	23	18	18	19	14	5	6	8.2	25.5
Dir	83	105	144	166	66	103	82	156	206	161	190	208	188	213	227	240	246	242	255	257	263	256	267	204	232	246
11 Spd	4	3	4	3	4	9	16	18	25	36	39	40	46	44	45	45	40	41	32	24	10	9	27	9	23.4	46.2
Dir	250	219	206	103	259	266	267	260	244	251	249	254	260	264	258	258	259	254	246	245	280	251	273	245	256	260
12 Spd	23	14	18	33	34	25	23	33	41	49	51	53	54	58	52	55	54	50	48	39	28	25	17	9	36.6	57.7
Dir	254	238	238	246	250	254	262	264	262	259	260	263	262	266	260	251	257	263	267	272	267	263	250	262	259	266
13 Spd	8	3	7	2	3	3	4	4	6	12	15	17	22	27	23	21	20	19	17	15	8	6	7	6	9.6	27.2
Dir	264	256	266	213	189	120	66	73	132	134	123	126	121	126	131	136	132	132	120	138	167	170	173	179	136	126
14 Spd	18	21	15	12	6	10	11	26	24	34	40	42	41	42	46	49	43	39	41	34	23	21	23	16	27.9	49.2
Dir	270	267	244	245	229	251	247	264	251	250	251	244	249	250	263	259	266	263	266	263	261	256	255	246	257	259
15 Spd	16	13	8	13	18	14	24	19	29	40	41	31	29	31	30	31	33	38	38	38	30	26	17	15	25.5	41.1
Dir	244	244	231	248	245	231	263	243	245	256	257	247	256	260	259	262	271	270	273	274	259	255	253	257	257	257
16 Spd	6	7	6	6	9	8	6	3	8	16	19	28	38	44	40	28	38	35	31	20	14	5	5	3	16.5	43.5
Dir	211	207	194	220	246	246	262	218	222	239	258	265	261	255	276	287	268	267	274	277	269	269	240	84	261	255
17 Spd	2	5	4	2	8	17	18	12	13	10	7	13	30	37	49	45	34	19	24	17	13	11	12	11	8.1	48.9
Dir	117	54	45	64	163	137	111	126	143	154	202	232	240	257	258	255	283	316	282	337	331	339	345	347	264	258
18 Spd	5	7	1	8	11	11	8	3	7	13	7	4	4	7	4	6	6	9	6	7	22	12	9	4	6.3	21.6
Dir	280	253	10	297	314	311	313	316	293	331	349	351	253	249	247	324	298	305	2	265	257	264	276	271	293	257
19 Spd	3	1	2	4	4	4	3	3	4	6	10	10	11	12	10	10	18	19	18	16	13	10	4	6	6.3	19.2
Dir	67	127	187	57	58	75	93	162	157	220	272	264	261	235	270	242	274	266	253	254	265	251	226	261	255	266
20 Spd	2	3	3	3	3	4	2	1	4	15	18	16	11	6	6	7	4	3	9	8	6	4	5	3	1.9	18.1
Dir	85	41	65	71	72	58	66	115	225	282	300	315	313	314	300	280	334	35	117	102	89	137	77	97	338	300
21 Spd	2	3	3	3	3	4	2	2	3	2	2	4	7	9	10	9	3	10	15	14	8	5	15	16	3.0	16.0
Dir	149	224	66	125	169	66	106	97	178	156	219	156	116	118	111	124	161	136	108	107	94	354	340	304	109	304
22 Spd	18	14	6	5	7	6	4	6	13	17	19	23	25	9	2	6	12	9	12	17	16	15	13	14	10.8	25.0
Dir	314	327	310	280	299	271	327	341	300	322	320	316	316	275	7	226	287	280	284	256	261	279	283	277	297	316

Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Beaverlodge - April 2015

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	14	12	12	16	21	21	17	15	19	18	17	17	16	14	12	13	12	11	14	10	9	7	8	7	11.5	21.4
Dir	294	289	283	270	270	270	276	287	277	274	288	301	313	326	334	342	341	339	3	11	10	350	339	345	304	270
24 Spd	7	6	6	6	6	5	4	8	13	15	19	23	24	25	25	22	21	18	15	13	8	9	8	9	12.6	24.9
Dir	356	357	1	21	44	37	16	39	53	54	57	61	59	58	55	47	48	48	35	27	26	45	37	29	45	55
25 Spd	11	12	10	13	15	13	10	11	10	8	6	3	2	3	5	10	11	11	12	8	8	8	7	6	4.9	15.4
Dir	25	46	51	40	39	23	360	21	21	23	23	126	204	140	103	144	141	144	126	136	148	151	154	127	74	39
26 Spd	5	7	9	6	2	6	6	6	5	4	3	5	8	10	15	11	11	11	12	7	8	9	11	5	4.8	14.6
Dir	99	84	90	103	160	114	131	188	198	215	210	185	202	222	221	207	207	192	195	160	87	90	110	174	167	221
27 Spd	4	3	2	2	5	4	4	3	3	6	13	14	13	15	18	21	21	22	23	6	4	8	10	16	6.0	22.7
Dir	208	205	124	185	58	55	53	194	185	162	225	203	246	241	237	245	226	227	246	237	103	79	98	117	216	246
28 Spd	11	9	7	9	14	14	18	20	19	19	25	21	20	45	60	44	34	30	33	27	17	14	8	7	9.7	60.4
Dir	109	101	93	94	108	103	112	109	119	129	146	137	212	272	272	260	250	253	246	247	250	244	237	223	223	272
29 Spd	7	5	11	9	9	10	13	24	31	30	29	32	32	32	31	32	28	33	34	24	15	12	12	15	20.9	34.2
Dir	238	212	253	258	263	237	249	249	249	261	258	257	262	261	250	250	272	256	251	246	239	241	247	226	253	251
30 Spd	15	21	21	25	23	24	18	14	24	19	26	35	40	47	40	43	38	39	33	28	21	24	21	16	26.7	46.5
Dir	224	230	239	241	238	244	230	228	238	219	241	254	263	260	265	258	246	258	246	245	239	240	240	245	247	260
Spd	2.1	1.7	1.2	1.7	2.1	1.8	1.8	2.9	5.5	7.4	10.0	10.9	12.5	14.4	14.5	14.5	13.4	12.4	11.0	8.6	6.1	4.5	2.9	1.2	Diurnal Average	
Dir	270	269	260	272	274	274	285	257	242	249	256	258	260	258	262	257	261	262	263	264	268	265	271	242		
Spd	23.0	21.1	21.4	33.1	33.6	25.3	24.0	32.8	40.6	48.9	51.0	53.3	54.2	57.7	60.4	54.5	54.2	50.4	47.7	39.3	30.3	26.0	26.8	19.3	Diurnal Maximum	
Dir	254	267	239	246	250	254	263	264	262	259	260	263	262	266	272	251	257	263	267	272	259	255	273	68		

Maximum Speed Value: 60 km/h on Apr 28 15:00
Maximum Daily Speed Average: 36.6 km/h on Apr 12
Maximum Diurnal Speed Average: 14.5 km/h at hour 15

Minimum Speed Value: 0 km/h on Apr 7 05:00
Minimum Daily Speed Average: 1.9 km/h on Apr 20
Minimum Diurnal Speed Average: 1.2 km/h at hour 3

Monthly Average Velocity: 6.83 km/h 260.3 deg

Speed Percentiles: P_1 = 1.0 P_{10} = 2.9 Q_1 = 5.6 Median = 11.9 Q_3 = 19.3 P_{90} = 30.7 P_{99} = 50.9

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

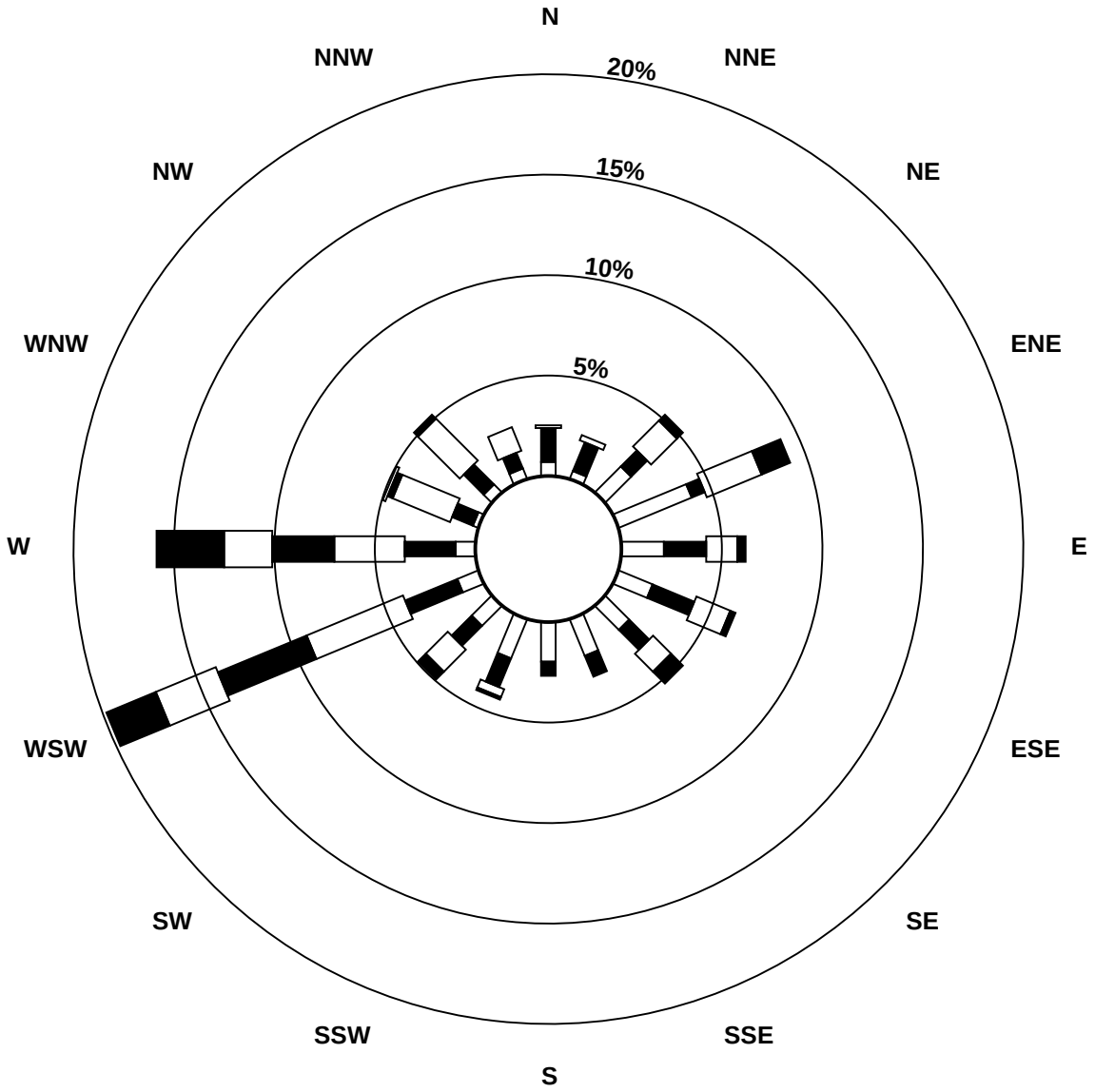
Frequency Distribution

Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	10	20	8	0	0	0	38
NorthEast	32	15	28	7	0	0	82
East	33	29	27	15	0	0	104
SouthEast	26	19	13	8	0	0	66
South	24	14	2	0	0	0	40
SouthWest	26	22	36	25	7	2	118
West	9	31	50	41	32	44	207
NorthWest	6	19	36	4	0	0	65
Total	166	169	200	100	39	46	720

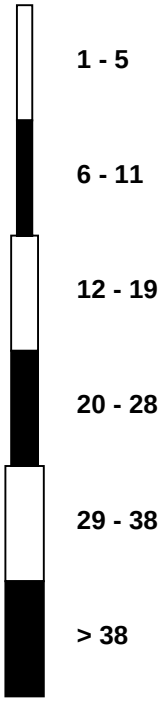
Wind Rose

Wind Speed (WS) (km/h)

Beaverlodge - April 2015



Wind Speed Classes (km/h)



Peace Airshed Zone Association

Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Beaverlodge - April 2015

Maximum Speed: 61 km/h on Apr 28 15:00

Maximum Daily Speed Average: 37.1 km/h on Apr 12

Minimum Speed: 1 km/h on Apr 20 08:00

Minimum Daily Speed Average: 6.8 km/h on Apr 20

Maximum Diurnal Speed Average: 24.1 km/h at hour 16

Minimum Diurnal Speed Average: 8.1 km/h at hour 3

Monthly Average Speed: 15.00 km/h

Percentiles: P_1 = 1.9 P_{10} = 3.7 Q_1 = 6.4 Median = 12.3 Q_3 = 19.6 P_{90} = 31.1 P_{99} = 51.1

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	16	15	14	12	18	18	17	17	17	12	13	17	17	16	16	15	9	6	8	7	5	7	6	3	12.5	18.2
2-Apr	4	5	5	5	4	3	2	2	2	4	7	17	13	16	15	16	21	17	11	12	7	4	4	3	8.3	21.4
3-Apr	3	2	2	2	2	2	4	2	2	3	3	4	7	9	17	18	23	18	19	15	15	15	17	19	9.2	22.7
4-Apr	15	11	16	16	15	16	17	16	21	22	23	24	22	20	20	22	21	20	20	16	17	18	17	19	18.5	23.8
5-Apr	15	13	12	11	4	7	7	4	4	5	8	12	15	16	16	17	18	18	17	12	12	15	20	18	12.3	20.2
6-Apr	12	11	11	13	10	7	9	9	10	8	8	8	9	9	7	6	9	5	5	5	7	6	7	6	8.2	13.0
7-Apr	3	3	2	3	1	3	3	3	3	8	22	23	22	23	23	27	23	25	22	17	13	8	5	4	12.1	27.2
8-Apr	3	5	4	5	6	4	5	4	3	4	18	19	16	18	22	23	21	19	23	18	15	8	9	3	11.4	23.1
9-Apr	3	4	4	2	2	3	3	3	6	12	15	26	26	19	20	18	17	18	16	10	7	5	3	3	10.1	26.1
10-Apr	5	4	5	5	4	3	4	2	4	4	7	12	9	20	26	26	26	23	18	18	19	14	5	6	11.3	25.9
11-Apr	5	4	5	3	4	9	17	18	25	36	39	41	47	45	45	45	40	42	32	25	10	10	27	10	24.4	46.7
12-Apr	23	14	18	33	34	25	23	33	41	49	51	54	55	58	52	55	55	51	48	39	28	26	17	10	37.1	58.2
13-Apr	9	5	9	4	5	4	5	4	7	13	15	17	23	28	24	22	21	19	18	15	8	6	7	6	12.2	28.0
14-Apr	19	21	15	12	7	10	11	26	24	34	40	42	41	43	46	49	44	39	41	35	24	21	23	16	28.5	49.4
15-Apr	16	13	9	14	18	14	24	19	29	40	41	31	29	31	31	31	33	39	38	38	30	26	18	15	26.2	41.5
16-Apr	6	8	6	7	9	8	6	4	8	16	20	28	38	44	41	30	38	35	31	20	14	6	5	4	18.0	43.9
17-Apr	4	6	5	5	9	17	18	12	13	11	8	13	30	37	49	45	35	20	27	18	13	11	12	12	17.9	49.2
18-Apr	7	7	2	8	11	11	8	3	7	13	9	7	7	9	8	10	8	11	7	8	22	12	9	4	8.6	21.8
19-Apr	3	4	4	5	4	4	3	4	4	6	11	11	12	13	11	10	19	19	18	16	13	10	4	7	9.1	19.4
20-Apr	3	4	4	3	3	4	2	1	4	15	19	16	12	8	8	10	6	4	9	8	6	4	5	3	6.8	18.6
21-Apr	3	3	3	3	4	4	2	3	3	4	3	5	8	10	11	10	7	10	16	14	8	7	16	16	7.2	16.2
22-Apr	18	14	7	6	7	7	8	7	13	17	20	23	25	14	2	18	13	13	12	17	16	16	13	14	13.4	25.3
23-Apr	14	12	12	16	21	21	17	15	19	18	17	17	16	15	12	13	12	12	14	10	9	7	8	7	13.9	21.5
24-Apr	7	6	6	6	6	5	4	8	13	15	19	23	24	25	25	22	21	18	15	14	9	9	8	9	13.2	25.0
25-Apr	11	13	10	13	15	13	10	11	10	9	6	3	3	5	6	11	11	11	12	8	8	8	7	6	9.1	15.5
26-Apr	5	7	9	7	4	6	6	6	6	4	5	6	8	11	15	12	12	12	12	9	8	10	11	5	8.1	15.2
27-Apr	4	4	5	4	5	4	5	4	6	7	14	15	14	16	19	21	21	23	23	6	5	8	10	16	10.7	23.0
28-Apr	11	10	7	9	15	14	18	20	20	19	25	21	27	46	61	44	34	31	34	27	17	14	8	8	22.4	60.7
29-Apr	7	6	12	9	9	10	13	24	31	30	30	33	33	33	32	32	29	34	35	25	15	12	12	15	21.6	34.6
30-Apr	15	21	22	25	23	24	18	14	24	19	27	36	41	47	41	44	40	40	33	28	21	24	21	16	27.6	46.9
	9.0	8.5	8.1	8.8	9.3	9.4	9.6	9.9	12.6	15.2	18.1	20.1	21.6	23.5	24.0	24.1	22.9	21.6	21.2	17.0	13.3	11.6	11.1	9.4	Diurnal Average	
	23.2	21.1	21.6	33.2	33.7	25.3	24.2	32.9	40.9	49.2	51.4	53.7	54.7	58.2	60.7	55.0	54.9	50.7	48.0	39.5	30.5	26.0	27.2	19.4	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

Beaverlodge - April 2015

Maximum Value: 94.8 deg on Apr 10 13:00

Minimum Value: 3.1 deg on Apr 23 05:00

Percentiles: P_1 = 3.3 P_{10} = 5.3 Q_1 = 7.4 Median = 12.2 Q_3 = 25.3 P_{90} = 51.0 P_{99} = 80.4

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 Maximum
	1	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	6	6	17	6	5	7	5	5	9	7	6	8	12	12	24	29	32	21	30	46	21	8	82	81.8
2-Apr	29	15	42	15	37	56	49	68	49	30	24	12	15	15	13	23	8	20	12	18	38	17	32	24	68.3
3-Apr	43	44	39	25	47	50	10	55	67	61	91	47	50	40	12	16	9	8	7	6	6	6	9	4	90.9
4-Apr	5	8	9	6	5	5	6	5	5	8	8	11	9	11	11	12	8	7	6	5	4	4	5	5	12.1
5-Apr	6	7	8	53	53	10	25	75	60	28	13	14	19	11	15	9	9	9	5	4	5	4	3	3	74.7
6-Apr	6	8	8	8	7	10	8	8	10	14	27	20	27	36	62	55	21	41	31	19	5	10	10	27	61.6
7-Apr	25	24	54	19	91	79	12	37	18	33	15	15	16	17	16	11	14	11	9	5	3	9	20	48	90.7
8-Apr	32	39	45	13	12	17	22	16	32	57	25	15	23	21	16	12	12	15	5	7	3	19	15	54	56.8
9-Apr	32	21	19	54	64	24	23	19	38	13	10	16	19	16	15	15	15	13	12	6	9	11	63	53	64.3
10-Apr	16	17	27	36	32	25	16	57	25	38	27	25	95	15	14	11	8	9	7	10	6	6	23	14	94.8
11-Apr	36	51	53	33	69	9	7	15	5	4	5	12	8	7	10	9	7	9	7	18	9	15	10	28	68.7
12-Apr	10	8	6	3	5	3	9	6	7	5	7	7	8	7	6	8	9	6	6	6	4	6	4	11	10.6
13-Apr	60	86	68	81	56	39	19	28	30	16	13	15	15	14	13	18	15	14	6	11	13	8	12	15	86.2
14-Apr	29	4	9	9	27	7	8	8	6	7	6	5	8	9	8	6	7	9	7	7	5	3	4	6	29.5
15-Apr	5	9	30	9	7	9	8	9	6	8	7	9	10	10	8	10	10	7	6	6	6	4	7	17	29.7
16-Apr	16	16	8	18	9	12	15	57	16	9	18	7	8	7	9	23	7	9	5	4	8	46	24	71	71.1
17-Apr	51	24	27	70	13	7	7	16	12	13	29	20	9	8	6	7	32	11	32	7	12	10	9	17	69.7
18-Apr	41	16	82	6	8	3	5	25	17	13	42	77	58	56	81	68	64	32	39	25	7	4	6	40	82.5
19-Apr	52	79	71	13	15	20	28	34	22	27	28	27	33	32	31	27	23	10	8	9	10	7	25	53	78.8
20-Apr	66	54	13	13	17	10	38	44	17	13	14	16	28	55	55	60	42	48	25	18	6	21	14	18	66.5
21-Apr	51	38	29	25	35	21	39	45	32	56	71	49	38	30	23	26	77	21	5	3	15	49	24	8	76.9
22-Apr	15	13	28	31	24	25	63	69	12	7	9	8	8	77	20	77	80	75	57	12	5	9	16	6	80.1
23-Apr	6	6	5	6	3	4	5	5	5	5	6	9	11	19	14	12	16	14	7	7	8	7	7	8	19.0
24-Apr	9	5	8	13	5	8	10	11	11	7	5	6	7	5	6	6	6	7	11	9	20	11	10	7	20.2
25-Apr	9	20	11	6	5	18	16	7	9	13	23	64	51	50	51	24	14	12	11	7	12	5	9	14	63.9
26-Apr	23	7	9	55	60	15	22	12	30	35	54	30	28	26	17	21	32	21	12	34	10	9	11	18	60.2
27-Apr	21	59	67	60	14	20	16	59	57	34	20	21	24	26	15	11	11	15	5	20	55	11	6	5	66.6
28-Apr	4	13	10	13	6	5	5	5	9	6	7	11	48	14	6	9	6	9	7	6	5	10	13	20	47.8
29-Apr	24	63	16	11	15	9	4	4	5	10	8	8	12	10	11	10	11	14	9	6	6	11	11	7	62.5
30-Apr	5	5	8	4	4	3	8	14	7	9	20	10	11	7	10	9	16	11	6	6	3	4	4	12	19.7
	66.5	86.2	82.5	81.0	90.7	79.1	63.5	74.7	67.4	60.5	90.9	77.2	94.8	77.1	80.9	77.1	80.1	75.0	57.4	34.3	54.6	48.6	63.0	81.8	

PAZA
Valleyview Station
Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Valleyview - April 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 28.9 ppb on Apr 29 19:00 Maximum Daily Average: 4.6 ppb on Apr 29

Minimum Value: 0 ppb on Apr 1 10:00 Minimum Daily Average: 0.1 ppb on Apr 4
Maximum Diurnal Average: 2.0 ppb at hour 19 Minimum Diurnal Average: 0.2 ppb at hour 7
Monthly Average: 0.96 ppb Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.1 Median = 0.2 Q_3 = 0.8 P_{90} = 3.2 P_{99} = 8.2

Hours in Service:	720
Hours of Data:	671
Hours of Missing Data:	49
Hours of Calibration:	35
Percent Operational Time:	98.1

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	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
2-Apr	2	A	1	1	2	1	0	P	P	P	P	P	P	P	P	P	P	P	P	P	P	0	0	1	--	2.0
3-Apr	A	0	0	0	0	0	0	0	0	5	1	1	1	0	0	0	0	0	0	0	0	0	0	A	0.4	4.8
4-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	0.1
5-Apr	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	A	0	1	0.3	0.8
6-Apr	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	0.8
7-Apr	0	0	0	0	0	0	0	0	0	0	1	1	2	1	1	2	1	1	0	A	0	0	0	0	0.5	2.0
8-Apr	0	0	0	0	0	0	0	0	3	3	0	1	0	1	1	3	4	0	A	0	0	0	0	0	0.9	4.3
9-Apr	0	0	0	0	0	0	0	0	0	0	4	2	2	1	1	0	0	A	0	0	0	0	0	0	0.5	4.4
10-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	7	0	0	0	0	0.4	7.3
11-Apr	0	0	0	0	0	0	0	0	1	5	3	3	8	3	3	A	2	4	11	5	3	0	0	0	2.3	11.0
12-Apr	0	0	0	0	0	0	0	0	5	5	4	2	5	2	A	3	3	3	3	6	11	2	0	0	2.4	11.5
13-Apr	0	0	0	0	0	0	0	0	0	1	1	0	0	A	0	0	0	0	0	0	0	0	1	1	0.3	0.8
14-Apr	1	1	1	1	1	1	0	0	1	4	0	2	A	3	4	3	3	4	0	0	1	4	3	2	1.7	4.4
15-Apr	0	0	0	0	0	0	0	0	0	0	2	A	3	3	7	1	4	0	0	4	3	2	10	6	2.1	9.9
16-Apr	0	0	0	0	0	0	0	0	2	2	C	C	C	C	4	2	0	0	0	0	1	1	0	0	0.7	4.1
17-Apr	0	0	0	0	0	0	0	0	0	A	1	1	1	1	0	0	2	0	0	0	1	2	3	5	0.7	4.8
18-Apr	2	5	2	0	1	1	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	4.5
19-Apr	0	0	0	0	0	0	0	A	5	4	1	1	1	1	0	1	0	1	0	0	0	0	0	0	0.7	5.2
20-Apr	0	0	0	0	0	0	A	0	0	1	2	0	0	0	1	0	1	2	1	2	0	0	0	0	0.4	1.9
21-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0.2	1.4
22-Apr	3	2	2	2	A	1	1	1	1	1	0	1	1	1	1	4	2	7	1	3	2	5	5	6	2.2	7.0
23-Apr	2	3	6	A	1	0	0	0	4	7	4	1	0	0	0	0	0	0	0	0	0	0	0	0	1.2	6.9
24-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
25-Apr	1	A	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
26-Apr	A	0	0	0	0	0	0	0	0	1	1	0	0	0	3	0	0	0	0	0	0	0	0	A	0.3	3.3
27-Apr	0	0	1	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	A	0	0.2	1.5
28-Apr	0	0	0	0	0	0	0	0	0	1	0	0	1	2	1	0	0	0	1	4	7	A	0	0	0.9	6.8
29-Apr	0	1	1	2	1	1	1	7	5	3	3	4	3	6	6	4	6	4	29	21	A	0	0	0	4.6	28.9
30-Apr	0	0	5	8	0	0	0	0	1	2	4	8	5	4	3	1	2	3	8	A	1	2	0	0	2.5	8.3
	0.5	0.5	0.7	0.6	0.3	0.3	0.2	0.5	1.0	1.6	1.2	1.2	1.3	1.1	1.3	0.9	1.2	1.1	2.0	2.0	1.2	0.7	0.9	0.9	Diurnal Average	
	2.9	4.5	5.7	8.2	1.8	1.2	0.9	7.3	5.2	6.9	4.4	8.3	7.9	5.7	6.7	3.7	6.1	7.0	28.9	20.5	11.5	4.5	9.9	5.9	Diurnal Maximum	

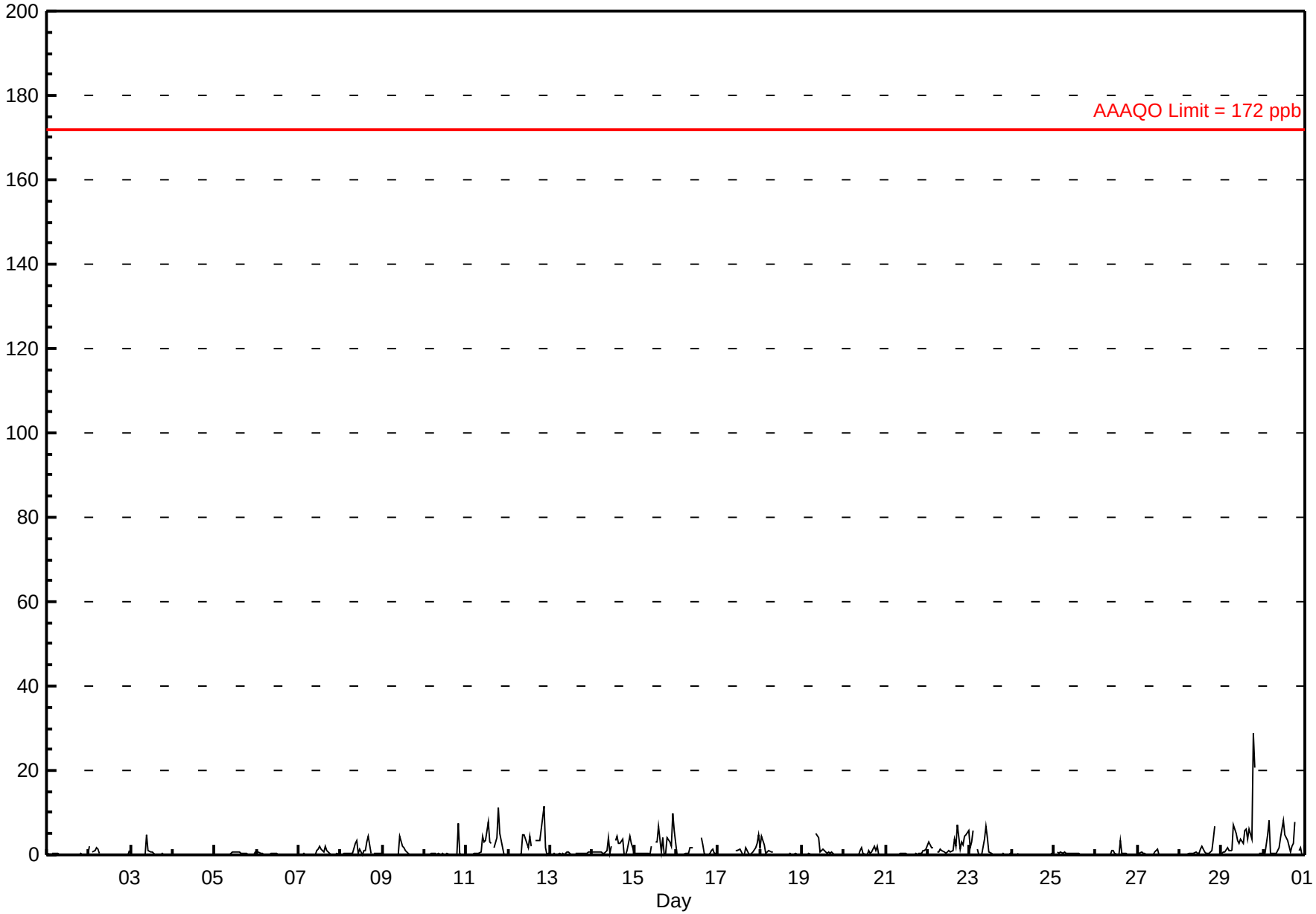
C - Calibration P - Power Failure A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Valleyview - April 2015



Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Valleyview - April 2015

Maximum Value: 106.1 ppb on Apr 29 20:00

Maximum Daily Average: 19.9 ppb on Apr 29

Minimum Value: 0 ppb on Apr 17 07:00

Minimum Daily Average: 0.5 ppb on Apr 4

Maximum Diurnal Average: 9.1 ppb at hour 20

Minimum Diurnal Average: 0.7 ppb at hour 7

Monthly Average: 4.41 ppb

Percentiles: $P_1 = 0.3$ $P_{10} = 0.4$ $Q_1 = 0.6$ Median = 0.8 $Q_3 = 3.4$ $P_{90} = 15.6$ $P_{99} = 28.6$

Hours in Service:	720
Hours of Data:	671
Hours of Missing Data:	49
Hours of Calibration:	35
Percent Operational Time:	98.1

Hourly Period Ending At (MST)

Day	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	A	1	1	1	1	1	1	0	0	1	1	0	1	0	0	0	1	2	1	1	1	1	0.6	1.6
2-Apr	6	A	2	2	8	5	1	P	P	P	P	P	P	P	P	P	P	P	P	P	P	1	0	5	--	7.8
3-Apr	A	1	1	0	0	0	0	0	1	9	2	1	1	1	0	1	1	1	1	1	1	1	1	A	1.1	8.6
4-Apr	1	1	0	0	0	1	1	0	0	1	0	0	1	0	0	1	0	1	0	0	0	1	A	1	0.5	0.9
5-Apr	0	1	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	A	1	1	0.8	1.4
6-Apr	1	1	1	1	1	1	0	1	1	1	1	1	1	0	0	0	1	0	0	0	A	0	0	1	0.7	1.4
7-Apr	0	0	1	1	1	0	0	0	1	1	11	9	17	9	8	25	18	10	0	A	1	1	1	1	5.0	24.9
8-Apr	1	1	1	1	1	1	1	1	14	17	1	16	4	10	7	27	25	2	A	2	1	1	1	1	5.8	26.7
9-Apr	1	1	1	1	1	1	1	1	1	0	17	14	13	8	6	1	0	A	1	0	1	0	1	1	3.0	16.8
10-Apr	1	1	1	1	1	1	0	1	1	1	1	0	1	1	1	0	A	1	0	27	1	1	1	2	1.9	27.4
11-Apr	0	1	1	1	1	1	1	1	3	16	13	15	26	18	26	A	22	17	25	29	18	1	1	1	10.2	28.9
12-Apr	1	1	1	1	0	1	1	4	14	12	11	9	13	15	A	19	12	10	16	24	27	13	1	1	8.9	26.6
13-Apr	1	1	1	1	1	1	1	1	1	6	2	1	1	A	1	1	1	1	1	1	1	1	1	1	1.1	6.4
14-Apr	1	1	1	3	1	1	1	1	4	22	7	17	A	18	22	17	18	27	0	0	2	9	13	9	8.5	26.9
15-Apr	2	1	1	1	1	1	1	1	1	3	18	A	22	18	30	17	25	1	4	17	17	9	19	31	10.4	30.7
16-Apr	1	1	1	0	1	1	1	1	5	3	C	C	C	C	15	16	5	0	0	1	4	3	1	1	3.0	15.6
17-Apr	1	1	1	1	1	0	0	1	1	A	2	2	9	4	1	0	11	3	0	2	6	10	13	15	3.6	15.0
18-Apr	6	16	9	1	3	6	1	1	A	1	1	0	1	0	3	1	1	1	0	0	1	1	0	1	2.4	15.5
19-Apr	1	1	0	0	0	0	1	A	23	21	7	16	5	8	2	3	4	6	1	0	1	1	1	0	4.5	23.1
20-Apr	0	1	1	0	0	0	A	0	1	4	8	11	1	1	15	3	4	9	3	5	1	0	0	0	3.0	14.6
21-Apr	1	1	0	0	1	A	1	0	1	1	1	1	0	1	0	0	1	1	1	1	1	2	2	2	0.8	2.4
22-Apr	4	3	2	2	A	2	1	5	3	1	1	3	3	3	13	21	11	23	12	11	9	14	19	12	7.7	22.9
23-Apr	10	10	12	A	8	0	0	1	19	15	16	4	4	0	0	1	0	1	0	1	1	1	1	1	4.6	18.6
24-Apr	1	1	A	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.9
25-Apr	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0.8	1.2
26-Apr	A	0	0	0	0	0	0	0	1	2	1	1	0	0	19	6	2	5	0	0	0	1	1	A	1.9	18.5
27-Apr	1	1	1	1	1	0	0	1	0	0	3	4	2	0	0	0	0	1	0	0	0	0	A	0	0.9	4.3
28-Apr	0	1	1	1	0	1	1	1	1	1	1	1	2	2	2	1	1	1	13	12	26	A	1	1	3.1	25.8
29-Apr	1	2	6	6	3	3	2	23	20	26	13	13	15	26	32	26	18	23	93	106	A	1	1	1	19.9	106.1
30-Apr	1	1	25	23	1	1	1	1	11	10	22	38	27	13	20	7	22	20	24	A	11	13	1	1	12.6	37.5
	1.5	1.7	2.6	1.8	1.3	1.1	0.7	1.8	4.6	6.3	5.9	6.6	6.4	5.9	8.1	7.0	7.4	5.9	7.2	9.1	4.8	3.0	2.9	3.2	Diurnal Average	
	9.5	15.5	25.4	22.8	7.9	6.3	1.6	23.2	23.1	26.4	22.0	37.5	27.4	25.7	32.0	26.7	25.1	26.9	92.7	106.1	26.6	13.5	19.2	30.7	Diurnal Maximum	

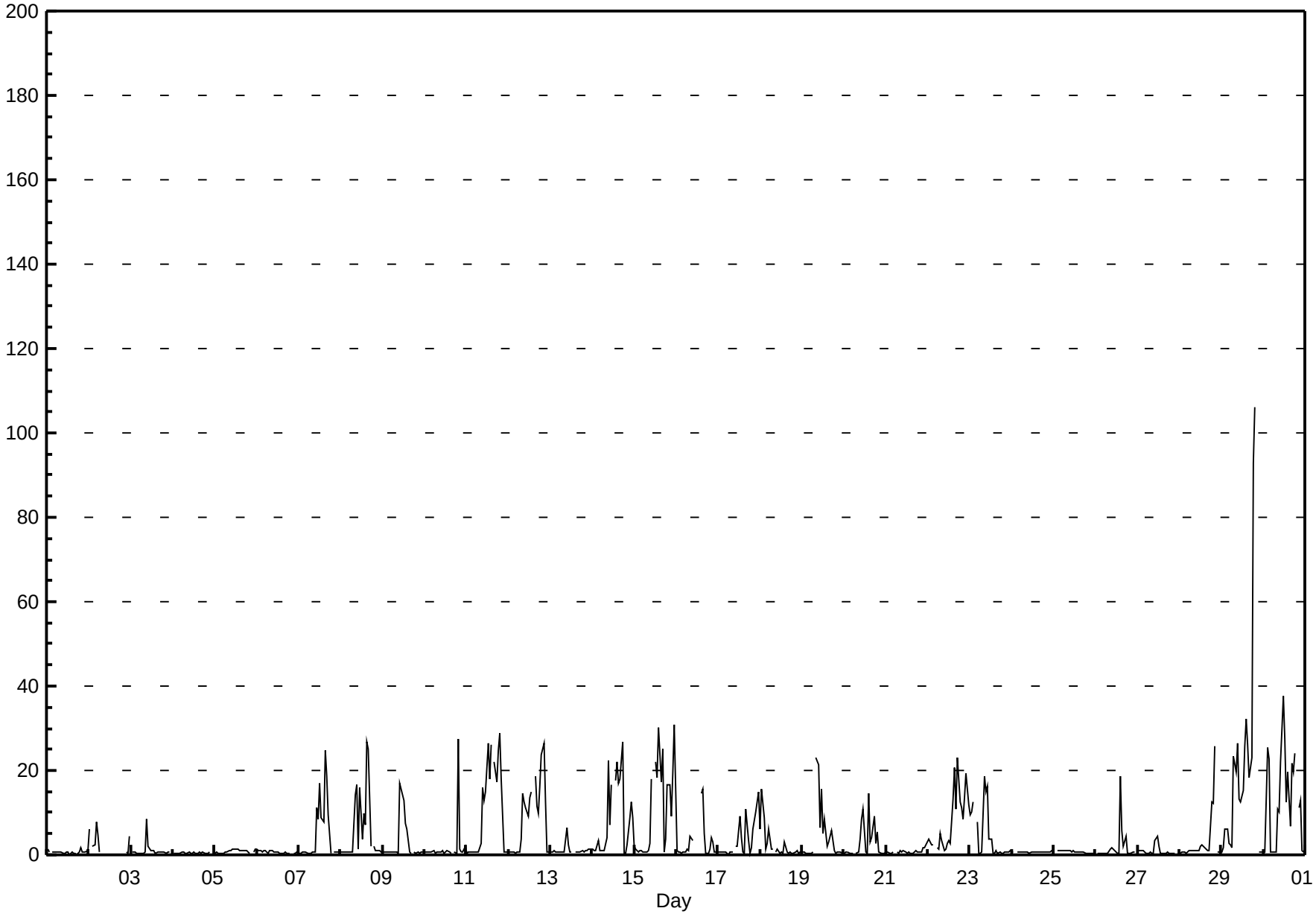
C - Calibration P - Power Failure A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

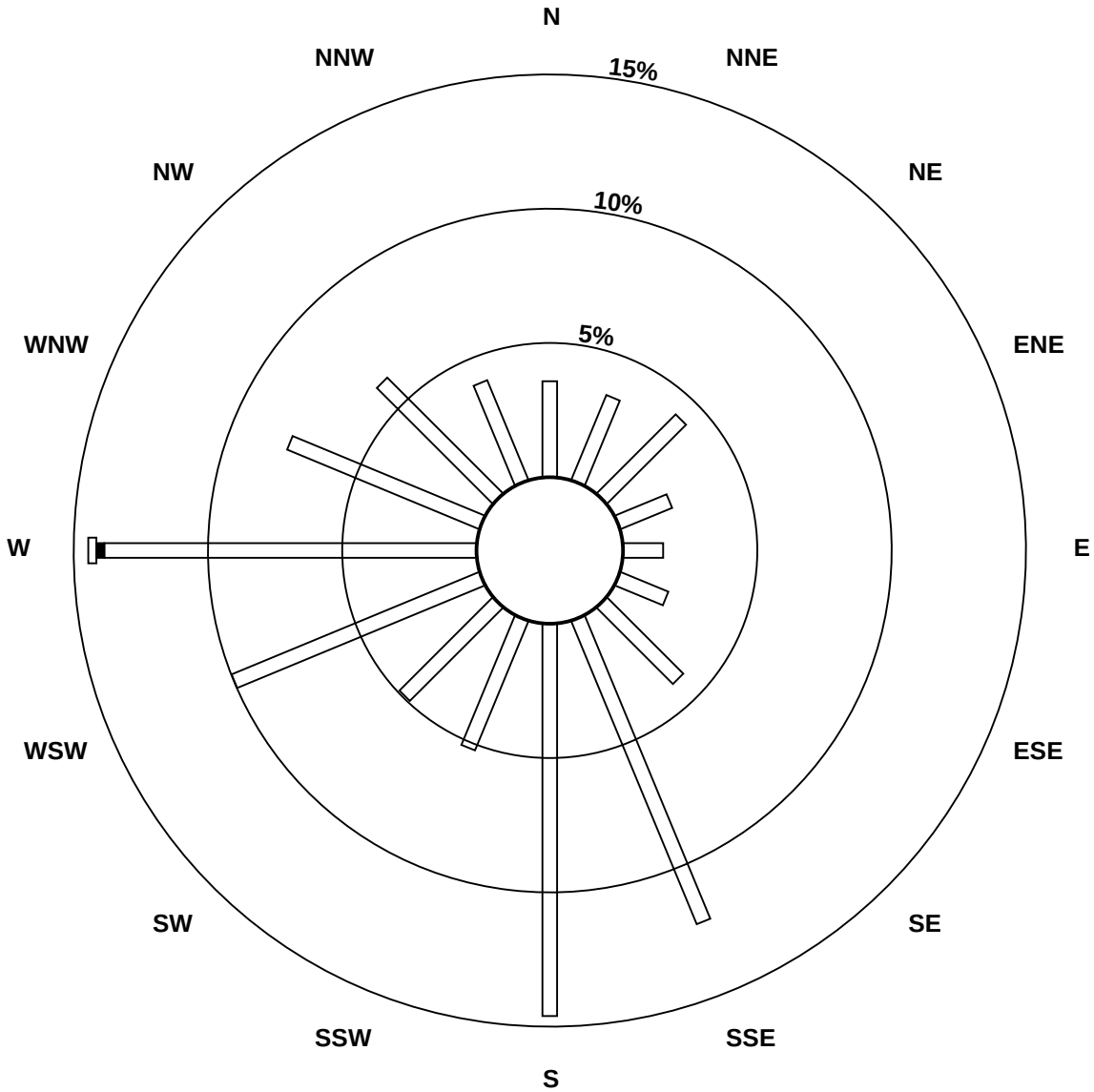
Valleyview - April 2015



Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Valleyview - April 2015



Pollutant Classes (ppb)

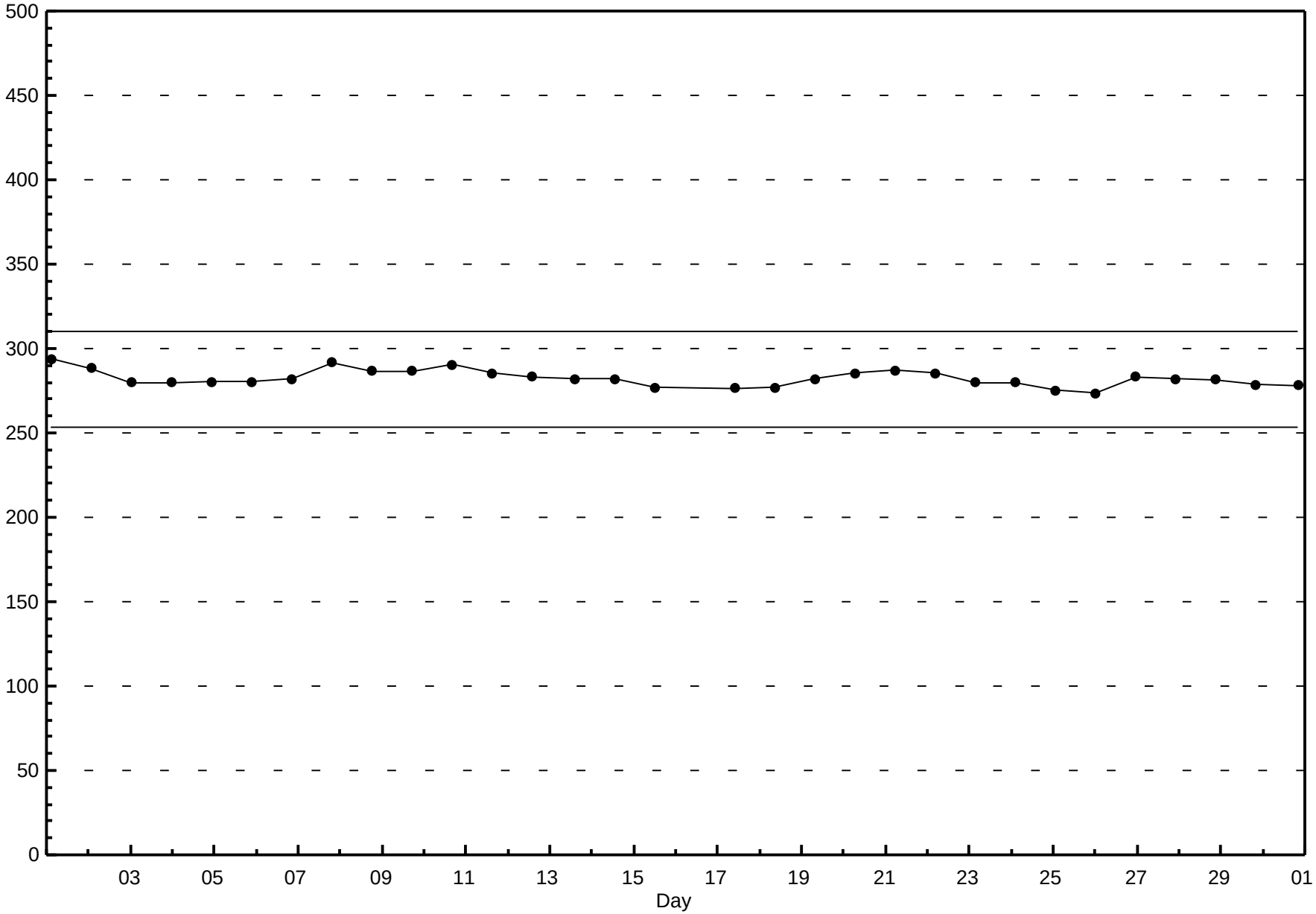
- 0 - 10
- 11 - 20
- 21 - 60
- 61 - 110
- 111 - 172
- > 172

Peace Airshed Zone Association

Span Responses

Sulphur Dioxide (SO_2)

Valleyview - April 2015



Peace Airshed Zone Association

Hourly Averages

Hydrogen Sulphide (H_2S) - ppb

Valleyview - April 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 3.4 ppb on Apr 26 23:00 Maximum Daily Average: 0.7 ppb on Apr 28

Minimum Value: 0 ppb on Apr 3 11:00 Minimum Daily Average: 0.0 ppb on Apr 4
Maximum Diurnal Average: 0.5 ppb at hour 23 Minimum Diurnal Average: 0.1 ppb at hour 15
Monthly Average: 0.25 ppb Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.1 Median = 0.2 Q_3 = 0.3 P_{90} = 0.6 P_{99} = 2.1

Hours in Service:	720
Hours of Data:	672
Hours of Missing Data:	48
Hours of Calibration:	34
Percent Operational Time:	98.1

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	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.2	1.0
2-Apr	0	A	1	1	1	1	0	P	P	P	P	P	P	P	P	P	P	P	P	P	P	0	0	0	--	0.9
3-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	0.5
4-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.0	0.1
5-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
6-Apr	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	0.9
7-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.1	0.4
8-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	1	0	0	0	0.2	0.7
9-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	1	0	0.2	1.0
10-Apr	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.2	0.6
11-Apr	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.3	0.8
12-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
13-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	0.2
14-Apr	0	0	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	2	0	0.3	1.7
15-Apr	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	1	0	0.2	0.8
16-Apr	0	0	0	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0	0	1	1	1	0.3	1.0
17-Apr	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.2	0.6
18-Apr	0	0	0	0	1	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0.3	1.0
19-Apr	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0.2	1.1
20-Apr	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0.2	1.6
21-Apr	3	3	1	1	1	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	2.9
22-Apr	0	0	0	0	A	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.4	1.8
23-Apr	0	0	1	A	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.9
24-Apr	1	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	1.1
25-Apr	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0.2	1.3
26-Apr	A	0	0	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	A	0.5	3.4
27-Apr	2	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	2	0.4	2.1
28-Apr	3	1	1	3	2	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	1	0.7	3.3
29-Apr	0	2	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	1	1	A	0	0	0	0.5	2.0
30-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
	0.5	0.4	0.3	0.4	0.4	0.4	0.4	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.4	0.5	0.4	Diurnal Average	
	3.3	2.6	1.2	2.9	2.1	1.8	2.0	0.9	0.5	0.5	0.6	0.4	0.3	0.3	0.3	0.5	0.4	0.4	0.6	1.0	0.7	2.1	3.4	1.9	Diurnal Maximum	

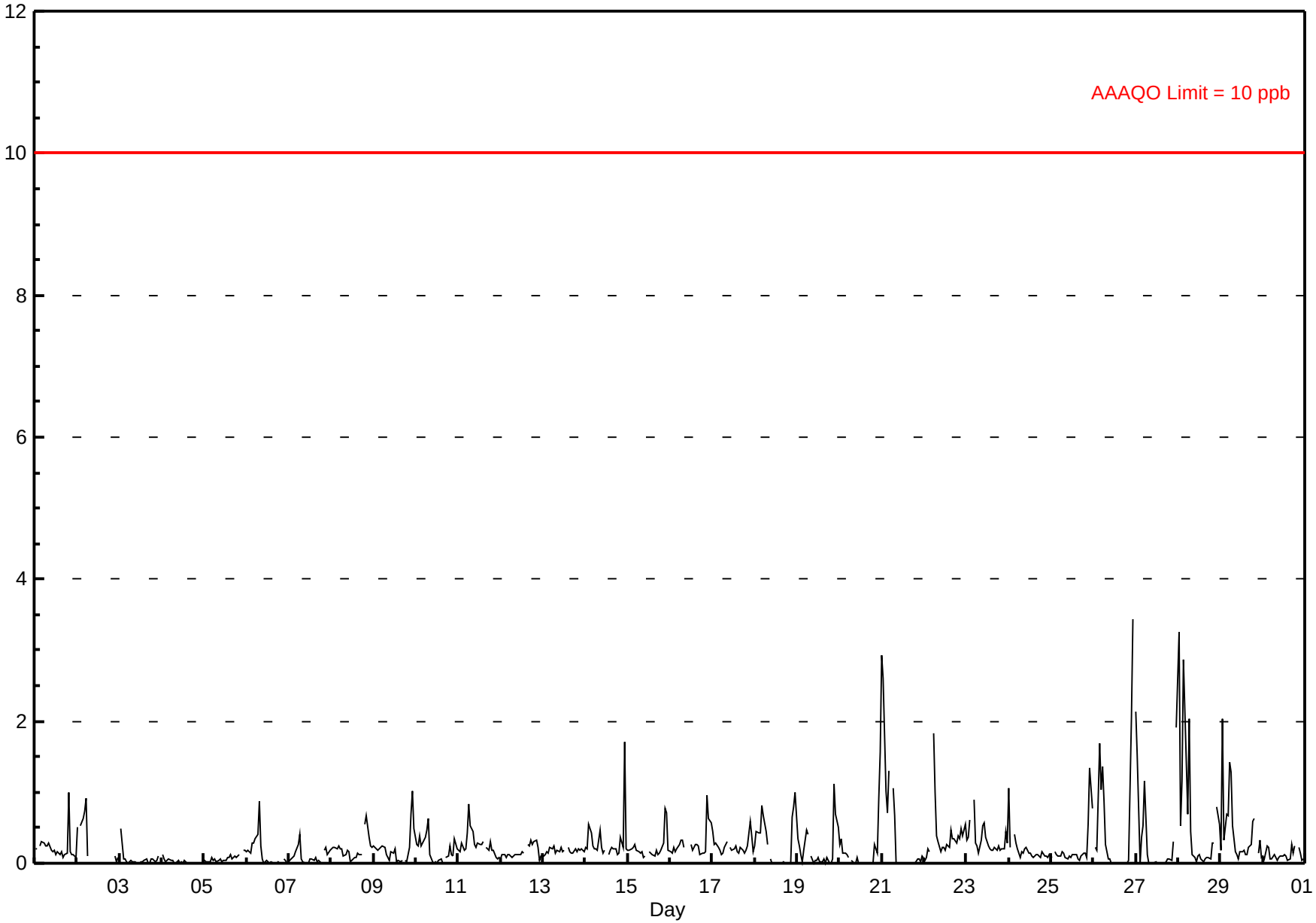
C - Calibration P - Power Failure A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb

Peace Airshed Zone Association

Hourly Averages

Hydrogen Sulphide (H_2S) - ppb

Valleyview - April 2015



Peace Airshed Zone Association

Hourly Maximums

Hydrogen Sulphide (H_2S) - ppb

Valleyview - April 2015

Maximum Value: 25.2 ppb on Apr 28 01:00

Maximum Daily Average: 3.3 ppb on Apr 28

Minimum Value: 0 ppb on Apr 21 15:00

Minimum Daily Average: 0.4 ppb on Apr 4

Maximum Diurnal Average: 2.1 ppb at hour 1

Minimum Diurnal Average: 0.5 ppb at hour 15

Monthly Average: 0.92 ppb

Percentiles: $P_1 = 0.2$ $P_{10} = 0.3$ $Q_1 = 0.4$ Median = 0.6 $Q_3 = 0.7$ $P_{90} = 1.5$ $P_{99} = 6.2$

Hours in Service:	720
Hours of Data:	672
Hours of Missing Data:	48
Hours of Calibration:	34
Percent Operational Time:	98.1

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	1	1	A	1	1	1	1	1	1	1	1	1	0	1	0	0	0	1	0	3	1	0	0	0	0.7	3.3
2-Apr	1	A	1	2	1	3	0	P	P	P	P	P	P	P	P	P	P	P	P	P	P	0	0	1	--	2.5
3-Apr	A	1	1	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	0	1	1	A	0.5	1.4
4-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	0.4	0.5
5-Apr	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	1	A	0	1	0.4	0.6
6-Apr	1	0	1	1	1	1	1	4	2	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.7	4.3
7-Apr	0	0	0	1	1	1	1	1	0	0	0	0	0	1	1	1	1	0	0	A	1	1	0	1	0.5	1.1
8-Apr	1	0	1	1	1	1	1	0	0	1	1	0	0	1	0	1	1	1	A	2	2	1	1	1	0.6	1.8
9-Apr	1	1	1	1	1	1	1	0	1	1	1	1	1	0	0	0	1	A	0	0	1	1	2	1	0.7	1.8
10-Apr	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	A	1	0	1	1	1	1	1	0.6	1.2
11-Apr	1	1	1	1	1	1	3	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0	0	0	0.8	3.0
12-Apr	0	0	0	0	1	0	0	1	1	0	1	1	1	1	A	1	1	1	1	1	1	1	0	1	0.6	0.9
13-Apr	0	0	1	0	1	1	1	0	1	1	1	1	0	A	1	1	1	0	1	1	1	1	1	0	0.5	0.6
14-Apr	1	1	2	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0	1	1	6	1	1.0	5.6
15-Apr	1	1	1	1	1	1	0	1	1	0	1	A	1	1	0	0	1	1	0	1	1	3	3	1	0.8	2.9
16-Apr	1	0	1	0	1	1	1	1	1	C	C	C	1	0	1	1	1	1	1	1	1	5	2	1	0.9	4.8
17-Apr	1	1	1	1	1	0	0	1	1	A	1	1	1	1	1	0	1	0	0	1	1	2	1	0	0.7	2.4
18-Apr	1	1	1	1	4	2	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	4	2	2	1.0	3.6
19-Apr	1	1	1	0	1	2	1	A	0	0	0	0	1	0	1	1	0	1	0	0	1	3	1	1	0.8	3.1
20-Apr	1	1	1	1	1	0	A	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	3	7	0.9	6.5
21-Apr	7	5	2	2	3	A	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1.4	7.5
22-Apr	0	1	1	0	A	4	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	4.1
23-Apr	1	1	1	A	2	1	1	0	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0.8	1.9
24-Apr	3	1	A	1	1	1	1	0	0	1	1	0	1	0	0	0	0	1	1	0	1	0	0	0	0.7	3.4
25-Apr	0	A	1	0	0	0	1	1	0	0	0	0	1	1	0	1	0	0	0	1	0	2	4	2	0.7	4.1
26-Apr	A	1	1	4	2	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	2	6	6	A	1.3	5.8
27-Apr	6	5	0	3	3	5	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	A	24	2.4	24.3
28-Apr	25	3	5	7	6	3	6	2	1	0	0	1	0	0	1	0	0	1	0	1	1	A	6	4	3.3	25.2
29-Apr	1	5	2	2	1	3	3	1	1	0	0	0	0	1	1	0	1	1	1	2	A	1	3	0	1.3	4.8
30-Apr	0	0	1	1	1	0	0	0	0	1	0	1	0	1	1	0	1	1	1	A	1	1	0	1	0.5	0.8
	2.1	1.2	0.9	1.2	1.2	1.2	1.2	0.8	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.7	0.7	1.4	1.7	1.9	Diurnal Average	
	25.2	5.5	5.0	7.2	6.4	5.4	6.2	4.3	1.5	1.0	0.9	1.2	0.8	1.3	0.8	1.1	1.0	1.2	1.3	3.3	1.6	5.7	6.0	24.3	Diurnal Maximum	

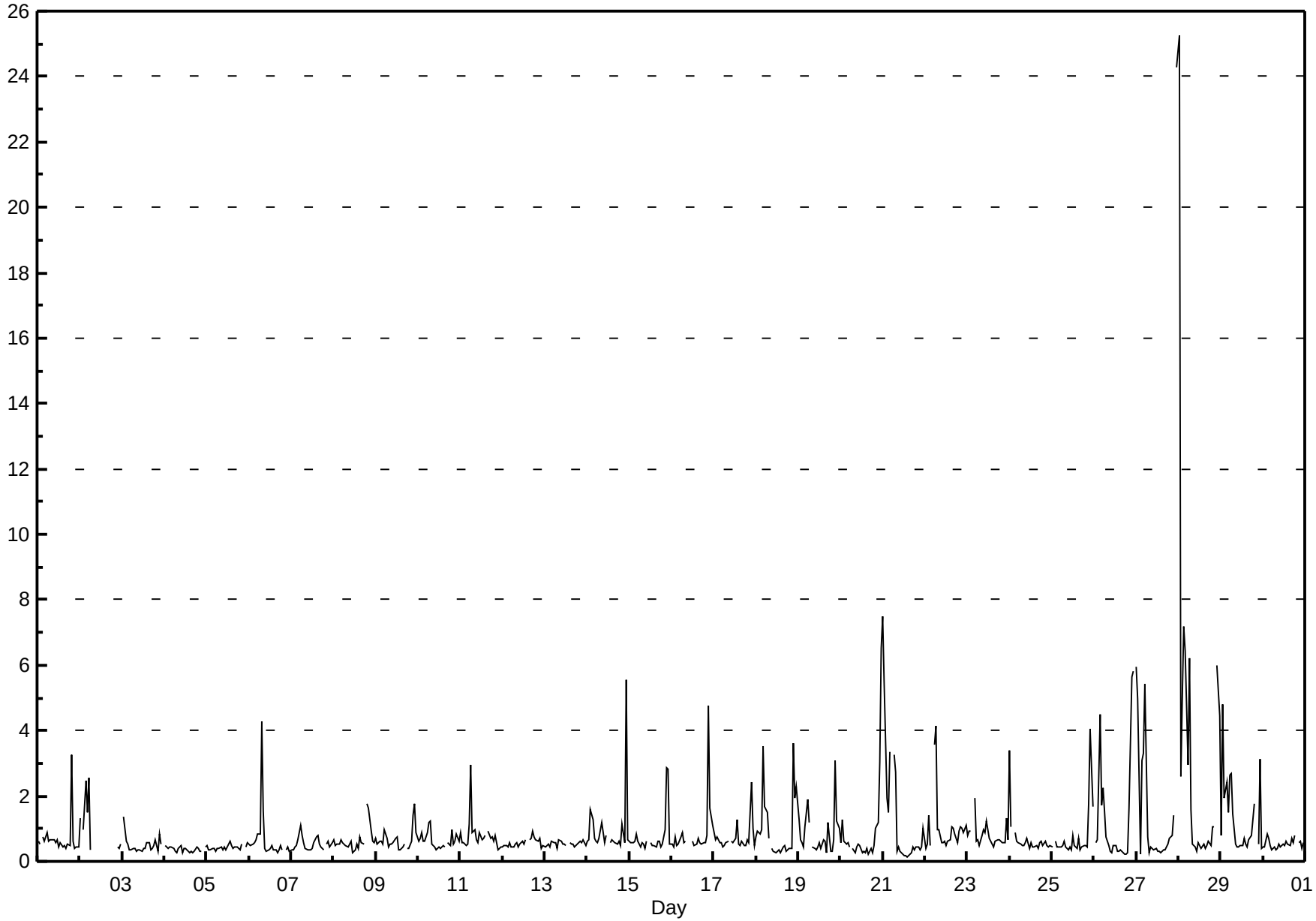
C - Calibration P - Power Failure A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Hydrogen Sulphide (H_2S) - ppb

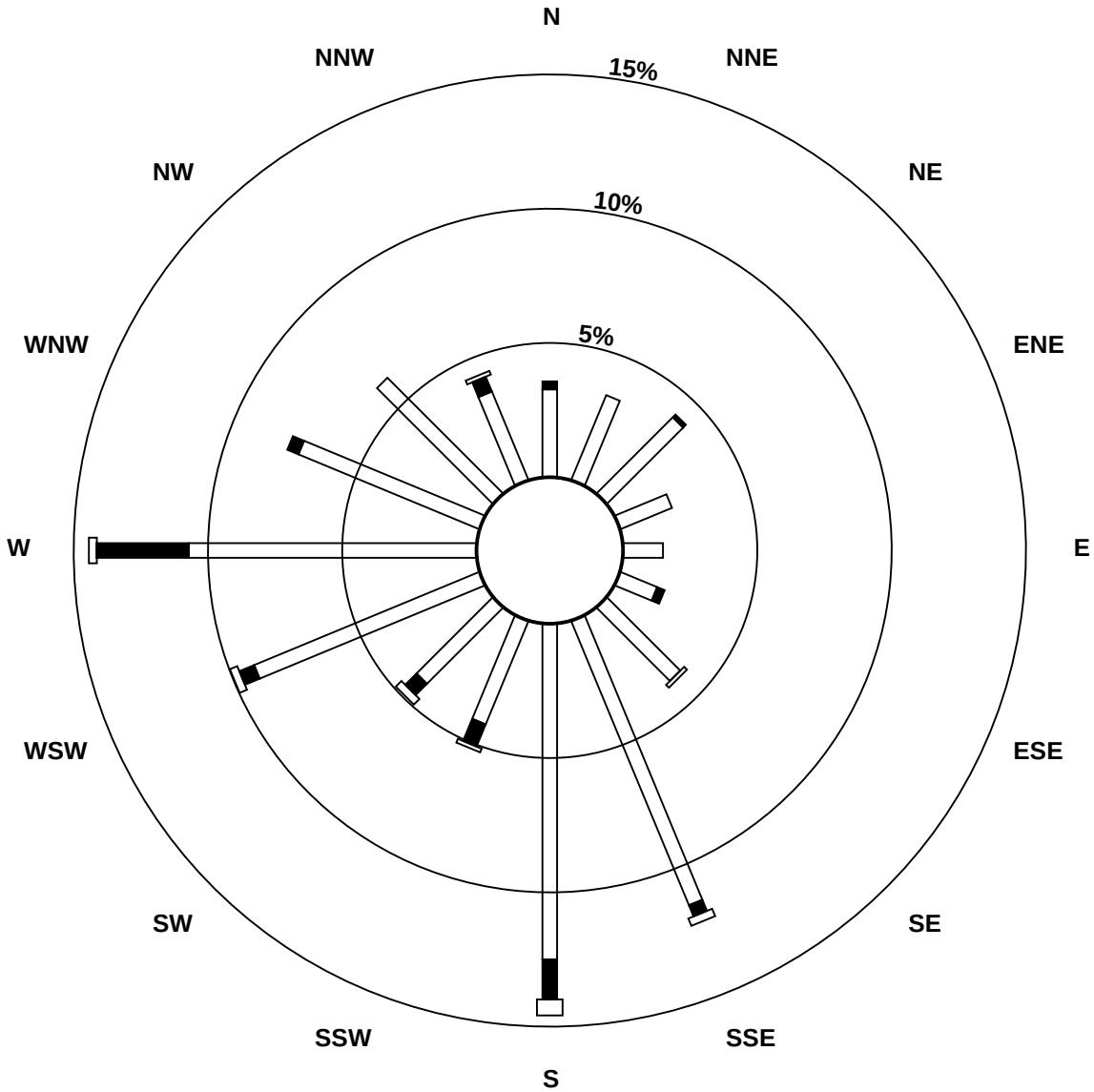
Valleyview - April 2015



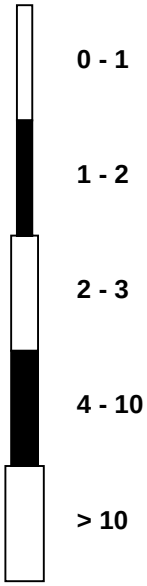
Pollutant Rose

Hydrogen Sulphide (H_2S) - ppb

Valleyview - April 2015



Pollutant Classes (ppb)

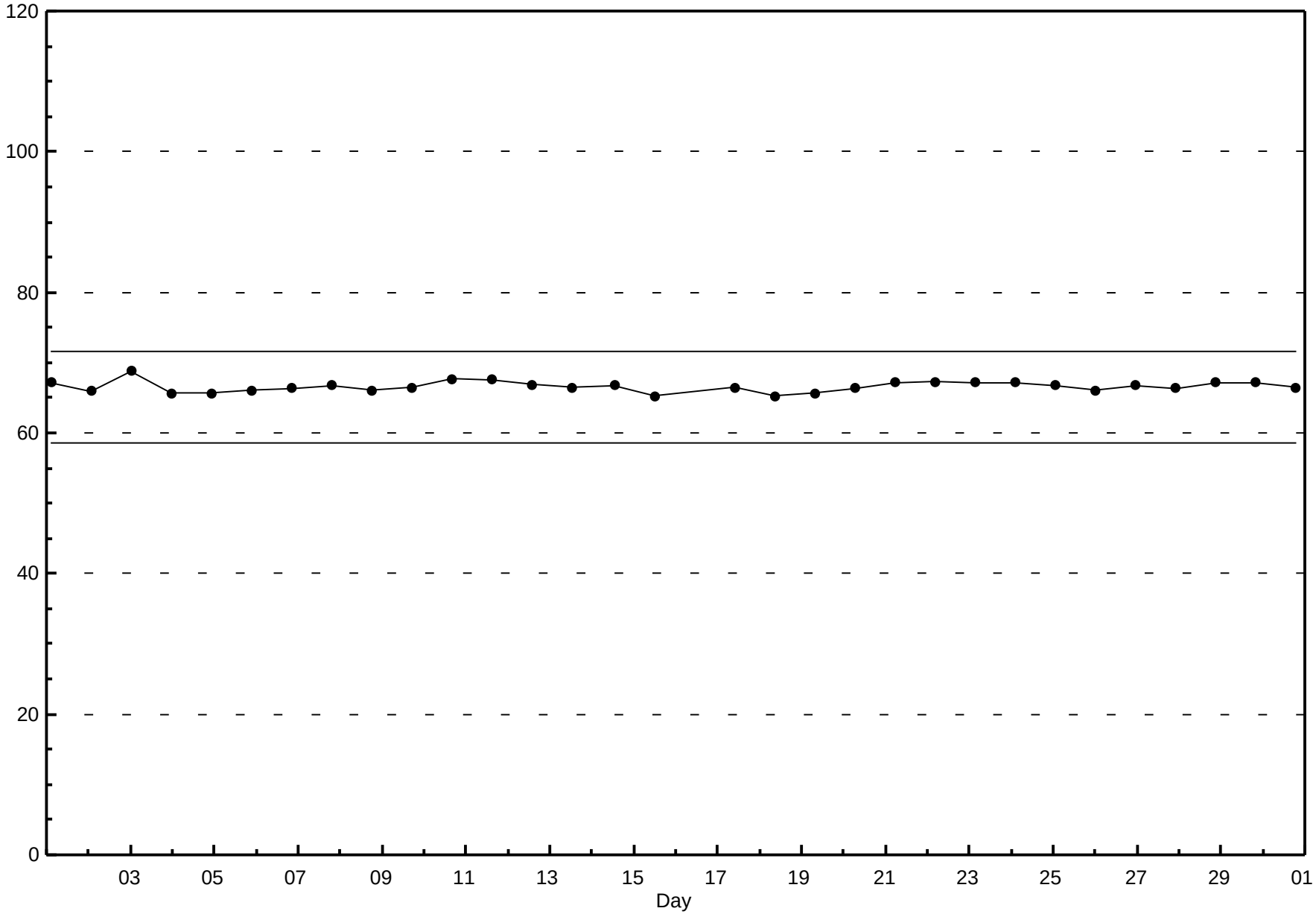


Peace Airshed Zone Association

Span Responses

Hydrogen Sulphide (H_2S)

Valleyview - April 2015



Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Valleyview - April 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 23.8 ^{o}C on Apr 28 16:00 Maximum Daily Average: 14.3 ^{o}C on Apr 21

Minimum Value: -4 ^{o}C on Apr 5 07:00 Minimum Daily Average: 1.0 ^{o}C on Apr 5
Maximum Diurnal Average: 11.1 ^{o}C at hour 15 Minimum Diurnal Average: 1.4 ^{o}C at hour 7
Monthly Average: 6.50 ^{o}C Percentiles: P_1 = -2.7 P_{10} = 0.2 Q_1 = 2.5 Median = 5.3 Q_3 = 10.1 P_{90} = 14.2 P_{99} = 21.6

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 Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	1	1	1	1	1	1	0	0	0	0	0	0	1	1	2	2	3	3	3	3	2	2	2	2	1.3	3.3
2-Apr	2	1	1	2	2	2	1	P	P	P	P	P	P	P	P	P	P	P	P	P	3	2	2	2	--	2.7
3-Apr	2	1	0	-1	-1	-1	-2	-1	1	4	4	5	6	7	7	7	7	7	6	5	4	4	3	2	3.2	6.9
4-Apr	2	1	0	-1	-1	-1	-1	-1	-1	1	2	4	4	5	5	6	5	5	5	3	2	1	0	-1	1.8	5.6
5-Apr	-1	-1	-2	-3	-4	-4	-4	-4	-3	-1	1	3	4	5	5	4	5	5	4	4	3	2	2	1	1.0	5.0
6-Apr	0	0	-1	-1	-2	-2	-3	-1	1	3	4	5	6	7	7	7	7	7	7	5	4	3	2	1	2.8	7.3
7-Apr	1	0	-1	-1	-2	-3	-3	-1	1	4	5	7	9	10	10	11	11	11	10	9	7	4	3	1	4.3	11.1
8-Apr	1	1	1	1	0	0	0	1	5	7	9	10	11	12	13	13	14	14	14	13	10	6	4	3	6.8	14.2
9-Apr	2	2	2	1	1	0	-1	2	5	10	13	14	15	16	17	18	19	19	19	17	13	9	6	4	9.3	18.9
10-Apr	3	2	2	1	0	1	0	2	6	10	14	16	17	17	18	17	17	17	16	14	12	10	9	9	9.6	17.6
11-Apr	8	6	5	5	4	4	2	3	5	4	4	7	8	8	9	9	9	9	8	6	5	3	3	2	5.5	8.9
12-Apr	2	2	2	1	1	1	1	2	3	4	6	6	7	6	6	7	7	7	6	6	5	4	3	2	4.0	6.9
13-Apr	2	0	0	-1	-1	-1	-1	1	4	7	8	8	9	11	11	12	12	12	12	11	10	8	8	7	6.3	12.1
14-Apr	6	5	4	3	3	2	2	3	5	7	8	8	8	8	9	9	10	10	9	8	7	6	5	4	6.4	10.2
15-Apr	3	3	2	2	0	0	0	2	5	7	8	9	10	12	12	13	12	11	11	11	11	10	10	9	7.2	12.6
16-Apr	8	8	7	7	6	6	6	7	7	9	10	9	8	9	11	12	10	11	11	10	9	8	5	3	8.1	11.9
17-Apr	1	1	1	2	3	3	3	4	4	5	9	12	13	9	10	11	13	12	9	7	6	4	4	3	6.2	13.1
18-Apr	3	2	2	2	3	3	3	3	5	7	7	9	9	9	10	10	10	11	10	10	8	5	3	1	6.0	10.6
19-Apr	0	0	0	0	-1	-1	-1	2	7	9	10	11	12	12	13	14	15	15	15	14	12	9	7	5	7.5	15.2
20-Apr	4	3	3	3	3	1	2	5	10	13	14	16	16	17	18	17	18	18	18	17	15	12	10	8	10.8	18.4
21-Apr	7	6	5	5	4	3	3	7	11	14	16	18	21	21	22	22	23	22	22	21	19	18	17	16	14.3	22.5
22-Apr	15	14	12	12	11	9	8	9	11	12	13	14	15	15	14	5	4	3	3	3	3	3	3	3	9.0	15.2
23-Apr	3	3	3	3	3	2	1	2	3	3	3	4	4	5	5	4	4	4	4	4	4	3	3	3	3.3	4.6
24-Apr	3	3	3	3	3	3	3	3	3	4	4	4	4	4	5	5	5	5	5	5	4	4	3	3	3.7	5.1
25-Apr	3	2	2	0	1	0	0	0	0	0	1	3	3	3	4	4	5	5	5	5	5	4	4	3	2.6	5.4
26-Apr	2	2	0	-1	-1	-2	-1	2	5	6	8	9	11	11	12	12	14	14	14	13	12	9	6	5	6.7	14.2
27-Apr	4	5	5	4	3	3	3	5	6	9	13	15	17	18	19	19	19	19	19	19	16	14	12	10	11.6	19.4
28-Apr	8	8	7	6	5	6	6	8	13	15	17	17	19	22	23	24	16	14	13	12	12	12	11	10	12.7	23.8
29-Apr	10	10	10	9	9	8	8	8	10	11	12	12	12	13	13	14	14	14	13	11	9	8	6	6	10.4	14.2
30-Apr	6	6	6	4	4	4	5	6	8	9	9	10	10	10	11	12	11	12	12	10	9	9	8	7	8.3	12.4
	3.6	3.3	2.7	2.3	1.9	1.5	1.4	2.8	4.9	6.6	8.1	9.2	9.9	10.5	11.1	11.0	10.9	10.9	10.5	9.6	7.9	6.6	5.5	4.4	Diurnal Average	
	15.0	14.3	12.2	12.3	10.8	9.1	8.1	9.2	12.8	15.2	16.8	18.5	20.7	21.8	23.2	23.8	22.5	22.1	21.7	20.9	19.2	17.7	16.7	15.6	Diurnal Maximum	

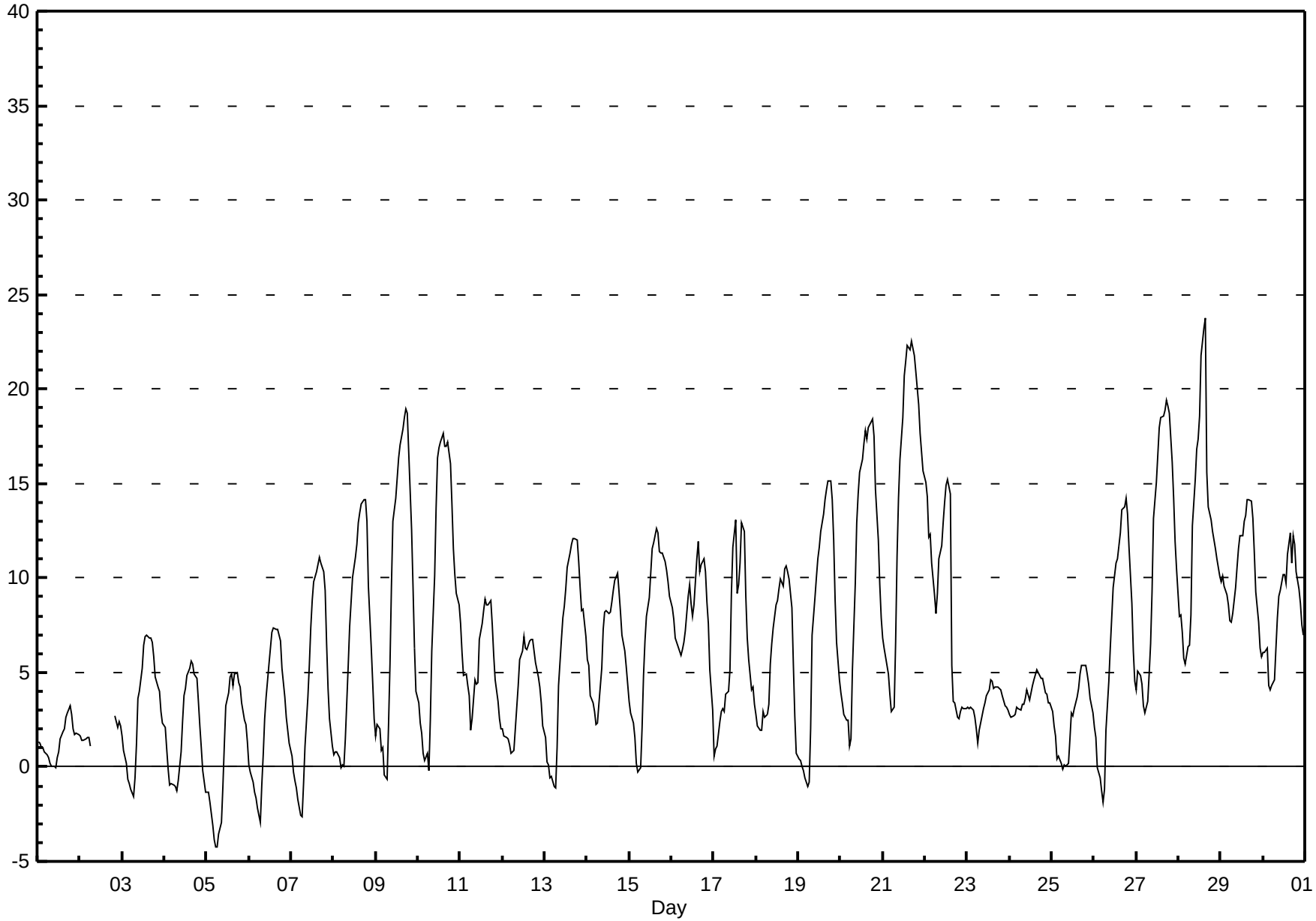
P - Power Failure

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Valleyview - April 2015



Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Valleyview - April 2015

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

Maximum Value: 100.0 % on Apr 1 13:00 Maximum Daily Average: 93.4 % on Apr 1

Minimum Value: 11 % on Apr 9 17:00 Minimum Daily Average: 27.4 % on Apr 15

Maximum Diurnal Average: 71.1 % at hour 7 Minimum Diurnal Average: 33.9 % at hour 18

Monthly Average: 50.74 % Percentiles: P_1 = 12.8 P_{10} = 20.0 Q_1 = 29.2 Median = 48.0 Q_3 = 70.4 P_{90} = 86.9 P_{99} = 97.1

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) 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	93	93	94	93	93	94	94	96	98	99	99	99	100	98	92	92	86	84	82	86	93	95	95	94	93.4	100.0
2-Apr	93	93	93	93	93	93	95	P	P	P	P	P	P	P	P	P	P	P	P	P	84	84	81	84	--	95.2
3-Apr	89	93	93	94	94	93	94	89	77	64	61	57	51	48	51	50	47	45	46	51	54	55	62	73	67.9	94.4
4-Apr	81	78	81	81	82	82	83	83	81	74	65	52	50	44	41	37	38	39	38	41	45	52	62	70	61.7	83.3
5-Apr	70	69	71	78	80	79	79	78	75	68	62	55	50	47	45	49	44	42	47	47	52	58	64	68	61.5	79.8
6-Apr	75	79	82	85	86	87	91	84	74	58	50	42	37	35	34	33	32	31	34	39	43	47	50	53	56.7	90.8
7-Apr	57	63	65	69	73	81	81	72	63	53	47	36	28	24	21	19	19	20	22	23	30	37	43	51	45.8	81.3
8-Apr	53	50	52	56	61	59	60	56	44	32	28	25	23	21	21	19	19	19	19	23	30	39	46	57	38.1	60.7
9-Apr	59	52	54	57	55	64	65	51	41	31	20	17	16	14	12	11	11	11	12	14	21	28	38	49	33.5	65.3
10-Apr	50	61	58	59	59	55	59	59	42	29	23	16	14	13	13	15	16	13	16	21	26	28	30	34	33.7	61.3
11-Apr	38	43	48	47	51	54	64	64	56	57	47	29	25	19	18	17	17	17	18	25	34	39	45	46	38.3	63.9
12-Apr	45	47	49	47	47	46	44	40	34	28	23	20	18	18	18	16	17	17	19	21	22	23	25	28	29.7	49.1
13-Apr	31	38	41	45	47	50	52	46	38	27	22	19	16	15	14	14	16	16	16	18	20	22	21	24	27.9	52.0
14-Apr	28	30	35	37	39	45	51	51	48	34	28	24	24	22	22	22	23	23	24	25	27	27	26	26	30.8	51.4
15-Apr	27	28	29	31	37	38	39	35	27	23	21	20	19	18	18	17	20	26	28	27	31	30	32	36	27.4	39.2
16-Apr	40	45	50	50	52	57	69	71	65	56	51	64	68	64	49	40	49	40	33	31	35	39	48	58	50.9	71.0
17-Apr	75	71	73	62	59	61	67	64	69	66	44	38	39	67	73	69	39	29	51	60	70	77	74	80	61.6	80.1
18-Apr	81	83	84	83	77	77	74	69	55	48	43	35	31	27	25	25	22	22	22	22	25	34	44	59	48.6	83.9
19-Apr	66	71	70	64	67	73	73	61	41	32	27	24	24	23	21	21	20	19	19	22	26	34	42	53	41.4	73.2
20-Apr	57	58	59	63	62	69	69	56	43	36	33	31	30	29	29	32	31	31	31	33	41	51	60	68	46.0	69.0
21-Apr	73	76	80	83	87	91	91	73	46	39	34	30	25	23	21	21	20	21	22	24	28	31	30	30	45.8	91.1
22-Apr	29	31	40	38	43	50	59	72	72	69	61	55	52	49	56	83	87	86	88	88	86	85	85	85	64.6	88.0
23-Apr	84	85	85	86	89	91	94	96	94	89	87	87	88	84	84	87	87	86	87	87	87	91	92	93	88.3	95.6
24-Apr	93	94	95	96	97	97	97	96	94	90	89	91	87	83	78	72	71	67	67	69	72	68	74	65	83.4	97.3
25-Apr	54	54	53	67	56	58	62	64	73	80	76	73	77	74	66	65	59	54	53	54	58	64	72	82	64.4	82.0
26-Apr	81	77	86	89	91	93	93	78	63	48	44	39	37	36	33	29	26	25	24	26	30	41	50	58	54.1	93.2
27-Apr	61	58	60	62	68	67	64	61	58	47	34	29	24	20	19	19	20	20	21	24	32	37	44	49	41.7	67.6
28-Apr	59	59	63	71	71	66	66	62	43	35	30	29	26	22	20	20	41	38	31	30	34	36	39	45	43.2	71.1
29-Apr	45	39	41	41	40	39	37	34	29	26	23	20	19	18	18	16	16	15	19	26	38	43	48	49	30.8	49.2
30-Apr	50	51	52	78	82	75	64	52	38	30	32	31	34	37	33	26	33	26	24	28	33	36	41	43	42.8	81.5
	61.3	62.2	64.5	66.8	67.9	69.4	71.1	66.1	58.0	50.6	44.9	41.0	39.0	37.6	36.0	35.7	35.3	33.9	34.9	37.5	43.6	47.6	52.1	57.1	Diurnal Average	
	93.3	93.6	95.3	96.3	96.8	97.3	97.1	96.0	98.0	99.1	98.9	99.4	100.0	97.6	91.7	91.9	87.4	86.2	88.0	87.6	92.5	94.9	94.9	94.1	Diurnal Maximum	

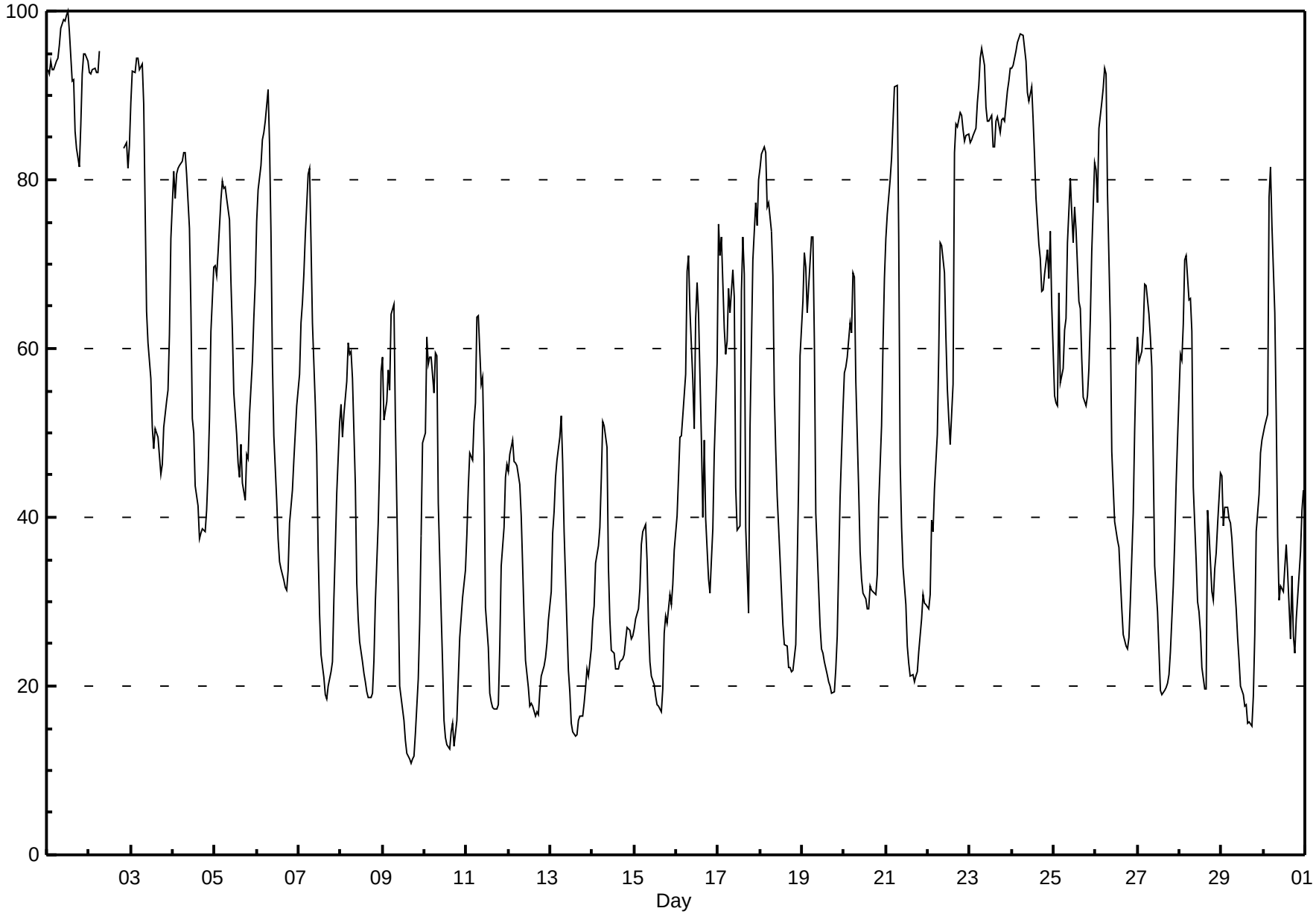
P - Power Failure

Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Valleyview - April 2015



Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Valleyview - April 2015

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	12	13	10	13	13	13	13	13	11	13	13	10	11	11	9	9	9	7	2	1	1	1	1	1	8.2	13.2
Dir	285	287	288	303	304	305	305	307	332	333	330	322	308	313	322	316	316	322	301	262	161	173	175	195	310	304
2 Spd	5	4	4	3	3	2	2	P	P	P	P	P	P	P	P	P	P	P	P	P	2	4	2	2	--	5.0
Dir	282	270	270	278	272	288	297	P	P	P	P	P	P	P	P	P	P	P	P	P	321	330	319	245	--	282
3 Spd	1	1	2	3	2	2	1	1	2	1	3	2	3	5	9	10	9	8	7	6	4	2	3	1	2.4	9.9
Dir	201	337	182	189	181	173	163	170	156	128	3	347	0	7	20	23	34	34	57	47	58	56	16	140	38	23
4 Spd	2	3	5	5	4	5	4	5	5	6	3	2	1	2	6	6	7	8	9	7	6	3	5	5	4.4	8.6
Dir	7	14	8	15	11	12	12	21	20	18	48	95	34	32	18	40	29	30	39	40	50	23	355	355	24	39
5 Spd	3	3	5	4	4	4	4	4	5	5	5	2	4	1	3	6	5	3	3	3	2	2	1	3	2.6	5.7
Dir	351	3	6	1	7	7	9	6	10	12	4	22	34	86	59	56	74	102	110	98	112	75	140	150	34	56
6 Spd	4	2	2	1	1	0	0	0	3	6	9	9	11	10	11	9	10	8	10	7	5	4	5	4	5.2	10.9
Dir	152	154	337	306	182	120	224	199	163	143	167	167	160	160	155	163	167	163	148	148	151	144	146	154	158	155
7 Spd	2	1	1	1	0	0	1	3	4	3	4	7	9	9	11	10	9	9	7	3	1	1	2	2	2.8	11.4
Dir	164	179	174	172	271	165	184	168	164	188	243	289	287	276	290	290	298	321	310	264	201	200	187	177	274	290
8 Spd	3	3	3	3	3	3	3	3	3	13	13	12	11	10	6	10	9	7	4	0	1	1	1	2	3.7	13.3
Dir	167	168	166	166	170	160	162	157	232	278	285	285	304	290	266	273	289	289	281	348	184	196	186	163	267	285
9 Spd	1	2	1	1	1	1	2	3	4	4	8	12	10	7	7	5	3	1	1	1	0	0	0	1	2.3	11.5
Dir	191	200	187	187	175	178	184	171	167	176	264	283	288	274	247	241	178	259	138	134	328	196	257	165	240	283
10 Spd	1	1	1	1	2	0	0	0	3	3	4	5	8	9	7	6	7	6	6	10	2	2	2	2	3.0	10.1
Dir	171	160	190	200	184	193	294	186	168	163	150	165	162	165	176	190	256	191	222	258	228	159	196	227	193	258
11 Spd	1	1	1	1	2	1	0	2	9	21	10	16	18	18	20	21	15	18	18	16	11	10	6	10	9.4	20.9
Dir	140	178	192	182	167	221	301	333	276	268	274	276	270	280	282	296	295	276	267	255	251	240	221	233	269	268
12 Spd	13	8	12	11	13	12	13	15	19	22	22	22	24	22	23	25	26	26	20	19	18	14	13	10	17.1	26.0
Dir	243	236	238	237	244	248	253	256	266	271	267	274	269	280	280	279	274	275	276	273	264	259	251	245	265	274
13 Spd	7	2	2	2	3	2	2	3	3	2	1	4	5	7	8	11	10	10	10	8	6	7	8	5	4.9	10.7
Dir	240	210	213	158	191	212	196	175	170	193	179	140	161	169	160	146	150	142	138	130	128	137	159	168	159	146
14 Spd	4	2	1	2	2	2	1	0	0	11	13	15	14	19	16	17	16	15	15	8	5	4	5	5	7.1	19.2
Dir	167	172	191	222	176	187	166	125	187	273	294	277	276	263	268	274	283	287	311	301	270	254	262	245	274	263
15 Spd	5	4	5	4	2	2	2	5	9	13	15	15	11	12	15	10	15	11	6	13	8	9	9	8	8.4	15.1
Dir	242	239	232	227	215	211	208	224	242	248	255	258	249	263	261	240	260	236	249	269	258	280	270	252	252	258
16 Spd	8	6	3	2	1	1	3	1	1	1	2	13	13	7	12	18	20	19	15	9	4	2	0	0	5.2	20.4
Dir	247	243	218	160	172	19	316	154	5	116	310	337	343	334	268	258	313	320	314	293	289	263	162	121	299	313
17 Spd	1	1	1	2	3	2	2	0	1	0	9	7	6	9	6	5	16	24	20	16	17	14	9	6	5.2	23.8
Dir	163	168	181	179	173	178	45	247	2	191	170	179	247	269	170	168	270	282	312	290	286	277	272	253	267	282
18 Spd	6	10	11	11	13	10	11	10	11	11	11	11	12	13	14	12	6	9	7	3	1	0	1	0	7.6	13.7
Dir	256	268	272	275	278	272	276	282	297	305	306	311	317	315	312	330	307	342	343	5	35	215	177	173	299	312
19 Spd	0	0	1	3	1	1	1	3	4	6	7	8	8	6	5	7	7	7	6	3	1	0	1	1	2.7	8.1
Dir	197	182	207	194	184	172	171	172	259	243	264	280	278	293	281	290	308	291	318	24	126	202	199	173	274	278
20 Spd	1	1	1	2	1	1	1	2	2	4	5	8	8	8	4	7	1	2	0	0	0	0	0	0	1.6	8.5
Dir	171	202	188	158	182	178	185	183	155	298	291	303	320	328	298	294	264	270	161	193	190	182	112	214	289	328
21 Spd	0	0	1	0	0	0	0	1	5	3	3	4	3	5	3	4	3	4	5	6	5	8	12	10	3.3	11.7
Dir	176	156	328	336	237	169	263	176	171	174	151	157	164	142	162	115	149	145	127	126	130	134	151	156	147	151
22 Spd	9	5	4	3	1	0	1	2	2	4	3	1	1	5	8	23	18	9	10	12	9	8	9	7	5.1	22.8
Dir	161	174	228	183	164	172	221	255	325	333	329	309	199	341	292	257	283	263	247	257	258	268	256	264	261	257

Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Valleyview - April 2015

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	8	8	7	6	5	4	2	2	4	8	8	7	7	8	9	7	6	6	4	3	3	3	1	2	4.4	8.8
Dir	256	257	269	265	262	236	196	185	250	270	276	290	304	314	325	331	325	335	339	349	334	339	296	324	292	325
24 Spd	2	3	1	1	0	1	2	1	5	5	5	9	9	11	11	8	9	8	6	3	5	5	4	5	4.2	11.4
Dir	288	311	315	306	39	47	70	63	44	79	66	44	49	49	70	82	74	69	80	102	102	114	118	68	66	49
25 Spd	8	7	7	7	5	5	5	4	4	6	5	2	5	7	5	2	2	2	2	1	1	0	0	0	3.4	8.3
Dir	48	40	46	48	47	36	48	16	51	14	26	62	337	349	37	87	97	96	68	76	90	149	42	173	38	48
26 Spd	1	1	1	0	0	1	1	1	3	9	8	7	5	5	5	6	3	4	2	2	1	0	0	1	1.9	9.4
Dir	130	133	342	245	228	351	350	117	170	160	163	173	188	192	267	247	239	223	181	142	130	135	349	305	188	160
27 Spd	0	4	4	2	0	2	2	1	2	2	1	1	7	8	6	4	4	5	8	4	3	1	1	1	2.7	7.9
Dir	208	178	173	170	185	194	181	184	174	161	156	207	233	225	219	241	225	222	246	228	214	174	166	153	212	225
28 Spd	0	1	1	0	0	0	0	0	6	10	11	10	11	11	11	5	26	19	15	10	2	2	1	3	2.6	25.6
Dir	183	164	271	258	170	217	225	128	163	166	165	162	168	161	159	188	307	303	296	284	242	165	204	239	227	307
29 Spd	1	4	3	4	6	7	6	6	7	8	12	14	17	16	14	12	16	15	11	14	4	3	2	2	8.2	16.6
Dir	235	268	252	256	261	277	276	264	281	254	257	265	277	276	281	276	269	268	280	265	226	207	188	185	267	277
30 Spd	3	2	9	9	3	2	4	4	12	16	14	15	16	17	15	16	16	19	19	13	8	9	4	3	9.5	19.5
Dir	177	180	262	265	178	187	171	190	246	251	259	262	276	270	293	261	285	264	269	272	254	251	238	213	261	264
Spd	2.0	1.8	2.1	1.8	1.6	1.3	1.3	1.4	2.2	4.0	4.3	5.1	5.6	5.5	5.1	5.7	6.8	6.0	4.5	3.8	2.1	1.8	1.9	2.0	Diurnal Average	
Dir	234	246	258	253	253	266	270	253	257	264	266	273	278	279	277	273	288	284	288	272	252	242	224	218		
Spd	13.5	13.0	11.8	12.9	13.3	12.5	12.8	15.5	18.5	22.4	22.2	22.5	24.4	22.4	22.6	24.5	26.0	25.8	20.4	19.0	18.0	14.5	12.6	10.1	Diurnal Maximum	
Dir	243	287	238	303	244	305	305	256	266	271	267	274	269	280	280	279	274	275	276	273	264	277	251	156		

Maximum Speed Value: 26 km/h on Apr 12 17:00
Maximum Daily Speed Average: 17.1 km/h on Apr 12
Maximum Diurnal Speed Average: 6.8 km/h at hour 17

Minimum Speed Value: 0 km/h on Apr 9 21:00
Minimum Daily Speed Average: 1.6 km/h on Apr 20
Minimum Diurnal Speed Average: 1.3 km/h at hour 7

Monthly Average Velocity: 3.15 km/h 268.6 deg

Speed Percentiles: $P_1 = 0.1$ $P_{10} = 0.7$ $Q_1 = 1.8$ Median = 4.5 $Q_3 = 8.9$ $P_{90} = 13.4$ $P_{99} = 22.2$

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

P - Power Failure

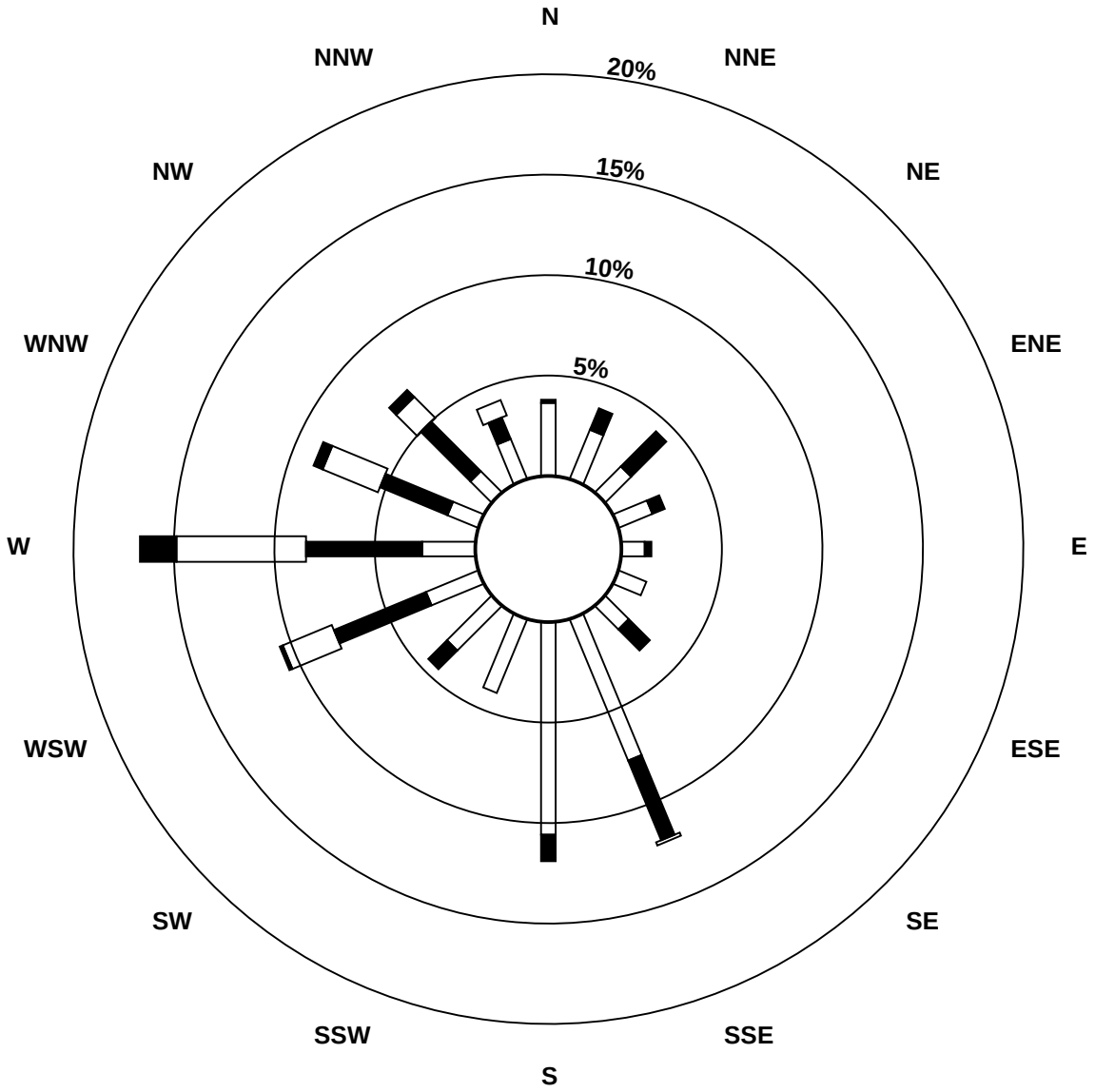
Frequency Distribution

Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	36	13	1	0	0	0	50
NorthEast	23	19	1	0	0	0	43
East	20	5	0	0	0	0	25
SouthEast	45	14	1	0	0	0	60
South	154	34	2	0	0	0	190
SouthWest	49	23	5	0	0	0	77
West	32	63	62	18	0	0	175
NorthWest	29	29	23	6	0	0	87
Total	388	200	95	24	0	0	707

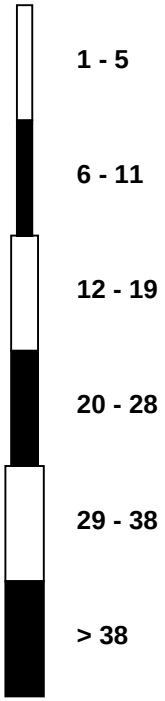
Wind Rose

Wind Speed (WS) (km/h)

Valleyview - April 2015



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Valleyview - April 2015

Peace Airshed Zone Association

Maximum Speed: 26 km/h on Apr 12 17:00

Maximum Daily Speed Average: 18.0 km/h on Apr 12

Minimum Speed: 0 km/h on Apr 21 07:00

Minimum Daily Speed Average: 3.1 km/h on Apr 20

Maximum Diurnal Speed Average: 11.1 km/h at hour 17

Minimum Diurnal Speed Average: 3.0 km/h at hour 6

Monthly Average Speed: 6.43 km/h

Percentiles: $P_1 = 0.2$ $P_{10} = 0.8$ $Q_1 = 2.2$ Median = 4.8 $Q_3 = 9.3$ $P_{90} = 13.8$ $P_{99} = 23.7$

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	12	13	10	13	13	13	13	13	12	13	13	10	11	11	9	9	9	7	2	1	1	1	1	1	8.8	13.3
2-Apr	5	4	4	4	3	2	2	P	P	P	P	P	P	P	P	P	P	P	P	P	2	5	5	3	--	5.1
3-Apr	1	3	2	3	2	2	1	1	2	1	4	3	4	6	9	10	9	8	8	6	5	2	3	3	4.1	10.3
4-Apr	2	3	5	5	4	5	4	6	5	6	4	4	2	4	7	7	7	8	9	7	6	3	5	5	5.1	8.8
5-Apr	3	3	5	4	4	4	5	4	5	6	6	4	5	3	5	7	6	4	3	3	2	2	1	3	4.0	6.7
6-Apr	5	2	2	1	1	0	0	0	3	6	9	9	11	11	11	9	10	8	10	8	5	4	5	4	5.6	11.2
7-Apr	2	1	1	1	0	0	1	3	4	3	5	8	9	10	12	11	9	9	7	3	1	1	2	2	4.4	12.2
8-Apr	3	3	3	3	3	3	3	3	5	13	14	13	12	11	7	11	10	8	4	1	1	1	1	2	5.6	13.6
9-Apr	1	2	1	1	1	1	2	3	4	4	9	12	11	8	8	6	4	3	1	1	0	0	1	1	3.6	12.0
10-Apr	2	1	1	1	2	0	0	0	3	3	4	6	8	9	7	7	8	7	7	10	3	2	2	3	4.0	10.5
11-Apr	1	1	1	1	2	1	2	2	10	21	11	16	19	18	20	21	15	19	18	16	11	10	7	10	10.6	21.2
12-Apr	14	8	12	12	13	12	13	16	19	23	23	23	25	23	23	25	26	26	21	19	18	14	13	10	18.0	26.5
13-Apr	7	2	3	2	3	2	2	3	4	4	3	5	6	8	8	11	10	11	10	8	6	8	9	6	5.9	11.2
14-Apr	4	2	1	3	2	2	1	1	1	11	14	16	15	20	16	18	17	16	16	8	5	4	5	5	8.4	19.9
15-Apr	5	4	5	4	2	3	2	5	9	13	16	16	12	13	15	11	16	11	7	14	9	9	9	8	9.1	15.9
16-Apr	8	6	3	2	1	2	3	1	2	3	4	13	13	8	13	19	21	20	16	10	4	2	1	1	7.3	21.3
17-Apr	1	1	1	2	3	2	3	0	2	2	9	7	8	11	6	6	18	24	20	17	17	15	10	7	8.0	24.1
18-Apr	6	10	11	11	13	10	11	10	12	12	11	12	12	14	15	12	7	9	7	3	1	1	1	0	8.8	15.2
19-Apr	0	0	2	3	1	1	1	3	5	7	8	9	9	7	7	8	9	8	6	3	1	0	1	1	4.2	9.2
20-Apr	1	1	1	3	1	1	1	2	2	5	6	9	9	10	5	7	3	3	1	0	0	0	0	0	3.1	9.8
21-Apr	0	0	2	1	0	0	0	1	5	3	3	4	4	5	4	5	4	4	5	6	5	8	12	10	3.8	11.9
22-Apr	9	5	5	3	1	0	2	2	3	4	4	3	2	6	9	25	19	9	10	12	10	8	9	8	7.1	25.3
23-Apr	9	8	7	6	5	4	2	2	4	9	9	8	8	9	9	8	6	6	4	3	3	3	2	2	5.6	9.2
24-Apr	2	3	2	1	0	1	2	2	5	5	5	9	10	12	11	9	9	8	6	3	5	5	4	5	5.2	11.7
25-Apr	8	7	7	7	5	5	5	5	4	6	6	3	5	7	5	3	3	3	2	1	1	0	0	0	4.1	8.3
26-Apr	1	2	1	0	0	1	1	1	3	10	9	8	6	5	6	7	4	5	3	3	1	1	0	1	3.2	9.7
27-Apr	1	4	4	2	1	2	2	2	2	2	2	3	8	9	7	5	4	6	8	4	3	1	1	1	3.5	8.9
28-Apr	0	1	1	0	0	1	0	1	6	10	11	10	11	11	11	13	26	20	15	10	2	2	1	3	7.0	25.9
29-Apr	2	4	3	5	6	7	6	7	8	9	12	15	17	17	15	13	16	16	11	14	5	3	2	2	9.0	17.2
30-Apr	3	2	10	9	3	2	4	4	13	17	15	15	17	18	17	18	16	20	20	13	8	9	4	3	10.9	20.3
	4.0	3.6	3.8	3.7	3.3	3.0	3.2	3.6	5.5	7.9	8.6	9.4	10.0	10.4	10.4	11.1	11.1	10.5	8.8	7.1	4.7	4.2	3.8	3.7	Diurnal Average	
	13.6	13.2	12.0	13.1	13.5	12.6	12.9	15.6	18.9	22.8	22.9	23.4	24.9	23.1	23.1	25.3	26.5	26.1	20.8	19.4	18.2	14.7	12.7	10.2	Diurnal Maximum	

P - Power Failure

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 2015

Maximum Value: 94.4 deg on Apr 2 23:00

Minimum Value: 4.0 deg on Apr 8 05:00

Percentiles: P_1 = 5.5 P_{10} = 9.3 Q_1 = 12.2 Median = 18.1 Q_3 = 32.8 P_{90} = 56.7 P_{99} = 89.9

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	9	9	11	9	8	7	9	7	18	6	13	12	9	12	10	12	9	12	27	48	24	12	52	50	52.0
2-Apr	14	15	11	21	26	38	16	P	P	P	P	P	P	P	P	P	P	P	P	P	62	46	94	63	94.4
3-Apr	44	91	15	22	13	13	39	34	28	63	29	60	57	35	22	17	24	16	11	7	13	27	19	71	91.2
4-Apr	32	23	9	9	11	10	12	11	14	18	45	67	88	77	40	40	24	16	11	5	6	35	8	11	87.7
5-Apr	14	10	7	7	11	8	9	12	13	18	20	77	49	73	66	37	37	48	28	21	21	25	26	12	77.4
6-Apr	10	23	24	30	61	57	85	81	20	21	11	12	17	16	14	15	11	12	12	10	10	9	8	9	85.4
7-Apr	10	12	18	44	74	44	15	11	10	27	40	27	22	30	22	30	27	17	25	22	12	7	11	14	73.6
8-Apr	7	6	4	4	4	7	9	10	48	13	10	16	17	23	41	25	24	18	19	91	23	9	13	9	90.7
9-Apr	11	8	12	15	11	20	16	10	10	12	31	18	20	26	35	43	47	78	53	49	93	33	45	28	92.8
10-Apr	31	36	48	16	12	41	77	51	19	22	21	23	21	21	27	31	36	17	18	19	32	44	22	19	77.2
11-Apr	55	17	14	15	14	58	87	64	55	11	27	12	12	13	13	11	16	16	9	11	13	13	14	14	87.0
12-Apr	8	15	12	13	11	9	8	7	12	11	14	16	11	14	13	13	12	8	10	11	7	7	8	8	16.5
13-Apr	22	16	26	9	14	9	13	9	16	51	76	48	48	21	22	19	16	18	15	8	7	9	11	7	76.1
14-Apr	8	18	21	40	20	10	13	66	65	22	19	13	19	17	14	13	17	12	10	12	17	13	15	14	65.9
15-Apr	11	12	19	9	11	13	13	18	12	16	19	17	27	24	14	26	20	19	33	23	20	14	10	11	33.4
16-Apr	9	12	30	12	39	74	38	23	70	81	88	15	11	39	23	15	16	12	14	13	34	43	66	68	87.7
17-Apr	33	33	8	5	7	12	73	68	57	88	11	12	47	50	12	21	51	9	10	14	14	11	15	17	88.0
18-Apr	20	9	9	9	9	9	8	12	13	15	19	21	16	16	28	15	40	20	13	14	34	82	33	19	81.8
19-Apr	31	18	24	15	67	30	20	7	54	27	33	35	33	64	64	36	37	34	17	21	33	18	10	25	67.3
20-Apr	21	21	38	13	15	14	16	13	27	54	48	30	22	44	54	25	79	67	29	13	44	20	55	75	79.4
21-Apr	64	49	76	55	52	60	67	34	10	27	26	25	48	36	58	56	45	15	12	7	8	9	9	9	76.1
22-Apr	10	10	37	24	67	66	22	52	82	36	46	90	80	39	29	29	15	19	12	10	15	14	10	16	90.2
23-Apr	17	17	12	17	24	25	14	12	31	12	15	15	17	13	17	11	12	18	16	19	11	15	18	12	31.4
24-Apr	19	15	25	21	47	15	24	36	13	20	23	16	17	13	17	18	18	16	18	24	22	28	19	25	46.9
25-Apr	8	7	10	19	10	16	18	24	24	19	28	57	17	16	27	26	32	34	24	27	17	35	75	23	75.1
26-Apr	37	39	57	35	91	70	23	57	28	13	16	17	31	31	45	36	50	43	24	17	11	80	85	54	90.8
27-Apr	91	5	6	35	63	37	20	55	22	35	74	77	40	29	29	37	33	26	18	18	14	14	11	47	91.1
28-Apr	35	36	52	60	32	32	42	73	73	8	9	11	8	11	10	54	10	13	13	14	36	19	13	27	73.2
29-Apr	27	12	19	15	11	9	10	18	27	24	19	16	16	18	21	23	16	17	11	10	24	9	10	11	27.5
30-Apr	7	13	23	48	10	26	8	21	28	14	16	14	17	15	27	27	16	16	12	11	18	10	23	11	48.0
	91.1	91.2	76.1	60.3	90.8	74.1	87.0	81.1	81.9	88.0	87.7	90.2	87.7	76.7	65.8	56.5	79.4	78.2	52.9	90.7	92.8	81.8	94.4	74.8	

P - Power Failure

PAZA
Falher Station
Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Falher - April 2015

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

Maximum Value: 1.5 ppb on Apr 14 15:00

Maximum Daily Average: 0.2 ppb on Apr 14

Minimum Value: 0 ppb on Apr 1 01:00

Minimum Daily Average: 0.0 ppb on Apr 18

Maximum Diurnal Average: 0.2 ppb at hour 10

Minimum Diurnal Average: 0.1 ppb at hour 22

Monthly Average: 0.10 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	A	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
2-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
3-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
4-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
5-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
6-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	0.1	0.6
7-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
8-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.1	0.4
9-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
10-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
11-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
12-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
13-Apr	0	0	0	0	0	0	0	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.2	0.5
14-Apr	0	0	0	0	0	0	0	0	0	0	0	0	A	0	2	0	0	0	0	0	0	0	0	0	0.2	1.5
15-Apr	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
16-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	0.4
17-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
18-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
19-Apr	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
20-Apr	0	0	0	0	0	0	A	0	1	0	0	0	C	C	0	0	0	0	0	0	0	0	0	0	0.1	0.6
21-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
22-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
23-Apr	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
24-Apr	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
25-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
26-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
27-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	0.5
28-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	0.0	0.3
29-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
30-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
	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	Diurnal Average	
	0.2	0.2	0.5	0.4	0.2	0.3	0.3	0.5	0.6	0.6	0.5	0.3	0.4	0.4	1.5	0.4	0.3	0.3	0.2	0.2	0.3	0.2	0.3	0.2	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

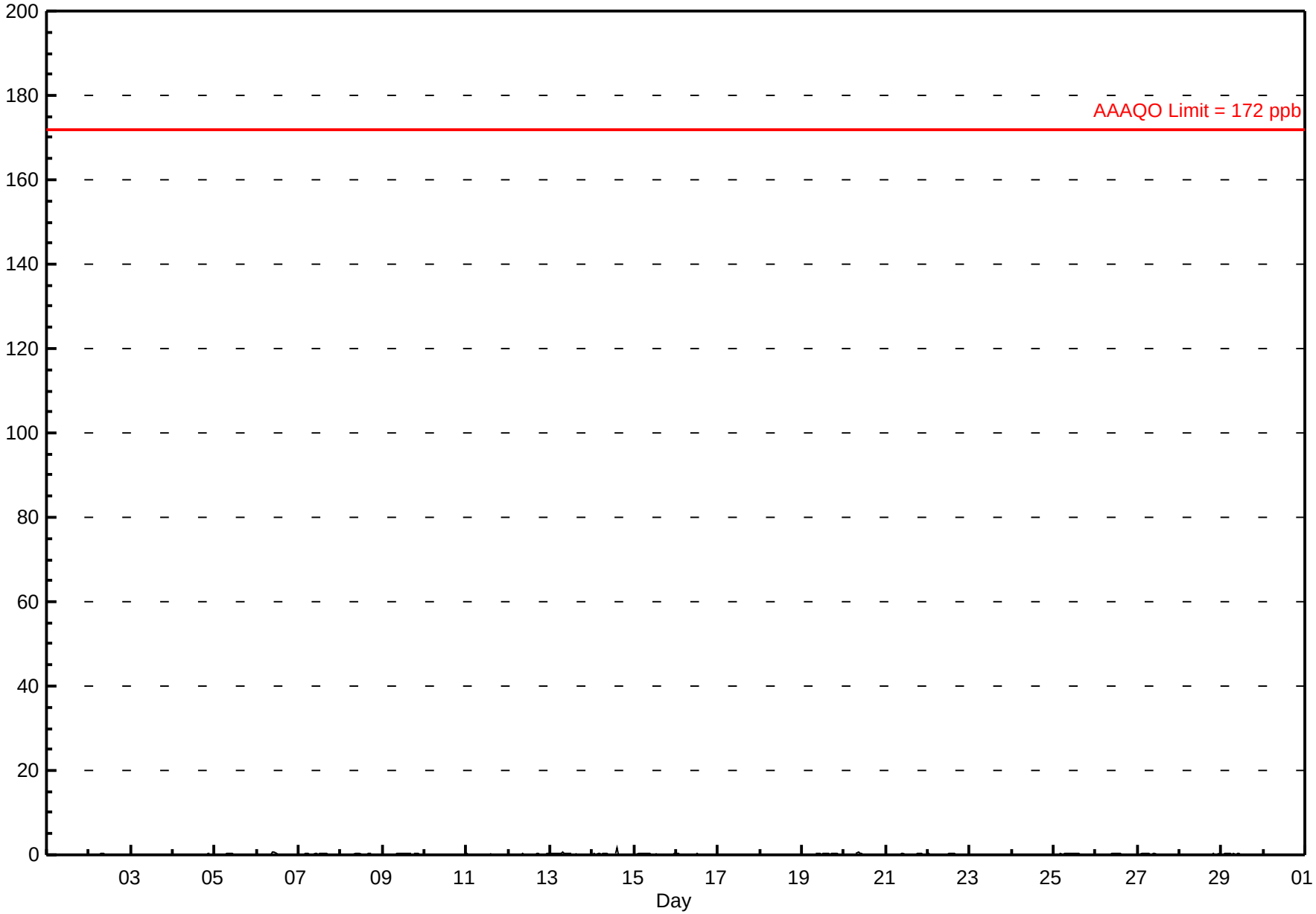
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Falher - April 2015



Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Falher - April 2015

Maximum Value: 4.3 ppb on Apr 14 15:00

Maximum Daily Average: 0.8 ppb on Apr 14

Minimum Value: 0 ppb on Apr 23 15:00

Minimum Daily Average: 0.3 ppb on Apr 23

Maximum Diurnal Average: 0.7 ppb at hour 15

Minimum Diurnal Average: 0.4 ppb at hour 19

Monthly Average: 0.51 ppb

Percentiles: $P_1 = 0.2$ $P_{10} = 0.3$ $Q_1 = 0.4$ Median = 0.5 $Q_3 = 0.6$ $P_{90} = 0.7$ $P_{99} = 1.0$

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	1	0	A	0	0	0	0	0	0	1	0	0	1	0	1	0	0	0	0	0	0	1	0	0	0.4	0.6
2-Apr	0	A	0	0	0	0	1	1	1	0	0	1	0	1	1	1	0	1	0	0	1	1	0	1	0.5	0.8
3-Apr	A	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	A	0.4	0.6
4-Apr	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	A	0	0.4	0.7
5-Apr	0	0	0	0	0	0	1	1	1	1	1	1	1	0	1	0	0	1	0	1	0	A	0	1	0.5	0.8
6-Apr	0	1	1	0	0	0	0	0	0	1	1	1	0	0	0	1	1	0	0	0	A	0	1	0	0.5	1.1
7-Apr	1	1	0	1	1	1	0	1	1	0	1	1	1	1	1	1	1	0	0	A	1	0	0	0	0.6	0.9
8-Apr	0	0	1	1	1	1	1	0	1	1	1	1	1	1	0	1	1	1	A	0	1	0	0	0	0.6	1.1
9-Apr	1	0	0	1	0	0	0	0	1	1	1	1	1	1	1	1	1	A	0	1	1	0	0	0	0.6	0.9
10-Apr	0	1	0	1	0	1	0	0	0	1	0	0	0	0	0	0	A	0	0	0	0	0	0	1	0.4	0.6
11-Apr	1	1	0	0	0	1	0	0	1	0	1	1	0	1	1	A	1	0	1	1	0	0	1	0	0.5	0.9
12-Apr	1	0	1	1	0	1	1	0	1	0	1	0	0	1	A	1	1	1	1	0	0	1	1	1	0.5	0.7
13-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0	1	1	1	1	1	1	1	0	0.7	1.1
14-Apr	0	1	1	1	1	1	1	1	1	1	1	1	A	2	4	0	0	1	0	1	1	1	1	0	0.8	4.3
15-Apr	0	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0	1	0	0	1	0	1	1	0.6	0.8
16-Apr	1	1	1	0	0	0	0	0	0	0	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0.5	1.0
17-Apr	0	0	0	0	0	1	1	1	0	A	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0.4	0.7
18-Apr	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0.3	0.5
19-Apr	0	0	0	0	0	0	0	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0.6	0.9
20-Apr	0	1	0	0	0	0	A	1	1	1	1	0	C	C	0	0	1	0	0	0	1	0	0	0	0.5	1.0
21-Apr	0	1	0	0	0	A	0	0	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	0.5	0.7
22-Apr	1	1	1	0	A	1	0	1	1	1	1	1	1	1	1	1	0	0	0	0	1	0	0	0	0.5	0.9
23-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
24-Apr	0	0	A	0	0	1	1	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0.4	0.5
25-Apr	0	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0.6	0.9
26-Apr	A	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	0	0	1	0	0	0	A	0.5	1.1
27-Apr	1	1	1	1	1	1	1	0	1	1	1	1	0	1	0	0	0	1	0	0	0	1	A	0	0.6	1.0
28-Apr	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	A	1	0	0.5	1.4
29-Apr	0	0	1	1	1	1	0	1	1	1	1	1	0	1	1	0	0	0	0	0	A	0	0	0	0.5	0.8
30-Apr	1	0	0	0	0	1	0	0	0	1	1	0	1	1	0	0	0	0	0	A	0	0	1	0	0.5	0.7
	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.5	0.5	0.6	0.7	0.5	0.5	0.5	0.4	0.5	0.5	0.5	0.5	0.5	Diurnal Average	
	0.8	0.7	1.0	0.9	0.8	0.8	0.8	1.1	0.9	1.1	1.1	0.9	1.1	2.3	4.3	0.9	0.8	0.8	0.7	0.7	0.9	0.7	1.4	0.8	Diurnal Maximum	

C - Calibration

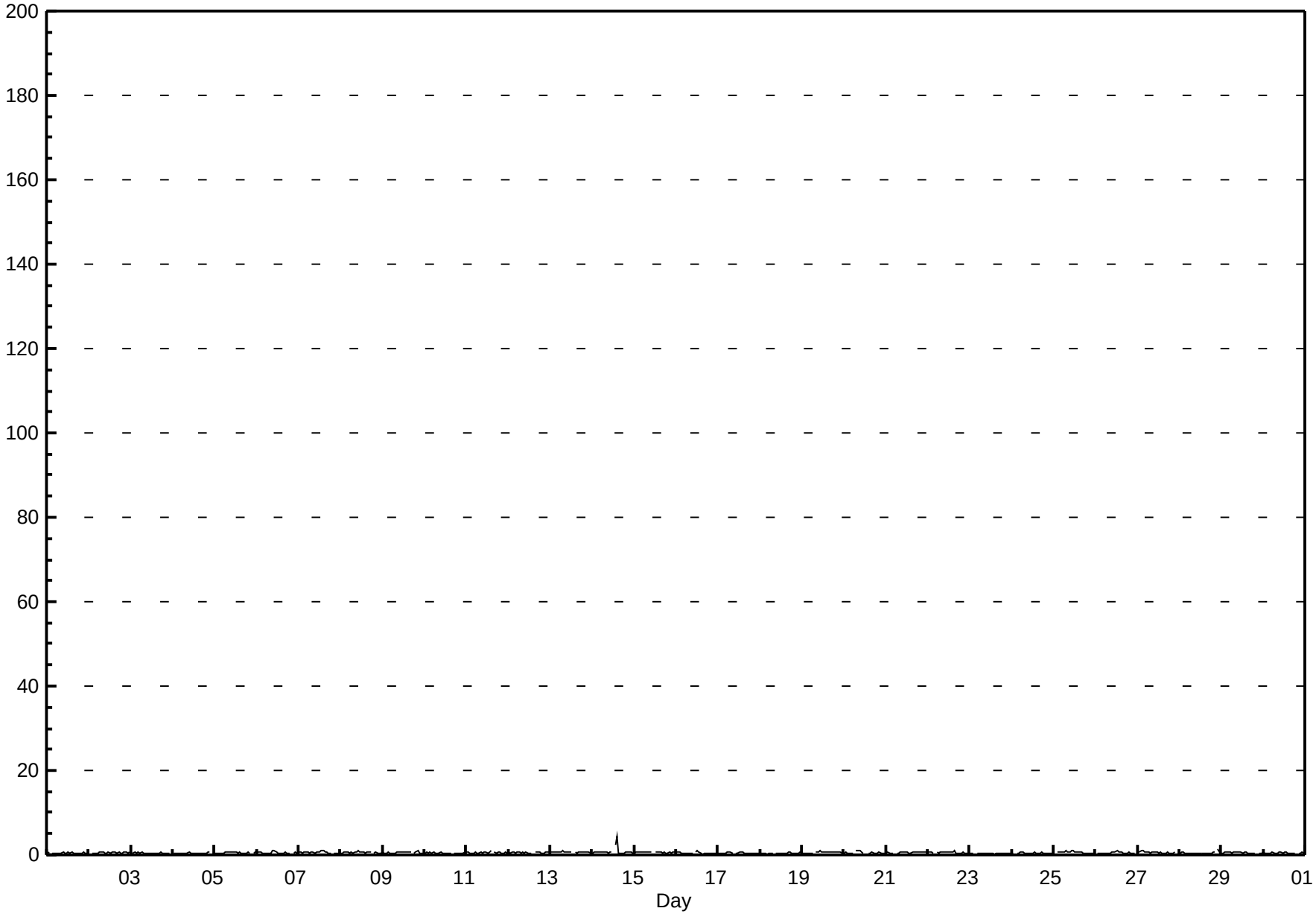
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

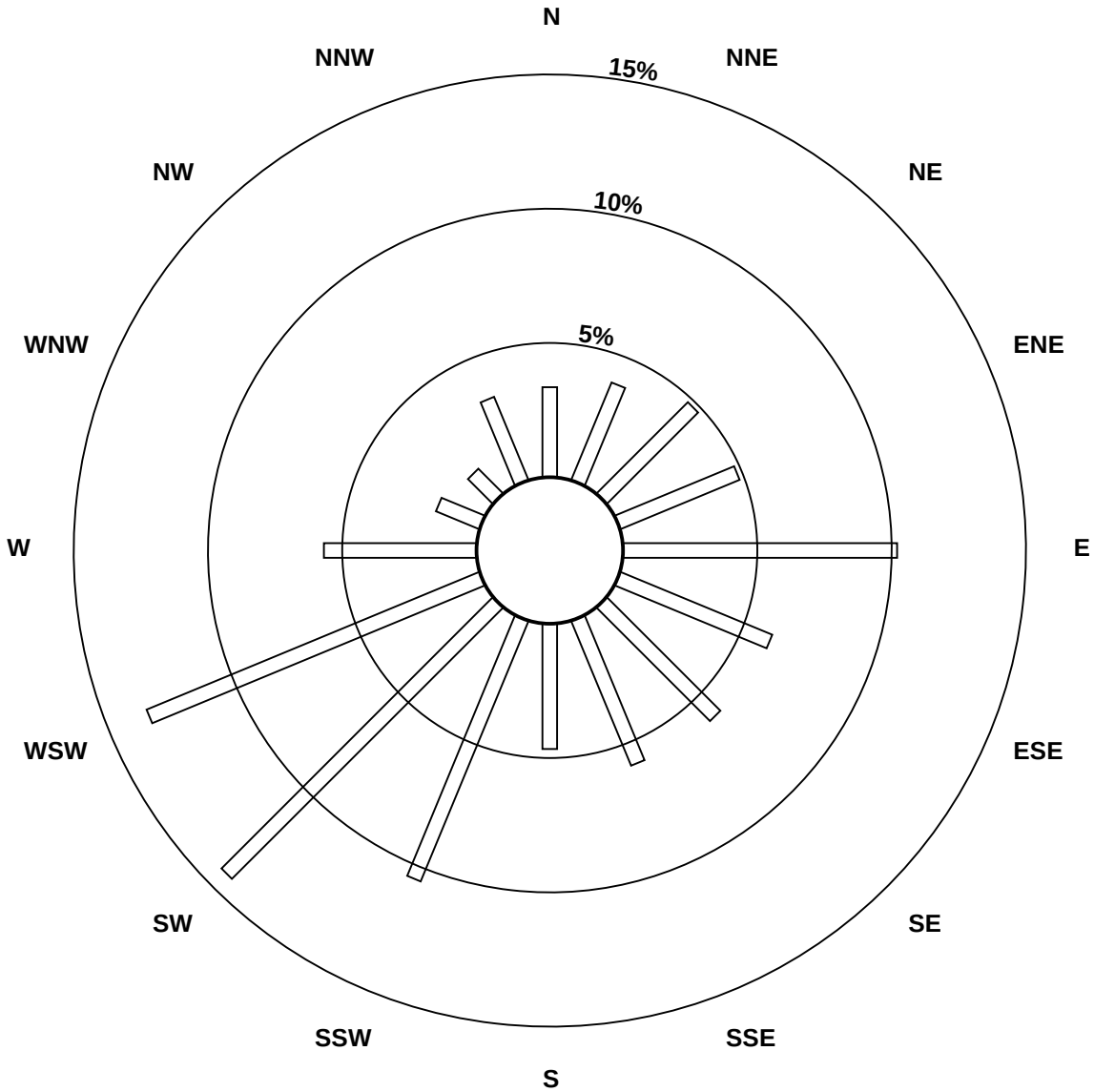
Falher - April 2015



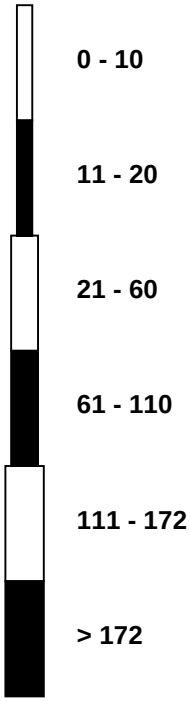
Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Falher - April 2015



Pollutant Classes (ppb)

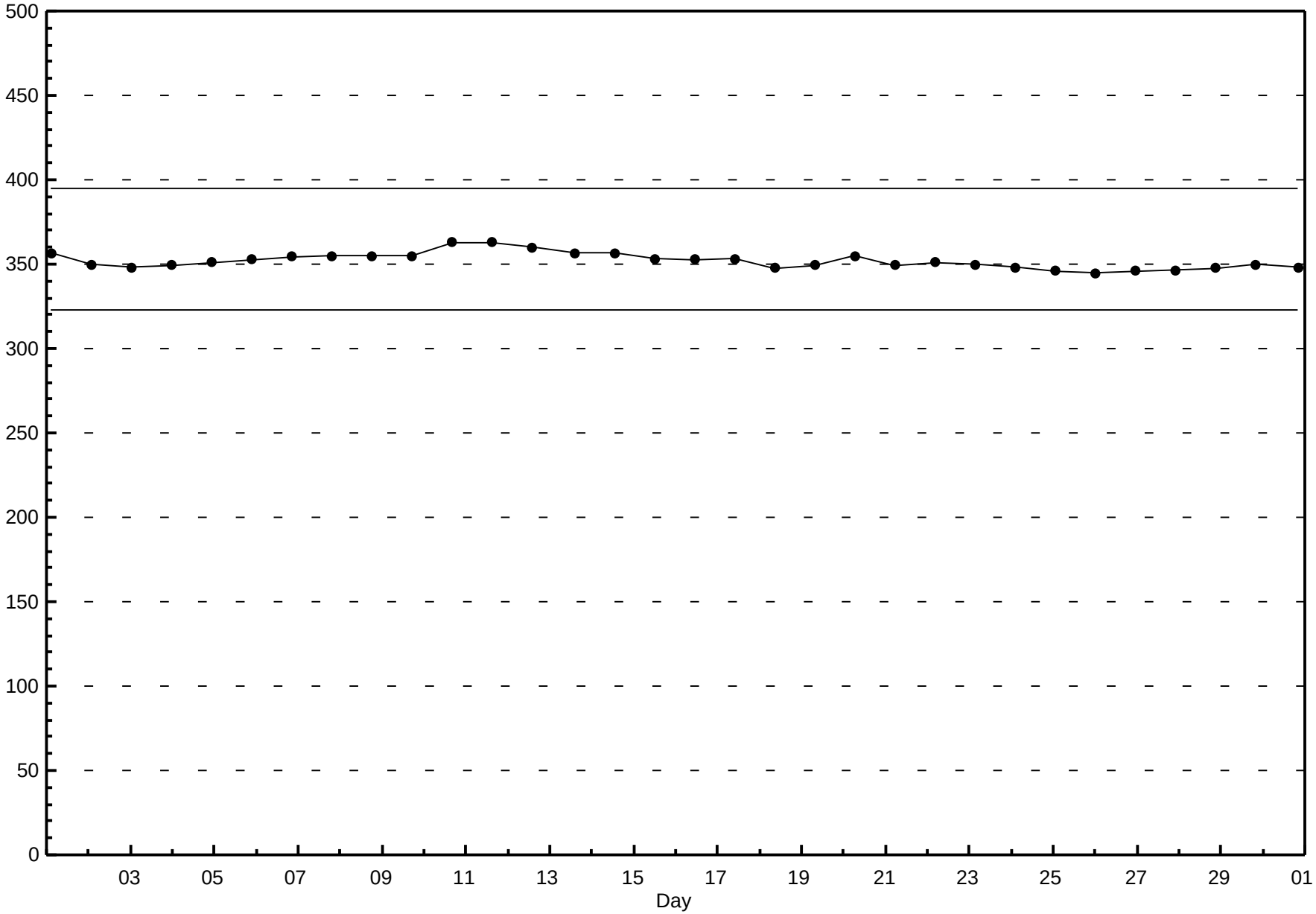


Peace Airshed Zone Association

Span Responses

Sulphur Dioxide (SO_2)

Falher - April 2015



Peace Airshed Zone Association

Hourly Averages

Hydrogen Sulphide (H_2S) - ppb

Falher - April 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 8.7 ppb on Apr 19 07:00 Maximum Daily Average: 2.2 ppb on Apr 19

Minimum Value: 0 ppb on Apr 1 01:00 Minimum Daily Average: 0.0 ppb on Apr 30
Maximum Diurnal Average: 0.6 ppb at hour 24 Minimum Diurnal Average: 0.1 ppb at hour 15
Monthly Average: 0.27 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} = 5.4

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	A	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
2-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
3-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
4-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	0.4
5-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
6-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
7-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.2	0.3
8-Apr	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	1	1	0	0.3	1.1
9-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	1	0	0.2	0.7
10-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	0.4
11-Apr	1	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	0.8
12-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
13-Apr	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	0.9
14-Apr	1	0	0	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
15-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
16-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	0.2
17-Apr	0	0	1	1	1	2	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	2.1
18-Apr	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	0.3	2.9
19-Apr	0	0	3	8	2	7	9	A	0	0	0	0	0	0	0	0	0	0	0	0	0	3	9	8	2.2	8.7
20-Apr	5	1	1	2	6	3	A	0	0	0	C	C	C	0	0	0	0	0	0	0	0	6	0	0	1.2	5.9
21-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	0.0	0.5
22-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
23-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	0.3
24-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
25-Apr	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	1.3
26-Apr	A	1	0	0	0	2	2	4	1	0	0	0	0	0	0	0	0	0	0	0	4	0	0	A	0.7	3.9
27-Apr	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	A	2	0.4	3.7
28-Apr	5	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	5.1
29-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	0.1
30-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	0.0
	0.5	0.3	0.3	0.5	0.4	0.6	0.5	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	0.2	0.6	0.6	0.6	Diurnal Average	
	5.3	2.4	2.5	8.0	5.5	7.2	8.7	3.8	0.7	0.4	0.5	0.4	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.4	3.9	5.9	8.7	8.2	Diurnal Maximum	

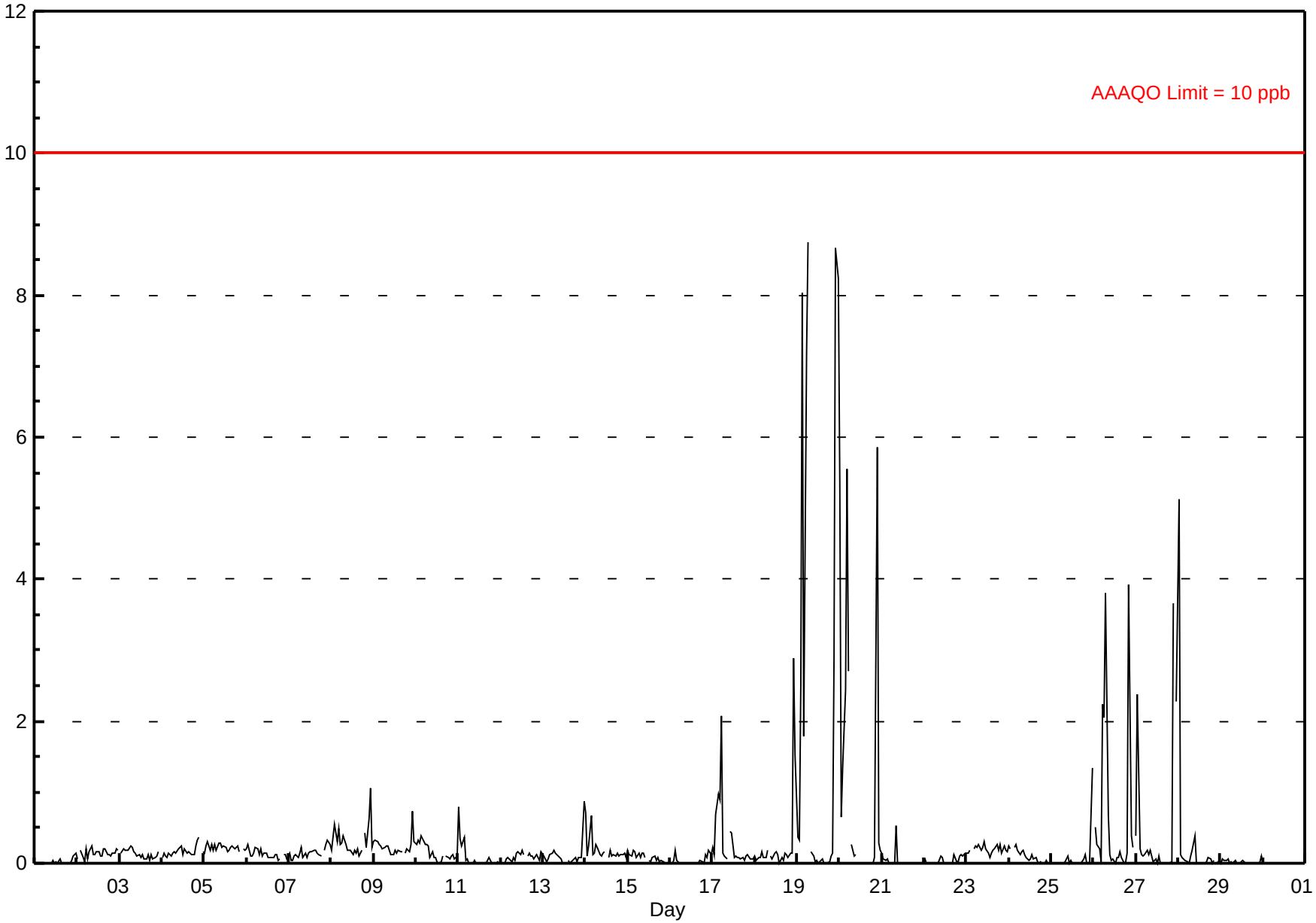
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb

Peace Airshed Zone Association

Hourly Averages

Hydrogen Sulphide (H_2S) - ppb

Falher - April 2015



Peace Airshed Zone Association

Hourly Maximums

Hydrogen Sulphide (H_2S) - ppb

Falher - April 2015

Maximum Value: 47.0 ppb on Apr 20 01:00

Maximum Daily Average: 8.5 ppb on Apr 19

Minimum Value: 0 ppb on Apr 30 06:00

Minimum Daily Average: 0.5 ppb on Apr 30

Maximum Diurnal Average: 3.2 ppb at hour 1

Minimum Diurnal Average: 0.6 ppb at hour 15

Monthly Average: 1.43 ppb

Percentiles: $P_1 = 0.4$ $P_{10} = 0.5$ $Q_1 = 0.6$ Median = 0.7 $Q_3 = 0.9$ $P_{90} = 1.1$ $P_{99} = 23.4$

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	0	A	1	1	1	0	0	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	1	0.6	1.2
2-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	0.8
3-Apr	A	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	A	0.7	1.0
4-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	1.1
5-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	0.8	1.0
6-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
7-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	0.8	1.1
8-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	2	2	1	1.0	2.0
9-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	2	1	1.0	2.1
10-Apr	1	1	1	1	1	2	1	1	1	1	1	1	1	0	1	1	A	0	1	1	1	1	1	1	0.8	1.8
11-Apr	2	1	1	1	1	1	1	1	1	1	1	0	1	0	0	A	0	2	1	0	1	1	0	0	0.8	1.8
12-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
13-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0	1	1	1	5	0.9	5.1
14-Apr	6	1	2	7	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1.3	7.3
15-Apr	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0
16-Apr	0	0	1	1	1	1	1	1	0	0	A	1	0	1	0	1	0	1	1	1	1	1	1	1	0.6	0.9
17-Apr	1	1	4	4	6	10	1	1	1	A	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1.8	9.5
18-Apr	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0	1	1	1	1	1	19	14	2.1	19.5
19-Apr	2	1	7	23	22	21	21	A	1	1	1	1	1	1	1	1	1	1	1	1	1	20	40	30	8.5	39.9
20-Apr	47	2	3	9	16	7	A	1	1	1	C	C	C	1	0	0	1	1	0	1	1	24	1	1	5.9	47.0
21-Apr	1	1	1	1	1	A	1	1	2	1	1	0	0	1	0	1	0	2	1	0	1	1	1	1	0.7	2.5
22-Apr	1	0	1	1	A	1	0	1	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0.7	1.5
23-Apr	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1
24-Apr	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	0.7	1.0
25-Apr	1	A	1	0	0	0	0	1	1	1	1	1	0	1	1	0	1	1	1	1	1	0	1	4	0.8	3.9
26-Apr	A	1	1	1	0	8	8	8	2	1	1	1	1	1	1	1	1	1	1	1	42	3	1	A	3.8	42.2
27-Apr	2	6	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	23	A	14	2.5	23.4
28-Apr	15	1	1	1	1	1	1	1	2	2	1	1	0	1	0	1	1	1	1	0	1	A	0	1	1.3	14.8
29-Apr	1	1	1	1	1	0	1	1	1	0	1	0	1	1	1	0	0	1	0	1	A	0	1	1	0.6	0.9
30-Apr	0	0	0	1	0	0	1	1	1	0	0	0	1	1	0	0	0	0	0	A	0	0	0	1	0.5	1.0
	3.2	1.0	1.2	2.2	2.1	2.3	1.7	1.0	0.8	0.8	0.8	0.8	0.6	0.7	0.6	0.7	0.7	0.7	0.7	0.7	2.2	3.2	2.9	3.0	Diurnal Average	
	47.0	5.7	6.8	23.4	21.7	21.2	21.5	7.7	2.5	2.2	3.1	2.0	1.0	1.2	1.1	0.9	1.2	1.8	1.0	1.4	42.2	24.2	39.9	29.8	Diurnal Maximum	

C - Calibration

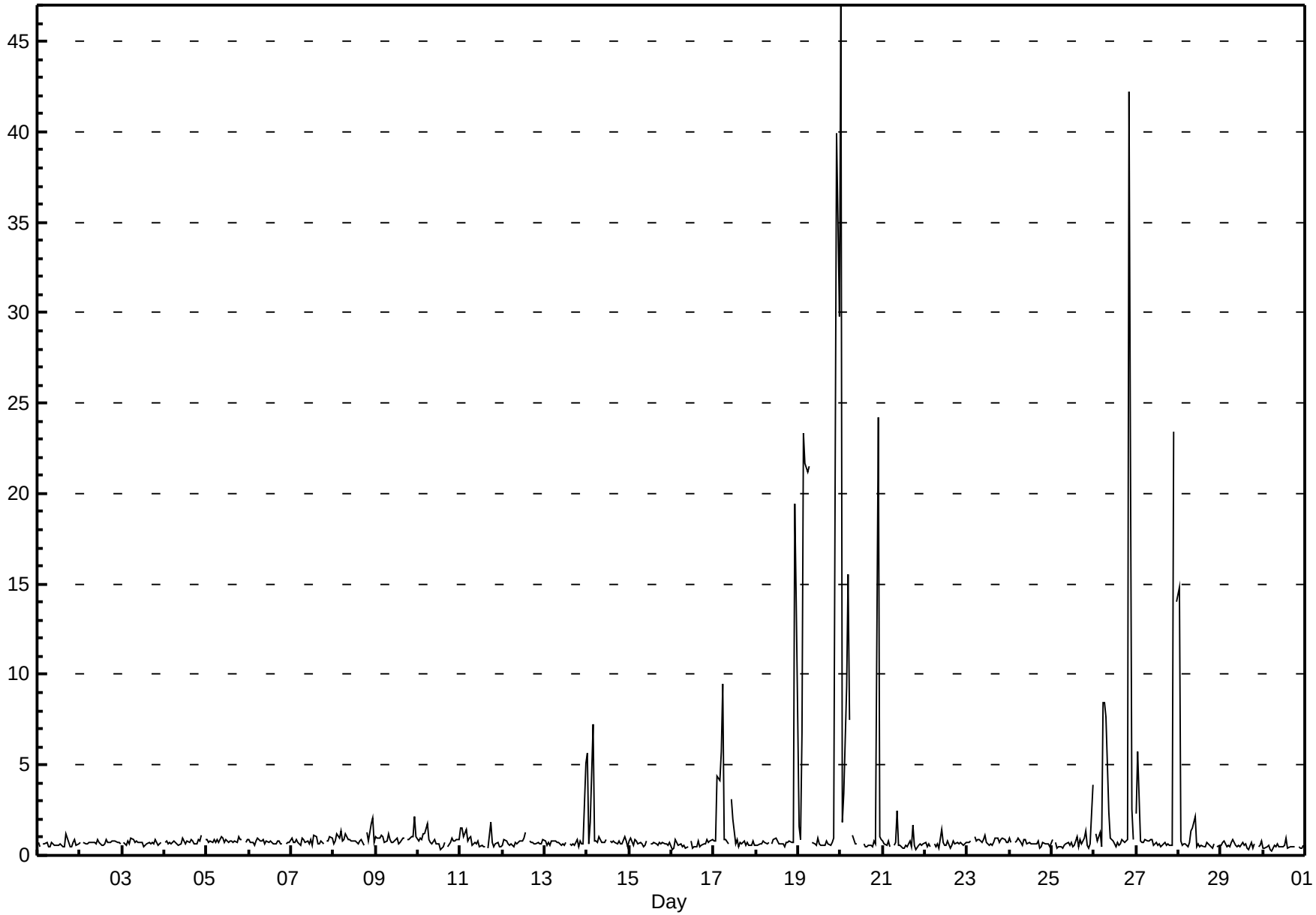
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Hydrogen Sulphide (H_2S) - ppb

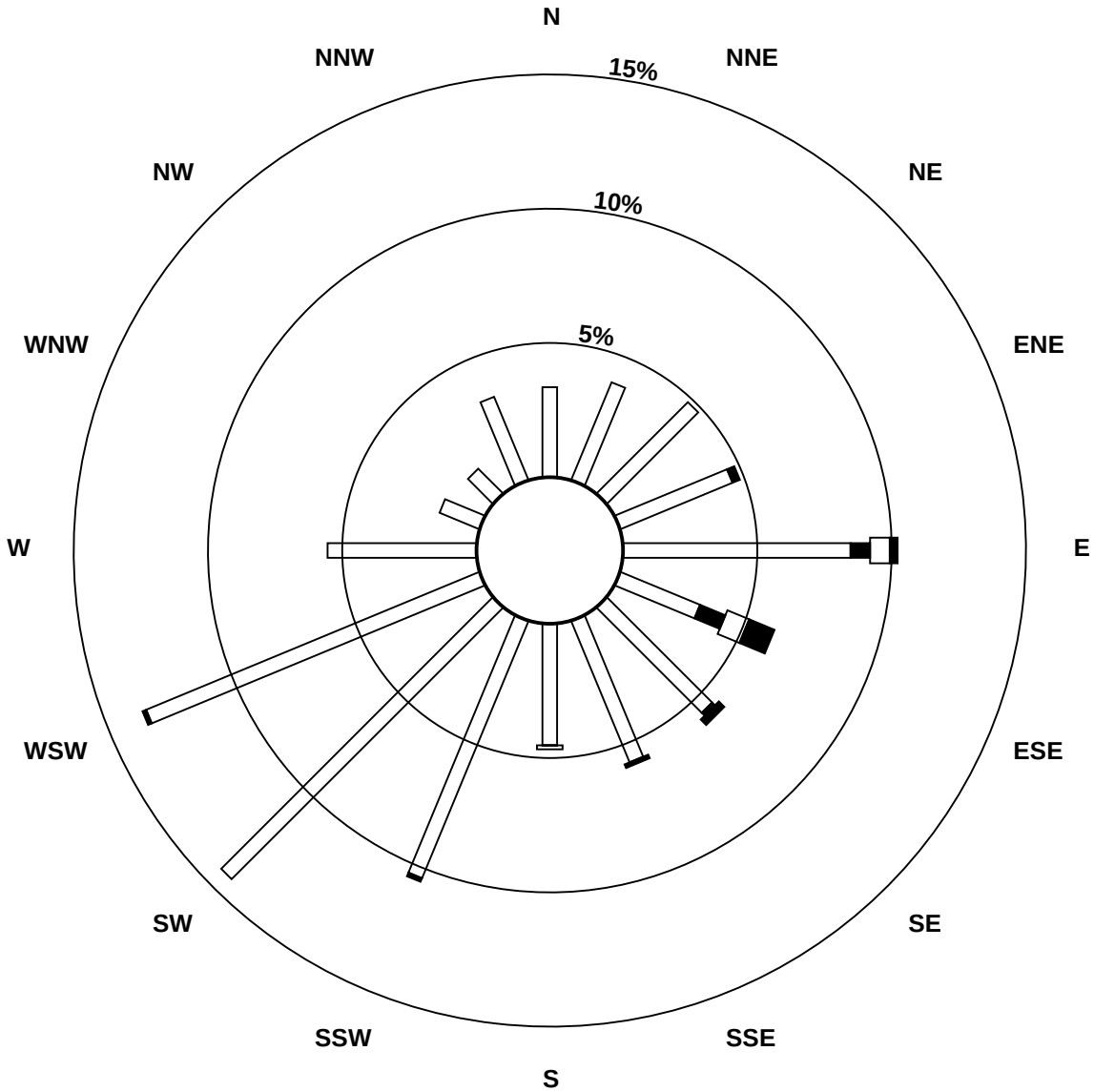
Falher - April 2015



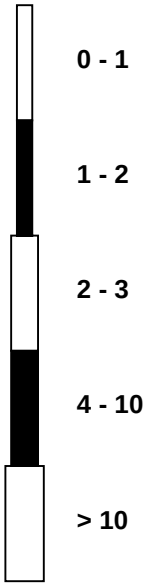
Pollutant Rose

Hydrogen Sulphide (H_2S) - ppb

Falher - April 2015



Pollutant Classes (ppb)

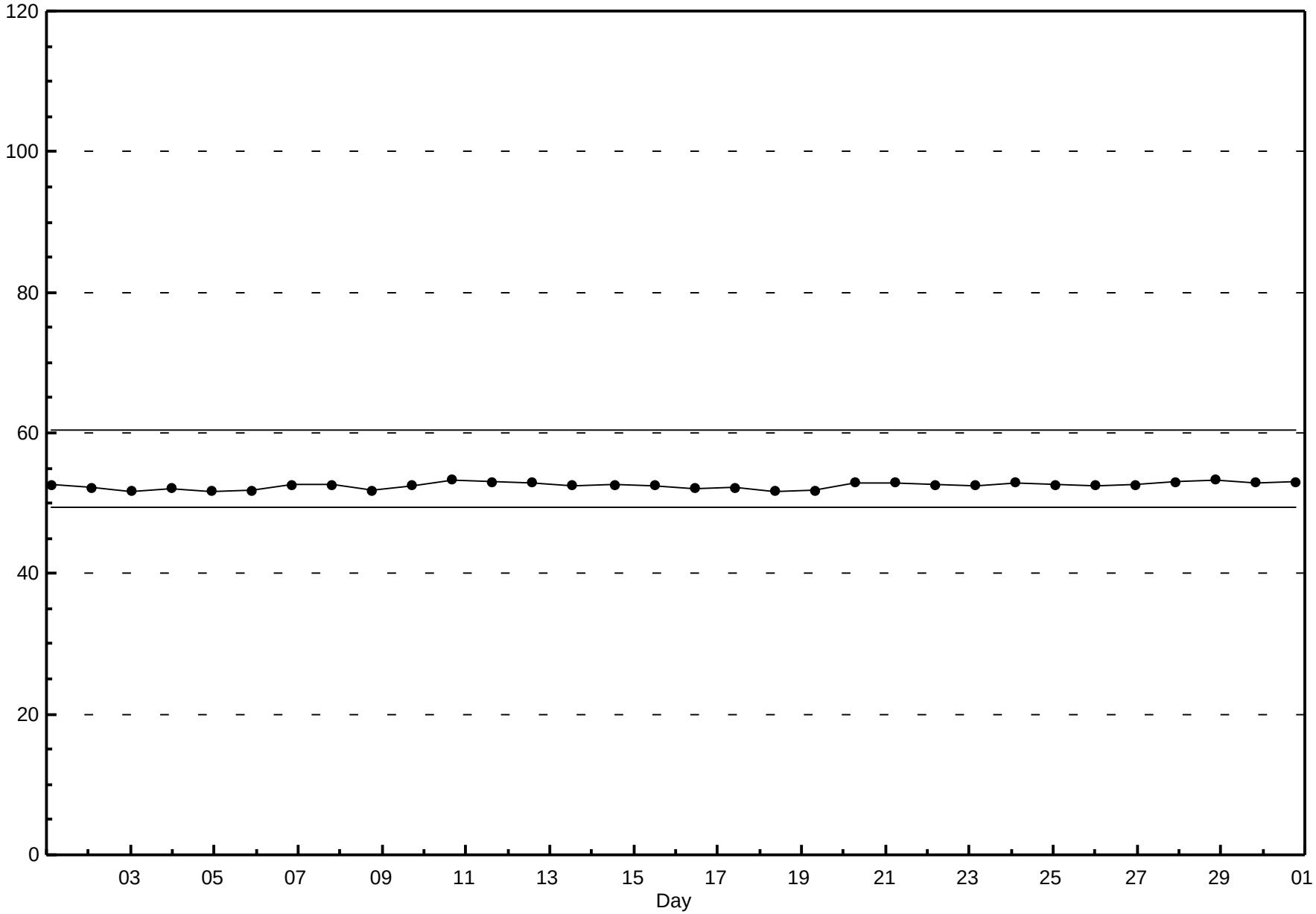


Peace Airshed Zone Association

Span Responses

Hydrogen Sulphide (H_2S)

Falher - April 2015



Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Falher - April 2015

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

Maximum Value: 23.2 ^{o}C on Apr 28 15:00

Maximum Daily Average: 14.4 ^{o}C on Apr 21

Minimum Value: -6 ^{o}C on Apr 5 07:00

Maximum Diurnal Average: 11.1 ^{o}C at hour 16

Monthly Average: 5.61 ^{o}C

Minimum Daily Average: -0.8 ^{o}C on Apr 5

Minimum Diurnal Average: 0.2 ^{o}C at hour 6

Percentiles: P_1 = -4.1 P_{10} = -1.3 Q_1 = 0.8 Median = 4.6 Q_3 = 9.6 P_{90} = 14.0 P_{99} = 21.0

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

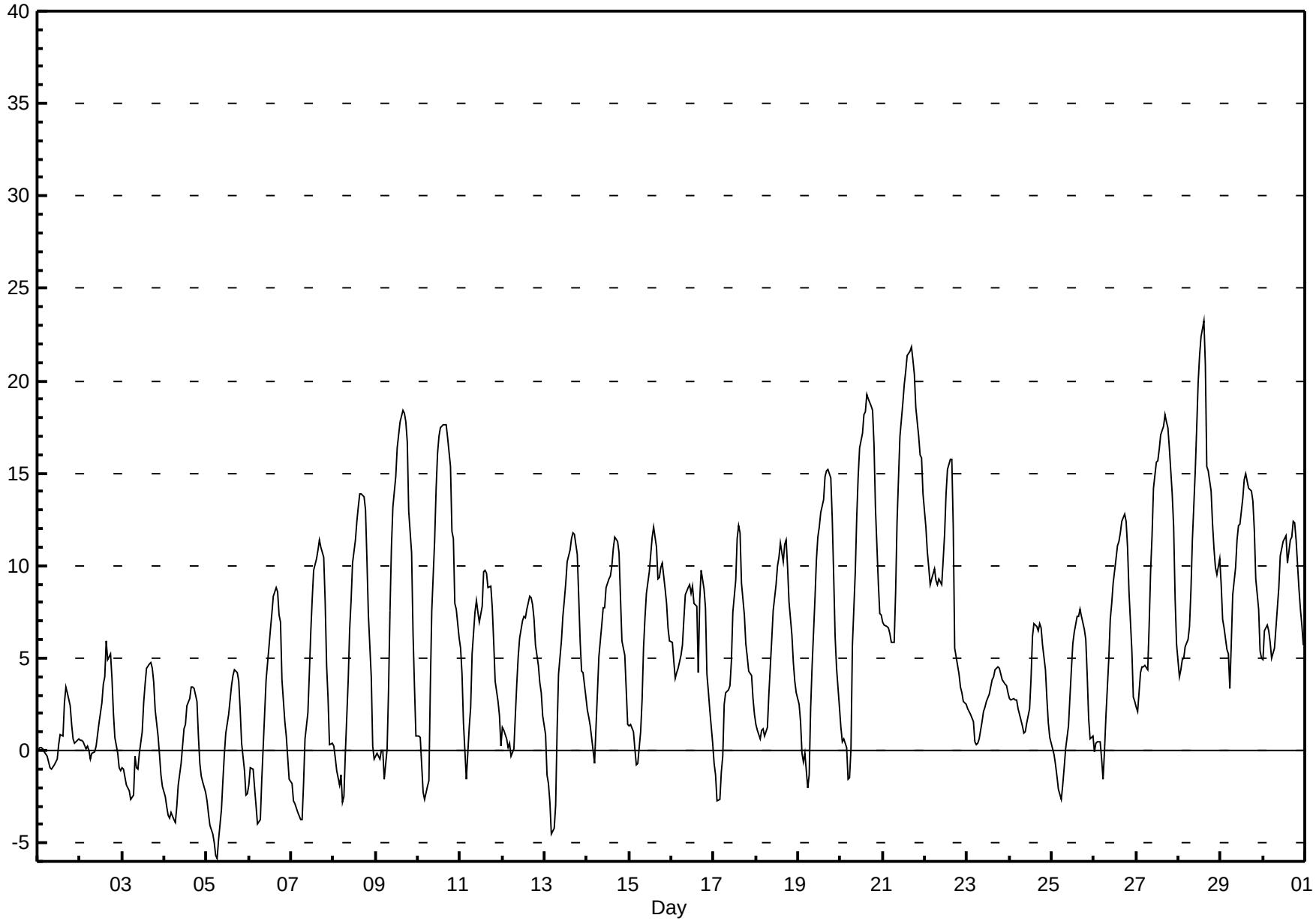
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Apr	0	0	0	0	0	0	-1	-1	-1	-1	-1	0	0	1	1	3	3	3	2	1	1	0	0	1	0.5	3.4
2-Apr	1	1	0	0	0	0	0	0	0	0	1	1	3	4	4	6	5	5	4	2	1	0	-1	-1	1.4	5.9
3-Apr	-1	-1	-2	-2	-2	-3	-2	0	-1	-1	0	1	3	4	4	5	5	4	4	2	1	0	-1	-2	0.6	4.8
4-Apr	-2	-3	-4	-4	-3	-4	-4	-3	-2	-1	0	1	1	2	3	3	3	3	3	1	-1	-1	-2	-2	-0.6	3.5
5-Apr	-3	-3	-4	-5	-5	-6	-6	-5	-3	-2	0	1	2	3	4	4	4	4	4	2	0	-1	-2	-2	-0.8	4.3
6-Apr	-2	-1	-1	-2	-3	-4	-4	-2	0	2	4	6	7	7	8	9	9	7	7	4	2	1	0	-2	2.2	8.8
7-Apr	-2	-3	-3	-3	-3	-4	-4	-2	1	2	4	6	8	10	10	11	11	11	10	8	5	3	0	0	3.3	11.4
8-Apr	0	0	-1	-2	-1	-3	-3	0	4	7	8	10	11	12	13	14	14	14	13	10	7	4	0	0	5.5	13.9
9-Apr	0	0	0	0	0	-2	0	3	8	11	13	15	16	17	18	18	18	18	17	13	11	6	3	1	8.5	18.4
10-Apr	1	1	-1	-2	-3	-2	-2	3	8	11	14	16	17	17	18	18	18	17	15	12	11	8	8	6	8.7	17.7
11-Apr	6	4	1	-2	0	1	2	5	7	8	8	7	8	10	10	10	9	9	8	6	4	3	2	0	5.2	9.8
12-Apr	1	1	1	0	0	0	0	2	4	5	6	7	7	7	8	8	8	8	7	6	5	4	3	2	4.2	8.4
13-Apr	1	-1	-2	-3	-5	-4	-3	1	4	6	7	8	9	10	11	12	12	12	11	8	6	4	4	3	4.6	11.8
14-Apr	2	2	1	0	-1	1	3	5	7	8	8	9	9	9	10	11	12	11	11	8	6	5	3	1	5.9	11.6
15-Apr	1	1	1	0	-1	-1	1	3	6	7	8	10	11	12	12	11	9	9	10	10	9	8	7	6	6.3	12.1
16-Apr	6	5	4	4	4	5	6	7	8	9	9	8	9	8	8	4	8	10	9	8	4	3	2	0	6.2	9.7
17-Apr	-1	-1	-3	-3	-1	0	3	3	3	4	5	7	9	11	12	12	9	7	6	5	4	4	3	2	4.2	12.2
18-Apr	1	1	1	1	1	1	1	3	4	6	8	9	10	10	11	10	11	11	10	8	6	5	4	3	5.7	11.4
19-Apr	3	2	0	-1	0	-2	-1	2	5	8	10	12	12	13	14	15	15	15	15	13	9	6	4	2	7.1	15.2
20-Apr	1	0	1	0	-2	-1	0	6	10	13	15	16	17	18	18	19	19	19	18	17	13	9	7	7	10.1	19.2
21-Apr	7	7	7	7	6	6	6	9	12	15	17	19	20	21	21	22	22	21	20	19	17	16	16	14	14.4	21.9
22-Apr	12	11	10	9	9	10	9	9	9	9	10	12	14	15	16	16	12	6	5	4	3	3	3	3	9.1	15.7
23-Apr	2	2	2	2	0	0	0	1	2	2	2	3	3	3	4	4	4	5	4	4	4	4	3	3	2.7	4.5
24-Apr	3	3	3	3	3	2	2	1	1	1	1	2	4	6	7	7	7	7	7	6	4	3	2	1	3.5	6.9
25-Apr	0	0	-1	-1	-2	-3	-2	-1	0	1	3	4	6	6	7	7	8	7	7	6	4	2	1	1	2.5	7.7
26-Apr	0	0	0	0	0	-2	0	2	5	7	8	9	10	11	11	12	12	13	12	11	9	5	3	3	5.9	12.8
27-Apr	2	2	4	5	5	5	4	7	10	12	14	16	16	16	17	18	18	18	17	16	14	12	8	6	10.9	18.2
28-Apr	4	4	5	5	6	6	7	9	11	15	17	20	21	22	23	21	15	15	14	12	11	10	10	10	12.3	23.2
29-Apr	9	7	7	5	5	3	6	8	10	11	12	12	14	15	15	15	14	14	13	12	9	8	5	5	9.8	15.0
30-Apr	5	7	7	6	6	5	6	7	8	9	11	11	11	12	10	11	12	12	12	11	9	8	7	6	8.6	12.4
	1.9	1.5	1.1	0.6	0.5	0.2	0.8	2.7	4.6	6.1	7.4	8.6	9.6	10.5	10.9	11.1	10.9	10.5	9.8	8.2	6.2	4.7	3.4	2.5	Diurnal Average	
	12.1	10.7	9.9	9.0	9.3	9.8	9.2	9.0	12.4	15.2	17.5	19.9	21.3	22.4	23.2	21.6	21.9	21.1	20.4	18.6	17.0	16.0	15.8	13.9	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Falher - April 2015



Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Falher - April 2015

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	21	21	21	23	24	25	24	21	21	18	21	20	16	16	10	13	16	14	8	7	9	9	7	6	14.2	24.7
Dir	257	264	268	273	273	276	278	283	292	302	298	303	298	298	304	265	241	239	226	201	203	183	190	218	271	276
2 Spd	6	8	7	9	11	12	8	8	6	5	4	4	2	2	4	3	6	7	13	10	11	11	9	7	2.4	12.8
Dir	223	235	245	244	279	310	309	344	331	354	35	11	131	150	35	350	353	350	29	53	61	86	103	124	358	29
3 Spd	9	7	7	8	5	2	2	5	16	14	11	9	3	5	6	11	13	15	14	13	14	11	11	12	6.4	15.8
Dir	131	97	86	122	154	163	32	339	350	6	23	47	21	1	342	344	342	338	341	353	42	52	41	47	20	350
4 Spd	11	12	2	7	10	9	9	8	12	13	15	16	16	16	15	13	12	10	13	14	15	16	16	16	11.6	16.5
Dir	51	47	63	323	338	348	2	10	347	353	345	339	341	345	347	343	342	342	338	331	326	334	338	358	347	341
5 Spd	15	16	16	15	15	11	6	15	10	9	11	11	12	11	10	10	8	9	8	8	12	14	13	15	11.0	15.9
Dir	11	14	7	9	21	16	5	38	58	35	43	46	21	39	38	10	359	24	28	29	57	70	54	53	31	14
6 Spd	14	17	15	15	11	10	10	16	20	18	17	20	21	20	20	21	22	18	16	16	16	15	13	15	14.3	22.2
Dir	57	74	79	71	68	71	69	82	91	98	104	116	118	120	134	142	157	156	154	141	130	127	106	85	110	157
7 Spd	17	14	15	15	16	15	16	13	18	16	13	11	10	12	10	9	14	14	7	4	8	7	6	12	5.0	17.7
Dir	85	81	76	72	74	71	77	97	137	155	163	174	198	234	257	227	255	270	251	221	134	89	124	199	132	137
8 Spd	14	13	8	6	6	8	8	10	11	16	16	19	19	17	16	17	18	17	10	4	1	4	11	11	8.3	19.4
Dir	195	186	191	184	157	157	165	176	216	250	246	255	248	262	268	268	257	259	265	260	293	110	124	145	229	255
9 Spd	11	10	12	16	14	11	15	15	17	22	23	25	21	19	20	21	20	21	14	8	3	6	9	10	11.1	25.1
Dir	166	162	156	166	156	145	157	170	197	224	239	247	246	247	242	243	236	228	226	235	242	110	113	97	209	247
10 Spd	9	10	9	11	12	14	9	12	14	13	9	10	12	15	19	23	21	22	20	17	21	13	8	10	10.0	23.0
Dir	109	102	96	102	78	84	108	130	145	153	162	176	171	192	174	159	168	194	201	213	221	219	222	245	167	159
11 Spd	11	6	3	11	13	12	12	12	17	33	33	32	28	33	35	37	38	32	31	25	22	25	22	19	19.9	38.0
Dir	253	235	134	122	142	145	165	180	240	246	240	228	233	236	234	233	231	238	243	225	214	203	209	192	223	231
12 Spd	24	27	29	28	29	23	25	32	37	41	45	44	39	39	41	41	44	46	40	34	28	25	25	20	32.3	45.7
Dir	207	205	202	199	203	205	207	218	228	239	241	240	242	239	238	244	244	244	244	239	235	227	224	227	230	244
13 Spd	18	16	13	16	15	15	15	9	11	10	6	5	9	8	13	19	20	21	27	26	26	25	26	19	10.1	27.3
Dir	217	208	211	202	183	180	186	212	234	252	249	178	152	133	141	133	126	110	92	93	89	88	90	98	140	92
14 Spd	19	18	16	11	9	12	12	17	25	31	29	28	26	27	26	26	27	29	27	25	18	19	15	17	15.9	30.8
Dir	99	90	94	116	163	187	195	218	238	240	230	227	227	226	232	233	250	250	253	250	250	247	226	203	226	240
15 Spd	16	18	20	18	15	18	18	18	26	30	33	31	29	32	33	34	38	23	23	33	28	31	23	19	24.6	37.5
Dir	204	204	201	193	194	193	204	209	223	230	233	229	227	230	228	241	227	213	209	236	232	234	230	226	222	227
16 Spd	19	16	12	15	16	17	17	17	28	29	29	26	27	22	18	23	27	24	25	17	16	18	14	7	18.6	28.8
Dir	220	217	211	193	196	199	202	213	222	212	218	223	233	241	250	275	245	242	229	226	186	188	208	185	221	212
17 Spd	14	4	9	12	10	9	13	17	14	20	28	25	17	18	19	24	25	32	27	27	22	22	18	13	8.1	32.1
Dir	168	143	78	116	100	109	134	155	130	76	95	132	171	231	228	237	275	271	252	245	241	248	248	245	206	271
18 Spd	15	12	12	16	17	19	15	12	15	16	16	18	19	21	21	19	18	13	13	7	6	1	1	8	12.6	21.4
Dir	232	239	233	244	246	252	253	270	277	284	280	280	277	273	275	275	278	278	272	281	308	116	120	174	265	275
19 Spd	2	6	8	10	9	8	8	7	9	7	7	13	12	12	10	13	16	14	14	9	5	8	8	7	3.5	15.6
Dir	136	95	117	103	92	112	116	168	220	247	252	251	234	238	228	261	260	264	272	287	0	101	106	127	220	260
20 Spd	7	7	6	7	6	5	7	5	7	6	4	6	6	6	4	3	5	2	4	5	6	10	12	15	2.1	15.4
Dir	92	101	97	111	146	87	102	202	261	274	271	284	248	249	210	299	244	180	40	75	79	98	90	89	115	89
21 Spd	16	17	18	18	16	16	19	19	16	20	18	18	19	13	10	14	19	24	26	22	19	5	16	15	15.7	26.2
Dir	95	91	90	92	91	89	93	98	134	150	140	156	145	154	136	134	111	103	100	95	87	129	121	76	111	100
22 Spd	11	15	13	13	20	21	21	22	20	15	13	11	11	9	4	6	21	38	21	18	17	23	20	17	3.7	38.0
Dir	31	34	62	84	74	81	86	85	87	92	70	35	27	37	86	265	259	209	232	224	204	206	222	229	126	209

Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Falher - April 2015

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	14	15	15	15	11	9	10	9	10	11	12	11	9	6	5	4	1	2	6	11	10	5	12	11	3.9	15.4
Dir	229	220	226	228	217	205	192	187	218	232	245	255	263	266	310	311	307	88	89	55	59	57	34	42	228	226
24 Spd	10	12	6	8	19	24	22	25	26	22	22	18	18	21	23	19	17	15	14	12	14	21	20	15	16.5	26.2
Dir	23	13	27	359	31	51	53	59	55	37	29	19	25	42	68	64	51	66	82	81	13	27	30	24	42	55
25 Spd	14	13	9	9	11	9	10	16	10	8	8	7	7	5	5	4	11	15	14	12	12	14	4	6	5.0	15.9
Dir	19	14	17	356	1	346	1	32	40	51	55	74	78	75	104	188	150	128	112	128	163	165	140	104	69	32
26 Spd	7	6	7	11	13	14	15	15	14	18	22	20	17	17	15	15	14	11	13	8	10	13	16	17	10.4	21.9
Dir	75	69	66	75	88	87	96	104	109	131	144	140	143	150	171	194	203	191	204	173	123	94	90	88	127	144
27 Spd	17	14	20	18	14	16	13	13	15	17	23	26	26	23	27	25	24	20	10	7	4	7	11	10	12.1	27.0
Dir	95	119	140	147	149	149	159	173	191	210	238	232	226	228	220	235	228	225	229	219	222	154	142	108	196	220
28 Spd	10	14	15	18	20	22	20	20	22	21	28	39	40	36	28	20	44	29	20	16	12	14	14	17	11.7	44.3
Dir	105	85	87	89	93	96	96	103	105	131	146	165	173	175	165	221	276	267	253	234	195	172	191	231	163	276
29 Spd	15	11	13	12	14	17	15	22	28	26	28	29	28	26	30	30	31	30	29	25	17	18	15	17	21.3	30.6
Dir	230	227	216	218	210	212	222	240	248	251	249	235	240	241	246	241	234	249	243	237	230	216	207	199	235	234
30 Spd	15	19	26	27	27	28	30	31	32	32	27	26	26	27	25	20	22	23	26	17	21	26	27	23	24.0	32.3
Dir	204	205	207	209	210	211	213	220	219	229	235	243	235	236	239	255	255	256	256	248	211	209	213	212	226	219
Spd	3.9	3.4	4.4	5.0	4.5	4.5	5.1	5.2	6.2	7.4	8.0	9.6	10.2	10.4	10.0	11.4	13.2	11.7	8.8	6.7	4.8	5.8	4.9	4.4	Diurnal Average	
Dir	164	149	151	156	148	148	156	167	204	223	224	223	223	229	226	237	242	237	235	226	198	179	166	159		
Spd	24.3	26.9	29.0	27.9	29.0	27.9	30.0	31.8	37.2	40.7	45.3	43.6	40.0	38.6	41.4	41.5	44.3	45.7	39.8	33.5	27.8	31.0	26.6	23.3	Diurnal Maximum	
Dir	207	205	202	199	203	211	213	218	228	239	241	240	173	239	238	244	276	244	244	239	232	234	213	212		

Maximum Speed Value: 46 km/h on Apr 12 18:00
Maximum Daily Speed Average: 32.3 km/h on Apr 12
Maximum Diurnal Speed Average: 13.2 km/h at hour 17

Minimum Speed Value: 1 km/h on Apr 18 22:00
Minimum Daily Speed Average: 2.1 km/h on Apr 20
Minimum Diurnal Speed Average: 3.4 km/h at hour 2

Monthly Average Velocity: 5.94 km/h 208.6 deg

Speed Percentiles: $P_1 = 2.0$ $P_{10} = 6.5$ $Q_1 = 10.2$ Median = 15.1 $Q_3 = 20.7$ $P_{90} = 27.1$ $P_{99} = 41.4$

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

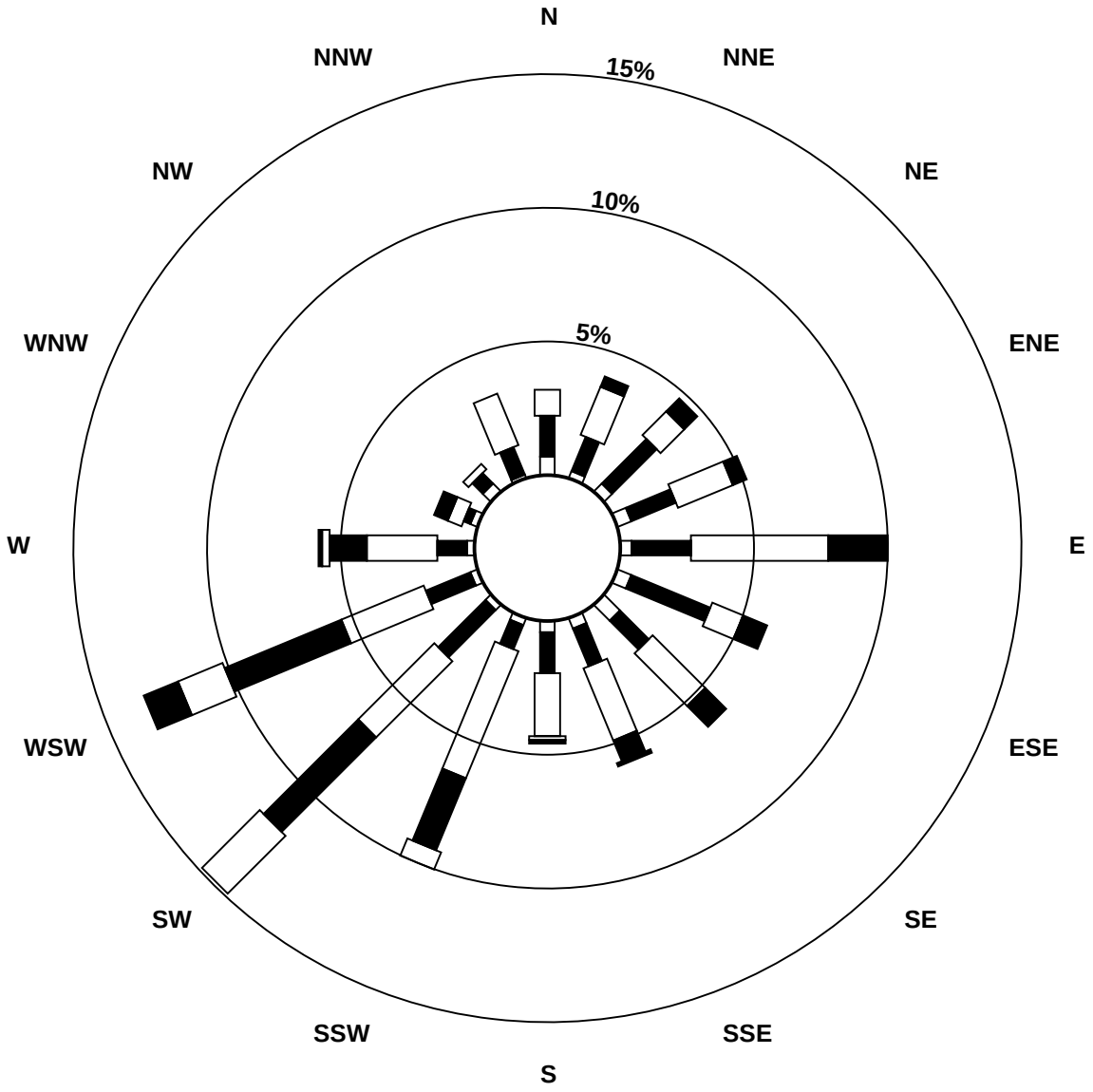
Frequency Distribution

Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	7	18	31	0	0	0	56
NorthEast	5	23	26	9	0	0	63
East	4	41	53	26	0	0	124
SouthEast	8	22	40	15	0	0	85
South	3	21	43	7	2	2	78
SouthWest	5	24	59	72	39	11	210
West	2	18	29	30	5	1	85
NorthWest	5	5	7	2	0	0	19
Total	39	172	288	161	46	14	720

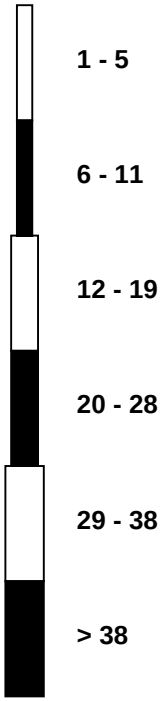
Wind Rose

Wind Speed (WS) (km/h)

Falher - April 2015



Wind Speed Classes (km/h)



Peace Airshed Zone Association

Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Falher - April 2015

Maximum Speed: 46 km/h on Apr 12 18:00

Maximum Daily Speed Average: 33.7 km/h on Apr 12

Minimum Speed: 1 km/h on Apr 8 21:00

Minimum Daily Speed Average: 7.4 km/h on Apr 20

Maximum Diurnal Speed Average: 21.2 km/h at hour 17

Minimum Diurnal Speed Average: 13.1 km/h at hour 3

Monthly Average Speed: 16.52 km/h

Percentiles: P_1 = 2.8 P_{10} = 7.1 Q_1 = 10.6 Median = 15.4 Q_3 = 21.0 P_{90} = 27.5 P_{99} = 41.7

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	21	21	21	23	24	25	24	21	21	18	21	20	16	16	11	14	16	14	9	7	9	9	7	6	16.4	24.7
2-Apr	6	8	7	9	12	12	8	8	7	5	4	5	3	4	5	5	7	8	13	10	11	11	10	7	7.7	13.3
3-Apr	10	8	7	8	5	2	2	6	16	14	11	10	5	6	7	11	13	15	14	14	14	12	11	12	9.7	16.0
4-Apr	11	12	7	8	10	9	9	9	12	13	15	16	17	17	16	13	13	11	13	14	15	16	16	16	12.8	16.8
5-Apr	15	16	16	16	15	11	6	15	11	9	12	12	12	12	11	11	9	10	9	9	13	14	13	15	12.1	16.0
6-Apr	14	17	15	15	11	10	10	16	20	18	17	21	21	21	21	22	22	18	16	16	16	15	13	15	16.7	22.5
7-Apr	17	14	15	15	16	15	16	13	18	16	13	12	11	14	12	11	16	14	7	4	9	7	7	12	12.7	17.9
8-Apr	14	13	8	6	6	8	8	10	12	16	16	20	20	18	17	17	18	17	10	4	1	5	12	11	12.0	19.7
9-Apr	11	10	12	16	14	11	15	15	17	22	24	25	22	20	21	22	21	22	14	8	3	6	9	10	15.4	25.4
10-Apr	9	10	9	11	12	14	9	12	14	13	9	10	13	16	20	24	22	22	20	17	21	13	8	10	14.2	23.8
11-Apr	11	6	4	11	14	12	12	13	18	33	33	32	29	34	35	37	38	32	31	25	22	25	22	19	22.8	38.5
12-Apr	24	27	29	28	29	23	25	32	37	41	46	44	39	39	42	42	44	46	40	34	28	25	25	20	33.7	45.9
13-Apr	18	16	13	16	15	15	15	9	11	11	7	8	11	10	15	20	20	22	27	26	26	25	26	20	16.8	27.3
14-Apr	19	18	16	11	10	12	12	17	25	31	29	29	27	28	27	27	28	29	27	25	18	19	16	17	21.6	31.1
15-Apr	16	18	20	18	16	18	19	18	27	30	34	31	29	33	34	35	38	24	23	33	28	31	23	19	25.6	38.0
16-Apr	19	16	12	15	16	17	17	18	28	29	29	27	27	23	21	25	27	24	25	17	16	18	14	8	20.4	29.1
17-Apr	14	7	10	12	11	9	13	17	15	20	28	26	18	19	20	26	26	33	27	27	22	22	18	13	18.8	32.5
18-Apr	15	12	12	16	17	19	15	12	15	16	17	19	20	21	22	20	18	14	13	7	6	2	2	8	14.0	22.2
19-Apr	3	6	8	10	9	8	8	8	9	7	8	14	14	14	11	13	16	14	14	9	6	8	8	7	9.6	16.3
20-Apr	7	7	6	7	6	5	7	6	7	7	5	7	8	8	7	7	7	6	5	5	7	10	12	15	7.4	15.4
21-Apr	16	17	18	18	16	16	19	19	17	20	19	18	19	15	11	15	21	24	26	22	19	14	20	16	18.1	26.2
22-Apr	11	16	14	13	20	21	21	22	20	15	14	12	12	11	6	10	27	38	21	19	18	23	20	17	17.5	38.3
23-Apr	14	15	15	15	11	9	10	9	10	11	12	11	9	7	5	4	2	3	6	11	10	6	12	11	9.5	15.4
24-Apr	10	12	7	8	19	24	22	25	26	22	23	18	18	21	24	19	17	15	14	12	14	21	20	15	17.7	26.2
25-Apr	14	13	9	10	11	9	10	16	10	8	8	8	9	7	7	8	13	15	14	13	12	14	5	6	10.5	16.0
26-Apr	7	6	7	11	13	14	15	15	14	19	22	20	19	18	16	15	15	12	13	8	11	13	16	17	14.0	22.4
27-Apr	17	14	20	18	14	16	13	13	16	18	24	27	27	24	27	25	24	20	10	7	5	8	12	11	17.1	27.3
28-Apr	10	14	15	18	20	22	20	20	22	22	28	39	40	36	28	33	44	29	20	16	13	14	16	17	23.2	44.5
29-Apr	15	11	13	12	14	17	15	22	28	26	28	29	29	27	31	31	31	30	30	25	17	18	15	17	22.2	31.0
30-Apr	15	19	26	27	27	28	30	31	32	32	27	26	27	27	26	21	23	24	27	17	21	26	27	23	25.4	32.4
	13.5	13.4	13.1	13.9	14.5	14.4	14.2	15.6	17.8	18.8	19.4	19.8	19.1	18.8	18.5	19.4	21.2	20.1	18.0	15.4	14.3	15.0	14.5	13.7	Diurnal Average	
	24.4	27.0	29.0	27.9	29.0	28.0	30.0	31.9	37.4	40.9	45.5	44.1	40.1	39.1	41.7	41.7	44.5	45.9	39.9	33.6	27.8	31.0	26.6	23.3	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

Falher - April 2015

Maximum Value: 88.7 deg on Apr 8 22:00

Minimum Value: 0.8 deg on Apr 8 21:00

Percentiles: P_1 = 1.5 P_{10} = 3.1 Q_1 = 4.9 Median = 9.0 Q_3 = 15.6 P_{90} = 26.9 P_{99} = 74.5

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	2	3	2	2	2	2	2	3	4	4	3	3	8	7	11	16	4	4	8	15	9	5	8	3	16.2
2-Apr	7	4	9	9	15	6	11	17	18	29	28	29	83	81	36	74	30	48	16	5	7	11	11	11	83.2
3-Apr	30	16	17	17	17	39	58	54	9	16	11	20	54	53	45	16	12	6	4	10	10	8	4	3	58.3
4-Apr	3	4	86	19	3	7	10	12	8	10	11	10	11	15	15	19	18	15	7	4	4	3	5	9	85.9
5-Apr	10	6	4	5	4	7	16	11	13	17	19	19	22	23	26	24	30	17	14	23	12	5	4	3	29.9
6-Apr	8	4	3	6	3	2	3	4	5	7	8	12	12	15	21	17	9	3	6	5	2	2	12	1	20.7
7-Apr	1	3	2	2	2	2	6	8	9	9	8	16	25	26	32	37	27	15	8	28	32	7	19	14	37.0
8-Apr	1	5	4	10	9	7	4	8	18	8	9	11	11	17	20	15	14	10	9	24	1	89	15	9	88.7
9-Apr	12	11	6	4	4	5	5	7	9	7	9	10	11	13	13	15	16	13	6	14	18	36	11	5	35.9
10-Apr	9	12	3	3	13	11	10	5	6	9	22	25	27	28	20	16	16	7	6	15	3	9	10	14	27.8
11-Apr	4	10	42	12	10	9	12	19	18	11	6	9	10	7	9	10	9	10	7	4	10	2	4	6	41.7
12-Apr	5	6	2	3	2	2	3	5	6	6	6	9	8	9	7	6	7	5	5	4	3	2	2	4	9.1
13-Apr	6	2	3	4	5	4	7	10	11	22	41	60	35	52	33	19	15	18	3	2	2	1	2	7	59.7
14-Apr	9	2	5	25	16	5	4	7	6	7	9	14	14	11	14	12	12	9	6	3	4	5	13	7	25.3
15-Apr	7	2	5	2	4	3	5	3	7	10	8	10	11	10	12	15	10	8	5	8	3	3	2	4	14.5
16-Apr	3	5	21	2	2	2	4	8	5	8	6	9	12	9	30	22	8	5	6	14	5	8	5	31	30.5
17-Apr	8	50	17	6	14	11	17	8	18	6	7	18	20	13	18	23	12	9	12	3	2	4	6	6	49.9
18-Apr	5	7	5	2	4	2	3	6	8	11	14	14	14	16	15	11	14	18	7	11	5	72	55	9	72.5
19-Apr	58	24	11	6	10	7	7	21	15	22	27	23	25	28	26	17	18	14	11	12	33	22	9	15	57.9
20-Apr	13	18	17	17	18	19	18	26	19	25	46	40	46	44	83	71	53	77	52	7	14	9	7	2	82.9
21-Apr	3	6	6	4	4	4	2	5	20	10	12	11	14	27	35	26	23	7	4	4	2	70	39	20	70.0
22-Apr	14	18	9	6	4	3	2	4	6	16	10	24	38	39	81	68	35	7	8	12	13	8	5	5	80.6
23-Apr	4	5	5	6	3	6	4	4	15	8	8	10	12	17	22	23	65	69	14	6	4	23	5	5	69.1
24-Apr	11	5	25	3	14	4	5	5	4	7	6	9	12	9	12	11	5	6	6	8	10	4	2	5	25.2
25-Apr	4	3	7	6	7	11	14	8	16	20	23	36	59	66	66	68	36	16	11	30	5	6	27	8	67.9
26-Apr	14	5	4	8	2	3	4	4	7	12	12	18	23	17	18	14	17	27	15	16	15	4	4	2	26.9
27-Apr	7	10	5	3	7	4	8	3	11	13	10	11	13	17	9	12	11	11	14	17	37	21	25	14	37.1
28-Apr	21	4	4	6	2	1	2	3	4	17	9	6	5	7	13	49	5	7	12	6	20	11	28	3	49.5
29-Apr	4	6	6	6	7	5	5	9	9	9	11	10	10	13	14	11	9	7	5	5	7	4	7	2	14.1
30-Apr	4	3	4	3	4	3	4	4	5	10	11	13	11	14	17	17	17	11	9	5	8	3	2	2	16.9
	57.9	49.9	85.9	25.3	18.4	39.0	58.3	54.1	20.1	29.1	46.1	59.7	83.2	81.0	82.9	73.7	65.4	77.0	51.8	29.5	37.1	88.7	55.4	30.5	

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

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Portable Clairmont - April 2015

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

Maximum Value: 1.6 ppb on Apr 18 11:00

Maximum Daily Average: 0.5 ppb on Apr 4

Minimum Value: 0 ppb on Apr 5 07:00

Minimum Daily Average: 0.0 ppb on Apr 15

Maximum Diurnal Average: 0.4 ppb at hour 9

Minimum Diurnal Average: 0.2 ppb at hour 23

Monthly Average: 0.23 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.1$ Median = 0.2 $Q_3 = 0.3$ $P_{90} = 0.5$ $P_{99} = 1.3$

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	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0.2	0.6
2-Apr	0	A	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0.2	0.9
3-Apr	A	0	0	0	0	0	0	0	0	0	2	1	0	0	1	1	1	1	0	0	0	0	0	A	0.5	1.5
4-Apr	0	1	1	1	0	1	0	1	2	0	0	0	0	0	0	0	0	1	1	0	0	0	A	1	0.5	1.6
5-Apr	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.2	1.0
6-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	0.4
7-Apr	0	0	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.3	1.1
8-Apr	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.3	0.6
9-Apr	0	0	0	0	0	0	0	0	C	C	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.3	0.4
10-Apr	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0.3	1.4
11-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
12-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
13-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.2	0.4
14-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
15-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	0.1
16-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
17-Apr	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
18-Apr	0	0	0	0	1	0	1	1	A	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0.4	1.6
19-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
20-Apr	0	0	0	0	0	0	A	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0.5	1.4
21-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
22-Apr	1	0	0	0	A	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.3
23-Apr	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0.2	1.3
24-Apr	0	0	A	0	1	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0.3	0.8
25-Apr	0	A	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
26-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
27-Apr	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.2	0.5
28-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	A	0	0	0.1	1.1
29-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
30-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
	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	Diurnal Average	
	0.7	0.7	0.8	1.1	0.6	0.8	0.6	0.8	1.6	1.4	1.6	1.1	1.4	1.1	1.1	1.2	1.0	0.8	0.8	1.3	0.5	0.4	0.3	0.7	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

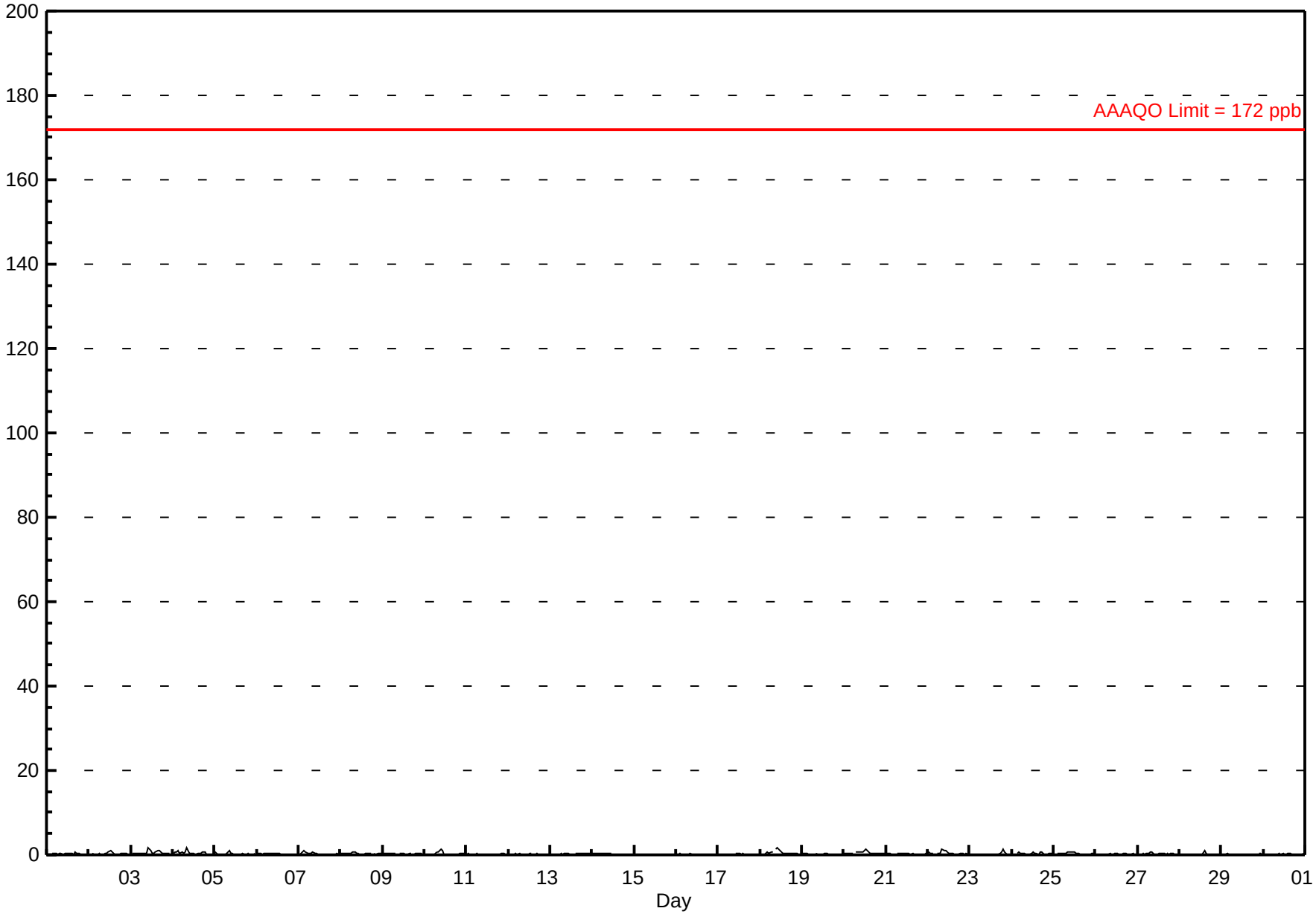
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Portable Clairmont - April 2015



Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Portable Clairmont - April 2015

Maximum Value: 5.1 ppb on Apr 27 14:00

Maximum Daily Average: 1.3 ppb on Apr 4

Minimum Value: 0 ppb on Apr 15 15:00

Maximum Diurnal Average: 1.1 ppb at hour 9

Monthly Average: 0.87 ppb

Minimum Daily Average: 0.6 ppb on Apr 15

Minimum Diurnal Average: 0.7 ppb at hour 22

Percentiles: $P_1 = 0.5$ $P_{10} = 0.6$ $Q_1 = 0.6$ Median = 0.7 $Q_3 = 0.9$ $P_{90} = 1.2$ $P_{99} = 3.2$

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	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.2
2-Apr	1	A	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	0.9	1.7
3-Apr	A	1	1	1	1	1	1	1	1	1	3	2	1	1	2	2	2	2	1	1	1	1	1	A	1.2	2.7
4-Apr	1	2	3	2	1	2	1	2	3	1	1	1	1	1	1	1	1	1	1	1	1	1	A	2	1.3	2.7
5-Apr	1	1	1	1	1	1	1	1	3	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.9	2.5
6-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	0.8	1.2
7-Apr	1	1	2	2	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.9	1.7
8-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	A	1	0	1	1	1	0.9	1.3
9-Apr	1	1	1	1	1	1	1	1	C	C	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0.8	1.2
10-Apr	1	1	1	1	1	1	1	2	2	3	2	1	1	1	1	1	A	1	1	1	1	1	1	1	1.0	3.2
11-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	1.1
12-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.7	0.8
13-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	1.3
14-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	1.2
15-Apr	1	1	1	1	1	1	1	0	0	1	0	A	0	0	0	1	1	1	1	1	1	1	1	1	0.6	0.8
16-Apr	1	1	2	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.6
17-Apr	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0.6	1.0
18-Apr	1	1	1	1	2	1	1	4	A	3	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1.2	4.2
19-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	1.1
20-Apr	1	1	1	1	1	1	A	1	1	1	1	1	5	3	3	1	1	1	1	1	1	1	1	1	1.3	4.7
21-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
22-Apr	1	1	2	2	A	1	1	1	3	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	3.5
23-Apr	1	1	0	A	0	1	1	0	1	1	1	1	1	1	1	0	1	1	2	4	2	1	1	1	0.9	3.8
24-Apr	1	1	A	1	1	1	1	1	0	1	1	1	1	1	1	1	1	2	1	0	1	1	1	1	0.9	2.4
25-Apr	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	0.9	1.4
26-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	1.1
27-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	5	1	1	1	1	1	1	1	1	A	1	1.0	5.1
28-Apr	1	1	1	1	1	1	1	1	1	1	0	1	1	1	2	2	1	1	1	1	0	A	0	1	0.8	2.4
29-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.7	1.1
30-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
	0.8	0.8	0.9	0.8	0.8	0.8	0.8	1.0	1.1	1.1	1.0	0.9	1.0	1.0	0.9	0.8	0.8	0.8	0.8	0.9	0.8	0.7	0.8	0.8	Diurnal Average	
	1.3	1.6	2.7	2.1	1.8	2.4	1.2	4.2	3.5	3.2	2.7	2.2	4.7	5.1	3.2	1.8	1.7	2.4	1.6	3.8	2.3	1.2	1.1	1.6	Diurnal Maximum	

C - Calibration

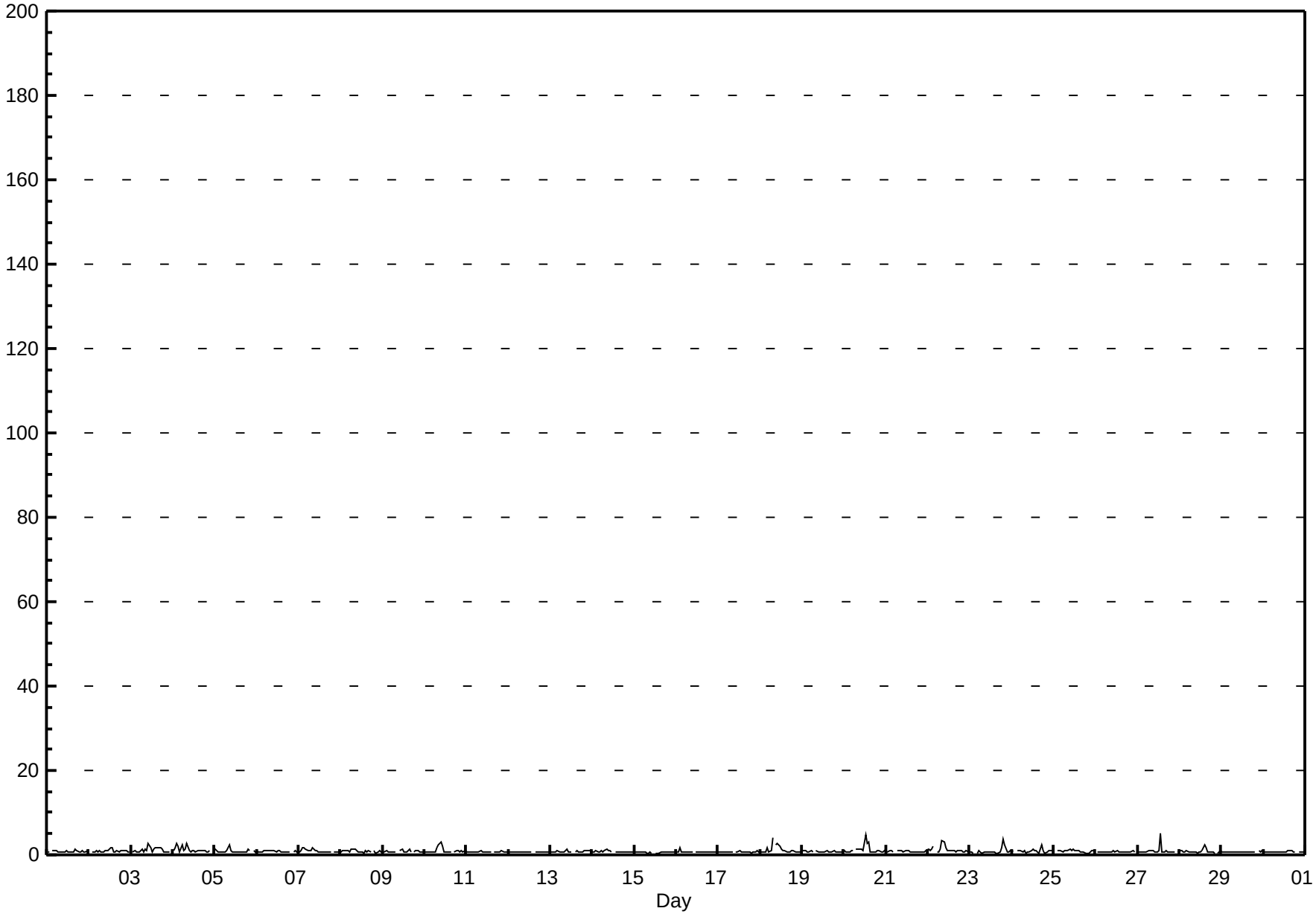
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

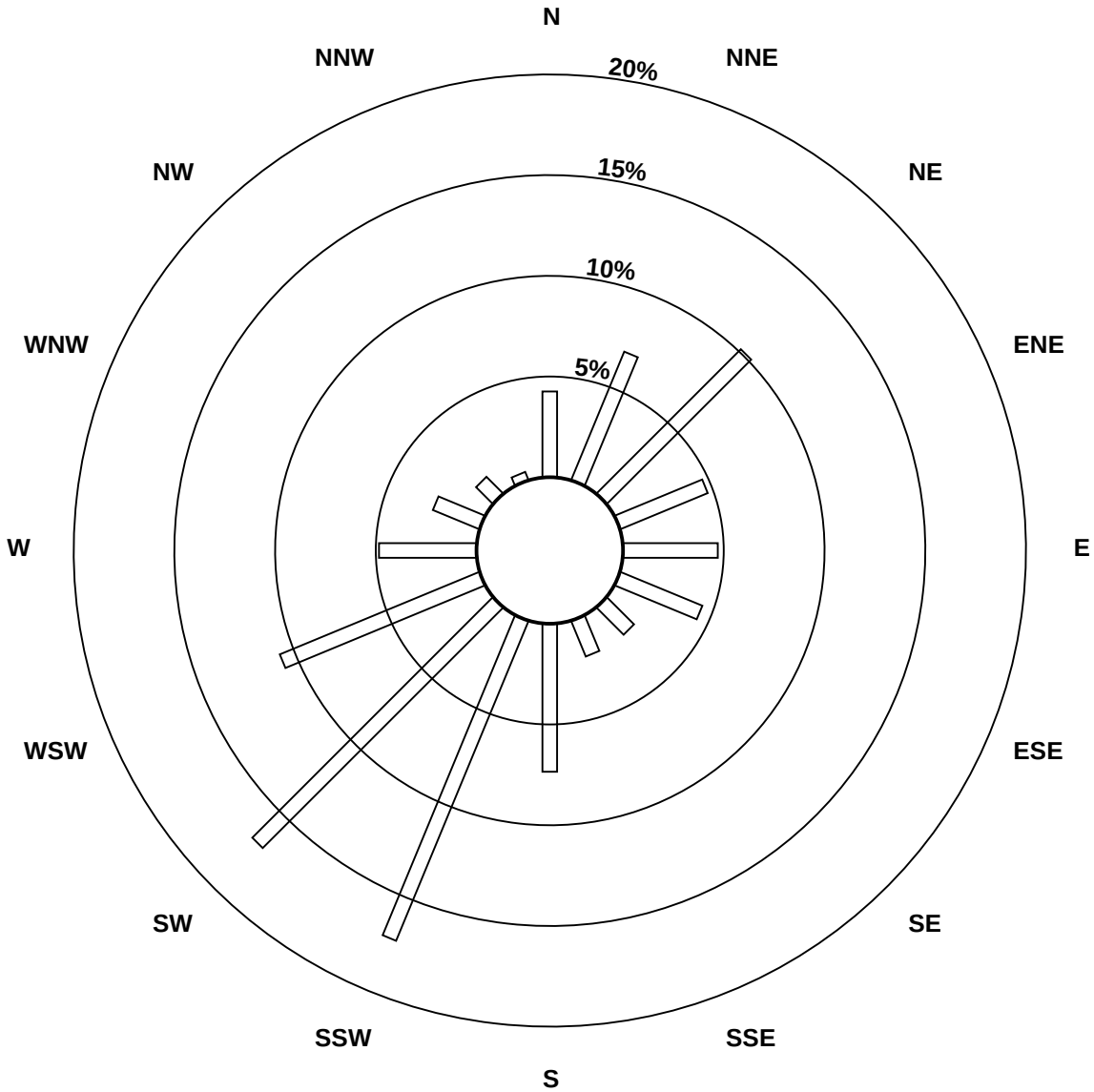
Portable Clairmont - April 2015



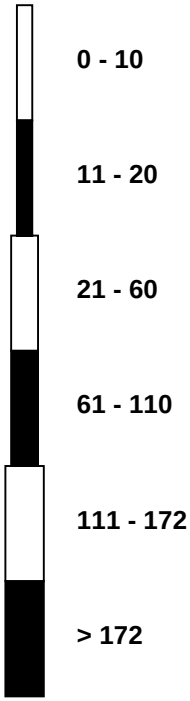
Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Portable Clairmont - April 2015



Pollutant Classes (ppb)

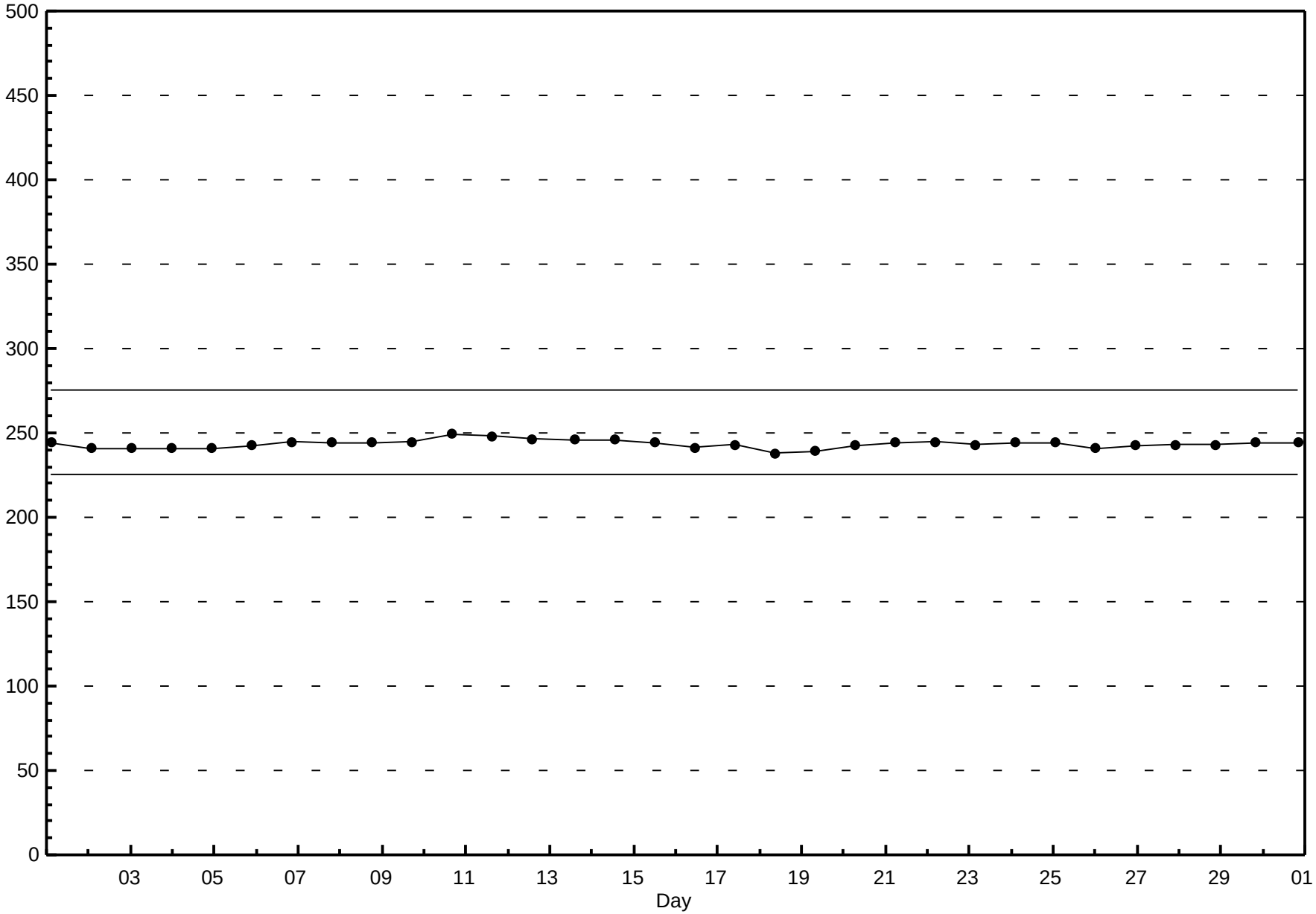


Peace Airshed Zone Association

Span Responses

Sulphur Dioxide (SO_2)

Portable Clairmont - April 2015



Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Portable Clairmont - April 2015

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

Maximum Value: 2.5 ppb on Apr 9 00:00

Maximum Daily Average: 0.6 ppb on Apr 9

Minimum Value: 0 ppb on Apr 18 18:00

Minimum Daily Average: 0.2 ppb on Apr 6

Maximum Diurnal Average: 0.5 ppb at hour 7

Minimum Diurnal Average: 0.3 ppb at hour 18

Monthly Average: 0.35 ppb

Percentiles: $P_1 = 0.1$ $P_{10} = 0.2$ $Q_1 = 0.3$ Median = 0.3 $Q_3 = 0.4$ $P_{90} = 0.5$ $P_{99} = 1.2$

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	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.3
2-Apr	0	A	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6
3-Apr	A	0	0	0	1	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.5	1.7
4-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	0.4	0.4
5-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
6-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
7-Apr	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	1	0	0.3	0.8
8-Apr	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	A	0	0	0	1	2	0.5	2.5
9-Apr	1	1	0	0	0	1	1	0	1	1	0	0	0	0	0	0	0	A	1	1	1	1	1	0	0.6	1.2
10-Apr	2	1	1	1	1	1	0	0	C	C	C	C	0	0	0	0	A	0	0	0	0	1	2	1	0.5	1.6
11-Apr	0	0	1	1	0	0	2	0	0	0	0	0	0	0	0	A	0	0	0	0	0	1	1	0	0.5	2.0
12-Apr	0	1	0	0	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.4	0.7
13-Apr	0	0	1	0	1	1	1	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.4	1.0
14-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	0.3	0.4
15-Apr	1	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6
16-Apr	0	1	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6
17-Apr	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
18-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
19-Apr	0	0	0	0	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
20-Apr	0	0	1	1	1	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.7
21-Apr	0	0	1	1	1	A	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	1.4
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	0.3	0.4
23-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
24-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
25-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
26-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	0.3	0.4
27-Apr	1	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	A	1	0.5	0.8
28-Apr	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.4	0.6
29-Apr	1	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	0.8
30-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	0.5
	0.4	0.4	0.4	0.4	0.4	0.4	0.5	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	0.4	0.4	0.4	Diurnal Average	
	1.6	1.2	0.9	1.4	0.9	1.7	2.0	0.9	0.8	0.5	0.6	0.5	0.4	0.4	0.4	0.5	0.4	0.4	0.6	1.0	1.0	1.2	1.5	2.5	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

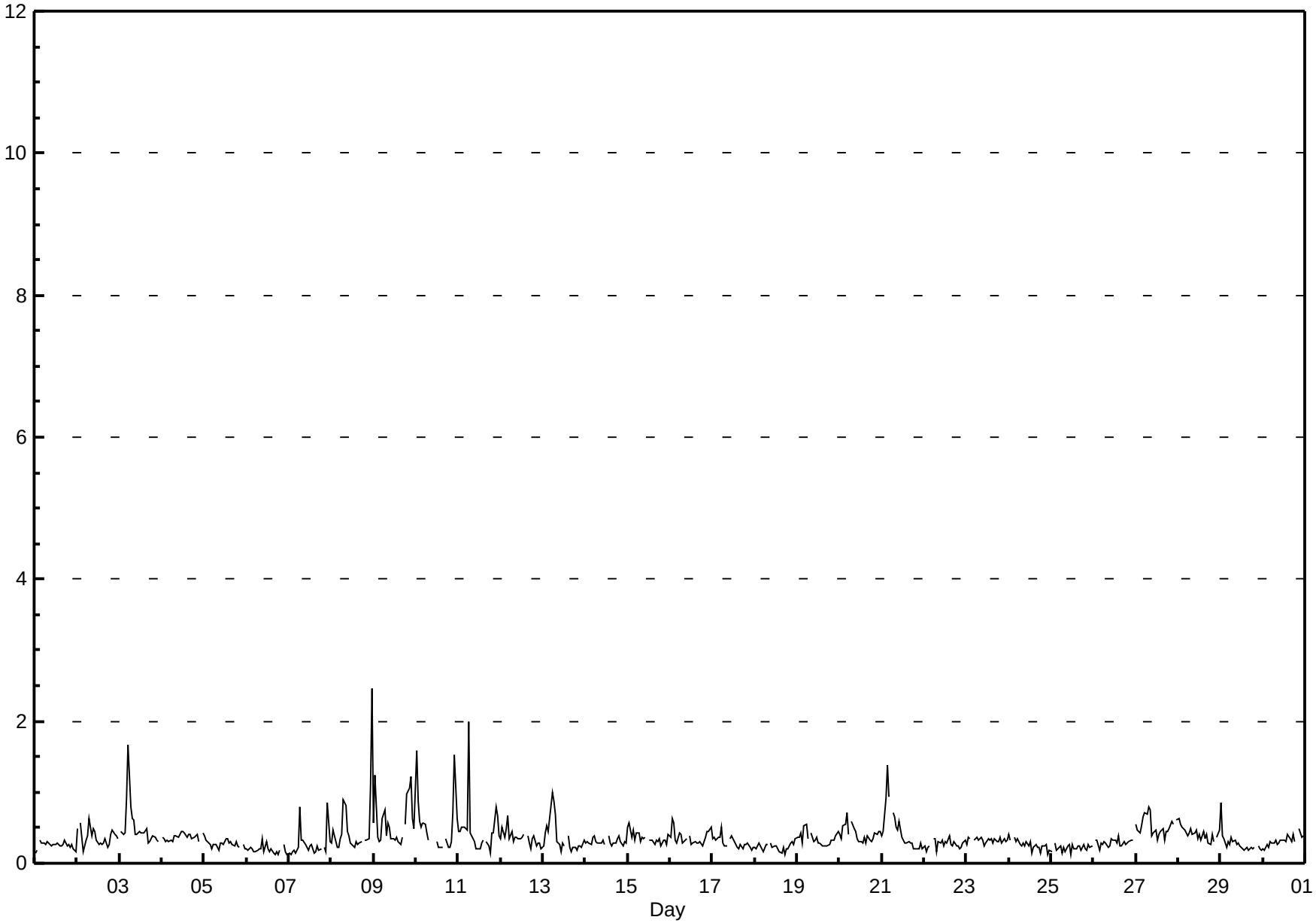
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb

Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Portable Clairmont - April 2015



Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

Portable Clairmont - April 2015

Maximum Value: 6.1 ppb on Apr 9 00:00

Maximum Daily Average: 1.4 ppb on Apr 10

Minimum Value: 0 ppb on Apr 6 16:00

Minimum Daily Average: 0.7 ppb on Apr 6

Maximum Diurnal Average: 1.1 ppb at hour 7

Minimum Diurnal Average: 0.8 ppb at hour 17

Monthly Average: 0.91 ppb

Percentiles: $P_1 = 0.6$ $P_{10} = 0.7$ $Q_1 = 0.7$ Median = 0.8 $Q_3 = 0.9$ $P_{90} = 1.1$ $P_{99} = 2.6$

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	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1
2-Apr	2	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.6
3-Apr	A	1	1	1	2	3	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1.1	2.9
4-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	0.9	1.1
5-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	0.9
6-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	A	1	1	1	0.7	0.8
7-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	2	1	0.8	2.4
8-Apr	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	A	1	1	1	3	6	1.3	6.1
9-Apr	1	3	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	A	2	3	2	2	1	1	1.3	3.0
10-Apr	4	2	1	1	1	1	1	1	C	C	C	C	1	1	1	1	A	1	1	1	1	2	4	1	1.4	4.3
11-Apr	1	1	1	1	1	1	6	2	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1.2	6.0
12-Apr	1	1	1	2	2	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.9	1.8
13-Apr	1	1	1	1	1	2	1	2	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.9	1.9
14-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
15-Apr	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.2
16-Apr	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	2	0.9	1.9
17-Apr	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0
18-Apr	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
19-Apr	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.1
20-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	0.9	1.2
21-Apr	1	1	2	2	2	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.9
22-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	1.0
23-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	0.9	1.3
24-Apr	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0.8	1.0
25-Apr	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0
26-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
27-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	1.0	1.5
28-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	1.0	1.3
29-Apr	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.8	1.6
30-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.9	1.1
	1.0	1.0	0.9	0.9	1.0	1.0	1.1	1.0	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.9	0.9	0.9	1.1	1.1	Diurnal Average	
	4.0	2.7	1.7	1.9	2.0	2.9	6.0	2.1	1.9	1.1	1.2	1.1	1.1	1.0	1.3	1.2	1.0	0.9	2.4	3.0	2.1	2.1	4.3	6.1	Diurnal Maximum	

C - Calibration

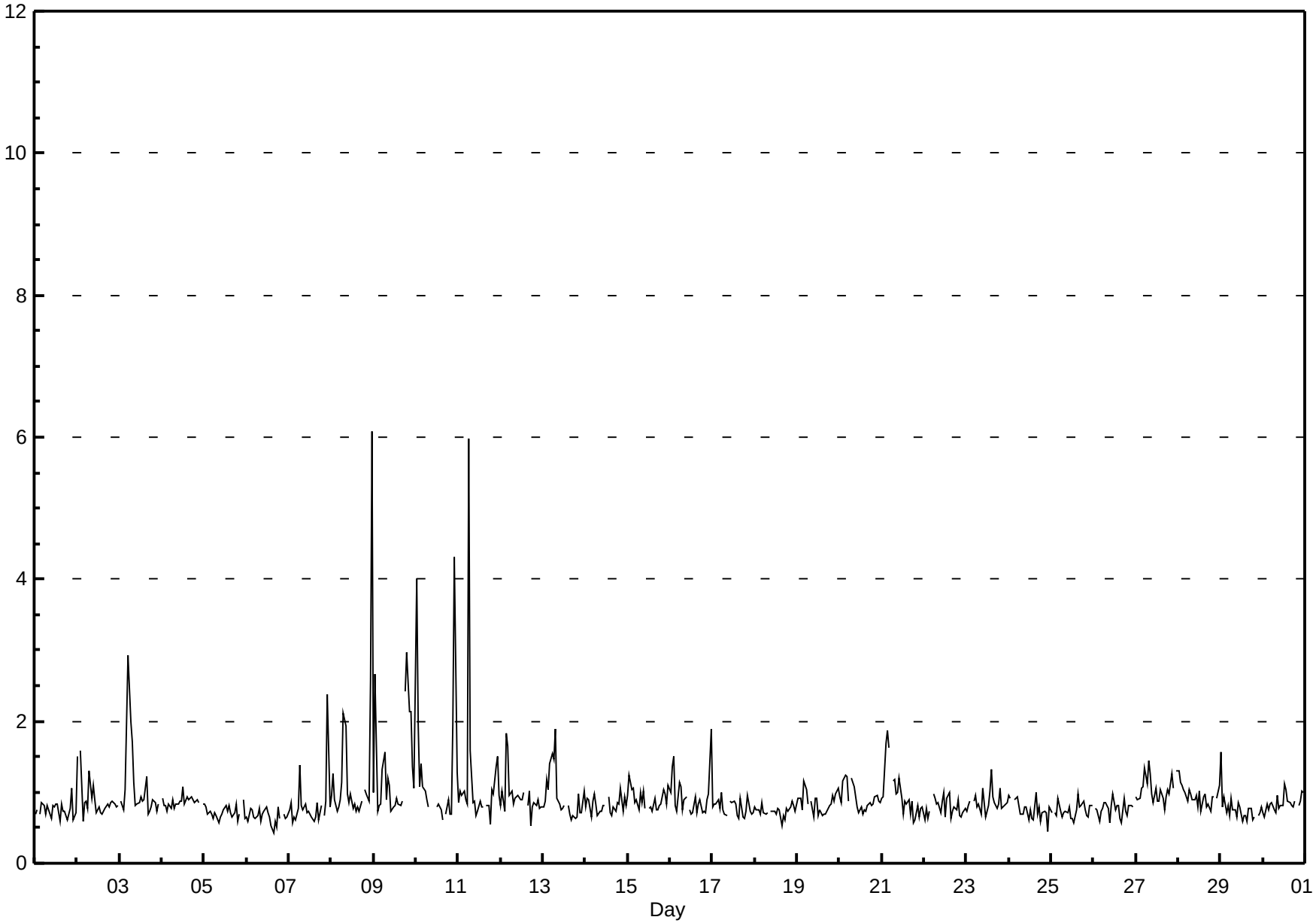
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

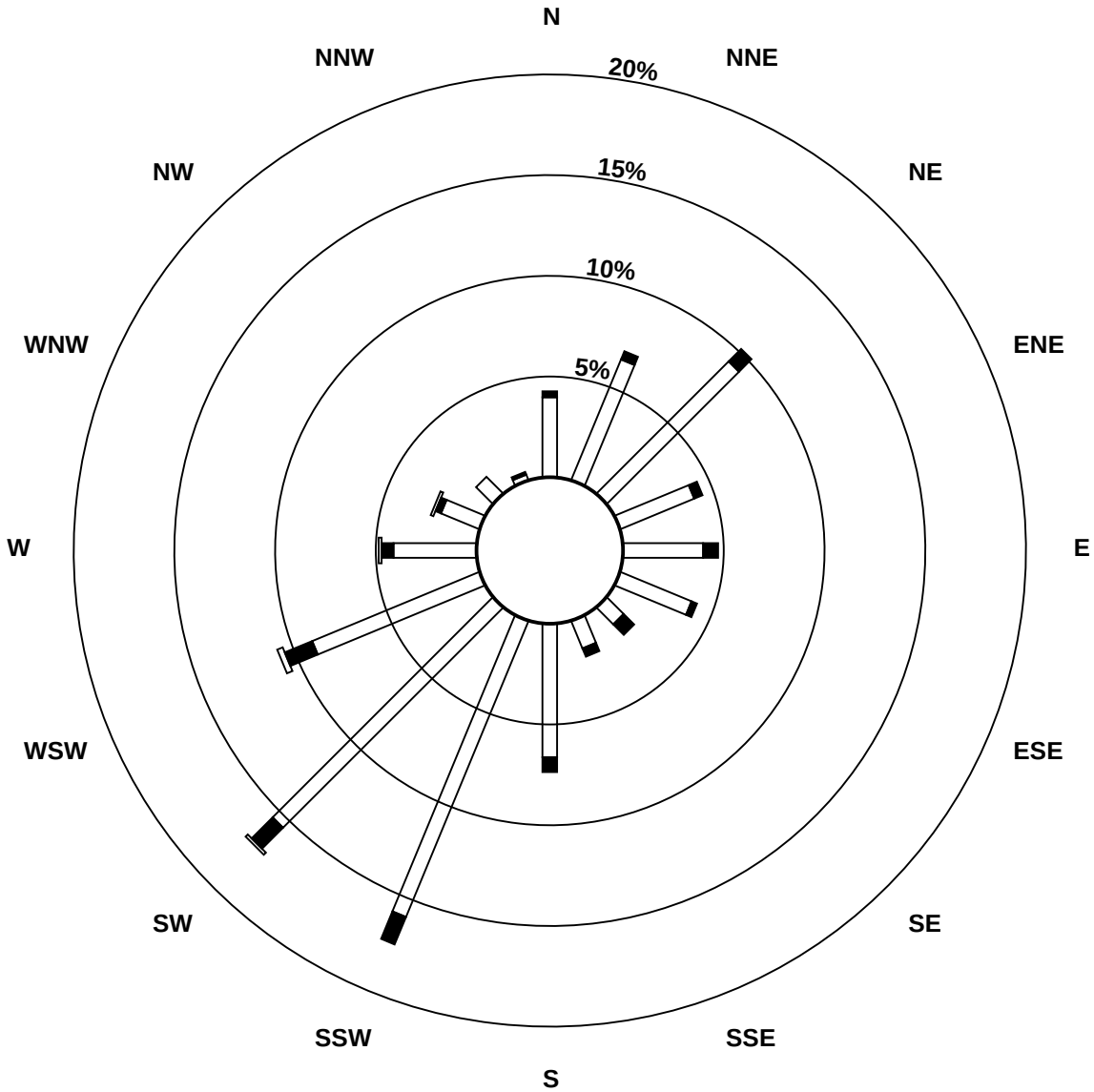
Portable Clairmont - April 2015



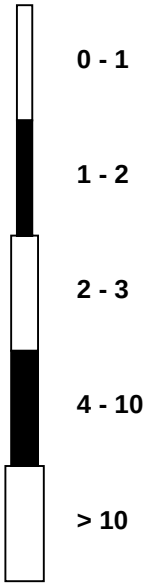
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb

Portable Clairmont - April 2015



Pollutant Classes (ppb)

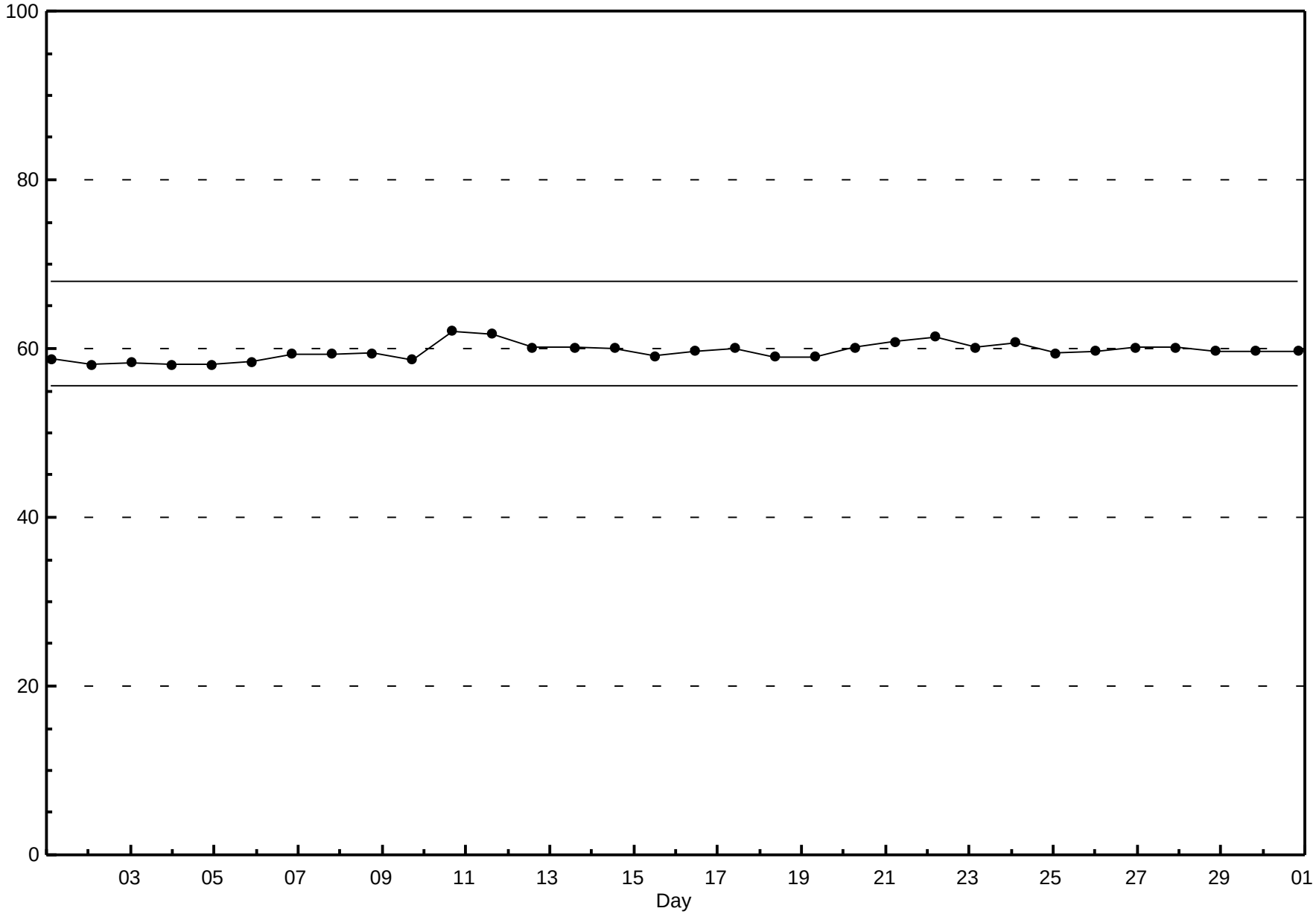


Peace Airshed Zone Association

Span Responses

Total Reduced Sulphur (TRS)

Portable Clairmont - April 2015



Peace Airshed Zone Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Portable Clairmont - April 2015

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

Maximum Value: 29.4 ppb on Apr 13 07:00

Maximum Daily Average: 7.7 ppb on Apr 27

Minimum Value: 0 ppb on Apr 4 22:00

Minimum Daily Average: 0.8 ppb on Apr 4

Maximum Diurnal Average: 8.5 ppb at hour 7

Minimum Diurnal Average: 1.3 ppb at hour 16

Monthly Average: 3.49 ppb

Percentiles: $P_1 = 0.5$ $P_{10} = 0.9$ $Q_1 = 1.2$ Median = 2.0 $Q_3 = 4.0$ $P_{90} = 8.3$ $P_{99} = 16.4$

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	1	2	A	2	1	2	2	3	3	3	2	3	3	2	2	2	2	3	3	5	5	5	9	8	3.2	9.0
2-Apr	7	A	6	2	8	10	15	12	8	14	5	2	1	1	1	1	1	2	3	3	8	1	2	3	5.1	14.9
3-Apr	A	4	6	11	11	15	11	6	4	3	2	1	1	0	1	2	1	1	0	1	1	1	1	A	3.8	15.4
4-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	A	1	0.8	1.5
5-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	A	2	1	0.8	1.7
6-Apr	1	1	1	2	2	2	2	3	3	3	2	2	2	2	2	1	1	1	2	6	A	3	4	3	2.2	6.0
7-Apr	2	2	2	2	5	16	17	9	6	3	2	1	1	1	1	1	2	2	3	A	4	4	5	5	4.2	16.7
8-Apr	9	4	5	5	9	17	22	19	5	3	2	1	1	1	1	1	1	2	A	4	4	3	4	5	5.5	21.5
9-Apr	5	6	6	4	6	14	16	14	C	C	C	C	2	1	1	2	2	A	4	9	15	17	13	9	7.7	17.1
10-Apr	15	10	14	16	14	14	11	9	7	7	5	2	2	2	2	2	A	3	4	5	6	4	5	8	7.3	16.4
11-Apr	8	14	9	8	17	14	11	3	2	1	1	1	1	1	1	A	1	1	1	1	3	5	3	1	4.6	16.7
12-Apr	2	2	2	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	2	2	2	1.2	1.9
13-Apr	1	4	3	3	8	16	29	10	9	4	1	1	1	A	1	1	1	3	2	3	2	4	5	7	5.2	29.4
14-Apr	10	3	3	1	4	9	13	6	2	1	1	2	A	1	1	1	1	1	1	1	1	1	1	2	3.0	12.7
15-Apr	3	2	3	3	4	4	9	6	2	2	2	A	3	3	3	2	2	2	2	1	1	1	1	2	2.8	9.2
16-Apr	3	3	4	3	3	3	9	8	6	6	A	3	3	1	1	3	1	1	1	1	5	17	13	10	4.6	16.6
17-Apr	8	6	8	12	8	6	3	2	1	A	5	4	2	2	1	1	1	1	2	1	1	1	1	1	3.5	12.3
18-Apr	1	2	3	7	4	4	5	3	A	2	1	1	1	1	1	1	1	1	1	4	5	4	4	3	2.6	6.9
19-Apr	3	4	6	8	10	9	6	A	3	2	1	1	1	1	1	1	1	1	3	3	5	5	9	10	4.1	10.5
20-Apr	12	8	8	8	11	16	A	8	6	3	2	1	1	1	1	1	1	1	1	2	4	5	5	4	4.8	16.1
21-Apr	3	3	4	7	9	A	16	13	7	6	7	5	3	2	2	1	1	1	1	1	1	2	2	2	4.3	15.9
22-Apr	3	3	3	4	A	5	4	4	4	3	3	2	3	3	2	2	2	1	2	1	1	1	2	1	2.7	4.8
23-Apr	2	2	2	A	2	2	2	2	2	2	2	1	2	2	1	2	2	2	2	2	2	1	2	3	1.8	2.5
24-Apr	3	4	A	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1.4	3.6
25-Apr	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	2	2	2	4	6	1.4	5.8
26-Apr	A	2	2	2	2	2	2	2	3	3	4	3	2	1	1	1	1	1	2	2	3	3	3	A	2.0	3.7
27-Apr	5	7	8	8	15	14	20	27	22	5	2	2	1	2	4	2	2	2	2	5	6	12	A	4	7.7	27.1
28-Apr	4	3	3	4	3	5	7	5	3	2	2	1	3	3	1	1	1	1	2	1	2	A	3	4	2.8	7.2
29-Apr	3	3	2	3	4	6	4	2	1	1	1	1	1	1	1	1	1	1	1	1	A	5	3	3	2.2	5.8
30-Apr	3	1	1	2	2	3	4	3	2	1	2	1	2	1	1	1	2	1	1	A	2	2	2	2	2.0	4.4
	4.3	3.8	4.1	4.6	5.8	7.4	8.5	6.4	4.1	3.0	2.2	1.7	1.6	1.4	1.4	1.3	1.3	1.4	1.7	2.5	3.4	4.0	3.9	3.9	Diurnal Average	
	15.0	13.5	13.6	16.4	16.7	16.5	29.4	27.1	22.5	13.6	6.8	5.5	3.4	3.0	4.0	2.5	2.3	3.2	3.9	9.3	14.6	17.1	13.2	10.5	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

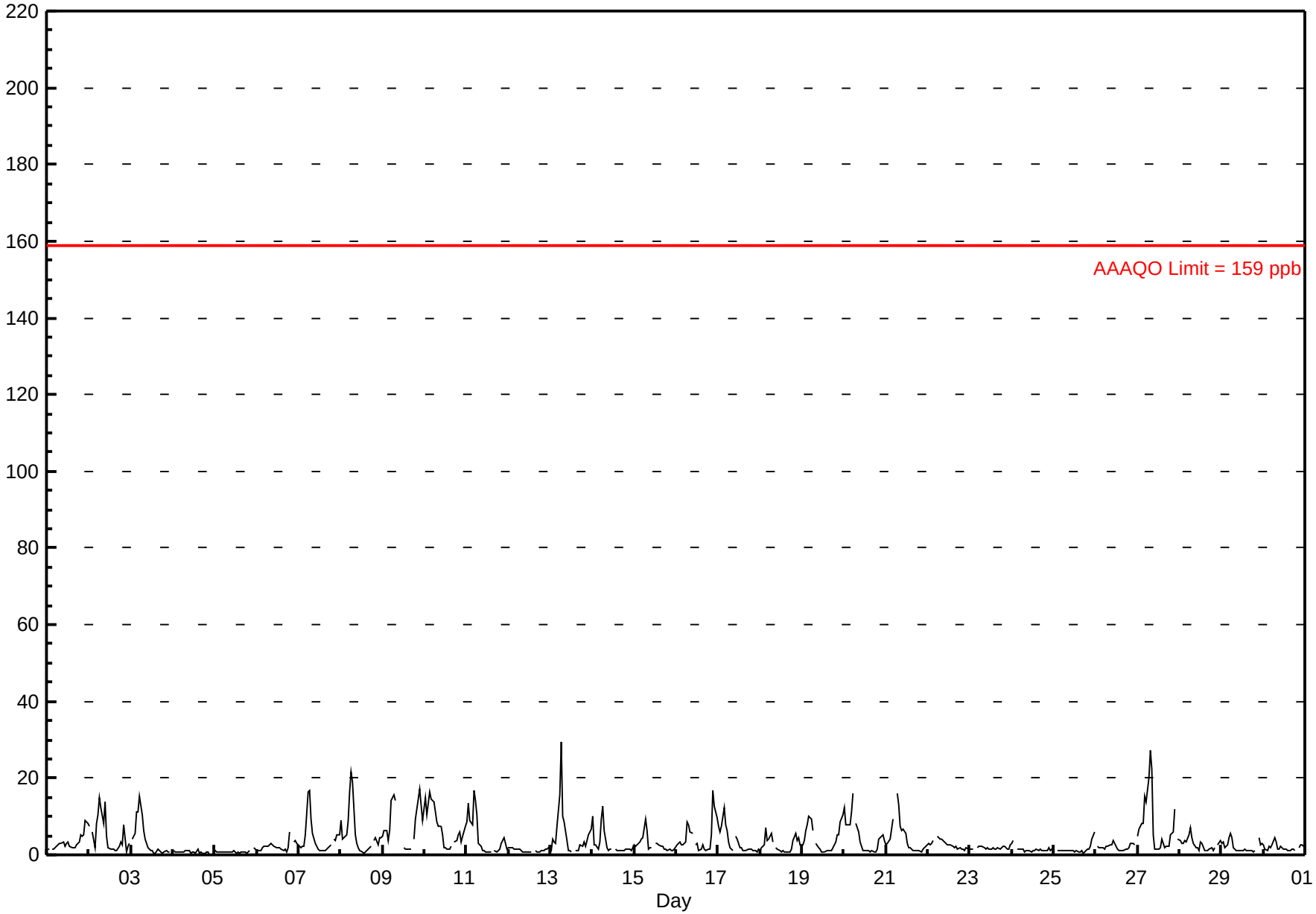
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb 24-hr 106 ppb

Peace Airshed Zone Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Portable Clairmont - April 2015



Peace Airshed Zone Association

Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

Portable Clairmont - April 2015

Maximum Value: 107.0 ppb on Apr 28 13:00

Maximum Daily Average: 16.9 ppb on Apr 13

Minimum Value: 1 ppb on Apr 5 03:00

Minimum Daily Average: 2.8 ppb on Apr 12

Maximum Diurnal Average: 16.2 ppb at hour 7

Minimum Diurnal Average: 4.3 ppb at hour 12

Monthly Average: 8.27 ppb

Percentiles: P_1 = 1.1 P_{10} = 1.9 Q_1 = 2.7 Median = 4.9 Q_3 = 10.6 P_{90} = 19.4 P_{99} = 39.0

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	2	2	A	2	3	4	5	5	5	10	4	5	6	5	4	5	4	7	11	8	9	7	13	26	6.6	26.3
2-Apr	12	A	11	4	16	32	36	21	13	20	14	4	3	2	4	6	3	6	7	9	15	7	7	9	11.3	36.0
3-Apr	A	8	9	15	20	33	17	11	9	4	9	3	3	2	1	60	28	6	2	3	21	14	1	A	12.7	59.7
4-Apr	6	1	1	1	1	1	1	2	4	27	3	1	5	2	52	2	7	1	2	14	4	4	A	17	7.0	51.8
5-Apr	2	1	1	1	1	1	1	1	3	3	2	16	1	14	1	3	1	1	9	4	10	A	2	2	3.6	15.9
6-Apr	1	5	2	3	2	8	3	4	6	5	3	5	2	3	4	2	2	3	6	12	A	7	5	4	4.3	11.5
7-Apr	3	2	9	3	11	25	21	18	8	5	3	3	2	2	2	3	3	3	7	A	7	7	7	9	7.1	24.6
8-Apr	13	10	9	8	19	22	30	31	8	7	3	6	2	1	2	3	3	20	A	6	7	5	8	10	10.1	31.4
9-Apr	7	12	9	5	15	24	23	21	C	C	C	C	10	3	4	4	6	A	9	16	23	24	42	13	14.3	42.0
10-Apr	20	14	21	28	25	21	32	30	10	9	11	4	10	5	7	5	A	8	7	9	16	6	9	15	14.0	32.4
11-Apr	12	16	14	18	26	24	28	6	24	4	3	1	2	1	6	A	2	2	2	2	19	7	7	3	9.9	28.4
12-Apr	3	7	4	3	2	2	3	2	1	2	1	1	2	1	A	2	1	2	3	12	2	3	3	2	2.8	11.6
13-Apr	2	27	6	4	12	27	45	24	29	11	11	10	11	A	7	7	3	25	32	31	7	37	11	10	16.9	44.5
14-Apr	19	12	5	2	8	15	17	12	6	2	3	3	A	4	2	3	2	2	2	11	2	2	1	3	6.1	18.6
15-Apr	4	3	4	6	6	13	15	11	3	4	5	A	11	12	6	6	4	14	5	2	3	2	2	3	6.4	14.6
16-Apr	5	5	15	5	4	6	15	14	10	8	A	6	6	2	3	13	2	2	9	2	14	28	16	16	9.0	28.0
17-Apr	9	7	13	19	14	14	16	13	2	A	10	8	4	22	3	2	4	10	2	7	2	2	1	2	8.1	22.4
18-Apr	2	12	4	18	6	7	8	5	A	3	2	3	2	2	2	2	2	1	14	22	14	19	9	6	7.2	21.9
19-Apr	5	5	16	11	12	14	12	A	4	3	3	1	2	2	4	2	2	3	23	5	13	19	19	15	8.5	23.4
20-Apr	18	14	12	10	27	29	A	10	11	7	4	3	2	2	2	2	5	4	5	6	8	9	9	7	9.0	28.5
21-Apr	4	4	6	9	15	A	23	19	17	9	22	8	7	5	12	9	15	4	4	10	4	6	15	5	10.2	23.5
22-Apr	4	4	4	4	A	6	7	7	10	6	5	3	4	4	4	3	4	2	8	2	3	3	14	3	5.0	14.4
23-Apr	2	3	2	A	3	4	4	3	4	3	3	2	3	4	2	3	4	3	5	5	4	3	5	4	3.4	5.0
24-Apr	5	5	A	2	3	10	12	3	2	5	7	2	5	7	11	11	29	2	12	4	2	7	2	2	6.5	28.9
25-Apr	1	A	2	1	2	6	6	1	4	3	9	5	6	17	5	6	9	2	3	6	8	4	6	8	5.2	17.3
26-Apr	A	3	2	3	3	2	3	2	4	3	7	5	5	2	4	2	2	5	8	5	10	5	5	A	4.0	10.2
27-Apr	16	9	19	12	20	35	25	39	31	11	3	3	3	9	25	4	25	20	7	29	12	20	A	5	16.6	39.2
28-Apr	5	4	5	5	5	25	40	12	10	4	3	3	107	6	2	2	3	2	4	3	4	A	4	6	11.5	107.0
29-Apr	5	6	3	8	7	17	14	4	3	3	3	3	3	4	2	2	3	3	2	2	A	6	5	23	5.7	22.9
30-Apr	26	2	2	22	4	5	9	8	3	3	5	3	5	5	3	2	4	8	3	A	3	6	4	3	6.0	26.3
	7.6	7.3	7.5	8.1	10.1	14.8	16.2	11.7	8.7	6.6	5.7	4.3	8.0	5.2	6.4	6.2	6.3	6.0	7.3	8.9	8.8	9.6	8.4	8.3	Diurnal Average	
	26.3	26.9	20.9	27.6	27.4	35.2	44.5	39.2	31.1	26.8	22.5	15.9	107.0	22.4	51.8	59.7	28.9	25.1	32.5	31.1	22.8	36.5	42.0	26.3	Diurnal Maximum	

C - Calibration

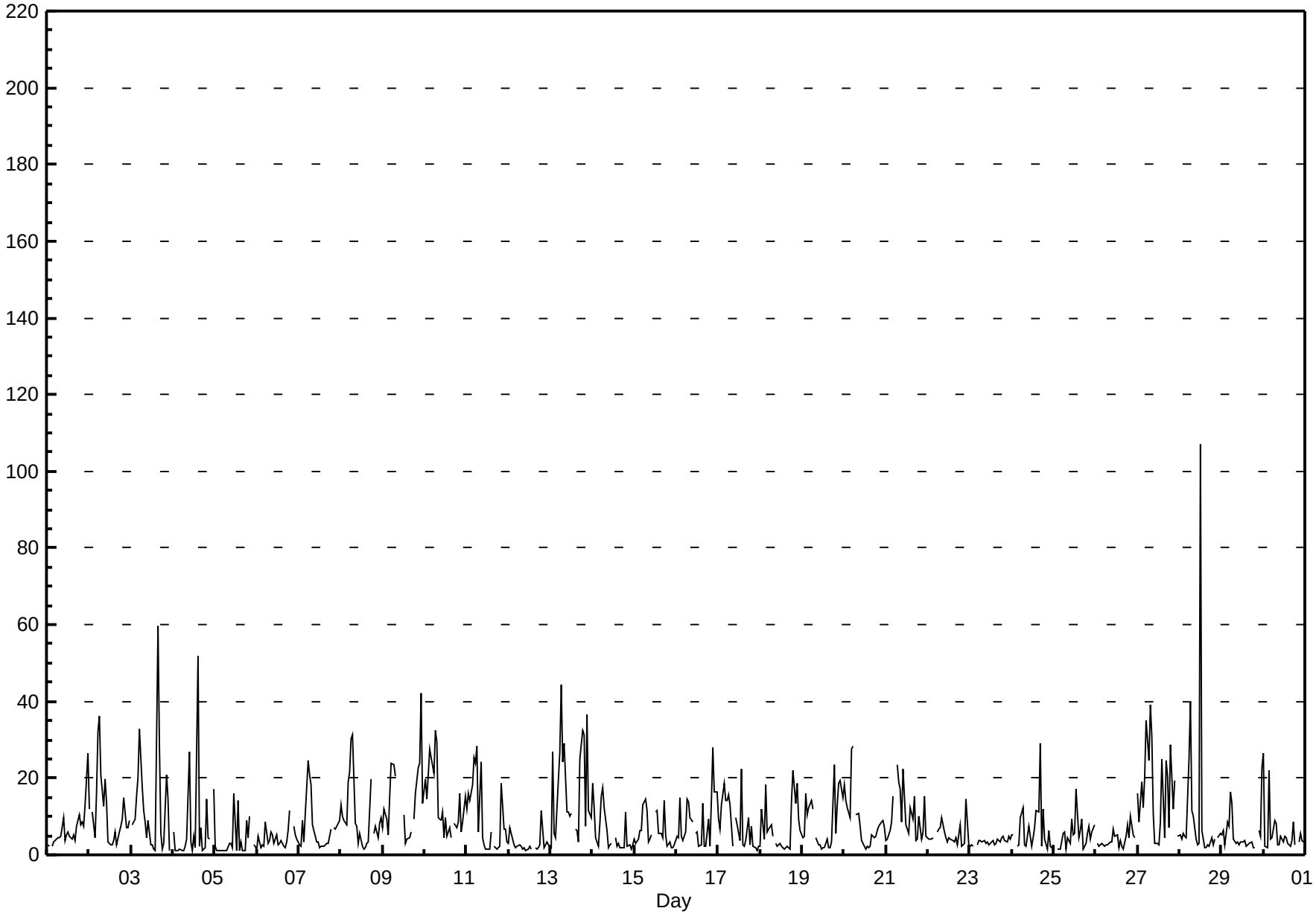
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

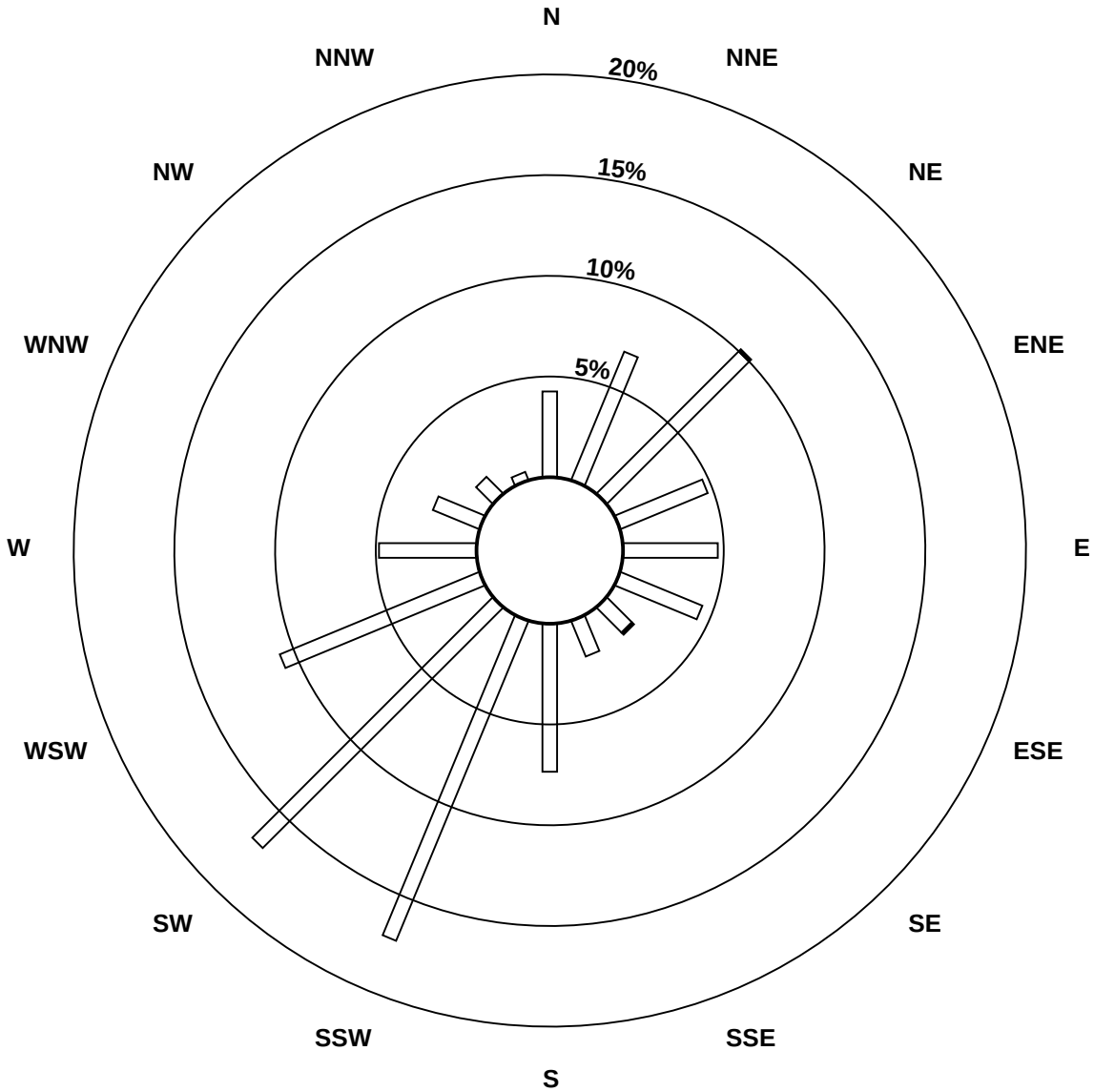
Portable Clairmont - April 2015



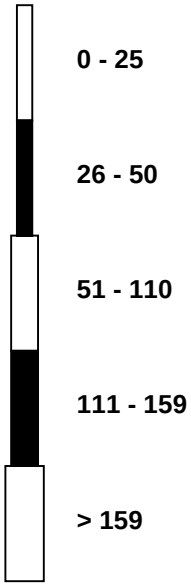
Pollutant Rose

Nitrogen Dioxide (NO_2) - ppb

Portable Clairmont - April 2015



Pollutant Classes (ppb)

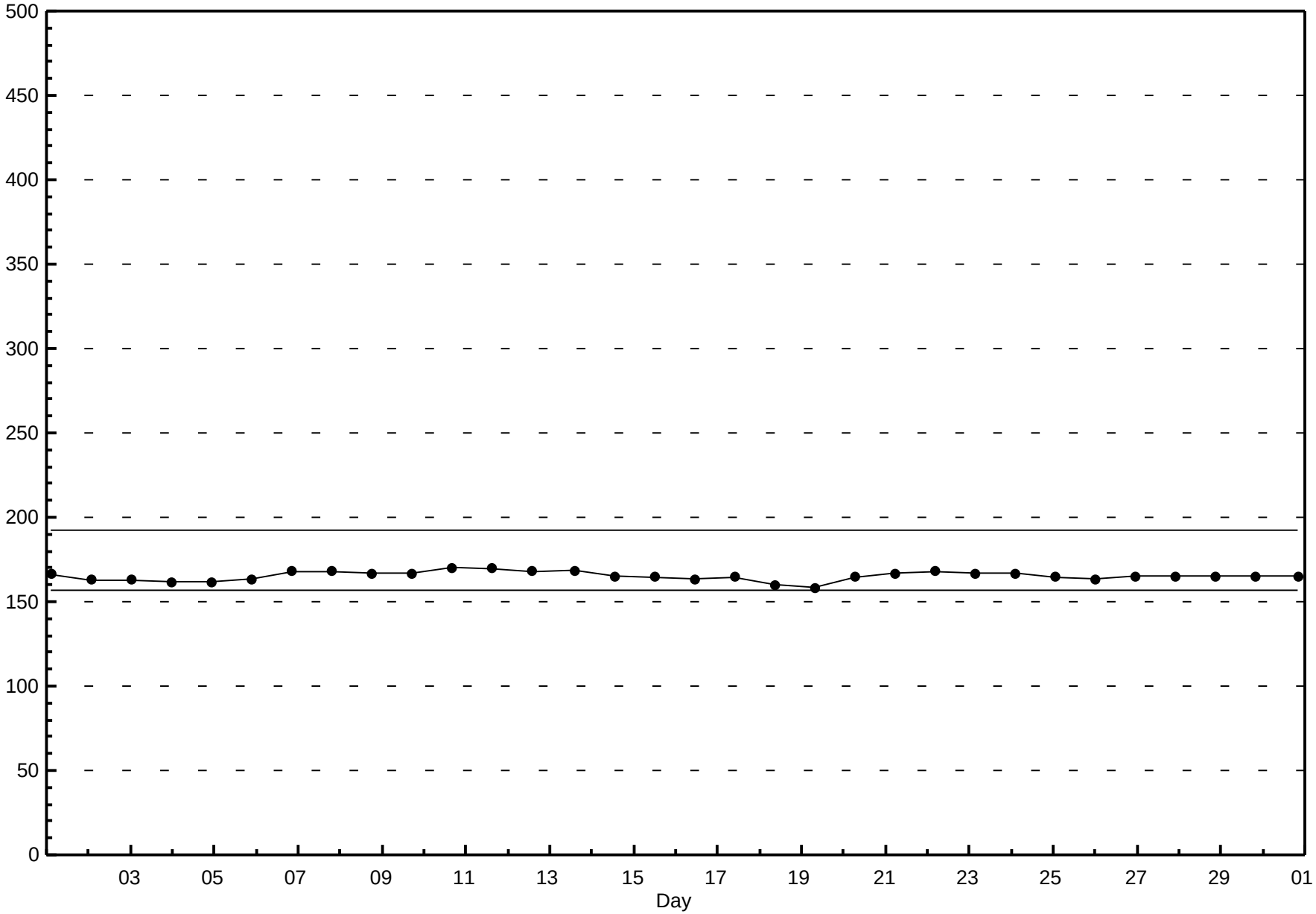


Peace Airshed Zone Association

Span Responses

Nitrogen Dioxide (NO_2)

Portable Clairmont - April 2015



Peace Airshed Zone Association

Hourly Averages

Nitrogen Oxide (NO) - ppb

Portable Clairmont - April 2015

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

Maximum Value: 31.0 ppb on Apr 13 07:00

Maximum Daily Average: 3.4 ppb on Apr 27

Minimum Value: 0 ppb on Apr 4 04:00

Minimum Daily Average: 0.2 ppb on Apr 5

Maximum Diurnal Average: 4.0 ppb at hour 7

Minimum Diurnal Average: 0.4 ppb at hour 2

Monthly Average: 0.96 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.1$ $Q_1 = 0.3$ Median = 0.5 $Q_3 = 0.9$ $P_{90} = 1.7$ $P_{99} = 10.0$

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	A	1	0	1	1	1	1	1	1	2	3	2	1	1	1	1	1	0	1	0	0	5	1.1	5.4
2-Apr	1	A	1	0	0	1	5	4	4	10	3	1	1	1	1	1	0	0	1	1	0	1	0	0	1.7	10.2
3-Apr	A	0	0	1	2	7	4	3	2	2	1	1	1	1	1	0	0	0	0	0	0	0	0	A	1.2	7.1
4-Apr	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	A	0	0.3	1.0
5-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	A	0	0	0.2	0.9
6-Apr	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	0	0	1	0	1	A	0	0	0	0.5	1.4
7-Apr	0	0	0	0	0	5	8	6	3	2	1	1	0	0	0	0	0	0	1	A	0	1	1	1	1.4	7.8
8-Apr	1	1	1	0	1	3	7	10	2	1	1	1	0	1	0	0	0	1	A	0	0	0	1	1	1.5	10.4
9-Apr	1	1	1	0	0	1	5	4	C	C	C	C	1	0	0	1	0	A	1	1	1	1	3	0	1.2	4.9
10-Apr	5	1	5	4	3	1	4	4	3	4	2	1	1	1	0	1	A	1	1	0	0	0	0	1	1.9	5.2
11-Apr	0	1	0	1	1	3	4	1	1	0	0	0	0	0	0	A	1	0	0	0	1	1	1	0	0.8	3.7
12-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
13-Apr	0	2	0	0	1	2	31	6	4	2	1	1	0	A	0	0	0	2	0	1	0	1	0	0	2.4	31.0
14-Apr	0	0	0	0	0	1	1	1	1	0	1	1	A	0	1	1	0	0	0	0	0	0	0	0	0.4	1.1
15-Apr	0	0	0	0	0	1	1	2	1	1	1	A	1	1	1	0	0	1	0	0	0	0	0	0	0.6	1.8
16-Apr	0	0	1	0	0	0	1	1	1	1	A	1	1	0	0	1	1	0	1	0	0	1	1	1	0.6	1.1
17-Apr	0	0	0	1	0	1	0	1	0	A	2	1	1	1	0	0	0	1	0	0	0	0	0	0	0.6	1.9
18-Apr	0	1	0	1	1	1	1	1	A	1	1	0	0	0	0	0	0	0	1	1	0	0	0	0	0.6	1.4
19-Apr	0	0	1	1	2	2	1	A	1	1	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0.7	2.0
20-Apr	1	0	0	0	3	3	A	2	3	2	1	1	0	0	0	0	1	1	0	1	0	0	0	0	0.9	3.4
21-Apr	0	0	0	0	1	A	20	12	6	4	4	3	1	0	1	0	1	1	0	1	1	0	0	0	2.5	19.7
22-Apr	0	0	0	0	A	1	1	2	2	1	1	1	1	1	1	1	1	0	1	0	0	0	1	0	0.7	1.6
23-Apr	0	0	0	A	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0.6	0.9
24-Apr	0	0	A	0	0	0	1	1	0	0	0	1	0	1	1	1	0	0	0	0	0	0	0	0	0.4	0.9
25-Apr	0	A	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	1	0	0	1	1	0	0	0.4	1.4
26-Apr	A	0	0	0	0	0	0	1	1	2	3	2	1	0	0	0	0	1	0	1	0	0	0	A	0.6	2.6
27-Apr	1	0	1	0	1	4	14	29	16	3	1	1	0	1	2	0	1	1	0	2	1	0	A	0	3.4	28.7
28-Apr	0	0	0	0	0	2	3	2	1	1	1	0	1	1	0	0	0	0	0	0	0	A	0	0	0.6	2.7
29-Apr	0	0	0	0	1	1	1	1	0	0	0	1	0	1	0	0	0	0	0	0	A	0	0	1	0.5	1.0
30-Apr	1	0	0	1	0	0	1	1	1	0	1	0	1	0	0	0	1	1	0	A	0	0	0	0	0.5	1.0
	0.5	0.4	0.6	0.5	0.7	1.4	4.0	3.4	2.0	1.6	1.1	0.8	0.7	0.6	0.6	0.4	0.5	0.6	0.5	0.5	0.4	0.4	0.4	0.5	Diurnal Average	
	5.2	2.4	5.1	4.2	3.2	7.1	31.0	28.7	16.3	10.2	4.2	2.9	2.7	1.8	1.6	0.9	1.0	1.8	1.3	2.0	1.4	1.1	3.4	5.4	Diurnal Maximum	

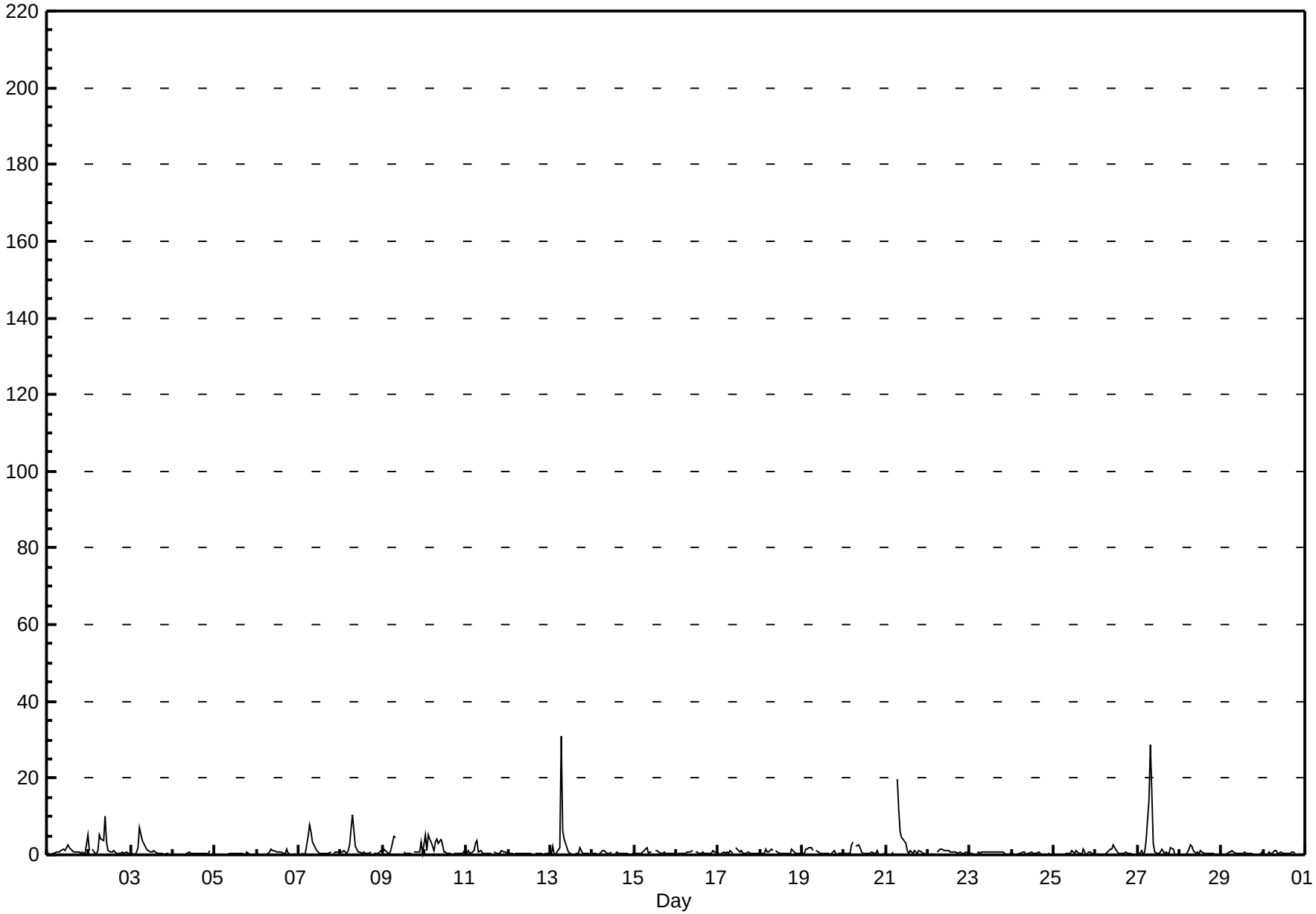
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Nitrogen Oxide (NO) - ppb

Portable Clairmont - April 2015



Peace Airshed Zone Association

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Portable Clairmont - April 2015

Maximum Value: 93.8 ppb on Apr 2 00:00

Maximum Daily Average: 17.6 ppb on Apr 27

Minimum Value: 0 ppb on Apr 4 05:00

Minimum Daily Average: 1.5 ppb on Apr 12

Maximum Diurnal Average: 18.6 ppb at hour 7

Minimum Diurnal Average: 3.3 ppb at hour 16

Monthly Average: 6.63 ppb

Percentiles: $P_1 = 0.2$ $P_{10} = 0.6$ $Q_1 = 1.1$ Median = 2.3 $Q_3 = 7.0$ $P_{90} = 16.9$ $P_{99} = 64.9$

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	1	1	A	1	1	1	3	2	2	6	3	5	6	4	3	4	4	2	4	2	3	2	1	94	6.8	93.8
2-Apr	7	A	8	1	3	6	74	20	9	17	14	2	2	1	9	3	1	1	1	20	4	24	2	3	10.1	73.5
3-Apr	A	1	1	4	6	29	14	7	5	4	4	8	5	26	15	9	8	4	8	1	4	8	4	A	8.1	29.3
4-Apr	2	0	0	0	0	0	9	2	2	12	9	2	1	6	10	1	8	20	8	8	2	33	A	4	6.1	33.5
5-Apr	1	0	0	0	0	0	1	1	3	4	2	4	7	6	13	2	4	0	28	5	4	A	1	0	3.8	28.4
6-Apr	0	3	1	0	2	2	11	4	10	5	4	7	4	5	6	7	1	60	2	3	A	5	2	0	6.3	60.2
7-Apr	1	0	9	0	9	16	17	15	5	3	2	2	2	1	1	1	1	1	3	A	1	3	3	2	4.3	16.7
8-Apr	4	5	5	2	5	11	20	24	5	4	1	4	3	24	1	3	1	17	A	1	1	1	3	6	6.7	23.9
9-Apr	3	7	1	1	3	8	43	10	C	C	C	C	7	1	2	2	2	A	6	2	8	2	38	2	7.8	43.2
10-Apr	24	4	51	45	17	8	24	40	11	16	10	4	4	3	6	3	A	2	2	1	7	1	2	48	14.5	51.3
11-Apr	6	6	1	17	9	11	50	2	32	1	1	1	1	1	7	A	2	1	1	1	25	2	3	2	7.8	49.6
12-Apr	1	5	1	1	1	1	1	1	1	1	1	1	2	1	A	1	1	1	1	9	1	1	1	1	1.5	8.9
13-Apr	0	75	2	1	2	16	69	43	9	11	10	5	10	A	5	4	9	13	6	7	7	18	17	0	14.8	74.6
14-Apr	1	1	2	1	1	5	3	2	2	1	1	2	A	1	1	2	1	1	1	8	1	0	1	1	1.6	7.9
15-Apr	1	1	1	1	1	8	3	5	2	2	4	A	7	7	1	1	1	17	2	2	1	1	2	1	3.0	16.7
16-Apr	1	1	11	1	1	1	2	2	2	3	A	1	2	1	1	8	1	1	13	1	3	6	11	14	3.7	13.7
17-Apr	4	0	3	5	9	5	6	13	6	A	8	3	2	30	3	1	1	27	1	5	1	1	1	1	5.8	30.4
18-Apr	1	7	1	8	5	2	3	3	A	1	1	2	2	1	1	1	1	0	30	31	4	3	3	1	5.0	31.1
19-Apr	1	1	9	5	4	6	5	A	3	1	1	1	4	1	4	1	0	1	23	8	1	3	3	4	4.0	23.3
20-Apr	6	1	2	1	30	22	A	4	7	5	2	2	1	2	1	2	13	8	7	25	2	4	2	10	6.9	29.9
21-Apr	1	0	0	1	9	A	90	23	36	7	11	5	9	2	14	4	25	21	4	33	38	4	22	0	15.6	90.3
22-Apr	1	0	1	1	A	2	3	11	13	3	5	2	2	2	2	3	3	1	6	1	1	1	16	1	3.5	16.3
23-Apr	1	1	1	A	1	1	1	2	1	3	1	2	3	3	3	2	3	5	2	4	2	1	2	1	2.0	4.6
24-Apr	2	2	A	1	7	6	22	15	1	5	4	21	5	15	2	19	4	2	2	1	1	8	2	0	6.4	21.6
25-Apr	1	A	4	0	0	5	1	2	1	1	26	13	8	16	10	3	1	62	1	4	24	29	1	3	9.5	62.4
26-Apr	A	10	0	0	0	0	2	1	2	5	6	7	3	1	2	1	2	8	3	12	4	2	1	A	3.4	12.4
27-Apr	14	0	14	0	2	52	40	72	29	8	1	1	2	11	15	1	18	10	3	41	66	2	A	0	17.6	72.5
28-Apr	0	0	1	0	0	35	17	32	8	2	2	4	13	2	1	1	1	1	1	1	0	A	1	1	5.4	35.2
29-Apr	0	0	1	2	4	7	4	1	1	2	2	1	2	3	1	2	2	1	1	0	A	1	1	26	2.8	26.1
30-Apr	37	1	0	28	1	1	3	2	1	1	1	1	1	2	1	1	2	12	1	A	0	1	0	1	4.3	37.3
	4.4	4.8	4.8	4.4	4.7	9.3	18.6	12.4	7.4	4.9	4.9	4.0	4.1	6.2	4.9	3.3	4.1	10.3	5.9	8.4	7.7	6.0	5.1	8.1	Diurnal Average	
	37.3	74.6	51.3	45.0	29.9	52.1	90.3	72.5	36.1	16.6	26.5	21.4	13.5	30.4	15.4	18.9	25.1	62.4	30.0	41.2	65.8	33.5	37.8	93.8	Diurnal Maximum	

C - Calibration

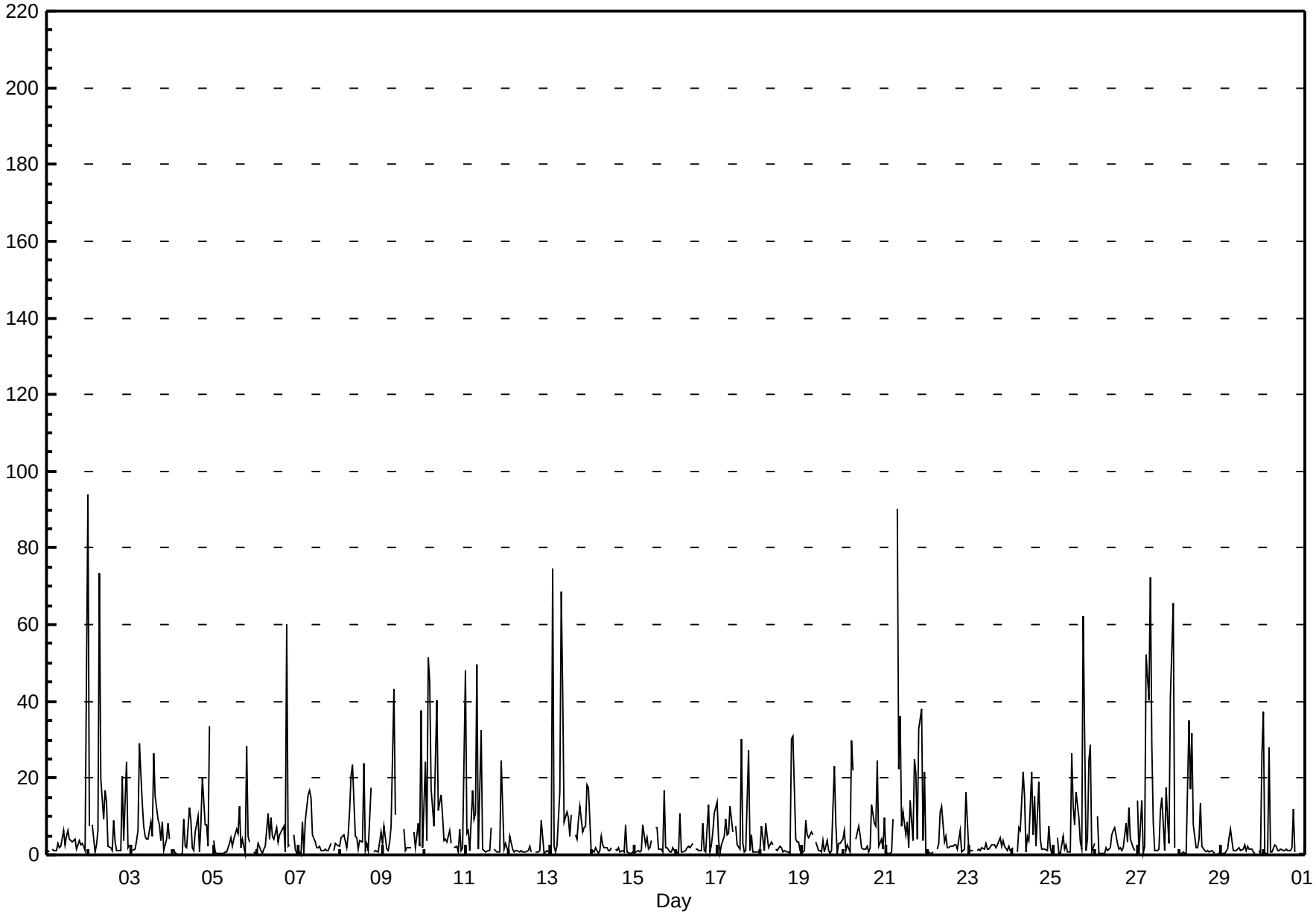
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Portable Clairmont - April 2015



Peace Airshed Zone Association

Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Portable Clairmont - April 2015

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

Maximum Value: 60.9 ppb on Apr 13 07:00

Maximum Daily Average: 11.2 ppb on Apr 27

Minimum Value: 1 ppb on Apr 5 03:00

Minimum Daily Average: 1.0 ppb on Apr 4

Maximum Diurnal Average: 12.6 ppb at hour 7

Minimum Diurnal Average: 1.7 ppb at hour 16

Monthly Average: 4.47 ppb

Percentiles: $P_1 = 0.8$ $P_{10} = 1.1$ $Q_1 = 1.6$ Median = 2.5 $Q_3 = 4.8$ $P_{90} = 9.9$ $P_{99} = 28.2$

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	2	2	A	2	2	3	3	4	4	5	4	5	6	4	3	3	3	3	4	6	6	6	10	14	4.4	13.6
2-Apr	9	A	8	2	9	12	20	16	12	24	8	3	2	2	2	2	2	3	4	3	8	2	2	3	6.9	24.1
3-Apr	A	4	6	12	13	23	14	9	6	4	3	2	2	1	1	2	1	1	1	1	1	1	1	A	5.0	22.7
4-Apr	1	1	1	1	1	1	1	1	1	2	1	1	1	1	2	1	1	1	1	1	1	1	A	1	1.0	1.9
5-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	2	2	1.1	1.8
6-Apr	1	1	1	2	2	2	2	3	4	4	3	3	3	2	2	2	2	2	2	7	A	3	4	3	2.6	6.5
7-Apr	2	2	2	2	5	22	25	15	9	5	4	2	1	1	1	1	2	2	3	A	4	4	6	6	5.6	24.8
8-Apr	10	5	6	6	11	19	29	30	8	4	3	2	1	1	1	2	2	3	A	4	5	3	5	6	7.1	29.7
9-Apr	6	8	7	4	7	16	21	19	C	C	C	C	3	2	2	2	2	A	5	10	16	18	17	10	9.1	20.9
10-Apr	21	11	19	21	18	15	15	13	11	12	8	3	3	2	2	3	A	4	4	6	6	4	5	9	9.2	21.0
11-Apr	9	15	9	8	18	17	14	3	3	2	2	1	1	1	1	A	2	1	1	2	4	5	3	2	5.5	18.0
12-Apr	2	2	2	2	1	2	2	2	1	1	1	1	1	1	A	1	1	1	1	2	1	2	2	2	1.5	2.1
13-Apr	1	6	4	3	8	18	61	16	13	5	2	2	1	A	2	1	1	4	3	4	3	4	6	7	7.7	60.9
14-Apr	11	3	3	2	4	10	14	7	3	1	2	2	A	2	2	2	1	1	1	2	2	2	1	2	3.4	14.0
15-Apr	3	2	3	4	5	5	11	8	2	3	3	A	4	4	3	3	3	2	2	2	2	1	1	2	3.3	10.7
16-Apr	3	3	4	3	3	4	10	9	7	7	A	3	4	1	2	3	2	1	2	2	6	18	14	10	5.2	18.1
17-Apr	8	6	8	13	8	7	4	3	2	A	7	5	3	3	1	1	2	2	2	2	1	1	1	2	4.0	13.3
18-Apr	2	2	3	8	5	5	7	4	A	3	2	2	1	1	1	1	1	1	3	5	6	4	5	3	3.2	8.4
19-Apr	3	4	8	9	12	12	8	A	4	3	2	1	1	1	2	1	1	1	4	4	5	6	9	11	4.8	12.1
20-Apr	13	8	8	8	14	20	A	10	9	5	3	2	1	1	1	1	2	1	1	3	4	5	5	4	5.7	19.9
21-Apr	3	3	4	7	10	A	36	25	14	11	11	8	4	2	3	2	2	2	1	2	1	2	2	2	6.9	35.9
22-Apr	3	3	3	4	A	6	6	6	6	5	4	4	4	3	3	2	3	2	2	2	2	2	3	2	3.4	5.9
23-Apr	2	2	2	A	2	3	3	3	3	2	2	2	2	3	2	3	3	2	3	3	3	2	2	3	2.4	2.9
24-Apr	4	4	A	2	2	2	2	2	1	1	2	2	2	2	2	2	2	1	1	1	1	2	1	1	1.8	3.9
25-Apr	1	A	1	1	1	1	1	1	1	1	2	2	1	2	1	1	1	1	1	2	2	3	4	6	1.8	6.0
26-Apr	A	2	2	2	2	2	3	3	4	4	6	5	2	1	2	1	1	2	2	2	3	3	3	A	2.6	6.3
27-Apr	5	7	10	8	17	18	34	56	39	8	2	2	2	3	6	2	3	3	2	7	7	12	A	4	11.2	56.2
28-Apr	4	3	3	4	3	7	10	7	4	2	2	1	4	4	1	1	1	2	2	1	2	A	3	4	3.3	10.0
29-Apr	3	3	2	3	5	7	5	2	2	2	2	2	2	2	1	2	2	2	1	1	A	5	3	4	2.7	6.7
30-Apr	4	2	1	3	2	3	5	4	2	2	3	2	2	2	2	1	2	2	1	A	2	3	3	3	2.4	5.4
	4.8	4.2	4.7	5.1	6.6	9.0	12.6	9.8	6.2	4.6	3.3	2.5	2.3	2.0	1.9	1.7	1.8	1.9	2.1	3.0	3.8	4.4	4.3	4.5	Diurnal Average	
	20.5	14.8	18.9	21.0	18.0	22.7	60.9	56.2	39.2	24.1	11.1	8.4	6.1	4.3	5.7	3.4	3.1	4.3	4.6	10.1	15.7	18.1	16.8	13.6	Diurnal Maximum	

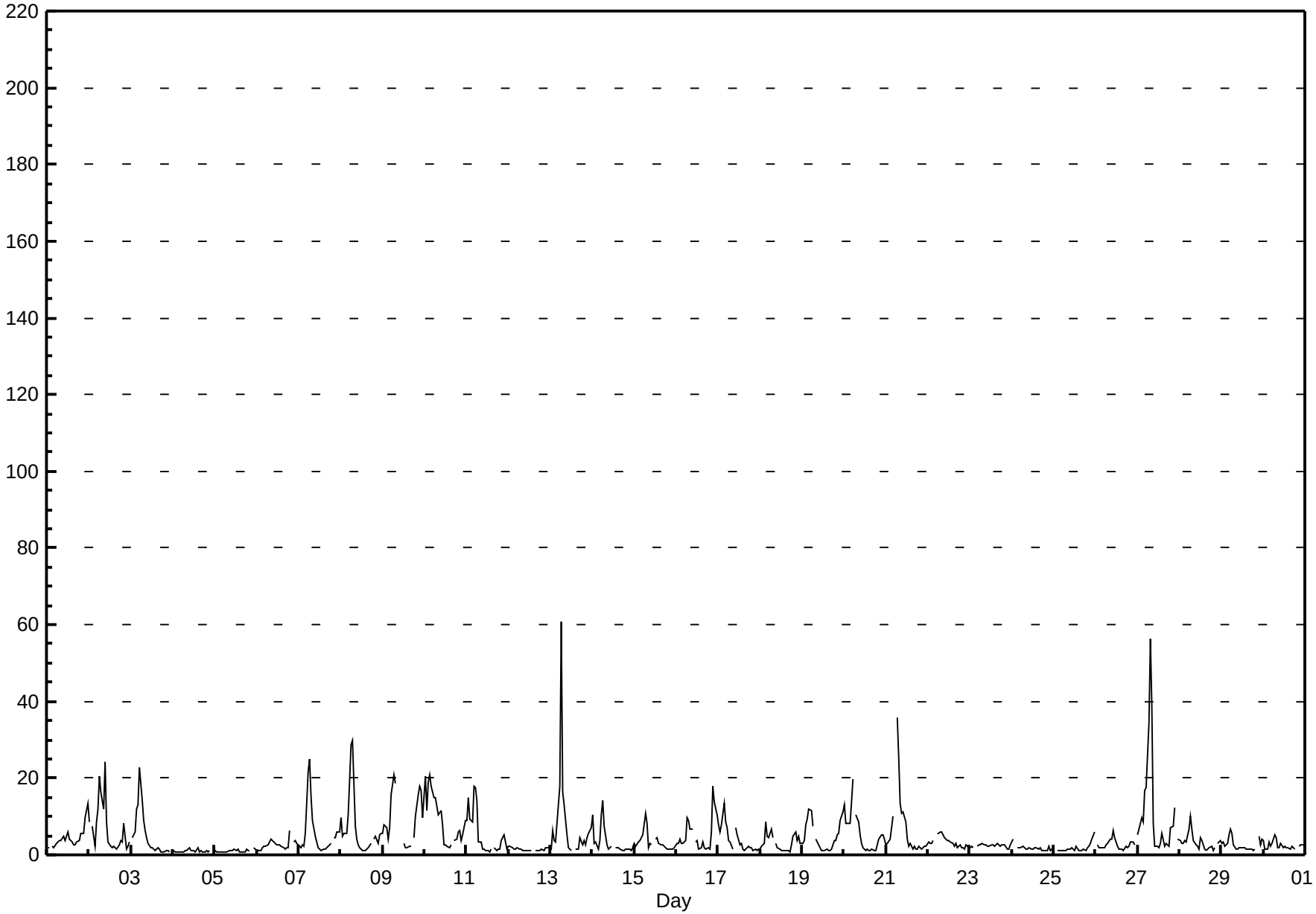
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Portable Clairmont - April 2015



Peace Airshed Zone Association

Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

Portable Clairmont - April 2015

Maximum Value: 121.7 ppb on Apr 28 13:00

Maximum Daily Average: 31.7 ppb on Apr 27

Minimum Value: 1 ppb on Apr 5 03:00

Minimum Daily Average: 4.1 ppb on Apr 12

Maximum Diurnal Average: 32.1 ppb at hour 7

Minimum Diurnal Average: 6.7 ppb at hour 12

Monthly Average: 13.37 ppb

Percentiles: P_1 = 1.1 P_{10} = 2.6 Q_1 = 3.9 Median = 7.0 Q_3 = 15.6 P_{90} = 32.5 P_{99} = 102.1

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	3	3	A	3	4	5	8	6	7	17	6	10	12	9	8	9	6	9	13	10	12	8	14	111	12.7	111.1
2-Apr	18	A	18	5	19	39	106	35	22	36	28	6	4	4	13	8	3	7	8	30	17	15	9	11	20.0	106.4
3-Apr	A	9	10	20	27	62	31	19	14	8	13	4	5	14	5	70	37	7	5	4	26	20	3	A	18.7	69.7
4-Apr	7	1	1	1	1	1	3	4	6	34	5	2	6	6	61	3	8	8	4	21	5	20	A	21	10.0	61.3
5-Apr	3	2	1	1	1	1	1	1	5	3	4	20	5	17	3	4	4	1	13	7	13	A	2	2	5.0	20.4
6-Apr	1	8	3	3	3	11	5	6	9	8	5	7	5	7	10	7	3	18	8	13	A	13	6	4	7.1	17.5
7-Apr	3	2	17	4	19	40	37	33	13	8	5	5	3	3	3	4	4	4	9	A	8	10	9	11	11.0	40.3
8-Apr	18	15	12	10	24	33	48	56	12	12	4	10	3	9	3	4	4	38	A	6	9	5	11	15	15.6	55.7
9-Apr	9	17	11	6	18	28	60	31	C	C	C	C	17	4	6	6	8	A	16	18	31	26	79	15	21.5	79.5
10-Apr	42	18	72	73	41	30	57	70	14	22	20	6	11	8	9	6	A	10	10	9	23	7	10	39	26.5	72.9
11-Apr	17	20	15	35	34	31	78	7	55	6	4	2	2	2	13	A	4	2	2	3	43	8	8	5	17.2	78.3
12-Apr	3	12	5	3	2	3	3	3	2	2	2	2	4	2	A	3	2	3	4	21	2	3	4	3	4.1	20.7
13-Apr	2	102	8	5	14	44	102	67	38	15	15	14	19	A	8	10	5	37	38	36	9	55	26	10	29.5	102.1
14-Apr	20	13	6	3	9	20	20	14	8	3	4	5	A	6	4	5	2	3	3	20	3	3	2	3	7.6	20.1
15-Apr	5	3	5	7	7	21	17	16	5	6	9	A	17	18	7	7	5	31	7	3	4	2	3	3	9.0	30.9
16-Apr	5	5	26	6	4	6	17	16	11	11	A	7	7	3	4	21	3	3	22	3	17	33	21	25	11.9	32.5
17-Apr	13	7	15	23	15	17	18	23	4	A	17	11	5	53	5	3	5	37	3	13	3	2	2	3	12.9	53.2
18-Apr	3	19	5	26	10	9	10	7	A	4	3	5	4	3	2	3	2	2	35	53	18	22	12	7	11.5	53.3
19-Apr	5	6	24	15	15	18	17	A	6	4	4	2	4	2	7	3	2	4	47	9	14	22	23	19	11.9	47.0
20-Apr	25	15	15	10	55	51	A	13	18	11	5	4	3	4	3	3	10	7	6	17	8	13	10	16	14.1	55.5
21-Apr	4	4	7	9	22	A	115	41	37	15	30	13	16	7	25	12	23	23	5	16	11	8	34	5	21.0	114.5
22-Apr	4	4	5	5	A	7	9	19	22	9	7	5	6	6	5	6	6	4	13	3	3	4	30	3	8.1	30.5
23-Apr	3	4	3	A	3	5	5	4	5	5	5	3	5	6	5	5	7	8	7	8	5	5	7	5	5.1	7.8
24-Apr	6	6	A	2	7	16	14	7	3	10	10	10	8	11	13	13	34	4	13	5	2	10	3	2	9.1	33.7
25-Apr	2	A	2	1	2	11	7	3	5	3	16	10	9	34	8	7	10	11	3	7	30	21	7	11	9.5	33.9
26-Apr	A	11	2	3	3	2	4	3	5	8	13	10	8	3	6	3	2	9	10	16	13	7	5	A	6.7	15.7
27-Apr	30	9	31	13	22	88	59	111	59	20	4	4	4	13	35	6	43	31	10	58	52	22	A	5	31.7	111.4
28-Apr	5	4	6	5	5	61	50	23	12	5	3	3	122	8	3	3	3	3	5	3	4	A	5	6	15.1	121.7
29-Apr	5	6	3	10	12	24	18	5	4	5	4	5	5	6	3	3	4	5	2	2	A	7	5	49	8.4	49.4
30-Apr	64	2	2	50	5	5	11	11	4	3	6	4	6	6	4	3	6	21	3	A	4	6	4	4	10.2	64.1
	11.7	11.7	11.7	12.3	14.0	23.8	32.1	22.5	14.5	10.5	9.0	6.7	11.2	9.5	9.6	8.2	8.8	12.0	11.2	14.7	13.9	13.4	12.7	14.8	Diurnal Average	
	64.1	102.1	72.3	72.9	55.5	87.7	114.5	111.4	59.4	36.1	30.1	20.4	121.7	53.2	61.3	69.7	42.6	37.7	47.0	58.2	52.3	55.1	79.5	111.1	Diurnal Maximum	

C - Calibration

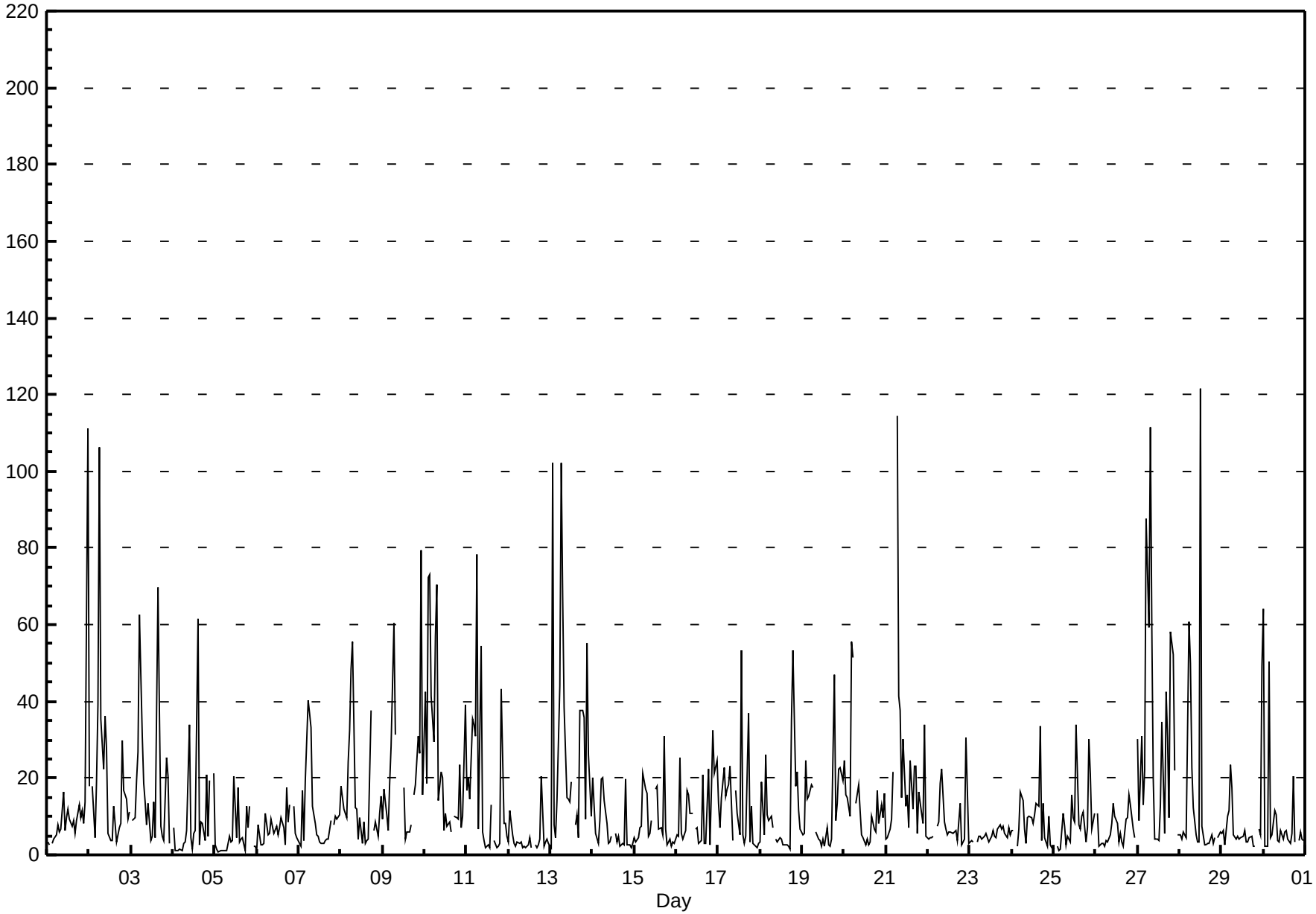
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

Portable Clairmont - April 2015

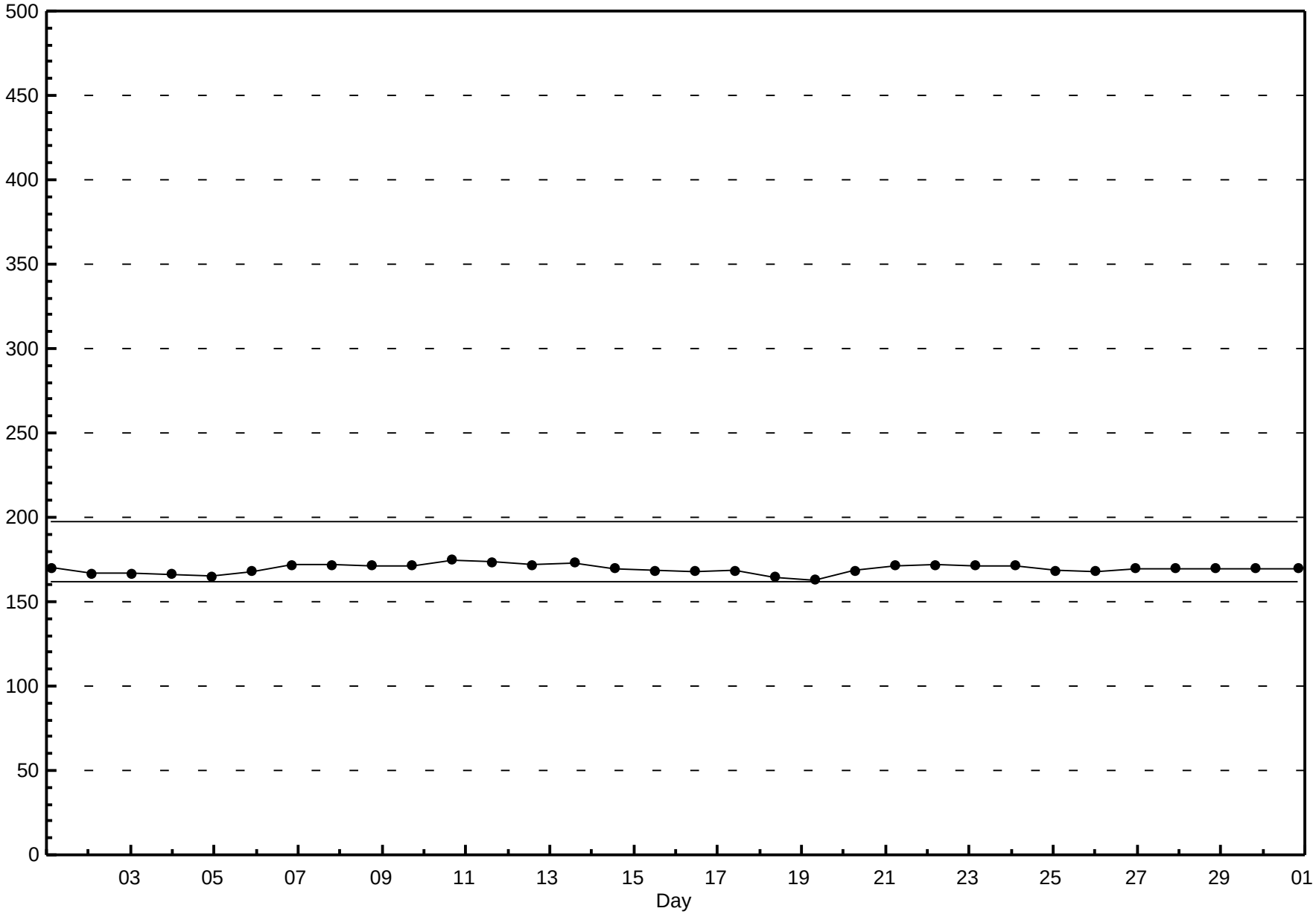


Peace Airshed Zone Association

Span Responses

Oxides of Nitrogen (NO_X)

Portable Clairmont - April 2015



Peace Airshed Zone Association

Hourly Averages

Ozone (O_3) - ppb

Portable Clairmont - April 2015

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

Maximum Value: 54.8 ppb on Apr 27 16:00

Maximum Daily Average: 46.1 ppb on Apr 30

Minimum Value: 3 ppb on Apr 21 07:00

Minimum Daily Average: 25.8 ppb on Apr 24

Maximum Diurnal Average: 42.4 ppb at hour 16

Minimum Diurnal Average: 22.6 ppb at hour 7

Monthly Average: 33.56 ppb

Percentiles: P_1 = 5.9 P_{10} = 19.2 Q_1 = 28.1 Median = 35.0 Q_3 = 41.8 P_{90} = 44.8 P_{99} = 51.1

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	37	34	A	33	32	30	30	30	29	28	29	28	28	30	32	36	38	38	34	31	29	27	22	19	30.7	38.0
2-Apr	18	A	19	39	31	26	18	16	25	23	31	33	37	39	40	41	42	40	39	37	29	36	35	31	31.6	42.1
3-Apr	A	29	25	20	15	7	9	14	22	28	34	34	31	34	37	37	38	38	37	32	31	30	31	A	27.8	38.3
4-Apr	29	28	29	30	31	31	29	28	30	32	35	36	36	37	38	38	38	39	38	37	36	35	A	34	33.7	38.8
5-Apr	34	35	33	31	31	30	30	31	32	34	36	37	38	39	39	40	41	41	40	39	34	A	31	31	35.0	41.3
6-Apr	31	31	29	28	28	26	25	25	28	30	32	36	36	38	40	41	42	42	41	34	A	35	33	32	33.1	42.3
7-Apr	34	31	27	27	22	7	5	12	21	28	32	39	42	43	44	45	45	44	41	A	34	33	30	28	31.0	44.7
8-Apr	24	33	31	27	23	16	10	14	28	32	38	41	43	44	44	44	44	43	A	35	32	32	28	26	31.8	44.3
9-Apr	27	24	28	33	30	11	16	25	24	38	C	C	C	C	C	50	50	A	45	34	24	12	14	12	27.5	50.1
10-Apr	4	7	6	3	11	13	16	21	30	32	42	51	52	51	50	50	A	48	44	42	39	37	34	25	30.7	51.7
11-Apr	21	11	12	20	12	13	16	37	41	44	43	44	44	45	43	A	43	43	44	42	37	30	35	42	33.2	44.7
12-Apr	38	38	37	38	38	38	37	39	41	41	42	43	43	43	A	43	44	44	45	43	42	40	38	36	40.5	45.0
13-Apr	38	33	32	31	26	15	3	23	30	38	43	45	46	A	48	49	50	47	44	43	42	41	35	29	36.1	49.7
14-Apr	25	42	39	42	38	31	28	33	41	44	44	43	A	43	42	42	42	42	43	43	43	43	43	41	39.9	43.6
15-Apr	39	39	38	36	34	35	29	33	40	42	44	A	45	45	46	46	45	46	44	43	43	42	42	39	40.6	46.3
16-Apr	36	34	33	35	37	38	30	33	37	37	A	41	39	41	44	43	43	44	45	43	33	20	17	19	35.6	44.5
17-Apr	12	13	15	16	24	28	41	44	44	A	36	34	38	42	43	44	43	39	39	42	45	43	44	43	35.3	45.1
18-Apr	43	40	34	25	28	26	24	29	A	36	39	42	44	45	46	47	46	47	46	41	32	36	36	36	37.7	46.7
19-Apr	33	30	23	19	15	15	21	A	32	36	40	44	44	46	47	48	50	51	49	43	35	30	24	22	34.6	50.6
20-Apr	15	18	21	21	18	13	A	24	26	30	37	39	38	37	38	38	38	38	38	34	26	26	23	25	28.7	38.8
21-Apr	28	26	22	15	11	A	3	12	20	23	24	32	40	43	43	43	41	41	39	39	37	34	33	32	29.6	43.3
22-Apr	27	27	26	21	A	16	17	19	23	27	26	24	22	29	34	35	34	36	35	35	35	36	35	35	28.4	36.2
23-Apr	34	35	35	A	34	34	34	33	33	34	33	33	29	25	24	23	23	24	22	21	19	19	18	16	27.6	35.2
24-Apr	14	11	A	14	13	15	23	25	20	20	23	24	26	28	29	30	32	33	35	36	38	33	37	35	25.8	38.3
25-Apr	32	A	30	31	29	30	30	32	32	32	33	35	38	38	38	38	38	38	37	34	31	29	26	22	32.7	37.9
26-Apr	A	23	21	23	23	25	25	25	25	25	28	31	37	39	39	38	39	40	40	38	32	29	33	A	30.8	40.2
27-Apr	27	19	18	15	9	9	5	6	14	32	42	45	48	52	51	55	53	51	48	40	35	24	A	31	31.7	54.8
28-Apr	31	35	35	29	32	28	26	27	29	33	35	40	42	43	43	53	53	48	45	46	42	A	38	36	37.8	53.0
29-Apr	36	35	36	34	29	29	33	40	43	45	46	46	46	45	44	42	43	42	43	42	A	35	36	35	39.3	46.2
30-Apr	39	43	44	43	44	43	40	42	46	47	45	48	48	49	51	51	49	49	50	A	48	47	47	47	46.1	51.2
	28.8	28.7	27.8	26.9	25.8	23.3	22.6	26.5	30.5	33.4	36.2	38.1	39.3	40.5	41.2	42.4	42.3	41.9	41.0	38.2	35.2	32.6	32.1	30.6	Diurnal Average	
	43.0	43.4	44.2	42.9	44.1	42.7	40.8	43.9	45.6	46.5	45.7	51.0	51.7	51.5	51.2	54.8	53.0	51.2	49.6	46.4	48.5	47.1	47.5	47.4	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

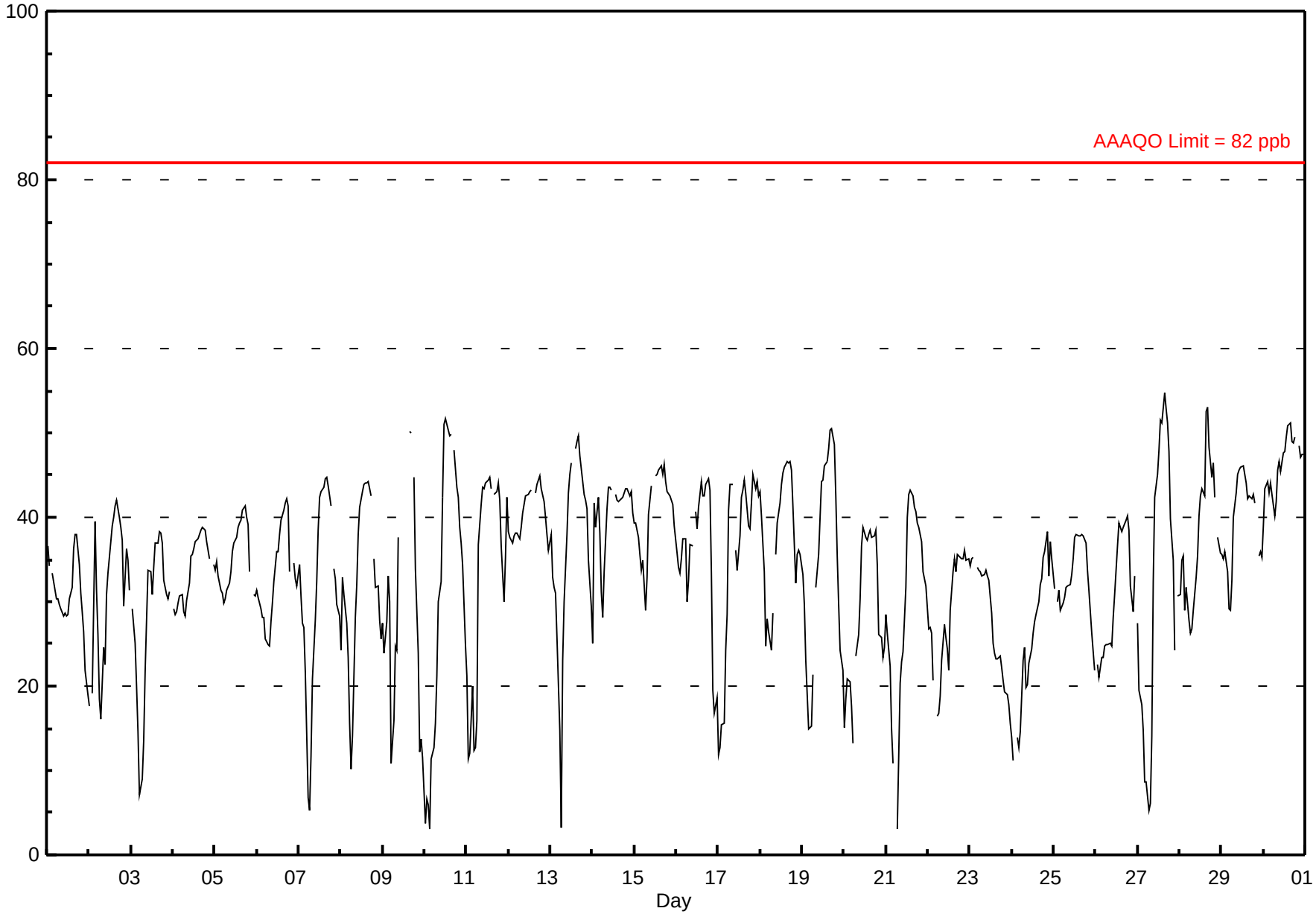
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82 ppb 24-hr na

Peace Airshed Zone Association

Hourly Averages

Ozone (O_3) - ppb

Portable Clairmont - April 2015



Peace Airshed Zone Association

Hourly Maximums

Ozone (O_3) - ppb

Portable Clairmont - April 2015

Maximum Value: 62.1 ppb on Apr 27 14:00

Maximum Daily Average: 48.2 ppb on Apr 30

Minimum Value: 6 ppb on Apr 21 07:00

Minimum Daily Average: 27.8 ppb on Apr 24

Maximum Diurnal Average: 44.0 ppb at hour 16

Minimum Diurnal Average: 26.3 ppb at hour 7

Monthly Average: 36.30 ppb

Percentiles: P_1 = 11.1 P_{10} = 24.1 Q_1 = 30.7 Median = 37.3 Q_3 = 43.8 P_{90} = 46.9 P_{99} = 53.5

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	38	36	A	35	33	31	32	31	30	30	30	29	30	32	34	38	39	40	36	34	32	29	26	22	32.5	39.8
2-Apr	21	A	30	44	39	32	24	21	27	25	33	36	38	41	41	43	43	43	41	42	37	38	38	36	35.4	44.4
3-Apr	A	33	29	23	22	10	12	19	25	32	37	36	33	36	39	38	40	40	38	37	32	31	32	A	30.6	40.3
4-Apr	30	29	29	31	32	32	30	29	32	34	37	36	37	38	39	39	39	40	40	39	37	36	A	35	34.8	39.8
5-Apr	35	36	35	32	31	31	31	32	33	35	37	38	39	39	40	40	42	42	42	41	39	A	32	32	36.3	42.4
6-Apr	33	32	30	30	31	27	26	26	30	32	35	37	38	40	41	42	43	43	43	41	A	37	35	34	35.0	43.3
7-Apr	35	35	29	28	27	16	8	17	26	32	35	41	43	45	45	46	46	46	44	A	36	35	32	32	33.9	46.2
8-Apr	29	36	35	30	28	20	16	26	30	34	41	42	44	45	45	45	47	46	A	37	34	34	31	28	34.9	47.5
9-Apr	30	27	32	35	35	21	27	31	34	43	C	C	C	C	C	52	52	A	50	44	29	21	20	16	33.2	52.2
10-Apr	10	12	10	11	19	20	21	24	34	34	49	52	53	53	52	52	A	51	47	47	41	41	40	33	35.1	52.9
11-Apr	30	14	16	25	22	21	28	39	44	45	44	45	45	45	45	A	44	44	46	44	40	32	43	45	36.9	46.4
12-Apr	40	39	39	39	39	40	39	41	42	43	43	44	44	44	A	44	45	46	46	45	44	42	41	38	42.1	46.4
13-Apr	39	38	35	34	29	24	11	31	36	42	45	46	48	A	49	50	51	50	47	44	44	45	40	36	39.7	50.7
14-Apr	31	45	42	44	43	35	32	40	43	45	45	45	A	44	43	43	43	43	45	45	44	45	44	43	42.2	45.2
15-Apr	41	41	40	39	36	38	32	39	42	44	46	A	47	47	49	49	47	48	46	44	44	43	43	41	42.8	49.0
16-Apr	37	36	36	37	39	39	34	36	42	39	A	44	41	43	47	46	45	47	46	46	42	30	27	26	39.4	47.3
17-Apr	16	15	20	52	31	37	44	46	46	A	39	36	40	45	45	46	46	42	44	44	48	45	45	44	39.9	52.4
18-Apr	44	42	39	29	29	28	26	30	A	39	41	43	46	46	48	47	47	48	48	47	39	40	42	40	40.4	48.4
19-Apr	36	32	26	22	17	19	25	A	35	38	44	46	46	47	48	50	52	52	51	47	39	37	27	27	37.5	52.0
20-Apr	19	22	24	23	23	16	A	26	29	34	40	40	40	39	39	39	39	39	39	38	32	28	27	28	31.4	40.3
21-Apr	30	28	26	20	15	A	6	17	25	24	28	36	42	45	45	44	43	42	41	41	38	36	34	37	32.3	45.3
22-Apr	30	28	28	26	A	20	21	21	25	33	28	26	24	32	36	37	36	36	36	37	36	37	37	36	30.7	37.2
23-Apr	35	36	36	A	35	35	35	34	35	35	34	33	33	26	25	25	25	25	24	22	21	20	19	18	28.9	36.1
24-Apr	16	12	A	15	14	22	25	26	22	23	23	26	28	29	30	32	34	34	37	39	41	38	38	37	27.8	41.0
25-Apr	35	A	31	33	30	31	31	33	33	33	36	36	39	39	39	40	40	39	38	37	33	31	28	25	34.3	40.1
26-Apr	A	25	23	25	24	26	25	26	26	26	31	35	39	41	41	39	40	41	41	40	37	31	35	A	32.6	41.2
27-Apr	32	24	26	20	14	14	12	11	26	41	44	47	52	62	57	58	56	53	53	45	40	31	A	36	37.1	62.1
28-Apr	33	36	38	34	34	32	30	29	32	34	38	43	45	47	46	55	56	52	47	48	45	A	40	38	40.5	55.7
29-Apr	37	38	37	36	33	33	37	43	44	47	49	47	48	46	46	44	44	44	45	44	A	38	39	39	41.7	49.1
30-Apr	40	46	46	45	46	45	43	45	47	48	47	50	50	52	54	53	52	51	51	A	50	49	49	50	48.2	53.9
	31.6	31.2	31.0	30.9	29.3	27.4	26.3	30.0	33.6	35.9	38.5	39.9	41.1	42.4	43.1	44.0	44.0	43.6	43.2	41.4	38.4	35.7	35.2	33.9	Diurnal Average	
	44.3	45.5	46.0	52.4	45.8	44.8	43.9	46.4	47.2	47.7	49.4	52.3	52.6	62.1	57.1	58.2	55.7	53.2	52.8	48.1	49.7	49.2	48.7	49.6	Diurnal Maximum	

C - Calibration

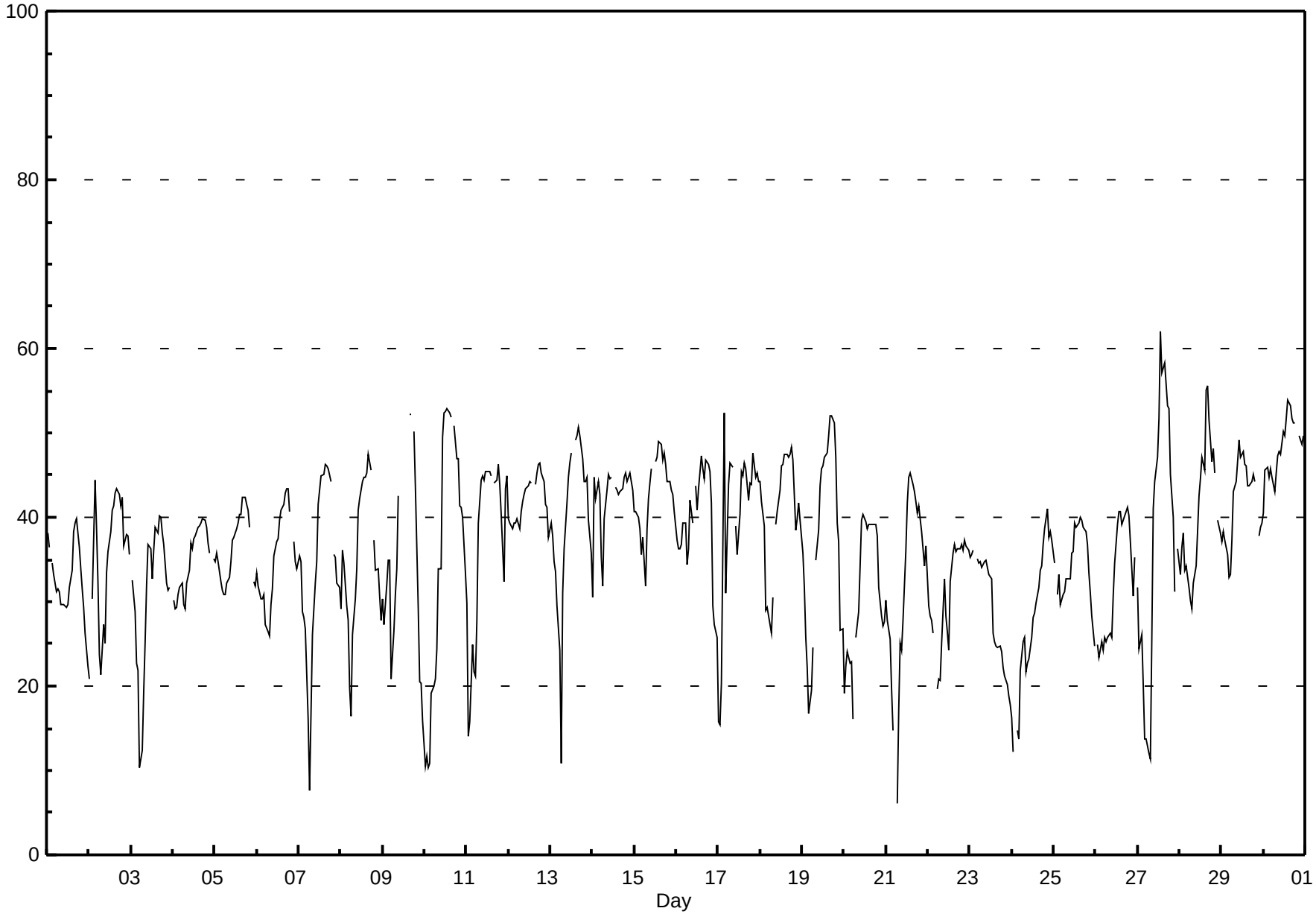
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Ozone (O_3) - ppb

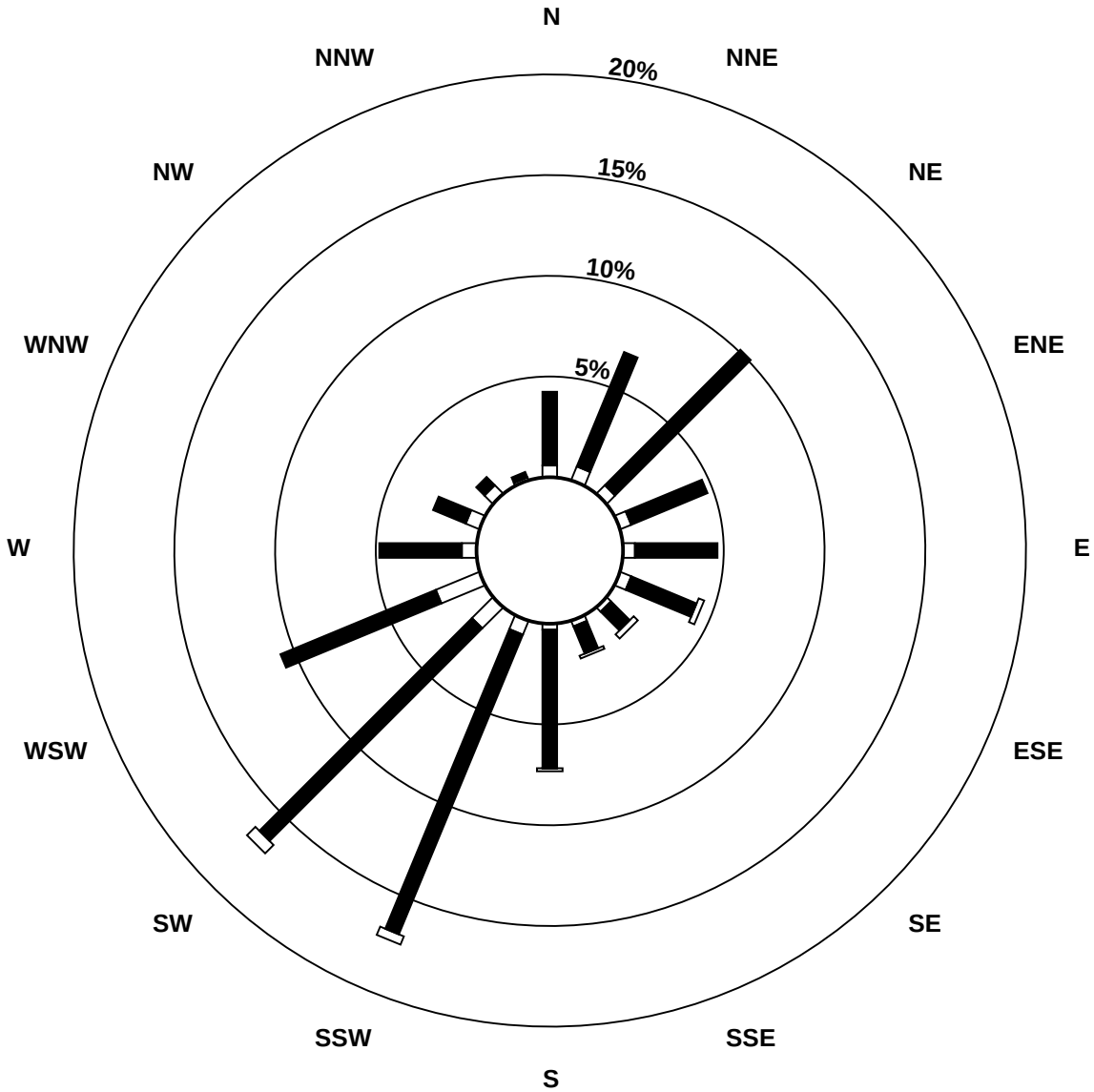
Portable Clairmont - April 2015



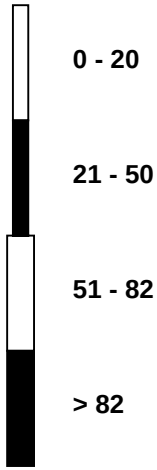
Pollutant Rose

Ozone (O_3) - ppb

Portable Clairmont - April 2015



Pollutant Classes (ppb)



Peace Airshed Zone Association

Eight Hour Running Averages

Ozone (O_3) - ppb

Portable Clairmont - April 2015

Maximum Value: 50.3 ppb on Apr 27 19:00

Minimum Value: 8.5 ppb on Apr 10 05:00

Percentiles: P_1 = 13.5 P_{10} = 21.8 Q_1 = 28.3 Median = 34.6 Q_3 = 39.4 P_{90} = 43.6 P_{99} = 49.3

Hours in Service:	720
Hours of Data:	711
Hours of Missing Data:	9
Hours of Calibration:	9
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	38	37	37	36	36	35	34	32	31	31	30	30	29	29	29	30	31	32	33	34	34	33	32	30	37.9
2-Apr	27	26	23	25	25	25	24	24	25	25	26	25	26	28	30	34	36	38	39	39	38	38	38	36	39.4
3-Apr	35	34	32	29	27	23	19	17	18	17	18	20	22	25	29	32	34	35	36	36	36	35	34	34	35.7
4-Apr	33	31	30	30	30	30	29	29	29	30	31	32	32	33	34	35	36	37	38	38	38	37	37	37	37.7
5-Apr	36	36	35	34	33	33	32	32	32	32	32	33	33	35	36	37	38	39	39	40	39	39	38	37	39.6
6-Apr	35	34	32	31	30	29	29	28	27	27	28	29	30	31	33	35	37	38	39	39	40	39	38	37	39.6
7-Apr	36	34	32	31	30	27	23	21	19	19	19	21	23	28	33	37	40	42	43	43	42	41	39	36	43.3
8-Apr	33	32	30	30	29	27	24	22	23	23	24	25	28	31	36	39	41	43	43	42	41	39	37	34	43.3
9-Apr	32	29	29	29	28	26	24	24	24	25	25	24	N	N	N	N	N	N	N	N	N	36	33	27	35.8
10-Apr	21	19	14	10	9	9	9	10	13	17	21	27	32	37	41	45	47	49	49	48	46	44	42	38	49.3
11-Apr	36	32	28	25	22	19	16	18	20	24	28	31	35	39	43	44	44	44	44	43	42	40	39	40	43.8
12-Apr	39	38	37	37	37	38	38	38	38	39	39	40	41	41	42	42	43	43	44	44	44	43	42	42	43.7
13-Apr	41	39	38	36	34	31	27	25	24	25	26	28	30	33	39	43	46	47	47	47	46	45	44	41	47.1
14-Apr	38	38	37	37	36	35	34	35	37	37	38	38	38	39	41	43	43	43	42	42	43	43	43	43	42.7
15-Apr	42	42	41	40	39	38	36	35	35	36	37	37	38	40	42	44	45	45	45	45	45	44	44	43	45.3
16-Apr	42	40	39	38	37	37	35	34	35	35	35	36	36	37	39	40	41	42	42	43	42	39	36	33	42.6
17-Apr	29	25	21	18	17	18	21	24	28	30	33	36	38	40	40	40	40	40	40	41	42	42	42	42	42.4
18-Apr	42	42	42	40	37	35	33	31	29	29	30	32	34	37	40	43	43	44	45	45	44	43	41	40	45.3
19-Apr	38	36	33	31	28	26	24	22	22	23	25	29	33	38	41	42	44	46	47	47	46	44	41	38	47.4
20-Apr	34	29	26	23	21	19	18	18	20	22	24	27	29	33	34	35	37	38	38	37	36	35	33	31	38.0
21-Apr	30	28	26	24	22	22	19	17	16	15	15	18	22	25	30	33	36	38	40	41	41	40	38	37	41.1
22-Apr	35	33	32	29	28	26	24	22	21	21	21	22	22	23	25	27	29	30	31	32	34	35	35	35	35.1
23-Apr	35	35	35	35	35	35	34	34	34	34	33	33	33	32	30	29	28	27	25	24	23	22	21	20	35.2
24-Apr	19	17	17	16	15	14	15	16	17	18	19	20	22	24	24	25	26	28	30	31	33	33	34	35	34.9
25-Apr	35	35	34	34	32	32	31	31	31	31	31	32	33	34	35	35	36	37	37	37	36	35	34	32	37.4
26-Apr	31	29	26	25	24	23	23	24	24	24	25	26	27	29	31	33	34	36	38	39	38	37	36	36	38.8
27-Apr	34	31	28	25	21	19	15	14	12	13	17	20	25	31	36	42	47	50	50	50	48	45	44	40	50.3
28-Apr	37	35	33	31	31	32	31	30	30	30	30	31	33	35	37	40	43	45	46	47	47	47	46	44	47.2
29-Apr	42	40	38	37	35	34	33	34	35	36	37	39	41	43	44	45	45	44	44	43	43	42	40	39	44.6
30-Apr	39	39	39	39	40	41	41	42	43	44	44	44	45	46	47	48	48	49	49	50	50	49	49	48	49.6
Diurnal Maximums	42.2	42.3	41.7	40.2	40.0	41.0	41.5	42.3	43.1	43.5	43.7	44.2	44.7	45.5	46.9	48.1	48.5	49.6	50.3	49.7	49.6	49.3	48.8	48.2	

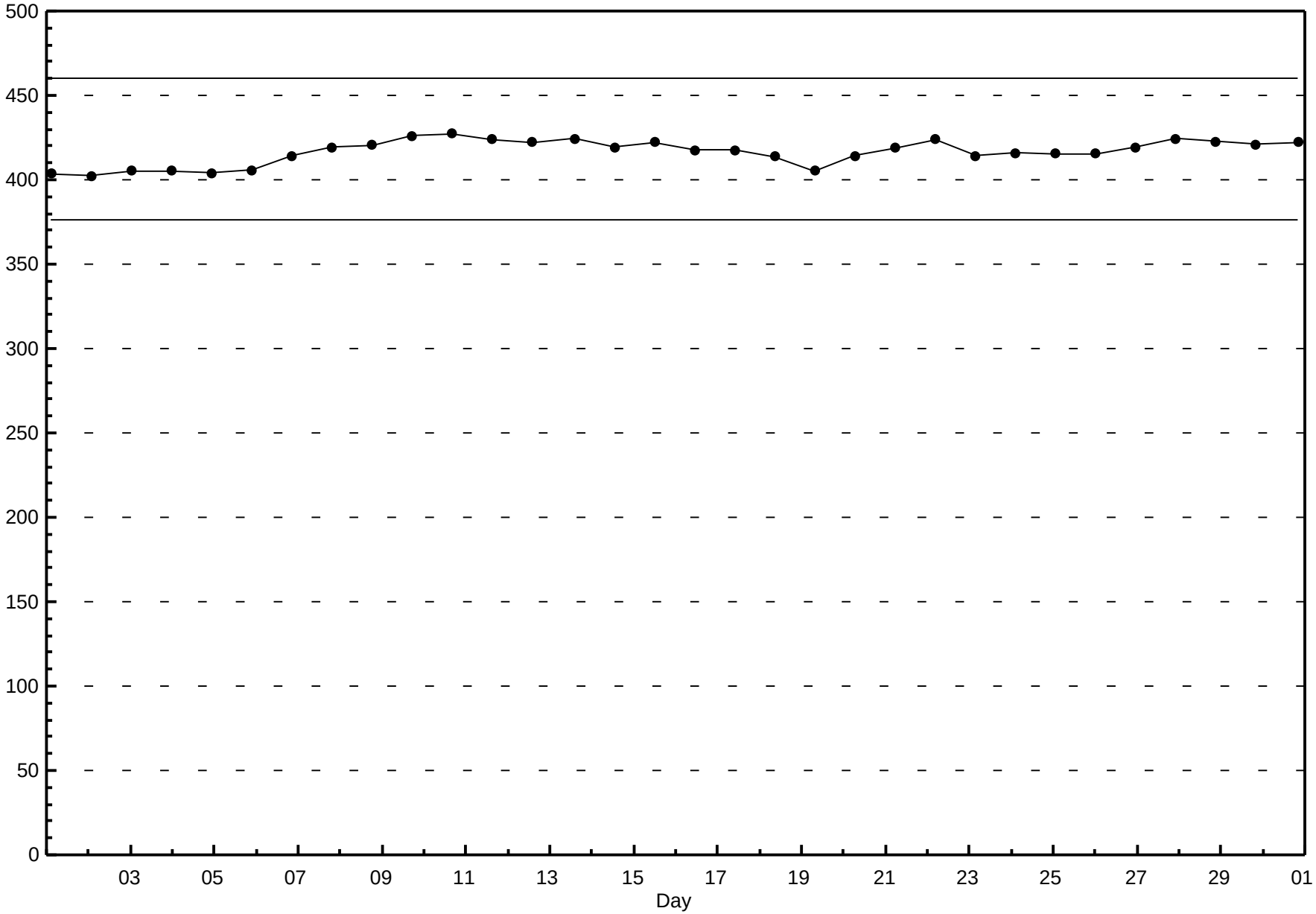
N - Not Valid

Peace Airshed Zone Association

Span Responses

Ozone (O_3)

Portable Clairmont - April 2015



Peace Airshed Zone Association

Hourly Averages

Total Hydrocarbons (THC) - ppm

Portable Clairmont - April 2015

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

Maximum Value: 2.89 ppm on Apr 9 22:00

Maximum Daily Average: 2.24 ppm on Apr 10

Minimum Value: 2.0 ppm on Apr 20 17:00

Maximum Diurnal Average: 2.22 ppm at hour 6

Monthly Average: 2.126 ppm

Minimum Daily Average: 2.04 ppm on Apr 5

Minimum Diurnal Average: 2.06 ppm at hour 19

Percentiles: P_1 = 2.01 P_{10} = 2.04 Q_1 = 2.07 Median = 2.09 Q_3 = 2.13 P_{90} = 2.27 P_{99} = 2.57

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	2.0	2.0	A	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.08	2.19
2-Apr	2.4	A	2.3	2.1	2.1	2.2	2.3	2.4	2.2	2.2	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.0	2.1	2.1	2.15	2.41
3-Apr	A	2.2	2.2	2.2	2.5	2.9	2.5	2.8	2.3	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.20	2.85
4-Apr	2.0	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.05	2.06
5-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.1	2.1	2.04	2.06
6-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	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.09	2.15
7-Apr	2.1	2.1	2.1	2.1	2.2	2.3	2.4	2.5	2.4	2.3	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.1	2.1	2.1	2.14	2.46
8-Apr	2.2	2.1	2.1	2.2	2.1	2.2	2.3	2.4	2.2	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	2.1	2.2	2.11	2.38
9-Apr	2.1	2.3	2.1	2.1	2.1	2.3	2.2	2.1	2.1	2.1	2.2	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.2	2.3	2.9	2.7	2.5	2.19	2.89
10-Apr	2.7	2.5	2.4	2.4	2.3	2.4	2.3	2.2	2.2	2.2	C	C	C	C	2.1	2.1	A	2.1	2.1	2.1	2.1	2.2	2.3	2.2	2.24	2.75
11-Apr	2.3	2.5	2.4	2.3	2.4	2.6	2.5	2.1	2.1	2.0	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	2.17	2.56
12-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	2.1	2.1	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.08	2.12
13-Apr	2.1	2.1	2.1	2.1	2.2	2.3	2.4	2.2	2.2	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	2.1	2.2	2.14	2.40
14-Apr	2.3	2.1	2.1	2.0	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	2.1	2.1	2.1	2.09	2.29
15-Apr	2.1	2.1	2.1	2.2	2.2	2.2	2.2	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	2.1	2.1	2.1	2.1	2.11	2.17
16-Apr	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	2.1	2.1	2.2	2.3	2.2	2.12	2.34
17-Apr	2.2	2.3	2.3	2.3	2.2	2.2	2.1	2.1	2.1	A	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.12	2.30
18-Apr	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.15	2.22
19-Apr	2.2	2.2	2.4	2.4	2.4	2.4	2.3	A	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3	2.3	2.20	2.44
20-Apr	2.5	2.4	2.6	2.5	2.6	2.4	A	2.3	2.3	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.3	2.1	2.21	2.61
21-Apr	2.1	2.1	2.2	2.4	2.4	A	2.4	2.3	2.2	2.2	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.13	2.45
22-Apr	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.08	2.13
23-Apr	2.1	2.1	2.1	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.09	2.12
24-Apr	2.1	2.2	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.11	2.17
25-Apr	2.1	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.11	2.18
26-Apr	A	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.4	2.1	2.1	2.1	2.1	2.1	2.2	2.1	A	2.16	2.36
27-Apr	2.2	2.3	2.3	2.4	2.5	2.4	2.4	2.4	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	A	2.1	2.21	2.50
28-Apr	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.0	2.1	2.0	2.0	2.1	2.1	A	2.1	2.1	2.07	2.15
29-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	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.09	2.14
30-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	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.1	2.07	2.10
	2.17	2.16	2.18	2.17	2.20	2.22	2.21	2.19	2.15	2.12	2.10	2.08	2.07	2.07	2.07	2.08	2.07	2.06	2.06	2.08	2.09	2.13	2.15	2.15	Diurnal Average	
	2.75	2.47	2.61	2.48	2.58	2.85	2.49	2.79	2.43	2.28	2.22	2.22	2.16	2.13	2.13	2.36	2.14	2.12	2.10	2.25	2.28	2.89	2.65	2.52	Diurnal Maximum	

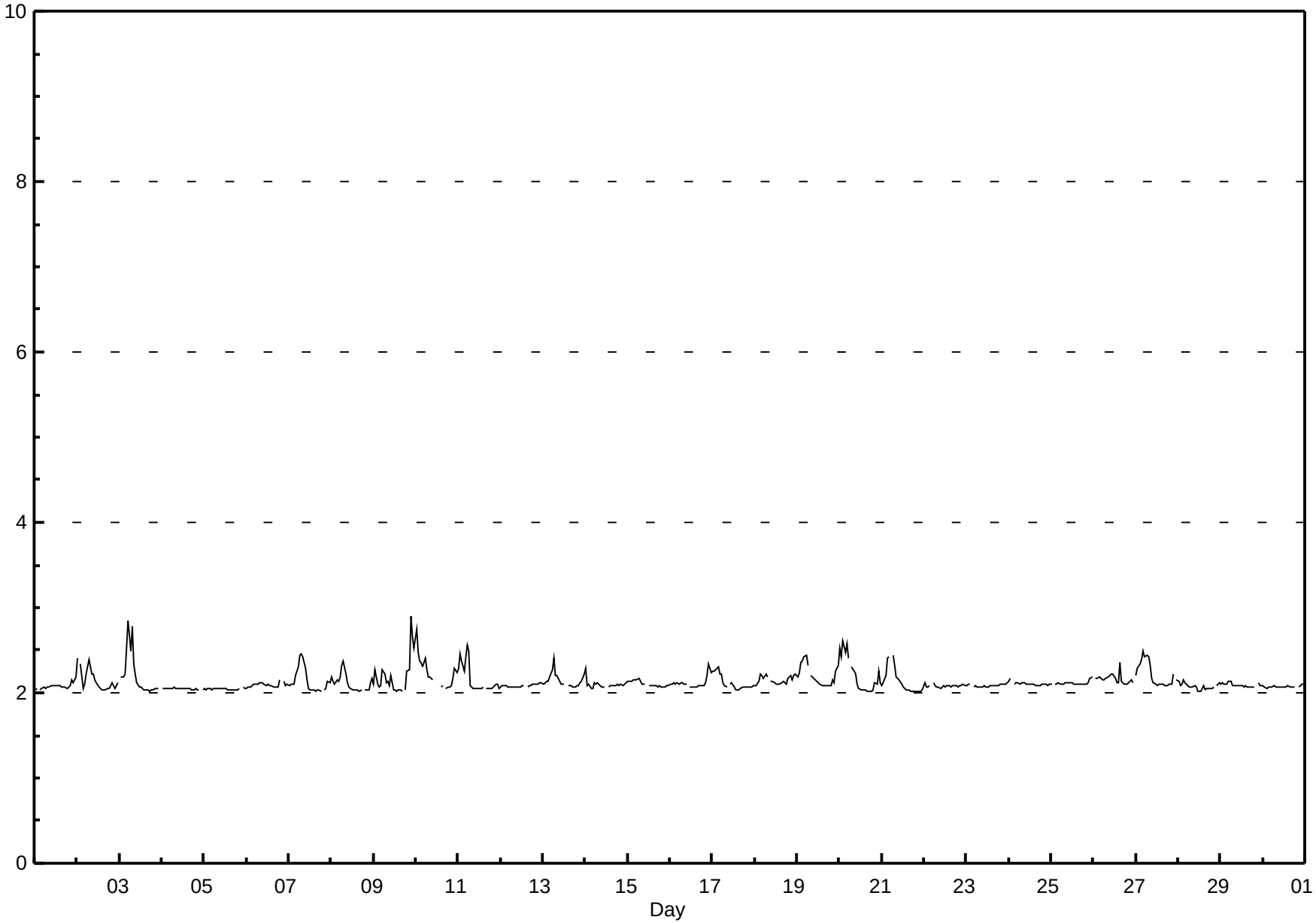
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Total Hydrocarbons (THC) - ppm

Portable Clairmont - April 2015



Peace Airshed Zone Association

Hourly Maximums

Total Hydrocarbons (THC) - ppm

Portable Clairmont - April 2015

Maximum Value: 5.46 ppm on Apr 26 16:00

Maximum Daily Average: 2.51 ppm on Apr 9

Minimum Value: 2.0 ppm on Apr 21 19:00

Minimum Daily Average: 2.08 ppm on Apr 5

Maximum Diurnal Average: 2.40 ppm at hour 5

Minimum Diurnal Average: 2.11 ppm at hour 19

Monthly Average: 2.218 ppm

Percentiles: P_1 = 2.04 P_{10} = 2.07 Q_1 = 2.10 Median = 2.13 Q_3 = 2.21 P_{90} = 2.50 P_{99} = 3.18

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	2.1	2.1	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.3	2.2	2.3	2.13	2.28
2-Apr	2.6	A	2.5	2.3	2.4	2.5	2.5	2.6	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.4	2.3	2.1	2.3	2.5	2.29	2.64
3-Apr	A	2.3	2.5	2.3	2.9	3.0	2.8	3.1	2.6	2.4	2.2	2.1	2.1	2.1	2.1	2.2	2.0	2.0	2.0	2.1	2.1	2.1	2.1	A	2.32	3.15
4-Apr	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.08	2.21
5-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	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.08	2.14
6-Apr	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.3	A	2.3	2.1	2.1	2.14	2.30
7-Apr	2.2	2.1	2.1	2.2	2.7	2.6	3.4	2.7	2.6	2.4	2.2	2.1	2.1	2.1	2.1	2.0	2.1	2.2	2.1	A	2.1	2.1	2.2	2.2	2.29	3.43
8-Apr	2.3	2.2	2.2	2.2	2.2	2.3	2.6	2.7	2.3	2.2	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.2	2.3	2.20	2.68
9-Apr	2.2	2.5	2.1	2.1	2.2	2.4	2.5	2.2	2.2	2.5	3.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.2	2.5	3.2	3.5	3.9	3.8	2.51	3.91
10-Apr	3.1	3.1	2.8	2.6	2.7	2.7	2.7	2.4	2.2	2.2	C	C	C	C	2.1	2.2	A	2.1	2.2	2.1	2.1	2.3	2.5	2.6	2.46	3.08
11-Apr	3.0	2.8	2.8	2.5	3.2	3.0	3.2	2.2	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	2.2	2.2	2.1	2.35	3.24
12-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	2.1	2.1	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.11	2.14
13-Apr	2.1	2.2	2.2	2.2	2.3	2.5	2.6	2.4	2.2	2.2	2.1	2.1	2.2	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.6	2.4	2.23	2.59
14-Apr	2.7	2.2	2.1	2.1	2.1	2.2	2.1	2.2	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	2.1	2.1	2.1	2.14	2.74
15-Apr	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.14	2.24
16-Apr	2.1	2.1	2.2	2.1	2.1	2.1	2.2	2.2	2.1	2.1	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.3	2.8	2.4	2.18	2.82
17-Apr	2.3	2.3	2.4	2.5	2.3	2.3	2.2	2.1	2.1	A	2.2	2.2	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.17	2.50
18-Apr	2.1	2.1	2.2	2.3	2.3	2.2	2.2	2.2	A	2.2	2.2	2.2	2.1	2.1	2.2	2.3	2.8	2.3	2.1	2.5	2.7	2.3	2.4	2.3	2.27	2.85
19-Apr	2.2	2.4	2.5	2.5	2.6	2.6	2.4	A	2.3	2.3	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3	2.2	2.4	2.6	2.29	2.60
20-Apr	2.7	2.6	3.0	2.6	3.1	2.5	A	2.3	2.3	2.4	2.2	2.1	2.0	2.1	2.1	2.1	2.0	2.1	2.0	2.1	2.2	2.1	2.7	2.2	2.33	3.06
21-Apr	2.1	2.2	2.4	3.0	3.8	A	2.9	2.5	2.3	2.2	2.2	2.2	2.1	2.1	2.1	2.3	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.30	3.77
22-Apr	2.2	2.1	2.1	2.1	A	2.2	2.1	2.1	2.3	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.14	2.30
23-Apr	2.1	2.1	2.1	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.12	2.21
24-Apr	2.2	2.3	A	2.1	2.2	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.13	2.29
25-Apr	2.1	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.2	2.3	2.3	2.15	2.31
26-Apr	A	2.2	2.2	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.2	2.1	2.2	5.5	2.3	2.1	2.1	2.1	2.1	2.2	2.2	A	2.35	5.46
27-Apr	2.5	2.4	2.7	2.9	3.0	2.7	2.6	2.8	2.4	2.2	2.1	2.2	2.1	2.3	2.2	2.2	2.1	2.1	2.1	2.2	2.2	2.5	A	2.2	2.38	2.98
28-Apr	2.2	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.2	2.3	2.1	2.1	2.1	2.1	2.1	2.1	A	2.2	2.2	2.12	2.28
29-Apr	2.1	2.2	2.1	2.1	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.2	2.1	2.1	2.12	2.20
30-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	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.1	2.10	2.14
	2.28	2.26	2.30	2.28	2.40	2.32	2.36	2.29	2.21	2.19	2.18	2.12	2.11	2.11	2.12	2.24	2.13	2.11	2.11	2.15	2.18	2.22	2.30	2.27	Diurnal Average	
	3.08	3.05	3.05	3.03	3.77	3.04	3.43	3.15	2.63	2.53	3.05	2.26	2.22	2.34	2.28	5.46	2.85	2.25	2.25	2.51	3.20	3.54	3.91	3.77	Diurnal Maximum	

C - Calibration

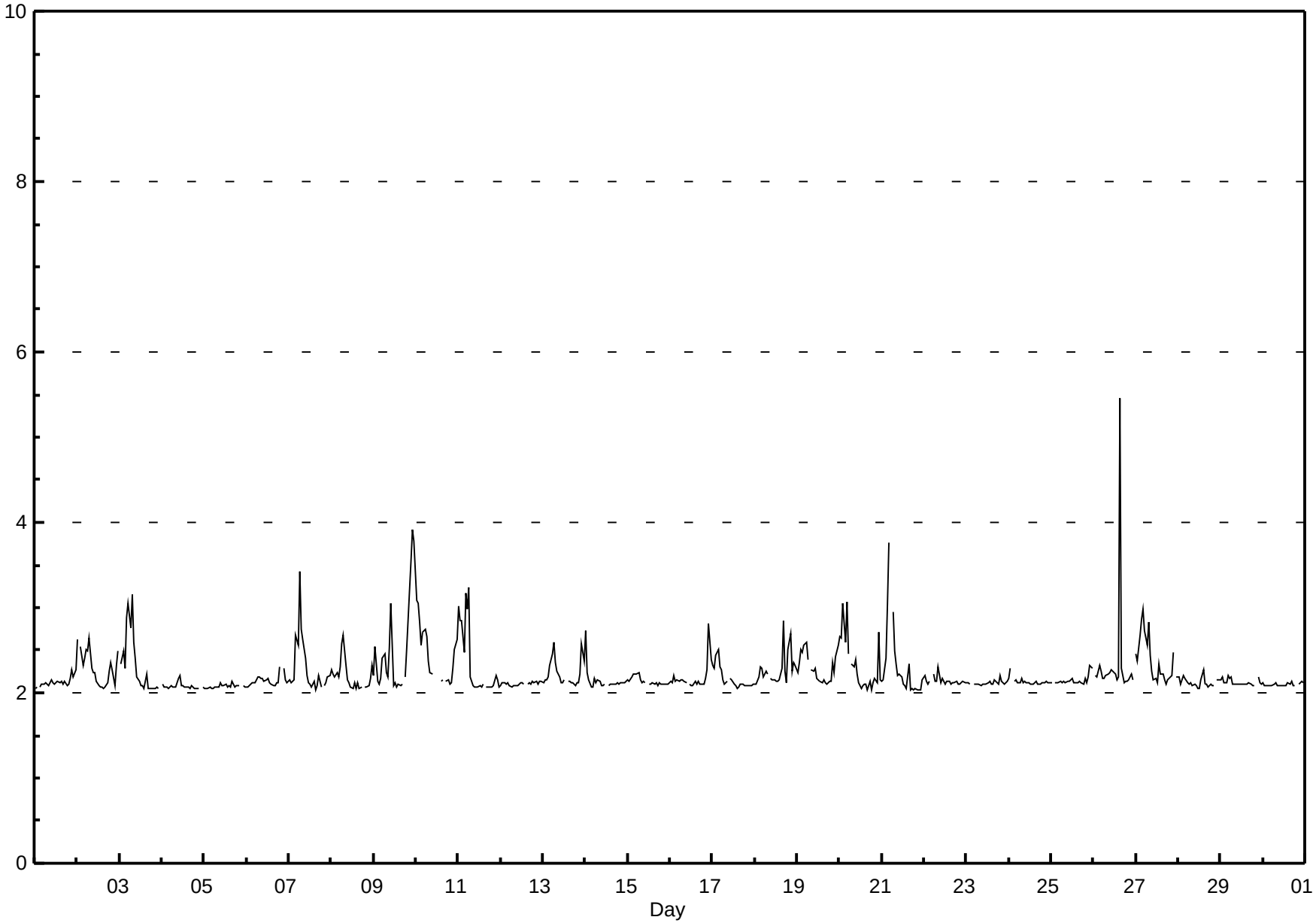
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Total Hydrocarbons (THC) - ppm

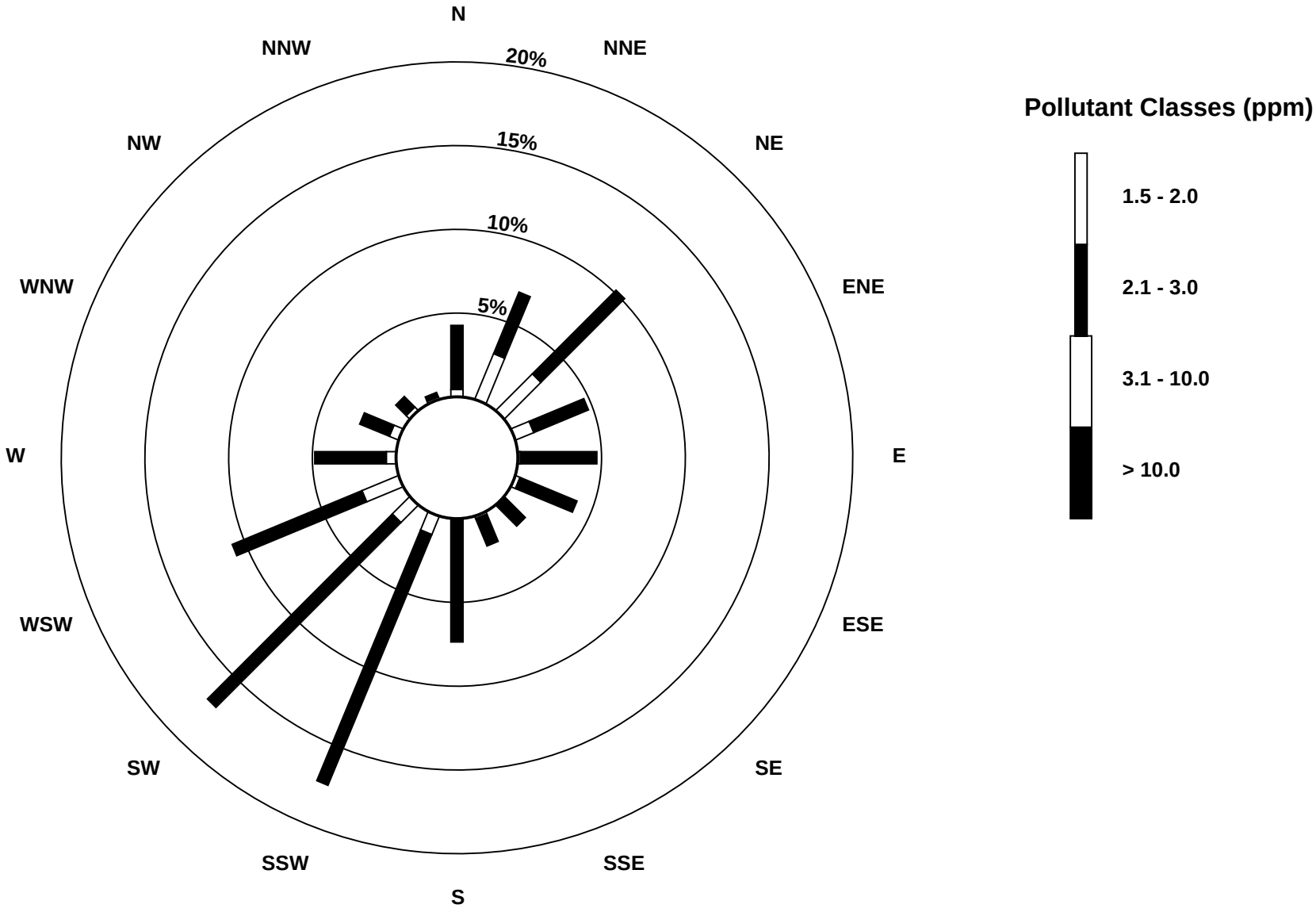
Portable Clairmont - April 2015



Pollutant Rose

Total Hydrocarbons (THC) - ppm

Portable Clairmont - April 2015

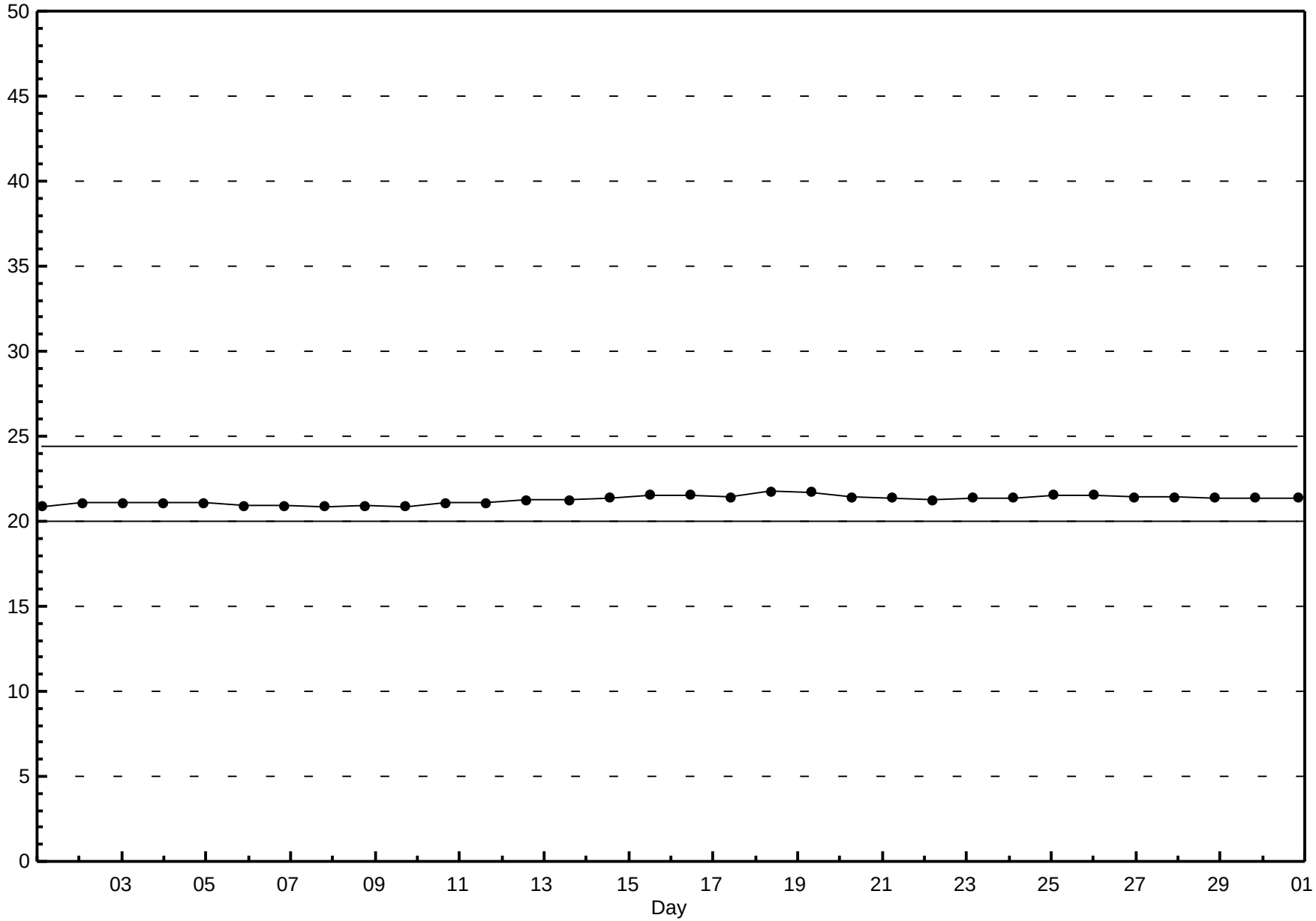


Peace Airshed Zone Association

Span Responses

Total Hydrocarbons (THC)

Portable Clairmont - April 2015



Peace Airshed Zone Association

Hourly Averages

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

Portable Clairmont - April 2015

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

Maximum Value: 92.0 $\mu g/m^3$ on Apr 10 20:00

Maximum Daily Average: 16.1 $\mu g/m^3$ on Apr 10

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

Maximum Diurnal Average: 5.2 $\mu g/m^3$ at hour 20

Monthly Average: 2.37 $\mu g/m^3$

Minimum Daily Average: 0.3 $\mu g/m^3$ on Apr 23

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

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.3 Median = 1.4 Q_3 = 3.0 P_{90} = 5.4 P_{99} = 13.8

Hours in Service:	720
Hours of Data:	717
Hours of Missing Data:	3
Hours of Calibration:	3
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	1	1	1	2	1	2	2	2	2	1	1	1	1	0	0	1	3	2	1	0	2	1	1.3	2.8
2-Apr	0	2	3	0	0	0	1	1	2	2	1	0	0	0	0	0	0	3	2	2	4	0	0	0	1.0	4.1
3-Apr	0	0	0	2	3	3	1	3	0	1	2	3	2	2	1	1	1	0	0	2	1	0	0	1	1.3	3.4
4-Apr	0	1	1	2	1	1	2	2	2	2	1	2	1	0	0	1	1	1	1	1	2	1	0	0	1.1	2.1
5-Apr	0	0	0	0	1	0	1	1	1	1	1	1	1	0	1	1	1	2	2	2	3	1	1	1	1.0	3.0
6-Apr	1	1	1	2	3	4	4	5	5	6	4	2	3	2	2	3	3	2	4	8	7	2	2	2	3.2	7.7
7-Apr	2	3	2	3	3	4	5	4	5	4	1	0	0	0	0	0	1	2	2	4	4	4	3	3	2.4	5.1
8-Apr	4	3	3	3	4	5	7	7	3	2	0	0	0	1	1	2	5	7	7	10	3	1	2	1	3.3	9.6
9-Apr	0	2	0	1	2	5	7	5	7	2	2	4	3	2	3	2	4	5	6	7	7	22	16	18	5.4	21.8
10-Apr	13	10	7	6	7	10	7	7	8	7	2	2	C	C	C	11	9	11	38	92	50	21	9	10	16.1	92.0
11-Apr	12	9	3	1	4	7	6	1	2	2	4	1	0	0	1	2	3	3	2	1	1	0	3	0	2.8	11.9
12-Apr	1	2	3	6	5	3	4	0	0	0	0	0	0	1	0	4	3	2	2	2	0	0	1	3	1.7	5.8
13-Apr	5	5	4	2	2	3	9	6	0	0	0	0	0	0	1	2	2	1	0	0	0	3	1	1	2.0	9.2
14-Apr	4	4	0	0	1	2	4	6	0	1	4	3	3	1	1	2	4	1	2	2	0	0	1	2	2.1	6.1
15-Apr	3	4	4	5	4	4	6	4	0	0	0	0	1	2	3	3	1	1	1	2	2	3	2	1	2.3	6.1
16-Apr	1	1	1	1	0	0	0	1	1	0	0	1	0	0	1	4	0	0	0	1	0	0	1	2	0.7	4.5
17-Apr	3	2	0	0	1	5	2	0	0	2	5	3	0	0	0	1	3	2	0	0	1	1	2	1	1.5	5.4
18-Apr	0	0	0	1	0	3	7	2	0	0	0	0	0	0	0	0	0	1	1	3	5	0	0	0	1.0	6.8
19-Apr	2	1	0	2	5	7	8	2	0	0	0	0	1	2	4	7	4	5	6	1	0	0	0	1	2.5	8.4
20-Apr	1	0	0	2	2	4	7	5	7	4	2	6	3	1	2	1	2	3	1	3	0	0	0	1	2.4	7.5
21-Apr	1	1	2	2	0	2	5	6	4	6	12	8	4	4	3	3	2	2	3	1	2	0	0	2	3.1	11.7
22-Apr	3	3	1	2	1	1	3	0	1	1	2	2	1	1	0	0	2	0	0	0	0	0	0	0	1.1	3.4
23-Apr	0	0	0	1	0	0	1	0	1	0	1	1	1	1	0	0	0	0	0	1	0	0	0	0	0.3	1.4
24-Apr	0	0	0	2	0	0	1	1	2	1	6	5	3	2	2	4	3	4	3	3	2	4	9	1	2.4	8.7
25-Apr	0	0	1	3	5	6	8	4	3	1	0	0	0	1	5	5	4	3	3	4	3	3	1	4	2.8	7.5
26-Apr	1	0	0	3	6	7	6	0	3	5	2	4	1	2	2	0	1	2	2	3	0	0	0	0	2.1	7.0
27-Apr	1	1	0	1	0	4	8	13	12	4	0	0	2	12	7	10	1	2	2	0	0	1	1	0	3.4	12.8
28-Apr	0	0	0	1	0	0	0	1	0	1	3	2	1	4	14	0	0	0	0	0	1	3	1	0	1.3	13.7
29-Apr	0	1	1	0	0	0	1	0	1	0	1	2	1	1	0	1	1	1	0	0	0	0	0	2	0.6	2.2
30-Apr	1	0	0	0	0	1	2	0	0	0	0	0	0	0	0	1	5	3	2	0	0	0	0	0	0.7	5.0
	2.0	1.9	1.4	1.8	2.1	3.1	4.1	3.0	2.4	2.0	1.9	1.7	1.2	1.5	1.9	2.4	2.3	2.4	3.2	5.2	3.3	2.3	2.0	2.0	Diurnal Average	
	13.3	10.4	7.1	5.8	7.3	10.3	9.2	12.8	12.2	6.9	11.7	8.1	3.7	11.6	13.7	10.6	8.8	11.2	37.9	92.0	50.4	21.8	15.7	18.5	Diurnal Maximum	

C - Calibration

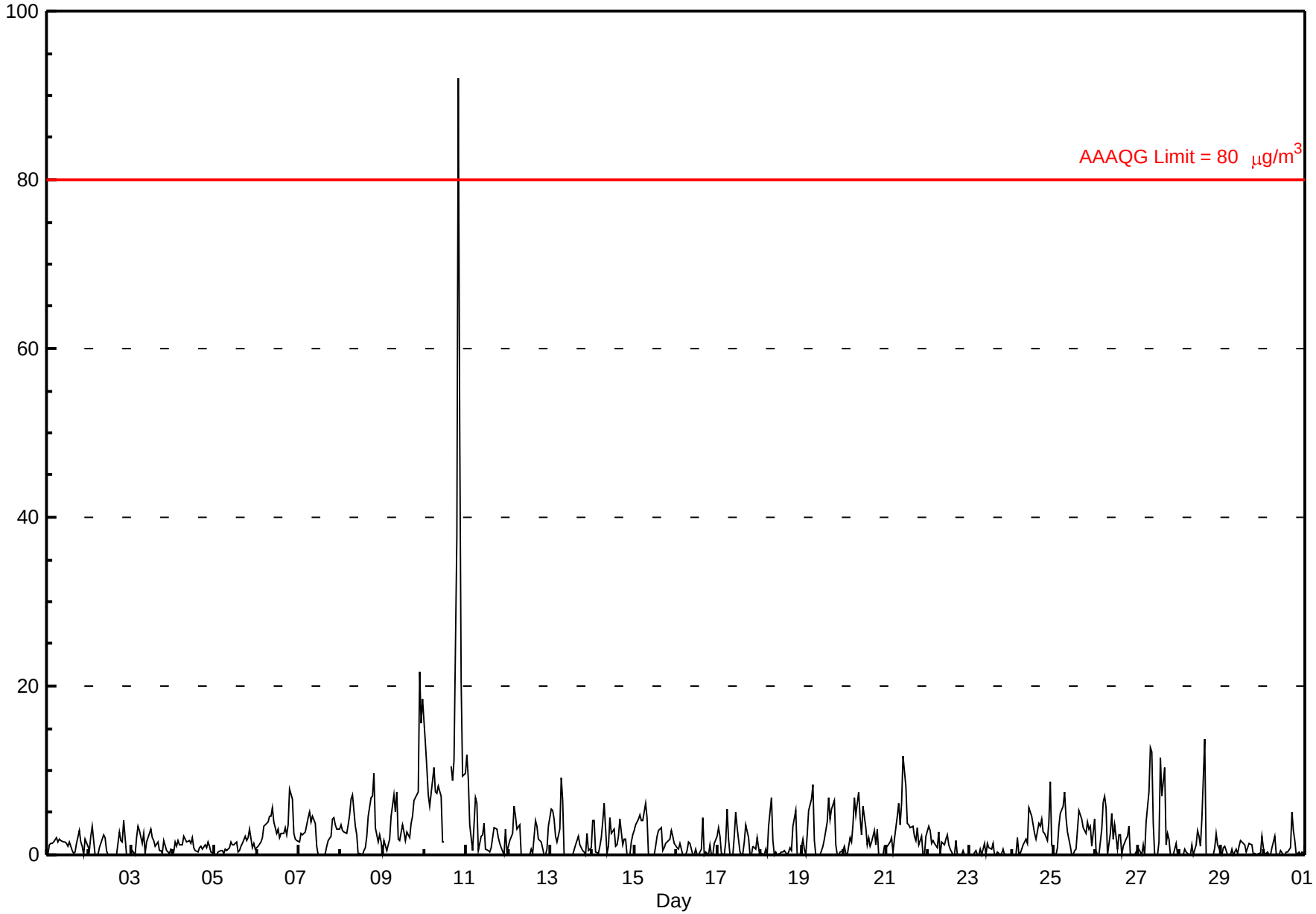
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 $\mu g/m^3$ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 $\mu g/m^3$

Peace Airshed Zone Association

Hourly Averages

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

Portable Clairmont - April 2015



Peace Airshed Zone Association

Hourly Maximums

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

Portable Clairmont - April 2015

Maximum Value: 124.5 $\mu g/m^3$ on Apr 10 19:00

Maximum Daily Average: 26.2 $\mu g/m^3$ on Apr 10

Minimum Value: 0 $\mu g/m^3$ on Apr 12 09:00

Maximum Diurnal Average: 10.3 $\mu g/m^3$ at hour 19

Monthly Average: 5.70 $\mu g/m^3$

Minimum Daily Average: 2.5 $\mu g/m^3$ on Apr 23

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

Percentiles: P_1 = 0.0 P_{10} = 1.5 Q_1 = 2.5 Median = 4.3 Q_3 = 6.6 P_{90} = 9.6 P_{99} = 29.5

Hours in Service:	720
Hours of Data:	717
Hours of Missing Data:	3
Hours of Calibration:	3
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	3	3	3	3	3	2	3	3	2	2	2	2	3	3	2	1	3	8	3	2	1	3	3	2.7	7.7
2-Apr	2	8	14	1	1	2	3	5	6	8	5	2	1	0	1	3	2	9	6	5	8	1	1	1	4.0	13.5
3-Apr	1	2	1	4	5	5	3	5	3	3	5	6	3	3	3	3	2	2	2	4	1	1	1	2	3.0	5.5
4-Apr	2	3	2	3	2	2	4	4	3	3	3	5	3	3	2	3	2	3	2	2	2	2	1	1	2.6	4.5
5-Apr	2	1	1	2	2	1	2	2	2	3	3	3	3	2	2	2	4	4	4	5	5	3	3	2	2.6	5.1
6-Apr	3	3	3	4	5	5	5	6	6	8	6	4	4	4	3	4	5	4	6	14	10	5	3	3	5.0	13.9
7-Apr	3	4	4	4	4	7	7	6	7	6	5	2	1	3	2	3	6	5	5	6	6	5	6	6	4.7	7.4
8-Apr	8	4	4	4	5	7	13	13	6	5	1	1	1	2	3	4	10	11	32	31	5	4	4	3	7.6	32.4
9-Apr	2	4	2	2	5	6	14	8	9	5	3	7	8	5	4	5	7	7	9	9	15	27	21	21	8.5	27.2
10-Apr	19	15	11	7	11	13	9	9	13	13	4	5	C	C	C	16	13	21	125	123	62	30	14	20	26.2	124.5
11-Apr	27	12	12	2	8	9	8	5	7	8	7	3	5	6	4	8	8	6	7	5	4	2	5	2	7.1	26.6
12-Apr	4	4	6	8	7	5	6	3	0	0	2	0	4	5	5	10	10	8	6	7	1	2	3	5	4.6	10.4
13-Apr	6	9	7	4	7	8	18	26	2	1	2	0	5	7	9	8	10	5	2	2	2	7	4	6	6.5	26.1
14-Apr	7	18	2	3	4	4	7	12	3	5	8	6	7	5	4	6	8	5	8	6	2	2	3	7	5.8	17.6
15-Apr	4	5	6	6	6	5	8	7	0	0	2	4	3	6	14	13	4	6	4	4	5	5	4	4	5.2	14.4
16-Apr	3	2	3	3	1	0	3	4	4	3	1	3	2	1	9	10	3	4	3	3	2	0	9	5	3.4	9.8
17-Apr	6	4	2	5	6	8	6	0	0	6	9	8	5	3	4	7	11	8	3	1	6	3	6	4	5.1	11.2
18-Apr	1	3	2	3	3	5	9	7	2	4	3	3	4	4	5	3	6	5	5	10	23	4	5	2	5.0	22.7
19-Apr	6	2	1	5	8	8	11	9	0	0	2	3	5	4	12	12	7	12	20	15	6	5	4	3	6.8	20.3
20-Apr	6	2	3	5	4	6	10	9	11	9	8	9	6	4	5	8	8	7	4	7	5	2	1	4	6.0	10.7
21-Apr	4	3	3	4	5	5	8	9	7	13	18	10	9	7	12	9	7	6	9	5	13	0	2	7	7.4	18.3
22-Apr	10	4	4	4	4	5	5	1	5	5	5	7	3	6	1	5	5	5	4	2	2	0	1	2	4.0	9.9
23-Apr	1	0	0	2	2	1	3	1	5	3	5	3	3	7	4	2	2	2	2	4	3	2	0	2	2.5	6.5
24-Apr	0	0	0	5	1	2	2	2	3	4	9	7	5	5	4	7	7	7	5	5	6	10	11	4	4.6	10.9
25-Apr	2	1	4	7	7	8	10	7	5	4	4	6	5	5	9	9	7	6	4	6	5	7	6	7	5.8	10.0
26-Apr	3	3	1	5	7	9	8	3	5	8	7	8	4	6	5	3	6	6	6	8	4	0	1	3	5.0	8.8
27-Apr	3	6	5	6	4	8	12	20	19	12	1	2	5	36	20	22	5	8	5	6	6	4	11	4	9.7	36.1
28-Apr	2	1	3	4	3	2	3	4	1	4	8	6	4	23	20	4	1	1	1	2	2	5	4	3	4.6	22.7
29-Apr	1	3	3	2	2	1	3	3	3	4	9	4	5	5	5	7	7	6	3	4	4	3	2	5	3.9	8.6
30-Apr	4	2	3	3	2	3	5	2	2	0	3	1	6	10	8	8	9	8	7	0	2	2	2	2	4.0	9.6
	4.7	4.5	3.7	3.9	4.4	5.0	7.0	6.6	4.7	5.0	5.0	4.3	4.3	6.1	6.3	6.9	6.2	6.3	10.3	10.2	7.3	4.8	4.7	4.7	Diurnal Average	
	26.6	17.6	13.5	7.5	10.7	12.5	18.5	26.1	19.4	13.1	18.3	10.5	8.7	36.1	20.5	22.0	13.4	20.6	124.5	122.8	61.7	30.3	21.2	20.8	Diurnal Maximum	

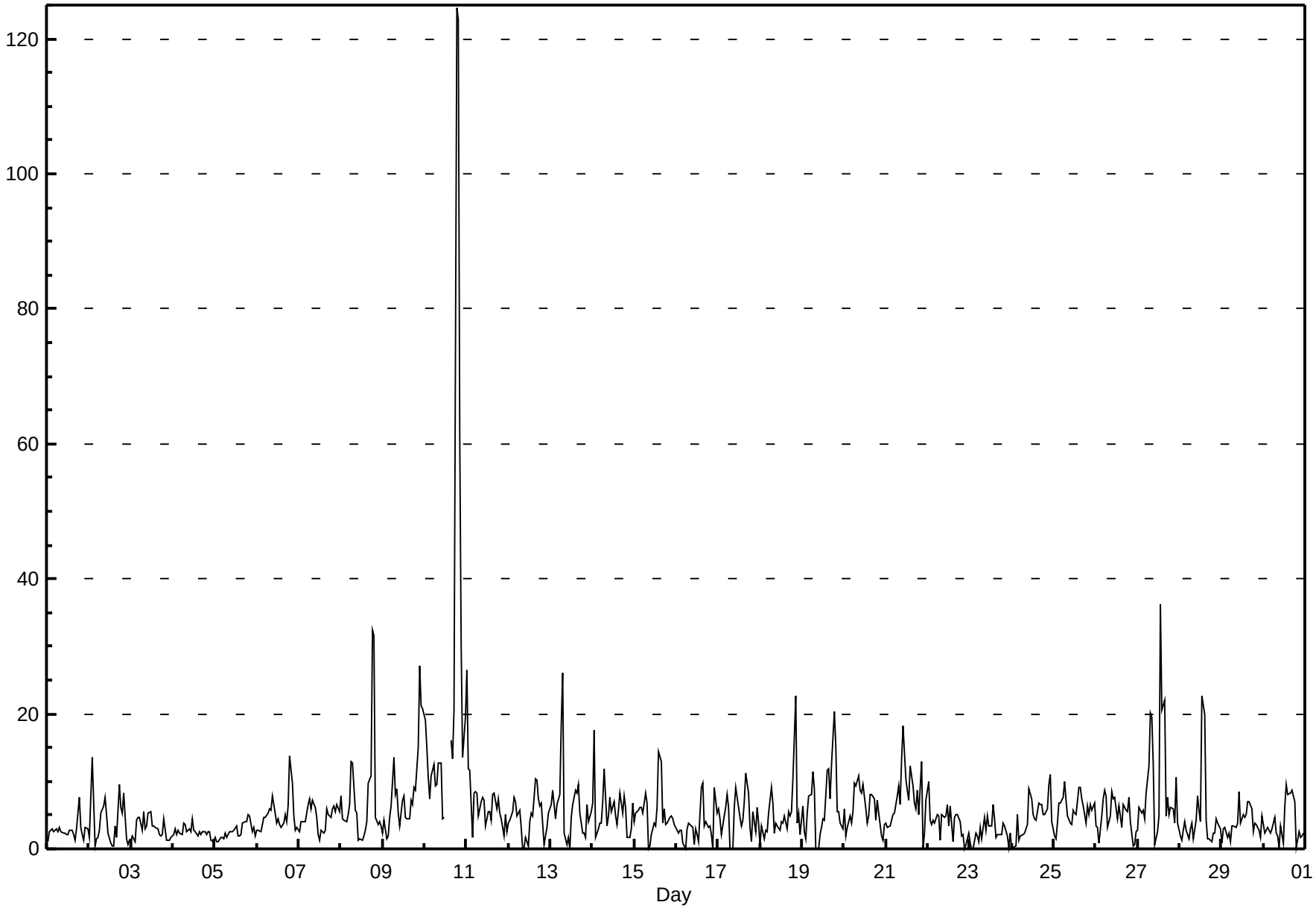
C - Calibration

Peace Airshed Zone Association

Hourly Maximums

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

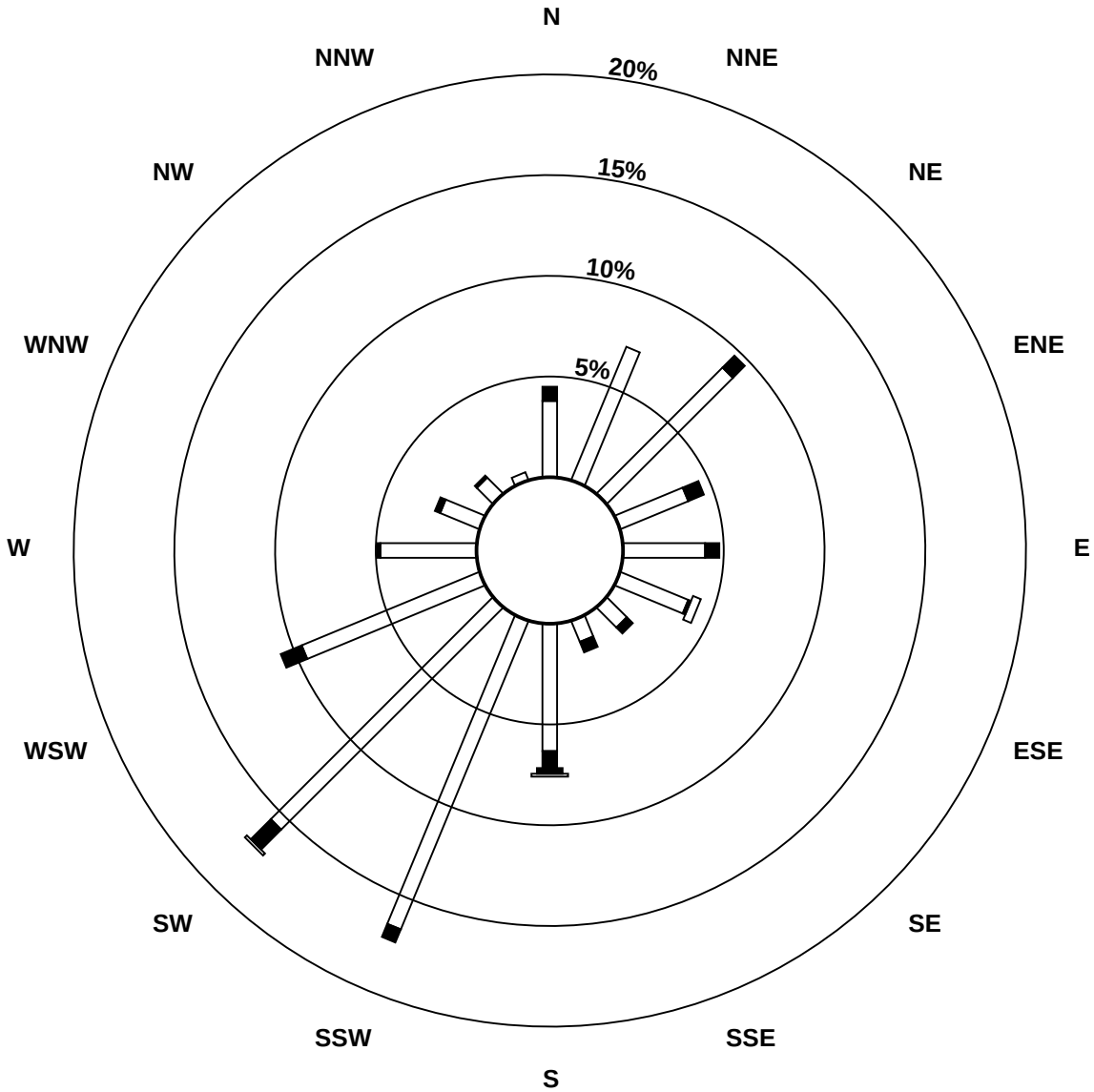
Portable Clairmont - April 2015



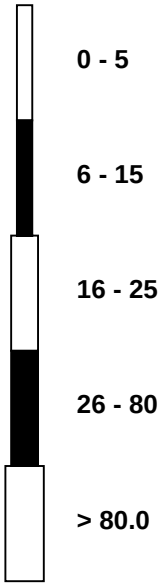
Pollutant Rose

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

Portable Clairmont - April 2015



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



Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Portable Clairmont - April 2015

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

Maximum Value: 22.7 ^{o}C on Apr 28 14:00

Maximum Daily Average: 13.3 ^{o}C on Apr 21

Minimum Value: -5 ^{o}C on Apr 5 07:00

Maximum Diurnal Average: 10.1 ^{o}C at hour 17

Monthly Average: 5.60 ^{o}C

Minimum Daily Average: -0.4 ^{o}C on Apr 5

Minimum Diurnal Average: 0.9 ^{o}C at hour 6

Percentiles: P_1 = -3.7 P_{10} = -0.4 Q_1 = 1.6 Median = 4.7 Q_3 = 9.1 P_{90} = 13.0 P_{99} = 19.9

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	1	1	1	0	0	0	0	0	0	0	0	1	2	3	3	3	3	2	2	2	1	0	0	1.0	3.4
2-Apr	-1	-1	-1	0	0	-1	-1	-1	0	2	3	5	6	6	7	7	8	7	5	4	3	2	1	1	2.6	7.7
3-Apr	0	-1	-1	-1	-1	-2	-2	-1	1	2	3	3	3	3	4	4	5	4	4	3	2	1	1	0	1.5	4.8
4-Apr	0	0	-1	-1	-1	-1	-2	-2	-1	-1	0	1	2	3	3	4	4	3	3	1	0	-1	-1	-2	0.5	3.6
5-Apr	-2	-3	-3	-4	-4	-5	-5	-4	-3	-2	0	1	2	3	4	3	4	4	4	2	0	0	0	-1	-0.4	3.7
6-Apr	-1	-2	-2	-2	-2	-3	-3	-2	0	2	3	4	4	5	6	6	7	7	7	5	3	2	1	0	1.9	7.4
7-Apr	0	-1	-2	-2	-3	-4	-4	-2	0	2	5	8	9	10	10	11	11	11	10	8	5	4	3	2	3.9	10.9
8-Apr	1	2	1	0	-1	-2	-2	1	3	6	9	10	11	12	13	14	15	15	14	11	9	7	4	3	6.5	14.9
9-Apr	3	2	2	3	3	-1	0	5	7	11	14	15	16	M	M	M	18	17	16	13	9	5	3	2	7.7	17.7
10-Apr	1	0	0	0	0	-1	0	3	6	8	13	15	16	17	15	17	17	15	13	12	10	8	6	4	8.1	16.9
11-Apr	4	3	1	1	1	0	1	4	4	4	5	7	8	8	8	8	8	7	5	4	3	1	1	1	3.9	8.2
12-Apr	0	0	0	0	0	0	0	2	3	4	5	6	6	6	7	6	6	6	6	5	4	3	1	0	3.1	6.7
13-Apr	1	-1	-1	-2	-3	-4	-4	0	3	5	7	8	9	10	11	11	11	11	10	8	7	6	5	4	4.7	11.4
14-Apr	3	5	4	4	4	3	3	4	5	5	6	7	7	8	9	9	9	9	8	7	5	4	4	2	5.7	9.4
15-Apr	2	1	1	1	0	1	1	3	5	6	8	10	10	10	11	9	10	11	10	9	8	7	7	6	6.1	11.0
16-Apr	5	5	5	5	6	6	5	6	6	7	7	7	8	12	9	7	10	10	10	8	6	3	1	0	6.4	11.5
17-Apr	0	0	1	2	3	3	3	3	4	6	8	9	10	12	12	12	10	6	6	4	4	3	3	3	5.3	12.1
18-Apr	3	3	2	1	1	0	1	2	4	5	7	9	10	10	11	11	11	12	11	10	7	7	6	5	6.3	11.5
19-Apr	4	3	1	0	-1	-1	0	3	5	7	9	11	12	13	14	15	16	16	16	14	11	9	7	6	7.9	16.3
20-Apr	4	4	3	3	3	2	4	6	7	12	14	16	17	17	18	19	18	18	19	16	13	12	10	10	11.0	18.9
21-Apr	10	9	8	6	5	4	5	9	11	14	15	17	18	19	21	21	20	20	19	17	15	13	13	13	13.3	21.0
22-Apr	11	10	10	9	8	7	7	8	9	11	11	10	8	5	3	1	1	2	2	2	2	3	2	2	6.2	11.4
23-Apr	2	2	2	2	2	2	2	2	2	3	4	4	5	5	5	5	5	5	4	4	3	2	2	1	3.3	5.2
24-Apr	1	1	1	1	1	2	2	2	2	2	1	1	1	2	2	3	4	5	5	5	4	4	3	3	2.5	5.0
25-Apr	2	1	0	0	-1	-1	-1	-1	-1	0	2	5	5	6	6	6	6	6	5	5	4	4	4	3	2.8	6.4
26-Apr	3	2	1	1	1	1	2	3	4	5	8	9	11	12	12	13	13	14	14	13	10	8	8	7	7.3	14.0
27-Apr	6	5	4	3	2	3	4	6	8	11	14	15	16	17	17	17	18	18	17	16	13	11	10	10	10.9	17.9
28-Apr	10	10	9	8	9	9	9	10	12	14	16	20	23	23	17	13	11	11	12	13	11	9	8	8	12.3	22.7
29-Apr	7	6	5	4	3	3	5	8	9	10	11	11	12	13	13	13	13	12	12	10	8	7	6	6	8.6	13.1
30-Apr	6	5	5	4	4	4	4	6	7	7	8	10	9	10	11	12	12	11	10	8	7	6	6	5	7.5	12.4
	2.9	2.5	1.9	1.6	1.3	0.9	1.2	2.7	4.0	5.7	7.2	8.5	9.2	9.7	9.8	9.8	10.1	9.9	9.3	8.0	6.3	5.1	4.2	3.5	Diurnal Average	
	11.2	10.0	9.5	8.5	8.8	8.9	9.3	10.4	11.8	14.0	16.3	20.2	22.7	22.7	20.8	21.0	20.3	20.0	19.2	16.7	15.1	13.5	13.2	12.9	Diurnal Maximum	

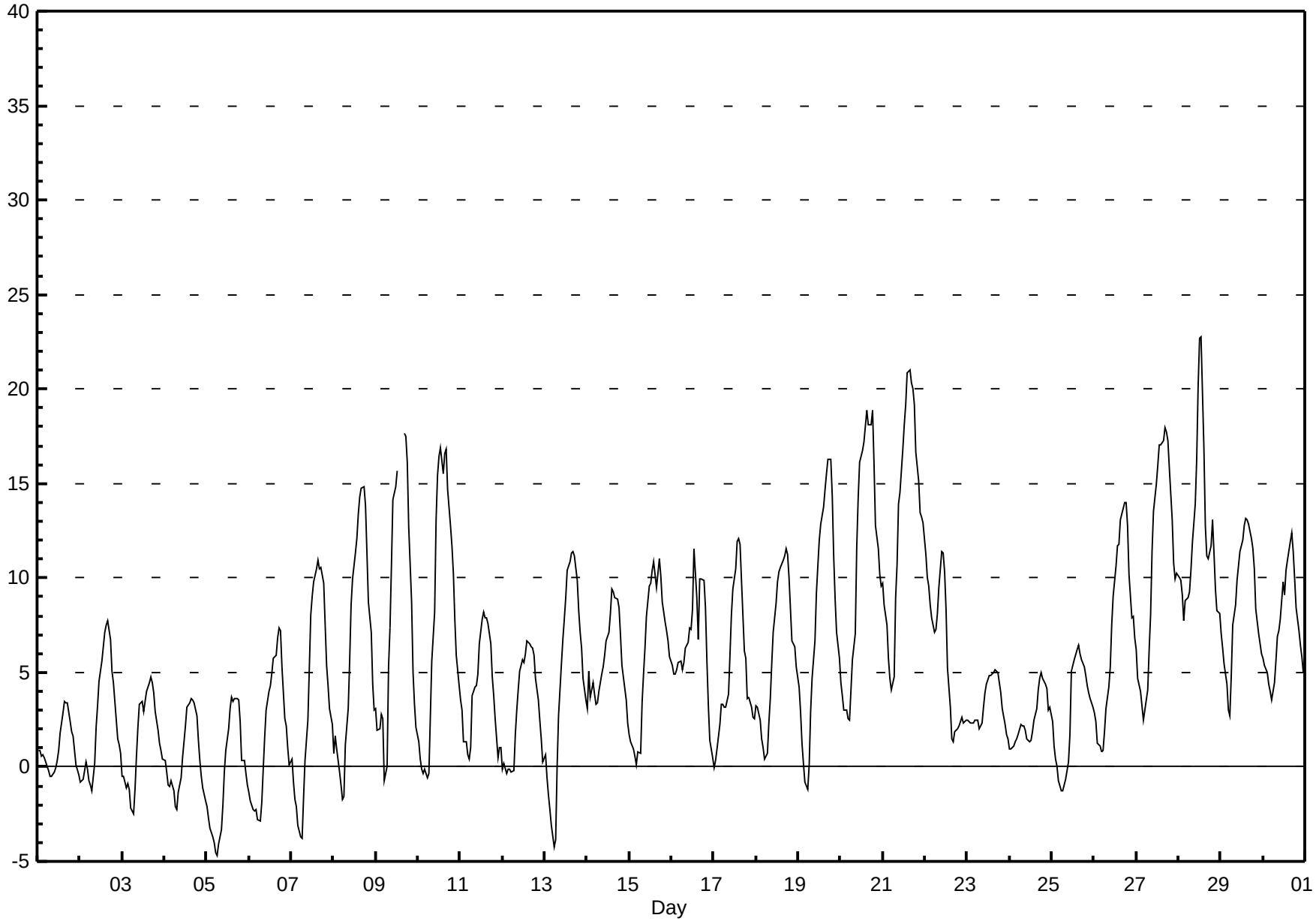
M - Maintenance

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Portable Clairmont - April 2015



Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Portable Clairmont - April 2015

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	17	17	16	19	20	19	20	18	17	14	13	13	11	10	9	12	11	6	8	4	4	4	3	4	11.6	20.3
Dir	279	282	281	275	275	272	274	274	274	274	276	275	272	272	278	288	297	292	218	217	241	231	207	249	273.2	274.5
2 Spd	4	4	5	6	2	4	4	1	1	2	6	8	11	12	14	13	13	9	11	2	4	7	3	2	4.2	13.7
Dir	267	253	264	319	256	235	239	351	107	355	254	263	284	286	291	305	305	264	214	134	344	40	106	49	282.6	290.6
3 Spd	4	5	5	4	4	4	3	3	5	4	6	13	17	16	17	19	18	18	16	16	14	14	17	15	8.0	19.1
Dir	130	148	148	228	256	253	252	258	264	294	34	44	39	36	38	36	38	40	42	29	27	29	27	30	33.8	36.5
4 Spd	19	19	18	18	17	19	22	22	21	21	22	21	20	20	19	20	18	19	20	18	17	19	21	20	19.6	22.5
Dir	28	34	30	31	35	33	29	31	35	38	42	37	35	32	33	31	35	34	31	23	28	32	32	31	32.6	31.1
5 Spd	20	21	19	18	19	19	20	20	19	15	14	14	14	13	14	15	14	8	10	10	9	13	11	10	14.8	21.4
Dir	29	26	28	27	27	28	26	29	38	43	50	49	44	38	37	43	48	64	57	46	32	33	41	40	36.4	25.9
6 Spd	12	12	10	10	10	9	10	9	8	7	6	9	6	5	4	5	3	3	4	5	4	6	6	5	6.1	12.0
Dir	34	40	40	43	37	34	36	50	76	94	92	95	67	44	49	31	33	37	12	315	355	72	94	74	49.3	34.0
7 Spd	6	5	5	5	2	4	4	5	6	7	6	12	15	13	13	14	12	12	11	10	10	10	6	5	6.2	14.9
Dir	65	43	41	51	81	247	245	245	249	247	241	234	253	254	255	252	251	238	234	221	220	229	251	253	244.5	253.4
8 Spd	4	7	6	6	5	5	4	3	4	6	11	13	12	12	11	11	13	11	8	11	12	9	5	5	7.9	13.4
Dir	269	255	249	241	222	217	250	251	266	240	251	252	246	259	241	240	246	242	265	212	221	241	269	261	244.6	246.1
9 Spd	7	6	4	5	4	0	3	9	6	11	C	C	C	C	C	11	10	12	8	3	2	1	2	0	5.0	11.6
Dir	246	247	235	217	219	94	196	193	208	214	C	C	C	C	C	224	219	207	221	243	248	113	107	102	218.0	207.4
10 Spd	1	2	2	2	1	2	3	3	4	4	10	13	9	11	11	13	15	15	9	7	8	7	5	0	4.6	15.4
Dir	282	91	90	83	357	52	52	42	65	57	109	121	128	115	158	144	180	185	188	177	185	221	237	155	149.6	179.7
11 Spd	0	1	1	1	1	5	6	11	16	23	25	27	28	27	25	26	27	27	25	16	11	5	11	12	14.6	27.6
Dir	119	183	58	346	204	234	234	217	206	204	206	206	209	207	210	211	207	209	206	194	205	205	213	207	207.9	208.8
12 Spd	8	12	13	16	16	18	14	17	20	25	28	27	30	32	32	30	32	29	27	21	16	12	12	10	20.4	32.5
Dir	203	195	182	190	203	199	200	212	208	210	210	216	224	223	221	210	212	210	224	220	214	203	193	197	210.6	222.9
13 Spd	14	8	8	6	2	1	0	3	5	7	9	9	10	13	14	15	15	14	11	10	10	7	4	1	5.8	15.4
Dir	201	206	211	201	210	138	55	68	85	106	81	69	72	92	88	80	78	87	86	75	72	121	112	115	98.1	79.7
14 Spd	4	11	5	11	6	5	7	10	18	26	25	26	28	26	26	25	25	24	23	20	17	15	16	12	16.8	27.9
Dir	127	224	225	210	209	166	178	206	217	207	199	202	204	206	206	213	212	215	220	212	210	203	201	190	207.0	204.0
15 Spd	12	13	13	10	9	11	10	11	19	18	18	16	17	15	16	17	10	19	14	19	19	18	20	15	14.7	19.8
Dir	185	188	183	189	183	190	179	182	205	198	196	182	184	182	200	197	205	220	215	218	206	192	188	195	195.5	187.7
16 Spd	14	13	12	11	10	10	8	8	9	6	8	10	11	24	23	13	23	22	20	17	6	2	1	2	10.7	23.9
Dir	186	182	174	177	189	193	181	175	178	191	198	216	217	209	253	247	224	221	228	227	216	242	202	123	209.8	209.3
17 Spd	1	1	1	1	5	6	8	13	10	8	6	8	15	16	26	29	24	23	17	17	19	15	19	14	8.0	29.2
Dir	62	359	61	283	112	110	80	38	38	91	122	196	198	198	208	212	230	252	253	249	224	218	215	223	214.8	211.6
18 Spd	15	12	6	3	7	9	5	7	12	13	9	8	12	12	10	8	6	3	2	2	1	1	3	7	6.6	15.1
Dir	228	228	213	232	240	250	240	233	242	234	232	224	208	211	228	245	257	263	9	93	58	7	232	220	231.2	228.1
19 Spd	11	7	5	4	5	5	4	4	4	4	5	10	8	8	6	7	7	6	9	6	6	5	4	3	5.8	11.0
Dir	204	210	230	240	235	228	217	221	231	242	228	220	197	218	230	240	222	215	216	201	195	227	246	237	220.2	203.7
20 Spd	2	5	4	5	4	5	5	6	7	7	10	13	14	11	8	4	5	4	4	4	3	2	2	4	3.5	14.4
Dir	248	237	218	227	233	238	234	235	215	227	248	225	236	249	248	246	330	40	72	35	57	42	39	27	242.6	236.0
21 Spd	5	4	4	1	0	3	1	2	3	1	4	4	4	5	5	7	6	10	11	8	14	12	12	3	3.8	14.3
Dir	24	27	32	49	301	238	214	170	210	161	56	63	35	57	63	73	67	92	74	36	11	9	2	296	41.0	10.9
22 Spd	12	17	11	9	9	9	10	12	12	10	13	16	19	21	23	23	18	22	20	16	17	18	17	15	14.6	22.8
Dir	248	251	270	230	226	229	223	261	278	260	233	245	255	233	232	210	219	230	231	207	218	223	236	220	234.1	232.4

Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Portable Clairmont - April 2015

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	18	15	15	14	17	17	17	17	16	18	18	18	16	15	15	13	11	12	11	10	8	6	3	2	12.3	18.5
Dir	234	232	229	226	228	226	227	230	231	235	242	241	249	254	261	268	272	282	292	299	294	326	320	277	247.5	241.7
24 Spd	3	4	3	7	6	7	13	13	16	22	26	27	25	26	23	23	20	16	12	11	13	5	10	6	13.1	27.1
Dir	281	316	325	16	16	13	19	22	16	3	1	3	7	8	7	1	4	6	26	43	34	53	87	47	12.2	3.5
25 Spd	11	17	19	18	17	19	21	20	17	13	9	7	5	5	8	10	8	9	10	7	5	4	3	1	8.3	21.3
Dir	2	3	1	356	358	355	1	7	6	9	14	109	42	36	79	86	97	97	95	103	102	112	113	116	25.1	0.8
26 Spd	3	5	4	4	4	7	8	8	8	4	6	6	6	6	10	7	5	8	7	4	4	2	6	7	3.4	9.6
Dir	11	11	10	33	36	65	75	83	90	107	129	145	156	186	225	178	155	131	111	79	48	39	85	112	102.8	225.0
27 Spd	4	1	1	1	1	1	1	2	5	8	9	10	7	8	7	6	7	5	7	6	2	5	4	5	3.3	10.1
Dir	128	321	197	15	150	57	286	143	153	186	213	180	169	165	138	203	191	202	208	210	137	125	29	31	174.9	179.9
28 Spd	4	5	6	6	6	6	7	6	10	17	21	22	21	15	34	32	26	23	16	20	12	9	9	9	8.1	33.7
Dir	35	49	98	104	72	66	83	81	94	109	114	110	113	160	232	222	215	209	202	203	199	186	192	188	169.1	232.0
29 Spd	9	10	11	10	5	6	8	16	22	19	19	20	20	19	19	21	19	18	19	16	9	11	13	13	14.2	21.9
Dir	193	186	193	203	226	217	221	206	206	205	211	203	204	207	207	210	215	226	206	208	186	160	173	181	203.4	206.1
30 Spd	12	13	14	13	15	15	15	17	21	19	15	16	18	21	22	25	26	25	22	19	15	11	14	10	16.6	25.7
Dir	183	189	174	182	185	184	184	192	205	203	194	207	214	227	236	213	195	194	197	196	192	189	186	186	198.2	195.0
Spd	2.0	2.2	1.3	1.6	1.6	1.7	1.0	1.5	3.0	4.3	4.5	5.5	5.7	6.5	7.8	7.1	6.9	7.0	5.9	4.7	3.0	2.2	2.4	2.1	Diurnal Average	
Dir	227.0	238.9	225.2	234.0	237.3	233.5	244.5	230.8	218.9	209.6	203.3	202.4	213.1	217.3	229.1	221.4	220.9	215.6	212.9	210.2	208.9	191.5	183.9	190.7		
Spd	20.1	21.4	18.9	18.7	19.6	19.5	21.9	22.5	21.9	26.3	28.1	27.5	30.4	32.5	33.7	32.0	32.2	28.6	26.6	21.1	19.2	19.0	20.9	19.9	Diurnal Maximum	
Dir	29.2	25.9	1.0	274.6	275.0	33.1	29.5	31.1	206.1	207.4	210.3	215.9	223.6	222.9	232.0	221.8	211.7	209.5	224.0	220.2	205.7	31.5	32.0	30.8		

Maximum Speed Value: 34 km/h on Apr 28 15:00
Maximum Daily Speed Average: 20.4 km/h on Apr 12
Maximum Diurnal Speed Average: 7.8 km/h at hour 15

Minimum Speed Value: 0 km/h on Apr 21 05:00
Minimum Daily Speed Average: 3.3 km/h on Apr 27
Minimum Diurnal Speed Average: 1.0 km/h at hour 7

Monthly Average Velocity: 3.72 km/h 215.94 deg

Speed Percentiles: $P_1 = 0.5$ $P_{10} = 3.1$ $Q_1 = 5.2$ Median = 10.2 $Q_3 = 16.4$ $P_{90} = 20.9$ $P_{99} = 29.4$

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:	100.0

C - Calibration

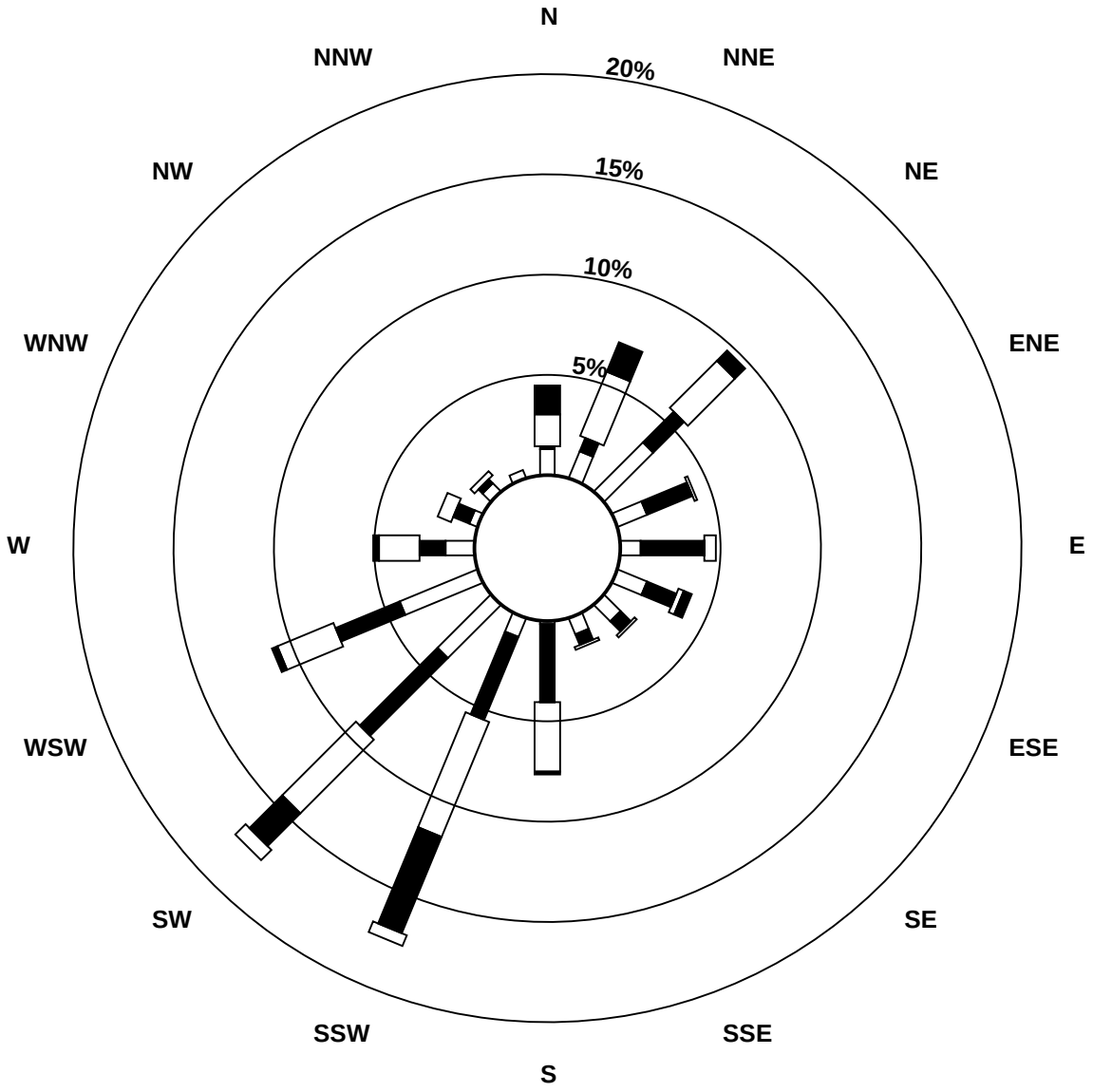
Frequency Distribution

Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	14	4	15	10	0	0	43
NorthEast	39	29	40	21	0	0	129
East	18	41	7	1	0	0	67
SouthEast	19	9	3	2	0	0	33
South	8	37	50	7	0	0	102
SouthWest	41	71	67	52	10	0	241
West	22	23	35	4	0	0	84
NorthWest	7	6	3	0	0	0	16
Total	168	220	220	97	10	0	715

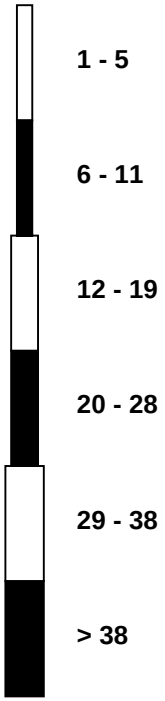
Wind Rose

Wind Speed (WS) (km/h)

Portable Clairmont - April 2015



Wind Speed Classes (km/h)



Peace Airshed Zone Association

Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Portable Clairmont - April 2015

Maximum Speed: 34 km/h on Apr 28 15:00

Maximum Daily Speed Average: 20.9 km/h on Apr 12

Minimum Speed: 0 km/h on Apr 21 05:00

Minimum Daily Speed Average: 5.3 km/h on Apr 27

Maximum Diurnal Speed Average: 16.6 km/h at hour 15

Minimum Diurnal Speed Average: 7.8 km/h at hour 24

Monthly Average Speed: 11.47 km/h

Percentiles: P_1 = 0.8 P_{10} = 3.5 Q_1 = 5.5 Median = 10.5 Q_3 = 16.6 P_{90} = 21.0 P_{99} = 29.8

Hours in Service: 720

Hours of Data: 715

Hours of Missing Data: 5

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	17	17	16	19	20	19	20	19	17	14	13	13	11	10	9	12	11	7	8	4	4	4	3	5	12.2	20.4
2-Apr	4	4	5	7	3	4	5	2	1	3	6	8	11	12	14	14	13	10	11	4	5	7	4	4	6.7	14.0
3-Apr	5	5	5	4	4	4	3	3	5	4	7	13	17	16	17	19	18	18	16	16	14	14	17	15	10.9	19.2
4-Apr	19	20	18	18	17	20	22	23	22	21	22	21	20	21	19	20	19	19	20	18	17	19	21	20	19.7	22.5
5-Apr	20	21	19	18	19	19	20	20	19	15	14	14	14	13	15	16	14	8	10	10	9	13	11	10	15.2	21.4
6-Apr	12	12	10	10	10	9	10	9	8	7	7	9	6	5	5	5	4	3	4	6	4	6	6	5	7.3	12.0
7-Apr	6	5	5	5	2	4	4	5	6	7	7	13	15	13	13	15	12	12	11	10	10	10	6	5	8.4	15.3
8-Apr	4	8	6	6	5	5	4	3	4	6	12	13	12	12	11	11	14	11	9	11	13	10	5	5	8.4	13.7
9-Apr	7	6	4	5	4	1	4	9	6	11	C	C	C	C	C	12	11	12	8	3	2	1	2	2	5.8	11.8
10-Apr	1	2	2	2	2	2	3	3	4	4	11	13	11	12	16	14	16	15	9	7	9	7	5	1	7.1	15.9
11-Apr	1	2	2	2	1	5	6	12	16	23	26	27	28	28	25	26	28	27	25	17	11	5	11	13	15.1	27.9
12-Apr	8	12	13	16	16	18	14	17	20	25	28	28	31	33	32	30	33	29	27	21	16	13	12	10	20.9	32.8
13-Apr	14	8	8	6	3	2	0	3	5	7	9	9	10	14	15	16	16	14	11	10	11	7	4	1	8.5	15.7
14-Apr	4	11	5	11	6	5	8	10	18	27	25	27	28	26	26	26	26	24	23	20	17	15	16	12	17.4	28.1
15-Apr	12	13	13	10	9	11	10	12	19	19	18	17	17	16	17	17	10	20	15	19	19	18	20	15	15.3	19.9
16-Apr	14	13	12	11	10	10	8	8	9	6	9	11	12	24	26	14	23	23	21	17	6	3	2	3	12.2	25.7
17-Apr	1	1	1	3	5	6	8	13	10	8	7	8	16	16	27	30	25	23	18	18	19	15	19	14	12.9	29.6
18-Apr	15	12	6	3	8	9	5	7	12	13	10	9	12	13	11	9	6	4	3	2	2	3	4	7	7.7	15.2
19-Apr	11	8	6	4	5	5	4	4	4	4	6	10	9	9	7	8	8	6	9	6	6	5	4	3	6.3	11.1
20-Apr	2	5	4	5	4	5	5	6	7	7	10	13	15	12	9	6	6	4	4	4	3	2	2	4	6.0	15.0
21-Apr	5	4	4	1	0	3	1	2	4	2	5	5	4	5	6	7	6	10	11	9	14	12	12	9	5.9	14.3
22-Apr	13	17	11	9	9	10	10	12	12	11	14	17	19	21	23	23	19	22	20	17	17	18	17	15	15.6	23.1
23-Apr	18	15	15	14	17	17	17	17	16	18	19	18	17	15	15	14	12	13	11	11	8	6	3	2	13.6	18.6
24-Apr	3	4	3	7	6	7	13	13	17	22	26	27	25	26	24	23	20	16	12	12	13	6	11	6	14.2	27.3
25-Apr	12	17	19	18	17	19	21	20	17	14	9	7	6	6	8	10	8	9	10	7	5	4	3	2	11.2	21.3
26-Apr	4	5	4	4	4	7	8	8	8	4	6	6	6	7	10	9	7	8	8	5	4	2	6	7	6.2	10.4
27-Apr	4	1	2	1	1	2	2	2	5	9	9	11	8	10	8	7	8	7	7	6	4	5	4	5	5.3	10.6
28-Apr	5	5	6	6	7	6	7	7	10	17	21	22	21	20	34	32	26	23	17	20	12	10	9	9	14.6	34.3
29-Apr	9	10	11	10	6	6	8	16	22	20	19	20	21	20	19	22	19	19	20	16	9	11	13	13	14.9	22.1
30-Apr	12	14	14	13	15	15	15	17	21	19	15	16	19	23	22	25	26	25	22	19	15	11	14	11	17.5	26.1
	8.6	9.3	8.3	8.3	7.8	8.4	8.9	10.0	11.5	12.3	13.4	14.7	15.2	15.8	16.6	16.4	15.4	14.7	13.3	11.5	10.0	8.8	8.9	7.8	Diurnal Average	
	20.1	21.4	18.9	18.7	19.8	19.5	21.9	22.5	22.1	26.5	28.4	27.9	30.6	32.7	34.3	32.2	32.8	28.8	26.8	21.2	19.4	19.0	20.9	19.9	Diurnal Maximum	

C - Calibration

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

Peace Airshed Zone Association

Hourly Standard Deviations

Wind Direction (WD) - deg

Portable Clairmont - April 2015

Maximum Value: 93.1 deg on Apr 11 00:00

Minimum Value: 2.6 deg on Apr 5 07:00

Percentiles: P_1 = 3.0 P_{10} = 5.6 Q_1 = 7.2 Median = 10.8 Q_3 = 17.6 P_{90} = 34.8 P_{99} = 86.1

Hours in Service:	720
Hours of Data:	715
Hours of Missing Data:	5
Hours of Calibration:	5
Percent Operational Time:	100.0

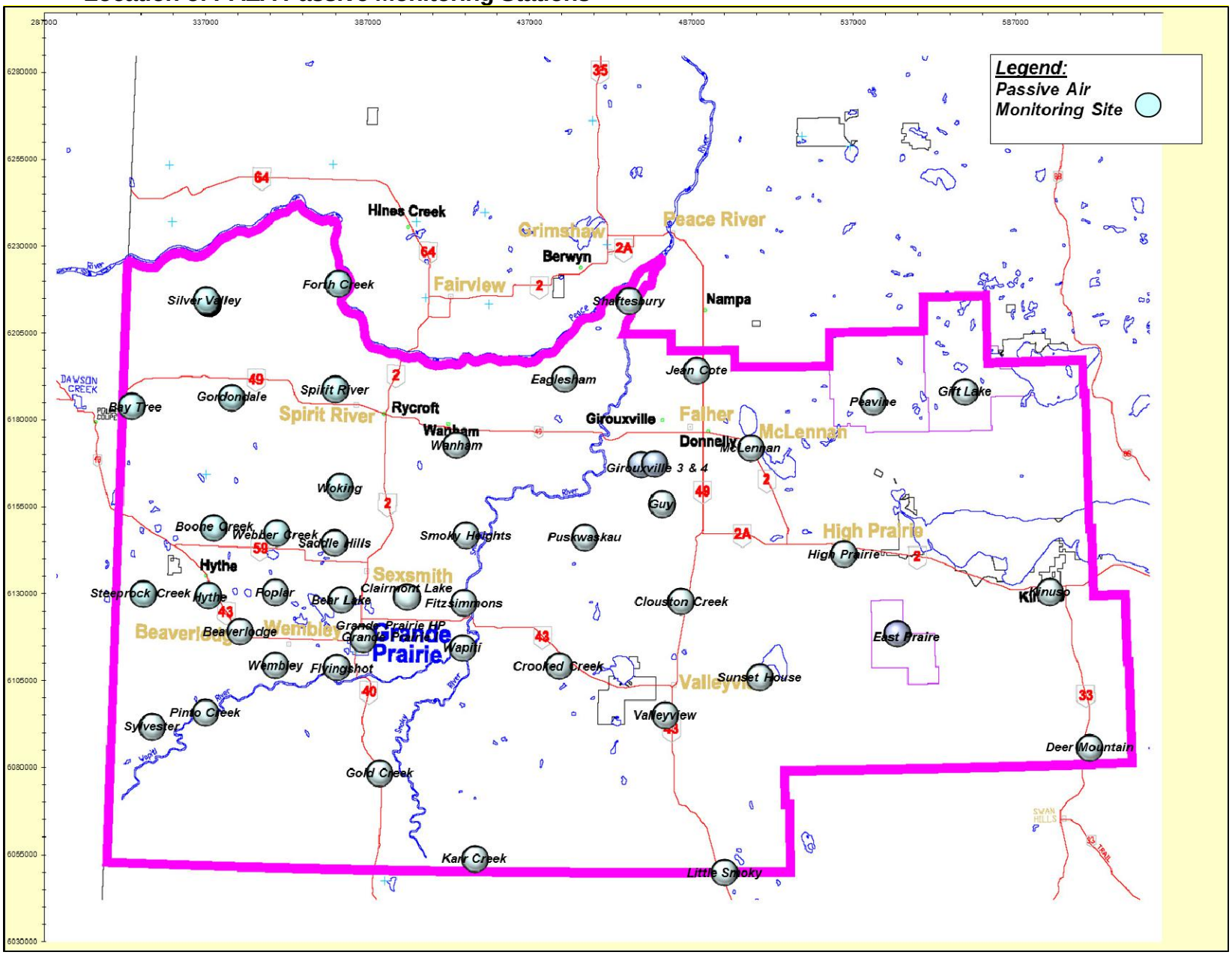
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Apr	5	5	6	5	6	6	6	6	6	5	5	6	7	8	13	13	9	21	12	15	13	15	11	19	20.7
2-Apr	19	22	12	26	60	15	42	65	43	75	38	19	12	15	13	11	11	35	25	58	72	9	30	61	75.4
3-Apr	24	12	14	15	17	13	15	15	27	33	40	6	5	5	5	6	6	5	6	6	4	3	3	4	40.4
4-Apr	5	6	5	4	4	4	3	4	5	4	6	7	7	6	6	7	7	6	5	3	4	5	4	3	7.2
5-Apr	3	3	3	3	3	3	3	4	5	7	9	10	9	10	11	8	13	15	22	11	6	6	4	4	22.3
6-Apr	5	6	5	6	5	6	7	11	14	15	23	17	21	30	43	15	56	46	25	25	40	12	9	23	56.0
7-Apr	8	6	6	9	50	21	13	8	10	13	26	13	14	16	17	14	10	12	9	7	8	20	11	22	50.0
8-Apr	16	18	13	8	6	10	14	12	13	13	16	19	20	14	19	14	13	12	17	9	8	12	10	11	20.1
9-Apr	6	6	13	10	12	83	74	7	15	13	C	C	C	C	C	19	17	12	17	11	34	17	20	89	88.6
10-Apr	67	35	18	47	62	54	14	12	21	17	15	16	31	22	46	21	13	9	9	10	9	13	18	93	93.1
11-Apr	89	69	48	55	86	15	12	7	8	5	7	9	9	9	9	9	8	7	6	10	7	16	15	7	88.6
12-Apr	10	11	7	8	6	6	7	7	8	7	8	10	8	7	8	9	11	7	7	6	7	6	10	7	11.2
13-Apr	5	31	18	17	36	86	70	36	12	20	11	10	12	22	17	11	15	11	5	6	11	9	14	71	86.1
14-Apr	29	9	10	6	9	14	8	10	9	9	9	9	7	7	11	12	8	8	6	7	6	7	6	7	29.0
15-Apr	9	7	7	7	10	8	7	13	11	12	11	13	12	16	18	15	10	12	9	8	8	7	6	8	17.5
16-Apr	7	7	7	7	7	8	11	8	11	13	15	23	16	8	24	23	7	10	7	5	16	31	50	52	52.2
17-Apr	57	50	48	86	31	8	16	8	17	12	24	16	11	14	9	9	13	10	7	19	10	7	12	8	86.1
18-Apr	7	6	15	12	10	7	9	9	8	9	17	28	13	21	22	31	27	49	49	21	52	77	47	8	76.8
19-Apr	7	10	11	7	5	6	5	11	17	22	32	19	20	30	34	31	24	22	14	9	20	16	19	12	33.7
20-Apr	20	7	14	6	7	5	7	8	14	20	17	19	17	16	25	59	33	26	18	14	16	16	15	8	58.5
21-Apr	8	6	30	44	80	26	48	37	33	61	24	43	23	18	26	22	21	14	11	19	3	5	16	65	80.2
22-Apr	15	8	14	15	9	13	9	12	11	29	8	8	9	10	10	10	20	9	12	8	7	8	9	9	28.9
23-Apr	7	7	6	6	5	6	6	6	6	7	7	9	10	8	11	12	11	12	9	12	7	11	17	16	16.5
24-Apr	11	12	16	10	8	7	6	6	5	6	6	6	6	7	6	6	5	6	10	13	15	43	16	22	43.0
25-Apr	19	4	4	4	5	4	5	6	7	7	29	23	33	30	15	10	13	10	8	7	7	14	13	52	51.7
26-Apr	16	12	7	14	11	14	8	13	10	37	28	30	32	43	23	40	50	29	18	13	17	23	13	6	50.0
27-Apr	34	79	75	56	91	61	76	23	53	27	16	19	35	35	29	31	31	45	17	17	58	22	25	9	91.0
28-Apr	9	13	9	7	22	17	10	8	8	5	5	7	8	41	11	7	8	7	6	6	12	9	8	9	40.6
29-Apr	7	6	9	9	20	13	7	7	7	8	14	10	12	15	11	11	14	13	9	6	21	6	7	9	20.9
30-Apr	6	9	7	8	7	8	8	10	7	8	11	10	14	22	10	12	11	10	8	7	7	8	7	10	22.0
	88.6	78.7	75.1	86.1	91.0	86.1	76.2	64.6	52.6	75.4	40.4	43.2	34.8	43.4	45.7	58.5	56.0	48.9	48.7	58.3	72.1	76.8	49.6	93.1	

C - Calibration

PAZA

Monthly Passive Data Summary

Location of PAZA Passive Monitoring Stations



PAZA Passive Results for April 2015

Station Number	Station Name	SO2 ppb	O3 ppb	NO2 ppb	H2S ppb	Site Legal
Duplicates						
3a	Fourth Creek	**0.1**	**53.6**	**0.2**		
3b	Fourth Creek	**0.1**	**42.0**	**BDL**		
30a	Fitzsimmons	**0.1**	**36.3**	**0.3**		
30b	Fitzsimmons	**0.1**	**41.3**	**0.6**		
35a	Jean Cote	**0.1**	**36.8**	**0.9**		
35b	Jean Cote	**0.1**	**33.3**	**0.5**		
38a	Karr Creek	**BDL**	**34.3**	**0.4**		
38b	Karr Creek	**BDL**	**35.4**	**0.5**		
64a	Girouxville 4				**0.1**	
64b	Girouxville 4				**0.1**	
1	Silver Valley	**0.1**	**42.7**	**0.3**		08-27-081-11 W6M
2	Bay Tree	**0.1**	**48.8**	**0.4**		13-16-078-13 W6M
3	Fourth Creek	**0.1**	**47.8**	**0.2**		04-13-082-07 W6M
4	Gordondale	**0.2**	**47.3**	**0.6**		04-34-078-10 W6M
5	Boone Creek	**0.2**	**39.0**	**0.7**		16-36-074-11 W6M
7	Steeprock Creek	**0.1**	**50.3**	**0.2**		09-35-072-13 W6M
9	Spirit River	**0.2**	**37.8**	**0.4**		08-12-079-07 W6M
10	Woking	**0.2**	**40.2**	**0.2**		01-13-076-07 W6M
11	Webber Creek	**0.2**	**39.9**	**1.6**		09-36-074-09 W6M
12	Hythe	**0.2**	**38.7**	**0.5**		14-36-072-11 W6M
14	Sylvester	**BDL**	**33.8**	**0.4**		08-06-069-12 W6M
16	Beaverlodge	**0.2**	**41.5**	**0.5**		15-36-071-10 W6M
17	Poplar	**0.1**	**37.4**	**0.4**		13-06-073-08 W6M
18	Saddle Hills	**0.3**	**45.4**	**0.2**		04-25-074-07 W6M
19	Wanham	**0.2**	**43.3**	**0.3**		16-22-077-03 W6M
20	Shaftesbury	**0.2**	**41.4**	**0.2**		04-03-082-23 W5M
21	Eaglesham	**0.1**	**39.0**	**0.9**		16-21-079-25 W5M
23	Bear Lake	**0.1**	**39.5**	**1.9**		15-31-072-06 W6M
24	Wembley	**0.1**	**34.9**	**1.0**		12-31-070-08 W6M
25	Pinto Creek	**0.1**	**39.8**	**0.3**		04-24-069-11 W6M
26	Flyingshot	**0.1**	**38.6**	**0.6**		15-36-070-07 W6M
27	Grande Prairie I	**0.1**	**38.0**	**2.9**		08-15-071-06 W6M

PAZA Passive Results for April 2015 (Continued)

28	Clairmont Lake	**0.2**	**47.2**	**0.5**		09-06-073-04 W6M
29	Smoky Heights	**0.3**	**47.4**	**0.4**		04-06-075-02 W6M
30	Fitzsimmons	**0.1**	**38.8**	**0.4**		15-36-072-03 W6M
32	Gold Creek	**0.1**	**35.8**	**1.0**		06-33-067-05 W6M
33	Wapiti	**0.1**	**38.3**	**0.6**		02-25-071-03 W6M
34	Puskwaskau	**0.1**	**35.0**	**0.2**		15-35-074-25 W5M
35	Jean Cote	**0.1**	**35.0**	**0.7**		12-35-079-21 W5M
36	Guy	**0.1**	**40.0**	**0.5**		03-04-076-22 W5M
37	Crooked Creek	**0.1**	**44.8**	**0.4**		16-01-071-26 W5M
38	Karr Creek	**BDL**	**34.8**	**0.5**		10-16-065-02 W6M
39	Clouston Creek	**0.1**	**41.7**	**0.2**		12-01-073-22 W5M
40	McLennan	**0.1**	**38.1**	**N/S**		03-29-077-19 W5M
41	Valleyview	**0.1**	**37.9**	**0.7**		09-30-069-22 W5M
42	Sunset House	**0.1**	**53.3**	**0.3**		05-32-070-19 W5M
43	High Prairie	**0.1**	**38.4**	**0.5**		16-13-074-17 W5M
44	Peavine	**0.1**	**38.5**	**0.3**		03-05-079-15 W5M
45	Gift Lake	**0.1**	**15.5**	**0.3**	**BDL**	10-07-079-12 W5M
46	Little Smoky	**0.1**	**36.9**	**1.1**		12-01-065-21 W5M
47	Kinuso	**0.1**	**43.7**	**0.2**		12-10-073-10 W5M
48	Deer Mountain	**0.1**	**43.4**	**BDL**		15-22-068-09 W5M
49	Grande Prairie HP	**0.1**	**41.0**	**2.4**		17-26-071-06 W6M
50	East Prairie	**0.1**	**45.6**	**0.5**		13-02-072-15 W5M
63	Girouxville 3				**0.1**	14-02-077-23 W5M
64	Girouxville 4				**0.1**	4-08-077-22 W5M

*BDL = Below Detection Level

*N/S - No sample

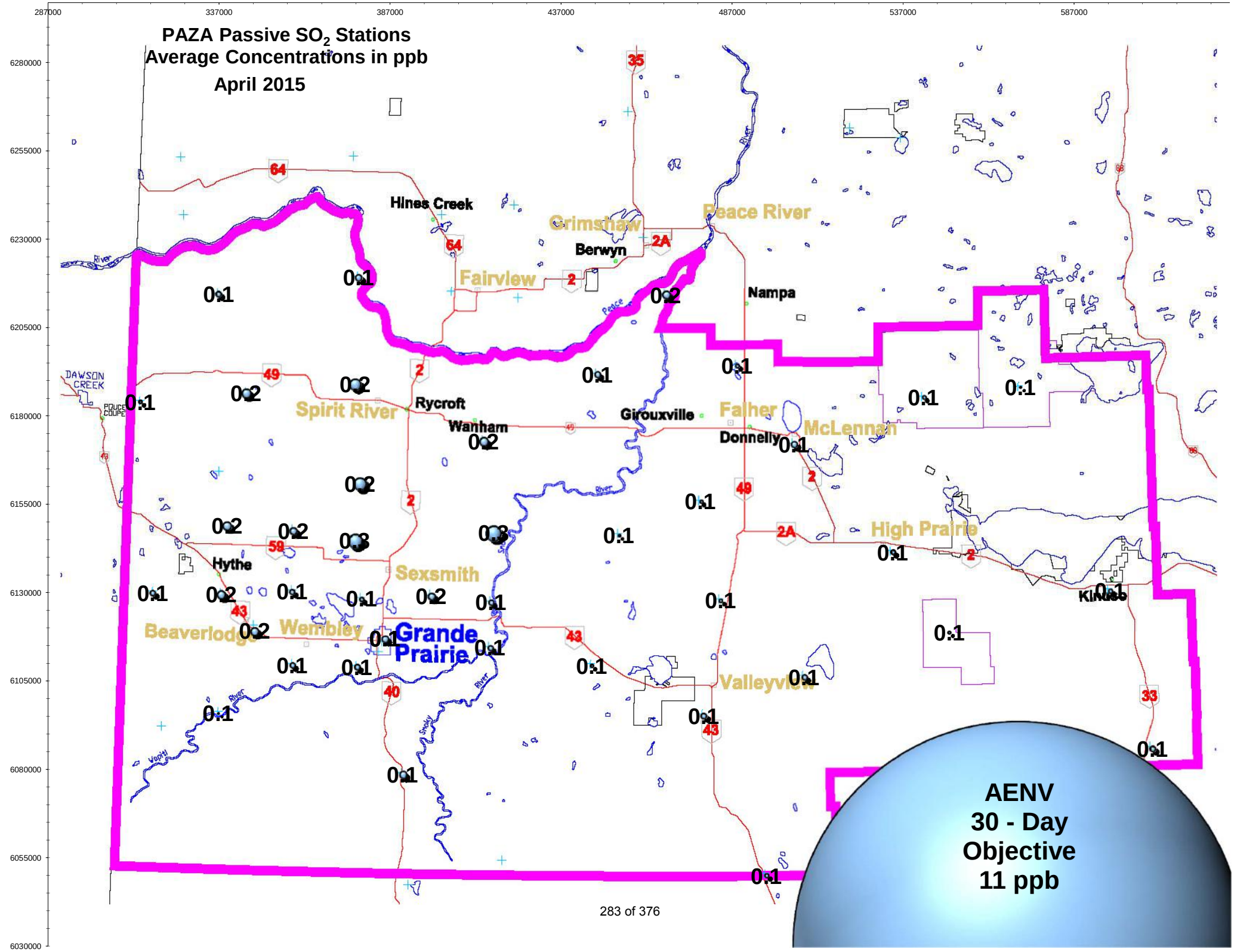
Stats	Sulphur Dioxide SO_2	Ozone O_3	Nitrogen Dioxide NO_2	Hydrogen Sulphide H_2S
	ppb	ppb	ppb	ppb
	Passive Summary for April 2015 (PAZA Zone)			
Mean	**0.1**	**40.4**	**0.6**	**0.1**
Standard Deviation	**0.1**	**5.9**	**0.6**	**0.0**
Minimum	**0.1**	**15.5**	**0.2**	**0.1**
Minimum At	**Pinto Creek (#25)**	**Gift Lake (#45)**	**Shaftesbury (#20)**	**Girouxville 3 (#63)**
Maximum	**0.3**	**53.3**	**2.9**	**0.1**
Maximum At	**Smoky Heights (#29)**	**Sunset House (#42)**	**Grande Prairie I (#27)**	**Girouxville 4 (#64)**

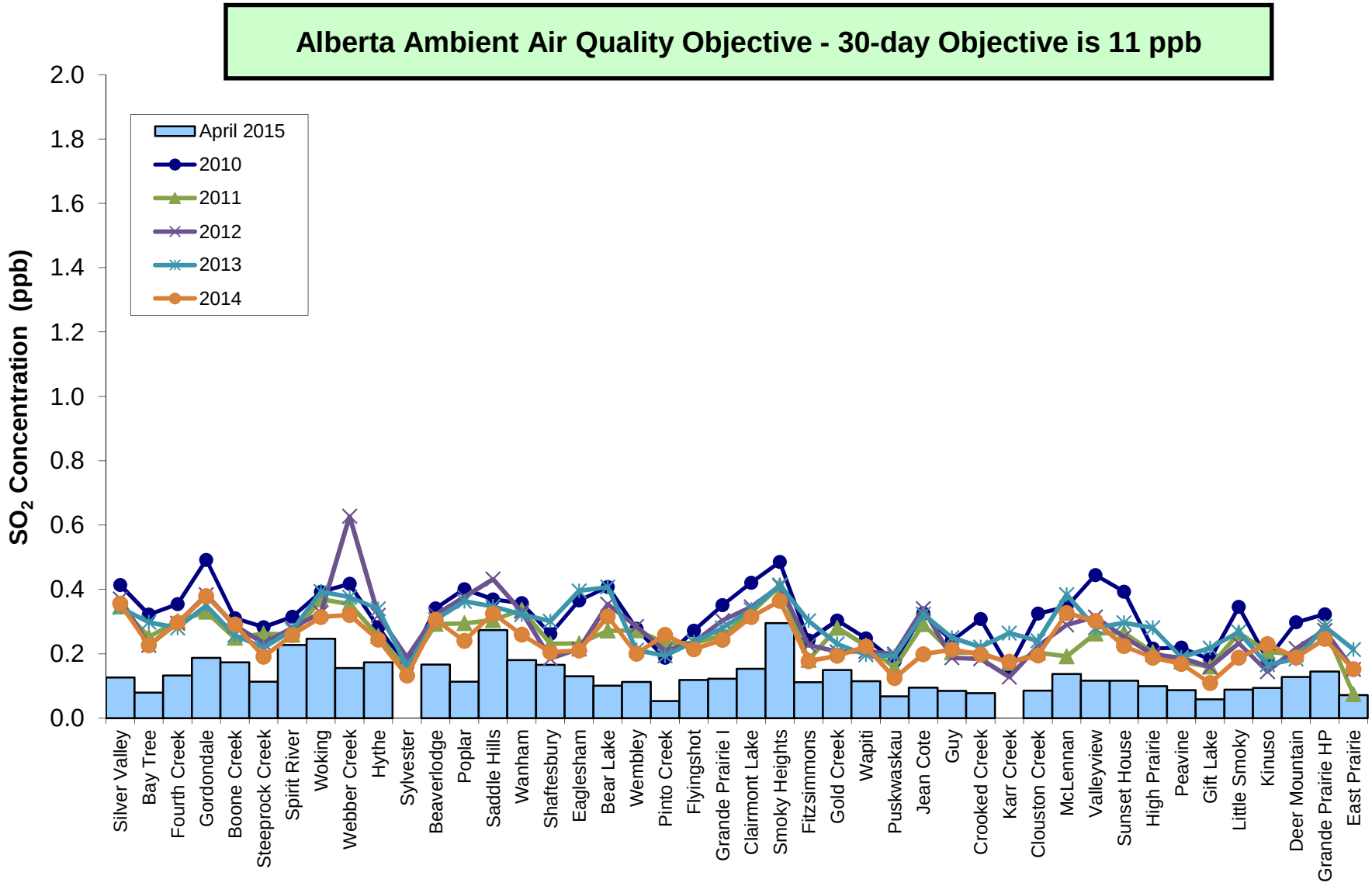
Comparison between Continuous and Passive monitoring at Beaverlodge (passive #16 Beaverlodge)

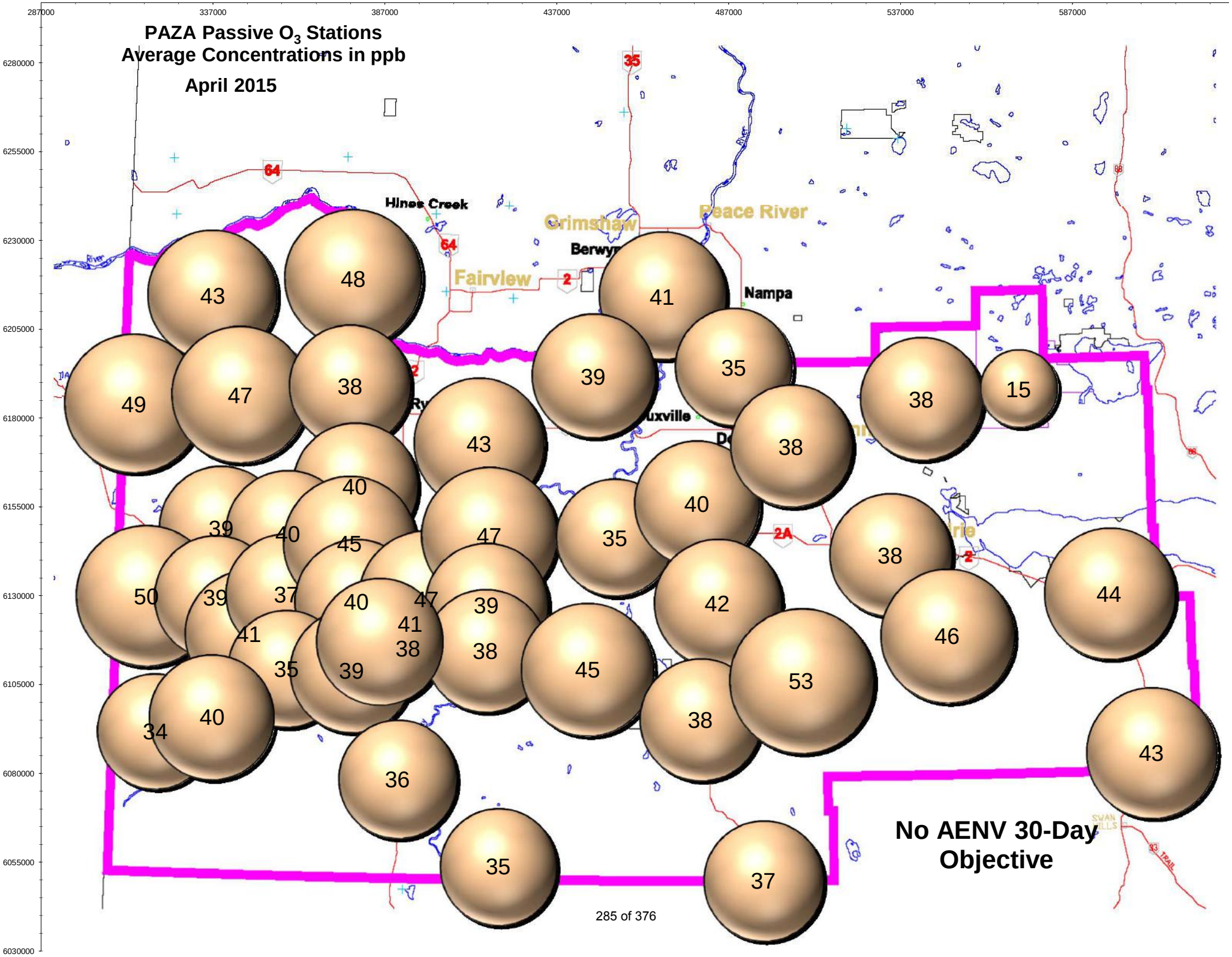
	SO_2	O_3	NO_2
PAZA Beaverlodge station	**0.1**	**38.2**	**1.5**
PAZA Beaverlodge passive	**0.2**	**41.5**	**0.5**

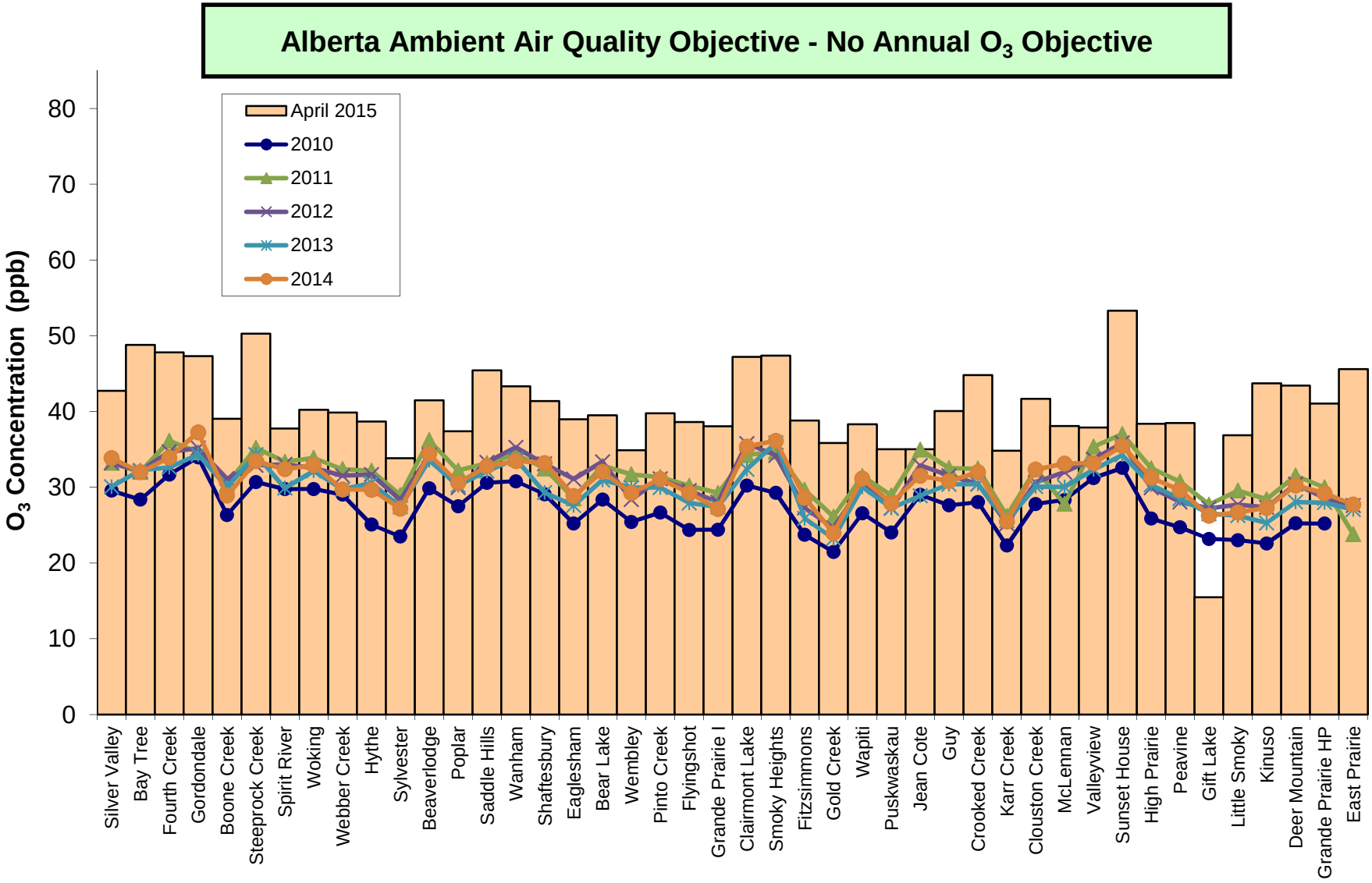
Comparison between Continuous and Passive monitoring at Henry Pirker (passive #49 Grande Prairie HP)

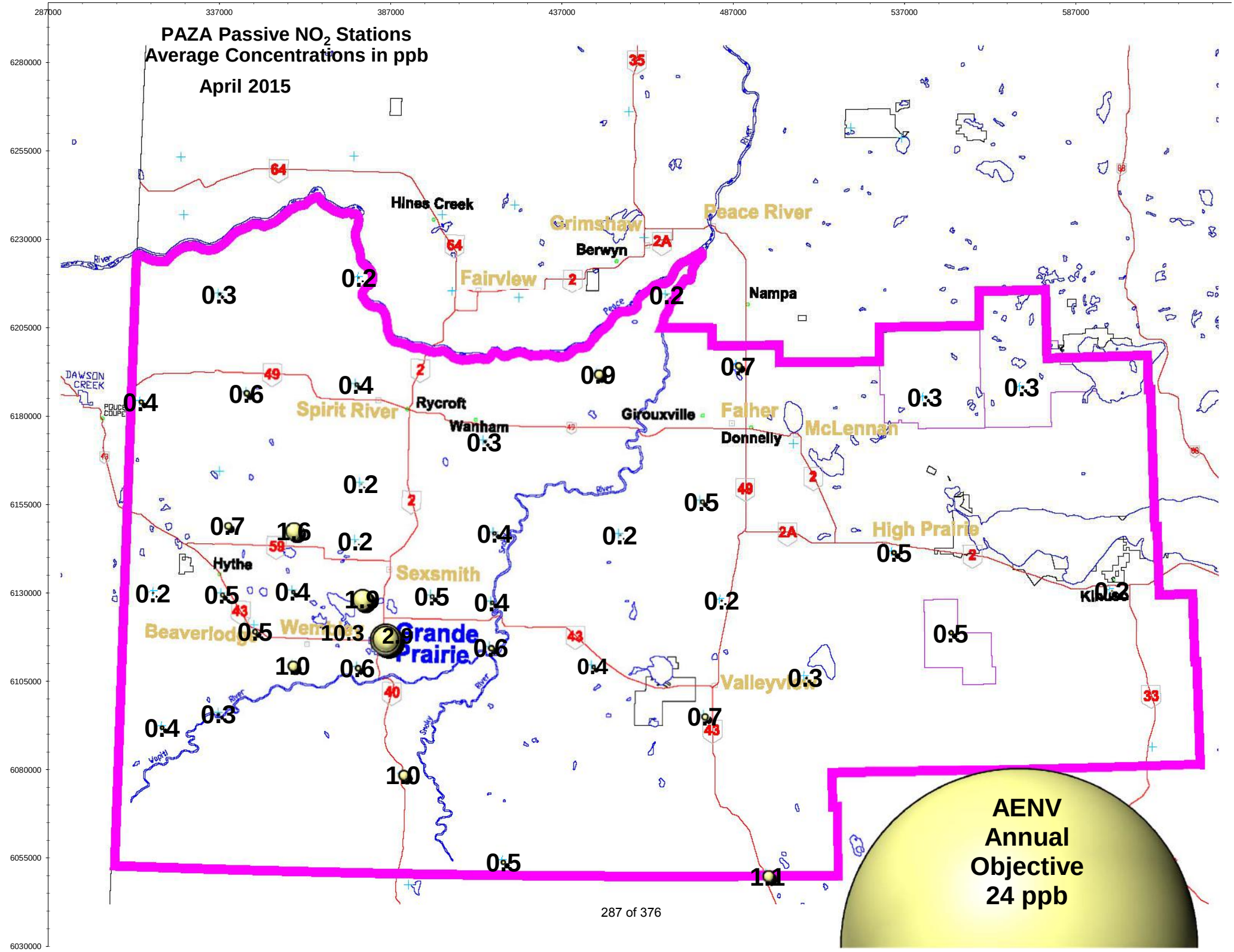
	SO_2	O_3	NO_2
PAZA Henry Pirker station	**0.1**	**33.1**	**5.5**
PAZA Grande Prairie passive	**0.1**	**41.0**	**2.4**

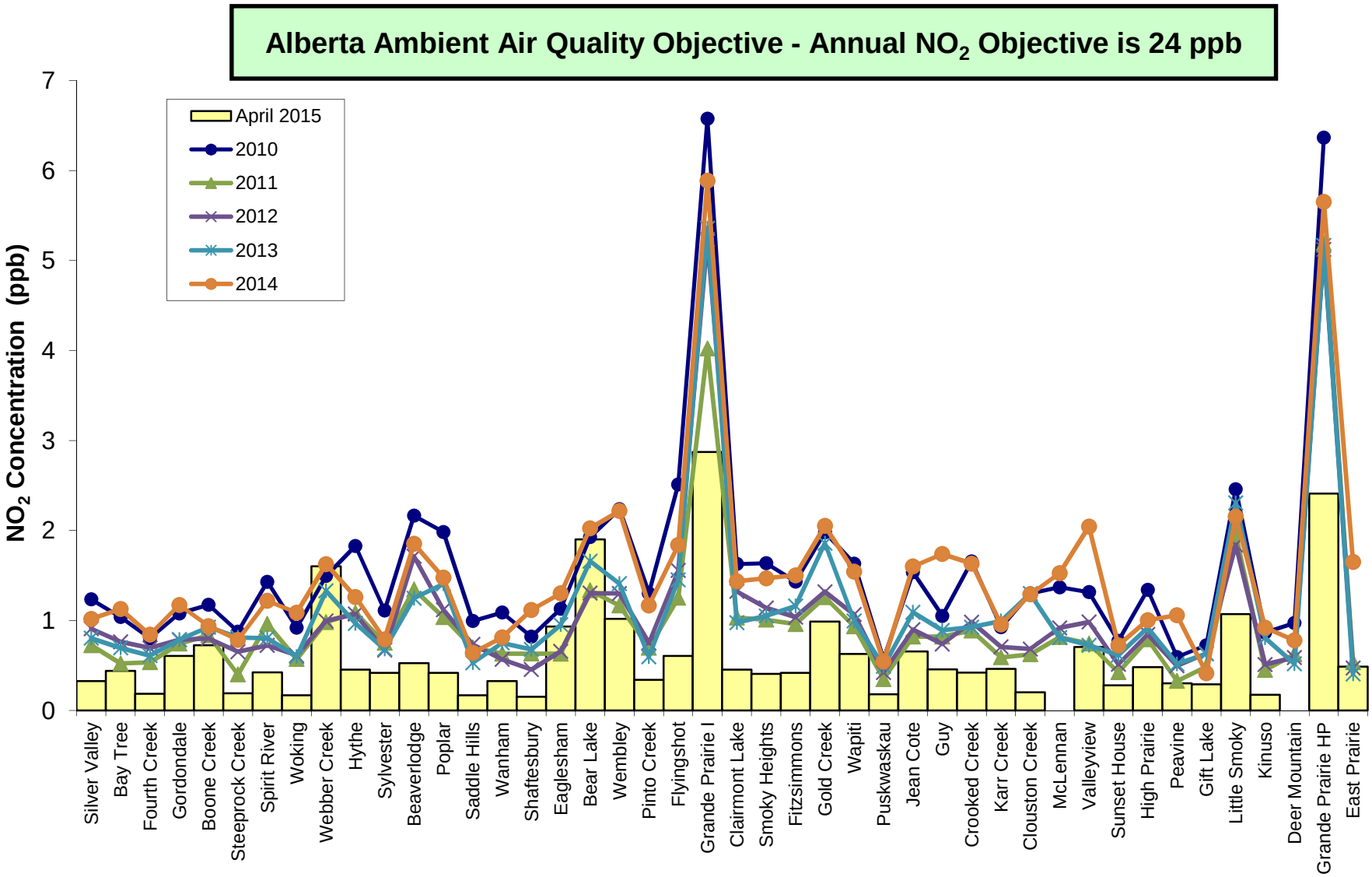

PAZA Passive SO_2 Stations
Average Concentrations in ppb
April 2015
287000
337000
387000
437000
487000
537000
587000
6280000
6255000
6230000
6205000
6180000
6155000
6130000
6105000
6080000
6055000
6030000
Hines Creek
Grimshaw
Peace River
Berwyn
Fairview
Nampa
DAWSON CREEK
POUCE COUPE
Spirit River
Rycroft
Wanham
Girouxville
Falher
Donnelly
McLennan
High Prairie
Hythe
Sexsmith
Beaverlodge
Wembley
Grande Prairie
Valleyview
Kinuso
AENV
30 - Day
Objective
11 ppb

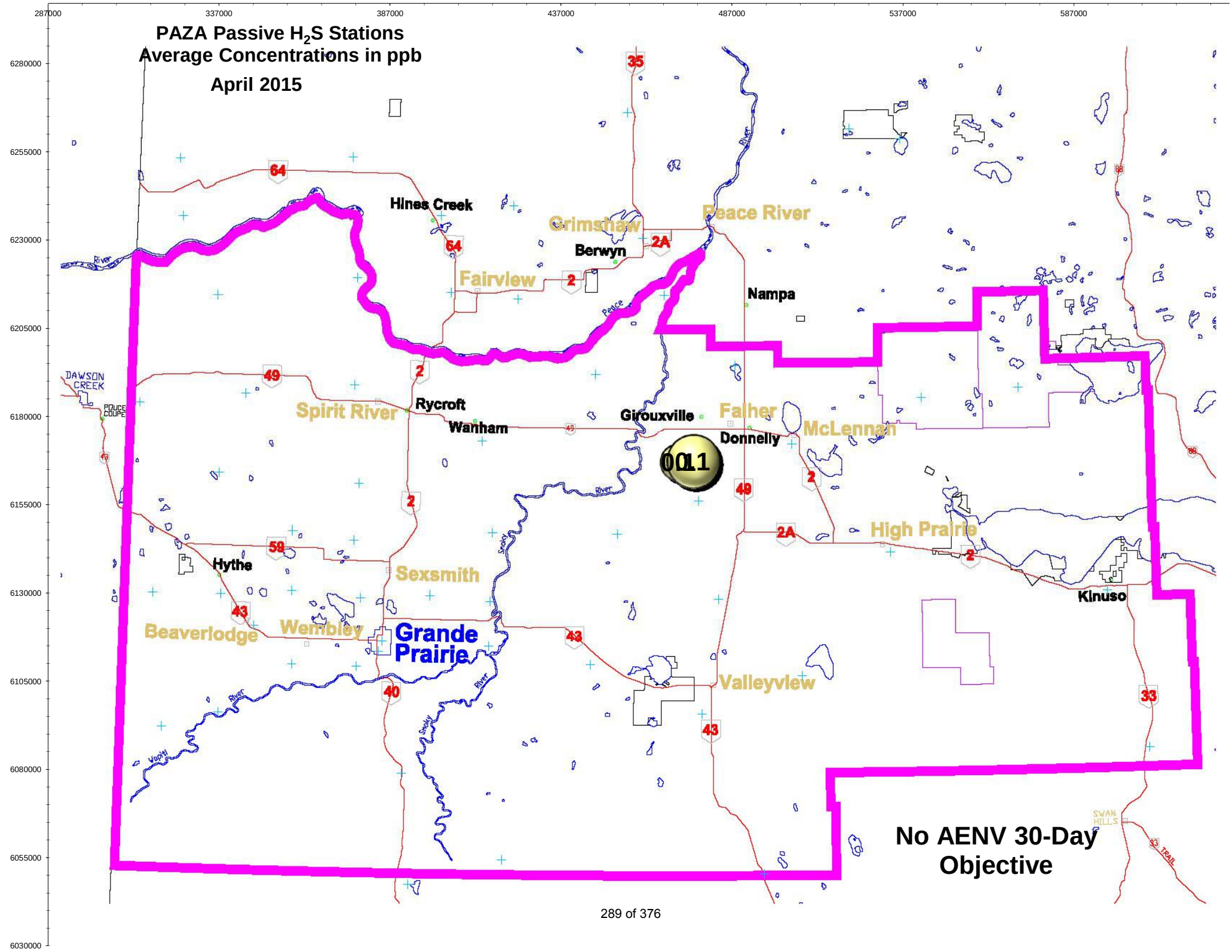

Alberta Ambient Air Quality Objective - 30-day Objective is 11 ppb
SO_2 Concentration (ppb)
2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
April 2015
2010
2011
2012
2013
2014
Silver Valley
Bay Tree
Fourth Creek
Gordondale
Boone Creek
Steeprock Creek
Spirit River
Woking
Webber Creek
Hythe
Sylvester
Beaverlodge
Poplar
Saddle Hills
Wanham
Shaftesbury
Eaglesham
Bear Lake
Wembley
Pinto Creek
Flyingshot
Grande Prairie I
Clairmont Lake
Smoky Heights
Fitzsimmons
Gold Creek
Wapiti
Puskwaskau
Jean Cote
Guy
Crooked Creek
Karr Creek
Clouston Creek
McLennan
Valleyview
Sunset House
High Prairie
Peavine
Gift Lake
Little Smoky
Kinuso
Deer Mountain
Grande Prairie HP
East Prairie

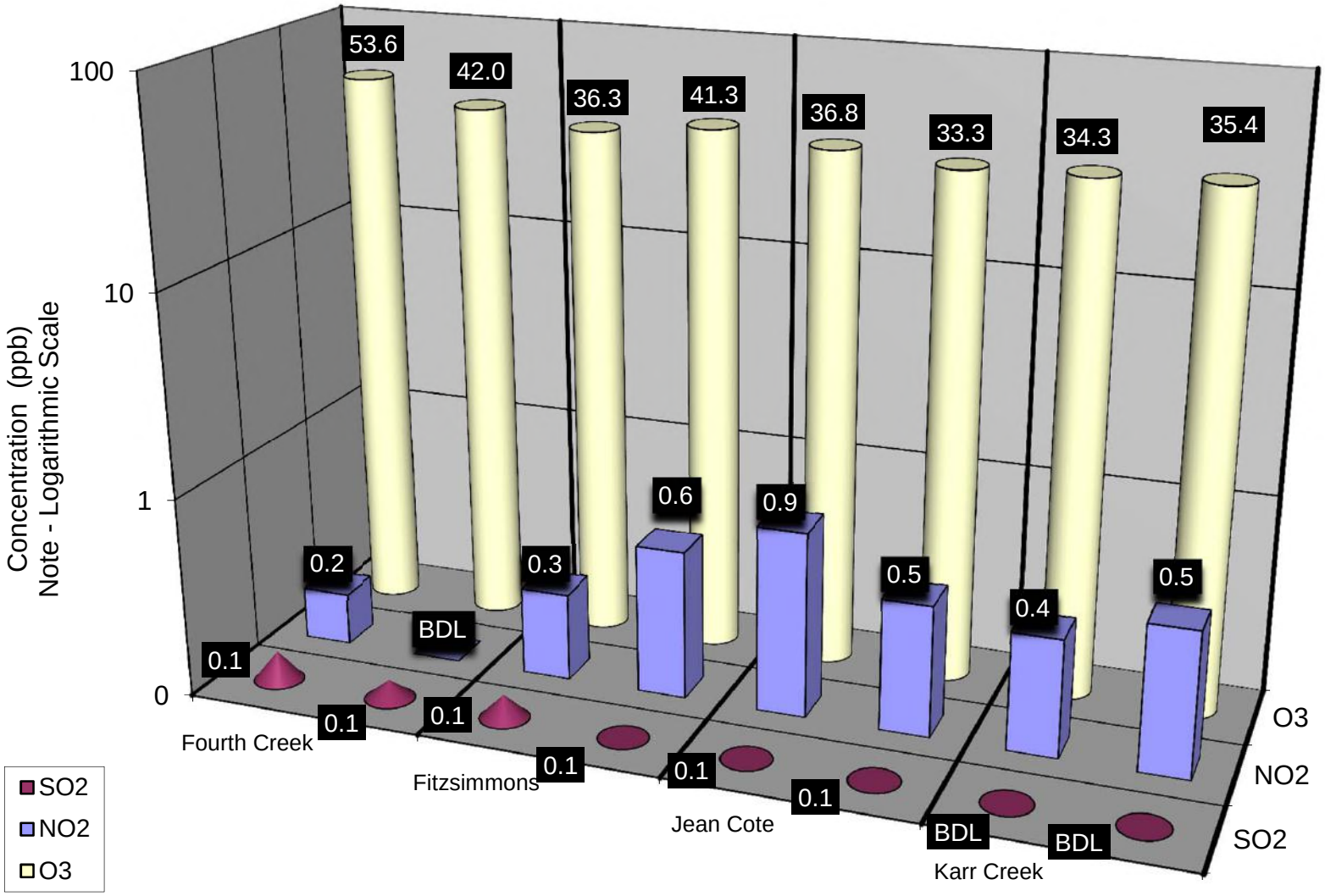

PAZA Passive O_3 Stations
Average Concentrations in ppb
April 2015
287000
337000
387000
437000
487000
537000
587000
6280000
6255000
6230000
6205000
6180000
6155000
6130000
6105000
6080000
6055000
6030000
Hines Creek
Grimshaw
Peace River
Berwyn
Fairview
Nampa
43
48
41
49
47
38
39
35
38
15
43
38
40
40
39
40
45
47
35
40
50
39
37
40
47
39
42
44
41
41
38
38
46
35
39
45
53
34
40
38
43
36
35
37
No AENV 30-Day Objective


Alberta Ambient Air Quality Objective - No Annual O_3 Objective
O_3 Concentration (ppb)
0
10
20
30
40
50
60
70
80
April 2015
2010
2011
2012
2013
2014
Silver Valley
Bay Tree
Fourth Creek
Gordondale
Boone Creek
Steeprock Creek
Spirit River
Woking
Webber Creek
Hythe
Sylvester
Beaverlodge
Poplar
Saddle Hills
Wanham
Shaftesbury
Eaglesham
Bear Lake
Wembley
Pinto Creek
Flyingshot
Grande Prairie I
Clairmont Lake
Smoky Heights
Fitzsimmons
Gold Creek
Wapiti
Puskwaskau
Jean Cote
Guy
Crooked Creek
Karr Creek
Clouston Creek
McLennan
Valleyview
Sunset House
High Prairie
Peavine
Gift Lake
Little Smoky
Kinuso
Deer Mountain
Grande Prairie HP
East Prairie


PAZA Passive NO_2 Stations
Average Concentrations in ppb
April 2015
Hines Creek
Grimshaw
Peace River
Berwyn
Fairview
Nampa
Spirit River
Rycroft
Wanham
Girouxville
Falher
Donnelly
McLennan
High Prairie
Hythe
Sexsmith
Beaverlodge
Grande Prairie
Valleyview
DAWSON CREEK
0.3
0.2
0.2
0.4
0.6
0.4
0.9
0.7
0.3
0.3
0.3
0.2
0.5
0.7
1.6
0.2
0.4
0.2
0.5
0.2
0.5
0.4
1.9
0.5
0.4
0.2
0.2
0.5
0.5
10.3
2.9
0.6
1.0
0.6
0.4
0.3
0.3
0.4
0.7
1.0
0.5
1.1
AENV
Annual
Objective
24 ppb


Alberta Ambient Air Quality Objective - Annual NO_2 Objective is 24 ppb
NO_2 Concentration (ppb)
0
1
2
3
4
5
6
7
April 2015
2010
2011
2012
2013
2014
Silver Valley
Bay Tree
Fourth Creek
Gordondale
Boone Creek
Steeprock Creek
Spirit River
Woking
Webber Creek
Hythe
Sylvester
Beaverlodge
Poplar
Saddle Hills
Wanham
Shaftesbury
Eaglesham
Bear Lake
Wembley
Pinto Creek
Flyingshot
Grande Prairie I
Clairmont Lake
Smoky Heights
Fitzsimmons
Gold Creek
Wapiti
Puskwaskau
Jean Cote
Guy
Crooked Creek
Karr Creek
Clouston Creek
McLennan
Valleyview
Sunset House
High Prairie
Peavine
Gift Lake
Little Smoky
Kinuso
Deer Mountain
Grande Prairie HP
East Prairie


PAZA Passive H_2S Stations
Average Concentrations in ppb
April 2015
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
POUCE COUPE
Spirit River
Rycroft
Wanham
Girouxville
Falher
Donnelly
McLennan
011
High Prairie
Hythe
Sexsmith
Kinuso
Beaverlodge
Wembley
Grande Prairie
Valleyview
SWAN HILLS
No AENV 30-Day Objective



Duplicate Summary Chart

PAZA

ALBERTA ENVIRONMENT AND SUSTAINABLE RESOURCES INCIDENCE REPORT

April 2015

Air Monitoring Directive Exceedence Report

Alberta Environmental Monitoring, Evaluation and Reporting Agency
Energy & Environmental Response
111 Twin Atria Building
4999 – 98th Avenue
Edmonton, Alberta T6B 2X3
erc.environment@gov.ab.ca
Phone: (780) 422-4505
Fax: (780) 427-1044

Reference Number:	**296935**	**Reported To (AESRD Contact):**	Jessica
Date & Time Incident Reported to AESRD:	April 10 2015 09:45	**Reported By:**	Christopher Hendrickson
Reported on Behalf of:	PAZA	**Approval Number (if applicable):**	N/A
Location(s) of Incident:	Clairmont		
Start Date & Time of Incident:	April 10, 2015 19:00	**End Date & Time of Incident:**	April 10, 2015 20:00

Reason or Nature of Incident:

PM2.5 hourly exceedence between 19:00 and 20:00 PM2.5 limit is 80 ug/m3. Hourly average was 92.0 ug/m3. Winds were WS 7.2 km WD 176.6 Deg

Immediate Actions Taken:

Confirmed validity of data and proceeded to call in the exceedence to AEMERA

Investigation Details:

Suspect gusting winds picked up road aggregate & dust during approaching rain clouds.

Actions Taken to Prevent Reoccurrence (if any):

N/A

Additional Actions Required (if any):

N/A

Report Completed By:	Christopher Hendrickson	Date Report Submitted:	April 11 2015
7-Day Letter Due Date:	April 17 2015		

April 2015 Calibration Reports

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

PAZA – Evergreen Park Station with the following calibrations:
SO_2, TRS, $PM_{2.5}$

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

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

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

PAZA – Falher Station with the following calibrations:
SO_2 & H_2S

PAZA – Clairmont Station with the following calibrations:
SO_2, NO, NO_2, NO_x, O_3, THC, TRS, $PM_{2.5}$

Calibration Report

Parameter **SO2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	April 1, 2015	Previous Calibration	March 2, 2015
Station Number	1	Station Location	Henry Pirker
Reason:	Routine / Install	Removal	Other:
Start Time (MST)	7:55	End Time (MST)	11:00
Barometric Pressure	711.000 mm	Station Temperature	21.0 Deg C
Calibrator	Environics	Serial Number	3016
Cal Gas Conc	49.8 ppm	Cal Gas Cert Date	March 10, 2017
		Cal Gas Cylinder #	LL119493
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 1 volt	DACS channel #	10
	Before		After
Calculated slope	1.001776	Calculated slope	0.992321
Calculated intercept	2.195266	Calculated intercept	1.949824
Analyzer make	TEI 43C	Analyzer serial #	610816292

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	10.0		9.6	
Coefficient	0.764		0.764	
Pressure	643.9	mm Hg	644.8	mm Hg
Flow	0.479	lpm	0.478	lpm
Lamp intensity	44152	Hz	44299	Hz

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.0	0.2	N/A
4995	39.93	394.9	397.1	0.9947
4995	19.97	198.3	196.8	1.0075
4995	9.97	99.2	95.9	1.0344
4995	0.00	0.0	-0.1	As Found Zero
4995	39.93	394.9	396.8	As Found Span
			Average Correction Factor	1.0122

Calculated value of As Found Response: 399.9 ppb Percent Change of As Found: -1.2%

	before calibration		after calibration	
Auto zero	-0.1	ppb	0.1	ppb
Auto span	318.5	ppb	326.8	ppb

Notes: Zero adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **SO2**

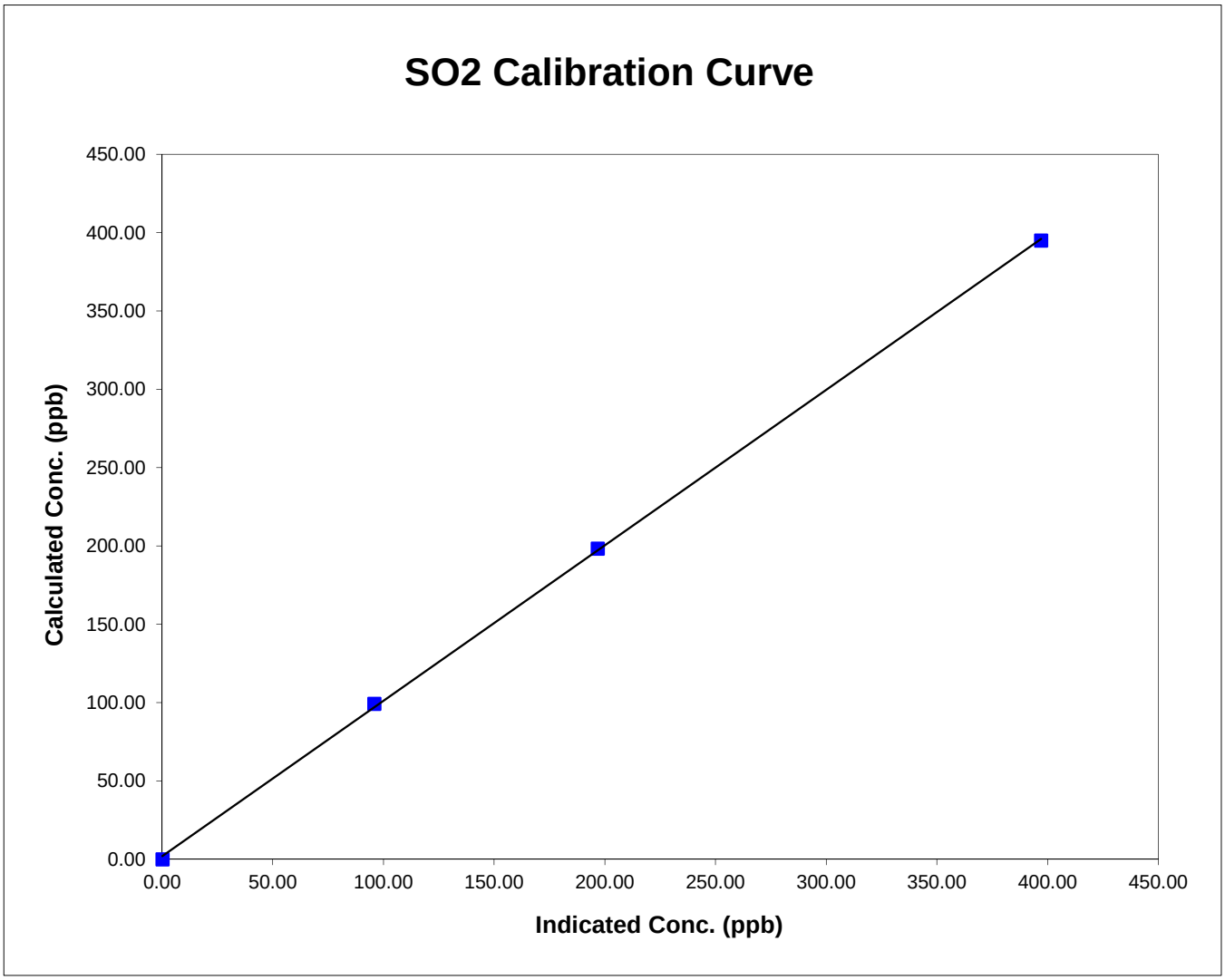
Air Monitoring Network **PAZA**

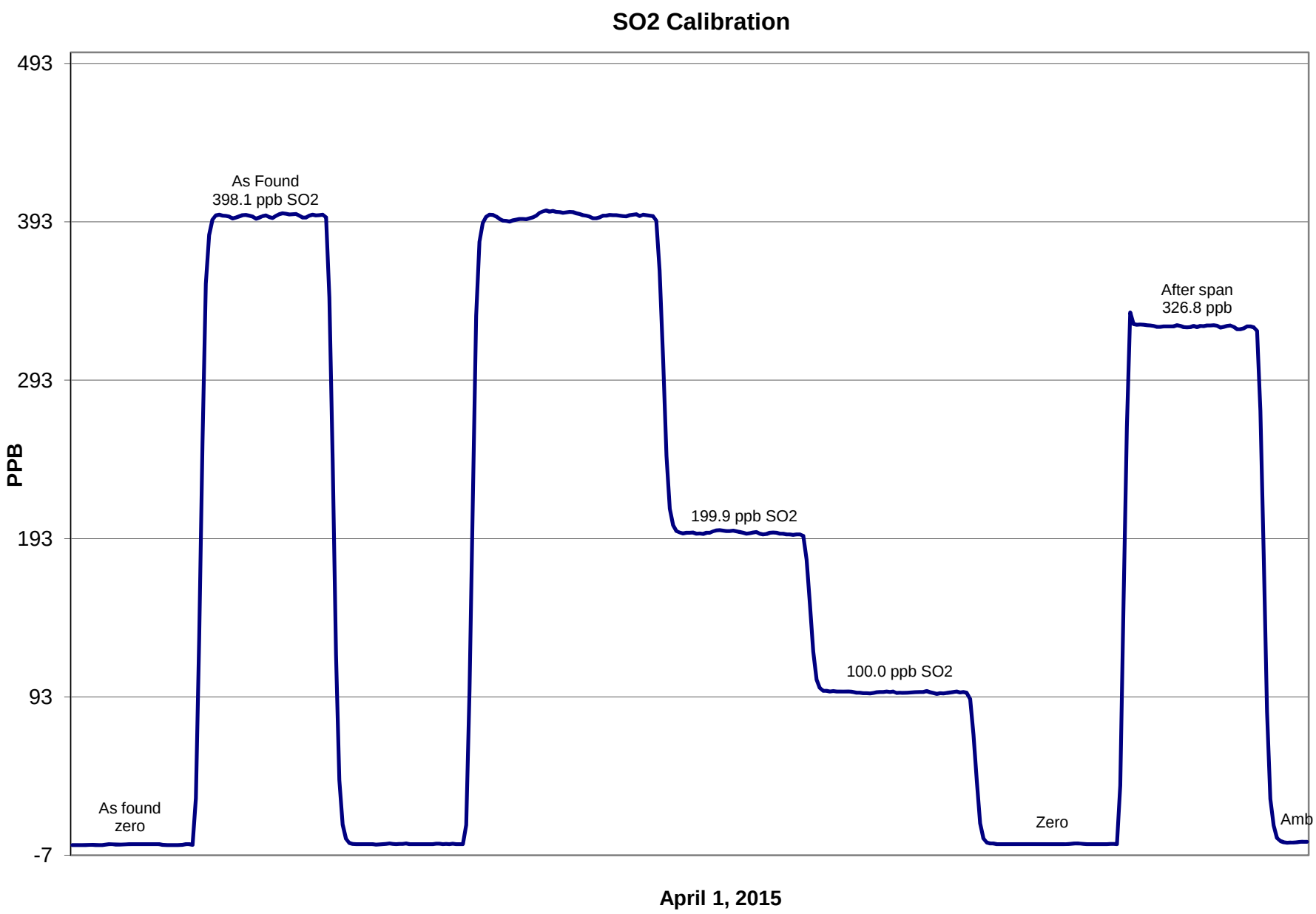
Station Information

Calibration Date	April 1, 2015	Previous Calibration	March 2, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	7:55	End Time (MST)	11:00
Analyzer make/model	TEI 43C	Analyzer serial #	610816292

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A		
394.9	397.1	0.9947	Correlation Coefficient	0.999872
198.3	196.8	1.0075		
99.2	95.9	1.0344	Slope	0.992321
			Intercept	1.949824




SO2 Calibration
493
393
293
193
93
-7
PPB
As Found
398.1 ppb SO2
199.9 ppb SO2
100.0 ppb SO2
After span
326.8 ppb
As found
zero
Zero
Amb
April 1, 2015

Calibration Report

Parameter **NO_X-NO-NO_2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	April 1, 2015	Previous Calibration	March 2, 2015
Station Number	1	Station Location	Henry Pirker

Reason: Routine Installation Removal Other:

Start Time (MST)	7:50		End Time (MST)	12:15	
Barometric Pressure	711.000	mm	Station Temperature	21.0	Deg C
Calibrator	Environics		Serial Number	3016	
NO Cal Gas Conc	50.9	ppm	Cal Gas Expiry Date	March 10, 2017	
NOx Cal Gas Conc	51.2	ppm	Cal Gas Serial #	LL119493	

DACS Information

DACS make	CR3000	DACS serial No.	5408

Parameter		NO2	NOx	NO
Before	Data Slope	1.002026	0.990911	0.984831
	Data Offset	0.067122	2.201995	2.331765
After	Data Slope	1.002328	1.002345	0.997200
	Data Offset	0.149819	1.838097	2.012508
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	5.2	mV	4.9	mV
NOx bkgnd	5.7	mV	5.0	mV
NO coefficient	0.968		0.937	
NOx coefficient	1.000		1.000	
NO2 conv temp	326.0	Deg C	327.0	Deg C
Cooler Temp	-2.8	Deg C	-2.8	Deg C
PMT Volt	-844.0	mV	-844.0	mV
R Cell Press	168.6	in Hg	169.5	in Hg
Sample Flow	0.717	LPM	0.724	LPM

Notes: Zero&span adjustment made.

Calibration Report

Parameter **NOX-NO-NO2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date: April 1, 2015 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	4995	0.00	0.0	0.0	0.0	0.0	0.2	0.1	N/A	N/A
1	4995	39.92	405.9	403.6	2.4	404.1	403.8	0.4	1.0046	0.9994
2	4995	19.96	203.8	202.6	1.2	200.5	199.8	0.3	1.0165	1.0140
3	4995	9.93	101.6	101.0	0.6	97.8	97.3	0.6	1.0386	1.0379
AFZ	4995	0.00	0.0	0.0	0.0	0.0	0.2	0.0	0.0000	0.0000
AFS	4995	39.92	405.9	403.6	0.8	416.7	417.2	-0.1	0.9743	0.9674
							Average Correction Factor		1.0199	1.0171

As Found Concentrations: NO_X= 415.1 NO= 413.0 As Found Percent Change NO_X= 2.3% NO= 2.3%

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	0.2	0.2	0.0	0.0	0.2	0.1	N/A	N/A	N/A	N/A
NO point	404.1	404.1	0.0	404.6	404.1	0.2	0.9989	1.0000	N/A	N/A
300	404.1	93.3	310.8	403.3	93.3	310.1	1.0020	1.0000	1.0024	99.8%
200	404.1	193.7	210.4	404.3	193.7	209.8	0.9995	1.0000	1.0032	99.7%
100	404.1	294.4	109.8	404.4	294.4	109.0	0.9993	1.0000	1.0065	99.3%
					Average Correction Factor		1.0003	1.0000	1.0040	99.6%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	0.0	0.0	0.1	ppb	0.0	0.0	0.2	ppb
Auto span	370.7	368.2	2.0	ppb	363.6	360.4	2.7	ppb

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **NO_2**

Air Monitoring Network **PAZA**

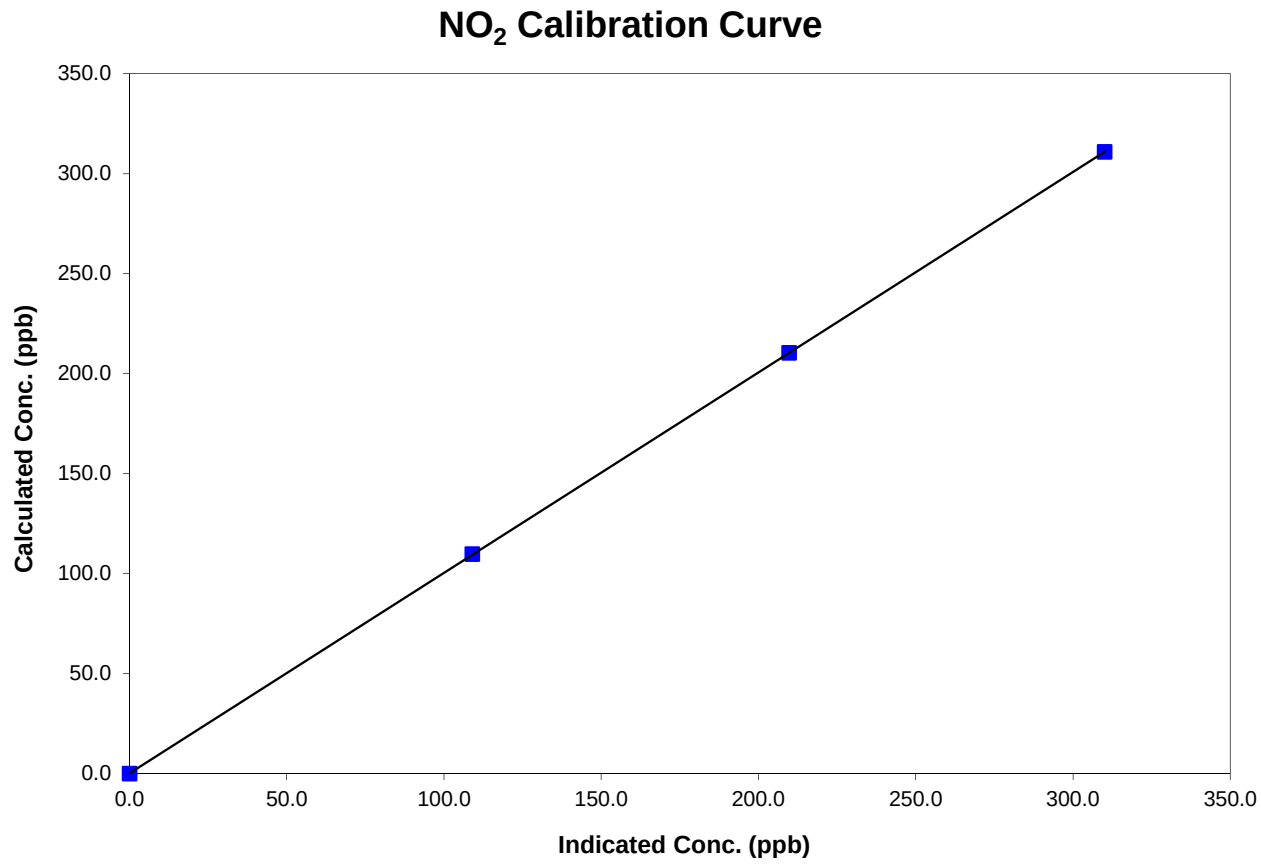
WSP AIR QUALITY MONITORING

Station Information

Calibration Date	April 1, 2015	Previous Calibration	March 2, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	7:50	End Time (MST)	12:15
Analyzer make	42i	Analyzer serial #	906535087

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A		
310.8	310.1	1.0024	Correlation Coefficient	0.999997
210.4	209.8	1.0032		
109.8	109.0	1.0065	Slope	1.002328
			Intercept	0.149819



Calibration Summary

Parameter **NO_x**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

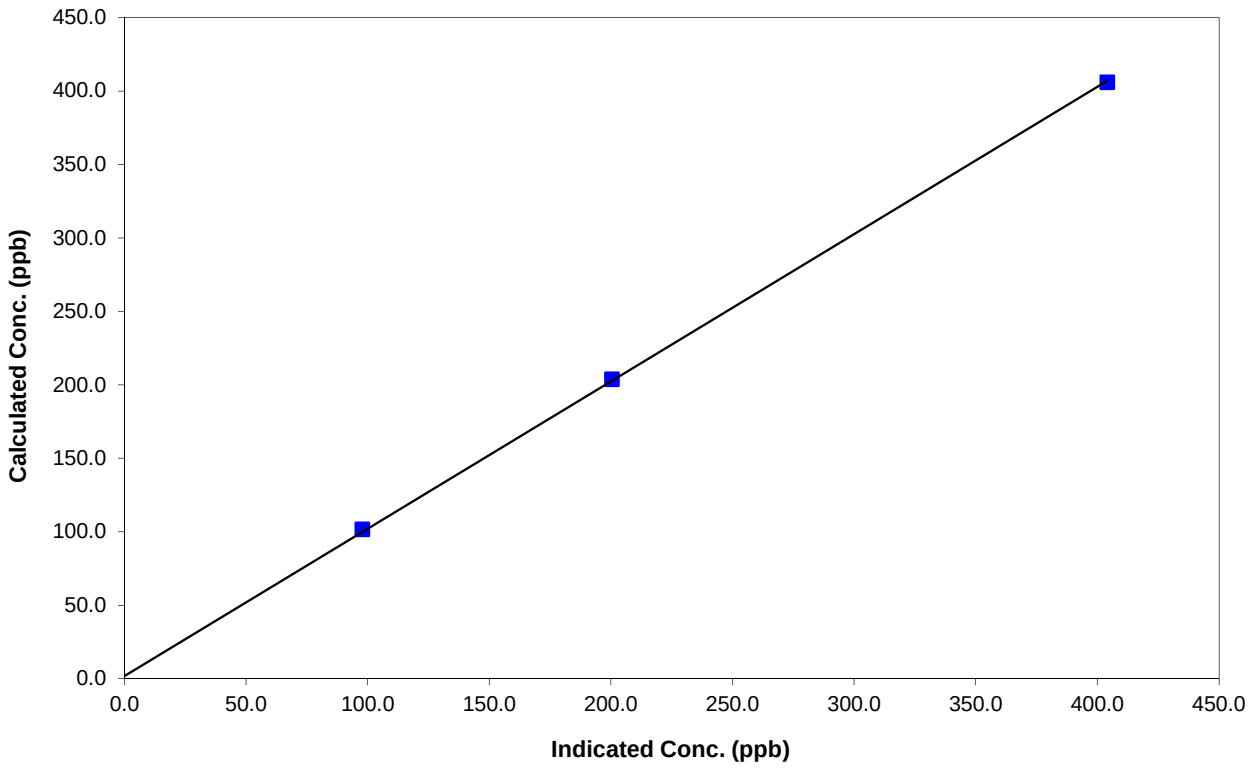
Station Information

Calibration Date	April 1, 2015	Previous Calibration	March 2, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	7:50	End Time (MST)	12:15
Analyzer make	42i	Analyzer serial #	906535087

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A		
405.9	404.1	1.0046	Correlation Coefficient	0.999911
203.8	200.5	1.0165		
101.6	97.8	1.0386	Slope	1.002345
			Intercept	1.838097

NOx Calibration Curve



Calibration Summary

Parameter **NO**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

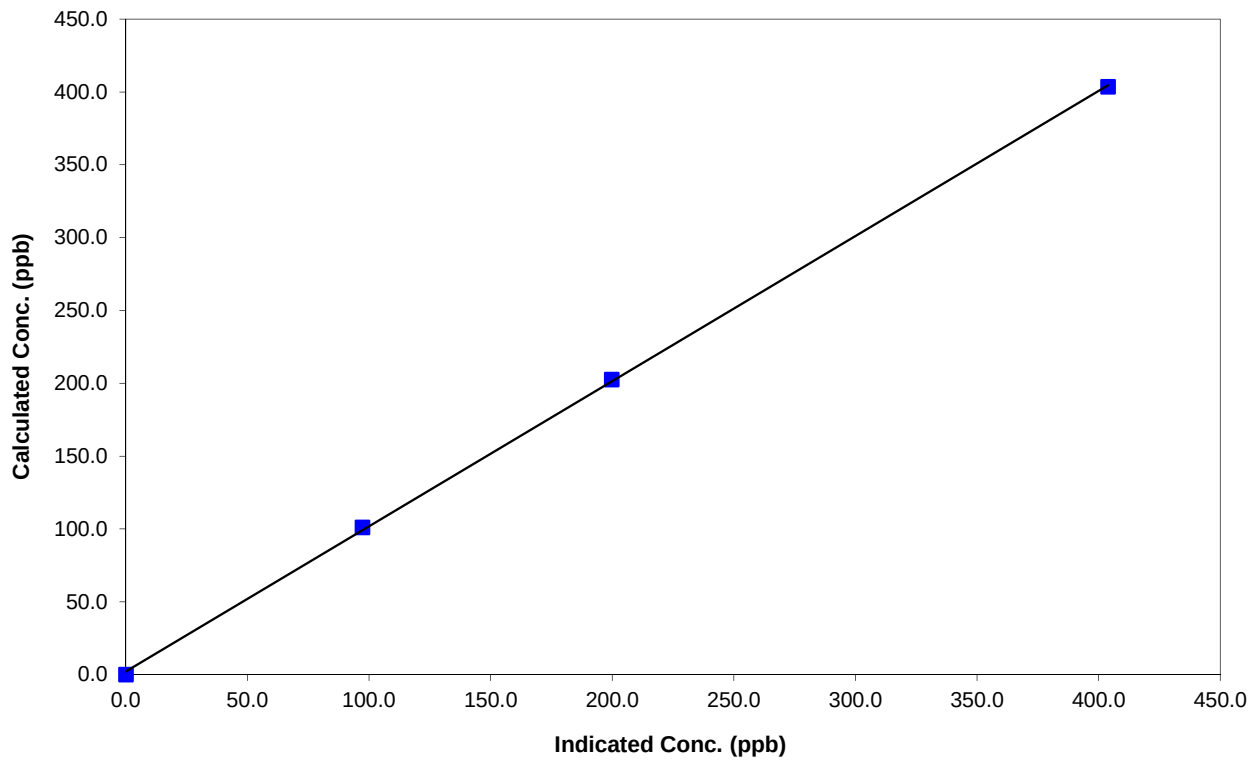
Station Information

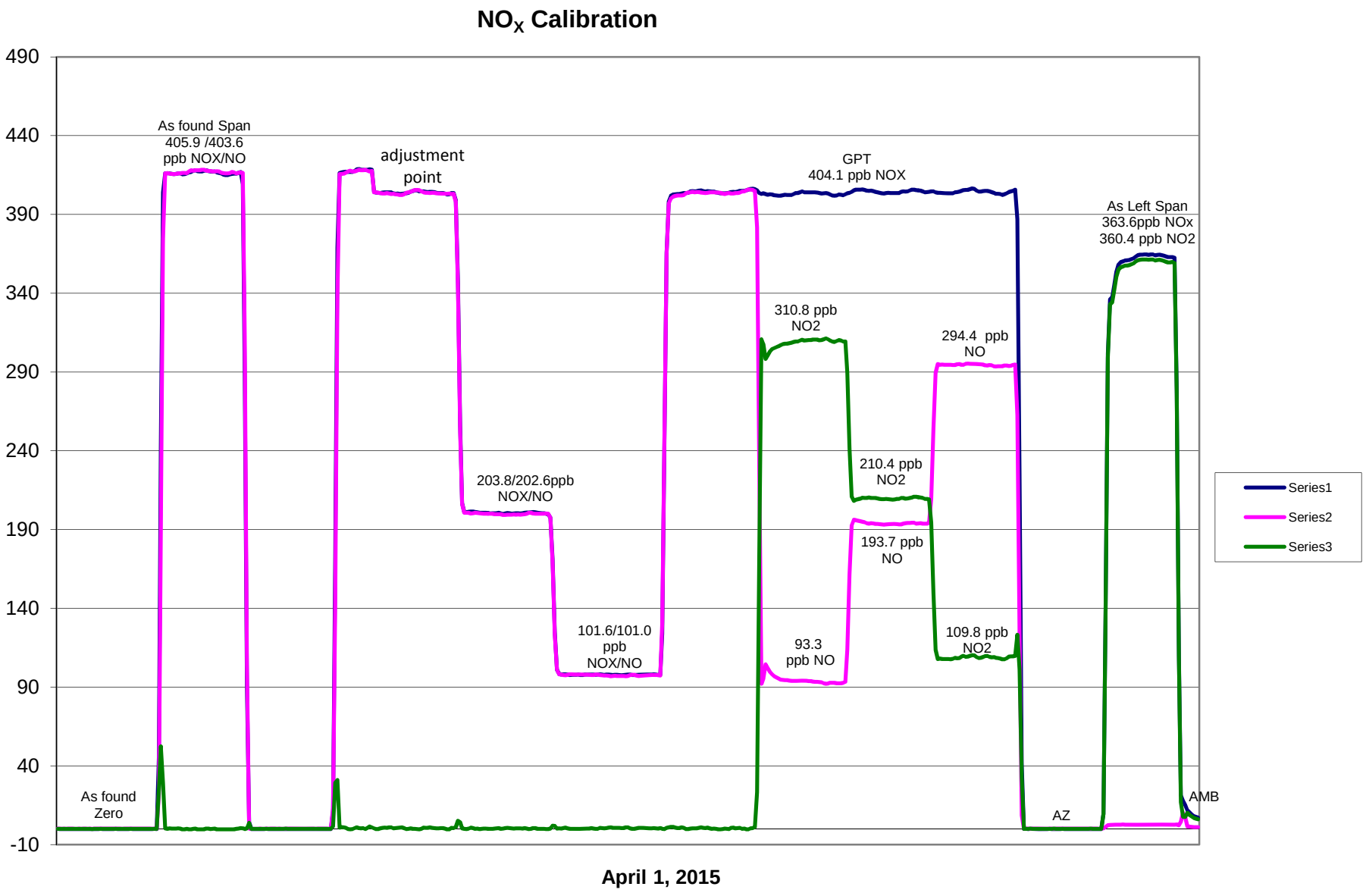
Calibration Date	April 1, 2015	Previous Calibration	March 2, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	7:50	End Time (MST)	12:15
Analyzer make	42i	Analyzer serial #	906535087

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A		
403.6	403.8	0.9994	Correlation Coefficient	0.999870
202.6	199.8	1.0140		
101.0	97.3	1.0379	Slope	0.997200
			Intercept	2.012508

NO Calibration Curve




NOX Calibration
490
440
390
340
290
240
190
140
90
40
-10
As found Span
405.9 /403.6
ppb NOX/NO
adjustment
point
GPT
404.1 ppb NOX
As Left Span
363.6ppb NOx
360.4 ppb NO2
310.8 ppb
NO2
294.4 ppb
NO
210.4 ppb
NO2
203.8/202.6ppb
NOX/NO
193.7 ppb
NO
101.6/101.0
ppb
NOX/NO
93.3
ppb NO
109.8 ppb
NO2
As found
Zero
AZ
AMB
Series1
Series2
Series3
April 1, 2015

Calibration Report

Parameter **O3**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	April 1, 2015	Previous Calibration	March 2, 2015
Station Number	1	Station Location	Henry Pirker
Reason: Routine	Install	Removal	Other:
Start Time (MST)	11:30	End Time (MST)	13:15:00 AM
Barometric Pressure	711.000 mm	Station Temperature	21.0 Deg C
Calibrator	Environics	Serial Number	3016
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	1.012258	Calculated slope	1.001861
Calculated intercept	-0.105618	Calculated intercept	0.045422
Analyzer make	Teco 49C	Analyzer serial #	607415761

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
offset	-0.30	ppb	-0.30	ppb
slope	1.008		1.008	
Lamp temp	57	mV	57	mV
Lamp Intensity A/B	96981/90557	mV	96274/89884	mV
Pressure	674.1	mm Hg	681.9	mm Hg
Flow A	0.724	ccm	0.73	ccm
Flow B	0.703	ccm	0.707	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)
5035	0.0	0.0	0.5	N/A
5035	0.3	310.8	310.7	1.0005
5035	0.2	210.4	209.6	1.0040
5035	0.1	109.8	109.0	1.0075
5035	0.0	0.0	0.5	As found zero
5035	0.3	310.8	310.7	As found span
			Average Correction Factor	1.0040

Calculated value of As Found Response: 313.9 ppm Percent Change of As Found: 1.0%

	before calibration		after calibration	
Auto zero	0.4	ppb	0.3	ppb
Auto span	450.5	ppb	456.5	ppb

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **O3**

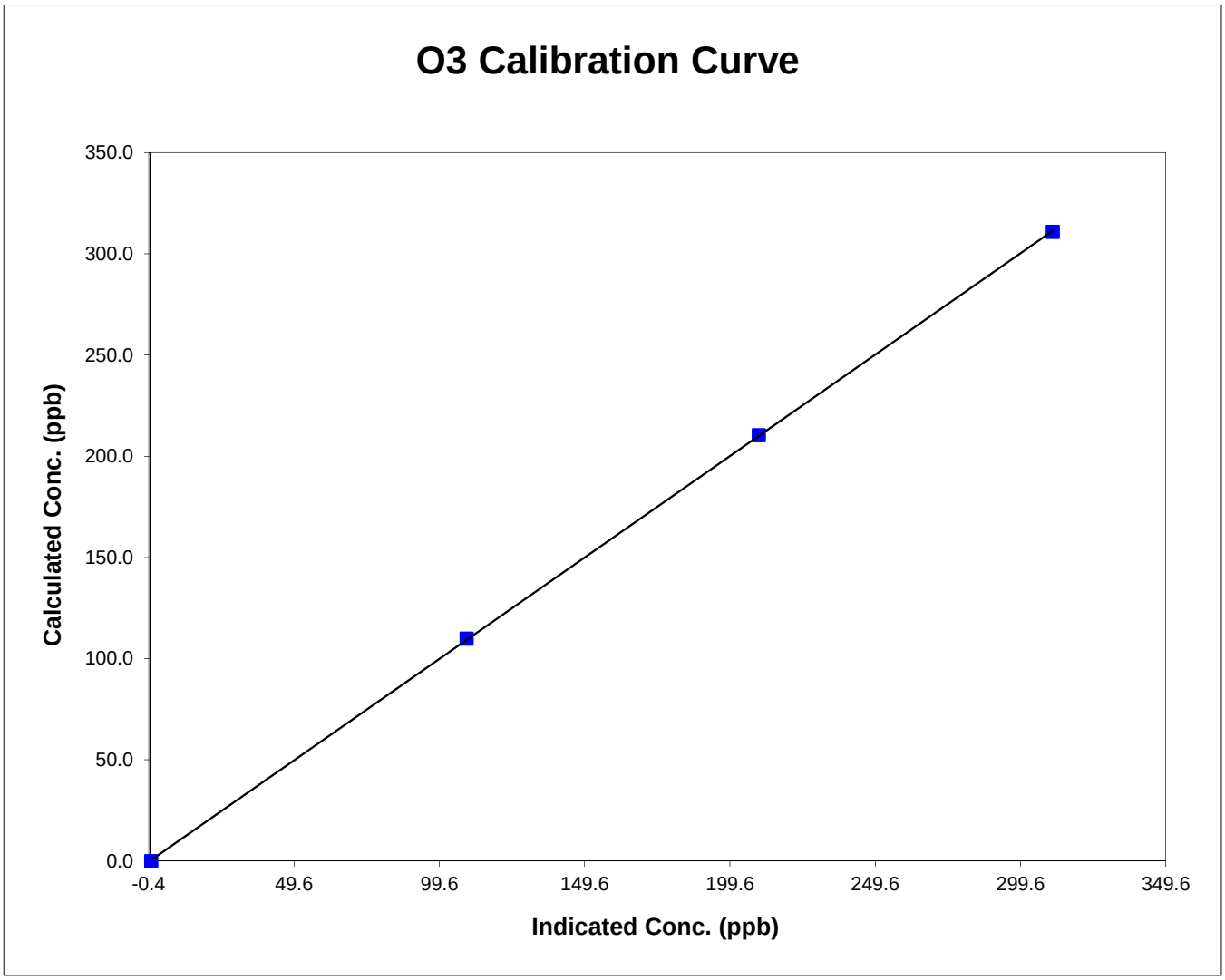
Air Monitoring Network **PAZA**

Station Information

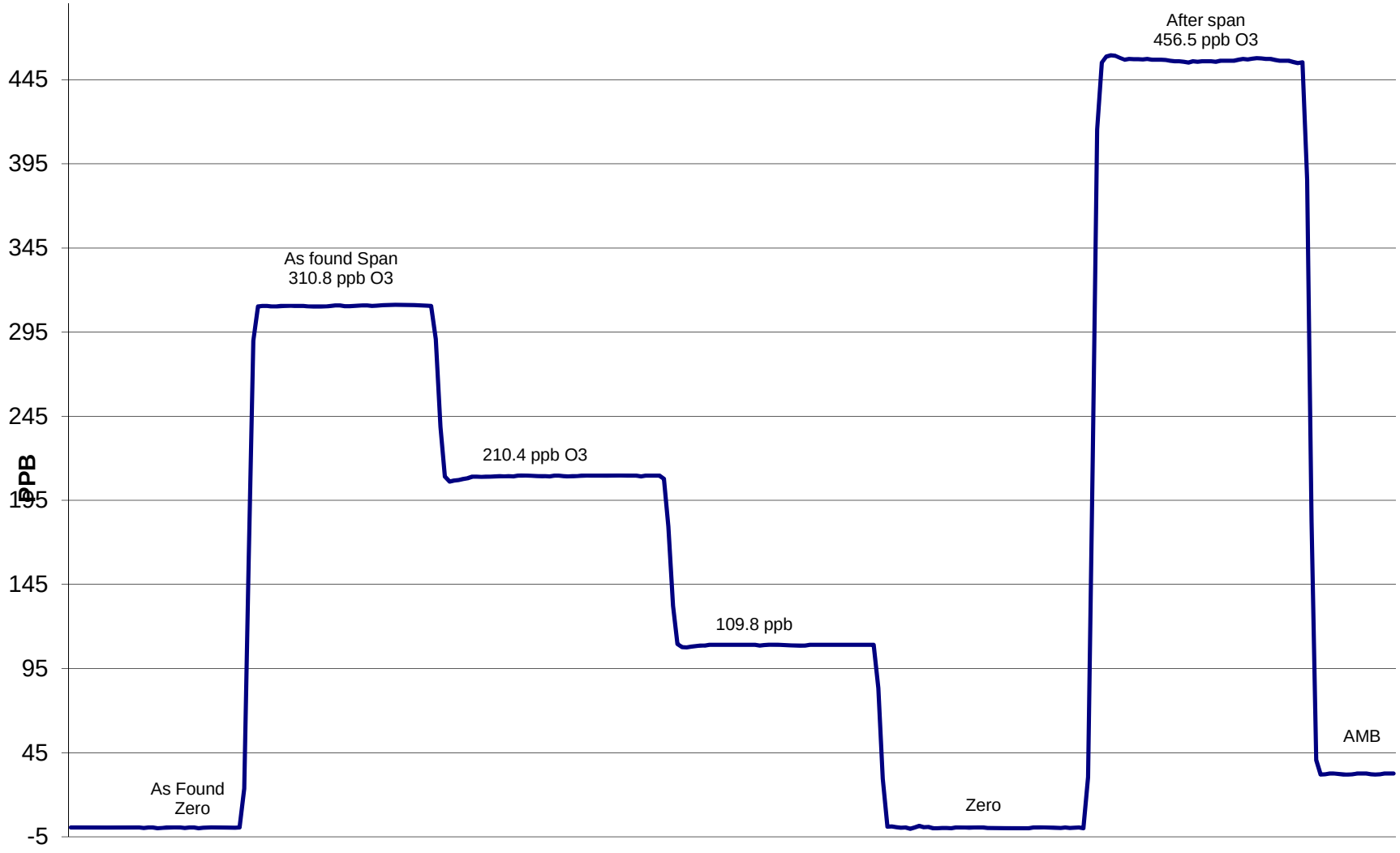
Calibration Date	April 1, 2015	Previous Calibration	March 2, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	11:30	End Time (MST)	13:15:00 AM
Analyzer make/model	Teco 49C	Analyzer serial #	607415761

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.5	NA		
310.8	310.7	1.0005	Correlation Coefficient	0.999982
210.4	209.6	1.0040		
109.8	109.0	1.0075	Slope	1.001861
			Intercept	0.045422



O3 Calibration



April 1, 2015

Calibration Report

Parameter **CO**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	April 2, 2015	Previous Calibration	March 3, 2015
Station Number	1	Station Location	Henry Pirker
Reason: Routine	Install	Removal	Other:
Start Time (MST)	11:10	End Time (MST)	14:20:00 PM
Barometric Pressure	713.0 mm/hg	Station Temperature	21.0 Deg C
Calibrator	Environics 6100	Serial Number	3016
Cal Gas Conc	2898 ppm	Cal Gas Expiry Date	04/02/2013
		Cal Gas Cylinder #	LL83909
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 5 volt	DACS channel #	9
	Before		After
Calculated slope	1.000921	Calculated slope	1.002720
Calculated intercept	-0.019430	Calculated intercept	-0.021592
Analyzer make	Model 48I-TLE	Analyzer serial #	1408761378

	before		after	
Concentration range	0 - 50	ppm	0 - 50	ppm
CO zero setting	0.449		1.112	
CO span setting	1.001		1.001	
Sample pressure	702.8	mm Hg	699.2	mm Hg
Sample Flow	0.459	LPM	0.457	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
4995	69.94	40.02	39.93	1.0022
4995	34.96	20.14	20.10	1.0020
4995	17.96	10.38	10.40	0.9987
4995	0.00	0.00	0.65	As Found Zero
4995	69.94	40.02	41.77	As Found Span
			Average Correction Factor	1.0010

Calculated value of As Found Response: 41.135 ppm Percent Change of As Found: -2.8%

	before calibration		after calibration	
Auto zero	0.01	ppm	0.03	ppm
Auto span	19.90	ppm	19.70	ppm

Notes: Zero adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **CO**

Air Monitoring Network **PAZA**

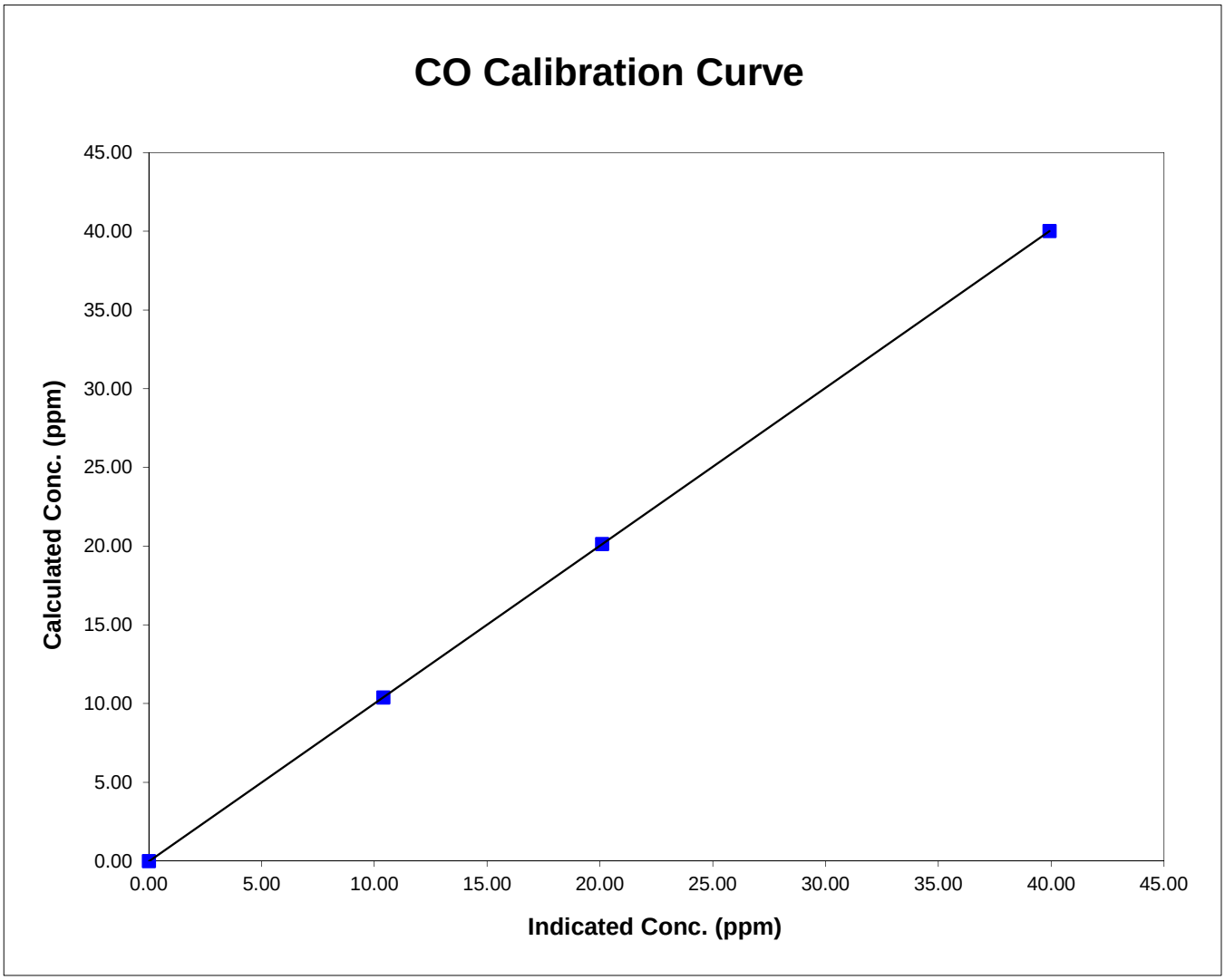
WSP AIR QUALITY MONITORING

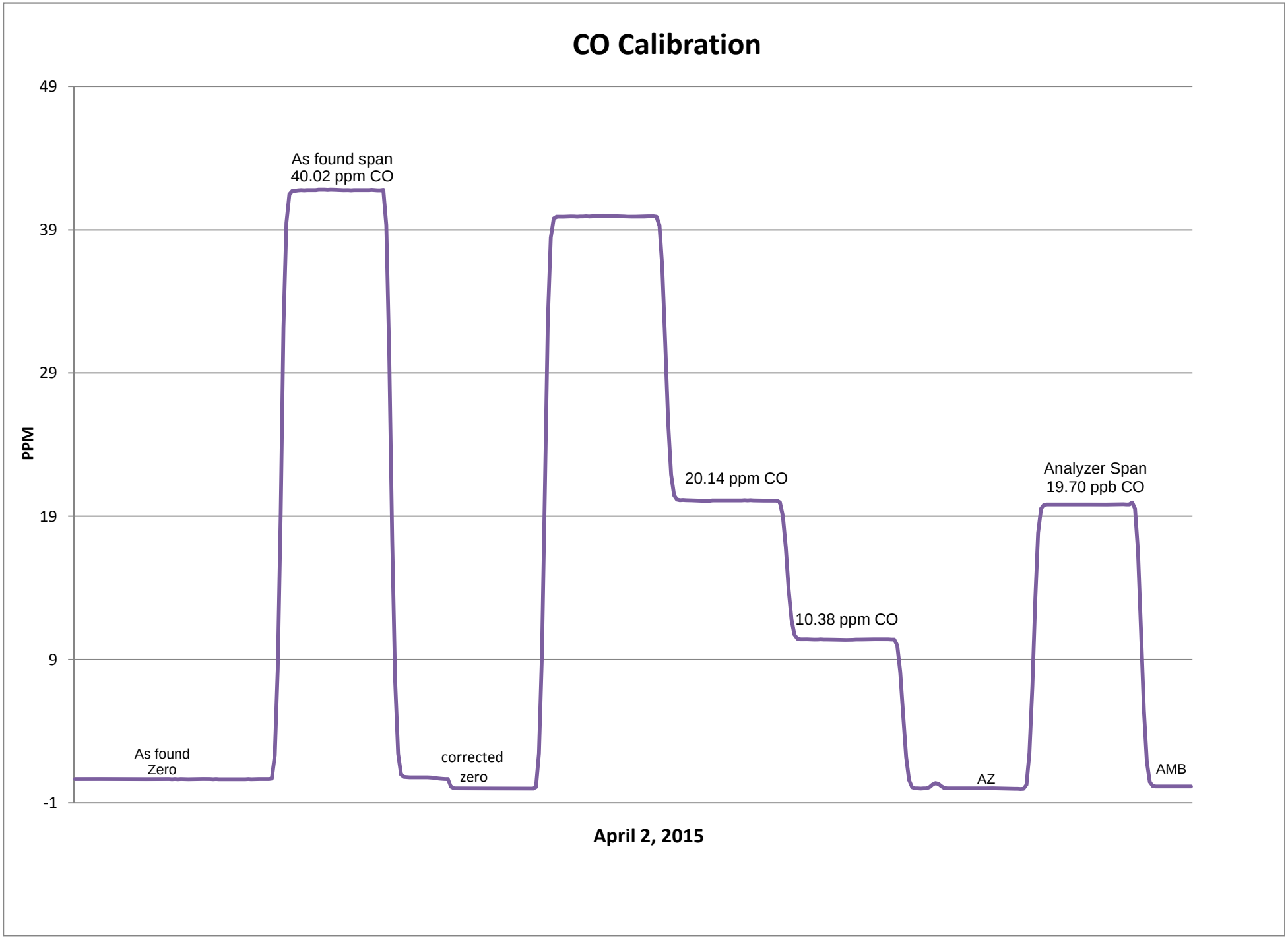
Station Information

Calibration Date	April 2, 2015	Previous Calibration	March 3, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	11:10	End Time (MST)	14:20:00 PM
Analyzer make/model	Model 48I-TLE	Analyzer serial #	1408761378

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.010	N/A		
40.017	39.929	1.0022	Correlation Coefficient	0.999999
20.142	20.101	1.0020		
10.383	10.397	0.9987	Slope	1.002720
			Intercept	-0.021592




CO Calibration
49
39
29
19
9
-1
PPM
As found span
40.02 ppm CO
20.14 ppm CO
10.38 ppm CO
Analyzer Span
19.70 ppb CO
As found
Zero
corrected
zero
AZ
AMB
April 2, 2015

Calibration Report

Parameter **CH4 / NMHC / THC**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	April 2, 2015	Previous Calibration	March 3, 2015
Station Number	1	Station Location	Henry Pirker
Reason: Routine	Install	Removal	Other:

Start Time (MST)	13:25:00 PM	End Time (MST)	15:45:00 PM
Barometric Pressure	713.00 mm/hg	Station Temperature	21.0 Deg C
Calibrator	Environics	Serial Number	3016
Cal Gas CH4 Conc	386 ppm CH4	Cal Gas Expiry Date	28/03/2014
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 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	5.78		5.78	E^{-4}
NMHC cal factor	1.93		1.93	E^{-4}
Rt	12.74	Sec	12.74	Sec
Pk Index	23.22		23.22	

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)
1996	0.00	0.00	0.02	N/A
1996	68.96	12.89	12.85	1.0030
1996	40.96	7.76	7.68	1.0113
1996	15.99	3.07	2.99	1.0272
1996	0.00	0.00	0.02	As Found Zero
1996	68.93	12.89	12.85	As Found Span
			Average Correction Factor	1.0138

Calculated value of As Found Response: 12.794 ppm Percent Change of As Found: 0.7%

	Before		After
Calculated slope	0.995807	Calculated slope	1.003250
Calculated intercept	0.015595	Calculated intercept	0.027501

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.03	ppm	0.03	ppm
Auto span	8.93	ppm	8.82	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)
1996	0.00	0.00	0.02	N/A
1996	68.96	19.01	19.22	0.9889
1996	40.96	11.45	11.73	0.9759
1996	15.99	4.52	4.69	0.9653
1996	0.00	0.00	0.02	As Found Zero
1996	68.93	19.00	19.22	As Found Span
			Average Correction Factor	0.9767

Calculated value of As Found Response: 18.836 ppm Percent Change of As Found: 0.9%

	Before		After
Calculated slope	0.984712	Calculated slope	0.989913
Calculated intercept	-0.074858	Calculated intercept	-0.079676

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.02	ppm	0.02	ppm
Auto span	12.75	ppm	12.54	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)
1996	0.00	0.00	0.03	N/A
1996	68.96	31.90	32.05	0.9952
1996	40.96	19.21	19.39	0.9907
1996	15.99	7.59	7.66	0.9910
1996	0.00	0.00	0.03	As Found Zero
1996	68.93	31.89	32.05	As Found Span
			Average Correction Factor	0.9923

Calculated value of As Found Response: 31.639 ppm Percent Change of As Found: 0.8%

	Before		After
Calculated slope	0.989761	Calculated slope	0.995767
Calculated intercept	-0.053429	Calculated intercept	-0.046063

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.02	ppm	0.02	ppm
Auto span	21.68	ppm	21.36	ppm

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **CH4**

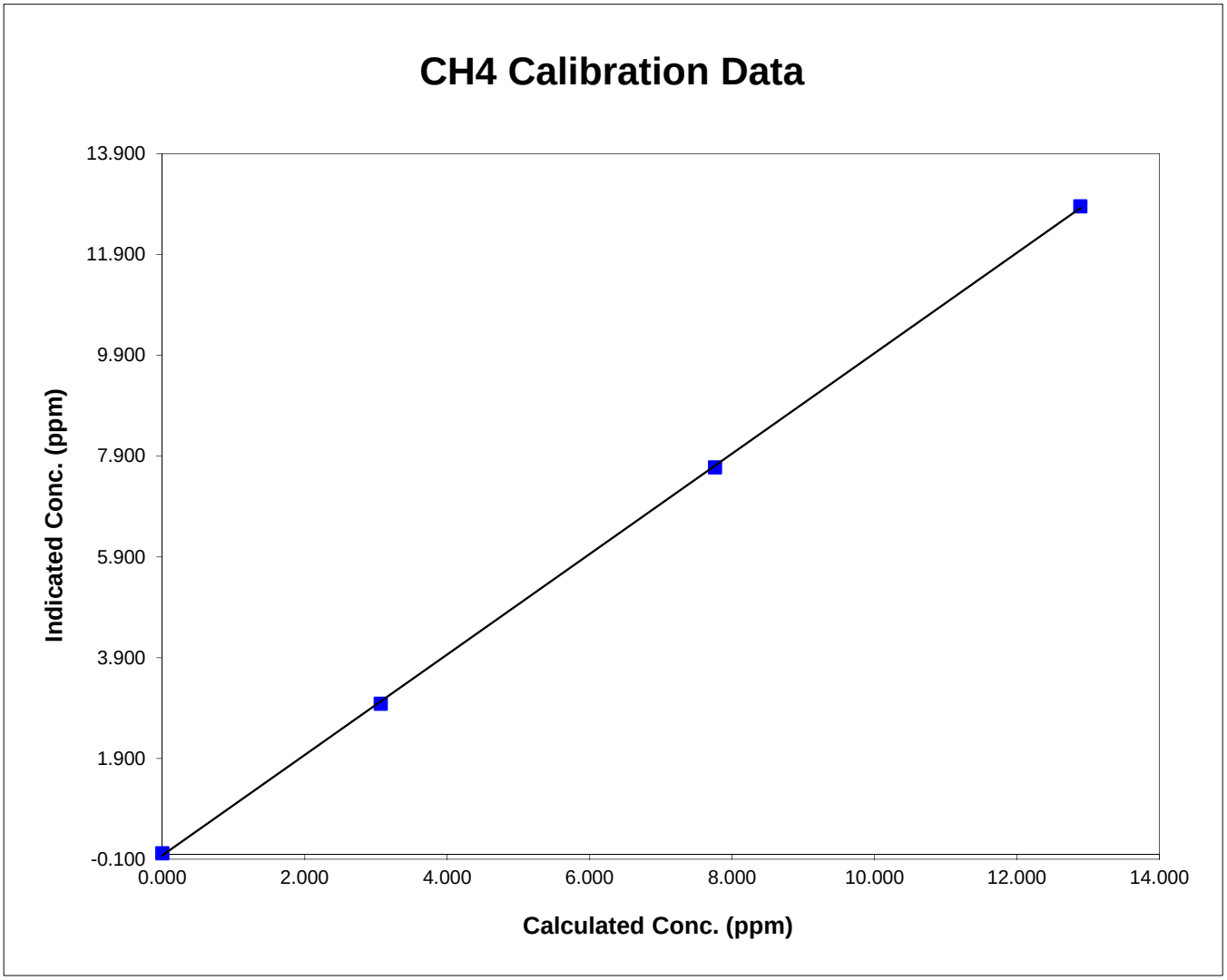
Air Monitoring Network **PAZA**

Station Information

Calibration Date	April 2, 2015	Previous Calibration	March 3, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	13:25:00 PM	End Time (MST)	15:45:00 PM
Analyzer make/model	TEI 55I	Analyzer serial #	1134650658

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.020	N/A		
12.891	12.852	1.0030	Correlation Coefficient	0.999934
7.762	7.675	1.0113		
3.068	2.987	1.0272	Slope	1.003250
			Intercept	0.027501



Calibration Summary

Parameter **NMHC**

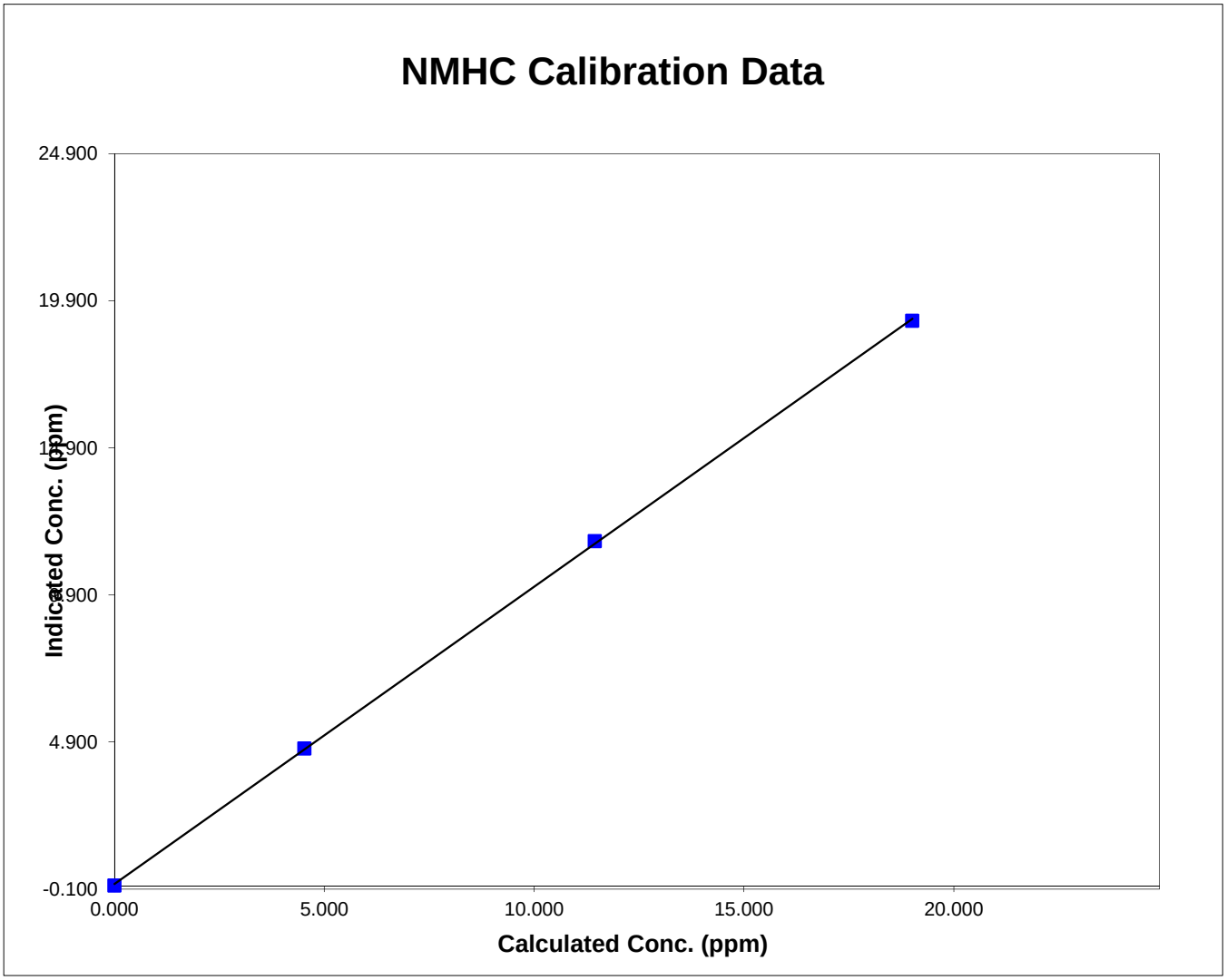
Air Monitoring Network **PAZA**

Station Information

Calibration Date	April 2, 2015	Previous Calibration	March 3, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	13:25:00 PM	End Time (MST)	15:45:00 PM
Analyzer make/model	TEI 55I	Analyzer serial #	1134650658

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.020	N/A		
19.010	19.224	0.9889	Correlation Coefficient	0.999925
11.447	11.729	0.9759		
4.524	4.687	0.9653	Slope	0.989913
			Intercept	-0.079676



Calibration Summary

Parameter **THC**

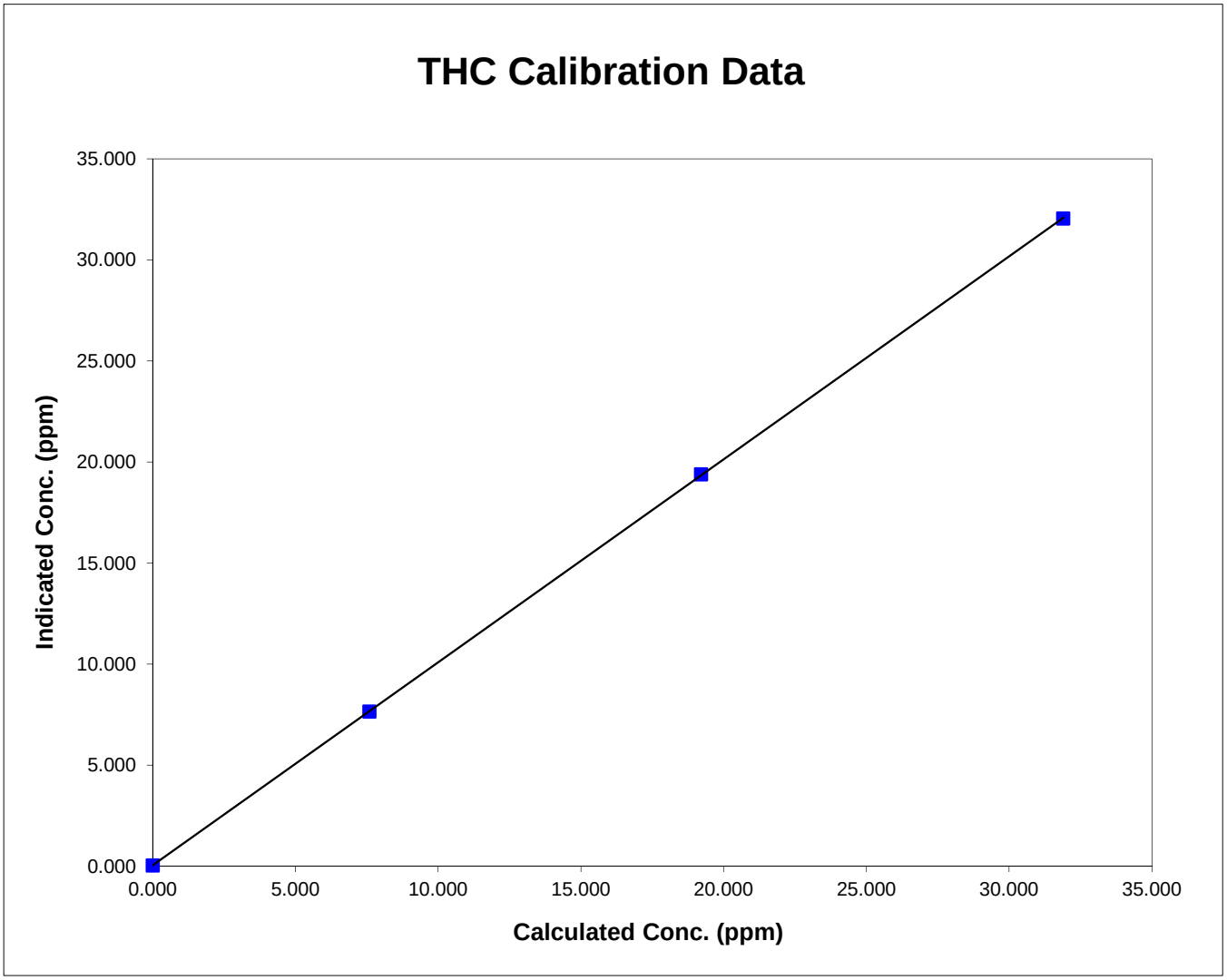
Air Monitoring Network **PAZA**

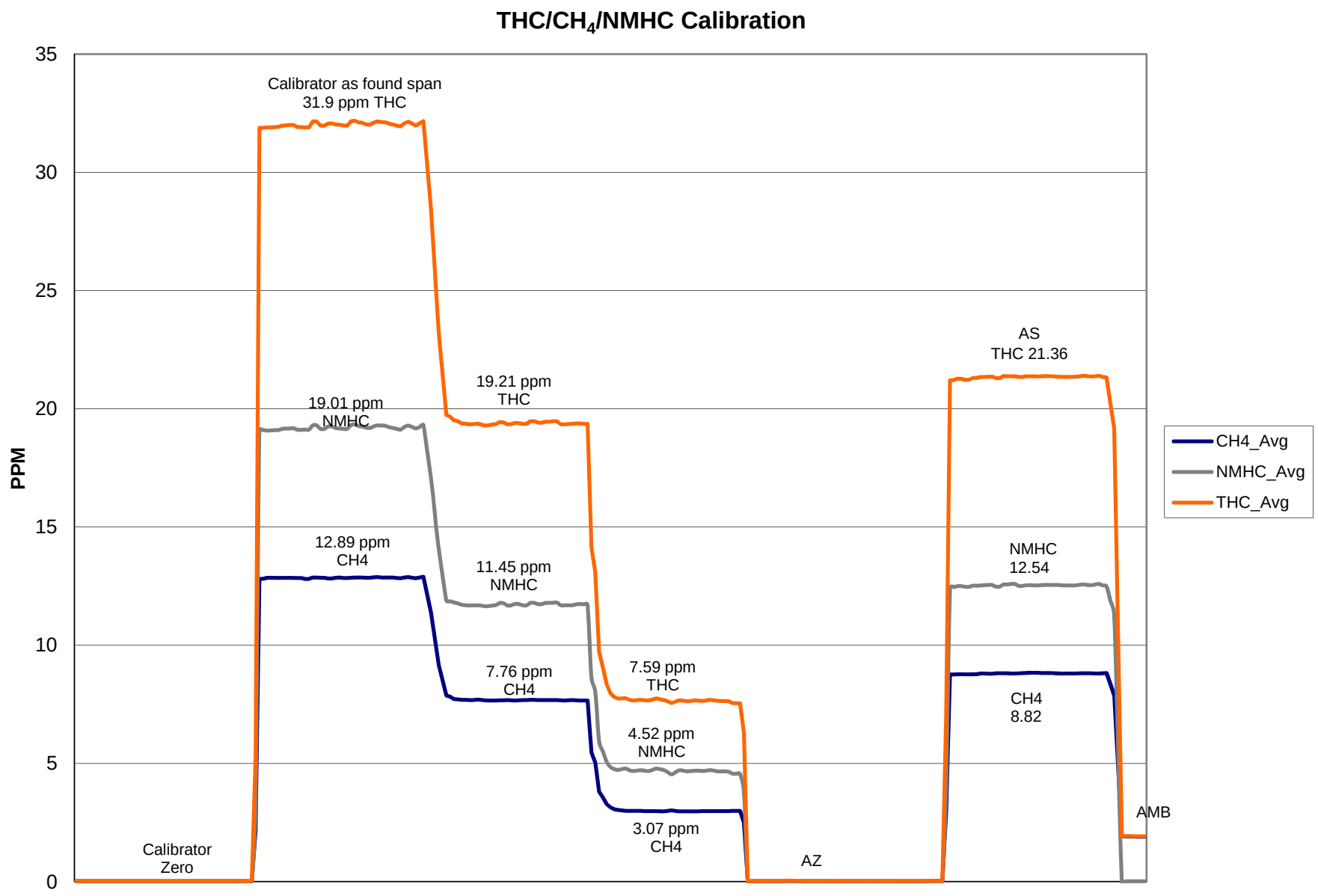
Station Information

Calibration Date	April 2, 2015	Previous Calibration	March 3, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	13:25:00 PM	End Time (MST)	15:45:00 PM
Analyzer make/model	TEI 55I	Analyzer serial #	1134650658

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.033	N/A		
31.901	32.054	0.9952	Correlation Coefficient	0.999994
19.209	19.388	0.9907		
7.592	7.661	0.9910	Slope	0.995767
			Intercept	-0.046063




THC/CH4/NMHC Calibration
PPM
35
30
25
20
15
10
5
0
Calibrator as found span
31.9 ppm THC
19.01 ppm
NMHC
19.21 ppm
THC
12.89 ppm
CH4
11.45 ppm
NMHC
7.76 ppm
CH4
7.59 ppm
THC
4.52 ppm
NMHC
3.07 ppm
CH4
Calibrator
Zero
AZ
AS
THC 21.36
NMHC
12.54
CH4
8.82
AMB
CH4_Avg
NMHC_Avg
THC_Avg

Calibration Report

Parameter **CH4 / NMHC / THC**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	April 17, 2015	Previous Calibration	April 2, 2015
Station Number	1	Station Location	Henry Pirker

Reason: Routine | Install | Removal | Other:

Start Time (MST)	7:50	End Time (MST)	11:25
Barometric Pressure	713.00 mm/hg	Station Temperature	21.0 Deg C
Calibrator	Environics	Serial Number	3016
Cal Gas CH4 Conc	386 ppm CH4	Cal Gas Expiry Date	28/03/2014
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 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	5.78		5.78	E^{-4}
NMHC cal factor	1.93		1.93	E^{-4}
Rt	12.74	Sec	12.74	Sec
Pk Index	23.22		23.22	

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)
1996	0.00	0.00	0.02	N/A
1996	68.96	12.89	12.79	1.0075
1996	40.96	7.76	7.64	1.0156
1996	15.99	3.07	2.97	1.0315
1996	0.00	0.00	0.02	As Found Zero
1996	68.93	12.89	12.75	As Found Span
			Average Correction Factor	1.0182

Calculated value of As Found Response: 12.799 ppm Percent Change of As Found: 0.7%

	Before		After
Calculated slope	1.003250	Calculated slope	1.007696
Calculated intercept	0.027501	Calculated intercept	0.027217

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.03	ppm	0.03	ppm
Auto span	8.82	ppm	8.72	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)
1996	0.00	0.00	0.02	N/A
1996	68.96	19.01	19.16	0.9920
1996	40.96	11.45	11.73	0.9758
1996	15.99	4.52	4.68	0.9671
1996	0.00	0.00	0.02	As Found Zero
1996	68.93	19.00	18.01	As Found Span
			Average Correction Factor	0.9783

Calculated value of As Found Response: 17.730 ppm Percent Change of As Found: 6.7%

	Before		After
Calculated slope	0.989913	Calculated slope	0.992615
Calculated intercept	-0.079676	Calculated intercept	-0.086811

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.02	ppm	0.02	ppm
Auto span	12.54	ppm	12.44	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)
1996	0.00	0.00	0.03	N/A
1996	68.96	31.90	31.93	0.9989
1996	40.96	19.21	19.35	0.9926
1996	15.99	7.59	7.64	0.9938
1996	0.00	0.00	0.03	As Found Zero
1996	68.93	31.89	30.74	As Found Span
			Average Correction Factor	0.9951

Calculated value of As Found Response: 30.525 ppm Percent Change of As Found: 4.3%

	Before		After
Calculated slope	0.995767	Calculated slope	0.999263
Calculated intercept	-0.046063	Calculated intercept	-0.053339

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.02	ppm	0.02	ppm
Auto span	21.36	ppm	21.16	ppm

Notes: Hydrogen cylinder replaced.
No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **CH4**

Air Monitoring Network **PAZA**

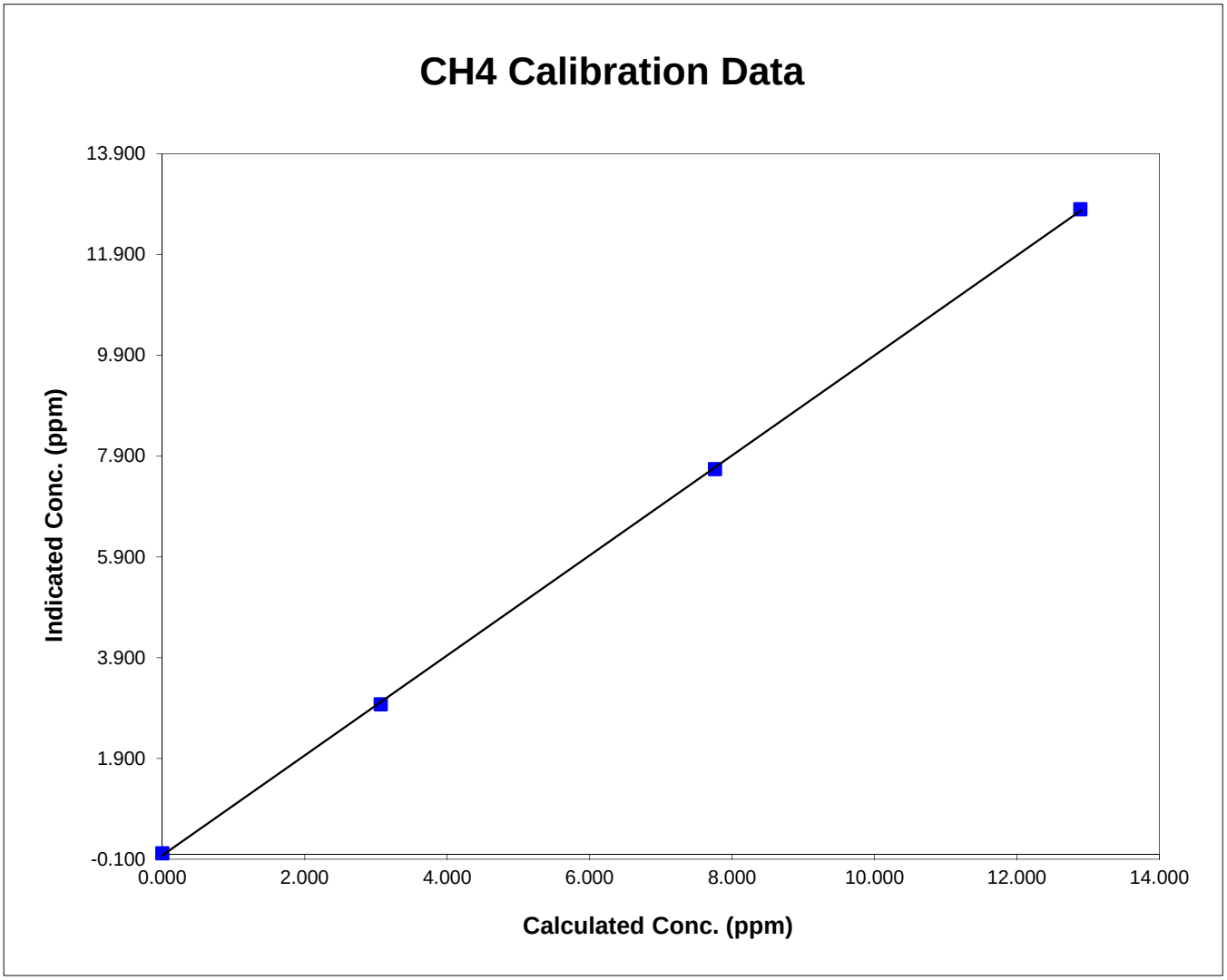
WSP AIR QUALITY MONITORING

Station Information

Calibration Date	April 17, 2015	Previous Calibration	April 2, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	7:50	End Time (MST)	11:25
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		
12.891	12.795	1.0075	Correlation Coefficient	0.999937
7.762	7.643	1.0156		
3.068	2.974	1.0315	Slope	1.007696
			Intercept	0.027217



Calibration Summary

Parameter **NMHC**

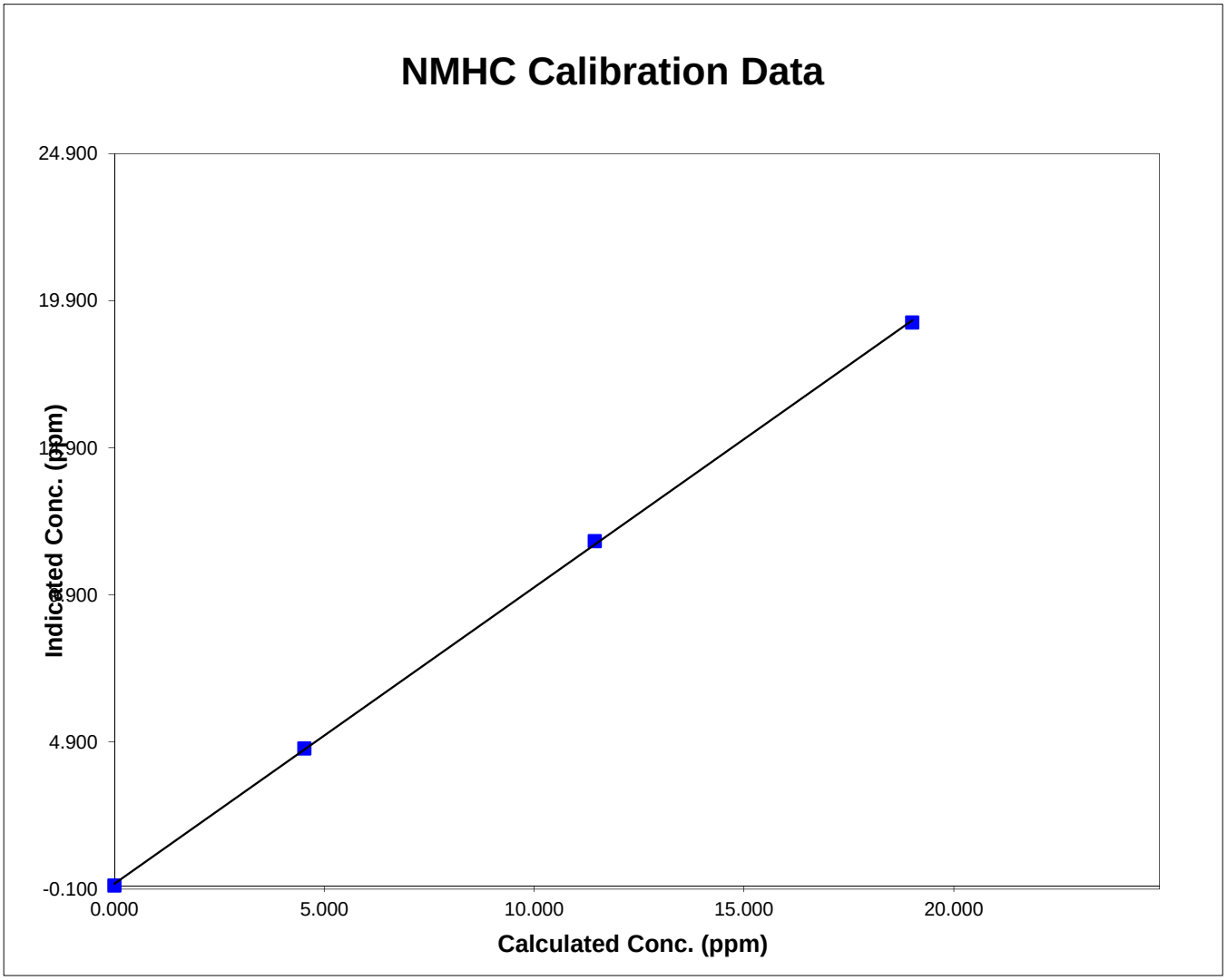
Air Monitoring Network **PAZA**

Station Information

Calibration Date	April 17, 2015	Previous Calibration	April 2, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	7:50	End Time (MST)	11:25
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		
19.010	19.163	0.9920	Correlation Coefficient	0.999887
11.447	11.730	0.9758		
4.524	4.678	0.9671	Slope	0.992615
			Intercept	-0.086811



Calibration Summary

Parameter **THC**

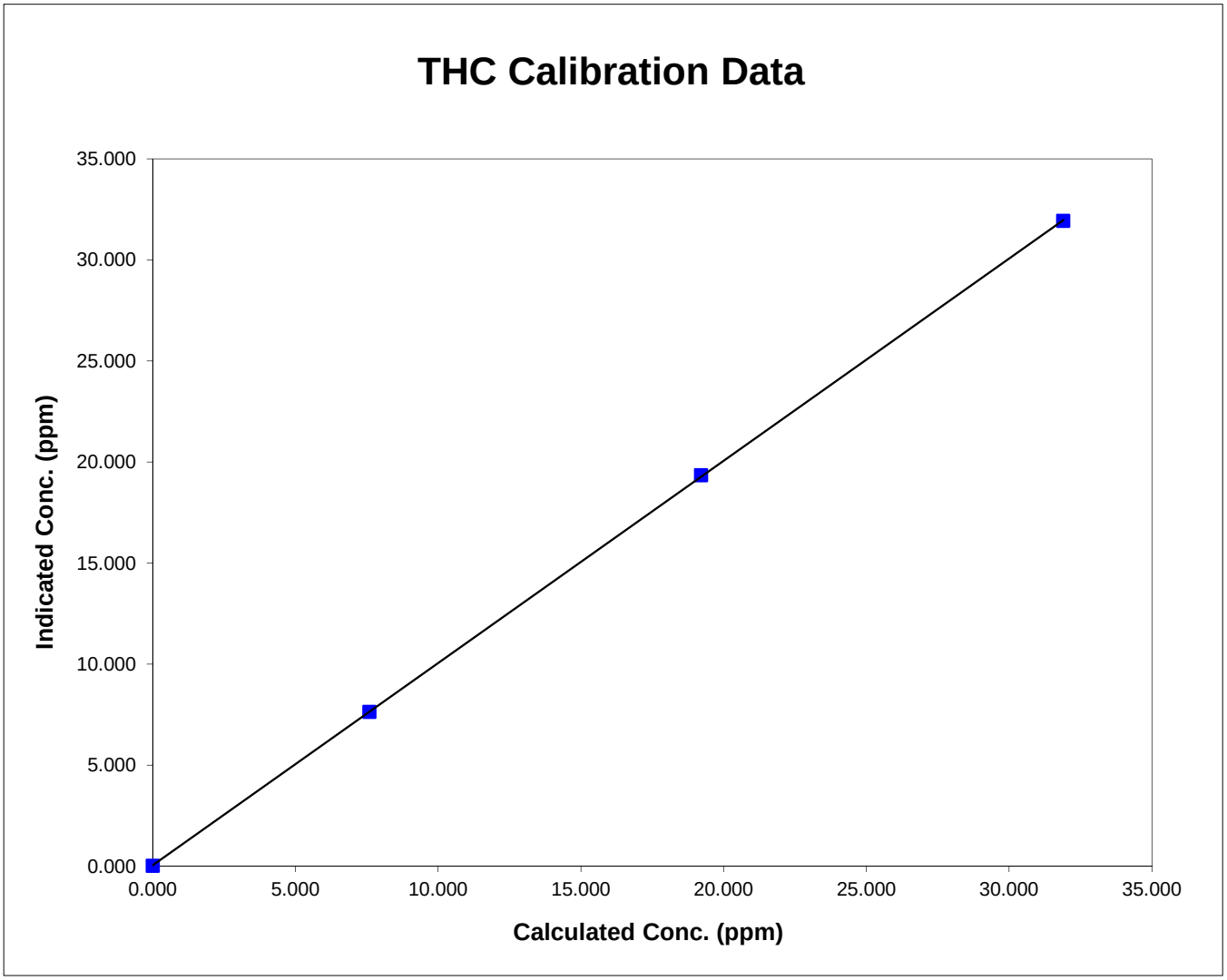
Air Monitoring Network **PAZA**

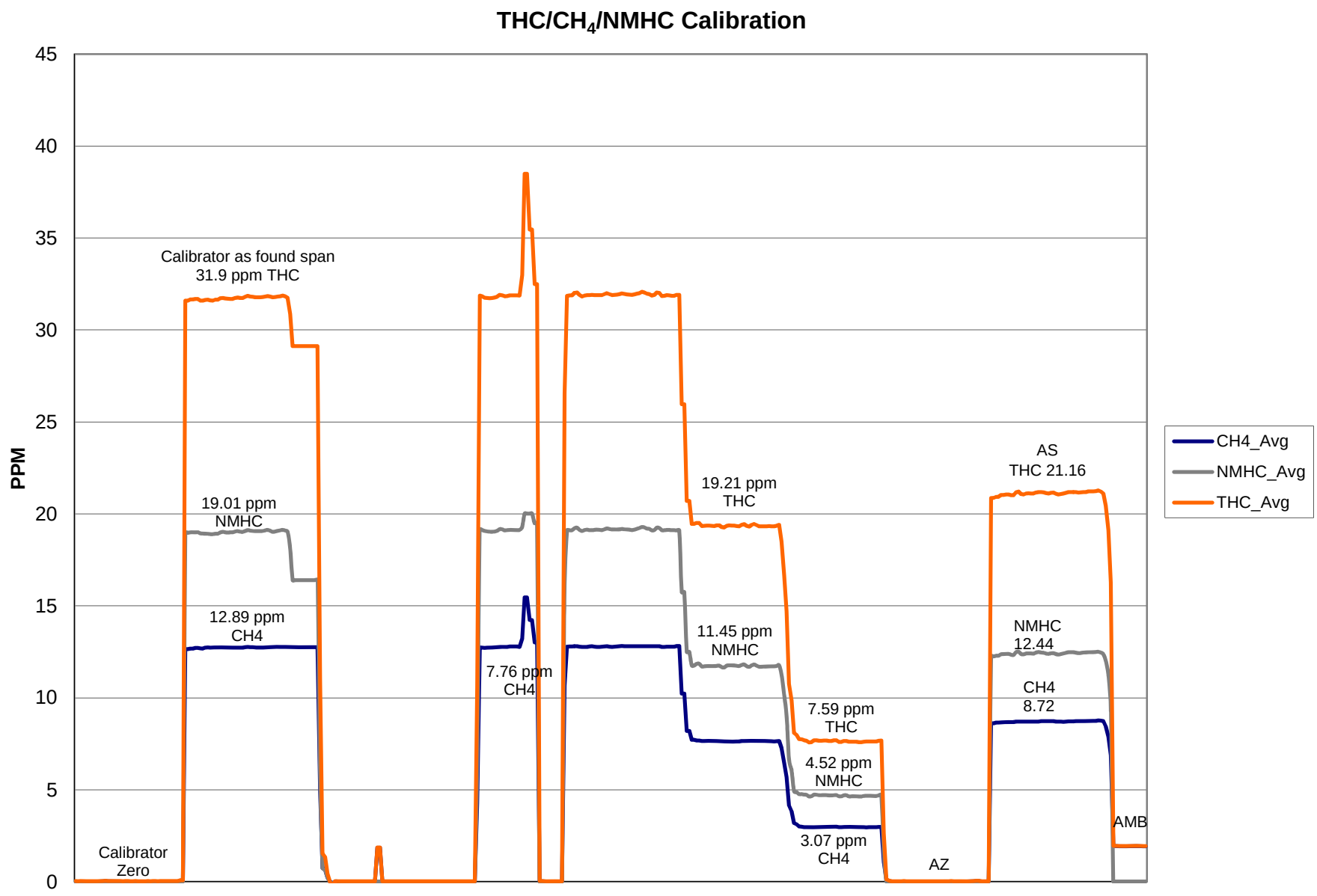
Station Information

Calibration Date	April 17, 2015	Previous Calibration	April 2, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	7:50	End Time (MST)	11:25
Analyzer make/model	TEI 55I	Analyzer serial #	1134650658

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.032	N/A		
31.901	31.935	0.9989	Correlation Coefficient	0.999986
19.209	19.352	0.9926		
7.592	7.639	0.9938	Slope	0.999263
			Intercept	-0.053339




THC/CH4/NMHC Calibration
PPM
45
40
35
30
25
20
15
10
5
0
Calibrator as found span
31.9 ppm THC
19.01 ppm
NMHC
12.89 ppm
CH4
Calibrator
Zero
7.76 ppm
CH4
19.21 ppm
THC
11.45 ppm
NMHC
7.59 ppm
THC
4.52 ppm
NMHC
3.07 ppm
CH4
AZ
AS
THC 21.16
NMHC
12.44
CH4
8.72
AMB
CH4_Avg
NMHC_Avg
THC_Avg

Calibration Report

Parameter **TRS**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	April 2, 2015	Previous Calibration	March 3, 2015
Station Number	1	Station Location	Henry Pirker
Reason: Routine	Install	Removal	Other:
Start Time (MST)	7:40	End Time (MST)	12:20
Barometric Pressure	713.00 mm/Hg	Station Temperature	21.0 Deg C
Calibrator	Environics 6100	Serial Number	3016
Cal Gas Conc	10.32 ppb	Cal Gas Expiry Date	08/07/2016
		Cal Gas Cylinder #	LL110781
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 1 volt	DACS channel #	9
	Before		After
Calculated slope	1.028653	Calculated slope	0.996968
Calculated intercept	-0.142053	Calculated intercept	0.132449
Analyzer make	TEI 45C	Analyzer serial #	630718528

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Coefficient	0.950		0.969	
Background	16.9		17.3	
Pressure	662.2	mm Hg	659.9	mm Hg
Flow	0.451	ccm	0.45	ccm
Lamp Voltage	886	V	886	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)
4995	0.00	0.00	0.13	N/A
4995	39.93	81.84	82.08	0.9971
4995	19.95	41.05	40.87	1.0046
6995	9.95	14.66	14.36	1.0207
4995	0.00	0.00	0.08	As Found Zero
4995	39.93	81.84	78.38	As Found Span
			Average Correction Factor	1.0074

Calculated value of As Found Response: 80.4 ppb Percent Change of As Found: 1.8%

	before calibration		after calibration	
Auto zero	0.22	ppb	0.17	ppb
Auto span	33.50	ppb	34.15	ppb

Notes: Leak check was performed
Span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **TRS**

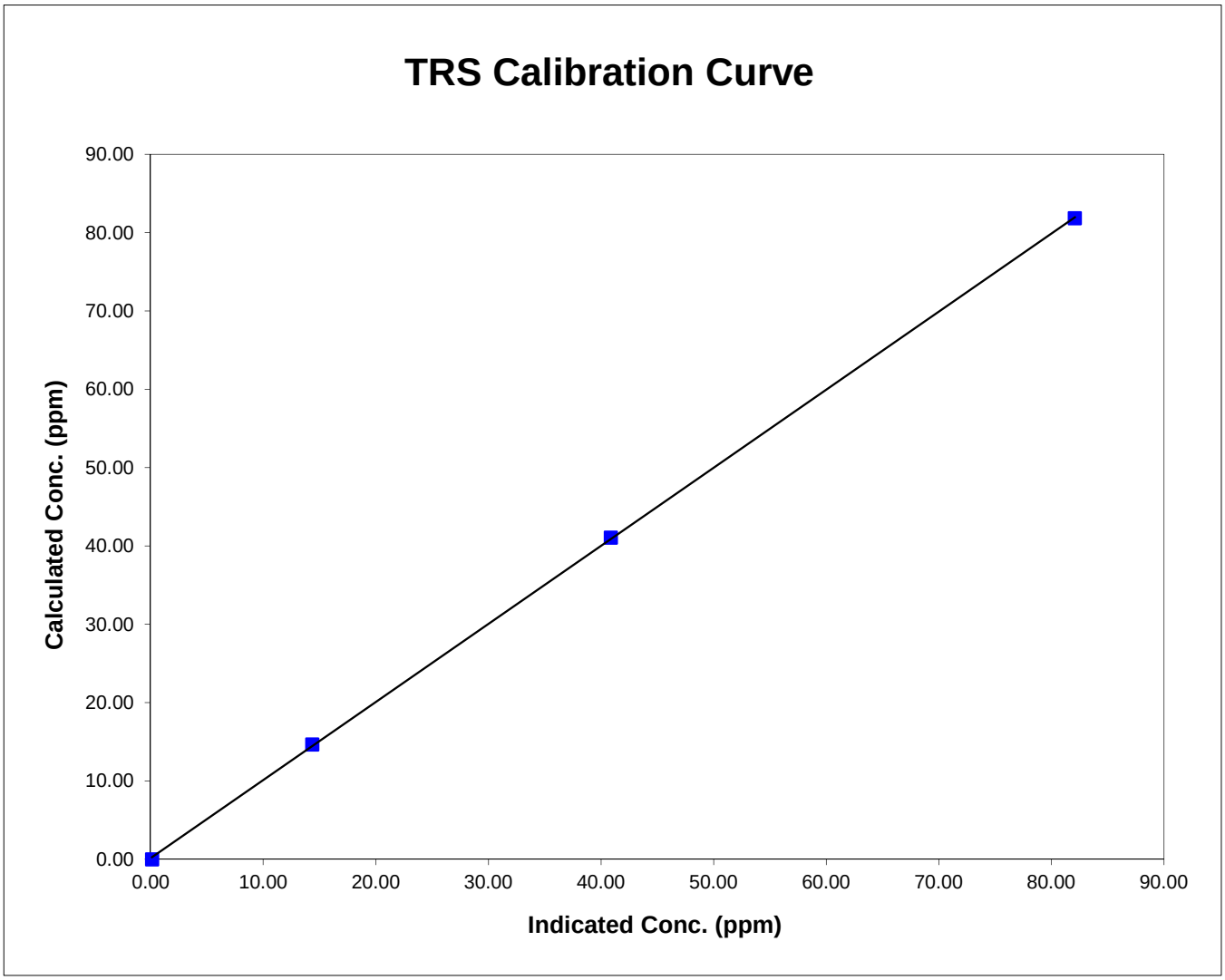
Air Monitoring Network **PAZA**

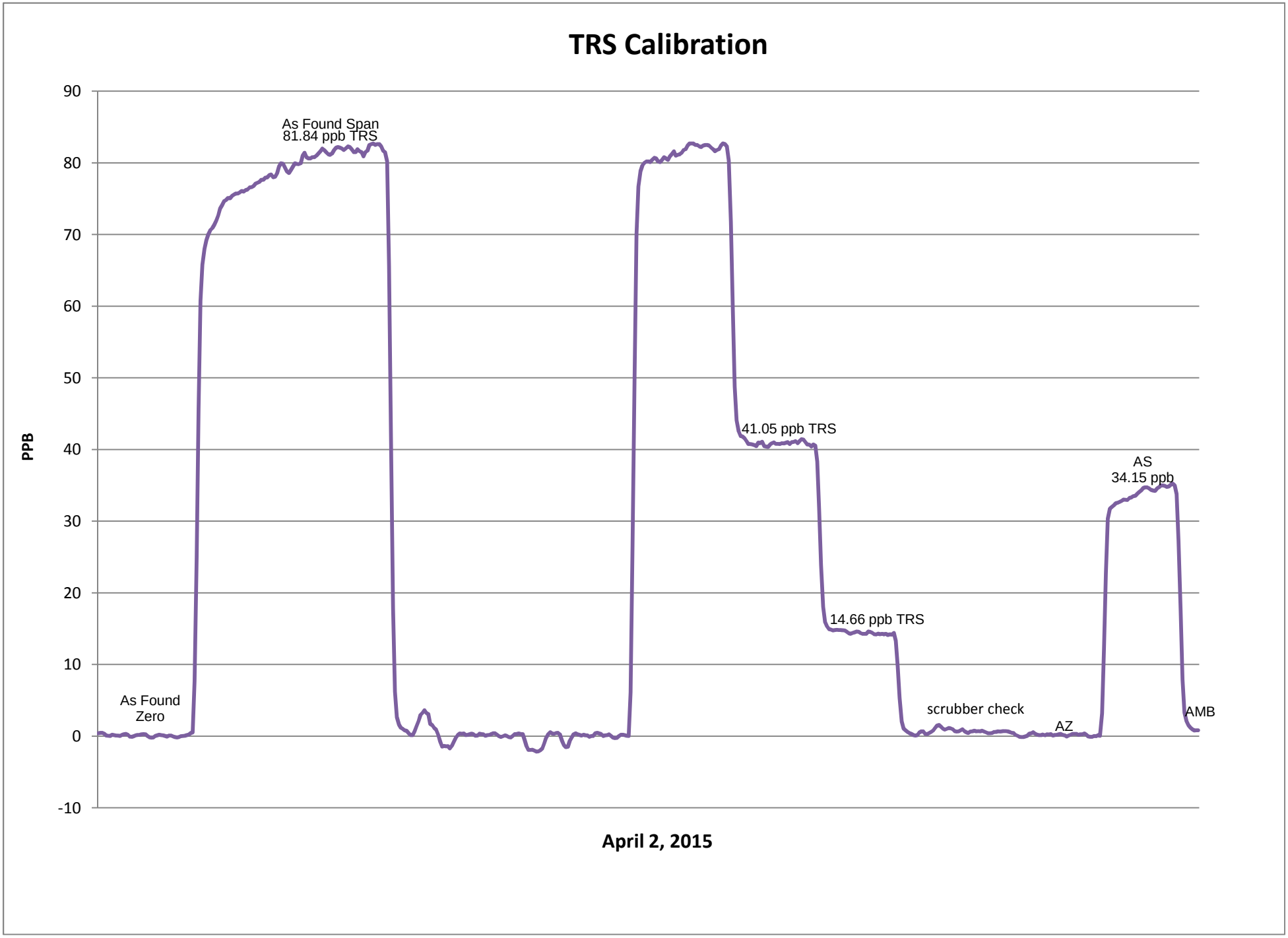
Station Information

Calibration Date	April 2, 2015	Previous Calibration	March 3, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	7:40	End Time (MST)	12:20
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	0.129	N/A		
81.844	82.085	0.9971	Correlation Coefficient	0.999959
41.054	40.868	1.0046		
14.659	14.362	1.0207	Slope	0.996968
			Intercept	0.132449




TRS Calibration
PPB
90
80
70
60
50
40
30
20
10
0
-10
As Found Span
81.84 ppb TRS
41.05 ppb TRS
14.66 ppb TRS
AS
34.15 ppb
As Found
Zero
scrubber check
AZ
AMB
April 2, 2015

Calibration Report

Parameter **SO_2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	April 7 2015	Previous Calibration	March 10 2015
Station Number	2	Station Location	Evergreen Park
Reason: Routine	Install	Removal	Other:
Start Time (MST)	10:55	End Time (MST)	13:10:00 PM
Barometric Pressure	0.920 ATM	Station Temperature	22.0 Deg C
Calibrator	Environics	Serial Number	3016
Cal Gas Concentration	49.8 ppm	Cal Gas Expiry Date	25/02/2025
Correction factor	0.031061	Cal Gas Cylinder #	LL105159
DACS make	CR3000	DACS serial No.	5236
DACS voltage range	0 - 5 volt	DACS channel #	6
	Before		After
Calculated slope	0.986251	Calculated slope	0.983525
Calculated intercept	1.970264	Calculated intercept	1.927359
Analyzer make	Teco 43i	Analyzer serial #	701120008

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	11.6		11.7	
coefficient	1.24		1.24	
Lamp Voltage	831	volts	830	volts
Chamber Temp	44.9	Deg C	45	Deg C
Perm Gas Temp	44.99	Deg C	45	Deg C
Pressure	665.9	mm Hg	666	mm Hg
Sample Flow	0.451	ccm	0.452	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)
4995	0.0	0.00	0.1	N/A
4995	39.93	394.9	400.6	0.9858
4995	19.97	198.3	198.5	0.9989
4995	9.95	99.0	96.7	1.0236
4995	0.0	0.0	0.1	As Found Zero
4995	39.93	394.9	400.6	As Found Span
			Average Correction Factor	1.0027

Calculated value of As Found Response: 396.989 ppm Percent Change of As Found: -0.5%

	before calibration		after calibration	
Auto zero	0.3	ppm	0.3	ppm
Auto span	258.9	ppm	260.4	ppm

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii,Grover Christiansen

Calibration Summary

Parameter **SO2**

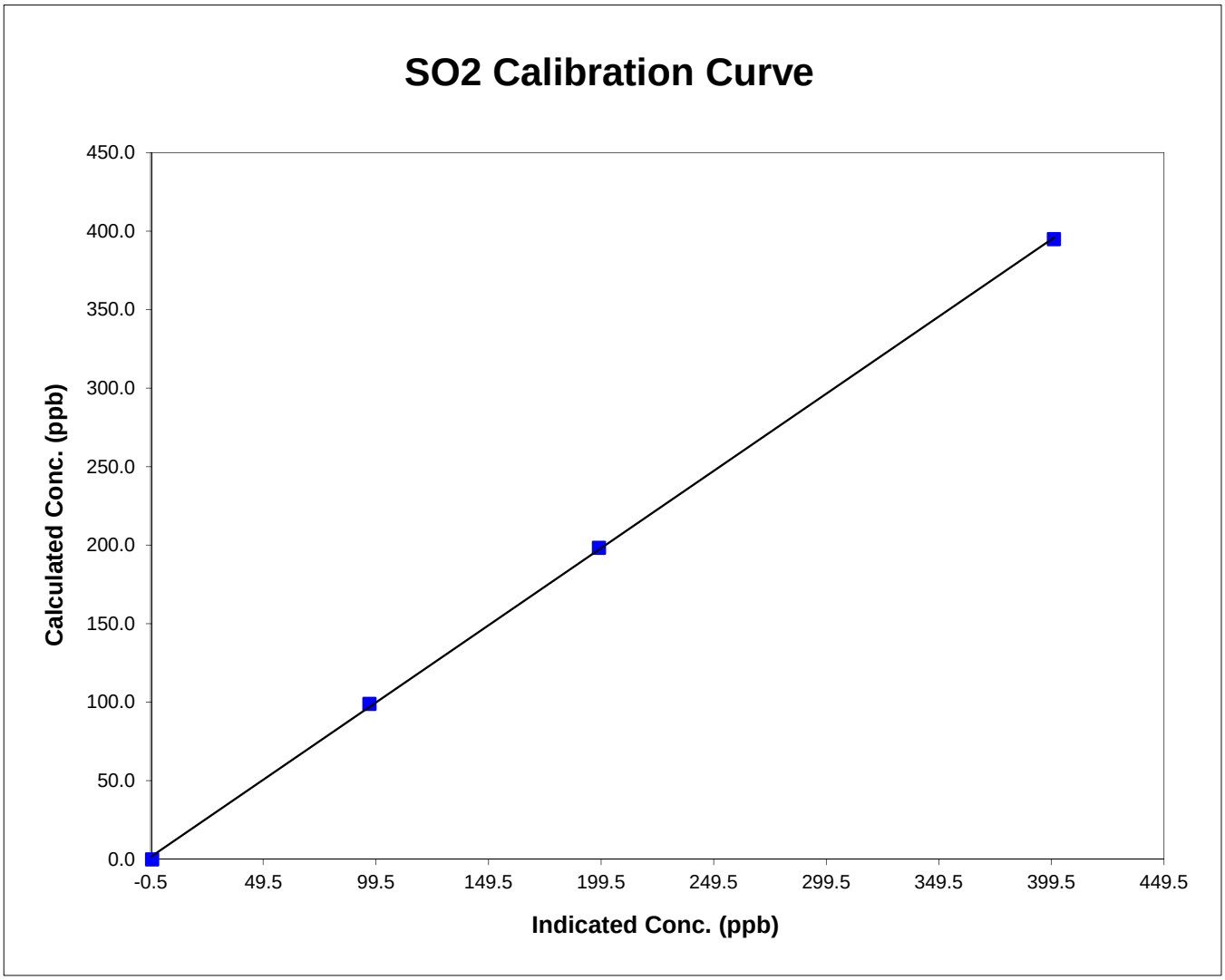
Air Monitoring Network **PAZA**

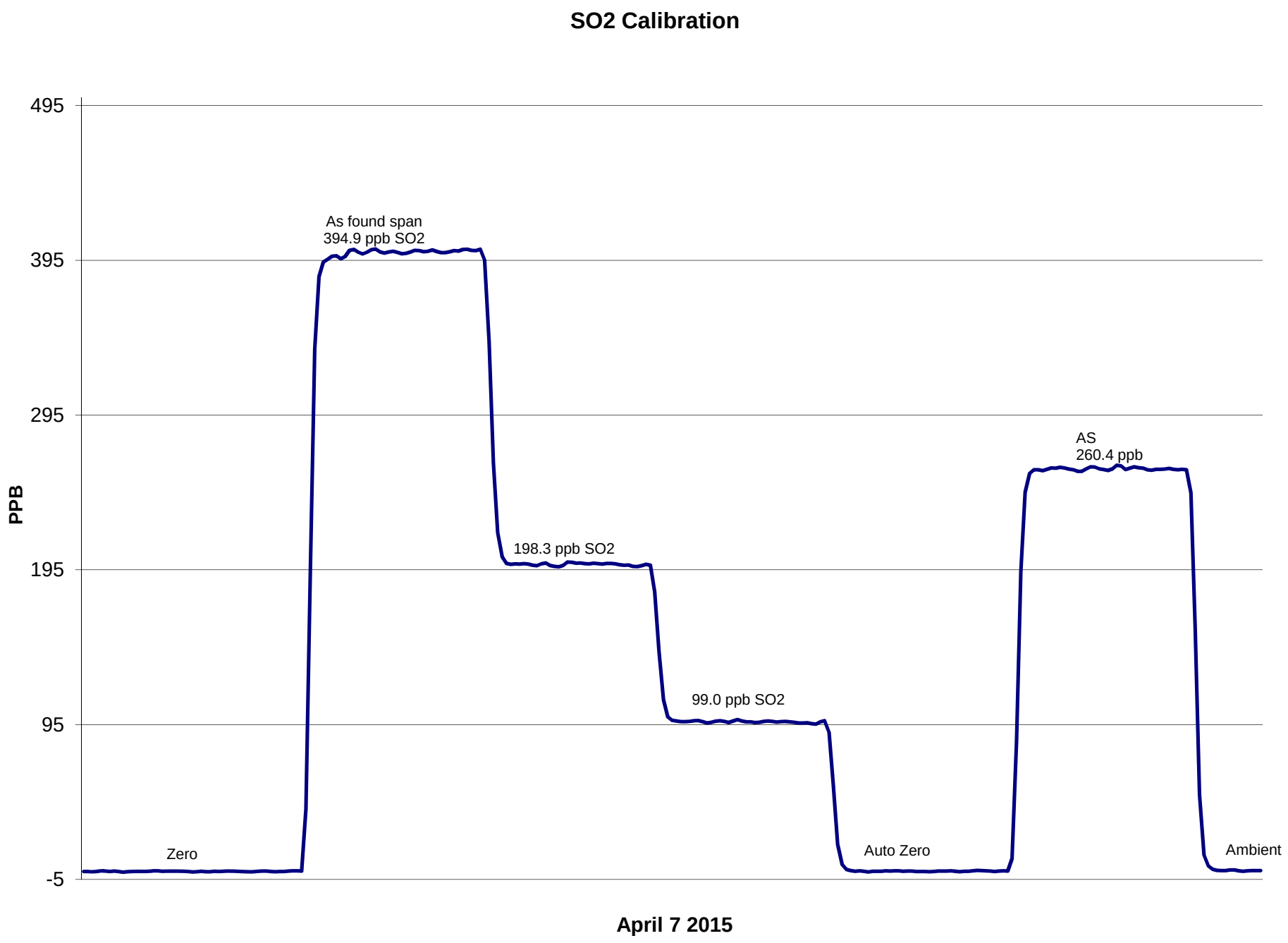
Station Information

Calibration Date	April 7 2015	Previous Calibration	March 10 2015
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	10:55	End Time (MST)	13:10:00 PM
Analyzer make/model	Teco 43i	Analyzer serial #	701120008

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A		
394.9	400.6	0.9858	Correlation Coefficient	0.999880
198.3	198.5	0.9989		
99.0	96.7	1.0236	Slope	0.983525
			Intercept	1.927359




SO2 Calibration
495
395
295
195
95
-5
PPB
As found span
394.9 ppb SO2
198.3 ppb SO2
99.0 ppb SO2
AS
260.4 ppb
Zero
Auto Zero
Ambient
April 7 2015

Calibration Report

Parameter **TRS**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	April 7 2015	Previous Calibration	March 10 2015
Station Number	2	Station Location	Evergreen Park
Reason:	Routine / Install	Removal	Other:
Start Time (MST)	9:10	End Time (MST)	12:05
Barometric Pressure	0.920 ATM	Station Temperature	22.0 Deg C
Calibrator	Environics	Serial Number	3016
Cal Gas Conc	10.32 ppm	Cal Gas Expiry Date	08/07/2016
Correction factor	0.031061	Cal Gas Cylinder #	LL110781
DACS make	CR3000	DACS serial No.	5236
DACS voltage range	0 - 5 volt	DACS channel #	5
	Before		After
Calculated slope	1.006731	Calculated slope	0.993447
Calculated intercept	-0.141502	Calculated intercept	-0.245373
Analyzer make	TEI Model 43C	Analyzer serial #	3.199E+13

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	41	ppb	41	ppb
coefficient	0.989		0.989	
Lamp Voltage	1057	volts	1058	volts
Chamber Temp	44.5	Deg C	44.4	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	637.2	mm Hg	636.3	mm Hg
Sample Flow	0.617	ccm	0.624	ccm
Lamp Intensity	31,160	mv	31,422	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	0.6	N/A
4995	39.93	81.84	82.8	0.9882
4995	19.97	41.10	41.3	0.9950
6995	9.97	14.69	14.8	0.9896
4995	9.97		1.4	Sox Test
4995	0.00	0.00	0.5	As Found Zero
4995	39.93	81.84	82.8	As Found Span
			Average Correction Factor	0.9909

Calculated value of As Found Response: 82.68 ppm Percent Change of As Found: -1.0%

	before calibration		after calibration	
Auto zero	0.6	ppm	0.6	ppm
Auto span	72.7	ppm	74.1	ppm

Notes: No adjustment made

Calibration Performed By: Dmyrtro Dolotii,Grover Christiansen

Calibration Summary

Parameter **TRS**

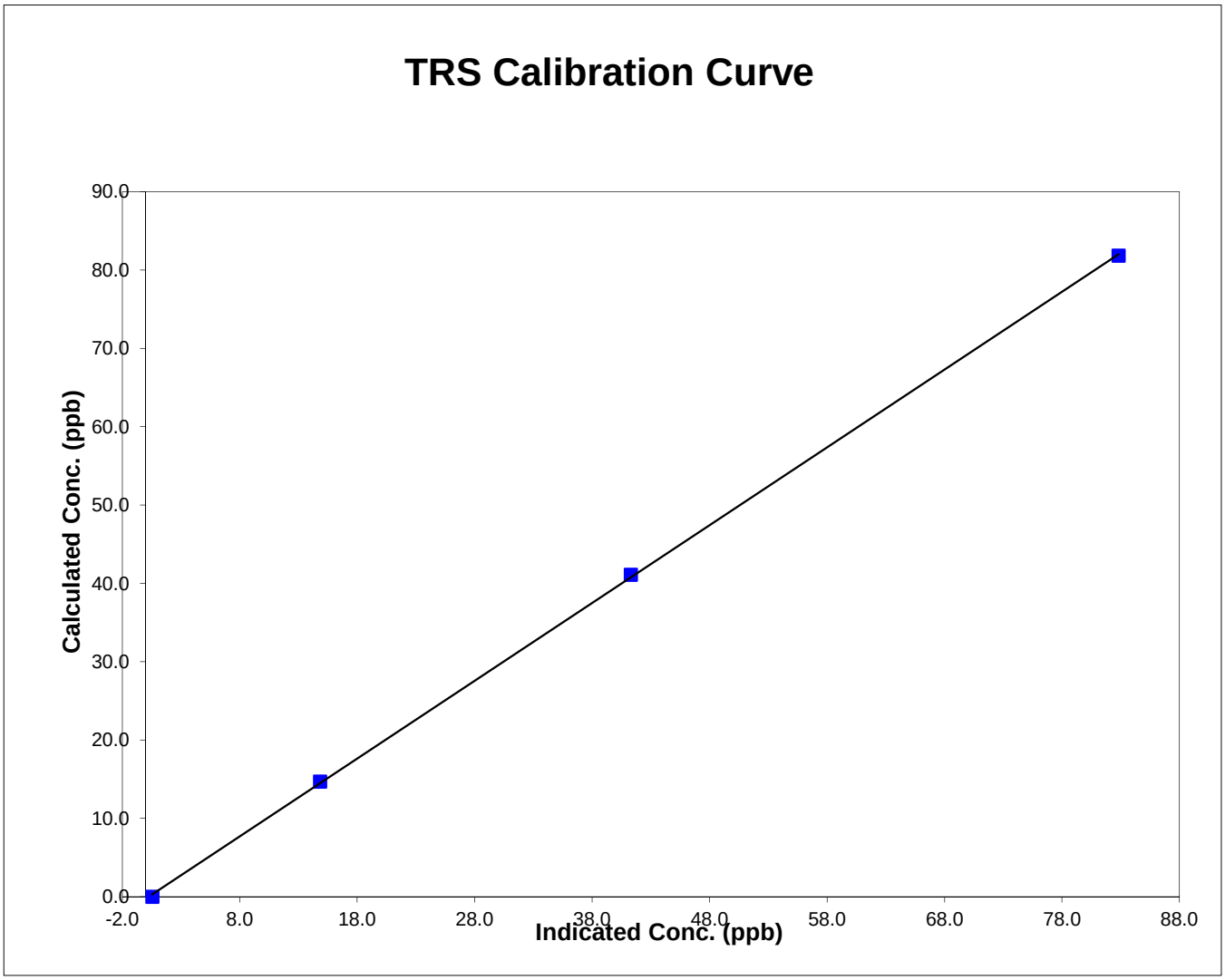
Air Monitoring Network **PAZA**

Station Information

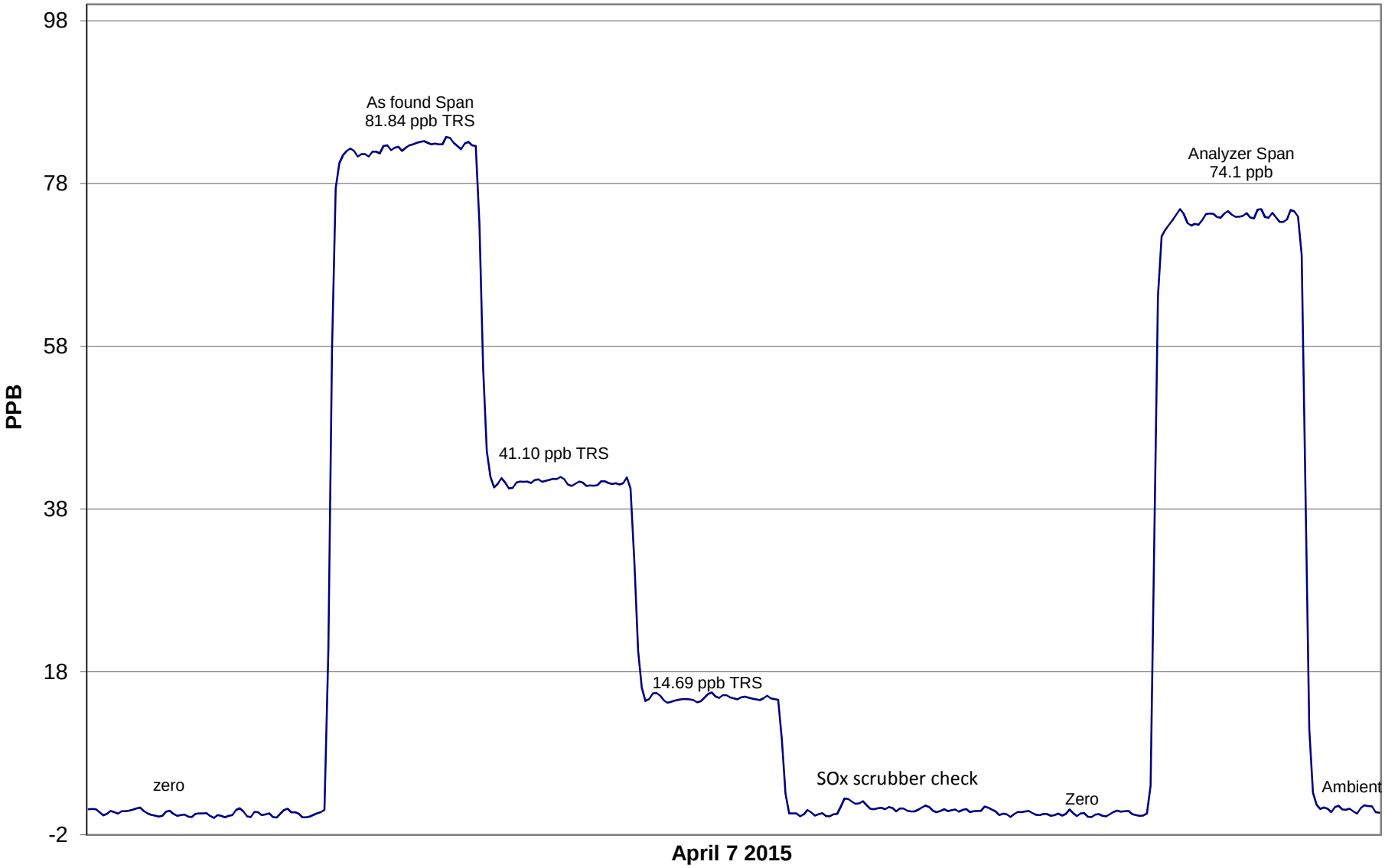
Calibration Date	April 7 2015	Previous Calibration	March 10 2015
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	9:10	End Time (MST)	12:05
Analyzer make/model	TEI Model 43C	Analyzer serial #	31990000000491

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.6	N/A		
81.8	82.8	0.9882	Correlation Coefficient	0.999932
41.1	41.3	0.9950		
14.7	14.8	0.9896	Slope	0.993447
			Intercept	-0.245373



TRS Calibration



AB TEOM PM2.5 Calibration

WSP AIR QUALITY MONITORING

STATION: **Evergreen Park**

LOCATION: PAZA - Grande Prairie

OPERATOR: Grover/Dmytro

DATE: 07-Apr-15

MONITOR INFO / PARAMETER VALUES:

Make/Model	TEOM AB
Configuration	PM2.5
Serial Number	21554
Site Number	2
Inlet Type	PM 10 / SCC
FAdj. Main Setting	1.000
FAdj. Aux. Setting	1.000
T-Case Indicated / Set Point	40/40
T-Air Indicated / Set Point	40/40
T-Cap Indicated / Set Point	40/40
Splitter Assembly Alignment (cm)	15.5

(vs. specified depth of 15.5 cm from top of flow tube to top of concentric 1/2 in. tube)

RECENT CALIBRATION AND AUDIT HISTORY

Previous Audit	
Previous Calibration	20-Jan-15

PUMP CAPACITY CHECK *	PASS

* capacity test or pump on timed test utilized to verify pump integrity

"FAIL" indicates that pump requires service.

LEAK CHECK	Indicated Flow (lpm)	
	Main	Auxiliary
PUMP ON	0.060	0.300
PUMP OFF	0.020	0.020
NET	0.040	0.280
LIMITS	*<0.15*	*<0.60*

		Ambient Temp. (^{0} C)	Ambient Pres. (atm)	Ko *	Bypass flow (lpm)	Sample flow (lpm)
	SET POINT (S)	na	na	16147	13.67	3.000
	INDICATED (I)	11.5	0.919		13.66	2.999
As Found Data	MEASURED (AF)	10.0	0.919		13.78	3.014
Adjusted Data	MEASURED (M)	10.0	0.919	16325	13.67	3.005
	DIFFERENCE (M-I)	-1.5	0.000	1.1%	0.000	0.005
	LIMITS	*± 2 ^{0} C*	*± 0.005 atm*	*± 2.5 %*	*± 1.0 L/min*	*± 0.2 L/min*

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

COMMENTS: Pass.

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

Calibration Report

Parameter **SO_2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	April 14, 2015	Previous Calibration	March 20, 2015
Station Number	3	Station Location	Smokey Heights
Reason: Routine	Install	Removal	Other:
Start Time (MST)	10:50	End Time (MST)	14:00:00 PM
Barometric Pressure	0.921 ATM	Station Temperature	20.0 Deg C
Calibrator	Environics	Serial Number	3016
Cal Gas Concentration	49.8 ppm	Cal Gas Cert Date	20/01/2016
Correction factor	0.031307	Cal Gas Cylinder #	LL1105159
DACS make	CR3000	DACS serial No.	5238
DACS voltage range	0 - 5 volt	DACS channel #	6
	Before		After
Calculated slope	0.998528	Calculated slope	1.000124
Calculated intercept	1.271437	Calculated intercept	1.397222
Analyzer make	Teco 43i	Analyzer serial #	701120009

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	12		12	
coefficient	0.934		0.934	
Lamp Voltage	935	volts	936	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	663	mm Hg	665.4	mm Hg
Sample Flow	0.444	lpm	0.445	lpm
Lamp Intensity	88	%	88	%

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	0.0	0.00	0.5	N/A
4995	39.93	394.94	394.5	1.0010
4995	19.97	198.31	195.6	1.0140
4995	9.97	99.20	96.2	1.0317
4995	0.0	0.00	0.5	As Found Zero
4995	39.93	394.94	394.5	As Found Span
			Average Correction Factor	1.0156

Calculated value of As Found Response: 394.729 ppm Percent Change of As Found: 0.1%

	before calibration		after calibration	
Auto zero	0.5	ppb	0.5	ppb
Auto span	248.9	ppb	251.1	ppb

Notes: No adjustments made
As found span SO2.Instead of using “Sample” mode put analyzer into “Span” by accident
Second high point SO2 was interrupted by daily zero/span check

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **SO2**

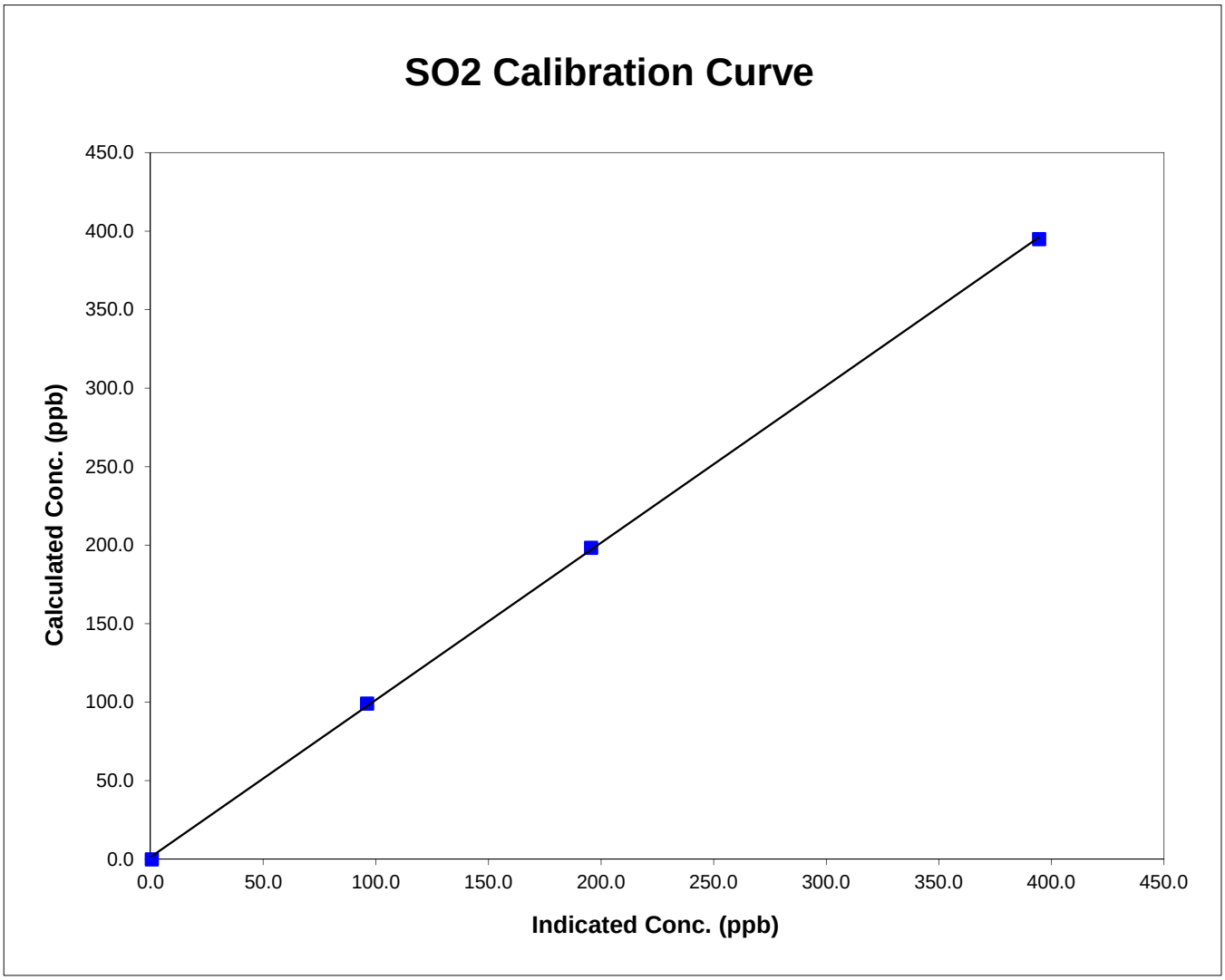
Air Monitoring Network **PAZA**

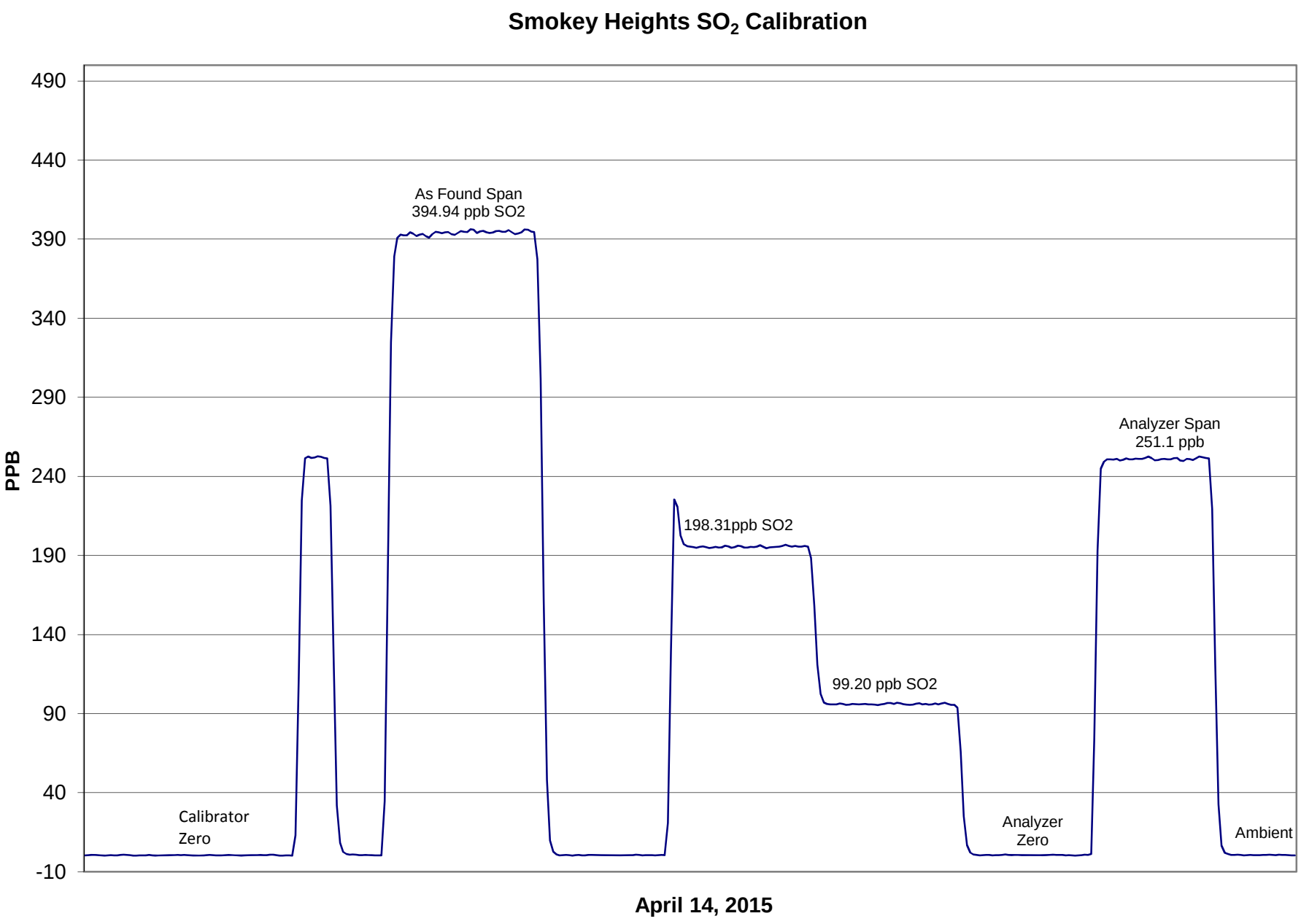
Station Information

Calibration Date	April 14, 2015	Previous Calibration	March 20, 2015
Station Number	3	Station Location	Smokey Heights
Start Time (MST)	10:50	End Time (MST)	14:00:00 PM
Analyzer make/model	Teco 43i	Analyzer serial #	701120009

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.5	N/A		
394.9	394.5	1.0010	Correlation Coefficient	0.999893
198.3	195.6	1.0140		
99.2	96.2	1.0317	Slope	1.000124
			Intercept	1.397222




Smokey Heights SO_2 Calibration
490
440
390
340
290
240
190
140
90
40
-10
PPB
As Found Span
394.94 ppb SO2
198.31ppb SO2
99.20 ppb SO2
Analyzer Span
251.1 ppb
Calibrator
Zero
Analyzer
Zero
Ambient
April 14, 2015

Calibration Report

Parameter **TRS**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	April 14, 2015	Previous Calibration	March 20, 2015
Station Number	3	Station Location	Smokey Heights
Reason: Routine	Install	Removal	Other:

Start Time (MST)	8:40	End Time (MST)	12:10
Barometric Pressure	0.924 ATM	Station Temperature	20.0 Deg C
Calibrator	Environics	Serial Number	2844
Cal Gas Conc	10.32 ppm	Cal Gas Expiry Date	08/07/2016
Correction factor	0.031409	Cal Gas Cylinder #	BLM00586
DACS make	CR3000	DACS serial No.	5238
DACS voltage range	0 - 5 volt	DACS channel #	5
	Before		After
Calculated slope	1.000823	Calculated slope	0.989682
Calculated intercept	0.450795	Calculated intercept	0.251606

Analyzer make	TEI Model 43C	Analyzer serial #	0436610005

	before		after	
Concentration range	100	ppb	100	ppb
Background	20.8	ppb	19.8	ppb
coefficient	1.003		0.983	
Lamp Voltage	851	volts	849	volts
Chamber Temp	43.8	Deg C	43.9	Deg C
Perm Gas Temp	45	Deg C	45.01	Deg C
Pressure	583.3	mm Hg	610.7	mm Hg
Sample Flow	0.610	lpm	0.630	lpm
Lamp Intensity	35,155	mv	34,916	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)
4995	0.0	0.00	0.2	N/A
4995	39.93	81.84	82.7	0.9894
4995	19.97	41.10	40.8	1.0069
6995	9.97	14.69	14.3	1.0277
4995	9.97		0.5	Sox test
4995	0.0	0.00	0.2	As Found Zero
4995	39.93	81.84	80.3	As Found Span
			Average Correction Factor	1.0080

Calculated value of As Found Response: 80.56 ppm Percent Change of As Found: 1.6%

	before calibration		after calibration	
Auto zero	0.2	ppm	0.2	ppm
Auto span	31.7	ppm	32.6	ppm

Notes: Span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **TRS**

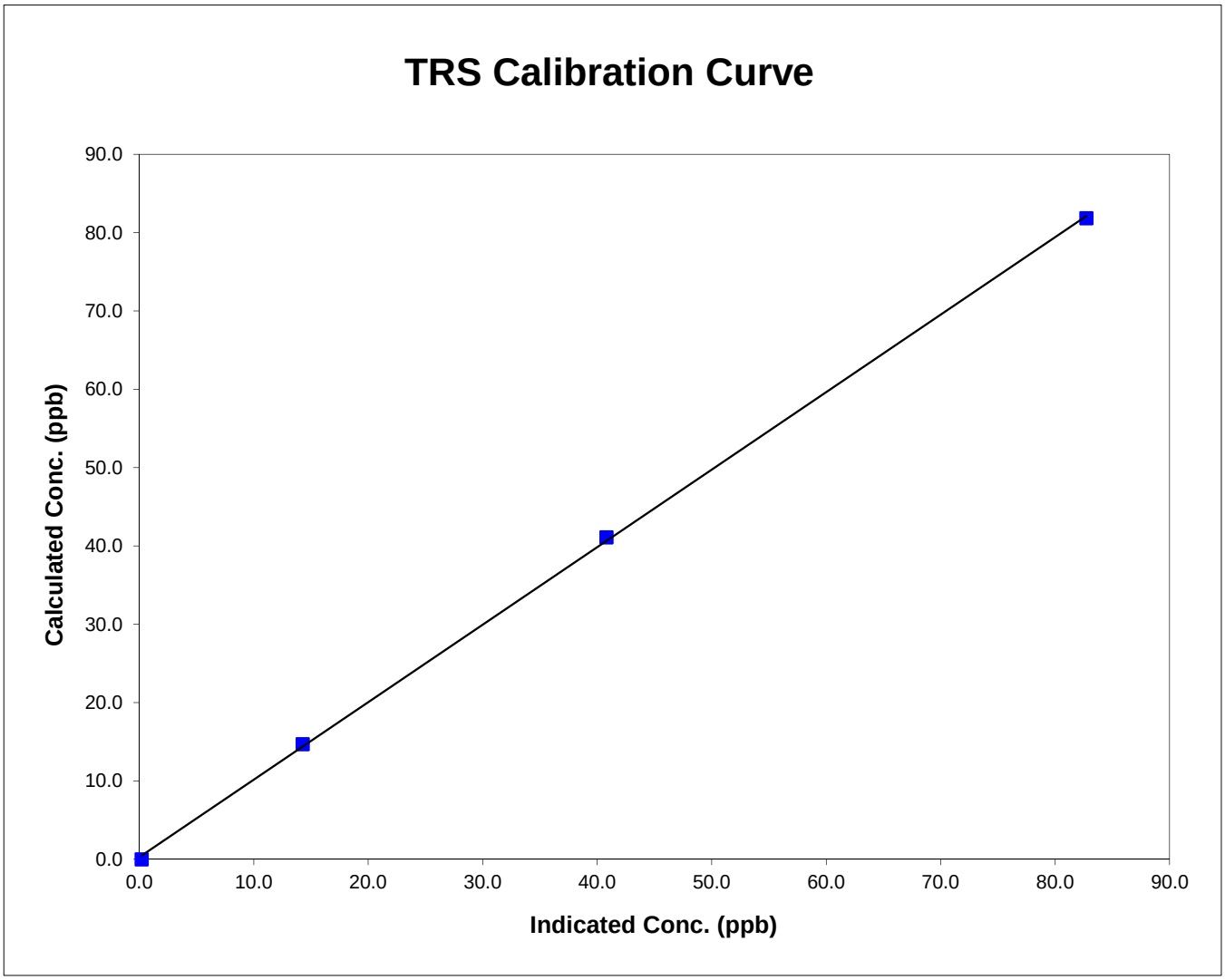
Air Monitoring Network **PAZA**

Station Information

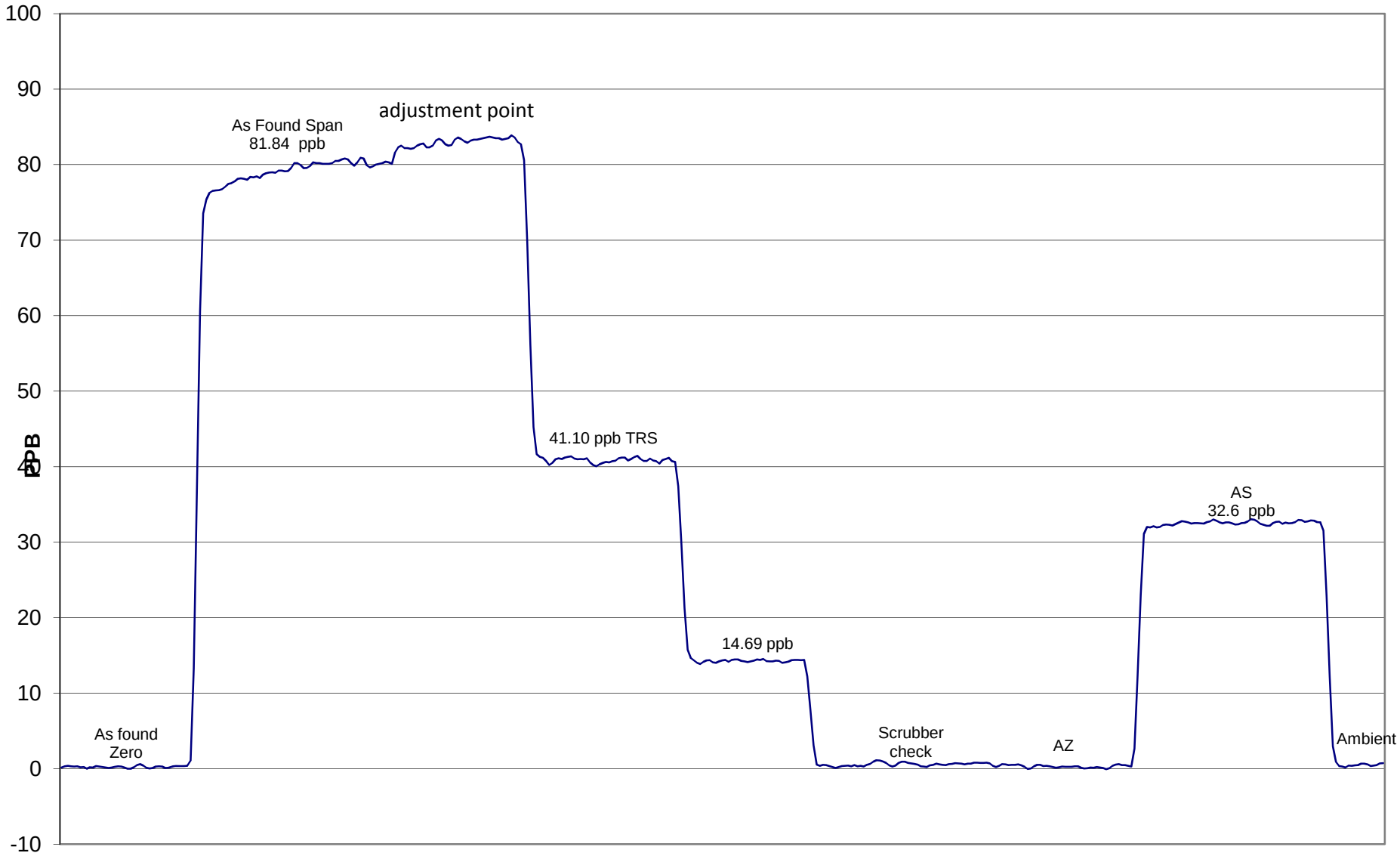
Calibration Date	April 14, 2015	Previous Calibration	March 20, 2015
Station Number	3	Station Location	Smokey Heights
Start Time (MST)	8:40	End Time (MST)	12:10
Analyzer make/model	TEI Model 43C	Analyzer serial #	0436610005

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A		
81.8	82.7	0.9894	Correlation Coefficient	0.999849
41.1	40.8	1.0069		
14.7	14.3	1.0277	Slope	0.989682
			Intercept	0.251606



Smokey Heights TRS Calibration



April 14, 2015

Calibration Report

Parameter **SO2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	April 15, 2015	Previous Calibration	February 12, 2015
Station Number	4	Station Location	Beaverlodge
Reason:	Routine / Install	Removal	Other:
Start Time (MST)	12:15	End Time (MST)	14:35:00 PM
Barometric Pressure	0.925 atm	Station Temperature	20.0 Deg C
Calibrator	Environics	Serial Number	3016
Cal Gas Concentration	10.8 ppm	Cal Gas Expiry Date	28/09/2012
Gas Cert Reference	FF14871		
DACS make	CR3000	DACS serial No.	5237
DACS voltage range	0 - 5 volt	DACS channel #	5
	Before		After
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.999682	Calculated slope	0.998969
Calculated intercept	0.047077	Calculated intercept	-0.018047
Analyzer make	TEI Model 43i-TLE	Analyzer serial #	713021137

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	2.72		2.69	
Coefficient	1.038		1.038	
PMT	-767.8	V	-767.8	V
UV Lamp Voltage	1089	V	1089	V
Chamber Temp	45.1	Deg C	45	Deg C
Pressure	660.1	mm Hg	665.8	mm Hg
Sample Flow	0.52	LPM	0.528	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)
4994	0.00	0.0	0.1	N/A
4994	39.92	85.6	85.8	0.9986
4994	19.96	43.0	43.1	0.9965
4994	9.96	21.5	21.3	1.0087
4994	0.00	0.0	0.1	As found zero
4994	39.92	85.6	85.8	As found span
			Average Correction Factor	1.0013

Calculated value of As Found Response: 85.640 ppm Percent Change of As Found: 0.0%

	before calibration		after calibration	
Auto zero	0.2	ppb	0.1	ppb
Auto span	60.2	ppb	60.1	ppb

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **SO2**

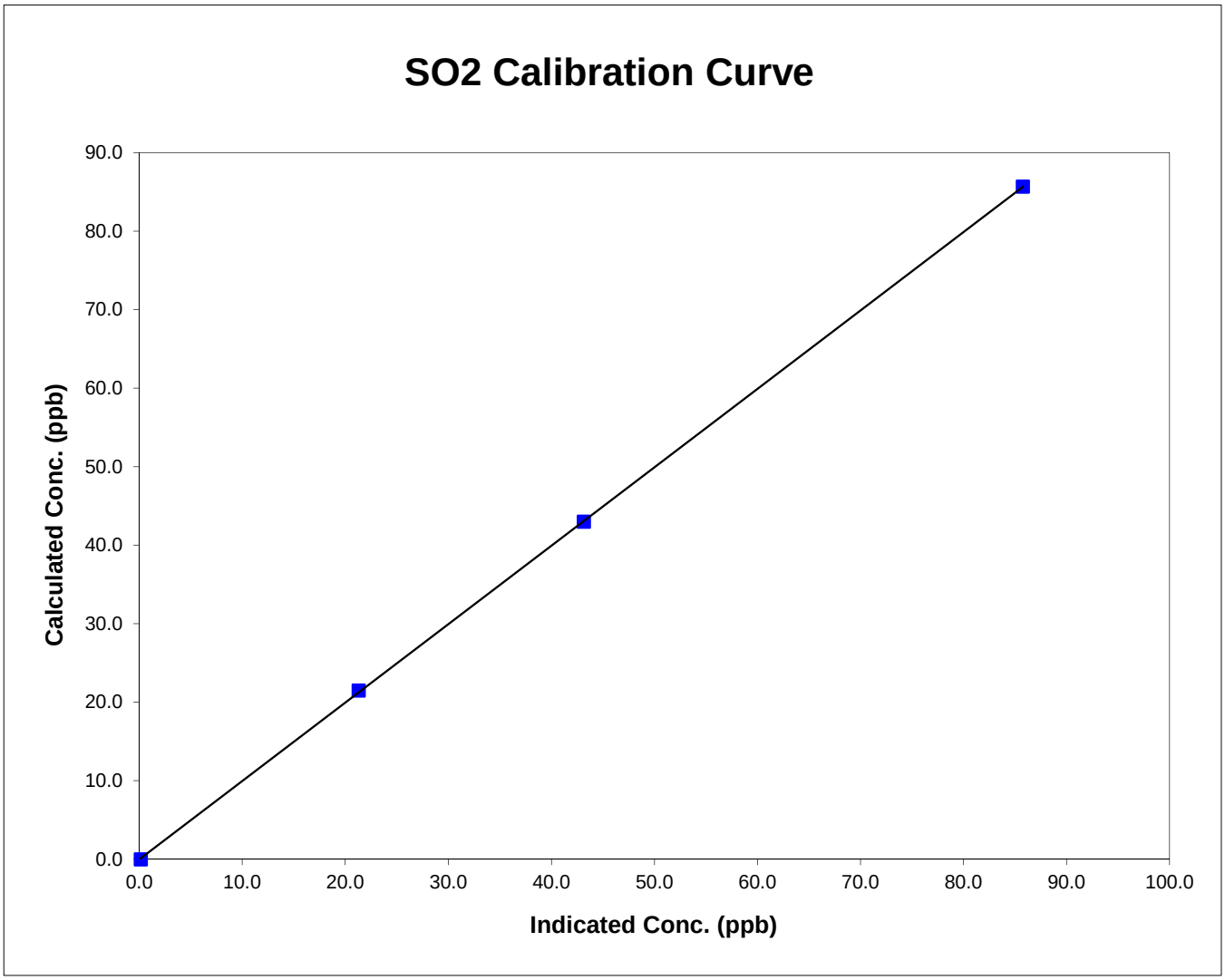
Air Monitoring Network **PAZA**

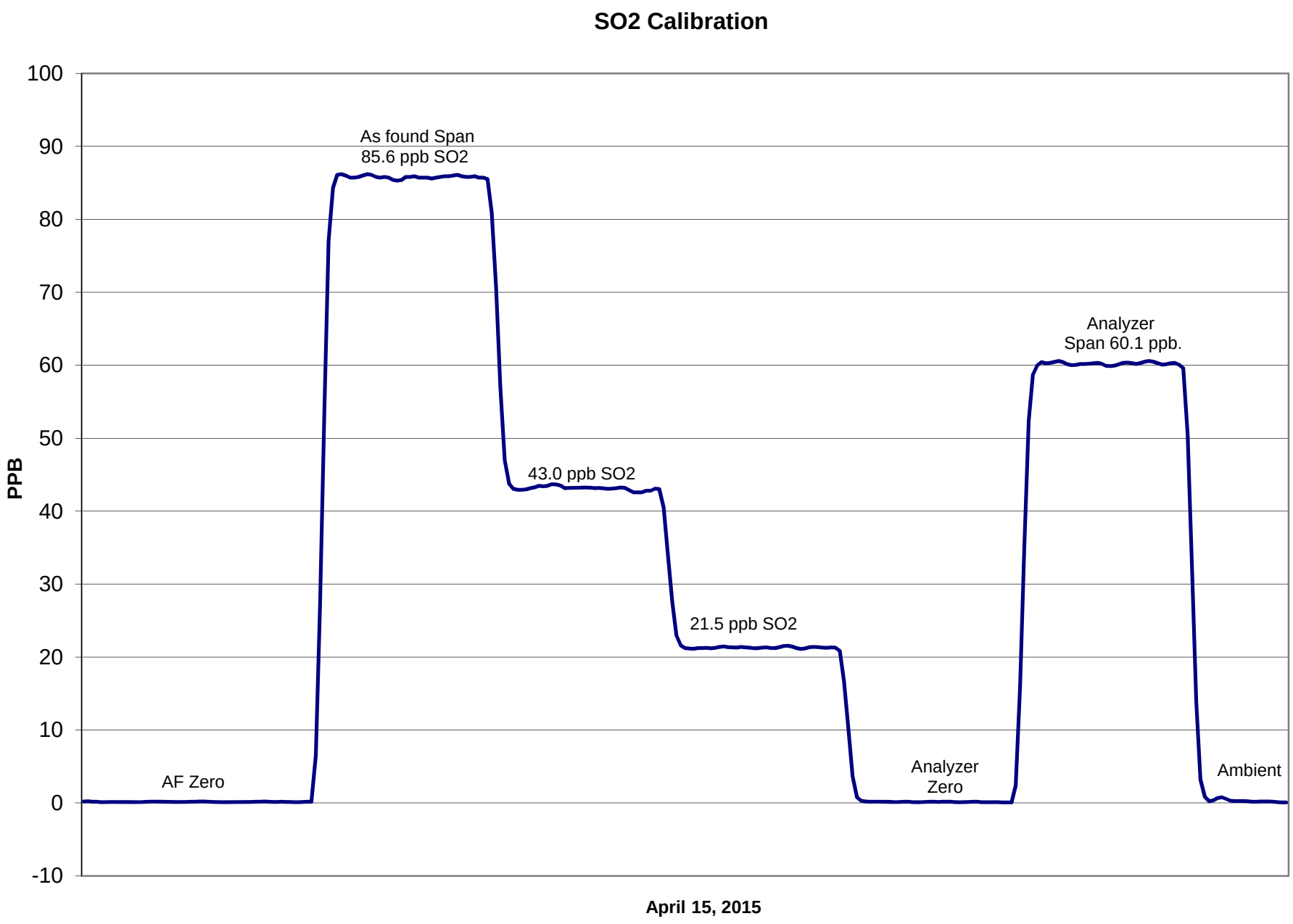
Station Information

Calibration Date	April 15, 2015	Previous Calibration	February 12, 2015
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	12:15	End Time (MST)	14:35:00 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	0.1	N/A		
85.6	85.8	0.9986	Correlation Coefficient	0.999981
43.0	43.1	0.9965		
21.5	21.3	1.0087	Slope	0.998969
			Intercept	-0.018047




SO2 Calibration
100
90
80
70
60
50
40
30
20
10
0
-10
PPB
As found Span
85.6 ppb SO2
43.0 ppb SO2
21.5 ppb SO2
Analyzer
Span 60.1 ppb.
AF Zero
Analyzer
Zero
Ambient
April 15, 2015

Calibration Report

Parameter **NO_X-NO-NO_2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	April 15 2015	Previous Calibration	March 4 2015
Station Number	4	Station Location	Beaverlodge

Reason: Routine Installation Removal Other:

Start Time (MST)	8:00		End Time (MST)	12:00	
Barometric Pressure	0.925	Atm	Station Temperature	20.0	Deg C
Calibrator	Environics		Serial Number	3016	
NO Cal Gas Conc	50.9	ppm	Cal Gas Expiry Date	March 10, 2017	
NOx Cal Gas Conc	51.2	ppm	Cal Gas Serial #	LL119493	

DACS Information

DACS make: CR3000 DACS serial No.: 5237

Parameter		NO2	NOx	NO
Before	Data Slope	0.994582	0.998565	0.995930
	Data Offset	-0.360988	0.772317	0.946232
After	Data Slope	0.996626	0.997622	0.997708
	Data Offset	-0.048672	0.936184	1.025712
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	3.2	mV	3.2	mV
NOx bkgnd	3.5	mV	3.5	mV
NO coefficient	1.072		1.072	
NOx coefficient	1.004		1.004	
NO2 conv temp	325.8	Deg C	325.7	Deg C
PMT Temp	-2.9	Deg C	-2.9	Deg C
PMT Volt	-753.3	mV	-747.8	mV
R Cell Press	251.1	in Hg	246.0	in Hg
Sample Flow	0.520	LPM	0.532	LPM

Notes: No adjustment made

Calibration Report

Parameter **NOX-NO-NO2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date: April 15 2015 Station Location: Beaverlodge

Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor
zero	4995	0.00	0.0	0.0	0.0	0.0	0.0	-0.1	N/A	N/A
1	4995	39.92	405.9	403.6	2.4	406.4	404.0	1.5	0.9989	0.9988
2	4995	19.96	203.8	202.6	1.2	203.0	201.3	0.8	1.0038	1.0062
3	4995	9.93	101.6	101.0	0.6	99.8	99.2	0.4	1.0174	1.0176
AFZ	4995	0.00	0.0	0.0	0.0	0.0	0.0	-0.1	0.0000	0.0000
AFS	4995	39.92	405.9	403.6	0.8	406.4	404.0	1.5	0.9989	0.9988
							Average Correction Factor		1.0067	1.0075

As Found Concentrations: NO_X= 406.6 NO= 403.3 As Found Percent Change NO_X= 0.2% NO= -0.1%

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	0.0	0.0	0.0	0.0	0.0	-0.1	N/A	N/A	N/A	N/A
NO point	404.8	404.8	0.0	407.0	404.8	1.4	0.9946	1.0000	N/A	N/A
300	404.8	91.8	313.0	406.6	91.8	314.0	0.9956	1.0000	0.9967	100.3%
200	404.8	192.7	212.1	406.5	192.7	212.8	0.9959	1.0000	0.9966	100.3%
100	404.8	294.2	110.6	406.3	294.2	111.4	0.9965	1.0000	0.9935	100.7%
					Average Correction Factor		0.9960	1.0000	0.9956	100.4%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	-0.1	-0.2	0.1	ppb	0.0	-0.2	0.1	ppb
Auto span	195.1	193.4	1.1	ppb	189.4	187.8	1.1	ppb

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **NO_2**

Air Monitoring Network **PAZA**

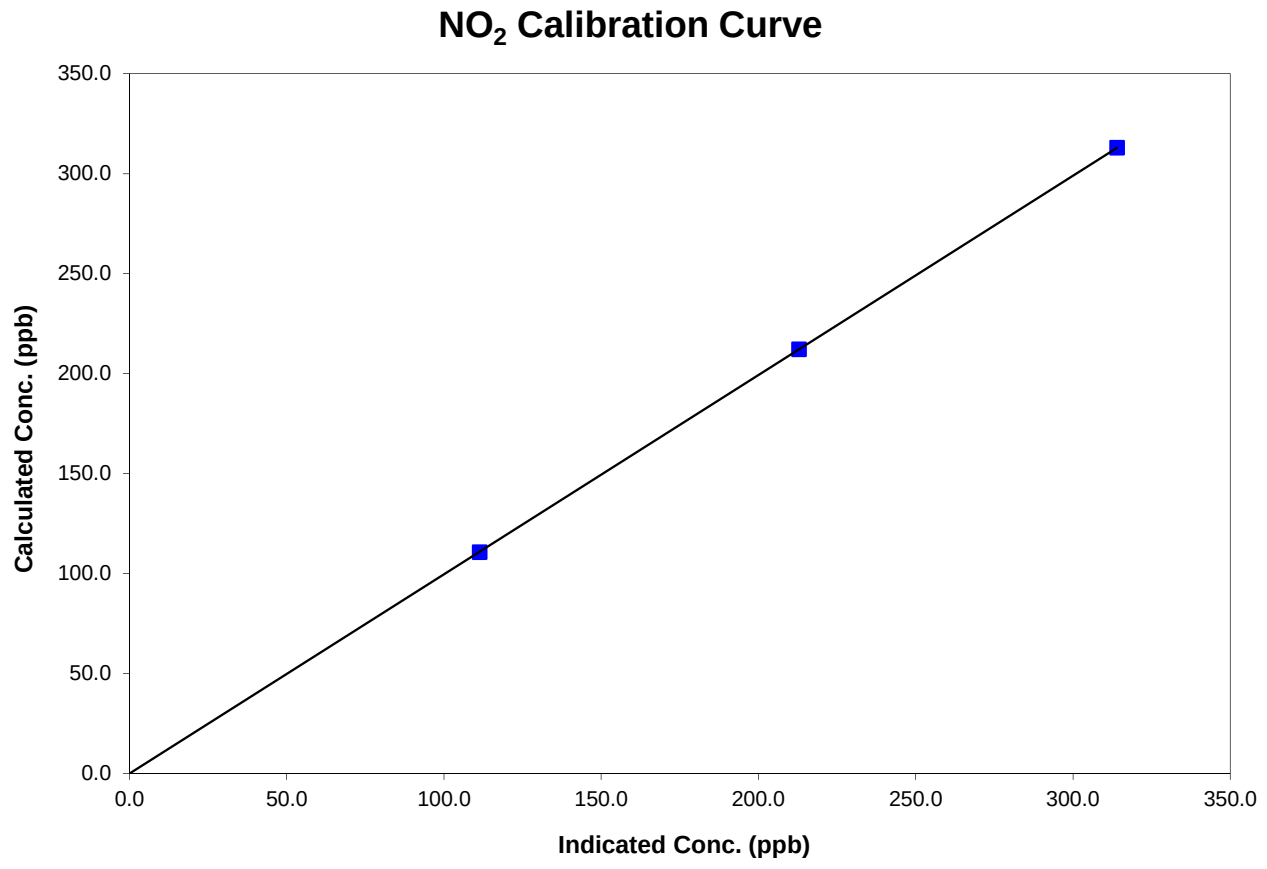
WSP AIR QUALITY MONITORING

Station Information

Calibration Date	April 15 2015	Previous Calibration	March 4 2015
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	8:00	End Time (MST)	12:00
Analyzer make	TEI 42i	Analyzer serial #	906535068

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	N/A		
313.0	314.0	0.9967	Correlation Coefficient	0.999998
212.1	212.8	0.9966		
110.6	111.4	0.9935	Slope	0.996626
			Intercept	-0.048672



Calibration Summary

Parameter **NO_x**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

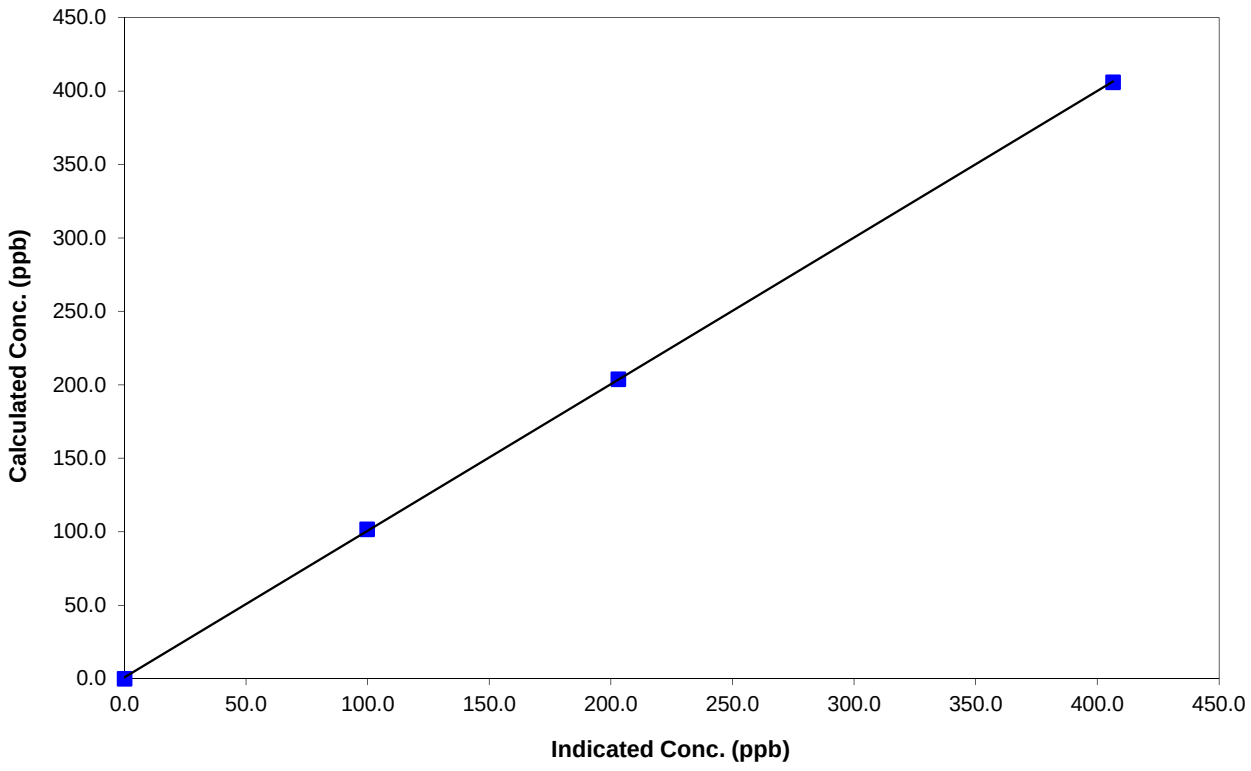
Station Information

Calibration Date	April 15 2015	Previous Calibration	March 4 2015
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	8:00	End Time (MST)	12:00
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		
405.9	406.4	0.9989	Correlation Coefficient	0.999975
203.8	203.0	1.0038		
101.6	99.8	1.0174	Slope	0.997622
			Intercept	0.936184

NOx Calibration Curve



Calibration Summary

Parameter **NO**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

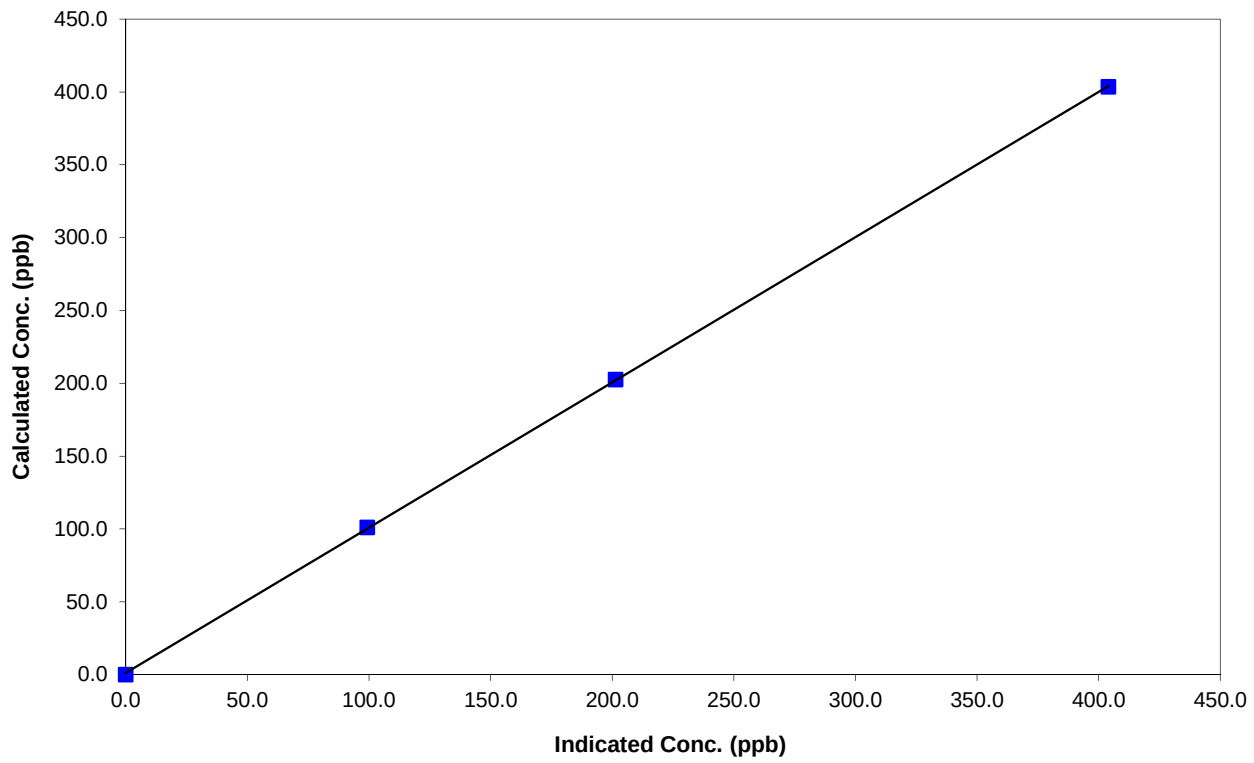
Station Information

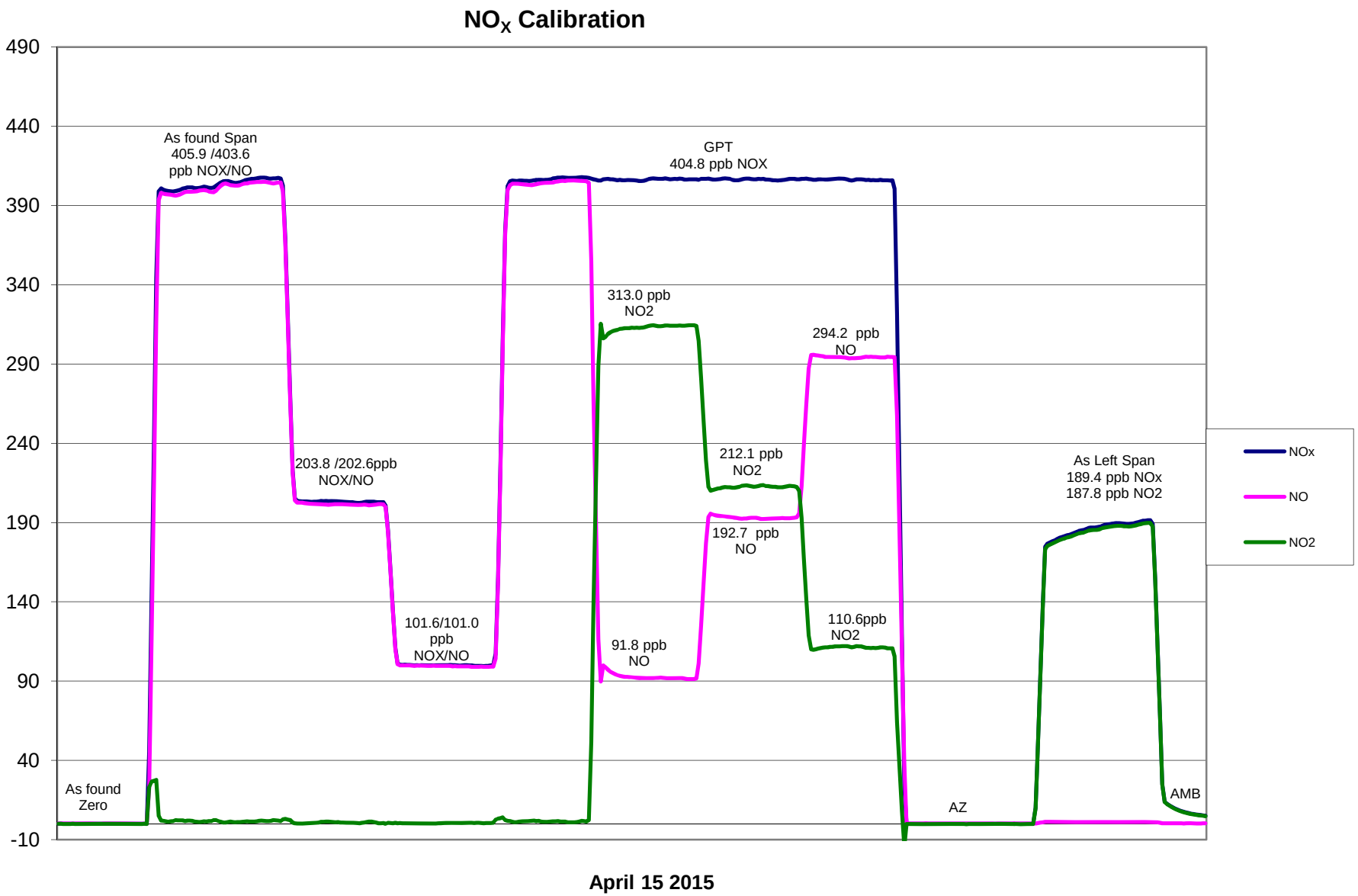
Calibration Date	April 15 2015	Previous Calibration	March 4 2015
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	8:00	End Time (MST)	12:00
Analyzer make	TEI 42i	Analyzer serial #	906535068

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A		
403.6	404.0	0.9988	Correlation Coefficient	0.999968
202.6	201.3	1.0062		
101.0	99.2	1.0176	Slope	0.997708
			Intercept	1.025712

NO Calibration Curve




NOx Calibration
490
440
390
340
290
240
190
140
90
40
-10
As found Span
405.9 /403.6
ppb NOX/NO
203.8 /202.6ppb
NOX/NO
101.6/101.0
ppb
NOX/NO
GPT
404.8 ppb NOX
313.0 ppb
NO2
91.8 ppb
NO
212.1 ppb
NO2
192.7 ppb
NO
294.2 ppb
NO
110.6ppb
NO2
AZ
As Left Span
189.4 ppb NOx
187.8 ppb NO2
AMB
As found
Zero
NOx
NO
NO2
April 15 2015

Calibration Report

Parameter **O3**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	April 15, 2015	Previous Calibration	March 4, 2014
Station Number	4	Station Location	Beaverlodge
Reason: Routine	Install	Removal	Other:
Start Time (MST)	10:40	End Time (MST)	13:15:00 PM
Barometric Pressure	0.925 atm	Station Temperature	20.0 Deg C
Calibrator	Environics	Serial Number	3016
Cal Gas Concentration	NA	Cal Gas Expiry Date	NA
DACS make	CR3000	DACS serial No.	5237
DACS voltage range	0 - 5 volt	DACS channel #	9
	Before		After
Calculated slope	0.997747	Calculated slope	1.002267
Calculated intercept	-0.110890	Calculated intercept	-0.036036
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	1.149		1.098	
Lamp temp	53.8	mV	53.8	mV
Lamp Intensity A/B	63319/67471	mV	63336/67464	mV
Pressure	682.4	mm Hg	686.3	mm Hg
Flow A	0.769	LPM	0.771	LPM
Flow B	0.743	LPM	0.745	LPM

Calibration Data

Dilution air flow rate (cc/min)	Calibrator Setting	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
5035	0.00	0.0	0.5	N/A
5035	0.30	313.0	312.9	1.0002
5035	0.20	212.1	210.9	1.0056
5035	0.10	110.6	110.0	1.0053
5035	0.00	0.0	0.5	As found zero
5035	0.30	313.0	329.1	As found span
			Average Correction Factor	1.0037

Calculated value of As Found Response: 327.8 ppm Percent Change of As Found: 4.7%

	before calibration		after calibration	
Auto zero	0.5	ppb	0.7	ppb
Auto span	287.7	ppb	277.4	ppb

Notes: Span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **O3**

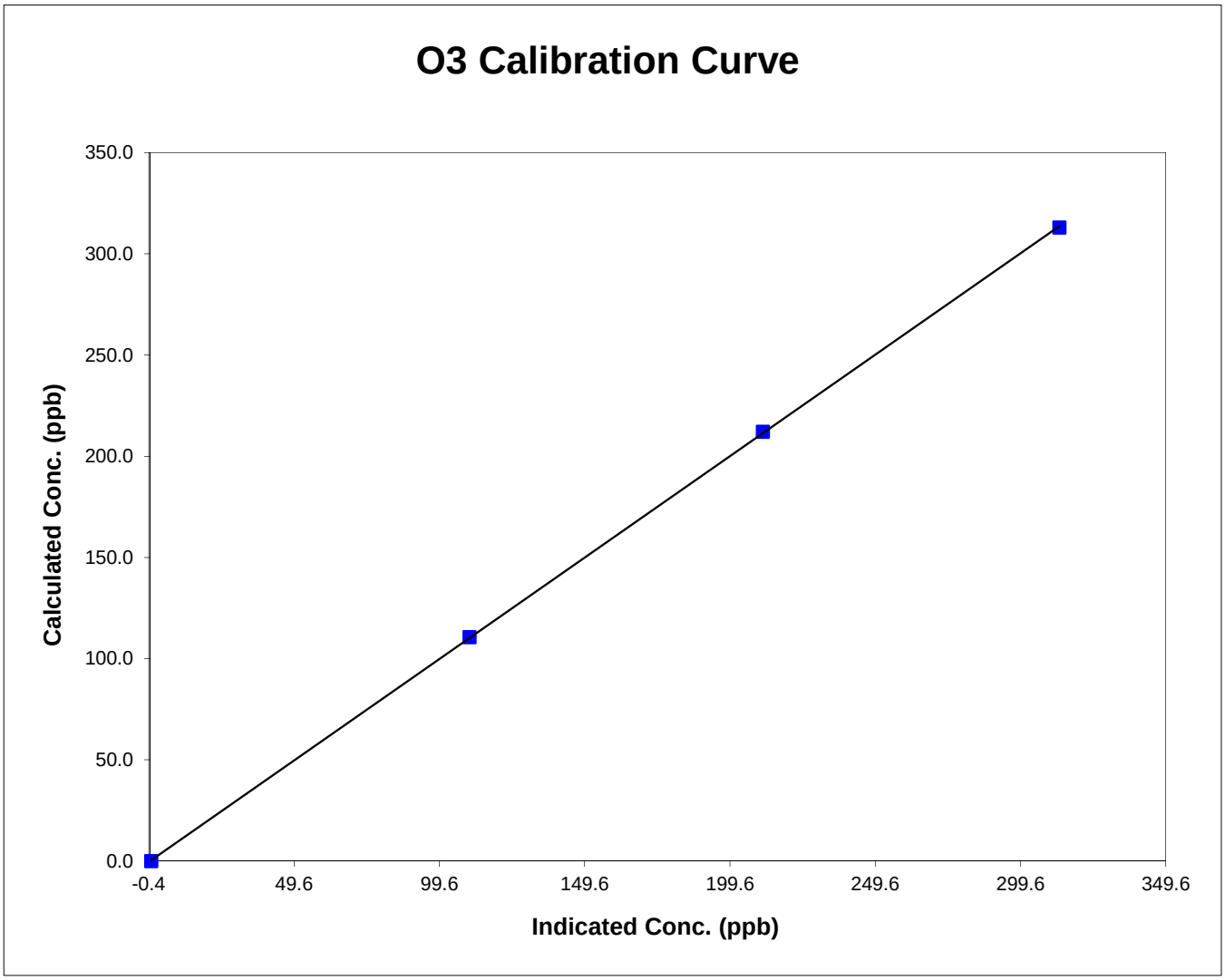
Air Monitoring Network **PAZA**

Station Information

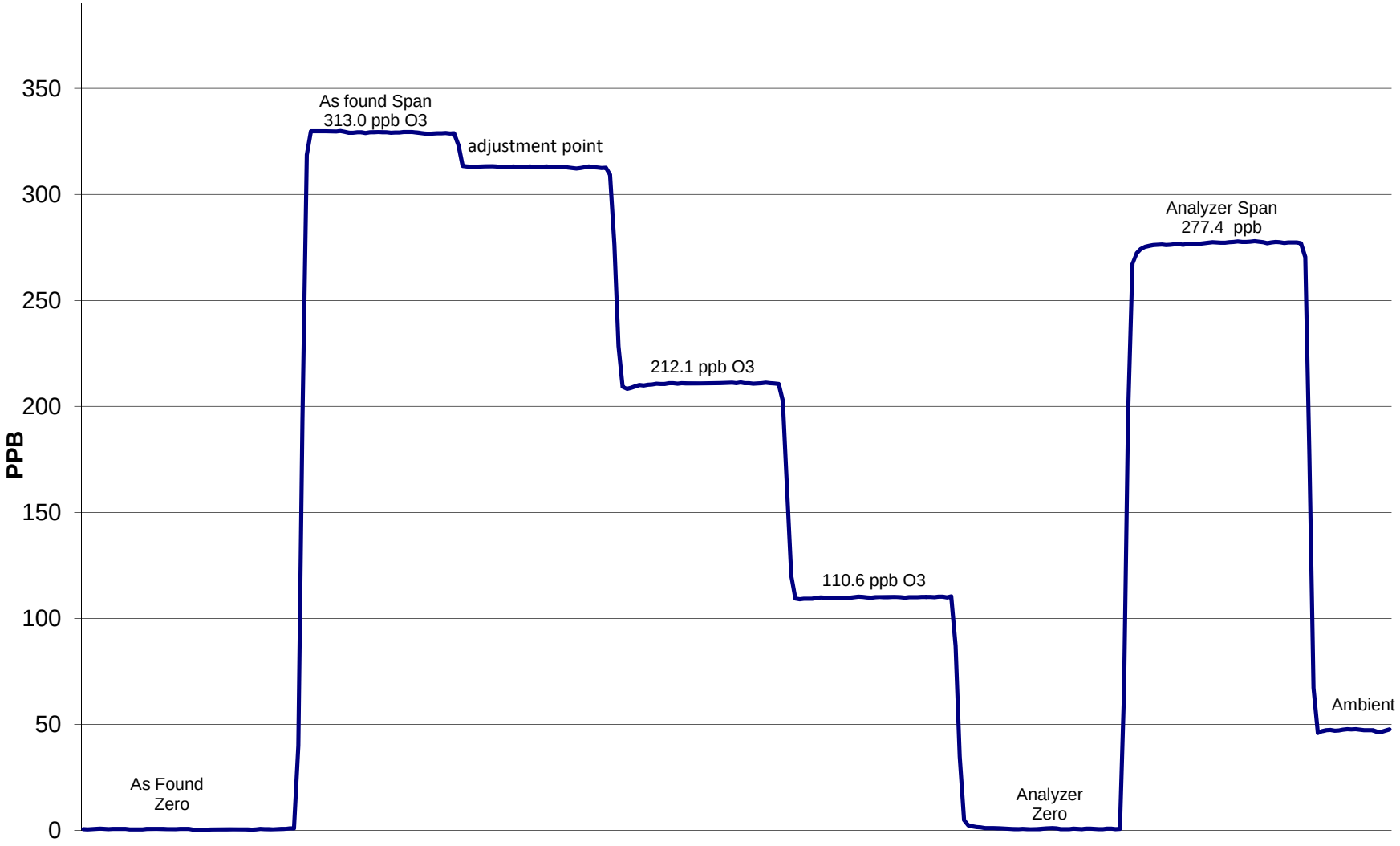
Calibration Date	April 15, 2015	Previous Calibration	March 4, 2014
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	10:40	End Time (MST)	13:15:00 PM
Analyzer make/model	Teco 49i	Analyzer serial #	1136451236,AMU 1879

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.5	NA		
313.0	312.9	1.0002	Correlation Coefficient	0.999976
212.1	210.9	1.0056		
110.6	110.0	1.0053	Slope	1.002267
			Intercept	-0.036036



O3 Calibration



April 15, 2015

Calibration Report

Parameter **SO2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	April 16 2015	Previous Calibration	March 12 2015
Station Number	6	Station Location	Valleyview
Reason:	Routine / Install	Removal	Other:
Start Time (MST)	11:15	End Time (MST)	13:30:00 PM
Barometric Pressure	0.922 atm	Station Temperature	20.0 Deg C
Calibrator	Environics	Serial Number	3016
Cal Gas Concentratior	49.8 ppm	Cal Gas Exp Date	March 10, 2017
Gas Cylinder Num.	LL119493		
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	0.990925	Calculated slope	0.987096
Calculated intercept	1.704705	Calculated intercept	1.852175
Analyzer make	TEI 43C	Analyzer serial #	609716239

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Background	15.6		15.6	
Coefficient	1.017		1.017	
UV Lamp Voltage	740	LPM	742	LPM
Chamber Temp	43	V	42.9	V
Perm Gas Temp	44.9	C	45	C
Pressure	674.5	in Hg	678.1	in Hg
Sample Flow	0.487	LPM	0.491	LPM
Lamp Intensity	47547	Hz	47663	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
4995	39.93	394.9	399.3	0.9891
4995	19.97	198.3	197.7	1.0030
4995	9.95	99.0	96.7	1.0242
4995	0.00	0.0	0.1	As found zero
4995	39.93	394.9	399.3	As found span
			Average Correction Factor	1.0054

Calculated value of As Found Response: 397.3 ppm Percent Change of As Found: -0.6%

	before calibration		after calibration	
Auto zero	0.0	ppm	-0.1	ppm
Auto span	282.4	ppm	279.2	ppm

Notes: No adjustments made.

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **SO2**

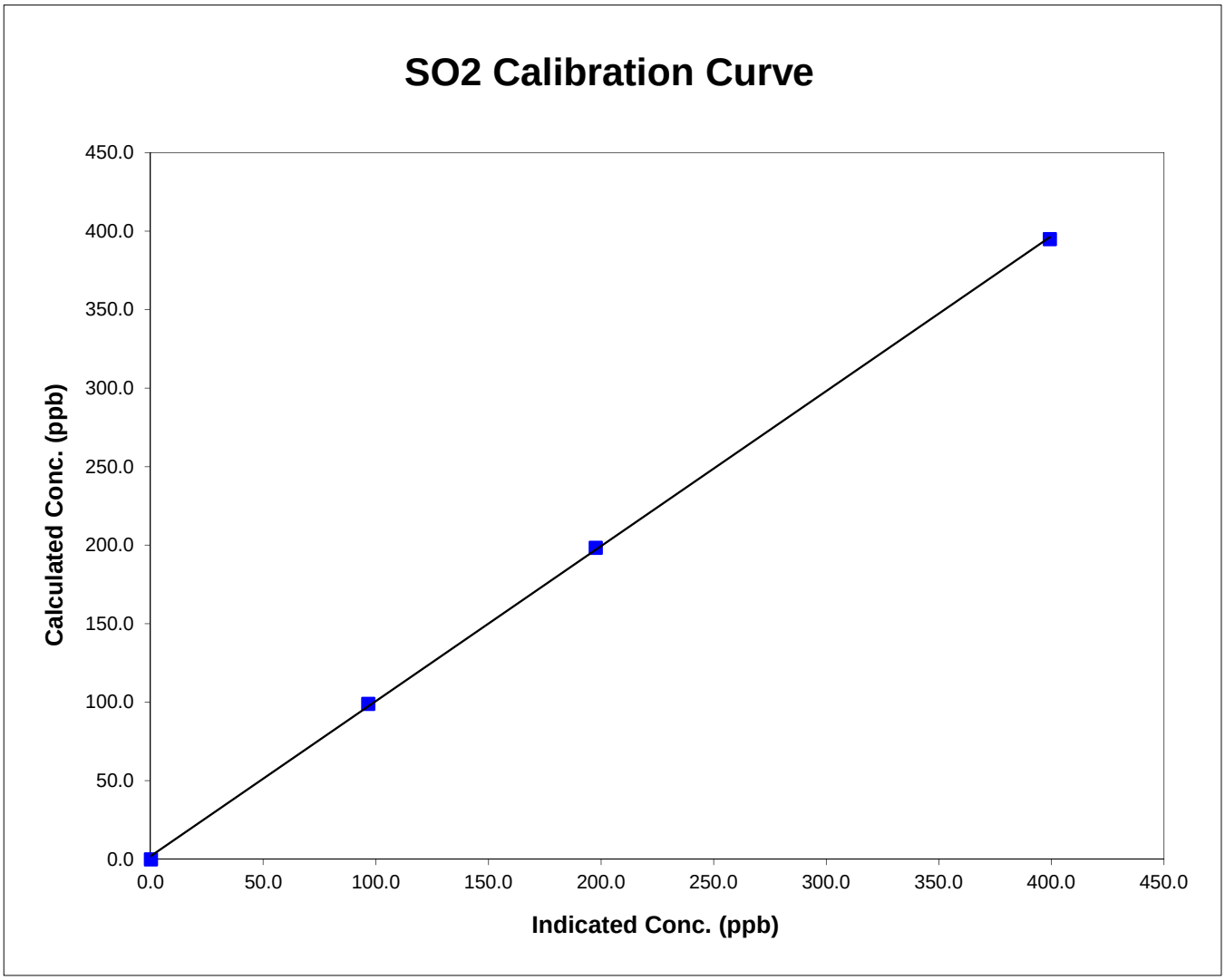
Air Monitoring Network **PAZA**

Station Information

Calibration Date	April 16 2015	Previous Calibration	March 12 2015
Station Number	6	Station Location	Valleyview
Start Time (MST)	11:15	End Time (MST)	13:30:00 PM
Analyzer make/model	TEI 43C	Analyzer serial #	609716239

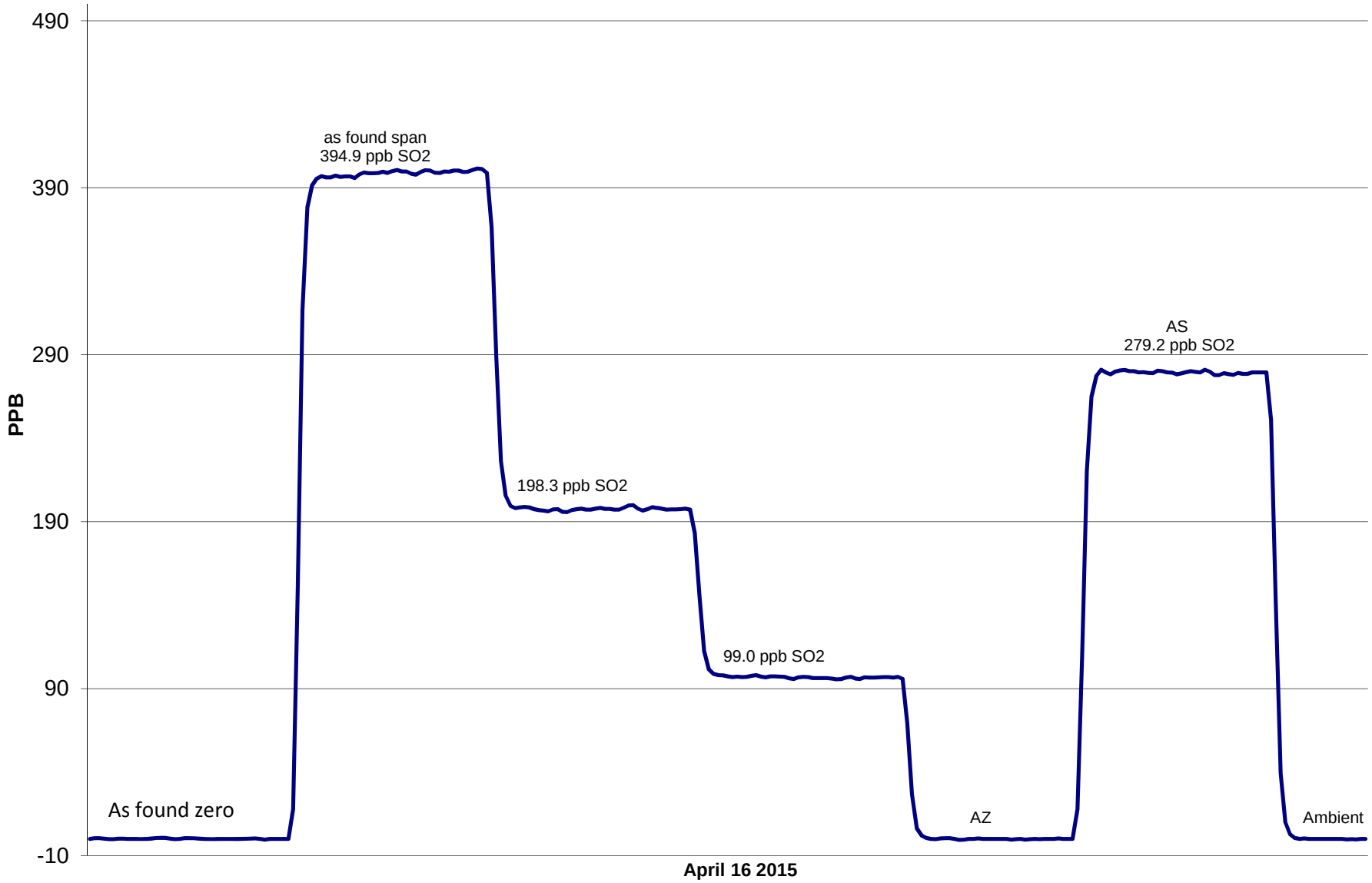
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A		
394.9	399.3	0.9891	Correlation Coefficient	0.999887
198.3	197.7	1.0030		
99.0	96.7	1.0242	Slope	0.987096
			Intercept	1.852175



AZ

SO2 Calibration



Calibration Report

Parameter **H2S**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	April 16 2015	Previous Calibration	March 12 2015
Station Number	6	Station Location	Valleyview
Reason: Routine	Install	Removal	Other:
Start Time (MST)	9:25	End Time (MST)	12:10
Barometric Pressure	0.922 atm	Station Temperature	20.0 Deg C
Calibrator	Environics	Serial Number	3016
Cal Gas Concentratior	10.32 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	0.998138	Calculated slope	0.995272
Calculated intercept	0.035478	Calculated intercept	-0.002956
Analyzer make	TEI Model 43i - APSCB	Analyzer serial #	701120010

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Back Ground	7.5	ppb	7.5	ppb
Coefficient	0.888		0.888	
Lamp Voltage	790	V	789	V
Chamber Temp	45.1	c	45	c
Perm Oven Temp	44.98	c	45	c
Pressure	568.00	mm Hg	567.10	mm Hg
Sample Flow	0.389	ccm	0.388	lpm
Lamp Intensity	90	%	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)
4995	0.00	0.0	0.3	N/A
4997	39.91	81.8	82.4	0.9927
4997	19.94	41.0	40.9	1.0038
6995	9.97	14.7	14.6	1.0086
4997	9.97		2.8	Sox Test
4997	0.00	0.0	0.3	As found zero
4997	39.93	81.8	82.4	As found span
			Average Correction Factor	1.0017

Calculated value of As Found Response: 81.91 ppm Percent Change of As Found: -0.1%

	before calibration		after calibration	
Auto zero	0.4	ppm	0.4	ppm
Auto span	66.4	ppm	65.8	ppm

Notes: No adjustment made
As found span was interrupted by daily zero/span check

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **H2S**

Air Monitoring Network **PAZA**

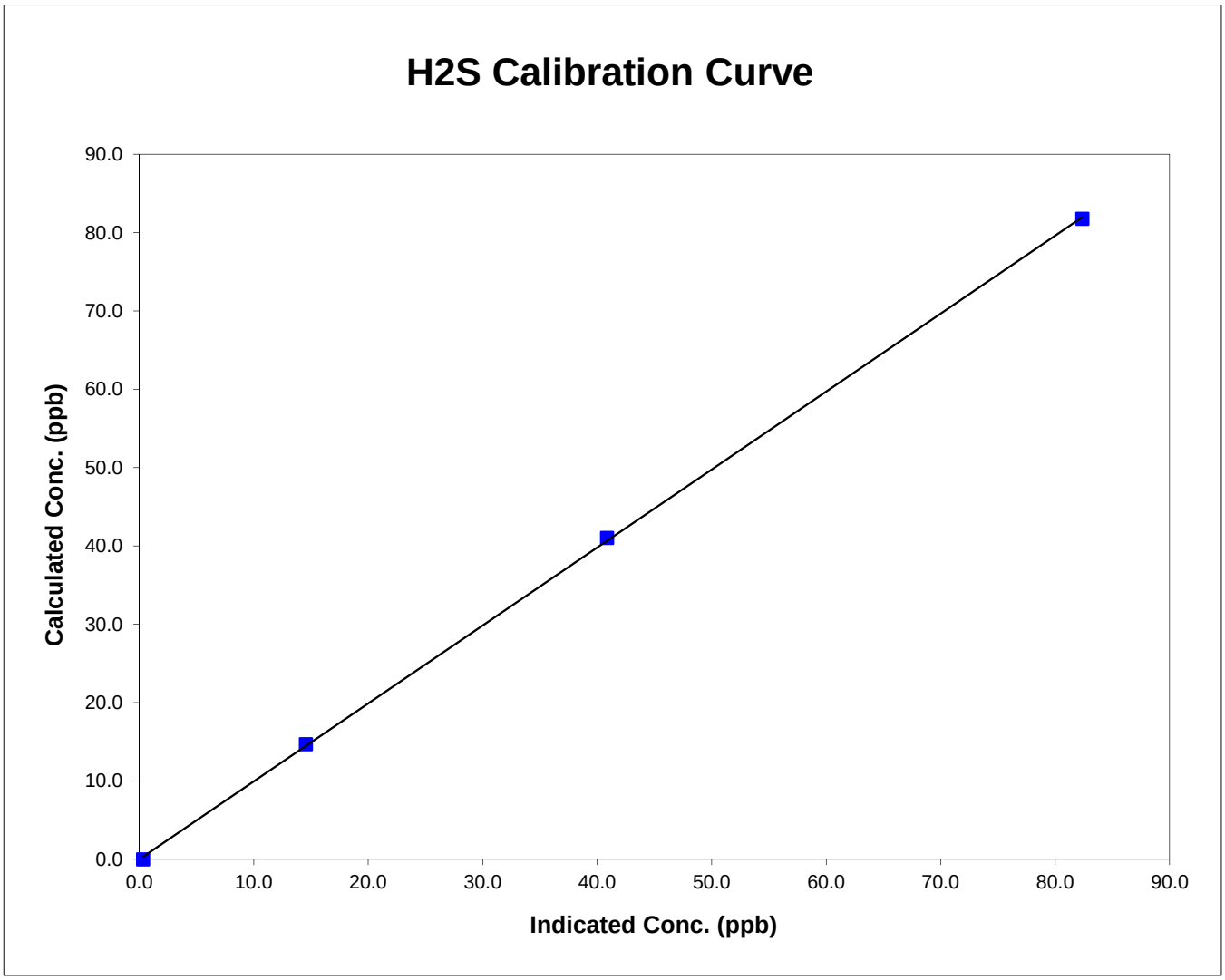
WSP AIR QUALITY MONITORING

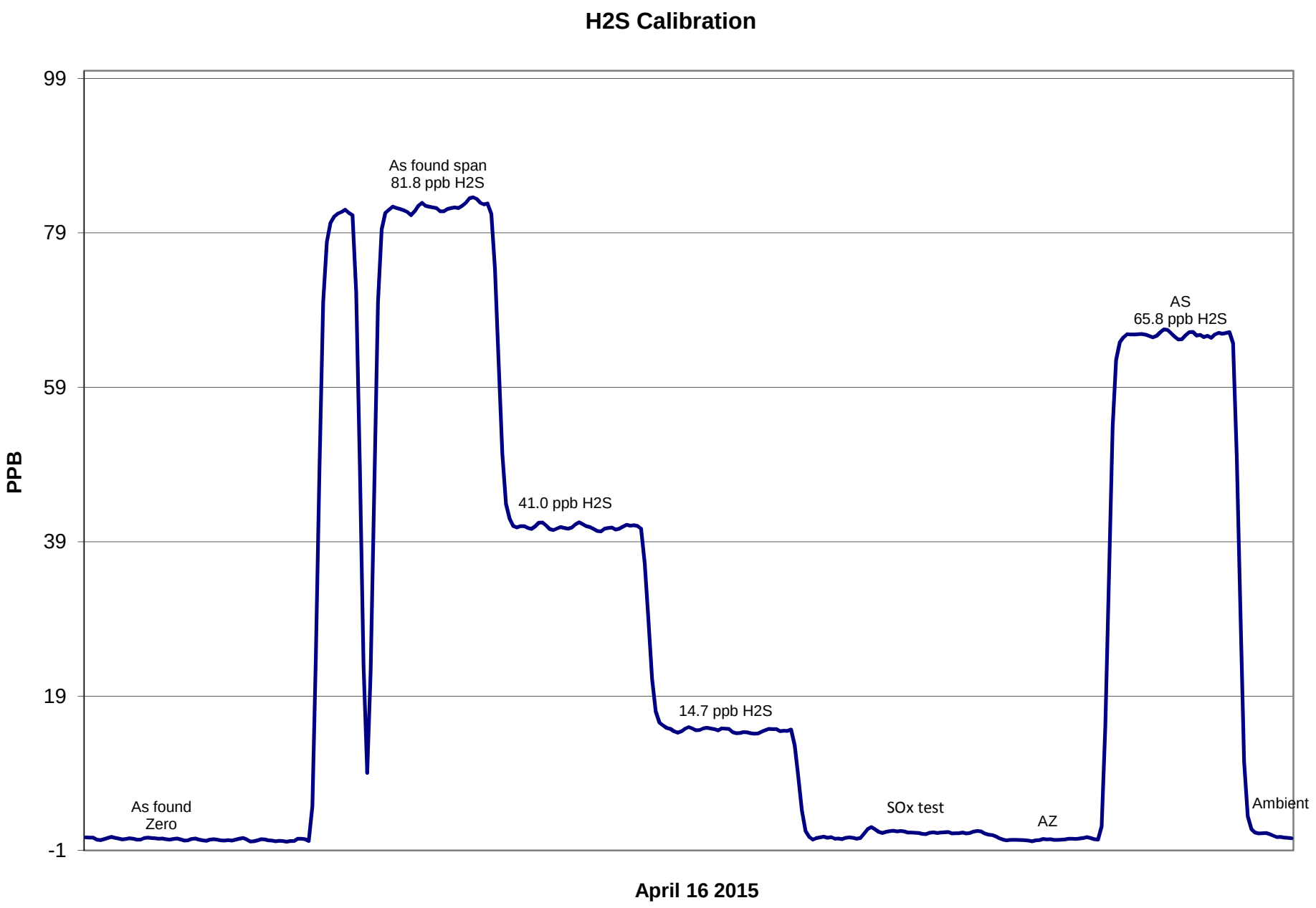
Station Information

Calibration Date	April 16 2015	Previous Calibration	March 12 2015
Station Number	6	Station Location	Valleyview
Start Time (MST)	9:25	End Time (MST)	12:10
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	0.3	N/A		
81.8	82.4	0.9927	Correlation Coefficient	0.999917
41.0	40.9	1.0038		
14.7	14.6	1.0086	Slope	0.995272
			Intercept	-0.002956




H2S Calibration
99
79
59
39
19
-1
PPB
As found span
81.8 ppb H2S
41.0 ppb H2S
14.7 ppb H2S
AS
65.8 ppb H2S
As found
Zero
SOx test
AZ
Ambient
April 16 2015

Calibration Report

Parameter **SO_2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	April 20, 2015	Previous Calibration	March 11, 2015
Station Number	1	Station Location	Falher
Reason: Routine	Install	Removal	Other:

Start Time (MST)	12:00	End Time (MST)	14:20:00 PM
Barometric Pressure	0.927 mm	Station Temperature	21.0 Deg C
Calibrator	Environics	Serial Number	3474
Cal Gas Concentratior	49.8 ppm	Cal Gas Expiry Date	10/03/2017
Correction factor	0.031404	Cal Gas Cylinder #	LL119493
DACS make	CR1000	DACS serial No.	3980
DACS voltage range	0 - 5 volt	DACS channel #	6
	Before		After
Calculated slope	0.979310	Calculated slope	0.995465
Calculated intercept	0.012380	Calculated intercept	1.065723

Analyzer make	Teco 43i	Analyzer serial #	1207452008

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	6.6		6.4	
coefficient	0.902		0.887	
Lamp Voltage	858	volts	866	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	677.9	mm Hg	678.2	mm Hg
Sample Flow	0.408	ccm	0.407	ccm
Lamp Intensity	96	%	96	%

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	0.7	N/A
4995	39.93	394.9	396.5	0.9961
4995	19.96	198.2	197.3	1.0048
4995	9.97	99.2	96.8	1.0253
4995	0.0	0.0	0.7	As Found Zero
4995	39.93	394.9	402.3	As Found Span
			Average Correction Factor	1.0087

Calculated value of As Found Response: 393.293 ppm Percent Change of As Found: 0.4%

	before calibration		after calibration	
Auto zero	0.8	ppm	0.7	ppm
Auto span	355.5	ppm	350.7	ppm

Notes: Span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **SO2**

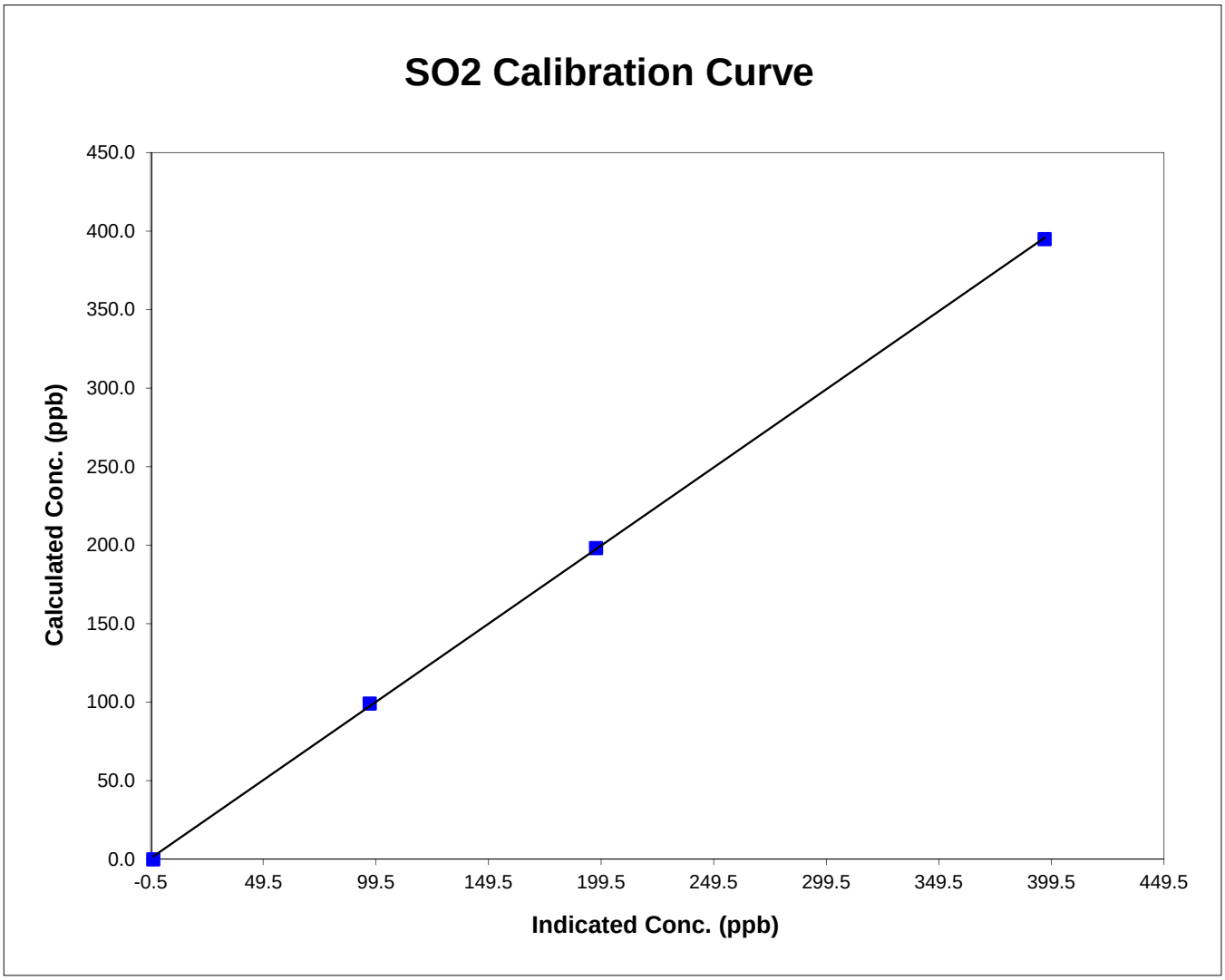
Air Monitoring Network **PAZA**

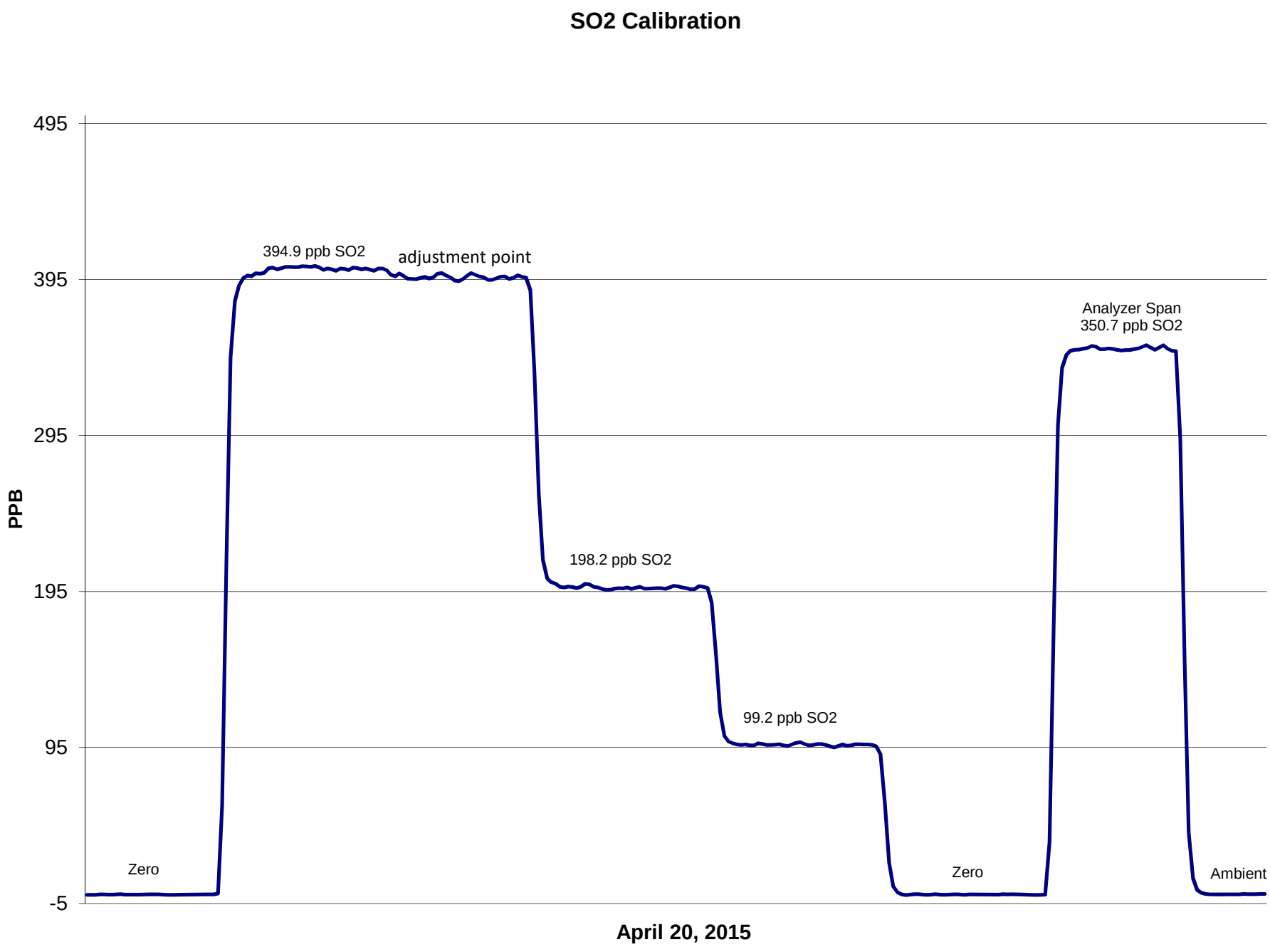
Station Information

Calibration Date	April 20, 2015	Previous Calibration	March 11, 2015
Station Number	1	Station Location	Falher
Start Time (MST)	12:00	End Time (MST)	14:20:00 PM
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	0.7	N/A		
394.9	396.5	0.9961	Correlation Coefficient	0.999909
198.2	197.3	1.0048		
99.2	96.8	1.0253	Slope	0.995465
			Intercept	1.065723




SO2 Calibration
495
395
295
195
95
-5
PPB
394.9 ppb SO2
adjustment point
198.2 ppb SO2
99.2 ppb SO2
Analyzer Span
350.7 ppb SO2
Zero
Zero
Ambient
April 20, 2015

Calibration Report

Parameter **H2S**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	April 20, 2015	Previous Calibration	March 11, 2015
Station Number	1	Station Location	Falher
Reason: Routine	Install	Removal	Other:
Start Time (MST)	10:10	End Time (MST)	13:00:00 PM
Barometric Pressure	0.927 mm	Station Temperature	21.0 Deg C
Calibrator	Environics	Serial Number	3016
Cal Gas Conc	10.32 ppm	Cal Gas Expiry Date	08/07/2016
Correction factor	0.031404	Cal Gas Cylinder #	LL110781
DACS make	CR1000	DACS serial No.	3980
DACS voltage range	0 - 5 volt	DACS channel #	5
	Before		After
Calculated slope	0.983943	Calculated slope	0.989594
Calculated intercept	-0.078625	Calculated intercept	-0.029445
Analyzer make	Thermo 450i	Analyzer serial #	1207452006

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	14.6	ppb	14.6	ppb
coefficient	1.117		1.117	
Lamp Voltage	804	volts	808	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	44.99	Deg C
Pressure	536.2	mm Hg	536	mm Hg
Sample Flow	0.926	lpm	0.922	lpm
Lamp Intensity	91	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	0.5	N/A
4995	39.93	81.84	83.0	0.9856
4995	19.96	41.07	41.0	1.0023
6994	9.97	14.69	14.7	1.0023
4995	0.00	0.00	0.5	As Found Zero
4995	39.93	81.84	83.0	As Found Span
			Average Correction Factor	0.9967

Calculated value of As Found Response: 81.15 ppm Percent Change of As Found: 0.9%

	before calibration		after calibration	
Auto zero	0.4	ppm	0.3	ppm
Auto span	52.5	ppm	52.9	ppm

Notes: No adjustments made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **H2S**

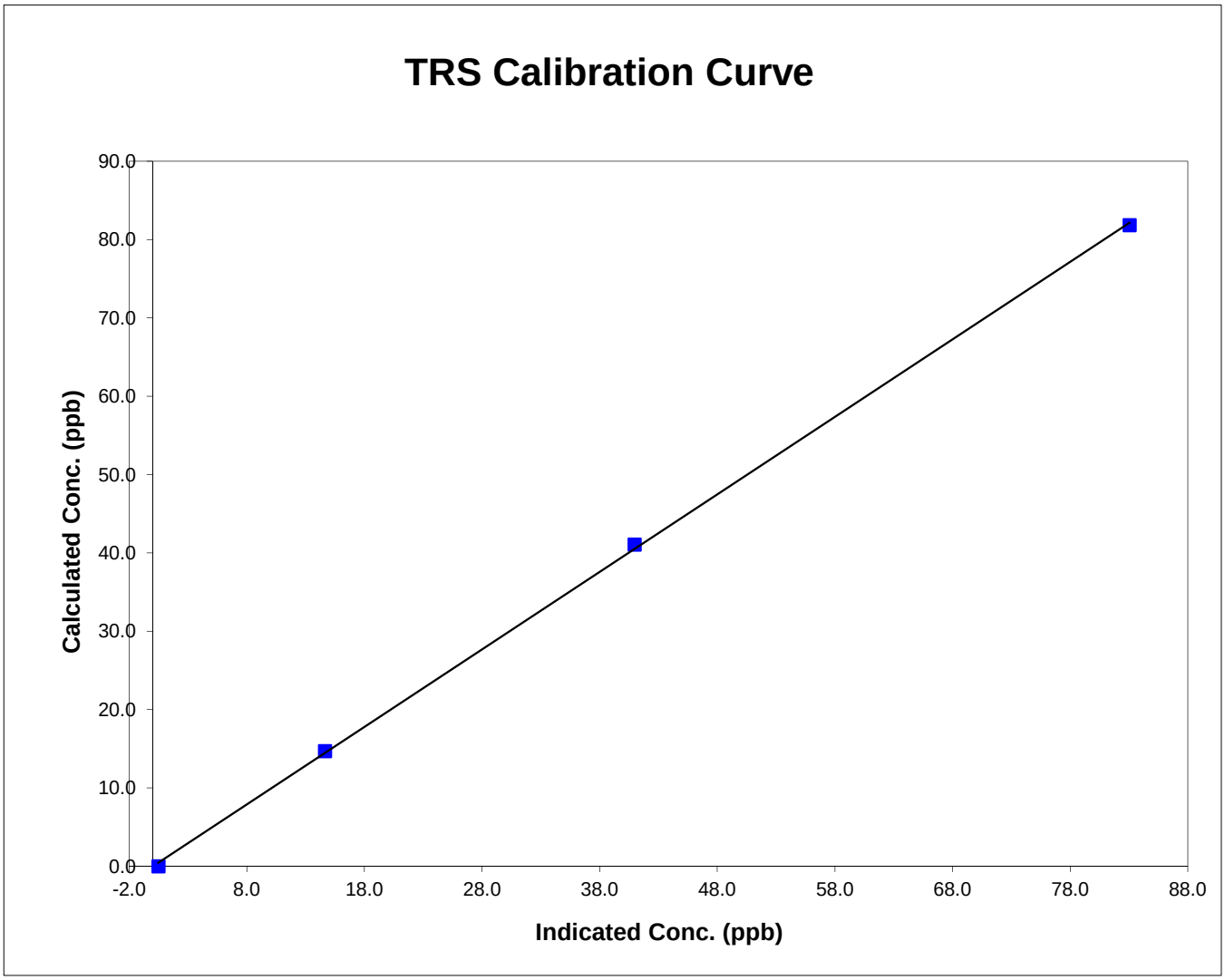
Air Monitoring Network **PAZA**

Station Information

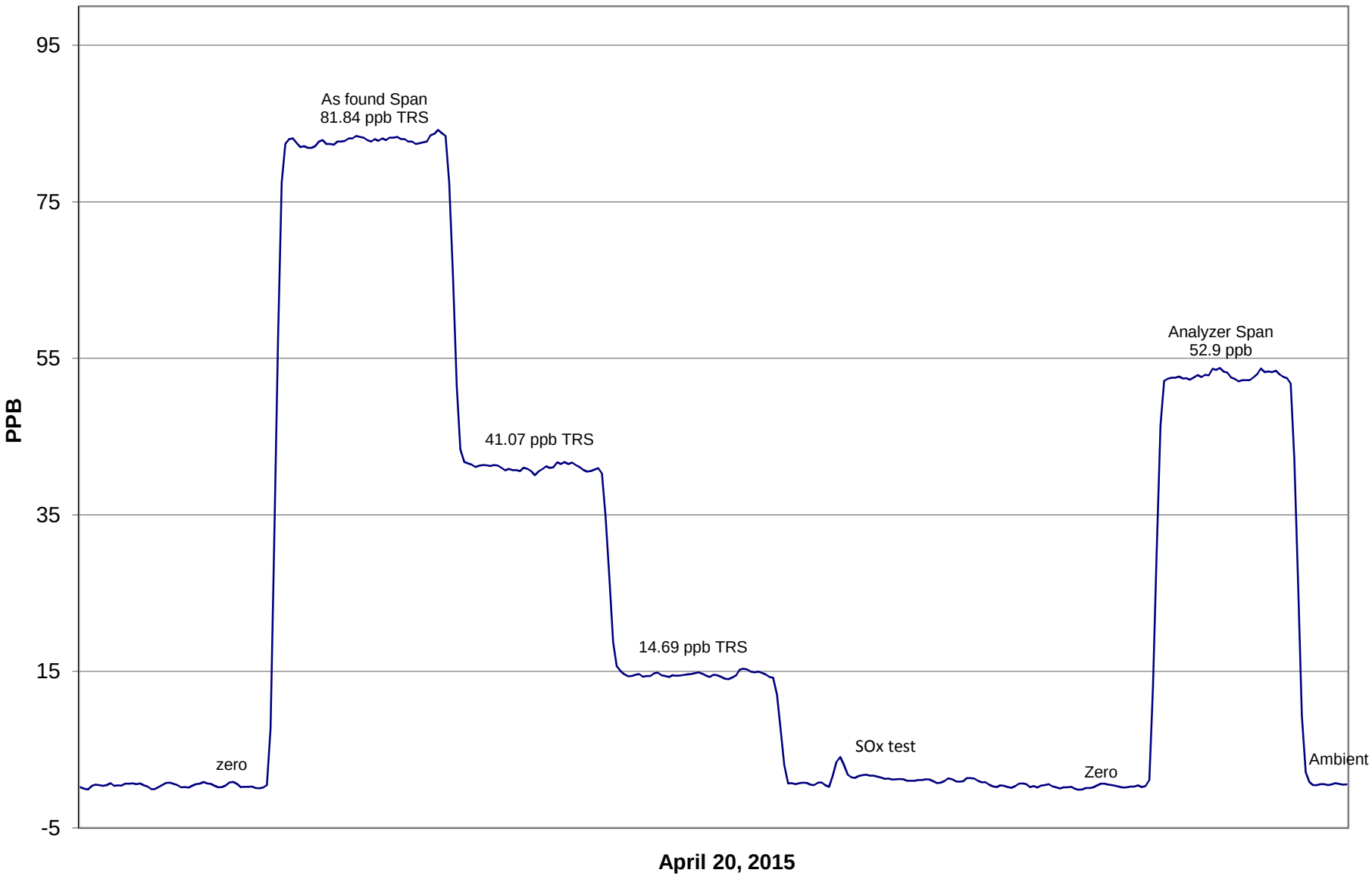
Calibration Date	April 20, 2015	Previous Calibration	March 11, 2015
Station Number	1	Station Location	Falher
Start Time (MST)	10:10	End Time (MST)	13:00:00 PM
Analyzer make/model	Thermo 450i	Analyzer serial #	1207452006

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.5	N/A		
81.8	83.0	0.9856	Correlation Coefficient	0.999832
41.1	41.0	1.0023		
14.7	14.7	1.0023	Slope	0.989594
			Intercept	-0.029445



H2S Calibration



Calibration Report

Parameter **NO_X-NO-NO_2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	April 9, 2015	Previous Calibration	March 6, 2015
Station Number	10	Station Location	Clairmont

Reason: Routine Installation Removal Other:

Start Time (MST)	8:05		End Time (MST)	12:05	
Barometric Pressure	0.925	Atm	Station Temperature	20.5	Deg C
Calibrator	Environics		Serial Number	3016	
NO Cal Gas Conc	50.9	ppm	Cal Gas Expiry Date	March 10, 2017	
NOx Cal Gas Conc	51.2	ppm	Cal Gas Serial #	LL119493	

DACS Information

DACS make: CR3000 DACS serial No.: 5407

Parameter		NO2	NOx	NO
Before	Data Slope	1.000476	0.999202	0.996727
	Data Offset	0.043955	0.944297	0.943856
After	Data Slope	1.000987	0.986184	0.984071
	Data Offset	-0.170840	1.791041	1.644236
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	7.1	mV	7.2	mV
NOx bkgnd	7.3	mV	7.3	mV
NO coefficient	1.264		1.264	
NOx coefficient	0.999		0.999	
NO2 conv temp	324.2	Deg C	0.325.1	Deg C
PMT Temp	-2.8	Deg C	-2.8	Deg C
PMT Volt	-845.8	mV	-845.5	mV
R Cell Press	219.2	in Hg	215.6	in Hg
Sample Flow	0.650	LPM	0.666	LPM

Notes: No adjustment made

Calibration Report

Parameter **NOX-NO-NO2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date: April 9, 2015 Station Location: Clairmont

Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor
zero	4995	0.00	0.0	0.0	0.0	-0.5	-0.5	-0.5	N/A	N/A
1	4995	39.92	405.9	403.6	2.4	410.4	409.0	-0.8	0.9892	0.9867
2	4995	19.96	203.8	202.6	1.2	204.4	203.6	-0.4	0.9969	0.9951
3	4995	9.93	101.6	101.0	0.6	99.8	99.8	-0.3	1.0183	1.0123
AFZ	4995	0.00	0.0	0.0	0.0	-0.5	-0.5	-0.5	0.0000	0.0000
AFS	4995	39.92	405.9	403.6	0.8	410.4	409.0	-0.8	0.9892	0.9867
							Average Correction Factor		1.0015	0.9980

As Found Concentrations: NO_X= 411.5 NO= 409.1 As Found Percent Change NO_X= 1.4% NO= 1.4%

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	411.5	411.5	0.0	413.6	411.5	-0.4	0.9949	1.0000	N/A	N/A
300	411.5	97.9	313.6	412.9	97.9	313.0	0.9965	1.0000	1.0019	99.8%
200	411.5	199.7	211.8	414.3	199.7	212.0	0.9932	1.0000	0.9991	100.1%
100	411.5	302.4	109.1	414.9	302.4	110.1	0.9918	1.0000	0.9915	100.9%
					Average Correction Factor		0.9938	1.0000	0.9975	100.3%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	-0.2	-0.4	-0.2	ppb	-0.4	-0.5	-0.3	ppb
Auto span	168.2	166.4	0.8	ppb	169.7	167.8	0.7	ppb

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **NO_2**

Air Monitoring Network **PAZA**

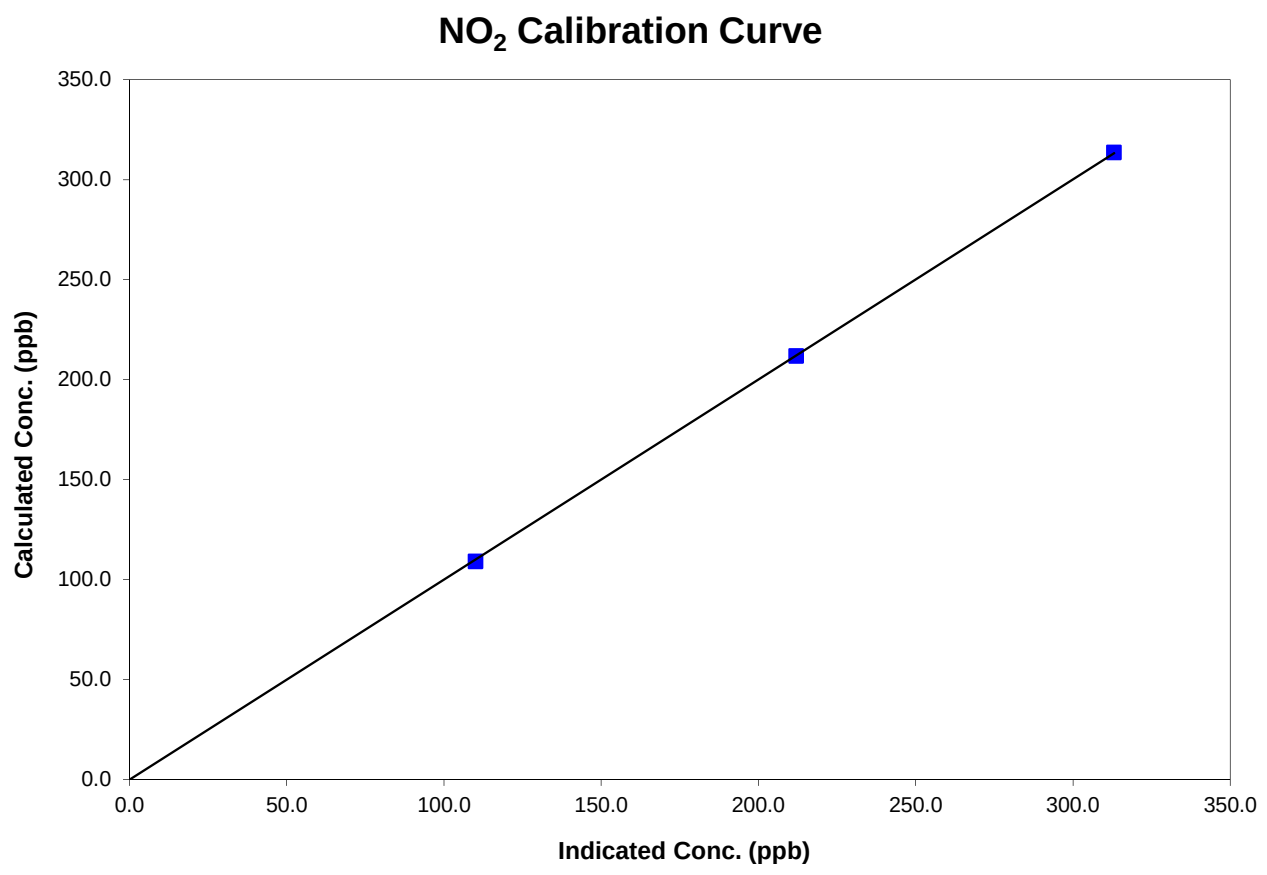
WSP AIR QUALITY MONITORING

Station Information

Calibration Date	April 9, 2015	Previous Calibration	March 6, 2015
Station Number	10	Station Location	Clairmont
Start Time (MST)	8:05	End Time (MST)	12:05
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		
313.6	313.0	1.0019	Correlation Coefficient	0.999973
211.8	212.0	0.9991		
109.1	110.1	0.9915	Slope	1.000987
			Intercept	-0.170840



Calibration Summary

Parameter **NO_x**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

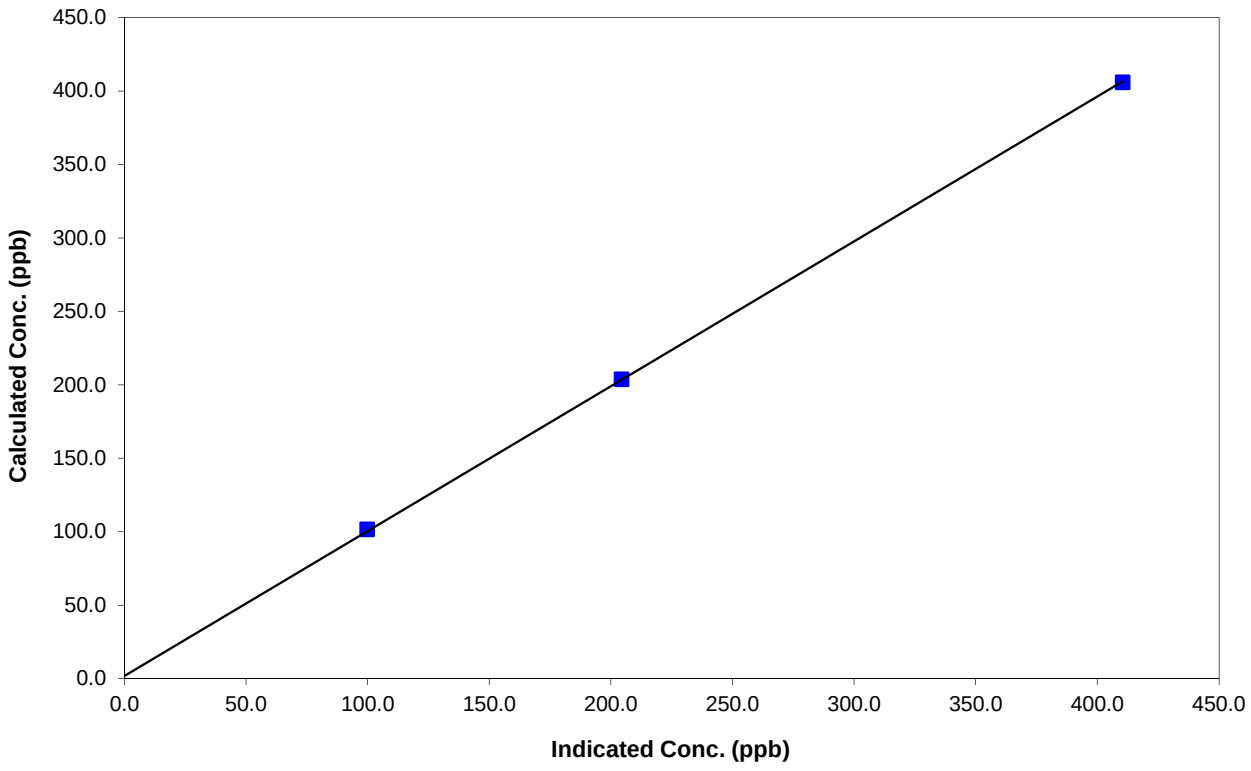
Station Information

Calibration Date	April 9, 2015	Previous Calibration	March 6, 2015
Station Number	10	Station Location	Clairmont
Start Time (MST)	8:05	End Time (MST)	12:05
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		
405.9	410.4	0.9892	Correlation Coefficient	0.999955
203.8	204.4	0.9969		
101.6	99.8	1.0183	Slope	0.986184
			Intercept	1.791041

NOx Calibration Curve



Calibration Summary

Parameter **NO**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

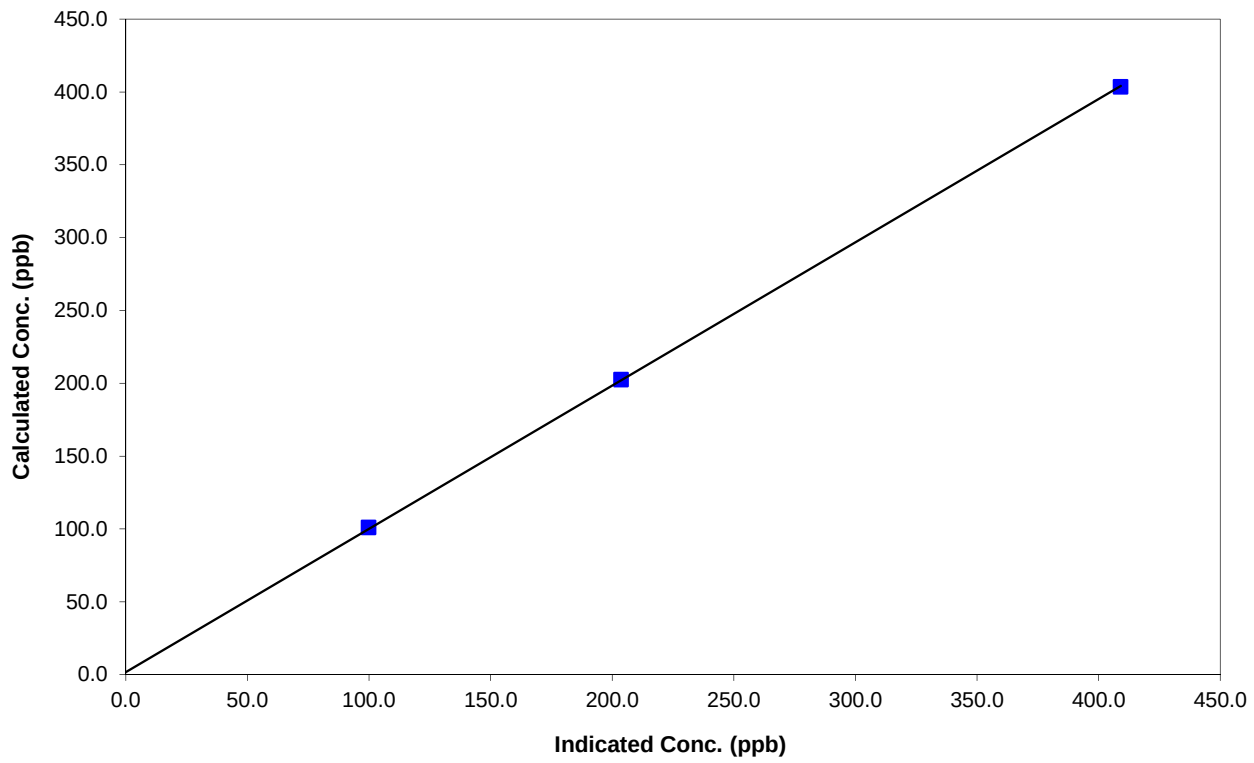
Station Information

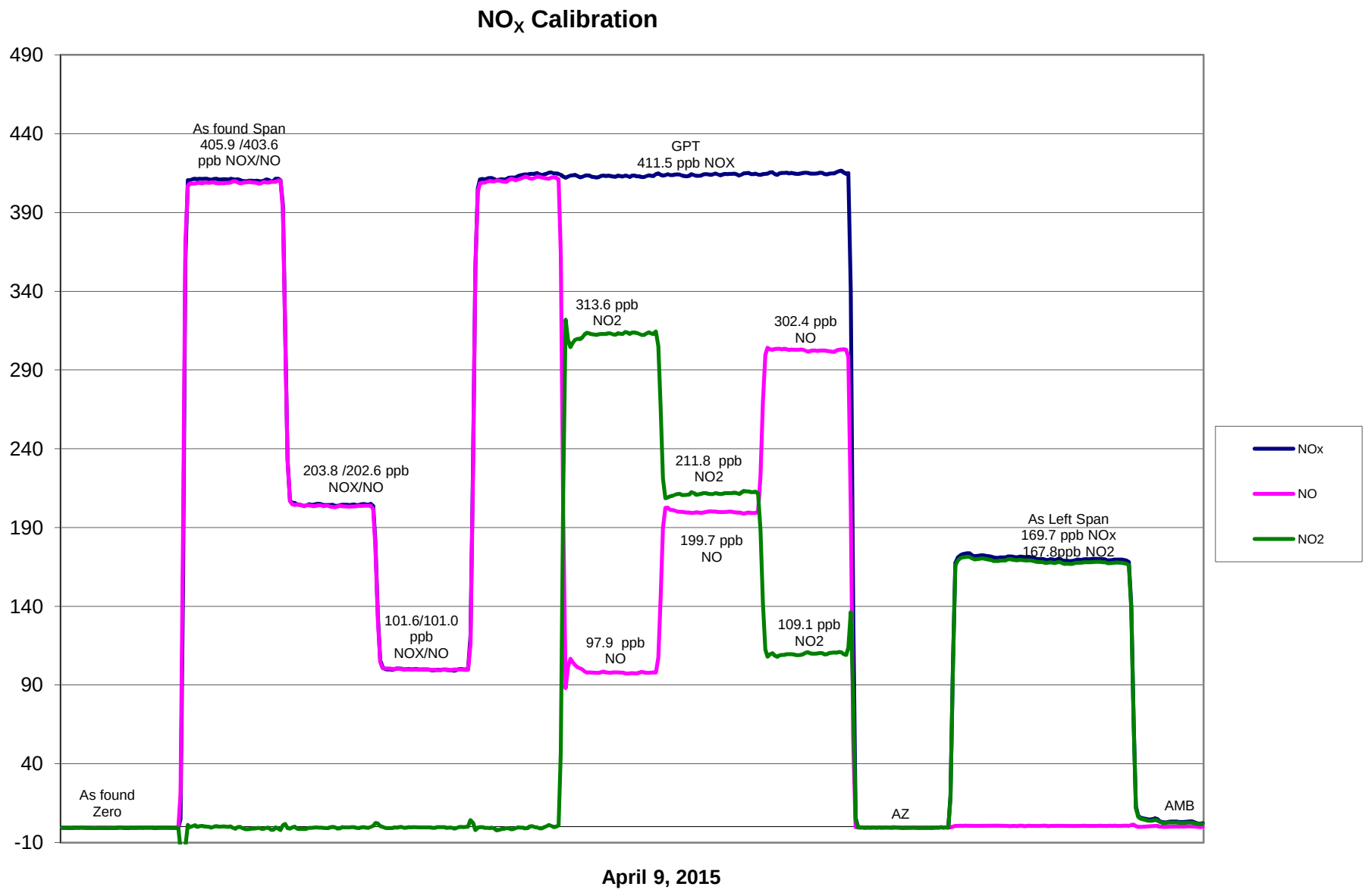
Calibration Date	April 9, 2015	Previous Calibration	March 6, 2015
Station Number	10	Station Location	Clairmont
Start Time (MST)	8:05	End Time (MST)	12:05
Analyzer make	TEI 42i	Analyzer serial #	0701120011

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.5	N/A		
403.6	409.0	0.9867	Correlation Coefficient	0.999961
202.6	203.6	0.9951		
101.0	99.8	1.0123	Slope	0.984071
			Intercept	1.644236

NO Calibration Curve




NOx Calibration
490
440
390
340
290
240
190
140
90
40
-10
As found Span
405.9 /403.6
ppb NOX/NO
GPT
411.5 ppb NOX
313.6 ppb
NO2
302.4 ppb
NO
203.8 /202.6 ppb
NOX/NO
211.8 ppb
NO2
199.7 ppb
NO
As Left Span
169.7 ppb NOx
167.8ppb NO2
101.6/101.0
ppb
NOX/NO
97.9 ppb
NO
109.1 ppb
NO2
As found
Zero
AZ
AMB
NOx
NO
NO2
April 9, 2015

Calibration Report

Parameter **O3**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	April 9 2015	Previous Calibration	March 6 2015
Station Number	10	Station Location	Clairmont
Reason:	Routine / Install	Removal / remove	Other:
Start Time (MST)	10:40	End Time (MST)	12:25
Barometric Pressure	0.925 atm	Station Temperature	20.5 Deg C
Calibrator	Environics 6100	Serial Number	3016
DACS make	CR3000	DACS serial No.	5407
DACS voltage range	0 - 5 Volts	DACS channel #	6
	Before		After
Calculated slope	1.016547	Calculated slope	0.999064
Calculated intercept	0.070761	Calculated intercept	-0.204384
Analyzer make	TEI Model 49C	Analyzer serial #	49C-0609716240

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Offset	0	ppb	0	ppb
Span	0.980		0.992	
Cell A intensity	79147	Hz	82101	Hz
Cell B intensity	76783	Hz	79321	Hz
Pressure	666.40	in Hg	670.80	in Hg
CellA Flow	0.702	ccm	0.705	ccm
Cell B Flow	0.693	cmm	0.694	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)
5035	0.00	0.0	0.2	N/A
5035	0.30	313.6	314.5	0.9973
5035	0.20	211.8	211.5	1.0016
5035	0.10	109.1	109.8	0.9933
5035	0.00	0.0	0.2	As found zero
5035	0.30	313.6	307.1	As found span
			Average Correction Factor	0.9974

Calculated value of As Found Response: 312.1 ppm Percent Change of As Found: -0.5%

	before calibration		after calibration	
Auto zero	0.0	ppb	0.1	ppb
Auto span	426.5	ppb	426.4	ppb

Notes: Span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **O3**

Air Monitoring Network **PAZA**

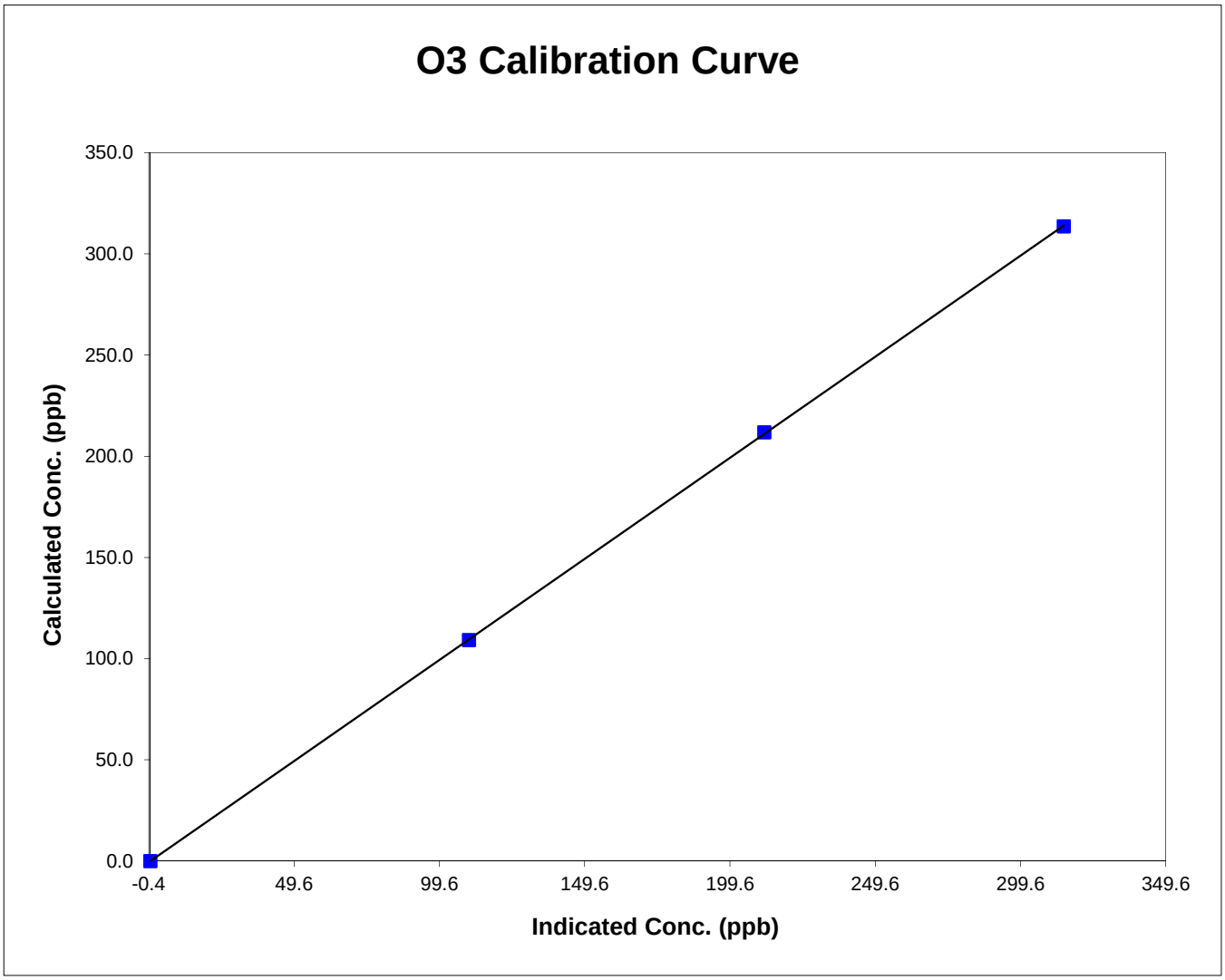
WSP AIR QUALITY MONITORING

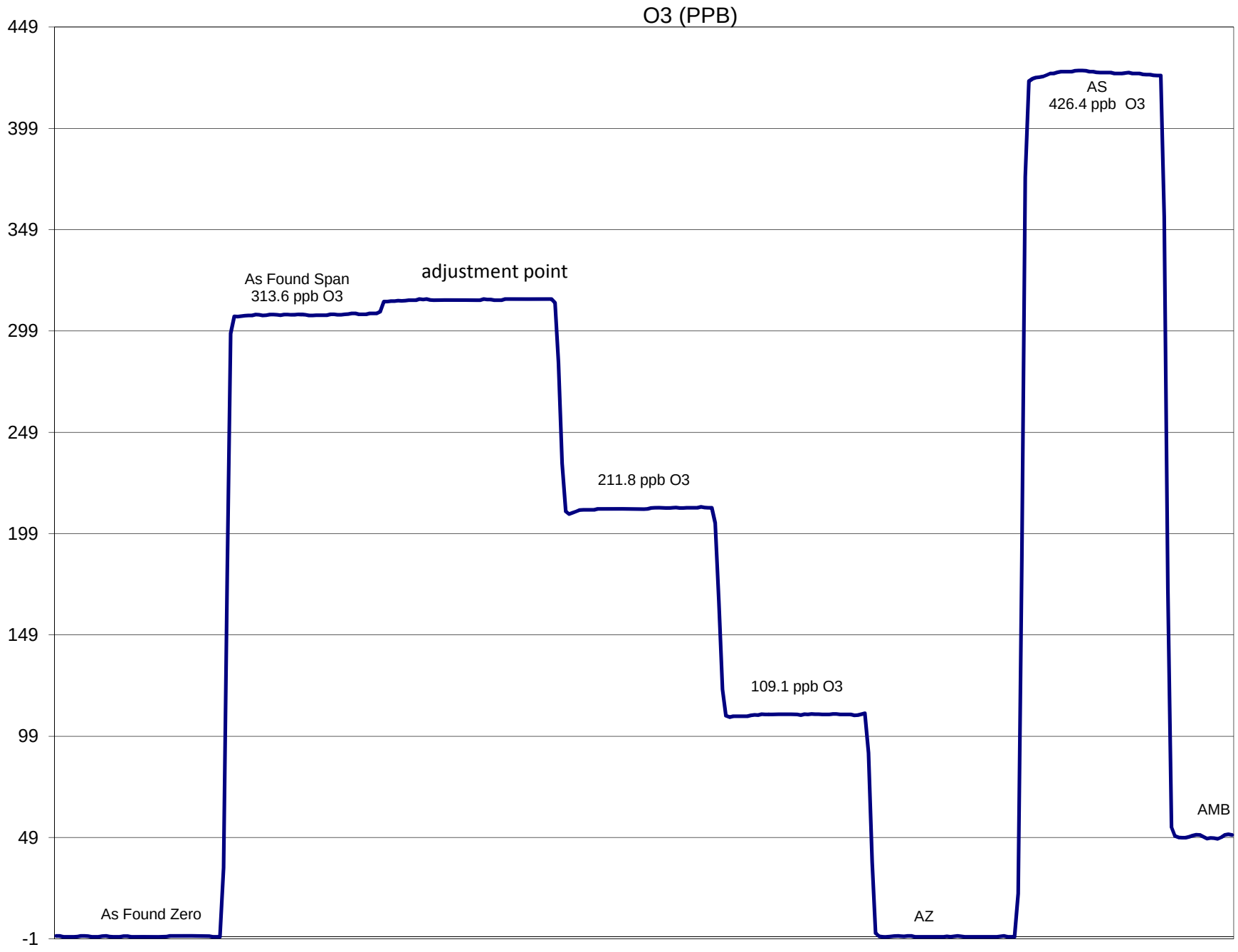
Station Information

Calibration Date	April 9 2015	Previous Calibration	March 6 2015
Station Number	10	Station Location	Clairmont
Start Time (MST)	10:40	End Time (MST)	12:25
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	0.2	NA		
313.6	314.5	0.9973	Correlation Coefficient	0.999984
211.8	211.5	1.0016		
109.1	109.8	0.9933	Slope	0.999064
			Intercept	-0.204384




O3 (PPB)
449
399
349
299
249
199
149
99
49
-1
As Found Span
313.6 ppb O3
adjustment point
211.8 ppb O3
109.1 ppb O3
AS
426.4 ppb O3
AMB
As Found Zero
AZ

April 9 2015

Calibration Report

Parameter **THC**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	April 10, 2015	Previous Calibration	March 24, 2015
Station Number	10	Station Location	Clairmont
Reason:	Routine / Install	Removal	Other:
Start Time (MST)	10:10	End Time (MST)	13:35:00 PM
Barometric Pressure	0.925 ATM	Station Temperature	20.0 Deg C
Calibrator	Environics 6100	Serial Number	3016
Cal Gas Concentration	404 ppm CH4/ 201 ppm C3H8	Cal Gas Expiry Date	28/03/2014
Cal Gas CH4 equiv	956.75 ppm	Cal Gas Cylinder #	LL34989
DACS make	CR3000	DACS serial No.	5407
DACS voltage range	0 - 1 volt	DACS channel #	12
	Before		After
Calculated slope	0.997864	Calculated slope	0.997340
Calculated intercept	-0.006977	Calculated intercept	0.077645
Analyzer make	TEI Model 51C-LT	Analyzer serial #	51CLT-79009-390

	before		after	
Concentration range	0 - 25	ppm	0 - 25	ppm
THC sample pressure	6.50	psi	6.50	psi
THC zero counts	1510	capture	1510	capture
THC span counts	11040	capture	11040	capture
THC zero offset	2309	capture	2233	capture
THC span offset	2240	capture	2306	capture

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)
2996	0.00	0.00	0.02	N/A
2996	69.89	21.81	21.83	0.9992
2996	29.96	9.47	9.35	1.0126
2996	9.97	3.17	3.03	1.0469
2996	0.00	0.00	-0.04	As Found Zero
2996	69.93	21.82	21.29	As Found Span
			Average Correction Factor	1.0196

Calculated value of As Found Response: 21.280 ppm Percent Change of As Found: 2.5%

	before calibration		after calibration	
Auto zero	0.08	ppm	0.02	ppm
Auto span	21.48	ppm	21.63	ppm

Notes: Hydrogen cylinder replaced
Zero/Span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **THC**

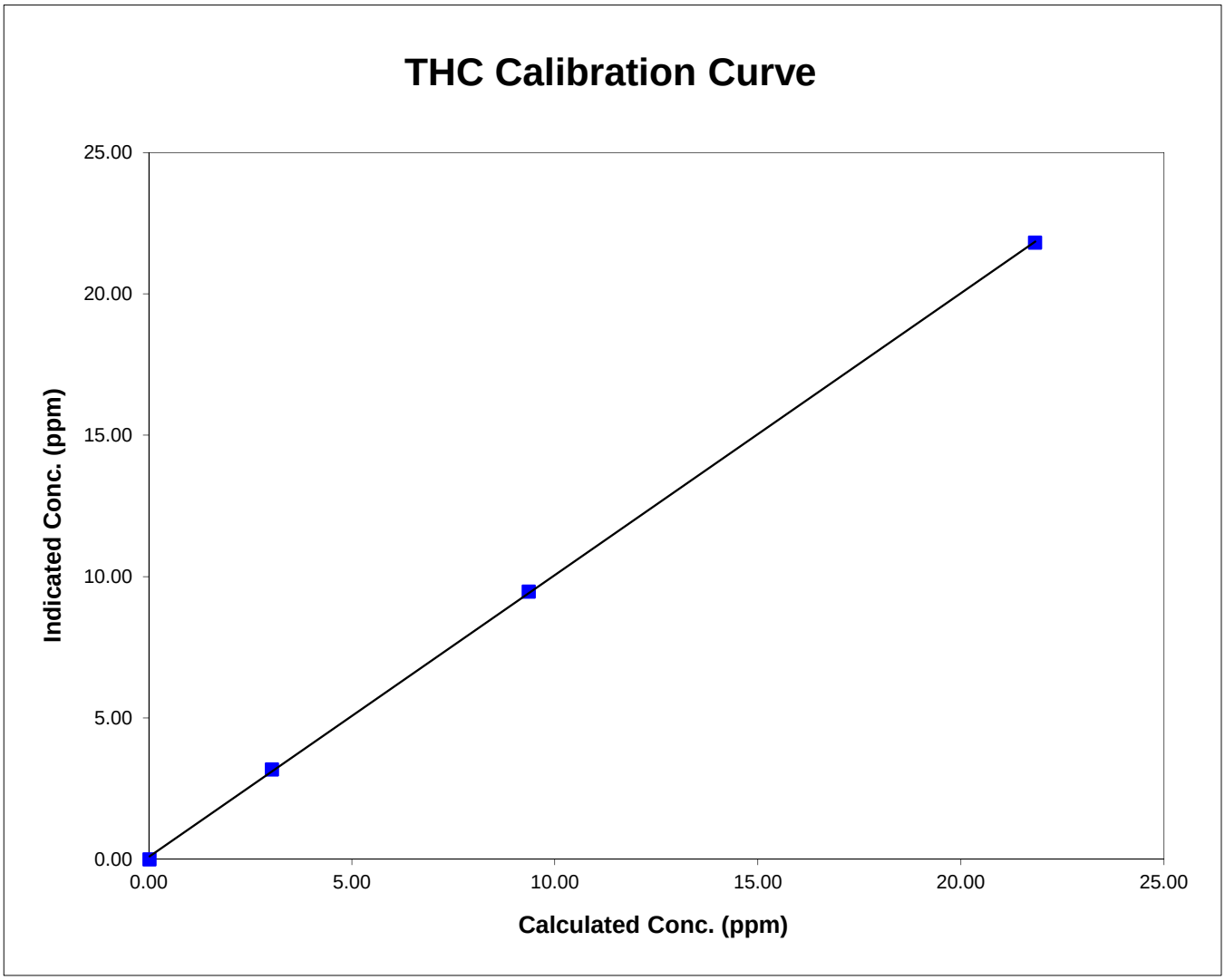
Air Monitoring Network **PAZA**

Station Information

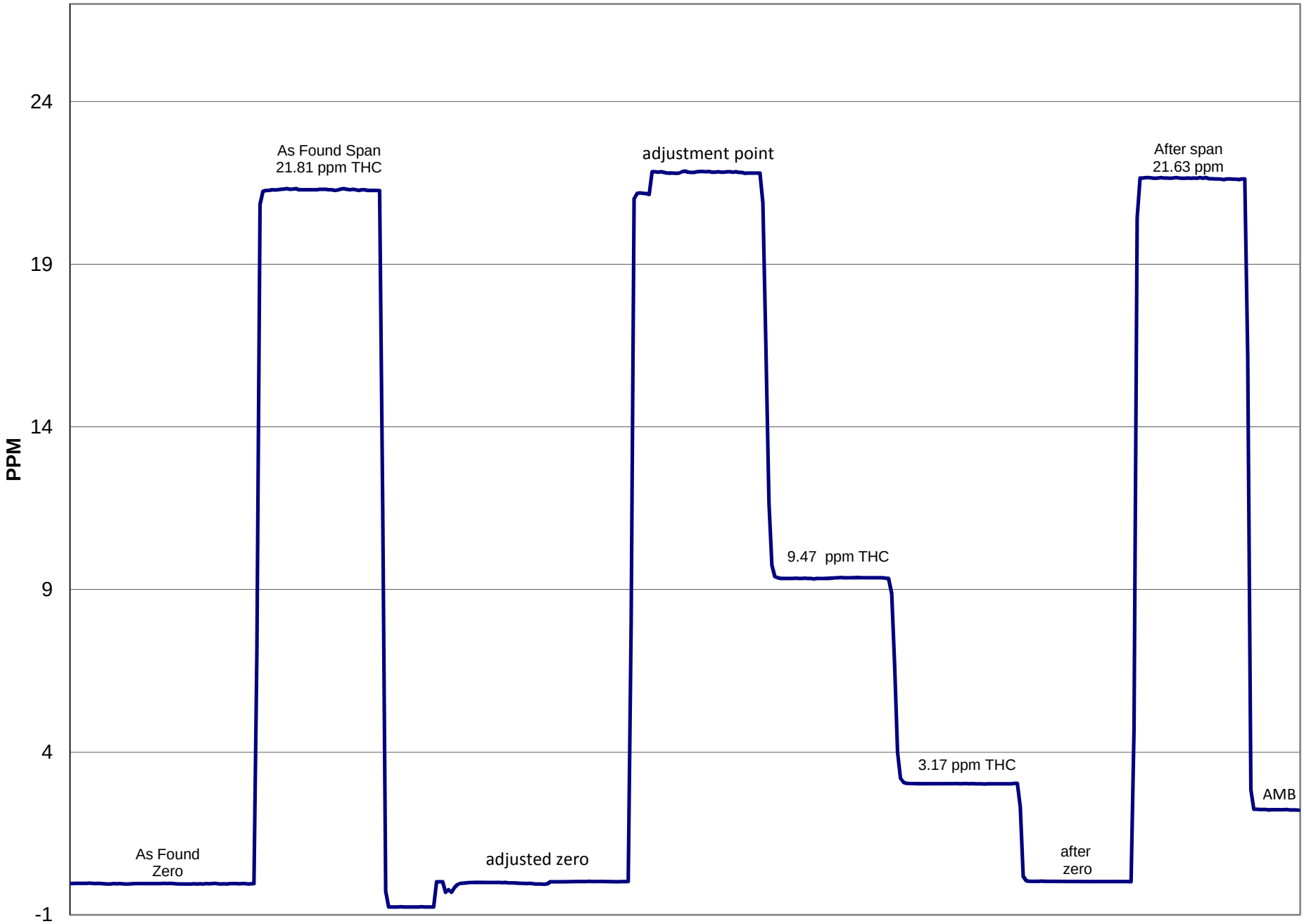
Calibration Date	April 10, 2015	Previous Calibration	March 24, 2015
Station Number	10	Station Location	Clairmont
Start Time (MST)	10:10	End Time (MST)	13:35:00 PM
Analyzer make/model	TEI Model 51C-LT	Analyzer serial #	51CLT-79009-390

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.022	N/A		
21.81	21.83	0.9992	Correlation Coefficient	0.999925
9.47	9.35	1.0126		
3.17	3.03	1.0469	Slope	0.997340
			Intercept	0.077645



THC Calibration



Calibration Report

Parameter **TRS**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	April 10, 2015	Previous Calibration	March 9, 2015
Station Name	PAZA Rover	Station Location	Clairmont
Reason: Routine	Install	Removal	Other:
Start Time (MST)	8:10 AM	End Time (MST)	11:25
Barometric Pressure	0.935 Atm	Station Temperature	20.0 Deg C
Calibrator	Environics	Serial Number	3016
Cal Gas Concentratior	10.32 ppm	Cal Gas Expiry Date	July/08/2016
Gas Cert Reference	LL110781		
DACS make	CR3000	DACS serial No.	5407
DACS voltage range	0 - 5 Volt	DACS channel #	1
	Before		After
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	1.000507	Calculated slope	0.997595
Calculated intercept	0.259260	Calculated intercept	0.607862
Analyzer make	TEI 43C	Analyzer serial #	609716238

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	25.7	ppb	26.2	ppb
Coefficient	0.938		0.957	
Lamp Voltage	796	V	796	V
Chamber Temp	43.7	C	43.8	C
Perm gas Temp	44.99	C	45	C
Pressure	653.9	mmHg	652.5	mmHg
Sample Flow	0.430	lpm	0.429	lpm
Lamp Intensity	43608	Hz	43118	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	0.0	0.0	-0.2	N/A
4995	39.93	81.8	81.7	1.0023
4995	19.97	41.1	40.2	1.0218
6995	9.97	14.7	13.9	1.0605
4995	9.97		0.5	Sox Test
4995	0.00	0.0	-0.2	As found zero
4995	39.93	81.8	79.3	As found span
			Average Correction Factor	1.0282

Calculated value of As Found Response: 79.85 ppm Percent Change of As Found: 2.4%

	before calibration		after calibration	
Auto zero	0.0	ppm	-0.2	ppm
Auto span	61.7	ppm	58.4	ppm

Notes: Span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **TRS**

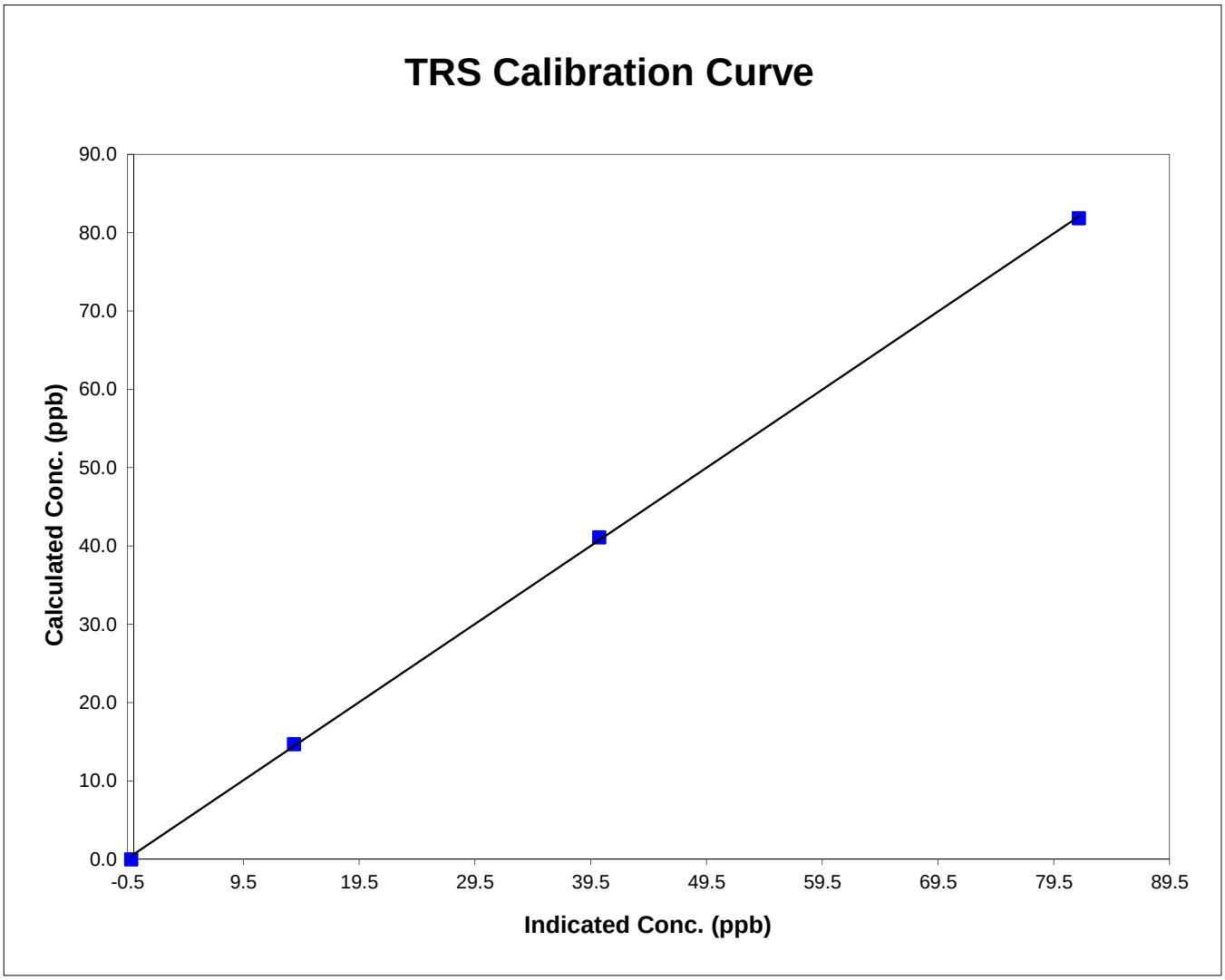
Air Monitoring Network **PAZA**

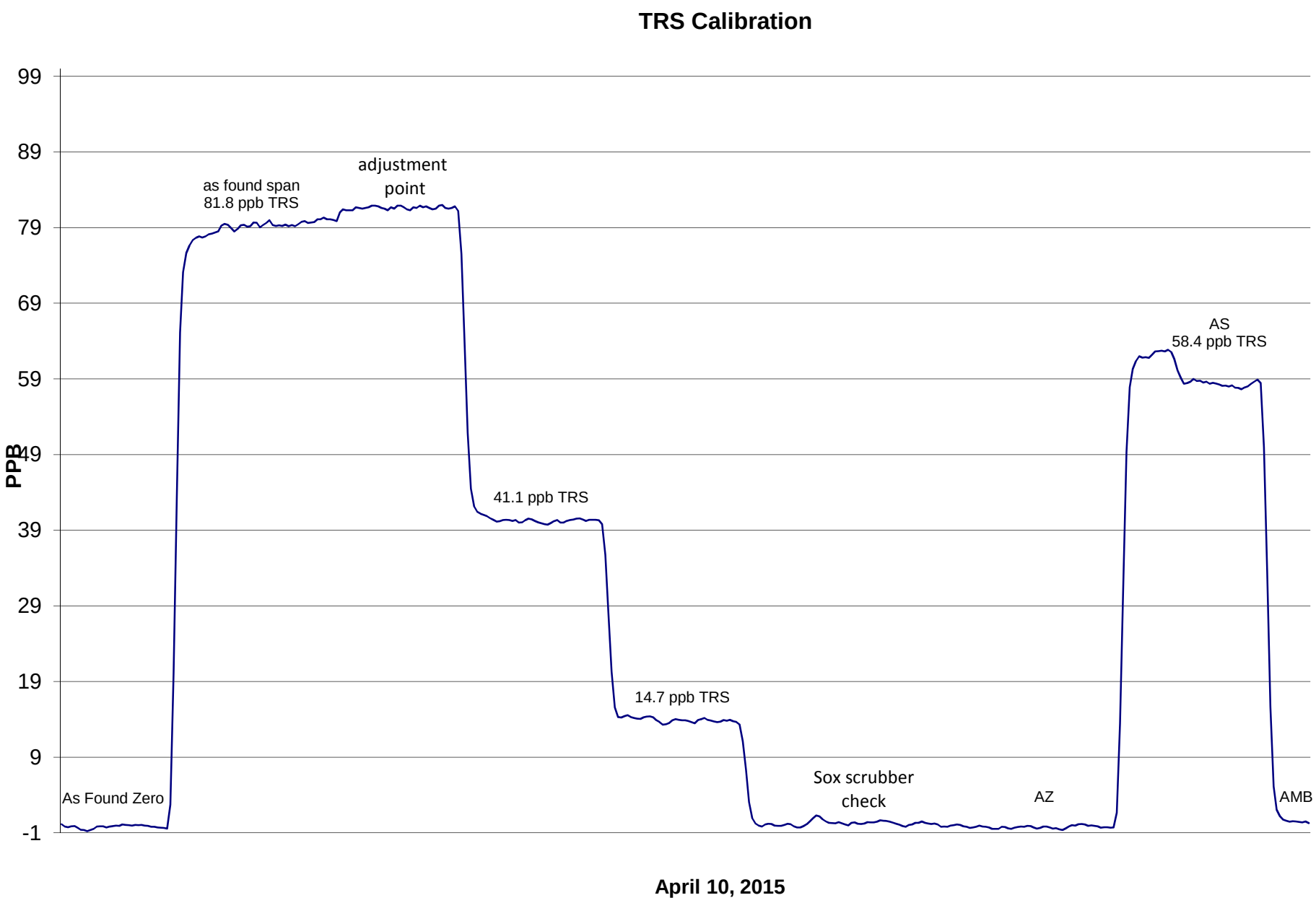
Station Information

Calibration Date	April 10, 2015	Previous Calibration	March 9, 2015
Station Number	PAZA Rover	Station Location	Clairmont
Start Time (MST)	8:10	End Time (MST)	11:25
Analyzer make/model	TEI 43C	Analyzer serial #	609716238

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.2	N/A		
81.8	81.7	1.0023	Correlation Coefficient	0.999893
41.1	40.2	1.0218		
14.7	13.9	1.0605	Slope	0.997595
			Intercept	0.607862




TRS Calibration
99
89
79
69
59
49
39
29
19
9
-1
PPB
as found span
81.8 ppb TRS
adjustment
point
41.1 ppb TRS
14.7 ppb TRS
Sox scrubber
check
AZ
AS
58.4 ppb TRS
As Found Zero
AMB
April 10, 2015

AB TEOM PM2.5 Calibration

FOCUS AIR QUALITY MONITORING

STATION: **Rover-Clairmont**

LOCATION: PAZA - Grande Prairie

OPERATOR: Grover Christiansen

DATE: 10-Apr-15

MONITOR INFO / PARAMETER VALUES:

Make/Model	TEOM AB
Configuration	PM2.5
Serial Number	21551
Site Number	10
Inlet Type	PM 10 / SCC
FAdj. Main Setting	1.000
FAdj. Aux. Setting	0.990
T-Case Indicated / Set Point	40/40
T-Air Indicated / Set Point	40/40
T-Cap Indicated / Set Point	40/40
Splitter Assembly Alignment (cm)	15.5

(vs. specified depth of 15.5 cm from top of flow tube to top of concentric 1/2 in. tube)

RECENT CALIBRATION AND AUDIT HISTORY

Previous Audit	
Previous Calibration	16-Jan-15

PUMP CAPACITY CHECK *	PASS

* capacity test or pump on timed test utilized to verify pump integrity

"FAIL" indicates that pump requires service.

LEAK CHECK	Indicated Flow (lpm)	
	Main	Auxiliary
PUMP ON	0.040	0.040
PUMP OFF	0.000	0.000
NET	0.040	0.040
LIMITS	*<0.15*	*<0.60*

		Ambient Temp. (^{0} C)	Ambient Pres. (atm)	Ko *	Bypass flow (lpm)	Sample flow (lpm)
	SET POINT (S)	na	na	12893	13.67	3.000
	INDICATED (I)	16.5	0.908		13.67	3.000
As Found Data	MEASURED (AF)	16.7	0.909		13.72	3.005
Adjusted Data	MEASURED (M)	16.7	0.909	13124	13.72	3.005
	DIFFERENCE (M-I)	0.2	0.001	1.8%	0.05	0.00
	LIMITS	*± 2 ^{0} C*	*± 0.005 atm*	*± 2.5 %*	*± 1.0 L/min*	*± 0.2 L/min*

Ko Audit Filter data *Weight:* 0.11251 *Serial #:* *CVK 3316*

COMMENTS: Pass

Full audit was performed.

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