Peace Airshed Zone Association

Ambient Air Monitoring Network Summary

Continuous Ambient Air Quality Monitoring Program
Monthly Report
May 2015

Peace Airshed Zone Association
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June 22nd, 2015

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

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

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

This report is submitted by PAZA on behalf of the industrial member companies to satisfy the requirements of the following facility Operating Approvals:

Company	Facility	LSD	EPEA Approval Number
Advantage Oil & Gas Ltd.	Glacier	05-02-076-13-W6	262479-00-00
Alberta Power (2000) Ltd. (an ATCO company)	Sturgeon	SW-06-069-21-W5	10283-02-02
ATCO Power Canada	Poplar Hill	11-19-073-08-W6	67774-01-01
ATCO Power Canada	Valleyview	SW-06-069-21-W5	147709-01-01
AltaGas Ltd.	Pouce Coupe	03-03-081-13-W6	247673-00-00
	Ante Creek	02-26-068-25-W5	266694-00-00
	Gordondale	16-31-78-11-W6M	287474-00-00
Apache Canada Ltd.	House Mountain	01-08-070-10-W5	10137-02-02
Birchcliff Energy Ltd.	Pouce Coupe	03-22-078-12-W6	252529-00-00
Canadian Natural Resources Limited	Bonanza	11-25-081-11-W6	00000029-01-00
	Progress/Gordondale	01-01-077-10-W6	00010036-02-00
	Gold Creek	13-26-067-05-W6	00010446-02-00

Company	Facility	LSD	EPEA Approval Number
	Teepee Creek	SE-2-074-04-W6	00001635-02-00
	Sturgeon/Valleyview	02-02-069-22-W5	1633-02-00
Canfor Forest Products	Grande Prairie	SW-23-071-06-W6	152645-01-00
Conocophillips Canada Energy Partnership	Wembley	06-19-073-08-W6	00000212-01-00
Devon Canada	NW Belloy (Dunvegan)	16-36-079-03-W6	00009810-02-00
	Eaglesham (South)	02-14-077-25-W5	00047669-01-00
	North Normanville	03-36-079-23-W5	00047455-01-00
	West Culp	05-34-078-25-W6	00136284-00-00
	Cecil	08-15-084-08-W6	00010032-02-00
Encana Corporation	Sexsmith	04-08-075-07-W6	00010002-01-00
Enerplus Resources	Pouce Coupe	SW-06-069-21-W5	1464-02-03
Exshaw Oil Corporation	Spirit River	03-10-077-07-W6	344521-00-00
Grande Prairie Generation Inc.	Northern Prairie Power Project	04-19-073-08-W6	00238762-00-00
Long Run Exploration	Eaglesham	01-25-076-01-W6	00241532-00-00
	Kakut	14-12-075-03-W6	00248469-00-00
	Donnelly	06-01-077-21-W5	00000087-02-00
	Puskwaskau	03-26-074-01-W6	00017524-01-00
Longview Oil Corp.	Sunset House	06-22-070-20-W5	138884-01-00
Penn West Petroleum Ltd.	Tangent	13-29-080-23-W5	00001746-02-00

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

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

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

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

Henry Pirker Station:

- The measured ambient air quality was within the AAAQO for the Henry Pirker station with the exception of the $PM_{2.5}$ analyzer, which recorded one (1) 1-hour exceedence of the guideline of 80 $\mu g/m^3$;
  - o May 23 0400h 161.4 $\mu g/m^3$ Alberta Environment Reference # 298594

These exceedences are believed to be due to wildfire activity

- 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.
- 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.

Falher Station:

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

Clairmont Station:

- The measured ambient air quality was within the AAAQO for the Clairmont station with the exception of the $PM_{2.5}$ analyzer, which recorded two (2) 1-hour exceedences of the guideline of 80 $\mu g/m^3$;
    - May 22 2200h 89.8 $\mu g/m^3$ Alberta Environment Reference # 298590
    - May 24 2100h 143.9 $\mu g/m^3$ Alberta Environment Reference # 298647

  These exceedences are believed to be due to wildfire activity
- All analyzers and sensors at the Clairmont 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: Silver Valley, Clairmont Lake, Gold Creek, McLennan, and Girouxville 3. The passive sample analyses were performed by MAXXAM Analytics Inc.

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

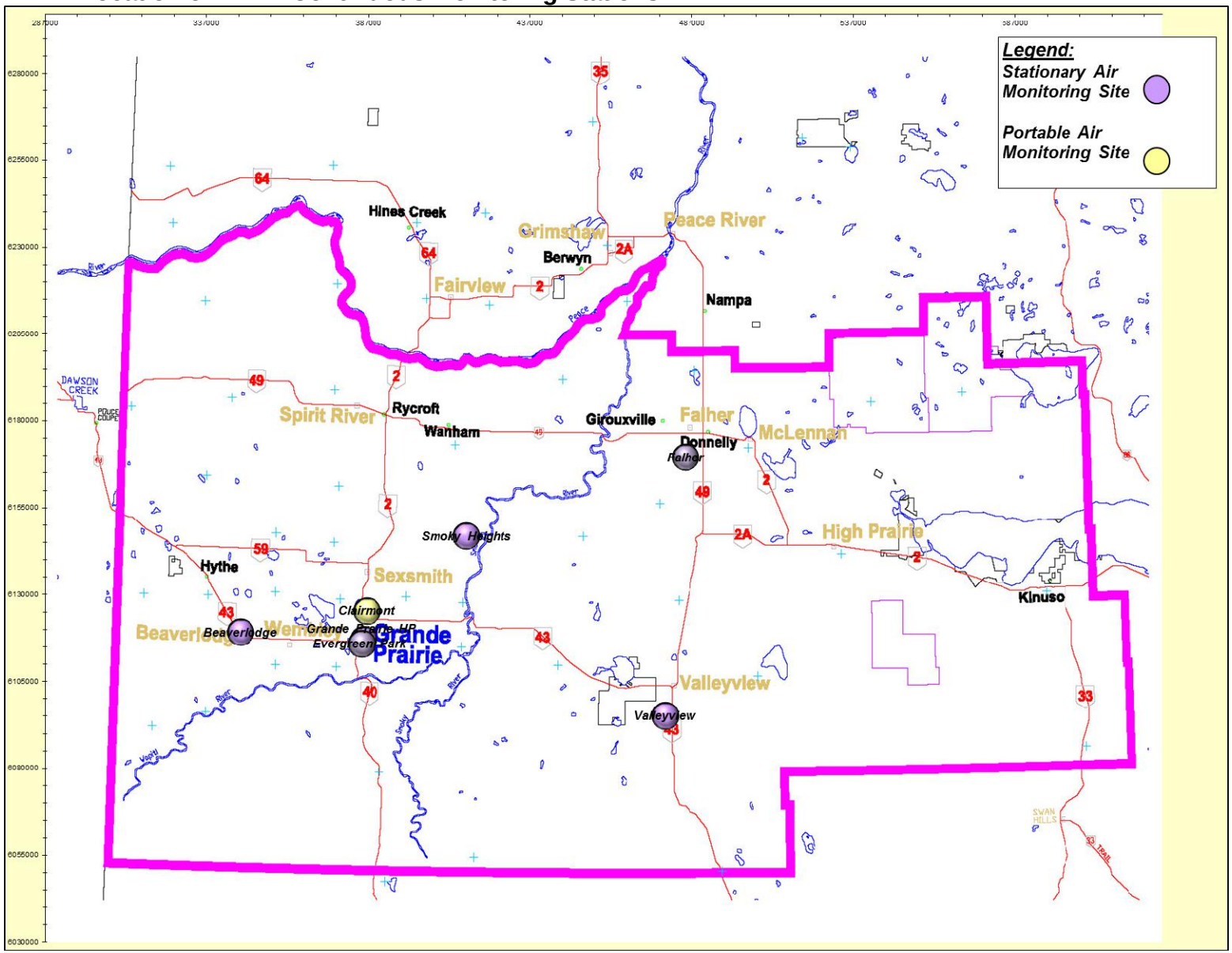
- Monthly average concentrations for SO_2 passives ranged from 0.1 ppb to 0.7 ppb, with a mean of 0.3 ppb.
- Monthly average concentrations for NO_2 passives ranged from 0.2 ppb to 3.7 ppb, with a mean of 1.0 ppb.
- Monthly average concentrations for O_3 passives ranged from 15.5 ppb to 55.2 ppb, with a mean of 43.2 ppb.
- Monthly average concentrations for H_2S passives ranged from 0.1 ppb to 0.2 ppb, with a mean of 0.1 ppb.

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

On Behalf of the
Peace Airshed Zone Association

Patrick Andersen, B.Sc.
Program Manager

Location of PAZA Continuous Monitoring Stations



PAZA Monthly Continuous Data Summary

May-2014	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	0.3	0	0	7.6	May-07 12:00	0.7	May-07	100%
SO_2 (ppb)	172	48	Evergreen Park	0.2	0	0	8.2	May-07 12:00	0.5	May-07	100%
SO_2 (ppb)	172	48	Smoky Heights	0.3	0	0	5.6	May-02 03:00	0.8	May-02	100%
SO_2 (ppb)	172	48	Beaverlodge	0.3	0	0	4.5	May-15 15:00	0.6	May-15	100%
SO_2 (ppb)	172	48	Valleyview	0.3	0	0	6.6	May-01 11:00	1.7	May-01	100%
SO_2 (ppb)	172	48	Falher	0.1	0	0	0.9	May-10 11:00	0.3	May-18	100%
SO_2 (ppb)	172	48	Clairmont	0.4	0	0	12.4	May-28 07:00	0.9	May-28	100%
NO (ppb)			Henry Pirker	0.9	0	0	48.3	May-08 07:00	8.5	May-08	100%
NO_2 (ppb)	159	106	Henry Pirker	5.2	0	0	36.9	May-08 00:00	13.1	May-08	100%
NO_X (ppb)			Henry Pirker	6.2	0	0	72.3	May-08 07:00	21.8	May-08	100%
NO (ppb)			Beaverlodge	0.3	0	0	4.7	May-23 08:00	0.8	May-15	100%
NO_2 (ppb)	159	106	Beaverlodge	2.2	0	0	14.3	May-23 07:00	3.5	May-21	100%
NO_X (ppb)			Beaverlodge	2.6	0	0	19.1	May-23 07:00	4.2	May-27	100%
NO (ppb)			Clairmont	0.6	0	0	13.0	May-27 07:00	2.7	May-08	100%
NO_2 (ppb)	159	106	Clairmont	3.2	0	0	20.4	May-22 06:00	7.4	May-27	100%
NO_X (ppb)			Clairmont	3.8	0	0	30.1	May-27 07:00	9.6	May-08	100%
O_3 (ppb)	82		Henry Pirker	40.3	0	-	73.2	May-25 15:00	54.2	May-12	100%
O_3 (ppb) - 8-hr			Henry Pirker		0				66.5	May-24	
O_3 (ppb)	82		Beaverlodge	42.7	0	-	72.6	May-24 15:00	53.3	May-12	100%
O_3 (ppb) - 8-hr			Beaverlodge		0				66.7	May-23	
O_3 (ppb)	82		Clairmont	42.4	0	-	74.9	May-24 14:00	56.3	May-12	100%
O_3 (ppb) - 8-hr			Clairmont		0				68.3	May-24	
CO (ppm)	13		Henry Pirker	0.18	0	-	0.7	May-23 04:00	0.3	May-08	100%
CO (ppm) - 8-hr	5		Henry Pirker		0				0.5	May-08	

PAZA Monthly Continuous Data Summary – continued

May-2014	Peace Airshed Zone Assocation						Maximum Recorded Values				
							1-hr		24-hr / 8-hr		
THC (ppm)			Henry Pirker	2.0	-	-	3.3	May-08 03:00	2.2	May-08	100%
CH_4 (ppm)			Henry Pirker	2.0	-	-	3.3	May-08 03:00	2.2	May-08	100%
NMHC (ppm)			Henry Pirker	0.0	-	-	0.1	May-09 02:00	0.0	May-09	100%
THC (ppm)			Clairmont	2.01	-	-	2.9	May-27 05:00	2.2	May-08	96%
TRS (ppb)			Henry Pirker	0.2	-	-	0.7	May-21 09:00	0.3	May-13	100%
TRS (ppb)			Evergreen Park	0.3	-	-	1.3	May-09 05:00	0.5	May-27	100%
TRS (ppb)			Smoky Heights	0.1	-	-	0.7	May-22 06:00	0.3	May-27	100%
TRS (ppb)			Clairmont	0.4	-	-	2.0	May-27 05:00	0.6	May-24	99%
H_2S (ppb)	10	3	Valleyview	0.2	0	0	4.6	May-26 11:00	0.7	May-26	100%
H_2S (ppb)	10	3	Falher	0.2	0	0	3.7	May-27 01:00	0.4	May-27	100%
$PM_{2.5}$ (µg/m3)	80	30	Henry Pirker	9.1	1	0	161.4	May-23 04:00	29.9	May-26	100%
$PM_{2.5}$ (µg/m3)	80	30	Evergreen Park	5.2	0	0	26.0	May-24 10:00	14.8	May-24	99%
$PM_{2.5}$ (µg/m3)	80	30	Smoky Heights	5.7	0	0	59.8	May-26 05:00	17.2	May-27	100%
$PM_{2.5}$ (µg/m3)	80	30	Beaverlodge	8.7	0	0	70.4	May-24 01:00	28.0	May-24	100%
$PM_{2.5}$ (µg/m3)	80	30	Clairmont	6.7	2	0	143.9	May-24 21:00	23.8	May-21	100%
RH (%)			Henry Pirker	46.2	-	-	90.2	May-31 01:00	80.4	May-05	100%
RH (%)			Evergreen Park	49.5	-	-	95.8	May-31 02:00	86.2	May-05	100%
RH (%)			Beaverlodge	52.6	-	-	100.0	May-24 13:00	91.2	May-05	100%
RH (%)			Valleyview	46.6	-	-	100.0	May-31 08:00	76.7	Mar-03	100%
SR (W/m^2)			Henry Pirker	241.2	-	-	801.4	May-16 13:00	304.4	May-20	100%
Temp (°C)			Henry Pirker	12.8	-	-	28.2	May-24 15:00	20.9	May-23	100%
Temp (°C)			Evergreen Park	12.2	-	-	27.6	May-23 17:00	19.7	May-23	100%
Temp (°C)			Smoky Heights	12.2	-	-	27.1	May-23 16:00	20.6	May-23	100%
Temp (°C)			Beaverlodge	11.9	-	-	26.7	May-23 17:00	20.5	May-23	100%
Temp (°C)			Valleyview	12.1	-	-	27.3	May-23 15:00	18.6	May-23	100%
Temp (°C)			Falher	11.8	-	-	27.5	May-24 14:00	21.0	May-23	100%
Temp (°C)			Clairmont	12.5	-	-	27.1	May-23 17:00	203.0	May-23	100%

PAZA Monthly Continuous Data Summary – continued

May-2014	Peace Airshed Zone Assocation						Maximum Recorded Values				
							1-hr		24-hr / 8-hr		
WSPD s (km/hr)			Henry Pirker	8.1	-	-	24.0	May-01 12:00	14.8	May-01	100%
WSPD s (km/hr)			Evergreen Park	11.0	-	-	47.0	May-01 12:00	24.2	May-01	100%
WSPD s (km/hr)			Smoky Heights	11.2	-	-	33.0	May-01 16:00	21.5	May-01	100%
WSPD s (km/hr)			Beaverlodge	13.8	-	-	39.0	May-01 12:00	25.9	May-13	100%
WSPD s (km/hr)			Valleyview	4.9	-	-	19.0	May-01 16:00	9.1	May-16	100%
WSPD s (km/hr)			Falher	16.6	-	-	42.0	May-16 01:00	26.8	May-13	100%
WSPD s (km/hr)			Clairmont	11.4	-	-	36.0	May-04 21:00	26.7	May-04	100%
WSPD v (km/hr)			Henry Pirker	3.4	-	-	23.0	May-01 12:00	13.3	May-01	100%
WSPD v (km/hr)			Evergreen Park	3.0	-	-	46.0	May-01 12:00	21.9	May-01	100%
WSPD v (km/hr)			Smoky Heights	3.7	-	-	33.0	May-01 16:00	19.9	May-01	100%
WSPD v (km/hr)			Beaverlodge	7.3	-	-	39.0	May-01 12:00	25.2	May-13	100%
WSPD v (km/hr)			Valleyview	1.1	-	-	17.0	May-01 16:00	8.3	May-16	100%
WSPD v (km/hr)			Falher	9.5	-	-	42.0	May-16 01:00	25.9	May-13	100%
WSPD v (km/hr)			Clairmont	6.4	-	-	36.0	May-04 21:00	26.3	May-04	100%
WDIR			Henry Pirker	NE	-	-	-	-	-	-	100%
WDIR			Evergreen Park	E	-	-	-	-	-	-	100%
WDIR			Smoky Heights	NE	-	-	-	-	-	-	100%
WDIR			Beaverlodge	E	-	-	-	-	-	-	100%
WDIR			Valleyview	E	-	-	-	-	-	-	100%
WDIR			Falher	E	-	-	-	-	-	-	100%
WDIR			Clairmont	NNE	-	-	-	-	-	-	100%

Continuous Network Equipment Summary

PAZA – Henry Pirker Station

General Station Issues

Routine monthly calibrations were performed on May 1st (SO_2, NO_X, O_3) and 4th (CO, THC, TRS).

Parameter	Make	Model	Notes
SO_2	TEI	43C	No operational issues observed.
NOx/NO/NO_2	TEI	42C/42i	No operational issues observed.
O_3	TEI	49C	No operational issues observed.
CO	TEI	48C	Span cylinder swapped May 14th.
THC/CH_4/NMHC	TEI	55I	No operational issues observed.
TRS	TEI	45C/43C	No operational issues observed.
$PM_{2.5}$	Sharp	5030	Manifold cleaning during May 4th calibration. One (1) exceedance of the 1-hour AAAQO recorded. **AE Reference #298594.**
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 12th (SO_2, TRS). Power outage on May 30th invalidated 4 hours of data.

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

PAZA – Smoky Heights Station

General Station Issues

Routine monthly calibration performed on May 26th (SO_2, TRS) and May 29th ($PM_{2.5}$). Datalogger failed to capture data for 4 hours on May 14th.

Parameter	Make	Model	Notes
SO_2	TEI	43C	Analyzer taken offline briefly during Sharp installation.
TRS	TEI	43C	Analyzer taken offline briefly during Sharp installation.
$PM_{2.5}$	R&P/Sharp	1400AB/5030	Sharp installed May 27th.
ET	Met One	083D	No operational issues observed.
WS / WD	Met One	010C/020C	Two hours invalid data on May 10th.

PAZA – Beaverlodge Station

General Station Issues

Routine monthly calibrations performed on May 11th (SO_2, O_3, NO_X).

Parameter	Make	Model	Notes
SO_2	TEI	43CTL	No operational issues observed.
NOx/NO/NO_2	TEI	42C	No operational issues observed.
O_3	TEI	49C	No operational issues observed.
$PM_{2.5}$	Sharp	5030	Manifold cleaned during calibration period.
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 20th (SO_2 & H_2S).			
Parameter	**Make**	**Model**	**Notes**
SO_2	TEI	43i	No operational issues observed.
H_2S	TEI	43A	No operational issues observed.
ET	Gill	Met Pak 3	No operational issues observed.
RH	Gill	Met Pak 3	No operational issues observed.
WS / WD	Gill	Met Pak 3	No operational issues observed.

PAZA – Falher Station

General Station Issues

Routine monthly calibrations were performed on May 13th (SO_2 & H_2S).

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

PAZA – Portable-Clairmont			
General Station Issues Routine monthly calibrations were performed on May 6th (THC), 7th (SO_2, NO_X, O_3) and 8th (TRS).			
Parameter	**Make**	**Model**	**Notes**
SO_2	TEI	43i	No operational issues observed.
NO_x	TEI	42i	No operational issues observed.
O_3	TEI	49C	No operational issues observed.
TRS	TEI	39C	Analyzer maintenance done May 5th and 6th.
THC	TEI	51C	Sample pump failed May 5th, repaired May 6th. Span tank replaced May 25th.
$PM_{2.5}$	Sharp	5030	Manifold cleaned during May 7th calibration period. Two (2) exceedances of the AAAQO observed. **AE Reference #298590, 298647.**
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 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 7.6 ppb on May 7 12:00 Maximum Daily Average: 0.7 ppb on May 7

Minimum Value: 0 ppb on May 2 23:00 Minimum Daily Average: 0.0 ppb on May 16
Maximum Diurnal Average: 0.6 ppb at hour 12 Minimum Diurnal Average: 0.1 ppb at hour 21
Monthly Average: 0.28 ppb Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.2 Q_3 = 0.3 P_{90} = 0.6 P_{99} = 2.3

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	C	C	C	C	0	0	0	0	0	0	0	A	0	0	0	0	0	0.1	0.3
2-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	0.4
3-May	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.2	0.6
4-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
5-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.1	0.2
6-May	0	0	0	0	0	0	0	0	0	0	1	0	0	A	0	0	0	0	0	0	0	1	0	1	0.2	0.7
7-May	0	0	0	0	0	0	0	0	0	1	5	8	A	0	0	0	0	0	0	0	0	0	0	0	0.7	7.6
8-May	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
9-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	0.4
10-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
11-May	0	1	1	1	1	1	1	1	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0.9
12-May	0	0	1	1	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8
13-May	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0.3	0.8
14-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	0.5
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	0.2
16-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
17-May	0	0	A	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	1	1	1	0.3	1.0
18-May	1	A	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	1	1	0.6	1.2
19-May	A	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0.6	1.2
20-May	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	A	0	0.5	1.0
21-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.2	0.5
22-May	0	1	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.3	0.8
23-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	0.6
24-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.1	0.4
25-May	0	0	0	0	0	0	0	0	0	2	3	2	1	0	0	0	0	A	0	0	0	0	0	0	0.5	3.5
26-May	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.2	0.9
27-May	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	A	0	0	0	0	0	0	2	5	0.5	4.5
28-May	2	4	2	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.4	4.3
29-May	0	0	0	0	0	0	0	1	1	1	1	1	1	A	0	0	0	0	0	0	0	0	0	0	0.4	0.8
30-May	0	0	0	0	0	0	1	1	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
31-May	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
	0.3	0.4	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.4	0.6	0.6	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	Diurnal Average	
	2.1	4.3	1.6	1.2	1.2	1.1	1.1	1.0	0.9	2.4	4.7	7.6	1.1	0.5	0.4	0.4	0.4	0.5	0.6	0.8	0.6	0.7	1.8	4.5	Diurnal Maximum	

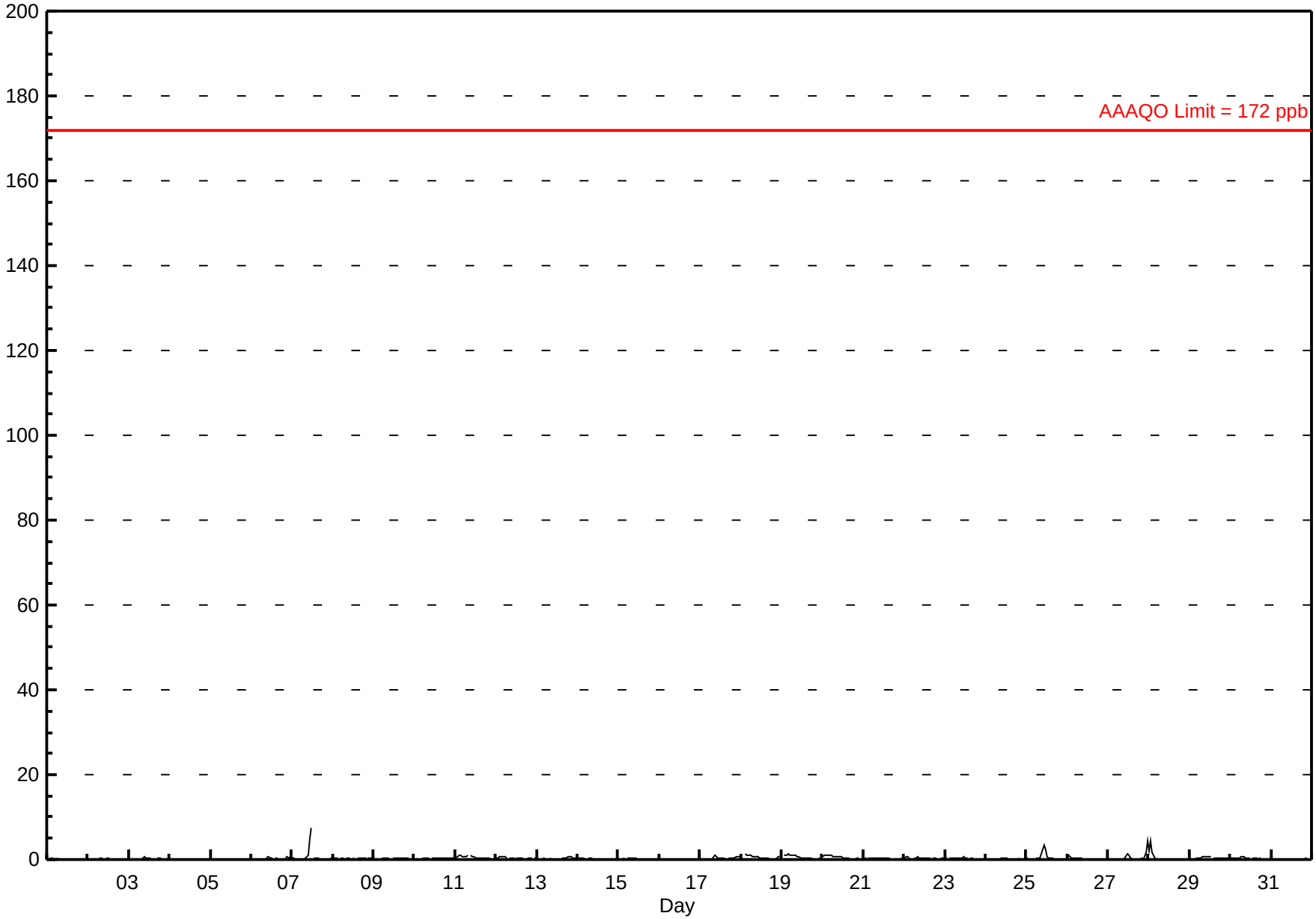
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Henry Pirker - May 2015



Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Henry Pirker - May 2015

Maximum Value: 25.2 ppb on May 7 12:00

Maximum Daily Average: 2.4 ppb on May 7

Minimum Value: 0 ppb on May 26 16:00

Minimum Daily Average: 0.3 ppb on May 16

Maximum Diurnal Average: 1.7 ppb at hour 12

Minimum Diurnal Average: 0.4 ppb at hour 19

Monthly Average: 0.68 ppb

Percentiles: P_1 = 0.1 P_{10} = 0.3 Q_1 = 0.4 Median = 0.4 Q_3 = 0.8 P_{90} = 1.0 P_{99} = 5.1

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	C	C	C	C	0	0	0	0	0	0	0	A	0	0	0	0	0	0.5	0.5
2-May	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	A	0	0	0	0	0	0	0.5	0.9
3-May	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	A	1	1	0	0	0	0	0	0.5	0.9
4-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	0.4	0.4
5-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	0.4	0.5
6-May	0	0	0	0	0	1	0	0	0	0	1	1	1	A	0	0	0	0	0	0	0	1	1	1	0.6	1.4
7-May	1	1	0	0	0	0	0	0	1	2	18	25	A	1	1	1	0	0	0	0	0	0	0	1	2.4	25.2
8-May	1	0	1	0	0	1	1	0	0	1	1	A	0	0	0	0	0	0	0	0	0	0	1	1	0.5	0.9
9-May	0	0	0	0	0	0	0	1	0	0	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0.5	0.9
10-May	0	0	0	0	0	0	0	1	1	A	1	1	1	1	0	0	0	1	0	0	0	0	0	0	0.6	0.9
11-May	1	1	1	1	1	1	1	1	A	1	1	1	0	1	1	0	0	0	0	1	0	0	0	0	0.8	1.5
12-May	1	1	1	1	1	1	1	A	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0.6	1.3
13-May	0	0	0	0	1	0	A	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0.6	1.3
14-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	0.5	0.9
15-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	0.4	0.6
16-May	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
17-May	0	0	A	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	1	1	1	1	0.6	1.4
18-May	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	1	1	1	0.9	1.6
19-May	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	0	0	0	0	1	A	0.9	1.4
20-May	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	0	0	0	0	0	0	A	0	0.8	1.4
21-May	0	0	0	0	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	A	1	0	0.5	0.9
22-May	1	1	1	1	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0	A	0	1	1	0.7	1.3
23-May	1	0	0	1	1	1	1	1	1	0	1	1	1	1	0	0	1	0	0	A	0	0	0	0	0.6	1.3
24-May	0	0	0	0	0	0	1	0	0	1	1	1	1	1	0	0	0	0	A	2	0	0	1	1	0.5	1.6
25-May	1	0	0	0	0	0	0	0	1	4	5	4	2	1	1	1	0	A	0	0	0	0	0	0	1.0	5.3
26-May	1	1	1	1	0	1	1	1	1	0	0	0	0	0	0	0	A	0	0	0	0	1	0	0	0.5	1.4
27-May	0	0	0	0	0	0	0	0	1	0	1	2	2	1	1	A	0	0	0	0	1	0	6	8	1.2	8.3
28-May	5	9	3	0	0	0	0	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1.1	8.8
29-May	0	0	0	0	0	0	0	1	1	1	1	1	1	A	1	1	1	1	0	0	0	1	1	1	0.7	1.0
30-May	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0	0	1	0	0	0	0	0	0	0.6	0.9
31-May	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	0	0	0.4	0.6
	0.8	0.9	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.8	1.4	1.7	0.7	0.6	0.5	0.4	0.4	0.4	0.4	0.5	0.4	0.5	0.8	0.8	Diurnal Average	
	5.2	8.8	3.3	1.5	1.4	1.4	1.4	1.4	1.4	3.6	17.5	25.2	1.8	1.4	1.0	0.9	0.8	0.9	0.9	1.6	1.0	1.4	6.3	8.3	Diurnal Maximum	

C - Calibration

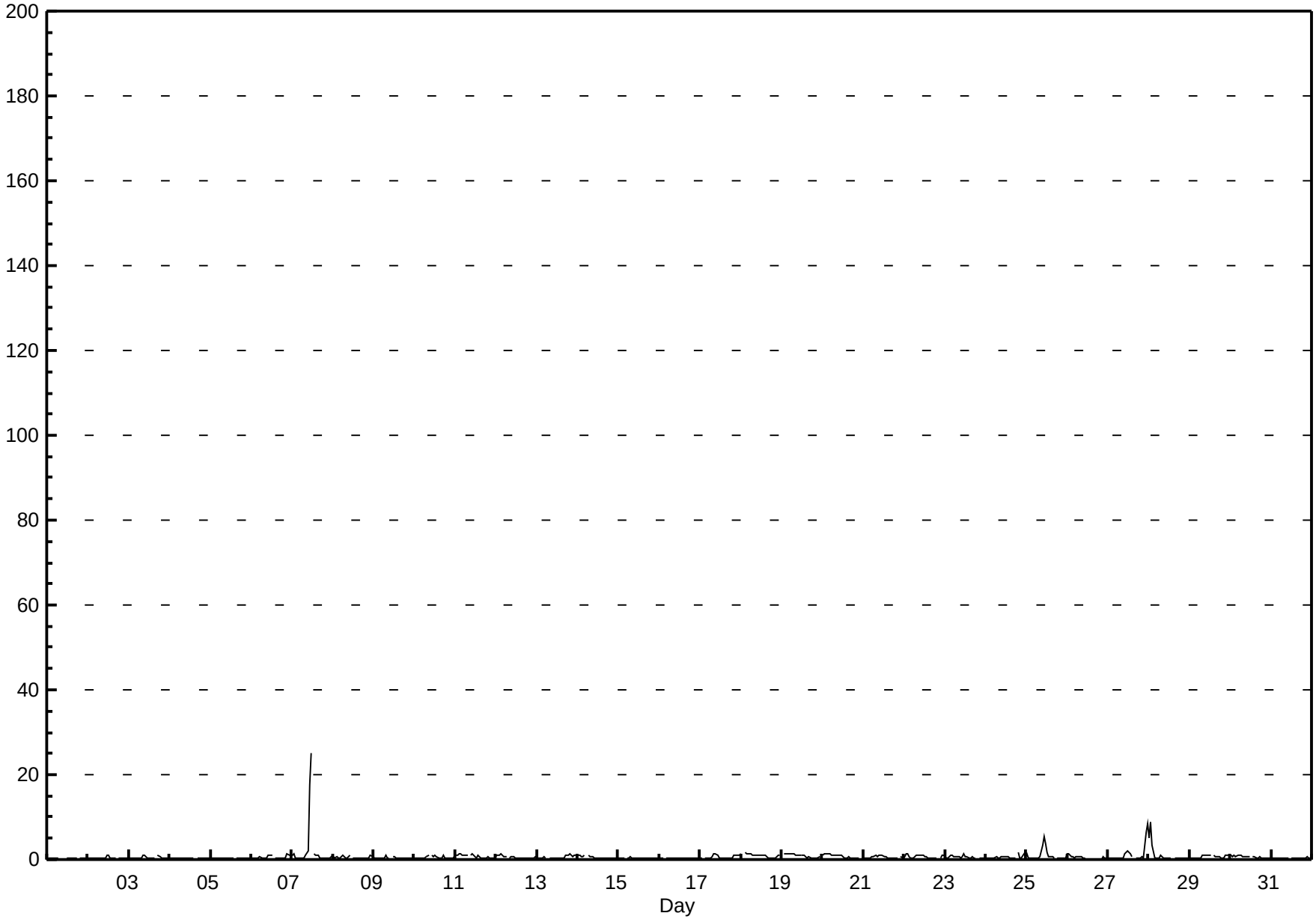
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

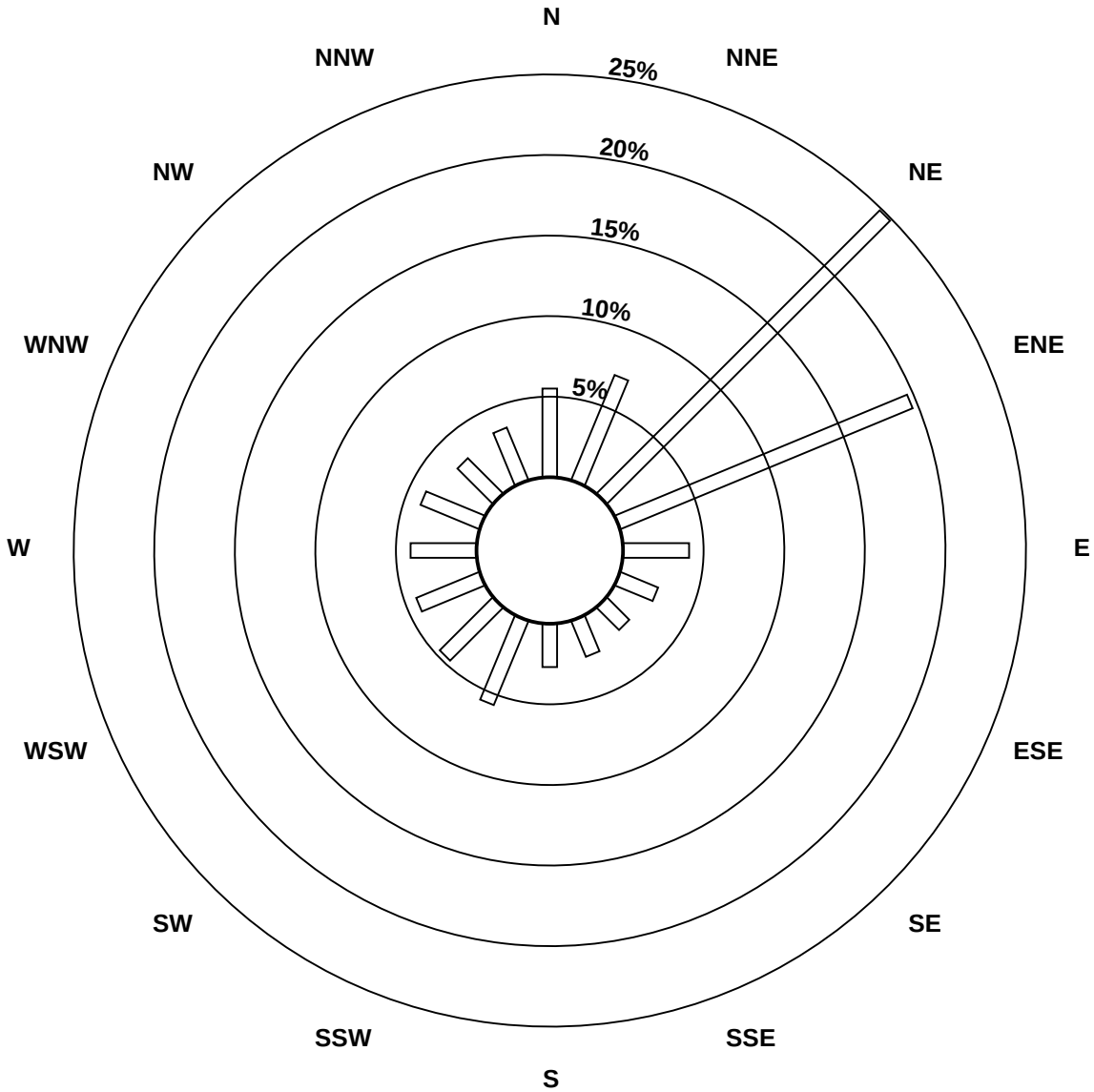
Henry Pirker - May 2015



Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Henry Pirker - May 2015



Pollutant Classes (ppb)

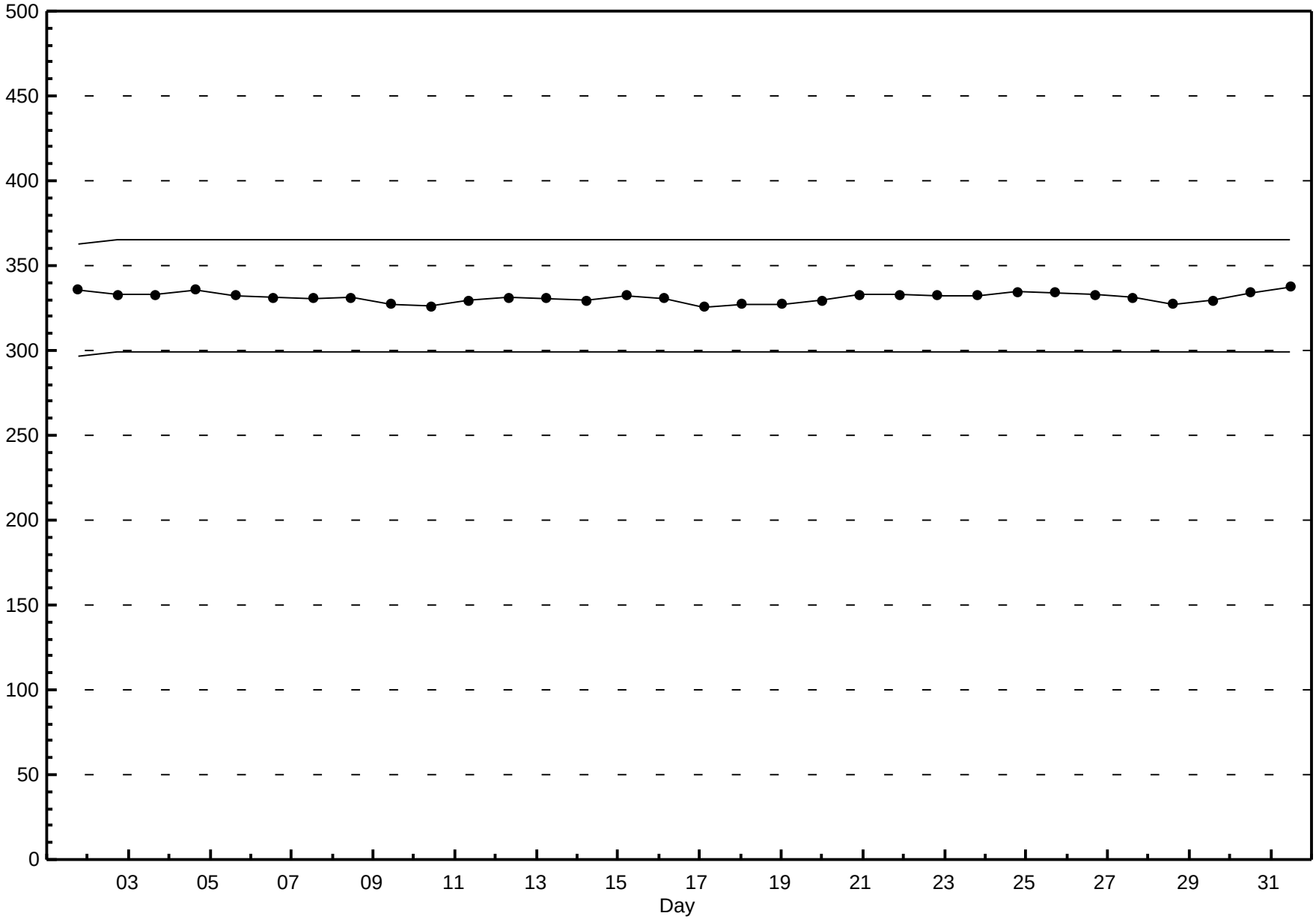
- 0 - 10
- 11 - 20
- 21 - 60
- 61 - 110
- 111 - 172
- > 172

Peace Airshed Zone Association

Span Responses

Sulphur Dioxide (SO_2)

Henry Pirker - May 2015



Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - May 2015

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

Maximum Value: 0.7 ppb on May 21 09:00

Maximum Daily Average: 0.3 ppb on May 13

Minimum Value: 0 ppb on May 6 11:00

Minimum Daily Average: 0.1 ppb on May 31

Maximum Diurnal Average: 0.2 ppb at hour 6

Minimum Diurnal Average: 0.1 ppb at hour 17

Monthly Average: 0.15 ppb

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

Hours in Service:	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	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.2	0.2
2-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
3-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.1	0.2
4-May	0	0	0	0	0	0	0	0	C	C	C	C	0	0	0	A	0	0	0	0	0	0	0	0	0.1	0.2
5-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.1	0.3
6-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
7-May	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
8-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
9-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
10-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
11-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
12-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
13-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	0.4
14-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
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	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
17-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
18-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
19-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
20-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
21-May	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.3	0.7
22-May	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.3	0.5
23-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	0.4
24-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
25-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
26-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
27-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	0.5
28-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.1	0.2
29-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
30-May	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
31-May	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
	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	0.1	0.1	0.1	Diurnal Average	
	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.7	0.5	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

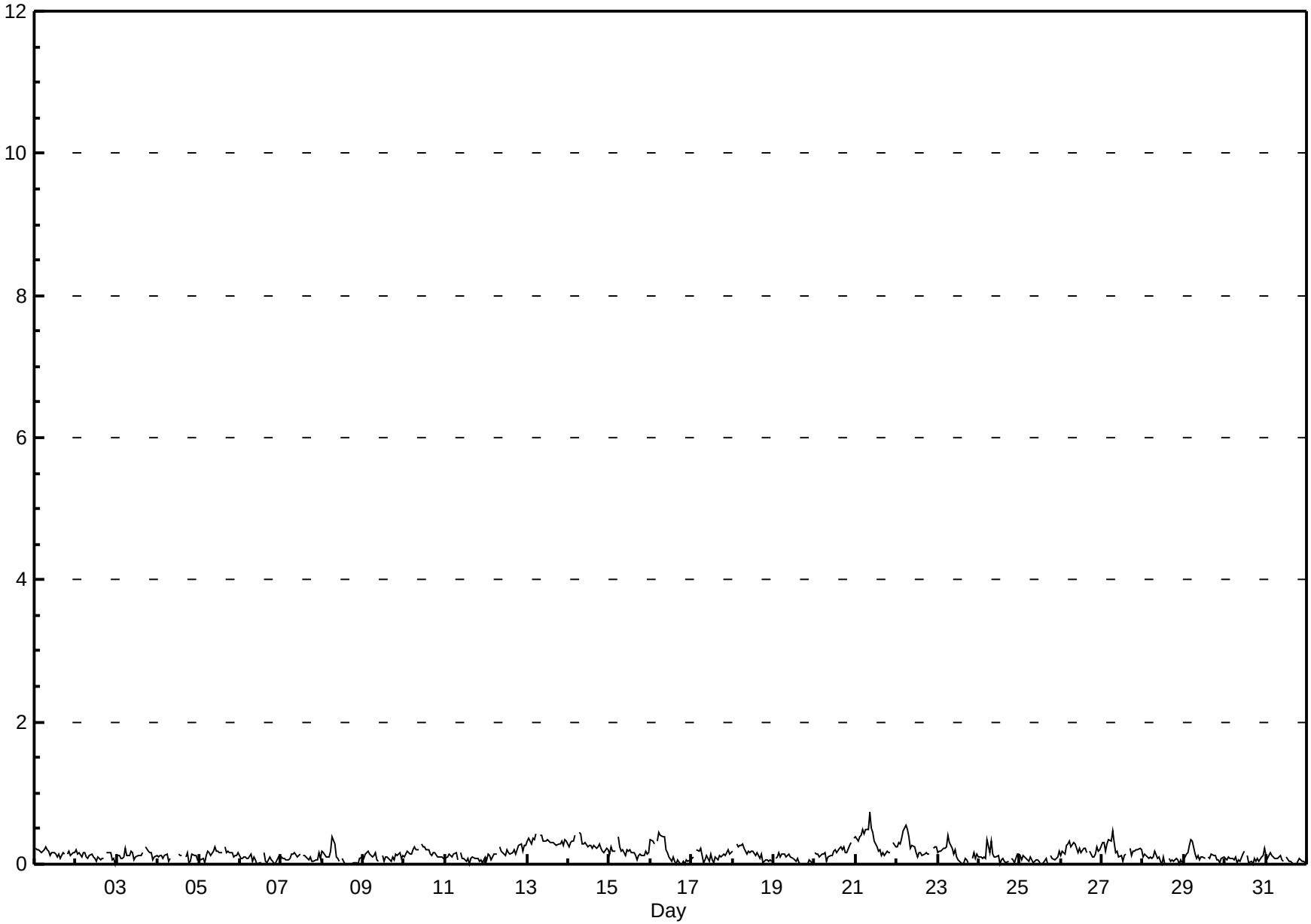
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb

Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - May 2015



Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - May 2015

Maximum Value: 1.3 ppb on May 27 07:00

Maximum Daily Average: 0.8 ppb on May 21

Minimum Value: 0 ppb on May 8 15:00

Minimum Daily Average: 0.5 ppb on May 6

Maximum Diurnal Average: 0.7 ppb at hour 8

Minimum Diurnal Average: 0.5 ppb at hour 14

Monthly Average: 0.59 ppb

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

Hours in Service:	744
Hours of Data:	708
Hours of Missing Data:	36
Hours of Calibration:	36
Percent Operational Time:	100.0

Hourly Period Ending At (MST)

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-May	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	1	1	A	1	1	1	1	1	0.6	0.7
2-May	1	1	0	0	1	1	1	1	1	1	1	0	0	1	1	0	1	A	1	1	1	1	1	0	0.6	1.0
3-May	1	1	1	0	1	1	0	1	1	1	1	1	1	0	0	1	A	1	1	1	1	1	1	1	0.6	0.8
4-May	0	1	1	1	0	1	1	1	C	C	C	C	1	1	1	A	1	1	0	0	0	1	1	1	0.5	0.7
5-May	1	0	1	0	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0	0	0	1	0.6	0.9
6-May	1	0	1	0	0	1	1	0	0	0	0	0	0	A	1	0	0	1	0	0	0	0	1	1	0.5	0.7
7-May	1	1	0	0	0	1	1	1	1	0	1	1	A	1	1	1	0	1	0	1	1	0	1	0	0.6	0.7
8-May	1	1	1	1	0	1	1	1	1	0	0	A	0	0	0	0	1	0	0	0	0	0	1	0	0.5	0.9
9-May	1	1	1	1	1	1	0	1	0	0	A	1	0	0	0	1	0	0	1	1	0	1	0	0	0.5	0.7
10-May	1	1	1	0	0	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0	1	0	0	1	0.6	0.7
11-May	0	1	1	1	1	1	1	1	A	1	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0.5	0.6
12-May	1	1	0	0	1	0	1	A	1	1	1	0	1	1	0	1	1	1	1	1	1	1	1	1	0.6	0.8
13-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	0.8	1.0
14-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
15-May	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	1	1	1	0.6	0.9
16-May	1	1	1	A	1	1	1	1	1	1	1	0	0	1	0	0	1	1	0	0	0	1	0	0	0.6	0.9
17-May	0	0	A	1	1	1	1	1	0	0	0	1	0	0	1	1	1	1	1	1	1	0	0	0	0.5	0.7
18-May	1	A	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0	0	0	0	0	0	0.6	0.8
19-May	A	0	0	1	1	0	1	1	0	1	1	1	0	1	1	1	0	0	0	0	0	0	0	A	0.5	0.7
20-May	1	1	1	1	1	1	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	A	1	0.6	0.9
21-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.8	1.2
22-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	A	1	1	1	0.7	1.0
23-May	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	1	A	0	1	0	1	0.6	0.9
24-May	0	1	0	1	1	1	1	1	1	0	0	1	0	1	1	0	0	1	A	1	1	0	1	0	0.5	0.9
25-May	1	1	1	0	0	0	1	1	1	0	0	0	1	0	0	0	0	A	1	0	0	0	1	1	0.5	0.8
26-May	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.6	0.8
27-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	1.3
28-May	1	1	1	0	1	1	0	0	1	1	1	0	0	0	A	1	1	1	0	1	0	0	0	0	0.5	0.7
29-May	1	1	1	1	1	1	1	1	1	1	0	0	1	A	1	1	0	1	1	1	1	0	0	1	0.6	1.0
30-May	1	1	1	1	1	0	1	0	0	0	1	1	A	1	1	1	1	1	0	1	0	1	1	1	0.6	0.9
31-May	1	1	1	1	1	1	1	1	1	1	0	A	1	0	1	0	1	0	0	1	1	0	0	0	0.6	0.8
	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.5	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.6	0.6	0.6	Diurnal Average	
	1.0	0.9	0.9	0.9	1.0	1.0	1.3	1.0	1.2	1.0	0.8	0.8	0.9	0.7	1.0	0.7	0.8	0.9	0.9	0.8	0.8	1.0	0.9	0.9	Diurnal Maximum	

C - Calibration

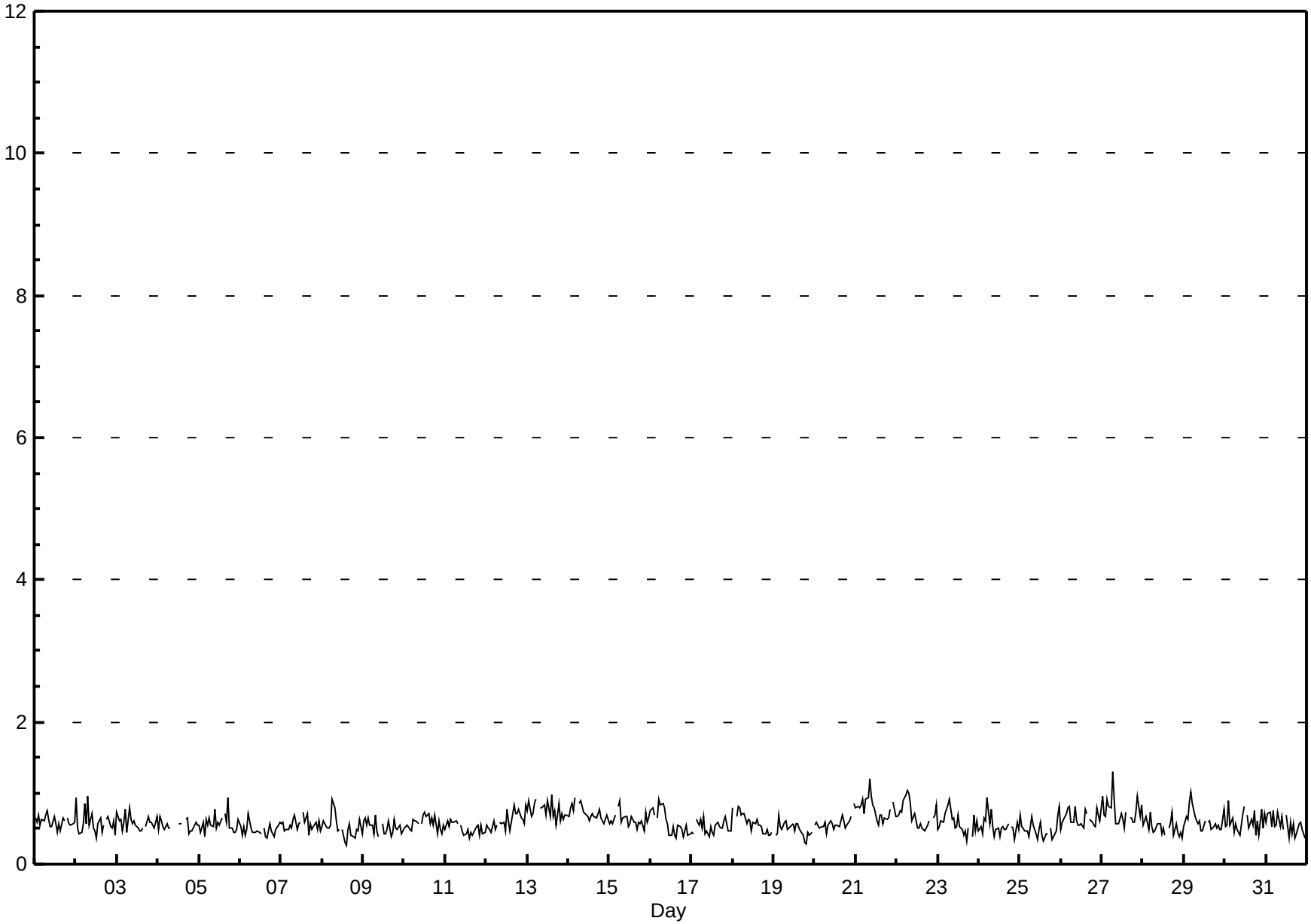
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

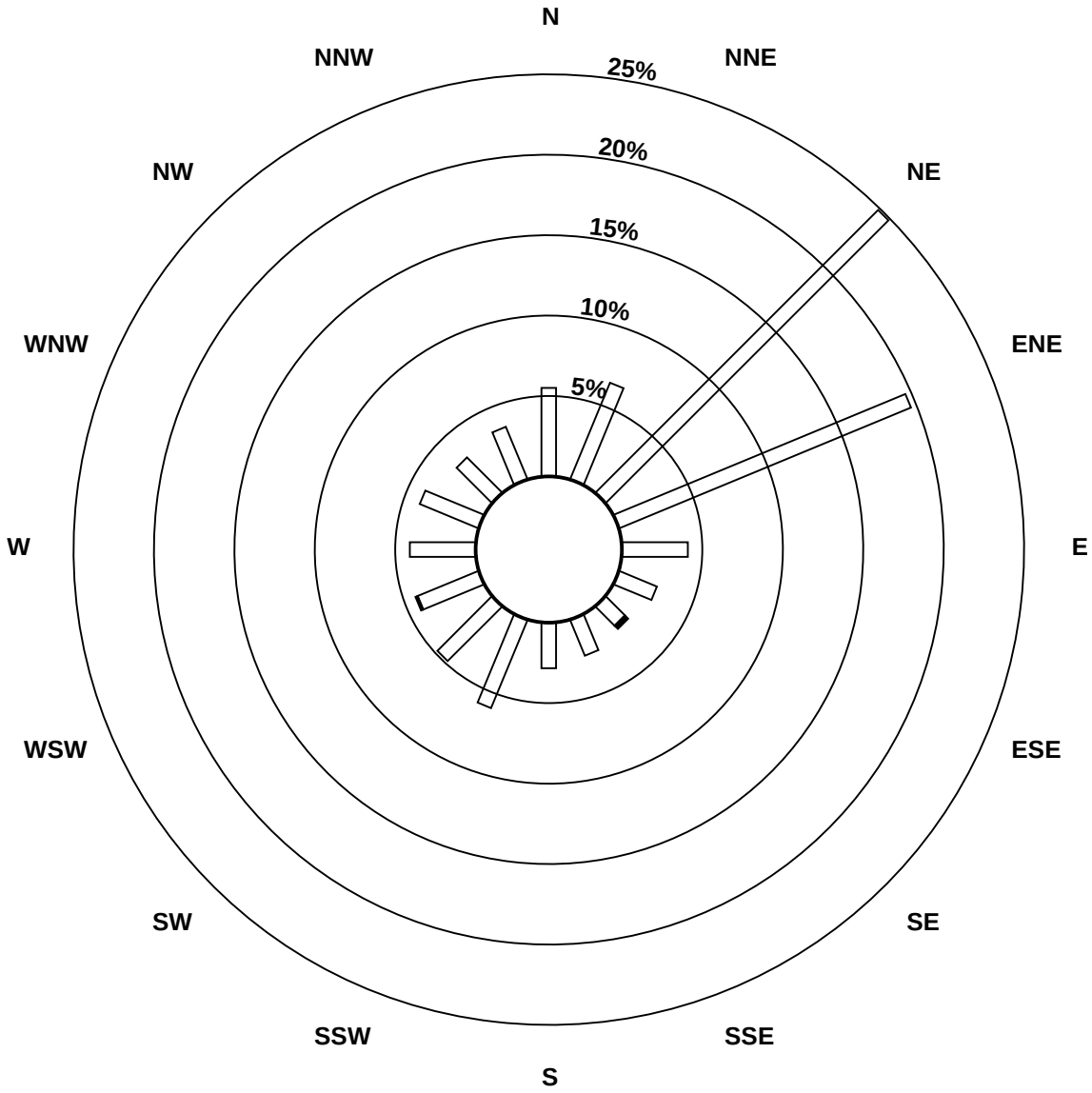
Henry Pirker - May 2015



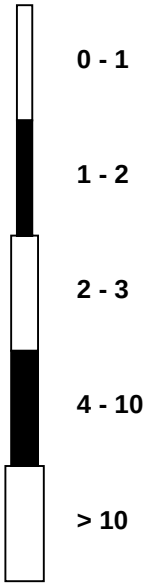
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - May 2015



Pollutant Classes (ppb)

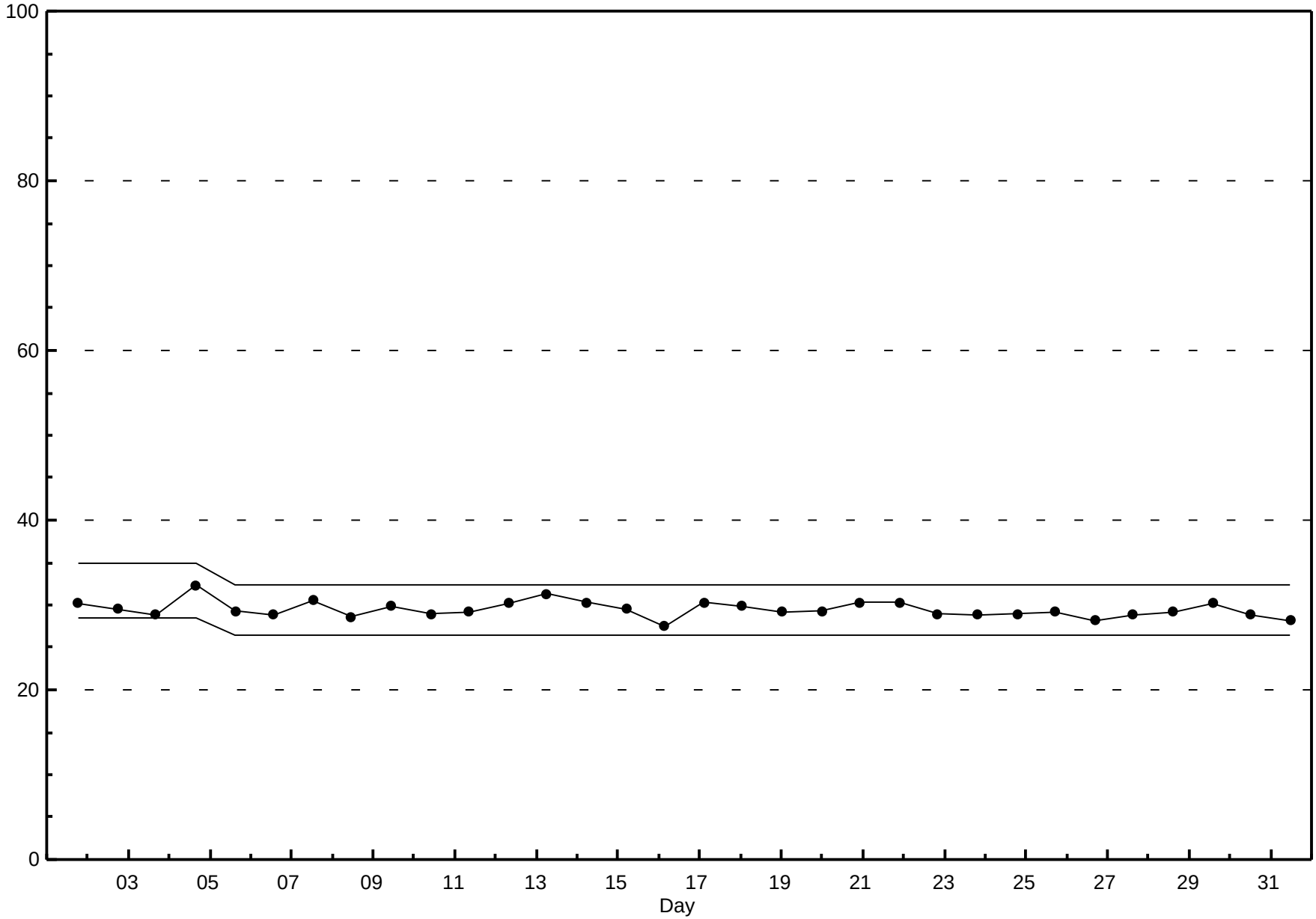


Peace Airshed Zone Association

Span Responses

Total Reduced Sulphur (TRS)

Henry Pirker - May 2015



Peace Airshed Zone Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Henry Pirker - May 2015

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

Maximum Value: 36.9 ppb on May 8 00:00

Maximum Daily Average: 13.1 ppb on May 8

Minimum Value: 1 ppb on May 3 13:00

Minimum Daily Average: 2.3 ppb on May 16

Maximum Diurnal Average: 9.6 ppb at hour 7

Minimum Diurnal Average: 2.5 ppb at hour 16

Monthly Average: 5.21 ppb

Percentiles: P_1 = 1.2 P_{10} = 1.9 Q_1 = 2.6 Median = 3.7 Q_3 = 5.8 P_{90} = 10.2 P_{99} = 25.7

Hours in Service:	744
Hours of Data:	707
Hours of Missing Data:	37
Hours of Calibration:	37
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-May	3	3	3	3	8	19	17	C	C	C	C	C	3	2	2	1	2	2	A	3	3	3	2	3	4.5	19.0
2-May	2	2	2	2	3	2	2	3	3	2	2	2	1	1	1	2	2	A	3	8	6	4	4	5	3.0	8.5
3-May	8	13	10	11	11	8	6	5	2	2	1	1	1	1	1	1	A	2	3	3	4	7	6	6	5.0	13.3
4-May	4	3	3	3	3	3	3	4	3	2	3	3	2	2	4	A	3	3	2	2	2	2	2	1	2.7	4.2
5-May	1	2	2	2	2	4	5	8	7	5	5	4	4	5	A	6	5	4	4	4	4	3	3	3	3.9	7.6
6-May	2	2	2	3	3	5	9	4	2	2	2	1	2	A	3	3	1	1	2	1	9	12	11	5	3.8	11.5
7-May	8	8	5	7	8	13	16	12	19	4	3	3	A	2	3	4	3	2	3	3	8	17	33	37	9.5	36.9
8-May	34	31	25	18	20	19	24	16	8	7	9	A	3	2	1	1	1	1	2	4	8	16	25	27	13.1	34.2
9-May	19	13	13	13	15	18	15	8	5	3	A	2	2	2	2	2	2	2	4	7	7	7	5	4	7.3	19.0
10-May	3	3	3	3	3	4	4	4	3	A	3	2	2	2	2	2	2	2	2	3	8	9	6	5	3.5	8.9
11-May	3	3	4	5	6	8	10	6	A	5	4	3	3	7	6	3	3	3	3	4	6	7	6	4	4.8	10.2
12-May	4	5	5	6	6	7	8	A	5	4	4	3	3	3	3	3	3	4	3	3	4	4	3	4	4.2	7.9
13-May	3	3	3	4	4	5	A	6	5	5	4	3	3	3	3	2	3	3	3	4	4	5	5	5	3.7	5.5
14-May	4	5	5	5	5	A	9	9	6	4	3	2	2	2	2	2	3	2	3	3	5	7	5	5	4.3	8.9
15-May	4	5	6	8	A	8	7	6	5	5	4	4	3	3	2	3	2	3	3	3	4	4	4	5	4.3	8.5
16-May	3	2	2	A	3	2	1	2	2	2	2	2	1	2	1	2	1	2	2	2	3	4	5	6	2.3	6.2
17-May	4	8	A	6	5	5	4	3	3	3	2	2	2	2	2	1	2	2	2	2	3	4	4	4	3.2	7.6
18-May	5	A	6	7	6	6	5	4	4	3	2	2	2	2	2	2	2	2	2	3	5	6	6	4	3.8	7.1
19-May	A	5	5	5	7	8	9	6	5	4	3	3	2	2	2	2	2	3	3	3	4	7	6	A	4.4	9.4
20-May	5	5	5	6	6	8	8	8	5	5	5	5	4	5	3	5	2	2	2	4	10	13	A	9	5.5	12.5
21-May	9	8	11	12	15	19	12	15	19	31	26	9	4	4	7	4	3	3	3	6	5	A	8	8	10.4	31.0
22-May	9	13	14	12	10	13	20	15	14	11	5	4	3	4	3	3	4	2	2	3	A	12	9	7	8.4	19.6
23-May	7	6	5	7	11	8	13	9	6	5	4	5	3	2	2	2	2	2	2	A	5	6	5	5	5.4	13.4
24-May	6	5	5	5	6	16	13	7	3	4	3	3	3	2	2	2	3	3	A	4	4	4	5	6	5.0	15.7
25-May	6	4	5	5	6	11	14	11	10	6	4	4	2	2	4	3	4	A	6	5	5	8	9	6	6.0	14.4
26-May	5	7	8	7	9	13	21	18	10	7	6	6	4	3	3	2	A	4	3	5	6	7	6	7	7.3	20.7
27-May	10	10	14	16	18	21	17	12	6	5	3	3	2	2	7	A	8	6	6	8	4	3	2	2	8.2	20.9
28-May	2	2	2	2	2	4	4	5	4	3	2	2	2	2	A	3	2	2	3	3	4	5	4	3	3.0	4.9
29-May	3	2	3	3	3	4	4	3	3	4	3	3	3	A	3	4	3	3	3	4	4	4	4	4	3.4	4.4
30-May	4	3	3	3	3	3	4	5	4	5	4	4	A	4	3	3	2	4	5	8	6	5	7	5	4.2	8.2
31-May	4	3	3	4	5	5	3	2	2	3	2	A	3	2	2	2	1	1	2	2	5	4	4	6	3.1	5.7
	6.2	6.1	6.0	6.4	7.1	8.9	9.6	7.5	6.1	5.2	4.3	3.3	2.6	2.6	2.9	2.5	2.6	2.6	2.9	3.9	5.1	6.6	6.8	6.6	Diurnal Average	
	34.2	30.5	24.7	18.0	19.5	20.9	23.6	18.3	19.2	31.0	26.1	9.4	4.5	7.1	7.3	5.6	8.4	6.3	6.3	8.5	9.7	17.4	33.3	36.9	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

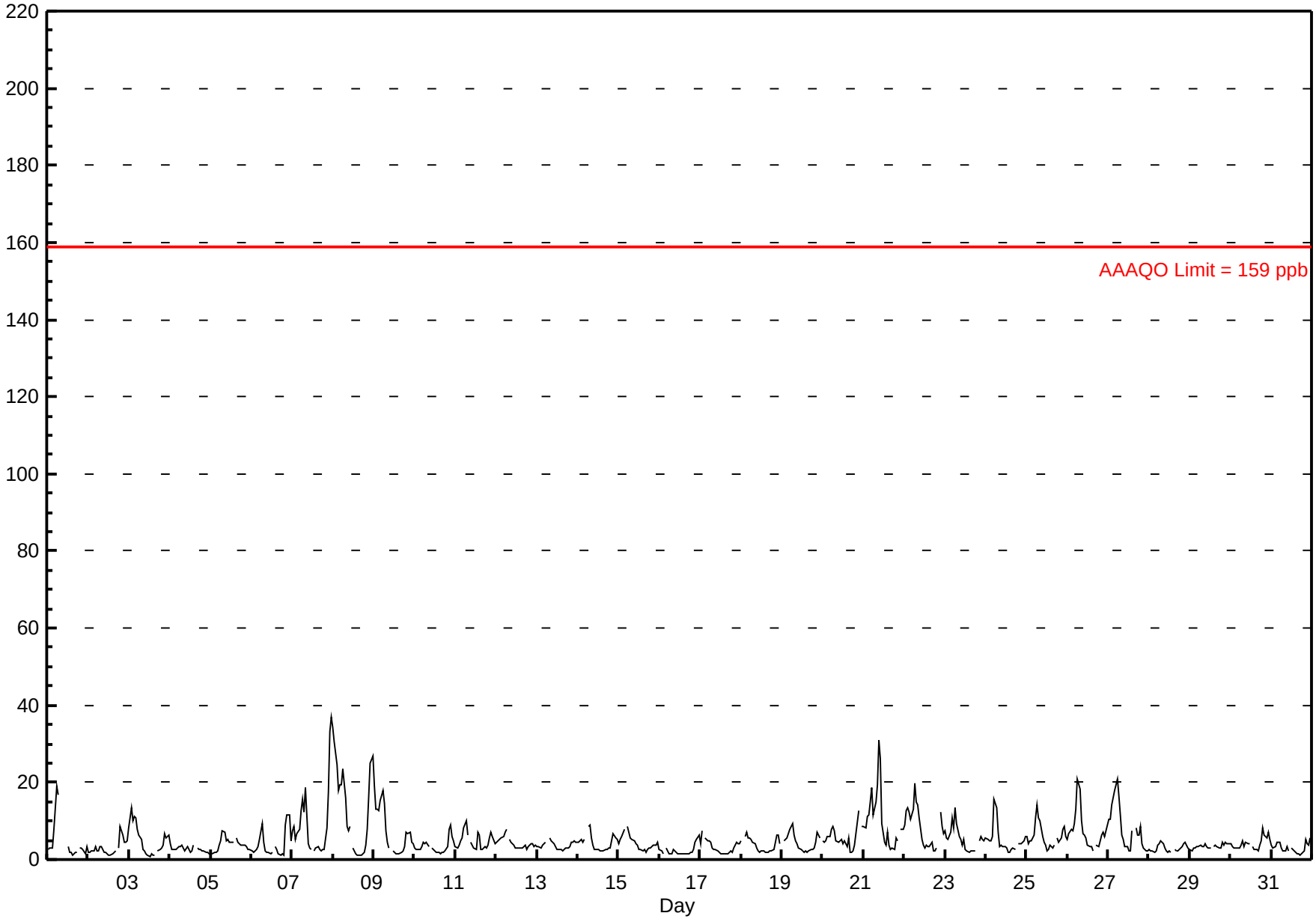
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb 24-hr 106 ppb

Peace Airshed Zone Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Henry Pirker - May 2015



Peace Airshed Zone Association

Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

Henry Pirker - May 2015

Maximum Value: 72.6 ppb on May 8 11:00

Maximum Daily Average: 19.8 ppb on May 8

Minimum Value: 1 ppb on May 3 13:00

Minimum Daily Average: 4.1 ppb on May 16

Maximum Diurnal Average: 14.2 ppb at hour 8

Minimum Diurnal Average: 4.7 ppb at hour 17

Monthly Average: 8.55 ppb

Percentiles: P_1 = 1.9 P_{10} = 3.1 Q_1 = 4.2 Median = 6.4 Q_3 = 10.1 P_{90} = 18.1 P_{99} = 37.3

Hours in Service:	744
Hours of Data:	707
Hours of Missing Data:	37
Hours of Calibration:	37
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-May	5	4	4	4	16	25	24	C	C	C	C	C	11	3	4	2	3	3	A	4	4	5	3	5	7.2	25.3
2-May	3	2	3	3	5	5	3	6	5	4	3	3	2	2	2	3	9	A	10	13	15	10	7	11	5.7	15.5
3-May	14	18	15	17	13	15	8	13	5	24	2	2	1	3	3	2	A	4	7	5	7	10	7	10	8.9	24.0
4-May	14	4	5	5	4	5	6	7	8	3	8	8	3	5	8	A	4	4	3	4	3	3	3	2	5.1	13.9
5-May	2	2	3	3	3	10	10	15	30	8	8	9	10	8	A	10	7	7	6	6	13	5	4	4	7.9	29.9
6-May	3	3	3	3	4	8	14	10	20	26	7	3	3	A	9	5	2	2	2	2	18	20	22	6	8.5	26.4
7-May	12	14	7	11	10	19	21	21	27	8	6	7	A	5	8	7	5	5	8	7	14	27	38	39	14.2	39.0
8-May	37	37	31	20	21	22	27	22	13	11	73	A	8	3	3	3	2	3	3	10	14	24	35	38	19.8	72.6
9-May	24	23	16	15	19	20	20	12	7	4	A	5	3	4	2	3	4	6	5	12	9	10	6	6	10.2	24.4
10-May	5	4	4	4	5	6	6	14	4	A	5	4	4	3	3	4	4	3	3	4	18	13	9	12	6.1	17.5
11-May	6	4	5	6	9	13	16	11	A	8	6	5	6	20	21	5	6	7	5	6	8	10	11	6	8.7	21.2
12-May	6	6	7	8	8	9	10	A	15	7	7	5	5	6	5	5	8	10	7	5	6	6	5	5	7.0	15.2
13-May	5	5	4	5	7	6	A	8	7	14	8	8	5	6	5	5	5	6	5	5	6	6	7	7	6.3	14.2
14-May	7	7	8	7	7	A	23	17	24	6	7	3	9	4	5	4	4	3	10	6	8	9	8	8	8.3	23.9
15-May	6	9	9	12	A	11	9	7	6	7	6	9	3	7	6	7	4	4	6	5	17	8	6	6	7.4	16.8
16-May	6	5	2	A	8	3	2	3	3	4	3	3	3	4	2	3	3	3	4	3	5	7	8	8	4.1	8.4
17-May	6	20	A	8	6	6	6	4	3	3	7	2	2	2	3	2	3	3	5	3	5	6	6	6	5.1	20.3
18-May	6	A	9	16	7	7	9	7	5	4	4	4	3	3	2	3	3	5	3	4	7	10	9	6	5.9	15.7
19-May	A	6	7	8	13	10	12	9	12	6	4	4	5	3	5	3	4	4	6	5	7	11	8	A	6.9	12.8
20-May	7	6	7	7	8	9	11	71	19	10	22	13	15	18	12	17	4	5	4	9	19	15	A	12	13.9	70.9
21-May	13	13	14	15	19	22	19	19	23	38	32	20	8	16	27	9	4	6	7	10	9	A	9	11	15.8	38.0
22-May	12	14	20	15	13	18	26	24	19	14	8	9	8	7	10	10	10	4	3	4	A	16	13	9	12.5	25.6
23-May	12	9	8	9	15	11	16	13	8	7	5	13	6	3	3	4	3	4	4	A	7	7	6	6	7.7	16.0
24-May	8	9	7	7	8	22	19	10	6	5	4	5	5	3	3	3	5	5	A	7	5	5	7	7	7.2	22.3
25-May	8	5	6	6	9	14	21	21	23	11	6	6	5	4	10	4	6	A	7	7	8	10	11	8	9.4	22.6
26-May	6	8	11	8	11	16	24	24	29	11	8	7	6	5	13	3	A	8	5	6	10	12	7	11	10.8	28.7
27-May	13	13	20	17	22	23	21	14	8	12	5	7	5	5	14	A	13	10	12	13	6	4	3	3	11.4	23.0
28-May	3	3	3	3	3	6	6	6	6	4	4	4	6	4	A	5	4	4	6	5	7	8	5	4	4.8	8.4
29-May	6	4	4	4	5	5	7	6	10	12	7	6	4	A	5	6	5	5	5	20	5	6	6	5	6.4	20.4
30-May	9	4	4	3	4	4	10	15	4	7	5	6	A	5	3	3	4	6	6	12	10	6	8	7	6.3	14.8
31-May	5	4	4	6	5	7	4	3	3	16	3	A	5	4	3	2	2	2	2	5	8	6	6	7	4.9	16.2
	8.9	8.8	8.3	8.5	9.6	11.8	13.7	14.2	12.2	10.2	9.4	6.5	5.5	5.6	6.9	4.9	4.7	4.8	5.6	6.9	9.3	9.9	9.4	9.1	Diurnal Average	
	37.4	36.8	30.7	20.5	21.9	25.3	26.6	70.9	29.9	38.0	72.6	20.1	15.0	19.6	26.9	16.8	12.7	10.1	12.1	20.4	19.1	26.9	38.1	39.0	Diurnal Maximum	

C - Calibration

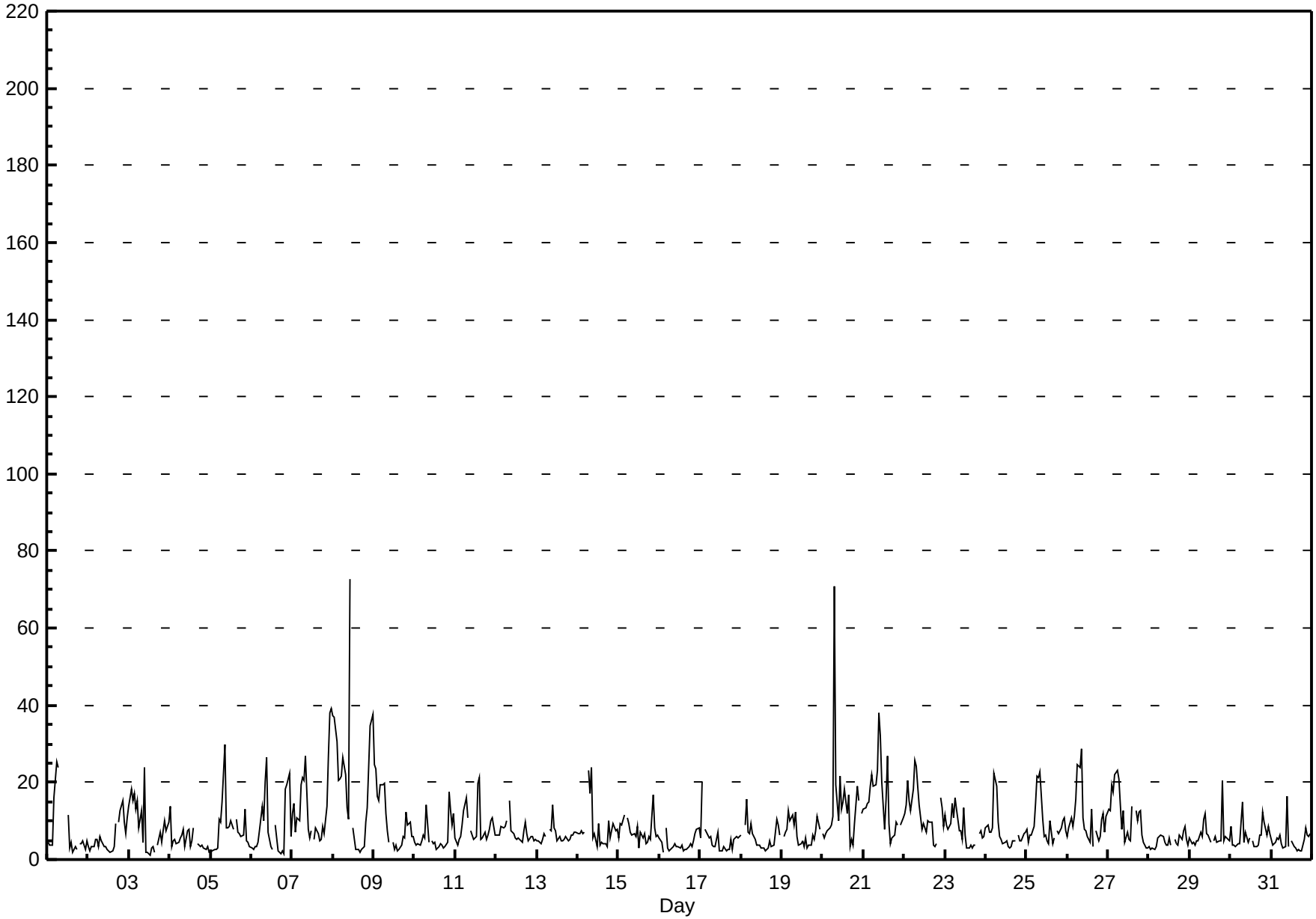
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

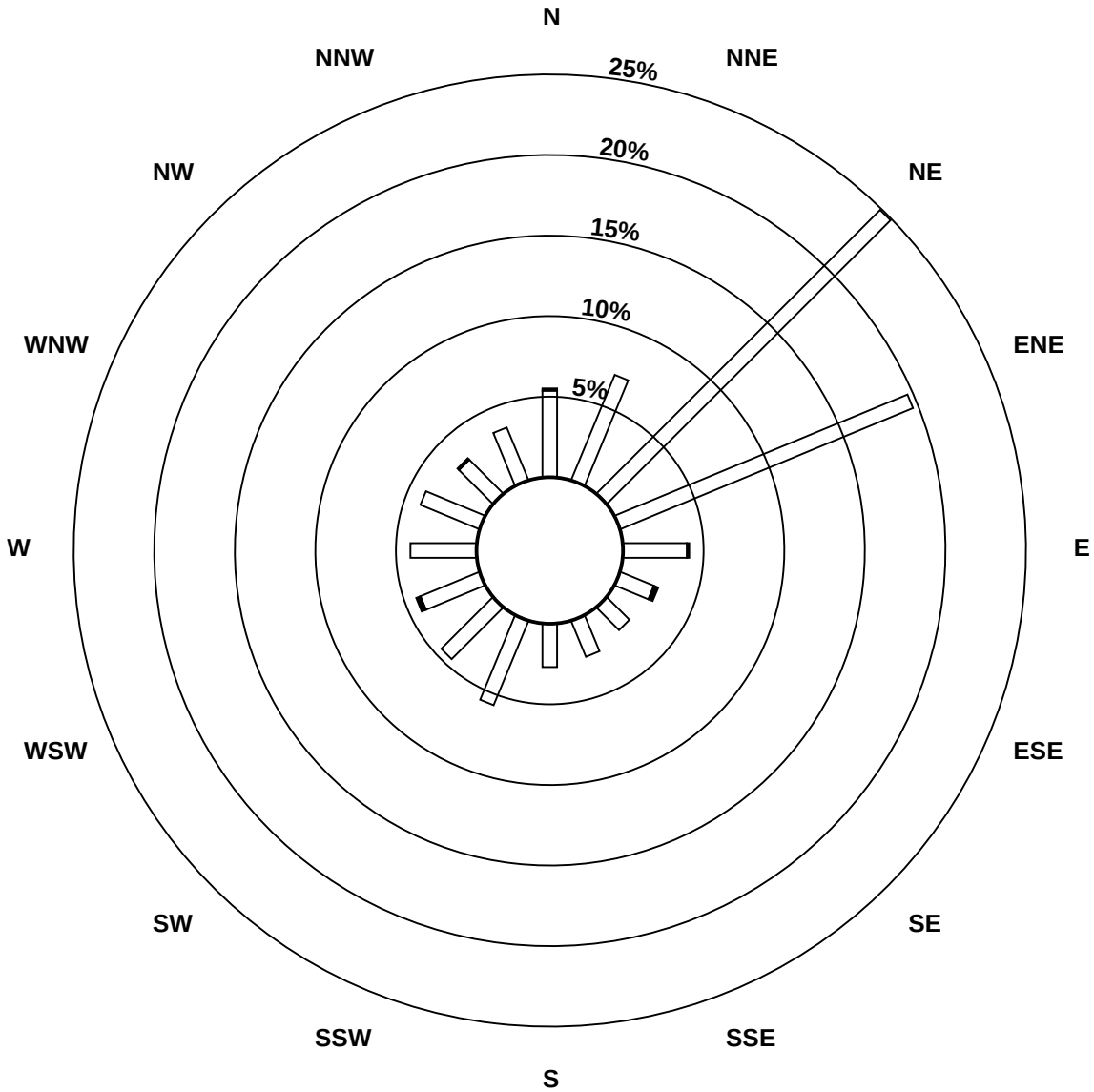
Henry Pirker - May 2015



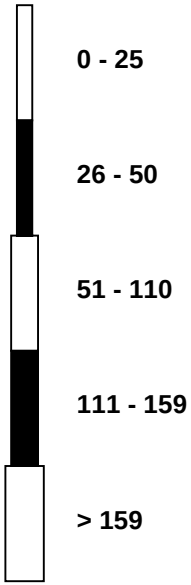
Pollutant Rose

Nitrogen Dioxide (NO_2) - ppb

Henry Pirker - May 2015



Pollutant Classes (ppb)

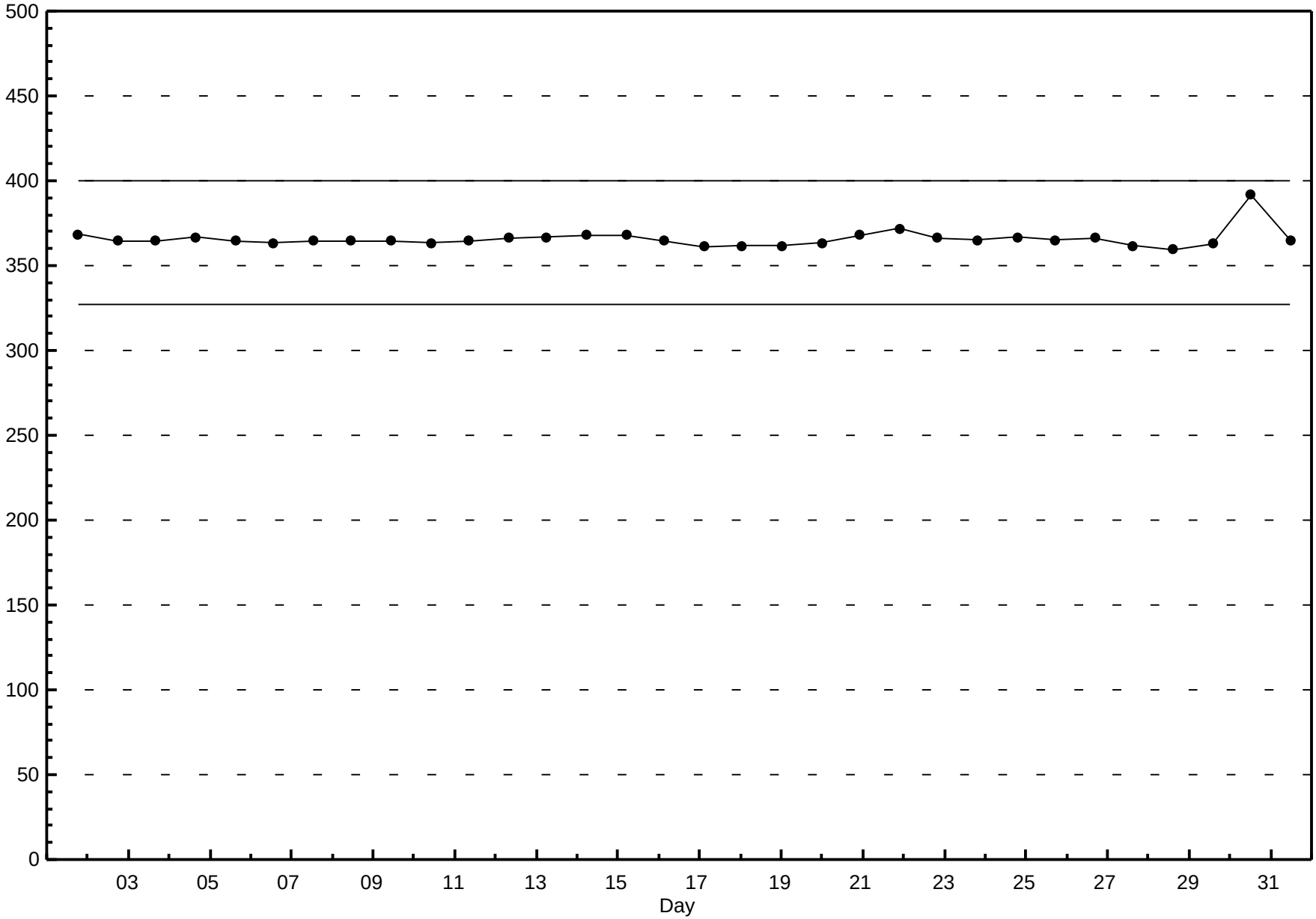


Peace Airshed Zone Association

Span Responses

Nitrogen Dioxide (NO_2)

Henry Pirker - May 2015



Peace Airshed Zone Association

Hourly Averages

Nitrogen Oxide (NO) - ppb

Henry Pirker - May 2015

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

Maximum Value: 48.3 ppb on May 8 07:00

Maximum Daily Average: 8.5 ppb on May 8

Minimum Value: 0 ppb on May 27 01:00

Minimum Daily Average: 0.3 ppb on May 2

Maximum Diurnal Average: 3.6 ppb at hour 7

Minimum Diurnal Average: 0.1 ppb at hour 22

Monthly Average: 0.93 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.1$ $Q_1 = 0.1$ Median = 0.3 $Q_3 = 0.7$ $P_{90} = 1.6$ $P_{99} = 13.5$

Hours in Service:	744
Hours of Data:	707
Hours of Missing Data:	37
Hours of Calibration:	37
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-May	0	0	0	0	0	1	2	C	C	C	C	C	1	0	0	0	0	0	A	0	0	0	0	0	0.3	2.1
2-May	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	A	0	0	0	0	0	0	0.3	0.7
3-May	0	0	0	0	0	0	1	2	1	1	0	0	0	0	0	0	A	0	1	0	0	1	0	0	0.5	1.8
4-May	0	0	0	1	1	1	2	2	2	2	1	1	1	1	1	A	1	1	1	0	0	0	0	0	0.9	2.0
5-May	0	0	0	0	0	1	1	4	3	1	2	2	2	2	A	2	1	1	1	0	0	0	0	0	1.1	3.8
6-May	0	0	0	0	0	0	2	2	1	1	2	1	1	A	1	1	0	0	0	0	0	0	0	0	0.5	1.9
7-May	0	0	0	0	0	1	1	3	10	2	1	1	A	0	1	1	1	1	1	0	0	0	7	15	2.0	14.7
8-May	31	18	18	4	11	28	48	17	5	5	6	A	1	0	0	0	0	0	0	1	0	0	1	1	8.5	48.3
9-May	0	0	0	0	1	3	5	3	2	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.8	5.0
10-May	0	0	0	0	0	0	0	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.1
11-May	0	0	0	0	0	1	2	1	A	1	1	1	0	3	3	0	1	0	0	0	0	0	0	0	0.7	3.0
12-May	0	0	0	0	0	0	1	A	1	1	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0.4	1.3
13-May	0	0	0	0	0	0	A	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.5
14-May	0	0	0	0	0	A	1	3	2	1	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	1	1	1	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.5	1.6
16-May	0	0	0	A	0	0	0	0	1	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0.3	0.8
17-May	0	0	A	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.3
18-May	0	A	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.2
19-May	A	0	0	0	0	1	2	1	4	1	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0.5	3.8
20-May	0	0	0	0	0	0	1	2	2	1	2	2	1	2	1	2	0	0	0	0	0	0	A	0	0.7	2.0
21-May	0	0	0	0	0	2	2	4	6	12	9	2	0	1	2	1	0	0	0	0	0	A	0	0	1.9	12.3
22-May	0	0	0	0	0	1	8	7	5	3	1	1	1	1	1	1	1	0	0	0	A	0	0	0	1.3	7.8
23-May	0	0	0	0	0	0	3	2	1	1	0	1	0	0	0	0	0	0	0	A	0	0	0	0	0.5	3.3
24-May	0	0	0	0	0	2	2	1	1	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.3	2.0
25-May	0	0	0	0	0	0	2	2	3	1	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0.5	3.0
26-May	0	0	0	0	0	1	4	4	2	2	1	1	0	0	1	0	A	0	0	0	0	0	0	0	0.7	4.2
27-May	0	0	0	0	1	14	10	6	2	2	1	1	0	0	1	A	1	1	0	0	0	0	0	0	1.7	14.3
28-May	0	0	0	0	0	1	1	1	1	1	1	1	1	1	A	1	0	0	0	0	0	0	0	0	0.5	1.2
29-May	0	0	0	0	0	0	1	1	1	2	1	1	1	A	0	0	1	0	0	0	0	0	0	0	0.5	1.9
30-May	0	0	0	0	0	0	1	1	0	1	1	1	A	1	0	0	0	0	0	0	0	0	0	0	0.3	0.9
31-May	0	0	0	0	0	1	1	1	1	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.2
	1.1	0.7	0.7	0.3	0.6	2.0	3.6	2.6	2.2	1.7	1.3	0.7	0.5	0.6	0.6	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.3	0.6	Diurnal Average	
	31.1	18.0	18.4	4.5	10.8	27.8	48.3	16.8	10.4	12.3	8.7	1.8	2.0	3.0	2.7	2.0	1.2	0.9	0.7	0.5	0.5	0.7	6.6	14.7	Diurnal Maximum	

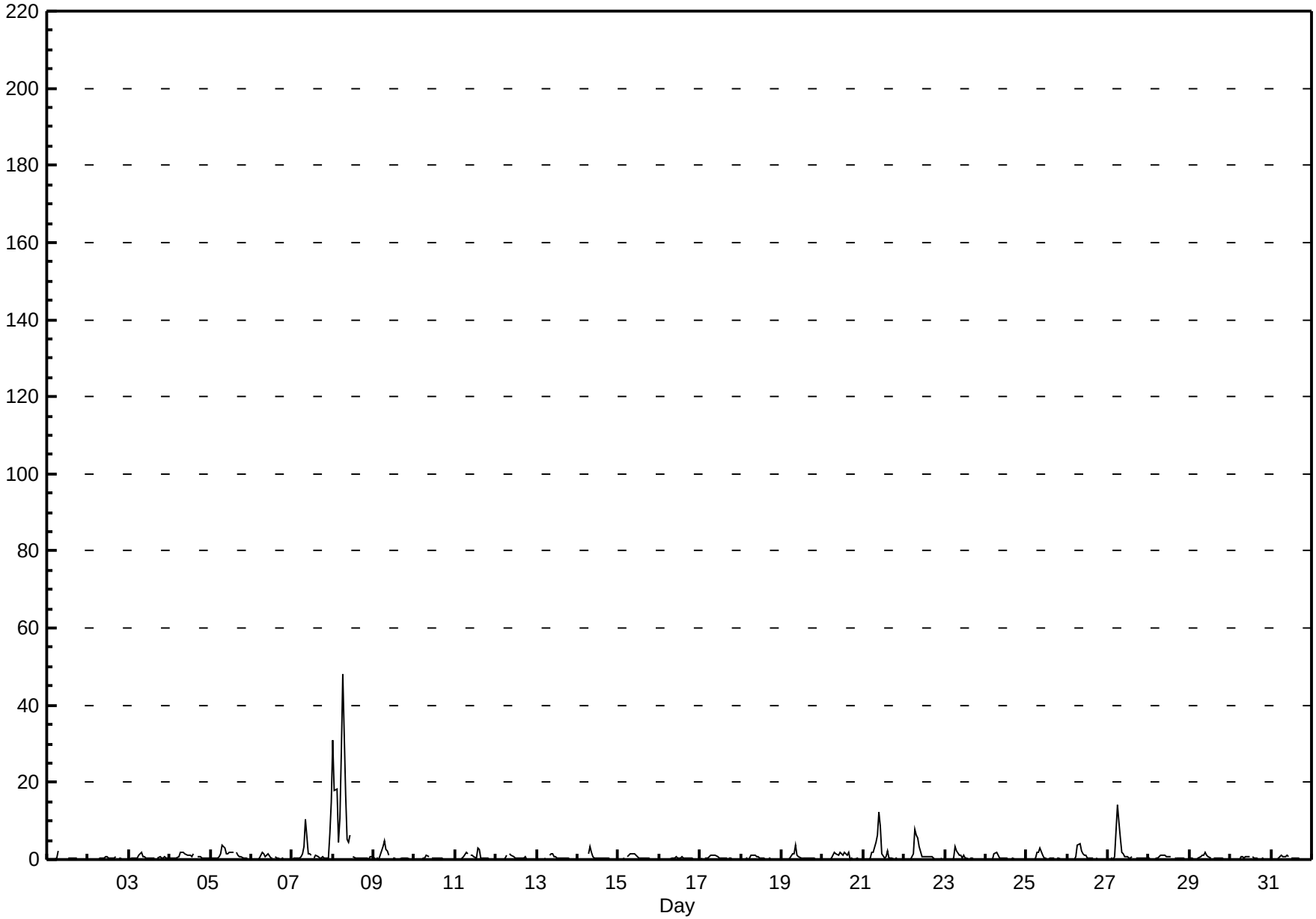
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Nitrogen Oxide (NO) - ppb

Henry Pirker - May 2015



Peace Airshed Zone Association

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Henry Pirker - May 2015

Maximum Value: 96.3 ppb on May 19 09:00

Maximum Daily Average: 17.7 ppb on May 8

Minimum Value: 0 ppb on May 22 02:00

Minimum Daily Average: 0.7 ppb on May 1

Maximum Diurnal Average: 12.2 ppb at hour 9

Minimum Diurnal Average: 0.8 ppb at hour 21

Monthly Average: 3.07 ppb

Percentiles: $P_1 = 0.1$ $P_{10} = 0.3$ $Q_1 = 0.5$ Median = 1.1 $Q_3 = 2.7$ $P_{90} = 6.7$ $P_{99} = 38.4$

Hours in Service:	744
Hours of Data:	707
Hours of Missing Data:	37
Hours of Calibration:	37
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-May	0	0	0	0	0	2	3	C	C	C	C	C	1	1	1	0	1	1	A	0	0	0	1	0	0.7	2.7
2-May	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	6	A	0	1	1	0	1	2	0.9	5.6
3-May	2	2	3	2	2	0	2	12	14	5	1	1	0	0	0	1	A	1	3	1	1	5	1	2	2.6	13.8
4-May	4	1	2	3	3	2	13	4	8	4	2	2	3	1	5	A	2	2	2	1	2	1	3	1	3.1	12.6
5-May	1	2	1	2	1	6	6	11	34	8	6	8	10	11	A	7	9	5	3	2	2	1	2	0	5.9	34.2
6-May	0	0	0	0	1	2	4	4	9	18	20	3	1	A	5	1	0	0	0	0	1	0	0	0	3.1	19.6
7-May	1	1	1	1	1	4	5	8	61	3	4	9	A	5	11	2	2	2	4	3	1	2	20	22	7.4	60.7
8-May	41	30	33	8	19	39	62	40	11	24	68	A	2	1	1	1	1	1	1	4	2	0	13	2	17.7	68.5
9-May	3	1	3	1	4	8	9	5	5	2	A	1	1	1	0	0	3	2	1	1	1	1	0	1	2.3	9.1
10-May	2	0	0	0	0	1	1	5	2	A	1	1	2	1	1	2	1	1	0	0	1	0	0	0	1.0	4.9
11-May	0	0	0	0	1	3	11	3	A	6	2	2	1	10	10	2	2	1	1	1	0	1	1	0	2.6	10.8
12-May	0	1	0	0	0	1	2	A	9	2	2	2	1	1	1	1	3	6	1	1	0	0	0	0	1.5	9.1
13-May	0	0	0	0	1	1	A	3	3	10	4	1	1	2	1	1	1	1	0	0	0	0	0	0	1.5	10.1
14-May	0	0	0	0	1	A	15	11	11	1	3	1	4	2	1	1	1	1	1	0	0	1	0	0	2.5	14.8
15-May	0	0	1	2	A	3	3	2	3	2	4	5	1	2	3	2	1	2	3	0	1	3	0	0	1.9	4.8
16-May	4	0	1	A	1	1	0	2	3	2	2	3	1	3	1	1	1	1	2	1	0	0	1	0	1.4	4.2
17-May	1	3	A	1	1	1	2	2	2	2	4	1	1	1	2	1	1	0	1	0	0	0	0	1	1.2	3.8
18-May	0	A	1	3	1	1	15	4	1	1	2	2	1	1	0	0	1	2	0	1	0	1	1	0	1.7	15.5
19-May	A	0	0	1	1	3	3	2	96	17	1	1	2	1	1	0	1	1	2	1	0	0	0	A	6.3	96.3
20-May	0	0	0	0	1	3	2	13	17	6	14	7	6	13	7	9	1	2	0	1	3	0	A	0	4.6	16.9
21-May	2	0	1	0	4	5	6	6	8	19	13	6	2	5	11	3	1	1	1	2	0	A	0	2	4.2	19.5
22-May	0	0	0	0	0	5	16	13	10	7	2	3	3	3	3	5	4	0	0	0	A	3	0	0	3.5	16.0
23-May	2	2	1	1	0	1	5	3	2	2	1	4	1	1	0	1	1	1	1	A	0	0	0	0	1.4	4.7
24-May	0	0	0	0	0	4	3	2	1	2	1	1	1	1	0	0	3	1	A	0	0	0	1	0	1.0	3.7
25-May	0	0	0	0	0	1	6	6	22	6	1	1	1	1	2	8	1	A	1	2	0	0	1	0	2.5	21.6
26-May	0	0	0	0	0	1	6	9	8	8	2	2	3	1	4	1	A	1	0	0	1	2	0	0	2.3	8.7
27-May	0	0	7	0	5	20	14	7	3	6	1	1	5	2	3	A	1	1	2	3	1	1	1	1	3.8	20.0
28-May	2	0	0	1	1	3	3	3	4	3	1	2	3	1	A	2	1	1	2	1	3	1	0	1	1.7	3.6
29-May	2	2	1	0	1	1	4	3	6	12	4	2	2	A	1	1	1	1	1	4	0	0	0	0	2.2	12.3
30-May	0	0	0	0	0	0	3	4	1	1	1	2	A	2	1	0	0	0	0	1	0	0	0	0	0.9	4.3
31-May	0	0	0	0	0	1	2	1	2	18	2	A	1	1	1	1	1	0	1	1	1	0	0	0	1.5	18.1
	2.4	1.7	1.9	1.0	1.7	4.1	7.5	6.4	12.2	6.9	5.9	2.7	2.1	2.5	2.7	1.9	1.7	1.3	1.2	1.2	0.8	0.9	1.7	1.3	Diurnal Average	
	41.2	30.3	32.8	8.4	19.4	38.9	62.0	39.7	96.3	24.2	68.5	9.0	9.6	13.5	10.9	9.0	9.3	5.5	4.3	4.5	3.5	4.9	19.7	22.0	Diurnal Maximum	

C - Calibration

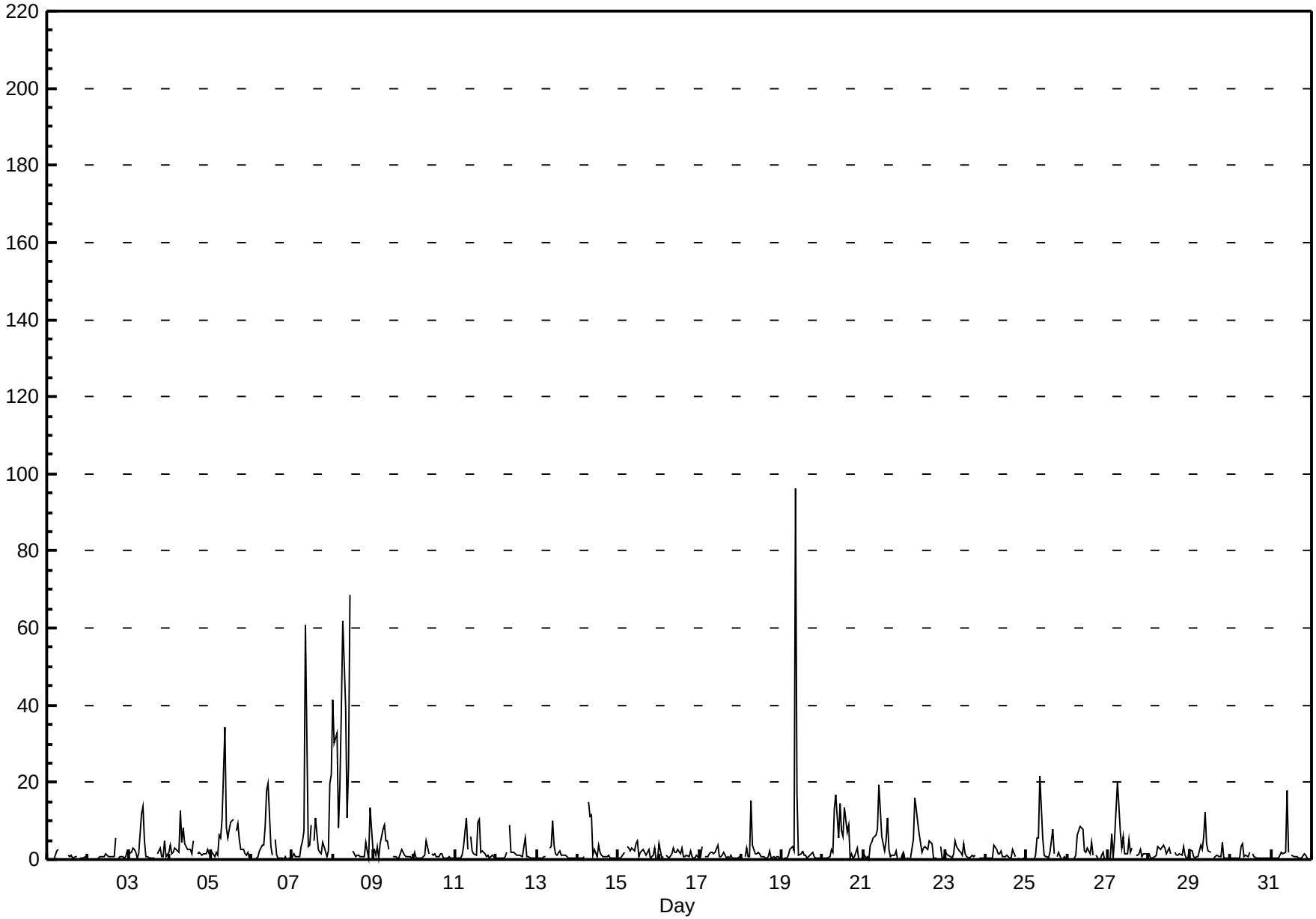
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Henry Pirker - May 2015



Peace Airshed Zone Association

Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Henry Pirker - May 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 72.3 ppb on May 8 07:00 Maximum Daily Average: 21.8 ppb on May 8

Minimum Value: 1 ppb on May 3 13:00 Minimum Daily Average: 2.7 ppb on May 16
Maximum Diurnal Average: 13.3 ppb at hour 7 Minimum Diurnal Average: 3.0 ppb at hour 18
Monthly Average: 6.19 ppb Percentiles: P_1 = 1.5 P_{10} = 2.2 Q_1 = 3.0 Median = 4.3 Q_3 = 6.6 P_{90} = 11.6 P_{99} = 43.2

Hours in Service:	744
Hours of Data:	707
Hours of Missing Data:	37
Hours of Calibration:	37
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-May	3	3	3	3	8	20	19	C	C	C	C	C	4	2	2	1	2	2	A	3	3	3	2	3	4.8	19.7
2-May	2	2	2	2	3	2	2	4	4	2	3	2	2	1	2	2	3	A	3	9	7	5	5	5	3.2	8.9
3-May	8	14	10	12	11	8	7	7	3	3	2	1	1	2	2	2	A	3	3	3	4	7	6	7	5.5	13.8
4-May	5	3	3	3	3	4	5	6	5	4	5	4	3	3	5	A	4	4	3	3	3	2	2	2	3.6	5.8
5-May	2	2	2	2	2	5	6	11	10	6	7	6	7	7	A	7	6	5	4	4	4	4	3	3	5.0	11.5
6-May	2	2	2	3	4	6	11	6	3	3	3	2	3	A	4	3	2	1	2	1	9	12	12	5	4.4	11.8
7-May	8	9	5	7	8	14	17	16	29	6	4	4	A	3	4	4	3	3	4	3	8	18	40	52	11.7	51.9
8-May	66	49	43	23	31	48	72	33	14	12	15	A	4	2	2	2	1	1	2	4	8	16	26	28	21.8	72.3
9-May	20	13	14	13	16	21	20	10	7	4	A	3	2	2	2	2	2	3	4	7	7	7	5	4	8.2	21.4
10-May	3	3	3	3	4	5	5	6	4	A	4	3	3	2	2	2	2	2	3	3	8	9	6	5	3.8	9.1
11-May	4	3	4	5	6	9	12	8	A	6	5	4	3	10	9	3	3	4	3	4	6	7	6	4	5.5	12.2
12-May	4	5	5	6	6	7	9	A	7	5	4	4	4	3	3	3	4	5	3	4	4	4	3	4	4.6	9.0
13-May	3	3	3	4	4	5	A	7	6	6	5	4	3	3	3	3	3	3	3	4	4	5	5	5	4.1	6.6
14-May	5	5	5	5	5	A	10	12	8	5	3	3	3	3	3	3	3	3	3	3	5	7	6	5	4.9	12.2
15-May	4	5	6	8	A	9	8	7	7	6	5	4	3	3	3	3	2	3	3	3	4	4	4	5	4.8	9.3
16-May	3	2	2	A	3	2	2	2	3	3	3	2	2	2	2	2	2	2	2	2	3	5	5	6	2.7	6.3
17-May	4	8	A	6	5	5	6	4	4	4	3	2	2	2	2	2	2	2	3	2	3	4	4	4	3.7	8.1
18-May	5	A	6	7	6	6	6	6	5	4	3	2	3	2	2	2	2	2	2	3	5	6	6	4	4.2	7.4
19-May	A	5	5	6	7	8	11	8	7	5	4	3	3	2	2	2	2	3	3	3	5	7	6	A	4.9	11.1
20-May	5	5	5	6	6	8	10	9	6	6	7	7	5	7	4	8	2	2	2	4	10	13	A	9	6.3	12.7
21-May	9	8	11	12	16	21	14	19	26	44	35	11	5	5	9	4	3	3	3	6	5	A	8	8	12.4	43.6
22-May	9	13	14	13	11	15	28	22	20	14	6	4	4	5	4	4	5	3	2	3	A	13	9	7	9.8	27.6
23-May	8	6	5	7	11	9	17	12	7	6	4	6	3	2	2	2	2	3	3	A	5	6	5	5	5.9	16.8
24-May	6	5	5	5	6	17	16	8	4	4	4	4	3	2	2	3	3	3	A	4	4	4	5	6	5.4	17.3
25-May	6	4	5	5	7	11	17	13	13	7	5	4	2	3	4	3	4	A	6	5	5	8	9	6	6.6	16.5
26-May	5	7	8	7	10	14	25	23	13	9	8	7	4	4	4	3	A	4	3	5	6	7	6	7	8.1	24.7
27-May	11	10	15	16	19	35	26	17	8	7	4	4	2	3	8	A	9	7	7	9	4	3	3	2	10.0	35.4
28-May	3	3	2	2	3	4	5	6	5	4	3	3	3	2	A	3	3	2	3	4	4	5	4	3	3.5	6.0
29-May	3	3	3	3	4	4	4	5	5	6	4	4	4	A	4	4	4	4	3	5	4	5	4	4	3.9	5.9
30-May	4	3	3	3	3	3	4	6	4	5	5	5	A	4	3	3	3	4	5	8	7	6	7	5	4.5	8.5
31-May	4	3	4	5	5	5	4	3	3	5	3	A	4	3	2	2	2	1	2	3	5	4	4	6	3.5	5.7
	7.4	6.9	6.8	6.7	7.7	11.1	13.3	10.2	8.3	6.9	5.7	4.0	3.1	3.2	3.5	3.0	3.1	3.0	3.2	4.2	5.3	6.8	7.2	7.3	Diurnal Average	
	65.6	48.8	43.3	22.6	30.5	47.6	72.3	33.1	29.3	43.6	35.0	11.2	6.6	10.2	9.4	7.5	9.0	6.9	6.8	8.9	10.1	17.7	40.1	51.9	Diurnal Maximum	

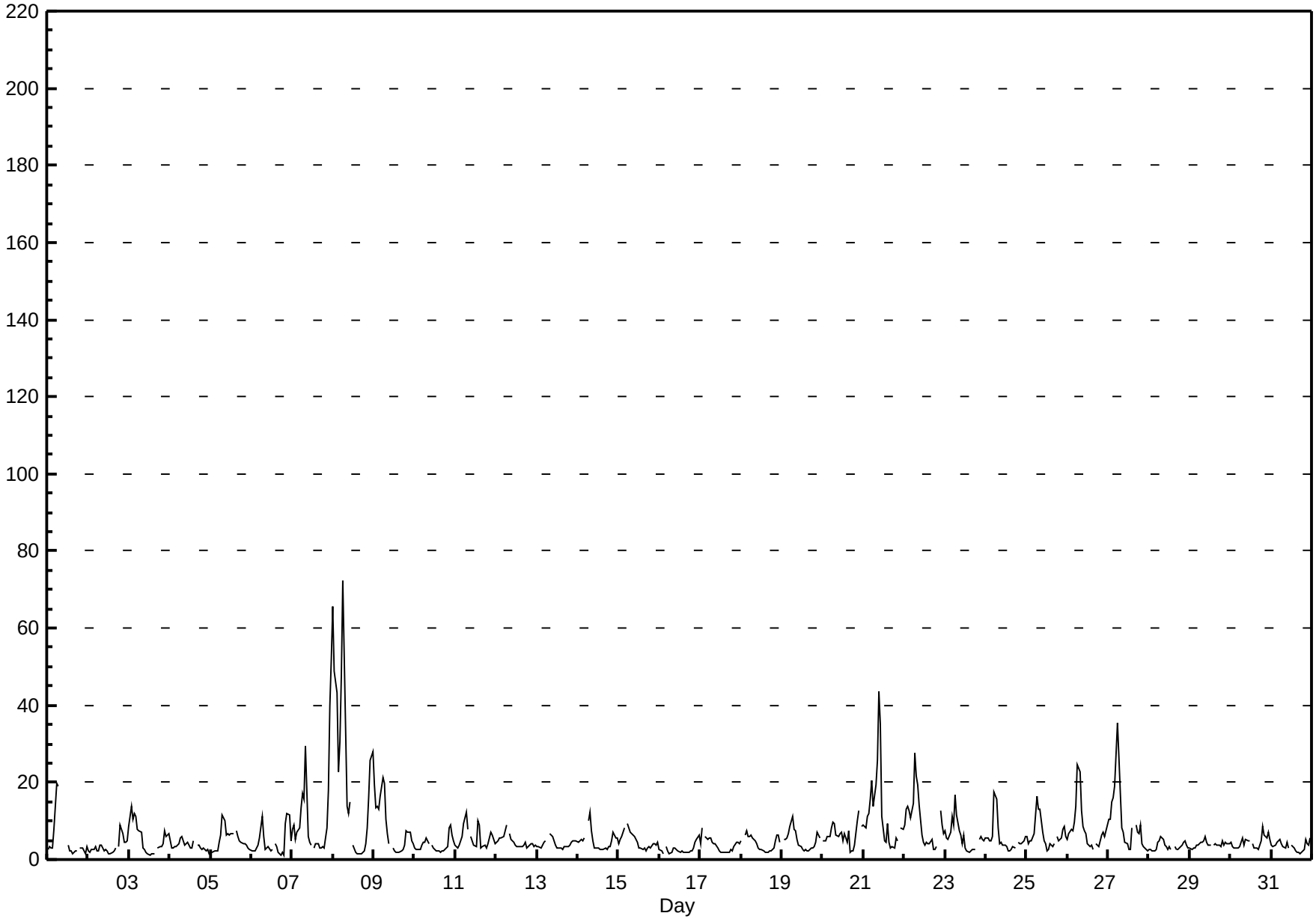
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Henry Pirker - May 2015



Peace Airshed Zone Association

Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

Henry Pirker - May 2015

Maximum Value: 134.6 ppb on May 8 11:00

Maximum Daily Average: 36.2 ppb on May 8

Minimum Value: 2 ppb on May 3 13:00

Minimum Daily Average: 5.3 ppb on May 16

Maximum Diurnal Average: 20.7 ppb at hour 7

Minimum Diurnal Average: 5.9 ppb at hour 18

Monthly Average: 11.18 ppb

Percentiles: P_1 = 2.4 P_{10} = 3.7 Q_1 = 5.1 Median = 7.3 Q_3 = 12.9 P_{90} = 23.9 P_{99} = 60.9

Hours in Service:	744
Hours of Data:	707
Hours of Missing Data:	37
Hours of Calibration:	37
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-May	5	4	4	4	17	28	27	C	C	C	C	C	12	4	5	2	4	3	A	4	4	5	3	5	7.8	27.6
2-May	3	2	3	3	5	5	4	7	6	4	4	4	3	3	3	4	15	A	10	13	16	10	7	13	6.4	16.2
3-May	15	20	18	19	14	16	9	20	8	29	3	2	2	4	3	2	A	5	10	5	8	15	8	12	10.8	29.2
4-May	18	5	7	8	7	6	14	11	16	7	9	9	6	6	13	A	6	6	5	5	4	4	5	3	7.7	17.8
5-May	3	4	3	4	4	17	16	25	65	15	12	15	18	18	A	17	14	10	8	7	15	6	6	4	13.2	64.5
6-May	3	3	4	4	5	9	17	14	29	45	24	5	4	A	14	7	2	2	2	2	19	20	23	6	11.4	44.6
7-May	12	16	8	12	11	22	26	26	66	11	9	14	A	7	18	9	7	7	13	10	14	28	54	58	19.9	65.6
8-May	74	61	62	29	40	59	89	62	24	29	135	A	10	3	4	3	2	3	4	12	14	24	47	40	36.2	134.6
9-May	25	24	19	16	22	27	29	17	11	7	A	5	3	5	2	3	6	8	6	13	10	10	6	6	12.2	29.1
10-May	5	4	4	4	5	7	6	19	5	A	6	5	6	3	4	6	5	4	4	5	18	13	9	12	7.0	19.2
11-May	6	4	5	6	10	16	27	14	A	12	9	7	7	29	30	7	8	8	6	7	8	11	12	6	11.1	29.7
12-May	7	7	7	9	9	9	12	A	24	9	9	7	6	6	7	5	11	14	8	5	6	6	5	6	8.4	24.3
13-May	5	5	5	5	7	7	A	10	9	24	12	9	6	7	6	6	7	7	5	6	7	6	7	8	7.6	24.4
14-May	7	7	8	7	7	A	38	28	36	7	9	4	13	5	6	5	5	4	12	6	8	10	8	8	10.8	38.0
15-May	6	10	9	13	A	14	12	10	9	9	10	14	4	9	8	9	5	6	9	5	17	11	6	6	9.2	17.5
16-May	10	5	2	A	10	4	2	4	6	6	5	6	4	6	3	3	4	4	6	4	5	7	9	9	5.3	9.7
17-May	6	23	A	8	7	7	8	5	5	5	11	3	3	3	5	3	3	3	6	3	5	6	6	7	6.2	23.1
18-May	7	A	10	17	8	7	21	10	6	5	5	5	3	3	3	3	4	6	4	4	8	11	10	7	7.2	21.0
19-May	A	6	7	8	13	13	14	11	29	16	5	6	7	5	7	3	4	5	8	6	8	12	8	A	9.1	28.6
20-May	7	6	7	8	9	11	13	84	26	16	36	19	20	31	19	24	4	7	4	10	22	16	A	12	17.8	83.9
21-May	15	14	15	15	23	25	25	26	31	58	45	26	9	20	34	11	5	6	8	12	9	A	9	11	19.7	57.8
22-May	12	14	21	16	13	23	42	37	29	21	10	13	12	9	13	13	13	4	4	5	A	19	14	9	15.9	41.8
23-May	14	10	8	10	15	11	20	17	10	9	7	17	8	3	3	4	4	4	5	A	7	8	6	6	9.0	20.3
24-May	9	9	7	7	9	26	22	11	7	7	5	5	6	4	4	4	8	5	A	7	5	5	7	7	8.0	26.1
25-May	8	5	6	6	9	16	27	27	45	16	7	7	6	4	12	9	7	A	8	8	8	10	11	8	11.7	44.6
26-May	6	8	11	9	12	17	31	33	37	19	9	9	7	5	15	5	A	9	5	6	12	13	7	11	12.9	37.0
27-May	13	13	26	18	27	43	33	21	11	18	6	8	10	7	17	A	14	11	14	14	7	6	4	4	15.0	43.0
28-May	5	3	3	3	4	9	9	8	9	7	5	6	8	5	A	7	5	5	8	6	11	10	5	4	6.3	11.0
29-May	8	6	5	4	5	5	11	9	16	24	10	9	6	A	5	7	6	6	6	25	5	6	6	5	8.5	25.0
30-May	9	4	4	4	4	4	13	19	5	8	5	7	A	7	4	4	4	6	6	13	10	6	9	7	7.1	19.2
31-May	5	4	4	6	6	8	5	4	5	34	5	A	6	4	4	3	3	3	3	6	9	7	6	7	6.3	34.4
	11.0	10.2	10.1	9.4	11.2	15.7	20.7	20.3	20.1	16.5	14.7	8.7	7.4	7.8	9.3	6.5	6.3	5.9	6.7	7.8	9.9	10.7	10.8	10.2	Diurnal Average	
	74.3	61.3	62.2	28.8	40.3	59.0	89.0	83.9	65.6	57.8	134.6	26.3	20.3	30.6	34.4	24.3	14.9	14.1	13.9	25.0	21.8	27.8	54.3	57.7	Diurnal Maximum	

C - Calibration

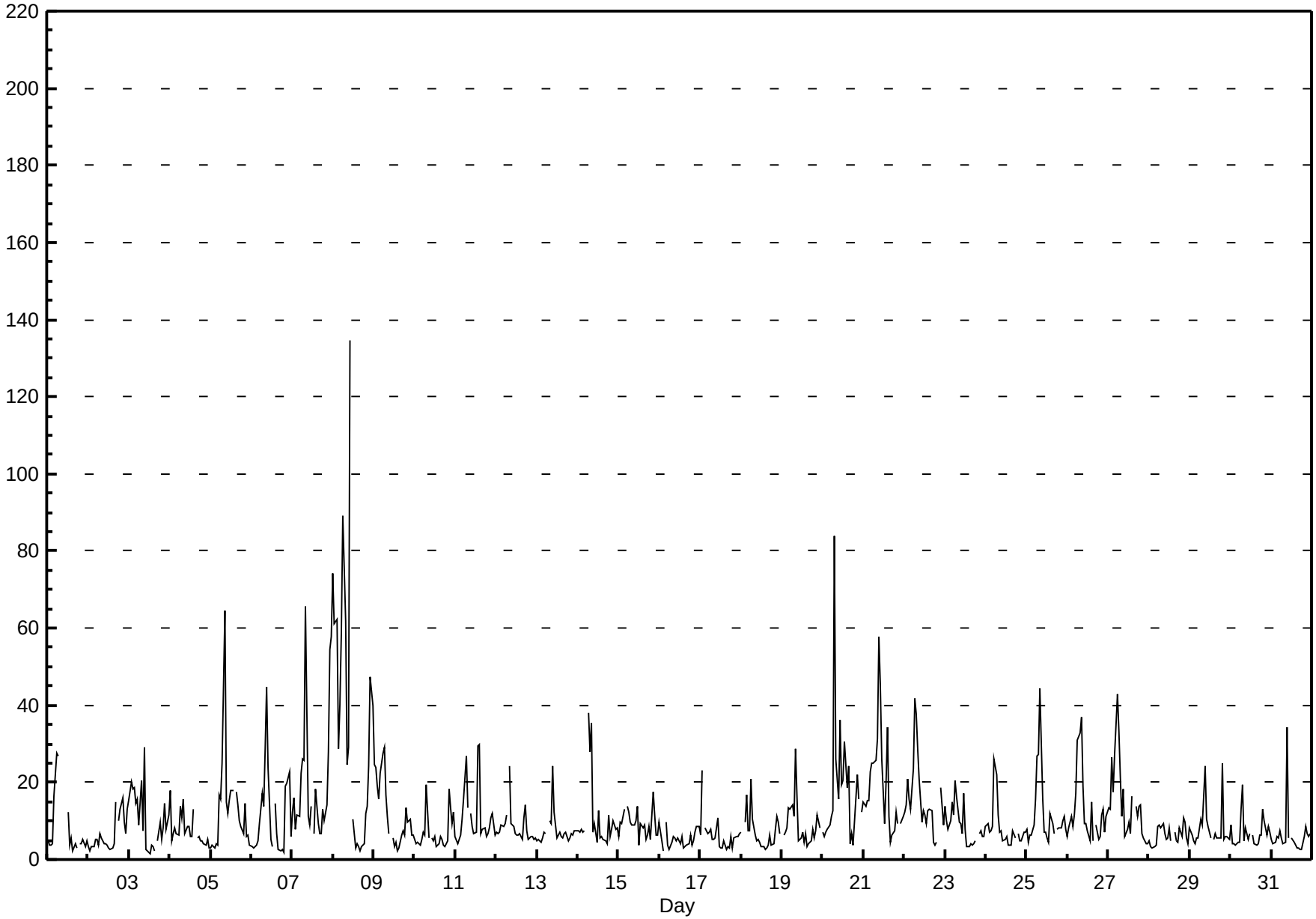
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

Henry Pirker - May 2015

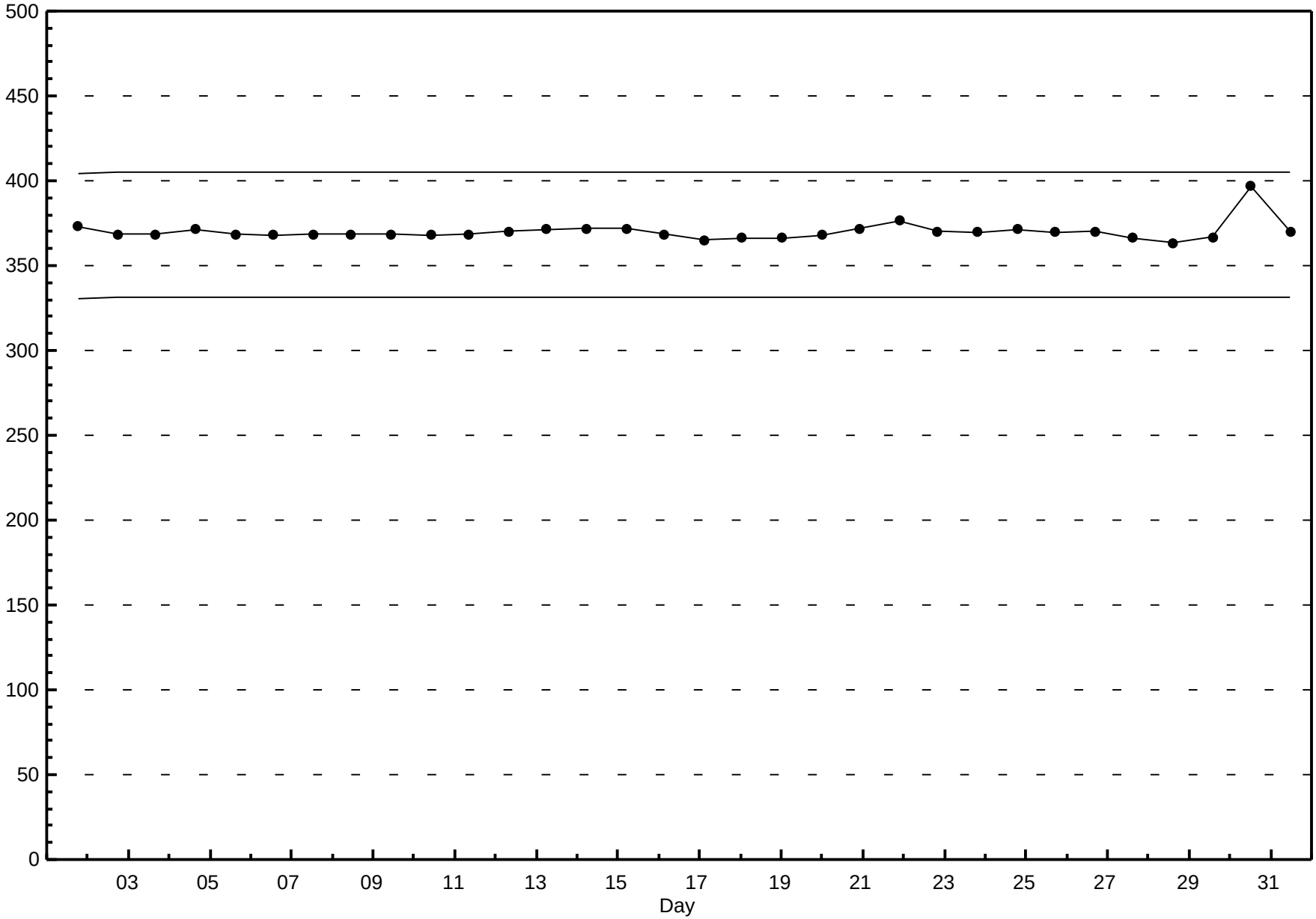


Peace Airshed Zone Association

Span Responses

Oxides of Nitrogen (NO_X)

Henry Pirker - May 2015



Peace Airshed Zone Association

Hourly Averages

Ozone (O_3) - ppb

Henry Pirker - May 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 73.2 ppb on May 25 15:00
Maximum Daily Average: 54.2 ppb on May 12

Minimum Value: 0 ppb on May 8 05:00
Maximum Diurnal Average: 52.8 ppb at hour 15
Monthly Average: 40.25 ppb

Minimum Daily Average: 25.7 ppb on May 8
Minimum Diurnal Average: 25.4 ppb at hour 6
Percentiles: P_1 = 2.1 P_{10} = 21.5 Q_1 = 31.9 Median = 41.6 Q_3 = 49.5 P_{90} = 58.4 P_{99} = 67.4

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	49	47	45	43	38	27	29	39	43	48	51	C	C	C	53	55	52	53	A	50	47	45	48	43	45.2	55.5
2-May	44	42	38	38	35	41	41	39	40	41	44	43	45	45	46	45	42	A	43	36	34	34	33	30	40.1	46.3
3-May	22	15	15	13	14	19	19	27	36	40	43	43	43	43	46	46	A	42	42	41	39	32	31	28	32.1	46.4
4-May	25	29	28	26	23	21	20	19	20	22	21	24	29	33	34	A	36	35	32	30	32	33	33	34	27.8	35.8
5-May	32	30	28	28	27	25	23	20	20	21	20	21	21	23	A	28	31	32	33	32	32	32	28	27	26.7	32.7
6-May	27	29	29	28	29	29	25	33	39	41	40	42	42	A	43	45	46	46	45	45	38	35	33	39	36.8	46.5
7-May	36	33	36	33	30	24	21	26	20	33	35	37	A	46	45	43	46	45	45	45	37	24	6	2	32.5	46.4
8-May	1	1	1	1	0	1	2	10	22	26	30	A	46	49	48	49	50	50	52	49	42	31	15	11	25.7	52.0
9-May	14	17	13	11	7	6	14	24	28	33	A	47	49	52	53	52	52	51	48	42	40	38	38	36	33.2	52.6
10-May	37	39	39	36	35	33	33	33	36	A	45	49	51	52	52	52	54	57	58	56	48	44	47	48	45.1	57.9
11-May	47	46	45	43	40	35	32	38	A	42	45	51	57	56	56	61	62	63	62	59	53	47	49	49	49.4	63.2
12-May	46	44	44	44	42	40	39	A	46	51	54	57	60	63	65	66	65	65	65	63	60	58	57	53	54.2	65.5
13-May	48	47	46	43	43	42	A	43	48	51	55	56	59	59	60	61	60	62	63	61	58	55	52	51	53.3	62.9
14-May	51	48	45	45	44	A	39	38	43	50	56	56	57	58	58	56	54	54	53	52	49	43	44	42	49.4	58.3
15-May	43	40	38	32	A	27	30	31	33	36	41	46	50	51	52	53	54	51	51	51	49	48	44	41	43.1	54.0
16-May	35	34	35	A	35	33	36	35	35	38	44	46	47	48	44	42	47	47	47	46	46	42	37	31	40.4	47.6
17-May	32	27	A	27	25	23	23	25	27	30	36	41	43	44	46	47	48	48	47	48	48	46	44	41	37.7	48.4
18-May	38	A	34	31	33	33	33	34	36	41	46	50	52	54	55	56	56	56	57	56	50	44	45	47	45.1	56.8
19-May	A	44	43	40	39	37	34	38	40	44	50	54	58	58	57	58	60	59	57	56	53	46	47	A	48.7	60.5
20-May	48	47	46	44	41	37	36	39	42	45	48	51	57	59	61	60	64	64	64	63	53	45	A	43	50.3	64.5
21-May	38	36	22	19	16	15	30	28	32	32	39	59	65	62	60	66	63	62	62	56	52	A	41	39	43.2	66.1
22-May	33	23	20	18	19	16	13	20	29	41	54	60	60	60	61	62	61	61	61	59	A	43	41	41	41.6	61.6
23-May	37	40	39	37	28	22	18	30	38	45	58	63	68	68	66	65	64	63	61	A	50	44	44	44	47.5	68.3
24-May	43	43	42	42	40	21	24	34	41	46	53	60	66	73	71	67	64	65	A	59	59	56	48	46	50.5	72.5
25-May	44	44	39	36	35	27	23	28	31	42	55	62	69	72	73	63	52	A	52	55	49	43	32	30	45.8	73.2
26-May	29	26	24	24	21	20	12	16	27	37	44	49	53	56	50	49	A	52	53	44	40	36	34	28	35.8	56.3
27-May	22	24	18	15	10	3	8	16	26	30	37	44	51	51	44	A	36	41	38	35	33	29	26	27	28.8	51.2
28-May	28	27	27	26	25	22	25	25	25	27	31	34	36	38	A	46	49	50	49	46	42	40	39	37	34.6	50.1
29-May	36	35	33	33	32	32	34	36	37	40	45	48	50	A	56	52	52	51	51	49	48	45	43	42	42.6	55.6
30-May	41	42	43	42	41	41	39	38	37	33	32	32	A	37	41	43	44	43	34	29	28	22	17	16	35.5	44.3
31-May	17	17	15	13	12	11	14	17	20	22	26	A	33	34	35	36	38	39	39	42	29	33	34	28	26.2	42.1
	34.8	33.9	32.3	30.5	28.6	25.4	25.6	29.3	33.2	37.6	42.6	47.3	50.7	51.5	52.8	52.6	51.9	52.0	50.5	48.6	44.5	40.4	37.7	35.8	Diurnal Average	
	51.2	47.8	46.4	45.2	44.0	42.4	41.0	43.2	48.1	51.4	58.1	63.3	68.9	72.5	73.2	67.1	64.9	64.9	65.0	63.3	59.8	58.2	56.9	53.0	Diurnal Maximum	

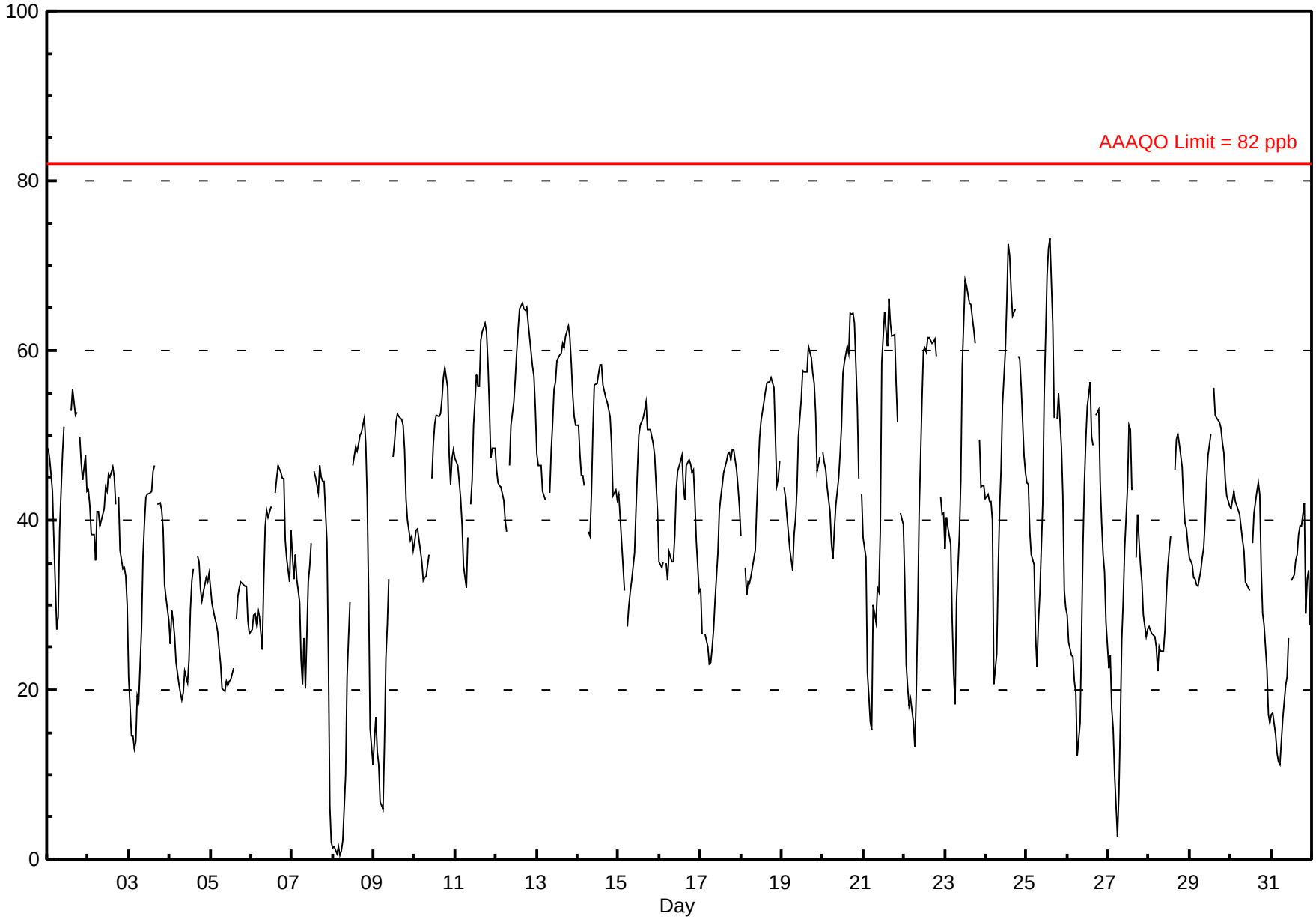
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82 ppb 24-hr na

Peace Airshed Zone Association

Hourly Averages

Ozone (O_3) - ppb

Henry Pirker - May 2015



Peace Airshed Zone Association

Hourly Maximums

Ozone (O_3) - ppb

Henry Pirker - May 2015

Maximum Value: 77.0 ppb on May 25 15:00

Maximum Daily Average: 56.4 ppb on May 12

Minimum Value: 1 ppb on May 8 05:00

Minimum Daily Average: 28.8 ppb on May 5

Maximum Diurnal Average: 55.4 ppb at hour 15

Minimum Diurnal Average: 28.6 ppb at hour 6

Monthly Average: 43.28 ppb

Percentiles: P_1 = 5.0 P_{10} = 25.1 Q_1 = 34.4 Median = 44.1 Q_3 = 52.6 P_{90} = 61.5 P_{99} = 71.7

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	51	49	47	45	42	32	40	46	48	50	53	C	C	C	55	58	54	54	A	52	49	50	50	46	48.5	58.3
2-May	45	43	40	40	39	46	43	42	42	44	46	46	47	47	48	47	45	A	47	41	38	37	37	32	42.8	48.3
3-May	30	19	18	20	19	23	22	34	39	43	45	45	45	46	48	47	A	43	44	43	42	37	33	32	35.4	47.8
4-May	28	32	32	28	25	22	21	20	22	25	26	27	32	35	36	A	38	37	33	33	33	34	34	34	29.9	38.0
5-May	34	31	30	28	28	27	25	24	23	23	23	23	23	25	A	32	33	34	35	34	34	34	32	30	28.8	34.7
6-May	29	30	30	29	33	32	28	39	43	42	42	43	43	A	45	48	48	47	46	46	44	40	39	40	39.4	47.9
7-May	39	36	38	37	33	28	24	33	28	37	37	39	A	48	48	46	50	49	47	47	45	33	15	4	36.7	49.9
8-May	2	5	2	4	1	2	4	18	26	30	37	A	49	49	50	51	51	52	54	51	49	35	26	22	29.1	54.0
9-May	21	21	17	15	9	12	22	28	32	37	A	50	51	54	54	54	54	53	51	46	43	42	40	38	36.5	54.3
10-May	39	40	40	38	36	35	35	35	38	A	48	51	53	54	54	54	56	59	59	58	54	49	50	51	47.3	59.2
11-May	49	48	47	44	43	39	35	41	A	44	48	56	60	62	60	64	64	65	65	62	57	50	52	52	52.4	65.5
12-May	48	46	45	45	44	42	41	A	51	54	57	59	63	65	67	67	67	67	67	66	62	60	58	58	56.4	67.4
13-May	51	48	48	45	44	44	A	48	51	56	58	58	61	61	61	62	62	64	65	64	61	58	55	53	55.5	64.6
14-May	53	50	47	46	46	A	41	42	47	56	57	58	60	61	60	58	57	55	55	54	52	46	46	45	51.8	60.6
15-May	44	42	40	36	A	29	32	33	36	39	45	50	52	53	54	55	56	55	54	53	52	51	47	46	45.7	55.9
16-May	38	36	36	A	40	36	38	36	39	41	46	48	49	51	48	44	51	49	48	47	48	46	40	34	42.9	51.1
17-May	33	31	A	28	27	24	25	27	29	34	39	43	45	45	47	48	49	50	49	50	50	48	45	43	39.5	50.0
18-May	40	A	36	34	34	34	35	36	39	45	49	52	54	55	57	58	57	58	58	57	55	46	47	48	47.2	58.4
19-May	A	45	44	42	41	39	36	40	42	49	52	60	60	59	59	60	62	61	59	57	56	49	50	A	51.1	62.5
20-May	49	48	47	45	44	39	39	41	43	48	51	55	63	64	63	65	66	67	66	66	62	48	A	46	53.2	66.5
21-May	43	45	26	26	20	24	38	32	35	40	45	66	67	67	66	69	67	64	64	61	58	A	44	42	48.2	68.5
22-May	40	28	25	21	22	18	17	24	35	52	62	63	64	63	64	64	63	63	62	62	A	46	43	43	45.4	64.4
23-May	39	45	44	71	31	28	26	34	42	54	65	68	72	72	67	67	66	64	63	A	54	45	45	45	52.7	72.4
24-May	44	45	43	44	42	36	37	38	45	51	56	63	72	75	75	69	66	69	A	66	60	60	52	49	54.6	75.2
25-May	50	49	43	40	39	31	29	31	39	47	61	68	72	74	77	68	56	A	57	58	55	48	34	34	50.4	77.0
26-May	30	29	28	28	23	22	19	23	36	41	47	53	56	58	58	51	A	54	55	54	43	39	36	35	39.9	58.5
27-May	27	27	21	21	15	5	14	23	30	36	41	51	54	54	48	A	42	45	44	40	38	30	28	28	33.1	54.2
28-May	29	29	28	27	27	23	28	26	26	30	33	37	38	41	A	50	52	52	51	49	43	42	40	38	36.6	52.5
29-May	38	36	34	34	33	33	36	37	39	45	47	51	53	A	58	54	55	53	53	53	49	47	44	43	44.7	57.8
30-May	43	44	44	43	43	42	41	41	39	35	34	33	A	40	43	46	46	45	42	34	32	27	20	19	38.0	46.2
31-May	19	19	16	14	13	14	16	20	23	25	30	A	35	36	37	38	40	44	45	45	36	38	39	31	29.1	45.5
	37.5	36.5	34.5	33.9	31.0	28.6	29.5	33.1	36.9	41.7	46.0	50.5	53.3	54.0	55.4	55.1	54.3	54.2	53.0	51.6	48.5	43.8	40.6	38.6	Diurnal Average	
	52.6	50.1	48.0	71.5	45.6	45.7	43.2	48.1	50.6	56.2	65.4	68.2	72.3	75.2	77.0	69.2	67.1	68.5	66.9	65.7	62.0	60.2	57.8	58.1	Diurnal Maximum	

C - Calibration

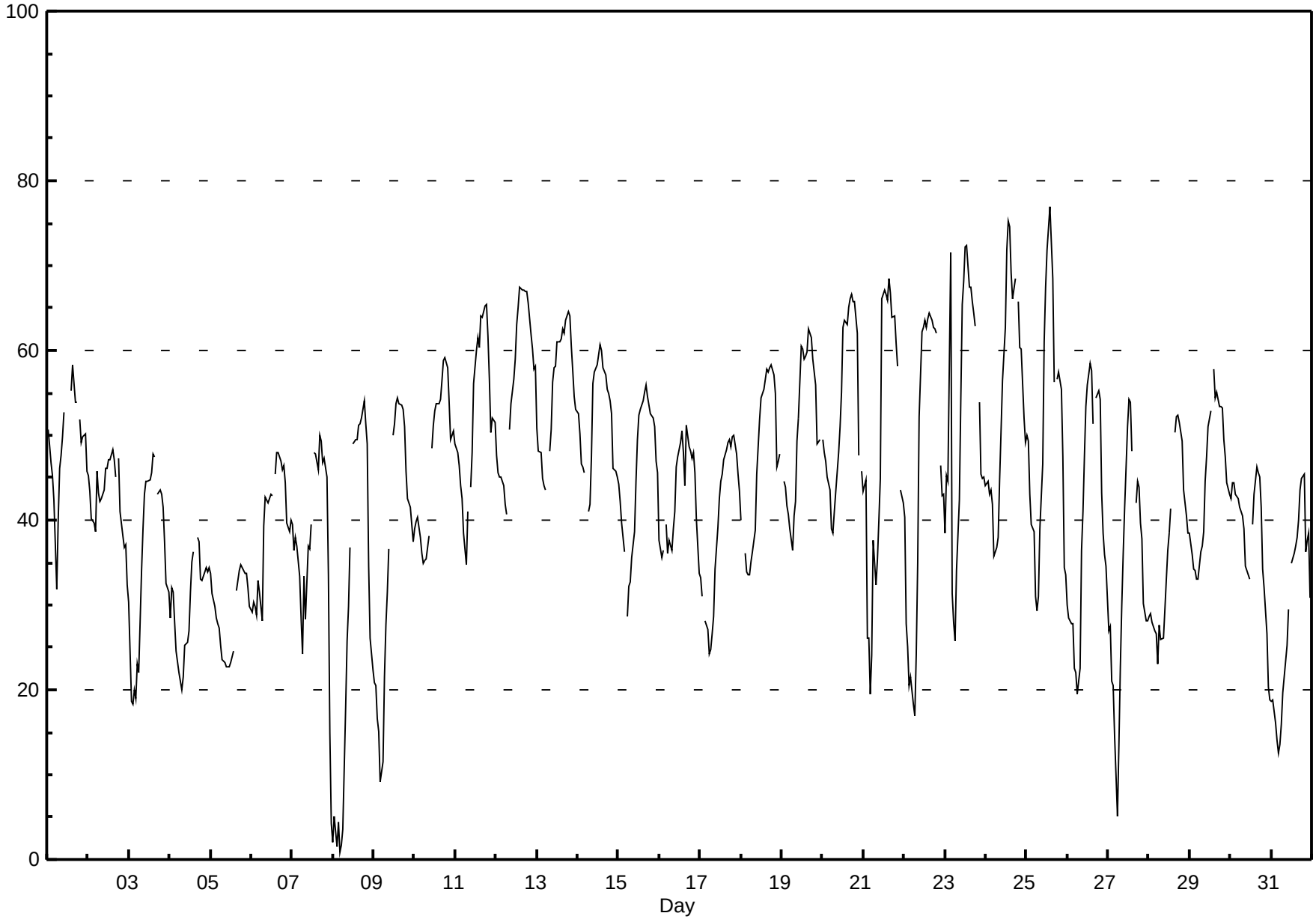
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Ozone (O_3) - ppb

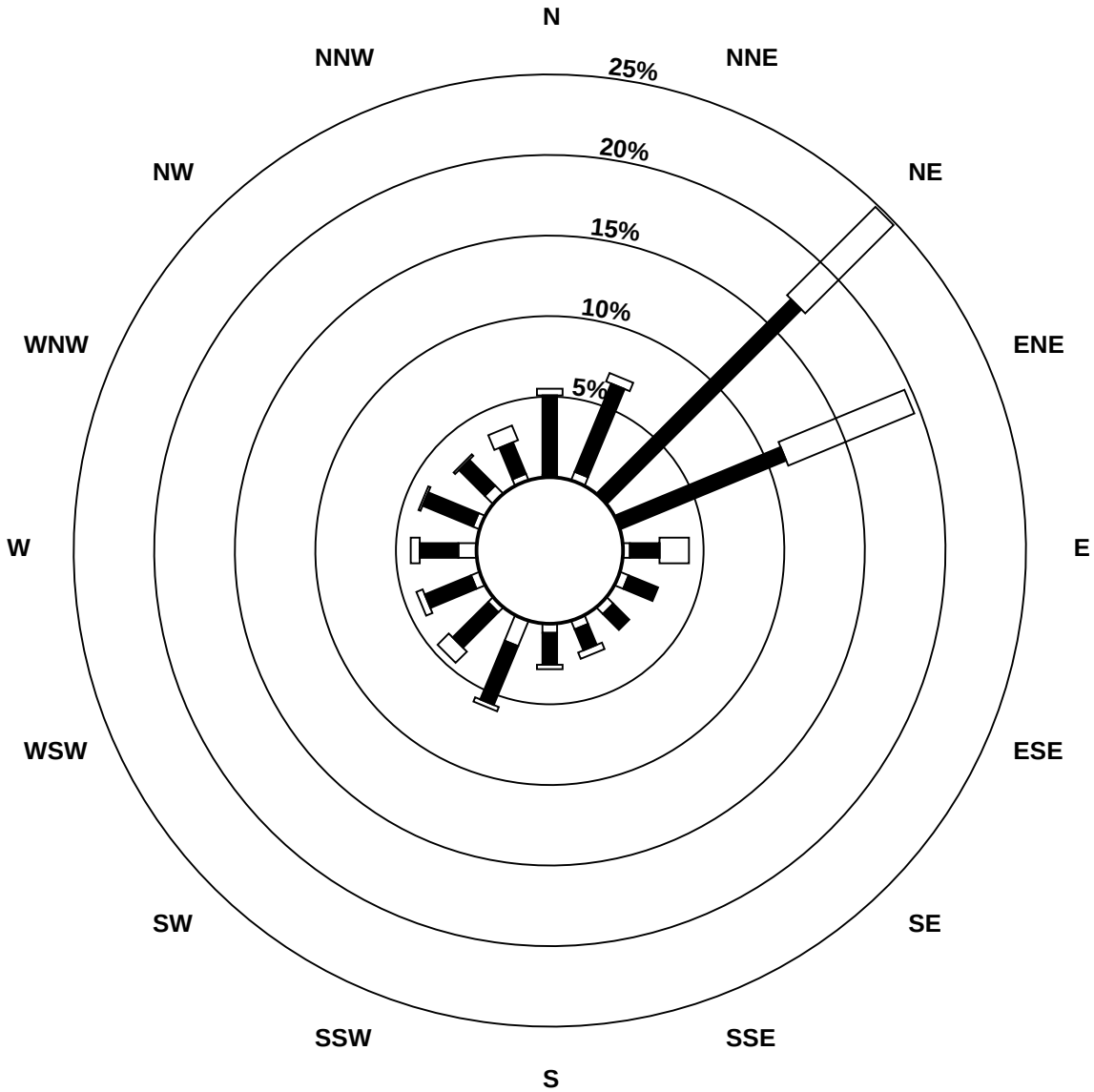
Henry Pirker - May 2015



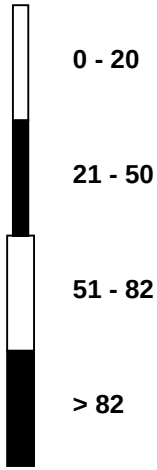
Pollutant Rose

Ozone (O_3) - ppb

Henry Pirker - May 2015



Pollutant Classes (ppb)



Peace Airshed Zone Association

Eight Hour Running Averages

Ozone (O_3) - ppb

Henry Pirker - May 2015

Maximum Value: 66.5 ppb on May 24 19:00

Minimum Value: 1.4 ppb on May 8 07:00

Percentiles: P_1 = 11.5 P_{10} = 24.6 Q_1 = 32.8 Median = 41.2 Q_3 = 48.8 P_{90} = 56.2 P_{99} = 64.1

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	50	49	49	48	46	44	41	40	39	39	40	39	39	N	N	N	N	N	N	N	52	51	50	48	51.7
2-May	47	45	45	43	42	41	40	40	39	39	40	41	42	42	43	44	44	44	44	43	42	40	38	36	47.0
3-May	33	31	27	24	22	20	18	18	20	23	26	30	34	37	40	42	43	44	44	43	43	41	39	36	43.8
4-May	35	34	32	30	28	27	25	24	23	22	21	21	22	23	25	26	28	30	32	33	33	33	33	33	35.1
5-May	33	32	32	31	31	30	28	27	25	24	23	22	21	21	21	22	24	25	27	29	30	32	31	31	32.6
6-May	30	30	30	29	29	28	28	29	30	32	33	35	36	37	40	42	43	43	44	44	44	43	42	41	44.5
7-May	39	38	37	35	34	33	31	30	28	28	28	28	28	31	35	37	41	42	44	45	44	41	36	31	45.0
8-May	26	20	15	9	5	2	1	2	5	8	12	13	20	26	33	39	43	46	49	49	49	46	42	38	49.2
9-May	33	29	24	19	15	12	12	13	15	17	17	23	29	35	41	45	48	51	51	50	49	47	45	43	50.8
10-May	41	40	39	38	37	37	36	36	36	35	36	38	40	43	46	48	51	52	53	54	54	53	52	52	54.1
11-May	51	49	48	46	45	44	42	41	40	39	39	40	43	46	49	53	54	56	59	60	59	58	57	55	59.5
12-May	53	51	49	47	46	45	43	43	43	44	45	47	50	53	56	58	60	62	63	64	64	63	62	61	63.8
13-May	59	56	54	52	49	47	46	45	45	45	47	49	51	53	54	56	58	59	60	61	61	60	59	58	60.7
14-May	57	55	53	51	49	48	46	44	43	43	45	47	48	50	52	54	56	56	56	55	54	52	51	49	56.7
15-May	48	46	44	41	40	38	36	34	33	32	33	35	37	40	43	45	48	50	51	51	51	51	50	48	51.5
16-May	46	44	42	41	39	37	36	35	35	35	37	38	39	41	42	43	44	45	46	46	46	45	44	43	46.1
17-May	41	38	37	35	32	29	27	26	25	26	27	29	31	34	36	39	42	44	45	46	47	47	47	46	47.2
18-May	45	45	43	40	38	36	35	34	34	35	36	38	41	43	46	49	51	53	54	55	55	54	52	51	55.2
19-May	51	49	47	45	43	42	40	39	39	39	40	42	44	47	50	52	55	57	58	58	57	56	55	54	57.9
20-May	52	51	49	47	46	44	43	42	41	41	41	42	44	47	50	53	56	58	60	62	61	59	59	57	61.6
21-May	53	49	43	37	31	27	27	26	25	24	26	31	37	43	47	52	56	60	62	62	60	60	57	54	62.4
22-May	49	44	38	32	28	26	23	20	20	22	26	31	37	42	48	53	57	60	61	61	61	58	55	52	60.8
23-May	49	46	43	40	38	36	33	32	32	32	35	38	43	49	55	59	62	64	65	65	62	59	56	53	64.9
24-May	50	47	44	44	43	40	37	36	36	36	38	40	43	50	55	60	62	65	66	66	65	63	60	57	66.5
25-May	54	51	49	46	43	40	37	34	33	32	34	38	42	48	54	58	61	64	63	62	59	55	49	45	63.6
26-May	41	39	36	32	28	26	23	21	21	23	25	28	32	37	42	46	48	51	52	51	49	46	44	41	51.9
27-May	39	35	31	27	23	19	16	15	15	16	18	22	27	33	37	40	42	43	43	42	39	36	34	33	43.4
28-May	32	30	29	28	27	26	26	26	25	25	26	27	28	30	31	34	37	41	43	45	46	46	45	44	46.1
29-May	42	40	38	37	36	35	34	34	34	35	36	38	40	41	44	47	49	51	51	52	51	51	49	48	51.7
30-May	46	45	44	43	42	42	41	41	40	39	38	36	36	35	36	36	37	39	39	39	37	36	33	29	46.3
31-May	26	23	20	18	16	15	14	14	15	15	17	17	20	24	27	29	32	34	36	37	37	37	36	35	37.1
Diurnal Maximums	58.6	56.3	54.0	51.5	49.4	48.1	46.2	44.7	44.7	45.4	46.7	48.5	50.8	53.2	56.5	59.6	62.5	64.9	66.5	66.4	65.4	63.3	62.3	60.7	

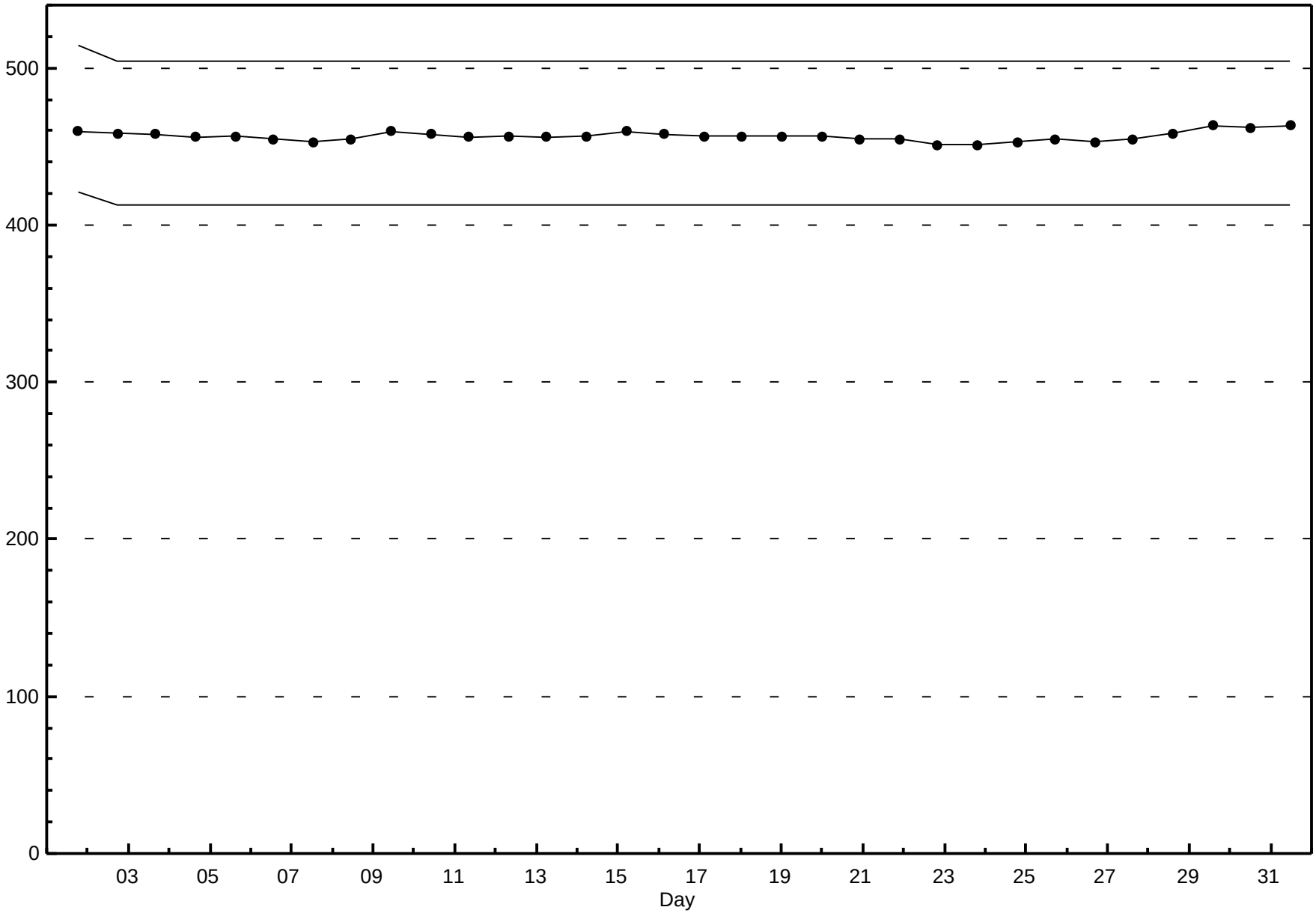
N - Not Valid

Peace Airshed Zone Association

Span Responses

Ozone (O_3)

Henry Pirker - May 2015



Peace Airshed Zone Association

Hourly Averages

Carbon Monoxide (CO) - ppm

Henry Pirker - May 2015

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

Maximum Value: 0.70 ppm on May 23 04:00

Maximum Daily Average: 0.29 ppm on May 8

Minimum Value: 0.0 ppm on May 4 17:00

Minimum Daily Average: 0.13 ppm on May 5

Maximum Diurnal Average: 0.22 ppm at hour 7

Minimum Diurnal Average: 0.16 ppm at hour 18

Monthly Average: 0.183 ppm

Percentiles: P_1 = 0.04 P_{10} = 0.15 Q_1 = 0.15 Median = 0.17 Q_3 = 0.19 P_{90} = 0.23 P_{99} = 0.48

Hours in Service:	744
Hours of Data:	706
Hours of Missing Data:	38
Hours of Calibration:	36
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	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.19	0.26
2-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.3	0.2	0.2	0.2	0.2	0.19	0.25
3-May	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.22	0.32
4-May	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	C	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.24	0.47
5-May	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	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.13	0.18
6-May	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	A	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.16	0.21
7-May	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.5	0.6	0.23	0.62
8-May	0.7	0.5	0.4	0.2	0.2	0.4	0.6	0.4	0.2	0.2	0.3	A	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.4	0.5	0.29	0.67
9-May	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20	0.44
10-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.17	0.23
11-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	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18	0.26
12-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.16	0.19
13-May	0.1	0.1	0.1	0.1	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	0.16	0.18
14-May	0.2	0.2	0.1	0.2	0.2	A	0.2	0.2	M	M	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.17	0.20
15-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	0.18	0.21
16-May	0.2	0.2	0.2	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.15	0.20
17-May	0.2	0.2	A	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.16	0.17
18-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	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.16	0.24
19-May	A	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	0.2	0.2	0.2	0.2	0.2	0.2	A	0.16	0.19
20-May	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	A	0.2	0.16	0.22
21-May	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.3	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.20	0.36
22-May	0.3	0.2	0.2	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.2	0.2	A	0.3	0.2	0.2	0.20	0.33
23-May	0.2	0.2	0.2	0.7	0.3	0.2	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	A	0.2	0.2	0.2	0.2	0.21	0.70
24-May	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.20	0.26
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	A	0.2	0.2	0.2	0.2	0.2	0.2	0.18	0.21
26-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	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20	0.24
27-May	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.21	0.28
28-May	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.2	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.15	0.22
29-May	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	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	0.15	0.17
30-May	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	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	0.17	0.22
31-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	0.16	0.19
	0.20	0.19	0.18	0.19	0.18	0.20	0.22	0.21	0.20	0.19	0.19	0.17	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.17	0.19	0.20	0.20	0.20	Diurnal Average	
	0.67	0.52	0.42	0.70	0.37	0.40	0.56	0.44	0.45	0.45	0.47	0.24	0.19	0.22	0.22	0.19	0.26	0.21	0.23	0.25	0.27	0.32	0.55	0.62	Diurnal Maximum	

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

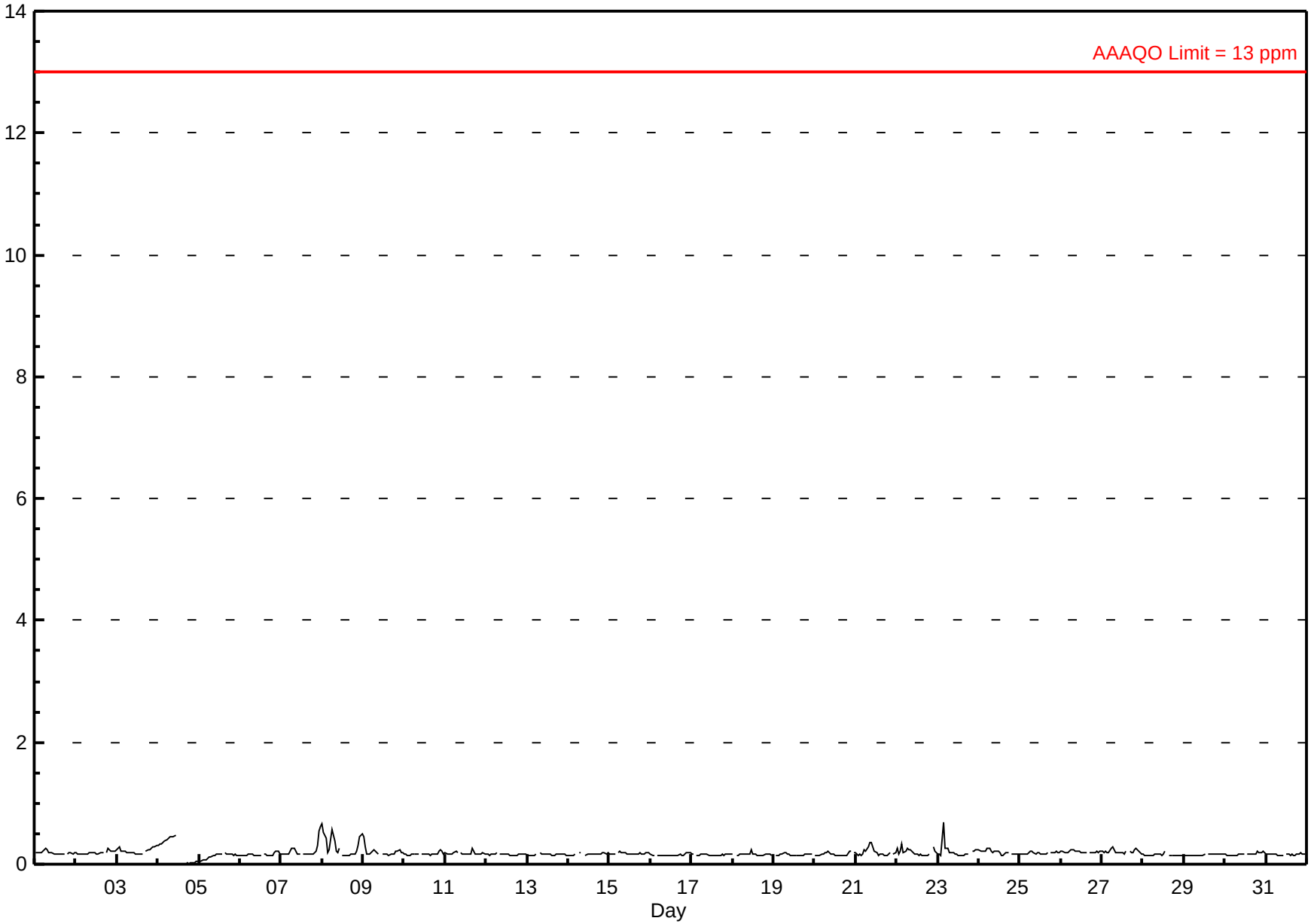
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 13 ppm 24-hr na

Peace Airshed Zone Association

Hourly Averages

Carbon Monoxide (CO) - ppm

Henry Pirker - May 2015



Peace Airshed Zone Association

Hourly Maximums

Carbon Monoxide (CO) - ppm

Henry Pirker - May 2015

Maximum Value: 2.08 ppm on May 23 04:00

Maximum Daily Average: 0.46 ppm on May 8

Minimum Value: 0.0 ppm on May 4 19:00

Minimum Daily Average: 0.17 ppm on May 31

Maximum Diurnal Average: 0.28 ppm at hour 7

Minimum Diurnal Average: 0.19 ppm at hour 16

Monthly Average: 0.232 ppm

Percentiles: $P_1 = 0.05$ $P_{10} = 0.16$ $Q_1 = 0.17$ Median = 0.20 $Q_3 = 0.24$ $P_{90} = 0.33$ $P_{99} = 0.80$

Hours in Service:	744
Hours of Data:	706
Hours of Missing Data:	38
Hours of Calibration:	36
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	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	0.21	0.32
2-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.3	0.3	0.3	0.3	0.2	0.3	0.21	0.28
3-May	0.3	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	A	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.25	0.37
4-May	0.3	0.3	0.4	0.4	0.4	0.5	0.7	0.5	0.5	0.5	0.5	C	C	C	C	C	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.28	0.68
5-May	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.1	0.3	0.2	0.2	0.3	A	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.18	0.33
6-May	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.3	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.2	0.19	0.34
7-May	0.2	0.2	0.2	0.2	0.2	0.4	0.4	0.4	0.3	0.2	0.2	0.2	A	0.2	0.5	0.3	0.2	0.2	0.4	0.3	0.2	0.4	0.8	0.7	0.31	0.80
8-May	0.8	0.6	0.6	0.2	0.3	0.5	0.9	0.5	0.3	0.2	1.6	A	0.2	0.2	0.2	0.2	0.2	0.4	0.2	0.2	0.3	0.4	0.8	0.8	0.46	1.57
9-May	0.6	0.8	0.2	0.2	0.2	0.3	0.3	0.4	0.2	0.3	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.27	0.79
10-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.20	0.30
11-May	0.5	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	0.3	0.7	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.25	0.65
12-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
13-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	0.23
14-May	0.2	0.2	0.2	0.2	0.2	A	0.3	0.3	M	M	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20	0.30
15-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	0.3	0.2	0.2	0.6	0.2	0.2	0.22	0.56
16-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	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.19	0.36
17-May	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.18	0.25
18-May	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.8	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21	0.83
19-May	A	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.19	0.28
20-May	0.2	0.2	0.2	0.2	0.4	0.2	0.2	0.5	0.8	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.3	0.3	A	0.2	0.24	0.81
21-May	0.3	0.2	0.2	0.2	0.5	0.3	0.3	0.3	0.4	0.5	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	A	0.3	0.3	0.26	0.47
22-May	0.8	0.3	0.9	0.8	0.2	0.3	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.5	0.3	0.2	0.31	0.95
23-May	0.2	0.2	0.2	2.1	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.3	0.2	0.2	0.30	2.08
24-May	0.3	0.2	0.2	0.2	0.3	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	A	0.2	0.2	0.2	0.2	0.2	0.23	0.41
25-May	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.21	0.35
26-May	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.6	0.2	0.2	0.24	0.56
27-May	0.2	0.2	0.3	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.4	0.2	0.3	A	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.25	0.42
28-May	0.2	0.2	0.2	0.1	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.6	A	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.20	0.58
29-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	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18	0.26
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	A	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.19	0.26
31-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	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	0.17	0.21
Diurnal Average	0.26	0.23	0.23	0.27	0.24	0.26	0.28	0.27	0.25	0.22	0.26	0.22	0.20	0.21	0.21	0.19	0.20	0.20	0.19	0.20	0.22	0.26	0.25	0.24		
Diurnal Maximum	0.79	0.79	0.95	2.08	0.46	0.51	0.91	0.54	0.81	0.54	1.57	0.83	0.42	0.58	0.45	0.28	0.65	0.36	0.35	0.33	0.31	0.56	0.80	0.85		

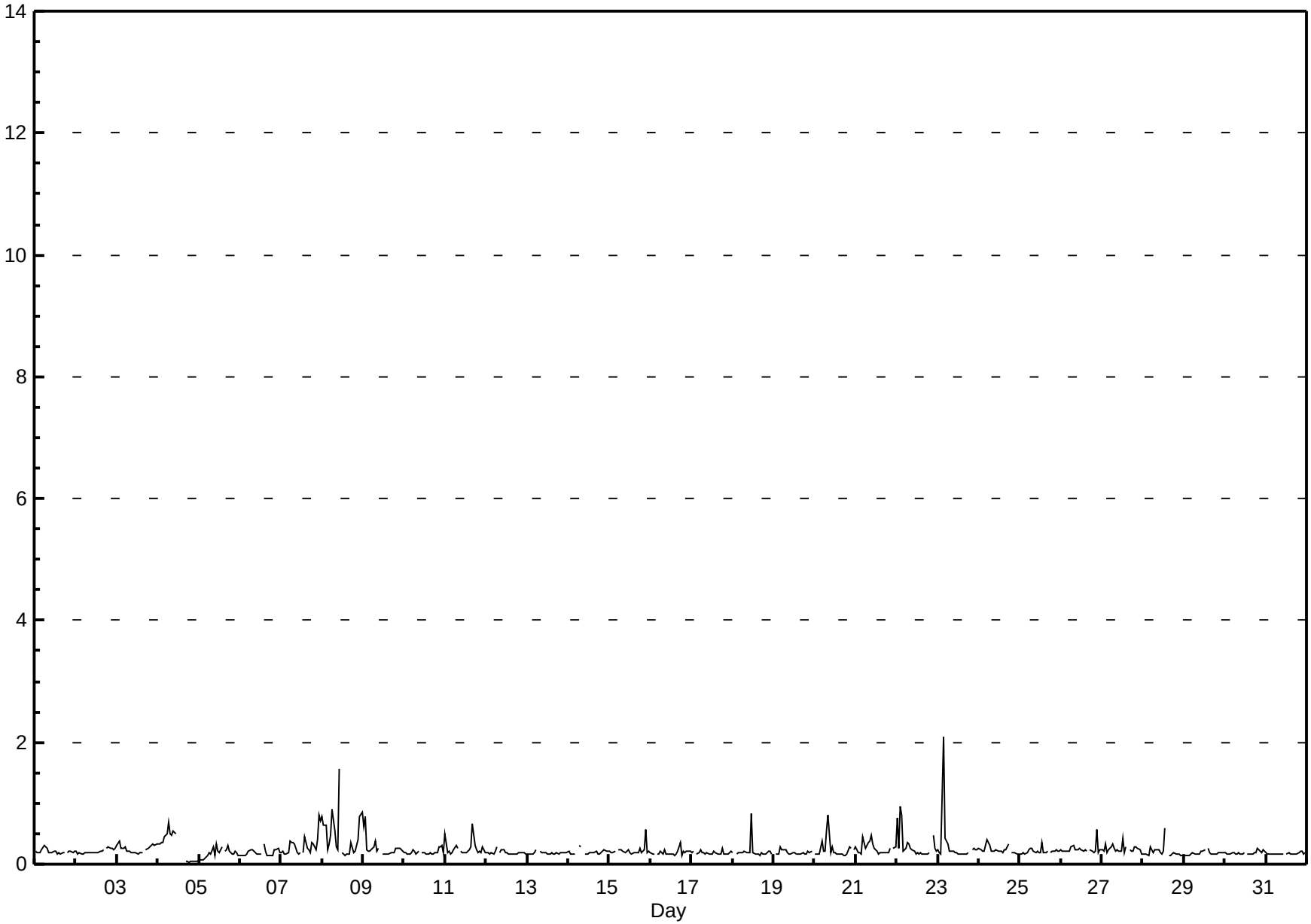
C - Calibration M - Maintenance A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Carbon Monoxide (CO) - ppm

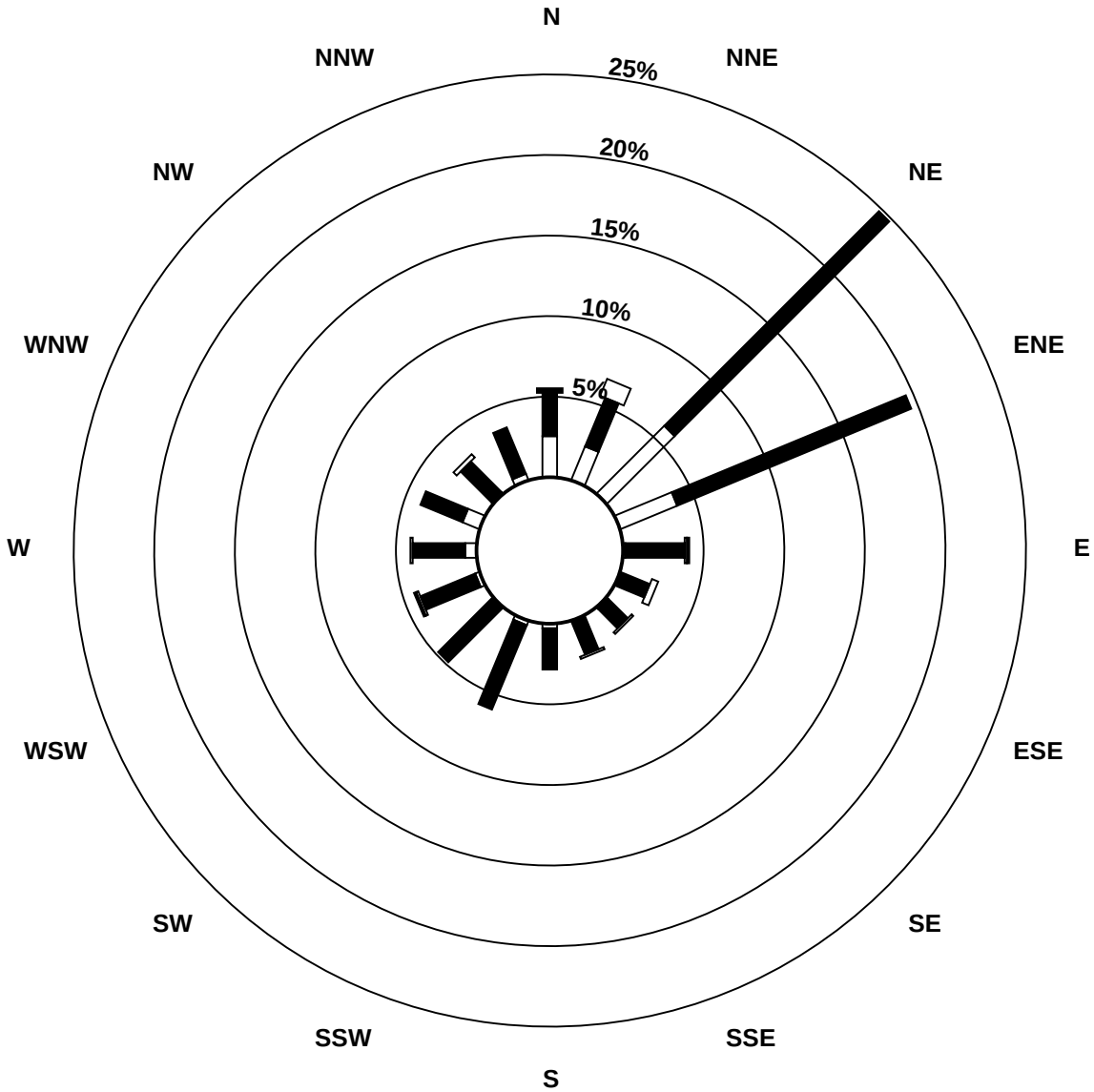
Henry Pirker - May 2015



Pollutant Rose

Carbon Monoxide (CO) - ppm

Henry Pirker - May 2015



Pollutant Classes (ppm)

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

Peace Airshed Zone Association

Eight Hour Running Averages

Carbon Monoxide (CO) - ppm

Henry Pirker - May 2015

Number of Exceedences (AAAQO): 8-hr: 0
Maximum Value: 0.45 ppm on May 8 07:00

Minimum Value: 0.02 ppm on May 4 22:00

Percentiles: P_1 = 0.05 P_{10} = 0.15 Q_1 = 0.16 Median = 0.17 Q_3 = 0.19 P_{90} = 0.22 P_{99} = 0.43

Hours in Service:	744
Hours of Data:	732
Hours of Missing Data:	12
Hours of Calibration:	12
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	0.21
2-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21
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	0.3	0.26
4-May	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	N	N	N	N	N	N	N	N	0.0	0.0	0.0	0.44
5-May	0.0	0.0	0.0	0.0	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	0.2	0.2	0.2	0.2	0.2	0.17
6-May	0.2	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	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.17
7-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.29
8-May	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.45
9-May	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	0.2	0.32
10-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20
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	0.2	0.2	0.19
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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.17
13-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.17
14-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	N	N	N	N	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18
15-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
16-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.18
17-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.17
18-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.17
19-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.17
20-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.18
21-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.27
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	0.24
23-May	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.28
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	0.23
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	0.19
26-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
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	0.22
28-May	0.2	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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.20
29-May	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.17
30-May	0.2	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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19
31-May	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19
Diurnal Maximums	0.36	0.40	0.43	0.43	0.44	0.45	0.45	0.42	0.39	0.40	0.42	0.43	0.44	0.27	0.25	0.24	0.21	0.20	0.19	0.20	0.21	0.23	0.24	0.29	

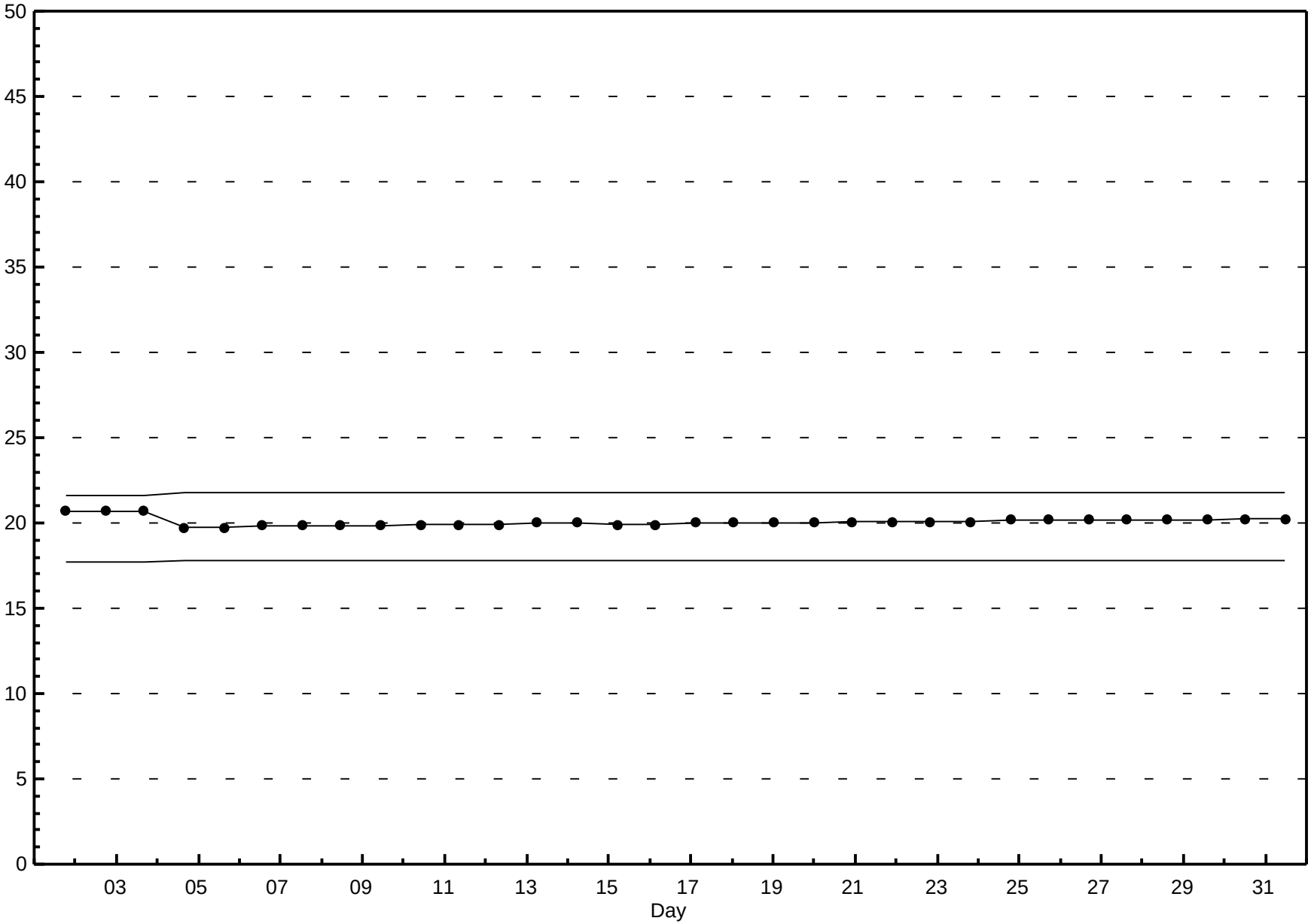
N - Not Valid
Alberta Ambient Air Quality Objectives (AAAQO): 8-hr 5 ppm

Peace Airshed Zone Association

Span Responses

Carbon Monoxide (CO)

Henry Pirker - May 2015



Peace Airshed Zone Association

Hourly Averages

Total Hydrocarbons (THC) - ppm

Henry Pirker - May 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 3.31 ppm on May 8 03:00 Maximum Daily Average: 2.20 ppm on May 8

Minimum Value: 1.8 ppm on May 31 18:00 Minimum Daily Average: 1.88 ppm on May 1
Maximum Diurnal Average: 2.11 ppm at hour 6 Minimum Diurnal Average: 1.88 ppm at hour 18
Monthly Average: 1.951 ppm Percentiles: P_1 = 1.85 P_{10} = 1.87 Q_1 = 1.88 Median = 1.90 Q_3 = 1.93 P_{90} = 2.06 P_{99} = 2.90

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	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.88	1.98
2-May	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	2.2	1.90	2.21
3-May	2.0	2.4	2.4	2.6	2.2	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.01	2.60
4-May	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	C	C	C	C	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.89	1.91
5-May	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1	2.1	1.90	2.10
6-May	2.1	2.2	2.1	1.9	1.9	1.9	2.0	2.0	2.0	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.94	2.16
7-May	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	2.0	2.0	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1	1.94	2.14
8-May	2.2	2.2	3.3	2.3	2.5	2.5	3.1	2.6	2.0	2.0	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.2	2.2	2.7	2.20	3.31
9-May	2.9	3.1	2.5	2.6	2.3	2.7	2.2	2.0	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.11	3.09
10-May	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.89	1.94
11-May	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.90	1.94
12-May	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.89	1.92
13-May	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.89	1.92
14-May	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.89	1.92
15-May	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.89	1.96
16-May	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.88	1.93
17-May	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.91	1.94
18-May	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.92	1.95
19-May	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.91	1.95
20-May	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.1	1.91	2.11
21-May	2.3	2.1	2.6	2.4	2.6	2.9	2.1	2.0	2.1	2.1	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	A	2.0	2.3	2.10	2.85
22-May	3.1	2.4	2.3	2.4	2.3	2.2	2.2	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	2.07	3.14
23-May	1.9	1.9	1.9	2.2	2.1	2.7	2.2	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.97	2.67
24-May	1.9	1.9	1.9	1.9	1.9	2.5	2.4	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	2.0	2.0	1.97	2.52
25-May	2.0	2.0	2.1	2.0	2.0	2.1	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	2.1	2.0	1.95	2.10
26-May	2.0	2.2	2.0	2.0	2.1	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	2.1	2.0	2.1	2.2	1.98	2.21
27-May	2.3	2.4	2.9	2.8	2.7	3.3	2.2	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.13	3.27
28-May	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.89	1.90
29-May	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.90	1.91
30-May	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.1	2.2	1.93	2.15
31-May	2.0	1.9	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	A	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	2.0	2.1	1.92	2.15
	2.03	2.03	2.08	2.05	2.03	2.11	2.03	1.97	1.93	1.92	1.91	1.90	1.89	1.88	1.88	1.88	1.88	1.88	1.88	1.89	1.90	1.92	1.96	2.00	Diurnal Average	
	3.14	3.09	3.31	2.79	2.66	3.27	3.08	2.60	2.05	2.06	2.07	1.99	1.93	1.91	1.92	1.90	1.94	1.92	1.93	1.95	2.06	2.16	2.16	2.65	Diurnal Maximum	

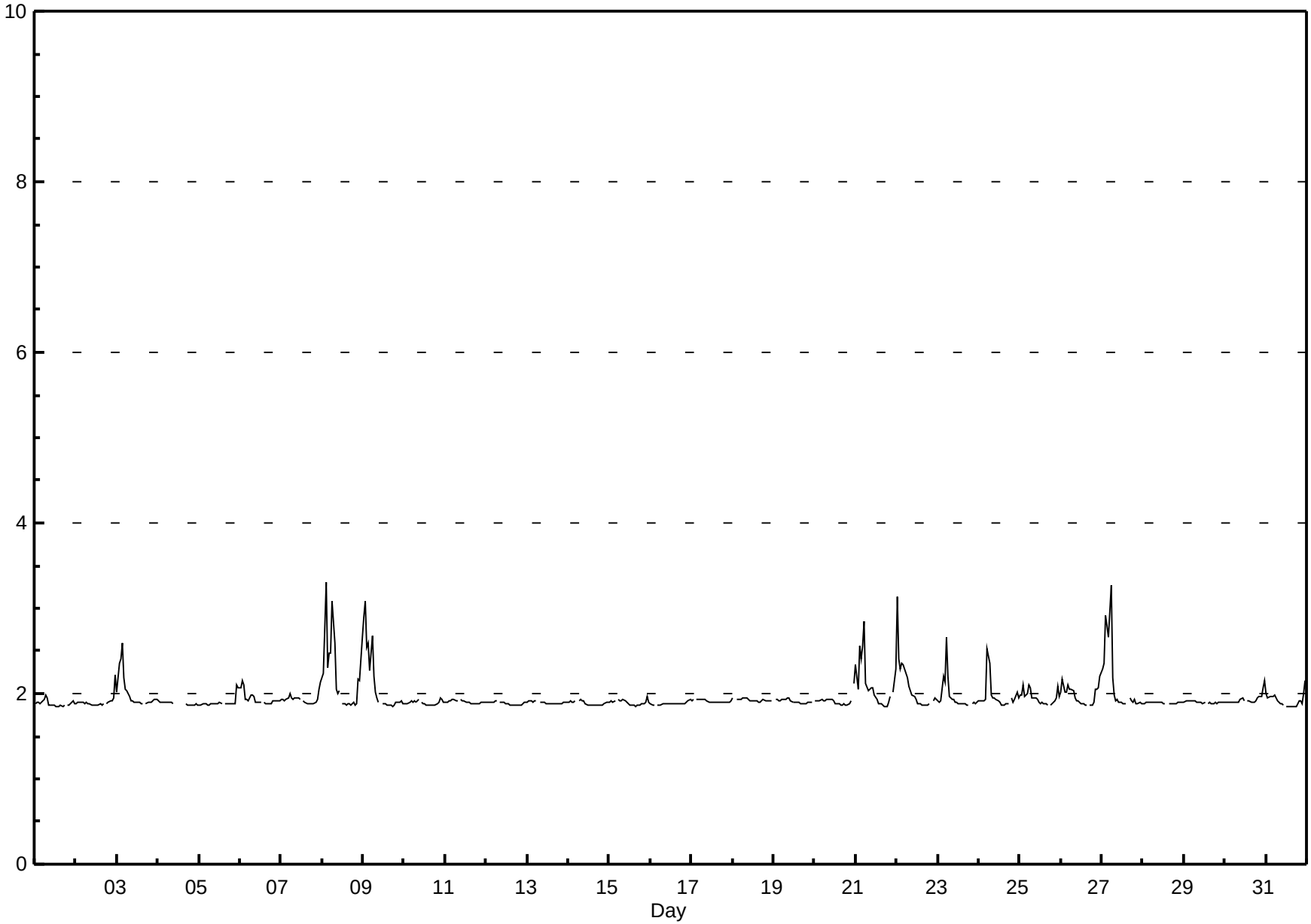
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Total Hydrocarbons (THC) - ppm

Henry Pirker - May 2015



Peace Airshed Zone Association

Hourly Maximums

Total Hydrocarbons (THC) - ppm

Henry Pirker - May 2015

Maximum Value: 16.64 ppm on May 9 02:00

Maximum Daily Average: 3.17 ppm on May 9

Minimum Value: 1.9 ppm on May 31 17:00

Minimum Daily Average: 1.91 ppm on May 12

Maximum Diurnal Average: 2.67 ppm at hour 2

Minimum Diurnal Average: 1.90 ppm at hour 16

Monthly Average: 2.104 ppm

Percentiles: P_1 = 1.87 P_{10} = 1.89 Q_1 = 1.90 Median = 1.93 Q_3 = 1.98 P_{90} = 2.31 P_{99} = 5.11

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	1.9	1.9	1.9	1.9	1.9	2.2	2.1	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	2.0	1.9	1.93	2.17
2-May	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1	1.9	1.9	A	1.9	1.9	2.1	2.0	2.3	2.7	1.97	2.69
3-May	2.2	4.6	3.0	3.9	2.5	2.3	2.1	2.0	2.0	2.0	1.9	1.9	1.9	2.0	1.9	1.9	A	1.9	1.9	1.9	2.0	1.9	2.1	2.2	2.27	4.64
4-May	1.9	2.0	1.9	2.0	2.0	2.0	1.9	2.0	2.0	1.9	C	C	C	C	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.94	2.01
5-May	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.3	2.3	1.95	2.30
6-May	2.3	2.3	2.3	2.1	2.0	2.0	2.2	2.1	2.1	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	2.02	2.31
7-May	2.0	2.0	1.9	1.9	2.1	2.5	2.0	2.0	2.0	2.1	2.0	2.0	A	2.0	2.0	1.9	2.0	1.9	1.9	1.9	2.0	2.0	2.2	2.2	2.01	2.47
8-May	2.4	2.5	5.5	2.6	2.6	2.6	3.9	3.0	2.3	2.1	2.1	A	1.9	1.9	1.9	2.0	1.9	1.9	2.1	1.9	1.9	2.9	4.0	5.3	2.66	5.52
9-May	5.6	16.6	5.9	4.5	3.1	3.7	2.6	2.1	2.0	1.9	A	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	3.17	16.64
10-May	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.9	1.92	2.00
11-May	1.9	1.9	1.9	1.9	2.1	2.0	2.1	1.9	A	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.94	2.08
12-May	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.91	1.94
13-May	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.91	1.94
14-May	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.91	1.96
15-May	1.9	1.9	1.9	2.0	A	2.0	1.9	2.0	2.0	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1	1.9	2.1	2.3	2.0	1.96	2.26
16-May	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	2.0	2.0	1.91	1.96
17-May	2.0	2.0	A	1.9	2.0	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.93	1.98
18-May	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.94	1.98
19-May	A	1.9	2.0	2.0	2.0	2.0	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.93	2.02
20-May	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.9	1.97	2.92
21-May	6.6	2.4	3.6	4.0	3.7	5.1	3.0	2.1	2.1	2.1	2.2	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.1	2.3	A	2.4	3.8	2.73	6.63
22-May	5.2	3.2	2.9	2.8	3.0	2.6	2.3	2.2	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	2.0	2.0	2.31	5.20
23-May	1.9	2.0	2.0	2.7	2.6	3.8	2.5	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	2.10	3.77
24-May	2.2	1.9	2.0	2.0	2.0	6.0	3.1	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.5	2.0	2.1	2.3	2.2	2.25	5.99
25-May	2.6	2.4	2.7	2.1	2.3	2.9	2.2	2.1	2.0	2.0	2.0	1.9	1.9	2.0	1.9	1.9	1.9	A	1.9	2.0	2.1	2.2	2.8	2.1	2.16	2.89
26-May	2.2	2.5	2.5	2.1	2.3	2.1	2.1	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	2.2	2.7	2.9	2.5	2.7	2.18	2.91
27-May	3.0	3.0	4.3	3.2	3.7	4.0	2.5	2.0	1.9	2.0	2.0	2.0	1.9	1.9	2.0	A	2.1	2.0	2.0	2.4	1.9	1.9	1.9	1.9	2.42	4.32
28-May	1.9	1.9	1.9	1.9	1.9	2.1	1.9	2.0	1.9	1.9	1.9	2.0	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.92	2.07
29-May	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.92	1.98
30-May	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	A	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.2	2.1	2.2	2.3	1.99	2.29
31-May	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.4	2.1	2.0	2.4	3.0	2.04	3.02
	2.44	2.67	2.45	2.30	2.24	2.49	2.19	2.03	1.97	1.96	1.95	1.93	1.91	1.92	1.92	1.90	1.90	1.90	1.91	1.99	1.99	2.02	2.15	2.28	Diurnal Average	
	6.63	16.64	5.91	4.49	3.75	5.99	3.90	2.96	2.32	2.14	2.19	2.11	1.99	2.03	2.07	1.96	2.06	2.02	2.06	2.52	2.68	2.91	3.99	5.26	Diurnal Maximum	

C - Calibration

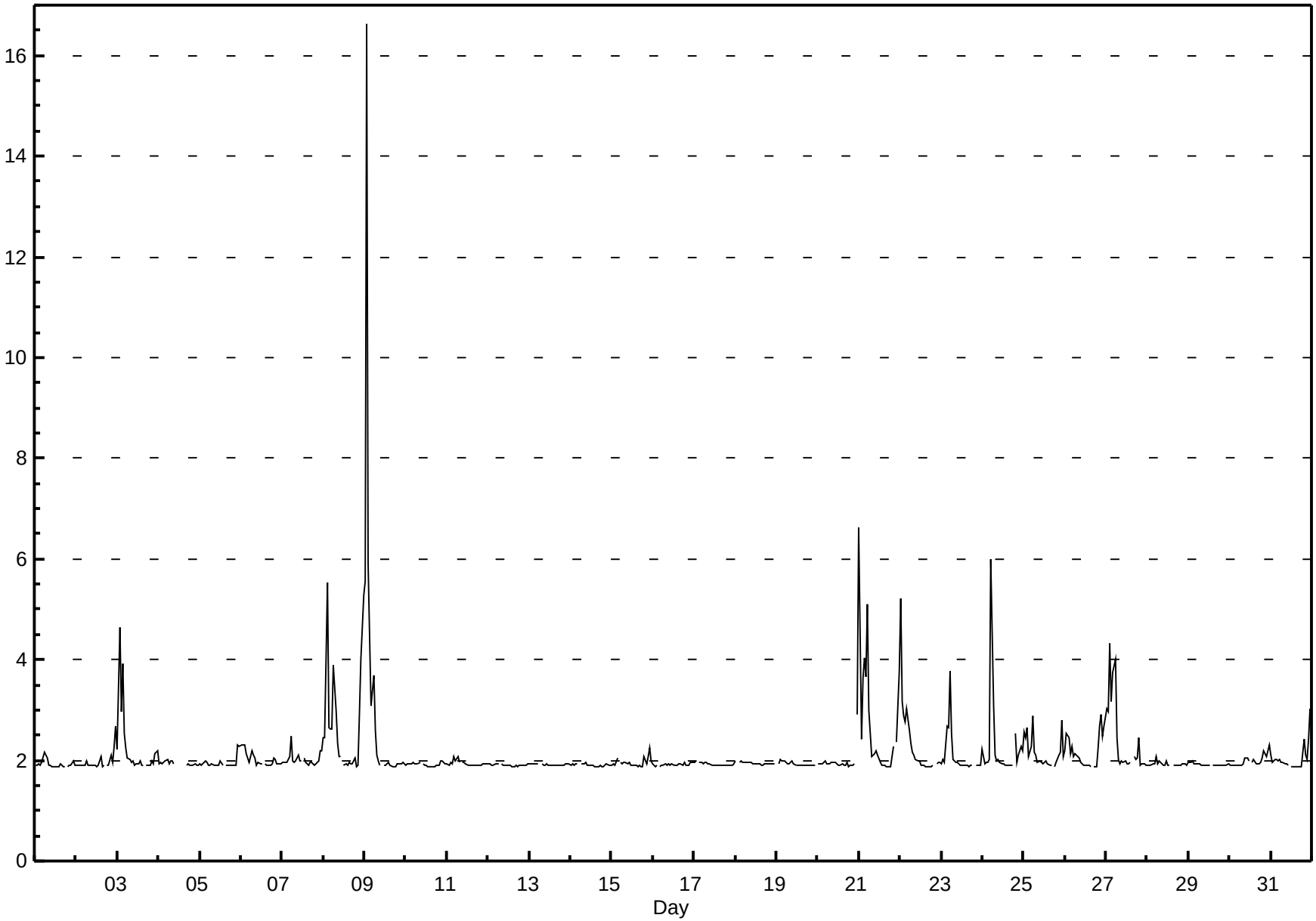
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Total Hydrocarbons (THC) - ppm

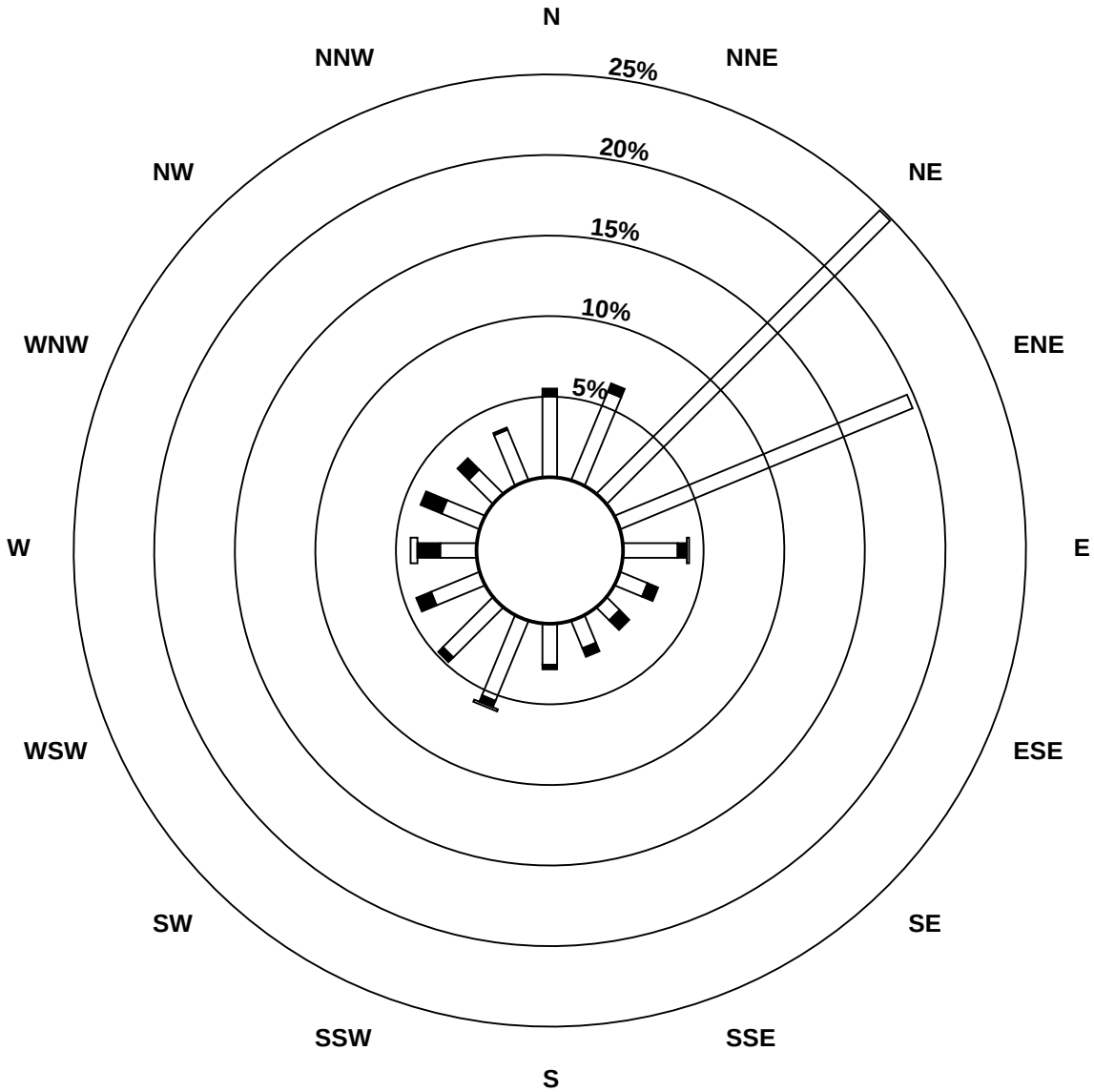
Henry Pirker - May 2015



Pollutant Rose

Total Hydrocarbons (THC) - ppm

Henry Pirker - May 2015



Pollutant Classes (ppm)

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

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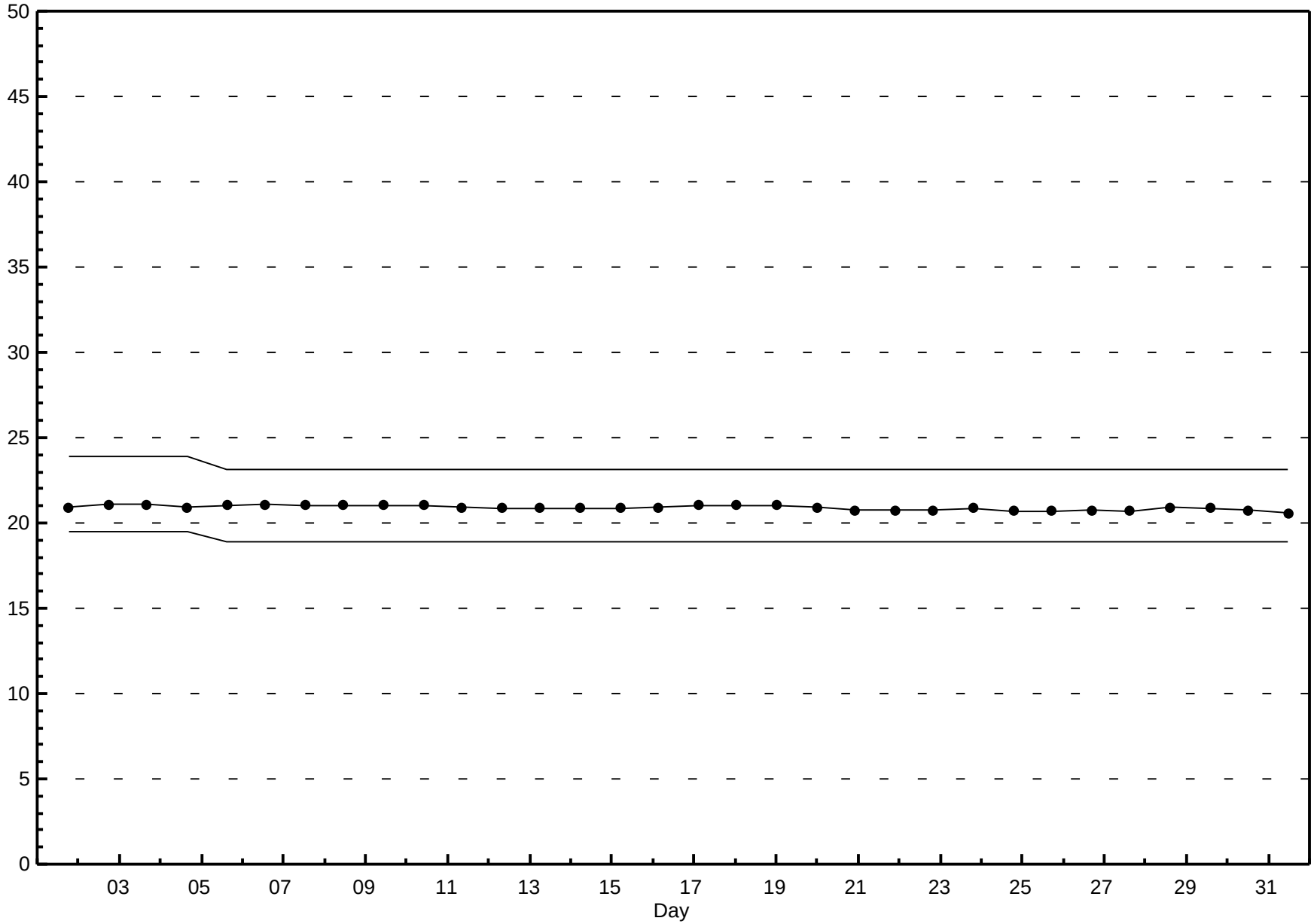
Span Responses

Total Hydrocarbons (THC)

Henry Pirker - May 2015



Peace Airshed Zone Association

Hourly Averages

Methane (CH_4) - ppm

Henry Pirker - May 2015

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

Maximum Value: 3.34 ppm on May 8 03:00

Maximum Daily Average: 2.22 ppm on May 8

Minimum Value: 1.9 ppm on May 31 18:00

Minimum Daily Average: 1.90 ppm on May 1

Maximum Diurnal Average: 2.13 ppm at hour 6

Minimum Diurnal Average: 1.89 ppm at hour 18

Monthly Average: 1.969 ppm

Percentiles: P_1 = 1.87 P_{10} = 1.89 Q_1 = 1.90 Median = 1.92 Q_3 = 1.95 P_{90} = 2.08 P_{99} = 2.92

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	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.90	2.00
2-May	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	2.0	2.2	1.92	2.23
3-May	2.0	2.4	2.4	2.6	2.2	2.1	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.02	2.62
4-May	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	C	C	C	C	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.91	1.93
5-May	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1	2.1	1.91	2.12
6-May	2.1	2.2	2.1	1.9	2.0	1.9	2.0	2.0	2.0	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.96	2.18
7-May	1.9	2.0	1.9	1.9	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1	2.2	1.95	2.15
8-May	2.2	2.2	3.3	2.3	2.5	2.5	3.1	2.6	2.1	2.0	2.1	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.2	2.2	2.7	2.22	3.34
9-May	2.9	3.0	2.6	2.6	2.3	2.7	2.2	2.0	2.0	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.13	3.02
10-May	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.91	1.96
11-May	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	A	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.92	1.95
12-May	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.91	1.93
13-May	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.91	1.94
14-May	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.91	1.94
15-May	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.91	1.98
16-May	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.90	1.95
17-May	1.9	1.9	A	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.93	1.96
18-May	2.0	A	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.94	1.96
19-May	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.93	1.97
20-May	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.1	1.93	2.13
21-May	2.4	2.1	2.6	2.4	2.6	2.9	2.1	2.0	2.1	2.1	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	A	2.0	2.3	2.12	2.88
22-May	3.2	2.4	2.3	2.4	2.4	2.3	2.2	2.1	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	2.0	1.9	2.09	3.16
23-May	1.9	1.9	1.9	2.2	2.2	2.7	2.2	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.98	2.69
24-May	1.9	1.9	1.9	1.9	2.0	2.5	2.4	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.0	1.9	1.9	2.0	2.0	1.98	2.54
25-May	2.0	2.0	2.1	2.0	2.0	2.1	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	2.0	2.1	2.0	1.97	2.12
26-May	2.0	2.2	2.0	2.0	2.1	2.1	2.1	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	2.1	2.1	2.1	2.2	2.00	2.23
27-May	2.3	2.4	2.9	2.8	2.7	3.3	2.2	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.15	3.30
28-May	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.91	1.92
29-May	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.92	1.93
30-May	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.1	2.2	1.95	2.17
31-May	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.2	1.94	2.17
	2.05	2.04	2.09	2.06	2.05	2.13	2.05	1.98	1.95	1.94	1.93	1.92	1.90	1.90	1.90	1.89	1.89	1.89	1.89	1.91	1.92	1.94	1.97	2.02	Diurnal Average	
	3.16	3.02	3.34	2.81	2.68	3.30	3.10	2.62	2.07	2.08	2.08	2.00	1.94	1.93	1.94	1.92	1.96	1.93	1.94	1.97	2.07	2.18	2.18	2.68	Diurnal Maximum	

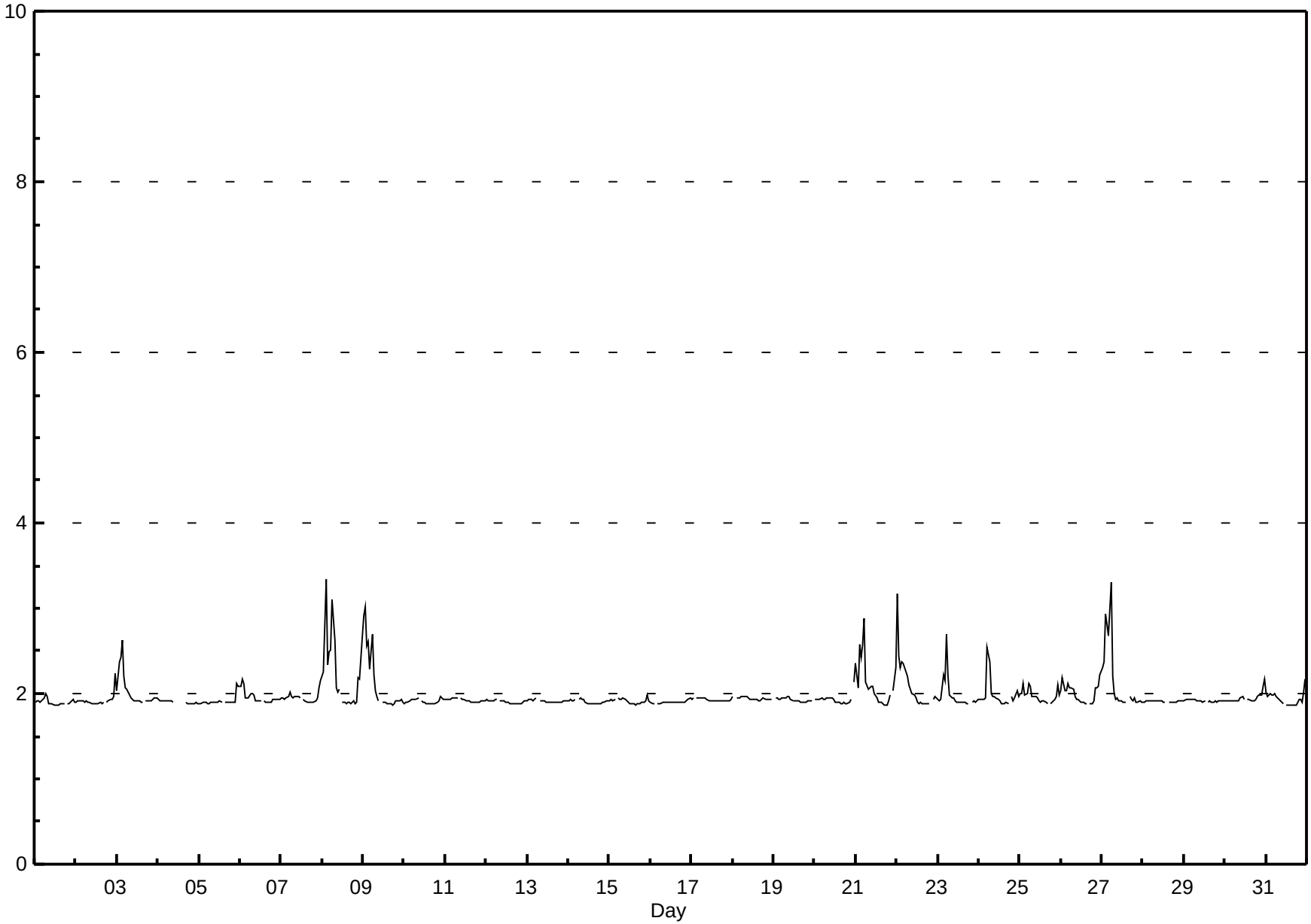
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Methane (CH_4) - ppm

Henry Pirker - May 2015



Peace Airshed Zone Association

Hourly Maximums

Methane (CH_4) - ppm

Henry Pirker - May 2015

Maximum Value: 14.35 ppm on May 9 02:00

Maximum Daily Average: 3.09 ppm on May 9

Minimum Value: 1.9 ppm on May 31 18:00

Minimum Daily Average: 1.93 ppm on May 12

Maximum Diurnal Average: 2.62 ppm at hour 2

Minimum Diurnal Average: 1.92 ppm at hour 16

Monthly Average: 2.119 ppm

Percentiles: P_1 = 1.89 P_{10} = 1.91 Q_1 = 1.92 Median = 1.95 Q_3 = 2.01 P_{90} = 2.33 P_{99} = 5.16

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	1.9	1.9	2.0	1.9	2.0	2.2	2.1	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	A	1.9	1.9	1.9	2.0	1.9	1.94	2.18
2-May	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1	1.9	1.9	A	1.9	1.9	2.1	2.0	2.3	2.7	1.99	2.70
3-May	2.2	4.7	3.0	4.0	2.6	2.3	2.1	2.0	2.0	2.0	1.9	2.0	2.0	2.0	1.9	1.9	A	1.9	1.9	1.9	2.0	2.0	2.1	2.2	2.29	4.68
4-May	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	C	C	C	C	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.96	2.03
5-May	1.9	1.9	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.3	2.3	1.97	2.32
6-May	2.3	2.3	2.3	2.1	2.1	2.0	2.2	2.1	2.1	1.9	2.0	2.0	1.9	A	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.04	2.33
7-May	2.0	2.0	2.0	2.0	2.1	2.5	2.0	2.0	2.0	2.1	2.0	2.0	A	2.0	2.0	1.9	2.0	2.0	1.9	1.9	2.0	2.0	2.2	2.2	2.03	2.49
8-May	2.5	2.5	5.6	2.7	2.6	2.6	3.9	3.0	2.3	2.1	2.1	A	1.9	1.9	1.9	2.0	2.0	1.9	2.1	1.9	1.9	2.9	4.0	5.3	2.68	5.58
9-May	5.6	14.3	6.0	4.5	3.1	3.7	2.6	2.1	2.0	1.9	A	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	3.09	14.35
10-May	1.9	1.9	1.9	2.0	2.0	2.0	2.0	1.9	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.9	1.94	2.02
11-May	1.9	1.9	2.0	2.0	2.1	2.0	2.1	2.0	A	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.96	2.10
12-May	1.9	1.9	1.9	1.9	2.0	2.0	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.93	1.95
13-May	1.9	1.9	1.9	1.9	1.9	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.93	1.96
14-May	1.9	2.0	1.9	1.9	2.0	A	1.9	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.93	1.98
15-May	1.9	1.9	1.9	2.1	A	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1	2.0	2.1	2.3	2.0	1.97	2.28
16-May	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.0	1.9	1.9	1.9	2.0	1.9	1.9	2.0	1.9	1.9	1.9	2.0	2.0	1.93	1.98
17-May	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.95	2.00
18-May	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	1.9	2.0	1.96	2.00
19-May	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.95	2.04
20-May	2.0	1.9	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	2.0	A	2.9	1.99	2.95
21-May	6.7	2.4	3.7	4.1	3.7	5.1	3.0	2.1	2.1	2.2	2.2	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.1	2.3	A	2.4	3.8	2.76	6.69
22-May	5.2	3.2	2.9	2.8	3.1	2.6	2.4	2.2	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	2.0	2.0	2.33	5.25
23-May	2.0	2.0	2.0	2.7	2.7	3.8	2.6	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	2.11	3.80
24-May	2.2	1.9	2.0	2.0	2.0	6.1	3.1	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.5	2.0	2.1	2.3	2.2	2.27	6.05
25-May	2.6	2.5	2.7	2.1	2.3	2.9	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	A	1.9	2.0	2.1	2.2	2.8	2.1	2.18	2.92
26-May	2.2	2.6	2.5	2.1	2.3	2.1	2.2	2.1	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	2.3	2.7	2.9	2.5	2.7	2.19	2.93
27-May	3.1	3.0	4.4	3.2	3.8	4.0	2.5	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	A	2.1	2.0	2.1	2.5	1.9	2.0	1.9	1.9	2.44	4.35
28-May	1.9	1.9	1.9	2.0	1.9	2.1	1.9	2.0	2.0	1.9	1.9	2.0	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.94	2.08
29-May	2.0	2.0	2.0	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.94	2.00
30-May	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1	2.1	2.0	A	2.0	2.0	1.9	1.9	2.0	2.0	2.1	2.2	2.1	2.2	2.3	2.01	2.31
31-May	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.4	2.1	2.0	2.4	3.1	2.06	3.06
	2.46	2.62	2.47	2.32	2.26	2.51	2.21	2.04	1.99	1.98	1.96	1.95	1.93	1.93	1.94	1.92	1.92	1.92	1.93	2.01	2.01	2.04	2.17	2.30	Diurnal Average	
	6.69	14.35	5.97	4.53	3.78	6.05	3.94	2.98	2.33	2.16	2.21	2.12	2.00	2.04	2.09	1.97	2.07	2.03	2.07	2.55	2.70	2.93	4.03	5.31	Diurnal Maximum	

C - Calibration

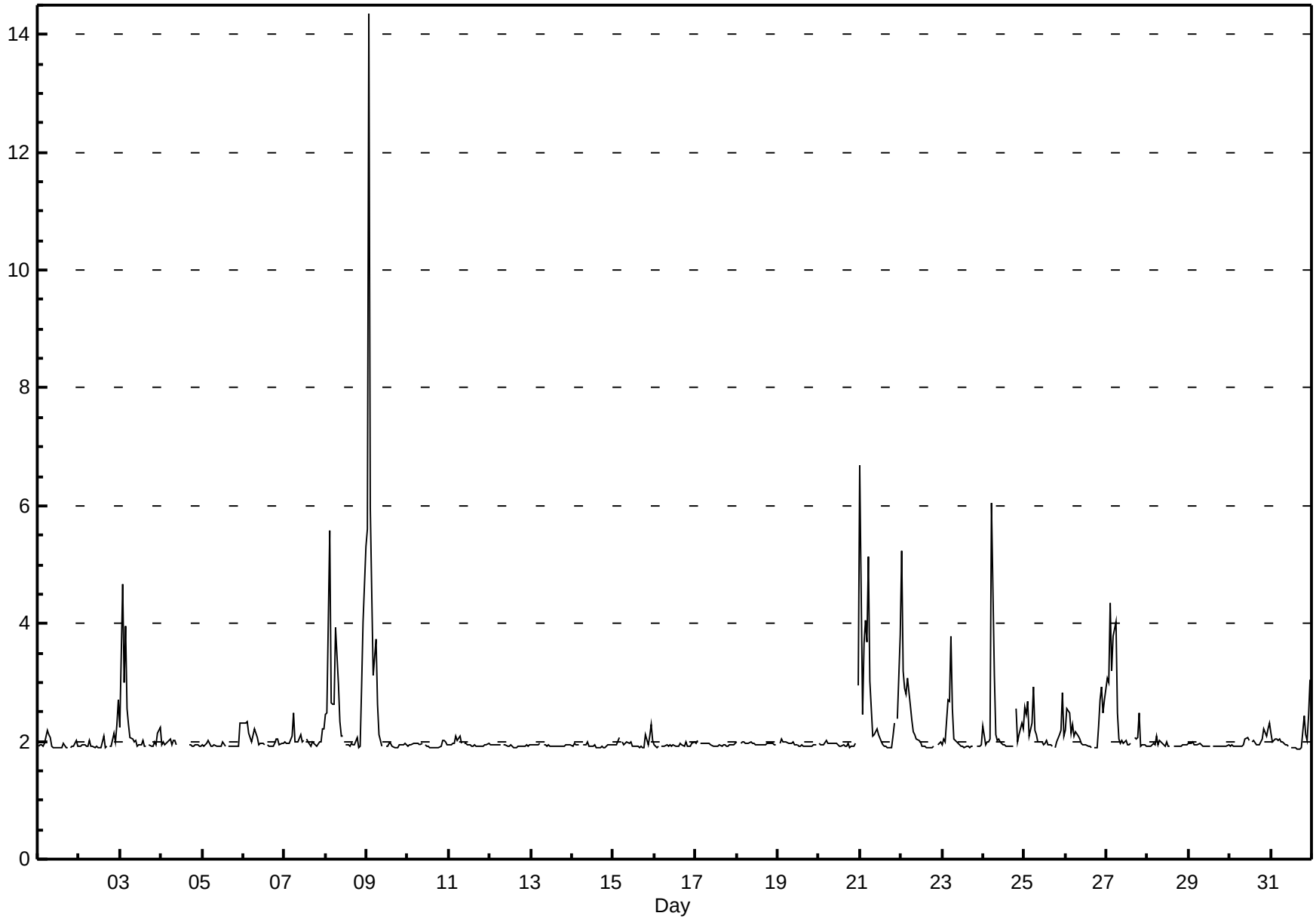
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Methane (CH_4) - ppm

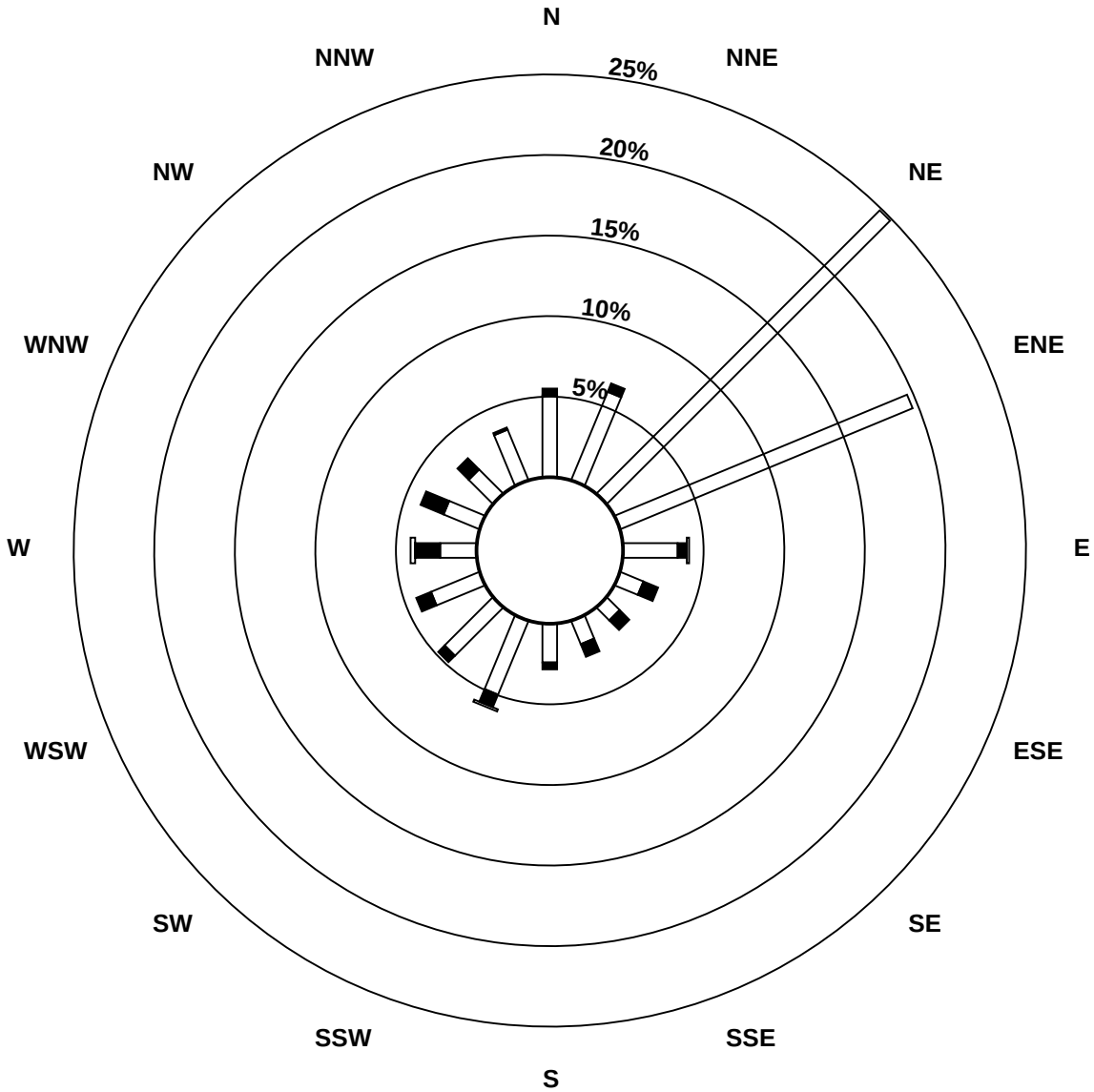
Henry Pirker - May 2015



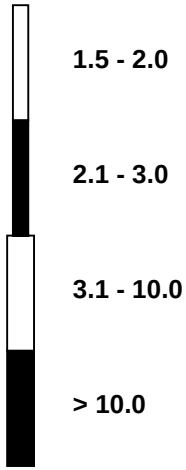
Pollutant Rose

Methane (CH_4) - ppm

Henry Pirker - May 2015



Pollutant Classes (ppm)

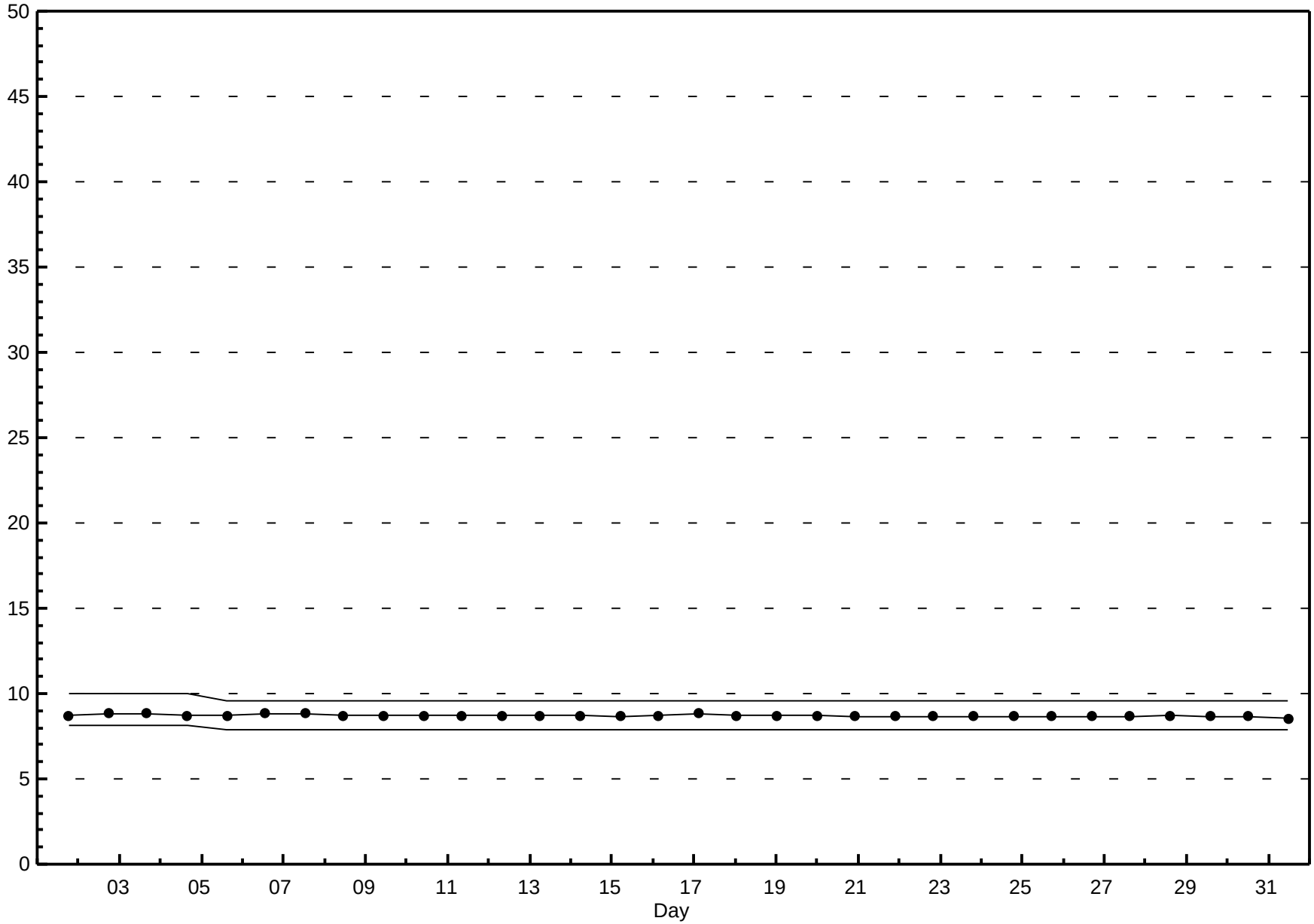


Peace Airshed Zone Association

Span Responses

Methane (CH_4)

Henry Pirker - May 2015



Peace Airshed Zone Association

Hourly Averages

Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - May 2015

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

Maximum Value: 0.09 ppm on May 9 02:00

Maximum Daily Average: 0.00 ppm on May 9

Minimum Value: 0.0 ppm on May 1 01:00

Minimum Daily Average: 0.00 ppm on May 2

Maximum Diurnal Average: 0.00 ppm at hour 2

Minimum Diurnal Average: 0.00 ppm at hour 7

Monthly Average: 0.000 ppm

Percentiles: P_1 = 0.00 P_{10} = 0.00 Q_1 = 0.00 Median = 0.00 Q_3 = 0.00 P_{90} = 0.00 P_{99} = 0.00

Hours in Service:	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.00	0.00
2-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
3-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
4-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C	C	C	C	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
5-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
6-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
7-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
8-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
9-May	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.09
10-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
11-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
12-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
13-May	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
14-May	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
15-May	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
16-May	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
18-May	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
19-May	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.00	0.00
20-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.00	0.00
21-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.00	0.00
22-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.00	0.00
23-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.00	0.00
24-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.00	0.00
25-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
26-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
27-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
28-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
29-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
30-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
31-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Diurnal Average	
	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Diurnal Maximum	

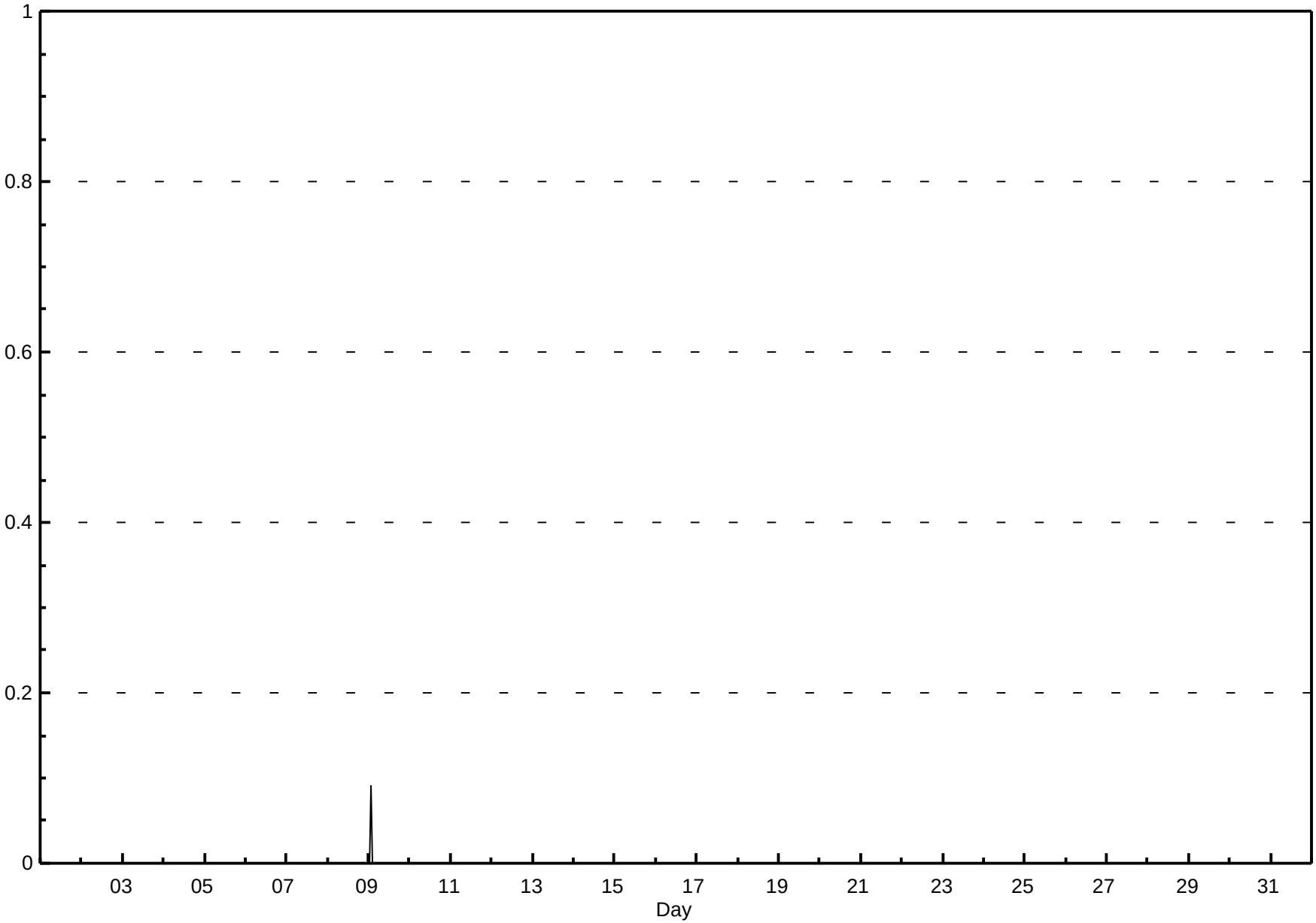
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - May 2015



Peace Airshed Zone Association

Hourly Maximums

Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - May 2015

Maximum Value: 2.39 ppm on May 9 02:00

Maximum Daily Average: 0.10 ppm on May 9

Minimum Value: 0.0 ppm on May 3 14:00

Minimum Daily Average: 0.00 ppm on May 10

Maximum Diurnal Average: 0.08 ppm at hour 2

Minimum Diurnal Average: 0.00 ppm at hour 16

Monthly Average: 0.004 ppm

Percentiles: P_1 = 0.00 P_{10} = 0.00 Q_1 = 0.00 Median = 0.00 Q_3 = 0.00 P_{90} = 0.00 P_{99} = 0.00

Hours in Service:	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.00	0.00
2-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
3-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
4-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C	C	C	C	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
5-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
6-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
7-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
8-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
9-May	0.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.10	2.39
10-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
11-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
12-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
13-May	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
14-May	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
15-May	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
16-May	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
18-May	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
19-May	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.00	0.00
20-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.00	0.00
21-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.00	0.00
22-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.00	0.00
23-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.00	0.00
24-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.00	0.00
25-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
26-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
27-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
28-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
29-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
30-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
31-May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Diurnal Average	
	0.00	2.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Diurnal Maximum	

C - Calibration

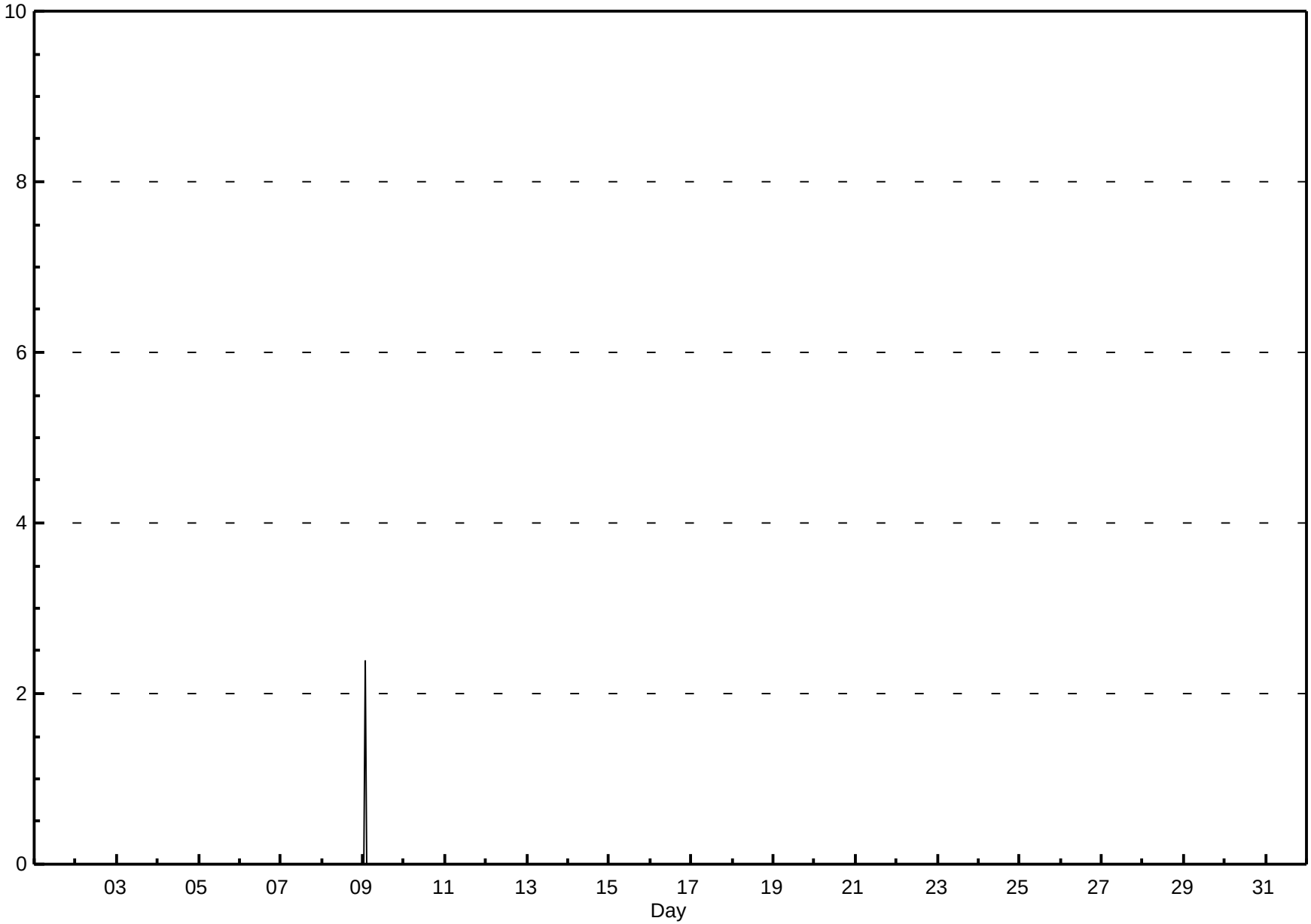
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Non Methane Hydrocarbon (NMHC) - ppm

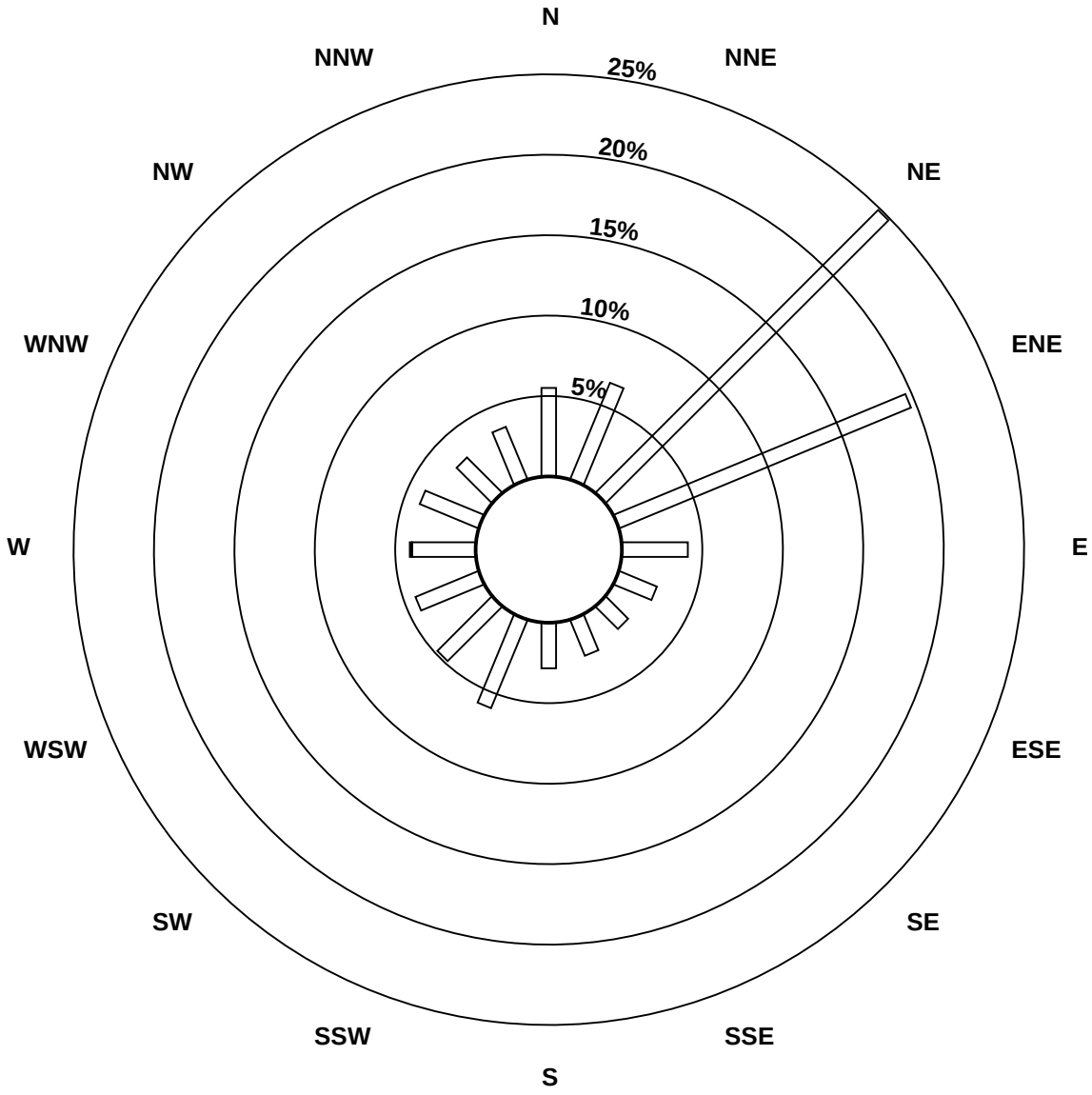
Henry Pirker - May 2015



Pollutant Rose

Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - May 2015



Pollutant Classes (ppm)

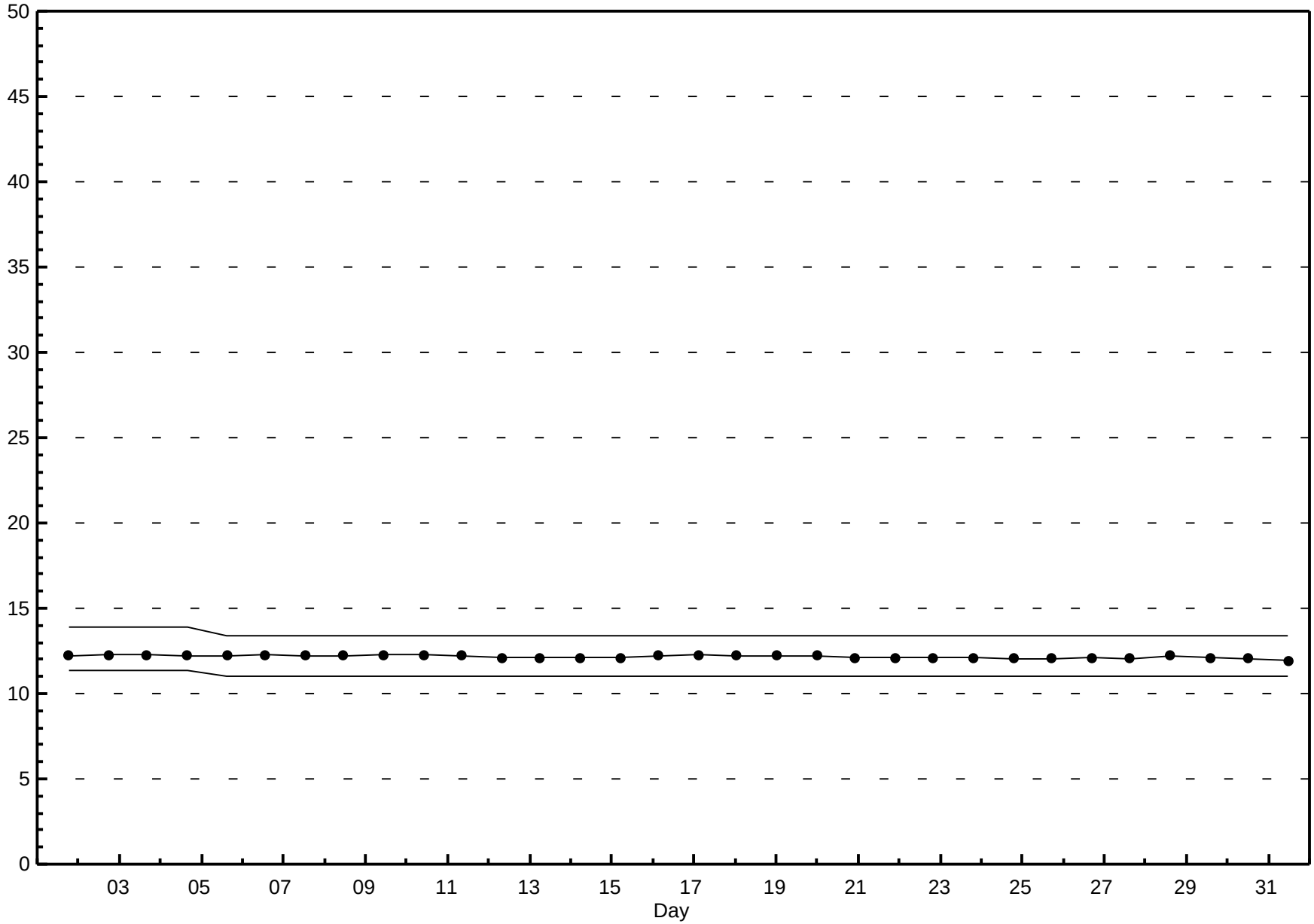
- 0 - 0.05
- 0.06 - 0.1
- 0.11 - 0.30
- > 0.30

Peace Airshed Zone Association

Span Responses

Non Methane Hydrocarbon (NMHC)

Henry Pirker - May 2015



Peace Airshed Zone Association

Hourly Averages

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

Henry Pirker - May 2015

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

Maximum Value: 161.4 $\mu g/m^3$ on May 23 04:00

Maximum Daily Average: 29.9 $\mu g/m^3$ on May 26

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

Maximum Diurnal Average: 15.2 $\mu g/m^3$ at hour 4

Monthly Average: 9.08 $\mu g/m^3$

Minimum Daily Average: 2.0 $\mu g/m^3$ on May 1

Minimum Diurnal Average: 6.4 $\mu g/m^3$ at hour 14

Percentiles: P_1 = 1.4 P_{10} = 2.2 Q_1 = 3.5 Median = 6.4 Q_3 = 11.0 P_{90} = 20.4 P_{99} = 42.0

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	3	3	3	2	3	3	4	2	1	1	1	1	1	1	1	2	1	1	2	2	1	2	2	2	2.0	4.1
2-May	3	4	4	3	3	3	3	2	3	2	2	2	1	1	1	1	2	2	2	3	3	3	2	2	2.4	4.0
3-May	3	3	2	3	4	3	3	3	2	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2.2	3.7
4-May	3	4	3	3	4	3	3	2	2	2	1	M	13	15	14	12	10	9	8	7	7	6	5	5	6.2	15.2
5-May	4	3	4	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.4	3.8
6-May	2	3	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	3	4	5	7	7	3.1	6.7
7-May	7	8	7	7	7	7	7	7	8	6	5	4	4	4	4	4	4	3	3	3	3	5	13	14	5.9	14.4
8-May	16	15	15	12	13	15	18	15	9	7	7	6	4	4	4	4	3	3	4	4	5	12	16	19	9.7	19.0
9-May	16	14	13	12	11	11	11	10	8	6	6	5	5	5	4	4	4	4	5	6	7	8	7	7	7.9	16.5
10-May	7	7	6	6	6	7	7	7	7	6	5	5	5	5	5	5	5	5	6	6	7	9	10	8	6.3	9.7
11-May	8	8	7	8	7	8	8	7	7	6	6	6	6	6	6	5	6	6	6	6	6	7	8	7	6.7	8.0
12-May	6	6	7	7	7	7	7	7	6	6	5	5	5	5	5	5	5	5	5	6	6	7	8	8	6.1	8.4
13-May	7	8	8	8	8	8	8	9	8	8	8	7	7	7	6	6	6	6	7	7	8	9	9	9	7.5	9.3
14-May	10	10	11	11	12	12	13	12	11	10	8	8	8	7	7	7	7	6	7	7	8	10	9	9	9.1	12.6
15-May	9	9	10	10	11	11	12	11	10	9	8	8	6	5	5	5	4	5	5	6	7	7	8	8	7.9	11.6
16-May	7	6	6	5	5	5	4	4	4	3	3	2	2	2	2	2	2	2	2	2	2	4	4	5	3.4	6.9
17-May	5	6	6	5	5	5	5	5	4	3	3	3	2	2	2	2	2	3	3	3	4	5	5	6	3.9	5.7
18-May	8	7	7	7	7	7	7	6	6	6	5	5	5	4	4	4	4	4	4	4	5	6	6	7	5.8	8.4
19-May	6	6	7	7	7	7	7	7	6	6	5	5	5	4	4	4	5	5	5	5	7	7	8	8	6.1	7.6
20-May	8	8	8	8	8	8	9	9	8	7	7	7	7	6	6	6	6	6	6	6	8	10	10	12	7.7	11.5
21-May	16	14	48	45	57	35	29	43	43	38	33	23	17	13	12	11	11	11	10	12	13	14	14	15	24.1	57.3
22-May	17	38	31	21	21	21	24	22	22	19	15	13	12	11	11	10	10	9	9	9	11	15	15	14	16.6	38.4
23-May	14	13	13	161	43	21	12	11	12	11	10	9	9	9	9	9	9	9	10	12	16	20	22	23	20.3	161.4
24-May	24	24	25	25	24	27	25	22	22	24	23	20	15	9	15	15	14	13	12	13	12	12	13	13	18.3	26.8
25-May	12	12	13	13	13	13	14	16	19	35	18	17	15	18	16	24	39	19	20	17	24	26	23	22	19.1	38.9
26-May	24	27	30	24	23	23	24	27	36	52	25	22	21	20	59	37	41	35	28	30	28	27	26	29	29.9	59.3
27-May	37	28	29	29	26	26	30	27	20	20	17	15	13	13	17	23	19	13	12	18	26	20	14	10	20.9	37.0
28-May	11	8	5	5	5	4	4	4	4	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	3.5	10.8
29-May	2	3	3	3	3	4	4	3	3	3	3	3	3	4	4	5	6	5	6	7	7	7	6	6	4.2	7.3
30-May	6	6	6	6	6	6	5	5	5	5	5	5	5	4	4	4	6	7	9	11	11	10	11	12	6.7	12.2
31-May	13	10	10	9	8	7	7	6	5	4	3	3	3	3	3	3	3	3	3	3	4	6	6	8	5.5	12.9
	10.2	10.4	11.2	15.2	11.7	10.5	10.3	10.2	9.8	10.2	8.0	7.2	6.7	6.4	7.7	7.2	7.7	6.6	6.6	7.2	8.3	9.2	9.5	9.7	Diurnal Average	
	37.0	38.4	48.1	161.4	57.3	35.3	29.6	42.7	42.6	51.9	32.7	22.6	20.9	20.5	59.3	36.7	41.4	34.9	28.1	29.5	28.1	26.7	25.8	29.1	Diurnal Maximum	

M - Maintenance

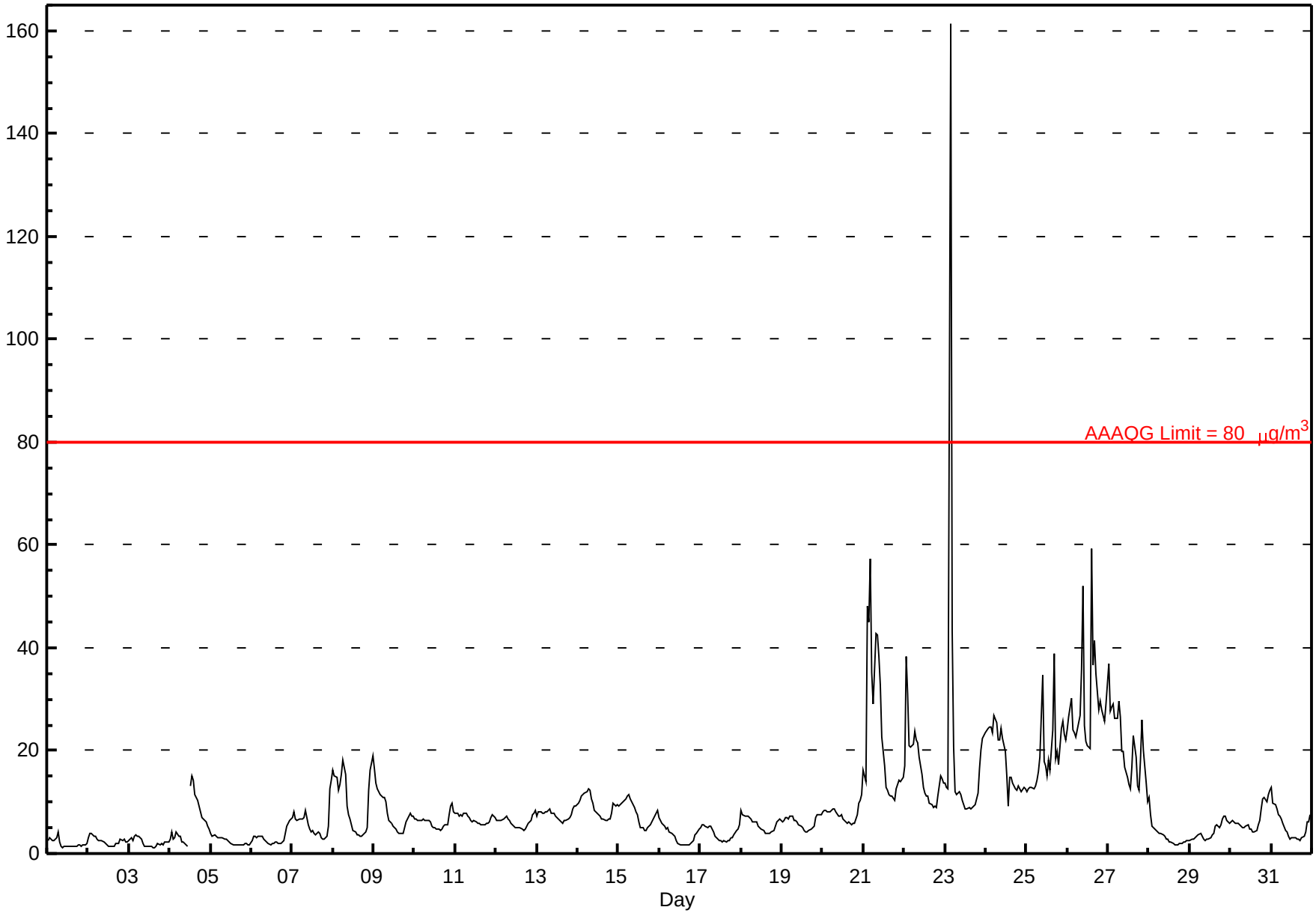
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 $\mu g/m^3$ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 $\mu g/m^3$

Peace Airshed Zone Association

Hourly Averages

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

Henry Pirker - May 2015



Peace Airshed Zone Association

Hourly Maximums

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

Henry Pirker - May 2015

Maximum Value: 448.5 $\mu g/m^3$ on May 23 04:00

Maximum Daily Average: 73.2 $\mu g/m^3$ on May 21

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

Minimum Daily Average: 2.4 $\mu g/m^3$ on May 1

Maximum Diurnal Average: 32.4 $\mu g/m^3$ at hour 4

Minimum Diurnal Average: 7.6 $\mu g/m^3$ at hour 19

Monthly Average: 15.30 $\mu g/m^3$

Percentiles: P_1 = 1.5 P_{10} = 2.6 Q_1 = 4.0 Median = 7.1 Q_3 = 12.5 P_{90} = 24.4 P_{99} = 227.5

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 Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-May	5	3	3	2	3	4	6	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.4	5.5
2-May	5	4	4	4	4	3	3	3	3	2	2	2	2	2	2	2	3	2	3	4	4	4	3	3	3.0	4.8
3-May	9	4	4	4	4	4	4	3	3	2	1	2	2	2	1	2	2	4	2	4	3	3	2	3	3.0	8.9
4-May	5	6	3	4	6	5	6	3	3	2	2	M	17	16	19	13	12	11	9	8	7	7	6	5	7.6	18.8
5-May	6	4	4	4	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2.7	6.0
6-May	4	5	3	3	4	4	4	3	3	3	2	2	2	2	3	2	2	2	2	3	5	6	8	7	3.6	7.6
7-May	8	9	7	7	7	7	7	10	10	7	5	5	5	4	4	5	5	3	3	3	4	7	23	17	7.2	23.2
8-May	18	18	18	13	15	16	20	21	12	8	11	7	5	4	4	4	4	4	4	5	7	29	22	24	12.2	29.3
9-May	22	18	15	14	12	12	12	11	9	7	6	6	6	5	5	5	4	5	6	6	8	9	8	8	9.1	21.6
10-May	7	7	7	7	7	7	7	7	9	6	6	5	5	5	6	5	5	6	6	6	8	11	10	9	6.8	10.8
11-May	11	8	8	8	8	8	10	8	8	7	7	8	7	6	6	8	8	6	8	6	7	7	11	8	7.7	10.9
12-May	11	6	7	7	7	7	8	7	7	7	6	6	7	7	6	5	5	6	6	7	7	8	10	11	7.2	11.0
13-May	9	8	8	8	9	8	9	11	9	9	9	8	8	8	8	7	9	7	7	7	8	9	11	10	8.5	10.8
14-May	10	11	12	12	12	12	14	14	12	10	10	8	8	9	8	7	8	7	7	8	10	11	11	10	10.1	14.4
15-May	15	10	10	12	11	12	12	12	11	10	10	8	7	6	6	5	5	7	6	7	9	11	9	10	9.0	14.7
16-May	13	6	6	6	6	5	5	4	4	3	3	2	2	2	2	2	2	2	3	2	3	5	4	6	4.1	13.0
17-May	10	6	6	5	5	5	6	5	6	4	3	3	3	2	3	3	3	3	3	3	4	5	5	26	5.3	25.7
18-May	34	8	8	7	7	7	7	7	7	7	6	8	5	5	4	4	4	5	5	5	6	7	7	7	7.5	34.3
19-May	7	7	7	13	7	7	8	7	9	6	6	6	6	5	5	5	5	5	6	6	9	9	9	8	7.0	13.1
20-May	14	10	9	9	9	9	9	10	12	8	12	9	8	8	7	9	7	7	6	7	9	12	12	14	9.4	14.3
21-May	50	16	448	244	211	111	137	147	47	48	84	28	21	15	16	13	13	12	14	15	14	16	15	20	73.2	448.2
22-May	22	262	196	33	21	23	28	29	24	21	17	14	14	14	13	12	11	10	11	10	15	16	15	15	35.2	261.8
23-May	30	14	15	449	101	28	13	12	14	13	12	10	10	10	11	11	10	10	11	16	17	24	23	23	36.9	448.5
24-May	24	25	25	25	25	28	28	23	25	25	24	22	18	19	48	29	16	14	14	23	14	13	16	16	22.4	47.6
25-May	12	14	13	13	13	14	16	18	27	269	20	18	17	122	17	101	188	21	23	19	93	85	27	23	49.4	269.0
26-May	25	44	84	25	26	24	26	30	188	135	32	24	30	21	396	40	58	53	31	41	30	31	27	39	60.7	396.4
27-May	331	31	30	44	30	29	33	29	22	24	17	16	15	13	21	25	20	17	13	26	29	23	19	11	36.2	331.4
28-May	98	9	6	5	5	5	4	4	4	4	3	3	3	3	2	2	2	2	2	2	3	3	3	3	7.4	98.4
29-May	8	3	3	3	4	4	4	4	3	3	3	3	3	4	5	6	6	6	6	8	8	8	7	6	4.9	7.8
30-May	10	7	6	6	6	6	6	5	5	6	6	5	5	5	4	5	6	7	10	13	12	11	12	14	7.5	14.1
31-May	31	11	10	9	8	8	7	7	5	4	4	3	3	3	3	3	3	3	3	4	6	7	7	9	6.7	31.5
	27.9	19.2	31.8	32.4	19.3	13.7	14.8	14.9	16.2	21.5	10.8	8.2	7.9	10.7	20.5	11.1	13.9	8.1	7.6	9.0	11.7	12.9	11.2	11.9	Diurnal Average	
	331.4	261.8	448.2	448.5	211.4	111.1	137.4	147.4	187.5	269.0	83.9	28.2	30.0	121.6	396.4	101.1	188.2	52.5	30.6	40.9	93.0	85.3	27.3	39.4	Diurnal Maximum	

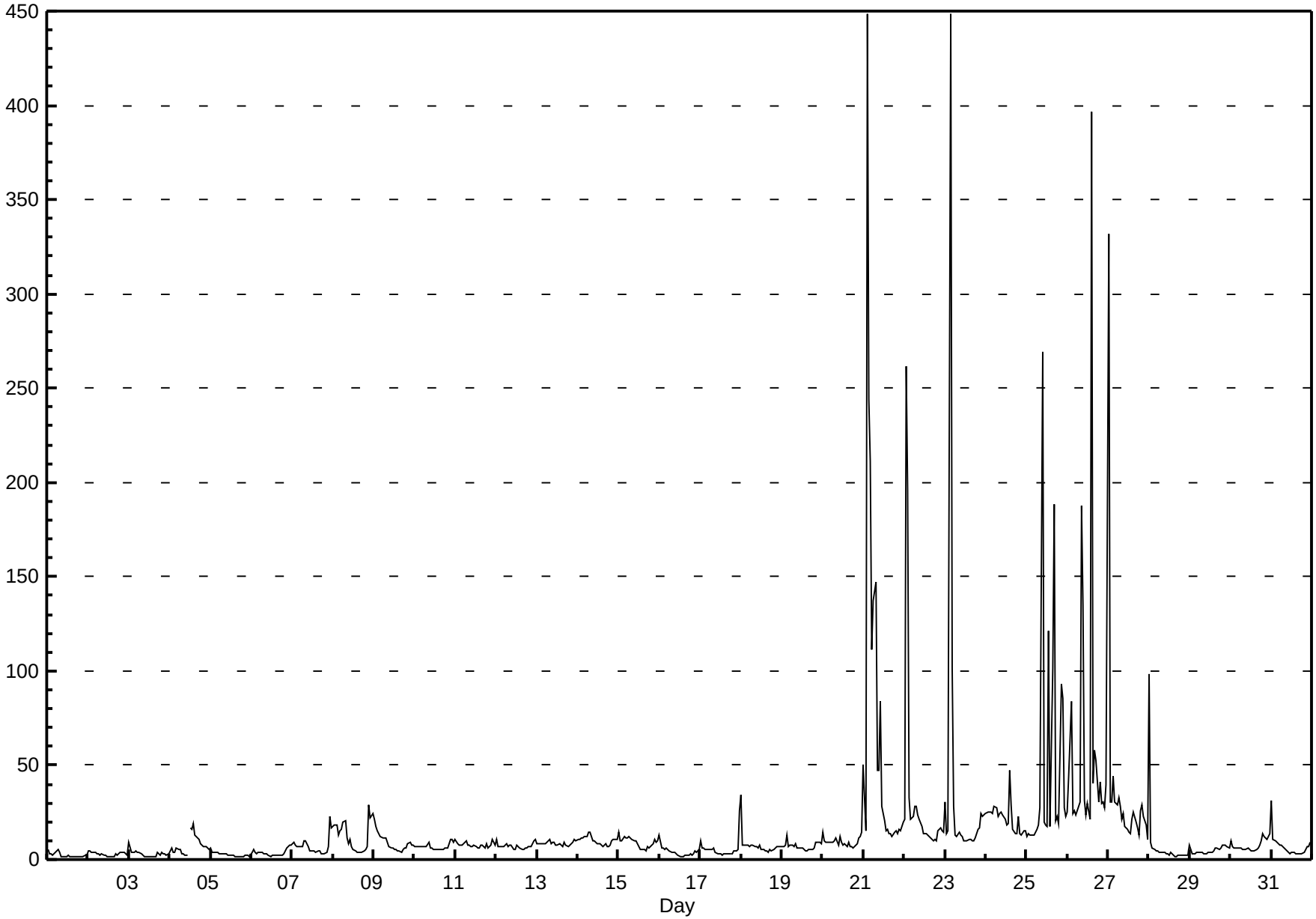
M - Maintenance

Peace Airshed Zone Association

Hourly Maximums

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

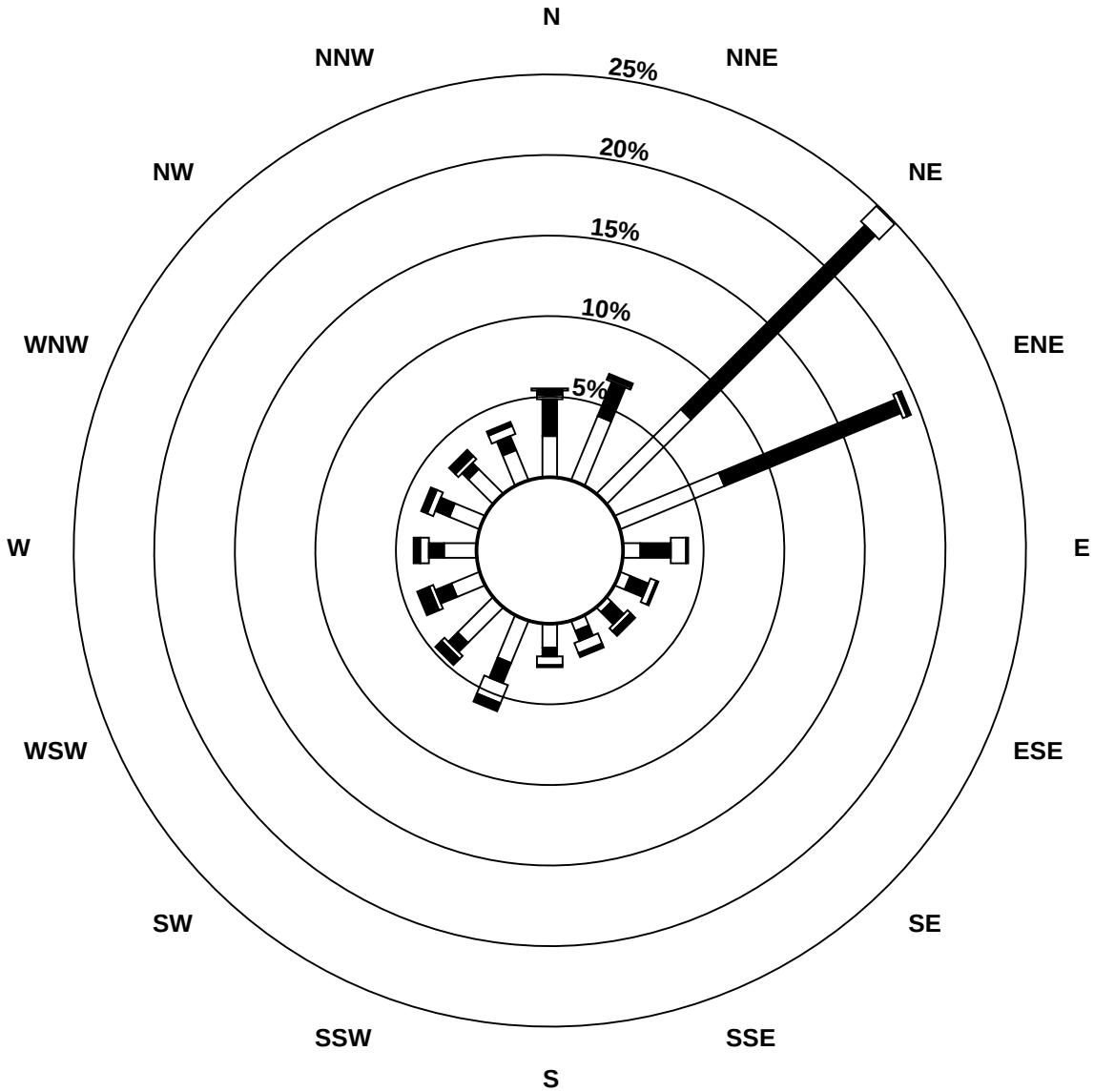
Henry Pirker - May 2015



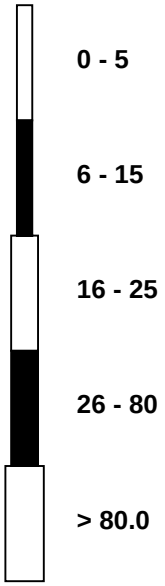
Pollutant Rose

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

Henry Pirker - May 2015



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



Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Henry Pirker - May 2015

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

Maximum Value: 28.2 ^{o}C on May 24 15:00

Maximum Daily Average: 20.9 ^{o}C on May 23

Minimum Value: -1 ^{o}C on May 8 05:00

Minimum Daily Average: 2.7 ^{o}C on May 5

Maximum Diurnal Average: 18.7 ^{o}C at hour 15

Minimum Diurnal Average: 6.1 ^{o}C at hour 6

Monthly Average: 12.83 ^{o}C

Percentiles: P_1 = 0.0 P_{10} = 3.4 Q_1 = 7.9 Median = 12.0 Q_3 = 18.0 P_{90} = 22.6 P_{99} = 27.6

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

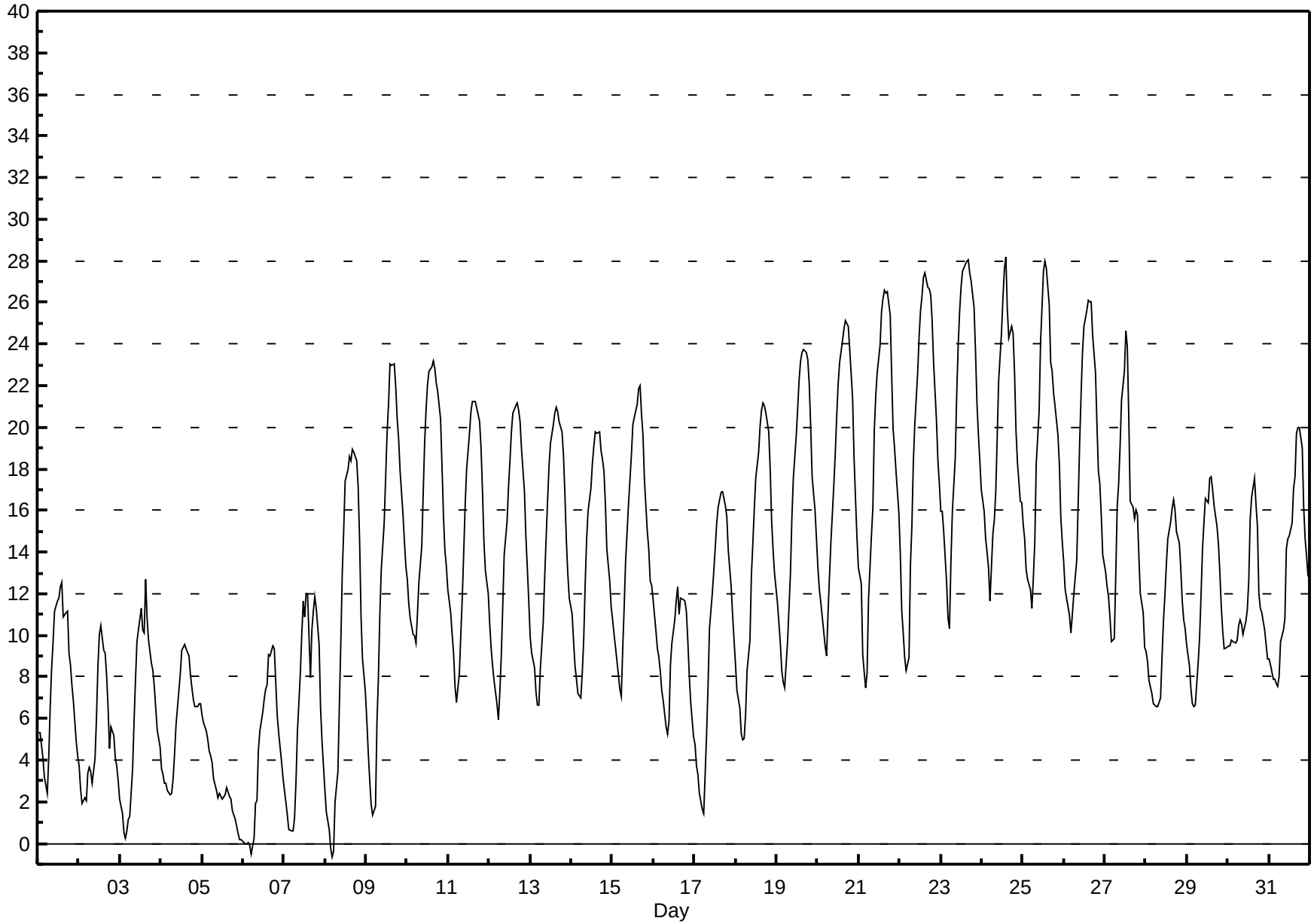
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-May	5	5	5	4	3	2	4	7	8	10	11	12	12	12	13	11	11	11	9	9	8	7	5	4	7.8	12.5
2-May	4	3	2	2	2	3	4	3	3	4	6	9	10	10	9	9	8	7	5	6	5	4	4	3	5.2	10.5
3-May	2	1	1	0	1	1	1	4	6	8	10	10	11	10	10	13	11	10	9	8	8	7	5	5	6.3	12.7
4-May	4	3	3	3	3	2	2	3	4	6	7	8	9	9	10	9	9	8	7	7	7	7	7	7	6.0	9.5
5-May	6	6	5	5	4	4	4	3	3	2	2	2	2	2	3	2	2	2	2	1	1	0	0	0	2.7	6.2
6-May	0	0	0	0	0	-1	0	2	2	4	5	6	7	7	8	9	9	9	9	8	6	5	4	3	4.4	9.5
7-May	3	2	1	1	1	1	1	3	5	8	10	12	11	12	12	8	10	11	12	11	10	6	5	4	6.6	12.0
8-May	3	2	1	0	-1	0	2	3	7	10	13	15	17	18	19	18	19	19	18	17	15	11	9	7	10.0	18.9
9-May	6	4	3	2	1	2	6	8	11	13	15	18	20	21	23	23	23	22	20	19	18	16	14	13	13.4	23.1
10-May	13	11	11	10	10	10	11	13	14	17	19	21	22	23	23	23	23	22	22	20	18	16	14	13	16.6	23.2
11-May	12	11	10	9	8	7	8	10	12	14	16	18	20	21	21	21	21	21	20	19	17	14	13	12	14.8	21.2
12-May	11	9	9	8	7	6	7	9	11	14	15	17	18	20	21	21	21	21	20	19	17	15	13	12	14.2	21.1
13-May	10	9	8	7	7	7	8	11	13	15	16	18	19	20	21	21	21	20	20	19	17	15	13	12	14.4	20.9
14-May	11	10	9	8	7	7	8	10	12	15	16	17	18	19	20	20	20	19	18	18	16	14	13	11	14.0	19.8
15-May	11	10	9	8	7	7	9	11	14	16	18	19	20	20	21	22	22	21	20	17	15	14	13	12	14.9	22.0
16-May	12	10	9	9	8	7	7	6	5	6	9	10	11	12	12	11	12	12	12	11	10	8	7	5	9.1	12.4
17-May	5	4	3	2	2	1	3	5	8	10	12	13	14	15	16	17	17	17	16	16	14	12	11	10	10.2	16.9
18-May	9	7	7	5	5	5	6	8	10	13	14	16	18	19	20	21	21	21	21	20	18	15	14	13	13.6	21.2
19-May	12	11	10	8	8	7	10	11	13	16	18	20	21	22	23	24	24	24	23	22	20	18	16	15	16.4	23.8
20-May	13	12	12	11	9	9	11	13	15	17	19	21	22	23	24	25	25	25	25	24	21	19	17	15	17.7	25.2
21-May	13	12	9	8	7	8	12	15	16	20	21	23	24	26	26	27	26	26	25	23	20	19	18	16	18.4	26.6
22-May	14	11	10	9	8	9	13	15	18	20	23	24	26	26	27	27	27	27	26	25	23	20	18	17	19.4	27.4
23-May	16	16	15	13	11	10	14	16	18	22	24	26	27	27	28	28	28	27	27	26	24	21	20	18	20.9	28.0
24-May	17	16	15	14	13	12	15	16	17	20	22	25	26	28	28	26	24	25	25	23	20	18	16	16	19.8	28.2
25-May	15	15	13	13	12	11	13	14	18	21	24	26	28	28	28	26	23	23	22	21	20	18	16	15	19.2	28.0
26-May	14	12	11	11	10	11	12	14	16	19	21	24	25	26	26	26	26	24	23	20	18	17	16	14	18.2	26.1
27-May	13	12	12	11	10	10	13	16	17	19	21	23	25	24	21	16	16	16	16	16	14	12	11	9	15.5	24.7
28-May	9	9	8	7	7	7	7	7	7	9	11	12	13	15	15	16	16	16	15	14	13	12	11	10	11.1	16.5
29-May	10	9	7	7	7	7	9	10	12	14	15	17	16	18	18	17	16	15	14	13	11	10	9	9	12.1	17.6
30-May	10	10	10	10	10	10	10	11	11	10	11	11	13	16	17	18	16	15	12	11	11	10	10	9	11.6	17.5
31-May	9	9	8	8	8	8	8	10	10	11	14	15	15	15	17	18	20	20	20	19	16	15	14	13	13.2	20.0
	9.3	8.4	7.6	6.9	6.3	6.1	7.7	9.2	10.9	12.9	14.9	16.2	17.4	18.2	18.7	18.5	18.3	17.9	17.2	16.2	14.5	12.8	11.4	10.4	Diurnal Average	
	17.0	16.0	15.0	14.0	13.3	11.7	14.8	16.2	18.5	21.6	24.1	25.7	27.5	28.0	28.2	28.0	28.0	27.4	27.0	25.7	23.6	21.1	19.6	18.4	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Henry Pirker - May 2015



Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Henry Pirker - May 2015

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

Maximum Value: 90.2 % on May 31 01:00

Maximum Daily Average: 80.4 % on May 5

Minimum Value: 9 % on May 12 18:00

Minimum Daily Average: 25.4 % on May 12

Maximum Diurnal Average: 65.2 % at hour 6

Minimum Diurnal Average: 30.3 % at hour 15

Monthly Average: 46.18 %

Percentiles: P_1 = 12.2 P_{10} = 20.0 Q_1 = 29.3 Median = 44.1 Q_3 = 61.6 P_{90} = 76.3 P_{99} = 88.0

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

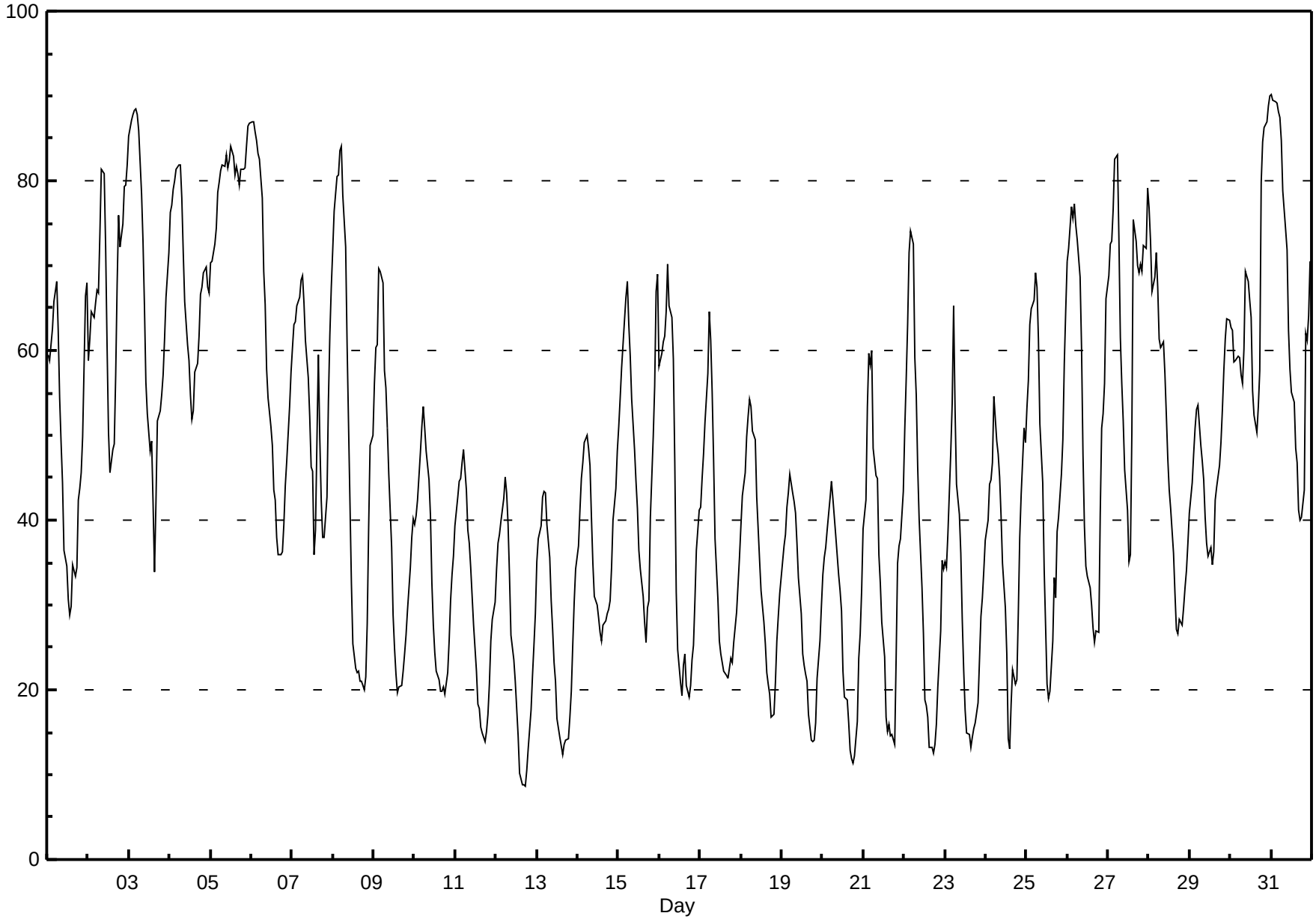
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-May	60	59	61	63	66	68	62	54	49	44	37	34	31	29	30	35	33	34	42	44	46	50	66	68	48.5	68.2
2-May	59	61	65	64	66	67	67	74	81	81	72	61	50	46	48	49	57	68	76	72	75	79	80	82	66.6	81.9
3-May	85	87	88	88	88	88	86	79	73	65	56	52	48	49	42	34	42	52	53	55	57	61	66	72	65.3	88.4
4-May	76	77	79	80	81	82	82	78	72	66	61	59	55	52	53	57	59	62	67	67	69	70	68	67	68.2	81.8
5-May	70	71	73	74	79	80	81	82	82	83	82	82	84	83	81	82	81	80	81	81	82	84	86	87	80.4	86.7
6-May	87	87	86	85	83	83	78	69	65	58	54	51	49	44	42	38	36	36	36	39	44	47	53	58	58.7	86.9
7-May	60	63	63	65	66	68	69	66	61	57	52	46	46	36	39	60	50	42	38	38	43	54	62	67	54.7	68.8
8-May	72	76	80	81	84	84	78	72	61	51	42	33	25	22	22	22	21	21	20	22	28	39	49	50	48.1	84.0
9-May	56	60	61	70	69	68	58	56	51	45	37	29	25	22	20	20	21	22	24	26	29	34	38	40	40.9	69.6
10-May	40	41	42	48	51	53	51	48	45	40	33	28	24	22	21	20	20	20	19	22	26	31	34	36	33.9	53.3
11-May	39	43	45	45	47	48	44	39	37	34	31	28	22	18	18	16	15	14	15	17	21	26	28	30	30.0	48.3
12-May	34	37	38	40	43	45	43	39	33	26	24	21	18	15	10	9	9	9	10	13	18	22	25	29	25.4	45.2
13-May	35	38	39	43	43	43	39	36	31	27	23	21	17	14	13	12	14	14	14	17	20	25	30	34	26.8	43.5
14-May	37	41	45	47	49	50	48	47	40	35	31	30	28	27	26	28	28	29	29	30	34	40	44	48	37.2	50.0
15-May	51	54	58	64	66	68	63	59	54	48	45	41	36	34	31	28	26	30	31	40	50	56	67	69	48.7	69.0
16-May	58	60	61	62	65	70	65	64	59	47	31	25	21	19	23	24	20	19	20	24	25	30	36	41	40.4	70.2
17-May	42	45	48	52	57	65	61	55	47	38	31	26	24	23	22	22	21	23	24	23	26	29	32	36	36.3	64.6
18-May	39	43	46	50	52	54	53	50	50	43	39	35	32	28	25	22	21	20	17	17	21	26	29	31	35.1	54.2
19-May	35	37	38	41	43	45	43	42	41	37	33	29	24	23	22	21	17	14	14	14	16	21	26	30	29.5	45.4
20-May	34	36	37	39	43	45	43	40	38	34	32	29	22	19	19	16	13	12	11	12	16	24	27	32	27.9	44.7
21-May	39	42	53	60	58	60	48	45	45	36	33	28	24	17	15	16	15	15	14	24	35	37	38	43	35.0	60.0
22-May	51	57	63	72	74	73	59	55	46	40	32	27	19	18	17	13	13	13	14	16	20	27	35	34	36.9	74.1
23-May	35	34	38	48	54	65	53	44	41	36	28	22	18	15	15	13	14	15	16	18	24	29	31	34	30.9	65.3
24-May	38	40	44	45	47	55	49	48	45	41	35	30	24	14	13	18	22	21	21	29	38	43	51	49	35.8	54.6
25-May	53	56	63	65	66	69	68	61	51	44	34	28	21	19	20	26	33	31	39	40	45	49	58	65	46.1	69.1
26-May	71	72	77	76	77	75	73	69	60	48	39	35	33	32	30	27	26	27	27	41	51	53	56	66	51.6	77.3
27-May	69	72	73	77	83	83	73	62	56	52	46	41	35	36	50	75	73	70	69	70	69	72	72	79	64.9	83.1
28-May	77	73	67	69	72	68	61	60	61	57	52	47	44	41	36	31	27	27	28	28	30	32	34	37	48.3	76.8
29-May	41	44	48	51	53	54	49	47	45	40	37	36	37	35	36	42	44	47	49	53	58	61	64	64	47.2	63.6
30-May	63	62	59	59	59	59	57	56	60	69	68	66	64	55	52	50	53	58	80	85	86	87	89	90	66.1	90.0
31-May	90	89	89	89	88	87	85	79	74	72	62	58	55	54	48	47	41	40	40	44	62	61	64	71	66.3	90.2
	54.7	56.7	58.9	61.5	63.6	65.2	61.0	57.3	53.4	48.2	42.3	38.0	34.0	31.0	30.3	31.4	31.1	31.7	33.5	36.2	40.7	45.2	49.6	52.8	Diurnal Average	
	90.2	89.5	89.4	89.2	88.4	87.8	86.0	81.9	81.8	83.1	81.5	82.4	84.1	82.8	80.8	81.6	80.8	79.6	81.4	84.6	86.2	87.0	88.9	90.0	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Henry Pirker - May 2015



Peace Airshed Zone Association

Hourly Averages

Solar Radiation (SR) - W/m^2

Henry Pirker - May 2015

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

Maximum Value: 801.4 W/m^2 on May 16 13:00

Maximum Daily Average: 304.4 W/m^2 on May 20

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

Maximum Diurnal Average: 661.6 W/m^2 at hour 13

Monthly Average: 241.22 W/m^2

Minimum Daily Average: 41.7 W/m^2 on May 5

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 = 112.0 Q_3 = 480.1 P_{90} = 702.0 P_{99} = 784.6

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

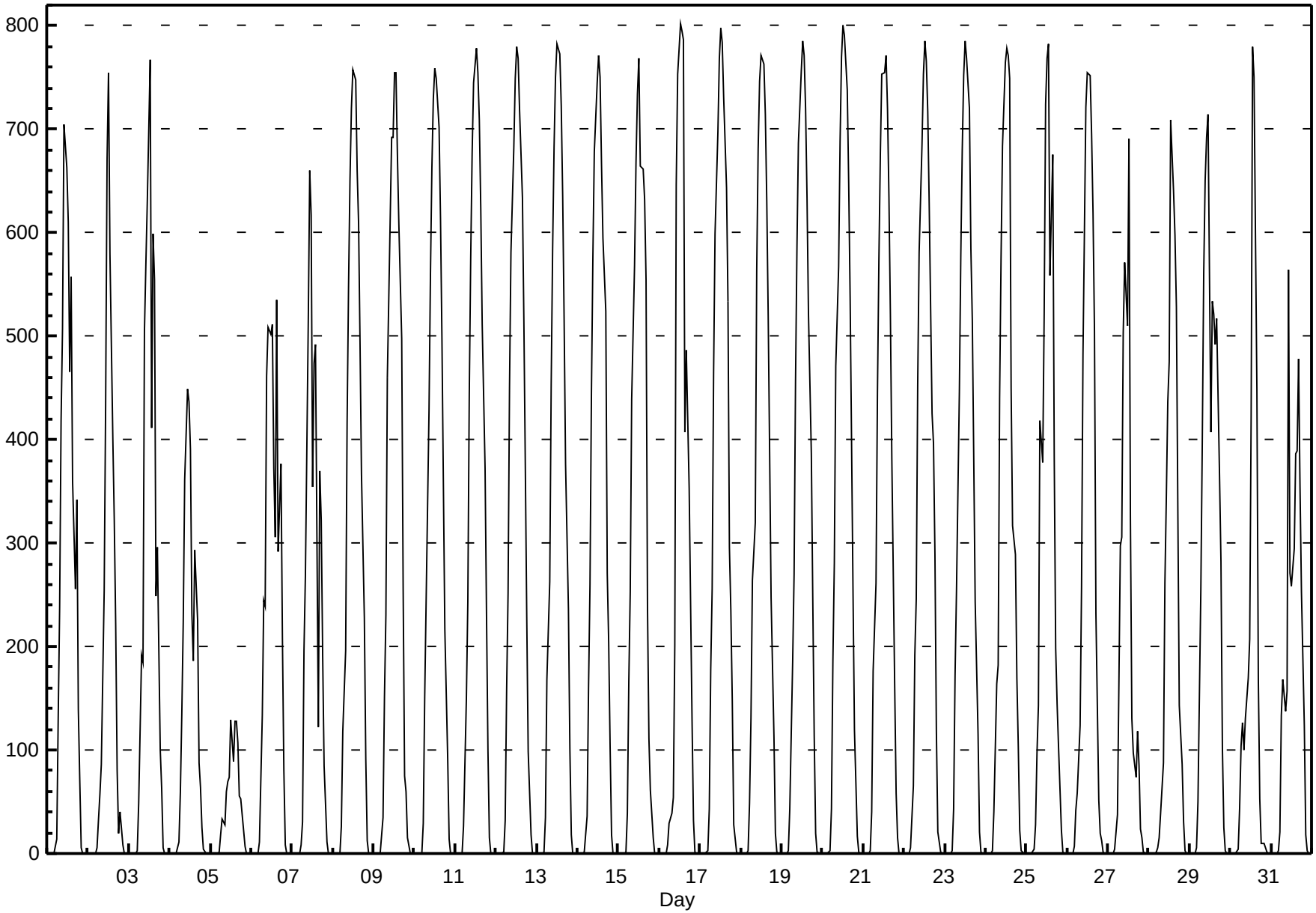
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-May	0	0	0	0	0	14	130	238	419	507	705	663	611	465	557	359	255	342	139	70	6	0	0	0	228.4	705.1
2-May	0	0	0	0	0	5	32	57	86	254	434	671	754	580	402	322	220	81	20	41	8	0	0	0	165.4	754.0
3-May	0	0	0	0	0	3	49	192	185	505	570	631	768	412	598	555	249	296	100	62	5	0	0	0	215.8	767.7
4-May	0	0	0	0	0	11	60	135	224	361	449	436	391	232	186	293	226	87	64	26	4	0	0	0	132.7	448.5
5-May	0	0	0	0	0	1	18	33	28	60	70	73	130	89	129	128	107	56	53	22	7	0	0	0	41.7	129.7
6-May	0	0	0	0	0	12	134	244	239	461	509	501	511	372	306	535	291	376	209	81	8	0	0	0	199.6	535.4
7-May	0	0	0	0	0	9	31	197	269	515	660	617	355	474	492	122	370	322	192	85	11	0	0	0	196.7	660.5
8-May	0	0	0	0	0	26	118	196	416	546	650	721	757	748	659	609	493	366	229	92	12	0	0	0	276.6	757.1
9-May	0	0	0	0	1	34	152	231	460	536	692	692	755	754	676	608	498	256	76	60	15	0	0	0	270.7	754.5
10-May	0	0	0	0	0	29	151	245	428	561	662	729	759	749	702	613	497	356	216	91	14	0	0	0	283.5	759.3
11-May	0	0	0	0	1	27	150	244	444	576	676	745	778	755	709	625	511	373	230	100	16	0	0	0	289.9	778.4
12-May	0	0	0	0	1	32	159	252	450	581	682	749	780	769	719	634	514	374	228	99	18	0	0	0	293.3	779.7
13-May	0	0	0	0	1	35	168	263	453	583	683	750	782	773	722	635	515	376	236	101	18	1	0	0	295.7	782.2
14-May	0	0	0	0	1	36	162	260	444	576	679	745	771	751	668	596	524	271	205	102	18	1	0	0	283.6	771.0
15-May	0	0	0	0	2	38	166	253	439	568	667	734	769	665	662	632	554	239	112	62	16	0	0	0	274.1	768.9
16-May	0	0	0	0	1	9	29	39	55	202	647	753	801	795	787	408	486	353	240	129	31	2	0	0	240.2	801.4
17-May	0	0	0	0	2	44	178	256	465	599	698	768	798	783	731	644	534	296	235	147	27	1	0	0	300.2	798.0
18-May	0	0	0	0	3	49	130	264	319	564	682	747	772	763	714	629	518	385	247	113	19	1	0	0	288.3	771.5
19-May	0	0	0	0	2	44	186	270	456	586	687	756	785	771	720	633	523	386	246	114	19	1	0	0	299.4	785.5
20-May	0	0	0	0	3	43	187	280	471	567	688	770	800	791	738	647	536	396	253	119	16	1	0	0	304.4	800.1
21-May	0	0	0	0	3	41	177	262	444	572	674	753	755	771	720	634	522	382	161	58	16	1	0	0	289.4	771.3
22-May	0	0	0	0	5	65	192	247	454	582	685	754	785	766	717	628	426	397	290	117	20	2	0	0	297.1	785.2
23-May	0	0	0	0	3	44	172	254	447	579	679	752	786	769	719	585	516	382	243	116	21	2	0	0	294.5	785.6
24-May	0	0	0	0	3	40	164	182	441	575	683	764	778	772	749	451	316	289	169	104	22	3	0	0	271.1	778.2
25-May	0	0	0	0	4	27	97	143	419	378	521	725	768	782	559	676	384	199	144	103	22	2	0	0	248.0	781.8
26-May	0	0	0	0	7	42	58	123	257	482	600	721	754	751	694	619	505	232	51	19	13	1	0	0	247.1	754.0
27-May	0	0	0	0	4	38	165	297	306	503	571	510	691	325	131	98	73	118	85	23	15	1	0	0	164.8	691.2
28-May	0	0	0	0	1	6	15	39	87	262	344	437	475	709	641	598	528	332	143	85	30	2	0	0	197.3	708.7
29-May	0	0	0	0	6	49	254	396	560	650	692	715	408	534	521	493	516	365	283	102	25	2	0	0	273.8	714.6
30-May	0	0	0	0	5	44	104	127	100	130	170	207	423	780	751	448	169	52	10	9	9	2	0	0	147.6	779.8
31-May	0	0	0	0	2	20	133	168	138	157	565	271	259	295	387	389	478	355	253	123	19	2	0	0	167.2	564.9
	0.0	0.0	0.0	0.0	2.0	29.6	126.4	205.9	335.6	470.4	592.7	640.6	661.6	636.9	595.6	511.2	414.6	293.3	172.9	83.1	16.2	0.9	0.0	0.0	Diurnal Average	
	0.1	0.0	0.1	0.0	6.5	65.1	253.8	395.8	559.8	650.0	705.1	769.7	801.4	795.4	786.7	676.1	554.4	396.6	289.6	146.8	31.4	3.0	0.0	0.0	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

Solar Radiation (SR) - W/m^2

Henry Pirker - May 2015



Peace Airshed Zone Association

Hourly Averages

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

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1 Spd	6	7	9	6	5	3	5	9	13	17	23	23	23	23	21	20	21	22	22	17	17	15	10	7	13.3	23.5
Dir	193	194	200	195	182	183	154	172	195	208	215	220	235	239	235	260	223	218	208	209	208	225	284	189	218.0	220.1
2 Spd	12	11	12	13	8	12	12	15	17	16	14	15	15	18	21	17	10	10	1	2	3	7	3	1	9.6	20.7
Dir	208	208	211	212	206	236	245	256	255	248	229	220	223	228	237	228	309	304	214	202	164	148	237	271	232.0	236.6
3 Spd	1	1	0	2	0	2	3	4	4	3	6	5	5	10	2	2	7	9	6	8	6	3	4	3	1.0	10.2
Dir	118	263	261	265	283	189	205	216	244	260	211	249	249	235	241	232	346	10	15	49	53	29	28	23	299.5	235.3
4 Spd	6	7	8	7	8	8	9	9	9	10	11	11	14	15	13	15	14	13	14	14	12	12	14	16	11.0	15.9
Dir	4	14	27	17	15	25	29	29	28	30	23	20	24	29	38	23	19	12	6	3	8	14	27	35	21.1	34.7
5 Spd	13	12	8	8	7	8	9	10	9	10	8	10	11	10	11	10	11	10	11	9	9	7	6	6	8.4	13.4
Dir	30	24	19	15	6	360	358	344	329	332	331	313	307	318	325	325	328	328	336	339	332	325	293	294	339.3	30.0
6 Spd	5	7	7	6	6	6	5	8	7	5	4	3	4	1	1	2	2	4	2	5	5	6	6	7	1.5	7.8
Dir	281	287	295	302	306	307	301	285	293	260	282	285	179	231	23	165	194	172	203	128	100	96	107	111	274.5	284.7
7 Spd	6	6	6	5	3	1	1	2	3	8	10	5	8	12	10	17	5	6	5	3	3	1	0	0	2.8	16.8
Dir	91	67	68	72	50	0	77	130	241	267	261	292	313	299	316	315	290	320	329	331	60	116	115	253	320.6	315.4
8 Spd	1	0	1	1	1	1	3	5	4	4	3	5	4	4	8	10	6	7	10	9	6	1	1	1	1.4	9.9
Dir	7	94	276	290	129	109	99	115	147	134	119	137	194	245	260	276	259	264	280	326	331	337	154	305	255.9	279.6
9 Spd	1	2	3	2	2	1	2	4	3	6	9	7	5	6	1	2	2	4	5	7	8	8	8	8	3.3	9.2
Dir	312	271	297	259	304	308	92	74	46	67	81	82	68	80	157	188	49	19	36	50	49	50	51	40	54.8	80.8
10 Spd	8	9	9	7	7	5	6	6	6	5	8	9	9	11	11	9	10	11	10	9	6	6	7	8	7.9	11.5
Dir	44	47	50	48	56	54	54	64	67	67	59	54	48	47	47	45	46	57	57	59	56	53	69	74	54.0	47.0
11 Spd	8	9	7	8	4	5	6	8	6	7	10	10	9	7	9	9	10	10	10	10	7	7	8	8	7.8	10.4
Dir	67	66	61	55	30	29	39	54	53	52	49	57	81	50	44	44	44	44	46	46	46	48	66	58	51.9	46.0
12 Spd	9	10	11	11	10	9	9	11	13	14	13	13	14	15	16	18	16	16	16	15	10	9	9	9	12.2	17.7
Dir	53	52	55	55	55	52	56	62	65	67	66	61	67	73	77	79	79	79	68	67	63	60	65	56	65.5	78.6
13 Spd	9	9	9	8	9	12	12	13	15	18	18	15	17	16	16	16	16	15	14	13	10	10	9	7	12.5	17.8
Dir	48	50	49	48	54	52	53	57	72	77	77	74	77	68	66	62	65	51	57	56	55	52	55	55	61.8	76.6
14 Spd	8	9	8	9	9	9	8	9	7	12	14	12	11	10	12	13	12	11	12	11	8	7	7	6	9.4	14.1
Dir	56	54	56	52	53	55	61	71	73	103	90	85	79	62	69	77	74	72	58	65	54	44	59	59	67.8	89.9
15 Spd	8	9	7	3	3	4	6	4	1	1	2	2	2	4	4	4	5	8	5	8	11	2	6	4	2.5	10.9
Dir	53	56	57	21	20	35	50	71	53	16	44	334	334	315	337	355	333	44	13	162	152	71	146	321	46.7	151.7
16 Spd	11	15	14	13	13	11	12	11	10	9	10	10	10	8	8	7	8	9	8	10	8	6	5	4	8.9	15.1
Dir	349	346	348	356	356	358	5	9	358	9	5	8	33	18	2	10	39	12	36	53	70	71	56	42	12.4	345.8
17 Spd	5	4	5	7	8	9	10	11	10	12	14	14	14	11	11	11	12	9	10	12	10	8	7	7	9.5	14.1
Dir	45	42	41	51	52	53	64	75	69	77	69	70	64	55	59	65	55	60	53	62	61	59	61	58	61.2	69.4
18 Spd	8	7	7	5	7	8	8	9	8	9	10	9	10	9	10	10	11	10	12	11	8	7	8	8	8.6	11.9
Dir	55	63	55	40	50	50	51	50	63	60	56	70	63	67	77	52	53	55	48	52	48	42	48	57	55.5	48.1
19 Spd	9	10	8	5	6	5	5	6	6	5	8	6	6	5	6	7	9	11	12	11	9	8	8	9	7.5	11.8
Dir	53	52	47	35	37	43	53	61	65	57	59	51	41	53	49	53	63	46	47	51	48	45	56	53	51.1	46.9
20 Spd	8	9	9	7	4	5	6	6	4	4	5	5	5	5	3	7	6	4	6	6	3	2	2	1	5.0	9.0
Dir	53	51	53	56	41	40	53	69	71	40	54	60	62	74	75	52	75	75	55	50	34	28	18	12	54.9	52.8
21 Spd	2	2	1	2	2	1	1	0	1	0	1	3	5	6	7	7	8	6	5	5	7	6	6	3	1.5	8.3
Dir	12	3	303	243	325	17	86	126	143	244	109	90	83	70	54	38	38	33	28	223	240	304	300	302	18.0	38.2
22 Spd	2	2	2	1	2	1	1	3	2	4	4	6	10	9	7	8	9	10	9	8	4	3	6	5	3.5	10.3
Dir	280	274	247	221	185	146	159	207	163	95	69	81	77	51	37	51	43	54	56	58	41	10	354	3	52.1	76.8

Peace Airshed Zone Association

Hourly Averages

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
23 Spd	4	5	3	1	0	0	2	3	3	4	5	9	11	12	11	10	12	11	12	13	8	8	9	8	6.5	13.0
Dir	359	30	40	9	30	122	125	111	74	62	60	57	69	54	59	49	49	49	58	52	44	39	44	48	52.3	51.6
24 Spd	6	6	4	5	3	1	1	3	5	3	4	7	7	8	8	14	11	8	4	3	8	8	7	8	2.5	14.2
Dir	46	47	39	40	43	304	86	102	95	102	83	76	65	77	10	353	342	337	355	220	182	226	281	289	21.9	353.4
25 Spd	6	5	2	4	4	2	2	6	5	3	2	4	2	5	4	18	14	7	8	4	4	5	7	8	2.7	18.4
Dir	231	247	200	184	234	257	249	223	212	245	247	253	204	151	209	281	347	343	42	70	187	222	280	275	260.4	281.3
26 Spd	7	4	4	3	2	3	2	3	1	1	1	1	2	1	4	4	4	6	4	7	3	4	3	2	1.2	7.4
Dir	279	287	246	206	181	213	206	217	213	177	195	285	328	345	321	352	348	65	67	206	258	300	307	125	272.8	205.6
27 Spd	2	0	1	1	1	0	2	5	6	4	7	7	7	12	8	6	8	7	3	5	10	10	10	9	1.1	11.8
Dir	152	220	274	273	230	192	163	202	202	174	209	236	281	264	300	134	156	156	100	347	1	5	4	5	271.7	264.4
28 Spd	7	9	9	8	6	6	8	8	7	8	9	9	7	9	10	9	10	11	10	9	9	9	9	8	8.0	10.9
Dir	5	4	359	21	27	7	30	30	36	44	52	40	45	67	74	70	65	67	59	48	39	48	49	41	42.5	67.1
29 Spd	5	7	7	9	10	11	12	14	13	14	15	13	13	13	17	18	21	17	16	13	12	9	7	7	11.5	20.6
Dir	25	30	34	45	53	52	54	57	65	66	74	74	70	73	65	81	89	96	98	86	94	80	64	53	70.6	88.7
30 Spd	9	10	10	11	12	12	13	13	10	4	4	8	7	4	4	2	2	6	5	3	4	3	2	5	5.0	13.2
Dir	56	60	54	53	51	63	67	70	78	121	138	52	50	107	133	102	298	233	197	74	178	134	123	132	75.8	69.5
31 Spd	6	5	5	6	5	6	7	6	8	7	11	16	17	16	17	17	17	17	13	7	2	1	2	1	8.0	17.1
Dir	158	184	202	202	195	199	192	199	179	183	188	210	220	227	235	231	235	241	243	274	95	255	266	193	217.6	240.6
Spd	3.4	3.8	3.3	3.0	3.2	3.0	3.5	3.2	2.4	2.7	3.1	3.0	3.2	2.6	3.1	3.7	4.6	4.3	4.8	4.7	3.6	3.2	3.6	3.5	Diurnal Average	
Dir	40.3	36.1	35.7	37.3	37.5	35.6	50.1	61.1	67.5	71.9	75.7	65.4	58.7	47.4	35.7	25.9	37.2	40.7	45.5	52.8	58.8	44.3	36.2	41.0		
Spd	13.4	15.1	14.1	13.4	13.5	12.0	13.2	14.6	17.4	17.5	23.4	23.5	23.0	23.0	21.4	20.4	21.5	22.2	21.7	17.3	16.6	15.1	13.6	15.9	Diurnal Maximum	
Dir	30.0	345.8	348.5	355.7	356.3	235.7	67.5	255.6	255.4	77.5	214.7	220.1	235.0	238.9	235.1	259.7	222.6	218.4	207.5	208.9	208.1	225.3	26.6	34.7		

Maximum Speed Value: 23 km/h on May 1 12:00
Maximum Daily Speed Average: 13.3 km/h on May 1
Maximum Diurnal Speed Average: 4.8 km/h at hour 19

Minimum Speed Value: 0 km/h on May 8 00:00
Minimum Daily Speed Average: 1.0 km/h on May 26
Minimum Diurnal Speed Average: 2.4 km/h at hour 9

Monthly Average Velocity: 3.36 km/h 46.58 deg

Speed Percentiles: $P_1 = 0.5$ $P_{10} = 1.9$ $Q_1 = 4.4$ Median = 7.4 $Q_3 = 10.0$ $P_{90} = 13.5$ $P_{99} = 21.3$

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

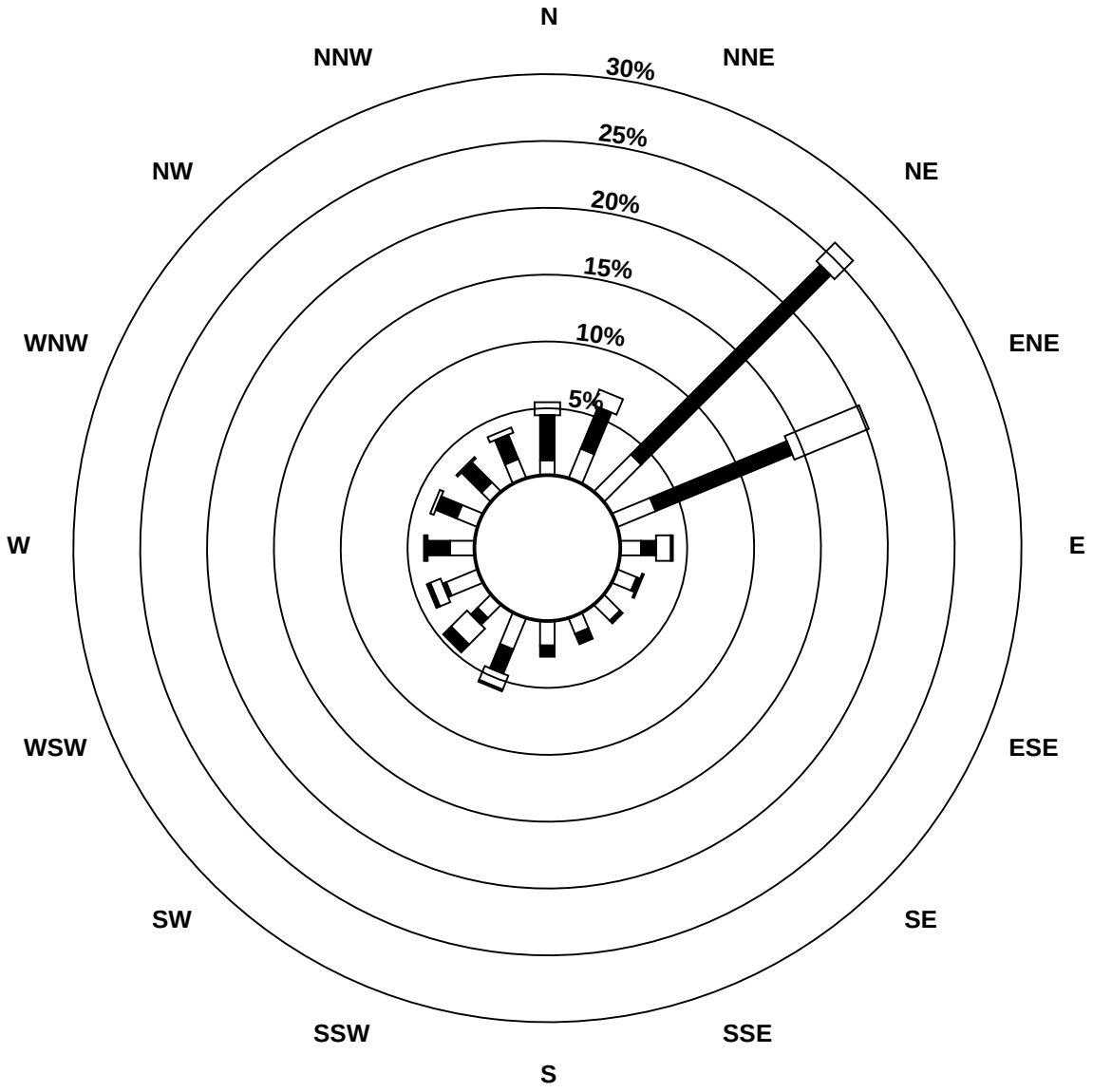
Frequency Distribution

Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	21	36	17	0	0	0	74
NorthEast	36	215	50	0	0	0	301
East	31	34	33	1	0	0	99
SouthEast	26	8	0	0	0	0	34
South	29	18	1	0	0	0	48
SouthWest	34	12	22	9	0	0	77
West	27	21	5	1	0	0	54
NorthWest	22	33	2	0	0	0	57
Total	226	377	130	11	0	0	744

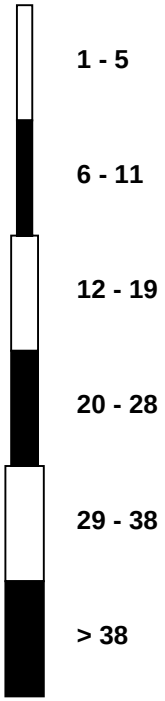
Wind Rose

Wind Speed (WS) (km/h)

Henry Pirker - May 2015



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Henry Pirker - May 2015

Peace Airshed Zone Association

Maximum Speed: 24 km/h on May 1 12:00

Maximum Daily Speed Average: 14.8 km/h on May 1

Minimum Speed: 0 km/h on May 8 00:00

Minimum Daily Speed Average: 3.8 km/h on May 26

Maximum Diurnal Speed Average: 11.1 km/h at hour 16

Minimum Diurnal Speed Average: 5.6 km/h at hour 5

Monthly Average Speed: 8.05 km/h

Percentiles: $P_1 = 0.5$ $P_{10} = 2.5$ $Q_1 = 5.0$ Median = 7.7 $Q_3 = 10.5$ $P_{90} = 14.1$ $P_{99} = 21.4$

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	6	7	9	6	5	4	5	9	14	18	24	24	24	23	23	21	22	23	22	17	17	16	10	8	14.8	24.3
2-May	12	11	12	13	8	12	13	15	18	16	14	15	15	19	21	17	13	11	4	2	5	8	5	2	11.6	21.1
3-May	2	2	1	2	0	3	3	4	4	4	6	6	6	12	5	4	9	9	6	8	6	3	4	3	4.7	11.5
4-May	6	7	8	7	8	8	10	10	9	11	11	12	14	15	14	15	14	13	14	14	12	12	14	16	11.4	16.1
5-May	14	12	8	8	8	8	9	11	9	10	9	10	11	11	11	10	11	11	11	9	10	7	6	6	9.5	13.6
6-May	5	7	7	7	6	6	6	8	7	6	5	4	4	3	3	5	4	5	3	5	5	6	6	7	5.4	7.9
7-May	6	6	6	5	3	2	1	3	3	8	10	7	8	13	11	17	6	7	5	4	3	1	0	0	5.7	17.1
8-May	1	1	2	2	1	1	3	5	5	5	4	6	6	6	9	10	7	7	11	9	6	1	2	1	4.6	10.9
9-May	0	3	3	2	2	1	2	4	4	6	9	7	6	7	3	4	4	4	5	7	8	8	8	8	4.9	9.4
10-May	9	9	9	7	7	5	6	6	6	5	8	9	10	12	12	10	11	11	10	10	6	6	7	8	8.2	12.0
11-May	8	9	8	8	4	5	6	8	7	7	10	10	9	7	9	9	10	10	10	10	7	7	8	8	8.2	10.5
12-May	9	10	11	11	10	9	9	11	13	15	14	14	15	15	16	18	17	17	16	15	10	9	10	9	12.6	18.2
13-May	9	9	9	8	9	12	12	13	15	18	18	16	18	17	16	16	17	16	15	13	11	10	9	7	12.9	18.1
14-May	8	9	8	9	9	9	8	9	8	12	15	13	12	11	13	13	12	12	12	11	8	7	7	6	10.0	14.9
15-May	8	9	7	4	4	4	6	5	2	2	4	4	4	5	5	5	7	8	5	10	12	4	7	6	5.8	12.3
16-May	12	15	14	14	14	11	12	12	10	10	10	10	10	9	9	8	9	10	8	11	9	6	5	4	10.2	15.4
17-May	5	4	5	7	8	9	10	11	10	12	14	15	14	12	12	12	12	10	11	12	10	8	7	7	9.9	14.7
18-May	8	8	7	5	7	8	8	10	8	9	10	10	10	10	10	11	12	10	12	11	8	7	8	8	9.0	12.2
19-May	9	10	8	5	6	5	5	7	7	6	9	7	7	6	7	8	10	11	12	11	9	8	8	9	7.8	12.0
20-May	8	9	9	7	5	5	6	6	5	4	6	6	5	6	5	7	7	6	7	6	3	2	2	2	5.6	9.0
21-May	3	4	2	2	2	1	2	1	2	1	2	4	6	6	7	7	9	6	6	6	7	6	6	4	4.3	8.8
22-May	2	2	2	1	2	1	1	3	2	4	5	7	11	10	8	9	10	10	10	8	4	4	6	5	5.4	11.0
23-May	4	5	3	1	0	0	2	3	3	4	6	9	12	12	11	11	13	11	13	13	8	8	9	8	7.0	13.2
24-May	6	6	5	5	4	2	1	3	5	4	5	7	8	8	11	15	12	8	5	8	8	9	7	8	6.7	15.0
25-May	6	5	3	4	4	3	2	7	5	3	2	4	3	5	6	20	15	7	8	5	5	5	7	8	5.9	19.7
26-May	7	4	4	3	2	3	2	3	2	2	2	3	4	4	5	6	5	6	4	8	4	4	3	2	3.8	7.7
27-May	2	0	1	1	1	0	2	5	6	5	8	8	7	12	10	6	8	7	4	6	10	10	11	9	5.9	12.4
28-May	8	10	9	8	7	6	8	8	7	9	9	9	7	10	11	10	11	11	10	9	9	9	9	8	8.9	11.2
29-May	5	7	7	9	10	11	12	14	13	14	15	14	13	14	17	18	21	18	16	14	12	9	7	7	12.5	21.1
30-May	9	10	11	11	12	12	13	13	10	5	4	8	7	6	5	4	2	7	5	4	5	4	3	5	7.2	13.5
31-May	6	5	5	6	5	6	7	7	8	8	11	16	17	17	17	17	17	17	14	7	2	2	2	1	9.2	17.5
	6.6	6.9	6.5	6.1	5.6	5.6	6.3	7.4	7.3	7.8	9.1	9.4	9.8	10.5	10.5	11.1	10.8	10.4	9.4	9.1	7.8	6.7	6.6	6.1	Diurnal Average	
	13.6	15.4	14.4	13.8	13.8	12.1	13.4	14.7	17.5	17.8	23.7	24.3	23.6	23.3	23.0	20.8	22.0	22.6	21.9	17.4	16.7	16.4	13.8	16.1	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 2015

Maximum Value: 93.6 deg on May 3 05:00

Minimum Value: 4.4 deg on May 15 01:00

Percentiles: P_1 = 5.2 P_{10} = 7.1 Q_1 = 10.6 Median = 15.8 Q_3 = 29.0 P_{90} = 51.1 P_{99} = 84.2

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	11	12	8	13	17	15	11	14	14	13	10	15	12	9	22	11	12	10	8	8	6	21	33	10	32.7
2-May	7	6	6	6	7	8	13	6	7	7	15	13	20	17	10	12	42	31	83	79	70	14	49	49	82.9
3-May	76	77	86	53	94	50	26	19	26	42	24	36	34	31	82	83	44	16	21	15	17	17	12	23	93.6
4-May	15	14	18	15	15	12	11	13	13	17	15	15	15	14	14	12	13	14	15	14	14	13	10	9	18.3
5-May	10	11	11	14	15	15	14	17	12	12	15	11	12	9	12	9	10	13	12	14	11	9	10	12	16.6
6-May	8	8	8	7	7	7	17	9	14	38	69	70	52	75	82	78	82	47	59	18	15	7	10	6	81.9
7-May	12	5	8	12	19	58	60	32	47	18	18	49	23	17	31	14	38	29	27	38	22	12	48	64	64.4
8-May	39	62	55	75	32	33	16	10	25	36	48	38	45	62	37	20	45	32	25	11	9	45	55	48	74.7
9-May	62	31	12	30	42	55	37	16	44	23	14	24	33	47	89	71	79	41	32	7	6	6	6	7	89.0
10-May	7	6	8	10	10	9	11	12	15	32	20	22	23	20	16	27	22	17	12	10	8	9	11	8	31.8
11-May	6	5	6	7	15	9	10	11	15	17	18	21	23	35	26	23	23	15	14	8	6	6	10	7	35.1
12-May	5	5	5	5	6	6	8	10	10	10	16	15	19	15	14	14	14	12	12	8	7	7	6	8	18.9
13-May	5	6	7	7	6	5	6	8	10	11	11	13	14	12	18	13	18	12	9	7	7	5	7	6	18.4
14-May	6	5	5	5	5	6	8	11	18	19	19	21	20	26	22	19	21	15	12	10	10	7	9	7	26.0
15-May	4	9	7	24	14	12	15	23	62	76	69	71	74	50	63	46	51	25	32	51	28	59	23	60	76.3
16-May	15	12	12	14	13	17	17	14	17	18	21	23	26	26	27	25	27	25	22	15	11	9	12	7	26.9
17-May	6	7	9	6	6	6	9	8	14	16	14	17	19	19	23	20	16	23	13	18	11	8	8	10	23.3
18-May	6	7	12	9	7	8	8	12	14	19	18	26	22	28	27	25	21	22	13	8	8	5	7	6	27.7
19-May	6	6	10	8	9	12	15	14	19	30	19	29	30	44	38	39	21	18	11	6	6	7	7	6	43.8
20-May	7	6	6	7	13	9	13	17	30	32	30	34	47	42	61	23	37	44	25	11	10	10	16	35	60.8
21-May	51	60	58	55	34	85	30	83	60	83	84	60	43	40	29	31	23	41	24	82	29	7	10	18	84.7
22-May	35	35	35	69	20	27	45	28	42	25	30	29	21	27	31	32	23	17	22	12	11	21	13	14	69.0
23-May	14	15	13	73	27	56	9	13	26	36	29	20	16	16	23	32	15	15	11	9	8	8	7	6	73.2
24-May	8	6	9	10	53	53	91	22	20	28	36	21	25	29	44	19	16	17	36	66	15	32	18	23	91.3
25-May	27	25	29	21	28	51	30	15	16	27	48	34	60	47	56	21	21	18	14	46	22	21	14	8	59.6
26-May	5	12	12	27	33	21	37	21	40	68	78	77	66	86	50	51	49	27	15	37	28	30	15	30	85.9
27-May	38	55	21	20	26	73	34	14	13	22	26	32	24	18	47	36	17	21	47	30	14	15	15	19	72.5
28-May	18	15	17	17	18	18	11	11	13	15	22	19	30	26	20	26	19	15	12	11	9	8	7	11	30.4
29-May	17	12	9	8	8	7	10	12	14	16	14	16	19	14	14	11	12	15	13	13	12	16	10	10	18.9
30-May	8	10	8	8	6	9	10	11	11	20	14	19	18	48	47	77	64	29	46	27	48	26	24	20	76.8
31-May	15	13	14	14	12	12	12	14	13	12	18	13	10	18	13	13	12	11	13	16	54	64	52	64	64.1
	76.0	76.7	85.7	74.7	93.6	84.7	91.3	82.7	61.7	82.6	84.4	77.3	74.1	85.9	89.0	83.2	81.9	46.6	82.9	81.7	69.9	63.5	55.3	64.4	

PAZA
Evergreen Park Station
Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Evergreen Park - May 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 8.2 ppb on May 7 12:00 Maximum Daily Average: 0.5 ppb on May 7

Minimum Value: 0 ppb on May 1 11:00 Minimum Daily Average: 0.0 ppb on May 5
Maximum Diurnal Average: 0.6 ppb at hour 12 Minimum Diurnal Average: 0.1 ppb at hour 5
Monthly Average: 0.19 ppb Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.1 Q_3 = 0.2 P_{90} = 0.4 P_{99} = 0.8

Hours in Service:	744
Hours of Data:	705
Hours of Missing Data:	39
Hours of Calibration:	35
Percent Operational Time:	99.5

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	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.0	0.4
2-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	0.3
3-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	0.2
4-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
5-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
6-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
7-May	0	0	0	0	0	0	0	0	0	0	0	8	A	1	0	0	0	0	0	0	0	0	0	0	0.5	8.2
8-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
9-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
10-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
11-May	0	1	0	0	0	0	0	1	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
12-May	0	0	0	0	0	0	0	A	0	0	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
13-May	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	1	0.3	0.8
14-May	1	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	0.6
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	0.2
16-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	0.1
17-May	0	0	A	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	1	1	1	0.3	1.0
18-May	0	A	0	0	0	0	0	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
19-May	A	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0.3	0.7
20-May	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0.2	0.5
21-May	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	A	0	0	0.2	0.6
22-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	0.5
23-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	0.5
24-May	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.2	0.5
25-May	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0	A	0	0	0	0	0	0	0.4	1.4
26-May	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.2	0.7
27-May	0	0	0	0	0	0	0	0	1	1	1	1	2	1	0	A	0	0	0	0	1	0	0	0	0.4	1.6
28-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
29-May	0	0	0	0	0	0	0	0	0	1	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0.2	0.6
30-May	0	0	0	0	0	0	P	P	P	P	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
31-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
	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.3	0.6	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	Diurnal Average	
	0.6	0.7	0.6	0.3	0.3	0.3	0.5	0.7	0.7	1.0	0.7	8.2	1.6	1.1	0.6	0.4	0.3	0.5	0.7	0.8	0.6	0.6	0.6	0.5	Diurnal Maximum	

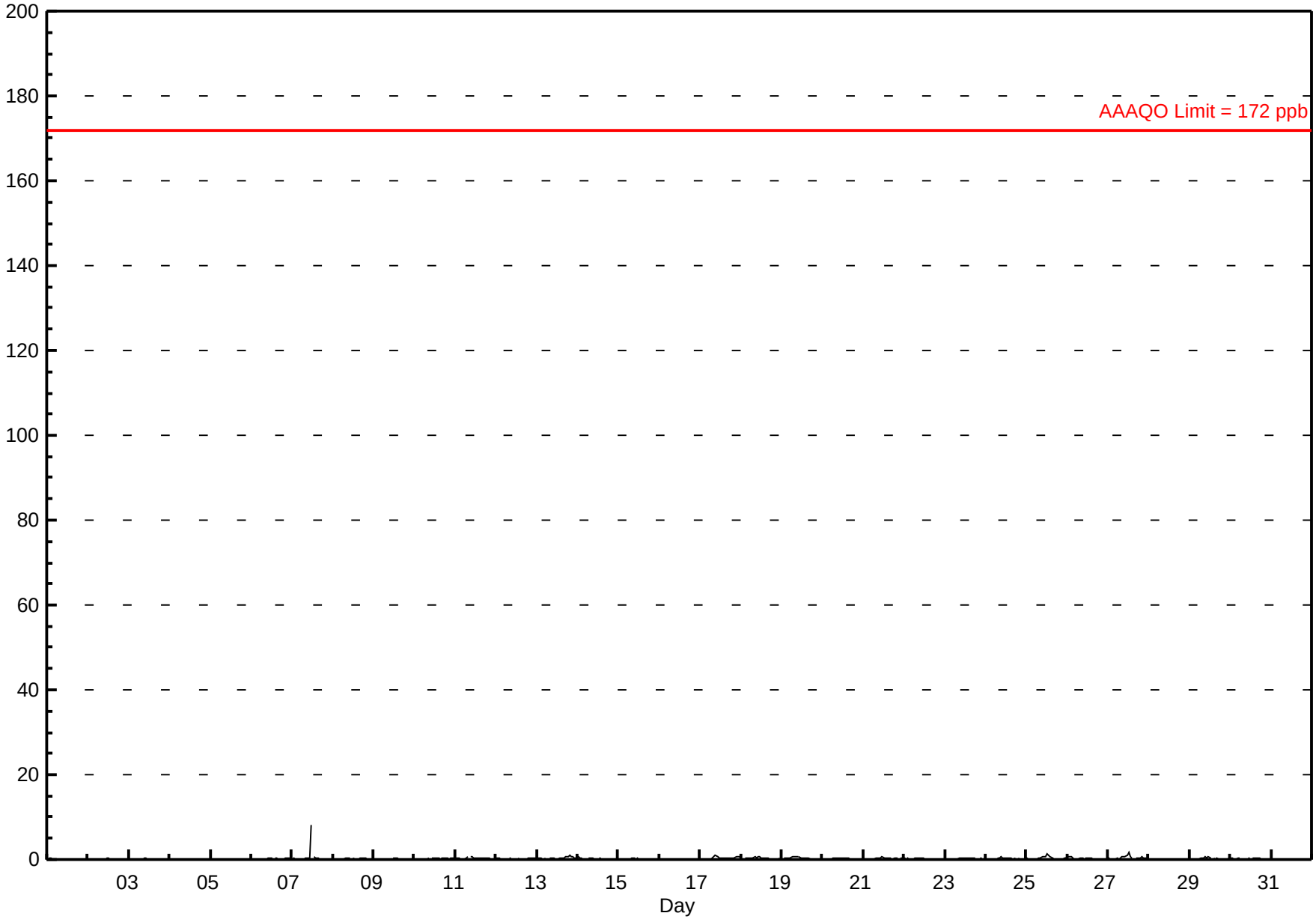
C - Calibration P - Power Failure A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Evergreen Park - May 2015



Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Evergreen Park - May 2015

Maximum Value: 19.5 ppb on May 7 12:00

Maximum Daily Average: 1.5 ppb on May 7

Minimum Value: 0 ppb on May 1 14:00

Minimum Daily Average: 0.5 ppb on May 5

Maximum Diurnal Average: 1.6 ppb at hour 12

Minimum Diurnal Average: 0.6 ppb at hour 6

Monthly Average: 0.71 ppb

Percentiles: $P_1 = 0.3$ $P_{10} = 0.4$ $Q_1 = 0.5$ Median = 0.6 $Q_3 = 0.8$ $P_{90} = 1.0$ $P_{99} = 1.7$

Hours in Service:	744
Hours of Data:	705
Hours of Missing Data:	39
Hours of Calibration:	35
Percent Operational Time:	99.5

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	1	2	0	0	0	0	0	0	1	0	A	0	0	0	0	0	0.6	2.2
2-May	0	0	0	1	1	0	0	0	1	0	1	1	1	1	1	0	1	A	0	1	1	1	1	0	0.5	1.0
3-May	0	1	1	1	1	0	1	0	0	1	1	0	1	1	1	0	A	1	1	1	1	0	1	1	0.6	0.9
4-May	0	1	0	0	0	1	0	1	1	0	0	1	1	1	1	A	1	0	1	1	1	0	1	0	0.5	0.8
5-May	0	0	0	1	1	0	0	0	0	0	0	1	0	1	A	0	0	0	1	0	1	1	0	0	0.5	0.7
6-May	0	1	1	0	1	0	1	1	1	0	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.6	1.0
7-May	1	1	1	0	1	1	1	1	1	1	1	20	A	1	1	1	1	1	1	1	1	1	1	1	1.5	19.5
8-May	1	1	1	1	0	1	0	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0	0.7	0.9
9-May	0	1	0	0	0	0	1	1	0	1	A	1	1	1	1	1	1	1	0	1	1	1	1	0	0.6	0.8
10-May	0	1	1	1	0	1	0	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
11-May	1	1	1	1	0	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1
12-May	1	1	1	1	1	1	1	A	1	1	C	C	C	1	1	1	1	1	0	1	1	1	1	1	0.7	1.2
13-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	0.9	1.4
14-May	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0	0	1	1	1	0	1	1	0	0.7	1.3
15-May	1	1	0	0	A	0	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	1	0	0.6	0.8
16-May	1	0	0	A	0	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1	1	0	1	0.5	0.7
17-May	1	1	A	1	1	0	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.6
18-May	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0.8	1.2
19-May	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	1	A	0.8	1.3
20-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	A	1	0.7	1.2
21-May	1	0	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.8	1.4
22-May	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	A	0	1	1	0.7	0.9
23-May	1	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.6	1.0
24-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0	1	1	0.8	1.3
25-May	1	1	1	1	1	1	1	1	1	2	1	2	2	2	2	1	1	A	1	1	1	1	1	1	0.9	1.9
26-May	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.7	1.5
27-May	1	0	1	1	1	1	1	1	1	1	1	2	2	2	1	A	1	1	1	1	3	1	1	1	1.0	3.0
28-May	1	1	1	1	1	1	1	1	0	0	1	1	0	0	A	1	0	0	0	0	0	0	0	0	0.5	0.8
29-May	0	0	0	0	1	0	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.7	1.1
30-May	1	1	1	1	1	1	P	P	P	P	1	1	A	1	1	1	1	1	1	0	1	1	1	1	0.7	1.0
31-May	0	0	0	0	1	0	1	0	0	0	0	A	0	0	1	0	0	0	0	1	1	1	1	0	0.5	0.8
	0.6	0.7	0.6	0.6	0.6	0.6	0.6	0.7	0.8	0.9	0.8	1.6	0.8	0.8	0.7	0.7	0.6	0.7	0.6	0.6	0.7	0.6	0.7	0.6	Diurnal Average	
	1.3	1.5	1.3	0.9	0.8	0.9	1.0	1.3	1.4	2.2	1.4	19.5	2.2	1.8	1.6	1.0	0.9	1.2	1.4	1.4	3.0	1.0	1.4	1.3	Diurnal Maximum	

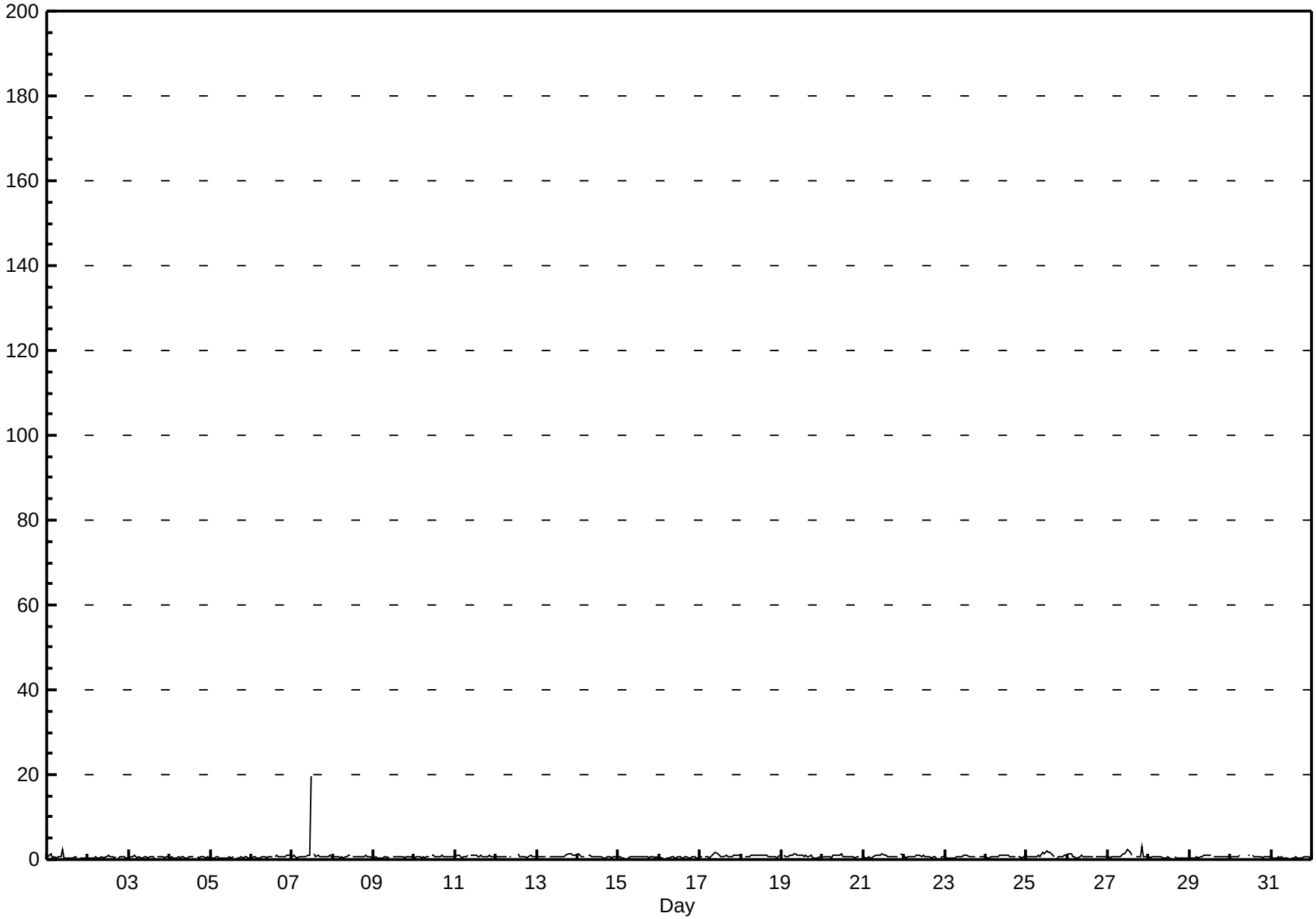
C - Calibration P - Power Failure A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

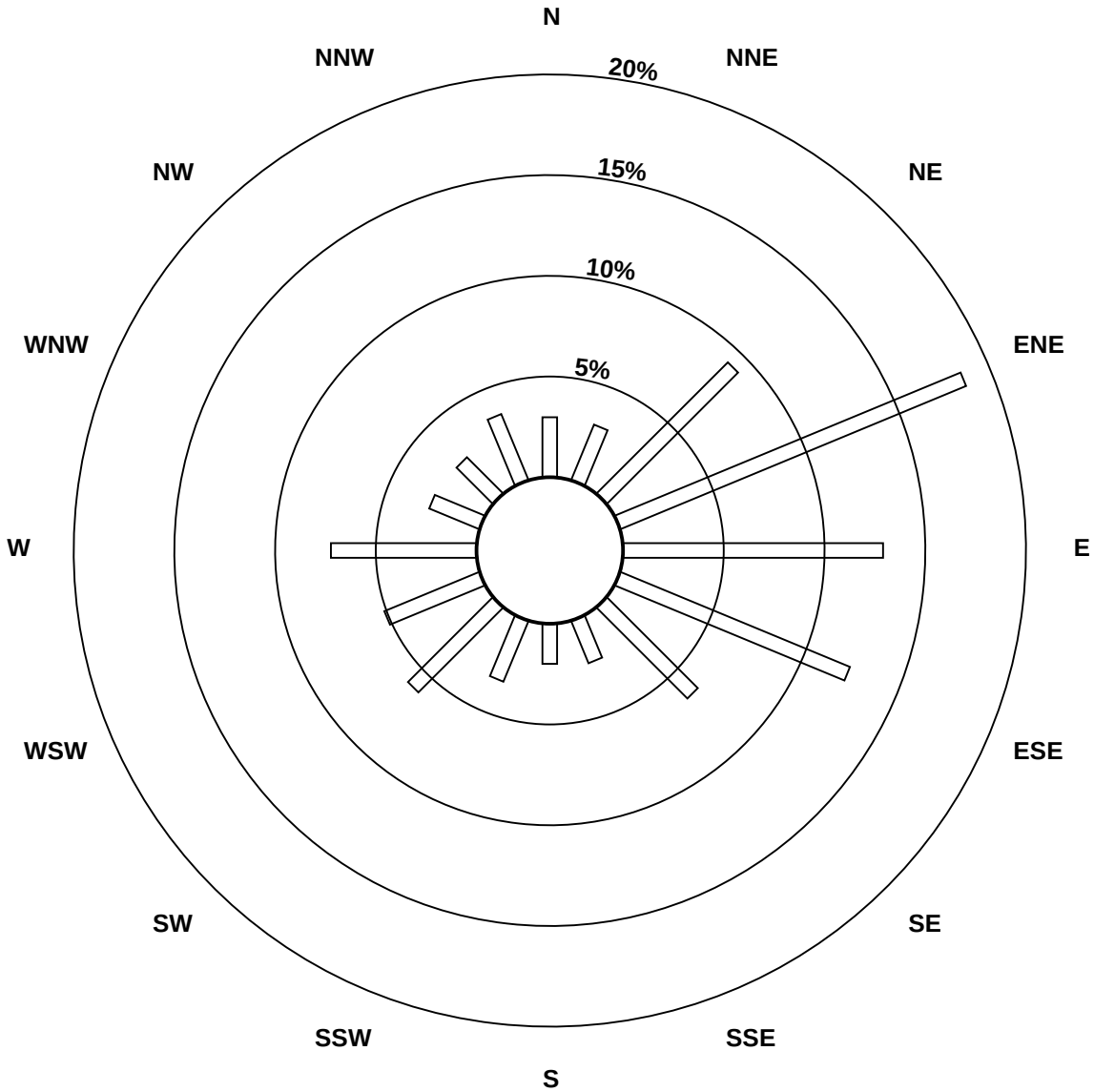
Evergreen Park - May 2015



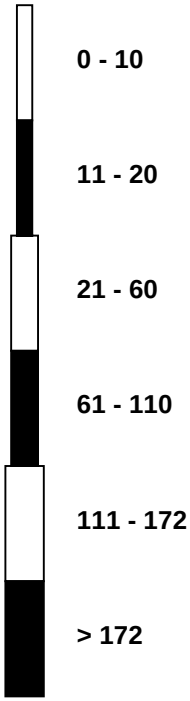
Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Evergreen Park - May 2015



Pollutant Classes (ppb)

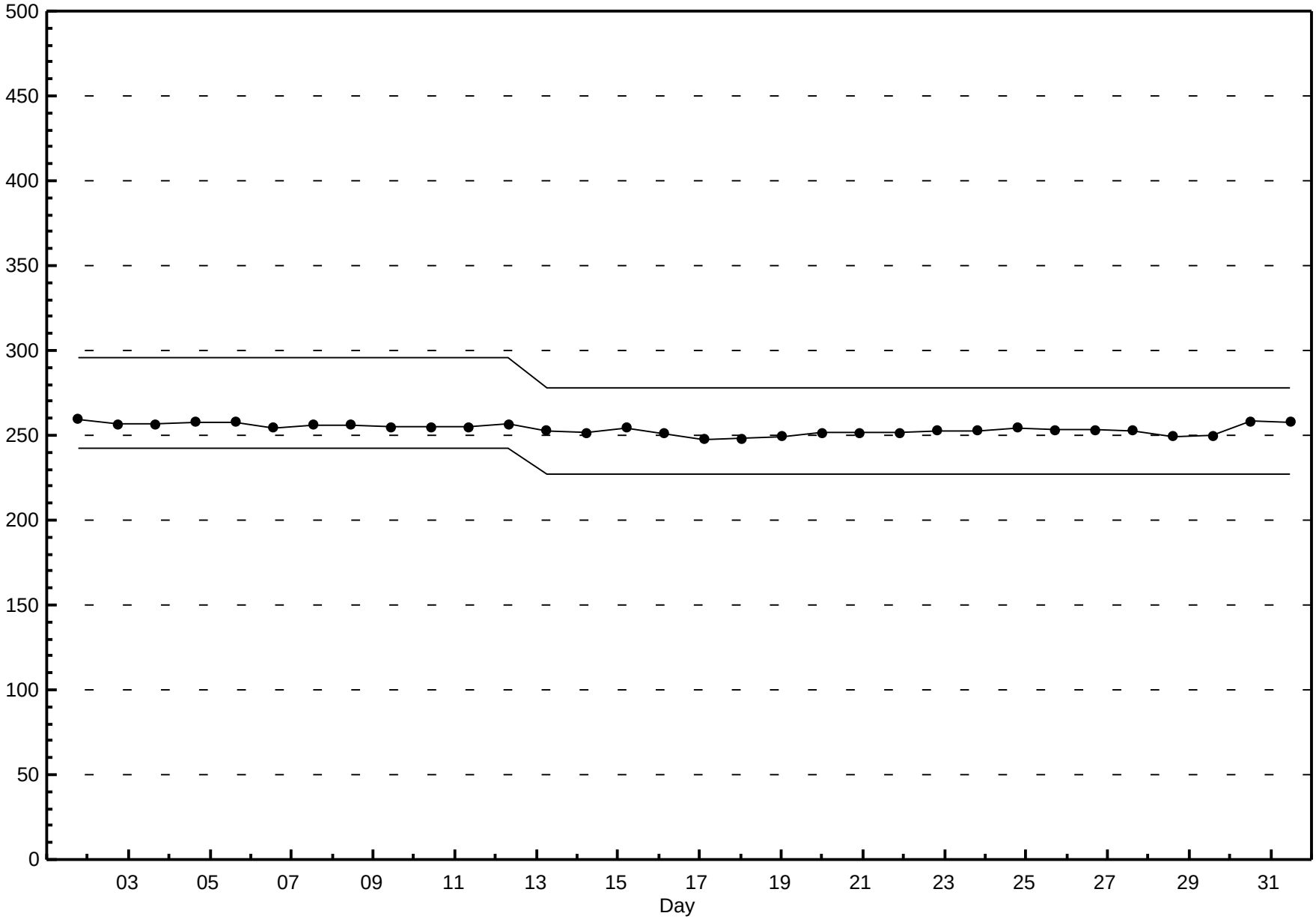


Peace Airshed Zone Association

Span Responses

Sulphur Dioxide (SO_2)

Evergreen Park - May 2015



Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Evergreen Park - May 2015

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

Maximum Value: 1.3 ppb on May 9 05:00 Maximum Daily Average: 0.5 ppb on May 27

Minimum Value: 0 ppb on May 12 13:00 Minimum Daily Average: 0.1 ppb on May 29

Maximum Diurnal Average: 0.3 ppb at hour 7 Minimum Diurnal Average: 0.2 ppb at hour 19

Monthly Average: 0.26 ppb Percentiles: $P_1 = 0.0$ $P_{10} = 0.1$ $Q_1 = 0.2$ Median = 0.2 $Q_3 = 0.3$ $P_{90} = 0.5$ $P_{99} = 0.7$

Hours in Service:	744
Hours of Data:	704
Hours of Missing Data:	40
Hours of Calibration:	36
Percent Operational Time:	99.5

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

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

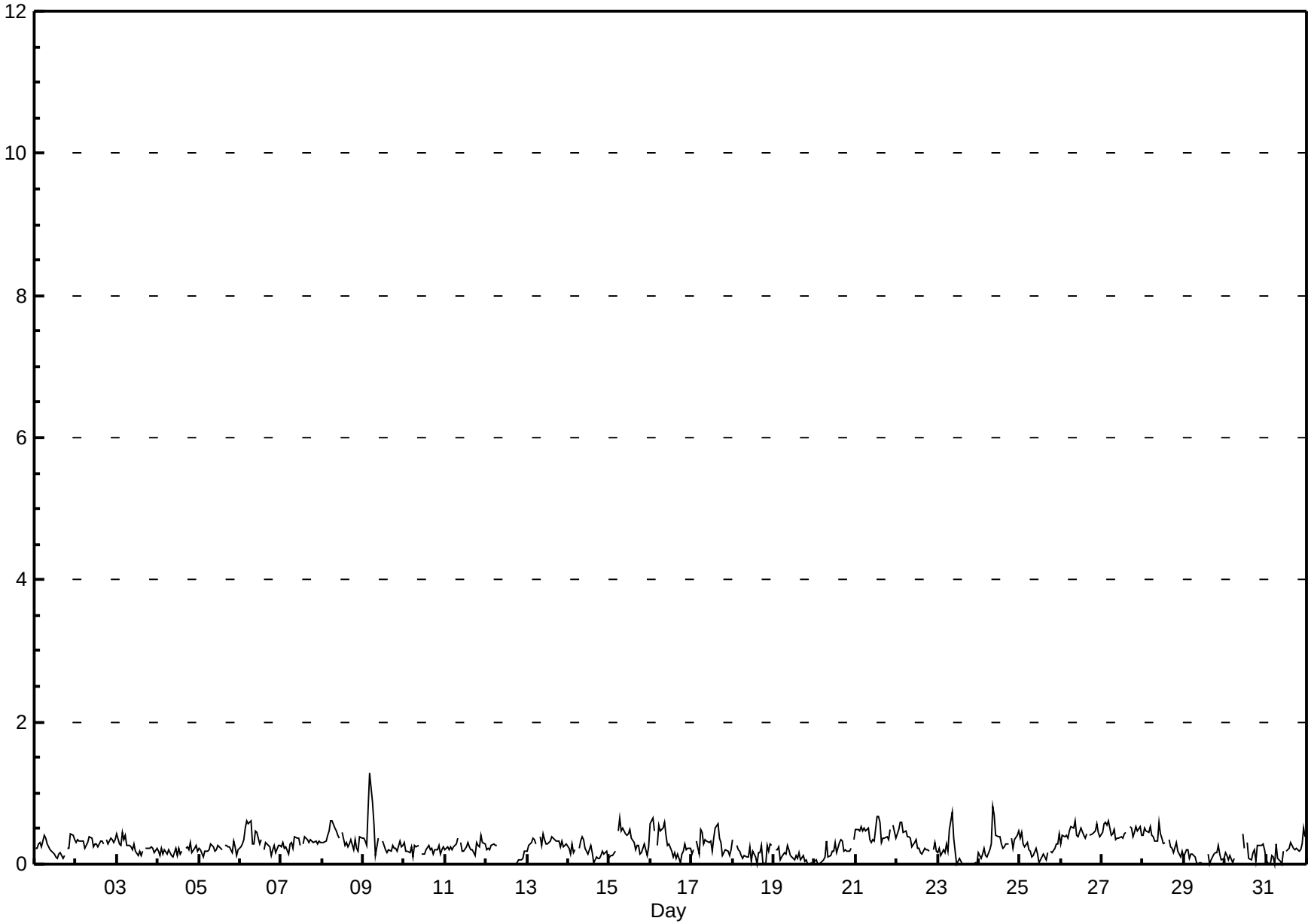
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb

Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Evergreen Park - May 2015



Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

Evergreen Park - May 2015

Maximum Value: 2.1 ppb on May 9 05:00

Maximum Daily Average: 1.3 ppb on May 21

Minimum Value: 0 ppb on May 31 06:00

Maximum Diurnal Average: 1.2 ppb at hour 7

Monthly Average: 1.06 ppb

Minimum Daily Average: 0.9 ppb on May 12

Minimum Diurnal Average: 1.0 ppb at hour 16

Percentiles: $P_1 = 0.6$ $P_{10} = 0.8$ $Q_1 = 0.9$ Median = 1.0 $Q_3 = 1.2$ $P_{90} = 1.3$ $P_{99} = 1.7$

Hours in Service:	744
Hours of Data:	704
Hours of Missing Data:	40
Hours of Calibration:	36
Percent Operational Time:	99.5

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	2	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1.1	1.8
2-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	1.1	1.2
3-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1.0	1.3
4-May	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1.0	1.5
5-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	1.4
6-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	1.1	1.5
7-May	1	1	1	1	1	1	1	1	1	2	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1.1	1.6
8-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	1.2	1.5
9-May	1	1	1	2	2	2	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	2.1
10-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	1.0	1.2
11-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	1.1	1.4
12-May	1	1	1	1	1	1	1	A	C	C	C	C	1	1	1	1	0	1	1	1	1	1	1	1	0.9	1.2
13-May	1	1	1	1	1	1	A	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1.2	1.5
14-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	1.0	1.4
15-May	1	1	1	1	A	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.8
16-May	1	2	1	A	1	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	1.7
17-May	1	1	A	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1.1	1.6
18-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	0.9	1.2
19-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	1.3
20-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	1.0	1.5
21-May	1	1	1	1	1	1	2	1	1	1	1	1	2	2	1	1	1	1	1	1	2	A	2	1	1.3	1.7
22-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1.1	1.4
23-May	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.9	1.6
24-May	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1.1	1.7
25-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
26-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1.2	1.5
27-May	1	1	2	1	1	1	1	1	1	1	1	1	1	2	1	A	1	1	1	1	1	1	2	1	1.3	1.5
28-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	1.1	1.5
29-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	0.9	1.2
30-May	1	1	1	1	1	1	P	P	P	P	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1.0	1.5
31-May	1	1	1	1	1	0	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.5
	1.0	1.1	1.1	1.1	1.1	1.1	1.2	1.1	1.1	1.1	1.1	1.0	1.0	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.1	1.1	1.1	1.1	Diurnal Average	
	1.3	1.7	1.6	1.8	2.1	1.9	1.7	1.5	1.8	1.8	1.5	1.4	1.7	1.6	1.5	1.4	1.5	1.4	1.3	1.4	1.5	1.4	1.7	1.5	Diurnal Maximum	

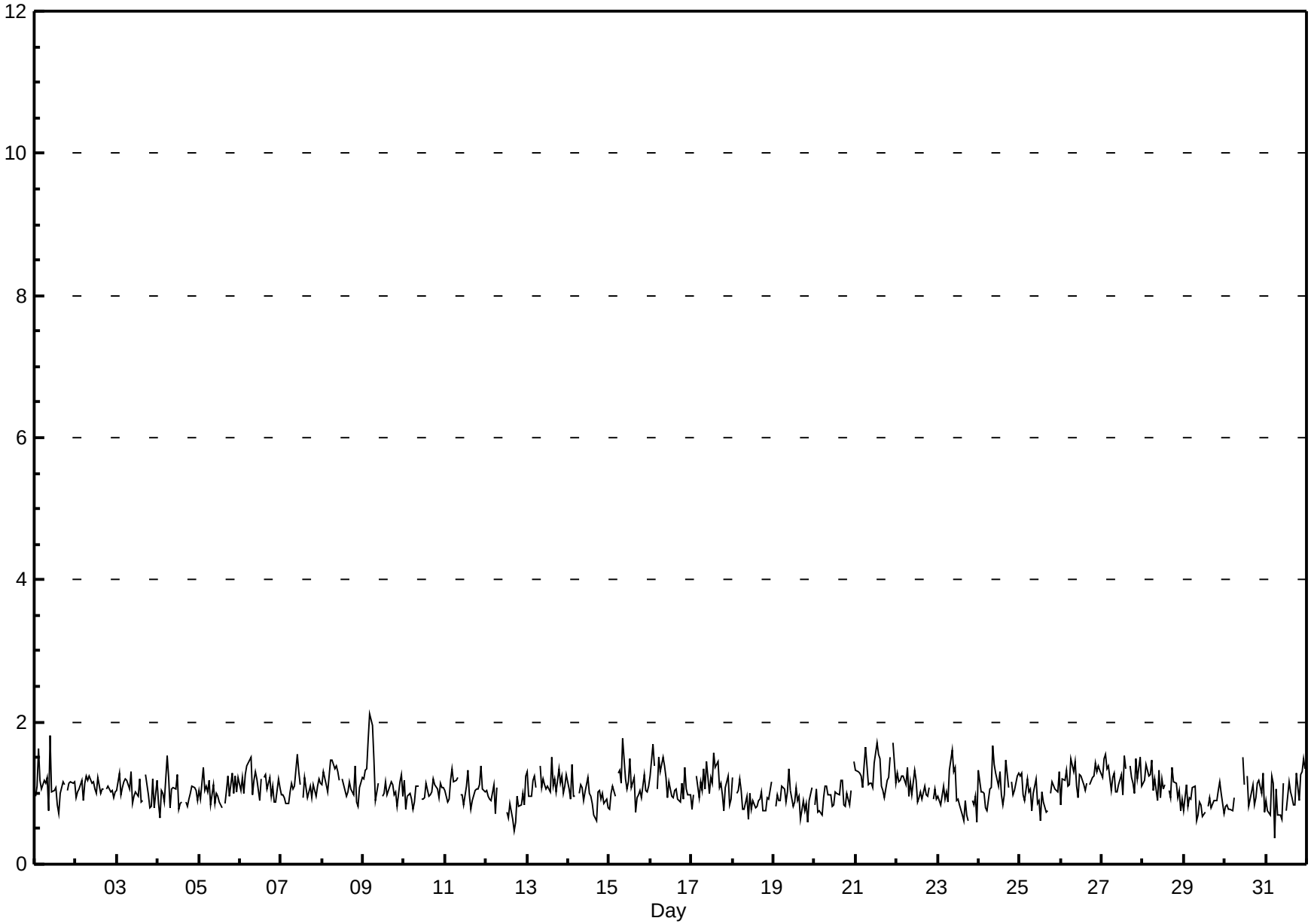
C - Calibration P - Power Failure A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

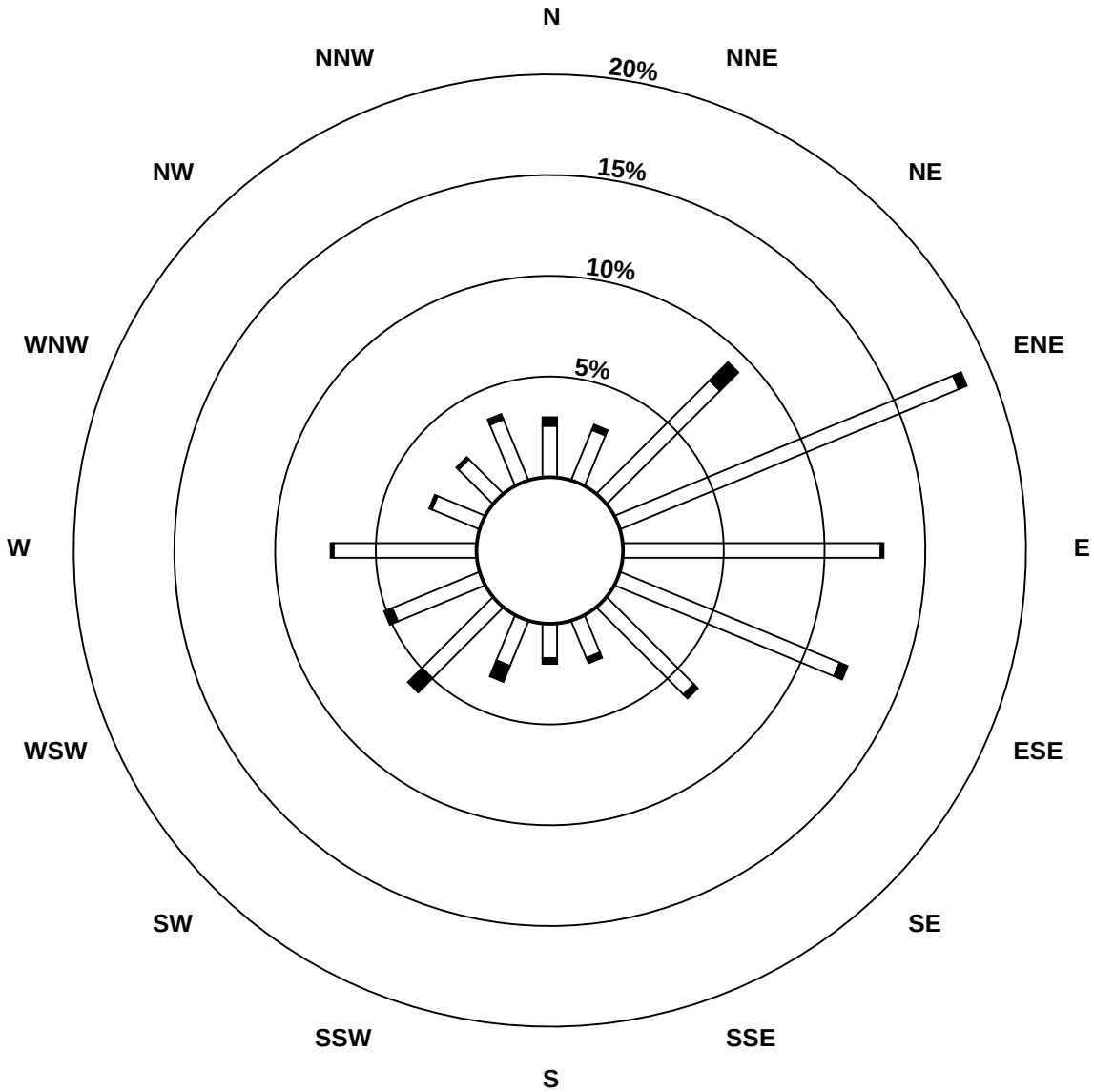
Evergreen Park - May 2015



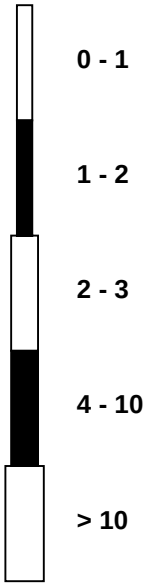
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb

Evergreen Park - May 2015



Pollutant Classes (ppb)

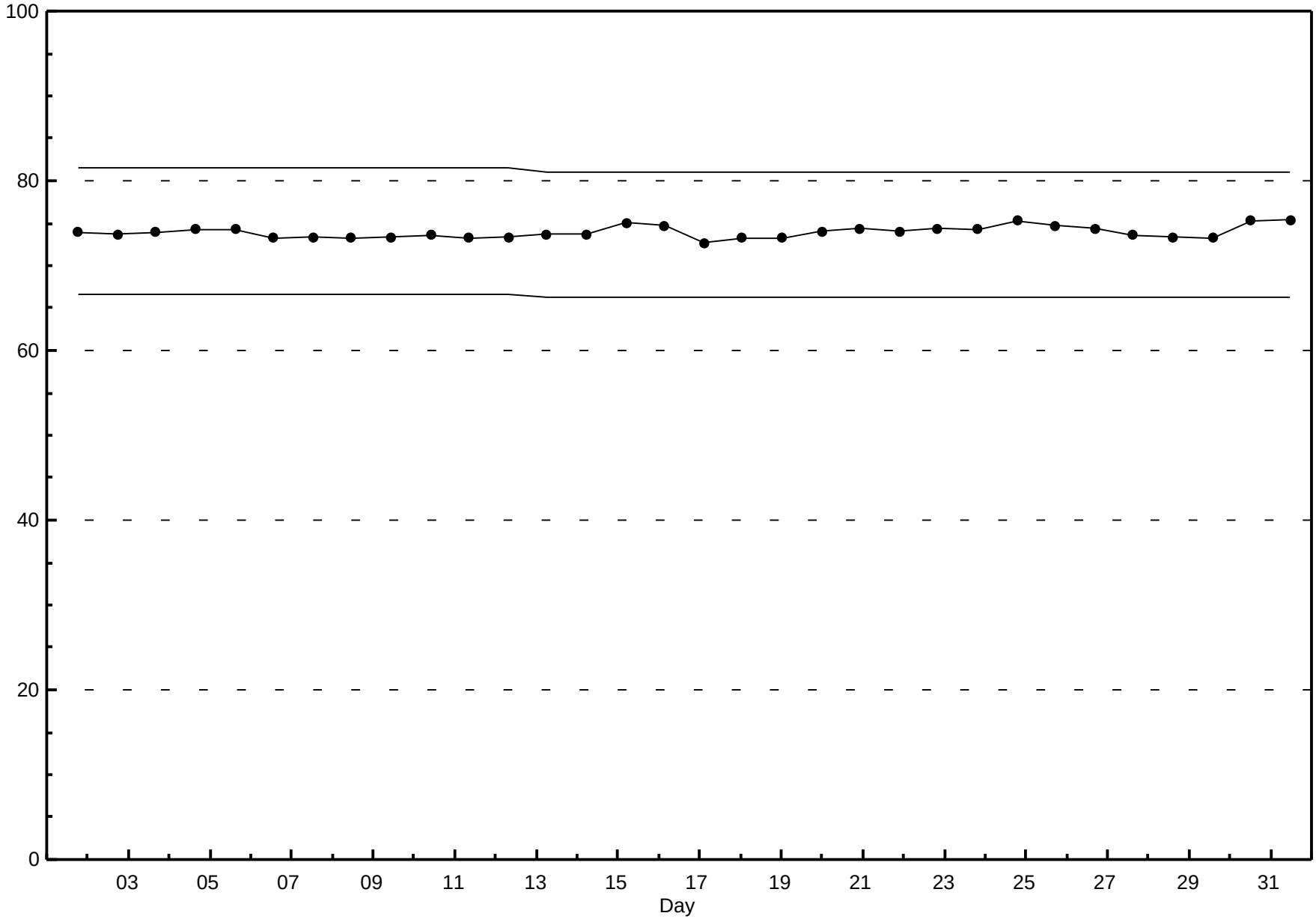


Peace Airshed Zone Association

Span Responses

Total Reduced Sulphur (TRS)

Evergreen Park - May 2015



Peace Airshed Zone Association

Hourly Averages

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

Evergreen Park - May 2015

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

Maximum Value: 26.0 $\mu g/m^3$ on May 24 10:00

Maximum Daily Average: 14.8 $\mu g/m^3$ on May 24

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

Maximum Diurnal Average: 6.8 $\mu g/m^3$ at hour 8

Monthly Average: 5.18 $\mu g/m^3$

Minimum Daily Average: 0.1 $\mu g/m^3$ on May 28

Minimum Diurnal Average: 3.5 $\mu g/m^3$ at hour 14

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 1.5 Median = 3.7 Q_3 = 7.4 P_{90} = 12.4 P_{99} = 21.5

Hours in Service:	744
Hours of Data:	736
Hours of Missing Data:	8
Hours of Calibration:	3
Percent Operational Time:	99.3

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-May	0	0	0	0	0	0	1	0	1	1	1	5	4	4	4	5	3	4	4	2	1	2	4	0	2.0	5.2
2-May	0	0	0	0	1	1	1	3	2	2	1	0	0	0	0	0	2	3	1	1	1	1	1	0	0.9	2.7
3-May	0	0	1	2	4	2	2	2	0	0	0	0	0	1	0	0	0	3	1	1	1	1	1	1	1.0	3.9
4-May	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	0.2	1.2
5-May	1	0	0	1	0	2	1	2	1	0	1	0	1	0	1	0	0	0	0	1	1	1	1	0	0.7	2.1
6-May	0	0	0	1	0	2	1	1	1	1	1	2	1	2	2	2	2	2	2	3	4	4	3	3	1.6	3.9
7-May	2	3	2	2	3	4	3	3	5	6	3	4	3	0	2	6	0	1	0	2	3	9	4	2	3.0	8.6
8-May	4	4	3	3	5	7	9	4	2	2	4	1	0	1	2	2	3	3	3	6	4	8	9	10	4.2	9.9
9-May	11	12	12	10	9	8	9	3	3	3	2	3	3	3	4	4	3	4	5	6	3	4	5	6	5.6	11.8
10-May	5	4	2	3	4	4	5	5	6	6	3	2	3	3	3	3	3	3	4	4	6	6	6	5	4.1	6.1
11-May	5	4	5	4	4	4	4	3	3	3	3	2	1	2	4	3	4	3	3	3	4	4	2	3	3.4	4.8
12-May	3	3	4	4	3	4	4	3	3	C	C	C	N	10	8	7	6	6	7	7	8	7	7	12	5.8	11.6
13-May	7	6	6	6	5	5	5	6	6	7	7	6	5	6	6	5	6	6	6	7	8	8	8	9	6.4	8.6
14-May	9	9	9	9	9	9	10	9	10	7	4	5	4	4	4	5	4	4	4	5	5	6	5	5	6.5	9.6
15-May	5	5	5	6	6	7	7	7	11	8	6	4	3	3	2	3	3	5	4	8	7	10	5	7	5.7	11.1
16-May	2	4	3	3	2	3	1	1	1	0	0	1	1	1	2	1	1	1	2	2	2	3	2	2	1.7	3.7
17-May	1	1	1	2	2	1	2	2	2	1	1	1	1	1	2	2	2	3	2	3	2	3	2	3	1.9	3.1
18-May	4	3	3	4	3	3	3	3	3	3	3	3	3	3	3	3	2	2	2	1	4	5	4	4	3.0	4.8
19-May	4	4	4	4	4	4	5	4	4	4	3	3	2	2	3	3	2	3	3	3	3	4	4	5	3.4	5.2
20-May	5	6	6	5	5	5	5	4	4	5	5	5	2	3	2	2	2	3	4	5	8	7	8	9	4.8	9.1
21-May	10	10	9	10	9	10	15	24	19	15	19	11	8	4	1	3	4	6	5	12	11	15	12	11	10.6	23.9
22-May	10	12	12	10	11	15	21	22	20	16	11	10	3	6	5	2	6	4	4	5	8	9	11	13	10.2	21.7
23-May	13	11	10	11	11	13	14	15	17	15	10	5	4	5	4	6	6	7	7	10	14	16	18	19	10.8	19.0
24-May	19	18	18	18	19	19	22	20	24	26	22	19	11	1	2	22	11	6	6	12	10	11	8	9	14.8	26.0
25-May	8	7	8	7	7	12	18	19	15	12	14	13	15	14	12	13	21	9	10	12	17	14	15	14	12.7	20.5
26-May	13	13	11	11	12	13	17	16	13	14	11	12	14	12	12	9	9	11	13	19	13	12	14	13	12.8	19.2
27-May	14	14	11	9	10	12	15	21	21	17	12	13	11	11	25	14	13	7	10	9	12	16	9	7	13.0	25.4
28-May	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	2.6
29-May	0	0	0	0	1	2	1	2	2	1	1	3	2	4	5	7	4	4	4	6	6	4	2	2	2.7	7.4
30-May	1	0	1	1	1	1	P	P	P	P	11	6	3	3	4	3	5	8	10	7	6	2	6	8	4.3	10.7
31-May	6	3	3	4	2	2	3	0	0	0	1	0	1	0	2	2	1	3	4	8	8	0	8	5	2.8	8.3
	5.4	5.1	4.8	4.8	5.0	5.6	6.8	6.8	6.6	6.0	5.4	4.6	3.7	3.5	4.1	4.4	4.1	4.0	4.2	5.5	5.8	6.2	6.0	6.0	Diurnal Average	
	18.7	18.2	18.3	18.5	18.8	18.9	22.0	23.9	24.1	26.0	21.5	19.3	15.4	14.0	25.4	22.4	20.5	11.0	13.0	19.2	17.3	15.7	18.1	19.0	Diurnal Maximum	

C - Calibration P - Power Failure N - Not Valid

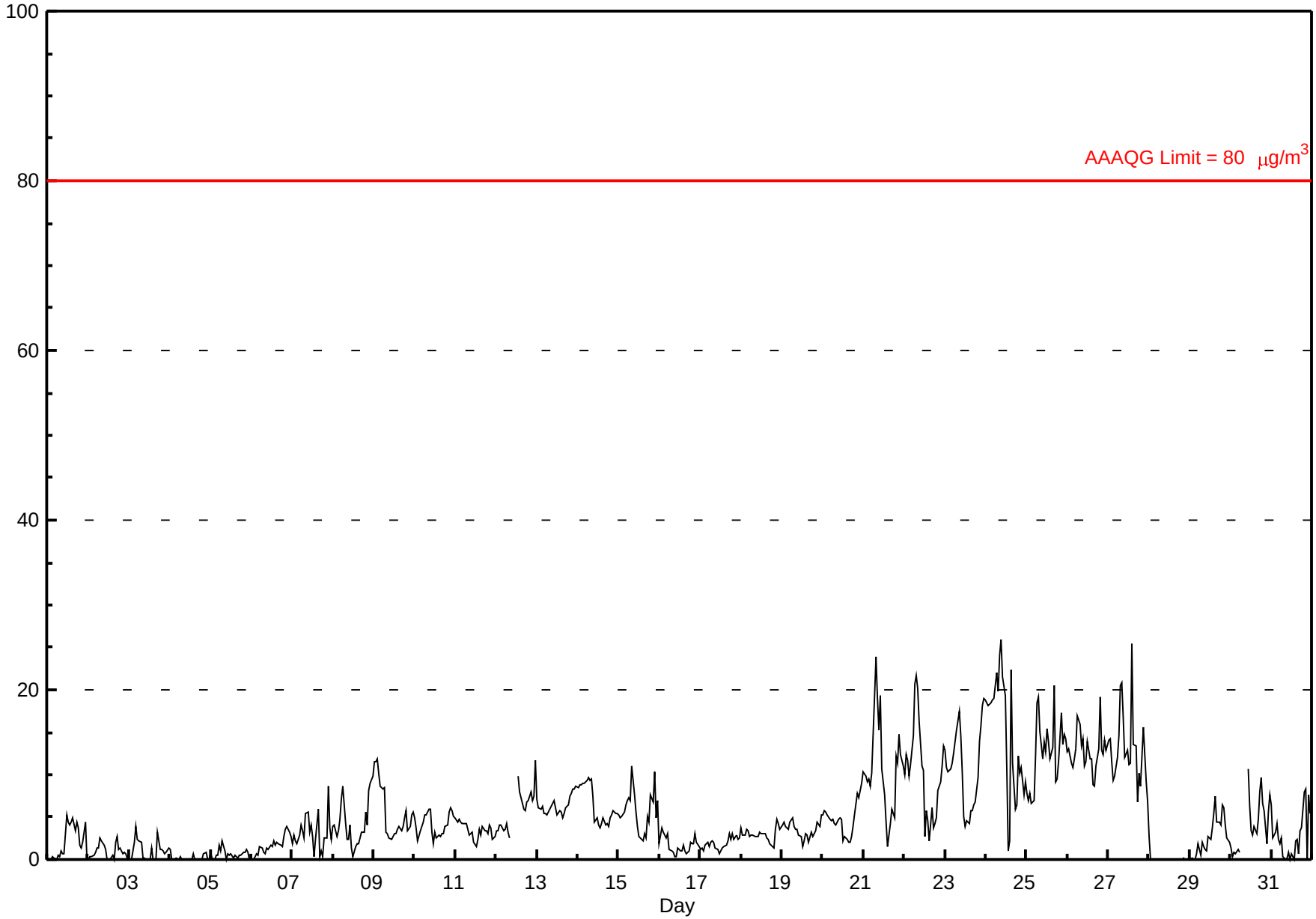
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 $\mu g/m^3$ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 $\mu g/m^3$

Peace Airshed Zone Association

Hourly Averages

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

Evergreen Park - May 2015



Peace Airshed Zone Association

Hourly Maximums

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

Evergreen Park - May 2015

Maximum Value: 63.4 $\mu g/m^3$ on May 27 15:00

Maximum Daily Average: 22.1 $\mu g/m^3$ on May 27

Minimum Value: 0 $\mu g/m^3$ on May 4 02:00

Minimum Daily Average: 1.6 $\mu g/m^3$ on May 4

Maximum Diurnal Average: 10.5 $\mu g/m^3$ at hour 8

Minimum Diurnal Average: 6.7 $\mu g/m^3$ at hour 4

Monthly Average: 8.59 $\mu g/m^3$

Percentiles: $P_1 = 0.7$ $P_{10} = 2.3$ $Q_1 = 4.1$ Median = 6.5 $Q_3 = 10.3$ $P_{90} = 18.9$ $P_{99} = 29.8$

Hours in Service:	744
Hours of Data:	736
Hours of Missing Data:	8
Hours of Calibration:	3
Percent Operational Time:	99.3

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-May	1	2	1	2	2	2	2	2	4	2	2	9	9	9	7	14	10	10	7	3	4	5	10	3	5.1	14.1
2-May	2	2	2	2	3	5	4	5	4	3	4	2	0	6	6	5	7	7	5	4	2	2	2	3	3.6	6.9
3-May	1	3	3	4	5	6	4	7	2	2	1	2	2	8	4	1	2	7	3	2	4	2	3	3	3.4	7.7
4-May	3	0	2	1	2	2	1	2	1	1	2	0	1	2	3	2	2	2	0	2	2	4	2	3	1.6	4.0
5-May	3	2	3	3	3	4	3	5	2	2	3	3	3	2	3	4	3	3	3	4	3	3	2	2	2.8	4.6
6-May	1	1	2	2	2	3	3	3	3	7	3	4	5	5	4	4	5	4	5	6	5	6	6	5	3.8	6.5
7-May	4	5	4	4	5	7	6	5	9	7	5	7	5	4	6	11	3	4	2	7	7	14	5	5	5.8	14.1
8-May	6	7	5	5	7	9	12	8	5	6	8	4	4	4	4	5	5	7	6	9	6	15	14	13	7.2	14.8
9-May	13	14	13	12	11	10	13	5	7	5	6	7	7	6	7	8	8	6	10	9	6	6	9	7	8.6	13.8
10-May	8	6	7	6	7	7	8	9	9	9	7	4	6	7	7	5	7	7	7	6	8	8	8	7	7.1	9.4
11-May	6	6	7	6	6	7	7	7	6	7	7	6	5	8	8	7	8	6	7	8	8	6	7	4	6.7	8.2
12-May	6	6	6	6	5	7	7	7	7	C	C	C	N	14	11	8	7	8	9	8	10	8	10	13	8.2	13.8
13-May	9	7	7	9	8	7	7	7	9	9	8	8	7	7	7	7	7	8	8	8	10	9	10	10	8.2	10.2
14-May	10	10	10	11	10	11	11	12	11	10	6	6	6	6	6	7	6	6	5	7	8	8	7	7	8.2	12.2
15-May	7	7	6	7	8	9	9	8	15	16	7	6	4	5	4	5	6	7	6	10	11	18	9	8	8.3	17.9
16-May	7	5	4	4	4	5	3	2	3	2	2	4	4	3	5	2	2	4	4	3	3	5	4	3	3.6	6.7
17-May	3	3	2	3	3	3	3	4	3	3	3	2	3	3	3	4	5	6	4	5	4	4	4	4	3.4	5.5
18-May	7	5	4	5	5	4	4	5	4	4	4	6	4	5	5	5	4	3	3	5	5	8	6	6	4.8	8.0
19-May	9	9	6	5	5	8	7	6	5	6	5	4	3	5	6	6	4	5	4	5	5	7	6	11	5.8	10.7
20-May	8	9	8	6	6	7	7	6	6	6	7	7	6	6	5	5	5	5	7	7	11	9	10	12	7.1	11.7
21-May	13	14	11	11	11	13	20	32	28	21	22	16	12	9	9	6	9	10	13	21	15	19	19	14	15.4	31.9
22-May	13	14	14	13	14	17	28	27	24	20	16	21	7	9	9	5	26	13	8	7	12	13	15	16	15.0	28.4
23-May	15	14	14	13	14	16	17	21	20	19	19	11	9	12	9	11	9	11	10	12	16	17	21	20	14.6	20.9
24-May	23	20	20	21	22	20	25	25	28	29	26	26	23	8	14	45	30	11	10	20	12	17	10	14	20.8	45.1
25-May	14	9	9	8	10	17	26	28	23	17	18	21	23	28	21	36	44	17	16	16	25	26	20	17	20.4	44.1
26-May	16	16	14	13	14	15	22	22	17	20	25	16	32	19	21	16	14	17	22	50	18	19	17	15	19.7	50.2
27-May	18	18	14	11	12	14	20	30	30	22	19	19	20	35	63	31	22	16	27	17	23	22	14	11	22.1	63.4
28-May	6	5	2	2	3	0	2	1	3	2	4	4	5	6	2	2	1	1	4	6	3	2	3	2	2.9	6.3
29-May	5	3	2	1	3	5	3	4	6	4	5	6	6	7	8	11	7	6	7	8	8	6	4	4	5.3	10.9
30-May	4	2	2	2	3	2	P	P	P	P	22	17	8	9	10	7	10	20	19	10	9	5	8	13	9.2	21.6
31-May	11	6	9	9	4	5	8	8	4	5	9	1	6	4	7	7	5	10	10	15	13	8	10	9	7.6	15.3
	8.1	7.4	6.9	6.7	6.9	7.9	9.8	10.5	9.9	9.3	9.2	8.3	7.8	8.4	9.1	9.3	9.1	8.0	8.2	9.8	8.8	9.8	8.9	8.5	Diurnal Average	
	22.6	20.0	20.4	20.6	21.6	20.2	28.4	31.9	30.2	29.4	26.2	26.2	32.3	35.3	63.4	45.1	44.1	20.0	26.7	50.2	24.5	25.8	20.9	20.2	Diurnal Maximum	

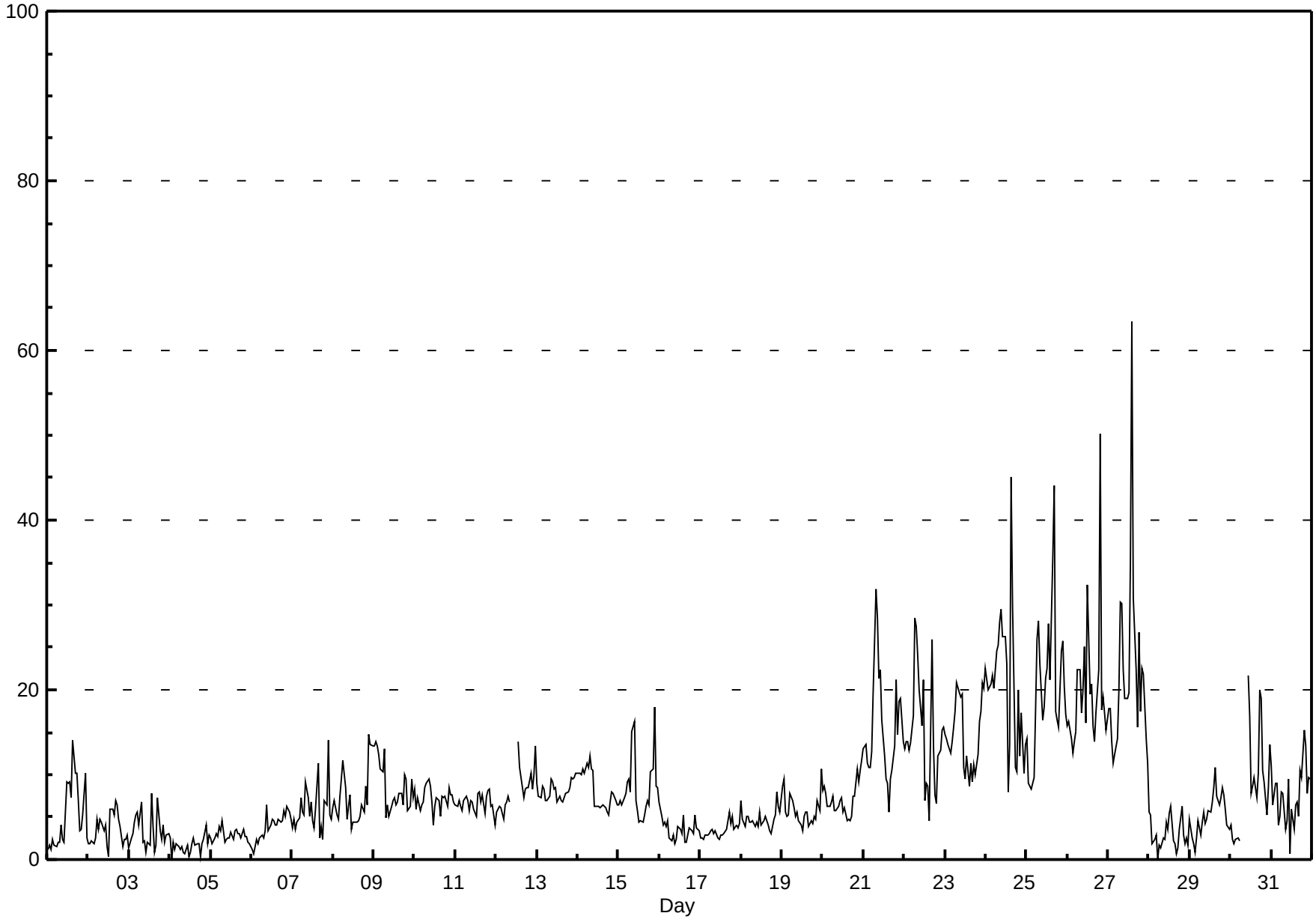
C - Calibration P - Power Failure N - Not Valid

Peace Airshed Zone Association

Hourly Maximums

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

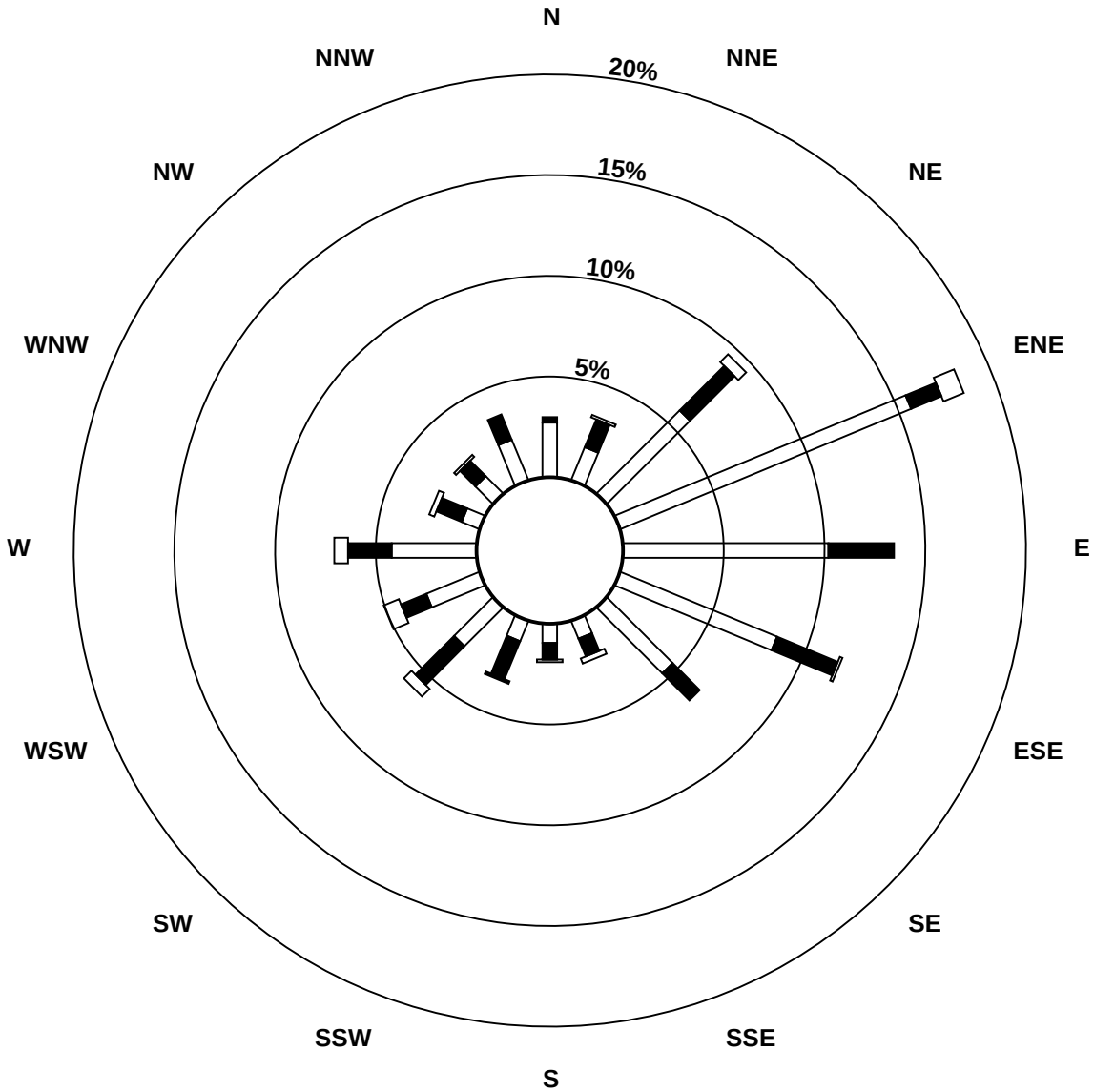
Evergreen Park - May 2015



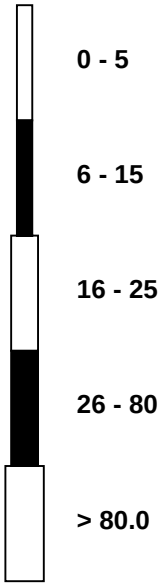
Pollutant Rose

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

Evergreen Park - May 2015



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



Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Evergreen Park - May 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 27.6 ^{o}C on May 23 17:00
Maximum Daily Average: 19.7 ^{o}C on May 23

Minimum Value: -1 ^{o}C on May 8 06:00
Maximum Diurnal Average: 17.7 ^{o}C at hour 17
Monthly Average: 12.20 ^{o}C

Minimum Daily Average: 2.9 ^{o}C on May 5
Minimum Diurnal Average: 5.3 ^{o}C at hour 5
Percentiles: P_1 = -0.5 P_{10} = 3.1 Q_1 = 7.3 Median = 11.7 Q_3 = 17.4 P_{90} = 21.7 P_{99} = 26.2

Hours in Service:	744
Hours of Data:	740
Hours of Missing Data:	4
Hours of Calibration:	0
Percent Operational Time:	99.5

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	6	6	5	5	3	1	3	6	7	9	10	10	11	12	12	11	11	11	9	8	8	7	6	5	7.6	11.9
2-May	4	3	3	3	3	4	4	3	3	3	5	6	8	10	9	9	8	7	5	5	5	4	4	4	5.1	9.5
3-May	2	1	0	0	0	1	1	3	5	6	7	8	9	8	8	10	11	10	9	8	8	7	5	4	5.5	10.6
4-May	4	3	3	3	3	2	2	3	4	5	7	8	9	9	10	9	9	8	8	8	7	7	7	7	6.1	9.9
5-May	7	6	6	6	5	5	4	4	3	2	2	2	2	2	2	2	2	2	2	1	1	0	1	1	2.9	6.6
6-May	0	0	0	1	0	0	0	1	2	3	4	5	6	6	7	7	8	9	9	9	7	5	4	3	4.0	8.8
7-May	3	2	1	0	-1	0	0	2	4	7	8	10	11	11	12	9	10	11	12	12	10	6	4	2	6.0	11.7
8-May	1	0	-1	-1	-1	-1	1	3	5	8	12	14	16	16	17	17	18	18	18	17	15	12	9	6	9.2	18.1
9-May	5	4	3	2	1	1	4	7	10	13	15	17	19	20	21	22	22	22	21	20	18	17	15	13	13.0	22.2
10-May	12	11	10	9	8	8	10	12	14	16	19	20	22	22	22	22	22	22	22	21	19	17	15	15	16.2	22.5
11-May	13	12	10	9	6	5	7	9	11	14	16	17	19	20	20	20	21	20	20	19	17	15	14	13	14.4	20.6
12-May	12	10	8	6	4	4	5	9	11	13	15	16	18	19	20	21	21	21	20	19	17	15	14	13	13.9	20.7
13-May	11	10	9	8	7	7	8	11	12	15	16	17	19	19	20	21	21	20	20	19	17	15	14	13	14.6	20.6
14-May	12	10	8	7	5	5	7	9	12	14	15	16	17	18	19	19	19	19	19	18	17	14	13	12	13.5	19.2
15-May	9	8	7	5	5	5	7	10	12	13	15	17	18	19	19	20	21	20	19	17	15	14	12	12	13.3	20.7
16-May	11	10	10	9	8	8	7	6	5	5	7	8	9	10	11	10	11	11	11	10	10	8	6	3	8.5	11.5
17-May	1	0	-1	0	-1	0	2	5	7	9	11	12	13	15	15	16	16	16	16	16	14	12	11	10	9.0	16.5
18-May	9	7	5	4	3	3	5	8	10	12	13	15	16	18	19	20	21	21	21	20	18	15	13	12	12.9	20.9
19-May	12	10	8	6	5	5	7	10	13	15	17	18	20	21	22	23	23	24	23	22	20	17	16	15	15.5	23.6
20-May	13	10	9	7	6	7	9	12	14	16	18	19	21	22	23	24	25	25	25	24	21	16	14	12	16.3	25.2
21-May	10	9	8	7	5	6	8	12	14	16	19	21	23	24	24	25	26	26	25	22	21	19	18	17	16.9	25.9
22-May	15	12	12	11	10	10	11	13	16	19	21	23	24	25	26	26	26	26	26	25	24	19	16	15	18.9	26.2
23-May	15	14	13	10	8	8	11	15	17	20	22	24	26	26	27	27	28	27	27	26	24	21	19	17	19.7	27.6
24-May	15	13	12	11	10	10	12	15	16	19	21	23	25	26	27	25	24	25	24	22	20	18	17	17	18.6	26.8
25-May	16	15	14	13	13	13	13	14	16	18	20	22	24	25	25	25	22	22	21	21	20	19	17	16	18.5	25.5
26-May	15	14	13	12	12	12	12	13	15	17	20	21	22	23	24	24	25	24	22	20	19	18	16	14	17.7	24.7
27-May	13	12	11	9	8	9	11	13	15	17	19	21	22	23	19	15	15	15	15	15	13	12	11	10	14.3	22.7
28-May	9	9	8	8	7	7	7	7	7	8	10	11	12	13	14	15	16	16	15	14	13	11	10	10	10.6	15.6
29-May	9	8	7	6	5	6	8	9	11	13	14	15	16	17	17	16	15	14	14	13	11	10	9	9	11.3	16.9
30-May	9	10	9	9	9	10	P	P	P	P	11	12	12	14	15	16	16	15	12	11	11	10	10	9	11.4	15.6
31-May	8	8	8	8	8	8	8	9	10	11	12	14	14	15	16	17	18	19	19	18	16	16	14	12	12.8	18.8
	9.1	8.0	7.1	6.2	5.3	5.3	6.5	8.4	10.0	11.9	13.6	15.0	16.2	17.1	17.5	17.5	17.7	17.6	17.0	16.2	14.7	12.9	11.5	10.4	Diurnal Average	
	16.3	15.2	14.1	13.3	12.6	12.8	12.9	14.8	17.1	19.6	22.3	24.4	25.6	26.5	26.9	27.3	27.6	27.3	26.9	25.8	23.9	21.4	18.8	17.4	Diurnal Maximum	

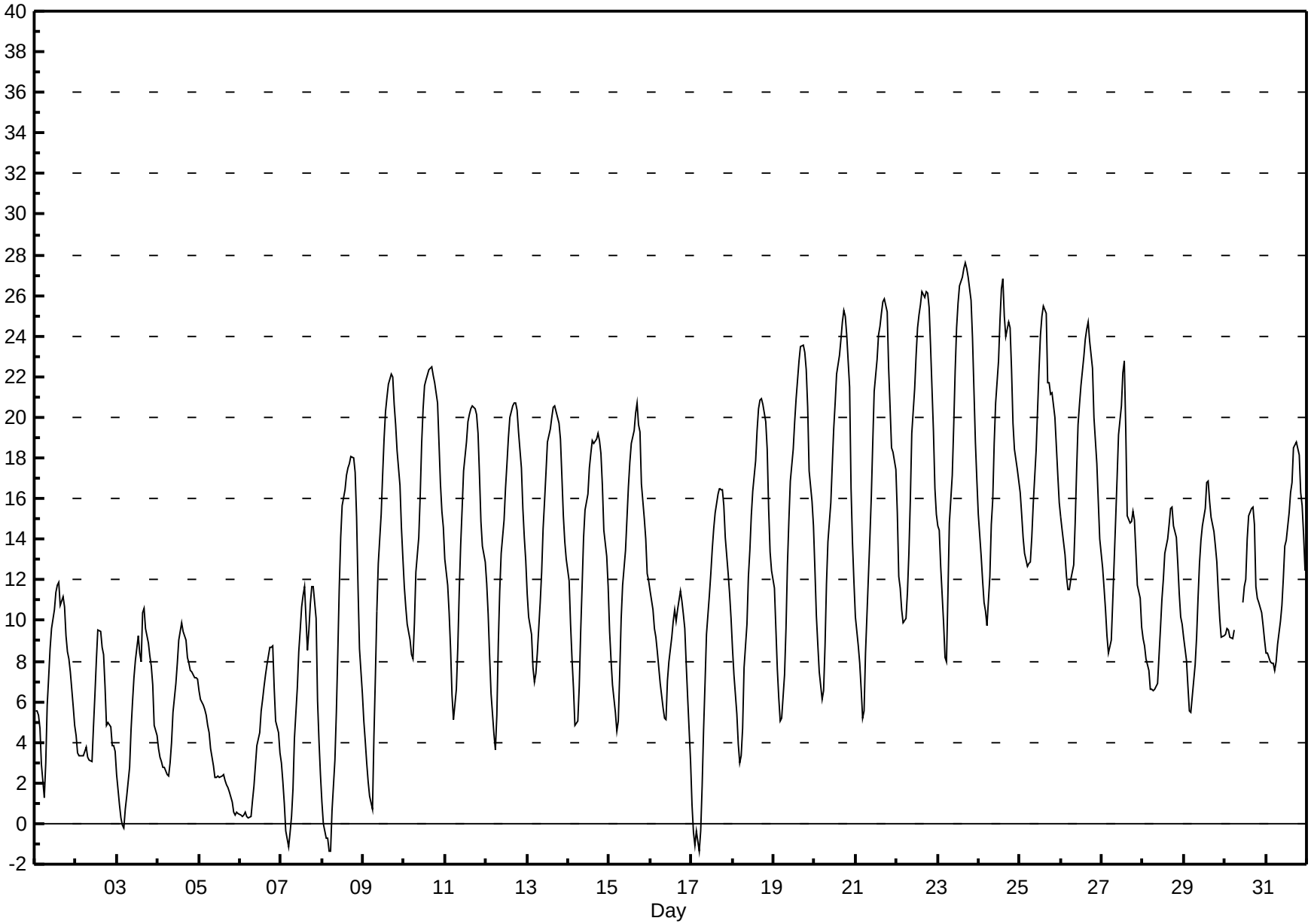
P - Power Failure

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Evergreen Park - May 2015



Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Evergreen Park - May 2015

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

Maximum Value: 95.8 % on May 31 02:00

Maximum Daily Average: 86.2 % on May 5

Minimum Value: 11 % on May 12 18:00

Minimum Daily Average: 25.6 % on May 13

Maximum Diurnal Average: 72.1 % at hour 6

Minimum Diurnal Average: 32.0 % at hour 15

Monthly Average: 49.46 %

Percentiles: P_1 = 13.7 P_{10} = 21.3 Q_1 = 29.6 Median = 47.8 Q_3 = 65.6 P_{90} = 83.3 P_{99} = 93.8

Hours in Service:	744
Hours of Data:	740
Hours of Missing Data:	4
Hours of Calibration:	0
Percent Operational Time:	99.5

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	58	57	58	61	70	76	69	57	51	44	38	32	28	27	25	33	31	31	37	42	42	43	64	65	47.5	75.6
2-May	56	58	58	59	61	62	66	76	85	88	82	68	57	44	44	48	53	65	83	87	85	88	85	87	68.5	88.3
3-May	90	92	93	94	94	94	94	90	81	74	63	57	51	54	52	36	35	52	55	57	60	61	71	78	69.9	94.3
4-May	82	83	83	86	87	88	88	86	79	70	64	61	57	53	53	57	59	63	65	65	66	69	67	67	70.8	88.1
5-May	71	73	72	73	75	80	84	86	89	91	90	91	91	91	90	91	92	91	89	91	92	92	92	93	86.2	92.6
6-May	93	93	93	92	91	90	88	77	70	63	57	54	49	46	42	40	38	35	35	37	44	51	53	59	62.1	93.2
7-May	62	66	69	76	83	81	79	76	67	61	57	51	47	38	35	54	50	41	37	38	46	64	72	77	59.4	83.0
8-May	81	85	87	88	90	90	86	77	65	51	39	30	25	23	22	22	22	21	21	23	28	40	48	60	51.0	90.2
9-May	67	73	76	82	86	87	74	59	49	43	33	26	23	21	20	21	22	22	26	28	29	31	37	42	44.8	87.1
10-May	47	48	48	51	56	60	57	51	42	37	31	25	23	22	21	22	21	21	20	21	23	26	30	32	34.8	60.0
11-May	37	41	44	49	57	60	52	46	38	34	32	27	22	19	18	18	18	18	19	19	23	25	26	27	32.0	59.6
12-May	30	33	39	45	53	57	53	40	32	26	23	19	18	15	13	12	12	11	12	14	17	21	23	25	26.7	56.5
13-May	29	33	35	41	42	39	38	31	29	25	23	21	17	15	14	14	15	16	16	18	20	24	28	31	25.6	41.6
14-May	34	41	46	51	59	59	55	47	40	34	31	30	27	26	26	28	28	27	28	29	34	39	43	49	37.9	59.2
15-May	58	63	69	76	81	81	72	64	60	55	50	43	38	34	32	29	27	32	33	43	50	58	72	76	54.0	80.7
16-May	61	61	62	63	65	70	63	63	57	41	34	28	23	21	22	26	24	20	23	26	28	33	39	56	42.1	69.9
17-May	66	73	76	71	75	73	69	59	48	38	30	26	25	24	22	22	21	22	23	23	26	30	31	35	41.9	75.6
18-May	40	44	52	58	63	63	60	53	48	42	39	35	32	28	25	23	22	21	19	19	22	28	33	33	37.5	62.7
19-May	35	41	48	53	57	57	52	48	41	36	33	30	25	23	22	21	18	16	16	16	18	23	26	30	32.7	57.3
20-May	35	43	48	53	58	56	52	44	38	34	32	30	24	22	20	17	14	13	13	16	23	37	47	54	34.3	57.8
21-May	63	65	67	74	78	79	72	58	49	43	37	30	24	22	17	18	17	17	17	26	33	41	39	40	42.8	79.1
22-May	48	60	65	68	72	74	69	63	54	43	36	30	20	20	20	15	15	15	15	17	22	32	40	42	39.7	73.7
23-May	42	41	48	61	69	72	62	51	46	41	35	26	21	18	16	15	16	17	18	20	24	29	35	39	36.0	72.0
24-May	44	51	55	59	60	65	63	52	47	40	37	33	29	19	15	21	23	22	23	28	37	44	47	50	40.1	64.9
25-May	51	55	61	64	67	66	66	61	57	49	45	38	31	27	24	24	35	35	41	41	44	47	53	61	47.6	66.9
26-May	65	69	71	73	75	76	74	74	66	53	41	39	37	35	32	30	27	29	33	41	45	52	60	67	52.7	76.1
27-May	74	78	82	86	90	90	84	74	65	61	51	46	40	37	57	82	84	82	83	86	78	79	76	83	72.7	90.1
28-May	85	78	72	72	80	74	66	66	66	63	59	53	50	48	44	36	29	26	28	31	34	34	37	41	53.0	84.6
29-May	45	48	53	58	60	59	53	50	46	42	39	39	38	37	39	45	46	48	50	54	59	64	67	67	50.2	67.5
30-May	67	63	62	63	63	61	P	P	P	P	71	67	68	59	57	56	57	60	85	92	94	94	94	95	71.4	95.1
31-May	96	96	95	95	95	94	91	89	83	81	75	62	59	54	50	49	43	43	44	50	63	58	64	73	70.9	95.8
	58.4	61.4	64.1	67.5	71.2	72.1	68.4	62.2	56.1	50.2	45.3	40.2	36.1	32.9	32.0	33.1	32.7	33.4	35.8	38.7	42.3	47.0	51.6	55.9	Diurnal Average	
	95.7	95.8	95.3	95.2	94.9	94.3	93.8	90.1	88.9	91.3	90.4	90.9	91.2	90.9	90.5	90.7	91.6	91.0	89.2	91.8	93.7	93.8	94.3	95.1	Diurnal Maximum	

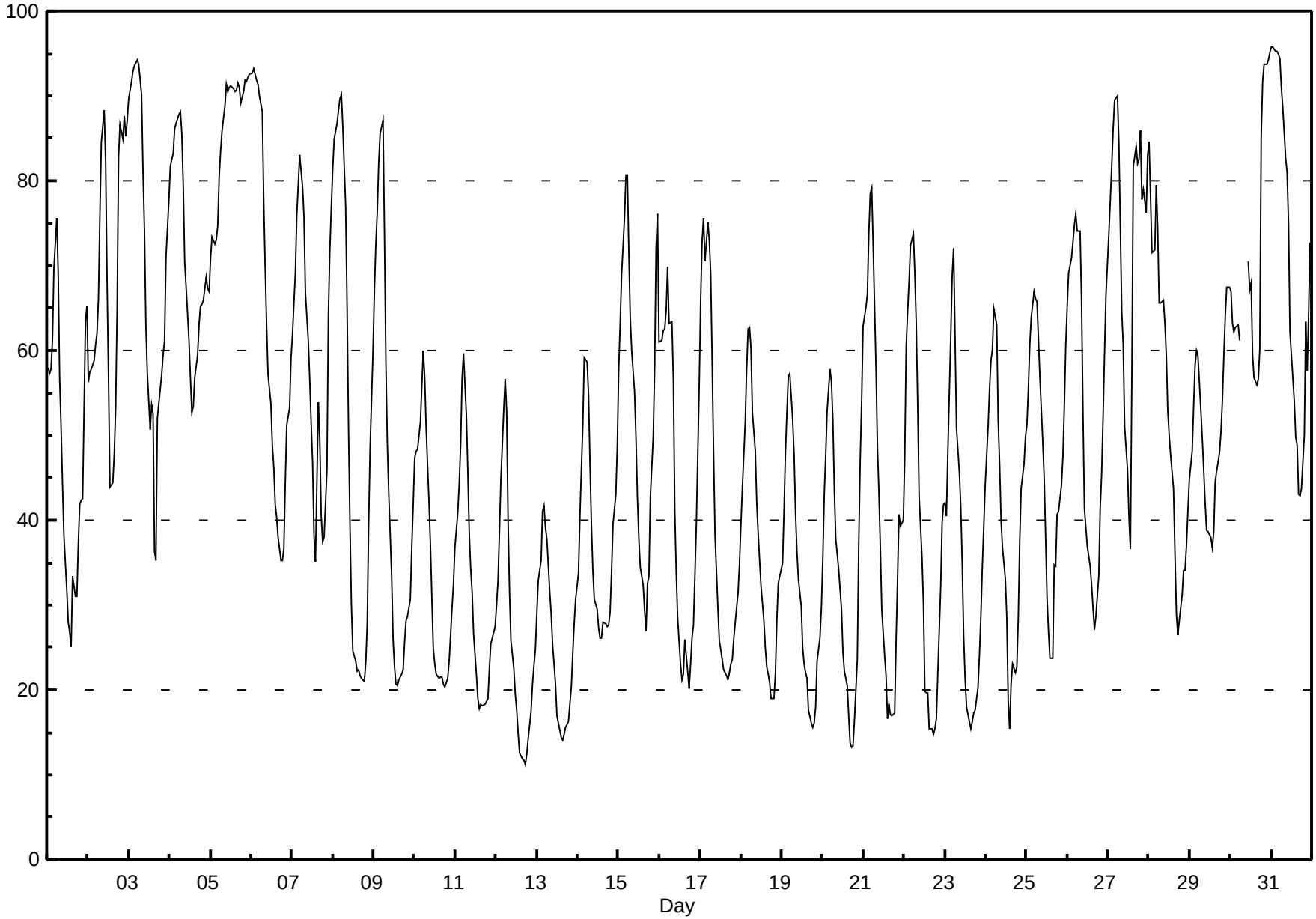
P - Power Failure

Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Evergreen Park - May 2015



Peace Airshed Zone Association

Hourly Averages

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

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1 Spd	18	14	11	4	0	0	1	12	25	35	34	46	39	36	37	28	33	41	36	24	25	31	18	14	21.9	46.3
Dir	227	230	231	217	61	92	75	236	258	254	267	261	269	268	267	307	269	263	263	251	254	260	329	247	262.5	260.7
2 Spd	16	20	22	21	16	18	14	15	19	17	21	27	26	26	31	30	13	17	5	1	9	7	3	2	14.1	31.4
Dir	249	251	260	264	269	273	281	293	289	270	277	266	264	277	279	274	353	30	35	234	214	211	252	328	274.0	279.1
3 Spd	1	3	1	3	3	6	6	7	10	6	11	9	7	18	6	9	5	22	14	9	6	5	3	6	1.9	21.9
Dir	176	209	32	218	202	241	263	269	269	267	255	325	334	287	314	258	221	52	62	80	76	96	50	73	309.9	52.3
4 Spd	9	12	10	12	10	14	15	13	12	17	19	20	24	20	19	21	26	26	28	26	22	21	20	22	18.1	28.5
Dir	57	60	77	58	70	64	70	72	67	63	61	60	60	72	77	73	57	59	58	57	58	64	70	75	64.3	58.3
5 Spd	18	16	13	12	13	8	11	13	11	13	11	10	13	12	14	13	16	14	16	12	14	10	6	7	11.6	18.1
Dir	66	70	64	57	53	37	46	40	17	33	20	355	1	5	22	35	34	36	40	40	37	34	11	10	36.0	66.4
6 Spd	7	11	8	5	5	7	7	13	10	6	7	5	5	6	4	5	4	6	10	2	3	2	7	7	3.5	13.4
Dir	346	339	342	354	344	356	1	341	357	336	333	302	302	1	6	256	236	267	237	172	124	158	175	165	326.2	341.0
7 Spd	5	3	3	1	2	1	1	1	3	9	11	15	14	16	18	22	9	10	8	5	0	1	0	1	5.2	22.2
Dir	154	101	74	64	56	8	116	185	270	343	331	338	20	2	8	28	16	8	41	42	134	213	220	46	11.8	28.3
8 Spd	1	1	1	0	1	0	1	3	5	7	8	8	5	10	16	13	14	10	14	13	6	2	2	0	2.9	16.2
Dir	81	205	225	155	194	219	119	181	216	216	207	197	315	293	319	329	327	323	309	35	48	219	213	324	303.9	319.1
9 Spd	1	1	1	1	1	1	3	6	3	3	9	8	5	2	6	6	6	8	6	5	8	6	6	7	3.0	9.1
Dir	206	234	218	28	167	146	106	77	92	77	137	125	151	153	6	343	27	39	48	63	81	83	73	72	76.9	136.9
10 Spd	5	7	8	2	3	3	3	2	7	7	12	15	12	14	13	15	16	14	13	11	7	8	9	11	8.1	16.1
Dir	67	73	82	64	69	68	55	63	126	133	138	122	114	89	79	72	73	64	96	112	109	121	133	141	98.1	72.9
11 Spd	8	8	5	4	4	4	5	7	7	7	12	13	11	8	13	17	18	16	14	11	6	5	6	9	8.5	17.6
Dir	127	105	95	81	64	60	60	66	85	65	64	105	106	97	74	57	59	61	64	71	69	86	113	123	78.8	59.3
12 Spd	9	7	6	6	5	5	5	8	14	18	17	19	20	22	21	21	22	21	19	18	13	12	11	11	13.3	21.6
Dir	115	91	77	74	62	61	53	101	118	114	117	126	117	125	107	109	114	107	119	116	105	100	107	102	109.2	124.7
13 Spd	10	10	8	4	7	13	11	15	20	20	22	21	20	22	20	18	19	18	19	15	13	10	10	10	14.4	21.8
Dir	91	90	88	58	92	99	93	116	118	123	113	119	123	131	113	110	102	98	100	102	97	98	100	110	108.0	113.4
14 Spd	6	4	5	5	6	6	4	8	11	14	16	17	14	14	16	18	17	12	14	11	7	6	5	4	9.3	17.6
Dir	104	76	79	82	70	81	72	124	141	166	127	128	111	118	125	120	128	125	120	110	86	83	105	85	116.4	120.2
15 Spd	4	4	3	1	1	2	4	5	5	7	8	7	5	9	7	9	9	12	5	19	18	5	10	5	1.3	19.1
Dir	67	72	62	36	11	56	70	137	237	347	348	354	10	359	19	35	21	80	115	235	201	156	232	13	25.2	234.9
16 Spd	21	25	25	25	28	23	19	24	19	19	19	16	14	15	15	17	12	14	14	12	8	5	4	1	15.9	28.2
Dir	44	40	44	51	46	50	58	53	47	53	48	54	71	64	65	50	68	64	57	85	110	105	95	39	55.2	46.5
17 Spd	0	1	3	1	4	5	5	11	14	16	20	18	17	15	13	14	15	12	13	15	13	8	9	8	9.9	19.7
Dir	29	26	58	90	74	72	85	113	124	125	127	132	122	117	131	118	120	117	110	113	96	94	107	113	114.8	126.6
18 Spd	5	6	4	4	4	5	6	7	10	11	15	11	13	13	13	13	12	15	15	13	8	5	5	5	8.5	15.0
Dir	82	90	73	72	68	71	73	89	112	100	121	136	129	123	133	100	103	104	94	94	90	67	73	87	102.5	104.0
19 Spd	5	5	5	4	1	2	4	5	5	5	10	7	8	7	9	9	10	13	15	13	7	6	7	6	6.6	14.9
Dir	90	74	74	68	57	48	53	58	124	128	86	94	91	108	125	89	108	104	95	97	85	76	84	86	92.8	95.5
20 Spd	5	5	5	2	2	3	3	4	5	2	5	4	4	5	7	7	8	5	5	6	2	1	1	1	3.4	7.8
Dir	76	70	76	68	64	70	58	111	145	141	152	128	101	122	119	126	119	126	139	56	56	41	47	2	104.0	119.2
21 Spd	2	1	1	1	1	1	3	1	5	6	5	7	6	9	12	13	9	8	4	7	7	1	6	4	1.4	12.5
Dir	42	255	47	218	196	205	208	235	255	265	289	176	153	52	57	66	89	81	87	301	315	348	344	29	50.4	66.4
22 Spd	1	1	3	4	5	5	8	7	4	1	5	9	13	14	14	14	12	12	11	10	3	3	4	2	3.2	14.3
Dir	20	226	259	248	264	272	252	267	247	50	131	152	111	85	52	71	87	80	91	96	67	53	38	35	89.0	51.7

Peace Airshed Zone Association

Hourly Averages

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
23 Spd	2	5	1	0	1	0	1	3	2	4	4	9	12	15	15	13	12	14	14	11	8	7	4	5	5.8	15.1
Dir	49	76	160	243	220	183	222	171	236	318	48	80	105	94	108	103	96	92	89	77	81	73	65	70	90.1	108.4
24 Spd	3	4	2	5	1	1	1	2	5	1	2	4	7	9	10	23	19	11	10	14	15	10	10	9	2.4	22.6
Dir	73	76	66	72	161	73	234	154	176	213	27	120	98	120	93	56	45	43	39	249	242	280	341	319	48.6	55.5
25 Spd	7	5	8	4	3	5	7	11	11	7	6	3	5	6	4	18	26	13	7	4	7	7	6	8	3.9	26.1
Dir	255	299	225	222	290	275	281	283	269	277	231	260	259	282	56	339	40	43	83	215	278	245	292	304	299.1	39.7
26 Spd	12	5	7	8	5	5	9	4	3	1	2	5	6	3	7	8	7	6	1	19	5	3	3	2	3.2	19.0
Dir	342	304	263	267	263	292	273	308	298	317	30	22	332	27	338	358	44	97	149	251	285	18	200	209	306.6	250.5
27 Spd	1	0	1	1	5	6	7	12	10	6	13	11	9	17	4	10	9	10	2	4	17	18	19	13	2.0	19.0
Dir	229	218	216	203	209	211	233	250	259	229	263	268	310	318	281	216	210	210	175	36	50	49	52	48	282.3	51.8
28 Spd	12	14	14	13	8	9	9	7	8	8	9	11	9	11	9	14	13	12	12	8	8	7	7	6	8.9	14.3
Dir	44	44	46	57	64	60	63	67	69	88	102	96	105	121	116	116	114	111	100	81	79	81	69	79	82.5	45.8
29 Spd	5	6	7	8	6	7	11	12	16	18	23	20	20	20	22	25	27	24	22	18	12	7	6	5	13.5	27.3
Dir	60	65	69	76	80	76	93	100	106	108	118	120	132	127	127	124	122	132	142	140	133	106	95	82	116.4	121.5
30 Spd	7	9	9	8	9	14	P	P	P	P	5	5	6	2	2	3	2	16	10	4	7	4	3	5	2.1	16.2
Dir	88	93	93	86	92	106	P	P	P	P	206	80	92	191	63	317	327	271	267	133	236	173	178	191	126.5	270.7
31 Spd	6	7	6	7	5	12	10	8	11	9	14	30	26	30	29	28	23	19	12	4	2	7	3	3	12.1	29.8
Dir	218	232	240	229	234	251	252	234	240	229	227	255	251	261	261	256	270	276	292	292	15	319	222	209	255.4	260.9
Spd	2.6	2.9	2.4	2.2	2.3	2.2	2.0	1.9	1.3	1.7	2.6	2.6	3.2	2.4	3.7	5.4	6.7	6.7	6.0	4.4	3.1	2.7	3.0	3.1	Diurnal Average	
Dir	72.0	62.7	61.2	56.7	56.2	55.3	51.8	76.7	142.4	117.5	117.6	134.0	106.0	85.6	72.7	61.9	73.9	74.3	84.9	98.1	93.3	82.2	72.2	83.0		
Spd	21.2	25.0	24.6	25.2	28.2	22.9	19.1	24.1	24.9	34.8	33.6	46.3	39.1	36.2	37.1	30.3	32.8	40.8	35.6	25.8	25.1	31.0	19.8	22.3	Diurnal Maximum	
Dir	43.6	40.3	43.6	50.5	46.5	49.7	57.7	52.9	257.6	253.7	267.1	260.7	269.1	268.1	266.9	273.6	268.5	262.6	262.7	57.0	253.8	260.1	69.8	74.7		

Maximum Speed Value: 46 km/h on May 1 12:00
Maximum Daily Speed Average: 21.9 km/h on May 1
Maximum Diurnal Speed Average: 6.7 km/h at hour 17

Minimum Speed Value: 0 km/h on May 1 06:00
Minimum Daily Speed Average: 1.3 km/h on May 20
Minimum Diurnal Speed Average: 1.3 km/h at hour 9

Monthly Average Velocity: 3.02 km/h 80.50 deg

Speed Percentiles: P_1 = 0.4 P_{10} = 1.9 Q_1 = 4.8 Median = 7.9 Q_3 = 13.6 P_{90} = 19.5 P_{99} = 34.0

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

Hours in Service:	744
Hours of Data:	740
Hours of Missing Data:	4
Percent Operational Time:	99.5

P - Power Failure

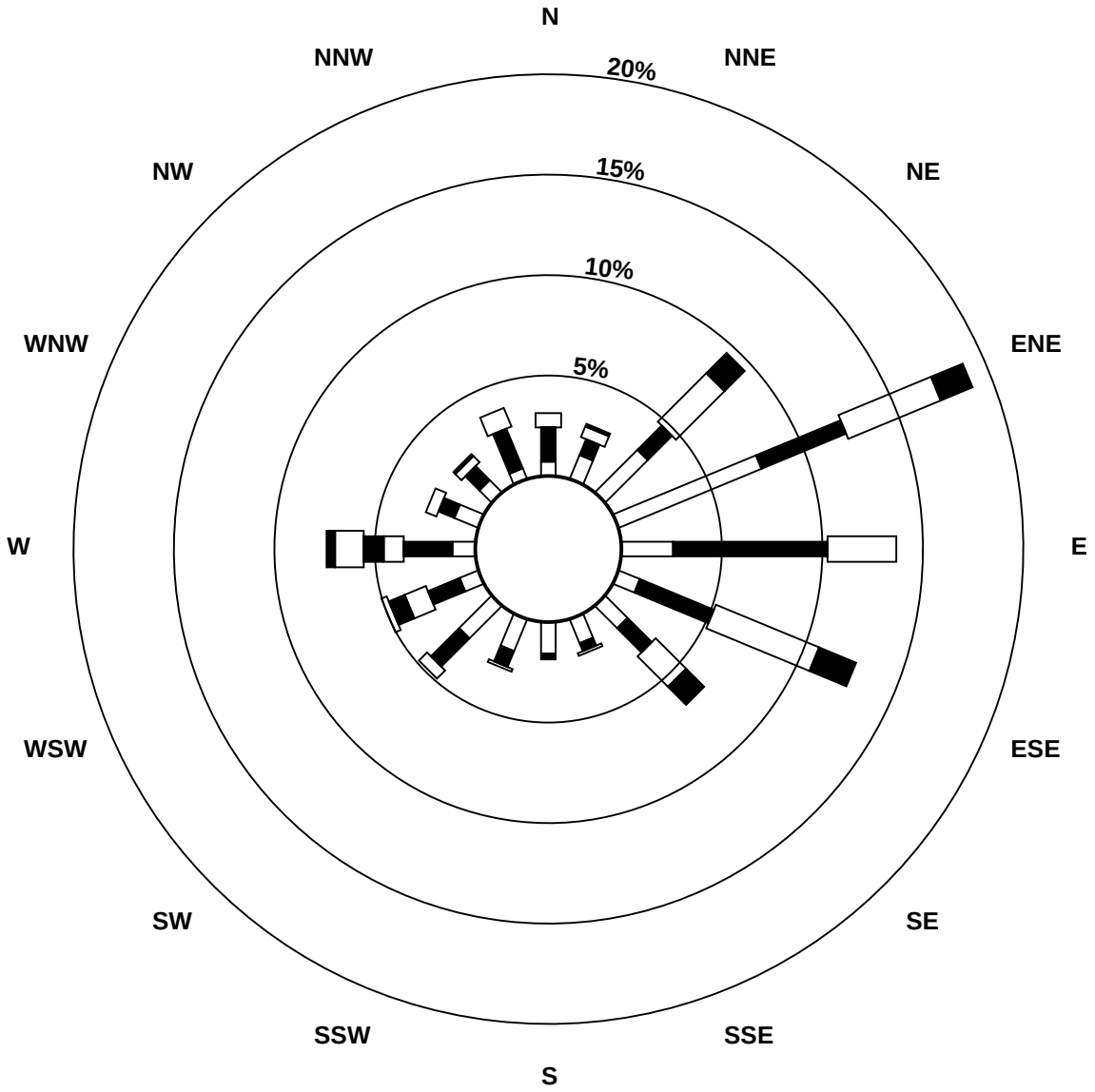
Frequency Distribution

Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	10	29	12	0	0	0	51
NorthEast	53	26	48	20	2	0	149
East	40	99	61	9	0	0	209
SouthEast	19	29	37	22	0	0	107
South	19	5	2	0	0	0	26
SouthWest	37	30	6	1	0	0	74
West	15	26	18	14	12	3	88
NorthWest	9	19	7	1	0	0	36
Total	202	263	191	67	14	3	740

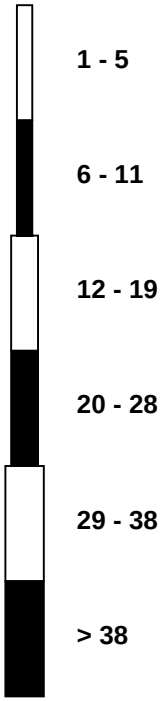
Wind Rose

Wind Speed (WS) (km/h)

Evergreen Park - May 2015



Wind Speed Classes (km/h)



Peace Airshed Zone Association

Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Evergreen Park - May 2015

Maximum Speed: 47 km/h on May 1 12:00

Maximum Daily Speed Average: 24.2 km/h on May 1

Minimum Speed: 0 km/h on May 7 23:00

Minimum Daily Speed Average: 5.8 km/h on May 20

Maximum Diurnal Speed Average: 17.4 km/h at hour 16

Minimum Diurnal Speed Average: 5.8 km/h at hour 5

Monthly Average Speed: 11.00 km/h

Percentiles: P_1 = 0.8 P_{10} = 2.9 Q_1 = 5.6 Median = 9.4 Q_3 = 15.0 P_{90} = 21.0 P_{99} = 34.9

Hours in Service:	744
Hours of Data:	740
Hours of Missing Data:	4
Percent Operational Time:	99.5

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	18	14	11	6	1	0	3	12	25	35	35	47	41	38	38	30	34	41	36	25	25	32	19	14	24.2	47.3
2-May	16	20	22	21	17	18	14	16	21	18	22	27	27	28	32	31	24	18	10	6	9	7	5	3	18.0	32.4
3-May	2	4	2	3	3	6	7	7	11	8	13	14	12	23	11	11	9	23	14	10	6	5	3	6	8.8	22.6
4-May	9	12	11	12	10	15	15	13	13	18	20	21	25	21	20	22	26	26	29	26	22	21	20	23	18.8	28.8
5-May	19	17	14	12	13	9	11	14	12	14	12	10	14	13	14	14	16	15	16	12	14	11	6	7	12.8	18.6
6-May	7	11	9	6	6	8	7	14	11	8	10	7	10	9	6	7	9	9	12	5	3	2	7	7	7.8	14.0
7-May	5	4	4	2	3	3	2	3	5	10	13	17	15	18	21	24	11	13	9	5	1	1	0	1	7.9	23.7
8-May	2	1	1	1	2	1	3	4	6	8	9	11	9	14	20	15	17	12	15	14	6	2	2	1	7.4	20.0
9-May	1	2	2	2	2	4	4	7	5	7	11	11	9	9	11	11	9	9	7	5	8	6	6	7	6.4	11.1
10-May	5	7	8	2	3	4	3	3	9	9	13	16	15	16	16	17	17	15	15	11	8	8	10	11	10.1	17.5
11-May	8	8	5	5	4	4	5	7	8	9	13	14	14	12	17	19	18	17	15	12	6	5	6	9	10.0	18.8
12-May	9	8	6	6	5	5	6	9	15	19	18	21	22	23	23	22	23	22	20	18	14	12	12	11	14.5	23.0
13-May	11	10	8	4	8	13	12	16	21	21	23	23	21	23	22	20	21	19	20	15	13	10	10	10	15.6	23.2
14-May	7	4	5	6	6	6	4	8	12	16	17	19	17	17	19	20	19	15	16	12	7	7	5	4	11.1	19.9
15-May	4	4	3	2	1	2	5	6	6	9	11	10	9	11	12	12	13	13	6	20	19	8	11	7	8.5	19.6
16-May	22	25	25	26	29	23	20	25	19	20	20	18	16	17	18	18	14	15	15	13	8	5	4	1	17.3	28.6
17-May	0	1	3	1	4	5	6	12	15	17	21	20	19	17	15	17	17	14	14	15	13	8	9	8	11.3	21.1
18-May	5	6	4	4	4	5	6	8	11	13	16	14	16	16	15	15	14	17	16	13	8	5	5	5	10.0	16.6
19-May	5	5	5	4	2	2	4	5	6	9	11	10	11	12	11	12	13	15	16	14	7	6	7	6	8.2	15.9
20-May	5	5	5	2	2	3	3	5	6	6	8	9	10	9	11	11	11	8	7	7	2	1	1	1	5.8	11.2
21-May	2	2	2	2	2	1	3	3	6	8	7	9	10	13	14	15	13	11	5	7	8	2	6	4	6.4	14.9
22-May	2	2	4	5	5	5	9	8	5	4	8	12	16	17	16	16	14	13	13	11	4	3	4	2	8.2	16.8
23-May	3	5	2	1	1	2	1	4	4	6	7	11	14	17	17	15	14	16	15	12	8	7	4	5	7.8	17.0
24-May	3	4	3	5	4	1	1	3	7	5	6	6	10	12	14	24	19	12	10	20	16	11	11	10	9.0	24.3
25-May	9	6	8	5	4	6	8	12	12	9	8	7	9	12	7	21	27	15	7	7	8	8	7	9	9.6	26.6
26-May	12	6	7	8	6	6	9	5	4	4	6	8	10	8	11	12	11	7	3	19	6	3	3	3	7.3	19.4
27-May	1	2	1	1	5	7	8	12	11	7	14	13	12	19	12	13	9	11	4	5	17	18	20	14	9.8	19.8
28-May	12	14	15	13	9	9	10	7	9	9	10	13	11	13	12	16	15	14	12	8	8	8	7	7	10.9	15.8
29-May	6	7	7	8	6	7	12	13	17	19	24	21	21	21	23	26	28	25	23	19	12	8	6	6	15.1	28.5
30-May	8	9	9	9	9	14	P	P	P	P	5	7	8	8	6	7	5	18	12	6	8	5	4	6	8.1	17.5
31-May	6	7	6	7	6	12	10	9	11	10	14	30	26	31	30	28	24	20	14	7	4	8	3	5	13.6	30.6
	7.3	7.4	6.9	6.1	5.8	6.6	6.9	9.0	10.7	11.8	13.6	15.4	15.4	16.6	16.6	17.4	16.6	16.0	13.7	12.2	9.7	7.8	7.2	6.9	Diurnal Average	
	21.6	25.3	25.0	25.7	28.6	23.4	19.8	24.7	25.3	35.5	34.9	47.3	40.9	37.9	38.0	31.1	34.3	41.4	36.2	26.2	25.5	31.7	20.4	22.9	Diurnal Maximum	

P - Power Failure

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

Peace Airshed Zone Association

Hourly Standard Deviations

Wind Direction (WD) - deg

Evergreen Park - May 2015

Maximum Value: 99.8 deg on May 9 05:00

Minimum Value: 4.8 deg on May 1 01:00

Percentiles: P_1 = 7.7 P_{10} = 11.7 Q_1 = 16.9 Median = 24.9 Q_3 = 46.1 P_{90} = 70.5 P_{99} = 92.8

Hours in Service:	744
Hours of Data:	740
Hours of Missing Data:	4
Hours of Calibration:	0
Percent Operational Time:	99.5

Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-May	5	7	10	66	88	86	77	20	10	12	17	12	17	18	13	25	21	10	10	9	11	14	26	14	88.3
2-May	8	7	7	9	10	11	16	19	20	17	18	12	18	18	15	13	59	22	71	92	13	18	57	88	92.0
3-May	99	59	82	42	65	20	24	22	20	47	45	57	67	44	68	55	77	16	17	18	23	20	24	8	98.8
4-May	9	17	18	14	18	19	19	19	20	18	17	18	15	15	19	16	13	12	9	10	12	12	14	13	19.8
5-May	13	17	17	18	12	22	17	21	19	17	21	23	19	22	19	15	16	15	14	12	12	14	28	23	28.4
6-May	19	11	16	19	23	22	21	22	30	46	60	60	67	65	59	56	73	60	33	82	11	21	12	13	82.4
7-May	15	24	20	76	59	65	71	86	60	32	36	31	36	32	31	21	37	37	24	36	67	49	50	76	85.8
8-May	73	86	62	72	79	93	61	35	34	37	35	60	68	68	40	36	39	42	26	27	43	34	37	83	93.0
9-May	76	79	74	88	100	71	56	26	60	75	38	52	72	90	73	68	52	36	14	9	14	12	8	6	99.8
10-May	9	9	17	35	13	38	35	67	35	47	26	26	40	35	42	33	24	23	30	17	13	14	19	19	67.1
11-May	14	11	11	14	7	11	15	21	35	38	32	35	40	53	44	28	20	21	20	19	10	9	15	14	52.8
12-May	14	11	8	6	8	9	12	28	20	22	24	26	24	22	27	22	22	20	17	14	13	11	14	14	27.9
13-May	12	14	15	27	57	10	17	19	23	22	19	21	25	22	29	27	25	23	21	15	14	15	13	17	57.2
14-May	18	19	12	11	9	10	20	30	25	32	26	29	37	42	33	31	27	36	27	17	16	9	18	11	42.2
15-May	8	11	26	29	36	40	27	42	43	53	61	58	62	52	65	52	54	24	33	17	22	67	26	51	66.6
16-May	12	10	11	12	10	13	18	14	15	20	19	30	43	27	37	21	29	27	24	21	18	11	21	71	70.6
17-May	52	39	17	83	25	11	22	24	25	25	24	31	26	33	38	43	38	31	25	18	17	15	16	17	82.5
18-May	13	12	10	9	11	13	19	36	27	34	25	50	44	46	43	39	35	29	23	19	15	10	9	13	50.4
19-May	10	8	8	15	31	23	17	28	56	61	33	61	49	61	57	45	45	30	23	19	21	11	13	12	61.4
20-May	10	8	10	37	33	24	26	38	54	93	57	79	81	72	63	66	51	68	53	23	20	27	44	49	93.3
21-May	52	77	48	64	78	70	60	85	42	48	59	47	62	52	31	37	49	49	68	52	30	63	23	25	84.5
22-May	96	63	70	30	25	21	20	22	65	92	72	55	39	38	31	33	35	28	31	25	20	10	13	30	96.4
23-May	23	22	77	95	75	87	74	56	68	57	77	46	45	39	31	42	35	26	21	21	20	16	15	9	95.2
24-May	11	11	22	14	80	79	64	47	56	94	84	64	52	51	49	21	14	26	23	58	20	28	22	29	94.2
25-May	43	38	10	62	39	38	20	18	21	40	38	78	79	73	63	53	12	30	34	81	27	25	22	23	81.5
26-May	12	22	18	16	25	26	21	35	48	90	84	76	68	83	66	61	61	31	88	13	35	56	44	73	90.0
27-May	87	92	87	63	20	8	19	13	22	34	27	28	57	26	86	43	25	34	59	41	12	15	20	21	92.1
28-May	15	18	17	22	27	22	34	34	30	39	32	32	43	37	44	35	31	26	20	23	24	16	15	26	43.5
29-May	21	15	17	14	18	19	23	26	22	22	19	19	23	22	22	18	18	17	18	15	15	25	18	18	25.9
30-May	22	21	20	15	21	14	P	P	P	P	29	60	58	92	84	72	82	23	36	61	43	33	40	18	91.5
31-May	16	14	23	20	46	17	11	17	16	13	15	12	10	13	11	12	15	19	24	77	71	49	25	71	77.2
	98.8	92.1	87.2	95.2	99.8	93.0	76.7	85.8	68.0	94.2	84.0	79.0	81.1	91.5	85.7	72.4	81.8	67.6	87.9	92.0	71.1	66.6	57.5	87.9	

P - Power Failure

PAZA
Smoky Heights Station
Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Smoky Heights - May 2015

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

Maximum Value: 5.6 ppb on May 2 03:00 Maximum Daily Average: 0.8 ppb on May 2

Minimum Value: 0 ppb on May 14 15:00 Minimum Daily Average: 0.0 ppb on May 16

Maximum Diurnal Average: 0.6 ppb at hour 3 Minimum Diurnal Average: 0.2 ppb at hour 20

Monthly Average: 0.30 ppb Percentiles: $P_1 = 0.0$ $P_{10} = 0.1$ $Q_1 = 0.1$ Median = 0.2 $Q_3 = 0.4$ $P_{90} = 0.7$ $P_{99} = 1.6$

Hours in Service:	744
Hours of Data:	709
Hours of Missing Data:	35
Hours of Calibration:	34
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.2	0.4
2-May	0	1	6	2	1	3	1	1	0	0	0	1	0	0	0	0	0	A	0	0	0	0	0	0	0.8	5.6
3-May	0	0	0	0	0	0	0	1	1	1	0	1	0	0	0	0	A	0	0	0	0	0	0	0	0.3	1.0
4-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.1	0.2
5-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.1	0.2
6-May	0	0	0	0	0	0	2	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.3	2.1
7-May	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	1	0	2	2	0.3	1.6
8-May	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	1	0	0	0	0	0	0	0.2	0.6
9-May	0	0	1	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.9
10-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	0.5
11-May	0	1	1	1	1	1	1	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.9
12-May	1	1	1	1	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.4	1.0
13-May	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0.2	0.7
14-May	0	1	1	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
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	0.2
16-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
17-May	0	0	A	0	0	0	0	0	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0.3	1.1
18-May	1	A	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	1	1	1	1	0.7	1.4
19-May	A	2	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	0.5	1.7
20-May	1	1	1	1	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.4	1.4
21-May	1	1	1	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.4	0.8
22-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
23-May	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.3	0.8
24-May	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0.3	0.9
25-May	0	0	0	0	1	1	1	1	1	1	1	1	1	0	0	0	0	A	0	0	0	0	1	0	0.4	1.1
26-May	0	0	0	1	1	1	1	0	0	0	0	C	C	0	0	0	A	0	0	0	0	1	1	2	0.6	1.5
27-May	2	1	1	1	0	0	0	0	0	M	0	0	0	0	1	A	0	0	0	0	0	0	0	0	0.4	1.9
28-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.1	0.1
29-May	0	0	0	0	0	0	0	0	0	0	0	0	1	A	1	1	0	0	0	0	0	0	0	0	0.2	0.7
30-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
31-May	0	0	0	0	0	0	0	0	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.8
	0.3	0.4	0.6	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	Diurnal Average	
	1.9	1.7	5.6	1.8	1.1	2.5	2.1	1.0	1.1	0.8	0.9	0.8	0.6	0.5	0.7	0.6	0.7	0.6	0.4	0.5	0.8	1.3	1.6	1.6	Diurnal Maximum	

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

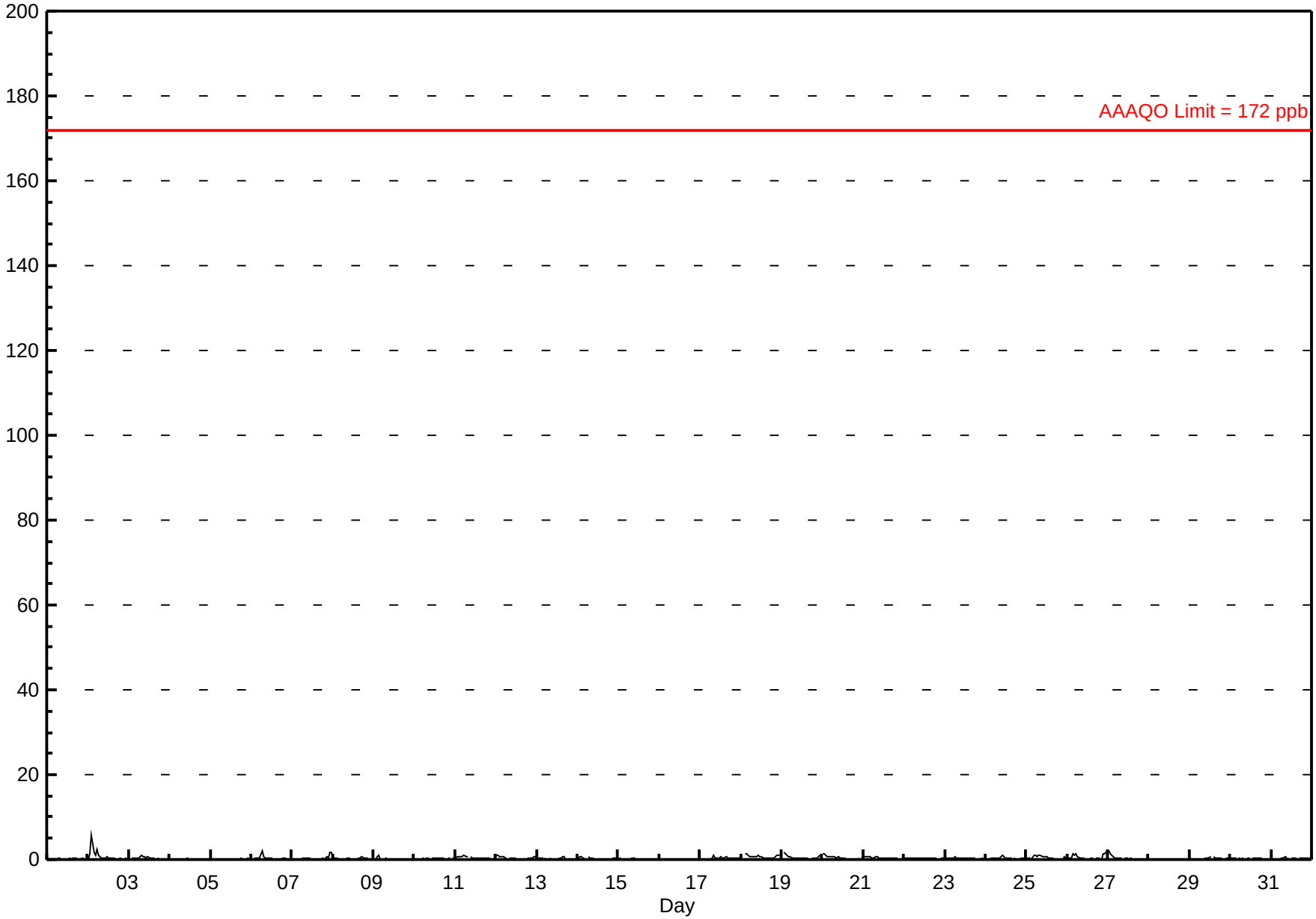
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Smoky Heights - May 2015



Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Smoky Heights - May 2015

Maximum Value: 18.6 ppb on May 2 03:00

Maximum Daily Average: 2.6 ppb on May 2

Minimum Value: 0 ppb on May 14 19:00

Minimum Daily Average: 0.4 ppb on May 16

Maximum Diurnal Average: 1.4 ppb at hour 3

Minimum Diurnal Average: 0.6 ppb at hour 19

Monthly Average: 0.81 ppb

Percentiles: $P_1 = 0.3$ $P_{10} = 0.4$ $Q_1 = 0.5$ Median = 0.6 $Q_3 = 0.8$ $P_{90} = 1.2$ $P_{99} = 3.7$

Hours in Service:	744
Hours of Data:	709
Hours of Missing Data:	35
Hours of Calibration:	34
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-May	0	0	0	0	0	1	1	1	1	0	0	1	1	2	1	1	2	4	A	2	0	2	1	0	0.9	4.0
2-May	1	16	19	3	2	5	3	1	1	1	1	2	1	1	1	1	0	A	1	1	0	0	1	1	2.6	18.6
3-May	0	0	1	1	1	1	1	2	1	1	1	1	1	1	1	1	A	1	0	1	1	0	1	1	0.7	2.1
4-May	1	1	0	0	1	0	0	1	0	1	1	1	0	0	0	A	0	0	0	1	0	0	1	0	0.5	0.7
5-May	0	0	0	0	1	0	0	0	1	1	0	0	0	1	A	1	0	1	1	0	1	0	1	0	0.5	0.6
6-May	1	0	1	2	1	3	4	3	1	1	1	1	1	A	1	0	1	0	1	1	1	1	1	0	1.0	4.4
7-May	1	0	1	0	0	0	1	1	1	1	1	1	A	0	0	1	0	1	1	1	2	1	4	3	0.9	4.5
8-May	1	1	0	0	0	0	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0	0	1	0.6	1.1
9-May	1	0	2	2	1	1	0	1	0	0	A	0	1	1	0	1	0	0	1	0	1	0	0	0	0.6	1.7
10-May	0	0	0	0	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.9
11-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	0.8	1.3
12-May	1	1	1	1	1	1	1	A	1	1	1	1	1	0	1	0	0	0	1	1	1	1	1	1	0.7	1.4
13-May	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	0.6	1.5
14-May	1	1	1	1	1	A	1	1	1	1	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0.6	1.0
15-May	0	1	1	1	A	0	0	0	1	1	1	1	0	1	1	0	1	0	0	0	0	1	1	1	0.5	0.8
16-May	0	0	0	A	0	0	0	0	0	0	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0.4	0.5
17-May	0	0	A	0	0	0	0	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.7
18-May	1	A	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	2.0
19-May	A	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.9	2.1
20-May	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	0	0	0	1	A	1	0.8	1.8
21-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.8	1.2
22-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	A	1	1	1	0.7	0.9
23-May	1	0	1	1	1	1	3	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.8	2.7
24-May	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.7	1.5
25-May	1	1	1	1	2	1	1	1	2	1	1	1	1	1	1	1	1	A	0	0	0	1	2	1	0.9	1.9
26-May	1	0	1	3	2	3	2	1	1	1	1	C	C	5	1	1	A	1	1	1	0	3	4	3	1.6	5.1
27-May	3	2	2	1	1	1	1	1	1	M	1	1	1	1	1	A	0	0	1	0	0	0	0	1	0.9	3.3
28-May	1	0	1	1	1	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	1	0.5	0.6
29-May	1	0	1	0	0	0	0	0	0	1	1	1	1	A	1	1	1	1	1	0	0	1	1	1	0.6	1.2
30-May	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0	0	1	1	0	0.6	1.3
31-May	0	0	0	0	1	0	1	1	1	1	1	A	1	1	1	1	0	1	1	1	1	1	1	1	0.7	1.4
	0.8	1.3	1.4	1.0	0.8	1.0	1.0	0.9	0.8	0.7	0.7	0.7	0.7	0.8	0.7	0.6	0.6	0.7	0.6	0.6	0.6	0.7	0.9	0.8	Diurnal Average	
	3.3	16.1	18.6	3.3	2.3	4.6	4.4	3.2	1.7	1.2	1.5	1.6	1.1	5.1	1.2	1.2	2.4	4.0	1.3	1.6	1.8	3.5	4.5	3.4	Diurnal Maximum	

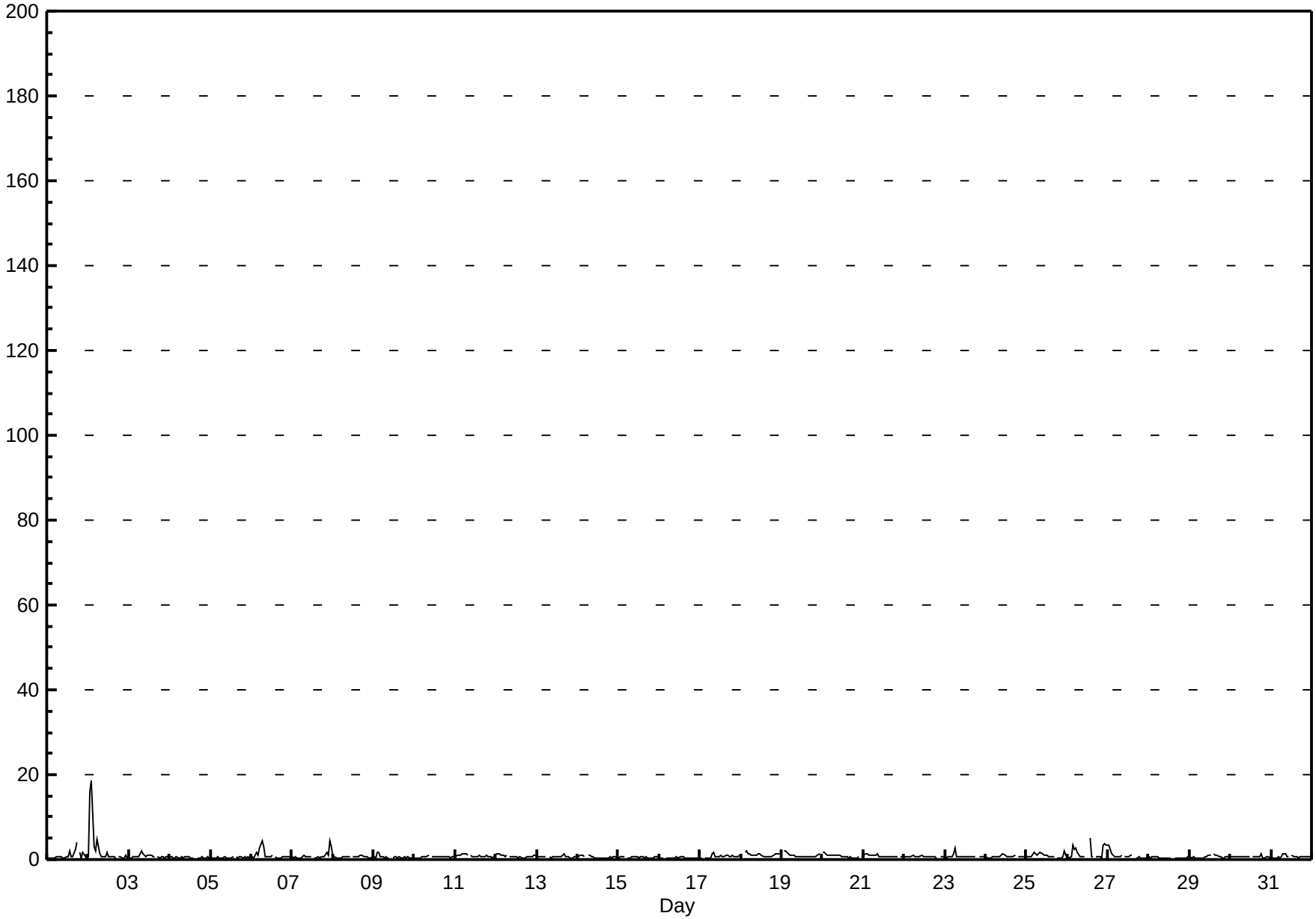
C - Calibration M - Maintenance A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

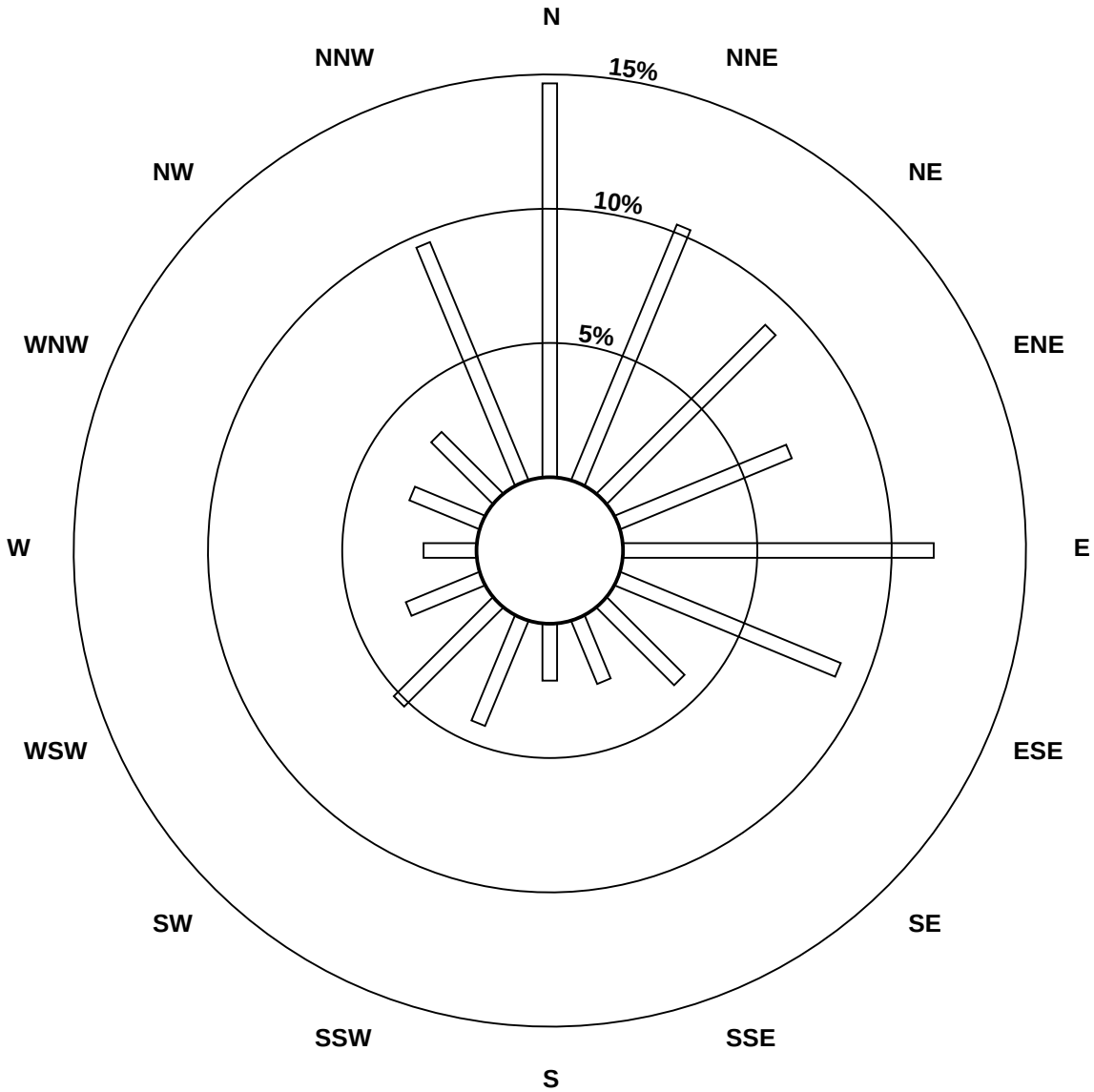
Smoky Heights - May 2015



Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Smoky Heights - May 2015



Pollutant Classes (ppb)

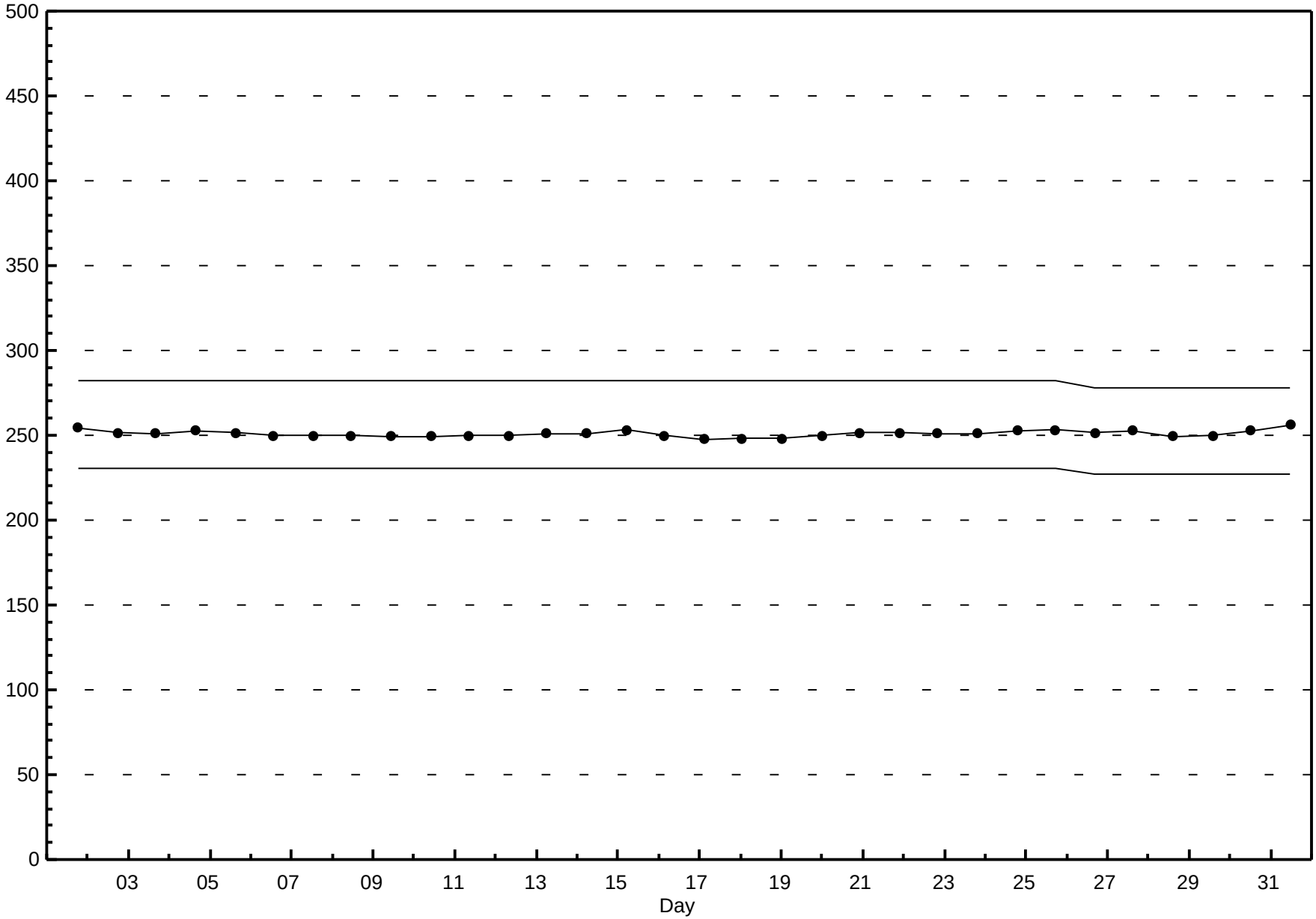
- 0 - 10
- 11 - 20
- 21 - 60
- 61 - 110
- 111 - 172
- > 172

Peace Airshed Zone Association

Span Responses

Sulphur Dioxide (SO_2)

Smoky Heights - May 2015



Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Smoky Heights - May 2015

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

Maximum Value: 0.7 ppb on May 22 06:00

Maximum Daily Average: 0.3 ppb on May 27

Minimum Value: 0 ppb on May 1 01:00

Minimum Daily Average: 0.0 ppb on May 1

Maximum Diurnal Average: 0.1 ppb at hour 6

Minimum Diurnal Average: 0.0 ppb at hour 16

Monthly Average: 0.07 ppb

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

Hours in Service:	744
Hours of Data:	707
Hours of Missing Data:	37
Hours of Calibration:	36
Percent Operational Time:	99.9

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

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

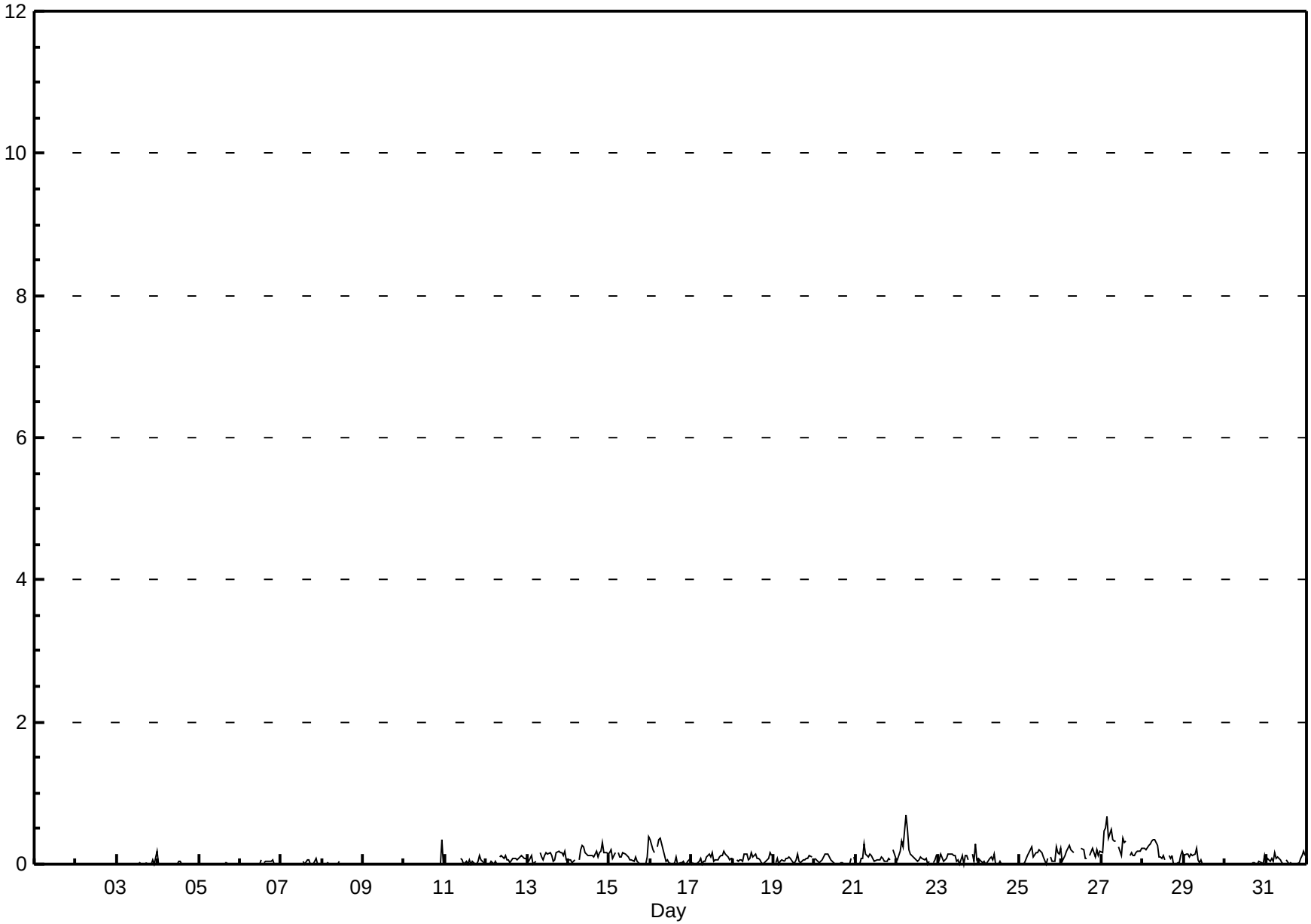
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb

Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Smoky Heights - May 2015



Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

Smoky Heights - May 2015

Maximum Value: 8.7 ppb on May 10 23:00

Maximum Daily Average: 0.9 ppb on May 10

Minimum Value: 0 ppb on May 1 07:00

Minimum Daily Average: 0.2 ppb on May 1

Maximum Diurnal Average: 1.0 ppb at hour 23

Minimum Diurnal Average: 0.4 ppb at hour 15

Monthly Average: 0.51 ppb

Percentiles: $P_1 = 0.1$ $P_{10} = 0.3$ $Q_1 = 0.4$ Median = 0.5 $Q_3 = 0.6$ $P_{90} = 0.7$ $P_{99} = 1.3$

Hours in Service:	744
Hours of Data:	707
Hours of Missing Data:	37
Hours of Calibration:	36
Percent Operational Time:	99.9

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	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	0.5
2-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	0.5
3-May	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	A	1	0	1	0	1	0	1	0.5	1.2
4-May	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	A	1	0	0	0	0	1	0	0	0.4	1.2
5-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	0.4	0.5
6-May	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	1	1	0	0	0	0	0	0	0.4	0.6
7-May	1	1	0	0	0	0	1	0	0	0	0	0	A	0	0	0	1	0	0	0	1	0	1	1	0.5	1.1
8-May	0	0	1	1	0	0	0	0	0	0	1	A	0	0	0	1	0	0	0	0	0	0	0	0	0.4	0.9
9-May	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	1	0	0	0	0	3	1	0.4	2.6
10-May	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	6	9	0	0.9	8.7
11-May	0	0	0	0	0	0	0	0	A	1	1	1	1	0	1	0	1	0	1	0	1	1	1	0	0.4	0.6
12-May	0	1	0	1	1	1	0	A	1	1	0	1	1	0	0	1	0	1	1	1	1	1	1	1	0.5	0.7
13-May	0	1	1	0	0	1	A	1	1	0	1	0	1	1	0	1	0	1	1	1	1	0	1	1	0.5	0.8
14-May	0	0	0	1	1	A	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.8
15-May	1	1	0	1	A	1	1	0	1	0	1	0	0	0	0	1	0	1	0	0	1	0	1	1	0.5	0.8
16-May	1	1	1	A	1	1	1	1	1	0	0	1	1	0	0	1	0	0	0	1	0	0	1	0	0.6	1.2
17-May	0	0	A	0	0	0	0	0	0	1	1	0	1	0	0	0	1	0	1	1	1	1	1	0	0.5	0.7
18-May	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	0	0	2	1	0.6	1.7
19-May	A	0	0	0	1	0	0	0	0	0	0	1	0	1	1	0	0	0	0	1	0	1	1	A	0.5	0.7
20-May	0	0	0	0	0	1	0	0	1	1	1	0	0	1	0	1	1	0	0	0	1	1	A	1	0.5	1.0
21-May	0	0	1	1	0	1	1	1	1	1	0	0	1	0	1	1	1	0	0	1	0	A	1	1	0.5	1.0
22-May	1	1	1	1	1	1	1	1	1	0	0	1	0	1	0	1	1	0	1	0	A	0	0	1	0.6	1.4
23-May	0	1	1	1	0	1	1	1	1	0	1	0	1	0	0	0	1	1	0	A	1	1	3	1	0.6	3.0
24-May	1	1	1	1	1	1	1	1	0	1	0	0	1	0	0	0	0	0	A	0	0	0	1	0	0.5	0.8
25-May	0	0	0	0	1	1	1	1	0	0	1	1	1	1	0	1	1	A	0	0	1	1	1	1	0.6	0.9
26-May	1	0	1	1	1	1	1	1	C	C	C	C	0	1	0	0	A	1	1	1	1	1	1	1	0.6	1.2
27-May	1	1	1	1	1	1	1	1	1	M	1	1	1	1	1	A	1	1	1	1	0	1	1	1	0.8	1.3
28-May	1	1	0	1	1	1	1	1	1	0	1	1	1	1	A	1	1	1	0	0	0	1	1	1	0.6	0.9
29-May	1	0	1	1	1	1	1	1	1	0	0	0	1	A	1	0	0	1	0	0	0	0	1	1	0.5	0.7
30-May	0	0	0	0	0	0	0	1	0	0	0	0	A	0	0	0	1	0	0	0	0	0	0	1	0.4	0.7
31-May	1	1	0	1	0	1	0	1	1	0	0	A	0	0	0	0	0	0	0	1	1	1	1	1	0.5	0.7
	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.5	0.5	0.5	0.5	0.4	0.5	0.7	1.0	0.6	Diurnal Average	
	1.2	1.3	1.1	1.2	0.9	1.4	1.3	0.7	0.8	0.9	0.7	0.6	0.8	0.8	0.8	0.7	0.7	1.1	0.7	0.7	0.8	6.1	8.7	1.2	Diurnal Maximum	

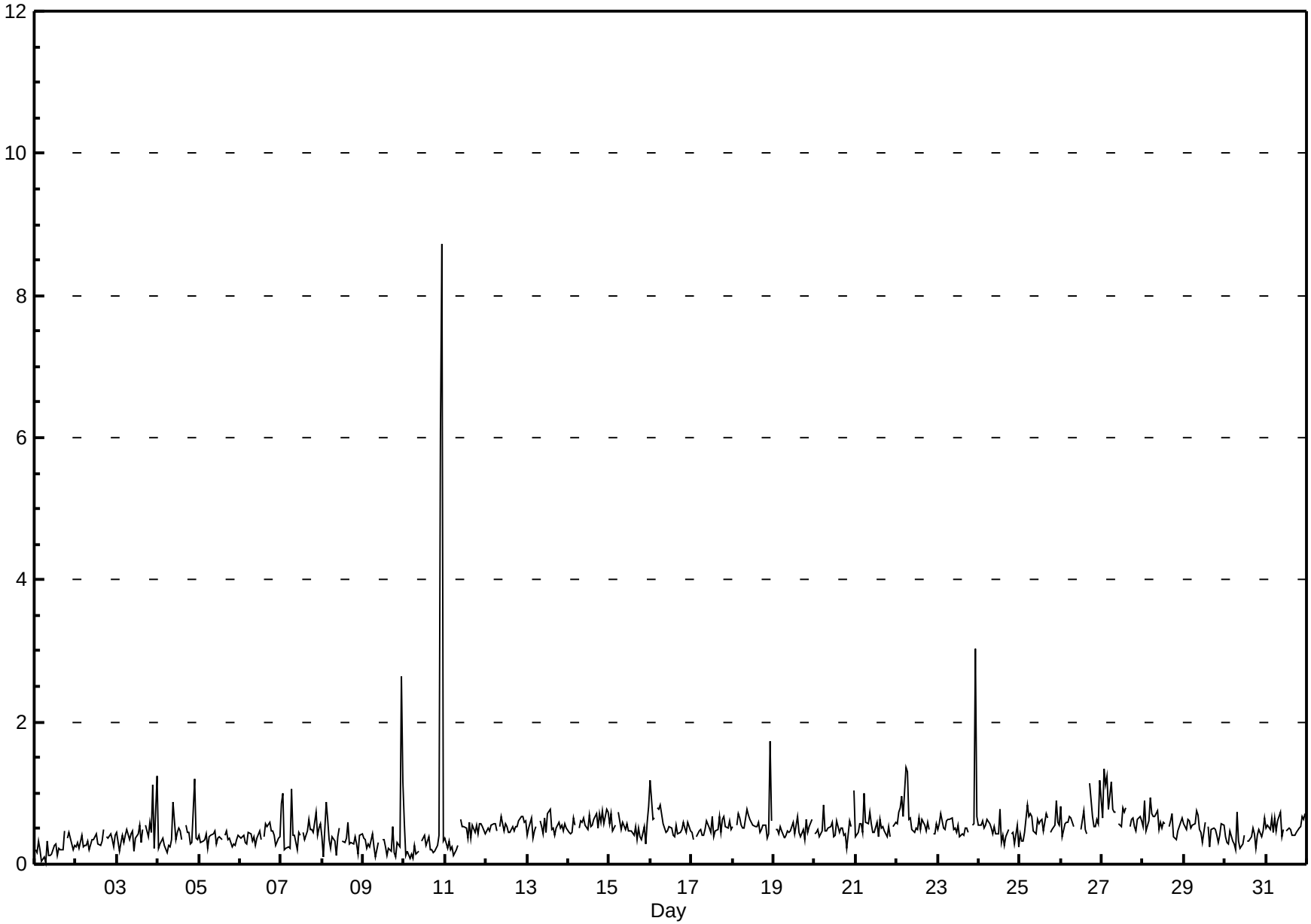
C - Calibration M - Maintenance A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

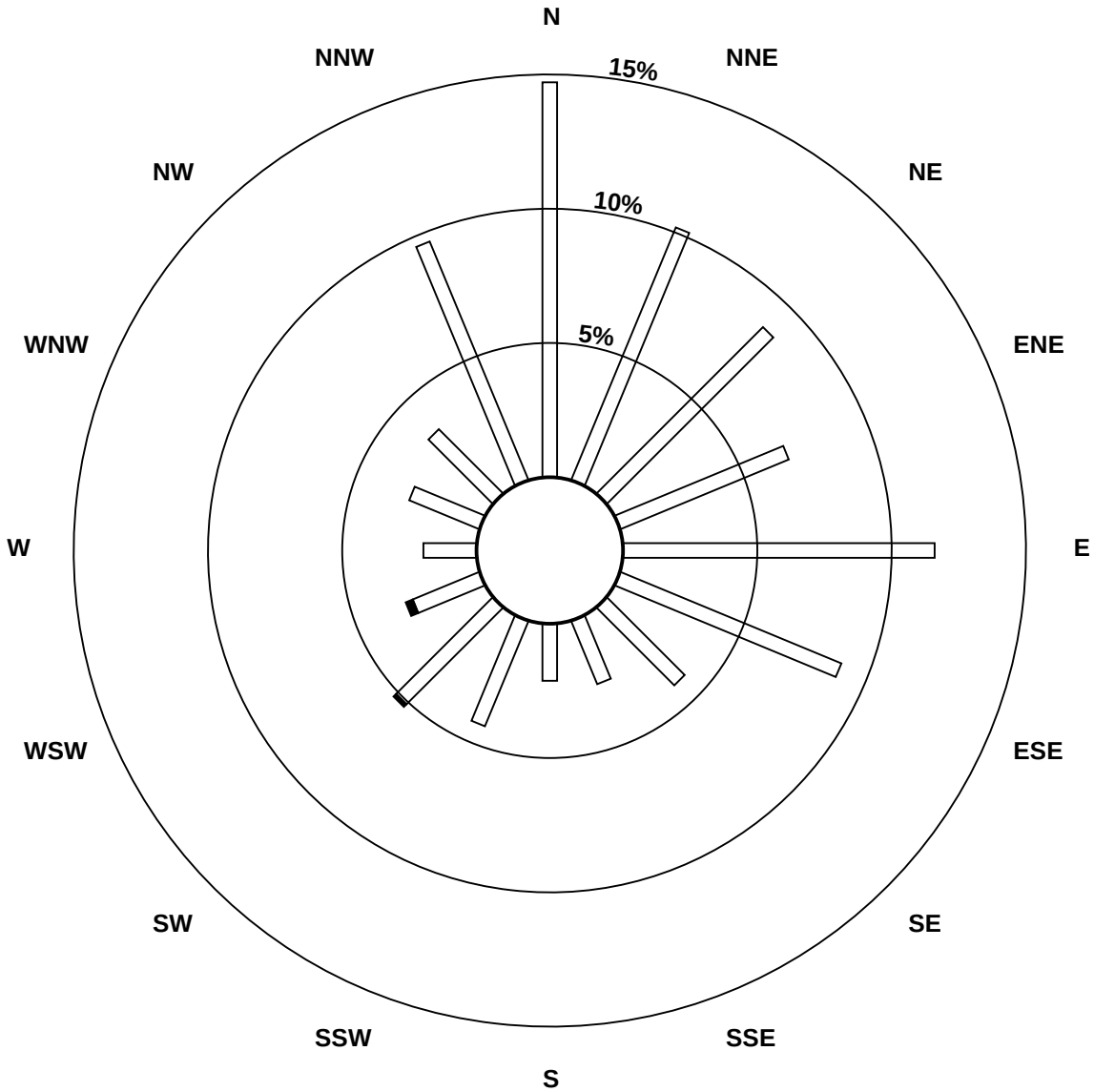
Smoky Heights - May 2015



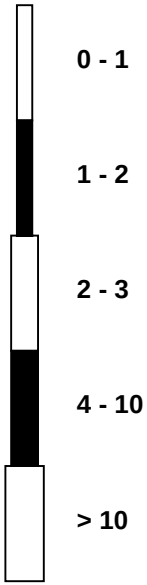
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb

Smoky Heights - May 2015



Pollutant Classes (ppb)

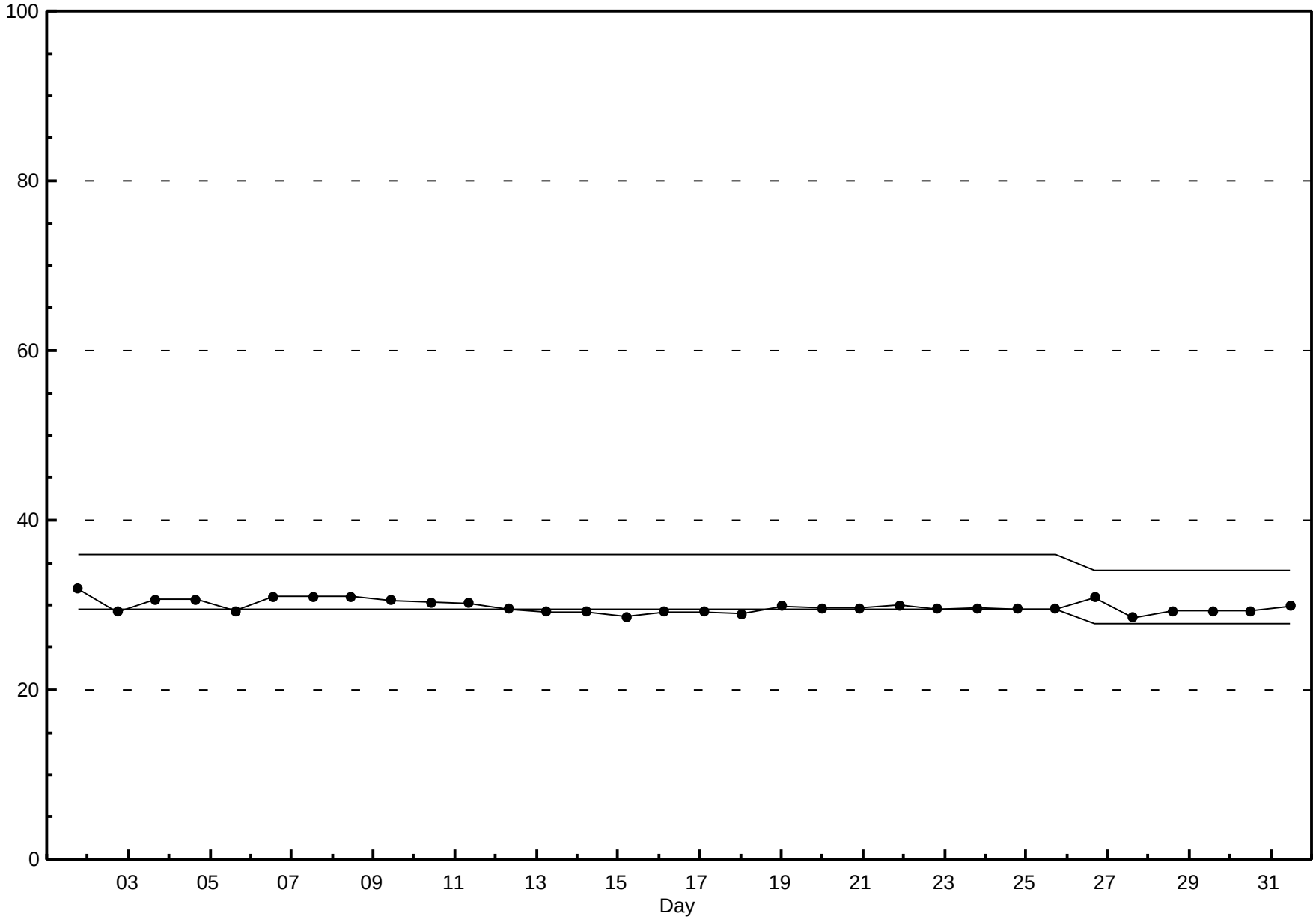


Peace Airshed Zone Association

Span Responses

Total Reduced Sulphur (TRS)

Smoky Heights - May 2015



Peace Airshed Zone Association

Hourly Averages

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

Smoky Heights - May 2015

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

Maximum Value: 59.8 $\mu g/m^3$ on May 26 05:00

Maximum Daily Average: 17.2 $\mu g/m^3$ on May 27

Minimum Value: 0 $\mu g/m^3$ on May 1 09:00

Maximum Diurnal Average: 8.9 $\mu g/m^3$ at hour 22

Monthly Average: 5.66 $\mu g/m^3$

Minimum Daily Average: 0.2 $\mu g/m^3$ on May 28

Minimum Diurnal Average: 3.2 $\mu g/m^3$ at hour 14

Percentiles: $P_1 = 0.0$ $P_{10} = 0.6$ $Q_1 = 1.7$ Median = 3.7 $Q_3 = 6.9$ $P_{90} = 14.1$ $P_{99} = 31.3$

Hours in Service:	744
Hours of Data:	739
Hours of Missing Data:	5
Hours of Calibration:	3
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	0	1	1	0	0	0	0	0	0	0	0	2	1	1	1	3	2	5	3	1	1.0	5.2
2-May	1	0	1	1	2	2	2	3	1	1	0	1	1	0	2	3	2	0	1	1	0	1	2	1	1.1	2.9
3-May	1	0	1	1	1	1	1	2	2	1	2	3	1	2	1	1	2	1	0	1	1	2	1	1	1.2	3.0
4-May	1	0	1	1	0	0	0	0	0	0	1	0	0	0	1	1	1	0	0	1	1	1	1	0	0.5	1.5
5-May	1	1	1	1	1	1	1	2	1	1	1	0	1	1	1	2	1	2	2	2	2	1	1	1	1.1	2.1
6-May	1	1	1	1	1	1	2	3	2	2	2	1	2	2	2	2	1	2	3	4	5	4	3	3	2.3	5.2
7-May	3	3	2	2	3	4	2	3	3	4	4	2	2	3	3	4	2	2	3	2	3	3	3	2	2.9	4.3
8-May	2	2	3	2	3	4	3	4	4	2	2	1	1	1	3	4	4	3	4	3	4	7	5	4	3.0	6.9
9-May	4	4	5	6	5	4	4	4	4	3	2	3	2	3	3	3	5	4	4	3	4	4	4	3	3.6	5.6
10-May	4	3	4	4	4	5	6	4	4	4	4	3	2	4	4	4	4	5	3	6	5	6	5	6	4.3	5.9
11-May	5	3	3	4	5	4	4	4	4	3	3	2	3	3	4	3	4	3	5	3	3	4	4	4	3.7	5.2
12-May	4	3	4	4	4	4	4	5	3	2	3	1	1	3	2	3	4	4	5	5	6	5	6	5	3.8	6.1
13-May	4	5	4	4	5	5	5	5	5	5	3	3	4	5	5	5	5	6	6	6	7	8	8	9	5.3	8.8
14-May	8	9	9	9	9	21	12	8	7	6	3	4	4	4	3	4	3	4	3	5	5	6	6	6	6.6	21.4
15-May	6	6	5	5	5	6	10	7	7	7	8	10	5	5	4	4	3	5	4	6	8	5	6	1	5.9	10.3
16-May	4	3	4	3	3	0	1	0	0	0	1	0	3	0	0	1	1	1	2	2	2	11	2	1	1.9	10.7
17-May	0	1	1	2	2	2	2	2	1	0	1	0	1	1	2	2	2	2	2	3	3	4	3	2	1.7	3.5
18-May	3	3	3	3	3	4	3	4	3	2	3	2	2	1	1	2	2	2	2	4	4	5	4	4	2.9	4.6
19-May	3	3	3	4	4	5	6	5	4	6	2	2	0	1	0	2	3	4	4	5	4	8	6	4	3.6	7.6
20-May	4	3	4	4	4	5	7	5	6	5	1	2	2	1	2	1	3	2	5	5	22	13	12	8	5.2	22.0
21-May	5	5	6	6	7	8	25	7	8	10	9	6	6	4	4	2	4	4	3	5	15	24	42	14	9.6	42.3
22-May	8	7	7	8	23	44	28	14	11	8	9	6	6	6	9	7	8	8	7	8	14	25	10	10	12.1	44.0
23-May	10	12	10	10	10	10	11	12	12	9	12	10	10	10	9	9	14	16	16	17	17	18	14	14	12.1	17.9
24-May	15	32	26	16	19	17	19	18	14	19	14	15	7	10	18	8	9	13	10	13	28	14	8	17	15.8	31.5
25-May	9	11	9	13	9	14	16	22	15	23	15	16	11	9	20	19	18	26	6	8	25	39	21	10	16.1	38.9
26-May	13	23	15	13	60	18	17	10	15	15	12	8	8	5	4	2	2	6	8	8	13	23	15	16	13.6	59.8
27-May	32	19	24	20	10	22	14	20	15	6	12	11	10	M	M	16	19	21	32	38	23	7	4	3	17.2	38.1
28-May	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.8
29-May	0	0	0	0	0	0	0	1	C	C	C	2	2	2	3	4	5	5	5	6	7	7	7	6	3.1	7.3
30-May	6	5	5	4	5	5	5	6	7	7	6	4	5	5	5	5	7	7	8	10	13	12	10	13	6.9	13.1
31-May	13	12	9	13	16	21	25	17	9	1	1	1	2	2	2	3	3	3	4	5	6	7	8	8	8.0	24.7
	5.6	5.9	5.5	5.4	7.2	7.7	7.6	6.3	5.5	5.0	4.5	3.9	3.4	3.2	3.9	4.1	4.5	5.2	5.0	6.1	8.1	8.9	7.3	5.7	Diurnal Average	
	32.2	31.5	26.0	20.5	59.8	44.0	27.9	22.2	15.2	22.9	15.3	16.4	11.4	10.5	19.9	18.8	18.6	26.0	31.7	38.1	28.0	38.9	42.3	16.5	Diurnal Maximum	

C - Calibration M - Maintenance

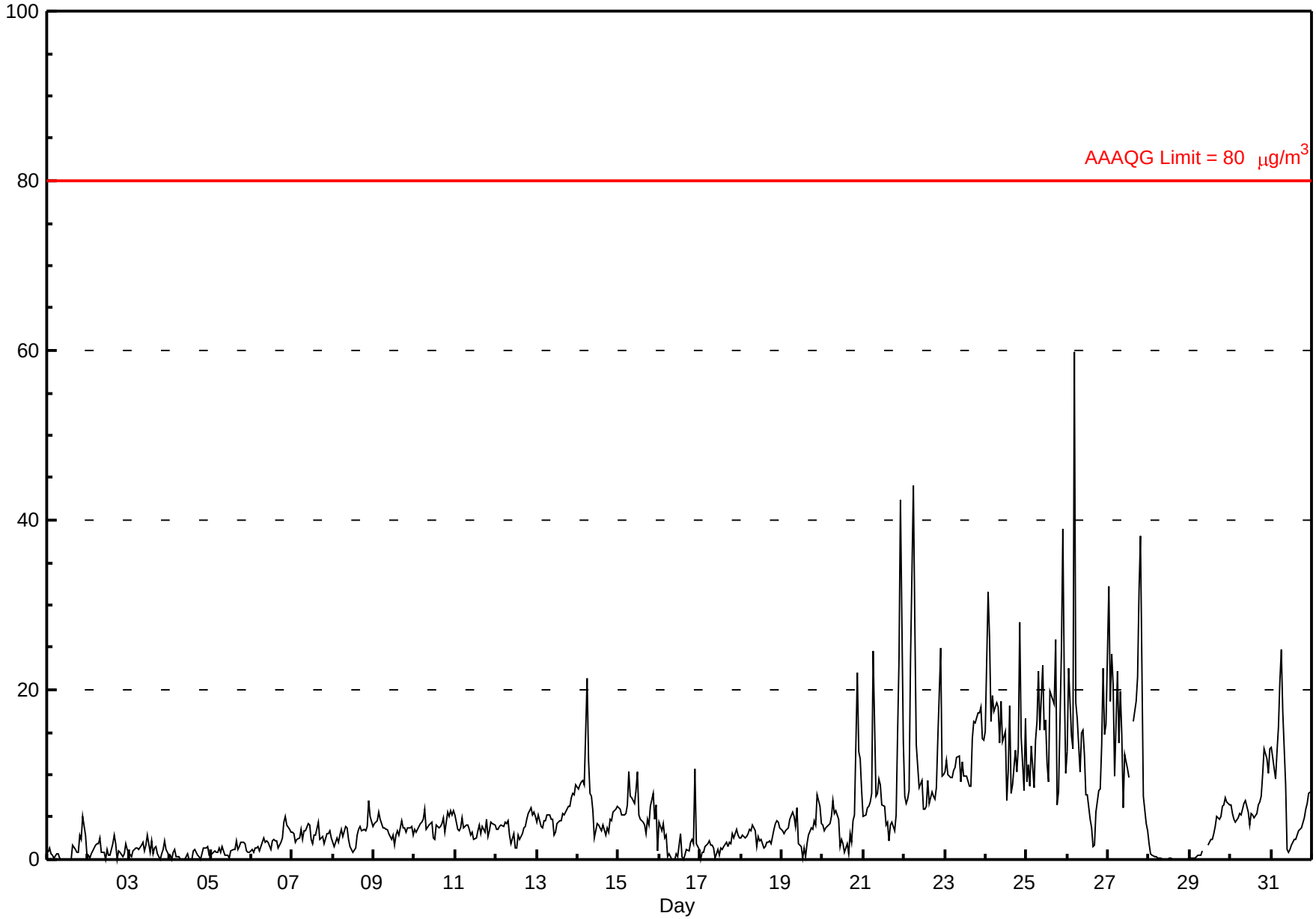
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 $\mu g/m^3$ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 $\mu g/m^3$

Peace Airshed Zone Association

Hourly Averages

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

Smoky Heights - May 2015



Peace Airshed Zone Association

Hourly Maximums

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

Smoky Heights - May 2015

Maximum Value: 243.6 $\mu g/m^3$ on May 26 05:00

Maximum Daily Average: 40.4 $\mu g/m^3$ on May 25

Minimum Value: 0 $\mu g/m^3$ on May 28 10:00

Minimum Daily Average: 0.7 $\mu g/m^3$ on May 28

Maximum Diurnal Average: 20.0 $\mu g/m^3$ at hour 22

Minimum Diurnal Average: 7.9 $\mu g/m^3$ at hour 14

Monthly Average: 11.06 $\mu g/m^3$

Percentiles: $P_1 = 0.2$ $P_{10} = 2.4$ $Q_1 = 4.3$ Median = 6.9 $Q_3 = 11.3$ $P_{90} = 22.5$ $P_{99} = 60.9$

Hours in Service:	744
Hours of Data:	739
Hours of Missing Data:	5
Hours of Calibration:	3
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	3	2	2	1	4	3	2	0	1	1	5	7	2	2	5	5	3	4	7	4	9	5	3	3.5	8.8
2-May	4	2	2	3	3	4	3	4	3	4	5	9	4	6	4	6	6	4	4	3	3	3	4	3	4.0	9.0
3-May	2	3	2	2	3	3	4	4	4	4	6	7	3	7	5	7	5	3	2	4	3	4	3	2	3.9	7.3
4-May	2	1	3	3	3	3	1	1	1	1	2	2	2	3	4	5	2	4	2	2	4	3	4	2	2.4	4.9
5-May	2	2	3	3	3	3	3	3	2	2	2	2	4	4	5	4	3	3	4	3	3	2	3	3	3.0	4.9
6-May	3	2	4	3	3	3	4	4	5	5	7	7	5	6	4	5	4	4	5	7	8	6	5	5	4.7	7.5
7-May	6	6	4	4	5	7	5	6	6	6	6	7	6	6	5	9	10	5	5	4	5	5	5	4	5.7	9.8
8-May	4	3	6	4	5	7	5	6	6	5	4	3	4	5	8	9	11	8	6	5	6	18	9	7	6.4	17.8
9-May	10	8	8	8	7	5	6	5	6	5	5	6	6	8	11	8	10	7	7	6	6	5	6	4	6.7	10.5
10-May	6	6	7	6	7	7	10	6	8	8	7	8	8	7	9	9	9	10	7	11	8	11	7	7	7.9	11.0
11-May	7	6	5	7	9	7	9	10	7	6	6	9	8	10	10	9	11	7	10	7	5	8	6	5	7.6	10.8
12-May	6	5	5	6	6	7	8	7	6	4	6	5	4	7	6	7	7	7	7	8	8	7	7	6	6.4	8.3
13-May	6	6	5	5	7	7	8	10	7	13	10	5	8	8	9	11	9	9	10	9	9	9	10	10	8.3	13.1
14-May	10	11	11	11	10	33	19	10	10	9	8	8	8	8	9	8	7	8	7	8	6	7	8	8	10.0	32.7
15-May	7	7	7	8	7	9	17	10	11	11	15	25	10	15	11	10	7	11	17	18	16	9	11	8	11.5	25.0
16-May	6	7	6	5	5	3	2	4	4	6	6	5	8	3	2	5	5	5	6	5	4	31	7	3	6.0	30.6
17-May	2	4	3	3	4	5	3	4	3	3	3	4	6	5	6	5	6	5	5	6	5	7	6	5	4.5	7.2
18-May	4	4	4	4	5	7	6	7	6	6	5	5	6	6	7	9	7	8	7	6	7	8	6	5	6.1	8.8
19-May	5	5	5	5	7	8	10	9	8	14	8	5	6	12	7	7	8	7	8	9	7	11	9	6	7.6	13.8
20-May	5	5	5	5	6	10	12	9	9	10	9	11	5	5	6	8	9	9	10	13	44	29	21	13	11.2	44.0
21-May	7	7	9	8	11	17	93	11	12	14	14	12	15	11	13	7	11	9	12	9	34	53	121	22	22.1	120.5
22-May	11	12	11	26	34	90	60	19	15	16	14	12	14	13	19	14	13	14	12	16	25	54	13	14	22.5	89.9
23-May	14	13	13	12	12	13	14	16	17	18	20	19	17	18	17	15	25	21	23	21	20	35	27	16	18.1	34.7
24-May	18	75	41	26	29	21	22	24	22	30	23	23	17	20	48	21	21	24	18	20	63	25	13	43	28.6	74.6
25-May	18	22	18	19	14	26	30	41	32	46	27	30	23	18	61	57	30	53	20	14	145	165	46	14	40.4	165.4
26-May	16	46	19	21	244	23	23	25	33	22	18	13	18	16	17	8	9	15	20	23	38	53	27	37	32.6	243.6
27-May	74	32	57	29	19	42	19	25	22	28	20	22	39	M	M	20	21	28	37	42	40	11	5	4	28.9	74.1
28-May	3	1	0	0	0	1	0	1	1	0	2	2	0	0	0	1	0	0	0	0	0	0	0	0	0.7	3.4
29-May	0	0	0	0	0	1	1	1	C	C	C	2	3	3	3	5	7	5	6	9	9	9	8	7	3.8	9.5
30-May	7	6	5	5	6	6	6	7	7	8	7	4	6	6	5	7	7	8	24	11	15	16	12	15	8.5	24.2
31-May	16	17	13	16	18	27	29	24	12	3	1	2	2	3	3	3	3	4	4	5	7	7	9	9	10.0	29.3
	9.2	10.6	9.1	8.5	15.9	13.1	13.9	10.1	9.4	10.2	8.9	9.1	8.7	7.9	10.5	9.8	9.3	9.9	10.0	10.1	17.9	20.0	13.5	9.4	Diurnal Average	
	74.1	74.6	56.7	29.3	243.6	89.9	92.9	40.9	33.0	46.0	26.9	30.1	39.4	19.9	60.7	57.5	30.1	53.0	37.4	42.0	144.9	165.4	120.5	43.3	Diurnal Maximum	

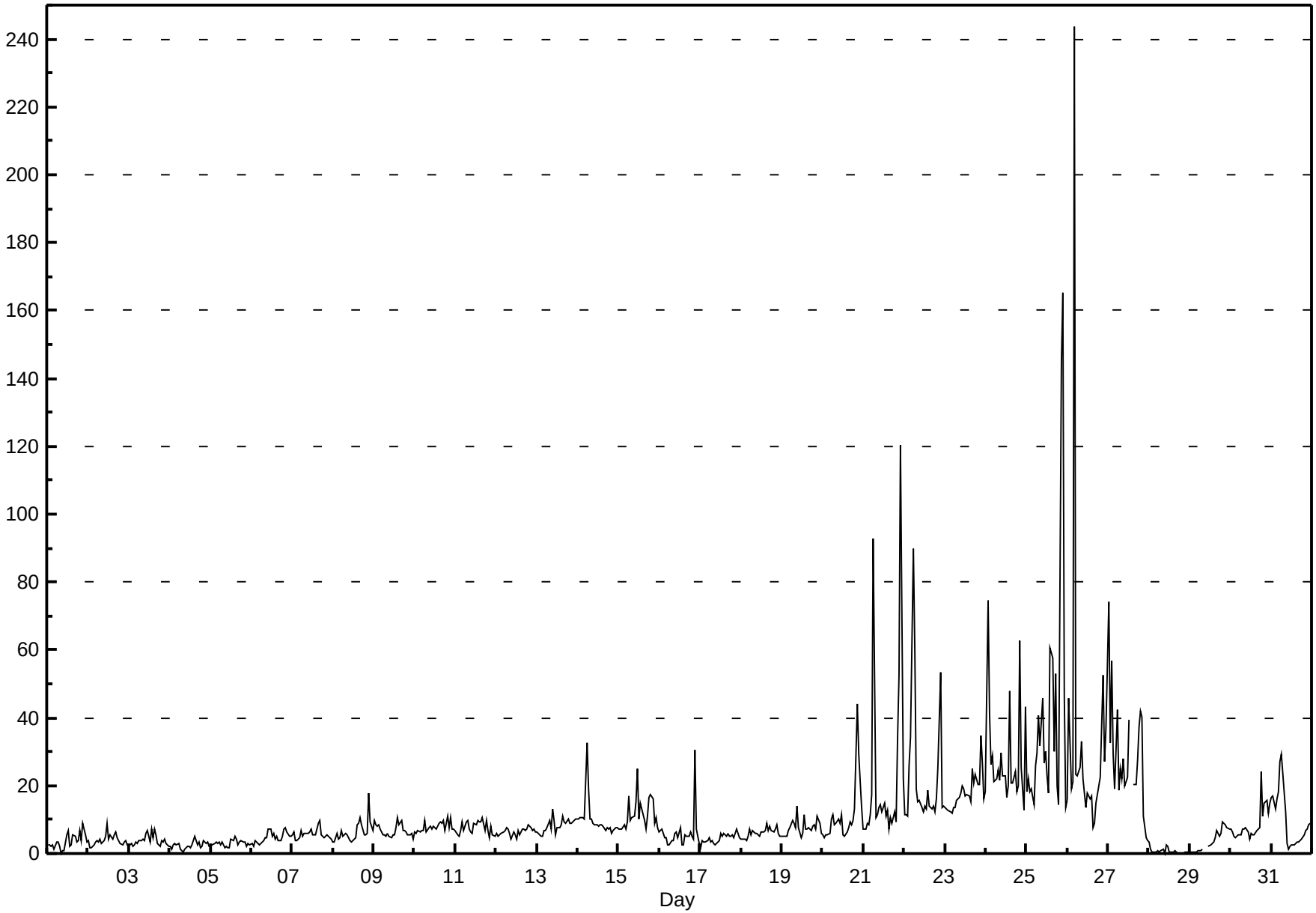
C - Calibration M - Maintenance

Peace Airshed Zone Association

Hourly Maximums

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

Smoky Heights - May 2015

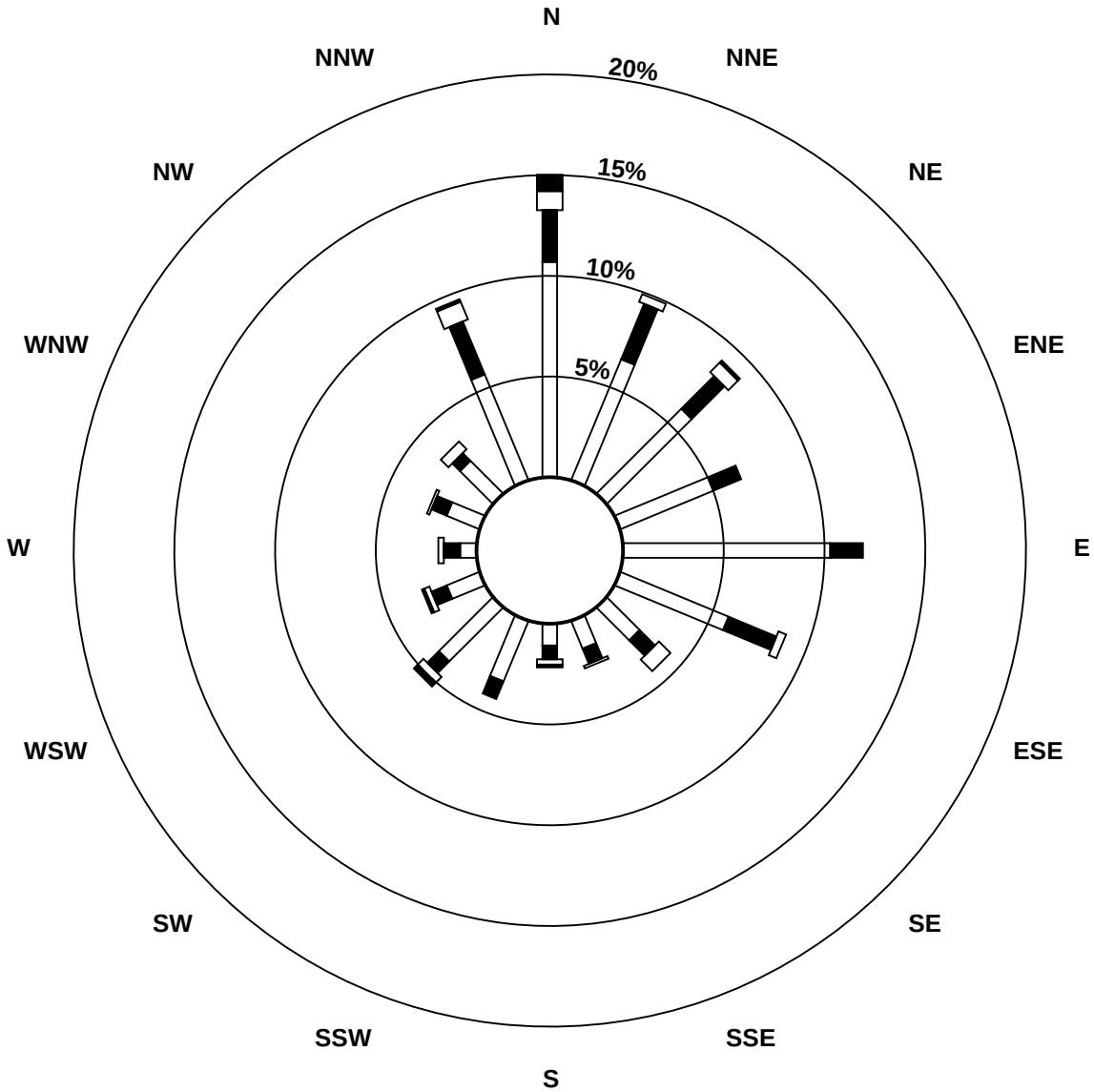


Peace Airshed Zone Association

Pollutant Rose

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

Smoky Heights - May 2015



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

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

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Smoky Heights - May 2015

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

Maximum Value: 27.1 ^{o}C on May 23 16:00

Maximum Daily Average: 20.6 ^{o}C on May 23

Minimum Value: -2 ^{o}C on May 8 06:00

Maximum Diurnal Average: 17.6 ^{o}C at hour 17

Monthly Average: 12.18 ^{o}C

Minimum Daily Average: 2.1 ^{o}C on May 5

Minimum Diurnal Average: 5.4 ^{o}C at hour 6

Percentiles: P_1 = -0.7 P_{10} = 2.5 Q_1 = 7.0 Median = 11.7 Q_3 = 17.4 P_{90} = 21.8 P_{99} = 26.5

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

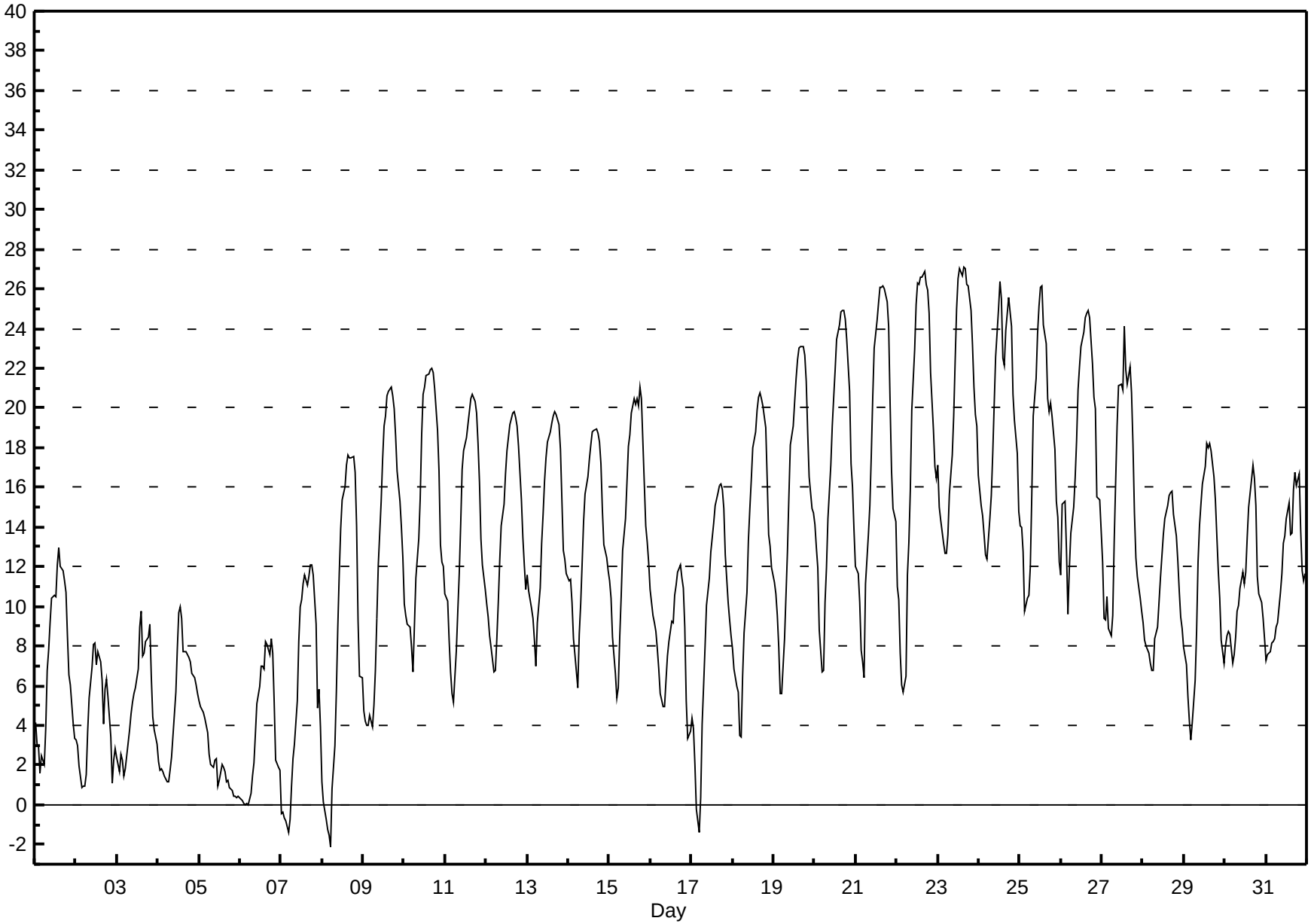
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-May	4	3	3	2	2	2	4	7	8	9	10	11	10	12	13	12	12	11	11	8	7	6	4	3	7.3	13.0
2-May	3	3	2	1	1	1	2	4	5	7	8	8	7	8	7	6	4	6	6	5	3	1	2	3	4.3	8.2
3-May	2	2	3	2	1	2	3	4	5	5	6	6	7	9	10	8	8	8	8	9	6	4	4	3	5.2	9.8
4-May	2	2	2	2	1	1	1	2	2	4	6	8	10	10	9	8	8	8	7	7	7	6	6	6	5.2	10.0
5-May	5	5	5	4	4	4	3	2	2	2	2	1	1	2	2	2	1	1	1	1	0	0	0	0	2.1	5.2
6-May	0	0	0	0	0	0	1	1	2	4	5	6	7	7	7	8	8	8	8	8	5	2	2	2	3.8	8.4
7-May	0	0	-1	-1	-1	-1	1	2	3	5	8	10	10	11	12	11	11	12	12	12	9	5	6	4	5.8	12.1
8-May	1	0	-1	-1	-2	-2	1	3	6	9	12	14	15	16	17	18	17	17	18	17	14	9	6	6	8.8	17.6
9-May	5	4	4	4	5	4	5	7	9	12	15	17	19	20	21	21	21	21	20	19	17	15	14	12	12.9	21.0
10-May	10	10	9	9	8	7	9	11	13	15	19	21	21	22	22	22	22	22	21	19	17	13	12	12	15.2	22.0
11-May	11	10	8	7	6	5	8	10	12	14	17	18	18	19	20	20	21	20	20	18	16	13	12	11	13.9	20.7
12-May	10	9	8	8	7	7	8	10	12	14	15	17	18	18	19	20	20	20	19	18	15	13	12	11	13.7	19.8
13-May	12	11	10	9	8	7	9	11	13	15	16	17	18	19	19	20	20	20	19	18	15	13	12	12	14.3	19.8
14-May	11	11	10	8	8	6	9	10	12	14	16	17	17	18	19	19	19	19	18	17	15	13	12	12	13.8	19.0
15-May	11	10	8	7	5	6	8	11	13	14	16	18	19	20	20	20	21	20	21	20	16	14	13	12	14.4	21.0
16-May	11	10	9	9	8	7	6	5	5	6	8	8	9	9	11	11	12	12	11	11	9	5	3	4	8.2	12.1
17-May	4	4	2	0	-1	0	4	6	8	10	11	13	13	14	15	16	16	16	16	15	13	10	9	9	9.3	16.2
18-May	8	7	6	6	3	3	6	9	11	13	15	16	18	19	20	21	21	21	20	19	16	14	13	12	13.2	20.8
19-May	11	11	10	8	6	6	8	11	13	16	18	19	20	22	22	23	23	23	23	21	19	17	15	15	15.7	23.1
20-May	14	13	12	9	7	7	10	12	14	17	19	21	22	23	24	25	25	25	24	23	21	17	16	14	17.3	24.9
21-May	12	12	10	8	7	6	11	14	15	18	21	23	24	25	26	26	26	26	25	24	20	17	15	14	17.8	26.2
22-May	11	10	8	6	6	6	12	13	16	20	23	25	26	26	27	27	27	26	26	25	22	19	17	16	18.3	26.9
23-May	17	15	14	13	13	13	14	16	18	20	22	25	27	27	27	27	27	26	26	25	23	21	20	19	20.6	27.1
24-May	17	15	15	14	13	12	14	16	18	20	23	25	26	26	23	22	24	26	25	24	21	19	18	15	19.5	26.4
25-May	14	14	13	10	10	11	12	16	20	21	24	25	26	26	24	23	20	20	20	20	18	15	15	12	17.9	26.1
26-May	12	15	15	13	10	12	14	15	16	18	21	22	23	24	25	25	25	25	22	21	20	15	15	15	18.2	24.9
27-May	12	9	9	10	9	8	10	13	16	19	21	21	21	24	22	21	22	21	18	15	12	12	10	10	15.3	24.1
28-May	9	8	8	8	7	7	7	8	9	10	11	13	14	14	15	16	16	16	15	14	12	11	9	9	11.0	15.8
29-May	8	7	5	4	3	4	6	9	12	14	15	16	17	18	18	18	18	17	15	14	12	10	8	7	11.5	18.2
30-May	8	9	9	9	7	8	8	10	10	11	12	11	12	13	15	16	17	16	15	12	11	10	9	8	11.1	17.1
31-May	7	8	8	8	8	8	9	9	11	12	13	14	14	15	14	14	16	17	16	17	14	12	11	12	11.9	16.8
	8.5	7.9	7.2	6.3	5.4	5.4	7.1	8.9	10.6	12.6	14.4	15.6	16.5	17.3	17.5	17.5	17.6	17.5	17.1	15.9	13.7	11.4	10.5	9.7	Diurnal Average	
	17.1	15.2	15.3	13.6	12.7	12.7	14.4	15.6	19.6	21.5	23.7	25.2	26.5	27.0	26.6	27.1	27.0	26.2	26.2	24.9	23.2	21.0	19.7	19.1	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Smoky Heights - May 2015



Peace Airshed Zone Association

Hourly Averages

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

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1 Spd	19	13	13	11	12	10	10	20	28	29	30	27	26	29	29	33	30	29	28	26	17	15	15	6	19.9	32.5
Dir	205	210	202	206	206	210	210	205	212	217	209	232	231	229	225	222	220	223	226	213	212	282	283	149	220.0	221.5
2 Spd	13	16	18	15	14	12	13	15	17	16	14	15	3	13	10	17	13	10	13	10	7	6	10	13	11.0	17.8
Dir	182	213	222	225	216	217	228	248	267	263	262	252	256	184	220	288	295	219	232	202	215	218	219	237	234.3	222.0
3 Spd	8	4	1	2	2	4	5	5	6	6	6	9	6	7	8	6	7	6	7	1	4	3	8	9	2.2	9.5
Dir	233	206	15	340	218	223	217	192	117	90	31	5	7	3	12	288	360	9	334	67	305	82	355	16	356.3	5.1
4 Spd	8	8	10	13	14	16	15	18	17	16	20	21	22	20	21	18	19	22	18	20	20	18	18	18	16.4	22.0
Dir	347	339	338	351	351	359	360	356	358	359	6	18	26	30	44	41	24	14	5	1	4	8	16	17	10.1	14.3
5 Spd	20	19	16	16	17	16	17	17	17	15	13	12	13	18	17	13	14	17	15	15	12	12	11	10	14.7	20.1
Dir	16	13	10	2	353	344	337	346	355	359	357	340	333	352	354	352	3	354	354	344	333	329	343	339	352.4	15.5
6 Spd	8	8	8	9	10	9	9	11	12	8	8	7	4	2	6	7	9	8	3	5	6	3	3	9	3.7	12.3
Dir	324	310	307	304	313	317	311	296	284	289	302	326	347	243	220	193	211	211	156	176	137	135	147	141	280.3	284.3
7 Spd	4	1	1	2	2	4	1	6	5	2	3	1	8	10	12	14	5	9	6	7	5	5	7	4	2.8	14.0
Dir	137	110	171	255	251	256	163	139	158	62	124	357	343	330	331	270	268	299	330	307	307	300	295	334	300.7	270.1
8 Spd	4	3	2	1	1	3	3	6	7	10	11	9	10	6	8	5	7	3	10	8	5	5	7	9	1.7	11.0
Dir	320	323	14	1	18	188	164	146	144	150	143	133	152	175	206	217	354	20	326	309	299	270	245	246	198.7	142.9
9 Spd	7	3	3	7	10	8	10	8	4	6	6	7	6	4	2	4	6	13	14	14	14	12	8	8	4.8	14.4
Dir	211	238	307	337	335	336	350	3	58	85	86	113	129	171	47	151	43	38	45	50	50	44	41	36	38.4	45.4
10 Spd	6	6	5	5	1	3	4	3	4	5	8	11	14	11	14	14	12	13	14	8	8	7	4	13	6.7	14.1
Dir	7	7	357	8	336	190	344	33	71	38	353	42	59	63	79	65	39	36	39	58	31	13	70	118	45.9	38.9
11 Spd	14	15	3	0	1	3	4	6	9	8	7	13	11	11	9	10	10	11	12	12	9	11	12	15	8.0	15.2
Dir	123	121	129	8	255	149	117	114	112	86	72	103	101	96	62	51	58	65	53	58	54	65	75	109	86.7	120.7
12 Spd	17	15	9	12	10	11	10	11	14	25	25	23	27	28	27	26	26	26	24	19	17	15	15	13	18.3	28.5
Dir	114	117	117	107	92	92	95	95	96	86	90	85	93	99	94	97	80	97	93	88	73	73	71	73	91.9	98.8
13 Spd	16	16	14	16	12	10	9	10	17	31	30	30	26	25	24	22	21	20	18	18	13	9	11	9	17.3	30.8
Dir	92	95	94	89	87	78	39	34	83	103	105	90	96	94	97	94	99	87	94	99	94	82	95	94	91.9	103.3
14 Spd	9	15	14	10	9	4	7	12	14	18	17	22	20	14	22	20	18	19	18	15	8	8	10	12	13.7	22.5
Dir	83	97	110	104	111	137	124	117	119	131	113	103	109	97	96	97	100	104	107	99	71	77	89	102	104.2	103.3
15 Spd	14	12	3	4	5	6	6	4	3	4	6	5	5	6	6	7	3	4	3	12	18	6	5	16	4.5	18.0
Dir	113	112	95	31	337	352	344	360	105	36	352	29	331	333	317	13	38	51	64	25	18	315	307	349	16.7	18.0
16 Spd	19	19	20	23	23	24	25	28	20	19	15	14	15	16	13	11	11	11	13	11	8	5	3	5	14.7	28.3
Dir	341	346	350	358	3	8	2	357	1	1	12	19	1	347	10	7	14	26	51	34	50	52	70	42	6.1	357.5
17 Spd	9	10	4	2	3	3	6	12	11	17	18	16	15	17	15	17	14	17	17	16	11	7	11	13	10.5	17.9
Dir	54	32	2	1	341	26	92	109	105	101	97	86	102	113	103	106	99	109	108	109	113	50	67	90	94.1	97.4
18 Spd	14	11	7	9	4	4	4	4	5	12	22	18	16	17	16	15	16	19	17	14	8	6	10	11	10.6	22.1
Dir	103	96	100	98	35	357	9	15	355	79	97	64	65	67	70	82	90	106	106	98	77	53	66	94	81.3	96.6
19 Spd	11	8	7	4	6	5	5	6	7	5	8	14	16	14	16	13	14	16	16	13	8	11	12	13	8.6	16.2
Dir	85	94	84	32	344	341	344	354	5	1	73	80	75	97	98	91	97	107	106	98	74	72	89	97	80.3	106.5
20 Spd	14	9	9	2	4	5	7	7	6	5	12	15	14	13	13	8	10	10	8	6	4	7	6	5	6.1	14.8
Dir	100	105	111	81	341	344	355	360	8	38	90	89	106	89	124	101	71	80	91	95	359	10	17	341	75.3	88.9
21 Spd	3	2	2	5	2	2	2	6	8	7	7	6	5	4	6	9	11	10	10	7	4	4	5	5	2.6	11.4
Dir	116	163	267	253	279	297	23	112	125	103	103	132	155	4	359	19	24	15	31	27	342	325	351	324	38.1	24.3
22 Spd	5	5	2	1	1	3	3	6	4	2	4	5	12	11	10	14	10	13	11	8	4	7	6	7	4.7	13.9
Dir	294	304	20	29	313	256	227	103	69	51	72	25	22	48	46	62	44	37	32	44	9	330	332	337	28.4	62.3

Peace Airshed Zone Association

Hourly Averages

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
23 Spd	8	8	7	6	7	8	7	8	7	8	7	7	10	11	12	12	14	13	13	13	10	9	8	12	8.2	14.4
Dir	345	345	5	335	333	341	342	350	11	14	16	8	35	31	52	69	50	53	50	49	43	44	43	52	27.3	50.1
24 Spd	6	4	3	7	7	8	7	8	6	6	8	8	9	11	23	10	15	7	6	5	12	19	16	3	2.1	23.1
Dir	16	338	2	352	344	334	340	359	10	17	14	29	30	66	122	230	271	300	357	342	181	205	242	253	334.6	121.5
25 Spd	3	4	1	3	12	4	5	7	5	6	5	4	6	5	3	8	14	12	8	4	5	10	3	6	1.0	14.2
Dir	101	120	329	166	253	229	146	234	259	103	118	113	162	216	139	279	341	43	41	331	264	229	298	238	238.0	341.5
26 Spd	5	9	12	6	2	4	5	7	6	3	1	7	9	8	8	7	8	8	6	3	3	6	8	6	4.9	12.0
Dir	287	305	316	343	360	359	342	28	13	41	71	328	323	333	330	350	5	35	19	9	2	233	288	329	339.3	316.3
27 Spd	5	1	8	6	7	7	4	5	8	9	11	15	4	5	13	9	15	15	18	21	18	21	20	15	4.5	20.8
Dir	355	322	242	230	197	146	125	143	158	186	193	221	202	36	360	357	11	15	2	353	350	354	348	356	349.3	353.1
28 Spd	18	15	14	12	12	13	11	13	15	17	13	13	13	12	13	13	14	14	13	11	9	7	6	7	11.9	18.2
Dir	0	8	5	4	3	15	4	14	22	20	23	30	39	36	53	51	52	44	37	46	36	34	27	359	24.8	0.5
29 Spd	11	11	7	6	6	8	9	8	11	18	17	15	14	20	20	24	24	25	24	22	17	14	9	6	9.9	25.2
Dir	359	14	5	343	346	346	358	9	33	52	56	53	79	89	101	109	125	128	128	124	128	130	118	112	87.1	127.5
30 Spd	5	7	9	8	6	7	8	8	7	6	2	9	10	14	12	8	8	8	12	13	2	6	6	7	3.5	13.8
Dir	55	25	33	14	357	3	12	11	5	1	161	129	102	69	59	13	347	328	273	256	119	28	189	206	20.9	68.7
31 Spd	6	7	4	4	4	5	7	8	11	17	22	19	24	27	18	6	4	6	7	4	4	7	11	8	7.3	27.2
Dir	209	197	189	176	145	180	179	163	187	199	199	211	225	235	250	271	51	32	63	52	162	228	232	242	210.9	234.6
Spd	3.0	2.7	2.2	2.7	3.1	3.0	3.3	3.0	2.7	4.2	4.9	5.3	5.6	5.4	6.1	4.5	6.1	6.8	6.2	5.2	4.0	3.1	2.8	3.2	Diurnal Average	
Dir	61.7	51.7	19.7	7.6	345.3	349.3	358.5	21.1	49.3	71.0	83.5	70.5	72.7	70.7	74.6	68.4	51.7	61.2	59.3	59.5	48.5	23.7	20.9	52.1		
Spd	20.1	19.5	19.9	23.2	22.6	23.5	24.7	28.3	27.7	30.8	30.5	29.7	26.9	28.8	29.0	32.5	30.1	29.2	27.9	25.8	20.1	20.7	19.5	18.0	Diurnal Maximum	
Dir	15.5	346.1	349.6	357.5	2.8	7.8	2.3	357.5	211.8	103.3	104.6	89.8	93.4	228.9	224.6	221.5	220.1	222.7	225.5	212.7	4.5	354.0	347.8	17.4		

Maximum Speed Value: 33 km/h on May 1 16:00
Maximum Daily Speed Average: 19.9 km/h on May 1
Maximum Diurnal Speed Average: 6.8 km/h at hour 18

Minimum Speed Value: 0 km/h on May 11 04:00
Minimum Daily Speed Average: 1.0 km/h on May 7
Minimum Diurnal Speed Average: 2.2 km/h at hour 3

Monthly Average Velocity: 3.72 km/h 51.94 deg

Speed Percentiles: P_1 = 1.1 P_{10} = 3.6 Q_1 = 5.9 Median = 9.1 Q_3 = 14.4 P_{90} = 19.1 P_{99} = 28.8

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

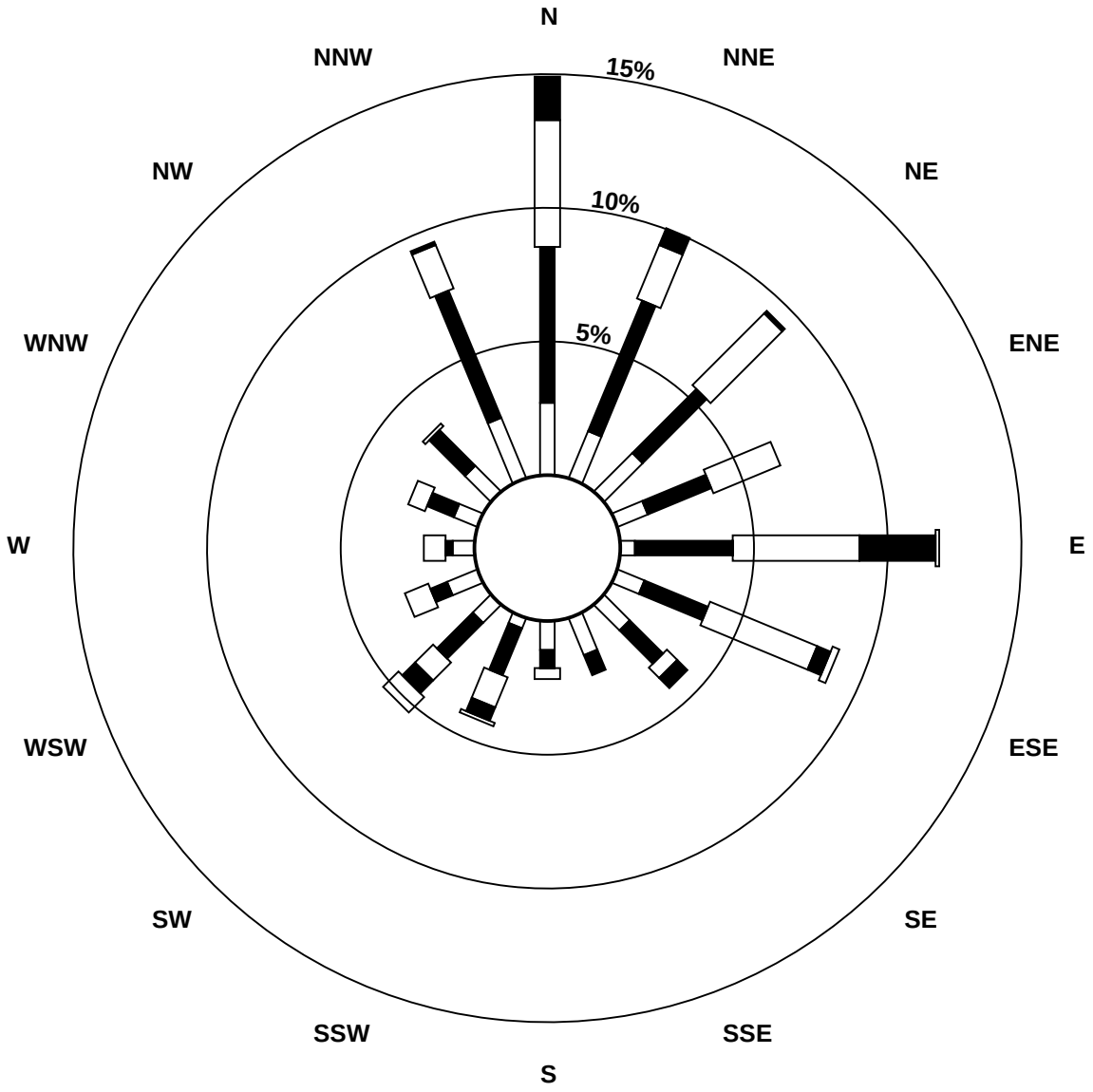
Frequency Distribution

Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	36	86	53	18	1	0	194
NorthEast	21	52	48	4	0	0	125
East	12	44	71	25	4	0	156
SouthEast	18	24	15	5	0	0	62
South	13	17	5	1	0	0	36
SouthWest	9	29	14	10	7	0	69
West	12	8	15	0	0	0	35
NorthWest	20	39	8	0	0	0	67
Total	141	299	229	63	12	0	744

Wind Rose

Wind Speed (WS) (km/h)

Smoky Heights - May 2015



Wind Speed Classes (km/h)

Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Smoky Heights - May 2015

Peace Airshed Zone Association

Maximum Speed: 33 km/h on May 1 16:00

Maximum Daily Speed Average: 21.5 km/h on May 1

Minimum Speed: 1 km/h on May 8 04:00

Minimum Daily Speed Average: 6.3 km/h on May 3

Maximum Diurnal Speed Average: 14.8 km/h at hour 15

Minimum Diurnal Speed Average: 7.7 km/h at hour 4

Monthly Average Speed: 11.20 km/h

Percentiles: $P_1 = 2.2$ $P_{10} = 4.5$ $Q_1 = 6.5$ Median = 9.8 $Q_3 = 14.8$ $P_{90} = 19.6$ $P_{99} = 29.1$

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	19	13	13	11	12	10	10	20	28	29	31	29	29	29	30	33	31	30	28	26	17	16	16	8	21.5	32.9
2-May	13	16	18	15	14	12	13	15	17	17	15	16	5	13	13	19	14	11	13	10	7	6	11	13	13.2	18.5
3-May	8	5	3	4	2	4	5	6	6	7	8	10	6	8	9	9	8	8	7	2	4	5	9	9	6.3	9.7
4-May	8	8	10	13	14	16	16	18	17	17	20	21	22	20	21	18	20	22	18	20	20	18	18	18	17.3	22.1
5-May	20	19	16	16	17	16	17	17	17	15	13	12	13	18	18	14	14	17	15	15	12	12	11	10	15.2	20.2
6-May	8	8	8	9	10	9	10	12	13	10	9	8	6	5	6	8	9	8	4	6	6	3	3	9	7.9	12.5
7-May	4	2	1	2	2	4	3	6	5	3	5	6	9	11	13	17	10	11	7	7	5	5	7	6	6.3	17.4
8-May	4	3	3	1	2	4	4	6	7	10	12	10	11	9	11	11	8	5	10	8	5	5	7	9	6.9	11.7
9-May	9	6	5	7	10	8	10	8	5	6	7	8	7	6	6	6	9	14	15	15	14	12	8	8	8.7	15.0
10-May	6	7	5	5	4	4	4	5	5	6	8	12	15	13	15	15	13	14	14	9	8	7	6	13	8.8	14.8
11-May	14	15	4	2	2	4	4	7	9	9	8	15	12	12	10	11	11	12	12	12	9	11	12	15	9.7	15.2
12-May	18	15	9	12	10	11	10	11	15	26	26	24	28	29	28	27	27	27	24	20	17	15	15	13	19.0	29.1
13-May	16	16	14	16	12	10	9	11	18	31	31	31	27	26	24	23	22	20	18	18	13	9	11	9	18.2	31.4
14-May	9	15	14	10	10	4	7	12	15	19	18	23	21	15	23	22	19	20	19	15	8	8	10	13	14.5	23.3
15-May	14	12	4	5	5	6	6	5	3	6	7	7	8	8	8	8	5	5	4	13	20	11	6	17	8.1	19.7
16-May	19	20	20	23	23	24	25	29	20	20	16	15	16	17	13	13	12	12	13	12	8	5	3	5	15.9	28.6
17-May	9	10	5	2	3	4	7	12	12	18	19	17	16	18	16	18	16	17	17	16	11	7	11	13	12.2	18.5
18-May	14	11	7	9	4	4	4	4	5	14	23	19	17	18	17	16	17	19	18	14	8	6	10	11	12.1	22.7
19-May	11	8	7	4	6	5	6	7	7	6	10	15	16	15	17	14	15	17	16	13	9	12	12	13	10.9	16.8
20-May	14	10	9	3	5	5	7	7	6	5	13	16	15	14	13	10	11	10	9	6	4	7	7	5	8.8	15.6
21-May	4	3	2	5	5	2	3	7	8	8	8	7	7	7	8	10	12	11	10	7	4	4	5	5	6.3	12.4
22-May	5	5	3	2	3	5	3	6	5	3	5	7	13	13	12	15	12	14	11	8	5	7	6	7	7.2	15.2
23-May	8	8	7	6	8	8	7	8	8	8	8	8	11	12	12	13	15	13	13	13	10	9	8	12	9.7	14.7
24-May	7	5	5	7	8	8	7	8	6	7	8	9	10	11	24	14	15	8	6	5	13	20	17	7	9.8	24.2
25-May	5	5	3	4	12	6	6	8	6	6	6	6	8	9	4	17	15	13	10	4	6	11	6	7	7.6	16.7
26-May	6	9	12	6	4	4	5	7	7	4	4	8	10	10	9	9	9	8	6	3	3	7	9	7	6.9	12.0
27-May	5	3	8	6	7	7	5	5	8	9	12	16	5	9	13	10	16	16	18	21	19	21	20	15	11.4	21.1
28-May	18	15	15	12	13	13	11	13	15	17	14	14	14	13	14	14	15	14	13	12	9	7	6	7	12.9	18.4
29-May	11	11	7	6	6	8	9	8	11	19	17	15	16	20	21	25	25	26	24	22	18	14	9	7	14.9	25.8
30-May	6	7	9	8	7	7	8	8	7	6	5	9	10	14	12	9	9	8	13	13	6	13	6	7	8.7	14.3
31-May	7	7	5	4	4	6	7	10	11	17	22	20	24	28	18	7	4	6	7	5	5	7	11	8	10.4	27.6
	10.3	9.6	8.2	7.7	7.8	7.8	7.9	9.8	10.4	12.2	13.1	13.9	13.7	14.5	14.8	14.7	14.2	14.0	13.4	11.9	9.7	9.8	9.5	9.8	Diurnal Average	
	20.2	19.8	20.0	23.4	22.9	23.8	24.9	28.6	28.0	31.4	31.1	30.6	28.7	29.3	29.9	32.9	30.7	29.8	28.2	25.9	20.2	20.9	19.7	18.1	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 2015

Maximum Value: 95.5 deg on May 7 12:00

Minimum Value: 2.3 deg on May 1 21:00

Percentiles: P_1 = 4.1 P_{10} = 6.8 Q_1 = 9.8 Median = 16.7 Q_3 = 28.4 P_{90} = 49.0 P_{99} = 86.6

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)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-May	4	4	6	6	6	11	12	7	8	9	10	18	27	11	14	8	11	12	8	5	2	25	34	45	45.3
2-May	10	6	4	4	5	7	5	13	7	13	18	21	65	8	43	32	37	23	9	14	17	29	33	8	64.7
3-May	12	40	58	66	52	24	38	36	15	28	47	12	24	40	31	59	22	46	19	77	26	59	11	14	76.9
4-May	11	5	5	8	7	7	19	7	8	9	12	11	12	12	12	11	11	6	8	7	7	6	6	7	19.2
5-May	5	6	7	10	6	6	6	21	7	10	9	11	6	9	14	12	15	9	11	7	6	9	7	7	20.7
6-May	9	7	8	7	9	8	19	13	11	33	27	30	58	90	27	38	25	22	53	25	6	14	21	5	89.7
7-May	33	89	41	33	40	37	87	33	29	62	53	95	34	35	26	37	69	26	36	21	22	11	6	62	95.5
8-May	32	7	50	88	53	72	38	12	10	11	19	18	26	52	48	68	31	58	20	8	22	16	6	3	88.0
9-May	41	76	50	16	8	13	10	13	37	23	26	30	46	48	90	64	71	14	17	9	8	9	12	11	90.1
10-May	15	9	11	20	84	47	27	46	27	33	23	24	21	30	25	26	31	18	12	14	14	14	42	5	84.2
11-May	4	3	76	85	84	34	25	24	13	21	29	30	24	27	29	24	37	26	15	6	4	6	13	8	85.1
12-May	3	4	8	7	10	8	8	14	13	11	13	15	12	12	12	16	15	12	12	7	5	4	4	7	16.1
13-May	8	6	6	6	6	8	20	12	16	11	12	14	16	17	15	17	16	17	15	7	6	9	6	10	20.1
14-May	11	11	8	9	21	30	12	7	8	12	22	15	16	27	16	19	19	13	11	10	8	7	6	7	29.7
15-May	5	6	55	29	10	10	15	32	35	45	39	49	58	52	44	34	59	60	53	27	25	74	52	15	74.2
16-May	6	10	7	7	8	9	7	8	11	12	19	18	22	15	19	26	28	23	17	15	7	16	28	14	28.4
17-May	9	9	36	48	45	30	29	13	17	13	15	25	20	21	19	19	23	13	11	6	5	18	13	10	47.5
18-May	5	7	8	13	36	19	14	18	23	38	13	20	19	18	19	23	22	11	10	8	13	23	16	8	37.9
19-May	9	15	20	22	9	7	13	11	16	29	47	21	17	19	20	25	21	13	8	6	10	11	6	6	46.8
20-May	6	7	6	61	31	11	21	13	21	33	29	18	18	23	17	47	28	17	24	17	25	15	35	33	60.9
21-May	24	48	76	15	59	54	42	19	15	20	23	34	53	57	54	34	23	17	17	8	21	4	16	20	75.9
22-May	17	13	59	74	66	34	42	11	42	65	33	40	22	38	34	26	32	15	17	9	27	9	7	12	74.0
23-May	10	8	22	10	9	8	8	11	18	17	22	29	21	20	24	19	11	8	10	6	7	7	11	13	29.3
24-May	21	44	64	24	17	6	12	12	22	20	21	24	18	15	21	45	15	24	15	9	68	20	16	91	91.5
25-May	71	61	75	46	8	50	25	17	43	26	34	70	42	59	42	67	23	19	43	8	30	36	69	35	75.3
26-May	48	8	6	18	69	13	17	14	20	58	95	30	33	37	44	52	32	19	14	10	22	30	16	27	94.5
27-May	8	65	8	10	15	19	26	15	21	19	20	17	71	72	16	31	17	11	14	11	19	10	9	10	72.1
28-May	9	10	9	10	11	9	10	17	13	13	20	18	21	22	23	25	18	13	11	8	9	10	15	14	24.6
29-May	11	7	18	26	8	8	10	12	17	14	14	14	27	17	19	18	10	12	8	7	5	5	19	18	27.1
30-May	24	15	8	11	15	11	9	10	17	12	87	13	14	15	22	31	25	15	23	33	77	76	17	23	87.4
31-May	17	23	38	31	16	18	19	34	13	11	10	12	8	10	9	32	32	35	21	24	28	14	7	13	37.6
	70.6	89.5	76.3	88.0	84.2	71.8	87.0	45.8	42.9	64.6	94.5	95.5	70.8	89.7	90.1	68.2	70.7	60.5	53.0	76.9	77.0	76.5	69.1	91.5	

PAZA
Beaverlodge Station
Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Beaverlodge - May 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 4.5 ppb on May 15 15:00 Maximum Daily Average: 0.6 ppb on May 15

Minimum Value: 0 ppb on May 29 00:00 Minimum Daily Average: 0.1 ppb on May 1
Maximum Diurnal Average: 0.4 ppb at hour 10 Minimum Diurnal Average: 0.2 ppb at hour 21
Monthly Average: 0.28 ppb Percentiles: P_1 = 0.0 P_{10} = 0.1 Q_1 = 0.1 Median = 0.2 Q_3 = 0.4 P_{90} = 0.6 P_{99} = 1.4

Hours in Service:	744
Hours of Data:	710
Hours of Missing Data:	34
Hours of Calibration:	34
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-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
2-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
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	0.3
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	0.1	0.2
7-May	0	0	0	0	A	0	0	0	0	1	1	0	0	0	0	1	2	2	1	0	0	0	0	0	0.5	2.2
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	0.2	0.4
9-May	1	0	0	0	A	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
10-May	0	0	0	0	A	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
11-May	0	1	1	1	A	1	1	1	1	1	1	0	0	C	C	C	0	0	0	0	0	0	0	0	0.5	0.9
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	0.3	0.5
13-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0.4	0.7
14-May	1	1	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
15-May	0	0	0	0	A	0	0	0	0	0	0	2	2	1	4	1	2	0	0	0	0	0	0	0	0.6	4.5
16-May	0	1	0	0	A	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.3
17-May	0	0	0	0	A	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0.3	0.7
18-May	1	1	1	1	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6
19-May	1	1	1	1	A	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.0
20-May	0	0	0	1	A	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6
21-May	0	0	1	1	A	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.5	1.5
22-May	0	0	0	1	A	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.2
23-May	0	0	0	0	A	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
24-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	0.3	0.5
25-May	0	0	0	0	A	0	0	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0.3	0.9
26-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0.3	0.9
27-May	0	0	0	0	A	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.2
28-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
29-May	0	0	0	0	A	0	0	1	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.4	0.7
30-May	1	0	0	0	A	0	1	1	1	1	0	1	1	0	0	0	1	1	0	0	0	0	0	0	0.4	0.7
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	0.1
	0.2	0.3	0.3	0.3	--	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	Diurnal Average	
	0.6	1.3	1.5	1.2	--	1.0	0.9	0.8	1.2	1.2	0.9	1.8	2.4	1.1	4.5	1.0	2.2	2.0	0.7	0.6	0.7	0.6	0.6	0.7	Diurnal Maximum	

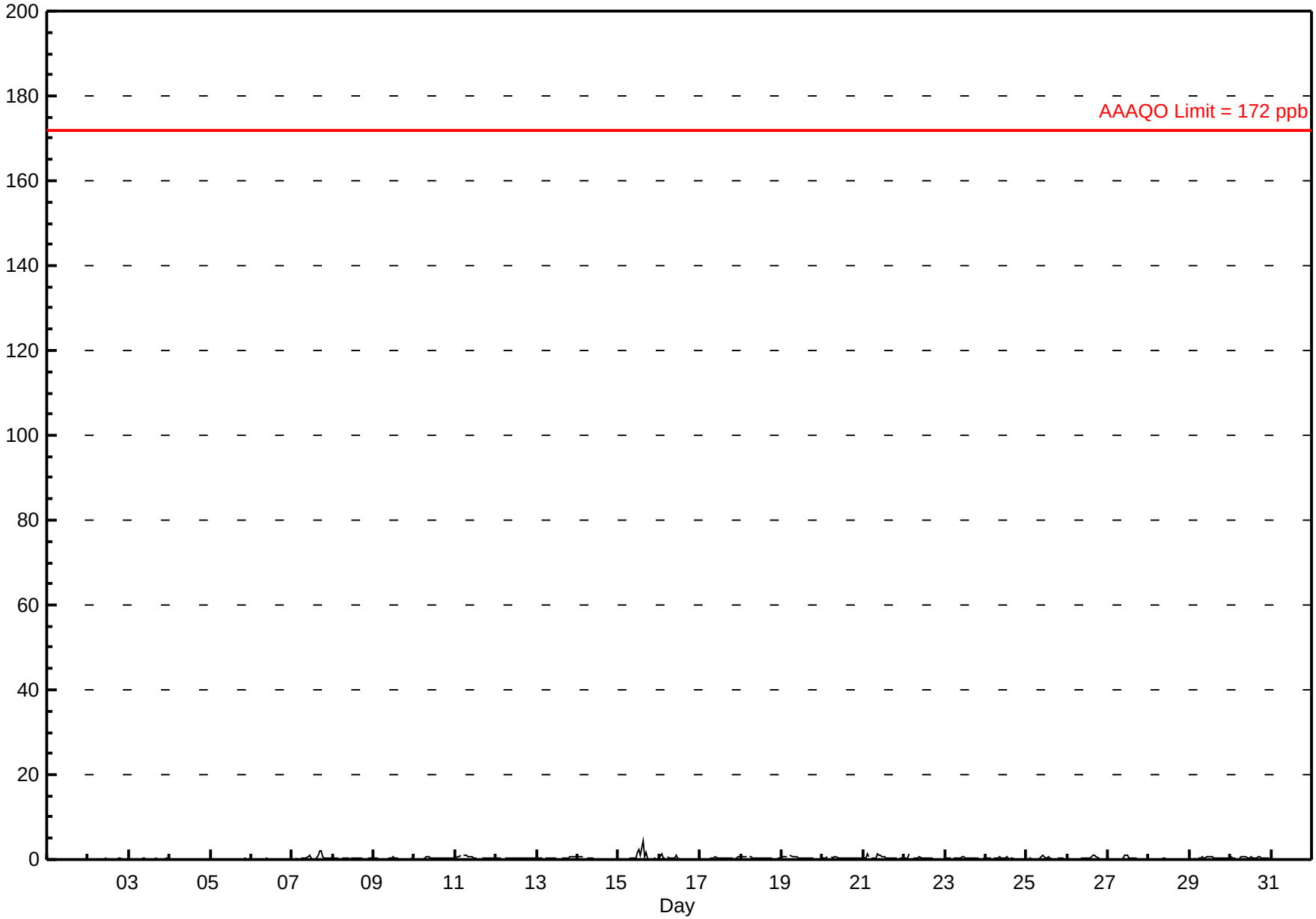
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Beaverlodge - May 2015



Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Beaverlodge - May 2015

Maximum Value: 9.6 ppb on May 15 15:00

Maximum Daily Average: 1.7 ppb on May 15

Minimum Value: 0 ppb on May 28 22:00

Minimum Daily Average: 0.2 ppb on May 6

Maximum Diurnal Average: 0.8 ppb at hour 17

Minimum Diurnal Average: 0.3 ppb at hour 22

Monthly Average: 0.52 ppb

Percentiles: P_1 = 0.1 P_{10} = 0.1 Q_1 = 0.2 Median = 0.3 Q_3 = 0.6 P_{90} = 0.8 P_{99} = 4.7

Hours in Service:	744
Hours of Data:	710
Hours of Missing Data:	34
Hours of Calibration:	34
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0.2	0.8
2-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	0.3	1.0
3-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	0.3	0.9
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	0.2	0.3
5-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0.3	2.7
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	0.4
7-May	0	0	0	0	A	0	0	0	1	1	1	1	0	0	0	8	5	5	1	1	0	1	0	0	1.3	7.8
8-May	0	0	0	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5	1	0.6	4.7
9-May	1	1	1	0	A	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	0	1	0	0.4	1.2
10-May	0	0	0	0	A	0	0	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0.4	1.2
11-May	1	1	1	1	A	1	1	1	1	1	1	1	1	C	C	C	0	0	0	0	0	0	0	0	0.6	1.1
12-May	0	1	1	1	A	1	1	1	1	1	1	0	0	1	0	1	0	0	0	1	0	0	0	1	0.5	1.2
13-May	1	0	0	0	A	0	0	0	1	1	0	0	0	0	0	0	0	5	1	1	1	1	1	1	0.7	4.8
14-May	1	1	1	1	A	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.7
15-May	0	0	0	0	A	0	0	0	0	0	0	7	5	3	10	1	7	2	0	0	0	1	0	0	1.7	9.6
16-May	3	3	2	1	A	1	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0.7	2.9
17-May	0	0	0	0	A	0	0	0	1	1	1	1	0	0	1	0	0	0	0	0	0	1	1	1	0.4	1.3
18-May	1	1	1	1	A	1	1	1	1	1	1	1	0	1	1	1	1	1	0	0	0	0	0	1	0.5	1.2
19-May	1	1	1	1	A	1	1	1	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	2.1
20-May	0	0	1	1	A	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.5	0.8
21-May	0	1	3	1	A	1	0	1	5	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.9	4.5
22-May	0	0	0	3	A	1	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.5	3.3
23-May	0	0	1	0	A	0	0	0	1	0	1	1	1	1	1	2	1	1	1	0	0	0	0	0	0.6	1.7
24-May	1	0	0	0	A	0	0	1	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0.4	0.8
25-May	0	0	0	0	A	0	0	0	1	2	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0.5	2.1
26-May	0	0	0	0	A	0	0	0	0	1	1	1	1	0	1	1	1	1	1	0	0	0	0	0	0.5	1.2
27-May	0	0	0	0	A	0	0	0	0	0	2	2	1	0	0	1	1	0	0	0	0	0	0	0	0.4	1.7
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	0.5
29-May	0	0	0	0	A	0	1	1	1	1	1	1	1	1	1	0	0	0	0	1	1	0	1	1	0.5	0.8
30-May	1	1	1	1	A	0	1	1	1	1	1	1	1	1	0	0	1	1	0	1	0	0	0	0	0.6	1.4
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	0.2	0.4
	0.5	0.4	0.5	0.5	--	0.4	0.4	0.5	0.6	0.7	0.6	0.8	0.6	0.5	0.7	0.7	0.8	0.7	0.3	0.3	0.4	0.3	0.5	0.4	Diurnal Average	
	2.9	2.8	3.1	3.3	--	1.4	1.1	1.2	4.5	2.1	2.0	7.2	5.2	3.0	9.6	7.8	6.9	4.9	1.2	1.2	2.7	0.8	4.7	1.3	Diurnal Maximum	

C - Calibration

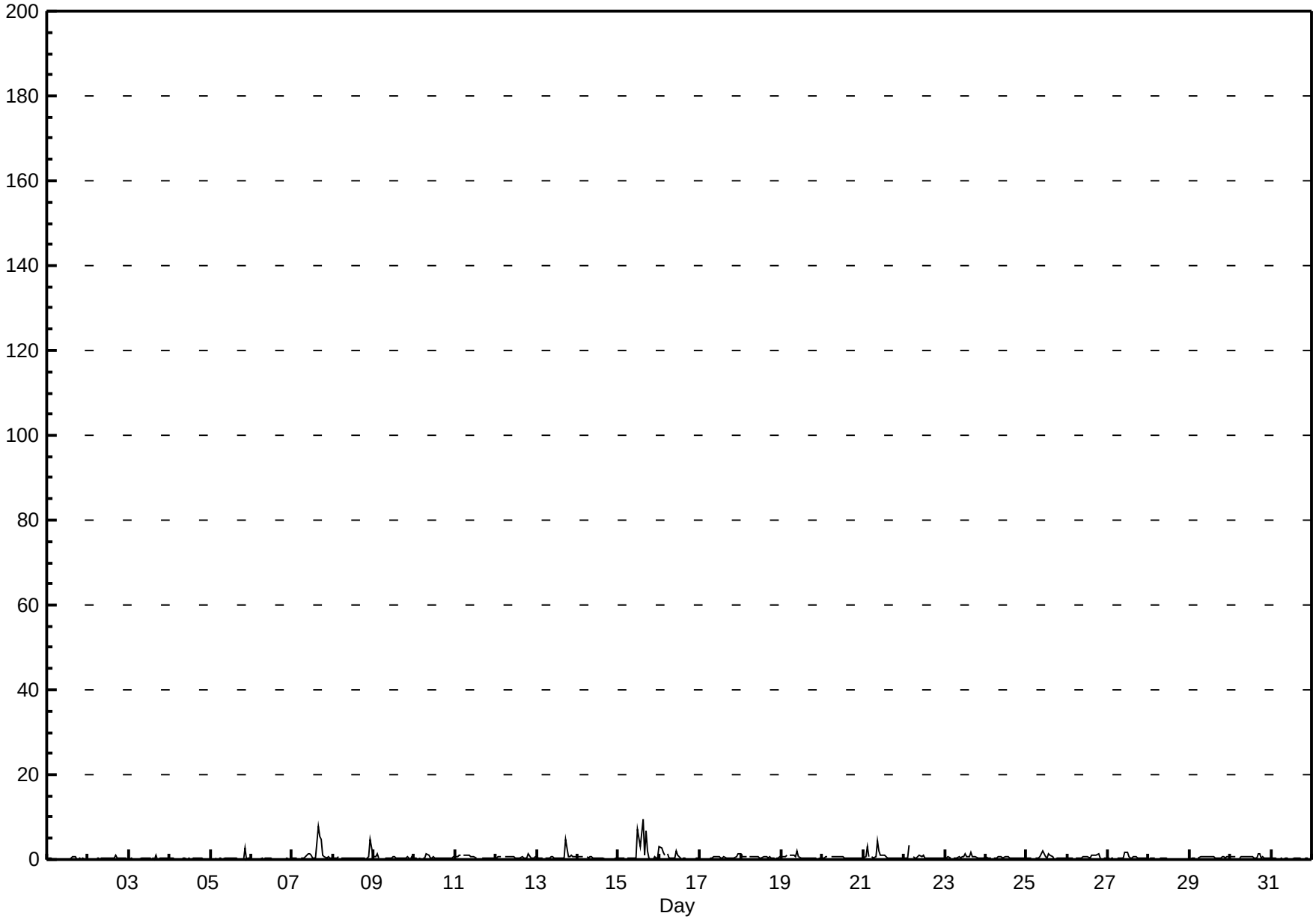
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

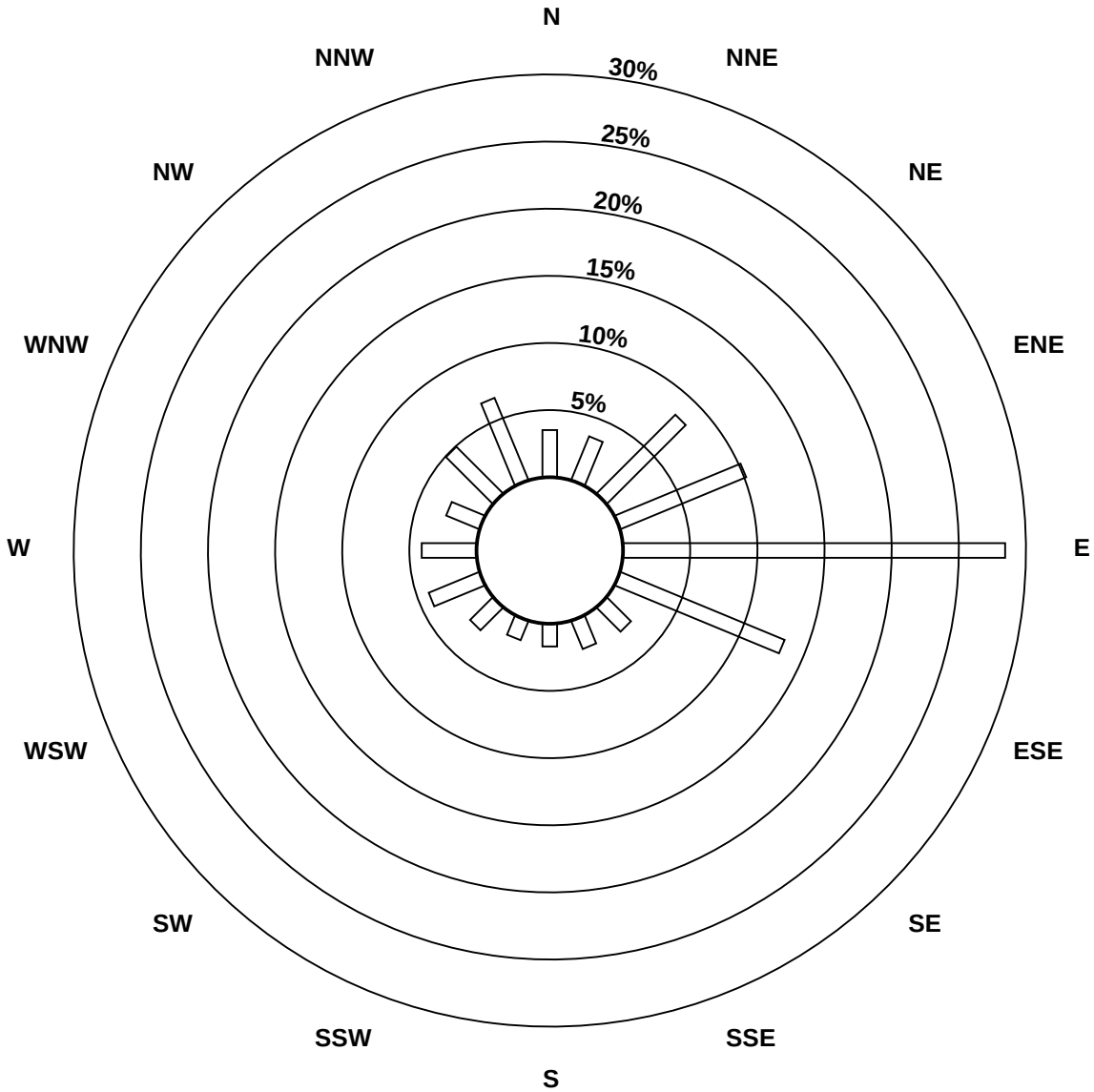
Beaverlodge - May 2015



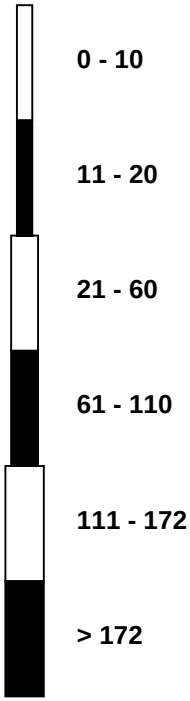
Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Beaverlodge - May 2015



Pollutant Classes (ppb)

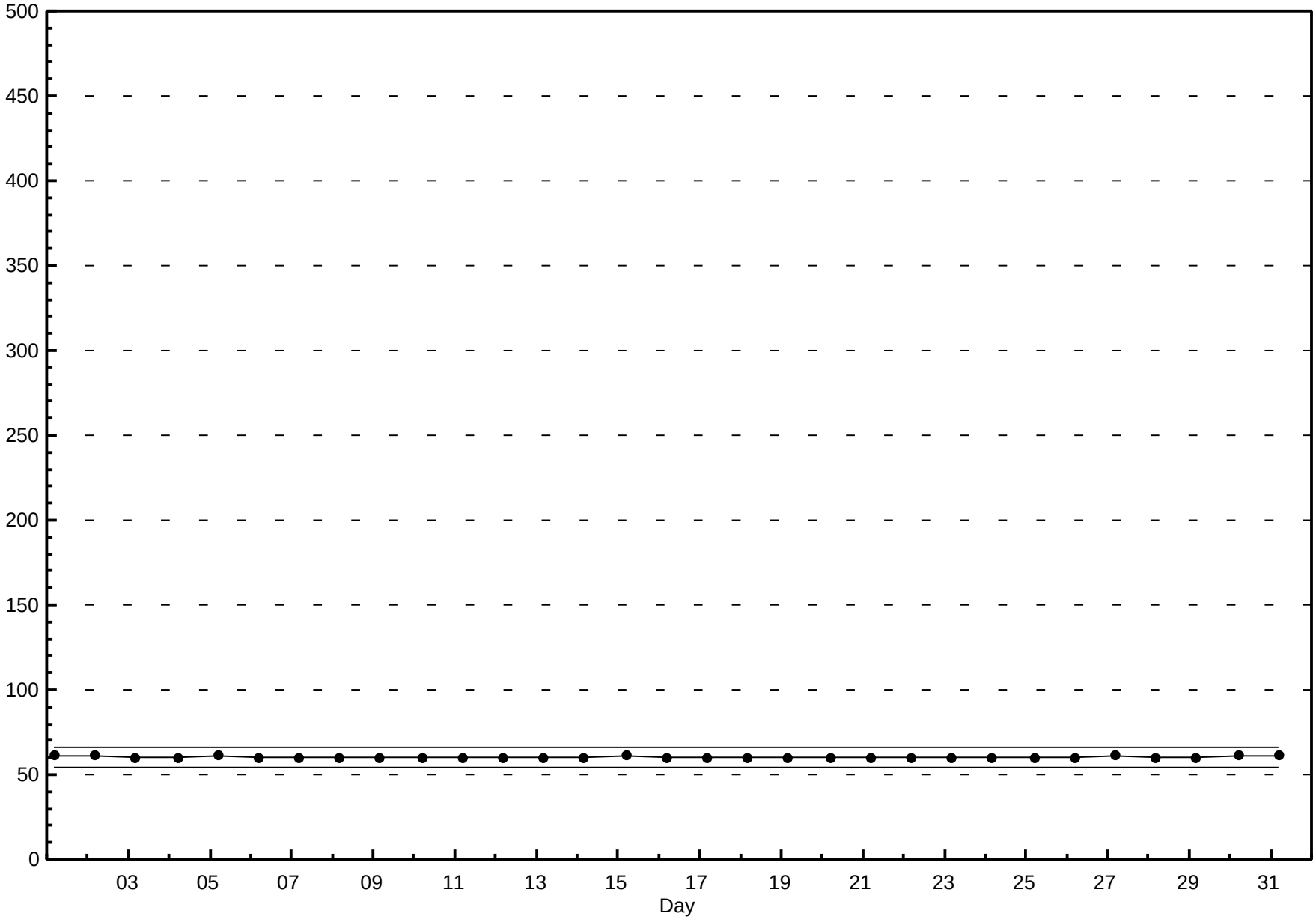


Peace Airshed Zone Association

Span Responses

Sulphur Dioxide (SO_2)

Beaverlodge - May 2015



Peace Airshed Zone Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Beaverlodge - May 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 14.3 ppb on May 23 07:00
Maximum Daily Average: 3.5 ppb on May 21

Minimum Value: 0 ppb on May 2 12:00
Maximum Diurnal Average: 4.7 ppb at hour 7
Monthly Average: 2.24 ppb

Minimum Daily Average: 1.0 ppb on May 4
Minimum Diurnal Average: 1.2 ppb at hour 18
Percentiles: P_1 = 0.5 P_{10} = 0.8 Q_1 = 1.1 Median = 1.8 Q_3 = 2.8 P_{90} = 4.4 P_{99} = 7.8

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	1	1	1	2	A	3	3	1	1	1	1	1	0	1	1	1	0	1	0	1	1	1	1	2	1.1	3.5
2-May	1	1	1	1	A	3	1	2	2	1	1	0	1	1	0	0	0	1	1	1	2	2	2	1	1.1	2.9
3-May	1	2	5	5	A	3	2	2	1	1	1	1	1	0	1	0	0	0	1	1	1	1	1	2	1.5	5.2
4-May	2	1	1	1	A	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	2.5
5-May	1	1	1	1	A	3	3	2	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1.2	3.0
6-May	1	2	2	4	A	6	4	2	2	1	1	1	1	1	0	0	0	1	1	1	2	3	3	3	1.7	5.5
7-May	3	2	3	4	A	5	7	5	3	2	2	1	1	1	1	1	1	1	1	1	3	5	2	2	2.3	6.9
8-May	2	2	2	2	A	4	4	8	2	1	1	1	1	1	0	1	1	1	1	1	1	1	5	3	1.9	7.8
9-May	2	2	3	5	A	5	3	2	2	2	3	3	2	1	1	1	1	1	1	1	2	2	2	2	2.0	5.1
10-May	2	1	1	2	A	3	4	4	3	3	3	2	1	1	1	1	1	1	1	1	1	2	2	2	1.8	3.7
11-May	2	2	2	3	A	5	4	5	C	C	C	C	C	4	2	1	1	1	1	1	1	2	2	2	2.3	5.1
12-May	2	2	2	3	A	5	4	4	4	4	3	2	2	2	1	1	1	1	1	1	2	2	2	2	2.2	4.7
13-May	2	2	2	2	A	4	4	3	3	2	2	2	1	1	1	1	1	1	1	1	2	2	2	2	2.0	4.0
14-May	2	3	3	3	A	5	5	5	4	3	2	2	1	1	1	1	1	1	1	1	2	2	2	3	2.4	5.3
15-May	2	2	3	3	A	6	8	8	4	3	3	2	2	2	1	2	6	2	4	2	2	2	2	2	3.2	8.4
16-May	1	1	1	1	A	2	1	1	1	1	1	1	1	1	2	5	1	1	1	1	1	1	1	2	1.3	5.5
17-May	3	2	1	1	A	3	3	2	2	2	2	1	1	1	1	1	1	1	1	1	2	2	2	2	1.6	3.5
18-May	2	3	3	3	A	5	4	3	3	2	2	2	1	2	2	1	1	1	1	1	1	2	2	2	2.1	4.5
19-May	3	3	3	3	A	5	4	7	5	4	3	2	2	1	1	1	1	1	1	1	1	1	2	2	2.5	6.6
20-May	3	3	2	2	A	6	8	8	5	4	3	2	2	2	2	1	1	1	1	2	4	2	4	6	3.2	7.9
21-May	3	5	4	5	A	7	8	5	5	4	3	2	2	3	2	1	1	2	3	2	3	4	3	3	3.5	7.6
22-May	3	4	5	4	A	8	10	6	5	4	3	2	2	1	1	1	1	1	1	1	2	2	3	2	3.1	10.2
23-May	2	2	3	3	A	5	14	11	6	5	3	3	2	1	1	1	1	1	1	1	1	2	2	2	3.2	14.3
24-May	2	2	2	2	A	8	6	6	5	4	3	3	2	2	1	1	1	1	2	2	3	3	4	3	3.0	7.8
25-May	3	5	3	5	A	5	5	5	3	2	2	2	2	1	2	1	2	2	2	2	3	2	2	2	2.8	5.2
26-May	2	4	3	3	A	6	7	6	6	4	3	2	1	1	1	1	1	2	2	2	3	3	3	6	3.1	6.8
27-May	5	5	4	4	A	7	8	6	5	3	3	2	2	3	2	2	3	3	4	3	2	2	2	2	3.5	8.1
28-May	1	2	2	1	A	3	2	2	2	2	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1.6	2.6
29-May	1	1	1	1	A	3	3	3	3	3	3	2	2	2	2	2	2	2	2	3	3	3	3	3	2.3	3.4
30-May	3	2	2	2	A	4	3	3	3	3	3	2	2	2	2	2	2	4	4	3	3	4	5	4	3.0	4.9
31-May	1	2	3	3	A	4	2	3	3	3	1	1	1	1	1	1	1	1	1	1	1	4	4	2	1.8	3.7
	2.1	2.3	2.4	2.8	--	4.6	4.7	4.3	3.2	2.5	2.0	1.6	1.4	1.4	1.2	1.3	1.2	1.2	1.4	1.4	1.9	2.1	2.3	2.3	Diurnal Average	
	4.8	5.4	5.1	5.2	--	7.8	14.3	11.3	5.8	5.2	3.5	2.6	2.4	3.6	2.1	5.5	6.2	3.6	4.2	3.3	3.9	5.0	4.9	6.1	Diurnal Maximum	

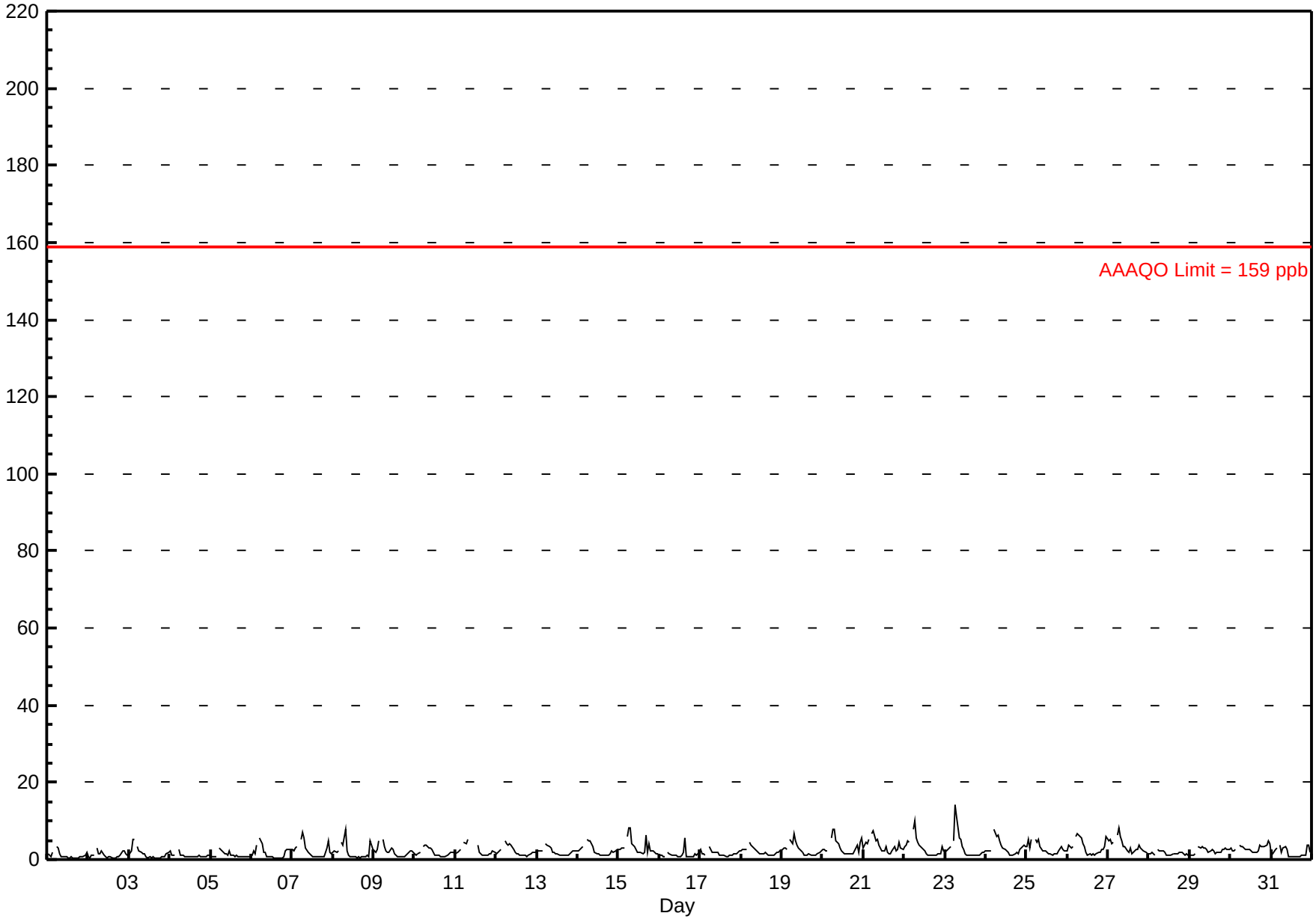
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb 24-hr 106 ppb

Peace Airshed Zone Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Beaverlodge - May 2015



Peace Airshed Zone Association

Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

Beaverlodge - May 2015

Maximum Value: 51.9 ppb on May 16 16:00

Maximum Daily Average: 8.3 ppb on May 15

Minimum Value: 0 ppb on May 3 17:00

Minimum Daily Average: 1.4 ppb on May 4

Maximum Diurnal Average: 7.1 ppb at hour 7

Minimum Diurnal Average: 1.9 ppb at hour 18

Monthly Average: 3.64 ppb

Percentiles: P_1 = 0.6 P_{10} = 1.0 Q_1 = 1.5 Median = 2.5 Q_3 = 4.2 P_{90} = 7.2 P_{99} = 18.1

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	4	5	2	2	A	6	4	3	1	1	1	1	1	1	1	1	1	1	1	1	2	1	2	5	2.2	5.8
2-May	5	1	2	2	A	6	2	2	3	2	1	1	2	2	1	1	8	3	1	3	4	5	5	2	2.7	8.2
3-May	4	4	15	7	A	6	5	3	2	2	1	1	1	1	1	1	0	1	1	1	2	1	3	3	2.9	15.0
4-May	3	3	1	1	A	4	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.4	3.9
5-May	1	1	1	1	A	5	4	4	2	3	2	4	1	2	1	2	1	1	1	1	1	1	1	1	1.8	4.6
6-May	2	4	2	6	A	8	7	2	2	1	1	1	1	1	1	1	1	1	1	1	3	4	4	4	2.5	8.1
7-May	3	3	4	4	A	8	12	8	5	2	2	1	1	1	1	1	1	1	1	1	10	10	3	2	3.7	11.9
8-May	3	3	2	2	A	5	5	14	4	1	1	1	1	9	1	1	1	1	1	1	2	1	12	4	3.3	14.0
9-May	3	3	12	12	A	6	4	3	3	3	4	4	2	1	1	1	1	1	1	2	4	2	2	2	3.4	12.4
10-May	2	2	2	2	A	5	5	4	3	3	3	2	1	1	1	1	1	1	1	1	2	5	2	2	2.3	5.2
11-May	2	2	3	3	A	6	7	8	C	C	C	C	C	6	2	3	1	1	2	2	3	2	3	3	3.3	8.3
12-May	2	2	2	3	A	6	5	4	4	4	3	2	2	2	2	1	2	1	1	1	2	2	2	2	2.6	5.9
13-May	2	2	3	3	A	5	4	4	3	2	2	2	2	1	1	1	1	1	1	2	3	3	3	3	2.4	5.3
14-May	3	3	3	3	A	6	5	5	5	6	3	2	2	1	1	1	1	1	1	2	7	3	3	3	3.1	6.5
15-May	4	3	3	4	A	8	14	13	5	15	3	2	2	3	2	9	44	8	33	3	5	2	3	2	8.3	44.1
16-May	3	2	1	1	A	3	2	1	1	1	1	1	1	7	23	52	1	1	1	1	1	3	2	2	4.9	51.9
17-May	6	2	2	2	A	5	4	2	2	2	4	2	2	2	4	1	1	1	1	1	2	2	2	2	2.5	6.5
18-May	2	3	3	3	A	5	4	5	3	3	2	2	2	2	2	2	1	1	1	1	4	5	2	3	2.7	5.3
19-May	3	3	3	3	A	6	5	9	5	5	4	3	3	1	1	1	2	1	2	2	3	2	3	3	3.1	9.0
20-May	3	3	3	3	A	7	16	13	6	5	4	3	3	2	2	2	2	2	3	4	20	3	10	10	5.5	19.8
21-May	4	7	6	7	A	9	10	6	7	11	6	3	8	16	2	2	2	5	7	4	5	8	5	4	6.3	16.0
22-May	4	6	8	7	A	17	18	11	5	5	3	3	3	2	1	1	1	1	1	2	3	2	4	3	4.9	17.7
23-May	3	3	5	4	A	7	23	16	9	5	5	3	2	1	1	2	1	2	1	1	2	2	2	2	4.4	22.7
24-May	2	2	2	3	A	14	9	8	5	5	3	3	3	2	1	2	2	2	3	2	4	5	5	4	4.0	13.7
25-May	5	8	6	9	A	7	7	6	4	3	2	3	2	2	3	4	2	2	2	3	4	4	2	3	4.1	8.7
26-May	3	7	4	5	A	7	15	15	7	5	6	2	1	2	1	2	1	3	7	4	4	4	8	10	5.3	14.7
27-May	6	10	9	9	A	11	9	9	9	4	4	3	10	37	2	3	3	3	5	5	3	3	2	2	7.0	37.0
28-May	2	2	2	2	A	3	3	3	3	3	2	1	3	2	2	2	2	2	3	2	2	1	2	1	2.1	3.4
29-May	1	1	1	2	A	4	3	4	3	4	5	2	3	5	4	2	2	2	2	3	3	5	4	3	3.0	5.2
30-May	3	3	2	3	A	4	4	4	3	3	3	3	2	2	2	2	2	5	6	4	4	4	7	8	3.7	8.0
31-May	2	2	4	6	A	5	3	4	5	4	2	2	1	1	1	1	1	1	2	4	4	10	5	4	3.3	9.8
	3.1	3.3	3.9	4.0	--	6.6	7.1	6.4	4.1	3.8	2.9	2.1	2.3	3.9	2.4	3.4	3.1	1.9	3.0	2.2	3.8	3.5	3.7	3.3	Diurnal Average	
	6.5	10.3	15.0	12.4	--	16.9	22.7	16.4	9.4	15.1	6.3	4.1	10.1	37.0	23.0	51.9	44.1	7.6	32.6	4.9	19.8	10.3	12.3	10.4	Diurnal Maximum	

C - Calibration

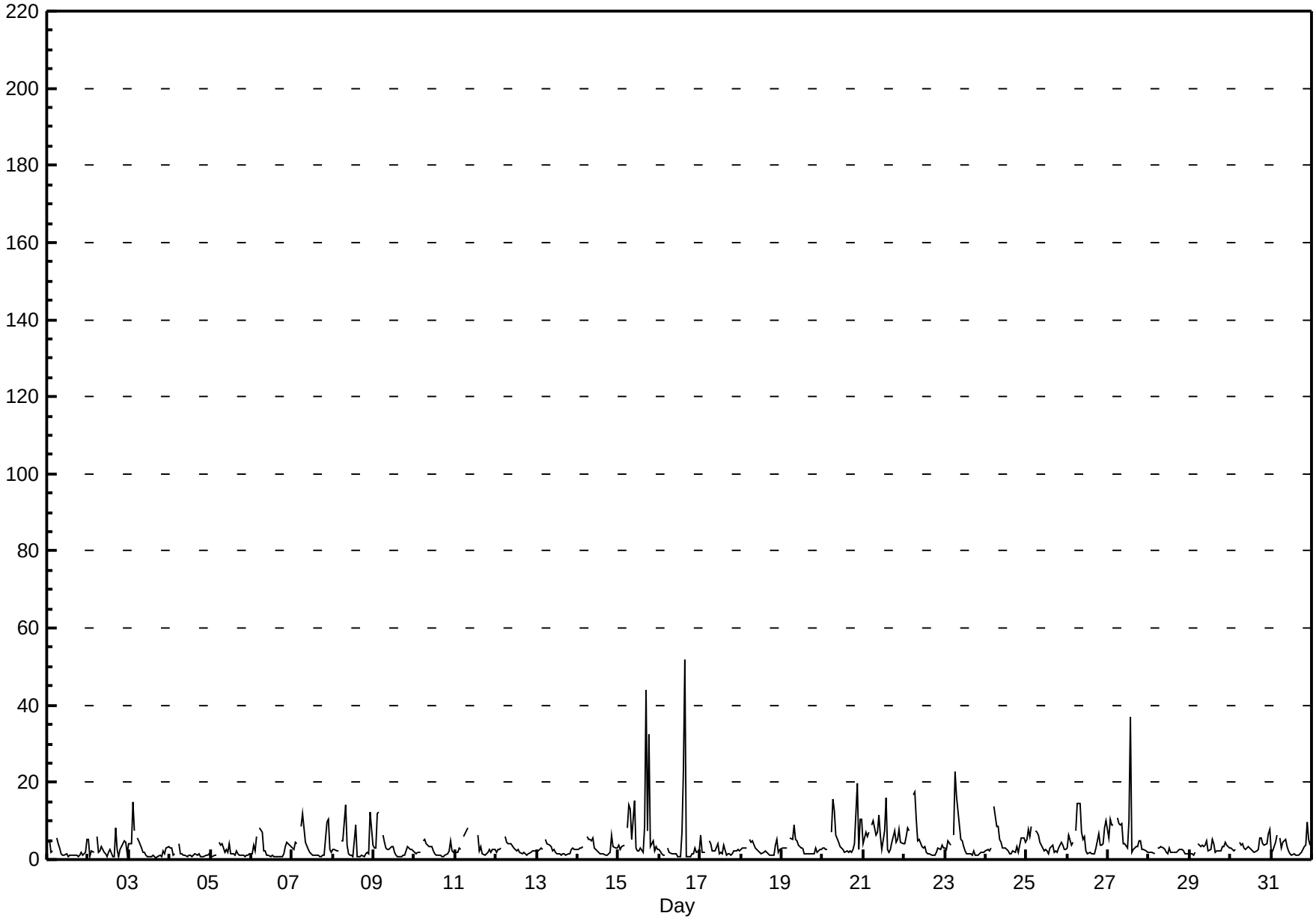
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

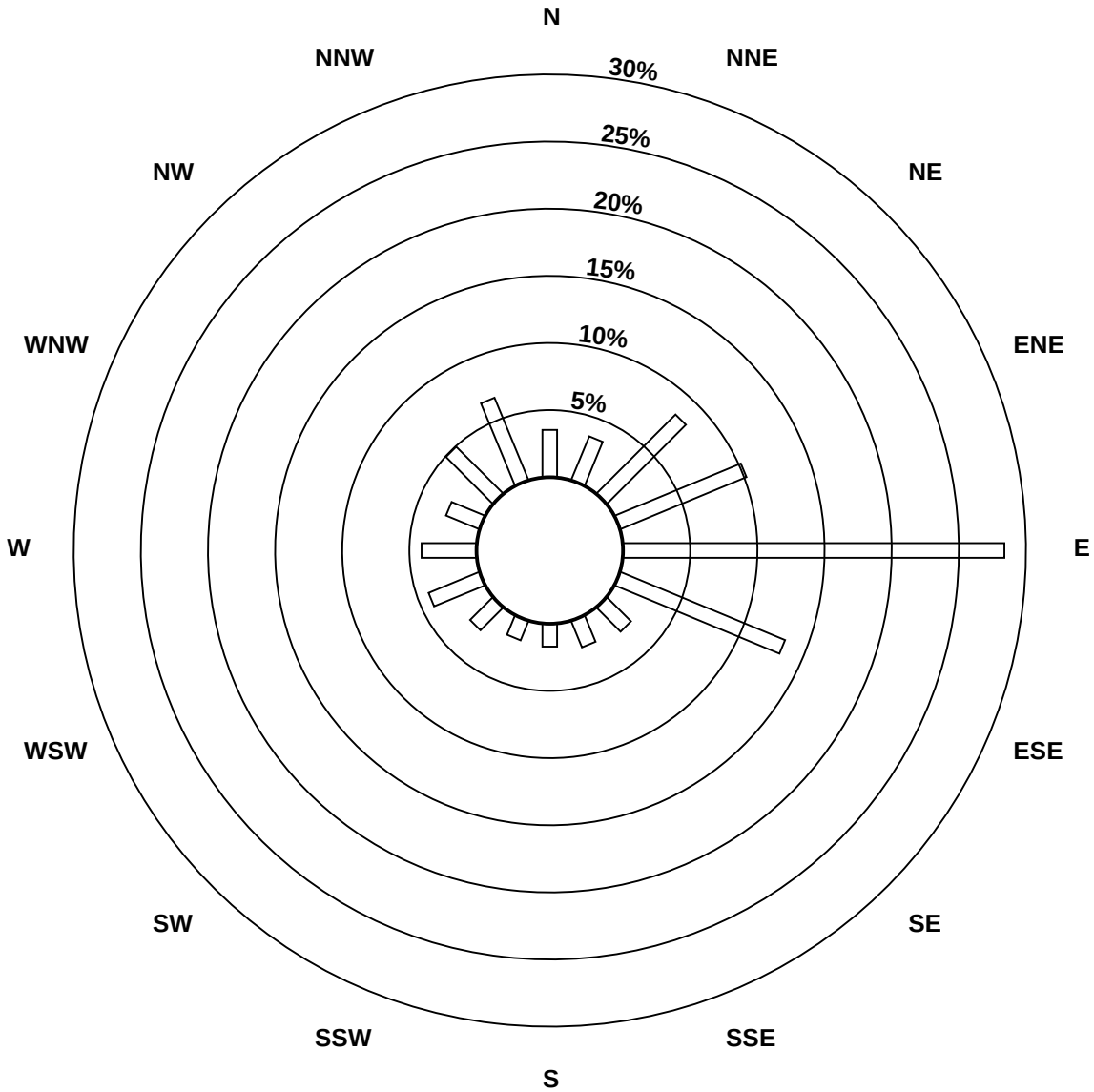
Beaverlodge - May 2015



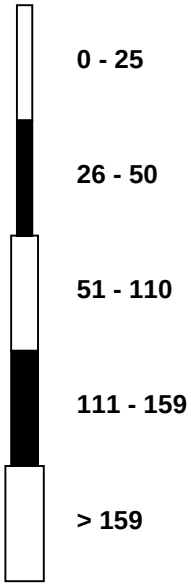
Pollutant Rose

Nitrogen Dioxide (NO_2) - ppb

Beaverlodge - May 2015



Pollutant Classes (ppb)

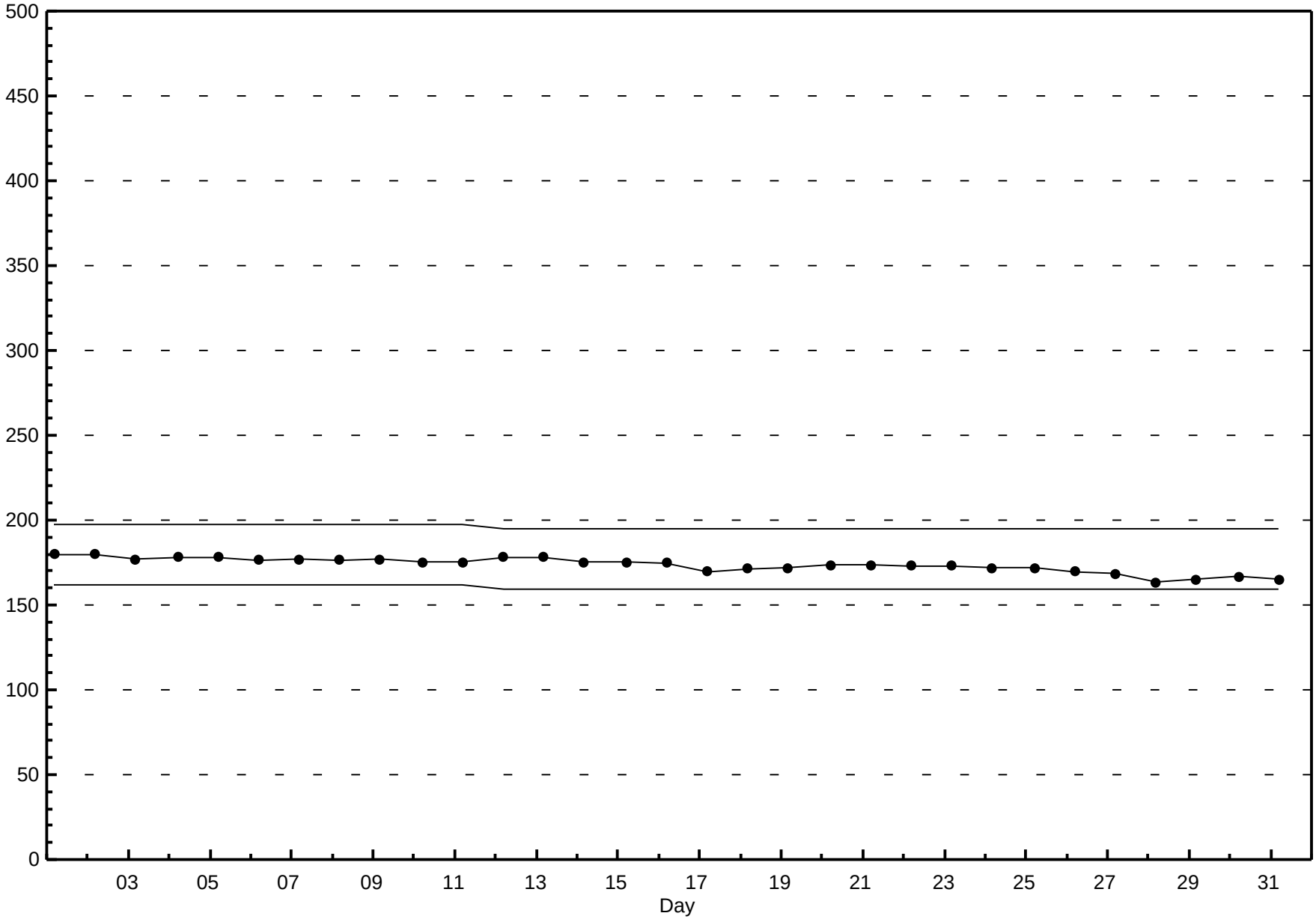


Peace Airshed Zone Association

Span Responses

Nitrogen Dioxide (NO_2)

Beaverlodge - May 2015



Peace Airshed Zone Association

Hourly Averages

Nitrogen Oxide (NO) - ppb

Beaverlodge - May 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 4.7 ppb on May 23 08:00
Maximum Daily Average: 0.8 ppb on May 15

Minimum Value: 0 ppb on May 2 17:00
Maximum Diurnal Average: 1.1 ppb at hour 8
Monthly Average: 0.26 ppb

Minimum Daily Average: 0.1 ppb on May 1
Minimum Diurnal Average: 0.0 ppb at hour 1
Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.1 Q_3 = 0.2 P_{90} = 0.7 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	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
3-May	0	0	0	0	A	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
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	0.2
5-May	0	0	0	0	A	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.6
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	0.1	0.7
7-May	0	0	0	0	A	0	1	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.7
8-May	0	0	0	0	A	0	1	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	3.5
9-May	0	0	0	0	A	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.8
10-May	0	0	0	0	A	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.8
11-May	0	0	0	0	A	0	0	1	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0.1	1.0
12-May	0	0	0	0	A	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.0
13-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	0.5
14-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	0.9
15-May	0	0	0	0	A	0	2	4	1	2	0	0	0	0	0	0	3	0	1	0	0	0	0	0	0.8	4.3
16-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0.3	2.8
17-May	0	0	0	0	A	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.8
18-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	0.7
19-May	0	0	0	0	A	0	0	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.9
20-May	0	0	0	0	A	0	2	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	2.5
21-May	0	0	0	0	A	0	1	1	1	1	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0.4	2.1
22-May	0	0	0	0	A	1	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	2.4
23-May	0	0	0	0	A	0	5	5	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	4.7
24-May	0	0	0	0	A	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.5
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	1.0
26-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	0.9
27-May	0	0	0	0	A	1	2	2	2	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0.6	2.2
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	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
30-May	0	0	0	0	A	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
31-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	0.3	1.0
	0.0	0.1	0.0	0.1	--	0.2	0.8	1.1	0.8	0.6	0.4	0.3	0.2	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.1	Diurnal Average	
	0.1	0.3	0.2	0.4	--	0.7	4.6	4.7	1.9	2.2	0.9	0.7	0.8	2.1	2.6	2.8	3.0	0.2	1.3	0.2	0.1	0.1	0.2	0.3	Diurnal Maximum	

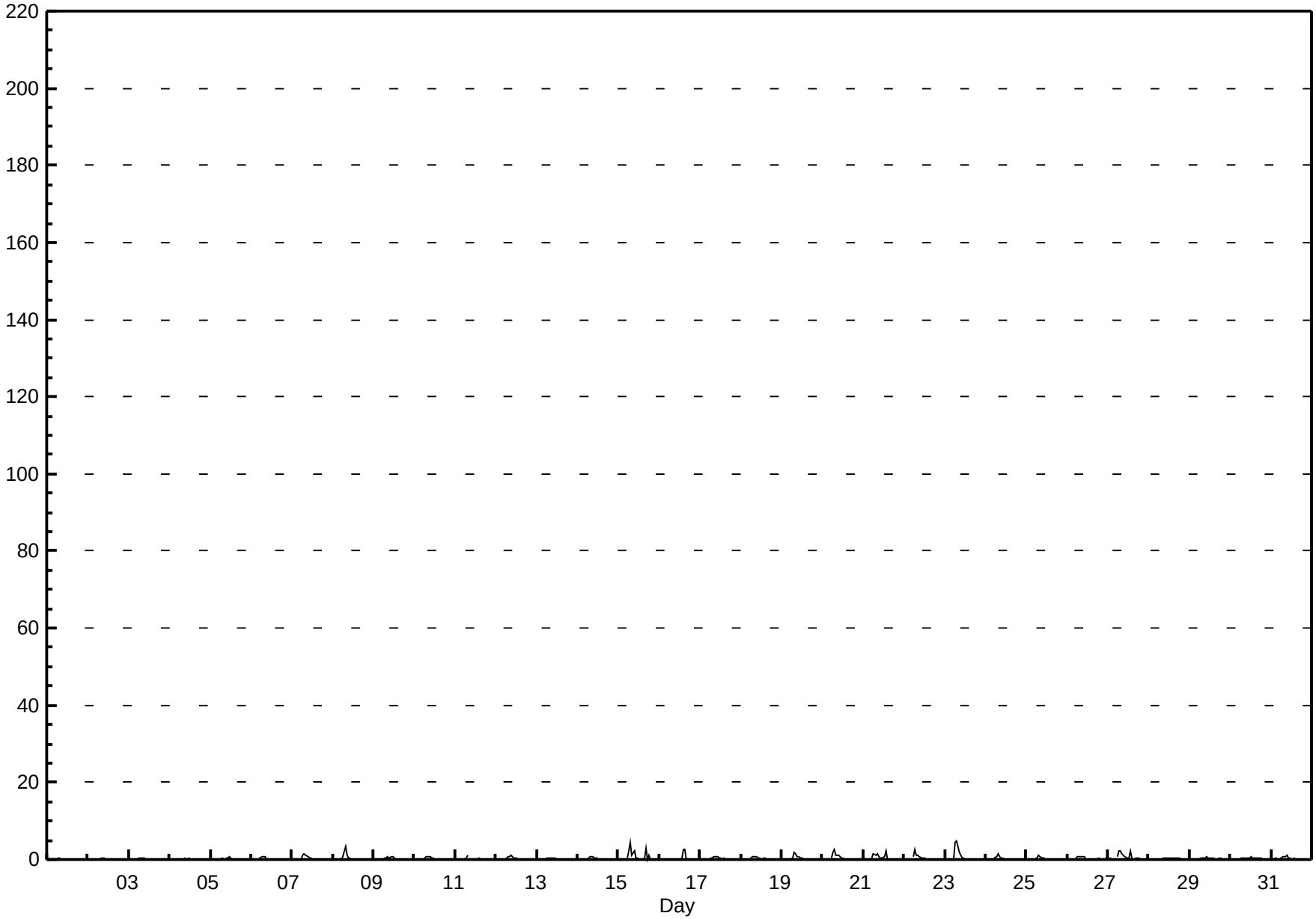
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Nitrogen Oxide (NO) - ppb

Beaverlodge - May 2015



Peace Airshed Zone Association

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Beaverlodge - May 2015

Maximum Value: 43.6 ppb on May 21 14:00

Maximum Daily Average: 5.7 ppb on May 15

Minimum Value: 0 ppb on May 9 00:00

Minimum Daily Average: 0.2 ppb on May 4

Maximum Diurnal Average: 2.6 ppb at hour 14

Minimum Diurnal Average: 0.1 ppb at hour 1

Monthly Average: 0.91 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.1$ $Q_1 = 0.1$ Median = 0.2 $Q_3 = 0.5$ $P_{90} = 1.4$ $P_{99} = 16.4$

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	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
2-May	0	0	0	0	A	0	0	0	1	0	0	0	0	0	0	0	4	3	0	0	0	0	0	0	0.5	3.6
3-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	0.9
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	0.2	0.3
5-May	0	0	0	0	A	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0.3	1.2
6-May	0	0	0	0	A	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.3
7-May	0	0	0	0	A	1	3	3	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	3.3
8-May	0	0	0	0	A	0	1	7	2	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0.7	7.3
9-May	0	0	0	0	A	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.1
10-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
11-May	0	0	0	0	A	0	1	2	C	C	C	C	C	1	0	1	0	0	0	0	0	0	0	0	0.3	2.3
12-May	0	0	0	0	A	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.1
13-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	0.8
14-May	0	0	0	0	A	0	1	1	1	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	2.5
15-May	0	0	0	0	A	1	7	15	2	40	1	0	0	0	0	3	31	8	19	0	0	0	2	0	5.7	40.1
16-May	0	0	0	0	A	0	0	0	0	0	0	0	0	2	42	30	0	0	0	0	0	0	0	0	3.4	42.3
17-May	0	0	0	0	A	0	1	1	1	1	3	1	1	1	1	0	1	0	0	0	0	0	0	0	0.5	2.7
18-May	0	0	0	0	A	0	1	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.7
19-May	0	0	0	0	A	0	1	3	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.5	2.8
20-May	0	0	0	0	A	1	8	5	2	1	1	1	0	0	0	0	0	0	0	0	1	0	0	0	1.0	7.6
21-May	0	0	0	0	A	1	2	1	3	3	2	0	7	44	0	0	0	0	0	0	0	0	0	0	2.9	43.6
22-May	0	0	0	0	A	4	5	3	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.8	4.8
23-May	0	0	0	0	A	1	9	9	4	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1.2	9.1
24-May	0	0	0	0	A	1	1	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	2.8
25-May	0	0	0	0	A	1	1	1	1	1	0	0	0	0	3	1	0	0	0	0	0	0	0	0	0.5	3.4
26-May	0	0	0	0	A	0	5	5	2	1	4	0	0	0	0	0	0	2	5	3	0	0	1	2	1.4	5.2
27-May	0	2	2	1	A	4	3	4	4	2	1	1	2	24	0	0	1	0	0	0	0	0	0	0	2.3	23.8
28-May	0	0	0	0	A	0	0	0	0	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0.4	1.3
29-May	0	0	0	0	A	0	0	1	1	1	3	0	1	1	2	0	0	0	0	0	0	0	0	0	0.5	2.8
30-May	0	0	0	0	A	0	1	1	0	1	1	1	1	1	0	0	0	1	0	0	0	0	0	0	0.4	1.4
31-May	0	0	0	2	A	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	2	0	0	0	0.7	2.1
	0.1	0.2	0.2	0.2	--	0.7	1.9	2.4	1.3	2.3	0.9	0.4	0.6	2.6	1.8	1.3	1.3	0.6	1.0	0.3	0.3	0.1	0.2	0.2	Diurnal Average	
	0.3	2.1	1.5	2.1	--	4.5	9.1	15.3	4.4	40.1	4.0	1.2	7.3	43.6	42.3	30.1	31.2	7.8	19.1	3.2	1.9	0.3	1.7	2.1	Diurnal Maximum	

C - Calibration

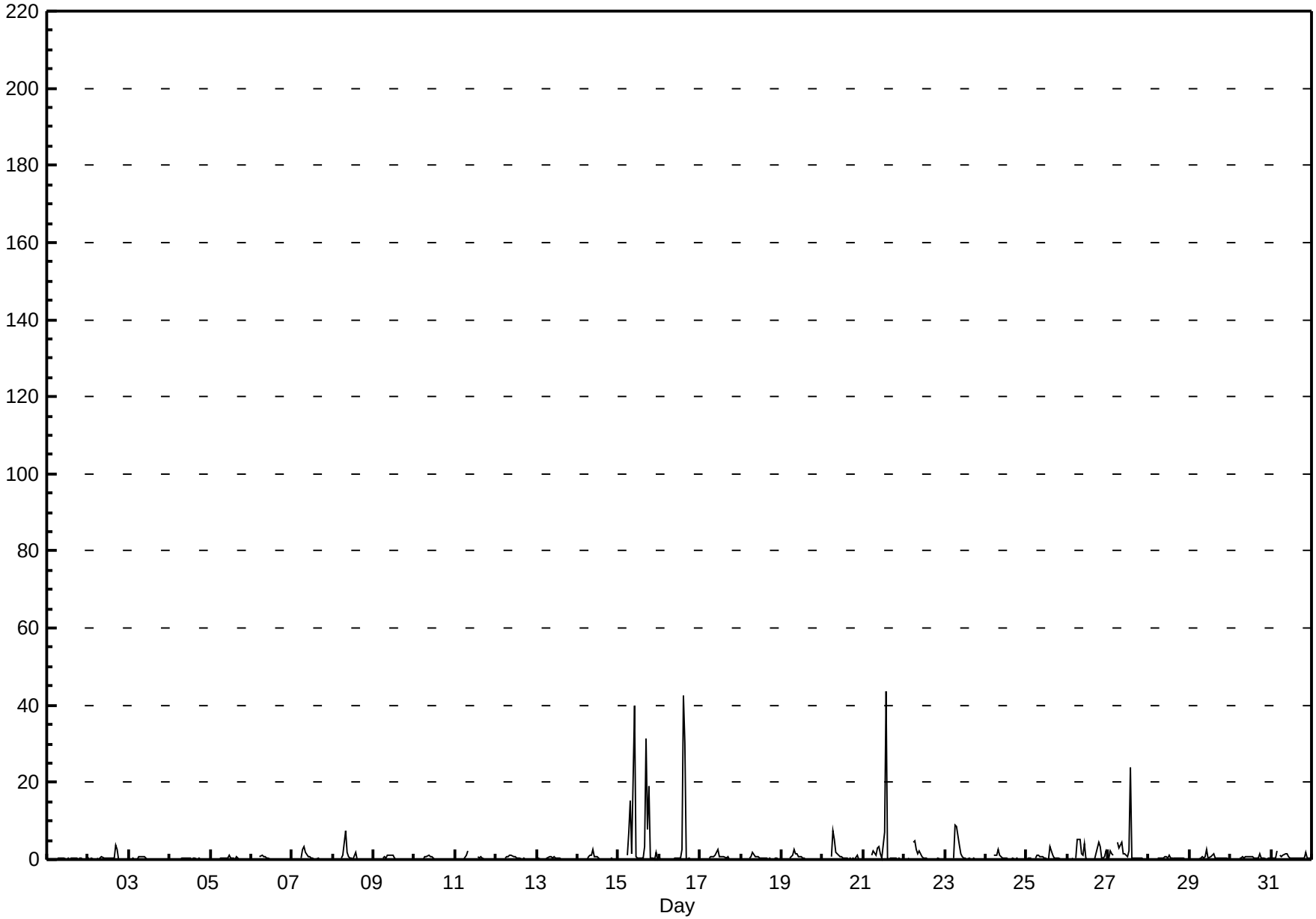
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Beaverlodge - May 2015



Peace Airshed Zone Association

Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Beaverlodge - May 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 19.1 ppb on May 23 07:00
Maximum Daily Average: 4.2 ppb on May 27

Minimum Value: 0 ppb on May 2 12:00
Maximum Diurnal Average: 5.6 ppb at hour 7
Monthly Average: 2.55 ppb

Minimum Daily Average: 1.1 ppb on May 4
Minimum Diurnal Average: 1.3 ppb at hour 18
Percentiles: P_1 = 0.5 P_{10} = 0.9 Q_1 = 1.2 Median = 2.0 Q_3 = 3.2 P_{90} = 4.9 P_{99} = 10.4

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	2	A	4	3	2	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	2	1.1	3.6
2-May	1	1	1	1	A	3	1	2	3	1	1	0	1	1	0	0	0	1	1	1	2	2	2	1	1.2	3.0
3-May	1	2	5	5	A	4	2	2	2	2	1	1	1	1	1	0	0	0	1	1	1	1	1	2	1.6	5.3
4-May	2	1	1	1	A	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	2.6
5-May	1	1	1	1	A	3	3	2	2	2	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1.3	3.0
6-May	1	2	2	4	A	6	5	3	2	1	1	1	1	1	1	1	1	1	1	1	2	3	3	3	1.9	5.9
7-May	3	2	3	4	A	6	8	7	5	3	2	1	1	1	1	1	1	1	1	1	3	5	2	2	2.7	8.4
8-May	2	2	2	2	A	5	5	11	4	1	1	1	1	1	1	1	1	1	1	1	1	1	5	3	2.2	11.5
9-May	2	2	3	5	A	5	4	3	2	3	4	3	2	1	1	1	1	1	1	1	2	2	2	2	2.3	5.2
10-May	2	1	2	2	A	3	4	4	4	4	3	2	1	1	1	1	1	1	1	1	1	2	2	2	2.1	4.5
11-May	2	2	2	3	A	5	5	6	C	C	C	C	C	4	2	2	1	1	1	1	2	2	2	2	2.4	6.3
12-May	2	2	2	3	A	5	4	5	5	5	3	2	2	2	1	1	1	1	1	1	2	2	2	2	2.4	5.0
13-May	2	2	2	2	A	4	4	4	3	2	2	2	2	1	1	1	1	1	1	2	2	2	2	2	2.2	4.1
14-May	2	3	3	3	A	5	5	6	5	4	2	2	2	1	1	1	1	1	1	1	2	2	2	3	2.7	5.8
15-May	3	3	3	3	A	6	11	13	6	6	3	2	2	2	2	2	9	2	6	2	2	2	2	2	4.0	12.9
16-May	1	1	1	1	A	2	2	1	1	1	1	1	1	2	5	8	1	1	1	1	1	1	1	2	1.7	8.3
17-May	3	2	1	1	A	4	3	3	3	3	3	1	1	1	1	1	1	1	1	1	2	2	2	2	1.8	3.6
18-May	2	3	3	3	A	5	4	4	3	3	2	2	2	2	2	2	1	1	1	1	2	2	2	2	2.3	4.7
19-May	3	3	3	3	A	5	5	9	6	5	4	3	2	1	1	1	1	1	1	1	1	1	2	2	2.9	8.7
20-May	3	3	2	2	A	6	10	11	6	5	4	3	2	2	2	2	2	2	2	2	4	2	5	6	3.7	10.6
21-May	3	5	4	5	A	7	9	6	7	4	3	3	3	5	2	2	2	3	4	2	3	5	3	3	4.0	9.1
22-May	3	4	5	5	A	8	13	7	6	4	3	3	2	2	1	1	1	1	1	1	2	2	3	2	3.5	12.8
23-May	2	2	3	3	A	5	19	16	8	6	4	3	2	1	1	1	1	1	1	1	1	2	2	2	3.8	19.1
24-May	2	2	2	2	A	8	7	8	6	4	3	3	3	2	1	1	1	1	2	2	3	3	4	3	3.3	8.4
25-May	4	5	3	5	A	6	5	6	4	3	2	2	2	2	2	1	2	2	2	2	3	3	2	2	3.1	6.2
26-May	2	4	3	3	A	6	8	7	7	5	4	2	1	1	1	1	1	2	2	2	3	3	3	6	3.4	7.6
27-May	5	6	4	5	A	7	10	8	6	5	4	3	2	5	2	2	3	3	4	3	3	2	2	2	4.2	10.5
28-May	2	2	2	1	A	3	2	2	3	2	2	2	2	2	2	2	2	2	2	2	2	1	2	1	1.9	2.8
29-May	1	1	1	2	A	4	3	4	3	3	3	2	3	3	3	2	2	2	2	3	3	3	3	3	2.6	3.9
30-May	3	3	2	3	A	4	4	4	3	3	3	3	3	2	2	2	2	4	4	4	4	4	5	4	3.3	5.2
31-May	1	2	3	3	A	4	2	4	4	4	1	1	1	1	1	1	1	1	1	1	1	4	4	2	2.1	4.4
	2.2	2.4	2.5	2.9	--	4.8	5.6	5.5	4.1	3.2	2.5	2.0	1.6	1.7	1.4	1.5	1.5	1.3	1.6	1.5	2.0	2.2	2.4	2.4	Diurnal Average	
	4.9	5.7	5.3	5.4	--	8.4	19.1	16.2	7.7	6.4	4.2	3.4	3.1	5.4	4.7	8.3	9.3	3.8	5.6	3.6	4.1	5.1	5.2	6.4	Diurnal Maximum	

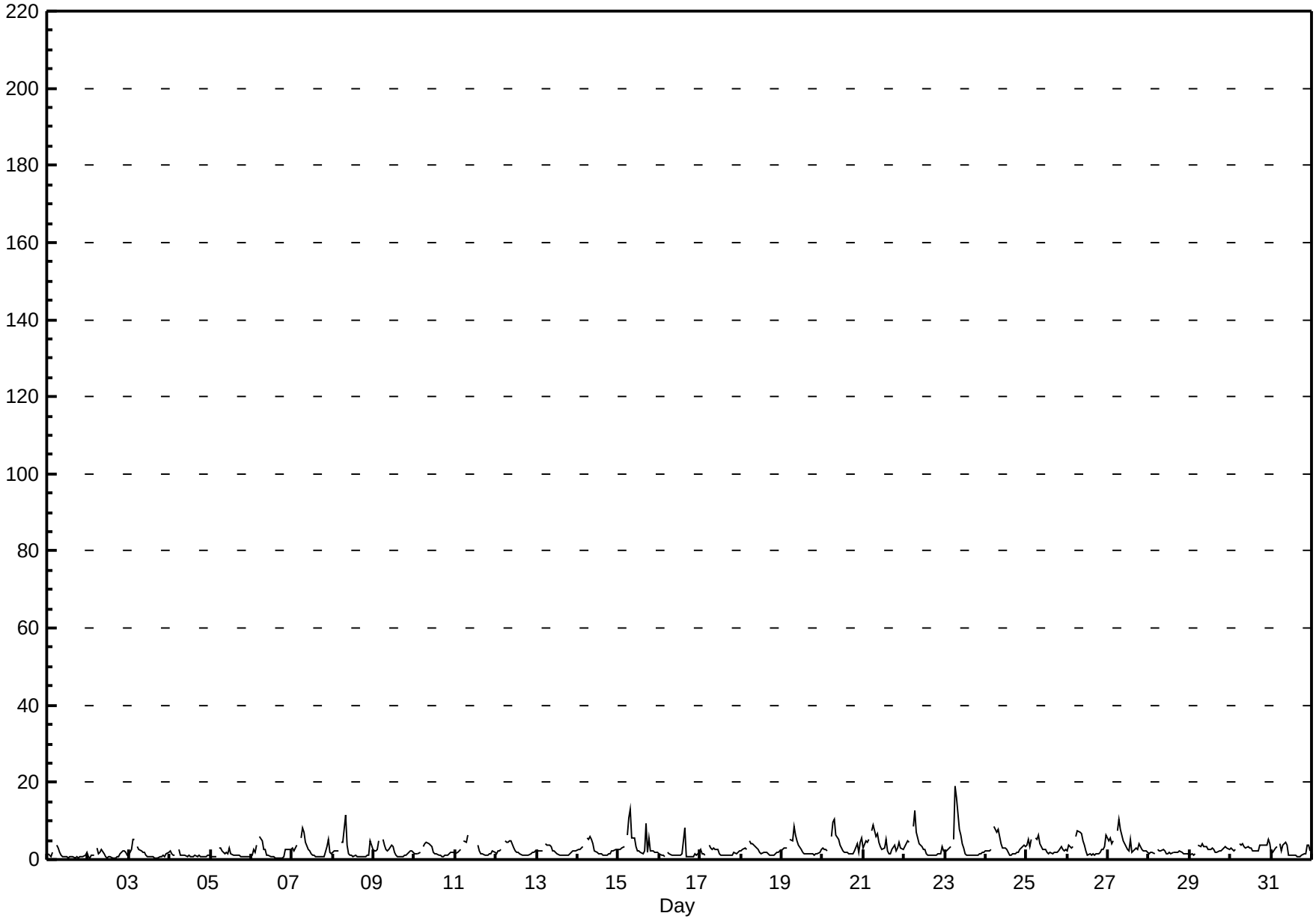
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Beaverlodge - May 2015



Peace Airshed Zone Association

Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

Beaverlodge - May 2015

Maximum Value: 73.1 ppb on May 16 16:00

Maximum Daily Average: 11.2 ppb on May 15

Minimum Value: 1 ppb on May 3 17:00

Minimum Daily Average: 1.6 ppb on May 4

Maximum Diurnal Average: 8.9 ppb at hour 7

Minimum Diurnal Average: 2.0 ppb at hour 18

Monthly Average: 4.30 ppb

Percentiles: P_1 = 0.6 P_{10} = 1.2 Q_1 = 1.7 Median = 2.8 Q_3 = 4.6 P_{90} = 7.9 P_{99} = 28.4

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	5	5	2	2	A	6	5	3	2	1	2	2	1	1	2	1	1	1	1	1	2	1	2	5	2.4	6.0
2-May	6	1	2	2	A	6	2	3	4	2	2	1	2	3	1	1	3	2	1	3	4	5	5	2	2.7	6.1
3-May	4	4	15	8	A	6	6	3	3	3	1	1	1	1	1	1	1	1	1	1	2	1	3	3	3.1	15.4
4-May	3	3	1	2	A	4	2	1	1	1	1	1	1	1	2	2	1	2	1	1	1	1	1	1	1.6	4.0
5-May	1	1	1	1	A	5	4	5	2	3	2	6	2	2	1	3	2	1	1	1	1	1	1	1	2.0	5.5
6-May	2	4	2	6	A	8	8	3	3	1	1	1	1	1	1	1	1	1	1	1	3	5	4	4	2.7	8.4
7-May	3	3	4	4	A	9	15	12	6	3	3	2	1	1	1	1	1	1	1	1	10	11	3	2	4.3	14.6
8-May	3	3	2	2	A	5	6	22	6	2	1	1	1	11	1	1	1	1	1	2	2	1	13	4	4.0	21.5
9-May	3	3	12	13	A	7	5	4	4	4	5	5	2	1	1	1	1	1	1	3	4	3	3	2	3.7	12.6
10-May	2	2	2	2	A	5	6	5	5	4	4	3	2	1	2	1	1	1	1	2	2	5	2	2	2.7	6.0
11-May	2	2	3	3	A	6	9	11	C	C	C	C	C	7	3	4	2	2	2	2	3	2	3	3	3.6	10.8
12-May	2	3	3	3	A	6	5	5	6	6	4	3	3	3	2	1	2	1	1	2	2	2	2	2	3.0	6.1
13-May	2	3	3	3	A	5	5	4	4	3	3	2	2	2	1	2	1	1	2	2	3	3	3	3	2.6	5.4
14-May	3	3	3	4	A	6	6	6	6	7	4	3	2	2	1	2	1	1	2	2	7	3	3	3	3.5	7.1
15-May	4	3	3	4	A	9	21	21	7	29	4	2	2	4	2	11	56	5	52	4	5	2	3	3	11.2	56.5
16-May	3	2	1	1	A	3	2	1	1	1	2	1	1	9	35	73	1	1	1	2	1	3	2	2	6.6	73.1
17-May	7	2	2	2	A	5	4	3	3	3	7	2	3	2	5	2	2	1	1	1	3	2	3	2	2.9	7.0
18-May	3	3	3	3	A	6	5	7	4	3	3	2	2	2	3	3	2	1	1	1	4	5	2	3	3.1	6.6
19-May	3	3	3	3	A	6	6	12	7	6	4	4	3	2	1	2	2	2	2	2	3	2	3	3	3.6	11.9
20-May	3	3	3	3	A	8	23	18	8	6	4	4	3	2	3	2	3	2	3	4	21	3	11	11	6.6	23.4
21-May	4	7	6	7	A	10	12	8	10	14	7	3	11	43	3	2	3	5	8	4	5	8	5	4	8.2	42.9
22-May	4	6	8	8	A	21	22	13	6	8	4	3	3	2	2	2	1	1	1	2	3	3	4	3	5.7	22.4
23-May	3	3	5	4	A	7	31	25	13	7	6	4	2	2	2	2	1	2	1	1	2	2	2	2	5.6	30.9
24-May	2	2	2	3	A	15	10	11	6	5	3	3	3	2	1	2	2	2	3	2	4	6	6	4	4.5	14.7
25-May	5	8	6	9	A	8	8	8	5	4	3	3	2	2	4	3	2	3	2	3	5	4	3	3	4.4	9.0
26-May	3	7	4	5	A	8	20	20	8	6	10	3	1	2	1	2	1	4	6	6	4	4	9	12	6.4	20.0
27-May	6	12	11	10	A	15	12	13	14	6	5	4	10	45	2	3	4	4	5	5	3	3	2	2	8.5	44.8
28-May	2	2	2	2	A	3	3	4	3	3	2	2	4	2	2	2	2	3	3	3	3	2	2	2	2.5	4.5
29-May	2	2	1	2	A	4	4	5	4	4	8	3	3	6	6	2	3	3	3	4	4	5	4	3	3.6	7.6
30-May	3	3	3	3	A	5	4	5	4	3	4	3	3	3	2	3	3	6	6	4	4	4	7	8	4.0	8.3
31-May	2	2	5	8	A	7	4	6	7	5	3	2	2	2	2	1	2	2	2	4	4	10	5	4	3.9	10.1
	3.2	3.5	4.1	4.2	--	7.3	8.9	8.6	5.4	5.2	3.7	2.6	2.7	5.4	3.1	4.4	3.5	2.0	3.8	2.4	4.0	3.6	3.8	3.5	Diurnal Average	
	6.6	11.9	15.4	12.6	--	21.5	30.9	24.8	13.9	28.5	10.2	5.5	11.0	44.8	35.1	73.1	56.5	5.8	52.1	5.7	21.3	10.6	12.7	12.2	Diurnal Maximum	

C - Calibration

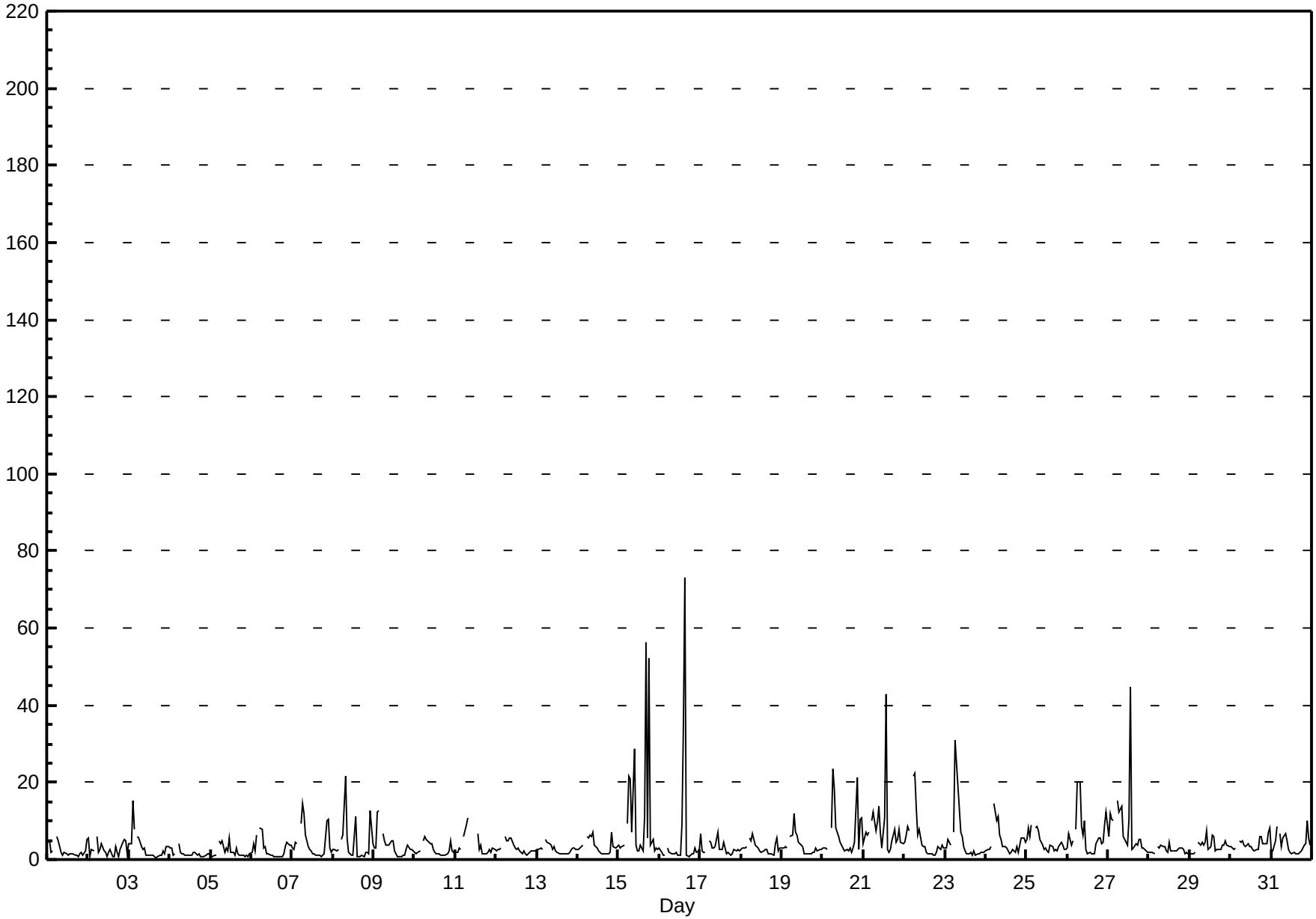
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

Beaverlodge - May 2015

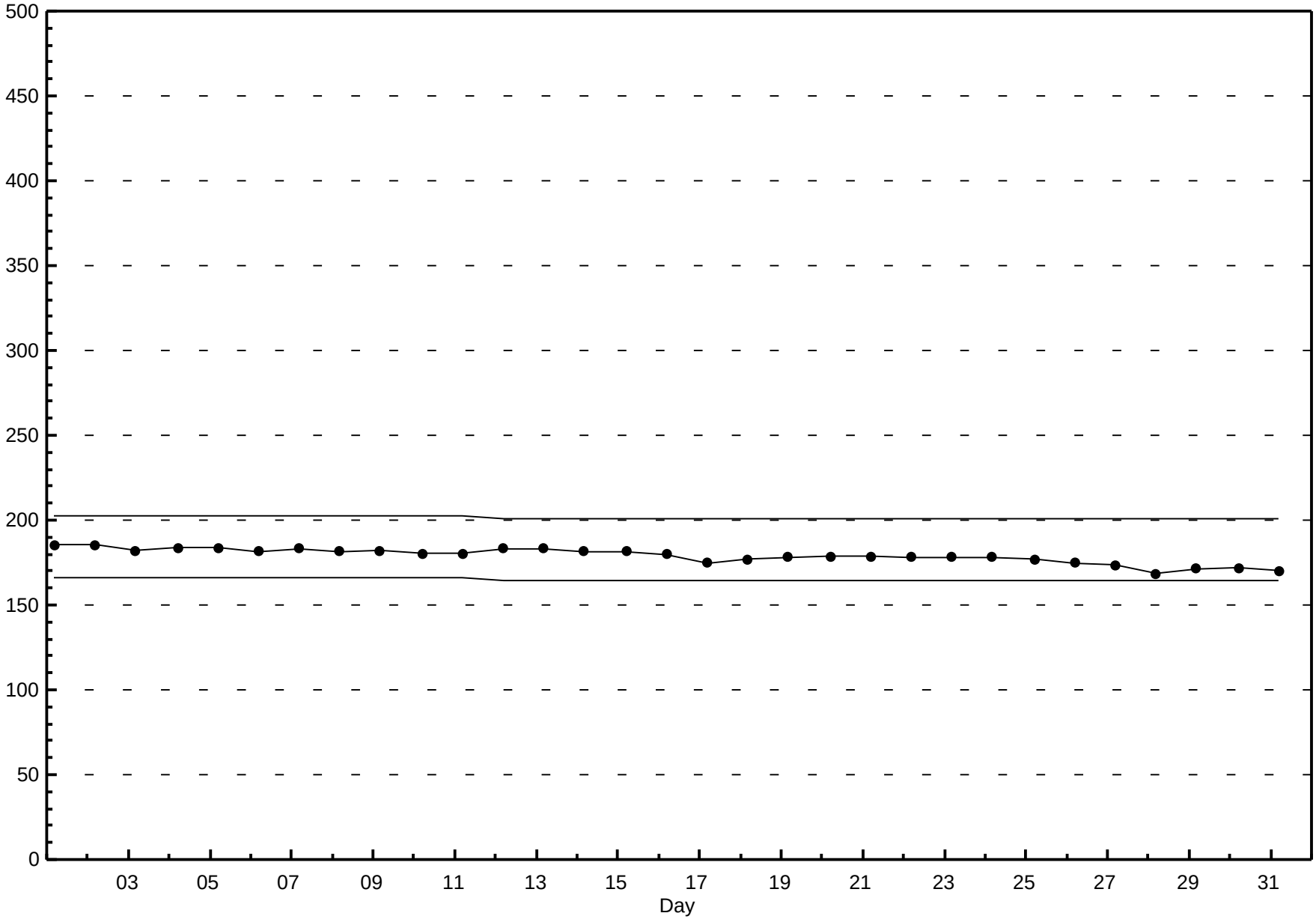


Peace Airshed Zone Association

Span Responses

Oxides of Nitrogen (NO_X)

Beaverlodge - May 2015



Peace Airshed Zone Association

Hourly Averages

Ozone (O_3) - ppb

Beaverlodge - May 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 72.6 ppb on May 24 15:00
Maximum Daily Average: 53.3 ppb on May 12

Minimum Value: 11 ppb on May 31 04:00
Maximum Diurnal Average: 52.5 ppb at hour 16
Monthly Average: 42.68 ppb

Minimum Daily Average: 29.3 ppb on May 31
Minimum Diurnal Average: 29.0 ppb at hour 7
Percentiles: P_1 = 18.4 P_{10} = 28.0 Q_1 = 34.8 Median = 42.8 Q_3 = 49.5 P_{90} = 57.7 P_{99} = 68.6

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	44	45	44	44	A	40	40	45	47	50	52	54	55	54	52	54	52	53	51	49	49	48	47	41	48.3	54.6
2-May	41	40	39	43	A	42	41	40	39	42	44	46	46	46	44	45	44	42	44	43	36	35	36	40	41.7	46.5
3-May	42	36	31	28	A	25	24	31	36	38	40	43	44	44	46	46	45	44	43	41	39	38	35	35	38.0	46.2
4-May	33	31	30	30	A	27	27	26	26	28	30	32	32	33	34	36	36	33	32	31	32	32	32	31	31.1	36.1
5-May	33	32	30	30	A	27	24	24	26	26	26	25	28	29	31	33	34	36	36	36	35	33	32	32	30.2	36.0
6-May	29	28	28	25	A	22	24	28	33	42	42	43	42	44	45	47	47	48	47	44	38	36	36	36	37.2	48.0
7-May	36	36	33	31	A	26	18	24	27	34	37	43	47	48	49	46	45	46	46	47	38	34	39	41	37.9	48.7
8-May	41	41	37	33	A	26	23	22	28	36	39	45	47	48	48	49	51	55	56	51	50	51	40	42	41.6	55.8
9-May	46	46	45	26	A	30	30	30	31	38	42	49	52	52	50	50	49	50	50	45	43	41	40	40	42.4	52.0
10-May	40	40	38	39	A	35	31	34	36	39	46	50	52	55	55	54	54	54	55	54	50	48	49	49	45.9	55.4
11-May	46	44	42	43	A	42	39	38	42	43	51	C	C	C	C	60	60	62	62	60	55	52	48	48	49.4	62.2
12-May	47	45	45	44	A	42	42	43	44	46	53	56	60	62	62	63	64	63	62	60	56	55	55	54	53.3	64.1
13-May	53	50	47	46	A	43	43	45	48	51	55	58	57	58	59	59	60	59	59	58	55	52	52	51	53.0	59.7
14-May	50	48	47	44	A	41	41	42	44	48	54	56	56	57	58	57	56	53	52	49	44	45	43	40	48.9	57.7
15-May	39	39	40	37	A	30	20	23	33	37	42	48	49	49	50	50	46	49	43	47	45	45	45	45	41.5	49.9
16-May	38	35	35	34	A	33	31	30	29	29	32	38	48	49	48	45	47	47	48	46	41	38	36	34	38.7	48.7
17-May	31	33	34	34	A	30	29	29	30	30	35	40	42	43	45	46	47	46	46	45	39	39	40	39	38.0	46.6
18-May	37	35	33	33	A	34	33	34	35	38	43	48	51	51	53	54	54	54	53	52	49	48	46	45	44.1	54.3
19-May	43	43	42	41	A	40	35	32	38	44	51	55	57	59	60	59	56	56	58	54	49	51	49	47	48.6	59.5
20-May	46	46	48	47	A	38	28	31	38	42	47	53	58	61	63	64	67	68	65	60	59	64	49	46	51.6	68.3
21-May	46	42	40	35	A	27	26	33	38	49	55	59	64	64	67	64	63	59	51	53	49	47	47	48	49.0	67.2
22-May	46	41	39	37	A	33	20	29	34	46	52	62	67	64	62	61	62	62	60	58	53	52	47	45	49.2	66.5
23-May	44	46	43	41	A	35	18	23	30	40	62	68	71	69	69	67	66	64	61	57	52	50	47	48	50.7	70.6
24-May	46	47	48	49	A	31	27	31	41	48	53	64	69	72	73	70	64	63	60	59	52	47	43	47	52.3	72.6
25-May	43	35	41	30	A	29	27	32	39	48	52	54	60	69	67	67	55	51	53	48	44	42	43	40	46.5	68.6
26-May	39	36	36	32	A	27	23	27	26	31	42	47	47	47	48	51	50	48	49	48	47	44	38	23	39.4	51.5
27-May	29	24	28	27	A	19	17	18	19	22	31	39	49	45	47	50	41	39	33	34	35	31	27	27	31.7	50.4
28-May	28	28	26	28	A	25	26	27	26	27	31	34	37	40	42	43	45	46	46	46	43	44	42	41	35.7	46.1
29-May	40	38	39	36	A	34	34	35	36	38	43	48	46	50	54	56	51	50	48	43	40	36	40	41	42.4	55.5
30-May	40	41	42	42	A	38	39	39	39	39	38	37	37	40	43	43	45	38	34	32	30	28	22	22	36.8	44.6
31-May	26	24	14	11	A	13	19	18	20	24	31	33	34	35	36	38	39	37	38	43	39	35	31	34	29.3	43.2
	40.1	38.5	37.5	35.5	--	31.8	29.0	31.1	34.1	38.5	43.6	47.5	50.0	51.3	52.0	52.5	51.5	50.8	49.7	48.2	44.8	43.2	41.1	40.4	Diurnal Average	
	52.7	50.0	48.4	49.5	--	43.4	43.2	44.8	47.7	50.8	61.5	67.7	70.6	71.9	72.6	69.7	67.0	68.3	64.7	60.2	58.6	63.5	55.0	53.8	Diurnal Maximum	

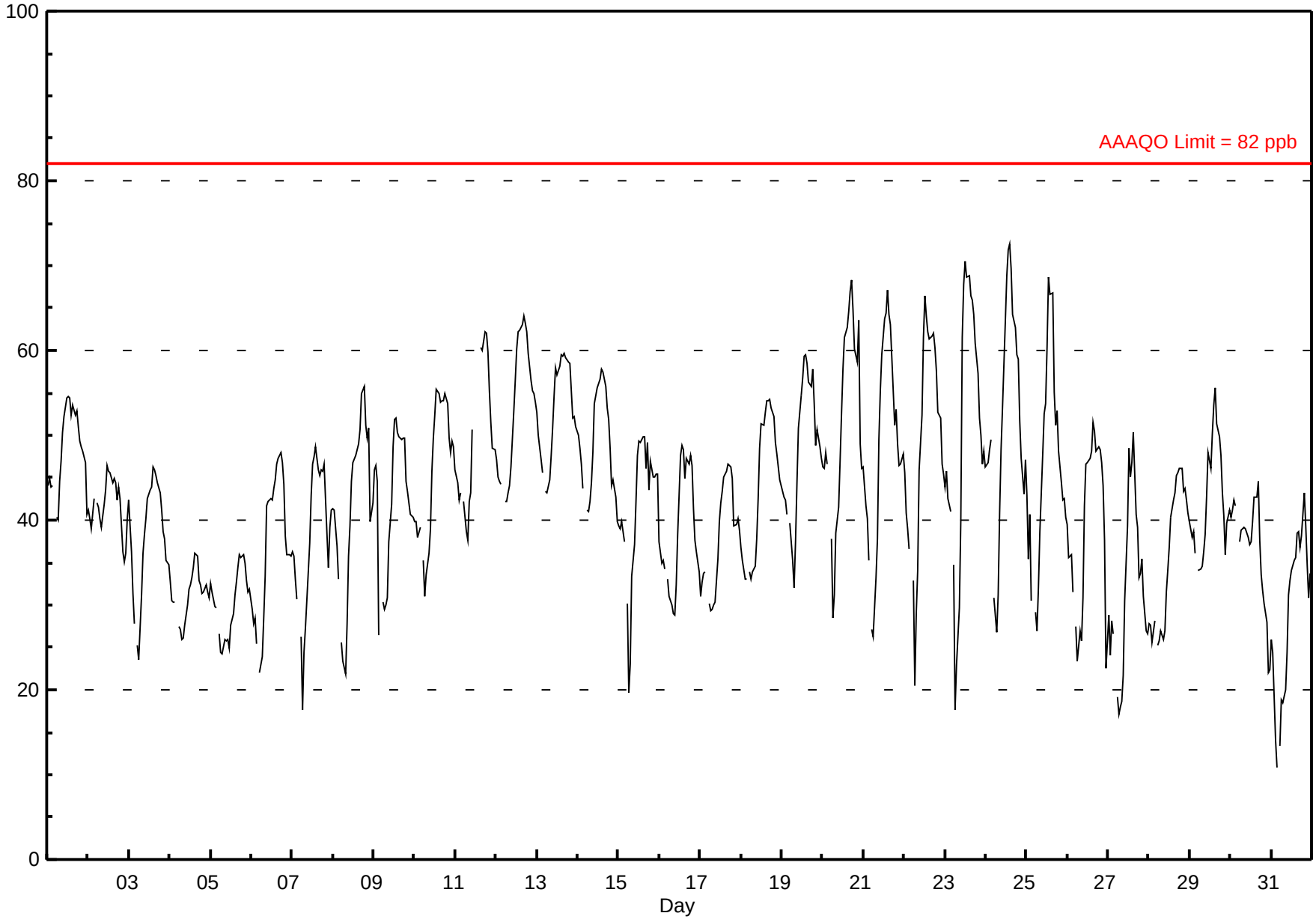
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82 ppb 24-hr na

Peace Airshed Zone Association

Hourly Averages

Ozone (O_3) - ppb

Beaverlodge - May 2015



Peace Airshed Zone Association

Hourly Maximums

Ozone (O_3) - ppb

Beaverlodge - May 2015

Maximum Value: 75.6 ppb on May 24 14:00

Maximum Daily Average: 56.8 ppb on May 24

Minimum Value: 12 ppb on May 31 04:00

Minimum Daily Average: 31.6 ppb on May 5

Maximum Diurnal Average: 55.0 ppb at hour 16

Minimum Diurnal Average: 33.5 ppb at hour 7

Monthly Average: 45.85 ppb

Percentiles: P_1 = 21.6 P_{10} = 31.7 Q_1 = 37.8 Median = 46.2 Q_3 = 52.5 P_{90} = 60.9 P_{99} = 72.5

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	47	47	46	46	A	43	46	46	49	53	54	57	58	56	56	56	54	56	52	51	51	50	50	43	50.7	58.0
2-May	43	42	45	44	A	45	45	42	43	44	47	48	48	48	47	47	48	45	47	46	40	38	40	44	44.6	48.3
3-May	48	40	39	32	A	36	33	36	38	40	42	44	46	47	48	47	47	46	47	46	44	40	39	39	41.9	48.1
4-May	35	32	32	32	A	29	29	27	29	30	31	34	34	35	36	38	38	34	33	32	33	33	33	33	32.7	38.4
5-May	33	32	31	31	A	28	27	26	27	27	27	28	28	31	33	34	36	37	37	37	36	35	33	33	31.6	37.2
6-May	30	30	30	30	A	26	28	32	39	46	44	44	44	45	46	48	49	49	48	47	42	38	37	37	39.5	49.1
7-May	38	38	35	34	A	30	25	32	33	37	41	46	48	49	50	49	47	47	48	48	45	41	41	42	41.1	50.4
8-May	43	42	41	35	A	28	25	27	32	39	42	47	48	49	49	50	53	58	59	55	51	52	52	48	44.6	58.9
9-May	47	49	49	39	A	35	34	32	34	42	47	53	54	54	52	51	51	51	52	49	46	42	42	42	45.4	53.8
10-May	41	41	40	41	A	37	34	38	38	43	49	52	55	57	57	56	56	56	57	57	53	50	51	50	48.2	57.1
11-May	48	46	44	45	A	43	42	44	45	49	55	C	C	C	C	64	62	65	64	63	58	53	51	50	52.1	64.7
12-May	50	47	46	45	A	44	43	45	46	52	56	59	63	64	65	69	66	66	64	62	58	57	56	55	55.6	68.9
13-May	55	52	49	47	A	45	45	47	50	53	57	61	59	60	61	61	62	61	60	60	59	54	54	52	55.0	61.9
14-May	51	50	49	46	A	44	43	44	47	52	56	58	57	59	59	59	58	55	54	51	47	47	45	41	50.9	59.3
15-May	41	41	41	40	A	37	30	32	36	41	46	50	51	51	52	52	51	54	54	51	49	50	52	51	45.8	54.5
16-May	43	36	36	35	A	34	33	32	32	31	36	47	51	52	52	49	49	49	50	50	45	40	39	35	41.6	52.0
17-May	34	34	34	35	A	32	32	31	32	32	39	44	44	46	47	47	49	48	49	47	44	42	42	41	40.2	48.8
18-May	39	37	35	35	A	35	35	36	36	41	47	51	54	53	55	56	56	56	56	54	52	49	48	56	46.6	56.2
19-May	45	45	44	42	A	42	40	36	42	51	54	57	60	62	61	61	58	58	60	57	51	52	51	49	51.2	61.8
20-May	49	49	49	48	A	42	38	36	41	46	50	56	61	64	65	67	70	71	69	68	65	66	63	65	56.5	71.1
21-May	51	48	47	41	A	33	34	37	46	53	60	64	67	68	70	67	65	65	57	57	54	52	51	52	53.9	70.4
22-May	48	45	42	47	A	37	28	31	41	50	58	65	69	66	65	64	64	65	63	62	56	54	49	47	53.0	69.4
23-May	48	50	50	44	A	42	26	29	36	48	69	72	76	71	73	71	69	68	63	61	54	51	48	50	55.1	75.6
24-May	48	48	52	51	A	43	33	41	46	50	57	69	73	76	75	74	69	66	62	61	58	53	48	53	56.8	75.6
25-May	59	39	46	41	A	37	35	39	42	53	56	60	64	74	71	70	68	53	54	53	47	45	44	41	51.9	74.3
26-May	41	40	40	39	A	35	31	31	30	36	46	49	49	49	53	53	52	51	56	54	50	49	49	26	43.8	55.5
27-May	32	32	32	31	A	22	20	20	21	25	41	46	53	52	53	53	50	42	39	40	41	32	31	28	36.3	53.2
28-May	29	29	29	29	A	27	28	28	27	30	34	36	39	43	44	45	50	50	50	49	46	46	44	42	38.1	50.4
29-May	42	39	40	39	A	35	36	36	38	41	47	50	48	54	56	57	55	53	50	47	43	40	42	43	44.8	57.5
30-May	42	43	44	43	A	39	41	41	40	41	40	39	39	42	45	45	46	43	37	35	32	30	27	26	39.1	46.2
31-May	28	28	23	12	A	16	21	21	24	29	34	34	36	37	38	42	40	39	51	48	47	47	38	39	33.6	51.0
	42.9	41.0	40.7	38.7	--	35.6	33.5	34.6	37.5	42.1	47.1	50.6	52.5	53.8	54.5	55.0	54.4	53.5	53.0	51.6	48.3	46.0	44.8	43.7	Diurnal Average	
	58.8	52.1	52.4	51.1	--	44.9	45.6	46.9	50.3	53.4	68.8	72.1	75.6	75.6	74.5	74.1	70.4	71.1	68.9	67.9	64.7	65.8	63.2	65.3	Diurnal Maximum	

C - Calibration

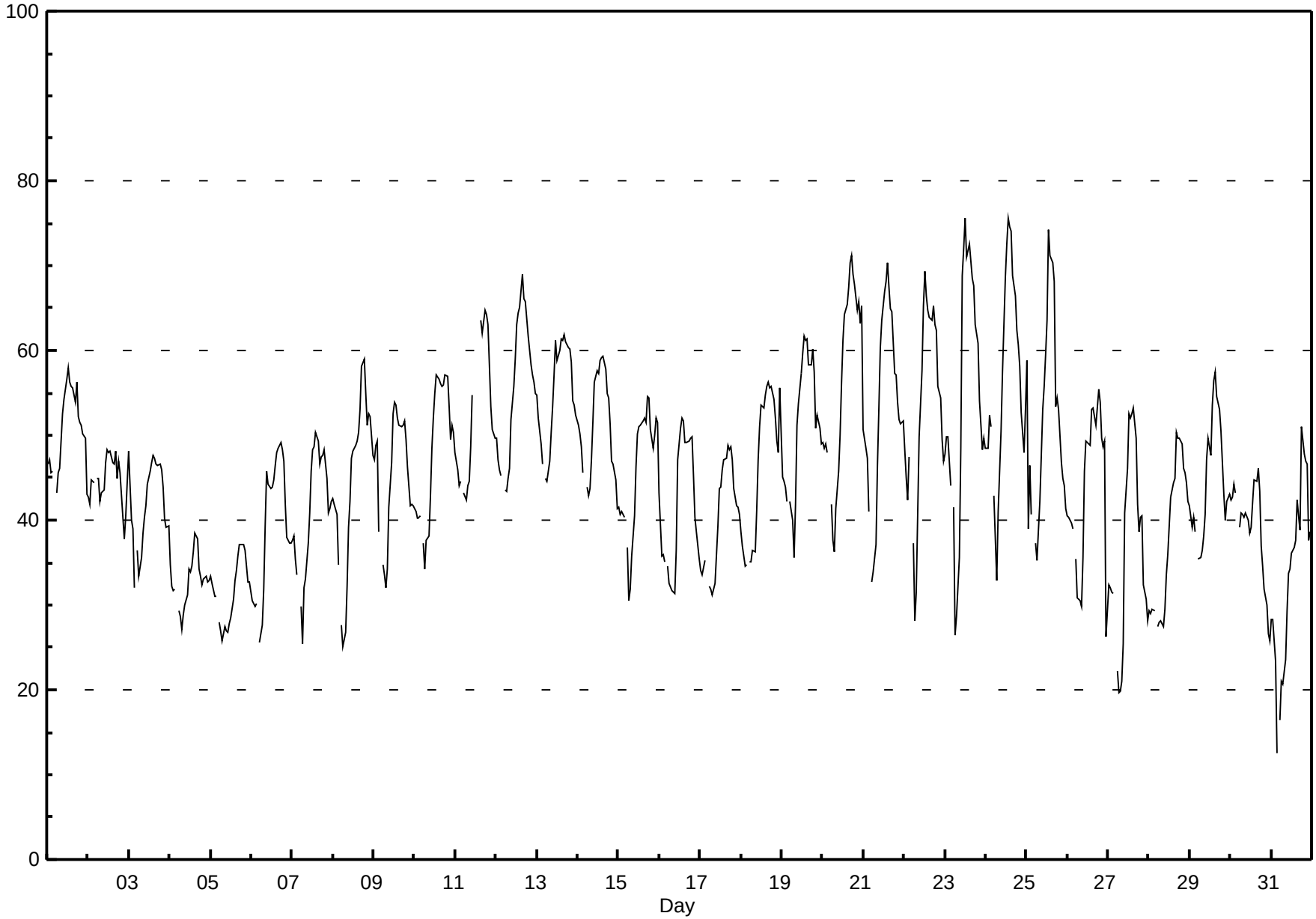
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Ozone (O_3) - ppb

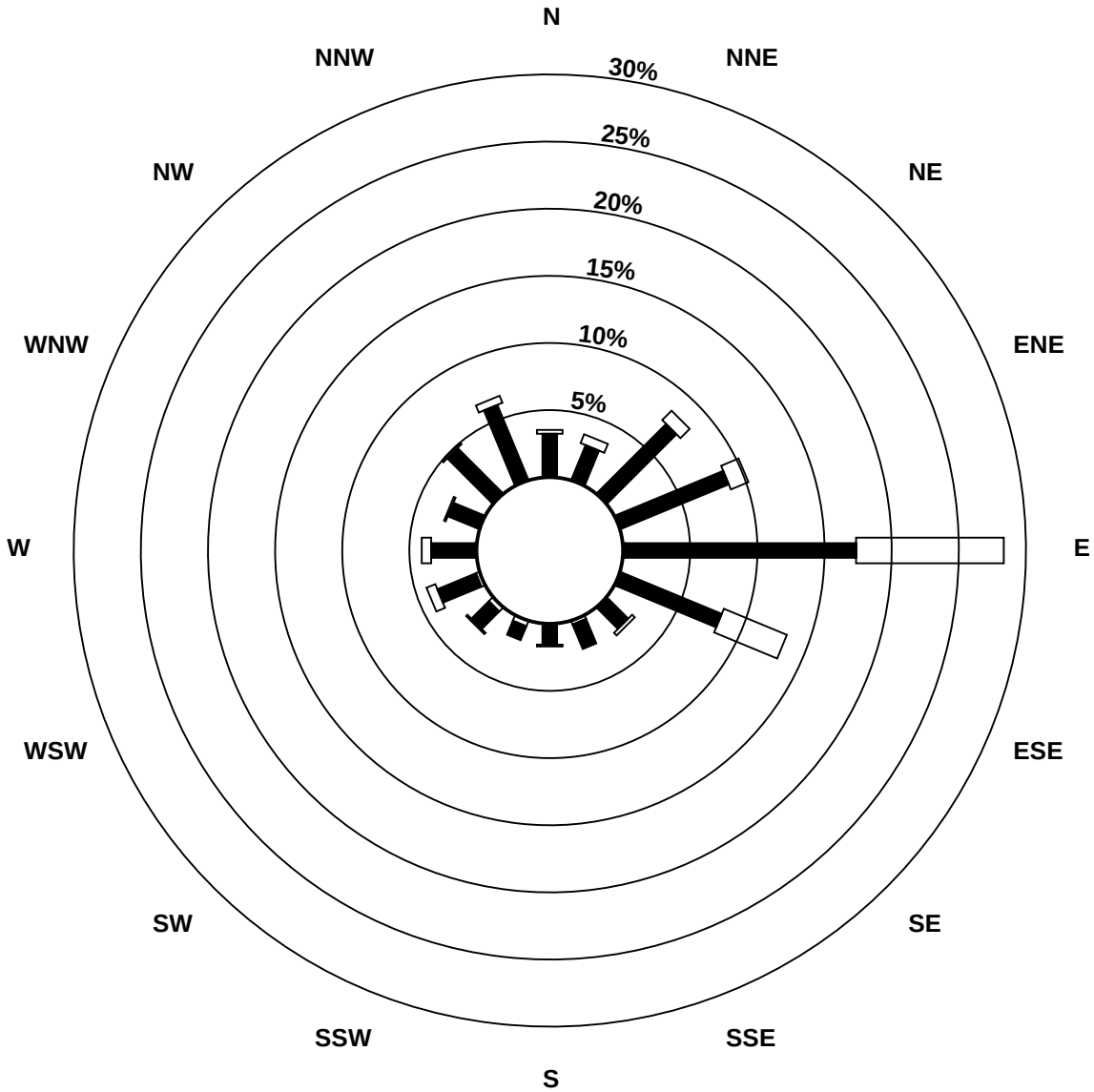
Beaverlodge - May 2015



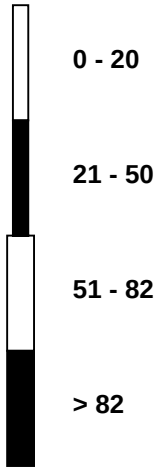
Pollutant Rose

Ozone (O_3) - ppb

Beaverlodge - May 2015



Pollutant Classes (ppb)



Peace Airshed Zone Association

Eight Hour Running Averages

Ozone (O_3) - ppb

Beaverlodge - May 2015

Maximum Value: 66.7 ppb on May 23 18:00

Minimum Value: 17.1 ppb on May 31 10:00

Percentiles: P_1 = 21.3 P_{10} = 30.2 Q_1 = 35.5 Median = 42.3 Q_3 = 48.6 P_{90} = 55.8 P_{99} = 62.9

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	49	48	47	47	47	45	44	43	44	44	45	47	48	50	51	52	53	53	53	53	52	51	50	49	53.3
2-May	47	46	44	43	43	42	41	41	41	41	42	42	43	43	43	44	45	45	45	44	43	42	41	40	47.3
3-May	40	39	38	36	36	34	32	31	30	31	32	34	35	37	40	42	43	44	44	44	44	43	41	40	44.4
4-May	38	37	35	34	33	32	30	29	28	28	28	28	29	29	30	31	33	33	34	34	33	33	33	32	38.5
5-May	32	32	31	31	31	30	29	28	27	27	26	25	26	26	27	28	29	30	31	33	34	34	34	34	34.2
6-May	34	32	32	30	30	28	27	26	27	29	31	33	35	37	40	42	44	45	45	45	45	44	43	42	45.5
7-May	40	39	37	35	35	33	31	29	28	28	28	30	32	35	39	41	44	45	46	47	46	44	43	42	46.5
8-May	42	41	40	38	38	37	35	32	30	29	30	31	33	36	39	42	45	48	50	51	51	51	50	49	51.3
9-May	49	48	46	43	42	39	38	36	34	33	32	36	38	40	43	45	48	49	50	50	49	47	46	45	50.2
10-May	44	42	41	40	40	39	38	37	36	36	37	39	40	43	46	48	51	53	54	54	54	53	52	52	54.2
11-May	51	49	48	46	46	45	44	42	42	41	43	42	42	N	N	N	N	N	N	N	60	59	57	56	59.9
12-May	54	52	50	48	47	46	45	44	44	44	45	47	48	51	53	56	58	61	62	62	62	61	60	59	62.1
13-May	57	56	54	52	51	50	48	47	46	46	47	49	50	52	54	56	57	58	59	59	59	58	57	56	58.8
14-May	55	53	52	50	49	48	46	45	44	44	45	47	48	50	52	54	55	56	56	55	53	52	50	48	55.8
15-May	46	44	42	41	40	38	35	33	32	32	32	33	35	38	41	45	46	48	48	48	47	47	46	46	48.1
16-May	45	43	42	40	40	38	36	34	32	32	31	32	34	36	38	40	42	44	46	47	46	45	44	42	47.2
17-May	40	38	37	35	34	33	32	31	31	31	31	32	33	35	37	39	41	43	44	45	45	44	44	43	45.1
18-May	42	40	38	37	37	36	35	34	34	34	36	38	39	42	44	47	49	51	52	53	53	52	51	50	52.9
19-May	49	47	46	45	44	43	41	39	39	39	40	42	44	46	49	53	55	56	57	57	56	55	54	52	57.4
20-May	51	50	49	48	48	46	43	41	40	39	39	40	42	45	49	53	57	60	62	63	63	64	62	60	63.7
21-May	57	54	51	48	46	41	38	36	35	36	38	41	44	49	54	58	61	62	62	61	59	57	54	52	62.0
22-May	50	48	46	44	43	41	38	35	33	34	36	39	43	47	52	56	59	61	62	62	60	59	57	55	62.5
23-May	53	51	48	46	45	43	39	36	33	33	35	39	43	47	54	59	64	67	67	65	63	61	58	56	66.7
24-May	53	51	49	48	48	45	42	40	39	39	40	42	45	51	56	61	64	66	67	66	64	61	57	54	66.6
25-May	52	48	46	42	41	38	36	34	33	35	37	40	43	48	53	57	59	59	59	59	57	53	50	47	59.4
26-May	45	43	41	39	38	36	33	31	30	29	30	32	34	36	39	42	45	48	48	49	49	48	47	43	48.7
27-May	41	38	35	32	30	27	24	23	22	21	22	23	27	30	34	38	40	43	43	42	41	39	36	33	42.9
28-May	32	30	29	29	28	27	27	27	26	26	27	28	29	31	33	35	38	40	42	43	44	44	44	44	44.5
29-May	43	43	42	40	40	39	37	36	36	36	37	38	39	41	44	46	48	50	50	50	49	47	45	44	50.3
30-May	42	41	41	40	40	41	40	40	40	40	39	38	38	39	39	39	40	40	39	39	38	36	34	31	42.3
31-May	29	27	25	22	21	19	19	18	17	17	20	23	24	27	29	31	34	35	36	38	38	38	38	37	38.2
Diurnal Maximums	57.3	55.6	53.8	52.0	51.3	49.6	48.0	46.7	46.0	46.1	47.2	48.9	50.0	51.8	56.3	61.1	64.1	66.7	66.7	66.1	63.9	63.7	62.0	59.7	

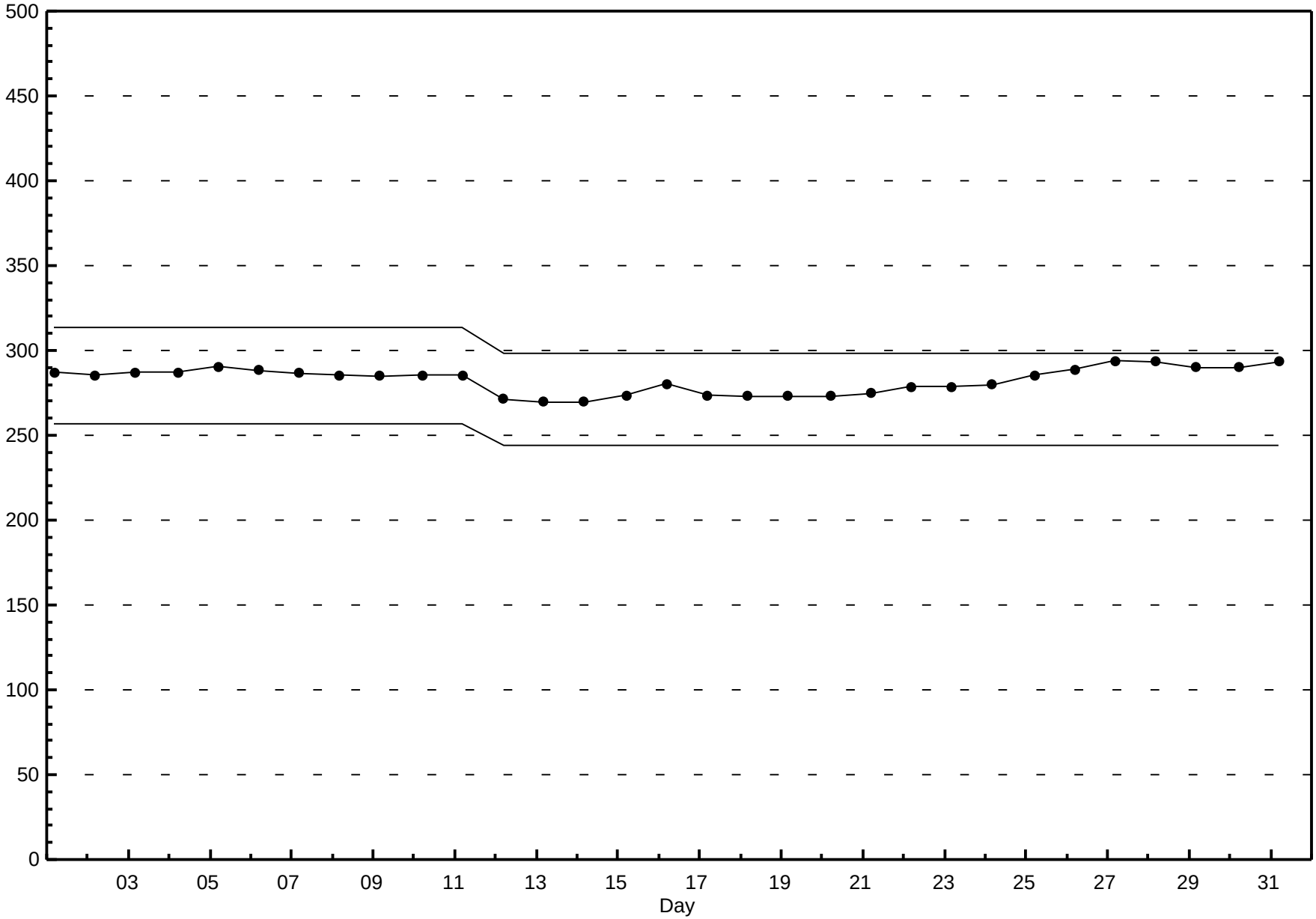
N - Not Valid

Peace Airshed Zone Association

Span Responses

Ozone (O_3)

Beaverlodge - May 2015



Peace Airshed Zone Association

Hourly Averages

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

Beaverlodge - May 2015

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

Maximum Value: 70.4 $\mu g/m^3$ on May 24 01:00

Maximum Daily Average: 28.0 $\mu g/m^3$ on May 24

Minimum Value: 1 $\mu g/m^3$ on May 1 09:00

Maximum Diurnal Average: 11.6 $\mu g/m^3$ at hour 1

Monthly Average: 8.67 $\mu g/m^3$

Minimum Daily Average: 1.5 $\mu g/m^3$ on May 2

Minimum Diurnal Average: 5.7 $\mu g/m^3$ at hour 16

Percentiles: P_1 = 1.1 P_{10} = 1.9 Q_1 = 3.2 Median = 6.7 Q_3 = 11.1 P_{90} = 17.1 P_{99} = 37.6

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) 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	1	1	1	2	1	1	1	1	1	1	2	1	2	2	2	2	1	2	2	2	3	3	1.6	2.9
2-May	3	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	1	1.5	2.8
3-May	2	2	2	2	2	2	2	2	3	4	3	2	4	2	2	2	2	2	2	2	2	2	3	3	2.3	4.1
4-May	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	2.2	3.1
5-May	3	3	3	3	1	1	1	1	1	1	1	1	1	1	1	2	2	2	1	1	2	2	2	3	1.8	3.4
6-May	3	4	4	5	5	4	4	4	6	4	3	3	3	3	3	2	3	4	4	4	5	6	7	7	4.2	7.2
7-May	7	7	7	7	7	7	9	7	5	4	4	3	3	3	2	2	3	3	3	3	4	5	6	6	4.8	9.2
8-May	7	8	8	7	8	8	7	5	4	3	3	2	2	2	2	3	3	4	5	5	6	6	9	8	5.2	8.5
9-May	8	8	9	12	10	10	8	6	6	6	6	6	5	4	4	4	4	5	6	6	7	9	9	9	7.0	11.9
10-May	9	10	10	10	10	10	10	12	9	7	7	7	6	6	5	4	5	5	6	7	8	9	11	10	8.0	11.9
11-May	9	9	9	9	8	8	7	7	5	5	5	6	6	6	M	7	6	6	7	8	9	8	9	8	7.3	9.3
12-May	10	11	11	11	10	10	9	9	10	10	9	9	8	7	7	7	7	7	7	8	9	10	14	26	9.8	26.1
13-May	26	11	9	9	9	9	9	9	9	9	8	8	8	7	7	7	7	7	7	8	10	11	11	11	9.4	26.1
14-May	11	12	13	14	15	16	15	13	12	9	7	7	7	6	6	5	5	6	6	6	8	9	9	10	9.5	16.0
15-May	11	13	13	13	13	13	13	13	11	10	7	6	7	6	5	4	7	6	6	5	6	7	6	6	8.6	13.3
16-May	6	6	6	6	5	5	6	4	3	4	4	4	3	2	2	2	2	3	3	3	3	4	4	5	3.9	6.3
17-May	5	4	4	4	3	4	5	4	5	5	5	3	3	3	3	3	2	2	3	3	4	5	5	5	3.7	5.1
18-May	6	6	7	7	7	6	6	5	5	6	6	6	4	4	4	3	3	4	4	4	5	6	6	6	5.2	6.9
19-May	7	8	8	9	9	13	10	10	8	8	8	8	7	5	4	4	5	6	6	7	9	8	8	8	7.7	13.3
20-May	8	9	9	8	9	9	12	13	11	10	10	8	6	17	7	7	6	6	8	10	15	11	17	19	10.2	19.1
21-May	13	15	14	11	11	12	14	15	13	12	10	10	10	13	10	10	7	11	15	11	12	15	12	11	12.0	15.3
22-May	12	44	14	14	16	16	19	18	17	16	15	12	10	9	10	9	18	8	8	8	10	13	14	12	14.2	43.8
23-May	32	12	17	14	25	27	24	24	21	18	13	13	10	11	11	12	11	11	13	15	22	26	32	35	18.7	34.6
24-May	70	45	42	40	35	35	33	32	60	39	32	22	23	10	6	8	37	12	18	14	15	14	13	13	28.0	70.4
25-May	19	13	16	13	12	12	13	14	33	38	27	29	27	20	17	13	39	37	22	25	22	25	25	24	22.2	38.9
26-May	26	25	23	23	22	22	22	24	28	29	25	22	14	19	18	17	15	15	14	11	10	10	12	13	19.1	28.7
27-May	16	17	18	19	19	19	18	17	17	17	17	17	11	13	13	15	10	9	10	14	35	26	18	11	16.6	35.3
28-May	9	8	6	3	2	2	2	2	2	2	2	2	3	2	2	2	2	3	3	3	2	2	3	3	3.0	8.8
29-May	3	3	4	5	5	6	7	7	8	9	8	8	7	6	7	8	11	10	12	13	12	12	11	8	7.8	12.6
30-May	7	7	6	5	5	5	5	5	5	5	5	6	6	5	6	6	7	10	13	15	10	10	12	11	7.4	14.9
31-May	5	4	3	3	4	4	3	3	2	2	2	3	3	4	4	4	5	5	9	13	11	12	13	13	5.7	13.3
	11.6	10.7	9.6	9.3	9.5	9.7	9.6	9.4	10.4	9.6	8.3	7.6	6.8	6.5	5.8	5.7	7.8	6.9	7.2	7.6	9.0	9.4	9.9	10.1	Diurnal Average	
	70.4	44.5	42.0	40.4	35.2	34.8	33.1	31.6	60.5	38.7	32.2	28.6	26.6	19.6	17.6	16.5	38.9	36.6	22.3	24.9	35.3	25.8	32.2	34.6	Diurnal Maximum	

M - Maintenance

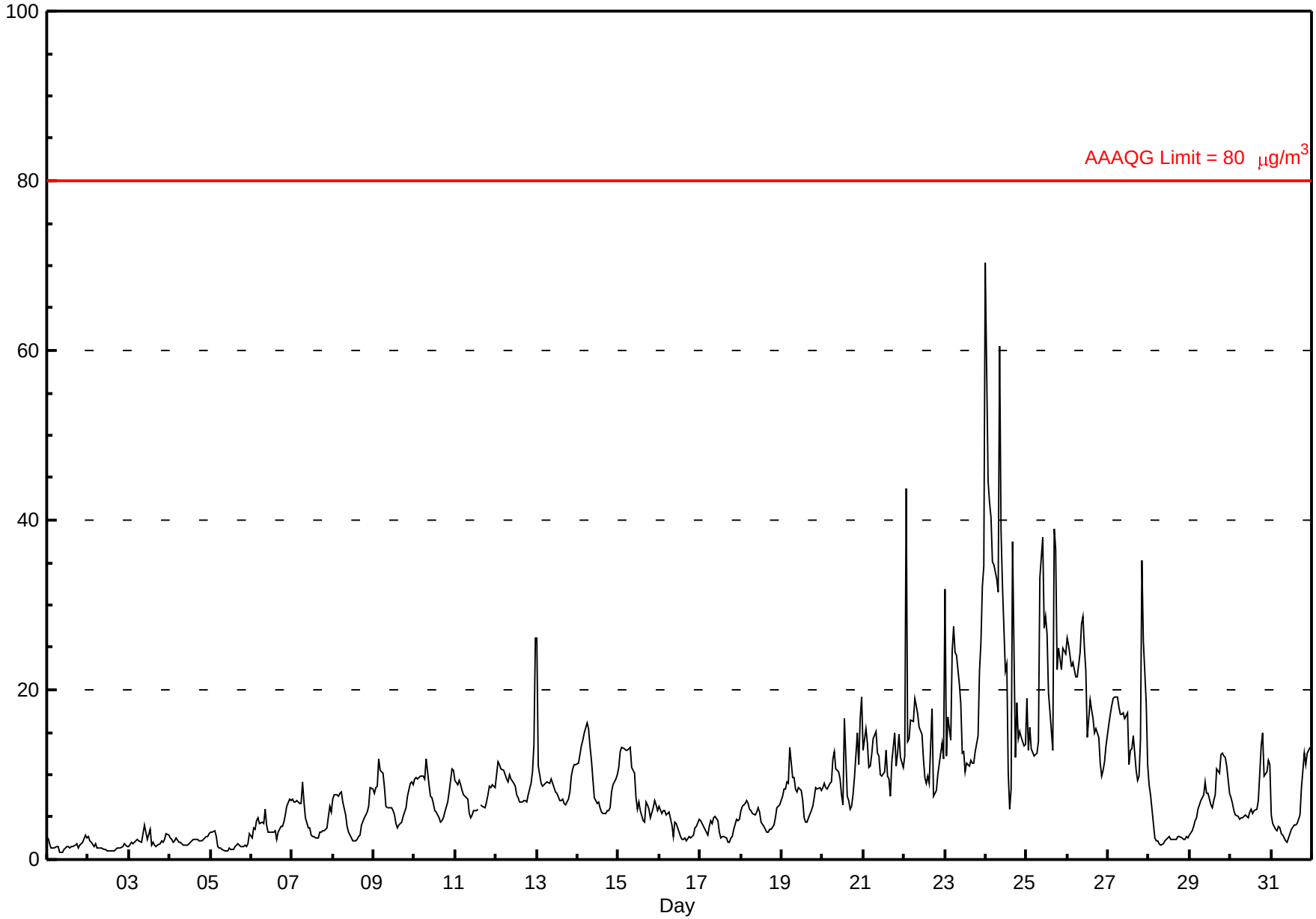
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 $\mu g/m^3$ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 $\mu g/m^3$

Peace Airshed Zone Association

Hourly Averages

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

Beaverlodge - May 2015



Peace Airshed Zone Association

Hourly Maximums

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

Beaverlodge - May 2015

Maximum Value: 282.6 $\mu g/m^3$ on May 23 01:00

Maximum Daily Average: 52.3 $\mu g/m^3$ on May 24

Minimum Value: 1 $\mu g/m^3$ on May 1 09:00

Minimum Daily Average: 2.2 $\mu g/m^3$ on May 5

Maximum Diurnal Average: 28.9 $\mu g/m^3$ at hour 1

Minimum Diurnal Average: 8.1 $\mu g/m^3$ at hour 15

Monthly Average: 12.88 $\mu g/m^3$

Percentiles: P_1 = 1.4 P_{10} = 2.4 Q_1 = 3.8 Median = 7.8 Q_3 = 13.7 P_{90} = 24.3 P_{99} = 137.2

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	3	2	2	2	2	2	2	1	1	2	2	3	3	3	3	3	4	2	2	2	4	3	6	3	2.5	5.5
2-May	4	2	2	2	4	2	2	2	2	1	1	1	2	2	1	1	28	5	2	2	2	3	2	2	3.2	27.6
3-May	2	2	2	3	3	3	3	3	4	5	4	3	33	4	3	3	2	2	3	3	2	3	3	3	4.2	32.8
4-May	3	3	2	2	3	2	5	2	2	2	2	2	2	3	3	3	3	2	2	3	3	3	3	4	2.7	5.1
5-May	3	3	4	4	2	2	2	1	1	1	1	2	1	2	2	2	2	2	2	2	3	2	3	4	2.2	4.1
6-May	3	5	5	6	6	5	5	5	7	6	4	4	4	3	4	3	4	4	4	5	6	7	8	8	5.0	7.8
7-May	8	7	7	7	7	8	12	8	6	4	4	4	3	3	3	3	4	4	4	4	5	5	9	6	5.5	11.7
8-May	8	8	8	8	17	24	8	6	4	4	3	3	3	3	3	3	3	5	6	6	6	7	13	10	7.0	24.4
9-May	9	9	13	15	11	11	9	8	7	7	7	7	6	5	4	4	5	6	6	7	9	10	10	9	8.0	15.1
10-May	10	10	10	10	10	11	11	14	10	8	8	8	6	6	6	5	5	5	6	8	9	10	11	11	8.7	14.1
11-May	10	10	10	9	9	8	8	9	6	5	6	6	6	7	M	7	7	7	8	9	10	10	11	9	8.2	10.5
12-May	12	12	12	11	11	11	10	10	11	10	10	11	9	9	8	10	9	8	8	9	10	12	21	30	11.3	30.3
13-May	31	18	9	9	9	10	10	10	12	10	9	9	9	8	8	8	8	7	8	9	13	12	12	11	10.6	30.9
14-May	12	13	14	15	15	18	17	15	13	11	8	7	7	7	6	6	6	7	6	7	10	10	10	11	10.4	17.6
15-May	13	14	14	13	13	13	15	19	12	19	9	6	7	7	5	8	19	16	8	7	7	8	14	7	11.4	19.3
16-May	7	6	6	6	6	7	6	5	3	5	5	4	3	3	5	8	3	3	3	3	3	4	4	6	4.8	7.8
17-May	7	5	4	5	3	5	6	5	6	6	7	5	3	3	4	3	2	2	3	4	6	6	6	5	4.6	7.3
18-May	7	7	7	7	8	8	6	6	6	7	7	6	5	4	4	3	4	4	4	5	7	7	7	7	6.0	7.8
19-May	8	9	9	19	10	40	13	13	9	12	9	9	8	6	5	5	6	7	8	8	10	10	11	9	10.6	40.1
20-May	9	10	9	9	10	10	23	16	11	12	11	10	8	100	11	9	8	8	9	13	18	12	42	43	17.6	99.9
21-May	31	19	19	12	13	18	17	22	14	14	12	11	30	39	12	16	10	27	28	14	14	19	14	13	18.1	38.7
22-May	14	227	16	23	24	20	22	22	18	23	16	14	11	14	20	10	184	9	10	12	19	14	15	13	32.2	226.8
23-May	283	14	82	15	79	52	29	31	24	23	16	15	12	26	22	16	14	15	16	19	25	30	34	36	38.7	282.6
24-May	204	49	44	45	37	36	35	43	168	53	42	34	113	15	7	38	167	27	22	16	17	16	15	16	52.3	204.2
25-May	111	17	23	14	14	13	15	26	38	89	31	32	32	24	26	21	151	81	29	29	24	26	27	26	38.3	151.3
26-May	38	31	25	28	23	23	25	26	33	31	39	26	20	54	32	18	16	22	66	21	12	11	13	14	27.0	66.4
27-May	18	18	19	20	20	20	19	18	18	18	18	19	14	18	16	20	22	10	12	29	39	34	22	13	19.6	38.6
28-May	10	9	7	3	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3.5	9.7
29-May	4	4	5	5	6	7	8	8	9	20	9	10	9	7	8	9	12	11	14	13	13	13	12	9	9.3	19.5
30-May	8	7	6	6	5	5	5	5	6	7	5	6	6	6	6	7	9	16	15	17	10	11	13	13	8.4	17.1
31-May	8	7	5	4	5	4	4	3	3	2	3	3	4	5	5	6	10	6	17	17	14	14	15	14	7.2	16.6
	28.9	18.0	12.9	10.9	12.6	12.9	11.4	11.7	15.1	13.5	10.0	9.1	12.3	12.8	8.1	8.3	23.5	10.7	10.8	9.8	10.7	10.8	12.5	11.9	Diurnal Average	
	282.6	226.8	81.5	44.7	79.4	52.1	34.7	43.3	167.5	89.4	41.6	33.8	113.3	99.9	32.0	37.7	184.1	80.5	66.4	28.9	38.6	34.0	42.3	42.8	Diurnal Maximum	

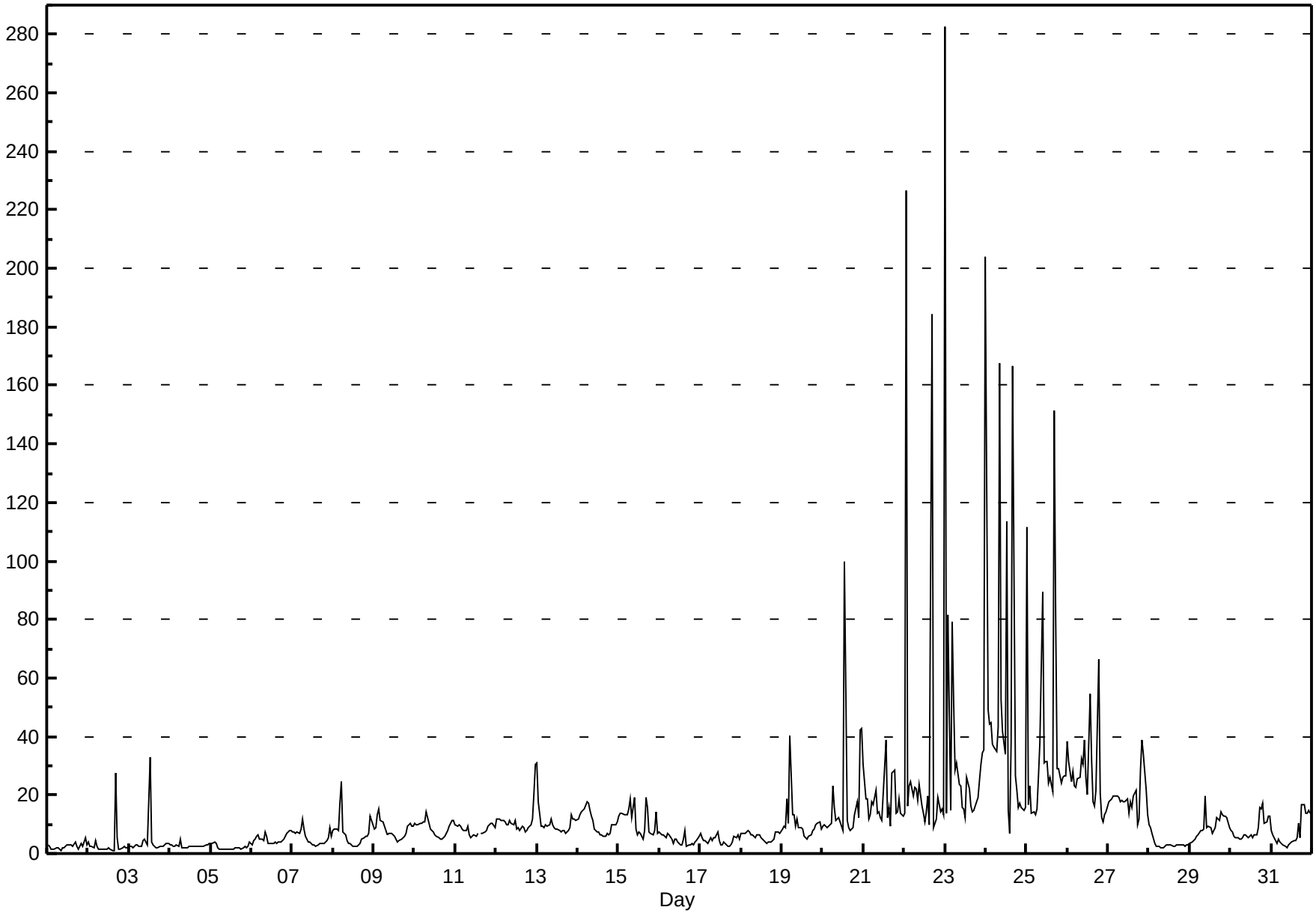
M - Maintenance

Peace Airshed Zone Association

Hourly Maximums

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

Beaverlodge - May 2015

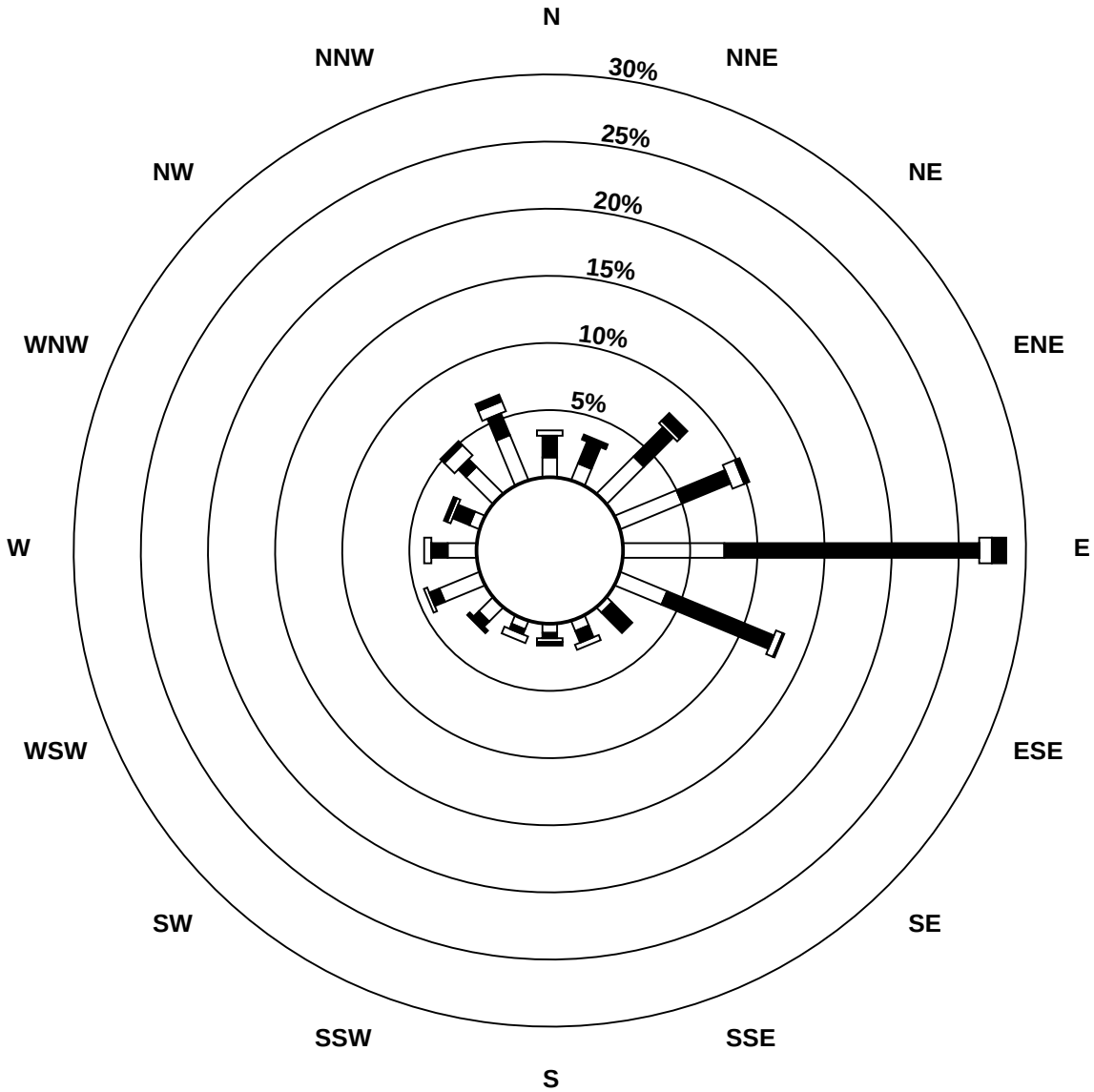


Peace Airshed Zone Association

Pollutant Rose

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

Beaverlodge - May 2015



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

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

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Beaverlodge - May 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 26.7 ^{o}C on May 23 17:00
Maximum Daily Average: 20.5 ^{o}C on May 23

Minimum Value: -1 ^{o}C on May 6 06:00
Maximum Diurnal Average: 17.1 ^{o}C at hour 16
Monthly Average: 11.94 ^{o}C

Minimum Daily Average: 1.6 ^{o}C on May 5
Minimum Diurnal Average: 6.3 ^{o}C at hour 6
Percentiles: P_1 = -0.2 P_{10} = 3.2 Q_1 = 7.4 Median = 11.4 Q_3 = 16.7 P_{90} = 20.9 P_{99} = 26.0

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

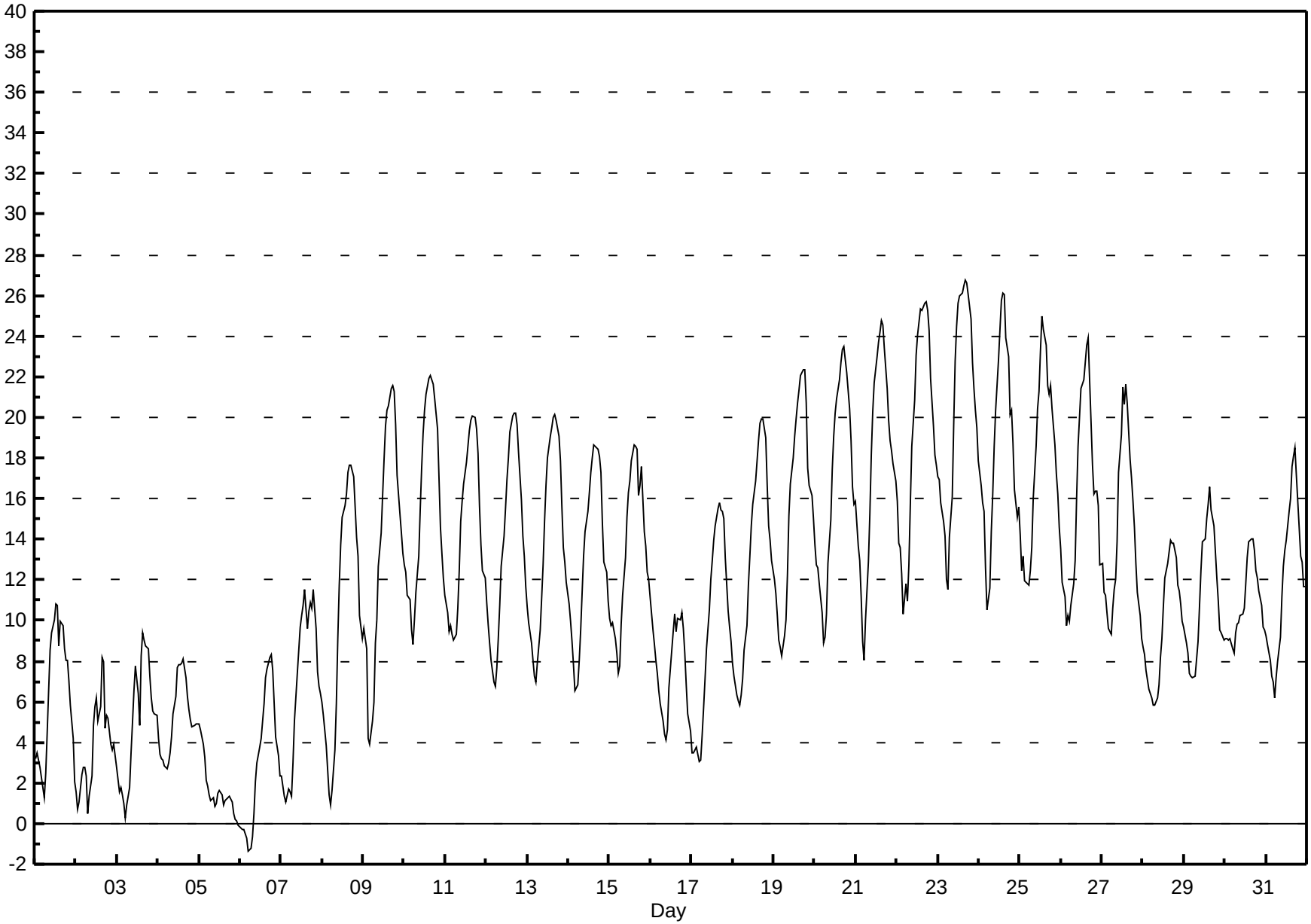
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-May	3	3	3	3	2	1	3	4	7	9	9	10	11	11	9	10	10	9	8	8	7	6	4	2	6.3	10.8
2-May	2	1	1	2	3	3	2	0	1	2	5	6	6	5	6	8	8	5	5	5	4	4	4	3	3.8	8.2
3-May	3	2	2	1	1	0	1	2	3	5	7	8	6	5	8	9	9	9	9	7	6	6	5	5	5.0	9.4
4-May	4	3	3	3	3	3	3	3	4	5	6	8	8	8	8	8	7	6	6	5	5	5	5	5	5.2	8.1
5-May	5	5	4	3	2	2	1	1	1	1	1	1	2	1	1	1	1	1	1	1	0	0	0	0	1.6	4.9
6-May	0	0	0	-1	-1	-1	-1	-1	0	2	3	4	4	5	6	7	8	8	8	8	6	4	3	2	3.1	8.3
7-May	2	2	1	1	2	2	1	3	5	7	9	10	10	11	12	10	10	11	11	12	10	7	7	6	6.7	11.6
8-May	6	5	4	3	1	1	2	4	6	9	12	14	15	16	16	17	18	18	17	16	14	13	10	9	10.2	17.7
9-May	10	9	9	4	4	5	6	9	10	13	14	16	18	20	20	21	21	22	21	20	17	15	14	13	13.8	21.6
10-May	13	12	11	11	10	9	10	11	13	15	17	19	20	21	22	22	22	22	21	19	17	15	13	12	15.8	22.0
11-May	11	10	9	10	9	9	9	11	12	15	16	17	18	19	19	20	20	20	19	18	16	14	12	12	14.4	20.1
12-May	11	10	9	8	7	7	8	9	11	13	14	16	17	18	19	20	20	20	20	18	16	14	13	12	13.7	20.2
13-May	11	10	9	8	7	7	8	10	11	13	15	17	18	19	20	20	20	20	19	18	16	14	13	12	13.8	20.1
14-May	11	10	9	8	7	7	8	10	11	13	14	15	16	17	18	19	18	18	18	17	15	13	12	11	13.2	18.6
15-May	10	10	10	9	8	7	8	10	11	13	15	16	17	18	19	19	18	16	17	18	14	14	12	12	13.4	18.7
16-May	11	10	9	8	7	7	6	5	4	4	5	7	9	9	10	9	10	10	10	10	8	7	5	5	7.7	11.1
17-May	3	3	4	4	3	3	4	6	7	9	11	12	13	14	15	16	16	15	15	15	13	10	10	9	9.6	15.8
18-May	8	7	6	6	6	6	7	9	10	12	13	15	16	17	18	19	20	20	20	19	17	15	14	13	12.9	19.9
19-May	12	11	10	9	9	8	9	10	12	15	17	18	19	20	21	21	22	22	22	21	18	17	16	15	15.6	22.4
20-May	14	13	13	12	10	9	9	10	13	15	17	19	20	21	22	23	23	23	23	22	20	19	17	16	16.8	23.5
21-May	16	14	13	11	9	8	10	13	15	18	20	22	23	24	24	25	25	23	21	20	19	18	18	17	17.7	24.8
22-May	16	14	14	12	10	12	11	13	16	19	21	23	24	25	25	25	26	26	25	24	22	20	18	18	19.0	25.7
23-May	17	17	16	15	14	12	12	14	16	20	23	24	26	26	26	26	27	27	26	25	23	21	20	20	20.5	26.7
24-May	18	17	16	15	13	11	12	14	16	19	20	23	24	26	26	26	24	23	20	20	19	16	15	16	18.7	26.1
25-May	14	12	13	12	12	12	12	14	16	19	20	21	23	25	24	24	22	21	22	20	19	17	16	15	17.7	24.9
26-May	14	12	11	10	10	10	11	12	13	16	19	20	21	22	23	24	24	22	18	16	16	16	16	13	16.1	23.9
27-May	13	11	11	10	10	9	11	12	12	14	17	19	22	21	22	21	18	17	16	15	13	11	10	9	14.3	21.6
28-May	9	8	8	7	6	6	6	6	6	7	8	9	11	12	13	13	14	14	14	13	12	11	11	10	9.7	13.9
29-May	10	9	8	7	7	7	7	8	9	11	12	14	14	15	16	17	15	15	13	12	11	10	9	9	11.1	16.6
30-May	9	9	9	9	9	8	9	10	10	10	10	11	12	13	14	14	14	13	12	12	11	11	10	10	10.8	14.0
31-May	9	9	8	7	7	6	7	8	9	11	13	13	14	15	16	18	18	19	17	15	13	13	12	12	12.0	18.5
	9.4	8.6	8.1	7.4	6.7	6.3	6.8	8.0	9.5	11.4	13.0	14.4	15.4	16.0	16.7	17.1	17.0	16.6	16.0	15.1	13.4	12.1	11.2	10.3	Diurnal Average	
	17.9	17.0	15.8	15.4	14.2	12.0	12.4	14.3	16.2	19.7	22.8	24.5	25.6	26.0	26.1	26.5	26.7	26.6	26.0	24.8	22.7	21.4	20.4	19.5	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Beaverlodge - May 2015



Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Beaverlodge - May 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 100.0 % on May 24 13:00 Maximum Daily Average: 91.2 % on May 5

Minimum Value: 14 % on May 12 19:00 Minimum Daily Average: 27.8 % on May 13
Maximum Diurnal Average: 67.3 % at hour 7 Minimum Diurnal Average: 39.3 % at hour 16
Monthly Average: 52.59 % Percentiles: P_1 = 16.4 P_{10} = 24.1 Q_1 = 33.6 Median = 48.5 Q_3 = 69.8 P_{90} = 88.1 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

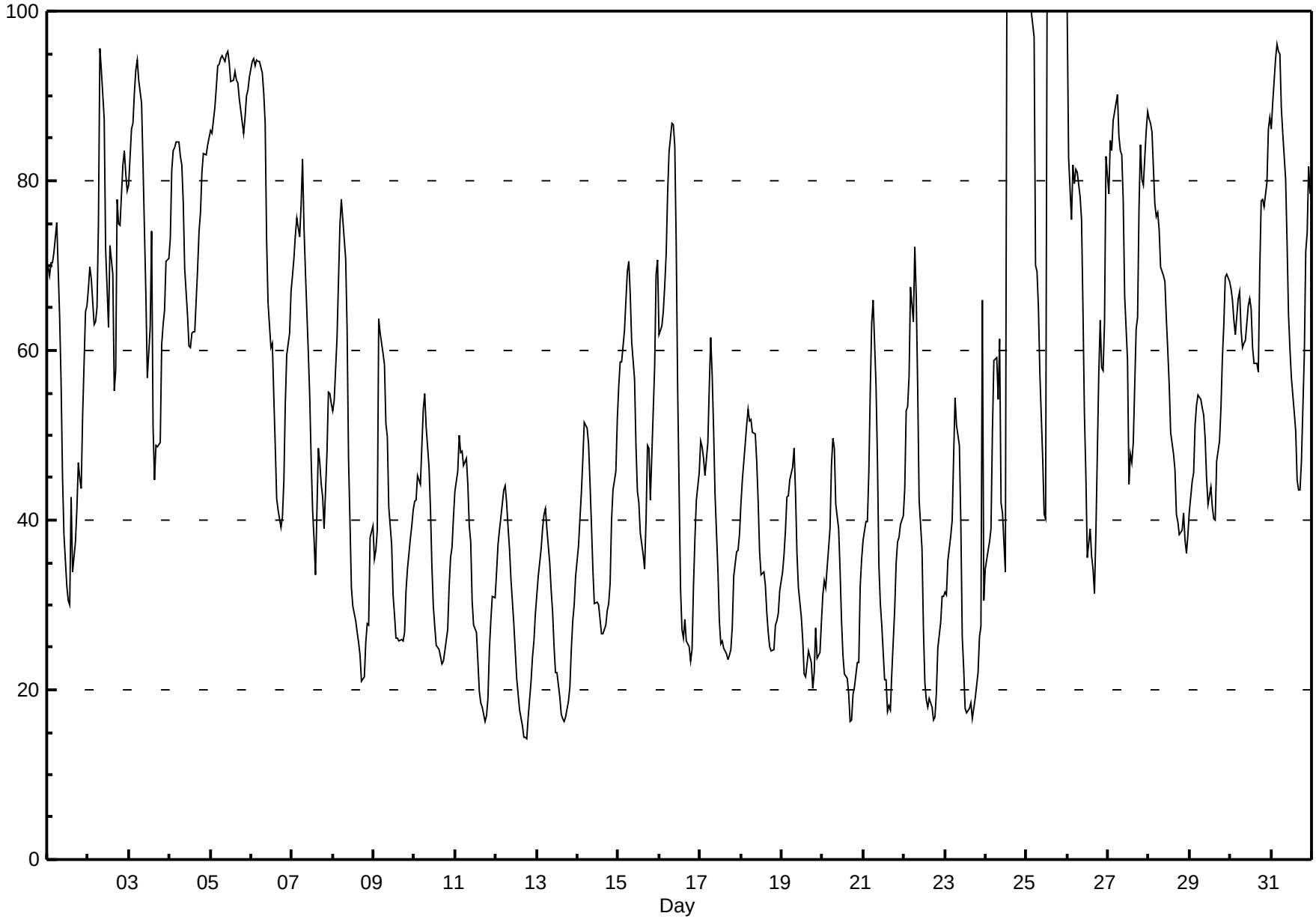
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-May	70	69	70	70	72	75	69	64	56	45	38	32	31	30	43	34	37	41	47	45	44	52	65	65	52.7	75.1
2-May	67	70	69	63	63	65	75	96	93	87	72	67	63	72	69	55	58	78	75	75	82	84	81	79	73.2	95.6
3-May	80	86	87	90	93	94	92	89	82	74	67	57	63	74	51	45	49	49	49	61	63	65	71	71	70.8	94.3
4-May	73	81	84	84	85	85	83	82	77	70	64	60	60	62	62	62	70	74	76	81	83	83	84	85	75.4	85.1
5-May	86	86	89	91	94	94	94	95	94	95	95	94	92	92	93	92	92	90	88	86	87	90	91	92	91.2	95.3
6-May	94	94	94	94	94	94	93	90	87	73	66	60	61	55	49	43	41	39	40	45	54	60	62	67	68.7	94.5
7-May	69	71	74	76	73	77	83	75	69	60	55	47	41	38	34	48	47	44	43	39	48	55	55	54	57.2	82.6
8-May	53	54	62	68	75	78	75	71	63	47	40	32	30	28	27	26	24	21	22	26	28	28	38	39	43.8	77.7
9-May	35	36	39	64	62	60	58	51	50	42	37	31	29	26	26	26	26	26	27	32	34	38	39	41	38.9	63.7
10-May	42	42	45	44	49	53	55	51	46	41	35	30	27	25	25	24	23	23	25	27	32	36	37	40	36.6	54.9
11-May	43	46	50	48	48	46	47	44	39	38	31	28	27	23	20	18	18	16	17	19	25	28	31	31	32.6	50.0
12-May	34	37	39	40	44	44	42	39	37	33	28	25	21	19	18	16	14	14	14	17	21	24	26	29	28.1	44.1
13-May	31	33	37	39	41	41	39	35	32	29	25	22	22	19	17	17	16	17	19	20	25	28	30	33	27.8	41.3
14-May	37	40	43	47	52	51	49	44	39	34	30	30	30	28	27	27	28	29	30	33	40	44	46	52	37.9	51.9
15-May	56	59	59	62	66	69	71	67	61	57	49	43	42	38	36	34	40	49	49	42	53	58	69	71	54.1	70.6
16-May	62	63	65	68	71	78	83	87	87	84	72	55	32	27	26	28	26	25	23	25	32	38	42	46	51.9	86.8
17-May	49	49	47	45	49	56	62	57	51	43	34	28	25	26	25	24	24	24	25	27	33	36	36	38	38.1	61.5
18-May	42	45	49	51	53	52	52	50	50	47	42	36	34	34	32	29	27	25	25	25	28	28	29	32	38.2	53.0
19-May	34	36	39	43	43	45	46	49	43	36	32	29	26	22	22	23	25	23	20	22	27	24	24	28	31.6	48.5
20-May	31	33	32	34	39	47	50	49	42	39	34	28	24	22	21	20	16	16	19	20	23	23	32	35	30.4	49.6
21-May	38	40	40	46	55	63	66	56	47	35	30	28	21	21	17	18	18	22	30	35	37	38	40	41	36.7	65.9
22-May	44	53	53	57	68	63	72	66	56	42	37	27	21	19	18	19	18	16	17	20	25	28	31	31	37.5	72.2
23-May	32	31	35	38	40	48	54	51	49	40	26	23	18	17	18	18	17	18	19	22	26	27	66	31	31.8	65.9
24-May	34	36	38	39	51	59	59	54	61	42	41	34	100	100	100	100	100	100	100	100	100	100	100	100	72.8	100.0
25-May	100	100	100	100	97	70	69	65	57	47	41	40	100	100	100	100	100	100	100	100	100	100	100	100	86.9	100.0
26-May	100	83	75	82	80	81	81	78	75	65	53	45	36	39	36	34	31	39	57	64	58	58	63	83	62.3	100.0
27-May	78	85	84	87	88	90	85	84	83	78	66	59	44	48	47	49	63	64	77	84	80	79	86	88	74.0	90.2
28-May	87	87	86	77	76	76	74	70	69	68	64	60	56	50	48	46	41	40	38	39	41	38	36	38	58.5	87.3
29-May	41	45	46	51	54	55	54	53	52	50	45	42	44	41	40	40	47	49	53	59	63	69	69	68	51.2	69.0
30-May	67	66	64	62	66	67	62	60	61	61	65	66	65	60	58	58	57	69	78	78	77	80	86	87	67.6	87.4
31-May	86	89	94	96	95	95	89	86	80	73	64	60	57	53	50	45	44	44	47	59	72	74	82	78	71.3	96.0
	57.9	59.5	60.8	63.1	65.6	66.8	67.3	64.8	60.9	54.0	47.6	42.6	43.2	42.3	40.4	39.3	39.8	41.5	43.5	46.0	49.7	52.0	56.3	57.2	Diurnal Average	
	100.0	100.0	100.0	100.0	97.0	94.9	94.3	95.6	94.1	95.0	95.3	93.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Beaverlodge - May 2015



Peace Airshed Zone Association

Hourly Averages

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

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1 Spd	11	13	10	6	5	2	4	14	20	32	35	39	36	29	20	26	33	31	29	24	20	13	8	9	18.5	38.8
Dir	225	229	222	236	213	149	204	237	242	253	267	258	267	278	305	268	256	251	242	255	268	280	263	237	257	258
2 Spd	13	9	3	6	6	8	11	12	10	6	11	6	14	8	17	17	8	17	14	4	6	4	6	6	5.5	17.2
Dir	254	250	311	298	298	290	305	308	308	309	307	11	286	322	249	256	267	43	50	59	189	338	359	41	302	249
3 Spd	2	9	8	6	4	3	1	6	8	7	3	1	15	16	5	10	14	12	11	12	8	9	8	10	3.4	16.2
Dir	43	316	338	316	327	236	306	318	315	333	325	317	242	167	322	6	23	29	61	84	85	60	53	51	14	167
4 Spd	16	16	16	17	17	11	14	12	18	25	33	32	29	30	31	30	33	32	31	30	32	29	31	18	23.8	32.8
Dir	43	66	58	64	45	51	66	79	76	81	75	79	76	76	73	75	68	59	52	50	50	50	61	62	65	68
5 Spd	25	12	16	12	14	13	13	13	12	12	12	12	16	15	15	14	15	19	18	18	18	14	12	8	12.7	24.7
Dir	74	66	42	345	340	331	329	335	339	338	336	339	3	7	1	6	11	20	21	32	33	26	8	356	9	74
6 Spd	9	9	9	9	10	9	10	10	9	5	6	4	7	5	1	3	5	5	6	9	10	11	10	9	1.5	11.2
Dir	336	338	345	337	348	333	332	331	323	318	274	255	249	253	243	234	172	186	147	142	123	121	118	104	332	121
7 Spd	10	9	7	6	3	5	6	5	10	17	17	15	16	16	18	23	19	12	10	1	5	4	4	5	5.8	23.3
Dir	100	97	113	108	66	5	306	278	316	311	320	341	338	337	328	35	51	48	50	120	140	109	77	73	11	35
8 Spd	5	4	3	3	3	3	2	4	6	7	5	2	2	4	7	4	8	13	15	13	9	7	2	2	1.3	15.2
Dir	84	102	138	140	116	117	80	186	193	202	232	284	79	314	219	162	333	338	8	26	23	31	230	44	23	8
9 Spd	3	4	4	2	4	4	4	4	9	10	11	12	10	6	6	4	4	9	13	13	10	16	19	19	7.1	18.9
Dir	57	48	48	109	66	67	75	148	165	145	141	122	122	120	61	13	45	70	102	96	73	88	94	96	99	96
10 Spd	18	15	9	3	4	7	4	8	9	11	20	23	20	20	21	21	21	19	23	16	13	13	13	14	14.0	22.6
Dir	95	96	103	129	128	86	112	109	113	115	117	117	112	107	91	90	88	88	93	85	84	81	101	95	99	93
11 Spd	13	12	11	10	13	9	6	6	5	5	19	21	16	14	14	17	20	20	19	16	13	13	15	21	13.2	20.8
Dir	98	83	90	76	88	82	120	151	167	89	100	91	93	96	87	100	101	95	88	83	80	82	92	101	94	91
12 Spd	19	21	22	20	17	15	12	17	15	20	20	22	25	23	26	27	28	28	27	26	24	24	25	23	21.9	28.4
Dir	93	94	92	94	87	91	89	94	105	100	106	105	100	105	102	98	103	103	104	99	96	95	100	102	99	103
13 Spd	23	25	24	26	23	21	26	31	29	26	25	27	29	29	28	29	27	27	28	23	22	23	23	21	25.2	30.6
Dir	93	93	91	90	94	94	99	101	111	121	128	112	98	98	101	95	95	93	87	84	87	91	99	100	98	101
14 Spd	20	20	17	14	13	10	14	16	15	19	23	22	17	18	19	19	18	18	18	16	12	13	15	13	16.0	22.5
Dir	97	95	95	97	95	82	100	108	124	128	123	120	108	112	117	102	127	106	110	101	78	72	93	97	106	123
15 Spd	9	9	9	8	4	0	1	4	4	4	7	7	6	12	11	12	10	1	4	10	13	11	19	18	4.9	19.0
Dir	88	81	67	84	116	22	87	259	280	263	28	49	42	24	37	36	72	304	105	174	211	40	87	77	68	87
16 Spd	25	30	31	27	31	29	25	21	15	17	19	15	18	19	17	18	17	19	17	15	13	9	9	15	17.8	31.3
Dir	43	36	43	32	33	35	35	50	48	34	41	51	73	73	85	75	87	99	87	82	73	84	105	107	57	33
17 Spd	12	9	9	9	6	4	16	21	23	24	26	28	28	22	21	21	19	19	19	15	12	12	17	16	16.8	28.4
Dir	96	84	70	65	85	79	98	103	109	117	114	106	103	103	106	94	95	100	91	108	109	85	93	97	100	103
18 Spd	13	14	11	11	5	5	8	5	12	15	17	18	16	17	17	18	17	16	18	16	11	13	17	19	13.4	19.0
Dir	91	95	81	74	84	133	115	115	113	94	94	97	95	100	99	88	93	85	85	81	68	69	87	91	91	91
19 Spd	20	21	13	10	5	4	1	2	3	4	14	15	11	10	13	13	18	18	18	15	13	15	20	20	11.8	20.8
Dir	96	92	83	84	109	121	119	217	209	96	100	102	80	85	81	105	91	91	91	78	75	78	88	92	91	92
20 Spd	18	10	9	8	3	3	0	6	3	2	4	10	9	7	12	12	9	5	5	5	5	7	4	10	4.8	18.3
Dir	96	87	73	78	140	239	246	304	291	271	51	96	93	105	84	88	94	87	66	83	44	33	4	317	76	96
21 Spd	13	10	13	12	4	2	8	7	11	10	8	6	12	15	16	21	19	10	10	14	5	12	12	5	4.9	20.7
Dir	351	345	354	346	350	15	318	329	334	21	68	95	112	84	81	87	83	115	232	236	289	354	15	355	33	87
22 Spd	9	7	8	5	4	6	5	5	3	2	4	10	14	18	20	17	23	21	23	13	8	11	14	13	7.4	22.6
Dir	349	305	346	353	320	348	273	215	186	200	44	100	113	88	94	88	90	89	92	81	65	45	36	40	72	90

Peace Airshed Zone Association

Hourly Averages

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
23 Spd	12	12	3	5	2	1	2	0	3	3	10	16	22	23	20	20	21	24	24	20	19	21	28	24	12.8	28.0
Dir	34	61	97	154	238	73	198	184	191	153	111	106	97	97	104	87	89	81	83	78	78	81	89	100	90	89
24 Spd	19	16	9	2	4	2	2	3	4	2	5	9	13	15	15	21	29	13	17	12	9	4	2	13	5.2	29.2
Dir	97	98	98	173	313	326	40	234	187	82	38	107	94	101	95	77	70	95	263	299	184	222	276	0	86	70
25 Spd	4	10	9	3	1	3	1	5	6	9	7	5	1	3	10	6	22	19	14	7	10	13	17	11	5.8	22.2
Dir	274	306	317	181	238	35	152	271	295	294	336	348	46	70	8	19	29	43	34	302	313	332	340	338	348	29
26 Spd	9	6	5	1	5	1	0	5	6	2	1	4	5	5	6	5	6	3	2	7	6	7	3	3	1.7	9.4
Dir	344	315	341	8	317	284	278	320	337	71	47	110	71	66	76	80	36	110	165	175	240	348	304	74	14	344
27 Spd	2	2	4	2	5	2	1	3	4	5	7	11	19	18	16	15	16	7	9	9	26	21	14	15	4.5	26.4
Dir	73	84	65	97	65	117	147	161	194	240	306	328	331	320	336	338	240	209	161	47	40	35	30	50	3	40
28 Spd	16	15	16	16	10	13	14	9	9	13	18	16	18	18	17	18	19	16	14	12	16	16	23	25	14.6	24.7
Dir	41	34	39	55	62	72	74	74	75	82	86	91	93	89	92	108	110	115	107	83	71	82	92	89	82	89
29 Spd	21	22	22	22	26	25	26	23	23	24	26	28	26	27	27	29	32	29	27	18	17	14	17	18	22.5	31.5
Dir	76	75	79	86	91	89	89	88	89	93	94	102	101	103	107	111	117	128	135	144	135	106	103	97	101	117
30 Spd	18	19	21	20	15	17	17	16	12	7	9	5	5	3	3	7	6	3	6	7	9	8	4	7	6.4	21.2
Dir	99	100	94	92	89	90	103	120	129	153	113	112	126	37	29	0	360	319	1	339	328	346	267	286	87	94
31 Spd	7	4	6	6	5	4	8	8	7	12	24	24	22	28	31	27	24	21	9	7	6	3	2	8	11.6	30.8
Dir	278	292	247	240	243	232	219	218	214	224	252	259	276	264	269	272	270	277	283	265	284	303	47	341	264	269
Spd	9.0	8.1	8.0	6.4	5.3	4.8	4.4	3.3	3.0	3.7	5.9	7.9	7.6	8.3	8.4	9.8	10.6	10.2	9.7	7.7	7.1	9.2	10.0	9.9	Diurnal Average	
Dir	74	72	65	69	64	66	75	91	104	101	91	96	89	85	80	78	83	84	86	84	74	62	77	78		
Spd	25.0	29.8	30.6	26.6	31.3	29.0	26.1	30.6	29.3	32.1	34.7	38.8	36.2	30.4	30.8	29.8	32.9	31.9	30.8	29.8	32.0	28.9	31.2	24.7	Diurnal Maximum	
Dir	43	36	43	32	33	35	99	101	111	253	267	258	267	76	269	75	256	59	52	50	50	50	61	89		

Maximum Speed Value: 39 km/h on May 1 12:00
Minimum Speed Value: 0 km/h on May 26 07:00
Maximum Daily Speed Average: 25.2 km/h on May 13
Minimum Daily Speed Average: 1.3 km/h on May 26
Maximum Diurnal Speed Average: 10.6 km/h at hour 17
Minimum Diurnal Speed Average: 3.0 km/h at hour 9

Monthly Average Velocity: 7.32 km/h 79.3 deg

Speed Percentiles: $P_1 = 0.9$ $P_{10} = 3.5$ $Q_1 = 6.2$ Median = 12.3 $Q_3 = 18.5$ $P_{90} = 24.7$ $P_{99} = 31.6$

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

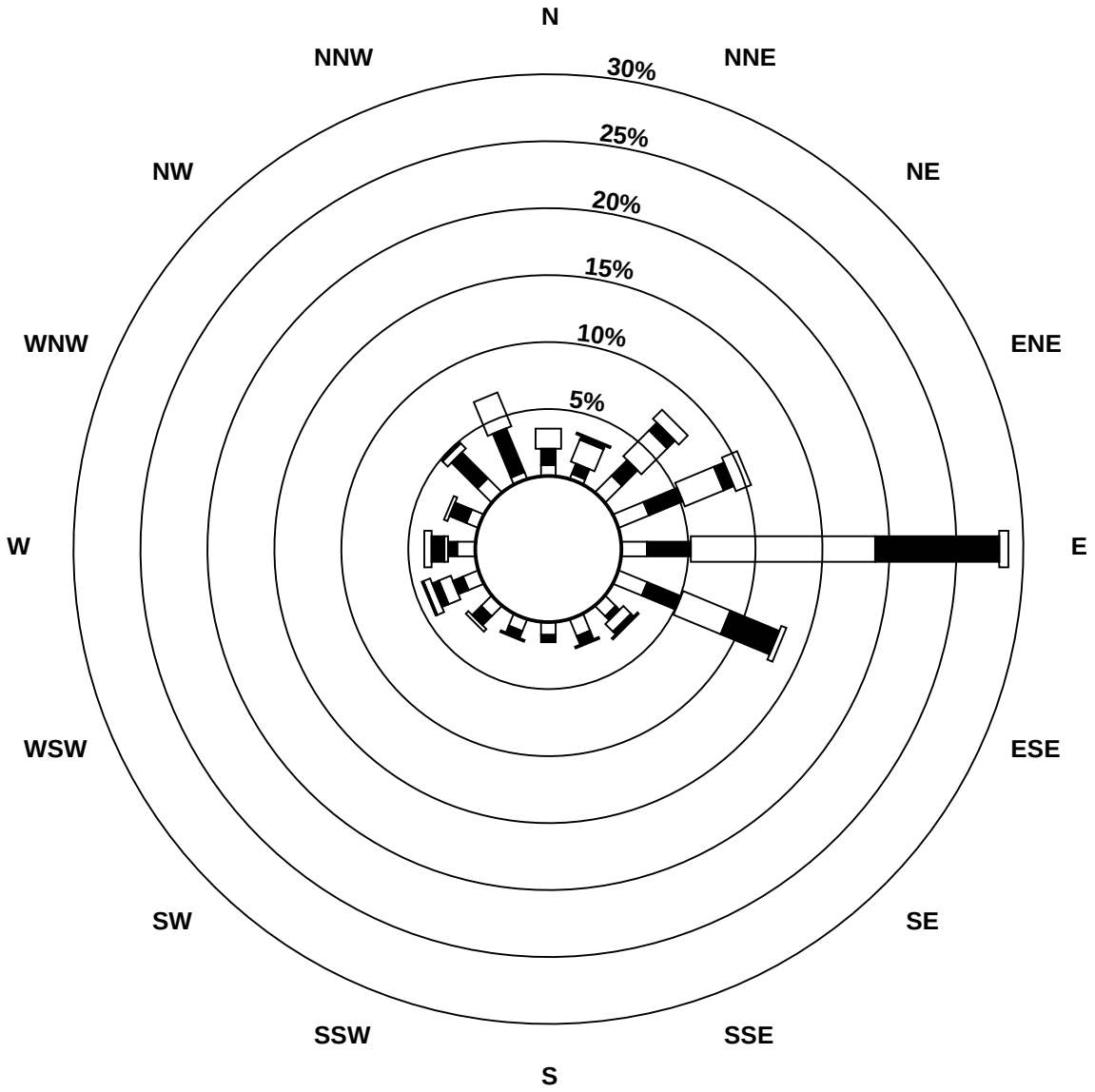
Frequency Distribution

Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	11	25	24	0	0	0	60
NorthEast	24	22	38	9	10	0	103
East	29	47	132	98	21	0	327
SouthEast	19	18	14	10	2	0	63
South	15	9	1	0	0	0	25
SouthWest	17	15	7	1	1	0	41
West	16	13	6	9	8	1	53
NorthWest	14	39	18	1	0	0	72
Total	145	188	240	128	42	1	744

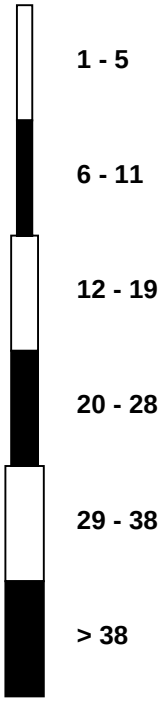
Wind Rose

Wind Speed (WS) (km/h)

Beaverlodge - May 2015



Wind Speed Classes (km/h)



Peace Airshed Zone Association

Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Beaverlodge - May 2015

Maximum Speed: 39 km/h on May 1 12:00

Maximum Daily Speed Average: 25.9 km/h on May 13

Minimum Speed: 1 km/h on May 26 07:00

Minimum Daily Speed Average: 6.0 km/h on May 26

Maximum Diurnal Speed Average: 18.9 km/h at hour 17

Minimum Diurnal Speed Average: 8.5 km/h at hour 6

Monthly Average Speed: 13.82 km/h

Percentiles: P_1 = 2.1 P_{10} = 4.5 Q_1 = 7.2 Median = 12.7 Q_3 = 19.1 P_{90} = 24.8 P_{99} = 32.5

Hours in Service: 744

Hours of Data: 744

Hours of Missing Data: 0

Percent Operational Time: 100.0

Day	Hourly Period Ending At (MST)																								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	11	14	11	6	6	3	6	14	20	33	35	39	37	31	21	27	33	32	29	25	20	16	8	9	20.2	39.2
2-May	13	9	5	7	6	9	12	12	10	7	12	7	15	11	17	17	10	17	15	6	6	5	6	6	10.0	17.4
3-May	3	9	8	6	6	5	3	6	8	8	5	6	20	22	8	11	15	12	13	13	8	9	8	11	9.3	21.9
4-May	16	16	16	17	17	11	15	12	19	26	33	32	29	31	31	30	33	32	31	30	32	29	31	19	24.5	32.9
5-May	25	13	16	12	15	13	14	14	12	12	12	12	17	16	15	14	15	19	19	18	18	14	12	8	14.7	24.8
6-May	9	9	9	9	10	9	10	11	9	6	7	6	8	6	4	6	7	6	7	9	10	11	10	9	8.3	11.2
7-May	10	9	7	6	4	6	7	6	10	18	17	16	17	17	18	25	19	12	10	2	5	4	4	5	10.7	25.3
8-May	5	4	4	3	3	3	3	4	7	7	6	5	6	7	8	6	11	13	16	13	9	7	3	4	6.6	15.7
9-May	3	4	4	4	4	4	4	5	9	10	12	13	11	8	7	8	7	10	14	13	10	16	19	19	9.0	19.0
10-May	18	15	10	4	4	7	4	8	9	11	20	23	21	20	22	22	22	20	23	17	13	13	13	14	14.7	23.1
11-May	13	12	11	10	13	9	6	6	6	6	19	21	17	15	15	17	20	20	20	16	13	13	15	21	13.9	21.2
12-May	19	21	22	20	17	15	12	17	15	20	21	23	25	23	27	27	28	29	27	26	24	24	25	23	22.2	28.8
13-May	23	25	24	26	23	21	26	31	29	26	25	28	30	29	29	30	27	28	28	23	22	24	23	21	25.9	30.8
14-May	20	20	17	14	13	10	14	16	15	19	23	23	18	19	20	19	19	19	18	16	12	13	15	13	16.9	23.2
15-May	9	9	9	9	4	3	2	4	5	6	8	9	9	13	12	13	11	4	6	10	14	18	20	19	9.4	19.8
16-May	25	30	31	27	31	29	25	21	15	17	19	16	19	19	18	19	18	19	17	15	13	9	9	15	19.8	31.3
17-May	12	9	9	9	6	5	17	21	23	24	27	29	29	23	22	22	20	20	19	17	12	12	17	16	17.6	29.0
18-May	13	14	11	11	7	5	9	6	12	15	17	19	17	18	17	18	17	16	18	16	12	13	17	19	14.1	19.0
19-May	20	21	13	10	6	5	2	3	4	5	14	16	12	11	13	14	18	19	18	15	13	15	20	20	12.8	20.8
20-May	18	10	9	8	6	4	2	6	4	4	5	11	10	8	12	13	10	7	6	5	5	8	6	11	7.9	18.3
21-May	14	11	13	12	5	6	9	7	11	11	9	8	14	16	17	21	19	11	11	15	6	12	13	8	11.6	21.3
22-May	10	8	10	7	5	7	6	6	3	3	6	11	15	18	20	18	23	22	23	13	9	11	14	13	11.7	22.9
23-May	12	12	8	6	3	2	2	3	3	4	11	17	23	24	21	21	23	24	24	20	19	21	28	24	14.7	28.1
24-May	19	16	10	4	5	5	4	3	4	4	6	11	14	17	16	22	30	24	19	14	10	6	5	15	11.8	29.5
25-May	13	10	12	5	4	3	3	6	7	10	8	5	4	5	11	7	23	20	15	8	10	13	17	11	9.6	23.4
26-May	10	8	6	3	6	2	1	5	7	2	3	7	8	7	8	6	8	7	4	8	10	8	7	5	6.0	10.3
27-May	3	3	4	3	6	3	4	4	5	5	7	12	19	18	18	16	16	10	9	10	26	21	15	15	10.6	26.4
28-May	16	15	17	16	10	13	14	9	9	13	19	16	18	19	18	19	20	16	14	12	16	16	23	25	15.9	24.8
29-May	21	22	22	22	26	25	26	23	23	24	26	29	26	27	27	29	32	30	27	18	17	15	17	18	23.9	31.9
30-May	18	20	21	20	15	17	18	16	12	8	10	6	6	5	7	8	7	4	7	8	9	8	5	7	10.9	21.3
31-May	7	5	7	6	6	4	9	8	7	12	24	25	22	29	31	28	24	21	10	9	9	4	4	9	13.4	31.1
	13.8	13.0	12.1	10.4	9.4	8.5	9.2	10.2	10.8	12.2	15.0	16.1	17.3	17.2	17.2	17.9	18.9	17.5	16.6	14.2	13.3	13.2	13.9	13.9	Diurnal Average	
	25.3	29.9	30.7	26.7	31.3	29.1	26.2	30.8	29.4	32.6	35.3	39.2	37.0	31.0	31.1	30.2	33.3	32.1	30.9	29.9	32.1	29.1	31.4	24.8	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

Beaverlodge - May 2015

Maximum Value: 101.8 deg on May 3 12:00

Minimum Value: 1.9 deg on May 12 00:00

Percentiles: P_1 = 2.5 P_{10} = 4.4 Q_1 = 7.7 Median = 14.3 Q_3 = 31.1 P_{90} = 59.1 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)																								Daily Maximum
	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	10	9	22	15	47	60	11	10	11	11	8	12	20	17	16	9	14	5	11	10	41	22	12	60.2
2-May	3	18	53	34	15	12	14	11	8	19	23	36	51	55	8	14	73	9	19	64	12	68	24	7	72.7
3-May	63	16	6	12	47	45	81	18	17	35	75	102	71	45	66	40	11	13	31	17	12	6	19	13	101.8
4-May	7	6	6	9	5	25	16	12	10	10	7	9	7	7	8	9	6	6	5	4	4	5	6	10	24.7
5-May	5	21	14	14	12	12	9	6	7	6	7	10	10	9	6	10	7	11	11	6	5	9	5	11	20.5
6-May	5	7	6	8	6	12	8	10	15	37	45	57	19	50	87	84	54	56	52	16	3	3	4	7	86.8
7-May	8	6	26	19	50	53	34	38	14	13	17	20	14	17	16	27	11	15	11	51	25	21	12	13	53.0
8-May	8	20	37	25	15	18	25	33	15	21	41	81	86	59	43	61	59	17	15	5	6	9	68	77	85.7
9-May	56	18	21	59	40	29	13	29	13	16	14	15	25	43	57	63	61	30	20	6	6	5	4	3	62.6
10-May	5	5	36	34	28	14	23	10	13	13	13	12	16	13	18	17	13	12	6	5	4	4	4	2	36.2
11-May	5	6	3	10	6	7	21	18	37	46	11	13	18	19	21	11	9	10	8	6	3	4	5	2	45.6
12-May	3	3	3	3	3	4	6	9	10	8	11	11	11	12	11	10	9	10	6	4	4	3	2	2	12.1
13-May	5	3	3	3	4	3	5	6	6	11	11	16	11	11	14	11	11	13	9	4	3	3	2	2	16.2
14-May	2	3	3	3	6	10	6	8	10	11	14	18	19	21	15	18	18	19	17	7	5	3	9	7	20.6
15-May	6	8	8	6	28	96	71	52	30	62	49	46	47	23	36	26	24	77	51	28	13	68	22	20	96.0
16-May	8	4	4	5	4	4	5	9	16	7	11	23	17	17	16	14	13	11	11	6	3	6	7	5	22.9
17-May	2	4	6	12	14	59	20	7	8	9	11	11	12	19	19	15	17	17	9	24	17	3	4	3	59.4
18-May	5	6	5	6	73	19	15	55	15	13	13	16	17	18	18	15	17	18	12	5	7	8	3	3	73.1
19-May	4	4	5	41	42	20	64	60	48	58	15	15	31	31	22	25	18	16	11	4	3	6	5	3	64.3
20-May	4	10	6	12	58	72	87	12	50	77	44	37	30	35	24	25	27	54	52	31	12	6	50	31	87.1
21-May	14	26	14	19	68	76	25	15	11	27	26	46	27	19	18	14	12	20	31	20	49	23	26	59	75.7
22-May	18	24	50	67	52	42	33	36	34	73	52	35	26	18	15	16	11	10	7	7	11	9	3	8	72.6
23-May	11	14	89	28	48	76	41	90	45	49	32	21	15	16	20	21	18	12	8	5	4	4	4	5	90.1
24-May	5	3	37	64	46	71	63	35	35	71	41	37	26	23	20	25	8	66	24	33	36	47	75	28	75.0
25-May	73	33	54	63	78	46	81	41	17	20	24	26	90	71	39	43	30	5	11	27	8	10	5	7	89.9
26-May	14	51	43	65	40	78	99	24	30	59	90	68	63	64	50	62	43	75	70	73	51	30	73	51	99.2
27-May	80	61	24	56	38	44	74	31	21	25	23	15	14	11	29	17	15	41	23	44	4	6	10	12	79.8
28-May	10	6	12	8	11	9	9	12	16	8	10	10	14	17	17	13	12	12	10	9	6	5	4	4	17.2
29-May	7	4	4	6	4	3	5	4	6	7	8	10	7	9	9	11	8	15	8	6	8	10	5	4	15.2
30-May	4	4	5	5	5	3	6	10	15	20	22	39	41	55	69	30	31	79	27	34	14	14	33	11	78.7
31-May	29	37	22	16	33	21	19	15	15	16	7	10	9	9	8	12	13	11	71	71	72	56	93	24	93.5
	79.8	61.3	89.1	67.2	77.5	96.0	99.2	90.1	50.0	77.4	89.5	101.8	89.9	70.9	86.8	84.1	72.7	78.7	71.3	73.4	72.4	68.5	93.5	77.3	

PAZA
Valleyview Station
Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Valleyview - May 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 6.6 ppb on May 1 11:00 Maximum Daily Average: 1.7 ppb on May 1

Minimum Value: 0 ppb on May 3 00:00 Minimum Daily Average: 0.0 ppb on May 16
Maximum Diurnal Average: 0.9 ppb at hour 11 Minimum Diurnal Average: 0.1 ppb at hour 3
Monthly Average: 0.33 ppb Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.1 Q_3 = 0.3 P_{90} = 0.8 P_{99} = 4.2

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	0	0	0	0	0	0	0	0	3	5	7	3	1	1	2	3	4	3	A	2	0	3	0	2	1.7	6.6
2-May	0	0	0	1	4	4	2	4	2	0	0	5	2	0	3	0	0	A	4	0	0	0	0	0	1.3	4.5
3-May	0	0	0	0	0	0	0	0	1	0	5	0	0	0	0	0	A	0	0	0	0	0	0	0	0.4	4.5
4-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.1	0.2
5-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
6-May	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	3	1	1	0	0	0	0.2	3.0
7-May	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
8-May	0	0	0	0	0	0	0	0	0	0	0	A	1	0	0	1	0	0	0	0	0	0	0	0	0.2	0.9
9-May	0	0	0	0	0	0	0	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.9
10-May	0	0	0	0	1	1	1	1	1	A	1	1	0	0	0	0	0	0	0	0	0	1	0	0	0.3	1.0
11-May	0	0	1	1	0	0	1	1	A	1	0	0	0	0	1	0	0	0	0	0	0	1	1	1	0.4	0.9
12-May	1	1	1	1	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0.5	1.1
13-May	1	1	0	0	0	0	A	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0.3	1.3
14-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
15-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0.2	4.3
16-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
17-May	0	0	A	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.8
18-May	0	A	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	1	1	1	1	0	0.4	1.2
19-May	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	A	0.3	1.1
20-May	1	0	0	0	0	0	1	0	0	0	C	C	C	0	0	0	0	0	0	0	0	0	A	0	0.2	0.6
21-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	3	A	0	0	0.3	2.9
22-May	0	0	0	0	0	0	0	0	0	4	2	0	0	0	0	0	0	0	0	0	A	0	0	0	0.3	4.3
23-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	0.1	0.8
24-May	0	0	0	0	0	0	0	0	0	4	6	1	0	0	0	0	0	0	A	0	0	1	1	0	0.6	5.6
25-May	0	0	0	0	0	0	0	4	2	0	2	6	2	1	1	2	0	A	0	0	0	0	0	0	1.0	6.4
26-May	0	0	0	0	0	0	0	0	3	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.2	3.2
27-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
28-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
29-May	0	0	0	0	0	0	0	0	0	0	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0.2	0.9
30-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	0.6
31-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
	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.4	0.6	0.6	0.9	0.7	0.3	0.2	0.3	0.3	0.3	0.3	0.4	0.3	0.4	0.3	0.2	0.3	Diurnal Average	
	1.1	1.1	1.0	1.4	3.6	3.9	1.5	3.7	3.5	4.8	6.6	6.4	2.1	1.3	2.6	2.9	3.8	2.6	3.7	2.6	4.3	2.7	1.3	2.2	Diurnal Maximum	

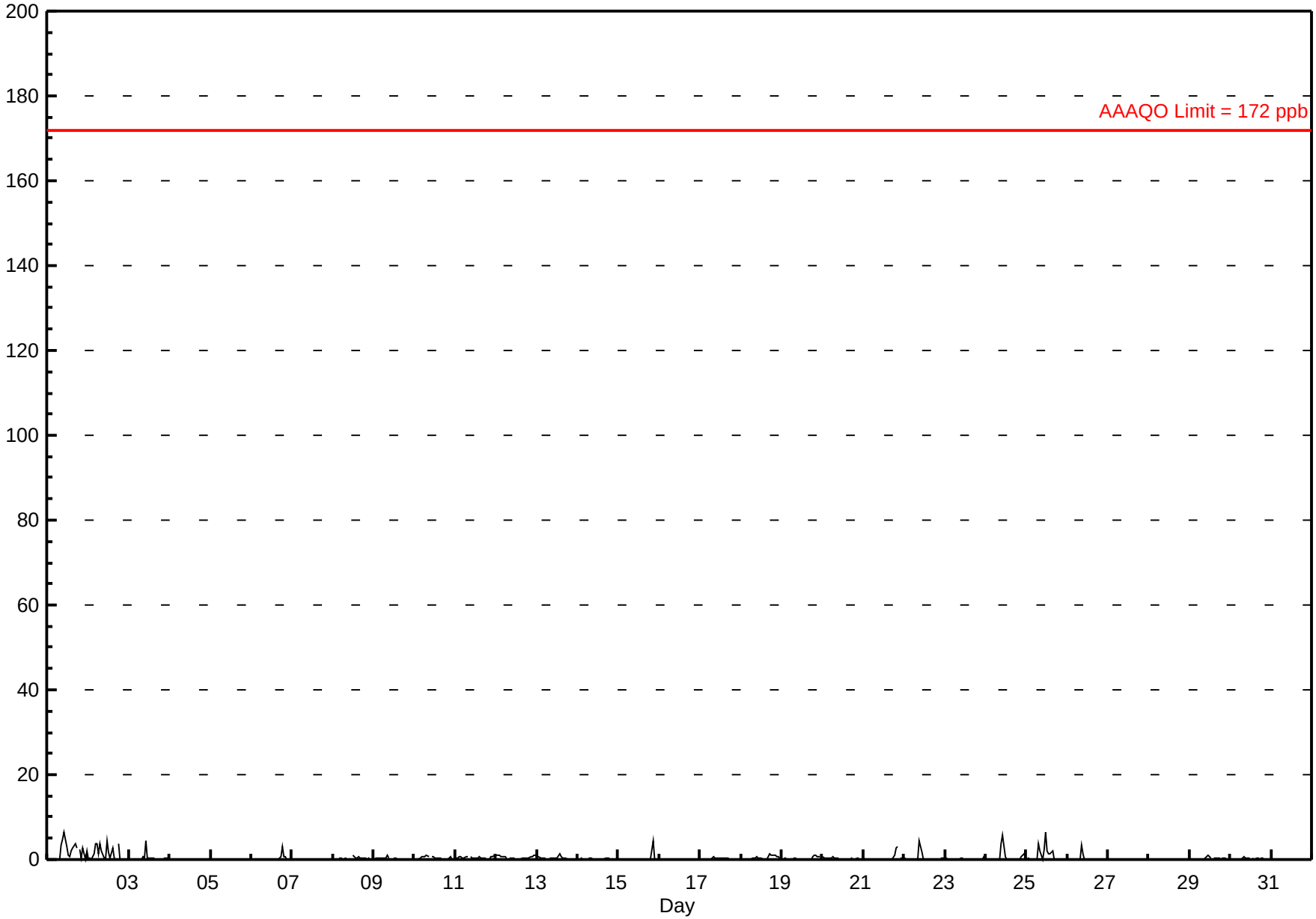
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Valleyview - May 2015



Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Valleyview - May 2015

Maximum Value: 42.2 ppb on May 6 19:00

Maximum Daily Average: 8.9 ppb on May 1

Minimum Value: 0 ppb on May 16 17:00

Minimum Daily Average: 0.3 ppb on May 16

Maximum Diurnal Average: 3.1 ppb at hour 11

Minimum Diurnal Average: 0.6 ppb at hour 3

Monthly Average: 1.51 ppb

Percentiles: $P_1 = 0.3$ $P_{10} = 0.3$ $Q_1 = 0.4$ Median = 0.6 $Q_3 = 0.9$ $P_{90} = 1.6$ $P_{99} = 21.2$

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	1	1	1	1	1	1	1	1	21	13	28	22	9	6	9	15	19	18	A	11	5	11	0	13	8.9	28.1
2-May	0	2	0	8	9	10	13	15	9	3	1	23	13	3	19	2	0	A	16	1	1	1	1	1	6.5	22.9
3-May	1	1	1	1	1	1	1	1	8	1	21	1	3	1	1	6	A	1	1	1	1	1	1	1	2.2	20.6
4-May	1	1	1	1	0	1	0	0	0	0	0	1	0	0	1	A	1	0	1	0	1	0	1	0	0.5	0.9
5-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	1	0	0	0	0	0	0	0.5	0.6
6-May	0	0	1	0	0	0	0	0	0	0	0	0	0	A	1	0	0	9	42	6	6	0	0	0	3.1	42.2
7-May	0	0	0	0	0	0	0	0	0	0	0	1	A	0	3	0	0	0	0	1	1	0	0	1	0.6	2.9
8-May	1	1	1	0	1	1	1	0	1	0	0	A	2	1	1	2	1	1	1	1	1	0	1	0	0.8	2.0
9-May	1	1	1	0	1	1	1	1	1	1	A	0	1	1	0	1	0	0	0	0	1	0	0	1	0.7	1.5
10-May	0	0	1	1	1	1	1	2	1	A	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0.9	1.6
11-May	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1.0	1.3
12-May	2	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	1.8
13-May	1	1	1	1	1	1	A	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	0.9	2.3
14-May	0	1	1	1	1	A	1	1	1	1	1	0	0	0	1	1	1	1	1	1	1	0	0	0	0.6	1.1
15-May	0	0	0	1	A	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	22	1	0	0	1.4	22.4
16-May	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
17-May	0	0	A	0	0	1	1	2	2	1	1	1	1	1	1	1	1	0	0	1	0	1	1	1	0.7	1.7
18-May	1	A	1	1	1	0	1	1	1	1	1	1	1	1	0	0	1	2	2	1	1	1	1	1	0.9	1.8
19-May	A	1	1	1	1	0	1	1	1	1	0	0	0	0	0	0	0	1	1	2	2	1	2	A	0.8	1.6
20-May	1	1	1	1	1	1	1	1	1	1	C	C	C	1	1	1	1	1	0	1	1	1	A	1	0.8	1.4
21-May	1	1	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	8	8	15	A	1	1	1.8	15.3
22-May	1	0	1	0	0	0	0	0	1	9	5	1	1	1	0	1	0	1	1	1	A	1	1	1	1.1	9.3
23-May	1	1	0	0	0	0	0	1	1	1	1	1	1	0	1	0	0	1	0	A	1	1	1	2	0.7	2.3
24-May	1	1	0	0	1	0	0	0	0	11	11	1	1	1	0	1	0	0	A	0	1	3	3	1	1.7	11.2
25-May	1	1	1	1	0	0	0	20	8	1	8	12	5	6	5	10	1	A	0	0	0	0	1	0	3.6	19.8
26-May	0	0	0	0	0	0	0	0	25	7	0	0	1	0	0	0	A	1	0	1	1	1	0	0	1.8	24.7
27-May	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	A	0	0	1	1	0	0	0	0	0.4	0.8
28-May	0	0	0	0	0	0	0	0	0	0	0	0	1	0	A	1	1	1	0	0	0	1	0	0	0.4	0.8
29-May	0	0	0	0	1	0	0	1	0	1	1	2	1	A	1	1	1	1	1	1	1	1	1	1	0.7	1.7
30-May	1	1	1	1	0	0	0	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0	1	0	0.7	1.3
31-May	0	1	0	0	0	0	0	0	0	0	0	A	1	0	0	0	0	0	0	0	1	0	0	0	0.4	0.6
	0.7	0.7	0.6	0.8	0.8	0.8	1.0	1.8	3.0	2.0	3.1	2.6	1.6	1.1	1.8	1.7	1.3	1.5	2.8	1.4	2.2	1.2	0.8	1.1	Diurnal Average	
	1.8	1.9	1.8	7.9	8.8	9.8	12.6	19.8	24.7	12.5	28.1	22.9	12.6	6.1	19.3	14.7	18.6	17.9	42.2	10.9	22.4	11.3	3.3	13.3	Diurnal Maximum	

C - Calibration

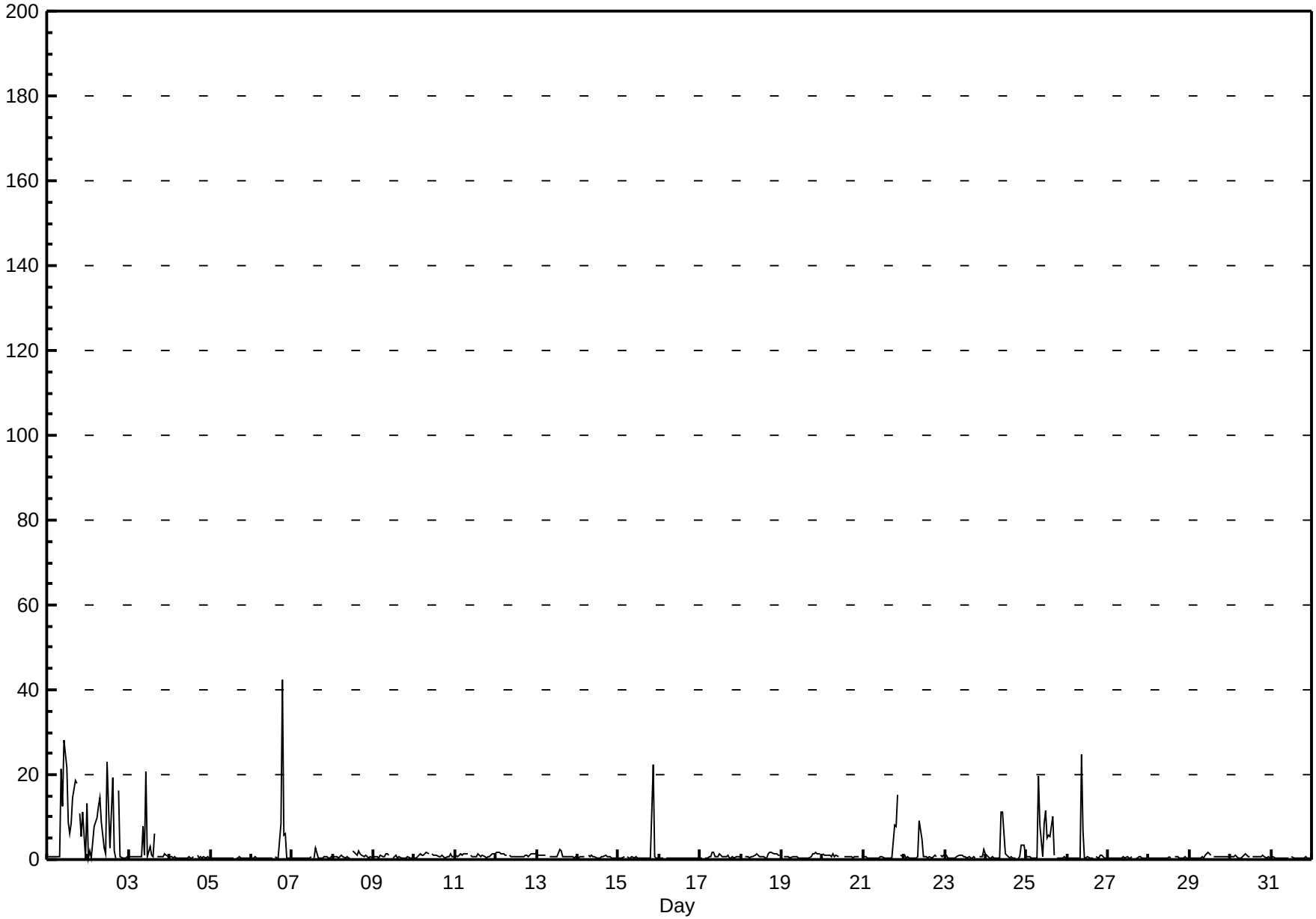
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

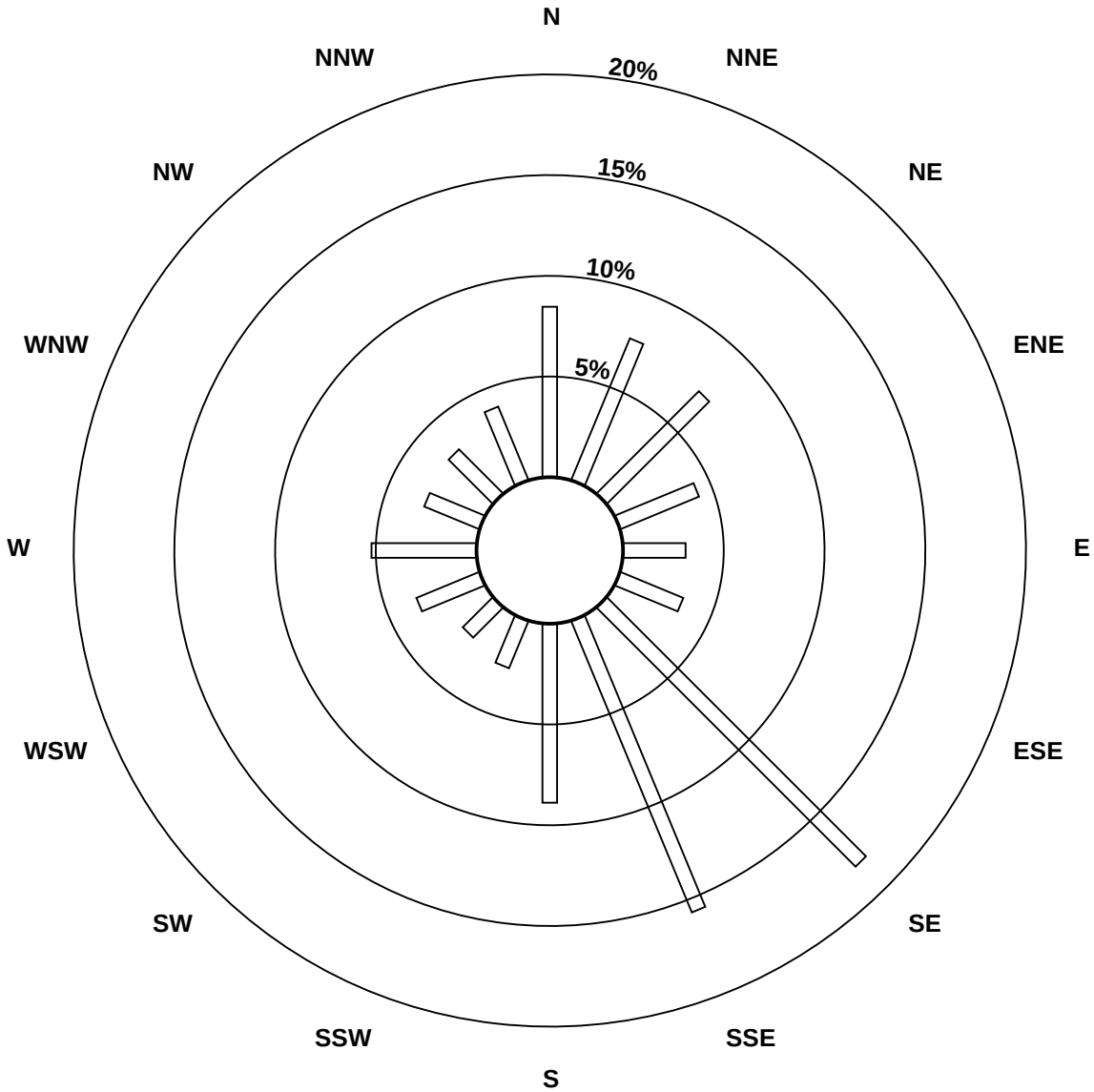
Valleyview - May 2015



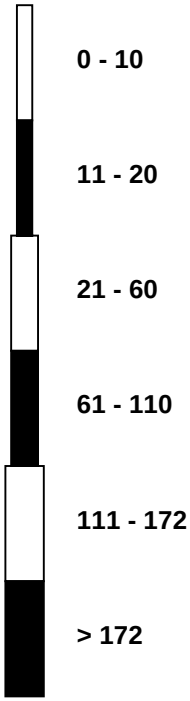
Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Valleyview - May 2015



Pollutant Classes (ppb)

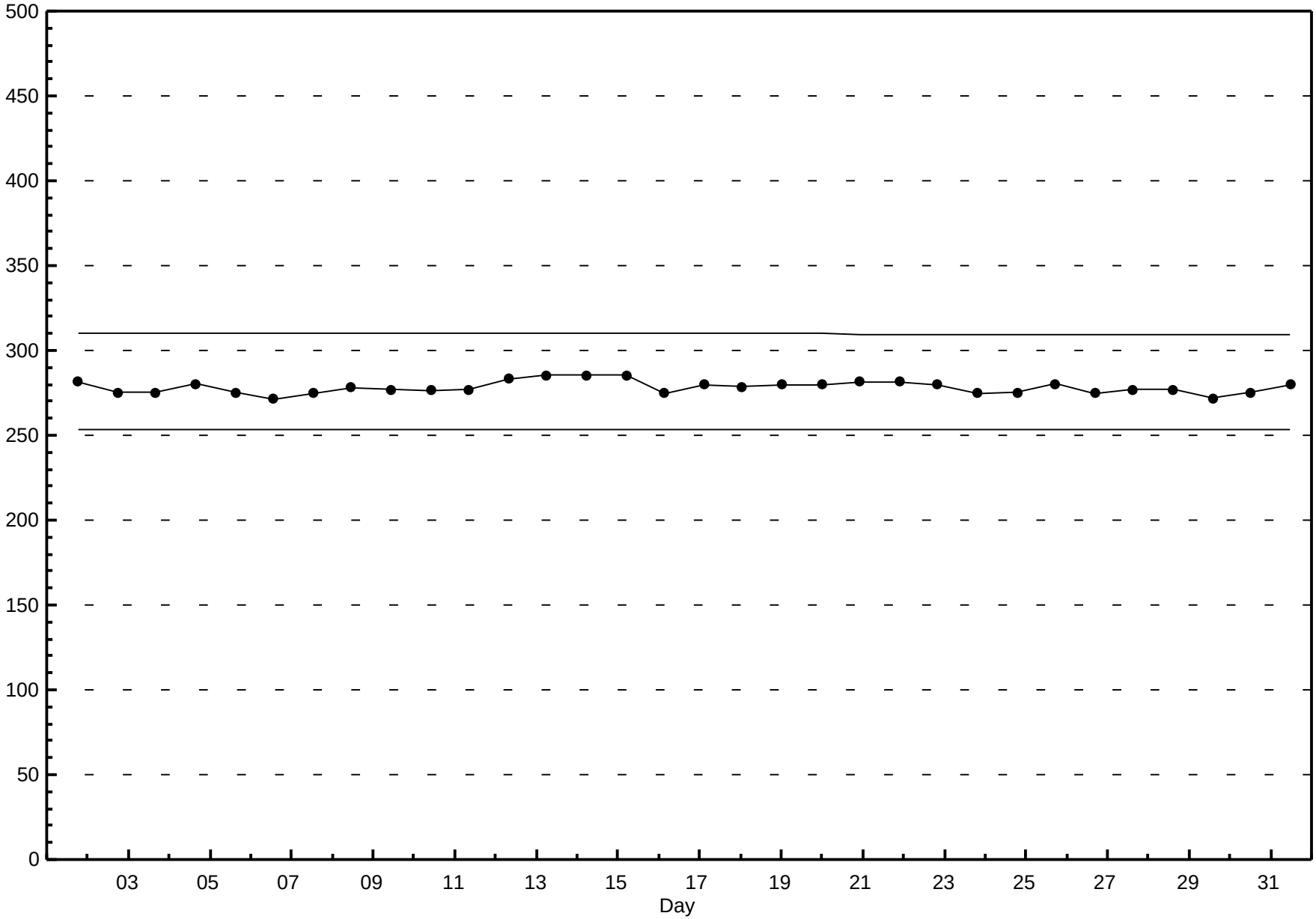


Peace Airshed Zone Association

Span Responses

Sulphur Dioxide (SO_2)

Valleyview - May 2015



Peace Airshed Zone Association

Hourly Averages

Hydrogen Sulphide (H_2S) - ppb

Valleyview - May 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 4.6 ppb on May 26 11:00 Maximum Daily Average: 0.7 ppb on May 26

Minimum Value: 0 ppb on May 3 05:00 Minimum Daily Average: 0.0 ppb on May 10
Maximum Diurnal Average: 0.4 ppb at hour 1 Minimum Diurnal Average: 0.1 ppb at hour 19
Monthly Average: 0.21 ppb Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.1 Q_3 = 0.2 P_{90} = 0.5 P_{99} = 1.7

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	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	1	0	0	0.3	0.9
2-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	1	0.2	1.3
3-May	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	1	0	0	0.2	1.1
4-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.1	0.2
5-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.1	0.1
6-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
7-May	0	0	0	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.3	1.0
8-May	1	1	1	0	1	1	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	2	1	0.4	2.1
9-May	1	1	1	1	1	1	1	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.2
10-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
11-May	0	0	0	2	3	2	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	2.8
12-May	0	0	0	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
13-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
14-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	0.4
15-May	0	0	1	0	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
16-May	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
17-May	0	0	A	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.7
18-May	0	A	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.9
19-May	A	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.3	1.2
20-May	2	1	1	1	1	1	1	0	0	C	C	C	0	0	0	0	0	0	0	0	0	0	A	1	0.4	1.5
21-May	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	1.2
22-May	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	0.5
23-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	0.5
24-May	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.3	1.5
25-May	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	A	0	0	0	1	2	1	0.3	1.5
26-May	3	0	0	2	2	1	1	0	0	0	5	0	0	0	0	0	A	0	0	0	0	0	0	0	0.7	4.6
27-May	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	A	0	0	0	0	0	0	0	0	0.2	0.7
28-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
29-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
30-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	0.1
31-May	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	0	0	0	0	0	0	0	0	0.2	0.5
	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.2	0.1	0.1	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	Diurnal Average	
	3.0	1.3	1.5	2.1	2.8	1.6	1.2	0.6	0.4	0.3	4.6	0.2	0.3	0.7	0.5	0.5	0.2	0.3	0.3	0.5	0.7	1.1	2.1	1.3	Diurnal Maximum	

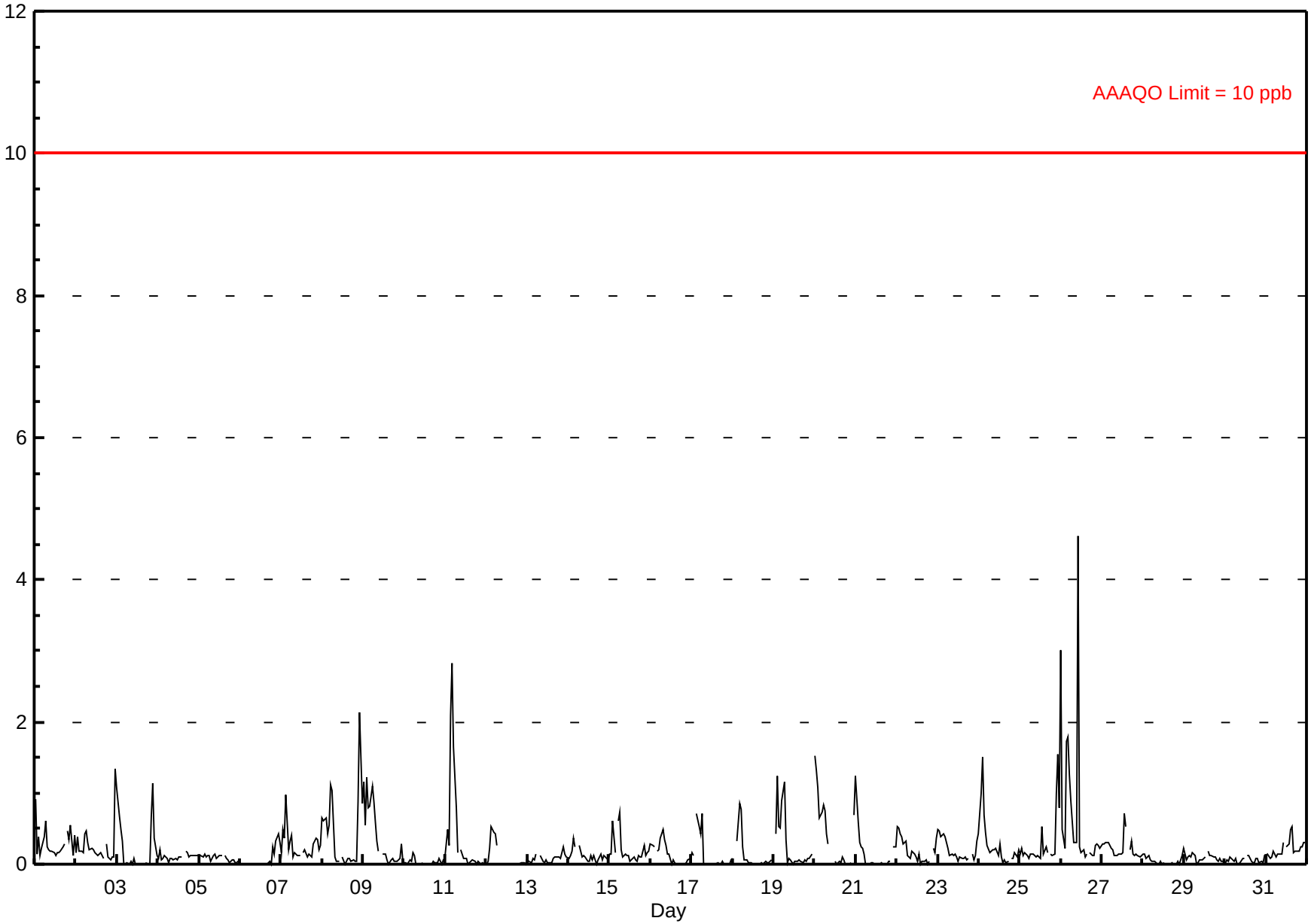
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb

Peace Airshed Zone Association

Hourly Averages

Hydrogen Sulphide (H_2S) - ppb

Valleyview - May 2015



Peace Airshed Zone Association

Hourly Maximums

Hydrogen Sulphide (H_2S) - ppb

Valleyview - May 2015

Maximum Value: 74.9 ppb on May 26 11:00

Maximum Daily Average: 4.3 ppb on May 26

Minimum Value: 0 ppb on May 12 11:00

Minimum Daily Average: 0.4 ppb on May 28

Maximum Diurnal Average: 3.0 ppb at hour 11

Minimum Diurnal Average: 0.4 ppb at hour 19

Monthly Average: 0.87 ppb

Percentiles: P_1 = 0.2 P_{10} = 0.3 Q_1 = 0.4 Median = 0.5 Q_3 = 0.7 P_{90} = 1.4 P_{99} = 4.1

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	3	1	2	1	1	1	2	1	1	1	1	0	1	1	1	1	1	1	A	1	1	1	0	1	0.9	3.1
2-May	0	1	0	1	0	1	1	1	1	1	1	1	1	0	1	1	0	A	1	0	0	0	1	6	0.8	5.7
3-May	10	2	2	1	0	0	0	0	1	1	0	0	0	1	0	0	A	0	0	0	2	5	1	0	1.3	10.3
4-May	0	1	1	0	0	0	0	1	0	0	1	0	0	0	0	A	1	0	0	0	1	0	1	0	0.5	0.7
5-May	1	0	0	1	1	0	1	0	0	0	0	0	1	0	A	1	1	0	0	1	0	0	0	0	0.5	0.6
6-May	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	1	1	2	2	2	0.6	2.3
7-May	0	2	2	3	1	1	1	1	1	0	0	0	A	1	1	0	1	0	1	2	2	1	1	1	0.9	2.6
8-May	2	2	3	1	1	4	3	0	0	0	0	A	1	0	0	0	1	0	1	0	0	3	4	1	1.3	4.1
9-May	2	2	4	3	2	2	1	1	1	1	A	1	0	1	0	0	0	1	0	0	0	0	2	0	1.1	3.7
10-May	0	0	0	1	1	1	1	0	0	A	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.4	1.1
11-May	1	3	1	6	5	3	2	0	A	1	0	0	1	0	0	0	0	1	0	0	0	0	0	0	1.2	5.9
12-May	0	0	2	2	1	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.6	2.3
13-May	0	0	0	0	0	1	A	1	1	0	0	0	0	0	0	0	0	1	0	1	1	1	1	0	0.5	0.8
14-May	1	0	1	1	1	A	1	1	0	1	0	1	0	0	0	0	0	0	0	0	1	1	0	0	0.5	0.9
15-May	1	1	2	1	A	1	2	1	0	1	1	0	0	0	0	0	0	0	1	0	1	0	1	1	0.7	1.8
16-May	1	1	1	A	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0.8
17-May	1	0	A	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	1.3
18-May	0	A	1	1	2	2	1	1	0	0	1	0	0	0	0	1	0	0	1	0	0	0	1	0	0.6	1.8
19-May	A	2	3	1	1	1	2	1	0	0	0	0	1	0	0	0	0	0	1	0	0	0	1	A	0.8	2.6
20-May	4	4	2	1	1	1	1	1	1	C	C	C	1	0	0	1	1	1	0	0	0	0	A	1	1.1	4.1
21-May	3	1	1	1	1	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	A	1	1	0.6	2.6
22-May	1	1	1	1	1	1	0	0	0	1	1	0	1	2	0	0	0	0	0	1	A	1	1	1	0.7	2.1
23-May	1	1	1	1	1	1	1	1	0	0	1	0	0	1	1	0	1	0	0	A	1	0	0	1	0.6	0.9
24-May	1	2	4	1	1	1	0	1	1	1	1	0	3	0	0	0	0	0	A	0	0	1	0	1	0.9	3.7
25-May	0	1	0	1	0	0	0	0	1	0	1	1	1	4	1	2	1	A	1	1	1	15	14	2	2.0	14.8
26-May	4	1	1	3	3	2	1	1	1	1	75	1	1	1	0	1	A	1	1	1	1	1	1	0	4.3	74.9
27-May	1	1	1	1	1	1	1	1	0	1	1	1	1	4	3	A	1	1	1	1	0	0	1	1	0.9	3.6
28-May	0	1	0	1	0	0	0	0	0	0	0	0	0	0	A	0	0	1	0	0	0	0	0	0	0.4	0.5
29-May	1	0	0	1	0	0	0	0	0	0	0	0	0	A	1	0	1	1	0	0	0	0	0	1	0.5	1.2
30-May	0	0	0	0	0	1	0	0	0	0	0	0	A	0	1	0	0	0	0	0	0	0	0	1	0.4	0.6
31-May	0	0	1	1	1	0	0	1	1	1	1	A	1	1	2	2	1	1	0	1	1	1	1	1	0.7	2.5
	1.4	1.0	1.1	1.2	0.9	1.0	0.9	0.6	0.5	0.5	3.0	0.4	0.5	0.8	0.6	0.5	0.5	0.5	0.4	0.5	0.6	1.3	1.2	0.9	Diurnal Average	
	10.3	4.1	3.7	5.9	4.7	3.5	2.8	1.3	0.8	0.9	74.9	0.7	2.8	3.9	2.8	2.5	0.7	1.2	0.7	1.6	2.3	14.8	14.2	5.7	Diurnal Maximum	

C - Calibration

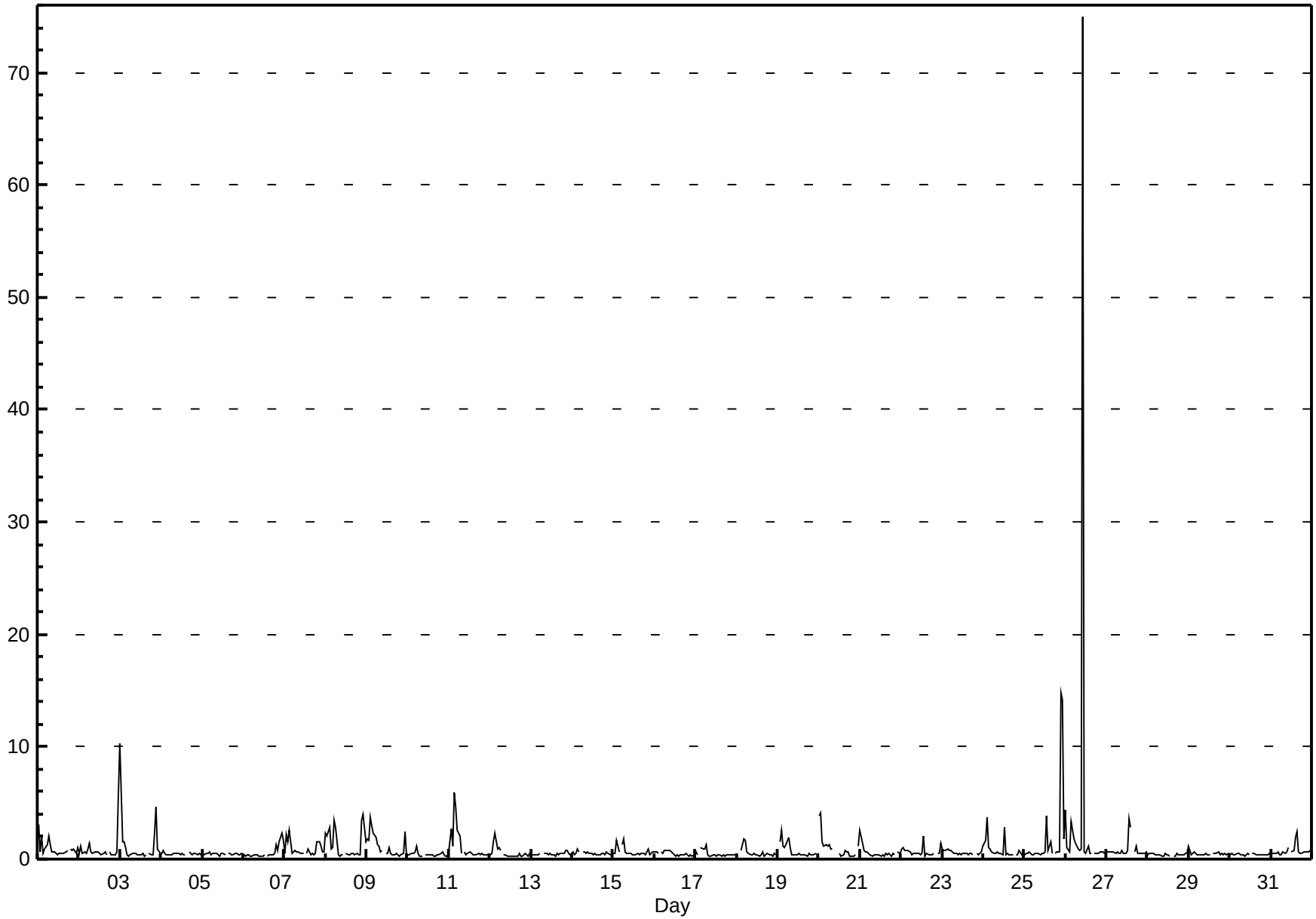
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Hydrogen Sulphide (H_2S) - ppb

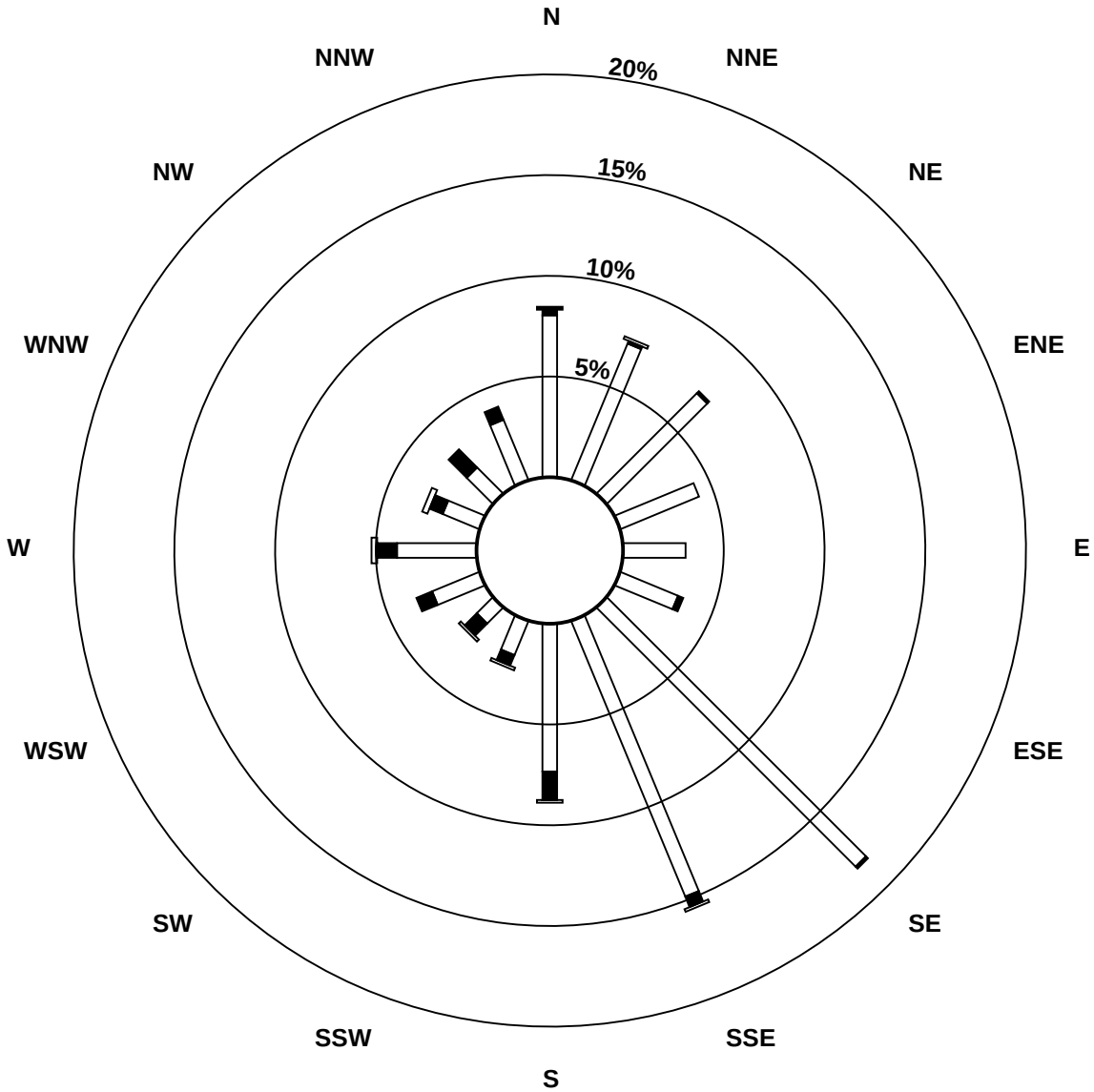
Valleyview - May 2015



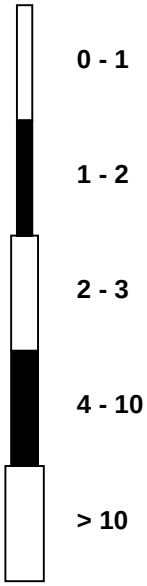
Pollutant Rose

Hydrogen Sulphide (H_2S) - ppb

Valleyview - May 2015



Pollutant Classes (ppb)

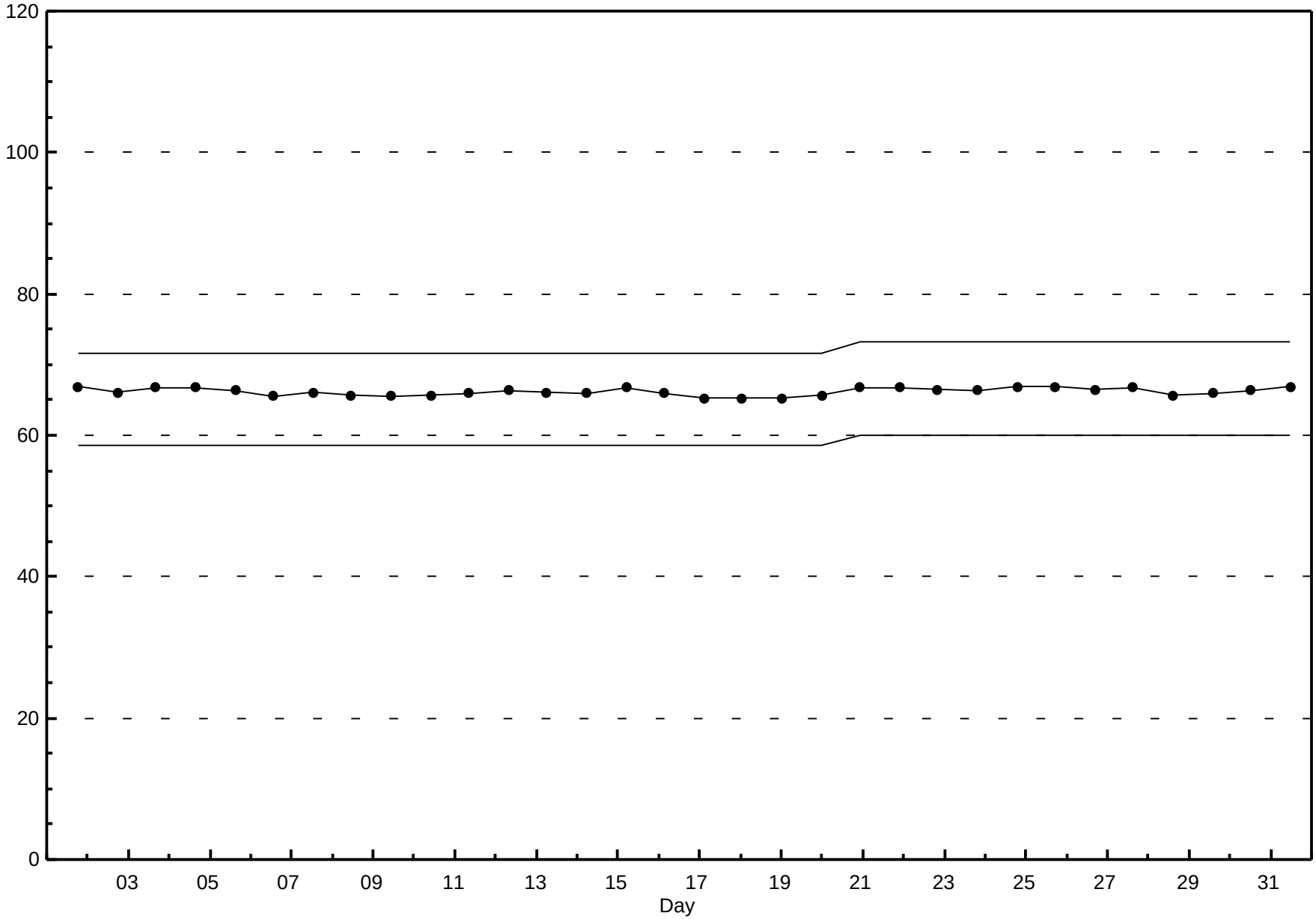


Peace Airshed Zone Association

Span Responses

Hydrogen Sulphide (H_2S)

Valleyview - May 2015



Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Valleyview - May 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 27.3 ^{o}C on May 23 15:00
Maximum Daily Average: 18.6 ^{o}C on May 23

Minimum Value: -2 ^{o}C on May 7 06:00
Maximum Diurnal Average: 17.7 ^{o}C at hour 16
Monthly Average: 12.08 ^{o}C

Minimum Daily Average: 3.2 ^{o}C on May 6
Minimum Diurnal Average: 4.3 ^{o}C at hour 6
Percentiles: P_1 = -0.9 P_{10} = 2.8 Q_1 = 6.9 Median = 11.5 Q_3 = 17.2 P_{90} = 21.7 P_{99} = 26.3

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

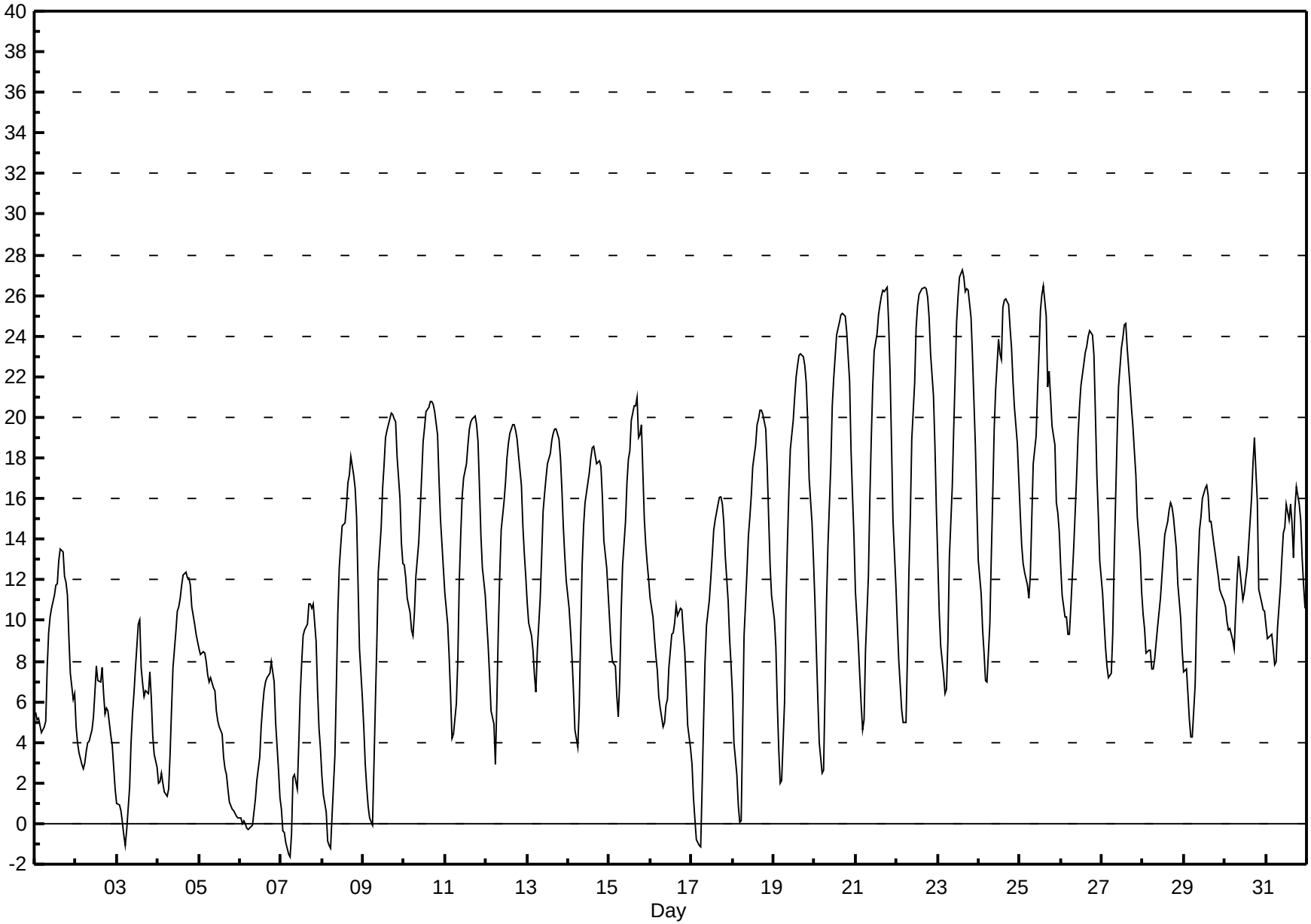
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-May	5	5	5	5	4	5	5	8	9	10	11	11	12	12	13	14	13	12	12	11	9	7	6	6	8.8	13.5
2-May	5	4	4	3	3	3	4	4	4	5	5	6	8	7	7	8	6	5	6	6	4	4	3	2	4.7	7.7
3-May	1	1	1	0	-1	-1	0	2	4	5	6	8	10	10	8	7	6	7	6	7	6	4	3	3	4.3	10.0
4-May	2	2	2	2	2	1	2	3	6	8	9	10	11	11	12	12	12	12	12	12	11	10	9	9	7.6	12.4
5-May	9	8	8	8	8	7	7	7	7	7	6	5	5	4	3	3	2	2	1	1	1	0	0	0	4.6	8.6
6-May	0	0	0	0	0	0	0	0	1	1	2	3	5	6	7	7	7	7	8	7	7	5	3	1	3.2	8.0
7-May	1	0	0	-1	-2	-2	0	2	2	2	4	6	8	9	10	10	11	11	11	11	9	7	5	4	4.8	10.8
8-May	2	1	1	-1	-1	-1	0	3	7	10	13	14	15	15	16	17	17	18	17	16	15	12	9	6	9.2	18.1
9-May	5	3	2	1	0	0	3	6	9	12	15	17	18	19	19	20	20	20	20	20	18	16	14	13	12.0	20.2
10-May	13	12	11	10	10	9	10	12	14	15	17	19	19	20	21	21	21	21	20	19	17	15	14	13	15.5	20.8
11-May	11	10	8	6	4	4	6	8	12	14	16	17	18	19	19	20	20	20	20	19	16	14	13	11	13.6	20.1
12-May	10	9	7	6	5	3	6	9	12	14	16	17	18	19	19	20	20	19	19	18	17	15	13	12	13.4	19.6
13-May	11	10	9	9	7	6	9	11	13	15	16	17	18	18	19	19	19	19	19	18	16	15	13	12	14.2	19.4
14-May	11	9	8	7	5	4	6	9	13	15	16	17	17	18	18	19	18	18	18	18	16	14	13	11	13.1	18.6
15-May	10	9	8	8	6	5	7	10	13	15	17	18	18	20	21	21	21	19	19	20	15	14	13	12	14.1	21.0
16-May	11	10	9	8	8	6	6	5	5	6	6	8	9	9	10	11	10	11	11	9	8	7	5	4	8.0	11.1
17-May	3	1	0	-1	-1	-1	2	5	8	10	11	12	13	14	15	16	16	16	16	15	13	11	9	8	8.8	16.1
18-May	6	4	2	1	0	0	5	9	12	14	15	16	18	19	20	20	20	20	20	19	18	15	13	11	12.4	20.4
19-May	10	9	6	4	2	2	6	11	14	16	18	20	21	22	23	23	23	23	23	22	20	17	15	13	15.1	23.1
20-May	11	9	6	4	3	3	7	11	14	18	21	22	23	24	25	25	25	25	25	24	22	18	16	14	16.3	25.1
21-May	11	9	7	6	5	5	9	12	16	19	22	23	24	25	26	26	26	26	26	25	22	19	15	12	17.3	26.4
22-May	10	8	7	6	5	5	8	12	15	19	22	24	26	26	26	26	26	26	26	25	23	21	19	16	17.8	26.4
23-May	13	10	9	7	6	7	9	13	17	19	22	25	26	27	27	27	26	26	26	25	23	21	19	16	18.6	27.3
24-May	13	11	10	8	7	7	10	13	16	19	21	24	23	23	25	26	26	26	24	23	22	21	19	17	18.1	25.8
25-May	15	14	13	12	12	11	12	15	18	19	21	23	25	26	26	25	22	22	21	20	19	16	15	14	18.2	26.5
26-May	13	11	10	10	9	9	11	14	15	17	19	20	22	23	23	24	24	24	24	23	20	17	15	13	17.1	24.3
27-May	11	10	9	8	7	7	9	13	16	19	21	23	24	25	25	23	21	20	19	18	17	15	13	11	16.1	24.6
28-May	10	10	8	9	9	8	8	8	10	10	11	12	13	14	15	15	16	16	15	14	12	11	10	9	11.3	15.8
29-May	7	8	6	5	4	4	7	10	13	14	15	16	16	17	16	15	15	14	13	13	12	11	11	11	11.5	16.7
30-May	11	10	10	10	9	9	10	12	13	12	11	11	12	13	14	16	18	19	17	16	12	11	11	10	12.3	19.0
31-May	10	9	9	9	9	8	8	10	12	13	14	15	16	15	16	15	13	16	17	16	15	13	12	11	12.4	16.6
	8.4	7.3	6.3	5.4	4.6	4.3	6.1	8.7	10.9	12.7	14.2	15.5	16.4	17.0	17.5	17.7	17.5	17.4	17.1	16.4	14.7	12.7	11.2	9.8	Diurnal Average	
	15.3	13.7	12.8	12.4	11.7	11.1	12.2	15.0	17.8	19.4	22.0	24.7	26.0	26.9	27.3	26.9	26.4	26.4	26.4	24.9	23.1	21.0	18.7	17.0	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Valleyview - May 2015



Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Valleyview - May 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 100.0 % on May 31 08:00 Maximum Daily Average: 76.7 % on May 3

Minimum Value: 10 % on May 20 17:00 Minimum Daily Average: 22.5 % on May 13
Maximum Diurnal Average: 74.7 % at hour 6 Minimum Diurnal Average: 27.3 % at hour 16
Monthly Average: 46.58 % Percentiles: P_1 = 10.4 P_{10} = 16.1 Q_1 = 23.7 Median = 42.6 Q_3 = 68.3 P_{90} = 85.8 P_{99} = 97.3

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

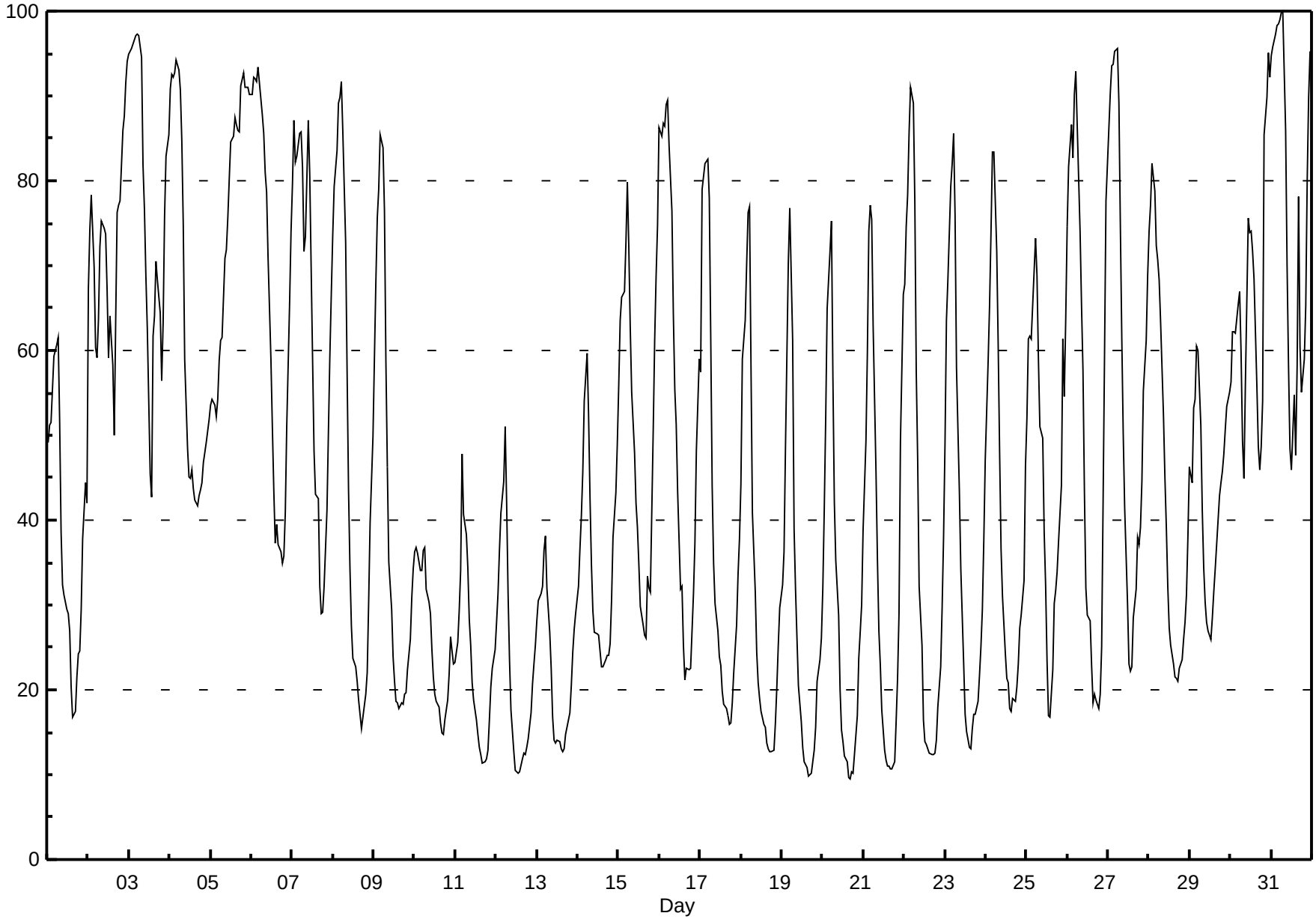
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-May	49	51	51	55	59	61	61	52	39	32	31	29	29	27	20	17	18	21	24	25	29	38	44	42	37.8	61.4
2-May	67	74	78	70	60	59	64	72	75	74	74	67	59	64	58	50	64	76	77	78	86	88	91	94	71.7	94.0
3-May	95	96	96	97	97	97	97	95	82	77	69	63	45	43	62	64	70	68	64	56	63	76	83	85	76.7	97.3
4-May	91	93	92	93	94	93	91	85	75	59	49	45	45	46	44	42	42	43	44	44	47	49	50	52	62.8	94.2
5-May	53	54	54	52	54	59	61	61	71	72	76	80	85	85	87	87	86	86	91	93	91	91	91	90	75.4	92.8
6-May	90	92	92	92	93	92	88	86	81	79	71	59	51	44	37	40	37	36	35	36	41	51	66	74	65.0	93.4
7-May	80	87	82	83	86	86	82	72	73	87	81	70	59	48	43	43	32	29	29	32	41	50	59	67	62.5	87.2
8-May	73	79	84	89	90	92	86	73	57	44	34	27	24	23	21	19	17	15	18	19	22	30	40	50	46.9	91.7
9-May	59	68	76	79	85	84	77	59	46	35	30	24	21	19	19	18	18	18	20	20	22	26	31	34	41.1	85.5
10-May	36	37	36	34	34	36	37	32	30	29	25	21	19	19	18	16	15	15	16	19	22	26	25	23	25.9	36.8
11-May	23	26	29	34	48	41	38	34	28	25	21	19	16	15	13	12	11	12	12	13	16	20	23	25	23.1	47.7
12-May	28	31	36	41	45	51	42	31	24	18	13	11	10	10	10	12	12	12	13	14	17	21	23	25	23.0	51.0
13-May	28	31	31	32	36	38	32	27	23	17	14	14	14	14	13	13	13	15	16	17	21	24	27	29	22.5	38.1
14-May	32	37	41	46	54	60	52	43	35	29	27	27	27	25	23	23	24	24	24	25	31	38	43	49	34.8	59.7
15-May	56	64	66	67	73	80	72	63	55	48	42	39	35	30	28	26	26	33	32	32	51	61	69	75	50.9	79.8
16-May	86	85	87	86	89	90	84	76	64	56	51	43	32	32	25	21	23	22	23	27	31	37	48	59	53.3	89.5
17-May	57	79	80	82	83	78	62	44	35	30	27	24	23	20	18	18	17	16	16	18	22	28	34	38	39.5	82.6
18-May	44	59	64	70	76	77	59	41	31	24	21	19	17	16	16	14	13	13	13	13	16	20	25	30	32.9	76.9
19-May	32	36	49	60	71	77	61	39	32	26	21	16	13	12	11	11	10	10	12	13	16	21	24	26	29.0	76.7
20-May	32	41	52	65	72	75	57	42	35	29	20	15	14	12	11	10	10	10	10	12	17	24	27	30	30.1	75.2
21-May	39	49	60	74	77	75	63	46	35	27	23	18	13	12	11	11	11	11	11	16	21	29	49	67	35.3	77.2
22-May	68	75	78	86	91	89	78	57	47	32	25	16	14	14	13	13	12	12	13	14	18	23	30	38	39.8	91.0
23-May	49	64	68	79	82	86	76	58	43	34	29	23	17	15	13	13	15	17	17	19	22	25	30	38	38.8	85.6
24-May	47	59	65	74	83	83	72	61	48	37	31	24	21	21	18	17	19	19	20	23	27	29	33	46	40.7	83.4
25-May	52	61	62	61	69	73	69	59	51	50	39	32	23	17	17	22	30	32	34	38	44	61	55	64	46.5	73.3
26-May	75	82	87	83	90	93	86	74	65	58	43	32	29	28	23	18	20	19	18	19	25	42	59	78	51.9	92.9
27-May	86	90	94	94	95	96	89	75	61	50	41	30	23	22	23	29	32	38	37	39	45	55	61	69	57.2	95.5
28-May	74	77	82	79	72	71	68	63	52	45	39	32	27	25	23	22	21	21	23	24	26	28	31	38	44.4	82.1
29-May	46	44	53	54	60	60	51	41	34	30	28	27	26	29	32	34	37	43	44	46	48	51	53	55	42.8	60.5
30-May	56	62	62	62	65	67	60	49	45	56	76	74	74	72	68	56	49	46	49	54	85	90	95	92	65.2	95.1
31-May	95	96	97	98	99	99	100	100	86	70	58	49	46	55	48	58	78	60	55	59	65	80	90	95	76.5	100.0
	58.1	63.8	67.3	70.0	73.7	74.7	68.2	58.3	50.3	44.5	39.6	34.5	30.7	29.4	28.0	27.3	28.4	28.8	29.4	30.9	36.4	43.0	48.7	54.0	Diurnal Average	
	95.0	95.8	97.4	98.2	98.5	99.0	99.8	100.0	85.9	87.2	80.8	80.2	84.6	85.2	87.5	86.6	85.9	85.8	91.2	92.8	91.0	91.1	95.1	95.2	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Valleyview - May 2015



Peace Airshed Zone Association

Hourly Averages

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

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1 Spd	2	1	1	1	1	1	1	3	10	14	13	10	12	15	13	17	13	13	11	12	11	8	4	12	8.0	17.4
Dir	222	190	193	199	194	206	222	205	261	272	265	282	278	293	266	276	261	278	269	282	283	270	239	273	270	276
2 Spd	10	1	1	4	5	7	11	15	14	13	11	12	13	6	11	11	16	2	2	2	3	1	0	1	6.2	15.8
Dir	304	251	202	243	243	263	278	275	277	283	281	271	275	322	266	292	346	24	268	276	222	165	173	178	282	346
3 Spd	1	0	0	1	1	1	1	2	1	3	2	5	2	5	14	2	4	11	6	2	1	1	1	2	1.3	13.6
Dir	180	51	168	258	180	176	174	166	220	336	270	237	219	356	18	280	352	13	32	89	251	346	31	10	356	18
4 Spd	3	2	2	2	4	6	6	5	6	9	11	11	11	6	7	9	8	10	8	6	7	6	5	4	5.7	11.2
Dir	342	344	7	360	13	6	13	23	23	40	42	51	43	96	100	63	67	54	63	99	73	61	69	73	50	43
5 Spd	4	4	3	4	5	6	5	3	5	7	9	8	7	9	10	10	11	13	11	11	12	11	11	10	6.2	12.9
Dir	67	75	100	117	126	123	117	109	67	45	40	43	25	20	17	9	4	359	3	357	3	1	360	359	25	359
6 Spd	9	8	9	7	8	10	11	10	12	11	12	10	8	6	8	8	7	4	4	4	1	1	1	1	6.4	12.2
Dir	352	355	350	358	346	354	350	352	357	9	3	359	23	16	3	320	330	309	285	282	251	202	177	173	352	3
7 Spd	0	0	2	0	1	1	0	1	4	1	4	2	2	3	6	8	10	8	4	3	1	1	2	1	1.6	10.0
Dir	180	165	169	124	7	333	31	146	11	73	123	85	354	355	332	7	353	17	19	294	249	168	170	169	7	353
8 Spd	1	1	0	2	0	0	1	2	3	2	3	1	3	3	2	1	4	2	2	2	1	0	0	0	0.5	3.9
Dir	168	173	103	332	282	182	218	164	166	172	153	319	69	11	133	16	30	324	44	99	71	177	271	19	86	30
9 Spd	1	1	0	1	0	1	0	0	1	1	4	3	4	2	5	8	5	5	3	3	2	1	2	1	1.6	7.5
Dir	184	172	218	5	234	8	194	291	355	106	48	49	0	63	26	4	108	96	90	87	90	80	353	104	53	4
10 Spd	4	3	3	3	3	1	1	3	5	5	7	7	7	7	8	7	7	7	6	6	6	7	9	8	5.2	8.7
Dir	140	151	137	153	170	180	158	156	152	145	140	141	128	137	140	146	133	132	132	140	151	155	158	159	145	158
11 Spd	4	1	1	0	0	0	2	1	3	5	7	8	7	5	6	5	6	5	5	5	4	5	6	5	3.8	7.6
Dir	164	178	175	264	196	283	249	259	163	157	164	156	151	131	123	121	127	144	135	137	145	153	152	153	149	156
12 Spd	4	3	1	0	1	1	1	4	6	10	11	13	12	14	14	12	12	12	11	10	6	6	6	7	7.2	13.8
Dir	152	151	164	115	118	323	123	135	132	153	149	153	151	136	137	135	135	141	140	138	132	129	131	130	140	137
13 Spd	5	4	5	5	1	1	3	6	9	12	13	12	11	11	10	10	10	8	8	8	6	6	6	6	7.3	13.3
Dir	133	134	137	132	133	39	117	132	130	146	142	133	131	132	133	136	138	143	141	136	133	130	131	132	135	142
14 Spd	4	2	2	1	1	1	1	1	2	7	9	10	10	9	7	8	8	8	9	6	2	3	3	3	4.7	10.4
Dir	145	153	174	183	267	231	228	198	160	143	146	145	148	141	149	143	135	135	133	147	146	144	140	143	145	148
15 Spd	1	1	0	3	0	0	1	2	3	3	2	3	4	2	2	3	5	6	6	1	8	2	2	3	0.6	8.1
Dir	153	155	187	144	14	260	315	151	139	148	166	66	42	53	85	34	62	27	8	312	252	184	193	242	93	252
16 Spd	3	10	12	11	12	14	12	12	12	10	11	8	9	11	12	9	8	8	8	5	3	3	2	0	8.3	14.2
Dir	4	22	28	37	28	26	37	29	34	40	42	37	69	20	26	41	53	46	54	42	29	342	345	93	34	26
17 Spd	0	0	0	1	0	1	0	4	5	6	6	6	6	6	6	5	6	6	7	5	4	3	2	1	3.4	6.8
Dir	180	166	329	302	323	330	240	148	149	155	144	142	143	133	136	134	131	137	134	134	135	141	146	151	140	134
18 Spd	0	0	0	0	0	0	1	3	4	8	10	9	8	8	7	8	7	7	6	6	4	3	2	2	4.1	10.5
Dir	160	343	330	322	250	273	172	137	150	152	148	138	134	139	140	128	133	132	137	134	135	136	146	149	139	148
19 Spd	1	0	0	0	0	0	0	1	3	6	6	6	7	7	6	6	7	7	7	6	5	3	3	1	3.6	7.3
Dir	161	218	312	317	202	202	275	146	138	159	153	141	151	150	144	148	140	133	134	133	134	140	149	210	144	151
20 Spd	0	0	0	0	0	0	0	1	1	1	5	6	5	5	5	4	5	5	4	3	2	2	2	1	2.1	6.4
Dir	232	278	293	317	266	340	270	255	249	153	149	144	131	151	148	138	136	133	129	140	141	150	155	308	145	144
21 Spd	1	0	0	0	0	0	1	1	1	2	1	2	4	3	2	2	3	3	2	4	2	1	0	0	1.0	3.9
Dir	255	314	180	165	175	173	164	164	160	168	151	158	125	120	120	90	125	125	63	51	44	338	152	182	118	125
22 Spd	0	0	0	0	0	0	0	0	1	1	4	5	4	5	6	7	7	7	6	6	4	2	1	1	2.5	7.1
Dir	175	226	322	179	187	159	186	170	261	354	25	33	39	55	48	46	52	53	59	42	29	20	15	324	44	52

Peace Airshed Zone Association

Hourly Averages

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
23 Spd	0	1	0	0	1	0	1	1	1	2	2	2	3	4	4	2	5	4	5	6	4	3	0	1	1.7	6.1
Dir	188	168	354	197	185	189	166	134	124	43	53	52	68	82	101	138	106	122	119	121	131	136	219	324	109	121
24 Spd	1	0	0	0	0	0	0	0	1	1	1	2	5	6	7	8	7	6	3	3	1	4	1	1	1.5	7.9
Dir	323	192	347	181	172	176	216	80	257	29	350	2	155	42	60	54	66	87	79	95	179	300	331	198	63	54
25 Spd	0	0	1	1	2	1	2	1	1	1	1	1	1	2	1	3	2	2	9	6	0	1	3	1	0.2	9.4
Dir	116	216	192	148	162	164	150	145	151	155	182	118	169	339	158	144	167	112	354	4	359	254	300	154	70	354
26 Spd	1	1	0	1	1	0	1	1	2	3	4	8	8	7	9	8	7	4	4	2	1	1	1	0	2.3	9.1
Dir	189	175	177	17	159	161	157	153	276	264	2	4	22	13	10	1	342	23	2	7	339	158	198	171	3	10
27 Spd	1	1	1	0	1	0	1	1	1	1	1	1	4	5	8	11	13	6	9	6	5	10	11	13	3.5	13.2
Dir	166	168	167	182	164	173	180	162	170	187	174	250	332	323	332	17	1	317	8	34	10	25	24	23	7	1
28 Spd	9	9	8	6	6	8	5	5	5	5	5	4	4	5	6	7	7	8	8	5	4	3	2	1	5.5	9.1
Dir	33	28	20	28	33	23	32	68	68	70	71	62	43	34	30	33	34	27	34	48	40	46	69	344	38	33
29 Spd	2	2	1	0	1	1	0	2	6	7	8	8	8	8	8	9	8	9	9	6	5	3	1	1	4.4	9.2
Dir	62	79	114	333	356	335	60	149	137	140	137	152	136	160	152	161	163	163	162	158	152	152	138	91	149	161
30 Spd	1	3	3	1	1	2	1	2	5	3	1	2	4	7	7	6	7	3	6	4	11	1	2	3	1.1	11.4
Dir	46	46	46	65	341	340	23	129	147	159	34	312	342	2	2	5	4	145	146	182	285	328	117	294	7	285
31 Spd	2	0	0	0	0	1	2	1	2	4	6	9	10	11	13	13	4	4	3	3	1	1	0	0	2.9	13.4
Dir	250	180	189	116	190	175	159	160	255	248	277	259	252	273	271	303	13	292	342	18	32	49	175	166	277	271
Spd	0.3	0.7	0.7	0.6	0.5	1.0	0.6	0.6	0.8	1.4	1.9	1.7	1.9	1.9	1.8	1.9	2.8	2.4	2.5	1.9	0.5	0.9	1.0	0.3	Diurnal Average	
Dir	73	61	48	46	31	9	18	114	121	133	118	117	103	71	65	48	63	79	80	97	111	103	106	100		
Spd	9.7	9.9	11.7	11.1	12.2	14.2	12.3	14.7	13.7	14.1	13.3	12.7	12.8	15.2	13.8	17.4	15.8	13.3	11.2	12.0	12.1	11.1	11.4	12.5	Diurnal Maximum	
Dir	304	22	28	37	28	26	37	275	277	272	142	153	275	293	137	276	346	278	269	282	3	1	24	23		

Maximum Speed Value: 17 km/h on May 1 16:00
Maximum Daily Speed Average: 8.3 km/h on May 16
Maximum Diurnal Speed Average: 2.8 km/h at hour 17

Minimum Speed Value: 0 km/h on May 3 02:00
Minimum Daily Speed Average: 0.2 km/h on May 21
Minimum Diurnal Speed Average: 0.3 km/h at hour 1

Monthly Average Velocity: 1.11 km/h 82.4 deg

Speed Percentiles: $P_1 = 0.1$ $P_{10} = 0.4$ $Q_1 = 1.1$ Median = 3.5 $Q_3 = 6.9$ $P_{90} = 10.4$ $P_{99} = 13.5$

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

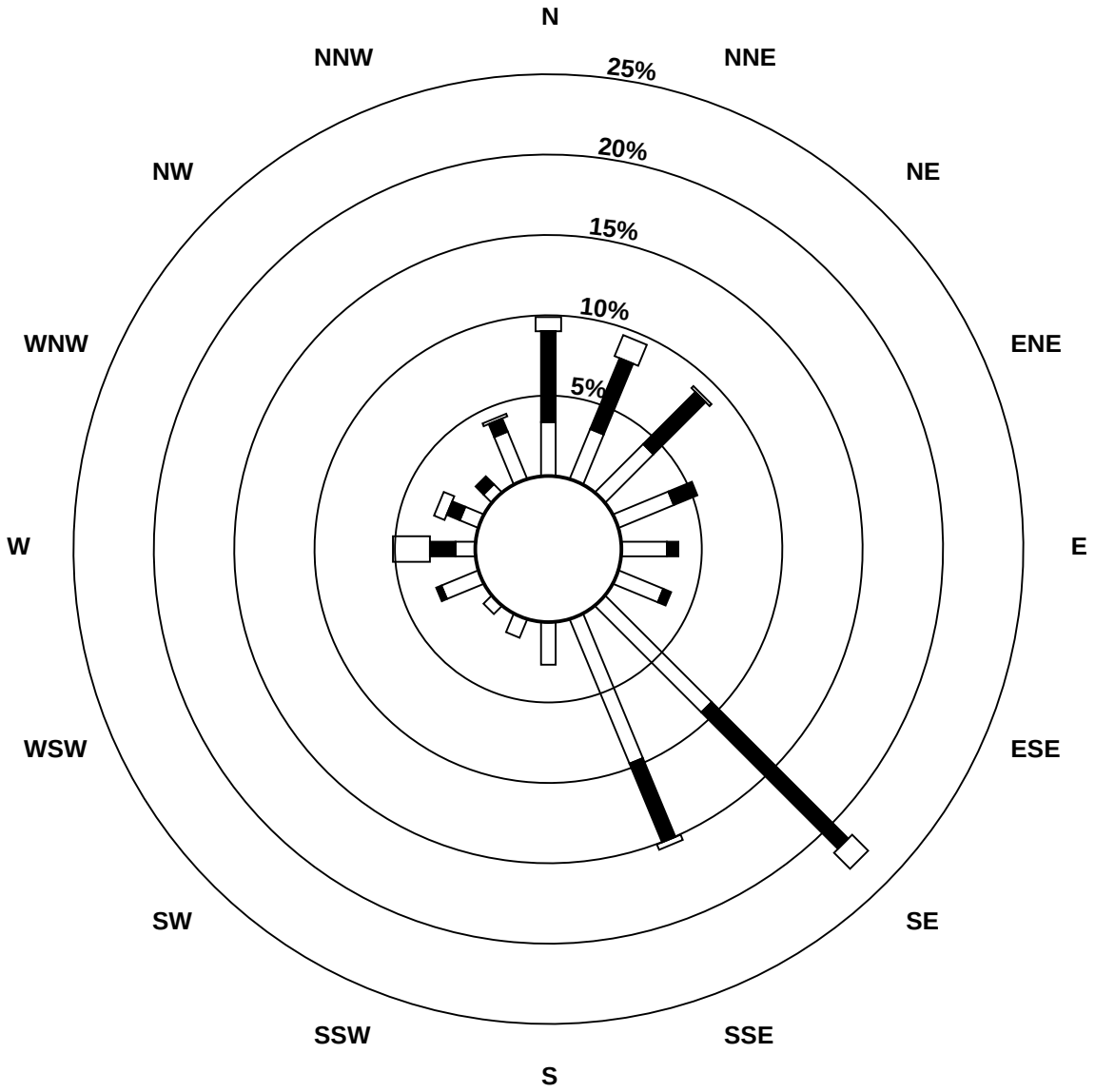
Frequency Distribution

Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	50	43	12	0	0	0	105
NorthEast	45	50	12	0	0	0	107
East	35	9	0	0	0	0	44
SouthEast	101	103	13	0	0	0	217
South	121	10	0	0	0	0	131
SouthWest	23	2	0	0	0	0	25
West	40	10	21	0	0	0	71
NorthWest	35	7	2	0	0	0	44
Total	450	234	60	0	0	0	744

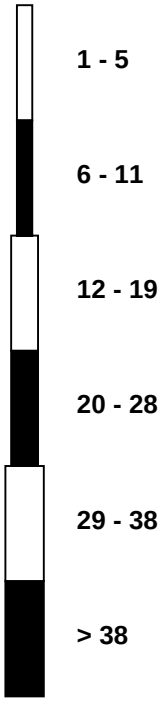
Wind Rose

Wind Speed (WS) (km/h)

Valleyview - May 2015



Wind Speed Classes (km/h)



Peace Airshed Zone Association

Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Valleyview - May 2015

Maximum Speed: 19 km/h on May 1 16:00

Maximum Daily Speed Average: 9.1 km/h on May 16

Minimum Speed: 0 km/h on May 8 05:00

Minimum Daily Speed Average: 2.0 km/h on May 21

Maximum Diurnal Speed Average: 8.4 km/h at hour 16

Minimum Diurnal Speed Average: 2.1 km/h at hour 3

Monthly Average Speed: 4.86 km/h

Percentiles: P_1 = 0.2 P_{10} = 0.7 Q_1 = 1.4 Median = 4.1 Q_3 = 7.5 P_{90} = 10.7 P_{99} = 14.4

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

Day	Hourly Period Ending At (MST) 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	1	1	1	1	1	1	4	11	15	14	11	13	16	15	19	14	14	12	12	11	9	4	12	8.9	18.7
2-May	10	2	1	4	6	7	11	15	14	13	12	12	14	8	12	12	17	3	2	3	3	1	0	1	7.7	17.2
3-May	1	1	1	1	1	1	1	2	3	4	3	6	5	7	14	6	6	11	7	2	2	1	2	2	3.7	14.1
4-May	3	2	2	3	4	6	6	6	6	9	11	11	11	6	8	10	9	10	9	7	7	6	5	4	6.8	11.5
5-May	4	4	4	4	5	6	5	3	6	8	9	8	8	10	11	10	11	13	11	11	12	11	11	10	8.2	13.1
6-May	9	8	9	7	8	10	11	11	13	12	12	11	9	7	8	9	7	5	5	4	1	1	1	1	7.4	12.6
7-May	0	0	2	1	1	1	1	1	4	2	4	3	4	5	8	9	10	9	4	3	2	1	2	1	3.3	10.4
8-May	1	1	0	2	0	0	1	2	3	3	3	4	5	5	5	5	5	4	5	3	1	0	1	1	2.5	5.1
9-May	1	1	0	1	1	1	0	1	1	2	4	4	6	5	6	9	6	5	3	3	3	2	3	2	3.0	9.0
10-May	4	4	3	3	3	1	1	3	5	5	7	7	8	7	8	8	7	7	6	6	6	7	9	8	5.5	8.8
11-May	4	2	1	1	0	0	2	2	4	6	7	8	7	6	6	6	6	6	6	5	4	5	6	5	4.4	8.0
12-May	5	4	1	0	1	1	1	4	6	10	12	13	12	14	14	12	12	12	11	10	6	6	6	7	7.5	14.1
13-May	5	4	5	5	2	1	3	6	9	13	14	12	11	12	11	11	10	8	8	8	6	6	6	6	7.5	13.7
14-May	4	2	2	1	1	1	1	1	3	8	10	11	11	9	8	8	8	8	9	6	2	3	3	3	5.1	10.8
15-May	1	1	1	3	2	1	1	2	4	4	3	5	5	4	4	4	5	6	6	3	9	3	2	3	3.4	9.3
16-May	3	10	12	11	12	14	13	12	12	10	12	10	10	12	13	10	9	9	9	6	3	3	2	1	9.1	14.5
17-May	1	0	0	1	0	1	1	4	5	7	6	6	7	6	7	5	7	6	7	5	4	3	2	1	3.9	6.9
18-May	0	1	0	0	0	0	1	3	5	9	11	10	8	8	7	8	8	7	6	6	5	3	2	2	4.5	10.8
19-May	1	1	1	0	0	0	0	1	3	6	7	6	8	7	7	6	7	7	7	7	5	3	3	2	4.0	7.7
20-May	0	1	0	0	1	1	1	1	2	2	5	7	6	5	5	5	6	5	4	3	2	2	2	1	2.7	6.7
21-May	1	1	0	0	0	0	1	2	1	3	2	4	5	4	4	4	3	4	3	4	2	1	1	0	2.0	5.0
22-May	0	0	0	1	0	0	1	1	1	2	4	6	6	8	8	8	8	8	6	6	4	2	1	1	3.4	7.8
23-May	1	1	1	0	1	0	1	1	1	2	3	3	4	5	6	3	5	5	5	6	4	3	2	1	2.7	6.4
24-May	1	1	1	0	0	0	0	0	1	1	2	2	7	7	8	9	8	6	4	3	3	4	1	1	3.0	8.7
25-May	1	1	1	1	2	1	2	1	1	1	2	2	2	3	3	5	3	2	10	7	1	1	3	1	2.4	9.7
26-May	1	1	1	3	1	0	1	1	2	4	5	8	9	8	10	9	8	5	5	3	2	2	1	0	3.6	9.6
27-May	1	1	1	0	1	0	1	1	1	2	2	3	5	6	9	11	13	7	10	6	5	10	12	13	5.0	13.4
28-May	9	9	8	7	7	8	6	5	6	7	6	6	6	7	8	8	8	9	8	5	4	3	2	2	6.4	9.3
29-May	3	2	1	1	1	2	2	2	6	7	8	9	8	8	9	9	8	9	9	6	5	3	2	1	5.1	9.4
30-May	2	3	3	1	2	2	1	2	5	3	2	2	5	7	8	7	7	3	6	7	12	3	2	5	4.1	11.9
31-May	2	1	0	0	0	1	2	1	3	4	7	9	11	12	14	14	4	5	4	3	1	1	0	0	4.2	14.0
	2.7	2.2	2.1	2.1	2.1	2.2	2.5	3.2	4.8	5.8	6.8	7.1	7.6	7.6	8.4	8.4	7.9	7.0	6.7	5.4	4.4	3.5	3.1	3.1	Diurnal Average	
	9.9	10.3	12.1	11.3	12.4	14.5	12.6	14.9	14.1	14.6	13.7	13.0	13.8	15.9	14.5	18.7	17.2	14.3	11.8	12.2	12.2	11.2	11.7	12.8	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

Valleyview - May 2015

Maximum Value: 95.7 deg on May 22 03:00

Minimum Value: 4.9 deg on May 8 01:00

Percentiles: P_1 = 6.8 P_{10} = 10.4 Q_1 = 14.6 Median = 27.2 Q_3 = 53.4 P_{90} = 70.7 P_{99} = 92.2

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	15	9	10	12	28	22	21	27	21	16	18	23	27	17	35	23	21	22	20	9	11	12	20	13	35.5
2-May	14	39	12	19	13	15	10	11	13	10	13	16	24	57	34	30	26	85	45	65	30	27	31	18	84.6
3-May	26	93	59	56	19	15	14	18	63	41	59	30	73	53	16	82	47	15	35	57	33	76	50	34	93.4
4-May	16	54	44	23	12	7	12	13	16	12	20	21	13	27	22	31	24	9	13	21	17	14	18	20	53.7
5-May	23	33	45	20	15	10	13	19	18	22	10	11	21	14	13	10	13	9	9	7	7	8	8	8	44.9
6-May	8	7	9	10	8	11	8	10	15	12	10	23	25	37	26	29	21	43	40	18	35	21	19	12	42.7
7-May	13	26	8	73	39	89	94	68	40	57	18	64	71	66	43	30	19	20	20	20	40	16	5	14	94.4
8-May	5	15	77	9	80	46	28	24	22	34	36	85	64	62	74	92	56	80	67	21	32	75	72	74	92.1
9-May	20	31	29	93	53	78	90	68	55	64	42	65	70	84	60	40	39	36	26	25	23	54	33	66	92.7
10-May	10	13	13	17	12	60	69	36	19	18	19	20	22	23	20	24	20	21	12	9	8	8	8	8	68.5
11-May	11	36	36	61	46	71	20	58	46	14	13	18	26	41	26	41	27	20	18	10	7	9	8	8	71.1
12-May	9	10	38	95	62	33	47	13	14	12	13	13	15	12	13	12	12	14	12	10	10	6	7	7	95.2
13-May	8	8	9	6	74	52	24	11	13	12	13	13	12	17	14	15	14	12	15	10	8	6	8	7	73.8
14-May	11	21	24	40	31	35	54	52	44	23	16	15	15	19	17	18	12	15	11	11	10	9	8	8	53.6
15-May	18	14	73	11	88	85	42	31	23	33	67	77	51	87	77	68	43	16	14	95	41	35	31	35	94.8
16-May	58	19	17	12	12	11	11	11	14	20	24	34	29	29	24	30	27	24	21	12	12	11	69	92	92.0
17-May	84	86	62	56	42	22	70	15	16	23	23	27	26	36	37	36	28	15	11	10	9	8	13	49	86.4
18-May	74	79	67	60	57	81	85	19	31	14	14	18	18	16	19	25	20	16	14	10	10	17	11	38	85.4
19-May	37	56	74	69	62	71	70	59	28	19	17	21	23	17	19	20	19	14	13	10	8	9	9	68	74.3
20-May	58	60	70	87	77	79	69	64	63	63	21	20	27	35	35	38	27	19	23	13	9	8	9	67	87.4
21-May	55	64	66	55	24	47	34	29	51	42	84	65	52	46	71	58	50	40	49	31	37	67	70	46	84.2
22-May	63	47	96	64	23	57	66	65	86	70	36	56	47	56	40	35	28	31	27	18	12	31	57	38	95.7
23-May	63	33	95	40	37	90	33	64	47	63	63	62	56	56	54	58	30	24	19	19	10	8	87	36	95.3
24-May	78	85	89	91	84	23	89	50	72	80	57	79	41	40	30	31	31	25	28	30	62	55	46	70	91.3
25-May	74	69	52	55	23	70	31	22	33	19	86	69	74	70	87	58	52	40	14	32	93	53	19	60	92.8
26-May	43	61	55	89	24	65	20	43	54	46	43	29	22	33	20	30	31	49	27	16	34	45	60	43	89.4
27-May	20	33	46	56	30	40	59	32	42	66	64	76	47	59	21	14	11	31	28	29	13	13	12	12	76.3
28-May	13	15	14	17	14	14	24	36	40	40	48	49	55	49	38	31	32	20	27	20	19	42	27	42	54.8
29-May	36	36	66	81	73	78	78	41	16	16	12	15	15	15	13	10	9	9	9	12	13	12	15	35	81.2
30-May	37	14	15	28	43	18	35	27	13	27	56	40	27	13	13	20	35	34	11	44	18	82	29	77	81.5
31-May	50	75	59	76	34	32	21	23	58	42	27	20	21	22	13	22	71	59	35	13	57	77	44	45	77.3
	83.9	93.4	95.7	95.2	87.8	90.1	94.4	67.7	85.6	79.5	86.2	84.5	73.7	87.4	87.2	92.1	70.9	84.6	67.5	94.8	92.8	81.5	87.3	92.0	

PAZA
Falher Station
Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Falher - May 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 0.9 ppb on May 10 11:00 Maximum Daily Average: 0.3 ppb on May 18

Minimum Value: 0 ppb on May 1 01:00 Minimum Daily Average: 0.0 ppb on May 5
Maximum Diurnal Average: 0.2 ppb at hour 8 Minimum Diurnal Average: 0.1 ppb at hour 21
Monthly Average: 0.11 ppb Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.1 Q_3 = 0.2 P_{90} = 0.3 P_{99} = 0.5

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	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.0	0.2
2-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	0.1
3-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
4-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.1	0.3
5-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.0	0.0
6-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
7-May	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
8-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	0.1
9-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
10-May	0	0	0	0	0	0	0	0	1	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.9
11-May	0	0	0	0	0	0	0	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
12-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
13-May	0	0	0	0	0	0	A	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0	0	0	0.1	0.3
14-May	0	0	0	0	0	A	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
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	0.0	0.1
16-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	0.1
17-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
18-May	0	A	0	0	0	0	0	1	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0.3	0.9
19-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	0.4
20-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	0.5
21-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
22-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
23-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
24-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
25-May	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.1	0.5
26-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.1	0.2
27-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.2	0.4
28-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.1	0.1
29-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
30-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	0.3
31-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
	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	Diurnal Average	
	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.6	0.6	0.5	0.9	0.6	0.9	0.7	0.5	0.5	0.3	0.3	0.3	0.2	0.3	0.3	0.2	0.3	Diurnal Maximum	

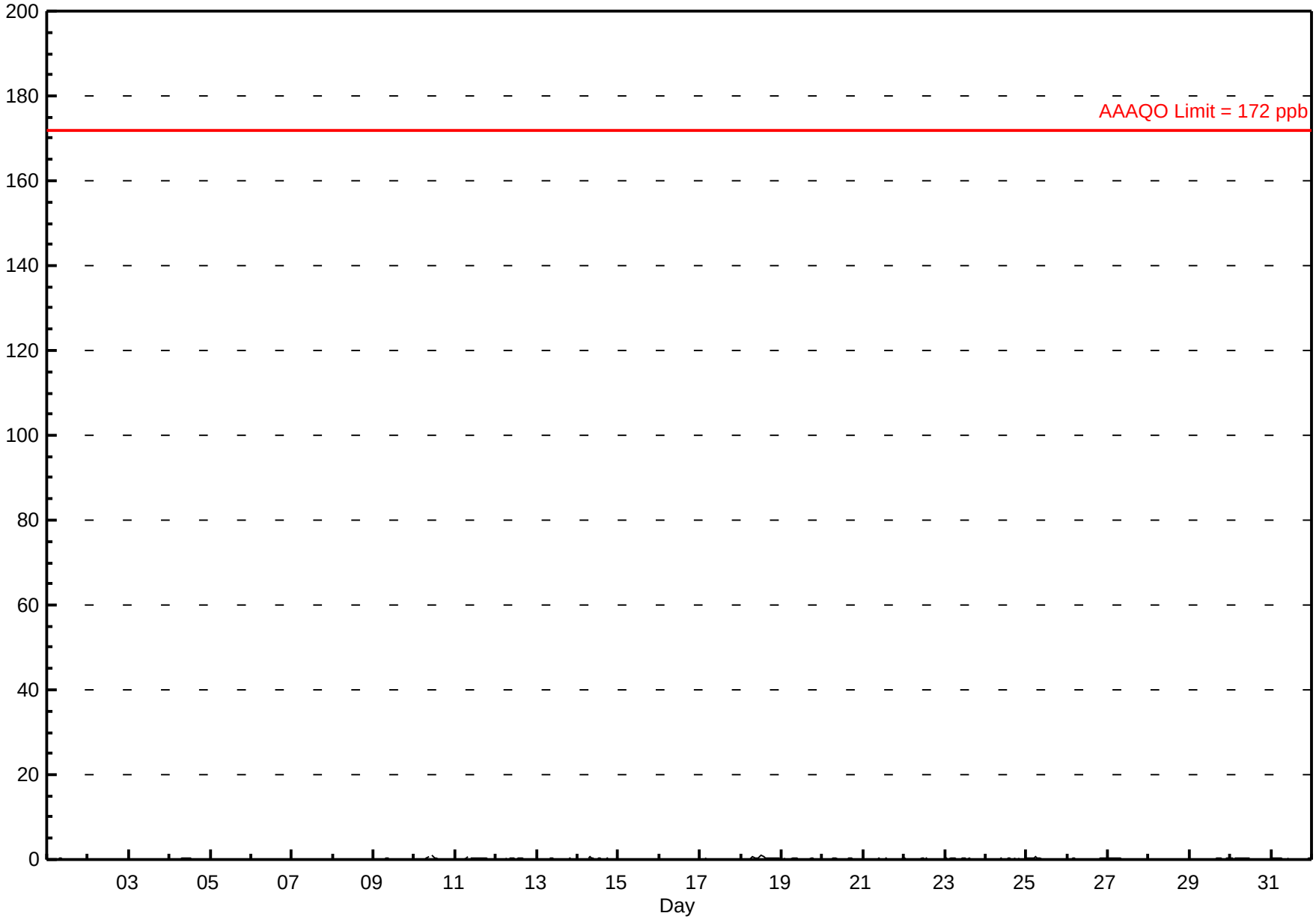
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Falher - May 2015



Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Falher - May 2015

Maximum Value: 1.5 ppb on May 25 02:00

Maximum Daily Average: 0.8 ppb on May 18

Minimum Value: 0 ppb on May 25 16:00

Minimum Daily Average: 0.4 ppb on May 15

Maximum Diurnal Average: 0.6 ppb at hour 8

Minimum Diurnal Average: 0.4 ppb at hour 22

Monthly Average: 0.51 ppb

Percentiles: P_1 = 0.2 P_{10} = 0.3 Q_1 = 0.4 Median = 0.5 Q_3 = 0.6 P_{90} = 0.7 P_{99} = 1.2

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

C - Calibration

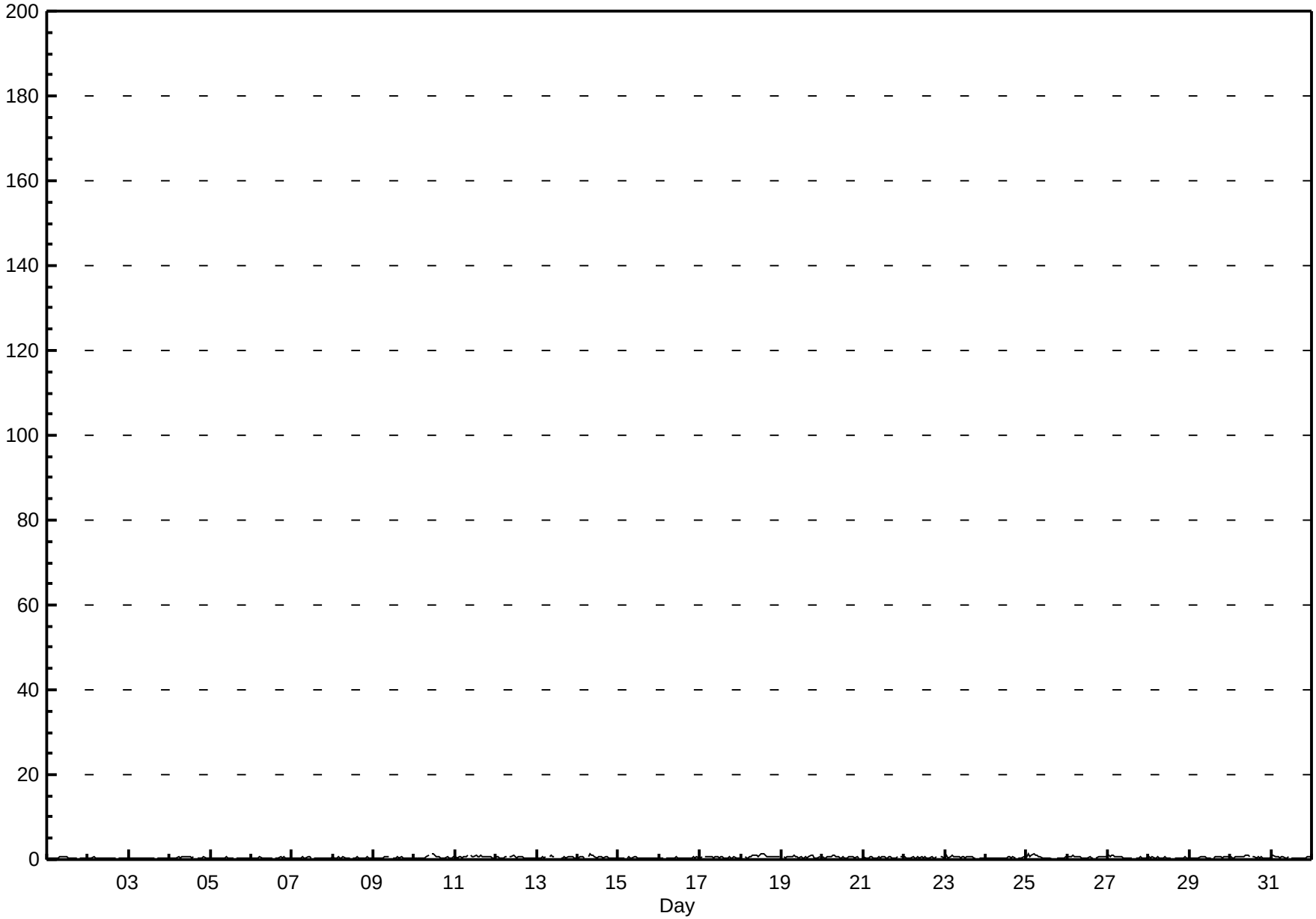
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

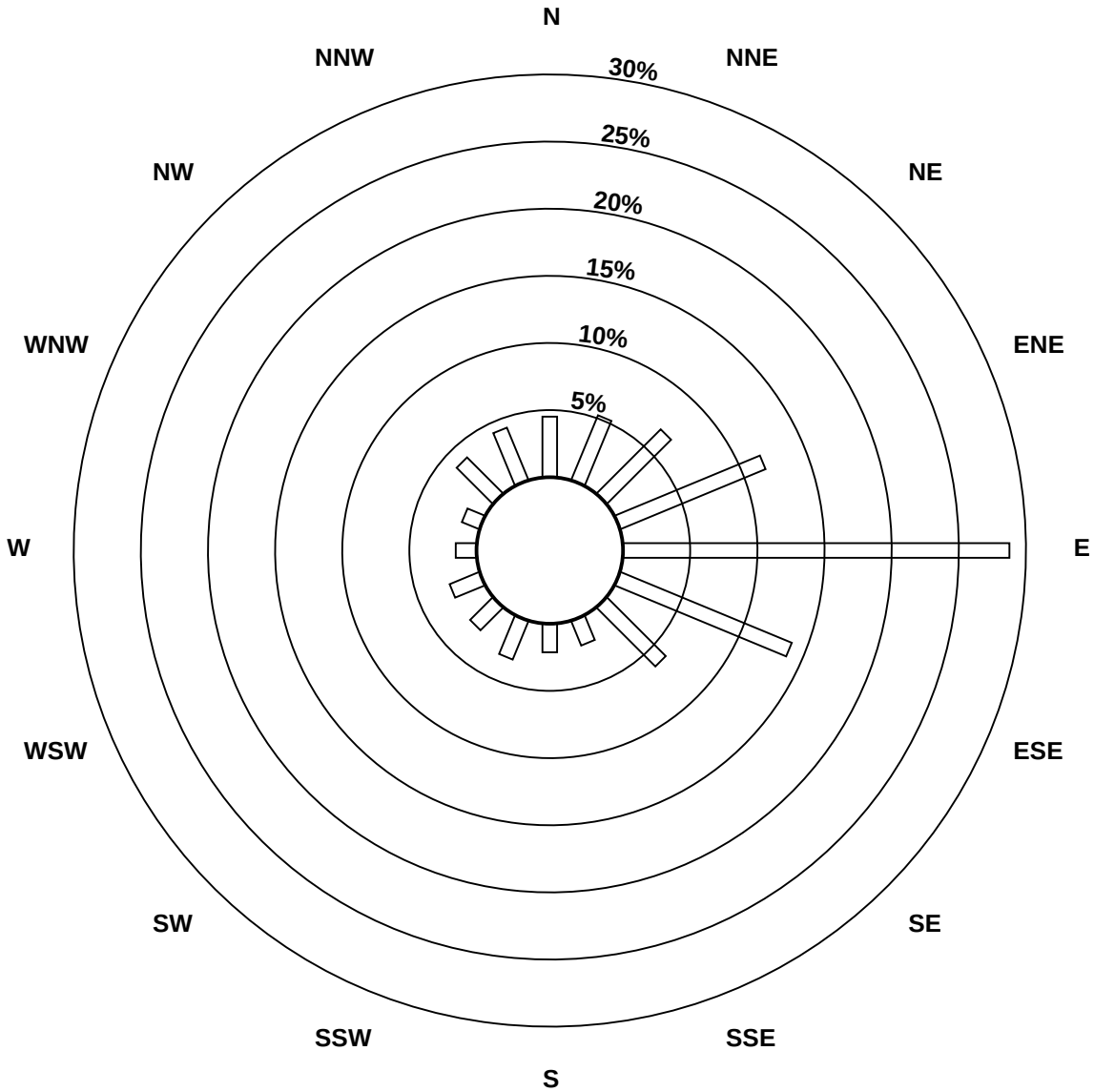
Falher - May 2015



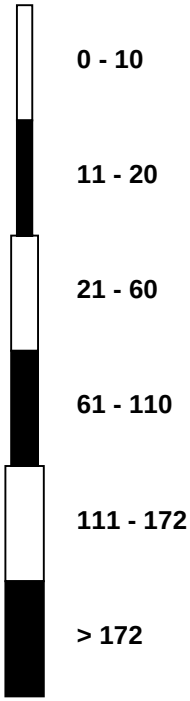
Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Falher - May 2015



Pollutant Classes (ppb)

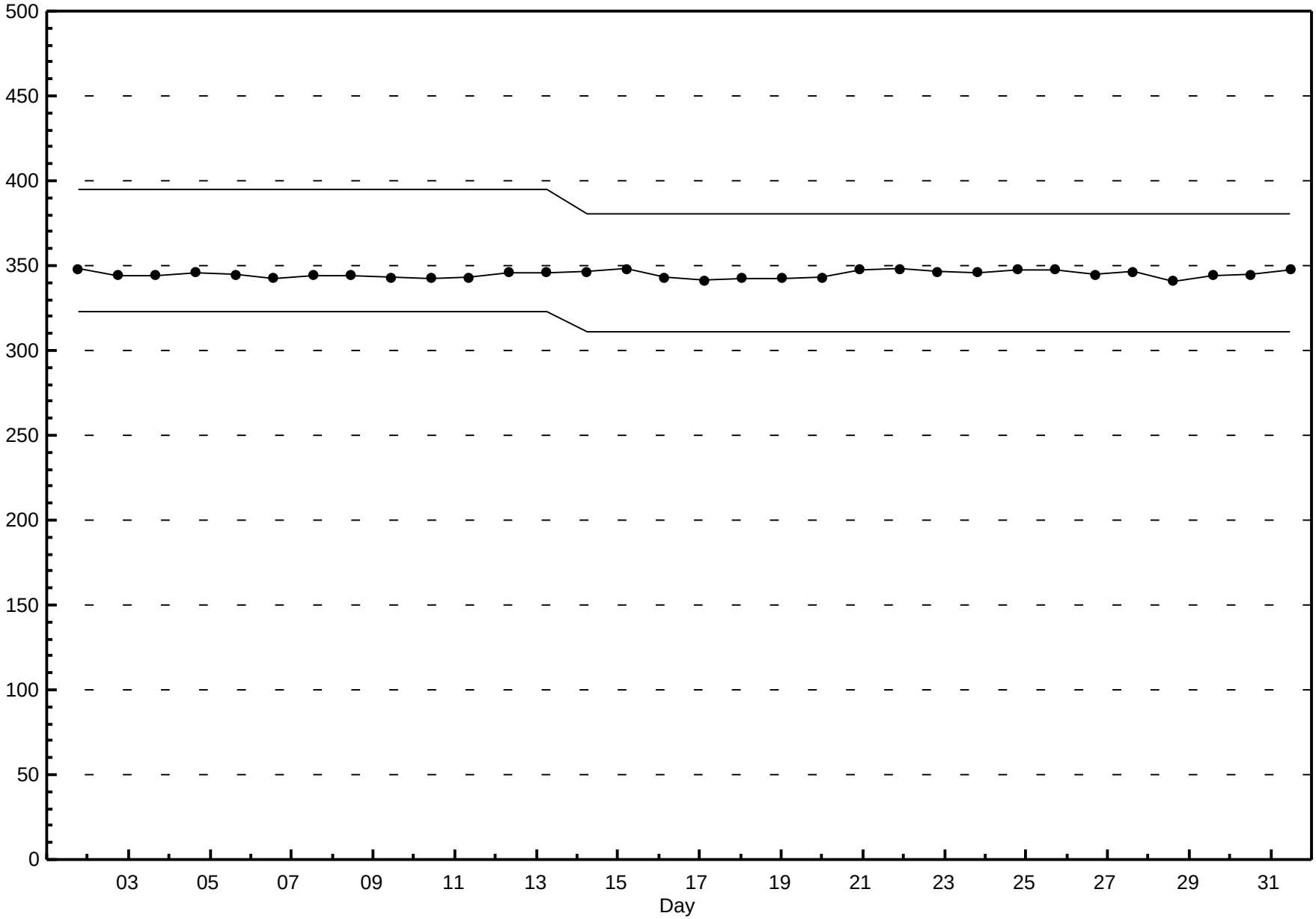


Peace Airshed Zone Association

Span Responses

Sulphur Dioxide (SO_2)

Falher - May 2015



Peace Airshed Zone Association

Hourly Averages

Hydrogen Sulphide (H_2S) - ppb

Falher - May 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 3.7 ppb on May 27 01:00 Maximum Daily Average: 0.4 ppb on May 27

Minimum Value: 0 ppb on May 1 01:00 Minimum Daily Average: 0.0 ppb on May 6
Maximum Diurnal Average: 0.4 ppb at hour 6 Minimum Diurnal Average: 0.0 ppb at hour 13
Monthly Average: 0.15 ppb Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.1 Q_3 = 0.2 P_{90} = 0.4 P_{99} = 1.0

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	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.1	0.2
2-May	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	2.3
3-May	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.2	0.6
4-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
5-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
6-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	0.2
7-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	0.5
8-May	0	0	0	0	0	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.7
9-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	0.4
10-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
11-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
12-May	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
13-May	0	0	0	0	0	0	A	0	0	0	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0.1	0.2
14-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
15-May	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
16-May	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
17-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
18-May	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
19-May	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.1	0.3
20-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.1	0.3
21-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	0.1	0.5
22-May	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	0.9
23-May	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.2	0.6
24-May	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	1	0.4	1.1
25-May	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.3	1.4
26-May	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.2	0.8
27-May	4	1	1	1	1	1	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.4	3.7
28-May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.1	0.4
29-May	0	0	0	0	1	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.1	0.7
30-May	0	0	1	1	1	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	0.4	1.1
31-May	1	1	1	1	1	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	1	0.4	1.0
Diurnal Average	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.3		
Diurnal Maximum	3.7	0.8	0.9	1.0	1.3	1.4	1.0	0.6	0.3	0.3	0.2	0.2	0.3	0.3	0.4	0.3	0.2	0.3	0.2	0.2	0.3	0.4	0.7	2.3		

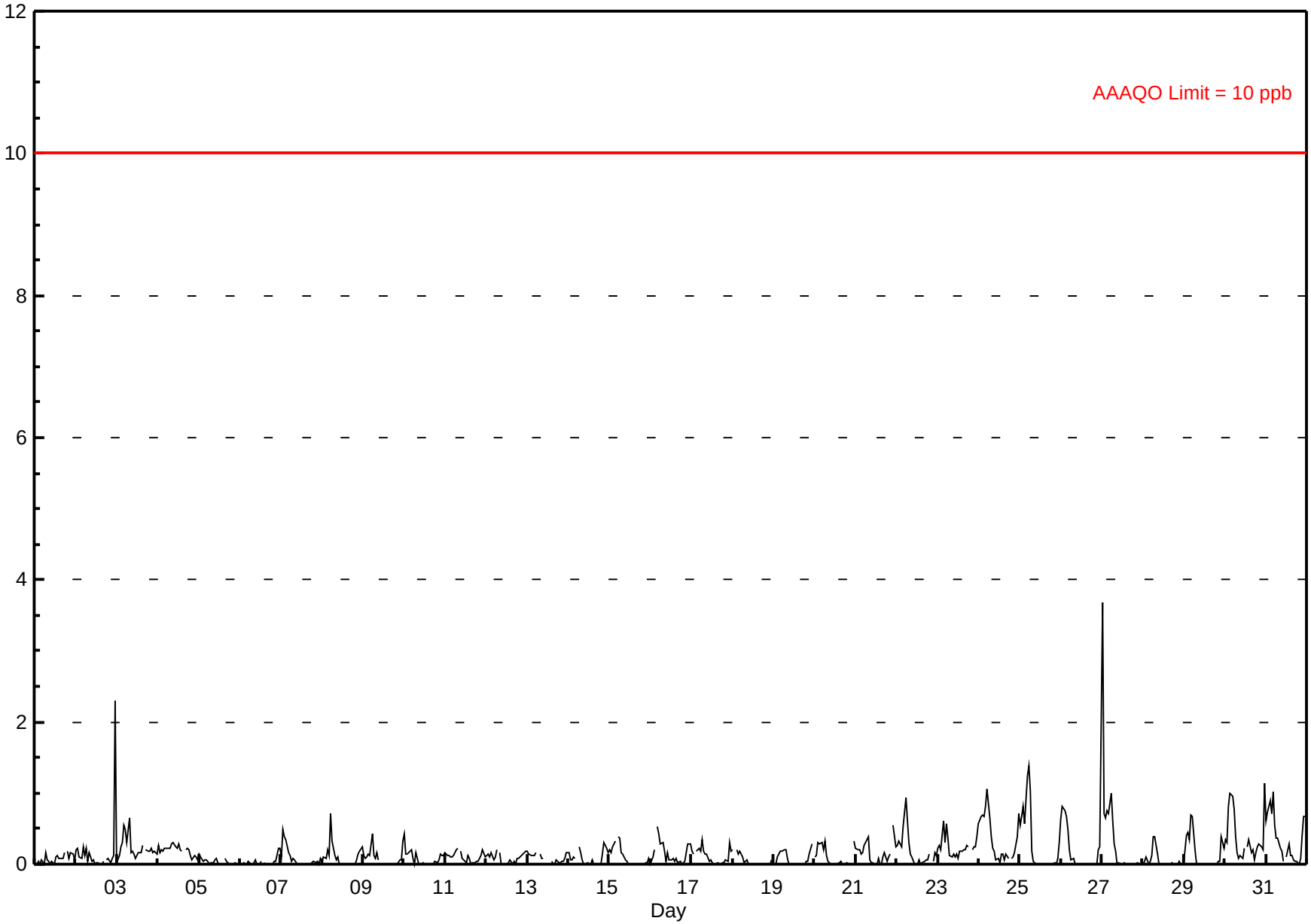
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb

Peace Airshed Zone Association

Hourly Averages

Hydrogen Sulphide (H_2S) - ppb

Falher - May 2015



Peace Airshed Zone Association

Hourly Maximums

Hydrogen Sulphide (H_2S) - ppb

Falher - May 2015

Maximum Value: 14.1 ppb on May 27 01:00

Maximum Daily Average: 1.6 ppb on May 27

Minimum Value: 0 ppb on May 26 12:00

Minimum Daily Average: 0.6 ppb on May 18

Maximum Diurnal Average: 1.3 ppb at hour 1

Minimum Diurnal Average: 0.6 ppb at hour 18

Monthly Average: 0.82 ppb

Percentiles: P_1 = 0.3 P_{10} = 0.5 Q_1 = 0.6 Median = 0.7 Q_3 = 0.9 P_{90} = 1.1 P_{99} = 2.7

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	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.7	1.0
2-May	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0	1	A	1	1	0	1	1	7	0.9	6.7
3-May	1	1	1	1	2	1	1	3	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.9	2.8
4-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0.8	1.0
5-May	1	1	1	1	1	1	1	1	0	1	1	1	1	1	A	1	1	1	1	0	1	1	1	1	0.6	0.9
6-May	1	0	0	1	1	1	1	0	0	0	0	1	1	A	1	1	0	0	0	1	1	1	1	2	0.6	1.5
7-May	2	2	1	1	1	1	1	1	1	1	0	1	A	0	1	1	1	1	0	1	1	0	0	1	0.8	2.2
8-May	1	1	1	1	1	2	1	1	1	1	1	A	0	1	1	1	0	0	1	1	1	1	1	1	0.7	2.2
9-May	1	1	1	1	1	1	1	1	1	1	A	1	0	1	1	1	1	1	0	1	0	1	1	1	0.7	1.5
10-May	2	1	1	1	1	1	1	1	0	A	1	1	0	0	0	1	0	0	1	1	1	1	1	1	0.7	2.4
11-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	0.7	1.0
12-May	1	1	1	1	1	1	1	A	1	1	1	0	1	1	1	1	0	0	1	1	1	1	1	1	0.7	1.0
13-May	1	1	1	1	1	1	A	1	0	1	C	C	C	C	1	0	1	1	1	1	1	1	1	1	0.7	1.0
14-May	1	1	1	1	1	A	1	1	1	0	1	1	1	0	1	1	1	0	0	1	1	2	1	1	0.7	1.9
15-May	1	1	1	1	A	1	1	1	1	1	1	0	1	0	0	1	1	0	0	1	0	1	1	1	0.7	1.1
16-May	1	1	1	A	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.2
17-May	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	2	1	0.8	1.7
18-May	1	A	1	1	1	1	1	1	1	0	0	0	1	0	0	1	1	1	1	0	1	0	1	1	0.6	0.9
19-May	A	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	A	0.7	1.1
20-May	1	1	1	1	1	1	1	1	1	0	1	1	1	0	1	1	1	1	1	1	1	1	A	1	0.8	1.4
21-May	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	1	1	1	1	1	1	A	4	1	0.8	3.9
22-May	1	1	1	1	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.9	1.7
23-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	0.9	1.4
24-May	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	2	1	1.1	2.0
25-May	1	3	2	1	3	2	2	1	1	1	1	1	1	1	0	1	1	A	1	0	1	0	1	1	1.1	2.8
26-May	2	2	2	1	2	1	1	1	1	1	1	0	1	0	0	0	A	0	1	1	0	1	1	1	0.8	1.7
27-May	14	2	2	1	1	5	2	1	1	1	1	1	1	1	1	A	1	0	0	1	0	0	1	0	1.6	14.1
28-May	1	1	1	1	1	1	1	1	1	1	1	0	1	1	A	0	1	1	1	1	1	1	1	1	0.7	1.0
29-May	0	1	1	1	1	1	1	1	0	1	0	0	0	A	0	1	1	0	1	1	1	1	1	1	0.7	1.4
30-May	1	1	1	2	2	2	1	1	1	1	1	1	A	1	2	1	1	1	1	1	1	1	1	3	1.1	3.0
31-May	1	1	2	2	2	1	1	1	1	1	1	A	1	1	1	1	0	1	1	1	1	1	2	1	1.1	2.2
	1.3	1.0	1.0	0.9	1.1	1.2	1.0	0.8	0.7	0.7	0.6	0.6	0.6	0.6	0.7	0.6	0.7	0.6	0.6	0.6	0.7	0.7	1.0	1.2	Diurnal Average	
	14.1	2.7	2.1	1.7	2.8	5.2	1.9	2.8	1.0	1.2	1.0	1.2	1.0	1.1	2.0	1.0	1.0	1.0	0.9	0.8	1.0	1.9	3.9	6.7	Diurnal Maximum	

C - Calibration

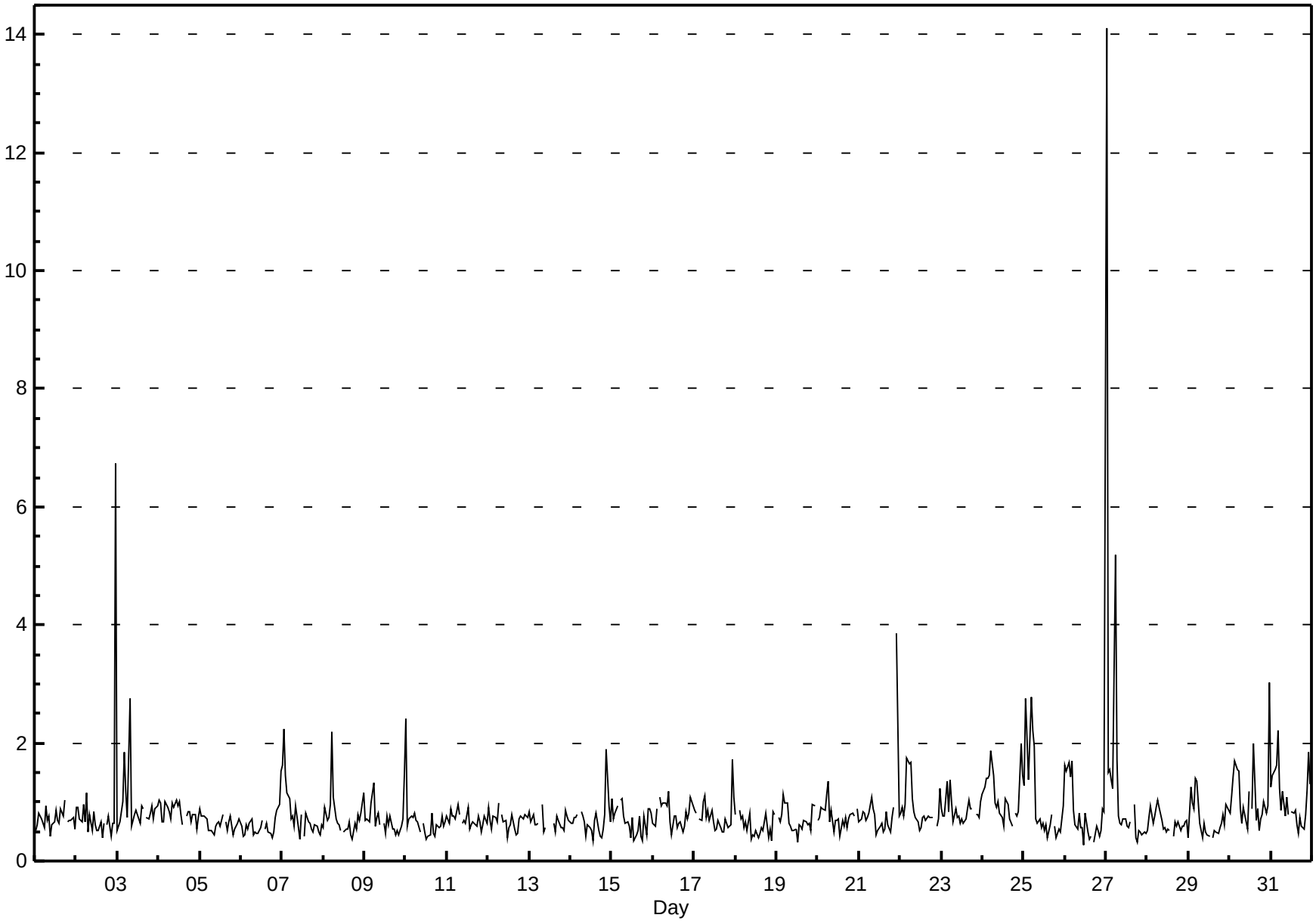
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Hydrogen Sulphide (H_2S) - ppb

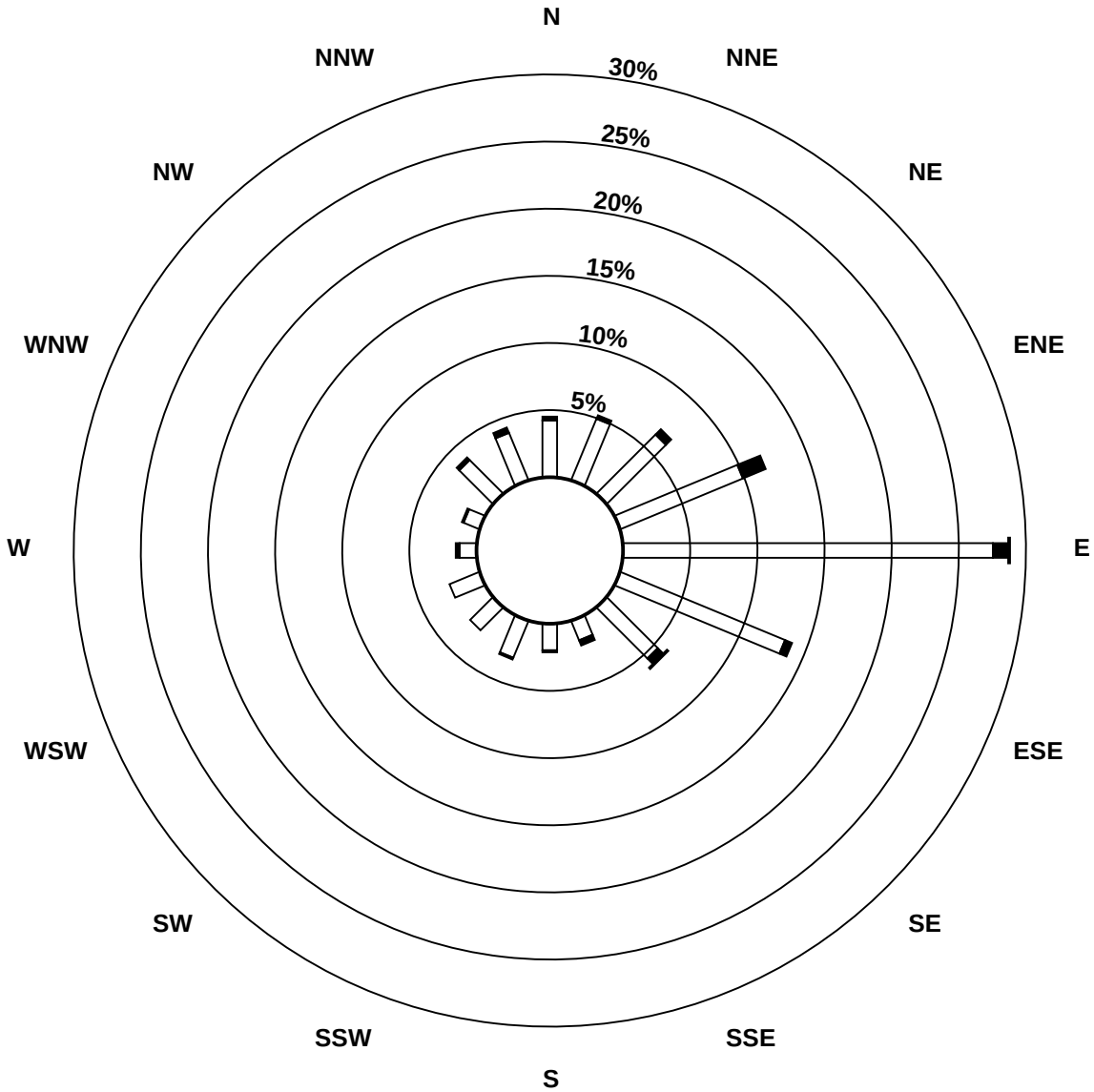
Falher - May 2015



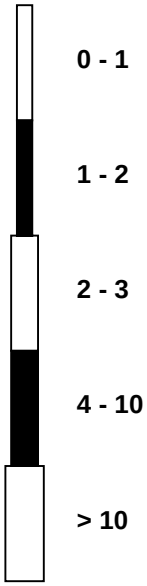
Pollutant Rose

Hydrogen Sulphide (H_2S) - ppb

Falher - May 2015



Pollutant Classes (ppb)

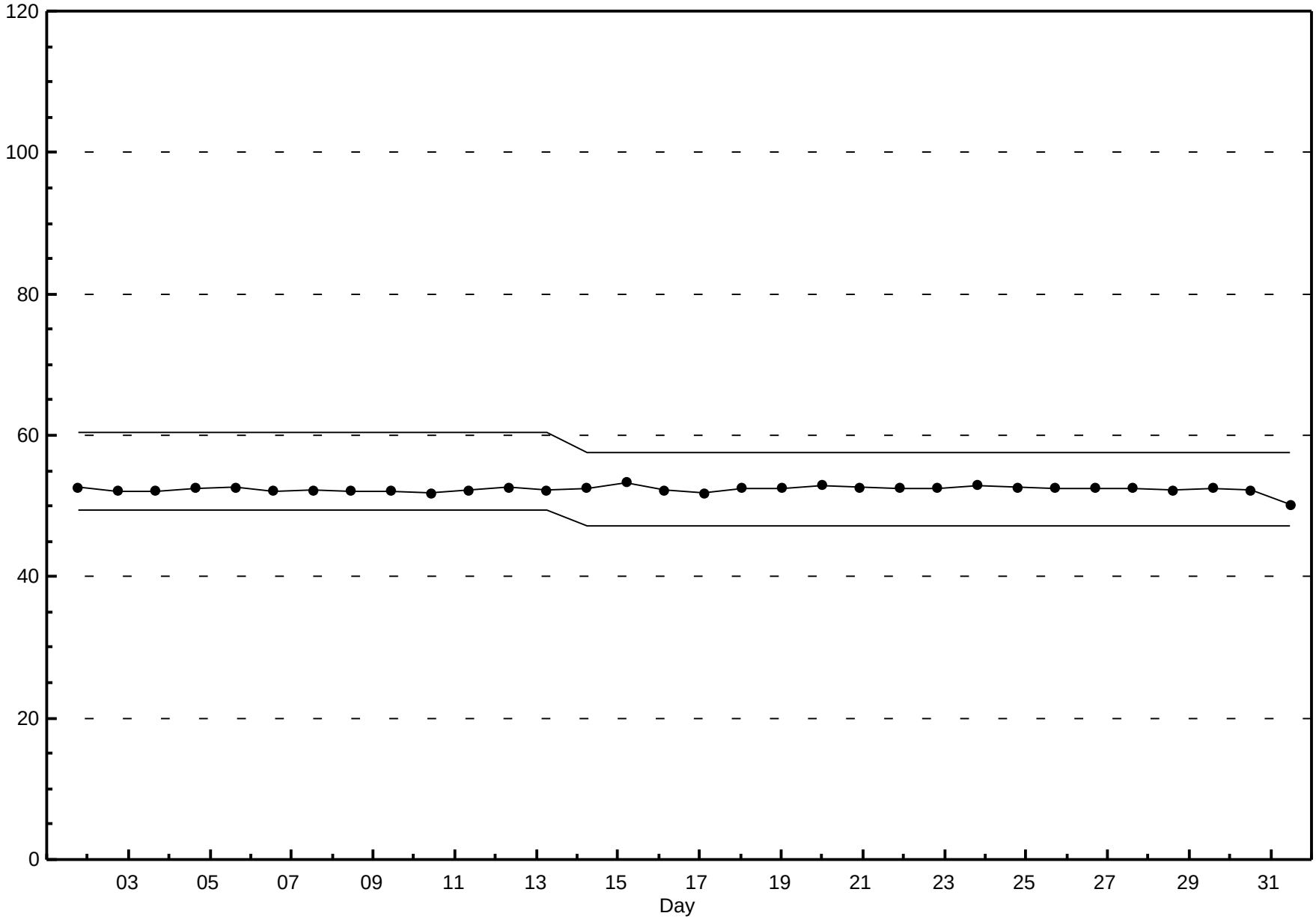


Peace Airshed Zone Association

Span Responses

Hydrogen Sulphide (H_2S)

Falher - May 2015



Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Falher - May 2015

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

Maximum Value: 27.5 ^{o}C on May 24 14:00

Maximum Daily Average: 21.0 ^{o}C on May 23

Minimum Value: -4 ^{o}C on May 8 06:00

Maximum Diurnal Average: 17.8 ^{o}C at hour 17

Monthly Average: 11.83 ^{o}C

Minimum Daily Average: 2.1 ^{o}C on May 5

Minimum Diurnal Average: 4.3 ^{o}C at hour 5

Percentiles: P_1 = -1.8 P_{10} = 2.3 Q_1 = 6.4 Median = 11.2 Q_3 = 17.5 P_{90} = 21.9 P_{99} = 26.9

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

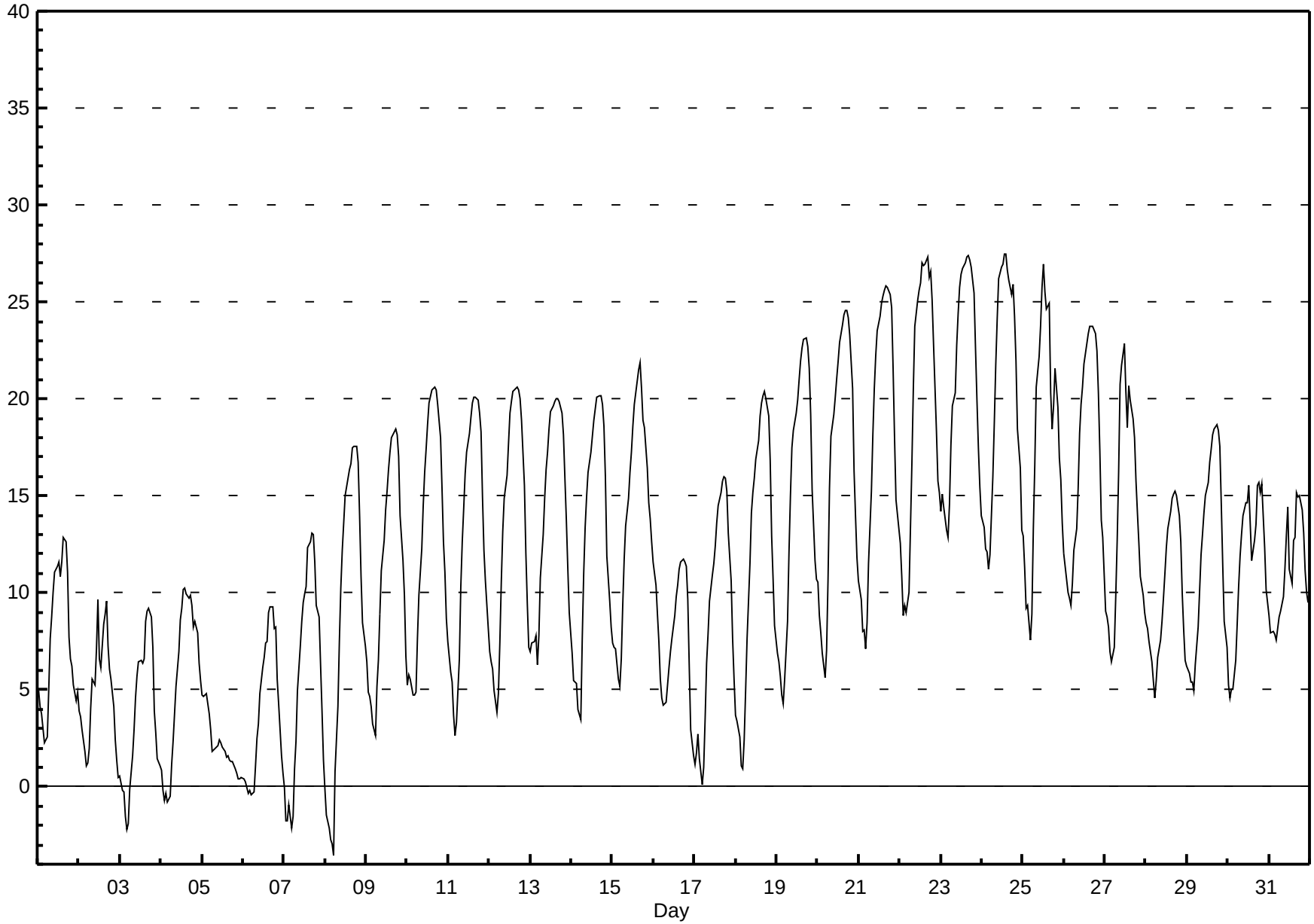
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-May	5	4	4	3	2	3	5	8	9	10	11	11	12	11	12	13	13	11	8	7	6	5	4	5	7.5	12.8
2-May	4	4	3	2	1	1	2	4	6	5	7	10	7	6	8	9	10	7	6	6	4	2	1	0	4.8	9.6
3-May	1	0	0	-2	-2	-2	0	2	3	5	6	6	7	6	7	9	9	9	9	7	4	3	1	1	3.6	9.2
4-May	1	0	-1	0	-1	0	1	2	4	5	7	9	9	10	10	10	10	10	9	8	9	8	6	5	5.5	10.3
5-May	5	5	5	4	4	3	2	2	2	2	2	2	2	2	1	2	1	1	1	1	1	0	0	0	2.1	4.8
6-May	0	0	0	0	0	0	0	1	2	3	5	6	7	7	7	9	9	9	8	8	6	4	2	1	3.9	9.3
7-May	0	-2	-2	-1	-2	-2	1	2	5	7	9	10	10	10	12	13	13	13	12	9	9	6	4	1	5.7	13.1
8-May	0	-1	-2	-3	-3	-4	1	4	7	10	12	14	15	16	16	17	17	18	18	17	14	11	8	7	8.7	17.6
9-May	6	5	5	4	3	3	5	7	9	11	13	14	15	16	17	18	18	18	18	17	14	12	10	7	11.1	18.4
10-May	5	6	6	5	5	5	8	10	12	14	16	17	19	20	20	21	21	20	20	18	15	13	11	9	13.1	20.6
11-May	8	6	5	4	3	3	7	10	13	14	16	17	18	19	20	20	20	20	19	18	15	12	11	8	12.8	20.1
12-May	7	6	6	5	4	5	7	11	13	15	16	18	19	20	20	21	21	20	20	19	16	12	9	7	13.2	20.6
13-May	7	7	8	8	6	8	11	13	15	16	17	18	19	20	20	20	20	20	19	18	16	14	11	9	14.2	20.0
14-May	7	5	5	5	4	3	8	11	13	15	16	17	18	19	20	20	20	20	20	19	16	12	10	8	13.0	20.2
15-May	7	7	7	6	5	7	9	12	13	15	16	17	19	20	21	21	22	21	19	19	16	15	14	13	14.2	21.9
16-May	12	10	9	8	6	5	4	4	5	6	7	8	9	10	10	11	12	12	12	11	10	6	3	2	7.9	11.7
17-May	1	2	3	1	0	1	4	6	8	10	11	11	12	14	15	15	16	16	16	15	13	11	8	6	8.9	16.0
18-May	4	3	3	1	1	2	5	8	11	14	15	16	17	18	19	20	20	20	20	19	17	13	11	8	11.9	20.4
19-May	7	6	6	5	4	6	9	12	15	17	18	19	20	21	22	23	23	23	23	22	19	15	12	11	14.9	23.1
20-May	11	9	8	7	6	7	11	15	18	19	20	21	22	23	24	24	25	25	24	23	21	16	14	12	16.8	24.6
21-May	11	10	8	8	7	8	12	15	18	21	22	24	24	25	25	26	26	26	25	25	22	18	15	13	18.0	25.8
22-May	13	11	9	9	9	10	13	17	21	24	25	26	26	27	27	27	27	26	27	25	23	18	16	15	19.6	27.3
23-May	14	15	14	13	13	15	18	20	20	23	24	26	26	27	27	27	27	27	27	25	23	20	17	15	21.0	27.4
24-May	14	13	12	12	11	12	16	19	22	24	26	27	27	27	27	27	26	25	26	24	22	18	16	13	20.4	27.5
25-May	13	11	9	9	8	9	13	17	21	22	24	26	27	26	25	25	20	18	20	22	20	17	16	14	17.9	26.9
26-May	12	11	10	10	9	10	12	13	15	18	20	21	22	23	23	24	24	24	23	22	20	17	14	13	17.2	23.8
27-May	9	9	8	7	6	7	10	13	16	21	22	23	20	19	21	20	19	18	16	14	13	11	10	9	14.1	22.9
28-May	8	8	7	6	5	5	5	7	8	9	10	11	12	13	14	15	15	15	15	14	13	10	8	7	10.0	15.2
29-May	6	6	5	5	5	6	8	10	12	13	14	15	16	17	17	18	18	19	18	18	15	11	9	7	12.0	18.6
30-May	5	5	5	5	6	8	10	12	13	14	15	15	16	14	12	13	14	16	16	15	16	12	10	10	11.4	15.7
31-May	9	8	8	8	8	8	9	9	10	11	13	14	11	10	13	13	15	15	15	14	13	11	10	9	11.0	15.2
	6.8	6.1	5.6	5.0	4.3	4.9	7.2	9.5	11.6	13.4	14.7	15.8	16.2	16.6	17.2	17.7	17.8	17.5	17.0	16.1	14.1	11.5	9.4	7.9	Diurnal Average	
	14.2	15.1	14.4	13.2	12.9	14.6	17.7	19.6	21.7	24.1	26.2	26.8	27.0	27.5	27.4	27.3	27.4	27.2	26.8	25.4	22.8	20.0	17.5	15.5	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Falher - May 2015



Peace Airshed Zone Association

Hourly Averages

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

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1 Spd	20	19	19	15	16	16	15	26	28	28	26	25	24	19	23	21	21	24	26	8	4	9	22	23	17.4	28.2
Dir	212	208	199	195	196	194	201	219	225	233	248	247	249	253	245	245	241	219	279	6	316	175	235	197	229	225
2 Spd	20	16	10	11	10	12	13	16	18	14	9	9	15	16	18	15	10	15	12	11	9	3	9	9	8.4	20.2
Dir	208	206	221	223	230	242	243	254	260	257	251	245	292	340	307	305	278	244	207	189	179	152	69	137	245	208
3 Spd	13	6	6	3	3	4	7	8	14	13	11	12	6	4	7	5	6	7	12	5	18	13	8	7	3.0	18.1
Dir	176	202	346	127	345	35	68	109	130	125	109	80	86	328	37	98	183	155	175	277	343	9	26	13	87	343
4 Spd	8	6	8	10	10	11	16	21	19	23	23	23	25	28	30	29	27	27	26	22	21	22	26	24	19.2	30.1
Dir	352	5	12	1	0	19	44	53	46	65	56	62	62	62	71	59	56	59	74	57	60	59	49	49	53	71
5 Spd	28	31	30	26	21	22	22	25	27	29	31	29	27	29	27	24	21	20	21	19	18	15	16	15	21.0	31.0
Dir	46	53	57	54	51	44	31	39	48	55	50	49	43	36	35	25	15	352	345	342	337	327	327	330	31	50
6 Spd	12	11	11	12	11	11	9	13	14	11	12	11	12	11	10	10	7	7	5	5	6	6	8	12	6.9	13.7
Dir	325	321	321	319	312	312	307	321	326	348	353	341	348	328	321	294	314	272	236	228	240	190	113	112	320	326
7 Spd	12	10	8	7	11	10	8	9	10	9	6	6	2	3	5	8	9	10	8	10	14	10	9	7	2.2	14.0
Dir	99	102	101	81	73	68	72	87	124	137	119	120	110	351	257	291	264	273	322	285	343	331	326	352	46	343
8 Spd	7	5	3	4	6	8	6	8	10	11	9	9	4	5	5	1	4	4	9	9	10	10	8	7	2.9	10.9
Dir	356	7	26	9	43	101	111	139	146	148	143	182	184	212	352	16	91	270	260	221	198	192	176	179	164	148
9 Spd	6	15	16	11	6	7	3	12	11	12	12	12	12	13	9	7	9	12	14	18	17	18	17	16	11.1	18.5
Dir	41	42	40	46	58	75	97	87	91	94	112	104	108	94	109	109	111	103	94	103	99	92	97	101	89	92
10 Spd	13	16	15	15	17	15	20	23	21	19	23	25	23	21	21	18	16	18	23	22	20	18	19	19	19.0	25.3
Dir	91	80	87	78	84	78	88	94	105	104	105	103	106	99	97	100	87	91	103	105	95	77	91	99	95	103
11 Spd	17	16	18	18	17	16	17	19	15	16	18	14	13	13	12	14	13	14	15	18	17	19	19	18	15.4	19.3
Dir	98	96	95	96	93	95	102	112	131	136	145	147	130	101	98	96	93	101	96	104	102	91	91	98	105	91
12 Spd	17	18	19	20	19	19	19	22	23	28	32	34	36	39	35	34	32	31	29	24	20	20	18	17	24.4	38.7
Dir	98	95	92	92	92	93	105	105	122	123	133	137	130	121	122	121	126	126	129	130	104	101	102	103	116	121
13 Spd	16	19	19	21	19	22	26	31	30	35	36	35	31	33	34	33	30	29	31	27	22	22	19	18	25.9	36.5
Dir	93	98	95	91	94	94	95	105	109	122	127	122	124	101	97	95	99	95	94	96	90	87	93	97	102	127
14 Spd	18	18	17	17	11	10	14	20	18	23	22	19	20	19	18	21	19	19	22	23	13	12	13	14	16.2	22.6
Dir	98	97	93	89	81	86	97	115	138	165	152	140	136	131	124	129	131	128	109	107	123	105	95	90	118	107
15 Spd	14	15	17	15	7	9	15	18	13	10	13	12	10	9	6	4	8	26	17	12	25	23	18	35	11.2	35.3
Dir	94	93	97	94	68	82	97	116	135	112	93	77	104	108	105	74	46	79	74	337	354	21	21	30	70	30
16 Spd	42	35	35	33	35	29	28	28	27	23	21	20	17	17	17	10	10	11	12	12	11	9	5	9	19.3	42.0
Dir	16	13	13	12	11	13	7	1	7	19	21	21	32	32	53	55	45	30	79	65	84	79	34	44	23	16
17 Spd	11	17	23	19	16	16	18	20	17	18	20	22	24	20	19	18	19	20	21	24	19	19	18	18	18.8	24.1
Dir	66	84	87	87	89	86	95	109	118	117	98	94	94	99	99	99	91	100	100	103	98	87	100	100	96	103
18 Spd	14	15	16	16	14	13	14	19	19	16	19	20	21	19	20	21	21	22	24	25	21	17	17	17	18.0	24.8
Dir	91	81	85	91	85	90	96	101	120	139	119	97	100	94	101	101	94	93	96	99	93	78	91	98	97	99
19 Spd	18	17	16	16	14	13	19	21	18	21	20	20	19	19	19	17	17	24	25	26	21	16	16	18	18.4	25.9
Dir	93	91	93	93	90	91	98	110	117	134	109	100	86	93	101	116	116	100	98	99	93	85	98	97	101	99
20 Spd	19	20	20	17	15	16	18	23	26	25	21	21	22	16	16	16	16	18	18	18	15	13	16	15	17.9	26.0
Dir	97	100	101	99	93	94	102	107	111	122	108	99	90	96	99	98	94	85	92	93	89	59	71	95	97	111
21 Spd	15	15	14	17	16	14	18	18	15	13	12	9	9	8	10	10	11	15	14	12	11	11	9	11	11.7	18.3
Dir	88	92	93	89	90	95	103	117	141	147	163	140	79	70	79	78	90	93	104	98	105	119	74	66	101	103
22 Spd	14	13	12	9	11	8	9	6	5	4	8	11	16	6	11	15	10	17	15	14	11	10	9	14	9.8	17.2
Dir	81	98	95	83	83	99	120	137	135	63	78	87	100	74	51	65	73	58	77	57	24	73	33	52	76	58

Peace Airshed Zone Association

Hourly Averages

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
23 Spd	16	18	18	18	21	22	24	23	17	24	26	31	30	25	19	12	11	11	15	22	15	16	14	14	18.2	30.5
Dir	63	72	71	68	67	74	87	101	109	108	111	109	104	105	110	121	120	117	117	91	90	89	79	75	94	109
24 Spd	13	12	10	12	11	11	14	20	17	12	16	17	14	8	16	25	10	11	13	11	13	10	6	4	11.4	25.1
Dir	74	69	71	74	74	85	93	103	108	128	91	93	119	125	153	148	80	72	74	68	93	63	126	34	97	148
25 Spd	7	7	6	5	6	2	1	7	1	5	7	6	10	8	22	18	25	14	1	2	8	9	7	5	1.1	24.8
Dir	54	137	134	50	127	157	347	347	131	203	228	261	285	32	114	122	310	316	182	192	306	327	346	305	345	310
26 Spd	6	8	4	6	5	8	13	16	14	16	18	10	10	11	14	14	13	11	12	14	10	9	9	10	10.2	17.7
Dir	309	349	333	302	288	309	344	357	357	344	349	10	350	324	321	335	332	359	337	330	346	7	23	45	344	349
27 Spd	1	8	6	8	7	8	7	7	7	7	11	8	23	29	30	30	27	31	33	29	27	28	25	23	13.8	33.2
Dir	98	276	312	17	46	98	154	165	218	282	308	311	325	8	20	10	356	348	359	16	6	20	20	23	3	359
28 Spd	21	24	24	19	16	17	20	21	19	15	13	12	12	13	15	13	15	16	19	16	17	16	15	17	15.6	23.8
Dir	21	24	30	26	34	51	67	75	70	61	55	73	80	87	109	78	88	86	77	69	59	52	45	45	58	24
29 Spd	20	17	15	16	14	15	22	26	30	33	32	30	26	22	21	21	19	22	24	29	18	14	6	4	18.5	32.7
Dir	49	58	67	68	80	92	93	97	102	98	100	102	94	97	92	90	103	102	104	105	183	181	174	71	97	98
30 Spd	7	11	14	14	15	17	24	24	27	24	25	22	21	23	19	23	22	26	18	11	21	17	2	8	15.9	27.4
Dir	61	51	56	60	63	74	86	90	96	95	103	105	93	133	78	71	68	68	54	53	94	205	233	114	85	96
31 Spd	6	5	3	1	6	7	9	11	12	13	14	18	13	6	13	21	20	26	18	10	6	5	5	6	5.5	26.1
Dir	175	203	259	117	128	157	177	197	215	209	220	229	292	216	193	217	252	288	319	356	38	119	58	55	233	288
Spd	8.9	9.5	10.1	9.9	9.2	9.3	10.7	11.8	10.5	10.6	10.9	11.1	10.0	10.3	10.6	9.5	7.4	8.8	9.9	10.3	8.6	8.5	8.4	9.7	Diurnal Average	
Dir	72	73	72	70	71	77	86	96	108	113	105	102	92	84	88	90	80	80	84	82	72	74	69	74		
Spd	42.0	35.2	34.7	32.6	34.8	28.7	28.1	31.4	30.5	34.7	36.5	34.9	35.6	38.7	35.1	34.2	31.9	31.4	33.2	28.7	27.5	27.9	26.2	35.3	Diurnal Maximum	
Dir	16	13	13	12	11	13	7	105	109	122	127	122	130	121	122	121	126	348	359	16	6	20	49	30		

Maximum Speed Value: 42 km/h on May 16 01:00
Maximum Daily Speed Average: 25.9 km/h on May 13
Maximum Diurnal Speed Average: 11.8 km/h at hour 8

Minimum Speed Value: 1 km/h on May 27 01:00
Minimum Daily Speed Average: 1.1 km/h on May 8
Minimum Diurnal Speed Average: 7.4 km/h at hour 17

Monthly Average Velocity: 9.54 km/h 84.8 deg

Speed Percentiles: P_1 = 1.7 P_{10} = 6.5 Q_1 = 10.3 Median = 15.6 Q_3 = 20.5 P_{90} = 25.9 P_{99} = 35.0

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

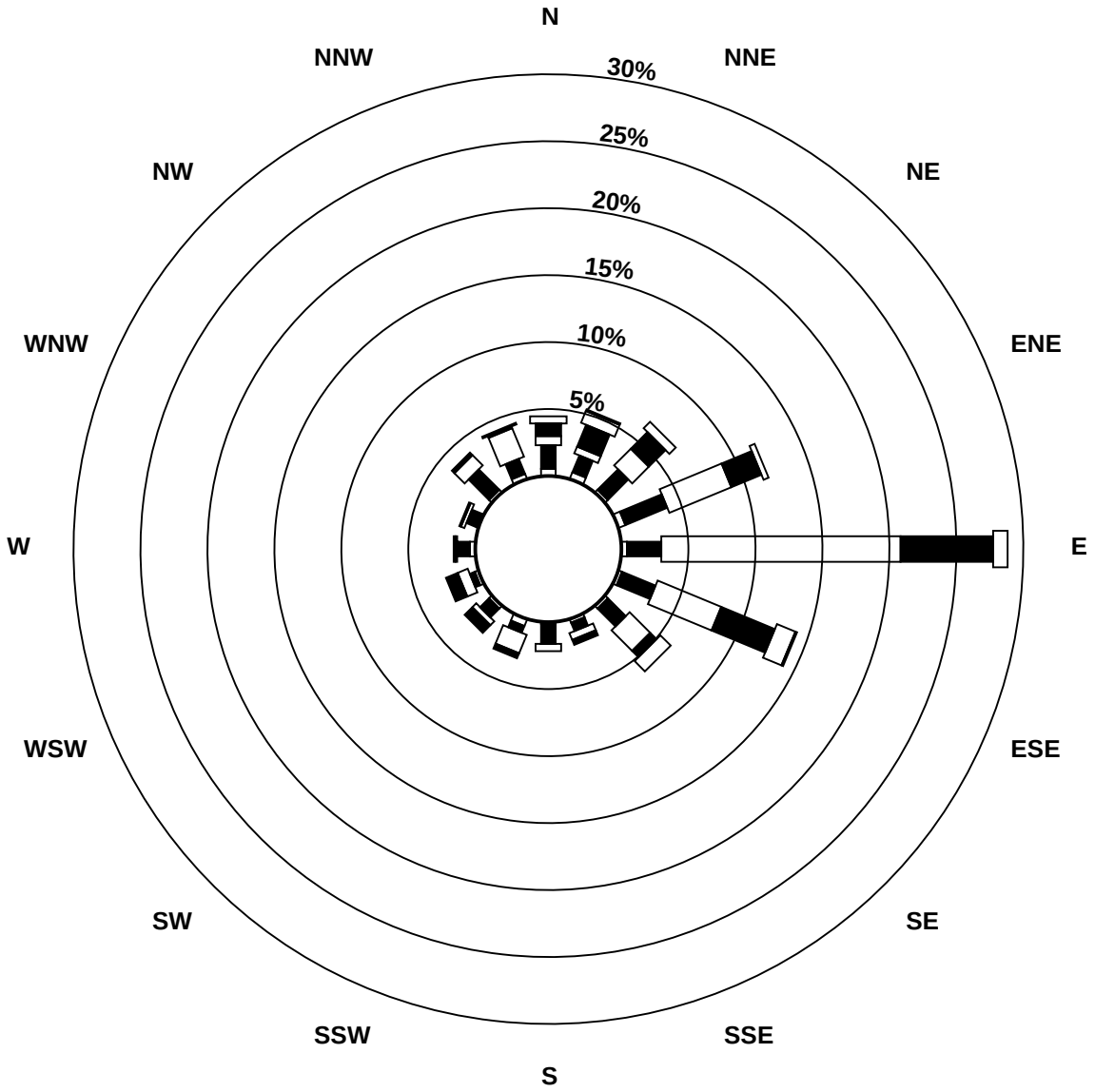
Frequency Distribution

Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	6	21	15	16	12	1	71
NorthEast	5	23	34	29	9	0	100
East	7	45	175	96	16	0	339
SouthEast	5	25	33	14	13	1	91
South	3	15	12	2	0	0	32
SouthWest	4	11	11	11	1	0	38
West	3	14	6	5	0	0	28
NorthWest	3	20	20	2	0	0	45
Total	36	174	306	175	51	2	744

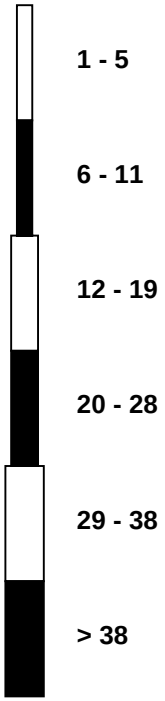
Wind Rose

Wind Speed (WS) (km/h)

Falher - May 2015



Wind Speed Classes (km/h)



Peace Airshed Zone Association

Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Falher - May 2015

Maximum Speed: 42 km/h on May 16 01:00

Maximum Daily Speed Average: 26.8 km/h on May 13

Minimum Speed: 2 km/h on May 31 04:00

Minimum Daily Speed Average: 8.2 km/h on May 8

Maximum Diurnal Speed Average: 19.1 km/h at hour 13

Minimum Diurnal Speed Average: 13.1 km/h at hour 5

Monthly Average Speed: 16.58 km/h

Percentiles: P_1 = 4.1 P_{10} = 7.6 Q_1 = 11.2 Median = 16.0 Q_3 = 21.1 P_{90} = 26.5 P_{99} = 35.2

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	20	19	19	15	16	16	15	26	28	28	26	26	26	21	25	22	22	25	28	12	7	10	22	24	20.7	28.4
2-May	20	16	10	11	10	12	13	16	18	14	9	10	17	16	19	17	11	17	13	12	9	5	9	10	13.0	20.4
3-May	13	7	6	6	4	5	7	9	14	13	11	13	10	7	9	7	7	8	12	13	18	13	8	9	9.6	18.3
4-May	8	7	8	10	10	11	16	21	19	23	24	24	25	28	30	29	27	27	27	23	21	22	27	24	20.6	30.4
5-May	28	31	30	26	21	22	22	25	27	29	31	30	27	29	27	25	22	20	21	19	18	16	16	15	24.0	31.2
6-May	12	12	11	12	11	11	9	13	14	12	13	13	14	12	11	12	9	9	6	6	6	6	9	12	10.6	14.1
7-May	13	11	8	7	11	10	8	9	10	9	8	8	5	6	7	9	11	11	9	11	16	10	9	8	9.3	15.5
8-May	7	6	3	4	6	9	6	8	10	11	10	10	8	9	8	10	6	7	9	10	10	10	8	10	8.2	11.3
9-May	7	15	16	11	6	8	5	12	12	13	13	13	13	14	10	10	11	13	15	18	17	19	17	16	12.7	18.5
10-May	13	16	15	15	17	15	20	23	21	19	24	26	23	22	22	19	17	18	24	22	20	18	19	19	19.5	25.5
11-May	17	16	18	18	17	16	17	19	15	16	19	16	14	14	15	15	15	15	16	18	17	19	20	18	16.6	19.6
12-May	17	18	19	20	19	19	19	23	24	29	33	34	37	40	36	35	33	31	29	24	20	20	18	17	25.5	39.5
13-May	16	19	19	21	19	22	26	31	31	35	37	36	32	33	34	33	31	29	31	27	22	22	19	18	26.8	37.0
14-May	18	18	17	17	11	10	14	21	18	23	23	20	21	21	19	22	20	20	23	23	13	13	13	14	17.9	22.9
15-May	14	15	17	15	7	9	15	19	14	11	14	13	11	11	10	7	10	27	17	13	25	24	19	36	15.6	35.5
16-May	42	35	35	33	35	29	28	28	27	23	22	22	18	19	18	12	12	13	13	12	11	9	5	9	21.3	42.1
17-May	11	17	23	19	16	16	18	21	18	18	21	23	24	21	20	19	19	20	21	24	19	19	19	18	19.3	24.5
18-May	14	15	16	16	14	14	14	19	19	17	20	21	22	20	21	21	22	23	24	25	21	17	17	17	18.7	24.9
19-May	18	17	16	16	14	13	19	21	18	22	21	21	19	20	20	18	19	24	25	26	21	16	16	18	19.1	26.0
20-May	19	20	20	17	15	16	18	23	26	25	22	22	23	17	17	17	17	18	18	18	16	13	16	15	18.7	26.2
21-May	15	15	14	17	16	14	18	18	15	13	13	12	12	10	12	12	12	16	14	13	11	11	9	11	13.5	18.3
22-May	15	14	12	9	11	8	9	7	6	5	9	13	18	11	14	17	12	18	15	15	11	10	10	14	11.8	17.8
23-May	16	18	18	18	21	22	24	24	17	24	26	31	30	26	20	13	13	12	15	22	15	16	14	14	19.5	30.8
24-May	13	12	10	12	11	11	14	20	17	13	17	19	16	11	23	27	11	11	13	11	14	11	9	6	13.9	26.8
25-May	8	9	6	6	6	2	3	7	3	6	8	8	12	12	23	19	31	15	6	5	9	10	7	6	9.5	30.9
26-May	7	9	5	7	6	8	13	17	14	17	18	11	11	13	15	16	14	12	12	14	10	9	9	10	11.6	18.3
27-May	9	9	6	8	7	8	7	7	7	8	12	9	24	30	30	30	28	32	34	29	28	28	25	23	18.2	33.6
28-May	21	24	24	19	16	18	20	21	19	16	14	14	13	15	16	14	16	17	19	17	17	16	15	17	17.4	23.9
29-May	20	17	15	16	14	15	22	26	30	33	33	31	27	23	22	22	20	22	24	29	18	14	7	5	21.0	33.1
30-May	7	11	14	14	15	17	24	24	28	25	26	22	22	25	20	23	22	26	19	12	21	23	6	8	18.9	27.5
31-May	7	5	3	2	7	7	9	11	12	13	14	21	14	8	14	21	21	27	18	10	6	6	6	6	11.2	26.7
	15.0	15.2	14.7	14.0	13.1	13.3	15.4	18.3	17.8	18.2	19.1	19.0	19.1	18.1	18.9	18.5	17.4	18.9	18.3	17.1	15.7	14.7	13.7	14.4	Diurnal Average	
	42.1	35.3	34.8	32.7	34.9	28.9	28.3	31.5	30.6	35.0	37.0	35.8	36.5	39.5	35.8	34.9	32.7	31.7	33.6	28.9	27.8	28.2	26.6	35.5	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

Falher - May 2015

Maximum Value: 92.0 deg on May 8 16:00

Minimum Value: 0.9 deg on May 14 00:00

Percentiles: P_1 = 1.2 P_{10} = 3.1 Q_1 = 5.3 Median = 10.9 Q_3 = 20.5 P_{90} = 37.9 P_{99} = 88.9

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 Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-May	4	4	5	3	2	3	6	5	7	9	15	15	23	28	21	15	17	18	23	46	58	14	9	18	58.2
2-May	7	5	5	4	6	5	5	6	7	13	19	24	27	12	19	22	22	24	16	9	7	54	23	14	53.8
3-May	4	42	31	70	76	26	18	14	9	11	16	18	64	74	41	53	37	27	14	79	7	9	13	42	79.4
4-May	11	10	12	8	7	6	5	5	8	9	12	12	11	11	8	9	8	10	14	17	9	12	10	6	17.1
5-May	3	5	3	3	5	4	3	5	5	4	6	5	5	4	6	8	10	8	5	4	4	6	4	7	10.2
6-May	6	7	10	3	9	6	8	13	14	16	18	28	28	27	27	38	44	43	10	35	13	10	25	6	44.5
7-May	7	7	6	9	5	4	15	12	15	20	44	53	90	79	55	41	32	22	21	24	29	10	5	15	90.2
8-May	11	28	48	20	20	16	12	8	12	17	33	35	79	71	65	92	62	81	25	27	3	3	19	66	92.0
9-May	49	5	3	21	19	48	70	10	12	13	17	27	27	23	30	57	40	26	10	5	4	4	8	2	70.2
10-May	7	8	4	6	5	4	3	4	8	9	11	8	14	16	14	15	18	16	7	2	6	3	11	2	18.3
11-May	1	3	1	2	2	3	2	7	13	12	14	27	28	19	39	25	34	16	14	6	4	2	11	1	38.9
12-May	3	2	2	2	3	5	3	4	11	9	9	8	13	12	11	12	13	9	9	10	4	2	2	2	13.1
13-May	4	1	1	2	4	4	3	4	6	7	10	13	16	12	10	8	11	8	5	4	2	2	3	1	15.9
14-May	2	2	2	2	4	3	7	7	12	9	18	19	21	25	20	17	18	18	12	7	7	12	4	1	24.9
15-May	2	1	1	6	14	6	10	9	19	25	29	25	35	43	63	68	51	12	16	14	16	17	19	6	68.4
16-May	4	5	4	5	5	5	6	7	9	14	20	20	22	28	22	38	45	36	20	15	5	7	19	5	45.2
17-May	10	2	2	1	2	2	6	7	9	11	16	13	14	16	19	20	14	13	10	4	5	3	10	2	20.0
18-May	5	2	5	4	5	4	3	3	11	16	15	16	16	22	17	13	18	11	7	4	5	3	6	4	21.7
19-May	2	2	2	1	2	2	4	6	8	13	21	15	16	16	20	18	24	10	6	4	4	2	4	2	23.8
20-May	2	3	2	2	5	2	5	4	6	10	14	15	14	22	30	24	21	16	14	7	6	7	8	5	29.9
21-May	2	4	3	1	1	2	3	10	12	14	20	48	53	57	35	44	29	22	14	9	5	5	15	4	56.6
22-May	13	9	4	7	6	6	14	21	41	60	33	38	24	73	48	28	40	15	14	10	14	13	25	8	72.8
23-May	4	3	4	2	1	3	5	9	13	7	10	8	8	15	21	37	49	27	15	6	4	7	6	3	48.9
24-May	3	3	5	3	5	3	7	4	9	20	25	28	34	66	70	22	54	15	16	5	8	12	40	72	72.0
25-May	10	49	16	19	35	41	89	24	89	41	27	52	47	47	15	10	53	23	91	77	21	25	13	18	91.3
26-May	23	16	42	27	20	19	12	9	11	11	15	27	33	38	28	23	24	32	17	7	8	7	7	15	42.3
27-May	89	19	32	9	9	20	15	18	23	36	23	53	16	11	7	14	9	8	9	6	9	9	6	4	89.2
28-May	5	4	8	7	7	7	7	7	13	18	25	27	28	38	20	39	21	14	10	6	4	4	2	1	39.0
29-May	5	2	6	6	18	13	4	5	7	8	9	11	11	15	22	15	18	15	9	9	11	2	23	18	22.9
30-May	7	7	5	2	6	5	5	4	5	5	8	10	15	21	14	6	4	4	13	18	9	45	92	12	92.0
31-May	30	22	35	63	24	21	12	8	12	8	13	28	30	55	14	8	18	13	9	10	14	23	25	6	63.3
	89.2	48.7	48.1	70.5	75.8	47.8	89.0	24.1	89.1	59.5	43.8	53.0	90.2	79.5	70.3	92.0	62.0	81.0	91.3	79.4	58.2	53.8	92.0	72.0	

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

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Portable Clairmont - May 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 12.4 ppb on May 28 07:00
Maximum Daily Average: 0.9 ppb on May 28

Minimum Value: 0 ppb on May 4 20:00
Maximum Diurnal Average: 0.9 ppb at hour 7
Monthly Average: 0.41 ppb

Minimum Daily Average: 0.0 ppb on May 5
Minimum Diurnal Average: 0.2 ppb at hour 21
Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.1 Median = 0.3 Q_3 = 0.5 P_{90} = 0.9 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	0	0	0	1	0	0	0	0	0	A	0	0	0	0	0	0.2	0.5
2-May	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	A	0	0	0	0	0	0	0.3	0.9
3-May	0	0	0	0	0	0	0	0	1	2	1	0	0	0	0	0	A	0	0	0	0	1	0	1	0.4	1.6
4-May	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.4	1.7
5-May	0	0	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.0	0.5
6-May	0	0	0	0	0	0	0	0	0	0	1	1	0	A	0	0	1	0	0	0	0	0	0	0	0.2	0.6
7-May	0	0	0	0	0	0	0	0	C	C	C	C	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
8-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
9-May	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	1	0.2	0.7
10-May	0	0	0	0	0	0	0	0	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
11-May	0	1	1	1	1	1	1	1	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	1.4
12-May	1	1	1	1	1	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.1
13-May	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0.4	1.0
14-May	1	1	1	1	0	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.7
15-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	1.2
16-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	0.4
17-May	1	1	A	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0.5	1.3
18-May	1	A	1	2	2	1	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1	0.6	1.7
19-May	A	1	2	2	2	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0.7	2.0
20-May	1	1	1	2	3	2	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	A	1	0.7	2.9
21-May	1	1	2	1	1	0	2	1	1	1	0	1	0	0	0	0	0	0	0	0	0	A	0	4	0.8	4.5
22-May	5	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	1	0.6	5.1
23-May	1	3	2	2	1	0	1	1	1	1	1	1	1	1	0	0	0	0	0	A	0	0	0	1	0.8	3.0
24-May	0	1	1	1	1	1	0	0	1	1	1	1	1	1	0	0	0	0	A	0	0	0	0	1	0.5	1.1
25-May	1	1	1	1	0	0	1	1	1	2	2	3	1	0	1	0	0	A	0	0	0	0	0	0	0.8	2.9
26-May	1	1	1	1	0	0	1	1	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.4	1.0
27-May	0	0	0	0	0	1	1	0	0	0	1	1	1	1	1	A	0	0	0	0	0	0	0	0	0.4	1.1
28-May	0	0	0	0	0	2	12	5	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.9	12.4
29-May	1	1	0	0	0	0	0	1	1	0	0	0	0	A	1	0	0	0	0	0	0	0	1	0	0.4	1.3
30-May	0	0	0	0	0	0	1	1	1	1	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
31-May	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	0.7
	0.6	0.6	0.6	0.6	0.5	0.5	0.9	0.6	0.5	0.5	0.5	0.5	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.5	Diurnal Average	
	5.1	3.0	2.4	2.0	2.9	1.9	12.4	4.8	1.4	1.9	2.1	2.9	1.4	1.1	0.7	0.4	0.6	1.0	0.8	0.7	0.6	0.9	0.7	4.5	Diurnal Maximum	

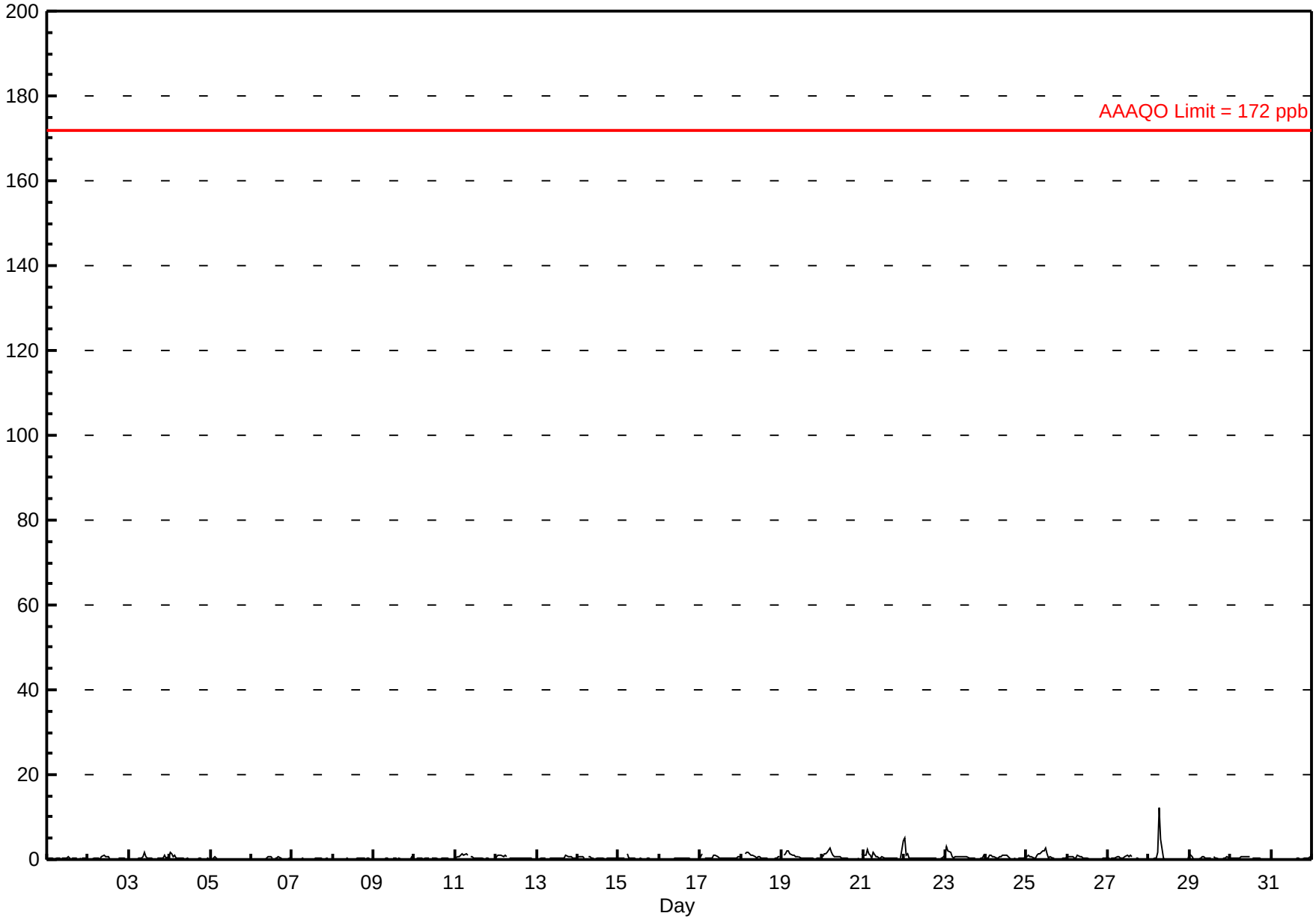
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Portable Clairmont - May 2015



Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Portable Clairmont - May 2015

Maximum Value: 19.4 ppb on May 28 07:00

Maximum Daily Average: 2.6 ppb on May 28

Minimum Value: 0 ppb on May 31 14:00

Minimum Daily Average: 0.7 ppb on May 5

Maximum Diurnal Average: 1.9 ppb at hour 7

Minimum Diurnal Average: 0.8 ppb at hour 18

Monthly Average: 1.20 ppb

Percentiles: $P_1 = 0.5$ $P_{10} = 0.6$ $Q_1 = 0.7$ Median = 0.9 $Q_3 = 1.2$ $P_{90} = 1.9$ $P_{99} = 5.3$

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	1	1	1	5	1	1	1	1	1	A	1	1	1	1	1	0.9	4.5
2-May	1	1	1	1	1	1	1	1	3	4	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1.1	3.6
3-May	1	1	1	1	1	1	1	1	1	3	2	1	1	1	1	1	A	1	1	1	1	2	1	3	1.1	2.6
4-May	3	3	2	2	2	2	1	1	1	1	1	1	1	1	1	A	1	1	1	0	0	1	1	0	1.2	3.1
5-May	1	1	2	2	1	1	1	1	1	1	0	1	1	0	A	1	1	1	1	1	1	1	1	1	0.7	1.5
6-May	0	1	1	1	1	1	1	1	1	1	2	1	1	A	1	1	1	1	1	1	1	1	1	1	0.9	2.2
7-May	1	1	1	1	1	1	1	1	C	C	C	C	A	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0
8-May	1	0	0	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0	1	0.7	1.0
9-May	1	1	0	1	0	1	0	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0	2	2	0.8	2.5
10-May	1	1	3	3	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	3.4
11-May	1	1	1	2	3	3	3	2	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.3	3.5
12-May	1	2	1	2	1	2	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	2.2
13-May	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1.0	1.5
14-May	1	1	1	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.5
15-May	1	1	1	1	A	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0.9	2.7
16-May	1	1	0	A	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.1
17-May	1	3	A	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	3.0
18-May	1	A	2	3	2	3	2	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1.3	3.0
19-May	A	2	3	3	4	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1.4	3.7
20-May	1	2	2	3	6	4	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	4	1.6	6.1
21-May	3	4	5	4	2	2	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	15	2.4	15.0
22-May	13	2	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	2	1.7	13.0
23-May	3	6	5	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	5	1.8	5.6
24-May	2	2	2	2	2	1	1	1	1	1	2	2	2	1	1	1	1	1	A	1	1	1	1	1	1.4	2.4
25-May	2	2	1	1	1	1	1	2	2	3	3	5	2	1	1	1	1	A	1	1	1	1	1	1	1.6	4.5
26-May	1	1	2	1	1	1	2	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1.0	2.4
27-May	1	1	1	1	1	1	1	1	1	1	3	2	2	2	1	A	1	1	1	1	1	1	1	1	1.2	2.9
28-May	1	1	1	2	1	7	19	17	1	1	1	1	1	1	A	1	1	1	0	1	1	1	1	1	2.6	19.4
29-May	3	2	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1.1	2.6
30-May	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0	1	1	1	0.9	1.4
31-May	1	0	0	1	1	1	1	0	1	1	1	A	1	0	1	1	1	1	1	1	2	1	1	1	0.8	1.6
	1.7	1.4	1.6	1.5	1.3	1.5	1.9	1.6	1.1	1.2	1.2	1.2	1.2	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.9	1.7	Diurnal Average	
	13.0	5.6	5.3	3.8	6.1	7.2	19.4	16.6	3.1	3.6	3.0	4.5	4.5	2.4	1.5	1.2	1.1	1.5	1.5	1.4	1.6	2.3	1.9	15.0	Diurnal Maximum	

C - Calibration

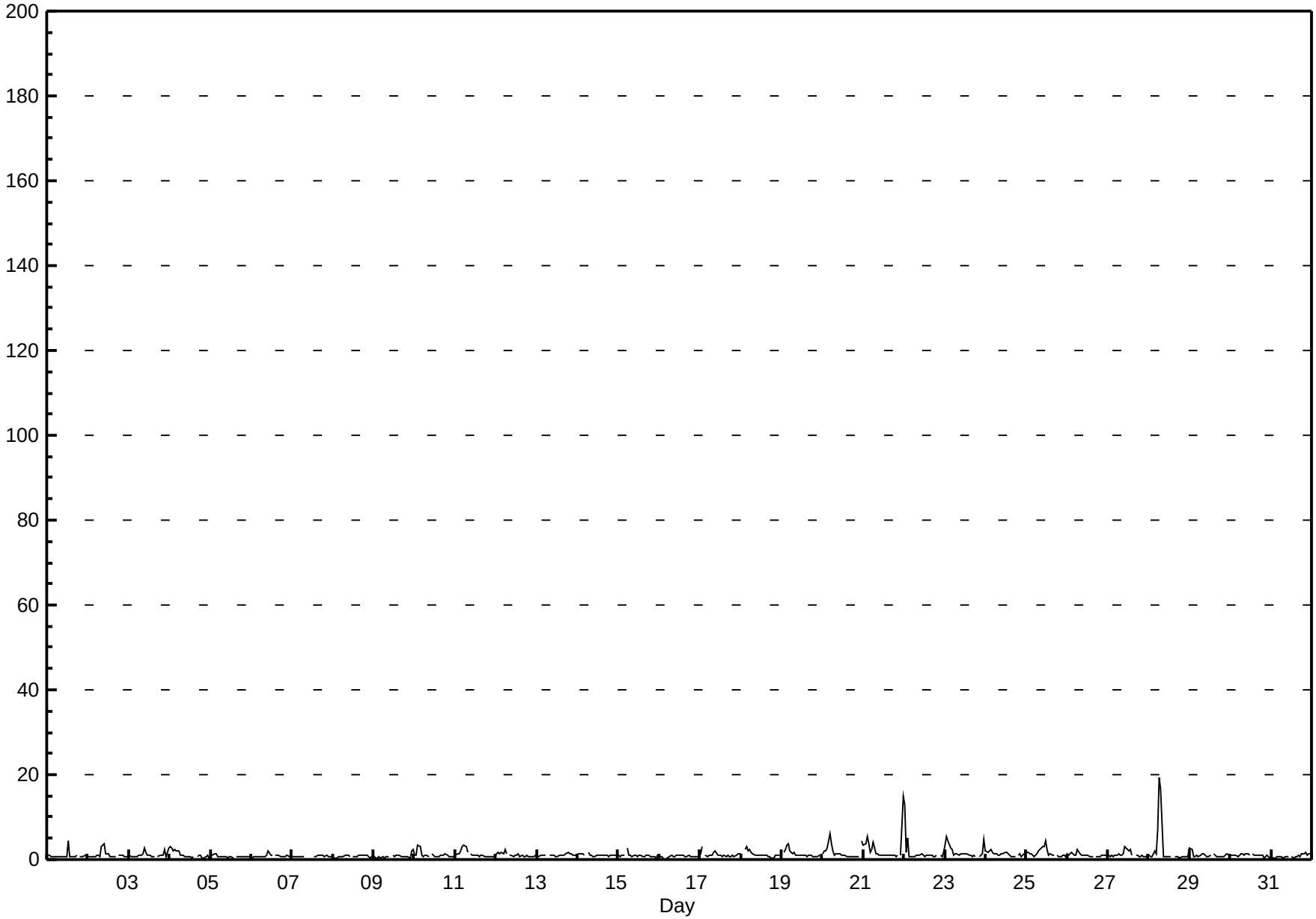
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

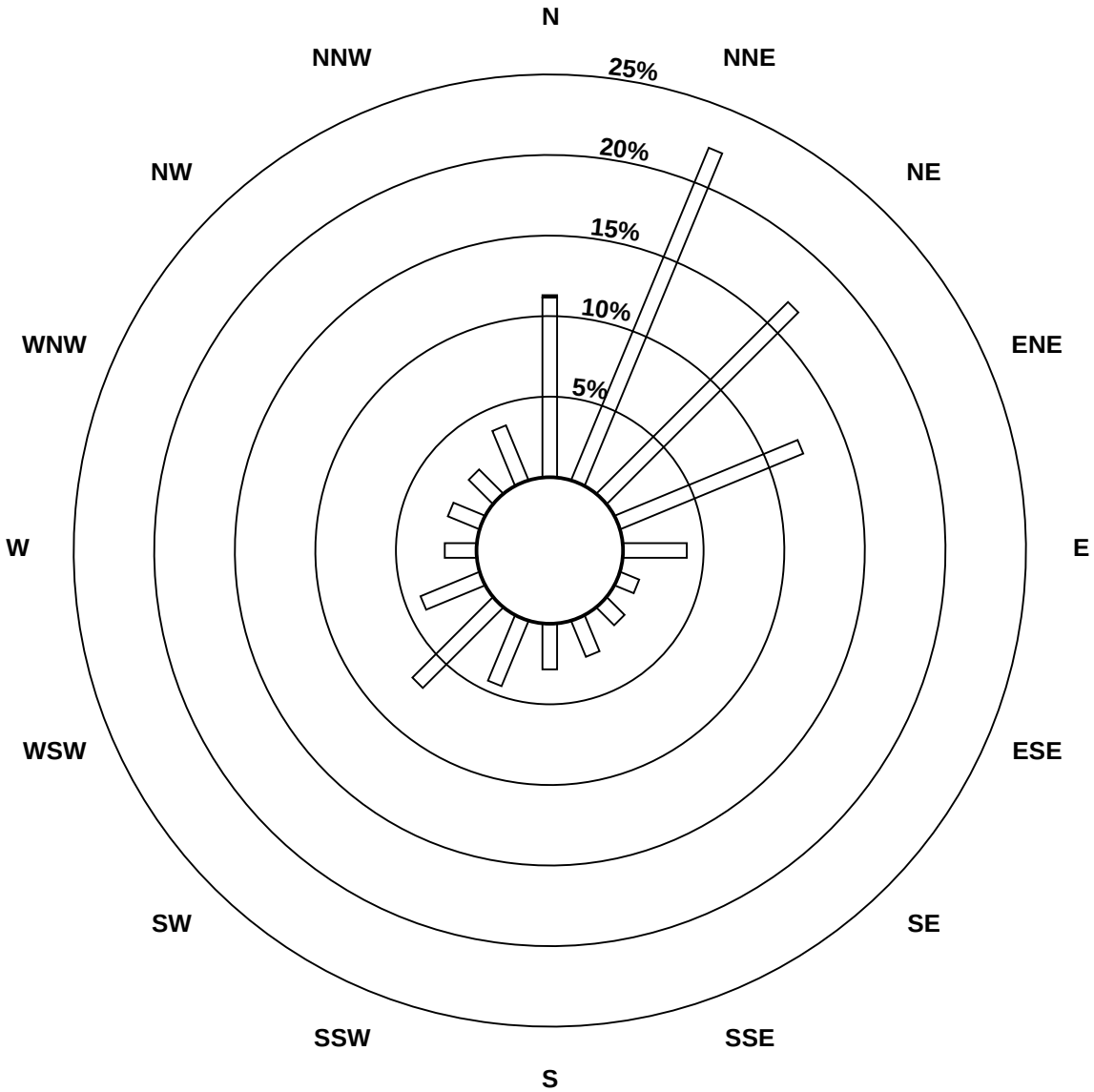
Portable Clairmont - May 2015



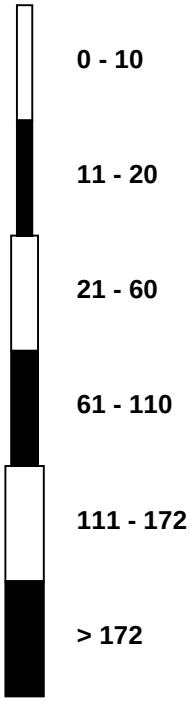
Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Portable Clairmont - May 2015



Pollutant Classes (ppb)

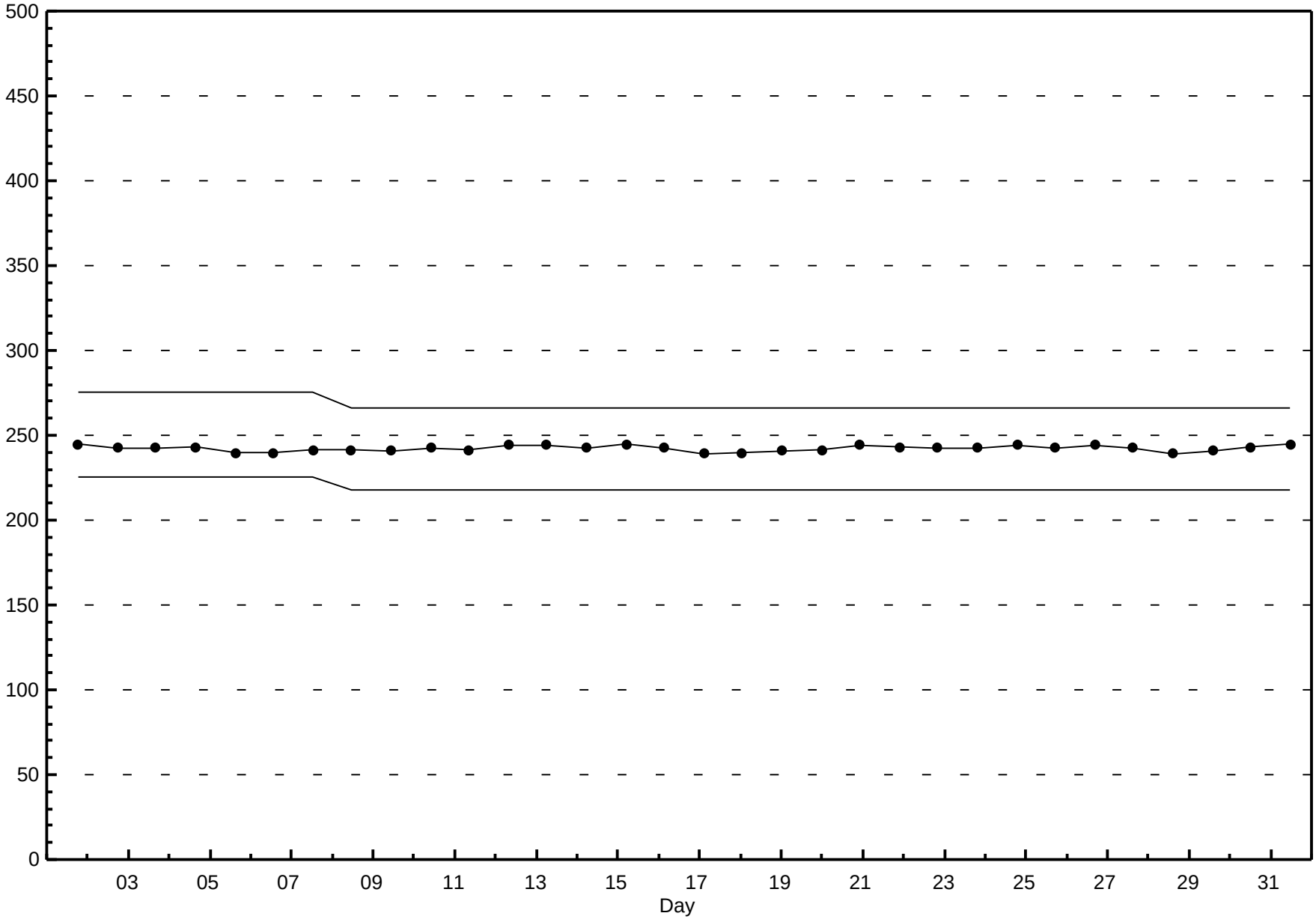


Peace Airshed Zone Association

Span Responses

Sulphur Dioxide (SO_2)

Portable Clairmont - May 2015



Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Portable Clairmont - May 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 2.0 ppb on May 27 05:00 Maximum Daily Average: 0.6 ppb on May 24

Minimum Value: 0 ppb on May 6 02:00 Minimum Daily Average: 0.2 ppb on May 7
Maximum Diurnal Average: 0.6 ppb at hour 6 Minimum Diurnal Average: 0.3 ppb at hour 20
Monthly Average: 0.36 ppb Percentiles: P_1 = 0.0 P_{10} = 0.2 Q_1 = 0.3 Median = 0.3 Q_3 = 0.4 P_{90} = 0.6 P_{99} = 1.1

Hours in Service:	744
Hours of Data:	702
Hours of Missing Data:	42
Hours of Calibration:	34
Percent Operational Time:	98.9

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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.3	0.4
2-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
3-May	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.4	0.6
4-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	0.3	0.4
5-May	0	0	0	0	0	0	0	0	0	0	M	0	0	0	A	0	0	0	0	0	0	0	0	0	0.3	0.4
6-May	0	0	0	0	0	0	0	M	M	M	M	M	M	M	0	0	0	0	0	0	0	0	0	0	--	0.2
7-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
8-May	0	0	0	0	0	0	1	1	C	C	C	C	1	0	0	0	0	0	0	0	0	0	0	1	0.4	0.8
9-May	1	1	1	1	1	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	1.2
10-May	0	0	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
11-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	0.5
12-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	0.5
13-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
14-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	0.5
15-May	0	0	0	1	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.4	0.7
16-May	1	1	1	A	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0.9
17-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
18-May	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
19-May	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.3	0.6
20-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	0.3	0.5
21-May	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.5	1.5
22-May	0	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.4	1.0
23-May	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	1	1	1	1	A	1	0	1	1	0.6	0.9
24-May	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0	A	0	0	0	1	1	0.6	1.2
25-May	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	1	0	A	0	0	0	0	0	0	0.5	0.9
26-May	1	1	1	1	0	1	1	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.4	0.8
27-May	0	1	0	1	2	1	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.5	2.0
28-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
29-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	0.5
30-May	0	0	0	0	1	0	0	0	1	1	1	0	A	1	0	0	0	0	0	0	1	0	0	0	0.5	0.6
31-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
	0.4	0.4	0.4	0.5	0.5	0.6	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	Diurnal Average	
	0.9	0.9	1.1	1.2	2.0	1.5	1.0	0.8	0.6	0.6	0.5	0.5	0.6	0.7	0.7	0.6	0.5	0.5	0.5	0.5	0.6	0.5	0.7	0.8	Diurnal Maximum	

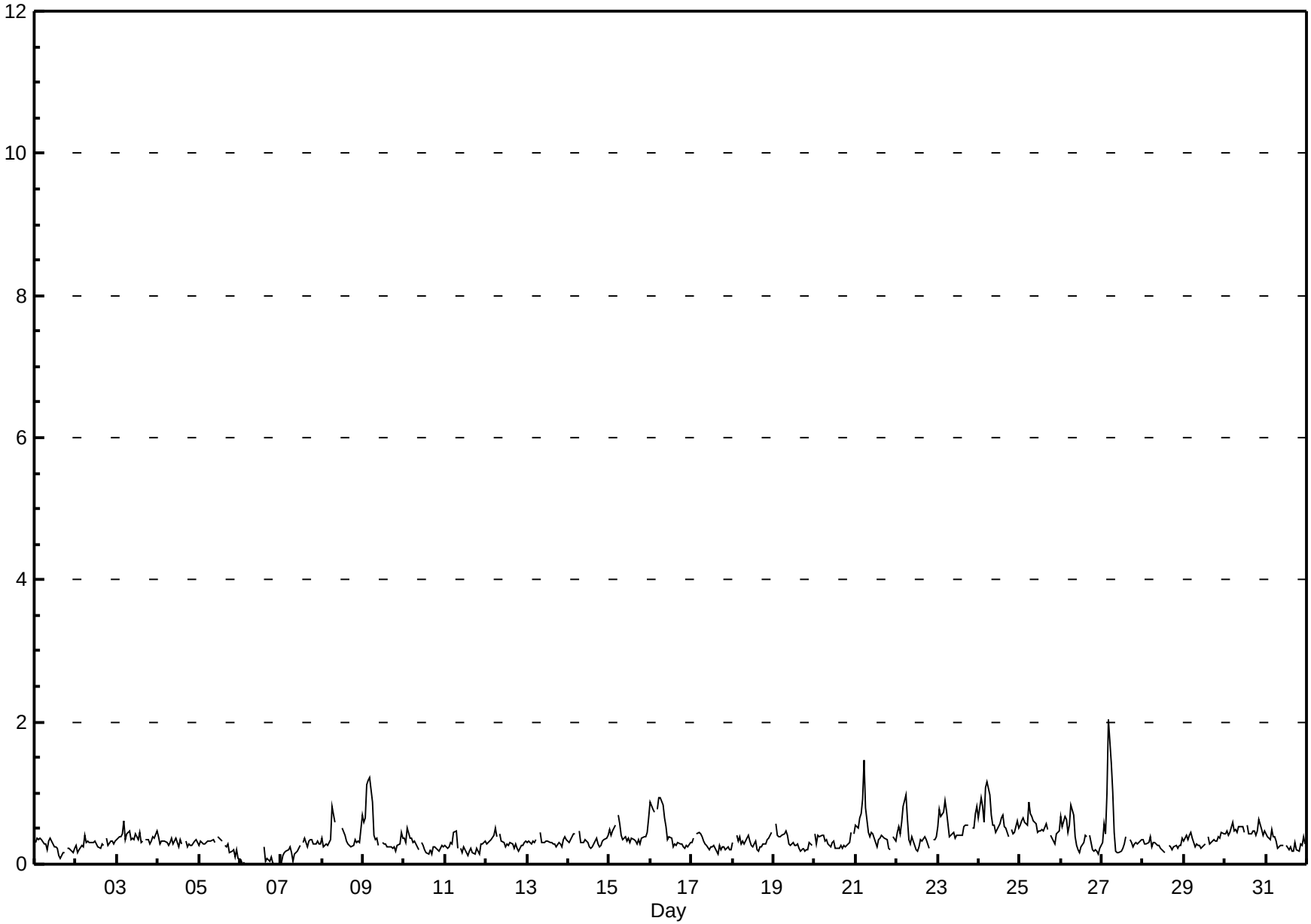
C - Calibration M - Maintenance A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb

Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Portable Clairmont - May 2015



Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

Portable Clairmont - May 2015

Maximum Value: 4.7 ppb on May 27 05:00

Maximum Daily Average: 1.3 ppb on May 27

Minimum Value: 0 ppb on May 6 07:00

Minimum Daily Average: 0.7 ppb on May 11

Maximum Diurnal Average: 1.1 ppb at hour 5

Minimum Diurnal Average: 0.8 ppb at hour 19

Monthly Average: 0.89 ppb

Percentiles: $P_1 = 0.5$ $P_{10} = 0.7$ $Q_1 = 0.7$ Median = 0.8 $Q_3 = 1.0$ $P_{90} = 1.1$ $P_{99} = 1.8$

Hours in Service:	744
Hours of Data:	702
Hours of Missing Data:	42
Hours of Calibration:	34
Percent Operational Time:	98.9

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	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.7	1.0
2-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0.8	1.1
3-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.9	1.3
4-May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0.8	1.0
5-May	1	1	1	1	1	1	1	1	1	1	M	1	1	1	A	1	1	1	1	1	1	1	1	1	0.8	1.0
6-May	1	0	1	1	0	0	0	M	M	M	M	M	M	M	1	1	0	1	1	0	1	1	0	0	--	0.7
7-May	0	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0
8-May	1	1	1	1	1	1	1	1	C	C	C	C	1	1	1	1	1	1	1	1	1	1	1	2	0.9	2.4
9-May	1	1	2	2	3	2	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	2.6
10-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	0.8	1.1
11-May	1	1	1	1	1	1	1	1	A	1	1	1	1	0	1	1	1	0	1	1	1	1	1	1	0.7	1.2
12-May	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.2
13-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	0.8	1.1
14-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	0.8	1.1
15-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	1.4
16-May	2	1	1	A	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.5
17-May	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0
18-May	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1
19-May	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.8	1.2
20-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	1.0
21-May	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1.0	2.0
22-May	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.9	1.8
23-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	1.1	1.4
24-May	1	2	1	1	2	2	2	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1.2	1.8
25-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	1.1	1.4
26-May	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1.0	2.3
27-May	1	1	1	5	5	3	2	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1.3	4.7
28-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	0.8	1.1
29-May	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.8	1.0
30-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	1.0	1.2
31-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	0.9	1.1
	0.9	1.0	1.0	1.1	1.1	1.1	1.0	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.9	Diurnal Average	
	1.5	1.8	2.0	4.6	4.7	3.4	2.3	1.8	1.3	1.2	1.2	1.2	1.0	1.2	1.4	1.3	1.1	1.1	1.0	1.0	1.1	1.2	1.1	2.4	Diurnal Maximum	

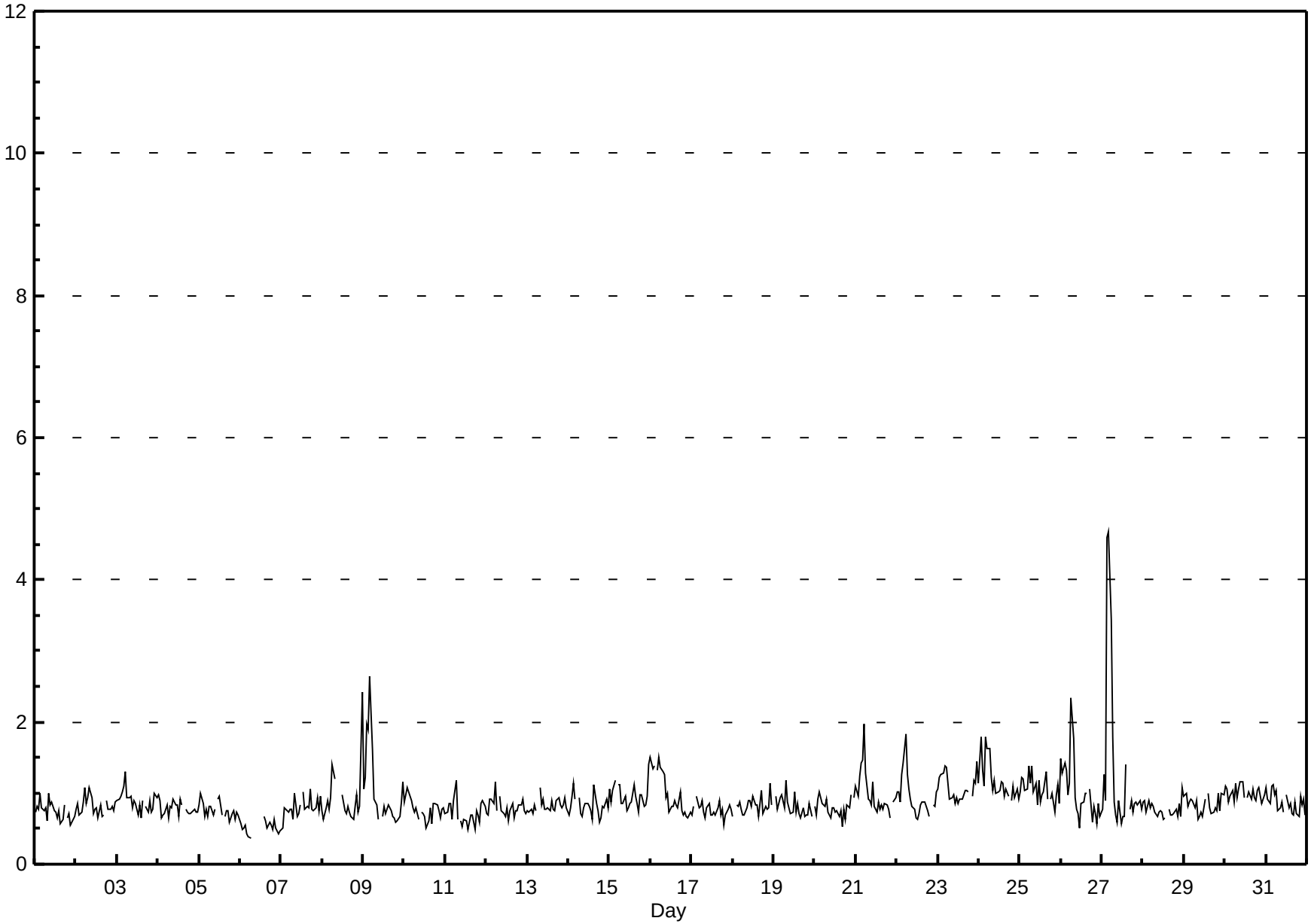
C - Calibration M - Maintenance A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

Portable Clairmont - May 2015

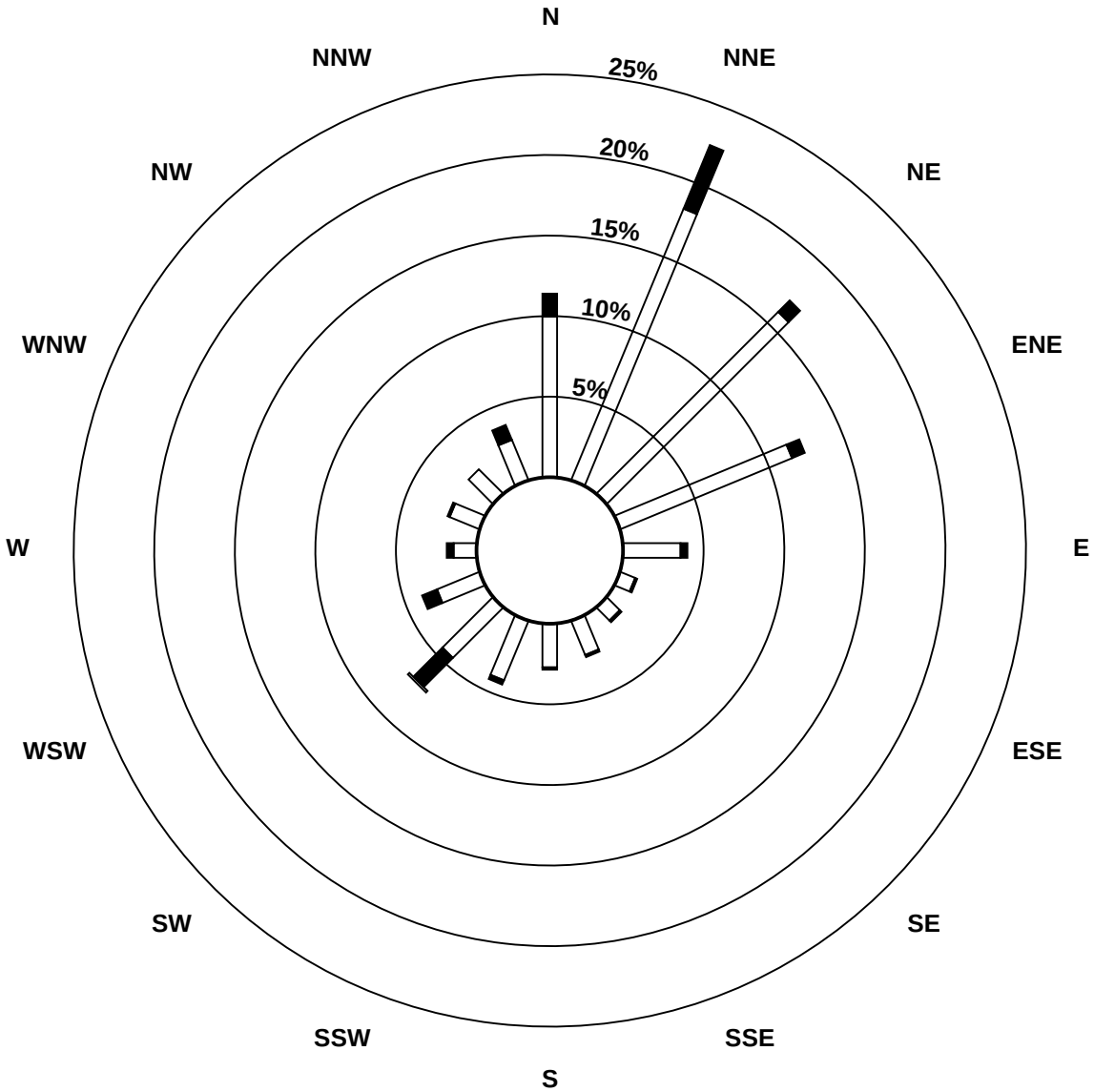


Peace Airshed Zone Association

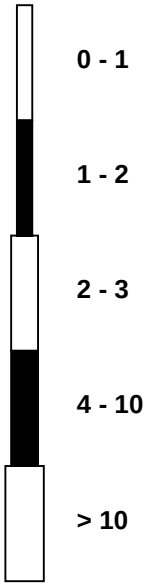
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb

Portable Clairmont - May 2015



Pollutant Classes (ppb)

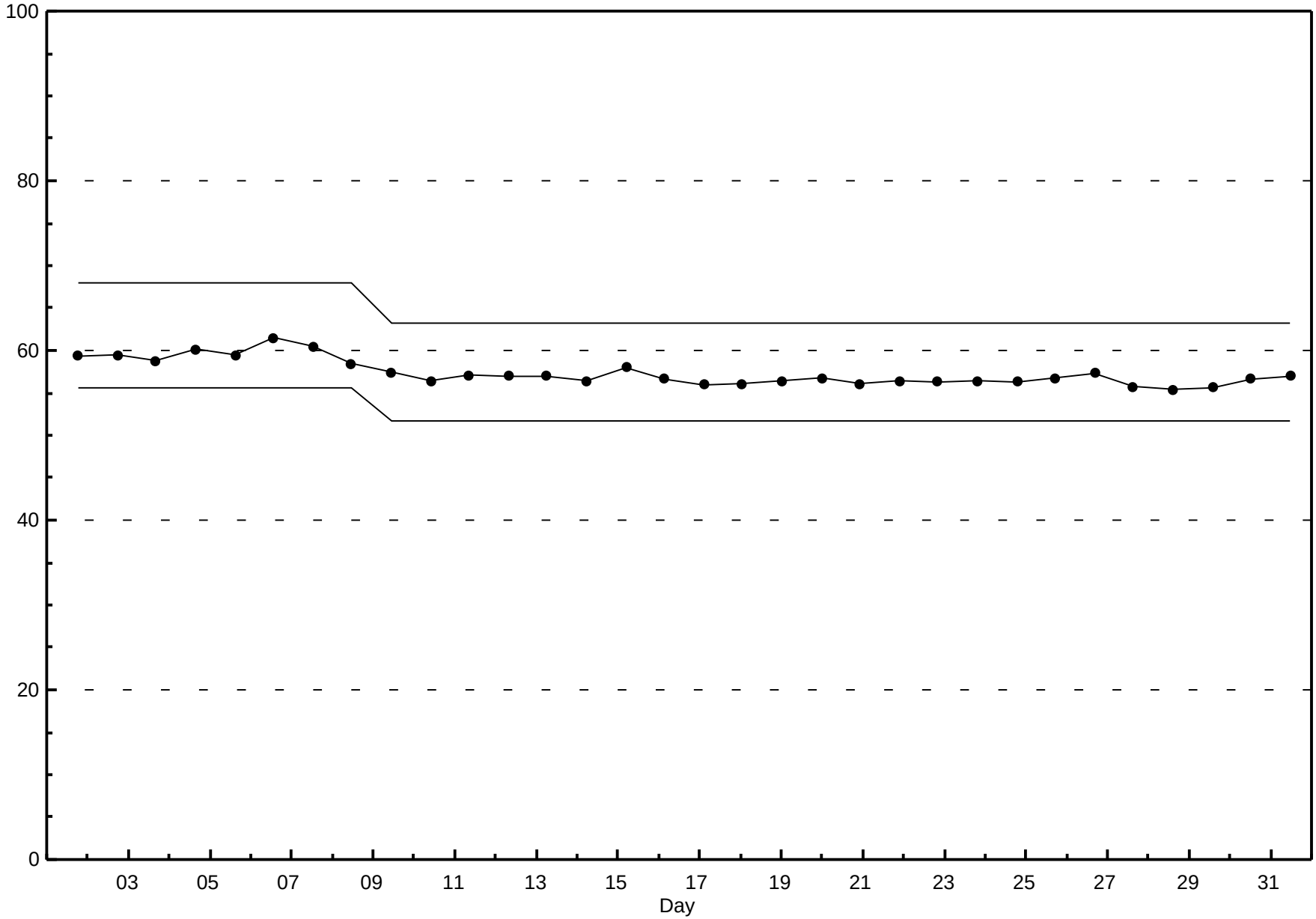


Peace Airshed Zone Association

Span Responses

Total Reduced Sulphur (TRS)

Portable Clairmont - May 2015



Peace Airshed Zone Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Portable Clairmont - May 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 20.4 ppb on May 22 06:00
Maximum Daily Average: 7.4 ppb on May 27

Minimum Value: 0 ppb on May 16 18:00
Maximum Diurnal Average: 6.1 ppb at hour 6
Monthly Average: 3.20 ppb

Minimum Daily Average: 1.0 ppb on May 16
Minimum Diurnal Average: 1.4 ppb at hour 14
Percentiles: P_1 = 0.7 P_{10} = 1.0 Q_1 = 1.4 Median = 2.2 Q_3 = 3.4 P_{90} = 7.1 P_{99} = 16.4

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	2	3	2	3	5	9	10	5	3	2	2	1	1	1	1	2	1	1	A	2	2	2	2	3	2.8	10.0
2-May	2	2	3	3	3	4	3	3	3	2	2	1	1	1	1	1	1	A	3	4	6	4	3	5	2.6	6.2
3-May	6	6	9	9	10	7	6	3	2	2	1	1	1	1	1	1	A	1	1	1	1	2	2	2	3.3	9.7
4-May	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	A	1	1	0	1	1	1	1	1	1.0	1.6
5-May	1	1	1	1	1	1	1	3	1	1	1	1	2	1	A	2	1	1	1	1	1	1	2	1	1.2	2.6
6-May	3	2	2	4	4	9	7	3	1	1	1	1	1	A	2	2	2	1	1	1	3	6	7	5	3.0	8.8
7-May	4	2	2	2	2	3	3	7	C	C	C	C	A	1	1	2	2	1	1	1	2	9	11	15	3.7	15.4
8-May	7	7	11	3	9	17	16	12	14	8	7	A	4	1	2	2	1	2	1	2	7	7	7	12	6.9	17.3
9-May	14	11	10	13	13	12	2	2	2	2	A	2	1	1	1	1	1	1	1	1	2	2	2	2	4.3	14.3
10-May	2	2	2	1	2	2	2	2	2	A	2	2	1	1	1	1	1	1	1	1	4	3	2	3	1.7	3.6
11-May	3	3	2	2	3	3	3	3	A	3	3	3	2	2	2	1	1	1	1	2	2	3	2	3	2.2	3.2
12-May	3	3	3	3	3	3	3	A	3	2	2	2	1	1	2	1	1	1	1	1	2	2	2	2	2.0	3.2
13-May	2	2	2	2	2	2	A	3	2	2	2	1	1	1	1	1	1	3	2	2	2	2	2	2	1.8	2.9
14-May	3	2	2	2	2	A	4	4	3	2	1	2	2	2	2	1	1	1	1	1	3	3	2	3	2.2	4.2
15-May	3	3	3	3	A	4	4	3	4	4	4	2	2	2	2	1	2	1	1	2	3	4	6	3	2.8	5.5
16-May	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	2	2	1	1.0	2.1
17-May	2	2	A	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	2	2	2	2	1.5	2.5
18-May	2	A	3	3	3	4	3	3	3	2	2	2	2	1	1	1	1	1	1	1	2	3	3	3	2.1	4.0
19-May	A	3	3	3	3	4	3	5	3	3	2	2	2	1	3	1	1	1	1	1	2	3	3	A	2.4	5.0
20-May	3	3	3	3	3	4	5	4	4	3	2	2	2	1	3	1	1	1	1	3	3	3	A	4	2.7	4.9
21-May	3	3	3	4	5	5	4	5	6	8	5	4	3	2	3	2	1	1	1	2	5	A	12	9	4.2	12.5
22-May	7	5	5	14	19	20	10	7	7	5	2	2	2	2	2	2	2	1	1	2	A	4	4	4	5.6	20.4
23-May	4	5	5	5	4	4	4	3	3	3	2	2	2	1	1	1	1	1	1	A	2	3	3	4	2.9	5.1
24-May	3	3	3	3	3	3	3	3	3	3	3	3	2	2	1	2	2	2	A	4	4	5	6	4	3.1	6.5
25-May	4	6	9	8	8	14	16	9	6	5	7	4	3	2	3	4	3	A	3	2	9	12	10	9	6.7	15.7
26-May	10	8	12	13	14	14	13	11	8	4	4	3	3	2	2	2	A	3	1	4	5	6	11	7	7.1	14.4
27-May	10	13	12	12	19	19	17	10	4	5	3	3	3	2	7	A	8	6	6	5	2	2	1	2	7.4	19.2
28-May	2	2	2	2	2	2	2	2	2	1	1	0	0	1	A	1	1	1	1	1	1	2	2	2	1.3	2.2
29-May	2	2	3	4	3	2	2	2	2	2	1	1	1	A	2	2	2	2	1	2	2	3	3	3	2.2	3.9
30-May	2	3	2	3	3	2	2	2	3	3	3	3	A	3	2	2	2	3	6	4	6	8	6	6	3.5	7.7
31-May	5	4	5	6	6	6	5	3	3	2	2	A	2	2	2	2	2	2	2	5	5	5	6	8	3.8	8.2
	3.9	3.7	4.2	4.6	5.3	6.1	5.3	4.3	3.5	2.8	2.4	1.9	1.7	1.4	1.8	1.5	1.6	1.5	1.6	2.1	3.1	3.8	4.3	4.3	Diurnal Average	
	14.3	13.5	12.0	14.3	19.5	20.4	16.6	11.7	14.4	7.9	6.8	4.1	3.7	2.9	7.2	3.8	8.1	5.7	6.0	5.2	8.6	12.1	12.5	15.4	Diurnal Maximum	

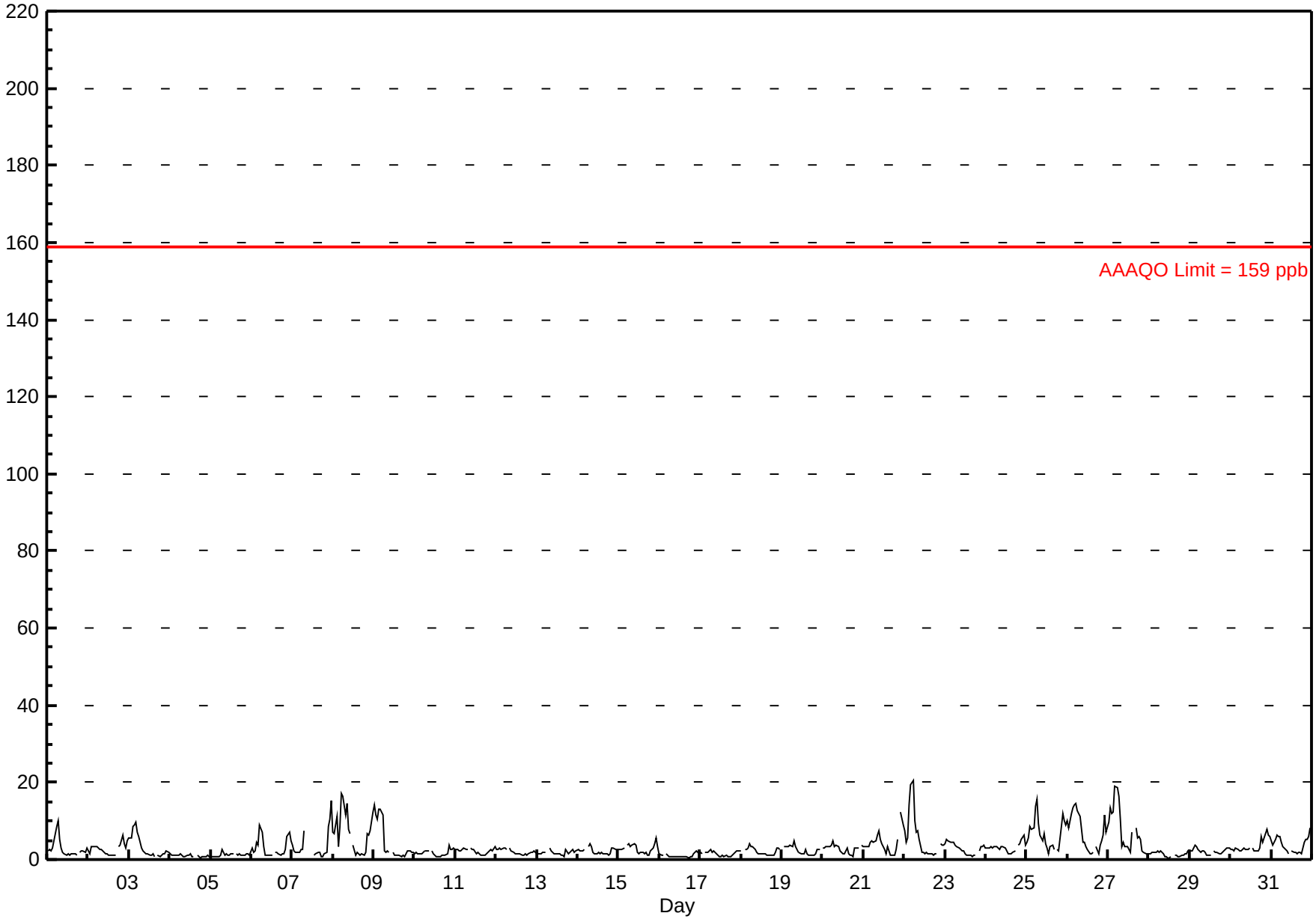
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb 24-hr 106 ppb

Peace Airshed Zone Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Portable Clairmont - May 2015



Peace Airshed Zone Association

Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

Portable Clairmont - May 2015

Maximum Value: 80.4 ppb on May 13 18:00

Maximum Daily Average: 16.7 ppb on May 8

Minimum Value: 1 ppb on May 5 01:00

Minimum Daily Average: 2.6 ppb on May 16

Maximum Diurnal Average: 12.5 ppb at hour 7

Minimum Diurnal Average: 5.1 ppb at hour 2

Monthly Average: 8.00 ppb

Percentiles: P_1 = 1.2 P_{10} = 2.2 Q_1 = 3.0 Median = 4.9 Q_3 = 9.7 P_{90} = 17.4 P_{99} = 46.1

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	3	4	3	4	7	13	27	17	6	5	4	2	5	3	6	4	3	2	A	3	5	4	5	16	6.7	26.9
2-May	4	2	8	6	6	6	5	5	6	5	6	3	2	3	2	5	2	A	8	15	10	6	5	9	5.5	15.1
3-May	10	9	14	14	16	12	9	5	4	3	4	3	3	2	9	3	A	5	4	3	4	4	16	3	6.9	16.1
4-May	2	2	1	2	2	2	24	9	2	3	22	16	53	2	7	A	3	2	3	3	2	1	3	1	7.2	52.9
5-May	1	1	1	1	1	2	4	36	3	7	5	3	6	3	A	3	6	4	3	3	2	5	4	4	4.6	36.2
6-May	6	3	3	18	8	30	18	7	3	3	2	3	2	A	6	5	6	4	4	4	7	18	12	6	7.8	30.4
7-May	8	3	3	6	3	6	16	24	C	C	C	C	A	5	4	7	14	6	4	31	7	13	18	19	10.4	31.3
8-May	15	14	18	10	21	35	24	16	22	14	13	A	18	3	32	9	2	3	3	4	13	24	24	45	16.7	45.3
9-May	18	14	21	17	23	20	10	3	4	6	A	9	2	7	5	3	2	10	2	13	12	16	17	2	10.2	22.9
10-May	2	3	2	2	2	3	3	3	3	A	4	6	12	12	6	1	2	2	5	3	13	3	4	4	4.3	13.2
11-May	3	4	3	3	3	5	5	14	A	8	14	9	8	21	5	2	7	4	8	10	4	3	8	6	6.8	21.0
12-May	3	3	4	3	3	7	4	A	4	6	4	3	8	3	23	4	2	2	3	4	5	3	3	2	4.6	23.0
13-May	2	2	2	2	2	4	A	11	6	5	3	6	4	5	3	4	4	80	7	6	7	4	3	3	7.5	80.4
14-May	3	5	3	3	3	A	12	12	4	3	4	2	7	5	8	5	2	6	4	2	10	5	5	3	5.0	12.3
15-May	3	3	4	4	A	10	16	7	8	29	66	10	8	14	12	6	14	2	2	6	4	19	18	9	12.0	65.9
16-May	3	2	3	A	2	3	2	1	2	1	7	4	2	2	2	2	1	1	4	3	2	5	3	2	2.6	6.8
17-May	2	2	A	2	2	4	3	2	3	2	2	2	1	9	2	12	3	3	1	2	2	3	6	13	3.7	13.2
18-May	3	A	3	3	4	9	4	4	4	2	3	5	4	5	3	3	5	2	1	4	5	14	3	4	4.2	14.0
19-May	A	4	4	4	4	7	7	15	10	4	3	3	2	2	16	8	4	3	2	3	3	11	3	A	5.5	15.8
20-May	3	3	4	5	7	9	61	11	21	6	3	4	5	7	24	6	2	4	8	79	10	5	A	17	13.3	78.8
21-May	4	4	4	4	7	10	10	11	18	36	8	5	4	8	12	14	3	6	5	14	12	A	51	17	11.6	50.8
22-May	13	7	12	19	35	26	19	16	16	10	3	6	9	26	8	24	17	9	13	9	A	9	9	8	14.0	35.4
23-May	5	7	6	6	8	5	8	4	13	4	31	8	7	3	2	2	10	2	2	A	3	7	4	5	6.6	30.8
24-May	4	4	4	4	3	4	4	4	5	10	8	10	11	4	6	6	7	7	A	7	6	8	9	7	6.1	10.7
25-May	7	6	11	10	16	22	21	26	8	9	14	7	9	4	19	29	10	A	17	9	35	19	13	13	14.5	34.9
26-May	11	11	13	16	19	23	23	14	11	6	6	5	12	3	15	11	A	48	4	16	13	16	18	13	14.1	47.8
27-May	12	18	13	17	23	21	20	16	5	6	12	5	14	3	33	A	18	13	13	11	6	3	2	2	12.5	33.5
28-May	2	2	2	2	4	10	4	32	20	2	8	4	3	7	A	5	4	3	3	17	3	4	2	3	6.3	31.6
29-May	3	3	4	4	4	16	5	10	5	4	2	3	2	A	6	7	6	4	2	3	7	9	4	4	4.9	15.6
30-May	4	3	4	3	3	3	3	3	6	4	6	10	A	4	5	9	4	6	19	8	10	13	8	8	6.2	18.6
31-May	8	4	6	8	7	7	6	6	5	3	2	A	4	4	3	3	3	3	3	11	17	6	11	11	6.1	16.7
	5.5	5.1	6.1	6.7	8.3	11.1	12.5	11.4	7.9	7.1	9.2	5.5	7.8	6.2	9.8	6.8	5.8	8.5	5.4	10.1	7.9	8.6	9.7	8.6	Diurnal Average	
	17.9	17.8	21.4	18.8	35.4	35.0	60.7	36.2	22.1	35.9	65.9	15.8	52.9	25.5	33.5	28.9	17.6	80.4	18.6	78.8	34.9	23.6	50.8	45.3	Diurnal Maximum	

C - Calibration

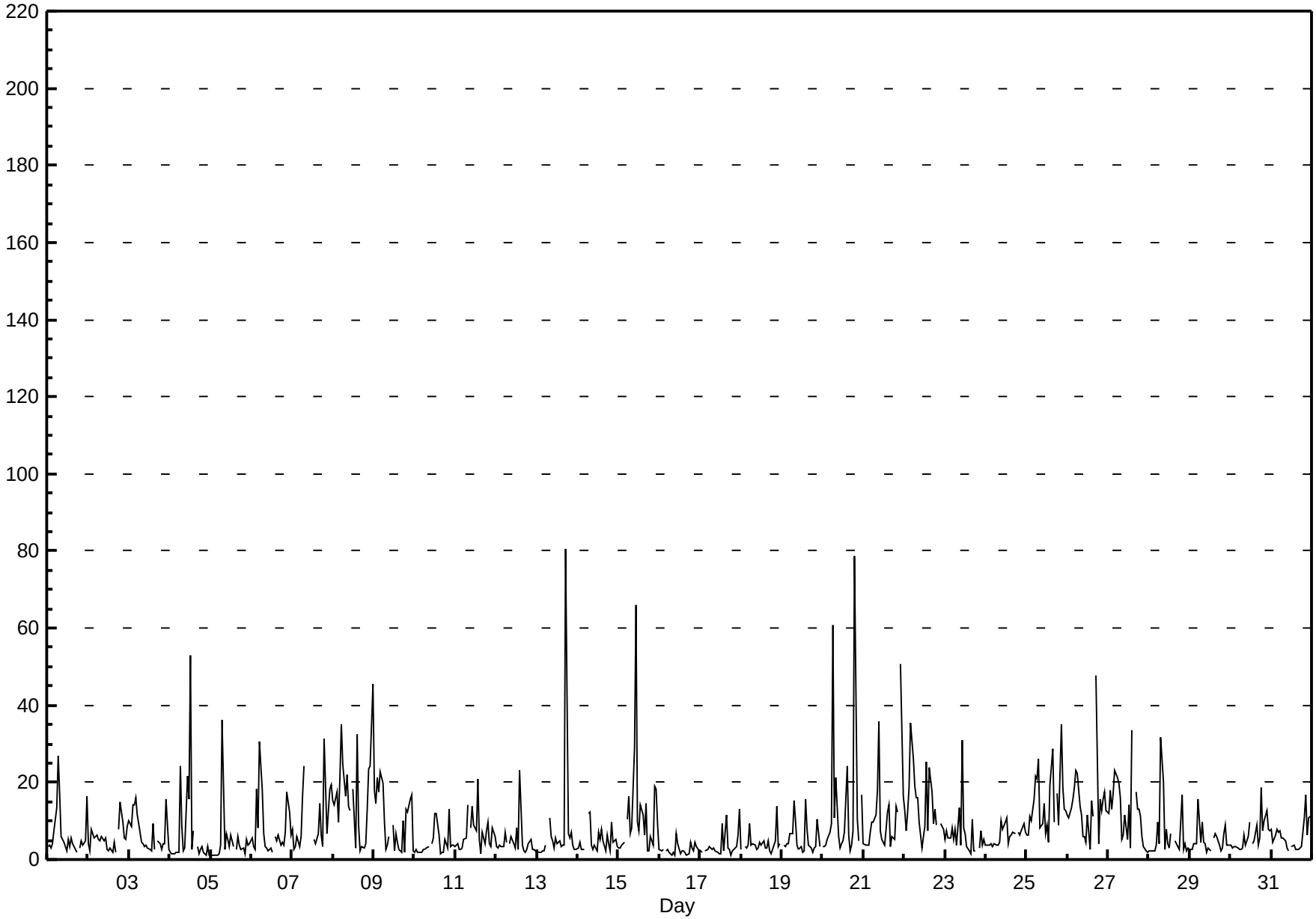
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

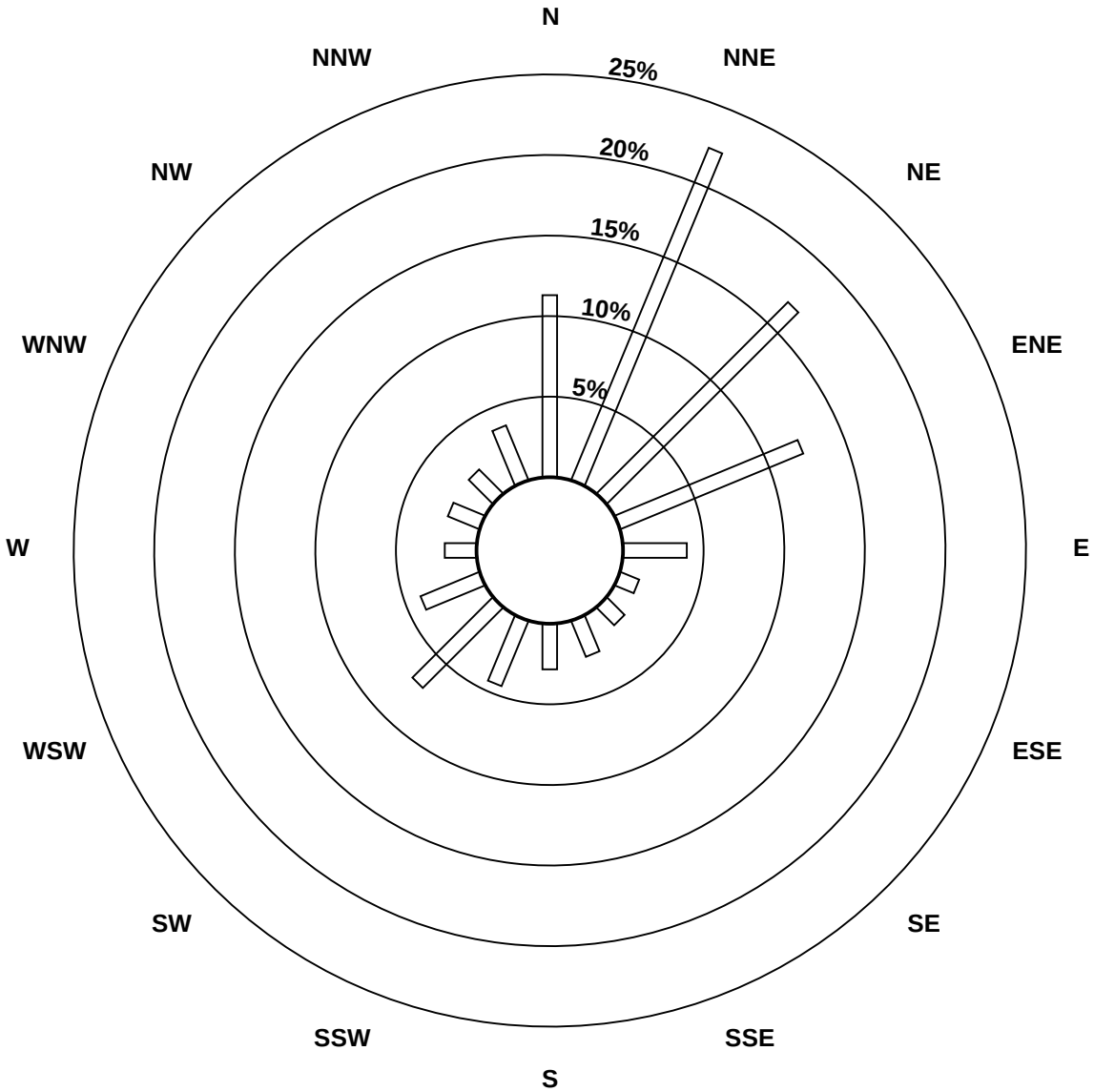
Portable Clairmont - May 2015



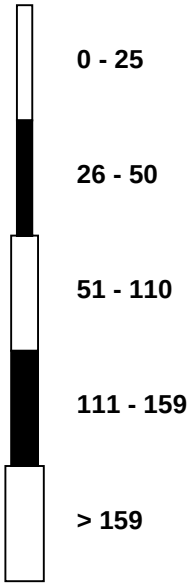
Pollutant Rose

Nitrogen Dioxide (NO_2) - ppb

Portable Clairmont - May 2015



Pollutant Classes (ppb)

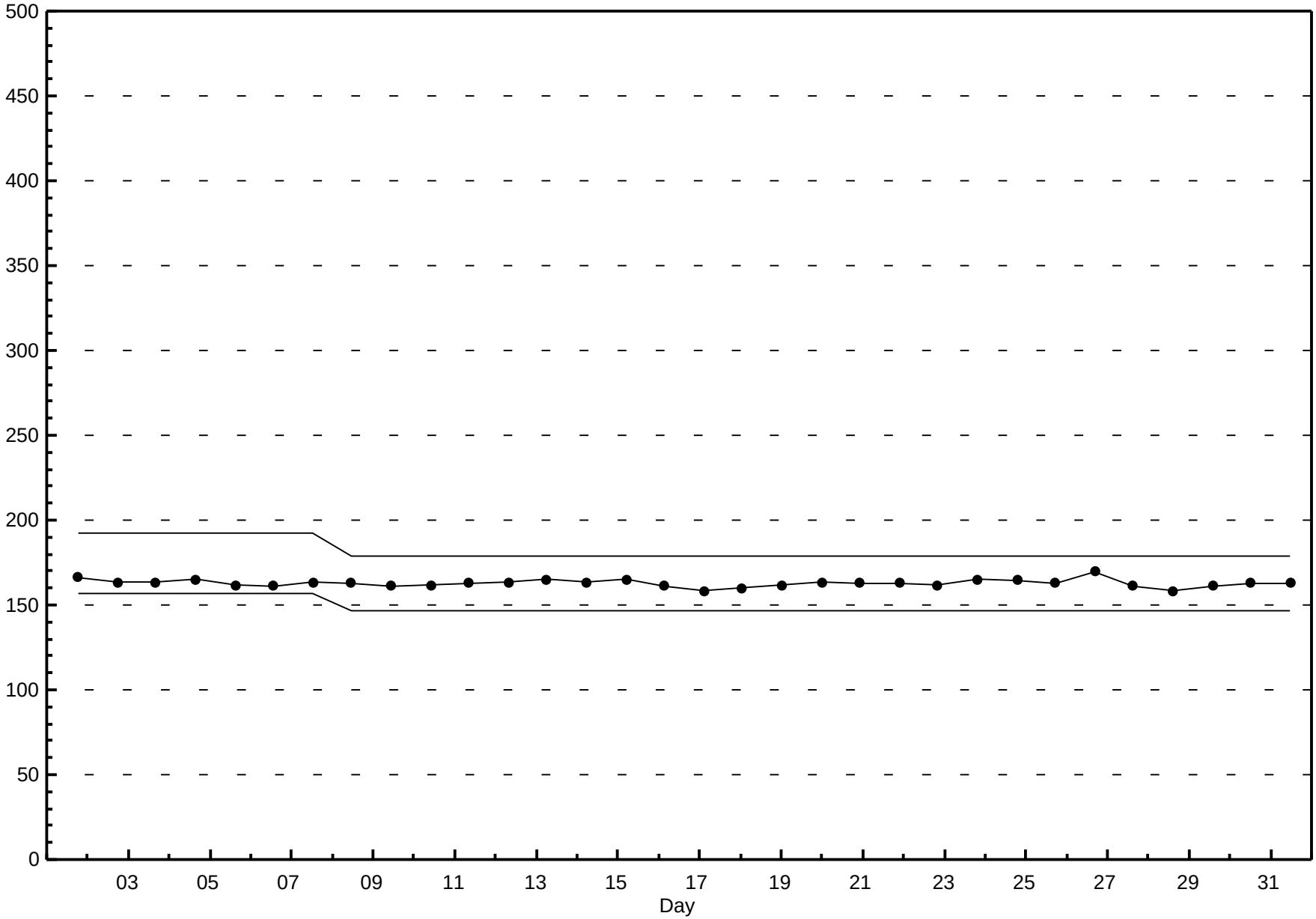


Peace Airshed Zone Association

Span Responses

Nitrogen Dioxide (NO_2)

Portable Clairmont - May 2015



Peace Airshed Zone Association

Hourly Averages

Nitrogen Oxide (NO) - ppb

Portable Clairmont - May 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 13.0 ppb on May 27 07:00 Maximum Daily Average: 2.7 ppb on May 8

Minimum Value: 0 ppb on May 24 03:00 Minimum Daily Average: 0.2 ppb on May 16
Maximum Diurnal Average: 1.8 ppb at hour 7 Minimum Diurnal Average: 0.1 ppb at hour 1
Monthly Average: 0.57 ppb Percentiles: $P_1 = 0.0$ $P_{10} = 0.1$ $Q_1 = 0.1$ Median = 0.3 $Q_3 = 0.6$ $P_{90} = 1.1$ $P_{99} = 7.2$

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	0	0	0	0	0	1	2	2	1	1	1	0	0	0	0	0	0	0	A	0	0	0	0	1	0.5	1.8
2-May	0	0	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0	A	0	1	0	0	0	0	0.5	1.1
3-May	0	0	1	1	1	1	2	1	1	1	0	1	0	0	0	1	A	0	0	0	0	0	0	0	0.5	1.5
4-May	0	0	0	0	0	0	1	1	0	0	1	1	1	0	1	A	0	0	1	0	0	0	0	0	0.3	0.9
5-May	0	0	0	0	0	0	0	1	0	1	1	0	1	1	A	1	1	1	0	0	0	0	0	0	0.4	1.2
6-May	0	0	0	1	0	1	3	1	0	0	0	0	0	A	1	0	0	0	0	1	0	0	0	0	0.5	2.5
7-May	0	0	0	0	0	0	2	3	C	C	C	C	A	0	0	1	1	0	0	1	0	0	1	1	0.6	2.8
8-May	0	0	0	0	1	9	8	8	12	6	4	A	1	0	0	0	0	0	0	0	1	0	0	7	2.7	12.4
9-May	1	1	4	1	2	3	0	0	1	1	A	0	0	0	0	0	0	1	0	1	0	0	1	0	0.8	4.0
10-May	0	0	0	0	0	0	0	1	1	A	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0.2	0.7
11-May	0	0	0	0	0	0	1	2	A	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0.4	1.7
12-May	0	0	0	0	0	0	1	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.0
13-May	0	0	0	0	0	0	A	1	0	1	0	0	0	0	1	0	1	0	0	1	0	0	0	0	0.3	0.7
14-May	0	0	0	0	0	A	1	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.3	1.5
15-May	0	0	1	0	A	0	2	2	2	1	1	1	0	1	0	0	0	0	0	0	0	0	1	0	0.6	1.9
16-May	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0.2	0.9
17-May	0	0	A	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.1
18-May	0	A	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.2
19-May	A	0	0	0	0	0	1	2	1	1	0	0	0	0	1	0	0	0	0	0	0	1	0	A	0.5	2.5
20-May	0	0	0	0	0	0	2	2	1	1	1	1	0	0	2	0	0	0	1	1	1	0	A	0	0.6	2.1
21-May	0	0	0	0	0	1	1	3	2	2	1	1	0	0	1	0	0	1	0	0	0	A	1	0	0.7	2.7
22-May	0	0	0	0	5	5	3	2	2	1	1	0	0	0	1	1	0	0	0	0	A	0	0	0	1.0	5.5
23-May	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	A	0	0	0	0	0.3	1.4
24-May	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	A	0	0	0	0	0	0.2	0.6
25-May	0	0	0	0	0	2	3	2	1	1	2	1	1	0	1	1	1	A	0	0	1	0	0	0	0.7	3.3
26-May	0	0	0	0	1	2	2	3	2	1	1	1	1	0	1	1	A	1	0	0	0	0	0	0	0.8	2.9
27-May	0	0	0	0	3	9	13	5	1	1	1	0	0	0	1	A	1	1	0	0	0	0	0	0	1.6	13.0
28-May	0	0	0	0	0	0	0	1	1	0	0	1	1	0	A	1	0	0	0	0	0	0	0	0	0.3	1.3
29-May	0	0	0	0	0	0	1	1	1	1	0	0	1	A	0	0	0	0	1	0	0	0	0	0	0.4	1.1
30-May	0	0	0	0	0	0	0	0	0	0	1	1	A	1	1	1	0	0	1	0	0	0	0	0	0.3	0.8
31-May	0	0	0	0	1	1	2	2	1	1	1	A	1	1	1	1	1	0	0	1	1	0	0	0	0.6	1.9
	0.1	0.1	0.3	0.2	0.5	1.3	1.8	1.7	1.3	0.9	0.8	0.5	0.4	0.3	0.6	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.4	Diurnal Average	
	0.9	0.6	4.0	1.2	4.7	9.5	13.0	8.2	12.4	6.0	4.4	1.1	1.3	0.8	2.0	1.3	0.9	0.9	1.0	1.1	0.6	0.7	1.5	7.4	Diurnal Maximum	

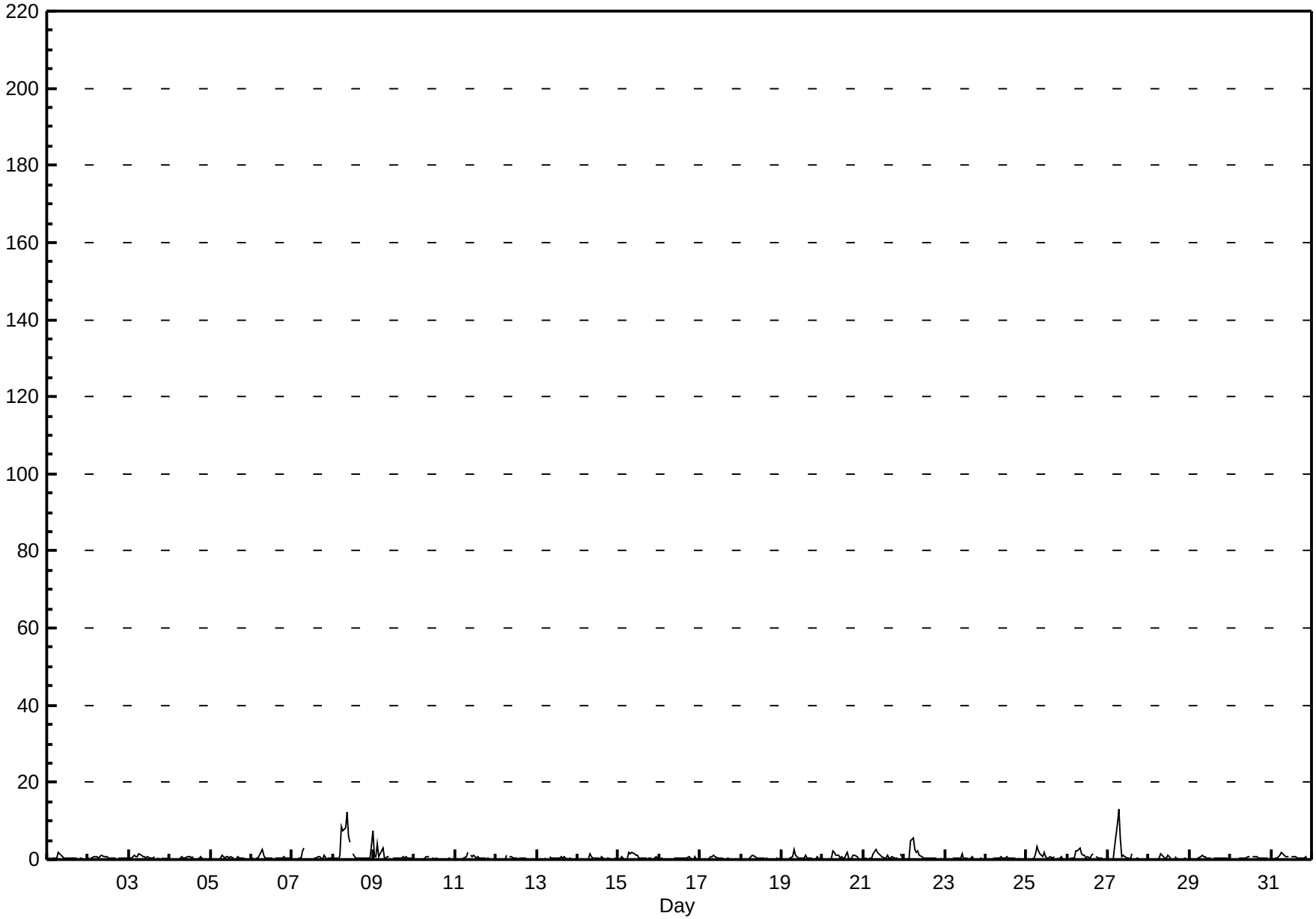
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Nitrogen Oxide (NO) - ppb

Portable Clairmont - May 2015



Peace Airshed Zone Association

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Portable Clairmont - May 2015

Maximum Value: 176.3 ppb on May 9 00:00

Maximum Daily Average: 20.0 ppb on May 8

Minimum Value: 0 ppb on May 28 02:00

Minimum Daily Average: 1.8 ppb on May 10

Maximum Diurnal Average: 12.3 ppb at hour 7

Minimum Diurnal Average: 1.2 ppb at hour 1

Monthly Average: 5.76 ppb

Percentiles: $P_1 = 0.2$ $P_{10} = 0.3$ $Q_1 = 1.0$ Median = 2.6 $Q_3 = 6.2$ $P_{90} = 13.3$ $P_{99} = 38.3$

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	1	1	1	1	1	8	13	2	2	1	1	3	4	1	1	1	1	A	0	1	0	1	15	2.7	15.2
2-May	1	0	1	2	2	2	3	2	3	2	2	2	1	2	1	4	1	A	9	8	1	1	1	2	2.2	9.3
3-May	3	2	3	9	2	8	4	2	4	1	2	2	2	1	3	18	A	5	1	0	4	2	11	0	3.8	18.0
4-May	0	0	0	0	2	3	7	5	2	2	24	9	18	6	28	A	9	1	34	2	1	1	2	0	6.9	33.9
5-May	0	0	0	0	0	4	5	11	8	6	3	2	3	3	A	3	20	6	2	3	1	2	1	0	3.6	20.4
6-May	1	1	1	7	1	7	16	8	2	2	1	2	1	A	3	3	7	1	2	27	8	11	10	0	5.3	27.0
7-May	0	0	1	5	6	3	60	23	C	C	C	C	A	4	3	3	12	5	2	38	4	4	3	1	9.2	60.1
8-May	0	4	1	1	8	117	21	16	21	12	13	A	11	1	13	3	1	1	11	2	11	8	6	176	20.0	176.3
9-May	3	2	43	3	5	12	4	1	2	7	A	2	3	1	11	9	5	27	6	13	5	8	18	1	8.3	43.1
10-May	0	1	0	0	1	1	3	4	2	A	3	3	2	8	2	0	1	0	2	3	5	1	0	0	1.8	8.1
11-May	0	1	1	0	0	4	5	25	A	15	3	15	1	9	3	14	6	2	2	6	6	1	3	1	5.3	25.1
12-May	0	0	5	0	0	1	27	A	4	5	4	5	8	2	6	2	9	1	2	3	1	0	2	0	3.8	27.2
13-May	0	0	1	0	4	4	A	3	3	3	1	2	2	3	7	3	22	11	1	9	2	2	4	1	3.8	22.3
14-May	0	0	1	0	1	A	4	11	5	1	1	3	3	1	5	5	2	4	4	2	1	1	4	1	2.6	11.0
15-May	0	0	36	1	A	9	26	11	10	8	12	19	4	7	5	3	7	1	6	4	0	11	18	6	8.9	36.1
16-May	7	3	1	A	0	1	0	0	1	3	2	1	3	3	3	4	3	33	11	1	1	32	0	0	4.9	32.8
17-May	0	0	A	4	0	1	1	1	2	2	1	0	5	3	1	1	12	3	4	1	0	1	1	4	2.2	11.8
18-May	0	A	0	0	0	1	10	2	1	1	5	2	3	5	1	4	1	2	1	2	5	10	0	14	3.1	13.7
19-May	A	0	0	0	0	3	9	31	13	4	4	9	4	5	12	8	6	3	2	1	1	26	0	A	6.4	30.7
20-May	0	0	0	1	2	3	51	15	8	4	1	17	2	4	30	2	2	2	28	29	10	1	A	5	9.5	51.2
21-May	0	10	0	0	2	5	25	37	5	6	15	19	6	3	6	2	6	13	5	4	5	A	39	3	9.5	38.8
22-May	4	0	1	1	74	20	11	16	8	4	11	5	7	6	9	14	4	7	20	13	A	4	4	1	10.4	73.7
23-May	1	2	0	1	0	1	2	1	5	1	63	1	4	3	3	3	31	1	1	A	2	6	2	2	6.0	63.3
24-May	0	0	0	0	1	2	1	1	5	7	5	5	9	1	2	5	3	1	A	2	1	0	0	0	2.3	9.1
25-May	0	0	0	0	1	4	9	23	2	3	33	6	9	16	15	8	5	A	3	2	9	0	1	3	6.6	32.8
26-May	0	0	0	1	1	22	15	10	3	13	4	8	14	5	19	16	A	9	14	5	10	11	1	1	7.8	21.7
27-May	0	1	0	0	8	25	25	9	1	2	3	1	5	1	18	A	4	5	1	0	1	1	0	2	5.0	25.4
28-May	3	0	0	0	1	2	4	19	7	1	5	39	22	11	A	21	3	2	3	2	3	7	0	1	6.8	39.3
29-May	6	1	0	1	1	2	7	7	3	9	4	3	9	A	3	1	5	3	9	5	7	7	11	4	4.7	10.6
30-May	0	4	0	0	0	4	4	1	5	2	5	2	A	2	7	9	1	12	11	7	1	3	1	0	3.5	12.1
31-May	0	0	1	1	2	3	3	4	2	1	2	A	1	1	1	1	1	1	5	4	10	0	1	1	2.0	10.4
	1.2	1.3	3.4	1.4	4.3	9.1	12.3	10.4	4.8	4.4	7.9	6.5	5.6	4.1	7.7	5.8	6.5	5.6	6.9	6.5	3.9	5.5	4.9	8.2	Diurnal Average	
	7.2	10.2	43.1	8.7	73.7	117.3	60.1	37.2	21.0	14.9	63.3	39.3	21.7	15.9	29.7	20.6	31.2	32.8	33.9	37.6	11.2	31.6	38.8	176.3	Diurnal Maximum	

C - Calibration

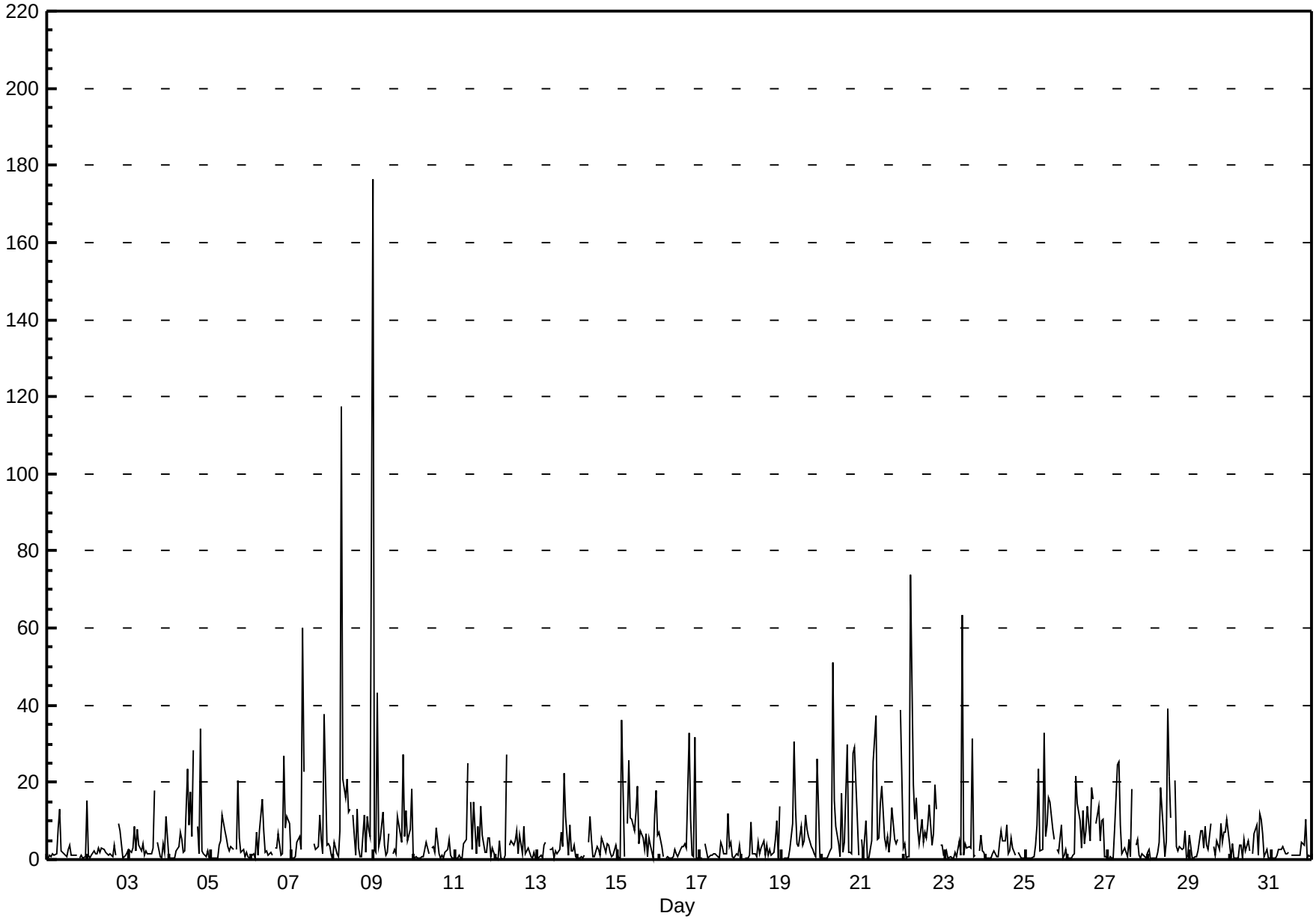
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Portable Clairmont - May 2015



Peace Airshed Zone Association

Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Portable Clairmont - May 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 30.1 ppb on May 27 07:00
Maximum Daily Average: 9.6 ppb on May 8

Minimum Value: 1 ppb on May 5 01:00
Maximum Diurnal Average: 7.4 ppb at hour 6
Monthly Average: 3.78 ppb

Minimum Daily Average: 1.2 ppb on May 16
Minimum Diurnal Average: 1.7 ppb at hour 14
Percentiles: P_1 = 0.8 P_{10} = 1.2 Q_1 = 1.7 Median = 2.5 Q_3 = 4.0 P_{90} = 7.8 P_{99} = 24.4

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	2	3	2	3	5	9	12	7	4	3	2	1	2	2	2	2	2	1	A	2	3	2	2	3	3.3	12.0
2-May	2	2	3	4	4	4	3	3	4	3	2	2	2	2	1	1	1	A	4	4	6	4	3	5	3.1	6.4
3-May	6	6	9	10	10	8	8	4	3	3	2	2	1	1	2	1	A	1	1	1	2	2	3	2	3.9	10.5
4-May	1	1	1	1	1	1	2	2	1	1	2	2	2	1	2	A	1	1	1	1	1	1	1	1	1.3	2.2
5-May	1	1	1	1	1	1	1	4	1	2	2	2	2	2	A	2	2	2	2	1	1	1	2	1	1.5	3.7
6-May	3	2	2	5	4	10	10	5	2	1	1	2	2	A	2	2	2	1	1	2	3	6	8	5	3.6	9.9
7-May	4	2	2	2	2	3	5	10	C	C	C	C	A	1	2	2	3	1	1	2	2	9	11	16	4.3	16.3
8-May	7	7	12	3	10	26	24	20	27	14	11	A	5	1	2	2	1	2	2	2	7	7	8	20	9.6	27.0
9-May	15	12	14	14	15	15	3	2	3	2	A	2	1	1	1	1	1	2	1	2	3	2	2	2	5.1	15.4
10-May	2	2	2	1	2	2	3	3	3	A	3	2	1	1	1	1	1	1	1	1	4	3	3	3	1.9	3.9
11-May	3	3	2	2	3	3	3	4	A	4	3	4	2	2	2	1	2	1	1	2	2	3	2	3	2.6	4.3
12-May	3	3	3	3	3	3	4	A	4	3	2	2	2	1	2	1	1	2	1	2	2	2	2	2	2.3	3.7
13-May	2	2	2	2	2	2	A	4	2	2	2	2	1	2	2	1	1	3	2	2	2	2	2	2	2.0	3.7
14-May	3	2	2	2	2	A	4	6	4	2	2	2	2	2	3	2	1	2	1	2	3	3	3	3	2.5	5.7
15-May	3	3	3	3	A	4	6	5	6	5	5	3	2	2	2	2	2	1	1	2	3	4	6	4	3.4	6.2
16-May	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	2	1	1.2	2.5
17-May	2	2	A	2	2	3	3	3	3	3	2	1	1	1	1	1	1	1	1	1	2	2	2	3	1.8	3.2
18-May	2	A	3	3	3	4	4	4	3	2	2	2	2	2	1	1	1	1	1	1	2	3	3	3	2.4	4.5
19-May	A	3	3	3	3	4	4	8	4	3	2	2	2	2	4	2	1	1	1	1	2	3	3	A	2.8	7.5
20-May	3	3	3	3	3	4	7	5	5	4	3	2	2	2	5	2	1	1	2	4	4	3	A	4	3.3	7.1
21-May	3	4	3	4	5	5	6	7	8	9	6	5	3	2	4	2	2	2	1	3	6	A	14	9	5.0	14.1
22-May	8	5	6	15	25	26	13	9	10	6	2	2	2	2	2	2	2	1	2	2	A	5	4	4	6.7	26.3
23-May	4	5	5	5	5	5	4	4	3	3	4	2	2	1	1	1	2	1	1	A	2	3	3	4	3.1	5.2
24-May	3	3	3	3	3	3	4	4	3	4	4	3	3	2	2	2	2	2	A	4	4	5	7	4	3.3	6.6
25-May	4	6	9	8	8	16	19	12	8	6	9	5	4	2	4	4	3	A	3	2	9	12	10	9	7.5	19.4
26-May	10	8	12	14	15	17	15	14	9	5	5	4	3	2	3	3	A	4	2	4	5	6	12	7	7.9	16.9
27-May	10	14	12	13	23	28	30	16	4	6	4	4	3	2	9	A	9	6	6	5	3	2	2	2	9.3	30.1
28-May	2	2	2	2	2	2	2	4	2	1	1	2	1	1	A	2	1	1	1	1	1	2	2	2	1.7	3.6
29-May	2	2	3	4	3	3	2	3	3	2	2	2	2	A	3	2	2	2	2	2	3	3	3	3	2.5	4.0
30-May	3	3	2	3	3	2	3	3	3	3	3	4	A	4	3	3	3	3	7	5	6	8	7	6	3.8	8.1
31-May	5	4	6	7	7	7	6	5	3	3	2	A	3	2	2	2	2	2	2	5	6	5	6	9	4.5	8.5
	4.0	3.8	4.5	4.9	5.9	7.4	7.1	6.0	4.8	3.7	3.2	2.4	2.1	1.7	2.4	1.9	1.9	1.8	1.8	2.4	3.3	4.0	4.6	4.7	Diurnal Average	
	15.4	13.9	14.4	14.9	24.6	28.5	30.1	20.1	27.0	13.9	11.3	5.0	5.0	3.6	9.0	4.4	8.9	6.5	6.5	5.4	9.3	12.3	14.1	19.8	Diurnal Maximum	

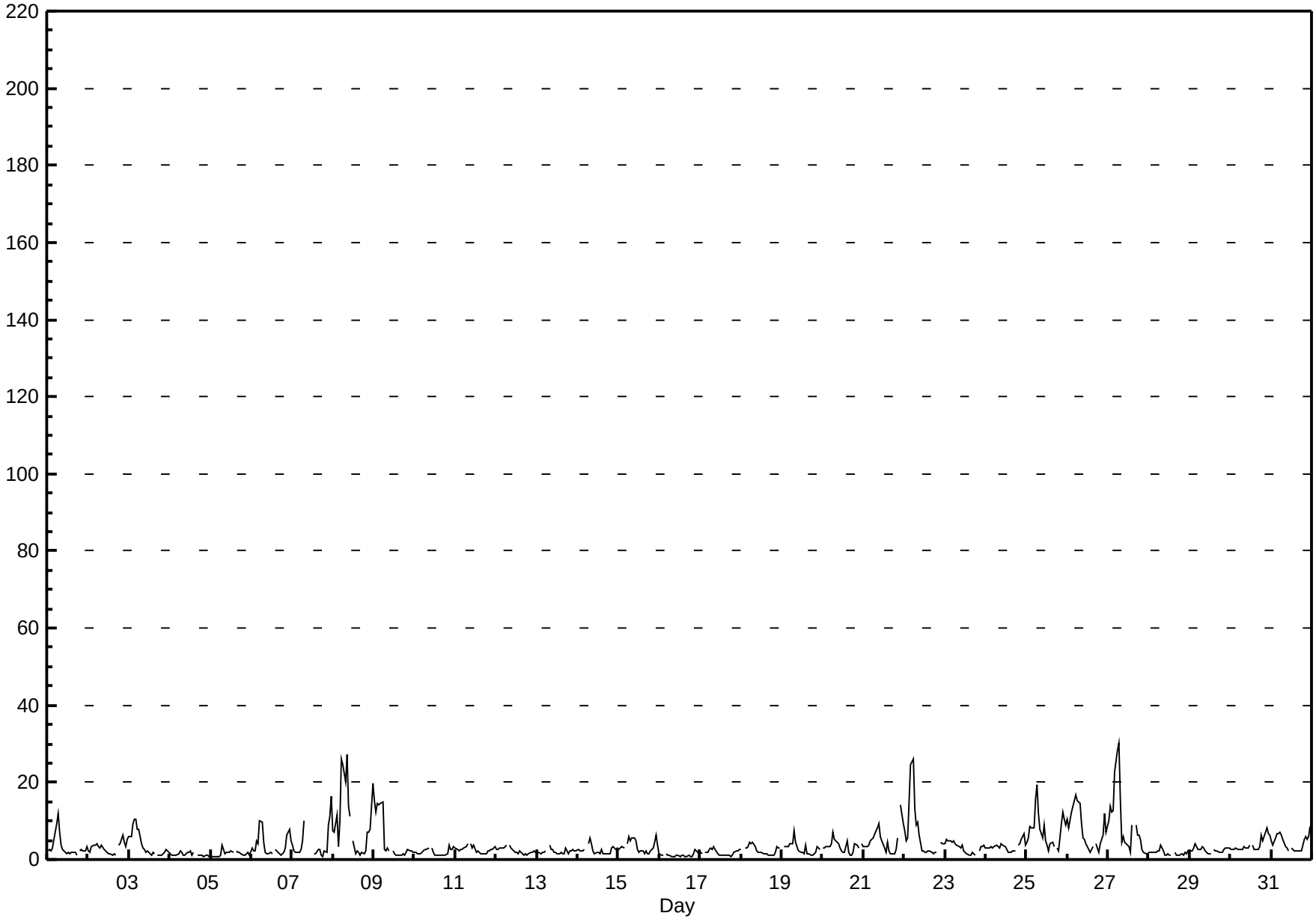
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Portable Clairmont - May 2015



Peace Airshed Zone Association

Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

Portable Clairmont - May 2015

Maximum Value: 205.0 ppb on May 9 00:00

Maximum Daily Average: 31.2 ppb on May 8

Minimum Value: 1 ppb on May 5 01:00

Minimum Daily Average: 4.4 ppb on May 16

Maximum Diurnal Average: 20.5 ppb at hour 7

Minimum Diurnal Average: 5.8 ppb at hour 2

Monthly Average: 11.60 ppb

Percentiles: P_1 = 1.3 P_{10} = 2.7 Q_1 = 3.9 Median = 6.9 Q_3 = 13.4 P_{90} = 26.0 P_{99} = 71.5

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	3	5	3	5	8	14	36	31	8	8	6	3	8	7	7	5	4	2	A	3	6	4	5	31	9.1	35.6
2-May	5	2	9	6	7	7	8	6	9	7	8	4	3	4	2	9	3	A	17	23	10	6	7	10	7.4	22.8
3-May	13	9	17	22	17	20	12	7	7	5	6	4	4	4	12	16	A	9	5	3	7	6	26	3	10.1	26.3
4-May	2	2	1	2	3	4	32	13	3	5	45	18	71	4	13	A	4	2	11	4	3	2	4	1	10.9	71.1
5-May	1	1	1	1	1	3	7	48	6	10	7	5	9	6	A	5	8	7	4	6	2	7	4	4	6.6	48.4
6-May	6	4	3	26	9	38	27	15	5	4	3	4	3	A	8	8	13	5	6	16	15	27	17	7	11.7	38.5
7-May	8	3	4	11	8	7	73	38	C	C	C	C	A	7	5	9	26	12	5	69	9	16	21	20	18.6	73.4
8-May	16	16	19	10	29	71	40	29	41	26	23	A	30	4	46	12	3	4	10	5	17	32	31	205	31.2	205.0
9-May	19	17	64	21	29	29	13	4	5	8	A	11	4	8	12	5	3	13	5	26	17	24	22	2	15.6	63.6
10-May	2	3	2	2	2	3	4	4	4	A	6	9	14	19	8	2	2	2	6	5	16	4	4	4	5.5	18.5
11-May	3	4	3	3	3	6	8	20	A	23	17	23	9	28	9	5	8	5	9	11	5	4	11	7	9.7	27.6
12-May	3	3	5	3	3	8	11	A	7	7	5	4	10	3	26	5	7	3	3	6	6	3	3	2	5.8	26.3
13-May	2	2	2	2	2	5	A	12	7	7	3	6	6	6	5	6	7	90	8	9	9	4	4	3	9.1	90.0
14-May	3	5	3	2	3	A	13	15	5	3	4	4	9	6	13	5	3	7	6	3	10	5	6	4	6.0	15.4
15-May	3	3	18	5	A	12	30	14	18	37	79	18	10	20	13	9	16	3	5	9	4	31	36	11	17.6	78.7
16-May	8	6	3	A	2	3	2	1	3	3	8	5	2	4	4	4	2	16	6	3	3	8	4	2	4.4	15.5
17-May	2	2	A	3	2	4	4	3	4	3	3	2	3	10	3	13	13	3	2	2	3	4	7	16	4.9	16.4
18-May	3	A	3	3	4	11	8	6	5	3	4	5	7	5	3	6	6	4	2	4	7	24	3	15	6.1	24.4
19-May	A	4	4	4	4	9	9	37	16	6	3	6	3	3	28	16	8	4	2	4	4	15	3	A	8.7	37.0
20-May	4	3	4	6	9	12	77	21	29	10	4	18	7	9	54	8	2	5	15	109	20	5	A	22	19.7	108.7
21-May	4	9	4	4	8	11	24	25	23	42	15	15	7	9	18	16	4	8	10	18	18	A	90	19	17.4	90.2
22-May	17	8	13	20	65	37	30	24	23	13	8	7	11	29	13	39	21	11	31	10	A	13	12	9	20.1	65.1
23-May	5	9	5	6	9	6	10	4	16	4	36	9	10	6	4	2	12	3	2	A	4	9	5	5	7.8	35.7
24-May	4	4	4	4	4	5	4	4	5	17	12	13	12	5	9	8	10	7	A	8	7	8	10	7	7.4	16.7
25-May	7	7	12	10	17	26	28	50	10	12	37	9	18	6	35	37	12	A	19	10	40	19	14	15	19.6	50.0
26-May	12	11	14	17	20	44	37	22	15	13	9	8	20	4	24	27	A	56	11	21	23	26	18	13	20.2	56.5
27-May	12	19	14	18	30	40	46	25	7	9	15	6	20	4	53	A	20	17	14	12	8	4	3	3	17.3	52.8
28-May	4	2	2	2	4	12	6	36	24	3	12	31	9	17	A	10	5	4	5	20	3	5	2	4	9.7	36.2
29-May	7	3	5	4	5	18	6	13	5	8	5	4	5	A	7	7	7	4	5	4	7	10	7	5	6.6	18.2
30-May	4	5	4	3	3	3	3	3	8	5	8	12	A	5	6	13	4	16	29	14	11	14	8	8	8.2	28.9
31-May	8	5	7	9	9	10	8	8	6	4	4	A	4	5	4	4	4	4	5	13	26	7	12	12	7.7	26.0
	6.3	5.8	8.3	7.8	10.7	16.0	20.5	17.9	11.2	10.4	13.5	9.4	11.3	8.5	15.3	10.7	8.1	11.2	8.9	15.0	10.6	11.5	13.3	15.7	Diurnal Average	
	18.9	18.9	63.6	25.6	65.1	70.9	76.6	50.0	41.2	41.9	78.7	30.8	71.1	28.5	54.1	38.5	26.1	90.0	31.0	108.7	40.0	32.1	90.2	205.0	Diurnal Maximum	

C - Calibration

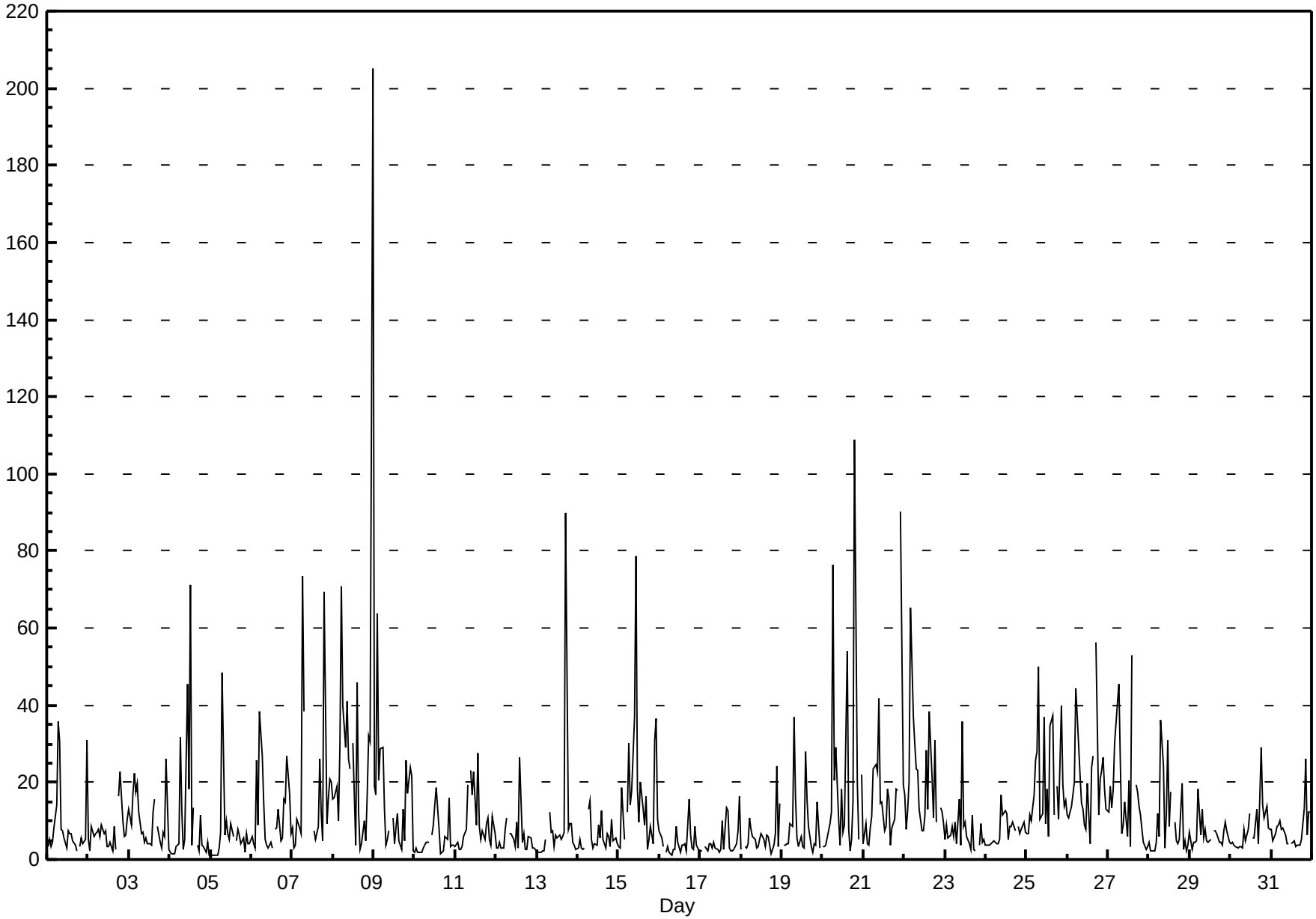
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

Portable Clairmont - May 2015

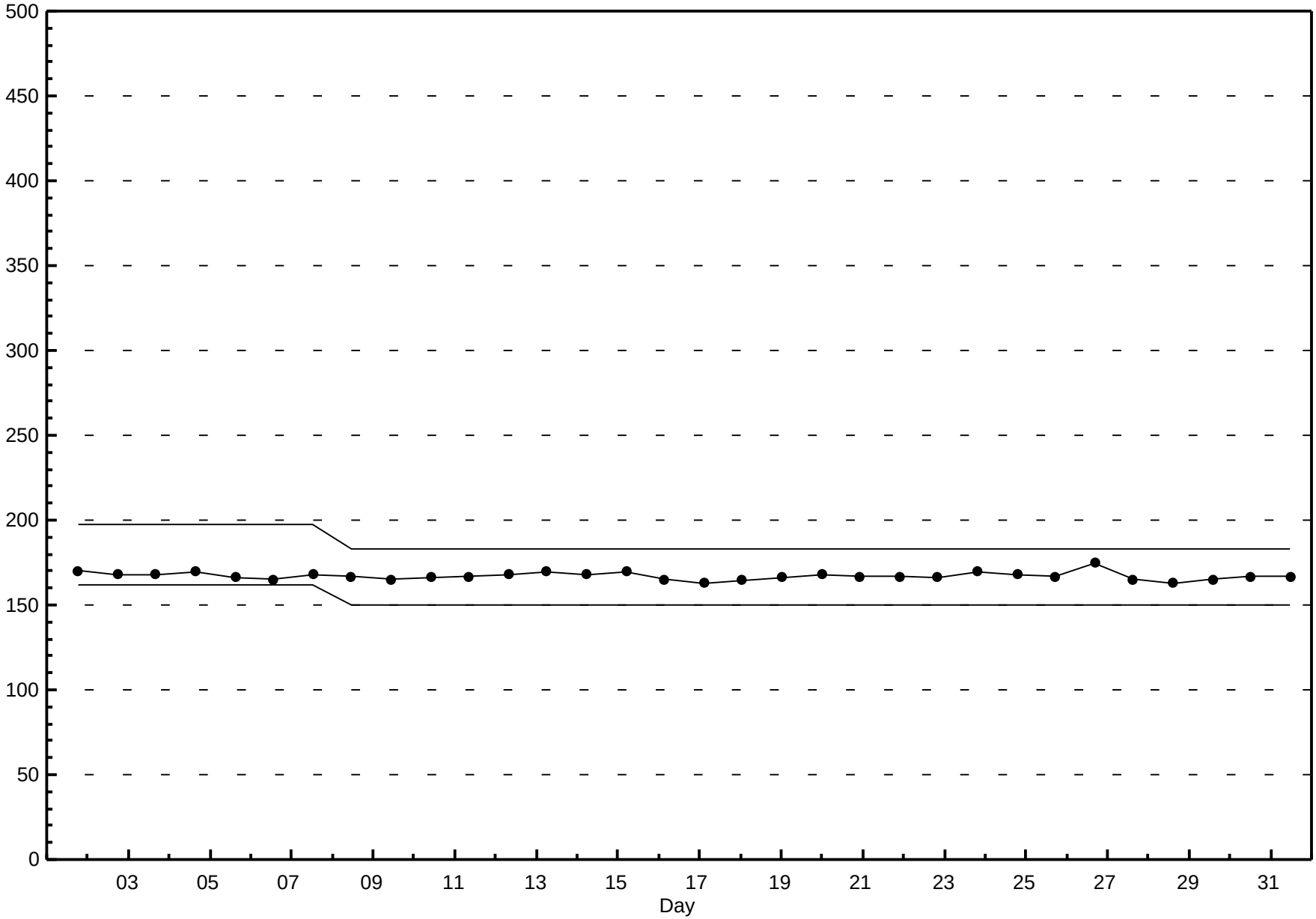


Peace Airshed Zone Association

Span Responses

Oxides of Nitrogen (NO_X)

Portable Clairmont - May 2015



Peace Airshed Zone Association

Hourly Averages

Ozone (O_3) - ppb

Portable Clairmont - May 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 74.9 ppb on May 24 14:00
Maximum Daily Average: 56.3 ppb on May 12

Minimum Value: 5 ppb on May 27 06:00
Maximum Diurnal Average: 54.8 ppb at hour 16
Monthly Average: 42.40 ppb

Minimum Daily Average: 26.0 ppb on May 31
Minimum Diurnal Average: 28.4 ppb at hour 6
Percentiles: P_1 = 10.2 P_{10} = 25.0 Q_1 = 33.9 Median = 42.4 Q_3 = 51.6 P_{90} = 61.0 P_{99} = 68.5

Hours in Service:	744
Hours of Data:	711
Hours of Missing Data:	33
Hours of Calibration:	33
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-May	47	44	45	42	39	38	39	43	47	49	51	53	54	54	53	57	53	53	A	49	45	44	49	43	47.4	57.4
2-May	40	40	33	35	35	36	38	39	38	42	44	44	46	46	47	46	43	A	41	41	33	33	39	32	39.6	46.8
3-May	32	29	21	21	18	18	21	29	34	40	44	43	45	45	44	47	A	45	44	43	38	37	33	30	34.8	46.9
4-May	29	29	29	27	25	23	22	22	23	24	26	28	31	35	39	A	35	35	34	33	34	33	33	34	29.6	38.8
5-May	33	32	30	30	29	29	27	25	25	24	24	24	25	27	A	34	34	35	35	35	34	32	30	32	29.8	34.9
6-May	30	30	29	28	31	24	29	35	40	41	42	42	42	A	44	45	46	47	47	45	43	34	29	31	37.2	47.1
7-May	34	39	38	32	32	30	34	28	28	34	36	C	C	47	47	45	47	47	47	46	40	26	18	8	35.5	47.1
8-May	17	22	13	29	20	10	13	14	17	25	31	A	46	49	49	52	52	52	53	50	36	38	35	20	32.3	52.6
9-May	13	14	14	10	9	16	32	35	34	40	A	48	50	53	53	54	53	53	51	47	41	39	35	36	36.1	53.8
10-May	36	36	37	37	36	34	34	35	38	A	47	52	54	54	55	56	57	59	59	57	47	46	49	47	46.1	59.4
11-May	46	46	45	41	39	37	37	40	A	44	47	53	59	61	62	65	66	65	66	62	55	51	50	45	51.4	66.0
12-May	50	50	48	46	41	41	42	A	49	54	57	60	64	65	67	68	68	68	68	64	57	58	56	52	56.3	68.5
13-May	52	51	50	48	47	48	A	48	51	54	58	59	61	61	61	62	64	66	66	62	56	53	55	55	56.1	66.4
14-May	54	49	48	48	44	A	42	43	46	53	58	58	60	61	62	60	58	57	56	54	49	47	45	43	51.9	61.6
15-May	41	40	39	36	A	31	32	33	34	38	46	51	52	53	54	55	55	54	54	51	49	48	42	40	44.8	55.2
16-May	36	36	36	A	35	35	36	36	38	41	47	48	48	48	44	46	49	49	48	47	46	41	39	34	42.0	49.4
17-May	31	30	A	28	27	25	26	28	29	33	38	40	43	44	46	48	49	51	50	51	48	44	46	42	39.0	50.9
18-May	38	A	34	34	33	32	33	35	41	46	50	55	56	58	58	59	59	59	59	57	52	41	46	47	47.0	59.3
19-May	A	42	41	41	39	40	41	39	43	49	53	58	59	61	61	60	62	61	60	58	53	44	47	A	50.6	62.1
20-May	48	46	43	42	41	41	41	41	43	48	52	57	60	63	64	66	67	68	68	65	51	43	A	44	52.2	68.2
21-May	43	42	42	42	38	36	38	37	38	49	58	63	67	66	67	68	65	65	65	58	50	A	37	39	51.0	67.9
22-May	38	44	40	16	9	10	29	41	44	52	62	64	63	64	65	65	65	65	65	61	A	44	41	40	47.3	65.5
23-May	38	36	36	35	34	34	35	38	43	47	56	65	69	69	67	67	67	65	62	A	49	41	40	38	49.3	69.0
24-May	40	40	42	42	42	39	38	41	47	52	57	63	70	75	71	68	65	66	A	61	55	50	42	54	53.0	74.9
25-May	50	41	33	34	30	21	22	32	39	48	51	63	70	70	71	59	53	A	56	60	48	33	29	28	45.3	70.6
26-May	21	26	17	15	13	14	17	18	29	40	46	52	51	48	48	52	A	56	54	43	41	36	28	35	34.9	56.4
27-May	23	15	18	13	5	5	9	18	29	35	40	43	52	51	45	A	44	44	40	38	33	29	27	28	29.7	51.5
28-May	28	28	26	26	25	26	28	28	29	33	35	39	42	44	A	50	53	54	52	47	45	43	40	34	37.2	54.2
29-May	34	34	32	28	28	32	37	39	41	43	47	51	53	A	57	57	56	55	54	54	50	46	45	44	44.3	56.9
30-May	47	45	44	38	37	37	42	41	38	37	36	34	A	39	44	44	45	45	37	36	31	21	20	15	37.1	46.5
31-May	16	16	13	12	10	11	13	19	21	23	29	A	33	34	34	35	38	42	45	41	31	31	29	22	26.0	45.4
	36.2	35.8	33.9	31.8	29.8	28.4	30.8	33.4	36.6	41.3	45.6	50.4	52.6	53.3	54.4	54.8	54.1	54.6	53.0	50.6	44.7	40.3	38.4	36.4	Diurnal Average	
	54.0	51.1	49.9	48.3	47.0	47.7	42.1	48.2	51.2	54.4	62.1	65.1	70.1	74.9	71.2	68.2	68.2	68.5	68.3	65.0	57.4	57.6	55.5	55.1	Diurnal Maximum	

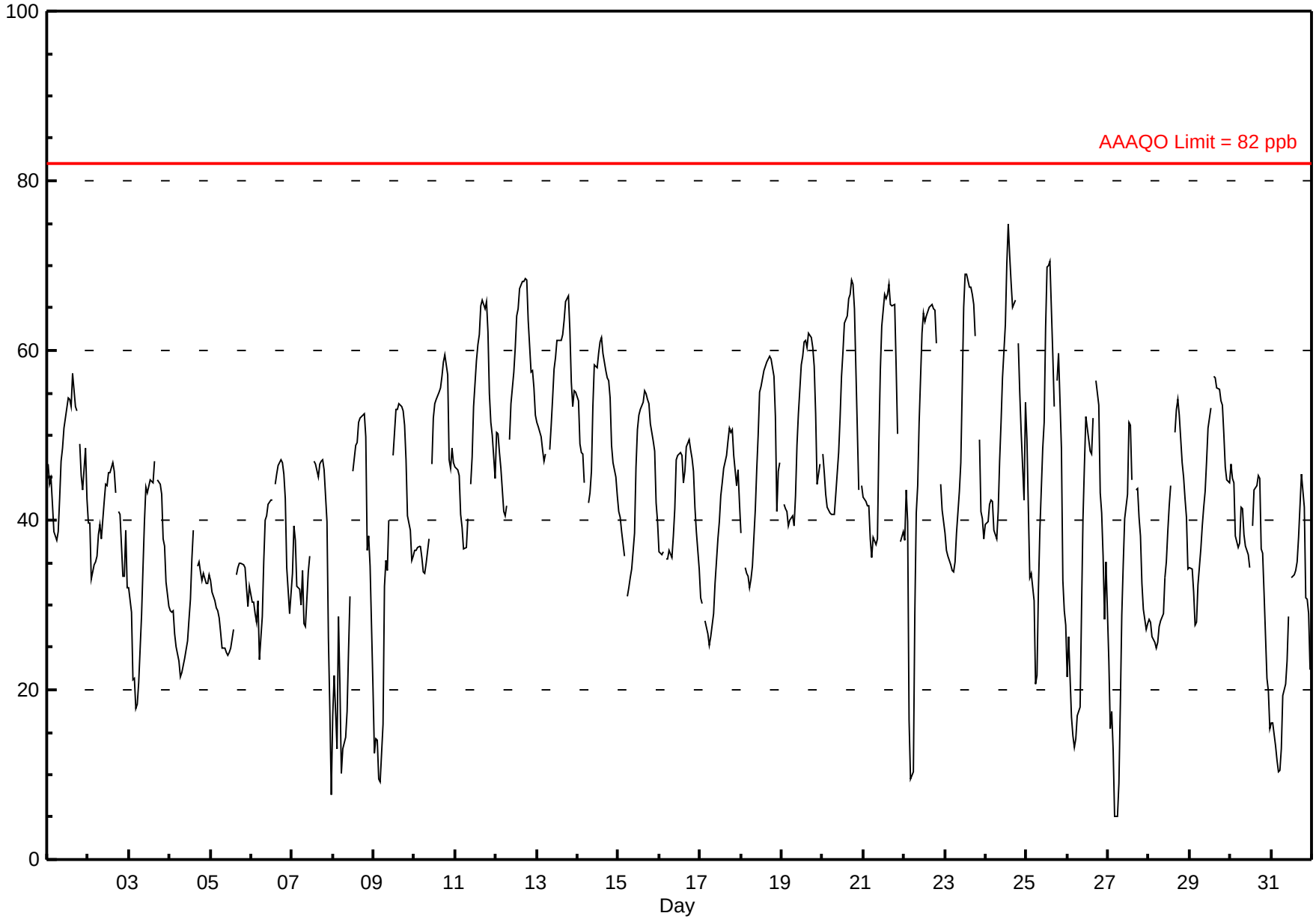
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82 ppb 24-hr na

Peace Airshed Zone Association

Hourly Averages

Ozone (O_3) - ppb

Portable Clairmont - May 2015



Peace Airshed Zone Association

Hourly Maximums

Ozone (O_3) - ppb

Portable Clairmont - May 2015

Maximum Value: 76.6 ppb on May 24 15:00

Maximum Daily Average: 58.4 ppb on May 12

Minimum Value: 10 ppb on May 27 06:00

Minimum Daily Average: 29.2 ppb on May 31

Maximum Diurnal Average: 57.2 ppb at hour 16

Minimum Diurnal Average: 31.8 ppb at hour 6

Monthly Average: 45.35 ppb

Percentiles: P_1 = 14.9 P_{10} = 28.3 Q_1 = 36.6 Median = 45.6 Q_3 = 54.9 P_{90} = 63.3 P_{99} = 73.8

Hours in Service:	744
Hours of Data:	711
Hours of Missing Data:	33
Hours of Calibration:	33
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-May	49	47	46	43	41	41	43	46	51	50	53	55	56	56	56	61	57	56	A	51	48	49	51	46	50.2	60.6
2-May	41	41	39	37	37	39	40	41	40	46	46	46	47	47	50	48	45	A	44	43	38	37	50	36	42.5	49.8
3-May	38	39	26	25	24	23	30	32	38	44	47	45	46	47	48	48	A	46	46	45	41	39	38	32	38.5	48.3
4-May	30	30	31	28	26	26	22	23	24	25	28	30	33	38	40	A	37	37	36	35	35	33	33	34	31.1	39.8
5-May	34	33	31	30	30	29	28	26	26	26	25	25	26	30	A	35	36	36	36	36	36	35	32	33	31.1	36.1
6-May	33	32	30	35	34	30	33	39	42	41	43	44	44	A	46	47	48	48	48	47	45	38	31	36	39.7	48.2
7-May	40	41	40	35	34	36	37	36	31	36	38	C	C	48	49	50	51	49	48	48	47	37	29	15	39.6	50.6
8-May	28	32	19	33	32	19	16	16	20	30	36	A	48	50	51	53	53	55	55	53	44	42	41	27	37.1	55.1
9-May	18	19	23	15	17	33	36	36	37	45	A	50	52	55	54	55	55	55	53	50	46	41	38	37	40.0	55.4
10-May	37	38	38	38	37	35	36	36	41	A	52	54	55	55	56	57	58	60	60	60	53	48	52	48	48.1	60.3
11-May	48	48	48	44	41	39	41	41	A	45	50	59	61	63	64	67	67	67	67	66	57	55	55	51	54.1	67.4
12-May	51	51	51	49	43	42	45	A	53	57	59	65	66	67	70	70	69	70	69	68	59	58	58	55	58.4	69.8
13-May	52	52	51	50	48	48	A	51	53	57	59	60	63	62	63	63	66	67	68	67	59	55	56	56	57.7	67.9
14-May	55	53	49	50	47	A	43	46	50	57	59	59	62	62	63	62	59	58	58	57	54	48	49	44	54.0	62.9
15-May	44	42	41	37	A	32	35	36	37	43	50	52	53	55	55	57	57	56	55	54	52	55	47	45	47.4	56.9
16-May	38	37	37	A	37	38	38	37	41	45	50	50	50	49	47	49	51	51	50	49	48	43	41	37	44.0	50.9
17-May	33	31	A	31	28	27	27	29	31	36	40	41	44	47	47	49	51	52	52	52	51	46	47	45	40.7	51.7
18-May	42	A	36	35	35	33	35	37	45	49	53	57	58	60	60	59	60	60	61	60	54	44	48	49	49.1	60.8
19-May	A	43	43	42	41	42	42	41	48	53	57	61	61	62	74	63	64	63	62	61	55	48	49	A	53.4	74.3
20-May	53	48	45	43	42	42	42	42	47	51	54	61	62	65	67	68	69	70	70	69	62	47	A	47	55.0	70.2
21-May	46	43	43	43	41	39	41	39	41	56	60	66	68	67	69	70	67	67	67	66	56	A	46	44	54.1	69.8
22-May	44	46	49	22	15	17	37	46	50	63	65	67	65	65	66	67	67	67	66	64	A	52	45	42	51.5	67.0
23-May	41	38	37	37	36	35	37	41	46	51	65	68	74	75	69	69	69	67	66	A	56	46	42	41	52.4	74.9
24-May	41	42	44	44	44	41	39	43	51	56	63	66	75	76	77	72	67	68	A	65	60	57	47	59	56.4	76.6
25-May	57	46	39	37	37	26	28	37	43	54	57	70	73	72	74	70	62	A	60	62	61	42	33	37	51.1	74.0
26-May	24	31	25	17	15	16	22	21	36	44	50	55	55	53	51	55	A	58	58	50	46	40	34	42	39.0	57.9
27-May	31	22	23	21	10	10	18	29	32	43	45	48	56	56	53	A	57	48	45	45	37	31	28	29	35.4	56.9
28-May	30	30	28	27	26	27	29	29	32	36	37	41	43	46	A	54	55	58	56	49	47	45	42	37	39.1	57.7
29-May	36	35	34	29	30	35	39	42	43	46	49	56	56	A	59	59	58	57	55	55	53	48	47	47	46.3	58.6
30-May	48	46	46	40	38	43	42	42	41	38	37	36	A	43	45	45	47	47	44	40	36	25	22	18	39.6	47.7
31-May	18	17	15	13	12	13	21	23	24	27	31	A	35	36	36	38	40	46	47	46	39	34	33	28	29.2	47.4
	39.3	38.4	36.9	34.3	32.5	31.8	34.0	36.1	39.8	45.0	48.6	53.0	54.7	55.4	57.1	57.2	56.6	56.5	55.2	53.7	49.1	44.0	42.2	39.9	Diurnal Average	
	57.2	52.9	51.3	49.8	47.8	48.4	44.9	50.9	52.9	62.7	65.1	69.7	74.9	76.2	76.6	72.4	69.3	70.2	69.7	68.7	62.2	58.3	57.6	59.2	Diurnal Maximum	

C - Calibration

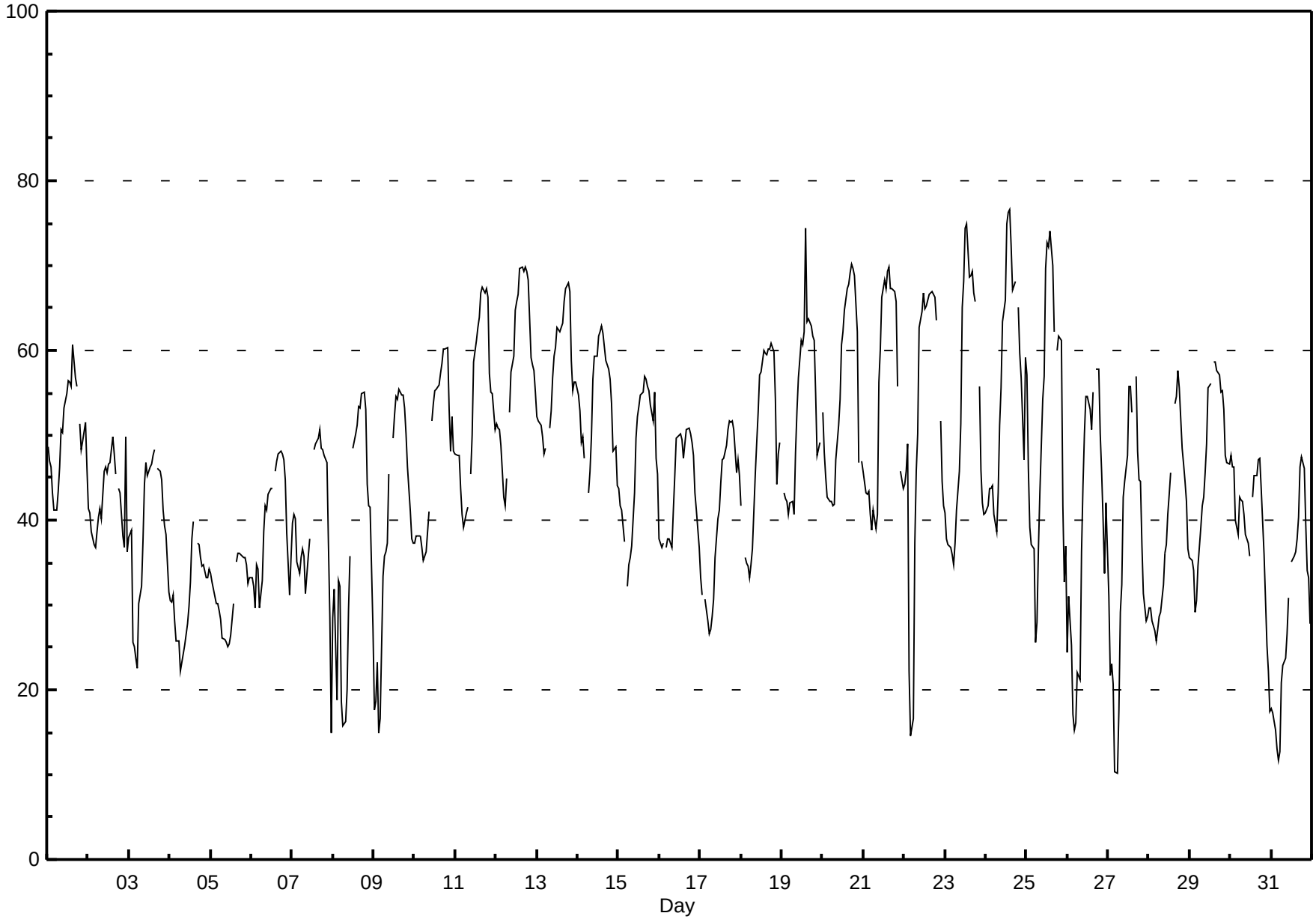
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Ozone (O_3) - ppb

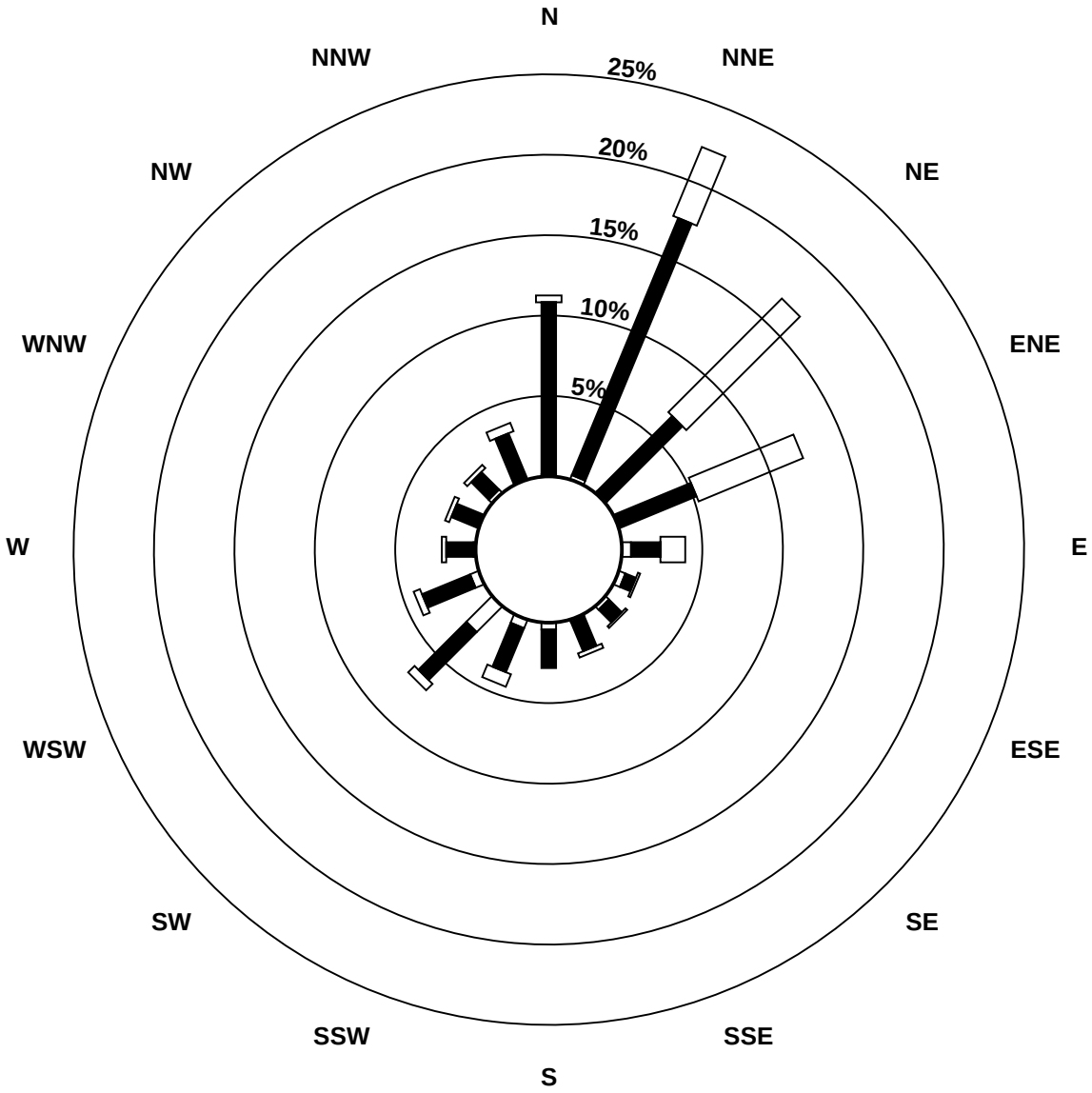
Portable Clairmont - May 2015



Pollutant Rose

Ozone (O_3) - ppb

Portable Clairmont - May 2015



Pollutant Classes (ppb)

- 0 - 20
- 21 - 50
- 51 - 82
- > 82

Peace Airshed Zone Association

Eight Hour Running Averages

Ozone (O_3) - ppb

Portable Clairmont - May 2015

Maximum Value: 68.3 ppb on May 24 19:00

Minimum Value: 13.3 ppb on May 27 08:00

Percentiles: P_1 = 15.4 P_{10} = 27.5 Q_1 = 34.7 Median = 42.5 Q_3 = 50.6 P_{90} = 58.5 P_{99} = 66.0

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

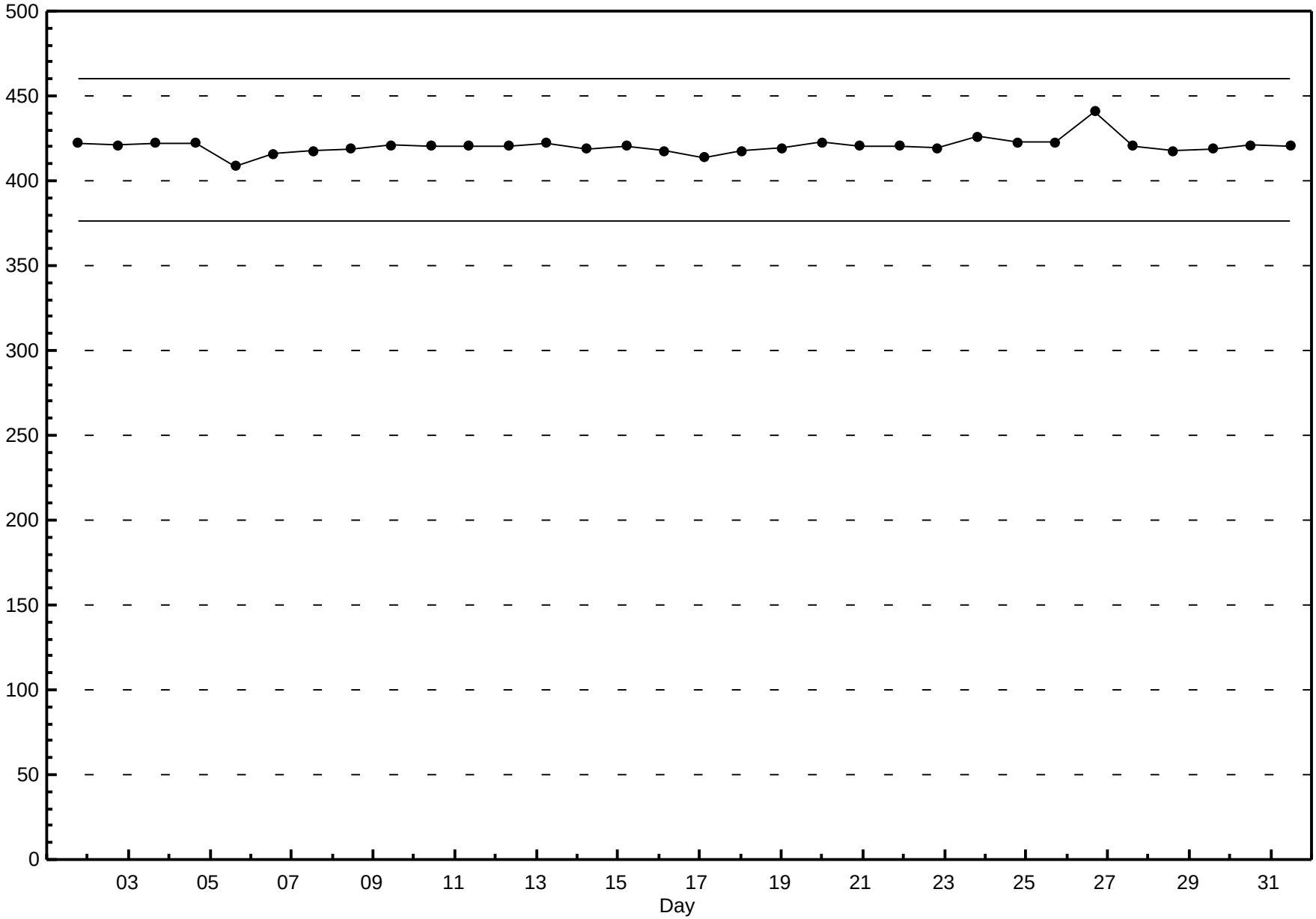
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-May	48	47	47	46	45	44	42	42	42	42	43	45	47	49	51	52	53	54	54	54	52	51	50	48	54.1
2-May	46	44	43	41	40	39	37	37	37	37	38	40	41	42	43	44	45	45	45	44	42	41	39	38	45.9
3-May	36	35	33	30	28	26	24	24	24	25	28	31	34	38	40	43	44	45	45	45	44	43	41	38	44.7
4-May	37	35	34	31	30	28	27	26	25	24	24	24	25	26	28	29	31	33	34	34	35	34	34	34	37.4
5-May	33	33	33	32	32	31	30	29	28	27	27	26	25	25	25	26	28	29	31	32	33	34	34	33	34.2
6-May	33	32	32	31	30	29	29	29	31	32	34	35	37	39	41	42	43	44	45	45	45	44	42	40	45.4
7-May	39	38	37	35	34	33	34	33	33	32	32	32	32	34	36	39	42	45	47	46	46	43	39	35	46.5
8-May	31	28	24	21	19	17	16	17	17	18	20	19	22	28	33	38	43	47	50	50	49	48	46	42	50.3
9-May	37	32	28	22	19	16	16	18	21	24	25	31	36	42	45	47	50	52	52	52	51	49	47	44	52.0
10-May	42	40	38	37	36	36	36	36	36	36	37	39	42	45	48	51	53	54	56	56	56	55	54	53	56.3
11-May	51	50	48	46	45	44	42	41	41	40	41	43	45	49	52	56	57	60	62	63	63	62	60	58	63.2
12-May	56	54	51	49	48	46	45	45	45	46	47	49	52	56	60	61	63	65	66	67	66	65	63	61	66.6
13-May	59	57	55	53	52	50	50	49	49	50	51	52	54	56	57	58	60	61	63	63	62	61	61	60	62.9
14-May	59	56	54	52	51	50	49	47	46	46	48	49	52	53	55	57	59	59	59	58	57	55	53	51	59.1
15-May	49	47	45	42	42	39	37	36	35	35	36	38	40	43	45	48	51	53	54	54	53	53	51	49	53.6
16-May	47	45	42	41	39	37	37	36	36	37	39	40	41	43	44	45	46	47	47	47	47	46	46	44	47.5
17-May	42	40	38	36	33	31	29	28	28	28	29	31	33	35	38	40	43	45	46	48	48	48	48	48	48.4
18-May	46	46	43	41	39	37	35	34	35	36	38	41	43	47	50	53	55	57	58	58	58	56	54	53	58.1
19-May	52	49	47	44	42	42	42	41	41	42	43	45	48	50	53	56	58	60	61	60	60	58	56	55	60.5
20-May	53	51	48	46	44	44	43	43	42	42	43	45	48	51	54	57	60	62	64	65	64	62	61	58	65.1
21-May	55	51	47	44	42	41	40	40	39	40	42	44	48	52	55	59	63	65	66	65	63	63	59	54	65.8
22-May	50	47	44	38	32	29	28	28	29	30	33	39	46	52	57	60	63	64	65	64	64	61	58	54	64.6
23-May	51	47	42	39	38	37	36	36	36	38	40	44	48	53	57	60	63	66	66	67	64	60	56	52	66.6
24-May	48	44	41	42	41	40	40	40	41	43	45	47	51	55	59	63	65	67	68	68	66	62	58	56	68.3
25-May	54	51	48	45	42	38	36	33	32	32	35	38	43	49	55	59	61	62	63	63	60	54	49	44	63.1
26-May	39	38	33	27	23	20	19	18	19	20	24	29	34	38	42	46	48	51	52	50	49	47	44	42	51.6
27-May	40	34	30	26	22	18	15	13	14	16	19	23	29	35	39	42	44	45	45	45	42	39	36	35	45.5
28-May	33	31	30	28	27	27	27	27	27	28	29	30	32	35	36	39	42	45	48	49	49	49	48	46	49.4
29-May	44	41	39	36	34	33	32	33	34	35	37	40	43	45	47	50	52	54	55	55	55	54	52	51	55.1
30-May	49	48	47	45	43	42	42	41	40	39	38	38	38	38	39	39	40	41	41	41	40	38	35	31	49.4
31-May	28	24	21	18	16	14	13	14	14	15	17	18	21	25	28	30	32	35	37	38	38	37	37	35	37.8
	59.3	57.2	54.9	52.9	51.7	50.5	49.7	49.1	49.1	49.5	50.6	52.2	54.2	56.1	59.6	62.8	65.1	66.9	68.3	68.0	65.9	64.9	63.4	61.4	
	Diurnal Maximums																								

Peace Airshed Zone Association

Span Responses

Ozone (O_3)

Portable Clairmont - May 2015



Peace Airshed Zone Association

Hourly Averages

Total Hydrocarbons (THC) - ppm

Portable Clairmont - May 2015

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

Maximum Value: 2.93 ppm on May 27 05:00

Maximum Daily Average: 2.21 ppm on May 8

Minimum Value: 1.3 ppm on May 5 05:00

Minimum Daily Average: 1.34 ppm on May 4

Maximum Diurnal Average: 2.10 ppm at hour 6

Minimum Diurnal Average: 1.95 ppm at hour 18

Monthly Average: 2.010 ppm

Percentiles: P_1 = 1.28 P_{10} = 1.96 Q_1 = 2.00 Median = 2.02 Q_3 = 2.08 P_{90} = 2.18 P_{99} = 2.53

Hours in Service:	744
Hours of Data:	681
Hours of Missing Data:	63
Hours of Calibration:	35
Percent Operational Time:	96.2

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-May	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.1	2.1	2.09	2.16
2-May	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	1.9	1.7	1.6	1.5	1.6	2.00	2.15
3-May	1.5	1.5	1.6	1.7	1.6	1.6	1.6	1.6	1.5	1.5	1.4	1.4	1.4	1.4	1.4	1.4	A	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.48	1.67
4-May	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.3	1.3	1.3	1.3	A	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.34	1.38
5-May	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	A	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	1.29
6-May	N	N	N	N	N	N	N	N	N	N	N	N	C	C	C	C	2.1	2.1	2.1	2.1	2.1	2.1	2.3	2.3	--	2.29
7-May	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.2	2.2	2.2	2.1	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.2	2.4	2.13	2.41
8-May	2.5	2.4	2.4	2.4	2.4	2.4	2.4	2.3	2.4	2.2	2.1	A	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.3	2.3	2.21	2.49
9-May	2.4	2.5	2.6	2.7	2.8	2.7	2.1	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.16	2.80
10-May	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.00	2.04
11-May	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.03	2.09
12-May	2.0	2.0	2.0	2.0	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	2.07
13-May	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.01	2.04
14-May	2.0	2.0	2.0	2.0	2.0	A	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.02	2.08
15-May	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.02	2.09
16-May	1.9	1.9	2.0	A	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.99	2.03
17-May	2.1	2.1	A	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.03	2.13
18-May	2.0	A	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.03	2.08
19-May	A	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.03	2.15
20-May	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	A	2.1	2.05	2.24
21-May	2.1	2.0	2.1	2.1	2.2	2.3	2.2	2.1	2.1	2.2	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	A	2.1	2.1	2.11	2.28
22-May	2.3	2.2	2.2	2.3	2.5	2.6	2.4	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.1	2.1	2.1	2.15	2.62
23-May	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.1	2.1	2.06	2.14
24-May	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.1	2.1	2.07	2.18
25-May	2.1	2.1	2.2	2.2	2.1	2.3	2.3	2.2	M	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.1	2.2	2.1	2.11	2.33
26-May	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.08	2.26
27-May	2.1	2.4	2.4	2.5	2.9	2.5	2.5	2.3	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.1	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.17	2.93
28-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	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.00	2.02
29-May	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.01	2.06
30-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	A	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.2	2.2	2.04	2.24
31-May	2.2	2.1	2.1	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	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.06	2.23
	2.03	2.03	2.05	2.07	2.09	2.10	2.07	2.03	2.03	2.01	2.00	1.98	1.97	1.97	1.97	1.98	1.98	1.95	1.96	1.96	1.97	1.99	2.01	2.02	Diurnal Average	
	2.49	2.49	2.61	2.66	2.93	2.71	2.54	2.34	2.40	2.20	2.24	2.19	2.10	2.08	2.15	2.08	2.09	2.08	2.08	2.06	2.12	2.24	2.31	2.41	Diurnal Maximum	

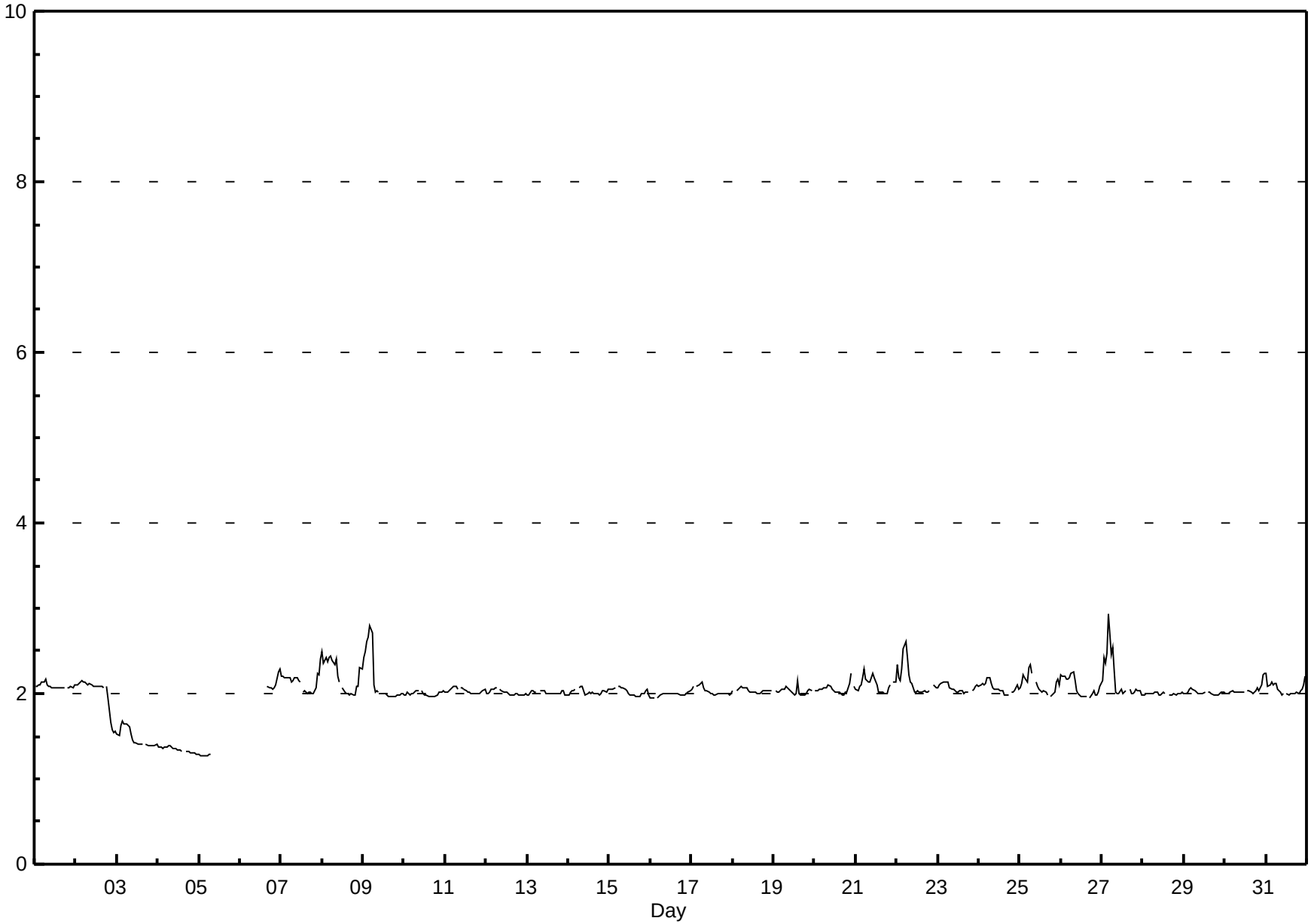
C - Calibration M - Maintenance N - Not Valid A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Total Hydrocarbons (THC) - ppm

Portable Clairmont - May 2015



Peace Airshed Zone Association

Hourly Maximums

Total Hydrocarbons (THC) - ppm

Portable Clairmont - May 2015

Maximum Value: 3.17 ppm on May 27 05:00

Maximum Daily Average: 2.30 ppm on May 8

Minimum Value: 1.3 ppm on May 5 05:00

Minimum Daily Average: 1.35 ppm on May 4

Maximum Diurnal Average: 2.14 ppm at hour 6

Minimum Diurnal Average: 1.97 ppm at hour 18

Monthly Average: 2.045 ppm

Percentiles: P_1 = 1.29 P_{10} = 1.98 Q_1 = 2.01 Median = 2.05 Q_3 = 2.11 P_{90} = 2.22 P_{99} = 2.71

Hours in Service:	744
Hours of Data:	681
Hours of Missing Data:	63
Hours of Calibration:	35
Percent Operational Time:	96.2

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-May	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.1	2.1	2.12	2.24
2-May	2.1	2.1	2.2	2.2	2.2	2.2	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	A	2.1	2.1	1.7	1.6	1.6	1.6	2.04	2.19
3-May	1.6	1.6	1.7	1.8	1.7	1.9	1.7	1.7	1.6	1.5	1.5	1.4	1.4	1.4	1.5	1.4	A	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.53	1.85
4-May	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.3	1.3	A	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.35	1.40
5-May	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	A	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	1.32
6-May	N	N	N	N	N	N	N	N	N	N	N	N	C	C	C	C	2.1	2.1	2.1	2.1	2.1	2.1	2.4	2.4	--	2.36
7-May	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	A	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.2	2.4	2.3	2.5	2.17	2.47
8-May	2.6	2.5	2.5	2.5	2.5	2.5	2.5	2.4	2.5	2.4	2.2	A	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.1	2.7	2.6	2.30	2.67
9-May	2.5	2.6	2.7	2.7	3.0	2.9	2.2	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.21	2.98
10-May	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	A	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.02	2.07
11-May	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.05	2.11
12-May	2.0	2.0	2.0	2.1	2.1	2.1	2.1	A	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.03	2.10
13-May	2.0	2.0	2.1	2.1	2.0	2.0	A	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.03	2.11
14-May	2.0	2.0	2.0	2.1	2.1	A	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.1	2.05	2.12
15-May	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.05	2.12
16-May	2.0	1.9	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.00	2.06
17-May	2.1	2.1	A	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.05	2.16
18-May	2.0	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.1	2.06	2.11
19-May	A	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.6	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.1	A	2.07	2.64
20-May	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.2	2.3	A	2.1	2.07	2.30
21-May	2.1	2.1	2.1	2.1	2.3	2.3	2.2	2.2	2.1	2.2	2.3	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	A	2.2	2.2	2.14	2.32
22-May	2.4	2.4	2.2	2.4	2.6	2.7	2.6	2.3	2.2	2.2	2.0	2.1	2.1	2.0	2.0	2.0	2.1	2.0	2.0	2.1	A	2.1	2.1	2.1	2.21	2.71
23-May	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	A	2.1	2.1	2.1	2.1	2.09	2.17
24-May	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	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	2.1	2.2	2.1	2.10	2.21
25-May	2.1	2.2	2.3	2.3	2.2	2.3	2.5	2.3	M	2.2	2.1	2.1	2.0	2.0	2.1	2.1	2.0	A	2.0	2.0	2.0	2.3	2.3	2.2	2.16	2.46
26-May	2.3	2.3	2.3	2.2	2.2	2.2	2.3	2.3	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.1	2.1	2.0	2.0	2.1	2.1	2.12	2.33
27-May	2.2	2.6	2.4	3.1	3.2	2.7	2.7	2.3	2.1	2.0	2.1	2.1	2.0	2.0	2.1	A	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.27	3.17
28-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	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.02	2.05
29-May	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.03	2.08
30-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	A	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.2	2.3	2.3	2.07	2.29
31-May	2.4	2.1	2.1	2.2	2.1	2.1	2.2	2.1	2.1	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.2	2.09	2.36
	2.06	2.07	2.08	2.12	2.14	2.14	2.12	2.07	2.06	2.05	2.02	2.01	1.99	1.99	2.01	2.00	2.00	1.97	1.98	1.99	2.01	2.03	2.06	2.06	Diurnal Average	
	2.62	2.64	2.65	3.14	3.17	2.95	2.71	2.41	2.48	2.39	2.26	2.24	2.13	2.10	2.64	2.15	2.12	2.10	2.13	2.13	2.19	2.37	2.67	2.57	Diurnal Maximum	

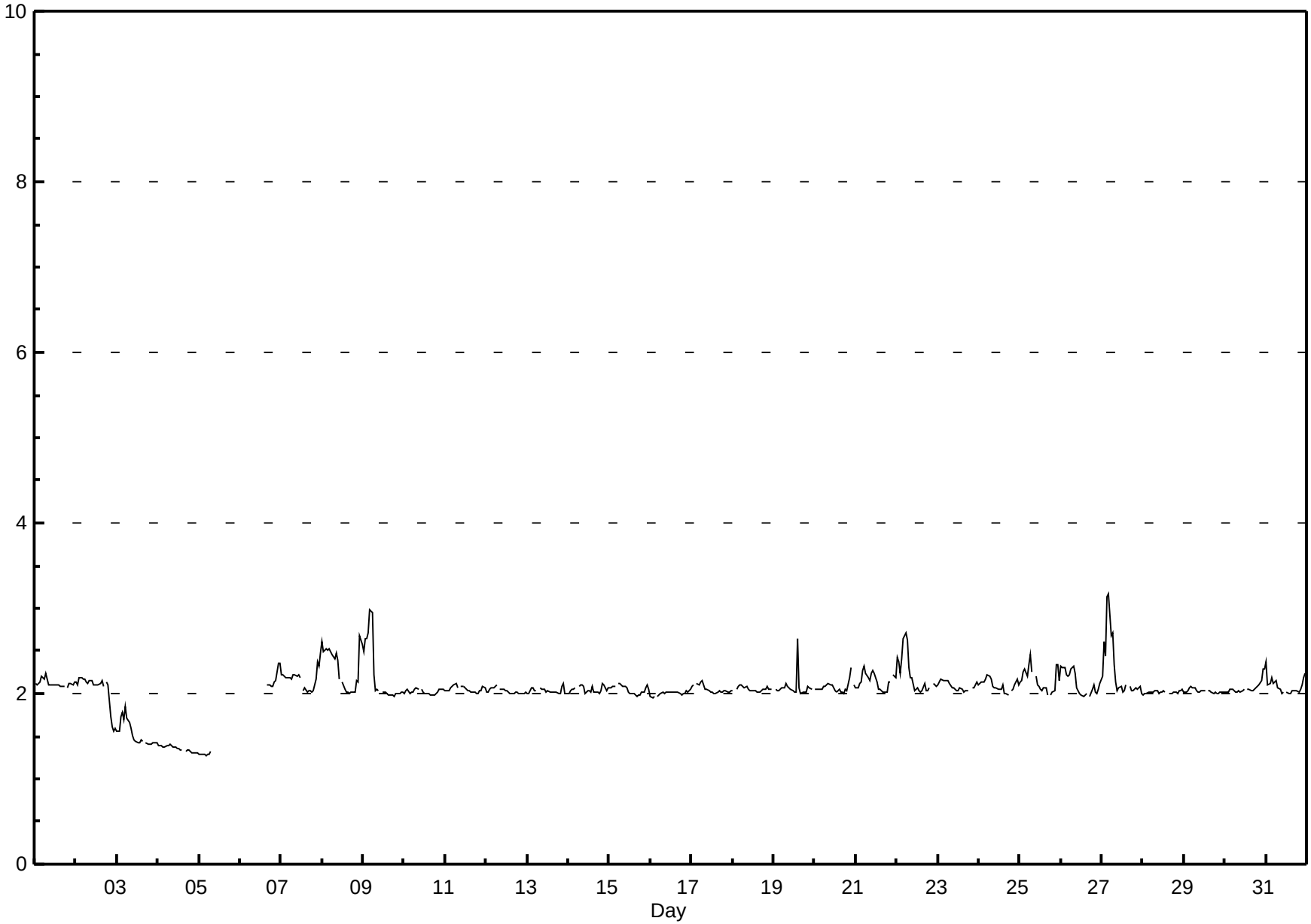
C - Calibration M - Maintenance N - Not Valid A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Total Hydrocarbons (THC) - ppm

Portable Clairmont - May 2015



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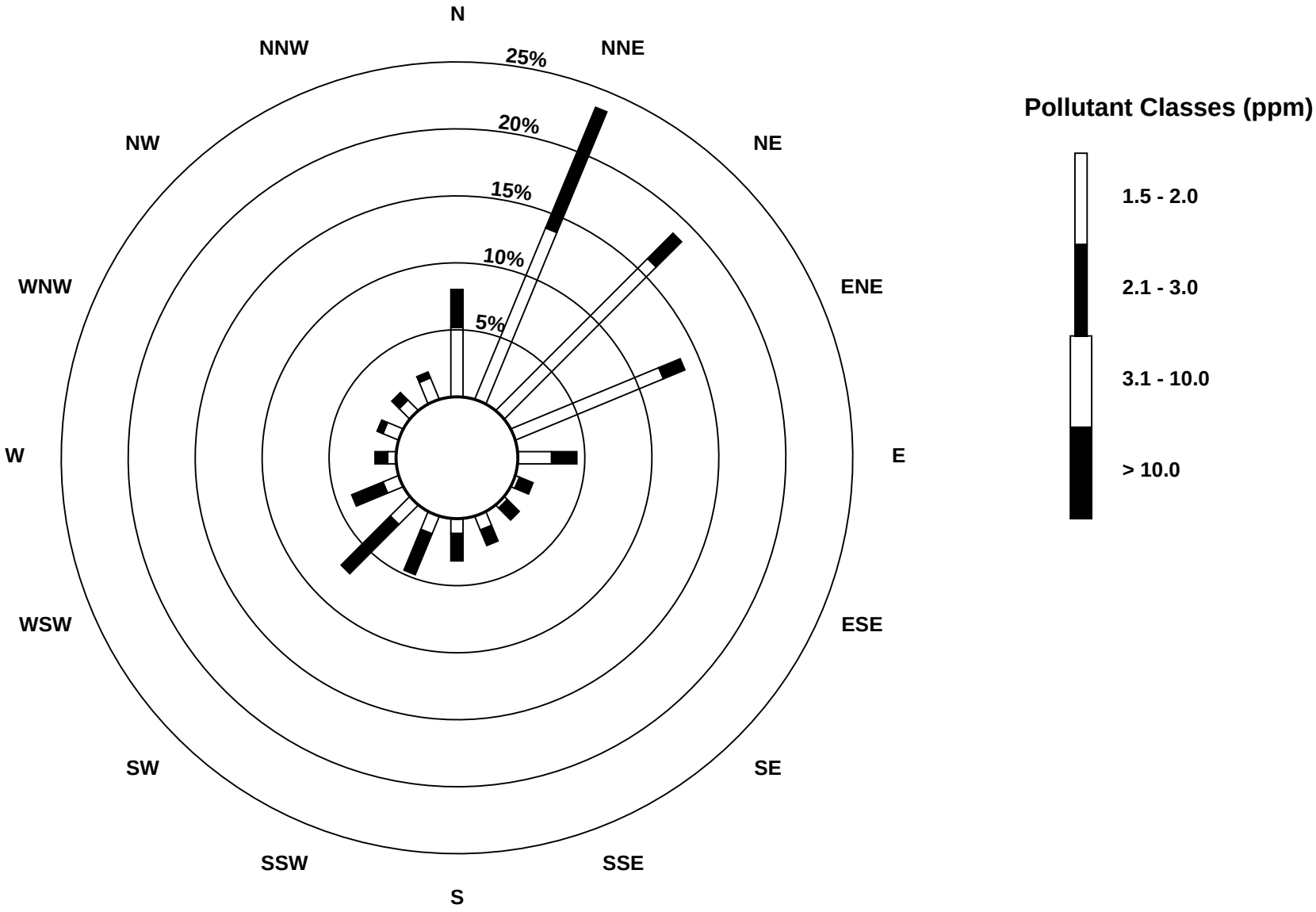
Pollutant Rose

Total Hydrocarbons (THC) - ppm

Portable Clairmont - May 2015



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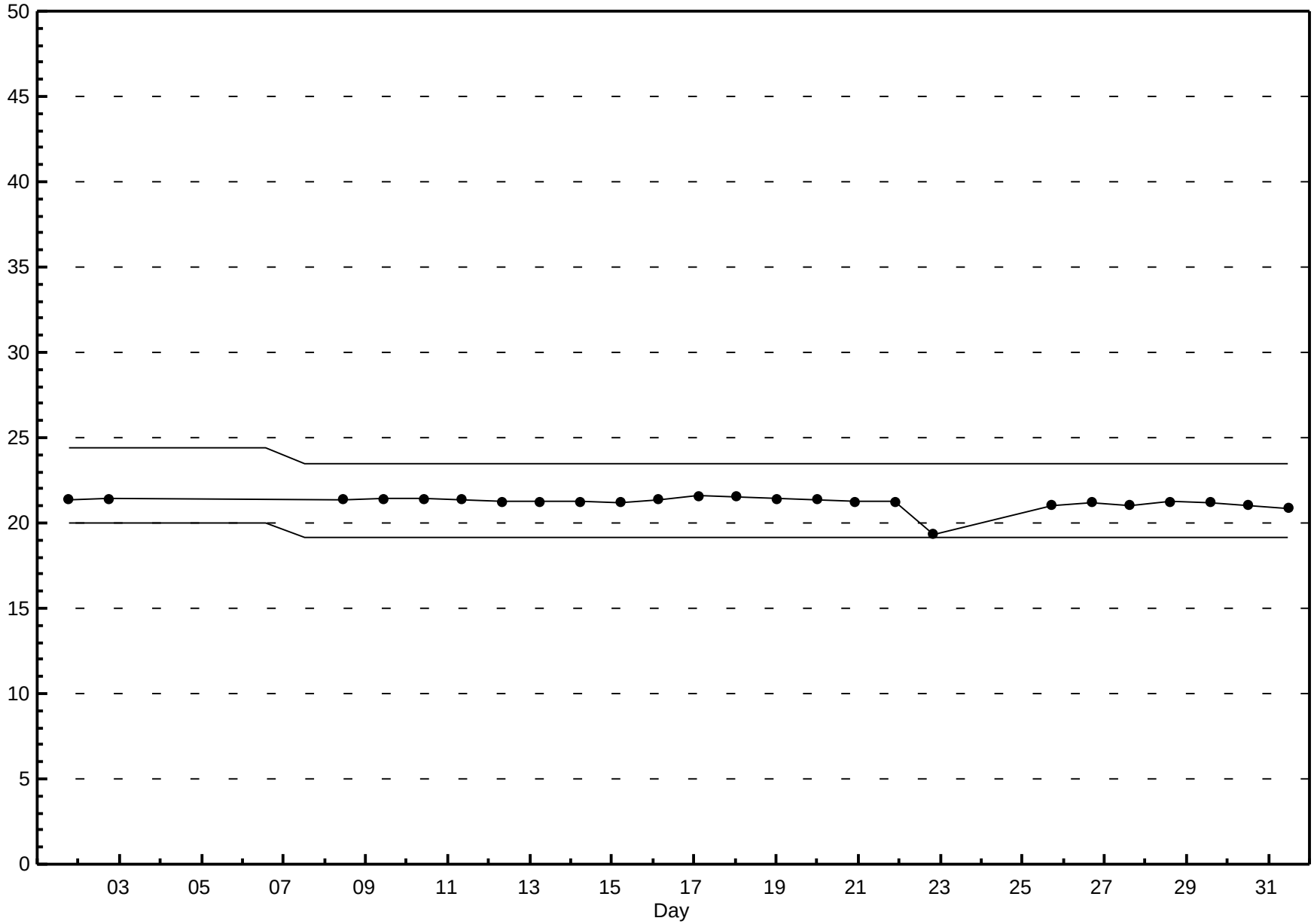
Span Responses

Total Hydrocarbons (THC)

Portable Clairmont - May 2015



Peace Airshed Zone Association

Hourly Averages

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

Portable Clairmont - May 2015

Number of Exceedences: 1-hr: 2 24-hr: 0

Maximum Value: 143.9 $\mu g/m^3$ on May 24 21:00

Maximum Daily Average: 23.8 $\mu g/m^3$ on May 21

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

Maximum Diurnal Average: 15.0 $\mu g/m^3$ at hour 21

Monthly Average: 6.70 $\mu g/m^3$

Minimum Daily Average: 0.7 $\mu g/m^3$ on May 28

Minimum Diurnal Average: 4.3 $\mu g/m^3$ at hour 18

Percentiles: P_1 = 0.0 P_{10} = 0.1 Q_1 = 1.8 Median = 4.0 Q_3 = 7.8 P_{90} = 14.4 P_{99} = 57.3

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)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-May	1	0	0	0	0	0	2	1	0	0	0	0	0	0	2	1	2	1	3	1	0	4	0	1	0.8	3.6
2-May	0	0	0	2	2	1	0	0	2	4	3	0	0	3	2	2	1	1	0	1	1	3	2	0	1.3	4.2
3-May	0	0	0	0	1	2	4	2	2	2	0	0	1	1	0	1	4	2	1	1	0	0	0	0	1.1	4.2
4-May	0	0	0	0	0	0	0	1	0	0	22	12	6	1	3	1	0	1	0	0	2	1	0	0	2.2	22.0
5-May	0	0	1	2	2	2	1	0	1	0	0	0	0	0	0	1	2	3	2	4	5	6	2	1	1.5	5.8
6-May	1	0	0	1	1	1	3	0	0	0	5	2	2	0	4	3	4	2	3	3	6	5	4	4	2.2	5.8
7-May	3	2	1	3	3	3	3	4	8	7	4	M	M	13	12	9	6	5	4	5	6	7	8	9	5.6	12.8
8-May	5	2	3	3	2	4	13	12	7	3	3	3	3	1	2	2	3	3	4	4	8	9	15	10	5.2	14.7
9-May	8	5	6	6	5	6	4	3	5	3	3	4	3	3	3	4	4	4	4	5	9	7	6	3	4.7	9.2
10-May	3	3	2	4	4	4	5	5	5	5	3	3	3	3	3	4	4	5	4	5	8	9	6	5	4.3	8.5
11-May	5	4	4	4	4	4	5	5	6	4	4	3	3	4	3	3	3	3	3	5	7	7	6	4	4.3	7.4
12-May	4	3	4	4	3	4	6	5	4	4	4	3	4	4	3	3	4	4	5	7	7	6	5	5	4.3	7.2
13-May	4	4	5	4	4	4	6	7	6	7	6	5	5	4	5	5	5	6	6	7	9	11	8	7	5.8	10.7
14-May	8	8	9	9	9	10	11	10	8	5	4	5	4	3	3	5	4	4	4	5	7	7	10	7	6.6	11.2
15-May	6	5	6	6	5	8	7	9	10	9	7	2	2	3	3	2	3	5	4	7	10	7	7	4	5.7	10.3
16-May	3	3	3	3	3	3	2	1	0	1	0	1	1	1	1	0	1	0	1	2	1	3	2	2	1.6	3.2
17-May	2	1	1	1	1	2	3	1	2	1	1	1	1	1	2	2	1	6	3	2	4	5	3	3	2.1	6.3
18-May	2	4	2	3	3	2	3	3	3	3	2	3	3	2	3	1	1	2	2	4	6	25	8	5	4.0	25.2
19-May	5	3	3	3	4	5	6	7	6	11	4	3	2	2	5	3	3	3	4	5	7	13	9	7	5.1	12.6
20-May	5	6	4	4	5	7	7	9	7	7	7	3	4	3	1	3	3	2	3	8	37	32	12	12	7.9	36.7
21-May	8	6	9	7	13	21	36	26	28	24	23	14	7	65	9	8	6	8	42	32	35	16	61	68	23.8	67.9
22-May	15	8	6	8	10	11	14	11	16	13	10	21	54	70	8	6	7	6	7	11	23	59	90	40	21.6	89.8
23-May	11	14	15	10	9	10	11	14	13	14	14	8	10	5	20	10	8	7	11	13	20	24	21	17	12.8	23.9
24-May	16	17	22	17	17	16	15	15	19	22	18	16	8	3	14	18	11	9	11	15	144	15	10	5	19.7	143.9
25-May	8	29	18	17	31	17	10	13	12	8	40	25	12	5	17	28	36	22	14	9	10	20	14	10	17.7	40.1
26-May	35	9	11	12	12	14	15	17	11	14	11	11	9	10	8	9	8	5	11	25	52	13	10	15	14.5	51.8
27-May	15	22	8	9	7	7	13	14	7	11	12	9	6	14	24	8	18	4	10	8	17	13	7	5	11.2	23.6
28-May	3	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	1	2	3	2	3	0.7	2.8
29-May	0	1	1	0	2	1	3	3	3	2	2	2	4	3	5	9	5	3	3	5	5	4	2	1	3.0	8.7
30-May	1	1	1	2	1	2	1	2	3	4	3	4	2	3	4	10	5	5	13	5	5	4	5	4	3.8	12.7
31-May	6	2	0	3	1	2	0	0	0	0	0	0	0	1	3	1	9	2	3	6	14	0	6	5	2.7	13.7
	5.8	5.3	4.7	4.7	5.3	5.6	6.7	6.6	6.2	6.0	6.9	5.4	5.3	7.4	5.5	5.2	5.5	4.3	6.0	6.7	15.0	10.8	11.0	8.5	Diurnal Average	
	35.4	29.4	22.4	17.3	31.3	21.3	35.7	26.0	28.1	24.3	40.1	25.0	53.7	69.8	23.6	27.5	35.9	22.4	42.0	32.1	143.9	59.0	89.8	67.9	Diurnal Maximum	

M - Maintenance

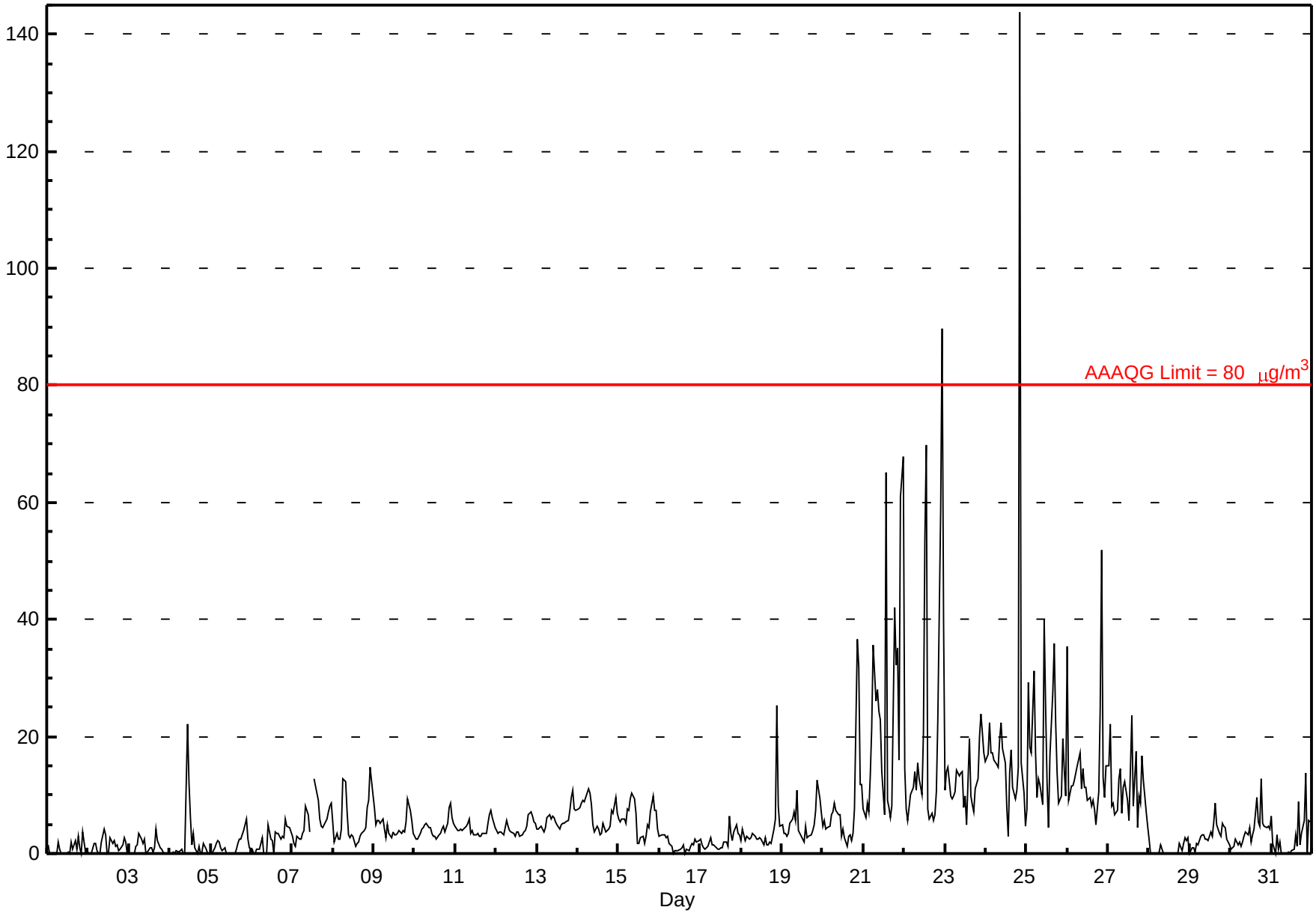
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 $\mu g/m^3$ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 $\mu g/m^3$

Peace Airshed Zone Association

Hourly Averages

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

Portable Clairmont - May 2015



Peace Airshed Zone Association

Hourly Maximums

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

Portable Clairmont - May 2015

Maximum Value: 449.0 $\mu g/m^3$ on May 24 21:00

Maximum Daily Average: 77.5 $\mu g/m^3$ on May 21

Minimum Value: 0 $\mu g/m^3$ on May 4 09:00

Minimum Daily Average: 3.5 $\mu g/m^3$ on May 5

Maximum Diurnal Average: 35.2 $\mu g/m^3$ at hour 21

Minimum Diurnal Average: 8.3 $\mu g/m^3$ at hour 4

Monthly Average: 15.54 $\mu g/m^3$

Percentiles: P_1 = 0.7 P_{10} = 3.1 Q_1 = 4.9 Median = 7.5 Q_3 = 14.0 P_{90} = 24.7 P_{99} = 200.4

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	1	1	3	1	2	4	4	2	0	5	4	10	4	11	9	8	5	12	3	1	10	7	3	4.8	11.6
2-May	2	2	1	4	3	1	0	3	6	7	8	3	3	10	6	10	5	5	3	3	5	5	8	2	4.4	9.7
3-May	2	1	2	2	4	6	8	10	5	8	4	5	4	7	4	21	21	7	6	4	3	2	2	2	5.9	20.8
4-May	1	2	2	1	3	2	3	5	0	2	160	59	30	5	13	4	4	3	2	4	3	3	3	0	13.1	159.6
5-May	2	3	4	4	5	4	3	2	7	0	2	2	1	1	1	3	3	4	5	6	7	7	5	2	3.5	7.4
6-May	2	0	1	2	3	3	7	2	0	7	13	9	9	11	7	6	7	5	5	4	10	10	8	6	5.7	13.4
7-May	5	4	4	6	5	4	6	9	12	13	5	M	M	16	14	15	8	9	5	7	8	9	14	13	8.7	16.0
8-May	9	3	5	5	4	9	15	14	11	8	4	5	7	4	3	4	4	5	6	7	11	10	23	20	8.1	22.8
9-May	11	9	8	8	8	9	6	4	8	6	5	5	5	5	6	7	5	6	6	8	14	11	11	5	7.4	13.7
10-May	4	5	4	5	7	6	7	7	6	6	5	6	6	5	6	6	7	9	7	7	13	11	10	9	6.7	12.9
11-May	7	7	6	5	5	6	6	6	8	6	6	5	5	6	6	5	6	7	8	8	9	11	11	7	6.7	10.9
12-May	7	5	7	6	5	6	7	7	6	6	7	6	7	6	7	6	7	10	7	13	10	9	7	8	7.1	12.9
13-May	6	5	6	5	5	7	9	9	8	8	9	9	9	9	9	7	8	11	9	11	12	14	11	8	8.5	14.5
14-May	9	11	10	11	11	13	16	14	10	9	7	7	7	7	7	8	8	7	7	9	12	9	15	9	9.7	16.1
15-May	8	8	8	8	7	10	11	15	13	16	18	5	4	7	5	5	9	10	8	11	17	16	12	11	10.1	18.1
16-May	5	5	4	5	4	7	5	3	2	4	4	5	6	5	5	5	5	3	3	6	3	4	6	4	4.5	7.0
17-May	5	3	2	2	3	4	4	3	3	4	3	5	4	3	4	5	5	21	7	4	6	7	6	7	4.9	20.8
18-May	6	6	4	4	4	4	5	5	5	5	5	6	5	5	7	4	6	8	8	8	12	54	15	7	8.3	53.6
19-May	7	6	5	4	5	8	8	9	9	36	11	6	7	6	10	6	9	9	8	9	15	19	13	11	10.0	35.8
20-May	7	8	6	6	8	9	9	11	10	10	10	9	7	10	8	9	8	16	14	19	75	55	22	15	15.0	75.4
21-May	11	9	11	10	64	57	143	50	63	31	31	19	13	318	19	19	12	146	203	98	55	34	234	211	77.5	317.5
22-May	20	15	11	12	13	19	26	15	22	21	14	99	203	223	17	18	14	16	17	22	29	267	267	164	64.2	266.8
23-May	14	23	20	14	12	14	14	22	17	19	21	14	25	18	45	22	22	21	19	20	28	32	24	25	21.0	44.5
24-May	18	29	41	21	24	27	19	19	26	39	25	26	21	21	28	35	21	17	20	37	449	62	24	8	44.0	449.0
25-May	13	130	92	57	92	28	16	15	15	13	89	40	21	25	39	49	68	41	31	14	15	30	24	19	40.5	129.8
26-May	60	15	17	14	14	16	17	25	18	29	16	15	13	18	16	16	17	16	22	34	178	25	13	43	27.8	177.6
27-May	20	58	15	14	22	21	19	22	10	22	21	15	9	34	51	32	34	11	20	23	20	16	12	8	22.0	58.4
28-May	6	4	2	3	2	1	4	6	5	2	4	7	7	10	5	5	12	7	14	5	5	6	6	9	5.6	13.9
29-May	1	3	4	3	5	4	7	8	7	6	9	12	16	9	12	16	10	12	8	8	8	9	5	3	7.7	16.1
30-May	3	3	5	6	3	4	4	7	7	11	6	8	6	8	12	24	11	8	21	12	10	8	7	7	8.5	24.5
31-May	9	6	1	7	3	3	3	3	3	6	6	5	12	15	11	6	19	6	8	9	48	13	10	9	9.2	47.7
	9.1	12.6	9.9	8.3	11.4	10.2	13.2	10.8	10.5	11.6	17.2	14.0	16.0	26.8	12.7	12.4	12.3	14.9	16.7	14.0	35.2	25.0	27.0	21.1	Diurnal Average	
	59.8	129.8	91.7	57.0	91.5	56.5	142.7	50.0	63.1	39.1	159.6	98.5	202.6	317.5	50.6	48.8	67.8	145.5	202.8	97.8	449.0	266.5	266.8	211.2	Diurnal Maximum	

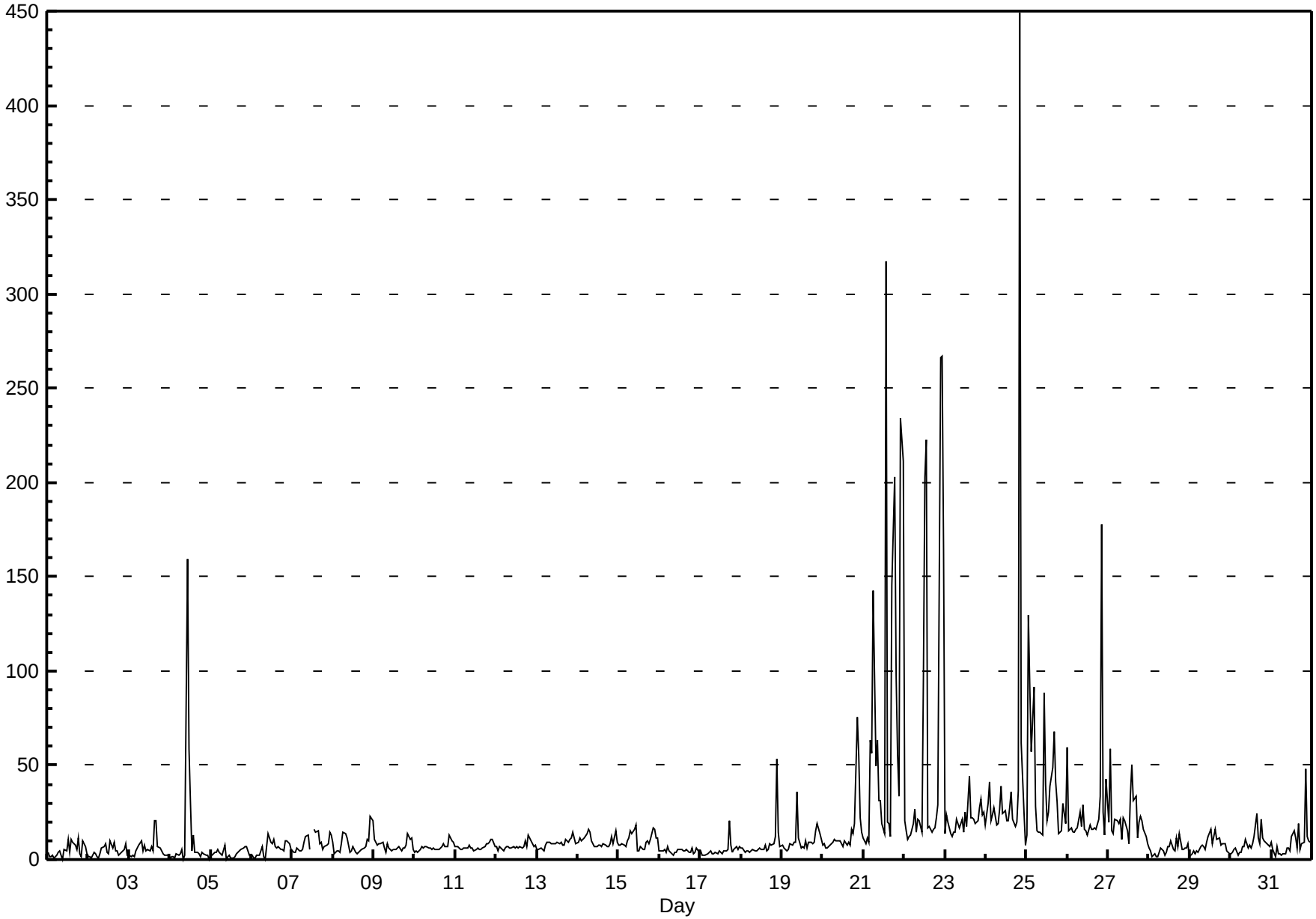
M - Maintenance

Peace Airshed Zone Association

Hourly Maximums

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

Portable Clairmont - May 2015

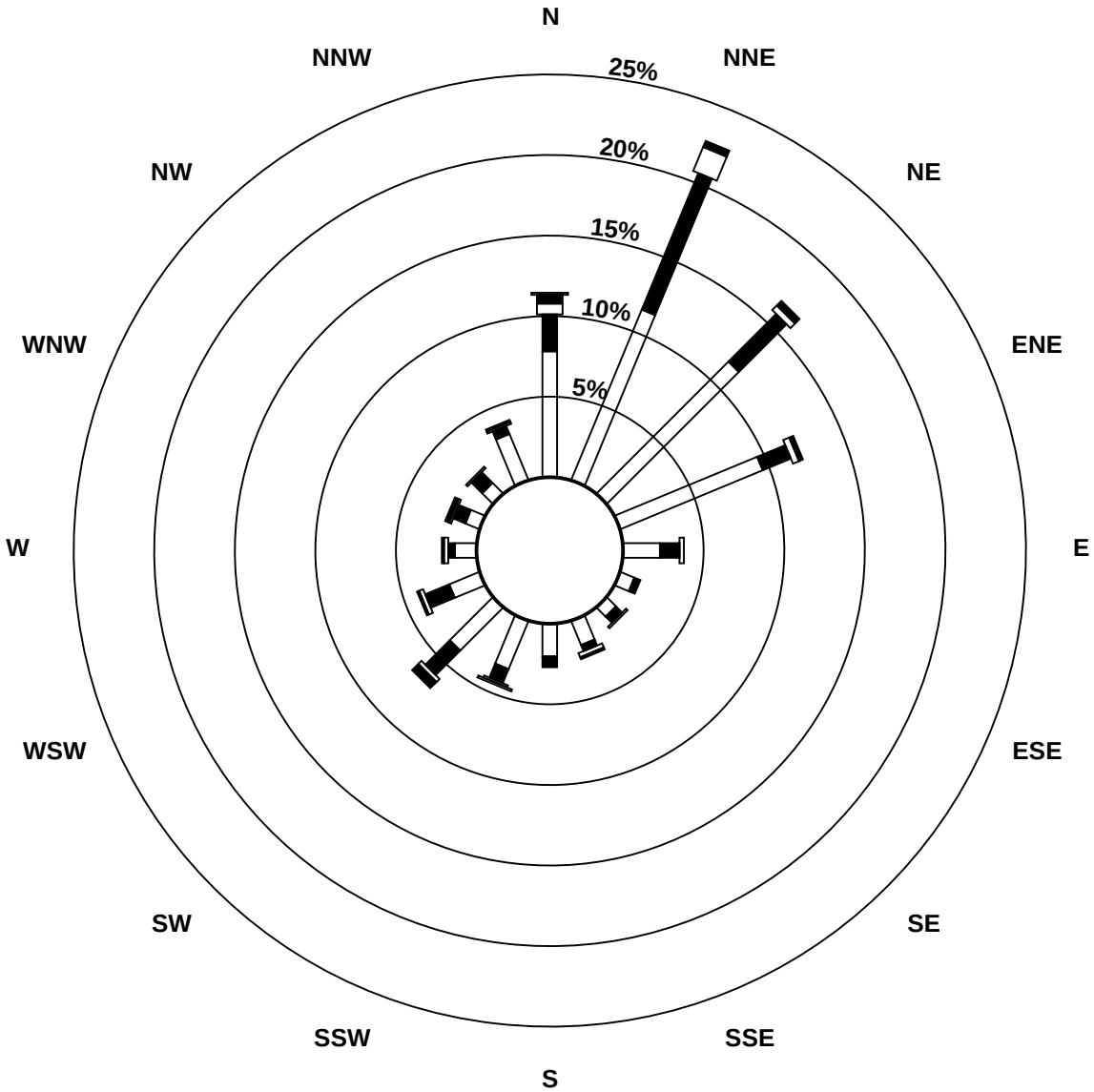


Peace Airshed Zone Association

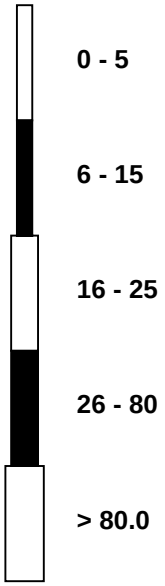
Pollutant Rose

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

Portable Clairmont - May 2015



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



Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Portable Clairmont - May 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 27.1 ^{o}C on May 23 17:00
Maximum Daily Average: 20.3 ^{o}C on May 23

Minimum Value: -1 ^{o}C on May 6 06:00
Maximum Diurnal Average: 17.5 ^{o}C at hour 16
Monthly Average: 12.52 ^{o}C

Minimum Daily Average: 2.5 ^{o}C on May 5
Minimum Diurnal Average: 6.7 ^{o}C at hour 5
Percentiles: P_1 = 0.2 P_{10} = 3.4 Q_1 = 7.9 Median = 11.9 Q_3 = 17.4 P_{90} = 21.5 P_{99} = 25.8

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

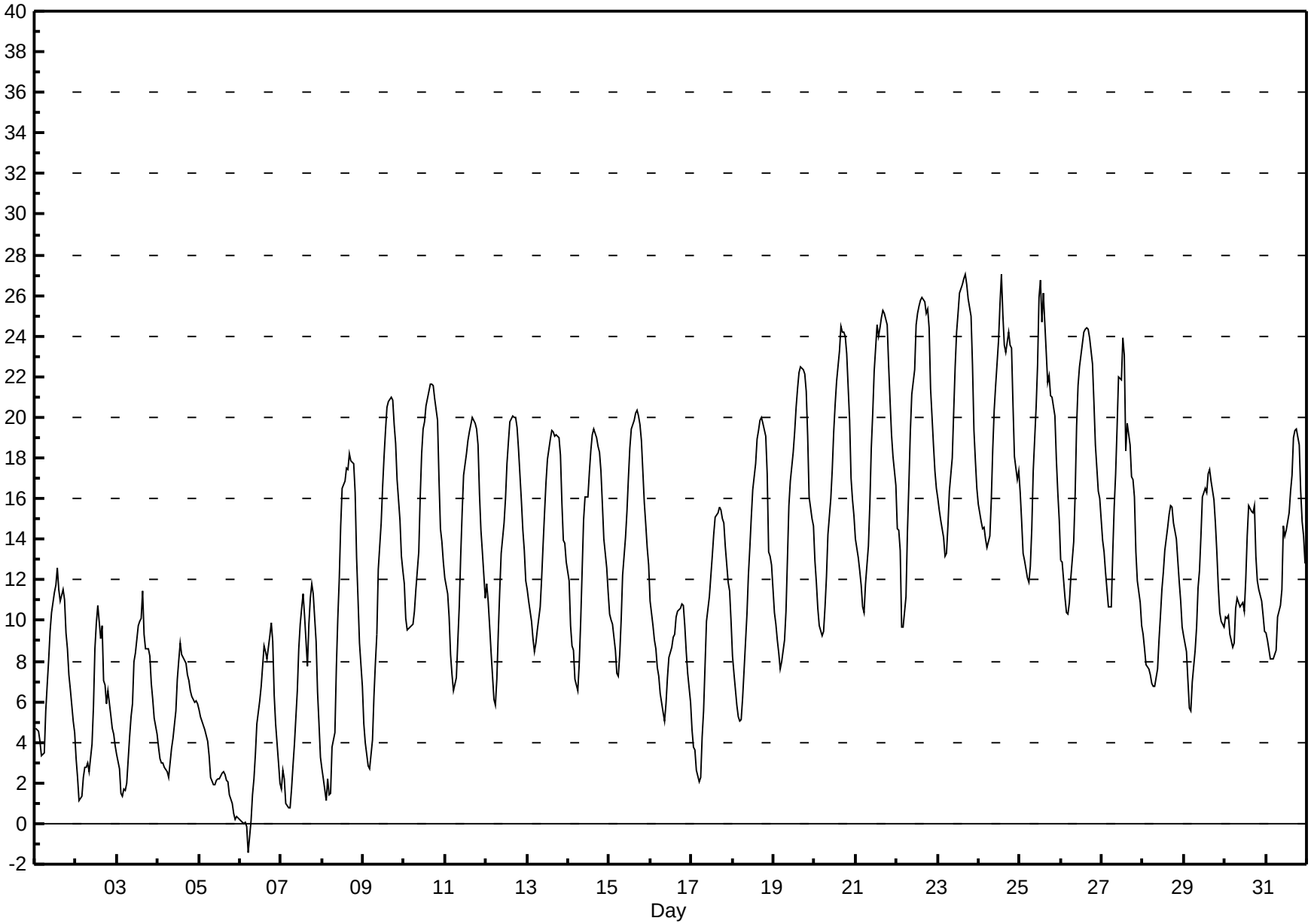
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-May	5	5	5	4	3	3	6	7	8	9	10	11	12	13	11	11	12	11	9	9	7	7	5	4	7.8	12.6
2-May	3	2	1	1	2	3	3	3	3	4	6	9	10	11	9	10	7	7	6	7	5	5	4	4	5.1	10.7
3-May	3	3	1	1	2	2	2	4	5	6	8	8	10	10	10	11	9	9	9	8	7	6	5	4	6.0	11.4
4-May	4	3	3	3	3	3	2	3	4	4	6	7	8	9	8	8	8	7	7	7	6	6	6	6	5.4	8.9
5-May	6	5	5	5	4	4	3	2	2	2	2	2	2	3	3	2	2	2	1	1	1	0	0	0	2.5	5.6
6-May	0	0	0	0	0	-1	0	1	2	3	5	6	7	8	9	8	8	9	10	9	6	5	3	2	4.2	9.9
7-May	2	3	2	1	1	1	2	3	4	7	9	10	11	11	10	8	10	11	12	11	9	6	5	3	6.3	11.8
8-May	3	2	1	2	1	1	4	4	8	10	12	15	17	17	17	17	18	18	18	16	13	11	9	7	10.1	18.2
9-May	5	4	3	3	3	4	6	8	9	13	15	17	18	19	20	21	21	21	20	19	17	15	13	12	12.7	21.0
10-May	12	10	10	10	10	10	10	12	13	16	18	19	20	21	21	22	22	22	21	20	17	14	14	13	15.6	21.6
11-May	12	11	10	8	7	7	7	9	11	13	15	17	18	19	19	20	20	20	19	19	16	14	13	11	14.1	20.0
12-May	12	11	10	8	6	6	7	9	11	13	15	16	18	19	20	20	20	20	19	18	16	14	13	12	14.0	20.0
13-May	12	11	10	9	8	9	10	11	12	14	15	17	18	19	19	19	19	19	19	18	16	14	14	13	14.3	19.3
14-May	12	10	9	9	7	7	8	10	12	15	16	16	17	18	19	19	19	19	18	17	16	14	13	11	13.8	19.4
15-May	10	10	10	9	7	7	8	10	12	14	15	17	18	19	20	20	20	20	20	19	16	15	14	13	14.3	20.4
16-May	11	10	9	9	8	7	6	5	5	6	7	8	9	9	9	10	10	11	11	11	10	8	7	6	8.5	11.0
17-May	5	4	4	3	2	2	4	6	8	10	11	12	13	14	15	15	16	15	15	15	14	12	11	10	9.8	15.6
18-May	8	7	6	5	5	5	6	8	10	12	14	15	16	18	19	19	20	20	20	19	17	13	13	13	12.9	20.0
19-May	10	10	9	8	8	8	9	10	13	16	17	18	19	20	21	22	23	22	22	21	19	16	15	15	15.5	22.5
20-May	13	12	11	10	9	9	11	12	14	16	17	19	21	22	23	24	24	24	24	23	20	17	16	15	17.0	24.5
21-May	14	13	12	12	11	10	12	14	16	19	20	22	25	24	24	25	25	25	25	23	21	19	18	17	18.5	25.3
22-May	15	14	13	10	10	11	14	17	19	21	22	25	25	25	26	26	26	25	25	24	21	19	17	17	19.5	25.9
23-May	16	15	15	14	13	13	15	16	18	20	23	24	25	26	27	27	27	27	26	25	23	19	18	17	20.3	27.1
24-May	16	15	15	15	14	14	14	16	18	20	22	24	26	27	25	24	23	24	24	23	21	18	17	17	19.6	27.0
25-May	16	15	13	13	12	12	13	14	17	20	23	26	27	25	26	23	22	22	21	21	20	18	16	15	18.8	26.7
26-May	13	13	11	10	10	11	12	14	16	20	22	22	23	24	24	24	24	24	23	21	19	17	16	16	17.9	24.4
27-May	14	13	12	12	11	11	13	16	17	20	22	22	24	23	18	20	19	17	17	16	13	12	11	10	15.9	23.9
28-May	9	9	8	8	7	7	7	7	8	9	10	12	12	13	15	15	16	16	15	14	13	12	11	10	10.9	15.6
29-May	9	8	7	6	6	7	9	10	12	12	14	16	17	16	17	17	17	16	15	13	12	10	10	10	11.9	17.4
30-May	10	10	10	9	9	9	11	11	11	11	11	10	12	14	16	15	15	16	13	12	12	11	10	9	11.6	15.7
31-May	9	9	8	8	8	8	9	10	11	12	15	14	14	15	16	17	19	19	19	19	16	15	14	13	13.3	19.4
	9.3	8.6	7.8	7.2	6.7	6.7	7.8	9.1	10.7	12.5	14.1	15.4	16.5	17.2	17.4	17.5	17.4	17.3	16.8	16.1	14.1	12.4	11.4	10.5	Diurnal Average	
	16.3	15.4	15.0	14.6	14.0	13.6	14.7	16.7	19.3	21.2	22.5	25.9	26.7	27.0	26.5	26.8	27.1	26.5	25.9	25.0	22.6	19.4	18.1	17.4	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Portable Clairmont - May 2015



Peace Airshed Zone Association

Hourly Averages

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

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1 Spd	9	8	9	8	6	8	10	13	18	17	19	21	18	19	20	15	19	21	18	14	14	10	13	9	12.8	21.3
Dir	171	175	175	181	180	165	166	179	197	204	209	210	219	216	218	206	208	213	201	196	195	245	288	177	203.1	213.2
2 Spd	11	11	6	9	12	11	10	16	16	15	14	15	14	20	17	14	20	10	6	3	5	9	7	3	9.3	20.3
Dir	196	200	219	233	227	233	251	250	240	238	235	220	209	213	217	234	320	297	161	160	162	162	185	201	227.2	320.2
3 Spd	2	4	1	3	1	2	3	4	5	4	5	10	7	8	12	5	21	14	12	7	8	8	9	13	2.3	20.5
Dir	207	281	178	224	219	247	208	216	227	231	228	238	244	233	152	243	358	6	12	33	355	349	5	4	320.3	358.2
4 Spd	18	20	19	19	21	24	27	24	21	26	27	28	28	25	20	24	32	34	35	35	36	33	30	31	26.3	36.0
Dir	3	1	4	6	1	6	1	11	16	13	10	13	12	20	31	20	5	4	1	351	355	2	8	8	6.8	354.5
5 Spd	30	32	30	27	23	24	22	19	20	21	18	18	17	17	19	19	19	19	19	15	14	8	7	6	18.5	31.6
Dir	10	7	2	360	356	352	350	340	339	338	338	328	322	327	330	334	332	332	339	340	333	327	313	311	343.8	7.0
6 Spd	5	6	6	8	5	5	6	8	7	5	2	4	3	2	3	4	1	4	3	4	5	5	5	4	1.7	8.0
Dir	273	268	280	296	291	302	283	271	270	250	248	240	213	158	152	137	335	189	124	132	95	103	111	104	246.9	295.7
7 Spd	4	6	7	5	7	7	3	3	4	7	5	7	13	15	11	14	6	4	5	4	2	1	0	0	3.7	14.9
Dir	89	68	38	24	15	348	53	126	253	237	275	347	326	309	312	295	281	284	320	348	18	101	309	353	327.4	309.2
8 Spd	1	1	1	3	1	2	4	5	4	5	6	6	4	8	8	7	4	7	11	14	5	6	0	5	0.8	13.6
Dir	34	99	32	63	81	86	99	107	140	135	103	122	127	236	243	277	227	257	322	323	321	314	171	220	268.1	322.8
9 Spd	2	4	6	1	3	2	6	7	8	8	11	9	7	5	5	6	7	5	9	7	9	10	10	12	5.1	11.7
Dir	245	223	232	95	226	36	39	43	27	56	71	65	54	43	47	25	33	37	37	41	21	17	14	16	36.0	16.1
10 Spd	12	12	13	12	10	8	7	8	7	7	10	14	15	14	12	11	12	12	12	11	7	7	7	9	9.7	15.2
Dir	22	20	17	15	17	19	23	23	43	70	72	65	43	46	52	50	59	73	67	67	51	37	60	83	45.4	42.7
11 Spd	12	8	9	10	12	12	12	11	10	10	11	11	10	10	10	12	12	13	13	11	8	10	8	7	9.9	12.9
Dir	89	52	18	12	13	16	13	17	21	39	29	53	48	25	36	47	58	57	59	63	51	53	46	31	39.6	56.8
12 Spd	15	14	11	11	10	13	11	12	16	18	16	16	17	17	18	18	18	18	20	16	13	16	14	13	14.4	19.6
Dir	65	63	44	33	11	13	28	55	62	70	66	65	77	73	73	69	65	66	65	62	50	54	54	48	58.4	65.0
13 Spd	16	17	15	13	16	16	17	20	21	21	20	18	18	17	18	19	21	18	18	15	11	11	14	15	16.6	20.9
Dir	54	53	45	44	52	57	45	53	59	67	65	69	61	63	61	52	43	53	59	53	44	51	62	69	56.0	43.3
14 Spd	12	8	7	11	10	11	10	10	12	14	16	13	11	13	14	15	14	13	12	13	9	8	9	5	10.1	16.4
Dir	62	16	10	16	14	14	20	64	84	96	90	66	68	73	75	80	74	62	67	49	49	48	26	18	56.7	90.5
15 Spd	7	8	9	10	11	10	9	7	4	5	6	7	6	6	7	8	8	10	8	4	8	1	3	17	5.9	17.1
Dir	4	356	19	12	16	10	16	16	20	11	37	52	61	48	41	16	21	14	16	129	161	192	177	344	20.6	344.4
16 Spd	23	30	29	30	29	34	33	30	24	21	21	20	18	14	16	11	13	14	13	12	11	8	9	7	18.4	34.0
Dir	343	339	344	348	343	350	359	1	353	356	10	7	10	16	4	13	12	14	17	38	63	62	61	30	1.7	350.1
17 Spd	7	6	8	9	12	10	8	11	14	16	17	15	13	14	13	14	14	14	16	15	12	10	12	10	11.4	17.5
Dir	12	21	19	11	13	21	38	59	78	82	72	65	57	64	61	51	45	40	41	44	52	55	65	50	50.0	72.1
18 Spd	10	11	12	12	11	13	12	11	11	13	13	15	14	13	13	14	13	13	13	14	10	7	9	10	11.5	14.8
Dir	14	15	10	11	15	16	16	24	45	59	46	42	51	53	54	45	52	50	48	42	28	13	18	25	34.6	41.7
19 Spd	8	11	12	12	11	12	11	9	8	10	11	10	9	9	10	9	11	13	14	13	9	9	9	10	10.1	13.8
Dir	14	14	10	13	13	19	21	23	41	62	46	47	38	33	28	42	45	43	46	44	33	18	20	27	30.9	45.6
20 Spd	9	10	9	11	12	13	12	10	6	8	9	8	8	8	9	8	9	10	7	6	4	3	8	9	8.0	13.3
Dir	9	13	14	12	12	10	15	17	26	35	33	50	43	50	67	73	46	41	52	46	7	5	357	11	27.5	10.5
21 Spd	7	7	9	9	4	5	6	3	2	2	5	5	5	8	11	10	12	14	11	6	5	5	5	4	5.2	13.6
Dir	14	18	17	20	26	31	28	64	45	65	79	76	82	37	17	19	13	11	18	13	217	274	275	289	20.1	11.0
22 Spd	2	5	0	2	1	1	1	2	3	6	6	10	11	9	10	12	14	12	10	9	5	8	10	9	5.7	14.4
Dir	37	14	287	217	243	257	54	35	92	63	29	67	68	49	26	25	13	25	39	30	358	354	353	356	28.3	12.9

Peace Airshed Zone Association

Hourly Averages

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
23 Spd	12	14	12	8	9	8	8	9	7	7	9	10	12	13	14	13	10	11	15	14	10	11	10	10	10.3	14.9
Dir	360	4	6	16	12	24	30	24	18	13	19	28	36	52	46	56	48	47	30	35	24	8	14	13	26.1	30.1
24 Spd	9	9	8	11	10	8	9	10	8	7	7	8	10	10	22	26	15	12	8	5	10	6	5	10	6.9	26.1
Dir	17	14	17	15	19	17	14	22	49	60	37	33	48	67	355	345	336	331	353	250	207	218	268	273	3.0	345.4
25 Spd	7	6	3	5	4	5	4	7	7	4	5	4	5	7	2	21	22	12	15	6	2	3	6	5	2.7	22.1
Dir	238	226	238	169	229	251	190	229	234	226	168	163	89	24	285	294	346	353	19	16	176	234	276	248	289.0	346.5
26 Spd	7	6	5	6	3	6	4	4	2	2	3	1	3	2	7	7	8	7	4	4	5	7	4	2	1.4	8.2
Dir	235	241	216	218	215	217	227	215	199	153	137	102	22	295	350	14	19	41	24	211	253	290	282	56	266.2	18.8
27 Spd	3	1	1	1	3	2	2	6	7	6	7	5	4	13	11	9	7	11	2	16	28	32	35	24	4.8	34.6
Dir	207	269	319	197	224	229	208	217	200	165	189	242	252	306	313	327	146	162	90	356	353	351	352	357	334.5	352.4
28 Spd	21	23	21	23	23	23	23	20	18	18	14	11	12	14	12	12	12	12	13	18	15	11	11	12	15.7	23.4
Dir	354	359	354	1	4	2	3	10	17	15	21	32	21	16	27	36	44	50	37	19	22	39	30	9	14.6	3.0
29 Spd	16	18	17	15	13	12	13	18	19	17	19	17	16	17	17	23	24	23	23	20	15	13	12	13	14.6	23.6
Dir	7	8	11	12	14	18	34	45	52	54	66	68	61	48	64	85	90	93	99	96	99	92	73	55	59.4	90.5
30 Spd	15	14	14	14	14	14	17	18	13	12	13	12	12	9	9	7	5	4	5	5	2	3	3	4	8.3	17.8
Dir	58	57	45	19	19	23	51	63	61	79	68	58	57	58	67	22	340	232	196	44	66	146	108	108	52.7	63.0
31 Spd	7	5	5	4	3	4	7	6	6	5	12	16	15	15	16	13	12	13	14	8	3	3	2	1	6.8	16.3
Dir	142	166	201	218	200	185	177	178	173	185	199	208	219	217	223	225	234	239	277	290	124	214	244	206	214.8	207.6
Spd	6.1	7.1	7.4	7.6	7.5	7.8	7.5	6.3	4.9	5.2	6.0	5.7	6.1	5.6	5.8	6.7	8.4	7.0	8.0	7.4	5.3	5.3	6.0	6.3	Diurnal Average	
Dir	20.0	11.4	8.3	6.9	5.1	7.3	15.6	24.6	34.8	47.7	49.2	47.9	41.1	33.2	32.6	22.1	22.6	28.7	33.3	31.4	26.7	17.5	16.5	17.5		
Spd	29.8	31.6	30.1	30.2	29.0	34.0	32.8	30.3	23.5	25.6	27.1	27.5	28.2	24.7	22.1	26.1	32.2	34.3	35.0	35.3	36.0	33.4	34.6	31.4	Diurnal Maximum	
Dir	9.9	7.0	2.1	348.4	342.5	350.1	358.7	1.0	353.1	12.7	10.4	13.2	12.4	20.3	355.4	345.4	5.5	3.6	0.9	351.4	354.5	1.6	352.4	8.2		

Maximum Speed Value: 36 km/h on May 4 21:00
Maximum Daily Speed Average: 26.3 km/h on May 4
Maximum Diurnal Speed Average: 8.4 km/h at hour 17

Minimum Speed Value: 0 km/h on May 22 03:00
Minimum Daily Speed Average: 0.8 km/h on May 26
Minimum Diurnal Speed Average: 4.9 km/h at hour 9

Monthly Average Velocity: 6.38 km/h 24.02 deg

Speed Percentiles: $P_1 = 0.9$ $P_{10} = 3.5$ $Q_1 = 6.2$ Median = 10.1 $Q_3 = 13.9$ $P_{90} = 19.5$ $P_{99} = 32.8$

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

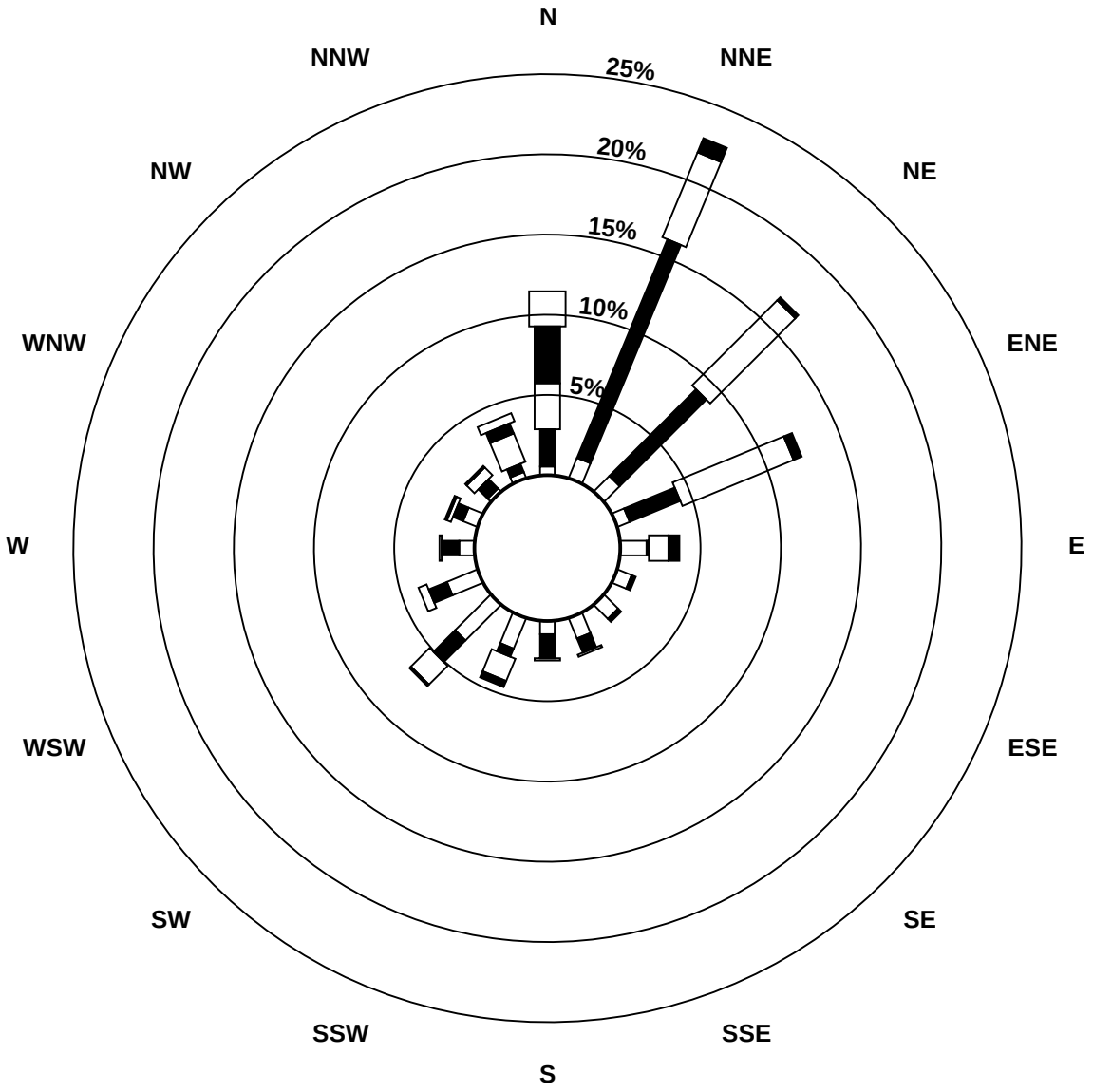
Frequency Distribution

Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	10	86	67	37	22	0	222
NorthEast	16	103	111	8	0	0	238
East	15	13	27	5	0	0	60
SouthEast	13	3	1	0	0	0	17
South	21	20	8	0	0	0	49
SouthWest	35	26	21	4	0	0	86
West	15	20	3	0	0	0	38
NorthWest	5	12	15	2	0	0	34
Total	130	283	253	56	22	0	744

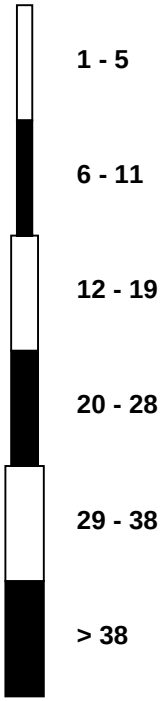
Wind Rose

Wind Speed (WS) (km/h)

Portable Clairmont - May 2015



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Portable Clairmont - May 2015

Maximum Speed: 36 km/h on May 4 21:00

Maximum Daily Speed Average: 26.7 km/h on May 4

Minimum Speed: 0 km/h on May 8 00:00

Minimum Daily Speed Average: 5.3 km/h on May 26

Maximum Diurnal Speed Average: 14.1 km/h at hour 17

Minimum Diurnal Speed Average: 9.4 km/h at hour 22

Monthly Average Speed: 11.40 km/h

Percentiles: $P_1 = 1.3$ $P_{10} = 4.2$ $Q_1 = 6.6$ Median = 10.4 $Q_3 = 14.4$ $P_{90} = 19.7$ $P_{99} = 32.8$

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	9	8	9	8	6	8	10	13	19	17	19	22	19	19	20	16	19	22	19	14	14	13	14	9	14.4	21.7
2-May	11	11	6	9	12	11	10	16	16	16	15	16	14	20	18	18	21	13	6	4	5	9	8	3	12.0	20.6
3-May	2	4	1	3	1	2	4	4	6	4	6	10	8	10	14	9	21	14	13	8	8	8	9	13	7.6	20.9
4-May	18	20	19	19	21	24	27	24	22	26	27	28	28	25	20	24	32	34	35	35	36	33	30	31	26.7	36.1
5-May	30	32	30	27	23	24	22	19	20	21	18	18	17	18	19	19	19	19	19	15	14	8	7	6	19.3	31.7
6-May	5	6	6	8	5	5	6	8	7	6	4	5	4	4	5	5	4	6	4	5	5	5	5	4	5.3	8.1
7-May	4	6	7	6	8	8	3	4	5	7	6	8	14	15	14	16	7	5	6	5	2	2	1	0	6.6	16.1
8-May	1	2	1	3	1	2	4	5	5	6	7	7	5	9	9	8	5	8	12	14	5	6	2	5	5.6	13.7
9-May	2	4	6	2	3	3	6	8	8	8	11	9	7	6	6	7	7	5	9	7	9	10	10	12	6.9	11.7
10-May	12	12	13	12	10	8	7	8	7	7	10	14	15	14	13	11	13	12	12	11	7	7	8	9	10.6	15.4
11-May	12	9	9	10	12	12	12	11	10	10	11	11	11	11	11	12	12	13	13	11	8	10	9	7	10.8	13.2
12-May	15	14	12	11	10	13	11	12	16	18	17	17	18	18	18	18	18	19	20	17	14	16	14	13	15.3	19.7
13-May	16	17	15	13	16	16	17	20	21	21	20	19	19	18	18	20	21	18	18	15	11	11	15	15	17.0	21.3
14-May	12	9	7	11	10	11	10	11	12	14	17	13	12	13	15	15	14	14	12	13	10	8	9	5	11.6	16.9
15-May	7	8	9	10	11	10	9	7	4	5	6	7	7	7	7	8	10	11	8	7	10	4	4	18	8.1	18.0
16-May	23	30	29	30	29	34	33	30	24	21	22	21	18	15	16	12	14	15	13	13	11	8	9	8	19.9	34.2
17-May	7	6	8	9	12	10	9	11	14	16	18	15	14	15	14	14	14	15	16	15	12	10	12	10	12.4	17.9
18-May	10	11	12	12	11	13	12	11	12	14	13	15	14	14	13	15	14	13	14	14	10	7	9	10	12.2	15.1
19-May	8	11	12	12	11	12	11	9	9	10	11	10	10	10	10	10	12	13	14	13	9	9	9	10	10.6	14.1
20-May	10	10	9	11	12	13	12	10	7	8	10	9	8	8	9	8	10	10	7	6	4	3	8	9	8.8	13.3
21-May	7	7	9	9	5	5	6	3	2	3	6	6	6	8	12	11	12	14	11	6	5	6	5	4	7.0	14.0
22-May	2	5	4	3	2	1	1	2	4	6	7	11	12	11	11	12	15	13	10	9	6	8	10	9	7.2	14.9
23-May	12	14	12	8	9	9	8	9	7	7	10	10	13	14	15	14	12	12	15	14	10	11	10	10	11.1	15.1
24-May	9	9	8	11	10	8	9	10	8	7	7	8	10	10	25	26	15	12	8	6	11	6	6	10	10.5	26.4
25-May	8	6	4	6	4	5	4	8	7	5	5	5	6	7	7	23	23	12	15	6	3	4	6	6	7.7	23.3
26-May	7	6	6	6	3	6	4	4	3	2	4	4	6	4	8	8	9	7	4	6	6	7	5	3	5.3	8.9
27-May	4	2	1	1	3	3	2	6	7	7	7	6	6	14	11	9	11	11	6	17	29	32	35	24	10.6	34.8
28-May	22	23	21	23	23	23	23	21	18	18	14	12	12	14	12	13	12	13	13	18	15	11	11	12	16.5	23.5
29-May	16	18	17	15	13	12	14	18	19	17	19	17	16	17	17	23	24	23	23	21	15	13	12	13	17.2	23.8
30-May	15	14	14	14	14	14	17	18	13	12	13	13	12	9	9	7	5	5	5	5	5	4	3	4	10.2	18.0
31-May	7	5	5	4	3	4	7	6	6	6	13	17	15	15	16	14	12	13	14	9	4	4	2	2	8.4	16.6
	10.4	10.9	10.4	10.6	10.2	10.6	10.7	11.2	10.8	11.1	12.0	12.3	12.2	12.7	13.3	13.7	14.1	13.4	12.7	11.6	10.1	9.4	9.6	9.6	Diurnal Average	
	29.9	31.7	30.1	30.3	29.1	34.2	32.9	30.5	23.8	25.8	27.3	27.7	28.4	25.2	24.9	26.4	32.4	34.4	35.1	35.4	36.1	33.5	34.8	31.5	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

Portable Clairmont - May 2015

Maximum Value: 97.5 deg on May 27 04:00

Minimum Value: 3.1 deg on May 18 03:00

Percentiles: P_1 = 3.6 P_{10} = 4.8 Q_1 = 6.7 Median = 12.2 Q_3 = 20.7 P_{90} = 41.0 P_{99} = 84.1

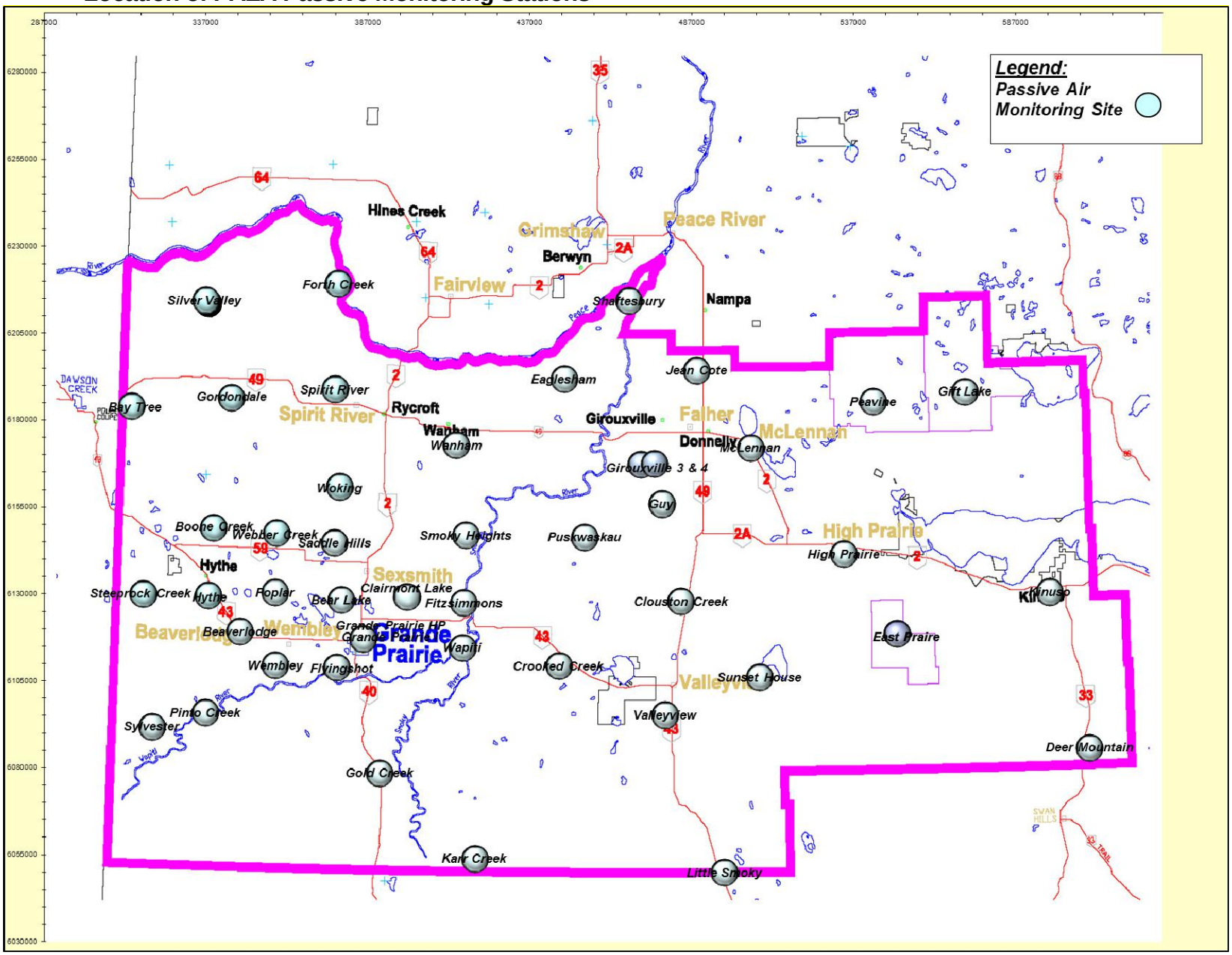
Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Maximum
	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	12	8	9	5	11	5	7	9	9	10	12	11	22	11	13	22	11	10	12	7	7	43	35	10	42.6
2-May	8	5	30	8	5	6	10	5	9	7	9	12	12	15	9	41	9	44	25	51	21	12	15	18	50.7
3-May	46	40	47	15	41	83	41	22	18	32	41	15	35	33	29	63	11	10	14	19	15	8	6	6	83.0
4-May	4	4	5	10	4	4	5	8	6	6	7	6	7	12	12	10	6	5	5	4	4	4	4	4	12.3
5-May	3	4	4	7	7	3	5	7	5	6	6	7	8	8	8	8	7	8	6	7	5	17	13	13	17.1
6-May	11	7	7	8	9	13	15	10	20	30	77	53	62	74	54	50	82	66	44	17	6	10	4	6	82.1
7-May	5	10	10	10	10	27	42	52	23	15	40	33	30	14	60	39	28	59	33	29	48	57	88	44	88.1
8-May	20	76	36	25	65	17	23	8	22	33	21	26	58	43	44	30	44	26	27	7	7	6	74	51	76.0
9-May	51	12	9	78	45	70	12	14	9	22	7	11	15	21	25	28	19	13	15	7	12	5	4	4	78.1
10-May	5	5	5	4	4	5	9	7	25	11	10	12	10	11	20	18	20	12	12	9	7	13	23	6	24.8
11-May	5	26	18	5	4	4	5	6	13	11	11	16	17	17	15	14	14	13	9	6	6	6	18	16	25.9
12-May	5	5	15	11	5	4	12	9	9	9	12	12	10	13	14	14	11	12	7	10	5	5	6	5	15.2
13-May	4	4	7	8	5	5	5	7	6	8	8	11	16	14	14	13	12	10	7	6	6	6	5	5	16.2
14-May	8	15	8	9	4	5	6	17	7	12	15	17	16	21	15	17	12	20	15	10	9	6	12	9	20.9
15-May	9	14	11	4	5	6	6	9	32	21	19	17	30	33	41	25	27	25	15	51	56	84	55	21	84.4
16-May	4	4	4	4	4	6	5	6	8	10	12	15	13	16	17	20	16	9	12	19	7	5	5	19	20.1
17-May	5	9	6	5	4	11	16	9	11	9	12	15	18	21	19	16	16	14	8	6	5	4	6	21	20.8
18-May	16	7	3	4	4	5	5	7	13	11	14	12	14	14	17	17	14	15	13	5	9	4	3	11	17.2
19-May	8	5	4	4	5	4	5	7	22	13	11	14	22	21	14	23	18	15	12	6	12	6	5	11	22.9
20-May	14	6	4	5	4	4	6	7	18	12	11	14	21	17	25	26	18	17	14	16	12	18	8	6	26.2
21-May	5	5	4	6	35	15	20	30	38	42	30	26	33	17	16	16	18	15	8	12	47	21	18	43	47.3
22-May	47	8	84	48	73	53	36	35	30	27	17	17	18	28	27	18	16	12	14	16	17	5	3	4	84.2
23-May	5	5	20	12	5	9	11	6	6	8	10	12	14	22	21	27	29	21	8	8	10	5	5	5	28.7
24-May	5	5	5	4	5	5	5	7	23	22	12	14	20	27	35	9	8	10	8	32	29	14	54	9	54.3
25-May	27	15	44	43	49	14	29	12	13	32	19	34	57	12	77	26	16	12	8	18	51	28	13	38	77.2
26-May	10	11	30	7	34	12	13	15	39	59	55	88	66	87	33	32	30	20	15	89	27	9	20	59	89.0
27-May	43	53	83	98	27	48	34	14	14	21	29	25	61	27	16	18	62	9	69	20	6	4	6	5	97.5
28-May	6	8	6	4	5	4	5	8	7	12	13	18	20	14	20	17	14	13	12	5	6	8	12	5	19.7
29-May	4	5	7	5	5	7	11	8	8	10	9	13	12	15	18	7	7	6	6	7	6	10	10	7	18.1
30-May	5	6	10	5	5	9	9	7	7	12	8	8	11	18	24	22	36	51	31	31	75	27	15	14	75.1
31-May	18	20	17	12	14	15	8	20	13	21	14	11	10	15	9	11	18	19	13	13	79	41	24	46	79.3
	51.4	76.0	84.2	97.5	73.2	83.0	41.6	52.1	38.8	59.3	77.5	88.5	66.4	87.0	77.2	63.0	82.1	66.4	69.2	89.0	79.3	84.4	88.1	58.6	

PAZA

Monthly Passive Data Summary

Location of PAZA Passive Monitoring Stations



PAZA Passive Results for May 2015

Station Number	Station Name	SO2 ppb	O3 ppb	NO2 ppb	H2S ppb	Site Legal
Duplicates						
1a	Silver Valley	**0.2**	**40.5**	**0.6**		
1b	Silver Valley	**0.3**	**39.3**	**0.7**		
28a	Clairmont Lake	**0.4**	**41.0**	**1.2**		
28b	Clairmont Lake	**0.4**	**41.4**	**1.0**		
32a	Gold Creek	**0.6**	**37.0**	**1.2**		
32b	Gold Creek	**0.7**	**37.6**	**0.9**		
40a	McLennan	**0.3**	**39.5**	**2.1**		
40b	McLennan	**0.3**	**48.6**	**2.1**		
63a	Girouxville 3				**0.2**	
63b	Girouxville 3				**0.1**	
1	Silver Valley	**0.2**	**39.9**	**0.7**		08-27-081-11 W6M
2	Bay Tree	**0.3**	**41.9**	**0.8**		13-16-078-13 W6M
3	Fourth Creek	**0.2**	**50.3**	**0.5**		04-13-082-07 W6M
4	Gordondale	**0.3**	**42.1**	**0.5**		04-34-078-10 W6M
5	Boone Creek	**0.5**	**40.5**	**0.4**		16-36-074-11 W6M
7	Steeprock Creek	**0.4**	**43.6**	**0.5**		09-35-072-13 W6M
9	Spirit River	**0.2**	**39.0**	**1.1**		08-12-079-07 W6M
10	Woking	**0.3**	**43.3**	**0.6**		01-13-076-07 W6M
11	Webber Creek	**0.4**	**49.7**	**1.0**		09-36-074-09 W6M
12	Hythe	**0.3**	**46.6**	**1.5**		14-36-072-11 W6M
14	Sylvester	**0.3**	**37.7**	**1.0**		08-06-069-12 W6M
16	Beaverlodge	**0.3**	**50.0**	**0.8**		15-36-071-10 W6M
17	Poplar	**0.5**	**51.4**	**0.9**		13-06-073-08 W6M
18	Saddle Hills	**0.4**	**54.3**	**0.7**		04-25-074-07 W6M
19	Wanham	**0.2**	**39.9**	**0.9**		16-22-077-03 W6M
20	Shaftesbury	**0.2**	**39.3**	**1.1**		04-03-082-23 W5M
21	Eaglesham	**0.2**	**36.8**	**3.7**		16-21-079-25 W5M
23	Bear Lake	**0.3**	**44.0**	**3.1**		15-31-072-06 W6M
24	Wembley	**0.3**	**41.3**	**1.7**		12-31-070-08 W6M
25	Pinto Creek	**0.2**	**39.2**	**0.7**		04-24-069-11 W6M
26	Flyingshot	**0.4**	**46.3**	**1.2**		15-36-070-07 W6M
27	Grande Prairie I	**0.4**	**44.1**	**2.6**		08-15-071-06 W6M

PAZA Passive Results for May 2015 (Continued)

28	Clairmont Lake	**0.4**	**41.2**	**1.1**		09-06-073-04 W6M
29	Smoky Heights	**0.3**	**52.4**	**0.4**		04-06-075-02 W6M
30	Fitzsimmons	**0.3**	**47.6**	**0.6**		15-36-072-03 W6M
32	Gold Creek	**0.7**	**37.3**	**1.1**		06-33-067-05 W6M
33	Wapiti	**0.3**	**39.8**	**0.5**		02-25-071-03 W6M
34	Puskwaskau	**0.2**	**40.7**	**0.3**		15-35-074-25 W5M
35	Jean Cote	**0.2**	**41.8**	**2.1**		12-35-079-21 W5M
36	Guy	**0.3**	**45.0**	**1.8**		03-04-076-22 W5M
37	Crooked Creek	**0.3**	**46.5**	**0.5**		16-01-071-26 W5M
38	Karr Creek	**0.2**	**38.2**	**0.6**		10-16-065-02 W6M
39	Clouston Creek	**0.3**	**46.5**	**1.0**		12-01-073-22 W5M
40	McLennan	**0.3**	**44.0**	**2.1**		03-29-077-19 W5M
41	Valleyview	**0.5**	**49.0**	**0.5**		09-30-069-22 W5M
42	Sunset House	**0.4**	**55.2**	**0.2**		05-32-070-19 W5M
43	High Prairie	**0.2**	**51.2**	**1.4**		16-13-074-17 W5M
44	Peavine	**0.3**	**42.4**	**BDL**		03-05-079-15 W5M
45	Gift Lake	**0.1**	**15.5**	**0.3**	**BDL**	10-07-079-12 W5M
46	Little Smoky	**0.1**	**39.6**	**0.9**		12-01-065-21 W5M
47	Kinuso	**0.4**	**39.8**	**0.2**		12-10-073-10 W5M
48	Deer Mountain	**0.2**	**41.4**	**0.2**		15-22-068-09 W5M
49	Grande Prairie HP	**0.4**	**44.4**	**1.6**		17-26-071-06 W6M
50	East Prairie	**0.2**	**40.7**	**0.2**		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

Passive Summary for May 2015

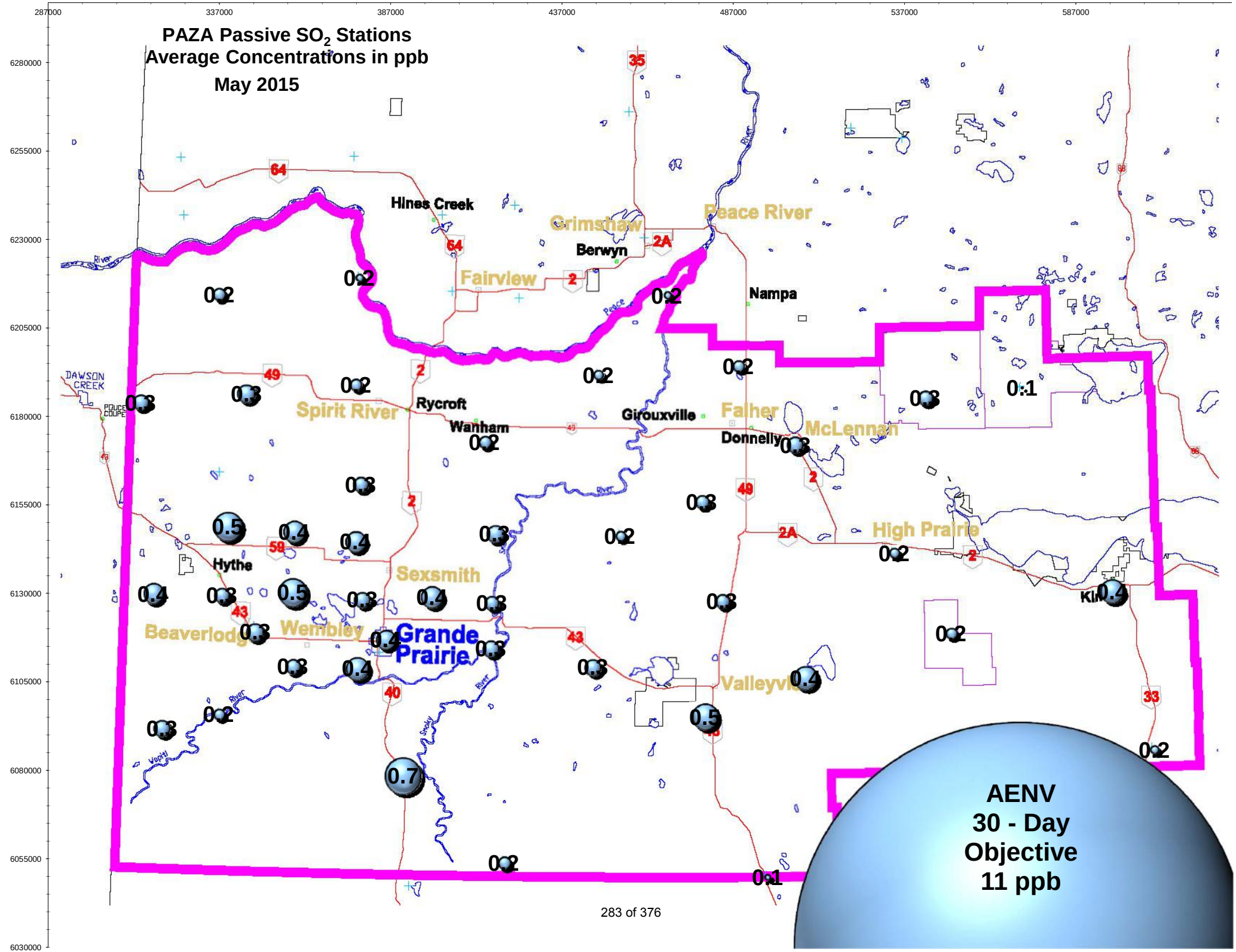
Stats	Sulphur Dioxide SO_2	Ozone O_3	Nitrogen Dioxide NO_2	Hydrogen Sulphide H_2S
	ppb	ppb	ppb	ppb
	Passive Summary for April 2015 (PAZA Zone)			
Mean	**0.3**	**43.2**	**1.0**	**0.1**
Standard Deviation	**0.1**	**6.4**	**0.8**	**0.0**
Minimum	**0.1**	**15.5**	**0.2**	**0.1**
Minimum At	**Gift Lake (#45)**	**Gift Lake (#45)**	**East Prairie (#50)**	**Girouxville 3 (#63)**
Maximum	**0.7**	**55.2**	**3.7**	**0.2**
Maximum At	**Gold Creek (#32)**	**Sunset House (#42)**	**Eaglesham (#21)**	**Girouxville 4 (#64)**

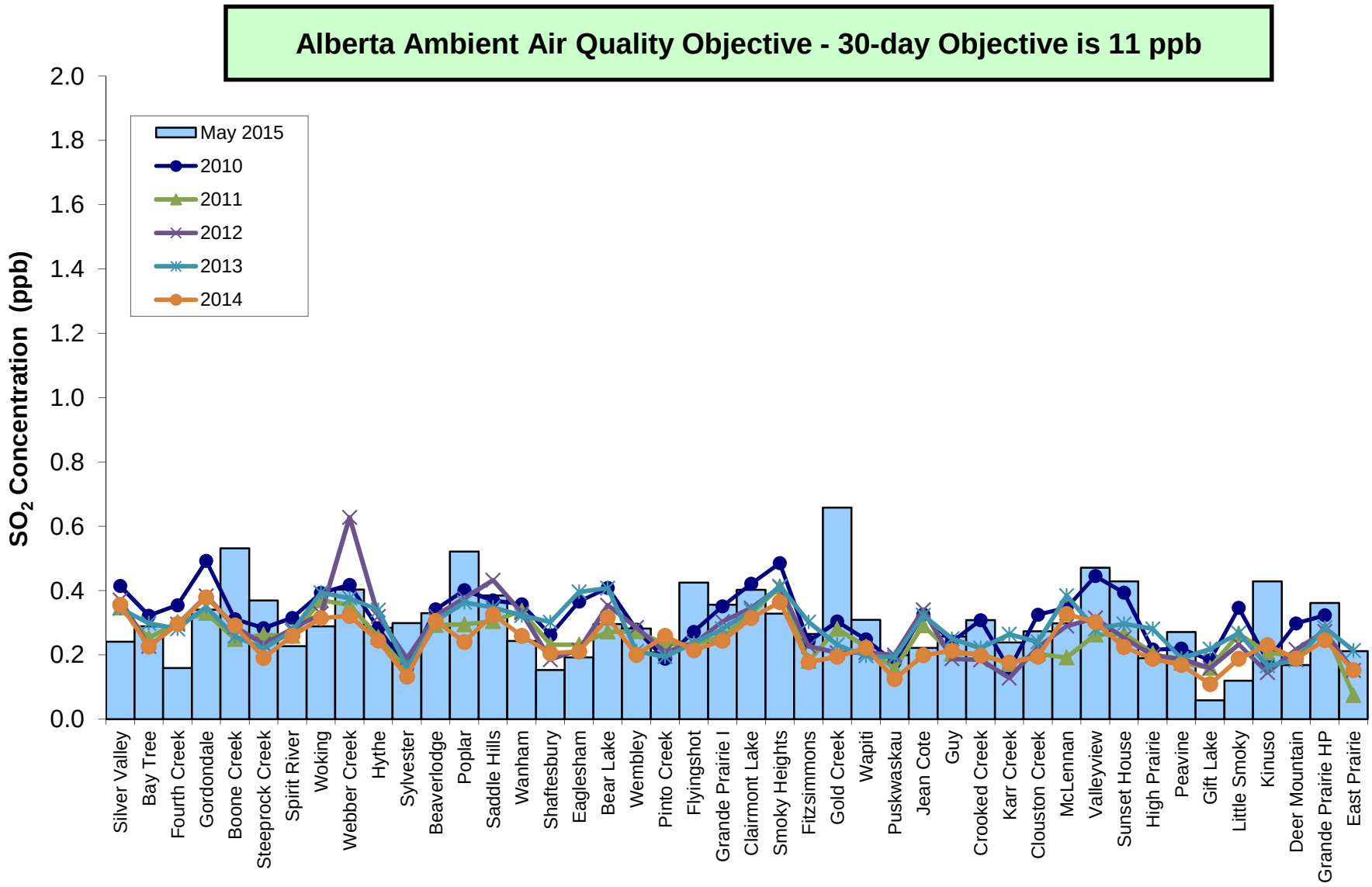
Comparison between Continuous and Passive monitoring at Beaverlodge (passive #16 Beaverlodge)

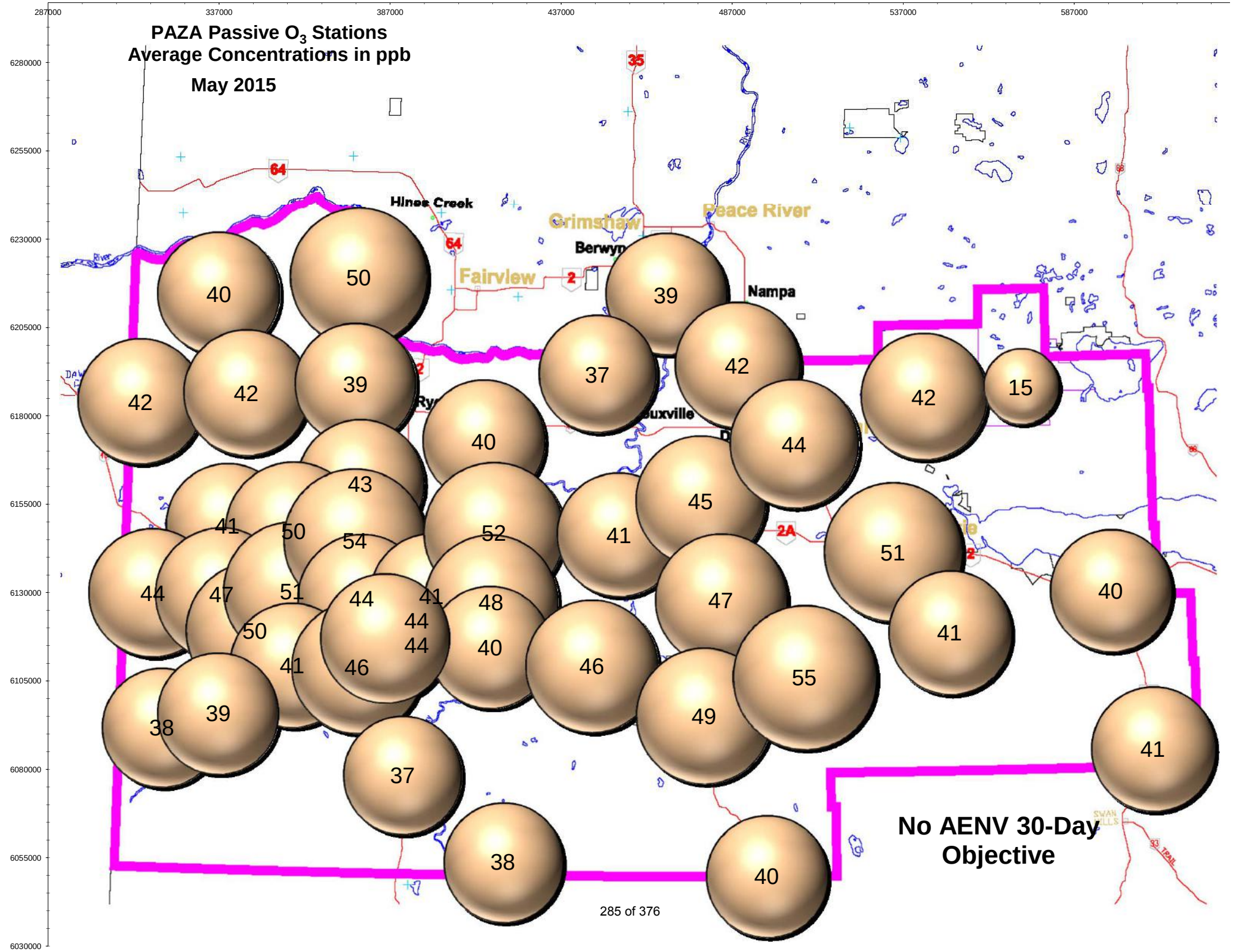
	SO_2	O_3	NO_2
PAZA Beaverlodge station	**0.3**	**42.7**	**2.2**
PAZA Beaverlodge passive	**0.3**	**50.0**	**0.8**

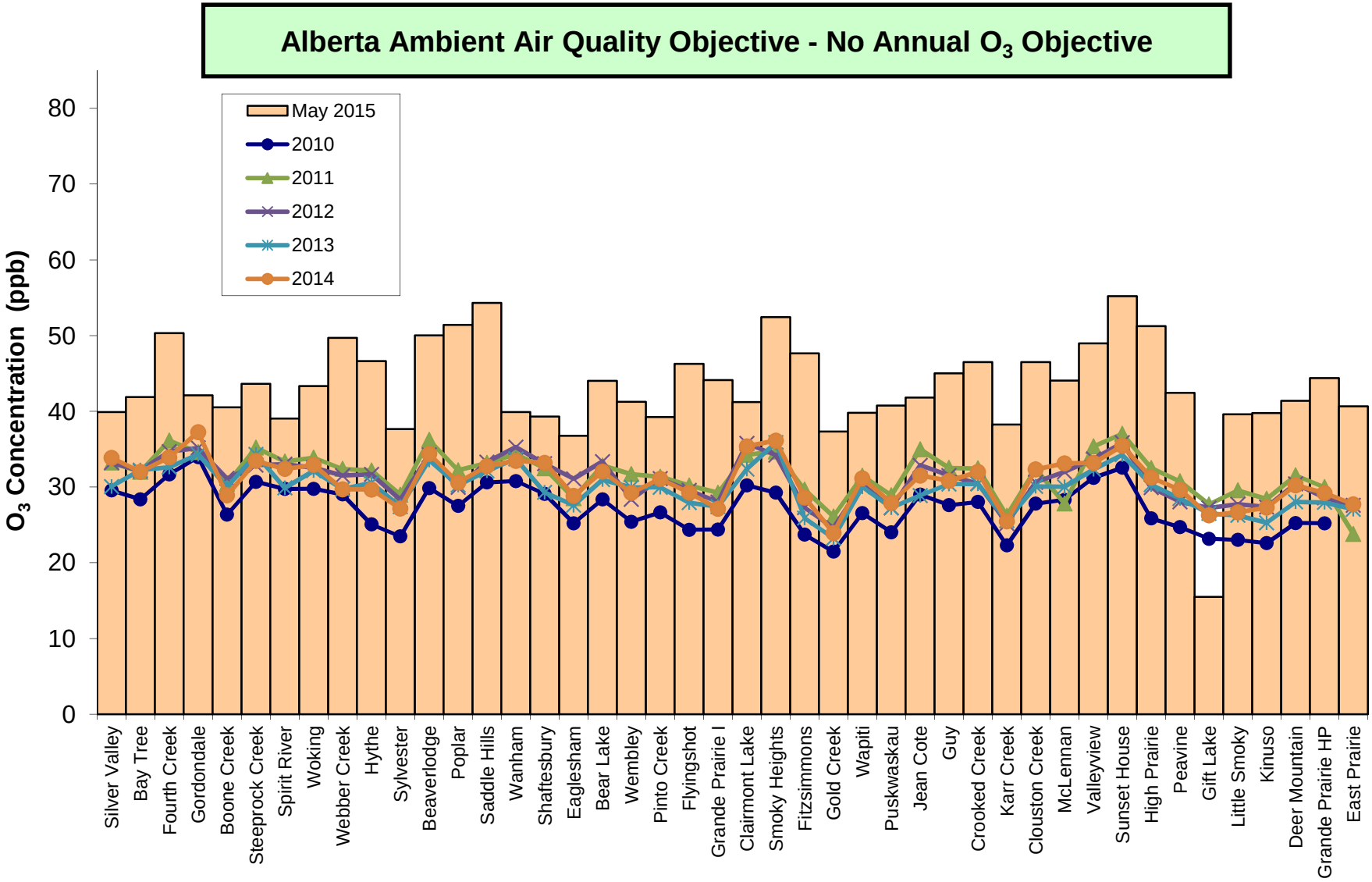
Comparison between Continuous and Passive monitoring at Henry Pirker (passive #49 Grande Prairie HP)

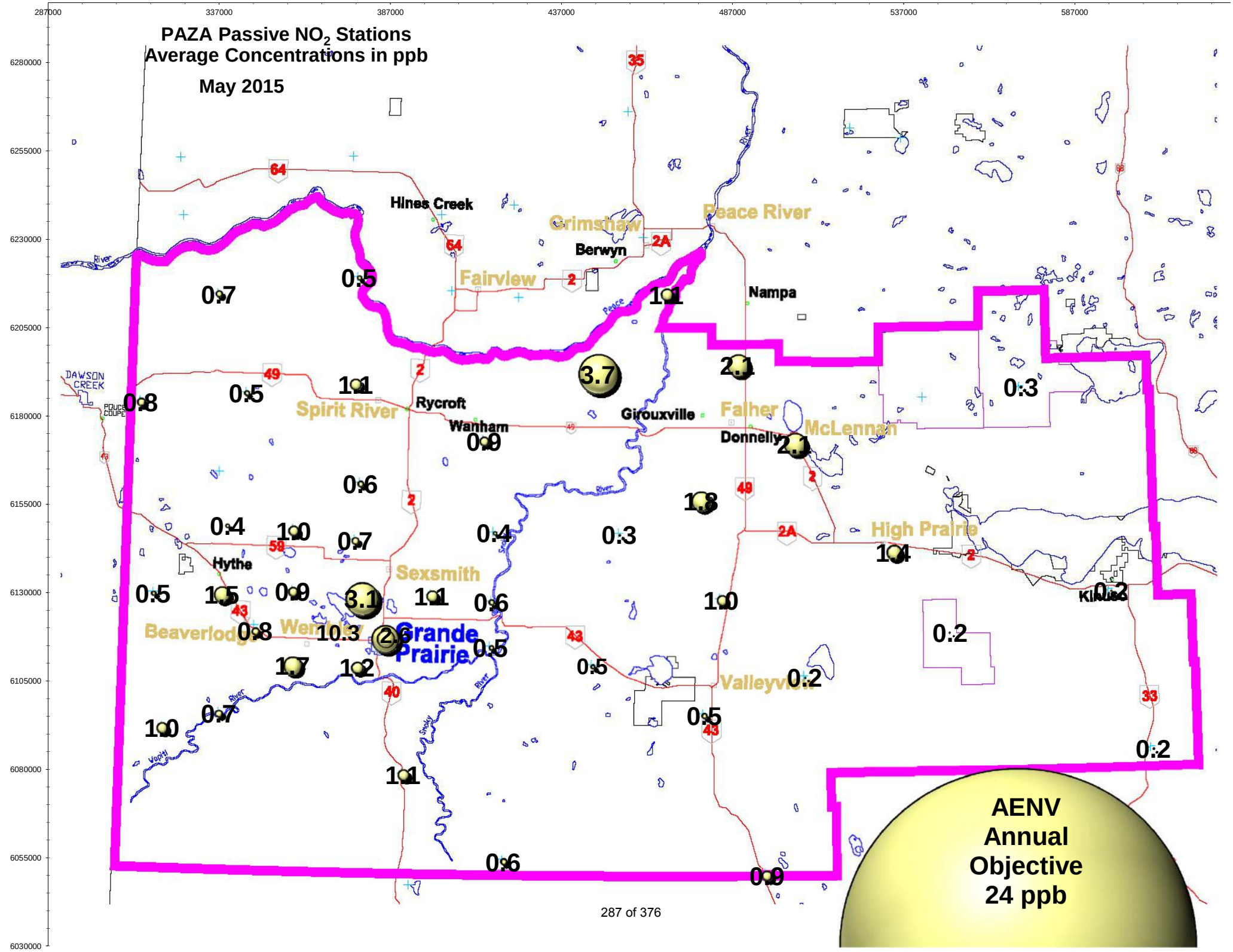
	SO_2	O_3	NO_2
PAZA Henry Pirker station	**0.3**	**40.3**	**5.2**
PAZA Grande Prairie passive	**0.4**	**44.4**	**1.6**


PAZA Passive SO_2 Stations
Average Concentrations in ppb
May 2015
287000
337000
387000
437000
487000
537000
587000
6280000
6255000
6230000
6205000
6180000
6155000
6130000
6105000
6080000
6055000
6030000
Hines Creek
Grimshaw
Peace River
Berwyn
Fairview
Nampa
DAWSON CREEK
Spirit River
Rycroft
Wanham
Girouxville
Falher
Donnelly
McLennan
High Prairie
Hythe
Sexsmith
Beaverlodge
Wembley
Grande Prairie
Valleyview
0.2
0.3
0.1
0.5
0.4
0.7
AENV
30 - Day
Objective
11 ppb

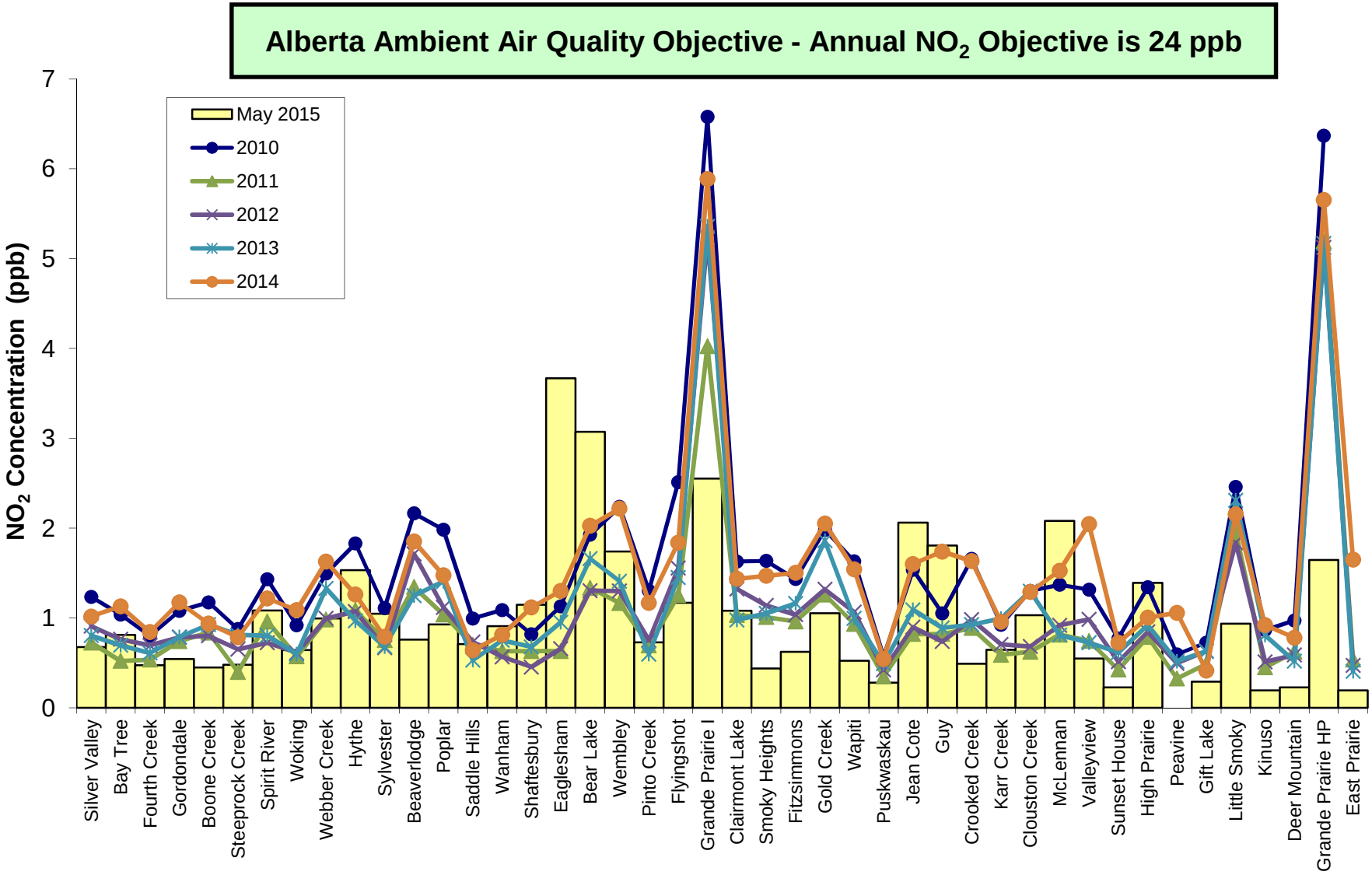

Alberta Ambient Air Quality Objective - 30-day Objective is 11 ppb
SO_2 Concentration (ppb)
2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
May 2015
2010
2011
2012
2013
2014
Silver Valley
Bay Tree
Fourth Creek
Gordondale
Boone Creek
Steeprock Creek
Spirit River
Woking
Webber Creek
Hythe
Sylvester
Beaverlodge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

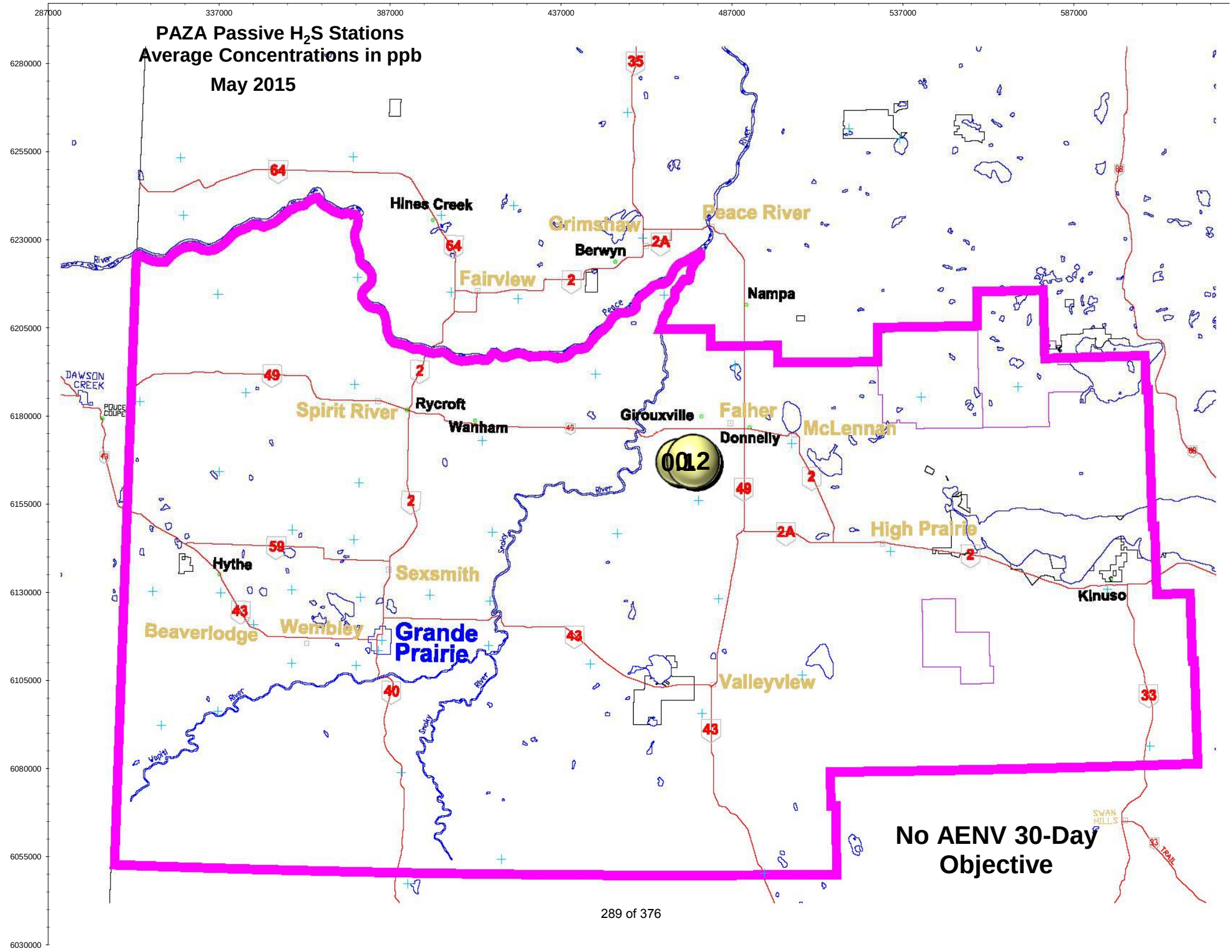

PAZA Passive O_3 Stations
Average Concentrations in ppb
May 2015
287000
337000
387000
437000
487000
537000
587000
6280000
6255000
6230000
6205000
6180000
6155000
6130000
6105000
6080000
6055000
6030000
Hines Creek
Grimshaw
Peace River
Berwyn
Fairview
Nampa
Buxville
40
50
39
42
42
39
37
42
42
15
40
44
43
41
50
54
52
41
45
51
44
47
51
44
41
48
44
44
40
47
41
50
41
46
46
55
40
38
39
49
41
37
38
40
No AENV 30-Day Objective

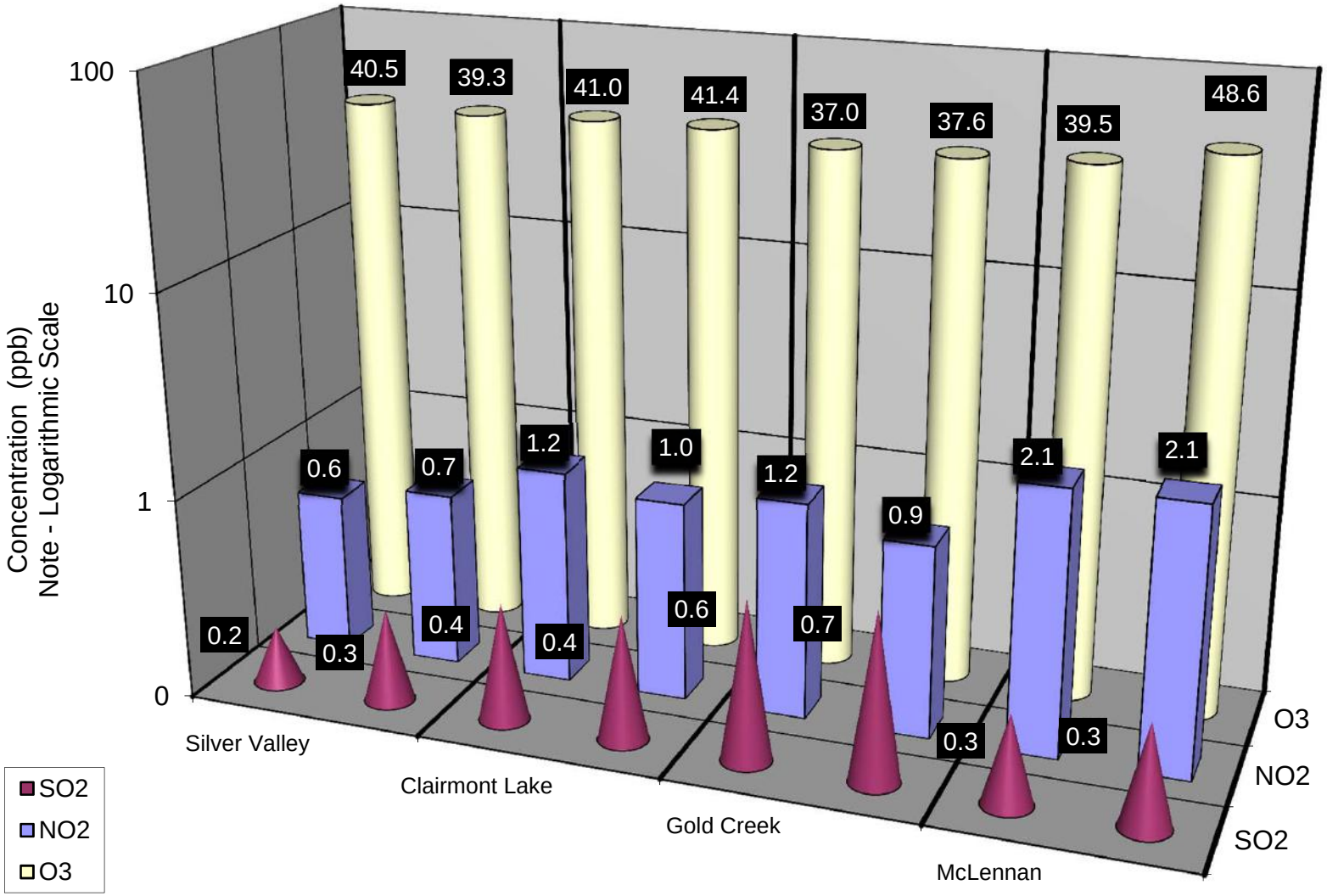

Alberta Ambient Air Quality Objective - No Annual O_3 Objective
May 2015
2010
2011
2012
2013
2014
O_3 Concentration (ppb)
0
10
20
30
40
50
60
70
80
Silver Valley
Bay Tree
Fourth Creek
Gordondale
Boone Creek
Steeprock Creek
Spirit River
Woking
Webber Creek
Hythe
Sylvester
Beaverlodge
Poplar
Saddle Hills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



AENV Annual Objective 24 ppb


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


PAZA Passive H_2S Stations
Average Concentrations in ppb
May 2015
287000
337000
387000
437000
487000
537000
587000
6280000
6255000
6230000
6205000
6180000
6155000
6130000
6105000
6080000
6055000
6030000
Hines Creek
Grimshaw
Peace River
Berwyn
Fairview
Nampa
DAWSON CREEK
POUCE COUPE
Spirit River
Rycroft
Wanham
Girouxville
Falher
Donnelly
McLennan
0.012
High Prairie
Hythe
Sexsmith
Kinuso
Beaverlodge
Wembley
Grande Prairie
Valleyview
SWAN HILLS
No AENV 30-Day Objective



Duplicate Summary Chart

Stats	Sulphur Dioxide SO_2	Ozone O_3	Nitrogen Dioxide NO_2	Hydrogen Sulphide H_2S
	ppb	ppb	ppb	ppb
	Passive Summary for April 2015 (PAZA Zone)			
Mean	**0.3**	**43.2**	**1.0**	**0.1**
Standard Deviation	**0.1**	**6.4**	**0.8**	**0.0**
Minimum	**0.1**	**15.5**	**0.2**	**0.1**
Minimum At	**Gift Lake (#45)**	**Gift Lake (#45)**	**East Prairie (#50)**	**Girouxville 3 (#63)**
Maximum	**0.7**	**55.2**	**3.7**	**0.2**
Maximum At	**Gold Creek (#32)**	**Sunset House (#42)**	**Eaglesham (#21)**	**Girouxville 4 (#64)**

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

	SO_2	O_3	NO_2
PAZA Beaverlodge station	**0.3**	**42.7**	**2.2**
PAZA Beaverlodge passive	**0.3**	**50.0**	**0.8**

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

	SO_2	O_3	NO_2
PAZA Henry Pirker station	**0.3**	**40.3**	**5.2**
PAZA Grande Prairie passive	**0.4**	**44.4**	**1.6**

PAZA

ALBERTA ENVIRONMENT AND SUSTAINABLE RESOURCES INCIDENCE REPORT

May 2015

Air Monitoring Directive Exceedence Report

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

Reference Number:	298590	Reported To (AESRD Contact):	Rayman
Date & Time Incident Reported to AESRD:	May 22 2015 1140	Reported By:	Christopher Hendrickson
Reported on Behalf of:	PAZA	Approval Number (if applicable):	N/A
Location(s) of Incident:	Clairmont		
Start Date & Time of Incident:	May 22, 2015 22:00	End Date & Time of Incident:	May 22, 2015 22:00

Reason or Nature of Incident:

PM2.5 hourly exceedence between 22:00 and 23:00 PM2.5 limit is 80 ug/m3. Hourly average was 89.8 ug/m3. Winds were WS 9.9 km WD 352.9 Deg

Immediate Actions Taken:

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

Investigation Details:

Suspect fires in area.

Actions Taken to Prevent Reoccurrence (if any):

N/A

Additional Actions Required (if any):

N/A

Report Completed By:	Christopher Hendrickson	Date Report Submitted:	May 22 2015
7-Day Letter Due Date:	May 29 2015		

Air Monitoring Directive Exceedence Report

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

Reference Number:	298594	Reported To (AESRD Contact):	Rayman
Date & Time Incident Reported to AESRD:	May 23 2015 0450	Reported By:	Christopher Hendrickson
Reported on Behalf of:	PAZA	Approval Number (if applicable):	N/A
Location(s) of Incident:	Henry Pirker		
Start Date & Time of Incident:	May 23, 2015 03:00	End Date & Time of Incident:	May 23, 2015 04:00

Reason or Nature of Incident:

PM2.5 hourly exceedence between 03:00 and 04:00 PM2.5 limit is 80 ug/m3. Hourly average was 161.4 ug/m3. Winds were WS 0.6 km WD 8.5 Deg

Immediate Actions Taken:

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

Investigation Details:

Suspect fires in area.

Actions Taken to Prevent Reoccurrence (if any):

N/A

Additional Actions Required (if any):

N/A

Report Completed By:	Christopher Hendrickson	Date Report Submitted:	May 23 2015
7-Day Letter Due Date:	May 30 2015		

Air Monitoring Directive Exceedence Report

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

Reference Number:	298647	Reported To (AESRD Contact):	Rayman
Date & Time Incident Reported to AESRD:	May 24 2015 21:26	Reported By:	Christopher Hendrickson
Reported on Behalf of:	PAZA	Approval Number (if applicable):	N/A
Location(s) of Incident:	Clairmont		
Start Date & Time of Incident:	May 24, 2015 20:00	End Date & Time of Incident:	May 24, 2015 21:00

Reason or Nature of Incident:

PM2.5 hourly exceedance between 20:00 and 21:00 PM2.5 limit is 80 ug/m3. Hourly average was 143.9 ug/m3. Winds were WS 9.7 km WD 207.1 Deg

Immediate Actions Taken:

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

Investigation Details:

Suspect fires in area.

Actions Taken to Prevent Reoccurrence (if any):

N/A

Additional Actions Required (if any):

N/A

Report Completed By:	Christopher Hendrickson	Date Report Submitted:	May 24 2015
7-Day Letter Due Date:	May 31 2015		

May 2015 Calibration Reports

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

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

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

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

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

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

Calibration Report

Parameter **SO2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	May 1, 2015	Previous Calibration	April 1, 2015
Station Number	1	Station Location	Henry Pirker
Reason:	Routine / Install	Removal	Other:
Start Time (MST)	8:20	End Time (MST)	10:40
Barometric Pressure	724.000 mm	Station Temperature	21.0 Deg C
Calibrator	Environics	Serial Number	3016
Cal Gas Conc	49.8 ppm	Cal Gas Cert Date	March 10, 2017
		Cal Gas Cylinder #	LL119493
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 1 volt	DACS channel #	10
	Before		After
Calculated slope	0.992321	Calculated slope	0.995784
Calculated intercept	1.949824	Calculated intercept	1.896153
Analyzer make	TEI 43C	Analyzer serial #	610816292

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	9.7		9.7	
Coefficient	0.764		0.764	
Pressure	642.0	mm Hg	641.7	mm Hg
Flow	0.476	lpm	0.476	lpm
Lamp intensity	43157	Hz	44817	Hz

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.0	0.1	N/A
4995	39.93	394.9	395.8	0.9979
4995	19.97	198.3	196.0	1.0117
4995	9.97	99.2	95.8	1.0350
4995	0.00	0.0	0.1	As Found Zero
4995	39.93	394.9	395.8	As Found Span
			Average Correction Factor	1.0149

Calculated value of As Found Response: 394.5 ppb Percent Change of As Found: 0.1%

	before calibration		after calibration	
Auto zero	0.1	ppb	0.1	ppb
Auto span	326.8	ppb	330.5	ppb

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **SO2**

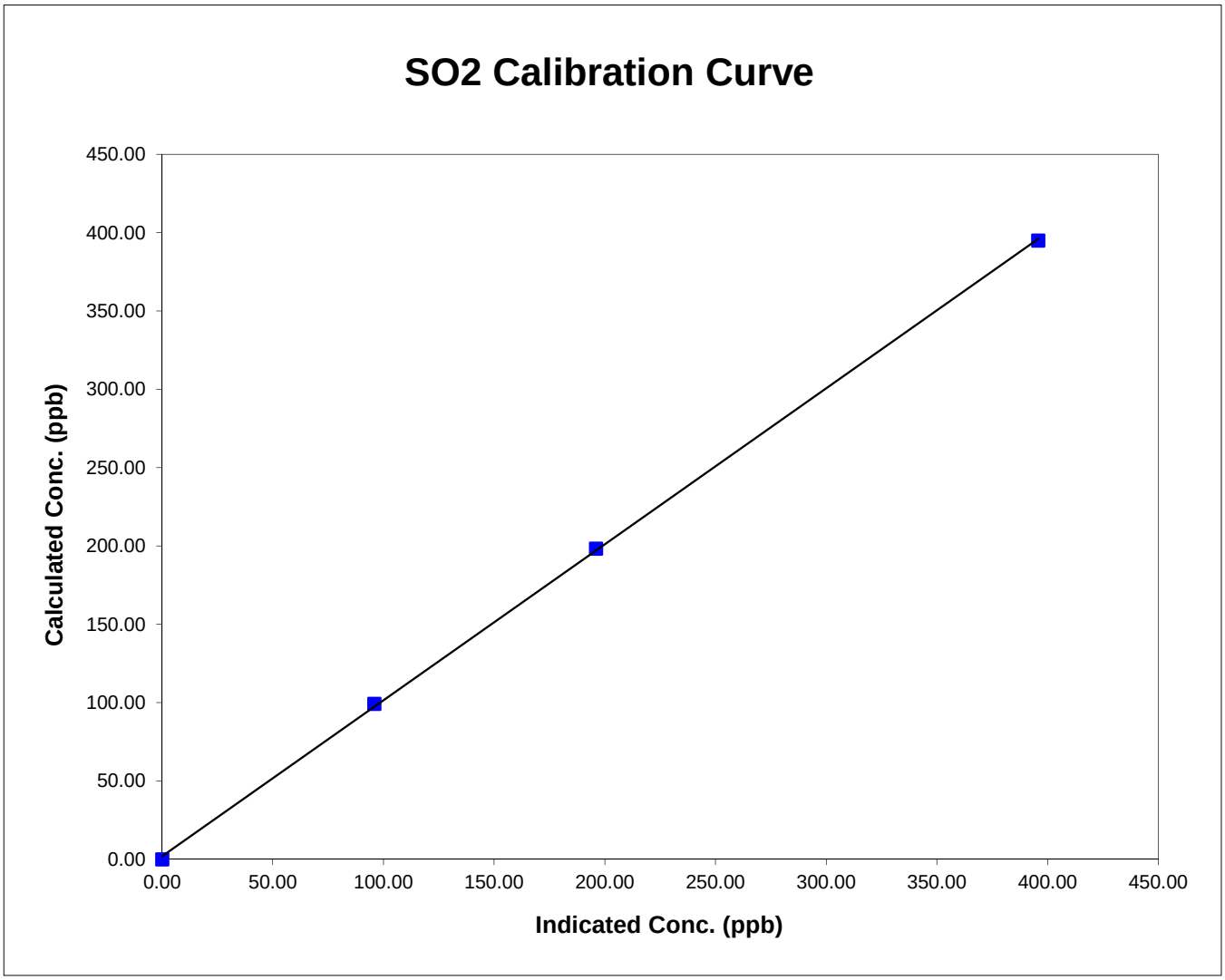
Air Monitoring Network **PAZA**

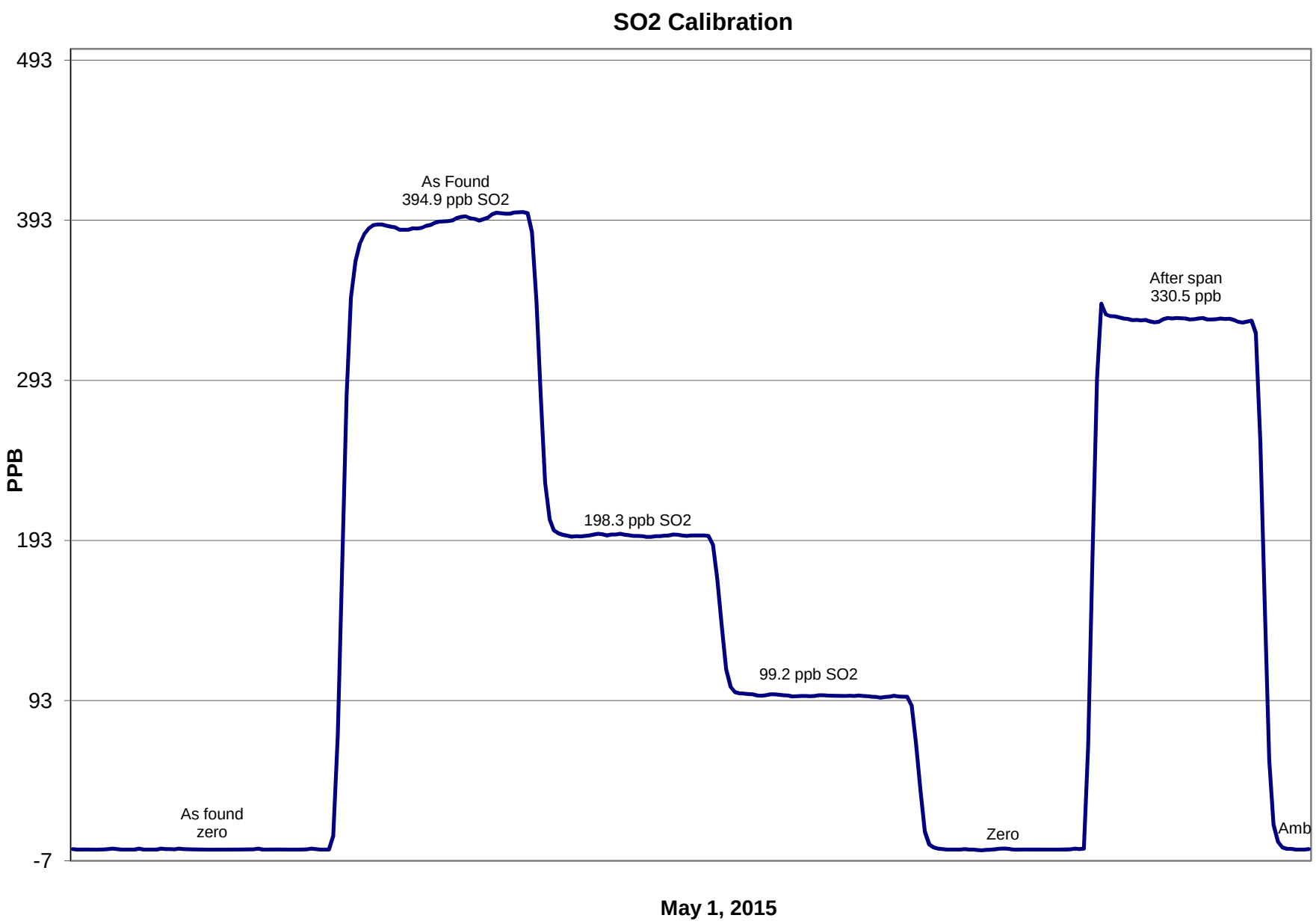
Station Information

Calibration Date	May 1, 2015	Previous Calibration	April 1, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	8:20	End Time (MST)	10:40
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	0.1	N/A		
394.9	395.8	0.9979	Correlation Coefficient	0.999880
198.3	196.0	1.0117		
99.2	95.8	1.0350	Slope	0.995784
			Intercept	1.896153




SO2 Calibration
493
393
293
193
93
-7
PPB
As Found
394.9 ppb SO2
198.3 ppb SO2
99.2 ppb SO2
Zero
After span
330.5 ppb
As found
zero
Amb
May 1, 2015

Calibration Report

Parameter **NO_X-NO-NO_2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

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

Reason: Routine Installation Removal Other:

Start Time (MST)	7:50		End Time (MST)	12:10	
Barometric Pressure	724.000	mm	Station Temperature	21.0	Deg C
Calibrator	Environics		Serial Number	3016	
NO Cal Gas Conc	50.9	ppm	Cal Gas Expiry Date	March 10, 2017	
NOx Cal Gas Conc	51.2	ppm	Cal Gas Serial #	LL119493	

DACS Information

DACS make	CR3000	DACS serial No.	5408

Parameter		NO2	NOx	NO
Before	Data Slope	1.002328	1.002345	0.997200
	Data Offset	0.149819	1.838097	2.012508
After	Data Slope	1.002707	0.988417	0.982597
	Data Offset	0.276040	1.203348	1.459081
Channel #		8	6	7
Voltage Range		0 - 5 VDC	0 - 5 VDC	0 - 5 VDC

Analyzer Information

Analyzer make/model	42i	Analyzer serial #	906535087

Test Point	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
NO offset	4.9	mV	4.9	mV
NOx bkgnd	5.0	mV	5.0	mV
NO coefficient	0.937		0.937	
NOx coefficient	1.000		1.000	
NO2 conv temp	322.6	Deg C	324.1	Deg C
Cooler Temp	-2.8	Deg C	-2.8	Deg C
PMT Volt	-844.0	mV	-844.0	mV
R Cell Press	167.4	in Hg	168.3	in Hg
Sample Flow	0.710	LPM	0.719	LPM

Notes: No adjustments made.

Calibration Report

Parameter **NOX-NO-NO2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date: May 1, 2015 Station Location: Henry Pirker

Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor
zero	4995	0.00	0.0	0.0	0.0	0.3	0.4	0.0	N/A	N/A
1	4995	39.92	405.9	403.6	2.4	410.2	410.3	0.2	0.9896	0.9837
2	4995	19.96	203.8	202.6	1.2	204.3	203.4	0.5	0.9975	0.9960
3	4995	9.93	101.6	101.0	0.6	100.0	99.6	0.4	1.0158	1.0136
AFZ	4995	0.00	0.0	0.0	0.0	0.3	0.4	0.0	0.0000	0.0000
AFS	4995	39.92	405.9	403.6	0.8	410.2	410.3	0.2	0.9896	0.9837
							Average Correction Factor		1.0010	0.9978

As Found Concentrations: NO_X= 412.7 NO= 410.7 As Found Percent Change NO_X= 1.7% NO= 1.8%

GPT Calibration Data

Dilution Flow 4995 ccm Source Gas Flow 39.93 ccm

O3 Setpoint (ppb)	Indicated NO high point (ppb)	Indicated NO drop conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor	NO2 Correction factor	Converter Efficiency
0	0.4	0.4	0.0	0.3	0.4	0.0	N/A	N/A	N/A	N/A
NO point	410.6	410.6	0.0	411.2	410.6	0.5	0.9984	1.0000	N/A	N/A
300	410.6	93.7	316.9	409.4	93.7	315.7	1.0027	1.0000	1.0036	99.6%
200	410.6	195.6	215.0	410.9	195.6	214.4	0.9993	1.0000	1.0024	99.8%
100	410.6	298.6	111.9	410.3	298.6	110.7	1.0006	1.0000	1.0110	98.9%
					Average Correction Factor		1.0008	1.0000	1.0057	99.4%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	0.0	0.0	0.2	ppb	0.1	0.0	0.3	ppb
Auto span	363.6	360.4	2.7	ppb	368.9	365.5	2.9	ppb

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **NO_2**

Air Monitoring Network **PAZA**

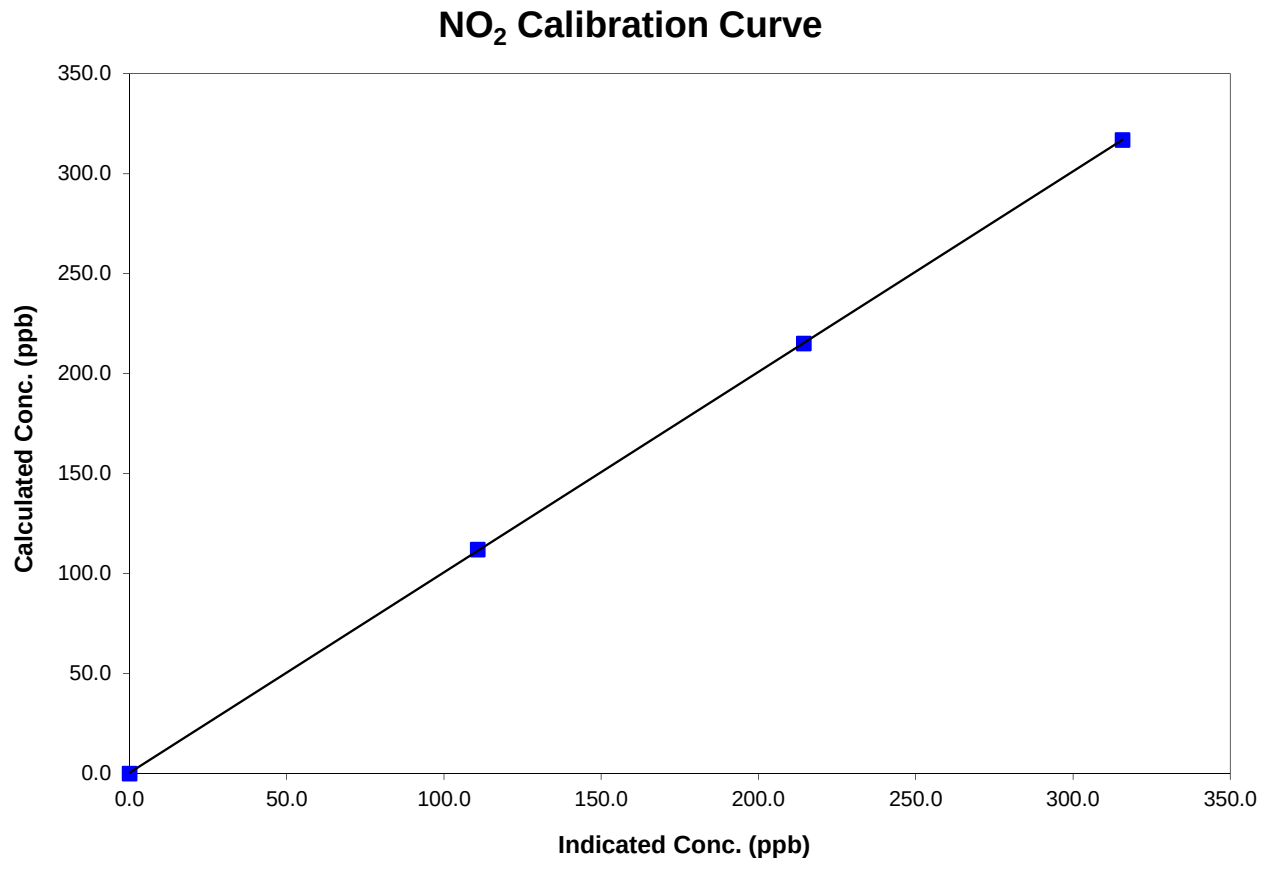
WSP AIR QUALITY MONITORING

Station Information

Calibration Date	May 1, 2015	Previous Calibration	April 1, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	7:50	End Time (MST)	12:10
Analyzer make	42i	Analyzer serial #	906535087

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A		
316.9	315.7	1.0036	Correlation Coefficient	0.999989
215.0	214.4	1.0024		
111.9	110.7	1.0110	Slope	1.002707
			Intercept	0.276040



Calibration Summary

Parameter **NO_x**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

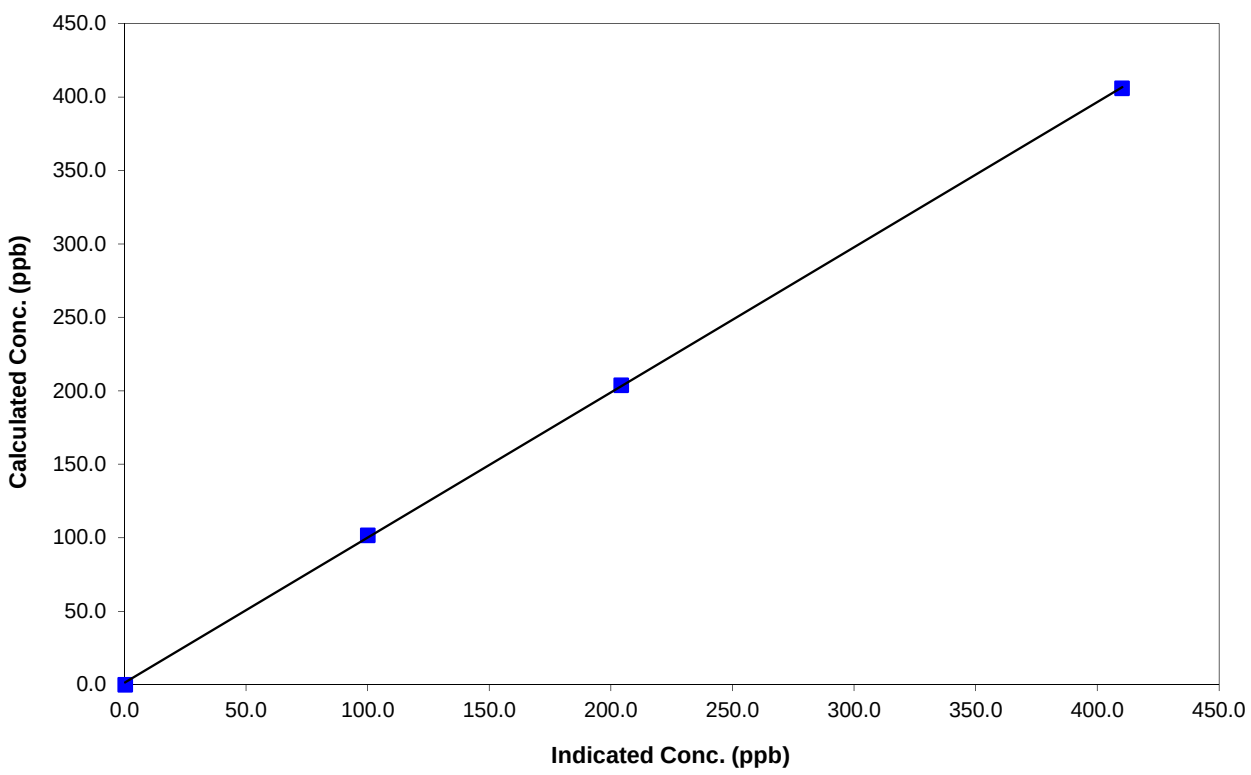
Station Information

Calibration Date	May 1, 2015	Previous Calibration	April 1, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	7:50	End Time (MST)	12:10
Analyzer make	42i	Analyzer serial #	906535087

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	N/A		
405.9	410.2	0.9896	Correlation Coefficient	0.999939
203.8	204.3	0.9975		
101.6	100.0	1.0158	Slope	0.988417
			Intercept	1.203348

NOx Calibration Curve



Calibration Summary

Parameter **NO**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

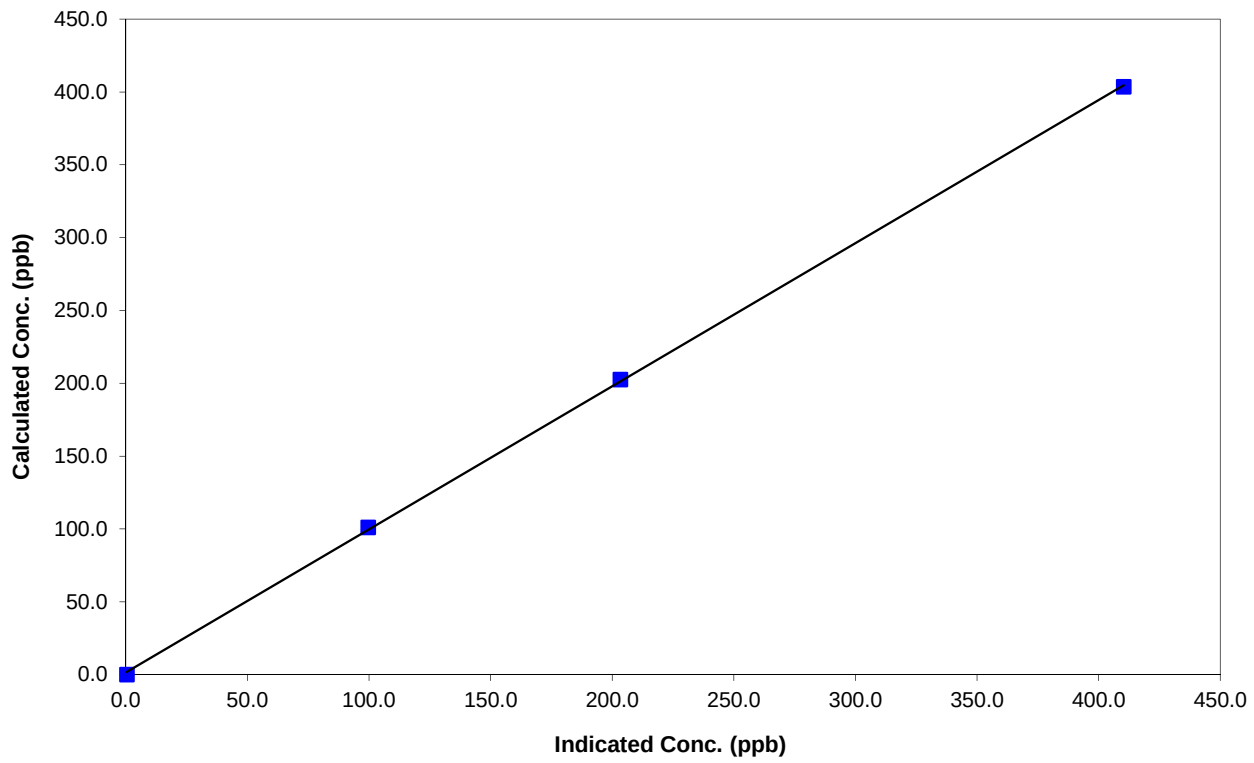
Station Information

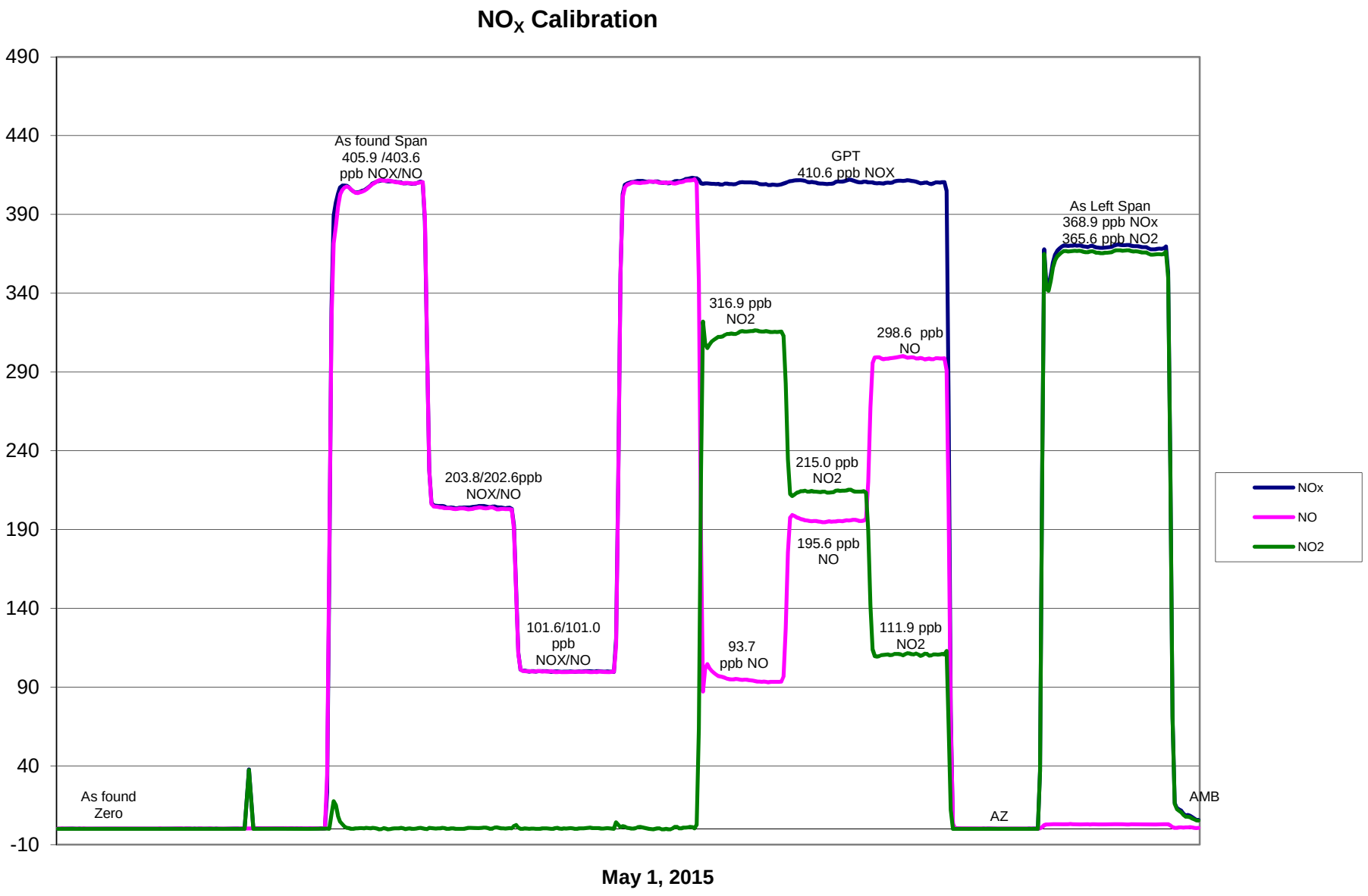
Calibration Date	May 1, 2015	Previous Calibration	April 1, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	7:50	End Time (MST)	12:10
Analyzer make	42i	Analyzer serial #	906535087

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.4	N/A		
403.6	410.3	0.9837	Correlation Coefficient	0.999901
202.6	203.4	0.9960		
101.0	99.6	1.0136	Slope	0.982597
			Intercept	1.459081

NO Calibration Curve




NOx Calibration
490
440
390
340
290
240
190
140
90
40
-10
As found Span
405.9 /403.6
ppb NOX/NO
GPT
410.6 ppb NOX
As Left Span
368.9 ppb NOx
365.6 ppb NO2
316.9 ppb
NO2
298.6 ppb
NO
203.8/202.6ppb
NOX/NO
215.0 ppb
NO2
195.6 ppb
NO
101.6/101.0
ppb
NOX/NO
93.7
ppb NO
111.9 ppb
NO2
As found
Zero
AZ
AMB
NOx
NO
NO2
May 1, 2015

Calibration Report

Parameter **O3**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	May 1, 2015	Previous Calibration	April 1, 2015
Station Number	1	Station Location	Henry Pirker
Reason:	Routine / Install	Removal	Other:
Start Time (MST)	11:00	End Time (MST)	13:20:00 PM
Barometric Pressure	724.000 mm	Station Temperature	21.0 Deg C
Calibrator	Environics	Serial Number	3016
Cal Gas Concentration	NA	Cal Gas Expiry Date	NA
DACS make	CR3000	DACS serial No.	5237
DACS voltage range	0 - 5 volt	DACS channel #	9
	Before		After
Calculated slope	1.001861	Calculated slope	1.010401
Calculated intercept	0.045422	Calculated intercept	0.485615
Analyzer make	Teco 49C	Analyzer serial #	607415761

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
offset	-0.30	ppb	-0.30	ppb
slope	1.008		1.008	
Lamp temp	57	mV	57	mV
Lamp Intensity A/B	96489/90211	mV	97382/91031	mV
Pressure	672.2	mm Hg	675.4	mm Hg
Flow A	0.724	ccm	0.725	ccm
Flow B	0.702	ccm	0.703	ccm

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
5035	0.0	0.0	0.1	N/A
5035	0.3	316.9	313.8	1.0099
5035	0.2	215.0	211.7	1.0158
5035	0.1	111.9	109.7	1.0202
5035	0.0	0.0	0.1	As found zero
5035	0.3	316.9	313.8	As found span
			Average Correction Factor	1.0153

Calculated value of As Found Response: 314.3 ppm Percent Change of As Found: -0.8%

	before calibration		after calibration	
Auto zero	0.3	ppb	0.0	ppb
Auto span	456.5	ppb	461.2	ppb

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **O3**

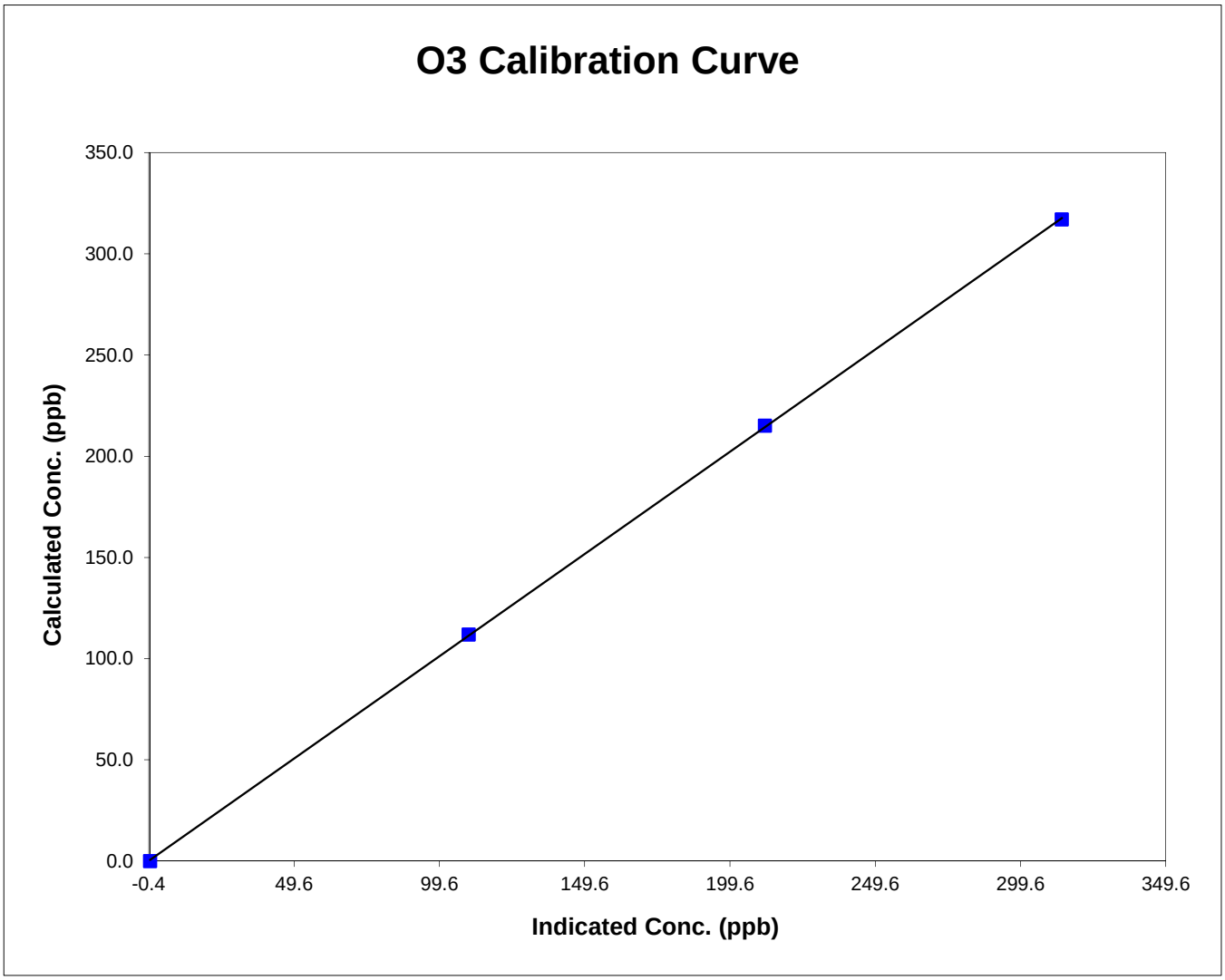
Air Monitoring Network **PAZA**

Station Information

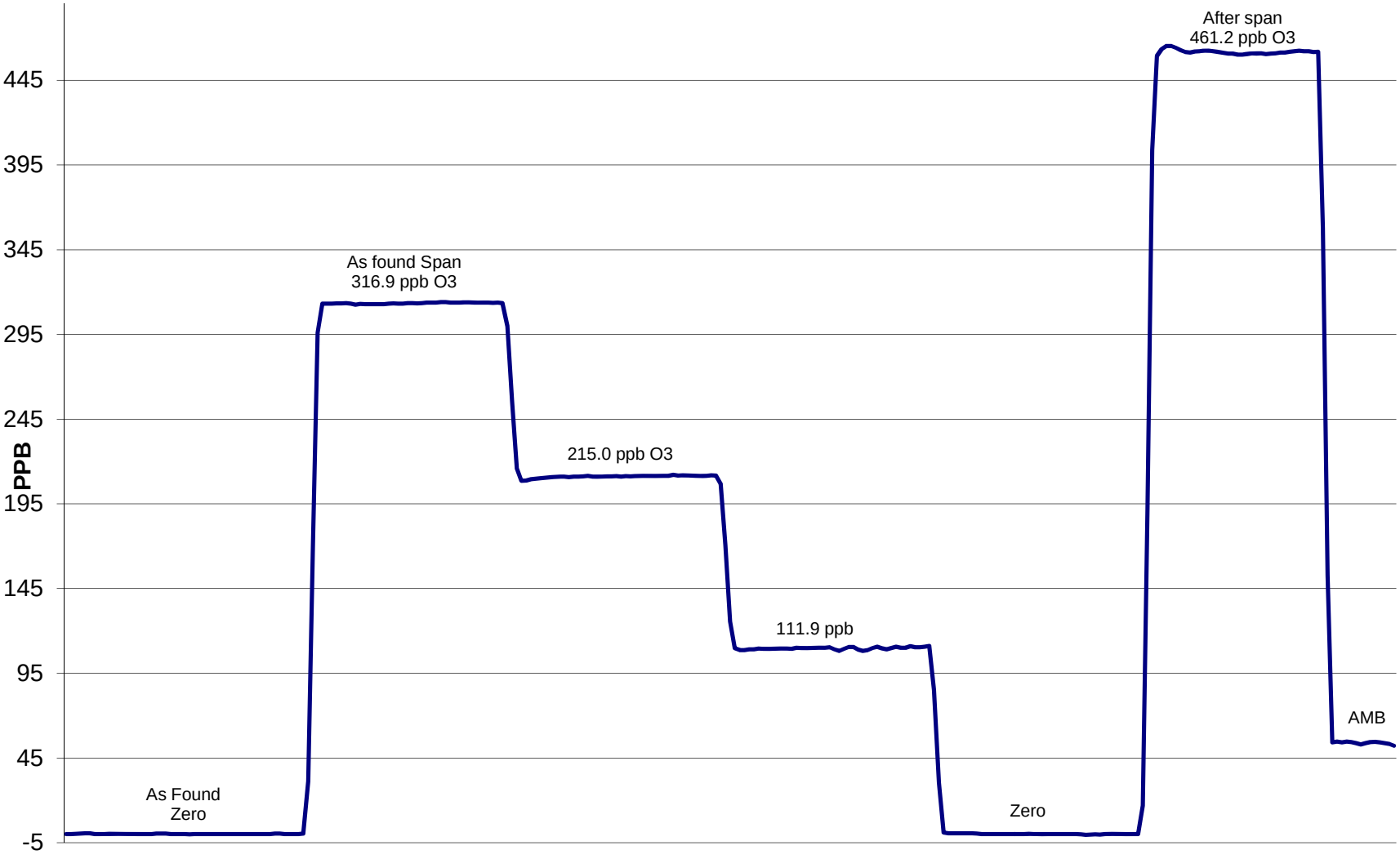
Calibration Date	May 1, 2015	Previous Calibration	April 1, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	11:00	End Time (MST)	13:20:00 PM
Analyzer make/model	Teco 49C	Analyzer serial #	607415761

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	NA		
316.9	313.8	1.0099	Correlation Coefficient	0.999972
215.0	211.7	1.0158		
111.9	109.7	1.0202	Slope	1.010401
			Intercept	0.485615



O3 Calibration



May 1, 2015

Calibration Report

Parameter **CO**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	May 4, 2015	Previous Calibration	April 2, 2015
Station Number	1	Station Location	Henry Pirker
Reason: Routine	Install	Removal	Other:
Start Time (MST)	11:50	End Time (MST)	15:10:00 PM
Barometric Pressure	726.0 mm/hg	Station Temperature	21.0 Deg C
Calibrator	Environics 6100	Serial Number	3016
Cal Gas Conc	2898 ppm	Cal Gas Expiry Date	04/02/2013
		Cal Gas Cylinder #	LL83909
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 5 volt	DACS channel #	9
	Before		After
Calculated slope	1.002720	Calculated slope	1.009130
Calculated intercept	-0.021592	Calculated intercept	-0.058888
Analyzer make	Model 48I-TLE	Analyzer serial #	1408761378

	before		after	
Concentration range	0 - 50	ppm	0 - 50	ppm
CO zero setting	1.112		1.688	
CO span setting	1.001		1.001	
Sample pressure	699.2	mm Hg	694.7	mm Hg
Sample Flow	0.457	LPM	0.454	LPM

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.00	0.07	N/A
4995	69.94	40.02	39.72	1.0075
4995	34.96	20.14	20.01	1.0067
4995	17.96	10.38	10.34	1.0039
4995	0.00	0.00	0.53	As Found Zero
4995	69.94	40.02	41.25	As Found Span
			Average Correction Factor	1.0060

Calculated value of As Found Response: 40.809 ppm Percent Change of As Found: -2.0%

	before calibration		after calibration	
Auto zero	0.03	ppm	-0.03	ppm
Auto span	19.70	ppm	19.72	ppm

Notes: zero adjustment made

Calibration Performed By: Dmytro Dolotii, Grover Christiansen

Calibration Summary

Parameter **CO**

Air Monitoring Network **PAZA**

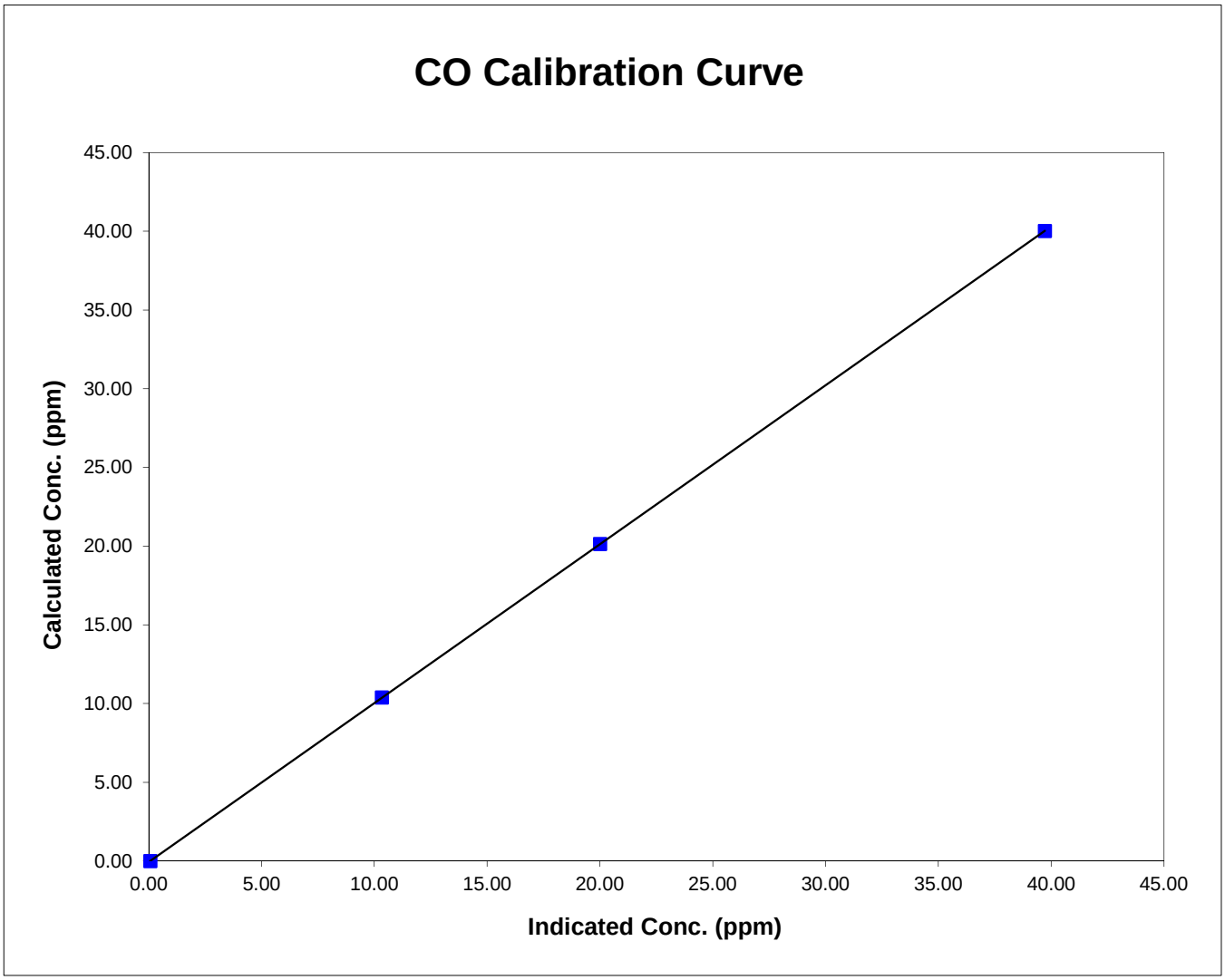
WSP AIR QUALITY MONITORING

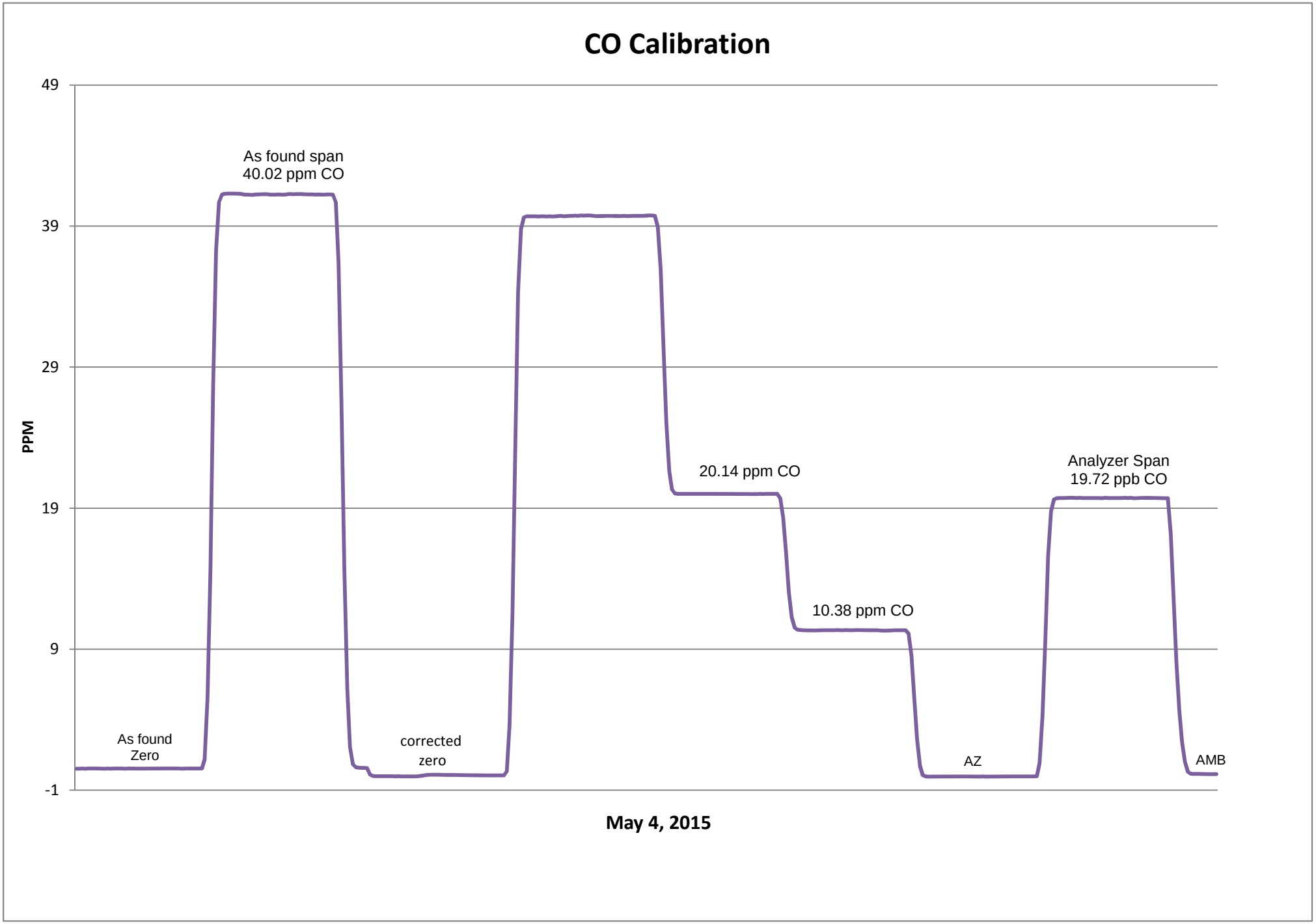
Station Information

Calibration Date	May 4, 2015	Previous Calibration	April 2, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	11:50	End Time (MST)	15:10:00 PM
Analyzer make/model	Model 48I-TLE	Analyzer serial #	1408761378

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.067	N/A		
40.017	39.721	1.0075	Correlation Coefficient	1.000000
20.142	20.007	1.0067		
10.383	10.342	1.0039	Slope	1.009130
			Intercept	-0.058888




CO Calibration
49
39
29
19
9
-1
PPM
As found span
40.02 ppm CO
20.14 ppm CO
10.38 ppm CO
Analyzer Span
19.72 ppb CO
As found
Zero
corrected
zero
AZ
AMB
May 4, 2015

Calibration Report

Parameter **CH4 / NMHC / THC**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	May 4, 2015	Previous Calibration	April 17, 2015
Station Number	1	Station Location	Henry Pirker
Reason: Routine	Install	Removal	Other:

Start Time (MST)	10:35	End Time (MST)	12:45
Barometric Pressure	726.00 mm/hg	Station Temperature	21.0 Deg C
Calibrator	Environics	Serial Number	3016
Cal Gas CH4 Conc	386 ppm CH4	Cal Gas Expiry Date	28/03/2014
Cal Gas C3H8 Conc	207 569.25 ppm CH4	Cal Gas Cylinder #	LL34318
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 5 volt	DACS channel #	SE 11,12,13

Analyzer make	TEI 55I	Analyzer serial #	1134650658

	before		after	
Concentration range	0-20 (CH4, NMHC); 0-40 (THC)	ppm	0-20 (CH4, NMHC); 0-40 (THC)	ppm
Air pressure	27.8	PSI	27.8	PSI
Fuel pressure	42.1	PSI	42.1	PSI
Carrier pressure	30.3	PSI	30.3	PSI
CH4 cal factor	5.78		5.78	E^{-4}
NMHC cal factor	1.93		1.93	E^{-4}
Rt	12.74	Sec	12.74	Sec
Pk Index	23.22		23.22	

CH4 Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
1996	0.00	0.00	0.02	N/A
1996	68.96	12.89	12.81	1.0066
1996	40.96	7.76	7.64	1.0166
1996	15.99	3.07	2.97	1.0317
1996	0.00	0.00	0.02	As Found Zero
1996	68.93	12.89	12.81	As Found Span
			Average Correction Factor	1.0183

Calculated value of As Found Response: 12.912 ppm Percent Change of As Found: -0.2%

	Before		After
Calculated slope	1.007696	Calculated slope	1.006968
Calculated intercept	0.027217	Calculated intercept	0.030597

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.03	ppm	0.03	ppm
Auto span	8.72	ppm	8.63	ppm

NMHC Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
1996	0.00	0.00	0.02	N/A
1996	68.96	19.01	19.16	0.9923
1996	40.96	11.45	11.63	0.9846
1996	15.99	4.52	4.68	0.9669
1996	0.00	0.00	0.02	As Found Zero
1996	68.93	19.00	19.16	As Found Span
			Average Correction Factor	0.9813

Calculated value of As Found Response: 18.910 ppm Percent Change of As Found: 0.5%

	Before		After
Calculated slope	0.992615	Calculated slope	0.994307
Calculated intercept	-0.086811	Calculated intercept	-0.074852

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.02	ppm	0.02	ppm
Auto span	12.44	ppm	12.29	ppm

THC Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
1996	0.00	0.00	0.03	N/A
1996	68.96	31.90	31.94	0.9988
1996	40.96	19.21	19.24	0.9982
1996	15.99	7.59	7.64	0.9939
1996	0.00	0.00	0.03	As Found Zero
1996	68.93	31.89	31.94	As Found Span
			Average Correction Factor	0.9970

Calculated value of As Found Response: 31.828 ppm Percent Change of As Found: 0.2%

	Before		After
Calculated slope	0.999263	Calculated slope	1.000042
Calculated intercept	-0.053339	Calculated intercept	-0.038359

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.02	ppm	0.02	ppm
Auto span	21.16	ppm	20.91	ppm

Notes: No adjustments made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **CH4**

Air Monitoring Network **PAZA**

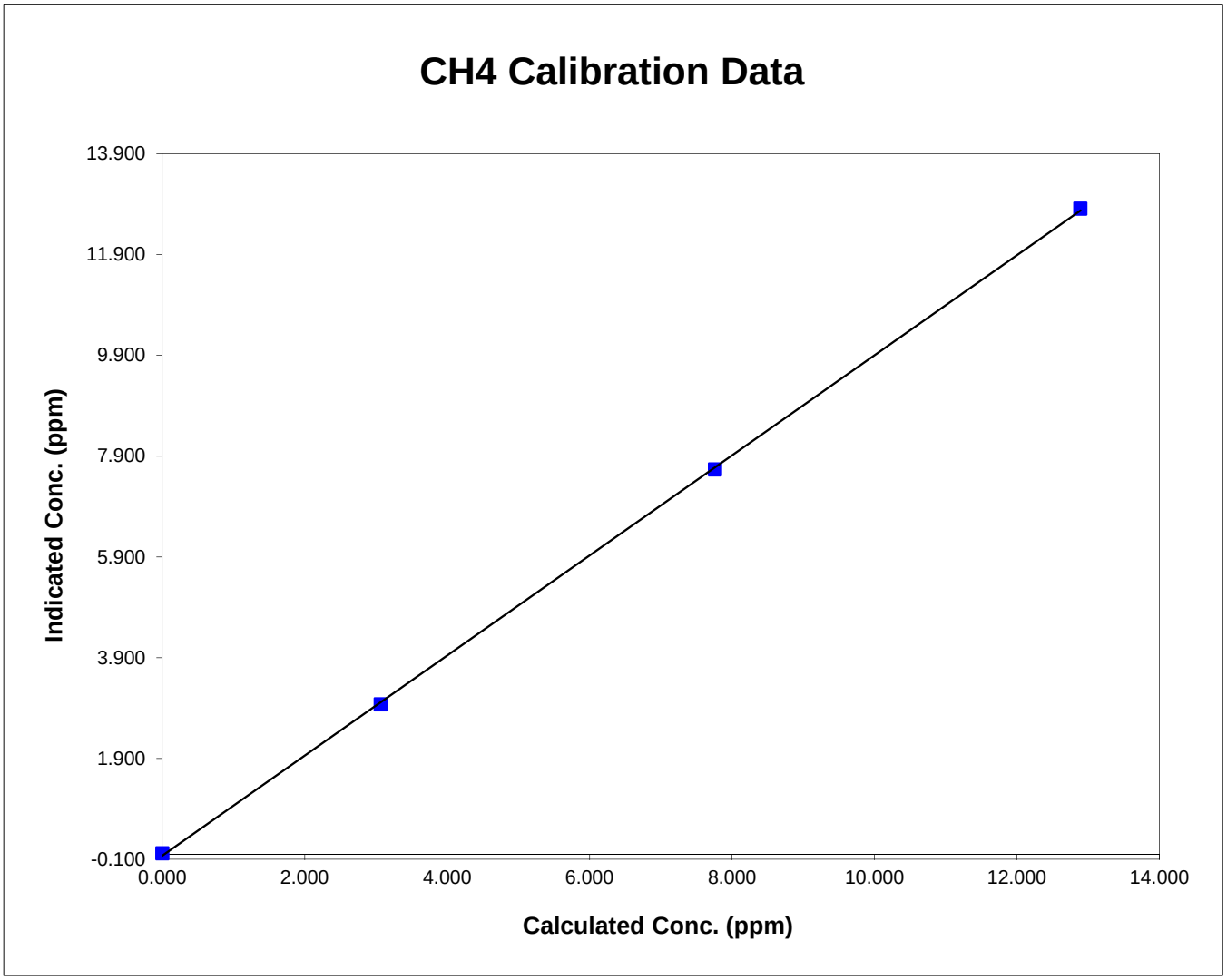
WSP AIR QUALITY MONITORING

Station Information

Calibration Date	May 4, 2015	Previous Calibration	April 17, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	10:35	End Time (MST)	12:45
Analyzer make/model	TEI 55I	Analyzer serial #	1134650658

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.020	N/A		
12.891	12.806	1.0066	Correlation Coefficient	0.999922
7.762	7.635	1.0166		
3.068	2.974	1.0317	Slope	1.006968
			Intercept	0.030597



Calibration Summary

Parameter **NMHC**

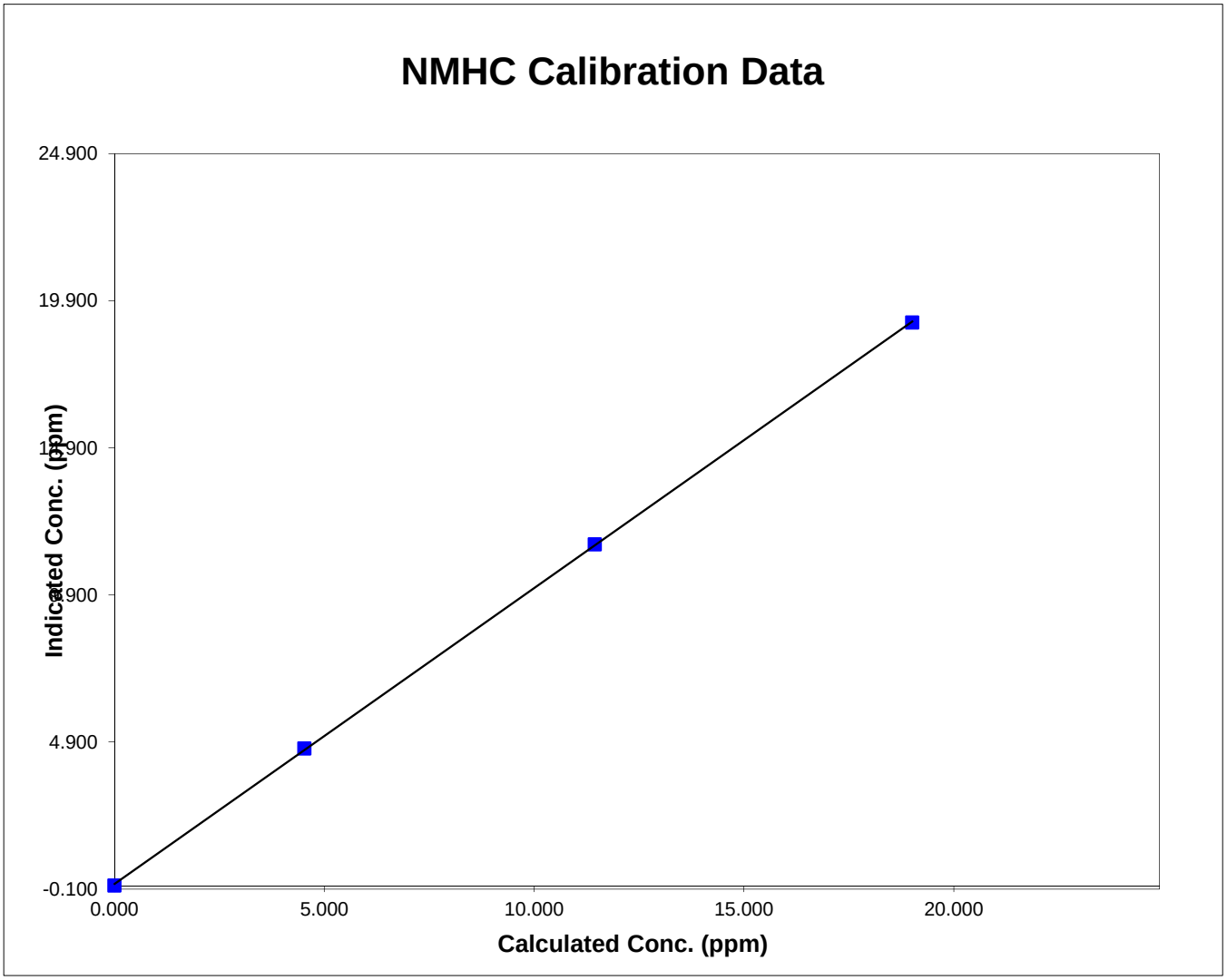
Air Monitoring Network **PAZA**

Station Information

Calibration Date	May 4, 2015	Previous Calibration	April 17, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	10:35	End Time (MST)	12:45
Analyzer make/model	TEI 55I	Analyzer serial #	1134650658

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.020	N/A		
19.010	19.158	0.9923	Correlation Coefficient	0.999959
11.447	11.626	0.9846		
4.524	4.679	0.9669	Slope	0.994307
			Intercept	-0.074852



Calibration Summary

Parameter **THC**

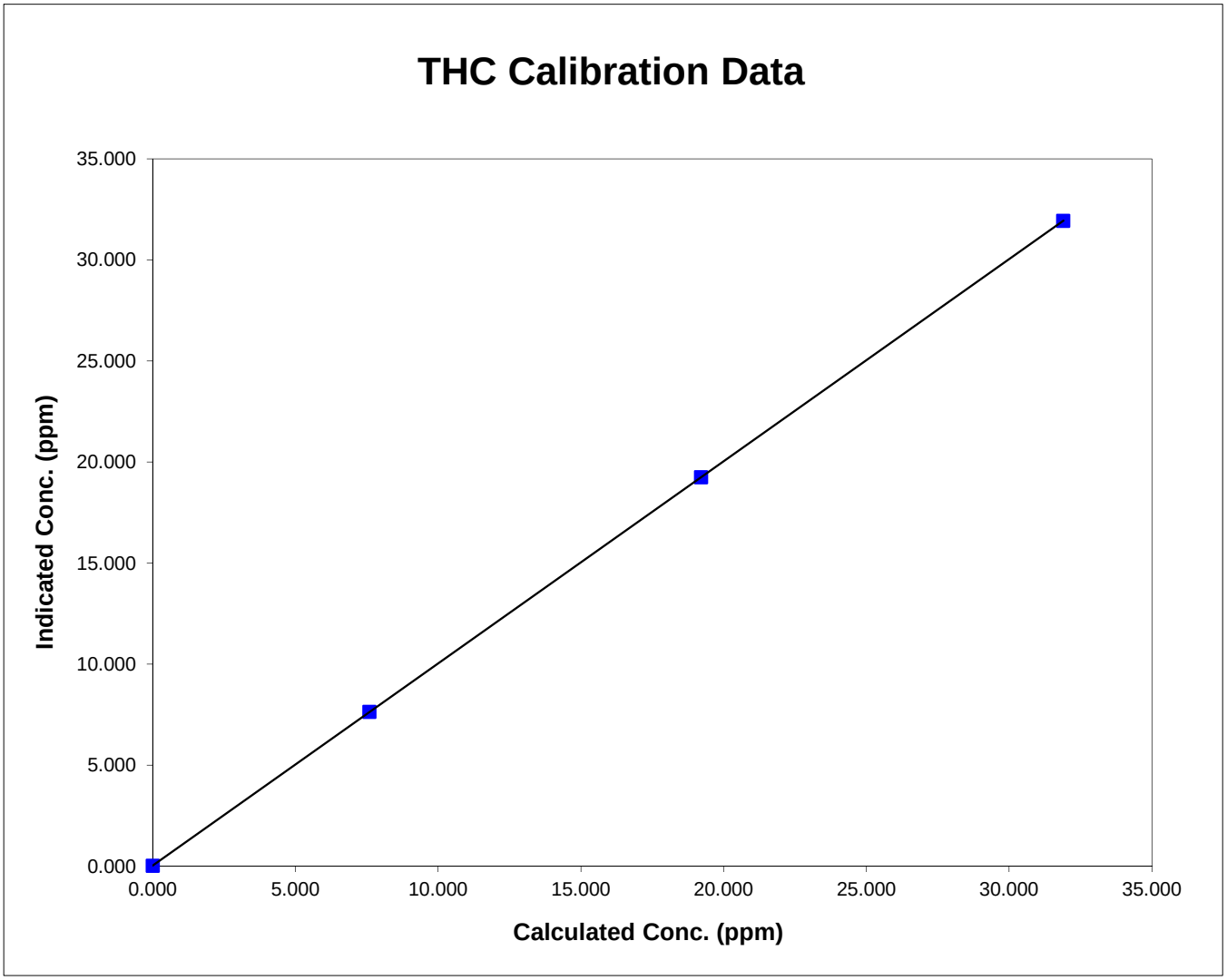
Air Monitoring Network **PAZA**

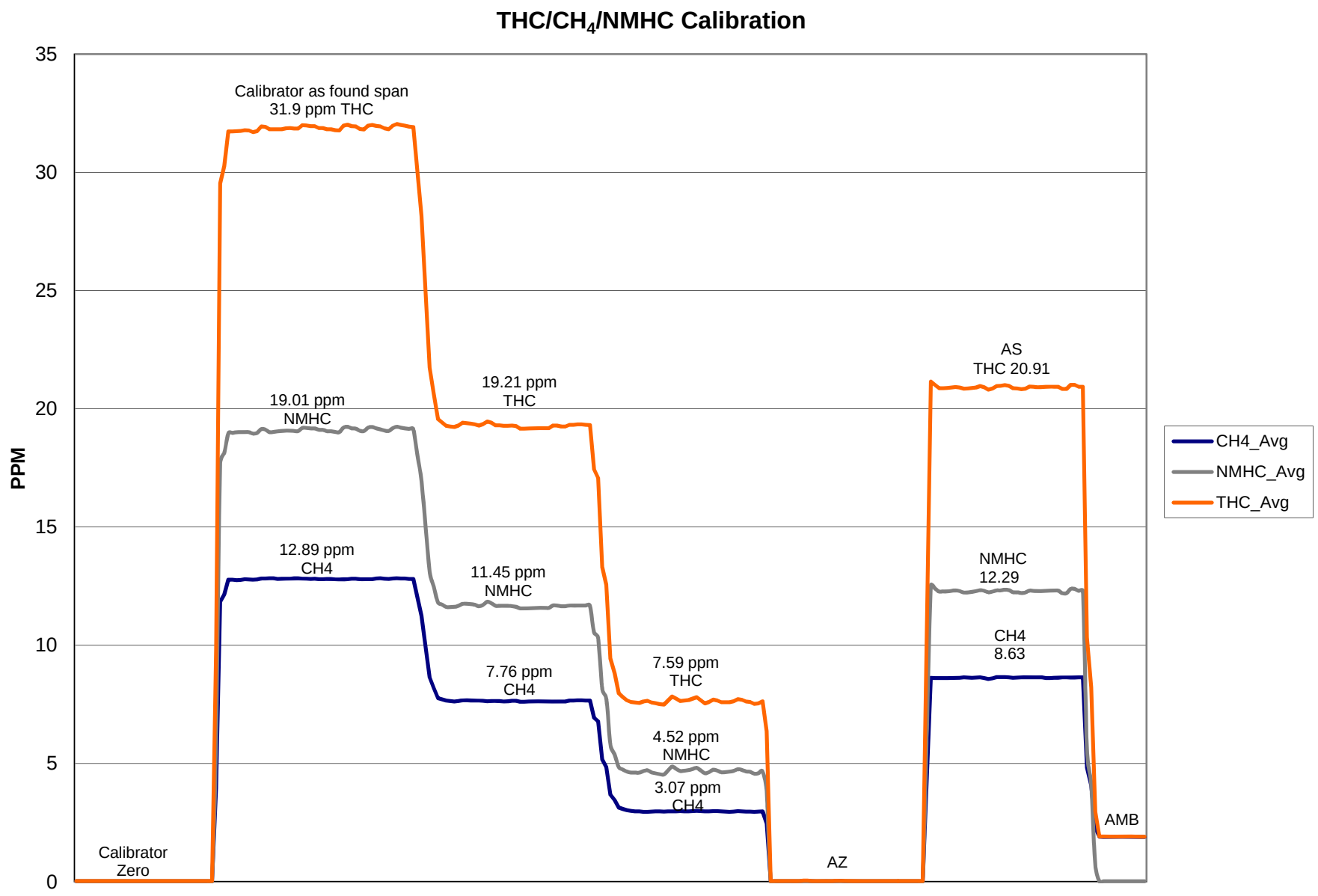
Station Information

Calibration Date	May 4, 2015	Previous Calibration	April 17, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	10:35	End Time (MST)	12:45
Analyzer make/model	TEI 55I	Analyzer serial #	1134650658

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.033	N/A		
31.901	31.938	0.9988	Correlation Coefficient	1.000000
19.209	19.243	0.9982		
7.592	7.639	0.9939	Slope	1.000042
			Intercept	-0.038359




THC/CH4/NMHC Calibration
PPM
35
30
25
20
15
10
5
0
Calibrator as found span
31.9 ppm THC
19.01 ppm
NMHC
19.21 ppm
THC
12.89 ppm
CH4
11.45 ppm
NMHC
7.76 ppm
CH4
7.59 ppm
THC
4.52 ppm
NMHC
3.07 ppm
CH4
Calibrator
Zero
AZ
AS
THC 20.91
NMHC
12.29
CH4
8.63
AMB
CH4_Avg
NMHC_Avg
THC_Avg

Calibration Report

Parameter **TRS**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	May 4, 2015	Previous Calibration	April 2, 2015
Station Number	1	Station Location	Henry Pirker
Reason: Routine	Install	Removal	Other:
Start Time (MST)	8:10	End Time (MST)	11:35
Barometric Pressure	726.00 mm/Hg	Station Temperature	21.0 Deg C
Calibrator	Environics 6100	Serial Number	3016
Cal Gas Conc	10.32 ppb	Cal Gas Expiry Date	08/07/2016
		Cal Gas Cylinder #	LL110781
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 1 volt	DACS channel #	9
	Before		After
Calculated slope	0.996968	Calculated slope	1.002172
Calculated intercept	0.132449	Calculated intercept	0.402652
Analyzer make	TEI 45C	Analyzer serial #	630718528

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Coefficient	0.969		0.969	
Background	17.3		17.3	
Pressure	659.9	mm Hg	659.9	mm Hg
Flow	0.45	ccm	0.45	ccm
Lamp Voltage	886	V	886	V

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.00	0.15	N/A
4995	39.93	81.84	81.54	1.0037
4995	19.95	41.05	40.14	1.0227
6995	9.95	14.66	13.82	1.0608
4995	0.00	0.00	0.15	As Found Zero
4995	39.93	81.84	81.54	As Found Span
			Average Correction Factor	1.0291

Calculated value of As Found Response: 81.3 ppb Percent Change of As Found: 0.7%

	before calibration		after calibration	
Auto zero	0.17	ppb	0.10	ppb
Auto span	34.15	ppb	33.72	ppb

Notes: No adjustment made
Leak check performed

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **TRS**

Air Monitoring Network **PAZA**

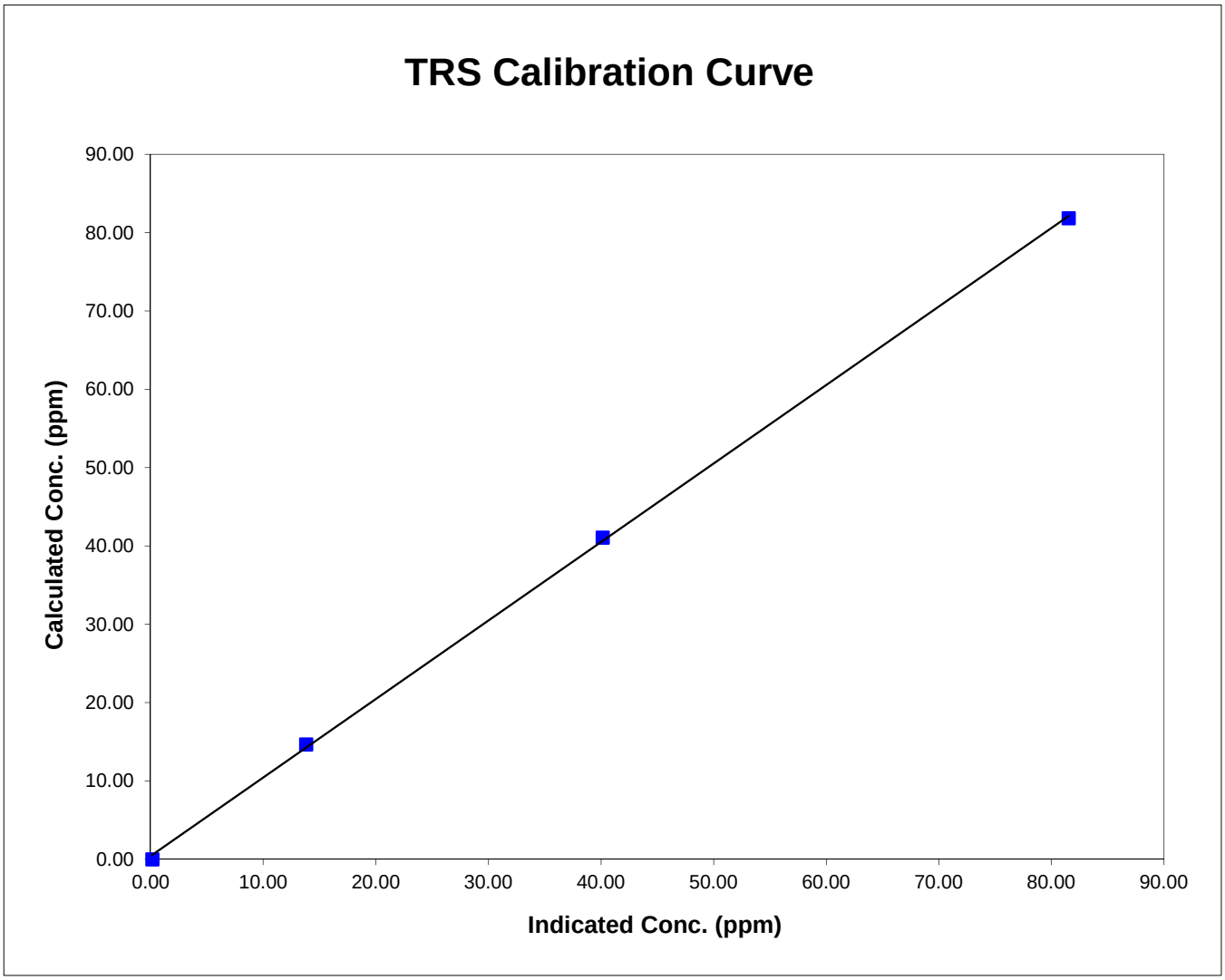
WSP AIR QUALITY MONITORING

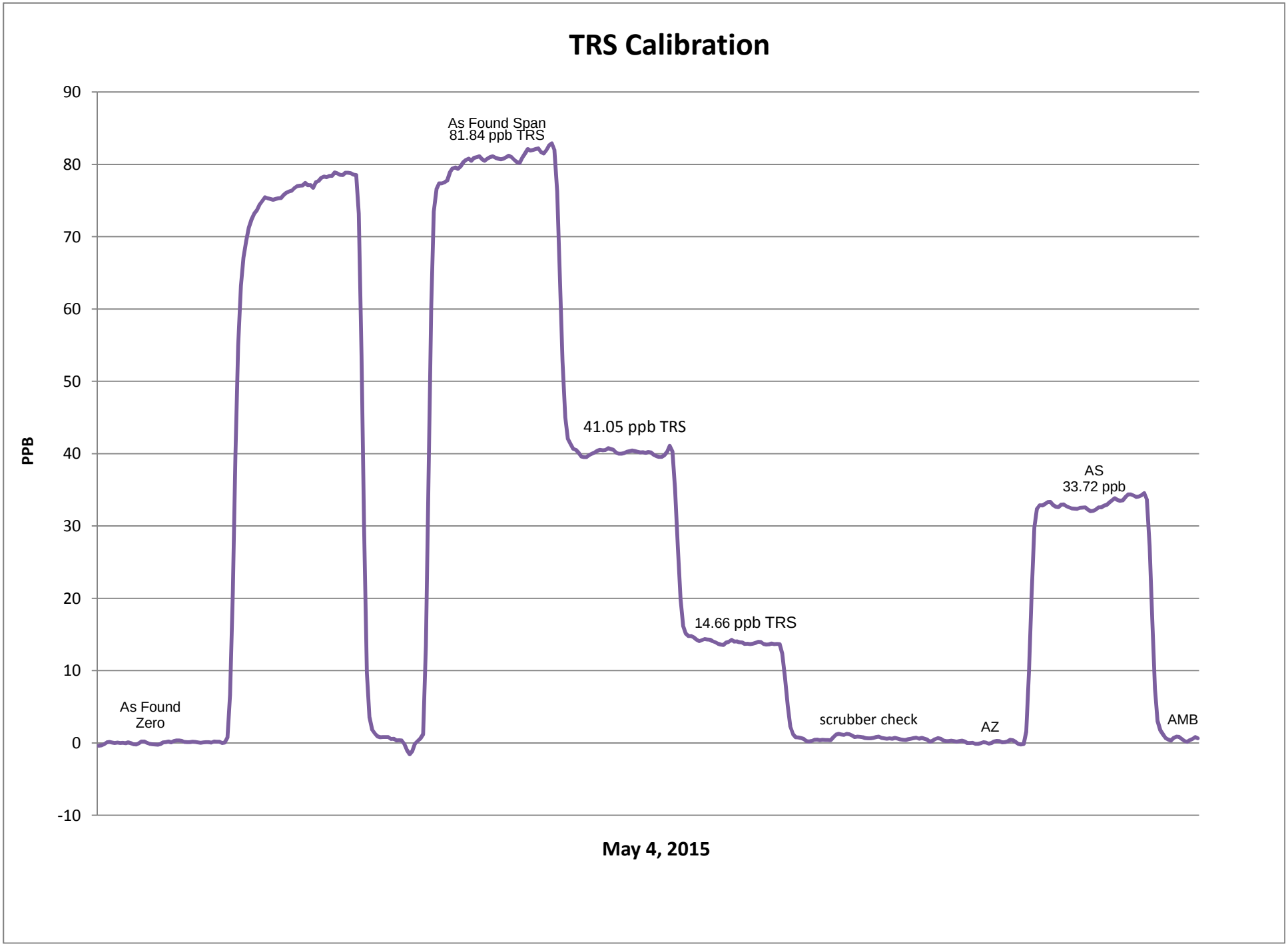
Station Information

Calibration Date	May 4, 2015	Previous Calibration	April 2, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	8:10	End Time (MST)	11:35
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	0.150	N/A		
81.844	81.539	1.0037	Correlation Coefficient	0.999813
41.054	40.144	1.0227		
14.659	13.819	1.0608	Slope	1.002172
			Intercept	0.402652




TRS Calibration
PPB
90
80
70
60
50
40
30
20
10
0
-10
As Found Span
81.84 ppb TRS
41.05 ppb TRS
14.66 ppb TRS
AS
33.72 ppb
As Found
Zero
scrubber check
AZ
AMB
May 4, 2015

Calibration Report

Parameter **SO_2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	May 12 2015	Previous Calibration	April 7 2015
Station Number	2	Station Location	Evergreen Park
Reason: Routine	Install	Removal	Other:
Start Time (MST)	10:35	End Time (MST)	13:20:00 PM
Barometric Pressure	0.920 ATM	Station Temperature	22.0 Deg C
Calibrator	Environics	Serial Number	3016
Cal Gas Concentration	49.8 ppm	Cal Gas Expiry Date	25/02/2025
Correction factor	0.031061	Cal Gas Cylinder #	LL105159
DACS make	CR3000	DACS serial No.	5236
DACS voltage range	0 - 5 volt	DACS channel #	6
	Before		After
Calculated slope	0.983525	Calculated slope	0.993802
Calculated intercept	1.927359	Calculated intercept	1.311612
Analyzer make	Teco 43i	Analyzer serial #	701120008

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	11.6		11.4	
coefficient	1.24		1.217	
Lamp Voltage	830	volts	830	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	669.2	mm Hg	668.6	mm Hg
Sample Flow	0.453	ccm	0.453	ccm
Lamp Intensity	89	%	89	%

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.0	0.00	0.5	N/A
4995	39.93	394.9	397.1	0.9946
4995	19.97	198.3	197.0	1.0068
4995	9.95	99.0	96.8	1.0232
4995	0.0	0.0	0.5	As Found Zero
4995	39.93	394.9	401.1	As Found Span
			Average Correction Factor	1.0082

Calculated value of As Found Response: 395.922 ppm Percent Change of As Found: -0.3%

	before calibration		after calibration	
Auto zero	0.3	ppm	0.4	ppm
Auto span	260.4	ppm	254.5	ppm

Notes: Span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **SO2**

Air Monitoring Network **PAZA**

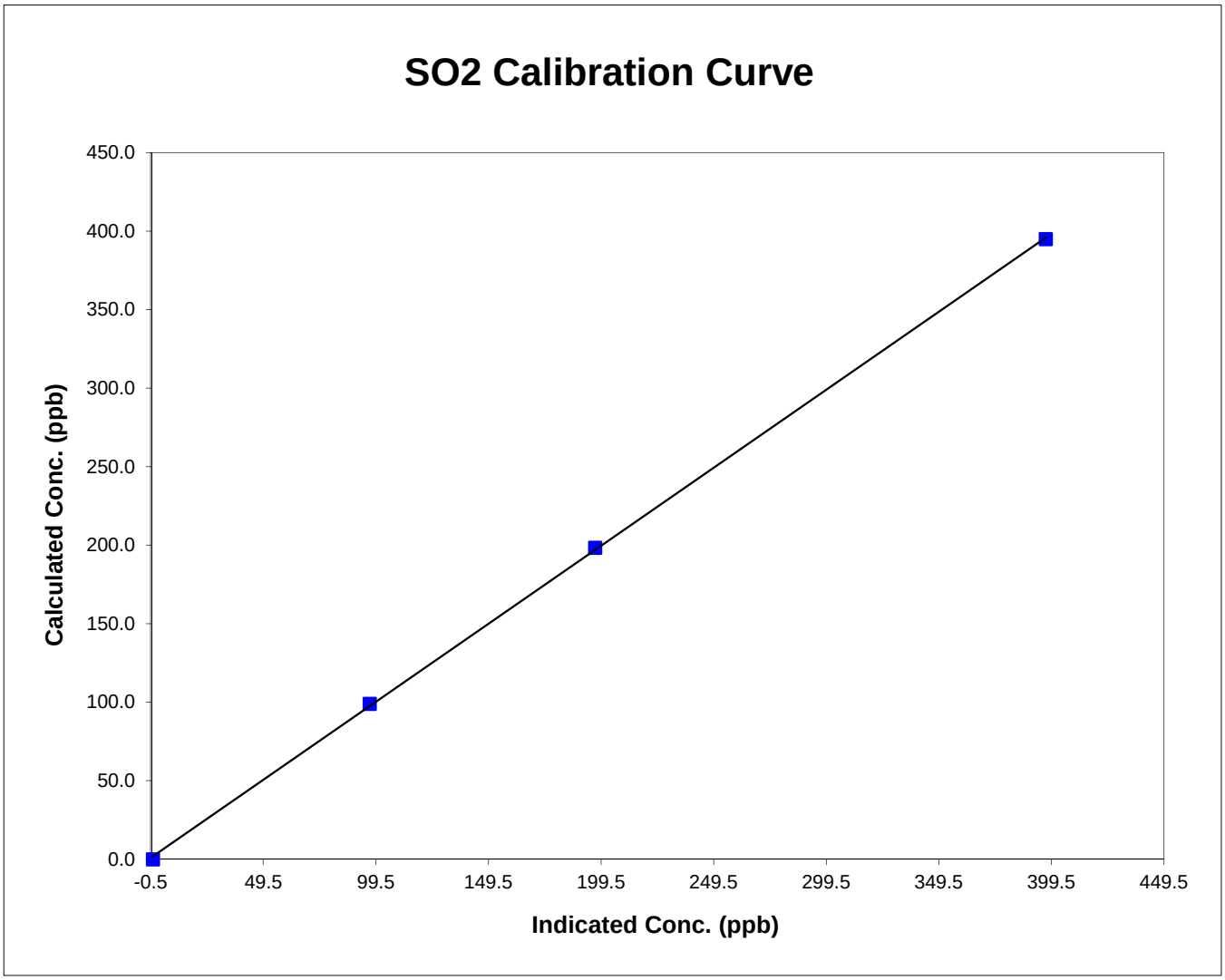
WSP AIR QUALITY MONITORING

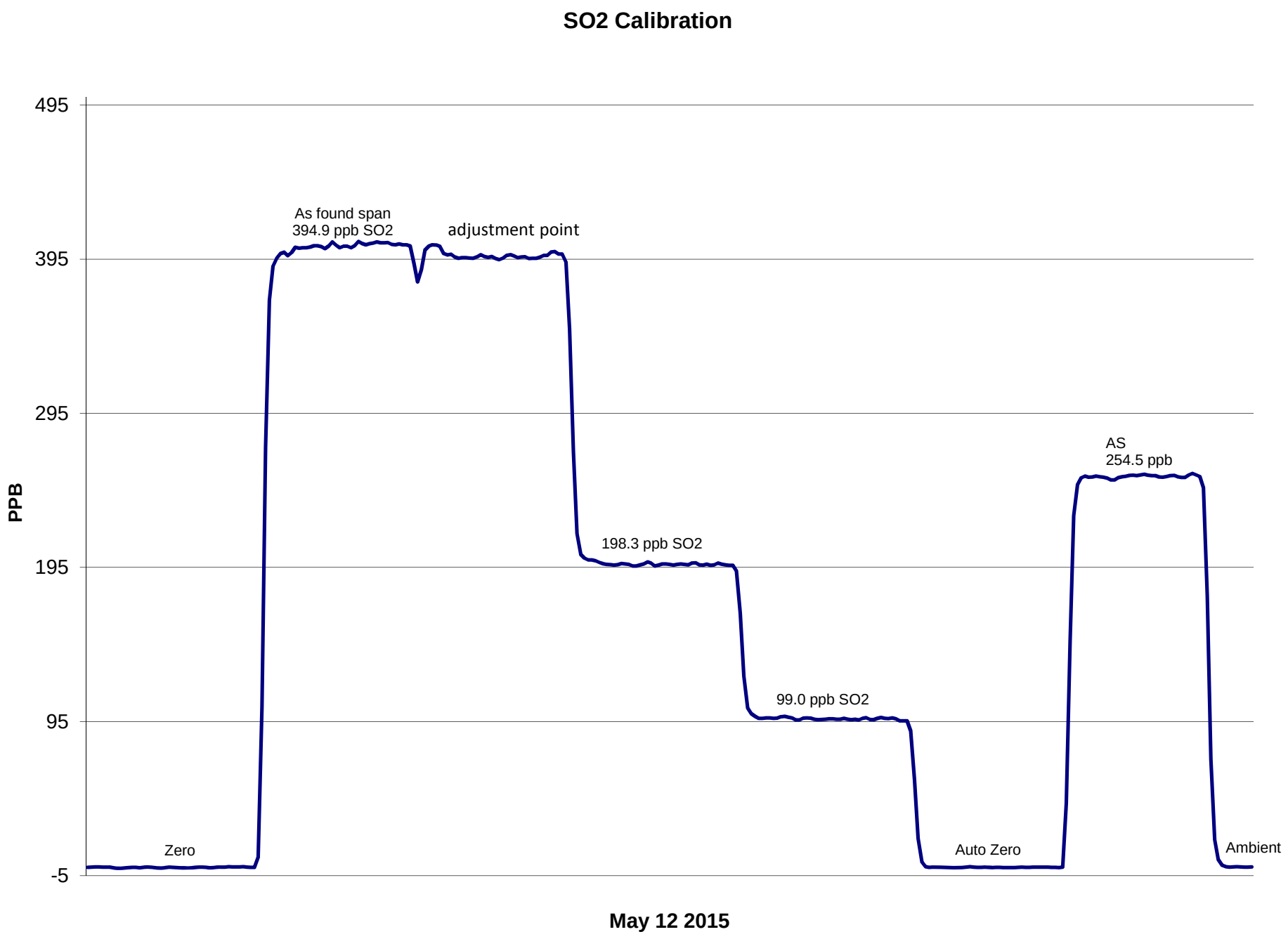
Station Information

Calibration Date	May 12 2015	Previous Calibration	April 7 2015
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	10:35	End Time (MST)	13:20:00 PM
Analyzer make/model	Teco 43i	Analyzer serial #	701120008

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.5	N/A		
394.9	397.1	0.9946	Correlation Coefficient	0.999905
198.3	197.0	1.0068		
99.0	96.8	1.0232	Slope	0.993802
			Intercept	1.311612




SO2 Calibration
495
395
295
195
95
-5
PPB
As found span
394.9 ppb SO2
adjustment point
198.3 ppb SO2
99.0 ppb SO2
AS
254.5 ppb
Zero
Auto Zero
Ambient
May 12 2015

Calibration Report

Parameter **TRS**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	May 12 2015	Previous Calibration	April 7 2015
Station Number	2	Station Location	Evergreen Park
Reason: Routine	Install	Removal	Other:
Start Time (MST)	8:13	End Time (MST)	11:45
Barometric Pressure	0.920 ATM	Station Temperature	22.0 Deg C
Calibrator	Environics	Serial Number	3016
Cal Gas Conc	10.32 ppm	Cal Gas Expiry Date	08/07/2016
Correction factor	0.031061	Cal Gas Cylinder #	LL110781
DACS make	CR3000	DACS serial No.	5236
DACS voltage range	0 - 5 volt	DACS channel #	5
	Before		After
Calculated slope	0.993447	Calculated slope	0.992298
Calculated intercept	-0.245373	Calculated intercept	-0.126920
Analyzer make	TEI Model 43C	Analyzer serial #	3.199E+13

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	40.9	ppb	41.5	ppb
coefficient	0.989		0.989	
Lamp Voltage	1055	volts	1058	volts
Chamber Temp	44.6	Deg C	44.6	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	640.4	mm Hg	639	mm Hg
Sample Flow	0.621	ccm	0.622	ccm
Lamp Intensity	31,521	mv	31,138	mv

Calibration Data

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.00	0.5	N/A
4995	39.93	81.84	82.8	0.9882
4995	19.97	41.10	41.2	0.9971
6995	9.97	14.69	14.6	1.0035
4995	9.97		1.2	Sox Test
4995	0.00	0.00	0.9	As Found Zero
4995	39.93	81.84	83.4	As Found Span
			Average Correction Factor	0.9963

Calculated value of As Found Response: 81.68 ppm Percent Change of As Found: 0.2%

	before calibration		after calibration	
Auto zero	0.6	ppm	0.5	ppm
Auto span	74.1	ppm	74.1	ppm

Notes: Zero adjustment made

Calibration Performed By: Dmyrtro Dolotii

Calibration Summary

Parameter **TRS**

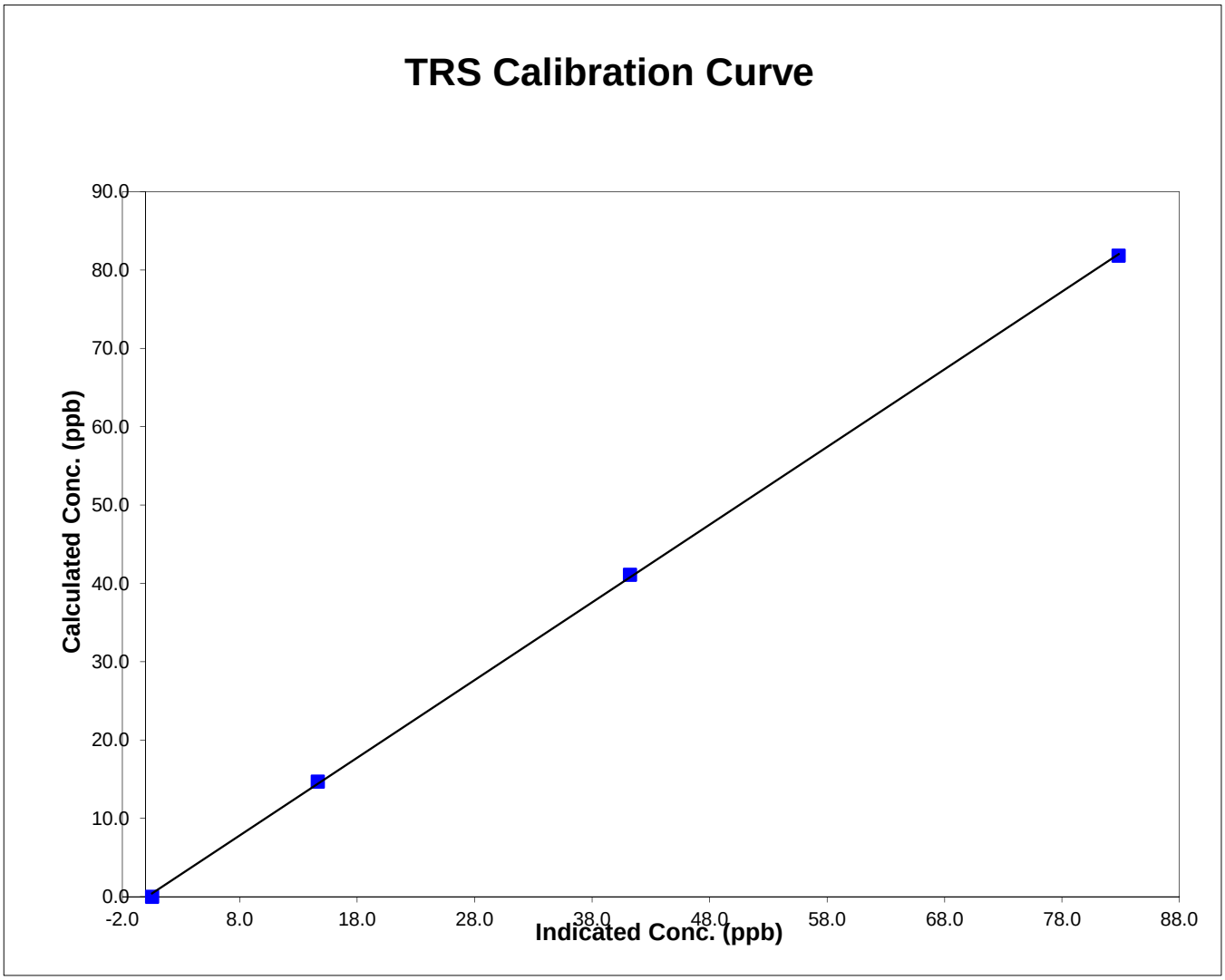
Air Monitoring Network **PAZA**

Station Information

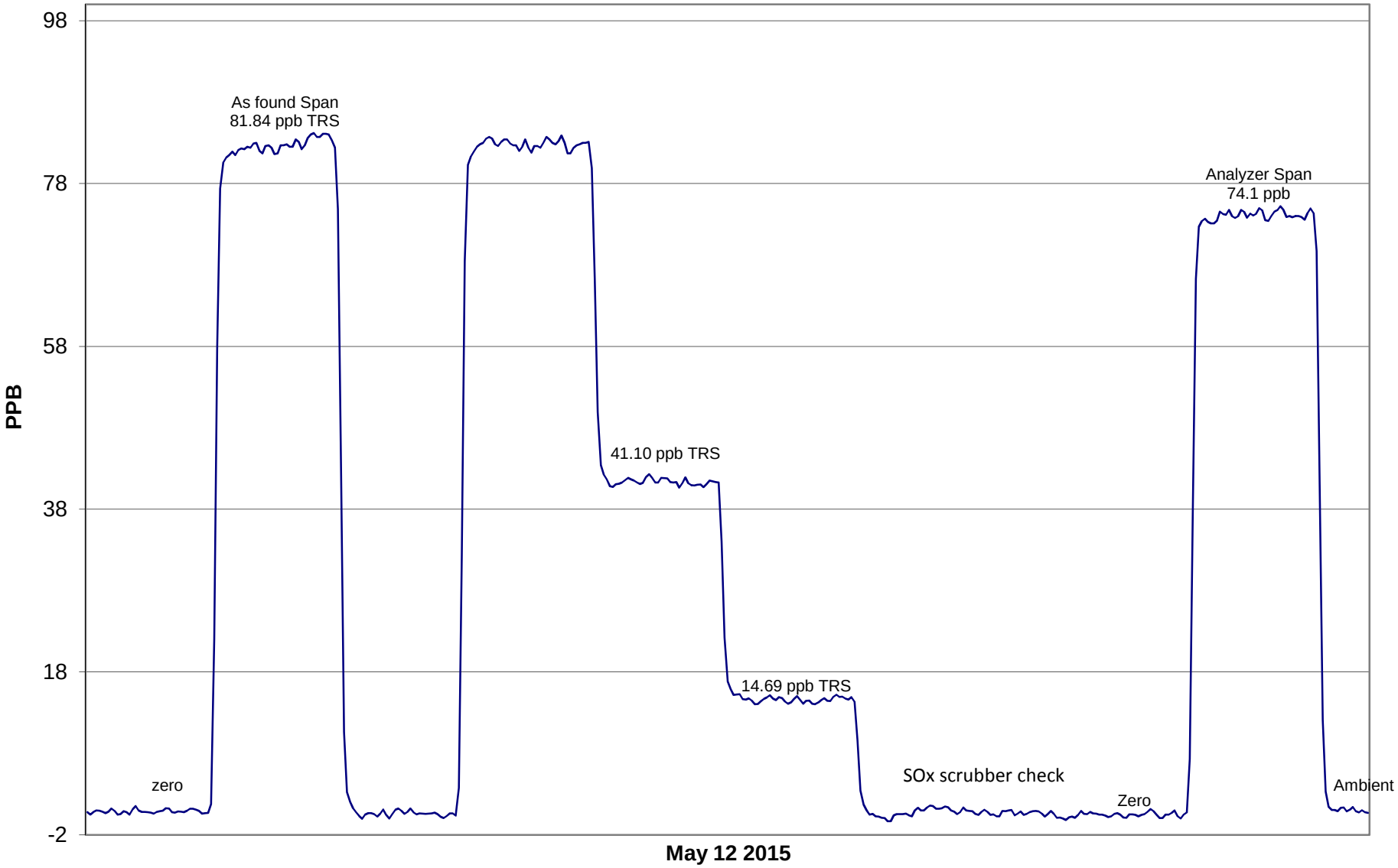
Calibration Date	May 12 2015	Previous Calibration	April 7 2015
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	8:13	End Time (MST)	11:45
Analyzer make/model	TEI Model 43C	Analyzer serial #	31990000000491

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.5	N/A		
81.8	82.8	0.9882	Correlation Coefficient	0.999896
41.1	41.2	0.9971		
14.7	14.6	1.0035	Slope	0.992298
			Intercept	-0.126920



TRS Calibration



Calibration Report

Parameter **SO2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	May 11, 2015	Previous Calibration	April 15, 2015
Station Number	4	Station Location	Beaverlodge
Reason:	Routine / Install	Removal	Other:
Start Time (MST)	13:30:00 PM	End Time (MST)	15:45:00 PM
Barometric Pressure	0.925 atm	Station Temperature	20.0 Deg C
Calibrator	Environics	Serial Number	3016
Cal Gas Concentration	10.8 ppm	Cal Gas Expiry Date	28/09/2012
Gas Cert Reference	FF14871		
DACS make	CR3000	DACS serial No.	5237
DACS voltage range	0 - 5 volt	DACS channel #	5
	Before		After
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.998969	Calculated slope	0.986410
Calculated intercept	-0.018047	Calculated intercept	0.105509
Analyzer make	TEI Model 43i-TLE	Analyzer serial #	713021137

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	2.72		2.72	
Coefficient	1.038		1.038	
PMT	-767.8	V	-767.8	V
UV Lamp Voltage	1087	V	1089	V
Chamber Temp	45.3	Deg C	45	Deg C
Pressure	660.4	mm Hg	665.5	mm Hg
Sample Flow	0.524	LPM	0.529	LPM
Lamp Intensity	97	%	96	%

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4994	0.00	0.0	0.1	N/A
4994	39.92	85.6	86.8	0.9867
4994	19.96	43.0	43.4	0.9897
4994	9.96	21.5	21.4	1.0029
4994	0.00	0.0	0.1	As found zero
4994	39.92	85.6	86.8	As found span
			Average Correction Factor	0.9931

Calculated value of As Found Response: 86.591 ppm Percent Change of As Found: -1.1%

	before calibration		after calibration	
Auto zero	0.1	ppb	0.2	ppb
Auto span	60.1	ppb	59.7	ppb

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **SO2**

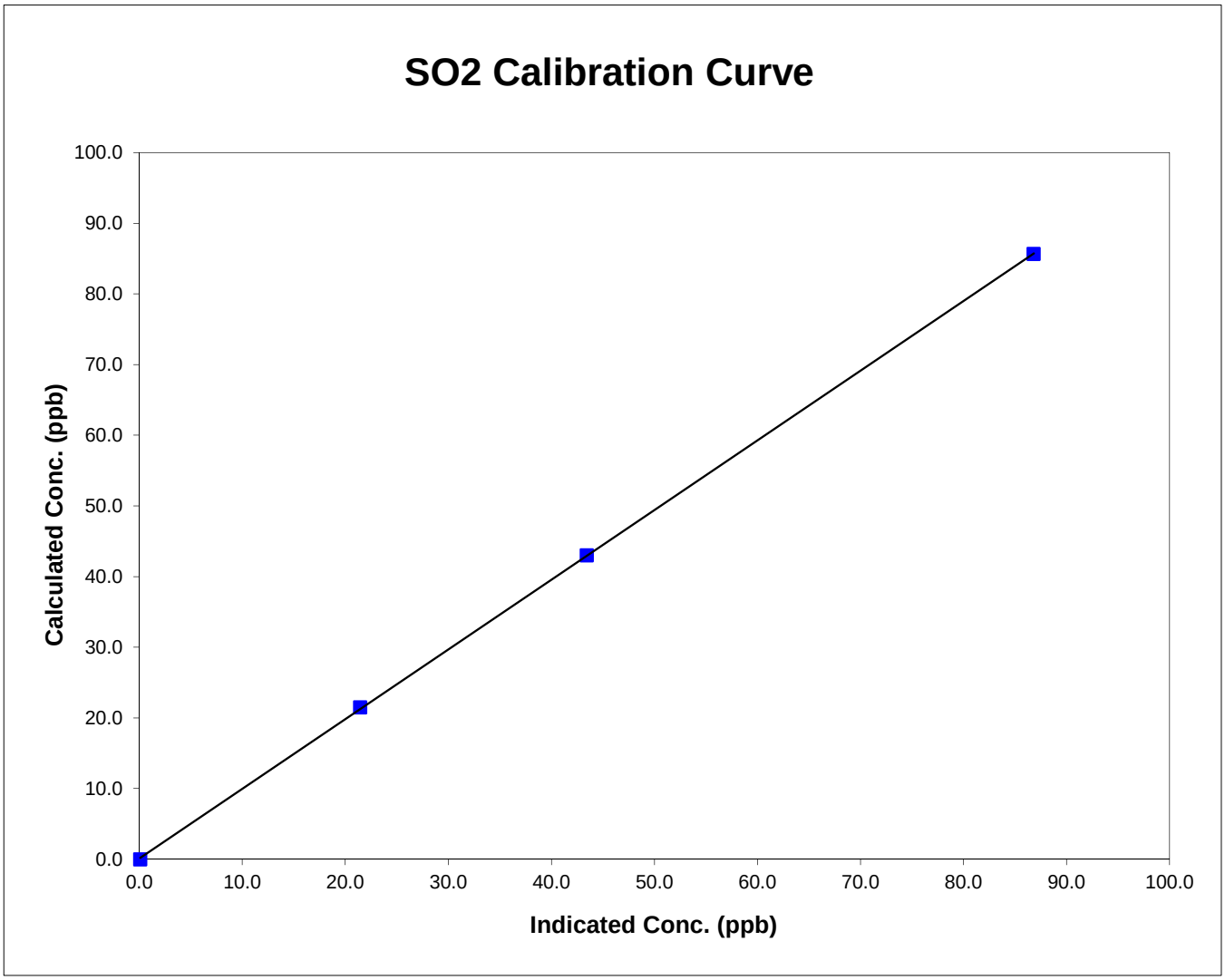
Air Monitoring Network **PAZA**

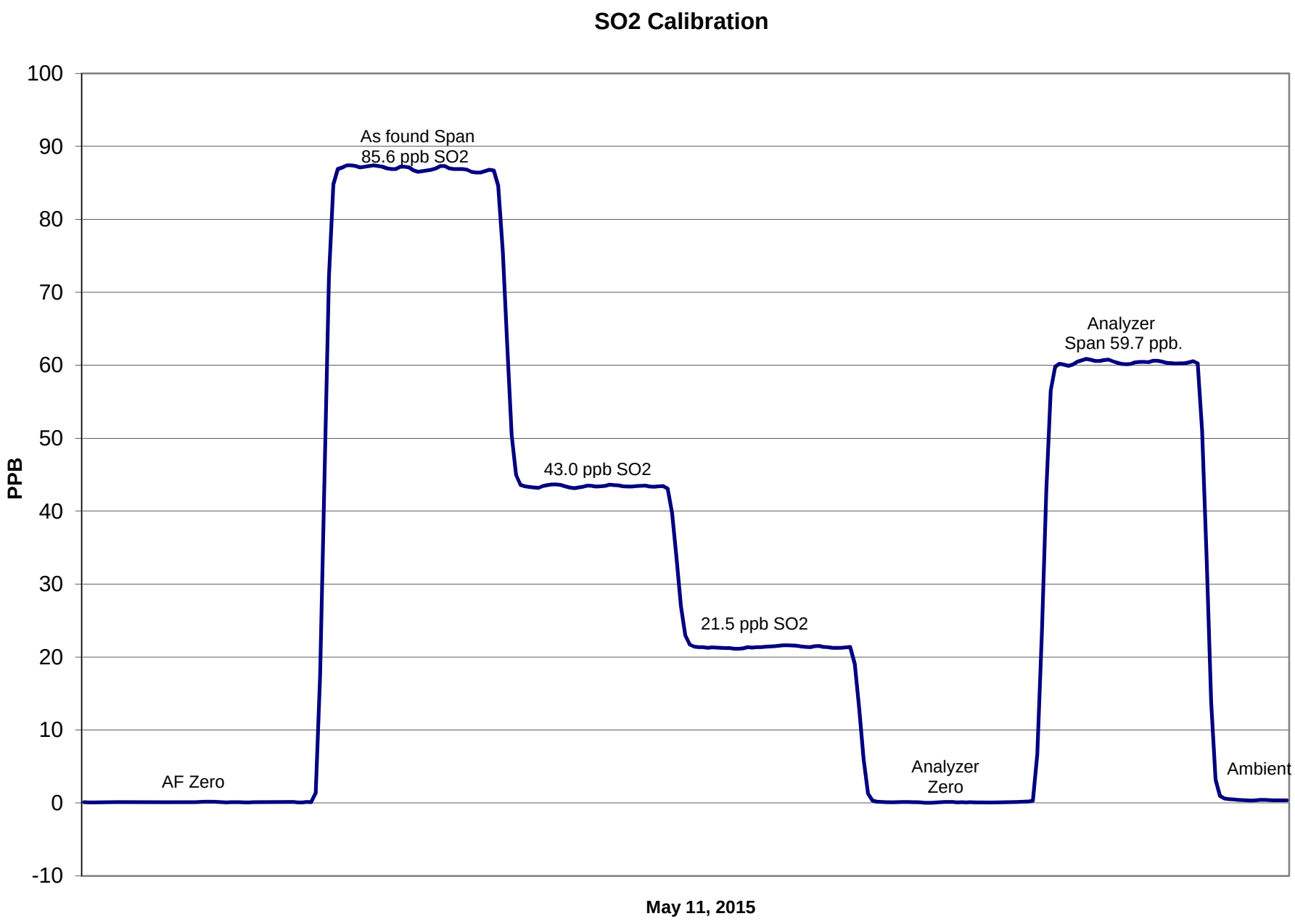
Station Information

Calibration Date	May 11, 2015	Previous Calibration	April 15, 2015
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	13:30:00 PM	End Time (MST)	15:45:00 PM
Analyzer make/model	TEI Model 43i-TLE	Analyzer serial #	713021137

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A		
85.6	86.8	0.9867	Correlation Coefficient	0.999972
43.0	43.4	0.9897		
21.5	21.4	1.0029	Slope	0.986410
			Intercept	0.105509




SO2 Calibration
100
90
80
70
60
50
40
30
20
10
0
-10
PPB
As found Span
85.6 ppb SO2
43.0 ppb SO2
21.5 ppb SO2
Analyzer
Span 59.7 ppb.
AF Zero
Analyzer
Zero
Ambient
May 11, 2015

Calibration Report

Parameter **NO_X-NO-NO_2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	May 11 2015	Previous Calibration	April 15 2015
Station Number	4	Station Location	Beaverlodge

Reason: Routine Installation Removal Other:

Start Time (MST)	8:25		End Time (MST)	12:55	
Barometric Pressure	0.925	Atm	Station Temperature	20.0	Deg C
Calibrator	Environics		Serial Number	3016	
NO Cal Gas Conc	50.9	ppm	Cal Gas Expiry Date	March 10, 2017	
NOx Cal Gas Conc	51.2	ppm	Cal Gas Serial #	LL119493	

DACS Information

DACS make	CR3000	DACS serial No.	5237

Parameter		NO2	NOx	NO
Before	Data Slope	0.996626	0.997622	0.997708
	Data Offset	-0.048672	0.936184	1.025712
After	Data Slope	1.002433	0.996989	0.996177
	Data Offset	-1.259960	1.243979	1.431166
Channel #		8	6	7
Voltage Range		0 - 5 VDC	0 - 5 VDC	0 - 5 VDC

Analyzer Information

Analyzer make/model	TEI 42i	Analyzer serial #	906535068

Test Point	before		after	
Concentration range	0-500	ppb	0-500	ppb
NO offset	3.2	mV	3.2	mV
NOx bkgnd	3.5	mV	3.6	mV
NO coefficient	1.072		1.095	
NOx coefficient	1.004		1.004	
NO2 conv temp	322.1	Deg C	325.7	Deg C
PMT Temp	-2.9	Deg C	-2.9	Deg C
PMT Volt	753.3	mV	-754.1	mV
R Cell Press	249.0	in Hg	249.3	in Hg
Sample Flow	0.526	LPM	0.531	LPM

Notes: Span adjustment made

Calibration Report

Parameter **NOX-NO-NO2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date: Station Location: Beaverlodge

Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor
zero	4995	0.00	0.0	0.0	0.0	0.1	0.1	1.3	N/A	N/A
1	4995	39.92	405.9	403.6	2.4	406.6	404.5	1.3	0.9985	0.9978
2	4995	19.96	203.8	202.6	1.2	202.6	201.0	0.7	1.0058	1.0078
3	4995	9.93	101.6	101.0	0.6	99.2	98.6	0.4	1.0244	1.0244
AFZ	4995	0.00	0.0	0.0	0.0	0.1	0.1	-0.1	0.0000	0.0000
AFS	4995	39.92	405.9	403.6	0.8	397.9	395.6	1.6	1.0202	1.0203
							Average Correction Factor		1.0096	1.0100

As Found Concentrations: NO_X= 397.7 NO= 395.6 As Found Percent Change NO_X= -2.0% NO= -2.0%

GPT Calibration Data

Dilution Flow 4995 ccm Source Gas Flow 39.93 ccm

O3 Setpoint (ppb)	Indicated NOx high point (ppb)	Indicated NO drop conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor	NO2 Correction factor	Converter Efficiency
0	0.1	0.1	0.0	0.1	0.1	1.3	N/A	N/A	N/A	N/A
NO point	405.2	405.2	0.0	406.8	405.2	0.8	0.9960	1.0000	N/A	N/A
300	405.2	93.1	312.1	406.6	93.1	312.8	0.9965	1.0000	0.9979	100.2%
200	405.2	193.5	211.7	406.6	193.5	212.2	0.9965	1.0000	0.9977	100.2%
100	405.2	295.2	110.0	406.9	295.2	111.1	0.9958	1.0000	0.9905	101.0%
					Average Correction Factor		0.9963	1.0000	0.9954	100.5%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	0.0	-0.2	0.1	ppb	0.0	-0.2	0.1	ppb
Auto span	189.4	187.8	1.1	ppb	186.6	184.9	1.1	ppb

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **NO_2**

Air Monitoring Network **PAZA**

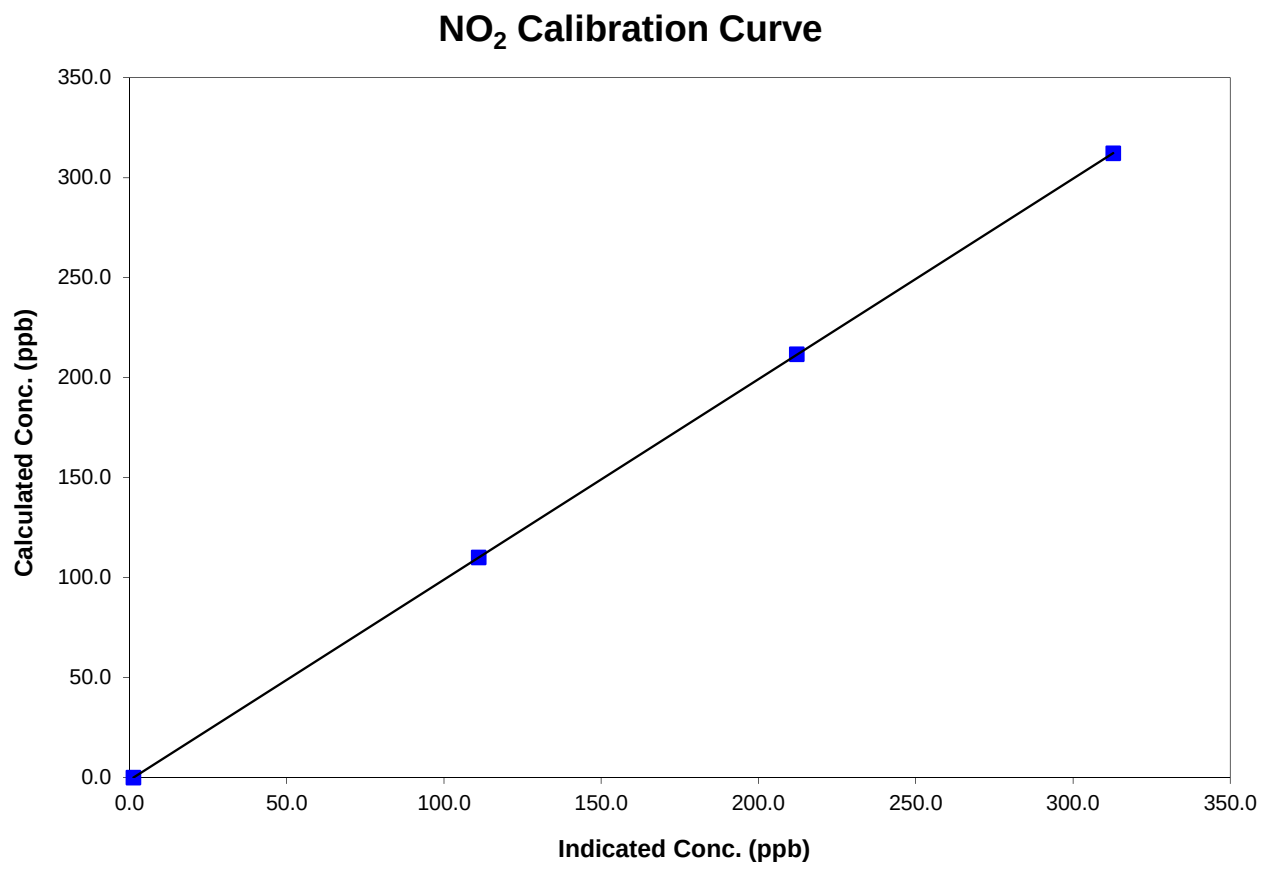
WSP AIR QUALITY MONITORING

Station Information

Calibration Date	May 11 2015	Previous Calibration	April 15 2015
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	8:25	End Time (MST)	12:55
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	1.3	N/A		
312.1	312.8	0.9979	Correlation Coefficient	0.999998
211.7	212.2	0.9977		
110.0	111.1	0.9905	Slope	1.002433
			Intercept	-1.259960



Calibration Summary

Parameter **NO_x**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

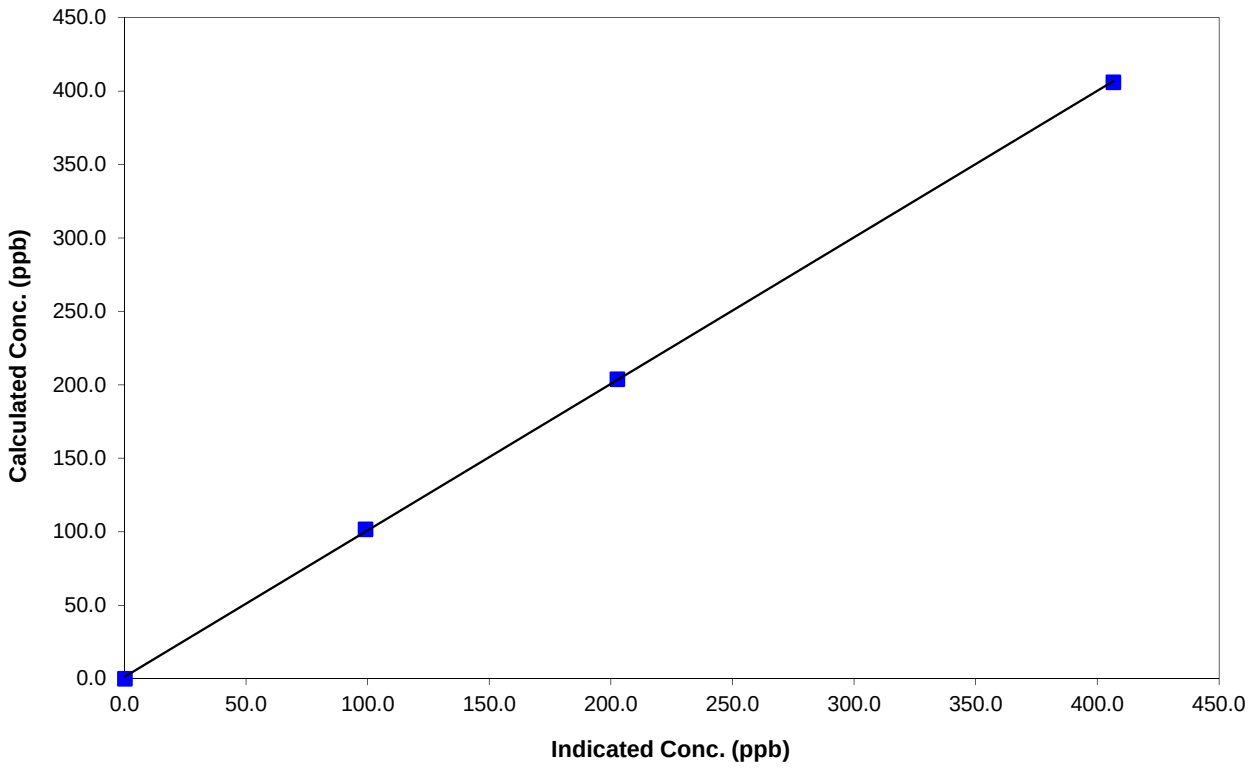
Station Information

Calibration Date	May 11 2015	Previous Calibration	April 15 2015
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	8:25	End Time (MST)	12:55
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		
405.9	406.6	0.9985	Correlation Coefficient	0.999947
203.8	202.6	1.0058		
101.6	99.2	1.0244	Slope	0.996989
			Intercept	1.243979

NOx Calibration Curve



Calibration Summary

Parameter **NO**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

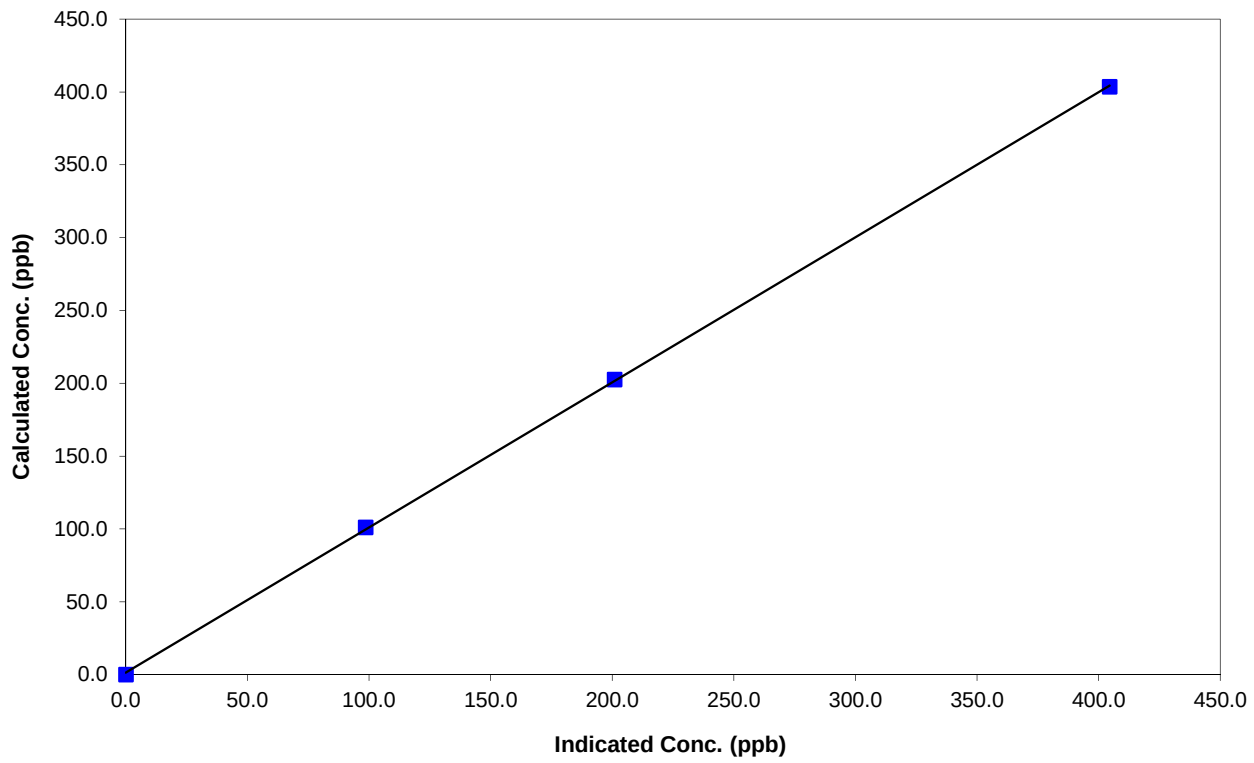
Station Information

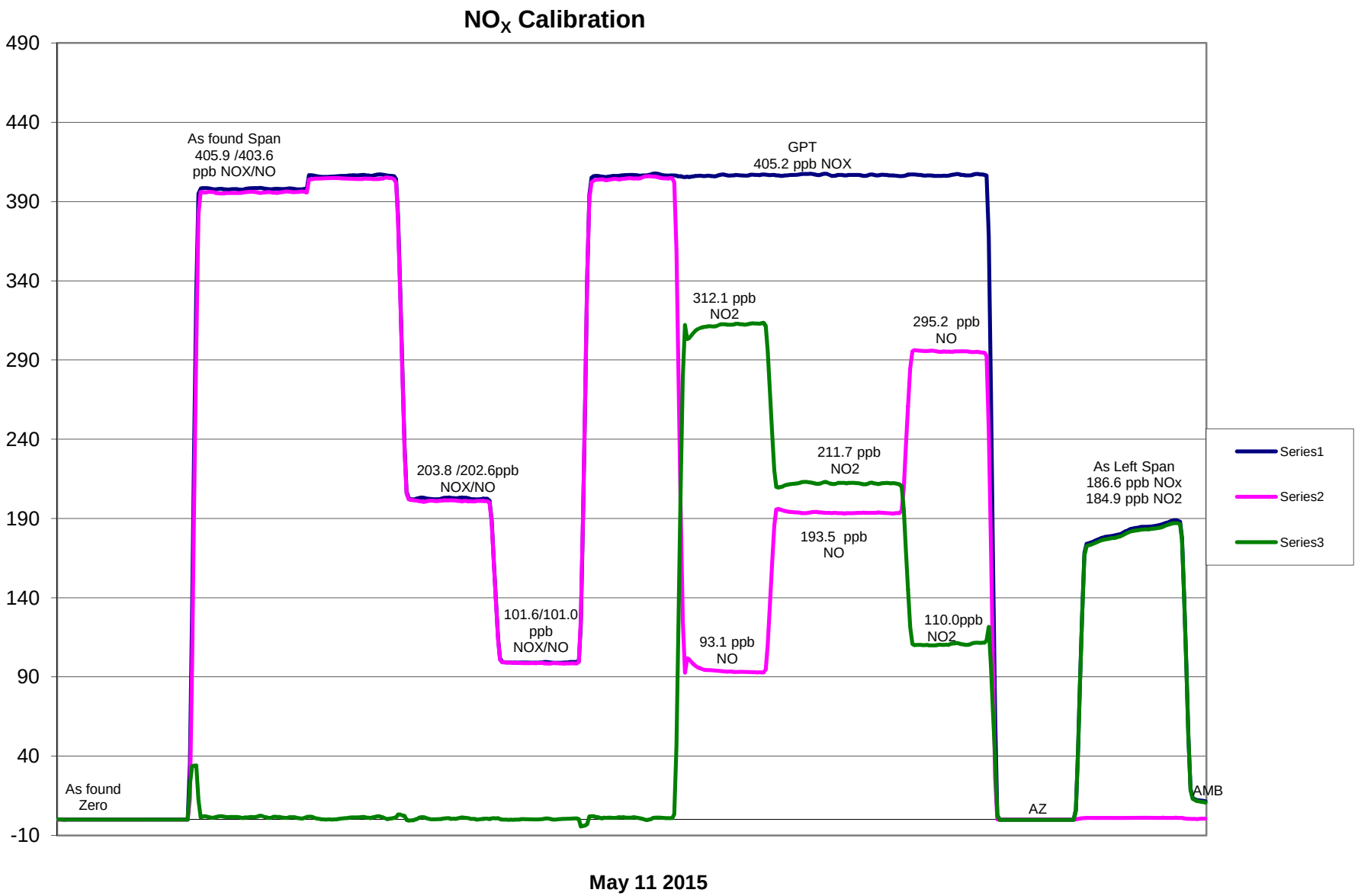
Calibration Date	May 11 2015	Previous Calibration	April 15 2015
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	8:25	End Time (MST)	12:55
Analyzer make	TEI 42i	Analyzer serial #	906535068

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A		
403.6	404.5	0.9978	Correlation Coefficient	0.999939
202.6	201.0	1.0078		
101.0	98.6	1.0244	Slope	0.996177
			Intercept	1.431166

NO Calibration Curve




NOx Calibration
490
440
390
340
290
240
190
140
90
40
-10
As found Span
405.9 /403.6
ppb NOX/NO
GPT
405.2 ppb NOX
312.1 ppb
NO2
295.2 ppb
NO
203.8 /202.6ppb
NOX/NO
211.7 ppb
NO2
As Left Span
186.6 ppb NOx
184.9 ppb NO2
193.5 ppb
NO
101.6/101.0
ppb
NOX/NO
110.0ppb
NO2
93.1 ppb
NO
As found
Zero
AZ
AMB
Series1
Series2
Series3
May 11 2015

Calibration Report

Parameter **O3**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	May 11, 2014	Previous Calibration	March 15, 2014
Station Number	4	Station Location	Beaverlodge
Reason: Routine	Install	Removal	Other:
Start Time (MST)	11:50	End Time (MST)	14:40:00 PM
Barometric Pressure	0.925 atm	Station Temperature	20.0 Deg C
Calibrator	Environics	Serial Number	3016
Cal Gas Concentration	NA	Cal Gas Expiry Date	NA
DACS make	CR3000	DACS serial No.	5237
DACS voltage range	0 - 5 volt	DACS channel #	9
	Before		After
Calculated slope	1.002267	Calculated slope	1.000481
Calculated intercept	-0.036036	Calculated intercept	0.152382
Analyzer make	Teco 49i	Analyzer serial #	1136451236,AMU 1879

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
offset	-0.30	ppb	-0.30	ppb
slope	1.098		1.070	
Lamp temp	53.8	mV	53.8	mV
Lamp Intensity A/B	62020/66293	mV	62058/66319	mV
Pressure	682.7	mm Hg	683.6	mm Hg
Flow A	0.767	LPM	0.769	LPM
Flow B	0.742	LPM	0.745	LPM

Calibration Data

Dilution air flow rate (cc/min)	Calibrator Setting	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
5035	0.00	0.0	0.4	N/A
5035	0.30	312.1	312.7	0.9980
5035	0.20	211.7	210.2	1.0072
5035	0.10	110.0	109.5	1.0043
5035	0.00	0.0	0.4	As found zero
5035	0.30	312.1	322.7	As found span
			Average Correction Factor	1.0032

Calculated value of As Found Response: 323.0 ppm Percent Change of As Found: 3.5%

	before calibration		after calibration	
Auto zero	0.7	ppb	0.5	ppb
Auto span	277.4	ppb	274.4	ppb

Notes: Span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **O3**

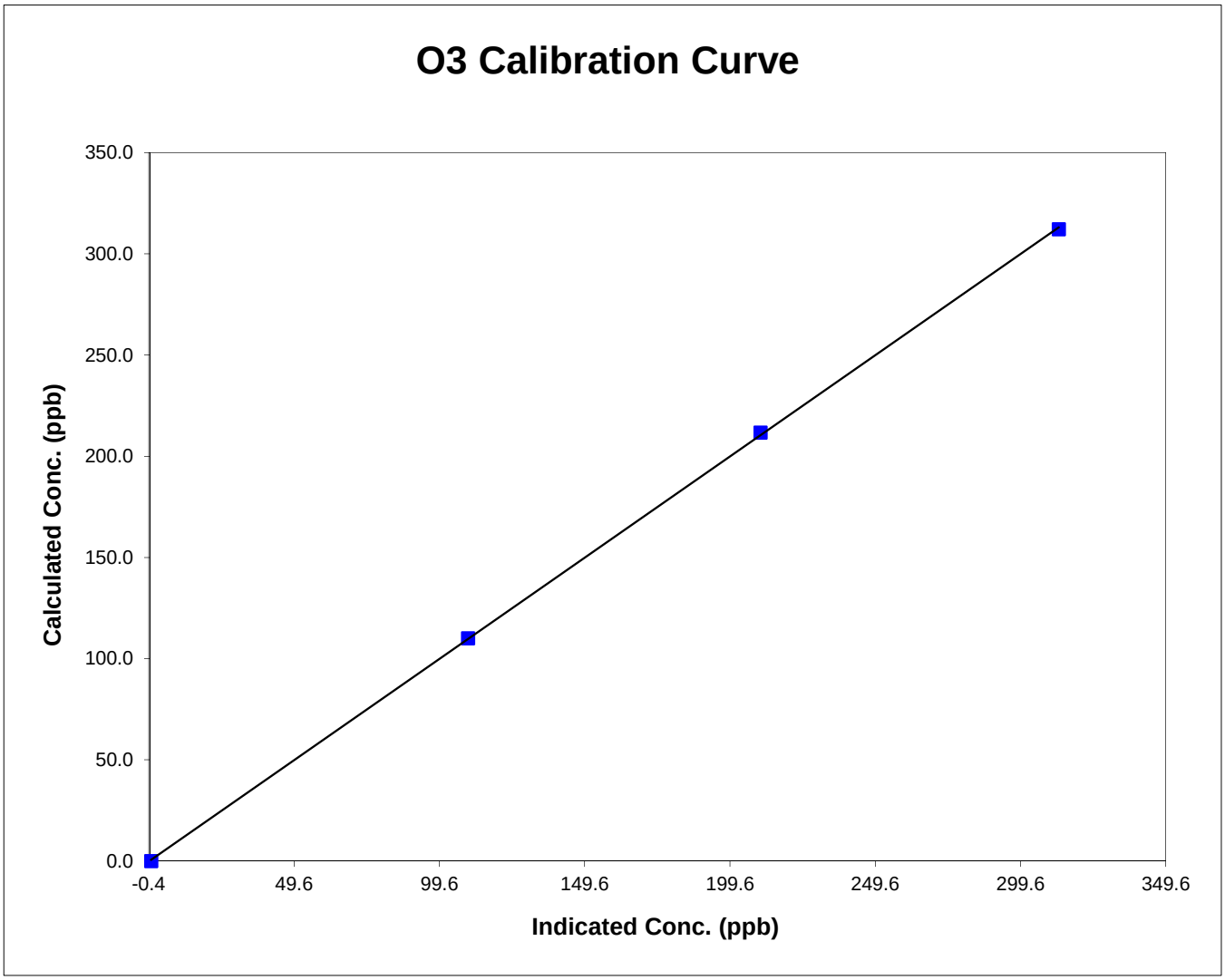
Air Monitoring Network **PAZA**

Station Information

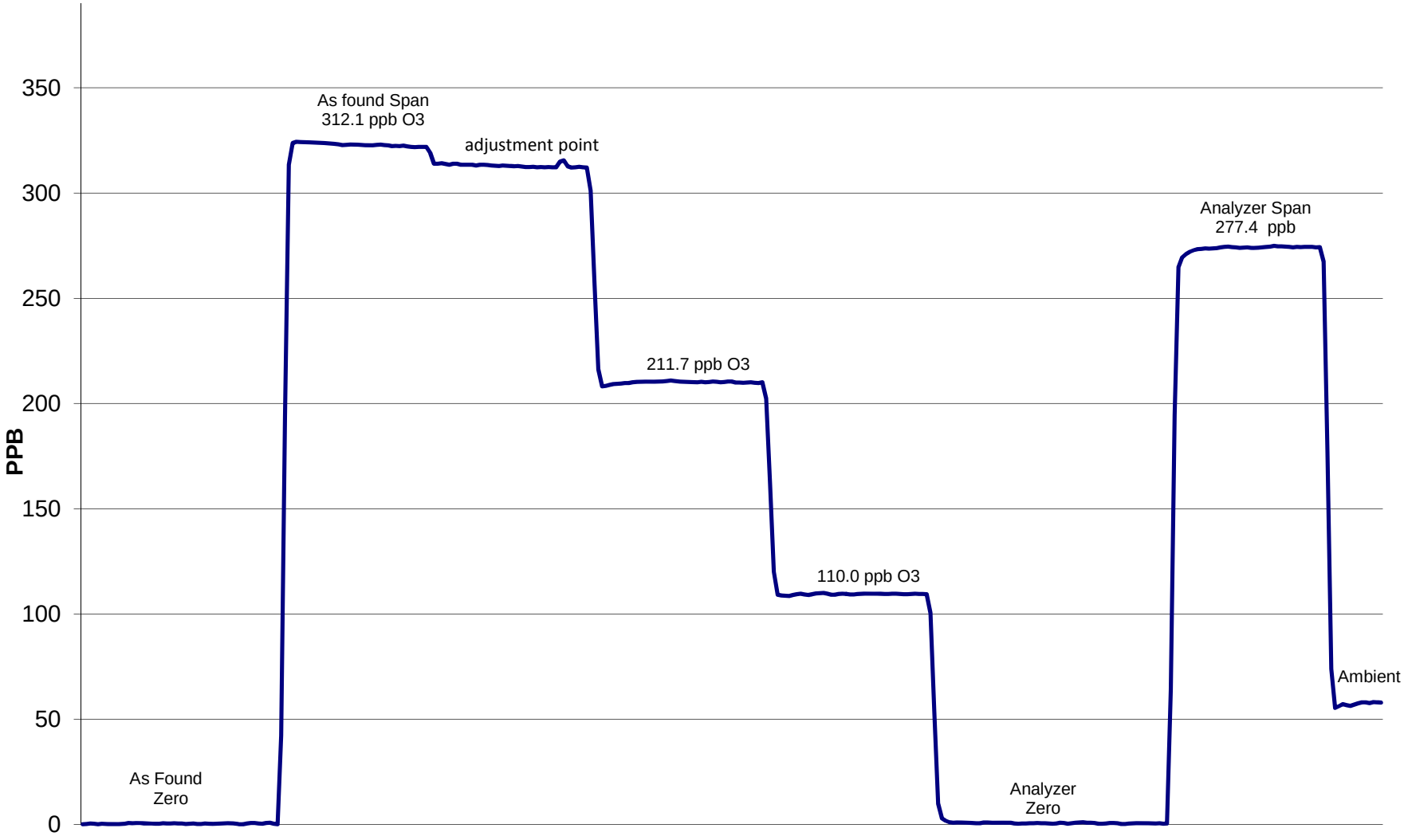
Calibration Date	May 11, 2014	Previous Calibration	March 15, 2014
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	11:50	End Time (MST)	14:40:00 PM
Analyzer make/model	Teco 49i	Analyzer serial #	1136451236,AMU 1879

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.4	NA		
312.1	312.7	0.9980	Correlation Coefficient	0.999947
211.7	210.2	1.0072		
110.0	109.5	1.0043	Slope	1.000481
			Intercept	0.152382



O3 Calibration



May 11, 2014

Calibration Report

Parameter **SO_2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	May 26, 2015	Previous Calibration	April 14, 2015
Station Number	3	Station Location	Smokey Heights
Reason: Routine	Install	Removal	Other:

Start Time (MST)	10:20	End Time (MST)	13:20:00 PM
Barometric Pressure	0.921 ATM	Station Temperature	20.0 Deg C
Calibrator	Environics	Serial Number	3016
Cal Gas Concentratior	49.8 ppm	Cal Gas Cert Date	20/01/2016
Correction factor	0.031307	Cal Gas Cylinder #	LL1105159
DACS make	CR3000	DACS serial No.	5238
DACS voltage range	0 - 5 volt	DACS channel #	6
	Before		After
Calculated slope	1.000124	Calculated slope	0.989004
Calculated intercept	1.397222	Calculated intercept	1.801873

Analyzer make	Teco 43i	Analyzer serial #	701120009

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	11.9		11.8	
coefficient	0.934		0.934	
Lamp Voltage	932	volts	936	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	671.1	mm Hg	671.1	mm Hg
Sample Flow	0.449	lpm	0.449	lpm
Lamp Intensity	88	%	88	%

Calibration Data

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.0	0.00	0.5	N/A
4995	39.93	394.94	398.7	0.9905
4995	19.97	198.31	197.3	1.0053
4995	9.97	99.20	96.4	1.0291
4995	0.0	0.00	0.5	As Found Zero
4995	39.93	394.94	398.7	As Found Span
			Average Correction Factor	1.0083

Calculated value of As Found Response: 399.681 ppm Percent Change of As Found: -1.2%

	before calibration		after calibration	
Auto zero	0.5	ppb	0.5	ppb
Auto span	251.1	ppb	250.5	ppb

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **SO2**

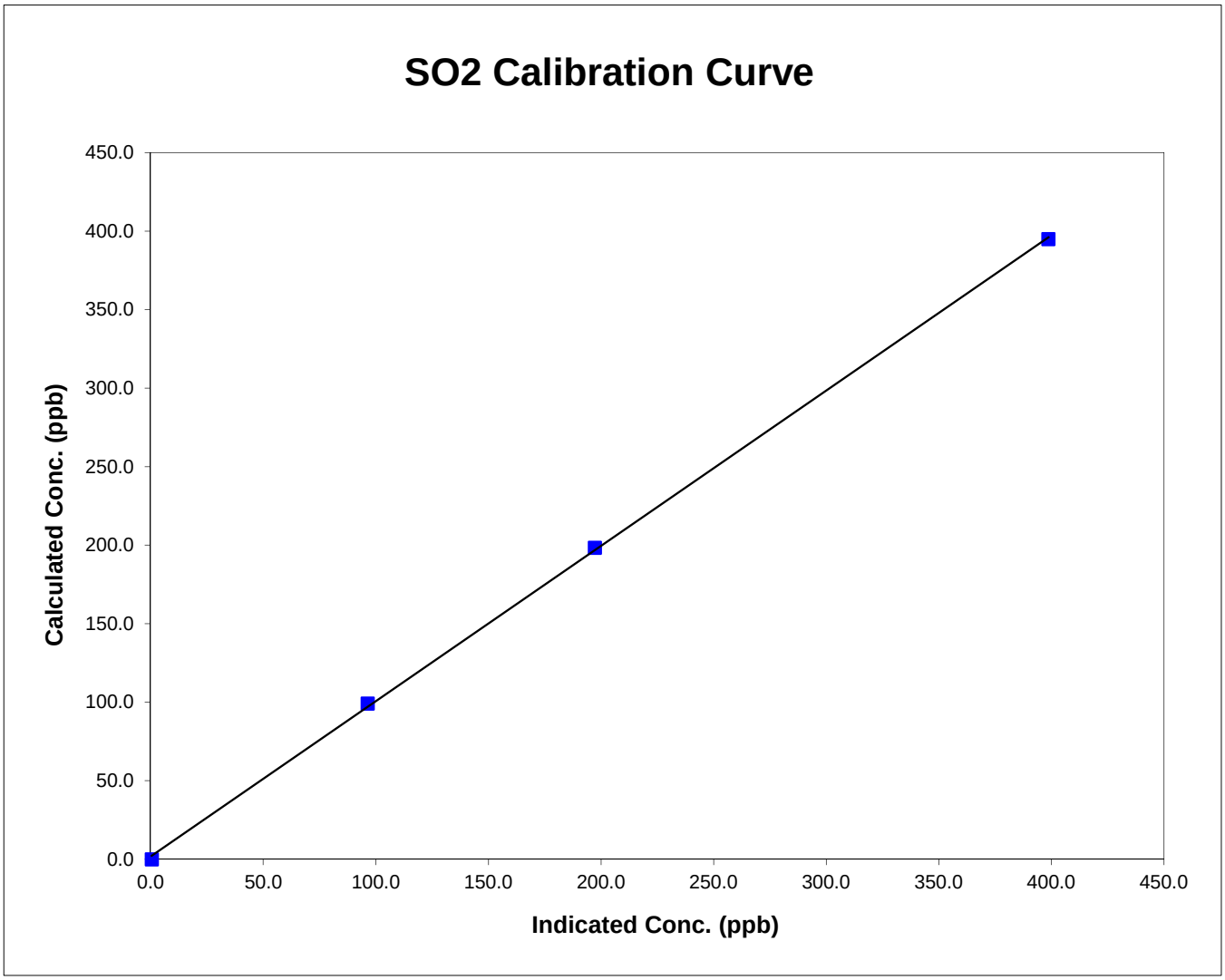
Air Monitoring Network **PAZA**

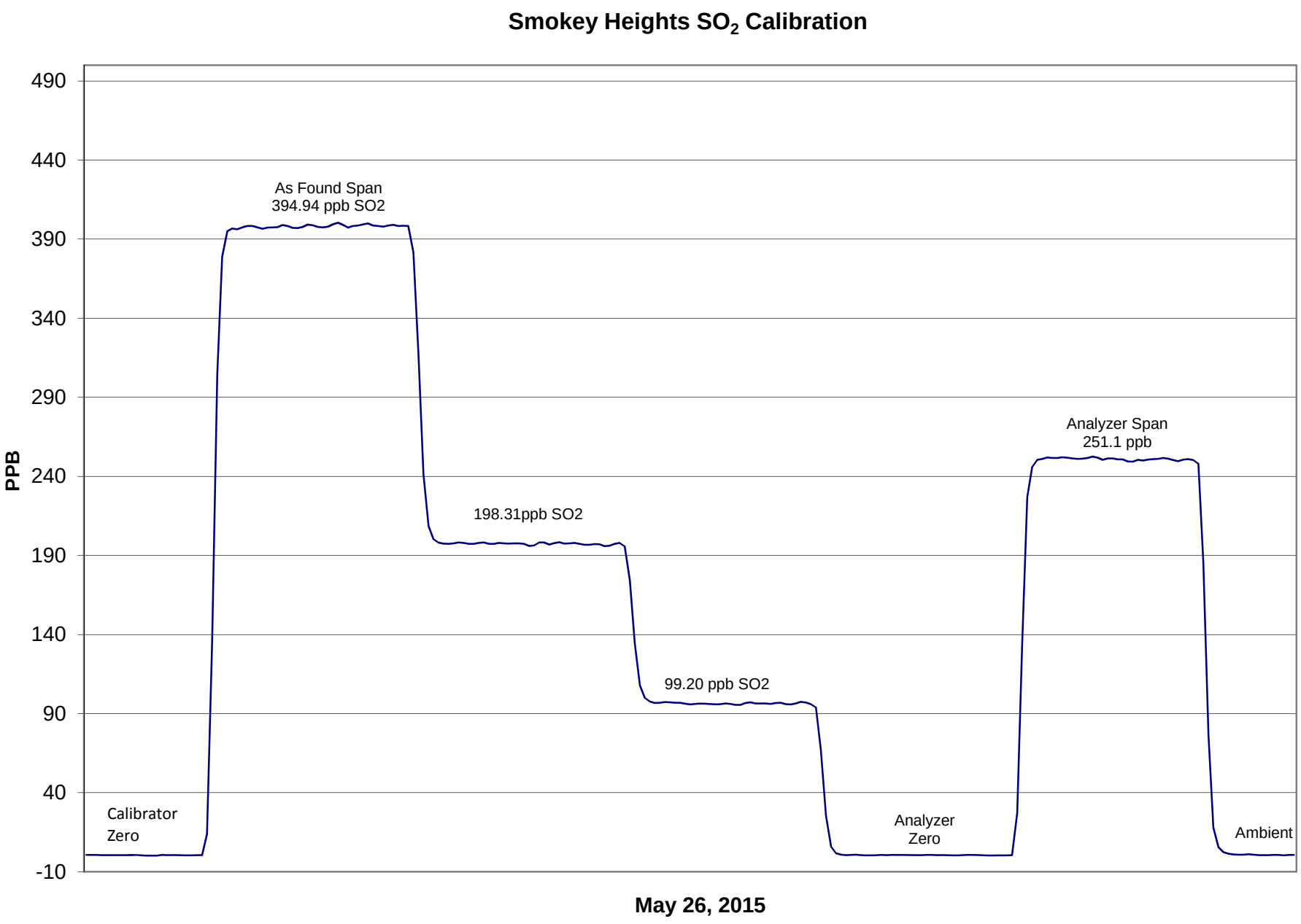
Station Information

Calibration Date	May 26, 2015	Previous Calibration	April 14, 2015
Station Number	3	Station Location	Smokey Heights
Start Time (MST)	10:20	End Time (MST)	13:20:00 PM
Analyzer make/model	Teco 43i	Analyzer serial #	701120009

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.5	N/A		
394.9	398.7	0.9905	Correlation Coefficient	0.999849
198.3	197.3	1.0053		
99.2	96.4	1.0291	Slope	0.989004
			Intercept	1.801873




Smokey Heights SO_2 Calibration
490
440
390
340
290
240
190
140
90
40
-10
PPB
As Found Span
394.94 ppb SO2
198.31ppb SO2
99.20 ppb SO2
Analyzer Span
251.1 ppb
Calibrator
Zero
Analyzer
Zero
Ambient
May 26, 2015

Calibration Report

Parameter **TRS**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	May 26, 2015	Previous Calibration	April 14, 2015
Station Number	3	Station Location	Smokey Heights
Reason: Routine	Install	Removal	Other:
Start Time (MST)	8:40	End Time (MST)	12:00
Barometric Pressure	0.927 ATM	Station Temperature	20.0 Deg C
Calibrator	Environics	Serial Number	2844
Cal Gas Conc	10.32 ppm	Cal Gas Expiry Date	08/07/2016
Correction factor	0.031511	Cal Gas Cylinder #	BLM00586
DACS make	CR3000	DACS serial No.	5238
DACS voltage range	0 - 5 volt	DACS channel #	5
	Before		After
Calculated slope	0.989682	Calculated slope	0.996350
Calculated intercept	0.251606	Calculated intercept	0.342455
Analyzer make	TEI Model 43C	Analyzer serial #	0436610005

	before		after	
Concentration range	100	ppb	100	ppb
Background	20.2	ppb	20.7	ppb
coefficient	1.003		1.003	
Lamp Voltage	850	volts	850	volts
Chamber Temp	43.9	Deg C	43.9	Deg C
Perm Gas Temp	45	Deg C	45.01	Deg C
Pressure	609.4	mm Hg	589.5	mm Hg
Sample Flow	0.632	lpm	0.628	lpm
Lamp Intensity	34,859	mv	34,484	mv

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.0	0.00	0.4	N/A
4995	39.93	81.84	82.2	0.9959
4995	19.97	41.10	40.3	1.0197
6995	9.97	14.69	13.9	1.0590
4995	9.97		1.0	Sox test
4995	0.0	0.00	0.4	As Found Zero
4995	39.93	81.84	82.2	As Found Span
			Average Correction Factor	1.0249

Calculated value of As Found Response: 81.18 ppm Percent Change of As Found: 0.8%

	before calibration		after calibration	
Auto zero	0.2	ppm	0.6	ppm
Auto span	32.6	ppm	32.3	ppm

Notes: No adjustment made
Backround value raised even though no adjustment was made from 20.2 to 20.7

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **TRS**

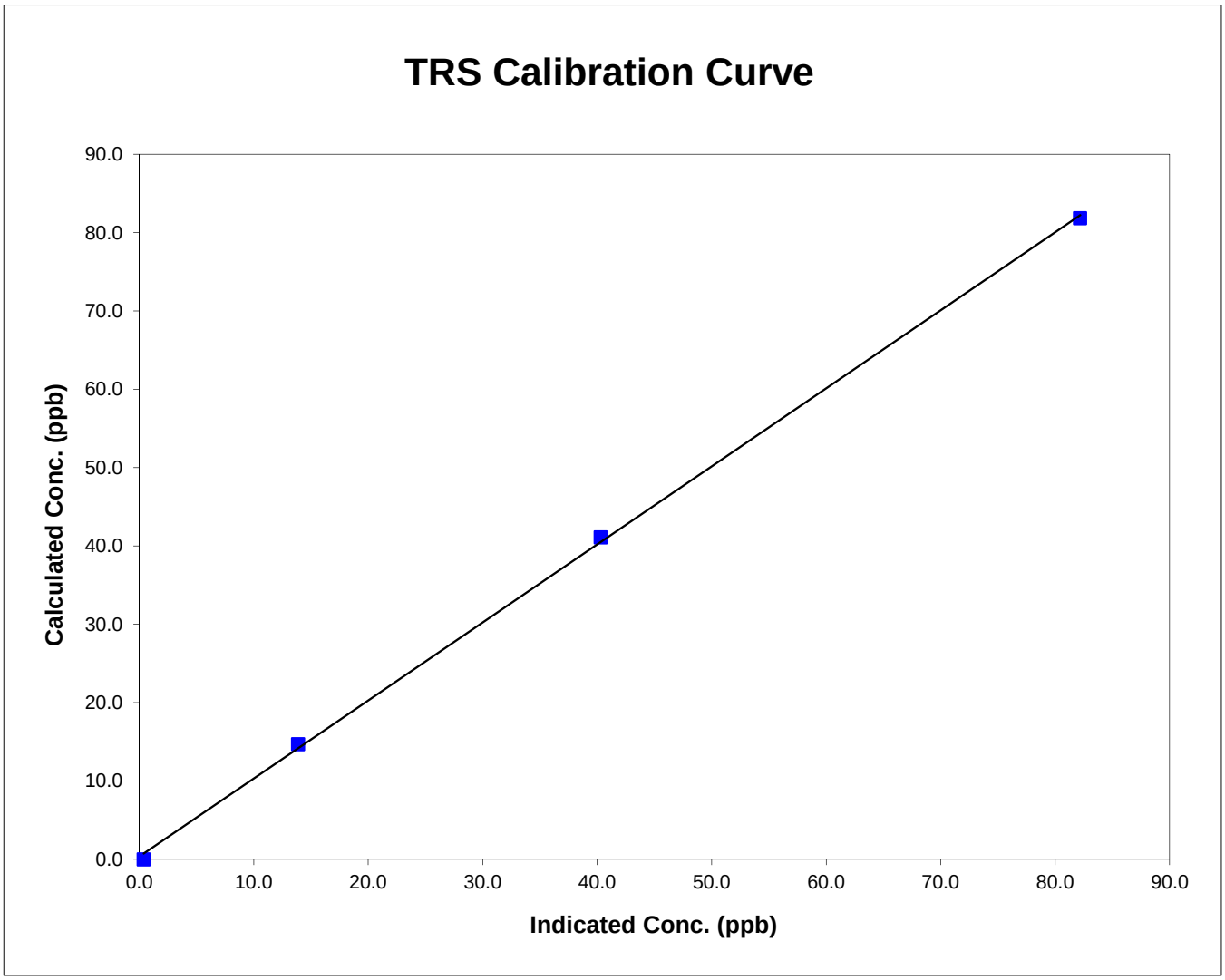
Air Monitoring Network **PAZA**

Station Information

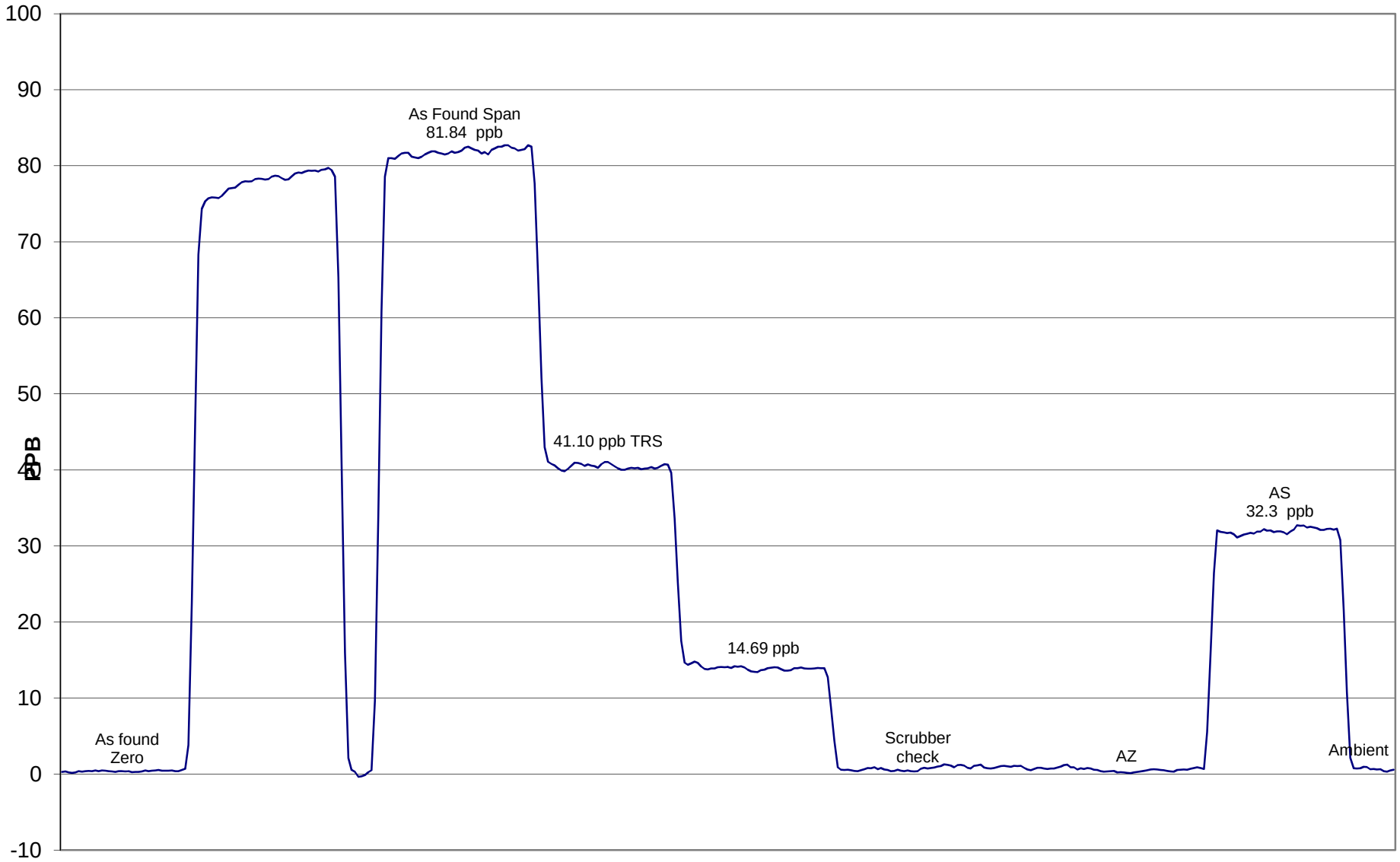
Calibration Date	May 26, 2015	Previous Calibration	April 14, 2015
Station Number	3	Station Location	Smokey Heights
Start Time (MST)	8:40	End Time (MST)	12:00
Analyzer make/model	TEI Model 43C	Analyzer serial #	0436610005

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.4	N/A		
81.8	82.2	0.9959	Correlation Coefficient	0.999654
41.1	40.3	1.0197		
14.7	13.9	1.0590	Slope	0.996350
			Intercept	0.342455



Smokey Heights TRS Calibration



May 26, 2015

SHARP 5030 PM2.5 Calibration

WSP
AIR QUALITY MONITORING

STATION:	Smokey Heights	OPERATOR:	Grover Christiansen/Dmytro
LOCATION:	Smokey Heights	DATE:	May 29 2015
START TIME (MST):	8:00	END TIME (MST):	11:00

MONITOR INFO / PARAMETER VALUES:

Make/Model	SHARP 5030	Audit Device Model	Delta cal
Configuration	PM 2.5	Audit Device S/N	AMU 2024
Serial Number	CM-0271	Certification Date	16-May-15

AUDIT / CALIBRATION RESULTS:

		Ambient Temp. ($^{\circ}$ C)	Ambient Pres. (mbar)	Leak Check (L/min)	Flow Rate (lpm)	Time settings (hh:mm)
	Audit values (I)	14.3	905	16.67	16.67	10:39
As Found Data	MEASURED (AF)	14.1	906	16.10	16.10	10:40
	AF Difference (AF-I)	-0.2	1	0.57	-0.57	0:01
Adjusted Data	MEASURED (M)	14.1	906	16.65	16.65	10:39
	Adj Difference (M-I)	-0.2	1	-0.02	-0.02	0:01
	LIMITS	*± 4.0 ^{0} C*	*6.7 mbar*	*1.0 L/min*	*± 1.0 L/min*	*±2 min*

Sample Head Inspect/Cleaning: Cleaned sample head

Status of sampling tape: 90% full

Nozzle Inspection / cleanliness: Good

COMMENTS: Full installation cal performed.

Foil calibration Old value 6937 New value 7054

Nephelometer zero. Analog as found = 0.0

AB TEOM PM2.5 Calibration

WSP
AIR QUALITY MONITORING

STATION: **Smokey Heights**

LOCATION: PASZA - Grande Prairie

OPERATOR: Grover Christiansen

DATE: 29-May-15

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	
Previous Calibration	27-Oct-14

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	0.020	0.000
PUMP OFF	0.000	-0.120
NET	0.020	0.120
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	13.68	3.000
	INDICATED (I)	14.7	0.935		13.68	3.000
As Found Data	MEASURED (AF)	14.3	0.934		13.62	3.060
Adjusted Data	MEASURED (M)	14.3	0.934	12240	13.62	3.060
	DIFFERENCE (M-I)	-0.4	-0.001	1.0%	-0.06	0.06
	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

Flows & leak checks were performed.

Heads were cleaned

Remove TEOM from site.

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

Calibration Report

Parameter **SO2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	May 20 2015	Previous Calibration	April 16 2015
Station Number	6	Station Location	Valleyview
Reason:	Routine / Install	Removal	Other:
Start Time (MST)	10:50	End Time (MST)	13:00:00 PM
Barometric Pressure	0.931 atm	Station Temperature	21.5 Deg C
Calibrator	Environics	Serial Number	3016
Cal Gas Concentratior	49.8 ppm	Cal Gas Exp Date	March 10, 2017
Gas Cylinder Num.	LL119493		
DACS make	CR3000	DACS serial No.	5409
DACS voltage range	0 - 5 volt	DACS channel #	4
	Before		After
DACS Scale High	500	DACS slope	500
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.987096	Calculated slope	0.988743
Calculated intercept	1.852175	Calculated intercept	2.016515
Analyzer make	TEI 43C	Analyzer serial #	609716239

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Background	15.5		15.6	
Coefficient	1.017		1.017	
UV Lamp Voltage	738	LPM	739	LPM
Chamber Temp	43	V	42.9	V
Perm Gas Temp	45	C	45	C
Pressure	675.3	in Hg	674.4	in Hg
Sample Flow	0.487	LPM	0.488	LPM
Lamp Intensity	47639	Hz	47663	Hz

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.0	0.1	N/A
4995	39.93	394.9	398.6	0.9907
4995	19.97	198.3	196.8	1.0075
4995	9.95	99.0	96.4	1.0266
4995	0.00	0.0	0.1	As found zero
4995	39.93	394.9	398.6	As found span
			Average Correction Factor	1.0083

Calculated value of As Found Response: 395.3 ppm Percent Change of As Found: -0.1%

	before calibration		after calibration	
Auto zero	-0.1	ppm	0.0	ppm
Auto span	279.2	ppm	275.9	ppm

Notes: No adjustment

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **SO2**

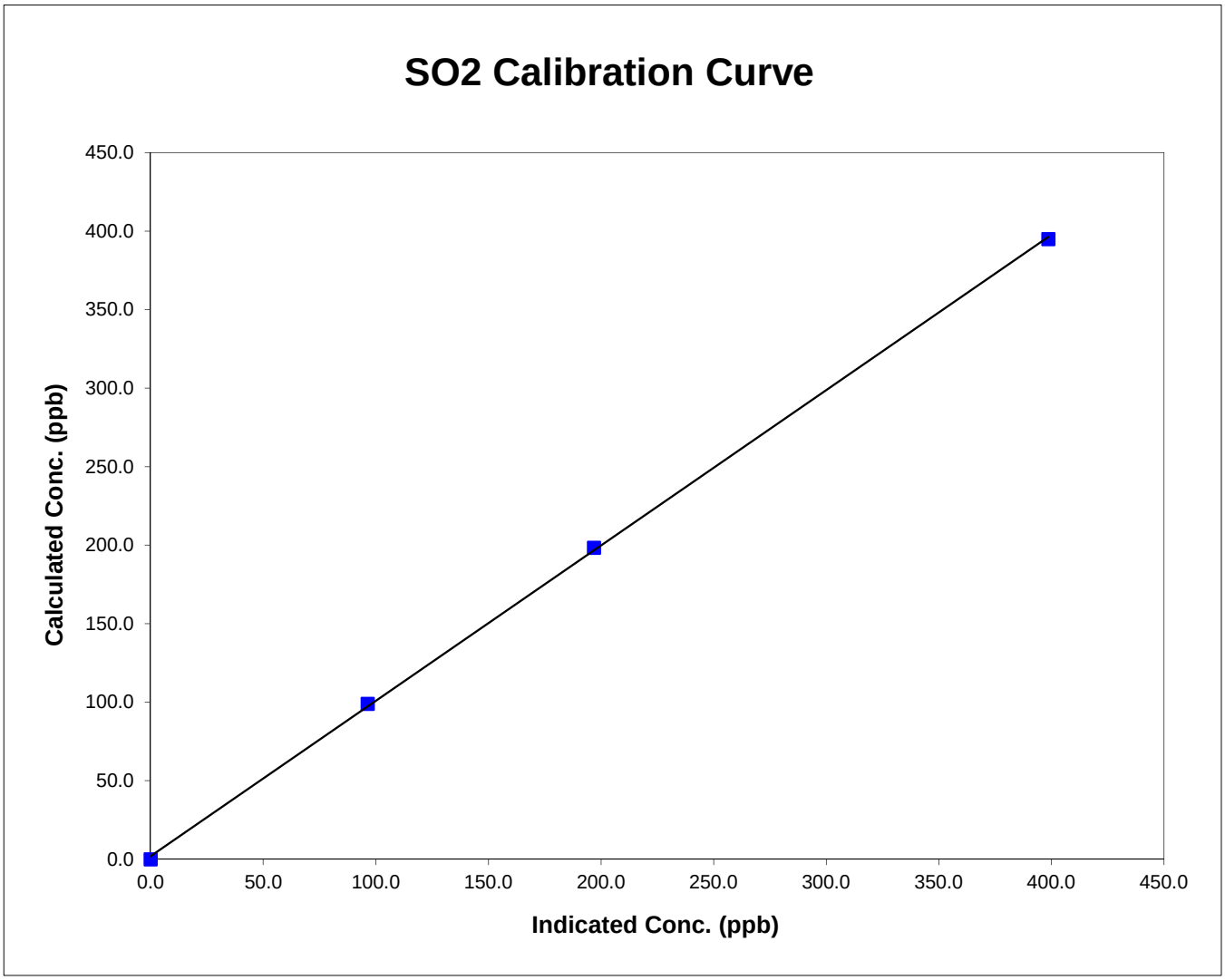
Air Monitoring Network **PAZA**

Station Information

Calibration Date	May 20 2015	Previous Calibration	April 16 2015
Station Number	6	Station Location	Valleyview
Start Time (MST)	10:50	End Time (MST)	13:00:00 PM
Analyzer make/model	TEI 43C	Analyzer serial #	609716239

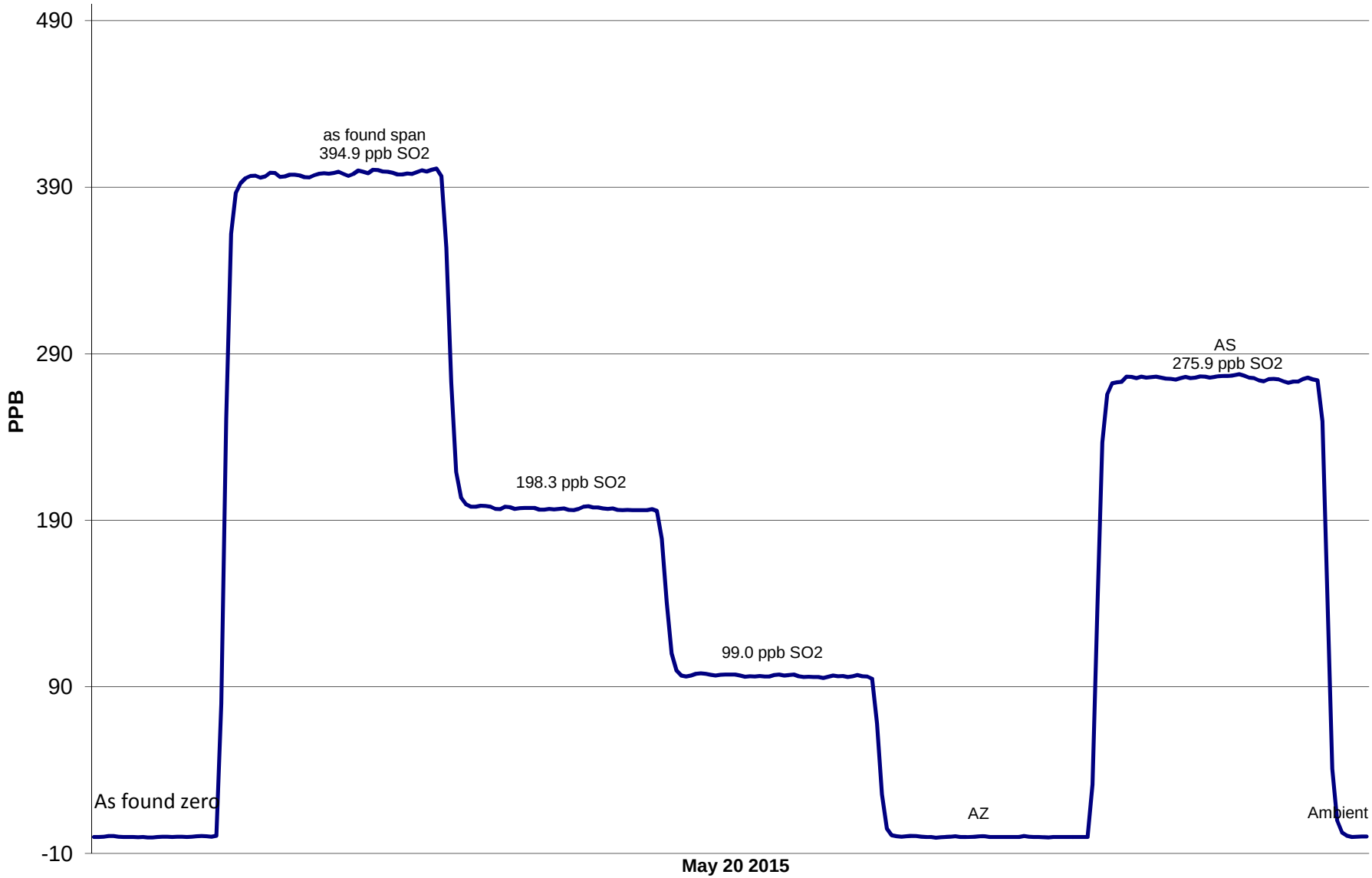
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A		
394.9	398.6	0.9907	Correlation Coefficient	0.999868
198.3	196.8	1.0075		
99.0	96.4	1.0266	Slope	0.988743
			Intercept	2.016515



AZ

SO2 Calibration



Calibration Report

Parameter **H2S**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	May 20 2015	Previous Calibration	April 16 2015
Station Number	6	Station Location	Valleyview
Reason: Routine	Install	Removal	Other:
Start Time (MST)	9:10	End Time (MST)	11:45
Barometric Pressure	0.931 atm	Station Temperature	21.5 Deg C
Calibrator	Environics	Serial Number	3016
Cal Gas Concentratior	10.32 ppm	Cal Gas Expiry Date	July 03 2016
Gas Cert Reference	LL110781		
DACS make	CR3000	DACS serial No.	5409
DACS voltage range	0 - 5 volt	DACS channel #	9
	Before		After
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.995272	Calculated slope	0.988676
Calculated intercept	-0.002956	Calculated intercept	0.036474
Analyzer make	TEI Model 43i - APSCB	Analyzer serial #	701120010

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Back Ground	7.5	ppb	7.5	ppb
Coefficient	0.888		0.888	
Lamp Voltage	789	V	789	V
Chamber Temp	45	c	45	c
Perm Oven Temp	44.96	c	45	c
Pressure	566.20	mm Hg	564.60	mm Hg
Sample Flow	0.387	ccm	0.387	lpm
Lamp Intensity	91	%	91	%

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.0	0.4	N/A
4997	39.91	81.8	82.9	0.9860
4997	19.94	41.0	41.0	1.0004
6995	9.97	14.7	14.6	1.0068
4997	9.97		2.8	Sox Test
4997	0.00	0.0	0.4	As found zero
4997	39.93	81.8	82.9	As found span
			Average Correction Factor	0.9977

Calculated value of As Found Response: 82.16 ppm Percent Change of As Found: -0.4%

	before calibration		after calibration	
Auto zero	0.4	ppm	0.5	ppm
Auto span	65.8	ppm	66.1	ppm

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **H2S**

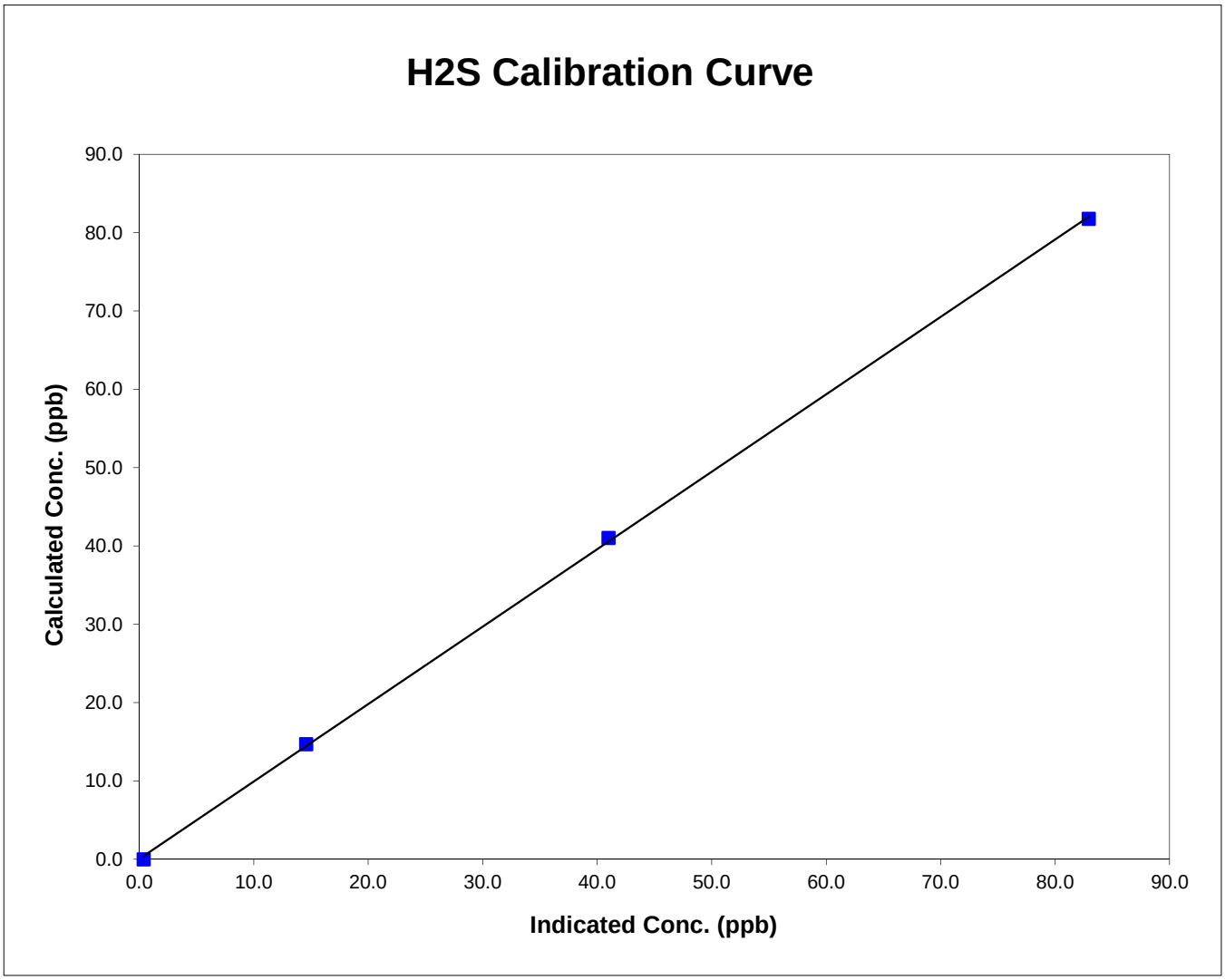
Air Monitoring Network **PAZA**

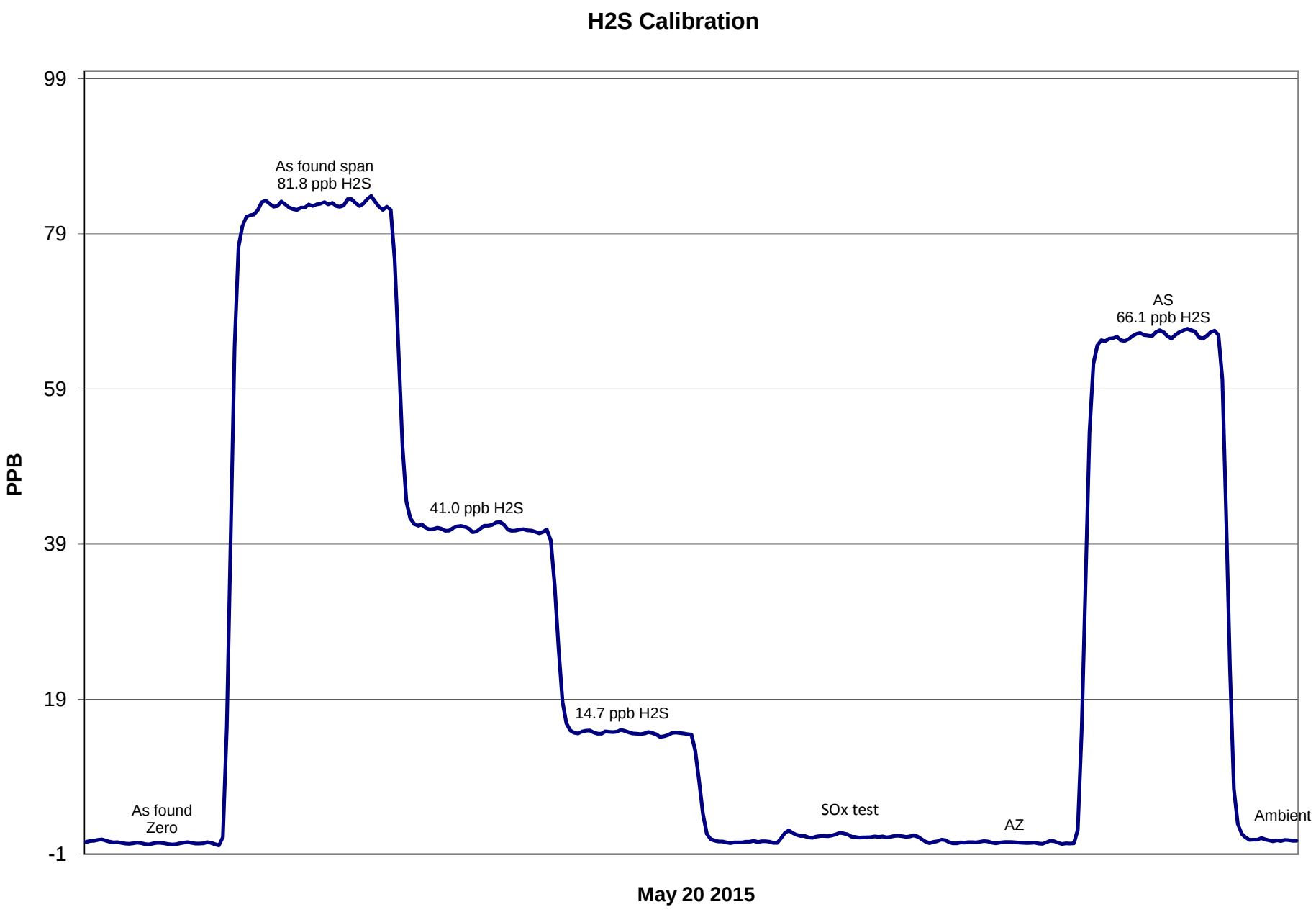
Station Information

Calibration Date	May 20 2015	Previous Calibration	April 16 2015
Station Number	6	Station Location	Valleyview
Start Time (MST)	9:10	End Time (MST)	11:45
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	0.4	N/A		
81.8	82.9	0.9860	Correlation Coefficient	0.999873
41.0	41.0	1.0004		
14.7	14.6	1.0068	Slope	0.988676
			Intercept	0.036474




H2S Calibration
99
79
59
39
19
-1
PPB
As found span
81.8 ppb H2S
41.0 ppb H2S
14.7 ppb H2S
AS
66.1 ppb H2S
As found
Zero
SOx test
AZ
Ambient
May 20 2015

Calibration Report

Parameter **SO_2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	May 13, 2015	Previous Calibration	April 20, 2015
Station Number	1	Station Location	Falher
Reason: Routine	Install	Removal	Other:

Start Time (MST)	11:50	End Time (MST)	14:15:00 PM
Barometric Pressure	0.924 mm	Station Temperature	21.0 Deg C
Calibrator	Environics	Serial Number	3474
Cal Gas Concentration	49.8 ppm	Cal Gas Expiry Date	10/03/2017
Correction factor	0.031303	Cal Gas Cylinder #	LL119493
DACS make	CR1000	DACS serial No.	3980
DACS voltage range	0 - 5 volt	DACS channel #	6
	Before		After
Calculated slope	0.995465	Calculated slope	0.990774
Calculated intercept	1.065723	Calculated intercept	0.841227

Analyzer make	Teco 43i	Analyzer serial #	1207452008

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	6.4		6.4	
coefficient	0.887		0.887	
Lamp Voltage	854	volts	866	volts
Chamber Temp	45.2	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	680	mm Hg	679.4	mm Hg
Sample Flow	0.409	ccm	0.407	ccm
Lamp Intensity	96	%	96	%

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.0	0.00	0.7	N/A
4995	39.93	394.9	398.5	0.9910
4995	19.96	198.2	198.4	0.9991
4995	9.97	99.2	97.8	1.0144
4995	0.0	0.0	0.7	As Found Zero
4995	39.93	394.9	398.5	As Found Span
			Average Correction Factor	1.0015

Calculated value of As Found Response: 397.118 ppm Percent Change of As Found: -0.6%

	before calibration		after calibration	
Auto zero	0.7	ppm	0.7	ppm
Auto span	350.7	ppm	347.2	ppm

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **SO2**

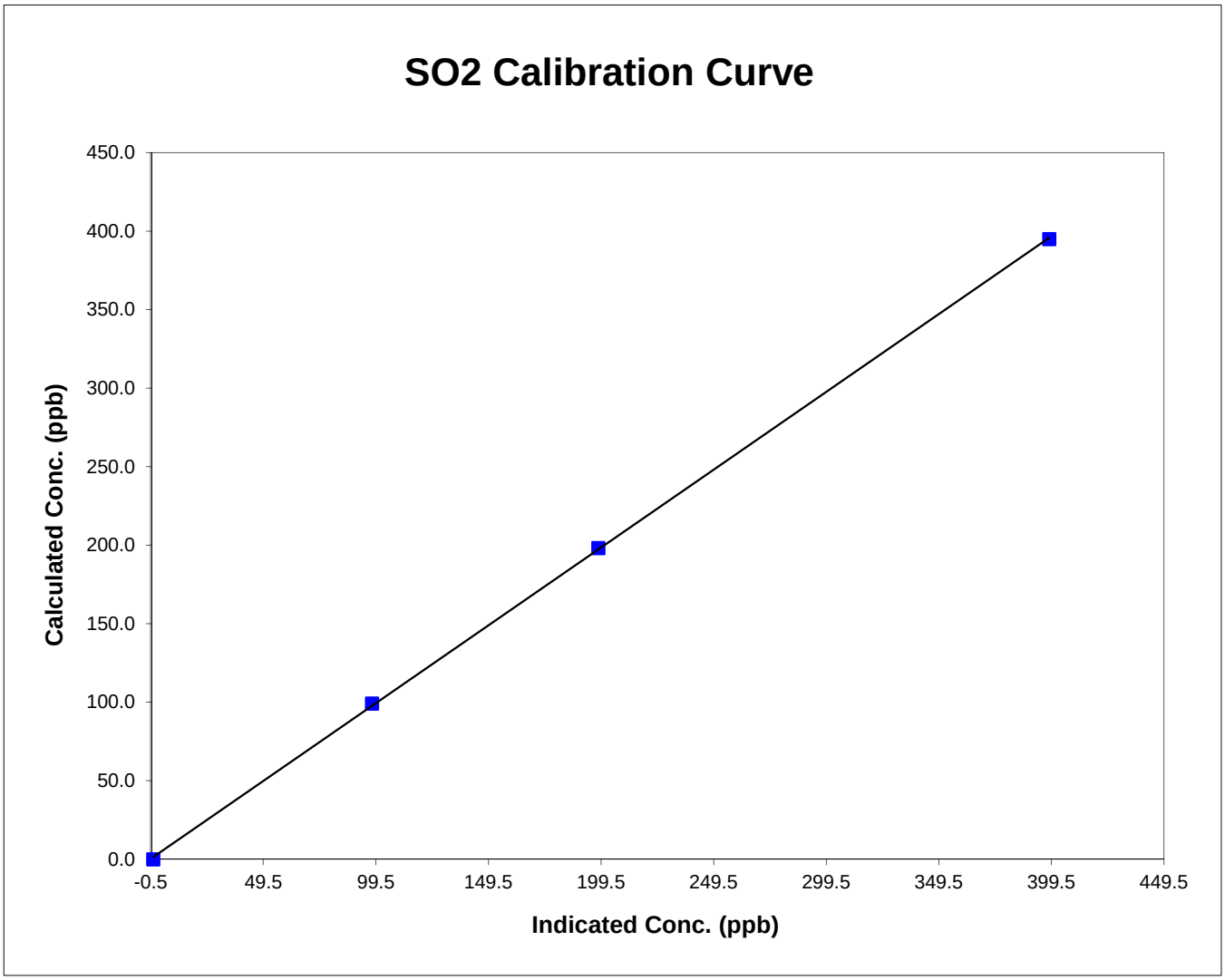
Air Monitoring Network **PAZA**

Station Information

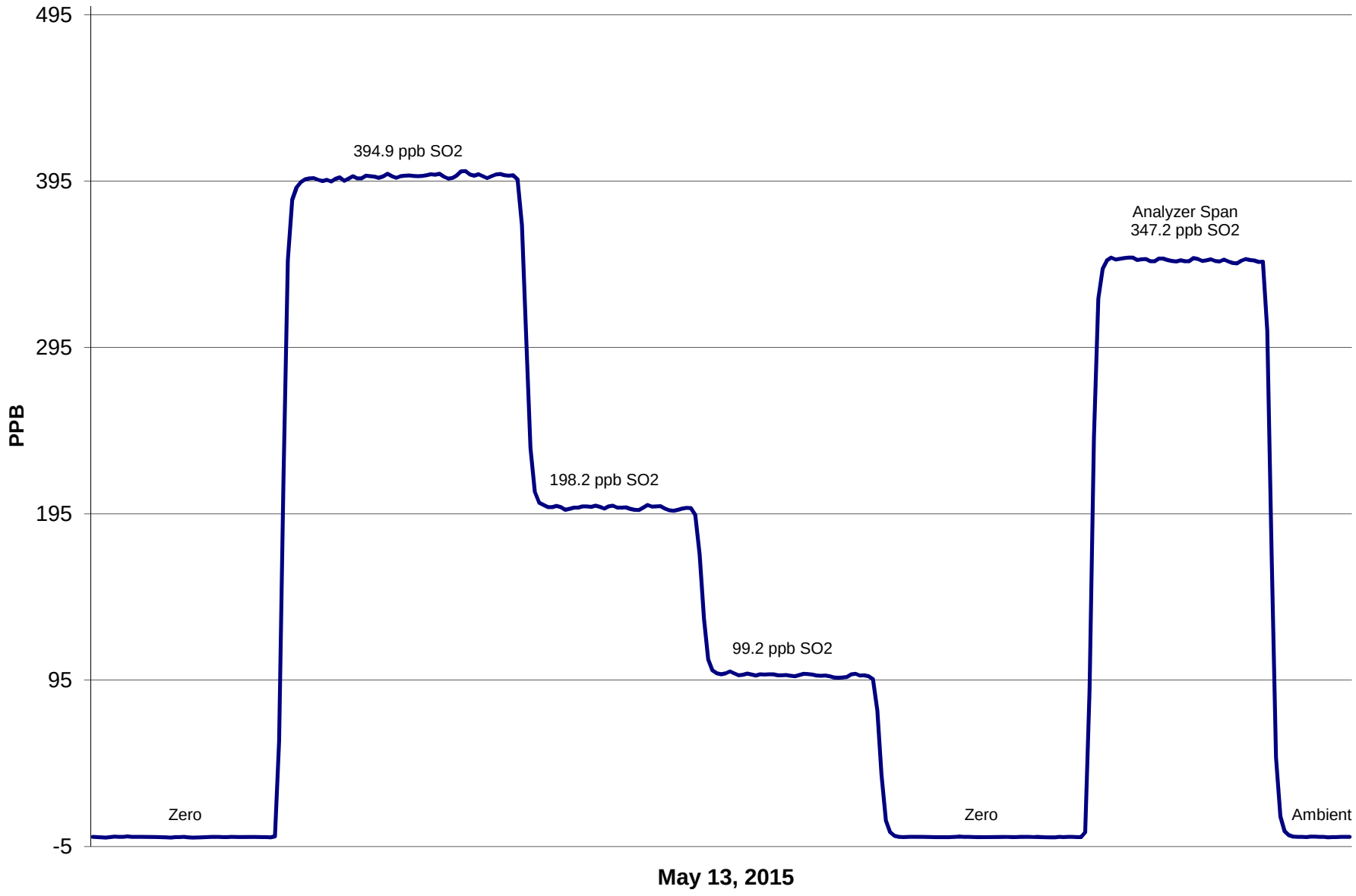
Calibration Date	May 13, 2015	Previous Calibration	April 20, 2015
Station Number	1	Station Location	Falher
Start Time (MST)	11:50	End Time (MST)	14:15:00 PM
Analyzer make/model	Teco 43i	Analyzer serial #	1207452008

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.7	N/A		
394.9	398.5	0.9910	Correlation Coefficient	0.999933
198.2	198.4	0.9991		
99.2	97.8	1.0144	Slope	0.990774
			Intercept	0.841227



SO2 Calibration



Calibration Report

Parameter **H2S**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	May 13, 2015	Previous Calibration	April 20, 2015
Station Number	1	Station Location	Falher
Reason: Routine	Install	Removal	Other:
Start Time (MST)	10:00	End Time (MST)	13:10:00 PM
Barometric Pressure	0.924 mm	Station Temperature	21.0 Deg C
Calibrator	Environics	Serial Number	3016
Cal Gas Conc	10.32 ppm	Cal Gas Expiry Date	08/07/2016
Correction factor	0.031303	Cal Gas Cylinder #	LL110781
DACS make	CR1000	DACS serial No.	3980
DACS voltage range	0 - 5 volt	DACS channel #	5
	Before		After
Calculated slope	0.989594	Calculated slope	0.983296
Calculated intercept	-0.029445	Calculated intercept	-0.155594
Analyzer make	Thermo 450i	Analyzer serial #	1207452006

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	14.5	ppb	14.6	ppb
coefficient	1.117		1.117	
Lamp Voltage	803	volts	808	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	44.99	Deg C
Pressure	537.4	mm Hg	534.3	mm Hg
Sample Flow	0.924	lpm	0.916	lpm
Lamp Intensity	91	mv	90	mv

Calibration Data

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.00	0.4	N/A
4995	39.93	81.84	83.4	0.9808
4995	19.96	41.07	41.9	0.9802
6994	9.97	14.69	14.9	0.9881
4995	0.00	0.00	0.4	As Found Zero
4995	39.93	81.84	83.4	As Found Span
			Average Correction Factor	0.9831

Calculated value of As Found Response: 82.19 ppm Percent Change of As Found: -0.4%

	before calibration		after calibration	
Auto zero	0.3	ppm	0.6	ppm
Auto span	52.9	ppm	53.4	ppm

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **H2S**

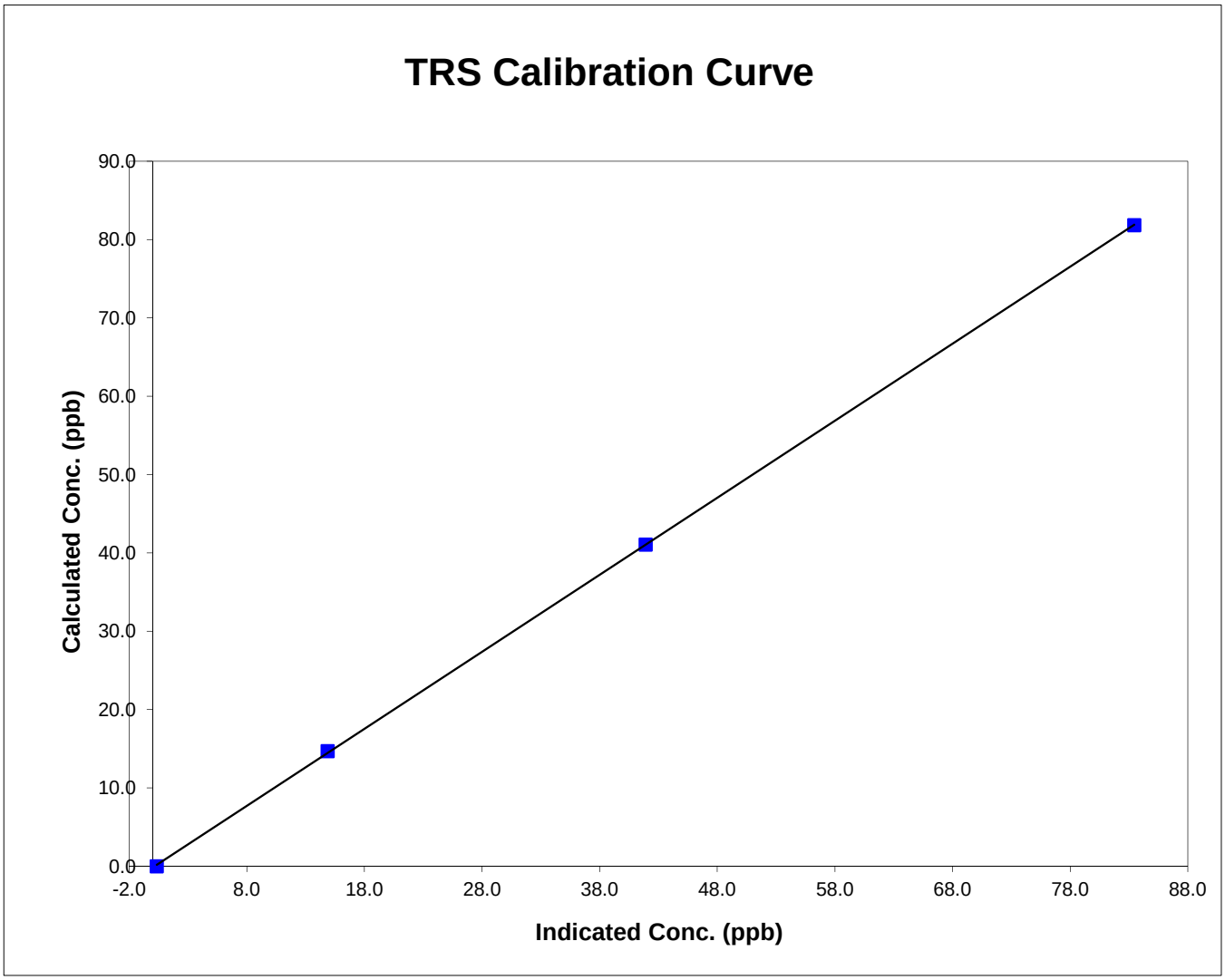
Air Monitoring Network **PAZA**

Station Information

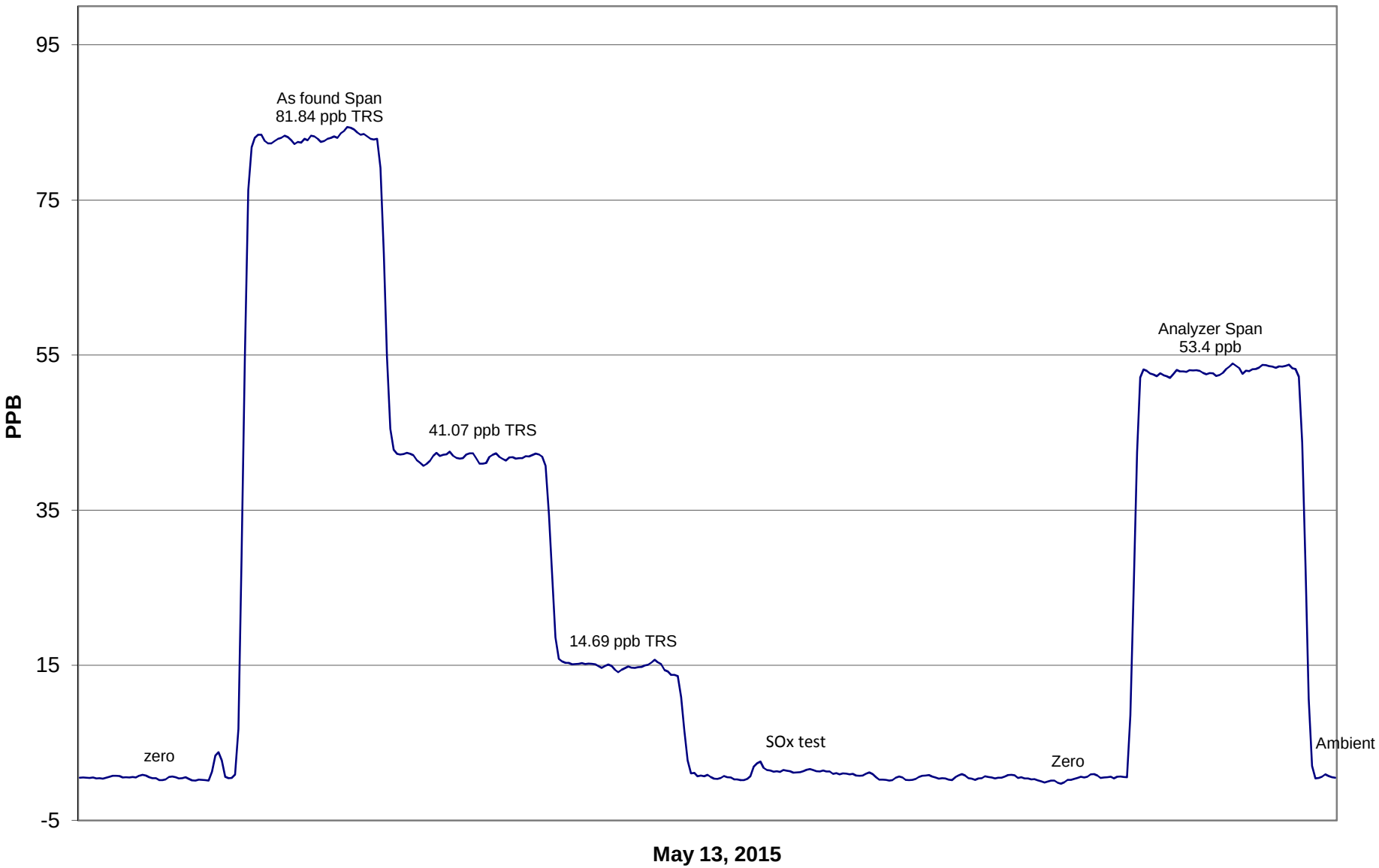
Calibration Date	May 13, 2015	Previous Calibration	April 20, 2015
Station Number	1	Station Location	Falher
Start Time (MST)	10:00	End Time (MST)	13:10:00 PM
Analyzer make/model	Thermo 450i	Analyzer serial #	1207452006

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.4	N/A		
81.8	83.4	0.9808	Correlation Coefficient	0.999975
41.1	41.9	0.9802		
14.7	14.9	0.9881	Slope	0.983296
			Intercept	-0.155594



H2S Calibration



Calibration Report

Parameter **SO2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	May 7, 2015	Previous Calibration	April 9, 2015
Station Number	10	Station Location	Clairmont
Reason: Routine	Install	Removal	Other:
Start Time (MST)	8:25	End Time (MST)	10:25
Barometric Pressure	0.925 Atm	Station Temperature	20.5 Deg C
Calibrator	Environics 6100	Serial Number	3016
Cal Gas Concentration	49.8 ppm	Cal Gas Expiry Date	10/03/2017
Gas Cert Reference	LL119493		
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	0.985117	Calculated slope	0.992929
Calculated intercept	1.907165	Calculated intercept	1.773999
Analyzer make	TEI 43C	Analyzer serial #	436610005

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Background	21.2		21.2	
Coefficient	1.042		1.042	
UV Lamp Voltage	882	V	883	V
Chamber Temp	44.5	C	44.5	C
Perm Gas Temp	45	C	45	C
Pressure	674.5	mm Hg	671.5	mm Hg
Sample Flow	0.465	LPM	0.465	LPM
Lamp Intesity	30507	Hz	31126	Hz

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.0	0.5	N/A
4995	39.93	394.9	397.2	0.9944
4995	19.97	198.3	196.5	1.0092
4995	9.97	99.2	96.0	1.0330
4995	0.00	0.0	0.5	As found zero
4995	39.93	394.9	397.2	As found span
			Average Correction Factor	1.0122

Calculated value of As Found Response: 392.660 ppm Percent Change of As Found: 0.6%

	before calibration		after calibration	
Auto zero	0.3	ppm	0.3	ppm
Auto span	242.0	ppm	237.9	ppm

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **SO2**

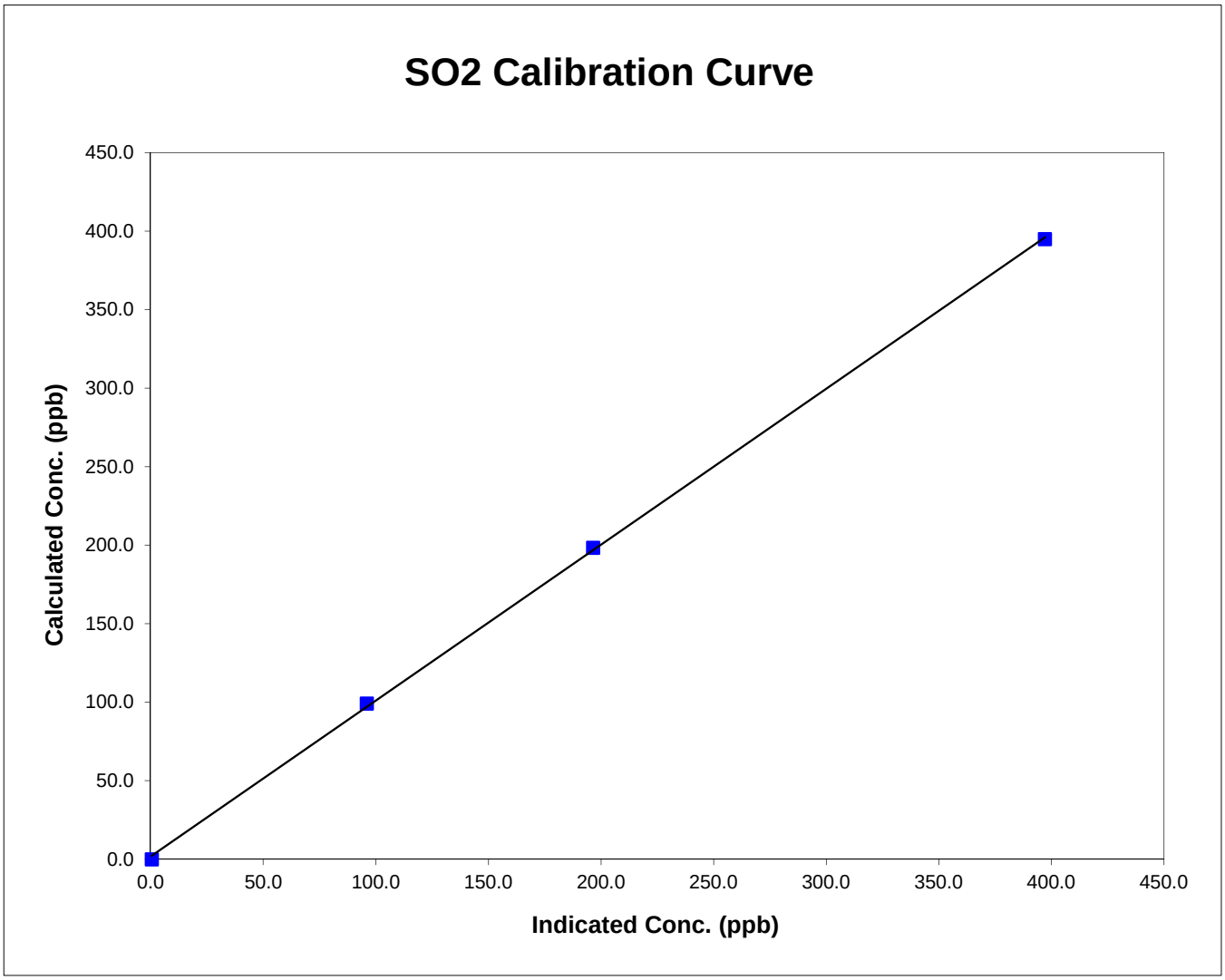
Air Monitoring Network **PAZA**

Station Information

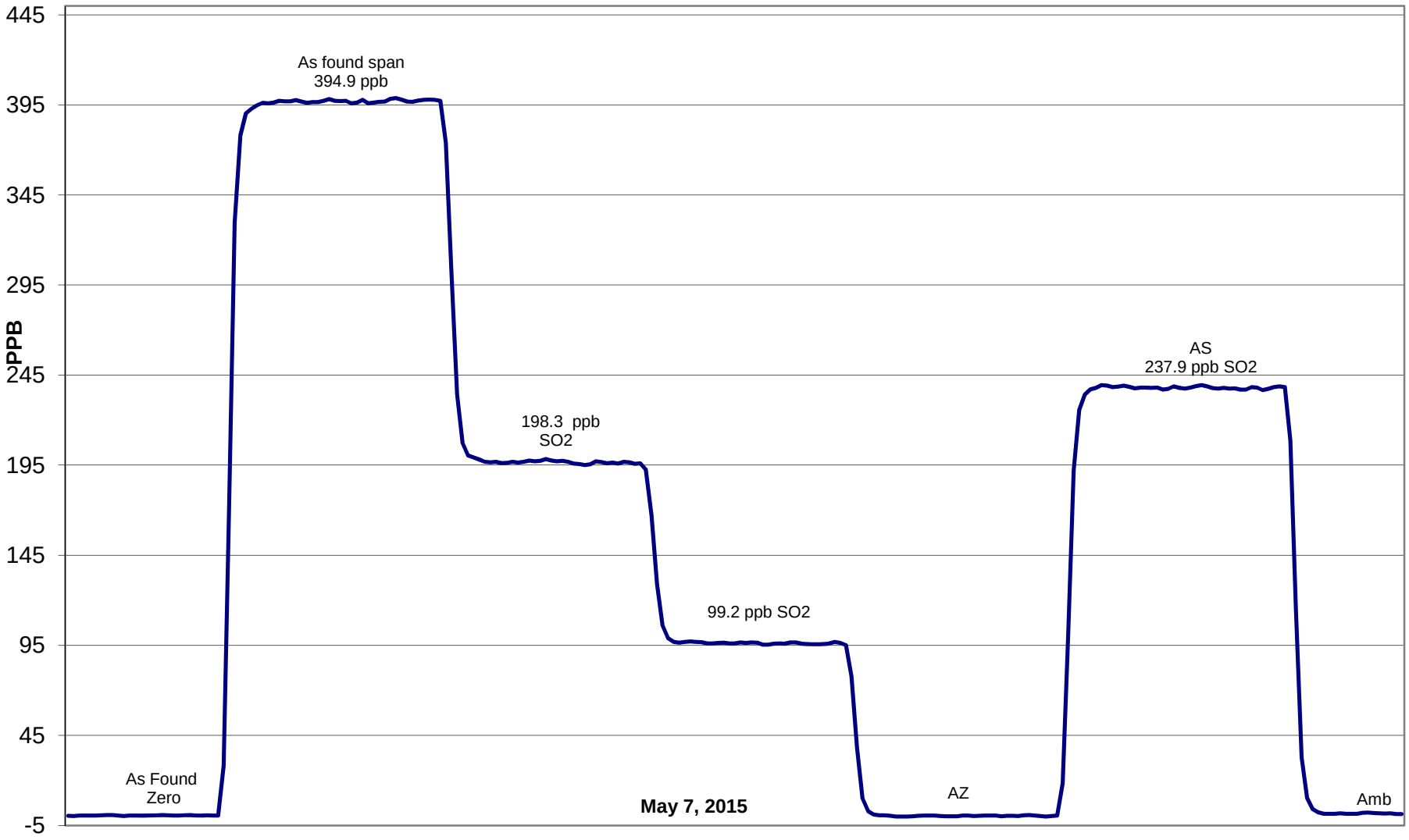
Calibration Date	May 7, 2015	Previous Calibration	April 9, 2015
Station Number	10	Station Location	Clairmont
Start Time (MST)	8:25	End Time (MST)	10:25
Analyzer make/model	TEI 43C	Analyzer serial #	436610005

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.5	N/A		
394.9	397.2	0.9944	Correlation Coefficient	0.999848
198.3	196.5	1.0092		
99.2	96.0	1.0330	Slope	0.992929
			Intercept	1.773999



SO2 Calibration



Calibration Report

Parameter **NO_X-NO-NO_2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	May 7, 2015	Previous Calibration	April 9, 2015
Station Number	10	Station Location	Clairmont

Reason: Routine Installation Removal Other:

Start Time (MST)	8:15		End Time (MST)	11:40	
Barometric Pressure	0.925	Atm	Station Temperature	20.5	Deg C
Calibrator	Environics		Serial Number	3016	
NO Cal Gas Conc	50.9	ppm	Cal Gas Expiry Date	March 10, 2017	
NOx Cal Gas Conc	51.2	ppm	Cal Gas Serial #	LL119493	

DACS Information

DACS make	CR3000	DACS serial No.	5407

Parameter		NO2	NOx	NO
Before	Data Slope	1.000987	0.986184	0.984071
	Data Offset	-0.170840	1.791041	1.644236
After	Data Slope	0.999850	0.994455	0.992598
	Data Offset	0.689776	1.683004	1.336871
Channel #		8	6	7
Voltage Range		0 - 5 VDC	0 - 5 VDC	0 - 5 VDC

Analyzer Information

Analyzer make/model	TEI 42i	Analyzer serial #	0701120011

Test Point	before		after	
Concentration range	0-500	ppb	0-500	ppb
NO offset	7.1	mV	7.1	mV
NOx bkgnd	7.3	mV	7.3	mV
NO coefficient	1.264		1.264	
NOx coefficient	0.999		0.999	
NO2 conv temp	326.6	Deg C	0.325.1	Deg C
PMT Temp	-2.8	Deg C	-2.8	Deg C
PMT Volt	-845.8	mV	-845.5	mV
R Cell Press	219.8	in Hg	217.7	in Hg
Sample Flow	0.657	LPM	0.662	LPM

Notes: No adjustment made
On the as found zero number a bit different on the alalyzer as oppose to MDS.
Difference was around -0.5ppb

Calibration Report

Parameter **NOX-NO-NO2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date: May 7, 2015 Station Location: Clairmont

Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor
zero	4995	0.00	0.0	0.0	0.0	-0.7	-0.5	-0.6	N/A	N/A
1	4995	39.92	405.9	403.6	2.4	406.9	405.8	-1.0	0.9977	0.9946
2	4995	19.96	203.8	202.6	1.2	203.1	202.0	-0.2	1.0035	1.0030
3	4995	9.93	101.6	101.0	0.6	99.2	99.7	-0.9	1.0238	1.0125
AFZ	4995	0.00	0.0	0.0	0.0	-0.7	-0.5	-0.6	0.0000	0.0000
AFS	4995	39.92	405.9	403.6	0.8	406.9	405.8	-1.0	0.9977	0.9946
							Average Correction Factor		1.0083	1.0033

As Found Concentrations: NO_X= 403.7 NO= 401.4 As Found Percent Change NO_X= -0.5% NO= -0.5%

GPT Calibration Data

Dilution Flow 4995 ccm Source Gas Flow 39.93 ccm

O3 Setpoint (ppb)	Indicated NOX high point (ppb)	Indicated NO drop conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor	NO2 Correction factor	Converter Efficiency
0	-0.5	-0.5	0.0	-0.7	-0.5	-0.6	N/A	N/A	N/A	N/A
NO point	407.9	407.9	0.0	408.9	407.9	-1.5	0.9974	1.0000	N/A	N/A
300	407.9	94.4	313.5	409.3	94.4	312.8	0.9966	1.0000	1.0022	99.8%
200	407.9	195.3	212.5	409.9	195.3	212.0	0.9951	1.0000	1.0024	99.8%
100	407.9	298.0	109.9	409.6	298.0	109.0	0.9957	1.0000	1.0079	99.2%
					Average Correction Factor		0.9958	1.0000	1.0042	99.6%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	-0.4	-0.5	-0.3	ppb	-0.6	-0.6	-0.4	ppb
Auto span	169.7	167.8	0.7	ppb	167.3	165.6	0.6	ppb

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **NO_2**

Air Monitoring Network **PAZA**

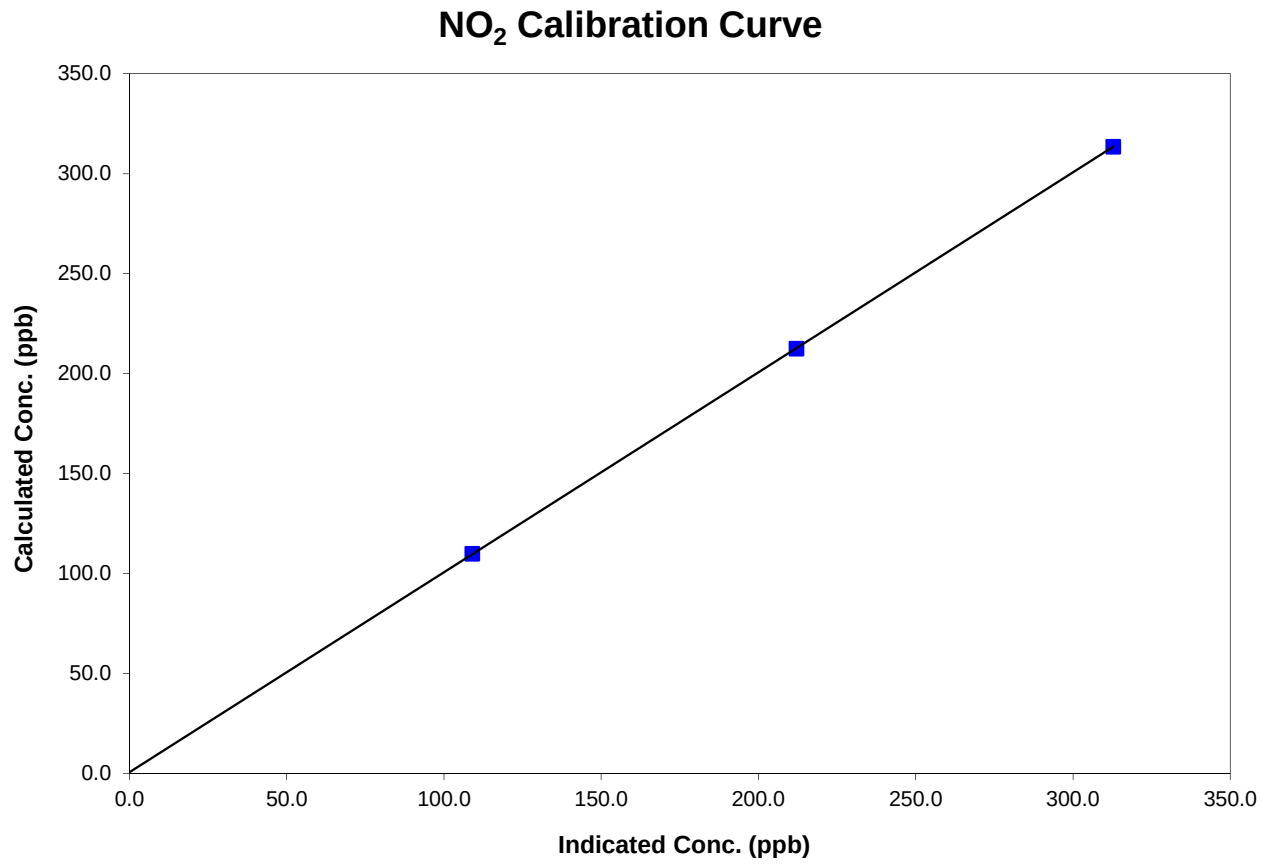
WSP AIR QUALITY MONITORING

Station Information

Calibration Date	May 7, 2015	Previous Calibration	April 9, 2015
Station Number	10	Station Location	Clairmont
Start Time (MST)	8:15	End Time (MST)	11:40
Analyzer make	TEI 42i	Analyzer serial #	0701120011

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.6	N/A		
313.5	312.8	1.0022	Correlation Coefficient	0.999999
212.5	212.0	1.0024		
109.9	109.0	1.0079	Slope	0.999850
			Intercept	0.689776



Calibration Summary

Parameter **NO_x**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

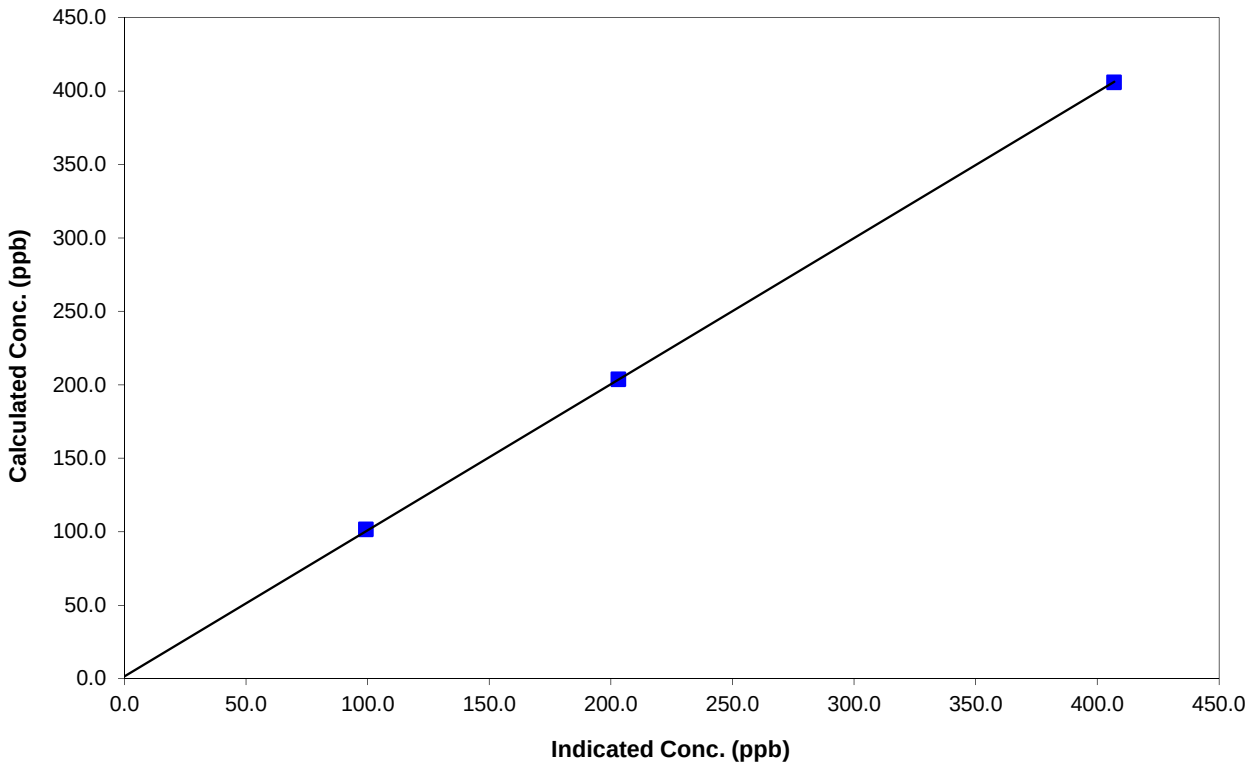
Station Information

Calibration Date	May 7, 2015	Previous Calibration	April 9, 2015
Station Number	10	Station Location	Clairmont
Start Time (MST)	8:15	End Time (MST)	11:40
Analyzer make	TEI 42i	Analyzer serial #	0701120011

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.7	N/A		
405.9	406.9	0.9977	Correlation Coefficient	0.999970
203.8	203.1	1.0035		
101.6	99.2	1.0238	Slope	0.994455
			Intercept	1.683004

NOx Calibration Curve



Calibration Summary

Parameter **NO**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

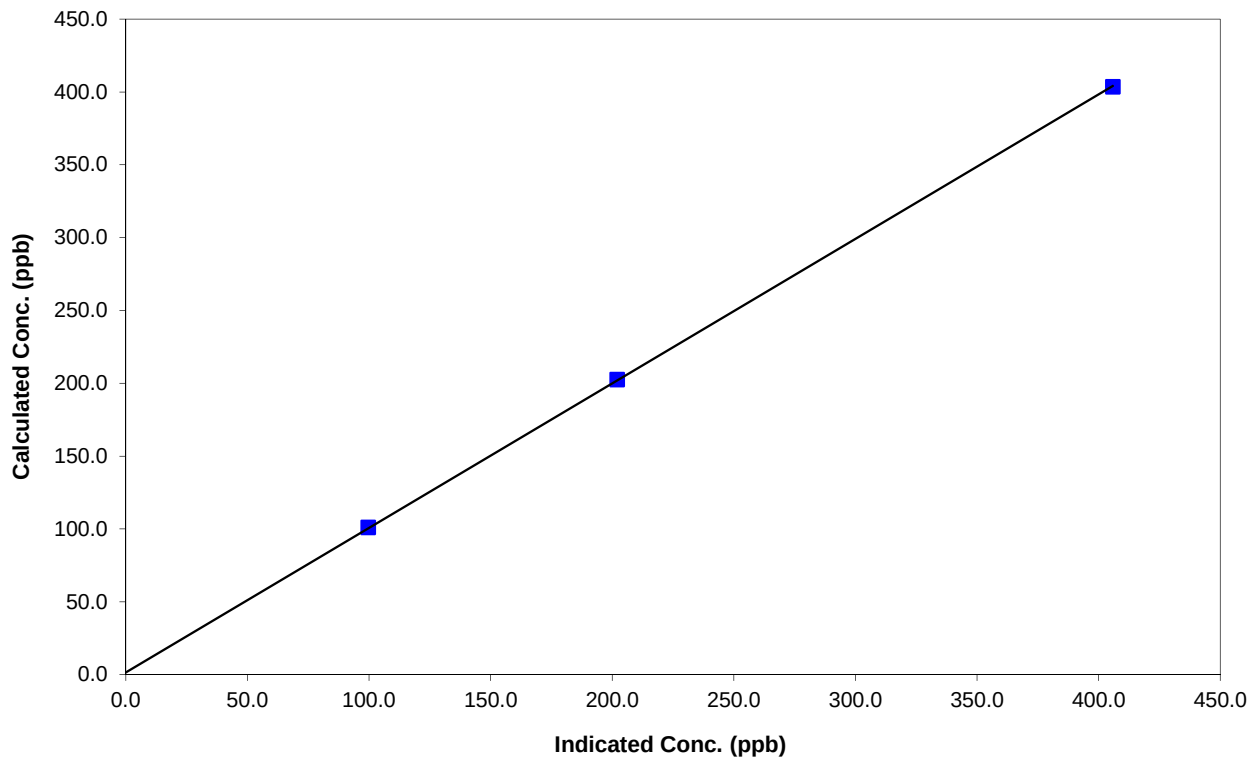
Station Information

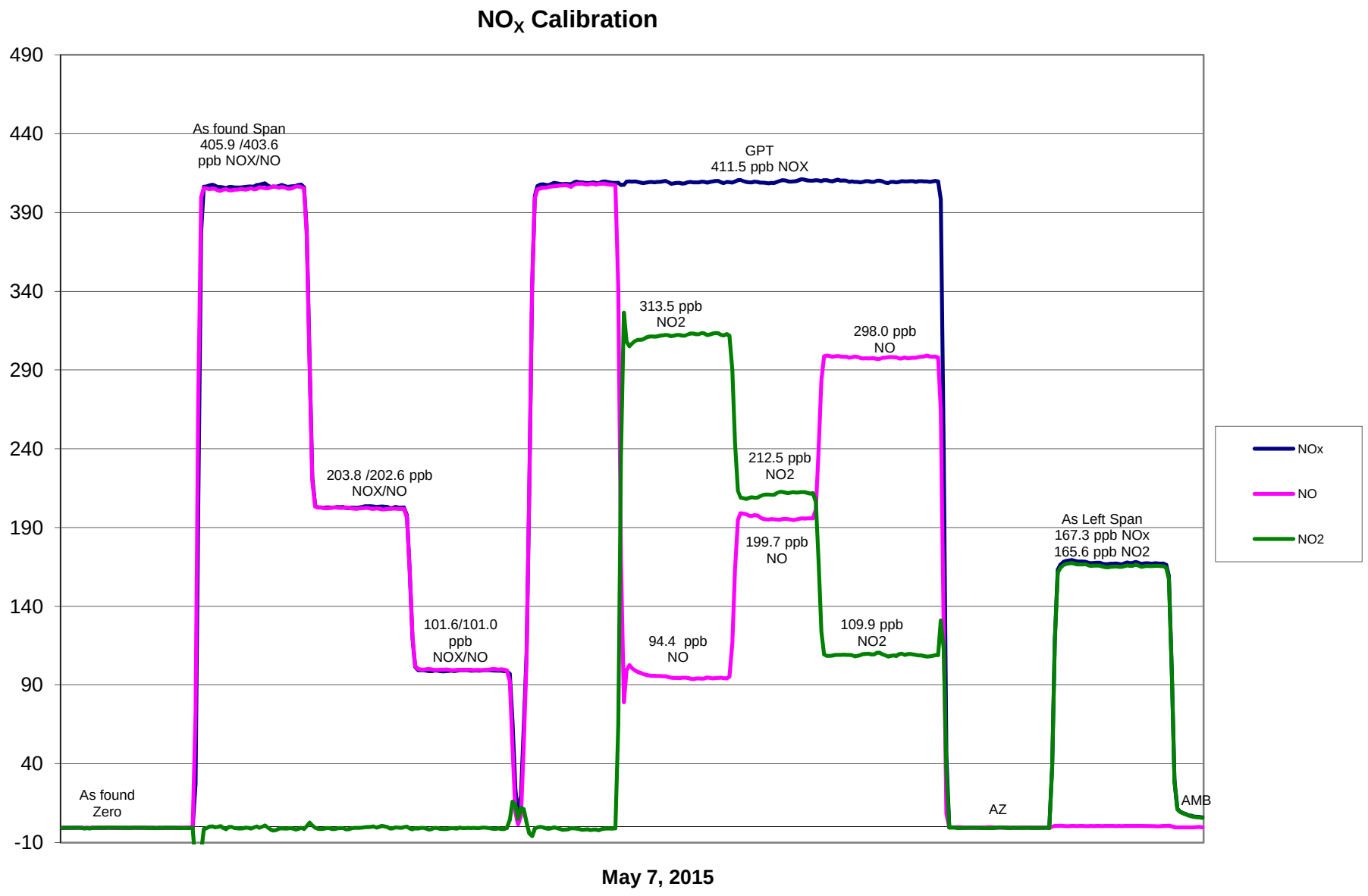
Calibration Date	May 7, 2015	Previous Calibration	April 9, 2015
Station Number	10	Station Location	Clairmont
Start Time (MST)	8:15	End Time (MST)	11:40
Analyzer make	TEI 42i	Analyzer serial #	0701120011

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.5	N/A		
403.6	405.8	0.9946	Correlation Coefficient	0.999977
202.6	202.0	1.0030		
101.0	99.7	1.0125	Slope	0.992598
			Intercept	1.336871

NO Calibration Curve




NOx Calibration
490
440
390
340
290
240
190
140
90
40
-10
As found Span
405.9 /403.6
ppb NOX/NO
GPT
411.5 ppb NOX
313.5 ppb
NO2
298.0 ppb
NO
203.8 /202.6 ppb
NOX/NO
212.5 ppb
NO2
199.7 ppb
NO
As Left Span
167.3 ppb NOx
165.6 ppb NO2
101.6/101.0
ppb
NOX/NO
94.4 ppb
NO
109.9 ppb
NO2
As found
Zero
AZ
AMB
NOx
NO
NO2
May 7, 2015

Calibration Report

Parameter **O3**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	May 7 2015	Previous Calibration	April 9 2015
Station Number	10	Station Location	Clairmont
Reason:	Routine / Install	Removal / remove	Other:
Start Time (MST)	11:00	End Time (MST)	12:45
Barometric Pressure	0.925 atm	Station Temperature	20.5 Deg C
Calibrator	Environics 6100	Serial Number	3016
DACS make	CR3000	DACS serial No.	5407
DACS voltage range	0 - 5 Volts	DACS channel #	6
	Before		After
Calculated slope	0.999064	Calculated slope	0.999230
Calculated intercept	-0.204384	Calculated intercept	0.167193
Analyzer make	TEI Model 49C	Analyzer serial #	49C-0609716240

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Offset	0	ppb	0	ppb
Span	1.000		1.000	
Cell A intensity	77777	Hz	77835	Hz
Cell B intensity	75381	Hz	75346	Hz
Pressure	668.60	in Hg	670.90	in Hg
CellA Flow	0.704	ccm	0.705	ccm
Cell B Flow	0.696	cmm	0.697	cmm

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
5035	0.00	0.0	0.2	N/A
5035	0.30	313.5	314.2	0.9977
5035	0.20	212.5	211.7	1.0040
5035	0.10	109.9	109.6	1.0027
5035	0.00	0.0	0.2	As found zero
5035	0.30	313.5	314.2	As found span
			Average Correction Factor	1.0015

Calculated value of As Found Response: 313.5 ppm Percent Change of As Found: 0.0%

	before calibration		after calibration	
Auto zero	0.1	ppb	0.2	ppb
Auto span	426.4	ppb	417.3	ppb

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **O3**

Air Monitoring Network **PAZA**

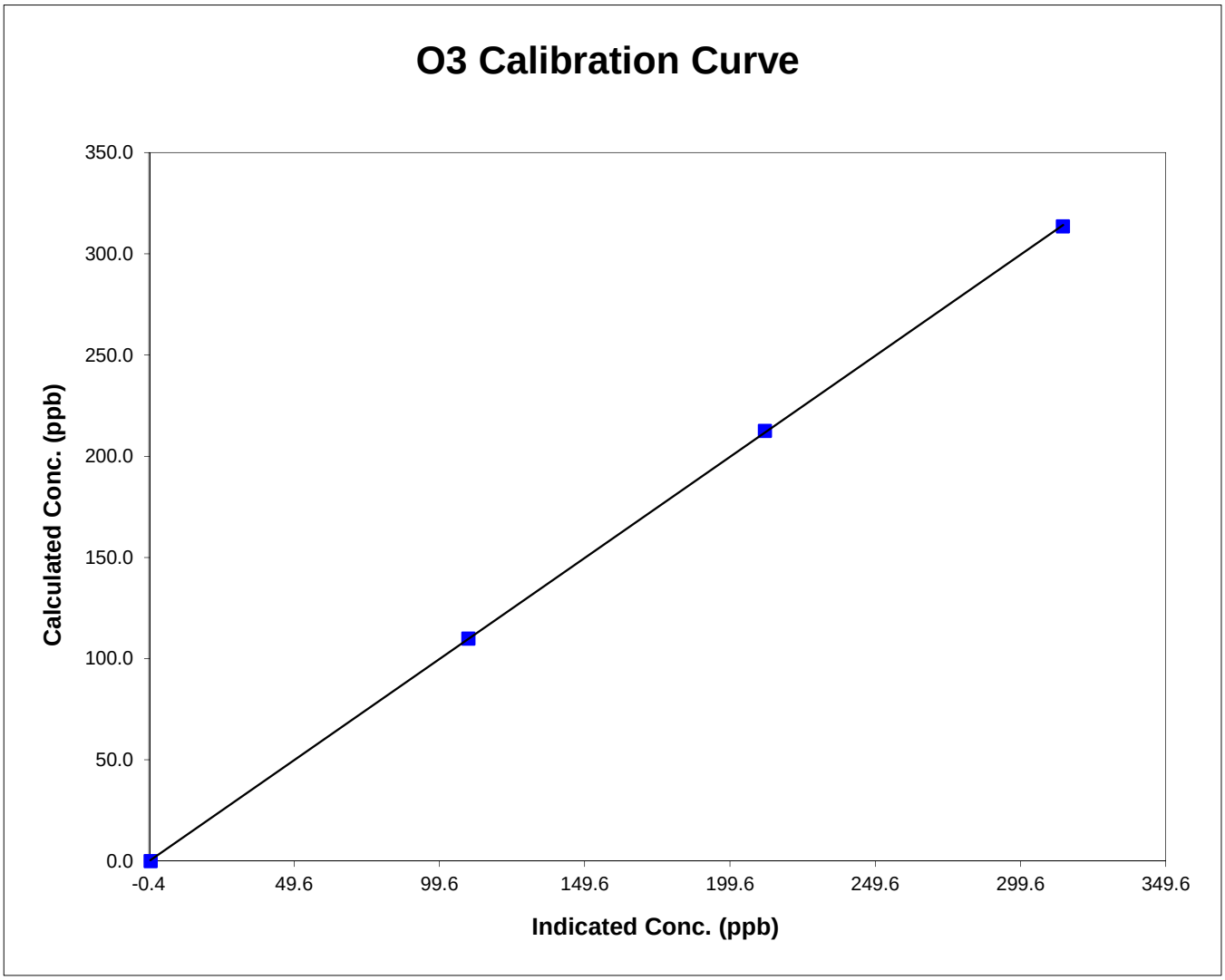
WSP AIR QUALITY MONITORING

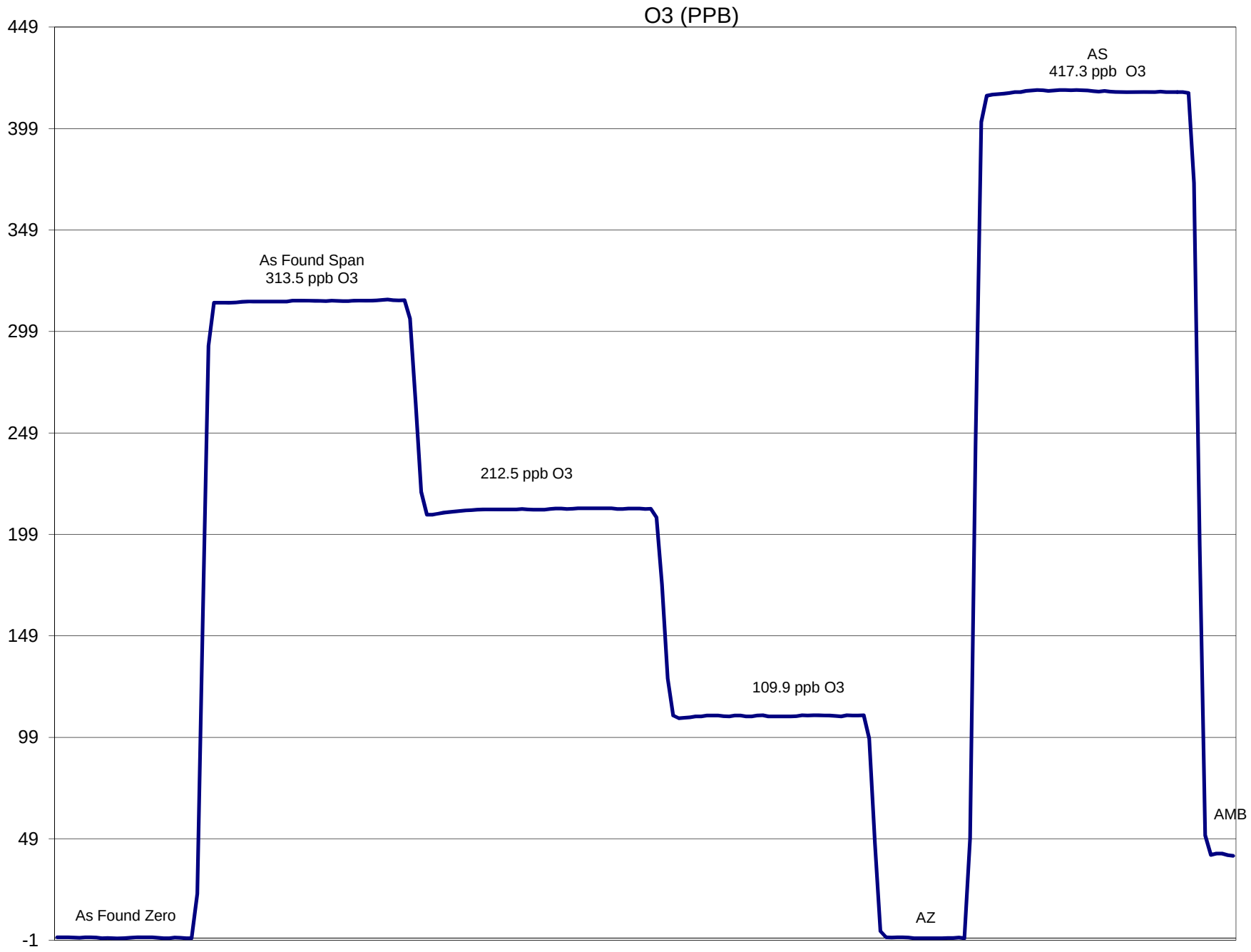
Station Information

Calibration Date	May 7 2015	Previous Calibration	April 9 2015
Station Number	10	Station Location	Clairmont
Start Time (MST)	11:00	End Time (MST)	12:45
Analyzer make/model	TEI Model 49C	Analyzer serial #	49C-0609716240

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	NA		
313.5	314.2	0.9977	Correlation Coefficient	0.999976
212.5	211.7	1.0040		
109.9	109.6	1.0027	Slope	0.999230
			Intercept	0.167193




O3 (PPB)
449
399
349
299
249
199
149
99
49
-1
As Found Span
313.5 ppb O3
212.5 ppb O3
109.9 ppb O3
AS
417.3 ppb O3
AMB
As Found Zero
AZ
May 7 2015

Calibration Report

Parameter **THC**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	May 6, 2015	Previous Calibration	April 10, 2015
Station Number	10	Station Location	Clairmont
Reason: Routine	Install	Removal	Other:
Start Time (MST)	13:37:00 PM	End Time (MST)	15:45:00 PM
Barometric Pressure	0.925 ATM	Station Temperature	20.0 Deg C
Calibrator	Environics 6100	Serial Number	3016
Cal Gas Concentratior	404 ppm CH4/ 201 ppm C3H8	Cal Gas Expiry Date	28/03/2014
Cal Gas CH4 equiv	956.75 ppm	Cal Gas Cylinder #	LL34989
DACS make	CR3000	DACS serial No.	5407
DACS voltage range	0 - 1 volt	DACS channel #	12
	Before		After
Calculated slope	0.997864	Calculated slope	0.997203
Calculated intercept	-0.006977	Calculated intercept	0.093942
Analyzer make	TEI Model 51C-LT	Analyzer serial #	51CLT-79009-390

	before		after	
Concentration range	0 - 25	ppm	0 - 25	ppm
THC sample pressure	6.50	psi	6.50	psi
THC zero counts	1510	capture	1510	capture
THC span counts	11040	capture	11040	capture
THC zero offset	2233	capture	2329	capture
THC span offset	2306	capture	2300	capture

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
2996	0.00	0.00	0.03	N/A
2996	69.89	21.81	21.82	0.9994
2996	29.96	9.47	9.33	1.0154
2996	9.97	3.17	2.99	1.0596
2996	0.00	0.00		As Found Zero
2996	69.93	21.82		As Found Span
			Average Correction Factor	1.0248

Calculated value of As Found Response: NA ppm Percent Change of As Found: NA

	before calibration		after calibration	
Auto zero	0.02	ppm	0.00	ppm
Auto span	21.63	ppm	21.66	ppm

Notes: Tried to calibrate the instrument on May 5th, ran as found zero/span-showed it on the graph
Analyzer was 40% off.
Internal pump was failing. Had to turn it off and wait for the parts
Analyzer due to the pump issue was off for 24 hours.
Sample pump was rebuilt
Zero/span adjustment made
Full calibration after the maintenance performed

Calibration Performed By: Dmytro Dolotii,Grover Christiansen

Calibration Summary

Parameter **THC**

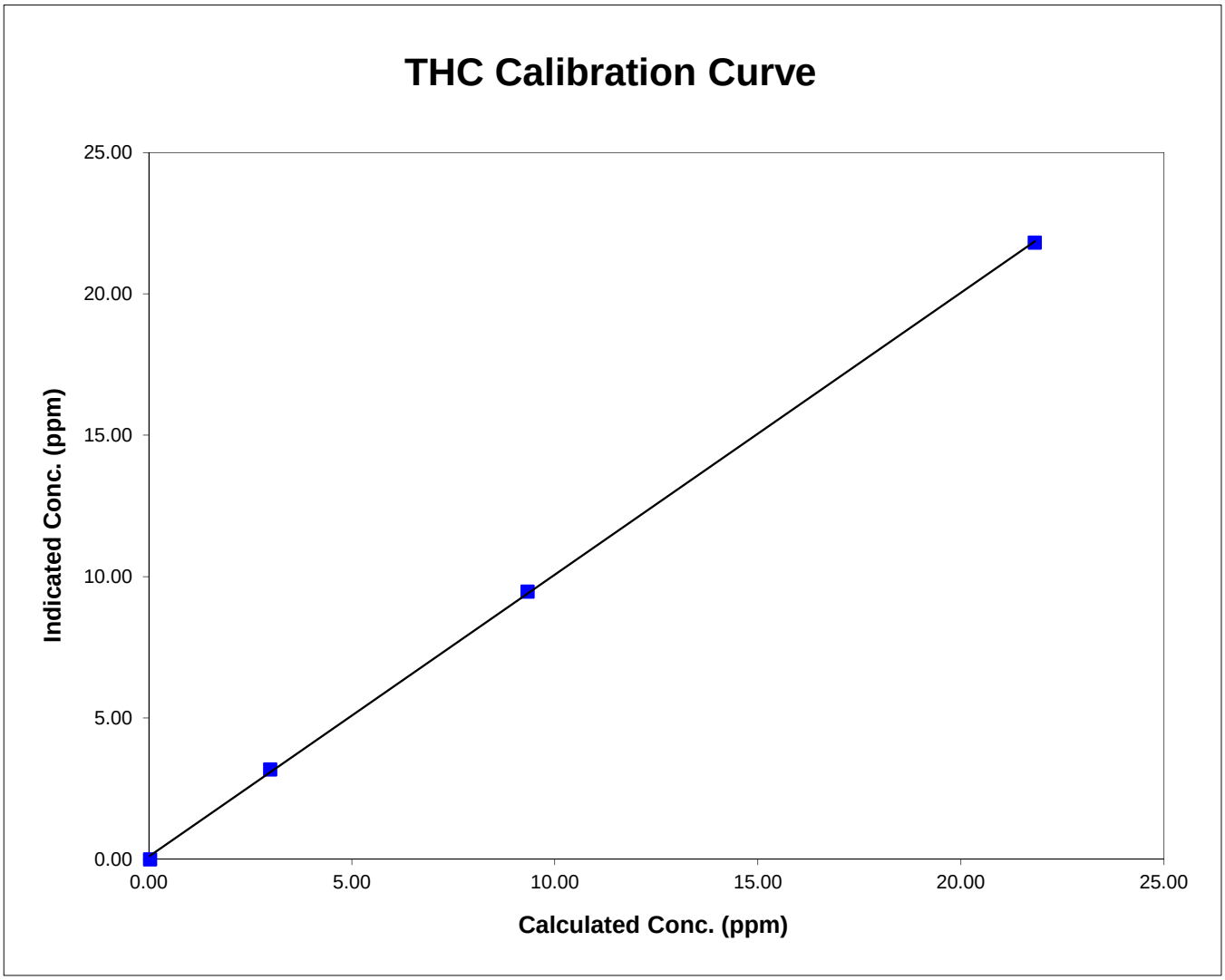
Air Monitoring Network **PAZA**

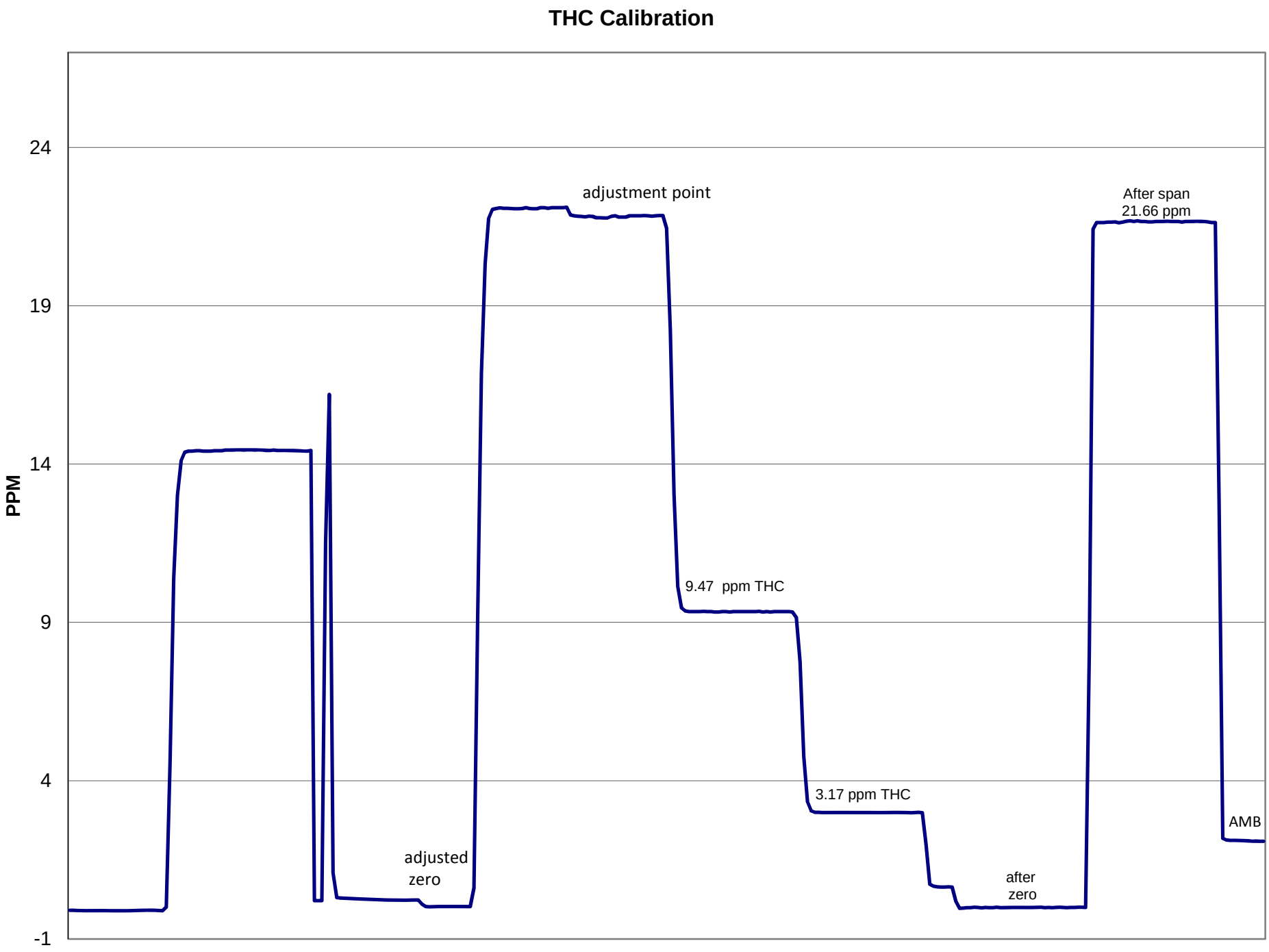
Station Information

Calibration Date	May 6, 2015	Previous Calibration	April 10, 2015
Station Number	10	Station Location	Clairmont
Start Time (MST)	13:37:00 PM	End Time (MST)	15:45:00 PM
Analyzer make/model	TEI Model 51C-LT	Analyzer serial #	51CLT-79009-390

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.030	N/A		
21.81	21.82	0.9994	Correlation Coefficient	0.999886
9.47	9.33	1.0154		
3.17	2.99	1.0596	Slope	0.997203
			Intercept	0.093942




THC Calibration
PPM
24
19
14
9
4
-1
adjustment point
After span
21.66 ppm
9.47 ppm THC
3.17 ppm THC
AMB
adjusted
zero
after
zero

Calibration Report

Parameter **TRS**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	May 8, 2015	Previous Calibration	April 10, 2015
Station Name	PAZA Rover	Station Location	Clairmont
Reason: Routine	Install	Removal	Other:
Start Time (MST)	8:45 AM	End Time (MST)	11:24
Barometric Pressure	0.935 Atm	Station Temperature	20.0 Deg C
Calibrator	Environics	Serial Number	3016
Cal Gas Concentratior	10.32 ppm	Cal Gas Expiry Date	July/08/2016
Gas Cert Reference	LL110781		
DACS make	CR3000	DACS serial No.	5407
DACS voltage range	0 - 5 Volt	DACS channel #	1
	Before		After
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.997595	Calculated slope	0.991003
Calculated intercept	0.607862	Calculated intercept	0.025299
Analyzer make	TEI 43C	Analyzer serial #	609716238

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	26.3	ppb	26.3	ppb
Coefficient	0.969		0.969	
Lamp Voltage	794	V	796	V
Chamber Temp	43.6	C	43.8	C
Perm gas Temp	45	C	45	C
Pressure	663.6	mmHg	664.0	mmHg
Sample Flow	0.432	lpm	0.456	lpm
Lamp Intensity	43898	Hz	43775	Hz

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.0	0.0	0.2	N/A
4995	39.93	81.8	82.5	0.9922
4995	19.97	41.1	41.8	0.9843
6995	9.97	14.7	14.3	1.0267
4995	9.97		0.3	Sox Test
4995	0.00	0.0	-0.5	As found zero
4995	39.93	81.8	78.8	As found span
			Average Correction Factor	1.0011

Calculated value of As Found Response: 79.63 ppm Percent Change of As Found: 2.7%

	before calibration		after calibration	
Auto zero	-0.2	ppm	0.0	ppm
Auto span	58.4	ppm	57.6	ppm

Notes: First cal attempt was on May 5th-needed adjustment, decided postponde due to the THC analyzer issues, which was a priority. On the second attempt on May 6 as found zero/ span +adjustment point was done. Leak check was performed and leak was found. To fix the problem parts needed. Decided to get parts on the following day and finish the troubleshooting.
On the May 8th new fitting with the orifice were installed, no adjustment needed
Data from the May 6th is represented on graph

Calibration Performed By: Dmytro Dolotii, Grover Christiansen

Calibration Summary

Parameter **TRS**

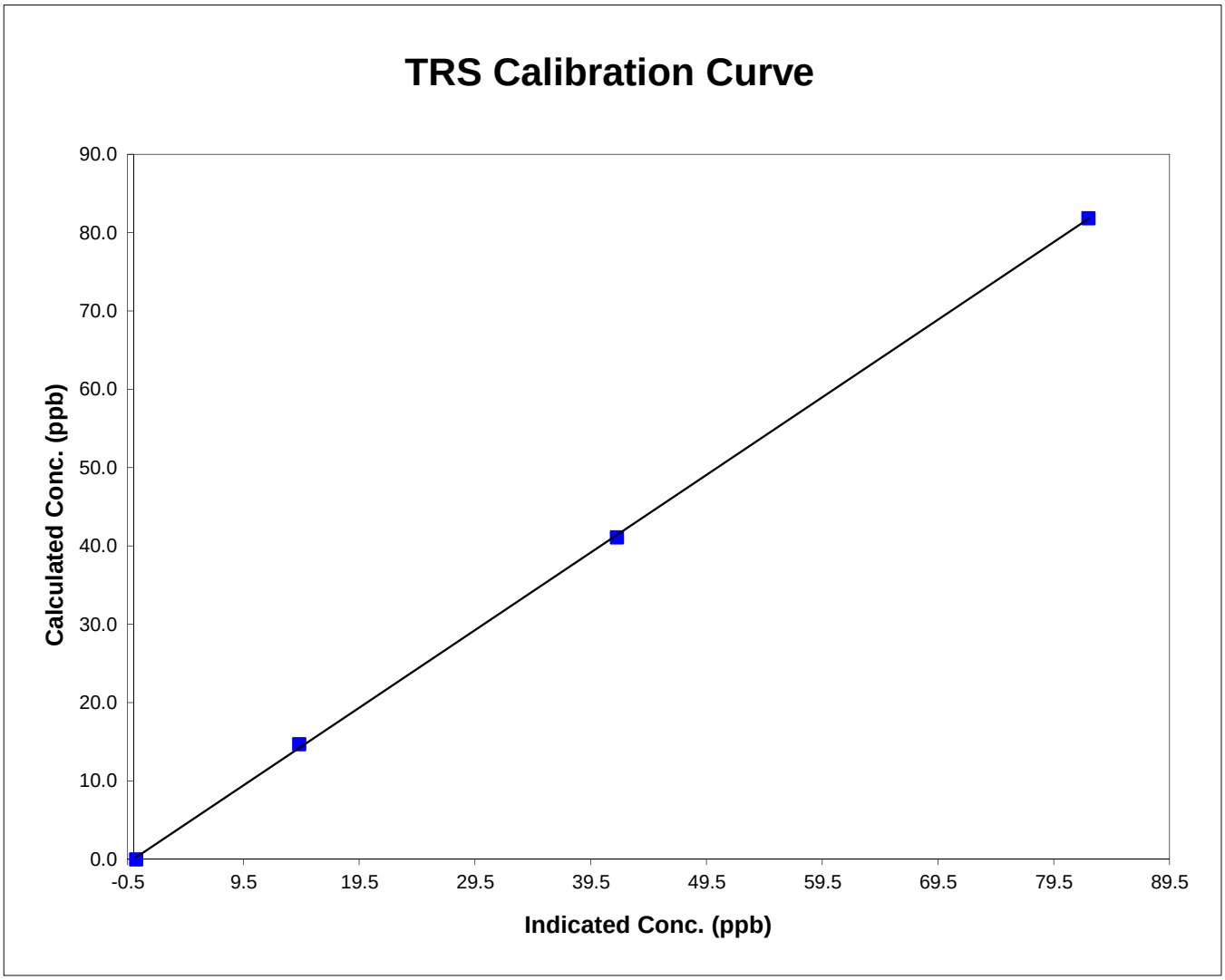
Air Monitoring Network **PAZA**

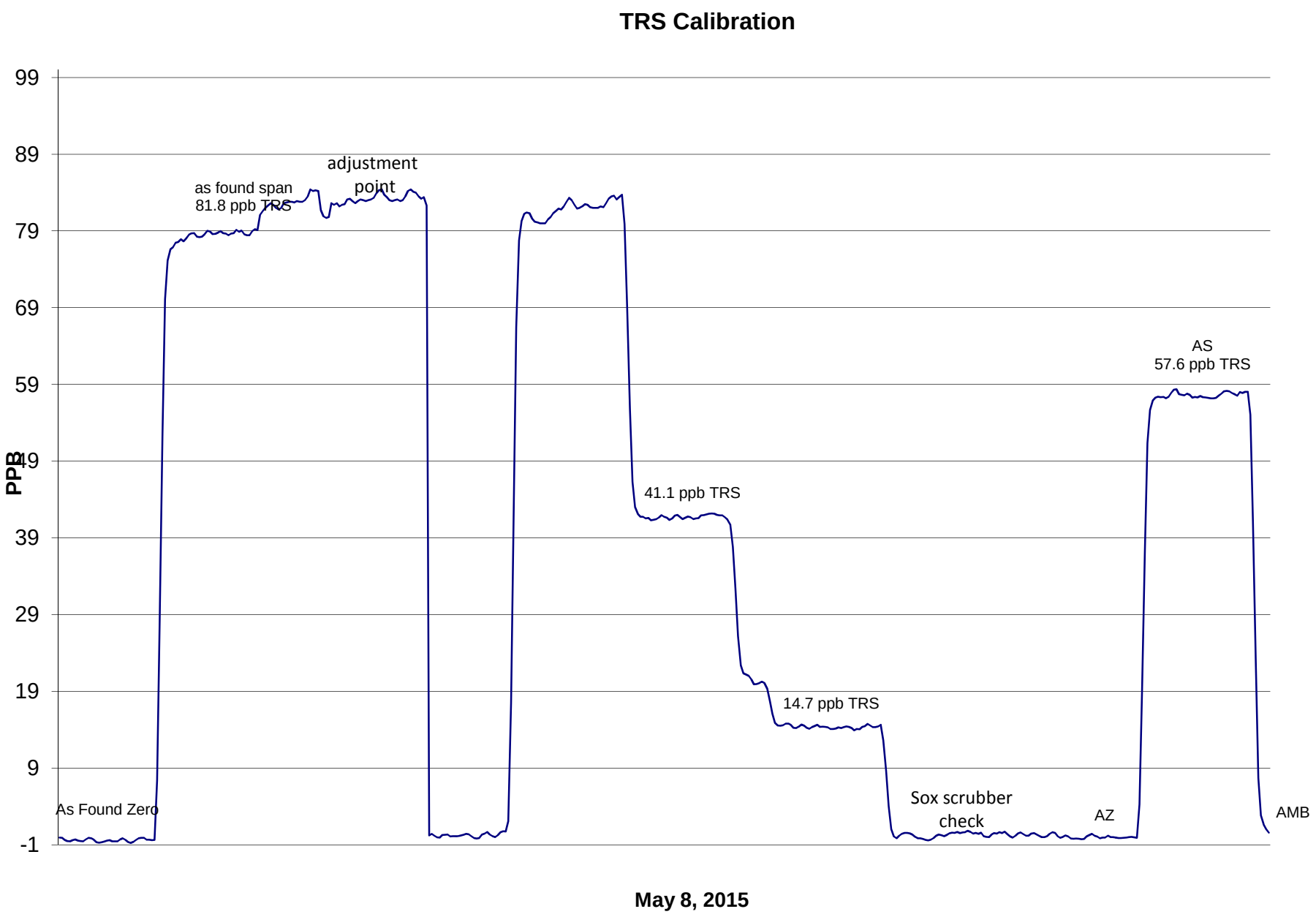
Station Information

Calibration Date	May 8, 2015	Previous Calibration	April 10, 2015
Station Number	PAZA Rover	Station Location	Clairmont
Start Time (MST)	8:45	End Time (MST)	11:24
Analyzer make/model	TEI 43C	Analyzer serial #	609716238

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A		
81.8	82.5	0.9922	Correlation Coefficient	0.999897
41.1	41.8	0.9843		
14.7	14.3	1.0267	Slope	0.991003
			Intercept	0.025299




TRS Calibration
99
89
79
69
59
49
39
29
19
9
-1
PPB
as found span
81.8 ppb TRS
adjustment
point
41.1 ppb TRS
14.7 ppb TRS
Sox scrubber
check
AZ
AS
57.6 ppb TRS
AMB
As Found Zero
May 8, 2015