Peace Airshed Zone Association

Ambient Air Monitoring Network Summary

Continuous Ambient Air Quality Monitoring Program
Monthly Report
May 2012

Operations and Reporting

Peace Airshed Zone Association
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May 22nd, 2012

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

RE: Peace Airshed Zone Association (PAZA) – May 2012 Ambient Air Report

Enclosed is the PAZA Ambient Monitoring Network Report for the month of **May 2012**.

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	AENV Approval Number
Advantage Oil & Gas Ltd.	Glacier	05-02-076-13-W6	262479-00-00
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
Barrick Energy Inc.	Sturgeon/Valleyview	02-02-069-22-W5	1633-02-00
Birchcliff Energy Ltd.	Pouce Coupe	03-22-078-12-W6	252529-00-00
Bonavista Energy Corporation	Rycroft	08-25-077-06-W6	11351-02-00
	Spirit River	08-34-077-06-W6	11096-02-00
Canadian Natural Resources Limited	Bonanza	11-25-081-11-W6	29-01-01
	Progress/Gordondale	01-01-077-10-W6	10036-02-00
	Gold Creek	13-26-067-05-W6	10446-02-00
	Teepee Creek	SE-2-074-04-W6	1635-02-02

Conocophillips Canada Energy Partnership	Wembley	06-19-073-08-W6	212-01-00
Devon Canada	Tangent	16-20-080-24-W5	11346-02-00
	NW Belloy (Dunvegan)	16-36-079-03-W6	9810-02-00
	Eaglesham (South)	02-14-077-25-W5	47669-01-00
	Puskwaskau	03-26-074-01-W6	17524-01-00
	North Normanville	03-36-079-23-W5	47455-01-00
	West Culp	05-34-078-25-W6	136284-00-00
	Cecil	08-15-084-08-W6	10032-02-00
EnCana Corporation	Hythe Brainard	11-18-074-12-W6	10910-02-02
	Sexsmith	04-08-075-07-W6	10002-01-00
Galleon Energy Inc.	Eaglesham	01-25-076-01-W6	241532-00-00
	Kakut	14-12-075-03-W6	248469-00-01
	Donnelly	06-01-077-21-W5	87-02-00
Grande Prairie Generation Inc.	Northern Prairie Power Project	04-19-073-08-W6	238762-00-02
Longview Oil Corp.	Sunset House	06-22-70-20-W5	138884-01-00
Penn West Petroleum Ltd.	Tangent	13-29-080-23-W5	1746-02-01
	Pouce Coupe	16-07-078-11-W6	614-01-00
Spectra Energy Midstream Corporation	Fourth Creek	16-11-082-09-W6	263-01-00
Suncor Energy Inc.	Progress	07-22-078-09-W6	11428-02-00
Taqa North Ltd.	Valhalla	13-21-076-09-W6	17620-01-01
Weyerhaeuser Canada	Grande Prairie Pulp and Wood Plant	01-14-070-05-W6	113-02-00

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

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

During the month of **May** the following events were noted:

Henry Pirker Station:

- The measured ambient air quality was within the Alberta Ambient Air Quality Objectives (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 May.

Evergreen Park Station:

- The measured ambient air quality was within the AAAQO for the Evergreen Park station, except for $PM_{2.5}$, which had one (1) 1-hour exceedence of the AAAQO guideline:
  - May 25 23:00 94.1 $\mu g/m^3$ Alberta Environment Reference # 258897
- All analyzers and sensors at the Evergreen Park station had an operational uptime greater than 90% for the month of May.

Smoky Heights Station:

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

Beaverlodge Station:

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

Valleyview Station:

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

Sunset House Station:

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

Passive Monitoring - 46 Stations throughout the PAZA zone:

There were five duplicate sites sampled in the month of May: Boone Creek, Wanham, Clairmont Lake, Deer Mountain, and Girouxville 3. The passive sample analyses were performed by MAXXAM Analytics Inc.

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

- Monthly average concentrations for SO_2 passives ranged from 0.1 ppb to 0.3 ppb, with a mean of 0.2 ppb.
- Monthly average concentrations for NO_2 passives ranged from 0.1 ppb to 1.5 ppb, with a mean of 0.5 ppb.
- Monthly average concentrations for O_3 passives ranged from 28.1 ppb to 45.9 ppb, with a mean of 37.1 ppb.
- Monthly average concentrations for H_2S passives ranged from 0.1 to 0.2 ppb, with a mean of 0.1 ppb.

If you have any questions or concerns, please contact Shelly Pruden, PAZA Program Manager at 780.833.4343 or 780.882.4071.

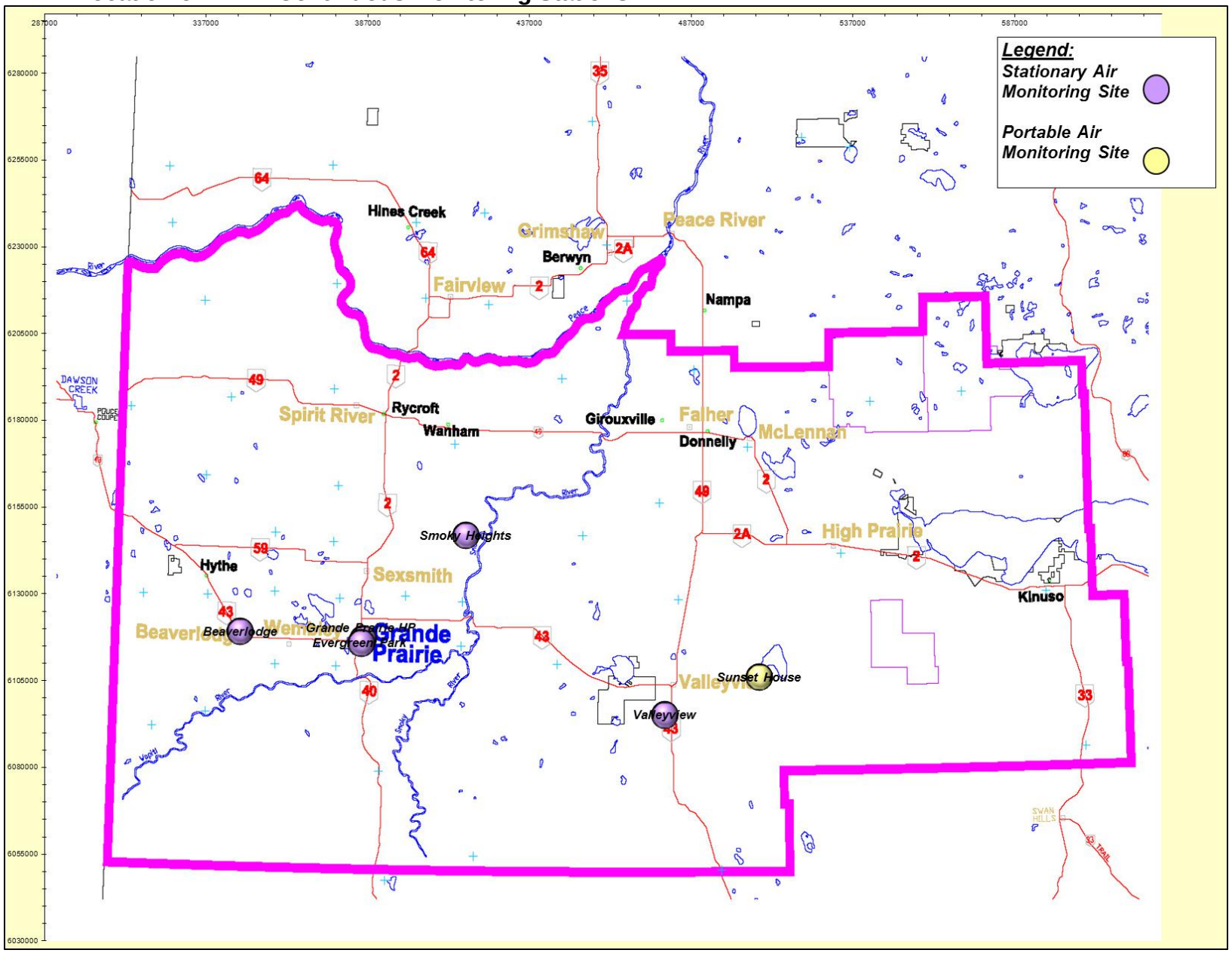
On Behalf of the
Peace Airshed Zone Association

Shelly Pruden
Program Manager

Patrick Andersen, B.Sc.
FOCUS AQM Data Specialist

Jeff Cooper, C.Tech.
AQM Operations Manager

Location of PAZA Continuous Monitoring Stations



PAZA Monthly Continuous Data Summary

May-2012	Peace Airshed Zone Assocation						Maximum Recorded Values				
							1-hr		24-hr / 8-hr		
Pollutant (units)	Objectives 1-hr	Objectives 24-hr	Station	Monthly Average	Exceedence 1-hr	Exceedence 24-hr	Conc	Day	Conc	Day	Operational Time (%)
SO_2 (ppb)	172	48	Henry Pirker	0.1	0	0	2.9	May-26 11:00	0.4	May-26	100%
SO_2 (ppb)	172	48	Evergreen Park	0.1	0	0	1.8	May-26 10:00	0.3	May-02	100%
SO_2 (ppb)	172	48	Smoky Heights	0.2	0	0	6.1	May-15 07:00	1.0	May-11	100%
SO_2 (ppb)	172	48	Beaverlodge	0.1	0	0	1.5	May-14 08:00	0.3	May-24	100%
SO_2 (ppb)	172	48	Valleyview	0.8	0	0	12.9	May-11 04:00	3.4	May-10	100%
SO_2 (ppb)	172	48	Sunset House	0.1	0	0	2.2	May-26 10:00	0.5	May-21	100%
NO (ppb)			Henry Pirker	0.8	0	0	24.4	May-02 07:00	3.1	May-02	100%
NO_2 (ppb)	159	106	Henry Pirker	4.6	0	0	30.3	May-07 23:00	8.0	May-07	100%
NO_X (ppb)			Henry Pirker	5.4	0	0	42.5	May-02 07:00	10.9	May-02	100%
NO (ppb)			Beaverlodge	0.1	0	0	3.9	May-02 08:00	0.4	May-02	100%
NO_2 (ppb)	159	106	Beaverlodge	1.6	0	0	12.0	May-02 08:00	2.9	May-22	100%
NO_X (ppb)			Beaverlodge	1.8	0	0	16.1	May-02 08:00	3.1	May-22	100%
NO (ppb)			Sunset House	0.1	0	0	1.4	May-12 09:00	0.4	May-12	100%
NO_2 (ppb)	159	106	Sunset House	0.9	0	0	4.6	May-02 15:00	1.6	May-02	100%
NO_X (ppb)			Sunset House	0.9	0	0	4.4	May-02 15:00	1.6	May-21	100%
O_3 (ppb)	82		Henry Pirker	36.6	0	-	60.5	May-28 13:00	51.0	May-28	100%
O_3 (ppb) - 8-hr			Henry Pirker		0				58.6	May-28	
O_3 (ppb)	82		Beaverlodge	40.1	0	-	63.3	May-28 15:00	52.8	May-28	100%
O_3 (ppb) - 8-hr			Beaverlodge		0				61.6	May-28	
O_3 (ppb)	82		Sunset House	42.8	0	-	70.3	May-12 12:00	56.6	May-12	100%
O_3 (ppb) - 8-hr			Sunset House		0				63.6	May-11	
CO (ppm)	13		Henry Pirker	0.17	0	-	0.6	May-07 23:00	0.2	May-07	100%
CO (ppm) - 8-hr	5		Henry Pirker		0				0.3	May-08	
THC (ppm)			Henry Pirker	2.13	-	-	4.9	May-02 07:00	2.4	May-24	100%
TRS (ppb)			Henry Pirker	0.3	-	-	1.0	May-07 06:00	0.4	May-01	100%
TRS (ppb)			Evergreen Park	0.5	-	-	1.7	May-18 05:00	0.7	May-18	100%
TRS (ppb)			Smoky Heights	0.2	-	-	0.6	May-17 06:00	0.3	May-02	100%
TRS (ppb)			Sunset House	0.3	-	-	0.6	May-13 11:00	0.4	May-30	100%
H_2S (ppb)	10	3	Valleyview	0.0	0	0	0.9	May-12 23:00	0.0	May-12	100%
PM2.5 (µg/m3)	80	30	Henry Pirker	5.1	0	0	36.8	May-14 05:00	10.1	May-14	100%
PM2.5 (µg/m3)	80	30	Evergreen Park	5.1	1	0	94.1	May-25 23:00	11.9	May-13	100%
PM2.5 (µg/m3)	80	30	Smoky Heights	4.0	0	0	35.3	May-14 07:00	7.9	May-15	100%
PM2.5 (µg/m3)	80	30	Beaverlodge	7.3	0	0	20.2	May-25 22:00	11.9	May-25	100%
PM2.5 (µg/m3)	80	30	Sunset House	2.8	0	0	13.0	May-08 17:00	4.9	May-25	100%

PAZA Monthly Continuous Data Summary – continued

May-2012	Peace Airshed Zone Assocation						Maximum Recorded Values				
							1-hr		24-hr / 8-hr		
RH (%)			Henry Pirker	46.3	-	-	90.6	May-24 05:00	82.6	May-22	100%
RH (%)			Evergreen Park	47.4	-	-	98.8	May-24 05:00	87.2	May-22	100%
RH (%)			Beaverlodge	50.4	-	-	100.0	May-23 06:00	86.0	May-22	100%
RH (%)			Valleyview	49.0	-	-	99.4	May-24 08:00	90.0	May-23	100%
SR (W/m^2)			Henry Pirker	230.0	-	-	840.1	May-27 13:00	316.9	May-28	100%
Temp (°C)			Henry Pirker	11.0	-	-	24.6	May-27 15:00	17.3	May-27	100%
Temp (°C)			Evergreen Park	10.5	-	-	23.6	May-27 17:00	16.7	May-27	100%
Temp (°C)			Smoky Heights	10.4	-	-	23.1	May-27 18:00	16.7	May-27	100%
Temp (°C)			Beaverlodge	10.3	-	-	24.2	May-27 17:00	16.3	May-27	100%
Temp (°C)			Valleyview	11.1	-	-	22.2	May-27 17:00	16.7	May-27	100%
Temp (°C)			Sunset House	10.3	-	-	21.1	May-08 14:00	15.6	May-28	100%
WSPD s (km/hr)			Henry Pirker	13.9	-	-	43.0	May-09 17:00	30.7	May-10	100%
WSPD s (km/hr)			Evergreen Park	18.3	-	-	62.0	May-10 17:00	47.3	May-10	100%
WSPD s (km/hr)			Smoky Heights	16.6	-	-	46.0	May-10 17:00	36.3	May-10	100%
WSPD s (km/hr)			Beaverlodge	16.4	-	-	51.0	May-10 16:00	36.5	May-10	100%
WSPD s (km/hr)			Valleyview	7.3	-	-	27.0	May-10 18:00	19.0	May-10	100%
WSPD s (km/hr)			Sunset House	13.2	-	-	33.0	May-27 01:00	23.0	May-27	100%
WSPD v (km/hr)			Henry Pirker	7.7	-	-	43.0	May-09 17:00	29.9	May-10	100%
WSPD v (km/hr)			Evergreen Park	11.7	-	-	61.0	May-10 17:00	46.2	May-10	100%
WSPD v (km/hr)			Smoky Heights	10.1	-	-	46.0	May-10 17:00	35.7	May-10	100%
WSPD v (km/hr)			Beaverlodge	8.5	-	-	51.0	May-10 16:00	35.6	May-10	100%
WSPD v (km/hr)			Valleyview	3.6	-	-	27.0	May-10 18:00	18.3	May-10	100%
WSPD v (km/hr)			Sunset House	5.5	-	-	32.0	May-27 01:00	22.2	May-27	100%
WDIR			Henry Pirker	W	-	-	-	-	-	-	100%
WDIR			Evergreen Park	W	-	-	-	-	-	-	100%
WDIR			Smoky Heights	WSW	-	-	-	-	-	-	100%
WDIR			Beaverlodge	WSW	-	-	-	-	-	-	100%
WDIR			Valleyview	W	-	-	-	-	-	-	100%
WDIR			Sunset House	SW	-	-	-	-	-	-	100%

Continuous Network Equipment Summary

PAZA – Henry Pirker Station

General Station Issues

Routine monthly calibrations were performed on May 21st (SO_2, NO_X & O_3) and May 17th (TRS, CO & THC).

Parameter	Make	Model	Notes
SO_2	TEI	43C	No operational issues observed.
NOx/NO/NO_2	TEI	42C	No operational issues observed.
O_3	TEI	49C	No operational issues observed.
CO	TEI	48C	No operational issues observed.
THC	TEI	51-CLT	No span performed on May 12th, Span cylinder replaced.
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	No operational issues observed.

PAZA – Evergreen Park Station

General Station Issues

Routine monthly calibration performed on May 1st (TRS) and May 9th (SO_2, TRS).

Parameter	Make	Model	Notes
SO_2	TEI	43i	No operational issues observed.
TRS	TEI	43C	Erratic behavour continued, prompting trouble visit on May 6th and second calibration on May 9th.
$PM_{2.5}$	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 calibrations were performed on May 4^{h} (SO_2 and TRS).

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	No operational issues observed.

PAZA – Beaverlodge Station

General Station Issues

Routine monthly calibrations performed on May 26th (SO_2, NO_X, O_3) and May 30th ($PM_{2.5}$).

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	1400AB	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 May 24th (SO_2 & H_2S).

Parameter	Make	Model	Notes
SO_2	TEI	43i	Erratic analyzer behavior prompted trouble call on May 12th.
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 – Portable-Sunset House Station

General Station Issues

Routine monthly calibrations were performed on May 2nd (O_3, NO_X). Calibrations attempted May 11th (O_3, NO_X) but calibration equipment failure postponed until May 12th (SO_2, O_3, NO_x,TRS).

Parameter	Make	Model	Notes
SO_2	TEI	43i	No operational issues observed.
O_3	TEI	49C	Solenoid replaced May 11th, recalibrated May 12th.
TRS	TEI	39C	No operational issues observed.
$PM_{2.5}$	R&P	1400AB	One (1) hour flagged invalid due to negative readings.
ET	Gill	Met Pak 3	No operational issues observed.
WS / WD	Gill	Met Pak 3	No operational issues observed.

PAZA
Henry Pirker Station
Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Henry Pirker - May 2012

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

Maximum Value: 2.9 ppb on May 26 11:00

Maximum Daily Average: 0.4 ppb on May 26

Minimum Value: 0 ppb on May 1 16:00

Minimum Daily Average: 0.0 ppb on May 9

Maximum Diurnal Average: 0.2 ppb at hour 11

Minimum Diurnal Average: 0.1 ppb at hour 18

Monthly Average: 0.14 ppb

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

Hours in Service:	744
Hours of Data:	708
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-May	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.1	0.6
2-May	0	0	0	0	0	0	0	0	A	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0.2	1.1
3-May	0	0	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
4-May	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
5-May	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
6-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
7-May	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
8-May	0	0	A	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.4
9-May	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
10-May	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.0	0.1
11-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.1	0.2
12-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	1	0.1	0.6
13-May	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.3	0.6
14-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.2	0.4
15-May	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.2	0.7
16-May	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.2	0.6
17-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.1	0.4
18-May	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.2	0.6
19-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.2	0.3
20-May	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.1	0.2
21-May	0	0	0	0	0	0	0	0	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
22-May	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
23-May	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
24-May	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
25-May	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.3
26-May	0	0	0	1	0	0	0	A	0	2	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	2.9
27-May	0	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
28-May	0	0	1	1	1	A	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
29-May	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	0.7
30-May	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
31-May	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
	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	0.1	0.1	Diurnal Average	
	0.5	0.5	0.5	0.8	1.4	0.6	0.7	0.7	0.6	1.5	2.9	0.7	0.4	0.7	1.1	0.8	0.9	0.2	0.3	0.2	0.2	0.6	0.6	0.6	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

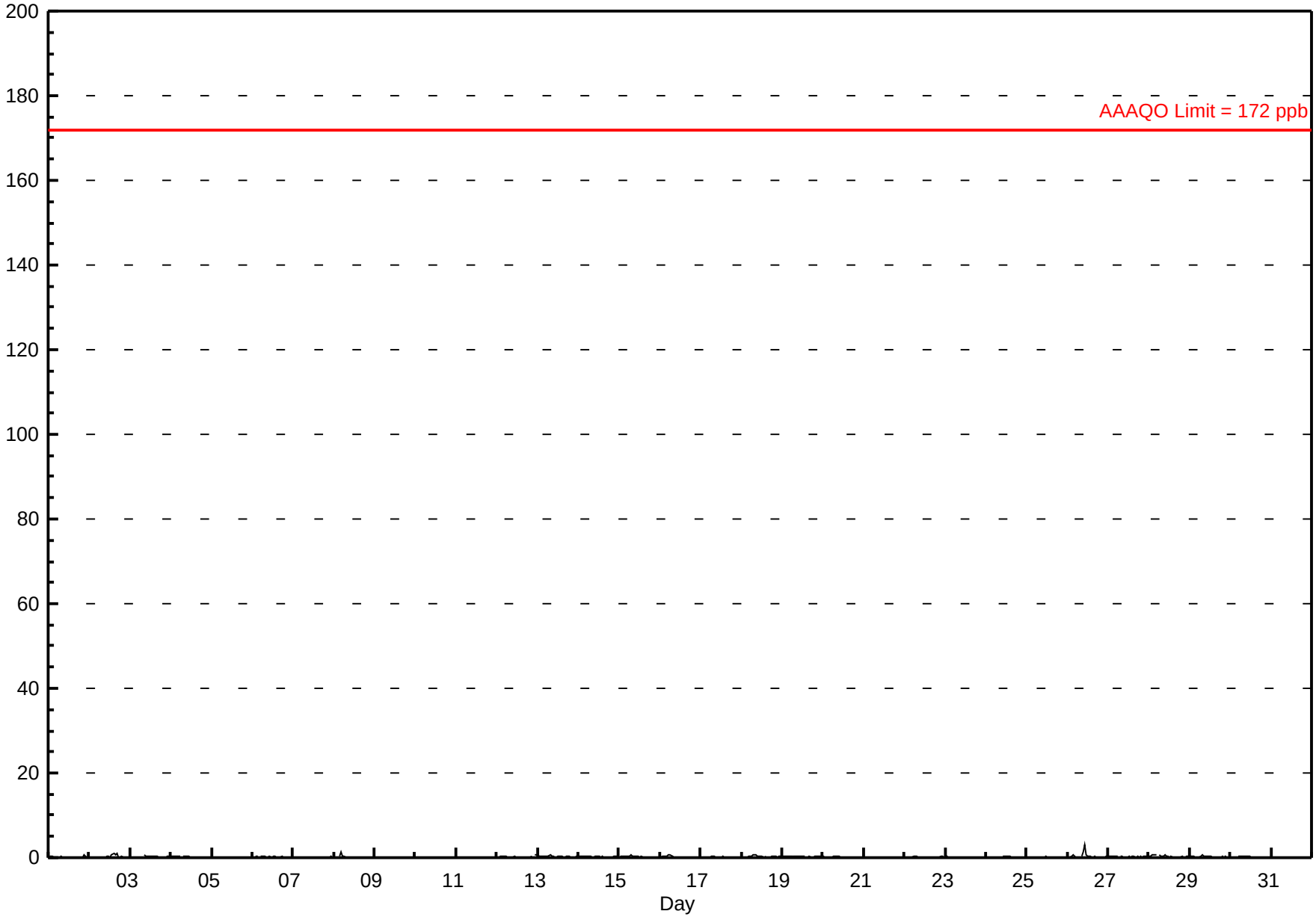
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Henry Pirker - May 2012



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Henry Pirker - May 2012

Maximum Value: 3.9 ppb on May 26 11:00

Maximum Daily Average: 0.9 ppb on May 26

Minimum Value: 0 ppb on May 8 16:00

Minimum Daily Average: 0.2 ppb on May 9

Maximum Diurnal Average: 0.6 ppb at hour 10

Minimum Diurnal Average: 0.3 ppb at hour 19

Monthly Average: 0.44 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.1 Q_1 = 0.2 Median = 0.4 Q_3 = 0.6 P_{90} = 0.7 P_{99} = 2.4

Hours in Service:	744
Hours of Data:	708
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-May	1	1	1	0	1	0	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0.4	1.5
2-May	0	0	0	0	0	0	0	1	A	0	1	1	0	2	2	3	4	1	1	1	1	0	0	1	0.7	3.6
3-May	0	0	0	0	0	0	0	A	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	1	0.4	1.2
4-May	1	1	1	1	0	0	A	0	1	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0.4	0.7
5-May	0	0	0	0	0	A	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
6-May	0	0	0	0	A	0	0	1	0	0	0	1	1	1	0	1	1	1	0	0	0	0	0	0	0.4	0.7
7-May	0	0	1	A	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.3	0.6
8-May	0	1	A	4	4	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	3.6
9-May	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
10-May	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.3	0.5
11-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	0.5	0.5
12-May	1	1	1	1	1	1	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	A	1	1	0.4	0.8
13-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	A	1	0	0	0.6	0.8
14-May	1	1	1	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	A	0	1	1	1	0.5	0.8
15-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	A	0	1	1	1	1	0.6	1.1
16-May	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.4	1.1
17-May	0	0	0	0	0	1	0	1	0	0	0	0	1	2	0	0	A	0	0	0	0	0	0	0	0.3	1.7
18-May	0	0	1	0	1	1	1	1	1	1	1	1	1	0	1	A	0	1	1	0	0	0	1	1	0.5	0.7
19-May	1	1	0	1	1	1	1	1	1	1	1	0	0	1	A	0	1	1	0	0	0	1	1	1	0.6	0.7
20-May	0	1	0	0	1	0	1	1	1	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.3	0.7
21-May	0	0	0	0	0	0	0	0	C	C	C	C	C	0	1	1	1	0	1	0	0	1	0	0	0.2	0.6
22-May	1	1	1	0	0	1	1	1	1	0	1	A	1	0	0	1	0	0	0	0	1	1	1	0	0.5	0.9
23-May	1	1	1	1	1	1	0	0	0	0	A	0	0	1	1	0	0	0	0	0	0	0	1	0	0.4	0.6
24-May	0	0	0	0	0	0	0	0	1	A	1	1	1	1	1	1	0	0	0	1	0	0	0	0	0.3	0.6
25-May	0	0	0	0	0	0	0	0	A	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0.2	0.5
26-May	1	1	1	2	1	1	1	A	1	4	4	3	1	1	1	0	1	1	0	0	0	1	1	1	0.9	3.9
27-May	0	0	0	0	0	0	A	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0.5	1.0
28-May	1	1	1	1	1	A	1	1	1	1	1	1	0	1	1	0	0	0	0	1	0	1	1	1	0.6	1.1
29-May	1	1	1	1	A	1	1	1	1	1	1	1	1	0	0	0	0	0	0	1	0	1	0	0	0.5	1.2
30-May	1	0	0	A	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	0	1	0	0.4	0.8
31-May	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
	0.4	0.4	0.5	0.6	0.6	0.4	0.5	0.5	0.5	0.6	0.6	0.5	0.4	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.4	0.4	Diurnal Average	
	0.8	0.8	0.9	3.6	3.6	0.8	1.1	1.2	1.2	3.6	3.9	3.1	0.8	2.1	2.1	2.7	3.6	0.7	0.6	0.7	0.6	1.5	0.8	0.8	Diurnal Maximum	

C - Calibration

A - Automated Daily Zero Span

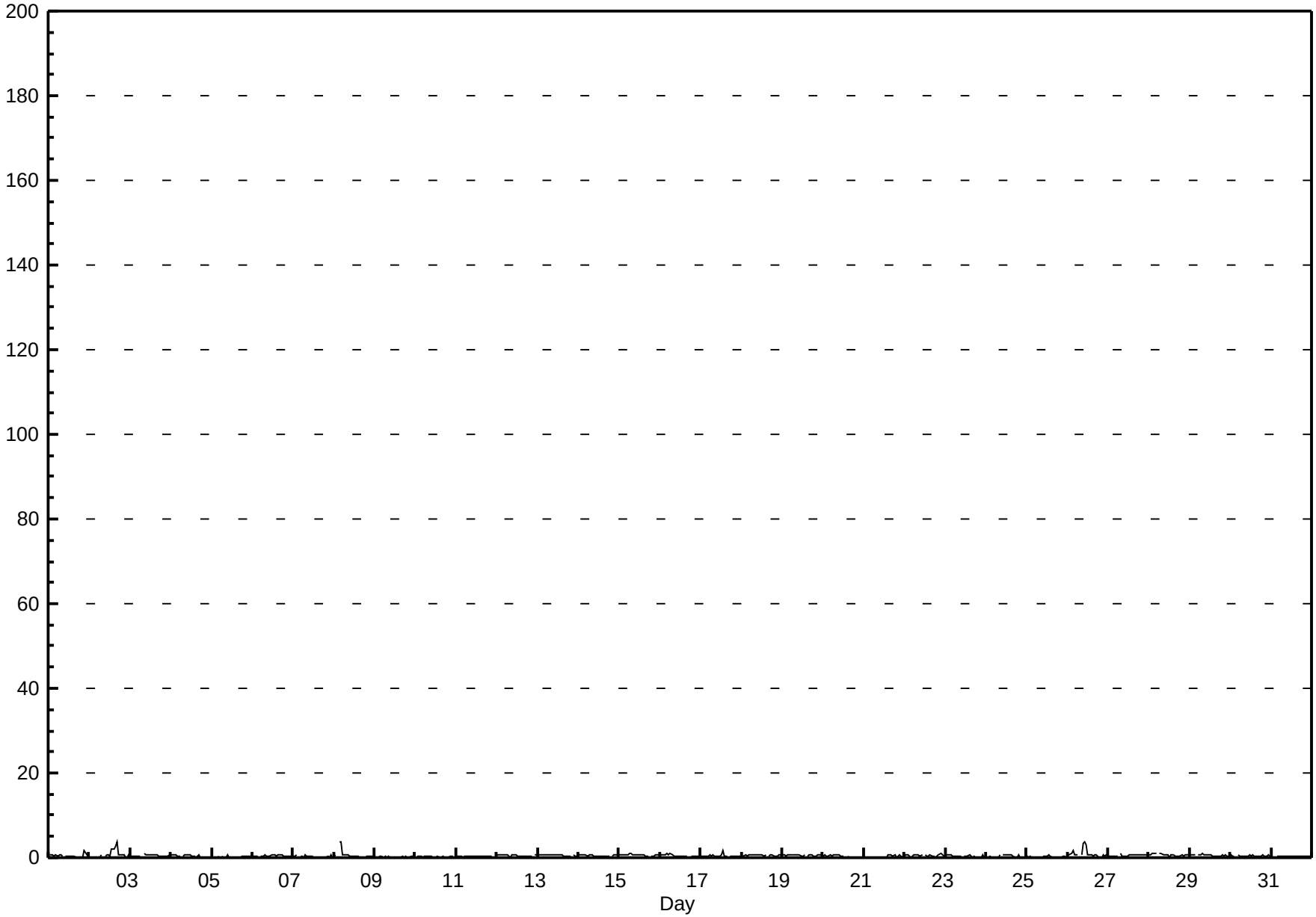
FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

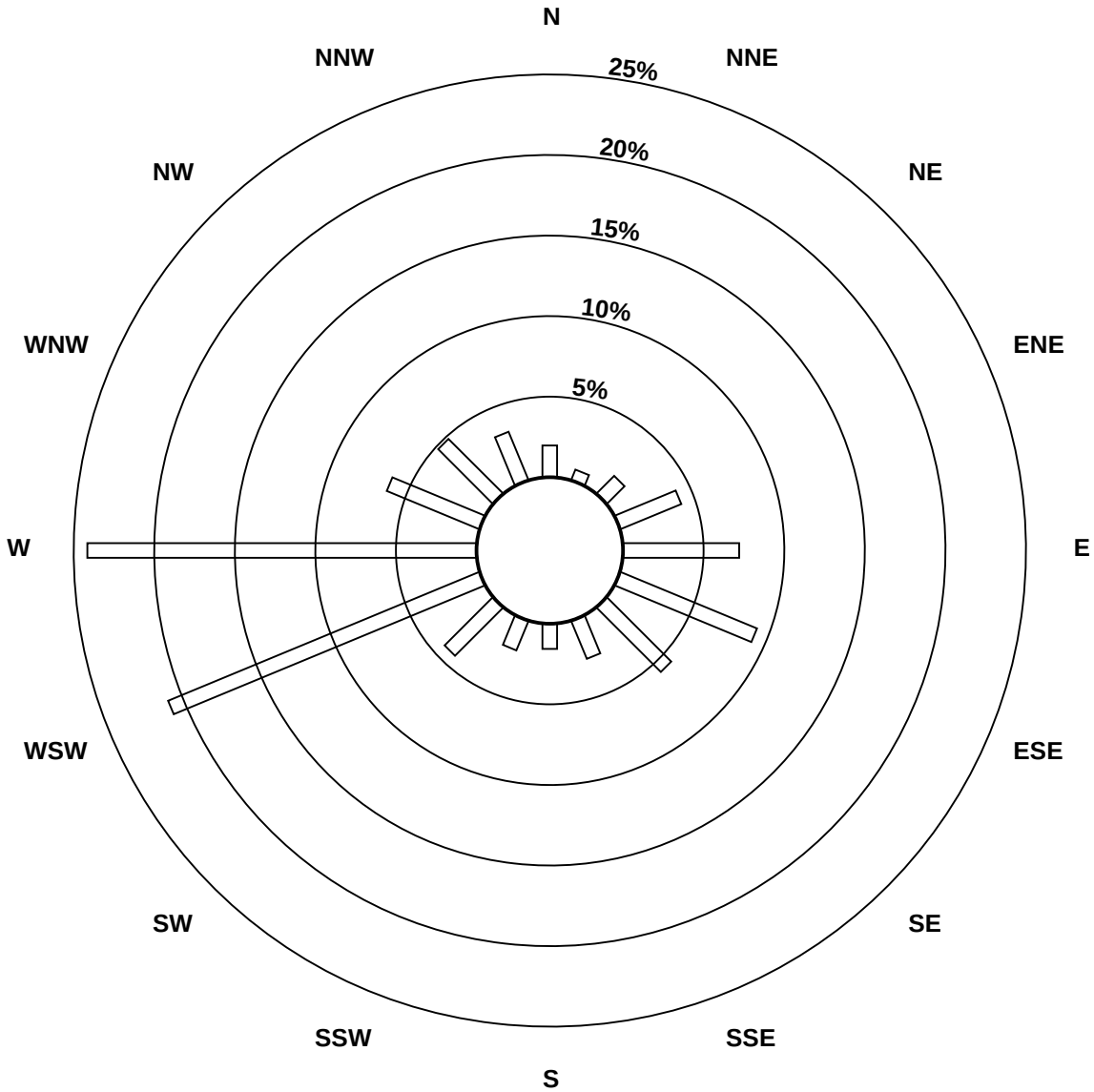
Henry Pirker - May 2012



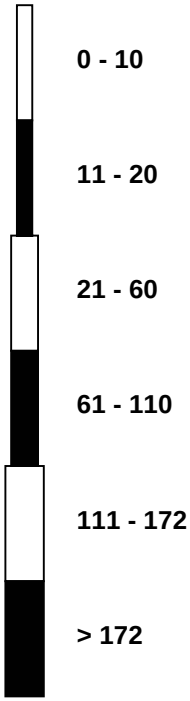
Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Henry Pirker - May 2012



Pollutant Classes (ppb)

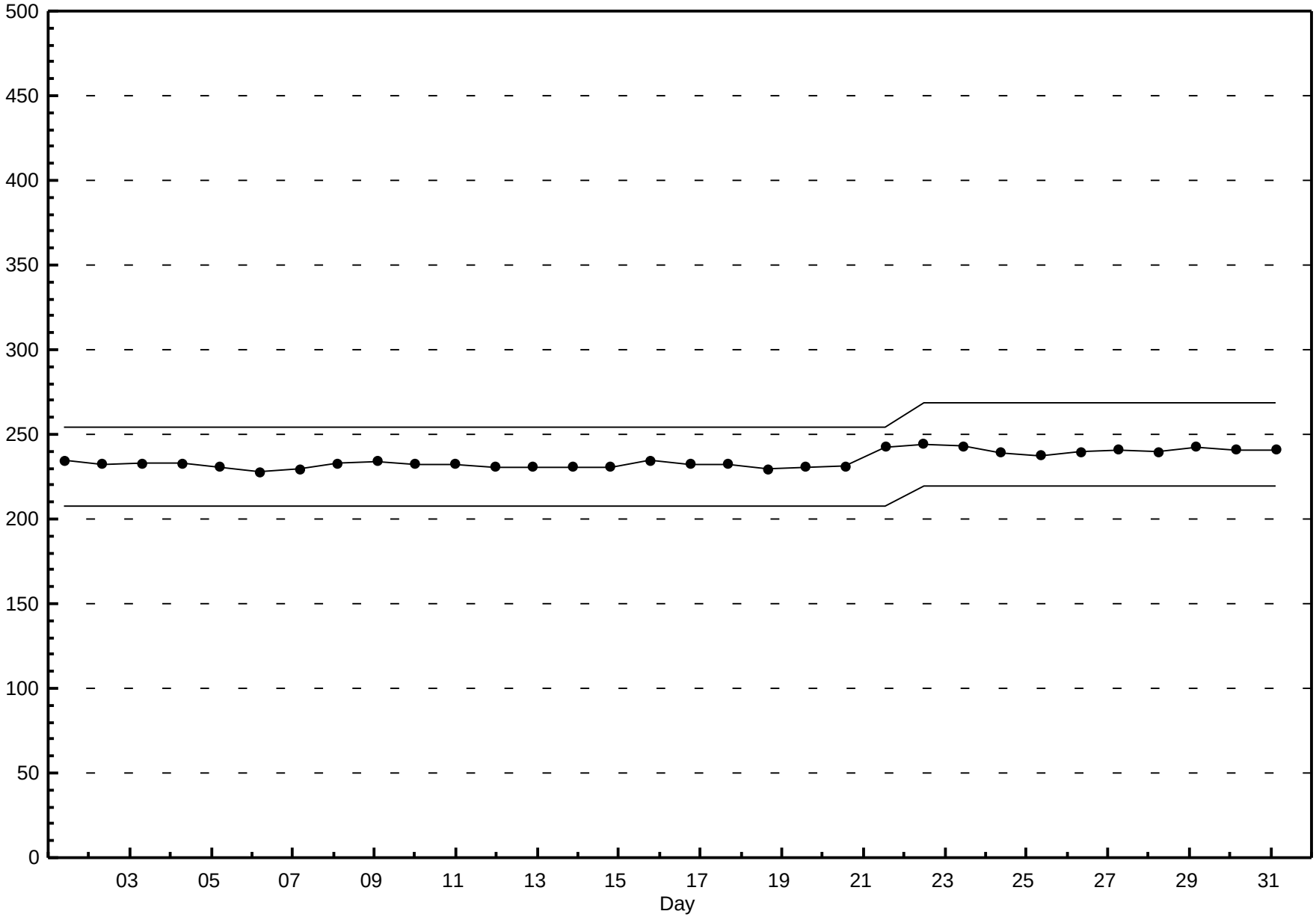


Peace Airshed Zone Association

Span Responses

Sulphur Dioxide (SO_2)

Henry Pirker - May 2012



Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - May 2012

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

Maximum Value: 1.0 ppb on May 7 06:00 Maximum Daily Average: 0.4 ppb on May 1

Minimum Value: 0 ppb on May 4 23:00 Minimum Daily Average: 0.2 ppb on May 4

Maximum Diurnal Average: 0.4 ppb at hour 5 Minimum Diurnal Average: 0.2 ppb at hour 16

Monthly Average: 0.26 ppb Percentiles: $P_1 = 0.0$ $P_{10} = 0.1$ $Q_1 = 0.2$ Median = 0.2 $Q_3 = 0.3$ $P_{90} = 0.4$ $P_{99} = 0.7$

Hours in Service:	744
Hours of Data:	708
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-May	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.4	0.5
2-May	0	0	0	0	0	0	0	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
3-May	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
4-May	0	0	0	0	0	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
5-May	0	0	1	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
6-May	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.3	0.6
7-May	0	0	0	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.0
8-May	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
9-May	0	A	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
10-May	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.2	0.3
11-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.2	0.3
12-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.3	0.4
13-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.3	0.4
14-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.3	0.4
15-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.2	0.3
16-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.2	0.4
17-May	0	0	0	0	0	0	0	0	0	0	0	0	C	C	C	C	C	0	0	0	0	0	0	0	0.2	0.3
18-May	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.3	0.6
19-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.3	0.4
20-May	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.2	0.4
21-May	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
22-May	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
23-May	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
24-May	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
25-May	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
26-May	0	1	1	1	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
27-May	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
28-May	0	1	1	0	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
29-May	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
30-May	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
31-May	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
	0.3	0.3	0.3	0.3	0.4	0.4	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	0.3	0.3	0.3	0.3	Diurnal Average	
	0.5	0.6	0.7	0.7	0.7	1.0	0.5	0.6	0.4	0.6	0.4	0.4	0.3	0.3	0.3	0.4	0.3	0.3	0.4	0.4	0.6	0.5	0.4	0.5	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

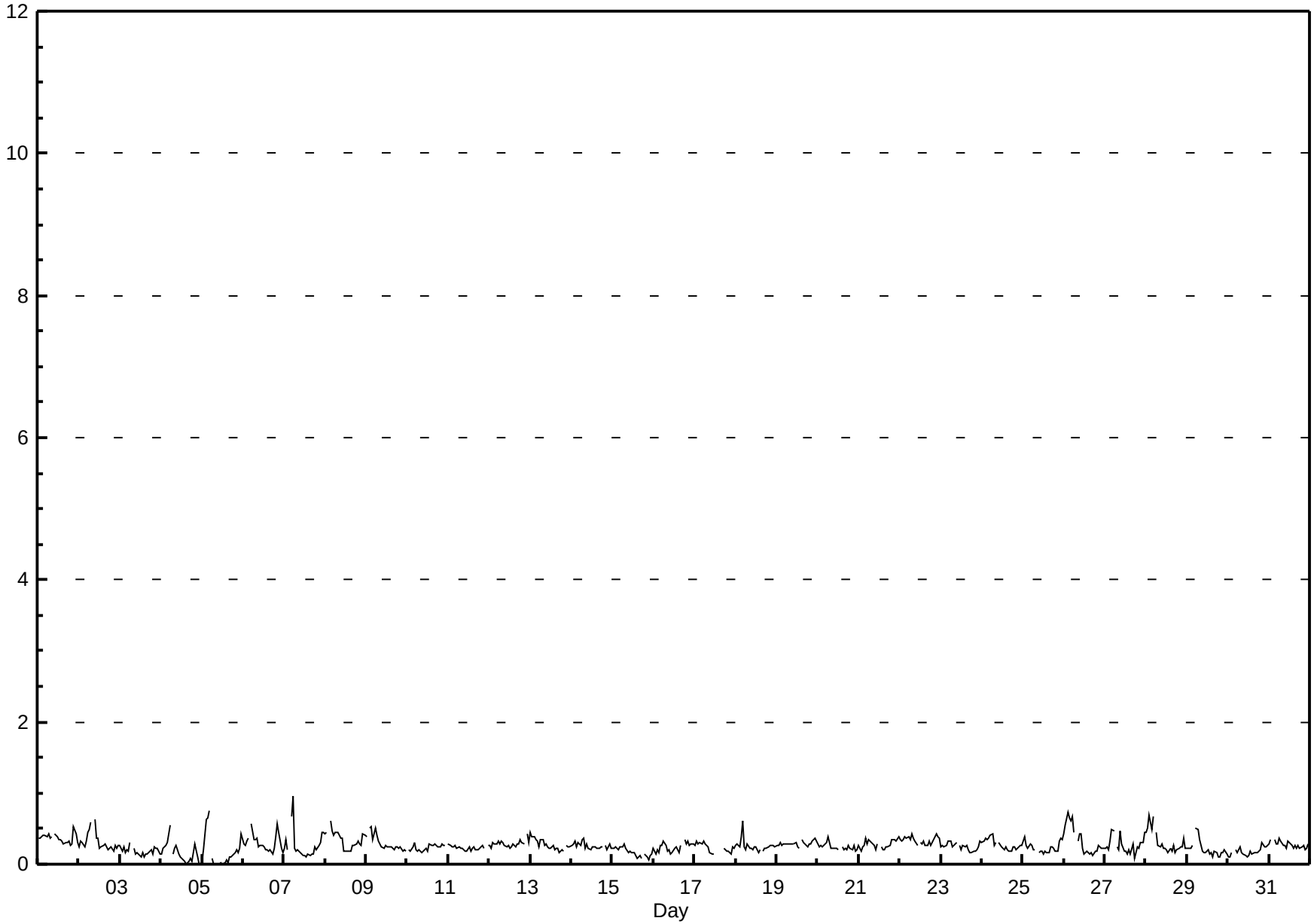
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb

Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - May 2012



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - May 2012

Maximum Value: 1.8 ppb on May 7 06:00

Maximum Daily Average: 0.8 ppb on May 8

Minimum Value: 0 ppb on May 4 23:00

Maximum Diurnal Average: 0.8 ppb at hour 6

Monthly Average: 0.67 ppb

Minimum Daily Average: 0.6 ppb on May 15

Minimum Diurnal Average: 0.6 ppb at hour 16

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

Hours in Service:	744
Hours of Data:	708
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-May	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
2-May	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0.7	1.1
3-May	1	1	1	1	1	1	1	A	1	0	0	1	0	1	0	0	0	1	1	1	1	1	1	1	0.6	0.8
4-May	1	1	1	1	1	2	A	1	1	1	1	1	1	1	0	0	0	0	0	1	1	1	0	0	0.6	1.7
5-May	0	1	1	1	1	A	1	0	0	0	0	0	0	0	0	0	1	1	0	1	1	1	1	1	0.7	1.4
6-May	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0.8	1.3
7-May	1	1	1	A	2	2	1	0	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	0.7	1.8
8-May	1	1	A	1	1	1	1	1	1	1	1	1	0	0	0	1	1	1	1	1	1	1	1	1	0.8	1.3
9-May	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.2
10-May	A	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.6	0.8
11-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.6	0.8
12-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.7	0.9
13-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	A	1	1	1	0.6	0.9
14-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.6	0.8
15-May	1	1	1	1	1	1	1	1	1	0	1	1	1	0	1	0	1	0	A	0	1	0	0	0	0.6	0.7
16-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0.6	0.7
17-May	1	1	1	1	1	1	1	1	1	1	0	1	C	C	C	C	C	1	1	1	1	1	1	1	0.6	0.7
18-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	A	0	1	1	1	1	1	1	1	0.6	1.2
19-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.7	1.0
20-May	1	1	1	1	1	1	1	1	1	1	0	1	1	A	1	1	1	1	1	1	1	1	1	1	0.7	0.9
21-May	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
22-May	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
23-May	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0	0	1	1	1	1	1	1	0.6	0.8
24-May	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0.7	0.8
25-May	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0.6	0.9
26-May	1	1	1	1	1	1	1	A	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0	0.8	1.2
27-May	1	1	1	1	1	1	A	1	1	1	1	1	1	0	1	0	1	0	1	1	1	1	1	1	0.7	1.1
28-May	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.3
29-May	1	1	1	1	A	1	1	1	1	1	1	1	1	0	1	0	1	1	1	1	1	1	1	1	0.6	1.0
30-May	1	1	1	A	1	1	1	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.8
31-May	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.7	Diurnal Average	
	1.1	1.3	1.4	1.3	1.5	1.8	1.1	1.0	0.9	1.1	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.7	0.8	1.0	1.1	1.2	0.9	1.2	Diurnal Maximum	

C - Calibration

A - Automated Daily Zero Span

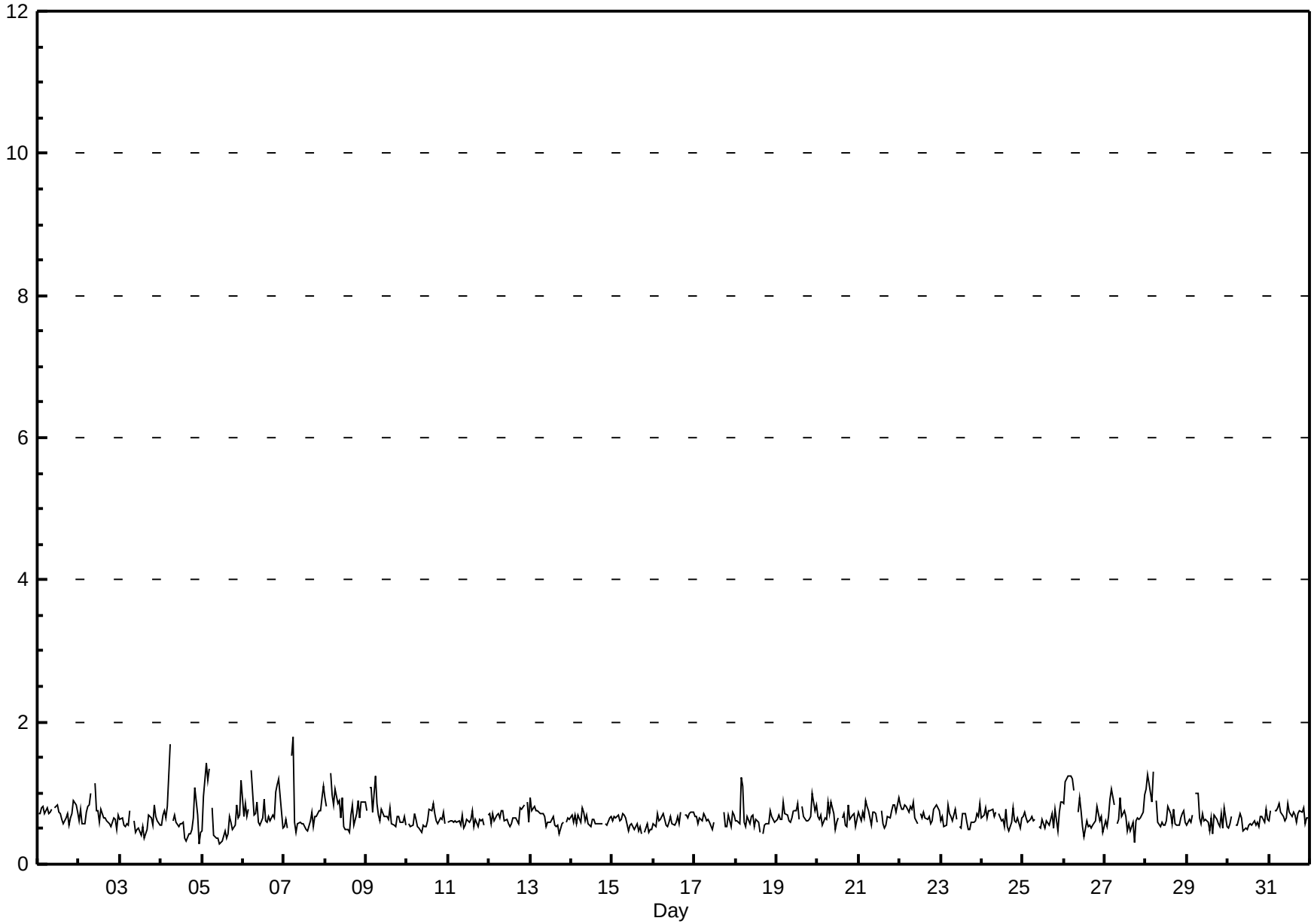
FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - May 2012

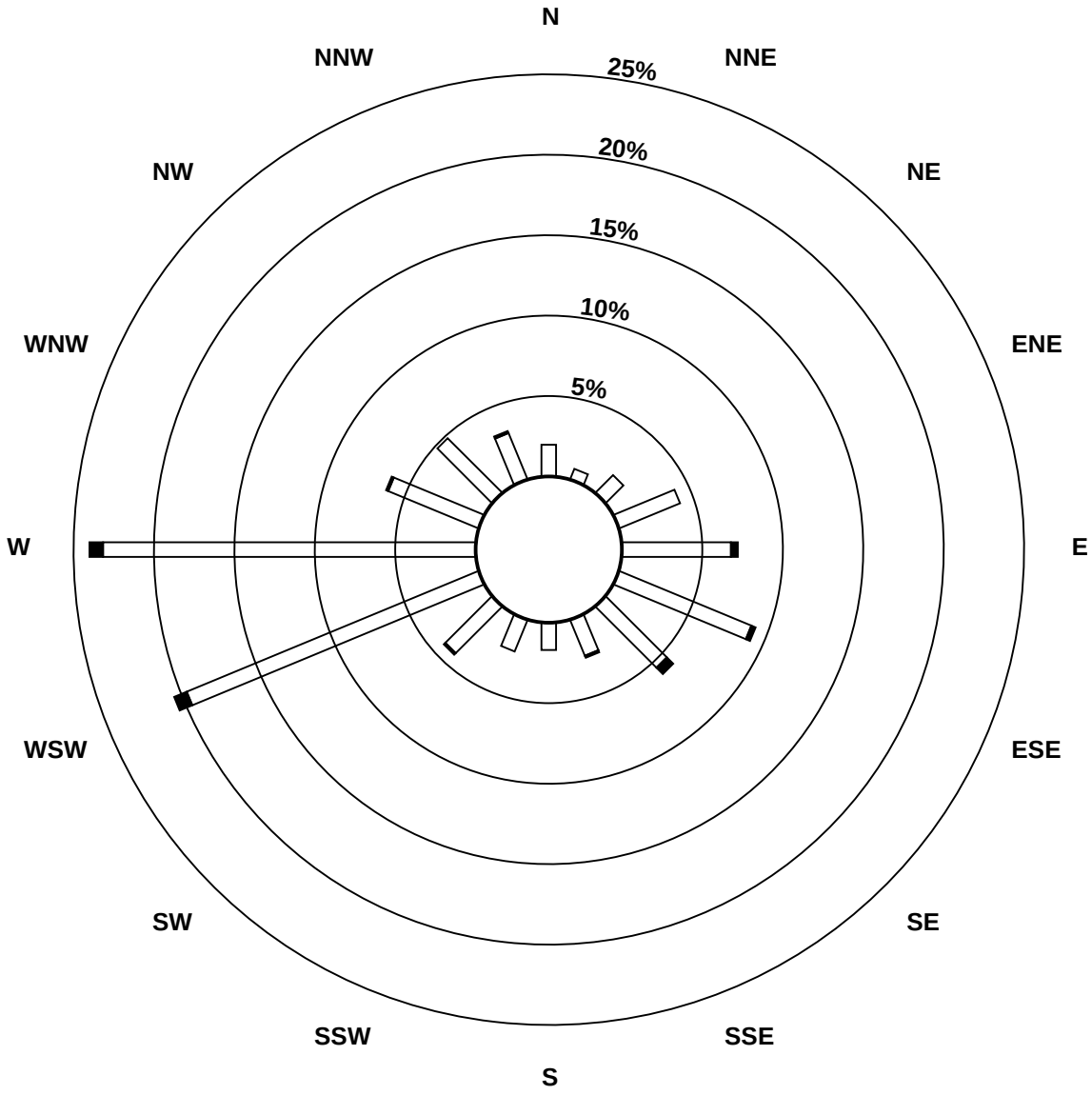


FOCUS AIR QUALITY MONITORING

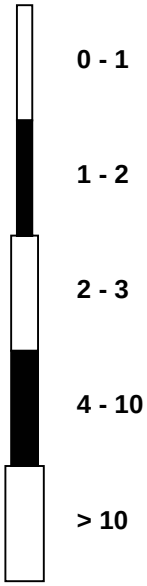
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - May 2012



Pollutant Classes (ppb)

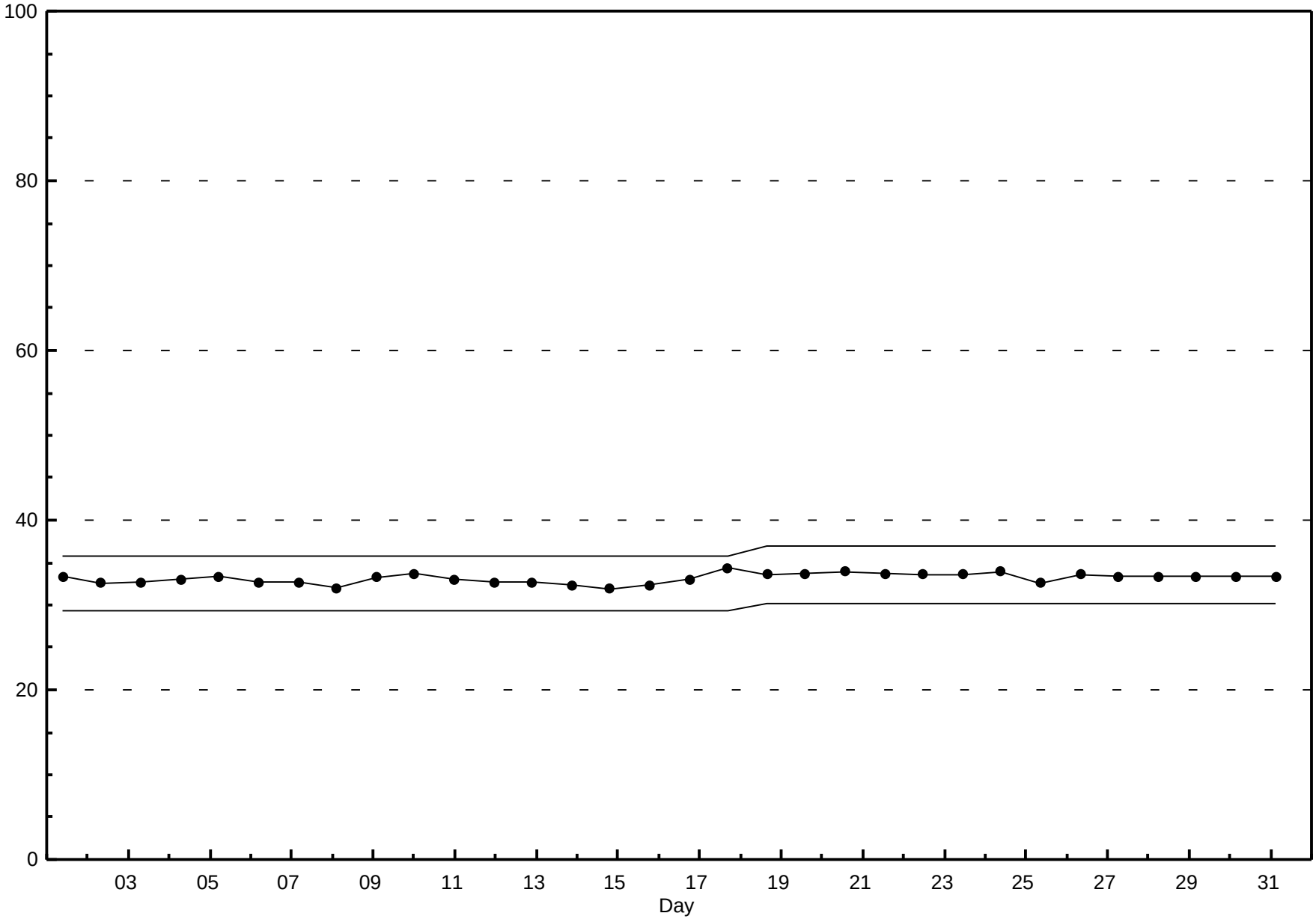


Peace Airshed Zone Association

Span Responses

Total Reduced Sulphur (TRS)

Henry Pirker - May 2012



Peace Airshed Zone Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Henry Pirker - May 2012

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 30.3 ppb on May 7 23:00 Maximum Daily Average: 8.0 ppb on May 7

Minimum Value: 1 ppb on May 19 18:00 Minimum Daily Average: 2.0 ppb on May 10
Maximum Diurnal Average: 10.7 ppb at hour 7 Minimum Diurnal Average: 2.0 ppb at hour 13
Monthly Average: 4.55 ppb Percentiles: P_1 = 0.9 P_{10} = 1.6 Q_1 = 2.0 Median = 3.1 Q_3 = 5.5 P_{90} = 9.1 P_{99} = 24.5

Hours in Service:	744
Hours of Data:	703
Hours of Missing Data:	41
Hours of Calibration:	41
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-May	3	2	2	3	3	5	8	7	9	A	5	4	4	1	1	1	3	3	3	4	6	5	4	3	3.9	8.5
2-May	5	9	11	10	10	14	18	17	A	11	10	9	2	1	2	3	3	3	3	4	9	9	7	7	7.8	18.2
3-May	6	2	5	7	5	9	8	A	6	4	2	2	2	3	2	3	3	3	2	4	4	4	4	5	4.1	8.6
4-May	4	6	6	8	5	8	A	6	3	2	2	2	2	2	2	2	2	2	2	2	5	6	3	4	3.7	8.4
5-May	4	4	3	4	6	A	5	3	2	2	1	2	2	1	2	2	2	1	1	2	3	3	3	3	2.6	5.5
6-May	2	3	3	4	A	6	5	4	2	1	1	1	1	1	1	1	1	1	2	3	3	5	6	5	2.7	6.4
7-May	4	4	5	A	9	13	15	11	4	2	2	2	2	5	2	2	2	1	2	5	12	28	30	25	8.0	30.3
8-May	12	7	A	10	8	13	25	26	25	11	3	2	2	1	1	1	2	2	2	2	3	2	2	2	7.2	26.1
9-May	2	A	2	2	2	3	5	3	2	2	2	2	2	2	2	3	2	2	2	2	2	2	1	1	2.1	4.5
10-May	A	3	2	1	1	2	4	3	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	A	2.0	3.7
11-May	2	2	1	1	2	4	5	3	2	2	2	2	2	2	2	2	2	2	2	2	3	4	A	6	2.4	5.5
12-May	4	4	4	5	7	10	7	9	4	3	2	2	2	2	2	2	2	2	2	3	3	A	3	4	3.8	9.9
13-May	7	7	5	4	5	7	5	5	2	2	2	2	2	2	2	1	1	1	1	2	A	3	2	2	3.1	6.9
14-May	4	4	5	9	14	18	23	25	5	1	1	1	2	2	1	1	2	3	3	A	5	4	4	3	6.1	25.0
15-May	3	4	4	4	7	18	21	15	8	7	5	3	2	2	2	2	2	2	A	3	3	3	2	3	5.5	20.5
16-May	3	3	3	4	6	14	24	14	3	3	3	2	2	2	2	2	2	A	2	2	2	3	3	2	4.6	23.9
17-May	3	3	4	5	8	13	17	9	7	3	2	1	1	2	2	2	A	3	3	3	7	10	20	23	6.6	23.0
18-May	12	10	7	8	11	8	7	6	7	3	3	2	2	1	2	A	2	1	2	1	2	3	5	3	4.7	11.7
19-May	4	5	6	5	5	7	6	4	3	2	1	1	1	1	A	1	1	1	1	2	5	16	14	7	4.2	15.7
20-May	7	6	6	5	6	9	8	4	3	3	2	2	1	A	2	1	1	2	3	4	5	3	3	3	3.9	9.3
21-May	4	4	9	5	6	10	8	5	C	C	C	C	C	C	C	C	C	C	3	5	7	8	6	6	--	9.7
22-May	7	7	7	9	9	10	8	11	9	4	4	A	3	3	4	3	3	3	3	4	4	3	3	2	5.2	11.1
23-May	1	1	2	3	6	7	8	8	4	3	A	2	2	3	6	3	4	4	3	3	5	5	7	7	4.3	8.1
24-May	5	6	8	7	7	10	14	9	7	A	3	2	2	1	2	2	3	4	3	3	6	7	7	9	5.5	13.9
25-May	6	9	5	5	6	7	8	6	A	4	3	2	3	3	2	2	2	2	2	3	5	18	16	14	5.7	17.7
26-May	14	12	11	15	17	13	11	A	9	7	7	3	2	2	2	2	1	2	2	3	7	9	6	3	7.0	16.6
27-May	4	4	5	4	5	4	A	4	4	4	3	3	2	1	2	2	2	2	2	3	5	7	5	3	3.5	7.4
28-May	3	3	3	4	6	A	7	5	3	3	3	2	2	2	2	2	3	3	2	3	4	4	3	2	3.3	7.4
29-May	2	2	2	4	A	12	11	7	4	2	2	2	2	2	3	2	2	2	2	3	5	5	3	3	3.8	12.4
30-May	2	2	2	A	4	7	12	9	5	3	2	2	2	2	2	2	2	2	2	2	4	4	3	4	3.5	11.8
31-May	5	7	A	9	10	13	11	6	4	2	2	2	3	2	2	2	2	2	2	2	4	6	5	6	4.7	12.8
	4.7	4.9	4.7	5.7	6.7	9.5	10.7	8.5	5.3	3.6	2.9	2.2	2.0	2.0	2.1	2.0	2.1	2.1	2.2	2.9	4.6	6.3	6.1	5.7	Diurnal Average	
	13.7	12.0	10.6	15.4	16.6	18.5	24.7	26.1	25.5	11.3	10.0	9.2	3.5	4.9	6.2	3.4	4.0	3.7	3.2	5.3	11.5	27.9	30.3	25.4	Diurnal Maximum	

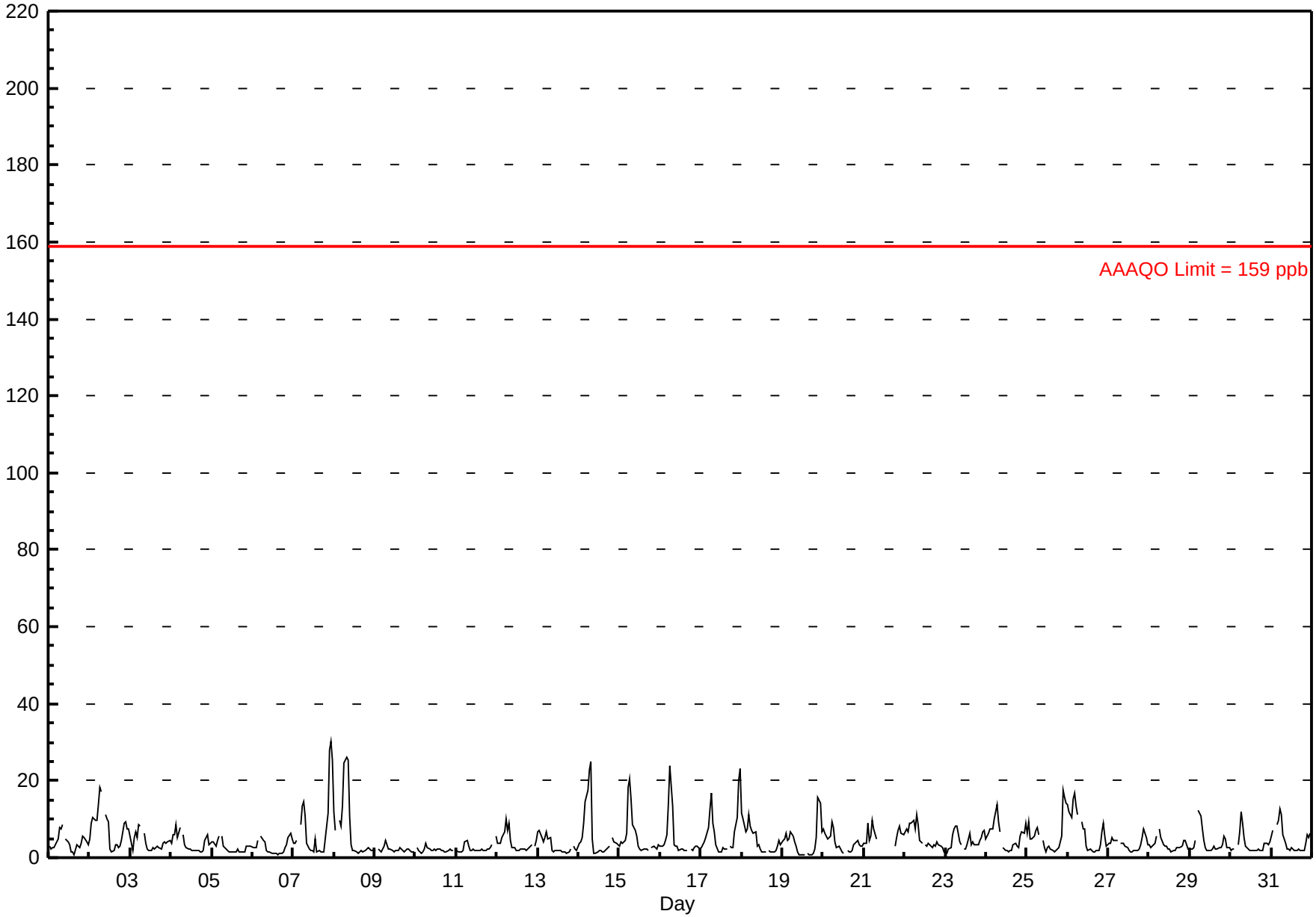
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb 24-hr 106 ppb

Peace Airshed Zone Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Henry Pirker - May 2012



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

Henry Pirker - May 2012

Maximum Value: 72.3 ppb on May 7 14:00

Maximum Daily Average: 14.2 ppb on May 7

Minimum Value: 2 ppb on May 20 13:00

Minimum Daily Average: 3.4 ppb on May 10

Maximum Diurnal Average: 14.7 ppb at hour 7

Minimum Diurnal Average: 4.0 ppb at hour 16

Monthly Average: 7.64 ppb

Percentiles: P_1 = 1.9 P_{10} = 2.9 Q_1 = 3.6 Median = 5.3 Q_3 = 9.3 P_{90} = 15.0 P_{99} = 33.2

Hours in Service:	744
Hours of Data:	703
Hours of Missing Data:	41
Hours of Calibration:	41
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-May	8	3	3	5	7	13	14	11	17	A	10	8	6	4	8	5	6	5	4	7	11	6	7	4	7.4	16.8
2-May	6	12	15	21	15	16	22	20	A	15	13	14	4	2	3	8	8	4	5	7	15	17	9	15	11.6	21.9
3-May	15	3	8	13	7	13	13	A	10	6	4	3	4	4	4	5	5	5	5	6	9	7	6	14	7.3	15.1
4-May	5	10	8	13	9	10	A	9	5	5	4	5	4	3	4	3	3	3	4	4	8	8	4	6	5.9	13.1
5-May	5	6	4	8	7	A	8	5	4	3	3	3	3	2	3	5	4	3	3	2	4	4	4	5	4.2	7.8
6-May	3	4	3	7	A	7	6	5	3	3	3	3	3	2	2	2	3	3	4	5	5	8	9	7	4.3	9.1
7-May	5	5	6	A	12	19	22	23	5	5	4	4	4	72	4	3	3	3	3	10	18	33	36	28	14.2	72.3
8-May	18	10	A	14	14	21	32	31	33	14	6	4	4	3	3	3	4	3	3	4	5	4	4	4	10.4	33.3
9-May	4	A	3	3	3	6	7	5	5	4	3	3	3	3	3	5	3	3	3	3	4	4	2	3	3.6	6.6
10-May	A	4	3	2	3	4	5	4	4	3	4	4	4	4	4	3	3	2	3	3	3	3	3	A	3.4	5.1
11-May	3	3	2	2	3	6	6	5	5	3	5	4	3	4	4	4	3	3	3	4	4	6	A	9	4.0	8.7
12-May	6	6	5	10	9	15	12	12	10	4	4	3	3	4	3	4	4	4	3	4	5	A	5	9	6.3	14.8
13-May	9	12	14	5	7	9	6	8	4	3	3	3	3	3	2	3	2	2	3	6	A	6	4	3	5.2	13.9
14-May	8	8	8	18	22	26	34	28	25	5	2	9	25	5	4	2	4	4	7	A	9	6	5	4	11.8	33.7
15-May	8	9	7	11	11	29	27	23	14	10	11	6	5	4	5	5	5	3	A	4	5	3	3	5	9.2	28.7
16-May	4	4	5	6	9	21	30	20	8	6	7	3	5	4	4	6	4	A	5	3	4	5	5	3	7.3	30.1
17-May	4	5	6	9	11	16	21	19	9	11	3	3	3	4	5	5	A	21	5	10	13	17	29	36	11.5	35.7
18-May	16	16	10	12	15	15	12	10	10	8	5	5	3	2	3	A	3	2	3	3	4	5	6	7	7.6	16.2
19-May	7	7	10	6	7	10	8	6	4	3	2	2	2	2	A	2	2	2	2	5	9	33	28	9	7.2	32.6
20-May	12	10	7	6	8	11	11	5	4	4	4	2	2	A	4	3	3	5	7	9	8	7	4	4	6.0	11.8
21-May	5	5	20	11	7	17	10	6	C	C	C	C	C	C	C	C	C	C	8	9	12	12	9	8	--	20.4
22-May	8	8	10	10	13	13	9	19	14	8	8	A	5	5	7	5	4	7	6	7	6	11	4	3	8.3	18.6
23-May	2	2	2	3	10	10	10	11	9	7	A	3	4	7	16	6	8	6	5	4	7	7	10	9	7.0	16.3
24-May	6	12	13	11	14	15	17	16	48	A	6	3	3	3	4	4	7	7	5	5	9	8	9	12	10.5	48.1
25-May	8	13	9	7	7	8	10	8	A	6	4	2	6	13	18	4	4	5	11	10	10	25	21	18	10.0	24.9
26-May	16	16	17	33	25	17	14	A	16	11	9	7	5	4	4	2	3	3	4	6	12	12	12	5	11.1	33.5
27-May	6	7	10	6	7	8	A	5	6	5	5	4	4	4	2	3	5	5	4	7	7	10	12	4	6.0	12.1
28-May	4	4	4	5	9	A	12	6	6	6	8	5	8	3	8	6	5	5	4	7	6	6	6	3	6.1	12.3
29-May	3	3	4	6	A	21	15	26	8	4	4	3	3	5	4	4	4	4	3	7	9	7	5	4	6.9	25.7
30-May	2	3	2	A	5	11	16	12	8	6	4	3	4	4	3	3	4	3	5	3	6	6	4	7	5.6	16.1
31-May	12	9	A	12	12	16	17	10	16	5	5	3	4	4	4	4	4	4	3	4	5	8	7	8	7.7	17.0
	7.3	7.2	7.6	9.6	9.9	13.9	14.7	12.7	11.0	6.3	5.3	4.3	4.6	6.3	4.9	4.0	4.2	4.4	4.4	5.6	7.8	9.7	9.2	8.5	Diurnal Average	
	18.5	16.3	20.4	33.5	25.3	28.7	33.7	30.7	48.1	14.7	12.8	14.5	25.2	72.3	17.7	7.6	8.3	21.1	10.6	10.3	18.5	32.9	36.1	35.7	Diurnal Maximum	

C - Calibration

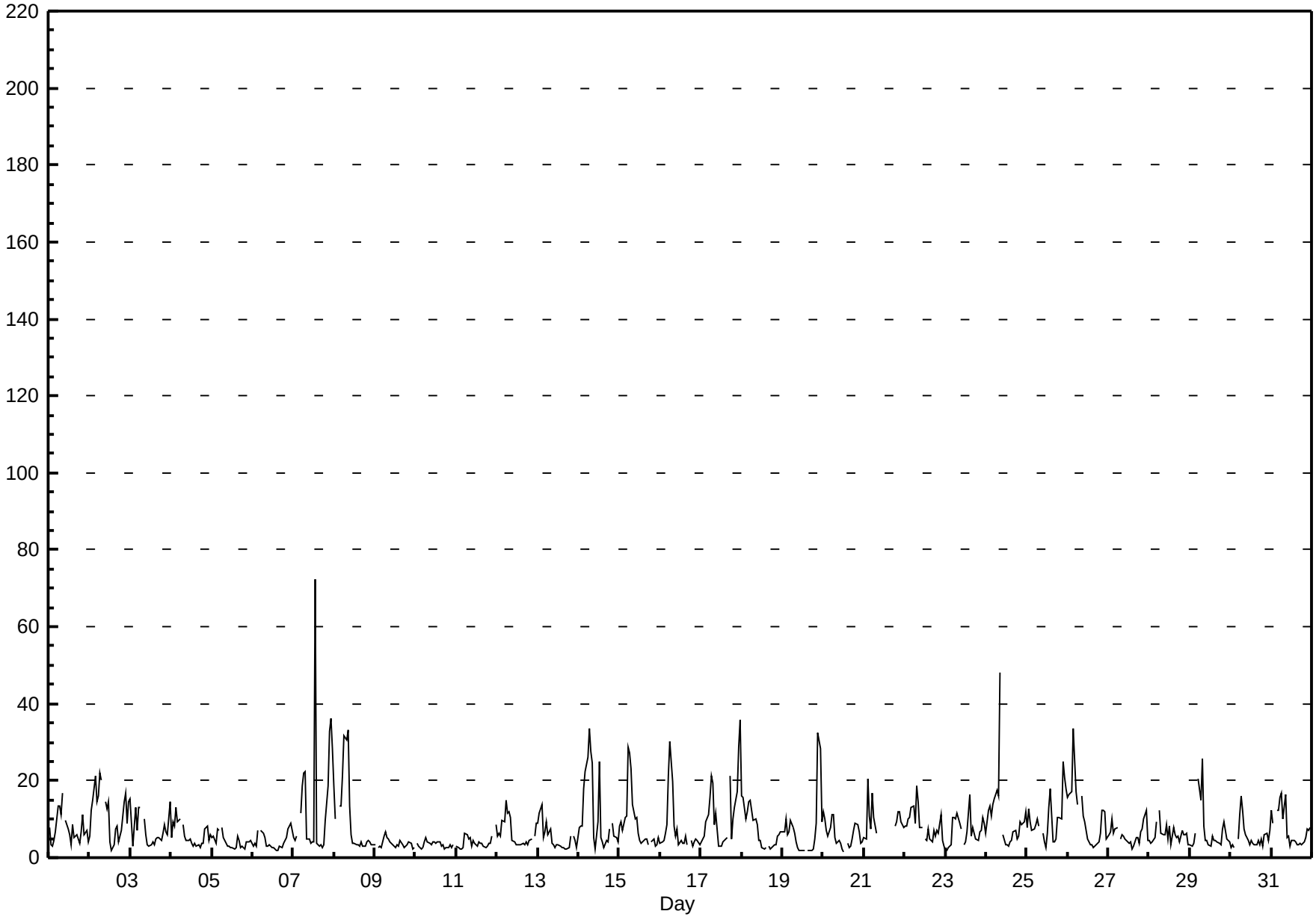
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

Henry Pirker - May 2012

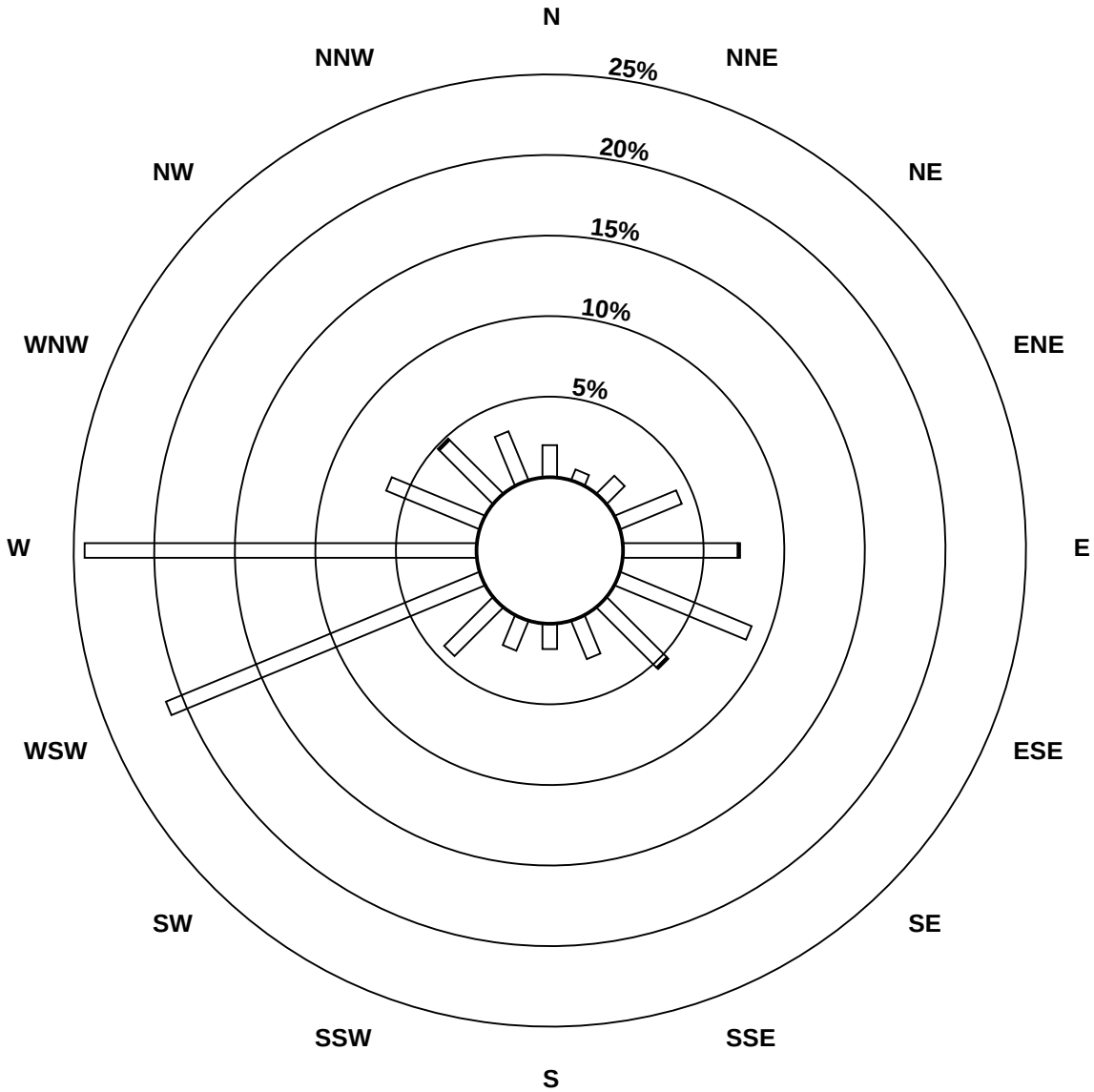


FOCUS AIR QUALITY MONITORING

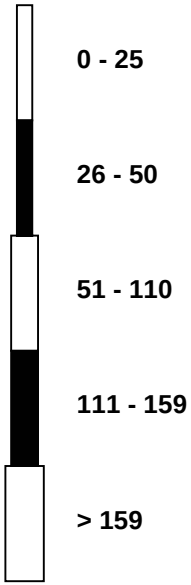
Pollutant Rose

Nitrogen Dioxide (NO_2) - ppb

Henry Pirker - May 2012



Pollutant Classes (ppb)

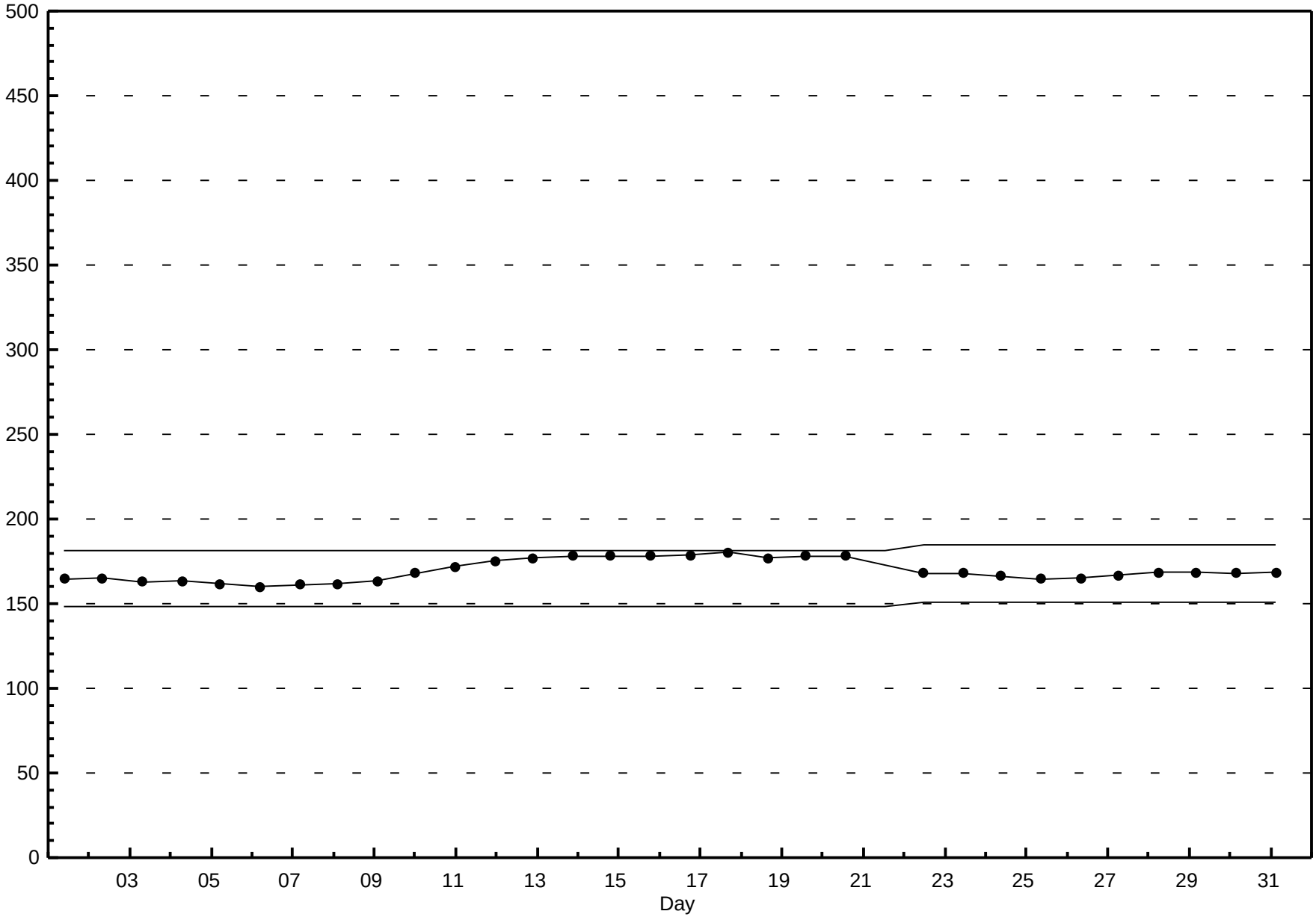


Peace Airshed Zone Association

Span Responses

Nitrogen Dioxide (NO_2)

Henry Pirker - May 2012



Peace Airshed Zone Association

Hourly Averages

Nitrogen Oxide (NO) - ppb

Henry Pirker - May 2012

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

Maximum Value: 24.4 ppb on May 2 07:00

Maximum Daily Average: 3.1 ppb on May 2

Minimum Value: 0 ppb on May 2 01:00

Minimum Daily Average: 0.2 ppb on May 13

Maximum Diurnal Average: 3.3 ppb at hour 7

Minimum Diurnal Average: 0.2 ppb at hour 1

Monthly Average: 0.79 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.1$ $Q_1 = 0.2$ Median = 0.4 $Q_3 = 0.7$ $P_{90} = 1.4$ $P_{99} = 7.9$

Hours in Service:	744
Hours of Data:	703
Hours of Missing Data:	41
Hours of Calibration:	41
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-May	0	0	0	0	0	1	1	1	1	A	1	1	1	0	1	0	1	1	0	0	0	0	0	0	0.6	1.2
2-May	0	0	0	1	1	8	24	23	A	3	3	3	1	0	0	1	1	1	0	0	1	1	0	0	3.1	24.4
3-May	0	0	0	0	0	1	2	A	3	2	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0.8	3.0
4-May	0	0	0	0	0	1	A	2	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0.6	2.0
5-May	0	0	0	0	0	A	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0.3	0.7
6-May	0	0	0	0	A	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.0
7-May	0	0	0	A	0	1	3	3	1	1	0	0	0	3	1	0	0	0	0	0	0	4	7	1	1.2	7.4
8-May	0	0	A	0	0	1	7	8	17	4	1	0	0	0	0	1	1	0	0	0	0	0	0	0	1.9	16.5
9-May	0	A	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0.4	0.8
10-May	A	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	A	0.5	0.8
11-May	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	A	0	0.5	0.9
12-May	0	0	0	0	0	0	1	2	1	1	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0.4	1.9
13-May	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	1.1
14-May	0	0	0	0	0	2	8	12	2	0	0	0	1	0	0	0	0	0	0	A	1	0	0	0	1.3	12.4
15-May	0	0	0	0	0	2	4	4	2	1	1	1	0	0	1	0	0	0	A	0	0	0	0	0	0.8	3.8
16-May	0	0	0	0	0	1	5	3	1	0	1	1	1	1	1	1	1	A	0	0	0	0	0	0	0.8	5.1
17-May	0	0	0	0	0	1	5	3	3	1	1	1	1	1	1	1	A	1	0	0	1	0	1	1	0.9	4.6
18-May	0	0	0	0	1	1	1	2	2	1	1	1	1	1	1	A	0	0	0	0	0	0	0	0	0.7	2.2
19-May	0	0	0	0	0	1	1	2	2	1	0	0	0	0	A	0	0	0	0	0	0	1	1	0	0.6	1.7
20-May	0	0	0	0	0	1	2	2	1	1	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0.6	2.4
21-May	0	0	0	0	0	0	1	0	C	C	C	C	C	C	C	C	C	C	1	1	1	1	1	1	--	1.4
22-May	1	1	1	1	1	1	1	2	1	1	1	A	1	1	1	1	1	1	1	0	0	0	0	0	0.8	2.0
23-May	0	0	0	0	0	0	1	2	1	1	A	1	1	1	3	1	1	1	1	0	0	0	0	0	0.8	3.0
24-May	0	0	0	0	1	2	8	4	9	A	1	1	1	1	1	1	1	1	0	0	0	0	0	0	1.4	9.0
25-May	0	0	0	0	0	2	6	5	A	2	1	0	0	1	1	0	0	0	1	0	0	0	0	0	1.0	5.7
26-May	0	0	0	1	1	1	3	A	3	3	2	1	0	0	0	0	0	0	0	0	1	0	0	0	0.8	3.2
27-May	0	0	0	0	0	0	A	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.9
28-May	0	0	0	0	0	A	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.1
29-May	0	0	0	0	A	1	2	3	1	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0.6	3.4
30-May	0	0	0	A	0	0	1	2	2	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0.6	1.9
31-May	0	0	A	0	0	2	4	2	3	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0.8	3.6
	0.2	0.2	0.2	0.2	0.3	1.2	3.3	3.2	2.2	1.1	0.9	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.5	0.2	Diurnal Average	
	0.9	0.9	1.0	1.2	1.0	8.3	24.4	23.4	16.5	4.0	2.9	2.8	1.1	3.1	3.0	1.4	1.4	1.0	1.3	1.3	1.4	4.3	7.4	1.1	Diurnal Maximum	

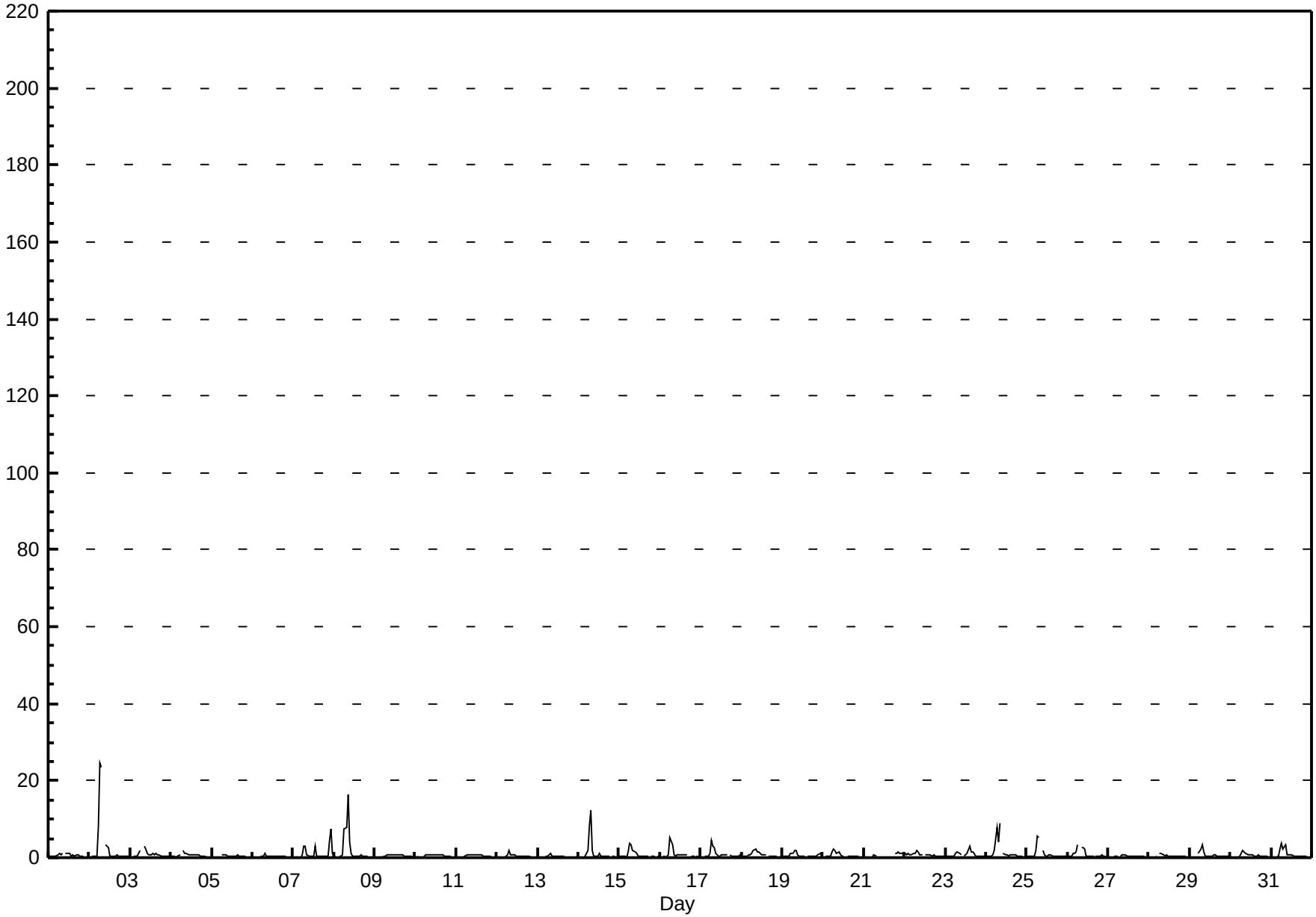
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Nitrogen Oxide (NO) - ppb

Henry Pirker - May 2012



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Henry Pirker - May 2012

Maximum Value: 112.4 ppb on May 24 09:00

Maximum Daily Average: 7.6 ppb on May 24

Minimum Value: 0 ppb on May 20 23:00

Minimum Daily Average: 0.5 ppb on May 13

Maximum Diurnal Average: 9.9 ppb at hour 9

Minimum Diurnal Average: 0.6 ppb at hour 2

Monthly Average: 2.43 ppb

Percentiles: $P_1 = 0.2$ $P_{10} = 0.4$ $Q_1 = 0.5$ Median = 1.0 $Q_3 = 1.9$ $P_{90} = 4.9$ $P_{99} = 30.7$

Hours in Service:	744
Hours of Data:	703
Hours of Missing Data:	41
Hours of Calibration:	41
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-May	0	0	0	1	1	5	5	2	4	A	2	2	2	1	8	3	2	2	1	1	1	0	0	0	1.9	8.1
2-May	0	0	2	10	4	20	41	34	A	5	6	7	2	1	1	1	2	1	0	1	1	1	1	1	6.2	41.3
3-May	1	0	2	1	1	2	4	A	7	4	2	1	2	2	1	2	1	1	1	1	0	1	1	1	1.8	6.6
4-May	1	1	1	0	0	1	A	3	2	2	2	1	1	2	1	1	1	1	1	0	0	0	0	0	1.1	3.0
5-May	0	0	0	0	0	A	2	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0.8	1.7
6-May	0	0	0	0	A	1	1	1	1	1	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0.6	1.4
7-May	0	0	0	A	0	2	8	8	1	1	1	1	1	40	3	1	1	1	0	1	2	19	26	3	5.3	39.9
8-May	3	1	A	1	1	2	15	12	31	7	2	1	1	1	1	1	1	0	0	0	0	0	0	0	3.7	31.0
9-May	0	A	0	0	0	0	1	1	1	2	1	1	1	2	1	1	1	1	0	0	0	0	0	0	0.9	1.8
10-May	A	0	0	0	0	1	1	1	2	1	1	2	1	1	1	1	2	1	0	0	0	0	0	A	1.0	1.9
11-May	0	0	0	0	0	1	1	1	2	1	1	1	1	2	1	1	1	1	1	0	0	0	A	0	0.9	2.2
12-May	0	0	0	0	0	1	1	3	3	1	1	1	1	1	1	1	1	1	0	0	0	A	0	0	0.9	3.3
13-May	0	0	1	0	0	0	1	2	1	1	0	1	1	1	1	1	1	0	0	0	A	0	0	0	0.5	2.1
14-May	0	0	0	1	2	6	24	15	12	5	1	16	21	2	1	1	2	1	5	A	3	1	0	0	5.2	24.4
15-May	4	3	1	5	1	6	9	7	4	2	2	1	1	1	1	1	1	1	A	0	0	0	0	0	2.4	8.9
16-May	0	0	0	0	0	2	11	5	2	1	2	1	1	1	1	2	1	A	1	0	0	0	0	0	1.6	10.8
17-May	0	0	0	1	0	2	8	7	3	5	1	1	1	1	1	1	A	14	1	2	1	0	1	5	2.8	14.3
18-May	0	1	1	0	5	2	8	5	3	5	2	2	2	1	1	A	1	1	0	1	0	0	0	1	2.0	7.6
19-May	1	0	4	0	1	3	1	3	2	1	1	1	0	0	A	0	1	2	1	5	0	13	26	2	3.1	26.5
20-May	0	0	0	0	0	3	3	2	2	2	1	1	0	A	2	1	1	9	3	3	4	3	0	0	2.0	8.9
21-May	1	0	1	3	0	1	1	1	C	C	C	C	C	C	C	C	C	C	1	2	5	4	1	1	--	5.2
22-May	1	1	8	1	1	2	2	5	3	1	1	A	1	1	2	1	1	6	2	1	1	2	2	1	2.1	7.8
23-May	0	0	0	0	0	1	1	4	3	2	A	1	3	3	10	5	4	3	1	2	1	2	1	0	2.2	10.5
24-May	0	0	1	1	2	7	18	8	112	A	2	2	2	2	5	2	2	1	1	1	1	0	0	1	7.6	112.4
25-May	6	0	0	0	1	3	9	8	A	3	1	1	1	6	14	1	1	4	6	3	0	3	1	1	3.3	14.5
26-May	0	2	3	8	10	4	5	A	6	5	4	2	2	1	1	0	0	0	0	0	5	1	0	0	2.5	9.8
27-May	0	0	1	0	1	1	A	1	1	1	1	2	1	2	0	1	3	2	1	2	1	0	0	0	1.0	2.6
28-May	0	0	0	0	1	A	8	1	1	2	6	2	5	0	4	3	1	2	1	2	2	1	1	0	2.0	8.0
29-May	0	0	0	0	A	3	4	32	27	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	3.5	31.6
30-May	0	0	0	A	0	1	2	3	2	2	1	1	1	1	1	1	1	1	1	1	0	0	0	0	1.1	2.9
31-May	0	0	A	0	1	4	5	4	36	9	1	1	1	1	1	1	1	1	1	1	0	0	0	0	3.2	35.6
	0.9	0.6	1.1	1.4	1.3	3.0	7.0	6.4	9.9	2.7	1.9	2.0	2.1	2.8	2.5	1.4	1.3	2.1	1.2	1.2	1.2	2.0	2.3	0.8	Diurnal Average	
	5.5	3.1	7.8	10.1	9.8	19.8	41.3	34.2	112.4	8.6	6.3	16.1	20.6	39.9	14.5	5.4	4.4	14.3	5.8	4.8	5.2	19.0	26.5	5.5	Diurnal Maximum	

C - Calibration

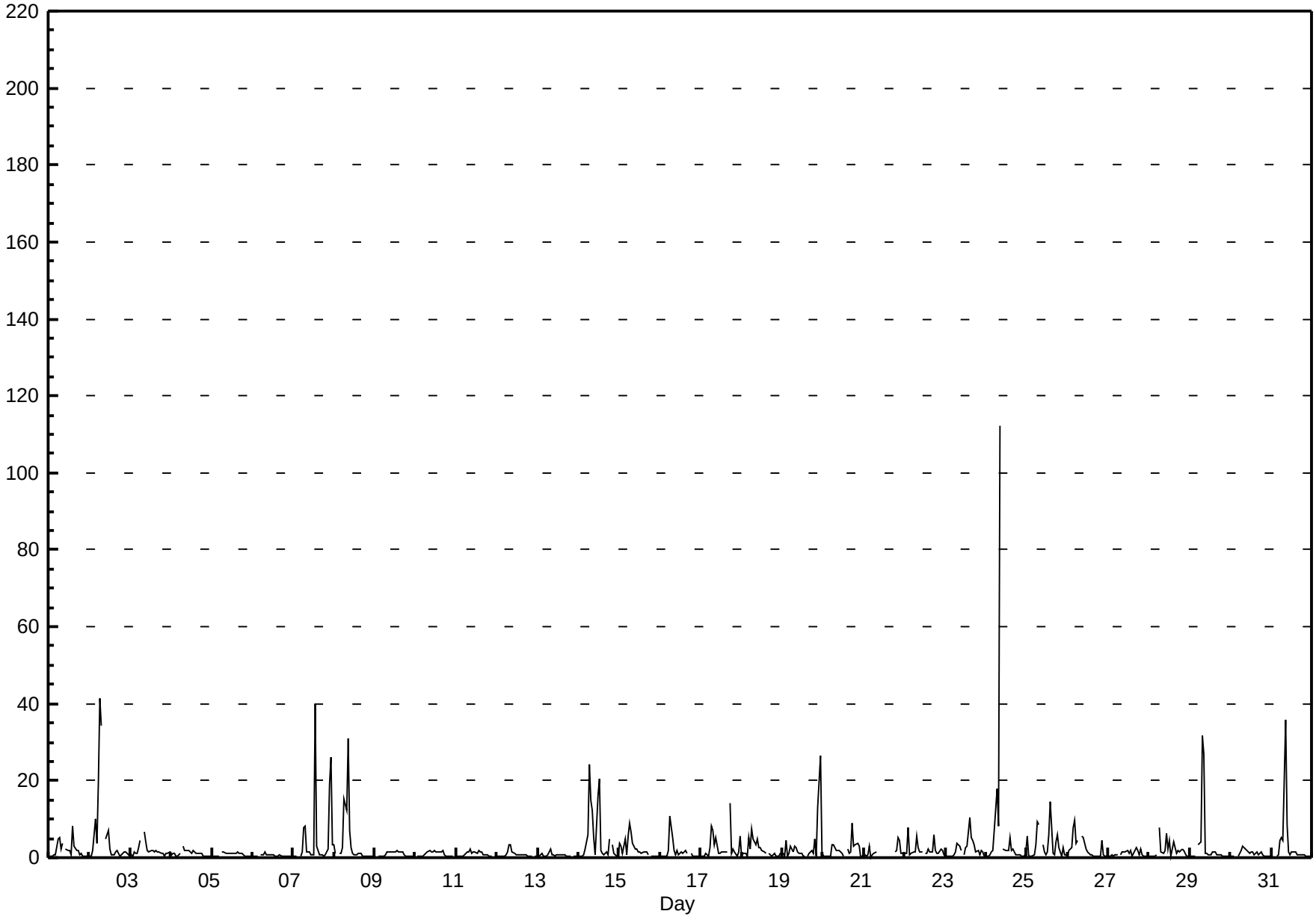
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Henry Pirker - May 2012



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Henry Pirker - May 2012

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 42.5 ppb on May 2 07:00
Maximum Daily Average: 10.9 ppb on May 2

Minimum Value: 1 ppb on May 19 17:00
Maximum Diurnal Average: 14.0 ppb at hour 7
Monthly Average: 5.36 ppb

Minimum Daily Average: 2.6 ppb on May 10
Minimum Diurnal Average: 2.5 ppb at hour 16
Percentiles: P_1 = 1.2 P_{10} = 2.0 Q_1 = 2.5 Median = 3.6 Q_3 = 6.1 P_{90} = 10.3 P_{99} = 31.2

Hours in Service:	744
Hours of Data:	703
Hours of Missing Data:	41
Hours of Calibration:	41
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-May	3	3	3	3	4	6	9	8	10	A	6	6	5	2	2	1	4	4	3	4	6	5	4	4	4.5	9.8
2-May	5	9	11	10	10	22	43	41	A	15	13	12	3	2	2	4	4	3	3	5	9	10	8	8	10.9	42.5
3-May	6	2	5	7	6	9	10	A	9	6	3	3	3	4	3	4	4	3	3	4	4	4	5	5	4.9	10.3
4-May	4	6	6	9	6	9	A	8	4	3	3	3	2	3	3	3	2	2	2	2	5	6	3	4	4.3	8.7
5-May	4	4	3	5	6	A	6	4	3	2	2	2	2	2	2	3	2	2	2	2	3	3	3	3	3.0	6.1
6-May	2	3	3	4	A	6	5	5	3	2	2	1	1	1	1	1	1	1	2	3	3	5	6	5	3.0	6.5
7-May	4	4	5	A	9	14	18	14	5	3	2	2	2	8	2	2	2	2	2	5	12	32	38	26	9.3	37.5
8-May	12	8	A	10	9	14	32	34	42	15	5	3	2	2	2	2	2	2	2	3	3	2	2	2	9.0	41.8
9-May	2	A	2	2	2	3	5	4	3	3	3	2	2	3	3	3	3	2	2	3	2	2	2	2	2.6	5.0
10-May	A	3	2	1	2	3	4	3	3	3	3	3	3	3	3	3	3	2	2	2	2	2	2	A	2.6	4.5
11-May	2	2	2	2	2	4	5	4	3	2	3	3	3	3	3	3	2	2	3	3	3	4	A	6	2.9	5.6
12-May	4	4	4	5	7	10	8	11	5	3	3	2	2	2	3	2	3	2	2	3	3	A	3	4	4.2	10.7
13-May	7	7	5	4	5	7	5	6	2	2	2	2	2	2	2	2	2	1	2	2	A	3	2	2	3.3	6.9
14-May	4	4	5	9	15	19	31	37	7	2	1	2	3	2	2	2	3	3	4	A	6	4	4	3	7.5	37.4
15-May	3	4	4	5	7	20	24	19	10	8	7	4	3	2	3	3	3	2	A	3	3	3	2	3	6.3	24.2
16-May	3	3	3	4	6	14	29	17	4	3	4	2	3	3	2	2	2	A	3	2	3	3	3	2	5.3	28.8
17-May	3	3	4	5	8	14	21	12	9	4	2	2	2	3	3	3	A	4	3	3	7	11	20	24	7.3	23.7
18-May	12	10	7	8	12	9	8	8	9	4	4	3	2	2	2	A	2	2	2	2	2	3	5	4	5.3	11.9
19-May	5	5	6	5	5	8	6	6	5	2	1	1	1	1	A	1	1	1	1	2	5	16	15	7	4.6	16.3
20-May	7	6	6	5	6	10	10	6	4	4	3	2	1	A	2	2	2	2	3	4	5	3	2	2	4.3	10.5
21-May	3	3	8	4	5	9	8	5	C	C	C	C	C	C	C	C	C	C	5	7	9	10	8	7	--	9.6
22-May	8	8	8	10	10	11	9	13	10	5	4	A	4	4	5	4	3	4	4	5	4	3	3	2	6.1	13.3
23-May	2	2	2	3	6	8	9	10	5	4	A	3	3	5	9	5	6	5	4	4	5	6	7	7	5.2	9.7
24-May	5	7	8	8	8	12	22	13	16	A	4	3	3	2	3	3	4	4	3	3	6	7	7	10	6.9	21.5
25-May	7	10	5	5	6	9	14	11	A	6	4	2	3	4	3	2	2	2	3	3	6	18	16	14	6.7	18.0
26-May	14	12	11	17	18	15	15	A	12	10	10	4	2	3	2	2	2	2	2	4	8	9	6	3	7.9	17.6
27-May	4	4	5	5	5	5	A	4	5	5	4	3	2	2	2	2	2	2	3	4	5	8	6	4	3.9	7.7
28-May	4	3	3	4	6	A	9	6	4	4	4	3	3	2	3	3	3	3	3	4	5	5	4	3	3.8	8.7
29-May	2	2	3	5	A	14	13	11	6	3	3	2	3	3	4	3	3	3	3	4	6	5	3	3	4.6	13.8
30-May	2	3	2	A	4	7	13	11	7	4	3	3	3	3	3	2	3	2	2	2	4	4	4	4	4.1	13.0
31-May	6	7	A	9	10	15	15	8	7	3	3	3	3	3	3	3	3	2	2	2	4	6	6	6	5.6	15.0
	4.9	5.1	4.9	5.9	6.9	10.6	14.0	11.7	7.5	4.7	3.8	2.9	2.6	2.7	2.7	2.5	2.6	2.6	2.6	3.2	4.9	6.7	6.6	6.0	Diurnal Average	
	13.9	12.4	10.9	16.6	17.6	22.2	42.5	40.6	41.8	14.8	12.9	11.9	4.6	8.1	9.2	4.8	5.5	4.6	4.6	6.9	11.9	32.1	37.5	26.3	Diurnal Maximum	

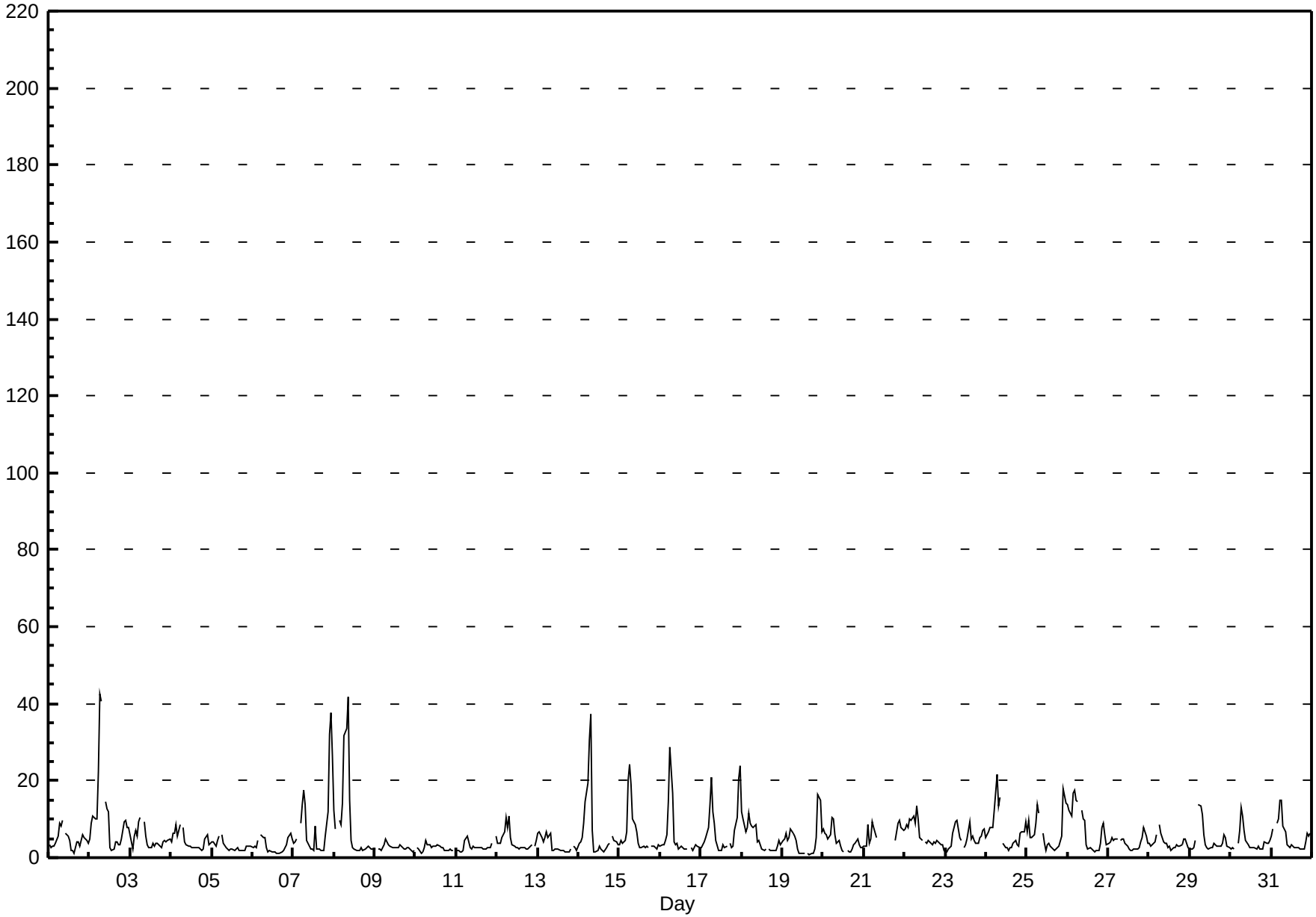
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Henry Pirker - May 2012



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

Henry Pirker - May 2012

Maximum Value: 159.6 ppb on May 24 09:00

Maximum Daily Average: 19.0 ppb on May 7

Minimum Value: 2 ppb on May 19 13:00

Minimum Daily Average: 4.2 ppb on May 10

Maximum Diurnal Average: 21.4 ppb at hour 7

Minimum Diurnal Average: 5.4 ppb at hour 16

Monthly Average: 9.84 ppb

Percentiles: P_1 = 2.3 P_{10} = 3.5 Q_1 = 4.5 Median = 6.5 Q_3 = 11.3 P_{90} = 18.4 P_{99} = 52.3

Hours in Service:	744
Hours of Data:	703
Hours of Missing Data:	41
Hours of Calibration:	41
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-May	8	4	3	5	8	18	19	14	20	A	12	10	8	4	17	8	7	6	4	8	12	6	8	4	9.2	20.3
2-May	6	13	16	31	18	35	63	54	A	20	19	22	5	3	4	9	10	5	6	7	15	18	10	15	17.5	62.7
3-May	16	3	10	14	8	16	17	A	16	10	5	4	5	6	5	7	7	6	5	7	9	7	7	16	8.9	16.8
4-May	6	10	9	14	10	11	A	12	7	6	6	6	4	5	5	4	4	3	4	4	8	8	4	6	6.8	13.5
5-May	5	6	3	8	8	A	9	6	4	4	4	4	4	3	3	7	5	3	4	2	4	4	4	5	4.9	9.3
6-May	3	3	3	8	A	8	7	6	3	4	4	3	3	3	2	2	4	3	4	5	5	8	9	7	4.7	9.0
7-May	5	5	6	A	12	20	30	31	6	6	4	5	5	112	7	4	4	3	4	10	19	49	58	31	19.0	111.8
8-May	22	11	A	14	14	23	46	41	64	21	8	5	4	4	4	4	5	3	3	4	5	4	3	3	13.8	64.1
9-May	3	A	3	3	2	6	8	6	6	5	4	4	4	5	4	6	4	3	3	4	4	4	2	3	4.3	7.7
10-May	A	4	3	2	3	5	6	5	5	5	5	6	4	6	5	4	5	3	3	3	3	2	3	A	4.2	6.3
11-May	3	3	2	2	3	7	7	6	7	4	6	5	4	6	5	5	4	3	4	4	4	5	A	9	4.8	9.0
12-May	6	6	5	10	10	16	12	14	13	5	5	4	4	4	4	5	4	5	3	4	5	A	5	9	6.9	15.8
13-May	9	12	15	5	7	10	7	9	4	3	3	4	4	3	3	3	3	2	3	6	A	6	4	3	5.6	15.2
14-May	8	8	8	18	23	32	58	42	36	10	3	26	38	7	5	3	6	5	12	A	12	7	5	4	16.3	57.9
15-May	12	12	8	16	11	33	36	28	18	13	13	7	6	5	6	6	6	4	A	4	5	3	4	5	11.4	35.9
16-May	4	4	5	6	9	23	40	24	9	7	9	4	6	4	5	8	5	A	5	3	4	4	5	3	8.6	40.3
17-May	4	5	6	10	12	18	29	26	12	17	4	4	4	5	6	6	A	32	5	12	14	18	29	41	13.8	40.9
18-May	16	17	11	12	20	16	17	14	13	13	7	7	5	4	3	A	4	3	3	4	4	6	7	8	9.2	19.5
19-May	7	7	11	6	8	12	9	8	6	4	3	2	2	2	A	2	2	3	3	8	9	45	54	11	9.8	54.2
20-May	12	10	8	6	8	15	14	8	5	6	5	3	2	A	6	4	4	11	10	12	12	8	4	4	7.7	14.5
21-May	6	5	20	12	6	18	11	7	C	C	C	C	C	C	C	C	C	C	10	11	16	16	11	9	--	20.1
22-May	9	9	18	11	14	15	10	24	17	9	9	A	6	6	10	7	5	12	8	8	7	12	6	3	10.3	24.0
23-May	2	2	3	4	11	11	11	14	11	9	A	5	7	10	26	11	12	10	6	6	8	9	11	9	9.1	25.8
24-May	7	13	14	12	15	21	36	24	160	A	8	5	6	5	8	5	8	8	6	7	10	9	9	13	17.8	159.6
25-May	14	13	10	7	8	11	19	17	A	9	5	3	8	19	31	6	5	9	16	13	11	26	21	18	13.0	30.6
26-May	16	18	20	41	35	21	18	A	22	17	13	9	7	4	4	3	3	4	4	7	17	13	13	5	13.6	40.6
27-May	6	7	11	7	8	8	A	6	7	7	7	6	5	5	2	4	8	7	4	8	8	10	12	5	7.0	12.4
28-May	5	4	4	6	10	A	20	8	8	8	13	7	13	4	12	9	6	7	6	10	8	7	7	4	8.1	20.4
29-May	4	3	4	6	A	24	19	52	34	6	6	4	4	7	6	6	5	4	4	8	10	7	5	4	10.2	52.1
30-May	3	3	3	A	5	12	18	15	10	8	6	4	5	5	4	5	5	4	7	4	6	7	5	7	6.7	17.8
31-May	13	9	A	12	13	20	23	14	49	14	7	4	5	6	6	4	5	4	4	5	6	7	7	8	10.7	49.4
	8.0	7.7	8.4	10.6	11.0	16.6	21.4	18.5	20.5	8.9	7.0	6.3	6.3	9.1	7.2	5.4	5.4	6.2	5.6	6.7	8.7	11.2	11.1	9.1	Diurnal Average	
	21.7	18.4	20.1	40.6	35.2	34.5	62.7	54.0	159.6	20.5	18.7	25.5	38.2	111.8	30.6	11.1	12.1	32.4	16.2	13.1	18.8	49.4	57.8	40.9	Diurnal Maximum	

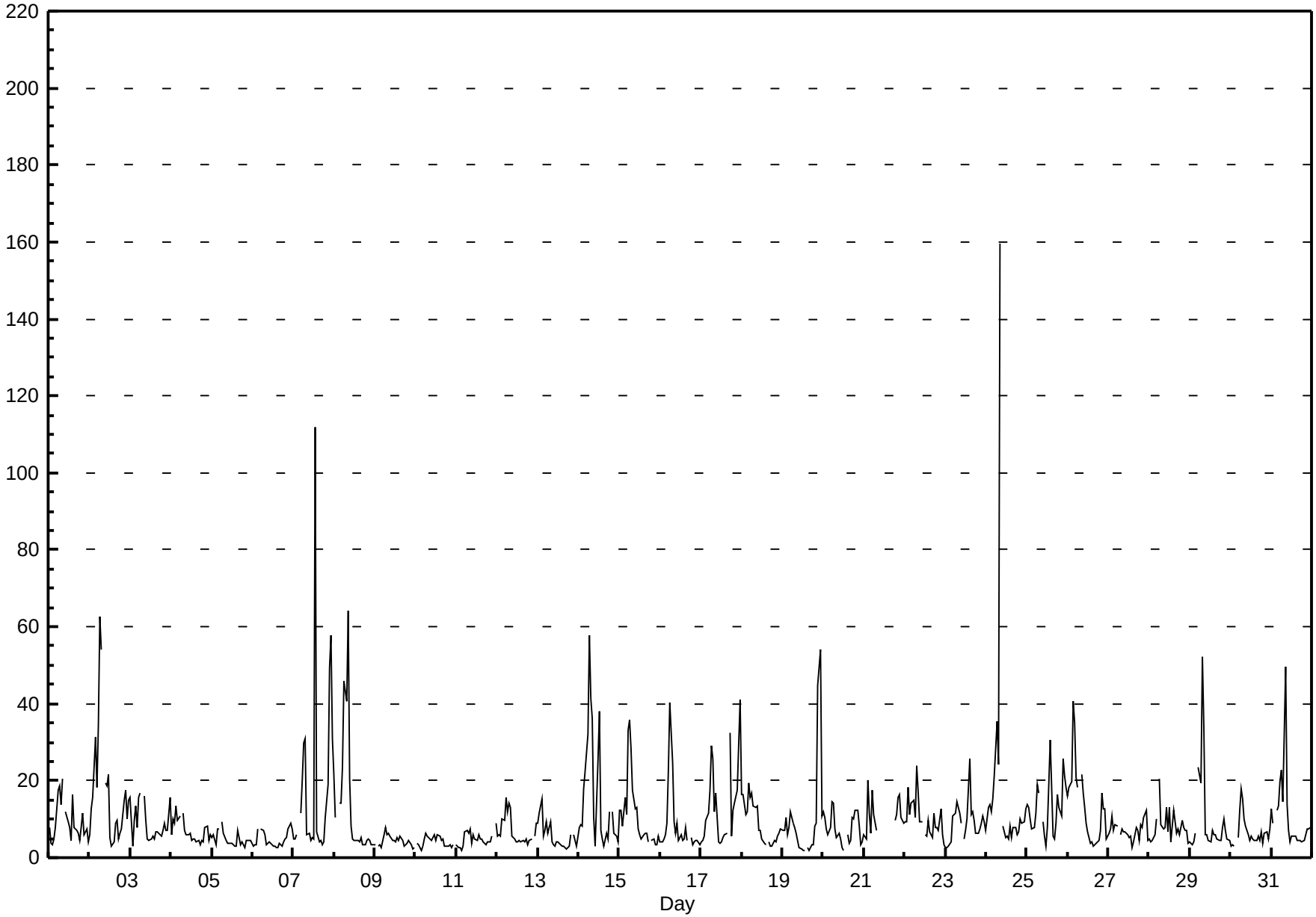
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

Henry Pirker - May 2012



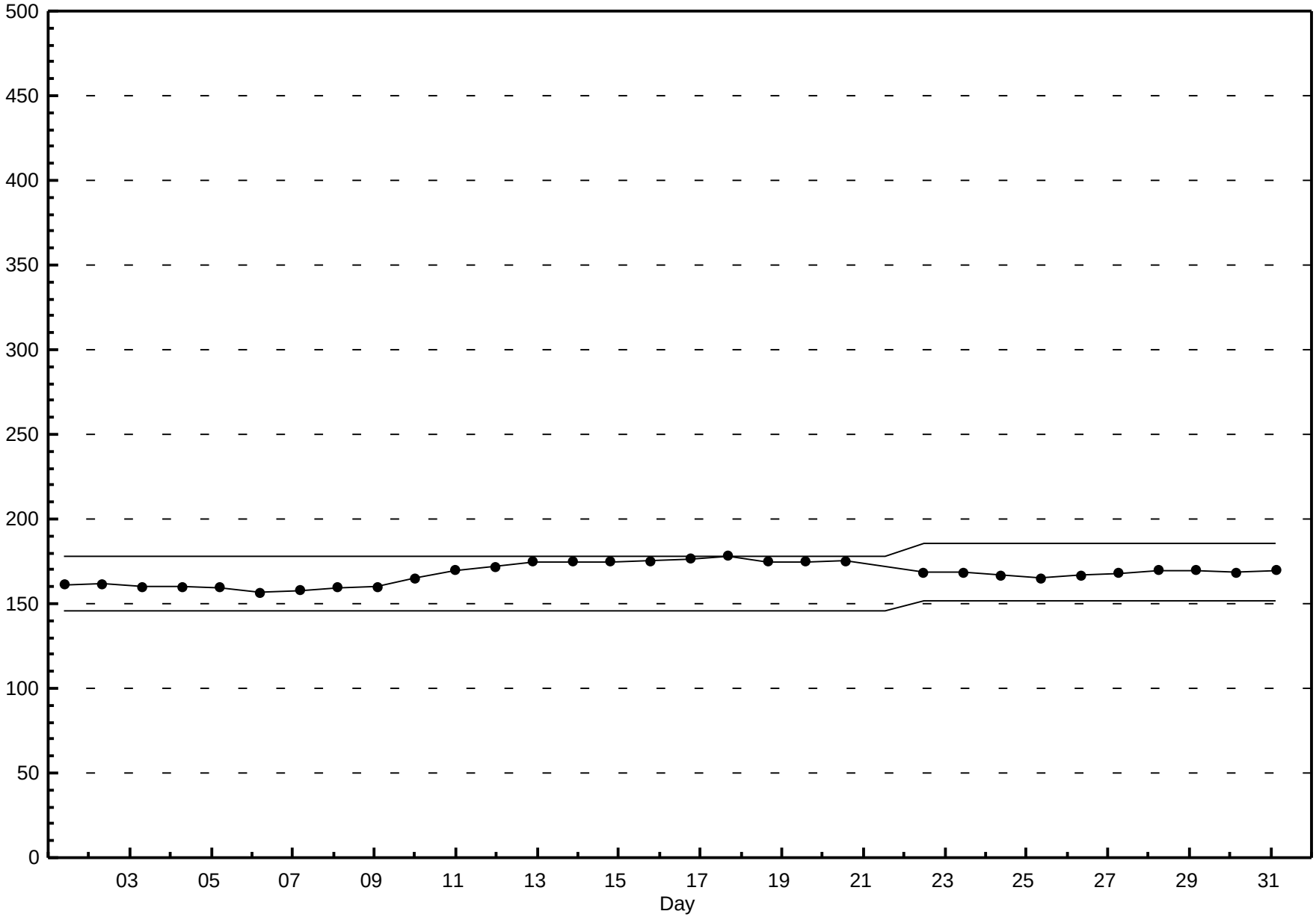
FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Span Responses

Oxides of Nitrogen (NO_X)

Henry Pirker - May 2012



Peace Airshed Zone Association

Hourly Averages

Ozone (O_3) - ppb

Henry Pirker - May 2012

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 60.5 ppb on May 28 13:00
Maximum Daily Average: 51.0 ppb on May 28

Minimum Value: 1 ppb on May 2 06:00
Maximum Diurnal Average: 45.5 ppb at hour 15
Monthly Average: 36.62 ppb

Minimum Daily Average: 27.1 ppb on May 24
Minimum Diurnal Average: 22.3 ppb at hour 7
Percentiles: P_1 = 8.1 P_{10} = 20.5 Q_1 = 29.2 Median = 37.8 Q_3 = 44.9 P_{90} = 50.3 P_{99} = 58.7

Hours in Service:	744
Hours of Data:	709
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-May	42	39	36	32	28	26	23	23	20	A	27	30	36	42	43	43	39	34	35	34	30	28	29	30	32.5	43.5
2-May	29	22	12	14	12	1	2	4	A	22	28	33	45	46	45	41	41	41	41	37	30	26	26	27	27.3	45.7
3-May	28	35	29	26	24	19	17	A	20	26	33	34	33	35	37	36	36	37	36	34	32	30	29	28	30.2	37.2
4-May	28	25	23	20	17	14	A	24	33	33	38	41	43	43	44	46	45	43	42	41	37	33	34	33	34.0	46.2
5-May	32	30	31	28	27	A	30	37	43	45	46	47	47	47	48	47	46	46	45	44	41	39	39	37	40.2	47.8
6-May	36	34	34	32	A	30	31	32	40	47	49	50	51	51	49	49	49	51	51	48	42	38	36	37	42.2	51.2
7-May	37	36	33	A	26	23	24	31	44	49	52	53	53	50	50	48	46	44	42	36	26	6	3	7	35.6	53.3
8-May	21	28	A	26	26	20	9	11	14	30	42	54	57	54	51	46	49	52	53	50	47	48	48	46	38.3	57.0
9-May	46	A	46	45	46	45	43	43	42	41	40	40	42	42	42	41	42	43	42	40	39	40	39	38	42.1	46.5
10-May	A	36	36	38	37	36	35	37	37	39	39	39	39	37	38	39	40	41	42	42	41	40	39	A	38.4	41.8
11-May	40	39	38	37	36	33	32	36	38	40	41	43	44	43	43	43	44	44	43	43	42	39	A	36	39.9	44.1
12-May	36	36	36	35	33	31	34	32	39	41	44	46	46	48	48	49	49	51	51	50	48	A	48	43	42.3	50.7
13-May	37	35	37	39	34	35	36	35	56	55	54	54	55	54	50	49	50	51	50	49	A	44	42	44	45.3	56.2
14-May	39	39	32	28	22	17	16	17	42	46	47	48	49	50	51	51	50	50	49	A	42	39	39	39	39.3	51.1
15-May	40	36	37	35	32	18	15	22	31	33	40	47	48	49	51	51	49	48	A	51	51	49	46	43	40.2	51.3
16-May	41	42	40	37	33	24	15	27	44	47	47	48	50	52	49	46	45	A	47	43	42	38	36	38	40.6	51.7
17-May	37	34	34	32	29	25	23	31	33	38	41	44	43	41	40	39	A	40	40	39	35	29	18	15	33.9	43.7
18-May	25	26	31	26	19	26	27	27	27	32	28	25	27	29	30	A	32	33	32	32	30	27	24	23	27.7	32.7
19-May	22	20	19	19	18	16	17	20	23	29	33	35	37	38	A	38	38	38	38	37	32	20	21	30	27.7	38.3
20-May	27	25	23	25	21	16	18	22	27	31	37	40	43	A	44	44	44	43	41	39	36	36	37	37	32.8	44.5
21-May	34	32	28	30	28	21	22	27	34	40	44	45	A	44	43	43	C	C	C	35	33	29	30	24	33.4	45.3
22-May	19	19	21	16	16	16	20	17	22	32	33	A	41	42	38	34	33	31	32	28	29	30	28	31	27.2	41.7
23-May	35	35	31	28	22	16	17	19	24	25	A	34	33	32	29	27	28	31	32	32	29	28	24	18	27.4	35.1
24-May	16	12	13	11	12	8	6	14	20	A	31	34	37	41	41	41	42	42	45	44	34	32	27	20	27.1	45.2
25-May	21	14	22	20	16	11	10	13	A	28	40	46	46	47	49	50	51	52	52	52	47	32	31	28	33.9	52.3
26-May	26	26	26	21	15	19	20	A	30	34	36	48	54	55	57	58	59	59	59	53	45	41	44	45	40.4	59.5
27-May	43	42	40	41	39	38	A	41	41	43	49	51	54	56	55	56	57	58	58	57	52	46	49	51	48.7	58.4
28-May	49	49	48	45	42	A	40	42	46	50	53	60	60	60	59	59	58	56	57	53	48	45	46	47	51.0	60.5
29-May	47	47	45	41	A	22	24	33	40	43	43	44	43	41	39	40	42	43	44	48	47	40	33	30	40.0	48.2
30-May	31	31	32	A	30	27	22	25	31	35	40	42	42	43	47	46	43	42	41	41	36	34	34	31	35.8	46.8
31-May	28	24	A	25	21	19	20	26	36	43	46	48	48	51	53	53	54	54	53	51	47	41	41	37	39.9	54.5
	33.1	31.5	31.5	29.4	26.3	22.5	22.3	26.6	33.7	37.8	40.7	43.4	44.8	45.5	45.5	45.3	44.9	44.8	44.6	42.7	38.9	34.9	33.9	33.1	Diurnal Average	
	49.0	49.2	47.6	45.4	46.2	45.4	43.0	42.9	56.2	55.2	53.9	59.5	60.5	60.1	58.8	59.4	58.9	59.3	59.5	57.3	51.6	49.5	49.2	50.5	Diurnal Maximum	

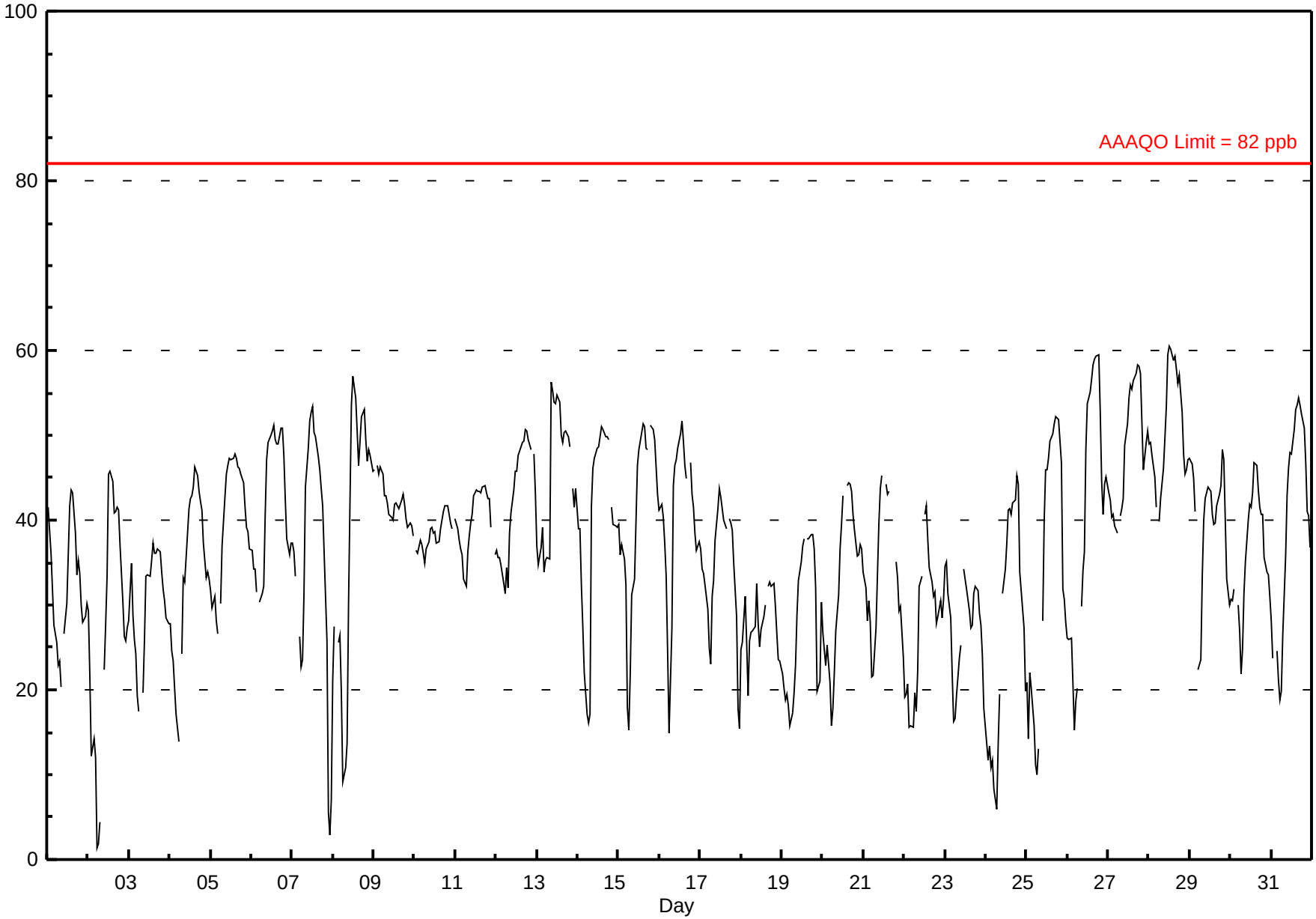
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82 ppb 24-hr na

Peace Airshed Zone Association

Hourly Averages

Ozone (O_3) - ppb

Henry Pirker - May 2012



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

Ozone (O_3) - ppb

Henry Pirker - May 2012

Maximum Value: 62.3 ppb on May 28 13:00

Maximum Daily Average: 53.1 ppb on May 28

Minimum Value: 3 ppb on May 2 06:00

Minimum Daily Average: 30.4 ppb on May 23

Maximum Diurnal Average: 47.7 ppb at hour 14

Minimum Diurnal Average: 26.0 ppb at hour 7

Monthly Average: 39.61 ppb

Percentiles: P_1 = 13.5 P_{10} = 25.2 Q_1 = 32.2 Median = 40.5 Q_3 = 47.5 P_{90} = 52.2 P_{99} = 61.2

Hours in Service:	744
Hours of Data:	709
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-May	43	41	38	35	31	28	26	27	26	A	30	35	40	45	45	45	43	36	37	36	33	30	31	32	35.4	45.5
2-May	31	27	19	24	24	3	4	8	A	29	32	46	48	48	47	44	44	44	44	40	36	29	29	31	31.8	48.0
3-May	35	36	34	30	26	23	20	A	25	29	37	36	37	39	39	39	38	38	38	36	35	32	31	30	33.1	39.1
4-May	30	28	26	25	21	22	A	31	37	36	41	44	45	45	47	49	49	45	44	43	41	37	36	34	37.1	48.8
5-May	34	32	33	31	29	A	34	43	46	47	49	49	49	49	49	50	49	48	48	46	44	41	40	40	42.4	50.1
6-May	38	36	36	34	A	32	33	38	45	51	51	51	52	52	51	50	50	53	53	51	46	41	38	41	44.4	52.7
7-May	40	40	36	A	31	29	28	41	48	52	53	54	55	53	52	50	48	47	44	42	31	23	6	17	40.0	55.1
8-May	27	31	A	29	31	25	13	15	27	34	49	58	61	58	55	50	53	54	55	52	49	50	49	47	42.3	60.5
9-May	47	A	47	48	48	48	45	45	43	42	42	42	43	43	43	44	44	45	43	42	41	41	40	39	43.8	48.3
10-May	A	38	37	39	38	37	37	38	40	40	41	40	40	39	39	40	41	42	43	43	42	41	40	A	39.8	42.8
11-May	41	40	39	37	37	35	34	39	40	42	43	45	45	46	45	45	45	46	45	44	43	42	A	38	41.5	45.9
12-May	39	38	37	38	35	36	38	36	43	42	46	48	47	49	51	50	51	52	52	52	51	A	50	47	44.7	52.4
13-May	41	39	41	41	37	39	39	51	59	58	55	55	57	56	52	51	52	52	51	50	A	48	45	45	48.5	59.3
14-May	44	42	38	32	27	25	23	20	46	48	49	50	50	52	52	52	51	51	51	A	44	41	41	41	42.2	52.2
15-May	41	39	39	39	36	31	22	28	36	37	49	50	50	52	53	53	51	50	A	53	52	51	48	47	43.7	53.2
16-May	42	43	44	39	37	32	22	44	48	49	49	50	54	54	52	49	47	A	50	49	44	41	38	39	44.1	54.3
17-May	39	36	36	36	32	28	26	33	37	42	43	45	44	44	42	41	A	42	42	41	42	36	25	23	37.1	45.1
18-May	30	31	33	31	24	31	29	29	32	37	34	28	29	30	32	A	34	34	34	34	32	29	25	26	30.8	37.3
19-May	23	21	22	22	19	17	19	21	25	33	36	36	39	39	A	39	39	39	39	39	36	28	36	35	30.6	39.4
20-May	37	27	26	26	24	17	23	24	30	36	39	42	44	A	45	46	45	45	43	41	38	38	38	37	35.4	45.7
21-May	37	34	33	32	30	28	27	31	37	43	46	46	A	46	45	45	C	C	C	40	37	32	32	30	36.6	46.5
22-May	22	21	26	18	19	21	22	26	28	37	37	A	44	44	40	39	36	33	34	31	31	32	30	36	30.8	44.4
23-May	37	37	34	32	26	19	20	24	30	28	A	36	35	34	33	31	30	34	34	34	32	29	29	21	30.4	37.0
24-May	19	18	16	14	16	14	9	20	24	A	34	36	41	43	44	43	45	45	48	49	39	37	31	25	30.9	48.8
25-May	28	18	25	23	19	14	12	17	A	36	45	48	48	51	52	52	53	54	54	54	53	43	36	30	37.4	54.2
26-May	29	29	30	29	20	23	23	A	35	37	42	53	55	57	59	60	61	61	62	56	50	45	47	47	44.0	61.9
27-May	45	44	42	43	41	40	A	43	43	46	52	56	57	59	57	58	59	60	60	60	56	49	52	52	51.0	60.2
28-May	50	50	50	46	45	A	43	44	50	51	58	62	62	62	61	61	61	58	59	56	50	47	48	48	53.1	62.3
29-May	49	48	46	44	A	28	31	40	46	46	45	46	46	43	42	41	43	45	46	52	52	45	36	32	43.1	52.2
30-May	31	32	33	A	31	30	29	27	34	39	42	44	44	46	48	48	48	43	43	42	40	36	37	33	38.3	48.2
31-May	32	28	A	29	25	21	25	32	41	47	49	50	50	54	55	56	57	55	55	52	51	46	42	40	43.2	56.7
	36.0	34.2	34.2	32.6	29.7	26.9	26.0	31.5	38.0	41.2	43.9	46.0	47.1	47.7	47.5	47.4	47.1	46.5	46.5	45.4	42.3	38.6	36.9	36.1	Diurnal Average	
	49.9	50.4	49.8	48.3	48.0	47.9	44.7	50.9	59.3	57.7	58.2	61.8	62.3	62.1	60.8	61.2	61.2	61.3	61.9	59.7	56.2	50.9	51.6	52.3	Diurnal Maximum	

C - Calibration

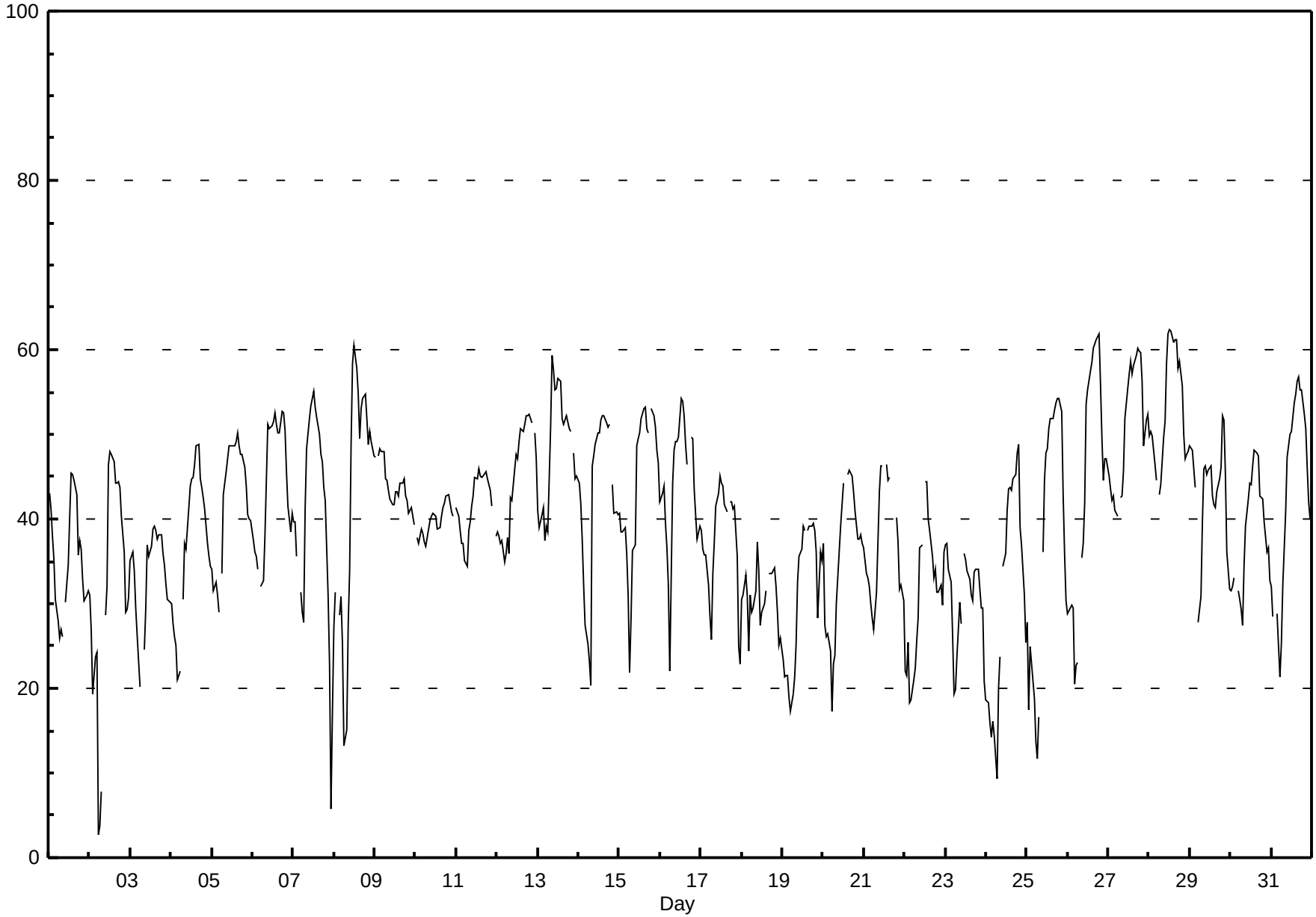
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Ozone (O_3) - ppb

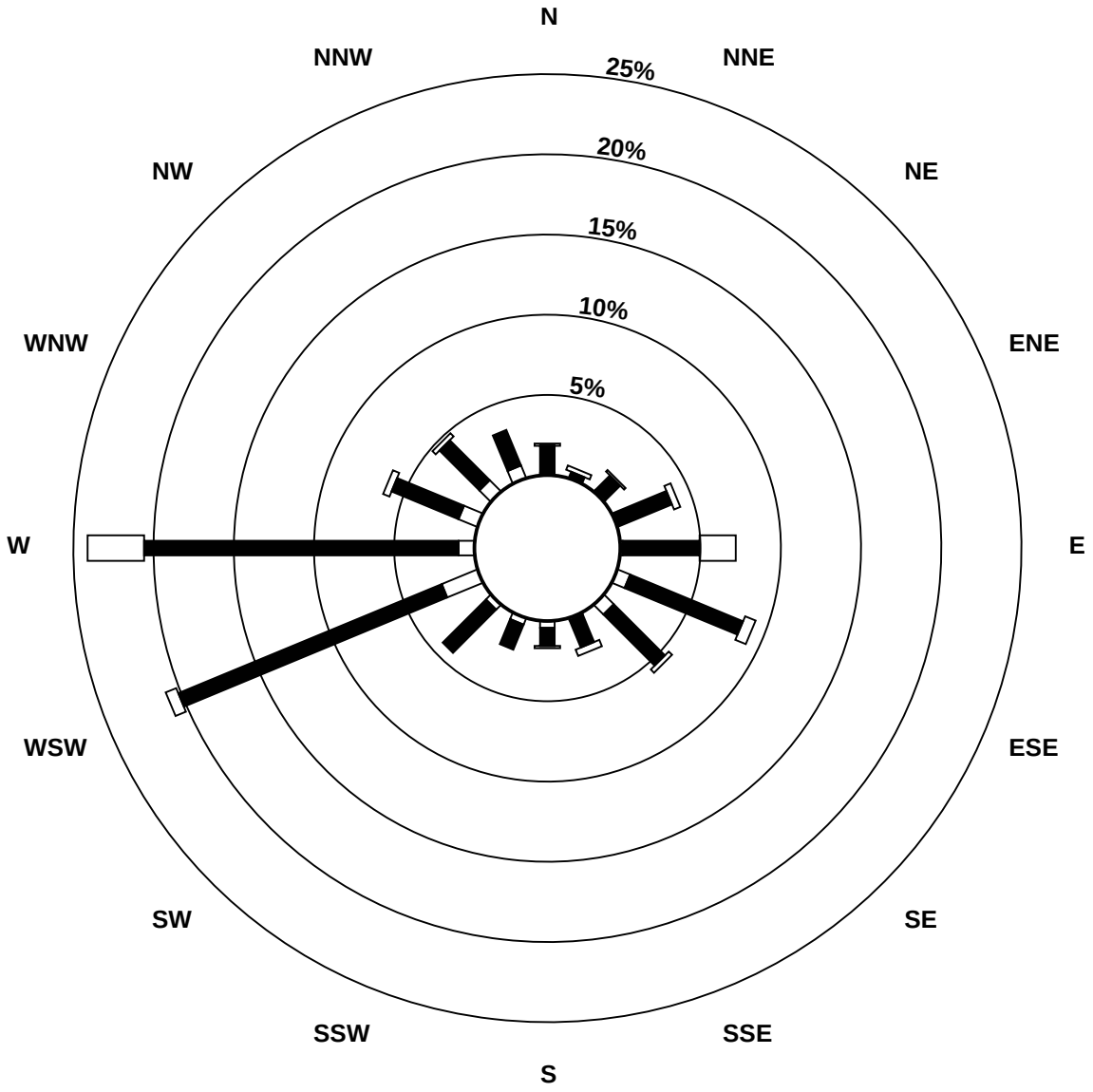
Henry Pirker - May 2012



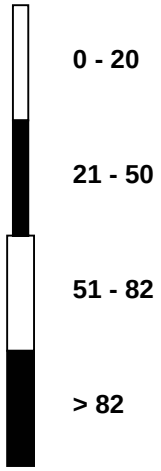
Pollutant Rose

Ozone (O_3) - ppb

Henry Pirker - May 2012



Pollutant Classes (ppb)



Peace Airshed Zone Association

Eight Hour Running Averages

Ozone (O_3) - ppb

Henry Pirker - May 2012

Maximum Value: 58.6 ppb on May 28 19:00

Minimum Value: 9.7 ppb on May 2 09:00

Percentiles: P_1 = 11.9 P_{10} = 23.5 Q_1 = 29.7 Median = 37.3 Q_3 = 43.2 P_{90} = 49.2 P_{99} = 56.0

Hours in Service:	744
Hours of Data:	737
Hours of Missing Data:	7
Hours of Calibration:	7
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-May	44	43	43	41	39	36	33	31	28	27	25	25	26	29	32	34	37	37	38	38	37	36	34	32	44.3
2-May	31	30	27	24	22	19	15	12	10	10	12	15	20	26	32	37	38	40	42	42	40	38	35	34	42.1
3-May	32	31	30	28	28	27	26	26	24	23	24	25	26	28	31	32	34	35	36	36	35	35	34	33	35.6
4-May	32	30	29	27	25	23	22	22	22	24	26	29	32	36	37	40	42	43	43	43	43	42	40	39	43.4
5-May	37	35	34	32	31	31	30	31	32	34	37	39	42	43	45	46	47	47	47	46	46	45	44	42	47.0
6-May	41	40	38	37	36	35	34	33	34	35	37	40	41	44	46	48	49	50	50	50	49	47	45	44	50.1
7-May	43	41	39	37	35	33	31	30	31	33	35	38	41	44	48	50	50	49	48	46	43	37	31	26	50.0
8-May	23	21	18	17	17	19	20	20	19	19	22	26	29	34	39	43	48	51	52	52	50	50	49	49	52.1
9-May	49	48	47	47	47	46	45	45	44	44	43	43	42	42	41	41	41	42	42	42	41	41	41	40	48.7
10-May	40	39	38	38	38	37	37	36	37	37	37	37	38	38	38	38	39	39	39	40	40	40	40	41	40.5
11-May	41	40	40	39	38	37	36	36	36	36	37	37	38	40	41	42	43	43	43	43	43	43	43	42	43.5
12-May	41	39	38	37	36	35	35	34	34	35	36	37	39	41	43	45	46	48	48	49	49	49	49	48	49.4
13-May	47	44	42	41	39	38	37	36	38	41	43	45	48	50	52	53	53	52	52	51	50	49	48	47	53.4
14-May	45	44	41	38	36	33	30	26	27	28	29	32	35	39	44	48	49	49	50	50	49	47	46	44	49.9
15-May	43	41	39	38	37	35	32	29	28	28	28	30	32	36	40	44	46	48	49	50	50	50	49	48	50.1
16-May	47	46	46	44	42	38	35	33	33	34	34	36	38	41	46	48	48	48	48	48	46	44	43	41	48.3
17-May	40	39	38	36	35	33	32	31	30	31	32	33	35	37	39	40	41	41	41	40	39	37	34	31	41.2
18-May	30	28	27	25	23	23	24	26	26	27	27	26	27	28	28	28	29	29	30	31	31	31	30	29	31.2
19-May	28	26	25	23	22	20	19	19	19	20	22	24	26	29	31	33	35	37	37	38	37	34	33	32	37.7
20-May	30	29	27	25	24	23	23	22	22	23	25	26	29	31	35	38	40	42	43	43	42	41	40	39	42.7
21-May	38	36	35	34	33	31	29	28	28	29	31	33	33	37	40	42	43	N	N	N	N	N	N	N	43.2
22-May	28	27	26	24	22	20	19	18	18	20	21	22	26	30	32	35	36	36	36	35	33	32	31	30	36.1
23-May	30	31	31	31	30	28	27	25	24	23	22	22	24	26	28	29	30	31	31	31	30	29	29	28	31.0
24-May	26	24	21	19	17	14	12	11	12	12	14	18	21	26	31	35	38	39	41	42	41	40	38	36	41.8
25-May	33	30	27	24	22	19	17	16	15	17	20	23	28	33	38	44	45	48	49	50	50	48	46	43	50.1
26-May	40	37	33	30	26	24	23	22	22	24	25	29	34	40	45	46	50	53	56	57	56	54	52	51	56.8
27-May	49	47	44	43	42	42	41	41	40	40	42	43	45	48	49	51	53	55	56	57	56	55	54	54	56.7
28-May	53	51	50	49	47	47	46	45	45	45	45	48	50	51	54	56	57	58	59	58	56	54	53	51	58.6
29-May	50	49	47	46	45	42	39	37	36	35	35	36	37	39	41	42	42	42	42	43	43	43	42	41	49.9
30-May	40	38	36	35	32	30	29	28	28	29	30	31	33	35	38	41	42	43	43	43	42	41	40	38	43.2
31-May	36	33	32	30	28	26	24	23	24	27	29	32	36	40	44	47	50	51	52	52	52	51	49	47	52.1
	52.5	51.4	50.0	48.5	47.3	47.5	46.1	45.1	44.6	44.6	45.5	47.5	50.2	51.5	53.8	55.9	57.4	58.2	58.6	57.8	56.3	55.1	54.3	53.6	
	Diurnal Maximums																								

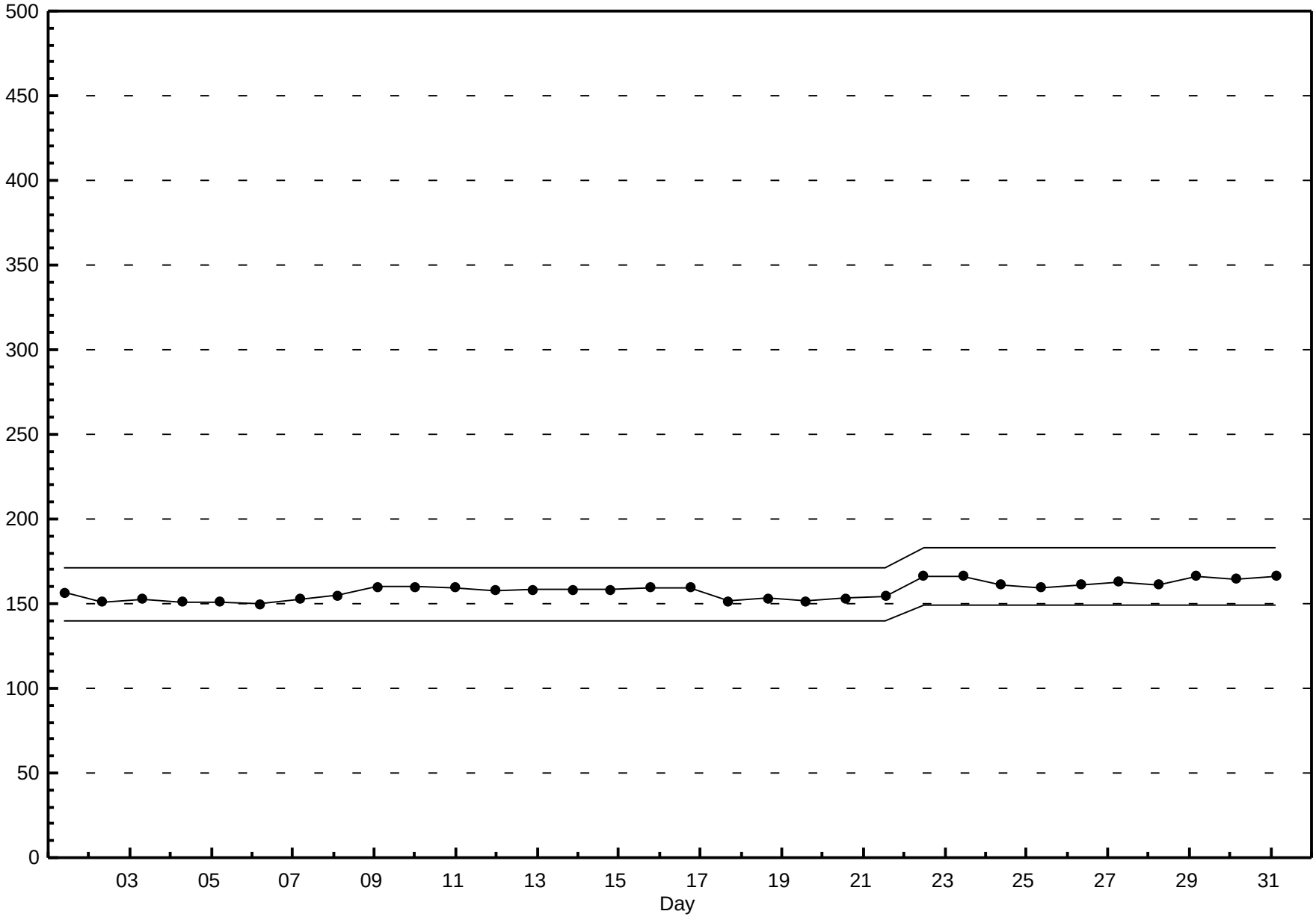
N - Not Valid

Peace Airshed Zone Association

Span Responses

Ozone (O_3)

Henry Pirker - May 2012



Peace Airshed Zone Association

Hourly Averages

Carbon Monoxide (CO) - ppm

Henry Pirker - May 2012

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

Maximum Value: 0.56 ppm on May 7 23:00

Maximum Daily Average: 0.23 ppm on May 7

Minimum Value: 0.0 ppm on May 17 08:00

Minimum Daily Average: 0.13 ppm on May 17

Maximum Diurnal Average: 0.21 ppm at hour 8

Minimum Diurnal Average: 0.15 ppm at hour 16

Monthly Average: 0.172 ppm

Percentiles: $P_1 = 0.06$ $P_{10} = 0.13$ $Q_1 = 0.15$ Median = 0.16 $Q_3 = 0.19$ $P_{90} = 0.22$ $P_{99} = 0.35$

Hours in Service:	744
Hours of Data:	708
Hours of Missing Data:	36
Hours of Calibration:	35
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-May	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21	0.27
2-May	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.23	0.35
3-May	0.2	0.2	0.2	0.2	0.2	0.2	0.3	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	0.27
4-May	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18	0.22
5-May	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.16	0.18
6-May	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
7-May	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.6	0.4	0.23	0.56
8-May	0.2	0.2	A	0.2	0.2	0.3	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.20	0.42
9-May	0.1	A	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.15	0.15
10-May	A	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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.14	0.15
11-May	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	A	0.2	0.14	0.17
12-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.15	0.17
13-May	0.1	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.13	0.15
14-May	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.1	A	0.2	0.2	0.1	0.1	0.15	0.22
15-May	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.2	A	0.2	0.2	0.2	0.2	0.2	0.16	0.20
16-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.13	0.24
17-May	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	C	C	C	0.2	0.2	0.2	0.1	0.2	A	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.13	0.31
18-May	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.15	0.22
19-May	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.2	0.14	0.31
20-May	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	A	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.15	0.18
21-May	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.17	0.23
22-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18	0.21
23-May	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	M	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20	0.25
24-May	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	0.2	0.2	0.2	0.2	0.2	0.20	0.31
25-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.4	0.3	0.3	0.20	0.36
26-May	0.3	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.20	0.27
27-May	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18	0.22
28-May	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	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.17	0.21
29-May	0.1	0.1	0.1	0.2	A	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	0.2	0.2	0.2	0.2	0.2	0.19	0.49
30-May	0.1	0.2	0.2	A	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.16	0.21
31-May	0.2	0.2	A	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	0.17	0.21
	0.17	0.17	0.16	0.16	0.17	0.18	0.20	0.21	0.18	0.17	0.17	0.16	0.16	0.16	0.16	0.15	0.16	0.16	0.15	0.16	0.18	0.20	0.20	0.18	Diurnal Average	
	0.27	0.24	0.24	0.23	0.24	0.28	0.39	0.49	0.35	0.24	0.23	0.23	0.21	0.20	0.22	0.20	0.25	0.24	0.23	0.23	0.27	0.43	0.56	0.37	Diurnal Maximum	

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

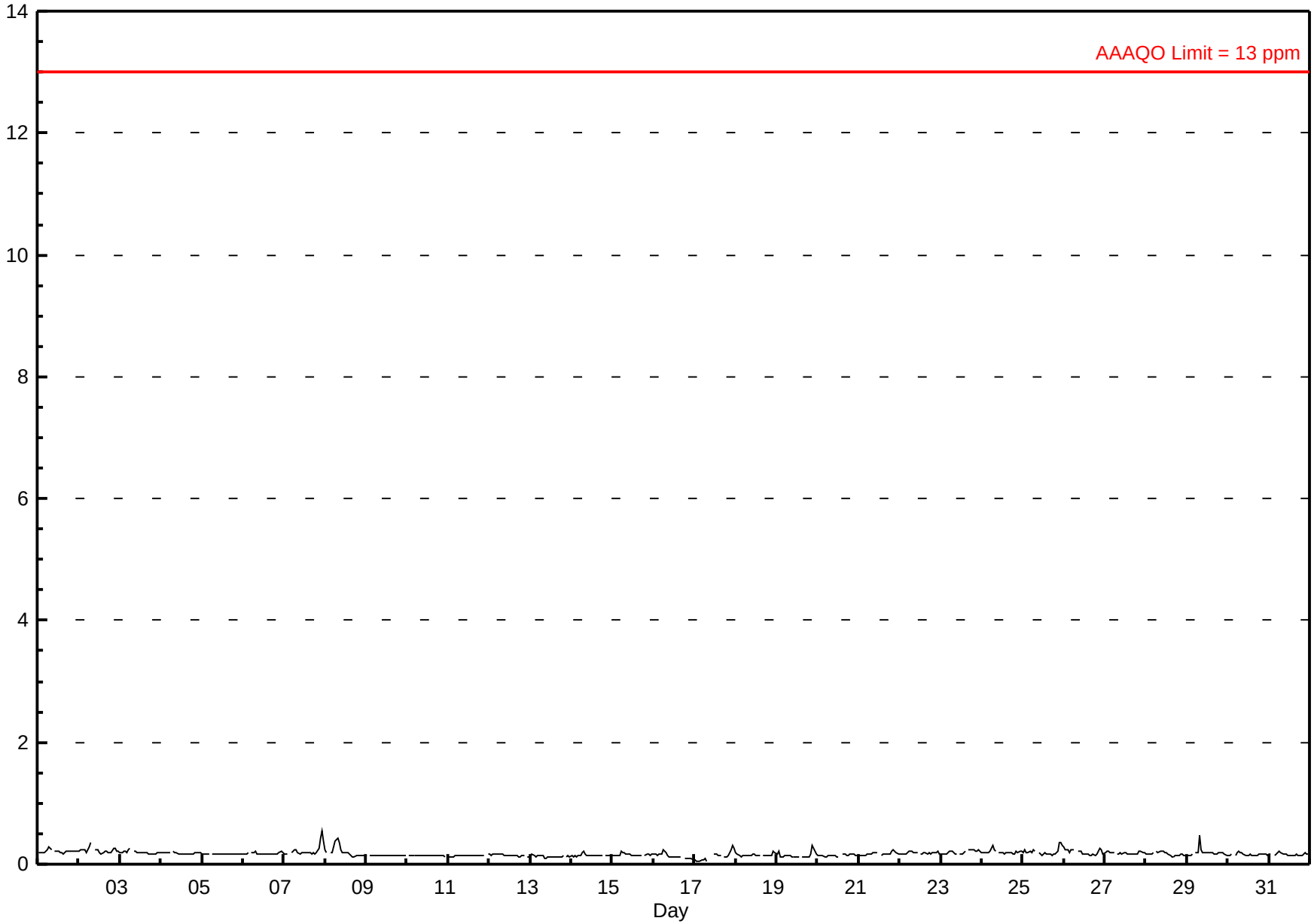
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 13 ppm 24-hr na

Peace Airshed Zone Association

Hourly Averages

Carbon Monoxide (CO) - ppm

Henry Pirker - May 2012



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

Carbon Monoxide (CO) - ppm

Henry Pirker - May 2012

Maximum Value: 10.03 ppm on May 29 08:00

Maximum Daily Average: 0.73 ppm on May 29

Minimum Value: 0.1 ppm on May 17 05:00

Minimum Daily Average: 0.15 ppm on May 10

Maximum Diurnal Average: 0.59 ppm at hour 8

Minimum Diurnal Average: 0.19 ppm at hour 19

Monthly Average: 0.245 ppm

Percentiles: $P_1 = 0.10$ $P_{10} = 0.15$ $Q_1 = 0.18$ Median = 0.21 $Q_3 = 0.25$ $P_{90} = 0.32$ $P_{99} = 0.85$

Hours in Service:	744
Hours of Data:	708
Hours of Missing Data:	36
Hours of Calibration:	35
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-May	0.2	0.3	0.3	0.3	0.2	0.4	0.4	0.4	0.3	A	0.3	0.3	0.2	0.2	0.7	0.2	0.3	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.29	0.70
2-May	0.2	0.3	0.3	0.9	0.2	0.6	0.4	0.5	A	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.4	0.4	0.3	0.3	0.33	0.93
3-May	0.3	0.2	0.3	0.3	0.3	0.4	0.5	A	0.3	0.3	0.3	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	0.26	0.49
4-May	0.2	0.2	0.3	0.2	0.2	0.2	A	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22	0.31
5-May	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21	0.21
6-May	0.2	0.2	0.2	0.3	A	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.22	0.26
7-May	0.2	0.2	0.2	A	0.2	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.3	0.3	0.2	0.2	0.3	0.2	0.2	0.3	0.4	0.9	0.8	0.4	0.31	0.85
8-May	0.3	0.2	A	0.2	0.3	0.5	0.5	0.5	0.6	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.26	0.56
9-May	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.16	0.20
10-May	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.15	0.17
11-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.16	0.20
12-May	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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.18	0.25
13-May	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	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	0.16	0.25
14-May	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.3	0.3	0.5	0.2	0.6	0.4	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.25	0.58
15-May	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.19	0.34
16-May	0.2	0.2	0.2	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	0.2	A	0.1	0.1	0.1	0.1	0.1	0.1	0.18	0.35
17-May	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	C	C	C	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.9	0.6	0.4	0.22	0.95
18-May	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.1	0.2	0.1	0.1	0.2	0.4	0.4	0.22	0.40
19-May	0.2	0.3	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	A	0.1	0.2	0.3	0.1	0.2	0.2	0.6	0.4	0.2	0.21	0.56
20-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.19	0.26
21-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.5	0.2	0.2	0.2	0.4	0.4	0.3	0.3	0.2	0.23	0.50
22-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.3	0.3	0.2	0.4	0.4	0.2	0.2	0.2	0.3	0.5	0.2	0.25	0.54
23-May	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	A	0.2	0.3	0.3	0.6	M	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.2	0.27	0.55
24-May	0.2	0.2	0.2	0.2	0.2	0.3	0.8	0.3	0.3	A	0.2	0.2	0.2	0.2	0.3	0.4	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.28	0.75
25-May	0.3	0.3	0.2	0.2	0.3	0.2	0.3	0.3	A	0.2	0.2	0.2	0.3	0.4	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.5	0.5	0.4	0.29	0.53
26-May	0.3	0.3	0.5	0.2	0.3	0.3	0.3	A	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.2	0.27	0.52
27-May	0.3	0.3	0.3	0.3	0.3	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.2	0.2	0.25	0.37
28-May	0.2	0.2	0.2	0.2	0.3	A	0.4	0.2	0.2	0.3	0.4	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.24	0.45
29-May	0.2	0.2	0.2	0.2	A	0.5	0.5	10.0	1.3	0.9	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.73	10.03
30-May	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20	0.24
31-May	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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21	0.25
	0.22	0.21	0.22	0.24	0.21	0.26	0.30	0.59	0.27	0.24	0.21	0.21	0.21	0.21	0.23	0.20	0.21	0.21	0.19	0.21	0.23	0.30	0.28	0.24	Diurnal Average	
	0.33	0.33	0.52	0.93	0.34	0.59	0.75	10.03	1.32	0.93	0.45	0.58	0.44	0.37	0.70	0.50	0.44	0.41	0.30	0.36	0.39	0.95	0.85	0.45	Diurnal Maximum	

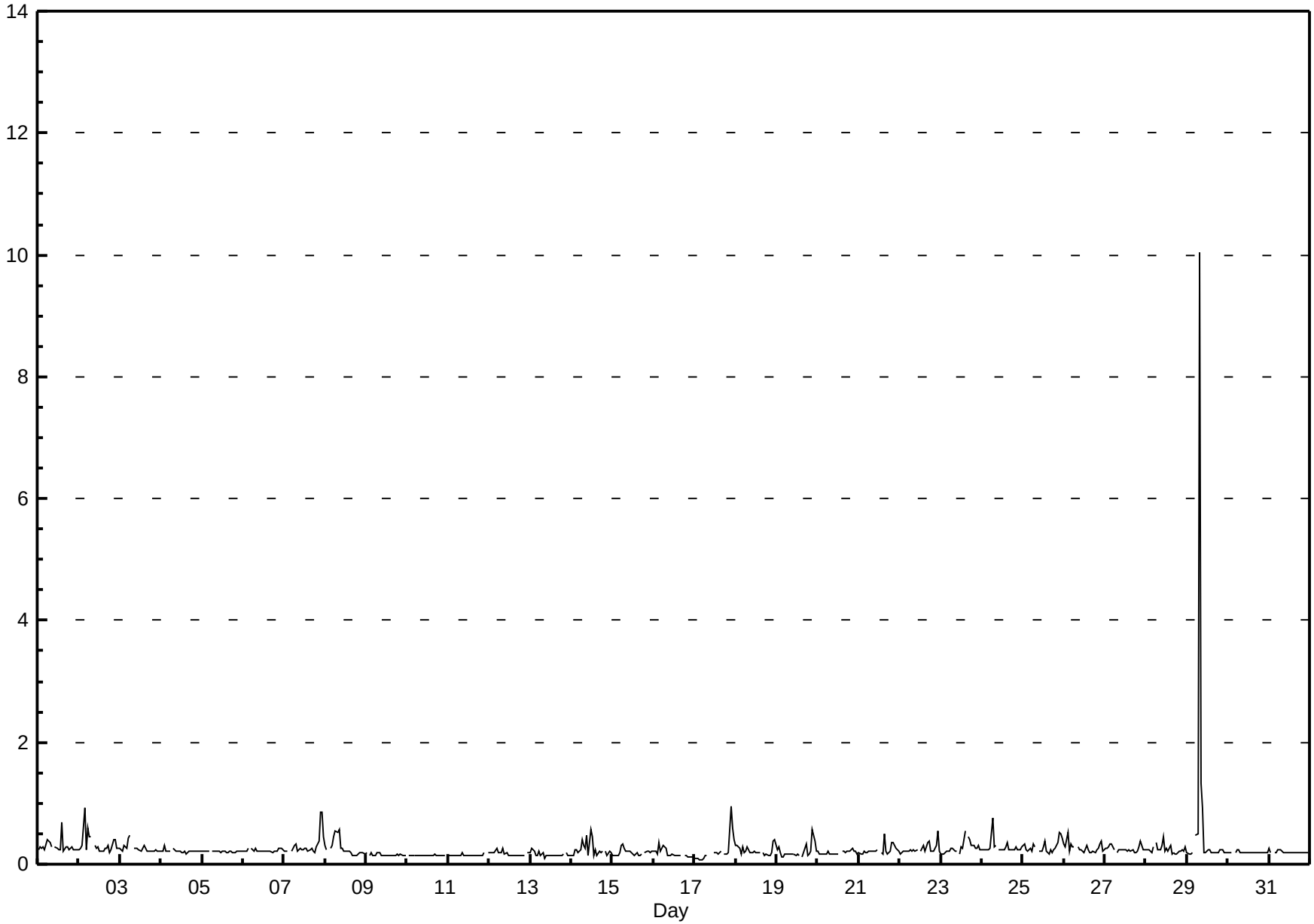
C - Calibration M - Maintenance A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Carbon Monoxide (CO) - ppm

Henry Pirker - May 2012

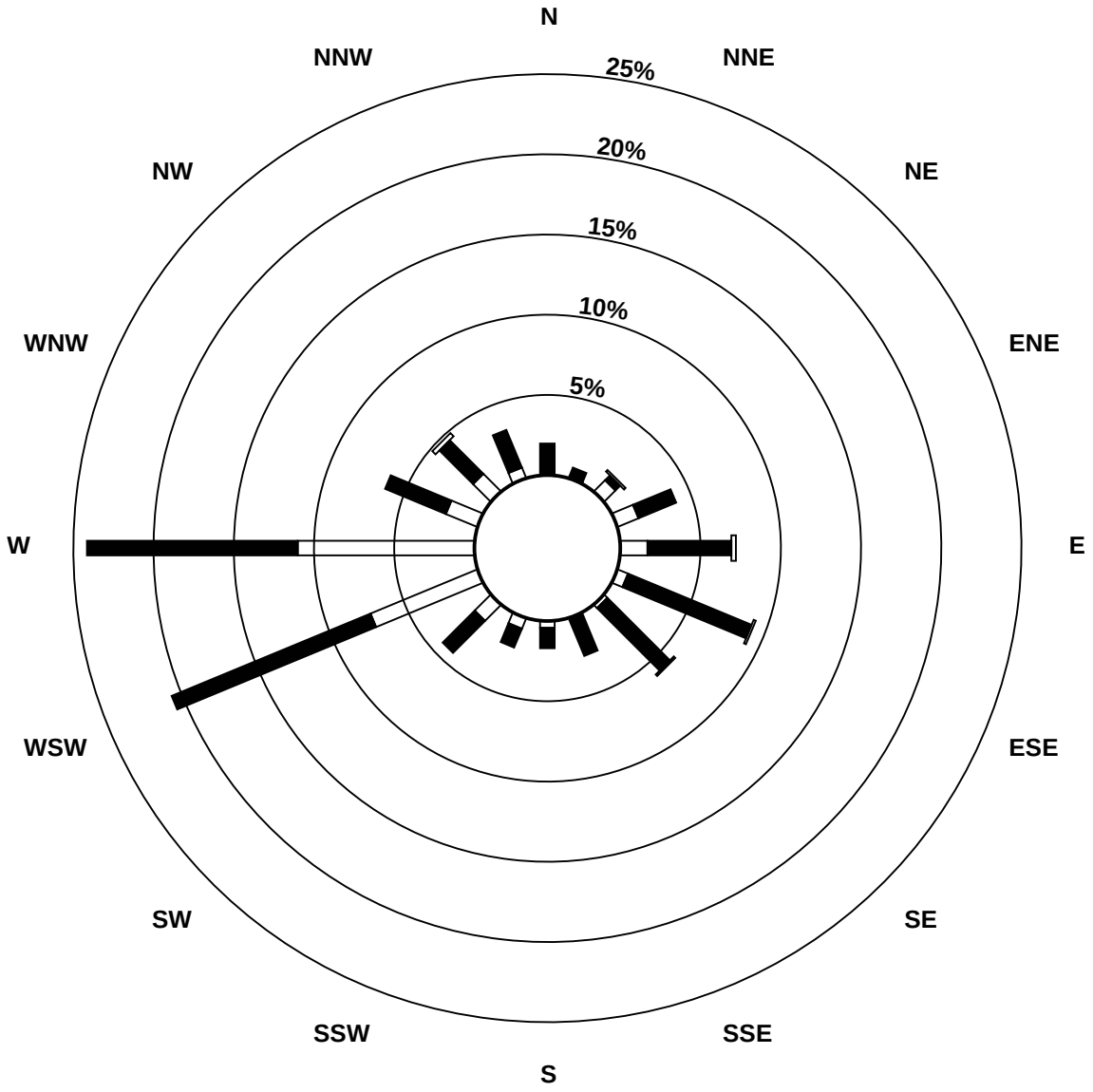


FOCUS AIR QUALITY MONITORING

Pollutant Rose

Carbon Monoxide (CO) - ppm

Henry Pirker - May 2012



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 - May 2012

Number of Exceedences (AAAQO): 8-hr: 0
Maximum Value: 0.32 ppm on May 8 04:00

Minimum Value: 0.06 ppm on May 17 09:00

Percentiles: P_1 = 0.08 P_{10} = 0.14 Q_1 = 0.15 Median = 0.17 Q_3 = 0.19 P_{90} = 0.22 P_{99} = 0.29

Hours in Service:	744
Hours of Data:	737
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-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.24
2-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.25
3-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22
4-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20
5-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18
6-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19
7-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.29
8-May	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.32
9-May	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.15
10-May	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.15
11-May	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.15
12-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.16
13-May	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.14
14-May	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.16
15-May	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.17
16-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.18
17-May	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	N	N	N	N	N	N	N	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.18
18-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.20
19-May	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.17
20-May	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.18
21-May	0.2	0.2	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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19
22-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20
23-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.23
24-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22
25-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.23
26-May	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	0.2	0.2	0.2	0.2	0.2	0.27
27-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21
28-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.20
29-May	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.24
30-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18
31-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18
Diurnal Maximums	0.30	0.30	0.32	0.32	0.31	0.29	0.27	0.27	0.29	0.29	0.28	0.28	0.28	0.27	0.24	0.21	0.21	0.20	0.20	0.21	0.22	0.23	0.27	0.29	

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

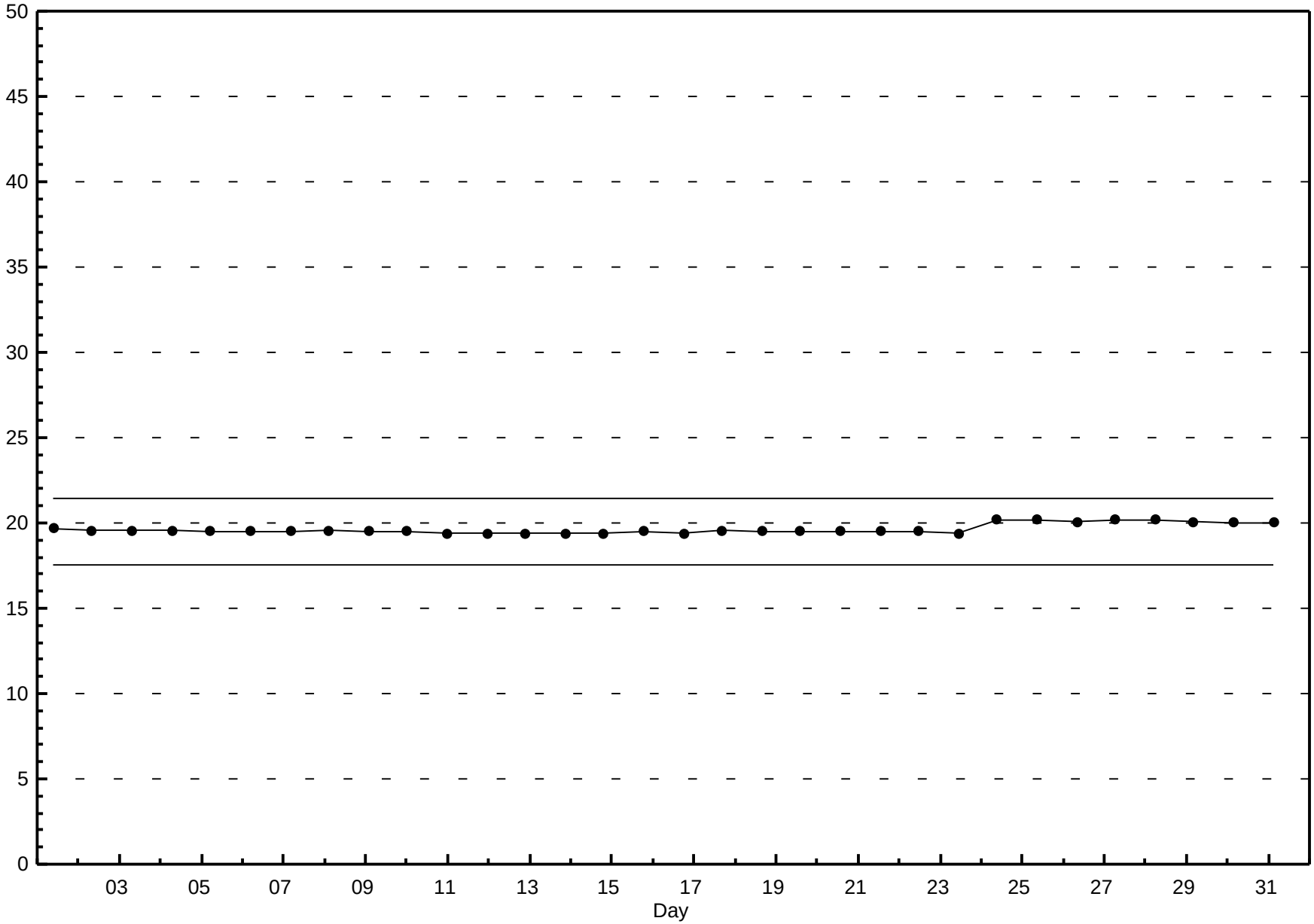
FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Span Responses

Carbon Monoxide (CO)

Henry Pirker - May 2012



Peace Airshed Zone Association

Hourly Averages

Total Hydrocarbons (THC) - ppm

Henry Pirker - May 2012

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

Maximum Value: 4.94 ppm on May 2 07:00

Maximum Daily Average: 2.37 ppm on May 24

Minimum Value: 1.9 ppm on May 8 16:00

Minimum Daily Average: 1.96 ppm on May 10

Maximum Diurnal Average: 2.29 ppm at hour 7

Minimum Diurnal Average: 2.06 ppm at hour 15

Monthly Average: 2.127 ppm

Percentiles: P_1 = 1.93 P_{10} = 1.96 Q_1 = 1.98 Median = 2.07 Q_3 = 2.25 P_{90} = 2.33 P_{99} = 2.61

Hours in Service:	744
Hours of Data:	708
Hours of Missing Data:	36
Hours of Calibration:	35
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-May	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.96	2.03
2-May	2.0	2.1	2.2	3.6	2.4	2.6	4.9	3.1	A	2.1	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.31	4.94
3-May	2.1	2.0	2.2	2.1	2.1	2.1	2.1	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.01	2.19
4-May	2.0	2.0	2.0	2.1	2.3	2.3	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.01	2.34
5-May	2.0	2.0	2.0	2.0	2.1	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.00	2.06
6-May	2.0	2.1	2.0	2.2	A	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.1	2.0	2.0	2.0	2.0	2.03	2.18
7-May	2.3	2.6	2.4	A	2.3	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.1	2.0	2.2	2.4	2.3	2.10	2.58
8-May	2.2	2.1	A	2.1	2.1	2.1	2.2	2.2	2.8	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.07	2.81
9-May	2.0	A	2.0	2.0	2.5	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.00	2.52
10-May	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	1.96	1.97
11-May	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	1.97	2.00
12-May	2.0	2.0	2.1	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	M	A	2.0	2.0	2.00	2.07
13-May	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	2.0	1.9	1.9	A	2.0	2.0	2.0	2.01	2.14
14-May	2.0	2.0	2.1	2.1	2.1	2.1	2.2	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.03	2.16
15-May	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0	1.9	A	2.0	2.0	2.0	2.0	2.0	2.00	2.12
16-May	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.01	2.17
17-May	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	C	C	C	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.1	2.3	2.3	2.06	2.30
18-May	2.2	2.2	2.1	2.2	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.09	2.28
19-May	2.1	2.2	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.2	2.1	2.10	2.21
20-May	2.2	2.2	2.3	2.2	2.2	2.3	2.2	2.2	2.1	2.1	2.0	2.0	2.0	A	2.0	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.14	2.29
21-May	2.3	2.3	2.3	2.3	2.4	2.5	2.5	2.5	2.4	2.4	2.4	2.4	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.27	2.49
22-May	2.3	2.3	2.3	2.4	2.4	2.4	2.3	2.3	2.2	2.2	2.2	A	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.23	2.41
23-May	2.2	2.2	2.2	2.3	2.3	2.3	2.4	2.3	2.3	2.3	A	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.25	2.38
24-May	2.3	2.6	2.5	2.5	2.6	2.6	2.6	2.5	2.4	A	2.3	2.3	2.3	2.2	2.2	2.2	2.3	2.2	2.2	2.3	2.3	2.3	2.4	2.4	2.37	2.64
25-May	2.4	2.5	2.4	2.3	2.4	2.4	2.4	2.4	A	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.4	2.4	2.34	2.51
26-May	2.4	2.4	2.4	2.4	2.5	2.4	2.4	A	2.4	2.4	2.4	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.4	2.3	2.3	2.33	2.48
27-May	2.3	2.3	2.3	2.3	2.4	2.4	A	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.3	2.3	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.29	2.36
28-May	2.3	2.3	2.3	2.3	2.3	A	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.29	2.35
29-May	2.3	2.3	2.3	2.4	A	2.5	2.4	2.4	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.2	2.2	2.27	2.54
30-May	2.3	2.3	2.3	A	2.2	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.21	2.27
31-May	2.4	2.3	A	2.3	2.4	2.3	2.3	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	2.2	2.2	2.2	2.19	2.38
	2.15	2.18	2.17	2.22	2.23	2.23	2.29	2.20	2.14	2.10	2.09	2.07	2.06	2.06	2.06	2.06	2.06	2.07	2.08	2.08	2.09	2.12	2.14	2.13	Diurnal Average	
	2.44	2.58	2.47	3.64	2.58	2.65	4.94	3.09	2.81	2.37	2.36	2.36	2.27	2.27	2.26	2.26	2.26	2.25	2.26	2.27	2.30	2.39	2.44	2.42	Diurnal Maximum	

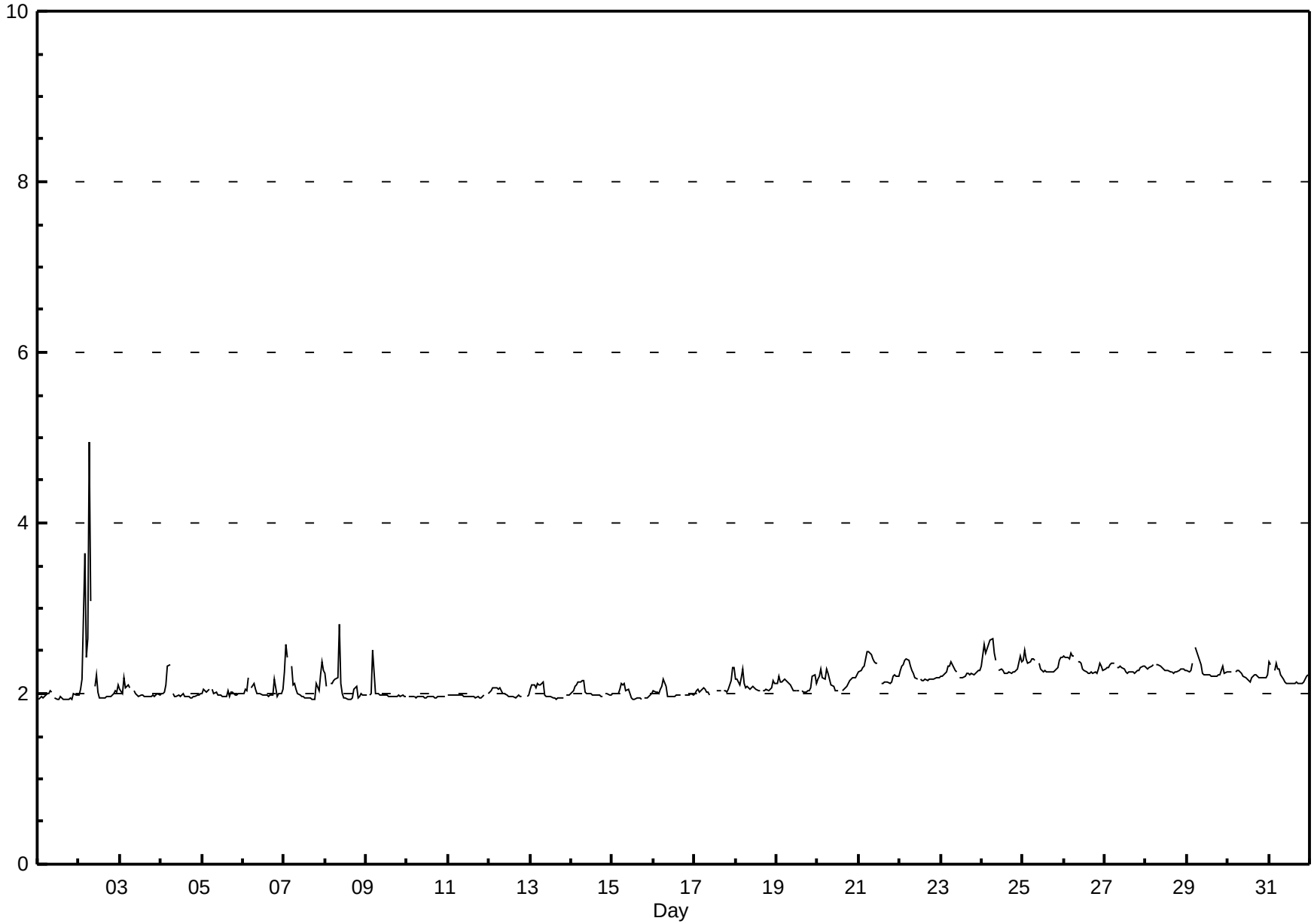
C - Calibration M - Maintenance A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Total Hydrocarbons (THC) - ppm

Henry Pirker - May 2012



Peace Airshed Zone Association

Hourly Maximums

Total Hydrocarbons (THC) - ppm

Henry Pirker - May 2012

Maximum Value: 8.26 ppm on May 2 07:00

Maximum Daily Average: 2.84 ppm on May 2

Minimum Value: 1.9 ppm on May 8 16:00

Minimum Daily Average: 1.99 ppm on May 10

Maximum Diurnal Average: 2.49 ppm at hour 6

Minimum Diurnal Average: 2.11 ppm at hour 15

Monthly Average: 2.244 ppm

Percentiles: P_1 = 1.96 P_{10} = 1.99 Q_1 = 2.03 Median = 2.18 Q_3 = 2.33 P_{90} = 2.52 P_{99} = 3.67

Hours in Service:	744
Hours of Data:	708
Hours of Missing Data:	36
Hours of Calibration:	35
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-May	2.0	2.0	2.0	2.1	2.0	2.0	2.1	2.1	2.1	A	2.1	2.0	2.0	2.2	2.1	2.0	2.0	2.0	2.0	2.0	1.9	2.1	2.1	2.1	2.04	2.20
2-May	2.1	2.2	2.3	6.5	2.9	3.9	8.3	4.9	A	2.7	2.7	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.8	2.84	8.26
3-May	2.2	2.0	2.8	2.2	2.1	2.2	2.1	A	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.08	2.77
4-May	2.1	2.0	2.1	2.3	3.7	4.9	A	2.0	2.5	2.2	2.2	2.1	2.3	2.3	2.2	2.1	2.3	2.0	2.0	2.4	2.0	2.0	2.0	2.0	2.34	4.94
5-May	2.0	2.1	2.0	2.1	2.1	A	2.1	2.0	2.3	2.0	2.0	2.0	2.1	2.2	2.1	2.5	2.2	2.3	2.5	2.0	2.0	2.0	2.0	2.0	2.12	2.50
6-May	2.0	2.1	2.1	2.4	A	2.6	2.4	2.1	2.0	2.2	2.2	2.1	2.0	2.0	2.1	2.1	2.2	2.2	3.1	2.8	2.1	2.0	2.0	2.4	2.23	3.13
7-May	2.6	2.8	2.9	A	2.7	2.2	2.1	2.1	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.2	2.3	2.3	2.7	2.5	2.30	3.22
8-May	2.6	2.3	A	2.3	2.3	2.3	2.2	2.3	4.0	2.2	2.1	2.1	2.1	2.1	2.1	1.9	2.2	2.5	2.5	2.0	2.0	2.2	2.2	2.0	2.28	4.04
9-May	2.0	A	2.0	2.3	3.6	2.8	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.12	3.55
10-May	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	1.99	2.07
11-May	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.00	2.02
12-May	2.0	2.2	2.1	2.1	2.2	2.1	2.2	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.0	2.0	M	A	2.0	2.0	2.06	2.20
13-May	2.2	2.5	2.2	2.2	2.3	2.3	2.1	2.3	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.08	2.47
14-May	2.1	2.1	2.2	2.4	2.5	2.2	2.3	2.3	2.2	2.1	2.1	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.3	2.2	2.0	2.0	2.13	2.46
15-May	2.4	2.1	2.2	2.1	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.1	2.07	2.43
16-May	2.1	2.1	2.0	2.0	2.1	2.2	2.4	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.05	2.37
17-May	2.0	2.1	2.2	2.0	2.2	2.2	2.1	2.1	2.1	2.0	C	C	C	2.1	2.1	2.1	A	2.1	2.1	2.1	2.1	2.3	3.2	3.2	2.20	3.19
18-May	2.3	2.2	2.2	2.4	2.3	2.2	2.1	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	2.2	2.15	2.39
19-May	2.2	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.0	2.0	2.1	2.1	2.2	2.6	2.7	2.7	2.20	2.68
20-May	2.3	2.5	2.5	2.3	2.3	2.4	2.3	2.2	2.2	2.1	2.1	2.0	2.1	A	2.1	2.1	2.1	2.1	2.1	2.3	2.4	2.4	2.3	2.5	2.25	2.52
21-May	2.6	2.6	2.6	2.4	2.7	2.9	2.6	2.5	2.5	2.4	2.4	2.5	A	2.1	2.1	2.2	2.2	2.3	2.2	2.2	2.5	2.6	2.3	2.3	2.42	2.95
22-May	2.4	2.4	2.4	2.4	2.5	2.5	2.3	2.3	2.3	2.3	2.2	A	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.2	2.2	2.3	2.2	2.29	2.50
23-May	2.2	2.2	2.3	2.4	2.4	2.6	2.6	2.6	2.3	2.3	A	2.2	2.2	2.2	2.2	2.5	2.6	2.4	2.5	2.3	2.6	2.7	2.3	2.3	2.38	2.68
24-May	2.4	2.9	2.6	2.8	2.7	2.7	2.9	2.5	2.5	A	2.3	2.3	2.4	2.5	2.3	2.3	2.4	2.3	2.3	2.3	2.3	2.3	2.8	2.5	2.49	2.92
25-May	2.5	3.0	2.6	2.4	2.4	2.4	2.4	2.5	A	2.9	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.4	2.5	2.5	2.43	2.95
26-May	2.6	2.5	2.5	3.0	2.8	2.5	2.5	A	2.4	2.5	2.5	2.4	2.4	2.3	2.3	2.3	2.4	2.3	2.4	2.3	2.3	2.4	2.4	2.3	2.44	2.98
27-May	2.3	2.4	2.3	2.4	2.5	2.4	A	2.3	2.3	2.3	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.33	2.52
28-May	2.3	2.3	2.4	2.4	2.4	A	2.4	2.3	2.4	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.4	2.3	2.33	2.40
29-May	2.3	2.3	2.3	3.0	A	2.8	2.5	2.7	2.5	2.3	2.3	2.2	2.2	2.3	2.2	2.2	2.2	2.2	2.3	2.2	2.5	2.6	2.3	2.3	2.38	2.97
30-May	2.3	2.3	2.3	A	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.25	2.33
31-May	3.4	2.5	A	2.4	2.6	2.4	2.4	2.3	2.2	2.2	2.2	2.1	2.2	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.2	2.2	2.2	2.3	2.29	3.37
	2.29	2.30	2.29	2.46	2.44	2.49	2.49	2.33	2.26	2.20	2.17	2.13	2.12	2.13	2.11	2.12	2.13	2.14	2.18	2.18	2.17	2.23	2.25	2.27	Diurnal Average	
	3.37	2.95	2.89	6.50	3.75	4.94	8.26	4.85	4.04	2.94	2.66	2.47	2.40	2.52	2.32	2.48	2.56	2.48	3.13	3.22	2.58	2.68	3.19	3.17	Diurnal Maximum	

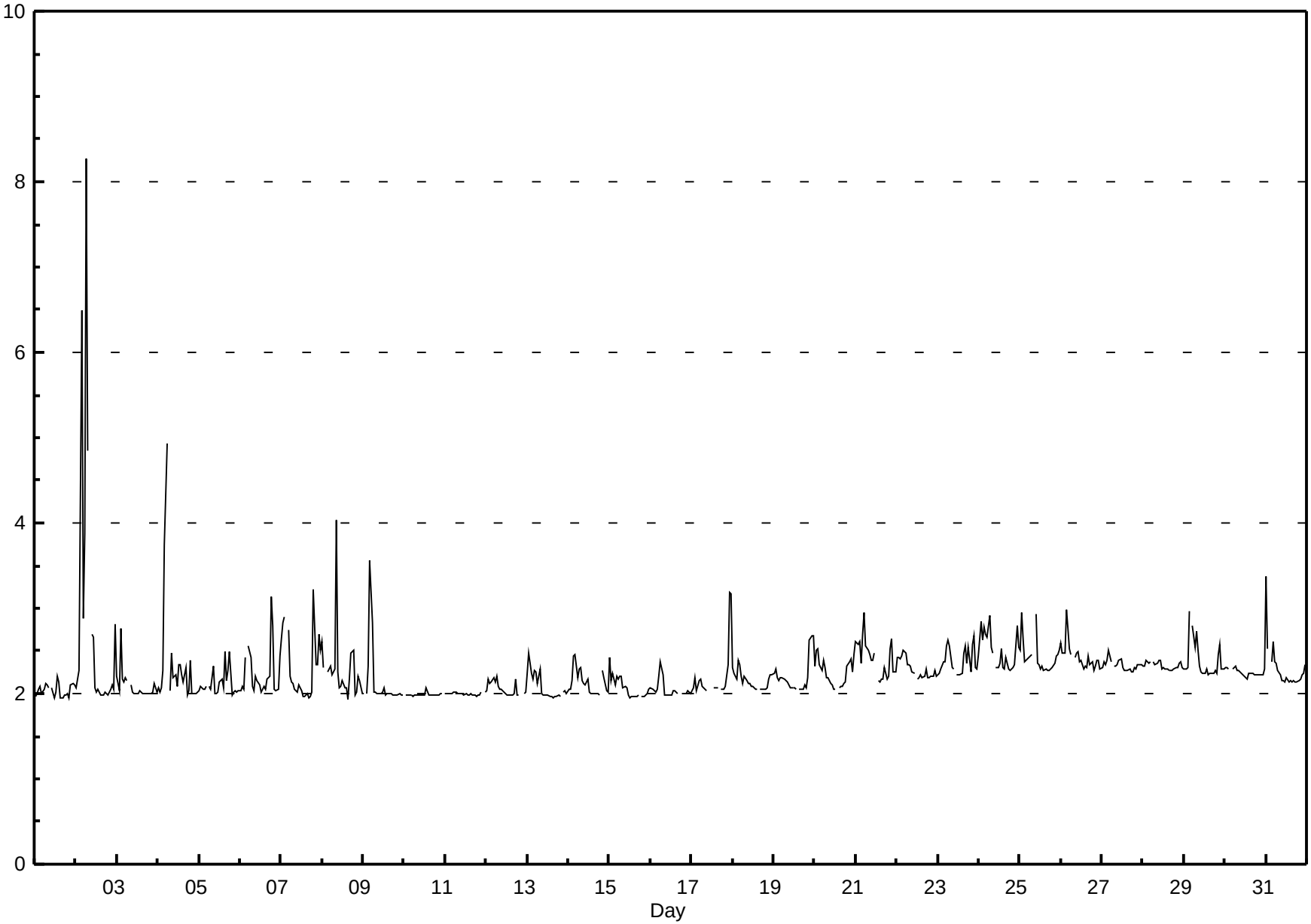
C - Calibration M - Maintenance A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Total Hydrocarbons (THC) - ppm

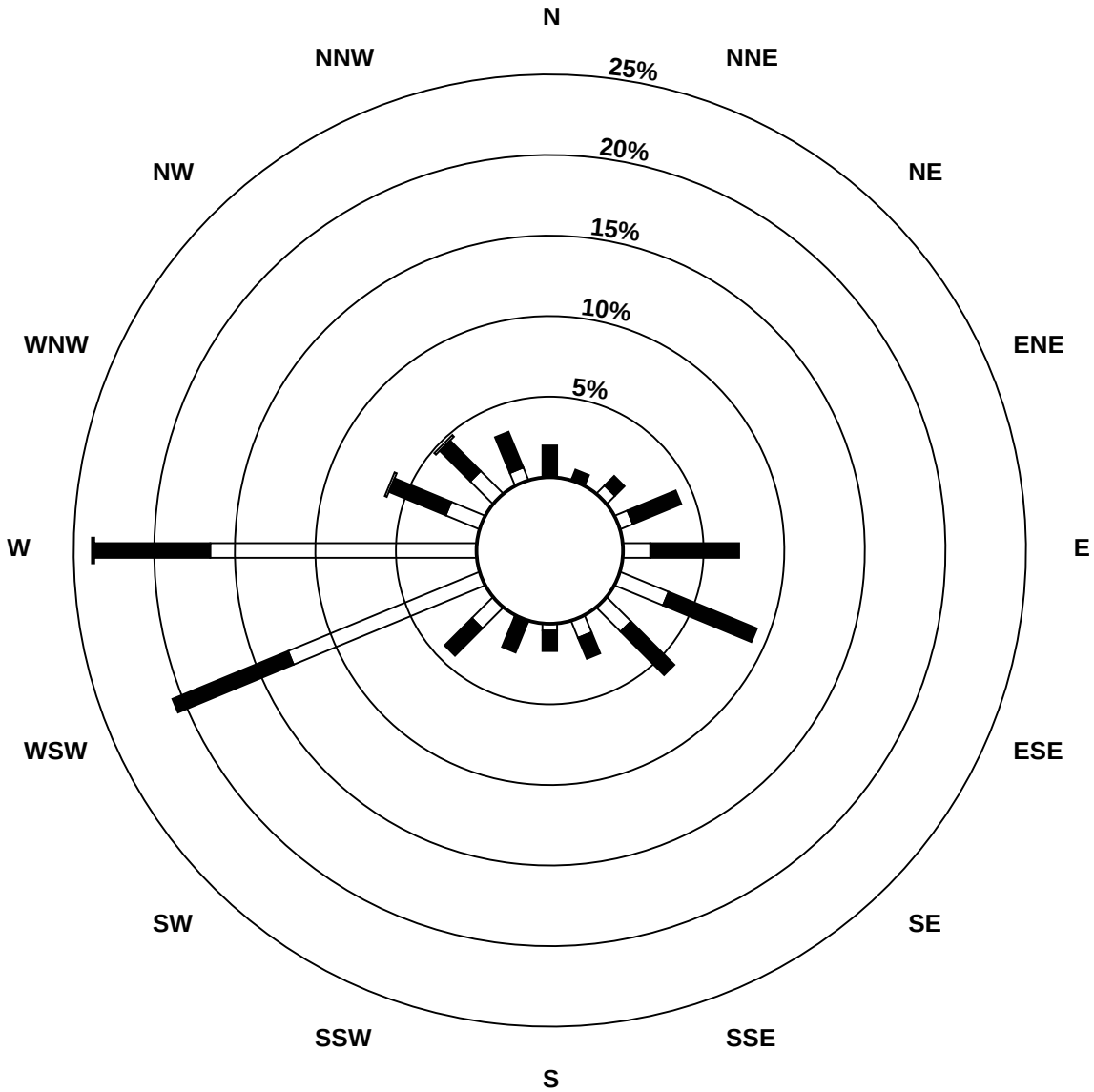
Henry Pirker - May 2012



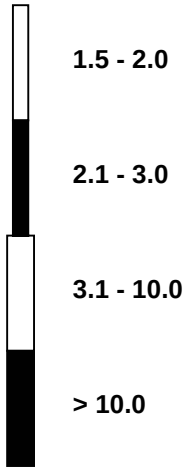
Pollutant Rose

Total Hydrocarbons (THC) - ppm

Henry Pirker - May 2012



Pollutant Classes (ppm)

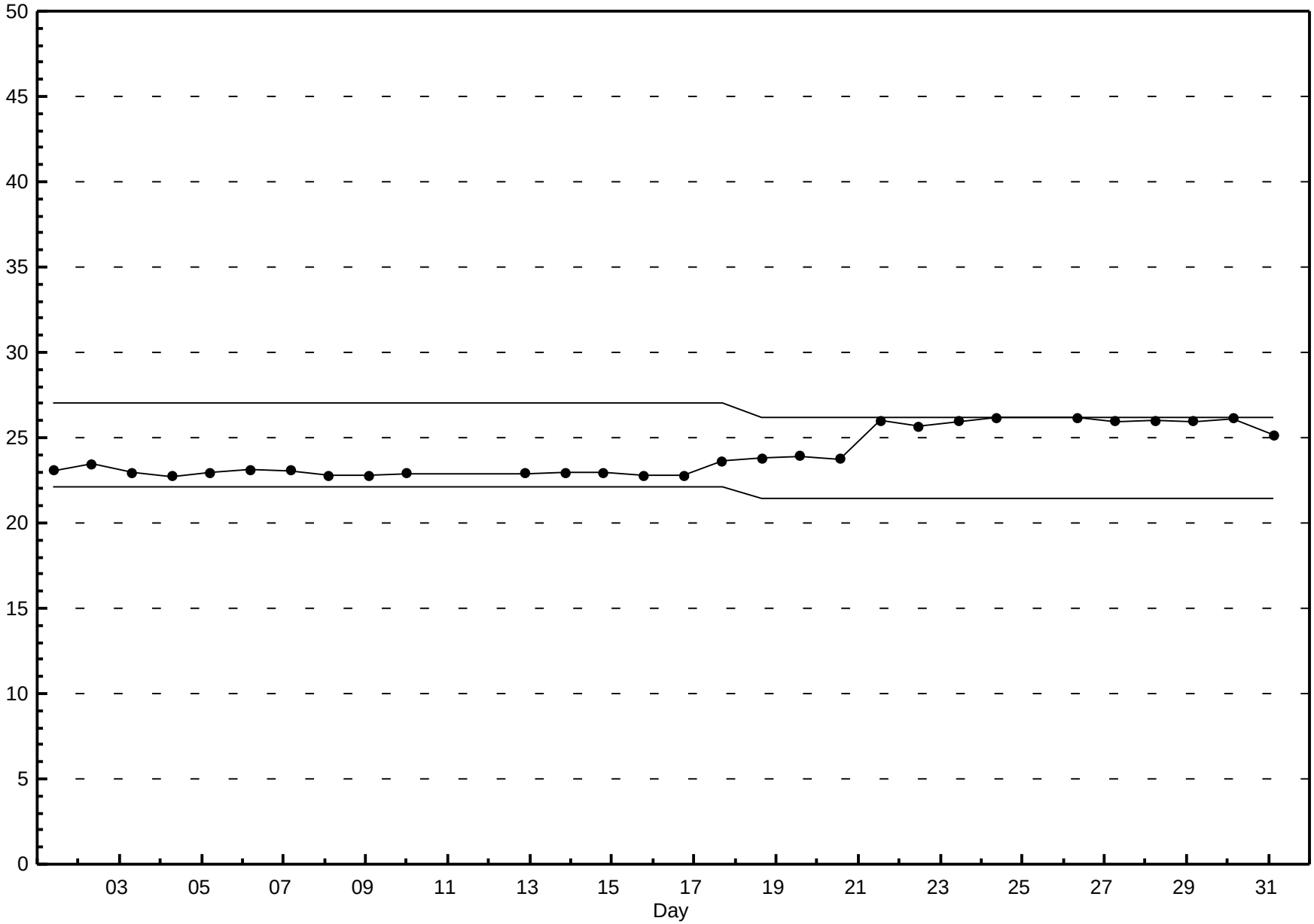


Peace Airshed Zone Association

Span Responses

Total Hydrocarbons (THC)

Henry Pirker - May 2012



Peace Airshed Zone Association

Hourly Averages

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

Henry Pirker - May 2012

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

Maximum Value: 36.8 $\mu g/m^3$ on May 14 05:00

Maximum Daily Average: 10.1 $\mu g/m^3$ on May 14

Minimum Value: 1 $\mu g/m^3$ on May 22 13:00

Maximum Diurnal Average: 7.7 $\mu g/m^3$ at hour 6

Monthly Average: 5.14 $\mu g/m^3$

Minimum Daily Average: 2.5 $\mu g/m^3$ on May 10

Minimum Diurnal Average: 3.3 $\mu g/m^3$ at hour 16

Percentiles: P_1 = 1.5 P_{10} = 2.0 Q_1 = 2.8 Median = 4.5 Q_3 = 6.4 P_{90} = 8.8 P_{99} = 15.7

Hours in Service:	744
Hours of Data:	744
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-May	4	4	4	4	4	4	4	4	4	2	2	2	2	2	2	1	2	2	2	2	2	3	3	3	2.8	4.2
2-May	3	4	4	5	5	8	11	11	8	5	4	3	2	2	2	2	2	2	2	2	4	5	5	5	4.5	10.9
3-May	5	4	4	4	5	5	6	6	5	3	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3.4	5.9
4-May	4	5	5	5	6	6	5	5	3	3	2	2	2	2	2	2	2	2	2	2	3	4	4	4	3.3	5.6
5-May	4	4	4	5	5	5	5	4	4	3	3	2	2	2	2	2	2	2	2	2	2	3	3	3	3.1	5.1
6-May	3	3	4	4	4	4	4	3	2	2	2	2	2	2	2	2	2	2	3	4	4	5	5	5	3.1	5.0
7-May	5	5	6	6	7	7	7	8	6	6	6	6	7	7	6	6	6	6	6	6	8	15	18	16	7.6	17.6
8-May	14	11	12	12	10	10	11	12	17	12	9	10	10	10	9	6	6	6	5	5	6	7	6	6	9.3	16.8
9-May	7	6	6	6	6	6	6	6	5	5	5	5	5	5	4	4	6	5	4	4	4	4	3	3	5.0	6.9
10-May	4	4	4	4	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2	3	2.5	4.4
11-May	4	5	4	4	4	4	3	3	2	2	2	2	2	2	2	2	3	3	3	3	4	4	4	5	3.2	5.3
12-May	6	7	7	7	7	9	7	7	6	5	5	5	4	4	4	4	4	4	4	5	5	6	7	8	5.7	8.7
13-May	9	9	9	8	9	9	8	8	8	7	6	6	6	6	6	6	5	6	6	7	7	9	9	7	7.3	9.4
14-May	8	9	10	17	37	30	19	16	9	7	7	6	6	5	5	5	5	5	5	6	6	7	7	6	10.1	36.8
15-May	6	8	7	7	8	10	12	12	12	10	9	7	7	6	6	6	5	5	5	5	7	8	8	8	7.7	12.3
16-May	8	8	9	9	8	9	11	11	7	6	5	5	5	6	4	4	4	3	4	4	4	4	4	4	6.0	11.2
17-May	4	4	4	4	4	5	5	3	3	3	3	2	2	2	2	2	2	2	2	2	3	4	8	8	3.5	8.2
18-May	8	7	7	7	8	7	7	6	6	5	4	4	4	3	3	3	3	2	2	3	3	3	3	4	4.7	7.9
19-May	4	4	4	4	4	5	4	4	3	2	2	2	2	2	2	2	2	2	2	2	2	4	5	5	3.0	5.4
20-May	6	6	6	6	6	7	7	5	4	4	3	2	2	2	2	2	2	2	3	4	4	4	4	5	4.0	7.2
21-May	5	6	6	6	6	6	7	7	6	5	4	3	3	3	3	3	3	3	3	2	1	1	3	3	4.1	6.9
22-May	4	4	3	2	4	5	3	1	3	2	3	2	1	2	2	1	1	1	2	2	2	2	3	4	2.5	4.9
23-May	4	4	4	4	2	3	5	4	4	5	5	4	4	3	2	2	2	2	3	3	3	3	2	3	3.4	4.7
24-May	5	7	8	9	9	9	10	5	4	5	6	5	5	5	4	4	5	6	5	5	6	7	8	9	6.3	9.5
25-May	9	11	11	11	11	11	11	10	9	8	6	6	5	5	4	5	4	4	4	4	6	11	13	12	8.0	13.5
26-May	14	13	13	14	15	14	14	14	14	12	9	8	6	6	6	5	5	5	5	5	6	8	8	7	9.4	14.7
27-May	8	9	9	9	8	8	7	7	7	7	7	6	6	5	5	5	5	5	5	5	6	7	7	8	6.7	9.2
28-May	8	8	8	8	8	8	8	8	7	6	6	5	5	5	5	5	5	5	5	6	6	7	7	7	6.5	8.4
29-May	7	8	8	8	9	11	10	10	9	8	7	6	6	5	5	5	4	4	4	4	2	3	4	4	6.3	10.8
30-May	4	4	4	4	4	4	5	4	4	3	3	2	2	2	2	2	2	2	2	2	3	3	3	3	3.1	4.5
31-May	4	4	4	4	5	5	5	5	4	3	2	2	2	2	2	2	2	2	2	2	2	3	4	5	3.2	5.4
	6.0	6.3	6.4	6.7	7.5	7.7	7.4	6.7	6.0	5.1	4.5	4.1	3.9	3.8	3.5	3.3	3.4	3.4	3.5	3.7	4.1	5.1	5.6	5.7	Diurnal Average	
	13.6	13.5	13.2	17.4	36.8	29.8	18.8	15.5	16.8	11.8	9.3	9.7	10.4	10.1	9.4	6.4	6.1	6.0	6.0	6.9	7.5	15.1	17.6	16.2	Diurnal Maximum	

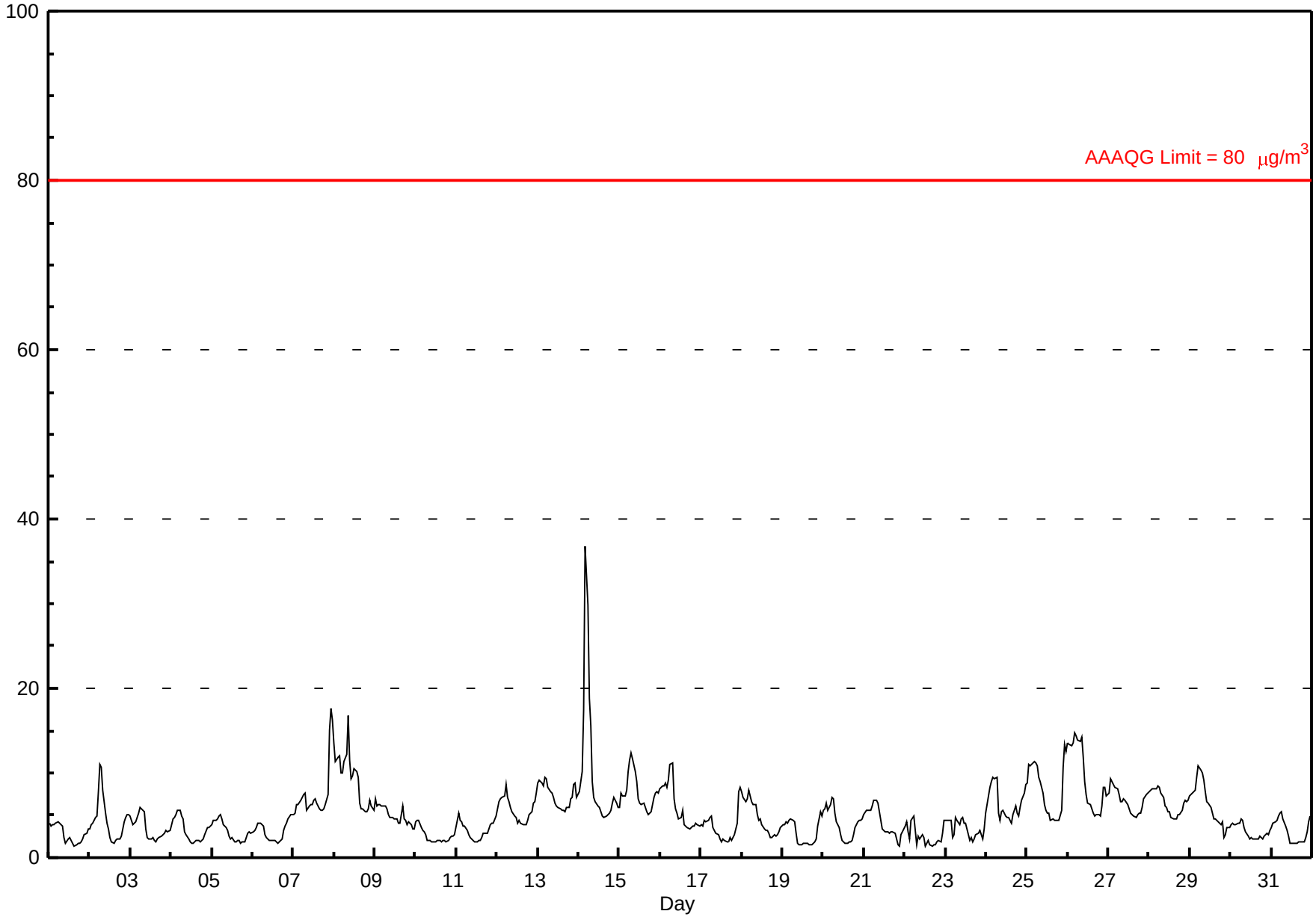
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 $\mu g/m^3$ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 $\mu g/m^3$

Peace Airshed Zone Association

Hourly Averages

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

Henry Pirker - May 2012



Peace Airshed Zone Association

Hourly Maximums

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

Henry Pirker - May 2012

Maximum Value: 48.4 $\mu g/m^3$ on May 14 05:00

Maximum Daily Average: 14.7 $\mu g/m^3$ on May 14

Minimum Value: 2 $\mu g/m^3$ on May 22 13:00

Minimum Daily Average: 3.2 $\mu g/m^3$ on May 1

Maximum Diurnal Average: 11.8 $\mu g/m^3$ at hour 1

Minimum Diurnal Average: 3.9 $\mu g/m^3$ at hour 19

Monthly Average: 6.33 $\mu g/m^3$

Percentiles: P_1 = 1.6 P_{10} = 2.2 Q_1 = 3.3 Median = 5.2 Q_3 = 7.6 P_{90} = 11.2 P_{99} = 25.7

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

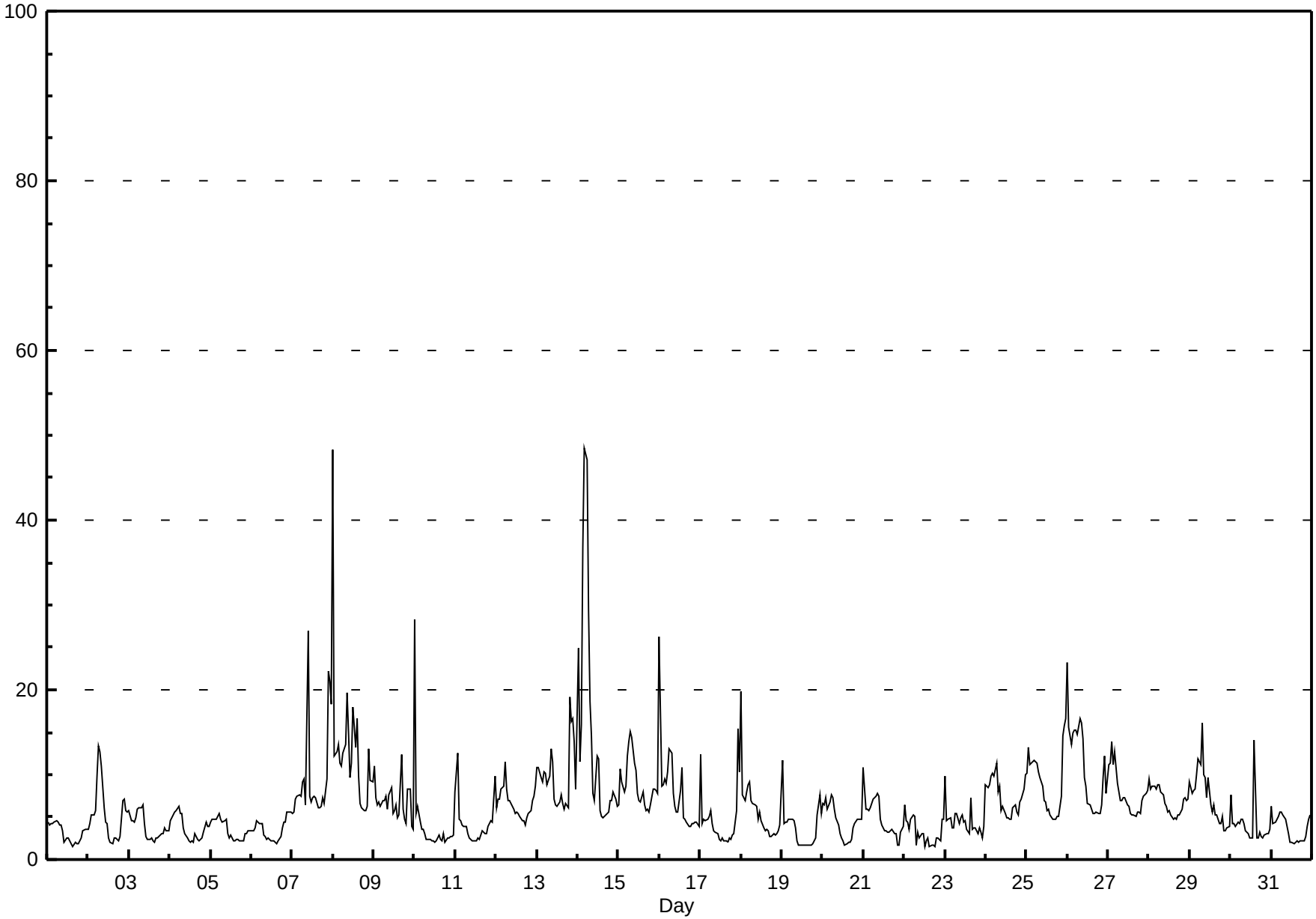
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-May	4	4	4	4	4	5	4	4	4	3	2	2	3	2	2	2	2	2	2	2	3	3	4	4	3.2	4.6
2-May	4	4	5	5	6	10	13	13	11	6	4	4	3	2	2	2	2	2	2	3	7	7	6	6	5.4	13.4
3-May	6	5	5	4	5	6	6	6	6	4	3	2	2	2	2	2	2	3	3	3	3	4	3	3	3.8	6.4
4-May	5	5	5	6	6	6	5	5	4	3	3	2	2	2	2	3	2	2	2	2	3	4	4	4	3.7	6.3
5-May	4	5	5	5	5	5	5	4	5	5	3	2	3	2	2	2	2	2	2	2	3	3	3	3	3.5	5.4
6-May	3	3	4	5	4	4	4	3	3	2	2	2	2	2	2	2	2	3	4	4	4	6	6	6	3.5	5.7
7-May	5	6	7	7	8	7	9	10	6	27	7	7	7	8	7	6	6	6	7	7	10	22	21	18	9.7	26.9
8-May	48	12	13	14	11	11	13	13	20	15	10	11	18	13	17	10	7	6	6	6	6	13	9	9	12.9	48.3
9-May	11	7	6	7	6	7	7	7	6	8	8	5	6	6	5	5	12	6	5	4	8	8	4	4	6.7	12.4
10-May	28	5	6	4	4	4	3	2	2	2	2	2	2	2	3	2	2	3	2	2	3	3	3	3	4.0	28.3
11-May	8	13	5	5	4	4	4	3	2	2	2	2	2	2	2	3	3	3	3	4	4	5	4	10	4.2	12.5
12-May	6	7	7	8	9	12	8	7	7	7	6	5	6	5	5	5	5	4	5	5	6	7	7	9	6.6	11.5
13-May	11	11	10	9	10	10	9	10	13	12	7	7	6	7	8	7	6	7	6	19	16	17	14	8	9.9	19.2
14-May	25	12	16	37	48	47	29	19	15	8	7	12	12	6	5	5	5	5	6	7	7	8	7	6	14.7	48.4
15-May	6	11	9	8	9	12	14	15	14	11	11	8	7	7	8	6	6	6	6	7	8	8	8	8	8.9	15.1
16-May	26	9	9	10	9	10	13	13	8	6	6	6	8	11	5	5	4	4	4	4	4	4	4	4	7.7	26.2
17-May	12	4	5	5	5	5	6	4	3	3	3	2	2	2	2	2	2	2	2	3	3	6	15	10	4.6	15.4
18-May	20	8	7	8	9	9	7	7	7	6	5	6	5	4	3	4	3	3	3	3	3	3	3	4	5.7	19.8
19-May	12	4	4	4	5	5	5	5	4	2	2	2	2	2	2	2	2	2	2	2	3	5	8	5	3.7	11.7
20-May	7	6	7	6	7	8	7	6	5	4	3	2	2	2	2	2	2	2	4	4	5	5	5	5	4.5	7.6
21-May	11	6	6	6	6	7	7	7	8	7	5	4	3	3	3	3	3	4	3	3	2	2	3	4	4.9	10.8
22-May	6	5	4	4	5	5	5	2	3	3	3	3	2	2	2	2	2	2	2	3	2	2	5	5	3.2	6.4
23-May	10	5	5	5	4	4	5	5	4	5	5	4	5	4	3	7	4	4	4	3	4	3	3	4	4.5	9.8
24-May	9	8	9	10	10	10	11	8	9	6	6	5	5	5	5	5	6	7	6	5	7	7	8	10	7.3	11.3
25-May	10	13	11	11	12	12	11	10	10	9	7	7	6	6	5	5	5	5	5	5	7	15	16	17	9.1	16.7
26-May	23	16	14	15	15	15	15	17	16	14	10	9	7	7	6	5	5	6	5	5	7	10	12	8	10.8	23.2
27-May	11	11	14	11	13	9	8	7	7	7	7	7	6	5	5	5	5	6	6	5	7	7	8	8	7.8	13.9
28-May	9	8	9	9	8	9	9	8	8	7	6	6	6	5	5	5	5	5	5	6	7	7	7	7	6.9	9.5
29-May	9	8	8	8	10	12	11	16	10	10	7	10	6	6	6	5	5	4	4	5	3	3	4	4	7.4	16.2
30-May	8	4	4	4	4	4	5	5	4	3	3	2	2	2	14	2	2	3	3	2	3	3	3	4	4.0	14.1
31-May	6	4	4	5	5	6	6	5	5	4	3	2	2	2	2	2	2	2	2	2	3	4	5	5	3.7	6.3
	11.8	7.4	7.3	8.0	8.6	9.0	8.6	7.9	7.4	6.8	5.1	4.9	4.8	4.4	4.6	4.0	4.0	3.9	3.9	4.5	5.2	6.6	6.8	6.6	Diurnal Average	
	48.3	15.6	15.9	36.8	48.4	47.1	29.2	18.6	19.6	26.9	10.6	12.1	18.0	13.2	16.7	9.8	12.4	6.6	7.3	19.2	16.3	22.2	21.1	18.3	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Maximums

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

Henry Pirker - May 2012

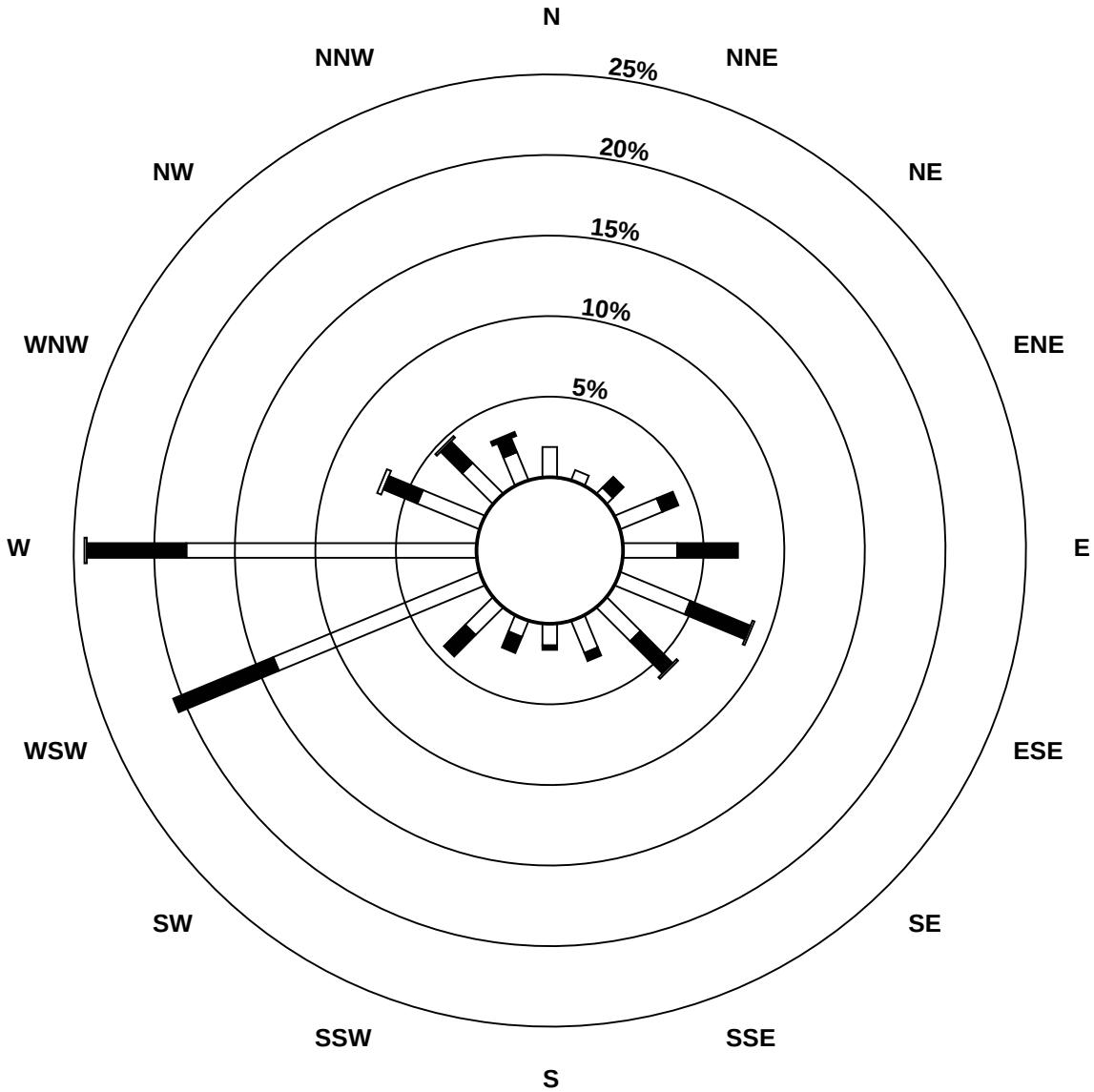


Peace Airshed Zone Association

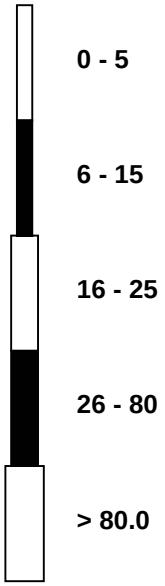
Pollutant Rose

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

Henry Pirker - May 2012



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



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Henry Pirker - May 2012

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

Maximum Value: 24.6 ^{o}C on May 27 15:00

Maximum Daily Average: 17.3 ^{o}C on May 27

Minimum Value: -2 ^{o}C on May 17 05:00

Maximum Diurnal Average: 15.8 ^{o}C at hour 15

Monthly Average: 11.02 ^{o}C

Minimum Daily Average: 3.6 ^{o}C on May 18

Minimum Diurnal Average: 5.3 ^{o}C at hour 6

Percentiles: P_1 = 0.4 P_{10} = 4.3 Q_1 = 7.1 Median = 10.5 Q_3 = 15.0 P_{90} = 18.9 P_{99} = 23.4

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

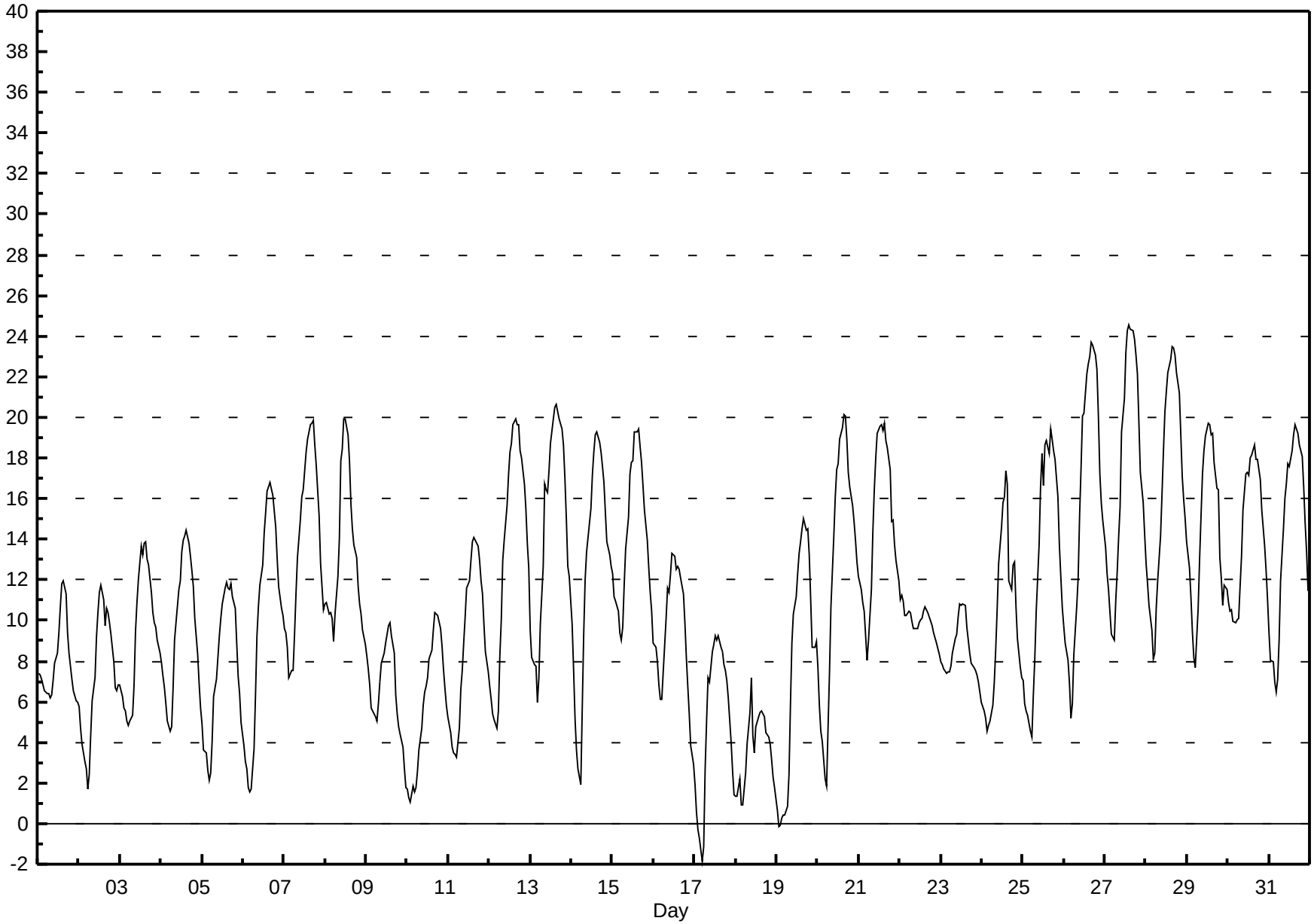
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-May	7	7	7	7	7	6	6	6	6	7	8	8	9	11	12	12	11	9	8	8	7	7	6	6	7.9	11.9
2-May	6	5	4	3	3	2	2	4	6	7	9	10	11	12	11	10	11	10	10	9	8	7	7	7	7.2	11.7
3-May	7	6	6	6	5	5	5	5	7	9	11	12	14	13	14	14	13	13	11	10	10	10	9	8	9.3	13.9
4-May	8	7	7	6	5	5	5	7	9	10	12	12	13	14	14	14	14	13	12	12	10	8	7	6	9.6	14.4
5-May	5	4	4	3	2	2	4	6	7	8	9	10	11	12	12	12	12	12	11	11	9	7	6	5	7.6	11.9
6-May	4	3	3	2	2	2	4	6	9	11	12	13	14	15	16	17	17	16	15	15	13	12	11	10	10.0	16.8
7-May	10	9	9	7	8	8	9	11	13	15	16	16	17	18	19	20	20	20	19	18	15	13	12	11	13.8	19.9
8-May	11	11	10	10	10	9	10	12	14	18	18	20	20	19	18	16	14	14	13	12	11	10	10	9	13.3	19.9
9-May	8	8	7	6	6	5	5	6	7	8	8	9	9	10	10	9	8	6	5	5	4	4	3	2	6.6	9.9
10-May	2	1	1	2	2	2	3	4	5	6	6	7	7	8	9	10	10	10	10	10	9	8	7	6	5.9	10.4
11-May	5	4	4	3	3	3	5	7	8	9	10	12	12	13	14	14	14	14	13	12	11	10	8	7	9.0	14.1
12-May	7	6	5	5	5	6	8	10	13	14	16	17	18	19	20	20	20	20	18	18	17	16	14	13	13.4	19.9
13-May	10	8	8	8	6	7	10	13	17	16	16	17	19	20	20	21	20	20	19	19	17	15	13	12	14.6	20.6
14-May	10	8	5	4	3	2	6	9	12	13	14	15	17	18	19	19	19	18	18	17	15	14	13	13	12.5	19.3
15-May	12	11	11	10	9	9	10	12	14	15	17	18	18	19	19	19	19	18	17	15	14	13	11	10	14.2	19.4
16-May	9	9	8	7	6	6	7	10	12	11	12	13	13	13	13	13	12	11	10	8	7	5	4	3	9.2	13.3
17-May	2	1	0	-1	-2	-1	3	5	7	7	8	9	9	9	9	9	8	8	8	7	6	4	3	1	5.0	9.2
18-May	1	1	2	1	1	2	2	4	5	7	4	3	5	5	5	6	5	5	4	4	4	3	2	2	3.6	7.2
19-May	1	0	0	0	0	0	1	2	6	9	10	11	12	13	14	14	15	14	14	13	11	9	9	9	7.9	15.0
20-May	8	6	5	4	2	2	5	7	11	14	16	17	18	19	19	20	20	19	17	17	16	15	14	13	12.6	20.2
21-May	12	12	11	10	9	8	9	12	14	16	18	19	20	20	19	20	19	19	17	15	15	14	13	12	14.7	19.7
22-May	11	11	11	10	10	10	10	10	10	10	10	10	10	10	10	11	10	10	10	10	9	9	9	8	10.0	11.2
23-May	8	8	8	7	7	7	8	8	9	9	10	11	11	11	11	10	9	8	8	8	8	7	7	6	8.5	10.8
24-May	6	6	5	5	5	5	6	7	9	11	13	15	16	16	17	17	12	12	13	13	11	9	8	7	10.0	17.4
25-May	7	6	6	5	5	4	6	8	10	14	17	18	17	19	19	18	19	19	18	18	16	14	12	11	12.7	19.4
26-May	10	9	8	7	5	6	8	11	12	15	17	20	20	22	23	23	24	24	23	22	20	17	16	15	15.7	23.7
27-May	14	12	11	10	9	9	11	12	14	16	19	21	23	24	25	24	24	24	23	22	20	17	16	14	17.3	24.6
28-May	13	12	11	10	8	8	11	12	14	16	18	20	21	22	23	24	23	23	22	21	19	17	16	15	16.7	23.5
29-May	14	13	11	9	8	8	11	13	15	17	18	19	20	20	19	19	18	17	16	13	12	11	12	12	14.3	19.7
30-May	11	10	11	10	10	10	10	12	13	15	17	17	17	18	18	19	18	18	17	17	15	14	12	11	14.2	18.6
31-May	9	8	8	7	6	7	9	12	15	16	17	18	18	18	19	20	19	19	19	18	17	15	13	11	14.1	19.6
	7.9	7.1	6.6	5.9	5.3	5.3	6.7	8.5	10.4	12.0	13.2	14.2	14.8	15.5	15.8	15.8	15.4	14.9	14.3	13.4	12.1	10.7	9.7	8.9	Diurnal Average	
	13.9	12.6	11.5	10.5	10.2	10.5	11.0	13.0	16.7	17.8	19.3	20.9	23.2	24.3	24.6	24.4	24.3	23.9	23.1	22.3	20.1	17.3	16.0	15.0	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Henry Pirker - May 2012



Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Henry Pirker - May 2012

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

Maximum Value: 90.6 % on May 24 05:00

Maximum Daily Average: 82.6 % on May 22

Minimum Value: 13 % on May 26 19:00

Minimum Daily Average: 26.9 % on May 13

Maximum Diurnal Average: 63.4 % at hour 6

Minimum Diurnal Average: 31.9 % at hour 15

Monthly Average: 46.32 %

Percentiles: P_1 = 15.4 P_{10} = 21.5 Q_1 = 30.8 Median = 42.8 Q_3 = 58.7 P_{90} = 81.1 P_{99} = 89.2

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

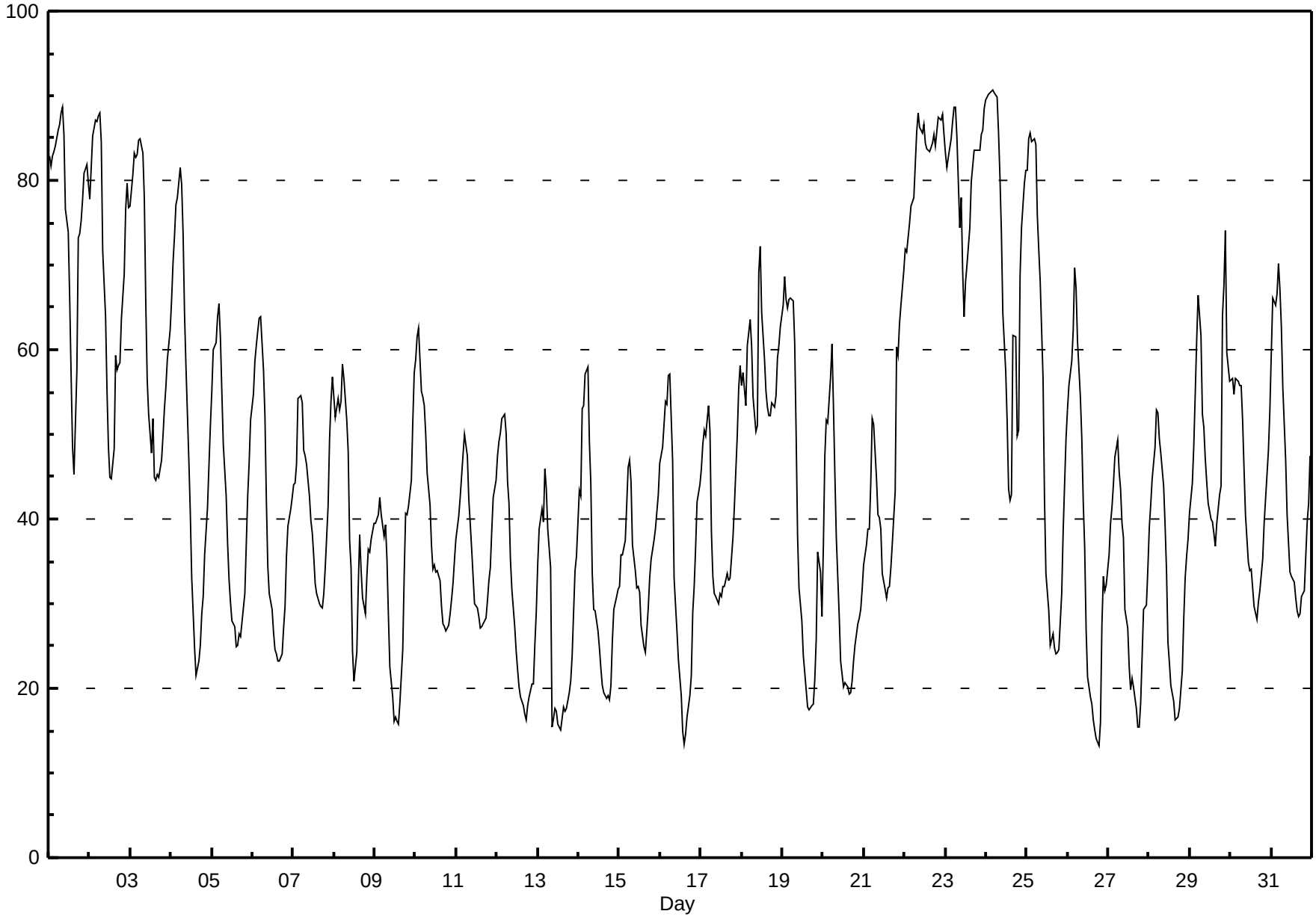
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-May	83	82	83	83	84	86	87	88	89	85	77	74	66	57	48	45	58	73	74	75	78	81	82	80	75.7	88.7
2-May	78	82	85	87	87	88	88	85	72	64	55	48	45	45	48	59	58	58	59	63	69	77	80	77	69.0	88.1
3-May	77	81	83	83	83	85	85	83	78	66	56	52	48	52	45	45	45	45	47	50	53	56	59	62	63.2	84.9
4-May	66	70	73	77	78	81	79	74	64	58	47	41	33	29	25	22	23	25	29	31	36	41	46	51	50.0	81.5
5-May	55	60	61	64	65	61	55	49	43	37	33	30	28	27	25	25	26	26	28	31	37	43	47	52	42.0	65.5
6-May	55	59	60	62	64	64	58	52	42	34	31	29	27	25	24	23	23	24	27	30	36	39	41	43	40.5	63.9
7-May	44	44	46	54	55	54	48	48	47	43	40	38	36	32	31	30	30	30	31	34	42	49	54	57	42.3	56.7
8-May	54	52	54	53	54	58	57	52	48	37	34	24	21	24	32	38	34	31	29	33	36	36	38	40	40.4	58.4
9-May	39	40	41	43	41	38	39	35	29	23	19	16	17	16	16	18	25	33	41	41	42	44	52	57	33.4	57.2
10-May	59	62	63	55	54	53	50	45	42	37	34	35	34	34	33	30	28	27	27	27	29	31	32	35	39.8	62.6
11-May	38	40	43	45	48	50	47	42	40	36	33	30	29	28	27	27	28	28	30	33	34	39	43	45	36.8	50.1
12-May	47	49	50	52	52	50	44	42	35	32	27	24	22	20	19	18	17	16	18	19	20	21	25	29	31.3	52.4
13-May	35	39	41	40	46	44	39	34	15	16	18	17	16	15	16	18	17	18	20	21	24	29	34	36	26.9	45.9
14-May	43	43	53	53	57	58	49	44	33	29	29	27	25	22	20	20	19	19	19	20	26	29	31	32	33.4	57.9
15-May	32	36	36	37	42	46	47	44	37	34	32	32	31	27	25	24	27	29	33	35	38	39	41	43	35.3	46.9
16-May	47	48	51	54	54	57	57	47	33	30	27	23	19	15	13	15	17	19	22	29	32	37	42	44	34.6	57.1
17-May	46	49	50	50	53	50	38	33	31	31	30	31	31	32	32	34	33	33	35	38	41	50	55	58	40.2	58.1
18-May	56	57	53	60	62	64	60	54	50	51	69	72	64	59	55	53	52	52	54	53	55	59	61	63	57.9	72.2
19-May	65	69	66	65	66	66	66	61	50	38	32	28	24	22	20	18	17	18	18	21	26	36	34	29	39.7	68.6
20-May	37	47	52	51	57	61	53	45	38	29	23	22	20	21	20	19	20	21	23	25	28	28	29	32	33.4	60.7
21-May	35	37	39	39	44	52	51	45	40	40	39	33	32	31	32	32	34	37	43	60	59	63	65	69	43.9	69.2
22-May	72	71	73	75	77	78	82	86	88	86	86	87	84	84	83	83	84	85	84	86	87	87	88	86	82.6	88.0
23-May	83	82	83	85	87	89	89	85	74	78	69	64	68	70	74	80	82	84	84	84	84	85	86	88	80.6	88.7
24-May	90	90	90	91	91	90	90	86	80	74	64	57	51	43	42	43	62	62	50	51	69	74	80	81	70.8	90.6
25-May	81	85	86	85	85	84	76	72	68	57	43	34	31	29	25	26	25	24	24	25	31	38	44	50	51.1	85.5
26-May	53	56	59	62	70	67	61	54	49	42	37	27	21	19	18	16	15	14	13	16	28	33	31	32	37.3	69.6
27-May	36	39	41	44	47	49	46	44	39	38	29	27	23	20	21	20	18	15	15	18	24	29	30	34	31.1	49.3
28-May	39	42	45	48	53	53	50	48	44	39	34	25	23	20	18	16	16	17	18	22	28	33	36	38	33.5	52.9
29-May	41	44	49	55	61	66	62	52	51	47	44	42	40	40	38	37	39	43	44	64	68	74	60	56	50.7	74.1
30-May	56	57	55	57	56	56	56	52	46	41	35	34	34	32	30	28	30	31	33	35	40	45	48	53	43.3	56.7
31-May	60	66	65	67	70	67	63	56	47	41	37	34	33	33	31	29	28	29	31	32	36	40	42	47	45.1	70.2
	54.8	57.3	59.0	60.5	62.6	63.4	60.4	56.0	49.8	44.9	40.7	37.4	34.7	33.0	31.9	32.0	33.2	34.4	35.5	38.8	43.0	47.3	49.5	51.5	Diurnal Average	
	89.5	90.2	90.4	90.6	90.6	90.4	89.9	88.0	88.7	86.2	85.6	86.5	84.3	83.8	83.5	83.3	84.3	85.5	84.0	85.8	87.5	87.1	87.9	88.4	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Henry Pirker - May 2012



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Averages

Solar Radiation (SR) - W/m^2

Henry Pirker - May 2012

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

Maximum Value: 840.1 W/m^2 on May 27 13:00

Maximum Daily Average: 316.9 W/m^2 on May 28

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

Maximum Diurnal Average: 613.3 W/m^2 at hour 14

Monthly Average: 229.99 W/m^2

Minimum Daily Average: 54.5 W/m^2 on May 22

Minimum Diurnal Average: 0.0 W/m^2 at hour 24

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 122.3 Q_3 = 441.5 P_{90} = 653.6 P_{99} = 796.7

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

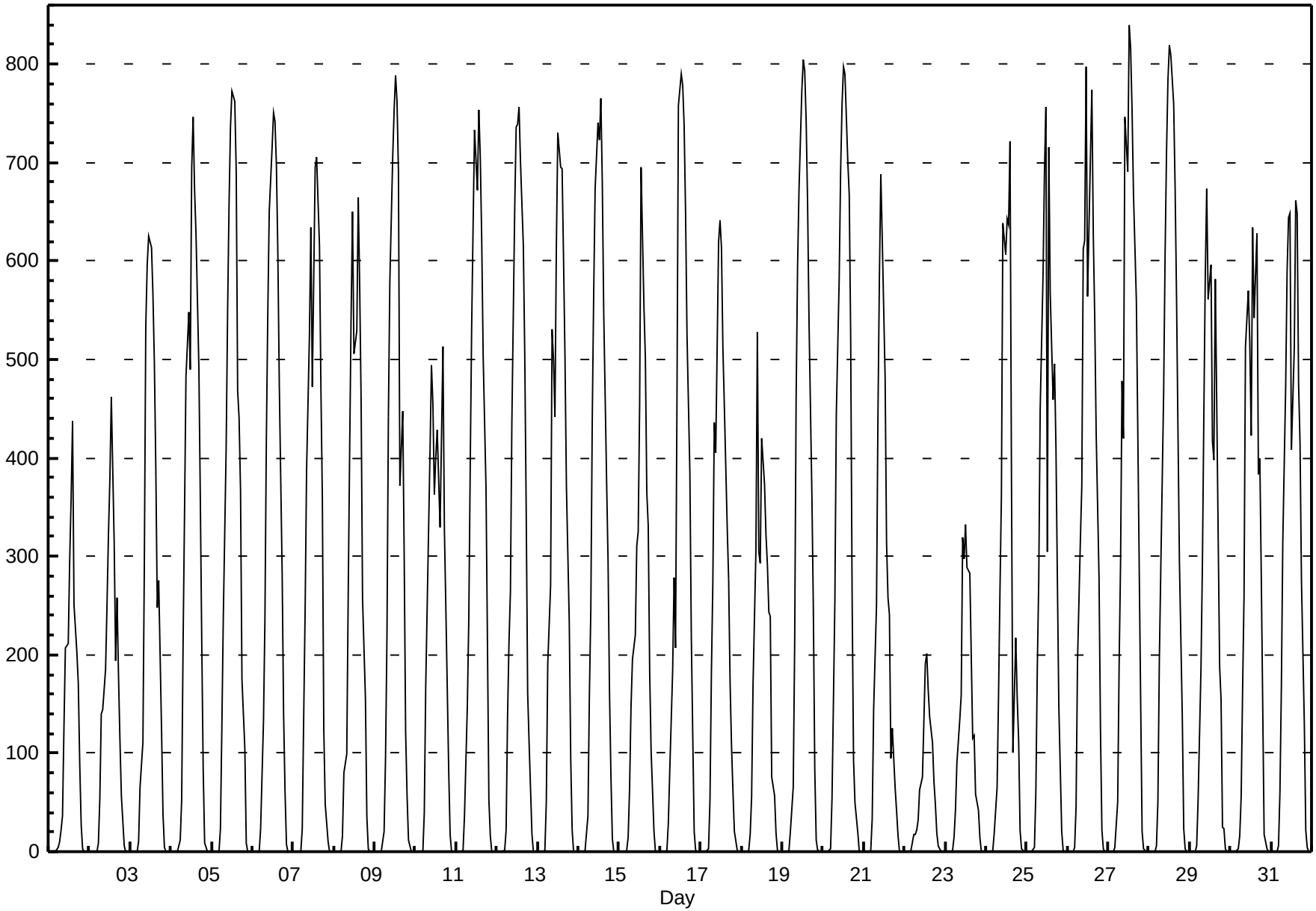
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-May	0	0	0	0	0	5	11	23	36	126	206	211	296	359	437	251	202	171	89	28	3	0	0	0	102.2	437.0
2-May	0	0	0	0	0	9	53	139	144	185	251	322	380	462	313	193	258	179	113	57	6	0	0	0	127.7	461.6
3-May	0	0	0	0	0	10	66	111	291	534	596	626	614	565	496	389	248	276	123	39	5	0	0	0	207.8	626.0
4-May	0	0	0	0	0	11	52	212	344	483	548	490	695	746	672	627	492	357	211	83	9	0	0	0	251.4	746.5
5-May	0	0	0	0	0	23	127	237	410	549	657	735	773	763	691	468	440	367	175	105	9	0	0	0	272.1	773.2
6-May	0	0	0	0	0	24	133	237	419	548	650	716	751	742	697	608	475	282	140	61	8	0	0	0	270.5	751.2
7-May	0	0	0	0	0	23	138	244	387	525	634	473	582	695	706	615	470	358	124	48	10	0	0	0	251.4	705.8
8-May	0	0	0	0	0	16	80	100	260	406	540	650	506	529	664	574	457	256	156	34	4	0	0	0	218.0	664.3
9-May	0	0	0	0	0	21	95	218	442	579	705	754	789	762	690	371	447	300	122	56	11	0	0	0	265.2	788.7
10-May	0	0	0	0	1	39	167	248	407	495	454	363	401	429	329	421	514	328	249	84	18	0	0	0	206.1	513.8
11-May	0	0	0	0	1	37	148	236	392	533	636	733	673	753	706	622	504	368	211	53	17	0	0	0	276.0	753.0
12-May	0	0	0	0	1	21	136	213	264	436	654	737	739	756	702	614	503	345	162	111	17	0	0	0	267.1	756.3
13-May	0	0	0	0	2	51	190	271	531	500	442	615	730	695	694	602	503	372	231	95	22	0	0	0	272.8	729.7
14-May	0	0	0	0	1	37	159	246	439	567	673	741	723	766	679	547	377	296	164	77	13	1	0	0	271.1	765.7
15-May	0	0	0	0	1	15	64	147	195	221	311	325	453	695	554	501	364	330	183	103	20	1	0	0	186.8	695.0
16-May	0	0	0	0	2	29	83	184	279	207	456	758	790	778	737	649	525	385	219	119	21	1	0	0	259.3	790.2
17-May	0	0	0	0	3	52	183	274	436	405	619	642	614	512	454	330	277	172	108	61	21	1	0	0	215.1	641.6
18-May	0	0	0	0	2	18	56	171	306	527	305	293	420	374	323	292	243	240	76	57	19	1	0	0	155.2	527.4
19-May	0	0	0	0	2	21	65	213	459	593	671	773	805	793	742	658	538	362	247	83	12	1	0	0	293.3	805.2
20-May	0	0	0	0	3	54	153	255	445	582	691	759	797	790	701	667	524	261	93	50	18	0	0	0	285.1	796.8
21-May	0	0	0	0	2	33	144	251	444	581	687	622	480	313	258	240	95	125	64	40	16	1	0	0	183.3	687.4
22-May	0	0	0	0	1	18	17	21	31	62	76	133	191	201	164	137	111	72	48	19	6	0	0	0	54.5	201.1
23-May	0	0	0	0	1	15	42	90	134	158	319	297	333	288	283	198	115	118	58	42	15	1	0	0	104.5	333.1
24-May	0	0	0	0	2	19	66	159	265	361	639	606	643	637	721	382	101	217	156	114	22	2	0	0	213.0	721.2
25-May	0	0	0	0	4	61	187	276	450	586	693	757	304	716	567	460	496	409	274	147	21	2	0	0	267.0	756.7
26-May	0	0	0	0	5	45	192	316	372	612	621	797	564	706	774	627	543	426	279	124	21	3	0	0	292.8	796.8
27-May	0	0	0	0	5	51	192	295	478	419	746	690	840	816	753	668	560	427	287	152	21	3	0	0	308.4	840.1
28-May	0	0	0	0	5	51	194	286	467	604	709	784	819	810	760	674	561	426	294	138	23	3	0	0	316.9	818.6
29-May	0	0	0	0	6	53	185	291	443	585	673	561	596	417	398	581	452	187	155	24	23	3	0	0	234.8	673.2
30-May	0	0	0	0	3	16	55	165	260	513	570	517	423	634	542	628	383	400	281	150	17	3	0	0	231.6	634.2
31-May	0	0	0	0	6	60	167	315	472	590	644	648	409	512	662	649	476	416	276	130	21	4	0	0	269.0	662.2
	0.0	0.0	0.0	0.0	2.0	30.2	116.1	207.8	345.2	453.9	551.0	584.8	585.0	613.3	576.5	491.7	395.3	297.7	173.2	80.2	15.1	0.9	0.0	0.0	Diurnal Average	
	0.0	0.0	0.0	0.1	6.5	61.0	193.7	315.8	530.7	612.1	746.5	796.8	840.1	815.6	774.3	673.8	561.1	427.1	294.0	152.0	23.3	3.7	0.0	0.0	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

Solar Radiation (SR) - W/m^2

Henry Pirker - May 2012



Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Henry Pirker - May 2012

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1 Spd	15	14	11	11	10	9	8	9	6	8	15	15	12	11	9	7	10	14	14	12	9	6	6	6	4.4	15.0
Dir	115	99	106	97	103	111	112	114	141	207	258	250	259	281	308	316	82	98	113	118	141	162	168	160	132.3	258.2
2 Spd	5	2	1	3	2	2	4	4	4	5	2	4	6	9	13	12	11	11	12	11	6	7	7	6	4.2	13.0
Dir	150	167	198	263	244	253	314	304	263	268	113	176	135	151	159	147	131	116	136	130	96	104	114	137	143.3	159.5
3 Spd	10	7	4	7	7	7	7	10	9	13	14	14	14	16	20	21	21	22	21	15	13	12	11	11	12.0	22.2
Dir	178	235	84	109	110	106	102	124	124	130	146	150	119	123	120	118	124	122	138	131	129	120	118	119	127.2	121.6
4 Spd	9	7	4	3	7	9	13	15	16	16	20	20	27	27	26	27	29	28	26	22	14	11	13	10	14.8	29.2
Dir	115	117	122	173	253	267	262	259	269	268	274	272	281	275	266	264	262	267	270	272	263	249	240	236	263.8	262.1
5 Spd	10	8	9	9	10	14	14	20	24	30	29	27	28	27	28	28	28	28	24	23	17	14	13	11	19.6	29.7
Dir	236	236	243	244	253	249	253	258	251	255	262	256	255	259	259	274	269	273	274	261	254	241	240	241	257.5	255.5
6 Spd	11	11	11	2	4	7	7	10	17	21	20	17	14	16	15	18	16	19	17	17	15	9	7	6	12.3	20.9
Dir	236	238	238	1	288	249	271	246	255	267	262	257	257	261	275	276	266	273	277	277	272	242	236	220	261.5	267.2
7 Spd	6	6	6	3	5	6	9	10	12	12	15	16	16	22	21	19	16	14	13	6	4	2	4	3	8.7	21.5
Dir	165	190	182	263	232	238	251	248	249	254	254	271	273	261	259	258	251	240	220	267	318	81	131	118	248.9	260.7
8 Spd	6	7	7	6	6	4	2	1	4	4	11	17	21	29	33	35	31	30	27	19	14	16	16	11	10.9	34.7
Dir	119	127	146	134	117	110	56	309	291	277	306	273	281	303	305	306	295	283	278	264	244	245	248	239	280.1	305.7
9 Spd	13	15	16	16	16	20	19	23	28	30	33	37	38	35	34	31	43	36	32	26	23	25	24	21	26.0	42.7
Dir	252	262	268	276	281	268	258	252	256	265	262	264	263	266	262	264	262	251	250	246	236	241	241	235	257.6	262.4
10 Spd	24	20	18	28	24	28	26	34	35	36	33	35	37	33	38	40	40	37	34	31	28	24	23	21	29.9	40.1
Dir	235	239	241	256	253	250	249	259	265	276	273	274	273	265	265	273	267	263	261	262	261	258	258	258	261.7	272.9
11 Spd	22	21	19	19	18	17	20	27	32	29	28	30	32	32	33	33	33	34	30	26	25	14	11	9	24.8	34.1
Dir	260	256	258	257	258	254	257	266	273	272	265	267	267	273	263	266	266	270	267	260	257	255	246	244	263.5	269.6
12 Spd	11	8	6	6	7	8	8	8	17	21	27	28	30	38	31	31	31	28	25	18	18	19	10	10	18.1	37.8
Dir	251	253	240	257	222	217	256	240	264	256	257	260	263	276	267	269	258	260	263	274	263	268	281	250	261.5	275.8
13 Spd	5	1	7	4	5	9	10	11	38	33	29	25	26	30	35	33	33	32	29	25	19	18	15	16	19.5	38.3
Dir	302	214	230	211	197	231	250	267	280	273	260	252	252	258	258	257	265	269	268	272	274	285	290	303	265.5	279.9
14 Spd	9	8	4	5	2	3	4	4	5	5	6	3	3	6	1	8	11	13	12	12	10	11	11	10	4.5	12.5
Dir	327	319	322	320	327	334	299	276	63	76	108	76	43	64	38	97	90	83	81	81	71	80	93	86	64.8	83.3
15 Spd	8	6	7	5	2	4	5	6	10	10	14	17	19	18	25	25	30	28	27	28	23	19	17	13	13.0	30.0
Dir	75	46	50	49	347	329	301	273	270	254	260	261	270	258	267	271	273	272	274	278	276	263	255	250	271.7	273.3
16 Spd	9	11	6	6	6	3	3	9	20	20	22	28	33	38	32	31	33	36	36	29	21	16	14	12	18.9	37.6
Dir	239	238	275	337	342	330	279	273	287	278	275	277	281	277	284	285	281	283	278	279	268	258	244	233	276.7	276.6
17 Spd	11	8	8	4	4	4	3	6	6	13	11	14	17	21	17	19	16	18	13	7	6	3	2	4	8.8	21.1
Dir	238	247	228	256	231	206	179	250	258	206	240	246	267	241	241	258	260	260	267	285	233	196	130	108	245.6	240.6
18 Spd	5	5	7	4	5	9	4	0	8	14	21	20	19	19	18	19	20	22	20	20	14	11	9	8	10.1	21.8
Dir	109	109	98	201	343	37	52	98	304	270	282	301	311	305	311	310	310	312	307	304	299	293	297	295	306.2	311.9
19 Spd	8	6	7	8	9	10	11	12	8	9	9	9	9	8	9	8	6	9	1	4	3	2	2	3	5.9	11.5
Dir	299	289	242	244	248	248	244	250	241	264	249	239	270	271	267	264	336	329	180	291	345	170	359	40	265.7	249.7
20 Spd	3	6	7	8	6	5	5	7	7	4	2	4	1	4	4	2	5	8	9	9	9	12	13	11	1.5	13.3
Dir	215	231	208	214	228	237	233	245	250	228	133	141	324	289	25	343	41	66	75	75	77	78	84	81	114.3	84.3
21 Spd	7	6	5	5	3	4	6	8	5	7	9	9	10	11	13	15	13	9	11	5	6	4	7	7	5.2	14.9
Dir	65	64	67	86	120	158	191	211	202	184	142	134	128	117	116	116	130	133	156	110	74	60	351	331	123.3	116.4
22 Spd	7	7	4	6	6	8	12	11	13	14	15	13	13	13	13	14	14	13	13	7	8	9	8	12	9.7	14.7
Dir	331	350	305	327	316	288	317	303	289	288	290	295	308	329	319	328	335	349	349	328	350	352	351	353	321.7	290.1

Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Henry Pirker - May 2012

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	9	5	3	3	3	4	4	9	7	8	14	14	15	12	12	10	11	8	6	4	4	3	4	3.1	15.1
Dir	285	303	316	288	205	175	169	195	295	310	291	300	351	10	31	73	77	74	85	93	57	40	341	331	359.0	10.2
24 Spd	3	2	4	2	6	1	5	9	12	12	10	6	6	10	10	9	17	11	7	3	6	7	4	2	1.1	16.9
Dir	305	232	308	290	311	292	203	253	269	285	305	312	18	63	69	72	67	126	113	126	253	254	249	268	319.2	66.7
25 Spd	4	3	8	7	7	8	8	9	9	8	7	4	6	4	4	6	5	5	7	3	7	5	5	5	2.0	9.0
Dir	288	258	248	265	250	241	250	241	235	237	236	264	9	103	56	330	322	14	3	29	94	97	109	115	265.4	235.0
26 Spd	6	5	7	6	4	5	5	5	6	6	5	6	3	5	11	7	4	8	8	8	8	8	12	14	6.2	13.7
Dir	138	118	125	133	120	135	146	149	136	140	147	141	142	117	134	157	180	156	147	108	71	85	102	118	128.0	117.6
27 Spd	11	10	9	7	7	7	10	11	11	9	7	5	7	7	11	11	10	12	14	11	10	10	10	11	9.1	13.6
Dir	114	114	117	107	97	107	118	129	136	125	131	106	91	93	85	92	92	92	91	90	87	92	105	99	104.0	90.7
28 Spd	12	12	11	9	4	6	10	9	9	9	11	10	7	8	8	9	11	13	14	12	10	10	11	15	9.7	14.7
Dir	99	95	96	99	82	84	94	125	112	117	124	107	87	83	86	74	78	73	83	83	80	86	91	98	93.0	98.2
29 Spd	15	12	10	4	3	4	11	14	16	17	16	13	12	12	20	26	29	25	19	15	9	6	17	17	8.9	28.9
Dir	109	114	114	132	258	253	286	306	313	285	279	277	263	267	259	260	262	258	246	123	157	205	257	256	258.0	261.7
30 Spd	13	11	15	6	8	8	6	5	13	15	17	17	17	19	20	23	22	25	22	22	15	13	13	8	14.4	25.5
Dir	247	244	255	267	277	268	269	290	256	262	263	272	271	259	261	260	255	257	250	267	263	273	256	233	260.4	256.8
31 Spd	4	5	6	6	7	8	10	16	22	24	24	22	21	23	26	27	26	29	24	21	14	9	9	6	15.8	28.6
Dir	229	249	241	236	229	227	251	256	254	258	267	263	274	276	276	275	266	270	268	269	267	239	237	249	262.5	270.1
Spd	3.1	3.0	3.0	2.8	3.6	4.3	5.2	7.6	10.6	11.7	12.5	12.8	12.5	12.5	12.2	12.4	12.0	11.1	9.8	7.5	5.9	4.6	4.3	3.1	Diurnal Average	
Dir	218.0	227.8	224.3	243.6	252.7	244.5	251.0	252.6	262.8	260.7	261.8	263.2	272.5	272.0	269.3	272.0	269.7	267.8	261.1	264.4	259.8	249.5	242.9	231.8		
Spd	24.0	21.4	18.7	28.5	24.1	28.4	25.8	34.0	38.3	36.5	33.2	37.3	37.6	37.8	38.1	40.1	42.7	36.9	35.6	31.0	28.0	24.6	24.5	21.5	Diurnal Maximum	
Dir	235.2	255.6	257.6	255.6	252.8	249.6	248.8	259.2	279.9	276.4	262.1	263.8	263.0	275.8	265.3	272.9	262.4	262.7	277.8	261.9	261.2	241.4	241.0	258.3		

Maximum Speed Value: 43 km/h on May 9 17:00
Minimum Speed Value: 0 km/h on May 18 08:00
Maximum Daily Speed Average: 29.9 km/h on May 10
Minimum Daily Speed Average: 1.1 km/h on May 25
Maximum Diurnal Speed Average: 12.8 km/h at hour 12
Minimum Diurnal Speed Average: 2.8 km/h at hour 4

Monthly Average Velocity: 7.66 km/h 260.83 deg

Speed Percentiles: P_1 = 1.5 P_{10} = 4.0 Q_1 = 6.4 Median = 10.7 Q_3 = 18.0 P_{90} = 28.1 P_{99} = 37.5

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

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Percent Operational Time:	100.0

Frequency Distribution

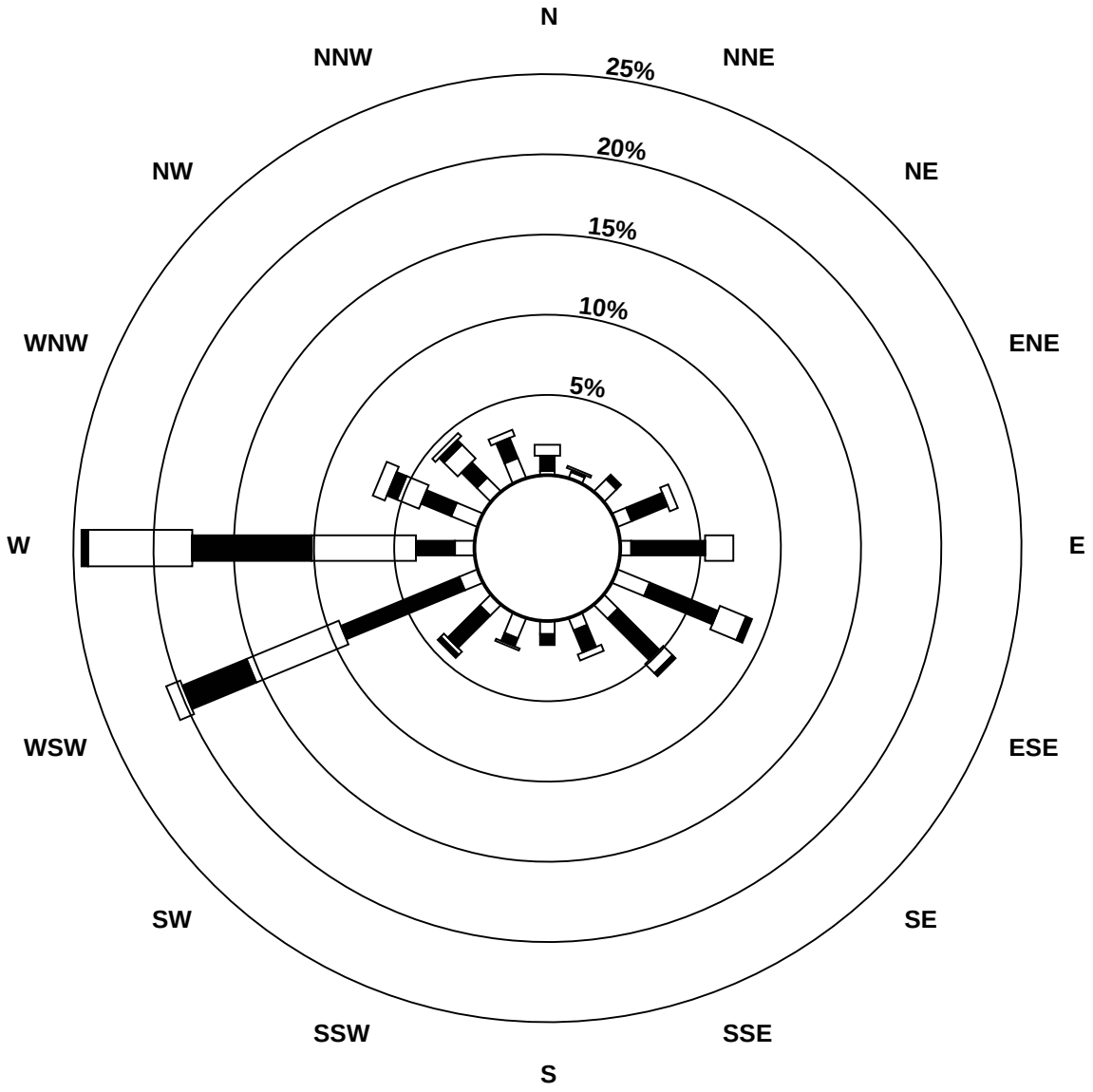
Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	6	11	5	0	0	0	22
NorthEast	11	12	2	0	0	0	25
East	11	59	27	0	0	0	97
SouthEast	17	49	25	5	0	0	96
South	15	10	1	0	0	0	26
SouthWest	13	53	20	8	0	0	94
West	25	51	87	78	67	5	313
NorthWest	19	26	15	7	4	0	71
Total	117	271	182	98	71	5	744

Peace Airshed Zone Association

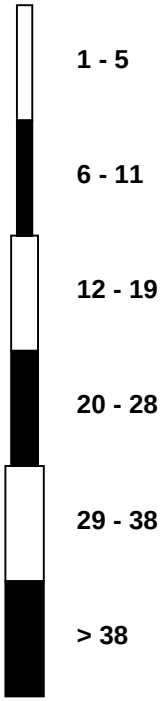
Wind Rose

Wind Speed (WS) (km/h)

Henry Pirker - May 2012



Wind Speed Classes (km/h)



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Henry Pirker - May 2012

Maximum Speed: 43 km/h on May 9 17:00

Maximum Daily Speed Average: 30.7 km/h on May 10

Minimum Speed: 2 km/h on May 8 08:00

Minimum Daily Speed Average: 6.8 km/h on May 2

Maximum Diurnal Speed Average: 21.0 km/h at hour 17

Minimum Diurnal Speed Average: 7.3 km/h at hour 5

Monthly Average Speed: 13.88 km/h

Percentiles: P_1 = 3.0 P_{10} = 4.9 Q_1 = 7.1 Median = 11.1 Q_3 = 18.7 P_{90} = 28.6 P_{99} = 38.1

Hours in Service: 744

Hours of Data: 744

Hours of Missing Data: 0

Percent Operational Time: 100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-May	15	14	11	11	10	9	8	9	7	8	16	15	13	11	11	9	11	15	14	12	9	7	6	6	10.8	15.6
2-May	5	2	3	3	3	3	4	4	5	5	3	5	7	10	14	13	11	12	13	11	6	7	7	7	6.8	13.5
3-May	11	8	5	7	7	7	7	10	9	13	15	14	14	16	20	21	21	23	21	16	14	12	11	11	13.2	22.5
4-May	9	7	5	4	8	9	13	15	17	17	20	21	27	27	27	27	30	29	27	22	14	12	13	10	17.1	29.8
5-May	10	9	9	9	10	14	14	20	25	30	30	28	29	28	29	29	29	28	25	24	17	14	14	11	20.2	30.3
6-May	11	11	11	4	5	8	8	10	17	21	21	18	15	17	16	19	17	19	17	18	15	9	7	7	13.5	21.5
7-May	6	6	6	4	5	6	9	11	12	12	16	17	16	22	22	20	17	15	13	8	4	3	4	4	10.7	22.3
8-May	6	7	8	6	6	4	3	2	4	5	11	18	22	30	34	35	32	30	27	19	15	16	16	11	15.3	35.2
9-May	13	15	17	16	16	21	19	24	29	31	34	38	38	36	35	32	43	37	32	26	24	25	25	21	26.9	43.2
10-May	24	20	18	29	24	29	26	34	35	37	34	35	38	33	39	41	40	37	34	31	28	24	23	22	30.7	40.5
11-May	23	21	19	19	19	17	20	28	33	29	29	31	33	33	34	34	34	35	31	26	25	15	11	9	25.3	34.6
12-May	11	9	7	6	7	8	9	8	17	22	27	28	31	38	32	32	31	29	26	18	18	19	12	10	18.9	38.3
13-May	5	5	7	5	5	9	10	11	39	34	29	25	26	30	36	33	34	33	30	25	19	18	15	16	20.8	38.6
14-May	9	8	5	5	3	3	4	4	7	6	8	7	7	7	6	9	12	13	12	12	11	11	11	10	8.0	12.8
15-May	8	7	7	5	3	5	6	7	10	10	15	18	20	19	26	26	30	28	28	28	23	19	17	13	15.8	30.5
16-May	9	11	7	7	6	3	4	10	20	20	23	28	34	39	33	32	34	37	36	30	21	16	14	12	20.2	38.5
17-May	11	8	8	6	5	4	3	6	7	14	12	16	18	22	18	20	17	18	13	7	6	4	2	4	10.4	22.0
18-May	5	6	7	5	6	10	7	4	8	16	22	20	20	20	18	19	21	22	20	20	14	11	9	8	13.3	22.1
19-May	8	7	7	8	10	10	11	12	8	10	10	11	10	10	12	10	8	11	6	6	4	3	5	6	8.4	12.1
20-May	5	6	7	9	6	6	5	7	7	5	6	6	6	8	8	7	8	9	9	9	9	13	13	11	7.8	13.5
21-May	7	6	6	5	3	4	6	8	6	7	10	10	12	12	14	15	13	10	12	7	6	4	8	7	8.3	15.4
22-May	7	8	5	6	7	8	12	11	13	14	15	13	13	13	13	14	14	13	13	7	8	10	8	13	10.8	14.8
23-May	9	10	5	3	3	3	4	5	9	7	9	15	14	15	12	12	10	11	8	7	4	4	4	4	7.8	15.4
24-May	3	4	5	3	7	4	5	9	13	13	11	7	8	11	11	11	18	12	7	5	7	7	4	4	7.8	18.1
25-May	5	4	8	8	7	8	9	9	9	9	8	8	7	7	7	8	7	7	7	4	7	5	5	5	7.0	9.4
26-May	6	5	7	6	4	5	5	5	7	7	6	8	7	8	11	11	8	9	9	9	8	8	12	14	7.7	13.8
27-May	11	10	9	7	7	7	10	12	11	9	8	6	8	9	11	12	11	13	14	11	10	10	10	11	9.9	13.8
28-May	13	12	11	9	4	6	10	9	9	10	12	11	9	10	10	10	11	13	14	13	10	10	12	15	10.5	14.8
29-May	15	12	10	4	3	5	11	14	16	17	17	14	13	14	20	26	29	25	20	15	11	7	17	17	14.7	29.3
30-May	13	11	15	7	9	8	7	5	13	15	17	17	18	19	21	23	23	26	23	23	15	13	13	8	15.1	26.2
31-May	5	5	6	6	7	9	10	16	22	25	25	23	22	23	26	28	26	29	24	21	15	9	9	6	16.6	29.0
	9.6	8.8	8.4	7.5	7.3	8.1	9.0	11.0	14.3	15.5	16.7	17.2	18.0	19.3	20.2	20.5	21.0	20.9	18.9	15.7	12.9	11.2	10.9	10.1	Diurnal Average	
	24.2	21.5	18.8	28.6	24.3	28.6	26.1	34.2	38.6	37.0	33.7	37.9	38.2	38.5	38.7	40.5	43.2	37.2	35.9	31.2	28.2	24.9	24.7	21.6	Diurnal Maximum	

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

Peace Airshed Zone Association

Hourly Standard Deviations

Wind Direction (WD) - deg

Henry Pirker - May 2012

Maximum Value: 93.8 deg on May 20 13:00

Minimum Value: 4.9 deg on May 27 02:00

Percentiles: P_1 = 5.2 P_{10} = 7.1 Q_1 = 9.2 Median = 13.2 Q_3 = 21.7 P_{90} = 40.2 P_{99} = 82.7

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-May	8	7	8	7	9	8	8	9	31	13	20	12	17	18	42	61	38	10	11	9	14	9	10	8	61.5
2-May	7	30	70	53	38	40	20	13	20	21	70	40	43	31	17	15	15	19	12	12	13	11	7	16	69.8
3-May	24	31	54	21	9	10	12	10	14	18	16	17	19	14	11	10	11	9	14	10	10	7	7	7	53.6
4-May	6	7	18	22	29	16	7	8	13	18	12	17	14	14	15	13	12	11	10	8	11	13	6	6	28.8
5-May	8	8	8	8	7	6	7	9	9	12	12	14	12	12	15	12	11	9	10	9	7	7	6	7	14.6
6-May	6	7	7	68	42	33	27	16	10	13	19	25	21	18	19	17	19	14	10	9	6	14	7	31	68.2
7-May	12	12	18	46	18	10	12	12	10	19	14	16	15	15	15	17	20	18	12	43	16	44	22	40	46.3
8-May	25	16	23	15	12	22	41	76	29	35	15	24	21	12	14	10	8	9	9	10	14	8	8	9	76.3
9-May	8	7	9	6	7	10	8	8	11	13	10	10	11	12	14	14	9	8	9	8	9	8	7	8	14.3
10-May	8	8	7	6	7	6	9	7	10	10	11	9	9	8	10	9	10	8	8	7	6	6	6	6	10.8
11-May	7	5	6	6	6	6	6	9	8	10	12	12	13	12	13	11	10	10	10	7	6	8	9	10	13.1
12-May	9	21	24	18	12	15	16	14	15	10	9	12	15	10	14	13	10	10	8	9	7	8	29	12	29.1
13-May	27	87	17	31	20	13	12	21	7	8	8	10	11	13	10	12	11	9	11	9	6	7	6	10	86.9
14-May	11	10	38	24	50	29	27	28	60	50	58	79	84	55	89	34	16	13	10	10	10	8	6	7	89.0
15-May	12	15	20	21	76	29	34	18	12	16	23	20	16	19	14	11	10	9	9	5	7	8	7	7	75.5
16-May	8	6	37	21	7	27	44	15	10	14	14	12	10	13	14	11	10	9	8	11	8	9	9	7	44.4
17-May	8	24	12	52	22	31	38	30	36	17	29	27	17	16	18	15	14	12	12	20	16	32	43	21	52.4
18-May	9	22	20	49	19	16	65	88	16	29	14	12	11	11	11	10	10	9	8	9	6	5	5	5	87.9
19-May	8	26	17	13	9	10	8	10	17	25	34	32	32	51	60	46	52	35	86	52	54	56	73	72	86.2
20-May	51	10	10	10	18	20	17	13	18	49	77	64	94	57	74	91	54	29	13	10	10	9	9	9	93.8
21-May	14	16	15	14	28	16	23	14	35	35	26	38	28	17	15	16	18	25	25	46	13	25	35	28	45.6
22-May	24	15	40	18	27	23	8	7	8	6	7	8	11	9	9	9	7	11	11	13	17	13	12	18	40.2
23-May	20	14	15	39	18	21	10	41	15	29	27	11	13	10	20	16	12	14	13	11	21	23	21	7	41.0
24-May	25	48	24	55	30	84	21	16	11	16	20	44	61	28	26	26	20	21	17	69	30	11	23	67	84.0
25-May	51	35	17	13	11	12	12	11	17	17	27	60	43	68	71	45	48	47	27	44	18	10	5	7	71.5
26-May	9	8	7	8	9	13	14	21	21	36	51	42	63	84	23	70	74	29	29	15	11	6	7	8	84.4
27-May	6	5	6	10	11	10	10	13	15	20	37	53	31	45	21	22	22	15	10	10	8	7	6	5	53.4
28-May	5	7	6	8	21	11	9	18	18	19	19	28	41	41	37	31	21	17	12	10	9	8	8	6	41.1
29-May	7	6	7	26	33	32	10	11	11	16	15	17	17	29	15	13	9	8	26	16	33	32	6	7	33.5
30-May	12	12	8	32	31	17	17	22	13	16	12	15	19	15	17	13	16	14	16	10	8	7	12	10	32.3
31-May	26	15	14	16	16	10	13	10	8	14	14	16	14	12	12	13	14	10	10	9	10	12	8	25	25.9
	51.2	86.9	69.7	68.2	75.5	84.0	64.5	87.9	60.3	49.6	76.9	78.7	93.8	84.4	89.0	90.9	74.3	46.8	86.2	69.1	54.5	56.3	73.2	72.1	

PAZA
Evergreen Park Station
Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Evergreen Park - May 2012

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

Maximum Value: 1.8 ppb on May 26 10:00

Maximum Daily Average: 0.3 ppb on May 2

Minimum Value: 0 ppb on May 1 03:00

Minimum Daily Average: 0.0 ppb on May 22

Maximum Diurnal Average: 0.2 ppb at hour 10

Minimum Diurnal Average: 0.0 ppb at hour 5

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} = 0.8

Hours in Service:	744
Hours of Data:	708
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-May	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
2-May	0	0	0	0	0	0	0	0	A	0	0	0	2	1	0	1	0	0	1	0	0	0	0	0	0.3	1.8
3-May	0	0	0	0	0	0	0	A	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.9
4-May	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
5-May	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
6-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
7-May	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
8-May	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
9-May	0	A	0	0	0	0	0	0	0	1	1	1	C	C	C	C	0	0	0	0	0	0	0	0	0.2	0.6
10-May	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.0	0.1
11-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.0	0.1
12-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.2
13-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	0.3
14-May	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	A	0	0	0	0	0.2	0.7
15-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.2	0.3
16-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.1	0.2
17-May	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	A	0	0	0	0	0	0	0	0.2	1.6
18-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.0	0.2
19-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.0	0.1
20-May	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.1	0.3
21-May	0	0	0	0	0	0	0	0	0	0	0	1	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.8
22-May	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
23-May	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
24-May	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
25-May	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
26-May	0	0	0	0	0	0	0	A	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.8
27-May	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
28-May	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
29-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
30-May	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
31-May	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	Diurnal Average	
	0.2	0.3	0.2	0.2	0.3	0.3	0.3	0.4	0.9	1.8	1.3	0.8	1.8	0.7	0.5	1.6	0.3	0.2	1.3	0.4	0.2	0.2	0.2	0.2	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

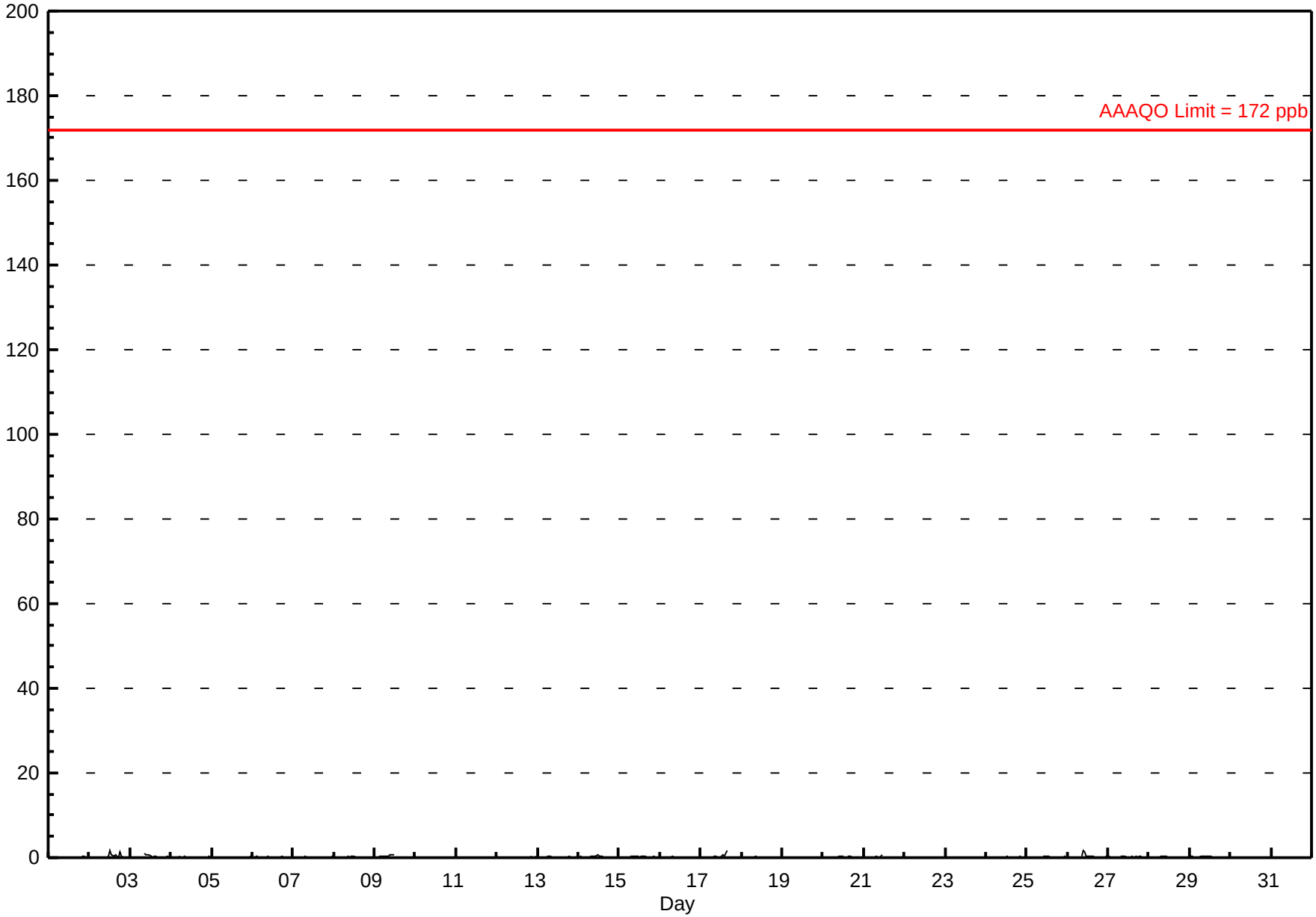
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Evergreen Park - May 2012



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Evergreen Park - May 2012

Maximum Value: 7.1 ppb on May 17 16:00

Maximum Daily Average: 1.2 ppb on May 17

Minimum Value: 0 ppb on May 9 17:00

Minimum Daily Average: 0.4 ppb on May 22

Maximum Diurnal Average: 0.9 ppb at hour 15

Minimum Diurnal Average: 0.5 ppb at hour 5

Monthly Average: 0.63 ppb

Percentiles: $P_1 = 0.3$ $P_{10} = 0.4$ $Q_1 = 0.4$ Median = 0.5 $Q_3 = 0.6$ $P_{90} = 0.8$ $P_{99} = 3.4$

Hours in Service:	744
Hours of Data:	708
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-May	0	0	0	0	0	0	0	0	0	A	0	0	2	1	0	0	0	0	0	0	2	1	0	1	0.6	1.8
2-May	0	0	0	0	0	0	0	1	A	1	1	1	4	1	3	3	1	0	4	1	1	1	1	0	1.1	4.4
3-May	0	0	0	1	1	0	1	A	2	2	2	2	1	0	1	2	1	1	1	0	0	1	1	1	0.8	2.2
4-May	0	1	1	0	1	1	A	1	1	1	1	0	1	1	1	1	1	1	1	1	0	0	4	1	0.8	3.8
5-May	1	1	1	0	0	A	1	1	1	1	1	1	1	1	1	1	0	1	0	1	0	1	1	1	0.6	0.8
6-May	1	1	1	1	A	1	1	1	0	1	1	1	1	1	1	0	1	1	0	0	1	1	0	1	0.6	1.1
7-May	0	0	0	A	0	0	1	1	1	0	0	0	0	1	1	0	0	1	1	1	0	1	1	1	0.5	0.7
8-May	1	1	A	1	0	1	1	1	1	1	1	1	1	1	1	0	0	0	1	1	0	1	1	0	0.6	1.0
9-May	0	A	1	1	1	1	1	1	1	1	1	1	C	C	C	C	0	0	0	1	0	0	0	1	0.6	1.1
10-May	A	0	1	0	1	0	1	1	1	1	0	1	0	1	0	1	1	1	1	1	0	1	1	A	0.5	0.7
11-May	0	1	0	0	0	1	1	1	1	0	1	0	0	1	1	0	0	0	0	0	0	1	A	0	0.5	0.7
12-May	0	0	1	0	0	1	1	1	1	1	0	0	1	0	1	1	0	0	0	1	5	A	1	1	0.7	5.2
13-May	0	0	0	1	0	1	1	1	1	0	1	1	1	1	1	0	0	1	1	0	A	2	0	1	0.6	1.7
14-May	1	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	0	1	1	A	1	0	1	0	0.7	1.3
15-May	0	1	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	A	0	4	1	0	1	0.7	3.5
16-May	1	1	1	0	1	1	1	1	1	1	1	0	1	0	1	1	0	A	1	1	0	0	1	0	0.6	1.0
17-May	1	0	0	1	0	1	1	1	1	1	0	0	1	2	6	7	A	1	1	1	1	0	0	1	1.2	7.1
18-May	0	1	1	0	0	0	0	1	1	1	0	0	0	0	0	A	1	1	1	0	0	0	0	1	0.5	0.8
19-May	0	0	1	0	0	0	1	1	1	0	1	0	1	0	A	1	0	1	1	0	0	0	0	0	0.5	1.5
20-May	0	1	1	0	0	0	1	0	1	1	1	1	1	A	1	1	1	1	0	1	1	1	1	0	0.6	0.7
21-May	1	0	1	1	1	0	1	1	1	1	1	3	A	1	0	1	1	1	0	1	0	0	0	0	0.6	2.5
22-May	0	1	1	0	1	0	1	0	0	0	0	A	0	0	0	0	1	0	0	0	0	0	1	0	0.4	0.7
23-May	1	0	1	1	0	0	0	1	0	0	A	1	0	0	1	0	0	0	0	0	0	0	0	0	0.5	0.7
24-May	1	0	0	0	1	1	1	0	0	A	0	1	1	1	1	0	0	0	0	1	1	0	0	0	0.5	1.2
25-May	0	0	0	0	0	1	1	0	A	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0.6	1.1
26-May	1	1	0	1	1	1	1	A	1	3	3	1	1	1	1	1	0	1	0	0	1	1	1	1	0.9	3.0
27-May	1	1	1	0	0	0	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0.6	0.8
28-May	1	0	0	0	0	A	1	1	1	1	1	1	1	1	0	0	1	0	1	1	1	1	1	1	0.6	0.9
29-May	1	1	1	0	A	0	1	1	1	1	1	1	1	0	2	0	1	0	1	0	0	1	1	0	0.7	2.0
30-May	0	0	0	A	0	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1	0.5	1.2
31-May	0	0	A	0	1	1	0	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0.4	0.6
	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.7	0.7	0.7	0.8	0.8	0.6	0.9	0.9	0.5	0.6	0.6	0.6	0.8	0.6	0.7	0.5	Diurnal Average	
	0.7	0.9	0.7	0.7	0.7	0.7	0.8	0.9	1.8	3.0	2.8	2.5	4.4	2.1	6.0	7.1	0.7	1.5	3.8	1.2	5.2	1.7	3.8	0.8	Diurnal Maximum	

C - Calibration

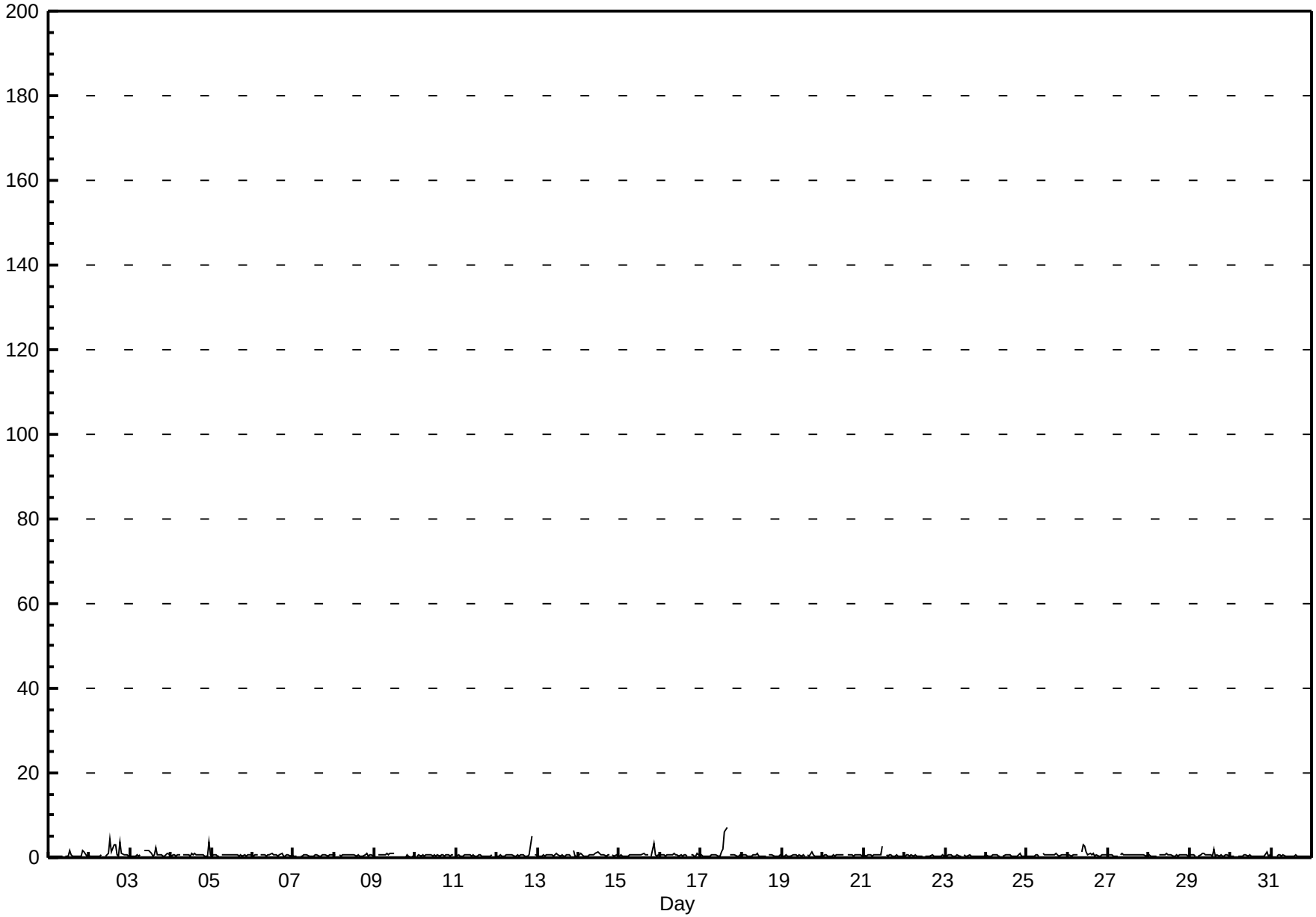
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

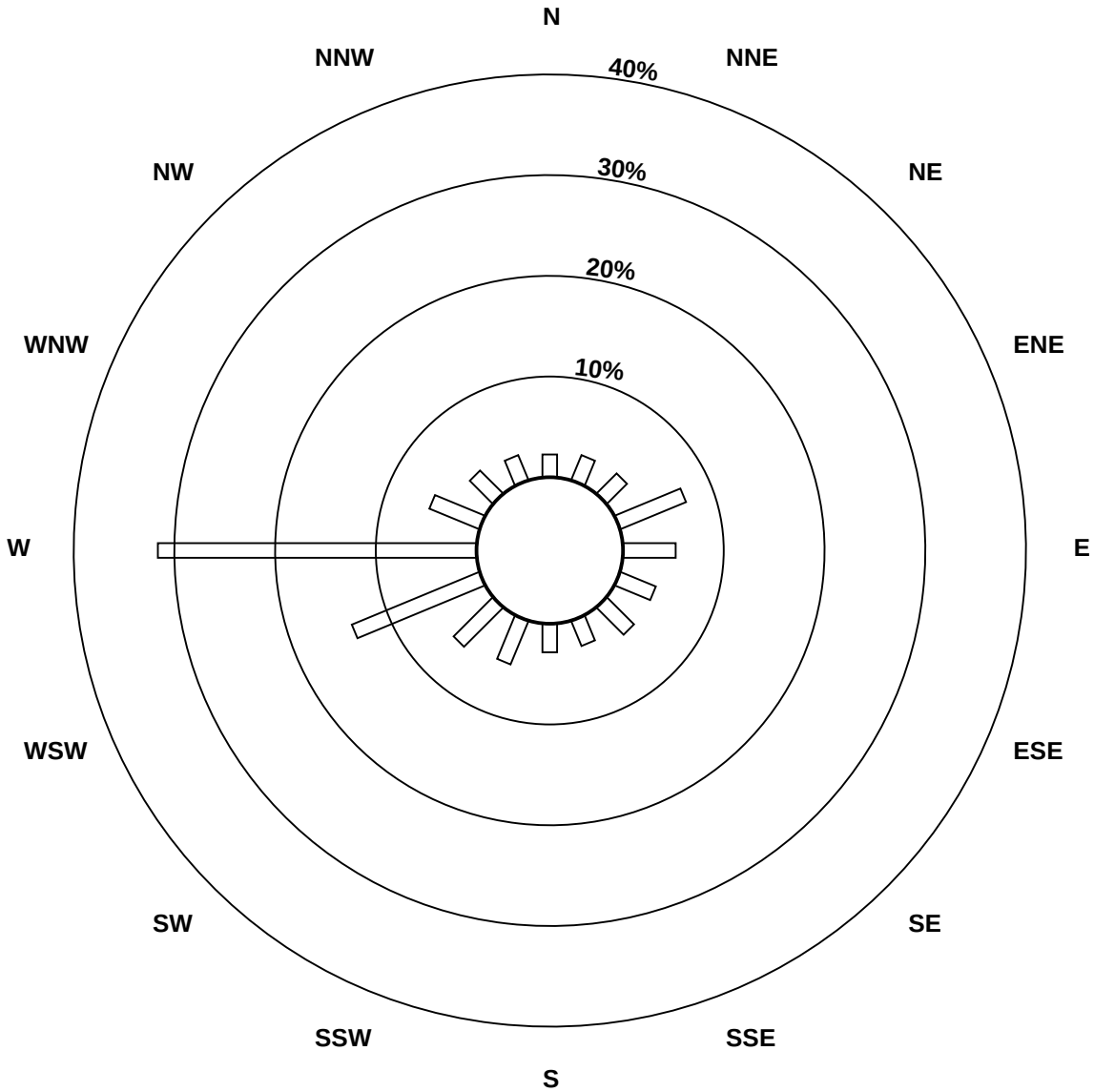
Evergreen Park - May 2012



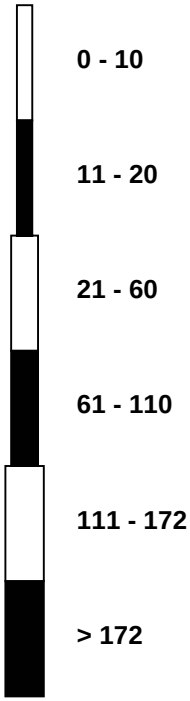
Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Evergreen Park - May 2012



Pollutant Classes (ppb)

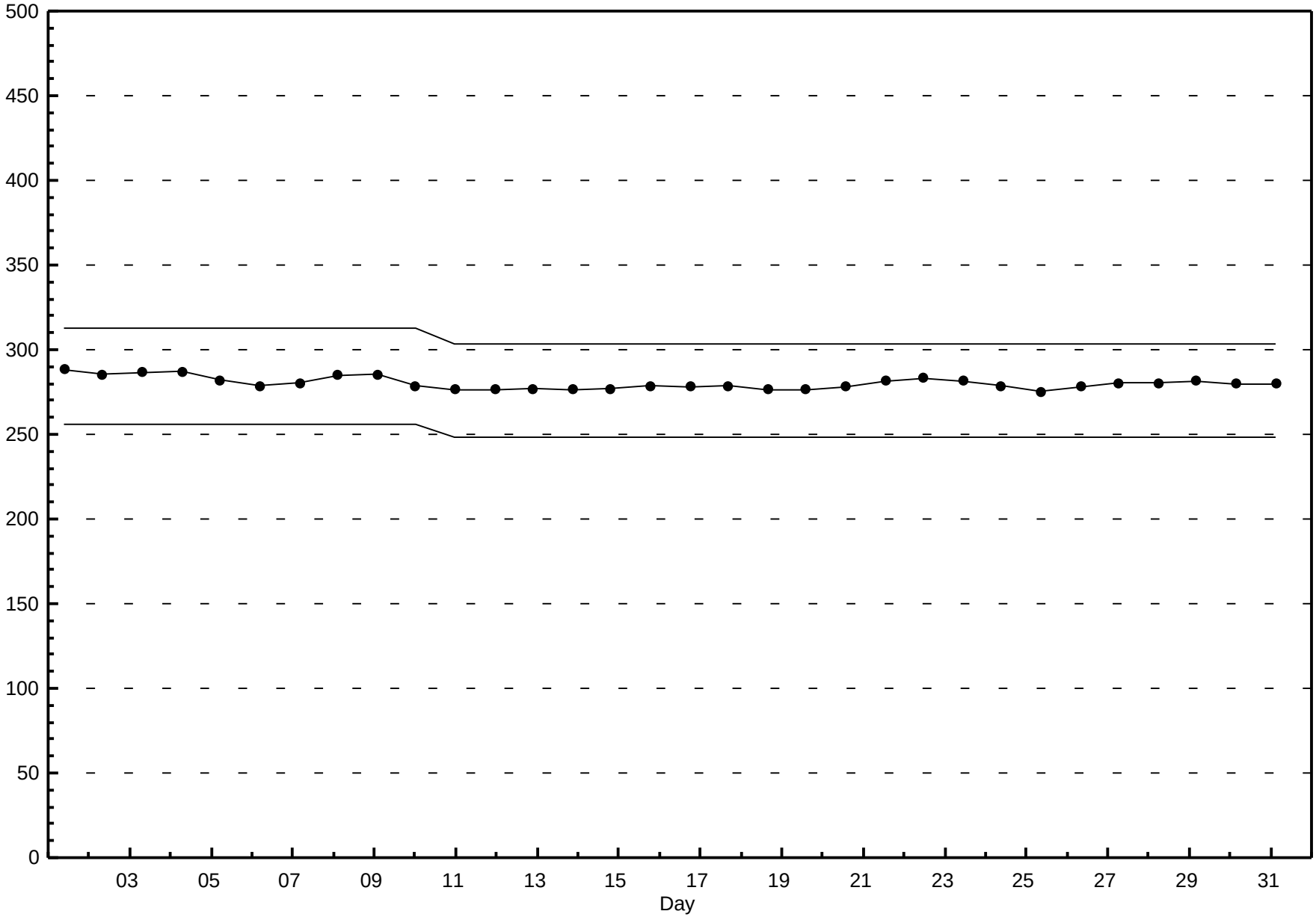


Peace Airshed Zone Association

Span Responses

Sulphur Dioxide (SO_2)

Evergreen Park - May 2012



Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Evergreen Park - May 2012

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

Maximum Value: 1.7 ppb on May 18 05:00

Maximum Daily Average: 0.7 ppb on May 18

Minimum Value: 0 ppb on May 3 05:00

Minimum Daily Average: 0.4 ppb on May 2

Maximum Diurnal Average: 0.6 ppb at hour 21

Minimum Diurnal Average: 0.5 ppb at hour 15

Monthly Average: 0.52 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.4$ $Q_1 = 0.5$ Median = 0.5 $Q_3 = 0.6$ $P_{90} = 0.7$ $P_{99} = 1.2$

Hours in Service:	744
Hours of Data:	700
Hours of Missing Data:	44
Hours of Calibration:	42
Percent Operational Time:	99.7

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-May	1	1	1	1	1	1	1	C	C	C	C	C	C	1	1	0	1	1	1	0	1	1	0	0	0.6	0.9
2-May	0	0	0	0	0	0	0	1	A	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0.4	0.7
3-May	0	0	0	0	0	0	1	A	1	1	1	1	0	0	0	0	1	1	0	0	0	0	0	0	0.4	0.7
4-May	0	0	0	0	0	0	A	0	0	0	1	0	0	1	0	1	1	1	1	1	1	0	1	0	0.4	0.7
5-May	0	0	0	0	0	A	0	0	0	0	1	1	1	2	1	1	1	1	1	1	1	0	0	1	0.5	1.5
6-May	1	1	1	1	A	0	0	0	0	0	0	1	0	0	0	0	M	M	1	1	1	1	1	1	0.5	1.4
7-May	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0.5	0.7
8-May	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	0	1	0.6	0.8
9-May	0	A	1	0	0	0	0	0	C	C	C	C	C	1	1	1	1	1	1	1	1	1	1	1	0.6	0.8
10-May	A	1	0	1	1	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	A	0.5	0.5
11-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.4	0.5
12-May	0	0	1	1	1	1	0	1	1	1	0	0	0	1	1	1	1	1	1	1	1	A	1	1	0.5	0.6
13-May	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	1	1	0	0	A	1	0	1	0.5	0.6
14-May	1	1	1	1	1	1	1	1	1	0	1	1	0	0	0	1	0	0	0	A	1	1	0	0	0.6	0.7
15-May	0	0	0	0	1	1	0	0	1	1	1	1	1	1	1	1	0	0	A	1	0	0	0	0	0.5	0.6
16-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0.6	0.7
17-May	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	A	0	1	1	1	1	1	1	0.6	0.7
18-May	0	0	1	1	2	1	1	1	1	1	0	1	1	1	1	A	1	1	1	0	1	1	1	1	0.7	1.7
19-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0	1	1	1	0.6	0.7
20-May	1	1	1	1	0	1	1	1	1	1	1	1	0	A	1	0	1	1	0	0	1	1	1	1	0.5	0.6
21-May	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.6	0.7
22-May	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0	0	0	1	1	1	1	1	0.6	0.7
23-May	1	1	1	1	0	0	1	1	1	1	A	1	0	1	0	0	0	0	0	1	0	0	0	0	0.5	0.6
24-May	0	0	0	0	1	0	0	0	0	A	1	1	0	0	0	0	0	0	0	0	1	1	1	0	0.5	0.7
25-May	1	0	0	0	1	1	1	0	A	0	0	0	0	0	0	1	0	1	0	1	1	0	1	0	0.5	0.6
26-May	0	0	0	0	0	0	0	A	1	1	1	1	0	1	0	0	0	0	0	1	0	0	0	1	0.5	0.8
27-May	1	1	1	1	1	1	A	1	1	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0.6	1.5
28-May	0	0	0	0	0	A	1	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0.5	0.6
29-May	1	0	0	0	A	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	1	1	1	1	0.5	0.6
30-May	0	1	1	A	1	0	1	0	0	0	1	1	1	1	0	1	1	0	1	1	1	1	1	1	0.5	0.7
31-May	1	1	A	1	1	1	1	1	1	1	0	0	1	0	1	1	0	1	0	0	0	0	0	0	0.5	0.7
	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.5	0.5	0.5	Diurnal Average	
	1.3	1.5	1.0	1.2	1.7	1.2	1.0	0.7	0.9	0.8	0.7	1.0	1.2	1.5	0.8	0.8	0.7	0.7	1.4	1.2	1.1	1.0	0.9	0.9	Diurnal Maximum	

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

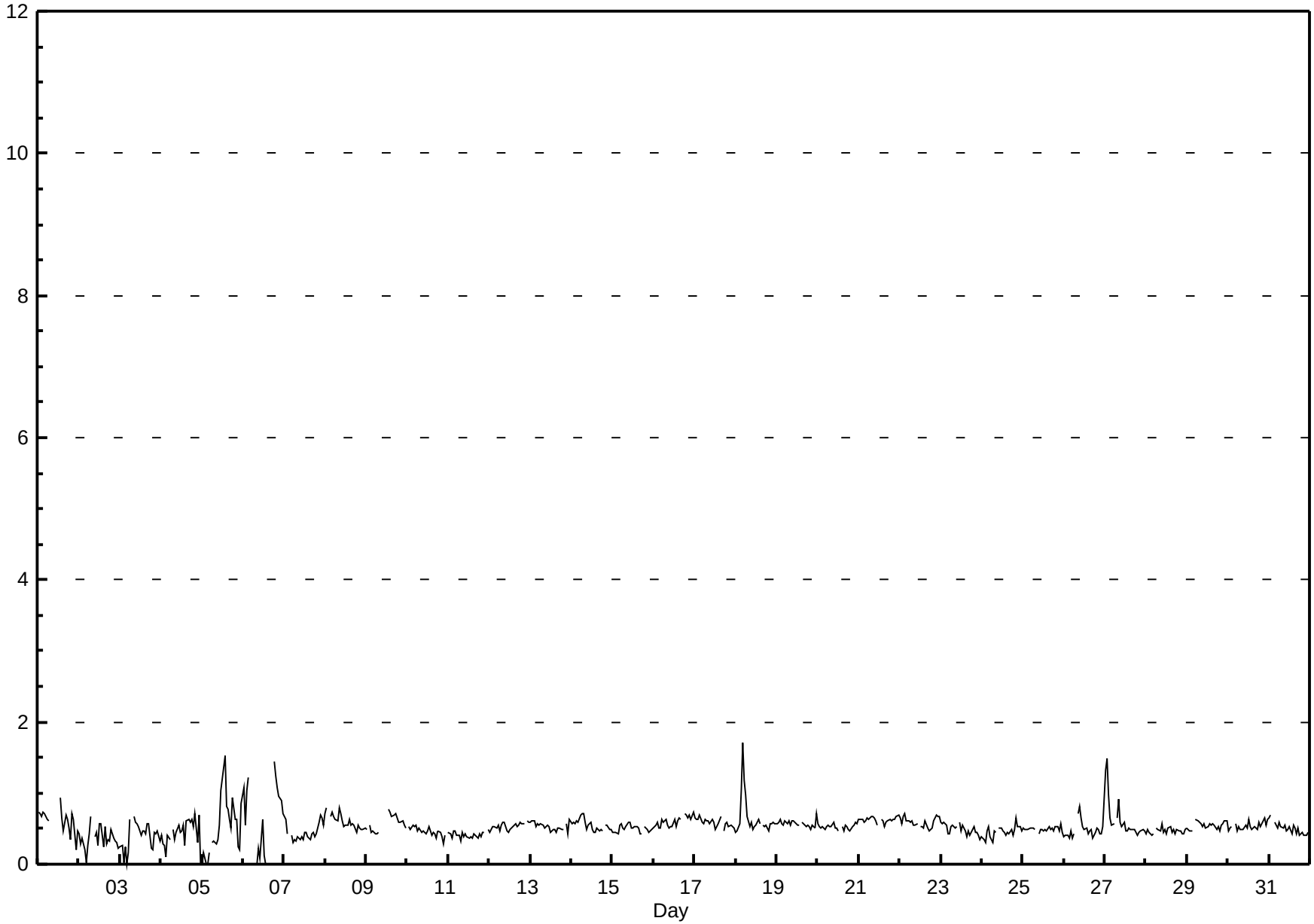
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb

Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Evergreen Park - May 2012



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

Evergreen Park - May 2012

Maximum Value: 2.7 ppb on May 17 16:00

Maximum Daily Average: 1.4 ppb on May 5

Minimum Value: 0 ppb on May 6 06:00

Minimum Daily Average: 0.8 ppb on May 11

Maximum Diurnal Average: 1.1 ppb at hour 21

Minimum Diurnal Average: 1.0 ppb at hour 18

Monthly Average: 1.02 ppb

Percentiles: $P_1 = 0.7$ $P_{10} = 0.8$ $Q_1 = 0.9$ Median = 1.0 $Q_3 = 1.1$ $P_{90} = 1.2$ $P_{99} = 2.1$

Hours in Service:	744
Hours of Data:	700
Hours of Missing Data:	44
Hours of Calibration:	42
Percent Operational Time:	99.7

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-May	1	1	1	1	1	1	1	C	C	C	C	C	C	2	1	1	1	1	1	1	2	1	1	1	1.1	1.6
2-May	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.4
3-May	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.3
4-May	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1.1	2.2
5-May	2	2	1	1	1	A	1	1	1	1	1	2	2	2	2	2	1	1	2	2	2	1	2	2	1.4	2.0
6-May	2	2	2	2	A	0	0	1	1	1	1	2	1	1	0	2	M	M	2	2	1	2	1	1	1.3	2.2
7-May	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.2
8-May	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.4
9-May	1	A	1	1	1	1	1	1	C	C	C	C	C	1	1	1	1	1	1	1	1	1	1	1	1.0	1.3
10-May	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.9	1.1
11-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.8	1.1
12-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	A	1	1	1.0	2.1
13-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.9	1.1
14-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1.0	1.3
15-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	2	1	1	1	1.0	1.6
16-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1.0	1.3
17-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	A	1	1	1	1	1	1	1	1.1	2.7
18-May	1	1	1	2	2	2	2	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1.2	2.3
19-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1.0	1.3
20-May	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1.0	1.2
21-May	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1.1	1.2
22-May	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.4
23-May	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.1
24-May	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.1
25-May	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.2
26-May	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.3
27-May	2	2	2	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.9
28-May	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.2
29-May	1	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	1.1
30-May	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.1
31-May	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.2
	1.1	1.1	1.0	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.1	1.0	1.0	1.0	1.0	1.1	1.0	1.1	1.0	Diurnal Average	
	1.8	2.1	2.1	2.2	2.1	2.3	1.6	1.3	1.4	1.3	1.4	2.0	1.9	2.0	1.7	2.7	1.4	1.4	2.0	1.7	2.1	1.6	2.2	1.7	Diurnal Maximum	

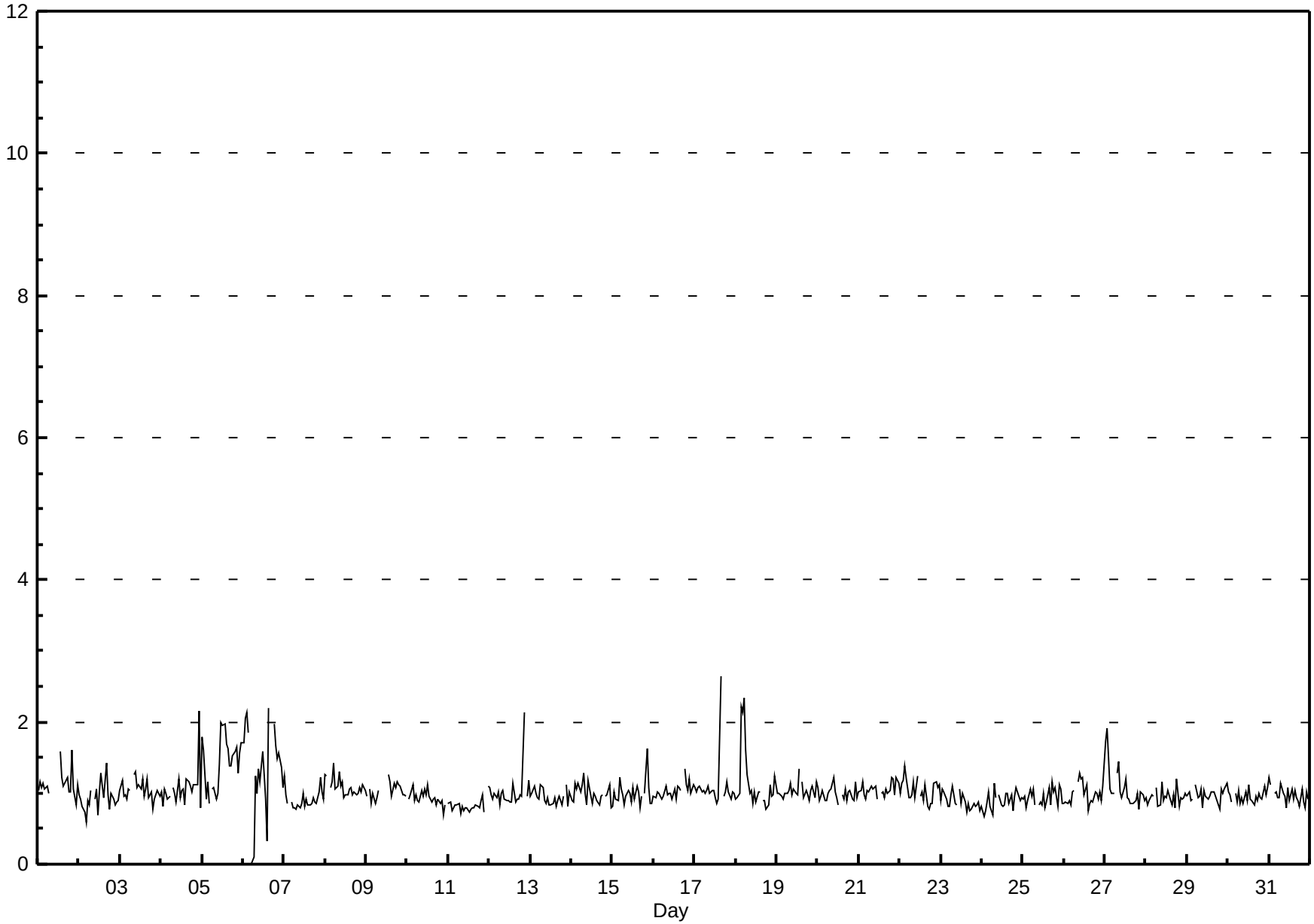
C - Calibration M - Maintenance A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

Evergreen Park - May 2012

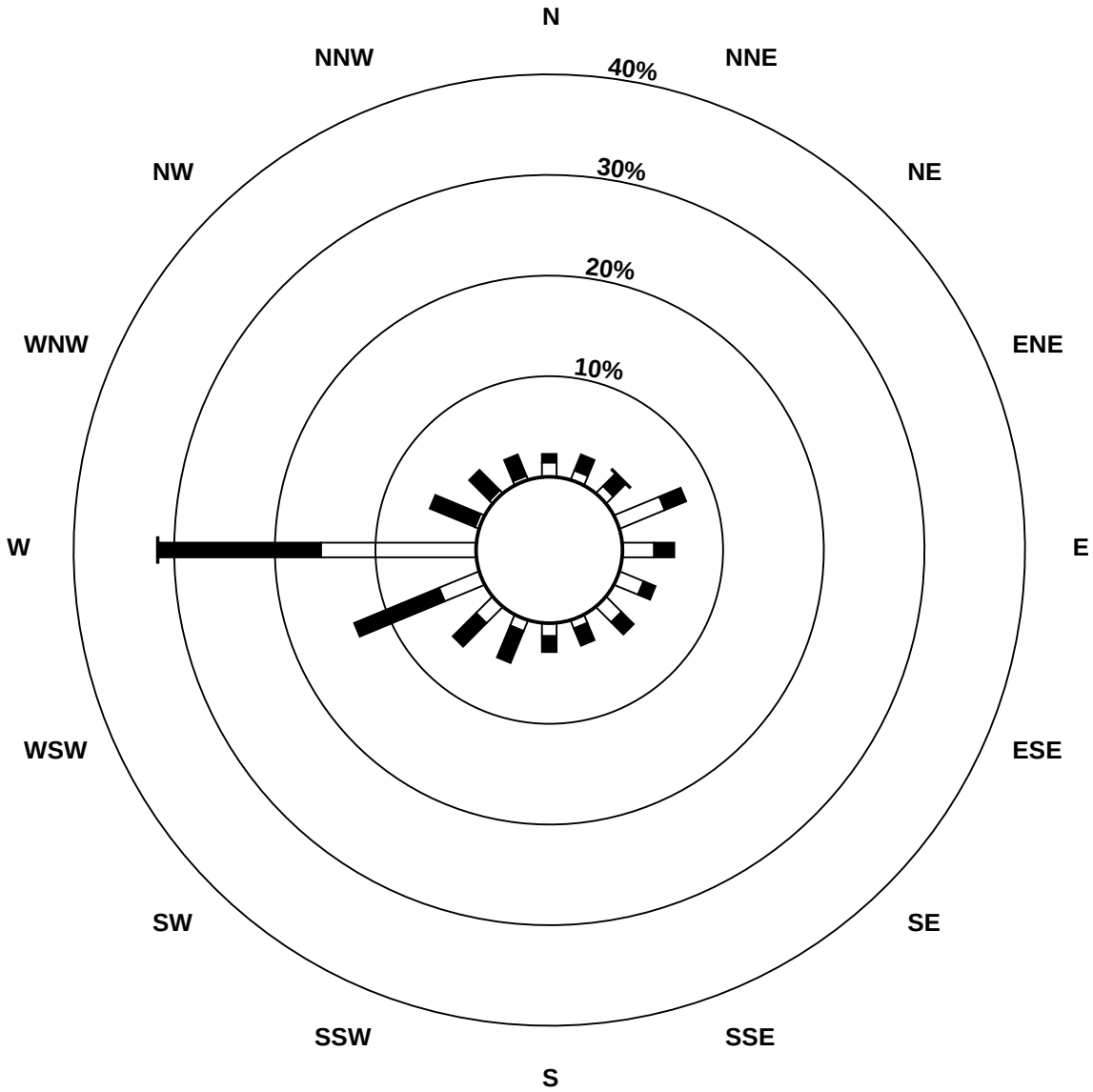


FOCUS AIR QUALITY MONITORING

Pollutant Rose

Total Reduced Sulphur (TRS) - ppb

Evergreen Park - May 2012



Pollutant Classes (ppb)

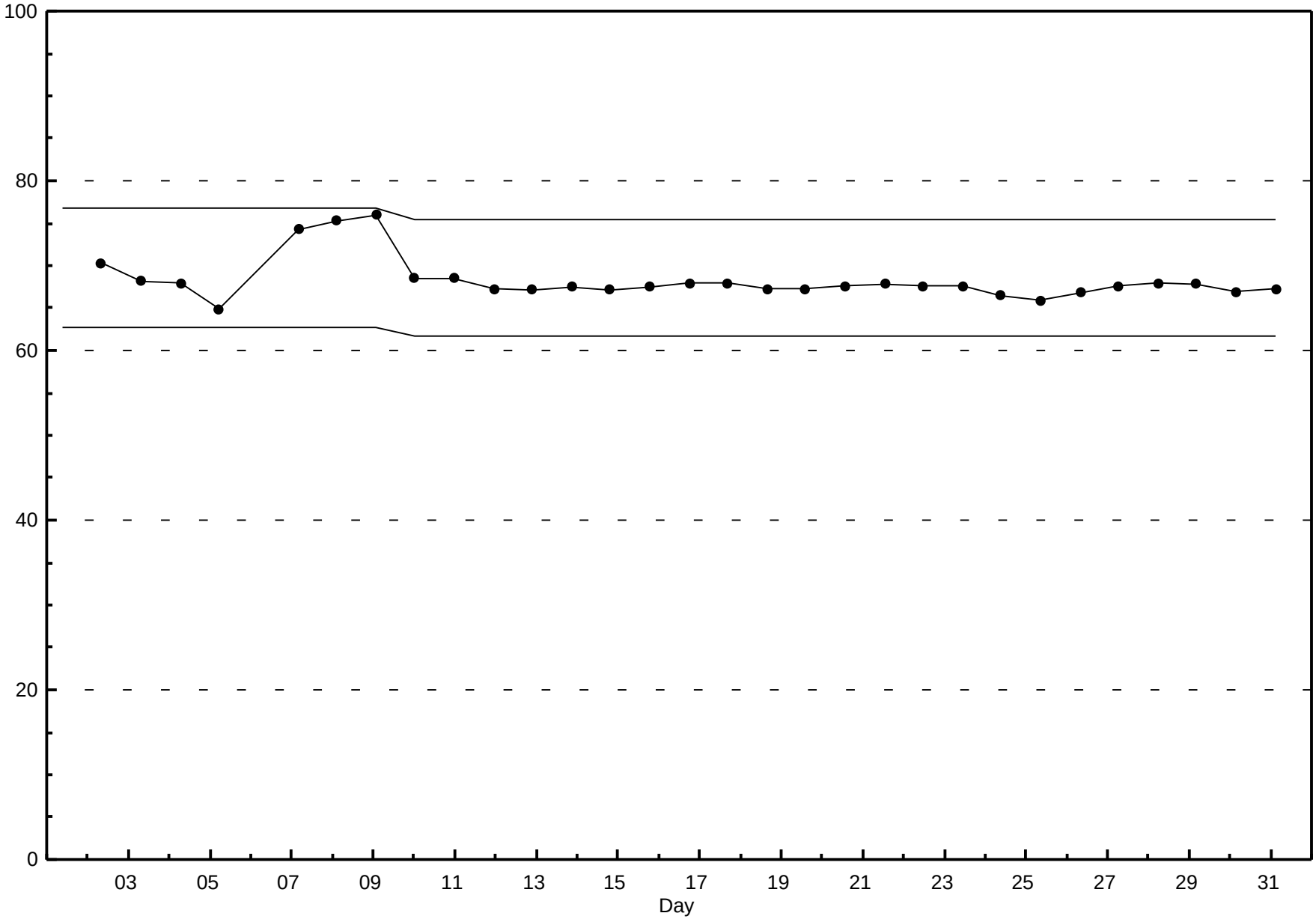
- 0 - 1
- 1 - 2
- 2 - 3
- 4 - 10
- > 10

Peace Airshed Zone Association

Span Responses

Total Reduced Sulphur (TRS)

Evergreen Park - May 2012



Peace Airshed Zone Association

Hourly Averages

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

Evergreen Park - May 2012

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

Maximum Value: 94.1 $\mu g/m^3$ on May 25 23:00

Maximum Daily Average: 11.9 $\mu g/m^3$ on May 13

Minimum Value: 0 $\mu g/m^3$ on May 1 12:00

Maximum Diurnal Average: 7.6 $\mu g/m^3$ at hour 23

Monthly Average: 5.08 $\mu g/m^3$

Minimum Daily Average: 1.1 $\mu g/m^3$ on May 23

Minimum Diurnal Average: 3.3 $\mu g/m^3$ at hour 3

Percentiles: P_1 = 0.0 P_{10} = 0.7 Q_1 = 1.7 Median = 3.7 Q_3 = 6.7 P_{90} = 10.8 P_{99} = 22.8

Hours in Service:	744
Hours of Data:	743
Hours of Missing Data:	1
Hours of Calibration:	0
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-May	5	4	4	4	3	3	3	3	4	3	1	0	0	0	0	0	1	2	1	1	1	1	1	1	1.8	4.7
2-May	1	2	2	3	4	3	4	6	4	4	2	0	1	1	3	2	2	2	2	3	3	3	2	3	2.6	5.9
3-May	3	1	1	3	1	1	3	3	2	0	0	0	0	1	1	1	2	3	1	1	2	2	2	2	1.5	3.2
4-May	2	2	2	3	4	2	2	3	2	1	2	2	4	4	7	11	11	6	2	3	5	4	4	3	3.9	11.2
5-May	3	2	3	3	3	3	3	2	2	5	6	4	6	5	9	5	4	3	2	3	2	2	2	2	3.4	8.7
6-May	2	1	1	2	2	2	3	1	1	0	2	2	2	3	2	2	2	4	6	7	6	9	5	6	3.1	9.3
7-May	4	4	5	5	5	5	10	9	6	4	4	6	7	6	6	4	4	5	4	9	11	15	19	23	7.6	23.5
8-May	13	8	6	5	5	4	5	8	11	9	5	5	9	10	14	7	5	4	4	3	3	2	2	2	6.2	13.9
9-May	2	3	2	4	3	5	6	7	5	18	18	13	15	16	12	8	23	23	7	0	0	0	1	0	7.9	23.3
10-May	0	0	0	0	1	0	1	12	16	7	7	8	9	10	23	18	21	12	6	5	3	3	2	3	7.0	22.9
11-May	3	2	2	2	1	2	3	5	5	4	4	8	10	8	13	14	12	9	7	5	5	4	4	4	5.6	13.9
12-May	4	5	4	5	5	5	6	7	7	4	3	5	5	8	11	10	12	10	7	5	9	8	6	6	6.5	12.5
13-May	8	7	7	7	7	7	19	21	19	14	11	10	11	10	14	19	14	15	13	12	12	13	8	8	11.9	20.8
14-May	16	16	5	5	5	6	9	18	12	12	11	12	13	27	10	10	9	10	9	9	9	8	7	7	10.7	27.0
15-May	5	4	5	5	5	6	18	19	13	11	11	11	8	9	16	19	19	10	9	7	8	7	6	6	10.0	19.4
16-May	7	7	8	7	7	8	11	11	7	9	8	8	18	37	12	9	14	11	17	11	4	4	3	1	10.1	37.4
17-May	0	1	1	0	0	3	8	4	4	2	1	3	5	9	4	21	4	3	1	3	8	7	11	11	4.7	21.1
18-May	10	5	4	7	8	5	8	8	4	7	7	2	0	0	1	1	2	1	2	2	2	2	3	2	3.9	9.6
19-May	2	2	2	1	2	1	2	1	0	0	0	1	0	0	1	1	1	2	3	1	5	6	9	9	2.1	8.7
20-May	9	10	6	3	2	2	2	2	2	1	1	1	1	3	3	3	3	3	3	4	4	4	4	3	3.3	9.6
21-May	4	3	4	4	4	4	6	5	3	4	2	0	0	2	2	3	3	2	8	10	2	2	0	0	3.1	10.1
22-May	1	1	2	2	2	3	3	3	2	1	0	1	0	1	0	2	1	1	1	3	2	2	1	2	1.5	3.1
23-May	0	0	0	1	1	2	4	2	1	0	0	0	1	2	1	3	1	1	1	1	0	1	1	0	1.1	3.8
24-May	1	1	2	3	4	5	5	6	4	5	4	3	4	1	3	3	10	4	2	6	10	8	9	9	4.7	10.4
25-May	8	8	7	8	7	7	5	6	6	5	1	1	1	3	1	2	2	3	3	5	8	19	94	21	9.6	94.1
26-May	7	6	5	6	6	7	9	13	10	6	3	0	0	2	1	2	2	2	3	5	4	6	4	4	4.7	13.4
27-May	5	7	5	6	5	4	3	4	6	4	5	4	2	3	3	3	2	2	3	5	5	5	4	6	4.2	7.1
28-May	4	5	4	4	5	5	4	4	4	4	2	1	1	2	2	3	4	3	5	5	6	5	3	2	3.6	5.7
29-May	3	4	4	5	6	9	14	6	9	8	4	4	5	4	6	10	15	4	4	11	1	3	0	0	5.8	15.2
30-May	0	0	0	1	3	4	4	3	2	0	0	0	1	1	2	4	7	3	2	1	2	2	2	2	1.8	7.0
31-May	1	1	0	0	1	2	4	4	3	2	5	1	2	N	3	5	9	6	3	3	4	3	18	7	3.7	18.2
	4.3	3.9	3.3	3.7	3.8	4.0	6.0	6.7	5.6	4.9	4.2	3.8	4.5	6.3	6.0	6.6	7.1	5.5	4.6	4.7	4.7	5.3	7.6	5.0	Diurnal Average	
	16.4	15.9	7.9	8.0	8.0	8.7	19.3	20.8	18.9	18.0	18.0	12.7	17.6	37.4	22.9	21.1	23.0	23.3	17.5	12.1	11.7	19.5	94.1	23.5	Diurnal Maximum	

N - Not Valid

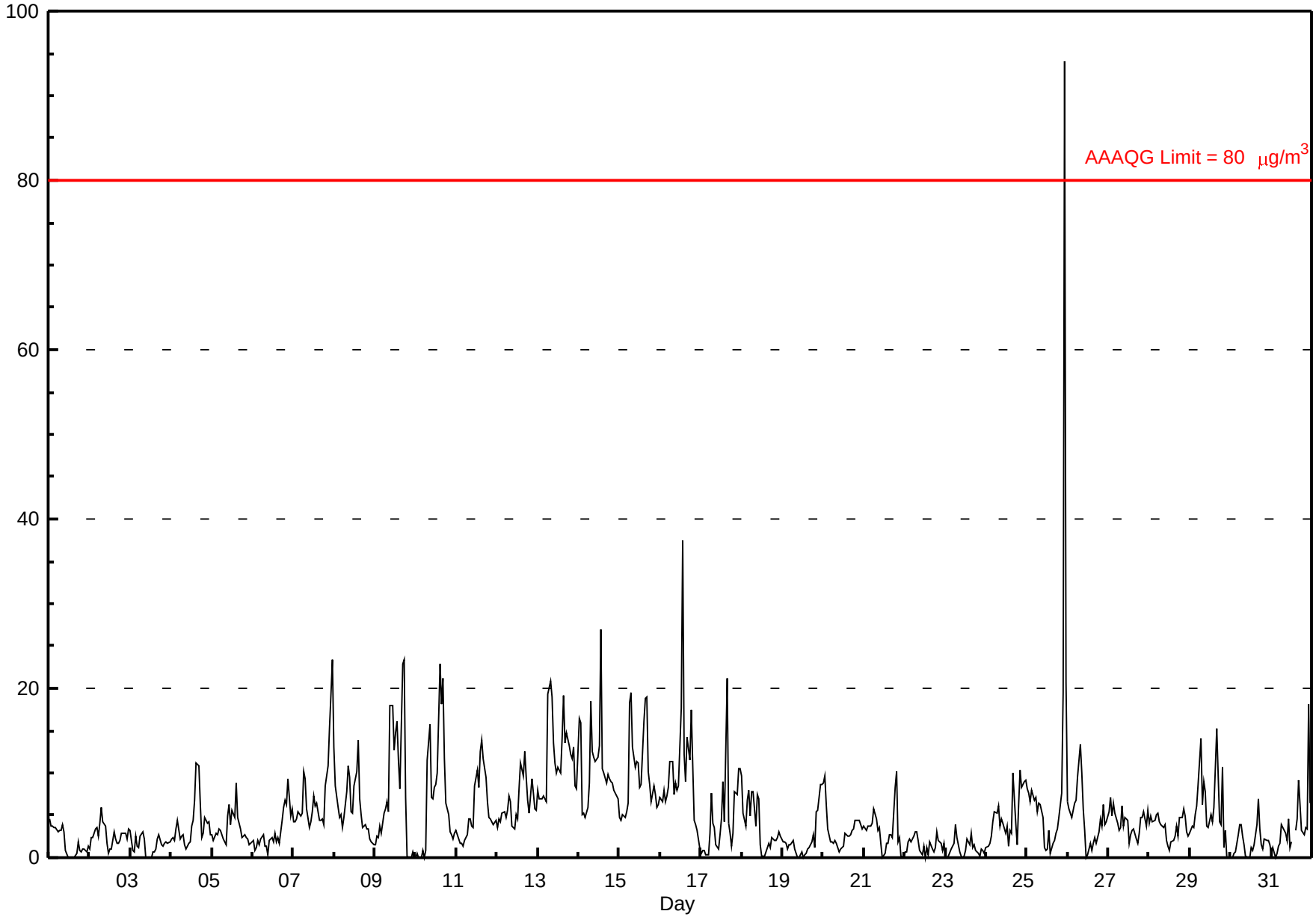
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 $\mu g/m^3$ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 $\mu g/m^3$

Peace Airshed Zone Association

Hourly Averages

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

Evergreen Park - May 2012



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

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

Evergreen Park - May 2012

Maximum Value: 117.0 $\mu g/m^3$ on May 25 23:00

Maximum Daily Average: 19.4 $\mu g/m^3$ on May 14

Minimum Value: 0 $\mu g/m^3$ on May 30 00:00

Minimum Daily Average: 3.3 $\mu g/m^3$ on May 3

Maximum Diurnal Average: 14.0 $\mu g/m^3$ at hour 14

Minimum Diurnal Average: 5.5 $\mu g/m^3$ at hour 3

Monthly Average: 9.18 $\mu g/m^3$

Percentiles: P_1 = 1.1 P_{10} = 2.9 Q_1 = 4.3 Median = 6.8 Q_3 = 10.4 P_{90} = 15.6 P_{99} = 50.6

Hours in Service:	744
Hours of Data:	743
Hours of Missing Data:	1
Hours of Calibration:	0
Percent Operational Time:	99.9

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-May	6	5	5	5	5	5	5	4	7	5	2	1	2	3	0	1	2	3	2	2	3	3	3	3	3.4	6.5
2-May	3	4	4	5	5	4	6	10	6	5	3	2	6	2	5	4	4	3	4	4	5	4	5	7	4.5	9.7
3-May	7	4	2	4	2	3	5	6	5	1	1	0	2	3	3	2	5	4	3	3	3	3	3	3	3.3	7.2
4-May	3	5	4	5	6	4	4	4	3	3	5	4	8	7	12	18	19	11	5	5	8	6	11	6	6.8	18.7
5-May	5	4	4	4	5	4	5	4	3	8	12	7	8	9	14	8	7	8	4	4	4	4	4	5	6.0	14.1
6-May	5	2	3	4	3	4	5	2	4	2	4	5	4	7	5	5	4	7	8	9	11	20	7	10	5.8	20.4
7-May	7	7	6	7	7	9	16	11	8	5	7	8	9	9	10	7	7	8	7	15	15	33	32	32	11.8	32.8
8-May	18	11	8	8	6	7	8	12	13	12	8	10	13	13	21	14	11	8	9	8	7	4	5	4	9.8	20.7
9-May	3	4	4	7	4	9	8	12	9	40	41	27	23	24	21	15	56	85	15	2	2	2	2	1	17.3	85.3
10-May	1	3	2	1	3	2	4	34	26	10	14	12	13	17	36	28	30	21	15	7	6	5	4	4	12.3	35.5
11-May	4	5	3	3	3	4	5	6	7	7	6	14	15	14	16	16	15	12	12	7	6	6	5	7	8.2	16.5
12-May	5	7	7	7	7	7	9	10	10	6	5	8	7	14	16	15	17	14	9	7	29	11	7	7	10.1	28.7
13-May	10	9	9	11	9	10	30	24	23	22	14	12	14	16	26	25	18	20	16	14	17	19	10	9	16.1	29.7
14-May	36	28	7	8	7	8	13	27	16	14	13	13	56	104	13	13	12	12	12	12	11	11	10	10	19.4	103.9
15-May	7	9	10	9	10	10	24	25	20	14	13	16	12	13	25	25	33	12	12	9	15	9	8	10	14.6	32.6
16-May	9	8	10	9	9	12	15	15	15	12	12	13	36	68	20	17	22	24	43	23	7	7	5	3	17.2	68.5
17-May	2	3	3	3	2	9	12	7	6	6	3	9	10	15	8	44	12	5	4	7	17	14	13	13	9.4	43.6
18-May	11	7	7	9	10	7	13	16	6	15	12	4	2	3	3	3	3	4	7	5	4	5	5	4	6.8	15.5
19-May	5	4	3	3	3	3	4	3	3	1	2	3	4	4	3	5	3	7	6	5	11	10	12	13	5.1	13.4
20-May	11	12	10	7	4	4	3	5	5	3	4	3	4	6	5	6	7	6	6	7	6	7	6	5	5.9	11.6
21-May	6	7	9	8	7	7	9	8	7	7	4	3	4	5	4	4	5	6	19	20	9	5	3	4	7.1	20.2
22-May	4	2	4	4	4	4	5	5	4	3	2	3	3	4	3	5	2	3	2	6	5	4	3	4	3.6	5.5
23-May	2	2	2	3	3	4	6	6	3	4	4	6	6	6	6	6	4	3	2	2	2	4	3	2	3.8	6.3
24-May	4	4	4	4	6	8	7	8	6	9	7	8	8	6	7	10	16	10	7	12	15	10	12	13	8.4	15.8
25-May	10	10	9	10	8	10	10	10	9	9	5	5	9	10	5	6	6	6	7	9	11	73	117	79	18.5	117.0
26-May	9	8	7	8	9	10	13	20	19	8	6	6	4	6	6	4	7	5	7	8	6	11	10	6	8.5	20.4
27-May	8	10	7	13	7	6	7	7	8	7	7	12	9	10	8	8	7	6	8	11	10	14	15	9	8.9	14.8
28-May	8	8	6	7	7	8	7	7	6	7	5	5	4	9	5	7	9	6	8	8	8	7	6	4	6.8	9.4
29-May	5	5	5	8	10	10	26	10	11	11	7	7	9	8	13	19	21	10	9	28	5	5	6	0	10.3	28.2
30-May	2	0	3	3	10	10	8	11	6	4	3	4	6	4	4	9	12	7	3	3	4	5	4	5	5.5	12.2
31-May	3	4	1	4	4	5	6	6	6	8	11	5	7	N	8	9	18	12	6	5	6	6	59	11	9.2	59.2
	7.1	6.4	5.5	6.2	6.0	6.6	9.6	10.9	9.0	8.7	7.8	7.6	10.2	14.0	10.6	11.5	12.7	11.2	9.0	8.6	8.6	10.5	12.8	9.5	Diurnal Average	
	35.5	28.2	10.4	13.4	10.5	12.1	29.7	33.6	26.2	39.7	40.9	27.2	55.8	103.9	35.5	43.6	55.5	85.3	42.6	28.2	28.7	73.4	117.0	79.2	Diurnal Maximum	

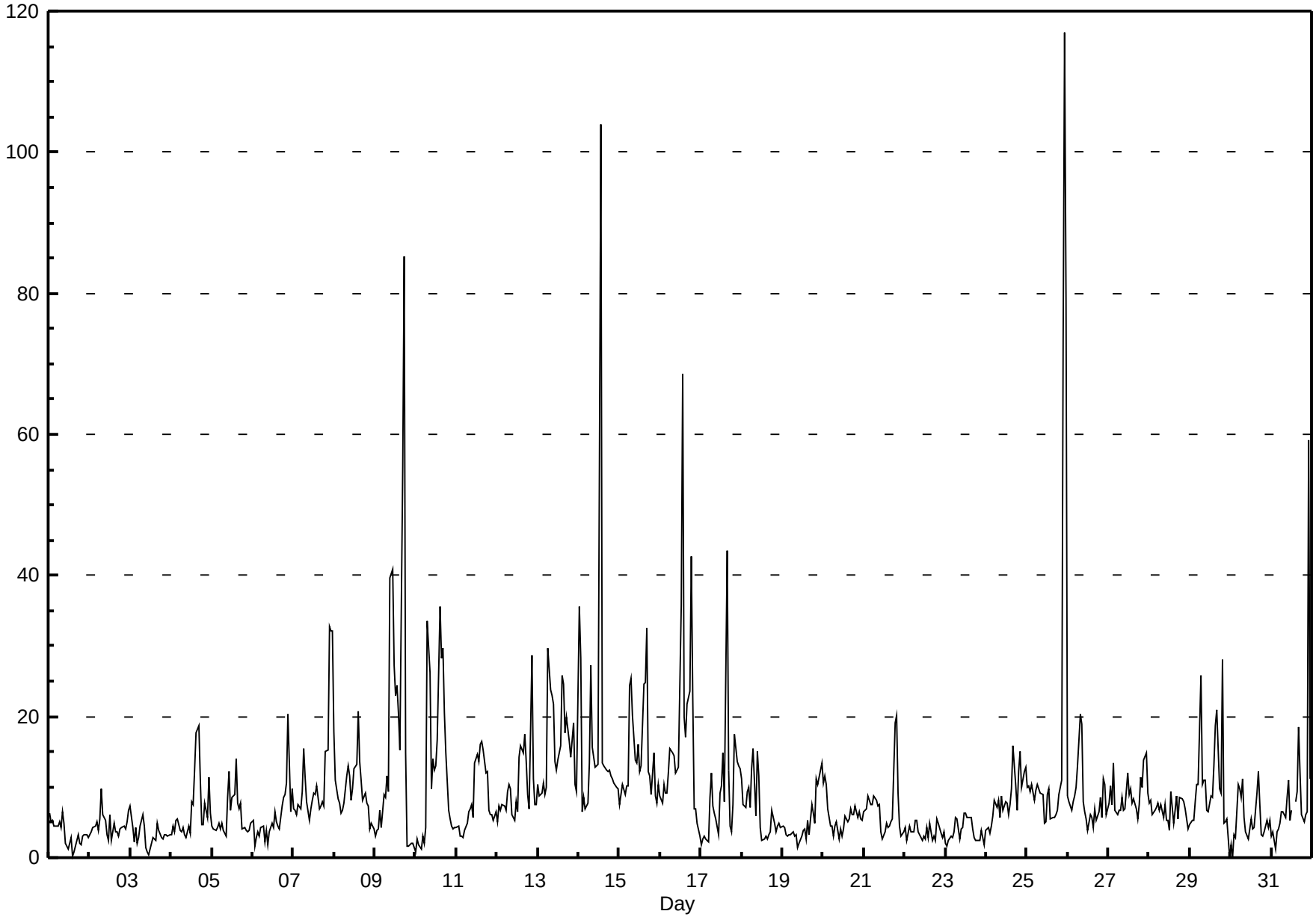
N - Not Valid

Peace Airshed Zone Association

Hourly Maximums

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

Evergreen Park - May 2012

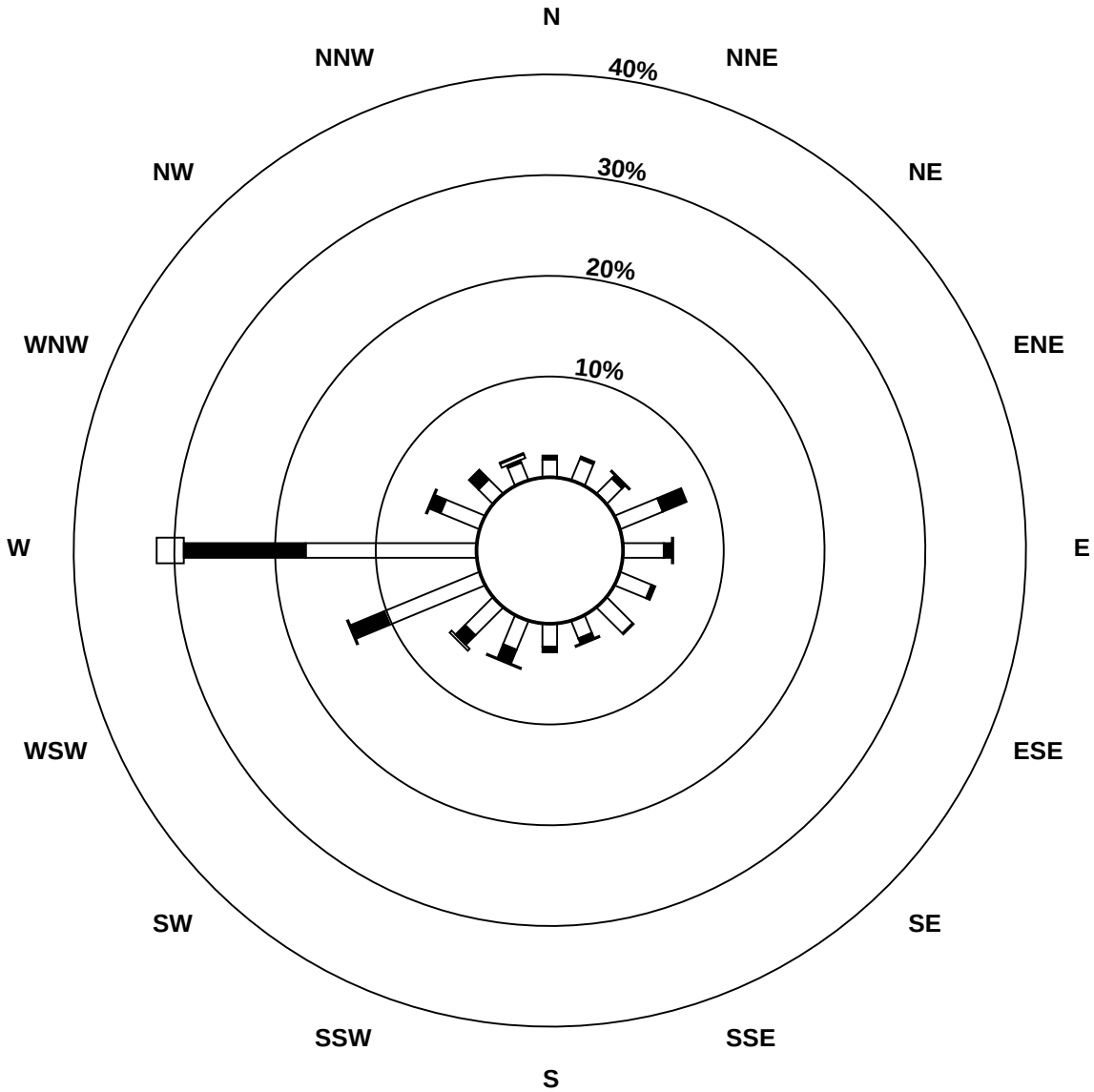


FOCUS AIR QUALITY MONITORING

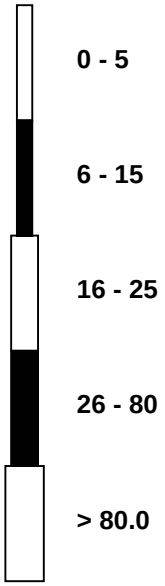
Pollutant Rose

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

Evergreen Park - May 2012



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



Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Evergreen Park - May 2012

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

Maximum Value: 23.6 ^{o}C on May 27 17:00

Maximum Daily Average: 16.7 ^{o}C on May 27

Minimum Value: -3 ^{o}C on May 17 05:00

Maximum Diurnal Average: 15.0 ^{o}C at hour 16

Monthly Average: 10.49 ^{o}C

Minimum Daily Average: 2.4 ^{o}C on May 18

Minimum Diurnal Average: 4.6 ^{o}C at hour 6

Percentiles: P_1 = -1.0 P_{10} = 4.2 Q_1 = 6.6 Median = 10.0 Q_3 = 14.2 P_{90} = 18.2 P_{99} = 23.1

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

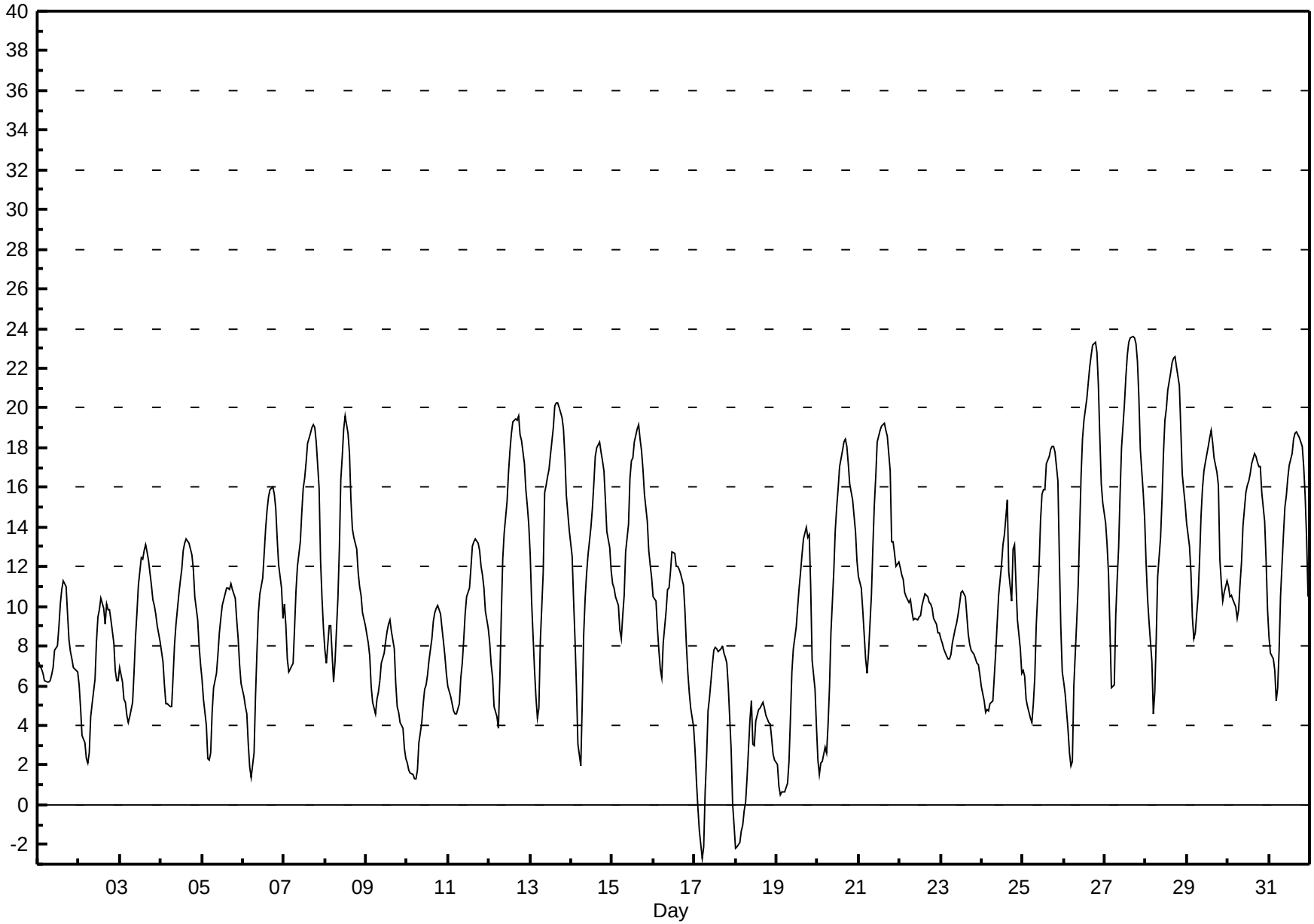
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-May	7	7	7	7	6	6	6	6	7	7	8	8	9	10	11	11	11	10	8	8	7	7	7	7	7.8	11.3
2-May	6	5	4	3	2	2	3	4	5	6	8	9	10	10	10	9	10	10	10	9	8	7	6	6	6.8	10.4
3-May	7	6	5	5	5	4	4	5	7	8	10	11	12	12	13	13	13	12	11	10	10	10	9	8	8.8	13.1
4-May	8	7	6	5	5	5	5	6	8	9	11	11	12	13	13	13	13	13	13	12	11	9	8	7	9.3	13.4
5-May	6	5	4	2	2	3	5	6	7	8	9	9	10	11	11	11	11	11	11	10	9	8	7	6	7.6	11.2
6-May	5	5	5	3	2	1	3	5	8	10	11	11	13	14	15	15	16	16	16	15	13	12	11	9	9.7	16.0
7-May	10	9	7	7	7	7	9	11	12	13	15	16	16	17	18	19	19	19	19	18	16	12	10	9	13.2	19.1
8-May	8	7	9	9	8	6	7	10	13	16	18	19	20	19	18	15	14	14	13	12	11	11	10	9	12.2	19.6
9-May	9	8	7	6	5	5	5	6	6	7	8	8	9	9	9	9	8	6	5	5	4	4	3	2	6.4	9.3
10-May	2	2	2	2	1	1	2	3	4	5	6	6	7	7	8	9	10	10	10	10	9	8	8	7	5.7	10.0
11-May	6	5	5	5	5	5	5	6	7	8	10	10	11	12	13	13	13	13	13	12	12	11	10	9	9.1	13.4
12-May	8	7	6	5	4	4	6	10	12	14	15	17	18	19	19	19	19	20	19	18	17	16	15	14	13.4	19.6
13-May	13	10	7	5	4	5	8	12	16	16	17	17	18	19	20	20	20	20	20	19	18	16	15	14	14.5	20.3
14-May	13	10	8	6	3	2	5	9	10	12	13	14	15	16	18	18	18	18	17	17	15	14	13	12	12.3	18.3
15-May	11	11	10	10	9	8	10	11	13	14	16	17	17	18	19	19	18	18	17	16	14	13	12	11	13.9	19.1
16-May	10	10	9	8	7	6	8	10	11	11	12	13	13	12	12	12	12	11	10	8	7	6	5	4	9.4	12.7
17-May	3	1	0	-1	-3	-2	1	2	5	5	7	8	8	8	8	8	8	8	7	7	6	3	0	-1	4.0	8.0
18-May	-2	-2	-2	-1	-1	0	0	1	4	5	3	3	4	5	5	5	5	5	4	4	4	3	3	2	2.4	5.2
19-May	2	1	1	1	1	1	1	2	4	7	8	9	10	11	12	13	13	14	13	14	11	7	6	4	6.8	14.0
20-May	2	2	2	2	3	3	4	6	9	12	14	15	16	17	18	18	18	18	17	16	15	15	14	12	11.2	18.4
21-May	12	11	10	9	7	7	8	11	13	15	17	18	19	19	19	19	19	19	17	13	13	13	12	12	13.8	19.3
22-May	12	12	11	11	10	10	10	10	9	9	9	9	10	10	10	11	10	10	10	10	9	9	9	9	10.0	12.0
23-May	8	8	8	7	7	7	8	8	9	9	10	10	11	11	11	10	9	8	8	8	7	7	7	7	8.4	10.8
24-May	6	5	5	5	5	5	5	6	8	9	11	12	13	14	15	15	12	10	13	13	11	9	8	7	9.2	15.4
25-May	7	6	5	5	4	4	5	6	9	12	14	16	16	16	17	18	18	18	18	18	16	12	9	7	11.6	18.1
26-May	6	6	4	3	2	2	6	9	11	14	17	18	19	20	21	22	23	23	23	23	21	19	16	15	14.3	23.3
27-May	14	13	12	9	6	6	10	11	13	16	18	20	22	23	23	24	24	24	23	22	21	18	16	14	16.7	23.6
28-May	12	10	9	7	5	6	8	12	14	15	18	19	20	21	22	22	23	23	22	21	19	17	16	15	15.6	22.5
29-May	14	13	12	9	8	9	11	12	15	16	17	17	18	18	19	18	18	17	16	12	11	10	11	11	13.9	18.9
30-May	11	10	11	10	10	9	10	11	12	14	16	16	16	17	17	18	18	17	17	17	16	14	12	10	13.7	17.7
31-May	8	8	7	7	5	6	8	11	14	15	16	16	17	18	18	19	19	19	18	18	17	16	13	11	13.5	18.8
	7.9	7.1	6.3	5.5	4.7	4.6	6.0	7.7	9.5	10.9	12.1	13.1	13.8	14.4	14.9	15.0	14.9	14.6	14.1	13.4	12.2	10.8	9.6	8.7	Diurnal Average	
	14.2	13.1	11.7	10.7	10.5	10.2	10.6	12.4	15.7	16.4	18.0	20.2	21.6	22.7	23.3	23.6	23.6	23.5	23.3	22.8	21.1	18.5	16.2	15.2	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Evergreen Park - May 2012



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Evergreen Park - May 2012

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

Maximum Value: 98.8 % on May 24 05:00

Maximum Daily Average: 87.2 % on May 22

Minimum Value: 13 % on May 16 15:00

Minimum Daily Average: 26.7 % on May 13

Maximum Diurnal Average: 69.1 % at hour 6

Minimum Diurnal Average: 31.5 % at hour 15

Monthly Average: 47.44 %

Percentiles: P_1 = 14.7 P_{10} = 21.1 Q_1 = 28.8 Median = 42.2 Q_3 = 63.7 P_{90} = 84.7 P_{99} = 96.6

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

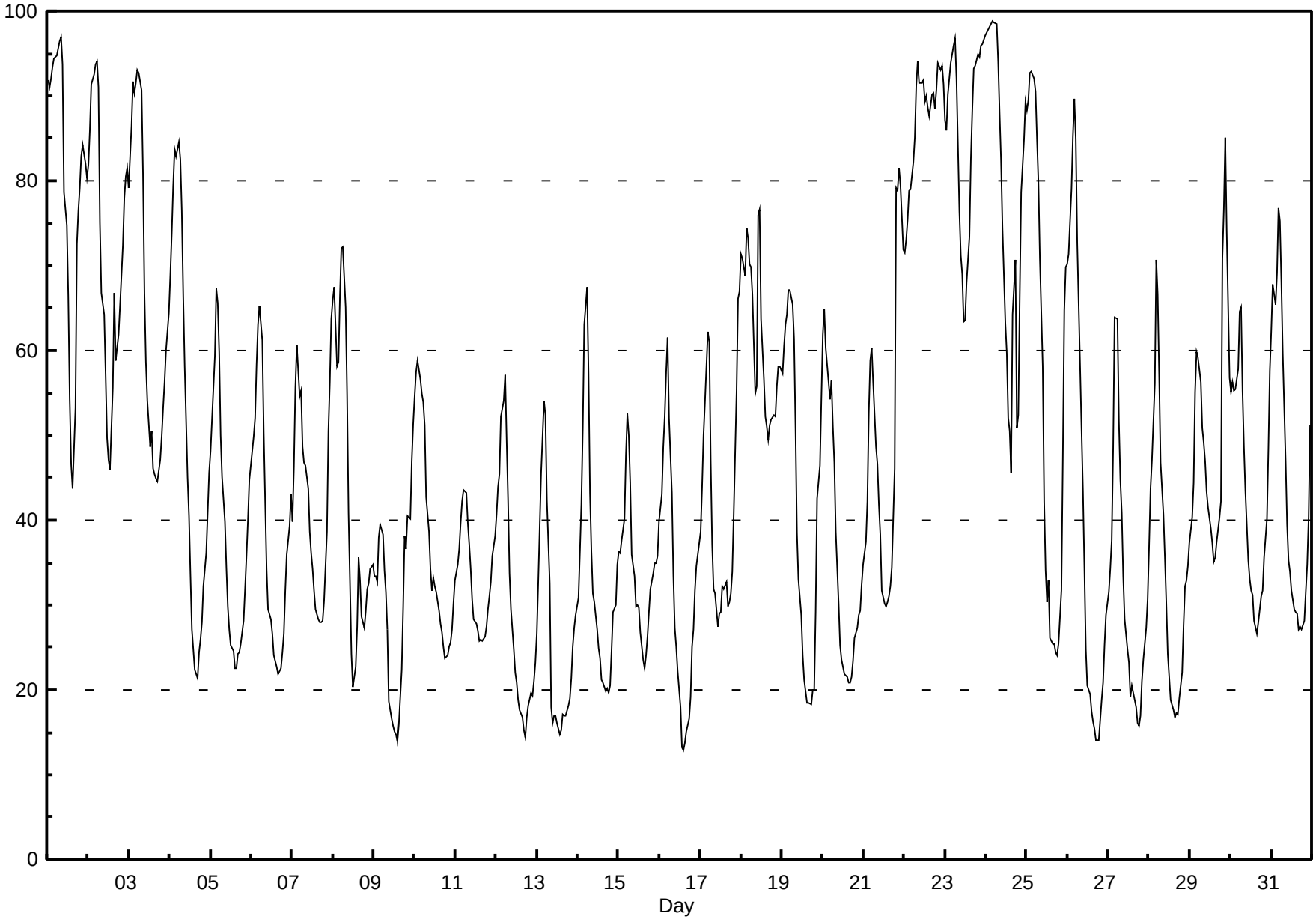
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-May	92	91	92	93	94	95	96	96	97	94	79	75	66	54	47	44	53	73	76	79	83	84	82	80	79.8	97.0
2-May	82	86	91	93	94	94	91	75	67	64	57	50	47	46	56	67	59	60	62	65	72	78	80	82	71.6	94.0
3-May	79	86	92	90	92	93	93	91	81	67	59	54	49	51	46	45	45	45	47	50	53	56	60	64	66.1	93.0
4-May	69	74	79	84	83	85	83	76	66	58	45	41	34	27	25	22	21	24	26	28	32	36	41	46	50.2	84.6
5-May	48	52	59	67	66	60	50	45	40	34	30	27	25	24	22	23	24	24	25	28	32	36	40	45	38.6	67.3
6-May	48	50	52	58	63	65	61	50	42	34	30	28	27	24	23	23	22	23	24	27	32	36	39	43	38.5	65.3
7-May	40	46	56	61	55	55	49	47	46	44	39	36	34	32	30	28	28	28	28	31	39	51	56	64	42.5	63.8
8-May	66	68	58	59	66	72	72	65	55	41	33	24	20	23	28	36	33	29	27	29	32	33	34	35	43.2	72.2
9-May	33	33	33	38	39	38	34	32	27	19	17	16	15	15	14	16	22	30	38	37	41	40	47	51	30.2	51.4
10-May	55	57	59	57	55	54	51	43	39	34	32	33	32	32	29	28	27	25	24	24	25	26	27	30	37.4	58.8
11-May	33	35	37	40	42	43	43	40	37	34	31	28	28	27	26	26	26	26	27	30	31	33	36	38	33.2	43.5
12-May	41	44	45	52	54	57	49	42	34	29	25	22	21	19	18	17	15	14	17	18	20	19	21	23	29.9	57.2
13-May	27	33	46	50	54	52	42	33	18	16	17	17	16	15	15	17	17	17	18	19	21	25	27	29	26.7	54.0
14-May	31	36	42	51	63	68	57	43	36	31	30	27	25	24	21	21	20	20	20	21	25	29	30	35	33.5	67.5
15-May	36	36	38	40	48	53	50	44	36	33	30	30	30	27	24	22	24	26	29	32	34	35	35	36	34.5	52.6
16-May	40	43	49	52	57	61	52	43	34	27	25	22	18	13	13	14	15	17	19	25	27	32	35	37	32.1	61.5
17-May	39	44	50	54	62	61	47	37	32	31	28	29	29	32	32	33	30	30	31	34	41	55	66	67	41.4	66.9
18-May	71	71	69	74	73	70	70	67	55	56	76	77	64	57	52	51	49	51	52	52	52	56	58	58	61.7	76.6
19-May	57	61	63	64	67	67	65	61	51	39	33	29	24	21	20	19	18	18	20	20	29	43	46	54	41.2	67.1
20-May	62	65	60	58	54	56	51	47	39	30	25	24	23	22	22	21	21	22	23	26	27	29	29	32	36.2	64.9
21-May	35	37	42	53	59	60	56	49	47	42	38	32	30	30	30	31	32	34	46	79	79	82	80	72	49.0	81.6
22-May	72	73	75	79	79	82	85	91	94	92	92	92	89	90	89	88	90	90	89	91	94	93	94	91	87.2	94.1
23-May	87	86	90	94	95	96	97	92	76	71	69	63	64	68	73	83	88	93	94	95	95	96	96	97	85.7	96.7
24-May	97	98	98	99	99	99	98	94	88	82	74	63	60	52	51	46	64	71	51	52	66	79	85	89	77.3	98.8
25-May	88	89	93	93	92	91	85	80	71	58	42	34	30	33	26	25	25	24	24	25	32	47	65	70	56.0	92.8
26-May	70	71	79	85	90	85	73	58	51	43	34	25	21	20	17	16	16	14	14	16	19	21	25	29	41.3	89.7
27-May	31	34	38	49	64	64	52	45	41	33	28	25	23	19	21	20	18	16	16	17	21	24	27	31	31.5	63.9
28-May	37	44	47	56	71	67	57	47	41	36	30	24	21	19	18	17	17	17	19	22	28	32	33	35	34.7	70.7
29-May	37	40	44	55	60	59	56	51	49	47	43	41	39	37	35	36	37	40	42	71	77	85	74	57	50.6	85.2
30-May	55	56	55	55	58	65	65	55	49	43	35	33	32	31	28	27	28	30	31	32	36	40	48	58	43.5	65.1
31-May	62	68	65	69	77	75	68	60	47	39	35	34	32	29	29	29	27	28	27	28	32	35	40	51	45.3	76.8
	55.5	58.3	61.2	65.2	68.5	69.1	64.5	58.0	51.1	45.3	40.6	37.2	34.4	32.6	31.5	31.8	32.7	34.2	35.1	38.8	42.7	47.2	50.3	52.5	Diurnal Average	
	97.2	97.8	98.1	98.5	98.8	98.7	98.4	96.4	97.0	93.7	91.6	91.8	89.3	90.0	88.6	87.6	90.1	93.2	93.5	94.9	94.6	96.0	96.2	96.6	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Evergreen Park - May 2012



Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Evergreen Park - May 2012

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	13	14	8	6	6	6	6	5	6	12	23	25	18	16	13	11	10	18	15	11	7	8	8	7	2.5	24.9
Dir	104	95	95	93	85	93	94	101	196	223	258	253	260	271	299	319	69	97	110	112	157	177	187	172	171.1	253.2
2 Spd	0	0	1	2	2	4	5	6	10	7	2	3	10	7	15	12	14	14	10	10	5	3	3	3	4.0	14.7
Dir	263	347	53	197	201	212	216	266	273	269	179	221	209	190	169	145	129	132	140	125	107	104	96	176	168.2	169.4
3 Spd	15	5	6	5	4	4	4	6	9	16	15	16	17	19	26	27	26	25	22	17	12	11	9	8	12.2	27.5
Dir	210	237	87	111	96	89	88	125	124	145	144	151	129	113	115	110	110	131	153	130	123	125	124	104	128.0	110.3
4 Spd	7	2	3	3	9	13	14	24	23	24	34	30	35	37	40	41	42	37	33	27	17	16	19	18	21.5	41.9
Dir	112	124	55	222	257	269	265	270	277	273	262	278	275	272	270	266	268	278	272	277	271	257	240	238	268.2	268.0
5 Spd	17	13	5	3	9	15	22	34	35	41	41	39	41	42	45	41	38	39	39	38	30	22	17	17	28.0	44.8
Dir	237	239	262	238	269	260	264	262	256	269	272	280	274	268	272	265	276	264	264	260	261	249	235	242	264.0	272.5
6 Spd	14	18	17	10	11	9	14	22	28	28	31	25	23	29	26	25	27	23	18	22	17	7	4	5	18.2	30.5
Dir	239	250	252	267	259	259	256	262	263	277	274	273	288	265	277	273	276	290	293	279	269	242	224	193	269.0	273.9
7 Spd	4	4	1	4	5	4	9	17	19	15	18	16	21	25	31	26	25	27	22	6	1	0	1	1	11.9	30.8
Dir	178	206	355	221	216	233	260	264	269	266	269	281	269	268	255	251	255	264	256	268	304	83	219	87	259.7	254.6
8 Spd	1	1	2	3	3	5	2	1	5	9	13	19	25	34	39	40	36	36	37	25	21	16	20	19	14.0	40.0
Dir	146	23	171	54	55	48	27	349	350	328	320	297	290	315	309	319	294	284	269	271	244	233	230	240	289.0	318.9
9 Spd	19	21	24	17	19	23	32	34	40	52	46	47	49	51	50	42	55	55	52	38	38	46	41	42	38.5	55.2
Dir	255	259	270	273	267	267	258	261	255	259	273	266	266	265	263	268	256	261	253	253	244	248	246	245	259.0	260.7
10 Spd	42	38	37	36	36	38	43	54	54	49	45	51	48	54	55	58	61	56	53	49	43	44	40	36	46.2	61.2
Dir	245	244	246	252	250	246	253	263	265	272	273	264	271	269	268	262	260	266	265	266	263	263	262	258	261.3	260.3
11 Spd	36	38	40	34	34	31	39	41	45	43	40	48	50	48	51	52	52	54	45	43	35	33	16	14	40.0	53.9
Dir	259	261	260	263	264	263	264	265	270	268	269	265	267	263	262	264	262	259	266	264	259	263	251	254	263.4	259.1
12 Spd	14	10	12	3	3	9	0	6	18	29	40	43	39	43	43	47	49	45	38	29	20	19	19	16	24.3	49.0
Dir	251	235	225	196	223	204	182	267	271	263	263	268	269	273	272	266	269	263	267	268	268	265	258	253	263.9	269.3
13 Spd	8	6	2	6	8	3	9	11	33	37	34	34	41	48	49	49	42	44	41	34	20	15	16	20	24.4	49.3
Dir	254	222	217	204	208	228	265	261	273	274	271	262	258	249	265	271	274	275	272	273	275	278	277	317	267.7	264.9
14 Spd	21	14	9	2	0	0	0	2	8	4	5	2	6	9	9	13	19	17	13	11	11	10	6	5	5.6	20.9
Dir	340	337	351	285	271	326	260	327	47	121	160	29	274	337	61	63	61	69	70	67	76	67	76	57	42.1	339.9
15 Spd	6	6	6	2	2	1	5	12	13	12	17	26	23	24	28	30	35	36	33	31	25	23	24	14	16.5	35.7
Dir	58	48	41	0	274	334	267	259	261	255	246	273	284	265	270	268	277	274	274	279	274	266	259	251	271.2	274.5
16 Spd	12	11	7	3	2	4	10	15	21	26	28	32	40	49	38	36	36	40	40	40	28	24	26	22	23.8	49.3
Dir	236	257	263	318	308	198	255	287	282	274	275	285	280	281	280	291	287	286	281	279	276	259	254	249	276.3	281.3
17 Spd	14	4	5	4	1	2	3	9	11	18	16	17	23	34	29	28	23	21	17	7	4	0	1	0	11.7	34.1
Dir	249	228	249	205	180	215	263	264	226	239	261	258	260	252	255	263	256	264	268	295	235	244	81	53	254.6	251.9
18 Spd	3	1	2	3	2	5	10	14	16	27	30	22	28	26	25	27	25	25	25	21	17	8	8	8	12.9	30.3
Dir	60	76	172	258	45	69	228	229	260	258	270	313	328	322	320	323	309	327	319	320	302	291	263	261	301.2	269.7
19 Spd	9	11	14	12	12	16	14	16	14	14	15	14	13	16	13	13	14	8	6	5	2	2	1	2	8.9	16.4
Dir	270	257	266	273	276	277	266	258	263	261	282	264	293	291	303	294	337	307	25	98	63	208	62	212	280.3	291.4
20 Spd	3	5	6	4	4	9	11	11	10	6	5	2	10	7	9	10	13	13	11	10	9	12	10	10	1.9	13.2
Dir	214	212	209	223	232	235	264	262	262	296	221	234	352	348	72	58	43	56	62	67	68	73	74	66	38.2	55.7
21 Spd	6	6	1	2	1	5	9	12	13	10	10	10	10	14	15	17	14	11	10	4	3	2	4	7	4.0	17.1
Dir	68	56	30	212	220	196	207	231	263	211	184	165	113	117	102	128	163	140	186	86	40	29	349	323	155.6	128.2
22 Spd	4	4	6	4	10	10	12	14	19	15	13	13	18	16	17	16	15	12	10	4	9	7	8	7	8.6	18.8
Dir	323	354	292	285	263	273	292	279	267	276	296	293	336	344	344	345	6	11	341	346	22	20	19	293	319.5	267.2

FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Evergreen Park - May 2012

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	11	10	3	6	2	3	4	7	9	9	13	19	15	17	17	15	13	12	5	4	3	4	1	0	3.9	19.4
Dir	292	299	340	212	191	174	182	228	293	327	310	314	12	33	42	63	59	62	78	89	70	34	355	359	3.9	313.8
24 Spd	2	5	2	4	3	6	8	15	17	20	16	7	6	11	10	10	22	6	5	5	9	6	3	5	2.0	22.1
Dir	231	208	299	285	292	199	231	261	265	274	283	339	29	61	88	74	67	122	136	167	244	258	243	214	262.7	67.2
25 Spd	6	4	7	8	11	12	16	18	13	10	9	7	3	10	9	11	8	5	6	7	5	1	1	5	4.1	18.4
Dir	241	268	231	263	252	260	265	263	258	253	273	304	92	19	20	18	358	353	2	49	78	159	213	49	291.4	263.3
26 Spd	3	3	2	3	1	2	2	6	7	5	5	7	9	12	15	7	11	8	11	9	9	7	12	14	5.7	15.0
Dir	71	79	92	7	84	67	262	203	158	176	174	185	138	149	145	164	175	156	153	106	96	96	102	134	139.9	145.0
27 Spd	8	5	3	4	2	2	2	9	10	11	6	4	10	11	14	11	14	13	14	11	7	8	8	8	6.6	14.2
Dir	156	122	109	61	33	38	64	149	147	156	160	45	95	23	60	96	92	86	98	78	79	93	96	99	96.7	60.4
28 Spd	8	8	7	3	2	4	5	7	10	11	12	10	11	7	10	11	16	16	17	13	7	8	10	14	8.3	16.7
Dir	82	77	76	65	12	57	73	128	134	127	136	109	105	128	132	61	56	75	66	71	65	70	83	100	89.4	65.5
29 Spd	13	9	7	2	8	9	16	17	19	24	22	20	24	26	27	37	42	32	25	10	4	6	18	24	14.4	42.0
Dir	117	116	119	222	251	238	269	307	306	278	294	283	256	265	271	263	264	267	251	121	163	239	252	257	264.3	263.7
30 Spd	16	14	14	9	6	1	3	10	17	20	27	27	26	28	29	34	36	35	36	29	19	16	4	7	19.0	35.9
Dir	244	247	255	245	242	213	268	257	260	276	264	255	252	260	262	266	254	252	251	256	243	250	256	207	255.2	251.5
31 Spd	6	5	10	3	5	3	8	16	30	38	38	26	29	33	31	35	37	36	36	32	19	11	6	3	19.9	38.5
Dir	204	211	214	208	205	235	270	244	258	259	259	270	257	265	278	270	267	266	266	261	256	242	216	204	259.2	259.3
Spd	6.0	5.3	5.1	4.7	5.6	5.9	9.3	13.1	16.0	17.7	18.5	18.1	17.3	18.6	17.2	17.1	16.6	16.0	15.5	11.2	8.9	7.9	7.1	6.8	Diurnal Average	
Dir	243.1	249.5	252.7	253.4	253.6	250.3	258.2	259.7	263.4	263.5	266.2	271.1	273.7	274.1	274.4	275.4	273.8	270.7	265.5	268.3	261.1	254.4	246.0	244.3		
Spd	41.7	38.1	39.8	35.8	35.8	37.8	42.8	54.4	54.4	52.2	45.7	50.7	49.7	54.4	54.7	57.8	61.2	56.4	52.7	48.6	43.2	46.5	41.5	41.6	Diurnal Maximum	
Dir	244.6	244.4	259.7	251.9	250.2	245.5	253.2	263.0	264.8	259.4	272.6	263.9	267.2	268.7	268.1	262.5	260.3	266.0	265.5	266.3	263.1	248.5	245.5	245.1		

Maximum Speed Value: 61 km/h on May 10 17:00
Maximum Daily Speed Average: 46.2 km/h on May 10
Maximum Diurnal Speed Average: 18.6 km/h at hour 14

Minimum Speed Value: 0 km/h on May 17 22:00
Minimum Daily Speed Average: 1.9 km/h on May 2
Minimum Diurnal Speed Average: 4.7 km/h at hour 4

Monthly Average Velocity: 11.74 km/h 265.07 deg

Speed Percentiles: $P_1 = 0.3$ $P_{10} = 2.9$ $Q_1 = 6.1$ Median = 12.9 $Q_3 = 25.4$ $P_{90} = 39.7$ $P_{99} = 54.3$

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

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Percent Operational Time:	100.0

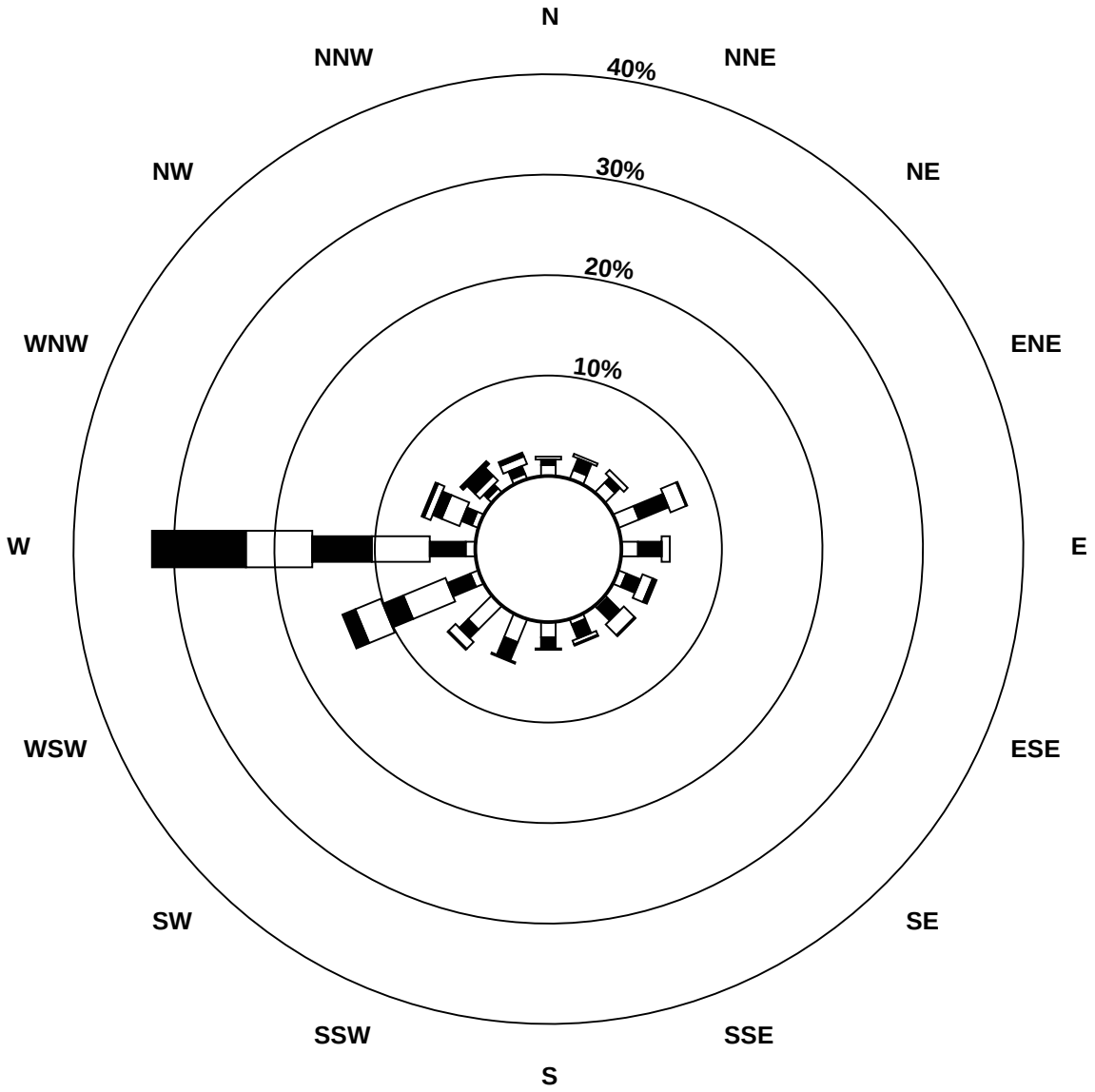
Frequency Distribution

Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	13	14	6	1	0	0	34
NorthEast	25	20	12	2	0	0	59
East	20	38	18	2	0	0	78
SouthEast	4	26	17	3	0	0	50
South	18	17	3	0	0	0	38
SouthWest	37	32	21	4	2	5	101
West	15	36	69	62	68	82	332
NorthWest	8	12	14	14	2	2	52
Total	140	195	160	88	72	89	744

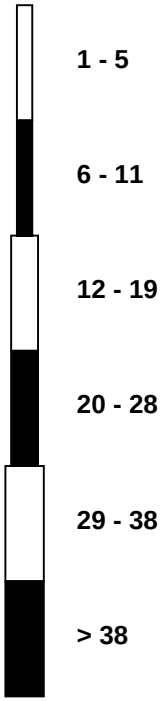
Wind Rose

Wind Speed (WS) (km/h)

Evergreen Park - May 2012



Wind Speed Classes (km/h)



Peace Airshed Zone Association

Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Evergreen Park - May 2012

Maximum Speed: 62 km/h on May 10 17:00

Maximum Daily Speed Average: 47.3 km/h on May 10

Minimum Speed: 1 km/h on May 24 00:00

Minimum Daily Speed Average: 7.5 km/h on May 2

Maximum Diurnal Speed Average: 29.6 km/h at hour 17

Minimum Diurnal Speed Average: 7.5 km/h at hour 4

Monthly Average Speed: 18.29 km/h

Percentiles: P_1 = 1.8 P_{10} = 4.0 Q_1 = 7.4 Median = 14.1 Q_3 = 26.9 P_{90} = 40.5 P_{99} = 54.6

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-May	14	14	8	6	6	6	7	5	7	13	23	25	19	17	17	13	13	19	15	11	8	8	9	7	12.1	25.2
2-May	2	2	3	3	3	4	5	7	11	8	5	6	11	12	16	13	15	15	11	11	5	4	3	4	7.5	15.8
3-May	16	8	7	6	5	4	4	7	10	18	18	19	19	20	27	28	27	27	23	17	12	11	10	8	14.6	28.4
4-May	7	3	3	3	10	13	15	24	24	25	35	31	35	38	42	42	43	38	34	27	17	16	19	18	23.4	42.9
5-May	17	13	5	4	9	15	22	35	36	42	42	41	43	43	46	42	40	40	40	39	30	22	17	17	29.1	46.0
6-May	14	18	18	10	11	9	15	22	28	30	32	27	26	30	29	28	28	24	19	22	17	7	4	6	19.8	31.7
7-May	5	4	2	4	5	4	9	17	20	16	20	18	22	26	32	27	27	28	23	7	2	2	2	3	13.6	32.3
8-May	2	3	4	4	4	6	3	2	5	9	16	22	28	36	43	43	39	37	37	26	21	16	21	19	18.6	43.5
9-May	19	21	24	17	19	23	32	35	41	53	47	48	51	52	52	43	56	56	52	39	39	47	42	42	39.6	56.1
10-May	42	38	38	36	36	38	43	55	55	50	46	52	49	55	56	59	62	57	53	49	44	45	40	36	47.3	62.0
11-May	37	38	40	34	34	32	39	41	46	43	41	49	51	49	52	54	53	55	46	43	35	33	17	14	40.6	54.6
12-May	14	10	13	4	4	9	3	6	19	30	41	44	40	44	45	48	50	46	39	29	21	19	19	16	25.6	49.7
13-May	8	6	3	6	8	6	10	11	34	37	35	35	42	48	51	50	42	45	42	35	20	16	17	20	26.1	50.9
14-May	21	15	10	5	2	2	2	5	10	10	10	11	12	14	13	15	20	18	14	11	11	10	6	5	10.5	21.2
15-May	6	6	6	5	4	3	6	12	14	13	18	27	25	25	30	31	37	37	34	32	25	24	24	14	19.0	36.8
16-May	12	11	7	5	3	5	11	16	22	27	30	35	41	50	40	38	39	41	41	41	29	24	26	22	25.6	50.4
17-May	14	5	6	5	2	3	4	9	13	20	18	21	25	35	30	29	24	22	18	8	5	2	2	2	13.4	34.8
18-May	5	3	4	5	2	7	11	14	17	28	31	25	29	27	27	28	27	27	27	22	17	9	8	9	17.1	31.0
19-May	9	11	14	12	12	16	14	16	15	16	17	17	18	22	18	19	16	12	8	6	3	3	5	4	12.6	21.5
20-May	4	5	6	5	6	9	11	11	11	7	10	10	13	13	13	13	15	14	12	10	9	12	10	10	10.0	14.9
21-May	7	6	2	3	2	5	9	12	14	12	15	14	12	16	17	18	15	13	14	5	4	2	6	9	9.7	18.5
22-May	6	6	7	5	11	10	12	14	19	16	13	14	19	16	17	16	15	13	11	5	10	7	9	9	11.7	19.1
23-May	12	11	5	6	3	3	4	7	11	10	14	21	17	18	18	16	13	13	6	4	3	4	2	1	9.2	20.6
24-May	2	5	3	5	5	7	9	15	17	21	18	13	10	13	12	13	24	11	7	6	10	6	4	8	10.1	23.8
25-May	8	6	7	8	12	12	16	19	14	11	10	10	7	11	12	14	12	10	10	7	5	3	2	5	9.6	18.8
26-May	3	3	3	3	2	2	3	7	9	8	8	12	11	15	17	13	14	11	13	9	9	8	12	14	8.8	17.4
27-May	8	5	4	5	2	2	3	9	11	12	10	10	13	15	17	15	16	15	15	12	7	9	8	8	9.6	17.1
28-May	8	9	7	3	2	4	6	8	11	12	14	12	15	13	14	14	18	18	17	14	7	8	11	14	10.8	18.0
29-May	13	9	7	3	9	10	17	18	22	26	24	22	26	27	29	38	43	33	27	11	8	7	18	25	19.7	42.9
30-May	17	14	14	9	7	4	4	10	17	21	28	28	27	30	31	35	37	36	36	30	19	17	5	7	20.1	36.7
31-May	6	6	10	4	6	5	10	16	31	39	38	28	30	34	33	36	38	37	37	33	19	11	7	3	21.5	39.5
	11.6	10.1	9.3	7.5	7.9	9.0	11.6	15.8	19.8	22.1	23.4	24.2	25.4	27.9	28.8	28.8	29.6	28.0	25.1	20.1	15.3	13.3	12.4	12.2	Diurnal Average	
	42.2	38.5	40.0	36.1	36.2	38.2	43.2	55.2	55.2	53.0	46.7	51.8	51.3	55.2	55.9	58.7	62.0	57.3	53.5	49.1	43.6	46.8	41.8	41.9	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 - May 2012

Maximum Value: 99.3 deg on May 2 01:00

Minimum Value: 5.2 deg on May 13 00:00

Percentiles: P_1 = 6.2 P_{10} = 9.1 Q_1 = 12.3 Median = 18.5 Q_3 = 34.8 P_{90} = 61.2 P_{99} = 90.1

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-May	12	10	12	14	13	11	13	20	27	10	13	9	20	25	47	43	39	19	20	19	21	14	12	12	46.9
2-May	99	87	86	67	68	10	8	21	17	38	75	82	36	61	28	30	26	21	27	19	13	26	38	56	99.3
3-May	21	64	20	17	11	29	22	22	35	25	32	32	28	22	16	15	15	22	21	16	17	16	18	13	63.6
4-May	14	34	51	32	18	9	9	9	13	16	14	16	14	13	17	13	13	14	11	12	11	15	8	6	51.1
5-May	9	11	19	32	17	8	9	10	11	11	14	17	16	16	13	12	15	11	11	8	7	8	7	7	32.1
6-May	8	5	6	14	9	12	9	8	11	17	16	24	30	16	25	27	19	19	19	15	10	14	29	23	30.4
7-May	29	29	80	33	14	20	12	14	18	25	28	29	19	17	18	19	22	19	13	30	93	90	67	88	93.0
8-May	83	81	68	32	52	31	55	77	15	30	50	34	25	21	26	21	20	14	10	15	13	17	8	12	83.1
9-May	8	10	10	11	8	8	8	11	13	10	12	15	14	12	15	11	13	10	9	9	9	7	7	7	15.0
10-May	9	8	8	7	8	8	7	10	10	12	12	12	12	10	12	10	10	10	10	8	7	7	6	6	12.1
11-May	6	6	6	8	7	7	7	10	9	12	12	10	14	14	11	13	11	9	9	7	7	7	9	6	14.5
12-May	7	14	11	69	59	20	91	51	15	12	11	13	14	15	16	14	9	10	9	11	11	9	7	5	91.4
13-May	16	21	65	19	15	73	11	20	13	11	13	11	14	10	14	12	11	13	11	10	12	17	16	14	73.1
14-May	11	11	29	73	91	81	97	74	43	81	76	91	73	63	59	35	17	16	19	18	13	12	15	8	96.8
15-May	8	6	23	81	74	73	52	14	18	18	19	13	21	21	19	16	18	14	12	11	10	10	6	8	80.5
16-May	7	8	15	49	74	46	22	20	19	12	23	21	15	12	18	22	23	14	14	12	10	8	7	6	73.6
17-May	10	53	25	30	71	75	60	24	33	30	33	50	22	12	17	13	19	16	27	36	63	94	80	88	93.7
18-May	65	89	57	57	71	38	29	20	20	16	13	25	18	19	21	21	20	20	21	18	13	17	18	15	88.6
19-May	16	12	11	15	15	12	11	12	19	35	41	46	54	47	51	45	46	53	35	31	72	80	88	83	88.4
20-May	51	20	15	23	49	7	15	16	24	47	60	94	56	63	60	50	34	27	17	16	14	15	18	13	94.3
21-May	21	18	73	83	84	19	12	22	24	44	51	52	46	29	23	23	29	34	46	49	29	45	51	69	83.5
22-May	64	63	38	50	16	16	13	17	11	14	15	20	11	11	12	19	18	21	27	34	23	21	17	33	63.8
23-May	15	21	58	8	47	20	20	26	31	18	26	20	26	18	17	18	14	19	27	25	27	29	52	80	80.0
24-May	45	36	55	46	49	24	19	10	14	15	25	68	59	33	37	41	24	84	58	42	26	20	47	74	84.4
25-May	40	42	15	16	12	10	11	12	20	27	36	60	78	24	53	47	56	69	55	20	13	72	82	12	82.4
26-May	52	42	33	37	69	42	61	33	32	61	58	74	48	52	34	72	44	52	35	23	15	14	13	17	74.0
27-May	35	25	25	22	36	48	42	20	26	31	61	79	37	46	41	54	31	34	23	24	17	12	14	16	78.6
28-May	9	9	9	25	49	25	27	31	33	31	39	50	49	70	50	47	35	30	20	20	14	11	12	13	69.8
29-May	13	15	26	73	62	26	15	25	26	24	24	23	21	16	18	14	11	14	38	24	53	37	7	7	72.7
30-May	16	12	13	12	61	86	54	17	14	20	15	17	15	22	17	15	12	17	9	15	10	14	34	11	86.0
31-May	11	16	7	56	41	57	38	15	13	13	14	24	15	16	18	16	14	13	12	10	9	8	21	49	57.5
	99.3	88.6	86.4	83.3	90.7	86.0	96.8	76.8	43.4	80.9	76.2	94.3	78.3	69.8	60.0	72.0	55.8	84.4	58.1	48.6	93.0	93.7	88.4	88.5	

PAZA
Smoky Heights Station
Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Smoky Heights - May 2012

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 6.1 ppb on May 15 07:00 Maximum Daily Average: 1.0 ppb on May 11

Minimum Value: 0 ppb on May 1 04:00 Minimum Daily Average: 0.0 ppb on May 26
Maximum Diurnal Average: 0.4 ppb at hour 9 Minimum Diurnal Average: 0.0 ppb at hour 18
Monthly Average: 0.20 ppb Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.0 Q_3 = 0.1 P_{90} = 0.5 P_{99} = 2.8

Hours in Service:	744
Hours of Data:	708
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-May	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
2-May	0	0	0	0	0	0	0	0	A	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	4.3
3-May	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
4-May	0	0	0	0	0	0	A	0	1	1	0	C	C	C	C	0	0	0	0	0	1	1	1	0	0.3	1.5
5-May	0	0	0	1	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.3	1.2
6-May	1	0	0	1	A	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2	4	3	0.6	3.6
7-May	1	0	0	A	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.5
8-May	0	0	A	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.7
9-May	0	A	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.5
10-May	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	2	A	0.2	1.7
11-May	4	3	2	3	3	2	2	1	0	0	0	0	0	0	0	0	0	0	0	1	2	1	A	0	1.0	4.2
12-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	0	0	0.2	1.5
13-May	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	1.1
14-May	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.1	0.9
15-May	0	0	0	0	0	0	6	1	0	1	0	0	0	0	0	0	0	0	A	0	0	0	1	0	0.4	6.1
16-May	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	2	0.3	2.0
17-May	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.2	1.5
18-May	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.2	2.1
19-May	0	0	0	0	0	1	0	1	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.2	1.0
20-May	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.1	0.2
21-May	0	0	0	0	0	0	0	0	1	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	1.1
22-May	0	0	0	0	0	0	0	0	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.9
23-May	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
24-May	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
25-May	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
26-May	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
27-May	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
28-May	0	0	0	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
29-May	0	0	0	0	A	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	1	0	0	0.2	0.9
30-May	0	1	0	A	2	0	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	2.1
31-May	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.1	0.5
	0.3	0.3	0.2	0.2	0.3	0.1	0.4	0.4	0.4	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.3	0.3	0.3	0.2	Diurnal Average	
	4.2	2.8	2.3	2.9	2.7	2.0	6.1	1.8	1.5	4.3	0.6	0.3	0.6	0.7	0.7	0.3	0.2	0.2	0.2	0.5	2.2	2.4	3.6	2.8	Diurnal Maximum	

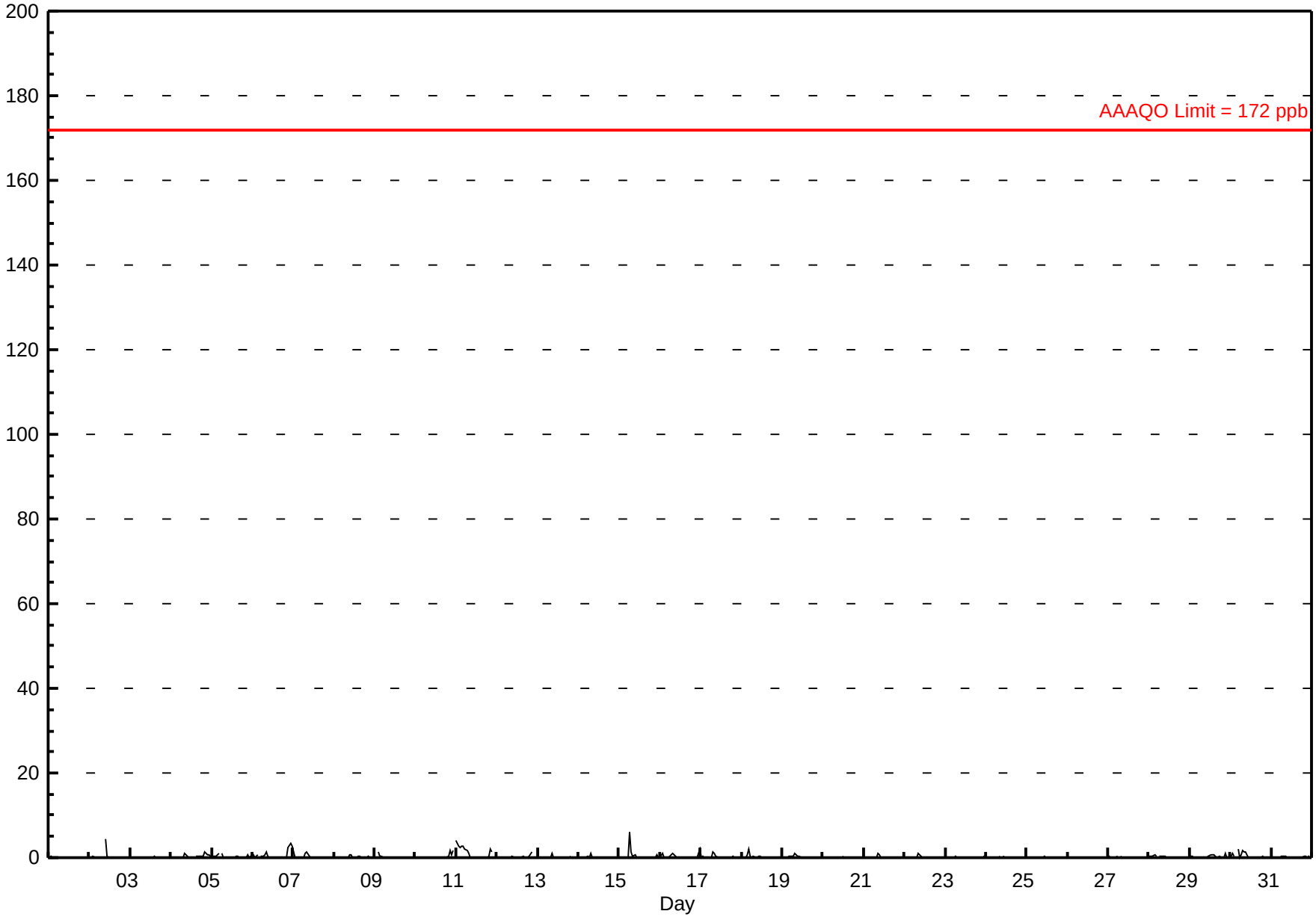
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Smoky Heights - May 2012



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Smoky Heights - May 2012

Maximum Value: 21.6 ppb on May 15 07:00

Maximum Daily Average: 2.3 ppb on May 6

Minimum Value: 0 ppb on May 9 13:00

Maximum Diurnal Average: 1.6 ppb at hour 7

Monthly Average: 0.72 ppb

Minimum Daily Average: 0.2 ppb on May 26

Minimum Diurnal Average: 0.3 ppb at hour 18

Percentiles: P_1 = 0.0 P_{10} = 0.1 Q_1 = 0.2 Median = 0.3 Q_3 = 0.6 P_{90} = 1.7 P_{99} = 6.4

Hours in Service:	744
Hours of Data:	708
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-May	0	1	0	0	0	0	0	0	0	A	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.3	0.6
2-May	0	0	1	0	0	0	0	0	A	7	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0.6	6.8
3-May	0	0	0	0	0	0	0	A	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0.3	0.8
4-May	0	0	0	0	0	0	A	0	3	1	1	C	C	C	C	0	0	0	0	1	4	3	3	1	1.1	4.4
5-May	0	2	1	3	4	A	4	1	0	0	0	0	0	0	3	1	0	0	0	0	0	5	2	2	1.3	4.6
6-May	3	0	1	2	A	1	1	2	3	1	1	0	0	0	0	1	0	0	1	0	0	11	12	14	2.3	14.1
7-May	3	0	0	A	0	0	2	2	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.7	3.4
8-May	0	1	A	0	0	0	0	0	0	2	1	0	0	0	1	1	0	0	0	0	2	0	0	0	0.5	1.9
9-May	0	A	3	2	2	1	2	2	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0.6	2.6
10-May	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	3	4	4	A	0.7	4.0
11-May	7	4	4	4	4	3	3	2	0	0	0	2	1	0	0	0	1	0	1	2	6	3	A	1	2.1	7.4
12-May	0	0	0	0	0	0	0	0	1	1	0	0	1	0	0	1	0	0	0	2	4	A	1	0	0.7	3.9
13-May	1	1	0	0	0	0	0	1	2	1	0	0	0	0	0	0	0	0	1	2	A	1	1	0	0.5	2.5
14-May	0	0	0	0	1	1	0	3	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.4	3.4
15-May	0	0	0	0	0	0	22	4	1	2	0	0	0	0	0	0	0	0	A	0	0	0	4	0	1.6	21.6
16-May	1	3	0	0	0	0	1	2	1	1	1	0	0	0	0	0	0	A	0	0	0	0	0	10	1.0	10.0
17-May	0	2	1	0	0	0	1	6	1	1	0	0	0	1	0	0	A	0	1	2	0	0	0	0	0.8	6.1
18-May	0	0	0	3	5	1	0	1	0	0	1	1	1	0	0	A	0	0	0	0	0	0	0	0	0.6	4.9
19-May	0	0	0	0	1	1	1	1	1	1	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0.5	1.4
20-May	0	0	0	0	0	0	0	0	0	0	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0.3	0.6
21-May	0	0	0	0	0	0	0	0	3	1	0	0	A	0	0	0	1	0	0	0	0	0	0	0	0.4	3.5
22-May	0	0	0	0	0	0	0	0	3	3	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0.4	3.2
23-May	0	0	0	1	1	0	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	1	0.3	0.9
24-May	0	0	0	0	0	0	0	0	2	A	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	2.1
25-May	1	0	0	0	0	0	0	0	A	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0.3	1.0
26-May	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
27-May	1	0	0	0	0	1	A	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0.4	0.6
28-May	1	1	1	1	1	A	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.0
29-May	1	1	0	0	A	0	0	0	0	0	0	1	1	1	1	1	1	1	0	0	0	6	1	0	0.8	6.2
30-May	2	5	1	A	4	1	3	3	3	4	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1.4	4.8
31-May	0	1	A	0	0	0	3	1	1	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0.6	2.6
	0.8	0.9	0.6	0.7	0.9	0.5	1.6	1.2	1.2	1.0	0.5	0.4	0.3	0.3	0.4	0.4	0.3	0.3	0.3	0.6	0.9	1.3	1.1	1.2	Diurnal Average	
	7.4	4.8	4.1	4.3	4.9	2.7	21.6	6.1	3.5	6.8	1.8	1.7	1.0	1.2	2.7	1.1	1.4	1.1	1.0	2.5	6.2	11.0	11.7	14.1	Diurnal Maximum	

C - Calibration

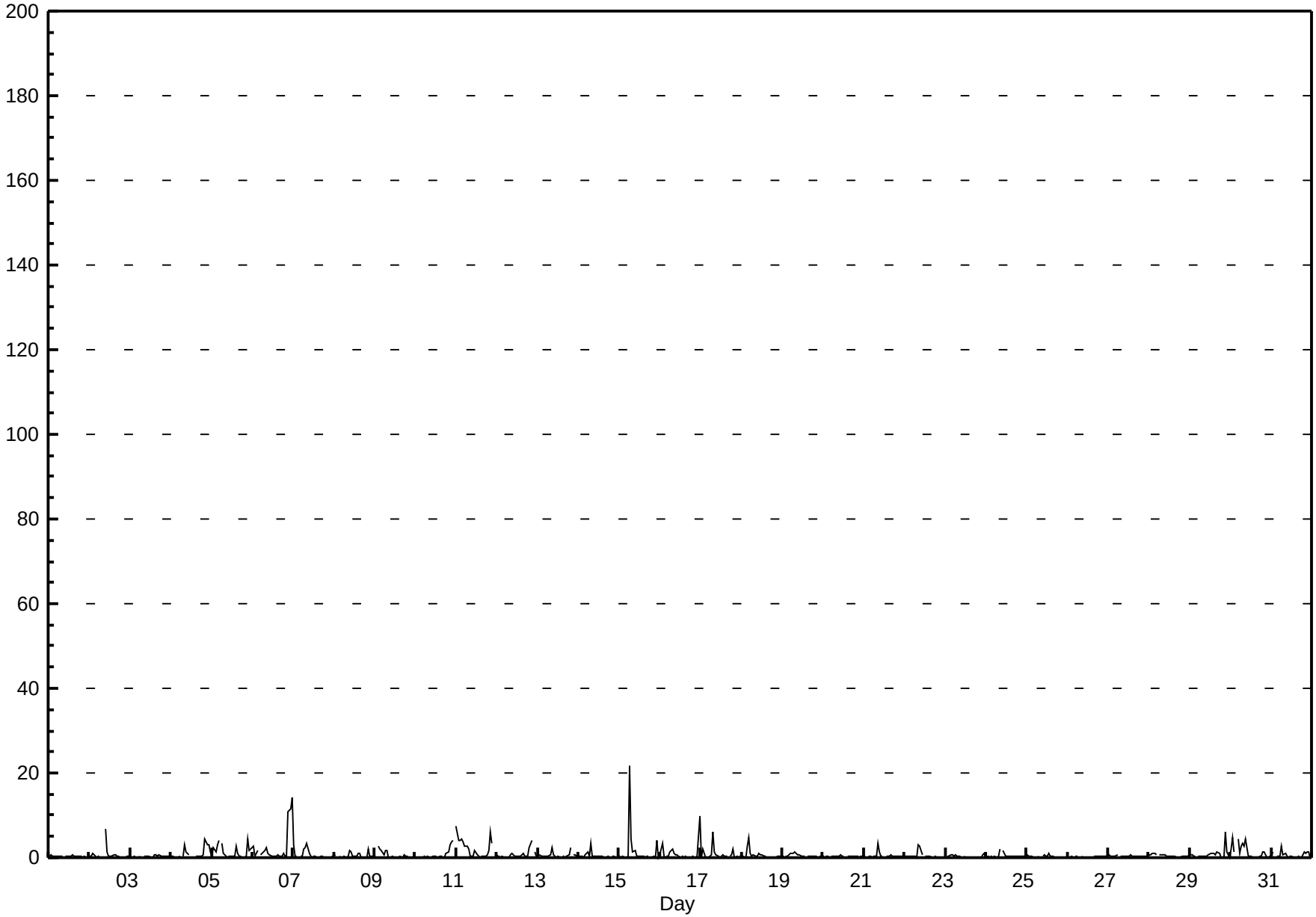
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

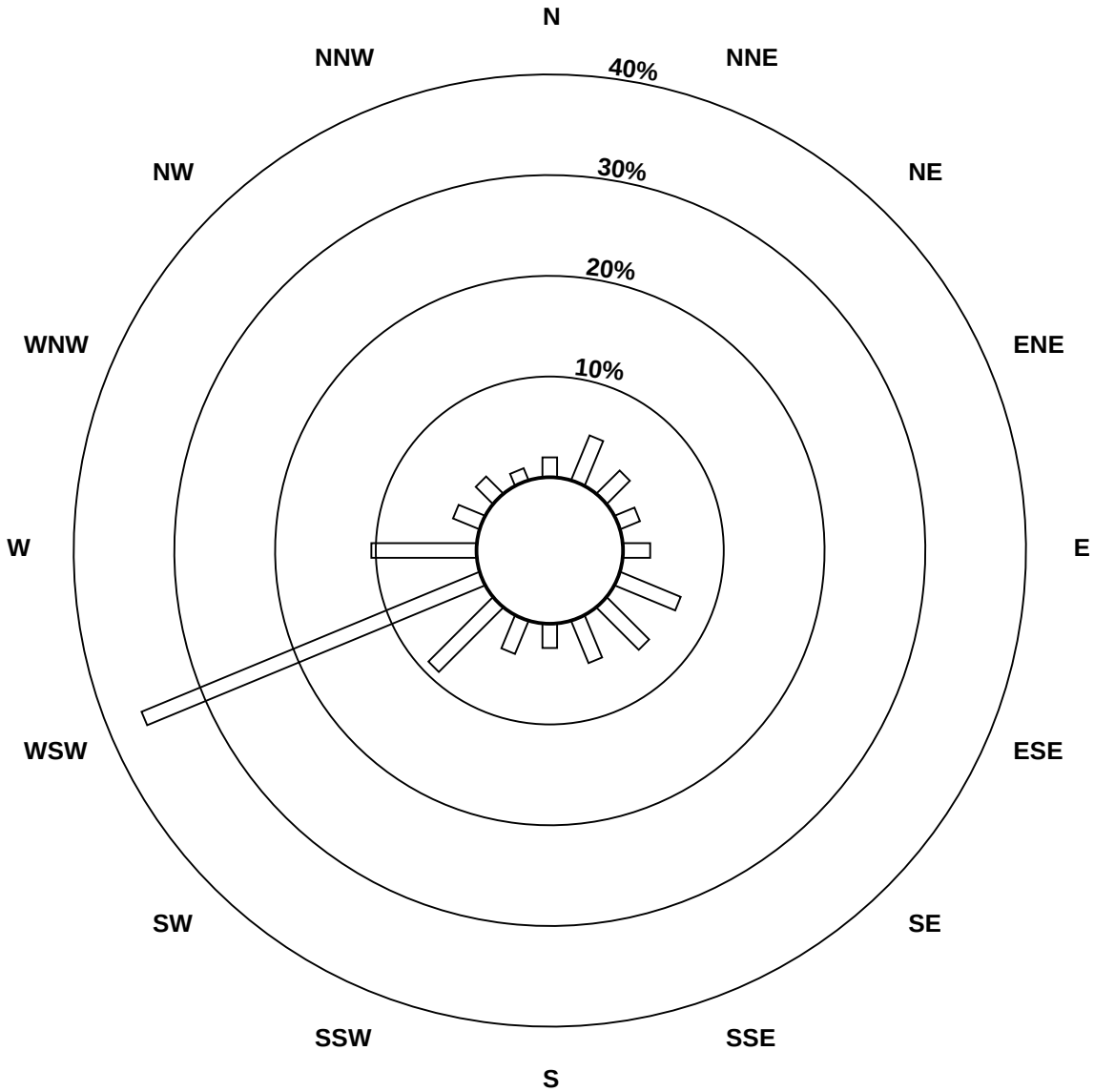
Smoky Heights - May 2012



Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Smoky Heights - May 2012



Pollutant Classes (ppb)

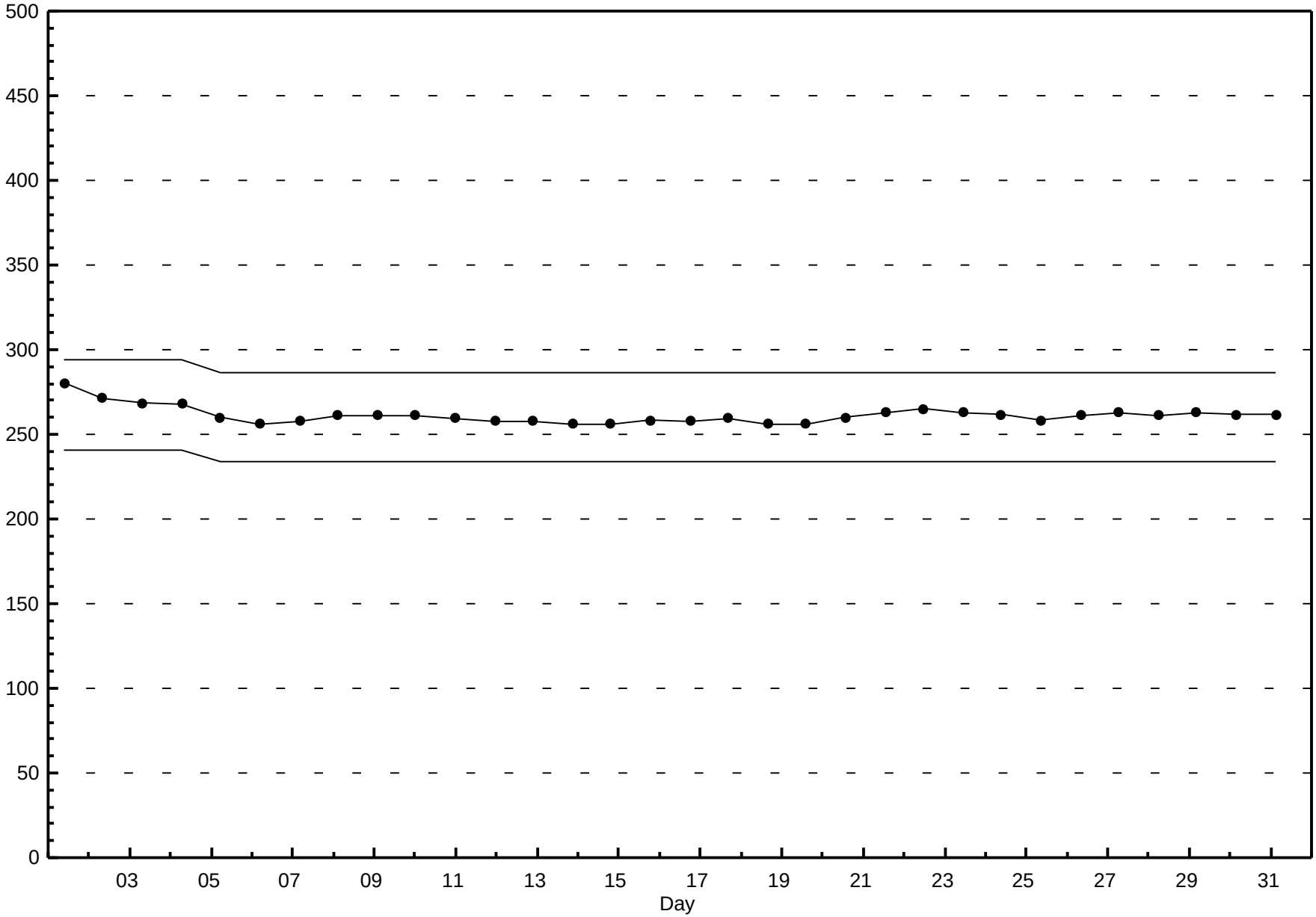
- 0 - 10
- 11 - 20
- 21 - 60
- 61 - 110
- 111 - 172
- > 172

Peace Airshed Zone Association

Span Responses

Sulphur Dioxide (SO_2)

Smoky Heights - May 2012



Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Smoky Heights - May 2012

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 0.6 ppb on May 17 06:00 Maximum Daily Average: 0.3 ppb on May 2

Minimum Value: 0 ppb on May 13 20:00 Minimum Daily Average: 0.1 ppb on May 25
Maximum Diurnal Average: 0.3 ppb at hour 4 Minimum Diurnal Average: 0.2 ppb at hour 16
Monthly Average: 0.23 ppb Percentiles: P_1 = 0.0 P_{10} = 0.1 Q_1 = 0.2 Median = 0.2 Q_3 = 0.3 P_{90} = 0.3 P_{99} = 0.4

Hours in Service:	744
Hours of Data:	706
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-May	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
2-May	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
3-May	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.3
4-May	0	0	0	0	0	0	A	0	C	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	--	0.4
5-May	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
6-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
7-May	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
8-May	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
9-May	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
10-May	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.1	0.2
11-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.2	0.4
12-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.3	0.3
13-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	0.4
14-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.1	0.3
15-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.2	0.3
16-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.3	0.4
17-May	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.2	0.6
18-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.2	0.3
19-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.3	0.5
20-May	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.2	0.3
21-May	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
22-May	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
23-May	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
24-May	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
25-May	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
26-May	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
27-May	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
28-May	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
29-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
30-May	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
31-May	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
	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	0.2	0.2	0.2	0.2	0.2	0.2	Diurnal Average	
	0.4	0.4	0.4	0.5	0.4	0.6	0.5	0.4	0.4	0.5	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.5	0.4	0.4	Diurnal Maximum	

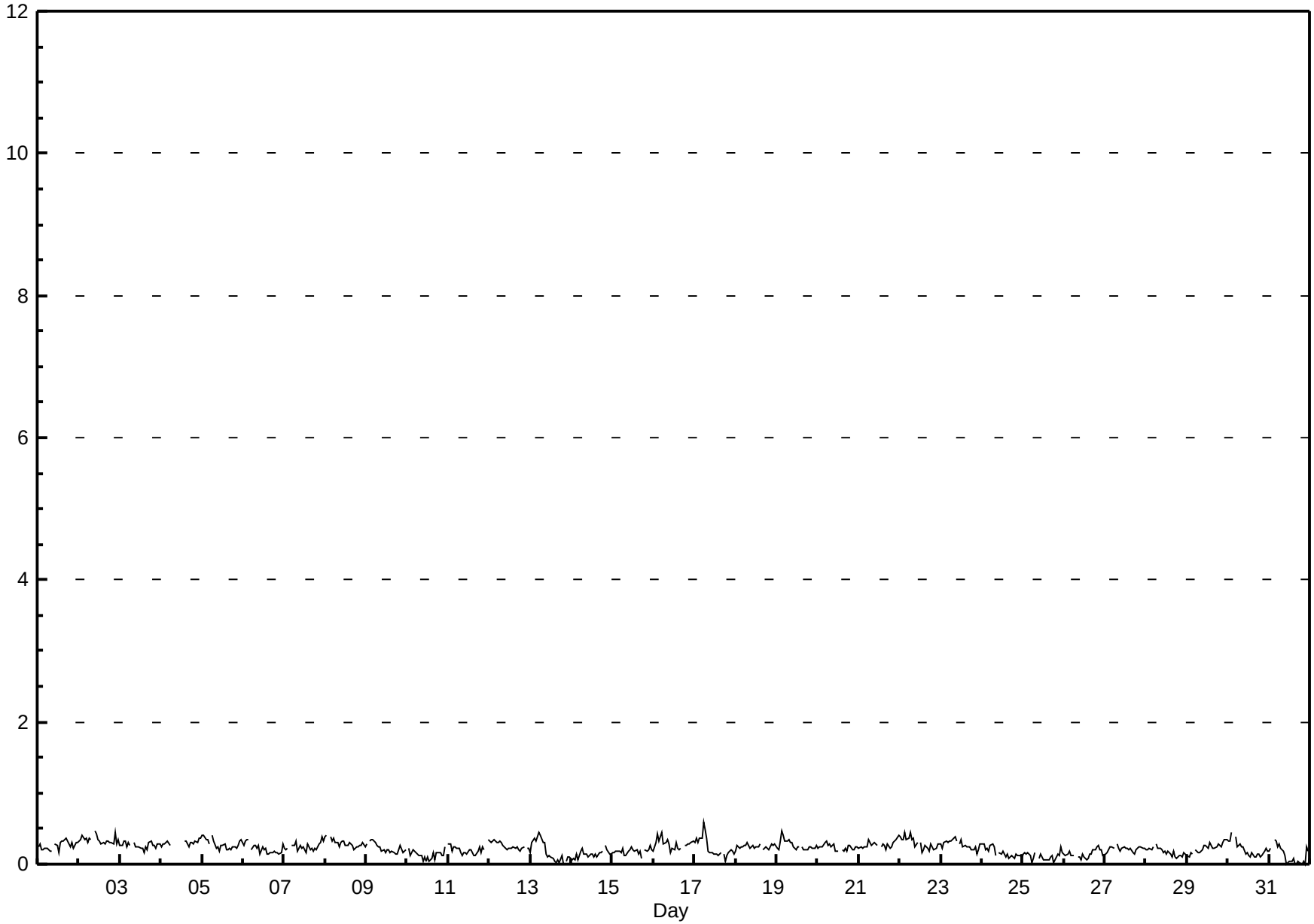
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb

Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Smoky Heights - May 2012



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

Smoky Heights - May 2012

Maximum Value: 1.6 ppb on May 25 23:00

Maximum Daily Average: 0.8 ppb on May 2

Minimum Value: 0 ppb on May 13 16:00

Minimum Daily Average: 0.5 ppb on May 10

Maximum Diurnal Average: 0.7 ppb at hour 3

Minimum Diurnal Average: 0.6 ppb at hour 17

Monthly Average: 0.64 ppb

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

Hours in Service:	744
Hours of Data:	706
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-May	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
2-May	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.3
3-May	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
4-May	1	1	1	1	1	1	A	1	C	C	C	C	C	C	1	1	1	1	1	1	1	1	1	1	--	0.9
5-May	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
6-May	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.8
7-May	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0.6	0.8
8-May	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.1
9-May	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	0	1	1	0.7	0.9
10-May	A	1	1	1	0	1	0	1	1	0	0	0	0	1	0	0	0	1	1	1	1	0	1	A	0.5	0.7
11-May	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0	1	1	0	1	1	A	1	0.6	0.8
12-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.7	0.8
13-May	1	1	1	1	1	1	1	1	1	0	0	1	1	0	0	0	1	0	1	0	A	0	1	0	0.6	0.9
14-May	1	0	0	0	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.6	0.7
15-May	1	1	1	1	1	0	1	1	0	1	1	1	1	1	1	1	1	0	A	1	1	1	1	1	0.6	0.7
16-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0.7	0.8
17-May	1	1	1	1	1	1	1	1	0	1	1	1	0	1	1	1	A	1	0	1	1	1	0	0	0.6	1.0
18-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0.7	0.9
19-May	0	1	1	1	1	1	1	1	1	1	1	0	1	1	A	1	1	1	1	1	1	1	1	1	0.7	1.1
20-May	1	1	1	1	1	1	1	1	1	1	1	1	0	A	1	1	0	1	1	1	1	1	1	1	0.6	0.8
21-May	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0	1	1	1	1	1	1	1	0.7	0.9
22-May	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.1
23-May	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0
24-May	1	1	1	1	1	1	1	1	1	A	1	1	1	0	0	1	0	0	1	1	1	1	1	0	0.6	0.8
25-May	1	1	1	0	0	0	0	1	A	0	1	1	0	0	1	1	0	1	0	0	0	0	2	1	0.5	1.6
26-May	0	0	1	1	1	1	1	A	0	1	0	1	1	1	0	1	0	1	0	1	1	1	1	0	0.6	0.8
27-May	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.8
28-May	1	1	1	1	1	A	1	1	1	1	1	0	1	1	0	0	1	1	0	1	0	0	1	1	0.6	0.8
29-May	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.8
30-May	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0.6	0.8
31-May	1	1	A	1	1	1	1	1	1	1	0	1	1	0	0	0	0	1	0	0	0	0	1	1	0.6	0.8
	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	Diurnal Average	
	0.9	0.9	1.0	0.9	1.1	1.1	1.0	0.8	0.8	0.8	0.9	0.8	0.7	0.9	0.8	0.9	0.9	0.8	0.8	0.8	0.8	1.3	1.6	0.9	Diurnal Maximum	

C - Calibration

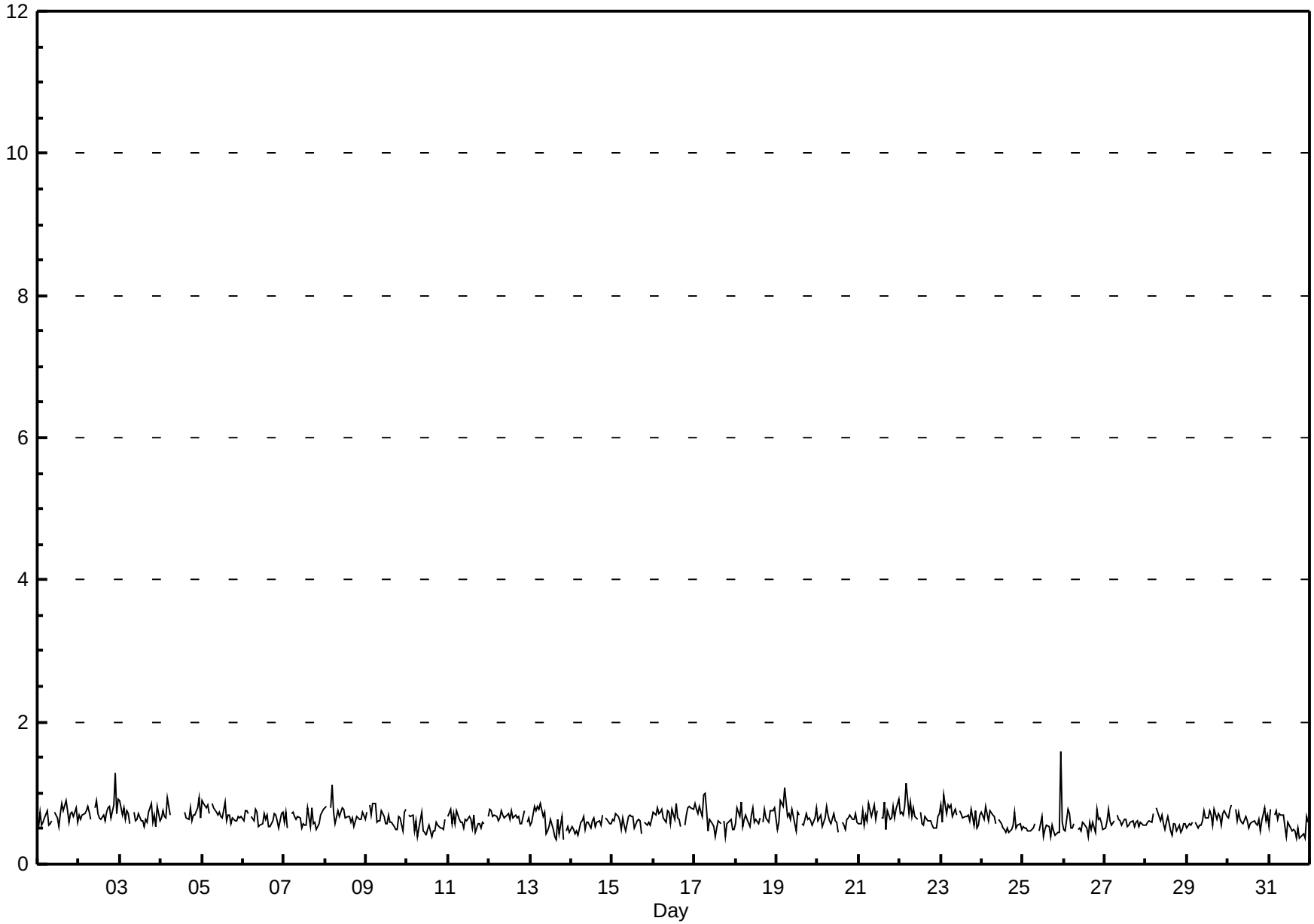
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

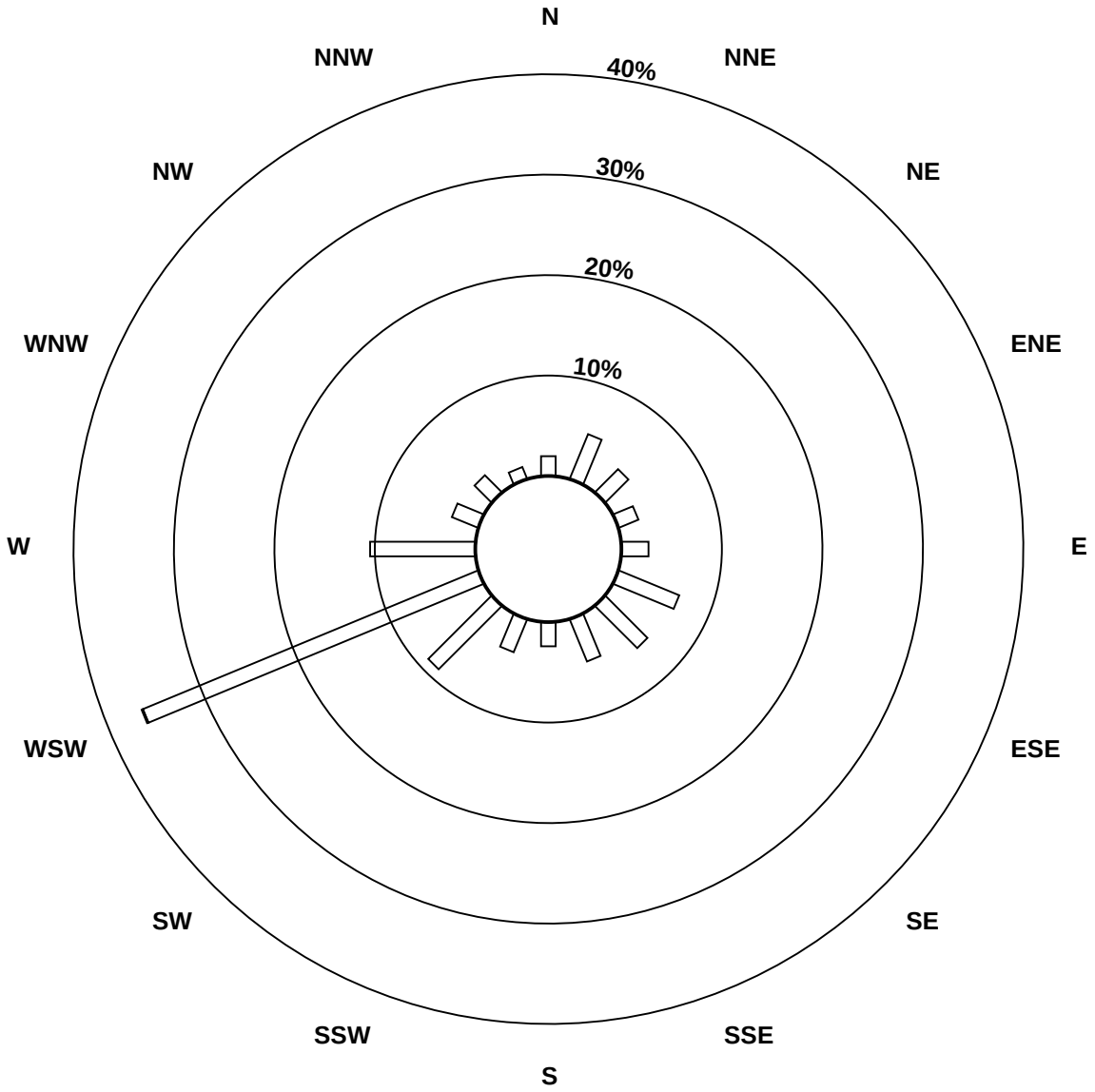
Smoky Heights - May 2012



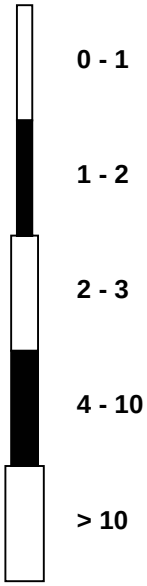
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb

Smoky Heights - May 2012



Pollutant Classes (ppb)

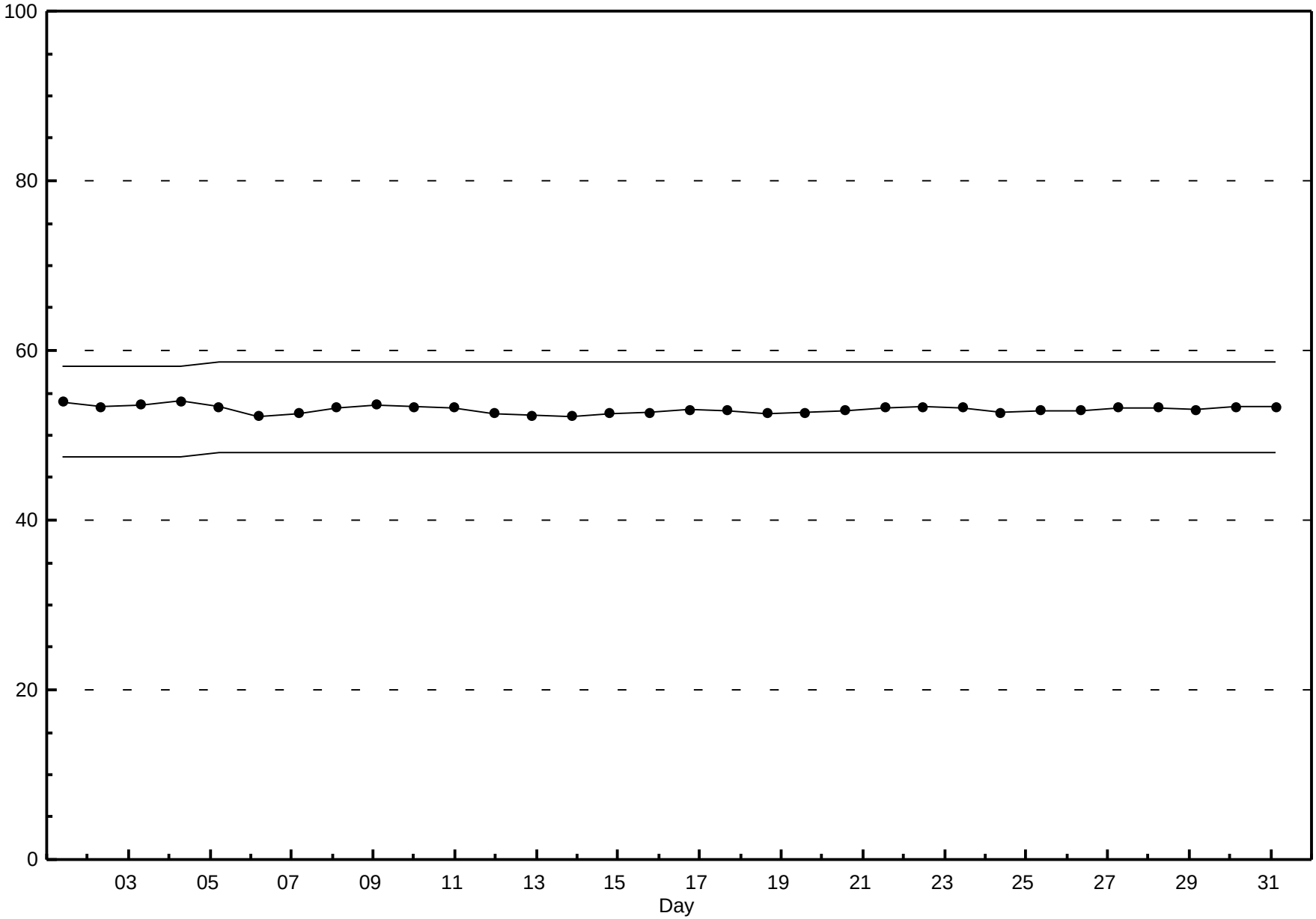


Peace Airshed Zone Association

Span Responses

Total Reduced Sulphur (TRS)

Smoky Heights - May 2012



Peace Airshed Zone Association

Hourly Averages

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

Smoky Heights - May 2012

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

Maximum Value: 35.3 $\mu g/m^3$ on May 14 07:00

Maximum Daily Average: 7.9 $\mu g/m^3$ on May 15

Minimum Value: 0 $\mu g/m^3$ on May 1 20:00

Maximum Diurnal Average: 6.2 $\mu g/m^3$ at hour 7

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

Minimum Daily Average: 1.0 $\mu g/m^3$ on May 30

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

Percentiles: $P_1 = 0.0$ $P_{10} = 0.9$ $Q_1 = 2.0$ Median = 3.5 $Q_3 = 5.3$ $P_{90} = 7.6$ $P_{99} = 14.2$

Hours in Service:	744
Hours of Data:	743
Hours of Missing Data:	1
Hours of Calibration:	1
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-May	5	5	4	3	3	3	3	4	3	3	3	2	2	3	2	1	1	0	1	0	1	1	0	0	2.2	5.3
2-May	0	1	1	1	1	1	3	2	1	3	2	2	0	0	3	5	4	3	3	2	2	3	3	4	2.0	4.5
3-May	4	3	2	3	3	3	3	4	4	4	3	2	0	0	2	2	3	3	3	3	4	4	4	4	2.8	3.9
4-May	4	3	5	9	2	2	4	2	3	1	1	1	1	2	C	6	7	6	5	5	5	4	4	5	3.7	8.5
5-May	4	4	3	3	3	2	3	3	2	2	1	1	1	2	2	2	3	4	3	3	3	3	3	3	2.7	3.9
6-May	2	2	2	2	2	2	3	2	1	1	1	2	2	3	2	4	3	5	4	7	7	8	5	4	3.2	8.4
7-May	4	3	3	4	3	4	7	4	3	1	3	3	3	5	6	6	5	5	4	3	8	11	8	5	4.7	11.1
8-May	3	2	2	4	4	5	5	5	5	5	7	8	8	10	13	12	5	7	3	3	5	4	3	3	5.6	12.8
9-May	3	3	3	4	4	4	5	3	3	0	0	1	3	3	3	4	8	4	2	2	2	2	1	2	2.9	8.1
10-May	2	0	0	1	0	1	2	1	2	3	3	2	3	2	3	4	2	4	3	3	2	3	3	3	2.2	4.2
11-May	3	3	3	2	2	2	2	3	2	2	1	1	2	9	3	5	9	9	9	5	5	5	5	6	4.2	9.4
12-May	5	5	5	6	6	5	7	7	4	4	4	4	4	6	5	5	6	4	6	6	8	14	8	7	5.9	14.2
13-May	7	9	7	7	7	13	8	8	6	3	5	14	9	5	4	6	6	8	5	5	7	5	5	4	6.8	14.2
14-May	4	4	5	4	4	3	35	5	1	2	1	1	2	2	1	1	1	5	8	9	7	7	6	4	5.1	35.3
15-May	4	4	4	4	5	9	15	11	9	10	10	9	14	9	6	8	8	8	6	6	6	8	8	8	7.9	15.3
16-May	7	7	6	5	5	9	13	10	7	6	3	2	5	8	10	13	9	9	6	8	6	4	4	4	6.8	13.2
17-May	3	2	2	1	1	3	4	2	1	1	2	5	2	7	4	7	4	6	9	7	12	8	7	6	4.4	12.5
18-May	2	3	2	2	4	3	6	7	3	3	4	4	4	7	8	7	4	3	7	3	3	2	2	3	4.0	7.9
19-May	1	1	1	2	2	3	3	3	2	0	2	1	3	3	4	1	3	4	5	2	29	29	14	6	5.2	29.1
20-May	5	11	2	3	2	6	4	4	6	4	0	2	3	2	3	3	4	3	4	2	3	3	4	4	3.7	11.1
21-May	3	3	2	4	5	6	7	6	5	6	4	3	0	1	2	2	2	2	2	4	7	3	1	2	3.3	6.6
22-May	2	4	3	4	3	4	6	8	9	8	11	13	0	0	0	1	1	2	0	0	0	0	0	0	3.3	12.7
23-May	0	1	2	4	2	2	2	2	1	1	1	1	1	1	1	2	2	0	1	2	2	1	1	2	1.4	4.3
24-May	3	2	3	3	4	5	5	4	5	5	4	3	4	4	3	8	6	5	5	6	6	6	6	5	4.5	7.6
25-May	4	3	3	5	4	6	7	7	8	9	5	2	0	3	2	2	2	1	3	4	7	2	6	5	4.2	9.4
26-May	4	4	4	4	5	6	6	5	4	4	3	2	1	1	3	2	2	4	4	5	4	4	4	4	3.6	6.5
27-May	3	4	4	4	4	4	4	4	4	4	5	5	3	4	3	2	2	3	4	6	2	4	6	5	3.8	5.7
28-May	4	5	4	4	6	8	9	5	5	3	2	3	3	4	2	3	3	4	5	5	4	6	6	4	4.5	9.0
29-May	4	4	5	5	5	6	6	7	7	9	10	8	8	8	8	15	13	7	8	3	0	0	1	2	6.3	15.3
30-May	0	0	0	1	1	1	0	3	2	1	0	0	0	0	1	1	1	2	2	1	1	2	2	1	1.0	3.2
31-May	2	1	1	1	1	3	4	3	1	0	1	0	1	1	1	4	2	2	4	3	2	6	10	8	2.5	9.5
	3.3	3.5	3.0	3.5	3.3	4.4	6.2	4.6	3.7	3.5	3.2	3.4	3.0	3.7	3.6	4.6	4.2	4.2	4.3	4.0	5.2	5.2	4.5	3.9	Diurnal Average	
	6.8	11.1	7.4	8.5	7.0	12.9	35.3	11.0	8.6	9.7	11.1	14.2	14.1	10.3	12.8	15.3	13.3	8.9	9.4	8.6	29.1	28.6	14.3	7.6	Diurnal Maximum	

C - Calibration

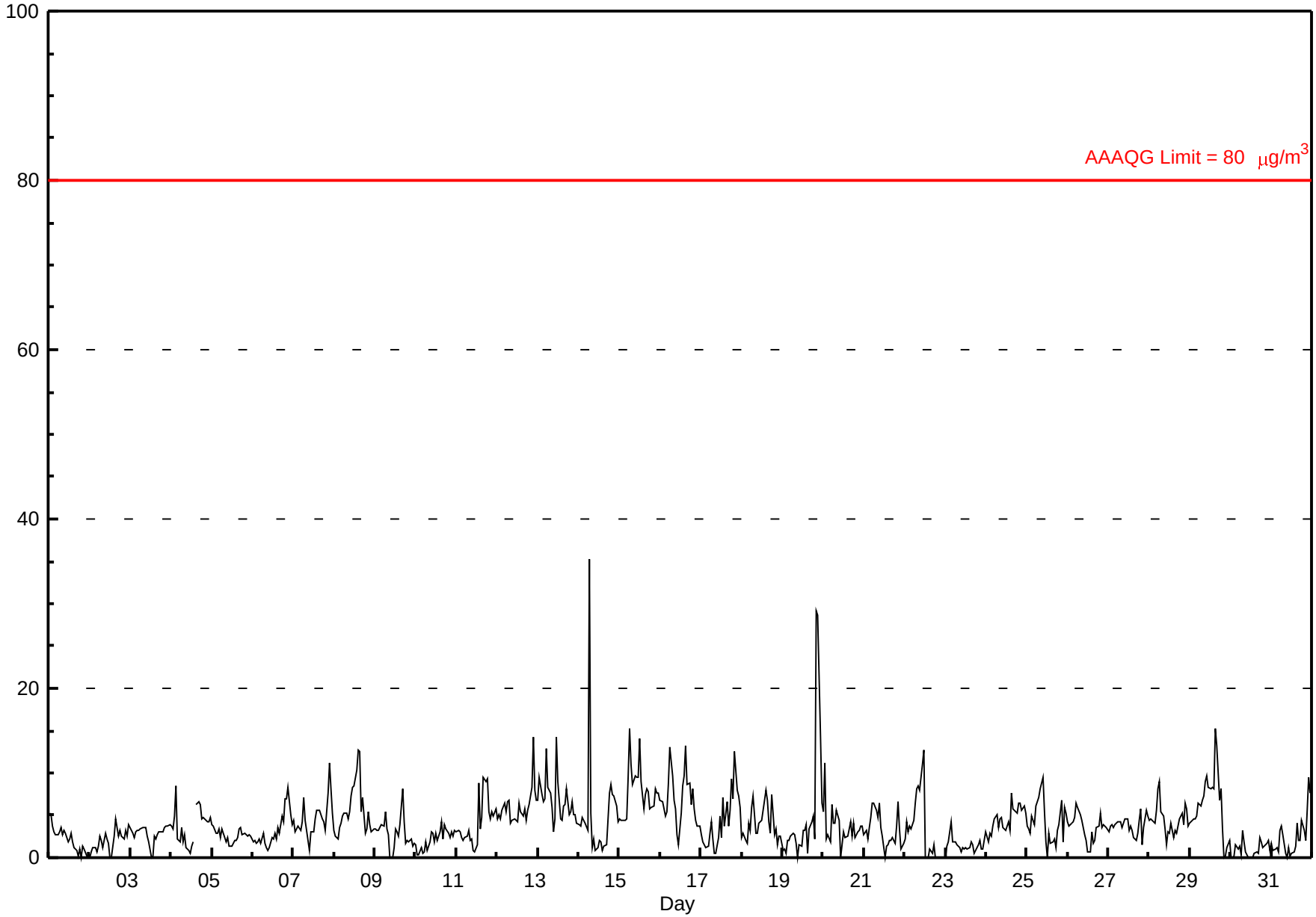
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 $\mu g/m^3$ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 $\mu g/m^3$

Peace Airshed Zone Association

Hourly Averages

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

Smoky Heights - May 2012



Peace Airshed Zone Association

Hourly Maximums

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

Smoky Heights - May 2012

Maximum Value: 100.0 $\mu g/m^3$ on May 19 21:00

Maximum Daily Average: 14.7 $\mu g/m^3$ on May 19

Minimum Value: 1 $\mu g/m^3$ on May 30 02:00

Minimum Daily Average: 3.7 $\mu g/m^3$ on May 1

Maximum Diurnal Average: 12.0 $\mu g/m^3$ at hour 21

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

Monthly Average: 7.99 $\mu g/m^3$

Percentiles: P_1 = 1.3 P_{10} = 3.2 Q_1 = 4.4 Median = 6.2 Q_3 = 9.0 P_{90} = 13.5 P_{99} = 38.2

Hours in Service:	744
Hours of Data:	743
Hours of Missing Data:	1
Hours of Calibration:	1
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-May	6	7	5	4	4	4	5	6	4	5	4	4	4	6	3	3	2	1	2	1	2	3	1	1	3.7	6.6
2-May	1	2	2	3	2	3	4	3	3	5	3	4	3	2	5	7	6	4	5	5	4	5	4	6	3.8	7.1
3-May	5	4	3	5	5	5	6	5	5	5	4	3	1	2	4	4	4	5	4	4	5	5	5	5	4.4	6.4
4-May	5	5	13	22	10	3	6	6	5	2	4	2	4	4	C	10	10	8	7	7	6	6	5	6	6.8	21.7
5-May	5	5	4	5	5	4	5	4	4	5	3	3	3	4	4	5	5	6	5	5	5	4	5	5	4.6	5.7
6-May	4	3	4	3	4	4	5	4	3	3	3	5	4	7	7	7	5	7	5	9	9	12	9	5	5.4	12.0
7-May	6	5	5	7	6	5	11	7	8	4	5	5	5	7	8	8	9	6	8	5	12	19	14	8	7.7	18.9
8-May	5	4	4	5	10	11	9	8	6	7	11	16	14	13	21	24	12	21	12	7	9	7	6	6	10.3	23.7
9-May	5	5	5	5	6	6	9	6	5	4	2	4	8	16	15	8	16	9	5	4	5	4	3	6	6.7	16.2
10-May	4	2	2	3	3	3	3	4	5	6	6	3	6	4	7	8	4	6	6	4	4	4	4	4	4.4	7.8
11-May	5	4	4	4	3	4	4	6	3	6	3	3	17	31	5	12	23	22	21	15	6	7	7	11	9.5	31.3
12-May	6	6	6	9	9	7	9	9	7	8	7	10	7	12	9	9	12	7	9	8	24	30	10	9	9.9	29.6
13-May	11	18	10	8	9	29	10	11	10	8	7	41	13	12	8	11	11	13	8	8	9	7	7	6	11.8	40.5
14-May	5	7	7	6	6	5	75	11	4	5	4	5	6	8	3	6	5	15	13	12	10	10	9	7	10.1	75.1
15-May	7	7	6	6	7	27	20	18	12	13	14	13	25	19	10	14	17	13	8	7	8	10	9	10	12.6	26.9
16-May	8	8	7	7	7	15	22	19	17	10	6	6	12	17	28	29	20	17	12	14	10	6	6	6	12.8	29.3
17-May	6	4	5	3	5	9	9	7	2	4	5	9	5	22	9	12	6	12	13	10	43	32	32	18	11.7	43.0
18-May	6	6	5	5	8	6	8	10	7	4	8	6	9	13	15	12	12	10	23	6	9	4	4	4	8.4	22.7
19-May	2	4	2	3	4	4	5	6	4	3	8	7	15	14	7	5	12	9	13	6	100	70	34	13	14.7	100.0
20-May	10	46	4	5	4	9	9	7	8	9	4	4	7	6	5	7	9	6	6	7	5	5	6	6	8.1	46.4
21-May	5	5	4	5	7	8	9	8	8	9	5	8	3	4	4	5	4	6	3	8	19	6	3	4	6.2	18.6
22-May	5	7	7	6	6	7	8	13	15	10	21	35	1	1	2	3	2	3	2	2	1	1	1	2	6.8	35.4
23-May	1	3	4	16	3	3	3	3	4	3	4	3	3	3	4	4	3	2	3	5	3	3	2	4	3.8	15.7
24-May	8	5	4	5	5	6	7	5	7	8	9	6	8	9	7	11	13	10	9	10	9	15	15	7	8.3	15.3
25-May	6	6	6	8	5	9	9	9	10	12	9	9	5	10	6	6	6	5	9	10	21	7	19	11	8.9	20.5
26-May	6	6	5	7	6	9	10	8	7	7	7	8	6	6	9	6	6	10	8	9	6	6	6	5	7.1	10.5
27-May	4	6	5	5	5	5	6	7	6	6	7	9	7	8	9	8	7	7	9	11	7	6	9	6	6.9	11.3
28-May	7	6	6	6	8	20	21	9	9	8	9	9	8	11	7	9	9	12	10	9	7	9	8	6	9.2	21.5
29-May	5	6	7	6	7	8	8	9	10	13	15	13	13	11	15	47	26	17	14	9	3	3	3	5	11.3	46.9
30-May	1	1	2	4	3	2	3	6	5	5	4	4	5	7	3	5	3	10	4	4	3	3	4	4	3.9	9.8
31-May	4	3	3	3	4	8	5	6	5	4	6	3	5	5	7	11	5	7	12	6	9	13	31	19	7.7	30.6
	5.3	6.7	5.1	6.1	5.6	8.1	10.4	7.7	6.8	6.5	6.7	8.4	7.5	9.5	8.1	10.2	9.2	9.3	8.7	7.4	12.0	10.3	9.1	6.9	Diurnal Average	
	11.0	46.4	12.7	21.7	9.8	29.1	75.1	18.6	16.9	13.5	21.3	40.5	25.4	31.3	27.6	46.9	25.7	22.5	22.7	14.9	100.0	69.9	34.2	18.6	Diurnal Maximum	

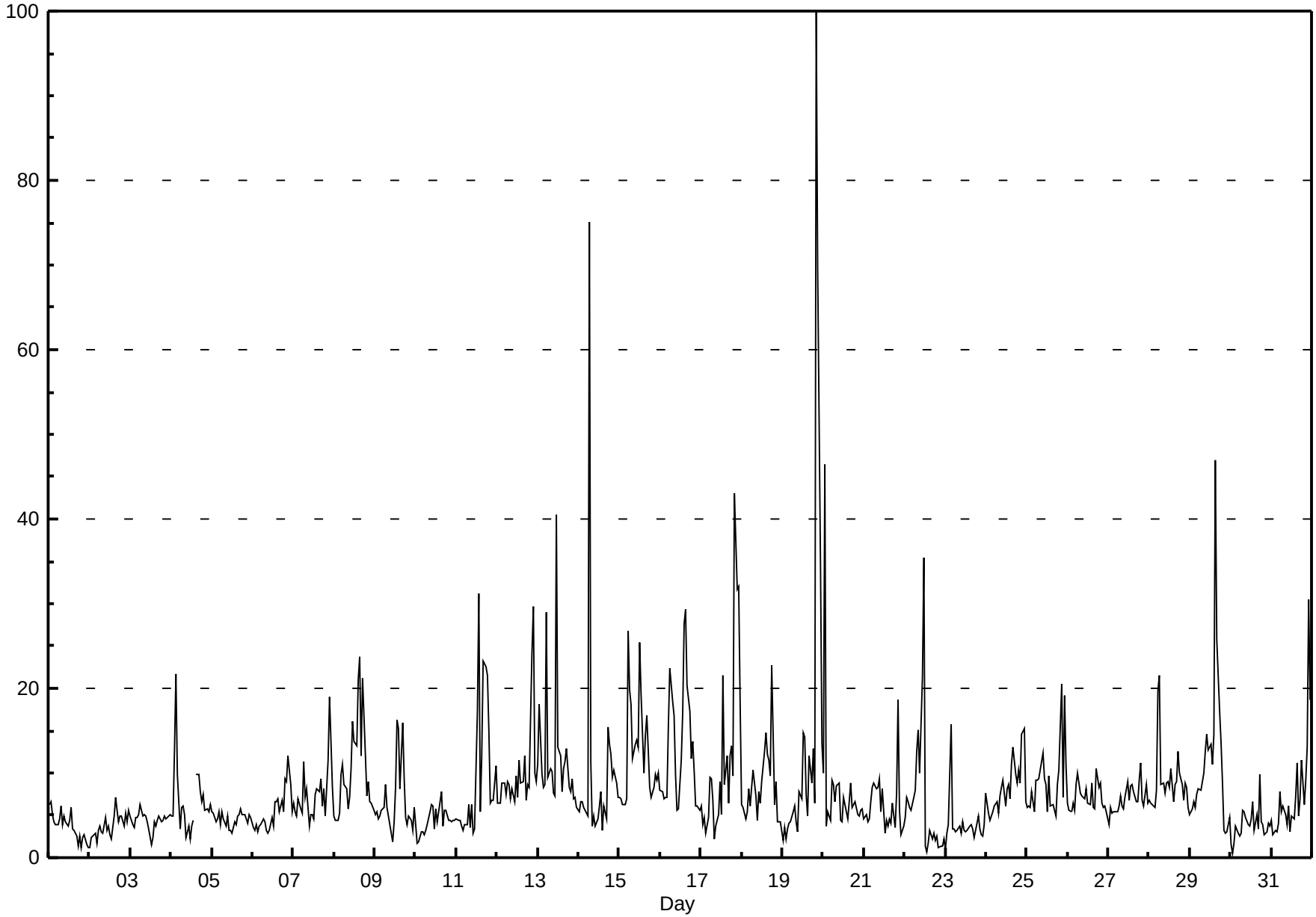
C - Calibration

Peace Airshed Zone Association

Hourly Maximums

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

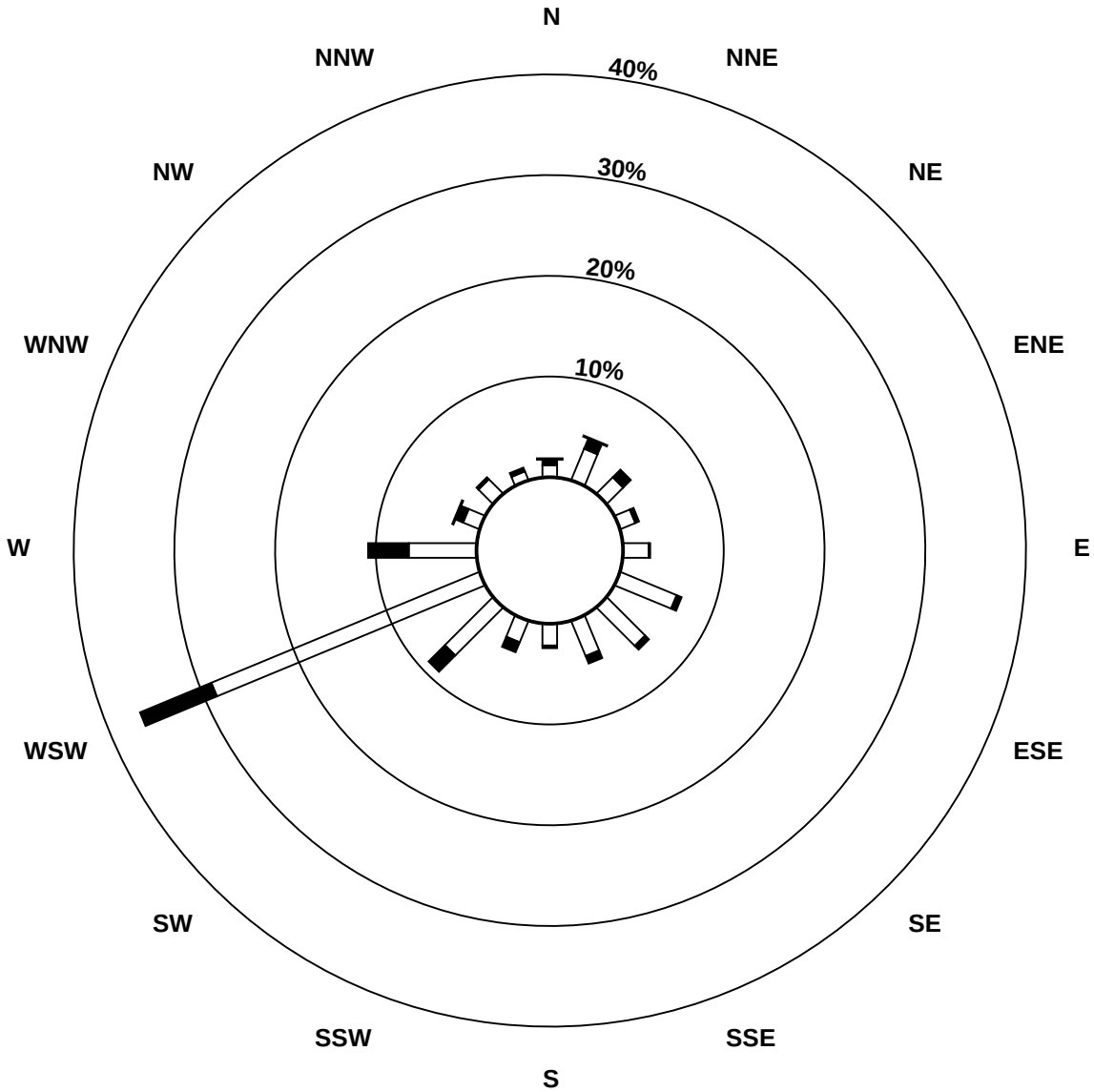
Smoky Heights - May 2012



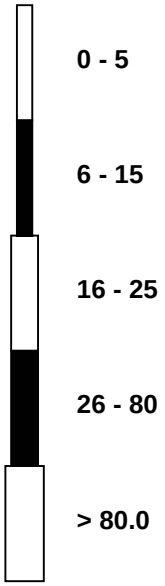
Pollutant Rose

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

Smoky Heights - May 2012



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



Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Smoky Heights - May 2012

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

Maximum Value: 23.1 ^{o}C on May 27 18:00

Maximum Daily Average: 16.7 ^{o}C on May 27

Minimum Value: -5 ^{o}C on May 17 05:00

Minimum Daily Average: 3.5 ^{o}C on May 18

Maximum Diurnal Average: 15.4 ^{o}C at hour 15

Minimum Diurnal Average: 4.2 ^{o}C at hour 5

Monthly Average: 10.36 ^{o}C

Percentiles: P_1 = -2.6 P_{10} = 3.2 Q_1 = 6.4 Median = 9.9 Q_3 = 14.4 P_{90} = 18.6 P_{99} = 22.4

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

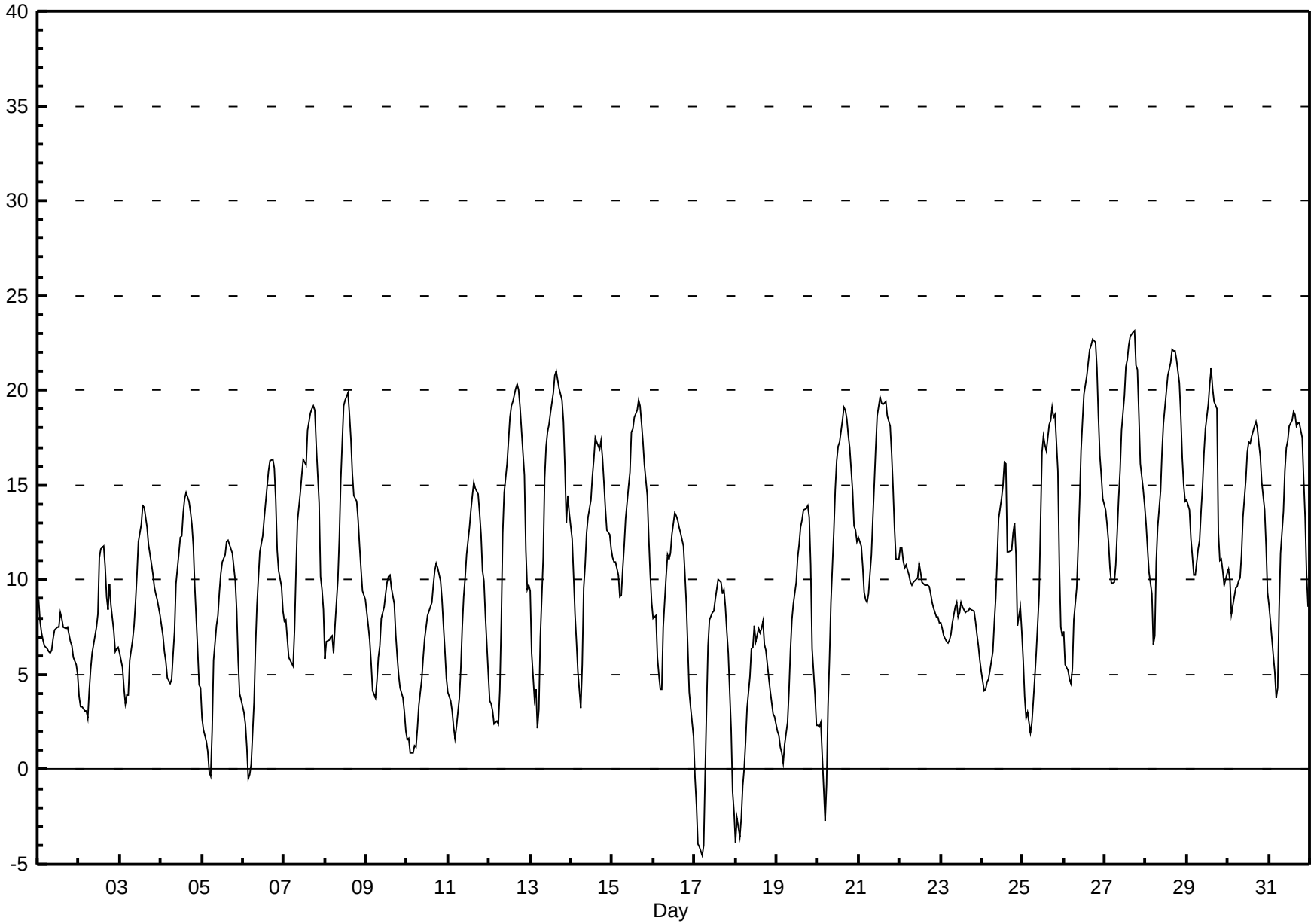
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-May	9	8	7	7	7	6	6	6	6	7	7	8	7	8	8	7	7	8	7	7	6	6	5	5	7.0	9.0
2-May	4	3	3	3	3	3	4	5	6	7	7	8	11	12	12	11	9	8	10	9	7	6	6	6	6.9	11.8
3-May	6	5	4	3	4	4	6	7	8	9	10	12	13	14	14	13	13	12	11	10	10	9	9	8	8.9	13.9
4-May	8	7	6	6	5	5	5	6	7	10	11	12	12	14	14	15	14	14	13	12	10	6	4	4	9.1	14.6
5-May	3	2	1	1	0	0	2	6	8	8	9	10	11	11	12	12	12	12	11	10	8	6	4	4	6.8	12.1
6-May	3	2	1	-1	0	0	4	6	9	10	12	12	13	14	15	16	16	16	16	14	12	10	10	8	9.1	16.3
7-May	8	8	7	6	6	5	7	10	13	15	15	16	16	16	18	19	19	19	19	17	14	10	9	8	12.6	19.2
8-May	6	7	7	7	7	6	8	10	12	15	17	19	19	20	19	17	16	14	14	13	12	11	9	9	12.3	19.8
9-May	8	8	7	6	4	4	5	6	6	8	9	9	10	10	10	10	9	7	6	5	4	4	3	2	6.6	10.3
10-May	2	2	1	1	1	1	2	3	5	6	7	8	8	8	9	10	10	11	11	10	9	8	6	5	5.9	10.9
11-May	4	4	3	2	2	2	4	5	8	9	10	11	13	14	14	15	15	15	14	12	10	10	8	5	8.7	15.1
12-May	4	3	3	2	3	2	4	8	12	15	16	17	19	19	19	20	20	20	19	18	16	12	10	10	12.1	20.3
13-May	9	6	4	4	2	3	7	11	15	17	18	18	19	20	21	21	21	20	19	18	16	13	14	14	13.8	21.0
14-May	12	10	8	7	5	3	6	10	11	12	13	14	15	16	18	17	17	17	16	15	14	13	12	12	12.3	17.5
15-May	11	11	11	10	9	9	11	12	13	15	16	18	18	19	19	19	19	18	17	16	14	12	10	9	14.0	19.5
16-May	8	8	6	5	4	4	7	10	11	11	11	12	14	13	13	13	12	12	10	9	6	4	3	2	8.8	13.5
17-May	0	-2	-4	-4	-5	-4	0	3	7	8	8	8	9	10	10	10	9	9	9	7	6	2	-1	-2	3.9	10.0
18-May	-4	-3	-4	-3	-1	0	2	3	5	6	6	8	7	7	7	7	8	7	6	5	4	4	3	3	3.5	7.8
19-May	2	2	1	1	0	1	2	4	6	8	9	10	11	12	13	13	14	14	14	13	11	6	4	2	7.3	13.9
20-May	2	2	2	1	-3	-1	3	6	9	13	15	16	17	17	18	19	19	19	18	17	15	13	13	12	10.9	19.1
21-May	12	12	11	9	9	9	9	11	13	15	17	19	20	19	19	19	19	19	18	17	15	13	11	11	14.4	19.6
22-May	12	12	11	11	11	10	10	10	10	10	10	11	10	10	10	10	10	10	9	9	8	8	8	8	9.8	11.7
23-May	8	7	7	7	7	7	7	8	9	9	8	8	9	9	8	8	8	8	8	8	8	7	7	6	7.7	8.8
24-May	5	4	4	5	5	5	6	8	9	11	13	14	15	16	16	12	11	12	12	13	11	8	9	7	9.7	16.2
25-May	6	4	3	3	2	2	4	5	6	9	13	17	18	17	17	18	18	19	19	19	16	11	8	7	10.8	19.1
26-May	7	6	5	5	4	5	8	10	12	14	17	18	20	21	21	22	22	23	23	21	19	17	16	14	14.5	22.7
27-May	14	13	12	11	10	10	11	12	14	16	18	20	21	22	22	23	23	23	21	21	19	16	15	14	16.7	23.1
28-May	13	12	10	9	7	7	11	13	15	17	18	19	20	21	21	22	22	22	22	20	19	16	15	14	16.1	22.1
29-May	14	14	12	11	10	10	12	12	14	15	17	18	19	20	21	20	19	19	12	11	11	10	10	10	14.3	21.1
30-May	11	10	8	9	10	10	10	10	11	13	15	17	17	17	18	18	18	18	17	17	15	14	12	9	13.5	18.3
31-May	9	8	6	5	4	4	8	11	14	16	17	17	18	18	19	19	18	18	18	18	15	13	10	9	13.0	18.9
	6.9	6.3	5.3	4.8	4.2	4.4	6.1	8.0	9.8	11.4	12.6	13.7	14.5	15.0	15.4	15.3	15.2	14.9	14.2	13.3	11.6	9.6	8.5	7.6	Diurnal Average	
	14.2	13.7	12.1	11.2	10.8	10.3	11.6	12.8	15.4	17.1	18.2	19.7	21.3	21.6	22.4	22.8	23.1	23.1	22.5	21.2	18.7	16.6	15.5	14.3	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Smoky Heights - May 2012



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Smoky Heights - May 2012

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	14	13	10	11	9	9	9	10	9	13	10	16	15	9	8	10	4	8	13	18	0	9	10	11	5.8	18.5
Dir	140	160	94	76	84	74	69	79	97	122	173	149	141	165	164	120	28	41	50	55	145	263	242	256	114.5	54.7
2 Spd	9	7	4	8	2	3	6	5	7	6	7	4	4	5	6	18	15	7	3	6	1	1	6	2	4.2	18.1
Dir	262	270	225	174	212	246	256	185	224	192	181	194	278	257	205	164	157	176	114	138	288	289	214	25	199.4	164.0
3 Spd	1	3	2	4	4	7	7	15	18	14	24	24	27	30	27	28	28	28	26	20	14	11	10	14	15.0	29.8
Dir	136	236	176	67	15	38	96	134	138	130	144	139	132	127	115	123	121	120	119	119	112	107	115	111	122.6	126.9
4 Spd	12	6	6	6	1	4	6	12	15	24	25	26	26	30	37	34	33	31	32	22	20	14	14	15	16.4	36.9
Dir	119	88	36	26	1	207	225	239	234	240	253	254	253	256	258	246	242	257	247	245	250	248	250	242	247.8	258.5
5 Spd	13	13	13	13	13	13	14	26	42	41	39	35	33	31	32	33	30	30	30	22	20	14	15	17	23.9	41.7
Dir	252	249	241	248	255	251	246	244	244	242	242	257	243	243	248	255	246	267	249	234	246	242	247	254	247.5	243.9
6 Spd	16	15	16	14	16	15	15	18	20	24	22	24	21	18	18	17	17	21	20	16	11	13	14	10	16.9	24.4
Dir	254	259	260	258	252	258	259	255	250	249	251	252	262	263	262	240	246	235	246	238	243	241	250	240	251.1	251.7
7 Spd	8	4	5	5	6	8	7	16	23	24	26	29	28	23	24	28	28	23	19	10	7	5	1	4	14.7	29.4
Dir	247	214	251	238	224	223	225	242	244	251	242	238	249	245	242	247	251	246	247	229	267	260	254	340	244.7	238.1
8 Spd	4	1	4	6	6	7	9	8	8	9	13	16	17	29	29	33	36	34	26	22	15	17	16	20	14.5	35.9
Dir	262	172	118	206	210	228	232	218	200	227	233	255	255	279	293	282	267	266	260	254	233	232	230	235	254.3	267.0
9 Spd	18	16	18	15	12	15	16	27	32	34	43	44	42	43	45	39	41	42	42	37	30	35	33	31	30.9	44.9
Dir	243	240	250	249	244	249	249	244	242	248	253	254	257	252	246	252	261	251	246	239	231	237	238	239	247.1	245.9
10 Spd	29	35	33	29	30	32	30	39	43	39	37	38	40	41	43	44	46	45	42	37	31	30	28	24	35.7	46.0
Dir	241	235	236	239	248	245	245	253	258	259	255	253	260	260	257	257	258	261	253	253	249	247	249	246	251.7	257.6
11 Spd	27	27	23	22	25	29	28	30	35	34	34	35	35	38	36	39	41	41	40	36	21	23	16	13	30.2	40.7
Dir	249	246	242	245	246	254	248	250	260	253	255	250	257	255	256	257	246	244	247	251	247	251	241	258	250.8	246.1
12 Spd	8	11	10	11	12	10	7	12	25	37	42	39	40	44	40	39	38	37	32	29	15	13	15	17	23.1	44.2
Dir	254	180	178	242	205	213	196	201	248	253	252	246	245	256	255	259	253	254	246	250	257	242	260	260	246.8	255.7
13 Spd	12	8	11	12	11	10	11	11	21	32	39	42	39	35	37	40	41	40	37	30	18	16	21	22	24.0	41.8
Dir	259	255	221	240	252	257	238	219	245	238	237	233	237	236	239	255	251	249	257	253	259	257	290	295	247.9	232.7
14 Spd	18	14	10	6	8	7	6	8	8	3	2	4	5	5	1	1	6	11	10	11	11	11	12	7	4.7	18.3
Dir	305	330	338	335	324	312	287	359	16	28	59	310	303	149	136	108	117	65	62	46	45	46	47	49	8.9	305.0
15 Spd	8	10	10	10	6	7	7	6	8	14	17	21	23	26	28	30	30	32	28	29	25	23	18	16	13.2	31.9
Dir	17	23	32	30	13	356	10	27	221	231	223	226	239	244	234	232	237	249	242	246	249	246	252	255	247.7	249.1
16 Spd	16	16	15	13	12	11	8	9	13	11	19	30	32	39	41	34	33	36	37	33	23	19	19	16	22.0	41.1
Dir	256	259	258	263	263	264	253	271	291	284	260	272	267	267	267	267	270	267	274	267	262	256	253	246	265.7	266.6
17 Spd	13	15	10	10	7	7	8	9	11	16	19	20	19	22	25	23	19	16	9	9	7	3	3	3	10.7	24.9
Dir	252	257	234	249	227	242	244	225	239	234	234	246	243	242	245	253	249	237	294	1	42	17	343	35	248.4	245.0
18 Spd	4	5	4	6	8	7	8	11	11	11	11	6	17	20	19	18	21	20	20	21	18	17	12	13	9.7	20.9
Dir	288	275	325	30	352	12	17	19	13	24	345	329	259	270	269	268	261	288	299	278	279	277	273	296	295.7	260.7
19 Spd	14	13	13	12	12	11	8	9	7	9	13	15	13	13	13	14	12	11	4	8	6	4	3	3	8.0	14.7
Dir	283	268	261	261	253	248	238	221	206	254	247	243	239	237	263	236	251	266	7	49	17	9	320	263	255.5	242.7
20 Spd	6	5	5	6	7	8	8	7	6	4	7	5	3	3	5	6	5	1	6	11	12	11	9	7	2.2	12.2
Dir	258	216	210	241	207	202	179	173	165	121	111	132	326	128	116	80	146	219	57	51	56	49	43	31	115.7	55.7
21 Spd	10	9	12	7	8	7	6	4	7	11	14	11	9	13	16	17	18	17	15	7	11	2	5	6	6.1	18.4
Dir	12	16	41	18	23	31	30	112	130	145	160	163	120	114	131	130	123	150	135	85	191	82	9	26	111.0	123.4
22 Spd	7	4	7	7	9	6	5	5	4	5	5	3	19	24	21	16	17	17	13	16	18	15	18	14	8.6	23.9
Dir	31	74	5	26	15	24	35	16	346	323	5	332	258	261	267	274	276	282	303	315	306	309	311	301	304.0	261.2

Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Smoky Heights - May 2012

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	14	7	3	4	6	6	6	3	8	10	9	12	13	13	10	8	3	5	2	3	7	5	6	2.7	17.7
Dir	309	319	33	278	229	224	225	236	309	298	36	51	62	75	66	65	85	105	156	323	358	336	325	277	8.7	309.1
24 Spd	4	3	4	8	10	7	8	11	13	6	8	8	9	8	8	26	12	15	8	6	7	5	4	5	1.6	25.6
Dir	46	275	266	258	256	217	237	246	244	280	6	7	42	52	87	43	140	161	196	223	258	225	246	275	245.5	42.9
25 Spd	3	4	6	5	6	7	8	9	7	7	7	5	1	16	14	8	6	4	5	3	3	3	1	4	4.1	15.6
Dir	254	219	245	174	177	195	193	170	148	162	138	126	221	222	256	247	155	87	180	118	183	268	73	224	193.7	222.1
26 Spd	4	4	5	5	6	6	6	9	11	13	12	14	12	16	12	10	13	13	12	12	9	12	16	20	8.5	19.6
Dir	218	260	252	240	245	216	201	174	147	159	155	154	164	177	147	124	134	125	125	122	82	111	135	140	150.4	140.4
27 Spd	24	22	20	20	17	13	14	16	22	20	14	13	16	13	15	14	14	13	12	9	8	10	17	21	15.1	23.7
Dir	140	148	152	151	152	160	159	154	153	145	133	131	122	112	132	126	120	118	114	110	104	114	132	143	137.4	140.4
28 Spd	20	11	8	4	4	5	4	12	17	15	16	19	19	16	13	11	13	12	13	11	8	8	12	15	10.5	19.6
Dir	145	145	148	201	270	275	136	125	134	125	115	121	122	123	125	100	105	117	96	89	83	77	95	100	118.8	144.5
29 Spd	20	21	15	12	8	9	11	11	4	4	5	7	7	7	3	15	31	26	31	20	15	18	13	16	6.7	31.4
Dir	113	114	109	106	80	108	103	151	162	232	259	233	254	256	256	246	261	242	160	192	234	258	231	240	197.1	160.0
30 Spd	19	14	12	16	17	16	18	15	15	19	21	21	23	26	25	27	31	32	31	29	25	21	18	14	20.9	32.3
Dir	257	256	237	242	247	235	243	233	237	246	250	242	248	244	234	244	246	245	244	248	249	245	238	240	244.2	245.1
31 Spd	14	14	12	6	5	7	11	15	24	30	34	33	30	31	31	31	29	26	24	20	14	12	11	11	19.2	34.5
Dir	242	246	221	217	231	212	203	224	235	248	261	258	257	254	256	264	258	253	250	245	249	250	260	267	249.6	260.8
Spd	6.3	5.9	4.7	5.1	5.5	6.1	6.0	7.9	10.4	12.2	13.1	14.0	14.4	15.7	15.5	14.7	15.9	15.5	12.6	10.1	8.4	8.1	7.4	7.1	Diurnal Average	
Dir	245.3	239.2	234.1	240.4	246.2	241.7	232.9	224.7	232.3	236.8	238.1	238.4	242.9	243.5	244.6	246.5	242.4	245.2	242.0	245.6	250.3	250.7	248.3	248.0		
Spd	28.6	34.8	33.1	29.2	30.1	32.1	30.0	38.5	43.2	40.8	42.7	44.1	42.1	44.2	44.9	44.1	46.0	45.4	42.2	37.0	31.3	35.2	33.2	30.5	Diurnal Maximum	
Dir	241.4	234.8	235.7	238.9	247.8	244.8	245.5	253.2	258.1	242.0	252.9	254.0	256.6	255.7	245.9	257.4	257.6	260.6	253.3	239.0	249.1	237.3	237.7	239.0		

Maximum Speed Value: 46 km/h on May 10 17:00
Maximum Daily Speed Average: 35.7 km/h on May 10
Maximum Diurnal Speed Average: 15.9 km/h at hour 17

Minimum Speed Value: 0 km/h on May 1 21:00
Minimum Daily Speed Average: 1.6 km/h on May 25
Minimum Diurnal Speed Average: 4.7 km/h at hour 3

Monthly Average Velocity: 10.06 km/h 241.95 deg

Speed Percentiles: P_1 = 1.3 P_{10} = 4.5 Q_1 = 7.4 Median = 13.2 Q_3 = 21.9 P_{90} = 32.8 P_{99} = 42.3

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

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Percent Operational Time:	100.0

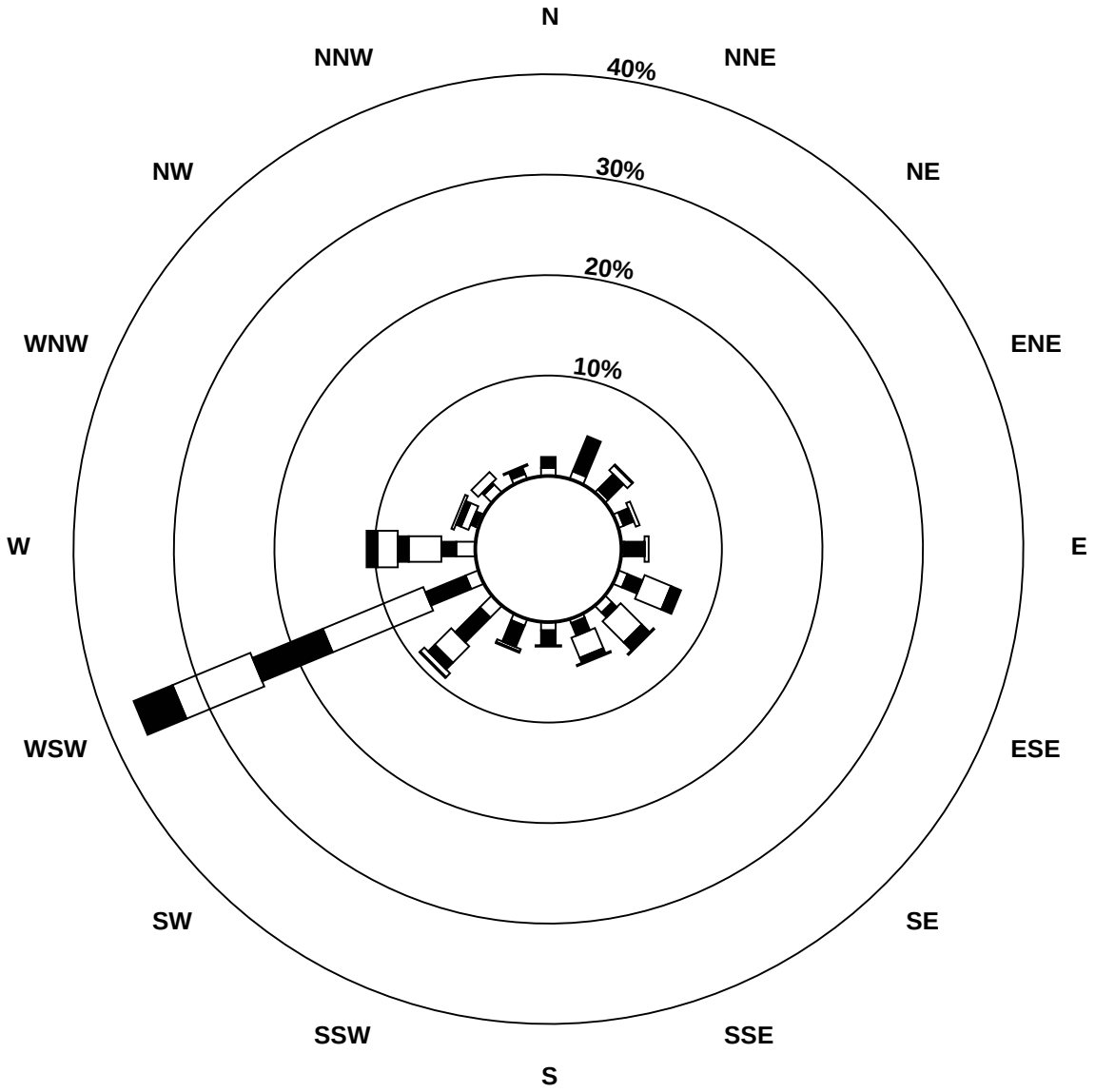
Frequency Distribution

Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	11	23	0	0	0	0	34
NorthEast	8	34	9	1	0	0	52
East	7	21	15	0	0	0	43
SouthEast	12	17	46	19	2	0	96
South	8	25	11	1	1	0	46
SouthWest	16	51	58	39	31	13	208
West	21	27	72	31	55	28	234
NorthWest	8	9	11	2	1	0	31
Total	91	207	222	93	90	41	744

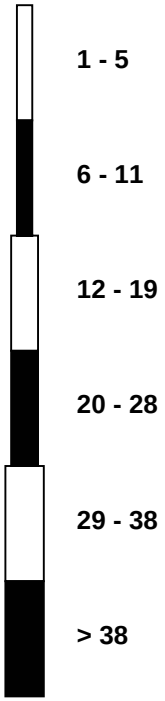
Wind Rose

Wind Speed (WS) (km/h)

Smoky Heights - May 2012



Wind Speed Classes (km/h)



Peace Airshed Zone Association

Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Smoky Heights - May 2012

Maximum Speed: 46 km/h on May 10 17:00

Maximum Daily Speed Average: 36.3 km/h on May 10

Minimum Speed: 3 km/h on May 3 01:00

Minimum Daily Speed Average: 6.8 km/h on May 2

Maximum Diurnal Speed Average: 23.9 km/h at hour 17

Minimum Diurnal Speed Average: 9.9 km/h at hour 5

Monthly Average Speed: 16.59 km/h

Percentiles: $P_1 = 3.2$ $P_{10} = 5.7$ $Q_1 = 8.1$ Median = 13.7 $Q_3 = 22.2$ $P_{90} = 33.2$ $P_{99} = 42.5$

Hours in Service:	744
Hours of Data:	744
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-May	14	13	10	11	9	9	9	10	9	14	11	16	16	11	9	11	5	8	13	19	9	10	10	11	11.1	18.6
2-May	9	7	5	8	3	4	7	6	7	6	7	5	5	6	9	20	16	7	4	6	3	3	6	3	6.8	19.7
3-May	3	3	4	4	5	7	8	15	18	15	24	24	28	31	28	29	29	28	26	20	14	11	10	14	16.6	30.6
4-May	12	7	7	6	3	5	7	12	15	24	26	27	26	30	38	34	33	32	32	23	20	14	14	15	19.3	37.5
5-May	13	13	13	13	13	13	14	26	42	41	39	35	33	32	32	33	30	31	30	22	20	15	15	17	24.4	42.0
6-May	16	15	16	14	16	15	15	18	20	24	23	25	21	18	19	18	17	22	20	16	11	13	14	10	17.5	24.8
7-May	9	4	5	6	6	8	7	16	23	24	26	30	29	23	24	28	28	24	19	10	8	5	3	6	15.5	29.8
8-May	5	4	4	6	6	7	10	9	8	10	13	17	18	30	31	34	36	34	27	22	16	18	16	21	16.7	36.2
9-May	19	16	18	15	12	15	16	27	32	34	43	45	43	43	46	40	42	43	42	37	31	35	33	31	31.5	45.6
10-May	29	35	33	29	30	32	30	39	43	40	37	38	40	41	43	44	46	46	43	37	31	30	28	25	36.3	46.3
11-May	27	27	23	22	25	29	28	31	35	35	34	35	36	39	36	40	42	41	40	36	21	23	16	13	30.6	41.7
12-May	9	11	11	11	12	10	7	13	25	37	43	39	41	45	41	39	38	37	32	29	15	14	15	17	24.7	44.7
13-May	13	8	12	12	11	10	11	11	21	33	40	42	39	36	37	41	42	40	38	30	18	16	22	22	25.2	42.2
14-May	18	14	10	7	8	7	7	8	9	6	6	7	7	8	6	5	7	11	10	11	11	11	12	8	9.0	18.4
15-May	8	10	10	10	6	8	7	6	8	15	17	21	24	26	28	30	31	32	28	29	25	23	18	16	18.3	32.1
16-May	16	16	15	13	12	11	8	11	13	12	19	31	33	40	42	35	33	36	37	33	23	19	19	16	22.6	41.6
17-May	14	15	10	10	7	7	8	9	11	16	20	20	20	23	25	24	20	17	14	9	7	4	4	4	13.3	25.3
18-May	5	5	4	6	8	7	8	11	11	11	12	8	18	20	19	19	22	21	21	21	18	17	12	13	13.3	21.8
19-May	14	13	13	12	12	11	8	9	8	11	14	16	15	16	15	16	14	13	10	8	7	4	3	4	11.0	16.2
20-May	6	5	5	6	7	8	8	7	7	6	8	8	8	10	8	8	8	5	6	11	12	11	10	7	7.7	12.3
21-May	10	9	12	7	8	7	6	7	8	12	15	13	10	13	16	18	19	17	16	8	13	4	5	6	10.8	19.0
22-May	8	7	8	7	10	6	5	6	4	5	5	6	19	24	21	16	17	17	14	16	18	15	18	15	12.0	24.0
23-May	18	15	7	4	4	6	6	7	4	9	10	9	12	13	13	10	8	4	5	4	3	7	6	6	8.0	17.8
24-May	5	5	5	8	10	8	9	11	13	9	8	9	10	10	9	26	14	15	9	6	7	8	9	6	9.6	26.2
25-May	5	4	6	5	6	7	8	9	7	7	7	7	8	16	15	9	9	6	5	4	4	3	3	4	6.9	16.2
26-May	4	4	5	5	6	6	6	9	11	13	12	15	14	17	13	12	14	14	12	12	9	13	17	20	11.0	19.6
27-May	24	22	20	20	17	13	14	17	22	20	15	14	16	15	16	15	14	13	12	9	9	10	17	21	16.0	23.8
28-May	20	12	9	6	4	5	6	13	18	16	16	19	19	17	14	12	14	13	14	12	8	8	12	15	12.6	19.7
29-May	20	21	15	12	9	10	11	12	6	7	7	9	9	9	7	16	31	30	32	21	15	18	14	16	14.9	31.7
30-May	19	14	13	17	17	16	18	15	15	19	21	22	24	27	25	28	32	33	31	30	25	21	18	14	21.4	32.8
31-May	14	14	12	7	5	7	11	15	24	31	35	33	30	31	31	31	29	26	25	20	14	12	11	11	20.1	35.0
	13.1	12.0	11.0	10.4	9.9	10.2	10.4	13.5	16.1	18.1	19.9	20.8	21.8	23.2	23.2	23.9	23.9	23.0	21.5	18.4	14.4	13.4	13.1	13.0	Diurnal Average	
	28.7	34.9	33.2	29.3	30.2	32.2	30.1	38.9	43.4	41.1	43.2	44.6	43.0	44.7	45.6	44.4	46.3	45.6	42.5	37.2	31.4	35.2	33.3	30.7	Diurnal Maximum	

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

Peace Airshed Zone Association

Hourly Standard Deviations

Wind Direction (WD) - deg

Smoky Heights - May 2012

Maximum Value: 96.4 deg on May 25 13:00

Minimum Value: 2.0 deg on May 16 01:00

Percentiles: P_1 = 3.1 P_{10} = 5.2 Q_1 = 7.5 Median = 11.2 Q_3 = 20.0 P_{90} = 35.4 P_{99} = 87.2

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-May	6	11	15	10	12	8	9	12	18	11	12	14	17	35	30	13	34	6	13	7	86	7	8	3	86.1
2-May	5	13	37	12	57	25	23	34	16	22	21	43	40	59	68	24	23	23	63	17	83	89	9	73	89.1
3-May	60	24	71	12	16	7	33	9	7	17	12	14	13	13	13	12	10	9	9	8	7	8	8	10	71.3
4-May	8	31	13	6	73	25	16	9	7	8	10	12	10	12	11	11	9	11	10	6	4	8	6	4	72.7
5-May	6	7	4	5	11	10	8	10	7	7	9	11	11	12	12	11	10	13	10	6	7	7	7	4	13.0
6-May	3	6	3	4	4	5	4	6	6	12	13	11	16	18	24	20	19	9	11	3	5	7	4	8	23.8
7-May	19	33	23	16	12	7	11	6	8	12	10	10	8	9	10	10	8	10	11	7	23	28	88	43	87.6
8-May	21	69	31	20	16	17	14	24	13	18	11	16	24	12	19	13	7	8	12	7	13	14	9	6	68.8
9-May	8	4	4	4	4	7	7	8	6	9	9	9	12	10	10	9	10	11	8	5	6	4	4	6	11.9
10-May	4	4	5	4	4	5	4	8	6	10	8	10	9	8	7	7	6	5	7	5	4	3	4	5	9.5
11-May	3	4	4	5	3	3	5	7	8	10	9	8	11	12	10	13	12	7	6	5	10	3	6	4	13.5
12-May	35	15	25	19	6	11	23	17	11	7	8	9	12	8	9	9	9	8	7	7	14	12	4	2	34.7
13-May	17	8	23	15	10	9	11	16	9	7	7	8	8	8	11	11	10	9	8	6	4	7	12	5	23.4
14-May	6	7	5	13	7	20	29	24	31	84	91	57	65	62	96	92	58	26	11	15	6	5	14	20	96.3
15-May	11	9	11	7	9	12	12	18	37	12	9	11	16	12	12	9	10	7	8	4	4	5	6	3	37.4
16-May	2	5	4	5	5	19	8	34	10	17	13	13	10	9	8	14	9	8	7	6	5	3	3	5	33.5
17-May	4	9	10	8	25	15	9	17	19	18	20	16	20	19	11	18	17	16	48	20	9	24	21	47	48.3
18-May	31	9	25	15	11	24	11	9	19	14	24	51	20	18	13	16	16	12	12	11	6	4	7	15	50.8
19-May	6	14	3	4	5	7	7	11	36	36	27	27	33	35	33	33	37	49	76	8	19	28	24	46	75.8
20-May	13	16	15	20	16	12	6	11	27	60	34	55	71	88	71	47	65	84	20	8	7	7	10	13	88.2
21-May	10	15	11	12	8	6	7	52	28	16	20	29	31	18	15	15	14	15	24	47	42	82	21	17	82.0
22-May	14	63	14	12	10	27	16	22	27	10	23	53	6	4	5	6	5	6	9	9	7	6	7	14	62.6
23-May	6	23	8	45	10	9	17	17	40	25	18	13	10	13	9	10	16	36	25	74	33	7	31	14	73.8
24-May	47	61	40	15	6	16	12	6	8	59	24	24	24	43	35	13	32	9	22	17	14	51	71	33	71.3
25-May	83	19	28	27	9	8	11	12	19	14	29	46	96	17	25	42	53	44	37	61	41	24	80	21	96.4
26-May	16	8	12	11	5	16	21	12	15	13	23	21	31	21	28	34	19	17	14	7	9	12	10	5	34.1
27-May	4	6	5	3	5	8	6	8	10	10	17	16	14	23	17	22	20	13	11	5	10	8	7	5	23.1
28-May	4	9	57	45	25	33	49	15	9	16	17	17	17	20	26	31	24	26	16	9	6	8	13	7	57.1
29-May	7	8	10	11	20	23	14	28	64	54	54	51	57	56	78	25	8	27	8	18	15	12	10	8	77.7
30-May	4	4	21	13	7	5	6	11	7	16	11	14	18	10	10	11	11	10	8	6	5	4	9	5	20.6
31-May	7	6	16	30	26	14	10	11	7	14	10	9	12	11	8	8	6	8	10	8	11	6	7	7	30.0
	83.3	68.8	71.3	45.5	72.7	33.2	48.6	52.4	64.5	84.0	91.1	57.0	96.4	88.2	96.3	91.8	65.5	83.8	75.8	73.8	86.1	89.1	87.6	72.9	

PAZA
Beaverlodge Station
Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Beaverlodge - May 2012

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 1.5 ppb on May 14 08:00 Maximum Daily Average: 0.3 ppb on May 24

Minimum Value: 0 ppb on May 3 20:00 Minimum Daily Average: 0.0 ppb on May 10
Maximum Diurnal Average: 0.2 ppb at hour 8 Minimum Diurnal Average: 0.1 ppb at hour 15
Monthly Average: 0.12 ppb Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.1 Q_3 = 0.2 P_{90} = 0.2 P_{99} = 0.6

Hours in Service:	744
Hours of Data:	709
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-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.2	0.6
2-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.1	0.5
3-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
4-May	0	0	0	0	A	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.1
5-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
6-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
7-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
8-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
9-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
10-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
11-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
12-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
13-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
14-May	0	0	0	0	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.5
15-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
16-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
17-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
18-May	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
19-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
20-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
21-May	0	0	0	0	A	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.3
22-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
23-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
24-May	0	0	0	0	A	0	0	0	0	0	0	1	1	1	0	1	0	0	0	0	0	0	0	0	0.3	0.6
25-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
26-May	0	0	0	0	A	0	0	0	0	0	0	0	0	C	C	C	C	0	0	0	0	0	0	0	0.2	0.3
27-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.2
28-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
29-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
30-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
31-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
	0.1	0.1	0.1	0.1	--	0.1	0.1	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	Diurnal Average	
	0.3	0.4	0.5	0.3	--	0.6	0.5	1.5	0.4	1.1	1.3	0.5	0.6	0.5	0.3	0.5	0.2	0.3	0.4	0.3	0.5	0.6	0.5	0.3	Diurnal Maximum	

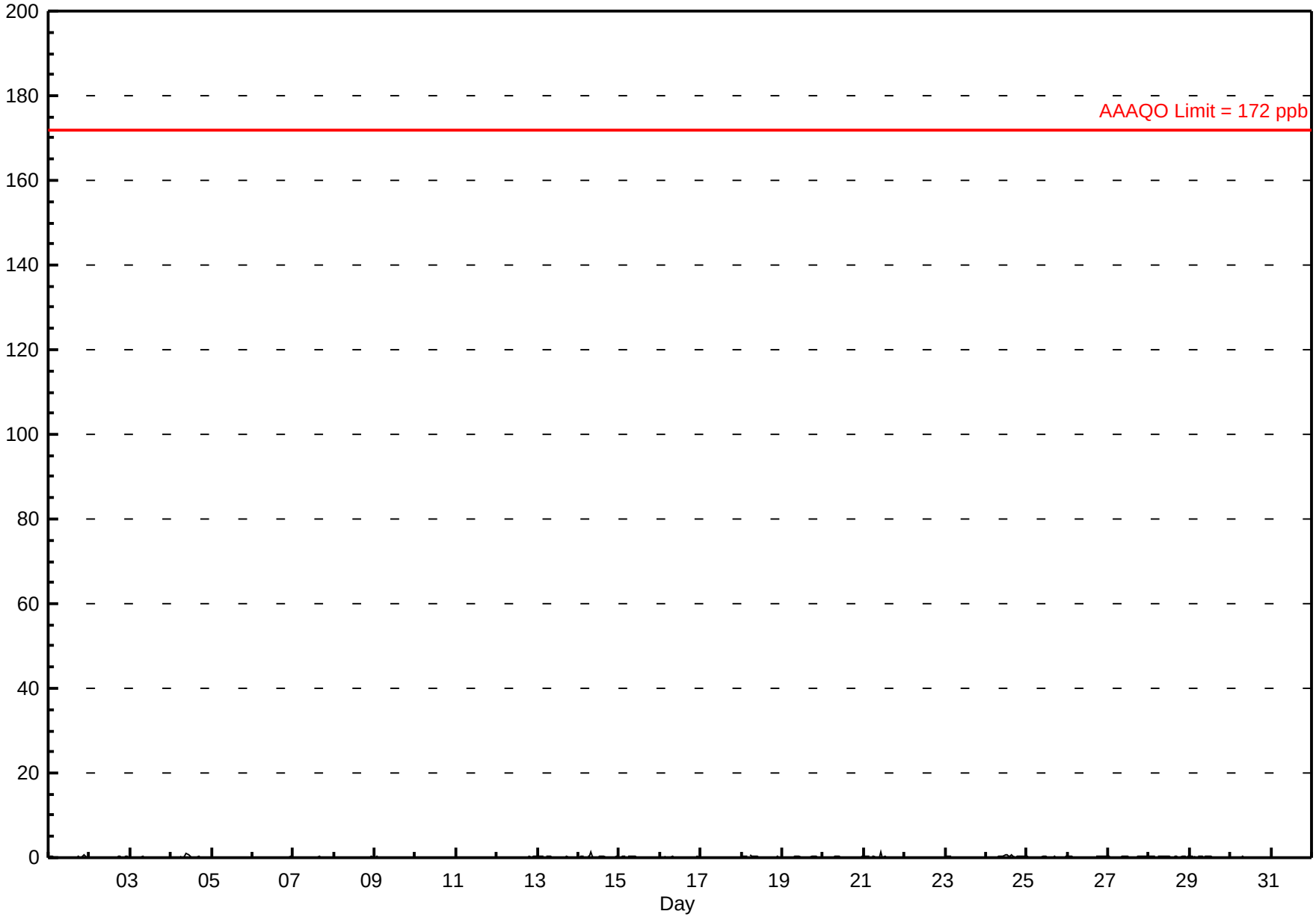
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Beaverlodge - May 2012



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Beaverlodge - May 2012

Maximum Value: 5.7 ppb on May 21 11:00

Maximum Daily Average: 0.5 ppb on May 14

Minimum Value: 0 ppb on May 26 12:00

Minimum Daily Average: 0.1 ppb on May 31

Maximum Diurnal Average: 0.4 ppb at hour 11

Minimum Diurnal Average: 0.2 ppb at hour 15

Monthly Average: 0.25 ppb

Percentiles: P_1 = 0.1 P_{10} = 0.1 Q_1 = 0.1 Median = 0.2 Q_3 = 0.3 P_{90} = 0.4 P_{99} = 1.0

Hours in Service:	744
Hours of Data:	709
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-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0.3	1.0
2-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	0	0.3	1.0
3-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
4-May	0	0	0	0	A	1	0	0	0	3	2	1	1	0	0	0	1	0	0	0	0	0	0	0	0.4	2.5
5-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
6-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.2	1.1
7-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
8-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
9-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
10-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
11-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
12-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
13-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
14-May	0	1	1	0	A	0	1	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	3.2
15-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
16-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
17-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.2
18-May	1	1	1	0	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.0
19-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0.3	0.6
20-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
21-May	0	0	0	0	A	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	5.7
22-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
23-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
24-May	0	0	0	0	A	0	0	0	0	0	0	1	1	1	0	1	0	0	0	0	0	1	1	0	0.4	0.9
25-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
26-May	0	0	0	0	A	0	0	0	0	0	0	0	0	C	C	C	C	0	0	0	0	0	0	0	0.2	0.4
27-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
28-May	0	0	0	0	A	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
29-May	0	0	0	0	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
30-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
31-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
	0.2	0.3	0.3	0.2	--	0.3	0.3	0.3	0.3	0.3	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	Diurnal Average	
	0.5	0.6	0.6	0.5	--	1.0	0.9	3.2	1.0	2.5	5.7	0.7	0.9	0.8	0.4	0.8	0.6	0.8	1.0	0.5	0.9	1.0	1.1	0.4	Diurnal Maximum	

C - Calibration

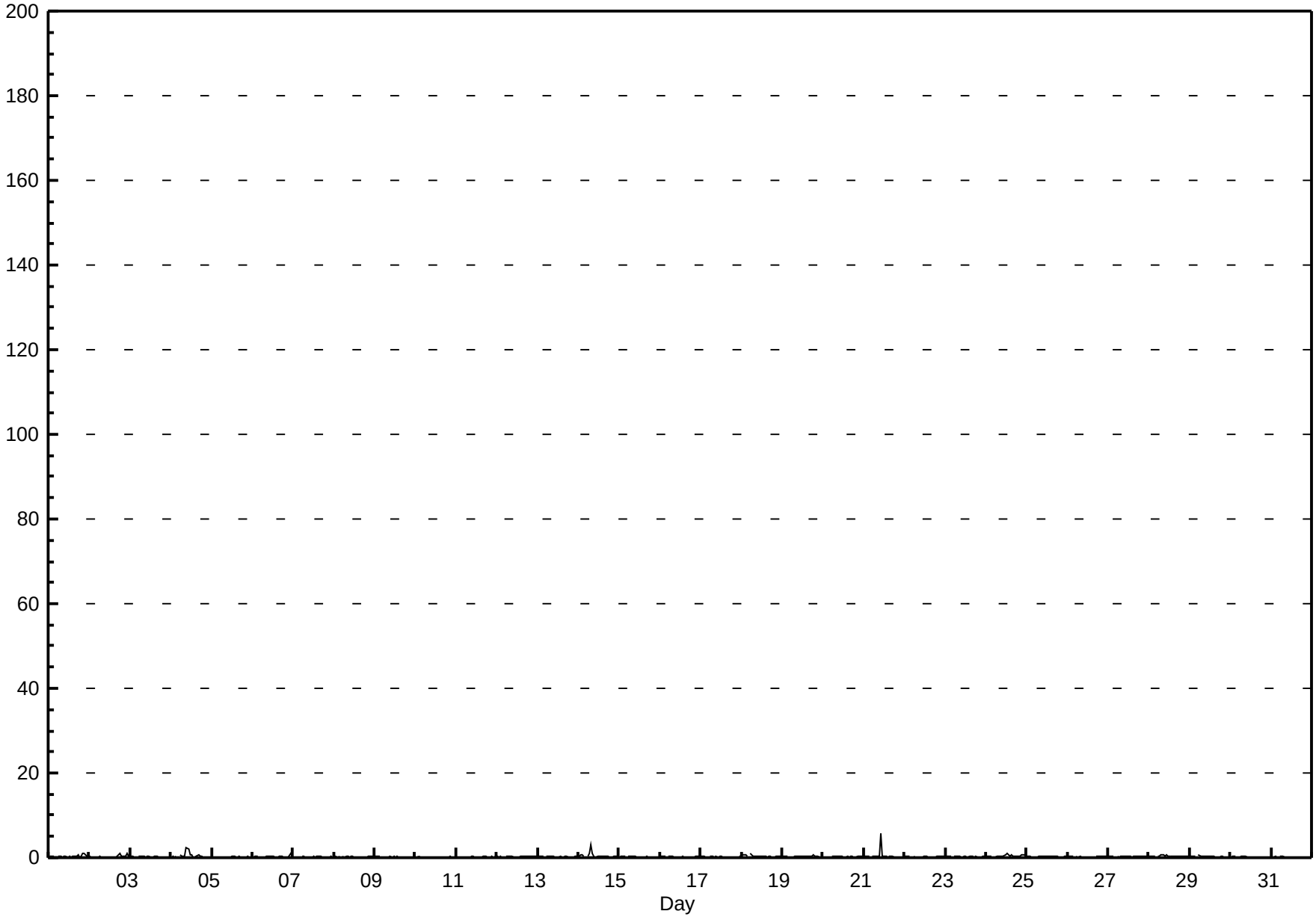
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

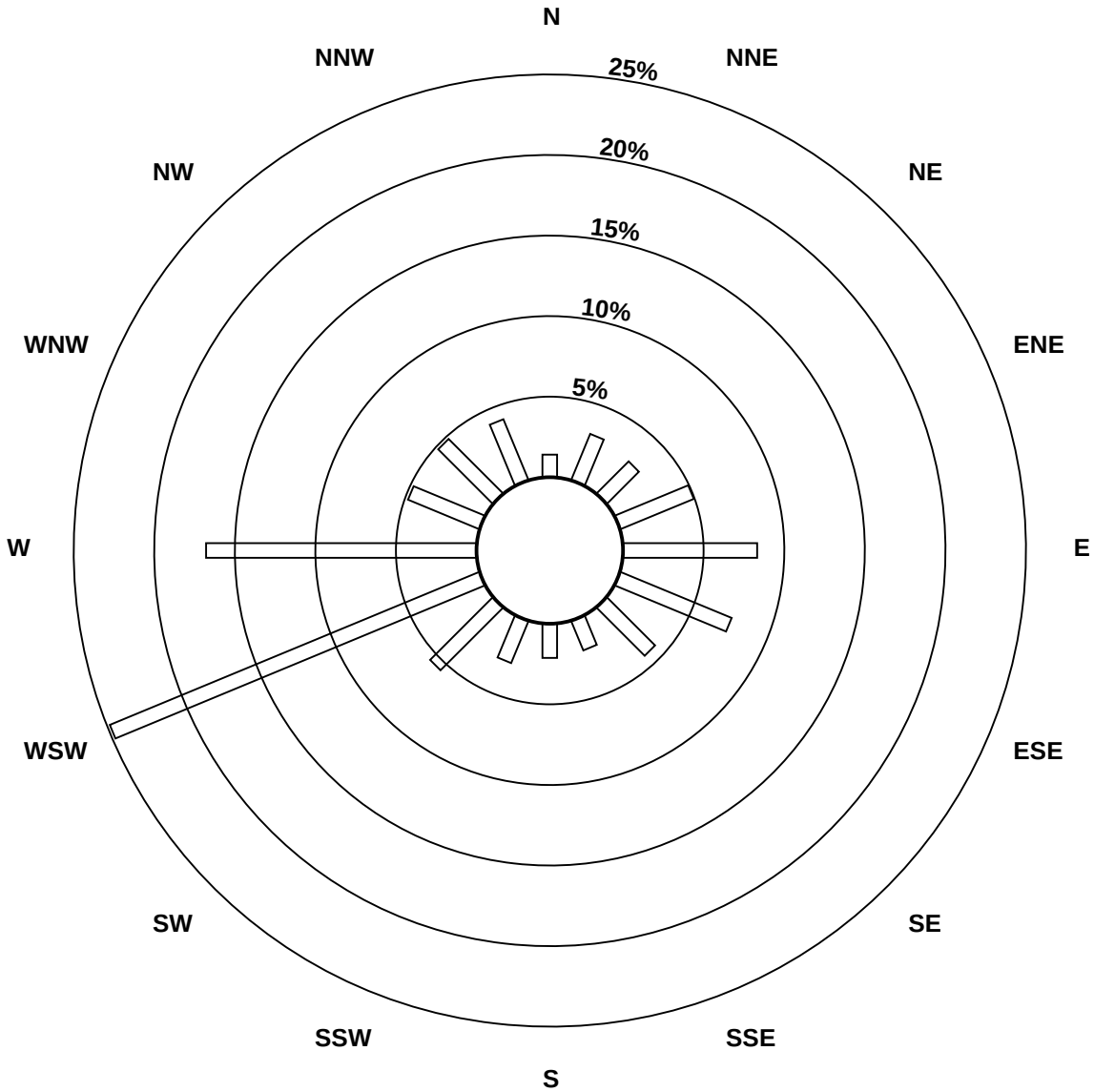
Beaverlodge - May 2012



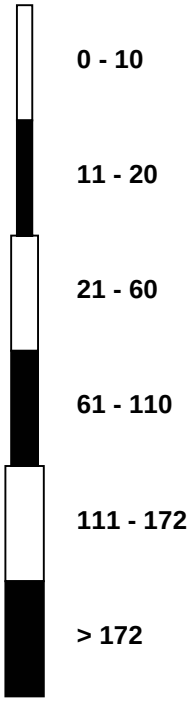
Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Beaverlodge - May 2012



Pollutant Classes (ppb)

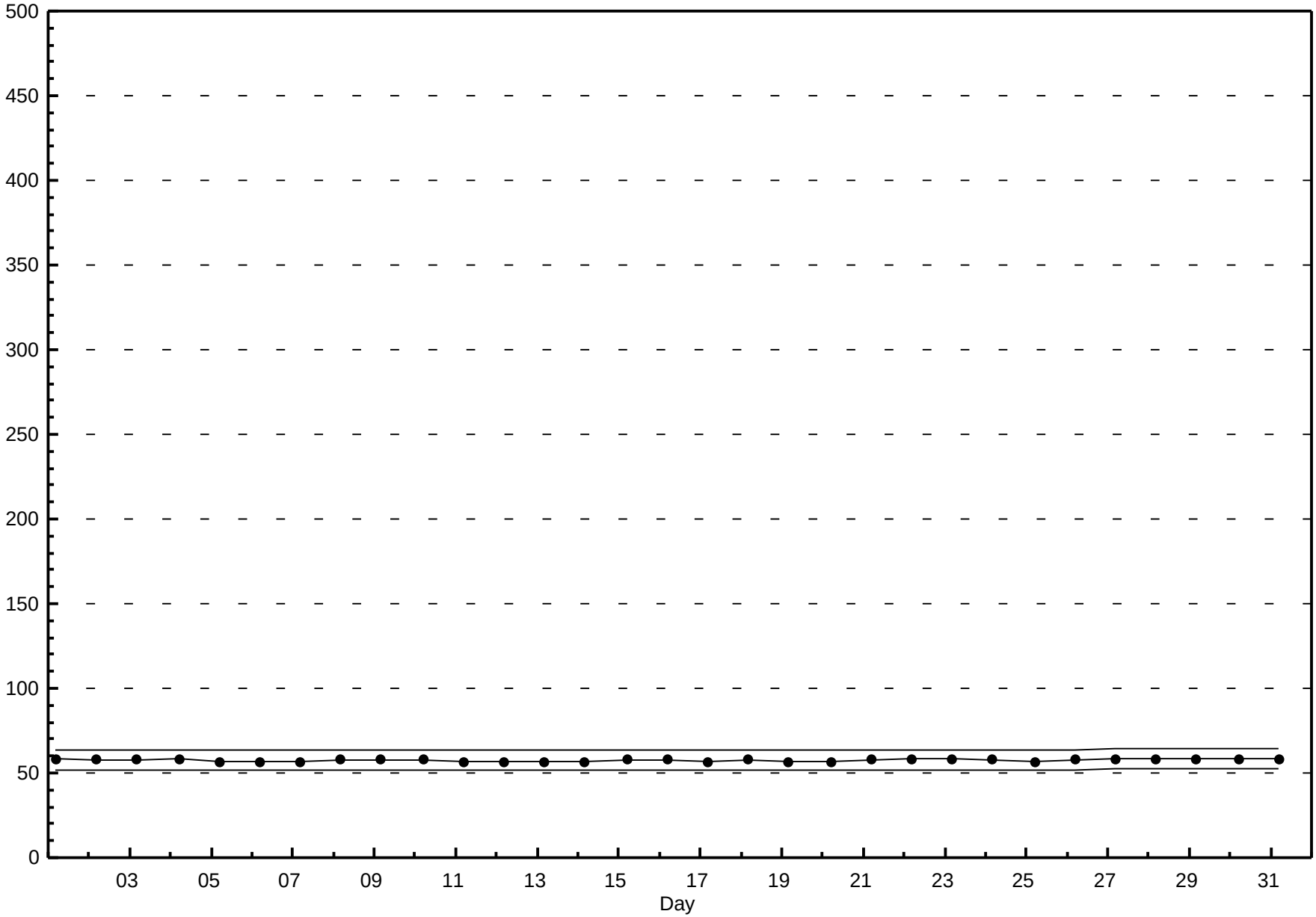


Peace Airshed Zone Association

Span Responses

Sulphur Dioxide (SO_2)

Beaverlodge - May 2012



Peace Airshed Zone Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Beaverlodge - May 2012

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 12.0 ppb on May 2 08:00 Maximum Daily Average: 2.9 ppb on May 22

Minimum Value: 0 ppb on May 19 15:00 Minimum Daily Average: 0.9 ppb on May 6
Maximum Diurnal Average: 4.0 ppb at hour 6 Minimum Diurnal Average: 0.8 ppb at hour 13
Monthly Average: 1.62 ppb Percentiles: P_1 = 0.3 P_{10} = 0.6 Q_1 = 0.7 Median = 1.2 Q_3 = 1.9 P_{90} = 3.4 P_{99} = 6.7

Hours in Service:	744
Hours of Data:	706
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-May	1	2	2	2	A	5	4	3	2	1	1	1	1	0	0	0	0	0	0	1	1	1	1	1	1.4	4.6
2-May	1	2	2	2	A	4	4	12	7	3	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2.2	12.0
3-May	2	2	1	2	A	4	3	3	2	2	1	1	1	1	1	1	1	1	1	1	3	2	2	2	1.8	3.7
4-May	2	2	2	2	A	4	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1.4	4.4
5-May	3	2	3	2	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	2.7
6-May	1	1	1	1	A	2	1	1	1	1	1	0	0	0	0	0	0	0	1	1	1	2	2	2	0.9	2.2
7-May	1	1	1	2	A	4	3	2	1	1	0	0	0	0	0	0	1	1	1	2	1	2	2	2	1.3	3.9
8-May	2	2	2	2	A	5	5	6	4	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.8	5.5
9-May	1	1	2	1	A	2	1	1	1	1	1	2	1	2	2	3	3	1	1	1	1	1	1	0	1.3	2.6
10-May	0	0	0	0	A	2	1	1	2	2	2	1	2	2	3	4	3	2	1	1	1	1	1	0	1.4	3.7
11-May	0	0	0	0	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	1.0	1.9
12-May	2	1	1	2	A	3	3	2	1	1	1	2	1	1	2	2	1	1	1	1	1	1	1	1	1.4	3.1
13-May	2	1	1	1	A	4	3	1	1	1	1	1	1	2	5	3	3	3	2	1	1	1	1	1	1.6	4.8
14-May	1	2	2	2	A	4	5	6	2	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1.7	6.4
15-May	1	1	1	4	A	5	10	8	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2.0	9.6
16-May	1	2	1	2	A	4	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.3	4.3
17-May	1	1	1	2	A	4	5	2	1	1	0	0	1	1	1	2	1	1	1	1	1	2	4	4	1.5	4.6
18-May	3	4	7	5	A	5	3	4	2	2	1	1	1	1	1	1	1	1	1	1	1	3	3	2	2.3	7.3
19-May	2	2	2	2	A	3	3	2	2	1	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1.1	3.1
20-May	2	2	2	3	A	4	3	3	2	1	1	0	0	0	0	0	1	1	1	1	1	1	1	1	1.3	3.5
21-May	1	1	1	2	A	5	5	3	1	1	1	1	1	1	1	1	1	1	2	1	1	1	2	2	1.5	5.2
22-May	2	4	8	11	A	3	4	5	3	3	2	2	2	2	1	1	1	1	1	2	2	2	2	4	2.9	11.2
23-May	2	2	2	2	A	5	4	4	2	1	1	1	1	1	1	1	1	1	1	1	1	2	1	2	1.5	4.8
24-May	2	5	4	4	A	6	4	3	2	1	2	1	1	1	1	1	1	1	1	1	2	2	3	2	2.1	5.8
25-May	2	2	4	3	A	5	3	3	2	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	1.8	4.7
26-May	2	2	3	3	A	4	3	C	C	C	C	C	C	C	4	2	1	1	1	1	1	2	3	2	--	4.1
27-May	4	3	3	3	A	5	4	5	3	2	2	1	1	1	1	1	1	1	1	1	1	2	2	2	2.1	5.0
28-May	2	2	2	2	A	5	3	6	3	4	3	1	1	1	1	1	1	1	1	1	1	2	2	1	2.1	5.7
29-May	1	2	3	5	A	4	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.4	4.7
30-May	2	1	2	2	A	6	5	3	3	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1.5	6.2
31-May	1	1	1	1	A	6	4	2	2	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	1.6	5.8
	1.7	1.8	2.2	2.5	--	4.0	3.5	3.2	2.0	1.3	1.0	0.9	0.8	0.9	1.1	1.0	1.0	0.9	0.9	0.9	1.1	1.4	1.6	1.7	Diurnal Average	
	3.8	4.8	7.6	11.2	--	6.2	9.6	12.0	6.9	3.5	2.8	1.9	1.8	2.3	4.8	3.7	3.0	2.8	1.5	2.2	2.9	3.5	4.5	4.3	Diurnal Maximum	

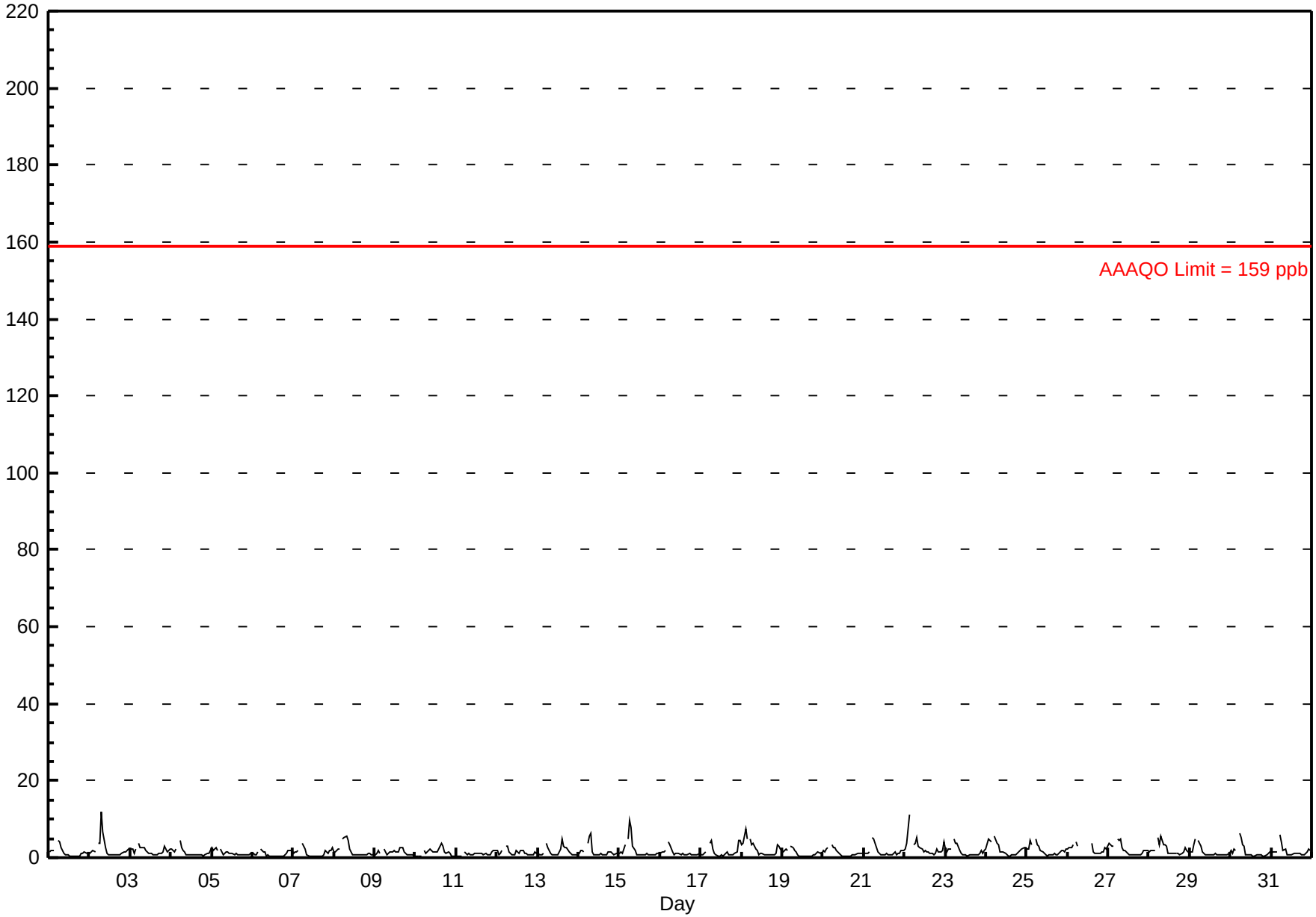
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb 24-hr 106 ppb

Peace Airshed Zone Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Beaverlodge - May 2012



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

Beaverlodge - May 2012

Maximum Value: 109.8 ppb on May 31 09:00

Maximum Daily Average: 7.3 ppb on May 31

Minimum Value: 0 ppb on May 19 15:00

Minimum Daily Average: 1.7 ppb on May 6

Maximum Diurnal Average: 7.6 ppb at hour 9

Minimum Diurnal Average: 1.9 ppb at hour 19

Monthly Average: 3.39 ppb

Percentiles: $P_1 = 0.5$ $P_{10} = 1.0$ $Q_1 = 1.4$ Median = 2.2 $Q_3 = 3.8$ $P_{90} = 6.4$ $P_{99} = 16.1$

Hours in Service:	744
Hours of Data:	706
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-May	2	2	2	2	A	6	7	4	3	2	2	1	2	1	1	1	1	1	1	2	1	2	1	1	2.1	6.8
2-May	1	2	2	2	A	8	11	16	13	4	2	1	5	1	1	1	1	1	1	2	2	2	3	2	3.7	16.3
3-May	2	4	3	5	A	5	4	3	3	3	2	2	1	1	1	1	1	2	2	2	5	3	2	3	2.6	5.5
4-May	3	3	2	4	A	7	4	3	2	2	2	2	1	1	2	2	1	1	1	1	2	2	3	4	2.4	7.1
5-May	6	2	4	6	A	5	3	3	4	4	2	2	2	2	2	1	1	1	1	2	1	1	1	1	2.5	6.1
6-May	2	1	2	3	A	4	2	2	1	1	1	1	1	1	1	0	1	1	1	2	2	3	4	3	1.7	3.7
7-May	2	2	2	2	A	6	5	4	2	1	1	1	1	1	1	1	2	2	2	5	2	3	4	4	2.4	5.8
8-May	2	2	3	2	A	6	8	11	11	3	5	1	1	2	1	1	1	2	2	3	3	3	2	2	3.3	11.1
9-May	1	2	3	2	A	4	3	2	3	2	5	6	6	6	5	9	7	5	2	2	1	2	1	1	3.5	8.7
10-May	1	1	1	1	A	5	2	2	9	5	3	5	4	8	9	10	8	7	5	5	3	2	1	1	4.2	10.0
11-May	1	1	1	1	A	4	1	2	2	2	1	4	5	3	4	4	1	4	2	2	2	4	4	3	2.5	4.9
12-May	4	2	3	5	A	5	6	4	3	1	1	6	5	4	4	3	2	2	1	1	2	2	2	3	3.0	5.7
13-May	5	1	2	3	A	5	5	3	1	1	1	1	1	12	16	12	9	10	2	2	2	2	1	1	4.2	16.2
14-May	2	2	3	3	A	6	19	16	5	1	1	1	1	23	1	1	1	3	4	4	2	1	1	2	4.5	22.8
15-May	1	3	3	14	A	7	16	14	9	3	2	2	1	2	2	2	3	2	2	1	1	2	2	2	4.1	16.2
16-May	2	2	2	3	A	7	6	3	1	3	2	2	2	4	3	2	1	3	2	2	3	2	1	2	2.5	6.6
17-May	3	1	2	3	A	5	7	3	3	1	1	1	5	1	4	72	2	2	1	2	2	5	11	9	6.3	72.1
18-May	5	6	11	9	A	9	5	7	3	2	1	1	1	1	1	1	1	2	1	1	3	5	4	3	3.7	10.6
19-May	4	2	3	2	A	6	6	3	2	1	1	1	0	1	0	0	1	1	2	1	2	3	7	2	2.2	7.1
20-May	2	2	4	4	A	5	3	3	2	2	1	1	1	1	1	1	1	1	1	1	2	3	2	1	1.9	5.1
21-May	1	1	1	5	A	7	8	4	2	1	1	21	2	3	6	2	1	4	6	2	2	2	3	3	3.8	21.3
22-May	3	12	17	19	A	5	7	8	4	4	15	2	3	3	2	2	2	1	2	4	3	3	2	5	5.6	19.3
23-May	4	2	6	4	A	8	5	6	2	1	1	1	1	2	1	1	1	1	1	1	2	3	2	3	2.7	7.7
24-May	3	7	8	5	A	12	5	4	2	2	2	2	1	1	1	1	2	2	2	2	4	4	4	4	3.5	11.8
25-May	3	3	10	6	A	6	4	4	2	2	1	1	1	1	1	1	1	1	1	1	4	3	2	3	2.7	9.6
26-May	3	3	3	4	A	6	4	C	C	C	C	C	C	C	8	2	2	1	2	1	4	3	5	4	--	8.5
27-May	7	7	3	3	A	7	7	5	3	3	2	2	1	1	1	1	1	1	1	1	2	4	3	2	3.0	7.1
28-May	2	3	2	2	A	10	4	15	14	6	4	2	1	2	1	1	1	1	1	3	4	4	3	1	3.9	15.0
29-May	2	2	6	6	A	7	5	3	3	1	1	2	1	1	1	1	2	1	1	1	3	2	2	3	2.4	6.7
30-May	5	2	4	3	A	8	8	14	5	1	2	2	2	1	1	2	2	1	2	1	1	3	2	5	3.3	14.0
31-May	2	2	2	2	A	7	6	4	110	1	1	1	2	2	2	2	2	2	2	2	4	3	4	3	7.3	109.8
	2.8	2.9	3.8	4.4	--	6.3	5.9	5.8	7.6	2.2	2.3	2.5	2.0	3.0	2.8	4.6	2.1	2.2	1.9	2.0	2.4	2.8	2.9	2.8	Diurnal Average	
	7.1	12.4	17.0	19.3	--	11.8	18.7	16.3	109.8	6.3	15.1	21.3	5.7	22.8	16.2	72.1	9.4	10.0	5.8	4.7	5.1	5.2	10.6	9.2	Diurnal Maximum	

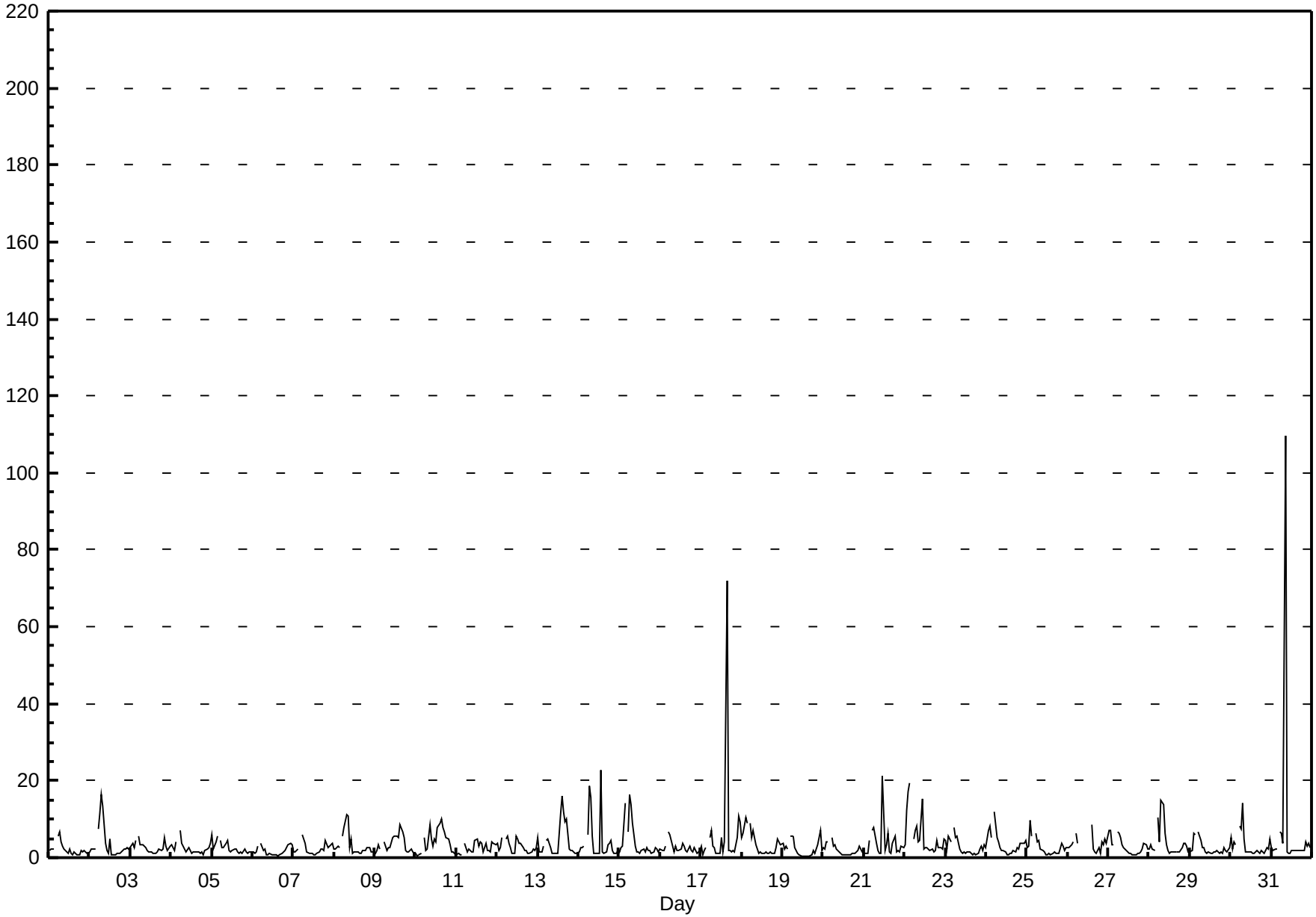
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

Beaverlodge - May 2012

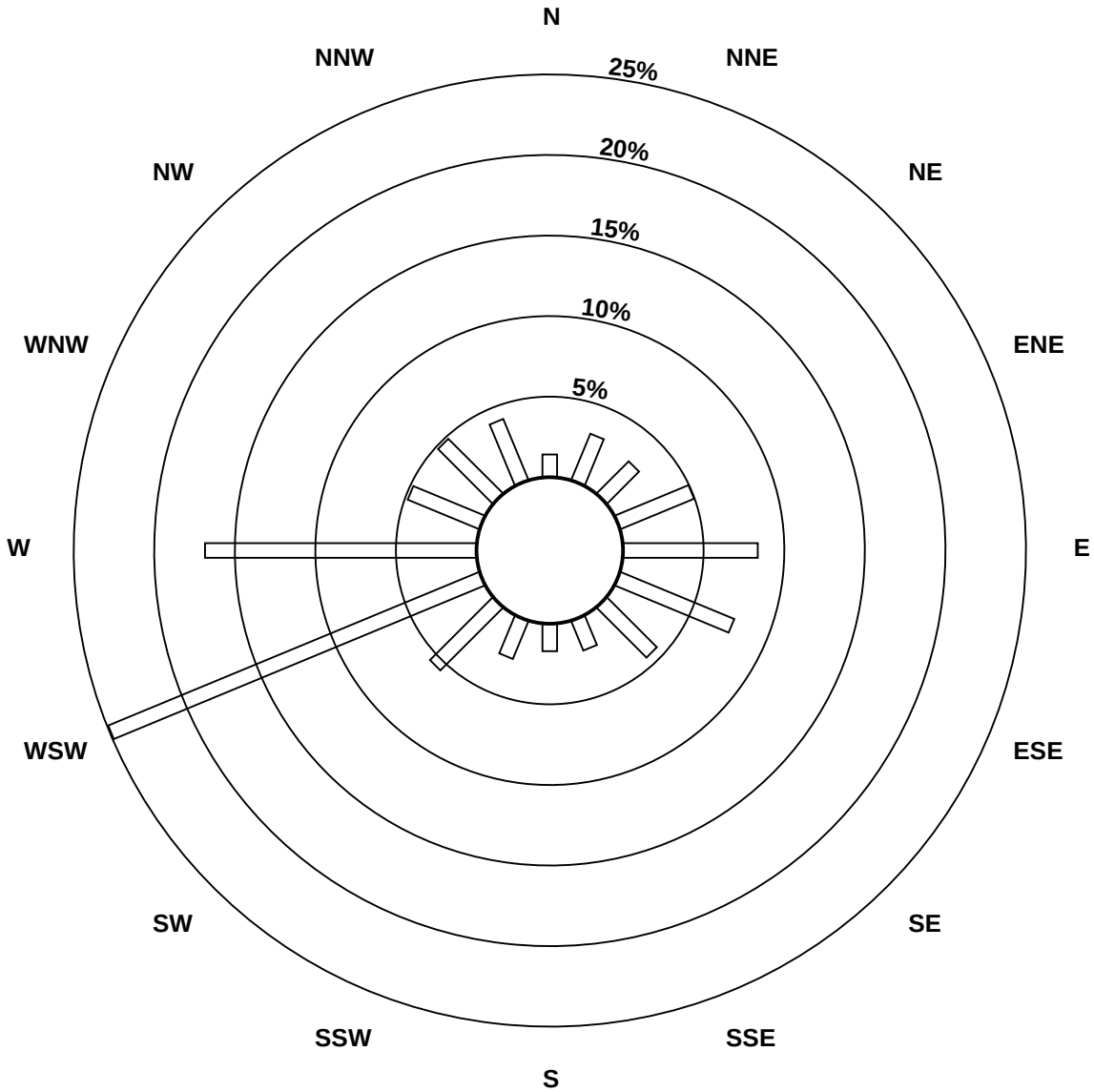


FOCUS AIR QUALITY MONITORING

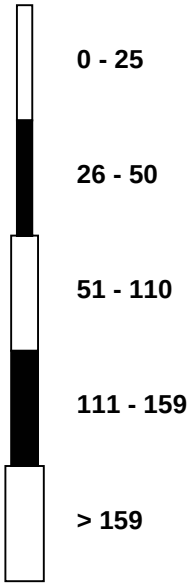
Pollutant Rose

Nitrogen Dioxide (NO_2) - ppb

Beaverlodge - May 2012



Pollutant Classes (ppb)

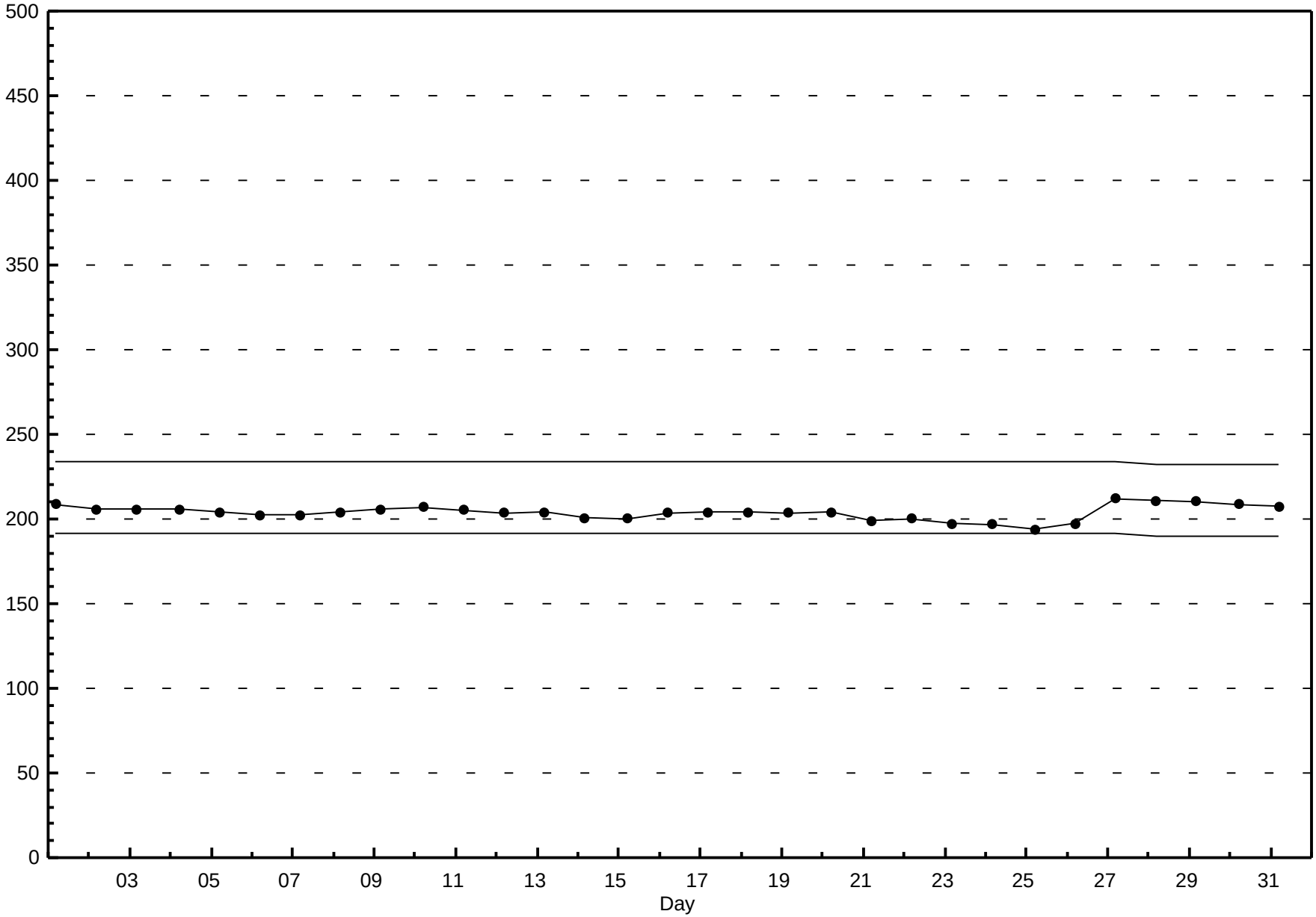


Peace Airshed Zone Association

Span Responses

Nitrogen Dioxide (NO_2)

Beaverlodge - May 2012



Peace Airshed Zone Association

Hourly Averages

Nitrogen Oxide (NO) - ppb

Beaverlodge - May 2012

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

Maximum Value: 3.9 ppb on May 2 08:00

Maximum Daily Average: 0.4 ppb on May 2

Minimum Value: 0 ppb on May 2 21:00

Minimum Daily Average: 0.0 ppb on May 6

Maximum Diurnal Average: 0.7 ppb at hour 8

Minimum Diurnal Average: 0.0 ppb at hour 4

Monthly Average: 0.14 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.0$ Median = 0.1 $Q_3 = 0.1$ $P_{90} = 0.3$ $P_{99} = 1.4$

Hours in Service:	744
Hours of Data:	706
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-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
2-May	0	0	0	0	A	0	1	4	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	3.9
3-May	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	0.7
4-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
5-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
6-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.3
7-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
8-May	0	0	0	0	A	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.9
9-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
10-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
11-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
12-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
13-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
14-May	0	0	0	0	A	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.9
15-May	0	0	0	0	A	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.2
16-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
17-May	0	0	0	0	A	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.8
18-May	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	0.7
19-May	0	0	0	0	A	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.8
20-May	0	0	0	0	A	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.0
21-May	0	0	0	0	A	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.0
22-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
23-May	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	0.5
24-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
25-May	0	0	0	0	A	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.5
26-May	0	0	0	0	A	0	0	C	C	C	C	C	C	C	1	1	1	1	1	1	1	1	1	0	--	1.4
27-May	0	0	0	0	A	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.4
28-May	0	0	0	0	A	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.3
29-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
30-May	0	0	0	0	A	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.8
31-May	0	0	0	0	A	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.8
	0.0	0.0	0.0	0.0	--	0.1	0.5	0.7	0.4	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	Diurnal Average	
	0.4	0.3	0.2	0.2	--	0.5	1.9	3.9	2.3	0.7	0.5	0.4	0.3	0.4	1.4	1.3	1.2	1.1	1.0	0.9	0.8	0.7	0.6	0.5	Diurnal Maximum	

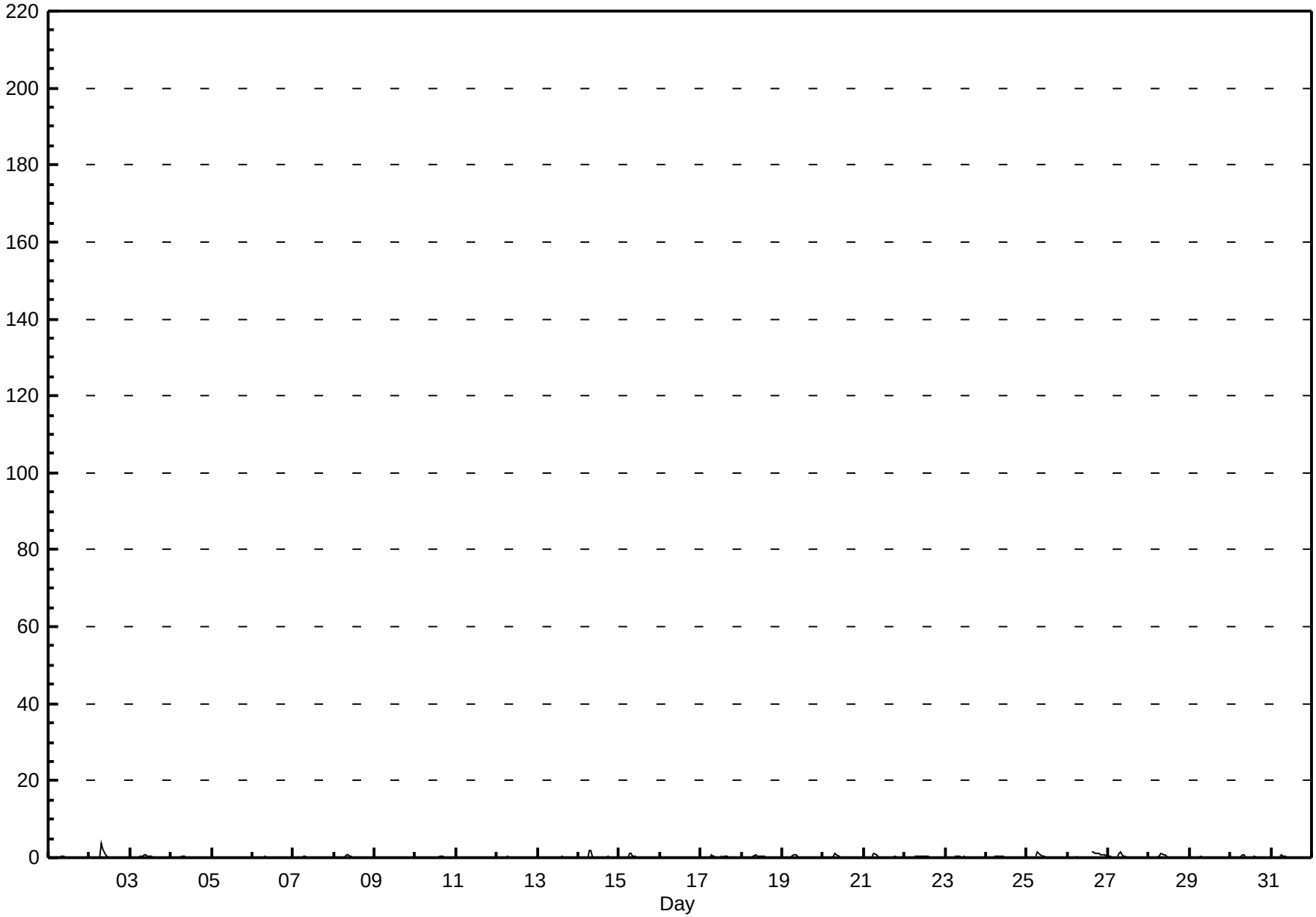
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Nitrogen Oxide (NO) - ppb

Beaverlodge - May 2012



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Beaverlodge - May 2012

Maximum Value: 27.7 ppb on May 30 08:00

Maximum Daily Average: 2.3 ppb on May 30

Minimum Value: 0 ppb on May 28 02:00

Minimum Daily Average: 0.2 ppb on May 6

Maximum Diurnal Average: 2.6 ppb at hour 8

Minimum Diurnal Average: 0.1 ppb at hour 1

Monthly Average: 0.55 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.1$ Median = 0.2 $Q_3 = 0.5$ $P_{90} = 0.9$ $P_{99} = 5.2$

Hours in Service:	744
Hours of Data:	706
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-May	0	0	0	0	A	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
2-May	0	0	0	0	A	0	4	8	6	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1.0	7.8
3-May	0	0	0	0	A	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.0
4-May	0	0	0	0	A	0	1	1	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0.4	1.4
5-May	0	0	0	0	A	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0.3	1.0
6-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
7-May	0	0	0	0	A	0	1	1	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0.2	0.6
8-May	0	0	0	0	A	0	0	3	3	1	1	0	0	0	3	1	0	0	0	0	0	0	0	0	0.7	3.2
9-May	0	0	0	0	A	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
10-May	0	0	0	0	A	0	0	0	0	0	0	1	0	1	1	1	1	0	0	0	1	0	0	0	0.4	0.6
11-May	0	0	0	0	A	0	0	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
12-May	0	0	0	0	A	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
13-May	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
14-May	0	0	0	0	A	0	11	6	2	0	0	0	0	3	0	0	0	1	1	0	0	0	0	0	1.1	11.3
15-May	0	0	0	1	A	0	3	2	1	5	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.7	4.8
16-May	0	0	0	0	A	0	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0.3	1.3
17-May	0	0	0	0	A	0	2	1	1	0	2	0	6	0	2	6	0	0	0	0	0	0	0	0	1.0	6.1
18-May	0	0	0	0	A	0	0	1	11	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0.8	11.4
19-May	0	0	0	0	A	0	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	2.5
20-May	0	0	0	0	A	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.4
21-May	0	0	0	0	A	1	3	1	0	0	1	1	1	1	2	0	0	1	4	0	0	0	0	0	0.8	3.8
22-May	0	0	1	1	A	0	1	1	0	1	1	0	1	4	0	0	0	0	0	0	0	0	0	0	0.6	3.6
23-May	0	0	0	0	A	0	0	1	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0.3	0.9
24-May	0	0	0	0	A	2	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.7
25-May	0	0	0	0	A	1	2	2	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	3.1
26-May	0	0	0	0	A	0	0	C	C	C	C	C	C	C	2	1	1	1	1	1	1	1	1	1	--	2.1
27-May	0	0	0	0	A	1	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	2.3
28-May	0	0	0	0	A	2	0	11	4	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.9	10.5
29-May	0	0	0	0	A	0	0	1	0	0	0	0	0	2	0	0	1	0	0	0	0	0	0	0	0.3	1.7
30-May	0	0	0	0	A	0	1	28	4	1	0	0	0	0	16	0	0	0	0	0	0	0	0	0	2.3	27.7
31-May	0	0	0	0	A	1	2	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	2.4
	0.1	0.1	0.1	0.1	--	0.4	1.3	2.6	1.6	0.7	0.6	0.4	0.6	0.6	1.1	0.6	0.3	0.3	0.4	0.3	0.2	0.1	0.1	0.1	Diurnal Average	
	0.4	0.4	0.6	0.9	--	2.0	11.3	27.7	11.4	4.8	1.9	0.9	5.8	3.6	15.5	6.1	1.3	1.2	3.8	1.0	0.9	0.7	0.7	0.6	Diurnal Maximum	

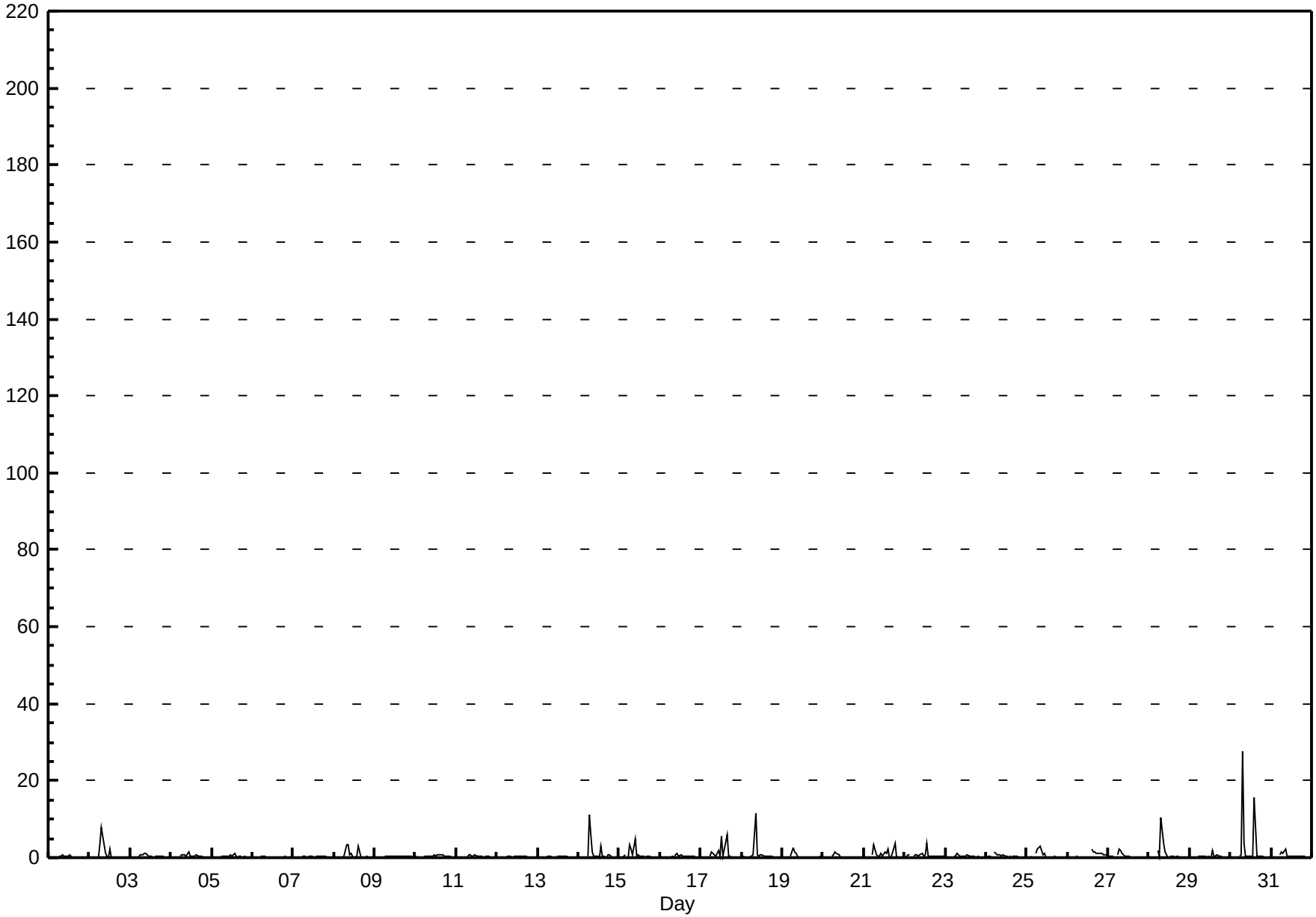
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Beaverlodge - May 2012



Peace Airshed Zone Association

Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Beaverlodge - May 2012

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 16.1 ppb on May 2 08:00 Maximum Daily Average: 3.1 ppb on May 22

Minimum Value: 0 ppb on May 19 15:00 Minimum Daily Average: 1.0 ppb on May 6
Maximum Diurnal Average: 4.2 ppb at hour 6 Minimum Diurnal Average: 1.0 ppb at hour 13
Monthly Average: 1.80 ppb Percentiles: P_1 = 0.3 P_{10} = 0.7 Q_1 = 0.9 Median = 1.3 Q_3 = 2.1 P_{90} = 3.7 P_{99} = 7.4

Hours in Service:	744
Hours of Data:	706
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-May	1	2	2	2	A	5	4	3	2	2	1	1	1	1	0	1	0	0	0	1	1	2	1	1	1.5	4.7
2-May	1	2	2	2	A	4	4	16	9	4	2	1	1	1	1	1	1	1	1	1	1	2	2	2	2.6	16.1
3-May	2	2	1	2	A	4	3	3	3	3	2	2	1	1	1	1	1	1	1	2	3	2	2	2	2.0	3.9
4-May	2	2	2	2	A	5	3	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1.5	4.6
5-May	3	2	3	2	A	2	2	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.3	2.8
6-May	1	1	1	1	A	2	2	2	1	1	1	1	0	1	0	0	1	1	1	1	1	2	2	2	1.0	2.2
7-May	1	1	2	2	A	4	3	2	1	1	1	1	1	1	1	0	1	1	1	2	1	2	2	3	1.4	4.0
8-May	2	2	2	2	A	5	5	6	5	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2.0	6.4
9-May	1	1	2	1	A	2	2	1	1	2	2	2	2	2	2	3	3	2	1	1	1	1	1	1	1.4	2.9
10-May	0	0	0	0	A	2	1	2	2	2	2	2	2	2	3	4	3	2	1	2	1	1	1	0	1.5	4.0
11-May	0	0	0	0	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	1.1	1.9
12-May	2	1	1	2	A	3	3	2	1	1	1	2	1	1	2	2	1	1	1	1	1	1	1	1	1.5	3.2
13-May	2	1	1	1	A	4	3	1	1	1	1	1	1	2	5	3	3	3	2	1	1	1	1	1	1.7	5.1
14-May	1	2	2	2	A	4	7	8	2	1	1	1	1	1	1	1	1	2	2	2	1	1	1	1	2.0	8.3
15-May	1	1	1	4	A	5	11	9	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2.2	10.8
16-May	1	2	1	2	A	4	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.4	4.4
17-May	1	1	1	2	A	4	5	3	1	1	1	0	1	1	1	2	1	1	1	1	1	2	5	4	1.7	5.5
18-May	3	4	7	5	A	5	3	4	3	2	1	1	1	1	1	1	1	1	1	1	1	4	3	2	2.5	7.4
19-May	2	2	2	2	A	3	3	3	3	1	0	0	0	0	0	0	0	0	1	1	1	2	1	1	1.3	3.4
20-May	2	2	2	3	A	4	3	4	3	1	1	0	0	0	0	0	1	1	1	1	1	1	1	1	1.4	3.7
21-May	1	1	1	2	A	5	6	3	2	1	1	1	1	1	1	1	1	1	2	1	1	1	2	2	1.7	5.9
22-May	2	4	8	11	A	3	4	6	3	3	3	2	2	2	2	1	1	1	1	2	2	2	2	4	3.1	11.5
23-May	2	2	2	2	A	5	4	4	2	1	1	1	1	1	1	1	1	1	1	1	1	2	1	2	1.7	5.0
24-May	2	5	4	4	A	6	4	4	2	2	2	1	1	1	1	1	1	1	1	1	2	2	3	3	2.3	6.1
25-May	2	2	4	3	A	5	5	4	3	2	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2.1	5.3
26-May	2	3	3	3	A	4	4	C	C	C	C	C	C	C	5	3	2	2	2	2	2	2	3	3	--	4.9
27-May	4	4	3	3	A	5	5	6	3	2	2	1	1	1	1	1	1	1	1	1	1	2	2	2	2.3	6.2
28-May	2	2	2	2	A	6	4	7	4	4	3	1	1	1	1	1	1	1	1	1	1	3	2	1	2.3	7.0
29-May	2	2	3	5	A	4	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.5	4.7
30-May	2	1	2	2	A	6	6	4	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.7	6.3
31-May	1	1	1	1	A	6	5	2	3	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	1.7	6.2
	1.7	1.8	2.3	2.5	--	4.2	4.0	3.9	2.5	1.6	1.2	1.1	1.0	1.0	1.3	1.2	1.1	1.1	1.0	1.0	1.2	1.5	1.7	1.7	Diurnal Average	
	4.2	4.9	7.7	11.5	--	6.3	10.8	16.1	9.3	4.2	3.3	2.1	2.2	2.4	5.1	4.0	3.3	2.9	1.9	2.4	3.0	3.6	4.5	4.4	Diurnal Maximum	

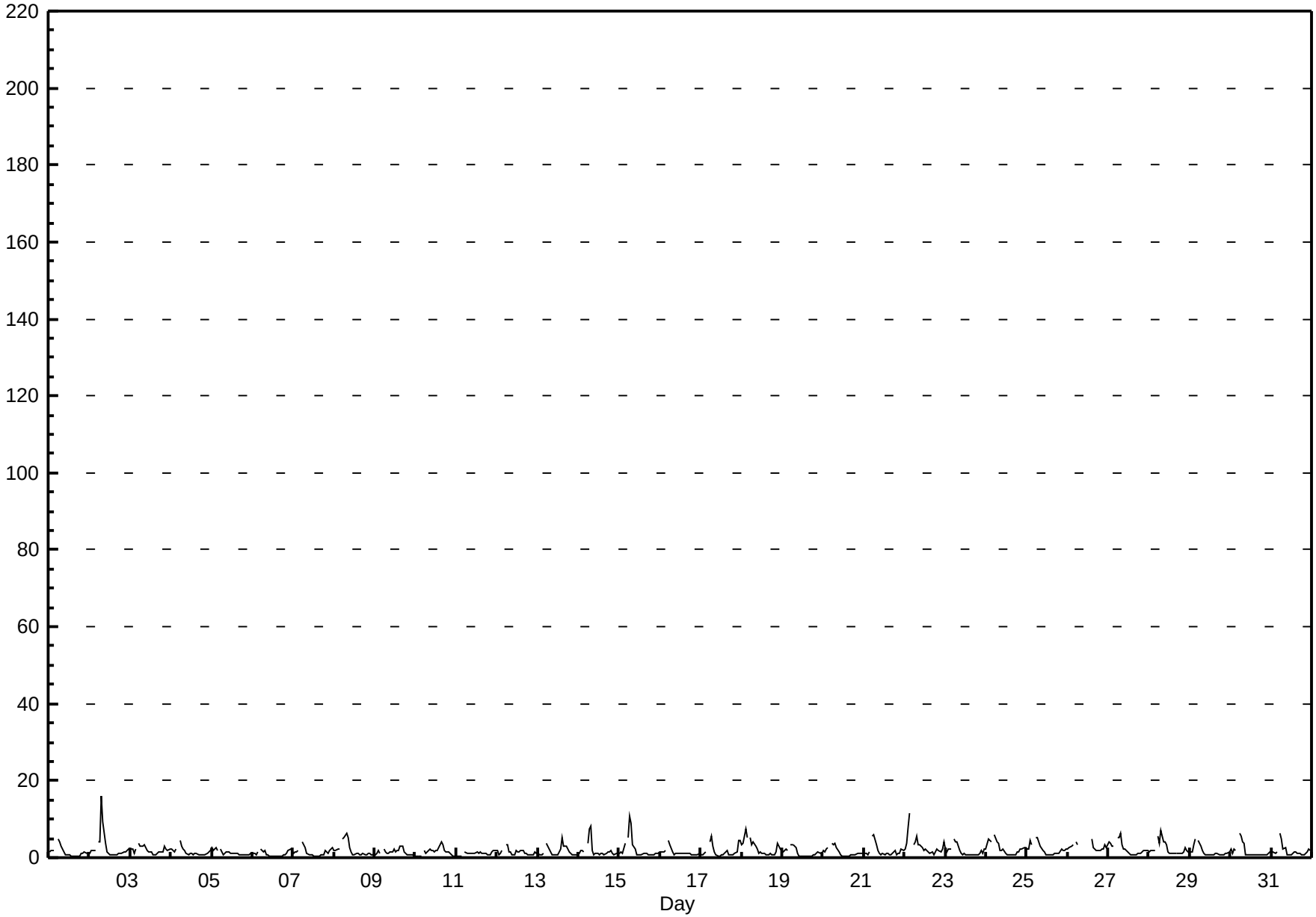
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Beaverlodge - May 2012



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

Beaverlodge - May 2012

Maximum Value: 110.3 ppb on May 31 09:00

Maximum Daily Average: 7.6 ppb on May 31

Minimum Value: 0 ppb on May 19 15:00

Minimum Daily Average: 1.9 ppb on May 6

Maximum Diurnal Average: 8.7 ppb at hour 9

Minimum Diurnal Average: 2.3 ppb at hour 19

Monthly Average: 3.79 ppb

Percentiles: P_1 = 0.6 P_{10} = 1.2 Q_1 = 1.6 Median = 2.4 Q_3 = 4.1 P_{90} = 7.1 P_{99} = 20.6

Hours in Service:	744
Hours of Data:	706
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-May	2	2	2	2	A	6	7	4	3	3	2	1	3	2	1	2	1	1	1	2	2	2	1	1	2.4	7.1
2-May	1	2	2	2	A	8	15	24	19	5	2	1	7	1	1	1	1	1	1	2	2	2	3	2	4.7	24.3
3-May	2	4	3	5	A	6	4	4	4	4	3	2	2	1	1	1	1	3	2	3	5	3	2	3	2.9	5.6
4-May	3	3	2	4	A	7	4	4	3	2	4	2	2	2	2	2	2	1	2	1	2	3	3	4	2.8	7.2
5-May	6	2	4	6	A	5	3	3	4	5	2	2	2	2	2	2	2	2	1	3	1	1	1	1	2.7	6.1
6-May	2	1	2	3	A	4	2	3	1	1	1	1	1	1	1	1	1	1	2	2	3	3	4	3	1.9	3.8
7-May	2	2	2	2	A	6	5	4	2	1	1	1	1	1	1	2	2	3	2	5	3	3	4	4	2.6	6.0
8-May	2	2	3	3	A	6	8	14	14	3	5	1	2	2	2	1	1	2	2	3	3	3	2	2	3.8	14.5
9-May	1	2	4	2	A	4	3	2	3	3	5	6	6	6	6	9	7	5	2	2	2	3	2	1	3.7	9.2
10-May	1	1	1	1	A	6	2	3	9	5	3	5	4	8	10	11	8	7	5	5	4	2	2	1	4.5	10.8
11-May	1	1	1	1	A	4	2	3	2	2	2	5	5	3	5	4	2	4	2	2	2	4	4	3	2.7	5.2
12-May	4	2	3	5	A	5	6	4	3	1	1	6	5	4	4	3	2	2	1	1	2	2	2	3	3.2	6.1
13-May	5	1	2	3	A	4	5	3	1	1	1	1	1	12	17	12	10	10	3	2	2	2	1	1	4.4	16.8
14-May	1	3	3	3	A	6	30	21	7	1	1	1	1	25	2	1	2	4	4	5	2	1	1	2	5.6	30.1
15-May	1	3	3	15	A	7	20	16	10	4	2	2	1	2	3	2	3	2	2	1	1	3	2	2	4.6	19.7
16-May	2	2	2	3	A	7	6	3	2	4	2	2	3	4	3	2	2	3	2	2	3	2	1	2	2.8	6.6
17-May	3	1	2	3	A	5	8	4	3	1	1	1	11	2	5	73	2	2	2	2	2	5	11	9	6.9	73.3
18-May	5	7	11	9	A	9	6	8	4	3	2	2	2	2	2	1	2	2	1	1	3	5	4	3	4.1	10.7
19-May	4	2	3	2	A	6	8	4	3	2	1	1	1	1	0	1	1	1	2	1	2	3	7	2	2.5	8.2
20-May	2	2	4	4	A	5	4	5	3	2	1	1	1	1	0	1	1	1	1	1	2	3	2	1	2.1	5.2
21-May	1	1	1	5	A	8	11	5	3	1	1	22	3	4	9	2	1	4	9	2	2	2	3	3	4.4	22.0
22-May	3	13	18	20	A	5	8	9	5	5	16	2	3	3	3	2	3	2	2	5	3	3	3	5	6.1	20.1
23-May	5	3	6	4	A	8	6	7	3	2	2	2	2	2	2	1	1	1	1	2	2	3	2	3	3.0	8.0
24-May	3	7	9	5	A	14	6	4	3	2	3	2	1	1	2	1	2	2	3	3	4	4	4	5	3.9	13.6
25-May	3	3	10	6	A	7	6	7	4	2	3	1	1	1	1	1	2	1	1	1	4	3	2	3	3.2	9.9
26-May	3	3	3	4	A	6	4	C	C	C	C	C	C	C	10	4	3	2	4	2	5	4	6	4	--	9.8
27-May	7	7	3	3	A	7	9	7	5	3	3	2	1	1	1	1	1	1	1	1	2	4	3	2	3.4	8.8
28-May	2	3	2	2	A	12	5	25	17	8	4	2	1	2	2	2	1	2	2	3	4	4	3	2	4.8	25.5
29-May	2	2	7	6	A	7	5	3	3	2	1	2	1	1	2	2	2	1	2	1	3	2	2	3	2.6	6.7
30-May	5	2	4	3	A	9	8	16	8	2	2	2	2	1	1	2	2	1	2	2	1	3	2	5	3.8	15.9
31-May	2	2	2	2	A	7	8	5	110	2	1	2	2	2	2	2	2	2	2	2	4	3	4	3	7.6	110.3
	2.9	2.9	3.9	4.5	--	6.6	7.2	7.5	8.7	2.7	2.7	2.9	2.6	3.4	3.3	4.9	2.4	2.5	2.3	2.3	2.6	2.9	3.0	2.8	Diurnal Average	
	7.4	12.9	17.7	20.1	--	13.6	30.1	25.5	110.3	7.5	16.5	22.0	11.3	24.9	16.8	73.3	9.6	10.1	8.7	5.0	5.2	5.3	10.8	9.3	Diurnal Maximum	

C - Calibration

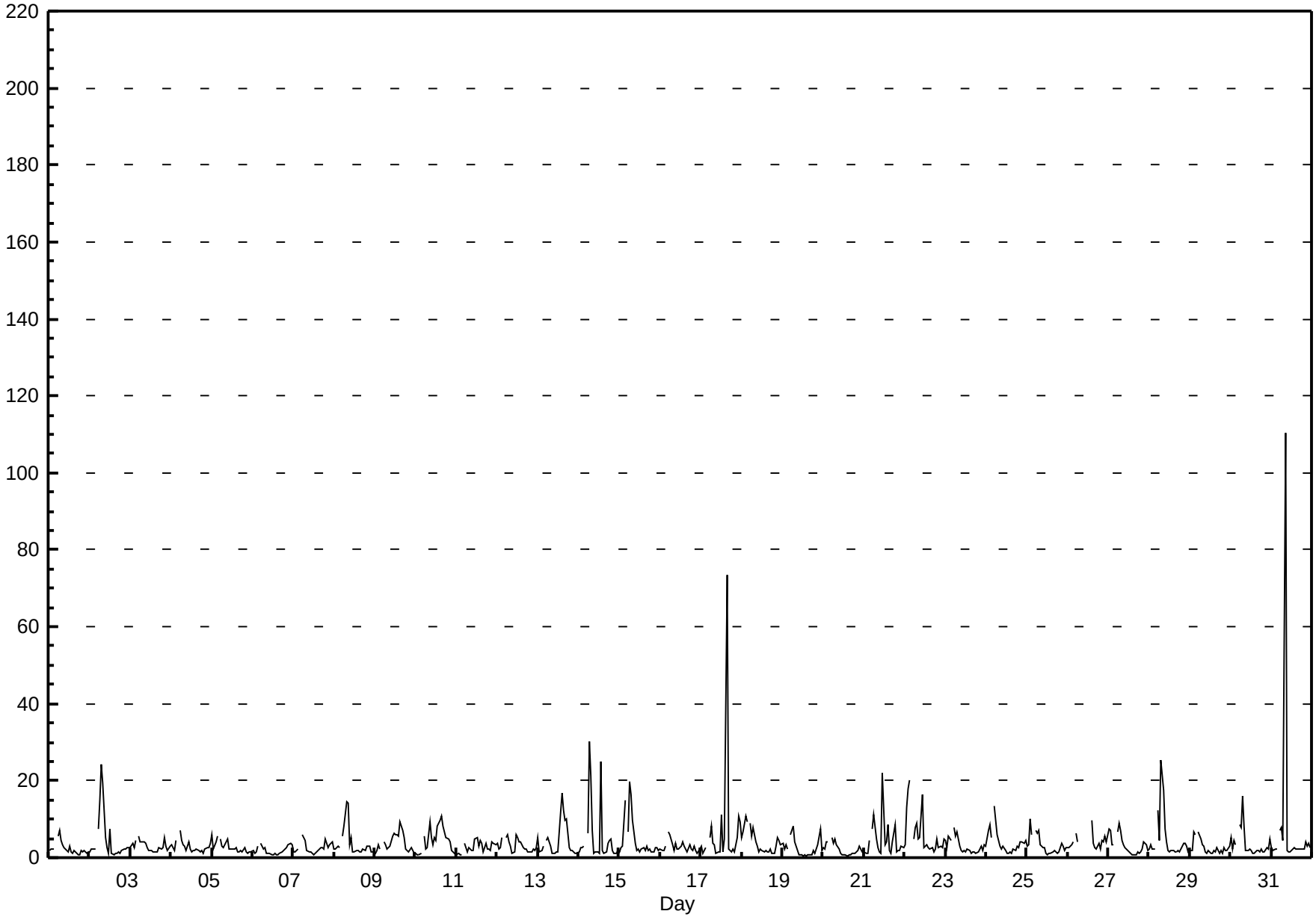
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

Beaverlodge - May 2012



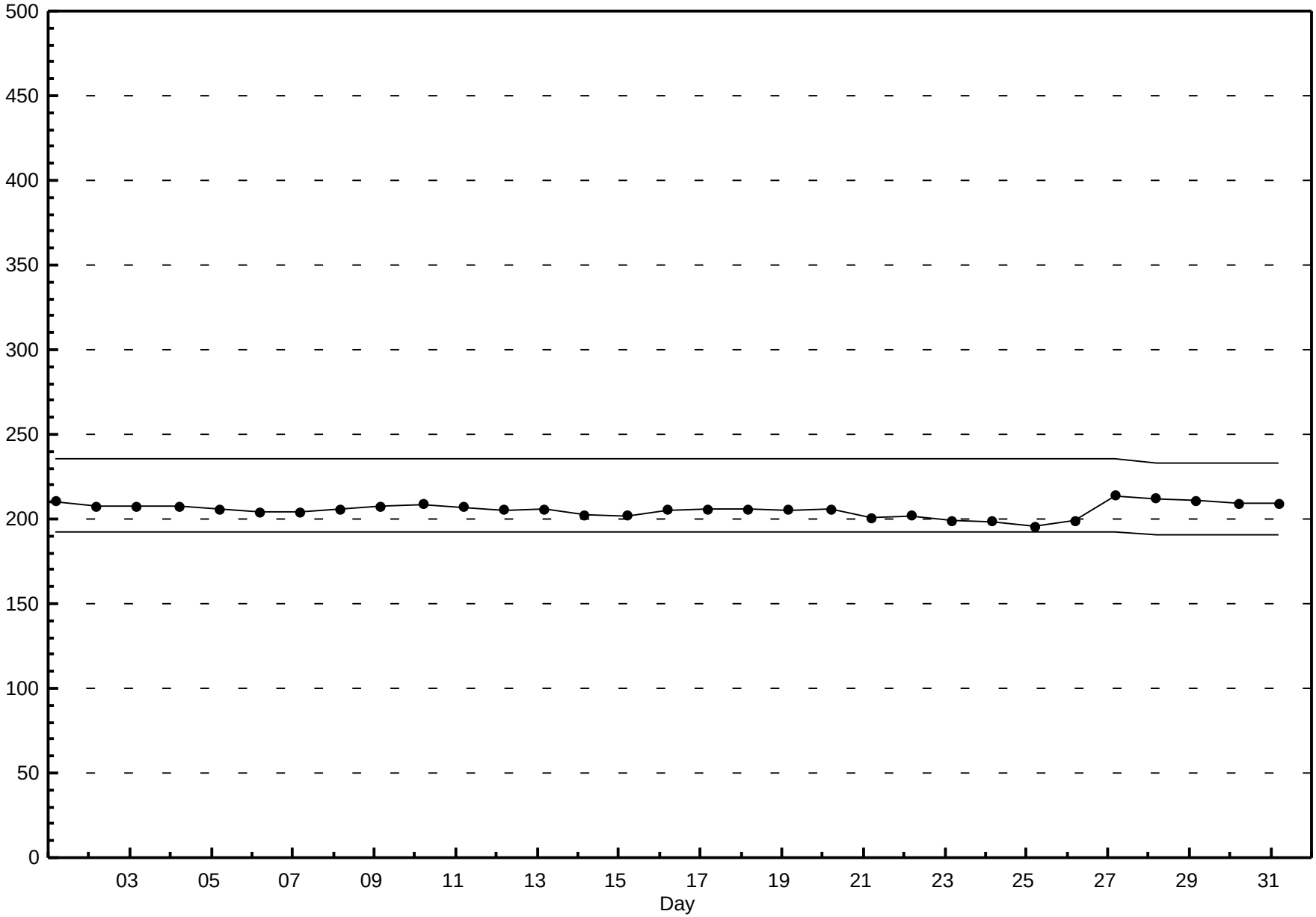
FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Span Responses

Oxides of Nitrogen (NO_X)

Beaverlodge - May 2012



Peace Airshed Zone Association

Hourly Averages

Ozone (O_3) - ppb

Beaverlodge - May 2012

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 63.3 ppb on May 28 15:00
Maximum Daily Average: 52.8 ppb on May 28

Minimum Value: 12 ppb on May 25 07:00
Maximum Diurnal Average: 46.3 ppb at hour 13
Monthly Average: 40.09 ppb

Minimum Daily Average: 27.5 ppb on May 22
Minimum Diurnal Average: 30.0 ppb at hour 7
Percentiles: P_1 = 17.6 P_{10} = 26.7 Q_1 = 33.3 Median = 40.8 Q_3 = 47.0 P_{90} = 52.0 P_{99} = 61.2

Hours in Service:	744
Hours of Data:	708
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-May	42	38	33	32	A	27	26	25	24	29	35	40	45	45	45	45	46	46	46	39	34	31	30	31	36.2	45.9
2-May	32	33	30	31	A	30	25	18	25	35	43	46	49	46	48	48	48	45	43	40	37	36	32	31	37.0	49.0
3-May	31	31	35	31	A	25	24	27	26	29	36	39	42	41	39	39	38	36	35	34	29	27	27	26	32.5	42.2
4-May	25	26	25	24	A	24	21	29	30	37	42	43	44	44	46	46	44	43	43	43	43	41	37	35	36.3	45.8
5-May	35	35	33	34	A	40	45	45	46	46	48	48	48	49	49	48	47	47	47	45	44	43	40	40	43.5	48.6
6-May	38	39	38	34	A	32	31	33	48	50	51	52	51	50	50	50	51	53	50	46	45	44	42	38	44.2	52.9
7-May	38	40	36	37	A	32	39	49	54	55	56	56	55	53	51	49	46	44	40	37	37	35	34	29	43.6	56.4
8-May	31	30	32	32	A	33	34	31	35	42	53	57	57	54	50	49	54	55	52	51	49	47	46	46	44.4	56.8
9-May	46	44	45	47	A	45	44	44	43	42	41	41	43	42	42	41	41	43	43	42	41	40	38	39	42.5	47.2
10-May	38	38	39	39	A	36	39	39	40	41	41	40	40	39	38	38	40	43	44	44	43	42	43	43	40.2	44.0
11-May	43	42	41	40	A	39	39	39	40	42	44	45	45	45	44	45	45	45	45	46	45	42	41	41	42.8	45.5
12-May	42	43	41	39	A	40	39	40	41	43	46	47	47	50	51	51	52	54	53	53	54	51	50	47	46.8	54.2
13-May	49	50	50	49	A	38	40	50	55	56	56	55	55	51	46	48	50	51	51	51	49	48	49	50	49.8	56.0
14-May	49	49	49	51	A	45	38	34	44	48	50	52	53	54	55	55	55	54	51	49	48	46	44	44	48.6	55.1
15-May	44	41	42	36	A	34	22	25	33	40	50	52	53	54	51	51	52	52	54	54	53	50	48	48	45.1	54.3
16-May	48	45	45	44	A	40	42	47	50	51	51	52	55	52	49	47	47	46	45	44	43	40	40	38	46.1	55.2
17-May	37	38	34	36	A	35	30	33	39	43	44	44	43	42	36	43	41	43	45	44	42	42	33	32	39.1	45.5
18-May	28	27	20	25	A	28	28	24	24	25	27	29	30	32	33	34	33	32	33	34	33	29	29	29	29.0	33.6
19-May	28	26	25	23	A	18	18	21	24	31	35	36	38	38	38	39	40	39	38	38	37	33	34	34	31.8	39.6
20-May	31	30	26	26	A	23	23	23	27	34	39	41	42	43	43	44	45	45	43	42	40	39	38	40	36.0	44.9
21-May	38	37	38	36	A	28	26	29	37	41	44	46	46	45	45	43	40	40	39	38	37	34	31	30	37.7	46.0
22-May	29	27	21	15	A	25	23	26	28	25	27	31	30	30	30	38	37	34	31	31	29	26	24	18	27.5	37.8
23-May	26	29	28	29	A	21	24	26	31	34	38	35	33	33	33	30	30	30	32	33	32	31	32	27	30.2	38.0
24-May	23	18	16	20	A	16	21	23	26	29	31	35	41	43	45	46	42	44	40	40	38	37	33	33	32.2	46.2
25-May	34	31	21	16	A	15	12	20	23	31	42	47	48	47	47	49	51	51	50	49	41	44	44	43	37.1	51.2
26-May	39	38	37	34	A	29	26	27	33	38	43	C	C	C	C	C	60	60	59	56	55	53	50	49	43.5	60.0
27-May	43	35	37	37	A	34	22	26	37	44	47	52	54	56	56	56	58	58	56	55	54	52	47	48	46.3	57.9
28-May	51	52	50	49	A	36	41	39	48	50	56	62	62	62	63	62	62	61	58	55	51	48	47	47	52.8	63.3
29-May	45	43	37	29	A	38	40	39	40	40	40	40	41	41	39	39	42	44	46	46	42	37	34	31	39.6	46.1
30-May	31	32	28	30	A	22	25	30	34	41	43	43	47	49	47	45	42	41	42	40	40	39	37	35	37.5	49.2
31-May	33	33	34	28	A	23	25	36	44	47	48	50	52	54	54	55	54	53	52	50	47	46	44	43	43.7	54.9
	36.9	36.1	34.4	33.3	--	30.7	30.0	32.1	36.3	40.1	43.5	45.1	46.3	46.2	45.5	45.8	46.2	46.2	45.5	44.1	42.2	40.3	38.6	37.5	Diurnal Average	
	50.5	52.1	50.3	50.6	--	45.3	44.6	49.8	54.8	55.7	56.4	61.6	62.0	62.4	63.3	62.4	61.8	61.4	59.1	55.6	55.0	53.0	49.9	49.8	Diurnal Maximum	

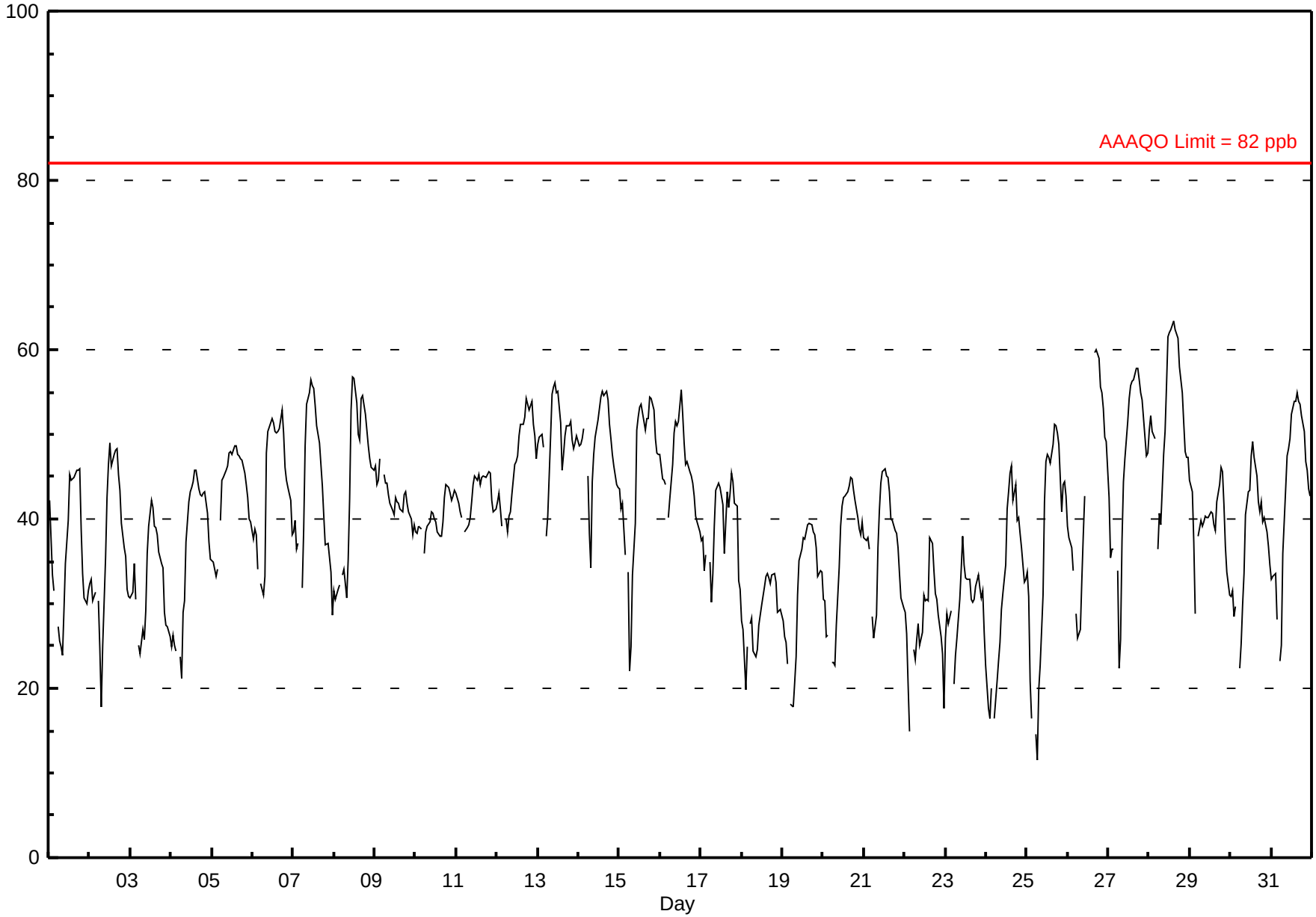
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82 ppb 24-hr na

Peace Airshed Zone Association

Hourly Averages

Ozone (O_3) - ppb

Beaverlodge - May 2012



Peace Airshed Zone Association

Hourly Maximums

Ozone (O_3) - ppb

Beaverlodge - May 2012

Maximum Value: 64.9 ppb on May 28 15:00

Maximum Daily Average: 55.8 ppb on May 28

Minimum Value: 15 ppb on May 25 07:00

Minimum Daily Average: 31.1 ppb on May 18

Maximum Diurnal Average: 48.3 ppb at hour 17

Minimum Diurnal Average: 34.1 ppb at hour 7

Monthly Average: 42.74 ppb

Percentiles: P_1 = 22.1 P_{10} = 30.2 Q_1 = 36.0 Median = 43.6 Q_3 = 49.2 P_{90} = 54.6 P_{99} = 62.4

Hours in Service:	744
Hours of Data:	708
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-May	45	41	36	33	A	30	29	28	26	32	38	47	47	47	47	47	47	47	47	47	36	33	32	33	38.9	47.5
2-May	34	34	32	36	A	33	32	22	32	44	46	50	50	48	49	50	51	47	46	43	39	38	34	33	40.0	50.5
3-May	34	34	39	39	A	28	26	30	30	34	39	41	44	44	42	40	40	39	38	37	32	29	29	28	35.5	44.1
4-May	27	29	26	26	A	29	27	31	33	42	44	45	45	46	48	49	46	45	44	45	46	42	39	37	38.7	48.5
5-May	38	36	36	37	A	46	46	47	47	48	49	49	51	50	51	50	49	48	48	47	45	45	42	40	45.4	50.8
6-May	40	40	40	38	A	34	33	46	50	52	52	53	53	52	51	52	52	56	56	49	46	46	45	42	46.9	56.4
7-May	42	42	41	38	A	39	50	54	55	57	58	57	57	56	53	50	49	46	43	40	39	39	37	31	46.6	58.0
8-May	33	32	33	34	A	35	36	36	40	47	61	61	59	57	54	54	55	56	54	52	51	50	47	47	47.1	61.2
9-May	48	47	47	50	A	49	46	46	44	43	43	43	44	44	43	45	44	44	44	43	42	42	41	40	44.4	49.6
10-May	40	39	41	40	A	37	40	40	41	42	43	41	41	40	41	42	43	44	45	45	44	44	44	44	41.7	44.8
11-May	44	43	42	41	A	39	40	40	42	44	47	46	46	46	46	46	46	46	47	47	47	44	43	43	44.2	47.0
12-May	44	44	44	43	A	42	44	42	43	45	49	50	52	51	55	54	54	56	55	55	56	54	52	50	49.3	55.9
13-May	51	51	51	50	A	39	45	56	58	58	57	57	57	56	51	49	52	53	52	54	51	50	51	51	52.2	58.4
14-May	50	50	51	52	A	48	47	48	48	50	51	54	55	56	56	56	57	57	53	52	50	48	45	47	51.3	56.8
15-May	48	44	45	42	A	36	34	29	39	48	52	54	55	55	54	53	53	53	56	56	54	53	49	50	48.3	56.0
16-May	49	46	46	46	A	43	46	48	51	53	53	57	57	56	52	48	48	49	49	46	45	42	42	41	48.5	57.4
17-May	40	40	36	37	A	36	34	35	43	46	46	45	44	44	44	47	46	46	47	46	45	43	42	38	42.1	47.0
18-May	33	35	22	28	A	30	30	26	26	26	29	30	32	34	34	35	35	34	35	35	34	31	31	31	31.1	35.2
19-May	30	29	28	25	A	20	20	24	27	36	37	37	39	39	40	41	41	41	41	40	39	36	35	35	33.7	41.1
20-May	33	32	30	28	A	27	24	25	32	39	41	44	44	44	44	45	46	47	46	45	42	41	40	41	38.2	46.8
21-May	40	39	40	39	A	38	31	32	39	44	45	47	48	47	47	46	42	41	41	41	40	39	33	32	40.4	47.5
22-May	32	32	25	20	A	28	29	30	31	28	33	34	33	34	34	41	39	37	33	33	30	28	26	25	31.1	40.7
23-May	31	33	32	32	A	24	27	29	33	38	40	36	35	34	35	32	33	33	34	35	35	35	35	33	33.3	40.4
24-May	25	24	26	25	A	20	24	25	30	32	33	38	43	45	47	49	44	46	45	43	41	38	37	35	35.5	48.7
25-May	36	34	33	22	A	19	15	28	27	38	48	49	49	49	48	52	53	53	52	52	48	46	46	44	41.0	53.5
26-May	41	39	38	36	A	32	29	30	37	39	48	C	C	C	C	C	61	62	61	59	57	57	55	52	46.2	61.5
27-May	51	41	45	40	A	43	26	36	43	47	50	55	56	57	58	58	59	60	59	58	56	54	49	50	50.0	60.2
28-May	53	54	52	51	A	45	46	47	49	55	61	64	64	64	65	64	64	63	61	58	55	52	50	50	55.8	64.9
29-May	46	45	43	36	A	40	43	41	41	42	42	42	43	42	40	40	46	46	48	47	44	41	36	33	42.1	48.2
30-May	33	33	32	32	A	26	31	32	40	44	45	47	52	51	49	47	44	43	44	41	41	40	39	37	40.1	51.9
31-May	35	36	37	30	A	26	28	42	47	49	50	52	55	55	55	56	56	55	54	53	51	47	46	48	46.2	56.2
	39.4	38.7	37.7	36.3	--	34.2	34.1	36.2	39.6	43.2	46.1	47.5	48.3	48.0	47.8	47.9	48.3	48.2	47.7	46.5	44.5	42.8	41.0	40.0	Diurnal Average	
	52.8	54.1	52.3	51.9	--	49.2	50.0	55.8	58.1	58.4	60.8	63.5	64.1	64.0	64.9	64.2	64.0	62.8	61.3	59.2	56.7	57.2	54.9	52.2	Diurnal Maximum	

C - Calibration

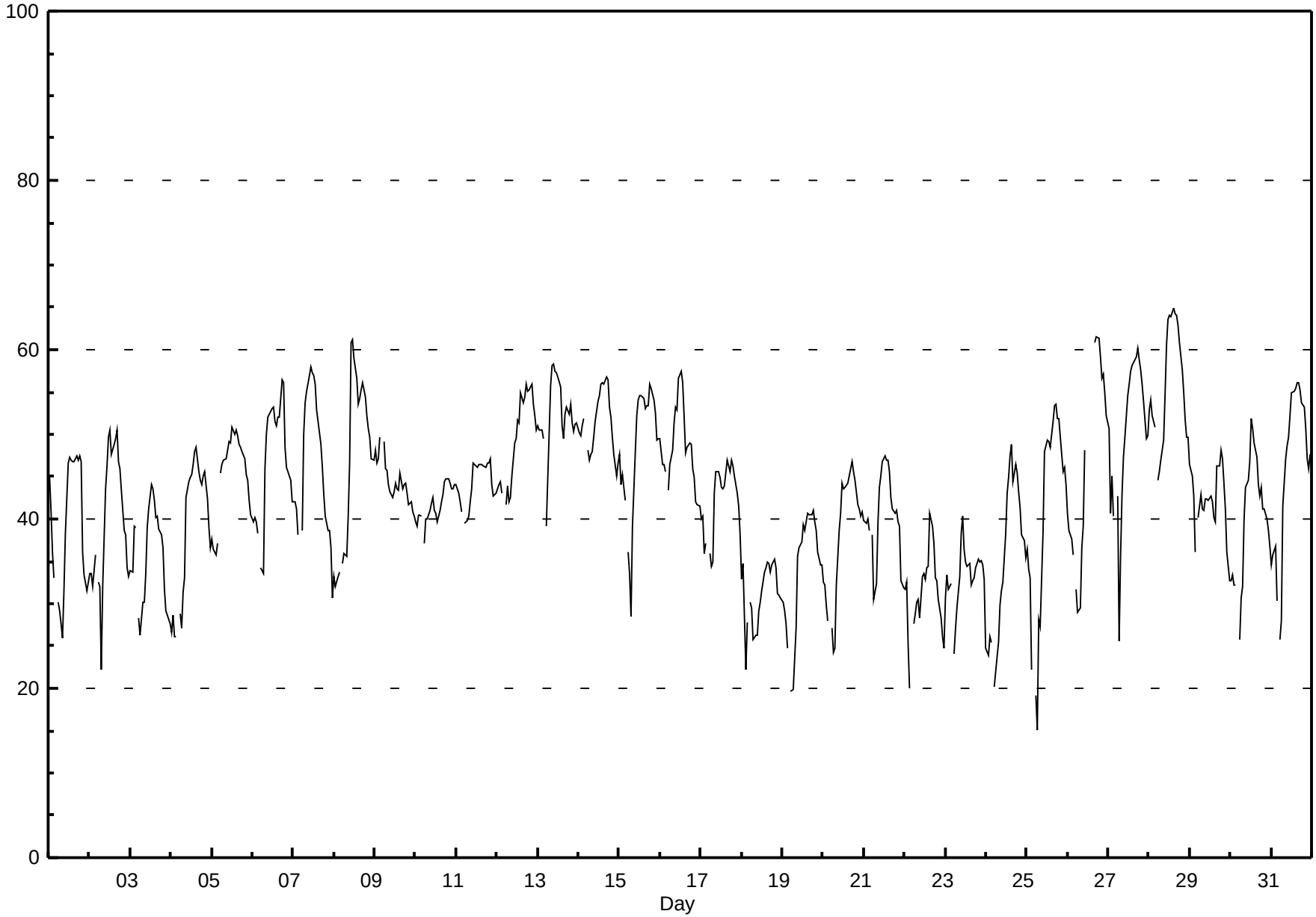
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Ozone (O_3) - ppb

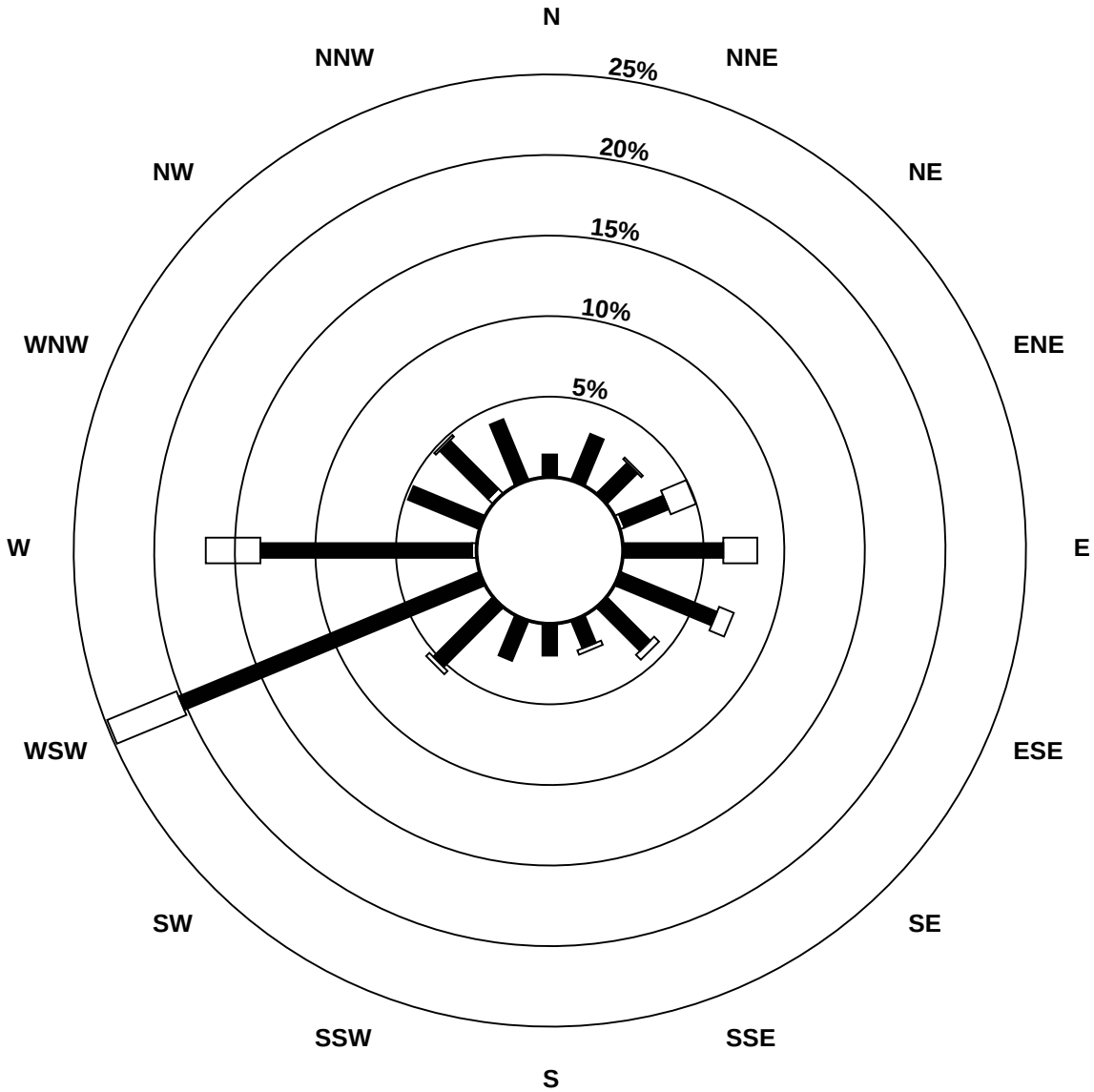
Beaverlodge - May 2012



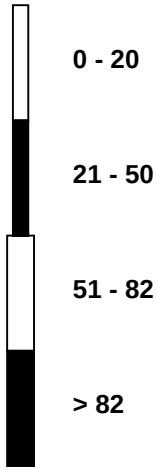
Pollutant Rose

Ozone (O_3) - ppb

Beaverlodge - May 2012



Pollutant Classes (ppb)



Peace Airshed Zone Association

Eight Hour Running Averages

Ozone (O_3) - ppb

Beaverlodge - May 2012

Maximum Value: 61.6 ppb on May 28 19:00

Minimum Value: 19.6 ppb on May 25 09:00

Percentiles: P_1 = 21.6 P_{10} = 27.9 Q_1 = 33.2 Median = 40.5 Q_3 = 45.6 P_{90} = 50.9 P_{99} = 57.2

Hours in Service:	744
Hours of Data:	736
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-May	45	44	42	40	39	36	34	32	29	28	28	29	31	33	36	38	41	43	45	44	43	41	39	38	45.1
2-May	36	34	33	32	31	31	31	29	28	28	30	32	34	36	39	43	45	47	47	46	44	43	41	39	46.8
3-May	37	35	34	33	32	31	30	29	28	28	28	29	31	33	35	36	38	39	39	38	36	35	33	32	38.9
4-May	30	29	28	26	26	25	25	25	26	27	30	32	34	36	39	42	43	44	44	44	44	43	42	41	44.0
5-May	40	39	38	37	36	36	37	38	40	41	43	45	46	47	47	48	48	48	48	47	47	46	45	44	47.8
6-May	43	42	41	39	39	37	36	35	37	38	40	42	44	46	48	50	51	51	51	50	49	49	48	46	51.0
7-May	45	43	41	40	39	38	37	39	41	43	46	49	49	52	54	54	53	51	49	47	45	43	40	38	53.7
8-May	36	34	33	33	32	32	32	32	33	34	37	41	43	45	47	50	52	54	53	53	52	51	50	50	53.5
9-May	49	48	47	46	46	46	45	45	45	44	44	43	43	42	42	42	41	42	42	42	42	42	41	41	48.9
10-May	41	40	40	39	39	38	38	38	39	39	39	39	39	40	40	39	39	40	40	40	41	41	42	43	42.7
11-May	43	43	43	42	42	42	41	40	40	40	40	41	42	42	43	44	44	45	45	45	45	45	44	44	45.1
12-May	43	43	43	42	41	41	41	41	40	40	41	42	43	44	46	47	48	50	51	52	52	53	52	52	52.5
13-May	51	51	50	50	49	47	46	46	47	48	49	50	51	52	53	53	52	51	51	50	50	49	50	50	52.9
14-May	50	50	49	49	49	49	47	45	44	44	44	44	45	47	49	51	53	53	54	53	53	52	50	49	53.6
15-May	48	46	45	43	42	41	37	35	33	33	34	37	39	41	45	48	50	52	52	53	53	52	52	51	52.6
16-May	51	50	49	47	47	45	44	44	45	46	47	48	49	50	51	51	50	50	49	48	47	45	44	43	50.9
17-May	42	41	39	38	38	37	35	35	35	36	37	38	39	40	41	42	42	42	42	42	42	42	42	40	42.2
18-May	39	37	33	31	29	27	27	26	25	25	26	26	27	27	28	29	30	31	32	33	33	33	32	32	38.6
19-May	31	30	29	28	27	26	24	23	22	23	24	26	28	30	33	35	37	38	38	39	38	38	37	37	38.6
20-May	35	34	33	31	31	29	28	26	26	26	28	30	32	34	37	39	41	43	43	43	43	43	42	41	43.4
21-May	41	40	39	38	38	37	35	33	33	34	34	36	37	39	42	43	44	44	43	42	41	39	38	36	43.8
22-May	35	33	31	28	26	25	24	24	23	23	24	26	27	28	28	30	31	32	33	33	32	32	31	29	34.5
23-May	27	27	26	26	26	25	25	26	27	27	29	30	30	32	33	33	33	33	32	32	32	31	31	31	33.3
24-May	30	28	26	25	24	22	20	20	20	22	24	26	28	31	34	37	39	41	42	43	42	42	40	38	42.8
25-May	37	36	33	30	29	26	23	21	20	20	23	27	30	34	38	42	45	48	49	49	48	48	47	47	49.0
26-May	45	44	42	40	40	38	35	33	32	32	33	33	33	N	N	N	N	N	N	N	N	57	56	55	57.1
27-May	53	50	47	45	43	41	37	33	33	34	35	38	40	42	47	50	53	55	56	56	56	56	55	54	56.2
28-May	53	52	51	50	50	48	47	46	45	45	46	47	49	52	55	58	60	61	62	61	59	58	56	54	61.6
29-May	52	49	47	43	42	41	40	39	38	38	38	40	40	40	40	40	40	41	41	42	42	42	41	40	51.6
30-May	39	37	35	33	32	30	28	28	29	30	32	34	36	39	42	44	45	45	45	44	43	42	41	39	44.8
31-May	38	37	36	35	34	32	30	30	32	34	36	39	41	45	48	50	52	53	53	53	52	51	50	49	53.1
Diurnal Maximums	53.0	51.9	51.1	50.4	49.9	48.8	47.2	46.4	47.3	48.1	49.0	49.9	50.6	52.5	55.3	58.2	60.0	61.3	61.6	60.8	59.5	57.7	56.0	55.2	

N - Not Valid

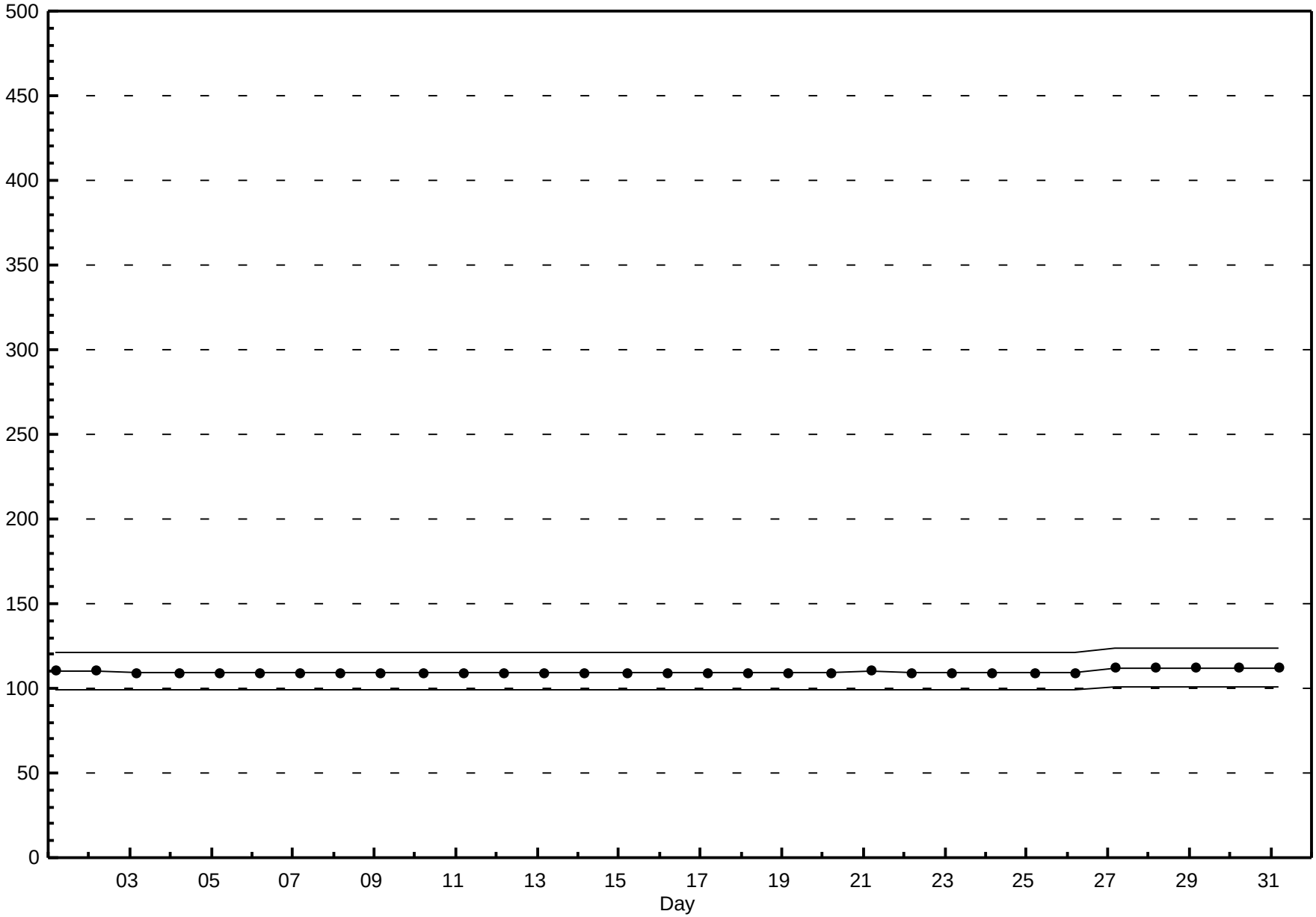
FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Span Responses

Ozone (O_3)

Beaverlodge - May 2012



Peace Airshed Zone Association

Hourly Averages

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

Beaverlodge - May 2012

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

Maximum Value: 20.2 $\mu g/m^3$ on May 25 22:00

Maximum Daily Average: 11.9 $\mu g/m^3$ on May 25

Minimum Value: 1 $\mu g/m^3$ on May 31 15:00

Maximum Diurnal Average: 8.0 $\mu g/m^3$ at hour 8

Monthly Average: 7.27 $\mu g/m^3$

Minimum Daily Average: 4.4 $\mu g/m^3$ on May 17

Minimum Diurnal Average: 6.3 $\mu g/m^3$ at hour 16

Percentiles: P_1 = 1.8 P_{10} = 4.0 Q_1 = 5.2 Median = 6.7 Q_3 = 9.1 P_{90} = 11.5 P_{99} = 15.2

Hours in Service:	744
Hours of Data:	740
Hours of Missing Data:	4
Hours of Calibration:	2
Percent Operational Time:	99.7

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-May	8	8	9	9	10	8	11	9	8	8	4	3	2	2	2	2	3	4	4	3	4	6	5	4	5.6	10.8
2-May	4	4	5	5	7	6	7	7	6	7	5	4	3	4	5	4	5	7	7	8	7	7	8	9	6.0	8.9
3-May	8	6	5	5	5	8	7	9	7	7	5	7	7	4	3	5	7	6	3	6	7	6	6	6	6.1	9.2
4-May	7	7	5	4	5	5	5	6	7	5	5	3	3	6	6	5	5	5	6	5	5	5	7	6	5.4	7.2
5-May	6	5	6	6	6	6	5	3	4	5	5	8	3	6	7	9	3	4	5	4	4	5	4	6	5.2	8.7
6-May	6	5	6	5	4	4	4	3	4	4	6	7	7	5	7	6	7	9	10	8	6	6	7	10	6.1	9.8
7-May	9	9	8	8	8	8	7	6	5	8	6	7	9	11	10	10	10	10	10	8	9	7	7	8	8.2	10.7
8-May	11	9	9	8	9	8	10	12	11	10	12	16	15	14	12	8	5	6	7	5	7	9	6	6	9.5	15.9
9-May	7	5	6	8	7	7	10	7	5	4	6	4	4	6	5	6	7	6	5	3	4	3	2	2	5.4	10.0
10-May	3	2	4	4	3	3	3	2	3	3	6	5	2	5	6	5	8	6	7	6	8	5	5	4	4.5	8.1
11-May	3	4	4	3	5	4	3	4	4	4	4	6	8	7	4	6	6	8	8	7	6	8	9	9	5.6	9.4
12-May	9	8	7	8	8	6	7	9	9	8	7	7	6	7	8	6	6	8	7	7	10	9	10	11	8.0	11.1
13-May	12	10	8	9	9	10	12	9	8	9	7	6	8	8	9	5	6	7	6	5	8	7	7	7	8.0	12.2
14-May	5	5	6	6	5	6	6	8	8	7	6	7	7	7	6	6	9	12	16	15	11	11	9	7	8.0	15.8
15-May	9	8	8	9	9	4	6	14	12	14	12	12	7	6	8	11	9	10	11	10	10	11	11	10	9.7	14.1
16-May	10	9	10	11	10	9	8	6	5	6	5	9	8	3	2	2	4	5	4	4	2	3	5	4	6.0	10.6
17-May	3	2	4	3	4	4	4	4	6	4	5	4	5	5	N	4	4	4	5	5	5	4	5	7	4.4	7.4
18-May	5	6	6	7	6	5	7	6	4	3	5	4	7	6	5	6	4	3	4	5	7	6	6	6	5.4	7.5
19-May	5	4	5	4	5	5	4	5	4	4	4	6	6	8	4	4	4	6	7	8	7	7	7	6	5.3	8.4
20-May	7	6	5	7	7	6	6	7	8	5	7	7	6	8	7	7	9	7	8	10	14	13	9	11	7.8	14.4
21-May	10	8	8	7	7	6	8	8	9	10	9	7	9	6	6	7	5	6	7	5	5	6	5	5	7.1	10.3
22-May	6	6	5	6	8	6	5	5	4	5	4	6	6	5	5	5	5	5	6	6	5	6	7	7	5.6	8.0
23-May	7	6	6	6	6	7	7	5	6	4	3	5	6	7	6	6	5	4	5	6	5	5	7	7	5.7	7.4
24-May	8	6	8	9	8	12	11	12	10	8	10	9	9	7	8	7	9	10	10	12	11	11	13	13	9.7	12.8
25-May	12	13	14	12	11	13	13	12	13	16	11	10	9	8	7	8	13	10	10	11	11	20	16	12	11.9	20.2
26-May	12	12	11	10	12	12	10	11	11	12	11	11	8	10	10	10	10	10	8	8	10	10	11	13	10.4	13.0
27-May	12	13	15	14	14	12	14	12	12	11	12	12	11	11	9	8	7	8	10	10	13	11	12	11	11.4	14.8
28-May	11	13	12	12	13	10	11	12	12	12	13	12	13	11	9	10	9	9	10	10	10	10	10	12	11.1	13.2
29-May	11	11	10	11	12	14	12	12	9	8	7	8	7	9	7	7	7	4	5	5	6	7	8	7	8.5	13.8
30-May	8	7	7	7	7	7	5	6	7	6	C	C	M	7	7	5	6	8	6	3	6	7	4	4	6.3	8.2
31-May	5	7	6	6	8	10	13	18	8	5	5	4	3	4	1	6	6	6	6	7	6	9	10	10	7.0	17.5
	7.6	7.3	7.4	7.4	7.7	7.5	7.7	8.0	7.5	7.2	7.0	7.1	6.8	6.9	6.4	6.3	6.5	6.9	7.3	7.0	7.4	7.8	7.8	7.6	Diurnal Average	
	12.2	13.0	14.8	13.8	13.6	13.8	13.8	17.5	12.8	16.5	13.2	15.9	15.3	14.3	11.7	11.3	13.1	12.2	15.8	15.5	14.4	20.2	16.0	13.0	Diurnal Maximum	

C - Calibration M - Maintenance N - Not Valid

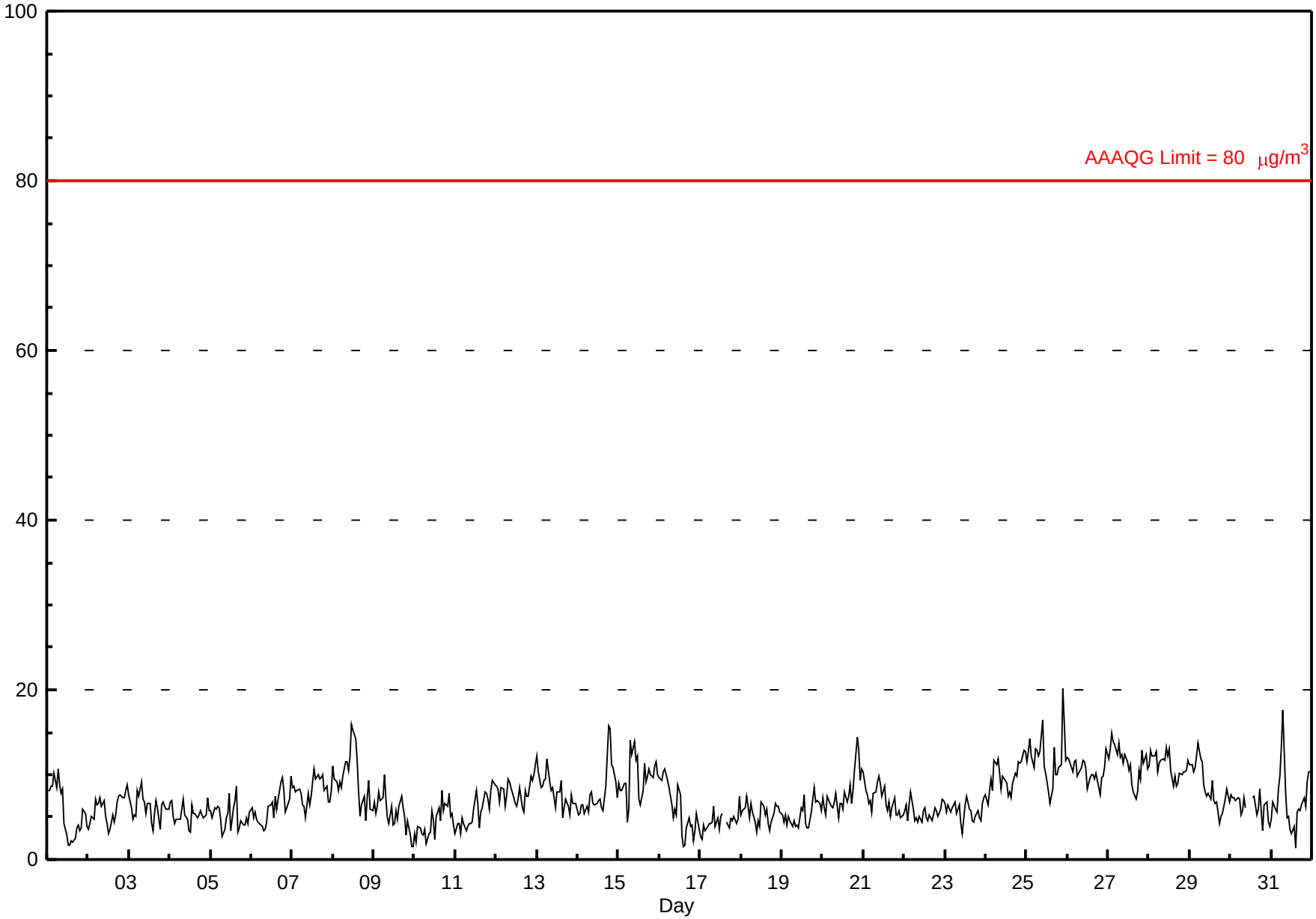
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 $\mu g/m^3$ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 $\mu g/m^3$

Peace Airshed Zone Association

Hourly Averages

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

Beaverlodge - May 2012



Peace Airshed Zone Association

Hourly Maximums

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

Beaverlodge - May 2012

Maximum Value: 23.6 $\mu g/m^3$ on May 25 22:00

Maximum Daily Average: 13.5 $\mu g/m^3$ on May 25

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

Minimum Daily Average: 5.3 $\mu g/m^3$ on May 17

Maximum Diurnal Average: 9.2 $\mu g/m^3$ at hour 8

Minimum Diurnal Average: 7.6 $\mu g/m^3$ at hour 16

Monthly Average: 8.31 $\mu g/m^3$

Percentiles: P_1 = 3.0 P_{10} = 5.0 Q_1 = 6.0 Median = 7.7 Q_3 = 10.2 P_{90} = 12.4 P_{99} = 18.0

Hours in Service:	744
Hours of Data:	740
Hours of Missing Data:	4
Hours of Calibration:	2
Percent Operational Time:	99.7

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-May	9	9	9	10	11	9	12	11	9	10	6	3	3	3	3	3	4	4	4	4	5	7	6	5	6.6	11.9
2-May	4	6	6	6	8	7	7	8	7	7	7	5	4	4	6	5	6	7	8	9	9	9	9	9	6.9	9.5
3-May	9	6	5	6	6	9	8	9	8	7	6	8	7	7	5	6	9	9	6	7	7	7	7	7	7.2	9.5
4-May	7	7	6	5	5	5	6	7	8	6	5	4	4	8	7	7	7	7	7	7	7	6	8	7	6.3	8.0
5-May	7	6	7	6	7	7	6	4	5	6	6	9	6	7	7	10	7	5	5	5	5	5	5	6	6.2	10.1
6-May	7	6	6	6	5	5	4	4	5	5	7	7	8	6	8	6	9	9	10	9	7	7	9	11	7.0	10.6
7-May	9	9	8	9	9	9	8	7	6	8	8	9	11	11	10	12	12	11	11	9	9	8	7	10	9.2	12.5
8-May	11	11	10	9	10	9	11	13	13	12	13	18	17	16	12	11	6	7	8	7	10	11	7	7	10.8	18.4
9-May	7	6	7	9	8	8	11	10	5	5	8	7	6	7	8	8	9	7	6	5	6	3	3	2	6.8	11.4
10-May	4	3	5	5	4	3	4	3	5	5	7	6	3	6	8	6	9	7	8	8	8	6	6	6	5.7	9.2
11-May	4	6	5	4	6	6	4	5	5	5	5	7	10	9	5	6	8	9	9	9	7	9	10	10	6.8	9.9
12-May	10	9	8	9	10	7	8	11	10	9	8	7	7	7	9	8	7	9	9	9	10	10	11	13	9.0	12.9
13-May	13	12	9	9	10	11	12	11	10	10	8	7	9	9	11	8	7	8	8	7	8	8	7	7	9.2	12.9
14-May	6	6	7	7	6	7	6	8	8	7	7	7	8	7	7	6	12	13	19	19	12	12	12	8	9.1	19.1
15-May	9	9	10	10	10	7	9	16	14	14	14	13	9	7	10	12	10	11	12	11	10	12	12	10	10.9	16.3
16-May	10	10	11	11	11	10	9	8	7	7	7	9	9	6	3	3	5	6	5	5	3	4	6	5	7.1	11.2
17-May	3	3	5	5	5	5	5	5	7	6	6	4	6	6	N	5	5	5	5	5	6	5	7	8	5.3	8.2
18-May	7	7	7	8	7	6	7	6	5	4	5	5	8	7	7	7	5	4	5	6	7	7	7	7	6.2	8.0
19-May	6	5	6	6	6	5	5	5	5	5	5	7	7	8	7	5	5	6	9	9	8	8	8	7	6.3	9.1
20-May	8	8	7	8	7	7	7	9	9	6	8	7	7	9	9	9	10	7	10	11	16	16	11	12	9.0	16.3
21-May	12	9	8	7	8	7	8	10	10	10	10	8	9	7	6	8	7	7	8	7	6	7	5	7	8.0	12.2
22-May	7	7	6	7	8	7	5	6	6	6	5	7	7	5	6	6	5	6	8	7	7	7	8	8	6.5	8.4
23-May	7	6	7	7	7	8	8	6	7	5	4	6	7	8	7	7	5	5	6	6	5	6	7	8	6.5	8.5
24-May	8	7	9	10	9	14	13	12	12	10	10	10	11	9	9	8	10	11	10	12	12	12	13	13	10.6	13.6
25-May	12	14	15	14	12	14	14	13	13	17	16	11	11	8	7	10	15	13	12	12	13	24	23	12	13.5	23.6
26-May	12	12	12	12	12	12	11	11	12	12	12	12	9	11	11	11	10	11	9	9	11	10	12	14	11.2	13.6
27-May	13	15	15	14	14	13	15	13	13	12	13	13	12	12	10	8	8	9	11	11	14	13	13	11	12.3	15.3
28-May	12	13	13	12	13	11	12	12	13	12	14	13	14	12	10	11	11	10	10	11	11	11	11	12	11.9	14.1
29-May	12	12	11	12	14	15	14	14	9	8	8	9	8	10	9	8	8	6	6	6	7	8	9	7	9.5	14.8
30-May	8	8	8	7	8	8	6	6	8	7	C	C	M	9	8	6	8	9	7	5	8	8	7	5	7.3	8.9
31-May	5	8	7	6	11	11	19	20	12	6	6	6	5	5	3	6	7	6	8	8	7	10	12	11	8.5	20.2
	8.3	8.2	8.3	8.3	8.6	8.4	8.7	9.2	8.6	8.1	8.1	8.2	8.0	8.0	7.7	7.6	7.9	7.9	8.4	8.3	8.4	8.8	8.9	8.5	Diurnal Average	
	12.9	14.8	15.3	14.1	14.1	14.8	19.2	20.2	14.1	17.0	15.5	18.4	17.5	15.6	12.4	12.5	14.8	13.1	19.1	19.0	16.1	23.6	22.6	13.6	Diurnal Maximum	

C - Calibration M - Maintenance N - Not Valid

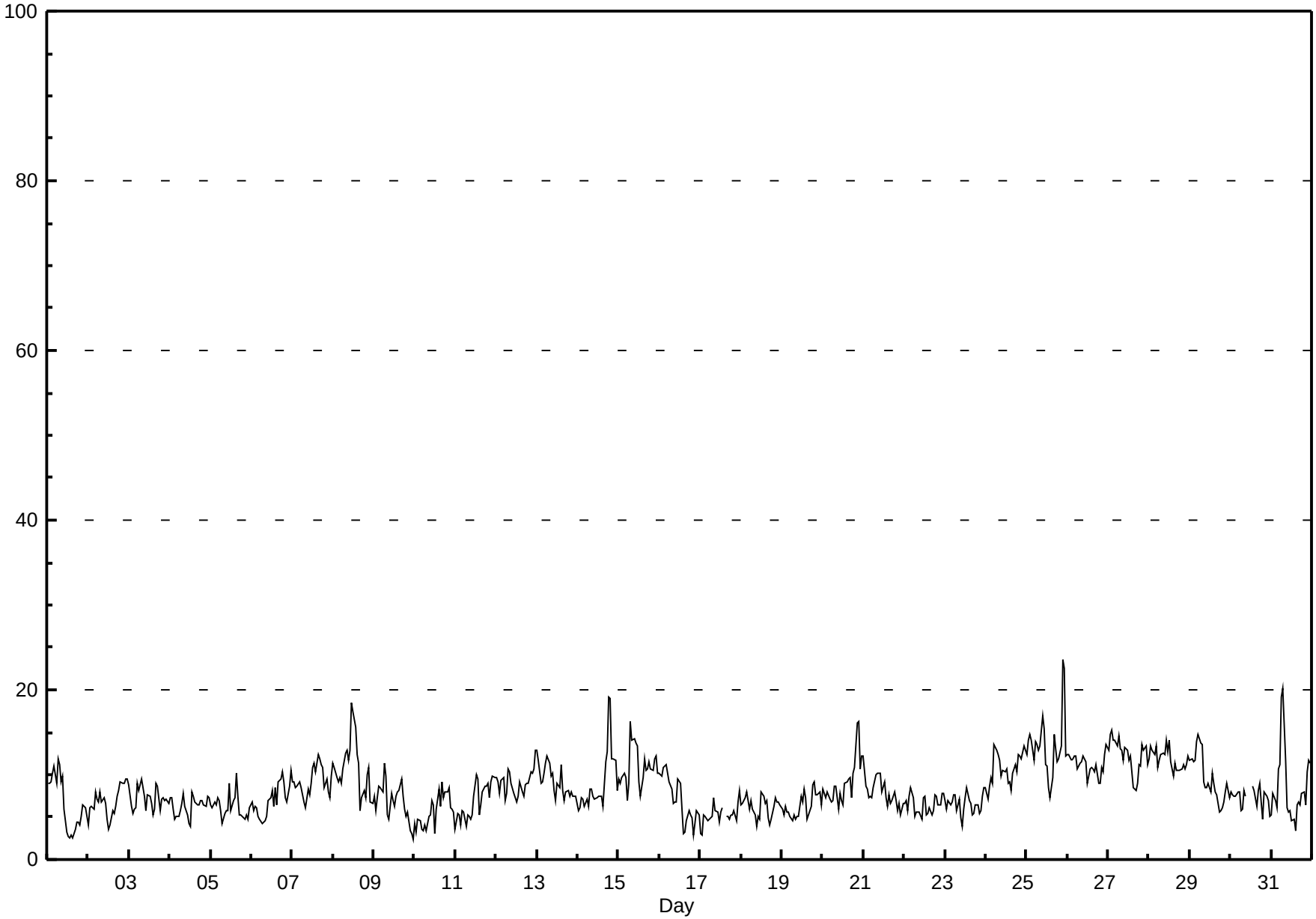
FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

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

Beaverlodge - May 2012

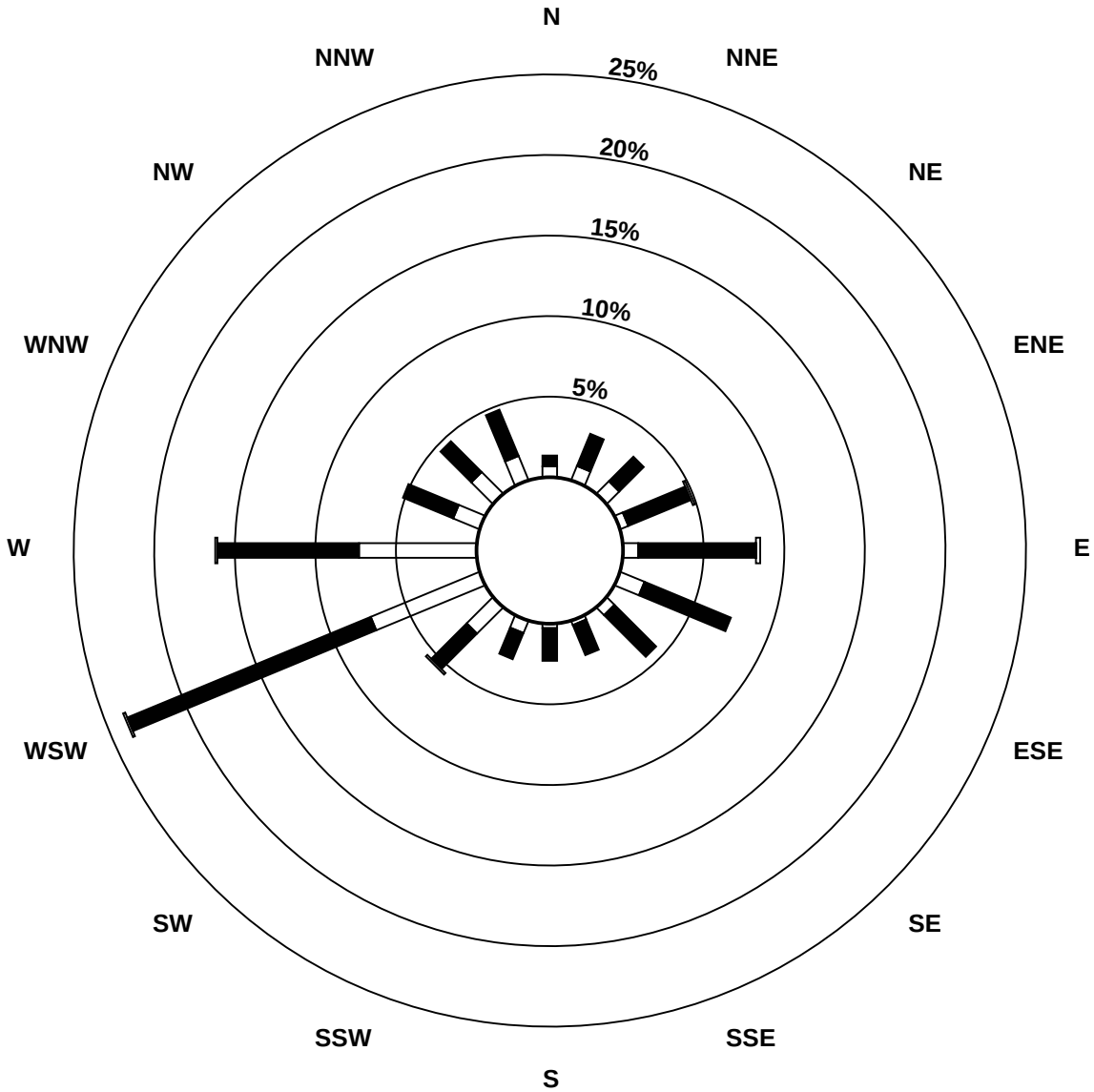


Peace Airshed Zone Association

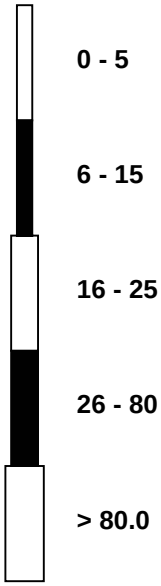
Pollutant Rose

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

Beaverlodge - May 2012



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



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Beaverlodge - May 2012

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

Maximum Value: 24.2 ^{o}C on May 27 17:00

Maximum Daily Average: 16.3 ^{o}C on May 27

Minimum Value: -3 ^{o}C on May 19 05:00

Maximum Diurnal Average: 14.8 ^{o}C at hour 16

Monthly Average: 10.26 ^{o}C

Minimum Daily Average: 2.1 ^{o}C on May 18

Minimum Diurnal Average: 4.7 ^{o}C at hour 6

Percentiles: P_1 = -1.6 P_{10} = 3.2 Q_1 = 6.2 Median = 10.2 Q_3 = 14.1 P_{90} = 17.8 P_{99} = 22.9

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

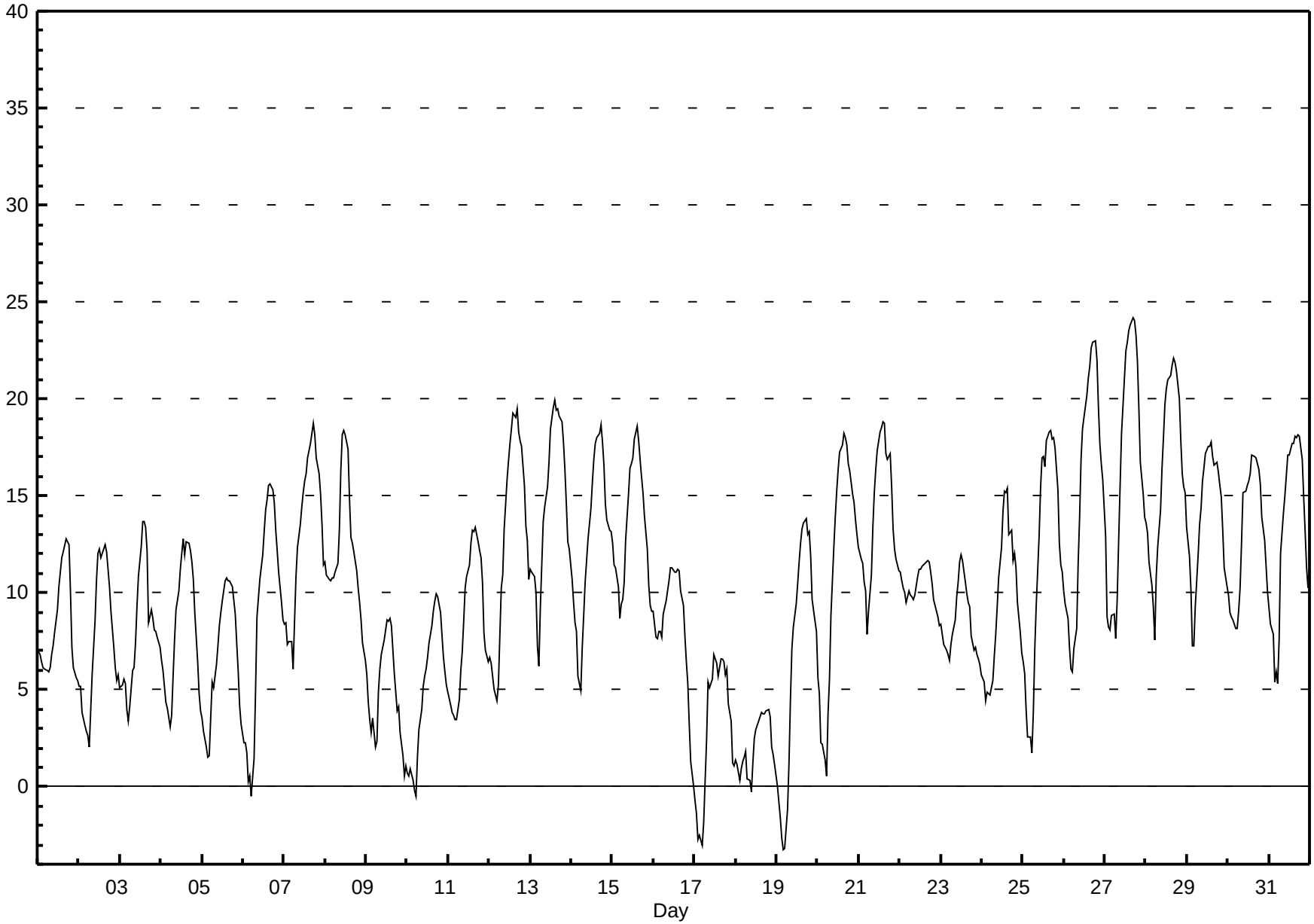
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-May	7	7	6	6	6	6	6	6	7	7	8	9	10	11	12	12	13	13	12	10	7	6	6	5	8.3	12.8
2-May	5	5	4	3	3	3	2	4	6	9	11	12	12	12	12	13	12	11	10	9	7	6	6	6	7.6	12.5
3-May	5	5	6	5	4	3	4	6	6	7	9	11	12	14	14	13	12	8	9	9	8	8	8	7	8.1	13.7
4-May	7	6	5	4	4	3	4	6	8	9	10	11	12	13	12	13	13	12	12	11	9	6	5	4	8.2	12.8
5-May	4	3	2	2	2	4	5	5	6	7	8	9	10	11	11	11	11	10	10	9	7	6	4	3	6.6	10.8
6-May	2	2	2	0	1	0	1	5	9	10	11	12	13	14	15	16	16	15	15	13	12	11	10	9	8.8	15.6
7-May	8	8	7	7	7	6	9	11	12	14	14	15	16	16	17	18	18	19	18	17	16	15	14	11	13.1	18.8
8-May	12	11	11	11	11	11	11	12	13	16	18	18	18	17	15	13	13	12	11	10	9	9	7	7	12.3	18.4
9-May	6	4	3	3	4	2	2	5	6	7	8	8	9	9	9	8	6	5	4	4	3	2	1	1	4.9	8.7
10-May	1	1	1	0	0	-1	2	3	4	5	6	6	7	7	8	9	10	10	10	9	8	7	6	5	5.1	9.9
11-May	5	4	4	4	3	3	5	6	7	9	10	11	11	13	13	13	13	13	12	12	11	8	7	6	8.4	13.4
12-May	7	6	6	5	4	5	8	10	11	13	16	17	18	18	19	19	20	18	18	18	16	13	13	11	12.9	19.5
13-May	11	11	11	10	7	6	9	14	14	15	15	17	18	20	20	19	19	19	19	18	16	15	13	12	14.6	19.9
14-May	11	9	8	8	6	5	7	9	11	12	13	14	16	17	18	18	18	19	18	17	15	14	13	13	12.8	18.7
15-May	13	11	11	10	9	9	10	11	13	15	16	17	17	18	19	18	17	16	15	14	12	10	9	9	13.3	18.6
16-May	9	8	8	8	8	8	9	10	10	11	11	11	11	11	11	11	10	9	8	6	5	3	1	0	8.2	11.3
17-May	-1	-1	-3	-2	-3	-2	0	2	5	5	6	7	7	6	6	7	7	6	6	6	4	3	1	1	3.1	6.8
18-May	1	1	0	1	1	2	2	0	0	0	1	2	3	3	4	4	4	4	4	4	4	2	2	1	2.1	4.0
19-May	0	-1	-2	-3	-3	-3	-1	1	5	7	8	9	10	12	13	13	14	14	13	13	12	10	9	8	6.6	13.9
20-May	6	5	2	2	1	1	4	6	9	12	14	15	16	17	18	18	18	18	17	16	15	15	14	13	11.3	18.2
21-May	12	12	12	11	10	8	9	11	13	15	16	17	18	19	19	19	17	17	17	15	13	12	12	11	14.0	18.9
22-May	11	11	10	10	10	10	10	10	10	10	11	11	11	11	11	12	12	12	11	10	10	9	9	8	10.4	11.7
23-May	8	8	7	7	7	7	7	8	9	10	11	12	12	12	11	10	9	9	8	7	7	7	7	6	8.5	11.9
24-May	6	5	4	5	5	5	5	7	8	9	11	12	14	15	15	15	13	13	12	12	11	10	8	7	9.5	15.4
25-May	6	6	4	3	3	2	4	7	9	13	15	17	17	17	18	18	18	18	18	18	15	13	11	11	11.7	18.4
26-May	10	9	9	7	6	6	7	8	11	14	17	18	19	20	21	22	23	23	23	22	20	18	17	16	15.2	23.0
27-May	13	9	8	8	9	9	8	10	13	15	18	21	22	23	23	24	24	24	23	22	19	17	15	14	16.3	24.2
28-May	14	13	12	10	9	8	11	12	14	16	18	20	21	21	21	22	22	22	21	20	18	16	15	15	16.3	22.1
29-May	13	12	10	7	7	9	12	14	14	16	16	17	18	18	18	17	17	17	16	16	15	13	11	10	13.9	17.8
30-May	10	9	9	9	8	8	9	10	13	15	15	16	16	16	17	17	17	17	16	16	14	13	11	10	12.9	17.1
31-May	9	8	8	5	6	5	8	12	14	15	16	17	17	18	18	18	18	18	18	17	15	13	11	10	13.1	18.1
	7.4	6.7	6.0	5.4	5.0	4.7	6.1	7.7	9.3	10.9	12.2	13.3	13.9	14.4	14.7	14.8	14.6	14.2	13.7	12.9	11.4	10.0	8.8	8.1	Diurnal Average	
	13.6	13.1	11.6	10.6	10.7	10.8	11.9	13.7	14.4	16.4	18.2	21.0	22.5	22.9	23.5	23.9	24.2	24.0	23.3	22.0	19.7	17.7	16.7	15.8	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Beaverlodge - May 2012



Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Beaverlodge - May 2012

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 100.0 % on May 23 06:00
Maximum Daily Average: 86.0 % on May 22

Minimum Value: 16 % on May 16 15:00
Maximum Diurnal Average: 69.9 % at hour 6
Monthly Average: 50.43 %

Minimum Daily Average: 27.2 % on May 13
Minimum Diurnal Average: 33.4 % at hour 16
Percentiles: P_1 = 18.5 P_{10} = 24.2 Q_1 = 32.4 Median = 45.5 Q_3 = 65.2 P_{90} = 87.0 P_{99} = 100.0

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

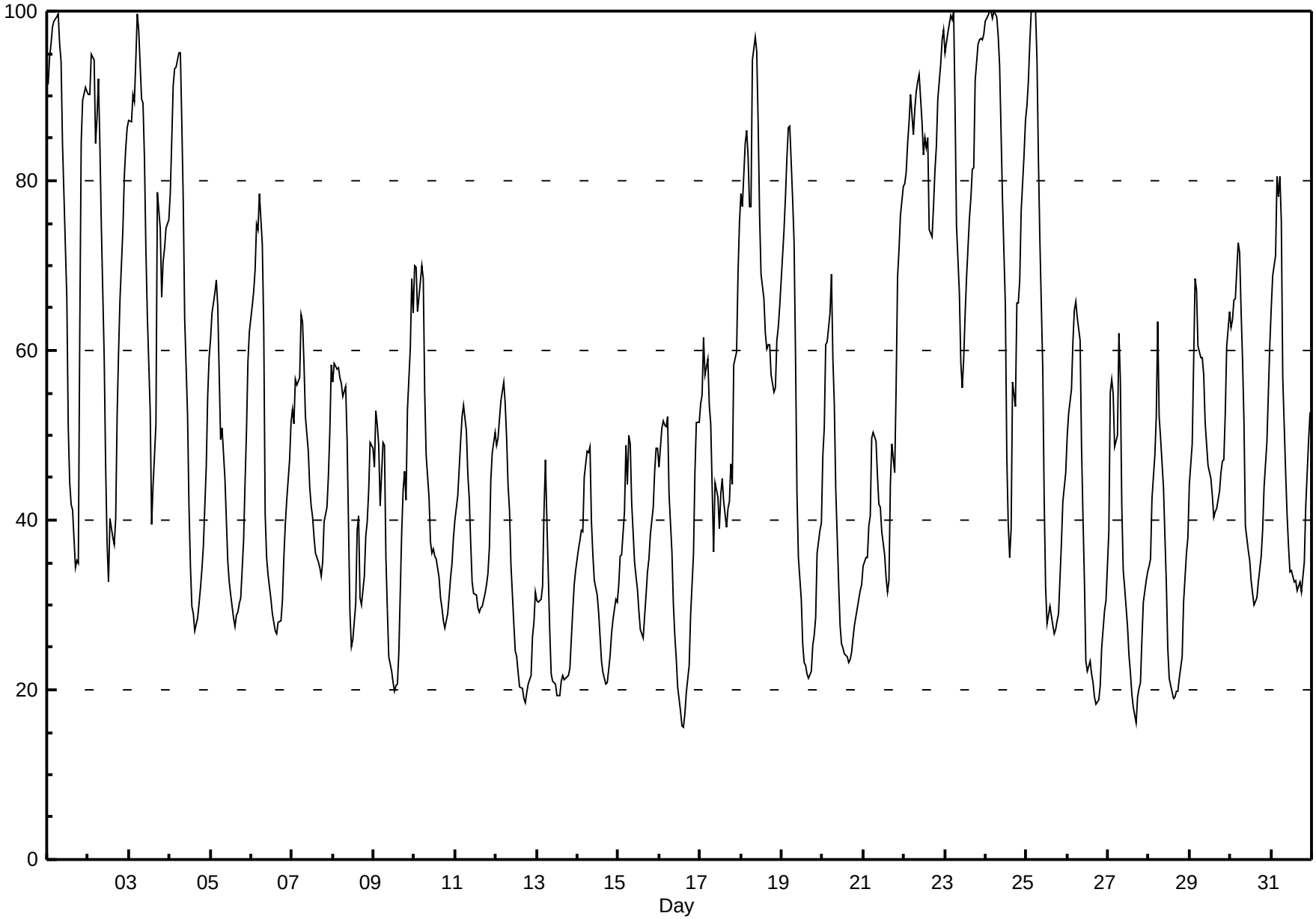
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-May	91	95	96	98	99	99	100	96	94	84	78	66	51	44	42	41	34	35	35	62	85	90	91	91	74.9	99.6
2-May	90	90	95	94	84	87	92	84	75	59	46	37	33	40	38	37	40	52	60	66	74	81	84	86	67.8	94.9
3-May	87	87	90	89	94	100	98	90	89	83	72	64	53	40	44	48	51	79	74	66	71	72	74	75	74.6	99.6
4-May	79	85	91	93	93	95	95	87	78	64	52	42	35	30	29	27	29	30	32	34	37	46	55	59	58.2	95.1
5-May	61	64	67	68	65	57	50	51	45	40	35	33	31	28	27	29	29	30	31	38	44	50	59	62	45.6	68.2
6-May	65	67	69	75	74	79	73	63	41	36	34	31	29	28	27	27	28	28	31	36	40	42	47	51	46.6	78.6
7-May	53	51	57	56	57	64	63	58	52	48	44	42	40	38	36	35	34	33	35	40	42	45	50	58	47.2	64.2
8-May	56	59	58	58	57	56	55	56	49	39	29	25	26	30	39	40	31	30	33	38	40	43	49	49	43.6	58.5
9-May	46	53	51	49	42	49	49	36	29	24	22	21	20	20	21	24	39	44	46	42	53	60	69	64	40.5	68.6
10-May	70	70	65	68	70	69	55	48	43	37	36	37	36	35	33	31	30	28	27	29	31	33	35	38	43.9	70.0
11-May	40	43	46	49	52	54	51	45	43	37	33	31	31	30	29	30	30	31	32	34	37	45	48	50	39.6	53.6
12-May	49	50	52	54	56	54	50	44	41	35	28	25	24	22	20	20	19	19	20	21	22	26	28	31	33.7	56.3
13-May	31	30	31	32	41	47	40	27	22	21	21	21	19	19	21	22	21	21	22	23	26	29	32	34	27.2	47.1
14-May	37	38	39	39	45	48	48	49	40	36	33	31	29	26	23	22	21	21	22	24	27	28	31	30	32.8	48.7
15-May	32	36	36	41	49	44	50	49	42	35	33	32	29	27	26	29	31	34	35	38	42	46	48	48	38.1	50.0
16-May	46	51	52	51	51	52	43	36	30	26	24	20	17	16	16	17	20	23	29	32	36	46	52	52	34.9	52.3
17-May	54	55	61	57	59	54	51	44	36	44	43	39	43	45	42	39	41	42	47	44	58	60	69	75	50.1	75.0
18-May	79	77	84	86	83	77	77	94	97	95	87	76	69	66	62	60	61	61	57	55	56	61	63	65	72.8	97.0
19-May	71	74	78	83	86	86	78	73	59	43	36	31	25	23	23	22	21	22	25	26	28	36	39	40	47.1	86.4
20-May	48	51	61	61	64	69	59	54	44	33	28	26	25	24	24	23	24	24	26	28	30	31	32	32	38.2	69.1
21-May	35	36	36	39	40	50	50	49	45	42	42	39	36	33	32	33	44	49	46	56	69	72	76	79	46.9	79.3
22-May	80	81	84	87	90	86	88	91	92	93	87	83	85	84	85	74	73	77	81	84	90	94	97	98	86.0	97.8
23-May	95	96	97	99	99	100	89	75	67	59	56	59	64	69	76	78	81	82	92	96	97	97	97	97	84.0	100.0
24-May	99	99	100	100	99	100	99	97	94	86	78	65	47	39	36	39	56	53	66	66	68	77	83	87	76.4	100.0
25-May	89	92	96	100	100	100	94	83	73	58	42	32	28	29	30	28	27	27	28	29	37	42	44	46	56.4	100.0
26-May	50	53	55	61	65	66	64	61	49	40	33	23	22	23	22	21	19	18	19	21	25	27	29	31	37.4	65.8
27-May	39	55	57	55	49	50	62	57	42	34	32	27	24	22	20	18	16	19	20	21	26	30	33	34	35.0	62.0
28-May	35	35	42	48	52	63	52	50	44	38	33	25	21	20	19	19	20	20	21	24	30	33	36	38	34.2	63.4
29-May	44	49	59	68	67	61	59	59	57	51	49	46	45	43	40	41	41	43	46	47	47	53	60	64	51.7	68.4
30-May	63	64	66	66	73	72	65	59	52	39	36	35	33	31	30	31	33	34	36	39	44	49	55	61	48.5	72.6
31-May	65	69	71	81	78	81	75	57	46	41	37	34	34	33	33	32	32	33	32	35	42	46	49	53	49.4	80.6
	60.5	63.0	65.9	68.0	68.9	69.9	66.9	61.9	55.1	48.4	43.1	38.6	35.7	34.2	33.7	33.4	34.8	36.9	38.9	41.7	46.8	51.3	55.3	57.4	Diurnal Average	
	98.8	99.4	100.0	100.0	100.0	100.0	99.6	97.0	97.0	95.3	87.0	83.0	85.1	83.9	85.1	78.0	81.3	81.6	91.9	96.0	96.6	96.7	96.6	97.8	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Beaverlodge - May 2012



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Beaverlodge - May 2012

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	19	15	16	13	11	9	7	10	15	17	18	21	16	15	7	16	15	14	7	15	11	8	6	3.5	26.3
Dir	93	110	122	114	122	122	141	189	225	255	259	265	272	265	256	281	266	273	272	132	110	109	96	83	194	93
2 Spd	5	2	2	0	1	2	1	3	2	2	3	4	6	12	8	9	16	22	18	13	7	7	9	11	5.6	21.7
Dir	74	88	113	18	342	267	333	271	218	284	299	91	119	112	103	119	111	104	113	105	78	73	89	112	103	104
3 Spd	10	13	6	2	9	9	9	8	7	9	12	12	15	24	26	31	28	12	13	20	11	11	9	4	11.8	31.4
Dir	141	135	54	271	127	98	84	86	178	134	110	114	114	100	107	108	118	195	125	142	125	115	113	134	118	108
4 Spd	2	9	9	8	6	8	8	7	7	22	25	31	31	33	31	34	35	32	31	25	24	15	11	9	18.1	35.0
Dir	124	321	317	297	285	246	249	262	236	265	264	258	261	267	262	254	246	250	263	264	266	250	243	251	261	246
5 Spd	8	7	7	8	7	21	31	32	37	37	37	35	35	35	35	34	33	31	33	26	24	19	14	11	24.6	37.3
Dir	243	263	248	250	233	260	259	244	244	248	262	260	257	250	260	262	268	256	258	249	246	244	249	248	254	262
6 Spd	3	10	7	2	1	4	2	4	25	26	18	18	19	24	21	22	25	23	23	19	16	11	2	2	12.5	26.1
Dir	221	247	257	20	40	63	100	193	262	259	255	257	266	264	250	251	241	238	249	252	253	281	239	104	253	259
7 Spd	2	2	1	2	6	1	3	10	21	25	27	26	20	26	27	21	23	21	16	9	6	6	5	5	10.7	27.1
Dir	82	155	114	57	237	157	257	258	258	236	244	263	233	227	237	237	227	226	237	266	339	13	52	92	241	237
8 Spd	7	9	7	7	6	5	5	2	3	1	17	25	36	40	36	38	35	37	29	23	20	19	19	14	13.6	40.4
Dir	91	103	103	90	93	93	109	151	332	146	237	272	280	278	282	277	271	274	259	246	236	236	240	246	263	278
9 Spd	11	10	9	14	20	17	14	26	35	36	39	44	42	40	43	46	43	38	33	33	33	31	23	33	29.2	46.2
Dir	252	257	267	259	259	244	237	244	251	256	254	252	255	254	254	250	242	252	237	235	231	228	228	234	247	250
10 Spd	33	24	24	28	18	17	30	40	46	42	42	42	43	42	50	51	49	47	43	42	32	27	29	29	35.6	51.0
Dir	231	240	242	241	236	228	251	259	265	269	271	268	267	260	257	254	254	260	264	254	257	254	260	261	257	254
11 Spd	30	26	27	27	27	28	31	35	33	33	33	43	43	42	44	44	41	42	38	30	27	12	14	8	31.5	44.1
Dir	259	255	256	252	256	260	254	261	268	256	266	260	259	262	256	261	266	258	259	257	261	244	250	258	259	261
12 Spd	9	9	8	2	2	4	7	11	10	18	34	44	41	41	39	36	35	38	32	24	19	15	5	8	20.0	44.2
Dir	251	244	251	192	162	190	237	246	244	248	254	243	256	258	260	252	260	262	268	260	252	247	243	221	253	243
13 Spd	10	9	7	7	2	2	5	21	26	31	29	32	35	44	46	47	44	42	36	36	26	17	12	11	23.1	47.1
Dir	269	306	306	267	215	91	271	255	248	248	254	240	250	252	249	261	266	256	263	268	271	276	295	313	260	261
14 Spd	9	7	6	10	6	7	7	2	9	10	8	7	7	7	9	10	13	20	21	19	15	19	25	18	8.3	24.6
Dir	316	324	322	325	344	34	32	106	125	113	118	109	101	131	112	81	86	84	85	77	71	83	91	88	80	91
15 Spd	12	6	2	6	8	10	3	4	8	13	24	29	30	30	30	32	33	34	32	29	25	18	15	11	16.3	33.9
Dir	57	27	11	280	301	327	300	236	224	230	242	242	247	245	242	257	254	254	250	243	251	244	254	262	252	254
16 Spd	9	3	2	6	4	9	11	22	30	35	38	37	37	38	37	39	34	32	34	29	23	16	12	6	22.1	38.7
Dir	240	212	186	275	335	298	280	271	267	269	268	261	266	262	261	267	257	263	263	249	251	252	252	235	263	267
17 Spd	4	1	4	4	4	4	3	5	15	19	20	19	15	22	17	22	19	14	12	6	6	2	3	6	7.0	22.2
Dir	236	211	96	118	53	52	105	143	236	218	211	200	224	216	214	218	223	247	298	278	317	16	8	352	224	216
18 Spd	5	3	13	12	13	12	10	14	16	20	20	19	19	18	20	19	19	18	21	15	10	5	5	6	13.3	20.8
Dir	17	29	306	325	331	348	333	311	307	306	312	313	311	313	305	299	300	309	291	308	308	292	297	301	311	291
19 Spd	4	4	1	2	4	3	2	4	5	7	9	8	8	9	4	7	7	12	6	6	6	10	8	6	3.9	12.2
Dir	327	329	45	73	54	57	130	188	197	212	226	225	281	284	297	284	301	264	239	247	265	253	299	318	266	264
20 Spd	1	3	1	5	3	3	3	4	5	5	7	7	7	5	8	5	5	13	15	18	16	20	26	24	7.1	26.5
Dir	289	241	0	47	59	34	66	188	205	177	154	139	92	115	57	106	125	85	80	86	82	84	84	79	91	84
21 Spd	19	8	10	4	3	1	5	5	3	4	8	11	12	15	19	21	23	9	14	7	12	10	12	8	4.8	23.1
Dir	95	89	78	295	332	293	276	191	212	193	192	151	123	136	118	110	167	171	135	228	310	31	22	11	125	167
22 Spd	10	9	10	10	12	10	8	8	5	4	6	4	4	8	11	13	14	11	7	8	7	7	8	4	7.3	13.8
Dir	337	329	339	324	303	318	305	282	263	230	276	334	291	301	334	326	338	340	329	349	4	8	19	261	324	338

FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Beaverlodge - May 2012

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	4	4	1	4	2	1	5	6	9	11	15	14	17	20	24	24	26	23	18	13	2	5	6	5	8.5	26.4
Dir	334	10	236	230	186	140	256	293	308	306	336	359	23	26	25	35	34	41	39	51	28	326	6	341	15	34
24 Spd	3	3	5	6	7	12	8	9	10	11	10	12	19	19	20	23	26	26	18	6	5	6	2	4	5.5	26.1
Dir	347	295	23	326	329	311	316	292	266	298	329	3	39	41	43	54	74	86	113	176	251	252	316	42	27	74
25 Spd	0	1	2	2	3	3	2	3	5	5	5	7	6	4	11	8	8	7	13	12	8	8	9	7	4.1	12.9
Dir	242	241	168	55	48	71	112	222	220	219	186	127	107	48	96	139	162	130	107	105	92	76	80	77	112	107
26 Spd	6	5	4	4	4	4	4	5	7	7	6	10	9	11	8	4	4	8	11	16	8	10	2	3	4.7	16.2
Dir	88	91	110	135	87	101	156	197	170	171	147	189	209	148	140	102	158	142	103	89	58	49	329	30	125	89
27 Spd	1	2	3	2	4	2	3	6	9	10	8	6	9	8	10	11	13	17	24	22	15	13	15	12	8.4	23.6
Dir	99	143	79	149	31	27	197	184	155	123	124	81	84	99	89	100	103	98	93	86	76	77	91	89	96	93
28 Spd	9	8	8	10	4	5	4	5	5	10	14	16	19	17	14	13	14	19	22	19	16	15	18	18	11.6	22.4
Dir	81	75	69	74	84	334	75	139	151	125	108	106	91	68	75	71	76	63	67	69	62	50	74	82	78	67
29 Spd	14	4	10	9	11	17	12	17	24	23	19	15	12	21	33	35	34	27	24	22	15	11	19	10	15.5	35.3
Dir	86	88	329	298	289	310	286	267	270	274	275	274	263	246	239	239	237	239	244	253	254	255	255	258	259	239
30 Spd	7	6	1	5	2	3	4	5	13	27	30	30	29	28	30	35	35	34	35	27	28	21	10	9	18.3	35.2
Dir	244	233	196	241	93	142	168	204	239	252	249	254	255	251	250	251	251	253	260	253	253	256	269	254	251	251
31 Spd	7	2	1	4	2	5	8	23	34	29	32	31	34	37	37	32	33	32	31	22	15	9	0	2	18.3	37.4
Dir	259	339	290	69	185	207	230	240	246	259	264	263	264	262	263	255	254	250	267	255	247	250	44	21	256	263
Spd	1.1	1.6	1.9	2.9	2.4	2.9	4.7	9.1	13.1	14.3	15.1	15.1	14.3	14.8	14.5	14.6	14.7	13.7	11.3	9.2	7.7	4.3	1.8	1.5	Diurnal Average	
Dir	230	254	286	275	280	285	258	249	251	252	255	254	260	256	255	255	250	253	254	247	257	253	257	258		
Spd	32.5	26.2	27.0	27.9	27.4	27.6	31.3	40.2	46.3	42.5	41.9	44.2	42.6	44.2	49.7	51.0	48.8	46.6	43.3	42.4	33.1	30.9	28.9	32.7	Diurnal Maximum	
Dir	231	255	256	241	256	260	254	259	265	269	271	243	259	252	257	254	254	260	264	254	231	228	260	234		

Maximum Speed Value: 51 km/h on May 10 16:00
Maximum Daily Speed Average: 35.6 km/h on May 10
Maximum Diurnal Speed Average: 15.1 km/h at hour 11

Minimum Speed Value: 0 km/h on May 25 01:00
Minimum Daily Speed Average: 3.5 km/h on May 25
Minimum Diurnal Speed Average: 1.1 km/h at hour 1

Monthly Average Velocity: 8.54 km/h 254.9 deg

Speed Percentiles: $P_1 = 0.9$ $P_{10} = 3.3$ $Q_1 = 6.2$ Median = 11.5 $Q_3 = 24.0$ $P_{90} = 34.5$ $P_{99} = 46.2$

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

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Percent Operational Time:	100.0

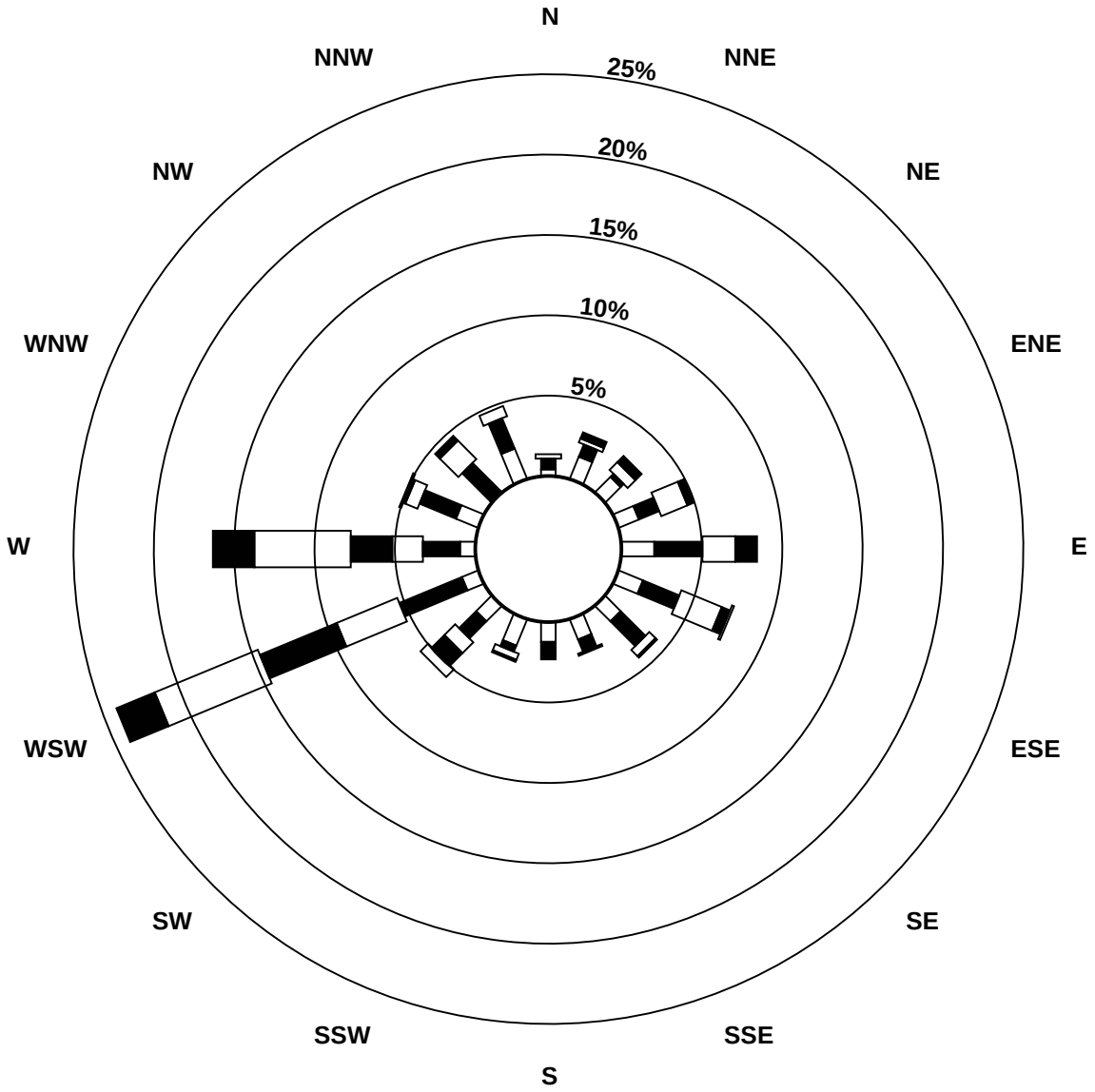
Frequency Distribution

Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	12	12	6	0	0	0	30
NorthEast	24	8	7	10	0	0	49
East	25	40	39	16	1	0	121
SouthEast	20	26	17	2	0	0	65
South	17	13	1	2	0	0	33
SouthWest	17	31	21	28	19	2	118
West	10	46	30	44	81	37	248
NorthWest	19	34	22	5	0	0	80
Total	144	210	143	107	101	39	744

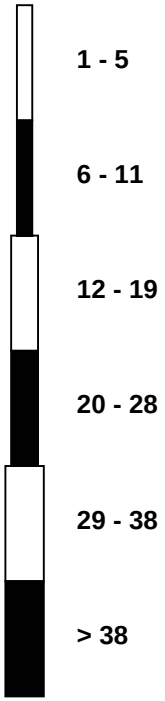
Wind Rose

Wind Speed (WS) (km/h)

Beaverlodge - May 2012



Wind Speed Classes (km/h)



Peace Airshed Zone Association

Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Beaverlodge - May 2012

Maximum Speed: 51 km/h on May 10 16:00

Maximum Daily Speed Average: 36.5 km/h on May 10

Minimum Speed: 2 km/h on May 25 02:00

Minimum Daily Speed Average: 6.5 km/h on May 25

Maximum Diurnal Speed Average: 26.0 km/h at hour 17

Minimum Diurnal Speed Average: 7.7 km/h at hour 3

Monthly Average Speed: 16.35 km/h

Percentiles: P_1 = 2.1 P_{10} = 4.1 Q_1 = 7.0 Median = 12.3 Q_3 = 24.2 P_{90} = 34.8 P_{99} = 46.4

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-May	26	20	15	16	13	11	9	7	11	15	18	19	22	17	16	8	17	16	14	16	15	11	8	6	14.4	26.5
2-May	5	3	2	2	3	2	2	3	3	4	5	6	8	13	10	10	16	22	19	13	7	7	9	11	7.7	22.0
3-May	10	13	8	4	9	9	10	9	8	10	12	13	16	25	27	32	30	12	14	20	11	11	9	5	13.6	31.7
4-May	4	9	9	9	7	8	8	7	8	22	25	32	32	34	32	34	36	33	31	26	24	15	12	9	19.3	35.8
5-May	8	8	8	10	7	23	31	32	37	37	38	35	35	35	36	35	33	31	33	26	24	19	14	11	25.3	37.8
6-May	5	10	7	3	3	4	3	5	26	27	19	19	20	25	23	23	26	23	24	19	16	11	3	4	14.5	26.5
7-May	4	4	2	3	7	4	4	10	21	25	27	26	22	27	28	22	23	22	17	9	6	7	5	6	13.8	27.8
8-May	8	9	7	7	6	5	5	3	4	3	19	26	36	41	37	38	36	37	29	23	20	19	19	14	18.8	41.0
9-May	11	10	10	15	20	17	14	26	35	37	40	44	43	40	44	47	43	39	33	33	33	31	23	33	30.0	47.3
10-May	33	24	24	28	18	17	30	40	47	43	42	43	43	42	50	51	49	47	44	43	32	27	29	29	36.5	51.3
11-May	30	26	27	27	27	28	31	36	33	34	34	43	43	42	44	44	41	42	38	31	27	12	15	8	31.9	44.5
12-May	9	9	8	4	2	4	8	11	10	19	35	44	42	42	40	37	35	38	33	25	19	16	7	8	20.9	44.4
13-May	12	9	7	7	4	2	6	21	26	32	29	32	36	45	46	47	45	42	36	36	26	18	12	12	24.5	47.5
14-May	9	7	7	10	7	7	8	6	10	11	9	9	9	9	10	11	13	20	21	19	15	19	25	19	12.0	24.7
15-May	12	7	5	7	10	11	5	6	9	14	25	29	31	31	31	33	34	34	32	29	25	18	15	11	19.2	34.1
16-May	9	3	3	7	5	10	11	22	31	35	38	38	37	38	38	39	35	33	35	30	23	16	12	6	23.0	39.0
17-May	5	2	4	5	5	4	4	5	16	20	21	20	19	24	17	22	19	15	12	6	8	4	5	7	11.2	23.8
18-May	5	5	13	13	14	13	11	14	17	20	20	20	20	18	20	19	19	19	21	16	10	5	5	6	14.2	21.0
19-May	4	5	3	2	4	4	3	4	5	7	11	10	12	11	8	9	8	13	6	7	6	10	8	7	6.9	13.2
20-May	3	4	4	5	4	4	3	4	6	7	8	9	9	9	10	8	8	14	15	18	16	20	27	24	9.9	26.6
21-May	20	8	10	4	4	3	7	6	5	6	9	13	13	16	19	21	24	9	14	13	12	10	12	9	11.2	24.2
22-May	10	10	11	10	12	11	8	8	5	5	7	4	5	8	12	13	14	11	8	8	7	7	8	5	8.7	13.9
23-May	5	4	3	4	2	2	6	6	9	12	15	14	18	20	25	24	27	23	19	13	3	6	6	6	11.2	26.5
24-May	4	3	5	7	9	14	9	9	11	11	10	12	20	20	21	24	26	26	19	7	5	6	3	4	11.9	26.4
25-May	2	2	3	3	3	3	2	3	5	6	6	8	7	6	13	9	10	8	13	12	8	8	9	7	6.5	13.2
26-May	6	5	5	5	4	5	4	6	8	8	7	11	10	13	11	10	8	10	12	16	9	10	7	5	8.1	16.4
27-May	4	3	4	3	4	4	3	6	9	10	8	8	10	9	14	13	14	17	24	22	15	14	15	12	10.2	23.9
28-May	9	8	8	10	6	7	4	5	5	10	15	17	20	18	15	14	15	19	23	19	16	15	19	19	13.2	22.6
29-May	14	9	11	10	12	17	13	18	24	23	20	16	13	22	33	36	34	28	25	22	15	11	19	11	18.9	35.6
30-May	8	6	3	5	3	3	4	5	13	28	31	30	29	28	31	35	36	35	35	28	28	21	10	10	19.4	35.6
31-May	8	3	4	4	4	5	8	23	34	30	32	32	34	37	38	32	33	33	31	22	15	9	3	4	19.9	37.7
	9.8	8.0	7.7	7.9	7.7	8.4	8.8	11.8	15.8	18.4	20.5	22.0	23.0	24.7	25.7	25.9	26.0	24.9	23.5	20.2	16.0	13.3	12.0	10.5	Diurnal Average	
	32.6	26.3	27.1	28.0	27.5	27.6	31.4	40.4	46.7	42.9	42.3	44.4	43.1	44.7	50.1	51.3	49.1	46.9	43.6	42.6	33.2	31.0	29.0	32.8	Diurnal Maximum	

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

FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Standard Deviations

Wind Direction (WD) - deg

Beaverlodge - May 2012

Maximum Value: 89.7 deg on May 3 04:00

Minimum Value: 2.2 deg on May 5 22:00

Percentiles: P_1 = 3.2 P_{10} = 5.3 Q_1 = 8.4 Median = 13.4 Q_3 = 29.0 P_{90} = 51.7 P_{99} = 83.8

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-May	7	9	10	4	7	5	15	15	10	11	10	15	15	19	24	48	17	17	15	73	4	4	11	12	73.4
2-May	7	30	32	84	59	42	64	20	49	69	66	61	67	21	37	31	17	10	7	6	12	8	6	9	83.9
3-May	13	13	38	90	9	13	7	20	24	21	16	16	18	12	11	8	26	19	34	4	7	7	11	37	89.7
4-May	59	16	5	12	16	10	8	13	27	11	12	12	14	9	11	10	12	12	9	6	4	7	6	13	58.5
5-May	16	14	15	34	10	54	7	5	6	10	9	12	11	11	12	13	11	11	8	8	3	2	3	3	53.6
6-May	62	15	59	71	89	21	48	32	10	11	22	20	25	17	19	18	12	11	9	4	9	6	60	79	88.6
7-May	65	57	48	61	22	78	54	15	9	10	11	12	20	12	13	16	13	12	13	18	20	22	23	27	78.3
8-May	22	5	10	10	7	17	20	34	47	84	50	22	9	10	13	9	8	6	11	8	4	6	5	4	83.8
9-May	7	7	21	11	6	3	4	5	7	9	10	10	13	11	11	12	8	8	4	4	3	3	5	4	21.0
10-May	4	4	5	4	9	4	7	6	7	8	8	9	9	8	7	6	6	6	7	5	4	3	4	3	9.4
11-May	4	3	4	3	4	4	4	6	9	10	13	8	9	10	10	8	7	7	7	6	5	6	8	13	13.4
12-May	21	9	21	70	48	20	10	9	16	10	10	6	12	9	8	10	11	7	7	12	6	15	41	16	69.9
13-May	29	6	14	16	64	52	41	7	6	9	9	7	11	8	6	7	7	9	9	5	6	10	14	16	63.8
14-May	7	17	14	5	30	10	66	78	29	26	30	46	56	38	30	26	20	12	8	7	5	5	3	15	77.7
15-May	15	38	67	51	42	22	61	44	14	13	18	10	10	14	14	14	9	6	5	4	5	4	5	10	66.8
16-May	13	23	53	36	38	18	14	6	9	8	11	10	10	12	10	8	15	12	11	7	5	4	7	16	52.9
17-May	69	71	19	31	39	11	48	27	20	15	10	15	40	22	16	9	13	21	13	17	50	55	50	32	70.7
18-May	55	61	5	7	23	15	15	10	11	6	7	11	12	15	10	15	12	13	8	15	8	7	14	8	61.0
19-May	29	35	77	31	18	16	37	18	30	32	42	45	54	44	77	41	48	29	29	32	41	8	15	22	77.3
20-May	79	44	66	9	39	82	31	29	24	41	35	43	42	75	63	59	50	20	8	6	3	4	6	5	82.2
21-May	26	15	11	41	22	74	51	17	53	65	40	31	33	20	14	12	18	24	13	63	11	13	5	41	74.2
22-May	18	39	32	32	8	6	16	6	10	14	22	22	40	15	16	11	8	10	14	19	21	15	21	32	40.5
23-May	21	23	89	8	30	54	21	14	7	9	15	11	11	7	8	7	5	5	12	7	67	29	13	34	89.2
24-May	43	29	30	31	31	30	29	17	25	10	21	19	15	13	16	11	9	12	12	37	10	11	63	22	62.7
25-May	87	51	56	41	14	25	37	35	18	33	48	40	49	55	31	52	55	39	12	10	8	3	3	5	87.4
26-May	6	7	25	25	13	18	19	17	18	18	43	32	38	29	49	77	79	38	20	9	11	7	74	45	79.1
27-May	85	41	48	60	31	50	29	19	18	13	15	43	37	42	49	46	27	23	11	5	5	9	3	3	84.9
28-May	6	20	10	6	61	47	34	34	31	22	19	20	21	19	26	29	21	14	7	4	4	4	11	4	60.6
29-May	4	82	19	52	15	10	12	13	10	13	18	22	21	15	7	8	5	9	11	9	17	16	7	26	81.5
30-May	14	7	64	60	52	31	12	23	13	13	12	13	9	11	13	9	9	12	8	6	4	5	10	18	63.9
31-May	42	51	74	24	76	18	19	12	7	10	10	13	11	10	7	11	10	8	9	9	4	4	80	56	80.2
	87.4	81.5	89.2	89.7	88.6	82.2	65.7	77.7	52.8	83.8	65.6	61.0	67.1	75.3	76.6	77.5	79.1	39.3	33.7	73.4	67.2	54.7	80.2	78.5	

PAZA
Valleyview Station
Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Valleyview - May 2012

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 12.9 ppb on May 11 04:00
Maximum Daily Average: 3.4 ppb on May 10

Minimum Value: 0 ppb on May 1 09:00
Maximum Diurnal Average: 1.4 ppb at hour 11
Monthly Average: 0.75 ppb

Minimum Daily Average: 0.0 ppb on May 23
Minimum Diurnal Average: 0.2 ppb at hour 3
Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.2 Q_3 = 0.6 P_{90} = 2.3 P_{99} = 5.7

Hours in Service:	744
Hours of Data:	709
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-May	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
2-May	0	0	0	0	0	0	0	0	A	0	1	0	0	1	2	1	1	1	0	0	0	1	0	0	0.4	1.6
3-May	0	0	0	0	0	0	0	A	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
4-May	0	0	0	0	0	0	A	0	3	4	2	1	1	2	1	1	0	3	2	0	0	0	0	0	1.0	4.0
5-May	0	0	0	0	0	A	0	3	1	3	6	4	2	2	1	4	1	3	3	2	1	0	0	0	1.6	6.5
6-May	1	0	0	0	A	0	0	3	0	1	1	1	0	2	1	0	0	1	2	0	0	0	0	0	0.5	3.4
7-May	0	0	0	A	0	0	0	1	1	3	2	1	1	1	0	0	0	1	0	0	0	0	0	0	0.5	2.7
8-May	0	0	A	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.1	1.0
9-May	0	A	0	0	0	0	0	0	1	0	2	2	3	2	0	1	1	5	4	1	12	1	0	0	1.6	11.6
10-May	A	0	0	0	0	0	0	4	3	2	2	2	5	2	5	4	1	3	6	5	8	10	12	A	3.4	12.3
11-May	7	2	3	13	10	0	4	3	0	0	1	2	1	1	2	0	0	0	0	0	0	4	A	0	2.4	12.9
12-May	0	0	0	0	0	0	0	0	0	1	2	2	1	3	3	1	1	0	0	0	1	A	1	0	0.7	2.7
13-May	1	0	0	0	0	0	0	0	1	0	1	2	2	2	1	2	3	0	0	0	A	0	1	0	0.8	3.0
14-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.1	0.3
15-May	0	0	0	0	0	0	0	0	1	7	3	4	1	3	3	5	4	6	A	1	0	0	0	1	1.7	6.5
16-May	0	0	0	0	0	0	0	0	5	3	0	0	0	0	0	0	0	A	0	0	0	0	1	1	0.5	5.0
17-May	2	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	A	4	2	1	0	0	0	0	0.6	3.6
18-May	0	0	0	0	0	0	0	0	0	1	2	1	5	2	0	A	0	0	0	0	0	0	1	4	0.8	5.3
19-May	0	0	0	1	6	3	2	3	1	1	2	0	0	1	A	1	1	0	0	0	0	0	0	0	1.0	6.3
20-May	0	0	0	0	0	0	0	0	1	1	4	1	0	A	1	1	1	0	0	0	0	0	0	0	0.5	3.7
21-May	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
22-May	0	0	0	0	0	0	0	0	0	0	4	A	0	0	0	0	0	0	0	0	0	0	0	0	0.3	3.5
23-May	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
24-May	0	0	0	0	0	0	0	0	0	A	0	C	C	C	0	0	0	0	0	0	0	0	0	0	0.0	0.3
25-May	0	0	0	0	0	0	0	0	A	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.3
26-May	0	0	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.2	0.6
27-May	0	0	0	0	0	0	A	0	0	1	0	0	0	0	0	0	1	0	0	0	1	1	2	2	0.5	1.6
28-May	2	1	1	0	0	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.5	1.5
29-May	1	0	0	0	A	0	0	0	2	0	0	1	2	1	1	0	0	0	6	4	3	0	0	0	0.9	5.5
30-May	0	0	0	A	0	6	6	6	0	0	1	1	0	0	1	0	1	1	1	2	0	0	0	0	1.3	6.5
31-May	0	0	A	0	0	0	0	0	0	6	2	3	2	1	1	1	4	1	1	0	4	0	0	0	1.1	6.1
	0.5	0.2	0.2	0.6	0.6	0.4	0.5	1.0	0.8	1.2	1.4	1.1	1.0	0.9	0.9	0.8	0.7	1.0	1.0	0.6	1.0	0.7	0.7	0.3	Diurnal Average	
	6.6	2.2	3.1	12.9	9.8	6.3	6.3	6.5	5.0	6.5	6.5	4.2	5.3	2.8	4.6	4.5	3.6	6.2	5.7	5.4	11.6	10.0	12.3	4.1	Diurnal Maximum	

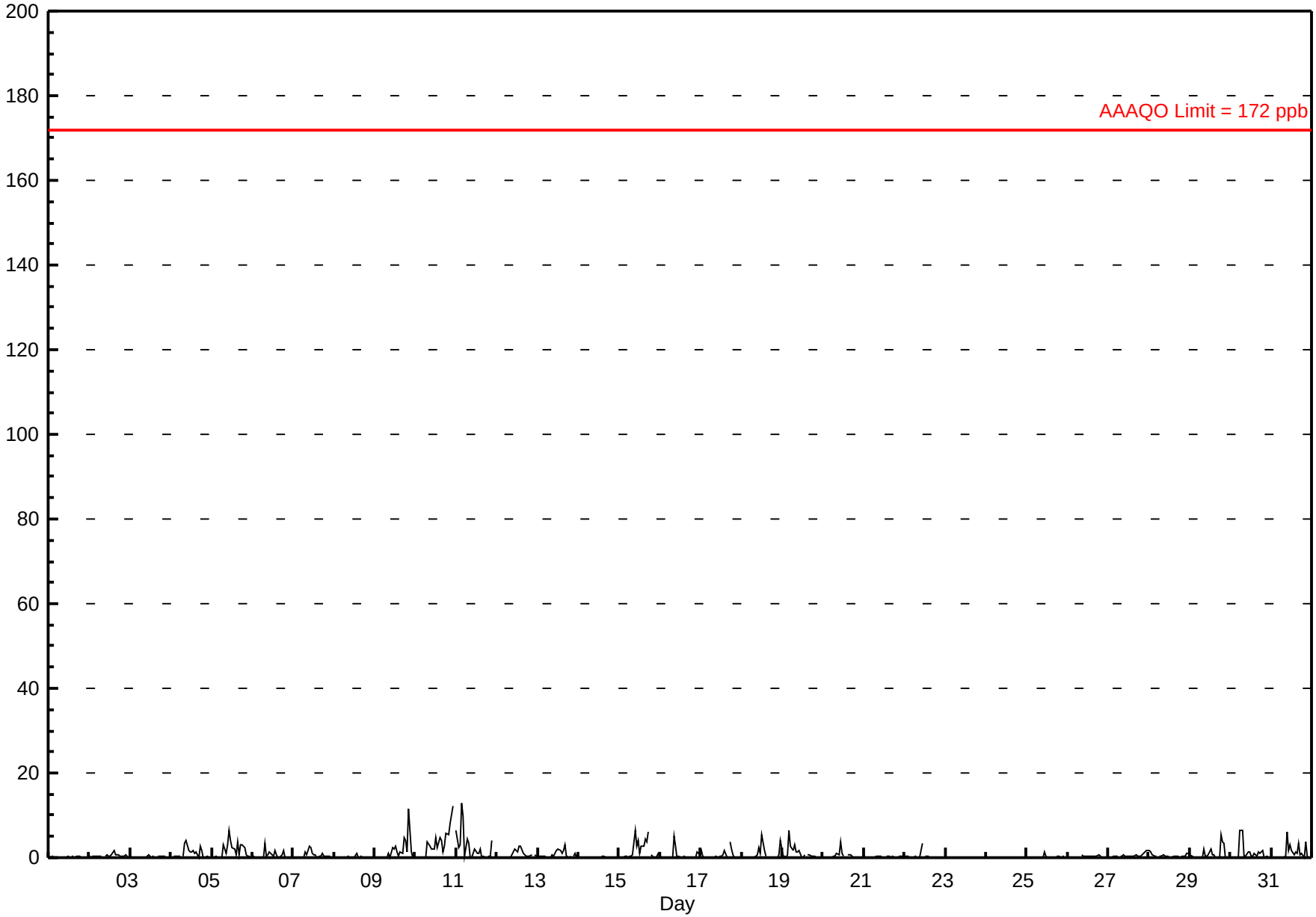
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Valleyview - May 2012



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Valleyview - May 2012

Maximum Value: 47.0 ppb on May 15 11:00

Maximum Daily Average: 10.6 ppb on May 15

Minimum Value: 0 ppb on May 12 08:00

Maximum Diurnal Average: 8.5 ppb at hour 11

Monthly Average: 3.95 ppb

Minimum Daily Average: 0.5 ppb on May 24

Minimum Diurnal Average: 1.2 ppb at hour 3

Percentiles: $P_1 = 0.2$ $P_{10} = 0.6$ $Q_1 = 0.8$ Median = 1.0 $Q_3 = 3.4$ $P_{90} = 13.4$ $P_{99} = 24.6$

Hours in Service:	744
Hours of Data:	709
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-May	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.5
2-May	1	1	1	1	1	1	1	1	A	1	1	1	1	2	10	1	1	4	1	1	1	8	1	1	2.0	9.6
3-May	1	1	1	1	1	1	1	A	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.7
4-May	1	1	1	1	1	1	A	1	16	27	13	13	13	9	9	14	3	23	20	1	1	1	1	1	7.4	26.9
5-May	1	1	1	1	1	A	1	14	12	15	31	17	13	14	6	17	7	17	11	19	2	1	1	1	8.9	31.2
6-May	3	1	0	0	A	1	1	15	2	4	12	4	4	14	8	1	1	7	10	1	1	1	1	0	3.9	14.6
7-May	0	1	1	A	1	1	1	13	4	9	8	10	7	8	1	1	2	9	1	1	1	1	1	1	3.5	12.6
8-May	1	1	A	1	1	1	1	1	1	1	1	1	1	18	1	1	1	1	1	0	1	1	1	0	1.5	17.6
9-May	1	A	1	0	1	1	1	0	12	7	12	10	11	13	13	14	11	15	15	8	35	14	1	1	8.6	35.2
10-May	A	1	1	1	1	1	2	11	11	10	12	11	21	13	17	16	11	11	15	16	16	16	19	A	10.6	20.5
11-May	18	11	10	26	19	13	13	10	1	6	14	21	6	8	16	2	5	1	1	1	1	22	A	1	9.8	25.6
12-May	1	1	1	1	1	0	0	0	11	8	11	12	9	16	14	15	10	2	1	1	2	A	2	2	5.2	16.3
13-May	1	1	1	1	1	1	1	1	5	2	12	19	11	11	8	10	18	6	1	1	A	1	2	1	5.1	19.3
14-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.8	1.3
15-May	1	1	1	1	1	1	1	1	2	34	47	38	7	16	11	22	22	22	A	11	1	1	2	2	10.6	47.0
16-May	2	1	1	1	1	1	1	4	31	20	1	1	2	1	2	1	1	A	1	1	1	1	6	2	3.5	30.9
17-May	6	1	1	1	1	1	1	1	1	4	2	1	2	7	13	1	A	22	7	7	1	1	1	1	3.5	21.9
18-May	1	1	1	1	1	1	1	1	1	5	9	12	25	15	3	A	1	1	3	1	1	1	2	13	4.3	25.4
19-May	1	2	1	3	18	14	3	10	5	10	13	1	2	11	A	7	5	1	1	1	1	1	1	1	4.9	17.6
20-May	1	1	1	1	1	1	1	1	1	1	10	4	1	A	7	1	1	1	1	1	1	1	1	1	1.7	10.0
21-May	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.9	1.4
22-May	1	1	2	1	1	1	1	1	1	1	11	A	1	1	1	1	1	1	1	1	1	1	1	1	1.3	10.6
23-May	1	1	1	1	1	1	1	1	1	1	A	1	0	1	1	1	0	1	1	1	1	1	1	1	0.6	1.3
24-May	1	1	1	1	1	1	1	1	1	A	2	C	C	C	0	0	0	0	0	0	0	0	0	0	0.5	2.0
25-May	0	0	0	1	1	1	0	1	A	1	4	2	1	1	1	1	1	1	1	1	1	1	1	1	0.9	4.4
26-May	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.5
27-May	1	1	1	1	1	1	A	1	1	2	2	1	1	1	1	1	2	1	1	1	1	2	2	2	1.3	2.3
28-May	2	2	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1.2	2.1
29-May	1	1	1	1	A	1	1	1	4	2	1	2	8	3	4	1	1	1	18	15	16	1	1	1	3.6	18.0
30-May	1	1	1	A	1	19	18	15	1	1	9	4	2	2	19	5	16	6	16	8	1	1	1	1	6.4	19.2
31-May	1	1	A	1	1	1	1	1	7	14	13	22	10	6	16	9	15	9	9	1	15	3	1	1	6.7	22.0
	1.8	1.3	1.2	1.7	2.0	2.3	1.9	3.8	4.8	6.6	8.5	7.3	5.7	6.7	6.2	4.9	4.8	5.6	4.7	3.4	3.5	2.9	1.8	1.4	Diurnal Average	
	18.1	10.9	10.4	25.6	19.1	19.2	18.1	15.5	30.9	34.1	47.0	37.7	25.4	17.6	19.0	21.6	21.9	22.9	20.0	19.0	35.2	22.2	18.5	13.0	Diurnal Maximum	

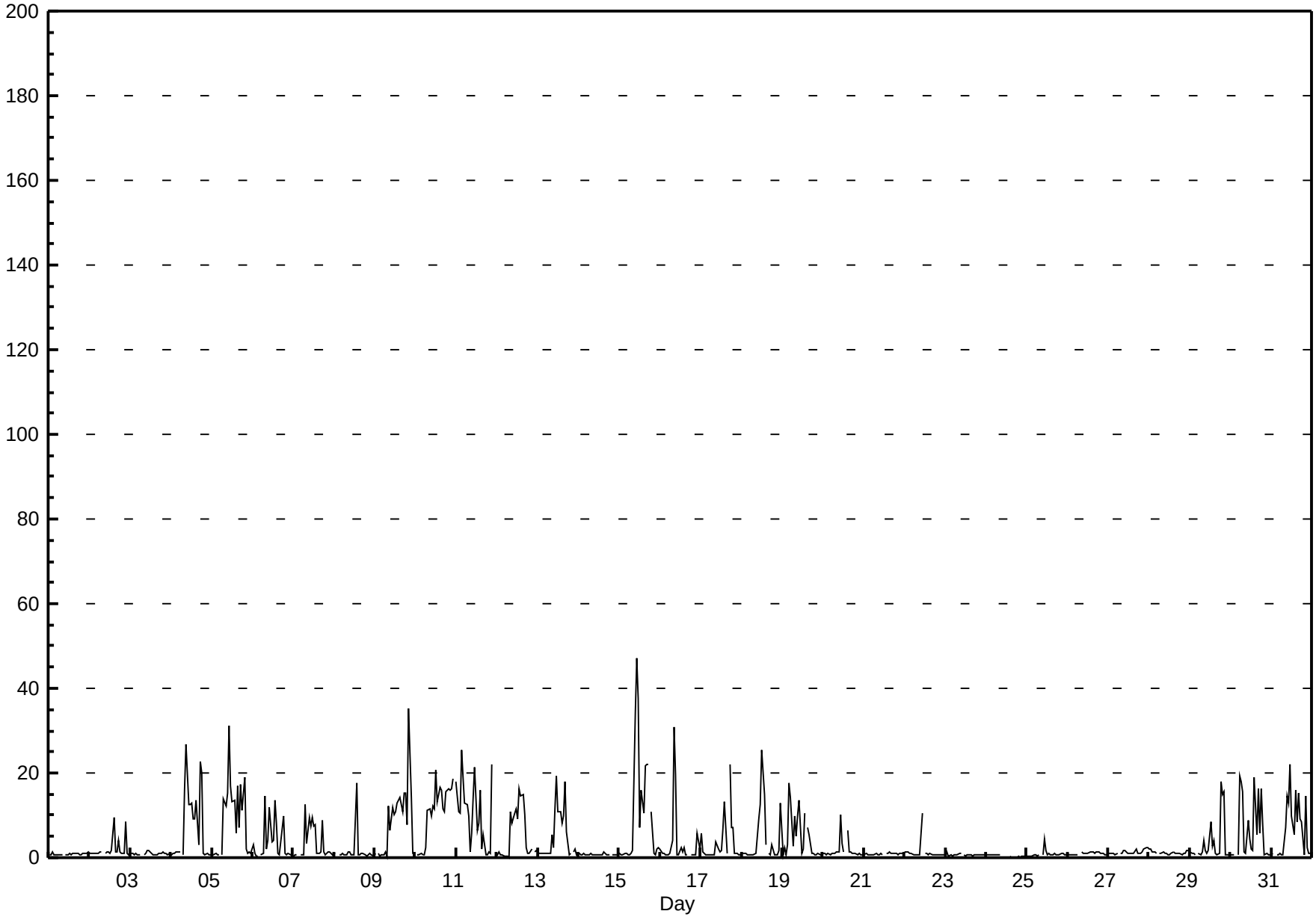
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Valleyview - May 2012

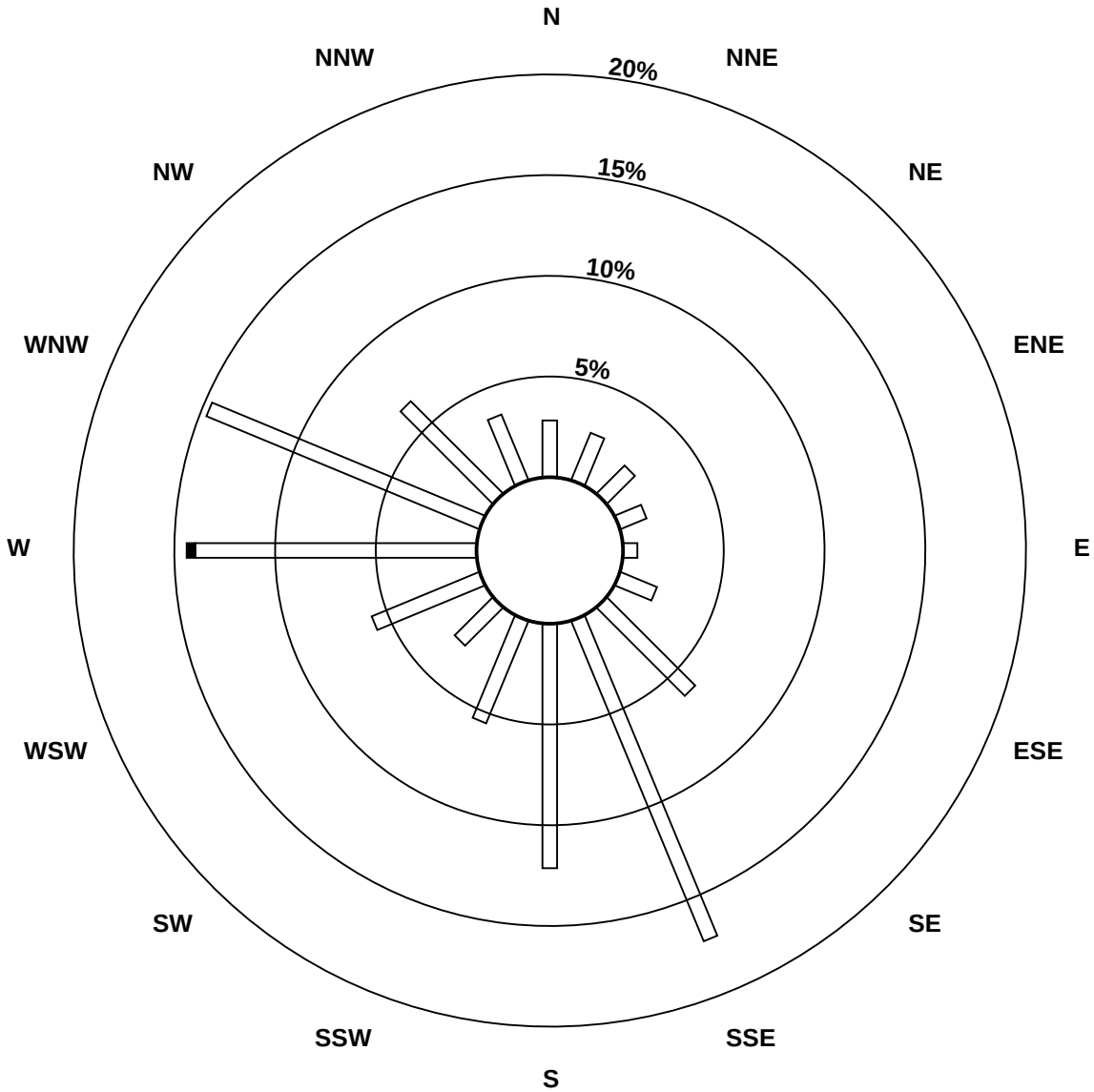


FOCUS AIR QUALITY MONITORING

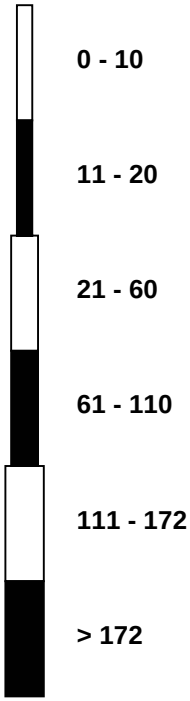
Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Valleyview - May 2012



Pollutant Classes (ppb)

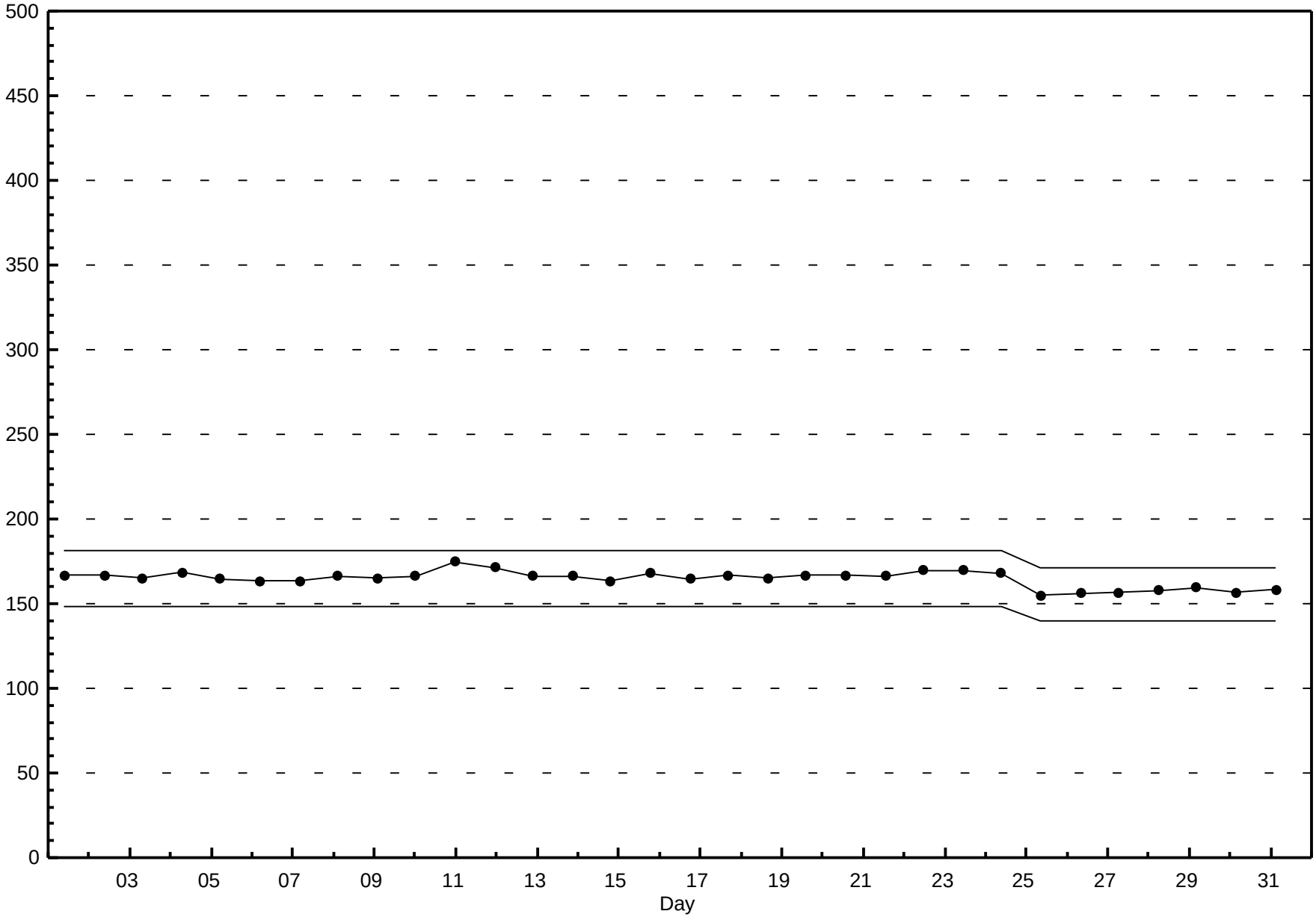


Peace Airshed Zone Association

Span Responses

Sulphur Dioxide (SO_2)

Valleyview - May 2012



Peace Airshed Zone Association

Hourly Averages

Hydrogen Sulphide (H_2S) - ppb

Valleyview - May 2012

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 0.9 ppb on May 12 23:00 Maximum Daily Average: 0.0 ppb on May 12

Minimum Value: 0 ppb on May 1 01:00 Minimum Daily Average: 0.0 ppb on May 3
Maximum Diurnal Average: 0.1 ppb at hour 1 Minimum Diurnal Average: 0.0 ppb at hour 2
Monthly Average: 0.01 ppb Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.0 Q_3 = 0.0 P_{90} = 0.0 P_{99} = 0.3

Hours in Service:	744
Hours of Data:	708
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-May	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	0.7
2-May	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.9
3-May	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
4-May	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.0	0.8
5-May	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.4
6-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
7-May	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
8-May	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
9-May	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
10-May	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.0	0.0
11-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.0	0.0
12-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	0	0.0	0.9
13-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.0	0.2
14-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.0	0.3
15-May	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.0	0.6
16-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.0	0.0
17-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.0	0.0
18-May	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.0	0.7
19-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.0	0.4
20-May	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.0	0.4
21-May	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.0	0.4
22-May	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
23-May	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
24-May	0	0	0	0	0	0	0	0	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
25-May	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
26-May	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
27-May	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
28-May	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
29-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
30-May	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.4
31-May	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
	0.1	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	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	Diurnal Average	
	0.9	0.0	0.0	0.0	0.4	0.6	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.8	0.9	0.7	Diurnal Maximum	

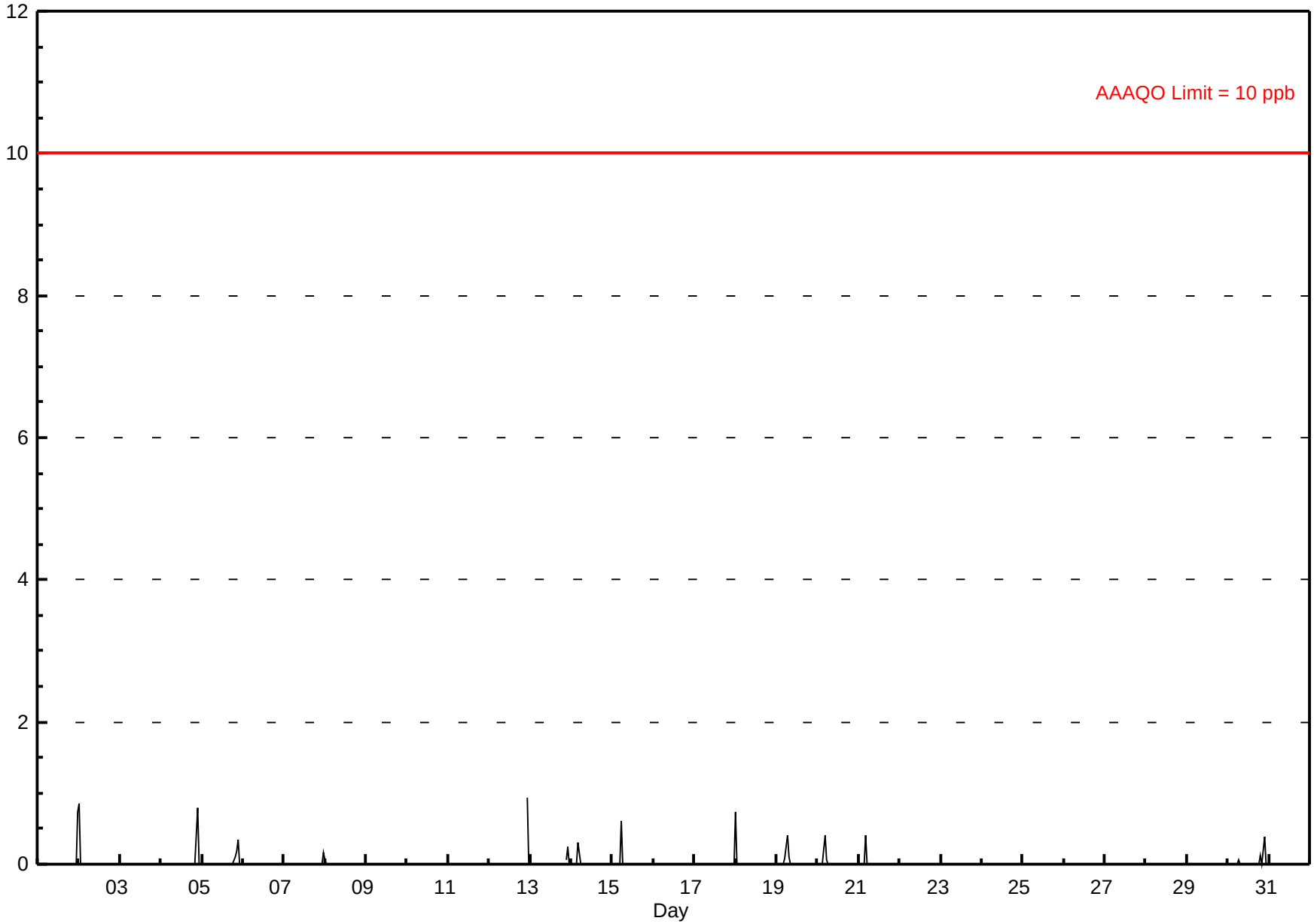
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb

Peace Airshed Zone Association

Hourly Averages

Hydrogen Sulphide (H_2S) - ppb

Valleyview - May 2012



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

Hydrogen Sulphide (H_2S) - ppb

Valleyview - May 2012

Maximum Value: 5.6 ppb on May 12 23:00

Maximum Daily Average: 0.4 ppb on May 30

Minimum Value: 0 ppb on May 1 01:00

Minimum Daily Average: 0.0 ppb on May 25

Maximum Diurnal Average: 0.4 ppb at hour 23

Minimum Diurnal Average: 0.0 ppb at hour 12

Monthly Average: 0.12 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.0 Q_3 = 0.0 P_{90} = 0.3 P_{99} = 2.6

Hours in Service:	744
Hours of Data:	708
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-May	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.1	3.4
2-May	4	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	3.8
3-May	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
4-May	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0.2	2.6
5-May	0	0	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	1	0	0.3	1.8
6-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.5
7-May	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	0.6
8-May	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0.2	1.8
9-May	0	A	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.1	1.2
10-May	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.0	0.2
11-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	0	0.1	0.5
12-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	6	1	0.4	5.6
13-May	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	1	2	0.2	1.7
14-May	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	A	0	0	0	0	0.1	1.2
15-May	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.2	1.7
16-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	1	1	0.1	0.8
17-May	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.1	1.1
18-May	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	1	0	0.2	2.6
19-May	0	0	0	0	1	1	1	1	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.2	1.1
20-May	0	0	0	1	1	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.1	0.9
21-May	0	0	1	0	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	1.3
22-May	0	0	0	0	0	0	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
23-May	0	1	0	0	0	0	0	0	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.7
24-May	0	0	0	0	0	0	0	0	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
25-May	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
26-May	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
27-May	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
28-May	0	0	1	2	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.6
29-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.3
30-May	0	0	0	A	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	1	3	3	0	0	0.4	3.0
31-May	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0	0	0	0.1	0.8
	0.3	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.4	0.4	0.3	Diurnal Average	
	3.8	1.0	1.0	1.6	1.3	1.7	1.2	0.7	0.8	0.2	0.3	0.1	0.5	0.6	0.3	0.2	0.8	0.6	0.3	1.2	3.0	3.0	5.6	3.4	Diurnal Maximum	

C - Calibration

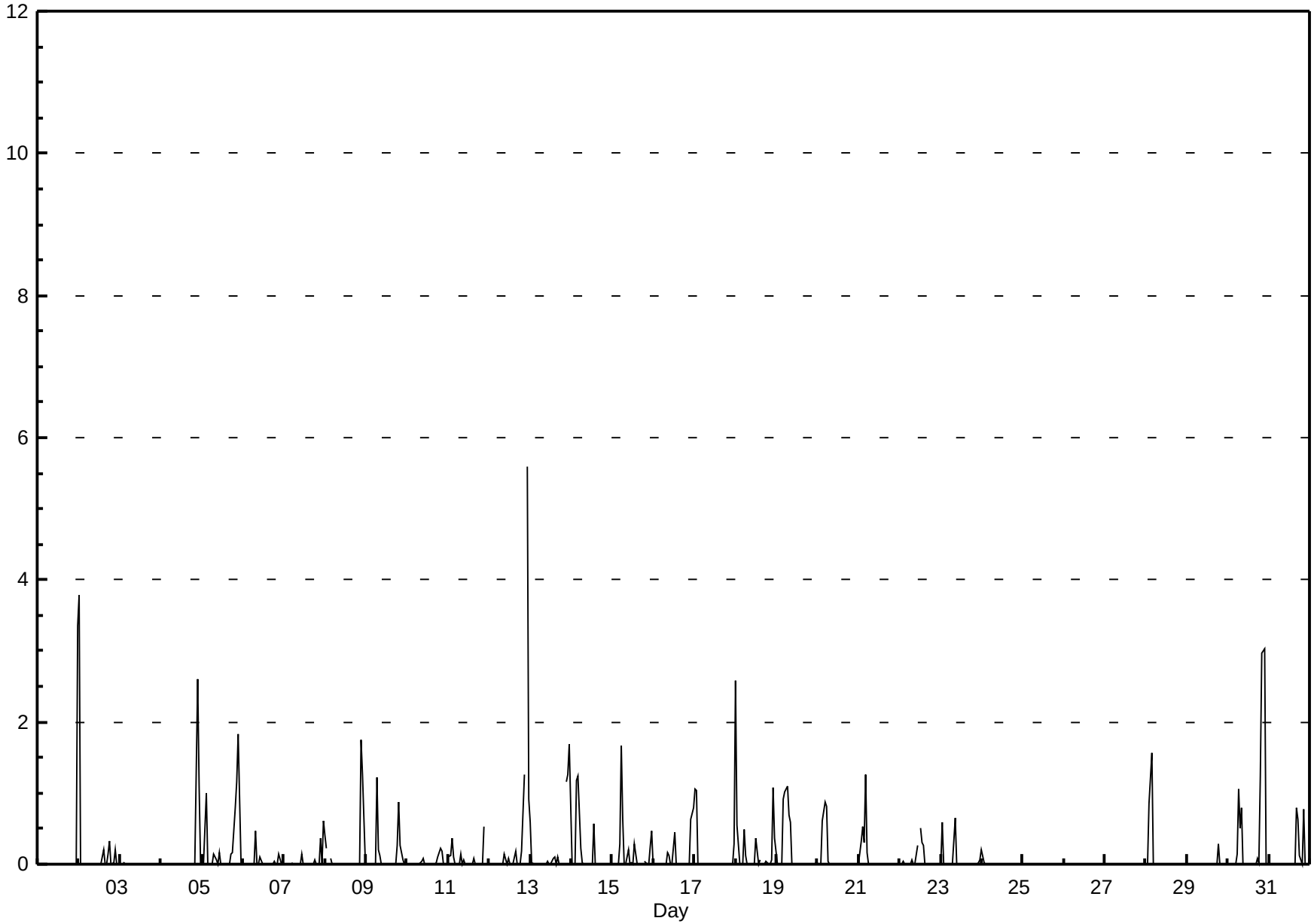
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Hydrogen Sulphide (H_2S) - ppb

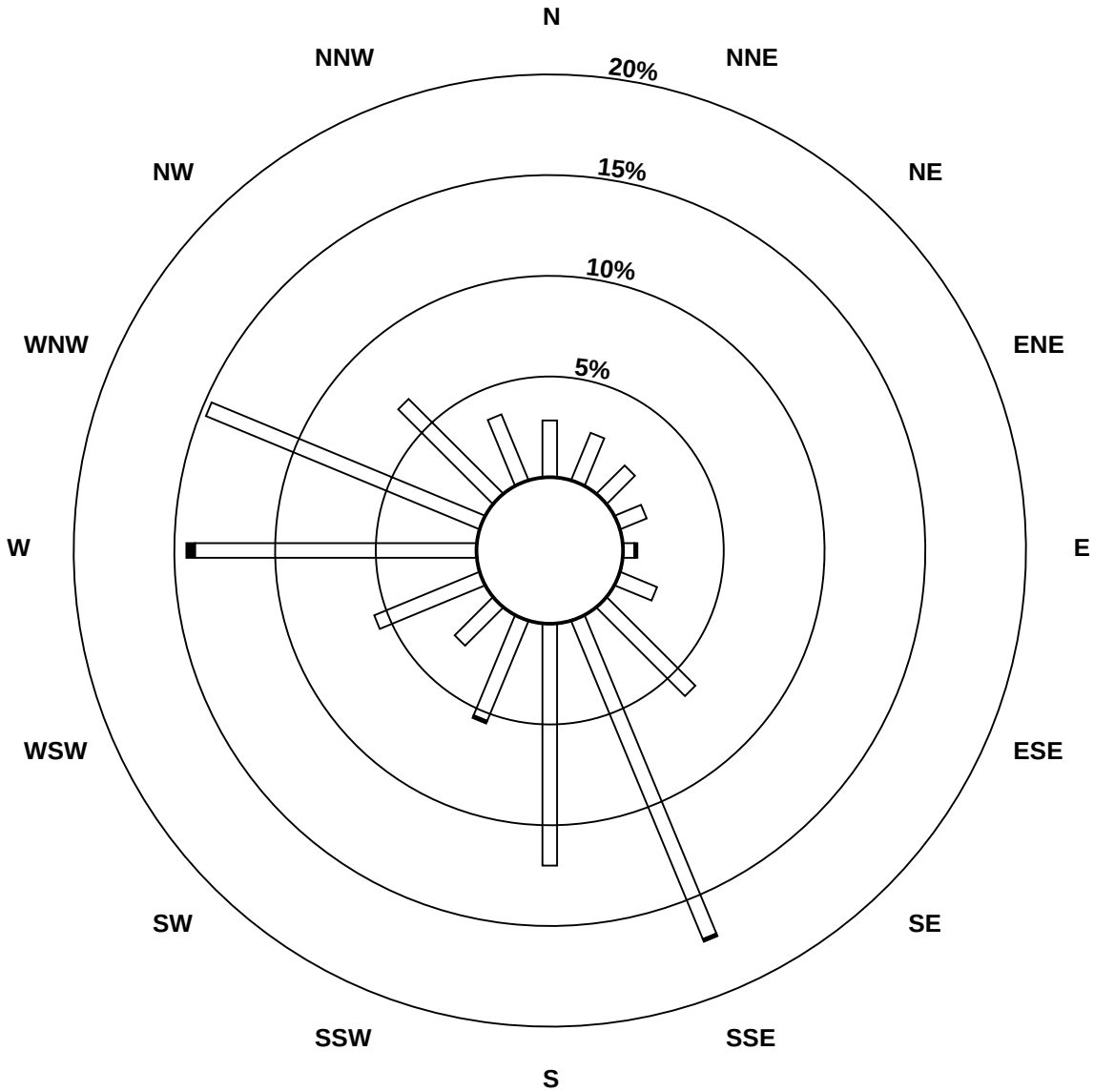
Valleyview - May 2012



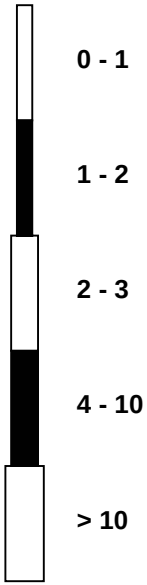
Pollutant Rose

Hydrogen Sulphide (H_2S) - ppb

Valleyview - May 2012



Pollutant Classes (ppb)

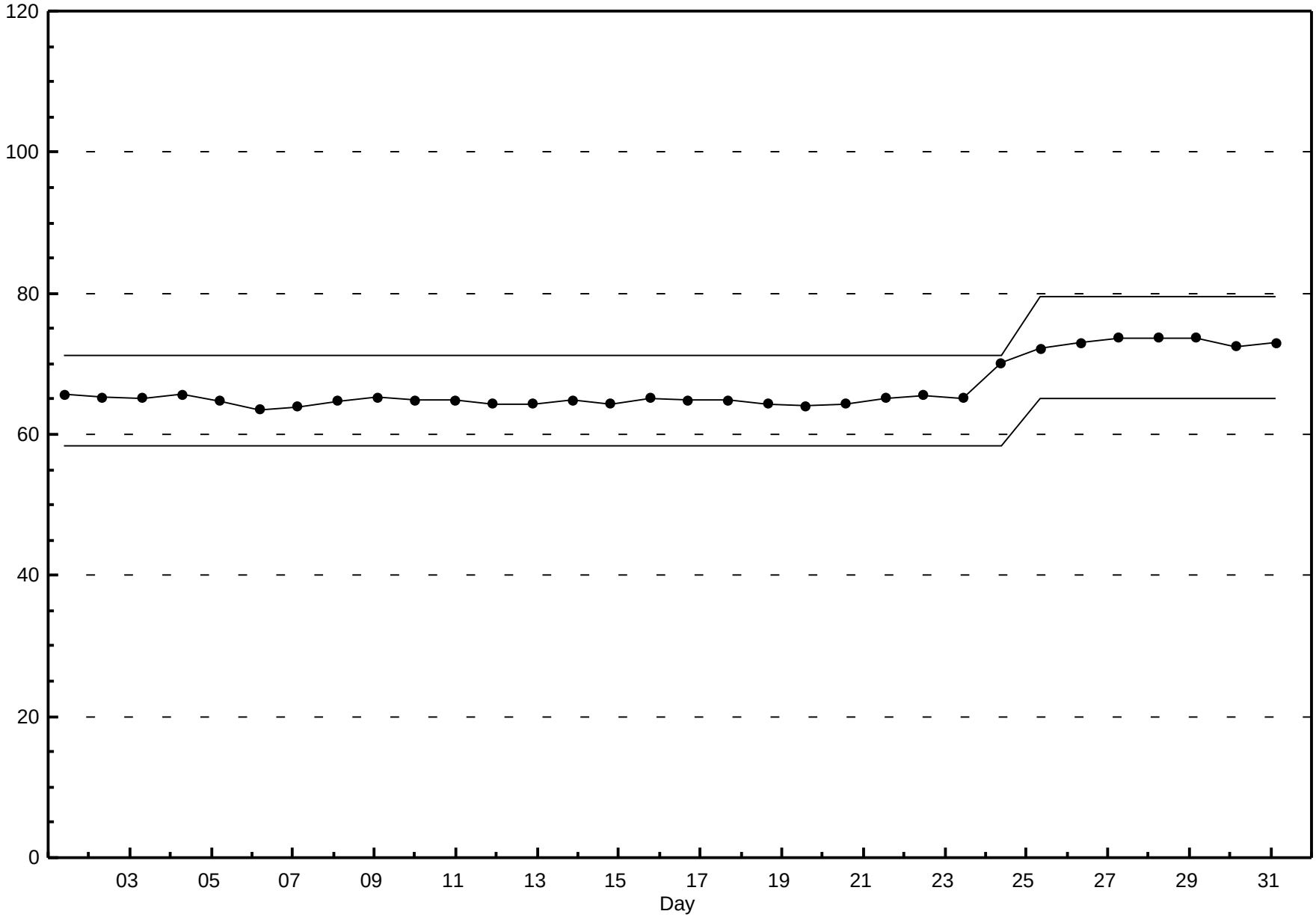


Peace Airshed Zone Association

Span Responses

Hydrogen Sulphide (H_2S)

Valleyview - May 2012



Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Valleyview - May 2012

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

Maximum Value: 22.2 ^{o}C on May 27 17:00

Maximum Daily Average: 16.7 ^{o}C on May 27

Minimum Value: -3 ^{o}C on May 18 06:00

Minimum Daily Average: 4.2 ^{o}C on May 18

Maximum Diurnal Average: 15.3 ^{o}C at hour 17

Minimum Diurnal Average: 5.2 ^{o}C at hour 6

Monthly Average: 11.08 ^{o}C

Percentiles: P_1 = -1.0 P_{10} = 4.4 Q_1 = 7.4 Median = 10.5 Q_3 = 15.0 P_{90} = 19.1 P_{99} = 22.0

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

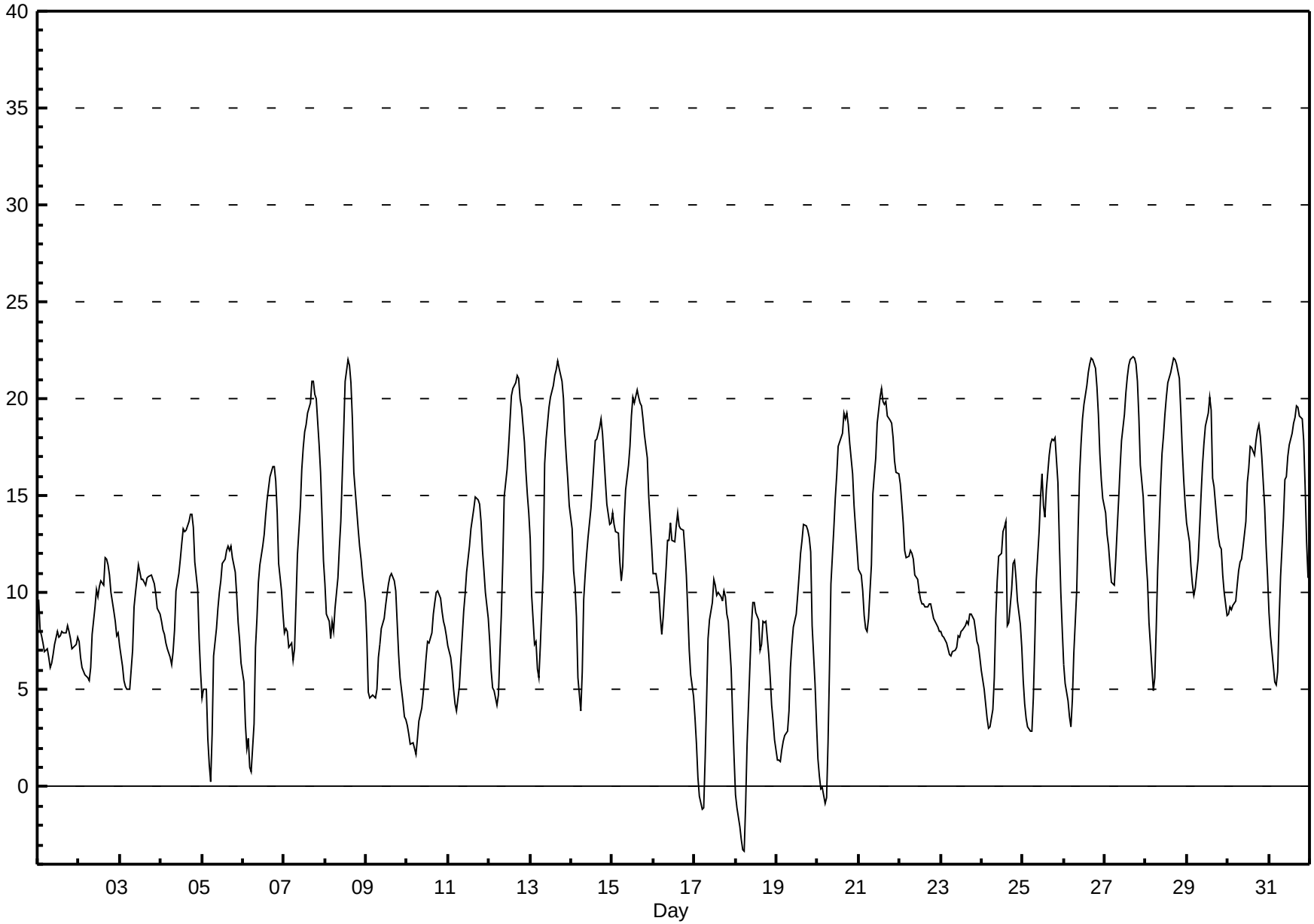
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-May	10	8	8	7	7	7	7	6	6	7	7	8	8	8	8	8	8	8	8	8	7	7	7	8	7.5	9.6
2-May	8	7	6	6	6	6	5	6	8	9	10	10	10	11	10	12	12	11	11	10	9	9	8	8	8.6	11.8
3-May	7	6	5	5	5	5	5	7	9	10	11	11	11	11	11	10	11	11	11	11	10	10	9	9	8.8	11.5
4-May	8	8	8	7	7	7	6	7	8	10	11	12	13	13	13	13	14	14	14	13	12	10	8	6	10.1	14.1
5-May	5	5	5	3	1	0	3	7	8	9	10	11	12	12	12	12	12	12	12	11	10	8	8	6	8.1	12.4
6-May	5	3	2	2	1	1	3	7	9	11	11	12	13	14	15	15	16	17	17	16	14	12	10	9	9.8	16.5
7-May	8	8	8	7	7	7	7	9	12	14	16	18	18	19	19	20	21	21	20	20	18	16	14	12	14.2	20.9
8-May	10	9	9	8	9	8	9	11	12	14	16	18	21	22	22	21	19	16	14	13	12	12	11	9	13.6	22.1
9-May	8	5	5	5	5	5	5	7	7	8	9	9	10	10	11	11	11	10	8	7	6	4	4	3	7.2	11.0
10-May	3	3	2	2	2	2	3	3	4	5	6	7	7	7	8	9	10	10	10	10	9	9	8	8	6.1	10.1
11-May	7	7	6	5	4	4	5	7	8	9	10	11	12	13	14	14	15	15	15	14	12	11	10	9	9.9	15.0
12-May	7	6	5	5	4	5	7	9	12	15	16	17	19	20	21	21	21	21	20	20	18	16	15	14	13.9	21.2
13-May	13	10	7	7	6	6	7	11	17	18	19	20	20	21	21	21	22	22	21	20	18	17	16	15	15.6	21.9
14-May	13	11	10	9	6	4	6	10	11	12	13	14	15	17	18	18	19	19	18	17	16	15	14	14	13.2	19.0
15-May	14	14	13	13	12	11	11	14	15	17	18	19	20	20	20	20	20	20	19	18	17	15	14	12	16.0	20.5
16-May	11	11	10	10	9	8	9	11	13	13	14	13	13	13	14	13	13	13	12	11	9	7	6	5	10.9	14.1
17-May	4	2	0	0	-1	-1	1	4	8	9	10	11	10	10	10	10	10	10	10	9	9	6	4	2	6.0	10.7
18-May	0	-1	-2	-3	-3	-3	-1	2	6	8	9	10	9	9	7	7	8	8	9	7	6	4	3	2	4.2	9.5
19-May	1	1	1	2	2	3	3	4	6	7	8	9	10	11	12	13	14	13	13	13	12	8	5	3	7.3	13.5
20-May	1	1	0	0	-1	-1	2	6	10	13	15	16	18	18	18	19	19	19	19	18	16	14	13	12	11.1	19.3
21-May	11	11	10	9	8	8	9	11	15	16	17	19	20	21	20	20	20	19	19	19	18	17	16	16	15.3	20.6
22-May	16	15	14	12	12	12	12	12	12	11	11	10	10	9	9	9	9	9	9	9	9	8	8	8	10.7	15.6
23-May	8	8	8	7	7	7	7	7	7	7	8	8	8	8	8	8	8	9	9	9	8	7	7	7	7.7	8.9
24-May	6	5	4	3	3	3	4	6	9	11	12	12	13	13	14	8	8	10	12	12	11	10	8	7	8.5	13.7
25-May	5	4	4	3	3	3	5	7	11	13	15	16	15	14	15	17	18	18	18	18	16	13	10	8	11.2	18.0
26-May	6	5	4	4	3	5	7	10	13	16	18	19	20	21	21	22	22	22	22	21	19	17	16	15	14.5	22.1
27-May	14	13	12	11	11	10	12	13	15	16	18	19	20	21	22	22	22	22	22	21	19	17	15	13	16.7	22.2
28-May	12	11	8	6	5	6	8	11	15	17	18	19	20	21	21	22	22	22	22	21	19	17	16	15	15.6	22.1
29-May	14	13	11	10	10	10	12	13	15	17	18	19	19	20	19	16	15	14	13	12	12	11	10	9	13.9	20.1
30-May	9	9	9	9	10	10	11	12	12	12	14	16	16	18	17	17	18	18	19	18	17	14	12	11	13.7	18.6
31-May	9	8	6	5	5	6	9	11	14	16	16	17	18	18	19	19	20	20	19	19	18	15	13	11	13.7	19.7
	8.2	7.2	6.5	5.9	5.3	5.2	6.4	8.5	10.5	11.9	13.0	13.8	14.4	14.9	15.2	15.1	15.3	15.3	14.9	14.3	13.1	11.5	10.3	9.2	Diurnal Average	
	15.6	14.7	13.6	13.0	11.8	11.9	12.2	13.7	16.6	17.9	18.8	19.6	20.9	22.1	21.8	22.0	22.2	22.1	21.8	21.0	19.3	17.4	16.2	16.1	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Valleyview - May 2012



Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Valleyview - May 2012

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

Maximum Value: 99.4 % on May 24 08:00

Maximum Daily Average: 90.0 % on May 23

Minimum Value: 11 % on May 9 17:00

Minimum Daily Average: 27.1 % on May 13

Maximum Diurnal Average: 73.0 % at hour 6

Minimum Diurnal Average: 34.7 % at hour 18

Monthly Average: 48.99 %

Percentiles: P_1 = 14.3 P_{10} = 20.7 Q_1 = 27.9 Median = 42.2 Q_3 = 68.9 P_{90} = 88.5 P_{99} = 98.4

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

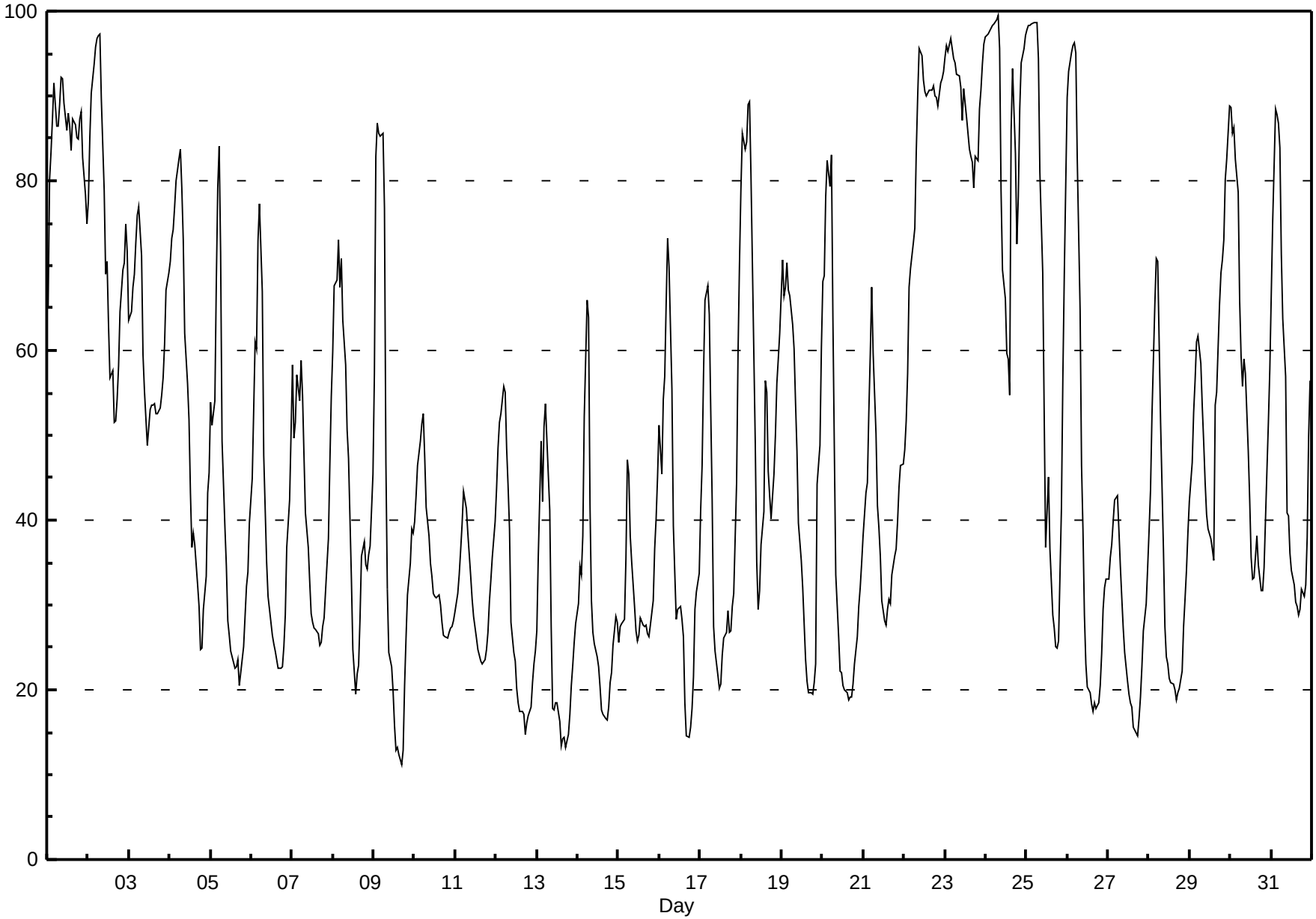
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-May	65	80	83	87	91	86	87	89	92	92	89	86	88	86	84	87	87	85	85	87	88	83	78	75	85.1	92.2
2-May	78	85	90	94	96	97	97	97	90	79	69	71	63	57	58	51	52	54	58	65	70	70	75	72	74.4	97.3
3-May	64	65	67	69	73	76	77	71	59	55	52	49	53	54	54	54	53	53	53	55	57	61	67	69	60.8	77.0
4-May	70	73	74	77	80	83	84	79	73	62	56	52	43	37	38	37	32	30	25	25	30	33	43	46	53.4	83.7
5-May	54	51	54	68	79	84	72	49	39	35	28	26	25	23	22	23	24	21	22	25	29	32	34	40	39.9	84.1
6-May	45	53	61	60	73	77	67	48	41	35	31	28	26	25	25	24	23	23	23	25	29	37	42	50	40.4	77.2
7-May	58	50	52	57	54	59	55	48	41	37	33	29	28	27	27	27	25	26	27	29	35	38	47	55	40.0	58.9
8-May	60	68	68	73	67	71	64	58	51	47	40	33	25	19	22	23	29	36	38	35	34	36	37	45	44.9	73.1
9-May	57	83	87	86	85	86	77	47	32	24	23	20	16	13	13	12	11	13	21	26	31	35	39	39	40.6	86.7
10-May	40	43	46	49	51	52	48	41	38	35	33	31	31	31	31	30	28	26	26	26	27	27	27	28	35.4	52.5
11-May	29	31	34	36	40	43	41	39	36	33	31	29	26	25	24	23	23	23	25	27	30	33	36	40	31.5	43.4
12-May	44	48	52	53	56	55	48	44	39	28	24	23	20	19	18	17	17	15	16	17	18	21	23	25	30.8	55.7
13-May	27	36	49	42	51	54	49	41	28	18	18	19	19	16	13	14	14	13	15	17	21	23	26	28	27.1	53.7
14-May	30	35	33	38	52	66	64	42	30	27	25	24	23	20	18	17	17	16	18	21	22	25	29	28	30.0	65.9
15-May	26	27	28	28	35	47	45	38	35	30	27	26	26	28	28	27	28	27	26	28	30	37	40	45	31.8	47.1
16-May	51	45	54	57	66	73	70	55	39	34	28	30	30	28	26	18	14	14	16	18	21	29	32	34	36.8	73.3
17-May	41	46	57	66	68	64	53	42	27	24	22	20	21	24	26	27	29	27	27	30	31	44	60	70	39.5	70.2
18-May	79	86	84	85	89	89	81	70	49	35	29	32	37	41	56	55	46	43	40	45	50	56	59	62	58.3	89.3
19-May	71	66	68	70	67	66	63	60	54	48	40	35	32	28	24	21	20	20	19	21	23	44	49	60	44.6	70.6
20-May	68	69	78	82	79	83	64	49	34	26	22	22	20	20	20	19	19	19	21	23	26	30	32	35	40.0	83.0
21-May	38	43	44	53	60	67	60	50	42	39	36	31	28	28	29	31	30	33	36	37	40	44	46	47	41.3	67.4
22-May	48	52	57	67	70	73	74	83	90	96	95	92	91	90	90	91	91	91	90	90	89	92	92	93	82.7	95.6
23-May	95	96	95	97	96	94	94	93	92	91	87	91	89	87	84	83	82	79	83	82	88	91	94	96	90.0	96.8
24-May	97	97	98	98	98	99	99	99	96	79	69	66	60	59	55	86	93	83	73	78	88	94	96	97	85.7	99.4
25-May	98	98	98	98	99	99	99	94	81	69	53	37	41	45	37	29	27	25	25	26	41	57	69	80	63.5	98.7
26-May	90	93	95	96	96	95	83	65	46	39	29	23	20	20	18	18	19	18	19	21	24	29	32	33	46.6	96.3
27-May	33	36	37	40	42	43	39	35	31	27	24	21	19	19	18	16	15	15	17	19	23	27	30	34	27.4	42.9
28-May	39	44	52	65	71	71	61	52	36	27	24	23	21	21	21	20	19	20	20	22	27	31	34	39	35.8	70.9
29-May	42	47	53	56	61	62	58	53	49	44	41	39	38	37	35	54	55	65	69	71	73	80	83	89	56.4	88.7
30-May	89	86	86	82	79	66	59	56	59	57	48	42	36	33	33	38	35	33	32	32	34	46	52	58	52.9	88.6
31-May	67	75	88	88	87	84	71	64	57	41	40	36	34	32	30	30	29	29	32	31	32	38	50	56	51.0	88.4
	57.8	61.5	65.3	68.4	71.3	73.0	67.8	59.8	51.8	45.6	40.9	38.2	36.4	35.3	34.7	35.5	35.0	34.7	35.3	37.2	40.7	45.9	50.0	53.7	Diurnal Average	
	97.7	98.3	98.3	98.5	98.6	98.6	99.0	99.4	95.5	95.6	94.8	91.8	90.5	90.0	90.4	90.7	93.3	91.2	90.0	89.9	88.9	93.9	95.5	97.1	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Valleyview - May 2012



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Valleyview - May 2012

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1 Spd	8	5	2	2	2	2	3	5	4	5	7	7	6	6	5	4	5	4	4	4	6	8	7	4	2.9	8.1
Dir	126	118	45	9	34	64	119	126	123	139	152	156	167	182	187	188	183	198	204	198	229	246	254	275	174	246
2 Spd	1	2	2	2	1	1	1	1	1	1	2	4	6	4	7	4	5	6	7	5	3	1	2	2	1.3	6.6
Dir	150	143	216	167	123	41	156	155	175	190	25	326	351	258	260	317	309	256	287	294	236	9	103	89	284	287
3 Spd	5	3	2	1	5	5	4	6	12	11	12	15	16	15	16	13	12	11	10	8	5	5	4	4	8.2	15.9
Dir	152	178	181	136	138	137	152	162	166	153	136	152	147	144	142	138	143	146	137	134	126	124	139	143	145	147
4 Spd	5	1	5	5	6	3	3	4	7	12	13	13	12	11	8	9	9	4	10	11	5	4	1	2	5.0	13.2
Dir	149	196	173	169	169	182	187	218	265	277	280	286	291	270	253	255	296	235	298	310	295	275	200	188	265	286
5 Spd	3	2	4	2	1	3	3	6	16	17	19	17	15	15	13	15	15	17	16	12	7	5	5	6	8.9	18.6
Dir	179	205	271	168	151	163	162	268	285	277	269	275	270	276	278	280	287	275	278	277	279	262	258	250	272	269
6 Spd	6	2	2	3	2	2	2	8	12	10	13	11	10	9	11	11	9	7	7	4	0	1	2	2	4.9	12.7
Dir	249	190	183	215	159	155	163	279	290	284	289	288	288	288	295	316	310	302	315	358	143	194	210	170	286	289
7 Spd	2	2	1	2	3	3	4	2	3	2	2	7	7	8	5	5	0	3	5	2	1	2	2	2	1.1	7.7
Dir	175	194	193	171	176	171	172	189	210	221	144	256	296	304	358	329	11	239	20	51	354	327	341	337	276	304
8 Spd	1	1	1	1	2	2	3	3	8	7	6	5	4	7	14	19	23	22	20	15	6	3	9	11	4.8	23.4
Dir	281	161	179	177	172	164	167	166	171	170	185	182	183	278	319	319	327	320	320	326	336	265	297	302	304	327
9 Spd	14	4	3	3	2	1	5	13	14	18	18	18	17	18	18	18	20	25	24	19	12	6	7	11	12.2	24.5
Dir	288	263	174	185	187	198	275	296	284	288	274	266	266	287	291	290	281	275	274	281	267	254	242	247	275	275
10 Spd	13	12	11	13	12	12	16	22	20	19	18	19	22	25	23	22	24	27	23	24	19	18	18	19	18.3	26.5
Dir	253	246	244	241	243	250	248	263	280	281	281	281	274	276	275	277	283	277	270	274	269	266	268	271	269	277
11 Spd	20	20	19	14	12	8	12	19	21	18	18	16	17	18	19	19	21	20	17	13	10	8	5	2	14.9	20.8
Dir	275	277	275	270	266	252	262	273	288	288	284	287	288	289	279	290	291	296	303	296	294	267	247	223	282	291
12 Spd	2	3	3	3	3	4	4	5	3	16	19	19	20	19	22	21	19	20	16	13	11	7	6	5	9.5	22.3
Dir	190	206	202	195	192	179	172	175	217	280	280	280	283	268	278	290	292	292	299	289	284	266	267	321	277	278
13 Spd	2	2	2	3	3	3	4	3	3	13	15	11	13	17	21	18	19	22	18	15	10	9	6	8	8.9	21.9
Dir	313	187	174	187	186	177	176	175	246	303	284	279	279	276	285	283	277	288	293	291	294	283	271	301	280	288
14 Spd	9	6	5	3	1	1	1	6	8	6	4	2	2	3	2	3	3	5	5	5	4	4	3	2	2.7	9.1
Dir	312	336	304	300	336	169	151	357	9	20	17	10	27	7	342	354	42	70	76	63	40	35	20	115	11	312
15 Spd	3	4	4	1	1	0	1	3	4	8	9	10	12	13	13	14	14	15	15	13	9	6	3	1	5.9	14.9
Dir	143	155	138	123	329	207	179	174	191	271	294	291	301	282	260	271	273	267	283	288	290	318	285	211	275	267
16 Spd	1	1	1	1	1	0	1	1	8	12	13	15	14	10	8	21	22	21	21	18	15	9	5	4	8.5	22.4
Dir	187	210	157	166	165	155	165	237	281	297	307	317	331	295	300	334	329	325	321	320	319	324	276	270	315	329
17 Spd	2	3	2	2	1	2	2	2	3	2	2	1	6	10	10	4	7	5	2	3	2	2	0	1	2.2	10.4
Dir	237	236	150	164	193	188	204	157	162	157	218	291	270	287	266	260	251	252	244	215	302	13	22	202	248	266
18 Spd	0	1	1	1	0	3	2	1	2	2	5	11	13	12	15	9	11	12	13	12	11	8	5	6	5.9	15.1
Dir	85	167	193	199	193	351	17	188	179	260	279	272	281	294	285	308	297	290	292	307	298	285	268	256	288	285
19 Spd	1	5	3	7	5	4	7	7	5	8	11	10	8	9	9	9	5	10	11	9	2	1	0	1	5.1	11.1
Dir	197	250	238	251	268	282	279	275	297	298	301	306	311	328	316	292	310	335	343	348	7	178	206	176	303	343
20 Spd	1	0	0	0	0	1	1	2	3	2	2	2	2	5	4	1	7	1	4	4	4	3	2	2	0.5	7.2
Dir	191	198	120	331	301	174	222	159	176	204	257	257	212	279	5	281	341	50	34	51	62	65	41	30	6	341
21 Spd	1	1	1	0	0	1	2	4	2	3	5	6	5	6	8	7	8	8	5	8	6	5	4	3	3.9	8.4
Dir	300	182	270	315	289	171	170	161	148	138	132	124	152	161	166	148	158	143	147	139	141	147	144	156	149	143
22 Spd	3	1	1	1	1	1	1	1	1	2	7	11	13	14	11	12	11	12	12	12	11	10	11	6	5.9	14.3
Dir	156	205	200	122	150	162	103	316	102	133	269	280	279	282	285	299	292	305	313	308	306	317	326	324	296	282

FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Valleyview - May 2012

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
23 Spd	3	6	5	8	7	4	4	3	4	4	2	2	3	3	3	3	2	2	2	1	1	2	0	1	1.4	8.1
Dir	316	283	321	349	12	355	317	327	30	47	67	72	98	92	107	92	118	140	171	171	186	18	14	230	16	349
24 Spd	0	1	1	1	1	1	2	2	2	2	2	5	5	6	2	8	2	4	4	1	1	2	1	1	0.3	8.2
Dir	212	190	150	169	189	213	162	166	187	163	251	321	306	324	102	63	191	314	329	220	180	166	196	171	276	63
25 Spd	2	1	1	1	2	1	2	2	2	2	3	2	10	13	8	4	3	3	3	1	2	1	1	1	1.1	12.5
Dir	155	165	179	172	169	166	169	156	163	188	265	316	10	14	10	25	18	4	37	60	160	165	216	186	26	14
26 Spd	0	0	1	0	0	0	0	3	6	6	9	9	10	8	8	8	8	9	9	9	8	8	9	9	5.7	10.4
Dir	255	182	188	191	149	145	199	160	166	167	168	160	162	160	156	161	154	157	156	154	149	151	158	158	159	162
27 Spd	10	8	7	6	6	6	9	11	12	11	10	10	8	7	7	7	7	6	7	7	6	6	7	5	7.7	11.7
Dir	161	163	163	164	163	164	164	165	166	163	162	152	158	147	152	141	150	146	145	136	141	147	152	151	156	166
28 Spd	4	2	1	0	0	1	1	1	5	9	9	8	8	8	8	7	7	7	8	8	9	7	6	5	5.1	8.9
Dir	156	155	219	244	282	309	318	45	153	157	155	148	146	143	156	153	153	140	140	136	138	140	146	147	148	138
29 Spd	5	3	2	1	2	1	2	7	6	5	3	3	4	6	0	2	7	9	9	5	2	4	3	2	2.0	8.6
Dir	154	159	162	168	162	176	170	164	167	164	212	277	278	308	308	75	339	225	256	255	174	163	164	184	206	256
30 Spd	3	2	2	2	2	5	6	8	9	5	2	1	6	5	8	9	6	6	4	7	7	1	2	1	3.3	9.3
Dir	162	155	159	165	161	260	269	268	302	332	308	66	306	270	249	318	276	299	268	283	292	217	181	185	278	318
31 Spd	1	0	1	1	1	2	2	2	3	15	14	15	13	11	11	10	10	10	10	8	7	4	1	2	5.6	15.4
Dir	167	24	174	179	187	168	161	177	193	269	259	257	272	295	293	277	273	288	291	289	275	248	178	167	269	269
Spd	1.9	1.9	1.7	1.6	1.3	1.4	2.0	2.7	3.2	4.4	5.4	5.6	6.0	6.7	6.4	6.2	6.8	6.9	6.5	5.1	3.4	2.3	2.2	2.0	Diurnal Average	
Dir	226	224	222	220	203	202	213	236	249	266	265	269	277	279	276	291	290	283	292	292	280	263	250	249		
Spd	19.9	20.1	18.6	14.3	11.9	12.0	16.3	21.5	20.5	19.4	18.9	18.9	21.6	25.0	22.6	21.9	23.7	26.5	23.9	24.0	18.6	17.7	17.8	19.3	Diurnal Maximum	
Dir	275	277	275	270	243	250	248	263	288	281	280	280	274	276	275	277	283	277	274	274	269	266	268	271		

Maximum Speed Value: 27 km/h on May 10 18:00
Maximum Daily Speed Average: 18.3 km/h on May 10
Maximum Diurnal Speed Average: 6.9 km/h at hour 18

Minimum Speed Value: 0 km/h on May 31 02:00
Minimum Daily Speed Average: 0.3 km/h on May 20
Minimum Diurnal Speed Average: 1.3 km/h at hour 5

Monthly Average Velocity: 3.58 km/h 269.2 deg

Speed Percentiles: $P_1 = 0.2$ $P_{10} = 1.0$ $Q_1 = 2.1$ Median = 5.0 $Q_3 = 10.1$ $P_{90} = 15.6$ $P_{99} = 23.2$

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

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Percent Operational Time:	100.0

Frequency Distribution

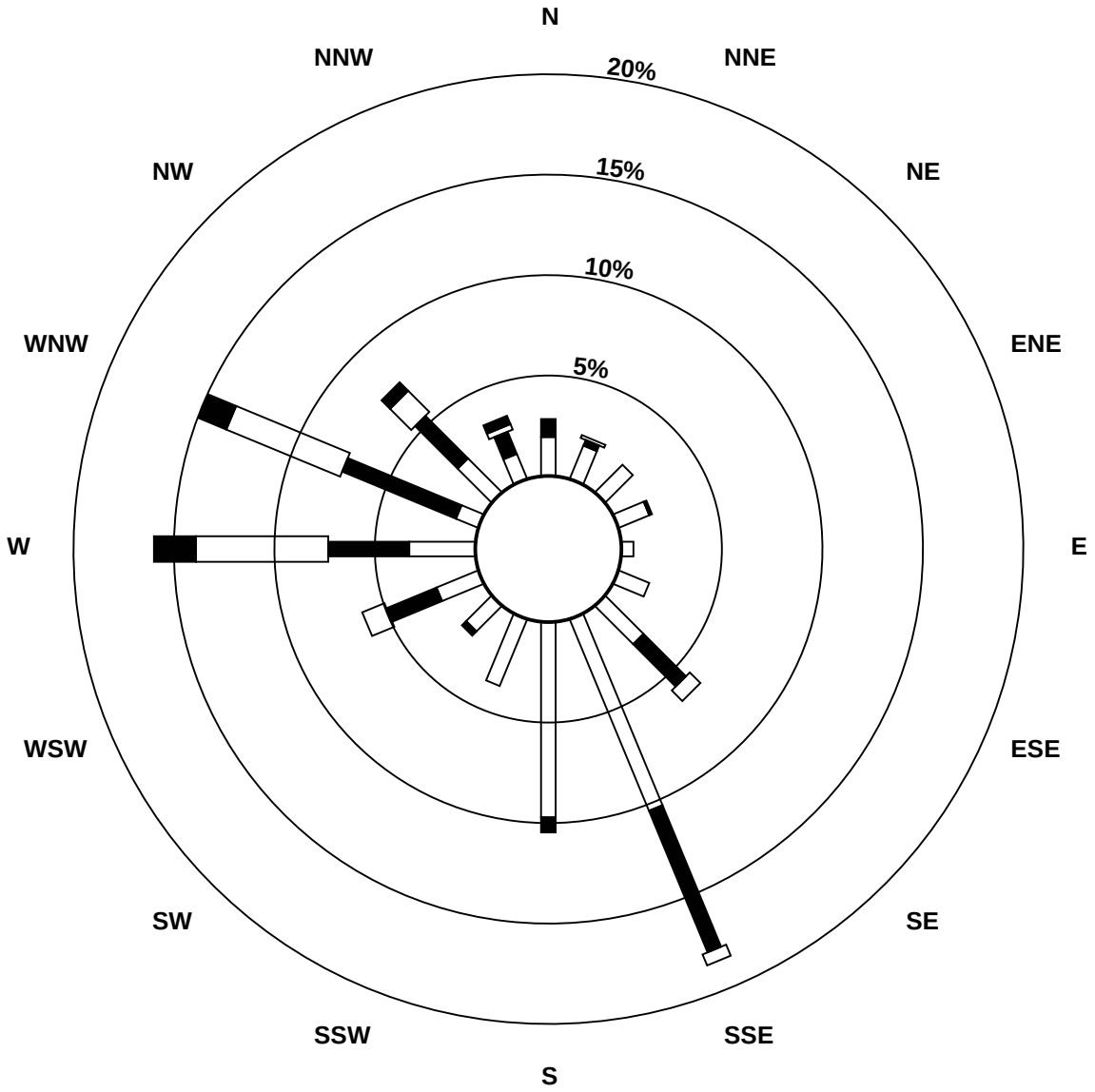
Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	23	13	2	0	0	0	38
NorthEast	26	2	0	0	0	0	28
East	13	1	0	0	0	0	14
SouthEast	54	51	8	0	0	0	113
South	151	33	3	0	0	0	187
SouthWest	40	5	5	0	0	0	50
West	34	62	79	28	0	0	203
NorthWest	28	47	27	9	0	0	111
Total	369	214	124	37	0	0	744

Peace Airshed Zone Association

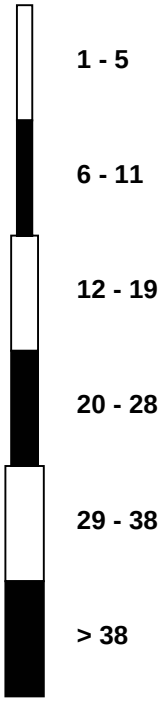
Wind Rose

Wind Speed (WS) (km/h)

Valleyview - May 2012



Wind Speed Classes (km/h)



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Valleyview - May 2012

Maximum Speed: 27 km/h on May 10 18:00

Maximum Daily Speed Average: 19.0 km/h on May 10

Minimum Speed: 1 km/h on May 20 02:00

Minimum Daily Speed Average: 2.9 km/h on May 24

Maximum Diurnal Speed Average: 11.3 km/h at hour 18

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

Monthly Average Speed: 7.28 km/h

Percentiles: $P_1 = 0.7$ $P_{10} = 1.4$ $Q_1 = 2.5$ Median = 5.6 $Q_3 = 10.7$ $P_{90} = 16.3$ $P_{99} = 23.3$

Hours in Service:	744
Hours of Data:	744
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-May	8	5	2	2	2	3	3	5	4	5	7	8	6	6	5	4	5	4	4	4	7	8	7	5	4.9	8.2
2-May	2	2	2	2	2	1	2	1	1	2	3	5	7	6	7	5	6	6	7	5	4	3	2	2	3.6	7.4
3-May	5	3	2	2	5	6	5	6	13	12	13	16	16	16	16	13	13	11	11	9	5	5	5	4	8.7	16.4
4-May	5	2	5	5	7	3	3	4	8	12	13	14	13	12	10	11	10	5	11	11	5	4	2	2	7.4	13.8
5-May	3	2	4	2	1	3	3	7	16	17	19	18	16	16	14	16	16	17	16	12	7	5	5	6	10.2	19.3
6-May	6	2	2	3	2	2	2	9	12	11	14	12	11	10	12	12	10	8	8	4	1	1	2	2	6.6	13.7
7-May	2	2	1	2	3	3	4	3	4	4	4	8	9	9	6	6	5	4	5	2	2	3	3	2	4.0	9.0
8-May	2	2	1	1	2	2	3	3	8	7	6	5	5	10	15	20	24	23	20	15	6	3	9	11	8.4	23.7
9-May	15	6	4	3	2	2	5	13	15	18	19	19	18	19	19	19	22	25	24	19	13	6	8	12	13.4	24.8
10-May	13	12	12	13	12	12	16	22	20	20	19	20	22	26	23	22	24	27	24	24	19	18	18	19	19.0	27.0
11-May	20	20	19	14	12	8	12	20	21	19	19	16	18	19	20	20	21	20	17	14	10	8	5	2	15.7	21.4
12-May	2	3	3	3	3	4	4	5	5	16	19	19	21	20	23	21	20	20	16	13	11	7	7	5	11.3	22.9
13-May	3	2	2	3	3	3	4	3	5	14	15	12	14	18	21	18	20	22	19	15	10	9	6	9	10.5	22.3
14-May	9	6	5	3	1	2	2	6	9	8	6	5	5	5	4	5	5	6	5	6	4	4	5	2	4.9	9.2
15-May	3	4	4	2	2	1	1	3	4	9	10	11	13	14	14	15	15	15	15	13	9	6	4	2	7.8	15.4
16-May	2	2	1	1	1	1	1	1	9	13	14	16	14	11	10	21	23	21	22	18	15	9	5	4	9.8	22.7
17-May	3	3	2	2	1	2	2	3	3	4	5	5	8	11	12	7	8	7	2	5	3	3	2	1	4.3	11.6
18-May	1	1	1	1	1	3	2	2	2	5	6	12	13	13	15	10	12	13	14	13	11	9	6	6	7.1	15.4
19-May	2	5	3	7	5	4	7	7	6	9	11	11	10	10	11	10	8	11	11	9	2	1	1	1	6.8	11.5
20-May	1	1	1	1	1	1	1	2	3	3	4	5	5	7	7	5	8	4	4	4	4	3	2	2	3.2	8.1
21-May	2	1	1	1	1	1	2	4	3	4	5	7	6	6	8	7	8	9	6	8	7	5	4	3	4.4	8.6
22-May	4	2	1	1	1	1	1	1	1	2	8	11	13	14	11	12	11	12	12	12	11	10	11	7	7.2	14.4
23-May	4	7	5	8	7	5	4	3	4	4	3	3	3	4	4	3	3	2	2	1	1	2	1	1	3.5	8.2
24-May	1	1	1	1	1	1	2	2	2	3	3	6	6	6	4	9	2	5	4	1	1	2	1	1	2.9	8.8
25-May	2	1	1	1	2	2	2	2	2	3	5	4	11	13	8	5	5	4	4	2	2	1	1	1	3.5	12.9
26-May	1	1	1	1	1	1	1	3	6	6	9	9	11	9	9	8	8	9	9	9	8	8	9	9	6.0	10.7
27-May	10	8	7	6	6	6	9	12	12	11	10	11	9	8	8	8	7	7	7	7	6	6	7	5	8.0	11.8
28-May	4	2	1	1	1	1	2	2	5	9	9	9	9	8	8	8	7	8	8	8	9	7	6	5	5.7	9.0
29-May	5	3	2	2	2	1	2	7	6	5	4	5	6	7	6	7	9	9	9	6	4	4	3	2	4.9	9.4
30-May	3	2	2	2	2	5	6	8	10	6	4	3	7	6	9	10	7	7	5	7	7	2	2	1	5.1	9.8
31-May	1	1	1	1	1	2	2	3	4	16	14	16	14	12	12	11	11	11	11	8	8	5	1	2	7.0	15.9
	4.5	3.7	3.2	3.2	3.0	3.0	3.7	5.5	7.2	8.9	9.6	10.3	11.0	11.3	11.3	11.3	11.3	11.3	10.7	9.2	6.8	5.5	4.8	4.4	Diurnal Average	
	20.0	20.3	18.7	14.4	12.0	12.0	16.5	22.0	20.8	19.9	19.4	19.9	22.1	25.6	23.2	22.3	24.2	27.0	24.4	24.3	18.8	17.8	17.9	19.5	Diurnal Maximum	

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

Peace Airshed Zone Association

Hourly Standard Deviations

Wind Direction (WD) - deg

Valleyview - May 2012

Maximum Value: 97.2 deg on May 7 17:00

Minimum Value: 4.1 deg on May 13 05:00

Percentiles: P_1 = 6.8 P_{10} = 9.5 Q_1 = 12.8 Median = 20.0 Q_3 = 39.1 P_{90} = 63.2 P_{99} = 89.0

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-May	9	14	42	12	15	18	22	11	13	11	12	13	14	12	10	18	11	18	15	14	21	9	11	54	53.9
2-May	71	27	35	28	70	34	71	56	57	78	68	25	24	78	32	44	36	15	21	14	50	79	35	29	79.4
3-May	14	12	50	83	9	10	19	49	10	19	14	16	14	14	17	15	14	12	14	11	14	16	14	23	83.4
4-May	14	41	8	9	7	15	7	31	27	17	18	18	25	22	46	40	24	45	18	13	11	11	61	20	60.6
5-May	18	20	22	14	39	11	14	57	10	14	16	14	23	18	21	26	17	16	11	9	13	13	12	13	56.9
6-May	30	6	10	22	21	14	18	30	14	28	22	26	31	37	31	28	25	46	38	14	71	15	21	18	71.1
7-May	20	8	39	29	15	34	10	67	39	74	66	51	50	32	39	35	97	47	21	44	67	52	43	13	97.2
8-May	71	43	18	24	22	47	15	19	9	10	14	17	58	49	23	16	9	8	7	6	22	19	13	17	70.7
9-May	12	63	26	21	24	21	43	12	15	11	16	18	20	18	17	16	21	10	11	9	9	13	20	9	63.0
10-May	7	12	13	12	9	7	9	12	12	13	15	19	13	12	13	12	11	11	9	9	9	8	8	7	19.0
11-May	7	8	7	7	7	14	15	10	10	15	16	18	23	17	21	17	14	12	9	9	9	9	14	11	23.2
12-May	16	10	13	8	12	18	11	11	41	14	13	14	16	19	14	15	16	12	13	10	10	14	19	10	41.4
13-May	68	13	11	7	4	7	6	11	58	15	16	26	26	18	11	14	16	11	11	11	12	12	14	9	67.9
14-May	7	13	11	26	93	39	65	23	29	39	64	85	82	63	85	69	77	29	27	22	14	23	63	37	93.0
15-May	13	15	12	41	85	84	66	13	24	33	22	23	25	23	19	15	22	15	12	11	10	14	26	65	85.2
16-May	39	27	18	24	47	65	45	53	29	23	19	15	14	30	40	12	10	11	9	9	9	10	21	28	64.9
17-May	47	45	24	35	75	38	38	40	38	76	84	89	69	26	30	63	53	52	47	48	67	50	85	44	89.2
18-May	89	21	29	34	85	21	44	75	54	76	60	28	15	22	12	22	24	13	17	11	12	10	24	17	89.2
19-May	27	19	21	10	16	23	12	17	39	38	21	31	40	44	41	38	61	32	16	9	58	22	61	48	61.5
20-May	25	91	58	50	87	43	59	47	30	62	82	86	60	65	67	88	36	73	24	23	18	24	27	57	90.9
21-May	81	39	29	88	94	24	16	15	41	38	23	30	38	19	12	13	16	13	15	11	10	9	11	15	94.5
22-May	45	48	62	40	56	35	65	37	45	33	22	11	10	9	11	12	10	10	12	9	9	10	8	23	64.6
23-May	32	30	17	9	18	21	15	29	22	21	47	37	35	28	25	31	37	25	25	40	44	35	83	46	83.0
24-May	54	33	63	26	68	62	17	17	38	43	66	27	51	26	83	24	46	54	17	59	26	10	33	52	82.9
25-May	13	24	24	15	10	16	12	31	34	49	68	70	31	14	17	56	66	56	48	37	14	22	43	54	69.7
26-May	76	62	32	60	88	86	78	16	11	13	12	14	13	19	15	16	16	13	11	9	10	9	8	9	87.6
27-May	8	9	9	10	8	8	10	8	9	10	13	15	16	20	19	19	20	18	15	10	9	9	8	9	20.1
28-May	13	14	40	61	81	59	51	74	22	12	14	22	19	21	17	22	18	17	14	13	10	8	9	12	81.4
29-May	11	12	15	70	30	36	24	11	12	24	49	78	60	49	89	66	74	27	19	42	46	13	10	32	89.5
30-May	8	16	11	14	14	42	18	14	22	37	78	80	57	45	30	18	33	21	43	16	14	39	25	49	80.3
31-May	78	94	32	25	22	9	9	40	42	14	14	15	26	21	23	26	24	22	16	13	17	19	17	8	93.7
	89.2	93.7	62.8	88.2	94.5	86.1	77.9	74.6	57.6	78.5	83.9	89.2	82.3	78.2	89.5	88.1	97.2	72.6	47.8	59.5	71.1	79.4	84.9	64.8	

FOCUS AIR QUALITY MONITORING

PAZA
Portable – Sunset House Station
Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Sunset House - May 2012

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 2.2 ppb on May 26 10:00 Maximum Daily Average: 0.5 ppb on May 21

Minimum Value: 0 ppb on May 1 03:00 Minimum Daily Average: 0.0 ppb on May 17
Maximum Diurnal Average: 0.2 ppb at hour 4 Minimum Diurnal Average: 0.0 ppb at hour 17
Monthly Average: 0.10 ppb Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.0 Q_3 = 0.1 P_{90} = 0.3 P_{99} = 1.1

Hours in Service:	744
Hours of Data:	708
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-May	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
2-May	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
3-May	0	0	0	0	0	0	0	A	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.7
4-May	0	0	0	0	0	0	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.8
5-May	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.0	0.5
6-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
7-May	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
8-May	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
9-May	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
10-May	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.0	0.1
11-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.0	0.1
12-May	0	1	1	1	1	1	1	1	1	C	C	C	C	0	0	0	0	0	0	0	0	A	0	0	0.3	1.2
13-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	0.5
14-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.0	0.0
15-May	0	0	2	2	1	1	0	0	1	1	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0.3	1.7
16-May	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.1	0.5
17-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.0	0.0
18-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.0	0.2
19-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.0	0.2
20-May	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.1	0.4
21-May	0	1	1	1	1	1	1	1	1	0	0	1	A	1	0	0	0	0	0	0	0	0	0	0	0.5	1.3
22-May	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
23-May	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
24-May	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
25-May	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
26-May	0	0	0	0	0	0	1	A	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	2.2
27-May	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	2	0.3	1.6
28-May	1	1	0	0	0	A	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0.3	1.0
29-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
30-May	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
31-May	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.5
	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	Diurnal Average	
	0.9	1.0	1.7	1.6	0.9	0.8	0.9	1.0	1.2	2.2	0.6	0.6	0.3	0.5	0.2	0.4	0.2	0.5	0.6	0.9	0.9	0.9	1.0	1.6	Diurnal Maximum	

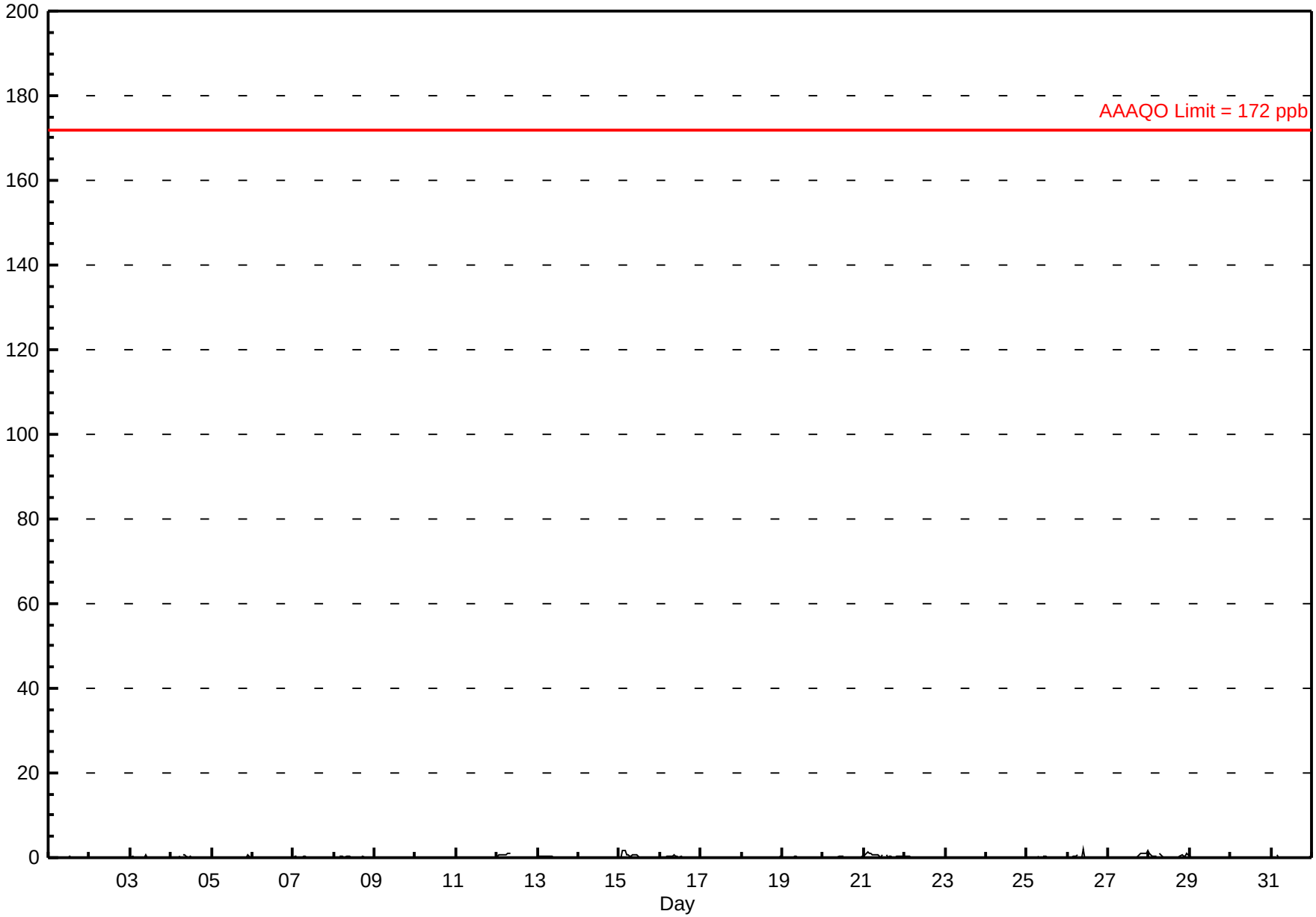
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Sunset House - May 2012



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Sunset House - May 2012

Maximum Value: 10.2 ppb on May 26 10:00

Maximum Daily Average: 1.0 ppb on May 21

Minimum Value: 0 ppb on May 5 15:00

Minimum Daily Average: 0.2 ppb on May 23

Maximum Diurnal Average: 0.9 ppb at hour 10

Minimum Diurnal Average: 0.3 ppb at hour 16

Monthly Average: 0.46 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.1 Q_1 = 0.2 Median = 0.4 Q_3 = 0.6 P_{90} = 0.8 P_{99} = 1.9

Hours in Service:	744
Hours of Data:	708
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-May	0	0	0	0	0	0	0	0	0	A	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0.5	0.9
2-May	0	0	0	0	0	0	0	0	A	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0.4	0.9
3-May	0	1	0	0	0	0	0	A	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	1.9
4-May	0	1	1	0	0	1	A	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.5	1.4
5-May	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0.4	1.1
6-May	0	0	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0.5	0.6
7-May	1	1	1	A	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	1.0
8-May	0	0	A	1	0	1	0	1	1	1	1	0	0	0	0	0	0	1	0	0	0	0	1	1	0.6	1.0
9-May	1	A	1	1	1	1	1	1	1	1	0	0	0	0	0	0	1	0	1	1	1	0	0	0	0.4	0.5
10-May	A	0	1	1	0	0	0	0	0	0	1	1	1	1	0	1	1	0	1	1	1	1	0	A	0.4	0.6
11-May	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	A	1	0.5	0.9
12-May	1	1	1	1	1	1	1	2	2	C	C	C	C	0	0	0	0	0	0	0	0	A	1	0	0.6	1.6
13-May	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.4	1.1
14-May	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0.3	0.6
15-May	1	0	3	2	1	1	1	1	1	1	1	1	1	1	0	1	0	0	A	1	0	0	0	1	0.8	2.8
16-May	1	0	1	1	1	1	1	1	1	1	1	0	1	1	0	0	0	A	0	0	0	0	1	0	0.6	1.3
17-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.3	0.4
18-May	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	A	0	0	0	0	0	0	0	1	0.4	0.9
19-May	0	0	0	0	0	0	0	1	1	0	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0.3	0.7
20-May	0	0	0	0	0	0	0	0	0	1	1	1	1	A	0	0	0	0	0	0	0	0	1	1	0.4	1.0
21-May	1	2	2	2	1	1	1	1	1	1	1	1	A	1	1	1	1	0	0	1	1	1	1	1	1.0	1.8
22-May	1	1	1	1	1	0	0	0	0	0	1	A	0	0	0	0	0	0	0	0	0	1	0	0	0.3	0.7
23-May	0	0	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
24-May	0	0	0	0	0	0	1	1	0	A	0	0	0	1	1	0	1	1	0	0	0	0	0	0	0.2	1.0
25-May	0	0	0	0	0	0	1	1	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0.3	0.7
26-May	1	1	1	1	1	1	1	A	1	10	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0.9	10.2
27-May	0	0	0	0	0	1	A	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	2	0.6	2.2
28-May	1	1	1	1	1	A	3	2	1	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0.8	2.5
29-May	1	1	0	0	A	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0.2	0.5
30-May	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	0.2	0.6
31-May	0	1	A	2	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0.3	2.1
	0.5	0.5	0.6	0.6	0.5	0.5	0.5	0.6	0.5	0.9	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.5	Diurnal Average	
	1.5	1.7	2.8	2.3	1.3	1.3	2.5	2.0	1.5	10.2	1.4	0.9	0.9	1.3	1.0	0.8	0.7	1.0	1.2	1.5	1.2	1.2	1.4	2.2	Diurnal Maximum	

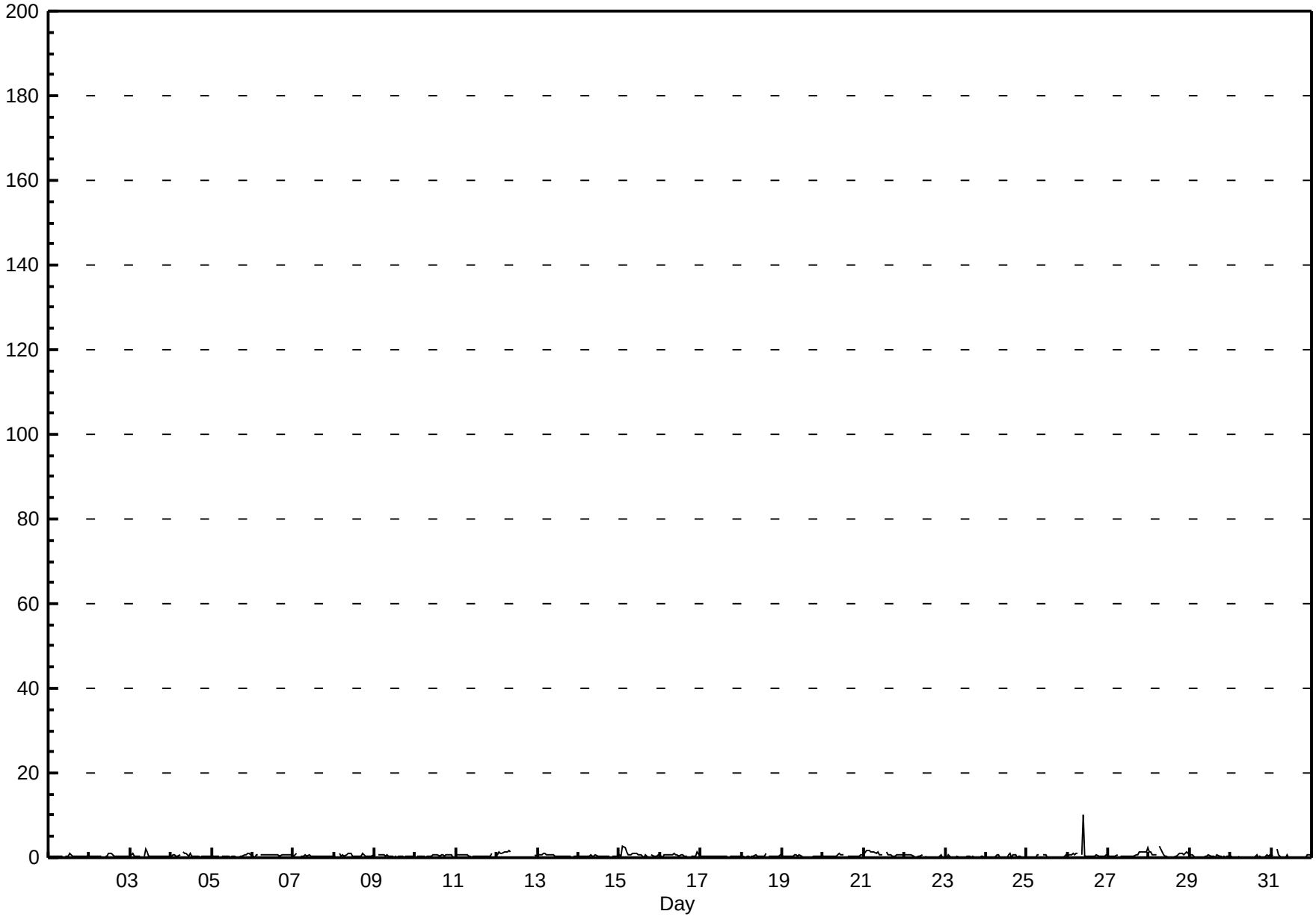
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

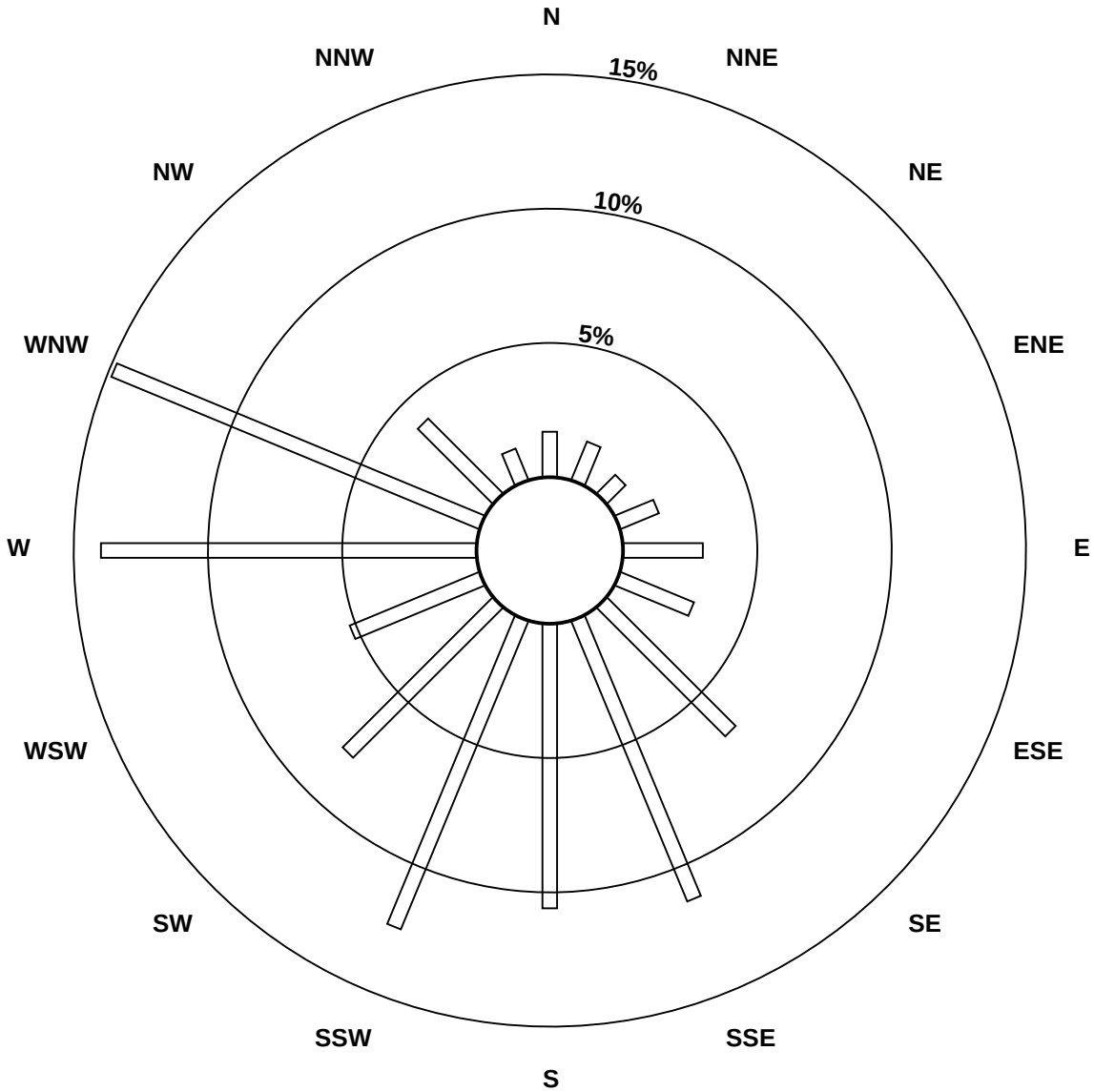
Sunset House - May 2012



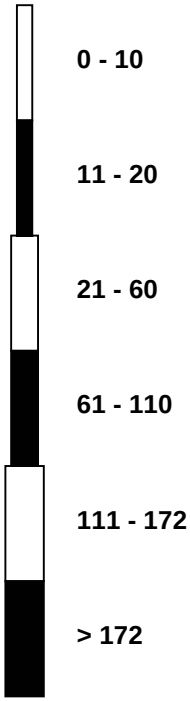
Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Sunset House - May 2012



Pollutant Classes (ppb)

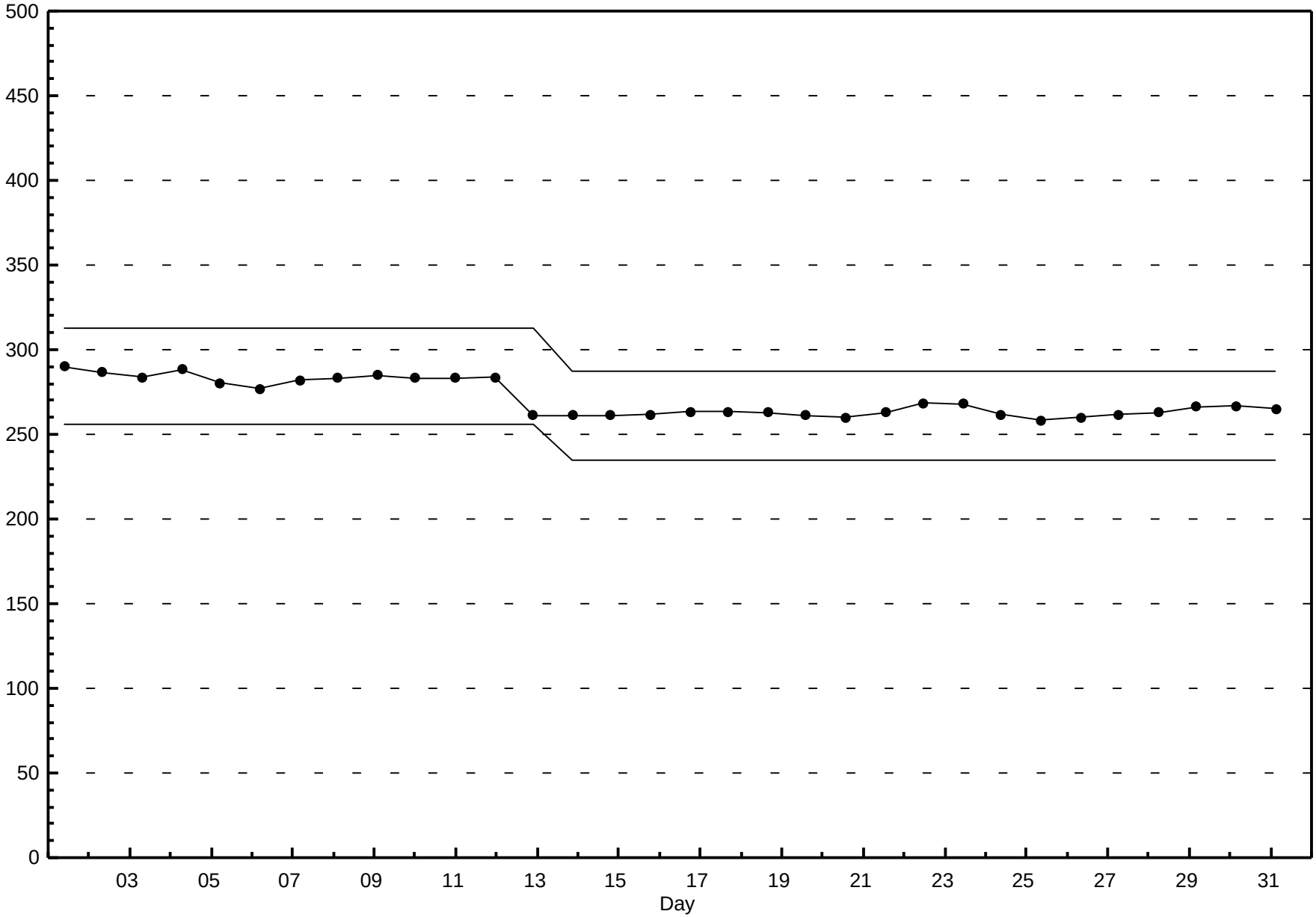


Peace Airshed Zone Association

Span Responses

Sulphur Dioxide (SO_2)

Sunset House - May 2012



Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Sunset House - May 2012

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

Maximum Value: 0.6 ppb on May 31 11:00

Maximum Daily Average: 0.4 ppb on May 30

Minimum Value: 0 ppb on May 26 20:00

Minimum Daily Average: 0.1 ppb on May 29

Maximum Diurnal Average: 0.3 ppb at hour 6

Minimum Diurnal Average: 0.2 ppb at hour 20

Monthly Average: 0.25 ppb

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

Hours in Service:	744
Hours of Data:	709
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-May	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.3
2-May	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5
3-May	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
4-May	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
5-May	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.3
6-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
7-May	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
8-May	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
9-May	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
10-May	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.3	0.3
11-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.2	0.3
12-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	C	C	C	0	0	0	A	0	0	0.3	0.5
13-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	0.3
14-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.3	0.4
15-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.3	0.3
16-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.2	0.3
17-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.2	0.3
18-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.2	0.3
19-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.3	0.4
20-May	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.3	0.4
21-May	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
22-May	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
23-May	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
24-May	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.3
25-May	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
26-May	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
27-May	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
28-May	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
29-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
30-May	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5
31-May	1	1	A	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	Diurnal Average	
	0.6	0.5	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.5	0.6	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.5	0.4	0.5	0.4	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

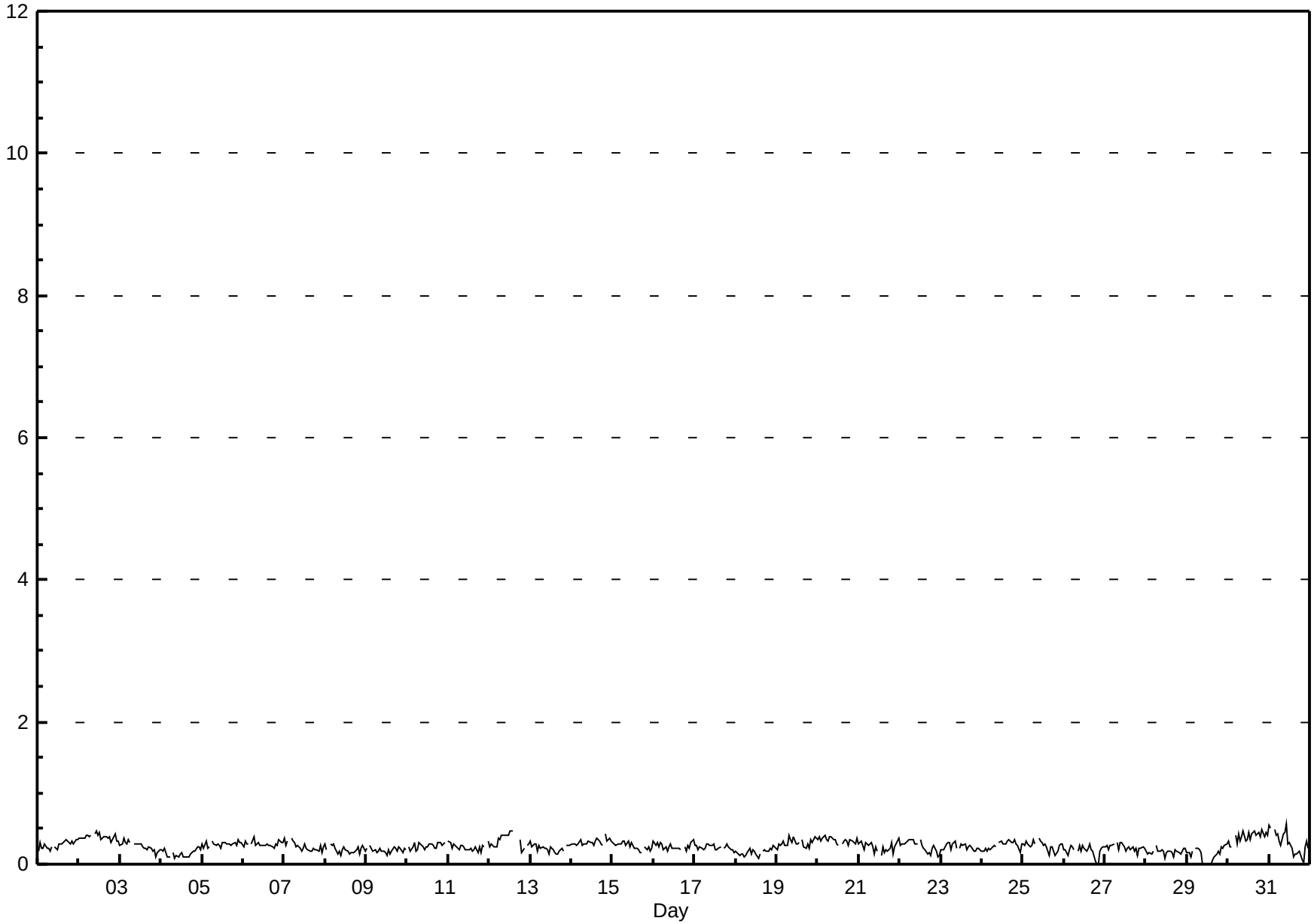
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb

Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Sunset House - May 2012



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

Sunset House - May 2012

Maximum Value: 1.2 ppb on May 31 00:00

Maximum Daily Average: 0.8 ppb on May 30

Minimum Value: 0 ppb on May 26 20:00

Minimum Daily Average: 0.5 ppb on May 18

Maximum Diurnal Average: 0.7 ppb at hour 24

Minimum Diurnal Average: 0.6 ppb at hour 14

Monthly Average: 0.63 ppb

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

Hours in Service:	744
Hours of Data:	709
Hours of Missing Data:	35
Hours of Calibration:	35
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-May	0	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.9
2-May	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	0.9
3-May	1	1	1	1	1	1	1	A	1	1	1	1	1	0	0	1	0	1	1	1	1	0	0	1	0.6	1.0
4-May	1	1	1	1	0	1	A	0	0	0	0	1	1	0	0	1	1	1	1	0	1	1	1	1	0.5	0.8
5-May	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.9
6-May	1	1	1	1	A	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0.6	1.0
7-May	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0.6	1.2
8-May	1	1	A	1	1	1	1	0	1	0	1	1	0	0	0	0	1	1	1	0	1	1	1	1	0.6	1.1
9-May	1	A	1	0	1	1	0	1	1	0	0	1	0	1	1	1	1	1	1	1	1	1	1	1	0.6	0.8
10-May	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	A	0.6	0.8
11-May	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	A	1	0.6	0.8
12-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	C	C	C	1	1	1	A	1	1	0.7	1.1
13-May	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	0	1	1	1	A	1	1	1	0.6	0.8
14-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.7	0.9
15-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	A	1	1	1	1	1	0.6	0.8
16-May	1	1	1	1	1	1	1	0	0	1	1	1	1	0	1	1	0	A	1	1	1	1	1	1	0.6	1.2
17-May	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.6	0.7
18-May	0	1	1	1	1	1	0	0	1	0	1	1	0	0	0	A	0	1	1	1	1	1	1	1	0.5	0.6
19-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.7	0.8
20-May	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.7	1.0
21-May	1	1	1	1	1	1	1	1	1	0	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0
22-May	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0	1	1	1	0	1	1	1	0	0	0.6	0.9
23-May	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0	0	1	1	1	0.6	1.1
24-May	0	1	1	1	0	0	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	1.0
25-May	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0.6	0.8
26-May	0	1	1	1	1	0	1	A	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0.6	0.8
27-May	1	1	1	1	1	1	A	1	1	1	1	0	0	0	1	0	1	1	0	1	1	1	1	1	0.6	0.8
28-May	1	0	0	0	1	A	1	0	1	1	1	0	0	0	1	0	1	1	1	1	1	1	1	1	0.6	0.9
29-May	0	1	1	1	A	1	1	1	1	0	1	0	1	0	1	0	1	1	0	0	1	1	1	1	0.5	0.7
30-May	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.2
31-May	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0.7	1.0
	0.6	0.6	0.6	0.6	0.6	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.6	0.6	0.7	0.7	0.7	Diurnal Average	
	1.1	1.0	0.8	0.9	0.9	0.9	0.9	1.0	1.1	0.9	0.9	0.8	0.8	0.7	0.8	0.8	0.8	0.9	1.1	0.8	0.8	1.0	1.0	1.2	Diurnal Maximum	

C - Calibration

A - Automated Daily Zero Span

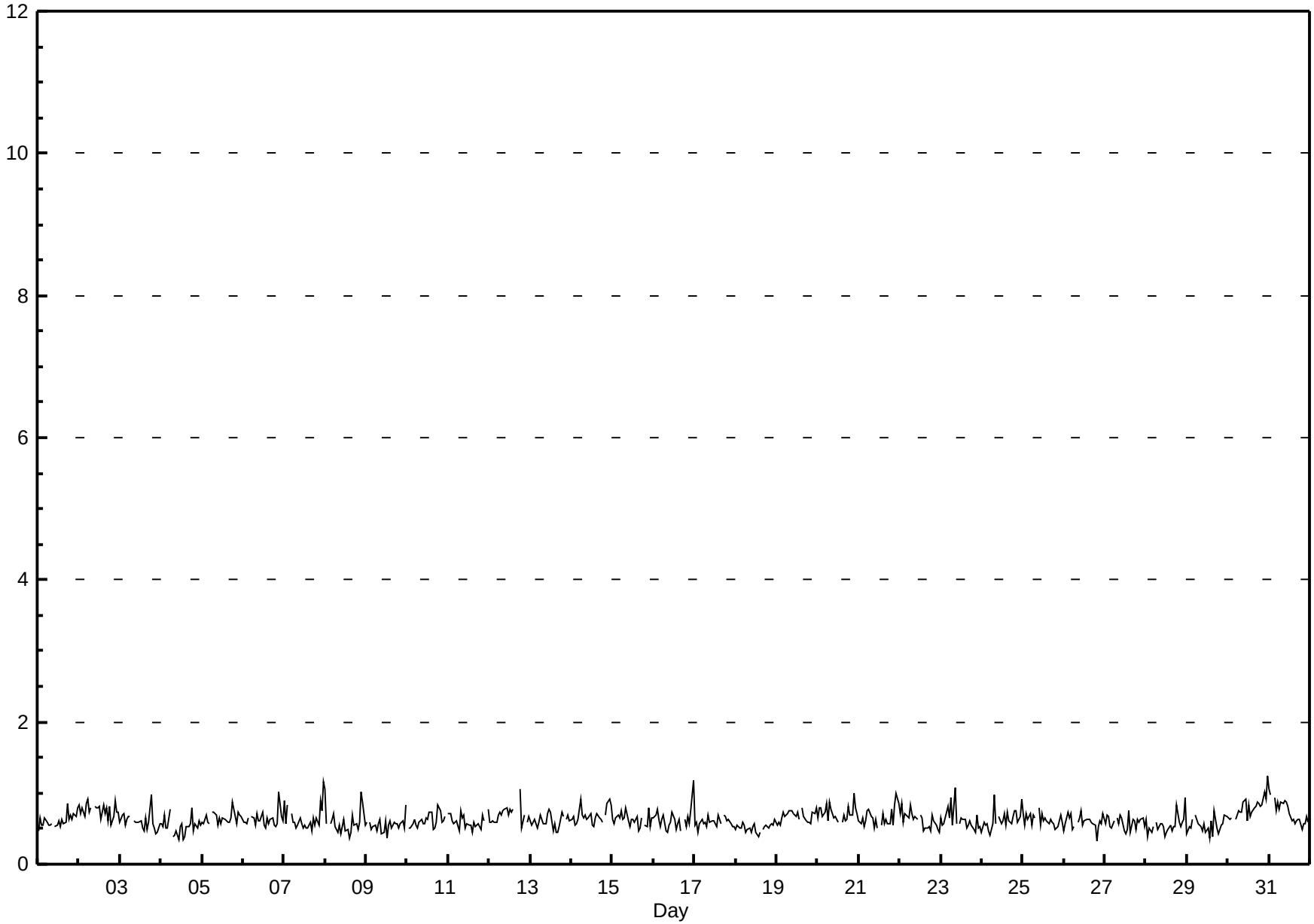
FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

Sunset House - May 2012

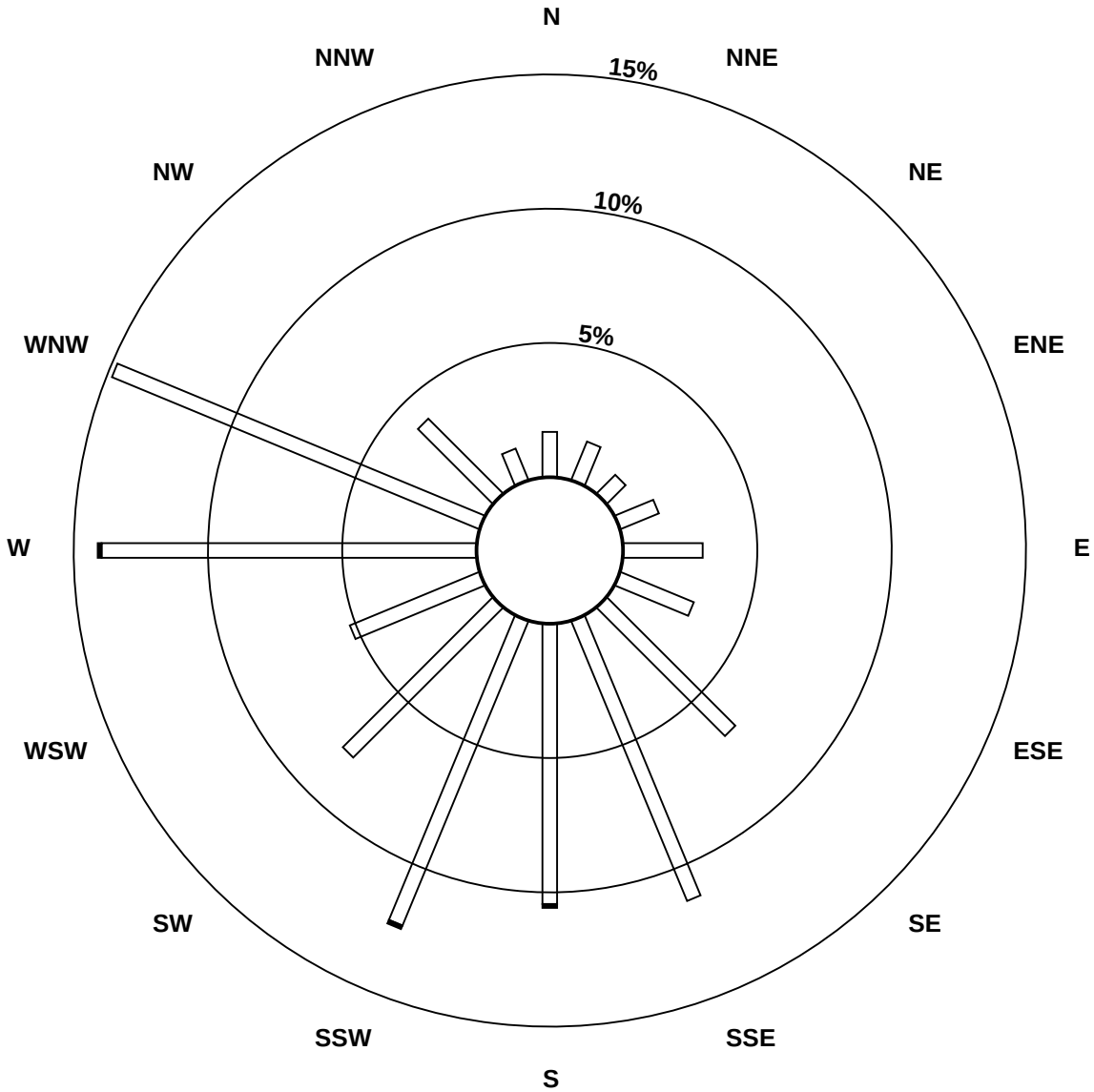


FOCUS AIR QUALITY MONITORING

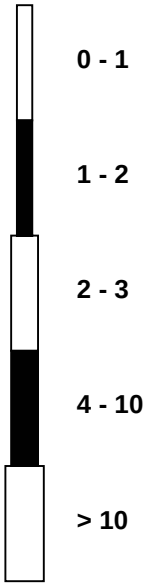
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb

Sunset House - May 2012



Pollutant Classes (ppb)

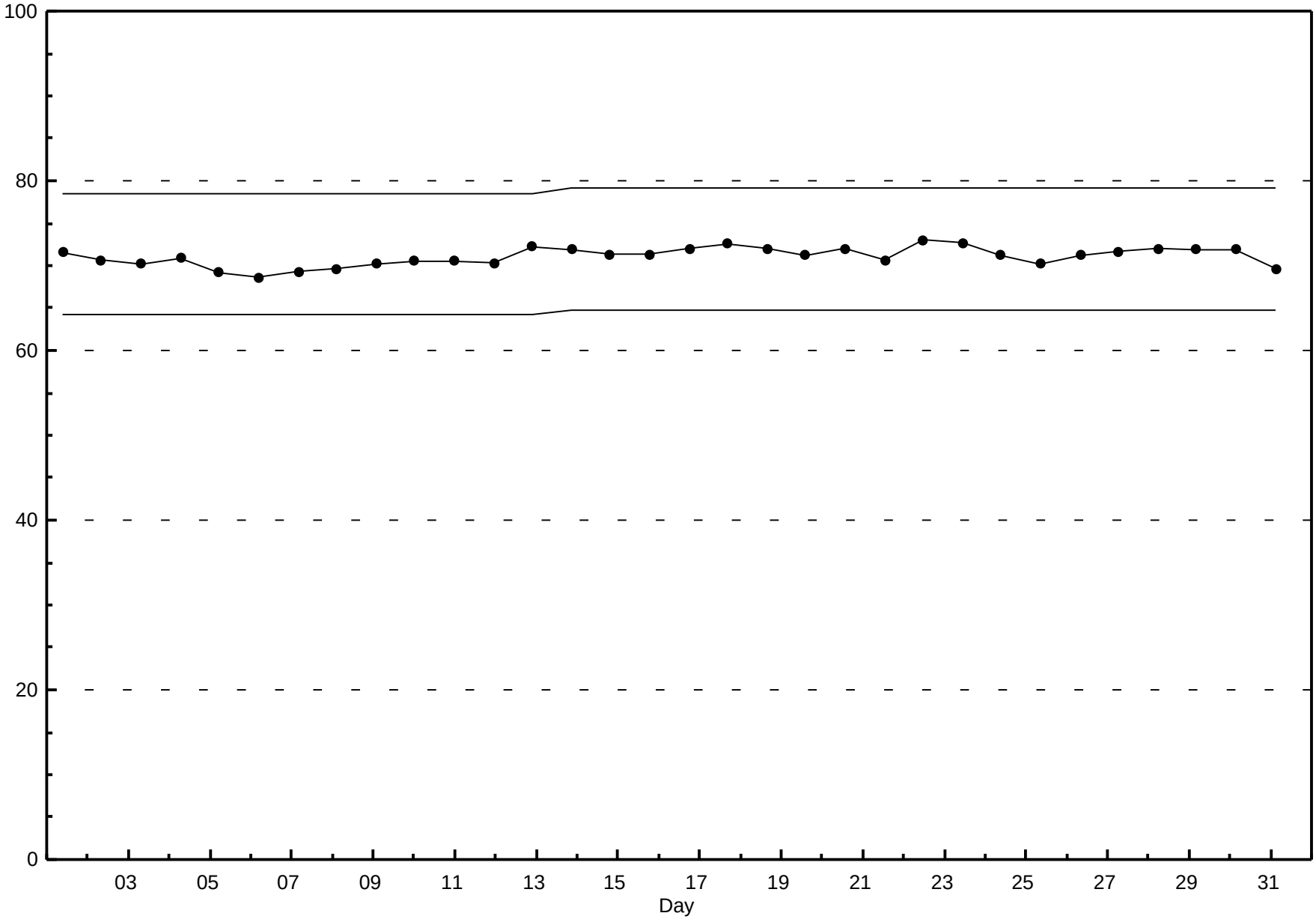


Peace Airshed Zone Association

Span Responses

Total Reduced Sulphur (TRS)

Sunset House - May 2012



Peace Airshed Zone Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Sunset House - May 2012

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

Maximum Value: 4.6 ppb on May 2 15:00 Maximum Daily Average: 1.6 ppb on May 2

Minimum Value: 0 ppb on May 12 16:00 Minimum Daily Average: 0.5 ppb on May 10

Maximum Diurnal Average: 1.2 ppb at hour 8 Minimum Diurnal Average: 0.7 ppb at hour 13

Monthly Average: 0.89 ppb Percentiles: $P_1 = 0.3$ $P_{10} = 0.4$ $Q_1 = 0.5$ Median = 0.7 $Q_3 = 1.1$ $P_{90} = 1.7$ $P_{99} = 2.2$

Hours in Service:	744
Hours of Data:	698
Hours of Missing Data:	46
Hours of Calibration:	46
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-May	1	1	1	1	1	1	1	1	1	A	2	1	1	2	1	1	1	2	2	2	2	1	1	1	1.2	1.9
2-May	1	1	1	1	1	1	1	1	A	C	C	C	C	C	5	2	2	2	2	2	2	2	2	2	1.6	4.6
3-May	2	2	2	2	2	1	1	A	1	2	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1.4	2.3
4-May	2	1	1	1	1	2	A	3	2	2	1	1	1	1	1	1	1	0	0	0	1	1	1	1	1.0	2.9
5-May	1	1	1	1	1	A	2	2	1	1	1	1	0	0	0	0	1	0	0	1	1	1	1	1	0.7	1.7
6-May	0	1	1	1	A	1	1	2	1	1	1	1	1	1	1	1	1	1	0	1	1	0	0	1	0.8	1.6
7-May	1	1	1	A	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.6
8-May	1	1	A	2	2	2	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	2.2
9-May	1	A	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0.6	1.2
10-May	A	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	A	0.5	0.9
11-May	1	1	1	1	1	1	1	1	1	0	C	C	C	C	0	0	0	0	0	0	0	1	A	1	0.6	1.1
12-May	1	1	1	1	2	2	2	2	2	C	C	C	C	C	0	0	0	0	0	0	0	A	1	1	0.9	1.8
13-May	1	1	1	1	1	1	1	1	1	1	0	1	1	0	0	0	0	0	0	0	A	1	1	1	0.6	1.0
14-May	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	A	1	1	1	1	0.5	1.0
15-May	1	1	3	2	2	2	2	2	2	2	2	1	1	1	1	1	1	0	A	1	1	1	1	1	1.3	2.6
16-May	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	0	A	1	0	0	0	0	1	0.9	1.7
17-May	1	1	0	1	1	0	1	1	0	0	0	0	0	0	0	0	A	1	1	1	1	1	1	1	0.5	0.7
18-May	1	0	1	1	1	1	1	1	1	1	0	0	1	1	1	A	1	1	1	1	1	1	1	1	0.9	1.4
19-May	1	1	1	1	1	1	1	2	1	1	1	1	0	0	A	1	1	0	0	1	1	1	0	0	0.8	1.7
20-May	0	0	0	0	1	1	0	0	1	1	1	1	1	A	1	1	1	0	1	1	0	1	0	1	0.5	0.8
21-May	1	2	2	2	2	2	2	2	2	1	1	1	A	2	1	1	1	1	1	1	2	2	2	2	1.5	2.1
22-May	2	2	2	2	2	2	2	2	2	2	2	A	2	2	1	1	1	1	1	1	1	1	1	1	1.4	2.1
23-May	1	1	1	1	1	1	1	1	0	0	A	1	1	0	0	0	0	0	0	0	1	1	0	0	0.6	0.9
24-May	0	0	0	0	0	0	0	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	1.0
25-May	1	1	1	1	1	1	1	1	A	2	1	1	1	1	1	0	1	0	0	0	1	0	0	0	0.7	1.6
26-May	0	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	1.4
27-May	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	1.0	2.2
28-May	2	1	1	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	1.1	2.1
29-May	2	1	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1.2	1.6
30-May	1	1	1	A	2	1	1	1	1	1	1	0	1	1	1	1	0	0	0	0	1	2	1	1	0.9	1.7
31-May	1	1	A	2	1	1	1	1	1	1	1	0	0	0	0	0	0	1	0	0	1	2	1	1	0.8	1.8
	0.9	0.9	1.0	1.1	1.1	1.1	1.1	1.2	1.1	1.0	0.9	0.7	0.7	0.7	0.8	0.7	0.7	0.7	0.7	0.8	0.8	0.9	0.9	0.9	Diurnal Average	
	2.0	2.3	2.6	2.3	2.0	2.0	1.9	2.9	2.4	2.0	2.0	1.4	2.1	1.7	4.6	2.2	2.2	2.0	2.0	1.8	1.7	1.9	2.1	2.2	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

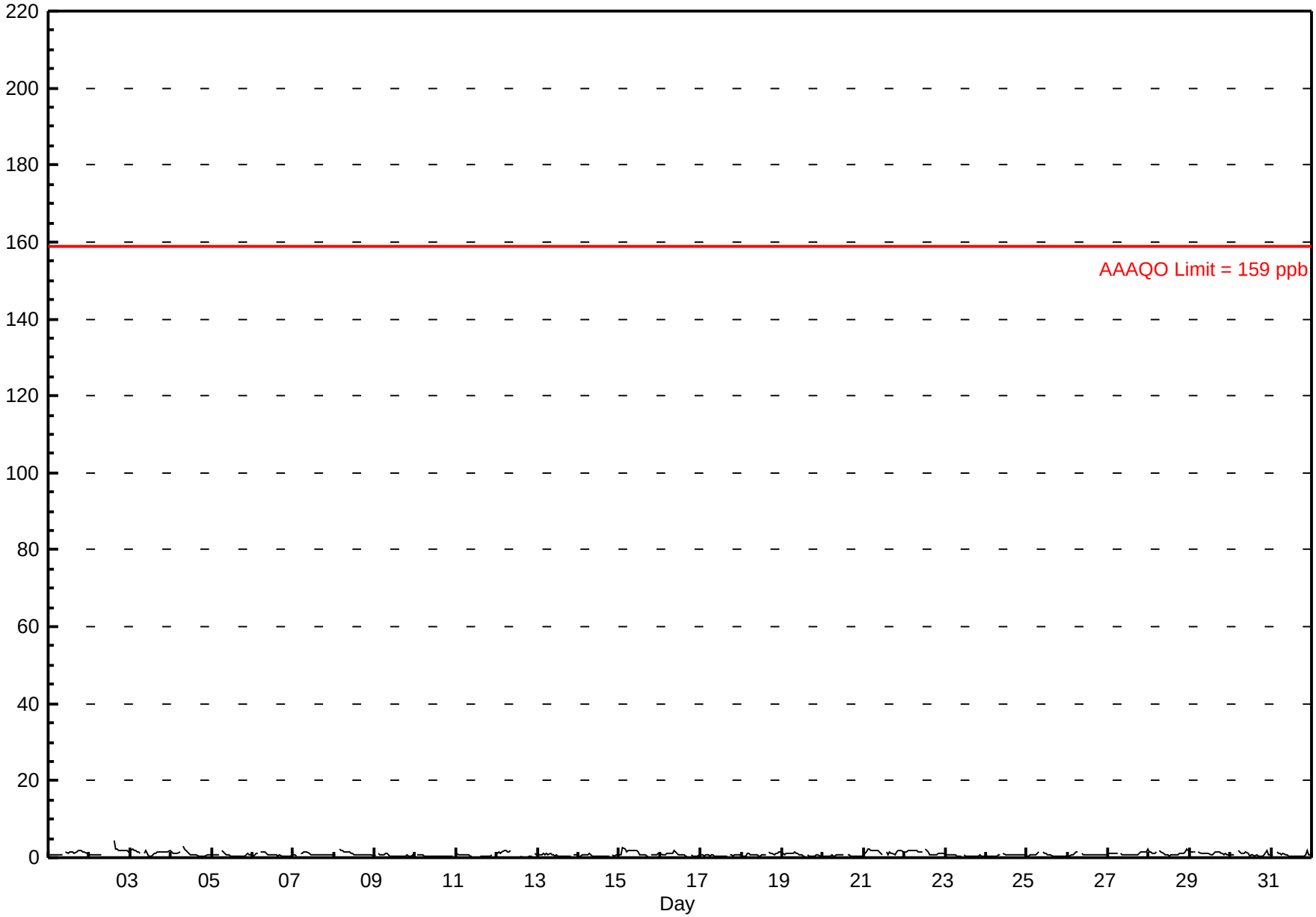
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb 24-hr 106 ppb

Peace Airshed Zone Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Sunset House - May 2012



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

Sunset House - May 2012

Maximum Value: 12.6 ppb on May 8 16:00

Maximum Daily Average: 2.1 ppb on May 2

Minimum Value: 0 ppb on May 12 17:00

Minimum Daily Average: 0.8 ppb on May 14

Maximum Diurnal Average: 1.7 ppb at hour 22

Minimum Diurnal Average: 0.9 ppb at hour 13

Monthly Average: 1.25 ppb

Percentiles: P_1 = 0.4 P_{10} = 0.6 Q_1 = 0.8 Median = 1.1 Q_3 = 1.6 P_{90} = 2.1 P_{99} = 3.4

Hours in Service:	744
Hours of Data:	698
Hours of Missing Data:	46
Hours of Calibration:	46
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-May	1	1	1	1	1	1	1	1	1	A	2	2	2	2	2	2	2	2	2	3	3	2	2	1	1.6	2.7
2-May	1	1	1	1	1	1	1	1	A	C	C	C	C	C	8	3	3	2	2	2	2	3	2	2	2.1	7.8
3-May	2	3	2	2	2	2	1	A	2	3	2	1	1	1	1	2	2	2	2	2	2	2	2	2	1.8	2.9
4-May	2	2	1	1	1	2	A	3	3	3	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1.4	3.3
5-May	2	1	1	2	2	A	2	2	1	1	1	1	1	1	1	1	2	1	1	1	1	2	2	1	1.2	2.5
6-May	1	1	1	1	A	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	2.0
7-May	1	1	1	A	1	1	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.8
8-May	1	2	A	3	2	2	2	2	2	2	2	1	1	1	1	13	1	1	1	1	1	1	1	1	1.9	12.6
9-May	1	A	2	1	2	1	2	2	1	1	1	1	1	1	0	0	0	1	1	1	1	1	1	1	1.0	2.4
10-May	A	1	2	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	A	0.8	1.5
11-May	1	1	1	1	1	1	1	1	1	1	C	C	C	C	1	1	1	1	1	1	1	2	A	1	0.9	1.6
12-May	1	2	1	2	2	2	2	2	2	C	C	C	C	C	1	1	0	0	0	0	1	A	1	1	1.3	2.0
13-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	1	1	A	1	1	1	0.9	1.4
14-May	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.8	1.8
15-May	1	1	4	3	2	2	2	2	2	2	3	2	1	1	1	1	1	1	A	1	1	1	1	1	1.6	4.0
16-May	2	1	1	1	1	1	2	1	2	2	2	1	1	1	1	1	1	A	1	1	1	1	1	1	1.1	2.2
17-May	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	4	1	1	1.0	3.6
18-May	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	A	2	1	1	1	1	2	2	2	1.2	2.3
19-May	1	1	1	1	1	2	2	2	2	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1.1	2.1
20-May	1	1	1	1	2	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.8	1.7
21-May	1	2	2	2	2	2	2	3	2	2	1	1	A	2	1	2	2	2	1	2	2	2	2	2	1.9	2.7
22-May	2	2	2	2	2	2	2	2	2	2	2	A	2	2	2	1	1	1	1	1	1	1	1	1	1.6	2.2
23-May	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	2	1	1	1	0.9	1.9
24-May	0	0	0	0	0	0	1	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.6
25-May	1	1	1	1	1	1	1	2	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	2.2
26-May	1	1	1	1	1	2	2	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.8
27-May	1	1	1	1	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	3	1.3	2.8
28-May	2	2	1	1	2	A	3	2	1	1	1	2	1	3	1	1	1	1	1	1	1	2	2	2	1.6	3.4
29-May	2	2	2	2	A	2	1	1	1	1	1	1	1	1	1	2	3	3	1	2	1	1	1	1	1.6	3.5
30-May	1	1	1	A	3	2	2	1	1	2	1	1	1	1	1	1	1	1	1	1	2	6	1	1	1.4	6.1
31-May	1	1	A	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	6	1	1	1.3	6.2
	1.2	1.2	1.3	1.4	1.4	1.4	1.5	1.5	1.4	1.4	1.2	1.0	0.9	1.0	1.1	1.4	1.1	1.0	1.0	1.1	1.2	1.7	1.3	1.3	Diurnal Average	
	2.4	2.7	4.0	3.0	2.6	2.4	2.6	3.3	2.9	2.9	2.6	2.3	2.2	3.4	7.8	12.6	3.5	2.5	2.2	2.6	2.7	6.2	2.3	2.8	Diurnal Maximum	

C - Calibration

A - Automated Daily Zero Span

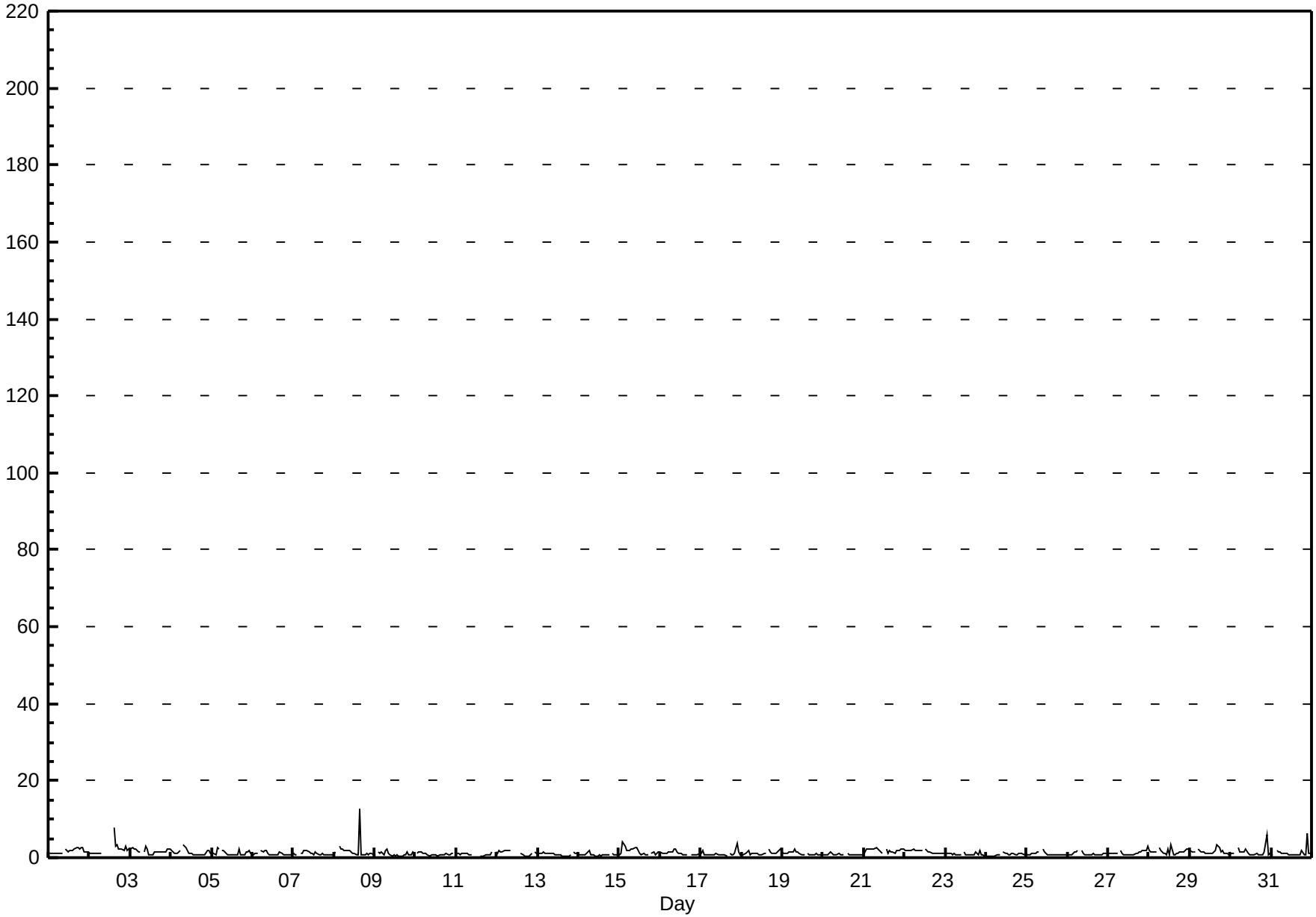
FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

Sunset House - May 2012

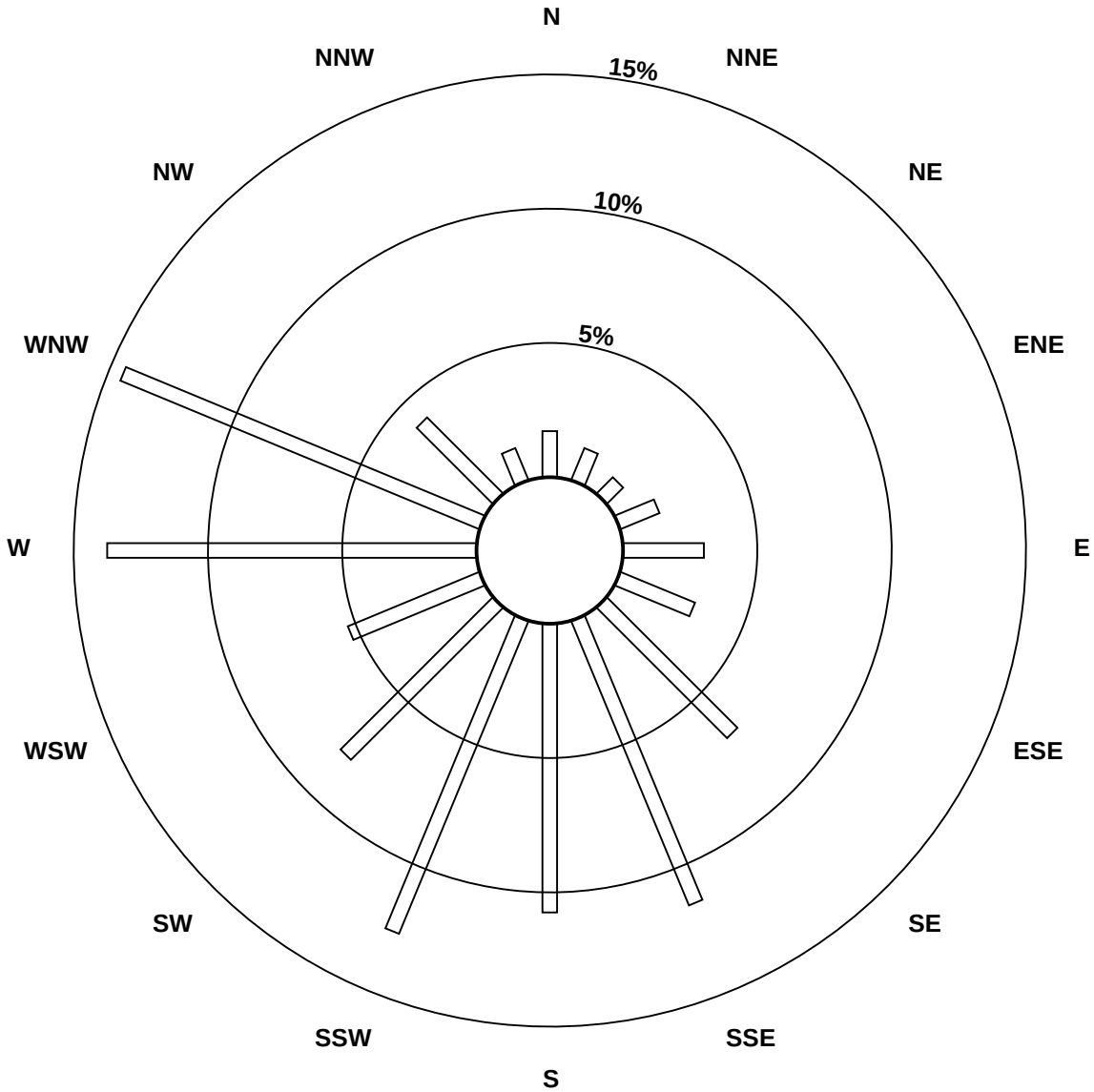


FOCUS AIR QUALITY MONITORING

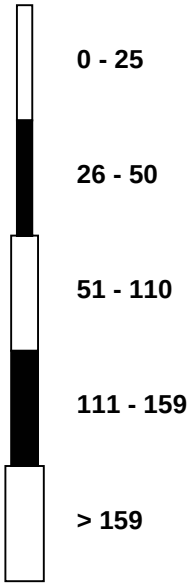
Pollutant Rose

Nitrogen Dioxide (NO_2) - ppb

Sunset House - May 2012



Pollutant Classes (ppb)

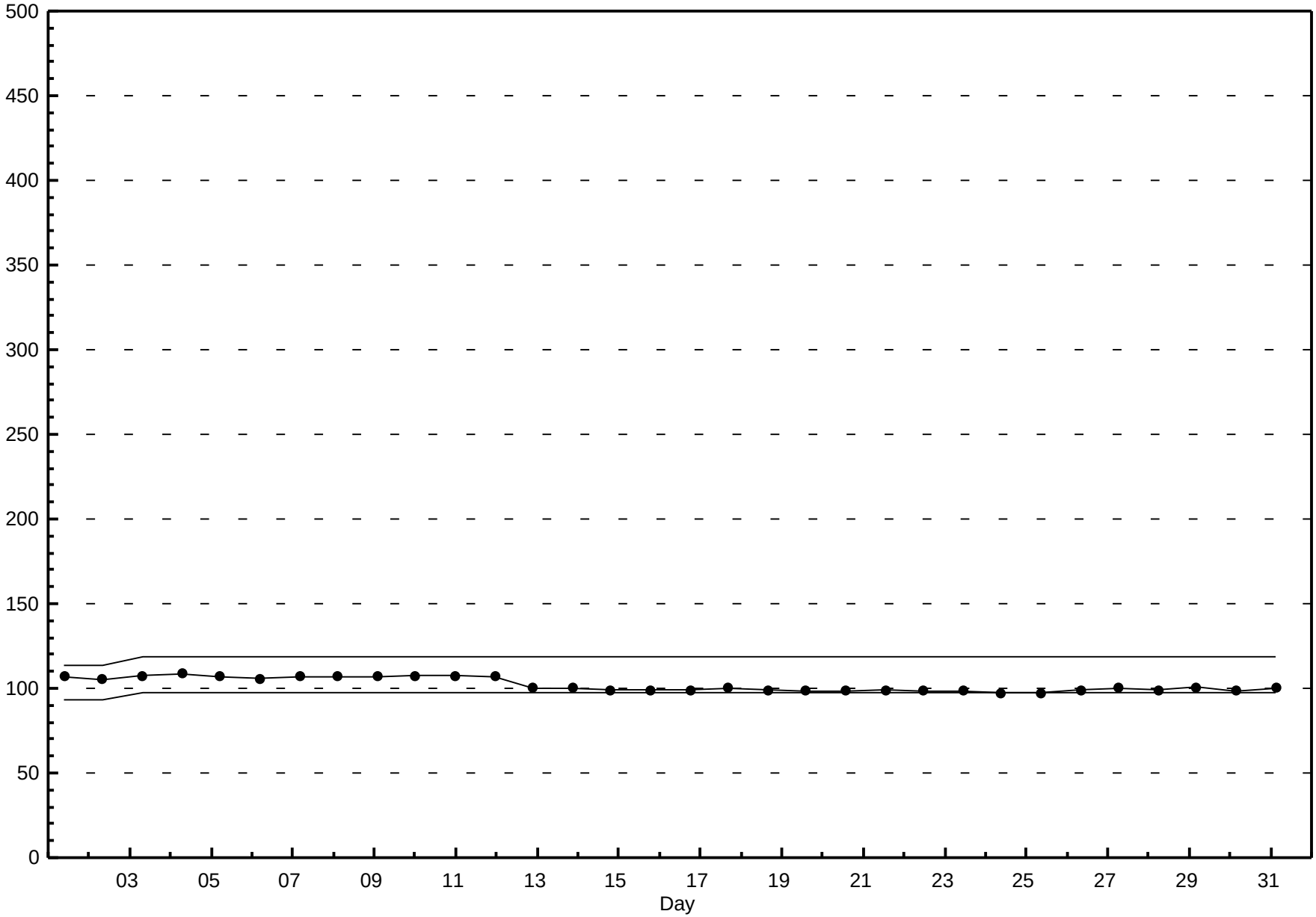


Peace Airshed Zone Association

Span Responses

Nitrogen Dioxide (NO_2)

Sunset House - May 2012



Peace Airshed Zone Association

Hourly Averages

Nitrogen Oxide (NO) - ppb

Sunset House - May 2012

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

Maximum Value: 1.4 ppb on May 12 09:00

Maximum Daily Average: 0.4 ppb on May 12

Minimum Value: 0 ppb on May 5 03:00

Minimum Daily Average: 0.0 ppb on May 27

Maximum Diurnal Average: 0.2 ppb at hour 8

Minimum Diurnal Average: 0.0 ppb at hour 20

Monthly Average: 0.06 ppb

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

Hours in Service:	744
Hours of Data:	698
Hours of Missing Data:	46
Hours of Calibration:	46
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-May	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
2-May	0	0	0	0	0	0	0	0	A	C	C	C	C	C	1	0	0	0	0	0	0	0	0	0	0.2	1.1
3-May	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
4-May	0	0	0	0	0	0	A	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.7
5-May	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
6-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.3
7-May	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.3
8-May	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
9-May	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
10-May	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.0	0.1
11-May	0	0	0	0	0	0	0	0	0	0	C	C	C	C	0	0	0	0	0	0	0	0	A	0	0.0	0.2
12-May	0	0	1	1	1	1	1	1	1	C	C	C	C	C	0	0	0	0	0	0	0	A	0	0	0.4	1.4
13-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	0.2
14-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.1	0.1
15-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.1	0.3
16-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.1	0.2
17-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.0	0.1
18-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.0	0.1
19-May	0	0	0	0	0	0	0	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.1	0.5
20-May	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.0	0.1
21-May	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
22-May	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
23-May	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
24-May	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
25-May	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
26-May	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
27-May	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
28-May	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
29-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
30-May	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
31-May	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Diurnal Average	
	0.3	0.4	0.5	0.6	0.7	0.9	1.1	1.2	1.4	0.7	0.3	0.2	0.3	0.2	1.1	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	Diurnal Maximum	

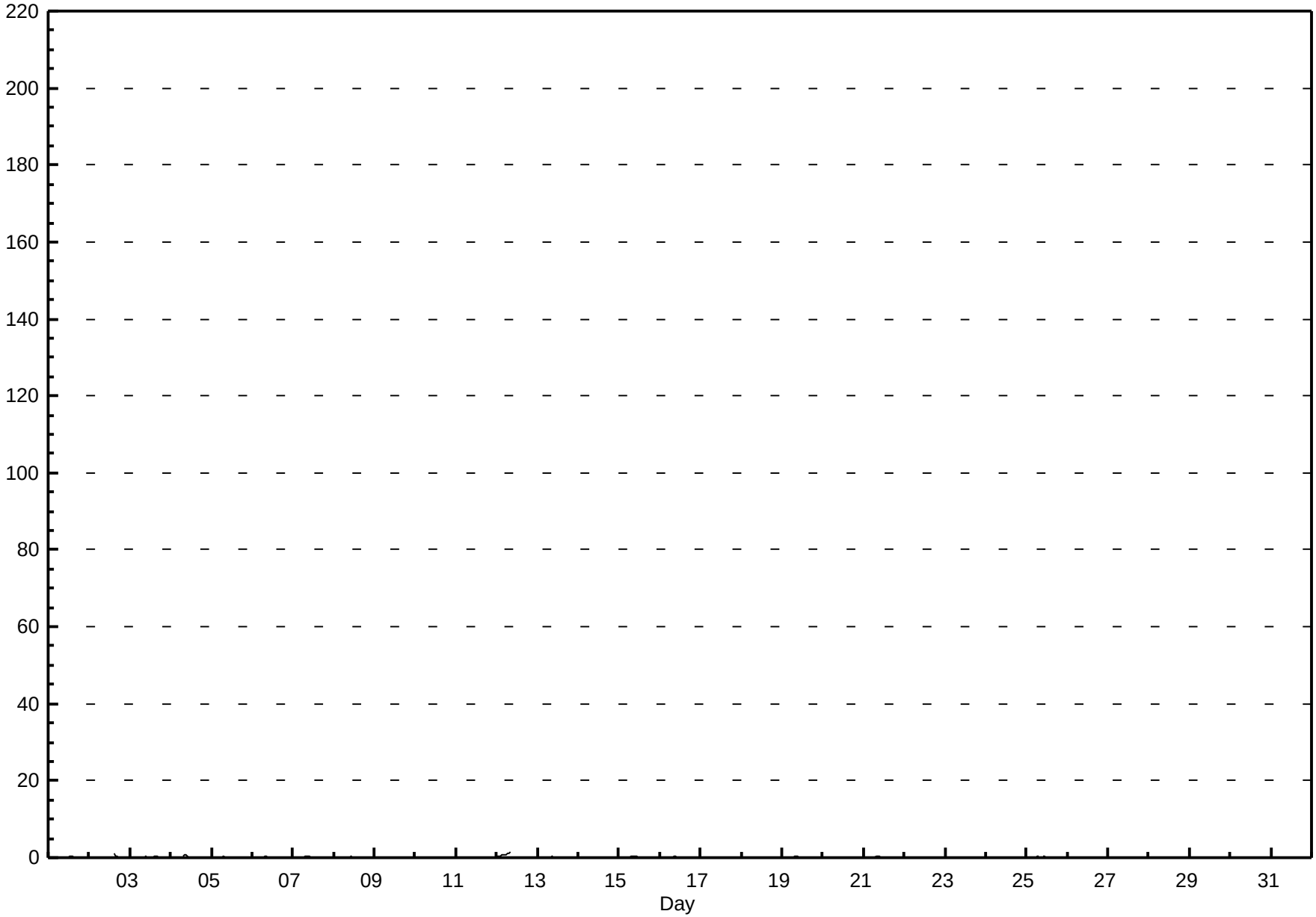
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Nitrogen Oxide (NO) - ppb

Sunset House - May 2012



Peace Airshed Zone Association

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Sunset House - May 2012

Maximum Value: 10.9 ppb on May 16 23:00

Maximum Daily Average: 0.7 ppb on May 16

Minimum Value: 0 ppb on May 12 15:00

Minimum Daily Average: 0.1 ppb on May 30

Maximum Diurnal Average: 0.6 ppb at hour 23

Minimum Diurnal Average: 0.2 ppb at hour 20

Monthly Average: 0.27 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.1$ $Q_1 = 0.1$ Median = 0.2 $Q_3 = 0.2$ $P_{90} = 0.4$ $P_{99} = 1.4$

Hours in Service:	744
Hours of Data:	698
Hours of Missing Data:	46
Hours of Calibration:	46
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-May	0	0	0	0	0	0	0	0	0	A	1	0	1	0	0	0	1	1	0	0	1	0	0	0	0.4	1.5
2-May	0	0	0	0	0	0	0	0	A	C	C	C	C	C	2	1	0	0	0	0	0	0	0	0	0.4	2.4
3-May	0	0	0	0	0	0	0	A	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
4-May	0	0	0	0	0	0	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.3	1.4
5-May	0	0	0	1	1	A	0	1	0	0	0	0	0	0	0	0	6	0	0	0	0	0	1	0	0.5	5.6
6-May	0	0	0	0	A	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
7-May	0	0	0	A	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
8-May	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0.6	9.2
9-May	0	A	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
10-May	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.2	0.3
11-May	0	0	0	0	0	0	0	0	0	0	C	C	C	C	0	0	0	0	0	0	0	0	A	0	0.2	0.4
12-May	0	1	1	1	1	1	1	1	2	C	C	C	C	C	0	0	0	0	0	0	0	A	0	0	0.5	1.6
13-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	0.3
14-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.2	0.2
15-May	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0.2	0.5
16-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	11	0	0.7	10.9
17-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	5	0	0	0.3	4.8
18-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	1	0.2	0.6
19-May	0	0	0	0	0	1	1	1	1	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.3	0.9
20-May	0	0	0	0	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.2	1.1
21-May	0	0	0	0	0	0	0	0	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
22-May	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
23-May	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	1	0	0	0	0	0	0.2	0.5
24-May	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
25-May	0	0	0	0	0	0	0	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
26-May	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
27-May	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
28-May	0	0	0	0	0	A	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.3
29-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0.2	0.5
30-May	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
31-May	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.5	0.4	0.2	0.2	0.2	0.2	0.4	0.6	0.2	Diurnal Average	
	0.5	0.5	0.6	0.8	1.1	1.1	1.2	1.4	1.6	1.4	0.8	1.3	0.5	0.3	2.4	9.2	5.6	0.5	0.5	0.4	1.5	4.8	10.9	0.6	Diurnal Maximum	

C - Calibration

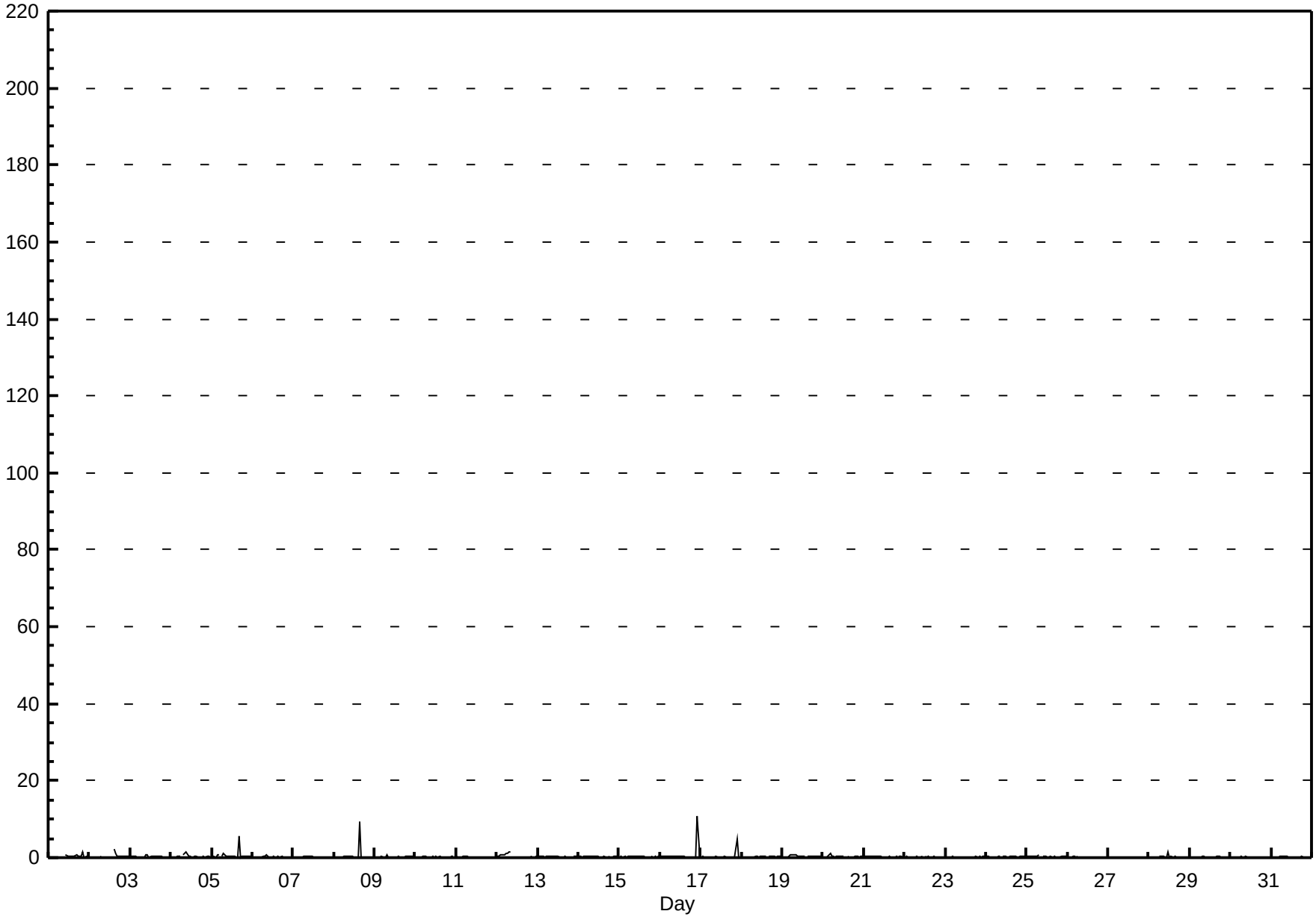
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Sunset House - May 2012



Peace Airshed Zone Association

Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Sunset House - May 2012

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

Maximum Value: 4.4 ppb on May 2 15:00

Maximum Daily Average: 1.6 ppb on May 21

Minimum Value: 0 ppb on May 12 16:00

Minimum Daily Average: 0.5 ppb on May 10

Maximum Diurnal Average: 1.4 ppb at hour 8

Minimum Diurnal Average: 0.7 ppb at hour 16

Monthly Average: 0.92 ppb

Percentiles: $P_1 = 0.3$ $P_{10} = 0.4$ $Q_1 = 0.5$ Median = 0.8 $Q_3 = 1.2$ $P_{90} = 1.6$ $P_{99} = 2.4$

Hours in Service:	744
Hours of Data:	698
Hours of Missing Data:	46
Hours of Calibration:	46
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-May	1	1	1	1	1	1	1	1	1	A	2	1	2	2	2	1	1	2	2	2	2	1	1	1	1.3	2.1
2-May	1	1	1	1	1	1	1	1	A	C	C	C	C	C	4	1	1	1	1	1	1	1	1	1	1.2	4.4
3-May	2	2	2	2	1	1	1	A	1	2	1	1	1	1	1	1	2	2	2	2	1	1	2	2	1.4	2.0
4-May	2	1	1	1	1	2	A	3	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	3.3
5-May	1	1	1	1	1	A	2	2	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	0.8	1.9
6-May	0	1	1	1	A	1	2	2	2	1	1	1	1	1	1	1	1	1	0	1	1	0	0	1	0.8	1.9
7-May	1	1	1	A	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.9
8-May	1	1	A	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	2.2
9-May	1	A	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	1	1	0	1	1	0.6	1.3
10-May	A	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	A	0.5	0.9
11-May	1	1	1	1	1	1	1	1	1	0	C	C	C	C	0	0	0	0	0	0	0	1	A	1	0.6	1.1
12-May	1	1	1	2	2	2	2	2	2	C	C	C	C	C	0	0	0	0	0	0	0	A	1	1	1.0	2.4
13-May	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	A	1	1	1	0.7	1.2
14-May	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	A	1	1	1	1	0.6	1.1
15-May	1	1	3	2	2	2	2	2	2	2	2	1	1	1	1	1	1	0	A	1	1	1	1	1	1.4	2.7
16-May	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	0	A	1	0	0	0	1	1	1.0	1.9
17-May	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	A	1	1	1	1	1	1	1	0.5	0.8
18-May	0	0	0	1	1	0	1	1	1	1	0	0	1	1	1	A	2	1	1	1	1	1	1	1	0.8	1.5
19-May	1	1	1	1	1	1	1	2	2	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.9	2.2
20-May	0	0	0	0	1	1	1	1	1	1	1	1	1	A	1	1	1	0	1	1	1	1	1	1	0.6	0.8
21-May	1	2	2	2	2	2	2	2	2	2	1	1	A	2	1	1	1	1	1	1	2	2	2	2	1.6	2.3
22-May	2	2	2	2	2	2	2	2	2	2	2	A	2	2	1	1	1	1	1	1	1	1	1	1	1.4	2.1
23-May	1	1	1	1	1	1	1	1	0	0	A	1	1	0	1	0	0	0	1	0	1	1	1	0	0.6	0.9
24-May	0	0	0	0	0	0	0	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.1
25-May	1	1	1	1	1	1	1	2	A	2	1	1	1	1	1	1	1	1	0	0	1	0	1	1	0.8	1.9
26-May	1	1	1	1	1	2	2	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.6
27-May	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	1.0	2.2
28-May	2	1	1	1	1	A	2	2	1	1	1	1	0	1	1	1	1	1	1	1	1	2	2	2	1.1	2.1
29-May	2	1	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1.2	1.7
30-May	1	1	1	A	2	1	1	1	1	2	1	0	1	1	0	1	0	0	0	0	1	2	1	1	0.8	1.7
31-May	1	1	A	2	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	2	1	1	0.7	1.8
	0.9	0.9	1.0	1.1	1.1	1.1	1.2	1.4	1.3	1.1	0.9	0.7	0.7	0.7	0.8	0.7	0.7	0.7	0.7	0.8	0.8	1.0	0.9	0.9	Diurnal Average	
	1.7	2.0	2.7	2.4	2.0	2.1	2.1	3.3	3.1	2.4	2.3	1.5	2.1	1.8	4.4	1.5	1.6	2.0	2.1	2.0	1.8	1.9	2.1	2.2	Diurnal Maximum	

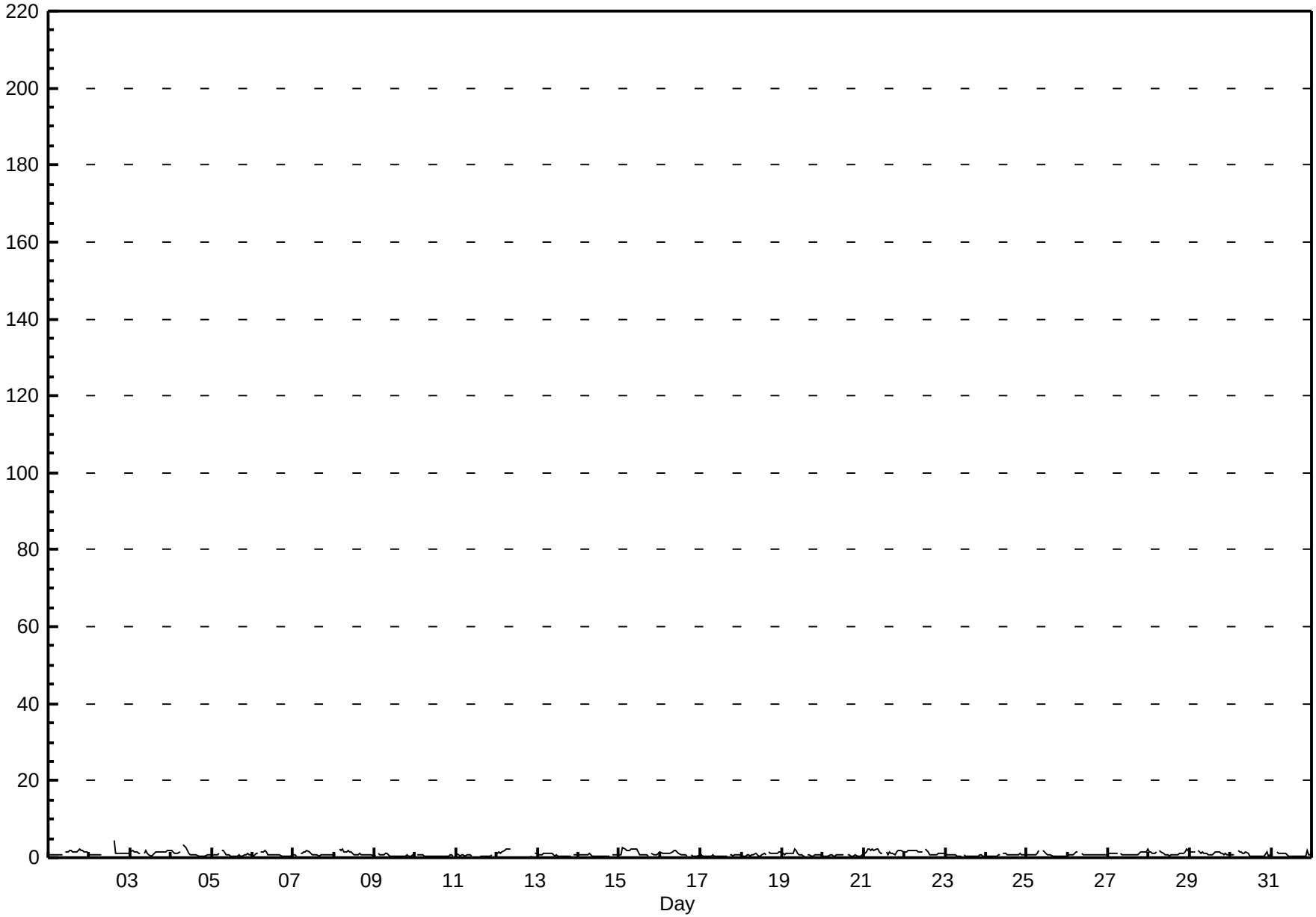
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Sunset House - May 2012



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

Sunset House - May 2012

Maximum Value: 16.1 ppb on May 8 16:00

Maximum Daily Average: 2.0 ppb on May 8

Minimum Value: 0 ppb on May 12 17:00

Minimum Daily Average: 0.8 ppb on May 14

Maximum Diurnal Average: 1.8 ppb at hour 22

Minimum Diurnal Average: 0.9 ppb at hour 13

Monthly Average: 1.32 ppb

Percentiles: P_1 = 0.4 P_{10} = 0.6 Q_1 = 0.8 Median = 1.1 Q_3 = 1.6 P_{90} = 2.3 P_{99} = 3.2

Hours in Service:	744
Hours of Data:	698
Hours of Missing Data:	46
Hours of Calibration:	46
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-May	1	1	1	1	1	1	1	1	1	A	3	2	2	2	2	3	3	3	2	3	4	2	2	1	1.8	3.7
2-May	1	1	1	1	1	1	1	1	A	C	C	C	C	C	8	2	2	1	1	1	1	2	1	2	1.8	8.0
3-May	2	2	2	2	2	1	1	A	2	4	3	1	1	1	2	2	2	2	2	2	2	2	2	2	1.8	3.6
4-May	2	2	1	1	1	2	A	4	3	4	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1.6	3.8
5-May	2	1	1	3	3	A	2	3	2	1	1	1	1	1	1	1	6	1	1	1	1	2	2	1	1.6	6.3
6-May	1	1	1	1	A	2	2	2	2	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1.2	2.4
7-May	1	1	1	A	1	1	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	2.2
8-May	1	2	A	3	2	2	2	2	2	2	2	1	1	1	1	16	1	1	1	1	1	1	1	1	2.0	16.1
9-May	1	A	2	1	2	1	2	3	1	1	1	1	0	0	0	0	1	1	1	2	1	1	1	1	1.1	3.1
10-May	A	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.9	1.5
11-May	1	1	1	1	1	1	1	1	1	1	C	C	C	C	0	1	1	1	1	1	1	2	A	2	0.9	1.6
12-May	1	2	2	2	2	2	2	2	3	C	C	C	C	C	1	1	0	0	0	0	2	A	2	1	1.4	2.7
13-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	1	1	A	1	1	1	0.9	1.5
14-May	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.8	2.0
15-May	1	1	4	3	2	2	2	2	3	3	3	2	1	1	1	1	1	1	A	1	1	1	1	1	1.7	4.1
16-May	2	1	1	1	1	2	2	2	2	2	2	1	1	1	1	1	1	A	1	1	1	1	1	1	1.2	2.4
17-May	1	2	1	1	1	0	1	1	1	2	1	1	1	1	1	1	A	1	1	1	1	7	1	1	1.2	7.3
18-May	1	0	1	1	2	1	1	1	1	1	1	1	1	1	1	A	2	1	1	1	1	2	2	2	1.2	2.4
19-May	1	1	1	1	2	2	2	3	2	2	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1.3	2.7
20-May	1	1	1	1	3	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.9	2.7
21-May	1	2	2	2	2	2	2	3	2	2	2	1	A	2	1	2	2	2	1	2	2	2	2	2	2.0	3.0
22-May	2	2	2	2	2	2	2	2	2	2	2	A	2	2	2	1	1	1	1	1	1	1	1	1	1.7	2.4
23-May	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	2	1	2	1	1	1	0.9	2.2
24-May	1	1	0	0	0	0	1	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.7
25-May	1	1	1	1	1	1	2	2	A	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	2.6
26-May	1	1	1	1	2	2	2	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.9
27-May	1	1	1	1	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	3	1.2	2.8
28-May	2	2	1	1	2	A	3	2	1	1	1	3	1	4	1	1	1	1	1	1	1	2	2	2	1.6	3.7
29-May	2	2	2	2	A	2	1	1	1	1	1	1	1	1	1	2	4	3	1	2	1	1	1	1	1.6	4.1
30-May	1	1	1	A	3	2	2	2	1	2	1	1	1	1	1	1	1	0	1	1	1	6	1	1	1.4	6.2
31-May	1	1	A	2	2	1	1	1	1	1	1	1	1	1	1	0	0	1	2	1	1	6	1	1	1.2	6.1
	1.2	1.2	1.3	1.4	1.5	1.5	1.6	1.7	1.6	1.6	1.3	1.1	0.9	1.1	1.2	1.5	1.3	1.0	1.0	1.1	1.2	1.8	1.3	1.3	Diurnal Average	
	2.0	2.4	4.1	3.1	2.7	2.3	2.6	3.5	3.5	3.8	3.0	3.0	2.4	3.7	8.0	16.1	6.3	2.9	2.4	3.0	3.7	7.3	2.4	2.8	Diurnal Maximum	

C - Calibration

A - Automated Daily Zero Span

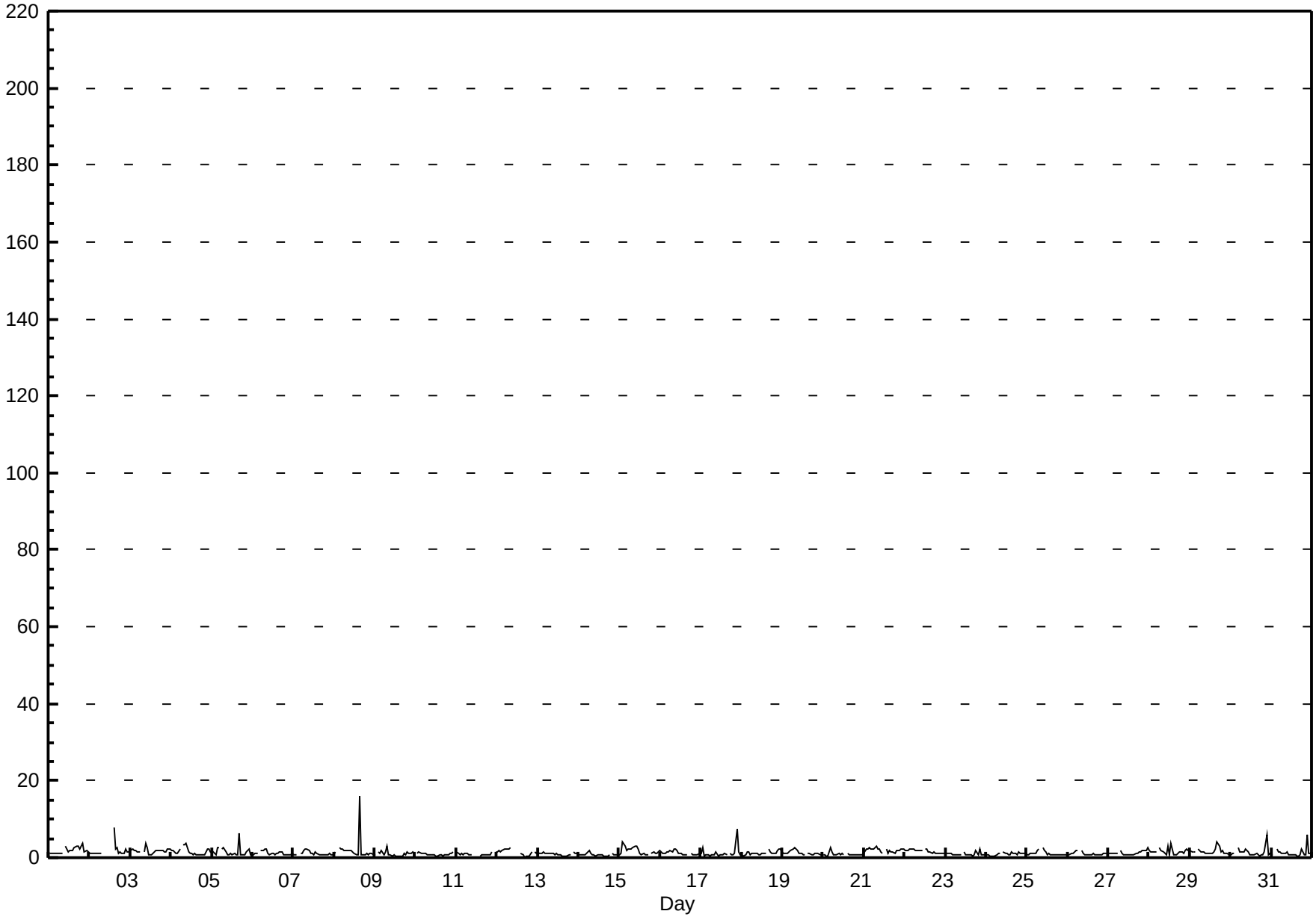
FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

Sunset House - May 2012



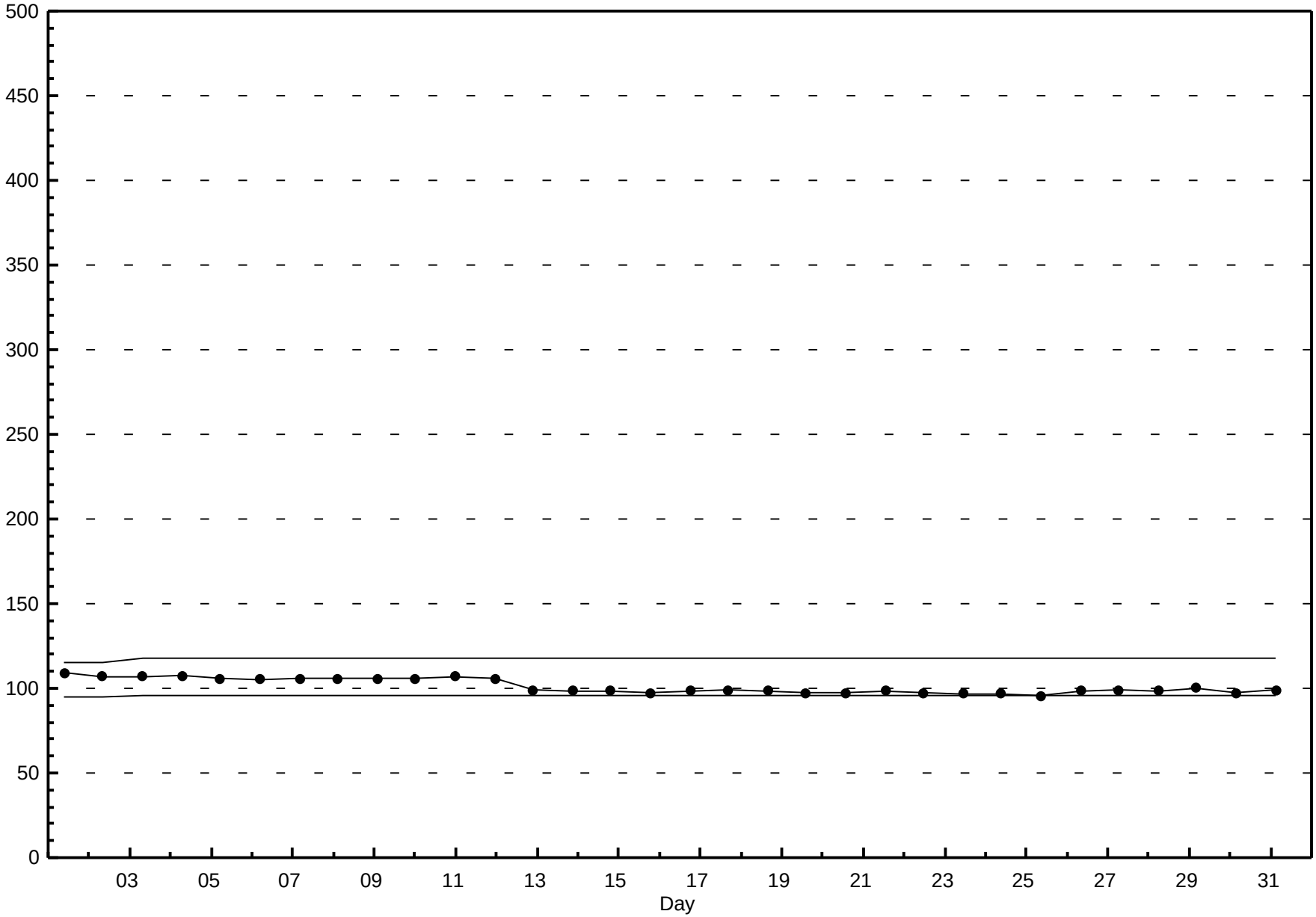
FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Span Responses

Oxides of Nitrogen (NO_X)

Sunset House - May 2012



Peace Airshed Zone Association

Hourly Averages

Ozone (O_3) - ppb

Sunset House - May 2012

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 70.3 ppb on May 12 12:00
Maximum Daily Average: 56.6 ppb on May 12

Minimum Value: 8 ppb on May 23 23:00
Maximum Diurnal Average: 47.5 ppb at hour 18
Monthly Average: 42.83 ppb

Minimum Daily Average: 26.1 ppb on May 23
Minimum Diurnal Average: 36.6 ppb at hour 6
Percentiles: P_1 = 15.8 P_{10} = 26.6 Q_1 = 37.2 Median = 44.2 Q_3 = 50.3 P_{90} = 55.2 P_{99} = 62.8

Hours in Service:	744
Hours of Data:	697
Hours of Missing Data:	47
Hours of Calibration:	47
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-May	48	48	47	44	43	40	40	41	43	A	34	34	22	15	21	17	22	27	37	36	36	37	42	44	35.5	48.1
2-May	41	41	42	37	20	11	22	42	A	C	C	C	C	C	C	57	57	56	56	56	55	52	46	47	--	57.4
3-May	47	43	41	39	37	37	38	A	42	42	43	43	42	41	38	39	38	39	38	37	36	34	34	33	39.1	47.0
4-May	34	38	43	43	41	37	A	29	27	32	43	45	44	47	46	46	47	47	47	48	46	45	44	43	41.9	47.8
5-May	40	39	39	41	41	A	40	40	46	48	55	57	57	57	57	57	55	56	56	51	46	45	44	44	48.3	57.3
6-May	43	44	43	41	A	44	44	44	45	50	53	54	55	57	59	60	60	59	57	54	52	50	49	51	50.8	59.6
7-May	45	42	44	A	53	45	43	41	39	43	48	54	54	52	52	51	50	54	54	50	50	47	47	49	48.1	54.2
8-May	50	40	A	35	35	35	36	35	36	38	40	45	49	55	54	56	54	48	46	48	43	39	39	56	43.9	56.5
9-May	52	A	41	34	32	30	29	30	33	30	28	33	30	28	18	18	19	20	23	23	21	19	29	24	28.0	52.2
10-May	A	31	22	39	47	47	30	35	47	47	48	44	40	27	41	43	40	40	45	46	47	47	47	A	40.8	47.5
11-May	43	43	34	22	16	19	34	43	42	C	C	C	C	C	63	63	64	63	64	64	62	60	A	61	47.8	64.3
12-May	59	57	58	58	57	57	57	56	59	60	67	70	C	C	C	C	51	52	54	53	52	A	50	49	56.6	70.3
13-May	49	50	49	48	46	47	47	45	45	53	55	55	53	54	57	56	54	54	55	53	A	50	48	48	50.9	57.0
14-May	48	51	49	48	47	45	44	44	47	48	49	51	52	53	52	52	52	52	52	A	52	52	54	53	50.0	54.1
15-May	51	52	49	49	50	48	46	46	46	45	45	48	51	52	51	51	50	51	A	49	48	47	48	50	48.9	51.7
16-May	49	48	49	48	47	47	46	48	48	47	49	50	49	49	51	52	55	A	49	47	47	45	43	42	48.0	54.5
17-May	41	42	41	39	41	42	42	42	44	45	45	45	47	47	46	48	A	49	48	46	44	44	42	38	43.8	48.5
18-May	35	36	39	35	35	35	35	40	39	44	45	45	45	46	46	A	40	38	37	36	35	30	29	29	38.0	45.6
19-May	29	29	28	26	26	25	24	24	25	27	29	31	34	37	A	41	43	44	44	43	38	38	38	38	33.1	44.2
20-May	40	41	41	40	39	36	37	37	37	40	43	45	46	A	44	43	44	43	41	40	41	41	42	44	41.2	46.2
21-May	46	43	42	42	41	41	41	40	41	44	45	50	A	54	47	49	49	49	46	50	51	51	50	50	46.2	53.7
22-May	50	47	42	39	35	32	26	27	28	25	26	A	28	36	36	39	38	38	38	36	34	31	31	25	34.3	49.9
23-May	21	19	19	19	20	22	23	25	26	29	A	35	38	38	39	40	37	35	32	28	23	15	8	10	26.1	39.6
24-May	8	13	16	22	22	19	20	22	22	A	32	34	37	40	44	41	39	41	38	35	30	28	26	23	28.3	43.9
25-May	22	18	21	21	23	24	23	23	A	27	34	41	44	44	45	47	48	49	50	48	43	41	42	42	35.6	49.7
26-May	42	41	41	41	42	41	43	A	47	49	52	54	54	54	56	57	58	56	55	55	53	52	52	52	49.9	58.0
27-May	52	51	50	49	49	49	A	50	52	55	55	56	55	57	57	58	59	61	62	61	60	60	58	55	55.3	62.2
28-May	56	56	56	55	54	A	52	51	51	52	52	51	51	52	53	54	57	58	59	57	54	53	53	52	53.8	59.4
29-May	51	51	51	49	A	48	45	43	44	45	46	47	48	49	52	49	54	52	42	42	38	38	37	32	45.7	53.6
30-May	28	26	26	A	26	27	27	26	26	30	34	41	41	42	41	40	42	43	44	42	41	37	34	37	34.8	43.9
31-May	35	35	A	33	30	33	34	33	33	41	46	48	47	50	49	49	50	53	54	53	51	44	45	47	43.2	54.0
	41.9	40.4	40.1	39.3	37.8	36.6	36.8	37.9	40.0	42.1	44.3	46.7	45.0	45.6	46.9	47.5	47.5	47.5	47.4	46.2	44.2	42.3	41.7	42.3	Diurnal Average	
	59.2	57.5	58.1	57.6	57.3	57.0	57.4	55.8	58.6	59.8	66.8	70.3	56.8	57.4	63.0	63.5	63.7	62.9	64.1	64.3	62.4	60.4	57.7	60.9	Diurnal Maximum	

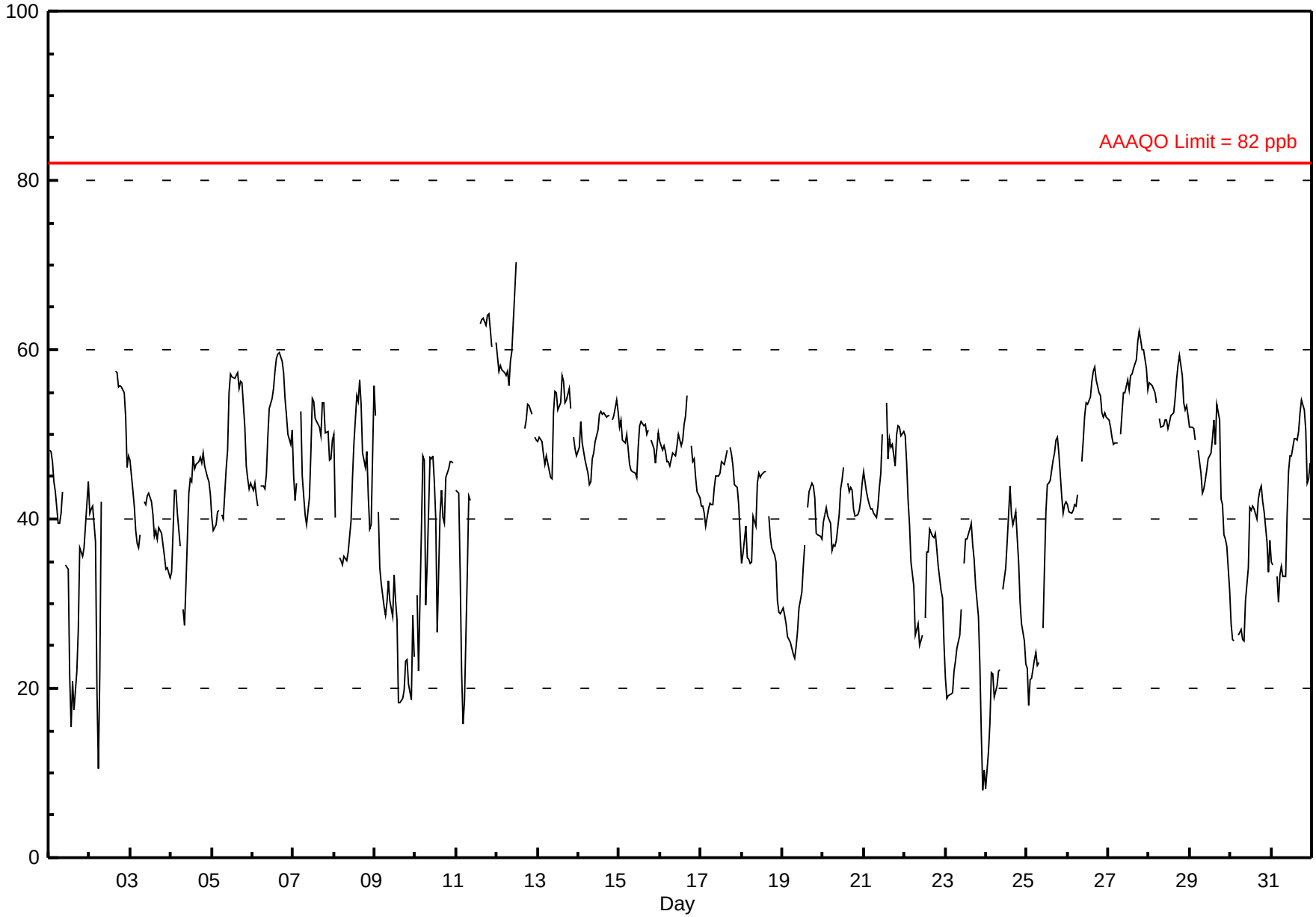
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82 ppb 24-hr na

Peace Airshed Zone Association

Hourly Averages

Ozone (O_3) - ppb

Sunset House - May 2012



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

Ozone (O_3) - ppb

Sunset House - May 2012

Maximum Value: 98.7 ppb on May 16 23:00

Maximum Daily Average: 58.4 ppb on May 12

Minimum Value: 13 ppb on May 24 01:00

Minimum Daily Average: 29.1 ppb on May 23

Maximum Diurnal Average: 50.6 ppb at hour 17

Minimum Diurnal Average: 39.4 ppb at hour 6

Monthly Average: 45.87 ppb

Percentiles: P_1 = 20.9 P_{10} = 32.0 Q_1 = 40.3 Median = 46.9 Q_3 = 52.4 P_{90} = 57.4 P_{99} = 65.7

Hours in Service:	744
Hours of Data:	697
Hours of Missing Data:	47
Hours of Calibration:	47
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-May	51	50	48	46	45	42	46	45	46	A	36	36	37	33	34	34	35	36	38	38	38	41	45	47	41.2	51.3
2-May	44	45	49	43	40	15	34	52	A	C	C	C	C	C	C	59	61	57	57	60	59	58	49	50	--	60.6
3-May	48	45	43	40	38	37	40	A	43	44	45	44	43	42	39	40	40	40	39	38	37	35	36	35	40.5	48.3
4-May	36	41	46	45	43	39	A	31	28	41	45	46	48	49	48	48	50	50	48	49	48	46	46	44	44.3	50.4
5-May	44	41	40	42	43	A	42	42	48	51	59	59	58	59	58	59	57	58	58	55	51	48	47	47	50.6	59.3
6-May	46	46	45	43	A	45	45	45	48	51	55	56	57	59	60	61	61	60	58	57	56	53	52	52	52.7	61.3
7-May	51	46	50	A	54	51	46	44	41	51	55	56	57	57	58	56	55	57	57	57	57	53	54	55	53.0	58.1
8-May	55	45	A	36	36	36	37	36	38	40	41	54	58	63	65	66	63	55	55	57	54	44	55	63	50.1	65.7
9-May	63	A	47	40	38	32	33	36	35	33	51	52	50	53	28	20	36	23	48	51	48	19	49	48	40.6	62.5
10-May	A	46	25	46	48	48	47	47	48	48	49	48	47	45	45	45	45	46	47	47	48	48	47	A	46.0	48.8
11-May	44	45	44	42	35	40	43	44	43	C	C	C	C	C	65	65	65	64	66	66	64	62	A	62	53.4	66.3
12-May	60	58	60	59	58	58	59	57	61	66	69	73	C	C	C	C	51	54	55	55	53	A	51	51	58.4	72.5
13-May	51	51	51	49	49	49	48	46	51	56	56	56	55	55	59	58	54	56	57	55	A	51	49	49	52.8	58.9
14-May	51	53	51	49	49	47	46	46	48	49	50	53	54	53	53	54	53	53	53	A	53	53	55	55	51.4	55.4
15-May	51	52	51	50	51	50	48	47	47	47	47	52	52	53	52	52	51	52	A	50	50	48	49	51	50.3	52.9
16-May	50	49	50	50	49	49	49	50	49	49	50	52	50	51	53	55	56	A	51	48	48	48	99	43	52.1	98.7
17-May	43	42	43	42	43	42	42	42	45	46	46	47	48	47	47	50	A	50	49	47	46	45	44	43	45.3	50.4
18-May	39	40	42	41	39	40	39	42	43	47	47	46	46	46	47	A	41	39	39	37	37	33	30	29	40.5	47.4
19-May	30	29	28	27	27	26	26	25	26	28	32	33	37	38	A	44	44	45	45	44	41	39	39	39	34.6	45.4
20-May	41	42	42	41	40	37	38	38	39	43	45	46	47	A	46	45	45	45	43	42	42	42	44	45	42.6	47.2
21-May	46	45	43	42	42	42	42	41	43	45	48	53	A	56	49	51	50	50	48	52	52	51	51	51	47.7	56.1
22-May	51	49	44	41	39	36	30	29	29	27	28	A	38	38	38	40	39	39	40	38	36	35	32	31	36.8	51.4
23-May	23	21	20	21	21	24	25	26	30	32	A	38	39	40	40	42	40	37	36	32	26	23	14	17	29.1	41.9
24-May	13	22	26	26	24	21	22	24	24	A	35	36	40	45	46	43	41	44	41	38	32	31	31	27	31.9	45.9
25-May	27	24	26	27	26	26	23	25	A	31	38	44	45	46	47	48	49	51	51	50	47	42	43	43	38.3	50.9
26-May	43	42	42	42	42	42	46	A	49	51	55	55	54	56	58	59	60	59	56	56	55	53	53	53	51.4	59.9
27-May	52	52	50	50	50	50	A	51	54	56	57	58	56	59	58	59	61	64	64	64	62	61	59	57	56.8	64.3
28-May	57	57	56	56	55	A	53	52	53	53	53	52	52	54	54	56	58	59	61	59	56	54	54	53	55.1	60.8
29-May	51	51	51	50	A	50	47	44	44	46	47	48	50	52	54	52	56	55	45	43	39	39	39	34	47.3	55.9
30-May	30	27	28	A	28	28	29	27	29	36	37	44	43	43	43	43	45	45	45	43	43	41	38	39	37.2	45.4
31-May	38	38	A	35	35	35	36	35	37	46	49	49	49	52	50	51	52	54	55	54	52	49	47	48	45.6	55.4
	44.4	43.2	42.9	42.2	41.0	39.4	40.1	40.4	42.1	45.0	47.4	49.5	48.6	49.9	49.8	50.2	50.6	50.0	50.2	49.5	47.6	44.9	46.8	45.4	Diurnal Average	
	62.5	58.4	59.7	59.0	58.5	58.0	59.2	57.0	60.7	65.9	68.7	72.5	58.3	62.7	65.3	65.7	65.2	64.3	66.3	65.7	64.2	62.0	98.7	62.9	Diurnal Maximum	

C - Calibration

A - Automated Daily Zero Span

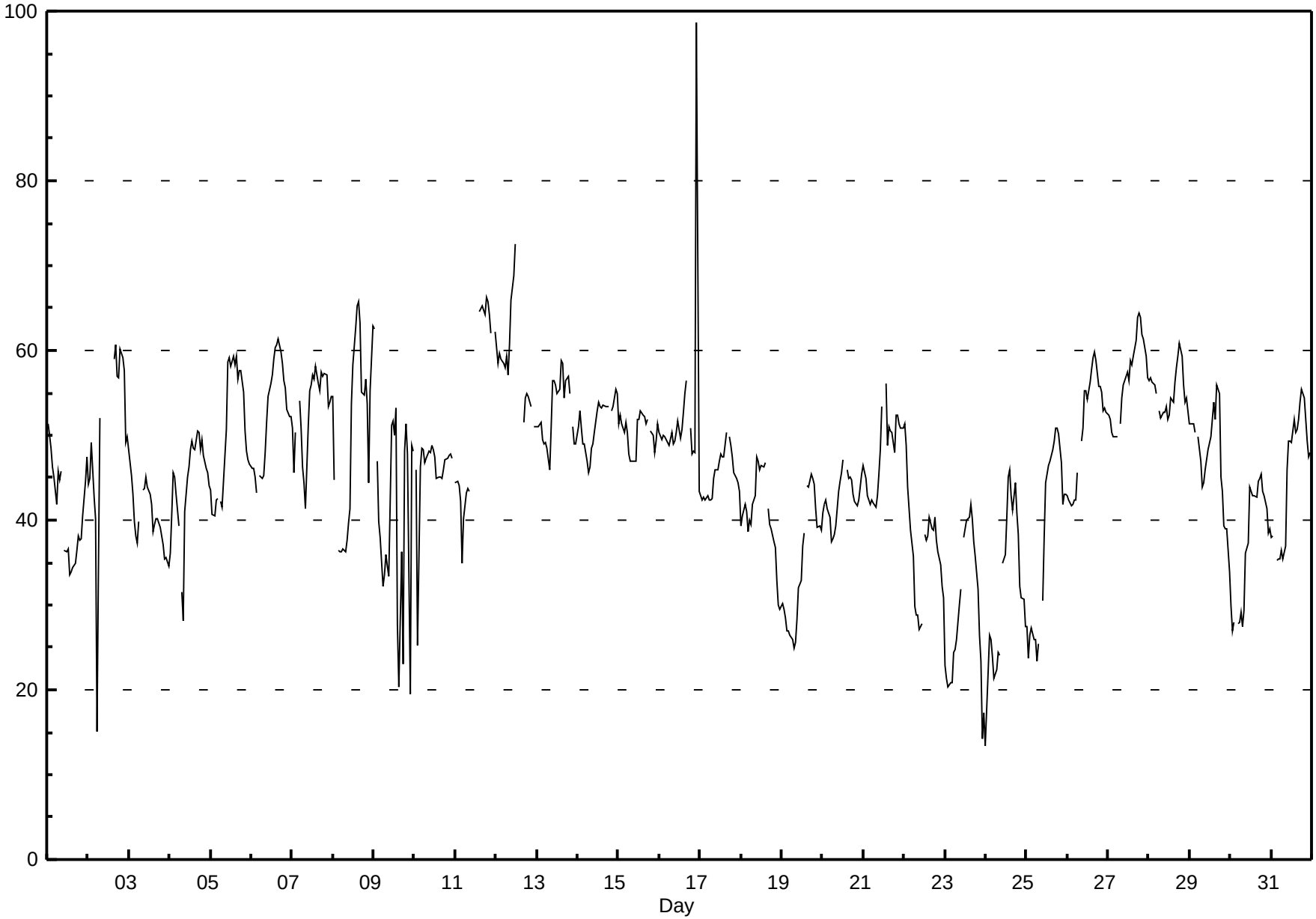
FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

Ozone (O_3) - ppb

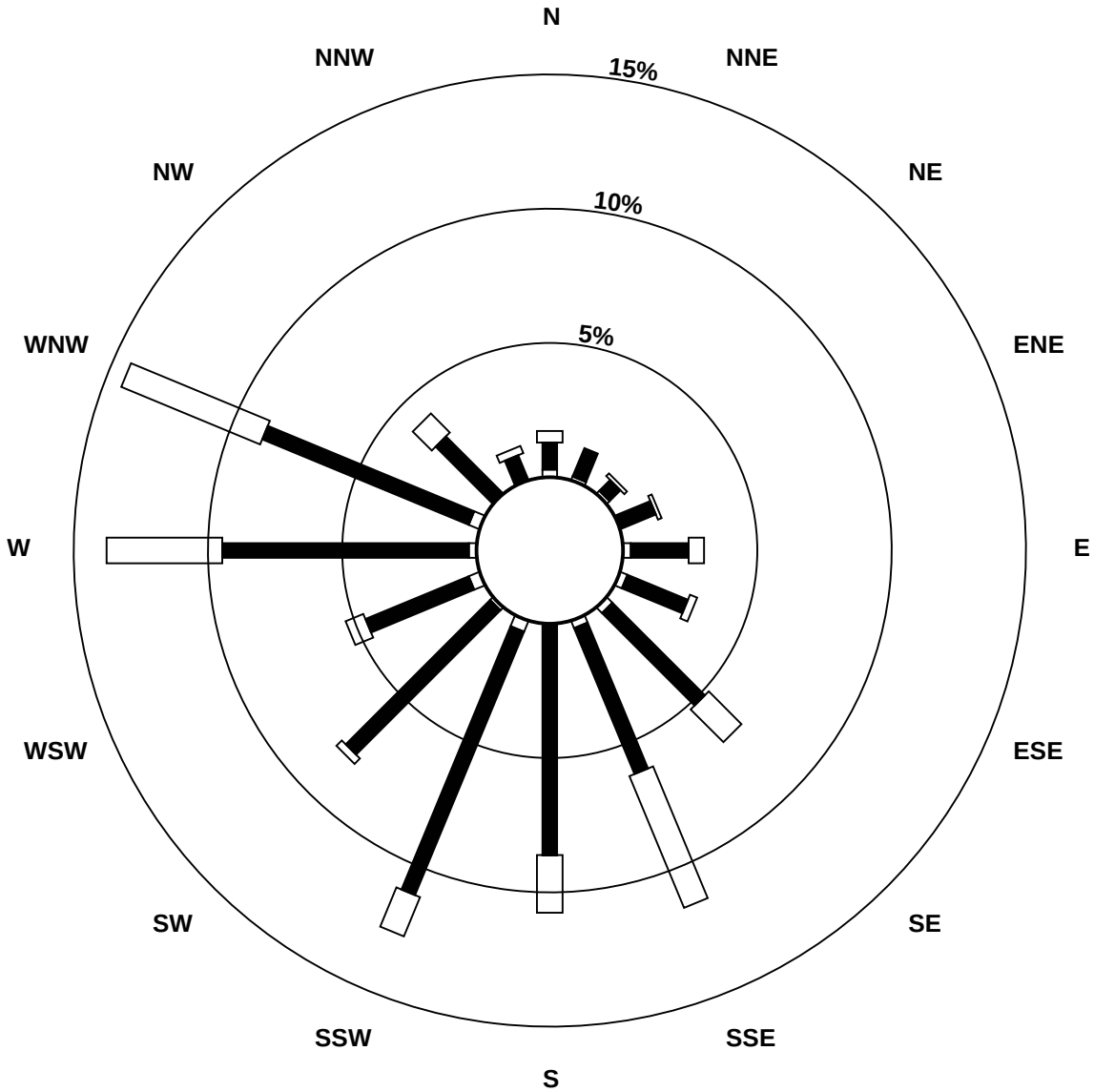
Sunset House - May 2012



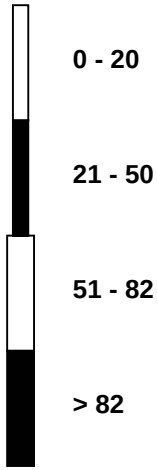
Pollutant Rose

Ozone (O_3) - ppb

Sunset House - May 2012



Pollutant Classes (ppb)



Peace Airshed Zone Association

Eight Hour Running Averages

Ozone (O_3) - ppb

Sunset House - May 2012

Maximum Value: 63.6 ppb on May 11 20:00

Minimum Value: 14.1 ppb on May 24 05:00

Percentiles: P_1 = 19.3 P_{10} = 28.4 Q_1 = 37.0 Median = 43.8 Q_3 = 49.7 P_{90} = 54.4 P_{99} = 61.1

Hours in Service:	744
Hours of Data:	718
Hours of Missing Data:	26
Hours of Calibration:	26
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-May	57	56	54	52	50	47	45	44	43	42	41	39	36	33	30	27	24	24	24	25	26	29	32	35	57.2
2-May	37	39	40	40	38	35	32	32	31	29	N	N	N	N	N	N	N	N	N	N	56	55	54	53	56.1
3-May	52	50	48	46	44	42	41	40	40	39	40	40	41	41	41	41	40	40	40	39	38	37	37	36	51.8
4-May	36	36	36	37	38	38	38	38	37	36	36	36	37	38	39	41	44	46	46	47	47	46	46	46	46.8
5-May	45	44	43	42	42	41	40	40	41	42	44	47	49	50	52	54	55	56	57	56	54	53	51	50	56.6
6-May	48	47	45	44	43	43	43	43	44	44	46	48	49	50	52	54	56	57	58	58	57	56	55	54	57.6
7-May	52	50	48	48	48	47	46	45	44	44	44	46	46	47	48	49	50	52	52	52	52	51	50	50	52.4
8-May	50	48	48	46	43	42	40	38	36	36	36	37	39	42	44	47	49	50	51	51	50	48	47	46	51.2
9-May	46	46	45	43	42	41	39	35	33	32	31	31	30	30	29	27	26	24	24	23	21	20	21	22	46.3
10-May	23	24	24	26	30	34	34	36	37	39	42	43	42	40	41	42	41	40	40	40	41	44	44	44	44.4
11-May	45	45	44	40	36	32	30	32	31	30	29	N	N	N	N	N	N	N	N	64	63	63	63	63	63.6
12-May	62	61	60	59	59	58	58	57	57	58	59	60	61	61	N	N	N	N	N	N	N	N	52	52	62.0
13-May	51	51	50	50	49	49	48	48	47	47	48	49	50	51	52	53	55	55	55	55	55	54	53	52	54.8
14-May	51	51	50	49	49	48	48	47	47	47	47	47	48	48	50	51	51	52	52	52	52	52	52	52	52.4
15-May	52	52	52	51	51	51	50	49	48	47	47	47	47	47	48	49	49	50	51	51	50	50	49	49	52.3
16-May	49	49	49	48	48	48	48	48	48	47	47	48	48	48	49	49	50	51	51	50	50	49	48	47	50.7
17-May	45	45	44	43	42	41	41	41	41	42	42	43	44	45	45	46	46	47	47	47	47	46	46	44	47.2
18-May	43	42	40	39	38	37	36	36	37	38	39	40	41	42	44	44	44	44	42	41	40	37	35	34	44.5
19-May	33	32	31	29	28	28	27	26	26	26	26	26	27	29	30	32	35	37	39	41	41	42	41	41	41.7
20-May	40	40	40	39	39	39	39	39	39	39	39	39	40	41	42	43	44	44	44	43	42	42	42	42	44.1
21-May	42	42	42	43	43	43	43	42	41	42	42	43	43	45	46	47	48	49	49	49	49	49	49	49	49.4
22-May	50	49	49	48	45	43	40	37	35	32	30	28	28	28	30	31	33	34	36	36	37	36	36	34	49.6
23-May	32	30	27	25	23	22	21	21	22	23	24	26	28	31	33	35	36	37	37	36	34	31	27	24	37.3
24-May	20	17	15	14	14	15	16	18	19	20	23	24	27	30	33	36	38	39	39	39	39	37	35	32	39.4
25-May	30	27	25	24	23	22	22	22	22	23	25	28	31	34	37	40	41	44	46	47	47	46	46	45	46.8
26-May	44	43	42	41	41	41	42	41	42	43	45	47	49	50	52	53	54	55	56	56	56	55	55	54	55.7
27-May	53	53	52	51	51	50	50	50	50	51	51	52	53	54	55	56	57	57	58	59	59	60	60	60	59.8
28-May	59	59	58	57	56	56	55	54	53	53	52	52	51	51	51	52	53	53	54	55	55	56	56	55	59.2
29-May	55	54	53	52	51	51	50	48	47	46	46	45	46	46	47	47	49	49	49	48	47	46	44	42	54.7
30-May	38	35	33	32	30	29	27	26	26	27	28	30	32	33	35	37	39	41	42	42	42	41	40	40	42.0
31-May	39	38	37	36	34	34	34	33	33	34	36	37	39	41	43	45	48	49	50	51	51	50	50	49	51.1
	62.0	61.2	60.4	59.4	58.7	58.2	58.1	57.5	57.4	57.7	58.8	60.4	60.8	61.4	54.8	55.7	56.5	57.3	58.2	63.6	63.4	63.0	63.0	62.7	
	Diurnal Maximums																								

N - Not Valid

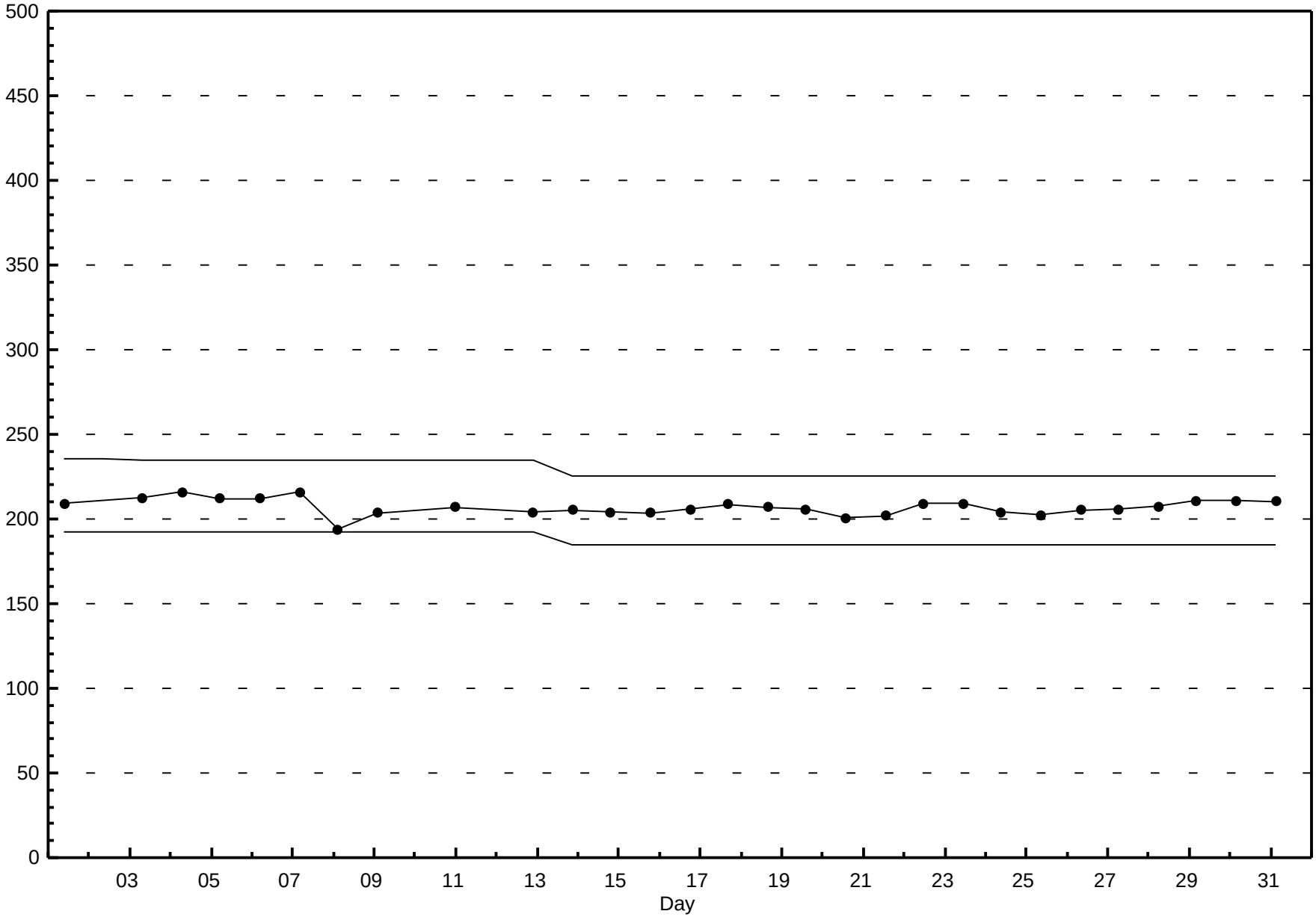
FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Span Responses

Ozone (O_3)

Sunset House - May 2012



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Averages

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

Sunset House - May 2012

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

Maximum Value: 13.0 $\mu g/m^3$ on May 8 17:00

Maximum Daily Average: 4.9 $\mu g/m^3$ on May 25

Minimum Value: 0 $\mu g/m^3$ on May 1 23:00

Maximum Diurnal Average: 3.9 $\mu g/m^3$ at hour 6

Monthly Average: 2.76 $\mu g/m^3$

Minimum Daily Average: 0.7 $\mu g/m^3$ on May 10

Minimum Diurnal Average: 2.0 $\mu g/m^3$ at hour 12

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 1.0 Median = 2.0 Q_3 = 4.0 P_{90} = 6.0 P_{99} = 10.0

Hours in Service:	744
Hours of Data:	742
Hours of Missing Data:	2
Hours of Calibration:	0
Percent Operational Time:	99.7

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-May	3	5	4	3	1	2	2	3	4	4	5	6	5	6	3	4	4	2	1	1	1	1	0	1	3.0	6.0
2-May	2	1	2	2	2	2	3	2	3	6	0	0	6	2	2	3	4	5	3	3	4	6	4	1	2.8	6.0
3-May	2	3	3	4	4	3	2	0	0	0	0	1	1	0	1	1	2	3	2	3	3	2	2	3	1.9	4.0
4-May	2	2	3	3	3	3	5	3	4	3	1	0	0	0	0	0	0	0	0	0	2	1	2	2	1.6	5.0
5-May	3	2	2	2	2	3	3	2	0	1	1	2	2	1	2	1	3	1	2	2	1	2	2	2	1.8	3.0
6-May	2	1	1	2	1	1	2	2	2	0	0	1	1	1	2	2	2	3	3	3	2	2	3	4	1.8	4.0
7-May	4	3	2	3	3	4	6	7	6	6	5	4	4	4	4	4	3	4	4	4	5	4	4	4	4.2	7.0
8-May	5	1	4	3	3	3	2	3	4	4	6	5	5	4	6	8	13	7	4	2	0	1	2	4	4.1	13.0
9-May	5	6	1	3	4	3	3	0	0	0	0	0	0	0	0	2	N	0	3	0	0	0	0	0	1.3	6.0
10-May	0	0	0	1	2	2	0	0	0	0	0	0	1	1	1	0	1	0	0	1	1	2	1	2	0.7	2.0
11-May	2	3	3	2	2	2	1	1	1	0	0	0	1	2	1	1	2	2	3	4	4	3	3	4	2.0	4.0
12-May	4	3	3	3	3	3	3	5	4	5	M	7	5	3	2	4	3	0	4	3	5	5	4	5	3.7	7.0
13-May	5	6	6	6	5	6	6	6	5	3	4	4	4	2	1	3	3	3	3	5	7	6	5	5	4.5	7.0
14-May	3	3	4	4	4	7	4	2	0	0	0	0	0	0	0	4	1	0	0	0	3	1	3	4	2.0	7.0
15-May	2	2	2	4	4	6	5	8	9	8	9	6	6	5	6	5	4	1	2	2	3	4	4	5	4.7	9.0
16-May	5	6	5	5	6	7	7	6	6	7	5	2	3	3	2	2	0	0	0	2	2	1	0	1	3.5	7.0
17-May	2	1	2	2	0	0	0	0	0	0	0	0	0	1	2	2	1	1	1	1	4	6	3	3	1.3	6.0
18-May	3	3	2	2	2	2	0	0	2	0	0	0	3	2	3	6	2	4	4	4	3	3	0	2	2.2	6.0
19-May	2	3	2	3	3	4	2	1	1	0	0	0	0	0	0	0	0	0	0	0	2	1	1	1	1.1	4.0
20-May	1	1	1	1	1	1	2	2	1	1	0	1	1	3	3	2	1	2	3	3	2	2	2	2	1.6	3.0
21-May	3	5	5	5	5	6	6	6	6	6	3	2	3	4	3	4	3	4	2	4	5	5	5	4	4.3	6.0
22-May	5	6	7	9	11	13	12	9	9	9	4	5	4	3	0	0	0	1	0	1	1	0	0	0	4.5	13.0
23-May	0	1	2	1	0	0	0	0	0	0	0	0	1	2	1	0	2	3	2	1	2	1	1	2	0.9	3.0
24-May	0	1	1	4	4	4	3	5	2	3	3	3	4	2	7	5	6	5	7	7	7	6	5	4	4.1	7.0
25-May	6	6	6	6	8	10	12	10	9	8	7	2	2	2	0	0	2	1	1	3	6	3	3	4	4.9	12.0
26-May	3	3	3	3	4	5	4	4	2	5	1	2	2	2	1	2	1	2	3	3	4	4	4	4	3.0	5.0
27-May	3	3	3	3	2	3	3	2	1	2	3	2	3	2	3	2	2	4	4	6	5	5	5	6	3.2	6.0
28-May	5	5	5	5	5	6	5	5	4	4	3	3	2	4	4	3	4	4	5	5	5	3	5	6	4.4	6.0
29-May	6	5	5	6	5	7	7	6	7	5	5	4	3	3	6	8	3	5	7	4	1	1	2	2	4.7	8.0
30-May	1	0	0	1	2	1	2	3	3	1	0	0	0	0	1	2	0	0	0	1	0	0	0	0	0.8	3.0
31-May	1	0	1	1	1	1	2	2	3	0	0	0	1	0	0	0	1	1	1	1	1	3	1	2	1.0	3.0
	2.9	2.9	2.9	3.3	3.3	3.9	3.7	3.4	3.2	2.9	2.2	2.0	2.4	2.1	2.2	2.6	2.4	2.2	2.4	2.5	2.9	2.7	2.5	2.9	Diurnal Average	
	6.0	6.0	7.0	9.0	11.0	13.0	12.0	10.0	9.0	9.0	9.0	7.0	6.0	6.0	7.0	8.0	13.0	7.0	7.0	7.0	7.0	6.0	5.0	6.0	Diurnal Maximum	

M - Maintenance N - Not Valid

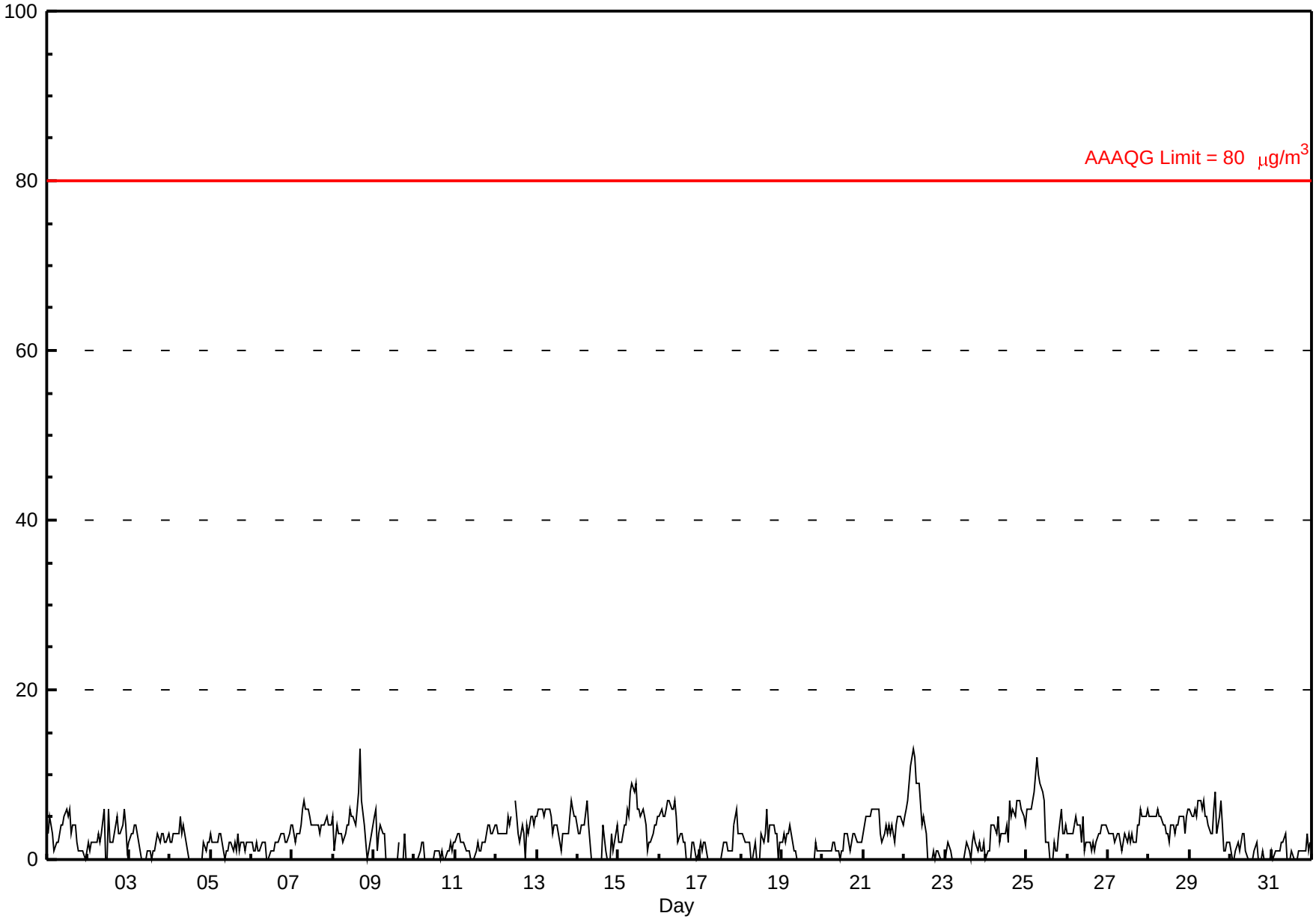
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 $\mu g/m^3$ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 $\mu g/m^3$

Peace Airshed Zone Association

Hourly Averages

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

Sunset House - May 2012



Peace Airshed Zone Association

Hourly Maximums

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

Sunset House - May 2012

Maximum Value: 26.6 $\mu g/m^3$ on May 14 06:00

Maximum Daily Average: 8.7 $\mu g/m^3$ on May 8

Minimum Value: 0 $\mu g/m^3$ on May 17 07:00

Minimum Daily Average: 2.8 $\mu g/m^3$ on May 23

Maximum Diurnal Average: 6.9 $\mu g/m^3$ at hour 6

Minimum Diurnal Average: 4.7 $\mu g/m^3$ at hour 23

Monthly Average: 5.68 $\mu g/m^3$

Percentiles: P_1 = 0.6 P_{10} = 2.2 Q_1 = 3.7 Median = 5.3 Q_3 = 7.2 P_{90} = 9.2 P_{99} = 13.8

Hours in Service:	744
Hours of Data:	743
Hours of Missing Data:	1
Hours of Calibration:	0
Percent Operational Time:	99.9

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-May	6	8	6	5	4	5	4	6	6	6	9	8	9	10	7	7	8	5	4	4	4	3	1	4	5.8	10.1
2-May	4	3	4	4	5	5	5	6	8	10	4	2	12	6	9	9	13	9	6	8	10	15	6	4	7.0	15.1
3-May	4	5	5	6	7	5	5	2	3	3	3	4	4	4	4	4	6	6	6	6	5	4	4	6	4.6	7.4
4-May	6	4	5	5	6	6	7	6	8	6	4	5	4	5	4	5	5	3	4	3	6	5	4	4	4.9	8.0
5-May	5	4	4	4	5	5	6	5	3	4	3	6	6	6	5	6	8	5	5	5	4	3	4	4	4.7	8.1
6-May	4	3	3	3	3	4	4	5	5	5	3	5	8	6	5	6	5	5	5	7	5	6	5	6	4.8	8.4
7-May	7	6	5	4	5	7	9	11	9	12	9	9	9	10	9	8	6	8	7	9	9	10	10	9	8.2	11.5
8-May	11	10	6	6	6	7	5	5	7	8	10	11	12	14	14	13	21	11	6	5	5	5	5	6	8.7	21.5
9-May	8	12	5	9	6	6	6	6	1	2	0	4	1	1	5	10	11	5	7	4	4	1	5	2	5.1	12.4
10-May	2	2	3	5	5	5	1	1	0	1	1	4	3	6	6	2	5	3	2	4	4	4	4	4	3.1	5.7
11-May	4	5	5	5	4	5	3	5	4	5	2	6	4	9	5	5	4	6	6	7	8	5	6	7	5.2	9.4
12-May	7	5	5	5	5	5	5	8	7	8	M	12	9	7	5	6	7	6	12	6	7	6	9	9	7.0	12.1
13-May	9	18	12	7	7	7	9	8	7	6	8	7	6	5	6	7	6	6	7	7	8	7	7	7	7.6	18.3
14-May	6	6	10	9	8	27	6	4	4	3	1	2	2	3	3	14	4	2	4	2	5	4	5	9	5.8	26.6
15-May	4	3	3	12	9	20	7	17	12	12	12	12	7	8	7	7	8	4	5	4	5	6	6	6	8.2	20.1
16-May	7	9	7	8	8	8	9	8	9	9	8	5	5	5	4	4	2	2	1	4	4	2	3	3	5.6	9.2
17-May	3	3	3	3	2	1	0	0	0	1	2	1	1	4	4	6	3	3	3	4	6	9	6	5	3.2	9.5
18-May	6	5	5	5	6	4	3	2	5	1	2	2	8	5	5	12	7	8	9	6	4	4	2	2	4.9	12.2
19-May	4	4	5	5	5	5	3	2	3	2	2	3	2	1	2	1	3	2	2	1	7	2	2	3	3.0	7.4
20-May	2	3	3	3	3	4	4	4	3	4	2	4	4	4	6	4	4	5	5	7	4	3	4	3	3.8	7.2
21-May	6	6	6	7	7	8	8	8	8	8	7	4	6	8	4	6	7	6	4	8	7	7	7	5	6.6	8.5
22-May	7	8	8	12	14	15	15	12	11	13	7	7	8	5	2	1	2	3	2	4	3	3	1	2	6.9	15.4
23-May	1	2	4	3	1	2	2	2	1	1	1	2	4	4	3	4	4	4	4	3	4	3	3	4	2.8	4.3
24-May	2	2	3	6	6	5	5	8	7	5	5	6	7	7	10	9	9	8	9	8	8	9	7	6	6.5	9.9
25-May	9	10	9	10	11	12	21	13	12	11	11	9	8	8	4	2	5	4	5	6	9	6	4	5	8.5	21.0
26-May	5	7	5	5	6	6	6	7	4	8	4	5	5	5	4	6	5	6	6	5	7	6	6	5	5.5	7.7
27-May	5	6	4	5	3	5	5	4	5	5	7	7	6	5	6	6	5	6	8	11	7	7	7	8	5.9	11.0
28-May	7	7	6	6	6	8	7	6	6	8	8	8	6	9	8	7	7	6	8	8	7	5	7	8	7.1	9.0
29-May	7	7	7	7	6	8	9	8	9	7	9	10	9	10	13	15	8	10	12	6	3	4	3	4	8.1	15.3
30-May	3	2	1	3	3	2	3	5	5	4	3	1	4	3	4	7	3	3	4	3	2	1	1	1	3.0	7.4
31-May	3	1	3	2	3	4	4	5	5	8	7	4	6	1	6	5	4	5	3	3	3	5	2	3	4.0	7.6
	5.3	5.7	5.1	5.7	5.7	6.9	6.0	6.0	5.8	5.9	5.1	5.6	6.0	6.0	5.7	6.6	6.3	5.3	5.5	5.5	5.5	5.3	4.7	5.0	Diurnal Average	
	11.0	18.3	12.0	11.8	14.1	26.6	21.0	17.0	12.4	12.9	12.0	12.1	12.4	14.0	13.6	15.3	21.5	11.1	11.9	11.0	10.2	15.1	10.2	9.0	Diurnal Maximum	

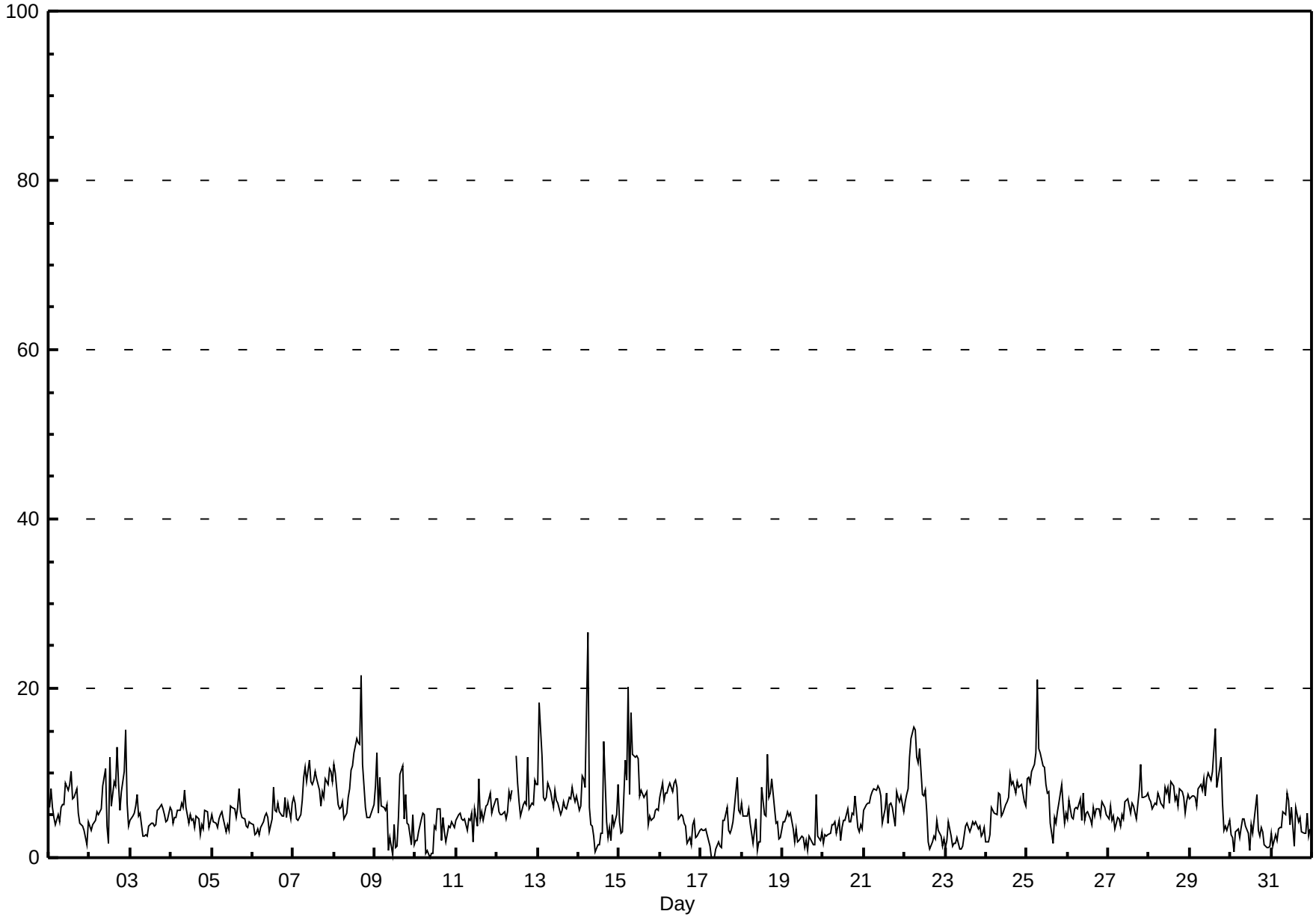
M - Maintenance

Peace Airshed Zone Association

Hourly Maximums

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

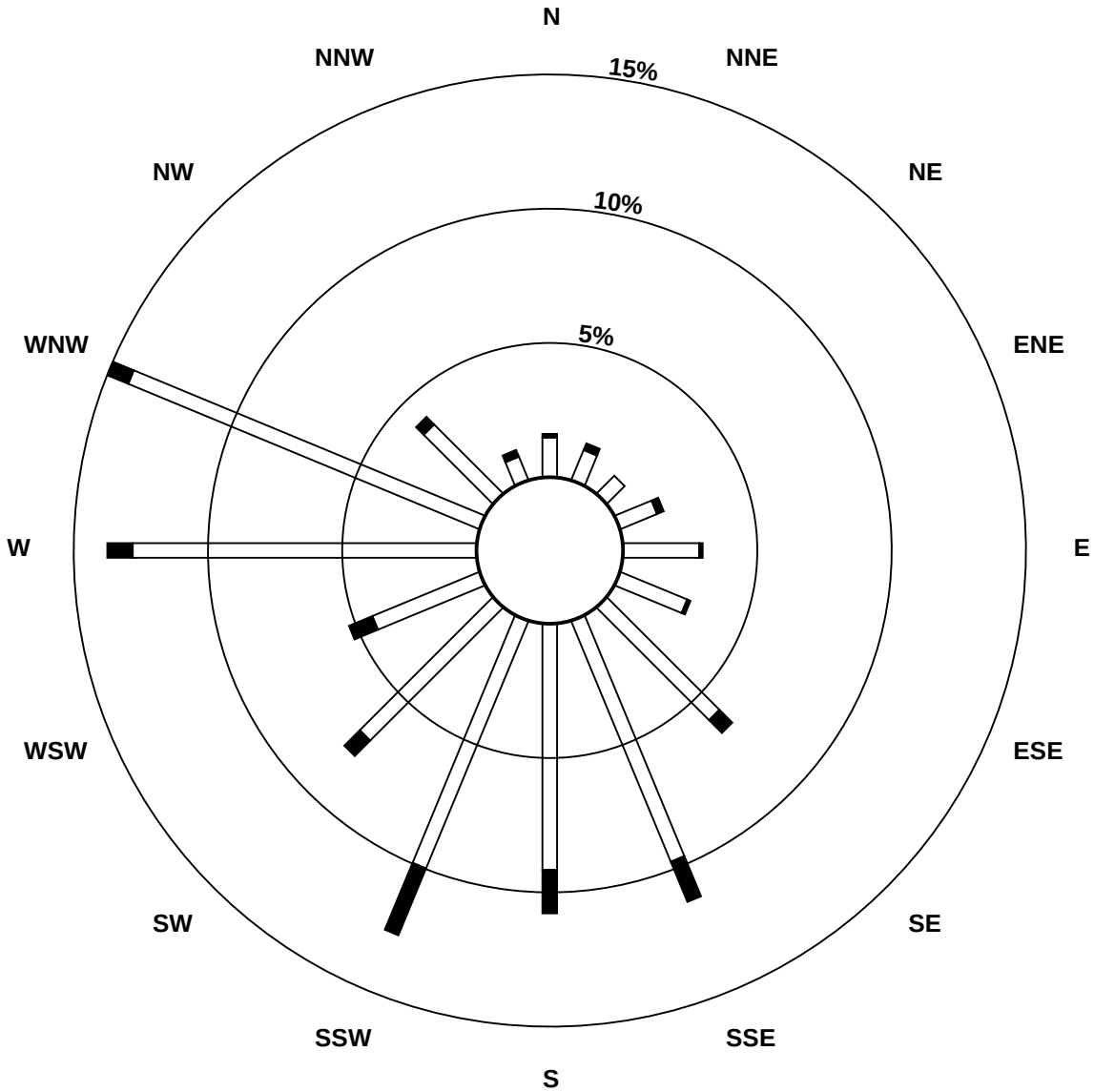
Sunset House - May 2012



Pollutant Rose

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

Sunset House - May 2012



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

Sunset House - May 2012

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

Maximum Value: 21.1 ^{o}C on May 8 14:00

Maximum Daily Average: 15.6 ^{o}C on May 28

Minimum Value: -2 ^{o}C on May 18 02:00

Maximum Diurnal Average: 14.1 ^{o}C at hour 17

Monthly Average: 10.27 ^{o}C

Minimum Daily Average: 4.2 ^{o}C on May 18

Minimum Diurnal Average: 6.0 ^{o}C at hour 5

Percentiles: P_1 = -1.0 P_{10} = 3.8 Q_1 = 6.7 Median = 9.9 Q_3 = 13.8 P_{90} = 17.7 P_{99} = 20.0

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

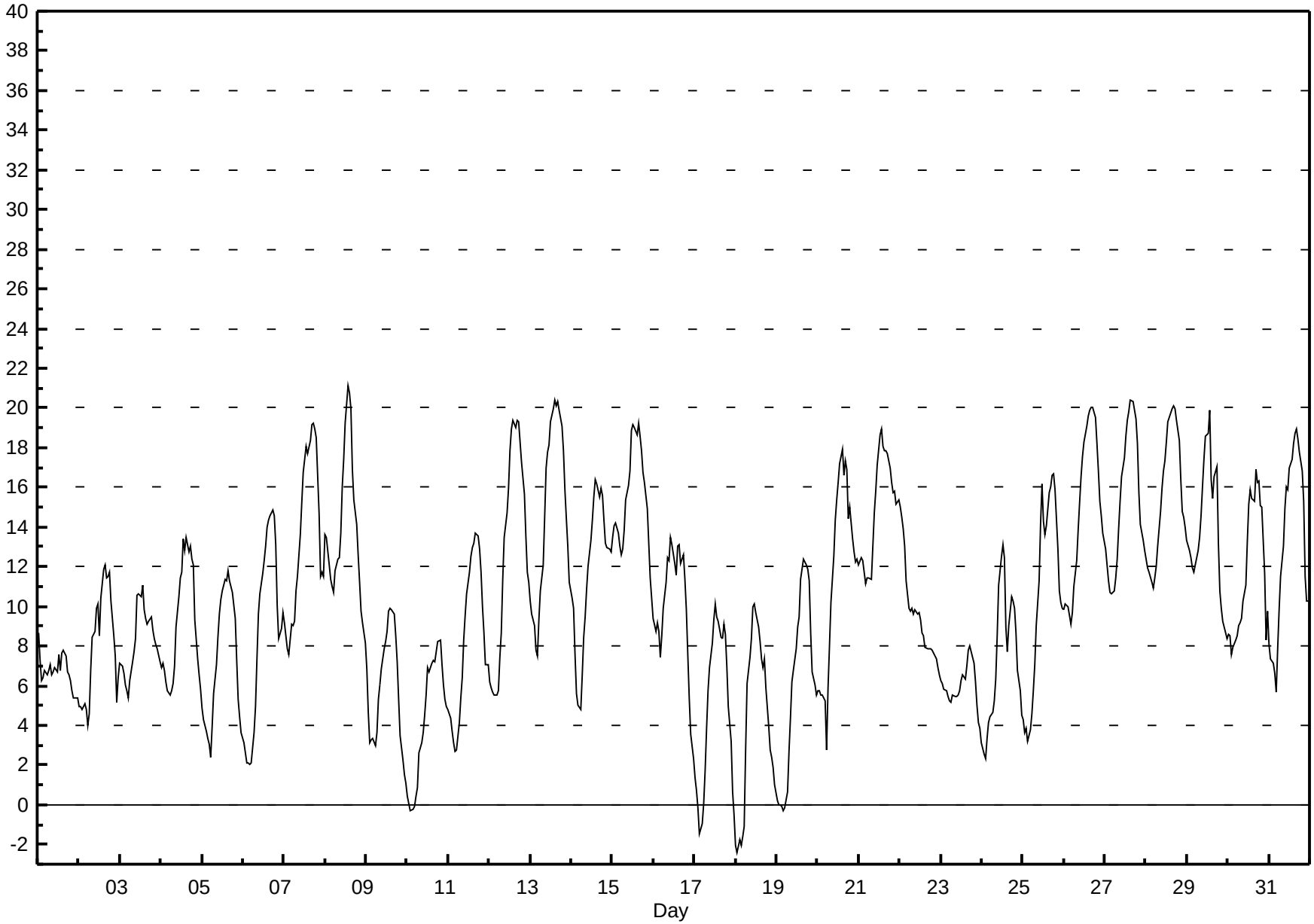
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-May	9	7	6	6	7	7	7	7	7	7	7	7	8	7	8	8	7	7	7	6	6	5	5	5	6.7	8.7
2-May	5	5	5	5	5	4	5	7	8	9	10	10	9	10	12	12	11	12	12	10	9	7	5	6	8.0	12.1
3-May	7	7	7	6	6	5	6	7	8	8	11	11	10	11	10	9	9	9	9	9	8	8	8	7	8.2	11.1
4-May	7	7	7	6	6	6	6	6	7	9	10	11	12	13	13	14	13	13	12	12	9	7	7	6	9.1	13.5
5-May	5	4	4	3	3	2	4	6	7	8	10	10	11	11	11	12	11	11	11	9	7	5	4	4	7.3	11.8
6-May	3	3	2	2	2	2	4	5	7	10	11	12	12	13	14	14	15	15	15	13	10	8	9	10	8.7	14.8
7-May	9	8	8	8	9	9	9	11	12	14	15	17	17	18	18	18	19	19	19	19	15	11	12	12	13.5	19.2
8-May	14	13	12	11	11	11	12	12	12	14	16	17	19	21	21	20	17	15	14	13	11	10	9	8	13.9	21.1
9-May	7	5	3	3	3	3	4	5	6	7	8	8	9	10	10	10	10	9	7	5	3	2	2	1	5.8	9.9
10-May	0	0	0	0	0	0	1	3	3	4	4	6	7	7	7	7	7	8	8	8	7	6	5	5	4.3	8.3
11-May	5	4	4	3	3	3	4	5	6	8	10	11	12	13	13	13	14	14	13	12	10	9	7	7	8.4	13.7
12-May	6	6	6	6	6	6	7	9	11	13	15	16	18	19	19	19	19	19	18	17	16	14	12	11	12.8	19.4
13-May	10	10	9	8	7	9	11	12	14	17	18	18	19	20	20	20	20	20	19	18	16	14	13	11	14.8	20.4
14-May	10	10	8	6	5	5	7	8	9	11	12	13	14	15	16	16	15	16	16	14	13	13	13	13	11.7	16.4
15-May	13	14	14	14	13	13	13	14	15	16	17	19	19	19	19	19	19	18	17	16	15	13	11	10	15.4	19.3
16-May	9	9	9	9	7	9	10	11	12	12	13	13	12	12	13	13	12	13	11	10	8	5	4	2	10.0	13.4
17-May	1	1	0	-1	-1	0	2	4	6	7	8	9	10	9	9	8	8	9	9	7	5	3	1	-1	4.7	10.1
18-May	-2	-2	-2	-2	-2	-1	3	6	7	8	10	10	10	9	8	7	7	7	6	4	3	2	2	1	4.2	10.2
19-May	0	0	0	0	0	0	1	3	4	6	7	8	9	9	11	12	12	12	12	11	9	7	6	6	6.0	12.4
20-May	6	6	6	6	5	3	6	8	10	12	14	15	16	17	18	17	17	17	14	15	13	13	12	12	11.6	17.9
21-May	12	12	12	12	11	11	11	11	13	15	16	17	19	19	18	18	18	18	17	16	16	16	15	15	15.0	18.9
22-May	15	14	14	13	11	10	10	10	10	10	10	10	9	9	9	8	8	8	8	8	8	7	7	7	9.6	15.0
23-May	6	6	6	6	5	5	5	6	5	5	5	6	6	7	6	7	8	8	8	7	6	5	4	4	6.0	8.0
24-May	3	3	2	3	4	4	5	5	6	8	11	13	13	12	9	8	9	10	10	10	9	7	6	5	7.3	13.1
25-May	4	4	4	3	4	5	6	7	9	11	14	16	14	14	14	16	16	17	17	16	13	11	10	10	10.5	16.7
26-May	10	10	10	10	9	10	11	12	14	15	17	18	18	19	20	20	20	20	20	18	17	15	15	14	15.0	20.0
27-May	13	12	11	11	11	11	11	12	14	15	17	18	19	19	20	20	20	20	19	18	16	14	13	13	15.3	20.4
28-May	12	12	12	11	11	11	12	13	15	16	17	17	18	19	20	20	20	20	19	18	16	15	15	14	15.6	20.1
29-May	13	13	12	12	12	12	13	13	15	16	17	19	19	20	16	15	17	17	13	11	10	9	9	8	13.8	19.9
30-May	9	9	8	8	8	9	9	9	9	10	11	13	15	16	15	15	17	16	16	15	15	12	8	10	11.8	16.9
31-May	8	7	7	7	6	8	10	12	13	15	16	16	17	17	18	19	19	18	18	17	15	12	10	10	13.1	18.9
	7.5	7.0	6.6	6.2	6.0	6.1	7.2	8.4	9.6	10.9	12.1	13.0	13.6	14.0	14.1	14.0	14.1	14.0	13.3	12.4	10.7	9.3	8.3	7.9	Diurnal Average	
	15.0	14.5	14.2	13.7	13.0	12.6	12.9	13.8	15.4	17.0	17.8	18.9	19.3	21.1	20.7	20.4	20.3	20.0	19.5	18.5	16.8	15.8	15.1	15.4	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Sunset House - May 2012



Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Sunset House - May 2012

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1 Spd	19	17	16	14	13	10	11	13	13	9	6	9	10	9	6	7	7	10	10	5	5	6	7	5	6.2	19.2
Dir	132	120	101	101	103	127	131	138	162	157	220	212	223	226	208	238	236	236	228	243	230	217	202	178	165.7	132.0
2 Spd	7	4	5	6	6	4	3	4	7	11	10	10	6	10	8	7	6	11	10	4	4	5	6	12	0.9	12.0
Dir	126	126	96	107	92	203	110	75	64	26	52	16	262	292	300	355	310	310	295	273	166	194	136	164	23.3	164.0
3 Spd	21	20	21	19	19	20	21	21	25	25	23	24	26	25	27	26	21	19	17	16	15	18	17	22	20.5	27.5
Dir	155	160	161	156	153	145	159	171	161	155	148	141	151	152	136	136	139	146	137	133	118	121	122	116	145.5	135.7
4 Spd	24	24	23	18	14	16	15	16	13	11	14	13	15	16	16	15	13	14	10	14	11	5	5	5	7.6	23.8
Dir	118	132	146	161	182	192	203	209	220	264	276	276	288	272	279	277	260	278	268	286	293	270	241	221	230.1	118.2
5 Spd	9	7	7	5	7	9	10	9	18	19	19	16	16	17	16	17	19	16	20	14	8	4	4	5	10.6	20.4
Dir	198	204	203	235	240	198	199	247	285	279	281	268	275	282	284	283	289	281	286	275	268	235	217	206	265.3	286.2
6 Spd	7	9	10	9	9	10	9	9	11	16	17	15	15	14	14	13	14	13	13	8	3	6	9	8	7.9	17.2
Dir	199	197	198	203	205	201	211	228	270	286	283	279	273	275	282	285	288	297	290	306	113	143	188	195	255.6	283.1
7 Spd	9	8	7	9	13	13	17	12	8	7	8	8	9	11	8	7	5	4	3	2	3	3	7	10	4.3	16.8
Dir	184	173	177	179	167	173	177	201	223	253	270	235	250	254	261	311	299	265	270	317	83	69	71	70	207.8	177.1
8 Spd	11	12	19	18	17	17	16	18	18	18	15	13	10	8	12	14	25	23	19	16	13	8	11	15	5.2	24.8
Dir	98	142	172	173	177	174	172	176	187	192	204	225	243	278	322	319	334	343	347	306	300	274	283	292	236.5	333.6
9 Spd	15	12	6	9	7	7	8	11	18	18	23	20	20	23	24	25	22	24	27	20	13	9	11	10	14.2	26.9
Dir	284	284	115	193	227	210	234	275	285	278	286	287	286	289	289	291	280	287	286	276	261	246	228	233	275.3	286.2
10 Spd	10	10	12	13	14	10	12	16	22	21	18	20	22	23	22	21	26	24	24	23	18	12	11	12	16.4	26.0
Dir	219	223	219	225	234	244	241	267	280	281	269	274	278	268	275	277	284	282	280	277	271	261	255	262	266.3	284.4
11 Spd	15	16	15	13	11	10	14	19	20	20	20	20	19	23	25	20	22	22	20	21	17	11	6	8	16.7	24.5
Dir	269	273	273	269	262	251	262	276	279	281	279	278	283	283	287	273	279	280	280	287	284	274	241	239	276.0	286.6
12 Spd	7	8	11	12	11	14	15	13	11	12	22	23	22	23	28	26	27	22	24	19	13	8	5	6	13.0	27.7
Dir	220	209	201	200	200	193	200	208	241	264	282	284	286	286	291	286	290	282	289	285	282	258	204	232	264.3	290.5
13 Spd	5	5	8	10	10	9	10	10	9	15	18	18	17	21	23	23	21	25	22	23	18	13	10	5	12.1	24.6
Dir	218	204	201	192	186	202	198	213	231	277	277	281	271	286	285	288	288	291	286	289	290	286	283	298	270.7	291.2
14 Spd	12	11	11	8	9	9	6	8	12	11	11	9	7	5	3	6	10	9	12	13	14	14	17	20	5.4	19.6
Dir	311	330	359	21	358	2	315	323	3	356	316	308	5	8	290	125	87	51	69	88	87	88	98	121	32.4	121.3
15 Spd	21	24	24	10	10	7	9	11	12	10	10	10	17	14	13	15	11	13	14	12	12	9	6	7	6.5	24.3
Dir	135	143	148	148	163	192	203	206	215	239	276	284	297	281	278	286	268	279	283	279	291	291	262	261	239.0	148.3
16 Spd	5	8	7	7	8	9	6	6	8	9	10	15	17	13	11	15	21	20	22	21	19	11	7	5	9.3	22.1
Dir	243	197	204	193	194	192	192	215	277	275	286	311	307	309	276	295	298	300	300	302	299	289	272	271	281.8	299.9
17 Spd	4	4	7	9	10	13	12	10	8	7	7	5	8	7	11	7	6	4	6	6	6	15	9	5	4.2	14.7
Dir	271	267	195	188	186	182	183	194	223	241	280	233	215	273	286	256	261	236	251	209	284	13	68	79	228.3	13.1
18 Spd	3	5	5	8	7	3	3	3	5	2	6	9	11	15	12	13	12	13	16	11	9	3	5	5	4.6	15.5
Dir	139	142	191	177	89	104	244	17	286	262	305	260	288	289	273	266	295	318	311	341	346	310	258	227	287.7	310.6
19 Spd	5	6	6	7	6	5	6	8	7	7	11	11	12	12	10	12	13	11	12	8	2	10	11	9	5.2	13.4
Dir	218	224	224	221	231	223	224	253	263	275	299	300	294	292	309	298	288	290	296	314	12	105	124	144	272.0	287.7
20 Spd	11	13	12	12	10	7	7	8	11	10	8	7	5	7	8	5	5	4	8	11	15	17	18	18	4.0	18.4
Dir	164	169	179	183	205	230	217	207	194	194	206	253	231	305	305	307	330	29	49	71	84	95	99	106	157.7	106.4
21 Spd	16	16	16	14	12	9	11	14	13	9	9	14	14	11	15	17	16	19	19	20	17	21	18	24	14.0	23.6
Dir	104	148	158	162	162	182	185	188	186	184	150	143	124	165	190	172	153	156	152	139	127	137	133	144	153.4	143.7
22 Spd	23	23	21	7	6	4	5	5	7	8	11	10	2	10	12	15	15	13	12	11	8	7	10	7	0.7	22.8
Dir	145	134	134	135	169	124	65	67	102	134	157	151	230	290	289	290	298	308	303	304	325	339	329	360	205.4	133.7

Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Sunset House - May 2012

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	6	6	8	10	10	10	9	8	9	9	11	10	10	12	13	6	7	3	4	3	1	1	2	4	5.2	12.9
Dir	16	37	7	12	6	20	48	29	54	73	75	93	88	76	83	119	94	148	240	224	295	95	114	131	60.1	83.4
24 Spd	3	4	3	6	5	5	9	8	8	9	6	6	8	4	18	7	6	6	5	2	5	7	7	7	3.2	18.4
Dir	105	126	166	189	201	210	196	207	213	209	237	274	303	42	84	144	256	296	314	256	195	179	186	191	200.0	84.3
25 Spd	6	6	5	7	9	10	9	9	7	7	5	4	19	14	7	4	2	2	2	4	9	10	12	12	4.8	19.2
Dir	160	149	168	188	183	191	194	204	220	224	247	239	304	289	289	143	215	233	3	212	185	165	164	161	205.9	304.0
26 Spd	13	16	16	15	15	14	15	15	17	20	19	19	16	18	20	20	20	19	21	20	21	26	31	32	18.6	31.6
Dir	162	168	167	169	170	170	175	183	190	185	192	184	193	183	169	169	179	169	168	163	151	150	158	165	171.1	165.3
27 Spd	32	29	29	29	30	28	31	31	26	26	24	23	18	17	16	13	14	15	13	13	15	19	23	25	22.2	32.4
Dir	169	173	174	178	174	172	171	175	180	170	168	178	165	159	165	171	169	164	157	150	144	146	152	158	167.6	168.9
28 Spd	25	23	21	20	23	22	19	15	16	22	21	18	18	16	17	18	17	16	19	18	16	18	23	26	19.1	26.0
Dir	162	166	170	167	162	164	169	171	167	156	157	167	153	167	155	158	159	149	142	134	135	133	140	148	156.5	148.4
29 Spd	28	29	29	28	27	26	21	18	20	18	14	13	9	6	7	6	8	8	13	10	10	13	16	13	14.1	29.2
Dir	157	162	163	162	156	153	165	181	181	190	197	210	211	189	262	255	271	250	241	229	205	192	189	193	182.7	162.5
30 Spd	13	11	11	12	11	12	9	9	8	5	5	8	6	5	5	9	9	9	7	6	10	4	6	7	6.8	13.2
Dir	197	200	196	197	199	194	206	208	211	229	201	302	244	215	197	292	265	251	260	223	281	226	186	205	221.2	197.4
31 Spd	6	8	8	8	8	8	13	9	11	14	16	17	14	15	16	18	16	15	16	12	7	4	8	9	8.6	18.3
Dir	195	189	193	190	187	183	185	207	216	269	265	282	282	275	282	291	283	279	285	285	277	197	191	192	251.1	291.1
Spd	8.3	9.1	9.7	9.3	8.8	8.8	9.3	8.3	7.6	7.0	7.1	7.4	7.7	8.3	7.4	7.6	8.2	7.7	7.6	5.4	2.8	3.4	5.8	6.9	Diurnal Average	
Dir	164.2	167.9	169.5	176.2	178.4	180.7	187.3	201.9	217.0	229.1	244.9	250.4	260.5	265.1	267.2	266.2	272.6	274.5	275.6	268.2	251.1	170.4	164.5	167.3		
Spd	32.4	29.4	28.8	29.0	30.0	27.8	31.1	30.9	25.9	26.4	23.8	24.5	25.7	24.5	27.7	26.1	27.2	24.6	26.9	22.8	20.6	26.0	31.4	31.6	Diurnal Maximum	
Dir	168.9	173.2	174.1	178.0	174.4	172.1	171.4	174.6	179.6	169.9	167.8	141.5	151.3	151.9	290.5	135.6	290.4	291.2	286.2	288.9	150.8	150.2	157.5	165.3		

Maximum Speed Value: 32 km/h on May 27 01:00
Maximum Daily Speed Average: 22.2 km/h on May 27
Maximum Diurnal Speed Average: 9.7 km/h at hour 3

Minimum Speed Value: 1 km/h on May 23 22:00
Minimum Daily Speed Average: 0.7 km/h on May 24
Minimum Diurnal Speed Average: 2.8 km/h at hour 21

Monthly Average Velocity: 5.46 km/h 217.30 deg

Speed Percentiles: P_1 = 2.1 P_{10} = 5.2 Q_1 = 7.5 Median = 11.3 Q_3 = 17.0 P_{90} = 22.1 P_{99} = 28.9

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

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Percent Operational Time:	100.0

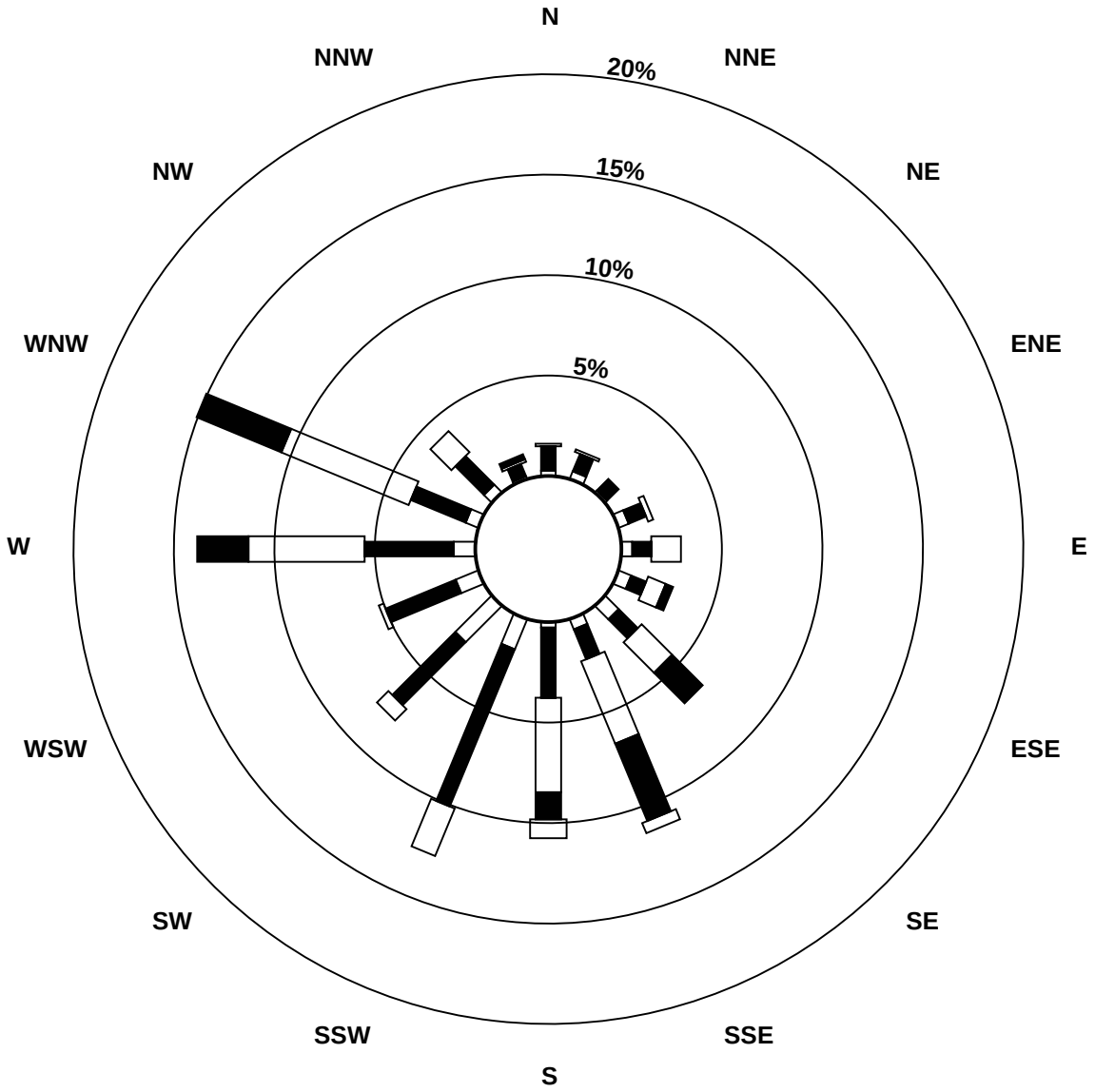
Frequency Distribution

Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	4	16	4	1	0	0	25
NorthEast	3	10	0	0	0	0	13
East	9	16	17	0	0	0	42
SouthEast	9	19	27	37	1	0	93
South	6	67	74	28	11	0	186
SouthWest	21	84	15	0	0	0	120
West	8	58	87	52	0	0	205
NorthWest	7	22	24	7	0	0	60
Total	67	292	248	125	12	0	744

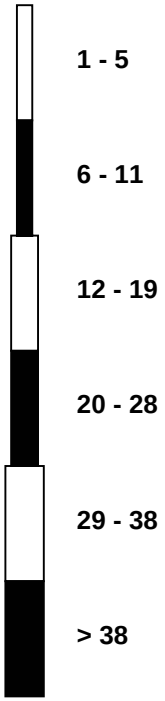
Wind Rose

Wind Speed (WS) (km/h)

Sunset House - May 2012



Wind Speed Classes (km/h)



Peace Airshed Zone Association

Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Sunset House - May 2012

Maximum Speed: 33 km/h on May 27 01:00

Maximum Daily Speed Average: 23.0 km/h on May 27

Minimum Speed: 2 km/h on May 23 23:00

Minimum Daily Speed Average: 7.3 km/h on May 24

Maximum Diurnal Speed Average: 15.3 km/h at hour 15

Minimum Diurnal Speed Average: 10.8 km/h at hour 22

Monthly Average Speed: 13.20 km/h

Percentiles: $P_1 = 3.5$ $P_{10} = 6.0$ $Q_1 = 8.3$ Median = 11.8 $Q_3 = 17.5$ $P_{90} = 22.5$ $P_{99} = 29.1$

Hours in Service:	744
Hours of Data:	744
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-May	20	17	16	14	13	11	12	15	13	9	7	9	11	10	6	7	7	10	10	5	5	6	7	7	10.3	19.5
2-May	7	6	6	6	6	5	3	4	7	11	10	10	7	11	9	8	9	12	10	6	7	6	6	12	7.8	12.2
3-May	21	20	21	20	20	20	21	22	25	25	24	26	27	26	28	27	22	20	18	16	15	18	17	22	21.6	28.4
4-May	24	24	23	19	14	16	15	16	13	12	14	14	15	17	16	15	14	14	11	14	11	5	5	6	14.5	24.0
5-May	9	8	8	6	8	9	11	10	19	19	19	17	17	18	17	18	20	17	21	14	9	5	5	5	12.8	20.7
6-May	7	9	10	9	9	10	10	9	11	16	18	16	16	15	15	14	15	14	13	8	3	6	9	8	11.2	17.8
7-May	9	8	7	9	13	14	17	12	9	8	10	10	11	12	9	8	7	5	5	3	4	4	7	10	8.8	16.9
8-May	11	14	19	18	17	17	16	18	18	18	15	13	12	9	13	16	26	24	19	17	13	8	11	15	15.7	25.6
9-May	15	13	7	9	8	7	8	11	18	18	24	20	20	24	25	25	23	24	27	21	13	10	11	11	16.4	27.2
10-May	10	10	12	13	15	11	12	16	22	22	19	20	23	23	23	21	26	25	24	23	18	13	11	12	17.7	26.3
11-May	16	16	15	13	11	10	14	19	20	21	21	20	20	24	25	21	23	22	21	21	17	11	7	8	17.3	24.8
12-May	7	9	11	12	12	14	15	14	12	13	22	24	23	24	28	26	27	23	24	20	13	8	5	6	16.3	28.1
13-May	5	6	8	10	10	9	10	10	10	15	18	19	18	22	23	24	21	25	23	23	18	13	10	6	14.8	24.9
14-May	12	11	11	8	9	9	7	9	13	12	12	11	10	8	7	9	11	9	12	14	14	14	17	20	11.2	19.9
15-May	21	24	24	11	10	8	9	11	12	11	10	11	18	15	13	16	12	14	14	12	12	9	6	7	13.0	24.5
16-May	5	8	7	7	8	9	6	7	8	10	11	16	17	14	12	16	22	20	22	21	19	12	7	6	12.1	22.3
17-May	5	5	7	9	10	13	12	11	9	9	9	8	11	8	12	10	9	6	8	6	8	15	10	6	9.0	15.5
18-May	4	5	6	8	8	5	4	5	7	5	8	11	12	15	13	13	13	13	16	12	9	6	6	5	8.7	15.9
19-May	5	6	6	7	6	6	6	8	8	8	12	12	12	12	12	14	14	12	12	9	4	10	11	9	9.2	14.2
20-May	11	13	12	12	10	7	7	8	11	11	10	10	9	10	9	6	5	8	8	11	15	17	18	19	10.8	18.5
21-May	16	17	16	14	12	9	11	14	13	10	10	14	15	13	15	18	16	19	19	20	17	21	18	24	15.5	23.7
22-May	23	23	22	9	7	6	5	6	7	8	11	10	8	10	12	16	15	13	12	11	9	8	11	7	11.3	23.0
23-May	7	6	8	10	10	10	10	8	10	10	12	11	10	13	13	7	8	5	4	3	4	3	2	4	7.8	13.3
24-May	4	4	3	6	6	5	9	9	9	9	7	7	9	9	20	10	7	7	5	3	5	7	7	7	7.3	20.0
25-May	6	7	6	7	9	10	9	9	8	7	7	7	20	14	8	5	4	6	4	4	9	10	12	12	8.2	19.6
26-May	13	16	16	15	15	14	15	15	17	20	20	20	17	19	21	21	20	20	21	20	21	26	32	32	19.5	31.8
27-May	33	30	29	29	30	28	31	31	26	27	25	24	19	18	17	14	15	16	13	14	15	20	23	25	23.0	32.6
28-May	25	23	21	20	23	22	19	16	17	22	22	19	20	17	19	19	18	17	19	18	17	18	23	26	20.1	26.2
29-May	28	29	29	28	27	26	21	18	20	18	15	13	10	10	10	8	9	9	13	10	10	13	16	13	16.8	29.4
30-May	13	11	11	12	11	12	9	9	9	6	6	9	8	6	6	9	10	9	7	7	11	4	6	8	8.7	13.3
31-May	6	8	8	8	8	8	13	10	11	15	17	18	15	16	16	19	16	16	17	12	7	5	8	10	11.9	18.7
	12.9	13.0	13.0	12.3	12.1	11.5	11.9	12.2	13.3	13.8	14.3	14.5	14.8	14.9	15.3	14.8	15.0	14.6	14.6	12.8	11.3	10.8	11.1	11.8	Diurnal Average	
	32.6	29.6	29.0	29.2	30.2	28.0	31.3	31.2	26.3	27.1	24.5	25.6	26.5	26.1	28.4	26.9	27.4	24.9	27.2	23.2	20.8	26.1	31.6	31.8	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

Sunset House - May 2012

Maximum Value: 89.2 deg on May 18 10:00

Minimum Value: 2.3 deg on May 25 23:00

Percentiles: P_1 = 4.6 P_{10} = 6.2 Q_1 = 9.4 Median = 14.1 Q_3 = 21.6 P_{90} = 37.3 P_{99} = 68.8

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-May	10	12	6	6	8	24	22	24	11	9	32	12	15	18	30	21	28	10	11	15	22	23	14	46	46.1
2-May	25	64	32	19	18	34	24	15	25	20	25	22	40	17	22	41	62	17	14	56	69	35	16	12	69.3
3-May	5	5	5	5	4	5	9	9	10	10	15	17	15	20	15	14	19	14	18	12	9	9	8	5	20.2
4-May	7	7	6	11	9	11	8	9	11	25	16	16	15	17	10	17	23	15	18	8	6	21	28	17	28.1
5-May	15	27	16	29	30	8	16	25	10	13	12	21	22	19	14	17	11	12	10	11	17	24	21	14	30.1
6-May	9	6	6	11	10	10	15	22	22	14	14	19	22	21	16	19	19	16	12	12	46	9	9	11	46.1
7-May	10	5	5	6	5	8	6	18	17	30	28	46	43	31	29	37	55	58	63	47	43	40	15	11	63.2
8-May	6	26	6	4	5	5	5	6	8	9	15	13	31	35	27	29	14	11	9	10	7	10	10	6	34.7
9-May	10	22	43	17	17	12	18	20	9	11	14	14	13	13	15	10	13	11	8	10	15	20	8	13	42.5
10-May	8	10	10	9	10	16	13	16	10	10	14	12	11	12	12	12	10	12	10	11	11	16	15	13	16.0
11-May	11	10	11	12	13	16	16	10	9	13	14	13	14	12	8	14	12	10	10	8	8	11	18	17	17.7
12-May	12	12	7	6	8	6	8	11	20	21	12	10	13	11	9	12	7	11	8	7	9	20	20	22	22.0
13-May	29	16	10	7	6	13	9	11	19	14	10	12	17	14	15	9	13	9	8	7	6	7	11	30	30.2
14-May	7	9	13	7	11	9	18	19	22	26	23	50	60	71	68	72	28	20	17	7	8	8	10	11	72.2
15-May	6	7	6	49	24	22	13	13	16	24	20	24	14	21	18	15	22	21	13	12	8	11	20	16	48.7
16-May	27	9	13	7	5	13	29	17	23	19	27	18	15	18	23	18	8	10	8	8	8	9	21	24	29.2
17-May	39	34	14	8	6	5	6	14	23	43	49	63	53	35	26	52	56	57	35	15	45	19	11	25	62.6
18-May	38	18	25	11	34	51	55	65	46	89	60	38	30	15	20	20	22	20	13	21	13	60	21	25	89.2
19-May	12	11	11	14	16	16	13	20	25	29	19	27	22	21	39	28	20	21	15	19	62	10	5	11	61.6
20-May	5	3	7	6	19	14	9	14	15	22	41	52	68	62	36	41	36	64	16	14	7	6	5	5	67.8
21-May	11	15	5	5	7	14	8	10	12	19	31	19	24	30	11	14	13	15	16	9	10	6	7	6	30.8
22-May	7	6	6	67	21	62	20	24	14	25	12	12	79	13	10	10	8	8	9	9	26	20	13	13	78.6
23-May	20	15	9	16	8	10	27	15	14	14	15	13	15	12	15	44	24	54	25	21	67	64	12	22	66.9
24-May	46	33	23	10	17	14	10	14	14	14	41	37	27	62	29	56	35	26	16	50	12	8	6	6	61.6
25-May	16	12	17	14	8	4	8	13	20	18	43	62	13	13	21	60	76	85	70	26	13	3	2	4	85.1
26-May	6	5	5	6	6	5	9	9	10	12	17	22	21	21	17	19	15	17	12	10	7	7	6	6	21.5
27-May	5	6	6	6	6	7	7	9	9	13	14	16	21	20	22	19	19	16	16	10	5	5	5	5	21.7
28-May	5	6	6	6	6	7	7	8	13	14	19	22	25	24	22	21	21	18	13	12	6	6	7	7	24.8
29-May	6	6	5	6	6	5	12	11	10	13	19	17	27	59	45	30	20	23	18	15	10	6	6	7	58.8
30-May	7	12	7	5	7	8	11	10	18	25	44	28	42	49	43	21	31	24	28	24	18	36	15	14	49.2
31-May	19	7	12	10	7	6	5	17	17	22	20	18	17	17	14	13	15	22	12	13	20	22	8	9	22.5
	46.0	64.1	42.5	67.0	33.8	62.0	55.5	65.1	45.9	89.2	60.0	62.6	78.6	71.5	68.0	72.2	75.6	85.1	70.1	55.8	69.3	64.3	28.1	46.1	

PAZA

ALBERTA ENVIRONMENT
INCIDENCE REPORT

May 2012

Air Monitoring Directive Exceedence Report

Alberta Environment
Environmental Service Response Centre
111 Twin Atria Building
4999 – 98th Avenue
Edmonton, Alberta T6B 2X3
Phone: (780) 422-4505
Fax: (780) 427-1044

Reference Number:	**258897**	**Reported To (AENV Contact):**	Steven
Date & Time Incident Reported to AENV:	May 25, 2012 @ 03:00	**Reported By:**	Steve P.
Reported on Behalf of:	PAZA	**Approval Number (if applicable):**	
Location(s) of Incident:	Evergreen Park		
Start Date & Time of Incident:	May 25, 2012 @23:00	**End Date & Time of Incident:**	May 25, 2012 @24:00

Details of Exceedence:

PM 2.5 Hourly Exceedence 22:00-23:00= 94.1 ug/m3,WS 0.8 km/h, WD 213 degrees

Immediate Actions Taken:

Called in to AENV. Nothing noted on weather report to indicate reason for exceedence

Follow-up Details:

N/A

Actions Taken to Prevent Reoccurrence (if any):

Not Applicable

Additional Actions Required (if any):

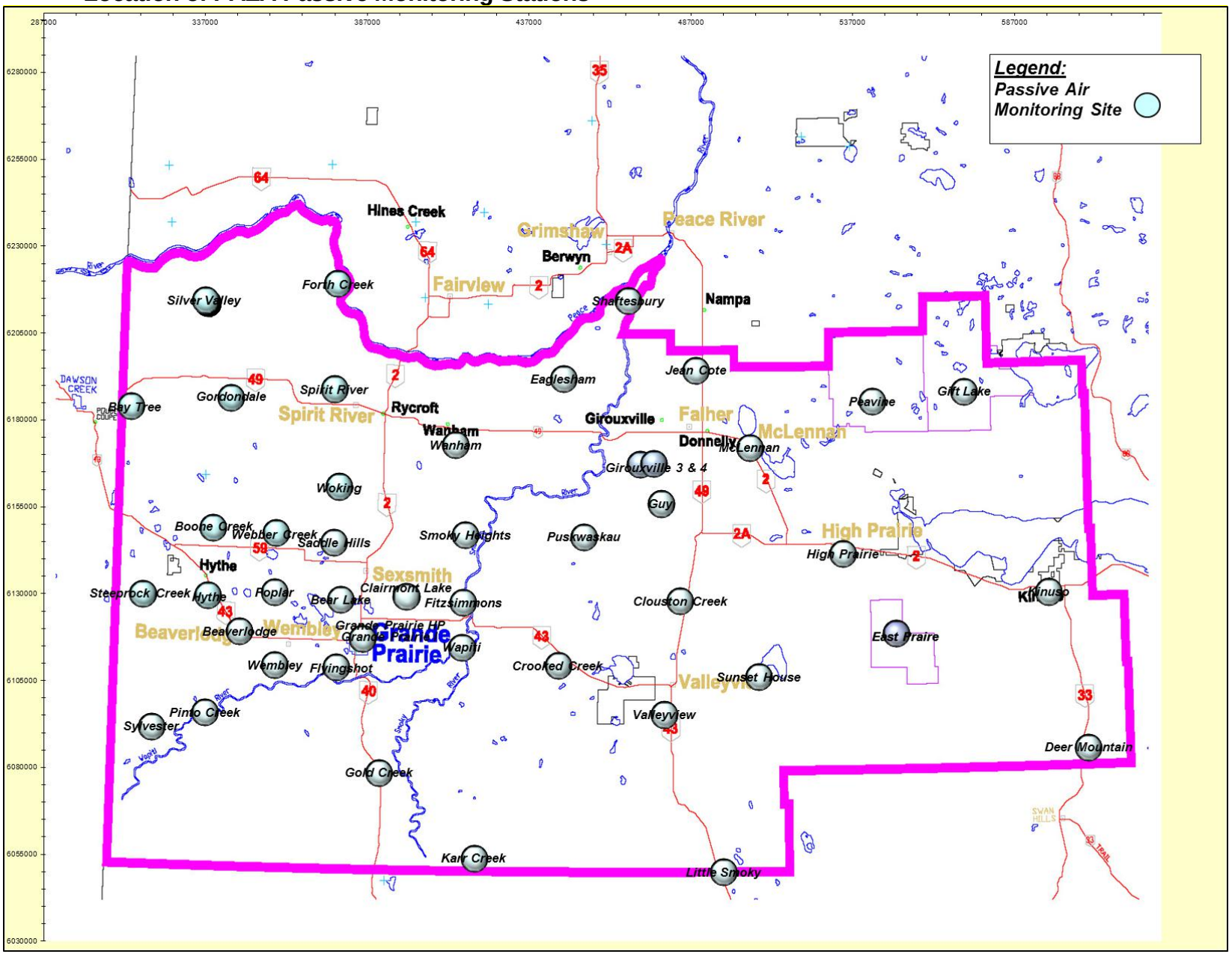
Not applicable

Report Completed By:	Steven Prodanuk	Date Report Submitted:	May 28, 2012
7-Day Letter Due Date:	June 1, 2012		

PAZA

Monthly Passive Data Summary

Location of PAZA Passive Monitoring Stations



PAZA Passive Results for May 2012

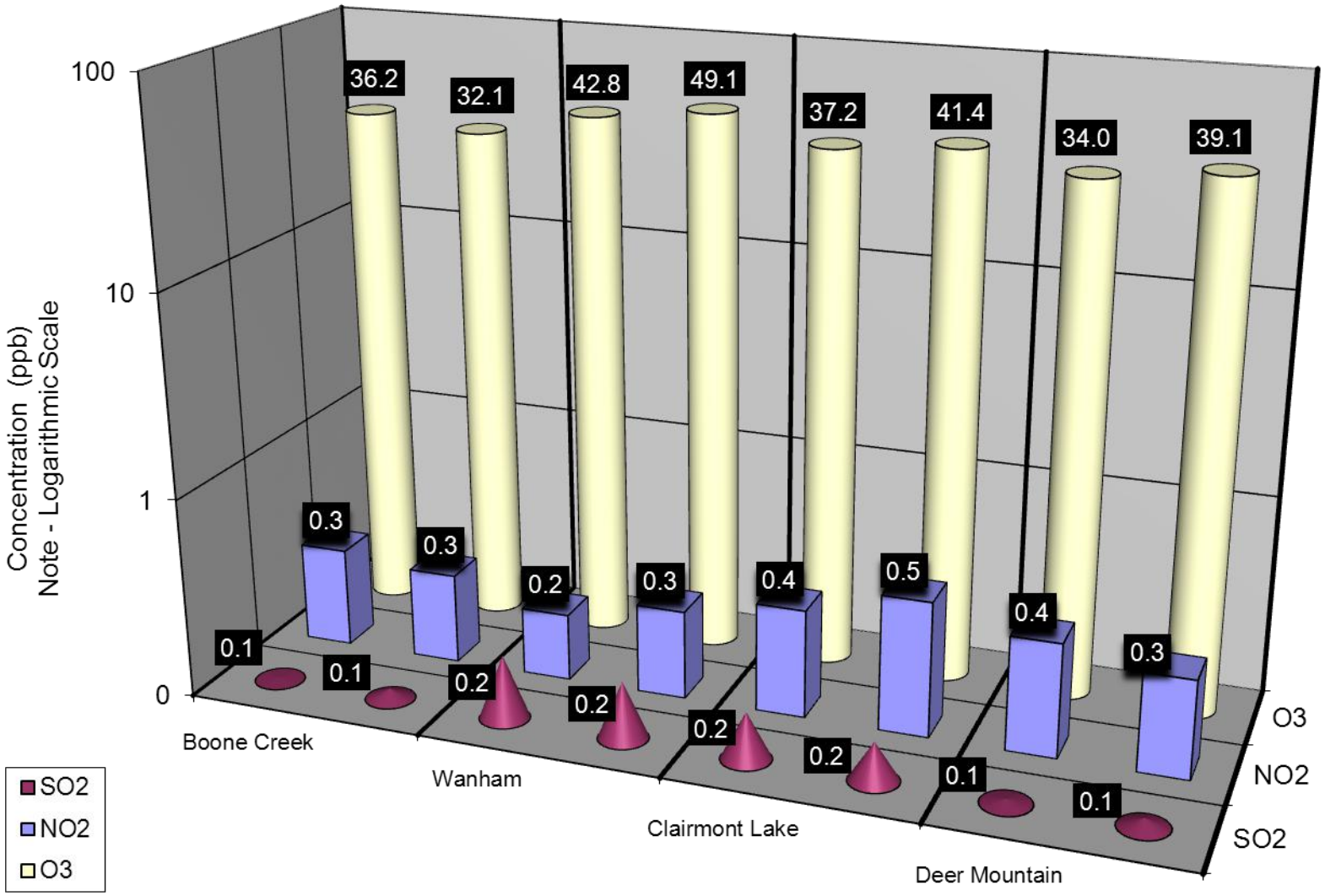
Station Number	Station Name	SO2 ppb	O3 ppb	NO2 ppb	H2S ppb	Site Legal
Duplicates						
5a	Boone Creek	**0.1**	**36.2**	**0.3**		
5b	Boone Creek	**0.1**	**32.1**	**0.3**		
19a	Wanham	**0.2**	**42.8**	**0.2**		
19b	Wanham	**0.2**	**49.1**	**0.3**		
28a	Clairmont Lake	**0.2**	**37.2**	**0.4**		
28b	Clairmont Lake	**0.2**	**41.4**	**0.5**		
48a	Deer Mountain	**0.1**	**34.0**	**0.4**		
48b	Deer Mountain	**0.1**	**39.1**	**0.3**		
63a	Girouxville 3				**0.1**	
63b	Girouxville 3				**0.1**	
1	Silver Valley	**0.2**	**42.4**	**0.3**		08-27-081-11 W6M
2	Bay Tree	**0.1**	**39.8**	**0.4**		13-16-078-13 W6M
3	Fourth Creek	**0.1**	**42.8**	**0.2**		04-13-082-07 W6M
4	Gordondale	**0.2**	**N/S**	**0.2**		04-34-078-10 W6M
5	Boone Creek	**0.1**	**34.2**	**0.3**		16-36-074-11 W6M
7	Steeprock Creek	**0.1**	**38.2**	**0.2**		09-35-072-13 W6M
9	Spirit River	**0.2**	**37.5**	**0.5**		08-12-079-07 W6M
10	Woking	**0.2**	**36.5**	**0.4**		01-13-076-07 W6M
11	Webber Creek	**0.3**	**32.5**	**0.8**		09-36-074-09 W6M
12	Hythe	**0.1**	**39.4**	**0.9**		14-36-072-11 W6M
14	Sylvester	**BDL**	**34.9**	**0.2**		08-06-069-12 W6M
16	Beaverlodge	**0.1**	**42.9**	**0.5**		15-36-071-10 W6M
17	Poplar	**0.1**	**35.5**	**0.7**		13-06-073-08 W6M
18	Saddle Hills	**0.2**	**38.8**	**0.4**		04-25-074-07 W6M
19	Wanham	**0.2**	**45.9**	**0.2**		16-22-077-03 W6M
20	Shaftesbury	**0.1**	**39.7**	**0.3**		04-03-082-23 W5M
21	Eaglesham	**0.2**	**32.2**	**0.3**		16-21-079-25 W5M
23	Bear Lake	**0.2**	**38.9**	**1.3**		15-31-072-06 W6M

PAZA Passive Results for May 2012 (Continued)

24	Wembley	**BDL**	**32.4**	**0.9**		12-31-070-08 W6M
25	Pinto Creek	**BDL**	**33.9**	**0.2**		04-24-069-11 W6M
26	Flyingshot	**0.1**	**39.1**	**0.4**		15-36-070-07 W6M
27	Grande Prairie I	**0.2**	**39.4**	**1.5**		08-15-071-06 W6M
28	Clairmont Lake	**0.2**	**39.3**	**0.4**		09-06-073-04 W6M
29	Smoky Heights	**0.3**	**39.9**	**0.3**		04-06-075-02 W6M
30	Fitzsimmons	**0.1**	**36.3**	**0.3**		15-36-072-03 W6M
32	Gold Creek	**0.1**	**28.1**	**0.3**		06-33-067-05 W6M
33	Wapiti	**0.2**	**36.9**	**0.4**		02-25-071-03 W6M
34	Puskwaskau	**BDL**	**36.6**	**0.2**		15-35-074-25 W5M
35	Jean Cote	**0.1**	**32.6**	**1.0**		12-35-079-21 W5M
36	Guy	**BDL**	**33.0**	**0.8**		03-04-076-22 W5M
37	Crooked Creek	**0.1**	**40.6**	**0.4**		16-01-071-26 W5M
38	Karr Creek	**BDL**	**32.3**	**0.4**		10-16-065-02 W6M
39	Clouston Creek	**0.1**	**34.4**	**0.5**		12-01-073-22 W5M
40	McLennan	**0.2**	**36.7**	**0.8**		03-29-077-19 W5M
41	Valleyview	**0.1**	**42.9**	**0.3**		09-30-069-22 W5M
42	Sunset House	**0.2**	**41.6**	**0.2**		05-32-070-19 W5M
43	High Prairie	**N/S**	**N/S**	**N/S**		16-13-074-17 W5M
44	Peavine	**0.1**	**33.1**	**BDL**		03-05-079-15 W5M
45	Gift Lake	**BDL**	**33.1**	**BDL**	**0.1**	10-07-079-12 W5M
46	Little Smoky	**BDL**	**37.6**	**0.8**		12-01-065-21 W5M
47	Kinuso	**BDL**	**34.9**	**0.1**		12-10-073-10 W5M
48	Deer Mountain	**0.1**	**36.6**	**0.3**		15-22-068-09 W5M
49	Grande Prairie HP	**0.1**	**40.6**	**1.2**		17-26-071-06 W6M
62	East Prairie	**BDL**	**34.3**	**0.1**		13-02-072-15 W5M
63	Girouxville 3				**0.1**	14-02-077-23 W5M
64	Girouxville 4				**0.2**	4-08-077-22 W5M

*BDL = Below Detection Level

*N/S - No sample



Duplicate Summary Chart

Passive Summary for May 2012

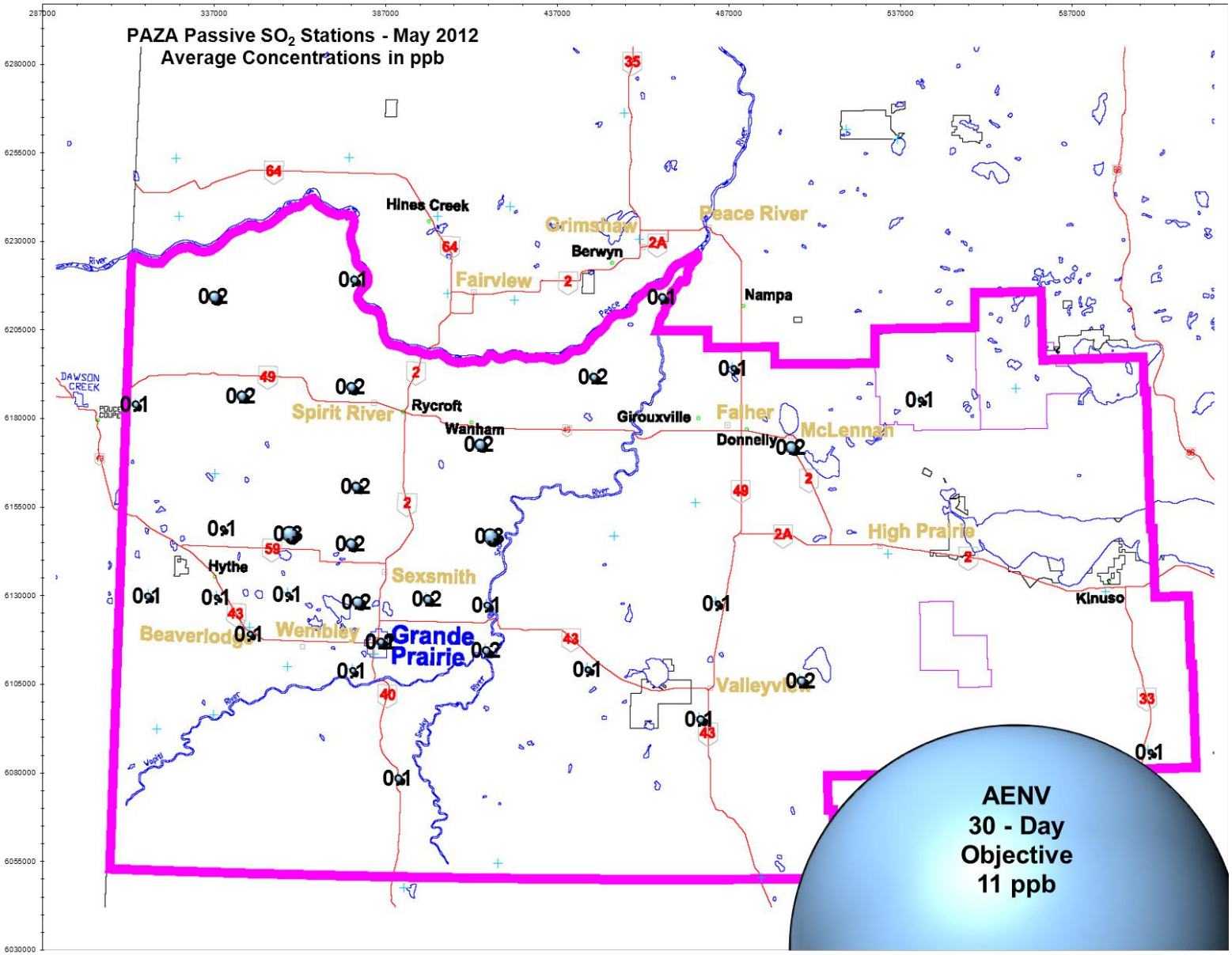
Stats	Sulphur Dioxide SO_2	Ozone O_3	Nitrogen Dioxide NO_2	Hydrogen Sulphide H_2S
	ppb	ppb	ppb	ppb
	Passive Summary for May2012 (PAZA Zone)			
Mean	**0.2**	**37.1**	**0.5**	**0.1**
Standard Deviation	**0.0**	**3.8**	**0.3**	**0.1**
Minimum	**0.1**	**28.1**	**0.1**	**0.1**
Minimum At	**Poplar (#17)**	**Gold Creek (#32)**	**East Prairie (#62)**	**Gift Lake (#45)**
Maximum	**0.3**	**45.9**	**1.5**	**0.2**
Maximum At	**Webber Creek (#11)**	**Wanham (#19)**	**Grande Prairie I (#27)**	**Girouxville 4**

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

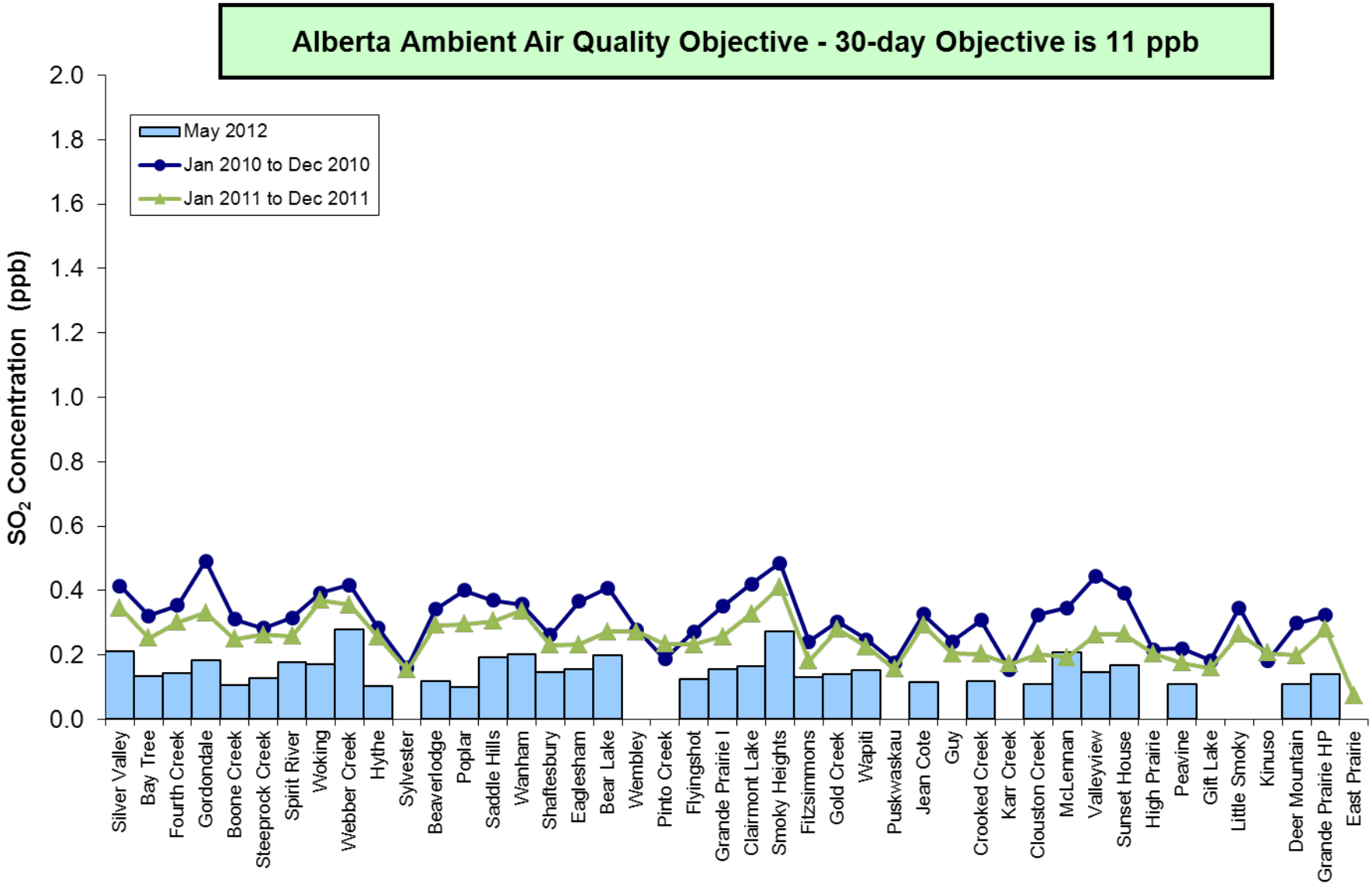
	SO_2	O_3	NO_2
PAZA Beaverlodge station	**0.1**	**40.1**	**1.6**
PAZA Beaverlodge passive	**0.1**	**42.9**	**0.5**

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

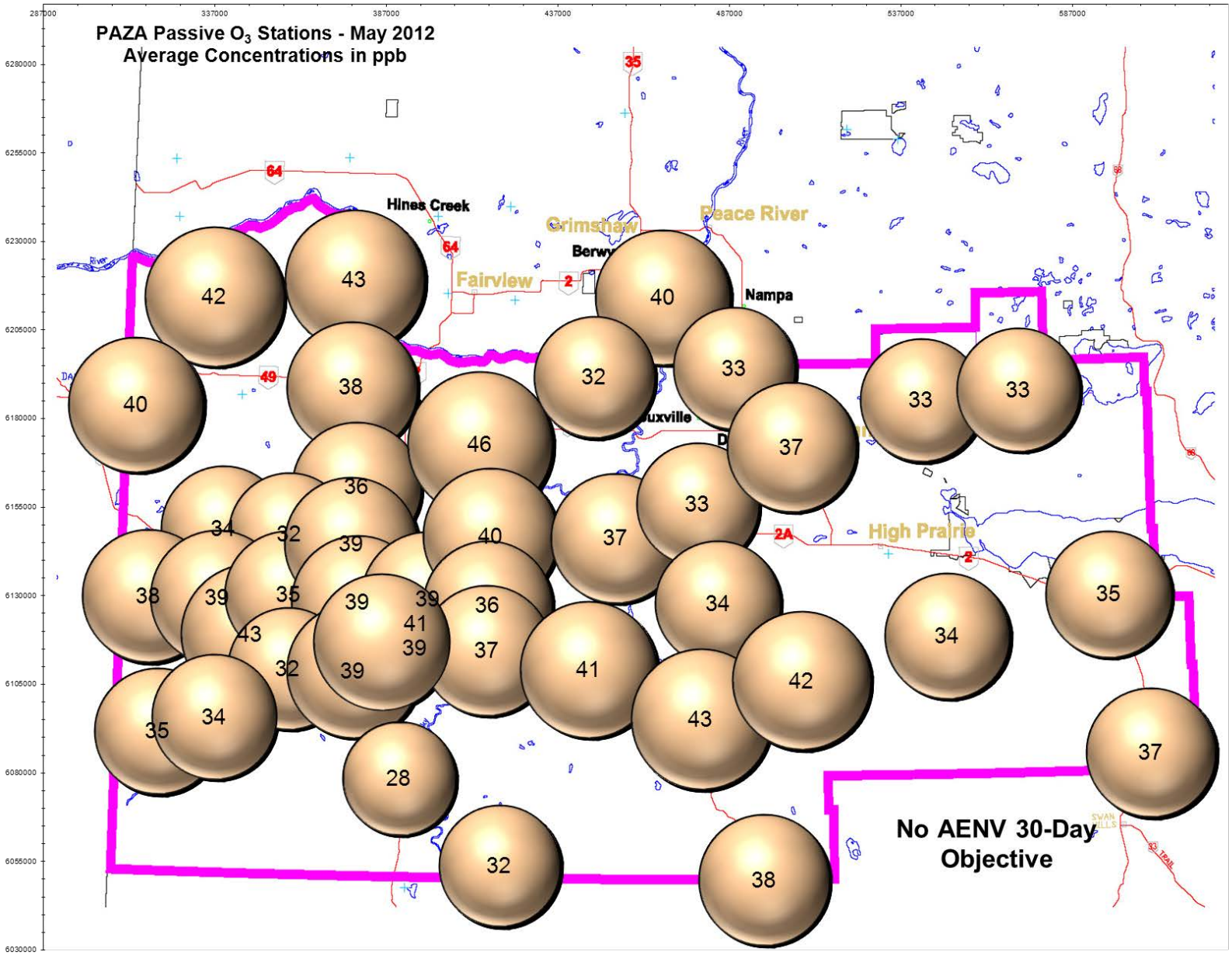
	SO_2	O_3	NO_2
PAZA Henry Pirker station	**0.1**	**36.6**	**4.6**
PAZA Grande Prairie passive	**0.1**	**40.6**	**1.2**



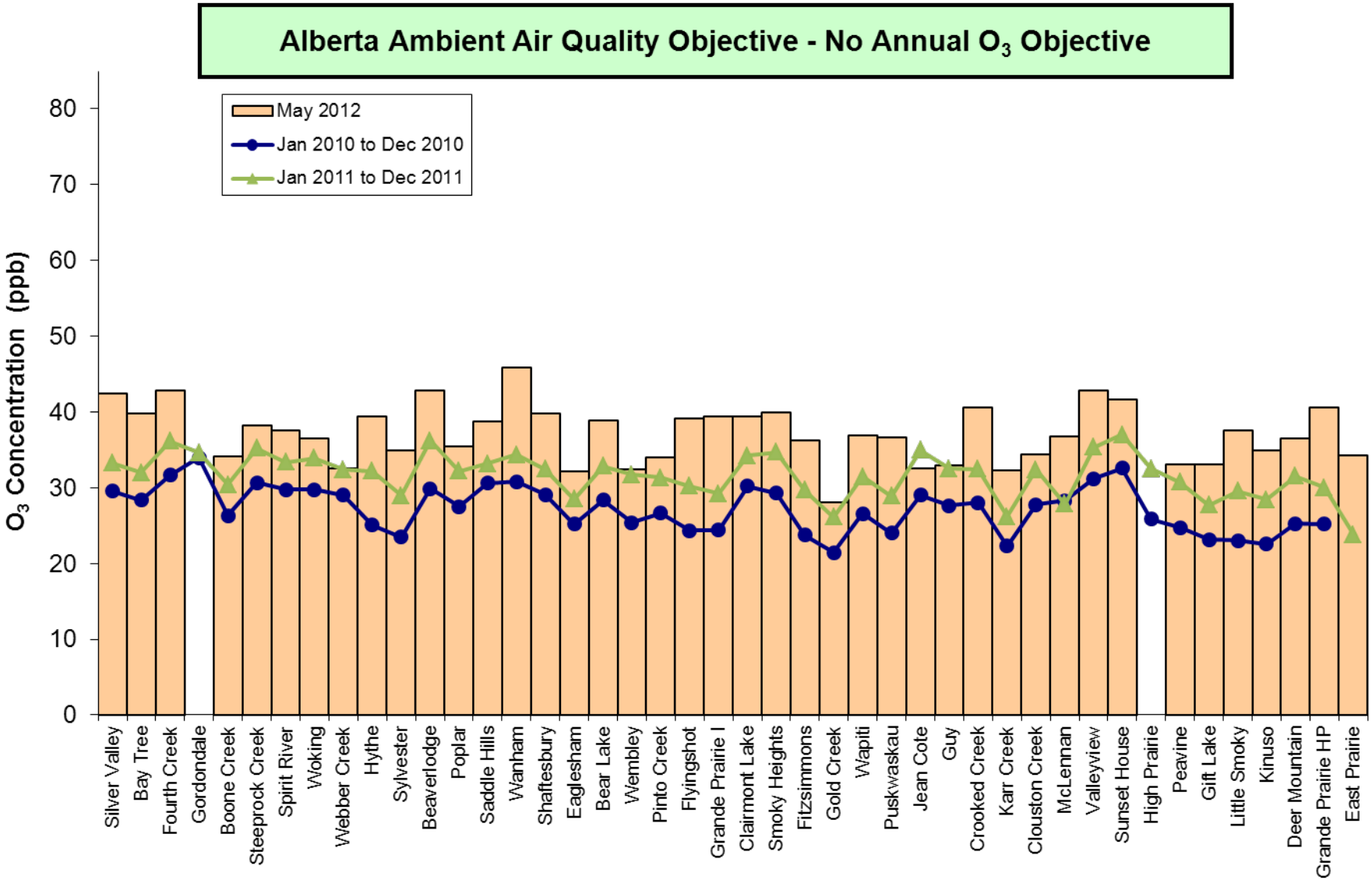
SO_2 Bubble Chart



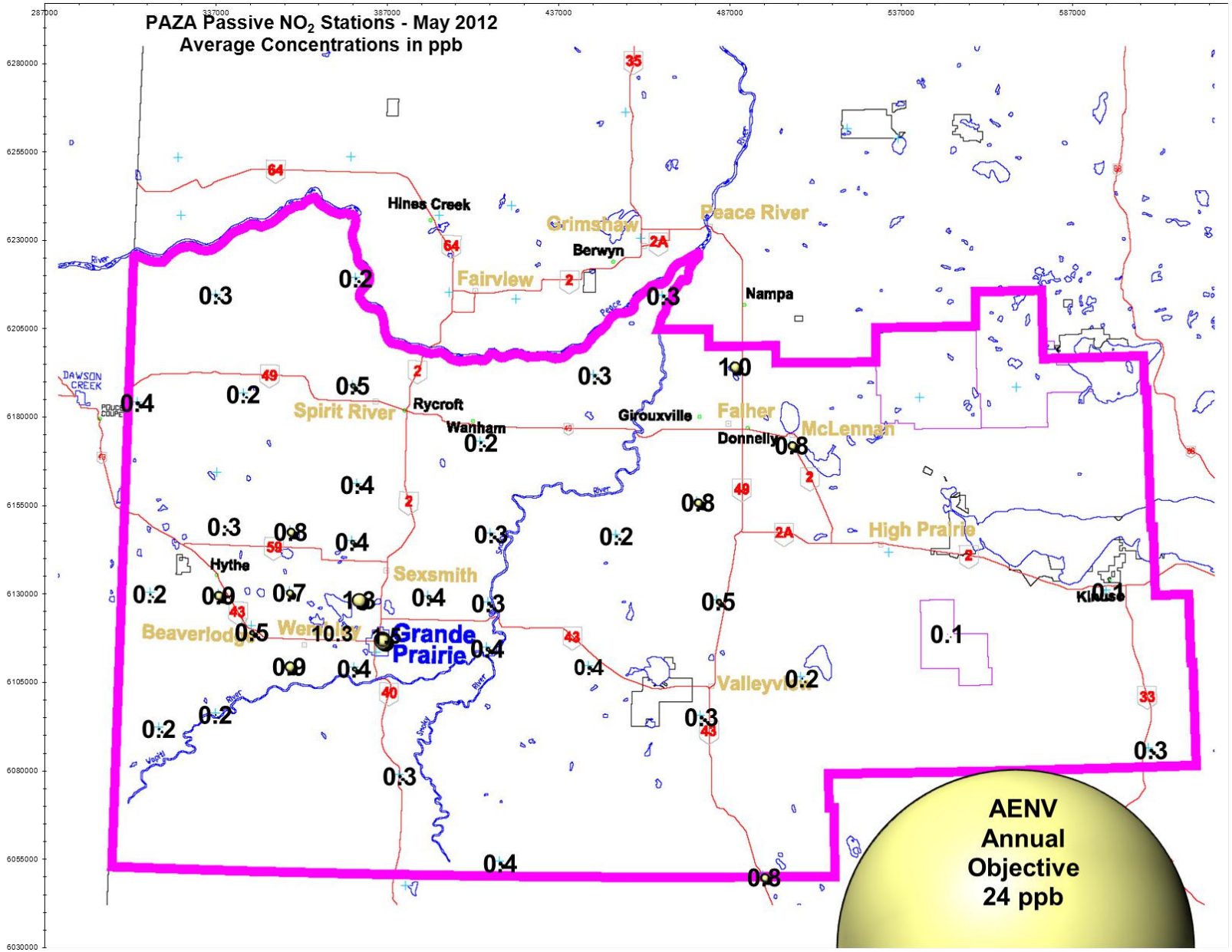
SO_2 Summary Chart



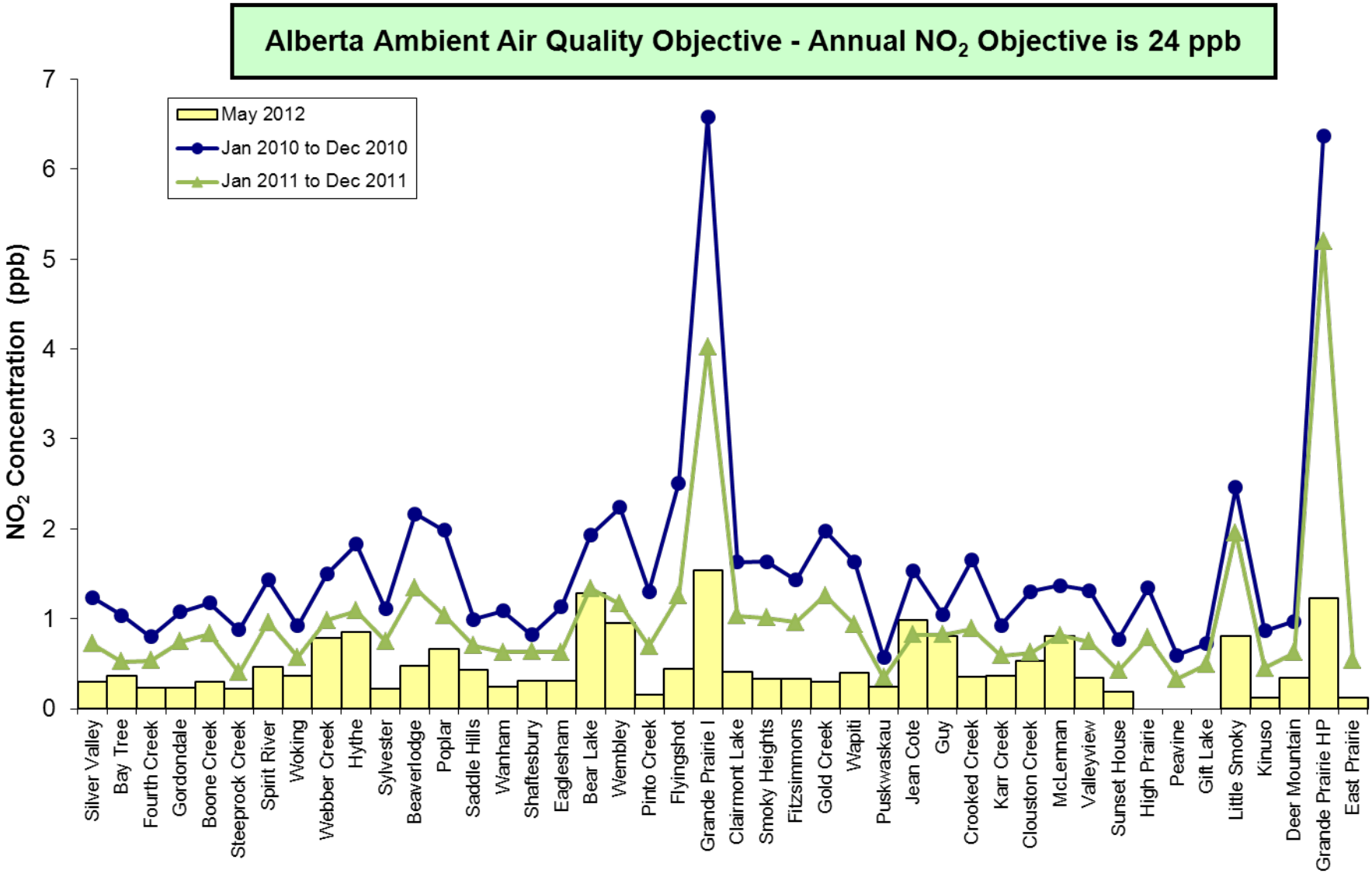
O_3 Bubble Chart



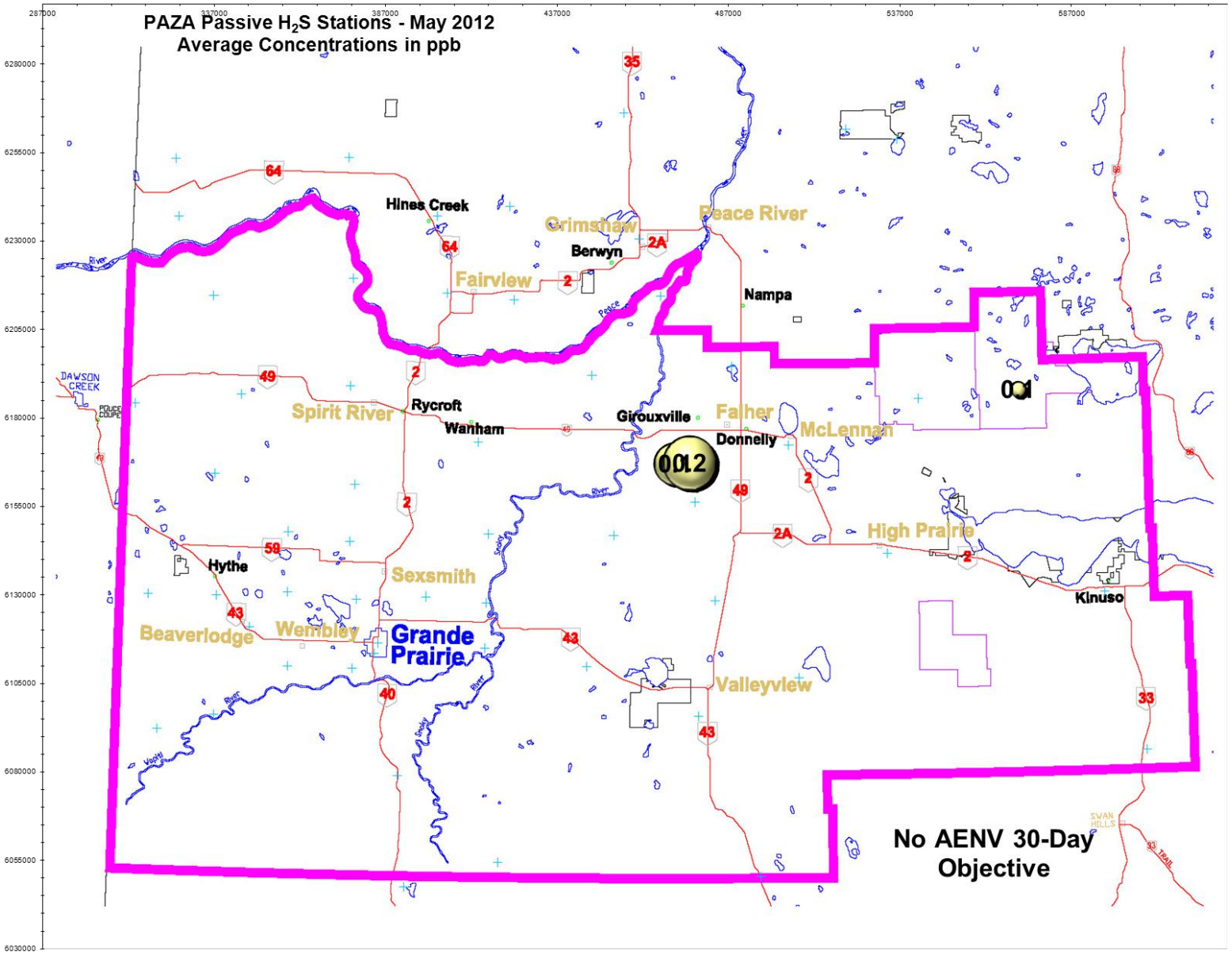
O_3 Summary Chart



NO_2 Bubble Chart



NO_2 Summary Chart



H_2S Bubble Chart

May 2012 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

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

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

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

PAZA – Sunset House Station with the following calibrations:
SO_2, NO, NO_2, NO_x, O_3, TRS

Calibration Report

FOCUS AIR QUALITY MONITORING

Parameter **SO2**

Air Monitoring Network **PAZA**

Station Information

Calibration Date	May 21, 2012	Previous Calibration	April 16, 2012
Station Number	1	Station Location	Henry Pirker
Reason:	Routine / Install	Removal	Other:
Start Time (MST)	8:00	End Time (MST)	12:05
Barometric Pressure	0.918 ATM	Station Temperature	20.0 Deg C
Calibrator	Environics	Serial Number	3474
Cal Gas Conc	49.8 ppm	Cal Gas Cert Date	3/28/2013
		Cal Gas Cylinder #	LL85275
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 1 volt	DACS channel #	10
	Before		After
Calculated slope	0.999839	Calculated slope	0.993066
Calculated intercept	-1.634408	Calculated intercept	0.622982
Analyzer make	TEI 43C	Analyzer serial #	610816292

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	8.9		9.2	
Coefficient	0.772		0.797	
Pressure	632.2	mm Hg	630.6	mm Hg
Flow	0.508	lpm	0.504	lpm
Lamp Voltage	44053	Hz	44605	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)
4989	0.00	0.0	0.0	N/A
4989	39.84	394.5	396.8	0.9942
4989	19.91	198.0	198.8	0.9959
4989	9.94	99.0	98.2	1.0083
4989	0.00	0.0	-0.1	As Found Zero
4989	39.84	394.5	384.5	As Found Span
			Average Correction Factor	0.9995

Calculated value of As Found Response: 382.9 ppb Percent Change of As Found: 2.9%

	before calibration		after calibration	
Auto zero	0.1	ppb	0.1	ppb
Auto span	235.4	ppb	242.8	ppb

Notes: Slight span adjust

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **SO2**

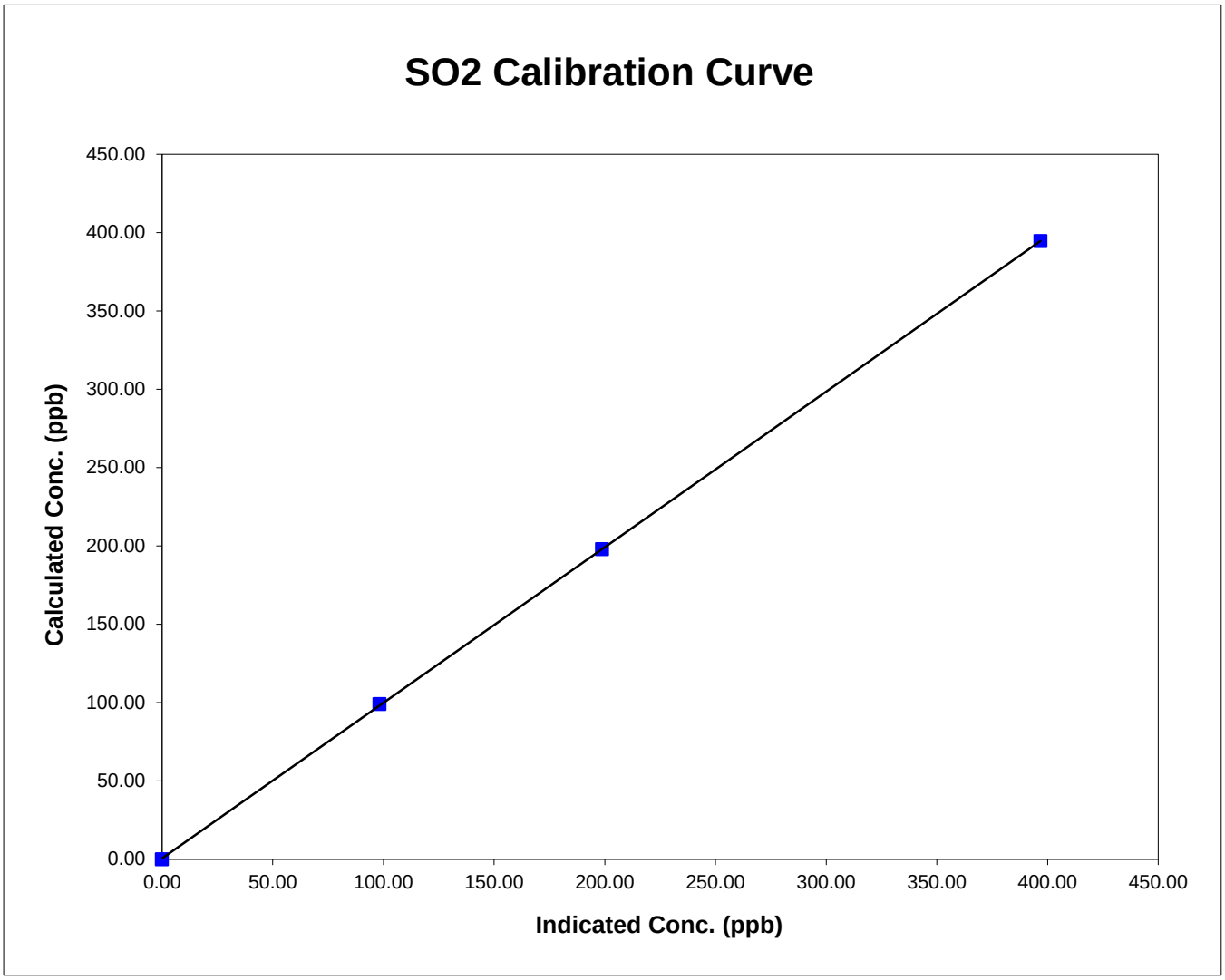
Air Monitoring Network **PAZA**

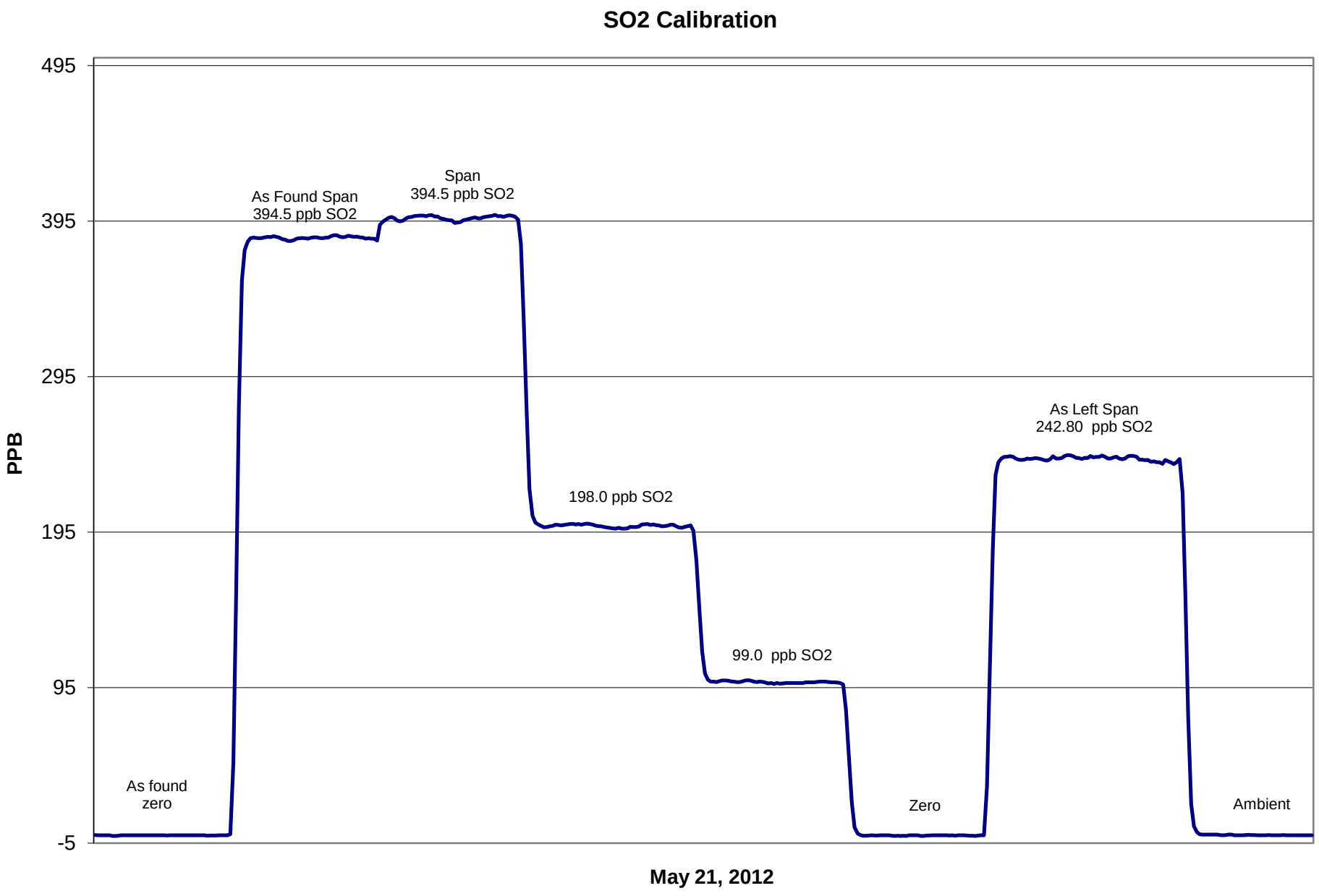
Station Information

Calibration Date	May 21, 2012	Previous Calibration	April 16, 2012
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	8:00	End Time (MST)	12:05
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	0.0	N/A		
394.5	396.8	0.9942	Correlation Coefficient	0.999986
198.0	198.8	0.9959		
99.0	98.2	1.0083	Slope	0.993066
			Intercept	0.622982




SO2 Calibration
495
395
295
195
95
-5
PPB
As found
zero
As Found Span
394.5 ppb SO2
Span
394.5 ppb SO2
198.0 ppb SO2
99.0 ppb SO2
Zero
As Left Span
242.80 ppb SO2
Ambient
May 21, 2012

Calibration Report

Parameter **NO_X-NO-NO_2**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	May 21, 2012	Previous Calibration	April 16, 2012
Station Number	1	Station Location	Henry Pirker

Reason: Routine Installation Removal Other:

Start Time (MST)	8:00		End Time (MST)	18:14	
Barometric Pressure	0.918	Atm	Station Temperature	20.0	Deg C
Calibrator	Environics		Serial Number	3474	
NO Cal Gas Conc	52.5	ppm	Cal Gas Expiry Date	March 28, 2013	
NOx Cal Gas Conc	52.5	ppm	Cal Gas Serial #	LL85275	

DACS Information

DACS make	CR3000	DACS serial No.	5408

Parameter		NO2	NOx	NO
Before	Data Slope	1.007822	1.001801	1.002029
	Data Offset	0.588813	-2.376591	-2.264507
After	Data Slope	0.998277	0.997978	0.998129
	Data Offset	-0.136077	0.056580	0.256944
Channel #		8	6	7
Voltage Range		0 - 5 VDC	0 - 5 VDC	0 - 5 VDC

Analyzer Information

Analyzer make/model	TEI 42C	Analyzer serial #	508011073

Test Point	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
NO offset	10.8	mV	10.4	mV
NOx bkgnd	11.1	mV	10.7	mV
NO coefficient	0.792		0.762	
NOx coefficient	0.999		0.999	
NO2 conv temp	318.0	Deg C	318.0	Deg C
PMT Temp	-2.5	Deg C	-2.5	Deg C
PMT Volt	-786.0	mV	-786.0	mV
R Cell Press	174.5	in Hg	174.6	in Hg

Calibration Report

Parameter **NOx-NO-NO_2**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

Calibration Date: May 21, 2012 Station Location: Henry Pirker

	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	4989	0.00	0.0	0.0	0.0	0.1	0.0	0.0	N/A	N/A
1	4989	39.82	415.7	415.7	0.0	416.5	416.3	0.2	0.9982	0.9986
2	4989	19.91	208.7	208.7	0.0	209.3	209.0	0.3	0.9971	0.9986
3	4989	9.94	104.4	104.4	0.0	104.2	103.8	0.3	1.0022	1.0056
AFZ	4989	0.00	0.0	0.0	0.0	0.1	0.1	0.0	0.0000	0.0000
AFS	4989	39.83	415.8	415.8	0.0	432.9	432.4	0.5	0.9605	0.9617
							Average Correction Factor		0.9992	1.0009

As Found Concentrations: NO_X= 430.4 NO= 430.0 As Found Percent Change NO_X= 3.5% NO= 3.4%

Dilution Flow 4989 ccm Source Gas Flow 39.85 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	0.1	0.1	0.0	0.1	0.0	0.0	N/A	N/A	N/A	N/A
NO point	414.4	414.4	0.0	414.7	414.4	0.3	0.9993	1.0000	N/A	N/A
300	414.4	86.6	327.8	414.9	86.6	328.4	0.9988	1.0000	0.9981	100.2%
200	414.4	221.7	192.7	414.9	221.7	193.2	0.9988	1.0000	0.9971	100.3%
100	414.4	353.8	60.6	414.7	353.8	60.9	0.9994	1.0000	0.9950	100.5%
					Average Correction Factor		0.9990	1.0000	0.9967	100.3%

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	-0.1	0.0	0.0	ppb	0.1	0.0	0.1	ppb
Auto span	168.4	169.5	1.2	ppb	170.2	169.1	1.0	ppb

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **NO_2**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

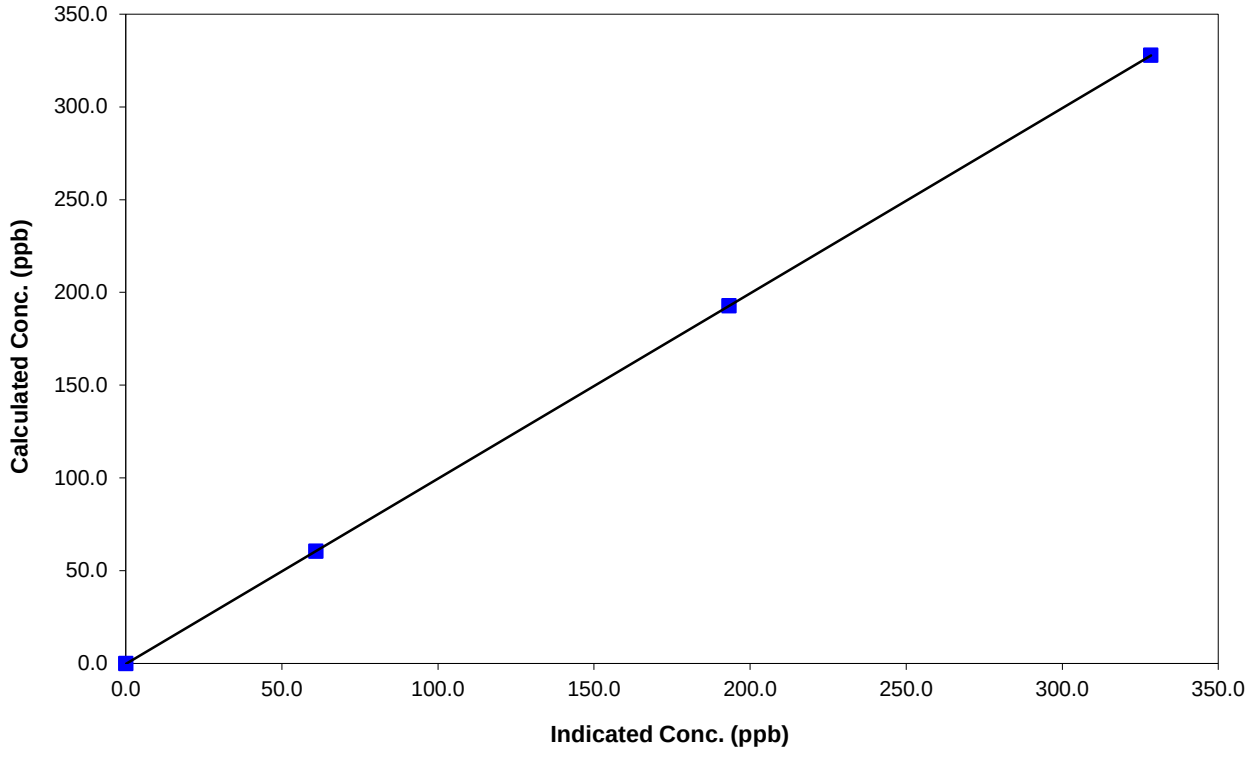
Station Information

Calibration Date	May 21, 2012	Previous Calibration	April 16, 2012
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	8:00	End Time (MST)	18:14
Analyzer make	TEI 42C	Analyzer serial #	508011073

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A		
327.8	328.4	0.9981	Correlation Coefficient	1.000000
192.7	193.2	0.9971		
60.6	60.9	0.9950	Slope	0.998277
			Intercept	-0.136077

NO_2 Calibration Curve



Calibration Summary

Parameter **NO_x**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

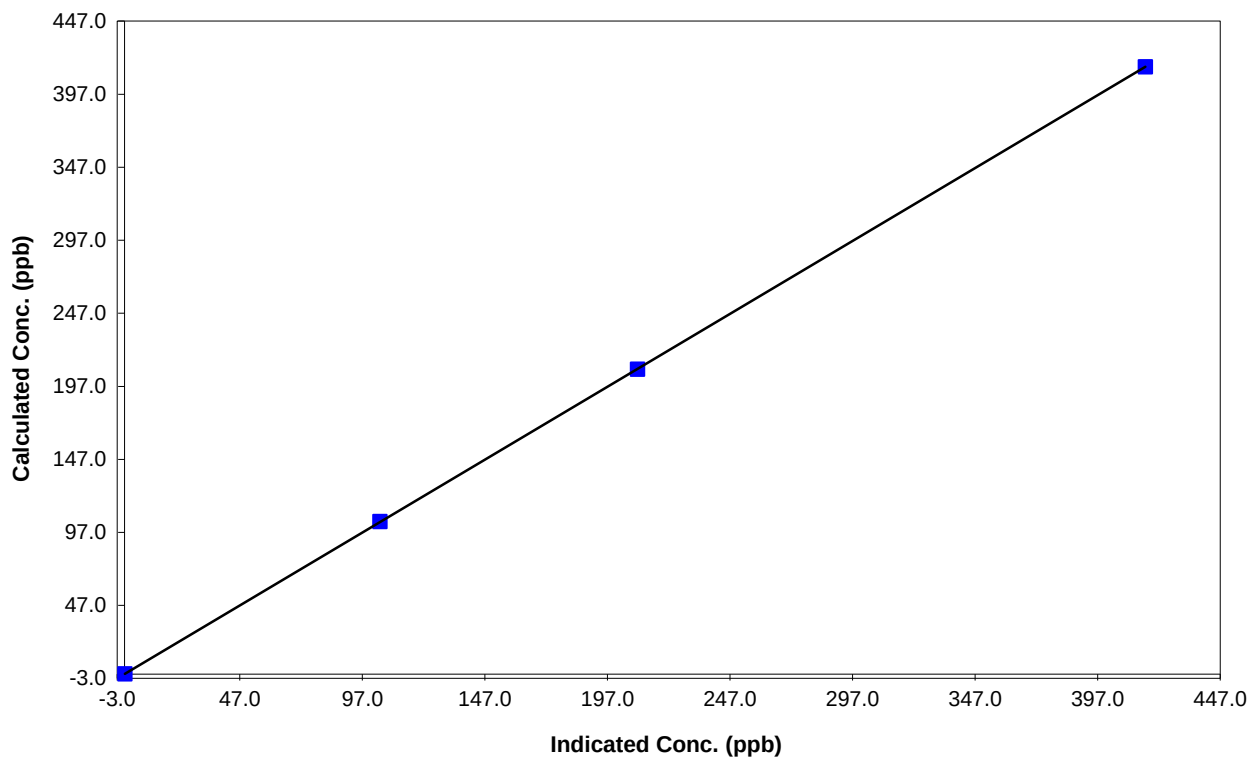
Station Information

Calibration Date	May 21, 2012	Previous Calibration	April 16, 2012
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	8:00	End Time (MST)	18:14
Analyzer make	TEI 42C	Analyzer serial #	508011073

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A		
415.7	416.5	0.9982	Correlation Coefficient	0.999998
208.7	209.3	0.9971		
104.4	104.2	1.0022	Slope	0.997978
			Intercept	0.056580

NOx Calibration Curve



Calibration Summary

Parameter **NO**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

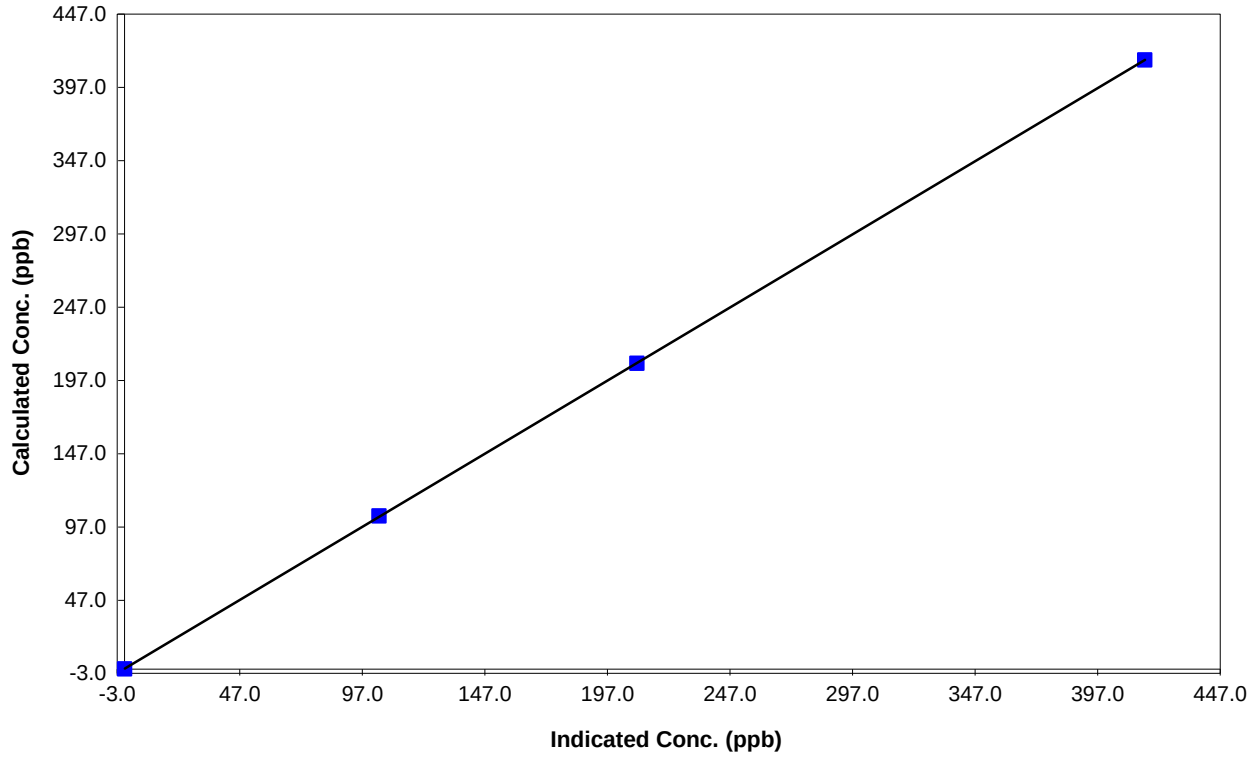
Station Information

Calibration Date	May 21, 2012	Previous Calibration	April 16, 2012
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	8:00	End Time (MST)	18:14
Analyzer make	TEI 42C	Analyzer serial #	508011073

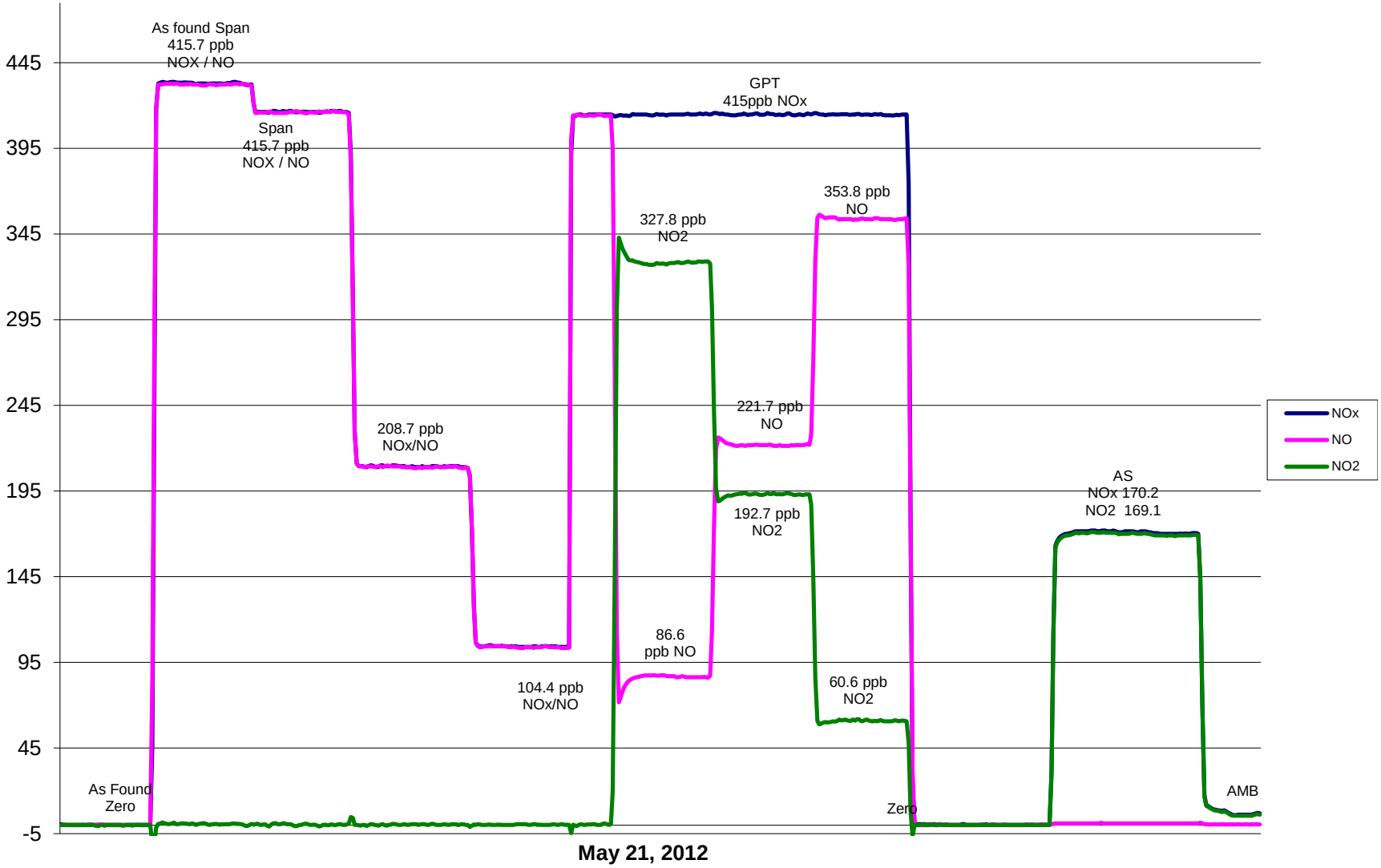
Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A		
415.7	416.3	0.9986	Correlation Coefficient	0.999996
208.7	209.0	0.9986		
104.4	103.8	1.0056	Slope	0.998129
			Intercept	0.256944

NO Calibration Curve



PASZA
NO_X Calibration



Calibration Report

Parameter **O3**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	May 21, 2012	Previous Calibration	April 16, 2012
Station Number	1	Station Location	Henry Pirker
Reason: Routine	Install	Removal	Other:
Start Time (MST)	16:00	End Time (MST)	19:17
Barometric Pressure	0.918 atm	Station Temperature	20.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Concentration	NA	Cal Gas Expiry Date	NA
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 1 volt	DACS channel #	5
	Before		After
Calculated slope	1.012513	Calculated slope	1.011613
Calculated intercept	0.971830	Calculated intercept	-0.301683
Analyzer make	TECO 49C	Analyzer serial #	607415761

	before		after	
Concentration range	500	ppb	500	ppb
offset	-0.7	ppb	-0.7	ppb
slope	1.069		1.125	
O3 Lamp temp	71.1	Deg C	71.1	Deg C
Intensities	78070/68746	mV	78005/68666	mV
Pressure	691.4	inches Hg	680.5	inches Hg
Flow A	0.723	ccm	0.714	ccm
Flow B	0.740	ccm	0.732	ccm

Calibration Data

Dilution air flow rate (cc/min)	Referenced concentration (ppb)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
5028	0	0.0	0.3	N/A
5028	300	327.8	324.5	1.0100
5028	200	192.7	190.4	1.0122
5028	100	60.6	60.4	1.0037
5028	0	0.0	0.4	As found zero
5028	300	327.8	307.4	As found span
			Average Correction Factor	1.0087

Calculated value of As Found Response: 311.8 ppm Percent Change of As Found: -4.9%

	before calibration		after calibration	
Auto zero	0.3	ppb	0.3	ppb
Auto span	161.8	ppb	163.5	ppb

Notes: Slight span adjust

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **O3**

Air Monitoring Network **PAZA**

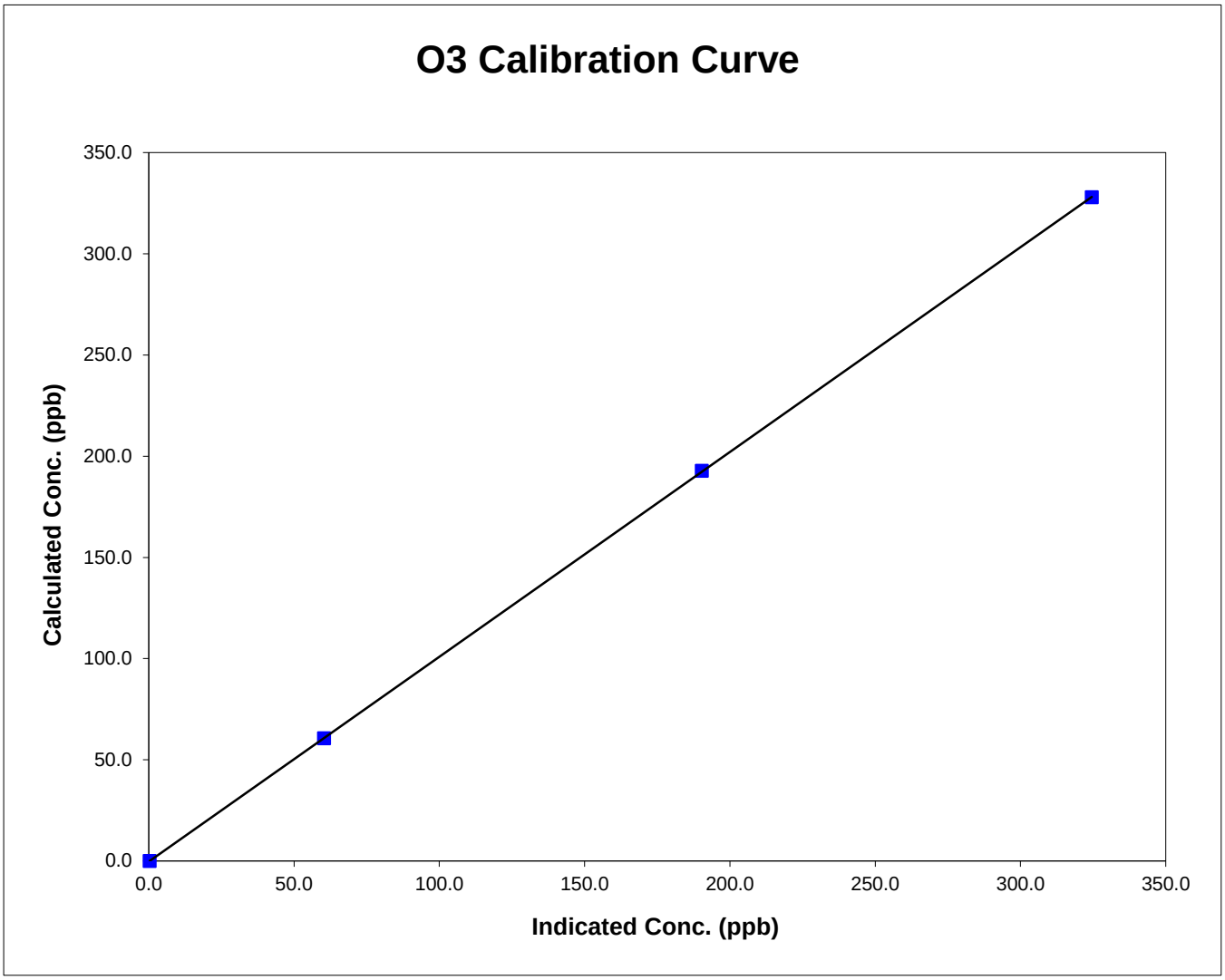
FOCUS AIR QUALITY MONITORING

Station Information

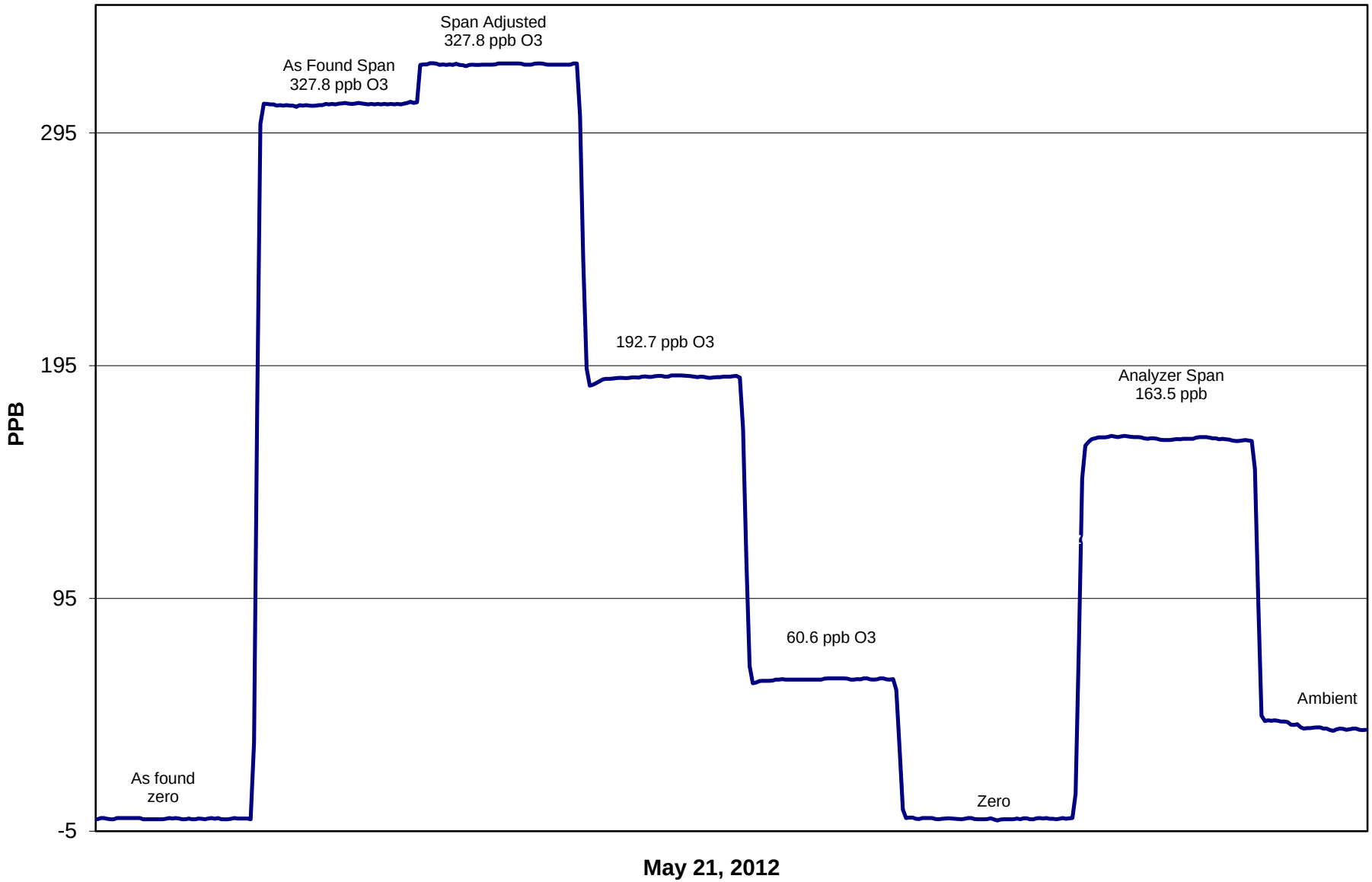
Calibration Date	May 21, 2012	Previous Calibration	April 16, 2012
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	16:00	End Time (MST)	19:17
Analyzer make/model	TECO 49C	Analyzer serial #	607415761

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	NA		
327.8	324.5	1.0100	Correlation Coefficient	0.999996
192.7	190.4	1.0122		
60.6	60.4	1.0037	Slope	1.011613
			Intercept	-0.301683



O3 Calibration



Calibration Report

FOCUS AIR QUALITY MONITORING

Parameter **CO**

Air Monitoring Network **PAZA**

Station Information

Calibration Date	May 17, 2012	Previous Calibration	April 17, 2012
Station Number	1	Station Location	Henry Pirker
Reason: Routine	Install	Removal	Other:
Start Time (MST)	8:30	End Time (MST)	11:48
Barometric Pressure	0.918 ATM	Station Temperature	21.0 Deg C
Calibrator	Environics	Serial Number	3474
Cal Gas Conc	3000 ppm	Cal Gas Expiry Date	AUG 28/05
		Cal Gas Cylinder #	AAL20565
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 1 volt	DACS channel #	9
	Before		After
Calculated slope	1.004032	Calculated slope	1.002783
Calculated intercept	-0.555700	Calculated intercept	-0.426075
Analyzer make	TEI Model 48C	Analyzer serial #	508011062

	before		after	
Concentration range	0 - 50	ppm	0 - 50	ppm
CO span setting	1.088		1.088	
CO zero setting	3.024		3.035	
Sample pressure	684.3	mm Hg	680.6	mm Hg
Sample Flow	1.148	LPM	1.140	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)
4988	0.00	0.00	0.55	N/A
4988	39.83	23.77	24.22	0.9814
4988	19.90	11.92	12.16	0.9806
4988	9.93	5.96	6.31	0.9444
4988	0.00	0.00	0.55	As Found Zero
4988	39.85	23.78	24.22	As Found Span
			Average Correction Factor	0.9688

Calculated value of As Found Response: 23.206 ppm Percent Change of As Found: 2.4%

	before calibration		after calibration	
Auto zero	0.03	ppm	0.03	ppm
Auto span	19.56	ppm	19.61	ppm

Notes: No adjustments necessary

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **CO**

Air Monitoring Network **PAZA**

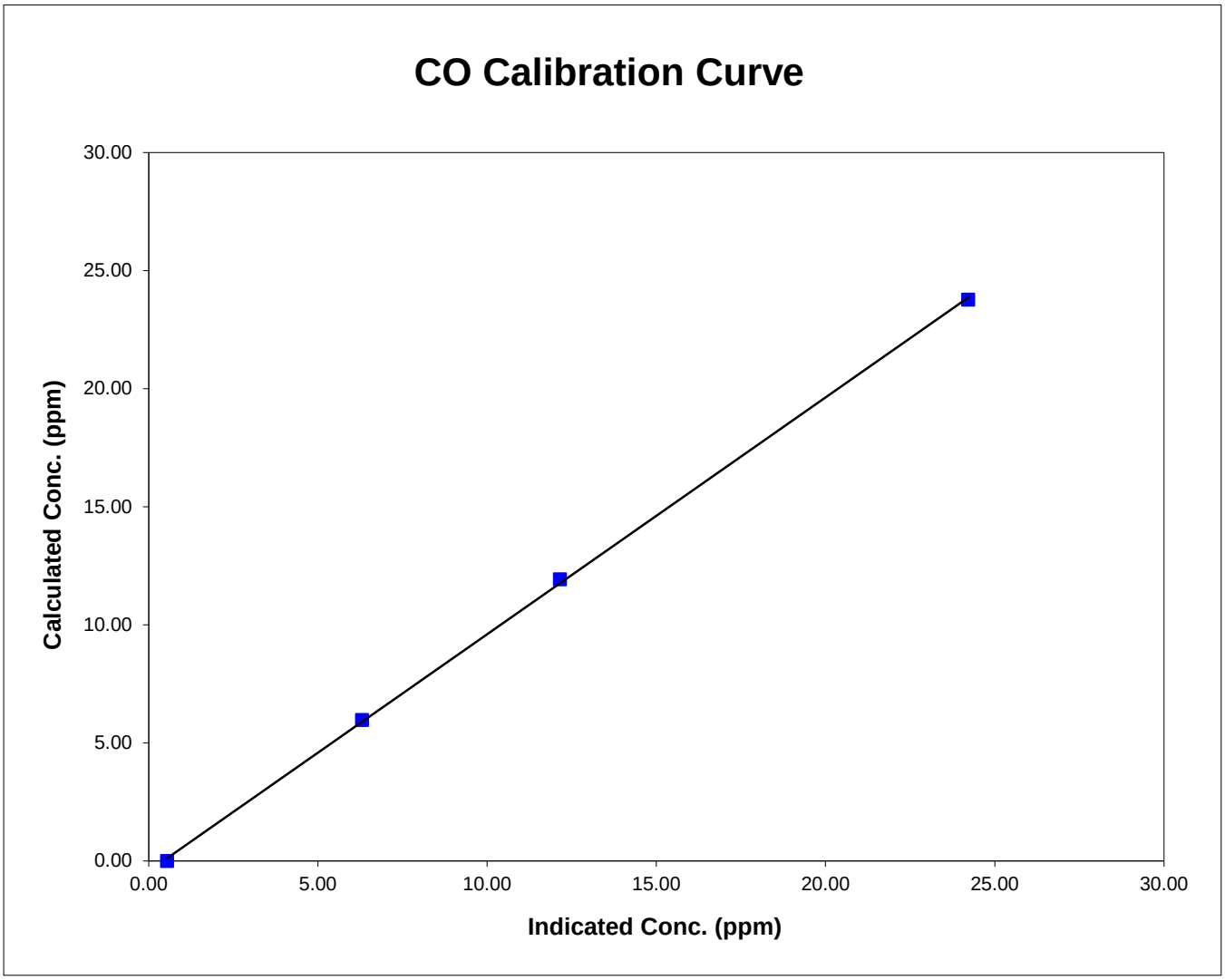
FOCUS AIR QUALITY MONITORING

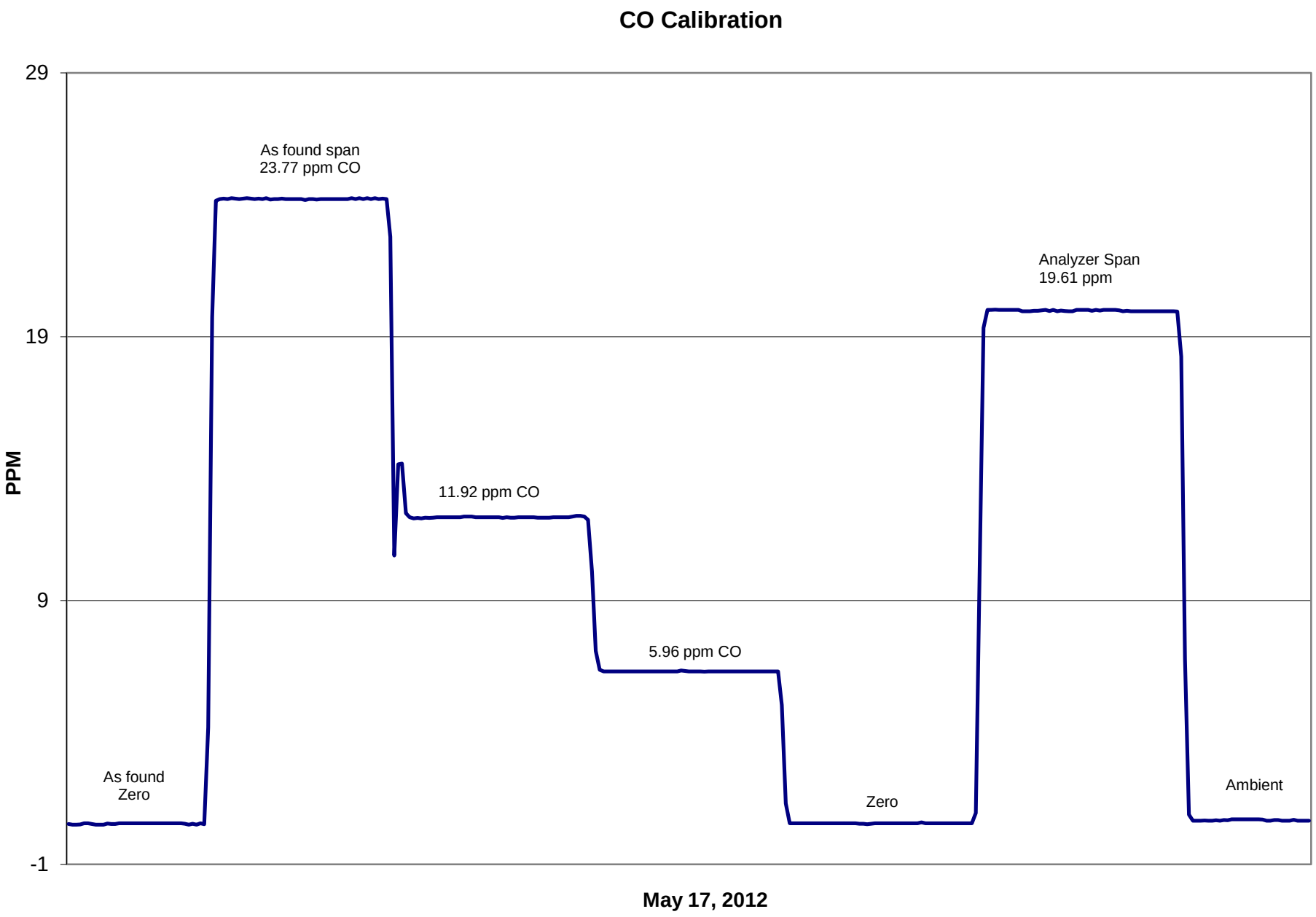
Station Information

Calibration Date	May 17, 2012	Previous Calibration	April 17, 2012
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	8:30	End Time (MST)	11:48
Analyzer make/model	TEI Model 48C	Analyzer serial #	508011062

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.548	N/A		
23.766	24.215	0.9814	Correlation Coefficient	0.999833
11.921	12.157	0.9806		
5.960	6.311	0.9444	Slope	1.002783
			Intercept	-0.426075




CO Calibration
29
19
9
-1
PPM
As found span
23.77 ppm CO
11.92 ppm CO
5.96 ppm CO
Analyzer Span
19.61 ppm
As found
Zero
Zero
Ambient
May 17, 2012

Calibration Report

Parameter **THC**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	May 17, 2012	Previous Calibration	April 17, 2012
Station Number	1	Station Location	Henry Pirker
Reason: Routine	Install	Removal	Other:
Start Time (MST)	10:10	End Time (MST)	13:30
Barometric Pressure	0.918 ATM	Station Temperature	20.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Concentratior	701 ppm CH4/ 299 ppm C3H8	Cal Gas Expiry Date	2/4/2010
Cal Gas CH4 equiv	1523.25 ppm	Cal Gas Cylinder #	ALM 004476
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 1 volt	DACS channel #	9
	Before		After
Calculated slope	1.044968	Calculated slope	1.077485
Calculated intercept	-0.320932	Calculated intercept	-0.276961
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 span counts	9616	capture	9616	capture
THC zero counts	447	capture	447	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)
4989	0.00	0.00	0.30	N/A
4989	69.79	21.01	19.78	1.0622
4989	29.87	9.07	8.62	1.0514
4989	9.92	3.02	3.05	0.9927
4989	0.00	0.00	0.31	As Found Zero
4989	69.79	21.01	19.78	As Found Span
			Average Correction Factor	1.0354

Calculated value of As Found Response: 20.028 ppm Percent Change of As Found: 4.7%

	before calibration		after calibration	
Auto zero	0.10	ppm	0.04	ppm
Auto span	21.83	ppm	23.48	ppm

Notes: No adjust. Span cylinder was recently changed.

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **THC**

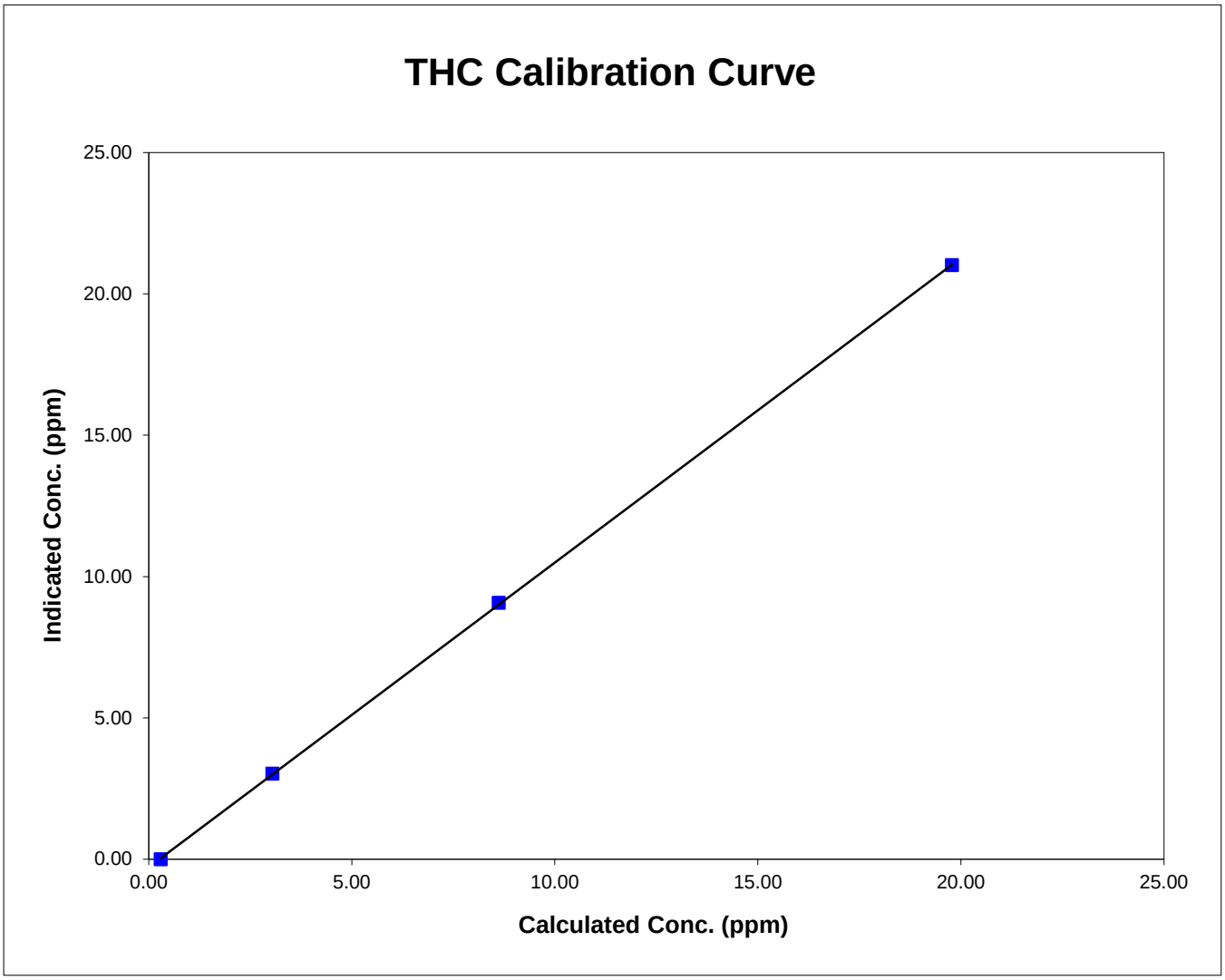
Air Monitoring Network **PAZA**

Station Information

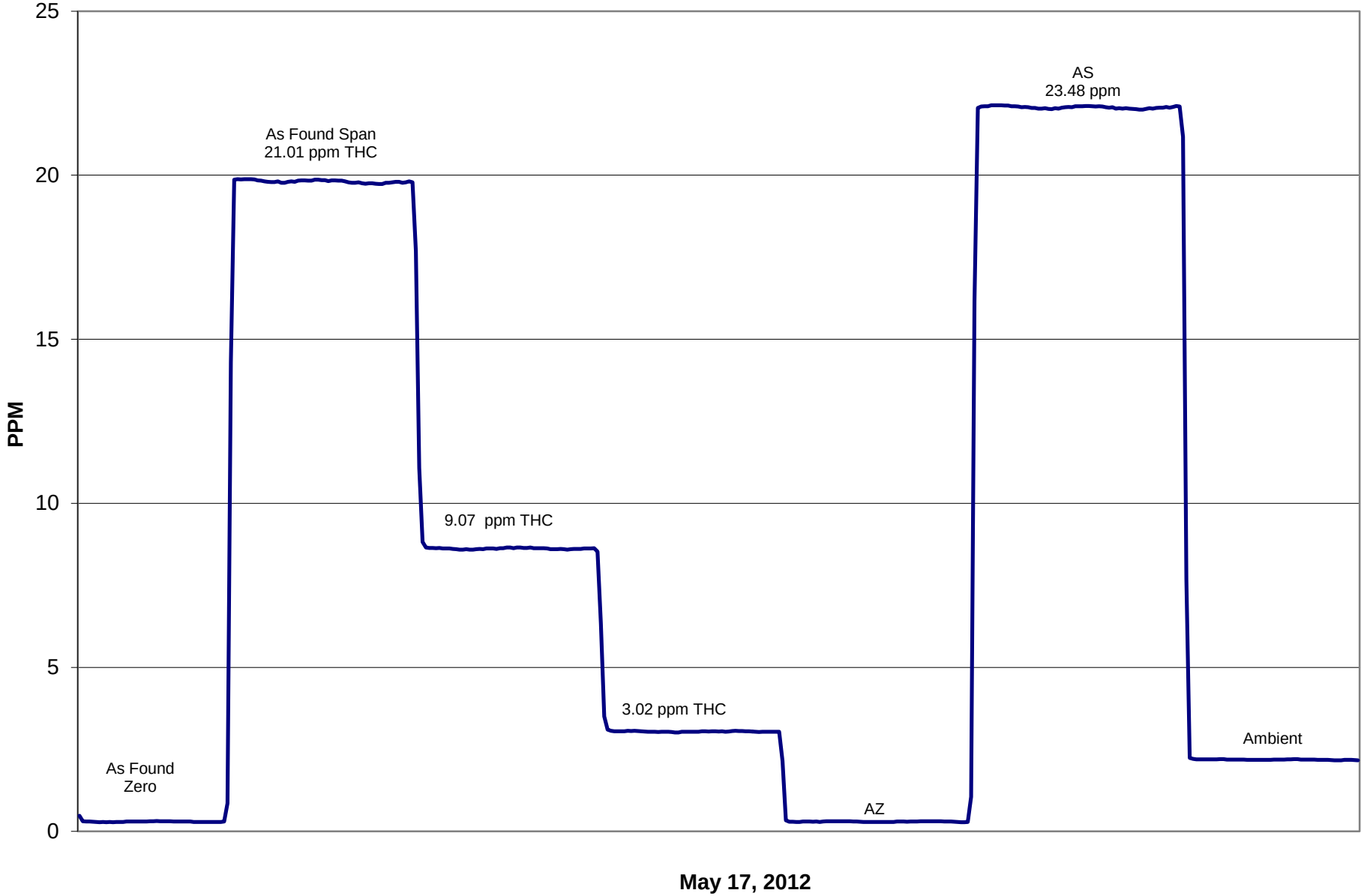
Calibration Date	May 17, 2012	Previous Calibration	April 17, 2012
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	10:10	End Time (MST)	13:30
Analyzer make/model	TEI Model 51C-LT	Analyzer serial #	51CLT-79009-390

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.299	N/A		
21.014	19.783	1.0622	Correlation Coefficient	0.999978
9.066	8.623	1.0514		
3.023	3.045	0.9927	Slope	1.077485
			Intercept	-0.276961



THC Calibration



Calibration Report

Parameter **TRS**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	May 17, 2012	Previous Calibration	April 17, 2012
Station Number	1	Station Location	Henry Pirker
Reason:	Routine / Install	Removal	Other:
Start Time (MST)	12:02	End Time (MST)	16:21
Barometric Pressure	0.918 ATM	Station Temperature	20.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Conc	5.77 ppb	Cal Gas Expiry Date	9/3/2011
		Cal Gas Cylinder #	BLM001434
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 1 volt	DACS channel #	9
	Before		After
Calculated slope	1.017809	Calculated slope	0.992400
Calculated intercept	-0.045360	Calculated intercept	-0.039274
Analyzer make	TEI 45C	Analyzer serial #	630718528

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Coefficient	1.066		1.125	
Background	10.8		11.4	
Pressure	662.6	mm Hg	663.2	mm Hg
Flow	0.459	ccm	0.459	ccm
Lamp Voltage	822	V	822	V

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)		Correction factor (Cc/Ic)
4989	0.00	0.00	0.06	N/A
4989	69.78	79.59	80.20	0.9924
4989	34.88	40.06	40.50	0.9892
4989	8.96	10.34	10.39	0.9956
4989	0.00	0.00	0.32	As Found Zero
4989	69.78	79.59	75.36	As Found Span
			Average Correction Factor	0.9924

Calculated value of As Found Response: 76.3 ppb Percent Change of As Found: 4.1%

	before calibration		after calibration	
Auto zero	-0.29	ppb	0.06	ppb
Auto span	33.10	ppb	34.56	ppb

Notes: Slight span adjustment made.

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **TRS**

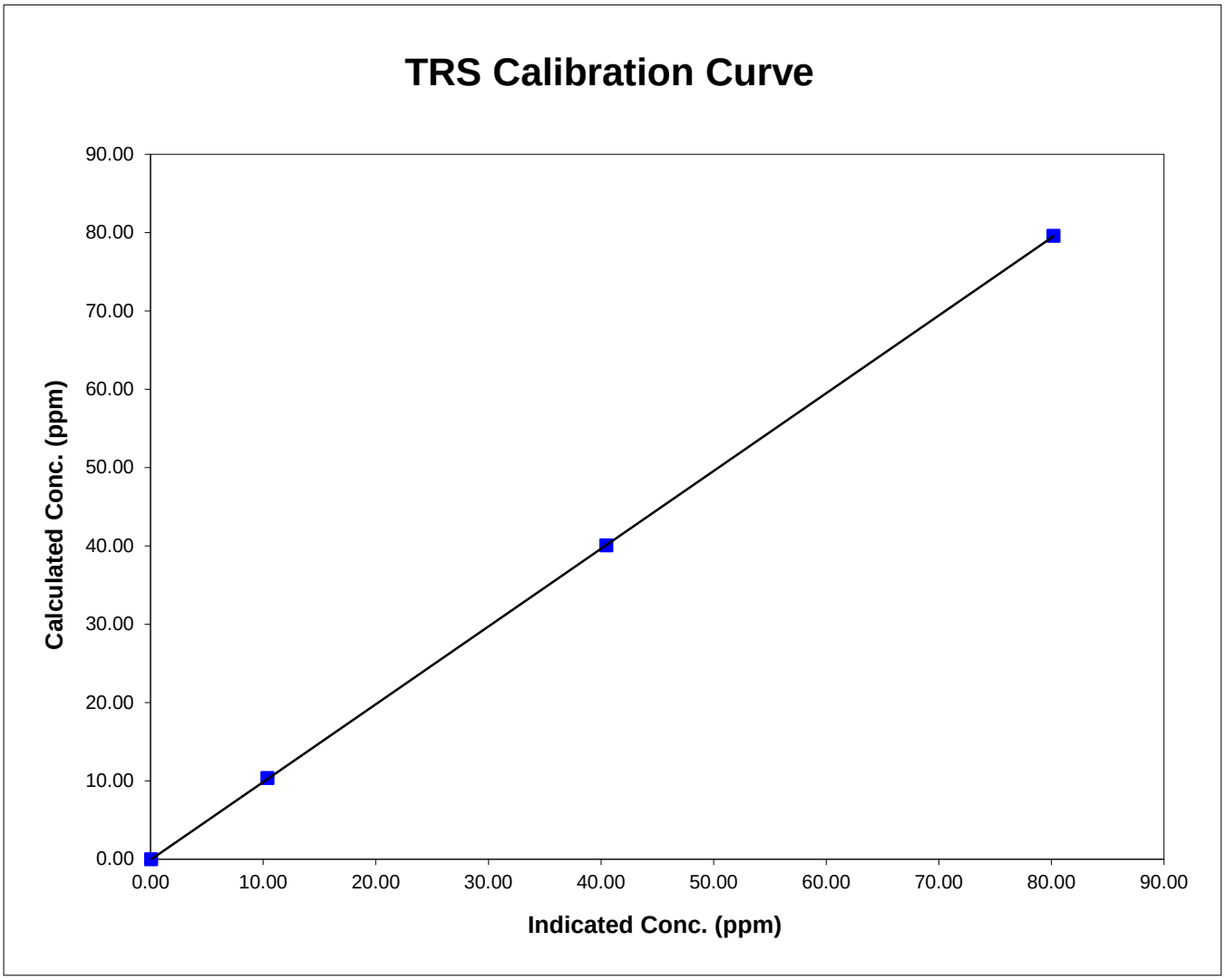
Air Monitoring Network **PAZA**

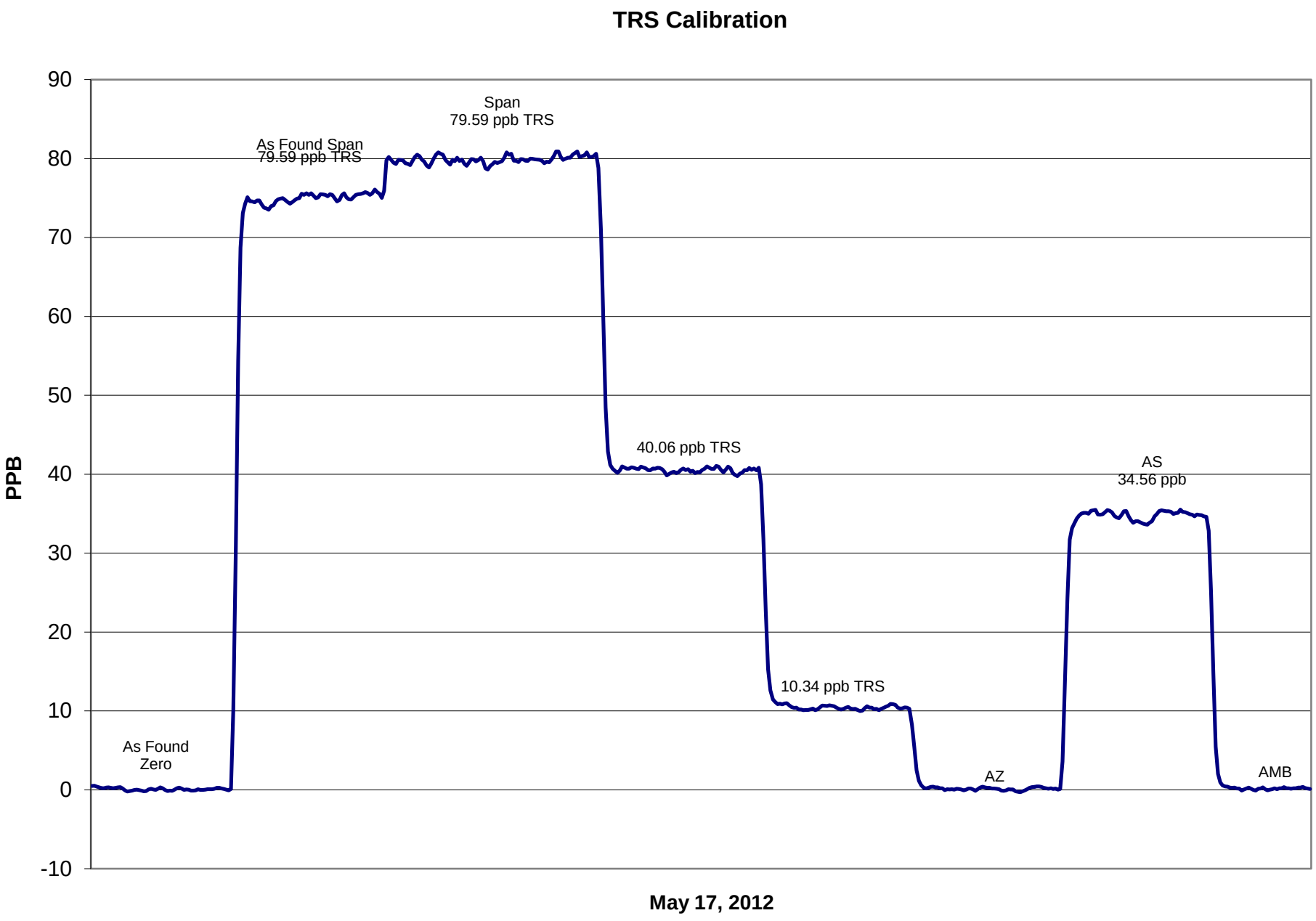
Station Information

Calibration Date	May 17, 2012	Previous Calibration	April 17, 2012
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	12:02	End Time (MST)	16:21
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	0.059	N/A		
79.590	80.204	0.9924	Correlation Coefficient	0.999996
40.060	40.496	0.9892		
10.344	10.390	0.9956	Slope	0.992400
			Intercept	-0.039274




TRS Calibration
90
80
70
60
50
40
30
20
10
0
-10
PPB
As Found Span
79.59 ppb TRS
Span
79.59 ppb TRS
40.06 ppb TRS
10.34 ppb TRS
AS
34.56 ppb
As Found
Zero
AZ
AMB
May 17, 2012

Calibration Report

Parameter **SO_2**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	May 9, 2012	Previous Calibration	April 26, 2012
Station Number	2	Station Location	Evergreen Park
Reason: Routine	Install	Removal	Other:

Start Time (MST)	12:15	End Time (MST)	15:41
Barometric Pressure	0.920 ATM	Station Temperature	20.0 Deg C
Calibrator	Environics	Serial Number	3474
Cal Gas Concentration	49.8 ppm	Cal Gas Expiry Date	3/28/2013
Correction factor	0.031273	Cal Gas Cylinder #	SGAL3245
DACS make	CR3000	DACS serial No.	5236
DACS voltage range	0 - 5 volt	DACS channel #	6
	Before		After
Calculated slope	0.998740	Calculated slope	0.997621
Calculated intercept	-0.332193	Calculated intercept	-0.429162

Analyzer make	Teco 43i	Analyzer serial #	701120008

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	11.5		11.1	
coefficient	1.193		1.171	
Lamp Voltage	832	volts	832	volts
Chamber Temp	45.2	Deg C	45.2	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	665.6	mm Hg	668	mm Hg
Sample Flow	0.446	ccm	0.448	ccm
Lamp Intensity	90	%	90	%

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4989	0.0	0.00	0.3	N/A
4989	39.84	394.5	396.4	0.9952
4989	20.15	200.3	199.5	1.0042
4989	10.10	100.6	102.6	0.9807
4989	0.0	0.0	0.3	As Found Zero
4989	39.84	394.5	400.5	As Found Span
			Average Correction Factor	0.9934

Calculated value of As Found Response: 399.3 ppm Percent Change of As Found: -1.2%

	before calibration		after calibration	
Auto zero	0.6	ppm	0.3	ppm
Auto span	292.7	ppm	280.8	ppm

Notes: Slight span adj .

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **SO2**

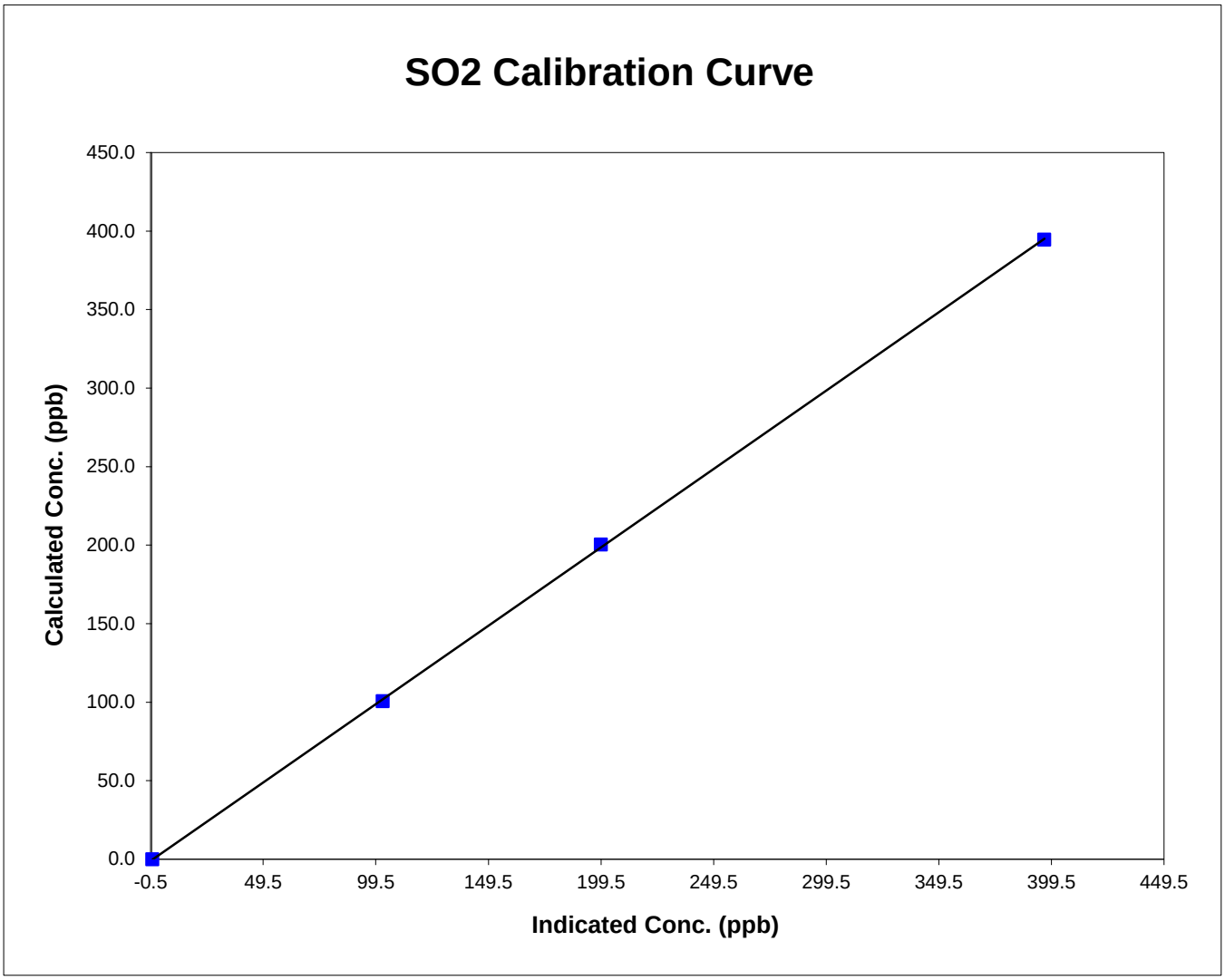
Air Monitoring Network **PAZA**

Station Information

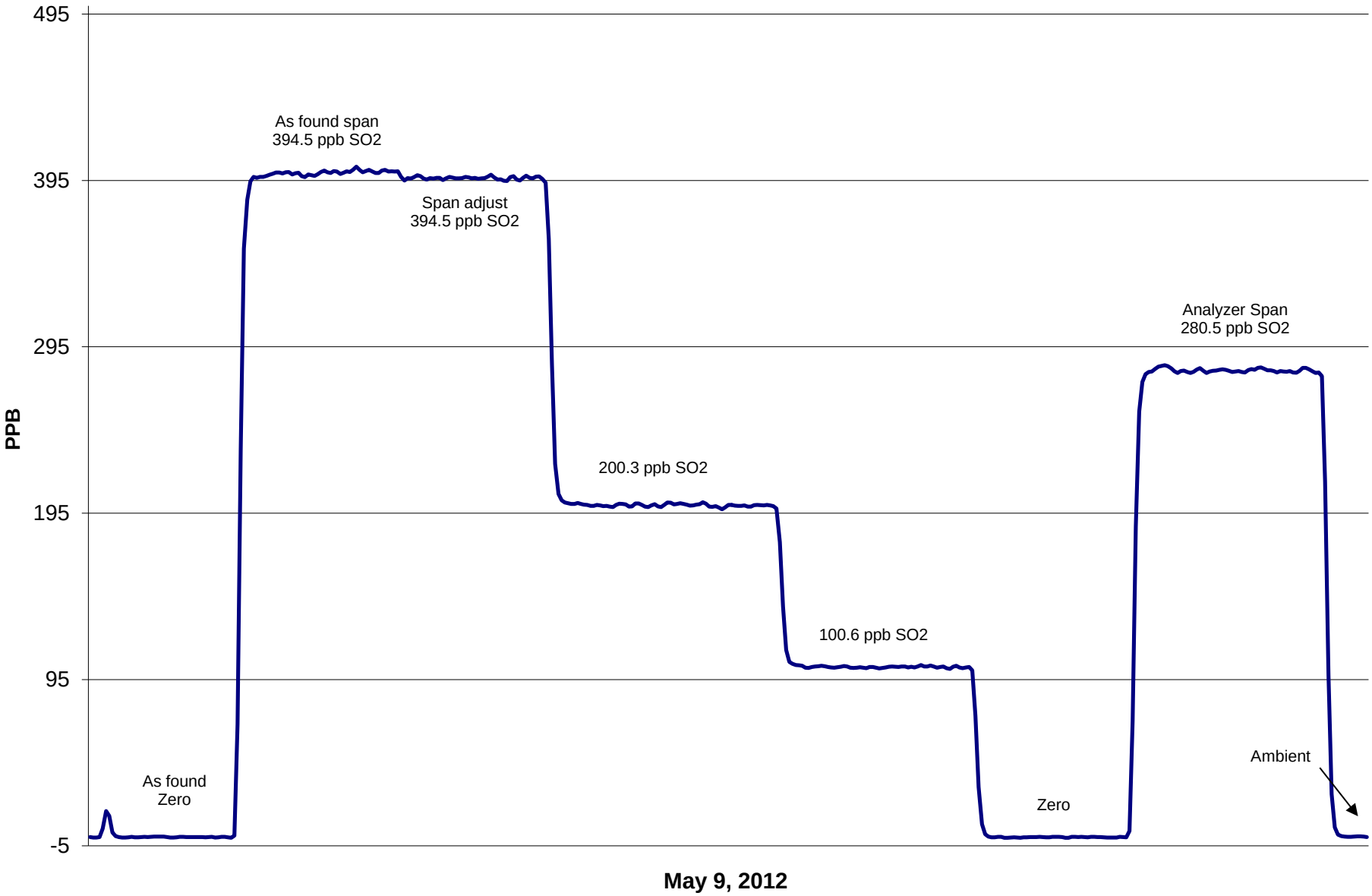
Calibration Date	May 9, 2012	Previous Calibration	April 26, 2012
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	12:15	End Time (MST)	15:41
Analyzer make/model	Teco 43i	Analyzer serial #	701120008

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	N/A		
394.5	396.4	0.9952	Correlation Coefficient	0.999941
200.3	199.5	1.0042		
100.6	102.6	0.9807	Slope	0.997621
			Intercept	-0.429162



SO2 Calibration



Calibration Report

FOCUS AIR QUALITY MONITORING

Parameter **TRS**

Air Monitoring Network **PAZA**

Station Information

Calibration Date	May 1, 2012	Previous Calibration	April 30, 2012
Station Number	2	Station Location	Evergreen Park
Reason: Routine	Install	Removal	Other:

Start Time (MST)	8:15	End Time (MST)	12:41
Barometric Pressure	0.908 ATM	Station Temperature	20.0 Deg C
Calibrator	Environics	Serial Number	3474
Cal Gas Conc	5.77 ppm	Cal Gas Expiry Date	9/3/2011
Correction factor	0.030865	Cal Gas Cylinder #	BLM1715
DACS make	CR3000	DACS serial No.	5236
DACS voltage range	0 - 5 volt	DACS channel #	5
	Before		After
Calculated slope	0.994463	Calculated slope	0.997452
Calculated intercept	-0.040060	Calculated intercept	-0.093106

Analyzer make	TEI Model 43C	Analyzer serial #	436610005

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	20	ppb	25.7	ppb
coefficient	0.922		1.107	
Lamp Voltage	800	volts	869	volts
Chamber Temp	44.3	Deg C	44.3	Deg C
Perm Gas Temp	44.97	Deg C	44.97	Deg C
Pressure	637.1	mm Hg	638.8	mm Hg
Sample Flow	0.473	ccm	0.473	ccm
Lamp Intensity	45,570	mv	35,452	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)
4989	0.00	0.00	-0.2	N/A
4989	69.81	79.62	79.7	0.9988
4989	34.88	40.06	40.6	0.9860
4989	8.96	10.34	10.5	0.9809
4989	0.00	0.00	-0.3	As Found Zero
4989	69.81	79.62	79.3	As Found Span
			Average Correction Factor	0.9886

Calculated value of As Found Response: 79.15 ppm Percent Change of As Found: 0.6%

	before calibration		after calibration	
Auto zero	0.2	ppm	0.0	ppm
Auto span	71.9	ppm	71.3	ppm

Notes:

Installed new flash lamp & socket allow stabilize. Zero & Span Adjust.

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **TRS**

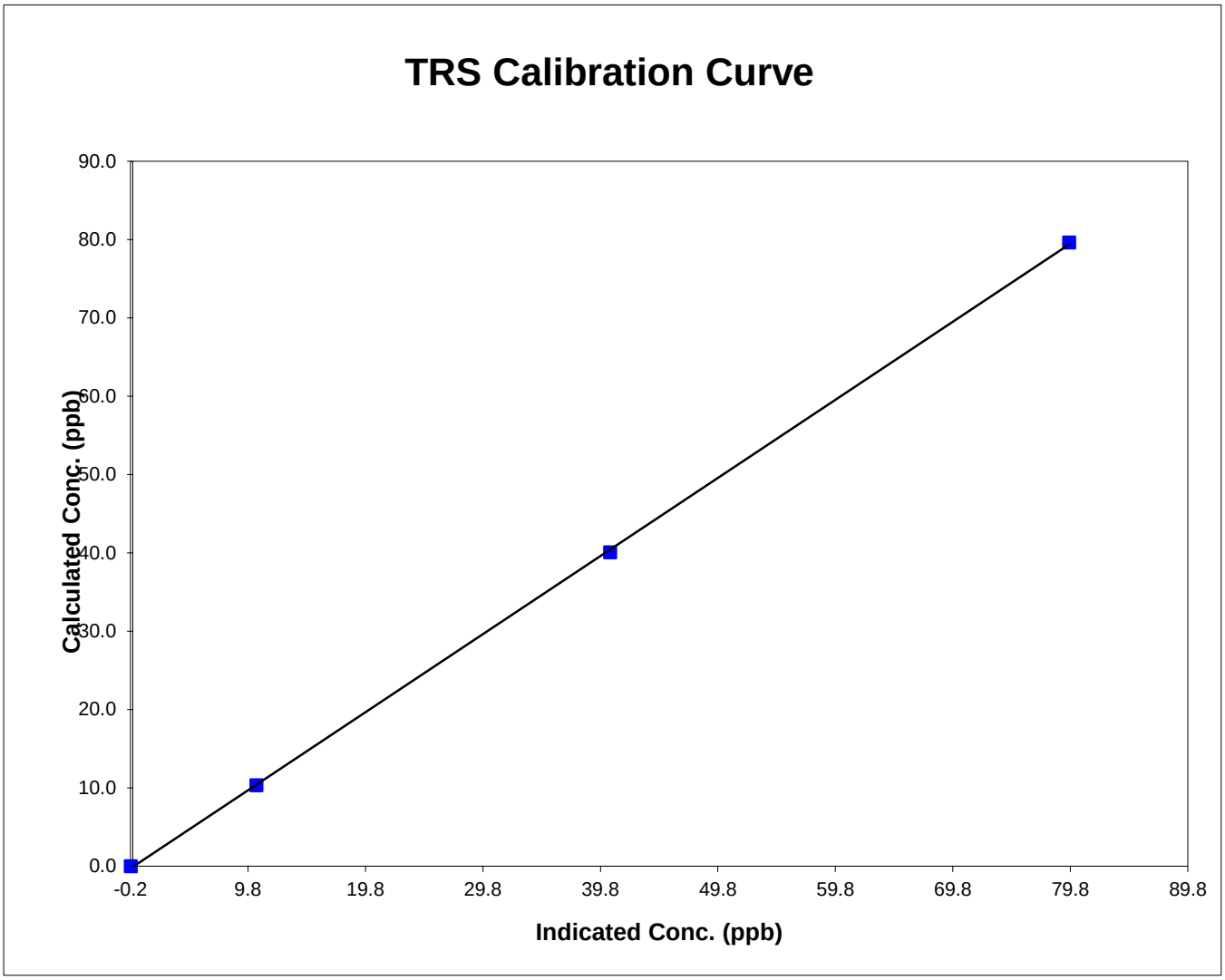
Air Monitoring Network **PAZA**

Station Information

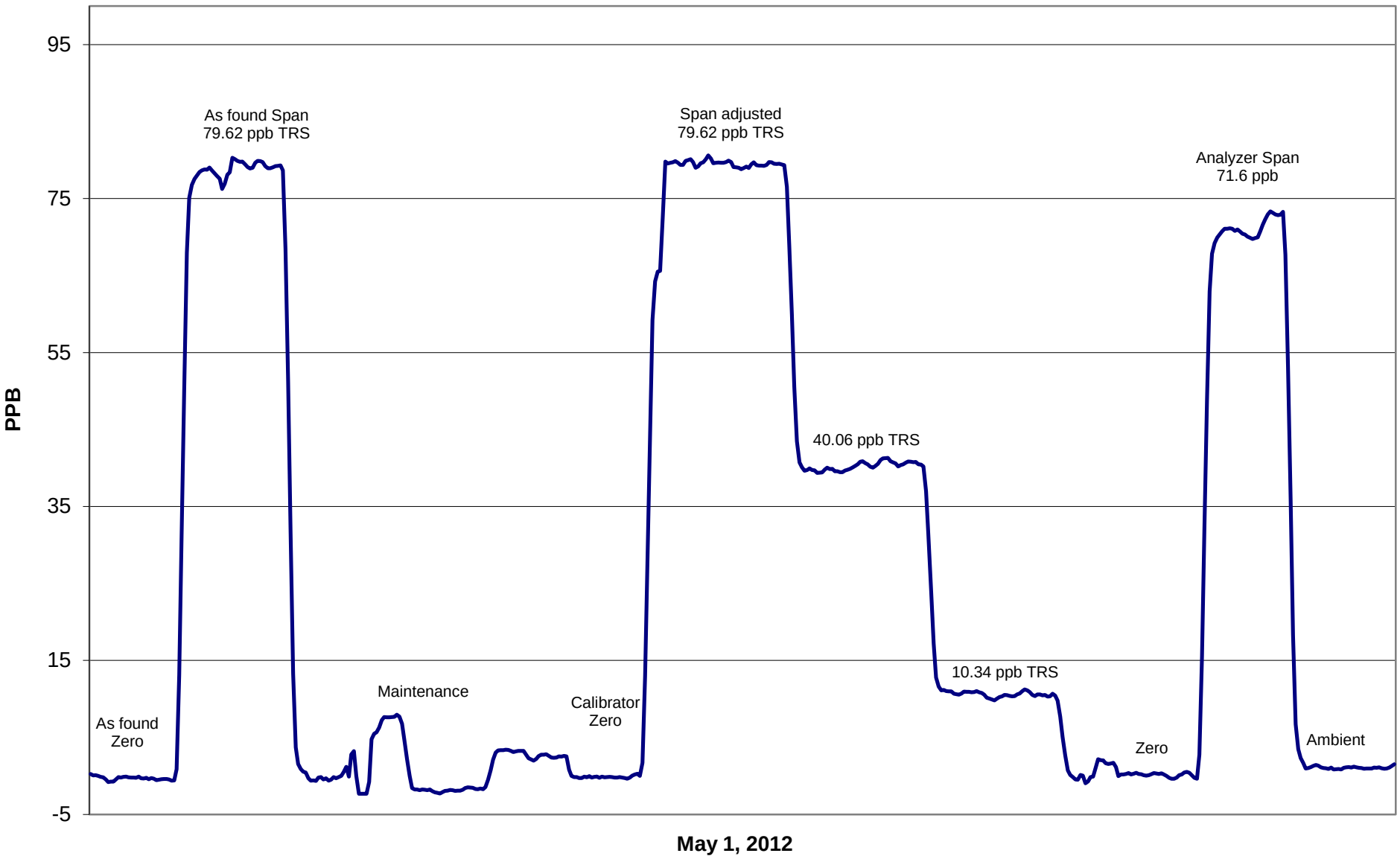
Calibration Date	May 1, 2012	Previous Calibration	April 30, 2012
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	8:15	End Time (MST)	12:41
Analyzer make/model	TEI Model 43C	Analyzer serial #	436610005

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.2	N/A		
79.6	79.7	0.9988	Correlation Coefficient	0.999935
40.1	40.6	0.9860		
10.3	10.5	0.9809	Slope	0.997452
			Intercept	-0.093106



TRS Calibration



Calibration Report

FOCUS AIR QUALITY MONITORING

Parameter **TRS**

Air Monitoring Network **PAZA**

Station Information

Calibration Date	May 9, 2012	Previous Calibration	May 1, 2012
Station Number	2	Station Location	Evergreen Park
Reason: Routine	Install	Removal	Other:

Start Time (MST)	8:30	End Time (MST)	13:12
Barometric Pressure	0.920 ATM	Station Temperature	20.0 Deg C
Calibrator	Environics	Serial Number	3474
Cal Gas Conc	5.77 ppm	Cal Gas Expiry Date	9/3/2011
Correction factor	0.031273	Cal Gas Cylinder #	BLM1715
DACS make	CR3000	DACS serial No.	5236
DACS voltage range	0 - 5 volt	DACS channel #	5
	Before		After
Calculated slope	0.997452	Calculated slope	0.987638
Calculated intercept	-0.093106	Calculated intercept	0.444179

Analyzer make	TEI Model 43C	Analyzer serial #	436610005

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	26.4	ppb	23.8	ppb
coefficient	1.107		1.003	
Lamp Voltage	939	volts	938	volts
Chamber Temp	44.3	Deg C	44.3	Deg C
Perm Gas Temp	44.97	Deg C	44.97	Deg C
Pressure	643.9	mm Hg	645.2	mm Hg
Sample Flow	0.475	ccm	0.478	ccm
Lamp Intensity	47,545	mv	37,324	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)
4989	0.00	0.00	-0.3	N/A
4989	69.81	79.62	80.5	0.9897
4989	34.88	40.06	39.5	1.0142
4989	8.96	10.34	10.2	1.0149
4989	0.00	0.00	-0.2	As Found Zero
4989	69.81	79.62	87.0	As Found Span
			Average Correction Factor	1.0063

Calculated value of As Found Response: 86.91 ppm Percent Change of As Found: -9.2%

	before calibration		after calibration	
Auto zero	0.2	ppm	0.2	ppm
Auto span	71.9	ppm	69.0	ppm

Notes: Span adjust down. Finish cal.

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **TRS**

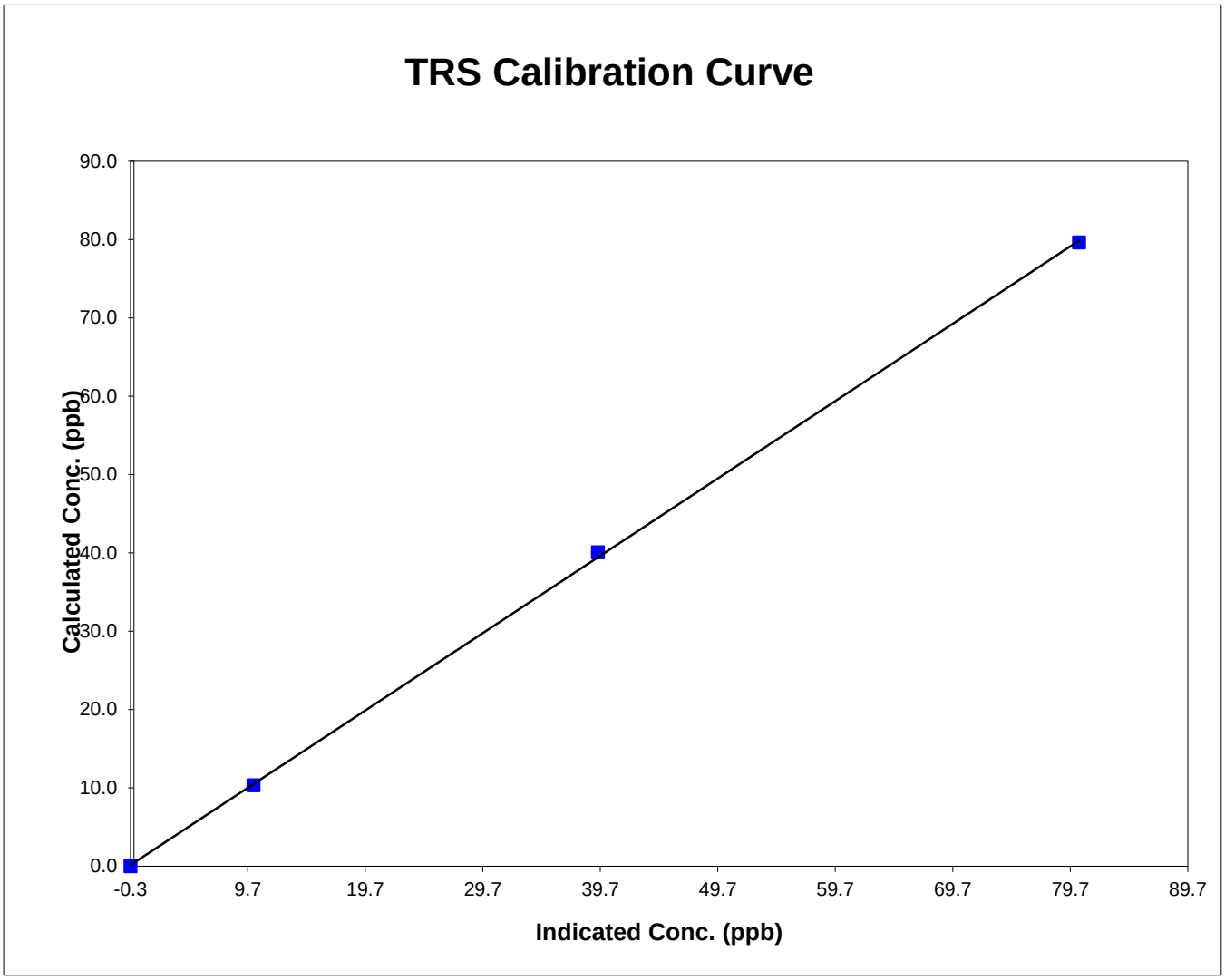
Air Monitoring Network **PAZA**

Station Information

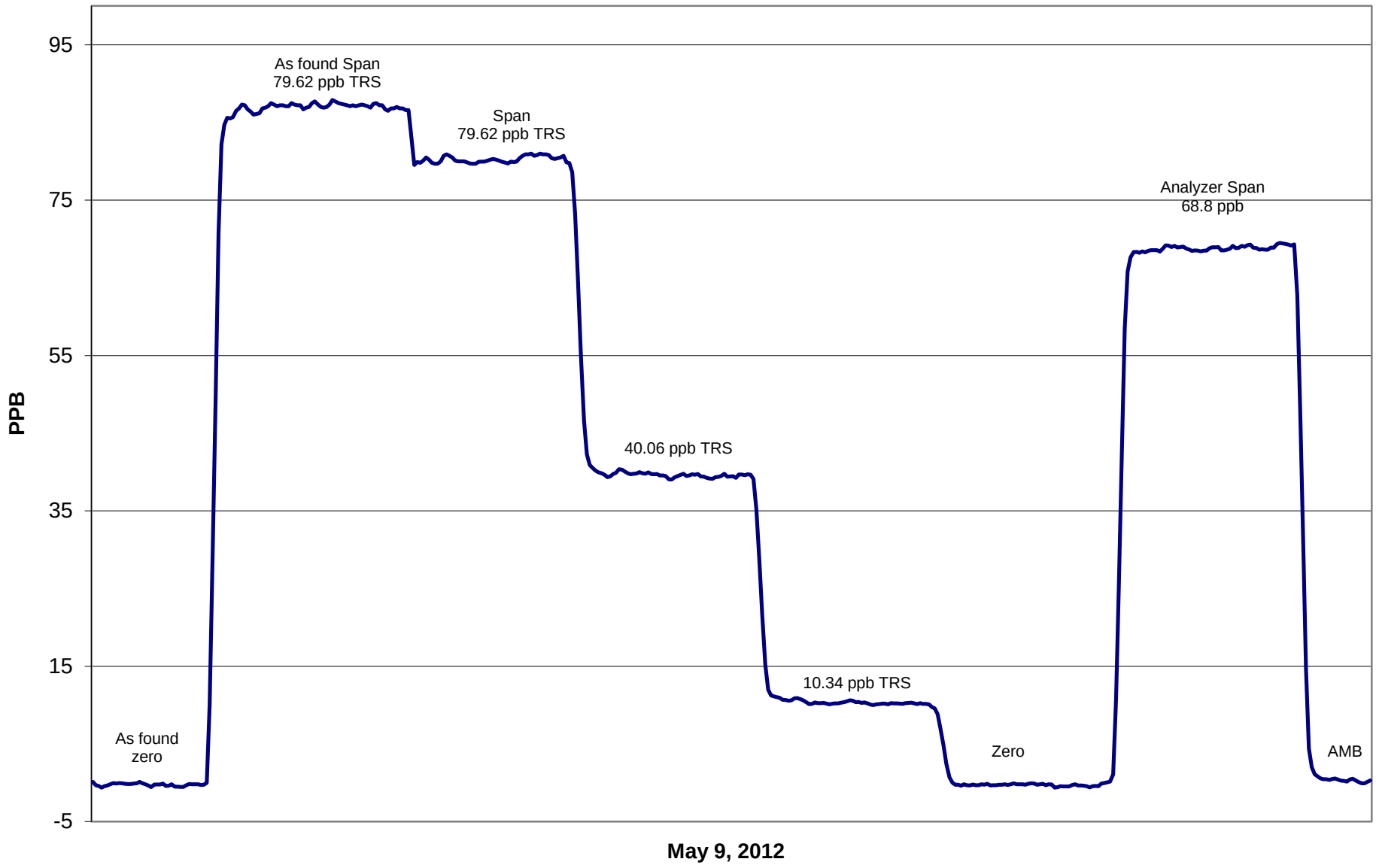
Calibration Date	May 9, 2012	Previous Calibration	May 1, 2012
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	8:30	End Time (MST)	13:12
Analyzer make/model	TEI Model 43C	Analyzer serial #	436610005

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.3	N/A		
79.6	80.5	0.9897	Correlation Coefficient	0.999870
40.1	39.5	1.0142		
10.3	10.2	1.0149	Slope	0.987638
			Intercept	0.444179



TRS Calibration



Calibration Report

FOCUS AIR QUALITY MONITORING

Parameter **SO_2**

Air Monitoring Network **PAZA**

Station Information

Calibration Date	May 4, 2012	Previous Calibration	April 27, 2012
Station Number	3	Station Location	Smokey Heights
Reason: Routine	Install	Removal	Other:

Start Time (MST)	11:25	End Time (MST)	15:12
Barometric Pressure	0.917 ATM	Station Temperature	20.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Concentration	49.8 ppm	Cal Gas Cert Date	3/28/2011
Correction factor	0.031171	Cal Gas Cylinder #	LL85275
DACS make	CR3000	DACS serial No.	5238
DACS voltage range	0 - 5 volt	DACS channel #	6
	Before		After
Calculated slope	1.002612	Calculated slope	0.998549
Calculated intercept	-2.362859	Calculated intercept	-1.976878

Analyzer make	Teco 43i	Analyzer serial #	701120009

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	9.8		10.7	
coefficient	0.963		0.955	
Lamp Voltage	921	volts	920	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	665.4	mm Hg	666.3	mm Hg
Sample Flow	0.443	ccm	0.445	ccm
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)
4989	0.0	0.00	0.4	N/A
4989	39.84	394.53	396.3	0.9956
4989	19.91	197.95	201.0	0.9848
4989	9.94	99.02	102.8	0.9631
4989	0.0	0.00	0.3	As Found Zero
4989	39.84	394.53	398.6	As Found Span
			Average Correction Factor	0.9812

Calculated value of As Found Response: 396.958 ppm Percent Change of As Found: -0.6%

	before calibration		after calibration	
Auto zero	0.4	ppb	0.2	ppb
Auto span	304.5	ppb	265.6	ppb

Notes: Slight span adjust from 400ppb to 395ppb.

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **SO2**

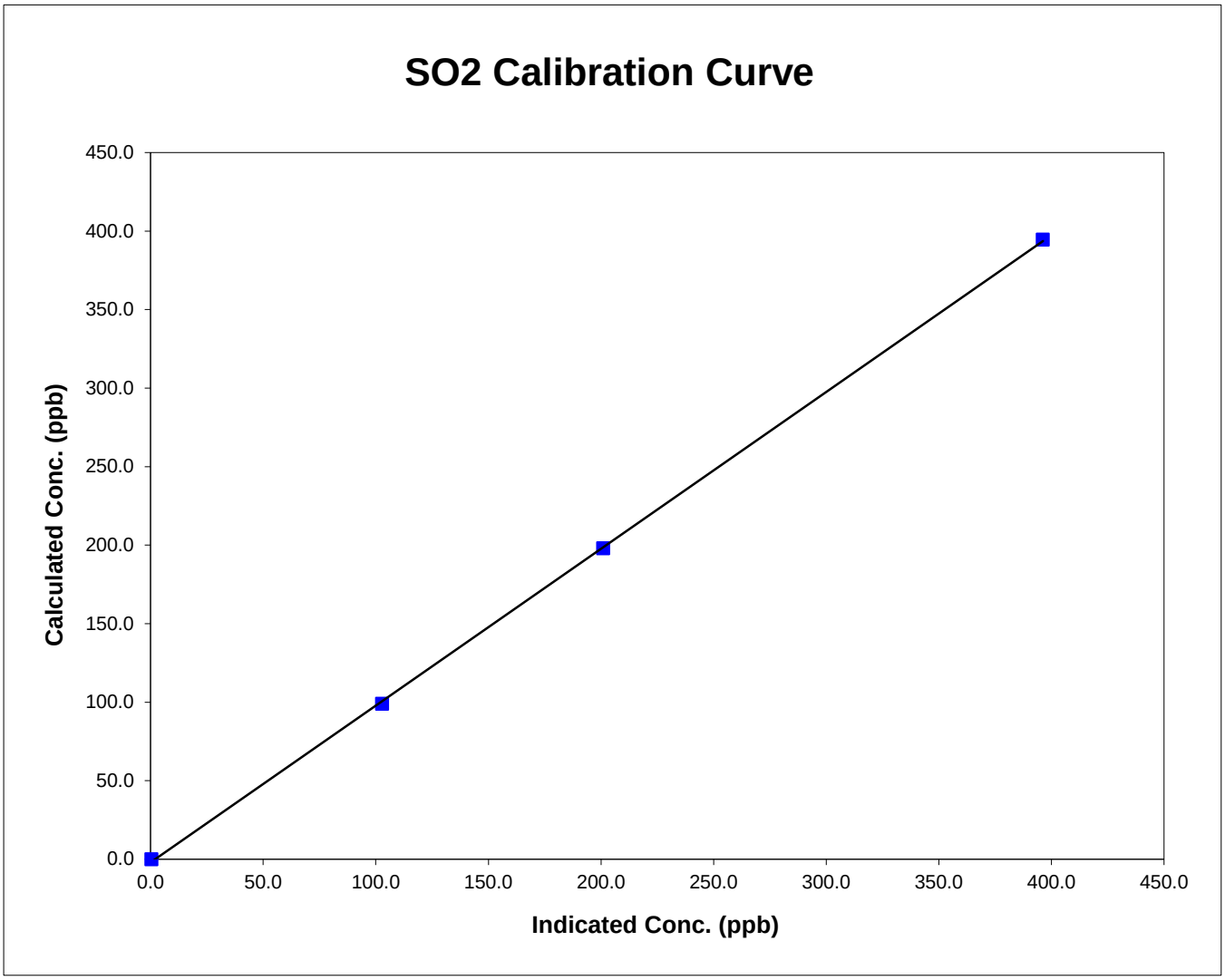
Air Monitoring Network **PAZA**

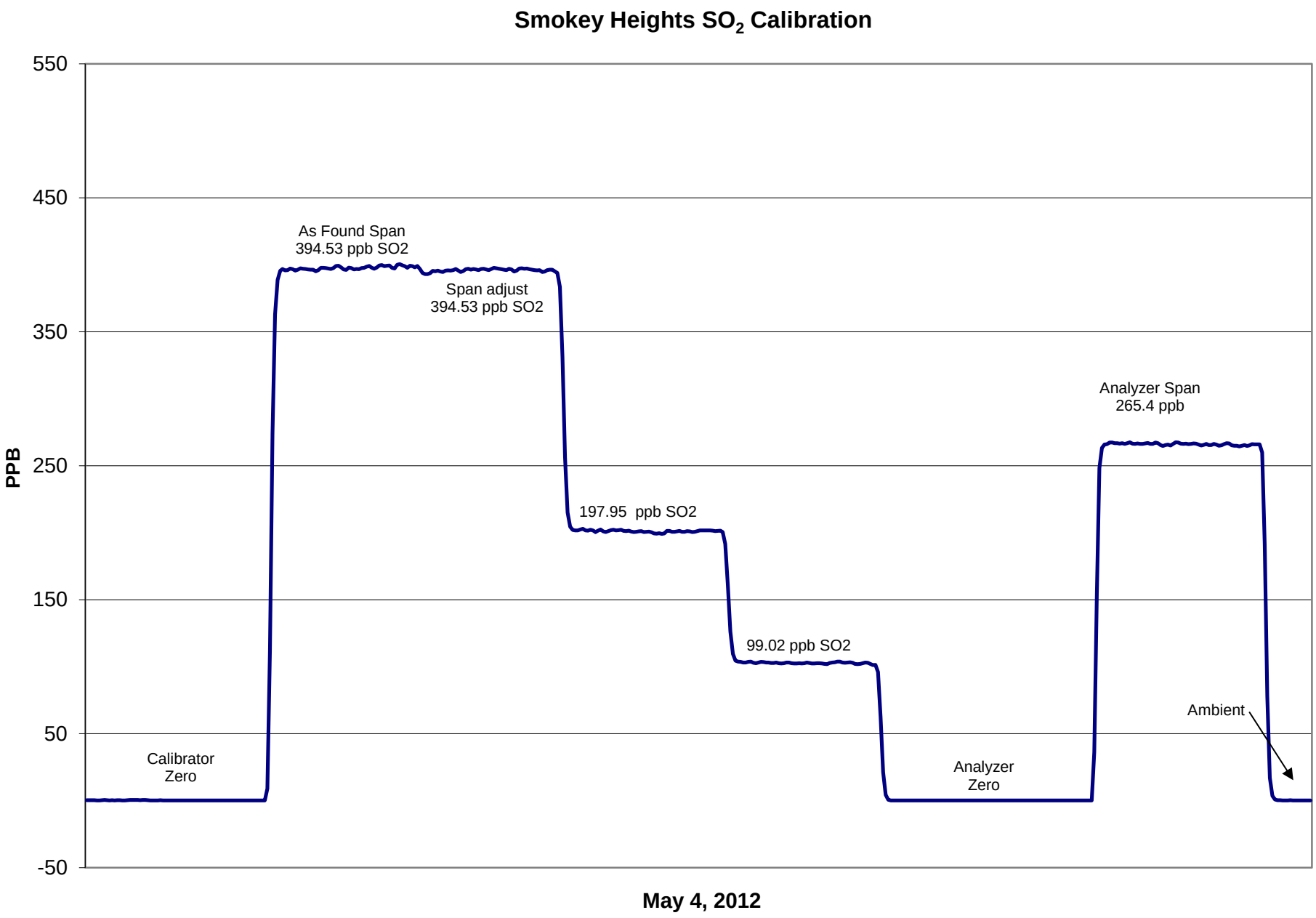
Station Information

Calibration Date	May 4, 2012	Previous Calibration	April 27, 2012
Station Number	3	Station Location	Smokey Heights
Start Time (MST)	11:25	End Time (MST)	15:12
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	0.4	N/A		
394.5	396.3	0.9956	Correlation Coefficient	0.999922
198.0	201.0	0.9848		
99.0	102.8	0.9631	Slope	0.998549
			Intercept	-1.976878




Smokey Heights SO_2 Calibration
550
450
350
250
150
50
-50
PPB
As Found Span
394.53 ppb SO2
Span adjust
394.53 ppb SO2
197.95 ppb SO2
99.02 ppb SO2
Analyzer Span
265.4 ppb
Ambient
Calibrator
Zero
Analyzer
Zero
May 4, 2012

Calibration Report

FOCUS AIR QUALITY MONITORING

Parameter **TRS**

Air Monitoring Network **PAZA**

Station Information

Calibration Date	May 4, 2012	Previous Calibration	April 27, 2012
Station Number	3	Station Location	Smokey Heights
Reason: Routine	Install	Removal	Other:

Start Time (MST)	9:30	End Time (MST)	13:31
Barometric Pressure	0.917 ATM	Station Temperature	20.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Conc	5.77 ppm	Cal Gas Expiry Date	9/3/2011
Correction factor	0.031171	Cal Gas Cylinder #	BLM001434
DACS make	CR3000	DACS serial No.	5238
DACS voltage range	0 - 5 volt	DACS channel #	5
	Before		After
Calculated slope	1.010686	Calculated slope	1.006072
Calculated intercept	-0.216225	Calculated intercept	-0.180831

Analyzer make	TEI Model 43C	Analyzer serial #	0436610005

	before		after	
Concentration range	100	ppb	100	ppb
Background	18.1	ppb	18.1	ppb
coefficient	0.946		0.946	
Lamp Voltage	805	volts	805	volts
Chamber Temp	44.99	Deg C	44.99	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	547	mm Hg	547.6	mm Hg
Sample Flow	0.587	ccm	0.587	ccm
Lamp Intensity	35,564	mv	35,220	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)
4989	0.0	0.00	-0.1	N/A
4989	69.80	79.61	79.1	1.0059
4989	34.88	40.06	40.3	0.9943
4989	8.96	10.34	10.6	0.9754
4989	0.0	0.00	-0.1	As Found Zero
4989	69.80	79.61	79.1	As Found Span
			Average Correction Factor	0.9919

Calculated value of As Found Response: 79.86 ppm Percent Change of As Found: -0.3%

	before calibration		after calibration	
Auto zero	0.0	ppm	-0.2	ppm
Auto span	52.9	ppm	53.3	ppm

Notes: No span adjust

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **TRS**

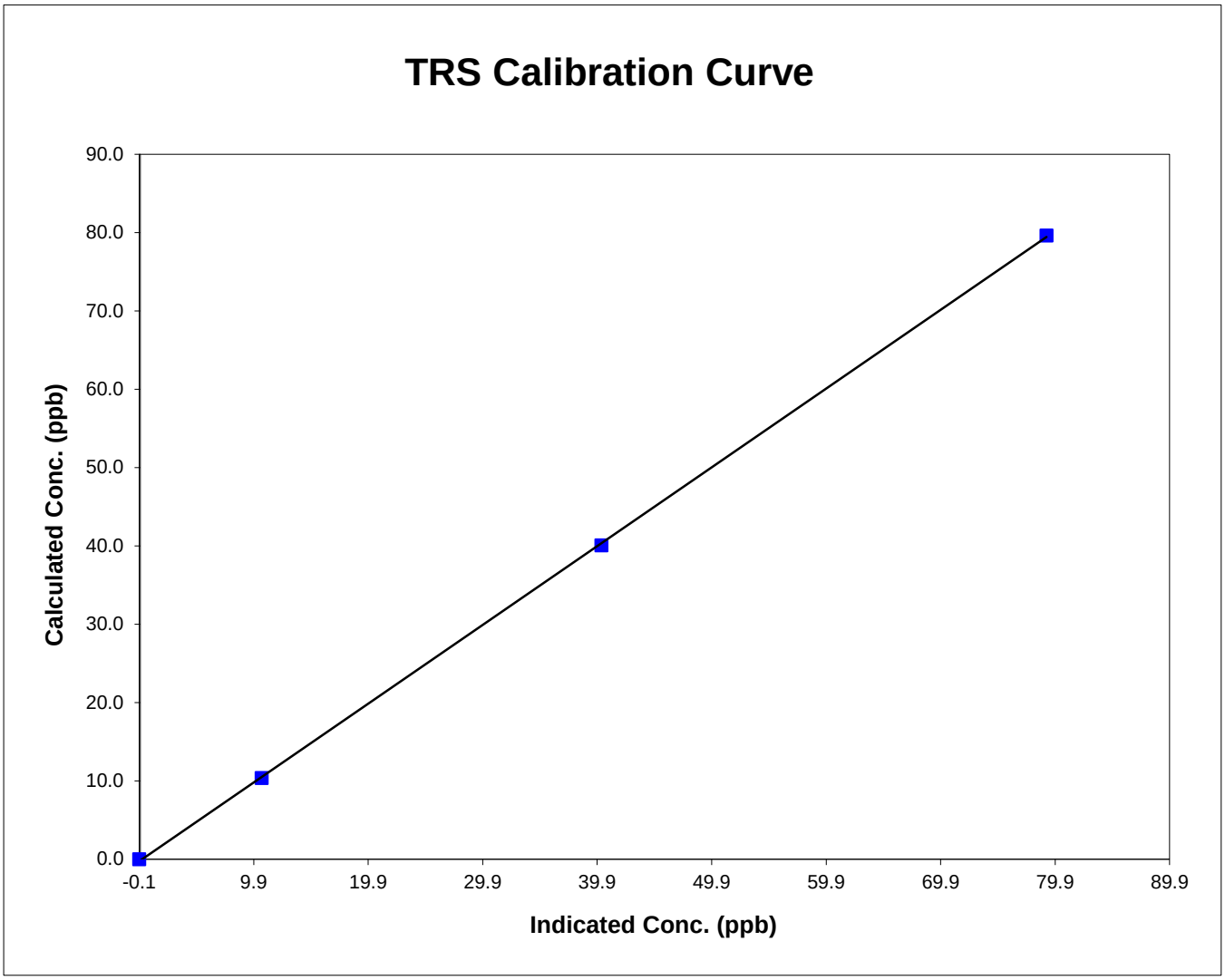
Air Monitoring Network **PAZA**

Station Information

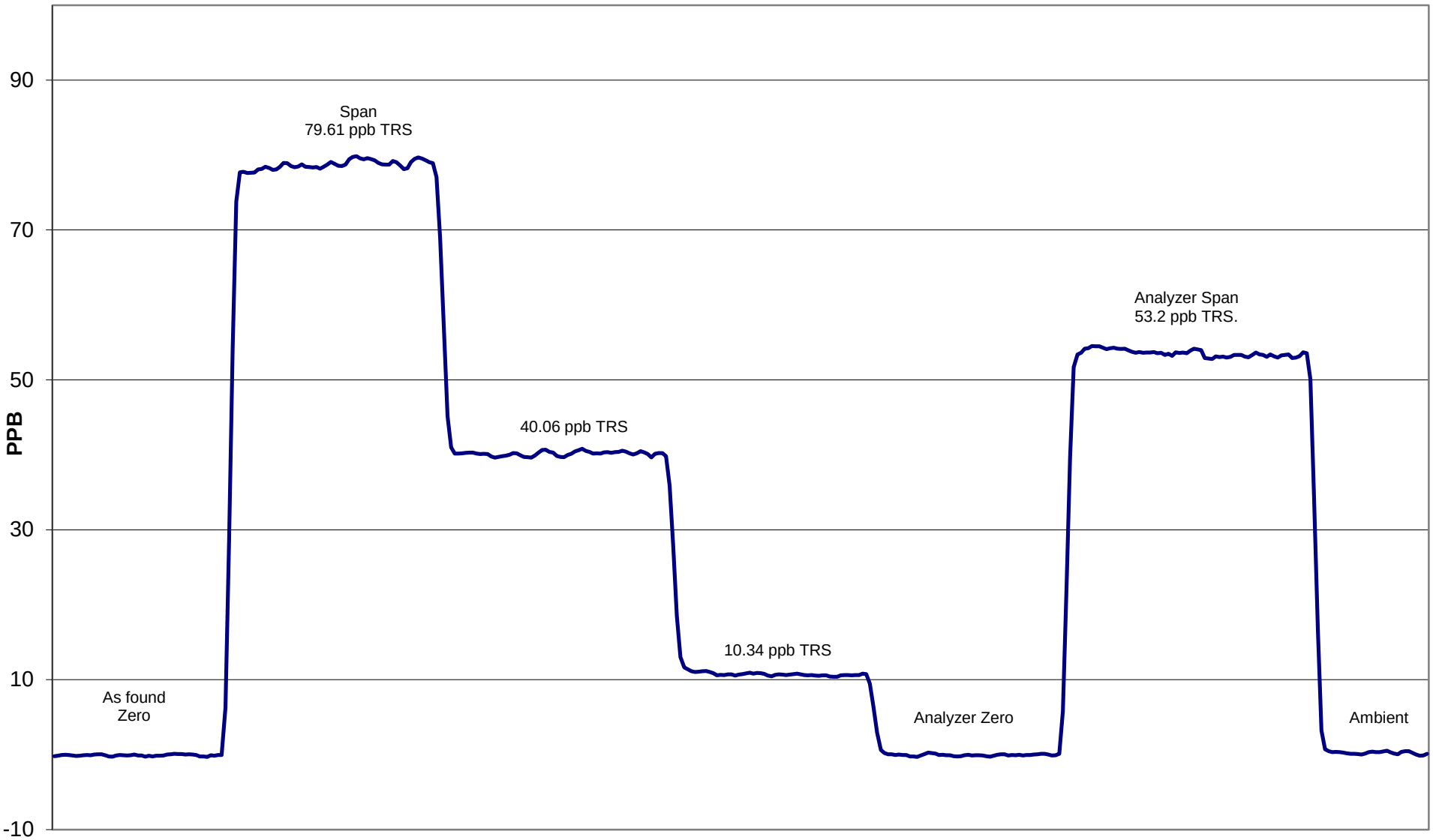
Calibration Date	May 4, 2012	Previous Calibration	April 27, 2012
Station Number	3	Station Location	Smokey Heights
Start Time (MST)	9:30	End Time (MST)	13:31
Analyzer make/model	TEI Model 43C	Analyzer serial #	0436610005

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	N/A		
79.6	79.1	1.0059	Correlation Coefficient	0.999946
40.1	40.3	0.9943		
10.3	10.6	0.9754	Slope	1.006072
			Intercept	-0.180831



Smokey Heights TRS Calibration



May 4, 2012

AB TEOM PM2.5 Calibration

FOCUS AIR QUALITY MONITORING

STATION: **Smokey Heights**

LOCATION: PAZA - Grande Prairie

OPERATOR: Grover Christansen

DATE: 4-May-12

MONITOR INFO / PARAMETER VALUES:

Make/Model	TEOM AB
Configuration	PM2.5
Serial Number	24634
Site Number	3
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	10-Feb-12
Previous Calibration	NA

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	0.016	0.032
PUMP OFF	0.010	0.010
NET	0.006	0.022
LIMITS	*<0.15*	*<0.60*

		Ambient Temp. (^{0} C)	Ambient Pres. (atm)	Ko *	Bypass flow (lpm)	Sample flow (lpm)
	SET POINT (S)	na	na	12122	13.67	3.000
	INDICATED (I)	15.6	0.917		13.67	3.000
As Found Data	MEASURED (AF)	14.8	0.918		13.68	3.010
Adjusted Data	MEASURED (M)	14.8	0.918	12265	13.68	3.010
	DIFFERENCE (M-I)	-0.8	0.001	1.2%	0.07	0.01
	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

Heads cleaned.

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

Calibration Report

Parameter **SO2**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	May 26, 2012	Previous Calibration	April 12, 2012
Station Number	4	Station Location	Beaverlodge
Reason: Routine	Install	Removal	Other:
Start Time (MST)	13:40	End Time (MST)	17:00
Barometric Pressure	0.914 atm	Station Temperature	23.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Concentration	10.1 ppm	Cal Gas Expiry Date	1/25/2010
Gas Cert Reference	SAGL 671		
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	0.993364	Calculated slope	1.000606
Calculated intercept	-0.787545	Calculated intercept	-0.210995
Analyzer make	TEI Model 43i-TLE	Analyzer serial #	713021137

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	2.37		2.4	
Coefficient	1.071		1.071	
PMT	-767.6	V	-767.6	V
UV Lamp Voltage	1052	V	1052	V
Chamber Temp	45.2	Deg C	45.2	Deg C
Pressure	658.3	mm Hg	664.3	mm Hg
Sample Flow	0.485	LPM	0.49	LPM
Lamp Intesity	96%	%	96%	%

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4989	0.00	0.0	0.2	N/A
4989	39.83	80.0	80.1	0.9985
4989	19.90	40.1	40.4	0.9921
4989	9.93	20.1	20.2	0.9946
4989	0.00	0.0	0.2	As found zero
4989	39.83	80.0	80.1	As found span
			Average Correction Factor	0.9951

Calculated value of As Found Response: 78.581 ppm Percent Change of As Found: 1.8%

	before calibration		after calibration	
Auto zero	-0.3	ppb	0.0	ppb
Auto span	58.2	ppb	58.8	ppb

Notes: No adjustments made.

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **SO2**

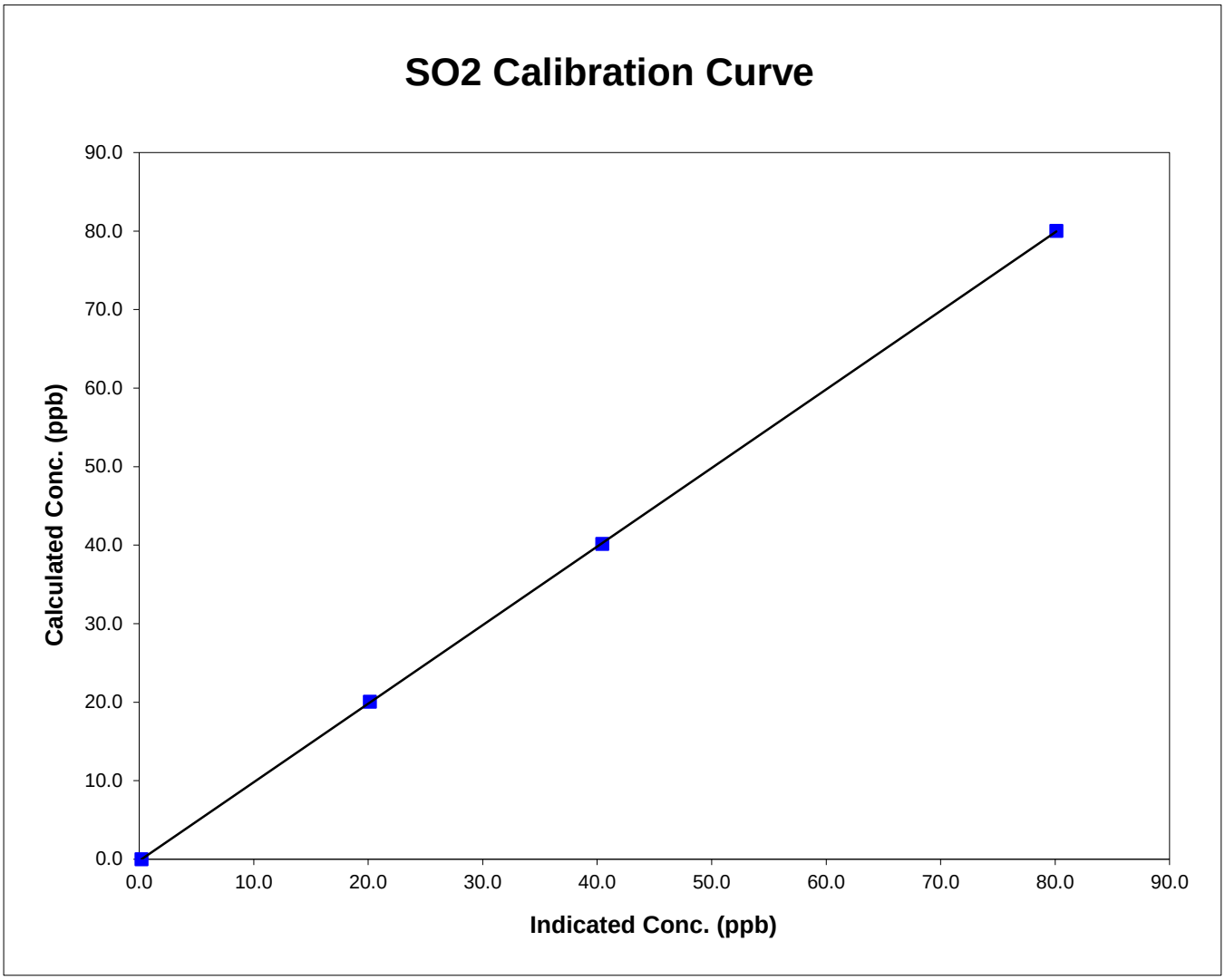
Air Monitoring Network **PAZA**

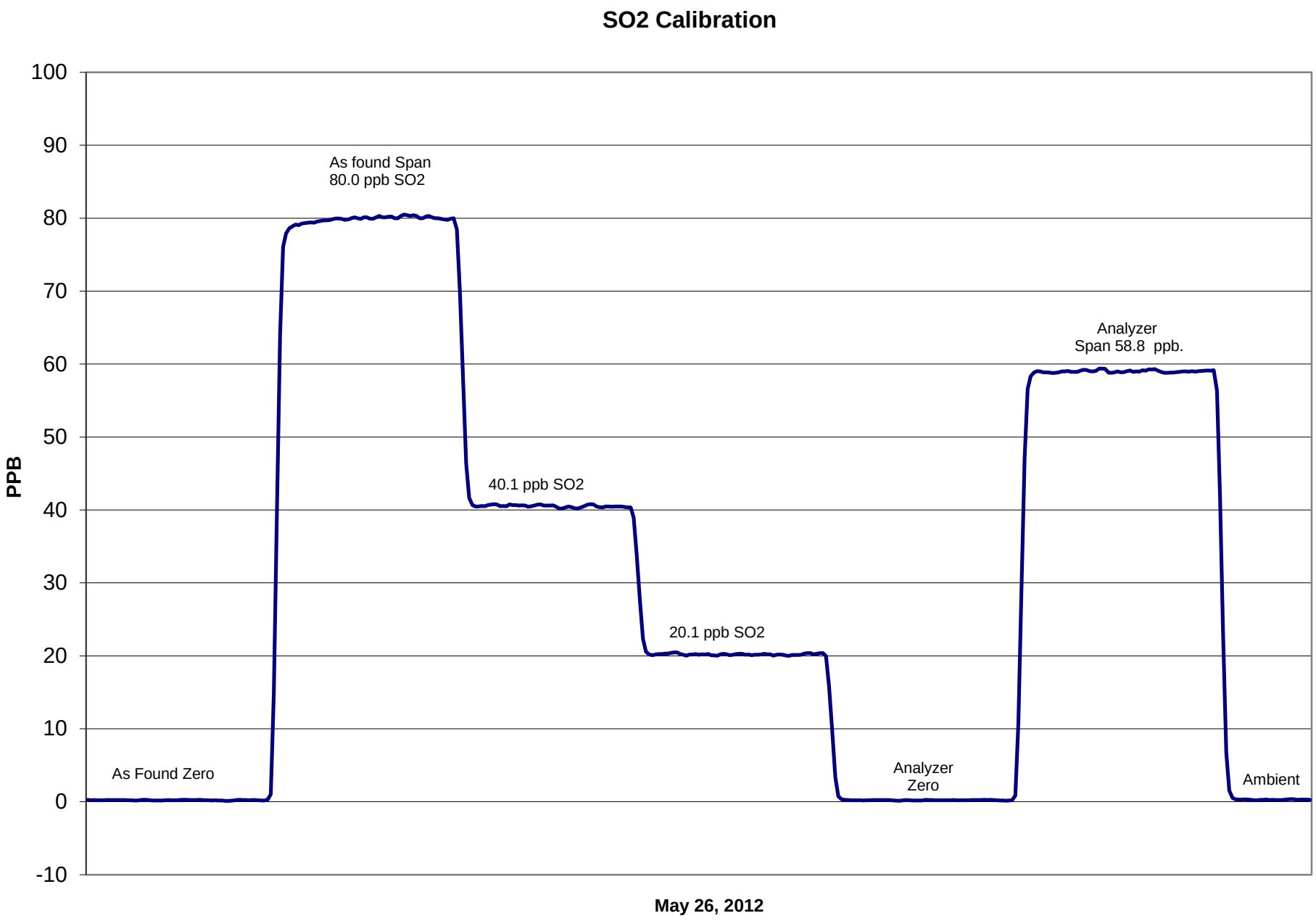
Station Information

Calibration Date	May 26, 2012	Previous Calibration	April 12, 2012
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	13:40	End Time (MST)	17:00
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	0.2	N/A		
80.0	80.1	0.9985	Correlation Coefficient	0.999992
40.1	40.4	0.9921		
20.1	20.2	0.9946	Slope	1.000606
			Intercept	-0.210995




SO2 Calibration
100
90
80
70
60
50
40
30
20
10
0
-10
PPB
As found Span
80.0 ppb SO2
40.1 ppb SO2
20.1 ppb SO2
Analyzer
Span 58.8 ppb.
As Found Zero
Analyzer
Zero
Ambient
May 26, 2012

Calibration Report

Parameter **NO_X-NO-NO_2**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	May 26, 2012	Previous Calibration	April 12, 2012
Station Number	4	Station Location	Beaverlodge

Reason: Routine Installation Removal Other:

Start Time (MST)	7:45		End Time (MST)	14:30	
Barometric Pressure	0.913	Atm	Station Temperature	23.0	Deg C
Calibrator	Environics		Serial Number	2844	
NO Cal Gas Conc	52.5	ppm	Cal Gas Expiry Date	March 28, 2013	
NOx Cal Gas Conc	52.5	ppm	Cal Gas Serial #	LL8575	

DACS Information

DACS make AP1000 DACS serial No.

Parameter		NO2	NOx	NO
Before	Data Slope	0.998605	1.009758	1.010909
	Data Offset	-0.034756	-2.329480	-1.987655
After	Data Slope	0.999602	0.998455	0.998681
	Data Offset	0.074589	-0.187514	0.364751
Channel #		8	6	7
Voltage Range		0 - 5 VDC	0 - 5 VDC	0 - 5 VDC

Analyzer Information

Analyzer make/model TEI 42i Analyzer serial # 906535068

Test Point	before		after	
Concentration range	0-500	ppb	0-500	ppb
NO offset	2.1	mV	2.2	mV
NOx bkgnd	2.3	mV	2.4	mV
NO coefficient	1.366		1.459	
NOx coefficient	0.999		0.996	
NO2 conv temp	326.8	Deg C	326.8	Deg C
PMT Temp	-2.9	Deg C	-2.9	Deg C
PMT Volt	-671.6	mV	-671.2	mV
R Cell Press	171.1	in Hg	172.3	in Hg
Sample Flow	0.772	ccm	0.771	ccm

Notes: Span point came in low @ 391 ppb. Allow stabilize & adjust to 416 ppb.

Calibration Report

Parameter **NOX-NO-NO2**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date: May 26, 2012 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	4989	0.00	0.0	0.0	0.0	0.1	-0.2	0.1	N/A	N/A
1	4989	39.86	416.1	416.1	0.0	416.7	416.4	0.2	0.9986	0.9994
2	4989	19.92	208.8	208.8	0.0	209.9	208.8	0.4	0.9945	1.0002
3	4989	9.93	104.3	104.3	0.0	104.4	103.8	0.4	0.9993	1.0050
AFZ	4989	0.00	0.0	0.0	0.0	0.1	-0.2	0.1	0.0000	0.0000
AFS	4989	39.86	416.1	416.1	0.8	391.9	390.2	1.4	1.0619	1.0664
							Average Correction Factor		0.9975	1.0015

As Found Concentrations: NO_X= 389.4 NO= 388.4 As Found Percent Change NO_X= -6.4% NO= -6.7%

GPT Calibration Data

Dilution Flow 4989 ccm Source Gas Flow 39.84 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	0.1	-0.2	0.1	N/A	N/A	N/A	N/A
NO point	415.9	415.9	0.0	415.8	415.9	-0.4	1.0003	1.0000	N/A	N/A
300	415.9	87.7	328.2	416.6	87.7	328.3	0.9983	1.0000	0.9996	100.0%
200	415.9	223.2	192.7	416.4	223.2	192.6	0.9988	1.0000	1.0005	99.9%
100	415.9	355.4	60.5	415.9	355.4	60.3	1.0001	1.0000	1.0035	99.7%
					Average Correction Factor		0.9990	1.0000	1.0012	99.9%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	-0.2	-0.3	-0.2	ppb	-0.1	-0.1	-0.1	ppb
Auto span	238.0	235.5	1.6	ppb	222.8	221.0	1.2	ppb

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **NO**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

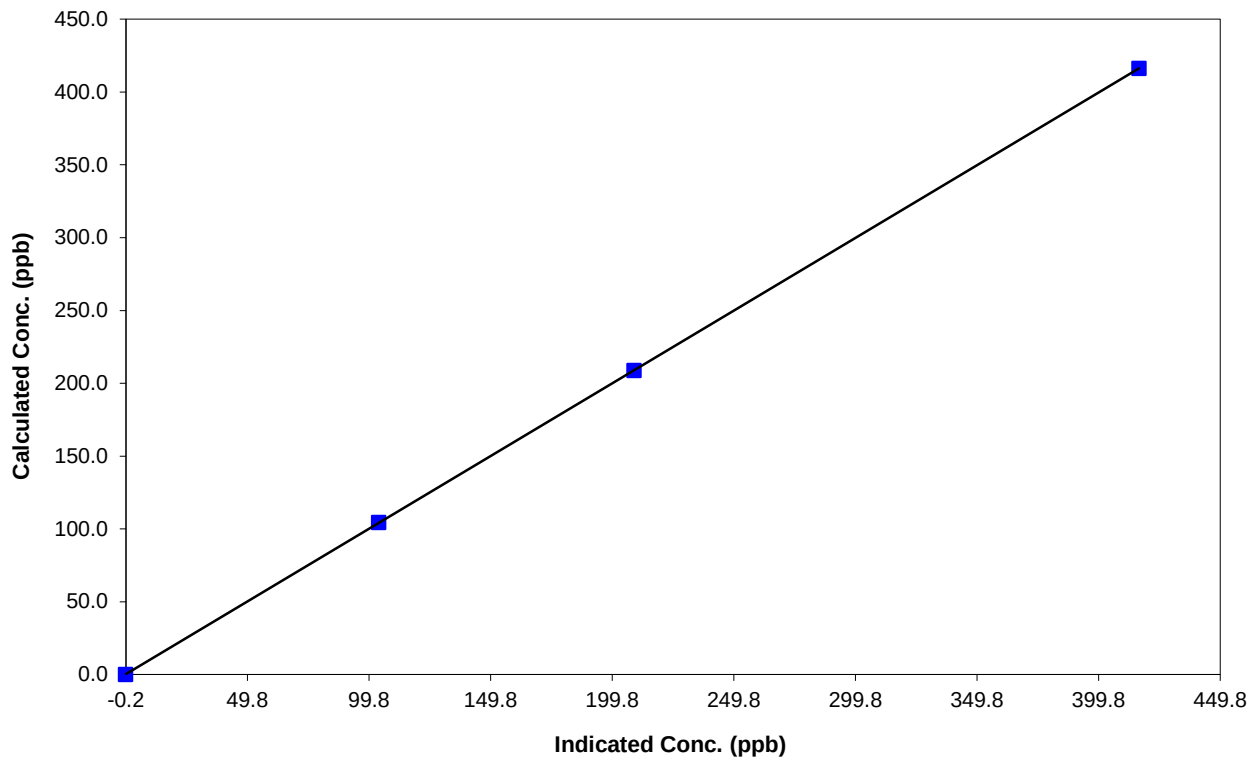
Station Information

Calibration Date	May 26, 2012	Previous Calibration	April 12, 2012
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	7:45	End Time (MST)	14:30
Analyzer make	TEI 42i	Analyzer serial #	906535068

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.2	N/A		
416.1	416.4	0.9994	Correlation Coefficient	0.999999
208.8	208.8	1.0002		
104.3	103.8	1.0050	Slope	0.998681
			Intercept	0.364751

NO Calibration Curve



Calibration Summary

Parameter **NO_2**

Air Monitoring Network **PAZA**

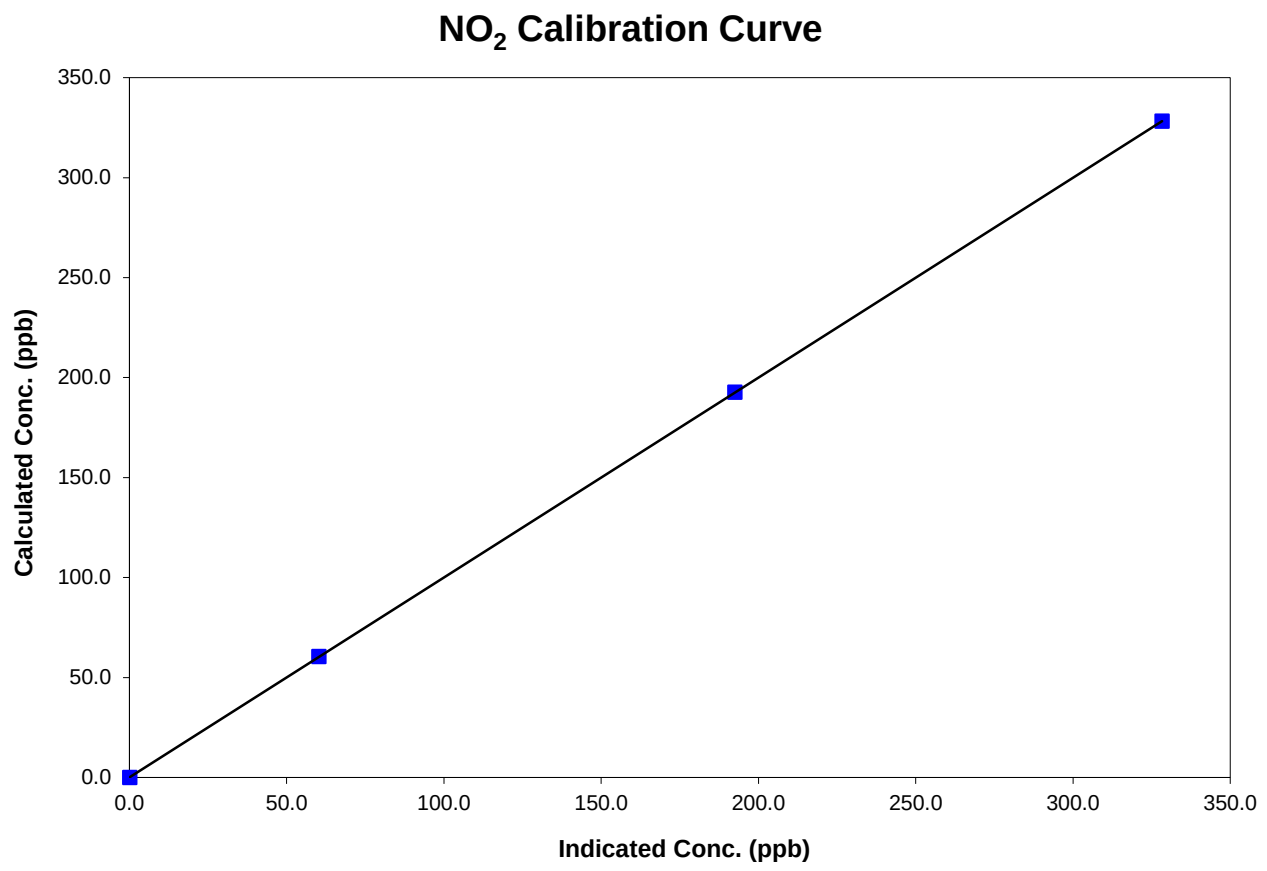
FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	May 26, 2012	Previous Calibration	April 12, 2012
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	7:45	End Time (MST)	14:30
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		
328.2	328.3	0.9996	Correlation Coefficient	0.999999
192.7	192.6	1.0005		
60.5	60.3	1.0035	Slope	0.999602
			Intercept	0.074589



Calibration Summary

Parameter **NO_x**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

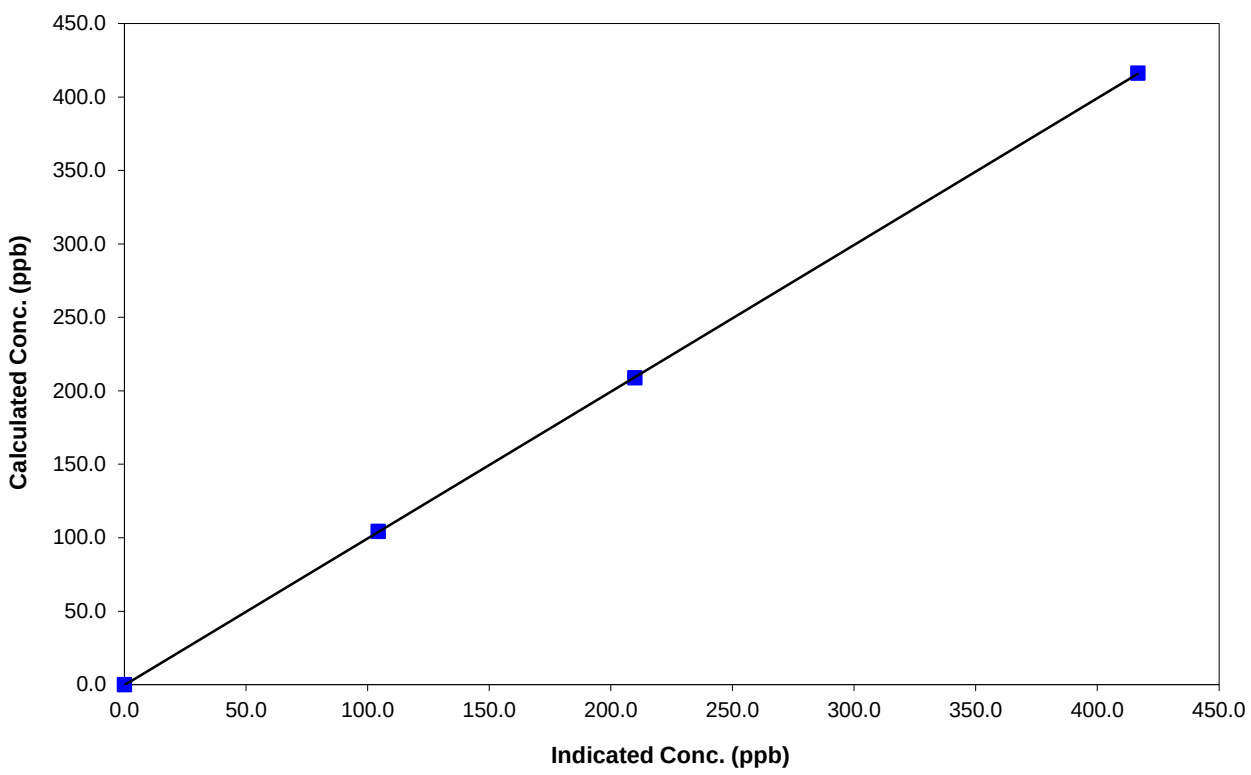
Station Information

Calibration Date	May 26, 2012	Previous Calibration	April 12, 2012
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	7:45	End Time (MST)	14:30
Analyzer make	TEI 42i	Analyzer serial #	906535068

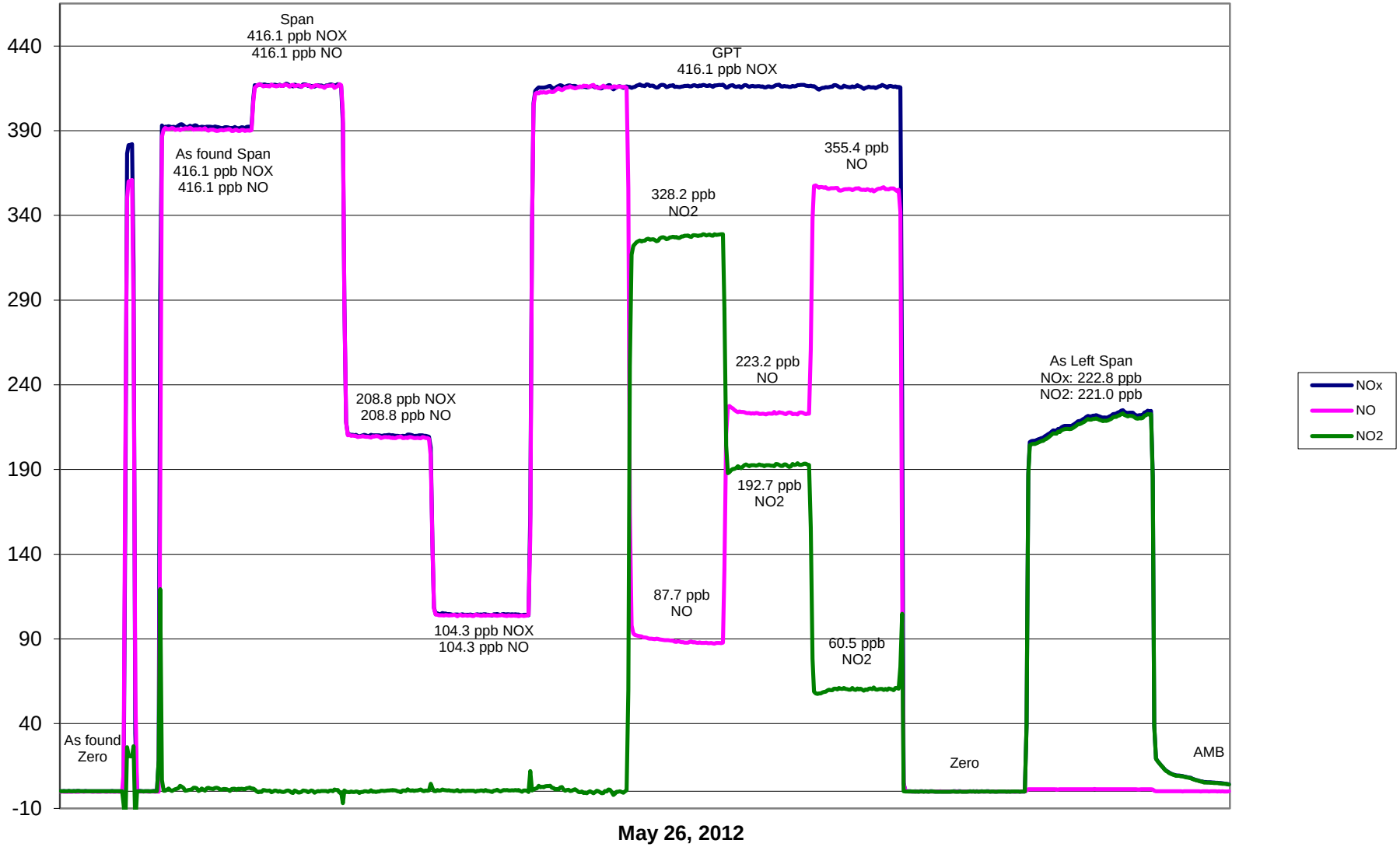
Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A		
416.1	416.7	0.9986	Correlation Coefficient	0.999994
208.8	209.9	0.9945		
104.3	104.4	0.9993	Slope	0.998455
			Intercept	-0.187514

NOx Calibration Curve



PASZA Beaverlodge NO_X Calibration



May 26, 2012

Calibration Report

Parameter **O3**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	May 26, 2012	Previous Calibration	April 12, 2012
Station Number	4	Station Location	Beaverlodge
Reason:	Routine / Install	Removal	Other:
Start Time (MST)	11:30	End Time (MST)	15:35
Barometric Pressure	0.913 atm	Station Temperature	23.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Concentration	NA	Cal Gas Expiry Date	NA
DACS make	CR3000	DACS serial No.	5237
DACS voltage range	0 - 5 volt	DACS channel #	9
	Before		After
Calculated slope	0.993547	Calculated slope	0.995663
Calculated intercept	0.676322	Calculated intercept	0.725367
Analyzer make	Teco 49C	Analyzer serial #	49C-76443-383

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
offset	-0.90	ppb	1.00	ppb
slope	1.000		1.020	
Lamp temp	56.3	mV	56.3	mV
Lamp Intensity A/B	53289/58901	mV	54668/59773	mV
Pressure	689.5	mm Hg	675.1	mm Hg
Flow A	0.759	ccm	0.751	ccm
Flow B	0.713	ccm	0.705	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)
4989	0.0	0.0	-0.4	N/A
4989	0.3	328.2	329.3	0.9966
4989	0.2	192.7	192.2	1.0028
4989	0.1	60.5	59.9	1.0099
4989	0.0	0.0	-0.3	As found zero
4989	0.3	328.2	321.7	As found span
			Average Correction Factor	1.0031

Calculated value of As Found Response: 320.7 ppm Percent Change of As Found: -2.3%

	before calibration		after calibration	
Auto zero	0.1	ppb	0.2	ppb
Auto span	114.3	ppb	111.6	ppb

Notes: Slight span adjustment made.

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **O3**

Air Monitoring Network **PAZA**

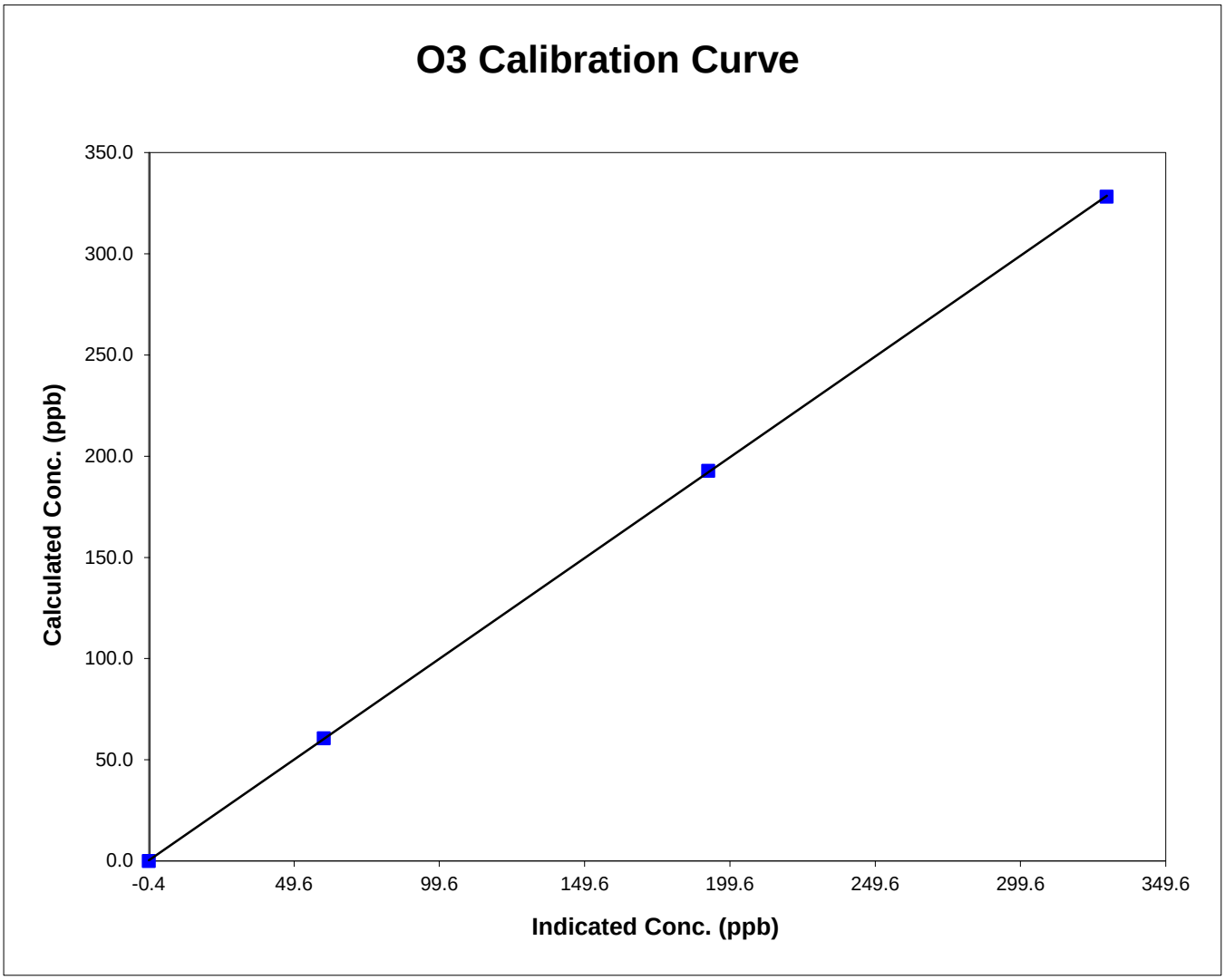
FOCUS AIR QUALITY MONITORING

Station Information

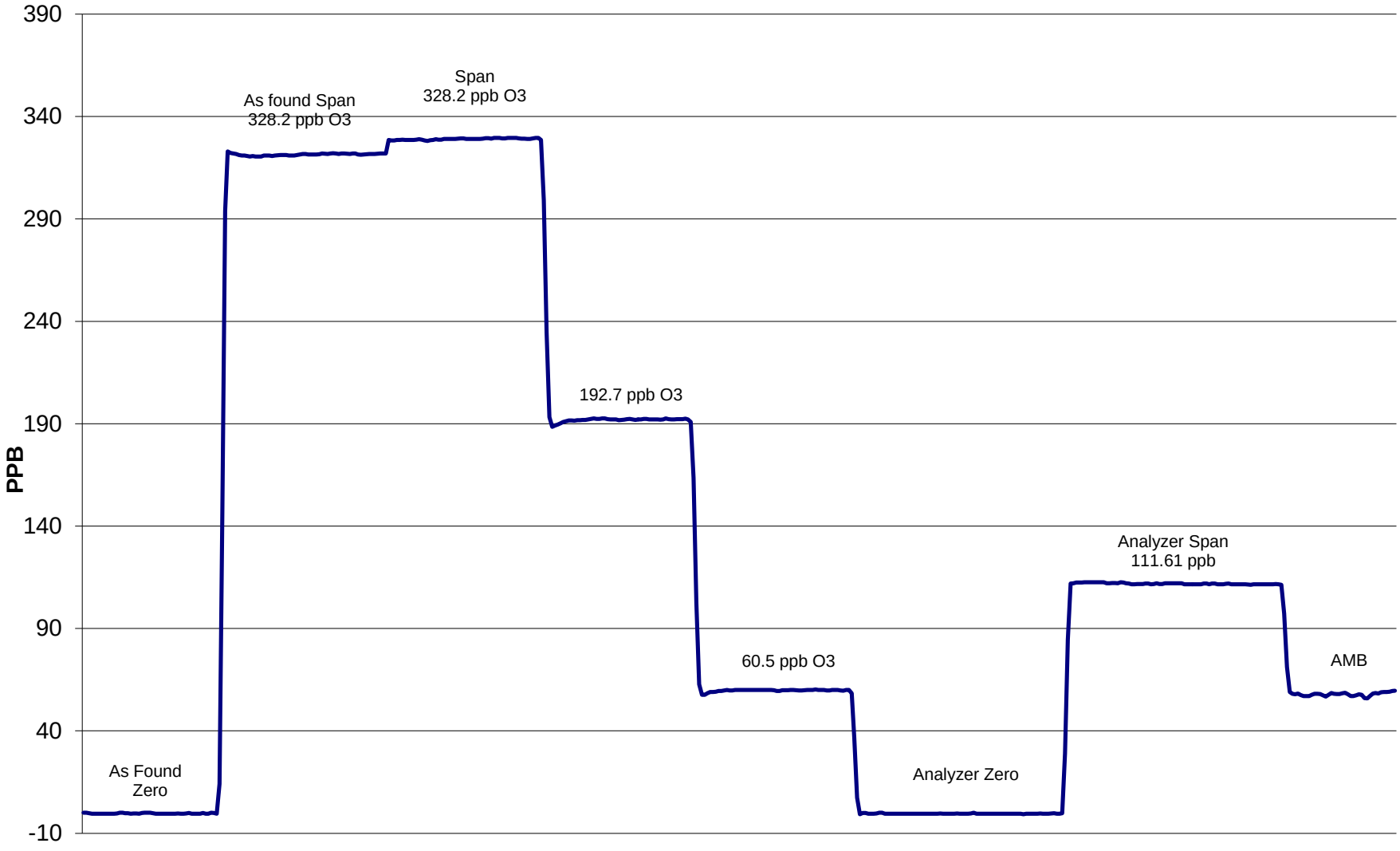
Calibration Date	May 26, 2012	Previous Calibration	April 12, 2012
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	11:30	End Time (MST)	15:35
Analyzer make/model	Teco 49C	Analyzer serial #	49C-76443-383

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.4	NA		
328.2	329.3	0.9966	Correlation Coefficient	0.999989
192.7	192.2	1.0028		
60.5	59.9	1.0099	Slope	0.995663
			Intercept	0.725367



O3 Calibration



May 26, 2012

FDMS TEOM PM2.5 AUDIT

FOCUS
AIR QUALITY MONITORING

STATION: **BeaverLodge**

LOCATION: PAZA - Grande Prairie

OPERATOR: Grover Christiansen

DATE: 30-May-12

MONITOR INFO / PARAMETER VALUES:

Make/Model	TEOM AB
Configuration	PM2.5
Serial Number	AMU1649
Site Number	4
Inlet Type	PM 10 / SCC
FAdj. Main Setting	1.000
FAdj. Aux. Setting	1.000
T-Case Indicated / Set Point	30/30
T-Air Indicated / Set Point	30/30
T-Cap Indicated / Set Point	30/30
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	5-Feb-12
Previous Calibration	

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	-0.10	0.11
PUMP OFF	0.01	0.01
NET	-0.11	0.10
LIMITS	*<0.15*	*<0.60*

		Ambient Temp. (^{0} C)	Ambient Pres. (atm)	Ko *	Bypass flow (lpm)	Sample flow (lpm)
	SET POINT (S)	na	na	14287	13.67	3.00
	INDICATED (I)	15.7	0.911		13.68	3.00
As Found Data	MEASURED (AF)	15.6	0.912		13.69	3.01
Adjusted Data	MEASURED (M)	15.6	0.912	14142	13.69	3.01
	DIFFERENCE (M-I)	-0.1	0.001	-1.0%	0.01	0.01
	LIMITS	*± 2 ^{0} C*	*± 0.005 atm*	*± 2.5 %*	*± 1.0 L/min*	*± 0.2 L/min*

Ko Audit Filter data *Weight:* 0.11477 *Serial #:* *CVK 3532*

COMMENTS: PASS

Sample heads were cleaned.

Reference leak check: Main: -0.08 Aux: 0.12

PASS

Sample Head Inspection Or Cleaning: TEOM / FDMS IN LINE FILTER INSPECTION OR REPLAC

Calibration Report

Parameter **SO2**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	May 24, 2012	Previous Calibration	April 10, 2012
Station Number	6	Station Location	Valleyview
Reason: Routine	Install	Removal	Other:

Start Time (MST)	10:50	End Time (MST)	14:39
Barometric Pressure	702.00 mmHg	Station Temperature	20.0 Deg C
Calibrator	Environics 6100	Serial Number	3016
Cal Gas Concentration	49.8 ppm	Cal Gas Cert Date	11/29/2011
Gas Cylinder Num.	LL158102	Cal gas Exp. Date	11/29/2013
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	0.999594	Calculated slope	1.000764
Calculated intercept	1.114424	Calculated intercept	0.212682

Analyzer make	TEI 45C	Analyzer serial #	45C-57531-313

	before		after	
Concentration range	0 - 1000	ppb	0 - 1000	ppb
Background	32.8		30.9	
Coefficient	0.919		0.871	
UV Lamp Voltage	966	LPM	967	LPM
Chamber Temp	44.2	V	44.2	V
Perm Gas Temp	25.7	C	26.8	C
Pressure	609.4	in Hg	615.1	in Hg
Sample Flow	0.559	LPM	0.561	LPM
Lamp Intensity	48536	Hz	48366	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)
4989	0.00	0.0	0.3	N/A
4989	39.85	394.6	394.2	1.0011
4989	19.93	198.1	198.0	1.0007
4989	9.94	99.0	97.9	1.0118
4989	0.00	0.0	0.2	As found zero
4989	39.85	394.6	414.9	As found span
			Average Correction Factor	1.0045

Calculated value of As Found Response: 415.7 ppm Percent Change of As Found: -5.3%

	before calibration		after calibration	
Auto zero	0.0	ppm	0.0	ppm
Auto span	155.5	ppm	157.0	ppm

Notes: Adjusted span down.

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **SO2**

Air Monitoring Network **PAZA**

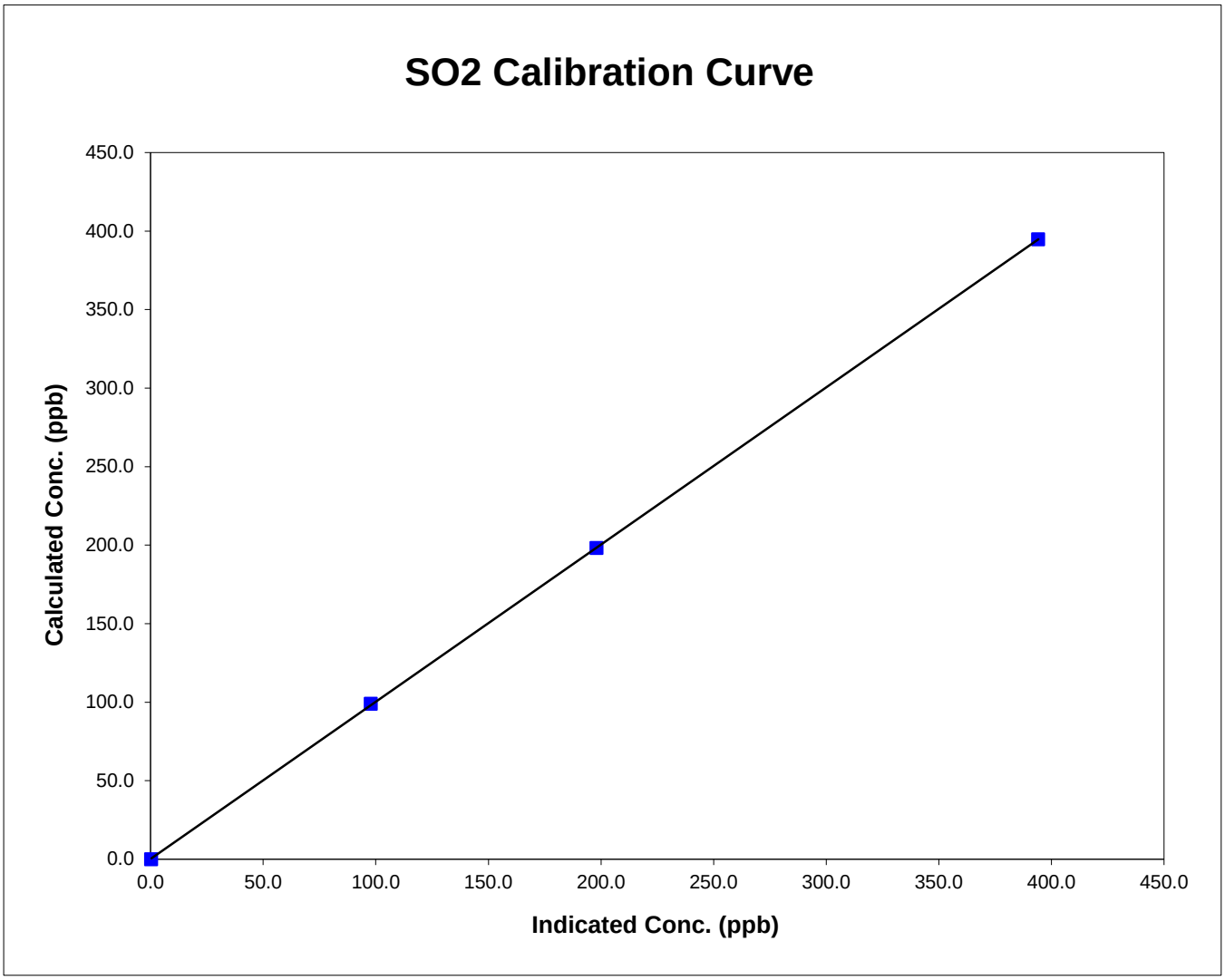
FOCUS AIR QUALITY MONITORING

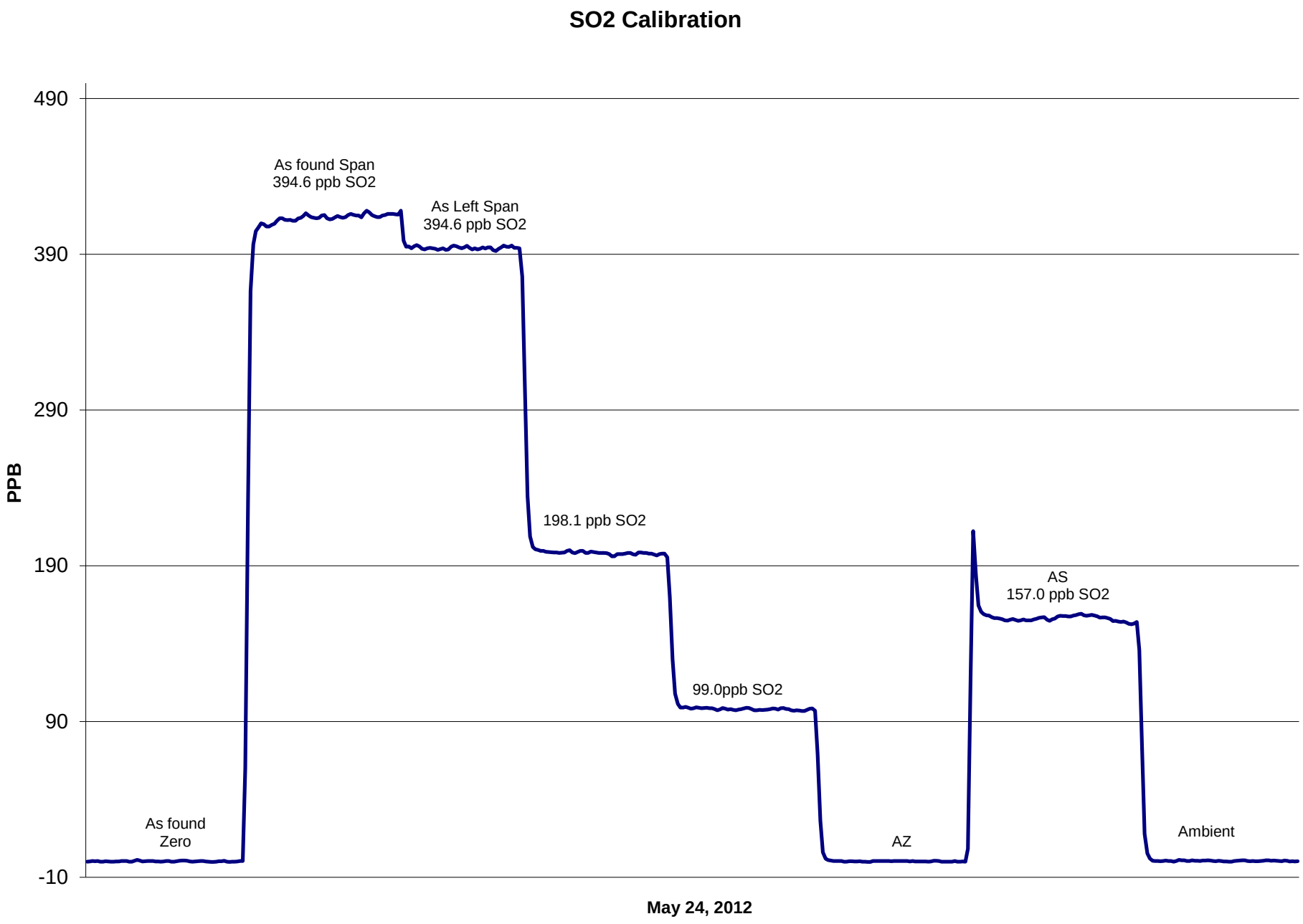
Station Information

Calibration Date	May 24, 2012	Previous Calibration	April 10, 2012
Station Number	6	Station Location	Valleyview
Start Time (MST)	10:50	End Time (MST)	14:42
Analyzer make/model	TEI 45C	Analyzer serial #	45C-57531-313

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	N/A		
394.6	394.2	1.0011	Correlation Coefficient	0.999987
198.1	198.0	1.0007		
99.0	97.9	1.0118	Slope	1.000764
			Intercept	0.212682




SO2 Calibration
490
390
290
190
90
-10
PPB
As found Span
394.6 ppb SO2
As Left Span
394.6 ppb SO2
198.1 ppb SO2
99.0ppb SO2
AZ
AS
157.0 ppb SO2
Ambient
As found
Zero
May 24, 2012

Calibration Report

Parameter **H2S**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	May 24, 2012	Previous Calibration	April 10, 2012
Station Number	6	Station Location	Valleyview
Reason: Routine	Install	Removal	Other:
Start Time (MST)	8:30	End Time (MST)	12:43
Barometric Pressure	702.00 mm	Station Temperature	21.0 Deg C
Calibrator	Environics 6100	Serial Number	3016
Cal Gas Concentratior	5.77 ppm	Cal Gas Expiry Date	7/22/2011
Gas Cert Reference	BLM001715		
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	0.996026	Calculated slope	1.000086
Calculated intercept	0.452918	Calculated intercept	0.009546
Analyzer make	TEI Model 43i - APSCB	Analyzer serial #	701120010

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Back Ground	6.3	ppb	7.1	ppb
Coefficient	1.2		1.363	
Lamp Voltage	786	V	788	V
Chamber Temp	45.0	c	45.1	c
Perm Oven Temp	44.33	c	44.33	c
Pressure	620.70	mm Hg	621.90	mm Hg
Sample Flow	0.420	ccm	0.421	ccm
Lamp Intensity	91.0	%	91.0	%

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)
4989	0.00	0.0	0.0	N/A
4989	69.78	79.6	79.6	1.0003
4989	34.86	40.0	40.1	0.9997
4989	8.93	10.3	10.2	1.0079
4989	0.00	0.0	0.0	As found zero
4989	69.78	79.6	70.2	As found span
			Average Correction Factor	1.0026

Calculated value of As Found Response: 70.33 ppm Percent Change of As Found: 11.6%

	before calibration		after calibration	
Auto zero	0.0	ppm	0.1	ppm
Auto span	70.6	ppm	73.8	ppm

Notes:

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **H2S**

Air Monitoring Network **PAZA**

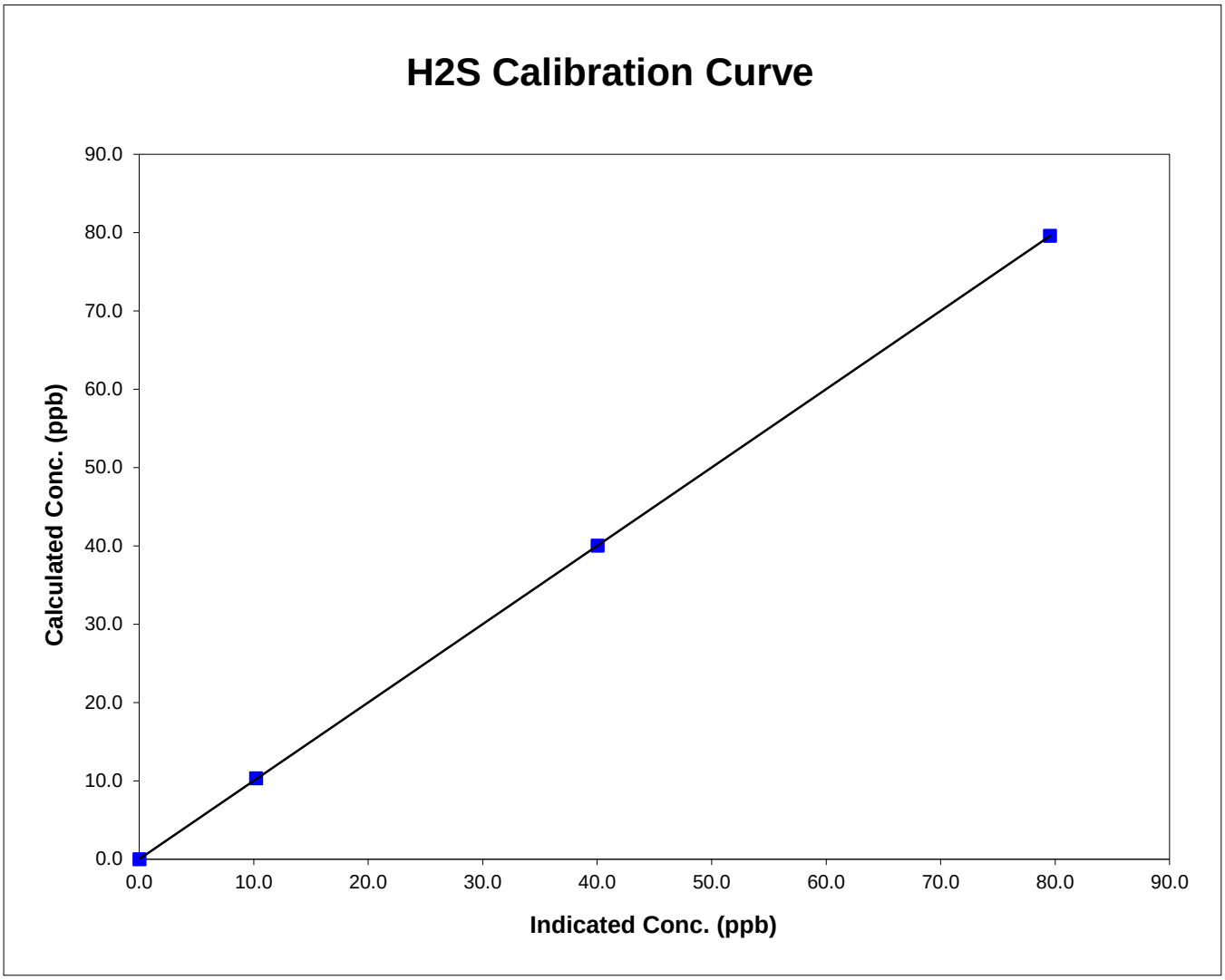
FOCUS AIR QUALITY MONITORING

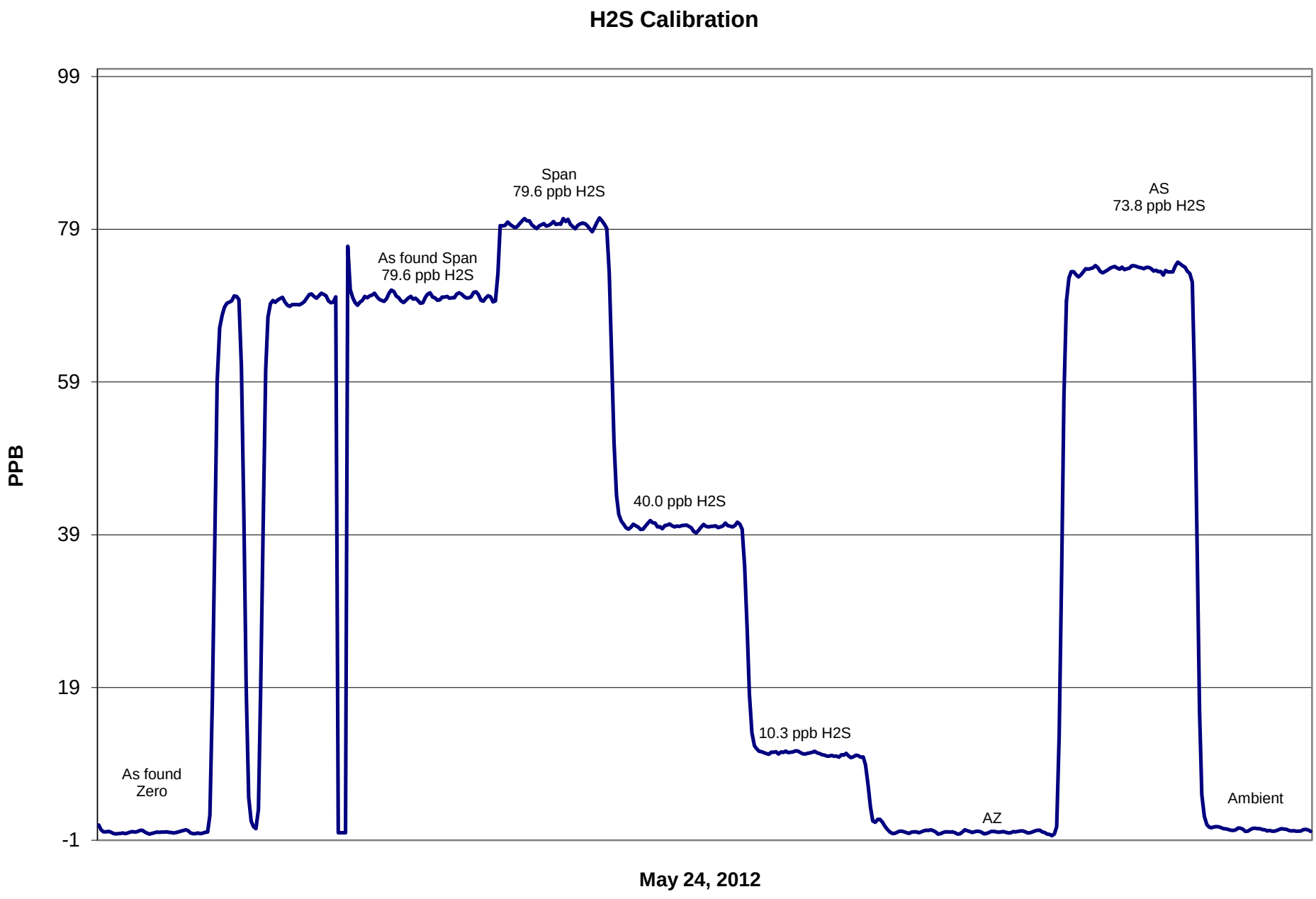
Station Information

Calibration Date	May 24, 2012	Previous Calibration	April 10, 2012
Station Number	6	Station Location	Valleyview
Start Time (MST)	8:30	End Time (MST)	12:43
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	0.0	N/A		
79.6	79.6	1.0003	Correlation Coefficient	0.999998
40.0	40.1	0.9997		
10.3	10.2	1.0079	Slope	1.000086
			Intercept	0.009546




H2S Calibration
99
79
59
39
19
-1
PPB
As found
Zero
As found Span
79.6 ppb H2S
Span
79.6 ppb H2S
40.0 ppb H2S
10.3 ppb H2S
AZ
AS
73.8 ppb H2S
Ambient
May 24, 2012

Calibration Report

Parameter **SO2**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	May 12, 2011	Previous Calibration	April 11, 2011
Station Number	9	Station Location	Sunset House
Reason: Routine	Install	Removal	Other:
Start Time (MST)	9:15	End Time (MST)	12:45
Barometric Pressure	31.70 inches Hg	Station Temperature	19.7 Deg C
Calibrator	Environics 6100	Serial Number	3016
Cal Gas Concentration	49.8 ppm	Cal Gas Expiry Date	4/6/2012
Gas Cert Reference	LL85275		
DACS make	CR3000	DACS serial No.	5407
DACS voltage range	0 - 5 Volt	DACS channel #	2
	Before		After
DACS Scale High	500	DACS slope	500
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.996817	Calculated slope	1.004637
Calculated intercept	0.637854	Calculated intercept	-1.460941
Analyzer make	TEI 43C	Analyzer serial #	609716238

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Background	18		16.8	
Coefficient	1.030		0.961	
UV Lamp Voltage	832	V	832	V
Chamber Temp	44.7	C	44.7	C
Perm Gas Temp	45	C	45	C
Pressure	666.6	mm Hg	663.5	mm Hg
Sample Flow	0.483	LPM	0.483	LPM
Lamp Intesity	37267	Hz	37335	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)
4989	0.00	0.0	0.3	N/A
4989	39.84	394.5	393.9	1.0017
4989	19.91	198.0	198.2	0.9985
4989	9.94	99.0	101.7	0.9739
4989	0.00	0.0	0.4	As found zero
4989	39.84	394.5	420.1	As found span
			Average Correction Factor	0.9914

Calculated value of As Found Response: 418.9 ppm Percent Change of As Found: -6.2%

	before calibration		after calibration	
Auto zero	0.3	ppm	0.3	ppm
Auto span	264.0	ppm	259.8	ppm

Notes:

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **SO2**

Air Monitoring Network **PAZA**

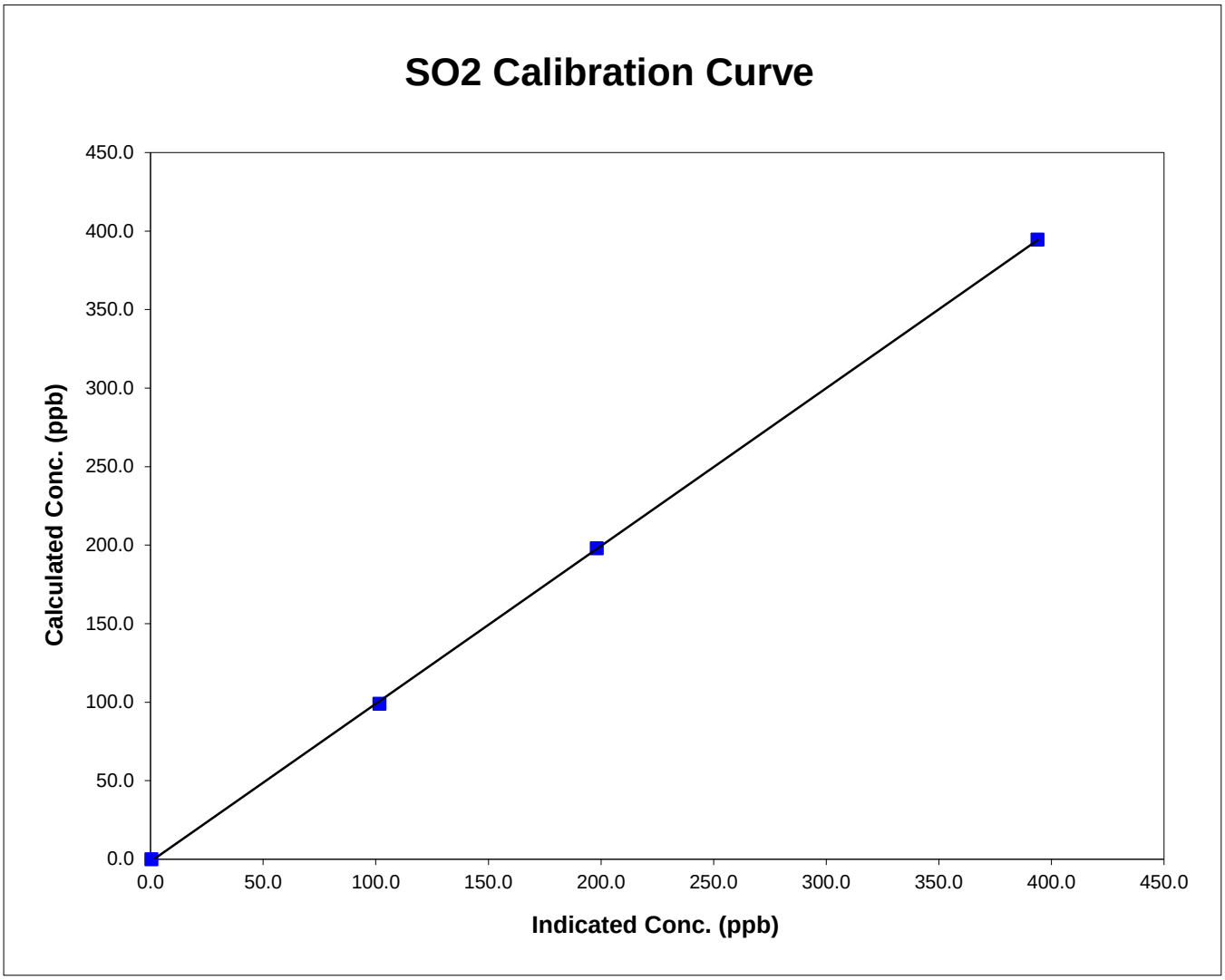
FOCUS AIR QUALITY MONITORING

Station Information

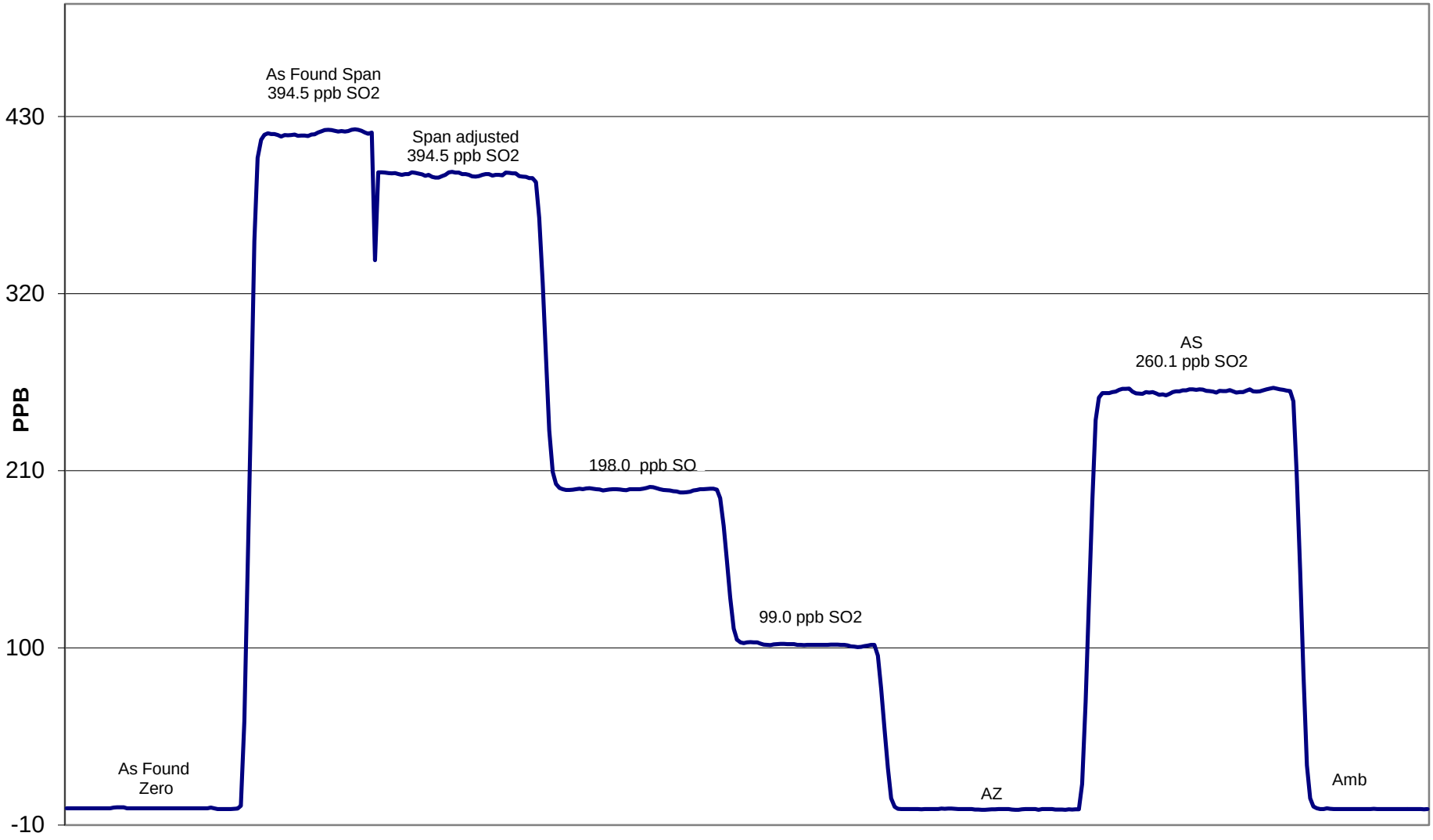
Calibration Date	May 12, 2011	Previous Calibration	April 11, 2011
Station Number	9	Station Location	Sunset House
Start Time (MST)	9:15	End Time (MST)	12:45
Analyzer make/model	TEI 43C	Analyzer serial #	609716238

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	N/A		
394.5	393.9	1.0017	Correlation Coefficient	0.999951
198.0	198.2	0.9985		
99.0	101.7	0.9739	Slope	1.004637
			Intercept	-1.460941



SO2 Calibration



May 12, 2011

Calibration Report

Parameter **NO_X-NO-NO_2**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	May 12, 2012	Previous Calibration	May 2, 2012
Station Number	9	Station Location	Sunset House

Reason: Routine Install Removal Other:

Start Time (MST)	9:15		End Time (MST)	14:17	
Barometric Pressure	0.918	Atm	Station Temperature	20.0	Deg C
Calibrator	Environics		Serial Number	3016	
NO Cal Gas Conc	52.5	ppm	Cal Gas Expiry Date	November 29, 2013	
NOx Cal Gas Conc	52.5	ppm	Cal Gas Serial #	LL85275	

DACS Information

DACS make	CR3000	DACS serial No.	5407

Parameter		NO2	NOx	NO
Before	Data Slope	1.010484	0.997580	1.004802
	Data Offset	1.614990	-0.082128	-0.205055
After	Data Slope	1.001714	1.000396	1.004108
	Data Offset	-0.268999	-3.061992	-2.996482
Channel #		5	3	4
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	4.4	mV	4.4	mV
NOx bkgnd	4.6	mV	4.6	mV
NO coefficient	1.240		1.202	
NOx coefficient	1.000		0.997	
NO2 conv temp	323.9	Deg C	323.9	Deg C
PMT Temp	-2.6	Deg C	-2.6	Deg C
PMT Volt	-773.3	mV	-773.3	mV
R Cell Press	157.2	in Hg	155.7	in Hg
Sample Flow	0.869	ccm	0.859	ccm

NOTES: Span adjust

Calibration Report

Parameter **NOX-NO-NO2**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date: May 12, 2012 Station Location: Sunset House

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	4989	0.00	0.0	0.0	0.0	0.7	0.6	0.2	N/A	N/A
1	4989	39.84	415.9	415.9	0.0	417.6	416.1	-0.2	0.9960	0.9996
2	4989	19.91	208.7	208.7	0.0	212.7	211.7	0.2	0.9809	0.9858
3	4989	9.94	104.4	104.4	0.0	109.9	109.6	0.3	0.9496	0.9528
AFZ	4989	0.00	0.0	0.0	0.0	0.7	0.7	0.2	0.0000	0.0000
AFS	4989	39.84	415.9	415.9	0.0	431.7	428.9	0.6	0.9635	0.9698
							Average Correction Factor		0.9755	0.9794

As Found Concentrations: NO_X= 430.9 NO= 428.0 As Found Percent Change NO_X= 3.6% NO= 2.9%

GPT Calibration Data

Dilution Flow 4989 ccm Source Gas Flow 39.84 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	0.7	0.7	0.0	0.7	0.6	0.2	N/A	N/A	N/A	N/A
NO point	415.9	415.9	0.0	417.5	415.9	-0.7	0.9963	1.0000	N/A	N/A
300	415.9	160.2	255.8	417.4	160.2	255.6	0.9965	1.0000	1.0007	99.9%
200	415.9	243.6	172.4	418.2	243.6	172.3	0.9947	1.0000	1.0005	100.0%
100	415.9	327.0	88.9	418.0	327.0	89.2	0.9952	1.0000	0.9968	100.3%
					Average Correction Factor		0.9955	1.0000	0.9993	100.1%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	-0.2	-0.3	-0.2	ppb	0.7	0.2	0.7	ppb
Auto span	200.0	197.1	1.6	ppb	101.5	99.7	1.5	ppb

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **NO_2**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

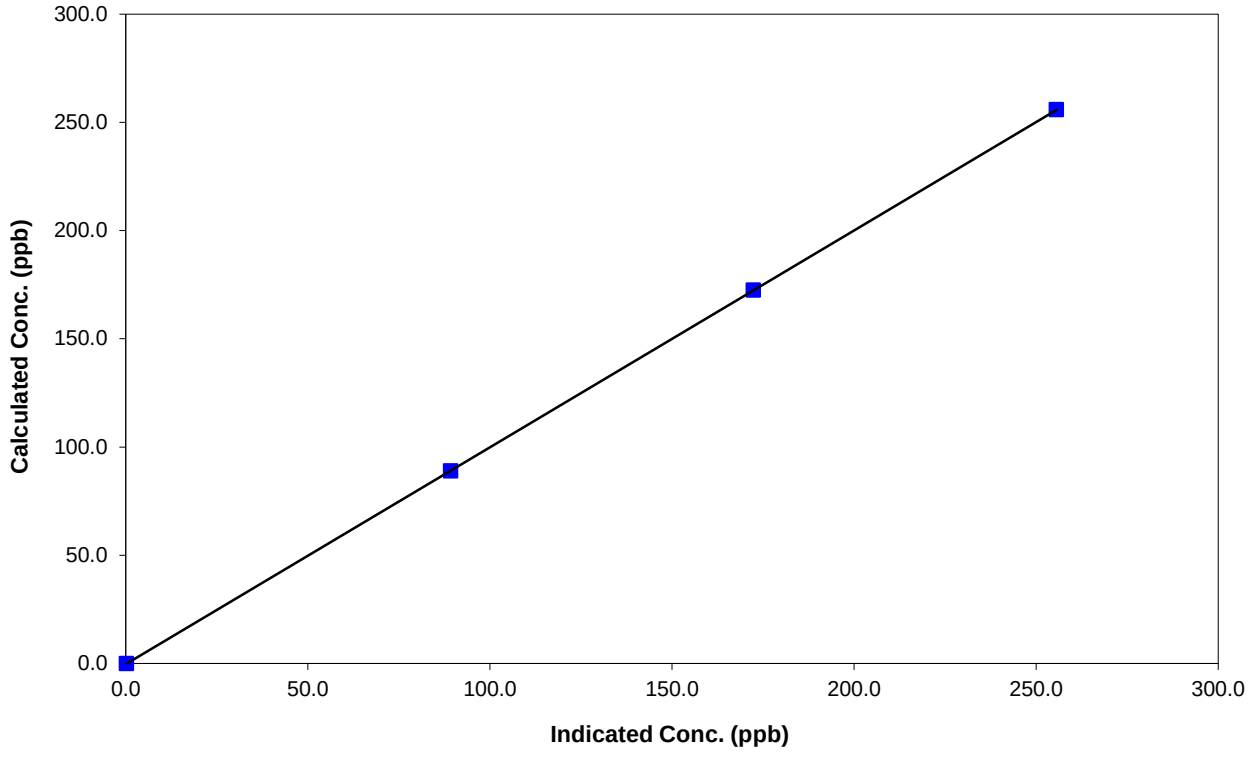
Station Information

Calibration Date	May 12, 2012	Previous Calibration	May 2, 2012
Station Number	9	Station Location	Sunset House
Start Time (MST)	9:15	End Time (MST)	14:17
Analyzer make	TEI 42i	Analyzer serial #	0701120011

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A		
255.8	255.6	1.0007	Correlation Coefficient	0.999999
172.4	172.3	1.0005		
88.9	89.2	0.9968	Slope	1.001714
			Intercept	-0.268999

NO_2 Calibration Curve



Calibration Summary

Parameter **NO_x**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

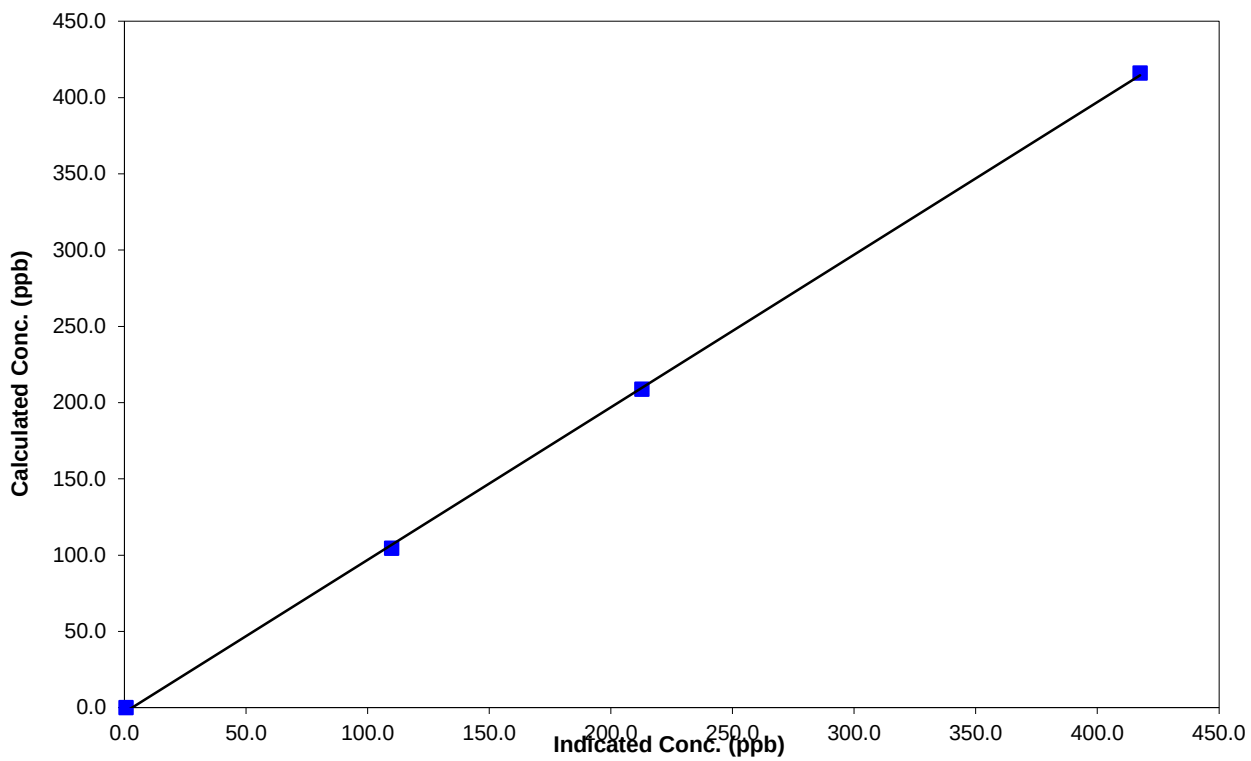
Station Information

Calibration Date	May 12, 2012	Previous Calibration	May 2, 2012
Station Number	9	Station Location	Sunset House
Start Time (MST)	9:15	End Time (MST)	14:17
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	0.7	N/A		
415.9	417.6	0.9960	Correlation Coefficient	0.999844
208.7	212.7	0.9809		
104.4	109.9	0.9496	Slope	1.000396
			Intercept	-3.061992

NOx Calibration Curve



Calibration Summary

Parameter **NO**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

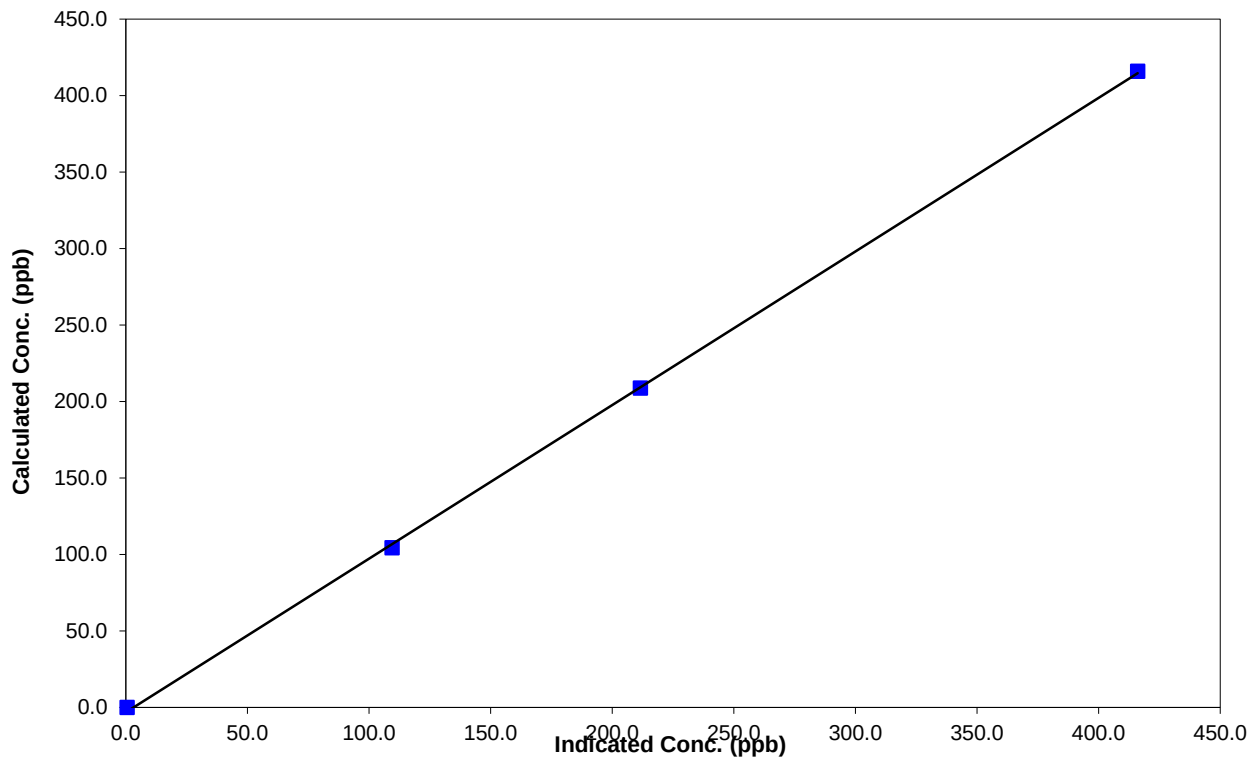
Station Information

Calibration Date	May 12, 2012	Previous Calibration	May 2, 2012
Station Number	9	Station Location	Sunset House
Start Time (MST)	9:15	End Time (MST)	14:17
Analyzer make	TEI 42i	Analyzer serial #	0701120011

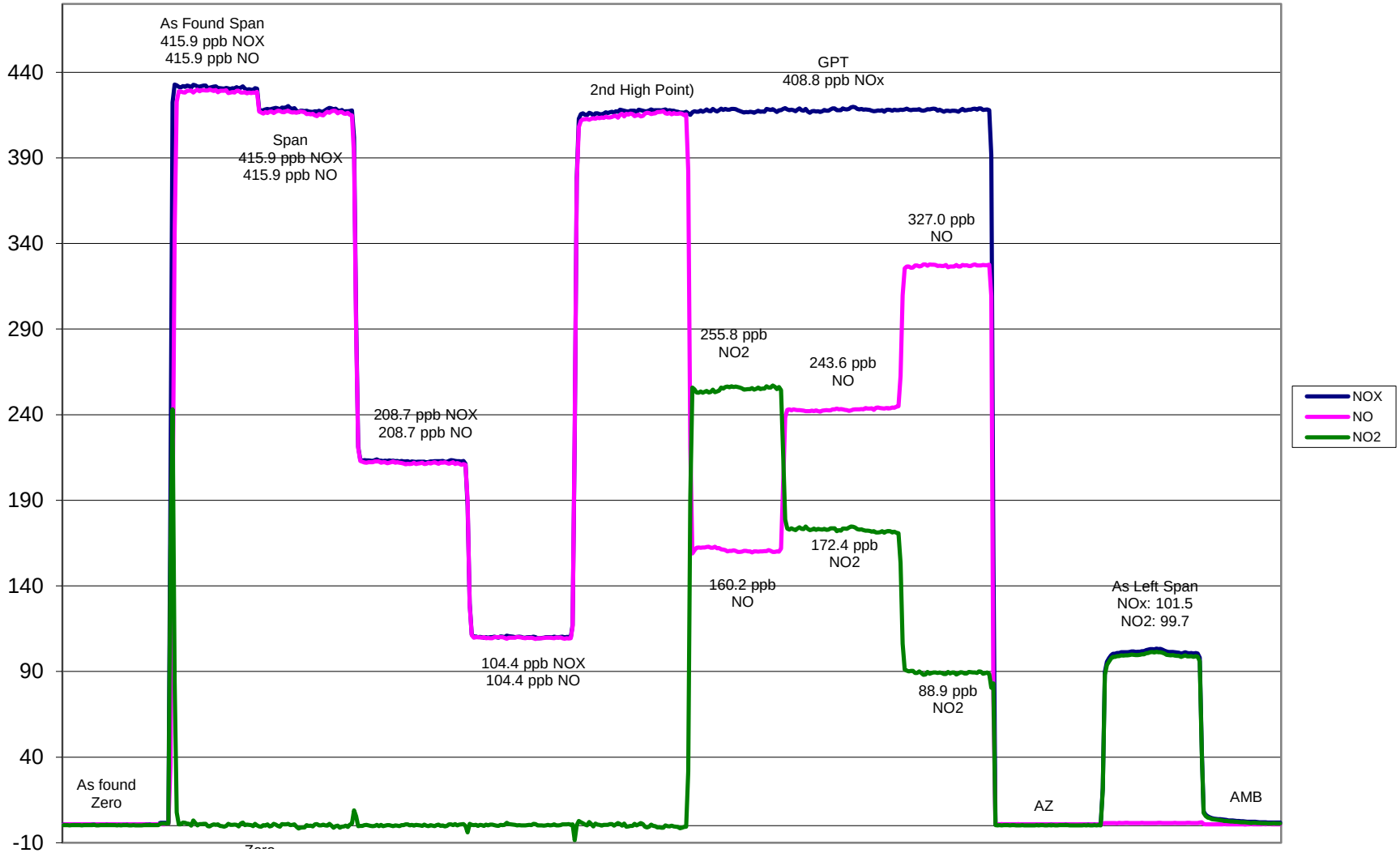
Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.6	N/A		
415.9	416.1	0.9996	Correlation Coefficient	0.999847
208.7	211.7	0.9858		
104.4	109.6	0.9528	Slope	1.004108
			Intercept	-2.996482

NO Calibration Curve



PASZA Sunset House NO_X Calibration



May 12, 2012

Calibration Report

FOCUS AIR QUALITY MONITORING

Parameter **O3**

Air Monitoring Network **PAZA**

Station Information

Calibration Date	May 11, 2012	Previous Calibration	May 2, 2012
Station Number	9	Station Location	Sunset House
Reason: Routine	Install	Removal remove	Other:
Start Time (MST)	9:01	End Time (MST)	10:00
Barometric Pressure	0.894 atm	Station Temperature	19.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
DACS make	CR3000	DACS serial No.	5407
DACS voltage range	0 - 5 Volts	DACS channel #	6
	Before		After
Calculated slope	1.003902	Calculated slope	0.939751
Calculated intercept	1.557783	Calculated intercept	-0.663311
Analyzer make	TEI Model 49C	Analyzer serial #	49C-0609716240

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Offset	0.4	ppb	0.4	ppb
Span	1.486		1.486	
Cell A intensity	97233	Hz	962546	Hz
Cell B intensity	89267	Hz	88567	Hz
Pressure	677.80	in Hg	680.10	in Hg
CellA Flow	0.938	ccm	0.921	ccm
Cell B Flow	0.720	cmm	0.785	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)
4995	0.00	0.0	0.7	N/A
4995	0.30	298.2	318.0	0.9377
4995	0.00	0.0	0.7	As found zero
4995	0.30	298.2	318.0	As found span
			Average Correction Factor	0.9377

Calculated value of As Found Response: 320.1 ppm Percent Change of As Found: 7.3%

	before calibration		after calibration	
Auto zero	0.6	ppb		ppb
Auto span	137.7	ppb	0.0	ppb

Notes: As founds determined before solenoids are replaced and cells are cleaned

Calibration Performed By: Virginia McKergow

Calibration Summary

Parameter **O3**

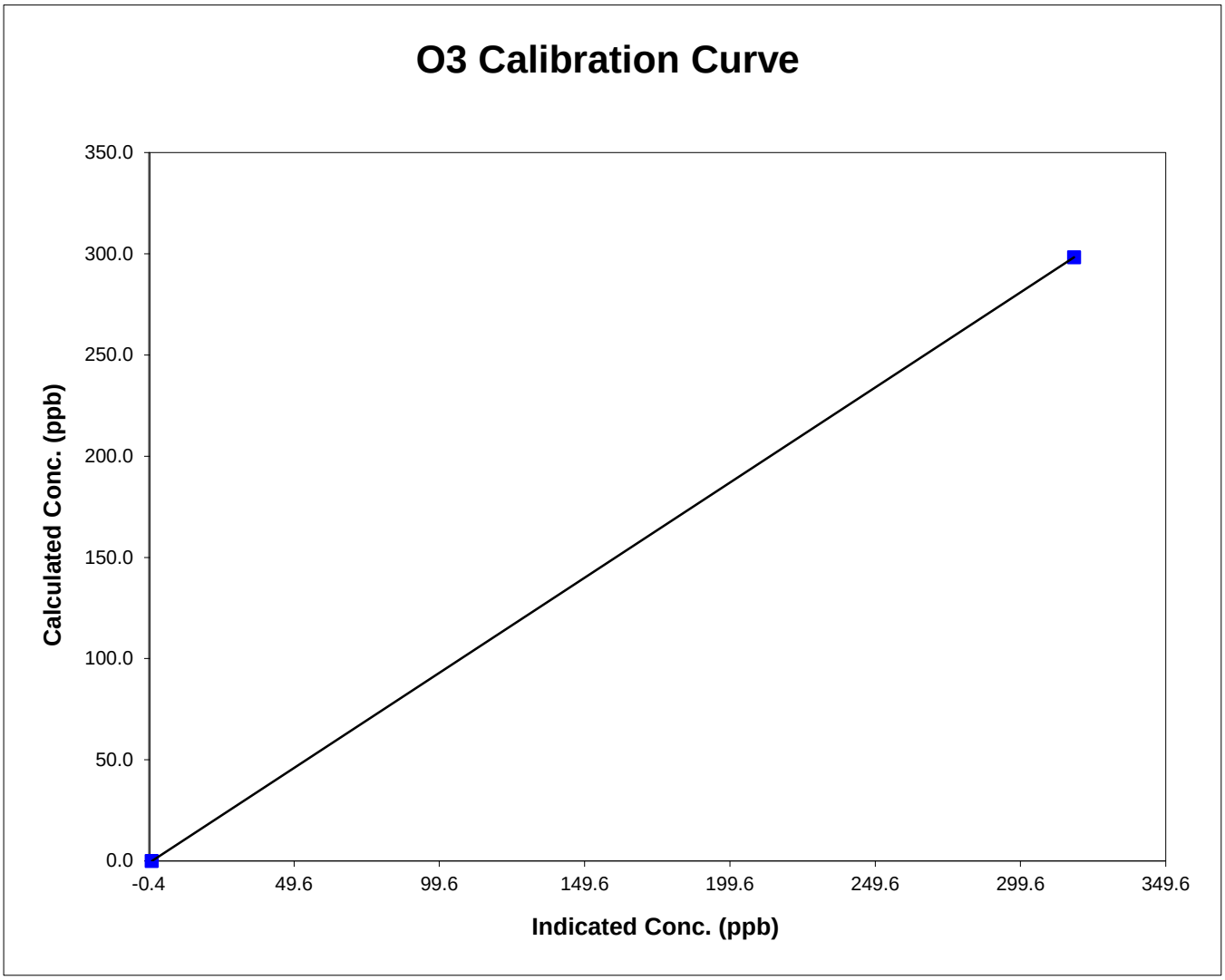
Air Monitoring Network **PAZA**

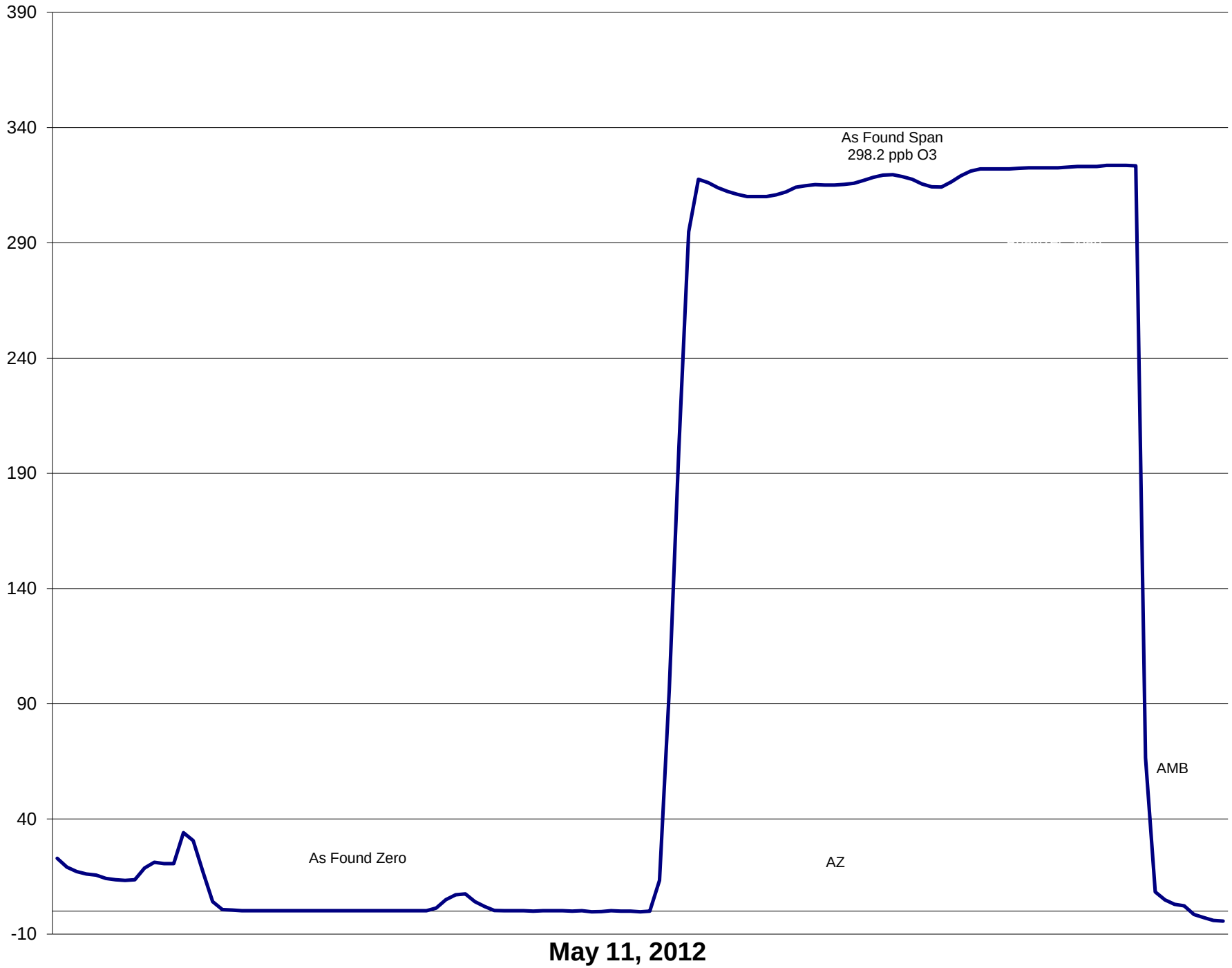
Station Information

Calibration Date	May 11, 2012	Previous Calibration	May 2, 2012
Station Number	9	Station Location	Sunset House
Start Time (MST)	9:01	End Time (MST)	10:00
Analyzer make/model	TEI Model 49C	Analyzer serial #	49C-0609716240

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.7	NA		
298.2	318.0	0.9377	Correlation Coefficient	1.000000
			Slope	0.939751
			Intercept	-0.663311




390
340
290
240
190
140
90
40
-10
As Found Span
298.2 ppb O3
AMB
As Found Zero
AZ
May 11, 2012

Calibration Report

FOCUS AIR QUALITY MONITORING

Parameter **O3**

Air Monitoring Network **PAZA**

Station Information

Calibration Date	May 12, 2012	Previous Calibration	May 2, 2012
Station Number	9	Station Location	Sunset House
Reason: Routine	Install	Removal remove	Other:
Start Time (MST)	12:40	End Time (MST)	16:04
Barometric Pressure	0.916 atm	Station Temperature	15.7 Deg C
Calibrator	Environics 6100	Serial Number	3474
DACS make	CR3000	DACS serial No.	5407
DACS voltage range	0 - 5 Volts	DACS channel #	6
	Before		After
Calculated slope	0.939751	Calculated slope	1.000958
Calculated intercept	-0.663311	Calculated intercept	-0.405807
Analyzer make	TEI Model 49C	Analyzer serial #	49C-0609716240

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Offset	0.4	ppb	0.3	ppb
Span	1.486		1.008	
Cell A intensity	94807	Hz	94936	Hz
Cell B intensity	87274	Hz	87550	Hz
Pressure	687.50	in Hg	679.60	in Hg
CellA Flow	0.948	ccm	0.938	ccm
Cell B Flow	0.724	cmm	0.720	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)
4989	0.00	0.0	0.1	N/A
4989	0.30	255.8	256.2	0.9983
4989	0.20	172.4	171.7	1.0041
4989	0.10	88.9	90.2	0.9851
4989	0.00	0.0	0.4	As found zero
4989	0.30	255.8	373.7	As found span
			Average Correction Factor	0.9958

Calculated value of As Found Response: 350.1 ppm Percent Change of As Found: 36.9%

	before calibration		after calibration	
Auto zero	0.6	ppb	-0.3	ppb
Auto span	137.7	ppb	199.8	ppb

Notes: Virginia performed maintenance yesterday, however her equipment malfunctioned right after.
Analyzer has had time to stabilize overnight, Big span adjustment as result of maintenance

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **O3**

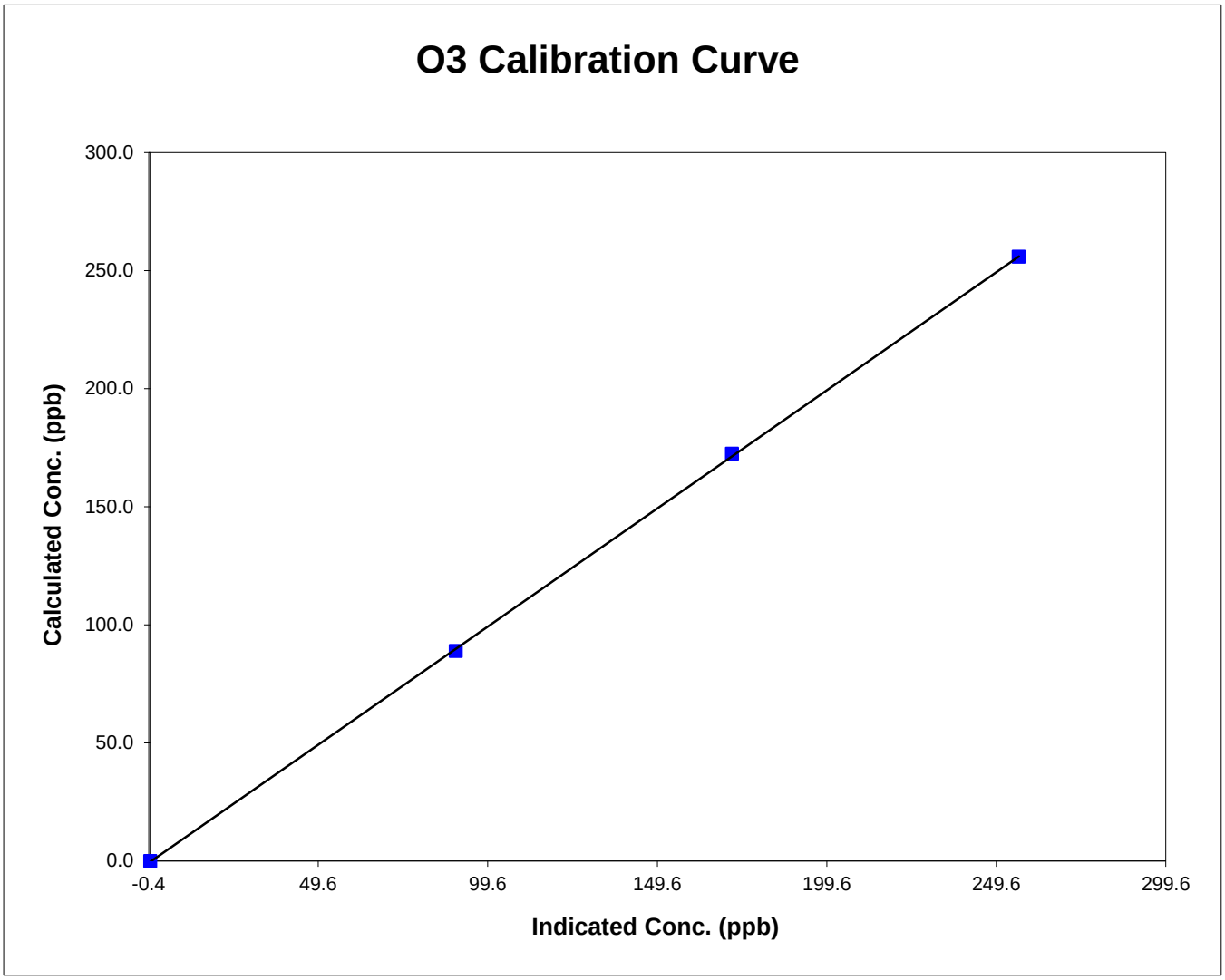
Air Monitoring Network **PAZA**

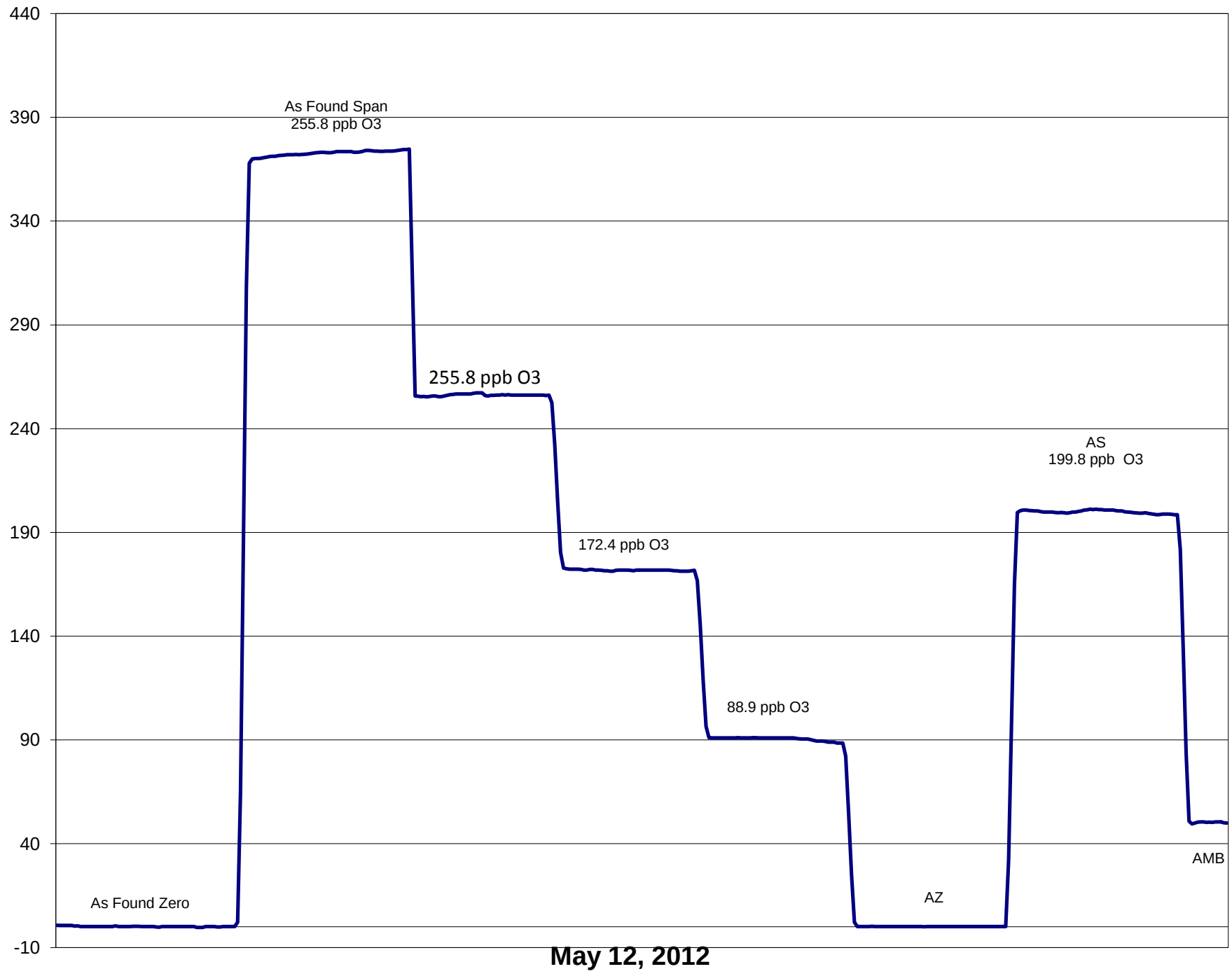
Station Information

Calibration Date	May 12, 2012	Previous Calibration	May 2, 2012
Station Number	9	Station Location	Sunset House
Start Time (MST)	12:40	End Time (MST)	16:04
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	0.1	NA		
255.8	256.2	0.9983	Correlation Coefficient	0.999941
172.4	171.7	1.0041		
88.9	90.2	0.9851	Slope	1.000958
			Intercept	-0.405807




440
390
340
290
240
190
140
90
40
-10
As Found Span
255.8 ppb O3
255.8 ppb O3
172.4 ppb O3
88.9 ppb O3
AS
199.8 ppb O3
As Found Zero
AZ
AMB
May 12, 2012

Calibration Report

Parameter **TRS**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	May 12, 2012	Previous Calibration	April 10, 2012
Station Name	PAZA Rover	Station Location	Sunset House
Reason:	Routine / Install	Removal	Other:
Start Time (MST)	14:41	End Time (MST)	18:21
Barometric Pressure	27.5 inches Hg	Station Temperature	20.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Concentration	5.77 ppm	Cal Gas Expiry Date	9/3/2011
Gas Cert Reference	BLM001434		
DACS make	CR3000	DACS serial No.	5407
DACS voltage range	0 - 5 Volt	DACS channel #	1
	Before		After
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.989101	Calculated slope	1.007351
Calculated intercept	0.779524	Calculated intercept	0.393473
Analyzer make	TEI 43C	Analyzer serial #	609716238

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	14.1	ppb	14.4	ppb
Coefficient	1.412		1.440	
Lamp Voltage	795	V	796	V
Chamber Temp	44.1	C	44.1	C
Perm gas Temp	45.0	C	45.0	C
Pressure	651.0	mmHg	651.5	mmHg
Sample Flow	0.423	ccm	0.426	ccm
Lamp Intensity	39203.0	Hz	39573.0	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)
4989	0.0	0.0	-0.5	N/A
4989	69.81	79.6	78.7	1.0122
4989	34.88	40.1	39.3	1.0189
4989	8.96	10.3	10.0	1.0309
4989	0.00	0.0	-0.5	As found zero
4989	69.81	79.6	76.4	As found span
			Average Correction Factor	1.0207

Calculated value of As Found Response: 76.83 ppm Percent Change of As Found: 3.5%

	before calibration		after calibration	
Auto zero	-0.6	ppm	0.0	ppm
Auto span	69.6	ppm	71.5	ppm

Notes: Slight span adjust up.
SOx material was tested - good.

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **TRS**

Air Monitoring Network **PAZA**

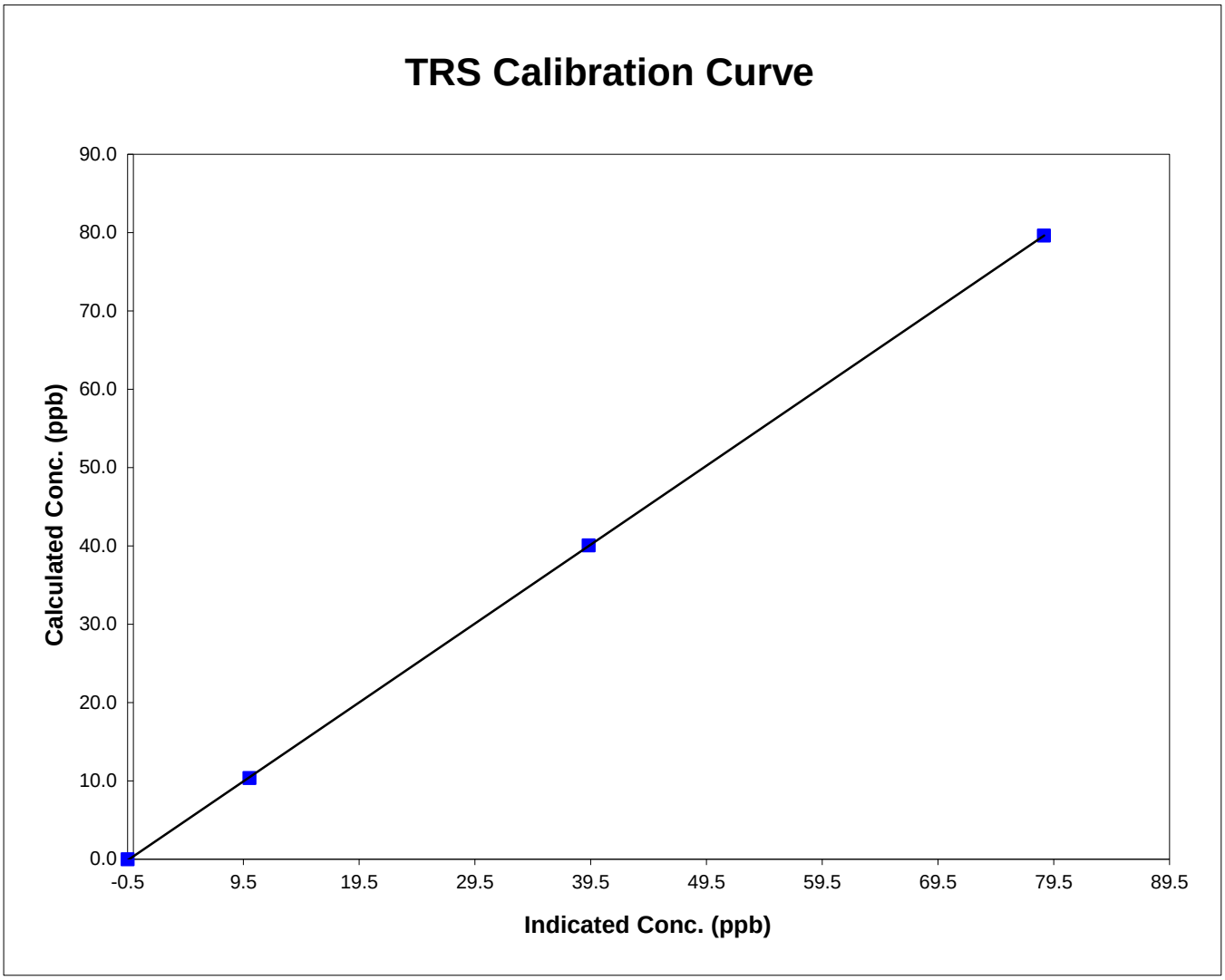
FOCUS AIR QUALITY MONITORING

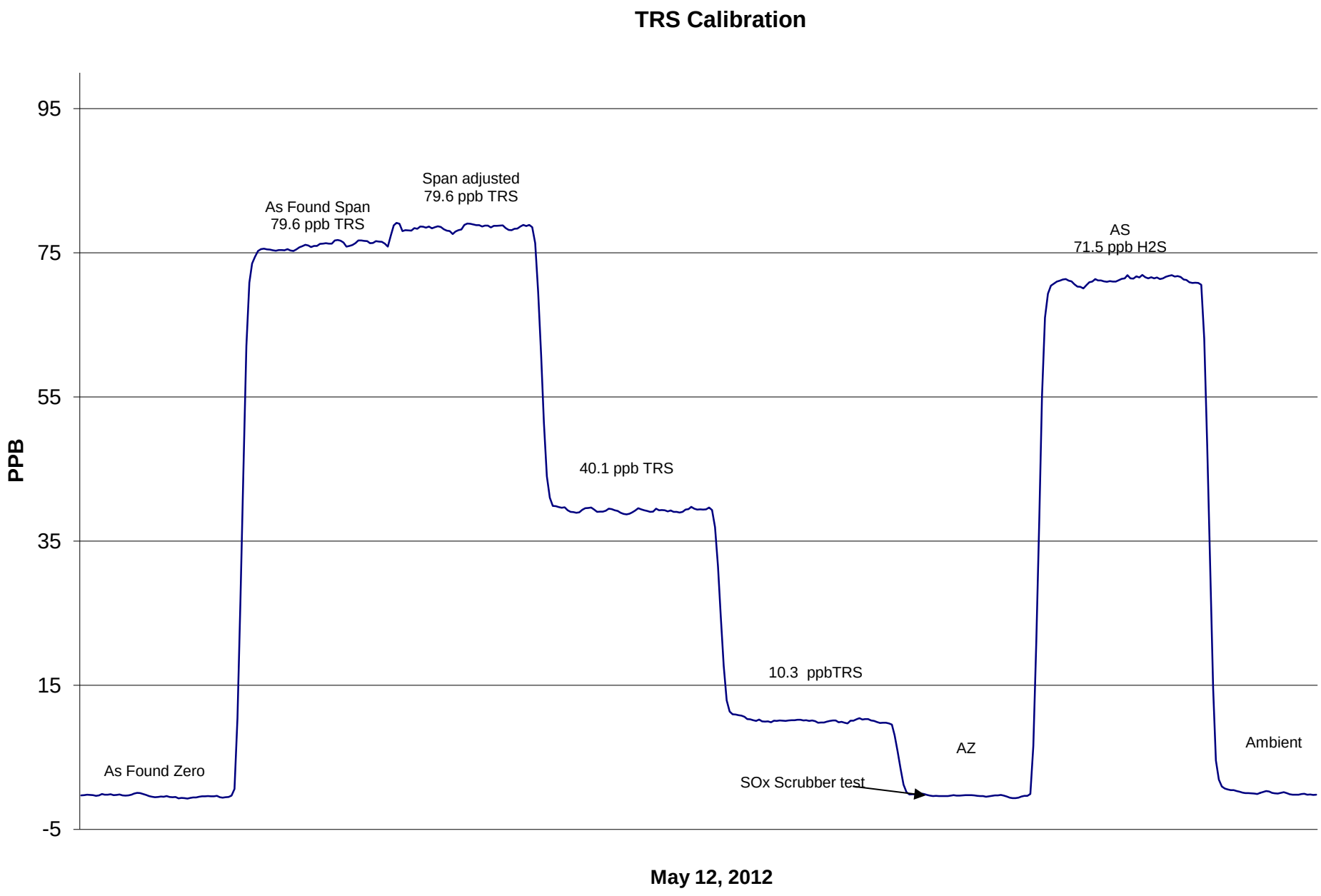
Station Information

Calibration Date	May 12, 2012	Previous Calibration	April 10, 2012
Station Number	PAZA Rover	Station Location	Sunset House
Start Time (MST)	14:41	End Time (MST)	18:21
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	-0.5	N/A		
79.6	78.7	1.0122	Correlation Coefficient	0.999990
40.1	39.3	1.0189		
10.3	10.0	1.0309	Slope	1.007351
			Intercept	0.393473




TRS Calibration
95
75
55
35
15
-5
PPB
As Found Span
79.6 ppb TRS
Span adjusted
79.6 ppb TRS
40.1 ppb TRS
10.3 ppbTRS
AS
71.5 ppb H2S
As Found Zero
SOx Scrubber test
AZ
Ambient
May 12, 2012