Peace Airshed Zone Association

Ambient Air Monitoring Network Summary

Continuous Ambient Air Quality Monitoring Program
Monthly Report
October 2014

Peace Airshed Zone Association
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November 27th, 2014

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

RE: Peace Airshed Zone Association (PAZA) – October 2014 Ambient Air Report

Enclosed is the PAZA Ambient Monitoring Network Report for the month of **October 2014**.

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
Grande Prairie Generation Inc.	Northern Prairie Power Project	04-19-073-08-W6	00238762-00-00
Long Run Exploration	Eaglesham	01-25-076-01-W6	00241532-00-00
	Kakut	14-12-075-03-W6	00248469-00-00
	Donnelly	06-01-077-21-W5	00000087-02-00
	Puskwaskau	03-26-074-01-W6	00017524-01-00
Longview Oil Corp.	Sunset House	06-22-070-20-W5	138884-01-00
Penn West Petroleum Ltd.	Tangent	13-29-080-23-W5	00001746-02-00
	Pouce Coupe	16-07-078-11-W6	00000614-01-00

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

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

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

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

Henry Pirker Station:

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

Evergreen Park Station:

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

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 October.

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 October.

Valleyview Station:

- The measured ambient air quality was within the AAAQO for the Valleyview station exception of the H_2S analyzer, which recorded three (3) 1-hour exceendences of the guideline of 10 ppb and one (1) 24-hour exceedences of the guideline of 3ppb;
    - October 06 20:00 36.8 ppb Alberta Environment Reference # 290408
    - October 07 05:00 32.3 ppb Alberta Environment Reference # 290409
    - October 07 06:00 36.8 ppb Alberta Environment Reference # 290409
    - October 07 24h 4.1 ppb Alberta Environment Reference # 290409

These exceedences are due to a thief hatch failure at the local gas plant.

- All analyzers and sensors at the Valleyview station had an operational uptime greater than 90% for the month of October.

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 October.

Clairmont Station:

- The measured ambient air quality was within the AAAQO for the Clairmont station with the exception of the $PM_{2.5}$ analyzer, which recorded one (1) 1-hour exceedence of the guideline of 80 $\mu g/m^3$.
    - October 29 00:00 98.3 $\mu g/m^3$ Alberta Environment Reference # 291366

- All analyzers and sensors at the Clairmont station had an operational uptime greater than 90% for the month of October.

Passive Monitoring - 46 Stations throughout the PAZA zone:

There were five duplicate sites sampled in the month of October: Steeprock Creek, Saddle Hills, Crooked Creek, High Prairie, and Girouxville 4. The passive sample analyses were performed by MAXXAM Analytics Inc.

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

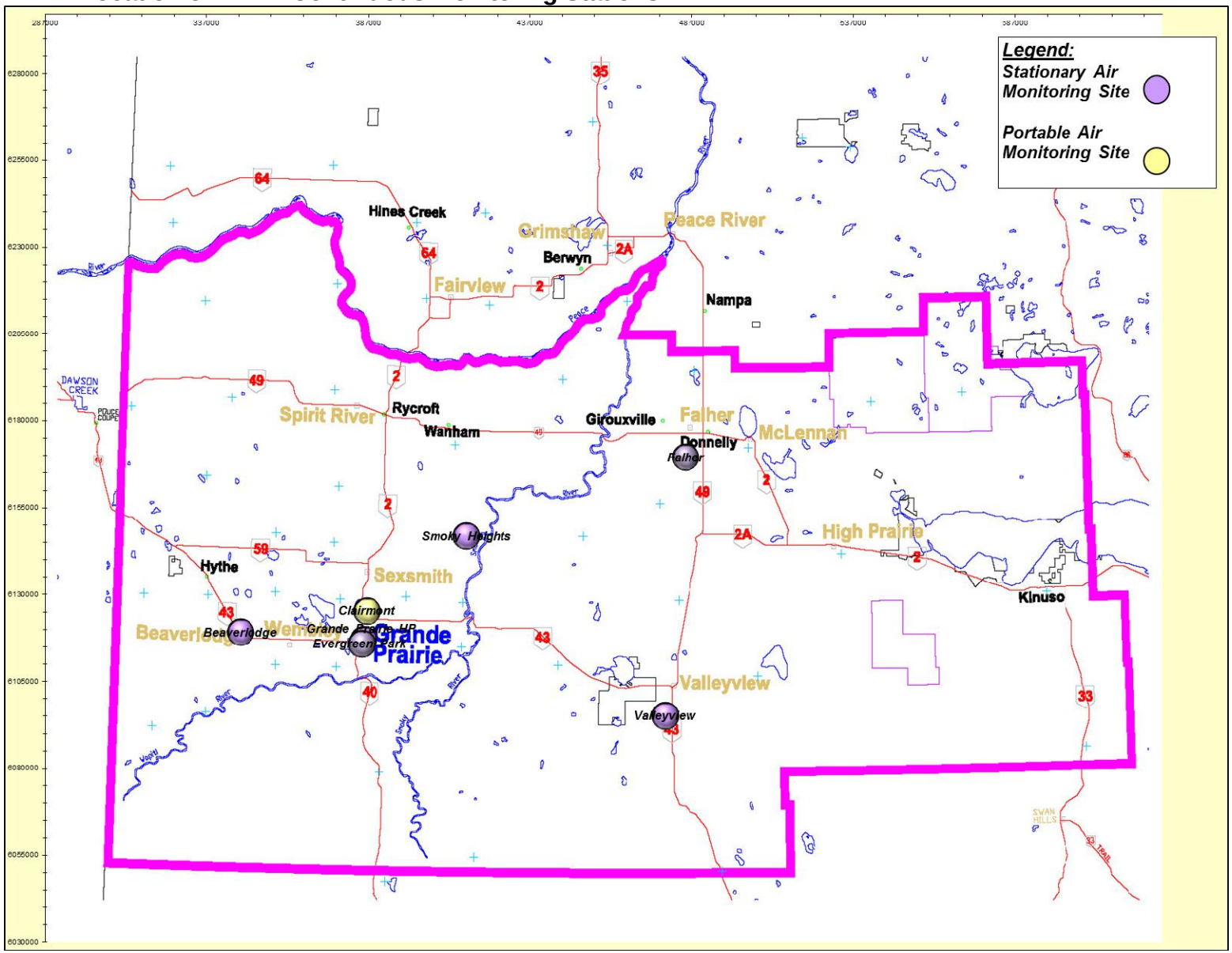
- Monthly average concentrations for SO_2 passives ranged from 0.1 ppb to 0.4 ppb, with a mean of 0.2 ppb.
- Monthly average concentrations for NO_2 passives ranged from 0.3 ppb to 6.8 ppb, with a mean of 1.7 ppb.
- Monthly average concentrations for O_3 passives ranged from 15.0 ppb to 29.9 ppb, with a mean of 21.0 ppb.
- Monthly average concentrations for H_2S ranged from 0.1 ppb to 0.2 ppb, with a mean of 0.1 pbb.

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

Oct-2014	Peace Airshed Zone Assocation						Maximum Recorded Values				
							1-hr		24-hr / 8-hr		
Pollutant (units)	**Objectives**		**Station**	**Monthly Average**	**Exceedence**		Conc	Day	Conc	Day	**Operational Time (%)**
	1-hr	24-hr			1-hr	24-hr					
SO_2 (ppb)	172	48	Henry Pirker	0.2	0	0	1.9	Oct-19 14:00	0.5	Oct-20	100%
SO_2 (ppb)	172	48	Evergreen Park	0.2	0	0	9.9	Oct-13 14:00	0.9	Oct-13	100%
SO_2 (ppb)	172	48	Smoky Heights	0.2	0	0	5.0	Oct-08 10:00	0.6	Oct-24	100%
SO_2 (ppb)	172	48	Beaverlodge	0.2	0	0	4.1	Oct-07 12:00	0.5	Oct-07	100%
SO_2 (ppb)	172	48	Valleyview	0.6	0	0	17.6	Oct-12 07:00	5.7	Oct-12	100%
SO_2 (ppb)	172	48	Falher	0.2	0	0	2.6	Oct-30 11:00	0.4	Oct-30	100%
SO_2 (ppb)	172	48	Clairmont	0.3	0	0	6.7	Oct-06 12:00	0.8	Oct-28	100%
NO (ppb)			Henry Pirker	6.5	0	0	146.9	Oct-24 09:00	20.6	Oct-27	100%
NO_2 (ppb)	159	106	Henry Pirker	10.3	0	0	32.9	Oct-18 20:00	19.3	Oct-21	100%
NO_X (ppb)			Henry Pirker	17.2	0	0	176.8	Oct-24 09:00	38.8	Oct-27	100%
NO (ppb)			Beaverlodge	0.9	0	0	11.3	Oct-17 07:00	4.1	Oct-17	100%
NO_2 (ppb)	159	106	Beaverlodge	4.2	0	0	15.7	Oct-09 09:00	15.7	Oct-09	100%
NO_X (ppb)			Beaverlodge	5.2	0	0	22.3	Oct-20 09:00	12.8	Oct-17	100%
NO (ppb)			Clairmont	3.4	0	0	61.4	Oct-31 11:00	12.4	Oct-31	100%
NO_2 (ppb)	159	106	Clairmont	6.2	0	0	27.2	Oct-27 16:00	13.8	Oct-20	100%
NO_X (ppb)			Clairmont	9.6	0	0	77.3	Oct-31 11:00	25.4	Oct-27	100%
O_3 (ppb)	82		Henry Pirker	14.7	0	-	38.8	Oct-08 15:00	32.1	Oct-11	100%
O_3 (ppb) - 8-hr			Henry Pirker		0				36.9	Oct-06	
O_3 (ppb)	82		Beaverlodge	21.6	0	-	40.1	Oct-07 16:00	33.3	Oct-11	100%
O_3 (ppb) - 8-hr			Beaverlodge		0				38.6	Oct-04	
O_3 (ppb)	82		Clairmont	16.8	0	-	39.6	Oct-08 14:00	31.5	Oct-11	100%
O_3 (ppb) - 8-hr			Clairmont		0				37.8	Oct-06	
CO (ppm)	13		Henry Pirker	0.19	0	-	1.3	Oct-24 09:00	0.3	Oct-21	100%
CO (ppm) - 8-hr	5		Henry Pirker		0				0.5	Oct-23	

PAZA Monthly Continuous Data Summary – continued

Oct-2014	Peace Airshed Zone Assocation						Maximum Recorded Values				
							1-hr		24-hr / 8-hr		
THC (ppm)			Henry Pirker	2.0	-	-	3.0	Oct-14 02:00	2.2	Oct-10	100%
CH_4 (ppm)			Henry Pirker	2.0	-	-	3.0	Oct-14 02:00	2.2	Oct-10	100%
NMHC (ppm)			Henry Pirker	0.0	-	-	0.1	Oct-22 18:00	0.0	Oct-22	100%
THC (ppm)			Clairmont	2.16	-	-	4.0	Oct-17 22:00	2.4	Oct-17	100%
TRS (ppb)			Henry Pirker	0.2	-	-	1.1	Oct-03 01:00	0.3	Oct-25	100%
TRS (ppb)			Evergreen Park	0.3	-	-	3.0	Oct-19 12:00	0.8	Oct-20	100%
TRS (ppb)			Smoky Heights	0.0	-	-	0.5	Oct-18 18:00	0.1	Oct-30	100%
TRS (ppb)			Clairmont	0.4	-	-	2.5	Oct-05 04:00	0.7	Oct-05	100%
H_2S (ppb)	10	3	Valleyview	0.4	3	1	36.3	Oct-07 06:00	3.6	Oct-07	100%
H_2S (ppb)	10	3	Falher	0.2	0	0	1.8	Oct-21 08:00	0.5	Oct-30	100%
$PM_{2.5}$ (µg/m3)	80	30	Henry Pirker	5.2	0	0	20.4	Oct-22 23:00	10.4	Oct-29	100%
$PM_{2.5}$ (µg/m3)	80	30	Evergreen Park	3.0	0	0	46.4	Oct-11 15:00	7.8	Oct-11	100%
$PM_{2.5}$ (µg/m3)	80	30	Smoky Heights	2.2	0	0	47.0	Oct-16 19:00	5.8	Oct-29	100%
$PM_{2.5}$ (µg/m3)	80	30	Beaverlodge	2.9	0	0	25.9	Oct-30 07:00	7.8	Oct-30	100%
$PM_{2.5}$ (µg/m3)	80	30	Clairmont	2.8	1	0	98.3	Oct-29 00:00	10.2	Oct-29	100%
RH (%)			Henry Pirker	70.2	-	-	89.6	Oct-30 09:00	87.3	Oct-26	100%
RH (%)			Evergreen Park	75.2	-	-	97.5	Oct-30 13:00	95.4	Oct-26	100%
RH (%)			Beaverlodge	79.1	-	-	100.0	Oct-14 06:00	100.0	Oct-26	100%
RH (%)			Valleyview	72.2	-	-	98.8	Oct-15 12:00	94.7	Oct-26	100%
SR (W/m^2)			Henry Pirker	63.9	-	-	519.2	Oct-06 13:00	123.0	Oct-06	100%
Temp (°C)			Henry Pirker	5.8	-	-	23.1	Oct-10 14:00	12.9	Oct-04	100%
Temp (°C)			Evergreen Park	6.0	-	-	22.3	Oct-10 15:00	13.0	Oct-04	100%
Temp (°C)			Smoky Heights	5.2	-	-	22.4	Oct-10 15:00	12.5	Oct-10	100%
Temp (°C)			Beaverlodge	5.7	-	-	20.9	Oct-10 14:00	12.8	Oct-04	100%
Temp (°C)			Valleyview	6.6	-	-	24.6	Oct-10 16:00	14.2	Oct-10	100%
Temp (°C)			Falher	5.5	-	-	23.2	Oct-10 16:00	13.5	Oct-10	100%
Temp (°C)			Clairmont	5.4	-	-	20.1	Oct-10 16:00	11.9	Oct-04	100%

PAZA Monthly Continuous Data Summary – continued

Oct-2014	Peace Airshed Zone Assocation						Maximum Recorded Values				
							1-hr		24-hr / 8-hr		
WSPD s (km/hr)			Henry Pirker	7.1	-	-	33.0	Oct-11 15:00	18.2	Oct-11	100%
WSPD s (km/hr)			Evergreen Park	8.7	-	-	50.0	Oct-11 15:00	29.7	Oct-11	100%
WSPD s (km/hr)			Smoky Heights	16.0	-	-	54.0	Oct-18 13:00	29.5	Oct-18	98%
WSPD s (km/hr)			Beaverlodge	9.9	-	-	44.0	Oct-11 15:00	24.9	Oct-11	100%
WSPD s (km/hr)			Valleyview	4.5	-	-	22.0	Oct-01 17:00	11.3	Oct-12	100%
WSPD s (km/hr)			Falher	14.4	-	-	42.0	Oct-01 14:00	25.5	Oct-01	100%
WSPD s (km/hr)			Clairmont	8.6	-	-	28.0	Oct-11 17:00	17.5	Oct-11	95%
WSPD v (km/hr)			Henry Pirker	2.4	-	-	32.0	Oct-11 15:00	17.5	Oct-11	100%
WSPD v (km/hr)			Evergreen Park	4.3	-	-	49.0	Oct-11 15:00	28.4	Oct-11	100%
WSPD v (km/hr)			Smoky Heights	7.4	-	-	54.0	Oct-18 13:00	24.8	Oct-18	98%
WSPD v (km/hr)			Beaverlodge	3.0	-	-	43.0	Oct-11 15:00	24.1	Oct-11	100%
WSPD v (km/hr)			Valleyview	1.7	-	-	22.0	Oct-01 17:00	10.7	Oct-12	100%
WSPD v (km/hr)			Falher	2.8	-	-	42.0	Oct-01 14:00	22.8	Oct-01	100%
WSPD v (km/hr)			Clairmont	1.3	-	-	28.0	Oct-11 17:00	16.8	Oct-11	95%
WDIR			Henry Pirker	W	-	-	-	-	-	-	100%
WDIR			Evergreen Park	W	-	-	-	-	-	-	100%
WDIR			Smoky Heights	WSW	-	-	-	-	-	-	98%
WDIR			Beaverlodge	W	-	-	-	-	-	-	100%
WDIR			Valleyview	W	-	-	-	-	-	-	100%
WDIR			Falher	SSE	-	-	-	-	-	-	100%
WDIR			Clairmont	NW	-	-	-	-	-	-	95%

Continuous Network Equipment Summary

PAZA – Henry Pirker Station

General Station Issues

Routine monthly calibrations were performed on October 2nd (SO_2, NO_X, O_3) and 3rd (CO, THC, TRS).

Parameter	Make	Model	Notes
SO_2	TEI	43C	No operational issues observed.
NOx/NO/NO_2	TEI	42C	No operational issues observed.
O_3	TEI	49C	No operational issues observed.
CO	TEI	48C	No operational issues observed.
THC/CH_4/NMHC	TEI	55I	No operational issues observed.
TRS	TEI	45C/43C	No operational issues observed.
$PM_{2.5}$	Sharp	5030	No operational issues observed.
RH	Met One	083D	No operational issues observed.
ET	Met One	083D	No operational issues observed.
SR	Met One	096-1	No operational issues observed.
WS / WD	Met One	010C/020C	No operational issues observed.

PAZA – Evergreen Park Station

General Station Issues

Routine monthly calibration performed on October 23rd (SO_2, TRS, $PM_{2.5}$).

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

PAZA – Smoky Heights Station			
General Station Issues			
Routine monthly calibration performed on October 27th (SO_2, TRS).			
Parameter	**Make**	**Model**	**Notes**
SO_2	TEI	43C	No operational issues observed.
TRS	TEI	43C	No operational issues observed.
$PM_{2.5}$	R&P	1400AB	No operational issues observed.
ET	Met One	083D	No operational issues observed.
WS / WD	Met One	010C/020C	Wind head ground was dislodged by cattle, invalidating data on October 28th and 29th.

PAZA – Beaverlodge Station

General Station Issues

Routine monthly calibrations performed on October 6th (SO_2, NO_X, O_3).

Parameter	Make	Model	Notes
SO_2	TEI	43CTL	No operational issues observed.
NOx/NO/NO_2	TEI	42C	No operational issues observed.
O_3	TEI	49C	No operational issues observed.
$PM_{2.5}$	R&P	1400AB	No operational issues observed.
ET	n/a	n/a	No operational issues observed.
RH	n/a	n/a	No operational issues observed.
WS / WD	Blue Sky	857	Calibrated wind system returned to service October 18th.

PAZA – Valleyview Station			
General Station Issues Routine monthly calibrations were performed on October 8th (SO_2 & H_2S).			
Parameter	**Make**	**Model**	**Notes**
SO_2	TEI	43i	No operational issues observed.
H_2S	TEI	43A	Three (3) 1-hour and one (1) 24-hour exceedences were recorded on October 6th and 7th. **AE Reference #290408, 290409.**
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 October 7th (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 October 10th (SO_2, NO_X, O_3, THC) and 13th (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	No operational issues observed.
THC	TEI	51C	No operational issues observed.
$PM_{2.5}$	R&P	1400AB	One (1) 1-hour exceedance recorded on October 28th. **AE Reference #291366.**
ET	Gill	Met Pak 3	No operational issues observed.
WS / WD	Gill	Met Pak 3	Wind head freezing on overnight periods of October 26-27th and 27-28th.

PAZA
Henry Pirker Station
Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Henry Pirker - October 2014

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

Maximum Value: 1.9 ppb on Oct 19 14:00

Maximum Daily Average: 0.5 ppb on Oct 20

Minimum Value: 0 ppb on Oct 3 10:00

Maximum Diurnal Average: 0.3 ppb at hour 15

Monthly Average: 0.17 ppb

Minimum Daily Average: 0.0 ppb on Oct 11

Minimum Diurnal Average: 0.1 ppb at hour 5

Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.0$ Median = 0.1 $Q_3 = 0.3$ $P_{90} = 0.4$ $P_{99} = 0.8$

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-Oct	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
2-Oct	1	0	0	0	0	0	0	0	1	C	C	C	C	0	0	0	0	0	0	0	0	0	A	0	0.3	0.9
3-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.4
4-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.0	0.1
5-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.2	0.4
6-Oct	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
7-Oct	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	0	A	0	0	0	0	0	0	0.4	1.1
8-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	0	1	0	0	0	0.2	0.7
9-Oct	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
10-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.2	0.5
11-Oct	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
12-Oct	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
13-Oct	0	0	0	0	0	0	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0.1	0.6
14-Oct	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
15-Oct	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
16-Oct	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
17-Oct	0	0	0	0	0	0	0	A	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.2	0.5
18-Oct	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
19-Oct	0	0	0	0	0	A	0	0	0	0	0	0	1	2	2	1	0	0	0	0	0	0	1	1	0.4	1.9
20-Oct	2	2	1	0	A	0	0	0	0	0	1	0	1	2	1	1	0	0	0	0	0	0	0	0	0.5	1.7
21-Oct	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
22-Oct	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
23-Oct	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	0.3
24-Oct	A	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.1	0.9
25-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	A	0	0.2	0.7
26-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	A	0	0	0.1	0.6
27-Oct	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
28-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	A	0	0	0	0	0.3	1.1
29-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	A	0	0	0	0	0	0.4	1.7
30-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.1	0.3
31-Oct	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	0.5
	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.1	Diurnal Average	
	1.5	1.6	0.7	0.4	0.3	0.3	0.4	0.4	0.9	1.1	0.9	1.0	1.1	1.9	1.7	0.9	0.9	0.4	0.7	0.4	0.6	0.4	0.6	0.6	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

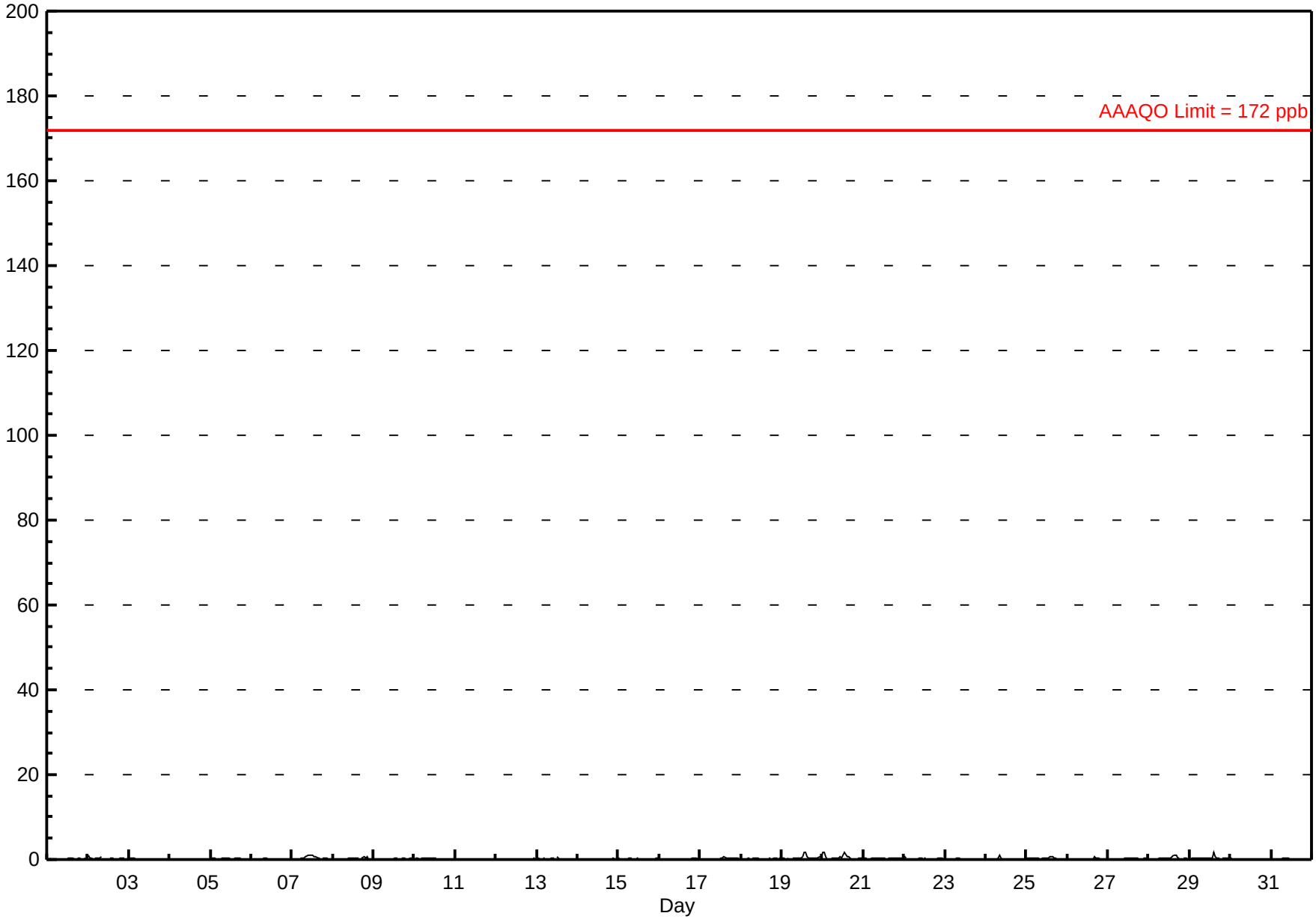
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Henry Pirker - October 2014



Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Henry Pirker - October 2014

Maximum Value: 4.3 ppb on Oct 20 01:00

Maximum Daily Average: 1.1 ppb on Oct 20

Minimum Value: 0 ppb on Oct 30 23:00

Minimum Daily Average: 0.3 ppb on Oct 16

Maximum Diurnal Average: 0.7 ppb at hour 14

Minimum Diurnal Average: 0.3 ppb at hour 5

Monthly Average: 0.51 ppb

Percentiles: $P_1 = 0.1$ $P_{10} = 0.2$ $Q_1 = 0.3$ Median = 0.4 $Q_3 = 0.7$ $P_{90} = 0.9$ $P_{99} = 2.2$

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-Oct	A	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	1	0	0	0	A	0.5	0.9
2-Oct	3	1	1	0	0	0	1	1	1	C	C	C	C	1	0	0	0	0	0	1	0	0	A	0	0.7	2.7
3-Oct	1	0	1	1	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	A	0	0	0.4	1.3
4-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	A	0	0	0	0.3	0.6
5-Oct	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	A	0	0	0	0	0.4	0.8
6-Oct	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	1	0.4	0.9
7-Oct	0	0	0	0	0	1	1	1	1	2	1	1	2	1	1	1	1	A	1	1	0	0	0	0	0.8	1.8
8-Oct	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	A	0	2	1	1	0	0	0	0.5	1.8
9-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	A	0	0	0	0	1	1	0	1	0.4	0.8
10-Oct	0	1	0	0	0	1	1	1	1	1	1	1	1	0	A	0	0	0	0	0	0	0	0	0	0.5	0.8
11-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.4	0.4
12-Oct	0	0	0	0	0	0	0	0	1	0	0	0	A	0	0	0	0	0	0	0	0	0	1	0	0.4	0.9
13-Oct	1	1	0	0	0	0	0	0	0	1	1	A	2	0	0	0	0	0	0	0	0	0	0	0	0.4	1.8
14-Oct	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	0	1	0.3	0.6
15-Oct	1	1	0	0	0	0	0	1	0	A	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0.4	0.8
16-Oct	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0.3	0.6
17-Oct	0	0	0	0	0	0	0	A	0	0	0	0	0	1	1	1	1	1	1	1	1	1	0	0	0.5	0.8
18-Oct	0	0	0	0	0	1	A	1	1	1	1	0	0	0	0	0	0	1	0	1	1	1	0	1	0.5	0.8
19-Oct	1	1	0	0	0	A	1	1	1	1	1	0	1	3	3	2	1	1	1	1	1	1	1	1	1.0	3.3
20-Oct	4	3	1	0	A	0	1	1	1	1	1	1	2	3	1	1	0	0	1	0	0	1	1	0	1.1	4.3
21-Oct	1	0	0	A	0	1	1	1	1	1	1	1	0	0	0	0	0	1	0	0	1	1	1	0	0.6	0.9
22-Oct	1	1	A	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1	1	1	0	0.5	1.3
23-Oct	0	A	1	1	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0.4	1.2
24-Oct	A	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.3	1.5
25-Oct	1	1	1	1	1	1	1	1	0	0	1	1	0	1	1	1	1	1	1	0	0	0	A	0	0.6	1.3
26-Oct	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2	1	1	0	0	A	0	0	0.4	1.8
27-Oct	0	0	0	0	0	0	1	0	0	0	1	1	1	1	1	1	1	1	0	0	A	1	1	0	0.5	0.7
28-Oct	0	0	0	0	0	0	1	0	1	1	1	1	1	1	2	1	1	1	0	A	0	1	0	0	0.7	1.5
29-Oct	0	0	0	1	0	0	0	1	1	1	1	0	0	1	2	2	1	1	A	1	1	1	1	1	0.8	2.4
30-Oct	1	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	A	0	0	0	0	0	1	0.4	1.2
31-Oct	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.5	0.9
	0.7	0.5	0.4	0.4	0.3	0.4	0.5	0.6	0.6	0.6	0.6	0.5	0.6	0.7	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.5	Diurnal Average	
	4.3	2.9	1.3	1.3	0.8	0.8	0.9	1.2	1.5	1.8	1.3	1.3	2.3	3.3	2.8	1.9	1.8	0.9	1.8	1.3	1.3	0.9	1.3	1.3	Diurnal Maximum	

C - Calibration

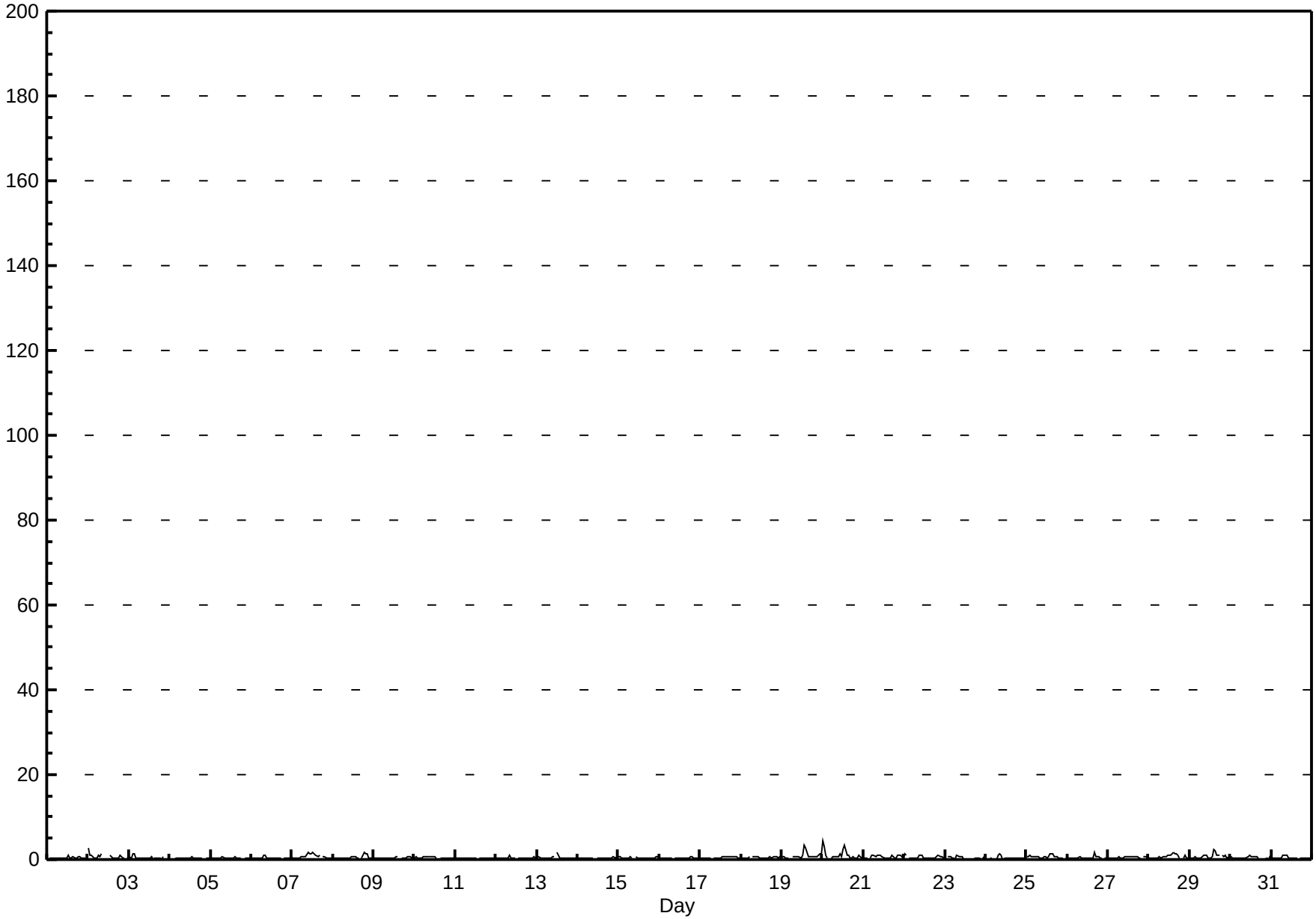
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

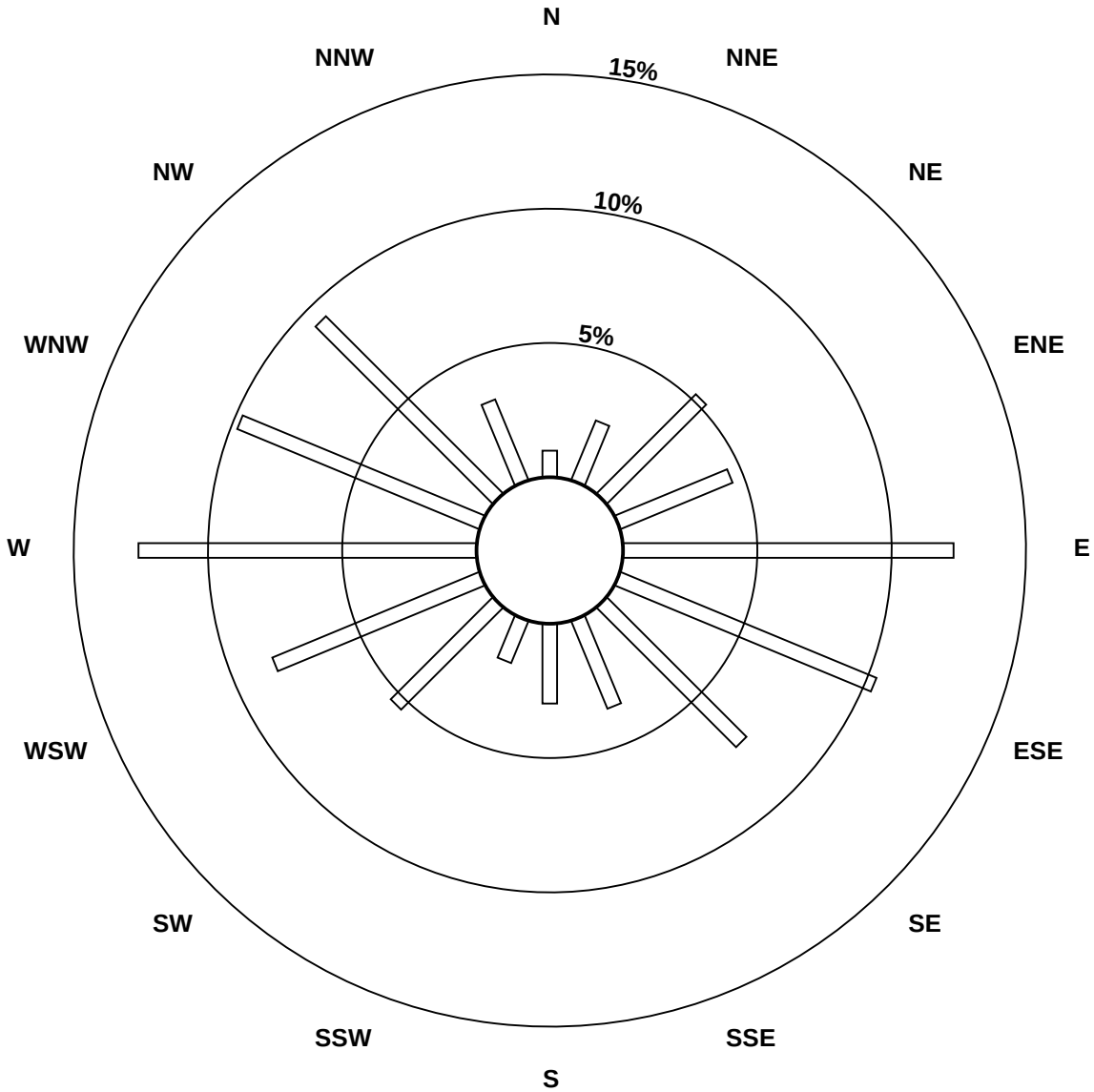
Henry Pirker - October 2014



Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Henry Pirker - October 2014



Pollutant Classes (ppb)

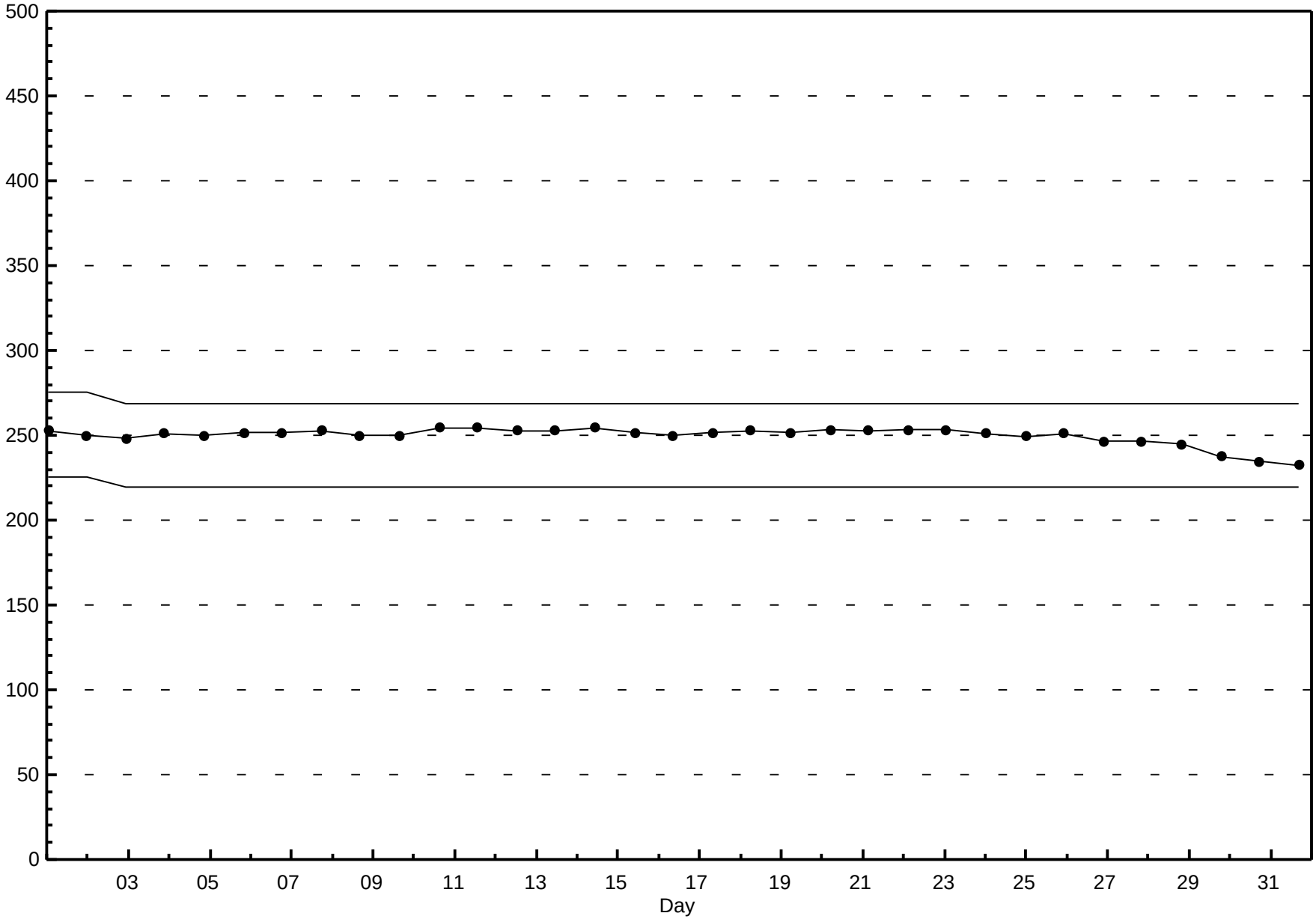
- 0 - 10
- 11 - 20
- 21 - 60
- 61 - 110
- 111 - 172
- > 172

Peace Airshed Zone Association

Span Responses

Sulphur Dioxide (SO_2)

Henry Pirker - October 2014



Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - October 2014

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

Maximum Value: 1.1 ppb on Oct 3 01:00 Maximum Daily Average: 0.3 ppb on Oct 25

Minimum Value: 0 ppb on Oct 1 18:00 Minimum Daily Average: 0.0 ppb on Oct 14

Maximum Diurnal Average: 0.2 ppb at hour 1 Minimum Diurnal Average: 0.1 ppb at hour 19

Monthly Average: 0.16 ppb Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.1$ Median = 0.1 $Q_3 = 0.2$ $P_{90} = 0.3$ $P_{99} = 0.6$

Hours in Service:	744
Hours of Data:	706
Hours of Missing Data:	38
Hours of Calibration:	38
Percent Operational Time:	100.0

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

C - Calibration A - Automated Daily Zero Span

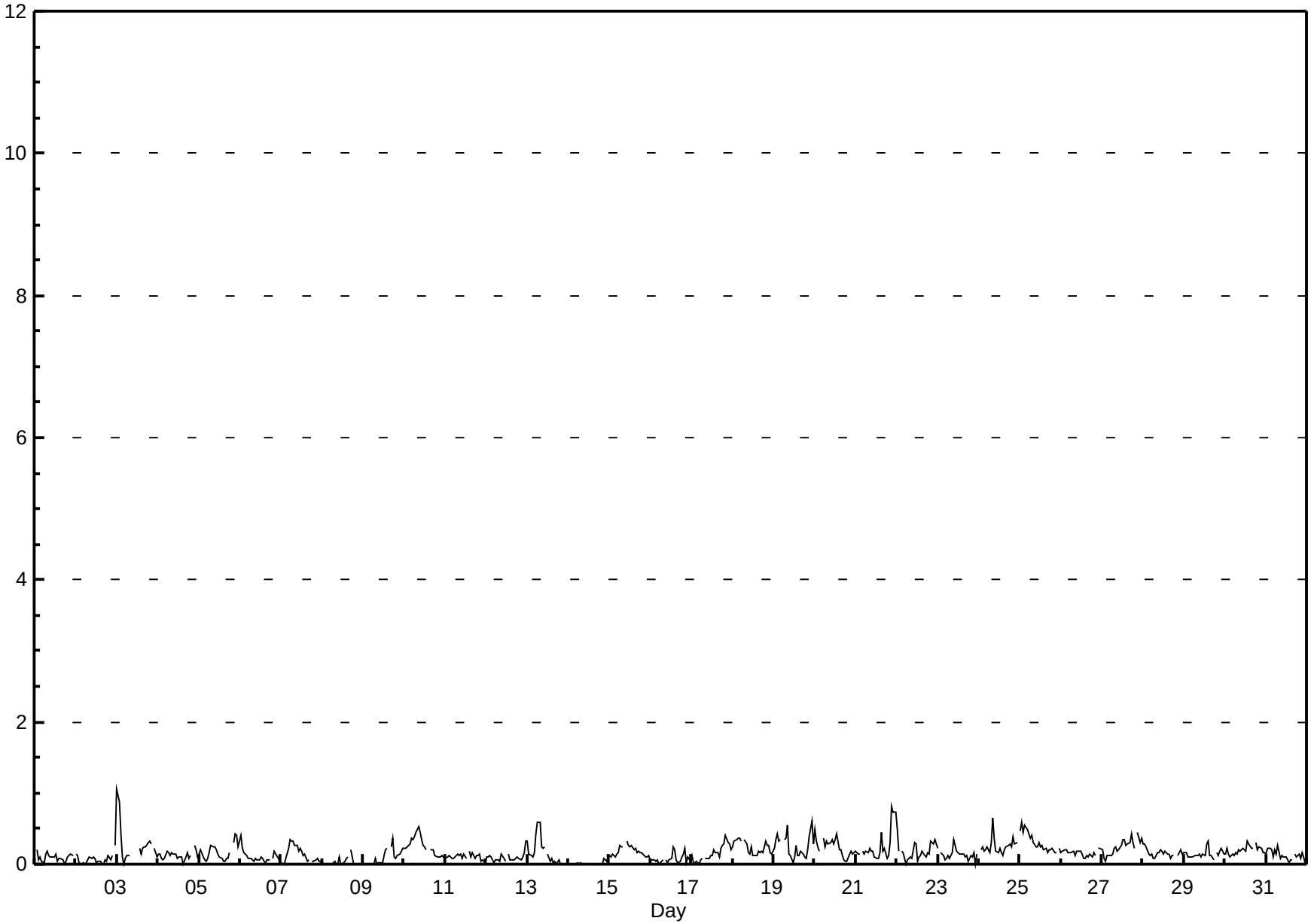
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb

Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - October 2014



Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - October 2014

Maximum Value: 2.0 ppb on Oct 3 01:00

Maximum Daily Average: 0.8 ppb on Oct 20

Minimum Value: 0 ppb on Oct 9 00:00

Maximum Diurnal Average: 0.7 ppb at hour 1

Monthly Average: 0.59 ppb

Minimum Daily Average: 0.4 ppb on Oct 8

Minimum Diurnal Average: 0.5 ppb at hour 15

Percentiles: $P_1 = 0.3$ $P_{10} = 0.4$ $Q_1 = 0.5$ Median = 0.6 $Q_3 = 0.7$ $P_{90} = 0.8$ $P_{99} = 1.2$

Hours in Service:	744
Hours of Data:	706
Hours of Missing Data:	38
Hours of Calibration:	38
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Oct	A	1	0	1	0	0	1	1	1	1	0	1	1	1	1	0	0	0	1	1	1	1	0	A	0.5	0.7
2-Oct	1	1	1	0	0	1	1	1	1	1	1	1	0	0	1	0	0	1	1	1	0	1	A	1	0.5	0.9
3-Oct	2	2	1	0	0	0	1	0	C	C	C	C	C	1	0	1	1	1	1	1	1	A	1	0	0.7	2.0
4-Oct	1	1	0	1	0	1	1	0	1	1	1	1	0	1	0	0	1	1	0	1	A	1	1	0	0.6	0.8
5-Oct	1	1	0	0	0	0	0	1	1	1	1	0	0	0	0	1	1	0	1	A	1	1	1	1	0.5	0.9
6-Oct	1	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	A	1	1	1	1	0	0.5	0.8
7-Oct	0	0	0	1	1	1	1	1	1	1	1	1	1	0	0	1	0	A	0	1	0	0	1	1	0.5	0.7
8-Oct	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	1	A	1	0	0	0	0	0	0	0.4	0.6
9-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	A	1	1	0	0	0	0	1	1	0.5	0.8
10-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0	1	0	0	1	1	0.7	1.0
11-Oct	0	1	1	1	1	1	1	1	1	1	0	1	0	A	1	1	0	0	0	0	1	0	0	0	0.5	0.7
12-Oct	1	1	0	0	0	1	1	0	1	1	0	0	A	1	1	0	0	1	0	0	1	1	1	1	0.5	0.9
13-Oct	1	0	0	1	1	1	1	1	1	1	1	A	1	1	0	0	0	0	1	0	0	0	0	0	0.6	1.1
14-Oct	1	0	0	0	0	0	0	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.7
15-Oct	1	1	1	0	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0	0	1	0.6	0.8
16-Oct	1	0	0	1	1	1	0	1	A	1	0	0	1	1	1	0	0	0	0	1	1	0	0	0	0.5	0.8
17-Oct	0	0	0	0	0	1	1	A	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	1.0
18-Oct	1	1	1	1	1	1	A	1	1	1	1	1	1	0	1	1	0	1	1	1	1	1	1	1	0.7	1.1
19-Oct	1	1	1	1	1	A	1	1	1	1	1	0	1	1	1	1	1	1	1	0	1	1	1	1	0.7	1.1
20-Oct	1	1	1	1	A	1	1	1	1	1	1	1	2	1	1	1	1	0	1	0	1	1	1	1	0.8	1.5
21-Oct	1	1	0	A	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0.7	1.5
22-Oct	1	1	A	1	1	0	0	1	1	0	1	1	0	0	0	0	1	0	1	1	1	1	1	1	0.7	1.2
23-Oct	1	A	1	0	0	0	1	1	1	1	1	1	1	1	0	1	0	1	0	1	1	1	0	0	0.6	1.0
24-Oct	A	1	1	0	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	A	0.7	1.0
25-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	A	1	0.7	1.2
26-Oct	1	0	1	1	1	0	1	1	1	1	1	1	1	0	0	0	1	1	1	1	0	A	1	1	0.5	0.7
27-Oct	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.7	0.9
28-Oct	1	1	1	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	A	1	0	1	0	0.6	0.7
29-Oct	1	1	0	0	0	0	1	0	1	0	1	1	1	1	1	1	1	0	A	1	1	1	1	0	0.6	0.8
30-Oct	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0.6	0.9
31-Oct	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	1	A	0	1	1	1	1	1	0	0.6	1.0
	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.6	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	Diurnal Average	
	2.0	1.6	1.0	1.0	0.9	1.0	1.1	1.0	1.1	1.0	1.0	0.8	1.5	1.4	0.8	1.0	0.8	0.9	0.9	1.0	0.9	1.5	1.2	1.1	Diurnal Maximum	

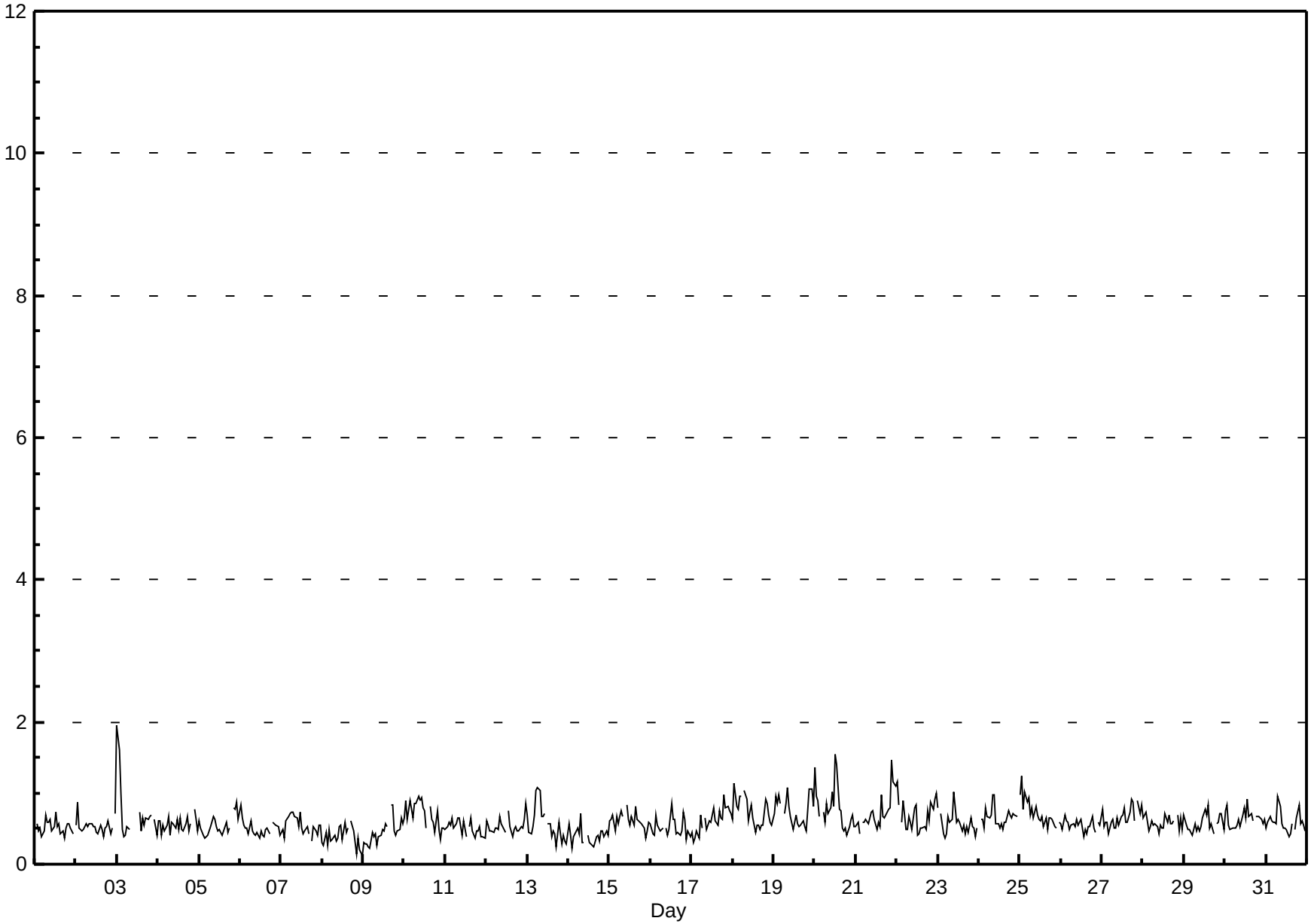
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

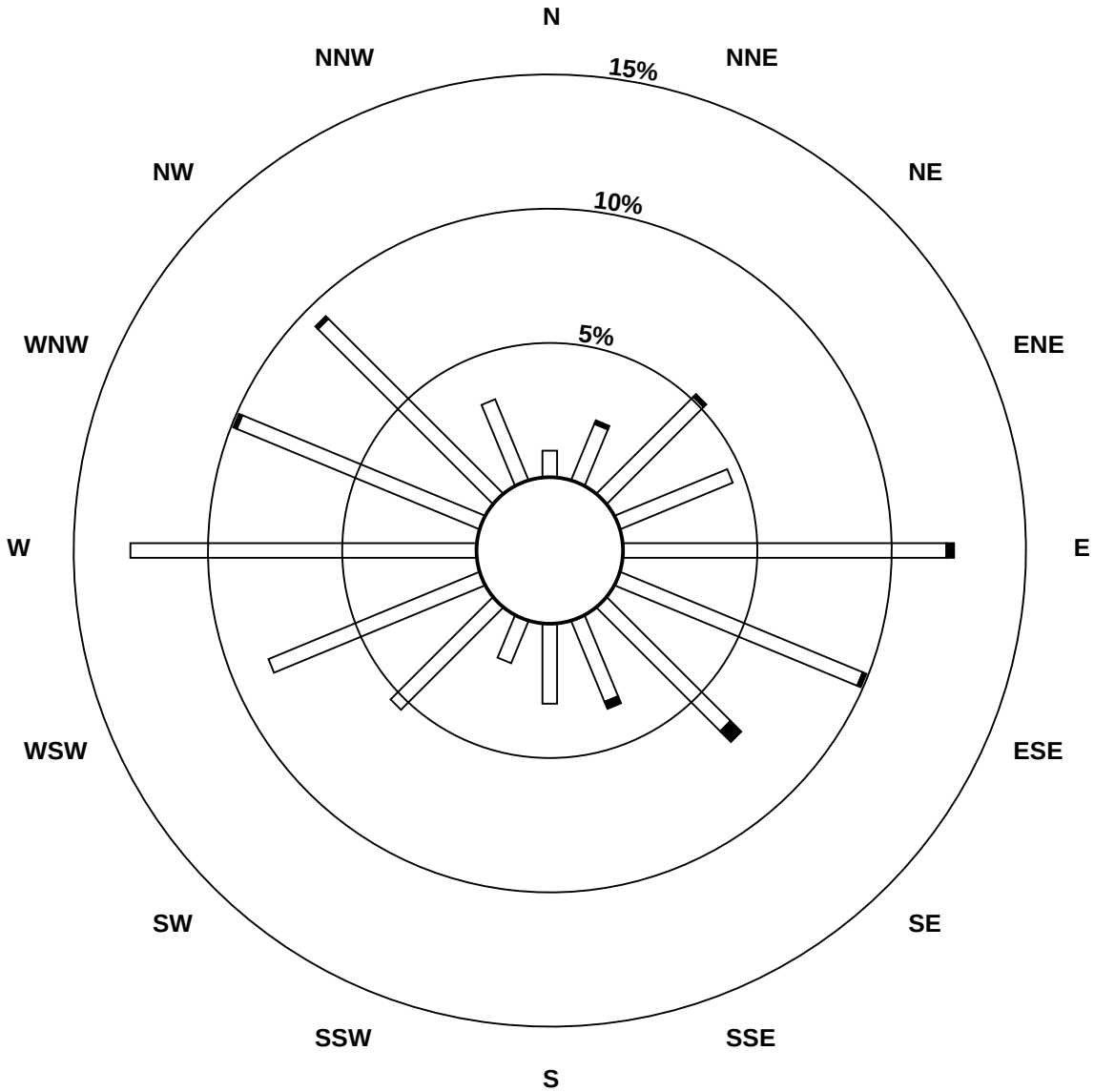
Henry Pirker - October 2014



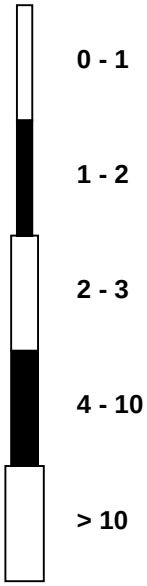
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - October 2014



Pollutant Classes (ppb)

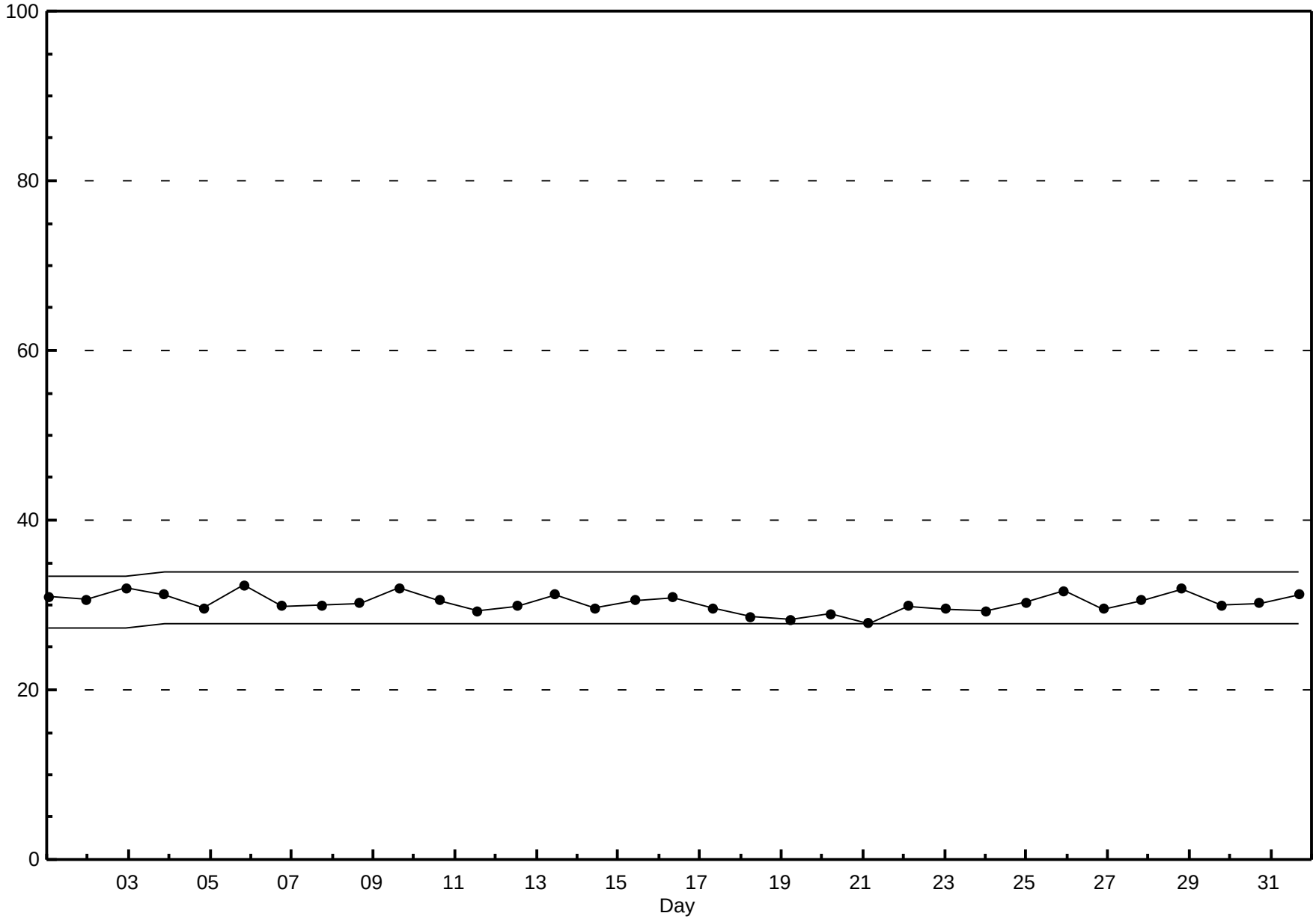


Peace Airshed Zone Association

Span Responses

Total Reduced Sulphur (TRS)

Henry Pirker - October 2014



Peace Airshed Zone Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Henry Pirker - October 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 32.9 ppb on Oct 18 20:00
Maximum Daily Average: 19.3 ppb on Oct 21

Minimum Value: 1 ppb on Oct 6 14:00
Maximum Diurnal Average: 14.3 ppb at hour 7
Monthly Average: 10.25 ppb

Minimum Daily Average: 3.4 ppb on Oct 11
Minimum Diurnal Average: 6.6 ppb at hour 15
Percentiles: P_1 = 1.5 P_{10} = 2.9 Q_1 = 4.9 Median = 8.9 Q_3 = 14.1 P_{90} = 20.3 P_{99} = 29.4

Hours in Service:	744
Hours of Data:	706
Hours of Missing Data:	38
Hours of Calibration:	38
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Oct	A	8	9	9	7	7	13	15	11	8	8	6	6	5	5	5	5	5	4	4	4	3	3	A	6.8	14.7
2-Oct	5	4	4	3	4	6	11	17	10	C	C	C	C	C	3	2	2	3	10	16	16	16	A	15	8.2	17.3
3-Oct	16	14	9	9	6	7	9	9	7	6	6	7	9	11	11	13	13	15	15	15	18	A	13	5	10.5	17.7
4-Oct	2	2	2	4	8	17	16	13	8	4	4	2	2	2	2	2	2	3	5	7	A	10	13	15	6.4	16.6
5-Oct	20	17	12	8	9	14	20	18	19	18	15	11	5	2	2	3	4	11	10	A	22	26	20	12	12.9	26.4
6-Oct	10	8	4	3	3	3	10	5	7	3	2	2	2	1	2	3	2	4	A	12	10	7	7	8	5.1	12.1
7-Oct	9	7	10	11	18	23	27	25	23	11	11	9	6	6	5	3	4	A	15	12	13	8	6	6	11.6	26.8
8-Oct	5	3	3	3	4	10	20	24	22	15	11	3	2	2	2	2	A	9	13	8	6	6	7	4	8.0	23.8
9-Oct	3	4	5	9	7	10	18	16	9	7	6	8	7	8	9	A	11	11	17	18	19	18	16	14	10.9	18.8
10-Oct	12	12	9	11	11	10	13	12	13	15	13	15	18	14	A	13	6	5	6	14	8	8	3	2	10.6	17.9
11-Oct	2	2	2	1	2	5	6	7	5	5	5	4	2	A	3	2	2	4	4	4	4	3	2	3	3.4	7.0
12-Oct	2	2	2	2	2	2	3	3	3	2	1	1	A	3	2	2	2	2	4	8	13	25	21	22	5.5	25.0
13-Oct	15	8	11	11	16	18	18	20	18	12	9	A	8	6	5	3	5	8	7	7	5	5	5	6	9.8	20.3
14-Oct	7	11	9	12	9	12	11	7	4	7	A	5	4	4	3	4	4	4	6	7	15	16	9	7	7.7	15.9
15-Oct	4	3	3	5	6	10	11	12	5	A	6	5	4	4	6	4	4	5	4	6	9	11	6	4	5.9	11.6
16-Oct	2	2	2	3	4	10	11	14	A	7	7	7	7	6	6	5	7	10	14	14	15	8	9	13	7.9	14.5
17-Oct	11	8	7	7	10	11	11	A	12	10	7	8	10	9	15	13	15	20	21	19	18	15	13	11	12.1	20.5
18-Oct	10	8	9	9	9	10	A	12	11	9	7	4	3	3	3	3	6	14	22	33	30	29	16	13	12.0	32.9
19-Oct	14	13	18	17	16	A	18	17	19	17	14	12	10	10	7	9	12	12	17	22	25	20	19	13	15.3	25.1
20-Oct	15	11	13	9	A	21	22	19	17	18	24	24	18	15	18	23	4	13	14	24	19	17	16	22	17.2	24.4
21-Oct	23	22	21	A	20	19	23	18	23	23	14	9	10	7	9	13	11	26	27	27	30	25	24	20	19.3	30.3
22-Oct	14	7	A	6	6	8	9	11	9	17	21	12	9	12	5	4	11	19	25	28	30	30	27	21	14.8	30.4
23-Oct	16	A	14	7	13	14	21	14	16	20	12	8	6	5	6	5	4	5	4	7	9	7	6	7	9.7	20.5
24-Oct	A	7	7	8	9	10	11	17	30	22	10	7	3	3	3	3	4	8	10	12	19	16	20	A	10.9	29.6
25-Oct	25	24	18	24	25	21	23	19	17	16	12	20	8	7	6	6	8	4	3	3	2	2	A	4	12.9	25.4
26-Oct	3	3	3	3	3	4	4	7	9	9	6	6	5	2	2	3	4	4	3	3	3	A	8	6	4.4	8.8
27-Oct	5	6	7	10	13	23	25	23	22	17	18	22	22	23	25	24	20	22	19	17	A	19	17	16	18.0	24.7
28-Oct	15	14	14	12	9	10	13	14	15	11	8	6	6	6	7	7	9	9	9	A	10	10	8	7	10.0	15.3
29-Oct	6	6	7	8	8	11	13	14	12	11	7	6	5	8	8	5	6	7	A	11	11	10	11	11	8.8	14.4
30-Oct	8	7	6	5	6	6	8	8	7	6	5	5	4	5	6	8	9	A	10	9	8	9	9	9	7.1	9.9
31-Oct	10	11	10	8	9	8	9	10	11	13	14	14	13	12	14	20	A	28	22	20	22	18	10	6	13.5	28.1
	9.9	8.4	8.3	7.9	9.0	11.2	14.3	14.1	13.2	11.7	9.7	8.6	7.4	6.9	6.6	7.0	6.8	10.0	11.8	13.4	14.2	13.7	11.8	10.3	Diurnal Average	
	25.0	23.6	20.8	23.9	25.4	23.1	26.8	25.3	29.6	23.1	24.3	24.4	22.2	23.2	24.6	24.4	20.4	28.1	27.2	32.9	30.4	30.0	26.6	22.1	Diurnal Maximum	

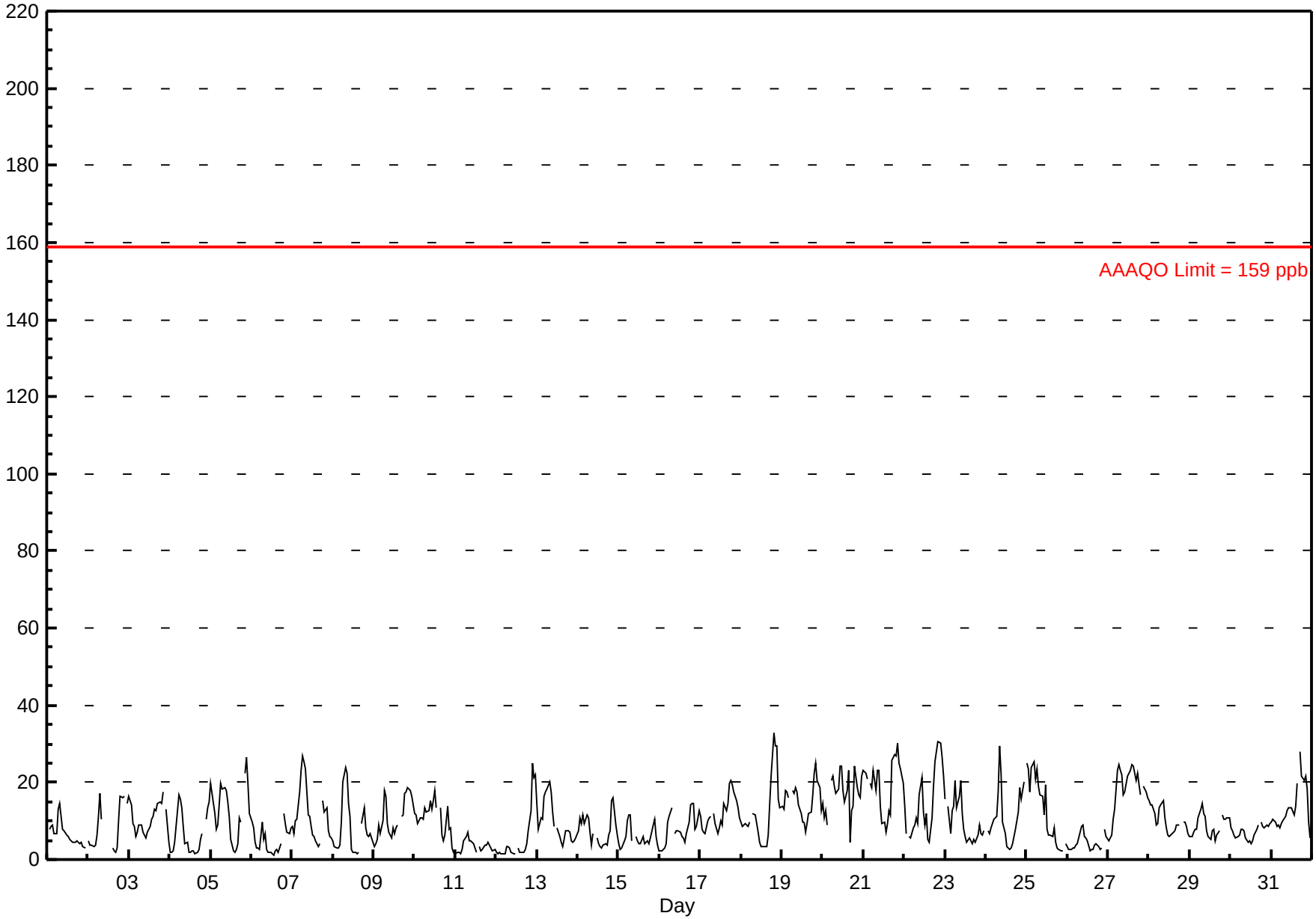
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb 24-hr 106 ppb

Peace Airshed Zone Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Henry Pirker - October 2014



Peace Airshed Zone Association

Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

Henry Pirker - October 2014

Maximum Value: 40.0 ppb on Oct 18 20:00

Maximum Daily Average: 25.3 ppb on Oct 21

Minimum Value: 2 ppb on Oct 11 01:00

Minimum Daily Average: 5.4 ppb on Oct 11

Maximum Diurnal Average: 18.3 ppb at hour 8

Minimum Diurnal Average: 9.9 ppb at hour 17

Monthly Average: 14.00 ppb

Percentiles: P_1 = 2.6 P_{10} = 4.6 Q_1 = 7.6 Median = 12.2 Q_3 = 19.2 P_{90} = 26.5 P_{99} = 35.3

Hours in Service:	744
Hours of Data:	706
Hours of Missing Data:	38
Hours of Calibration:	38
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Oct	A	10	11	11	8	10	15	17	14	10	9	7	8	7	6	6	5	6	5	5	6	4	4	A	8.2	17.1
2-Oct	7	4	4	4	5	8	15	20	18	C	C	C	C	C	9	6	4	6	19	23	20	21	A	18	11.6	22.6
3-Oct	18	18	11	11	8	13	12	11	11	8	7	9	13	13	16	18	15	16	18	17	21	A	18	11	13.6	21.4
4-Oct	3	4	4	10	16	20	18	18	14	7	8	4	4	4	4	4	5	5	9	11	A	21	20	23	10.1	22.7
5-Oct	26	22	19	9	12	19	24	22	25	22	19	15	12	5	3	5	9	15	15	A	29	32	26	15	17.3	32.4
6-Oct	14	13	7	4	7	7	20	9	10	8	6	4	3	2	6	5	3	8	A	17	15	9	10	11	8.6	20.1
7-Oct	11	8	12	13	24	28	31	29	27	22	13	31	21	30	7	6	7	A	20	16	18	10	8	9	17.3	31.1
8-Oct	6	5	4	4	5	15	31	27	27	19	17	7	3	3	5	4	A	17	22	12	11	10	19	7	12.2	31.5
9-Oct	5	6	9	14	9	15	27	22	13	11	9	12	8	10	12	A	13	15	21	21	22	20	20	17	14.4	26.9
10-Oct	14	14	12	13	13	13	15	16	15	19	14	18	23	21	A	25	10	7	12	18	12	13	5	4	14.3	25.3
11-Oct	2	3	3	3	5	7	8	16	7	7	6	6	4	A	4	4	4	5	5	7	7	4	4	5	5.4	16.2
12-Oct	3	2	3	3	2	2	4	4	4	3	2	2	A	4	3	3	4	4	7	13	20	29	29	28	7.7	29.0
13-Oct	22	9	15	14	25	23	22	24	21	16	10	A	12	10	20	6	8	18	12	9	6	7	7	9	14.1	25.1
14-Oct	10	17	15	16	14	14	13	10	8	11	A	11	6	5	5	6	8	8	11	13	23	21	12	8	11.4	23.5
15-Oct	7	4	4	7	10	12	14	19	8	A	8	7	6	6	12	6	8	9	6	8	11	12	11	7	8.7	18.7
16-Oct	4	4	5	4	6	14	13	16	A	8	9	9	11	8	13	7	10	13	16	19	17	12	11	17	10.6	18.9
17-Oct	13	11	9	8	14	15	13	A	15	12	9	13	12	12	17	15	21	21	22	22	20	18	15	12	14.7	22.3
18-Oct	11	10	11	10	10	12	A	14	14	11	9	9	5	6	6	6	10	35	32	40	35	34	30	19	16.5	40.0
19-Oct	17	17	23	23	21	A	24	21	28	22	18	18	14	13	9	19	16	17	22	27	28	26	27	14	20.2	27.8
20-Oct	19	16	18	12	A	35	27	28	40	22	32	28	21	20	28	34	8	17	21	31	22	24	24	26	24.0	39.6
21-Oct	25	26	26	A	24	26	32	27	31	31	21	13	14	12	19	19	18	34	31	31	33	30	33	25	25.3	34.2
22-Oct	23	9	A	8	8	10	13	17	13	24	27	22	11	25	10	8	18	36	29	36	33	34	33	24	20.6	36.1
23-Oct	20	A	18	10	18	23	25	18	21	30	18	10	9	6	8	7	5	8	6	9	13	10	9	12	13.6	30.1
24-Oct	A	14	9	10	11	12	14	27	39	31	15	16	5	5	4	6	6	13	12	21	23	23	28	A	15.6	39.4
25-Oct	31	27	24	28	30	26	26	25	20	20	31	40	19	8	8	9	11	7	5	4	4	4	A	5	17.9	39.9
26-Oct	5	4	4	5	4	12	7	9	17	12	8	8	8	4	4	3	5	7	5	5	7	A	10	9	7.0	17.1
27-Oct	7	8	13	15	18	28	29	27	27	21	20	28	24	25	31	31	25	25	21	19	A	21	19	18	21.7	31.4
28-Oct	17	17	16	15	13	11	18	17	23	14	13	9	11	13	15	10	11	12	12	A	11	13	11	8	13.5	22.7
29-Oct	7	7	9	10	10	14	15	16	16	17	9	9	9	13	17	6	7	9	A	18	15	12	13	14	11.8	18.5
30-Oct	10	8	7	6	8	7	13	9	10	7	5	6	5	6	8	10	10	A	13	10	9	10	10	11	8.7	13.5
31-Oct	10	13	13	10	11	9	11	12	12	14	16	16	18	16	17	26	A	30	28	23	25	20	20	8	16.5	30.5
	12.7	11.0	11.2	10.3	12.3	15.3	18.3	18.3	18.1	15.8	13.4	13.3	10.9	10.7	10.9	10.6	9.9	14.7	15.7	17.4	17.9	17.4	16.6	13.5	Diurnal Average	
	30.8	26.5	26.4	27.7	29.8	35.3	31.7	29.4	39.6	31.0	32.3	39.9	24.0	30.1	30.7	33.6	24.8	36.1	32.4	40.0	35.5	34.4	33.1	27.7	Diurnal Maximum	

C - Calibration

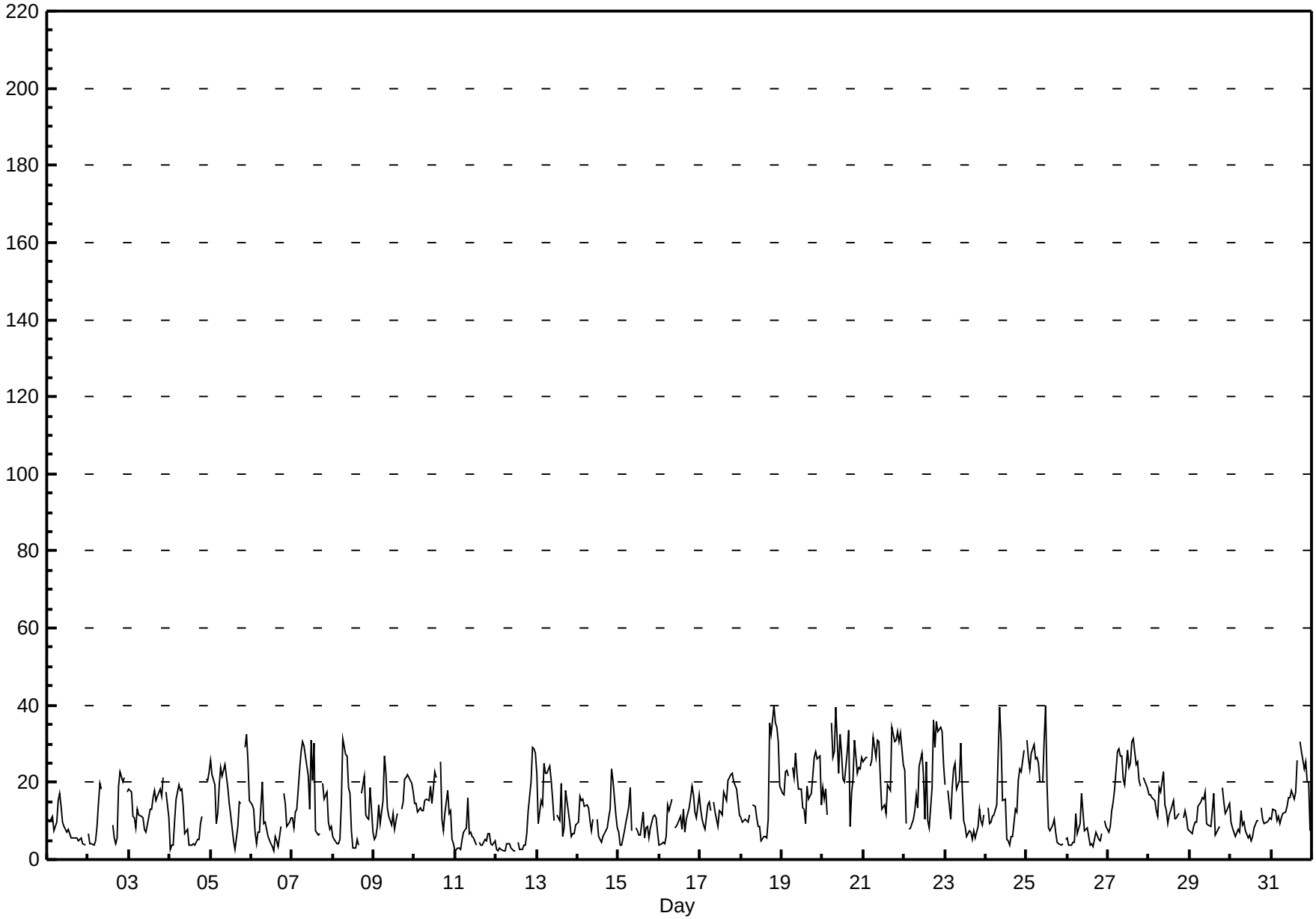
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

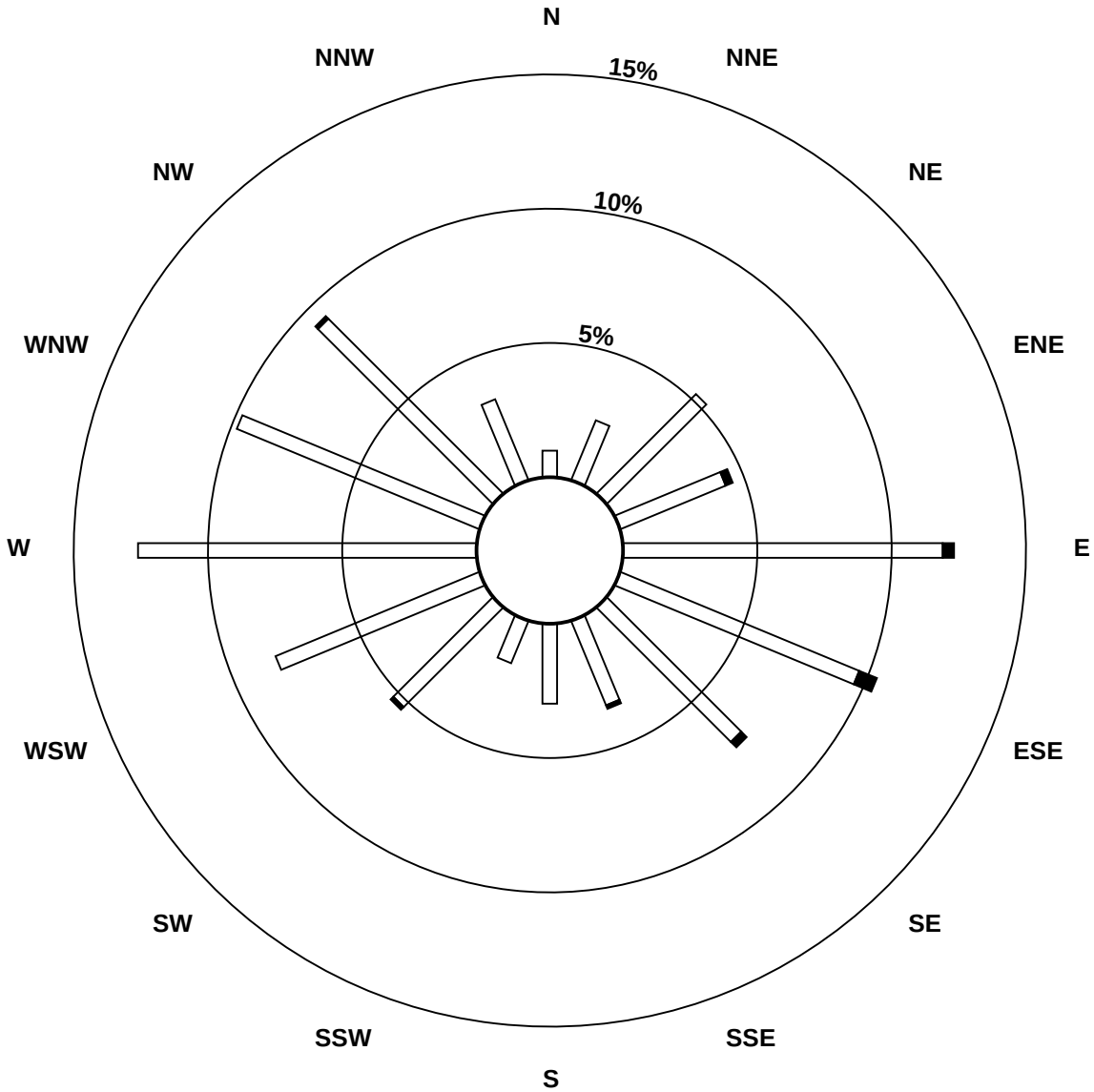
Henry Pirker - October 2014



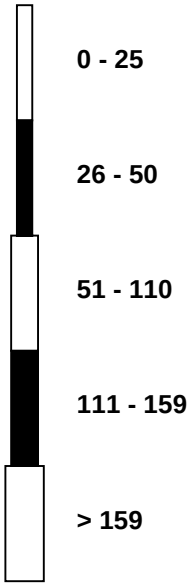
Pollutant Rose

Nitrogen Dioxide (NO_2) - ppb

Henry Pirker - October 2014



Pollutant Classes (ppb)

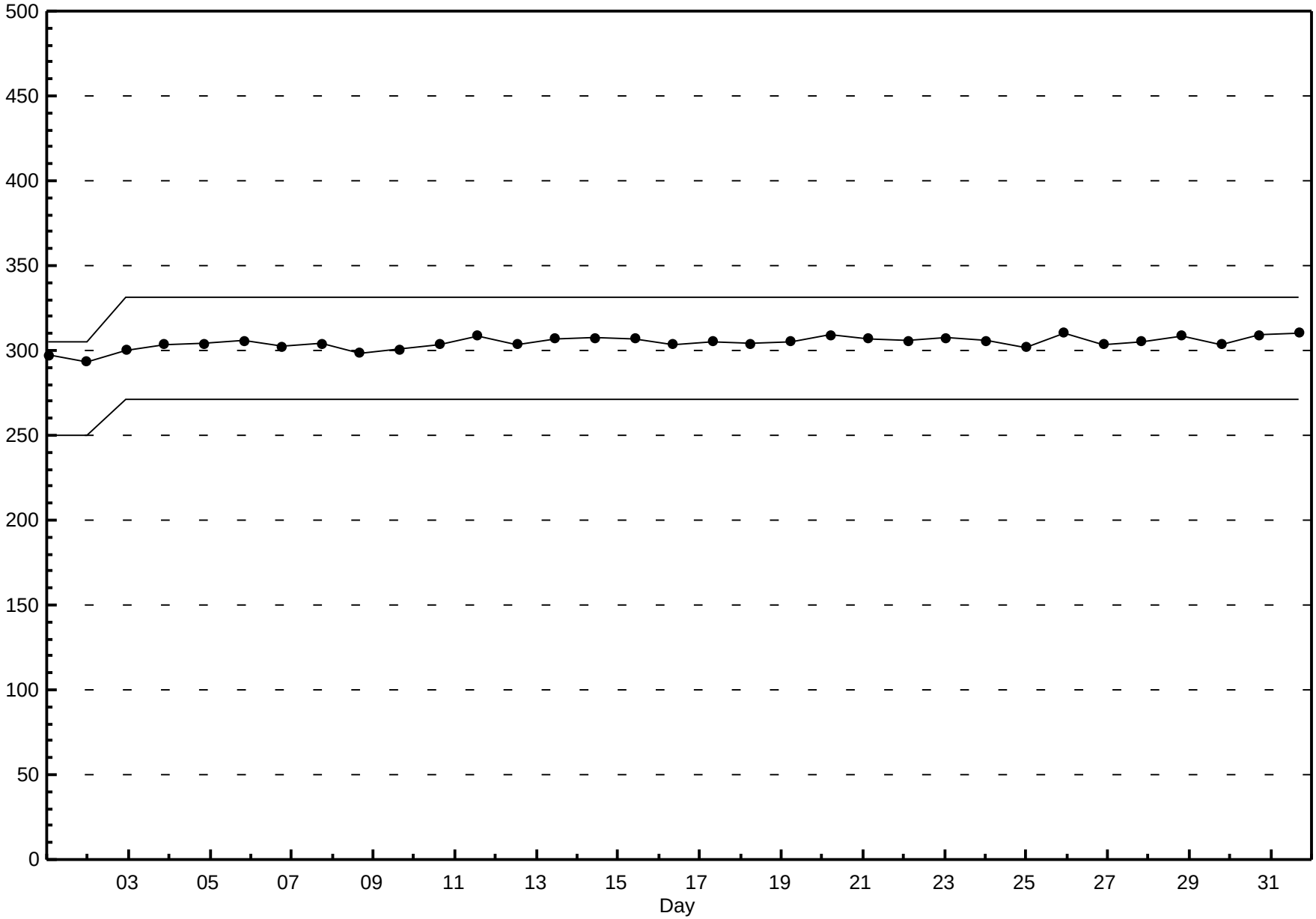


Peace Airshed Zone Association

Span Responses

Nitrogen Dioxide (NO_2)

Henry Pirker - October 2014



Peace Airshed Zone Association

Hourly Averages

Nitrogen Oxide (NO) - ppb

Henry Pirker - October 2014

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

Maximum Value: 146.9 ppb on Oct 24 09:00

Maximum Daily Average: 20.6 ppb on Oct 27

Minimum Value: 0 ppb on Oct 2 03:00

Minimum Daily Average: 0.2 ppb on Oct 11

Maximum Diurnal Average: 18.5 ppb at hour 9

Minimum Diurnal Average: 2.6 ppb at hour 4

Monthly Average: 6.94 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.1$ $Q_1 = 0.4$ Median = 1.6 $Q_3 = 7.4$ $P_{90} = 21.2$ $P_{99} = 58.9$

Hours in Service:	744
Hours of Data:	706
Hours of Missing Data:	38
Hours of Calibration:	38
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Oct	A	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.4	0.5
2-Oct	0	0	0	0	0	0	0	3	1	C	C	C	C	C	1	1	1	0	1	1	2	3	A	1	0.8	3.5
3-Oct	4	3	1	1	1	2	3	3	3	2	2	4	4	6	8	9	10	13	27	29	43	A	14	0	8.4	42.8
4-Oct	0	0	0	0	0	7	6	6	5	2	2	1	0	0	0	0	0	0	0	0	A	0	0	0	1.4	7.5
5-Oct	2	2	0	0	0	1	14	32	36	23	14	5	2	0	0	0	0	1	0	A	1	8	2	1	6.3	35.8
6-Oct	1	1	0	0	0	0	1	1	1	1	1	1	1	0	1	1	0	0	A	0	0	0	0	0	0.5	1.4
7-Oct	0	0	0	0	3	15	33	29	21	6	5	4	3	3	1	1	1	A	1	0	0	0	0	0	5.5	32.9
8-Oct	0	0	0	0	0	0	2	3	7	5	7	1	0	0	0	0	A	0	1	1	1	0	0	0	1.3	7.0
9-Oct	0	0	0	0	0	0	3	3	2	2	3	6	7	9	7	A	3	2	3	3	6	23	41	35	6.9	41.2
10-Oct	21	22	29	16	20	42	68	68	62	45	14	13	13	5	A	2	1	1	0	0	0	0	0	0	19.2	68.0
11-Oct	0	0	0	0	0	0	0	0	1	1	1	1	1	A	1	0	0	0	0	0	0	0	0	0	0.2	0.8
12-Oct	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	3	2	1	0.4	2.7
13-Oct	0	0	0	0	4	2	3	16	16	9	5	A	3	2	1	1	1	0	1	0	0	0	0	0	2.8	16.3
14-Oct	0	0	0	1	1	2	3	1	1	1	A	1	1	1	1	1	1	0	0	0	2	1	1	1	1.0	3.2
15-Oct	1	1	0	1	2	9	22	19	2	A	4	4	3	3	7	3	2	1	1	1	1	1	1	1	3.9	21.6
16-Oct	0	0	0	0	0	2	1	12	A	3	7	10	11	9	10	5	7	8	19	43	26	1	1	5	8.0	43.2
17-Oct	11	3	1	1	4	5	6	A	7	6	4	6	7	6	13	7	6	25	37	49	43	22	13	6	12.6	48.9
18-Oct	7	10	17	20	20	23	A	31	26	12	4	1	1	1	1	0	1	2	1	34	19	16	3	0	10.8	33.8
19-Oct	0	0	6	7	8	A	39	36	41	12	4	3	3	4	3	3	3	1	2	4	14	8	1	0	8.8	40.8
20-Oct	0	0	0	0	A	15	42	25	29	37	58	32	10	6	4	7	0	0	0	1	0	0	0	2	11.7	57.9
21-Oct	12	14	9	A	12	39	57	45	67	34	11	5	5	3	2	2	1	7	4	6	13	6	4	1	15.5	66.6
22-Oct	1	0	A	0	0	1	1	1	1	4	12	4	2	1	1	0	1	2	1	18	55	52	32	18	9.1	55.2
23-Oct	12	A	1	0	1	2	5	2	3	20	5	2	1	1	1	1	1	1	1	2	5	2	1	2	3.2	20.4
24-Oct	A	4	1	3	4	7	11	60	147	62	3	3	1	1	1	1	1	0	0	0	1	1	3	A	14.4	146.9
25-Oct	15	7	2	9	29	31	24	5	3	6	13	34	4	1	1	1	1	0	0	0	0	0	A	0	8.3	34.2
26-Oct	0	0	0	0	0	1	1	0	1	2	2	3	3	1	1	1	1	0	0	0	0	A	0	0	0.8	2.8
27-Oct	0	0	0	0	0	9	16	18	22	24	35	53	52	35	36	33	19	20	9	4	A	38	29	23	20.6	52.7
28-Oct	13	11	10	1	1	2	5	5	9	7	7	6	5	5	6	3	3	2	2	A	1	2	1	1	4.7	13.1
29-Oct	1	1	1	1	1	3	5	8	7	18	8	10	8	11	13	5	6	4	A	12	16	29	30	21	9.5	29.6
30-Oct	6	7	3	4	5	7	13	12	13	10	8	9	8	8	8	8	7	A	3	2	2	2	2	3	6.5	12.8
31-Oct	2	13	17	12	11	9	11	18	23	27	22	12	10	7	6	11	A	19	5	2	4	2	1	0	10.6	26.7
	3.8	3.3	3.4	2.6	4.3	7.9	13.1	15.4	18.5	13.2	9.1	8.1	5.9	4.6	4.5	3.6	2.7	3.9	4.1	7.4	8.9	7.7	6.3	4.2	Diurnal Average	
	21.0	21.6	29.0	19.7	29.1	41.9	67.8	68.0	146.9	61.8	57.9	52.7	52.4	34.9	35.9	33.2	19.2	25.3	37.3	48.9	55.2	51.7	41.2	35.2	Diurnal Maximum	

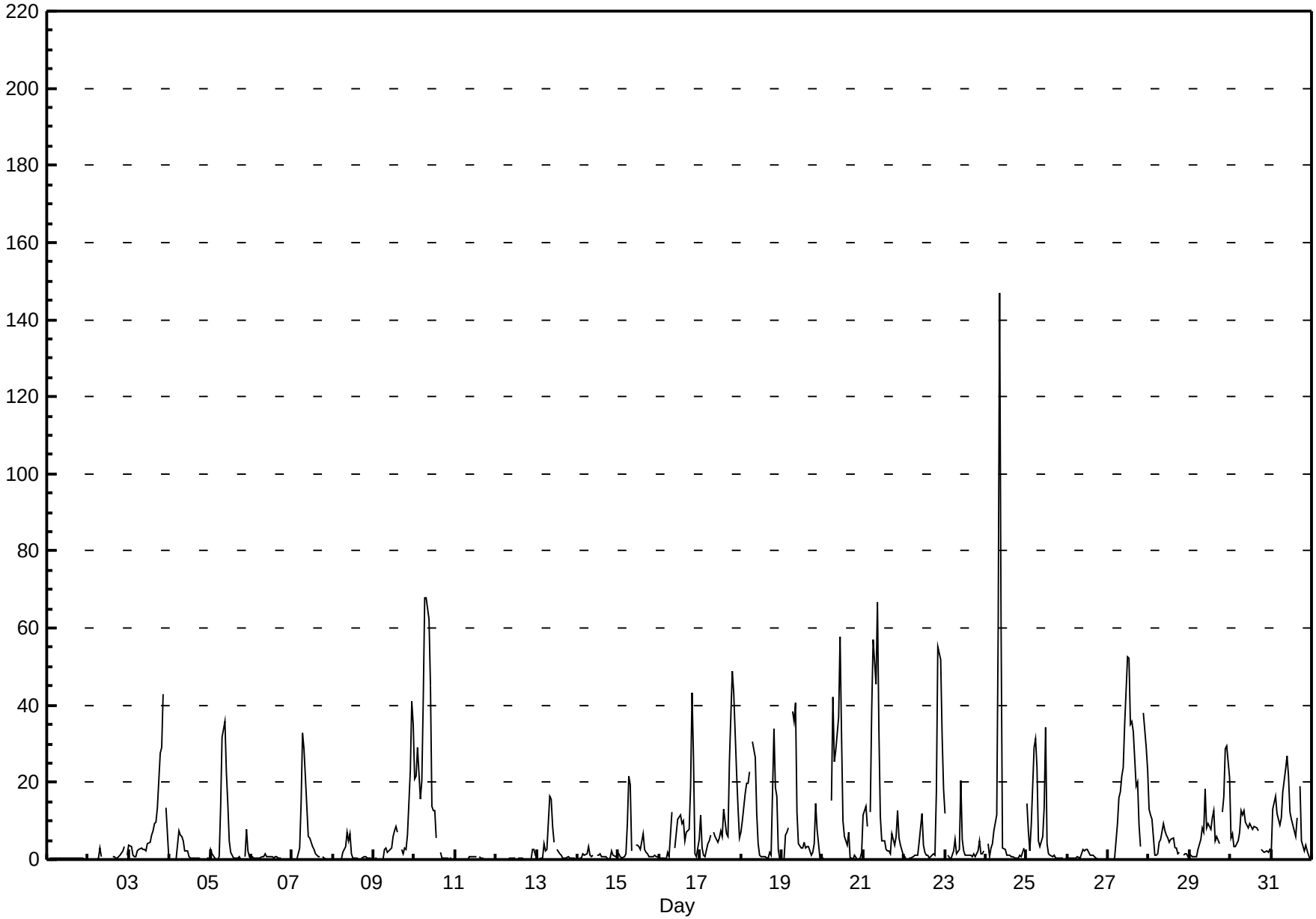
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Nitrogen Oxide (NO) - ppb

Henry Pirker - October 2014



Peace Airshed Zone Association

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Henry Pirker - October 2014

Maximum Value: 196.8 ppb on Oct 24 09:00

Maximum Daily Average: 32.5 ppb on Oct 21

Minimum Value: 0 ppb on Oct 4 01:00

Minimum Daily Average: 0.6 ppb on Oct 11

Maximum Diurnal Average: 29.8 ppb at hour 8

Minimum Diurnal Average: 5.2 ppb at hour 4

Monthly Average: 13.57 ppb

Percentiles: $P_1 = 0.1$ $P_{10} = 0.5$ $Q_1 = 1.3$ Median = 5.3 $Q_3 = 16.8$ $P_{90} = 37.3$ $P_{99} = 95.1$

Hours in Service:	744
Hours of Data:	706
Hours of Missing Data:	38
Hours of Calibration:	38
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Oct	A	1	1	1	1	1	1	1	1	0	1	1	2	1	1	1	1	1	1	1	1	0	0	A	0.7	1.9
2-Oct	0	0	0	0	0	0	1	5	4	C	C	C	C	C	1	2	2	4	2	4	5	11	A	5	2.7	10.8
3-Oct	10	9	3	2	2	14	7	7	6	4	4	7	9	10	16	14	18	22	34	45	70	A	26	8	15.1	69.5
4-Oct	0	0	0	0	2	17	13	21	10	4	5	1	1	1	1	1	1	0	0	1	A	1	1	1	3.7	20.9
5-Oct	16	11	3	1	1	2	28	45	65	29	24	7	5	1	1	1	1	1	1	A	4	18	8	3	11.9	65.0
6-Oct	1	1	1	1	1	1	2	1	3	2	4	5	1	1	2	2	1	1	A	1	1	1	1	1	1.5	5.2
7-Oct	0	0	0	1	18	35	44	57	37	16	7	42	26	28	4	3	2	A	2	2	1	0	0	0	14.2	57.2
8-Oct	0	0	0	1	0	1	14	7	14	10	12	34	1	1	4	1	A	2	3	5	4	3	2	0	5.1	33.7
9-Oct	1	2	2	1	1	1	9	10	7	8	8	12	11	10	9	A	3	3	6	5	18	52	58	51	12.6	57.9
10-Oct	30	28	33	28	37	53	76	99	73	97	19	17	18	10	A	6	1	1	1	1	1	1	1	1	27.5	99.0
11-Oct	0	0	0	0	1	0	1	1	1	1	1	1	1	A	1	1	1	1	1	0	1	1	0	0	0.6	1.5
12-Oct	0	0	0	0	0	0	0	1	1	1	1	1	A	1	1	1	1	1	0	0	1	8	10	5	1.4	9.9
13-Oct	1	1	1	1	18	7	18	26	21	15	6	A	4	3	12	3	1	1	4	2	1	1	1	1	6.5	25.9
14-Oct	1	1	1	4	4	4	8	2	2	2	A	3	2	2	2	2	2	1	1	5	12	4	3	7	3.3	11.6
15-Oct	6	3	1	2	4	21	31	71	5	A	11	11	26	18	25	6	7	7	4	2	2	2	3	11	12.1	71.5
16-Oct	3	4	4	6	1	10	3	26	A	7	14	18	28	15	30	11	15	16	41	65	44	5	2	16	16.6	64.8
17-Oct	15	11	3	2	14	15	12	A	18	16	9	10	11	9	24	10	19	37	44	63	63	48	18	14	21.0	63.0
18-Oct	9	17	24	27	24	42	A	37	31	19	7	3	2	2	2	1	1	16	7	73	51	41	21	3	19.9	72.6
19-Oct	1	2	23	12	12	A	51	48	56	32	10	9	5	10	5	12	10	3	16	25	43	31	2	0	18.2	55.5
20-Oct	3	0	1	1	A	40	65	46	67	49	121	48	19	13	12	20	1	2	1	4	0	0	6	21	23.5	121.1
21-Oct	37	18	16	A	28	74	87	108	89	89	20	8	8	7	10	5	3	28	12	16	23	38	14	10	32.5	107.9
22-Oct	2	1	A	1	1	4	4	6	3	9	26	14	2	5	4	1	4	7	4	53	106	67	53	32	17.8	106.0
23-Oct	26	A	7	1	3	10	16	8	12	45	12	4	2	2	3	2	1	3	2	6	11	5	4	8	8.4	44.9
24-Oct	A	16	4	7	7	16	30	122	197	119	6	8	2	2	2	2	2	1	1	1	3	3	20	A	26.0	196.8
25-Oct	22	18	15	18	64	43	45	18	9	10	69	94	26	3	2	1	4	2	1	1	1	2	A	3	20.5	93.5
26-Oct	1	1	1	2	3	3	3	1	18	6	3	4	5	2	3	2	1	1	1	1	0	A	1	1	2.8	17.8
27-Oct	0	0	1	0	9	21	30	33	34	43	45	73	64	42	54	56	31	31	13	8	A	43	37	28	30.3	72.8
28-Oct	17	18	23	4	3	8	14	12	25	14	15	10	16	15	24	5	9	3	7	A	2	7	4	1	11.2	24.7
29-Oct	5	2	4	3	2	7	11	14	12	67	11	15	16	30	40	7	9	8	A	27	28	44	38	39	19.1	66.8
30-Oct	13	13	7	6	12	10	29	29	22	19	12	15	11	9	12	11	11	A	6	6	3	7	4	7	12.0	29.4
31-Oct	5	29	25	22	20	14	27	31	30	35	29	20	19	13	9	26	A	35	12	6	20	7	7	0	19.3	35.1
	7.8	6.9	6.9	5.2	9.8	15.8	22.7	29.8	29.1	26.5	17.7	17.1	11.9	9.2	10.5	7.2	5.6	8.2	7.8	14.7	17.9	15.7	11.9	9.6	Diurnal Average	
	36.7	28.9	32.6	28.4	64.5	74.2	87.4	122.3	196.8	118.7	121.1	93.5	63.6	41.6	54.4	56.3	30.6	36.6	43.6	72.6	106.0	67.5	57.9	50.8	Diurnal Maximum	

C - Calibration

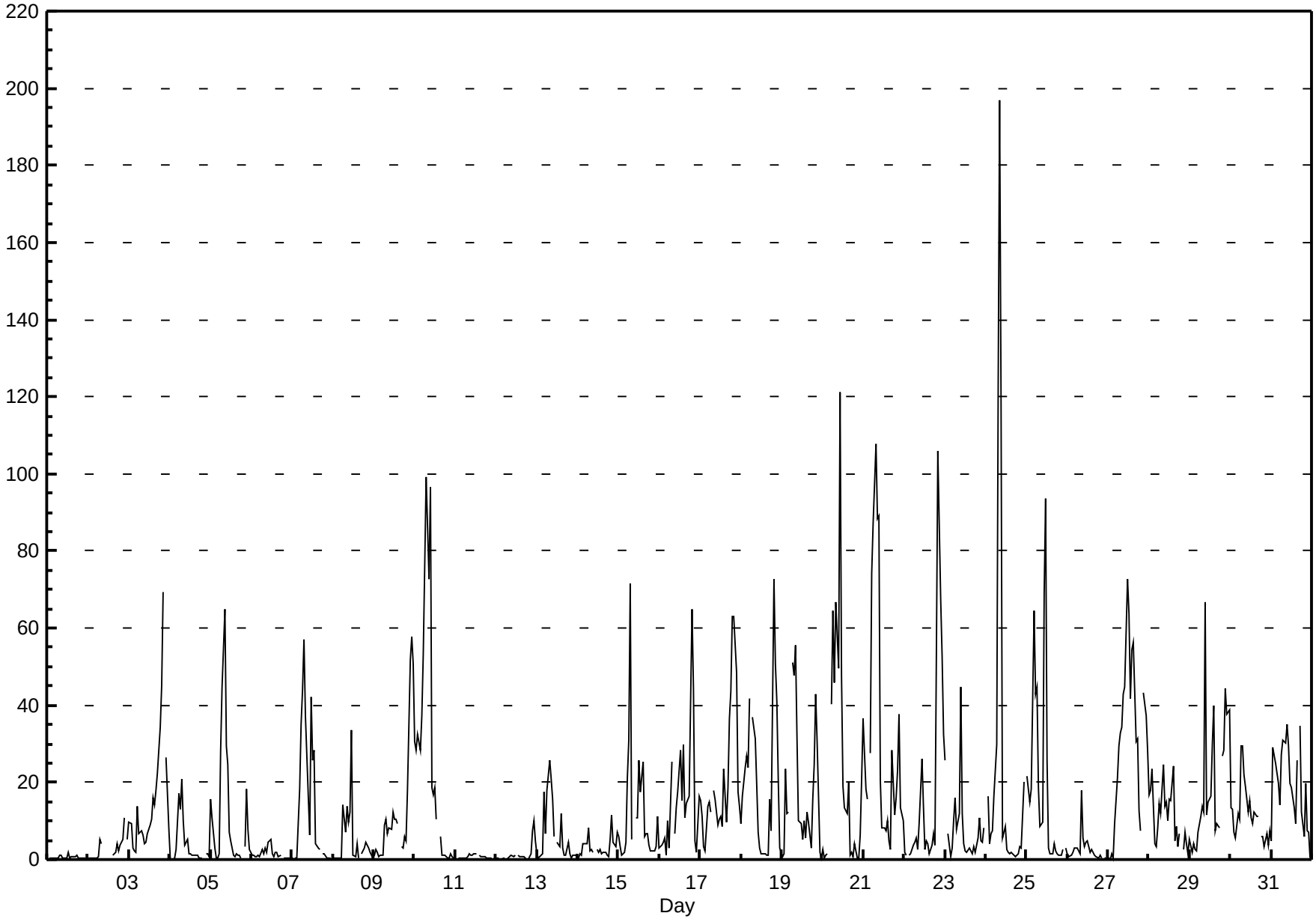
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Henry Pirker - October 2014



Peace Airshed Zone Association

Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Henry Pirker - October 2014

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

Maximum Value: 176.8 ppb on Oct 24 09:00

Maximum Daily Average: 38.8 ppb on Oct 27

Minimum Value: 1 ppb on Oct 11 04:00

Minimum Daily Average: 3.6 ppb on Oct 11

Maximum Diurnal Average: 31.7 ppb at hour 9

Minimum Diurnal Average: 9.5 ppb at hour 17

Monthly Average: 17.20 ppb

Percentiles: P_1 = 1.5 P_{10} = 3.3 Q_1 = 6.0 Median = 11.7 Q_3 = 21.1 P_{90} = 39.6 P_{99} = 81.0

Hours in Service:	744
Hours of Data:	706
Hours of Missing Data:	38
Hours of Calibration:	38
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Oct	A	8	9	9	7	7	13	15	11	8	8	7	6	6	5	5	5	5	5	4	4	3	3	A	7.1	15.2
2-Oct	5	4	3	3	4	6	11	20	11	C	C	C	C	C	4	3	2	3	11	18	18	20	A	16	9.0	20.2
3-Oct	20	17	10	10	7	9	12	12	10	9	8	11	13	17	19	22	23	28	42	44	61	A	27	4	18.9	60.7
4-Oct	1	2	2	4	8	24	22	19	13	6	7	2	2	3	3	2	2	3	5	7	A	10	13	15	7.6	24.1
5-Oct	22	19	12	8	9	15	33	50	55	41	29	16	7	2	2	3	4	11	10	A	23	34	22	12	19.1	54.5
6-Oct	10	9	5	3	3	3	11	6	8	3	2	2	2	2	3	3	2	5	A	12	10	7	7	8	5.4	12.1
7-Oct	9	6	10	11	20	38	60	54	44	17	17	13	9	8	6	4	5	A	16	12	13	8	6	6	17.0	59.7
8-Oct	5	3	3	3	4	10	22	27	29	20	18	4	2	2	2	2	A	10	14	9	7	7	7	4	9.3	29.2
9-Oct	3	4	5	9	7	10	21	19	11	9	9	14	14	17	16	A	14	13	20	20	25	41	58	50	17.9	57.7
10-Oct	33	33	38	26	31	52	81	81	75	61	27	28	31	19	A	15	7	5	7	14	8	8	3	2	29.8	81.4
11-Oct	2	2	2	1	2	5	6	7	5	5	5	5	2	A	4	2	3	4	4	4	4	3	2	3	3.6	7.1
12-Oct	2	1	2	2	2	2	3	3	3	2	2	2	A	3	2	2	2	3	4	8	13	28	24	23	6.0	27.8
13-Oct	15	8	11	11	20	20	21	37	33	21	13	A	11	7	6	4	6	8	8	7	5	5	5	6	12.4	36.6
14-Oct	7	11	10	13	11	13	14	8	4	8	A	7	5	5	4	4	5	4	7	7	17	17	9	8	8.5	17.4
15-Oct	5	3	3	5	7	19	33	31	7	A	10	9	7	7	13	7	6	6	5	6	10	12	7	5	9.8	33.0
16-Oct	3	3	3	3	4	12	12	26	A	10	14	18	19	15	16	9	14	18	33	58	41	9	9	18	16.0	57.8
17-Oct	23	11	8	8	14	15	17	A	19	15	11	14	18	15	28	20	21	45	58	68	61	38	27	17	24.8	68.3
18-Oct	17	19	27	29	28	33	A	43	38	21	11	6	4	4	4	4	7	16	23	67	49	46	18	13	22.9	66.9
19-Oct	14	14	24	25	25	A	57	53	60	30	18	15	13	14	10	13	15	13	18	26	40	28	19	13	24.3	59.8
20-Oct	15	11	13	9	A	36	64	44	46	55	82	57	28	21	22	30	5	13	14	26	19	17	17	24	29.0	82.3
21-Oct	35	36	30	A	32	58	80	64	90	57	25	14	15	10	12	15	13	33	31	33	43	31	27	21	35.0	90.2
22-Oct	14	7	A	6	6	9	10	12	10	21	34	16	11	13	7	5	12	21	27	46	86	82	59	40	24.1	86.0
23-Oct	28	A	15	7	14	16	26	15	19	41	17	10	7	6	7	6	5	6	5	9	14	8	8	10	13.0	41.0
24-Oct	A	12	7	11	14	18	23	77	177	84	13	9	5	4	4	4	5	8	10	12	20	16	23	A	25.2	176.8
25-Oct	39	31	20	33	54	52	47	24	20	22	25	54	12	8	7	7	9	5	4	3	3	3	A	4	21.1	54.4
26-Oct	4	3	3	3	3	4	5	7	10	11	8	8	7	3	4	4	5	5	3	3	3	A	8	6	5.3	11.3
27-Oct	5	6	7	10	13	32	41	41	44	41	53	75	75	58	61	58	40	43	28	20	A	57	47	39	38.8	74.7
28-Oct	28	26	25	13	10	11	18	19	25	18	15	12	11	12	13	11	12	11	11	A	11	11	10	8	14.7	28.5
29-Oct	7	7	8	9	9	13	18	23	19	29	16	16	13	18	21	10	12	11	A	24	27	39	40	32	18.3	40.4
30-Oct	14	14	9	9	11	14	21	19	20	15	13	14	13	13	15	16	16	A	13	11	10	11	11	12	13.6	20.6
31-Oct	11	24	26	20	20	17	20	28	35	39	35	26	24	19	20	31	A	47	26	23	26	20	11	6	24.1	47.3
	13.7	11.7	11.6	10.5	13.3	19.1	27.4	29.5	31.7	24.9	18.8	16.7	13.3	11.4	11.2	10.6	9.5	13.9	15.9	20.8	23.1	21.4	18.1	14.6	Diurnal Average	
	39.5	36.4	38.5	32.8	54.4	57.6	81.4	80.5	176.8	84.1	82.3	74.6	74.7	58.2	60.6	57.7	39.6	47.3	58.0	68.3	86.0	82.1	59.1	49.6	Diurnal Maximum	

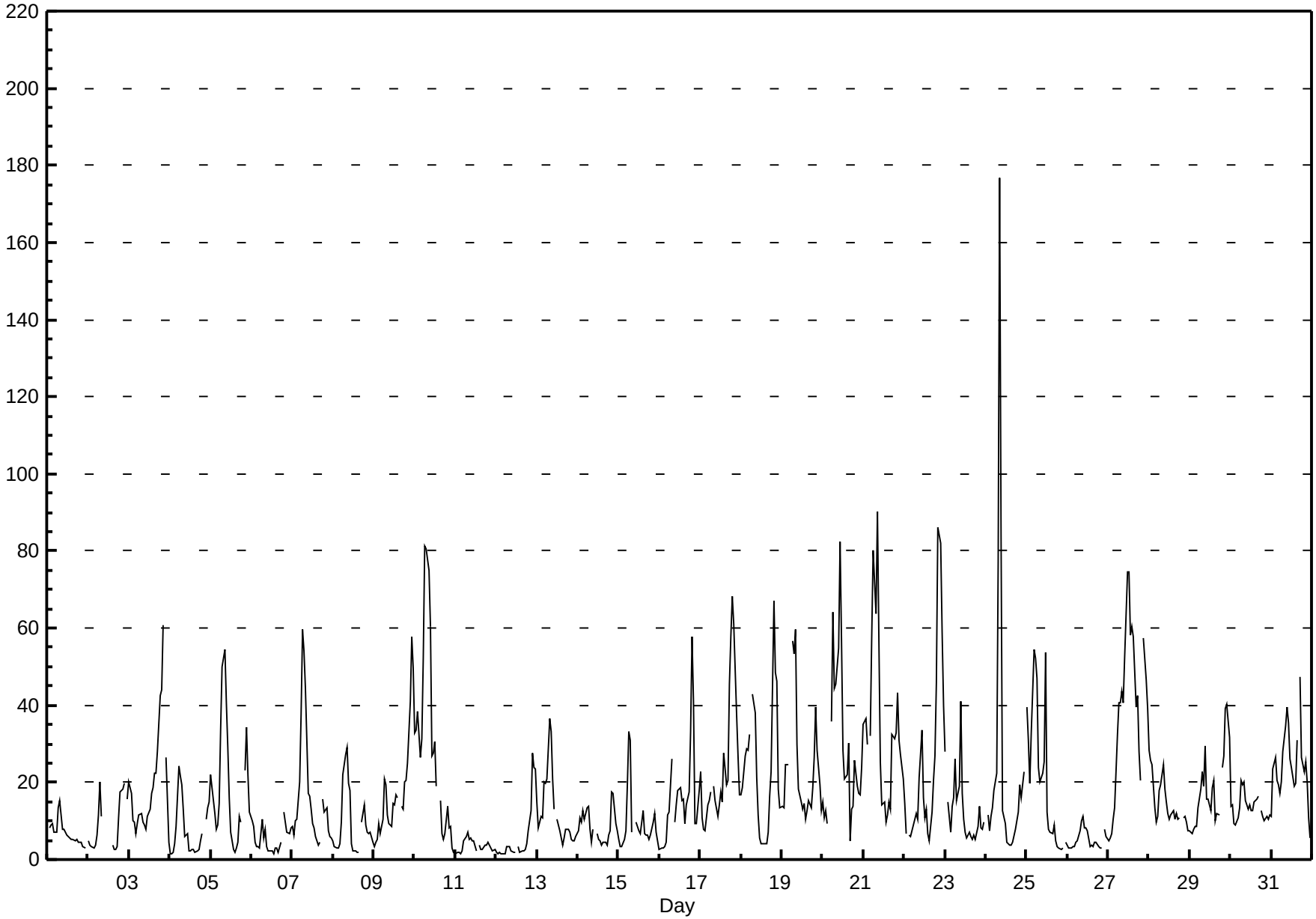
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Henry Pirker - October 2014



Peace Airshed Zone Association

Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

Henry Pirker - October 2014

Maximum Value: 232.8 ppb on Oct 24 09:00

Maximum Daily Average: 56.1 ppb on Oct 21

Minimum Value: 2 ppb on Oct 12 02:00

Minimum Daily Average: 5.7 ppb on Oct 11

Maximum Diurnal Average: 47.4 ppb at hour 8

Minimum Diurnal Average: 14.8 ppb at hour 4

Monthly Average: 26.88 ppb

Percentiles: $P_1 = 2.8$ $P_{10} = 5.6$ $Q_1 = 9.4$ Median = 18.7 $Q_3 = 35.2$ $P_{90} = 59.8$ $P_{99} = 118.6$

Hours in Service:	744
Hours of Data:	706
Hours of Missing Data:	38
Hours of Calibration:	38
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Oct	A	10	11	12	8	10	16	18	14	10	9	8	8	7	6	6	6	6	5	5	6	4	4	A	8.5	17.6
2-Oct	7	4	4	4	5	8	15	24	22	C	C	C	C	C	10	7	6	9	21	26	26	32	A	23	14.1	31.8
3-Oct	28	26	14	12	10	27	17	18	17	12	12	16	22	22	32	31	33	39	52	61	86	A	43	18	28.2	86.3
4-Oct	2	3	3	10	18	36	31	39	24	11	13	5	5	5	5	5	6	5	9	11	A	22	22	23	13.7	38.9
5-Oct	36	33	22	9	12	20	47	66	87	48	43	21	17	5	3	7	9	16	15	A	32	51	34	17	28.2	86.6
6-Oct	15	14	7	5	8	8	21	10	13	9	10	7	4	3	7	7	4	9	A	17	15	9	10	11	9.6	21.3
7-Oct	11	8	12	13	41	63	74	87	64	38	19	73	46	57	11	9	9	A	21	16	18	10	8	9	31.0	86.7
8-Oct	6	5	4	4	5	15	46	33	40	28	28	28	3	4	8	4	A	19	24	16	12	13	20	7	16.2	45.7
9-Oct	5	8	9	14	10	16	36	32	17	19	16	24	19	21	21	A	16	18	27	26	37	69	76	68	26.3	75.6
10-Oct	42	39	44	37	47	66	91	115	86	114	33	35	41	31	A	31	11	7	12	18	12	14	5	4	40.8	114.7
11-Oct	2	3	3	3	5	7	9	17	8	8	6	6	5	A	5	4	4	5	5	7	7	4	4	5	5.7	16.5
12-Oct	3	2	3	3	3	2	4	5	5	4	3	3	A	5	3	3	4	4	7	13	20	36	38	32	8.9	37.9
13-Oct	23	9	16	16	43	28	38	47	37	30	16	A	16	13	32	9	9	19	17	11	6	7	7	10	20.0	47.4
14-Oct	10	17	16	19	17	17	21	12	9	12	A	13	7	8	6	8	9	9	11	18	33	25	13	15	14.1	33.4
15-Oct	13	6	5	9	14	30	44	90	12	A	19	17	30	24	37	11	14	15	9	10	13	14	12	18	20.2	90.3
16-Oct	7	8	9	9	7	24	16	41	A	15	22	27	40	23	43	17	24	28	55	80	60	16	12	33	26.7	79.6
17-Oct	26	19	12	9	28	29	23	A	31	28	17	23	23	19	41	25	39	58	65	84	81	66	30	24	34.8	84.2
18-Oct	19	26	34	35	34	53	A	49	44	30	16	12	7	8	8	7	11	51	35	111	85	74	49	22	35.7	111.3
19-Oct	17	18	45	35	32	A	74	66	83	53	27	28	19	20	14	31	25	20	34	51	68	56	29	15	37.5	83.1
20-Oct	19	16	19	13	A	74	88	73	105	72	154	75	40	33	40	54	9	18	21	35	23	24	30	45	46.9	153.7
21-Oct	60	42	36	A	45	100	118	134	113	120	42	21	22	19	29	23	21	61	42	45	54	63	46	32	56.1	133.5
22-Oct	24	10	A	8	9	14	14	20	16	33	53	36	13	30	14	9	22	41	32	86	133	97	83	52	37.1	133.4
23-Oct	41	A	24	11	22	33	41	26	31	73	30	14	11	8	10	9	7	11	7	14	23	15	13	19	21.6	73.3
24-Oct	A	30	13	16	18	26	43	149	233	146	21	23	7	7	6	8	7	13	13	22	26	25	48	A	40.9	232.8
25-Oct	48	45	38	43	91	69	69	43	27	29	92	124	45	11	9	10	13	8	6	5	4	7	A	7	36.6	123.9
26-Oct	6	4	4	6	7	15	9	10	35	17	10	12	14	6	7	6	6	7	6	6	7	A	10	9	9.5	35.2
27-Oct	7	8	13	15	27	47	57	60	61	64	64	101	88	65	85	88	53	56	33	27	A	64	56	44	51.5	101.3
28-Oct	33	32	38	19	15	19	32	28	45	26	27	20	26	28	40	14	17	15	17	A	13	19	14	9	23.7	45.4
29-Oct	12	8	12	12	11	21	25	29	28	81	21	24	25	41	57	14	16	17	A	42	41	56	50	52	30.3	81.1
30-Oct	21	21	13	11	20	17	41	38	32	26	18	22	16	15	20	21	21	A	19	16	13	15	13	17	20.3	41.1
31-Oct	15	42	38	32	31	24	38	42	43	48	45	34	36	29	26	50	A	64	40	28	45	26	26	8	35.3	64.0
	19.4	17.3	17.4	14.8	21.3	30.6	40.0	47.4	46.1	41.6	30.5	29.4	22.6	19.5	21.2	17.6	14.9	22.3	22.8	31.3	34.6	32.2	27.7	22.5	Diurnal Average	
	60.4	44.8	45.3	42.5	90.8	100.2	118.2	149.4	232.8	146.3	153.7	123.9	87.8	65.5	85.4	87.9	53.1	64.0	64.7	111.3	133.4	97.2	82.7	67.9	Diurnal Maximum	

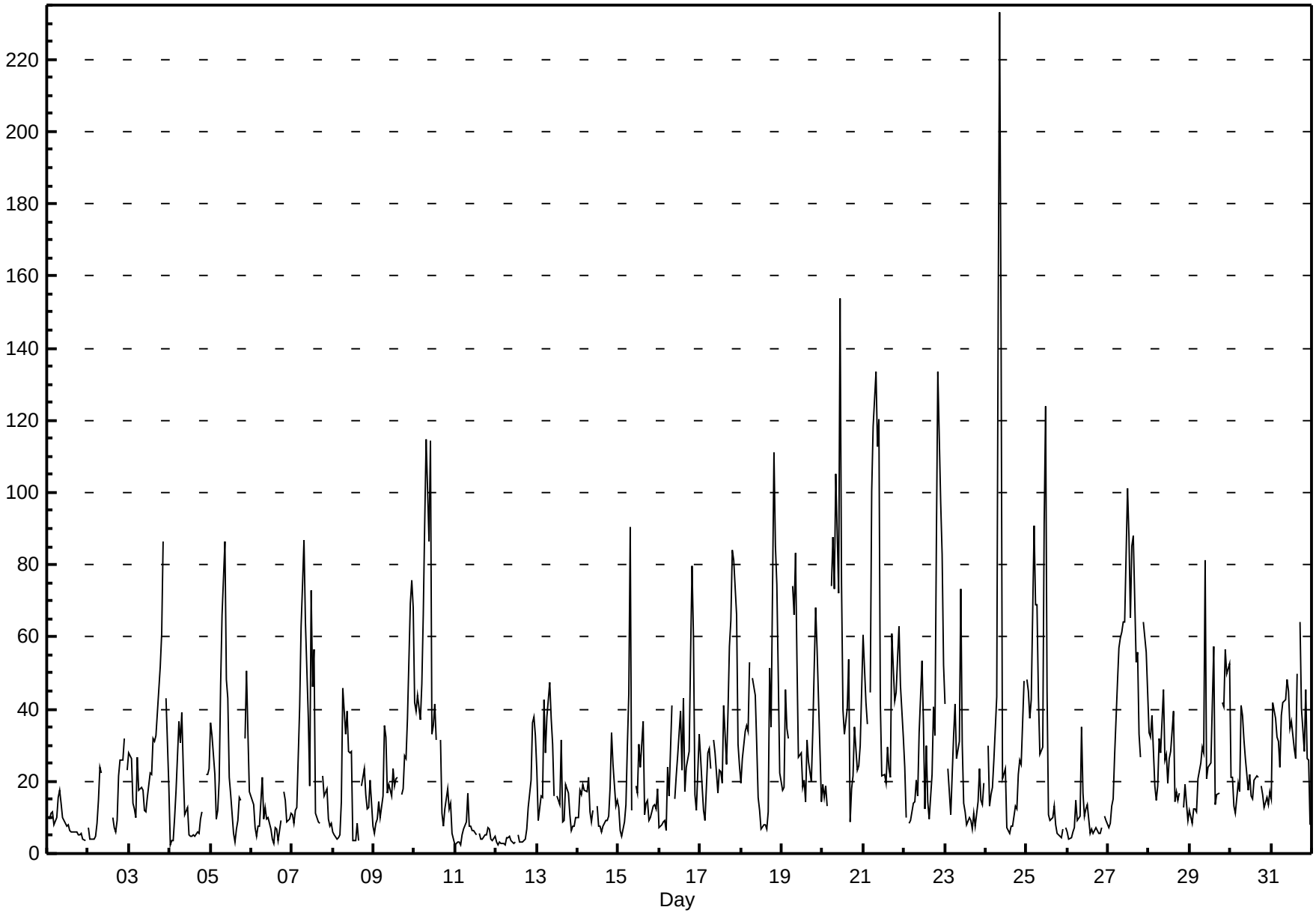
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

Henry Pirker - October 2014

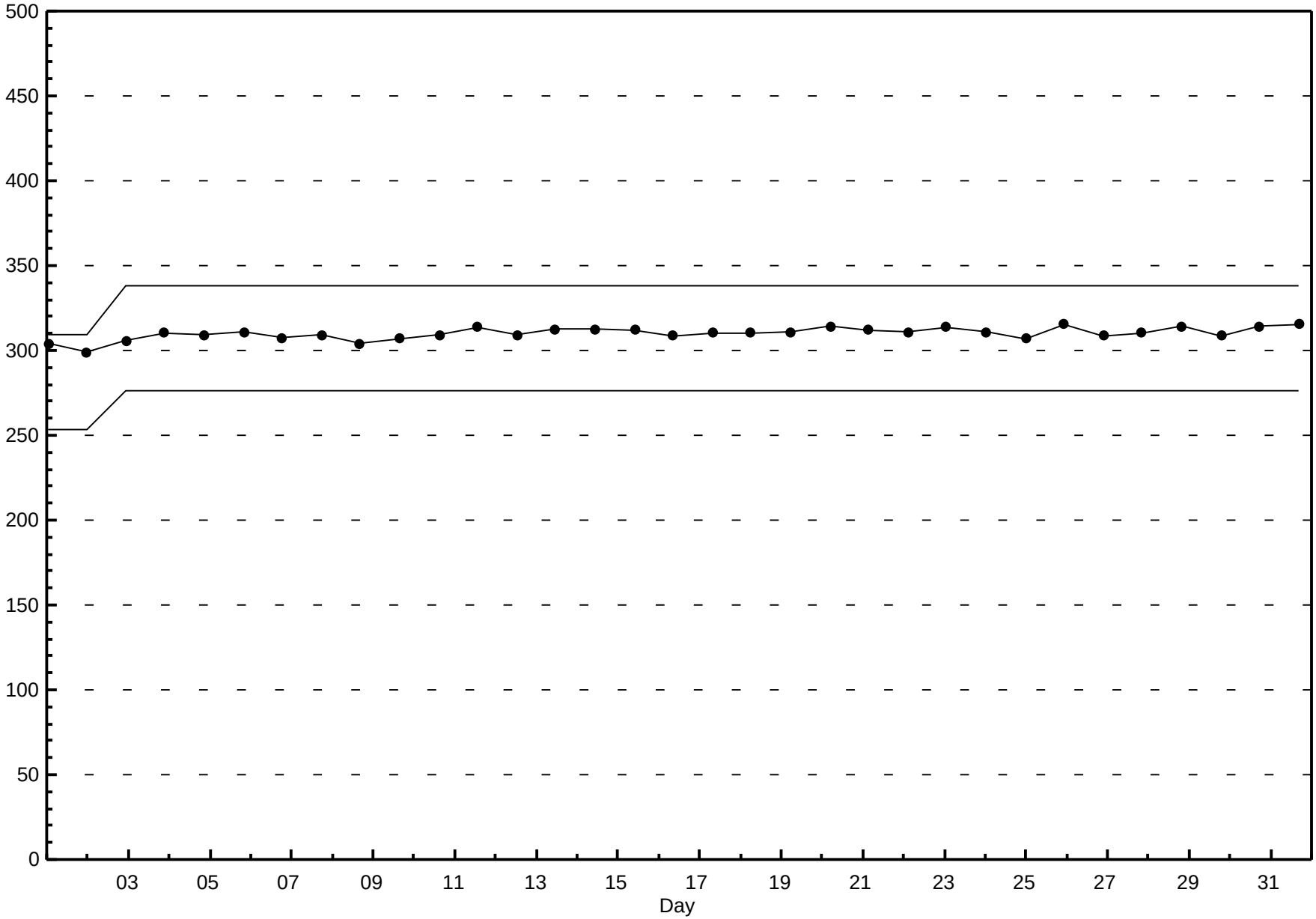


Peace Airshed Zone Association

Span Responses

Oxides of Nitrogen (NO_X)

Henry Pirker - October 2014



Peace Airshed Zone Association

Hourly Averages

Ozone (O_3) - ppb

Henry Pirker - October 2014

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

Maximum Value: 38.8 ppb on Oct 8 15:00

Maximum Daily Average: 32.1 ppb on Oct 11

Minimum Value: 0 ppb on Oct 18 01:00

Minimum Daily Average: 3.6 ppb on Oct 30

Maximum Diurnal Average: 22.8 ppb at hour 15

Minimum Diurnal Average: 7.1 ppb at hour 7

Monthly Average: 14.74 ppb

Percentiles: $P_1 = 0.4$ $P_{10} = 0.9$ $Q_1 = 4.9$ Median = 12.6 $Q_3 = 23.9$ $P_{90} = 31.4$ $P_{99} = 37.9$

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Oct	A	23	17	20	24	30	20	22	27	32	31	32	31	26	21	16	18	18	17	19	18	20	21	A	22.8	31.8
2-Oct	21	21	21	21	19	14	11	6	18	22	22	22	22	C	C	C	25	24	16	9	7	5	A	6	16.6	25.2
3-Oct	3	4	7	7	10	9	6	5	7	8	9	10	9	9	9	6	4	2	1	1	1	A	5	16	6.5	16.1
4-Oct	19	18	17	15	10	2	2	6	11	17	23	31	36	38	37	38	39	37	31	30	A	24	18	15	22.3	38.7
5-Oct	6	7	14	19	16	8	1	1	3	7	12	16	30	36	36	35	32	25	24	A	10	2	6	12	15.6	36.0
6-Oct	11	12	17	21	22	27	20	31	28	33	34	36	37	38	38	37	38	34	A	25	26	25	26	23	27.9	38.3
7-Oct	21	23	20	16	9	1	1	2	6	20	21	26	30	32	33	35	33	A	22	23	22	28	31	31	21.1	35.0
8-Oct	29	31	30	26	23	19	10	6	6	10	13	31	38	37	39	38	A	31	25	28	29	29	29	31	25.6	38.8
9-Oct	31	30	28	22	23	19	10	11	15	15	15	9	11	13	16	A	20	16	7	5	2	1	1	1	13.9	31.3
10-Oct	1	1	1	1	1	1	1	1	1	5	10	15	18	28	A	22	29	32	29	19	24	24	32	34	14.2	34.2
11-Oct	38	35	35	35	33	30	28	27	28	30	31	32	37	A	38	37	35	33	31	29	28	29	29	28	32.1	37.9
12-Oct	29	29	29	29	30	30	27	27	28	31	33	34	A	36	36	36	36	34	31	26	19	7	10	8	27.5	36.2
13-Oct	16	20	13	9	5	7	4	2	4	11	17	A	22	25	27	28	25	24	24	22	24	24	23	21	17.2	28.0
14-Oct	16	10	6	3	5	5	4	13	27	26	A	26	27	31	35	37	36	33	28	25	13	7	9	11	18.9	37.1
15-Oct	11	12	10	7	6	1	0	3	9	A	8	7	7	8	8	9	10	9	10	8	5	3	8	10	7.5	11.8
16-Oct	14	13	13	12	10	5	2	1	A	6	4	4	5	7	8	11	8	4	1	1	2	13	11	2	6.8	13.6
17-Oct	1	6	8	7	4	3	3	A	4	6	9	10	9	9	8	10	9	1	1	1	1	0	0	1	4.9	10.1
18-Oct	0	0	0	0	0	0	A	1	1	7	17	29	35	35	35	37	33	23	13	3	3	3	17	20	13.6	36.8
19-Oct	17	14	3	2	1	A	1	1	1	7	12	14	17	17	24	22	20	21	14	5	2	10	17	25	11.5	24.8
20-Oct	22	24	16	12	A	1	1	1	2	2	3	6	14	17	16	13	27	21	19	11	16	15	14	4	12.0	27.5
21-Oct	1	1	1	A	1	1	1	0	1	5	13	22	24	28	28	28	25	10	6	5	2	7	9	9	9.9	28.2
22-Oct	16	24	A	25	24	20	20	20	19	13	10	22	28	24	29	32	24	18	8	5	1	1	2	1	16.7	31.7
23-Oct	5	A	8	21	14	13	6	16	10	4	11	14	21	21	13	13	12	9	8	5	3	5	5	4	10.4	21.0
24-Oct	A	4	5	2	1	1	1	1	2	8	20	24	32	33	34	35	33	29	25	21	13	14	9	A	15.7	34.5
25-Oct	1	3	8	2	1	1	1	5	8	11	15	13	22	24	25	27	23	27	29	31	31	29	A	27	15.8	30.9
26-Oct	26	26	26	26	25	24	23	17	14	11	13	15	17	19	17	17	17	17	20	20	21	A	19	22	19.6	26.2
27-Oct	23	24	19	14	11	3	1	2	4	7	8	8	8	11	10	7	5	2	2	5	A	1	1	1	7.7	23.5
28-Oct	1	1	1	8	12	11	7	6	6	9	12	14	15	16	15	15	13	12	12	A	11	9	9	10	9.9	15.7
29-Oct	11	10	8	7	7	5	3	1	3	4	6	7	8	6	5	5	4	3	A	1	1	1	1	1	4.7	10.7
30-Oct	1	0	0	0	0	0	0	0	1	3	5	5	7	8	7	7	5	A	6	6	6	5	5	4	3.6	8.0
31-Oct	2	1	1	0	0	0	1	0	1	2	4	10	13	15	13	6	A	1	4	3	3	3	16	24	5.3	23.8
	13.5	14.3	12.8	13.0	11.6	9.6	7.1	7.8	9.9	12.4	14.8	18.2	20.9	22.3	22.8	22.7	22.1	18.9	16.0	13.5	11.9	11.9	13.2	13.7	Diurnal Average	
	37.8	35.3	34.8	35.2	32.9	30.3	27.6	31.3	28.5	32.7	34.1	36.2	37.6	38.3	38.8	38.4	38.7	36.8	31.4	30.9	30.7	29.4	32.3	34.2	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

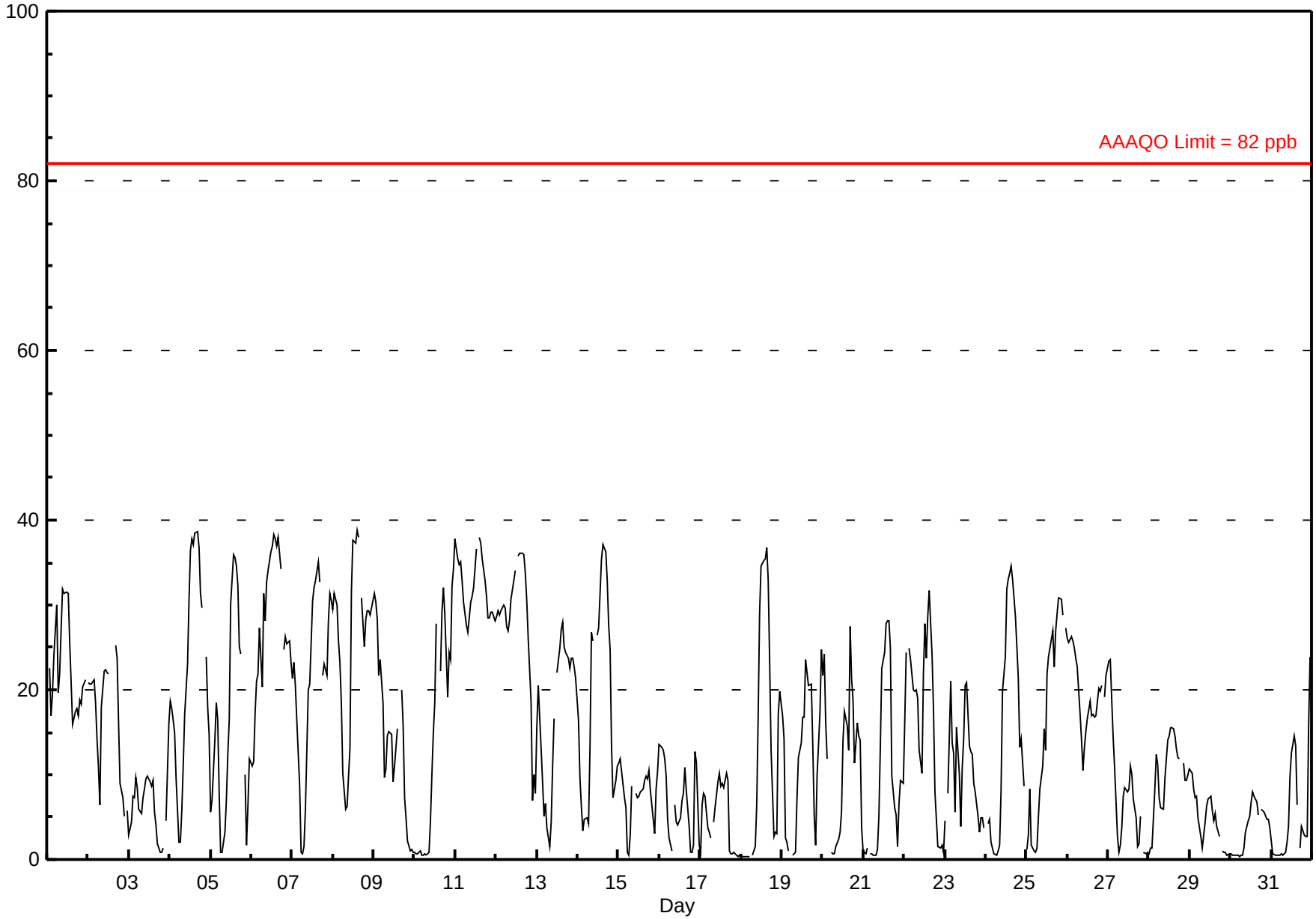
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82 ppb 24-hr na

Peace Airshed Zone Association

Hourly Averages

Ozone (O_3) - ppb

Henry Pirker - October 2014



Peace Airshed Zone Association

Hourly Maximums

Ozone (O_3) - ppb

Henry Pirker - October 2014

Maximum Value: 40.4 ppb on Oct 4 17:00

Maximum Daily Average: 34.0 ppb on Oct 11

Minimum Value: 0 ppb on Oct 18 02:00

Minimum Daily Average: 4.4 ppb on Oct 30

Maximum Diurnal Average: 25.9 ppb at hour 16

Minimum Diurnal Average: 10.0 ppb at hour 7

Monthly Average: 17.79 ppb

Percentiles: $P_1 = 0.7$ $P_{10} = 1.9$ $Q_1 = 7.8$ Median = 16.8 $Q_3 = 27.7$ $P_{90} = 34.7$ $P_{99} = 39.6$

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-Oct	A	24	20	25	28	36	24	29	31	34	33	34	33	29	25	18	19	19	20	20	20	22	22	A	25.8	35.7
2-Oct	22	22	22	22	20	17	16	13	22	24	24	24	23	C	C	C	27	26	23	13	14	10	A	9	19.8	26.7
3-Oct	4	8	9	9	11	10	8	7	8	11	11	12	11	10	11	8	5	3	1	1	4	A	16	19	8.7	19.3
4-Oct	20	19	18	19	18	4	5	10	17	20	30	33	39	39	39	40	40	39	36	35	A	28	24	19	25.7	40.4
5-Oct	11	16	20	21	18	13	5	1	7	9	16	20	38	39	37	37	36	29	28	A	16	5	14	17	19.5	38.6
6-Oct	14	15	21	22	31	32	29	34	31	35	36	38	39	40	40	39	40	39	A	31	31	27	29	25	31.2	40.4
7-Oct	24	25	23	19	16	3	1	4	11	26	23	33	36	34	35	38	36	A	26	29	30	31	35	35	25.0	37.5
8-Oct	33	33	33	28	25	24	18	10	12	13	30	38	39	40	40	39	A	39	30	31	32	31	32	33	29.6	40.0
9-Oct	33	32	32	25	25	22	17	15	17	17	17	11	12	17	18	A	26	20	13	9	5	1	2	1	16.9	32.6
10-Oct	2	1	1	2	1	2	1	1	1	8	14	17	26	34	A	31	34	34	32	26	28	30	36	37	17.3	37.3
11-Oct	40	37	36	36	35	32	31	32	30	33	33	35	39	A	40	39	37	35	33	31	30	30	30	29	34.0	39.6
12-Oct	30	30	30	31	31	30	29	28	30	32	35	36	A	37	37	37	37	35	33	31	24	15	17	16	30.0	37.4
13-Oct	22	23	18	12	9	11	9	4	7	17	19	A	24	28	29	30	27	30	27	24	25	26	25	23	20.4	30.3
14-Oct	21	15	8	6	8	9	7	23	29	31	A	29	32	35	39	39	39	36	31	31	23	11	11	12	22.8	39.3
15-Oct	12	13	11	10	9	3	2	9	10	A	10	9	8	11	11	11	12	12	12	12	7	5	11	14	9.8	13.8
16-Oct	14	14	14	13	12	8	5	2	A	9	5	5	7	8	9	14	11	7	1	2	9	15	14	7	9.0	15.3
17-Oct	4	10	10	9	7	6	4	A	6	8	12	12	13	11	12	12	16	2	1	1	4	1	1	1	7.1	16.0
18-Oct	1	0	1	1	1	0	A	1	3	11	22	34	36	37	37	39	40	32	25	9	7	9	28	26	17.3	39.6
19-Oct	21	21	11	11	5	A	1	1	1	15	18	18	19	20	26	25	24	24	18	9	4	20	25	27	15.9	26.7
20-Oct	26	29	23	14	A	2	1	1	3	4	5	8	20	24	24	36	30	27	27	16	20	17	19	8	16.7	36.0
21-Oct	4	4	4	A	1	1	1	1	2	9	19	26	29	32	34	35	32	19	10	10	4	16	18	16	14.3	35.1
22-Oct	25	27	A	26	25	23	22	23	21	18	14	29	29	30	34	35	29	31	15	13	3	2	6	4	21.1	35.3
23-Oct	12	A	15	24	21	20	12	20	15	8	14	21	23	24	17	15	15	11	9	7	6	7	6	6	14.2	23.9
24-Oct	A	7	7	3	2	2	1	2	3	23	22	31	33	35	37	36	36	33	28	26	18	21	16	A	19.2	36.6
25-Oct	2	9	14	4	1	1	4	9	11	17	19	19	25	26	26	30	26	29	31	33	32	30	A	28	18.5	32.5
26-Oct	27	26	27	27	26	26	25	22	17	13	16	17	19	20	19	19	19	20	22	21	22	A	23	26	21.6	27.2
27-Oct	25	27	23	18	15	9	3	7	8	11	10	9	10	14	13	8	8	3	5	7	A	3	3	4	10.6	26.6
28-Oct	4	5	6	11	14	13	11	8	10	12	14	16	16	18	17	17	16	15	15	A	13	11	10	11	12.3	17.8
29-Oct	12	11	10	8	8	7	4	2	4	6	8	9	9	8	6	6	5	6	A	2	1	1	1	1	6.0	11.8
30-Oct	1	1	1	1	0	0	1	1	2	4	5	6	8	9	9	8	6	A	7	7	7	6	6	5	4.4	8.9
31-Oct	3	1	1	1	1	1	1	1	1	3	7	13	17	18	18	10	A	4	6	5	5	6	23	29	7.7	28.8
	16.1	16.9	15.7	15.2	14.2	12.3	10.0	10.7	12.4	16.0	18.0	21.4	23.8	25.0	25.4	25.9	25.1	22.7	19.5	17.0	15.2	15.1	17.3	16.9	Diurnal Average	
	39.6	37.1	36.1	36.1	35.1	35.7	31.1	34.3	31.5	35.1	36.3	38.4	39.4	40.0	40.4	40.0	40.4	39.0	35.9	35.0	31.7	31.0	36.1	37.3	Diurnal Maximum	

C - Calibration

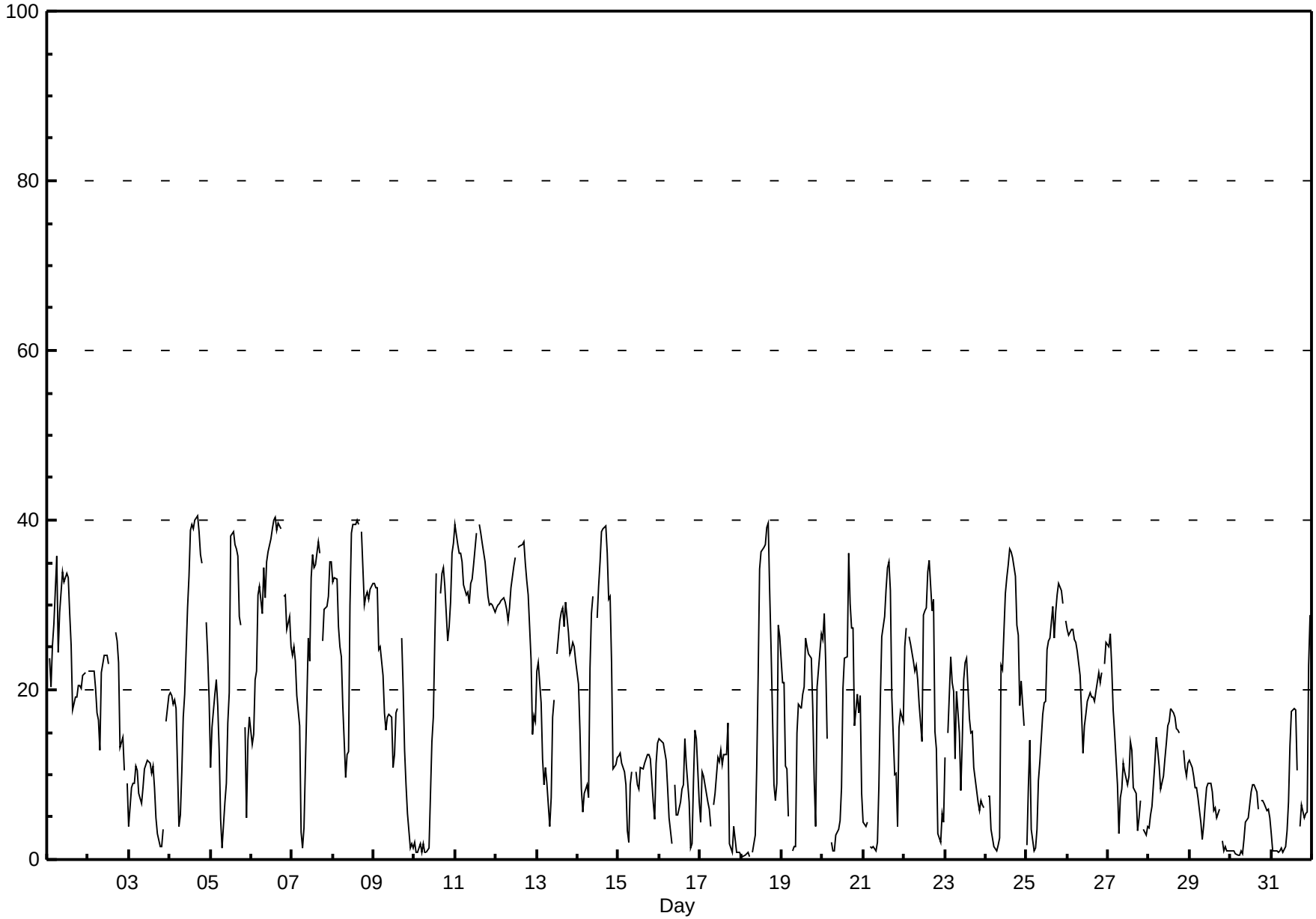
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Ozone (O_3) - ppb

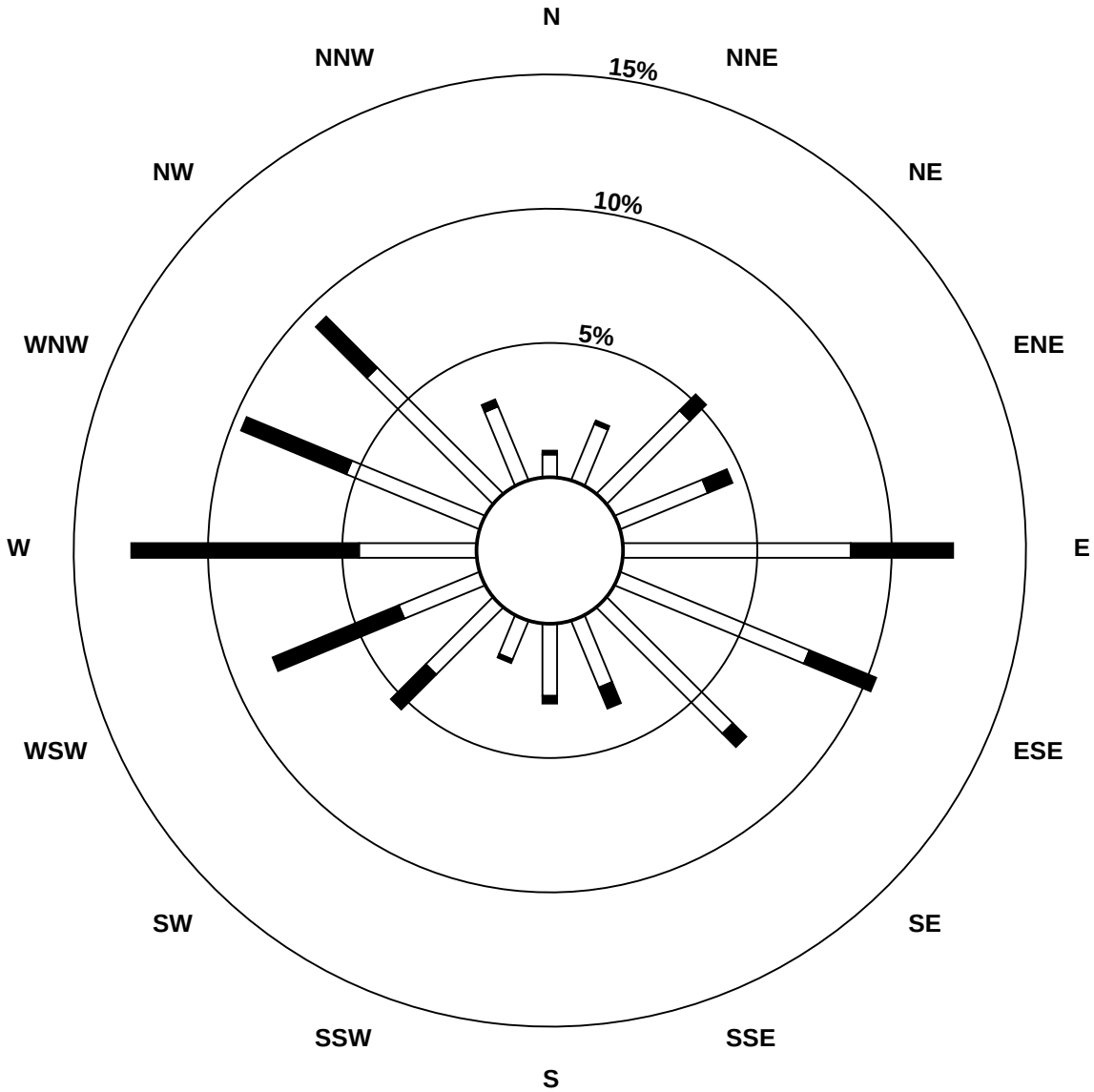
Henry Pirker - October 2014



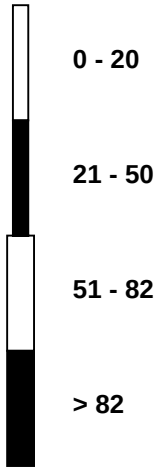
Pollutant Rose

Ozone (O_3) - ppb

Henry Pirker - October 2014



Pollutant Classes (ppb)



Peace Airshed Zone Association

Eight Hour Running Averages

Ozone (O_3) - ppb

Henry Pirker - October 2014

Maximum Value: 36.9 ppb on Oct 6 19:00

Minimum Value: 0.4 ppb on Oct 18 06:00

Percentiles: P_1 = 0.5 P_{10} = 3.4 Q_1 = 6.5 Median = 12.7 Q_3 = 22.4 P_{90} = 29.4 P_{99} = 34.9

Hours in Service:	744
Hours of Data:	738
Hours of Missing Data:	6
Hours of Calibration:	6
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Oct	25	24	23	22	22	23	22	22	23	24	26	27	28	28	28	27	26	24	22	21	19	18	18	19	28.1
2-Oct	19	20	20	20	21	20	18	17	16	16	17	17	17	18	19	N	N	N	N	N	N	14	14	13	20.5
3-Oct	10	7	6	6	6	7	6	6	7	7	8	8	8	8	8	8	8	7	6	5	4	3	3	4	10.0
4-Oct	6	9	11	13	14	13	12	11	10	10	11	13	16	20	25	29	32	35	36	36	36	34	31	28	35.9
5-Oct	23	19	16	15	15	13	11	9	9	9	8	8	10	13	18	22	26	28	29	31	28	23	19	16	31.2
6-Oct	13	11	10	11	13	16	18	20	22	25	27	29	31	32	34	35	36	37	37	35	34	32	30	28	36.9
7-Oct	26	24	24	23	21	18	14	12	10	9	9	11	13	17	21	25	29	30	30	30	28	28	28	27	30.0
8-Oct	27	27	28	29	29	28	25	22	19	16	14	15	17	19	23	27	29	32	34	34	32	31	30	29	34.1
9-Oct	29	29	30	29	28	27	24	22	20	18	16	14	13	12	13	13	14	14	13	13	11	10	7	7	29.5
10-Oct	4	2	2	1	1	1	1	1	1	1	2	4	6	10	11	14	18	22	25	25	26	26	26	28	27.9
11-Oct	29	29	30	32	33	34	34	33	31	31	30	30	30	30	32	33	34	35	35	34	33	33	31	30	34.8
12-Oct	29	29	29	29	29	29	29	29	29	29	29	30	30	31	32	33	35	35	35	33	32	28	25	21	34.9
13-Oct	19	17	15	13	11	11	10	9	8	7	7	7	9	12	15	19	22	24	25	25	25	25	24	23	25.0
14-Oct	22	20	18	16	14	11	9	8	9	11	12	15	18	22	27	30	31	32	32	32	30	27	24	20	32.4
15-Oct	17	15	12	10	9	9	7	6	6	5	5	5	5	6	7	8	8	8	9	9	9	8	8	8	17.2
16-Oct	8	9	9	10	10	11	10	9	8	7	6	5	4	4	5	6	7	6	6	6	5	6	6	5	10.6
17-Oct	4	5	5	6	7	5	4	5	5	5	5	6	6	7	8	8	9	8	7	6	5	4	3	2	8.9
18-Oct	1	1	1	0	0	0	0	0	1	1	4	8	13	18	20	24	28	30	30	27	23	19	16	14	30.5
19-Oct	12	11	10	10	10	11	8	5	3	2	3	5	7	9	11	14	17	18	18	17	16	15	14	14	18.5
20-Oct	14	15	15	16	18	17	14	11	8	5	3	2	4	6	8	9	12	15	17	17	18	17	17	16	18.0
21-Oct	13	10	8	7	5	3	1	1	1	1	3	6	9	12	15	19	22	22	21	19	16	14	11	9	22.4
22-Oct	8	10	10	13	16	18	20	21	22	20	19	18	19	19	21	22	23	23	23	21	18	15	11	7	23.2
23-Oct	5	3	3	6	7	9	9	12	12	11	12	11	12	13	14	13	14	14	14	13	11	9	8	6	14.2
24-Oct	6	5	4	4	4	3	2	2	2	3	4	7	11	15	19	23	27	30	30	30	28	25	22	21	30.5
25-Oct	16	12	10	7	5	3	2	3	4	5	6	7	10	12	15	18	20	22	24	26	27	28	28	28	28.0
26-Oct	29	28	28	27	26	26	25	24	23	21	19	18	17	16	15	15	16	16	17	18	18	18	19	19	28.5
27-Oct	20	21	21	20	19	17	15	12	10	8	6	5	5	6	7	8	8	7	7	6	6	4	3	2	21.2
28-Oct	2	2	2	2	3	5	5	6	7	8	9	10	10	11	12	13	14	14	14	14	13	13	12	11	13.9
29-Oct	11	10	10	10	9	9	8	7	6	5	5	5	5	5	5	6	6	5	5	4	3	3	2	2	10.7
30-Oct	1	1	1	1	1	1	1	0	1	1	1	2	3	4	5	5	6	6	6	7	6	6	6	5	6.5
31-Oct	5	4	3	3	2	2	1	1	1	1	1	2	4	6	7	8	9	9	9	8	6	5	5	8	8.9
Diurnal Maximums	29.5	29.4	30.2	32.2	33.2	34.1	33.5	32.6	31.4	30.8	30.3	30.0	30.9	32.2	34.4	35.1	36.4	36.6	36.9	35.8	35.7	33.7	31.5	30.3	

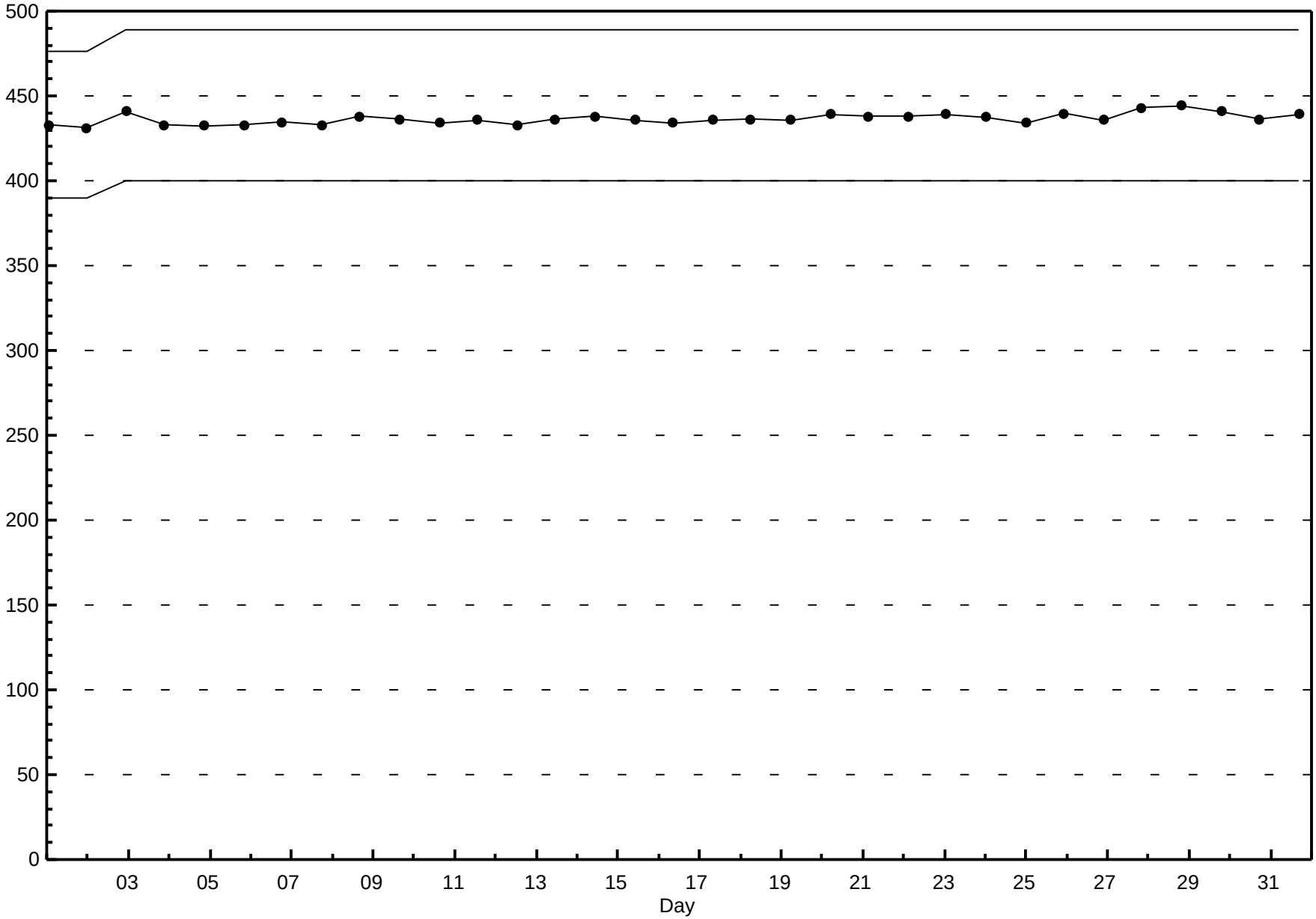
N - Not Valid

Peace Airshed Zone Association

Span Responses

Ozone (O_3)

Henry Pirker - October 2014



Peace Airshed Zone Association

Hourly Averages

Carbon Monoxide (CO) - ppm

Henry Pirker - October 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 1.27 ppm on Oct 24 09:00
Maximum Daily Average: 0.30 ppm on Oct 21

Minimum Value: 0.1 ppm on Oct 2 14:00
Maximum Diurnal Average: 0.27 ppm at hour 21
Monthly Average: 0.187 ppm

Minimum Daily Average: 0.10 ppm on Oct 2
Minimum Diurnal Average: 0.14 ppm at hour 4
Percentiles: P_1 = 0.06 P_{10} = 0.10 Q_1 = 0.12 Median = 0.16 Q_3 = 0.22 P_{90} = 0.30 P_{99} = 0.59

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-Oct	A	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.11	0.16
2-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	A	0.1	0.10	0.18
3-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	C	C	C	0.2	0.2	0.3	0.3	0.4	0.5	0.6	A	0.3	0.1	0.21	0.65
4-Oct	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.2	0.2	0.2	0.15	0.20
5-Oct	0.3	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	A	0.4	0.5	0.4	0.2	0.22	0.47
6-Oct	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.2	0.1	0.1	0.1	0.1	0.12	0.20
7-Oct	0.1	0.1	0.1	0.1	0.1	0.3	0.4	0.4	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	A	0.2	0.1	0.1	0.1	0.1	0.1	0.16	0.45
8-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	A	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.12	0.22
9-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	A	0.2	0.2	0.3	0.2	0.3	0.4	0.5	0.3	0.19	0.48
10-Oct	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.3	0.4	0.3	A	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.20	0.36
11-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.10	0.11
12-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.2	0.13	0.33
13-Oct	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.16	0.24
14-Oct	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.2	0.2	0.1	0.15	0.27
15-Oct	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	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	0.1	0.13	0.23
16-Oct	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	A	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.3	0.2	0.2	0.2	0.18	0.37
17-Oct	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	0.3	0.4	0.5	0.4	0.3	0.2	0.2	0.24	0.48
18-Oct	0.2	0.2	0.2	0.2	0.2	0.2	A	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.3	0.7	0.6	0.4	0.3	0.2	0.25	0.74
19-Oct	0.2	0.2	0.2	0.3	0.2	A	0.2	0.3	0.2	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.3	0.4	0.5	0.3	0.2	0.2	0.27	0.50
20-Oct	0.2	0.2	0.2	0.1	A	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.3	0.24	0.41
21-Oct	0.4	0.3	0.2	A	0.3	0.4	0.4	0.3	0.5	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.30	0.47
22-Oct	0.2	0.1	A	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.5	0.9	0.7	0.6	0.3	0.27	0.93
23-Oct	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	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.17	0.28
24-Oct	A	0.1	0.1	0.1	0.1	0.1	0.2	0.5	1.3	0.6	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	A	0.23	1.27
25-Oct	0.4	0.2	0.2	0.3	0.4	0.4	0.4	0.2	0.2	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	A	0.1	0.22	0.40
26-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.13	0.16
27-Oct	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.2	0.3	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.2	A	0.2	0.2	0.2	0.25	0.40
28-Oct	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1	A	0.1	0.1	0.1	0.1	0.15	0.20
29-Oct	0.1	0.1	0.1	0.1	0.1	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	A	0.3	0.3	0.3	0.2	0.2	0.20	0.35
30-Oct	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	A	0.2	0.2	0.2	0.2	0.2	0.2	0.19	0.26
31-Oct	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3	A	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.25	0.38
	0.16	0.15	0.14	0.14	0.15	0.18	0.21	0.22	0.24	0.21	0.18	0.18	0.17	0.16	0.16	0.16	0.16	0.19	0.20	0.24	0.27	0.24	0.21	0.17	Diurnal Average	
	0.39	0.32	0.24	0.30	0.40	0.43	0.43	0.52	1.27	0.59	0.41	0.41	0.36	0.37	0.40	0.40	0.33	0.40	0.41	0.74	0.93	0.74	0.57	0.34	Diurnal Maximum	

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

Peace Airshed Zone Association

Hourly Averages

Carbon Monoxide (CO) - ppm

Henry Pirker - October 2014

Peace Airshed Zone Association

Hourly Maximums

Carbon Monoxide (CO) - ppm

Henry Pirker - October 2014

Maximum Value: 4.61 ppm on Oct 19 18:00

Maximum Daily Average: 0.70 ppm on Oct 19

Minimum Value: 0.1 ppm on Oct 2 14:00

Minimum Daily Average: 0.12 ppm on Oct 11

Maximum Diurnal Average: 0.48 ppm at hour 21

Minimum Diurnal Average: 0.18 ppm at hour 4

Monthly Average: 0.297 ppm

Percentiles: $P_1 = 0.10$ $P_{10} = 0.12$ $Q_1 = 0.15$ Median = 0.22 $Q_3 = 0.35$ $P_{90} = 0.54$ $P_{99} = 1.14$

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-Oct	A	0.1	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	A	0.14	0.20
2-Oct	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.4	0.1	0.1	0.1	0.4	0.1	0.2	0.2	0.3	0.3	A	0.2	0.16	0.43
3-Oct	0.2	0.1	0.1	0.1	0.2	0.8	0.3	0.2	0.5	0.2	0.2	C	C	C	0.2	0.2	0.5	0.7	0.5	0.9	0.9	A	0.5	0.2	0.37	0.95
4-Oct	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.9	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.2	A	0.2	0.2	0.2	0.22	0.89
5-Oct	0.6	0.4	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.2	0.4	0.2	0.3	A	0.5	0.6	0.5	0.3	0.31	0.59
6-Oct	0.2	0.2	0.2	0.1	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.2	0.2	0.1	0.2	0.1	0.16	0.28
7-Oct	0.1	0.1	0.1	0.1	0.3	0.6	0.5	0.6	0.5	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.3	0.2	0.2	0.1	0.1	0.1	0.23	0.61
8-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.3	0.5	0.2	0.2	0.2	0.1	0.1	0.2	0.2	A	0.3	0.4	0.2	0.1	0.2	0.2	0.1	0.19	0.53
9-Oct	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3	A	0.3	0.2	0.5	0.3	0.8	0.6	0.6	0.5	0.31	0.79
10-Oct	0.3	0.3	0.4	0.3	0.2	0.3	0.4	0.4	0.4	0.5	0.8	0.4	0.5	0.4	A	0.3	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.30	0.76
11-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.12	0.20
12-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.5	0.5	0.2	0.16	0.50
13-Oct	0.2	0.1	0.2	0.2	0.2	0.2	0.6	0.4	0.3	0.3	0.2	A	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.23	0.60
14-Oct	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.8	0.4	0.3	0.2	0.22	0.82
15-Oct	0.2	0.1	0.1	0.1	0.2	0.3	0.7	0.4	0.1	A	0.2	0.4	0.2	0.1	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.22	0.73
16-Oct	0.1	0.2	0.1	0.1	0.1	0.9	0.2	0.3	A	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.8	0.4	0.6	0.3	0.2	0.2	0.2	0.29	0.88
17-Oct	0.2	0.3	0.3	0.3	0.2	0.5	0.5	A	0.4	0.2	0.3	0.3	0.3	0.2	0.4	0.4	0.3	0.5	0.5	0.6	0.5	0.4	0.3	0.2	0.36	0.63
18-Oct	0.2	0.2	0.3	0.3	0.3	0.3	A	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.5	1.2	1.1	0.5	0.5	0.4	0.36	1.16
19-Oct	0.3	0.3	0.4	0.4	0.3	A	0.4	1.0	0.3	0.5	0.4	0.3	0.5	0.4	0.9	0.4	0.3	4.6	1.6	0.8	0.6	0.7	0.3	0.2	0.70	4.61
20-Oct	0.2	0.2	0.2	0.2	A	0.5	0.4	0.7	0.8	0.6	0.6	0.5	0.4	0.5	0.7	0.5	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.41	0.76
21-Oct	0.5	0.4	0.3	A	0.4	1.0	0.8	0.5	0.6	0.7	0.2	0.2	0.2	0.2	0.5	0.3	0.3	0.9	0.8	0.4	0.6	1.0	0.4	1.2	0.54	1.20
22-Oct	0.3	0.2	A	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.7	0.3	0.2	0.2	0.2	0.2	0.2	0.4	0.4	0.8	3.1	1.5	0.9	0.5	0.50	3.08
23-Oct	0.3	A	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.24	0.45
24-Oct	A	0.2	0.2	0.2	0.1	0.2	0.4	0.9	2.4	1.0	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.4	A	0.36	2.41
25-Oct	0.6	0.4	0.3	0.5	0.6	0.5	0.5	0.5	0.4	0.4	0.2	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.2	A	0.2	0.33	0.63
26-Oct	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	A	0.1	0.1	0.18	0.28
27-Oct	0.1	0.1	0.1	0.1	0.1	0.4	0.4	0.6	0.4	0.3	0.6	0.8	0.4	0.4	0.6	0.5	0.4	0.5	0.4	0.4	A	0.3	0.3	0.3	0.37	0.79
28-Oct	0.2	0.2	0.3	0.2	0.3	0.8	0.4	0.3	0.4	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	0.26	0.78
29-Oct	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.4	0.5	0.5	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	A	1.1	0.8	0.5	0.4	0.3	0.34	1.15
30-Oct	0.2	0.2	0.2	0.2	0.2	0.7	0.3	0.4	0.3	0.2	0.2	0.2	0.3	0.3	0.4	0.3	0.3	A	0.3	0.2	0.2	0.3	0.3	0.3	0.29	0.67
31-Oct	0.2	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.2	0.3	0.5	A	0.5	0.4	0.3	0.5	0.4	0.3	0.2	0.32	0.50
	0.22	0.20	0.20	0.18	0.21	0.36	0.35	0.38	0.42	0.32	0.27	0.25	0.23	0.22	0.27	0.24	0.23	0.45	0.34	0.38	0.48	0.37	0.30	0.26	Diurnal Average	
	0.59	0.40	0.44	0.47	0.63	1.05	0.85	0.99	2.41	0.98	0.76	0.79	0.51	0.53	0.94	0.54	0.50	4.61	1.62	1.16	3.08	1.51	0.88	1.20	Diurnal Maximum	

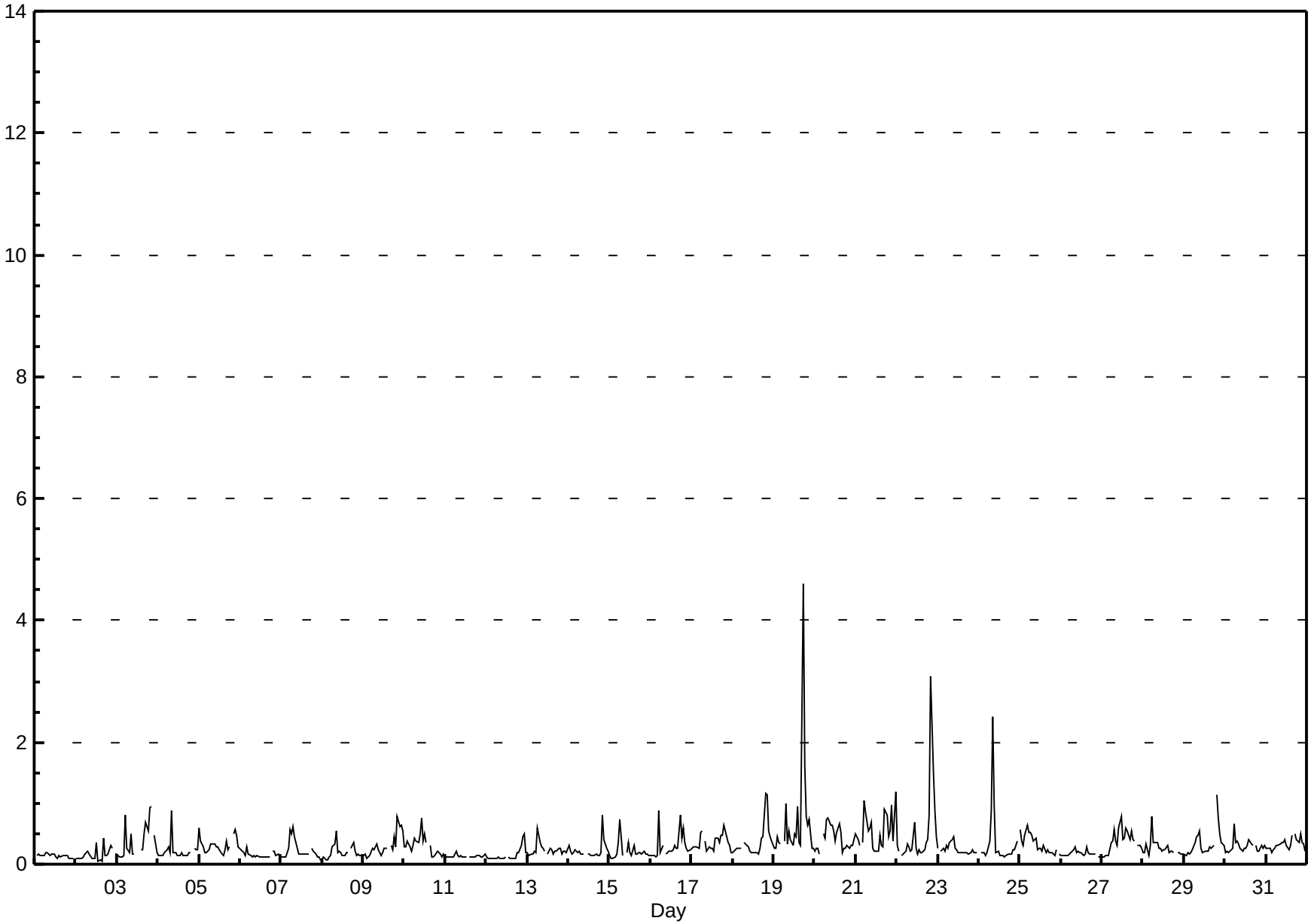
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Carbon Monoxide (CO) - ppm

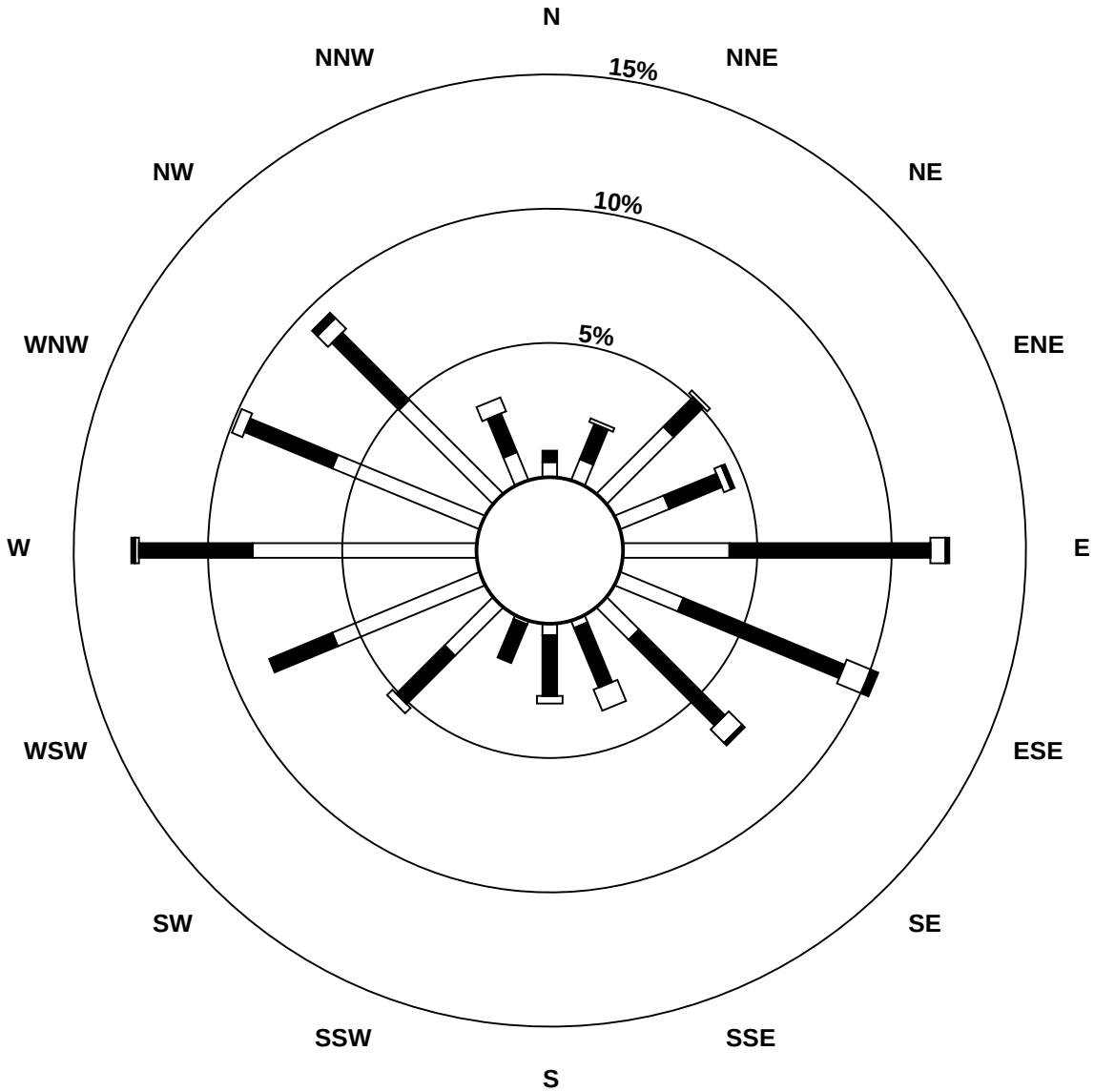
Henry Pirker - October 2014



Pollutant Rose

Carbon Monoxide (CO) - ppm

Henry Pirker - October 2014



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 - October 2014

Number of Exceedences (AAAQO): 8-hr: 0
Maximum Value: 0.50 ppm on Oct 23 02:00

Minimum Value: 0.05 ppm on Oct 2 18:00

Percentiles: P_1 = 0.08 P_{10} = 0.10 Q_1 = 0.13 Median = 0.17 Q_3 = 0.23 P_{90} = 0.30 P_{99} = 0.36

Hours in Service:	744
Hours of Data:	738
Hours of Missing Data:	6
Hours of Calibration:	6
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-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.12
2-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.12
3-Oct	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	N	N	N	N	N	N	0.3	0.4	0.4	0.4	0.4	0.37
4-Oct	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.34
5-Oct	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.29
6-Oct	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.30
7-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.25
8-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.16
9-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.29
10-Oct	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.31
11-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.12
12-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.18
13-Oct	0.2	0.2	0.2	0.2	0.2	0.2	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	0.2	0.2	0.2	0.2	0.2	0.19
14-Oct	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	0.2	0.2	0.17
15-Oct	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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.16
16-Oct	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	0.2	0.2	0.24
17-Oct	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.31
18-Oct	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	0.3	0.3	0.3	0.4	0.4	0.37
19-Oct	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.37
20-Oct	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.32
21-Oct	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.35
22-Oct	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.5	0.46
23-Oct	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	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.50
24-Oct	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.39
25-Oct	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.33
26-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.14
27-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.36
28-Oct	0.2	0.2	0.2	0.2	0.2	0.2	0.2	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	0.23
29-Oct	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	0.2	0.2	0.3	0.3	0.3	0.26
30-Oct	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.26
31-Oct	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.31
Diurnal Maximums	0.46	0.50	0.48	0.44	0.33	0.31	0.34	0.34	0.35	0.39	0.39	0.39	0.39	0.39	0.37	0.33	0.34	0.36	0.36	0.34	0.35	0.38	0.44	0.46	

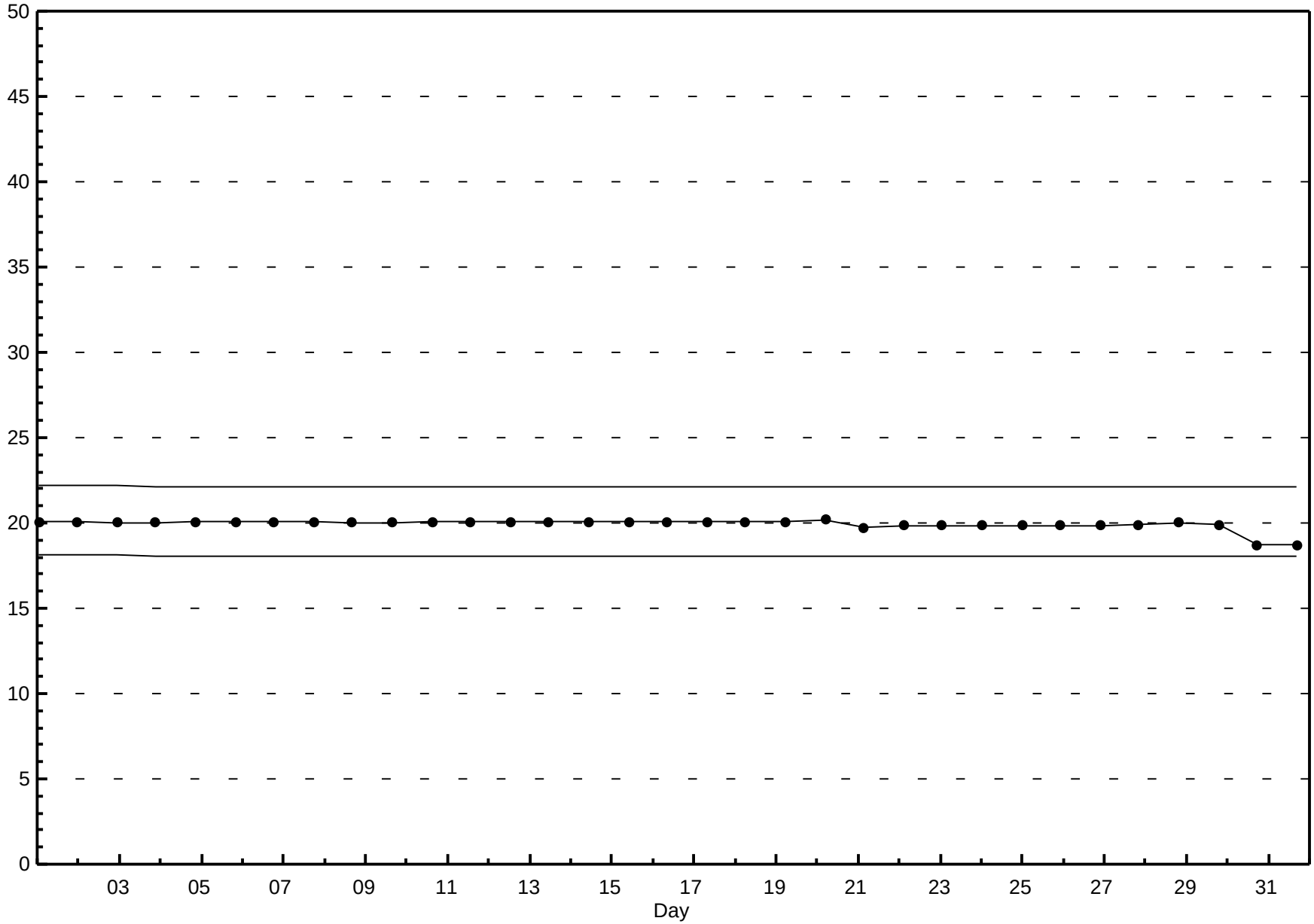
N - Not Valid
Alberta Ambient Air Quality Objectives (AAAQO): 8-hr 5 ppm

Peace Airshed Zone Association

Span Responses

Carbon Monoxide (CO)

Henry Pirker - October 2014



Peace Airshed Zone Association

Hourly Averages

Total Hydrocarbons (THC) - ppm

Henry Pirker - October 2014

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

Maximum Value: 3.03 ppm on Oct 14 02:00

Maximum Daily Average: 2.22 ppm on Oct 10

Minimum Value: 1.8 ppm on Oct 30 12:00

Minimum Daily Average: 1.83 ppm on Oct 1

Maximum Diurnal Average: 2.11 ppm at hour 8

Minimum Diurnal Average: 1.92 ppm at hour 17

Monthly Average: 2.024 ppm

Percentiles: P_1 = 1.81 P_{10} = 1.87 Q_1 = 1.91 Median = 1.97 Q_3 = 2.08 P_{90} = 2.27 P_{99} = 2.73

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-Oct	A	1.8	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	A	1.83	1.90
2-Oct	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.9	1.9	2.0	1.9	A	2.0	1.88	1.95
3-Oct	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	C	C	C	2.1	2.1	2.1	2.2	2.2	A	2.1	1.9	1.97	2.16
4-Oct	1.8	1.9	1.9	1.9	2.0	2.2	2.2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	2.0	1.91	2.24
5-Oct	2.0	2.1	2.1	2.0	2.0	2.0	2.1	2.3	2.4	2.3	2.2	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.0	2.2	2.1	2.0	2.05	2.36
6-Oct	2.0	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.90	2.08
7-Oct	2.0	2.0	2.0	2.0	2.0	2.1	2.2	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	2.0	1.9	1.9	1.9	1.97	2.19
8-Oct	2.0	1.9	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	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.94	2.02
9-Oct	1.9	1.9	1.9	2.0	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1	A	1.9	1.9	1.9	2.0	2.2	2.7	2.5	2.2	2.02	2.66
10-Oct	2.3	2.4	2.7	2.4	2.5	2.6	2.5	2.7	2.6	2.3	2.0	2.0	2.0	2.0	A	2.0	1.9	1.9	1.9	2.2	2.1	2.1	1.9	1.9	2.22	2.71
11-Oct	2.0	2.1	1.9	2.0	2.1	2.2	2.3	2.4	2.2	2.1	2.1	2.1	2.1	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.06	2.40
12-Oct	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	1.9	2.0	2.0	2.1	2.2	2.0	2.2	1.95	2.21
13-Oct	2.0	2.3	2.4	2.6	2.3	2.1	2.2	2.8	2.7	2.3	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.11	2.76
14-Oct	2.1	3.0	2.8	2.7	2.4	2.1	2.1	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	2.2	2.0	1.9	2.09	3.03
15-Oct	1.9	1.9	1.9	1.9	1.9	2.1	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	1.93	2.13
16-Oct	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.3	2.2	2.0	2.0	2.3	2.00	2.33
17-Oct	2.3	2.2	2.0	2.0	2.1	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.3	2.5	2.3	2.1	2.1	2.2	2.10	2.55
18-Oct	2.2	2.5	2.4	2.3	2.4	2.5	A	2.4	2.3	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.0	2.0	2.0	2.10	2.48
19-Oct	2.1	2.1	2.3	2.4	2.5	A	2.4	2.6	2.5	2.2	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.2	2.2	2.1	2.0	2.0	2.13	2.65
20-Oct	1.9	2.0	2.0	2.2	A	2.3	2.4	2.3	2.3	2.4	2.6	2.4	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.4	2.1	2.3	2.15	2.62
21-Oct	2.4	2.5	2.5	A	2.5	2.7	2.3	2.3	2.5	2.2	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.2	2.2	2.1	2.1	2.17	2.65
22-Oct	2.0	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.0	2.1	2.1	2.2	2.2	1.96	2.20
23-Oct	2.1	A	2.1	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.0	2.0	1.96	2.14
24-Oct	A	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	A	1.97	2.25
25-Oct	2.1	2.9	2.4	2.8	3.0	2.9	2.3	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	A	1.9	2.13	2.95
26-Oct	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.91	1.93
27-Oct	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.3	2.5	2.3	2.1	2.1	2.1	2.1	2.0	2.0	A	2.1	2.1	2.1	2.08	2.51
28-Oct	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	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	2.0	2.0	2.0	1.99	2.11
29-Oct	2.0	2.0	2.0	2.0	2.0	2.0	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	2.1	2.1	2.1	2.02	2.13
30-Oct	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	1.8	2.1	2.1	2.1	2.1	2.1	A	2.0	2.0	2.0	2.1	2.1	2.1	2.07	2.15
31-Oct	2.1	2.2	2.2	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.0	2.0	2.0	2.0	2.0	A	2.1	2.1	2.2	2.1	2.5	2.1	2.0	2.15	2.46
	2.04	2.11	2.10	2.09	2.10	2.11	2.08	2.11	2.10	2.05	2.00	1.96	1.96	1.93	1.93	1.93	1.92	1.94	1.95	2.01	2.03	2.06	2.02	2.03	Diurnal Average	
	2.44	3.03	2.81	2.84	2.95	2.87	2.54	2.76	2.73	2.43	2.62	2.37	2.51	2.26	2.14	2.12	2.09	2.17	2.30	2.55	2.34	2.66	2.53	2.35	Diurnal Maximum	

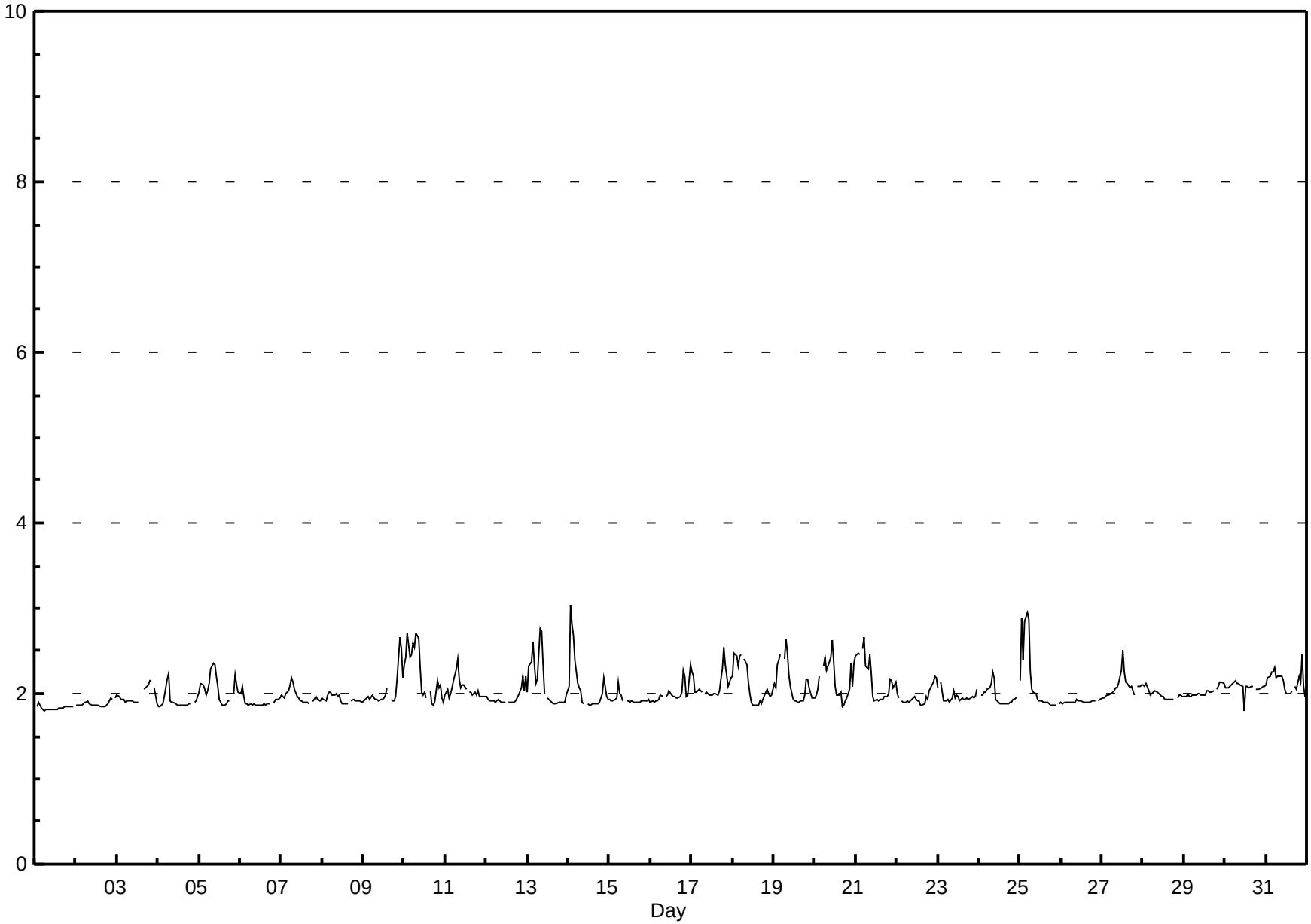
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Total Hydrocarbons (THC) - ppm

Henry Pirker - October 2014



Peace Airshed Zone Association

Hourly Maximums

Total Hydrocarbons (THC) - ppm

Henry Pirker - October 2014

Maximum Value: 5.99 ppm on Oct 13 02:00

Maximum Daily Average: 2.83 ppm on Oct 13

Minimum Value: 1.8 ppm on Oct 1 11:00

Minimum Daily Average: 1.86 ppm on Oct 1

Maximum Diurnal Average: 2.49 ppm at hour 2

Minimum Diurnal Average: 1.98 ppm at hour 15

Monthly Average: 2.217 ppm

Percentiles: P_1 = 1.84 P_{10} = 1.90 Q_1 = 1.95 Median = 2.06 Q_3 = 2.27 P_{90} = 2.74 P_{99} = 3.82

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-Oct	A	1.9	2.0	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.86	2.00
2-Oct	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1	2.0	2.3	2.1	A	2.1	1.94	2.26
3-Oct	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	C	C	C	2.2	2.3	2.4	2.7	2.4	A	2.6	1.9	2.09	2.71
4-Oct	1.9	1.9	1.9	1.9	2.4	2.3	2.4	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	1.9	2.0	2.1	1.98	2.45
5-Oct	2.3	2.4	2.3	2.2	2.0	2.2	2.2	2.4	2.4	2.4	2.3	2.2	2.1	1.9	1.9	1.9	2.1	2.0	2.0	A	2.2	2.6	2.4	2.2	2.20	2.55
6-Oct	2.3	2.2	2.2	1.9	2.0	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	2.1	1.9	1.9	1.9	A	2.0	1.9	2.0	2.0	2.0	1.98	2.33
7-Oct	2.2	2.1	2.0	2.1	2.6	2.5	2.7	2.5	2.2	2.1	2.0	2.0	1.9	2.0	1.9	1.9	1.9	A	2.0	2.0	2.0	2.0	2.0	2.0	2.10	2.65
8-Oct	2.1	2.3	2.0	2.2	2.1	2.3	2.1	2.1	2.2	2.0	2.1	1.9	1.9	1.9	1.9	1.9	A	2.4	2.0	2.0	2.0	2.0	1.9	1.9	2.05	2.39
9-Oct	1.9	2.1	2.0	2.1	2.0	2.1	2.0	2.0	2.0	1.9	2.0	1.9	2.0	2.1	2.1	A	2.0	1.9	1.9	2.3	3.3	3.9	3.2	2.5	2.23	3.86
10-Oct	2.7	2.6	3.4	3.0	3.0	2.9	2.8	3.0	3.0	2.9	2.2	2.1	2.1	2.0	A	2.5	1.9	1.9	2.0	2.9	2.3	3.6	2.1	2.1	2.57	3.56
11-Oct	2.3	2.3	2.2	2.1	2.4	2.4	3.9	5.0	2.6	2.3	2.4	2.3	2.5	A	2.1	2.3	2.2	2.3	2.1	2.2	2.1	2.0	2.1	2.1	2.44	4.96
12-Oct	2.1	2.0	2.0	2.0	2.0	1.9	2.0	2.0	1.9	1.9	1.9	1.9	A	2.0	1.9	1.9	1.9	2.0	2.1	2.3	2.6	2.7	2.3	2.8	2.10	2.81
13-Oct	2.3	6.0	3.4	4.2	3.1	2.2	4.4	3.9	5.1	3.8	2.0	A	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	3.3	2.83	5.99
14-Oct	2.8	5.6	3.8	3.9	3.5	2.6	2.1	2.2	2.0	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.2	3.9	2.3	2.1	2.54	5.64
15-Oct	2.0	2.0	2.0	2.0	2.0	2.7	2.1	2.2	2.1	A	2.0	2.0	1.9	1.9	2.0	2.0	2.0	1.9	1.9	2.0	2.0	1.9	2.0	2.9	2.05	2.94
16-Oct	1.9	2.1	1.9	2.0	2.0	2.0	2.5	2.1	A	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.1	2.0	2.3	3.1	2.8	2.1	2.2	2.7	2.17	3.08
17-Oct	2.5	2.9	2.3	2.2	2.5	2.2	2.1	A	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.3	2.5	3.1	3.6	2.9	2.2	2.4	2.4	2.37	3.55
18-Oct	2.7	2.9	2.7	2.5	2.8	2.7	A	2.8	2.4	2.3	2.1	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.5	2.9	2.1	2.7	2.3	2.34	2.91
19-Oct	2.6	2.2	2.7	3.0	3.3	A	2.9	3.5	2.9	2.8	2.5	2.0	1.9	2.0	1.9	1.9	2.1	2.0	2.6	3.0	3.0	2.2	2.0	2.0	2.47	3.48
20-Oct	2.0	2.3	3.9	2.6	A	2.5	3.7	2.7	3.6	3.4	2.9	2.6	2.2	2.1	2.0	2.4	1.9	2.0	2.0	2.1	2.5	2.7	2.2	3.0	2.58	3.92
21-Oct	3.3	2.9	3.5	A	3.0	3.0	3.0	2.5	2.7	3.4	2.0	1.9	2.1	2.0	2.0	2.0	2.0	2.1	2.0	2.2	2.5	2.5	2.6	2.7	2.53	3.54
22-Oct	2.1	2.1	A	1.9	1.9	2.0	2.1	1.9	1.9	2.0	2.1	2.0	1.9	2.0	1.9	1.9	1.9	3.6	2.0	2.6	2.2	2.4	2.7	2.4	2.15	3.55
23-Oct	2.2	A	2.7	2.0	2.0	2.0	2.0	1.9	2.1	2.1	2.1	2.1	2.1	1.9	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.05	2.68
24-Oct	A	2.0	2.0	2.1	2.0	2.1	2.2	2.2	2.4	2.6	2.0	2.0	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	2.0	2.0	2.0	A	2.04	2.59
25-Oct	2.4	3.6	2.9	3.5	3.5	3.4	2.6	2.1	2.1	2.1	2.0	2.0	1.9	2.0	1.9	1.9	2.0	1.9	1.9	1.9	1.9	2.0	A	1.9	2.32	3.56
26-Oct	2.0	1.9	2.1	2.0	2.0	2.0	2.0	1.9	1.9	2.0	2.0	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1	A	1.9	2.0	1.96	2.07
27-Oct	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.2	2.8	2.7	2.4	2.2	2.2	2.1	2.1	2.1	2.0	A	2.1	2.2	2.3	2.16	2.79
28-Oct	2.1	2.2	2.2	2.2	2.0	2.1	2.3	2.2	2.2	2.1	2.2	2.0	2.2	2.0	2.0	2.0	2.0	2.0	2.2	A	2.1	2.3	2.5	2.1	2.14	2.53
29-Oct	2.1	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.1	A	2.2	2.1	2.2	2.2	2.2	2.07	2.21
30-Oct	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.2	2.1	2.1	2.12	2.19
31-Oct	2.2	2.3	2.4	2.5	2.4	2.4	2.2	2.3	2.2	2.4	2.2	2.2	2.0	2.0	2.0	2.1	A	2.2	2.1	2.4	2.3	2.6	2.5	2.1	2.26	2.63
	2.25	2.49	2.42	2.33	2.35	2.27	2.41	2.37	2.33	2.28	2.09	2.04	2.03	1.98	1.98	2.00	1.99	2.08	2.09	2.26	2.29	2.34	2.24	2.28	Diurnal Average	
	3.30	5.99	3.92	4.17	3.54	3.38	4.45	4.96	5.06	3.85	2.87	2.79	2.72	2.38	2.18	2.47	2.32	3.55	3.08	3.55	3.30	3.91	3.22	3.32	Diurnal Maximum	

C - Calibration

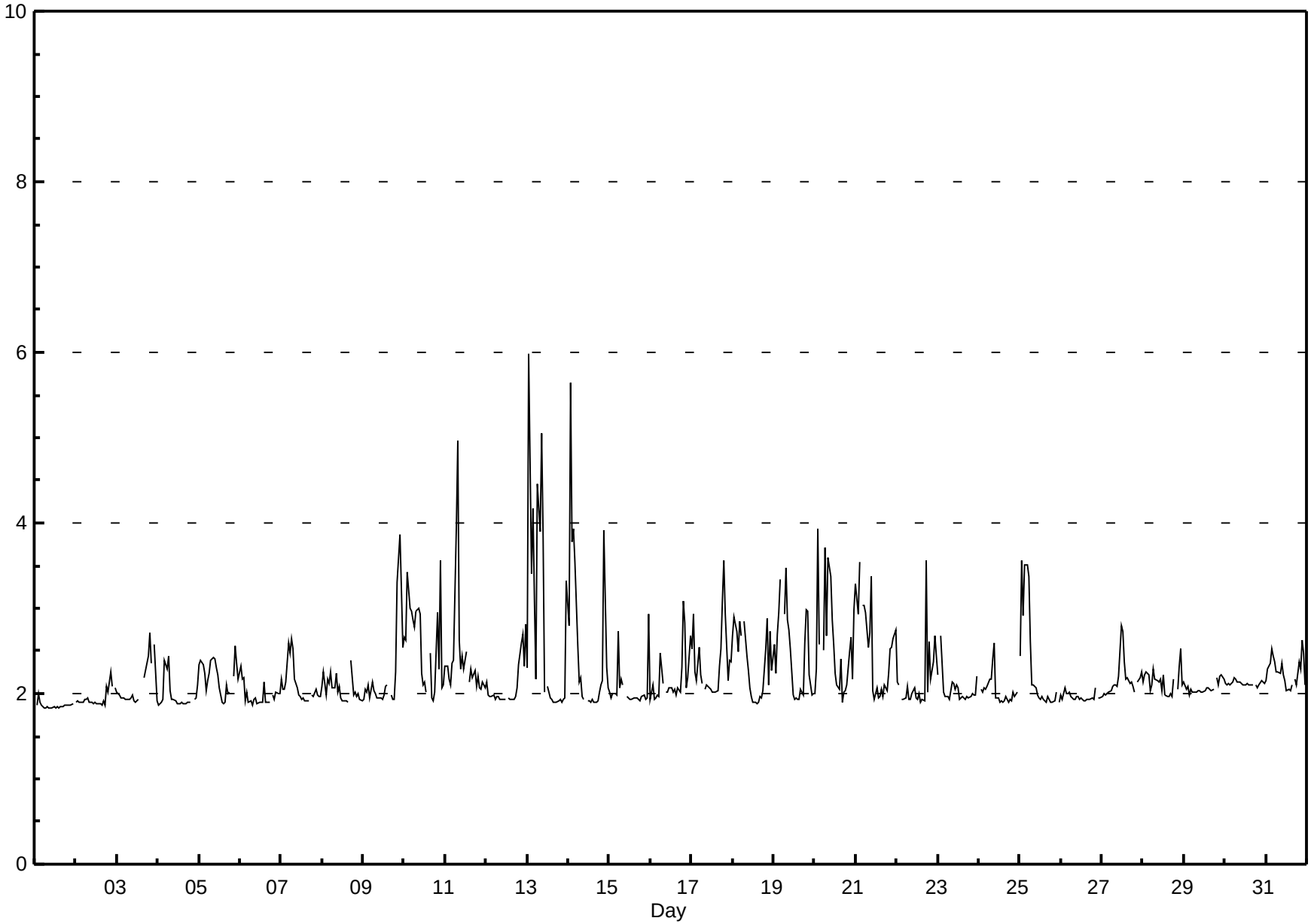
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Total Hydrocarbons (THC) - ppm

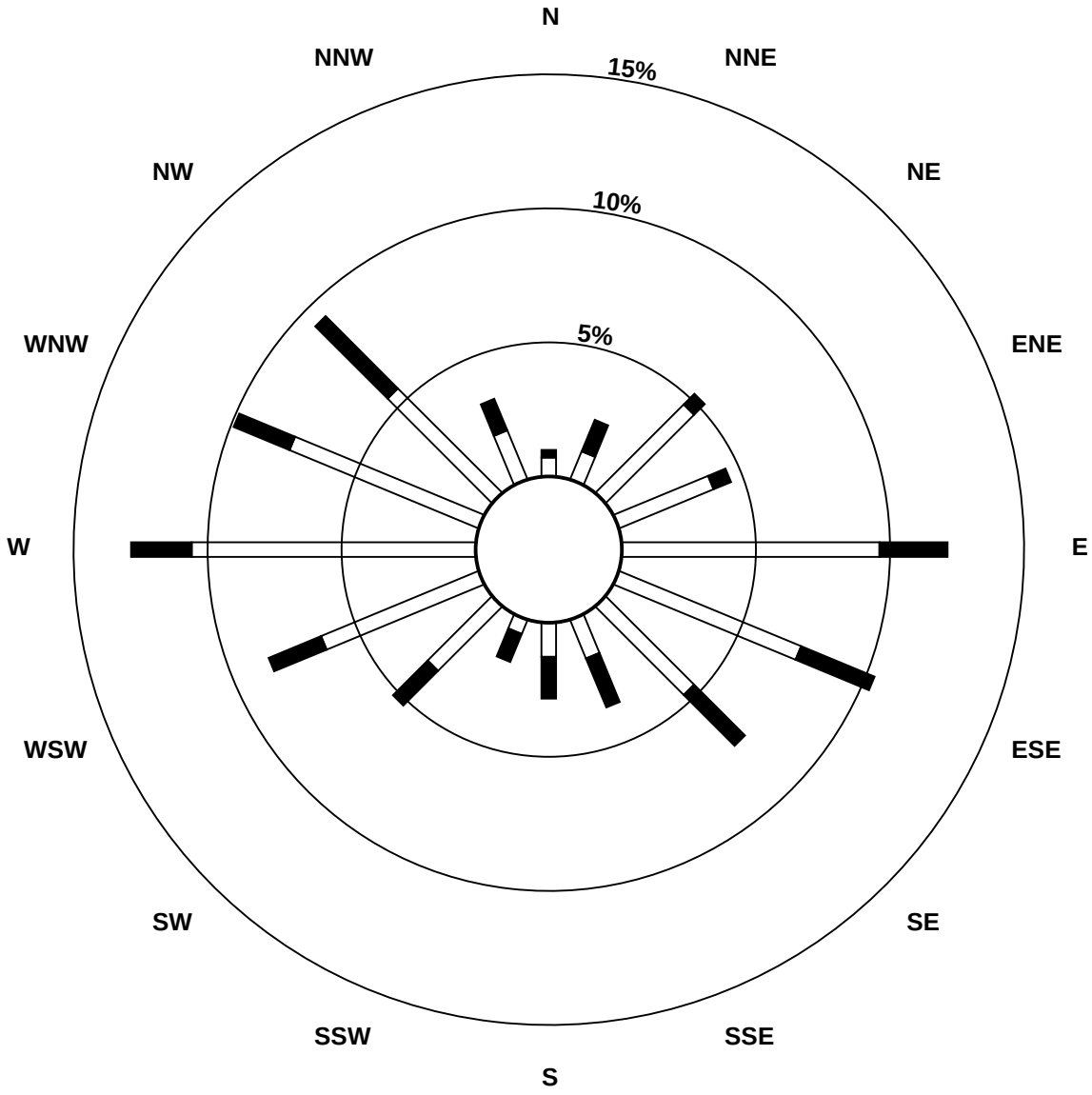
Henry Pirker - October 2014



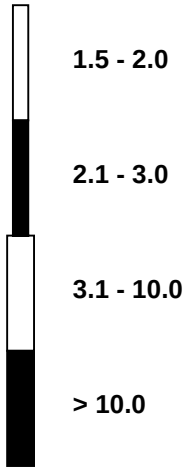
Pollutant Rose

Total Hydrocarbons (THC) - ppm

Henry Pirker - October 2014



Pollutant Classes (ppm)

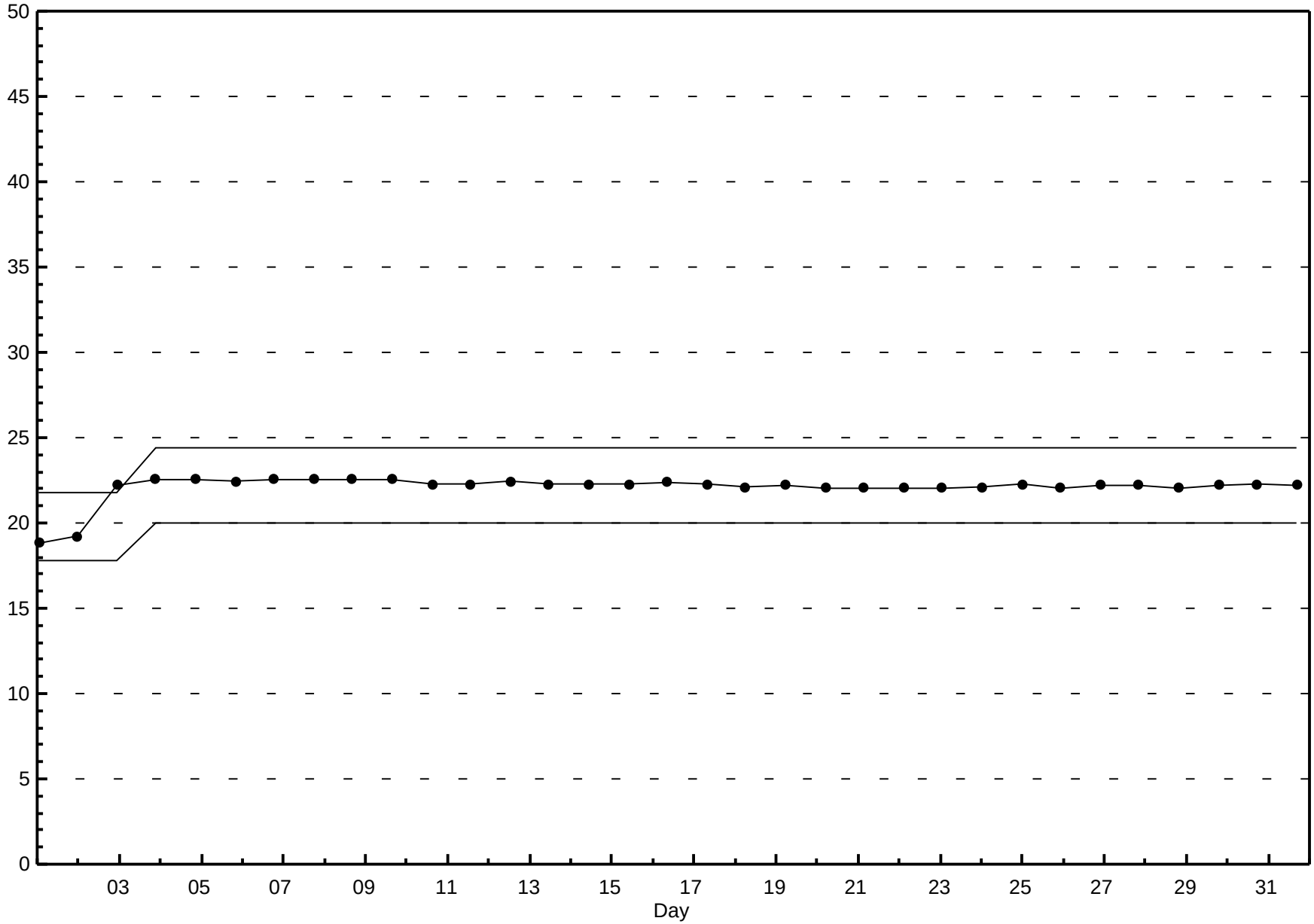


Peace Airshed Zone Association

Span Responses

Total Hydrocarbons (THC)

Henry Pirker - October 2014



Peace Airshed Zone Association

Hourly Averages

Methane (CH_4) - ppm

Henry Pirker - October 2014

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

Maximum Value: 3.02 ppm on Oct 14 02:00

Maximum Daily Average: 2.21 ppm on Oct 10

Minimum Value: 1.8 ppm on Oct 30 12:00

Minimum Daily Average: 1.83 ppm on Oct 1

Maximum Diurnal Average: 2.11 ppm at hour 8

Minimum Diurnal Average: 1.92 ppm at hour 17

Monthly Average: 2.019 ppm

Percentiles: P_1 = 1.82 P_{10} = 1.87 Q_1 = 1.90 Median = 1.96 Q_3 = 2.07 P_{90} = 2.26 P_{99} = 2.72

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-Oct	A	1.8	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	A	1.83	1.90
2-Oct	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.9	1.9	1.9	1.9	2.0	1.9	A	2.0	1.88	1.96
3-Oct	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	C	C	C	2.1	2.1	2.1	2.1	2.1	A	2.1	1.9	1.97	2.15
4-Oct	1.8	1.9	1.9	1.9	2.0	2.2	2.2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	2.0	1.91	2.23
5-Oct	2.0	2.1	2.1	2.0	2.0	2.0	2.1	2.3	2.4	2.3	2.2	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.0	2.2	2.1	2.0	2.05	2.35
6-Oct	2.0	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.90	2.07
7-Oct	2.0	2.0	1.9	2.0	2.0	2.1	2.2	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	2.0	1.9	1.9	1.9	1.96	2.18
8-Oct	1.9	1.9	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	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.93	2.02
9-Oct	1.9	1.9	1.9	2.0	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1	A	1.9	1.9	1.9	2.0	2.2	2.6	2.5	2.2	2.02	2.65
10-Oct	2.3	2.4	2.7	2.4	2.4	2.6	2.5	2.7	2.6	2.3	2.0	2.0	2.0	1.9	A	2.0	1.9	1.9	1.9	2.1	2.1	2.1	1.9	1.9	2.21	2.70
11-Oct	2.0	2.0	1.9	2.0	2.1	2.2	2.3	2.4	2.2	2.1	2.1	2.1	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.05	2.39
12-Oct	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	1.9	1.9	2.0	2.1	2.2	2.0	2.2	1.95	2.20
13-Oct	2.0	2.3	2.4	2.6	2.3	2.1	2.2	2.7	2.7	2.3	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.11	2.75
14-Oct	2.1	3.0	2.8	2.7	2.4	2.1	2.1	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	2.2	2.0	1.9	2.08	3.02
15-Oct	1.9	1.9	1.9	1.9	1.9	2.1	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	1.93	2.12
16-Oct	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.3	2.2	2.0	2.0	2.3	1.99	2.32
17-Oct	2.3	2.2	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	2.2	2.3	2.5	2.3	2.1	2.1	2.2	2.09	2.54
18-Oct	2.2	2.5	2.4	2.3	2.4	2.4	A	2.4	2.3	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.09	2.47
19-Oct	2.1	2.1	2.3	2.4	2.5	A	2.4	2.6	2.5	2.2	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.2	2.2	2.1	1.9	1.9	2.12	2.64
20-Oct	1.9	2.0	2.0	2.2	A	2.3	2.4	2.3	2.3	2.4	2.6	2.4	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.3	2.1	2.3	2.14	2.61
21-Oct	2.4	2.5	2.4	A	2.5	2.6	2.3	2.3	2.5	2.2	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.2	2.1	2.1	2.1	2.16	2.64
22-Oct	2.0	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.1	2.2	2.2	1.96	2.19
23-Oct	2.1	A	2.1	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.0	2.0	1.96	2.13
24-Oct	A	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	A	1.97	2.24
25-Oct	2.1	2.9	2.4	2.8	2.9	2.9	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	1.9	1.9	1.9	A	1.9	2.12	2.94
26-Oct	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.90	1.93
27-Oct	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.3	2.5	2.2	2.1	2.1	2.1	2.1	2.0	2.0	A	2.1	2.1	2.1	2.07	2.50
28-Oct	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	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	2.0	2.0	2.0	1.98	2.10
29-Oct	2.0	2.0	2.0	2.0	2.0	2.0	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	2.1	2.1	2.1	2.01	2.13
30-Oct	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	1.8	2.1	2.1	2.1	2.1	2.1	A	2.0	2.0	2.0	2.1	2.1	2.1	2.07	2.14
31-Oct	2.1	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	A	2.1	2.0	2.2	2.1	2.5	2.1	2.0	2.14	2.45
	2.03	2.10	2.10	2.08	2.09	2.10	2.08	2.11	2.09	2.04	1.99	1.95	1.95	1.93	1.93	1.93	1.92	1.93	1.95	2.00	2.02	2.06	2.01	2.02	Diurnal Average	
	2.43	3.02	2.80	2.83	2.94	2.86	2.53	2.75	2.72	2.42	2.61	2.36	2.50	2.25	2.13	2.11	2.08	2.17	2.29	2.54	2.33	2.65	2.52	2.34	Diurnal Maximum	

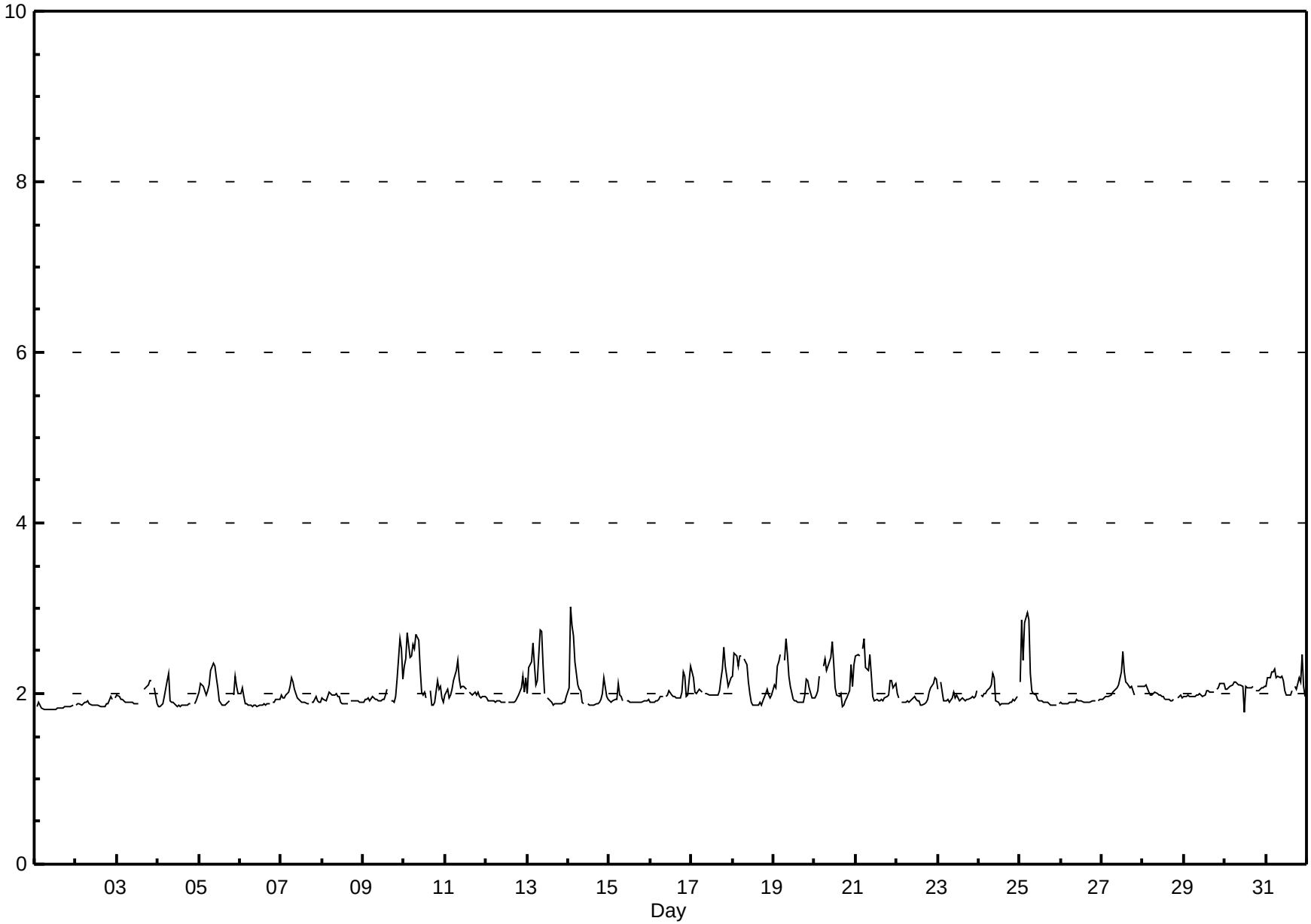
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Methane (CH_4) - ppm

Henry Pirker - October 2014



Peace Airshed Zone Association

Hourly Maximums

Methane (CH_4) - ppm

Henry Pirker - October 2014

Maximum Value: 5.97 ppm on Oct 13 02:00

Maximum Daily Average: 2.82 ppm on Oct 13

Minimum Value: 1.8 ppm on Oct 1 11:00

Minimum Daily Average: 1.86 ppm on Oct 1

Maximum Diurnal Average: 2.49 ppm at hour 2

Minimum Diurnal Average: 1.97 ppm at hour 15

Monthly Average: 2.208 ppm

Percentiles: P_1 = 1.85 P_{10} = 1.90 Q_1 = 1.94 Median = 2.05 Q_3 = 2.26 P_{90} = 2.70 P_{99} = 3.81

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-Oct	A	1.9	2.0	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.86	2.00
2-Oct	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1	2.0	2.3	2.1	A	2.1	1.95	2.27
3-Oct	2.0	2.0	1.9	2.0	2.0	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	C	C	C	2.2	2.3	2.4	2.7	2.3	A	2.6	1.9	2.08	2.71
4-Oct	1.9	1.9	1.9	1.9	2.4	2.3	2.4	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	1.9	1.9	2.1	1.97	2.44
5-Oct	2.3	2.4	2.3	2.2	2.0	2.2	2.2	2.4	2.4	2.4	2.3	2.2	2.1	1.9	1.9	1.9	2.1	2.0	2.0	A	2.2	2.5	2.3	2.2	2.19	2.54
6-Oct	2.3	2.2	2.2	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1	1.9	1.9	1.9	A	2.0	1.9	2.0	2.0	2.0	1.97	2.32
7-Oct	2.2	2.1	2.0	2.1	2.6	2.5	2.6	2.5	2.2	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	A	2.0	2.0	2.0	2.0	2.0	2.0	2.10	2.63
8-Oct	2.1	2.2	2.0	2.2	2.1	2.3	2.1	2.1	2.2	2.0	2.1	1.9	1.9	1.9	1.9	1.9	A	2.4	2.0	2.0	2.0	2.0	1.9	1.9	2.04	2.38
9-Oct	1.9	2.0	2.0	2.1	1.9	2.1	2.0	2.0	2.0	1.9	2.0	1.9	2.0	2.1	2.1	A	2.0	1.9	1.9	2.2	3.3	3.9	3.2	2.5	2.22	3.85
10-Oct	2.7	2.6	3.4	3.0	3.0	2.9	2.8	3.0	3.0	2.9	2.2	2.1	2.1	2.0	A	2.5	1.9	1.9	2.0	2.9	2.3	3.6	2.1	2.1	2.56	3.56
11-Oct	2.3	2.3	2.2	2.1	2.3	2.4	3.9	5.0	2.6	2.3	2.4	2.3	2.5	A	2.1	2.3	2.2	2.3	2.1	2.2	2.1	2.0	2.1	2.1	2.44	4.96
12-Oct	2.1	2.0	2.0	2.0	2.0	1.9	2.0	2.0	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	2.0	2.1	2.3	2.6	2.7	2.3	2.8	2.09	2.80
13-Oct	2.3	6.0	3.4	4.2	3.1	2.2	4.4	3.9	5.1	3.8	2.0	A	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	3.3	2.82	5.97
14-Oct	2.8	5.6	3.8	3.9	3.5	2.6	2.1	2.2	2.0	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.1	3.9	2.3	2.0	2.53	5.63
15-Oct	2.0	1.9	2.0	2.0	2.0	2.7	2.0	2.2	2.1	A	2.0	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.9	2.9	2.05	2.94
16-Oct	1.9	2.1	1.9	1.9	2.0	2.0	2.5	2.1	A	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.1	2.0	2.3	3.1	2.8	2.1	2.2	2.7	2.16	3.07
17-Oct	2.5	2.9	2.3	2.1	2.5	2.2	2.1	A	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.3	2.5	3.1	3.5	2.9	2.1	2.4	2.4	2.36	3.54
18-Oct	2.7	2.9	2.7	2.5	2.8	2.7	A	2.8	2.4	2.3	2.1	2.0	1.9	1.9	1.9	1.9	2.0	1.9	2.0	2.5	2.9	2.1	2.7	2.3	2.34	2.89
19-Oct	2.6	2.2	2.7	2.9	3.3	A	2.9	3.5	2.9	2.7	2.5	2.0	1.9	2.0	1.9	1.9	2.1	2.0	2.6	3.0	2.9	2.2	2.0	2.0	2.46	3.47
20-Oct	2.0	2.3	3.9	2.6	A	2.5	3.7	2.7	3.6	3.4	2.9	2.6	2.2	2.1	2.0	2.4	1.9	2.0	2.0	2.1	2.5	2.6	2.2	3.0	2.57	3.91
21-Oct	3.3	2.9	3.5	A	3.0	3.0	2.9	2.5	2.7	3.4	2.0	1.9	2.1	1.9	2.0	2.0	2.0	2.1	2.0	2.2	2.5	2.5	2.6	2.7	2.52	3.53
22-Oct	2.1	2.1	A	1.9	1.9	1.9	2.1	1.9	1.9	2.0	2.1	1.9	1.9	2.0	1.9	1.9	1.9	2.0	2.0	2.6	2.2	2.4	2.7	2.4	2.08	2.68
23-Oct	2.2	A	2.7	2.0	2.0	2.0	2.0	1.9	2.1	2.1	2.0	2.1	2.1	1.9	2.0	1.9	1.9	2.0	1.9	2.0	2.0	2.0	2.0	2.2	2.04	2.68
24-Oct	A	2.0	2.0	2.1	2.0	2.1	2.2	2.2	2.4	2.6	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	2.0	2.0	2.0	A	2.03	2.59
25-Oct	2.4	3.6	2.9	3.5	3.5	3.4	2.6	2.1	2.1	2.1	2.0	1.9	1.9	2.0	1.9	1.9	2.0	1.9	1.9	1.9	1.9	2.0	A	1.9	2.32	3.56
26-Oct	2.0	1.9	2.1	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	2.1	A	1.9	1.9	1.96	2.07
27-Oct	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.2	2.8	2.7	2.4	2.2	2.2	2.1	2.1	2.1	2.0	A	2.1	2.2	2.2	2.16	2.78
28-Oct	2.1	2.2	2.2	2.2	2.0	2.1	2.3	2.2	2.1	2.1	2.2	2.0	2.2	2.0	2.0	2.0	2.0	2.0	2.2	A	2.1	2.3	2.5	2.1	2.13	2.53
29-Oct	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	A	2.2	2.1	2.2	2.2	2.2	2.06	2.21
30-Oct	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.1	2.1	2.1	2.11	2.18
31-Oct	2.1	2.3	2.4	2.5	2.4	2.4	2.2	2.3	2.2	2.4	2.2	2.1	2.0	2.0	2.0	2.1	A	2.2	2.1	2.4	2.3	2.6	2.5	2.1	2.25	2.62
	2.24	2.49	2.41	2.32	2.35	2.26	2.40	2.37	2.32	2.27	2.08	2.04	2.03	1.97	1.97	1.99	1.99	2.02	2.08	2.26	2.28	2.34	2.23	2.28	Diurnal Average	
	3.29	5.97	3.91	4.15	3.53	3.37	4.44	4.96	5.05	3.83	2.87	2.78	2.71	2.37	2.17	2.46	2.31	2.50	3.08	3.54	3.28	3.91	3.21	3.31	Diurnal Maximum	

C - Calibration

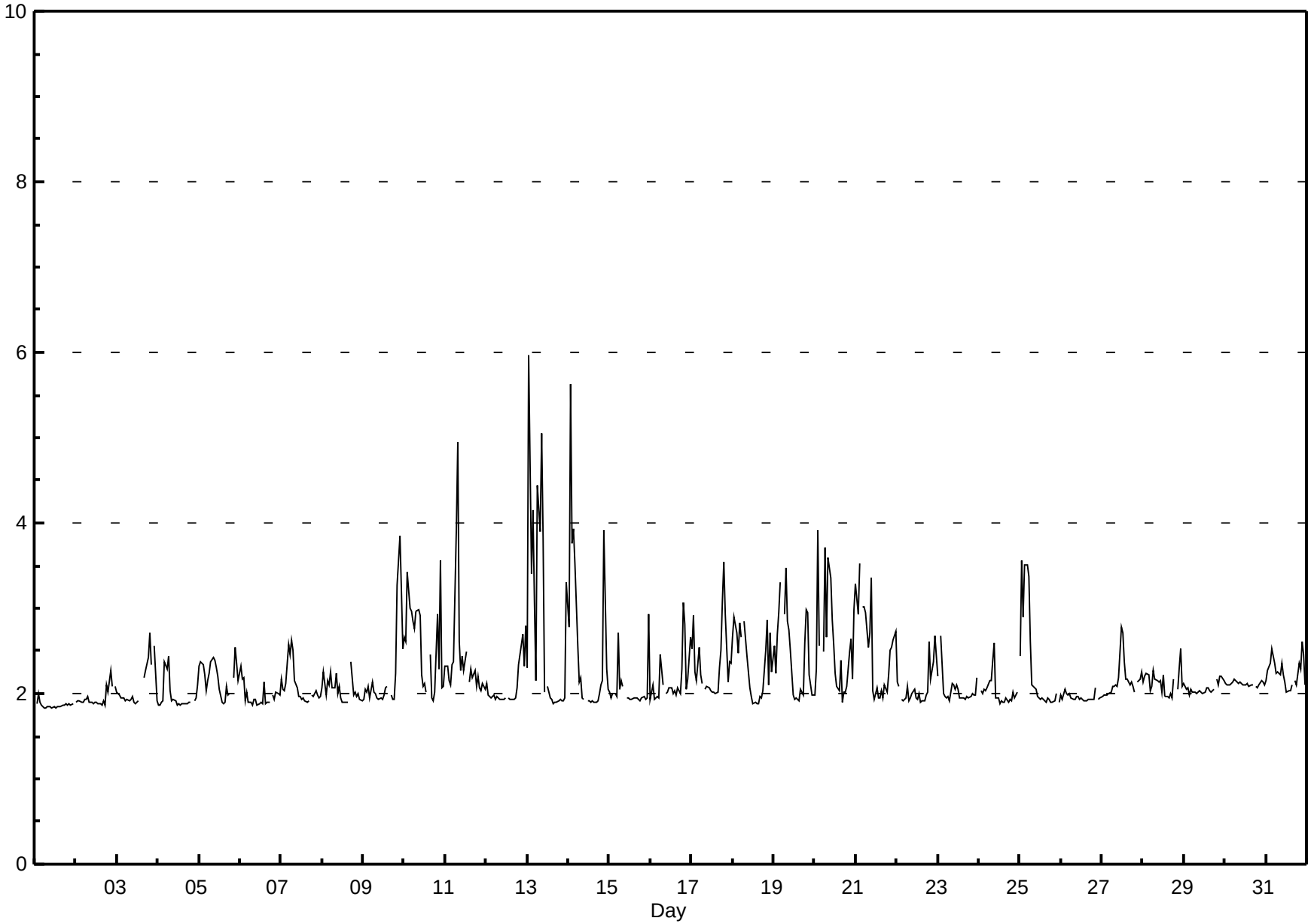
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Methane (CH_4) - ppm

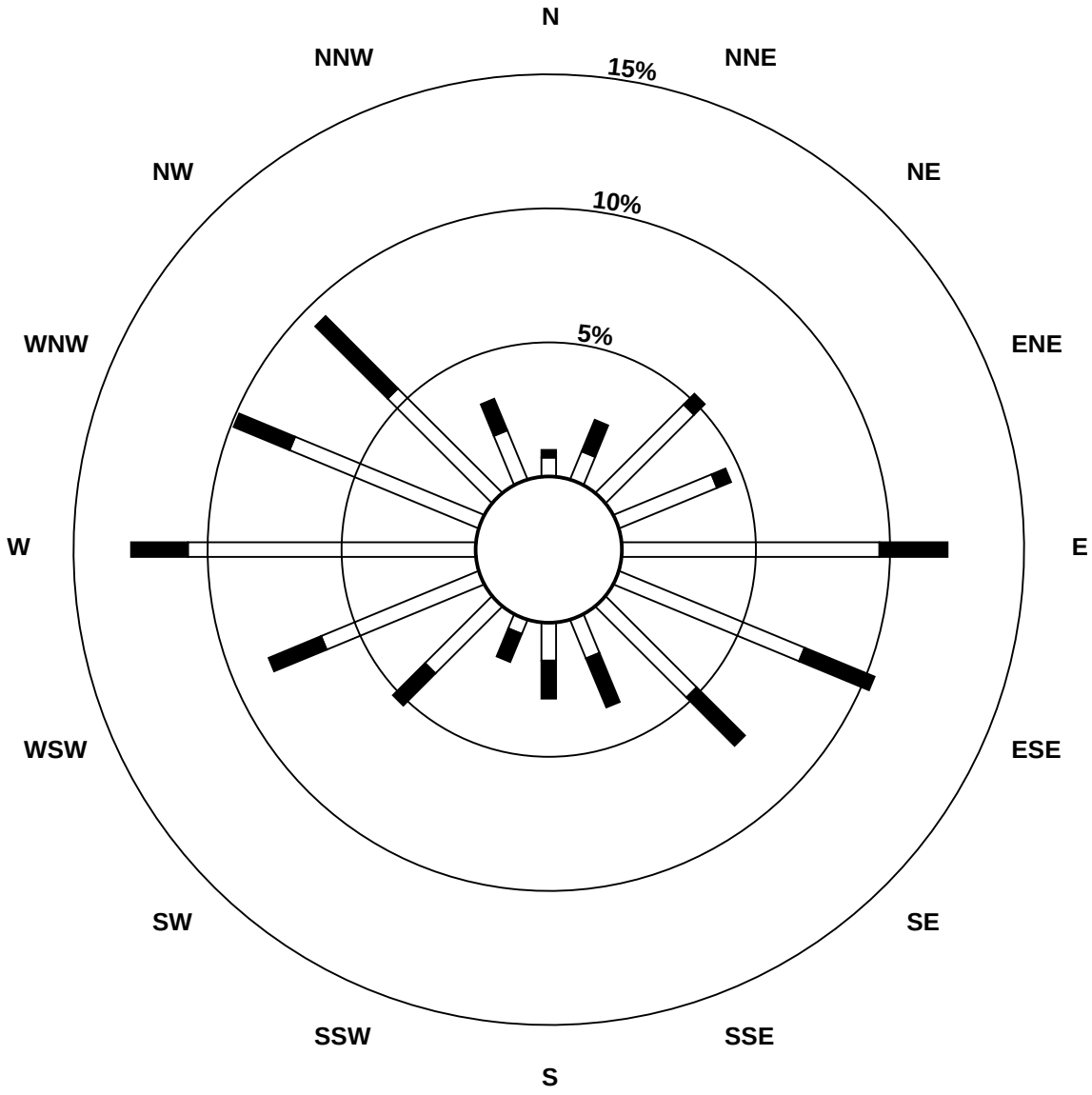
Henry Pirker - October 2014



Pollutant Rose

Methane (CH_4) - ppm

Henry Pirker - October 2014



Pollutant Classes (ppm)

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

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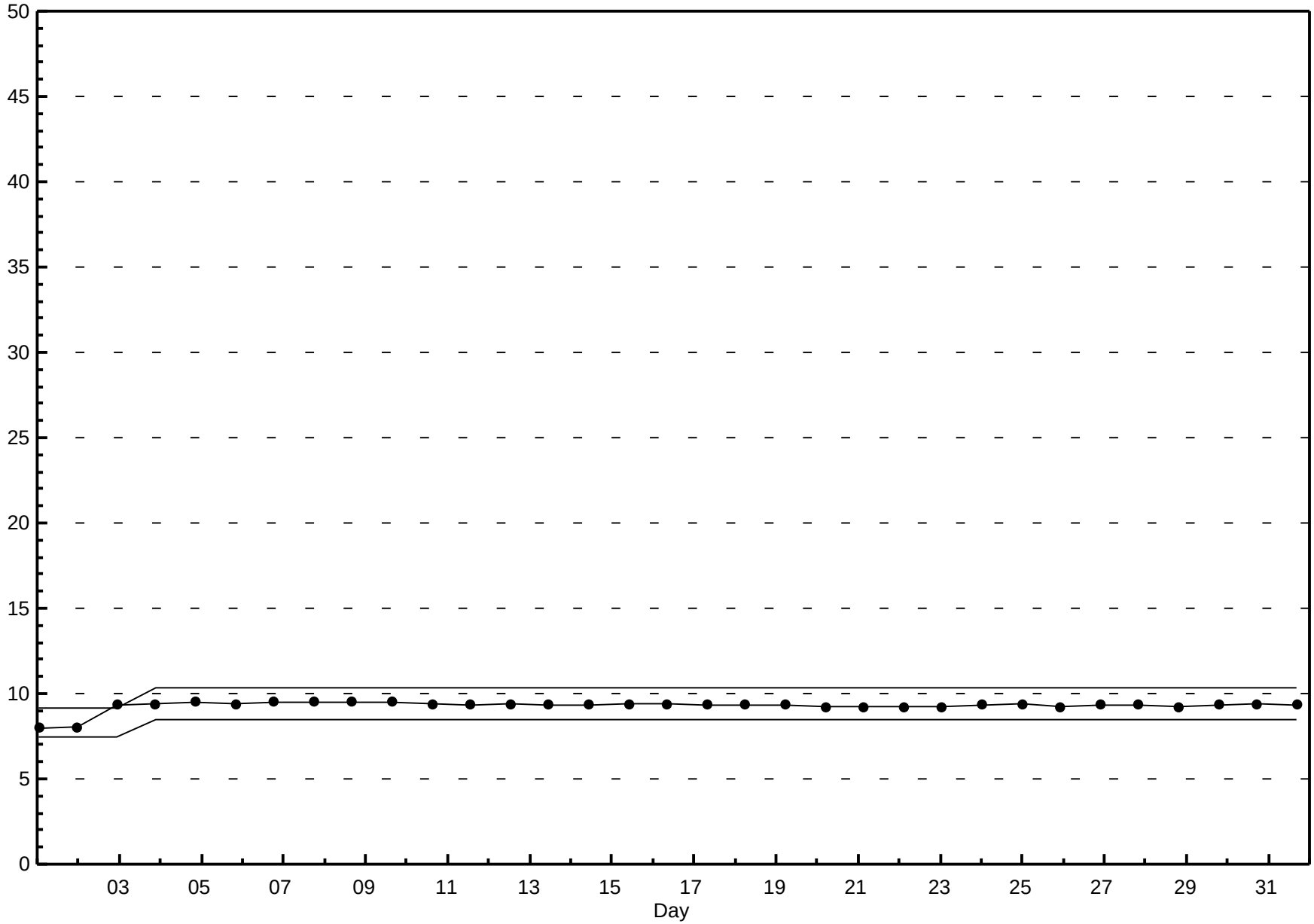
Span Responses

Methane (CH_4)

Henry Pirker - October 2014



Peace Airshed Zone Association

Hourly Averages

Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - October 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 0.06 ppm on Oct 22 18:00
Maximum Daily Average: 0.00 ppm on Oct 22

Minimum Value: 0.0 ppm on Oct 1 19:00
Maximum Diurnal Average: 0.00 ppm at hour 18
Monthly Average: 0.000 ppm

Minimum Daily Average: 0.00 ppm on Oct 28
Minimum Diurnal Average: 0.00 ppm at hour 12
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-Oct	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.00	0.00
2-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
3-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C	C	C	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.00	0.00
4-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.00	0.00
5-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.00	0.00
6-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.00	0.00
7-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
8-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
9-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
10-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
11-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
12-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
13-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
14-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
15-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
16-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
17-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
18-Oct	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
19-Oct	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
20-Oct	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
21-Oct	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
22-Oct	0.0	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	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.06
23-Oct	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
24-Oct	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.00	0.00
25-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.00	0.00
26-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.00	0.00
27-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.00	0.00
28-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
29-Oct	0.0	0.0	0.0	0.0	0.0	0.0	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
30-Oct	0.0	0.0	0.0	0.0	0.0	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
31-Oct	0.0	0.0	0.0	0.0	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
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Diurnal Average	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	Diurnal Maximum	

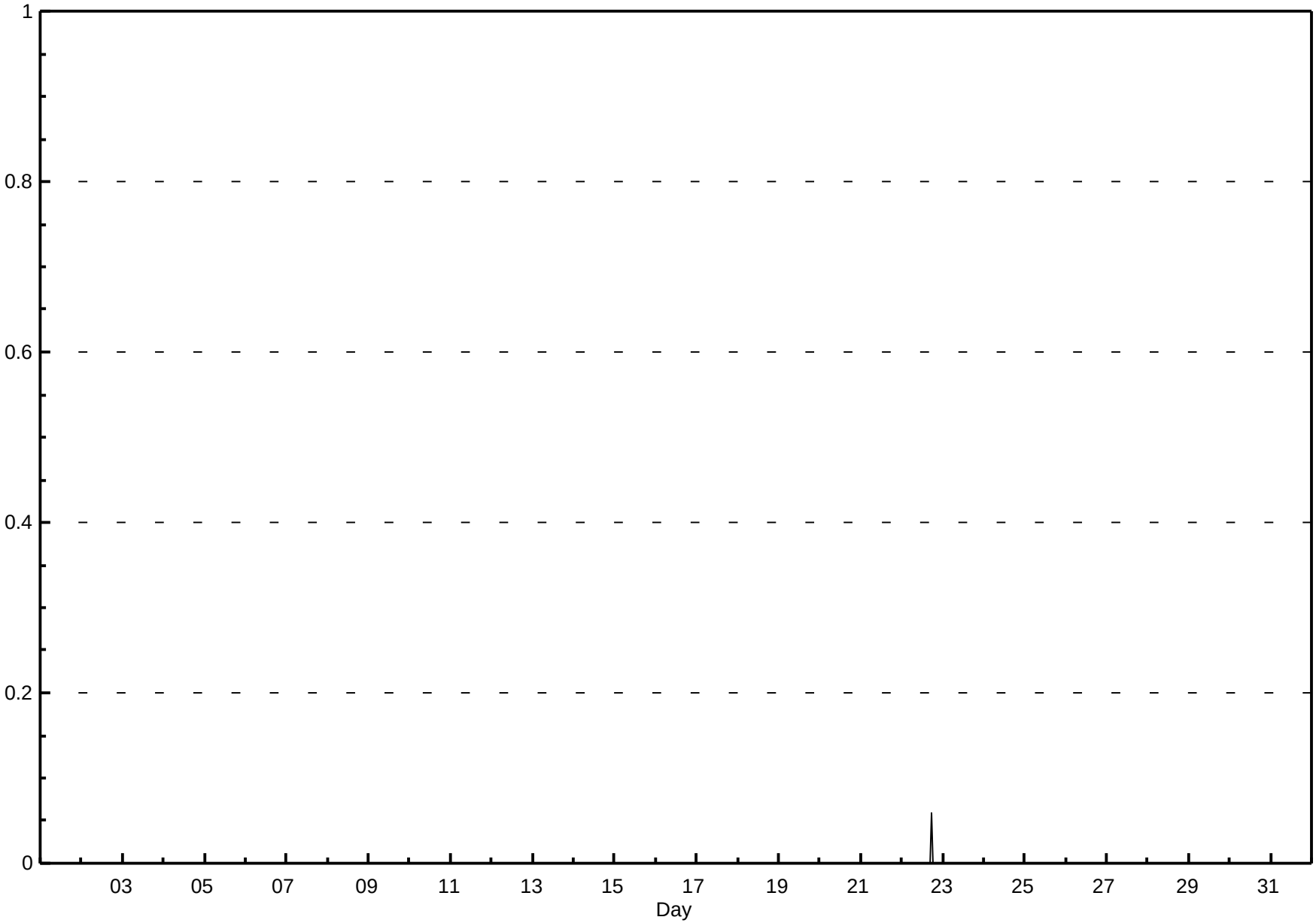
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - October 2014



Peace Airshed Zone Association

Hourly Maximums

Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - October 2014

Maximum Value: 1.62 ppm on Oct 22 18:00

Maximum Daily Average: 0.07 ppm on Oct 22

Minimum Value: 0.0 ppm on Oct 15 01:00

Minimum Daily Average: 0.00 ppm on Oct 28

Maximum Diurnal Average: 0.06 ppm at hour 18

Minimum Diurnal Average: 0.00 ppm at hour 16

Monthly Average: 0.003 ppm

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

Hours in Service:	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-Oct	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.00	0.00
2-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
3-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C	C	C	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.00	0.00
4-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.00	0.00
5-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.00	0.00
6-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.00	0.00
7-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
8-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
9-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
10-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
11-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
12-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
13-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
14-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
15-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
16-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
17-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
18-Oct	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
19-Oct	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
20-Oct	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
21-Oct	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
22-Oct	0.0	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	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.07	1.62
23-Oct	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
24-Oct	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.00	0.00
25-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.00	0.00
26-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.00	0.00
27-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.00	0.00
28-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
29-Oct	0.0	0.0	0.0	0.0	0.0	0.0	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
30-Oct	0.0	0.0	0.0	0.0	0.0	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
31-Oct	0.0	0.0	0.0	0.0	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
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	Diurnal Average	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.62	0.00	0.00	0.00	0.00	0.00	0.00	Diurnal Maximum	

C - Calibration

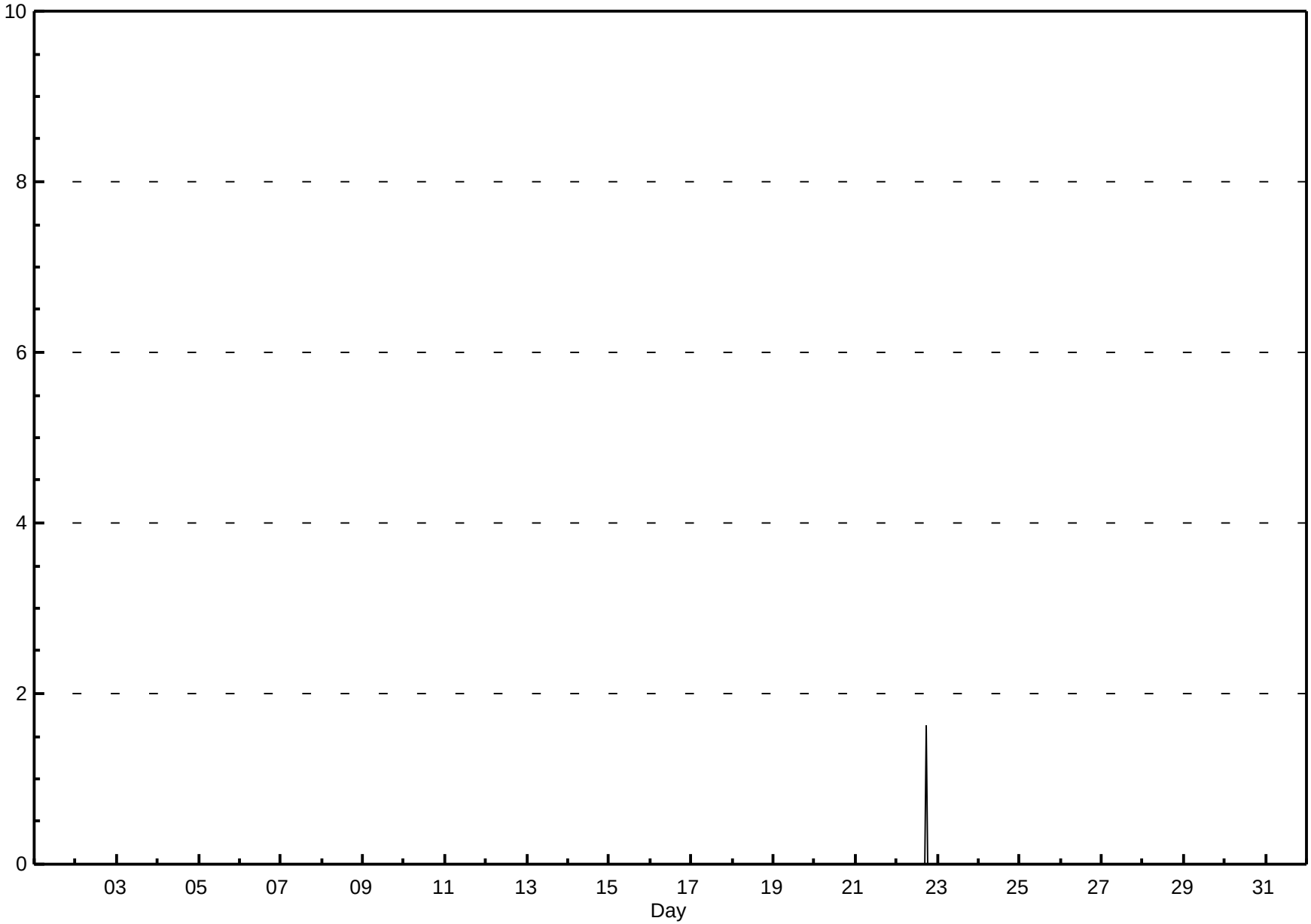
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - October 2014



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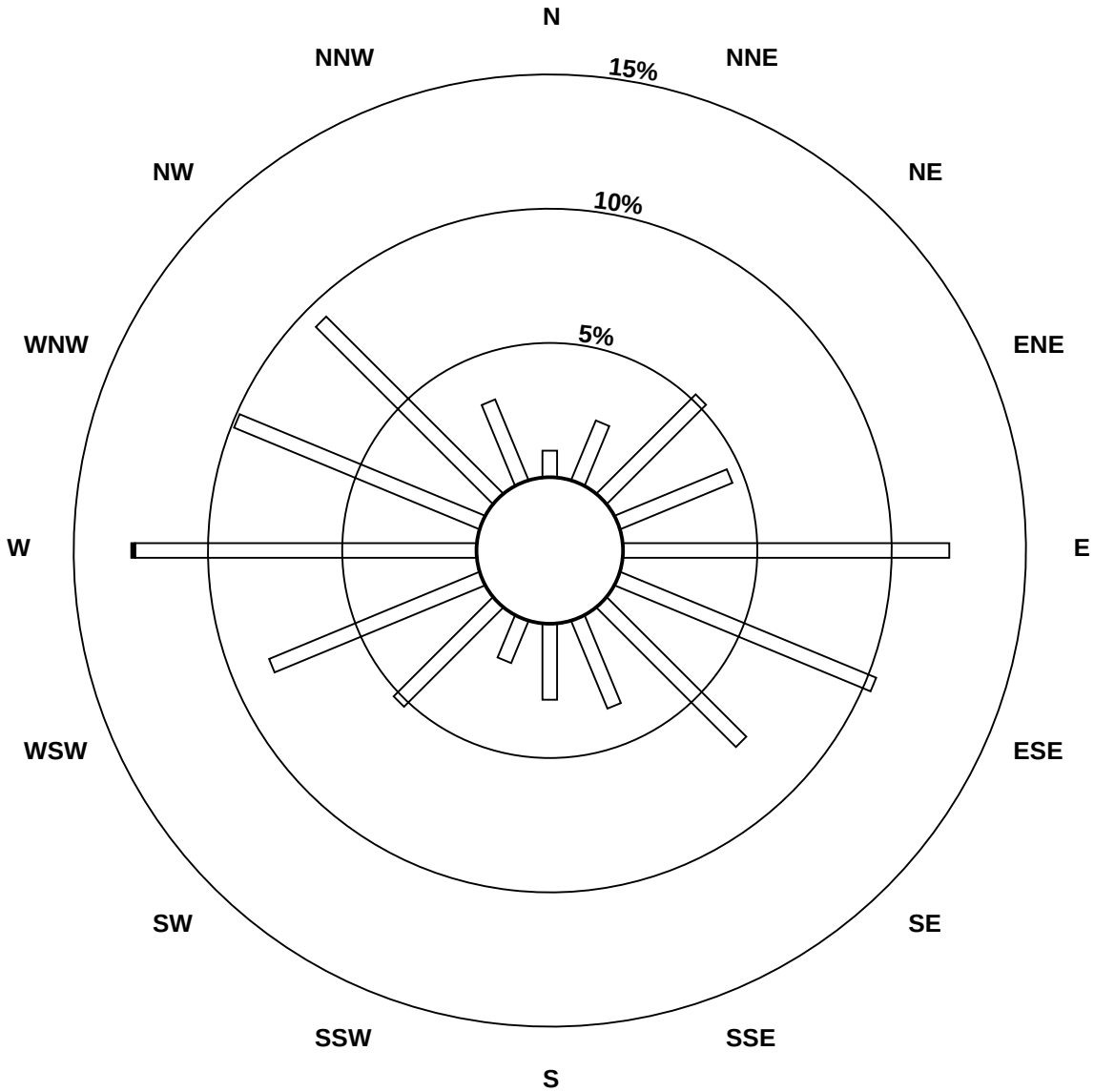
Pollutant Rose

Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - October 2014



Pollutant Classes (ppm)

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

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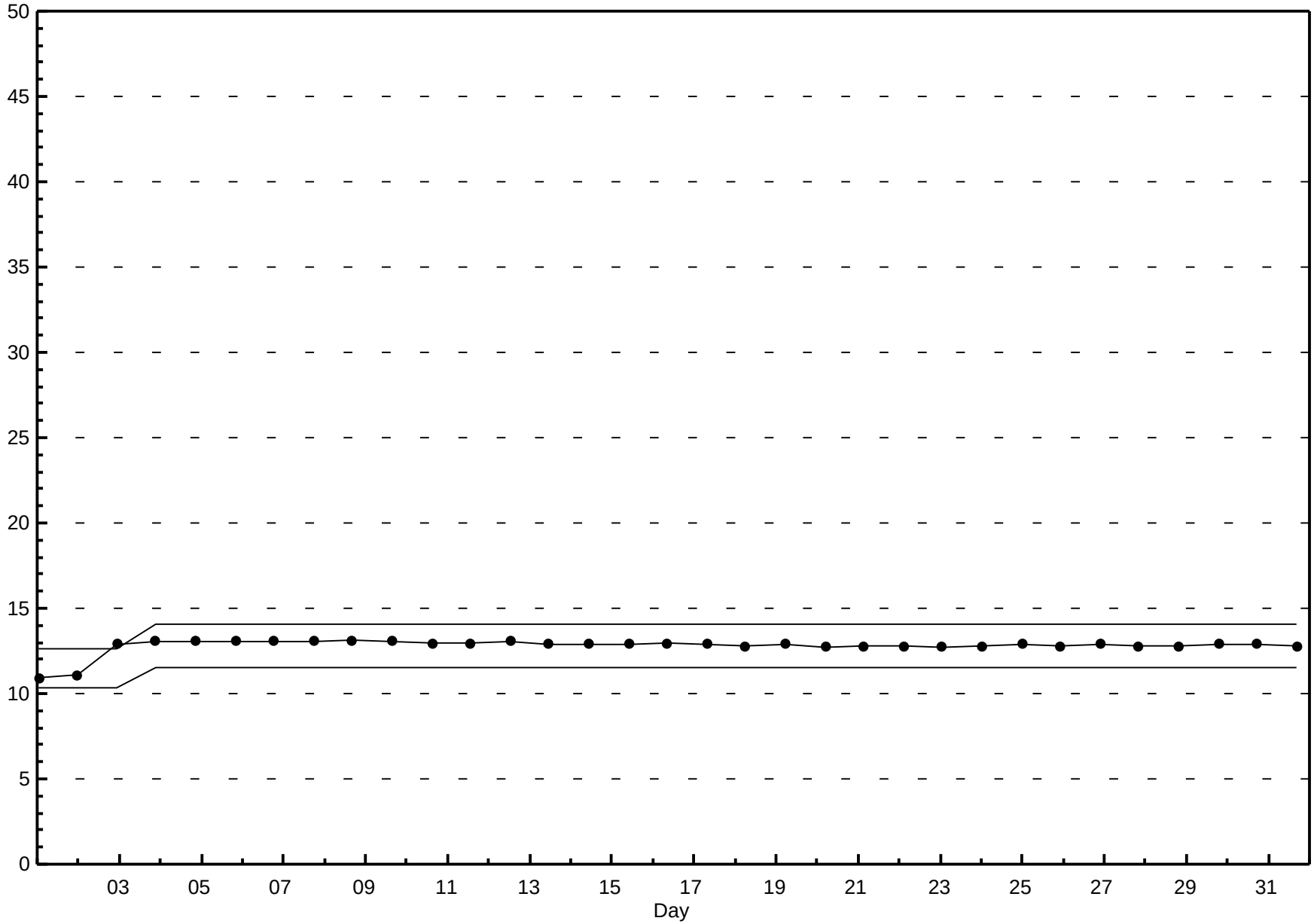
Span Responses

Non Methane Hydrocarbon (NMHC)

Henry Pirker - October 2014



Peace Airshed Zone Association

Hourly Averages

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

Henry Pirker - October 2014

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

Maximum Value: 20.4 $\mu g/m^3$ on Oct 22 23:00

Maximum Daily Average: 10.4 $\mu g/m^3$ on Oct 29

Minimum Value: 0 $\mu g/m^3$ on Oct 4 13:00

Maximum Diurnal Average: 6.8 $\mu g/m^3$ at hour 22

Monthly Average: 5.16 $\mu g/m^3$

Minimum Daily Average: 1.4 $\mu g/m^3$ on Oct 4

Minimum Diurnal Average: 3.3 $\mu g/m^3$ at hour 17

Percentiles: $P_1 = 0.7$ $P_{10} = 1.3$ $Q_1 = 2.4$ Median = 4.3 $Q_3 = 7.2$ $P_{90} = 10.3$ $P_{99} = 15.2$

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	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-Oct	3	3	4	4	4	3	4	3	3	2	2	2	2	1	1	1	1	1	1	1	1	1	1	2	2.1	3.7
2-Oct	3	5	4	3	3	4	5	6	4	2	2	1	1	1	1	1	1	2	3	5	7	8	7	7	3.7	7.8
3-Oct	8	9	4	4	3	5	5	5	4	6	3	3	3	4	5	8	8	9	10	11	14	12	7	2	6.3	14.1
4-Oct	1	1	1	1	1	2	2	2	1	1	1	1	0	0	1	0	1	1	1	1	2	3	4	5	1.4	5.0
5-Oct	7	7	8	7	6	7	9	11	12	10	8	6	4	2	2	2	2	3	6	7	11	14	15	9	7.4	14.9
6-Oct	11	8	4	3	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	3	3	3	3	4	2.5	11.2
7-Oct	5	5	6	6	7	10	13	12	10	6	6	6	5	4	4	4	4	5	8	7	7	5	4	4	6.3	12.6
8-Oct	4	4	4	4	4	4	5	5	5	5	5	3	3	3	2	2	2	3	4	4	4	4	4	3	3.7	5.0
9-Oct	4	5	4	6	5	6	7	8	7	7	6	6	6	8	7	5	7	5	9	7	9	13	17	15	7.4	16.8
10-Oct	15	15	14	14	11	13	15	15	15	13	12	12	10	6	5	4	3	3	2	4	3	3	3	2	8.9	15.2
11-Oct	2	2	2	2	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	1.5	2.2
12-Oct	3	3	4	5	4	4	3	4	3	3	2	2	2	2	1	1	1	1	2	2	3	6	9	6	3.2	9.1
13-Oct	7	6	7	9	9	8	10	15	9	7	6	6	3	3	3	2	3	2	3	3	3	10	7	3	6.0	14.9
14-Oct	5	4	4	4	5	6	5	5	3	3	2	2	1	1	1	1	1	1	1	1	3	5	6	5	3.2	6.3
15-Oct	3	2	2	3	3	4	4	5	4	3	4	6	5	4	3	3	3	3	3	2	2	2	2	2	3.3	5.9
16-Oct	3	3	3	3	3	4	4	4	5	6	7	10	9	8	6	4	4	5	8	11	9	7	6	6	5.8	10.7
17-Oct	6	5	5	5	4	4	5	5	5	5	4	4	4	4	5	5	6	10	13	14	16	10	8	8	6.6	15.8
18-Oct	9	10	10	11	11	11	10	10	10	5	3	2	2	1	1	1	1	3	4	12	12	12	8	6	6.9	12.1
19-Oct	6	8	10	11	9	8	10	10	9	7	5	5	5	4	2	2	2	3	5	9	10	8	8	6	6.8	10.9
20-Oct	6	6	6	7	9	10	11	10	9	11	13	18	15	7	7	7	4	4	3	4	5	4	4	6	7.7	17.9
21-Oct	9	6	6	13	10	10	8	7	9	7	5	4	3	2	3	4	3	5	7	7	9	8	8	9	6.7	12.8
22-Oct	7	4	4	3	3	3	3	3	3	4	6	4	6	4	2	2	2	2	4	8	13	14	20	8	5.6	20.4
23-Oct	6	5	5	4	4	4	4	4	4	5	5	4	3	2	2	2	2	2	2	2	2	2	2	2	3.3	6.4
24-Oct	2	3	3	3	3	3	4	7	12	8	4	3	2	1	1	1	1	1	1	1	2	2	4	7	3.2	11.7
25-Oct	9	10	7	8	8	10	8	7	6	5	5	4	3	3	3	2	3	2	2	2	1	1	1	1	4.7	9.8
26-Oct	1	1	1	1	1	1	1	2	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	1.5	2.0
27-Oct	2	2	2	2	2	2	3	3	4	4	4	5	6	7	8	11	10	13	10	8	8	14	13	12	6.3	14.3
28-Oct	10	8	8	7	6	5	5	5	5	6	6	6	5	5	5	5	5	5	5	5	6	9	10	10	6.2	10.0
29-Oct	8	11	12	11	10	10	9	10	11	13	14	13	12	15	14	7	7	8	8	9	10	12	8	9	10.4	15.3
30-Oct	5	4	4	3	3	3	3	4	5	6	6	6	5	4	5	7	8	7	7	8	7	7	6	6	5.4	8.2
31-Oct	6	7	7	7	9	9	10	8	7	6	4	3	3	3	3	5	4	6	6	6	6	6	5	4	5.8	9.6
	5.7	5.5	5.3	5.5	5.3	5.7	6.1	6.4	6.1	5.4	5.0	4.8	4.3	3.7	3.4	3.4	3.3	3.9	4.5	5.4	6.2	6.8	6.6	5.5	Diurnal Average	
	15.2	15.2	14.2	13.5	11.4	12.8	14.7	15.0	15.0	13.1	13.6	17.9	14.8	15.3	13.6	11.0	10.3	12.7	12.8	14.1	15.8	14.3	20.4	15.0	Diurnal Maximum	

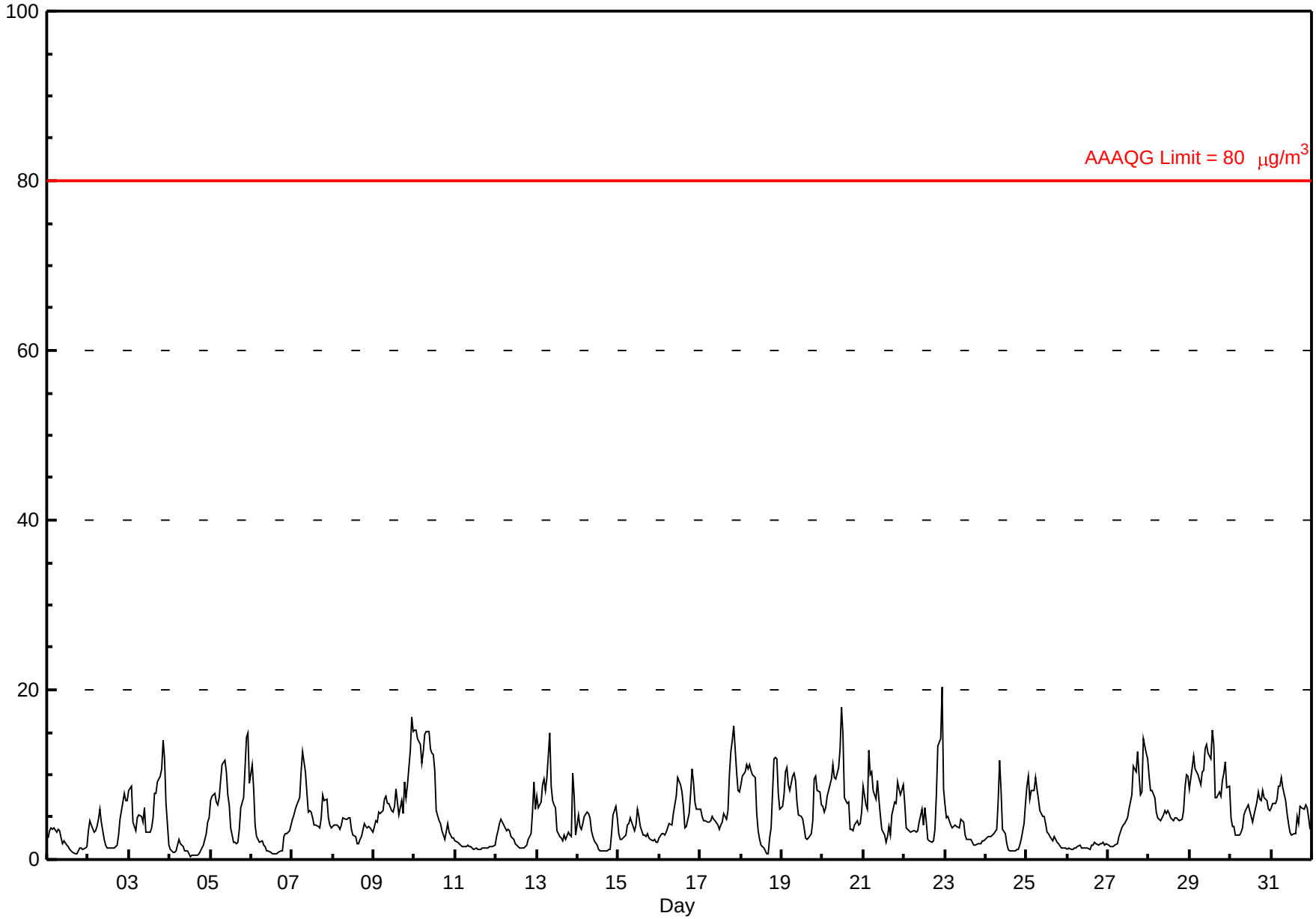
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 $\mu g/m^3$ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 $\mu g/m^3$

Peace Airshed Zone Association

Hourly Averages

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

Henry Pirker - October 2014



Peace Airshed Zone Association

Hourly Maximums

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

Henry Pirker - October 2014

Maximum Value: 48.2 $\mu g/m^3$ on Oct 27 23:00

Maximum Daily Average: 12.0 $\mu g/m^3$ on Oct 29

Minimum Value: 1 $\mu g/m^3$ on Oct 4 13:00

Minimum Daily Average: 1.7 $\mu g/m^3$ on Oct 11

Maximum Diurnal Average: 10.9 $\mu g/m^3$ at hour 23

Minimum Diurnal Average: 4.1 $\mu g/m^3$ at hour 17

Monthly Average: 6.76 $\mu g/m^3$

Percentiles: P_1 = 0.9 P_{10} = 1.6 Q_1 = 2.9 Median = 5.4 Q_3 = 9.1 P_{90} = 12.6 P_{99} = 31.5

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

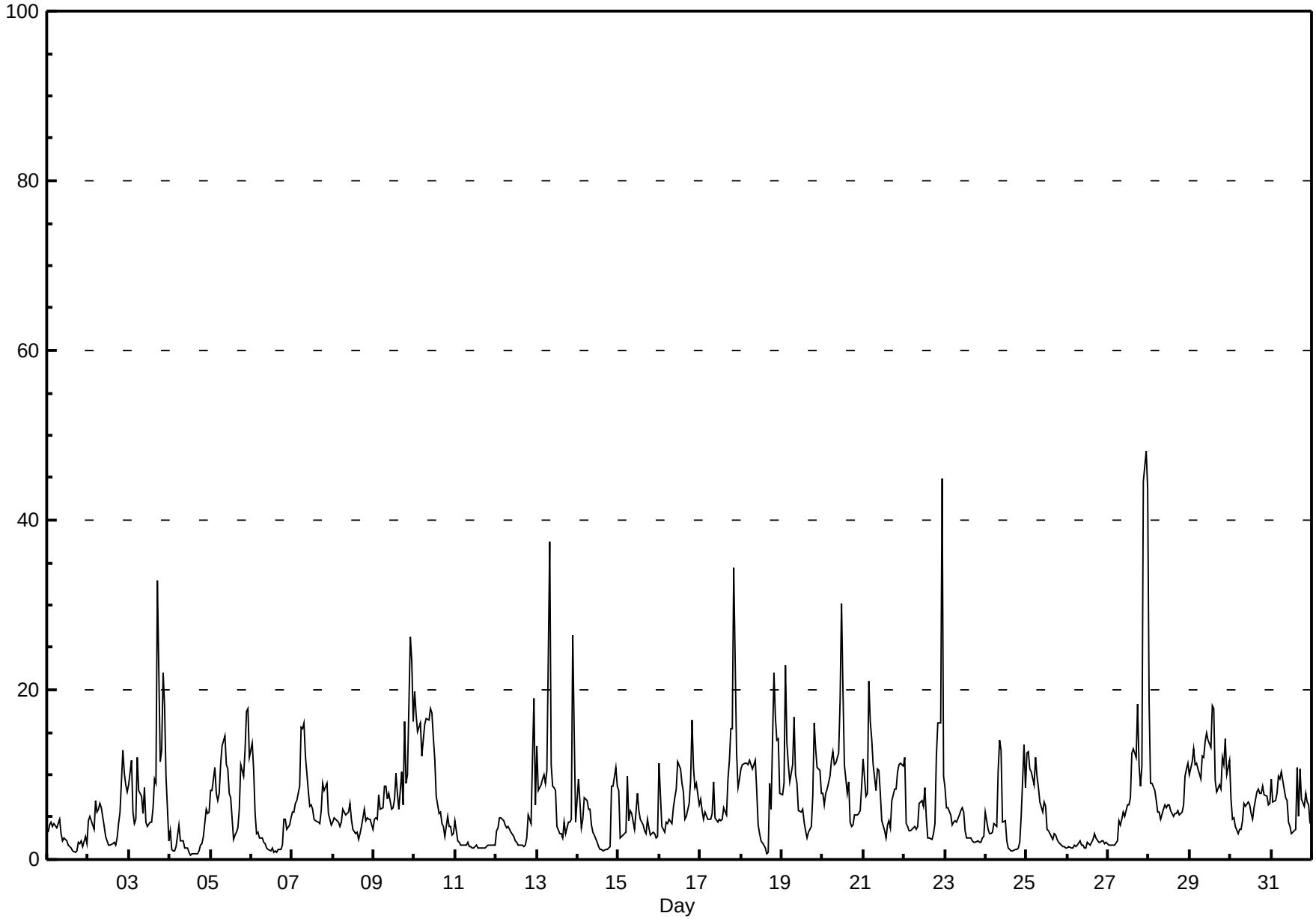
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	3	4	4	4	4	4	4	5	3	2	3	2	2	2	1	1	1	1	2	2	2	2	3	2	2.6	4.7
2-Oct	5	5	5	4	7	6	6	7	6	4	3	2	2	2	2	2	2	2	4	6	13	10	9	8	5.0	12.9
3-Oct	9	12	6	4	5	12	8	7	5	8	4	4	4	4	6	10	9	33	12	13	22	18	10	2	9.5	32.9
4-Oct	3	1	1	1	2	4	2	2	2	1	1	1	1	1	1	1	1	1	2	2	3	6	5	6	2.1	5.9
5-Oct	8	8	11	8	7	8	11	13	15	11	11	8	7	2	3	3	4	6	11	10	13	17	18	12	9.4	17.7
6-Oct	14	10	5	3	3	2	3	2	2	1	1	1	1	1	1	1	1	1	2	5	5	4	4	5	3.3	13.7
7-Oct	6	6	7	7	9	16	15	16	12	8	6	6	6	5	5	4	4	6	9	8	9	5	5	4	7.6	16.0
8-Oct	4	5	5	4	4	4	6	5	5	6	7	5	4	3	3	2	3	4	6	5	5	5	5	4	4.5	6.6
9-Oct	5	5	5	8	6	6	9	9	7	8	6	6	7	10	8	6	10	6	16	9	10	26	23	16	9.5	26.2
10-Oct	20	17	15	16	12	14	16	17	16	18	17	14	12	7	5	6	4	4	3	5	4	4	3	3	10.5	19.9
11-Oct	5	2	2	2	2	2	2	2	2	2	1	1	2	1	1	1	1	1	2	2	2	2	2	2	1.7	4.5
12-Oct	3	4	5	5	5	4	4	4	4	3	3	2	2	2	2	2	2	2	2	5	4	12	19	7	4.4	19.1
13-Oct	13	8	9	10	10	9	11	37	11	9	8	8	4	3	3	3	4	3	4	4	5	26	15	4	9.3	37.4
14-Oct	9	7	4	5	7	7	6	6	4	3	3	2	2	1	1	1	1	1	1	2	9	9	11	9	4.6	10.9
15-Oct	8	3	3	3	3	10	5	6	5	4	6	8	6	5	4	3	3	5	4	3	3	3	2	3	4.4	9.8
16-Oct	11	4	4	3	4	4	5	4	6	7	8	11	11	9	8	5	5	7	9	17	11	8	9	6	7.4	16.5
17-Oct	7	6	5	6	5	5	5	5	9	5	4	5	5	5	6	5	9	12	15	15	34	13	8	9	8.5	34.4
18-Oct	11	11	11	11	11	12	11	11	12	8	4	3	2	2	1	1	1	9	6	22	17	14	14	8	8.9	22.1
19-Oct	8	9	23	14	11	9	11	17	10	9	6	6	6	4	3	3	3	4	7	16	13	11	11	8	9.2	23.0
20-Oct	8	6	8	8	10	12	13	11	11	13	19	30	20	11	8	9	4	4	4	5	5	5	6	9	10.0	30.3
21-Oct	12	7	8	21	16	14	11	8	11	11	8	5	3	3	4	5	4	7	8	8	10	11	11	11	9.1	21.0
22-Oct	12	4	4	3	3	4	4	3	4	7	7	6	8	5	3	3	2	3	4	12	16	16	45	10	7.9	44.9
23-Oct	8	6	6	5	4	4	5	4	5	6	6	6	3	3	3	3	2	2	2	2	2	2	3	3	4.0	8.5
24-Oct	6	4	3	3	3	4	4	10	14	13	4	5	2	1	1	1	1	1	1	1	2	5	14	8	4.7	14.1
25-Oct	12	13	11	10	9	12	10	8	7	6	7	6	4	3	3	2	3	3	2	2	2	2	2	1	5.8	12.7
26-Oct	1	2	1	1	2	2	2	2	2	2	1	1	2	2	2	2	3	2	2	2	2	2	2	2	1.8	3.0
27-Oct	2	2	2	2	2	2	5	4	5	6	5	6	6	7	12	13	12	18	11	9	11	45	48	44	11.6	48.2
28-Oct	19	9	9	8	7	6	6	5	6	7	6	6	6	6	5	5	5	6	5	6	6	10	11	11	7.3	18.7
29-Oct	10	12	13	11	11	11	9	12	12	14	15	14	13	18	18	9	8	9	8	12	11	14	10	12	12.0	18.1
30-Oct	7	5	5	4	3	4	4	5	7	6	7	7	5	5	6	8	8	8	8	9	8	7	6	7	6.1	8.6
31-Oct	10	7	7	8	10	9	10	9	7	7	4	4	3	3	3	11	5	11	7	6	8	7	6	4	7.0	10.9
	8.4	6.5	6.6	6.5	6.3	7.1	7.1	8.3	7.3	6.8	6.2	6.2	5.2	4.4	4.3	4.2	4.1	5.9	5.9	7.2	8.6	10.4	10.9	7.7	Diurnal Average	
	19.9	17.1	23.0	21.0	16.3	15.5	15.9	37.4	16.4	17.8	18.6	30.3	20.0	18.1	17.7	13.1	12.1	32.9	16.3	22.1	34.4	44.5	48.2	43.8	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Maximums

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

Henry Pirker - October 2014

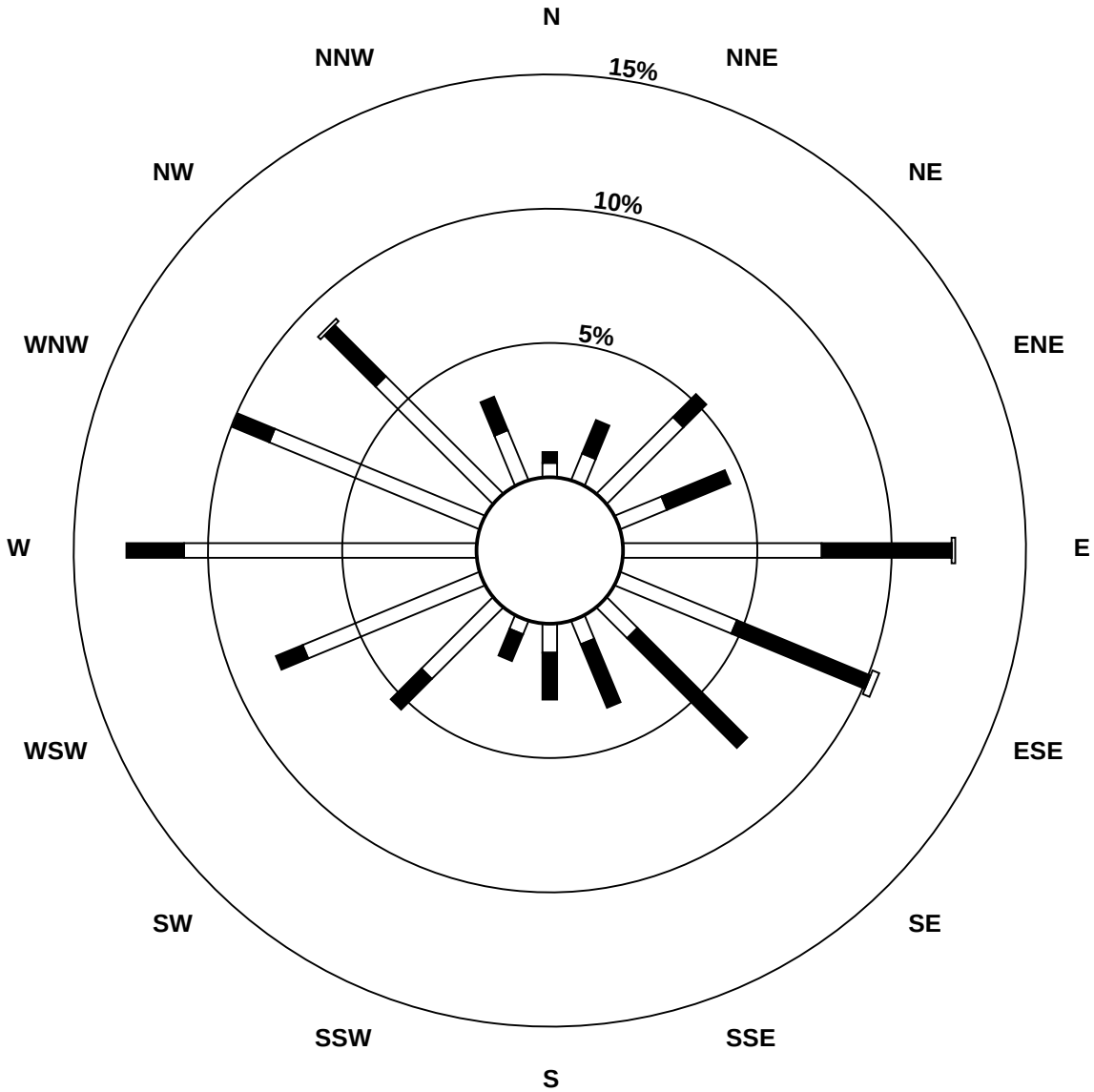


Peace Airshed Zone Association

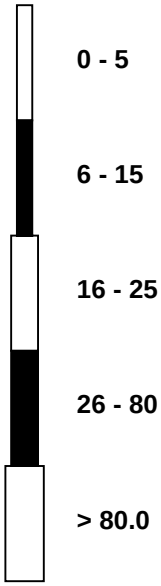
Pollutant Rose

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

Henry Pirker - October 2014



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



Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Henry Pirker - October 2014

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

Maximum Value: 23.1 ^{o}C on Oct 10 14:00

Maximum Daily Average: 12.9 ^{o}C on Oct 4

Minimum Value: -7 ^{o}C on Oct 27 09:00

Maximum Diurnal Average: 10.4 ^{o}C at hour 15

Monthly Average: 5.79 ^{o}C

Minimum Daily Average: -1.7 ^{o}C on Oct 27

Minimum Diurnal Average: 2.4 ^{o}C at hour 7

Percentiles: P_1 = -4.9 P_{10} = -0.6 Q_1 = 1.1 Median = 5.4 Q_3 = 9.5 P_{90} = 13.6 P_{99} = 18.6

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

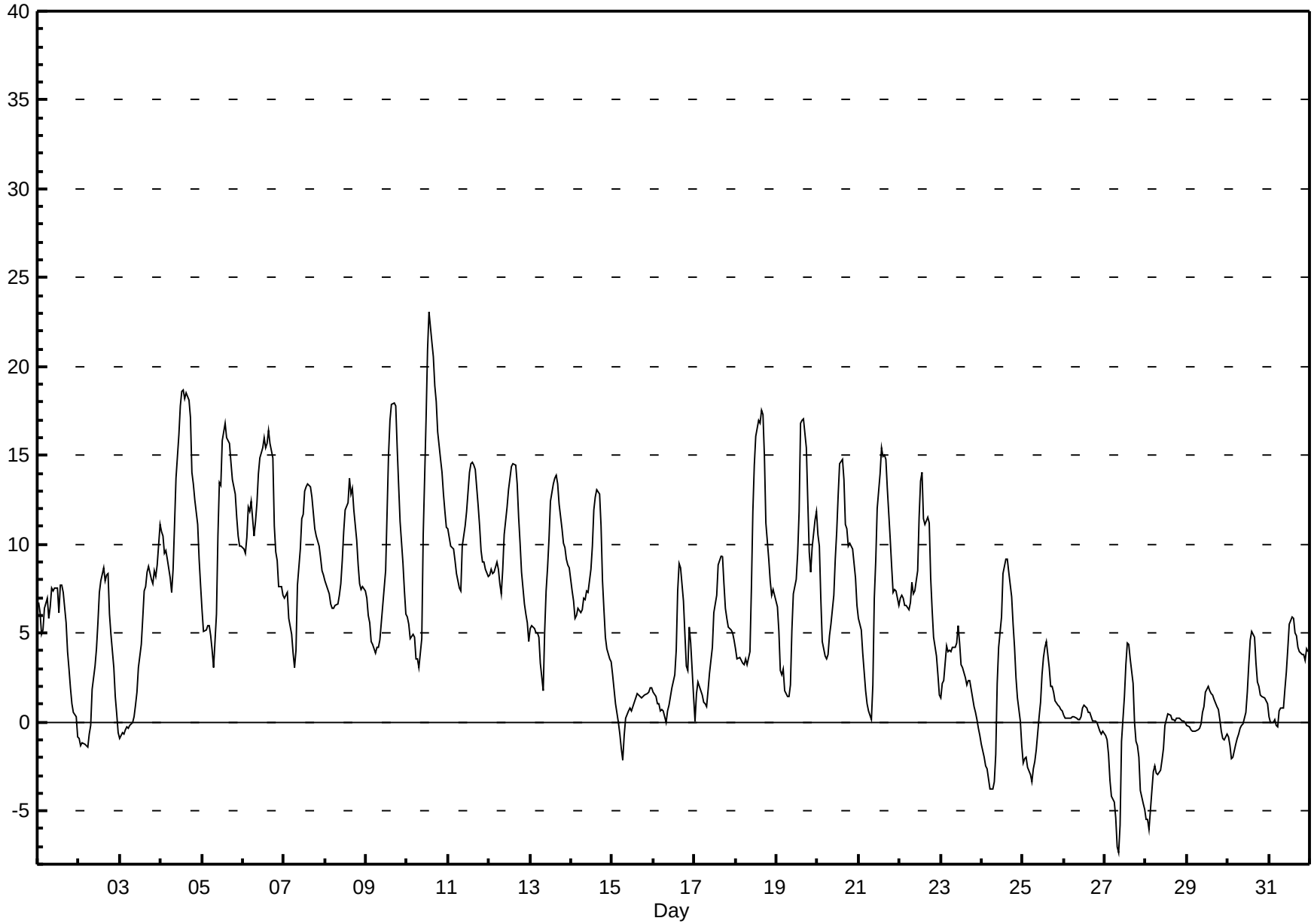
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	7	6	5	5	6	7	6	7	8	7	8	8	6	8	8	7	6	4	3	2	1	1	0	-1	5.1	7.7
2-Oct	-1	-1	-1	-1	-1	-1	-1	0	2	3	4	6	7	8	9	8	8	8	6	5	3	1	0	-1	2.9	8.7
3-Oct	-1	-1	-1	0	0	0	0	0	0	1	2	3	4	6	7	8	8	9	8	8	8	8	9	11	4.1	11.1
4-Oct	11	10	9	10	9	8	7	9	11	14	16	18	19	19	18	19	18	17	14	13	12	11	9	8	12.9	18.7
5-Oct	6	5	5	5	5	5	4	3	6	10	13	13	16	17	16	16	16	15	14	13	11	10	10	10	10.2	16.8
6-Oct	10	9	10	12	12	12	11	11	12	14	15	15	16	15	16	16	16	15	11	10	9	8	8	7	12.1	16.4
7-Oct	7	7	7	6	5	4	3	4	8	10	11	12	13	13	13	13	13	12	11	11	10	9	9	8	9.1	13.4
8-Oct	8	8	7	7	6	6	7	7	7	8	9	11	12	12	14	13	13	12	10	9	8	7	8	7	9.0	13.7
9-Oct	7	6	6	5	4	4	4	4	5	6	8	9	12	15	17	18	18	18	15	13	11	9	7	6	9.4	17.9
10-Oct	6	6	5	5	5	4	4	3	5	11	14	17	21	23	21	21	19	18	16	15	14	13	12	11	11.9	23.1
11-Oct	11	10	10	10	9	8	8	7	10	10	11	12	14	14	15	14	14	12	11	10	9	9	9	8	10.6	14.7
12-Oct	8	9	8	8	9	9	8	7	9	11	12	13	14	14	14	14	13	12	10	8	7	6	6	5	9.7	14.5
13-Oct	5	5	5	5	5	5	3	2	5	7	9	10	12	13	14	14	13	12	11	10	10	9	9	9	8.5	13.9
14-Oct	7	7	6	6	6	6	6	7	7	7	7	9	10	12	13	13	13	11	8	6	5	4	4	3	7.6	13.1
15-Oct	3	2	1	0	-1	-1	-2	-1	0	1	1	1	1	1	2	2	1	1	1	2	2	2	2	2	0.9	2.6
16-Oct	2	1	1	1	1	1	1	0	1	1	1	2	3	4	7	9	9	7	5	3	3	5	4	1	3.0	8.9
17-Oct	0	2	2	2	2	1	1	1	2	3	4	6	7	7	9	9	9	8	6	6	5	5	5	5	4.4	9.3
18-Oct	4	4	4	3	3	3	4	3	4	8	12	14	16	17	17	18	17	15	11	9	8	7	7	7	9.0	17.5
19-Oct	6	5	3	3	3	2	1	1	2	5	7	8	10	12	17	17	17	15	12	10	8	10	11	12	8.3	17.1
20-Oct	11	10	7	5	4	4	4	5	6	7	9	11	13	15	15	14	11	11	10	10	10	9	8	7	8.8	14.7
21-Oct	6	5	4	3	2	1	1	0	2	7	9	12	14	15	15	15	15	13	10	9	7	7	7	7	7.8	15.5
22-Oct	7	7	7	7	7	6	7	8	7	7	9	11	14	14	11	11	12	11	8	6	5	4	3	2	7.9	14.0
23-Oct	1	2	2	4	4	4	4	4	4	4	5	4	3	3	2	2	2	2	2	1	1	0	0	-1	2.6	5.4
24-Oct	-1	-2	-2	-3	-3	-4	-4	-3	-2	2	4	6	8	9	9	9	8	7	5	4	2	1	0	-1	2.1	9.2
25-Oct	-2	-2	-2	-3	-3	-3	-3	-2	-2	0	1	3	4	4	4	3	2	2	2	1	1	1	1	1	0.3	4.5
26-Oct	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	-1	-1	-1	0.2	0.9
27-Oct	-1	-1	-2	-3	-4	-5	-5	-7	-7	-6	-1	1	3	4	4	4	2	0	-1	-1	-2	-4	-5	-5	-1.7	4.4
28-Oct	-6	-5	-6	-4	-3	-2	-3	-3	-3	-2	-2	0	0	0	0	0	0	0	0	0	0	0	0	0	-1.5	0.5
29-Oct	0	0	0	-1	-1	0	0	0	0	1	1	2	2	2	2	2	1	1	1	0	-1	-1	-1	-1	0.3	2.0
30-Oct	-1	-1	-2	-2	-1	-1	-1	0	0	0	1	2	3	5	5	5	3	2	2	2	1	1	1	1	1.0	5.1
31-Oct	0	0	0	0	0	0	1	1	1	2	3	4	6	6	6	5	5	4	4	4	4	3	4	4	2.7	5.9
	3.9	3.6	3.2	3.1	2.9	2.6	2.4	2.5	3.5	5.1	6.6	7.8	9.1	10.0	10.4	10.3	9.8	8.9	7.4	6.4	5.6	5.1	4.7	4.2	Diurnal Average	
	10.9	10.5	10.4	12.1	11.8	12.4	10.5	11.3	12.4	14.0	16.1	17.8	20.9	23.1	21.4	20.6	18.9	18.1	16.3	14.8	14.0	12.8	11.9	11.9	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Henry Pirker - October 2014



Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Henry Pirker - October 2014

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

Maximum Value: 89.6 % on Oct 30 09:00 Maximum Daily Average: 87.3 % on Oct 26

Minimum Value: 32 % on Oct 6 16:00 Minimum Daily Average: 52.5 % on Oct 12

Maximum Diurnal Average: 80.3 % at hour 7 Minimum Diurnal Average: 55.7 % at hour 15

Monthly Average: 70.22 % Percentiles: P_1 = 36.1 P_{10} = 46.6 Q_1 = 58.5 Median = 74.7 Q_3 = 83.7 P_{90} = 87.2 P_{99} = 89.0

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

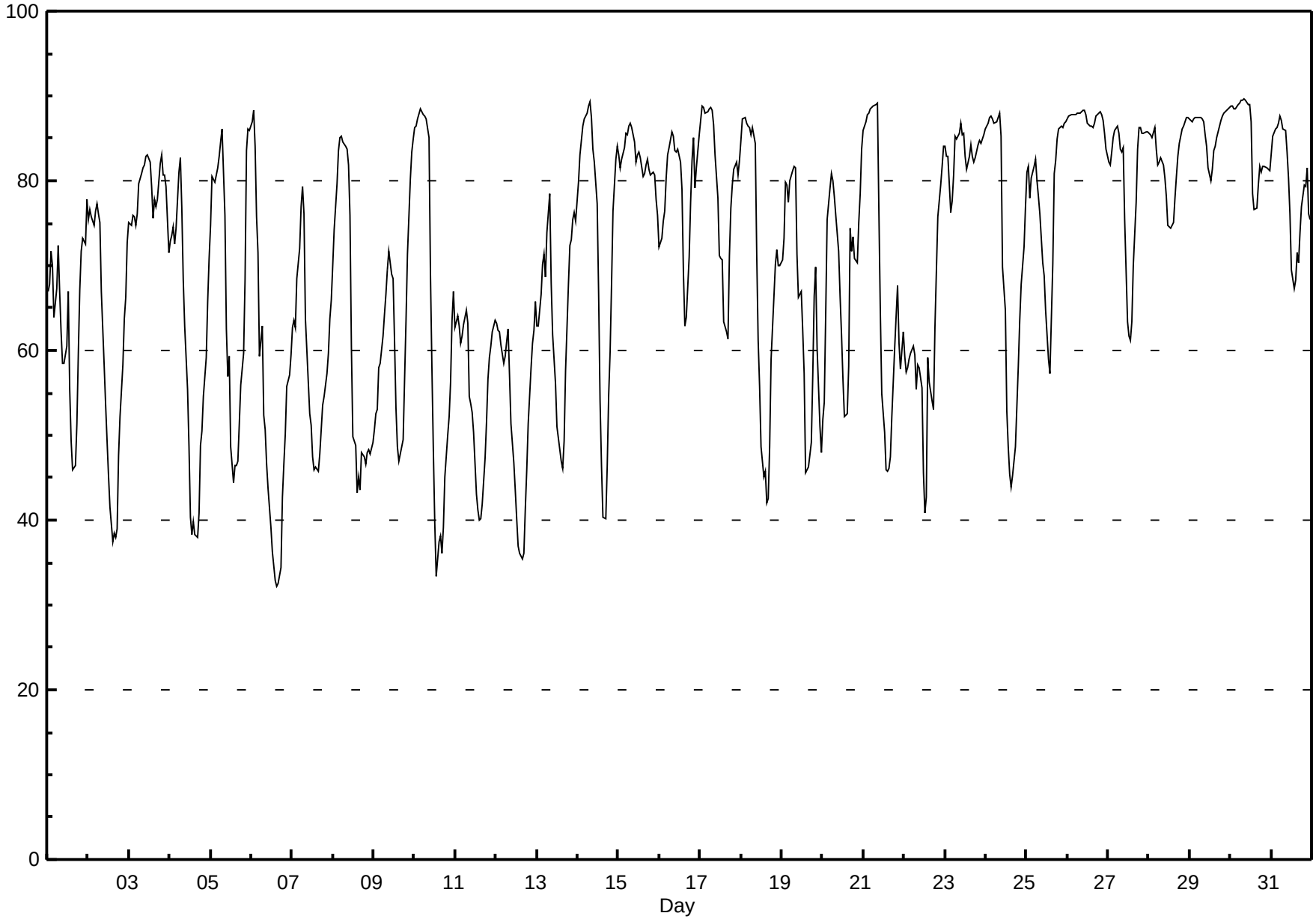
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	67	68	72	70	64	67	72	67	62	59	59	61	67	55	49	46	46	51	60	67	72	73	73	78	63.5	77.9
2-Oct	75	77	76	75	76	77	76	75	67	58	54	49	45	42	38	38	38	39	48	52	58	64	66	73	59.8	77.3
3-Oct	75	75	76	76	75	76	80	81	82	82	83	83	82	79	76	78	77	78	82	83	81	81	79	72	78.7	83.1
4-Oct	73	74	75	73	74	81	83	77	68	63	55	49	40	38	40	38	38	41	49	51	55	59	66	71	59.5	82.7
5-Oct	75	81	80	81	82	83	85	86	76	62	57	59	49	44	46	46	47	51	56	60	68	84	86	86	67.9	86.2
6-Oct	87	88	84	76	72	59	63	52	51	47	44	39	36	35	33	32	33	34	43	47	50	56	57	59	53.2	88.3
7-Oct	63	63	63	69	72	77	79	76	64	56	52	51	47	46	46	46	48	51	54	55	57	60	64	66	59.4	79.4
8-Oct	70	74	80	83	85	85	85	84	84	82	76	60	50	49	43	45	44	48	47	47	48	48	48	49	63.1	85.3
9-Oct	51	53	53	58	59	62	64	67	70	72	69	69	61	53	49	47	49	50	57	64	71	80	83	85	62.2	84.9
10-Oct	86	86	87	89	88	88	88	87	85	69	58	48	40	33	37	38	36	39	45	50	52	56	64	67	63.3	88.5
11-Oct	63	64	63	61	62	63	65	63	54	54	53	50	43	41	40	40	42	47	52	57	59	60	62	63	55.1	64.7
12-Oct	63	62	62	61	59	59	61	62	57	51	47	43	40	37	36	35	36	41	46	51	58	61	62	66	52.5	65.8
13-Oct	63	63	67	70	71	69	74	78	68	62	59	56	51	48	47	46	49	58	68	72	73	75	76	75	64.1	78.5
14-Oct	80	83	85	86	87	88	89	89	87	84	82	77	67	54	46	40	40	46	55	60	68	77	83	84	72.4	89.3
15-Oct	83	82	82	84	86	85	86	87	86	85	82	83	83	83	81	81	82	82	81	81	81	81	78	76	82.5	86.8
16-Oct	72	73	75	76	80	83	84	86	85	84	83	84	82	79	69	63	64	71	77	82	85	79	82	85	78.6	85.7
17-Oct	87	89	89	88	88	89	89	88	87	83	78	71	71	71	63	62	61	71	77	79	81	82	81	82	79.5	88.8
18-Oct	85	87	88	87	86	86	85	86	84	71	61	56	49	45	46	42	43	49	59	66	70	72	70	70	68.5	87.5
19-Oct	71	73	80	79	78	80	81	82	82	71	66	67	62	57	46	46	46	49	57	67	70	60	51	48	65.4	81.6
20-Oct	52	54	64	75	79	81	80	78	76	72	66	62	57	52	53	58	74	72	73	71	70	75	79	84	69.0	83.7
21-Oct	86	87	88	88	89	89	89	89	89	77	65	55	50	46	46	46	47	52	60	64	68	61	58	62	68.7	89.1
22-Oct	59	58	58	59	60	61	60	56	58	58	56	46	41	43	59	56	54	53	63	69	76	80	82	84	60.2	84.0
23-Oct	84	83	83	76	78	81	85	85	86	87	85	86	83	81	83	84	83	82	83	84	85	84	85	85	83.4	86.8
24-Oct	86	87	87	88	87	87	87	87	88	85	70	65	53	49	45	44	45	49	53	58	64	68	72	77	70.0	87.9
25-Oct	81	82	78	80	82	82	80	78	76	70	69	65	62	59	57	70	81	82	85	86	86	86	87	87	77.2	86.9
26-Oct	87	88	88	88	88	88	88	88	88	88	88	88	87	86	86	86	87	88	88	88	88	87	86	84	87.3	88.3
27-Oct	82	82	83	85	86	86	86	84	83	84	76	63	62	61	63	70	77	84	86	86	86	86	86	86	79.7	86.4
28-Oct	86	85	85	86	84	82	82	83	82	80	78	75	74	74	75	78	81	83	84	86	86	87	87	87	82.2	87.5
29-Oct	87	87	87	87	88	88	87	87	87	85	84	81	80	81	84	84	85	86	87	88	88	88	88	89	86.0	88.6
30-Oct	89	89	88	88	89	89	89	90	90	90	89	89	87	79	77	77	79	82	81	82	82	82	81	81	84.9	89.6
31-Oct	83	85	86	86	87	88	87	86	86	83	80	76	69	67	68	71	70	74	77	79	79	82	76	75	79.3	87.7
	75.8	76.8	77.8	78.3	78.6	79.3	80.3	79.5	77.0	72.7	68.5	64.7	60.4	57.1	55.7	56.0	57.5	60.7	65.6	68.8	71.5	73.3	74.1	75.4	Diurnal Average	
	88.8	88.8	88.6	88.5	89.0	89.2	89.4	89.6	89.6	89.5	89.0	89.0	87.0	86.5	86.4	86.3	86.9	87.6	88.0	88.1	88.0	88.2	88.2	88.6	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Henry Pirker - October 2014



Peace Airshed Zone Association

Hourly Averages

Solar Radiation (SR) - W/m^2

Henry Pirker - October 2014

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

Maximum Value: 519.2 W/m^2 on Oct 6 13:00

Maximum Daily Average: 123.0 W/m^2 on Oct 6

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

Minimum Daily Average: 17.6 W/m^2 on Oct 23

Maximum Diurnal Average: 260.9 W/m^2 at hour 13

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

Monthly Average: 63.87 W/m^2

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.0 Q_3 = 87.7 P_{90} = 246.4 P_{99} = 438.8

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

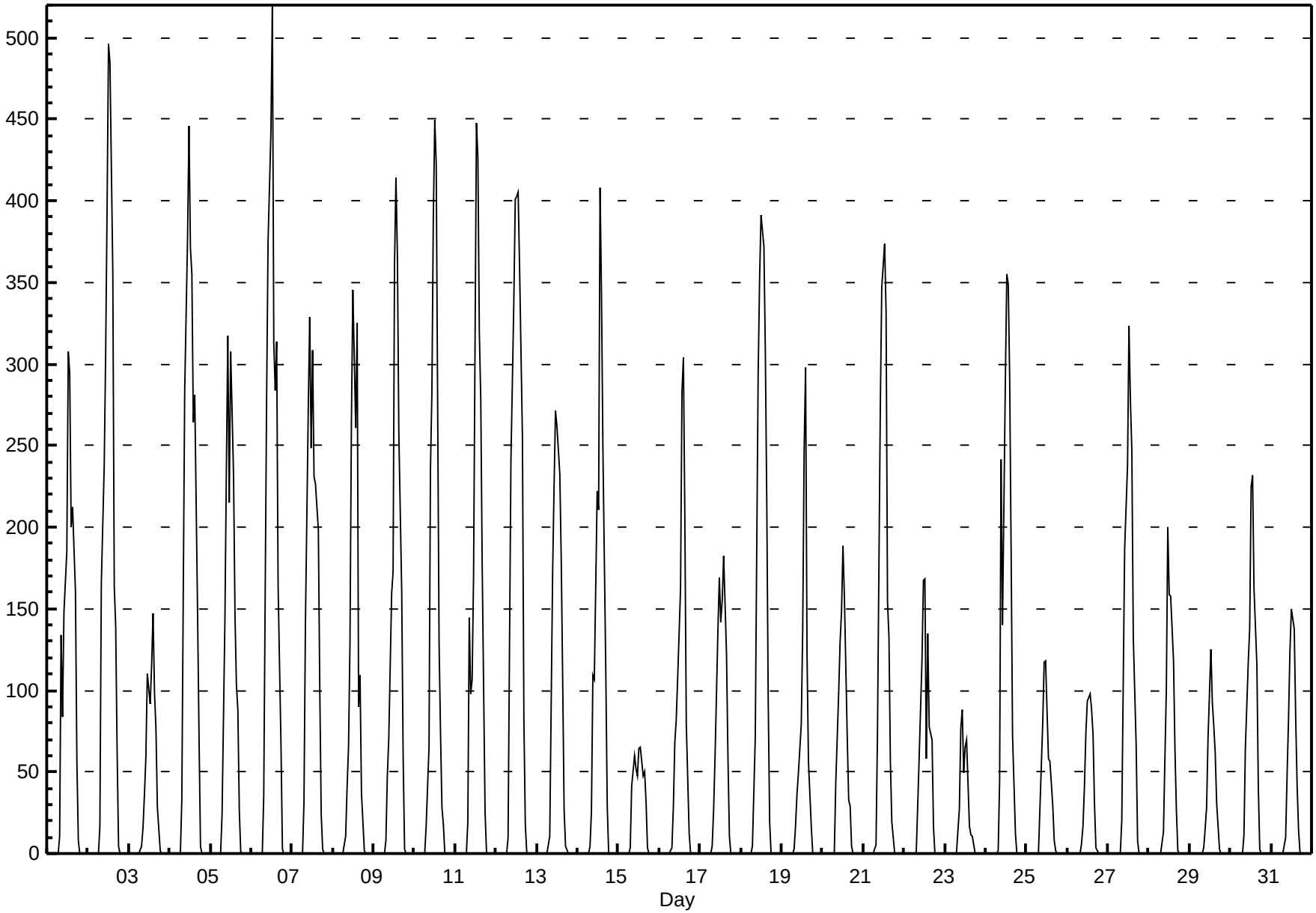
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0	0	0	0	0	0	0	10	134	84	148	185	307	294	200	212	160	57	8	0	0	0	0	0	75.0	307.3
2-Oct	0	0	0	0	0	0	0	17	166	237	305	395	496	485	355	164	139	62	4	0	0	0	0	0	117.7	496.1
3-Oct	0	0	0	0	0	0	0	5	16	36	59	110	92	115	147	99	77	28	2	0	0	0	0	0	32.8	147.4
4-Oct	0	0	0	0	0	0	0	33	158	283	377	446	371	355	265	281	145	70	5	0	0	0	0	0	116.2	446.4
5-Oct	0	0	0	0	0	0	0	23	143	236	317	215	307	232	147	103	88	26	1	0	0	0	0	0	76.6	317.5
6-Oct	0	0	0	0	0	0	0	35	158	279	375	442	519	312	284	314	164	67	3	0	0	0	0	0	123.0	519.2
7-Oct	0	0	0	0	0	0	0	31	140	273	329	249	308	231	227	198	100	24	2	0	0	0	0	0	88.0	328.6
8-Oct	0	0	0	0	0	0	0	11	41	65	129	263	345	261	325	90	110	37	2	0	0	0	0	0	70.0	345.3
9-Oct	0	0	0	0	0	0	0	8	47	71	160	173	361	414	367	257	160	59	3	0	0	0	0	0	86.7	414.5
10-Oct	0	0	0	0	0	0	0	17	65	235	283	390	449	423	128	74	28	18	0	0	0	0	0	0	87.9	449.4
11-Oct	0	0	0	0	0	0	0	19	144	98	107	171	447	426	320	278	177	26	1	0	0	0	0	0	92.3	447.3
12-Oct	0	0	0	0	0	0	0	10	127	241	338	401	403	405	360	255	83	17	0	0	0	0	0	0	110.0	405.1
13-Oct	0	0	0	0	0	0	0	10	91	172	225	271	262	232	180	106	27	4	0	0	0	0	0	0	65.8	271.3
14-Oct	0	0	0	0	0	0	0	4	25	109	107	222	211	408	343	247	111	30	0	0	0	0	0	0	75.7	408.3
15-Oct	0	0	0	0	0	0	0	3	41	60	52	47	64	66	48	51	32	4	0	0	0	0	0	0	19.5	65.6
16-Oct	0	0	0	0	0	0	0	4	28	67	82	108	162	283	304	205	79	13	0	0	0	0	0	0	55.6	303.8
17-Oct	0	0	0	0	0	0	0	4	26	59	137	170	142	155	182	122	58	10	0	0	0	0	0	0	44.4	182.1
18-Oct	0	0	0	0	0	0	0	4	71	185	293	352	391	372	307	214	94	19	0	0	0	0	0	0	96.0	391.1
19-Oct	0	0	0	0	0	0	0	3	17	36	50	79	137	247	298	123	56	16	0	0	0	0	0	0	44.2	297.8
20-Oct	0	0	0	0	0	0	0	1	43	97	130	148	189	158	71	33	29	5	0	0	0	0	0	0	37.6	188.5
21-Oct	0	0	0	0	0	0	0	5	72	174	275	347	373	332	154	133	57	19	0	0	0	0	0	0	80.9	373.3
22-Oct	0	0	0	0	0	0	0	1	29	58	119	167	169	58	135	78	70	16	0	0	0	0	0	0	37.5	168.6
23-Oct	0	0	0	0	0	0	0	1	27	77	88	49	65	70	17	11	11	5	0	0	0	0	0	0	17.6	88.5
24-Oct	0	0	0	0	0	0	0	2	44	242	140	290	355	349	291	186	72	12	0	0	0	0	0	0	82.6	355.5
25-Oct	0	0	0	0	0	0	0	0	27	80	117	118	87	58	57	29	8	2	0	0	0	0	0	0	24.3	117.7
26-Oct	0	0	0	0	0	0	0	0	7	17	41	73	93	98	89	73	31	4	0	0	0	0	0	0	21.8	98.2
27-Oct	0	0	0	0	0	0	0	1	20	104	187	238	324	277	247	133	66	8	0	0	0	0	0	0	66.9	323.6
28-Oct	0	0	0	0	0	0	0	0	13	58	100	200	159	158	118	64	27	1	0	0	0	0	0	0	37.4	199.8
29-Oct	0	0	0	0	0	0	0	0	3	15	28	70	125	92	78	62	30	3	0	0	0	0	0	0	21.1	124.8
30-Oct	0	0	0	0	0	0	0	0	12	65	117	138	224	232	162	116	41	3	0	0	0	0	0	0	46.2	232.0
31-Oct	0	0	0	0	0	0	0	0	10	47	82	124	150	138	83	41	14	0	0	0	0	0	0	0	28.7	149.8
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.5	62.8	124.4	170.8	214.6	260.9	249.6	202.8	140.4	75.6	21.4	1.0	0.0	0.0	0.0	0.0	0.0	Diurnal Average	
	0.0	0.0	0.0	0.0	0.0	0.0	0.1	35.2	165.5	282.7	377.1	446.4	519.2	484.5	366.9	314.1	176.6	70.3	7.7	0.0	0.0	0.0	0.0	0.0	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

Solar Radiation (SR) - W/m^2

Henry Pirker - October 2014



Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Henry Pirker - October 2014

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	10	9	8	10	13	18	10	15	13	23	19	22	23	26	25	23	26	20	17	14	15	15	12	9	13.5	26.3
Dir	222	215	217	219	253	272	253	270	271	256	265	316	316	312	316	322	329	330	327	324	319	315	313	290	296.0	312.5
2 Spd	11	8	9	10	8	6	7	8	10	11	11	8	6	6	9	5	4	1	4	3	1	4	4	3	5.1	11.2
Dir	303	306	312	317	316	313	275	268	299	296	280	267	254	250	282	302	328	359	254	239	59	117	124	143	290.1	303.2
3 Spd	4	5	5	5	6	6	6	5	7	6	8	8	5	2	1	4	2	2	3	1	2	3	4	5	3.6	8.1
Dir	135	133	119	110	122	116	107	113	108	113	120	127	132	100	224	178	144	136	134	161	305	144	198	241	130.0	119.5
4 Spd	13	8	7	8	4	5	4	7	7	6	10	15	24	27	26	25	28	21	11	11	9	9	5	3	11.9	28.2
Dir	235	260	285	257	217	222	254	272	282	287	271	282	279	281	274	282	281	273	289	278	269	265	246	267	273.0	281.3
5 Spd	2	2	3	4	3	2	1	2	2	1	2	4	12	15	11	6	1	5	7	3	2	2	4	4	1.5	15.1
Dir	340	243	233	233	246	277	318	293	321	278	234	147	295	302	323	339	41	153	157	147	189	117	161	138	269.4	302.0
6 Spd	3	7	11	14	16	19	14	17	11	16	24	23	21	22	18	20	20	15	11	6	10	7	8	5	12.8	23.5
Dir	130	216	261	274	286	292	291	301	304	301	294	290	307	307	294	286	310	290	286	245	246	221	243	240	287.0	294.2
7 Spd	4	4	4	2	1	2	1	1	2	4	3	3	2	1	4	6	8	4	5	5	5	6	7	4	1.2	7.9
Dir	255	249	250	225	322	13	87	135	139	128	138	116	114	116	101	94	93	96	108	125	224	239	252	284	152.3	92.8
8 Spd	3	6	6	4	4	3	3	3	3	4	5	8	11	5	7	4	3	2	6	7	7	5	7	7	0.6	11.1
Dir	272	214	198	184	175	184	232	231	247	266	276	311	311	282	294	305	335	78	81	78	81	86	94	100	265.0	310.7
9 Spd	6	4	3	3	4	1	3	4	5	5	5	3	2	2	2	2	5	5	5	4	1	1	0	2	2.6	6.2
Dir	90	79	72	86	112	89	99	98	98	89	107	119	165	250	275	116	128	119	114	125	136	297	114	312	105.5	90.5
10 Spd	2	1	0	3	1	1	1	3	1	2	1	1	2	2	3	7	19	23	14	6	7	7	18	14	4.9	22.7
Dir	152	315	102	141	323	331	307	308	304	149	272	185	269	263	290	264	275	274	267	249	250	274	270	216	263.3	273.5
11 Spd	11	12	17	22	14	10	9	12	10	15	14	16	28	30	32	30	28	20	21	13	17	17	15	15	17.5	32.3
Dir	226	234	225	234	247	246	250	247	255	256	265	268	269	271	268	268	265	261	261	262	255	253	249	251	256.3	267.7
12 Spd	15	20	19	19	19	20	18	18	18	23	25	25	27	27	28	29	26	19	8	3	3	2	4	4	16.6	28.8
Dir	249	252	254	259	260	258	255	249	254	257	263	264	269	257	267	257	261	266	233	216	204	200	110	140	256.9	257.3
13 Spd	5	2	2	1	3	4	1	2	2	3	6	7	4	7	10	10	8	8	7	8	8	8	7	4	4.8	10.4
Dir	128	126	333	307	137	126	100	26	87	154	131	129	130	127	122	113	112	116	99	91	101	113	115	116	115.1	122.1
14 Spd	2	1	2	2	2	4	7	11	14	11	8	10	13	18	20	20	17	11	8	5	2	3	3	4	6.3	20.0
Dir	117	313	317	219	242	303	325	301	294	255	214	262	259	270	273	270	275	300	310	320	87	103	83	88	277.5	273.5
15 Spd	5	6	6	2	2	2	4	4	8	8	8	8	8	7	6	6	5	5	5	3	2	2	3	5	4.6	8.2
Dir	55	51	33	7	41	339	340	22	42	47	48	40	27	27	37	37	48	36	23	319	306	338	45	82	34.2	27.4
16 Spd	7	7	6	3	2	1	0	4	5	4	2	3	3	3	4	6	6	4	2	1	3	9	5	2	2.3	8.6
Dir	86	85	84	46	1	43	208	178	241	241	164	175	123	125	77	98	83	82	4	329	107	111	116	317	99.5	110.6
17 Spd	2	5	5	5	3	4	5	3	8	3	5	1	5	4	2	3	2	3	2	2	3	4	3	3	1.5	8.3
Dir	99	95	91	88	78	87	98	98	93	97	92	297	323	333	119	136	163	304	321	332	320	336	319	313	63.7	92.5
18 Spd	2	1	0	0	1	2	2	3	4	7	8	18	21	19	17	11	8	6	2	2	3	4	5	3	4.6	20.9
Dir	316	290	256	225	184	222	261	196	193	239	243	257	260	259	250	262	283	309	13	108	119	132	114	116	251.0	260.1
19 Spd	4	2	1	2	1	1	2	1	0	3	2	5	4	4	6	4	4	6	2	1	2	7	6	6	2.7	7.1
Dir	123	91	79	103	74	326	19	352	54	96	86	143	110	116	122	89	67	96	70	64	113	146	132	133	109.5	146.2
20 Spd	5	3	3	2	3	1	3	2	4	1	2	3	3	4	2	10	13	4	2	6	5	4	2	1	1.0	12.7
Dir	112	111	342	308	294	196	331	355	281	273	125	103	77	78	206	289	306	291	218	222	185	174	163	139	270.1	306.2
21 Spd	0	2	1	1	1	1	3	0	3	2	4	4	4	3	1	3	4	2	4	3	3	3	3	1	1.0	4.4
Dir	163	287	212	21	187	234	331	132	169	234	221	234	154	149	12	55	79	77	95	117	154	142	114	88	141.6	233.9
22 Spd	4	6	7	10	10	8	9	10	8	6	3	10	10	3	15	9	7	7	4	1	3	2	2	1	2.5	14.9
Dir	87	103	98	100	102	103	72	95	115	137	145	158	159	284	295	287	271	260	187	120	126	77	93	44	120.9	294.5

Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Henry Pirker - October 2014

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
23 Spd	3	2	4	8	6	3	7	7	1	4	9	17	23	22	19	14	14	12	10	7	6	8	5	4	5.6	23.1
Dir	29	51	111	91	124	55	18	52	166	204	228	241	272	293	290	301	298	288	296	282	272	291	297	280	286.9	271.7
24 Spd	3	0	0	0	0	0	0	0	0	5	9	10	22	29	30	26	23	16	13	10	6	3	3	1	8.6	30.2
Dir	271	135	124	130	148	130	322	336	308	259	274	281	270	273	274	277	276	269	271	275	262	299	314	102	274.0	274.5
25 Spd	2	3	3	1	2	2	3	3	2	5	9	9	11	12	13	12	7	13	14	13	13	12	11	8	7.3	13.6
Dir	152	159	159	147	53	149	113	91	70	88	98	91	85	89	89	117	86	92	85	85	84	85	80	79	92.3	85.1
26 Spd	6	6	6	6	6	5	5	5	5	5	6	5	5	8	11	8	7	7	10	11	9	9	9	11	4.5	11.1
Dir	65	51	58	57	55	56	52	36	360	326	335	331	317	314	321	322	311	305	294	292	290	280	267	266	325.7	265.7
27 Spd	9	6	5	3	1	2	2	3	2	3	2	2	2	2	2	1	3	3	3	4	0	1	1	0	1.2	8.7
Dir	269	273	276	259	254	299	297	328	316	323	300	306	302	300	313	24	103	83	91	88	121	15	28	172	300.2	269.0
28 Spd	1	1	2	3	6	5	5	5	4	5	6	6	5	7	5	7	7	5	4	4	5	4	3	4	4.2	7.4
Dir	44	28	23	60	89	89	103	82	52	66	65	71	53	38	40	35	43	51	75	75	79	69	61	53	61.6	37.7
29 Spd	4	3	2	2	2	1	2	1	1	1	4	3	4	4	4	4	4	4	4	3	1	0	0	0	2.2	4.3
Dir	66	67	64	41	56	54	79	80	87	93	131	127	132	126	121	115	97	102	108	91	83	141	142	264	98.8	107.5
30 Spd	0	0	0	0	0	0	0	0	0	0	3	7	8	9	7	7	9	7	11	10	5	4	4	4	3.9	10.6
Dir	306	261	276	292	287	297	290	284	288	275	107	107	111	115	110	104	94	91	96	94	93	80	84	88	99.5	95.6
31 Spd	1	1	1	2	5	8	7	6	3	4	2	4	3	4	4	3	3	4	4	3	3	4	8	7	2.6	8.3
Dir	115	260	266	169	243	282	279	255	215	211	182	250	299	313	316	329	348	235	177	179	174	171	220	230	245.0	282.0
Spd	0.9	1.2	1.2	1.4	1.3	1.7	1.5	1.7	1.7	3.0	2.9	3.7	5.7	6.5	6.8	5.5	5.3	3.5	1.5	0.7	1.0	0.7	1.0	1.1	Diurnal Average	
Dir	211.7	224.2	245.8	237.7	248.8	273.1	293.5	279.6	278.4	258.6	255.2	265.6	279.7	284.6	285.2	285.6	295.3	287.5	286.7	273.6	242.5	212.6	219.3	210.5		
Spd	15.1	20.2	18.8	21.8	18.7	19.9	18.1	18.1	18.2	23.5	24.8	25.0	28.5	29.6	32.3	30.2	28.3	22.7	20.9	13.8	17.0	17.0	17.9	14.5	Diurnal Maximum	
Dir	249.1	252.0	254.2	234.0	259.7	257.6	254.7	248.8	253.6	255.9	263.3	263.9	269.5	270.8	267.7	268.3	264.6	273.5	260.9	323.9	255.0	252.9	269.8	251.1		

Maximum Speed Value: 32 km/h on Oct 11 15:00
Maximum Daily Speed Average: 17.5 km/h on Oct 11
Maximum Diurnal Speed Average: 6.8 km/h at hour 15

Minimum Speed Value: 0 km/h on Oct 30 00:00
Minimum Daily Speed Average: 0.6 km/h on Oct 21
Minimum Diurnal Speed Average: 0.7 km/h at hour 20

Monthly Average Velocity: 2.39 km/h 273.14 deg

Speed Percentiles: $P_1 = 0.0$ $P_{10} = 1.2$ $Q_1 = 2.5$ Median = 4.5 $Q_3 = 8.3$ $P_{90} = 16.5$ $P_{99} = 28.1$

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

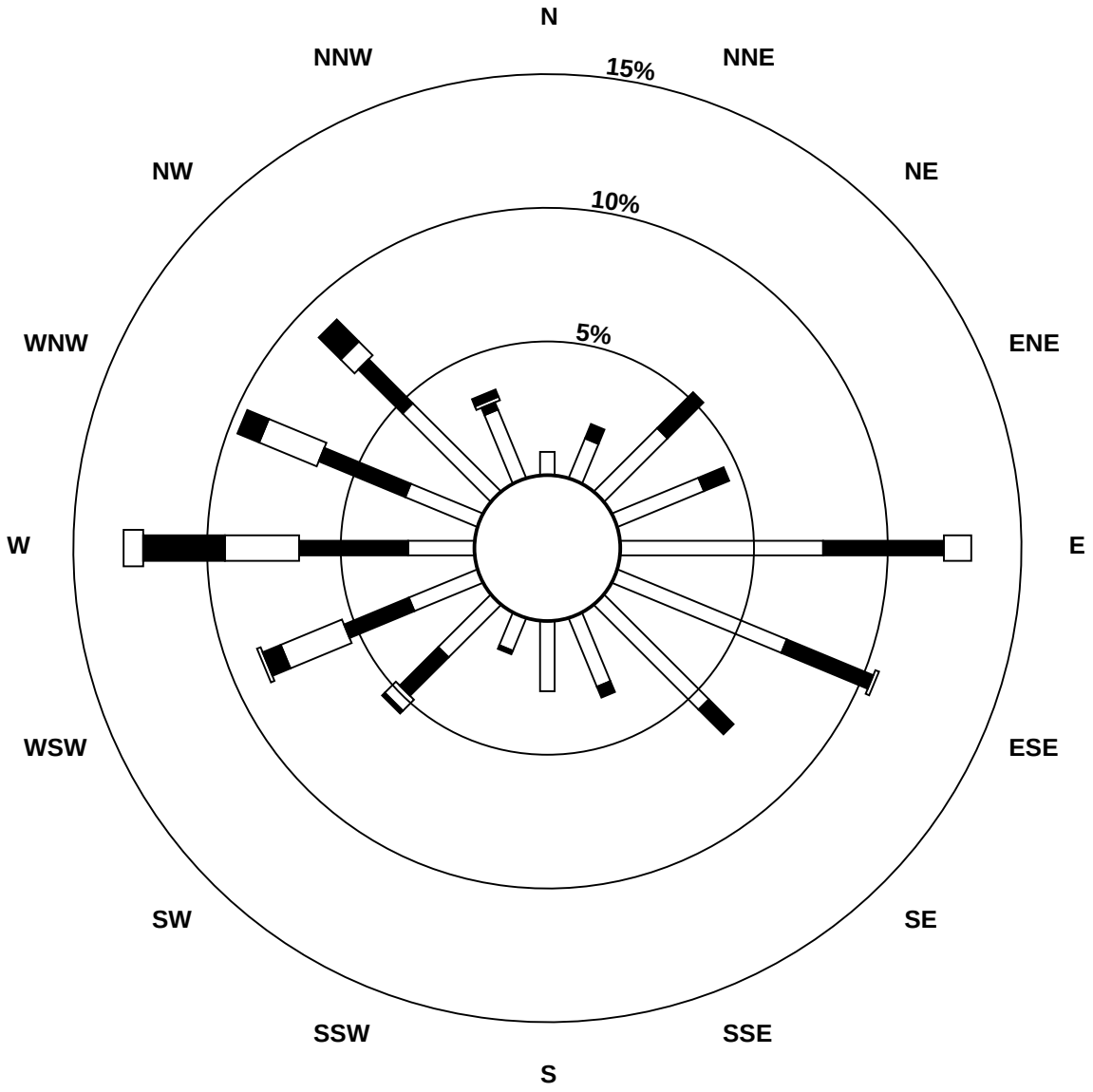
Frequency Distribution

Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	20	2	0	0	0	0	22
NorthEast	36	26	0	0	0	0	62
East	85	52	8	0	0	0	145
SouthEast	86	26	1	0	0	0	113
South	35	4	0	0	0	0	39
SouthWest	33	25	8	1	0	0	67
West	41	54	41	29	10	0	175
NorthWest	63	26	20	12	0	0	121
Total	399	215	78	42	10	0	744

Wind Rose

Wind Speed (WS) (km/h)

Henry Pirker - October 2014



Wind Speed Classes (km/h)

Peace Airshed Zone Association

Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Henry Pirker - October 2014

Maximum Speed: 33 km/h on Oct 11 15:00

Maximum Daily Speed Average: 18.2 km/h on Oct 11

Minimum Speed: 0 km/h on Oct 24 08:00

Minimum Daily Speed Average: 2.6 km/h on Oct 29

Maximum Diurnal Speed Average: 11.7 km/h at hour 15

Minimum Diurnal Speed Average: 4.9 km/h at hour 24

Monthly Average Speed: 7.12 km/h

Percentiles: $P_1 = 0.0$ $P_{10} = 1.9$ $Q_1 = 3.1$ Median = 4.8 $Q_3 = 8.7$ $P_{90} = 16.5$ $P_{99} = 29.1$

Hours in Service: 744

Hours of Data: 744

Hours of Missing Data: 0

Percent Operational Time: 100.0

Day	Hourly Period Ending At (MST)																								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-Oct	10	9	8	10	14	18	10	15	13	24	19	23	23	27	25	23	26	20	17	14	15	15	12	9	16.6	26.6
2-Oct	11	8	9	10	8	6	8	8	10	11	11	9	7	8	10	7	5	2	5	4	3	4	4	3	7.1	11.3
3-Oct	4	5	5	5	6	6	6	5	7	6	8	8	5	3	2	5	3	3	3	2	4	4	6	6	4.9	8.2
4-Oct	13	10	7	8	5	6	5	7	8	7	11	15	25	27	26	26	29	21	11	11	9	9	5	3	12.7	28.6
5-Oct	3	2	3	4	3	3	2	2	3	1	2	4	13	15	11	6	3	5	7	3	2	3	4	5	4.6	15.5
6-Oct	3	7	11	14	16	19	14	17	11	16	24	23	21	22	20	20	20	15	11	7	10	7	8	6	14.3	23.6
7-Oct	4	4	4	2	2	2	2	3	2	4	3	4	4	3	4	7	8	4	5	5	6	6	7	4	4.2	8.1
8-Oct	3	6	6	4	4	3	3	3	3	4	6	8	11	6	8	5	3	3	6	7	8	6	7	7	5.4	11.4
9-Oct	6	5	4	3	4	2	4	4	5	5	5	3	3	3	3	3	5	5	5	4	2	2	1	2	3.7	6.3
10-Oct	3	1	1	4	2	2	2	3	1	2	2	2	3	3	3	7	19	23	14	6	8	8	18	14	6.4	23.0
11-Oct	12	12	17	22	15	11	9	12	10	15	15	16	29	30	33	31	29	21	21	14	17	17	16	15	18.2	32.9
12-Oct	15	20	19	19	19	20	18	18	18	23	25	25	27	28	29	29	26	19	8	4	3	4	4	5	17.8	29.1
13-Oct	5	3	2	2	3	4	3	3	2	3	6	7	4	7	11	10	8	8	7	8	9	8	7	4	5.6	10.6
14-Oct	2	2	2	3	3	4	7	11	14	12	9	10	13	19	20	20	17	12	8	5	3	4	3	4	8.6	20.3
15-Oct	5	7	6	3	3	3	4	5	8	8	8	8	9	7	7	6	6	5	5	3	2	2	3	5	5.4	8.5
16-Oct	7	7	7	3	3	2	1	4	6	4	3	3	4	5	4	6	6	4	3	2	3	9	5	2	4.3	8.7
17-Oct	2	5	5	5	3	4	5	3	8	5	5	3	5	4	3	4	3	3	3	2	3	5	4	3	3.9	8.4
18-Oct	2	3	4	3	3	3	3	3	4	8	8	19	21	20	17	12	8	6	3	3	4	5	5	3	7.1	21.1
19-Oct	4	2	1	2	2	2	2	2	2	3	3	6	4	5	6	4	4	6	4	2	3	7	7	6	3.7	7.3
20-Oct	5	5	4	3	4	2	3	4	4	2	3	3	3	4	4	11	13	5	4	6	5	4	3	1	4.4	13.0
21-Oct	2	2	3	1	1	2	4	2	3	4	5	5	5	4	2	3	4	2	4	3	3	4	3	2	3.1	4.9
22-Oct	4	6	7	10	10	8	9	10	8	6	3	10	10	9	16	9	7	7	5	2	3	3	2	2	7.0	15.7
23-Oct	4	2	4	8	6	5	7	8	2	5	9	17	24	22	19	14	15	12	10	7	7	8	5	4	9.4	23.8
24-Oct	3	0	0	0	0	0	0	0	0	5	9	11	23	29	30	27	23	17	13	11	7	4	3	1	8.9	30.4
25-Oct	2	3	3	1	2	2	4	3	2	5	9	9	12	12	13	13	7	13	14	14	13	12	11	8	7.8	13.8
26-Oct	6	6	6	6	6	5	5	5	5	5	6	5	6	8	11	8	7	7	10	11	9	9	9	11	7.2	11.1
27-Oct	9	6	6	3	1	2	2	3	2	3	2	2	3	2	2	2	3	3	3	4	1	2	1	1	2.8	8.8
28-Oct	2	2	3	3	6	6	5	5	5	5	6	6	6	8	6	7	7	5	4	4	5	4	3	4	4.8	7.8
29-Oct	4	3	2	2	2	2	2	1	1	2	4	4	4	4	4	4	4	4	4	3	1	0	0	0	2.6	4.5
30-Oct	0	0	0	0	0	0	0	0	0	0	3	7	8	10	7	7	9	7	11	10	5	4	5	4	4.0	10.7
31-Oct	1	1	1	2	6	9	7	6	4	4	3	4	3	4	4	4	5	4	4	3	3	4	8	7	4.2	8.5
	5.1	5.0	5.2	5.4	5.2	5.2	5.1	5.6	5.6	6.7	7.6	9.1	10.8	11.5	11.7	11.0	10.7	8.8	7.5	5.9	5.7	5.8	5.8	4.9	Diurnal Average	
	15.2	20.4	19.0	22.1	18.9	20.0	18.2	18.2	18.3	23.6	25.2	25.5	29.1	30.2	32.9	30.9	28.6	23.0	21.0	13.9	17.1	17.1	18.3	14.7	Diurnal Maximum	

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

Peace Airshed Zone Association

Hourly Standard Deviations

Wind Direction (WD) - deg

Henry Pirker - October 2014

Maximum Value: 93.1 deg on Oct 21 15:00

Minimum Value: 0.3 deg on Oct 29 23:00

Percentiles: P_1 = 6.0 P_{10} = 8.2 Q_1 = 10.7 Median = 18.4 Q_3 = 36.1 P_{90} = 62.3 P_{99} = 85.9

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-Oct	11	9	9	12	18	14	16	11	10	6	10	22	8	9	11	11	9	12	11	8	7	7	9	7	22.3
2-Oct	9	9	10	9	8	10	23	10	12	11	14	25	26	38	22	55	41	66	40	28	78	20	11	13	77.8
3-Oct	11	9	11	10	13	10	15	14	10	12	10	13	19	62	60	51	68	39	32	46	73	48	63	63	72.7
4-Oct	14	42	10	19	21	32	45	13	31	29	11	9	12	10	9	9	10	9	8	8	8	13	12	21	45.4
5-Oct	32	26	18	12	19	46	73	38	45	60	45	24	54	13	9	30	66	8	14	32	40	25	8	32	73.4
6-Oct	35	20	17	9	7	9	6	7	7	9	6	7	8	8	19	16	9	7	10	26	9	9	11	14	35.0
7-Oct	23	11	18	59	36	31	56	76	38	29	40	46	75	73	36	16	13	22	13	29	33	13	9	23	76.1
8-Oct	17	12	11	12	16	25	31	46	44	27	34	17	13	32	29	40	50	65	14	12	14	12	9	10	65.0
9-Oct	10	16	38	32	23	56	40	21	21	17	25	40	50	64	62	58	20	15	8	12	42	64	81	45	80.9
10-Oct	74	70	92	31	69	50	71	40	76	47	82	81	52	62	26	30	15	8	8	13	23	33	13	10	92.3
11-Oct	8	8	10	8	9	11	14	13	11	11	11	10	13	12	11	11	8	8	7	8	6	7	8	8	14.3
12-Oct	7	6	7	6	7	7	7	7	7	7	9	10	10	10	11	8	8	8	19	59	42	71	16	12	71.0
13-Oct	16	60	53	86	25	20	74	48	43	25	18	17	24	18	10	12	11	15	10	8	8	7	6	53	86.0
14-Oct	15	65	37	37	63	23	9	8	8	19	34	26	12	13	9	10	8	12	11	28	59	22	16	13	64.8
15-Oct	21	18	18	35	37	47	19	44	15	17	22	16	19	22	23	20	18	19	19	28	21	18	18	15	46.9
16-Oct	10	13	14	36	47	60	86	15	16	30	83	53	67	52	44	25	13	16	38	56	19	6	31	29	86.3
17-Oct	67	10	9	15	44	14	14	55	8	83	47	91	20	30	56	26	42	22	44	30	18	14	23	13	91.4
18-Oct	53	90	90	86	87	57	46	22	30	20	17	13	8	11	11	18	9	8	57	73	37	24	12	10	90.2
19-Oct	21	49	36	20	73	53	43	75	80	18	58	47	21	35	18	32	16	21	58	64	57	15	11	9	79.8
20-Oct	23	57	44	32	57	82	63	88	38	65	91	29	30	28	74	31	32	66	52	17	14	27	65	70	90.9
21-Oct	76	49	67	44	69	63	28	77	43	59	23	25	43	70	93	25	19	15	13	14	34	39	20	67	93.1
22-Oct	11	9	12	9	8	23	12	15	10	17	25	9	8	71	19	21	9	24	24	75	21	36	56	74	74.6
23-Oct	27	39	26	18	22	53	18	44	74	33	16	9	14	8	8	15	9	6	10	12	12	8	16	28	74.5
24-Oct	23	14	37	29	16	46	67	7	55	35	8	12	9	10	8	7	7	7	7	8	23	32	30	33	67.5
25-Oct	33	10	11	75	22	23	18	23	17	15	9	10	7	9	9	19	16	9	8	8	8	8	9	9	75.0
26-Oct	12	16	13	14	12	14	17	16	17	6	7	7	8	5	8	12	10	10	6	5	6	7	9	7	16.9
27-Oct	9	13	19	19	39	25	19	15	24	12	19	13	11	21	32	75	12	11	16	14	79	47	60	77	78.6
28-Oct	68	53	49	27	14	16	25	16	23	19	16	23	24	21	21	15	16	21	15	12	12	11	19	16	68.0
29-Oct	14	13	18	22	22	21	34	33	50	48	17	15	20	22	19	22	15	26	26	29	51	7	0	79	78.9
30-Oct	37	30	22	15	18	18	13	11	11	9	12	12	10	11	14	10	10	8	7	9	25	24	14	21	36.6
31-Oct	71	64	49	53	23	16	15	20	27	16	33	29	24	19	30	35	53	32	14	18	46	13	14	21	71.2
	75.7	89.5	92.3	86.3	86.5	82.2	86.3	87.7	79.8	83.2	90.9	91.4	74.5	73.2	93.1	74.5	67.6	66.2	58.3	74.6	78.6	71.0	80.9	78.9	

PAZA
Evergreen Park Station
Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Evergreen Park - October 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 9.9 ppb on Oct 13 14:00 Maximum Daily Average: 0.9 ppb on Oct 13

Minimum Value: 0 ppb on Oct 2 16:00 Minimum Daily Average: 0.0 ppb on Oct 26
Maximum Diurnal Average: 0.7 ppb at hour 14 Minimum Diurnal Average: 0.0 ppb at hour 4
Monthly Average: 0.18 ppb Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.0$ Median = 0.1 $Q_3 = 0.2$ $P_{90} = 0.4$ $P_{99} = 1.6$

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-Oct	A	0	0	0	0	0	0	2	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	A	0.4	1.7
2-Oct	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0.2	0.7
3-Oct	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	A	0	0	0.1	0.5
4-Oct	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	1	0	0	0	0	A	0	0	0	0.2	1.0
5-Oct	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
6-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	A	0	0	0	0	0	0.1	0.9
7-Oct	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	A	0	0	0	0	0	0	0.2	0.8
8-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.1	0.4
9-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.1	0.4
10-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	1	1	0	0	0	0	0	0.2	1.0
11-Oct	0	0	0	0	0	0	0	0	0	0	1	1	1	A	1	0	0	0	0	0	0	0	0	0	0.2	1.0
12-Oct	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
13-Oct	0	0	0	0	0	0	0	0	0	0	2	A	7	10	1	0	0	0	0	0	0	0	0	0	0.9	9.9
14-Oct	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	0.3
15-Oct	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
16-Oct	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
17-Oct	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
18-Oct	0	0	0	0	0	0	A	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0.1	0.6
19-Oct	0	0	0	0	0	A	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0.3	1.3
20-Oct	2	0	0	0	A	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0.4	1.6
21-Oct	0	0	0	A	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
22-Oct	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
23-Oct	0	A	0	0	0	0	0	0	0	0	C	C	C	2	1	1	1	0	0	0	0	0	0	0	0.3	1.6
24-Oct	A	0	0	0	0	0	0	0	0	1	0	1	1	1	1	0	0	1	1	0	0	0	0	A	0.4	1.3
25-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.0	0.3
26-Oct	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	0.2
27-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	0.4
28-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.0	0.1
29-Oct	0	0	0	0	0	0	0	0	0	0	0	0	1	3	1	0	0	0	A	0	0	0	0	0	0.3	3.4
30-Oct	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	0.1
31-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.1	0.3
Diurnal Average	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.5	0.7	0.4	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
Diurnal Maximum	1.6	0.3	0.3	0.2	0.3	0.3	0.4	1.6	1.3	1.7	2.0	0.8	6.7	9.9	1.3	1.2	1.1	1.0	0.7	0.4	0.3	0.3	0.3	0.3		

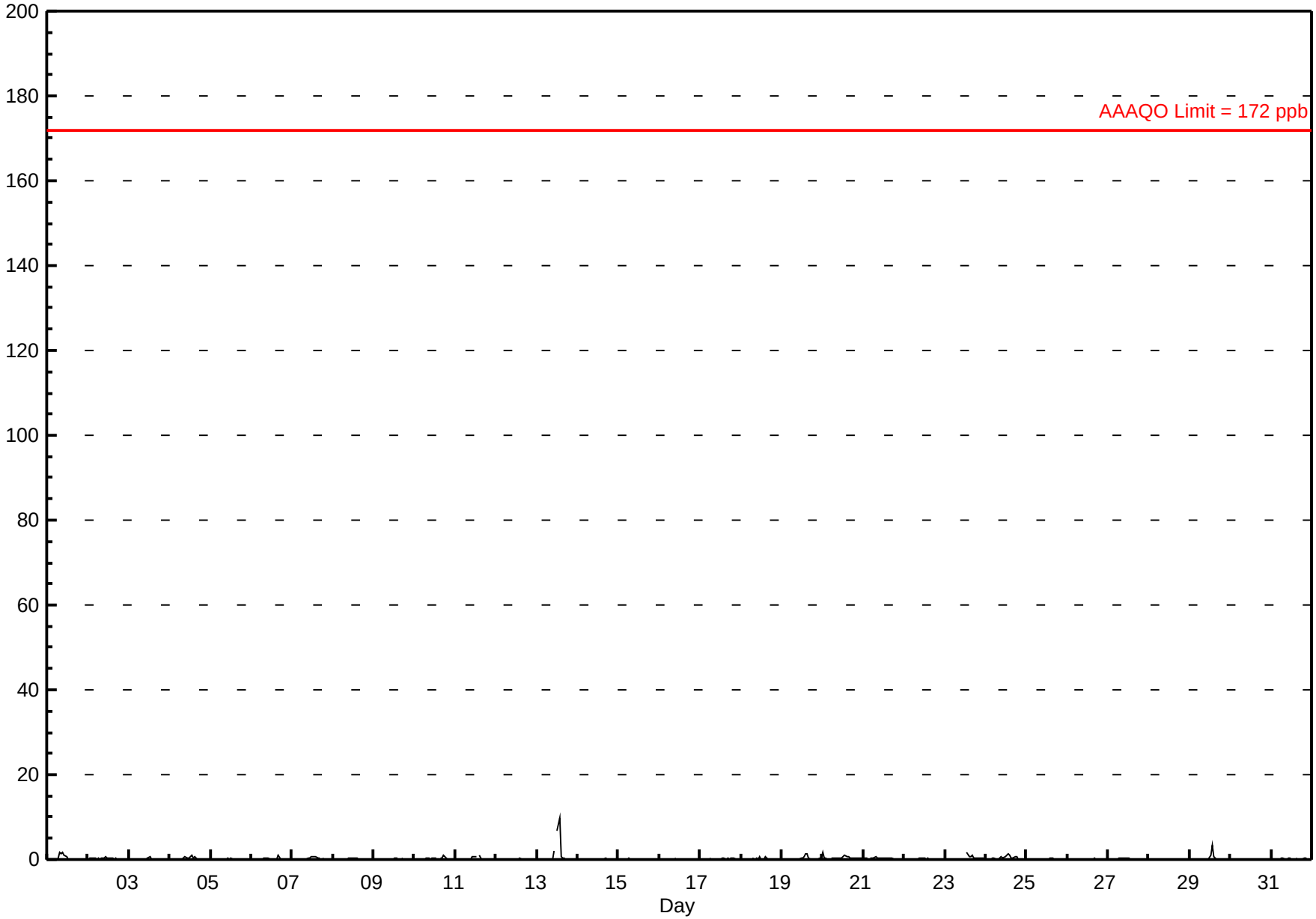
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Evergreen Park - October 2014



Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Evergreen Park - October 2014

Maximum Value: 19.6 ppb on Oct 13 14:00

Maximum Daily Average: 2.5 ppb on Oct 13

Minimum Value: 0 ppb on Oct 11 17:00

Minimum Daily Average: 0.5 ppb on Oct 28

Maximum Diurnal Average: 2.0 ppb at hour 14

Minimum Diurnal Average: 0.5 ppb at hour 5

Monthly Average: 0.84 ppb

Percentiles: $P_1 = 0.3$ $P_{10} = 0.4$ $Q_1 = 0.5$ Median = 0.6 $Q_3 = 0.7$ $P_{90} = 1.2$ $P_{99} = 4.5$

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-Oct	A	1	0	1	1	1	1	5	5	4	3	3	1	0	1	1	1	0	1	1	1	0	1	A	1.4	4.8
2-Oct	1	1	1	1	1	1	1	1	2	1	3	3	3	2	3	1	4	1	0	0	0	0	A	0	1.3	3.5
3-Oct	0	0	1	0	1	0	0	0	0	0	0	1	1	0	0	1	1	0	1	1	1	A	1	1	0.5	1.2
4-Oct	0	0	1	0	1	1	1	0	1	2	2	2	2	3	2	2	0	1	0	1	A	1	1	1	1.0	2.8
5-Oct	0	0	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0	0	1	0.6	1.1
6-Oct	1	0	0	0	0	0	0	1	1	2	2	2	1	0	0	0	3	1	A	0	0	0	0	1	0.8	2.9
7-Oct	1	0	0	1	0	0	0	0	1	1	1	1	1	1	1	1	1	A	1	1	0	1	1	1	0.7	1.3
8-Oct	1	1	0	1	0	1	0	1	1	1	1	1	1	1	1	1	A	1	0	1	1	1	1	0	0.6	1.4
9-Oct	1	0	1	1	1	0	1	1	0	1	1	1	1	1	1	A	1	1	0	0	1	0	0	0	0.6	1.1
10-Oct	0	1	0	0	1	0	1	1	1	1	1	1	1	1	A	1	1	3	3	0	0	1	1	1	0.8	3.0
11-Oct	1	0	0	0	0	1	0	0	1	2	3	2	2	A	3	3	0	0	0	0	1	0	0	0	0.9	3.1
12-Oct	0	1	1	1	1	0	1	1	1	1	1	0	A	0	1	1	1	0	1	0	1	1	1	1	0.6	0.8
13-Oct	1	1	1	1	1	1	1	1	1	1	6	A	19	20	3	1	1	0	0	1	0	1	0	0	2.5	19.6
14-Oct	0	0	1	1	0	0	1	0	0	0	A	0	0	0	0	1	1	1	0	0	1	1	1	1	0.6	1.2
15-Oct	0	0	1	1	1	1	1	1	1	A	0	1	1	0	1	1	1	1	1	1	0	1	0	1	0.6	1.0
16-Oct	1	0	1	1	1	0	1	1	A	2	1	1	1	1	1	1	1	0	0	1	1	1	0	0	0.6	1.8
17-Oct	1	0	1	1	1	1	1	A	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	0	0.6	0.9
18-Oct	1	1	1	1	0	1	A	1	1	1	1	3	2	1	2	2	1	1	0	0	0	0	0	0	0.8	2.5
19-Oct	1	0	0	0	0	A	0	1	0	1	0	3	1	2	2	2	2	1	1	1	0	1	1	1	0.9	2.9
20-Oct	5	1	1	1	A	1	1	1	1	1	1	1	2	2	2	1	1	1	1	1	1	1	1	1	1.1	4.7
21-Oct	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0.7	1.1
22-Oct	1	1	A	1	1	0	0	1	0	1	1	1	1	1	3	1	1	1	1	0	0	0	1	0	0.7	3.1
23-Oct	1	A	0	1	0	0	0	0	0	0	C	C	C	5	2	2	3	1	2	1	1	1	1	1	1.1	5.3
24-Oct	A	1	1	1	1	1	1	1	1	1	1	3	3	3	3	3	1	3	3	1	1	1	0	A	1.5	3.5
25-Oct	1	1	0	1	0	0	1	0	0	1	1	0	0	1	1	1	1	0	0	0	0	0	A	0	0.5	1.3
26-Oct	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	1	1	0	1	2	A	0	1	0.6	2.0
27-Oct	1	1	1	0	1	1	1	1	1	1	1	1	1	0	0	1	1	0	0	0	A	0	0	1	0.6	0.9
28-Oct	0	1	0	0	1	0	0	1	0	0	1	0	1	1	0	0	0	0	0	A	0	1	1	0	0.5	0.6
29-Oct	0	0	1	1	1	0	1	1	0	1	1	0	6	7	2	1	1	1	A	1	1	0	0	0	1.1	7.0
30-Oct	1	1	0	0	0	1	1	1	0	0	0	0	1	1	1	0	0	A	1	0	1	0	0	0	0.5	0.6
31-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0	1	1	1	1	1	1	0.7	1.2
	0.7	0.5	0.5	0.5	0.5	0.5	0.6	0.7	0.8	0.9	1.2	1.2	1.8	2.0	1.3	1.0	1.0	0.7	0.7	0.6	0.6	0.6	0.6	0.5	Diurnal Average	
	4.7	0.9	1.0	0.8	0.7	0.9	1.0	4.8	4.8	4.2	5.6	3.2	18.8	19.6	3.5	2.7	3.5	2.9	3.0	1.2	2.0	0.9	0.8	0.9	Diurnal Maximum	

C - Calibration

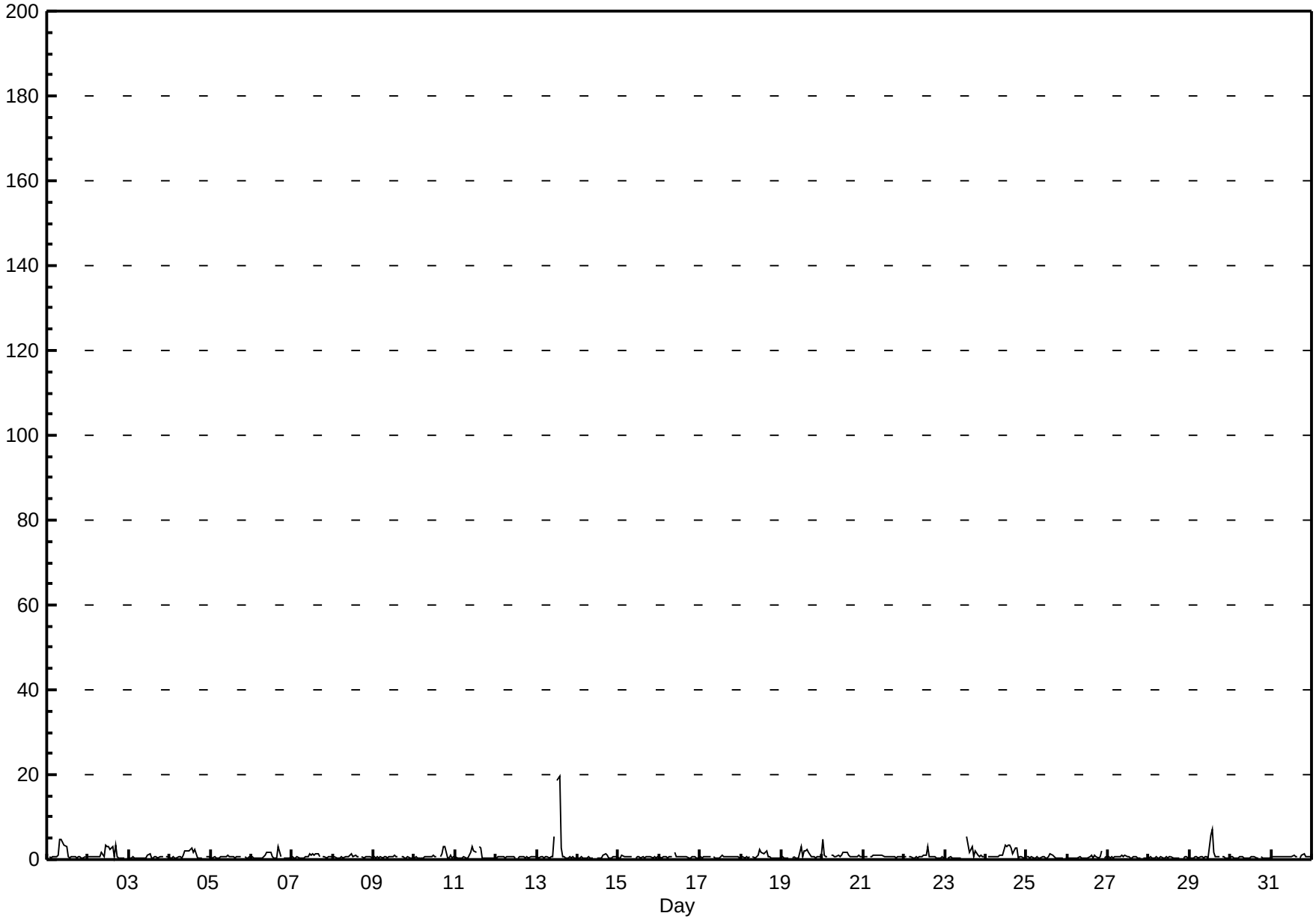
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

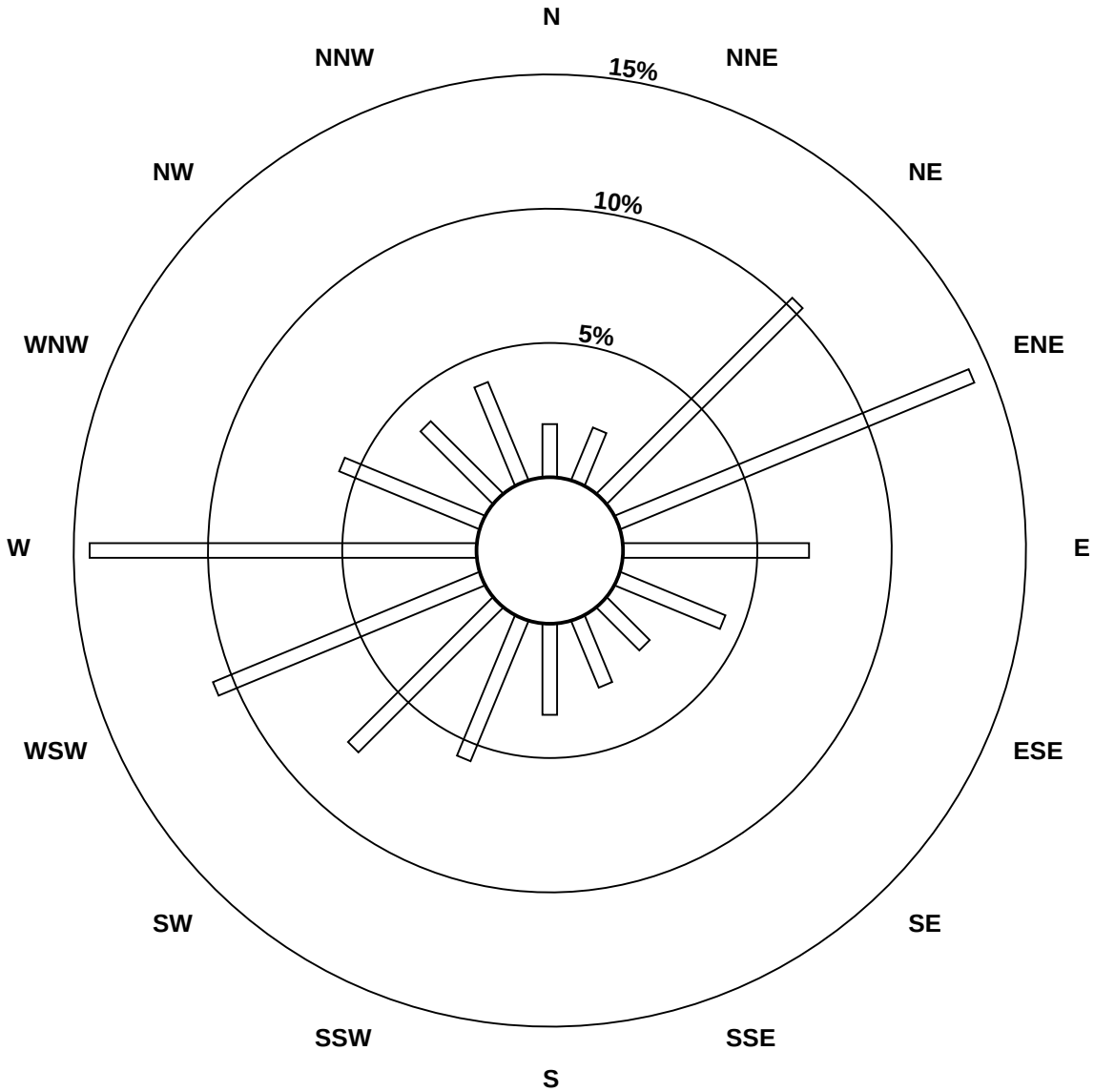
Evergreen Park - October 2014



Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Evergreen Park - October 2014



Pollutant Classes (ppb)

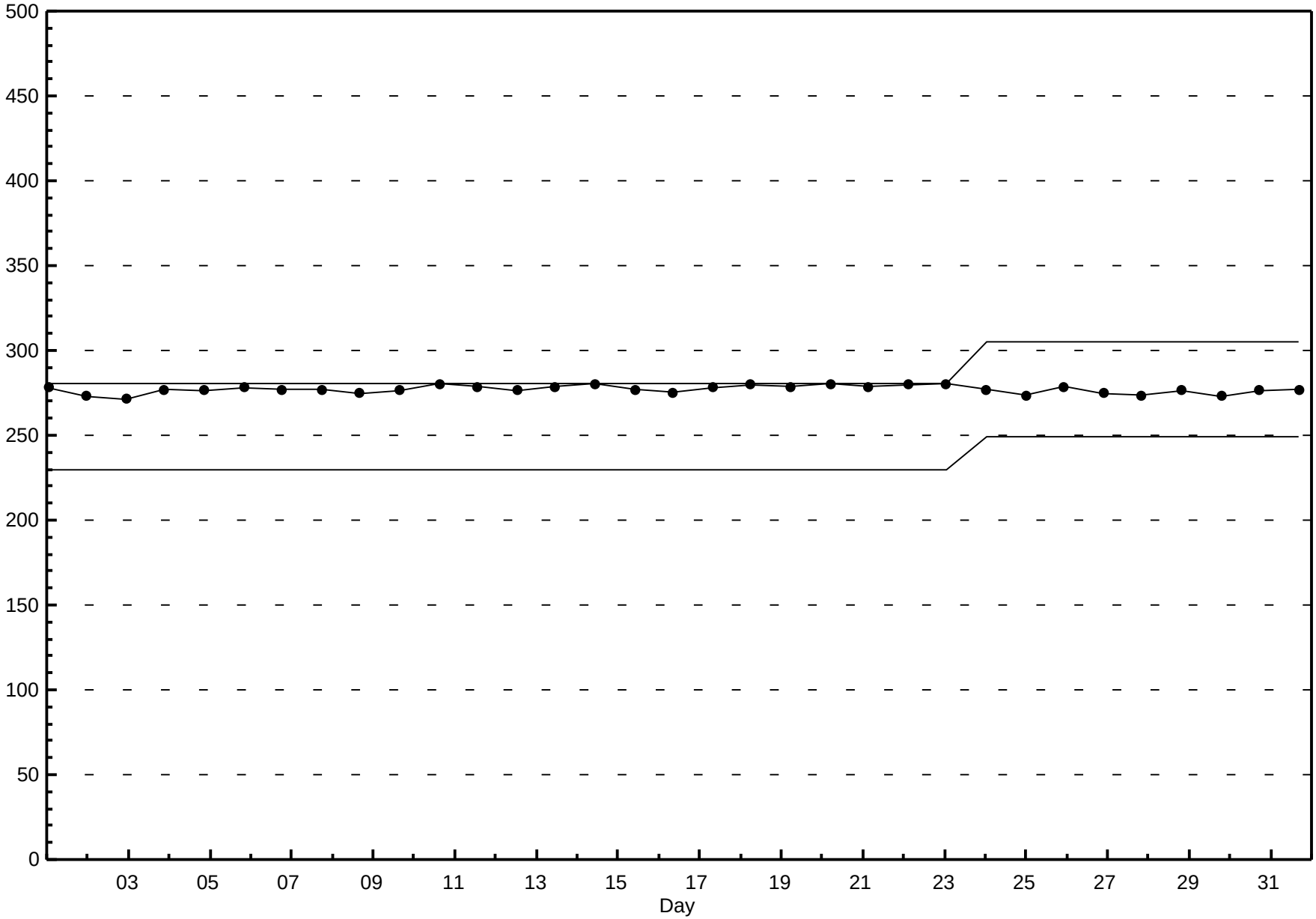
- 0 - 10
- 11 - 20
- 21 - 60
- 61 - 110
- 111 - 172
- > 172

Peace Airshed Zone Association

Span Responses

Sulphur Dioxide (SO_2)

Evergreen Park - October 2014



Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Evergreen Park - October 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 3.0 ppb on Oct 19 12:00 Maximum Daily Average: 0.8 ppb on Oct 20

Minimum Value: 0 ppb on Oct 1 16:00 Minimum Daily Average: 0.2 ppb on Oct 8
Maximum Diurnal Average: 0.5 ppb at hour 13 Minimum Diurnal Average: 0.2 ppb at hour 5
Monthly Average: 0.31 ppb Percentiles: $P_1 = 0.0$ $P_{10} = 0.1$ $Q_1 = 0.2$ Median = 0.3 $Q_3 = 0.4$ $P_{90} = 0.5$ $P_{99} = 1.6$

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-Oct	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	0.5
2-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	0.2	0.8
3-Oct	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	A	0	0	0.3	1.4
4-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	0.4
5-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	1	1	0.3	0.7
6-Oct	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	0.5
7-Oct	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	1.2
8-Oct	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
9-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0.2	0.8
10-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.2	0.5
11-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.2	0.4
12-Oct	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	0	0	0	0	0	0	0	0.4	0.5
13-Oct	0	0	0	0	1	0	0	0	0	0	1	A	1	2	0	0	0	0	0	0	0	0	0	0	0.5	2.3
14-Oct	0	0	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5
15-Oct	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
16-Oct	0	0	0	0	0	0	0	0	A	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0.3	1.4
17-Oct	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	1	0	1	1	1	2	1	0	0.4	1.5
18-Oct	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
19-Oct	0	0	0	0	0	A	0	0	0	0	0	3	2	0	0	0	0	0	0	0	0	0	0	0	0.3	3.0
20-Oct	1	2	1	3	A	1	1	1	0	0	0	0	3	1	1	1	0	0	0	0	1	0	0	0	0.8	3.0
21-Oct	0	0	0	A	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	1	0	1	0.5	1.4
22-Oct	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
23-Oct	0	A	0	0	0	0	0	2	C	C	C	0	0	0	1	0	0	0	0	0	0	0	0	0	0.4	1.8
24-Oct	A	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	A	0.4	0.6
25-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.3	0.4
26-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	A	0	0	0.3	0.5
27-Oct	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
28-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.2	0.3
29-Oct	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	0.5
30-Oct	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.3	0.6
31-Oct	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.3	0.8
	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	Diurnal Average	
	1.4	1.7	1.4	2.8	0.6	1.0	0.8	1.8	0.5	1.2	0.9	3.0	3.0	2.3	1.4	1.3	0.8	0.5	1.0	0.9	1.1	1.5	0.6	0.8	Diurnal Maximum	

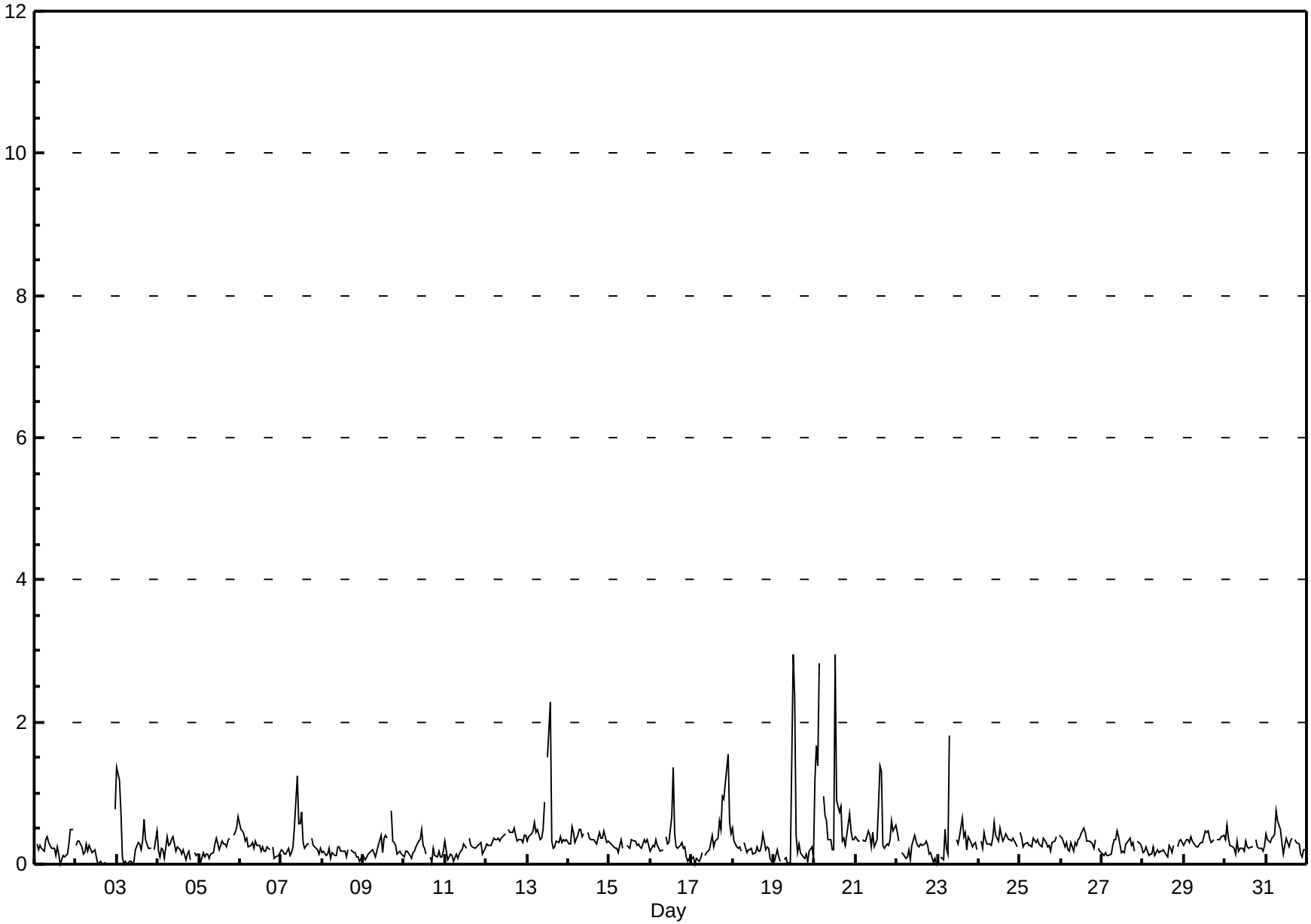
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb

Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Evergreen Park - October 2014



Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

Evergreen Park - October 2014

Maximum Value: 7.3 ppb on Oct 19 12:00

Maximum Daily Average: 1.8 ppb on Oct 20

Minimum Value: 1 ppb on Oct 2 14:00

Maximum Diurnal Average: 1.4 ppb at hour 13

Monthly Average: 1.14 ppb

Minimum Daily Average: 0.9 ppb on Oct 8

Minimum Diurnal Average: 1.0 ppb at hour 23

Percentiles: $P_1 = 0.6$ $P_{10} = 0.8$ $Q_1 = 0.9$ Median = 1.0 $Q_3 = 1.2$ $P_{90} = 1.4$ $P_{99} = 4.1$

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-Oct	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1.0	1.3
2-Oct	1	1	1	1	1	1	1	1	2	1	1	2	1	1	1	1	1	1	1	1	1	1	A	2	0.9	1.7
3-Oct	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	2	1.1	2.2
4-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.9	1.3
5-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1.0	1.4
6-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	A	1	1	1	1	1	1.0	1.6
7-Oct	1	1	1	1	1	1	1	1	2	2	2	1	1	1	1	1	1	A	1	1	1	1	1	1	1.1	2.2
8-Oct	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
9-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	2	1	1	1	1	1	1	1	1.0	1.8
10-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1.0	1.3
11-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1.0	1.3
12-Oct	1	1	1	1	1	1	2	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1.2	1.6
13-Oct	1	1	1	1	1	1	1	1	1	2	2	A	4	3	1	1	1	1	1	1	1	1	1	1	1.4	4.2
14-Oct	1	3	3	1	1	1	1	1	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1.3	3.3
15-Oct	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.4
16-Oct	1	1	1	1	1	1	1	1	A	1	1	1	2	2	1	1	1	1	2	1	1	1	1	1	1.1	2.1
17-Oct	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	2	1	2	2	2	3	1	1	1.2	2.6
18-Oct	2	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	1.5
19-Oct	1	1	1	1	1	A	1	1	1	1	1	7	5	2	1	1	1	1	1	1	1	1	1	1	1.4	7.3
20-Oct	2	3	3	4	A	2	2	2	1	1	1	1	5	2	1	2	1	1	1	1	2	1	1	1	1.8	4.5
21-Oct	1	1	1	A	1	1	1	1	1	1	1	1	1	2	3	2	1	1	1	1	1	2	1	1	1.4	2.7
22-Oct	1	1	A	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.5
23-Oct	1	A	1	1	2	1	1	4	C	C	C	1	1	1	7	1	1	1	2	1	1	1	1	1	1.5	7.1
24-Oct	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1.1	1.4
25-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1.1	1.4
26-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	2	1	1	2	A	1	1	1.2	2.3
27-Oct	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	A	1	1	1	1.1	1.6
28-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1.0	1.4
29-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	2	1.2	1.6
30-Oct	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	1.4
31-Oct	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1.1	1.8
	1.1	1.2	1.1	1.1	1.0	1.0	1.1	1.2	1.1	1.1	1.1	1.3	1.4	1.3	1.3	1.1	1.1	1.1	1.1	1.0	1.1	1.1	1.0	1.1	Diurnal Average	
	2.2	3.3	3.5	4.4	1.5	1.9	1.9	4.3	2.2	2.0	1.6	7.3	5.5	3.4	7.1	2.5	1.8	1.6	1.7	2.1	2.3	2.6	1.5	1.6	Diurnal Maximum	

C - Calibration

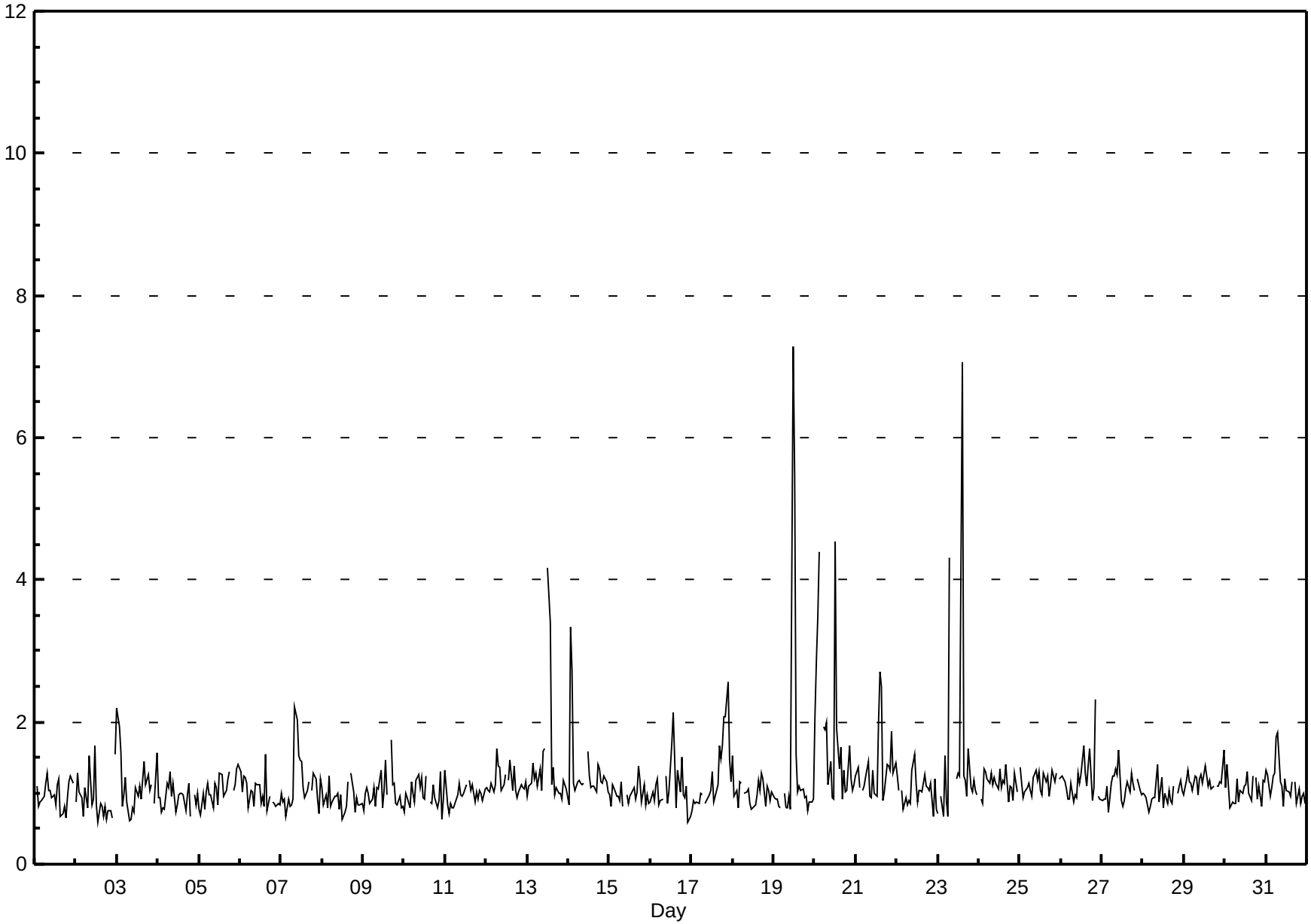
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

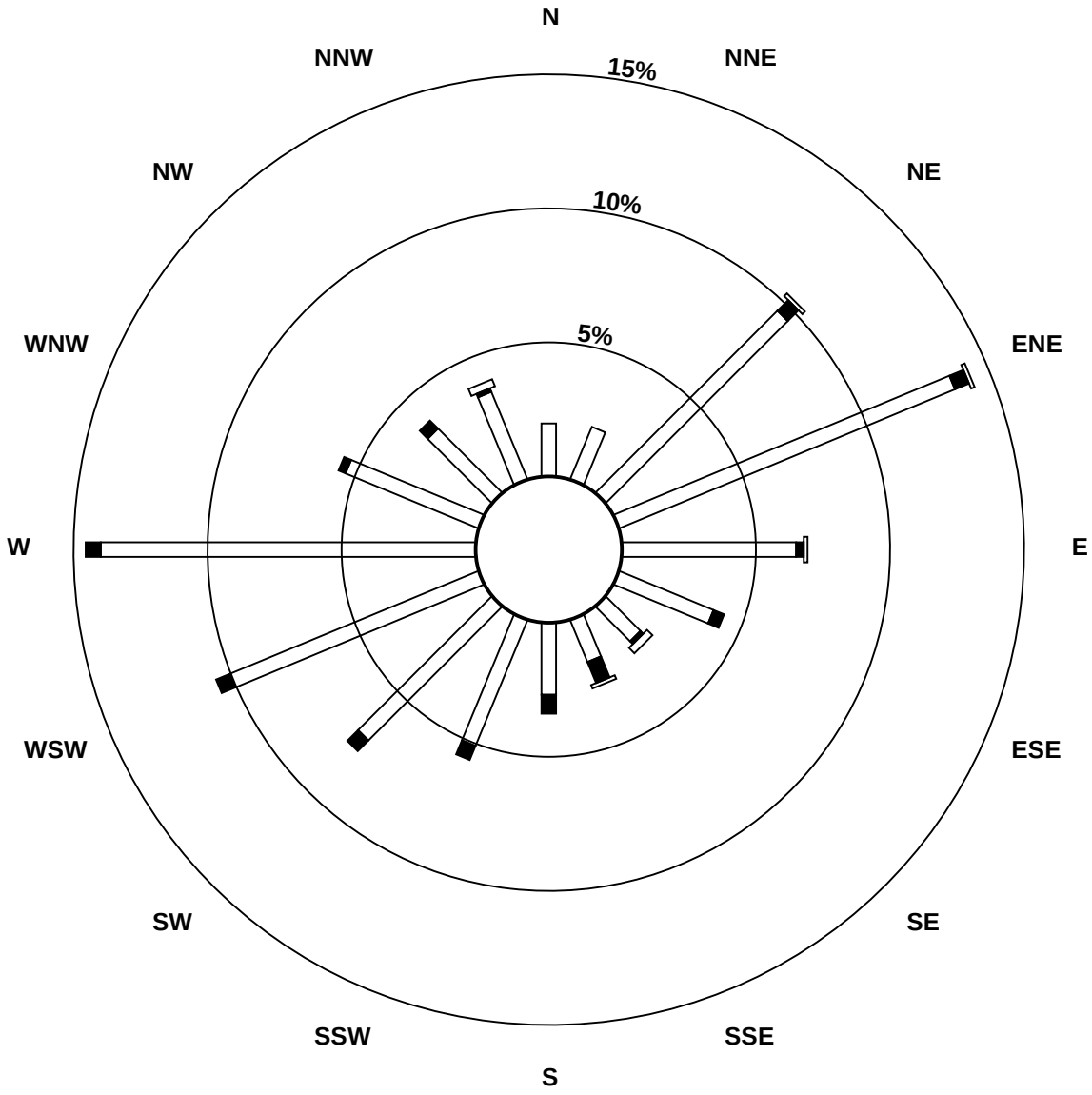
Evergreen Park - October 2014



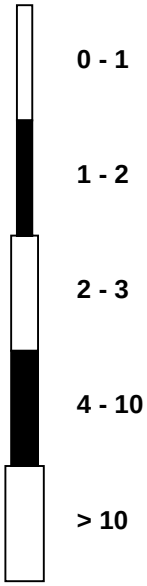
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb

Evergreen Park - October 2014



Pollutant Classes (ppb)

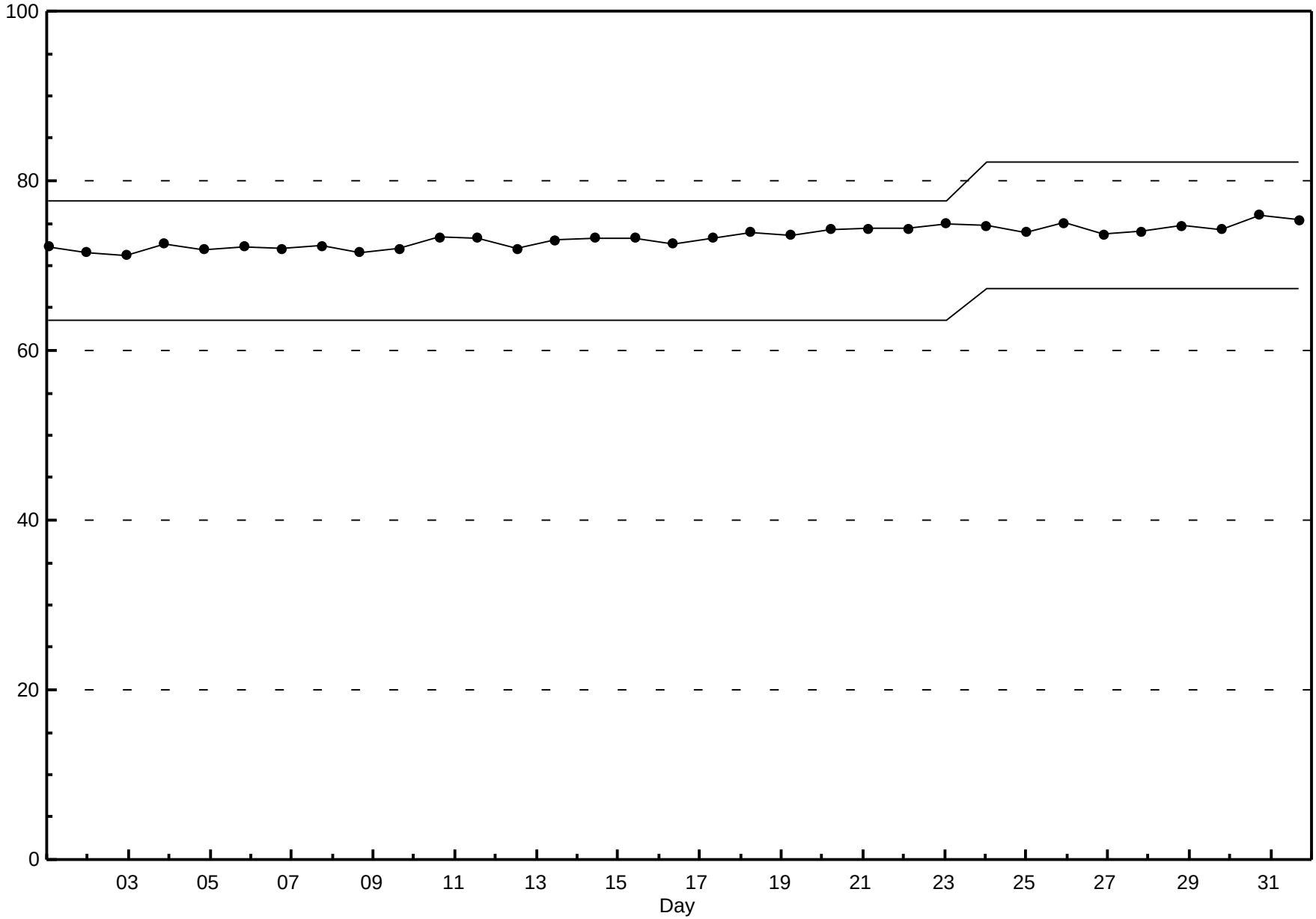


Peace Airshed Zone Association

Span Responses

Total Reduced Sulphur (TRS)

Evergreen Park - October 2014



Peace Airshed Zone Association

Hourly Averages

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

Evergreen Park - October 2014

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

Maximum Value: 46.4 $\mu g/m^3$ on Oct 11 15:00

Maximum Daily Average: 7.8 $\mu g/m^3$ on Oct 11

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

Maximum Diurnal Average: 6.1 $\mu g/m^3$ at hour 14

Monthly Average: 2.96 $\mu g/m^3$

Minimum Daily Average: 0.2 $\mu g/m^3$ on Oct 25

Minimum Diurnal Average: 1.2 $\mu g/m^3$ at hour 5

Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.2$ Median = 1.6 $Q_3 = 3.9$ $P_{90} = 7.2$ $P_{99} = 20.5$

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Oct	0	0	0	0	0	2	1	23	9	15	8	4	0	0	0	0	1	1	1	0	0	0	0	0	2.7	22.6
2-Oct	0	0	0	0	0	1	3	2	3	0	10	3	4	7	5	1	12	4	4	1	0	0	0	1	2.6	11.9
3-Oct	1	0	0	0	0	0	0	0	0	0	0	1	1	1	1	4	6	3	2	3	1	2	2	2	1.2	5.9
4-Oct	0	0	0	0	0	1	0	1	18	16	4	3	15	25	1	9	2	4	2	2	1	1	1	1	4.5	24.9
5-Oct	0	1	0	1	0	1	1	0	5	7	9	3	1	0	0	0	0	0	1	1	4	3	2	3	2.0	9.4
6-Oct	1	1	3	0	0	0	0	0	1	8	5	0	0	0	0	3	26	0	0	2	0	0	1	0	2.1	26.4
7-Oct	1	2	1	1	2	1	0	2	7	9	8	8	8	9	5	5	4	2	3	4	2	1	1	2	3.7	8.9
8-Oct	2	1	0	0	0	0	1	1	5	6	4	0	0	1	1	3	2	3	2	0	1	2	0	1	1.5	5.9
9-Oct	1	2	1	1	0	2	0	1	1	3	2	2	8	6	6	6	9	4	3	0	0	1	0	1	2.6	9.1
10-Oct	0	1	0	0	1	1	2	4	6	8	1	4	2	3	6	17	6	30	17	0	0	0	3	0	4.7	29.9
11-Oct	0	0	0	0	0	0	0	0	5	9	17	18	28	36	46	20	5	1	2	0	0	1	0	0	7.8	46.4
12-Oct	1	2	3	3	3	2	2	2	3	3	6	8	4	9	12	8	3	5	1	0	1	0	0	0	3.3	12.2
13-Oct	0	2	2	2	1	0	1	1	3	0	0	2	1	1	0	0	0	2	0	0	0	0	0	0	0.7	3.5
14-Oct	0	0	1	2	1	2	4	4	3	1	0	0	0	0	0	0	0	1	4	3	3	1	2	3	1.5	4.2
15-Oct	4	2	1	0	0	0	6	5	4	2	1	0	4	1	2	3	3	2	1	1	2	3	2	2	2.1	5.9
16-Oct	1	0	0	0	0	1	0	0	4	4	3	3	4	5	1	1	2	2	4	6	5	2	3	4	2.3	5.9
17-Oct	4	4	4	4	5	5	5	6	3	3	4	1	4	7	5	6	9	8	14	11	15	8	8	6	6.2	14.5
18-Oct	3	4	4	4	3	5	6	5	6	4	2	13	1	9	21	7	0	3	1	2	1	0	0	2	4.4	20.6
19-Oct	0	2	1	1	1	3	3	3	3	1	0	5	4	1	0	2	0	2	4	6	4	4	2	4	2.3	5.9
20-Oct	3	3	4	5	5	6	10	5	11	13	6	4	8	2	8	6	5	1	0	0	0	1	0	0	4.4	13.1
21-Oct	0	2	0	0	0	2	5	8	11	13	4	1	0	11	5	2	0	3	0	0	0	0	1	2	3.0	13.4
22-Oct	1	0	0	0	0	0	0	0	0	4	2	8	4	4	7	2	2	3	1	0	0	0	1	0	1.6	8.0
23-Oct	0	1	0	2	0	0	0	2	4	7	4	2	C	23	5	6	9	0	0	0	0	1	1	1	2.9	22.5
24-Oct	1	1	1	1	2	2	2	2	7	19	9	9	11	12	9	0	0	6	9	0	0	1	0	0	4.3	18.8
25-Oct	1	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	2.2
26-Oct	0	0	0	0	0	0	0	0	1	1	1	2	2	1	1	1	1	1	1	1	1	0	1	0	0.8	2.3
27-Oct	0	0	0	0	0	0	2	2	3	10	12	0	0	0	0	4	3	3	3	2	3	7	3	2	2.5	11.8
28-Oct	2	3	2	3	3	2	2	3	1	2	1	3	2	2	3	3	2	2	1	2	2	2	3	4	2.3	4.0
29-Oct	4	4	5	5	6	5	5	5	6	5	5	6	7	10	7	4	4	5	4	5	4	3	3	3	5.0	10.3
30-Oct	3	2	1	0	0	0	0	2	4	3	4	2	1	1	2	3	2	3	2	2	3	3	3	4	2.1	3.9
31-Oct	7	3	5	4	3	4	6	7	5	4	5	3	1	2	3	8	4	7	3	7	4	4	0	0	4.2	7.8
	1.4	1.3	1.4	1.3	1.2	1.5	2.2	3.2	4.7	5.8	4.5	3.8	4.2	6.1	5.3	4.3	4.0	3.6	2.9	2.0	1.8	1.6	1.4	1.5	Diurnal Average	
	7.2	4.1	5.5	4.7	5.5	6.1	10.2	22.6	17.9	18.8	16.9	17.9	28.4	35.9	46.4	20.4	26.4	29.9	16.9	10.8	14.5	8.1	7.9	6.1	Diurnal Maximum	

C - Calibration

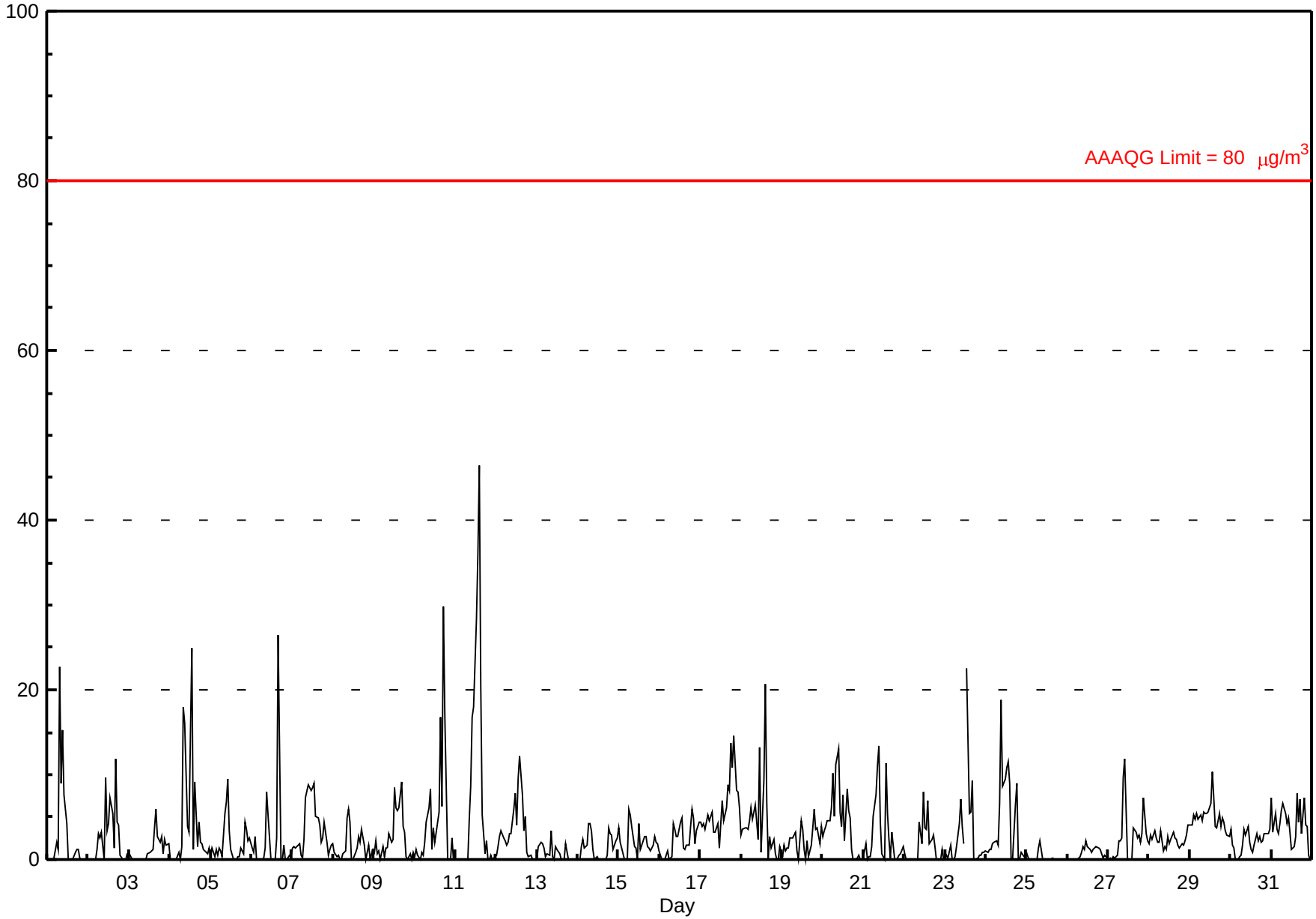
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 $\mu g/m^3$ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 $\mu g/m^3$

Peace Airshed Zone Association

Hourly Averages

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

Evergreen Park - October 2014



Peace Airshed Zone Association

Hourly Maximums

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

Evergreen Park - October 2014

Maximum Value: 64.6 $\mu g/m^3$ on Oct 11 14:00

Maximum Daily Average: 15.1 $\mu g/m^3$ on Oct 11

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

Maximum Diurnal Average: 12.7 $\mu g/m^3$ at hour 14

Monthly Average: 6.93 $\mu g/m^3$

Minimum Daily Average: 1.3 $\mu g/m^3$ on Oct 25

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

Percentiles: $P_1 = 0.0$ $P_{10} = 1.1$ $Q_1 = 2.6$ Median = 4.3 $Q_3 = 7.7$ $P_{90} = 14.4$ $P_{99} = 50.2$

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Oct	0	0	1	0	4	6	5	46	29	28	21	22	0	0	1	3	3	2	3	2	1	1	0	0	7.4	46.3
2-Oct	1	1	0	1	1	4	5	5	8	1	28	26	20	31	14	3	28	9	7	3	1	0	1	3	8.4	30.9
3-Oct	2	3	1	0	1	2	2	1	0	3	1	4	3	4	4	6	12	6	6	7	3	5	3	6	3.5	12.1
4-Oct	0	1	1	1	0	3	0	10	27	29	23	35	42	36	17	33	6	9	5	6	3	4	2	4	12.4	41.6
5-Oct	3	3	3	5	2	4	3	3	11	16	29	11	5	2	2	1	5	4	4	5	10	5	5	5	6.0	28.7
6-Oct	4	7	6	6	4	0	0	2	5	30	26	10	0	0	5	6	57	30	1	6	1	2	3	3	8.9	57.0
7-Oct	4	3	3	4	5	2	2	7	15	15	10	10	10	15	9	8	6	3	6	9	8	2	3	4	6.8	14.8
8-Oct	5	3	2	3	2	2	3	4	8	13	13	1	1	3	8	6	13	7	5	4	4	5	4	4	5.0	13.1
9-Oct	4	6	5	5	5	8	4	4	4	5	5	5	19	11	10	13	15	10	7	2	2	4	2	3	6.5	18.9
10-Oct	3	4	2	2	3	2	5	8	10	16	7	12	4	8	12	34	28	51	38	9	0	2	19	0	11.6	51.2
11-Oct	0	0	0	0	0	0	1	3	13	26	29	34	51	65	62	52	10	4	4	2	2	3	1	2	15.1	64.6
12-Oct	2	3	4	5	4	4	3	3	5	5	10	13	9	13	18	14	6	11	2	2	4	2	0	2	6.0	17.7
13-Oct	2	4	6	5	5	2	3	3	7	5	3	4	5	5	1	1	0	10	2	4	0	2	2	1	3.4	9.7
14-Oct	3	2	3	4	5	4	6	8	10	8	1	4	2	2	1	2	3	10	10	6	6	3	4	9	4.9	10.2
15-Oct	9	6	4	3	3	4	8	7	7	3	4	3	7	3	6	5	4	3	3	4	4	4	4	4	4.6	8.7
16-Oct	3	1	1	2	3	3	1	4	6	13	6	6	7	8	4	4	3	4	12	10	8	4	8	7	5.3	13.1
17-Oct	6	6	7	7	8	9	9	9	7	8	7	7	8	11	7	8	14	10	16	14	18	13	11	9	9.5	17.7
18-Oct	5	7	6	7	6	6	9	7	12	9	6	28	6	16	31	17	8	7	4	7	4	2	2	4	9.1	31.1
19-Oct	3	5	5	3	3	6	6	5	5	4	3	10	8	5	4	10	11	8	9	9	8	7	4	7	6.1	11.2
20-Oct	6	6	7	6	7	9	14	12	14	19	12	7	27	6	21	16	17	5	3	3	5	4	3	2	9.7	27.2
21-Oct	2	6	3	2	3	6	13	12	25	24	13	4	3	22	11	6	8	8	0	0	3	2	5	4	7.7	25.0
22-Oct	2	2	3	1	1	3	2	1	3	12	7	13	7	24	25	6	5	7	5	2	2	1	5	1	5.9	24.5
23-Oct	4	4	3	9	4	3	3	7	7	10	7	5	C	52	18	14	28	1	2	2	1	2	2	3	8.2	52.1
24-Oct	3	2	3	3	4	6	5	3	18	27	15	25	24	23	31	15	3	25	29	1	3	3	3	2	11.4	30.6
25-Oct	3	3	2	1	1	2	1	3	4	1	0	0	0	0	0	5	1	0	0	1	0	1	0	0	1.3	4.6
26-Oct	1	1	1	0	1	1	1	2	3	3	2	4	4	3	2	3	3	3	3	2	3	2	2	2	2.1	3.8
27-Oct	1	2	1	1	2	2	3	4	6	19	21	5	0	1	2	6	6	4	5	4	5	16	4	3	5.2	21.4
28-Oct	4	5	4	5	4	5	4	7	3	3	4	4	5	5	4	4	4	4	3	4	3	4	5	6	4.3	6.7
29-Oct	6	6	7	6	8	6	7	6	8	7	7	8	8	12	11	5	6	8	7	9	10	6	5	7	7.3	11.9
30-Oct	5	3	3	1	1	2	2	3	5	5	6	4	4	3	5	4	4	4	4	5	5	5	5	6	3.9	6.3
31-Oct	14	6	8	8	5	8	7	8	10	10	8	6	4	5	7	11	10	10	7	13	6	6	3	0	7.5	14.1
	3.5	3.6	3.3	3.4	3.4	3.9	4.4	6.8	9.5	12.1	10.7	10.7	9.8	12.7	11.4	10.4	10.5	9.0	6.8	5.1	4.3	3.8	3.9	3.7	Diurnal Average	
	14.1	7.2	7.7	8.9	8.5	8.9	13.8	46.3	28.7	29.9	29.2	34.8	50.7	64.6	62.4	52.1	57.0	51.2	38.2	13.6	17.7	15.5	19.2	8.7	Diurnal Maximum	

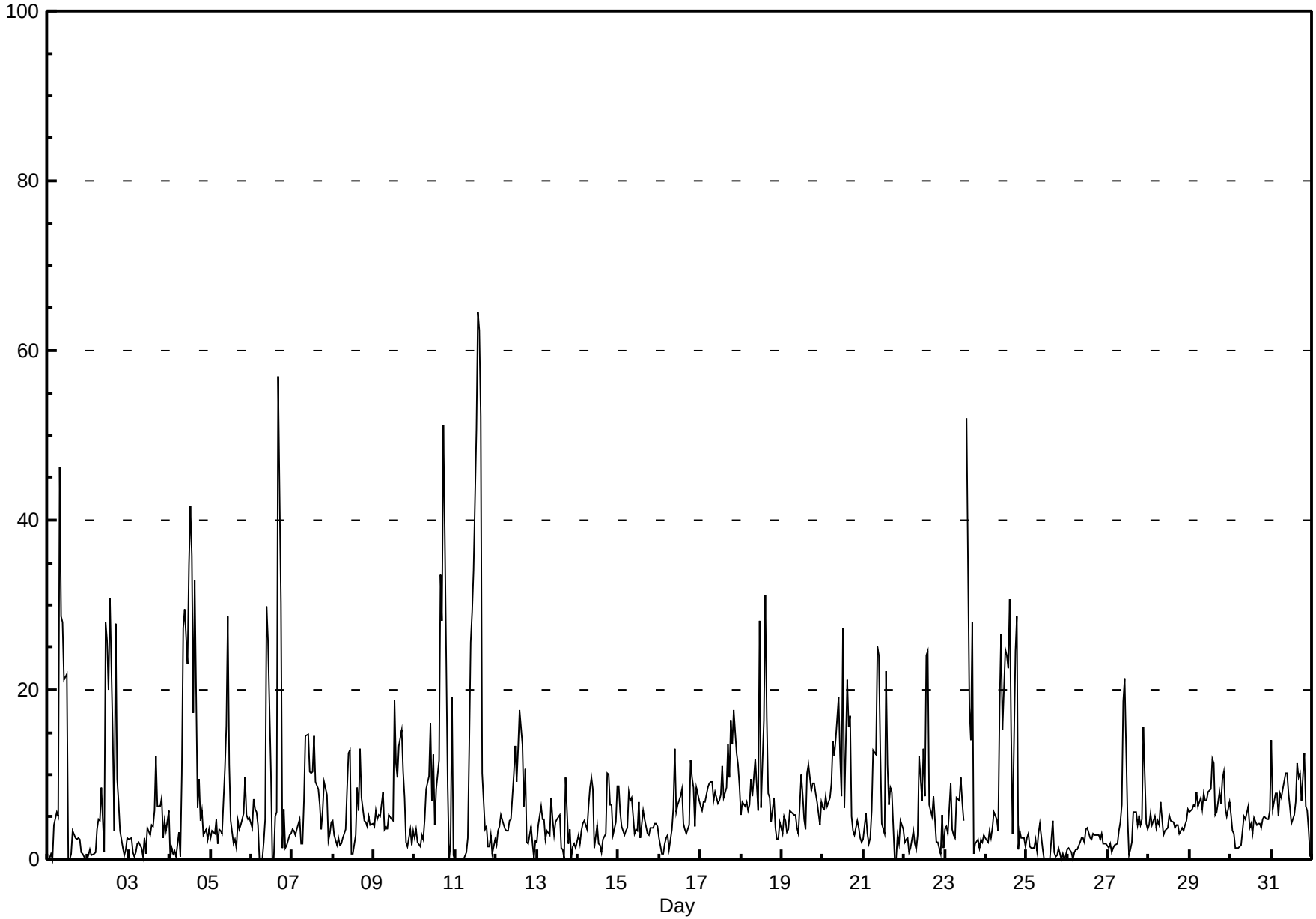
C - Calibration

Peace Airshed Zone Association

Hourly Maximums

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

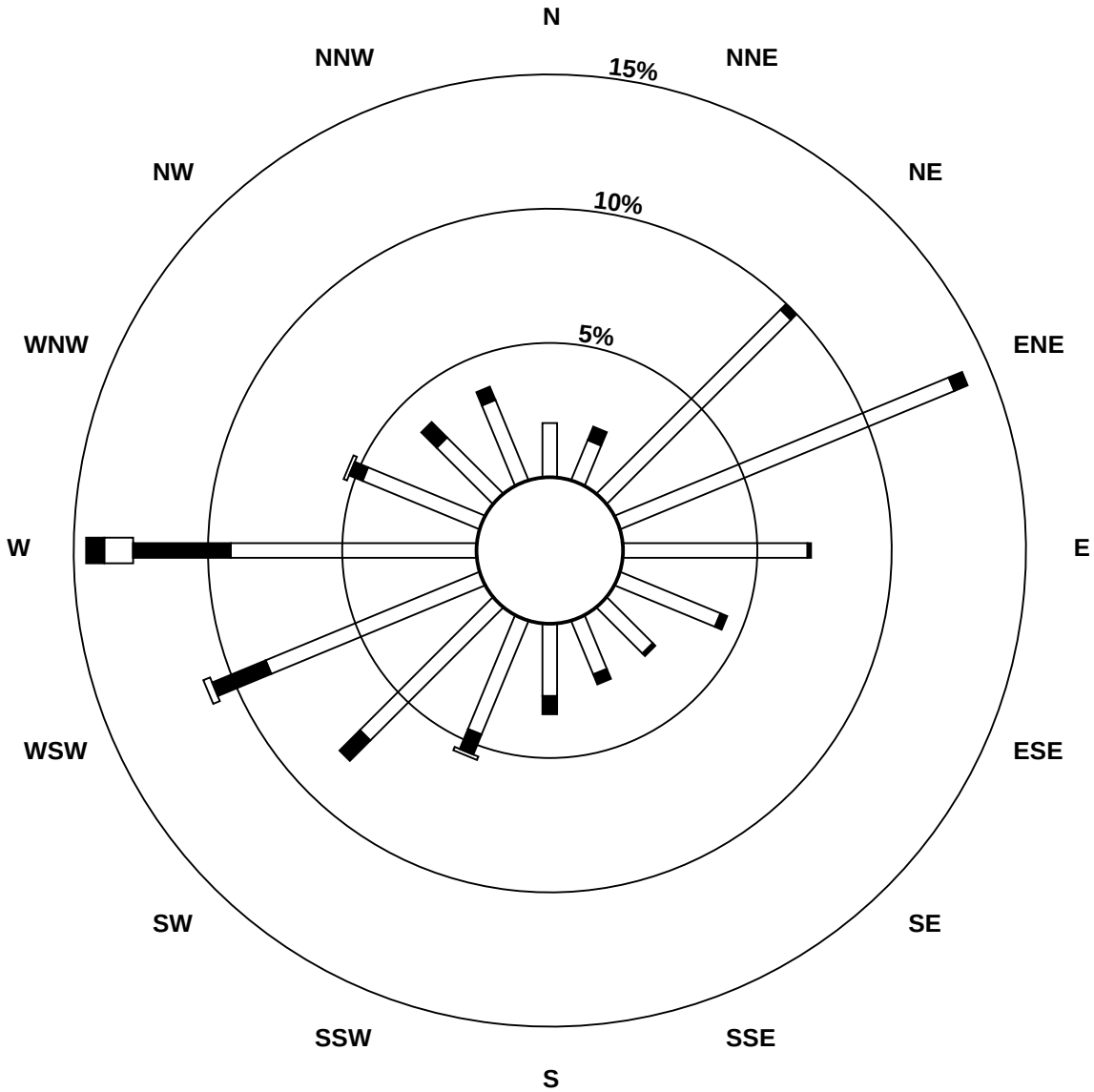
Evergreen Park - October 2014



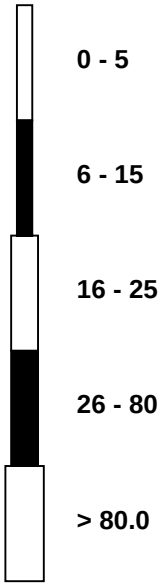
Pollutant Rose

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

Evergreen Park - October 2014



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



Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Evergreen Park - October 2014

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

Maximum Value: 22.3 ^{o}C on Oct 10 15:00

Maximum Daily Average: 13.0 ^{o}C on Oct 4

Minimum Value: -4 ^{o}C on Oct 27 09:00

Maximum Diurnal Average: 10.5 ^{o}C at hour 16

Monthly Average: 5.99 ^{o}C

Minimum Daily Average: -1.2 ^{o}C on Oct 28

Minimum Diurnal Average: 2.7 ^{o}C at hour 8

Percentiles: P_1 = -3.2 P_{10} = -0.4 Q_1 = 1.2 Median = 5.3 Q_3 = 10.0 P_{90} = 13.8 P_{99} = 18.7

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

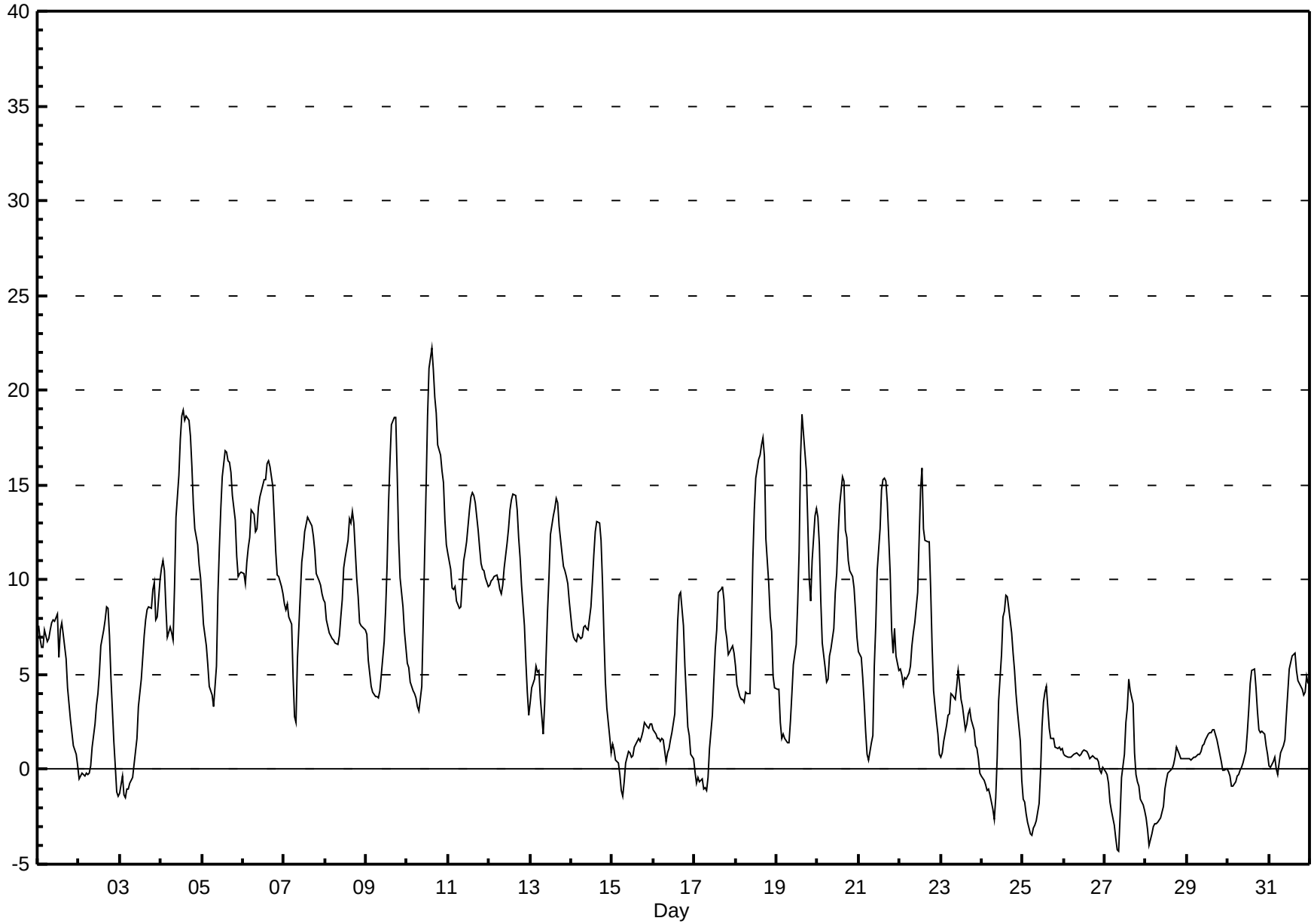
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Oct	8	7	6	6	7	7	7	7	8	8	8	8	6	7	8	7	6	4	3	3	2	1	1	0	5.7	8.2
2-Oct	-1	0	0	0	0	0	0	0	1	2	3	4	5	6	7	8	9	9	7	5	2	0	-1	-1	2.7	8.6
3-Oct	-1	0	-1	-2	-1	-1	-1	0	0	1	2	3	5	6	7	8	8	9	8	9	10	8	8	10	4.0	10.0
4-Oct	11	11	10	9	7	7	7	7	10	13	16	17	19	19	18	19	18	18	16	14	13	12	11	10	13.0	19.0
5-Oct	9	8	6	5	4	4	4	3	5	9	12	14	15	17	17	16	16	16	14	13	11	10	10	10	10.5	16.8
6-Oct	10	10	11	12	12	14	13	13	13	14	14	15	15	15	16	16	16	15	13	11	10	10	10	9	12.8	16.2
7-Oct	9	8	9	8	8	5	3	2	6	9	11	12	13	13	13	13	13	12	12	10	10	10	9	9	9.4	13.3
8-Oct	9	8	7	7	7	7	7	7	7	8	9	11	11	12	13	13	14	13	10	9	8	8	7	7	9.1	13.6
9-Oct	7	6	5	4	4	4	4	4	4	5	7	8	11	14	16	18	19	19	16	12	10	9	7	6	9.1	18.5
10-Oct	6	5	5	4	4	4	3	3	4	8	11	15	19	21	22	21	20	19	17	17	16	15	13	12	11.8	22.3
11-Oct	11	11	10	10	10	9	8	9	10	11	12	12	14	14	15	14	14	13	12	11	11	10	10	10	11.2	14.6
12-Oct	10	10	10	10	10	10	9	9	10	11	12	13	14	14	15	14	14	12	11	10	8	6	4	3	10.3	14.5
13-Oct	4	4	5	5	5	5	4	2	3	6	8	10	12	13	14	14	14	13	11	11	10	10	10	9	8.5	14.3
14-Oct	7	7	7	7	7	7	7	8	8	7	7	9	10	11	13	13	13	12	10	7	5	3	2	1	7.8	13.1
15-Oct	1	1	0	0	0	-1	-1	-1	0	1	1	1	1	1	1	2	1	2	2	2	2	2	2	2	1.0	2.5
16-Oct	2	2	2	2	1	2	2	0	1	1	2	2	3	5	8	9	9	8	5	4	2	2	1	1	3.1	9.4
17-Oct	0	-1	0	-1	0	-1	-1	-1	0	1	3	5	6	7	9	9	10	9	7	7	6	6	7	6	3.9	9.7
18-Oct	5	4	4	4	4	4	4	4	4	7	11	14	15	16	17	17	17	17	12	10	8	7	5	4	8.9	17.5
19-Oct	4	4	3	2	2	2	1	1	3	4	6	7	9	11	17	19	18	16	13	10	9	11	13	14	8.2	18.7
20-Oct	13	12	9	7	5	5	5	6	6	7	9	10	12	14	15	15	13	12	11	10	10	10	8	7	9.7	15.4
21-Oct	6	6	5	4	2	1	1	1	2	5	8	10	13	15	15	15	15	14	10	7	6	7	6	5	7.5	15.4
22-Oct	5	5	4	5	5	5	5	7	7	8	9	12	15	16	13	12	12	12	9	6	4	3	2	1	7.6	15.9
23-Oct	1	1	1	2	3	3	4	4	4	4	5	5	4	3	2	2	3	3	3	2	1	1	1	0	2.6	5.2
24-Oct	0	-1	-1	-1	-1	-1	-2	-3	-2	1	4	6	8	8	9	9	8	7	6	5	4	3	1	-1	2.9	9.2
25-Oct	-2	-2	-2	-3	-3	-3	-3	-3	-3	-2	0	2	4	4	4	2	2	2	2	1	1	1	1	1	0.0	4.4
26-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0.6	1.0
27-Oct	0	0	-1	-2	-2	-3	-4	-4	-4	-2	0	1	2	3	5	4	3	1	0	-1	-1	-2	-2	-2	-0.4	4.8
28-Oct	-3	-3	-4	-3	-3	-3	-3	-3	-3	-2	-2	-1	-1	0	0	0	0	1	1	1	1	1	1	1	-1.2	1.2
29-Oct	1	1	0	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	1	1	0	0	0	0	1.0	2.1
30-Oct	0	0	-1	-1	-1	0	0	0	0	0	1	2	3	5	5	5	4	3	2	2	2	2	1	1	1.5	5.3
31-Oct	0	0	0	1	0	0	0	1	1	2	3	4	5	6	6	6	5	5	5	4	4	4	5	5	3.0	6.2
	4.3	4.0	3.6	3.3	3.1	2.9	2.7	2.7	3.5	4.8	6.2	7.5	8.7	9.8	10.4	10.5	10.2	9.5	8.1	7.0	6.0	5.5	4.9	4.5	Diurnal Average	
	13.3	11.9	10.9	11.7	12.2	13.7	13.5	12.6	12.7	13.8	15.6	17.4	18.7	21.2	22.3	21.0	19.7	18.8	17.1	16.6	15.7	15.1	13.4	13.8	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Evergreen Park - October 2014



Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Evergreen Park - October 2014

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

Maximum Value: 97.5 % on Oct 30 13:00 Maximum Daily Average: 95.4 % on Oct 26

Minimum Value: 31 % on Oct 6 17:00 Minimum Daily Average: 50.6 % on Oct 12

Maximum Diurnal Average: 85.6 % at hour 7 Minimum Diurnal Average: 58.5 % at hour 16

Monthly Average: 75.16 % Percentiles: P_1 = 34.3 P_{10} = 47.1 Q_1 = 58.7 Median = 80.8 Q_3 = 91.7 P_{90} = 94.3 P_{99} = 96.3

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

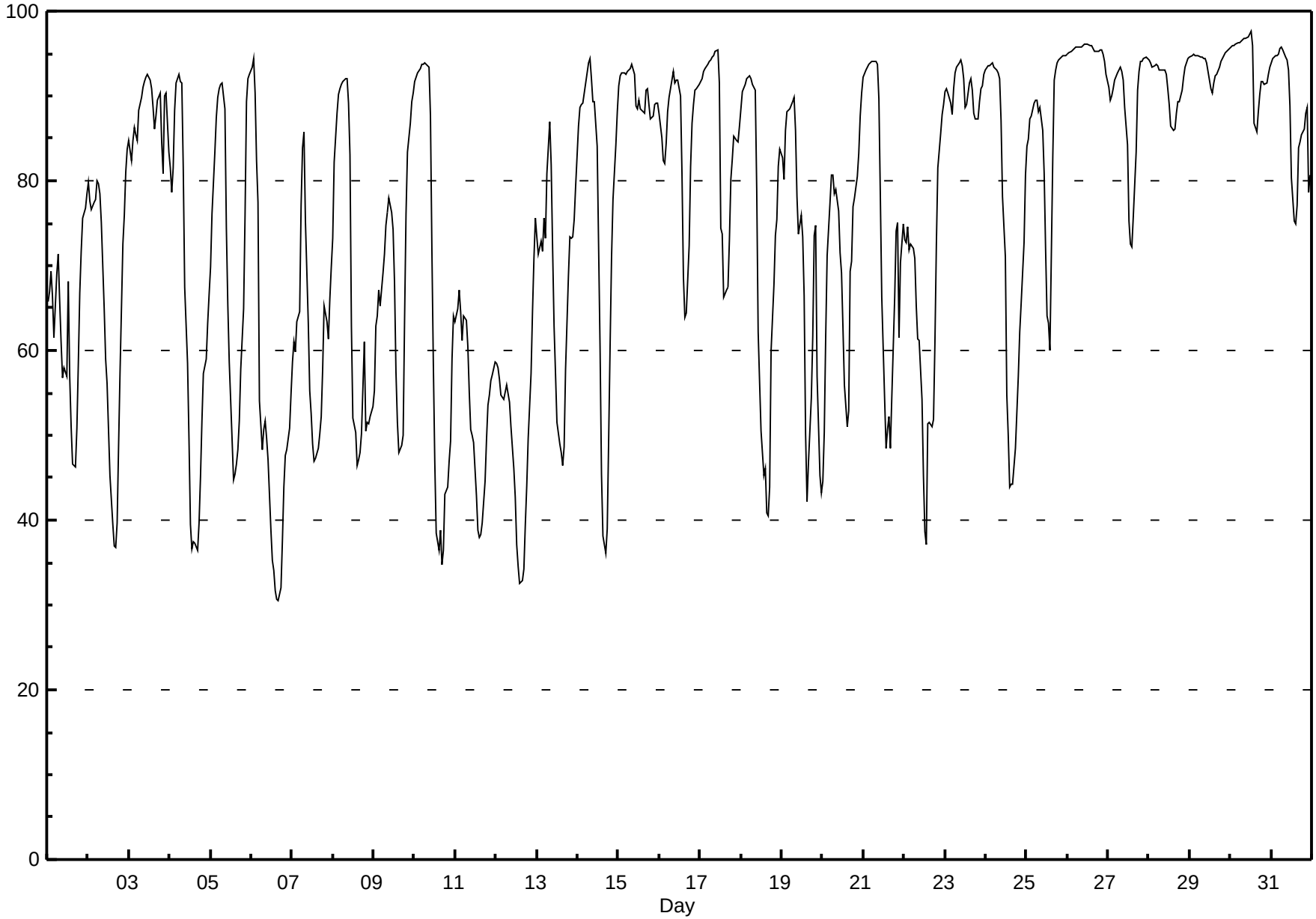
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Oct	66	67	69	67	62	69	71	66	61	57	58	57	68	57	51	47	46	51	58	67	72	76	77	78	63.2	78.5
2-Oct	80	78	77	77	78	80	80	78	75	65	59	56	51	45	39	37	37	40	49	57	72	76	81	84	64.6	83.7
3-Oct	85	82	85	86	85	85	88	90	91	92	92	92	92	91	89	86	88	90	90	85	81	90	90	83	87.8	92.5
4-Oct	82	79	82	88	92	93	92	92	82	67	59	49	40	37	37	37	36	40	45	52	57	59	63	67	63.5	92.5
5-Oct	70	76	83	87	90	91	91	92	88	74	65	59	54	45	45	47	48	52	58	65	76	89	92	92	72.1	92.5
6-Oct	93	94	90	82	77	54	48	51	52	50	47	39	35	34	32	31	31	32	38	44	48	48	51	55	52.3	94.4
7-Oct	59	61	60	63	65	77	84	86	75	63	55	53	49	47	47	48	50	52	58	65	63	61	66	70	61.6	85.8
8-Oct	73	82	88	90	91	91	92	92	92	89	83	63	52	50	47	47	48	50	61	50	51	51	52	53	68.4	92.1
9-Oct	55	63	64	67	65	69	71	75	76	78	76	74	68	57	52	48	49	50	64	76	83	87	89	90	68.7	90.4
10-Oct	92	92	93	93	94	94	94	94	93	88	72	58	47	38	36	39	35	36	43	44	47	49	59	64	66.4	93.9
11-Oct	63	65	67	65	61	64	64	60	55	51	50	49	43	39	38	38	40	45	49	54	55	56	57	59	53.6	67.0
12-Oct	59	58	57	55	54	55	56	55	54	51	46	43	37	35	32	33	34	39	44	50	57	65	71	76	50.6	75.6
13-Oct	73	71	73	72	76	73	81	87	82	72	63	57	51	49	48	46	49	58	69	73	73	73	75	79	67.7	87.0
14-Oct	86	89	89	89	90	93	94	94	92	89	89	84	72	60	45	38	36	39	50	61	71	78	84	88	75.1	94.4
15-Oct	91	92	93	93	93	93	93	93	94	93	89	88	90	89	88	88	91	91	89	87	88	89	89	89	90.5	93.7
16-Oct	88	85	82	82	84	88	90	92	93	91	92	92	90	81	69	64	64	72	82	87	89	91	91	91	84.6	92.8
17-Oct	92	92	93	93	94	94	94	95	95	95	96	92	74	74	66	67	67	73	80	82	85	85	85	86	85.4	95.5
18-Oct	88	91	91	92	92	92	92	91	91	79	62	56	51	45	46	41	40	44	60	68	74	75	82	84	72.0	92.4
19-Oct	83	80	86	88	88	89	89	90	86	78	74	76	73	66	50	42	47	54	62	74	75	57	45	43	70.7	89.8
20-Oct	45	50	62	71	77	81	81	78	79	76	72	69	63	56	51	53	69	70	77	78	81	83	88	90	70.8	90.3
21-Oct	92	93	93	94	94	94	94	94	94	90	78	66	54	48	51	52	48	55	66	74	75	62	70	75	75.3	94.1
22-Oct	73	73	75	72	73	72	71	65	61	61	54	45	39	37	51	52	51	52	61	72	82	86	88	89	64.7	88.9
23-Oct	91	91	90	89	88	91	93	93	94	94	94	92	89	89	92	92	91	88	87	87	89	91	91	93	90.7	94.3
24-Oct	93	94	94	94	94	93	93	93	92	87	78	71	55	50	44	44	44	48	53	57	62	66	73	81	73.0	93.9
25-Oct	84	85	87	88	89	89	90	88	89	86	81	72	64	63	60	83	92	93	94	94	95	95	95	95	85.4	94.8
26-Oct	95	95	95	95	96	96	96	96	96	96	96	96	96	96	96	96	95	95	95	95	95	95	94	93	95.4	96.1
27-Oct	91	90	90	91	92	93	93	93	93	92	89	84	75	72	72	76	83	91	93	94	94	94	94	94	88.5	94.5
28-Oct	94	94	93	94	94	93	93	93	93	93	92	91	89	86	86	86	88	89	89	91	92	93	94	94	91.5	94.4
29-Oct	95	95	95	95	95	95	95	95	94	94	94	93	91	90	91	92	93	93	94	94	95	95	95	96	93.9	95.5
30-Oct	96	96	96	96	96	96	96	97	97	97	97	97	98	96	87	86	88	90	92	92	91	92	93	93	93.9	97.5
31-Oct	94	94	95	95	95	96	96	95	95	94	93	89	80	75	75	77	84	85	85	86	88	89	79	81	88.1	95.8
	81.3	82.1	83.4	84.0	84.3	84.9	85.6	85.6	84.0	80.1	75.7	71.1	65.5	61.3	58.5	58.5	60.1	63.1	68.9	72.8	76.0	77.3	79.1	80.8	Diurnal Average	
	95.7	95.8	96.0	96.1	96.2	96.2	96.4	96.5	96.7	96.8	97.0	97.3	97.5	96.0	95.9	95.5	95.3	95.2	95.3	95.4	95.4	95.0	95.3	95.5	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Evergreen Park - October 2014



Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Evergreen Park - October 2014

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	12	4	17	17	16	16	23	25	36	28	29	37	36	33	39	38	31	24	20	19	14	13	11	17.8	39.4
Dir	225	219	229	226	248	258	254	259	259	262	261	306	337	327	326	331	341	339	341	335	324	315	310	277	300.3	331.2
2 Spd	9	12	11	9	6	7	10	9	9	13	15	15	10	9	12	11	16	11	3	2	3	1	1	1	7.4	16.2
Dir	298	321	319	311	299	278	267	287	285	294	275	261	274	276	265	268	254	244	215	204	65	94	144	170	278.7	253.9
3 Spd	1	2	4	2	2	3	3	3	3	3	4	4	3	2	1	3	1	2	1	5	0	3	1	15	1.3	14.9
Dir	160	150	62	62	67	77	81	76	85	85	109	114	113	49	349	200	67	115	185	251	52	83	77	226	118.7	225.5
4 Spd	18	19	1	2	3	5	2	1	5	16	21	22	36	46	36	37	37	26	11	7	2	6	6	3	14.6	46.0
Dir	231	237	214	180	200	217	173	273	252	262	277	275	268	265	280	270	275	274	279	227	244	280	275	255	265.0	265.3
5 Spd	6	4	4	4	2	1	3	2	0	1	5	3	5	13	9	6	3	2	3	1	2	1	2	3	2.0	12.6
Dir	213	223	205	215	190	168	197	202	226	314	261	240	275	276	314	3	115	168	195	130	218	122	155	162	237.7	276.4
6 Spd	2	3	15	13	15	27	22	13	10	15	24	29	25	21	25	34	31	29	14	11	10	12	10	2	16.3	34.5
Dir	69	283	253	263	302	296	299	293	283	277	284	286	299	301	280	267	268	266	271	260	250	247	228	248	278.1	267.3
7 Spd	1	5	5	3	2	2	1	1	1	1	4	4	4	2	7	8	6	5	1	2	6	6	4	5	1.0	8.0
Dir	334	262	251	252	296	58	144	71	48	72	183	157	199	256	76	73	79	102	104	216	247	217	256	228	190.8	73.4
8 Spd	1	3	4	5	4	1	0	1	2	6	8	14	14	8	5	5	1	1	3	7	6	5	5	4	1.1	14.1
Dir	153	192	201	190	196	128	212	72	243	250	266	329	335	330	289	277	57	72	74	71	71	77	73	79	331.6	329.3
9 Spd	4	3	2	1	2	1	2	2	3	5	4	1	1	2	3	2	4	3	0	1	1	1	0	1	1.4	5.3
Dir	75	64	83	209	101	39	80	72	89	60	107	86	305	208	241	111	113	114	157	42	42	81	243	42	90.0	59.6
10 Spd	1	1	0	1	1	1	2	0	0	2	3	3	4	5	2	7	21	26	18	16	23	17	27	24	7.0	26.8
Dir	230	358	74	67	17	3	4	285	30	28	18	35	349	326	325	297	282	271	265	241	241	253	266	229	265.0	266.2
11 Spd	17	14	23	30	25	16	12	22	21	23	30	24	37	47	49	45	47	38	35	24	31	31	33	31	28.4	49.5
Dir	224	225	222	229	236	227	227	239	247	247	257	262	265	268	265	266	266	266	261	263	259	257	251	250	253.8	264.8
12 Spd	31	34	30	31	31	30	27	30	29	32	36	42	40	40	41	41	35	25	14	5	1	0	1	0	25.6	42.2
Dir	249	252	252	256	259	259	258	262	261	263	263	266	269	262	272	275	267	253	250	228	144	162	69	95	261.1	265.9
13 Spd	2	2	1	1	2	2	1	3	2	1	4	8	4	6	9	8	6	8	7	5	6	4	2	1	3.4	9.5
Dir	66	66	347	166	144	146	15	47	66	44	119	138	151	139	113	108	111	111	90	68	92	95	94	60	105.5	113.3
14 Spd	1	0	2	4	2	5	6	12	15	18	20	8	16	22	27	25	22	13	2	1	2	1	1	1	8.2	26.7
Dir	40	39	208	221	278	325	307	300	297	260	220	246	254	262	273	277	286	300	297	190	44	206	39	30	271.9	273.5
15 Spd	3	1	2	2	2	2	1	5	10	10	14	14	13	11	9	8	6	4	2	0	3	2	1	1	4.6	14.3
Dir	60	49	16	35	56	221	348	41	50	55	55	48	51	46	47	53	58	53	41	46	209	217	306	115	50.6	48.3
16 Spd	2	5	4	4	2	1	1	5	8	6	2	2	2	1	4	6	6	3	1	1	1	1	1	0	1.0	8.0
Dir	79	82	74	41	0	81	163	203	236	223	211	124	112	90	89	86	70	55	346	217	45	82	250	35	102.9	235.7
17 Spd	0	0	0	1	0	0	0	1	4	2	4	4	6	5	1	6	2	0	1	1	2	3	3	3	0.8	5.8
Dir	78	44	149	286	194	292	207	223	77	7	62	330	305	328	82	215	268	348	236	222	234	327	312	236	308.4	304.8
18 Spd	2	3	2	1	2	4	4	3	5	8	19	23	31	31	25	22	8	4	0	1	1	1	3	0	7.7	31.4
Dir	248	220	209	273	218	238	259	223	203	245	248	256	247	250	264	270	291	304	53	143	108	194	48	28	253.9	249.9
19 Spd	2	2	1	4	2	1	1	1	2	5	5	4	2	4	5	4	5	3	0	2	2	5	9	9	1.6	9.2
Dir	62	11	45	49	50	20	23	75	75	68	54	167	44	50	63	94	65	67	7	31	191	183	188	180	94.1	187.6
20 Spd	6	1	1	1	2	2	2	2	2	2	1	4	5	5	4	7	17	3	3	1	3	1	0	0	0.9	17.0
Dir	169	90	332	337	236	221	301	245	244	187	31	56	56	46	271	306	305	231	96	226	197	185	51	141	288.4	305.2
21 Spd	0	2	0	1	1	0	1	1	0	2	3	5	4	5	2	3	4	2	2	1	1	3	1	2	0.7	5.4
Dir	273	203	34	241	211	247	276	190	208	251	233	214	162	181	89	56	53	58	78	186	164	185	15	47	167.3	180.6
22 Spd	3	3	3	3	5	4	8	7	2	1	6	8	8	3	22	15	9	5	3	2	1	1	1	2	0.6	22.1
Dir	67	62	70	75	61	62	64	81	105	197	194	188	187	254	300	284	279	256	180	204	47	68	70	39	278.6	300.5

Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Evergreen Park - October 2014

Day	Hourly Period Ending At (MST) 1	2	3	4	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	1	0	2	4	1	6	6	4	3	6	15	29	32	27	22	14	13	8	11	9	6	4	5	7	7.5	31.7
Dir	43	194	83	100	65	42	34	133	246	239	252	256	271	270	282	271	285	306	308	284	236	277	239	226	271.3	270.7
24 Spd	5	5	2	2	4	2	1	0	3	4	6	5	33	37	37	31	31	21	19	14	9	7	1	1	11.1	37.3
Dir	231	225	240	320	279	304	178	77	230	210	248	279	268	268	276	280	280	273	268	268	255	251	43	187	268.9	267.7
25 Spd	1	1	2	1	2	1	2	2	3	5	6	8	11	10	13	12	9	11	14	17	16	15	10	9	7.1	16.6
Dir	202	135	205	52	53	121	93	53	61	70	63	66	78	75	92	112	87	78	79	77	77	78	79	75	80.5	77.4
26 Spd	6	6	7	6	7	6	5	3	4	7	7	6	8	9	14	11	10	8	11	11	13	14	13	12	5.4	13.9
Dir	67	53	58	61	63	58	51	32	343	338	342	349	333	321	325	334	325	298	292	281	280	277	273	270	324.5	277.3
27 Spd	10	9	7	6	2	3	3	4	3	1	1	4	4	3	1	2	3	4	4	3	1	2	2	1	1.5	10.2
Dir	273	270	275	264	251	247	246	251	227	250	255	219	214	198	143	126	104	62	43	50	9	40	75	78	255.1	272.8
28 Spd	1	0	2	2	5	4	1	2	3	6	9	6	7	9	7	8	7	1	0	0	3	3	3	4	3.7	9.3
Dir	56	23	37	60	88	88	56	44	62	64	66	73	53	42	32	34	42	34	217	252	71	71	62	61	55.8	65.8
29 Spd	4	3	2	1	0	0	0	0	0	1	2	3	3	2	3	2	2	2	2	1	2	1	1	2	1.3	3.6
Dir	71	66	49	50	62	41	97	93	325	96	125	157	147	125	98	86	77	69	86	1	59	339	285	62	83.9	70.8
30 Spd	3	5	3	5	4	4	5	5	6	4	4	4	7	8	7	6	4	3	8	7	4	1	1	1	4.0	8.1
Dir	5	53	59	97	105	106	96	99	108	93	108	100	112	121	117	102	73	80	85	83	88	5	327	245	94.0	120.8
31 Spd	3	3	4	3	7	14	12	9	2	1	1	2	4	5	6	2	3	6	2	4	1	5	15	13	4.6	15.4
Dir	268	262	260	222	248	281	256	248	238	132	273	307	297	303	266	261	217	212	187	209	240	207	227	225	246.7	226.8
Spd	2.6	2.6	2.3	2.7	2.6	2.9	2.5	2.9	3.2	4.6	5.6	6.1	8.2	9.4	9.4	8.7	8.2	5.7	3.2	2.3	2.2	2.4	3.0	3.2	Diurnal Average	
Dir	236.5	247.7	249.5	243.9	256.3	270.5	269.9	263.3	263.7	265.3	261.1	272.7	280.0	278.7	285.8	284.7	288.8	279.6	282.1	270.1	260.5	257.0	256.4	233.4		
Spd	30.8	33.6	29.7	30.8	31.3	30.2	27.1	30.0	28.9	35.9	35.8	42.2	40.1	47.1	49.5	45.3	46.5	38.5	34.9	23.6	31.4	31.4	32.7	31.1	Diurnal Maximum	
Dir	248.5	251.9	252.0	256.0	259.0	259.1	258.3	261.7	261.2	261.6	263.1	265.9	269.2	268.2	264.8	266.4	266.3	266.0	260.7	262.9	259.0	257.3	250.6	249.7		

Maximum Speed Value: 49 km/h on Oct 11 15:00
Maximum Daily Speed Average: 28.4 km/h on Oct 11
Maximum Diurnal Speed Average: 9.4 km/h at hour 14

Minimum Speed Value: 0 km/h on Oct 17 03:00
Minimum Daily Speed Average: 0.6 km/h on Oct 29
Minimum Diurnal Speed Average: 2.2 km/h at hour 21

Monthly Average Velocity: 4.29 km/h 270.93 deg

Speed Percentiles: $P_1 = 0.2$ $P_{10} = 0.7$ $Q_1 = 1.7$ Median = 4.0 $Q_3 = 9.6$ $P_{90} = 23.7$ $P_{99} = 40.4$

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

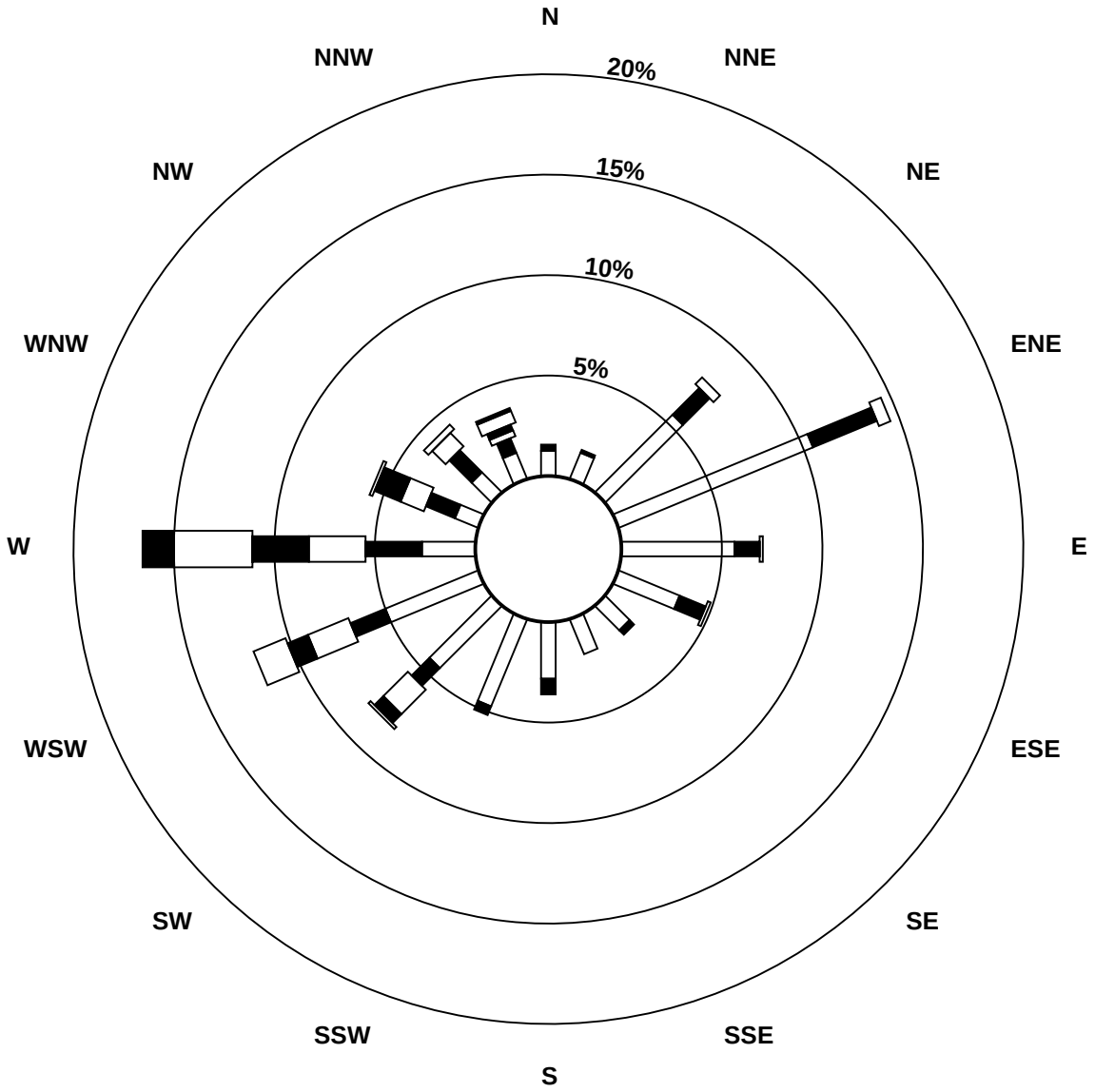
Frequency Distribution

Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	25	4	0	1	1	1	32
NorthEast	100	32	3	0	0	0	135
East	88	29	7	0	0	0	124
SouthEast	36	5	0	0	0	0	41
South	43	9	0	0	0	0	52
SouthWest	76	17	14	8	2	0	117
West	40	32	33	26	35	11	177
NorthWest	22	19	13	7	4	1	66
Total	430	147	70	42	42	13	744

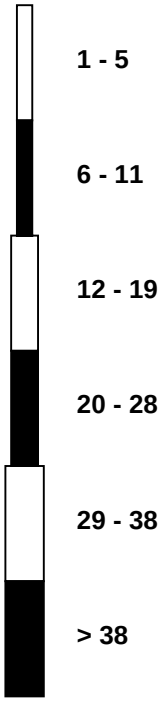
Wind Rose

Wind Speed (WS) (km/h)

Evergreen Park - October 2014



Wind Speed Classes (km/h)



Peace Airshed Zone Association

Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Evergreen Park - October 2014

Maximum Speed: 50 km/h on Oct 11 15:00

Maximum Daily Speed Average: 29.7 km/h on Oct 11

Minimum Speed: 0 km/h on Oct 29 08:00

Minimum Daily Speed Average: 2.2 km/h on Oct 29

Maximum Diurnal Speed Average: 15.5 km/h at hour 15

Minimum Diurnal Speed Average: 5.4 km/h at hour 3

Monthly Average Speed: 8.66 km/h

Percentiles: $P_1 = 0.5$ $P_{10} = 1.6$ $Q_1 = 2.6$ Median = 4.6 $Q_3 = 10.3$ $P_{90} = 24.3$ $P_{99} = 41.4$

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-Oct	18	12	4	17	17	17	17	23	25	36	28	34	38	37	34	40	39	31	25	21	20	15	13	12	23.9	40.0
2-Oct	10	12	11	9	7	7	11	9	10	14	16	16	12	11	14	12	17	12	3	2	3	2	2	1	9.3	16.7
3-Oct	2	2	4	2	2	4	4	4	3	3	4	5	3	2	3	3	3	3	3	6	4	4	2	15	3.7	15.2
4-Oct	18	19	2	3	5	6	5	3	5	16	21	23	37	47	37	37	38	26	12	7	3	6	6	3	16.1	46.7
5-Oct	7	4	4	4	4	2	5	3	1	3	6	4	7	15	12	6	3	3	4	2	3	2	3	4	4.6	15.0
6-Oct	3	5	15	14	16	28	23	14	11	16	25	30	27	22	27	35	31	29	15	11	10	12	10	2	18.0	35.0
7-Oct	2	5	6	3	2	2	3	2	2	2	6	6	6	4	8	8	7	5	1	3	7	6	4	5	4.4	8.4
8-Oct	1	3	4	6	4	1	1	2	3	7	9	15	15	11	8	5	2	2	4	7	6	5	6	4	5.4	15.3
9-Oct	5	3	2	3	3	1	3	3	4	6	5	4	4	5	6	4	4	4	1	1	1	2	0	1	3.1	5.8
10-Oct	2	1	1	3	1	1	2	1	1	2	4	3	5	6	3	8	22	27	18	17	23	17	28	25	9.2	28.3
11-Oct	17	14	23	30	26	16	12	22	21	24	30	24	38	48	50	46	47	39	35	24	32	32	33	31	29.7	50.1
12-Oct	31	34	30	31	32	30	27	30	29	33	36	43	41	40	42	41	35	26	14	6	5	1	1	1	26.6	42.8
13-Oct	2	3	3	2	2	2	2	3	2	2	4	9	5	7	10	8	6	8	7	6	6	4	2	2	4.5	10.2
14-Oct	1	1	2	5	4	6	7	13	15	19	20	9	16	23	27	26	23	13	2	2	2	1	1	1	10.1	27.4
15-Oct	3	2	2	2	2	3	2	6	10	11	15	15	13	11	9	8	6	4	2	1	3	2	2	1	5.7	14.7
16-Oct	3	5	4	4	4	1	2	5	8	7	4	4	4	5	6	7	7	4	1	1	2	2	1	0	3.8	8.3
17-Oct	1	1	1	1	1	1	1	2	4	7	4	5	6	6	3	6	2	1	1	1	2	3	3	4	2.7	6.7
18-Oct	3	4	3	3	4	5	4	4	5	9	20	23	31	32	26	24	9	5	1	2	2	2	3	1	9.2	31.8
19-Oct	2	2	1	4	3	2	1	2	2	5	5	6	3	4	7	5	5	4	3	2	2	6	9	9	3.9	9.4
20-Oct	6	3	4	2	3	3	3	6	4	4	2	4	6	6	6	8	18	5	4	3	4	3	2	3	4.8	18.4
21-Oct	2	2	2	1	2	2	2	2	1	4	4	5	6	6	3	4	4	2	2	2	2	3	3	3	2.9	6.5
22-Oct	3	3	4	4	5	5	9	7	3	2	7	8	9	8	24	16	9	6	3	3	2	2	3	3	6.0	23.8
23-Oct	2	1	3	7	3	6	6	8	4	6	16	29	32	28	23	16	14	9	11	9	6	5	5	7	10.7	32.3
24-Oct	5	5	3	3	5	2	3	1	3	6	7	7	34	38	37	32	31	21	19	14	9	8	2	2	12.3	37.9
25-Oct	3	2	2	1	3	2	2	2	3	5	7	8	11	10	14	13	9	11	14	17	16	15	11	10	8.0	17.0
26-Oct	6	6	7	6	8	7	5	3	4	7	7	6	9	10	14	11	10	8	12	11	14	14	13	12	8.7	14.0
27-Oct	10	9	7	7	2	3	3	5	3	2	2	4	4	4	2	2	3	4	4	3	1	3	3	2	3.8	10.3
28-Oct	1	1	2	3	5	5	2	3	4	6	10	7	8	9	8	8	7	2	0	1	3	3	3	4	4.3	9.7
29-Oct	4	3	2	1	0	0	0	0	0	1	2	3	4	3	4	3	2	2	3	3	2	3	2	4	2.2	4.1
30-Oct	3	6	4	5	4	4	6	5	6	5	4	4	8	9	7	6	5	3	8	8	4	3	2	2	5.0	8.7
31-Oct	4	4	4	4	8	14	12	9	3	3	2	4	5	6	6	4	6	6	3	4	3	5	16	13	6.1	16.0
	5.7	5.7	5.4	6.0	6.0	6.1	5.9	6.5	6.5	8.7	10.6	11.8	14.4	15.2	15.5	14.7	13.7	10.5	7.7	6.5	6.5	6.1	6.3	6.0	Diurnal Average	
	31.0	33.8	29.8	30.9	31.5	30.3	27.3	30.2	29.1	36.3	36.3	42.8	40.8	47.8	50.1	46.0	47.1	38.8	35.2	23.8	31.6	31.6	33.0	31.3	Diurnal Maximum	

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

Peace Airshed Zone Association

Hourly Standard Deviations

Wind Direction (WD) - deg

Evergreen Park - October 2014

Maximum Value: 98.7 deg on Oct 10 06:00

Minimum Value: 4.5 deg on Oct 1 01:00

Percentiles: P_1 = 5.8 P_{10} = 10.1 Q_1 = 16.0 Median = 30.0 Q_3 = 63.4 P_{90} = 79.0 P_{99} = 95.7

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

Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Oct	5	7	37	7	9	19	6	7	8	9	11	31	10	13	15	10	9	14	15	17	16	15	12	20	36.5
2-Oct	20	12	13	20	18	19	12	19	24	22	24	22	34	40	40	31	14	33	40	59	34	89	75	71	88.8
3-Oct	37	34	11	42	24	21	45	36	35	25	28	39	40	55	91	47	83	57	74	64	79	39	79	13	91.0
4-Oct	8	8	71	70	83	44	66	91	24	11	14	19	12	10	12	12	10	11	15	39	47	20	27	29	91.3
5-Oct	10	20	13	20	62	68	68	65	89	73	33	70	75	31	47	28	41	46	50	68	85	77	52	47	88.9
6-Oct	72	61	10	16	19	12	13	17	15	18	18	17	20	18	25	10	13	8	11	10	9	6	9	27	72.3
7-Oct	61	10	14	18	34	33	71	80	86	86	48	53	69	76	29	19	19	14	84	76	53	21	23	15	86.2
8-Oct	91	19	9	22	16	70	90	81	47	29	27	23	27	49	69	33	61	62	39	13	13	21	19	24	91.3
9-Oct	14	18	54	87	40	45	39	32	43	22	36	76	86	91	61	72	23	28	96	73	68	72	63	86	95.7
10-Oct	77	76	87	74	64	99	86	83	78	31	35	46	42	42	72	37	14	12	10	12	8	8	19	7	98.7
11-Oct	8	8	5	6	10	11	11	12	9	12	9	12	11	11	9	10	9	7	7	7	6	7	7	7	12.3
12-Oct	6	6	6	5	6	6	6	6	7	8	9	10	11	11	12	12	10	9	7	59	79	82	63	81	81.9
13-Oct	78	50	79	79	52	63	53	31	63	68	44	24	47	29	23	19	20	22	17	21	17	16	24	39	79.2
14-Oct	54	85	77	37	81	18	22	26	16	16	8	46	12	17	14	17	16	15	79	64	84	80	70	71	84.5
15-Oct	33	85	52	38	90	90	71	41	20	21	15	14	19	20	25	24	16	20	28	75	30	45	63	30	89.9
16-Oct	17	19	28	32	62	82	78	20	19	39	79	82	76	87	52	34	18	27	57	87	91	61	80	89	91.1
17-Oct	96	87	97	76	70	77	89	90	31	75	47	49	29	41	78	31	61	80	71	84	59	25	33	31	97.4
18-Oct	71	43	72	72	66	48	46	47	28	31	10	12	10	8	12	22	22	26	76	75	66	55	52	81	80.9
19-Oct	69	30	61	26	51	37	74	77	64	14	16	69	46	23	35	40	13	33	97	69	44	48	11	9	96.7
20-Oct	20	79	91	80	53	73	72	71	64	71	91	25	24	36	62	42	26	77	64	96	42	81	96	75	96.5
21-Oct	92	74	78	82	80	95	67	75	89	71	59	37	49	45	44	18	32	76	76	54	62	41	76	36	95.5
22-Oct	18	53	43	34	30	36	26	23	24	73	21	19	22	50	22	16	21	26	37	86	65	64	93	28	93.1
23-Oct	43	86	51	47	76	39	21	76	62	29	14	9	11	10	20	24	21	16	19	18	27	28	21	18	85.6
24-Oct	12	43	67	37	29	50	72	76	77	68	39	65	12	11	13	10	10	9	10	10	9	8	74	78	78.2
25-Oct	69	71	60	71	27	57	32	23	15	12	15	13	16	16	23	28	15	14	15	12	16	15	15	18	71.4
26-Oct	16	16	13	12	12	12	10	15	20	8	17	14	16	15	14	16	18	17	19	12	10	9	10	12	20.3
27-Oct	10	11	13	13	22	23	10	16	31	43	38	20	20	39	60	22	26	8	17	39	40	16	40	33	59.6
28-Oct	28	83	67	32	25	51	73	45	26	22	18	35	30	21	21	14	21	82	72	71	21	15	18	15	83.3
29-Oct	22	22	21	15	58	24	74	87	79	53	41	46	34	39	24	53	29	38	37	68	54	75	84	71	86.7
30-Oct	39	21	35	30	33	34	27	27	25	27	28	38	23	26	21	26	27	52	15	19	48	73	88	74	88.0
31-Oct	50	28	23	43	28	13	11	19	66	73	86	69	43	23	26	62	79	23	50	32	85	48	16	10	85.6
	95.8	87.5	97.4	86.7	89.9	98.7	89.9	91.3	89.0	86.2	91.2	82.5	85.8	91.1	91.0	72.2	83.5	81.5	96.7	96.5	91.1	88.8	96.1	89.1	

PAZA
Smoky Heights Station
Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Smoky Heights - October 2014

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

Maximum Value: 5.0 ppb on Oct 8 10:00 Maximum Daily Average: 0.6 ppb on Oct 24

Minimum Value: 0 ppb on Oct 27 15:00 Minimum Daily Average: 0.0 ppb on Oct 28

Maximum Diurnal Average: 0.5 ppb at hour 11 Minimum Diurnal Average: 0.1 ppb at hour 24

Monthly Average: 0.24 ppb Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.1$ Median = 0.1 $Q_3 = 0.2$ $P_{90} = 0.6$ $P_{99} = 2.5$

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-Oct	A	0	0	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.2	1.2
2-Oct	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	1	0	1	0	0	0	0	A	0	0.3	1.3
3-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.1
4-Oct	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	1.3
5-Oct	0	0	0	0	0	0	0	0	0	2	2	1	0	0	1	0	0	0	0	A	0	0	0	0	0.3	1.7
6-Oct	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	A	0	0	0	1	0	0.2	1.0
7-Oct	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.2	0.6
8-Oct	0	0	0	0	0	0	0	0	1	5	1	1	0	0	0	0	A	0	0	0	0	0	0	0	0.5	5.0
9-Oct	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
10-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	0	0	0	1	3	0	0	0	0.3	2.8
11-Oct	0	0	0	0	0	0	0	0	0	0	5	1	0	A	0	0	1	1	1	1	1	0	0	0	0.5	4.7
12-Oct	1	0	0	1	1	1	1	2	2	2	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0.5	1.8
13-Oct	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
14-Oct	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	1	2	2	1	2	1	0	0.5	1.8
15-Oct	1	1	1	0	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.4
16-Oct	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0.2	0.7
17-Oct	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
18-Oct	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	2	3	0	0	0	0	0	0	0.4	3.5
19-Oct	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	0.1
20-Oct	0	0	0	0	A	0	0	0	0	0	1	1	1	1	1	0	1	0	0	0	0	0	0	0	0.3	0.9
21-Oct	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
22-Oct	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0.2	2.0
23-Oct	0	A	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0.3	0.9
24-Oct	A	3	2	0	0	0	0	0	0	1	2	1	1	0	0	0	0	0	0	0	0	0	0	A	0.6	3.5
25-Oct	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.3	1.4
26-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	4	1	0	0	A	0	0	0.4	3.8
27-Oct	0	0	0	0	0	0	0	0	0	0	0	C	C	0	0	0	0	0	0	0	A	0	0	0	0.1	0.2
28-Oct	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
29-Oct	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
30-Oct	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
31-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	1	A	0	0	0	0	0	0	0	0.2	3.3
	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.5	0.5	0.2	0.2	0.1	0.3	0.2	0.3	0.5	0.3	0.2	0.3	0.2	0.2	0.1	Diurnal Average	
	1.4	3.5	1.5	1.3	1.4	1.2	1.3	1.5	1.8	5.0	4.7	1.3	0.8	0.7	3.3	1.0	2.1	3.8	1.8	1.6	2.8	1.5	1.0	0.5	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

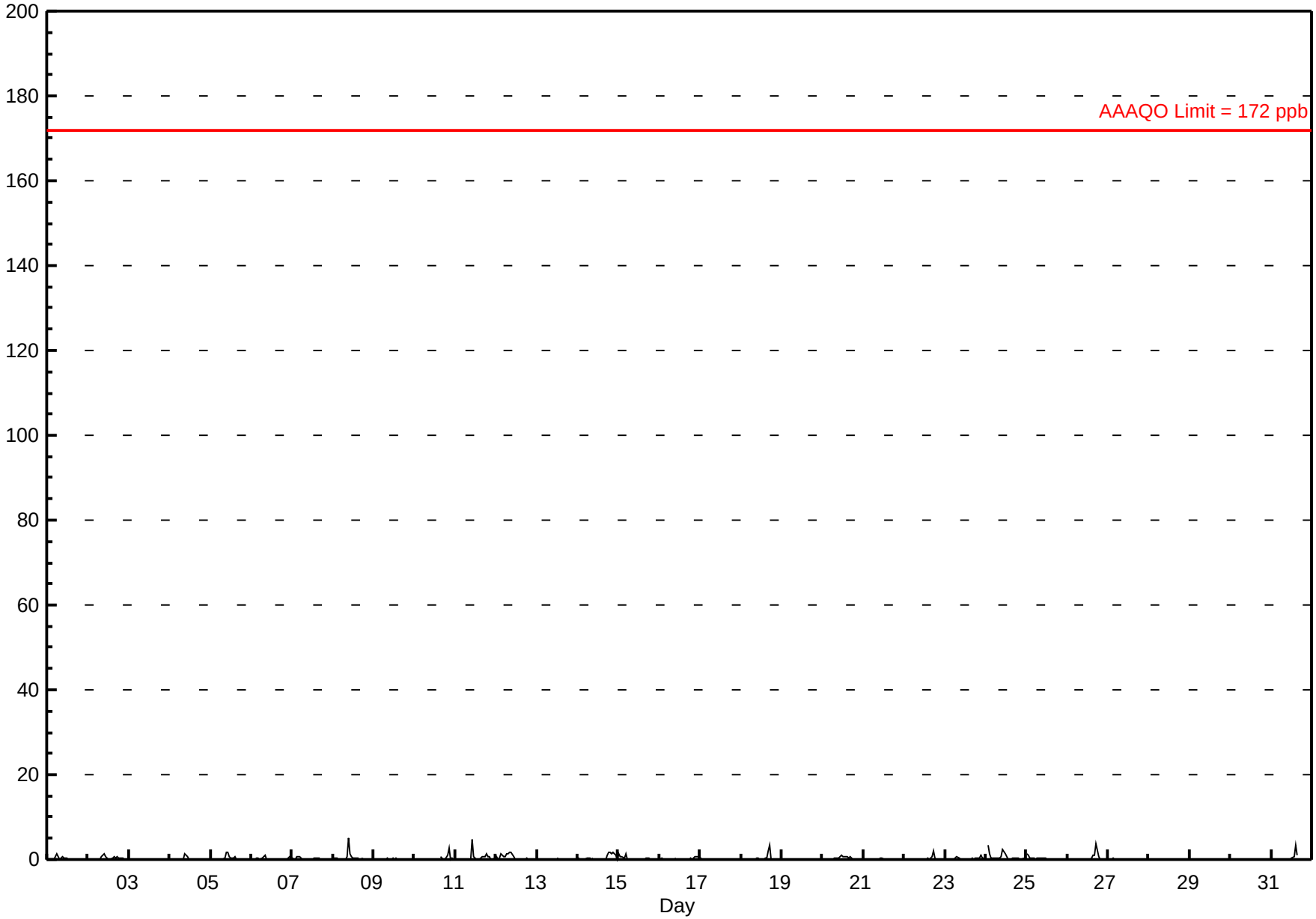
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Smoky Heights - October 2014



Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Smoky Heights - October 2014

Maximum Value: 12.5 ppb on Oct 8 10:00

Maximum Daily Average: 1.8 ppb on Oct 14

Minimum Value: 0 ppb on Oct 28 01:00

Minimum Daily Average: 0.1 ppb on Oct 28

Maximum Diurnal Average: 1.3 ppb at hour 10

Minimum Diurnal Average: 0.5 ppb at hour 24

Monthly Average: 0.79 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.2$ $Q_1 = 0.3$ Median = 0.4 $Q_3 = 0.6$ $P_{90} = 1.6$ $P_{99} = 7.7$

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-Oct	A	0	0	0	0	5	4	1	1	3	1	1	0	0	0	0	1	1	0	0	1	1	0	A	1.0	4.8
2-Oct	0	0	0	0	0	0	0	0	2	2	2	1	1	0	1	1	1	1	1	1	1	0	A	0	0.7	2.0
3-Oct	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	A	0	0	0.4	0.6
4-Oct	0	0	0	0	0	0	0	0	1	3	1	0	0	0	0	0	1	0	0	0	A	0	0	0	0.6	3.3
5-Oct	0	0	0	0	0	1	0	0	1	4	3	2	1	1	1	0	0	0	0	A	0	0	0	0	0.8	3.9
6-Oct	0	0	1	1	1	0	1	3	2	0	0	0	0	0	0	1	0	0	A	0	0	0	2	1	0.7	2.6
7-Oct	1	1	0	2	1	1	1	0	1	0	1	0	0	1	1	1	1	A	1	0	0	0	0	1	0.6	1.9
8-Oct	0	1	1	0	0	0	0	0	5	12	3	3	1	1	1	1	A	1	0	0	0	0	0	0	1.4	12.5
9-Oct	0	1	0	1	0	0	1	0	1	0	0	1	1	1	0	A	1	0	0	0	0	0	0	0	0.5	0.7
10-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	2	1	1	0	4	10	0	1	0	1.1	10.4
11-Oct	0	0	0	0	1	0	0	1	0	1	10	1	1	A	0	1	2	3	4	2	5	0	0	2	1.6	10.3
12-Oct	2	1	2	2	1	2	2	3	3	2	2	0	A	0	1	1	1	0	2	1	0	1	0	1	1.2	2.7
13-Oct	0	0	0	0	0	0	0	0	0	0	1	A	0	0	0	0	0	1	0	0	0	0	0	1	0.4	0.6
14-Oct	1	0	0	0	0	1	2	1	0	2	A	0	0	0	1	0	0	3	5	3	3	7	7	0	1.8	7.1
15-Oct	4	2	1	2	5	0	0	0	0	A	0	0	0	0	0	0	1	1	1	0	0	0	1	0	1.0	4.8
16-Oct	0	1	1	1	0	0	0	0	A	1	0	0	1	0	0	0	0	0	1	0	1	1	1	1	0.6	1.3
17-Oct	1	1	1	0	0	0	1	A	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.4	0.6
18-Oct	0	0	0	0	0	0	A	0	0	1	1	1	0	0	2	1	9	8	1	0	0	0	0	0	1.2	9.1
19-Oct	0	0	0	0	0	A	0	0	0	1	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0.4	0.6
20-Oct	0	0	0	0	A	0	0	1	1	1	1	1	1	1	1	1	2	1	0	0	0	1	0	0	0.7	1.8
21-Oct	0	0	0	A	0	0	0	0	0	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0.4	0.6
22-Oct	0	0	A	0	0	0	0	0	1	0	1	0	0	1	1	0	5	4	3	0	1	0	0	0	1.0	5.4
23-Oct	0	A	0	1	0	0	1	3	1	0	1	0	0	0	0	0	1	1	1	1	1	1	1	2	0.8	3.2
24-Oct	A	12	3	2	1	1	1	1	1	2	4	3	2	1	1	0	1	1	1	1	0	0	0	A	1.7	12.1
25-Oct	2	3	1	1	1	1	0	1	1	1	1	1	0	1	0	0	0	0	1	0	1	0	A	0	0.7	2.6
26-Oct	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	3	5	5	3	1	1	A	0	0	1.1	5.0
27-Oct	0	1	1	1	1	0	1	0	0	0	0	C	C	1	0	0	0	0	0	0	A	0	0	0	0.3	0.6
28-Oct	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
29-Oct	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
30-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	A	1	0	0	0	0	0	0.2	0.6
31-Oct	0	0	0	0	0	0	1	0	0	0	0	0	1	1	8	6	A	0	0	0	0	0	1	0	0.9	7.8
	0.6	0.9	0.6	0.6	0.6	0.6	0.6	0.6	0.8	1.3	1.2	0.7	0.5	0.5	0.8	0.8	1.3	1.2	1.1	0.7	1.0	0.7	0.7	0.5	Diurnal Average	
	3.5	12.1	3.4	2.2	4.8	4.8	3.8	3.2	4.8	12.5	10.3	3.2	1.5	1.3	7.8	6.2	9.1	7.7	5.4	4.3	10.4	7.1	7.1	1.9	Diurnal Maximum	

C - Calibration

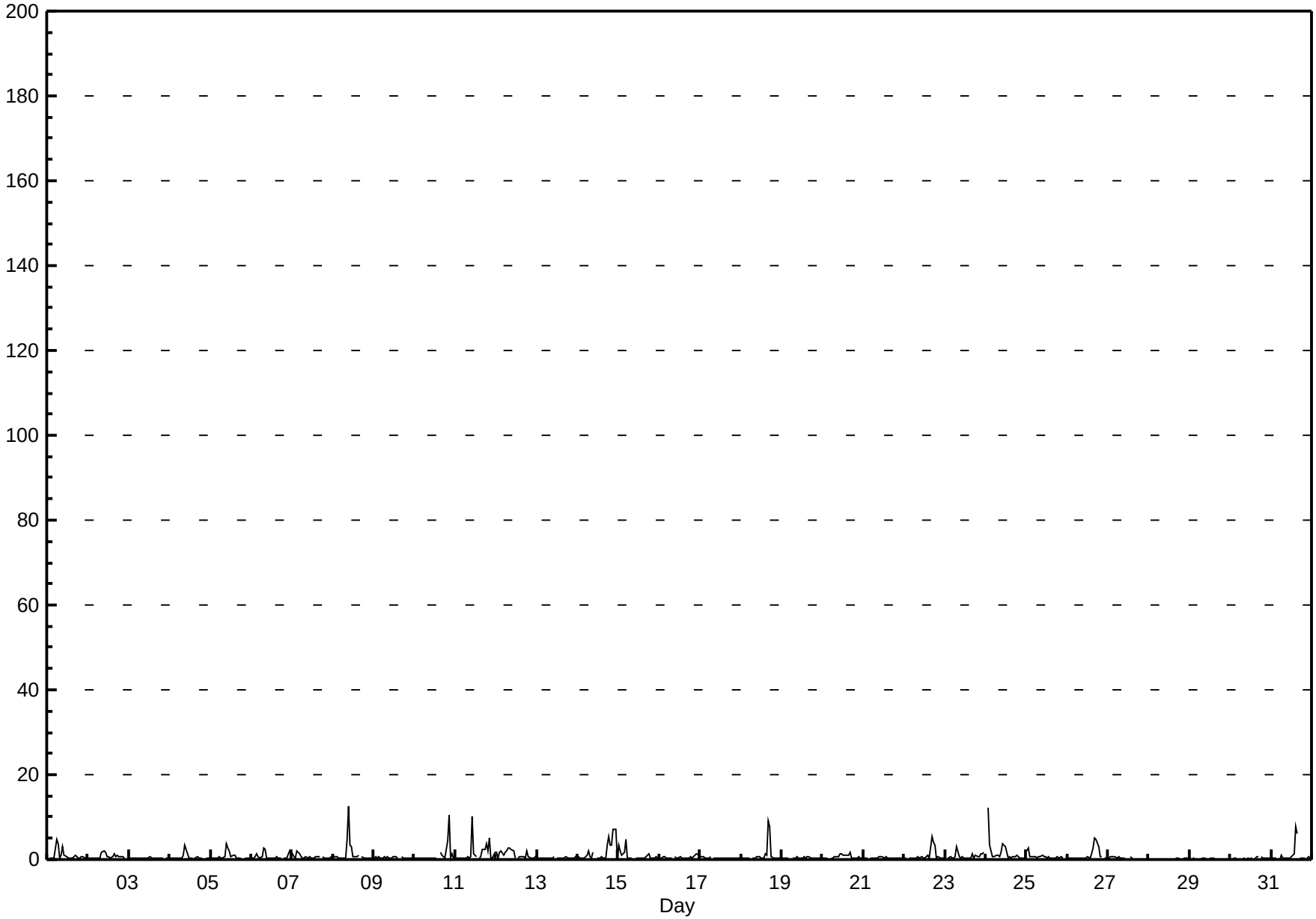
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

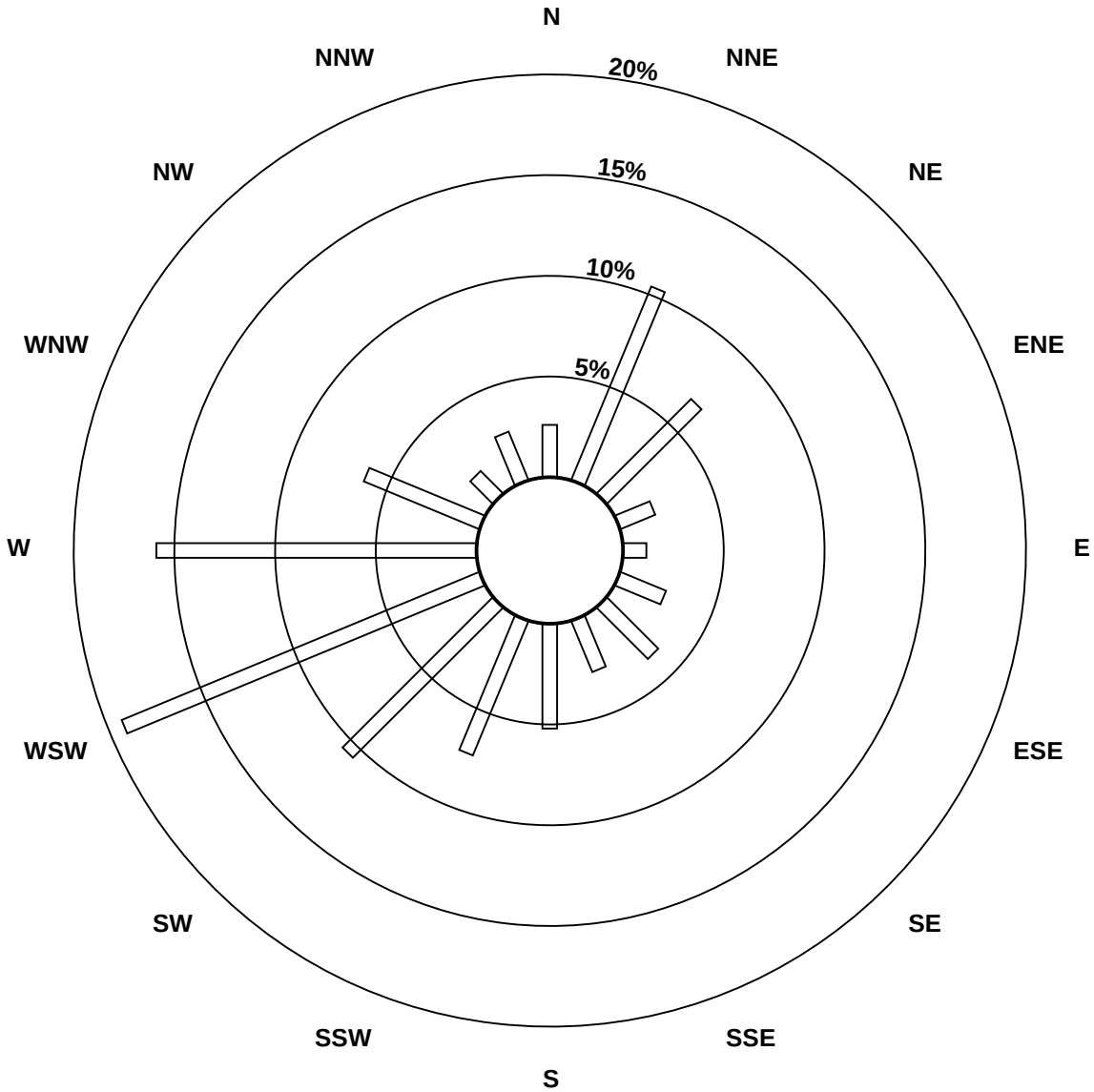
Smoky Heights - October 2014



Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Smoky Heights - October 2014



Pollutant Classes (ppb)

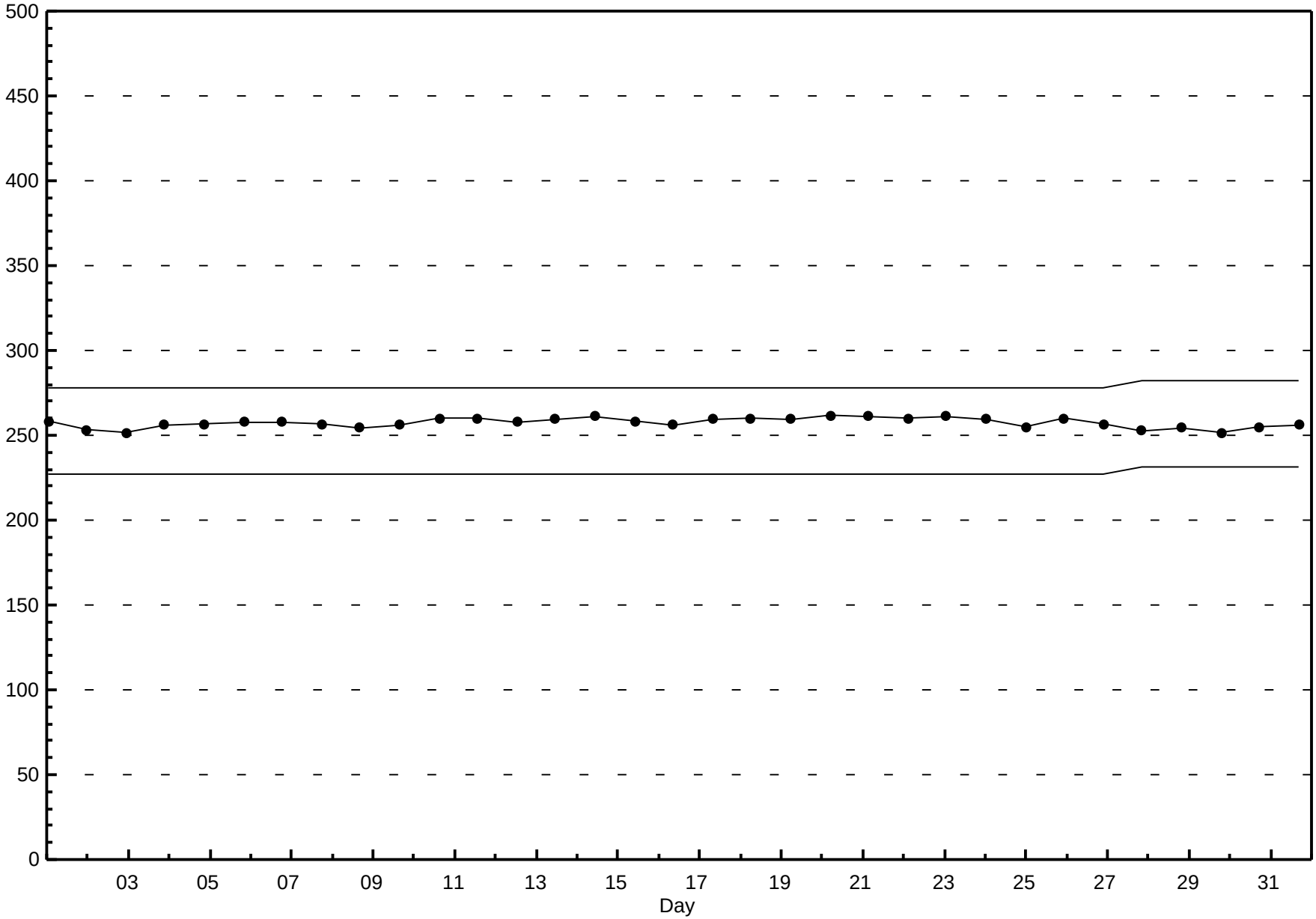
- 0 - 10
- 11 - 20
- 21 - 60
- 61 - 110
- 111 - 172
- > 172

Peace Airshed Zone Association

Span Responses

Sulphur Dioxide (SO_2)

Smoky Heights - October 2014



Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Smoky Heights - October 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 0.5 ppb on Oct 18 18:00 Maximum Daily Average: 0.1 ppb on Oct 30

Minimum Value: 0 ppb on Oct 1 02:00 Minimum Daily Average: 0.0 ppb on Oct 1
Maximum Diurnal Average: 0.1 ppb at hour 18 Minimum Diurnal Average: 0.0 ppb at hour 4
Monthly Average: 0.04 ppb Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.0$ Median = 0.0 $Q_3 = 0.1$ $P_{90} = 0.1$ $P_{99} = 0.2$

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

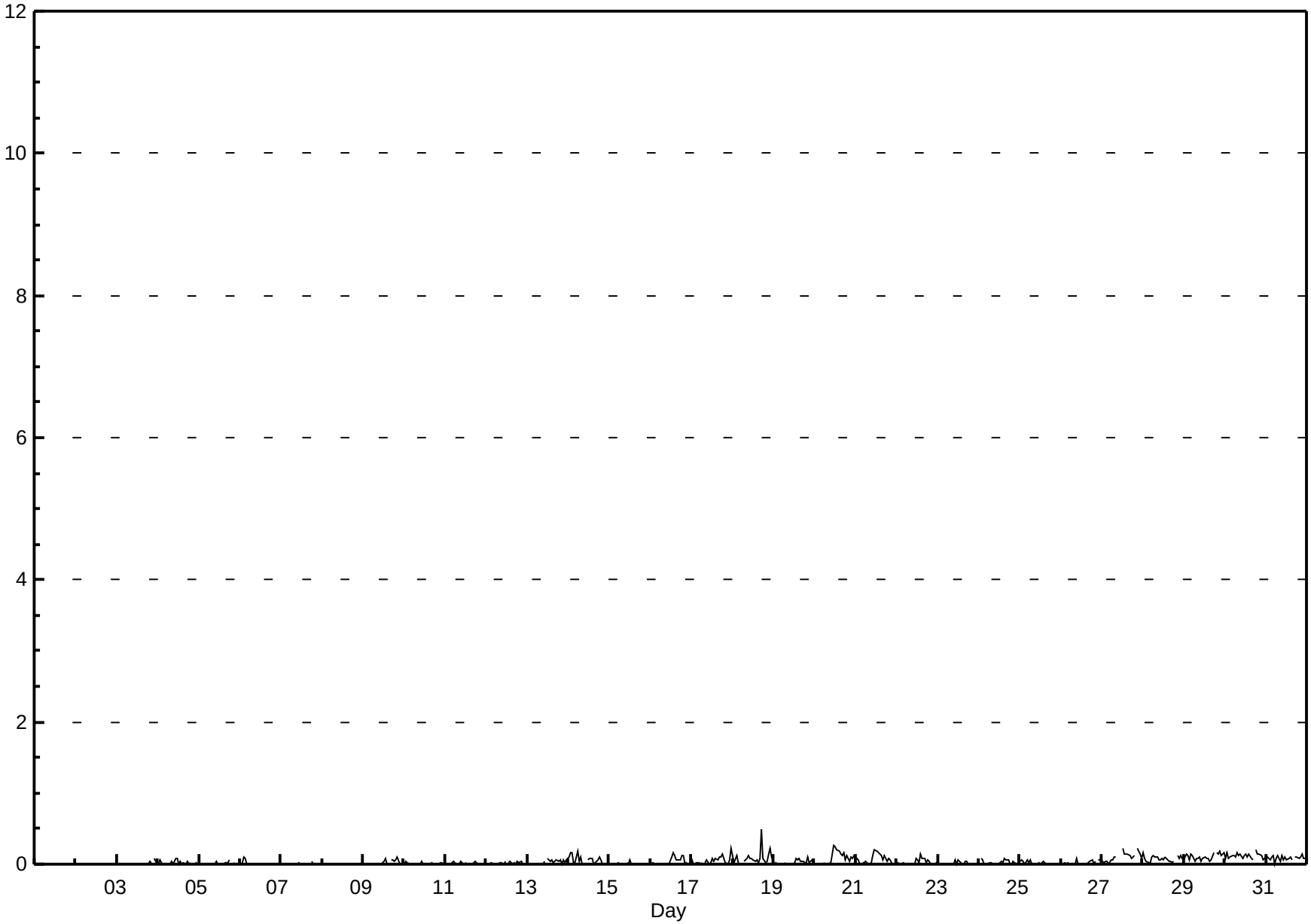
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb

Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Smoky Heights - October 2014



Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

Smoky Heights - October 2014

Maximum Value: 1.9 ppb on Oct 18 18:00

Maximum Daily Average: 0.6 ppb on Oct 29

Minimum Value: 0 ppb on Oct 1 09:00

Minimum Daily Average: 0.3 ppb on Oct 2

Maximum Diurnal Average: 0.5 ppb at hour 18

Minimum Diurnal Average: 0.4 ppb at hour 9

Monthly Average: 0.42 ppb

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

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Oct	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.3	0.5
2-Oct	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
3-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	A	0	0	0.3	0.5
4-Oct	1	1	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	A	0	0	0	0.4	0.7
5-Oct	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	1	A	0	0	1	0	0.4	0.6
6-Oct	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.4	0.6
7-Oct	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	A	0	0	0	0	0	1	0.4	0.5
8-Oct	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.4	0.5
9-Oct	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	A	0	0	1	1	1	0	0	0	0.4	0.6
10-Oct	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
11-Oct	0	0	0	0	0	1	0	0	0	0	0	0	1	A	0	0	0	1	0	0	0	0	1	0	0.4	0.6
12-Oct	0	0	0	0	0	0	0	0	0	1	0	1	A	1	1	0	0	0	0	0	0	0	0	0	0.4	0.6
13-Oct	0	0	0	0	0	0	0	0	0	0	1	A	1	1	1	0	0	1	0	0	0	1	0	0	0.4	0.6
14-Oct	1	1	1	0	1	1	1	0	0	0	A	1	1	1	0	0	0	0	0	0	1	0	0	0	0.5	0.6
15-Oct	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5
16-Oct	0	1	0	0	0	0	0	0	A	0	0	0	1	1	0	0	0	0	0	1	1	0	0	0	0.4	0.6
17-Oct	0	0	1	1	0	0	1	A	0	0	0	0	1	1	0	1	1	1	1	1	0	1	0	1	0.5	0.7
18-Oct	1	1	0	0	0	0	A	0	0	1	0	1	0	0	0	1	0	2	1	1	0	1	1	1	0.6	1.9
19-Oct	0	0	0	0	0	A	0	0	0	0	0	0	0	1	0	1	0	1	0	0	0	1	1	0	0.4	0.7
20-Oct	0	0	0	0	A	0	0	1	0	0	0	1	1	0	1	1	1	0	1	1	0	1	1	1	0.5	0.7
21-Oct	1	0	0	A	0	1	0	0	0	0	1	1	1	1	1	1	1	1	0	1	1	0	0	0	0.5	1.0
22-Oct	0	0	A	0	1	0	0	0	0	0	0	0	1	1	1	0	0	0	0	1	0	0	0	0	0.4	0.7
23-Oct	0	A	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0.4	0.6
24-Oct	A	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	A	0.4	0.5
25-Oct	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	A	0	0.4	0.5
26-Oct	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	A	0	0	0.4	0.6
27-Oct	0	1	0	0	1	1	1	0	1	C	C	C	1	1	0	1	1	1	1	1	A	1	1	0	0.5	0.7
28-Oct	1	0	0	0	0	0	0	0	1	0	1	0	0	1	0	0	0	0	1	A	0	1	1	0	0.5	0.6
29-Oct	0	1	1	1	1	1	1	0	1	0	0	1	1	1	1	1	0	1	A	1	1	1	1	1	0.6	0.8
30-Oct	1	1	1	0	0	1	0	1	1	1	0	0	1	1	1	1	1	A	1	0	1	1	0	1	0.5	0.7
31-Oct	1	1	0	0	1	1	0	1	0	1	0	1	1	0	0	1	A	0	0	1	0	1	1	1	0.5	0.7
	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.4	0.4	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.4	Diurnal Average	
	0.7	0.6	0.6	0.5	0.8	0.6	0.7	0.7	0.6	0.7	0.6	0.7	0.7	0.6	0.7	0.6	0.7	1.9	0.7	0.6	0.6	0.7	0.6	0.7	Diurnal Maximum	

C - Calibration

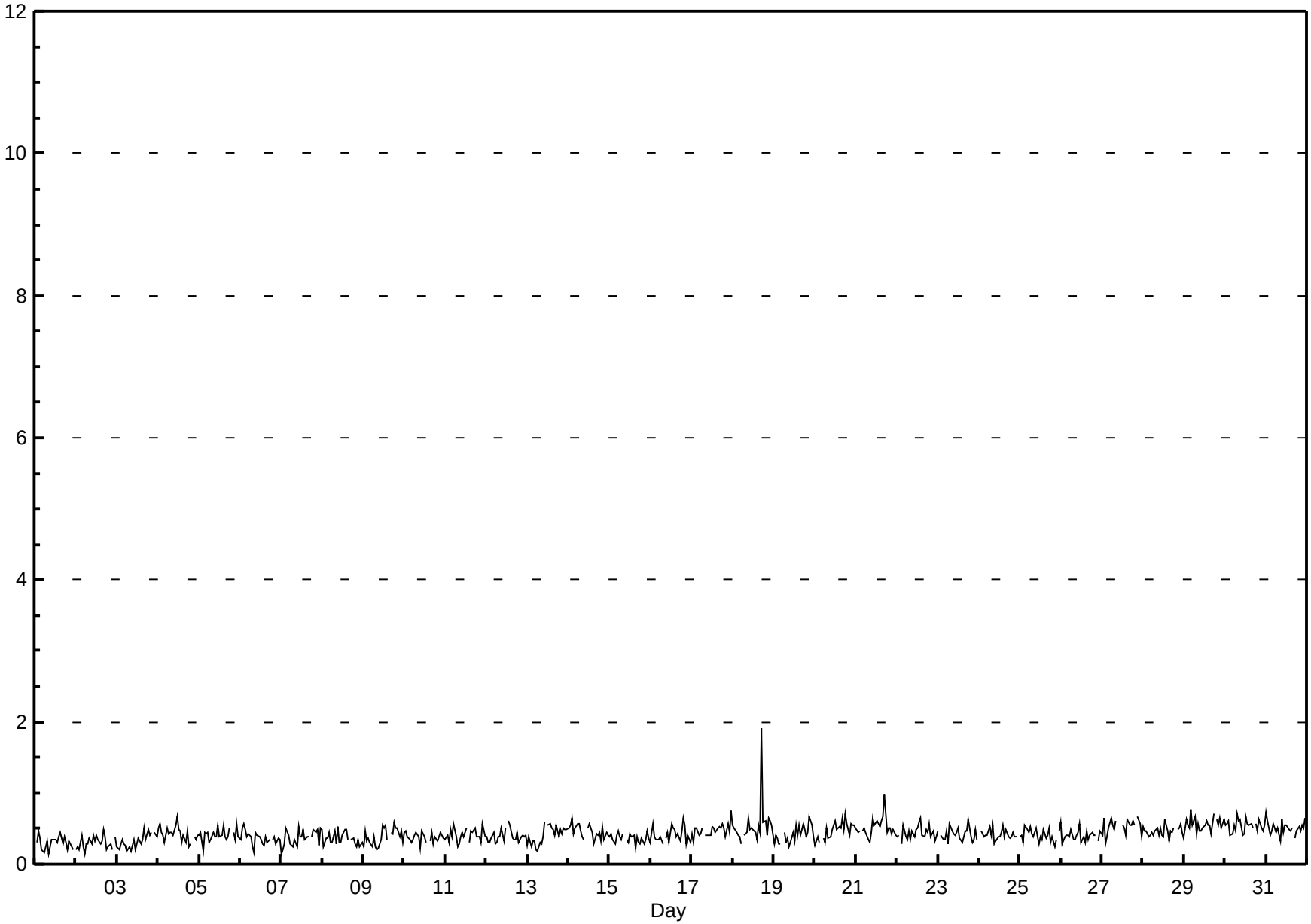
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

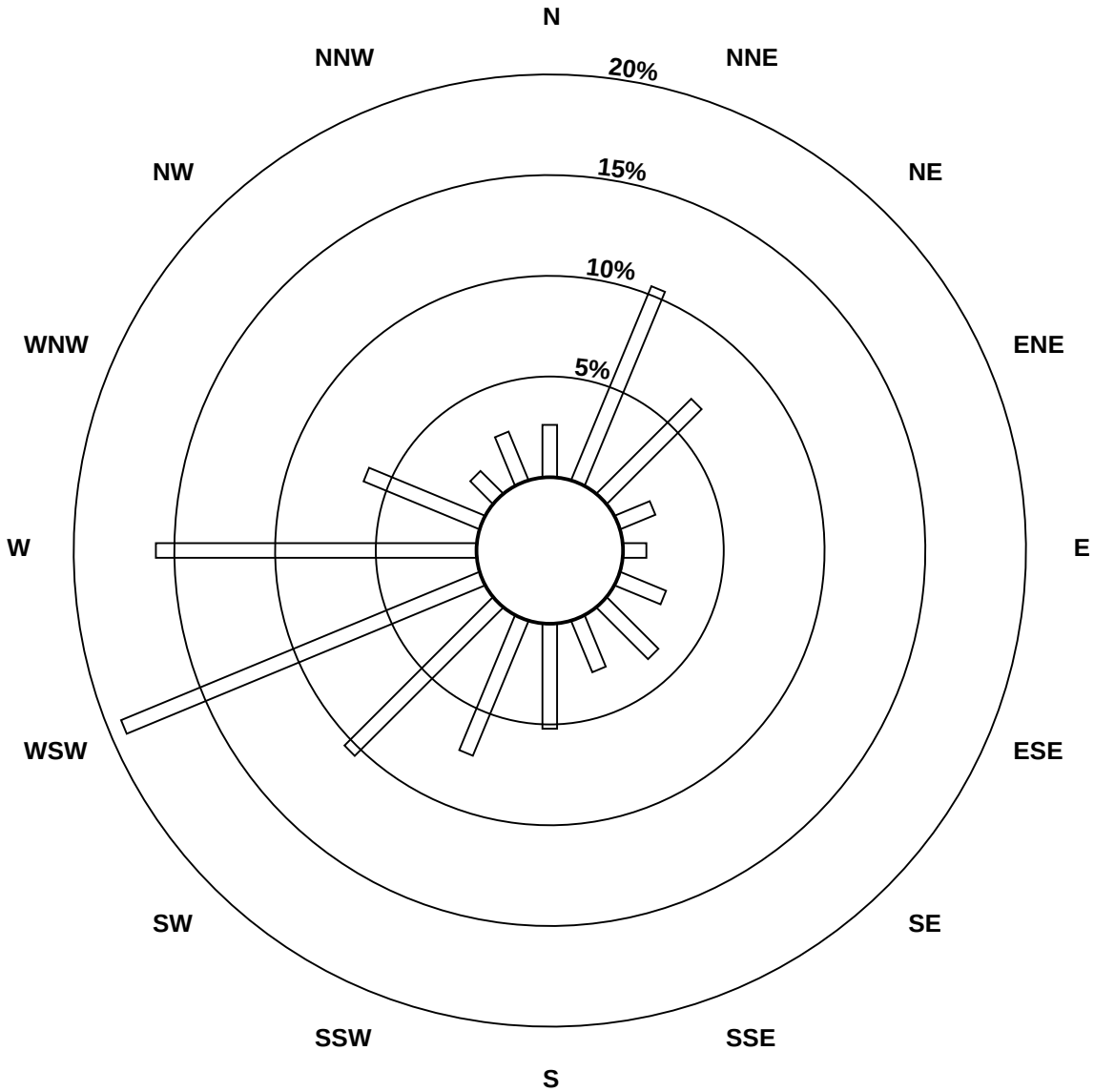
Smoky Heights - October 2014



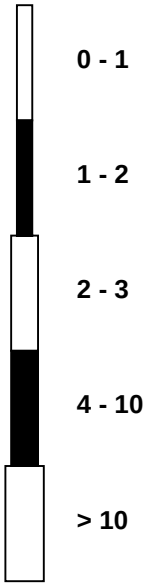
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb

Smoky Heights - October 2014



Pollutant Classes (ppb)

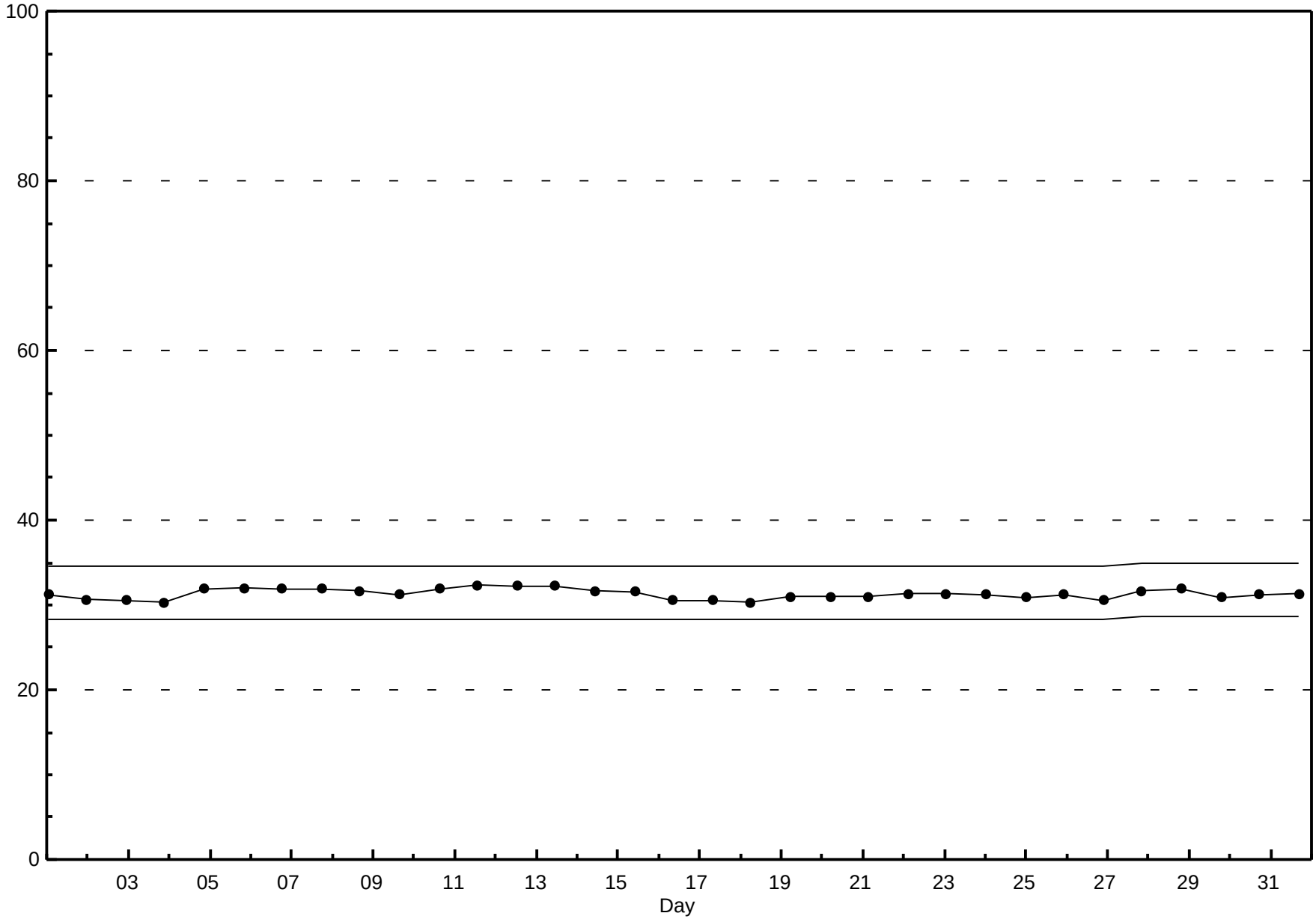


Peace Airshed Zone Association

Span Responses

Total Reduced Sulphur (TRS)

Smoky Heights - October 2014



Peace Airshed Zone Association

Hourly Averages

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

Smoky Heights - October 2014

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

Maximum Value: 47.0 $\mu g/m^3$ on Oct 16 19:00

Maximum Daily Average: 5.8 $\mu g/m^3$ on Oct 29

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

Maximum Diurnal Average: 4.3 $\mu g/m^3$ at hour 19

Monthly Average: 2.24 $\mu g/m^3$

Minimum Daily Average: 0.5 $\mu g/m^3$ on Oct 2

Minimum Diurnal Average: 1.6 $\mu g/m^3$ at hour 5

Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.6$ Median = 1.5 $Q_3 = 3.1$ $P_{90} = 5.3$ $P_{99} = 11.2$

Hours in Service:	744
Hours of Data:	742
Hours of Missing Data:	2
Hours of Calibration:	2
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	0	0	1	0	1	2	1	0	0	1	0	2	0	0	2	1	3	2	2	1	1	0	1	1	0.9	2.6
2-Oct	0	1	0	0	0	1	1	1	1	1	0	0	0	0	1	1	0	0	0	1	0	0	0	0	0.5	1.3
3-Oct	0	1	5	0	0	1	0	0	0	1	0	0	0	1	1	1	1	2	3	2	2	2	2	1	1.1	4.9
4-Oct	0	1	0	2	0	0	0	1	0	1	0	0	0	0	0	0	1	1	1	2	2	2	2	2	0.8	2.4
5-Oct	1	2	1	3	2	2	2	2	3	3	2	0	2	2	1	0	4	1	2	1	2	3	1	1	1.8	4.2
6-Oct	1	2	3	5	2	0	0	1	0	0	0	0	0	0	1	1	1	2	2	3	2	2	2	2	1.3	4.6
7-Oct	1	2	2	1	2	1	7	5	12	8	0	0	0	0	1	2	2	3	4	2	2	2	2	3	2.6	11.9
8-Oct	3	3	4	4	3	4	5	5	2	2	1	0	2	1	1	2	3	3	2	2	3	2	2	1	2.5	5.4
9-Oct	2	4	4	3	3	3	4	5	5	4	2	5	4	6	1	2	4	8	6	5	6	4	3	3	4.0	7.5
10-Oct	3	3	0	3	1	1	1	2	2	1	1	1	2	0	0	4	3	2	1	0	1	0	2	0	1.4	4.0
11-Oct	0	0	0	0	1	0	0	0	2	0	0	0	0	0	0	1	1	2	2	1	2	1	1	1	0.7	2.3
12-Oct	1	2	2	2	3	4	5	4	4	4	1	0	0	0	0	1	1	1	1	1	1	1	1	1	1.8	4.6
13-Oct	1	2	3	1	0	0	1	7	3	2	0	0	0	0	0	0	0	0	4	0	0	0	0	0	1.0	6.5
14-Oct	0	0	1	1	2	2	3	2	0	2	1	0	0	0	0	0	0	5	3	4	4	1	1	1	1.4	5.3
15-Oct	0	0	0	1	0	1	1	1	2	2	2	6	7	3	2	2	2	0	1	0	1	1	1	2	1.7	7.1
16-Oct	1	2	1	1	1	2	1	2	4	1	2	4	2	2	3	3	3	6	47	10	2	0	1	1	4.2	47.0
17-Oct	2	1	1	0	2	1	1	2	1	3	2	1	1	1	2	1	6	13	6	2	1	1	3	3	2.3	13.3
18-Oct	4	10	3	3	3	4	4	4	5	5	2	0	0	0	1	0	1	1	1	1	0	1	0	1	2.2	9.7
19-Oct	1	0	1	1	0	1	1	1	1	1	1	2	0	1	0	1	1	1	1	1	1	1	1	1	1.0	2.2
20-Oct	1	2	2	1	2	2	3	3	3	4	5	4	4	4	5	10	5	5	2	0	0	0	0	2	2.8	9.8
21-Oct	1	3	1	1	1	2	0	1	2	3	2	3	3	2	2	0	1	8	8	3	6	5	0	0	2.3	7.5
22-Oct	0	0	0	0	0	2	2	0	6	2	2	0	2	2	4	0	0	0	6	1	1	0	2	1	1.3	6.3
23-Oct	0	0	0	0	0	0	0	1	2	2	3	4	4	4	2	0	2	1	1	0	1	0	1	1	1.2	4.5
24-Oct	2	3	2	2	3	2	3	3	4	3	3	3	0	1	1	1	1	2	2	3	2	2	4	2	2.3	4.1
25-Oct	2	4	1	1	1	3	1	1	0	4	6	1	0	0	0	0	1	2	0	0	0	0	0	0	1.1	5.8
26-Oct	0	0	0	0	0	0	1	2	2	2	1	1	2	1	2	2	2	2	2	2	5	2	4	3	1.6	5.5
27-Oct	2	2	2	1	1	1	0	1	6	11	4	C	C	10	8	7	4	2	3	4	5	13	13	5	4.8	13.3
28-Oct	3	2	1	3	2	3	6	5	10	11	8	4	7	3	1	1	2	2	2	3	4	5	7	7	4.3	11.2
29-Oct	7	6	5	4	5	5	5	6	8	6	7	5	6	7	7	8	8	7	7	5	2	4	3	6	5.8	8.2
30-Oct	6	3	2	3	1	1	3	1	5	4	6	8	7	5	3	4	4	6	8	7	6	7	7	6	4.7	8.0
31-Oct	6	5	5	4	5	7	4	6	6	5	5	4	3	2	2	0	0	1	1	4	5	3	4	6	4.0	7.3
	1.7	2.1	1.7	1.7	1.6	1.9	2.2	2.4	3.3	3.2	2.2	2.0	1.9	1.9	1.7	1.8	2.2	3.0	4.3	2.3	2.2	2.1	2.4	2.1	Diurnal Average	
	6.9	9.7	5.5	4.6	5.4	7.3	6.7	6.5	11.9	11.3	7.7	8.0	7.5	10.5	7.7	9.8	7.6	13.3	47.0	10.3	6.3	13.3	13.2	7.1	Diurnal Maximum	

C - Calibration

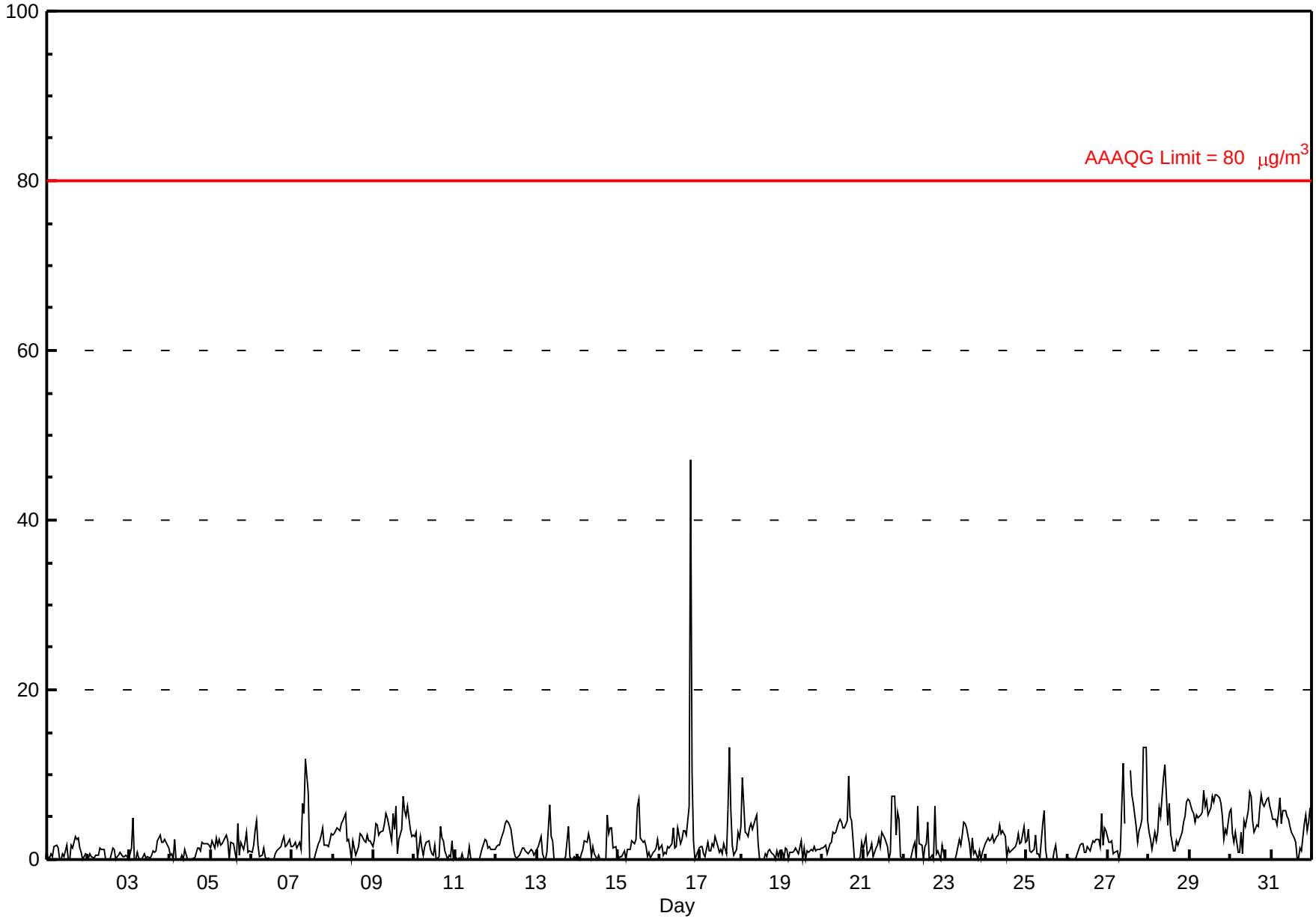
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 $\mu g/m^3$ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 $\mu g/m^3$

Peace Airshed Zone Association

Hourly Averages

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

Smoky Heights - October 2014



Peace Airshed Zone Association

Hourly Maximums

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

Smoky Heights - October 2014

Maximum Value: 92.5 $\mu g/m^3$ on Oct 16 19:00

Maximum Daily Average: 9.8 $\mu g/m^3$ on Oct 16

Minimum Value: 0 $\mu g/m^3$ on Oct 13 15:00

Minimum Daily Average: 2.5 $\mu g/m^3$ on Oct 11

Maximum Diurnal Average: 10.6 $\mu g/m^3$ at hour 19

Minimum Diurnal Average: 4.0 $\mu g/m^3$ at hour 4

Monthly Average: 5.45 $\mu g/m^3$

Percentiles: P_1 = 0.6 P_{10} = 2.2 Q_1 = 2.9 Median = 4.2 Q_3 = 6.1 P_{90} = 9.3 P_{99} = 27.7

Hours in Service:	744
Hours of Data:	742
Hours of Missing Data:	2
Hours of Calibration:	2
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	2	2	2	2	4	5	4	2	3	2	3	6	3	1	5	4	8	7	8	3	3	2	3	2	3.6	8.3
2-Oct	1	3	2	1	2	2	2	3	3	4	2	1	2	3	6	6	2	2	3	2	2	2	2	2	2.5	5.7
3-Oct	2	6	28	2	2	4	2	3	2	3	2	3	2	3	3	3	4	4	5	5	4	6	5	4	4.4	28.3
4-Oct	5	4	3	6	0	2	1	2	1	4	1	1	1	3	4	3	3	3	2	3	4	3	4	3	2.8	6.3
5-Oct	4	4	4	5	3	5	3	4	5	4	5	3	5	4	4	3	13	6	6	7	5	7	3	3	4.9	13.1
6-Oct	2	5	6	6	5	2	3	3	3	3	3	2	2	2	5	4	3	4	4	8	3	4	4	4	3.8	7.9
7-Oct	3	3	4	5	6	5	20	16	30	17	3	3	2	2	3	5	6	6	7	5	3	3	4	6	7.0	30.4
8-Oct	5	5	5	5	5	6	7	7	5	4	3	4	5	3	3	4	6	5	5	5	7	6	6	4	5.0	7.1
9-Oct	4	6	7	4	6	6	14	14	9	8	5	10	10	10	3	4	9	10	8	9	11	6	4	5	7.6	13.7
10-Oct	5	6	6	5	5	3	4	4	4	3	3	4	4	4	3	11	6	8	6	2	2	3	8	3	4.7	11.3
11-Oct	3	1	2	1	3	1	1	4	3	2	2	1	2	2	3	2	3	4	4	2	3	3	3	3	2.5	4.3
12-Oct	3	4	4	4	6	6	6	7	6	5	3	2	2	3	2	4	3	3	2	3	3	3	2	3	3.7	6.9
13-Oct	3	5	6	5	5	2	4	21	6	4	2	2	3	1	0	2	0	3	9	2	2	1	3	3	3.8	20.6
14-Oct	2	2	3	3	4	3	5	5	3	3	4	3	4	2	4	2	4	14	5	6	6	4	3	3	4.0	13.9
15-Oct	3	2	2	3	3	3	3	3	4	5	6	10	9	6	4	4	3	3	3	3	2	3	4	4	4.0	10.1
16-Oct	3	4	3	3	3	3	3	3	6	4	4	7	4	6	5	5	4	17	93	33	12	2	3	4	9.8	92.5
17-Oct	3	4	3	3	4	3	3	5	3	4	7	5	5	3	7	3	15	27	21	18	3	3	6	6	6.9	27.2
18-Oct	22	25	5	5	5	9	7	6	7	8	5	2	2	3	3	2	10	10	3	3	3	3	3	5	6.4	25.0
19-Oct	3	4	4	3	4	4	2	4	5	4	5	12	5	5	2	3	3	4	2	3	3	4	3	3	3.9	12.3
20-Oct	4	3	3	4	4	4	6	7	8	8	9	8	6	6	9	19	11	14	9	3	5	2	4	4	6.6	19.1
21-Oct	4	6	4	4	3	4	5	5	4	8	4	5	5	4	6	3	3	30	38	6	14	16	6	5	7.9	37.7
22-Oct	4	5	2	2	4	4	6	3	32	11	4	3	4	7	12	5	2	1	29	4	4	3	6	5	6.8	31.8
23-Oct	1	3	2	2	4	2	2	4	6	5	5	6	6	6	4	2	6	3	5	2	4	2	2	4	3.6	6.4
24-Oct	4	5	4	4	6	4	5	5	8	6	5	5	3	3	3	4	4	4	4	5	3	4	8	5	4.6	8.1
25-Oct	5	7	3	6	7	5	2	2	2	20	13	6	1	0	1	2	3	4	2	1	1	1	2	1	4.1	20.1
26-Oct	0	2	2	1	2	2	3	3	3	4	2	3	5	3	3	4	4	4	4	4	11	4	6	5	3.5	11.3
27-Oct	3	3	4	3	3	4	4	5	20	21	8	C	C	18	10	9	6	4	6	6	9	24	25	9	9.3	24.8
28-Oct	6	7	4	8	6	5	8	9	15	18	17	7	10	5	4	4	5	4	5	5	6	7	9	9	7.6	18.3
29-Oct	9	8	7	6	7	7	7	9	16	8	13	12	11	10	9	10	11	10	11	8	5	7	6	12	9.0	16.0
30-Oct	11	4	5	6	3	4	9	12	9	7	11	14	9	8	6	7	6	9	11	11	8	10	9	9	8.2	13.7
31-Oct	9	7	7	6	9	10	7	9	8	8	7	6	5	4	4	3	2	4	7	7	7	5	6	9	6.5	10.3
	4.5	5.0	4.7	4.0	4.2	4.2	5.2	6.1	7.7	6.9	5.4	5.2	4.6	4.5	4.5	4.7	5.5	7.4	10.6	5.9	5.1	4.9	5.2	4.7	Diurnal Average	
	22.4	25.0	28.3	7.8	8.6	10.3	20.1	20.6	31.8	20.5	16.7	13.7	10.5	18.3	12.3	19.1	15.4	30.0	92.5	32.7	14.3	24.2	24.8	12.3	Diurnal Maximum	

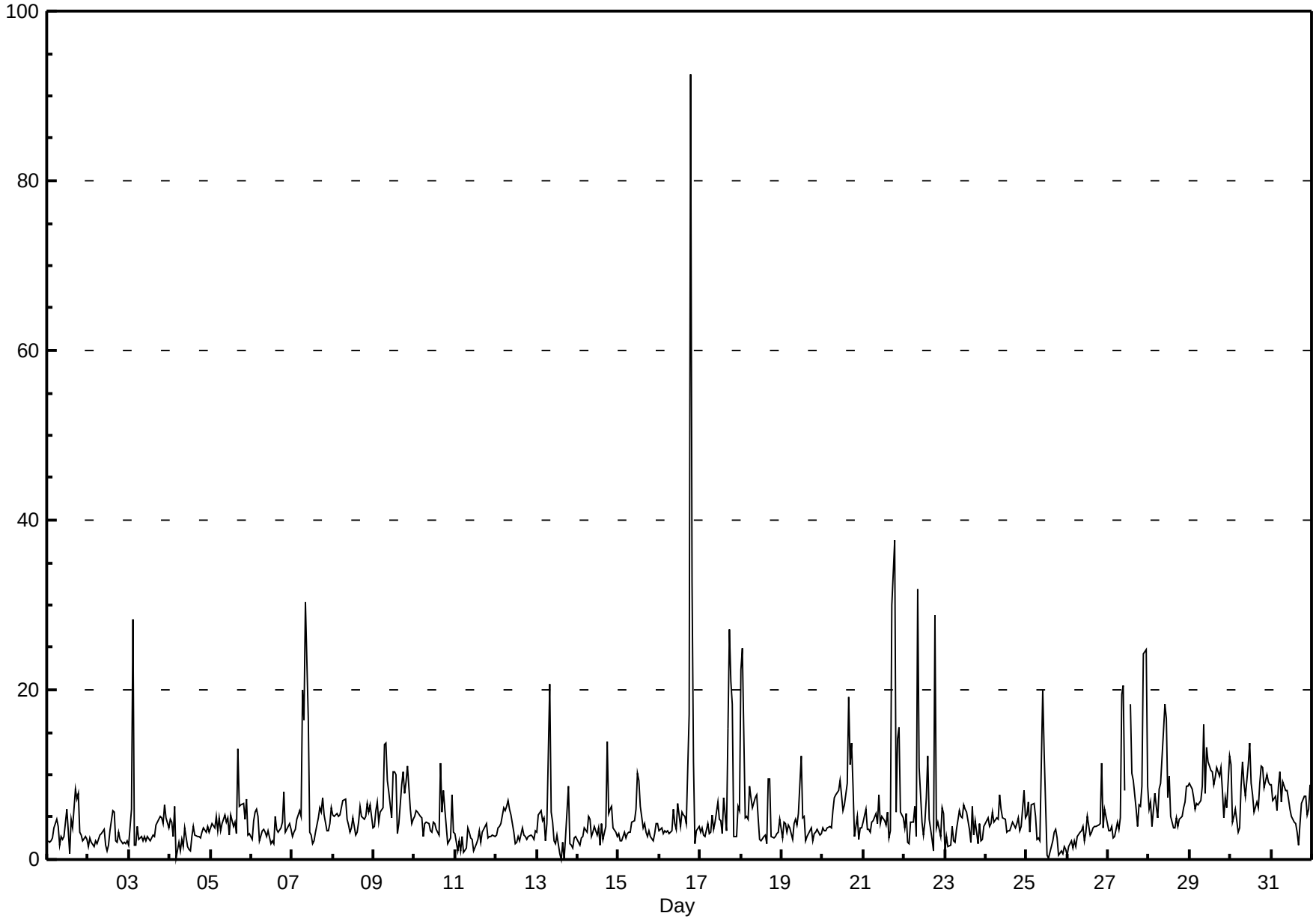
C - Calibration

Peace Airshed Zone Association

Hourly Maximums

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

Smoky Heights - October 2014

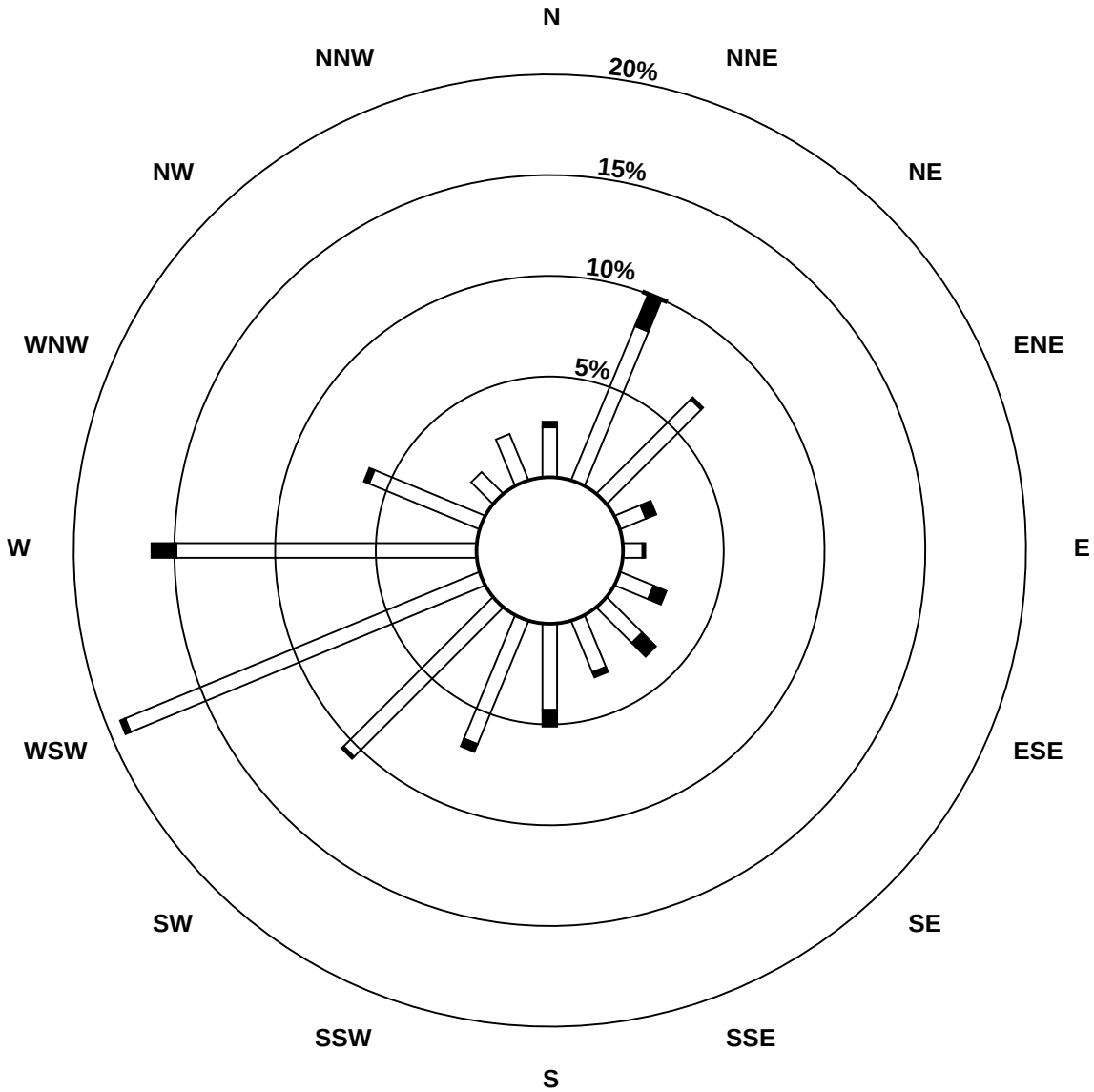


Peace Airshed Zone Association

Pollutant Rose

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

Smoky Heights - October 2014



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 - October 2014

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

Maximum Value: 22.4 ^{o}C on Oct 10 15:00

Maximum Daily Average: 12.5 ^{o}C on Oct 10

Minimum Value: -9 ^{o}C on Oct 27 08:00

Minimum Daily Average: -3.6 ^{o}C on Oct 27

Maximum Diurnal Average: 9.9 ^{o}C at hour 16

Minimum Diurnal Average: 2.2 ^{o}C at hour 8

Monthly Average: 5.23 ^{o}C

Percentiles: P_1 = -5.6 P_{10} = -0.8 Q_1 = 0.8 Median = 4.6 Q_3 = 8.7 P_{90} = 13.2 P_{99} = 18.8

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

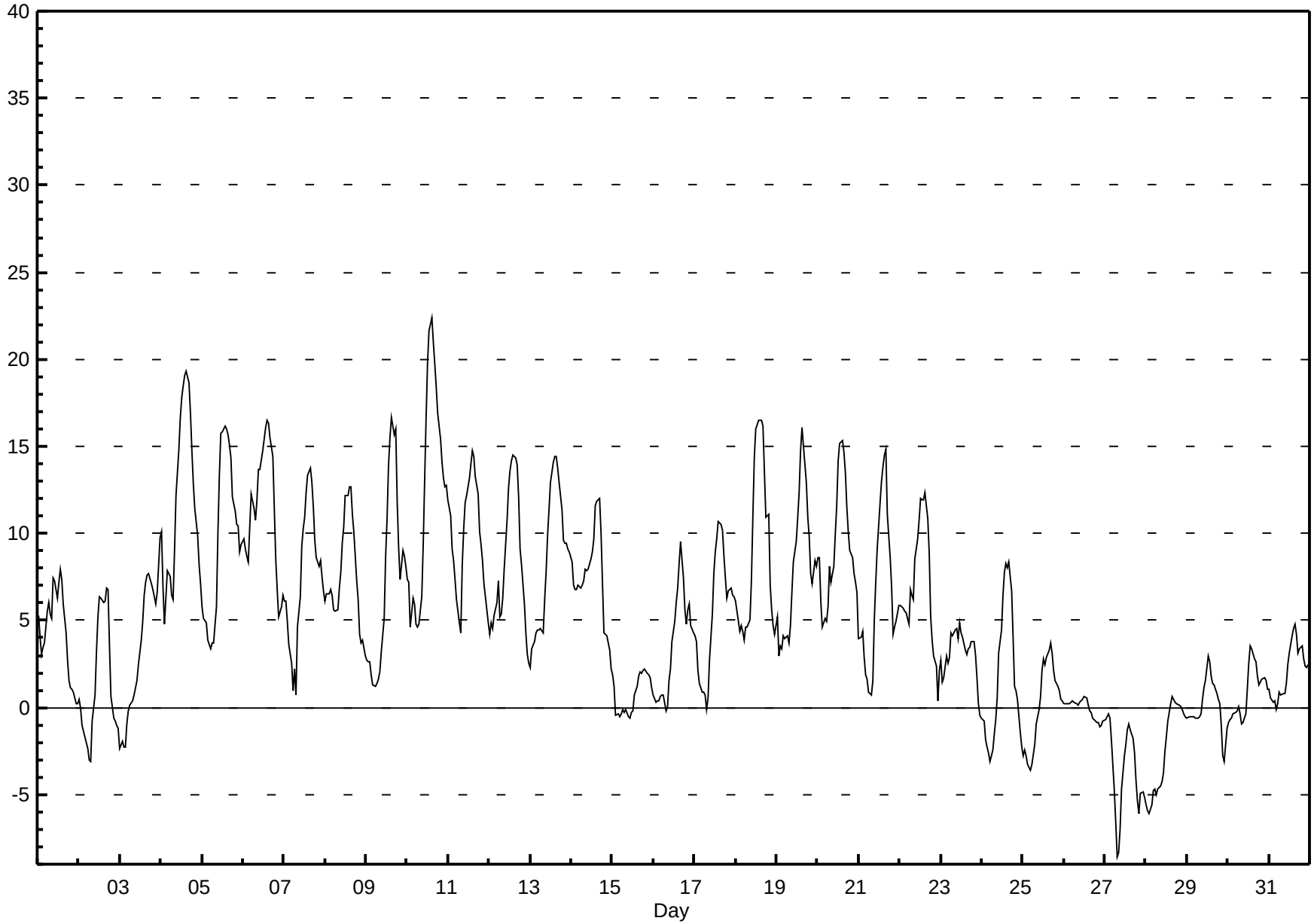
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	5	4	3	3	4	6	6	5	5	7	7	6	7	8	7	6	4	3	2	1	1	1	0	0	4.3	7.9
2-Oct	0	0	-1	-2	-2	-2	-3	-3	-1	1	3	5	6	6	6	6	7	7	4	1	-1	-1	-1	-1	1.4	6.9
3-Oct	-2	-2	-2	-2	-1	0	0	0	1	1	2	3	4	5	6	7	8	8	7	7	6	6	7	10	3.2	9.8
4-Oct	10	7	5	6	8	7	6	6	9	12	15	17	18	18	19	19	19	17	15	13	11	10	8	7	11.8	19.3
5-Oct	6	5	5	4	4	3	4	4	6	10	13	16	16	16	16	16	15	14	12	11	11	10	9	9	9.8	16.2
6-Oct	10	9	9	8	10	12	11	11	12	14	14	15	15	16	16	16	16	14	11	9	7	5	6	6	11.4	16.5
7-Oct	6	6	5	4	3	1	2	1	5	6	9	10	11	12	13	14	13	12	10	9	8	8	7	7	7.6	13.8
8-Oct	6	7	7	7	6	6	6	6	7	8	9	10	12	12	13	13	11	10	7	6	4	4	4	3	7.6	12.7
9-Oct	3	3	3	2	1	1	1	2	2	3	5	9	11	14	15	17	16	16	12	9	7	9	9	8	7.4	16.6
10-Oct	7	7	5	6	6	5	5	5	6	9	13	17	20	22	22	21	20	18	17	15	14	13	13	13	12.5	22.4
11-Oct	12	11	9	8	7	6	5	4	8	10	12	12	13	14	15	14	13	12	10	9	8	7	6	5	9.7	14.7
12-Oct	4	5	5	5	6	7	5	5	6	8	11	13	14	14	14	14	14	12	9	8	6	4	3	3	8.2	14.5
13-Oct	2	3	4	4	4	4	5	4	6	8	10	11	13	14	14	14	14	13	11	10	9	9	9	9	8.6	14.4
14-Oct	8	7	7	7	7	7	7	7	8	8	8	9	9	10	12	12	12	10	7	4	4	4	3	2	7.4	12.0
15-Oct	2	1	0	0	-1	0	0	0	0	0	-1	0	0	1	1	2	2	2	2	2	2	2	2	1	0.8	2.2
16-Oct	1	0	0	0	1	1	1	0	0	2	2	4	5	6	7	8	10	7	6	5	6	6	5	4	3.6	9.5
17-Oct	4	4	2	1	1	1	1	0	1	3	5	8	9	10	11	11	10	9	7	6	7	7	6	6	5.4	10.7
18-Oct	6	6	4	5	4	4	5	5	5	7	11	14	16	17	16	17	16	13	11	11	7	6	5	4	8.9	16.5
19-Oct	5	3	4	3	4	4	4	4	5	7	8	9	11	12	15	16	15	13	11	10	8	7	8	8	8.1	16.1
20-Oct	9	9	6	5	5	5	6	8	7	8	10	12	14	15	15	15	14	12	10	9	9	8	7	7	9.3	15.3
21-Oct	4	4	4	3	2	2	1	1	2	5	7	9	12	13	14	15	15	11	9	7	4	5	5	6	6.6	14.9
22-Oct	6	6	6	6	5	5	7	6	6	9	10	11	12	12	12	12	11	9	5	4	3	2	0	2	6.9	12.3
23-Oct	3	1	2	3	3	3	4	4	4	5	4	5	4	4	3	3	3	3	4	4	3	2	0	0	3.1	4.8
24-Oct	-1	-1	-2	-2	-3	-3	-2	-2	-1	1	3	4	6	8	8	8	8	7	4	1	1	0	-1	-2	1.7	8.3
25-Oct	-3	-2	-3	-3	-4	-3	-3	-2	-1	0	1	2	3	2	3	3	4	3	2	2	1	1	0	0	0.2	3.7
26-Oct	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	-1	-1	-1	-1	-1	-1	-1	-0.1	0.6
27-Oct	-1	0	0	-1	-2	-5	-7	-9	-8	-7	-5	-3	-2	-1	-1	-1	-2	-3	-4	-5	-6	-5	-5	-5	-3.6	-0.4
28-Oct	-6	-6	-6	-6	-5	-5	-5	-5	-5	-4	-4	-3	-2	-1	0	1	0	0	0	0	0	0	0	-1	-2.4	0.6
29-Oct	-1	-1	-1	-1	-1	-1	-1	-1	0	0	1	2	3	3	2	1	1	1	0	0	-1	-3	-3	-1	0.1	3.0
30-Oct	-1	-1	-1	0	0	0	0	0	-1	-1	0	1	3	4	3	3	3	2	1	1	2	2	2	1	0.9	3.5
31-Oct	1	1	0	0	0	0	1	1	1	1	1	2	3	4	5	5	4	3	3	4	3	2	2	2	2.1	4.8
	3.5	3.1	2.5	2.4	2.4	2.3	2.3	2.2	3.1	4.5	6.0	7.4	8.6	9.4	9.8	9.9	9.5	8.3	6.6	5.5	4.6	4.2	3.7	3.6	Diurnal Average	
	12.0	11.0	9.1	8.4	10.3	12.2	11.4	10.7	12.0	13.6	14.8	16.7	19.8	21.6	22.4	21.0	19.7	18.4	16.9	15.5	14.1	13.2	12.6	12.8	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Smoky Heights - October 2014



Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Smoky Heights - October 2014

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1 Spd	15	13	14	16	15	21	18	10	11	21	28	23	32	32	32	29	27	23	18	17	13	17	16	14	16.6	32.4
Dir	239	236	235	237	254	250	273	272	258	258	262	288	282	320	328	332	331	337	315	313	303	308	315	303	291.5	281.9
2 Spd	20	19	17	14	16	15	13	10	12	10	8	13	17	9	15	17	14	15	20	2	1	1	2	3	6.0	20.4
Dir	304	304	295	286	292	291	292	276	263	267	263	284	335	185	333	27	80	71	77	105	166	111	162	194	309.9	303.5
3 Spd	4	6	5	5	4	6	7	6	7	7	7	8	8	6	8	10	12	10	5	4	9	2	10	16	6.6	16.4
Dir	215	219	229	225	196	208	203	203	188	184	191	181	193	215	192	198	206	227	209	208	219	6	237	246	210.5	246.3
4 Spd	7	1	8	27	27	29	17	31	31	31	30	36	34	28	34	33	34	28	20	16	16	13	13	14	22.6	35.7
Dir	208	117	218	224	237	254	257	251	240	254	257	269	271	274	266	271	262	265	265	265	269	272	253	260	257.6	268.8
5 Spd	17	20	12	12	6	12	10	17	20	13	11	12	15	14	14	10	3	3	5	1	6	12	4	13	8.8	20.1
Dir	245	257	224	236	253	264	262	259	264	237	219	289	319	295	291	320	275	139	155	254	197	229	196	198	255.3	256.6
6 Spd	13	10	13	12	17	24	24	21	21	20	24	22	19	23	22	26	24	15	13	16	21	11	15	15	17.6	26.1
Dir	217	260	241	264	273	269	274	275	278	282	288	286	284	301	291	288	301	302	275	267	260	251	261	265	276.4	288.3
7 Spd	15	15	12	4	2	4	6	1	4	5	3	4	7	8	10	9	7	4	9	18	14	14	12	2	2.0	17.6
Dir	257	260	268	285	2	20	17	44	32	30	41	105	139	138	134	142	163	155	47	49	25	54	20	333	48.6	48.7
8 Spd	4	5	6	11	7	7	8	8	8	9	11	11	6	12	13	17	19	13	7	6	3	4	3	4	4.0	19.1
Dir	251	191	228	220	222	233	224	220	243	226	252	293	286	298	313	348	359	17	27	19	22	35	28	21	295.0	359.0
9 Spd	6	9	9	7	8	8	8	7	13	7	5	2	2	7	11	9	6	1	8	9	7	5	4	6	2.4	13.4
Dir	21	19	20	23	17	20	27	23	23	38	31	78	147	162	193	193	150	290	44	345	282	245	237	226	20.4	23.0
10 Spd	6	6	7	5	6	7	6	6	7	6	10	12	10	13	15	18	21	26	30	22	17	14	26	38	12.7	37.7
Dir	223	247	222	208	238	221	220	238	231	222	203	193	169	180	227	253	259	263	262	258	246	240	247	238	238.2	237.9
11 Spd	29	30	22	27	19	18	10	6	7	7	26	39	42	38	38	39	36	24	19	21	23	20	21	16	23.5	42.2
Dir	226	233	230	229	247	231	235	221	207	249	254	256	261	261	260	254	255	256	246	249	250	243	246	260	247.7	261.2
12 Spd	17	16	12	17	17	22	20	22	24	27	32	36	33	33	35	37	34	27	15	16	11	17	28	23	23.6	36.5
Dir	249	242	242	254	247	255	244	251	256	253	256	259	257	257	253	257	249	250	251	247	246	230	235	251	250.9	257.3
13 Spd	17	15	6	18	16	21	19	24	22	23	24	11	8	10	13	14	10	7	10	5	6	5	6	4	8.0	24.4
Dir	239	347	214	204	183	157	259	259	218	188	173	156	148	160	134	125	101	91	178	109	82	106	170	199	183.4	172.9
14 Spd	4	16	19	23	21	27	26	28	33	30	34	37	35	20	25	26	18	10	12	9	15	12	14	17	14.9	36.7
Dir	207	244	259	187	247	266	265	274	292	256	240	242	240	253	260	270	278	331	360	36	23	25	22	16	266.9	242.1
15 Spd	19	20	17	15	13	17	19	17	19	20	18	17	18	14	14	10	10	11	10	13	12	15	12	13	14.3	19.8
Dir	349	354	47	14	30	26	19	9	33	40	33	28	27	38	26	3	334	335	3	37	17	33	42	38	21.4	40.1
16 Spd	10	8	12	11	8	8	3	1	6	8	7	7	7	6	8	6	3	5	9	8	22	32	8	21	3.5	31.6
Dir	38	36	37	33	25	25	8	198	238	200	220	205	168	154	139	142	84	27	28	32	137	155	178	189	125.6	154.7
17 Spd	22	23	20	21	23	22	20	21	21	8	10	17	18	14	9	19	20	22	23	22	22	22	18	9	4.2	23.1
Dir	184	198	225	249	248	241	254	267	272	51	204	180	180	245	120	77	28	32	20	18	0	353	8	297	275.2	247.8
18 Spd	6	12	17	17	21	18	22	26	26	28	34	45	54	51	43	39	31	29	32	27	23	20	16	18	24.0	53.8
Dir	111	60	214	222	232	247	216	226	204	212	223	241	244	246	257	266	265	261	274	288	250	253	288	227	244.7	244.4
19 Spd	15	18	21	22	23	24	24	25	24	22	21	6	11	13	17	23	25	25	18	9	10	16	27	24	9.3	26.6
Dir	245	242	240	229	229	230	260	256	232	239	233	271	219	60	37	34	29	16	17	22	325	244	241	244	259.4	241.0
20 Spd	11	12	17	21	23	21	24	17	22	9	22	23	17	7	12	9	22	5	10	18	24	18	25	25	14.0	25.0
Dir	261	258	249	205	239	237	248	263	163	211	179	210	221	173	110	248	278	47	194	221	213	226	250	247	226.9	247.1
21 Spd	22	25	26	22	24	23	24	22	20	23	26	28	24	9	7	5	3	2	6	5	2	1	1	6	11.8	28.0
Dir	235	260	237	223	252	233	211	236	214	212	189	176	175	169	173	160	133	58	32	43	355	235	284	234	215.8	176.2
22 Spd	3	1	4	1	2	3	6	4	2	6	10	4	6	4	15	22	14	12	10	10	5	4	2	6	4.1	21.6
Dir	241	238	178	122	76	90	200	213	65	105	155	186	197	258	277	280	256	244	210	230	235	358	254	254	235.8	279.5

Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Smoky Heights - October 2014

Day	Hourly Period Ending At (MST) 1	2	3	4	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	5	5	9	8	3	5	11	13	13	15	14	10	4	9	19	18	17	11	10	9	7	6	10	11	5.9	18.9
Dir	291	23	32	19	46	358	3	10	20	37	34	26	39	300	288	297	263	270	269	308	238	269	249	263	324.9	288.2
24 Spd	12	12	10	14	11	7	9	14	24	27	33	35	40	52	51	51	49	38	27	24	26	15	10	26	24.8	51.8
Dir	255	264	242	235	236	222	241	258	257	242	239	237	255	266	272	273	277	280	283	246	265	275	248	259	260.2	265.6
25 Spd	23	23	24	6	21	12	5	6	4	3	8	10	12	17	15	14	14	15	15	16	16	18	17	16	3.8	23.9
Dir	268	233	262	236	192	218	249	262	260	32	28	32	35	34	30	38	55	90	68	64	64	55	51	46	38.4	262.4
26 Spd	14	13	12	11	11	11	11	10	10	10	10	11	9	10	10	10	6	5	2	4	6	3	2	1	7.2	14.1
Dir	40	37	37	42	37	38	33	28	22	18	19	17	17	5	346	347	347	339	298	271	283	287	277	267	15.6	39.8
27 Spd	2	4	5	1	2	4	5	3	8	20	19	4	7	9	3	2	1	1	2	3	2	7	9	9	4.6	19.5
Dir	262	276	290	34	220	253	254	254	230	212	218	218	208	186	171	204	199	271	271	271	271	271	271	271	235.7	212.1
28 Spd	5	11	13	14	18	20	20	20	21	20	20	12	19	21	22	26	26	27	27	27	27	N	N	N	9.6	27.4
Dir	271	271	271	271	271	271	271	271	271	272	272	347	10	27	44	34	32	39	39	43	46	N	N	N	343.4	38.5
29 Spd	N	N	N	N	N	N	N	N	N	N	N	N	N	N	4	3	0	0	1	0	2	0	2	1	--	3.5
Dir	N	N	N	N	N	N	N	N	N	N	N	N	N	N	149	143	145	261	69	54	282	300	254	184	--	148.6
30 Spd	0	0	0	0	0	0	5	2	0	0	1	8	12	18	19	19	28	28	29	30	33	32	27	23	13.0	33.2
Dir	178	188	173	167	136	133	144	148	16	27	103	101	115	129	126	133	119	124	128	127	132	137	127	110	125.8	131.7
31 Spd	22	18	18	17	16	23	20	22	25	27	27	28	25	28	25	24	21	11	2	26	24	26	24	26	13.7	27.9
Dir	105	148	135	109	45	270	207	188	177	186	195	195	215	239	265	261	273	241	70	198	273	264	239	257	217.4	239.0
Spd	6.8	7.1	7.7	8.1	8.6	10.1	9.7	10.5	9.4	9.2	11.4	10.4	10.3	8.8	8.6	8.8	8.0	5.1	3.4	3.0	3.9	4.2	6.1	8.5	Diurnal Average	
Dir	246.0	257.4	244.5	232.3	247.4	252.6	255.5	258.3	246.9	237.7	233.8	244.6	249.4	261.2	273.7	285.0	288.2	302.6	315.2	292.1	269.9	253.2	255.7	250.1		
Spd	28.9	29.7	25.6	27.3	27.4	29.0	26.2	31.3	33.3	31.3	34.5	45.1	53.8	51.8	50.7	51.1	49.0	37.9	31.9	30.4	33.2	31.7	28.2	37.7	Diurnal Maximum	
Dir	225.6	233.4	236.9	224.0	237.5	254.4	264.6	251.4	291.6	253.6	240.2	241.4	244.4	265.6	271.9	272.6	276.9	280.1	273.9	127.1	131.7	136.6	234.6	237.9		

Maximum Speed Value: 54 km/h on Oct 18 13:00
Maximum Daily Speed Average: 24.8 km/h on Oct 18
Maximum Diurnal Speed Average: 11.4 km/h at hour 11

Minimum Speed Value: 0 km/h on Oct 29 22:00
Minimum Daily Speed Average: 2.0 km/h on Oct 27
Minimum Diurnal Speed Average: 3.0 km/h at hour 20

Monthly Average Velocity: 7.39 km/h 256.49 deg

Speed Percentiles: $P_1 = 0.0$ $P_{10} = 3.6$ $Q_1 = 7.2$ Median = 13.8 $Q_3 = 21.6$ $P_{90} = 27.4$ $P_{99} = 42.0$

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

Hours in Service:	744
Hours of Data:	727
Hours of Missing Data:	17
Percent Operational Time:	97.7

N - Not Valid

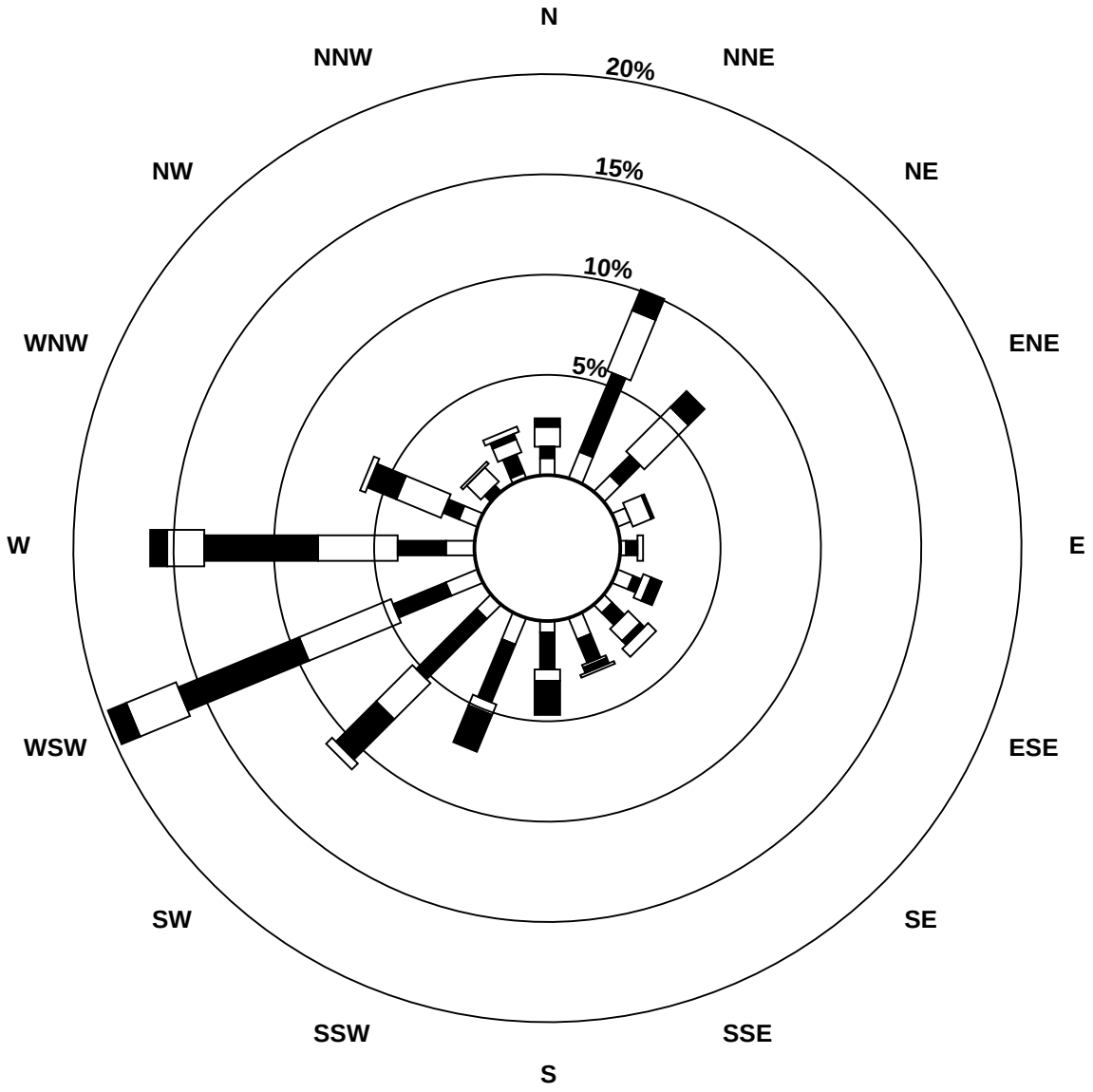
Frequency Distribution

Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	9	23	18	8	0	0	58
NorthEast	15	28	41	14	0	0	98
East	12	6	7	3	0	0	28
SouthEast	13	12	8	6	5	0	44
South	17	27	7	17	1	0	69
SouthWest	14	54	42	49	12	3	174
West	26	30	52	74	27	11	220
NorthWest	3	8	16	6	3	0	36
Total	109	188	191	177	48	14	727

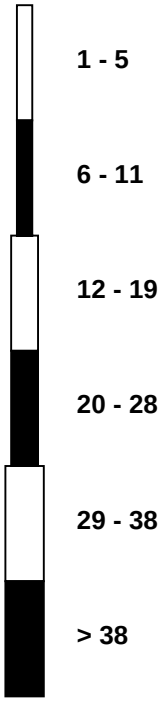
Wind Rose

Wind Speed (WS) (km/h)

Smoky Heights - October 2014



Wind Speed Classes (km/h)



Peace Airshed Zone Association

Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Smoky Heights - October 2014

Maximum Speed: 54 km/h on Oct 18 13:00

Maximum Daily Speed Average: 29.5 km/h on Oct 18

Minimum Speed: 0 km/h on Oct 29 22:00

Minimum Daily Speed Average: 5.6 km/h on Oct 27

Maximum Diurnal Speed Average: 19.9 km/h at hour 16

Minimum Diurnal Speed Average: 13.6 km/h at hour 22

Monthly Average Speed: 15.95 km/h

Percentiles: $P_1 = 0.0$ $P_{10} = 4.1$ $Q_1 = 7.8$ Median = 15.1 $Q_3 = 22.6$ $P_{90} = 27.9$ $P_{99} = 43.3$

Hours in Service:	744
Hours of Data:	727
Hours of Missing Data:	17
Percent Operational Time:	97.7

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-Oct	15	13	14	16	16	21	20	11	11	21	28	25	34	33	33	30	28	24	19	17	14	17	17	14	20.4	33.9
2-Oct	21	19	17	14	16	15	13	10	12	10	8	16	22	21	23	19	15	18	20	3	1	1	2	3	13.2	22.6
3-Oct	4	6	5	5	5	7	7	6	7	7	7	8	8	6	8	10	12	11	7	5	10	8	11	18	7.8	18.2
4-Oct	8	4	9	28	28	29	17	32	31	32	31	36	34	28	34	33	35	28	20	16	16	13	13	14	23.8	35.9
5-Oct	18	20	12	13	6	12	11	17	20	16	11	15	16	15	15	10	5	4	5	2	7	12	5	13	11.6	20.2
6-Oct	13	11	14	13	18	25	24	21	21	21	24	22	20	24	23	27	24	15	13	16	21	12	15	15	18.8	26.6
7-Oct	15	15	12	5	3	4	6	2	5	5	4	5	8	9	13	14	8	4	10	18	14	15	13	4	8.6	18.3
8-Oct	5	6	6	11	8	7	8	8	8	9	12	11	7	13	13	19	20	14	7	6	4	5	4	4	8.9	19.6
9-Oct	6	9	9	7	8	8	8	8	14	7	5	3	3	7	12	9	6	2	8	9	8	5	4	6	7.1	13.5
10-Oct	6	6	7	5	6	7	6	7	7	6	10	13	11	14	17	18	21	26	30	22	17	15	26	38	14.3	38.0
11-Oct	29	30	22	27	19	18	10	7	8	8	26	40	43	38	39	40	37	24	19	22	23	20	21	16	24.4	42.6
12-Oct	17	16	12	17	18	22	20	22	24	27	32	36	34	34	35	37	34	27	15	17	12	17	29	23	24.0	36.9
13-Oct	23	21	20	20	20	22	21	24	25	23	25	12	8	10	14	14	11	7	10	5	6	5	6	5	14.9	25.3
14-Oct	5	17	21	23	22	27	27	29	34	31	35	37	35	20	26	26	18	11	12	9	16	12	15	18	22.0	37.3
15-Oct	20	21	18	15	13	17	19	17	20	20	18	17	18	14	14	10	10	11	11	13	13	16	12	13	15.4	21.0
16-Oct	10	9	12	11	8	9	3	3	6	8	8	8	8	7	8	6	4	5	9	8	23	32	25	22	10.5	31.9
17-Oct	24	23	21	22	23	22	21	22	21	18	19	23	22	20	19	21	21	22	23	22	23	23	19	19	21.3	23.7
18-Oct	19	19	20	21	23	22	24	26	26	28	35	46	54	51	44	39	31	29	32	28	26	25	19	20	29.5	54.0
19-Oct	19	22	22	23	24	24	25	25	25	23	22	21	21	20	21	23	26	25	18	9	18	22	27	25	22.1	27.0
20-Oct	20	19	21	24	24	22	26	26	25	20	23	24	20	13	13	14	24	18	18	20	24	21	25	26	21.2	26.2
21-Oct	24	25	28	25	24	24	24	24	23	25	27	28	24	10	8	5	3	2	6	5	2	1	2	6	15.7	28.2
22-Oct	3	2	4	2	3	4	7	5	3	7	10	5	7	4	16	22	15	12	10	11	7	5	4	6	7.2	21.8
23-Oct	6	6	9	8	5	7	11	14	14	15	14	11	4	9	19	18	17	11	11	9	7	6	10	11	10.5	19.0
24-Oct	12	12	10	14	11	7	9	14	25	28	33	35	41	52	51	51	49	38	27	24	26	15	11	26	25.9	52.1
25-Oct	23	26	24	7	21	13	5	6	4	4	8	10	12	17	15	14	14	15	16	16	17	18	18	16	14.0	26.1
26-Oct	14	13	12	11	11	11	11	10	10	10	10	11	9	10	11	10	6	5	2	4	6	3	2	1	8.6	14.2
27-Oct	2	4	5	3	3	4	5	3	9	20	19	4	7	9	3	2	1	1	2	3	2	7	9	9	5.6	19.5
28-Oct	5	11	13	14	18	20	20	20	21	20	20	18	19	21	22	26	27	27	28	27	27	N	N	N	20.3	27.5
29-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	4	3	0	0	1	0	2	0	2	2	--	3.6
30-Oct	0	0	0	0	0	0	5	2	0	0	1	8	12	19	19	19	28	28	29	31	33	32	27	24	13.3	33.4
31-Oct	23	20	20	20	21	24	23	23	25	27	27	28	25	28	25	24	22	20	24	27	26	27	25	26	24.2	28.1
	13.6	14.1	13.9	14.0	14.2	15.1	14.5	14.7	16.0	16.5	18.5	19.2	19.6	19.3	19.8	19.9	18.4	15.7	14.9	13.7	14.5	13.6	13.9	14.8	Diurnal Average	
	29.0	29.8	27.7	27.6	28.0	29.3	26.9	31.7	33.5	31.5	34.8	45.9	54.0	52.1	51.0	51.4	49.3	38.3	32.4	30.7	33.4	31.9	28.8	38.0	Diurnal Maximum	

N - Not Valid

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

Peace Airshed Zone Association

Hourly Standard Deviations

Wind Direction (WD) - deg

Smoky Heights - October 2014

Maximum Value: 88.9 deg on Oct 22 23:00

Minimum Value: 0.0 deg on Oct 27 19:00

Percentiles: P_1 = 0.0 P_{10} = 4.7 Q_1 = 7.0 Median = 11.7 Q_3 = 23.1 P_{90} = 43.6 P_{99} = 80.6

Hours in Service:	744
Hours of Data:	727
Hours of Missing Data:	17
Hours of Calibration:	0
Percent Operational Time:	97.7

Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Oct	6	5	4	5	17	8	21	26	14	8	8	22	17	12	13	10	13	12	11	10	9	8	6	7	26.4
2-Oct	7	7	6	3	5	5	5	11	5	14	24	40	42	75	50	28	23	39	8	32	37	77	50	31	76.5
3-Oct	18	7	7	9	28	21	13	14	11	6	10	9	9	15	9	6	8	24	71	53	27	82	30	26	81.6
4-Oct	43	77	18	8	11	8	4	10	3	7	6	7	8	10	7	10	7	4	3	5	4	5	11	12	77.1
5-Oct	15	5	17	17	11	4	4	5	3	36	18	38	11	17	21	12	51	30	32	69	47	10	19	15	68.7
6-Oct	10	20	10	12	14	6	7	3	5	9	6	9	17	17	16	12	11	12	19	4	5	6	4	8	20.4
7-Oct	2	2	24	31	36	10	8	46	19	12	60	49	24	21	40	55	28	11	41	15	7	17	17	54	59.6
8-Oct	40	23	10	3	9	9	14	6	7	14	22	14	50	42	21	25	13	18	5	8	12	46	65	7	65.0
9-Oct	7	6	7	7	8	7	7	16	8	11	14	73	60	21	17	13	24	76	17	25	23	18	9	10	75.7
10-Oct	10	12	24	18	11	12	16	10	12	15	14	33	33	15	23	10	15	7	5	4	8	13	7	7	32.9
11-Oct	6	6	5	4	8	4	10	25	11	39	5	6	8	9	9	6	5	5	10	17	5	4	3	9	39.1
12-Oct	6	4	6	5	8	5	4	3	4	3	6	6	7	11	9	8	8	5	6	9	12	11	12	12	12.1
13-Oct	52	45	87	27	35	18	28	6	28	11	14	11	17	12	19	11	12	15	26	21	19	19	16	44	86.6
14-Oct	33	25	25	14	18	5	13	13	7	15	8	10	6	10	12	6	11	30	19	14	8	15	19	16	32.7
15-Oct	9	23	16	16	10	9	12	8	11	7	7	6	8	9	8	15	11	10	13	6	13	6	12	6	22.7
16-Oct	6	7	6	8	8	12	21	83	11	30	23	32	30	31	17	16	36	7	7	27	25	7	78	21	83.5
17-Oct	24	12	22	12	8	12	12	11	12	70	72	45	33	54	62	26	12	4	9	7	19	13	20	63	72.3
18-Oct	75	57	28	42	25	40	22	11	6	8	12	11	6	7	11	8	6	6	9	15	27	43	35	24	75.0
19-Oct	40	33	13	15	17	7	9	11	15	12	18	75	63	58	44	14	10	8	14	11	65	42	11	15	74.7
20-Oct	62	56	34	28	19	19	24	58	29	71	17	12	32	54	22	56	22	85	65	24	14	30	12	17	84.8
21-Oct	23	13	23	28	13	17	14	23	28	22	20	7	13	23	23	25	25	40	5	18	36	52	88	14	87.9
22-Oct	27	51	52	46	47	45	31	37	82	33	8	30	22	30	13	8	15	9	12	20	55	39	89	12	88.9
23-Oct	18	33	8	10	75	50	11	16	9	7	5	13	58	51	7	8	11	17	24	27	17	11	9	8	75.0
24-Oct	8	11	12	8	5	11	8	4	6	11	5	6	9	5	6	6	6	8	10	15	9	9	13	8	15.3
25-Oct	5	29	11	26	16	17	11	16	16	29	5	6	5	5	5	7	11	10	9	8	8	5	5	5	29.1
26-Oct	6	8	6	4	5	6	4	5	5	6	6	6	7	14	7	9	10	11	6	9	4	2	1	2	14.2
27-Oct	2	11	17	62	38	0	0	2	16	2	1	1	4	11	13	14	41	1	0	0	0	0	0	0	62.3
28-Oct	0	0	0	0	0	0	0	0	0	0	0	50	10	12	9	6	7	5	5	4	5	N	N	N	50.1
29-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	26	13	81	75	44	39	56	45	43	32	81.1
30-Oct	25	9	18	9	24	26	8	50	9	13	33	7	10	8	9	9	9	12	10	7	7	6	10	9	49.6
31-Oct	17	29	27	30	40	23	34	17	8	5	6	4	9	8	10	7	11	71	85	22	21	13	20	5	85.0
	75.0	77.1	86.6	62.3	75.0	50.0	34.1	83.5	81.8	70.6	72.3	74.7	63.0	75.2	61.9	55.9	81.1	84.8	85.0	68.7	64.5	81.6	88.9	62.6	

N - Not Valid

PAZA
Beaverlodge Station
Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Beaverlodge - October 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 4.1 ppb on Oct 7 12:00 Maximum Daily Average: 0.5 ppb on Oct 7

Minimum Value: 0 ppb on Oct 1 01:00 Minimum Daily Average: 0.0 ppb on Oct 11
Maximum Diurnal Average: 0.4 ppb at hour 12 Minimum Diurnal Average: 0.1 ppb at hour 6
Monthly Average: 0.18 ppb Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.1 Median = 0.1 Q_3 = 0.2 P_{90} = 0.4 P_{99} = 0.9

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-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
2-Oct	0	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-Oct	0	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-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
5-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
6-Oct	0	0	0	0	A	0	0	1	0	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0	0.1	0.6
7-Oct	0	0	0	0	A	0	0	0	0	0	1	4	1	1	1	0	0	0	1	0	0	0	0	0	0.5	4.1
8-Oct	0	0	0	0	A	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2	1	1	0	0.3	1.6
9-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0.3	0.7
10-Oct	0	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
11-Oct	0	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
12-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
13-Oct	0	0	0	0	A	0	0	1	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0.3	0.9
14-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
15-Oct	0	0	0	0	A	0	0	0	0	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0.4	1.1
16-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0.3	0.8
17-Oct	0	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
18-Oct	0	0	0	0	A	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
19-Oct	0	0	0	0	A	0	0	1	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.4	0.9
20-Oct	0	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
21-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
22-Oct	0	0	0	0	A	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0.2	0.9
23-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
24-Oct	0	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
25-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.1	0.5
26-Oct	0	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
27-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0.2	0.8
28-Oct	0	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-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
30-Oct	0	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
31-Oct	0	0	0	0	A	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
	0.1	0.1	0.1	0.1	--	0.1	0.1	0.2	0.2	0.2	0.2	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	Diurnal Average	
	0.3	0.4	0.3	0.3	--	0.3	0.4	0.9	0.9	0.6	0.9	4.1	0.9	1.1	1.1	0.9	0.7	0.7	0.8	0.5	1.6	1.0	0.5	0.4	Diurnal Maximum	

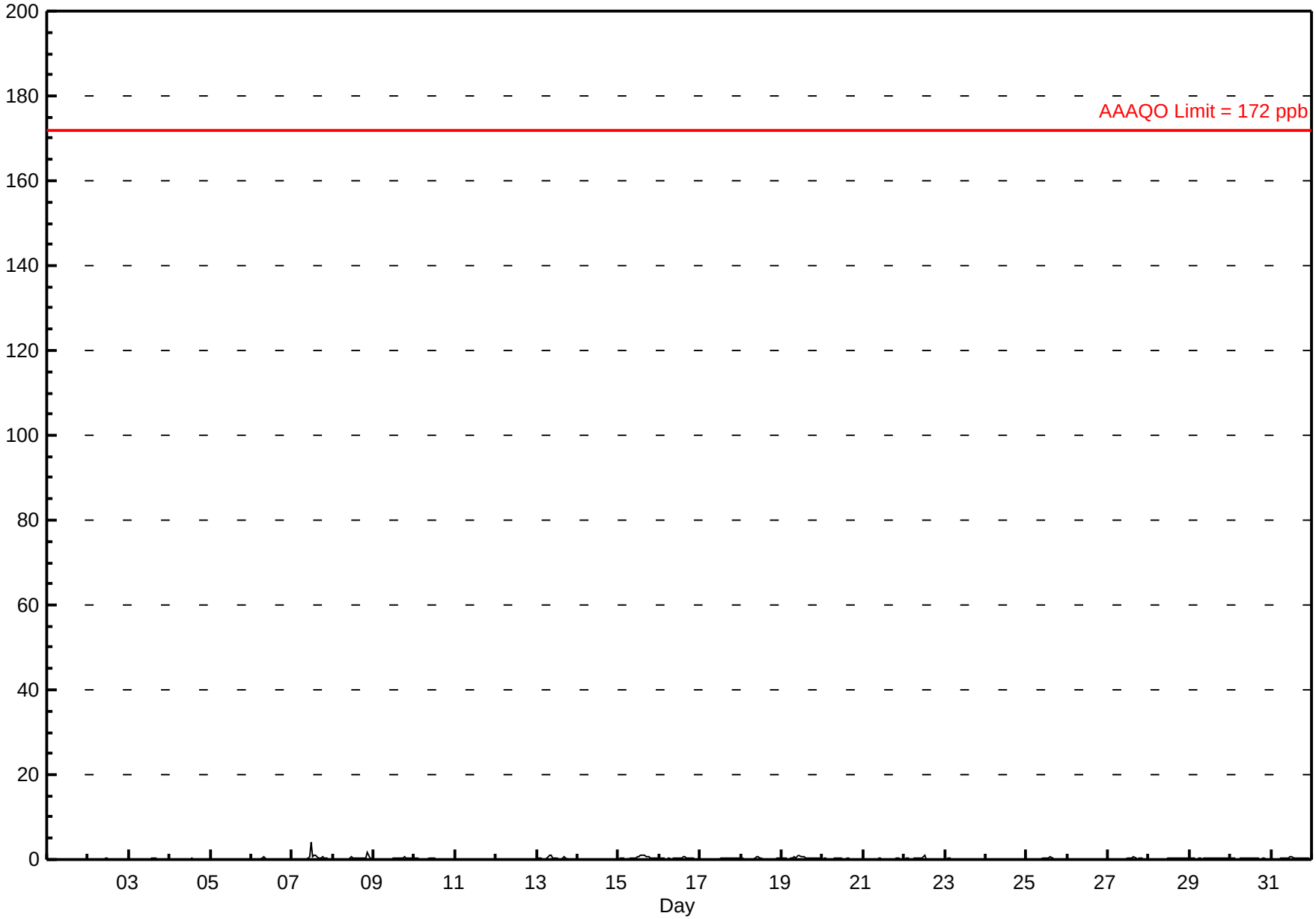
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Beaverlodge - October 2014



Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Beaverlodge - October 2014

Maximum Value: 9.1 ppb on Oct 7 12:00

Maximum Daily Average: 1.0 ppb on Oct 7

Minimum Value: 0 ppb on Oct 24 04:00

Minimum Daily Average: 0.1 ppb on Oct 11

Maximum Diurnal Average: 0.7 ppb at hour 12

Minimum Diurnal Average: 0.2 ppb at hour 6

Monthly Average: 0.33 ppb

Percentiles: $P_1 = 0.1$ $P_{10} = 0.1$ $Q_1 = 0.2$ Median = 0.2 $Q_3 = 0.4$ $P_{90} = 0.6$ $P_{99} = 1.5$

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-Oct	0	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-Oct	0	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
3-Oct	0	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
4-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.2	0.7
5-Oct	0	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
6-Oct	0	0	0	0	A	0	0	1	1	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0	0.3	0.8
7-Oct	0	0	1	0	A	0	0	0	0	0	3	9	1	2	1	0	0	1	1	1	0	0	0	0	1.0	9.1
8-Oct	0	0	0	0	A	0	0	0	0	0	1	1	1	1	0	0	0	0	0	1	3	2	1	0	0.6	2.8
9-Oct	0	0	0	0	A	0	0	0	0	0	0	0	1	1	1	0	1	1	1	0	0	1	1	1	0.4	1.1
10-Oct	0	0	0	0	A	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
11-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
12-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
13-Oct	0	0	0	0	A	0	1	1	1	1	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0.5	1.5
14-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
15-Oct	0	0	0	0	A	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	0	0	0	0.6	1.4
16-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0.4	1.4
17-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0.3	1.2
18-Oct	0	0	0	0	A	0	0	0	1	1	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0.4	0.7
19-Oct	0	0	0	0	A	1	1	2	1	1	1	1	1	1	1	0	0	0	1	1	0	0	0	0	0.6	1.5
20-Oct	0	0	0	0	A	0	0	0	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0.3	0.6
21-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.3	1.1
22-Oct	0	2	0	0	A	0	0	0	0	0	1	1	1	1	0	0	0	0	0	1	0	0	0	0	0.5	1.8
23-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
24-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
25-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0.3	0.8
26-Oct	0	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
27-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0.3	1.1
28-Oct	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	0.6
29-Oct	0	0	0	0	A	0	0	0	0	0	0	1	0	0	1	1	1	0	1	0	0	0	0	0	0.4	0.6
30-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
31-Oct	0	0	0	0	A	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.4	0.7
	0.2	0.3	0.3	0.2	--	0.2	0.3	0.3	0.3	0.3	0.4	0.7	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	Diurnal Average	
	0.4	1.8	1.1	0.5	--	0.6	1.5	1.5	1.5	0.9	3.3	9.1	1.4	1.5	1.4	1.1	1.1	0.9	1.1	1.0	2.8	2.2	0.7	1.1	Diurnal Maximum	

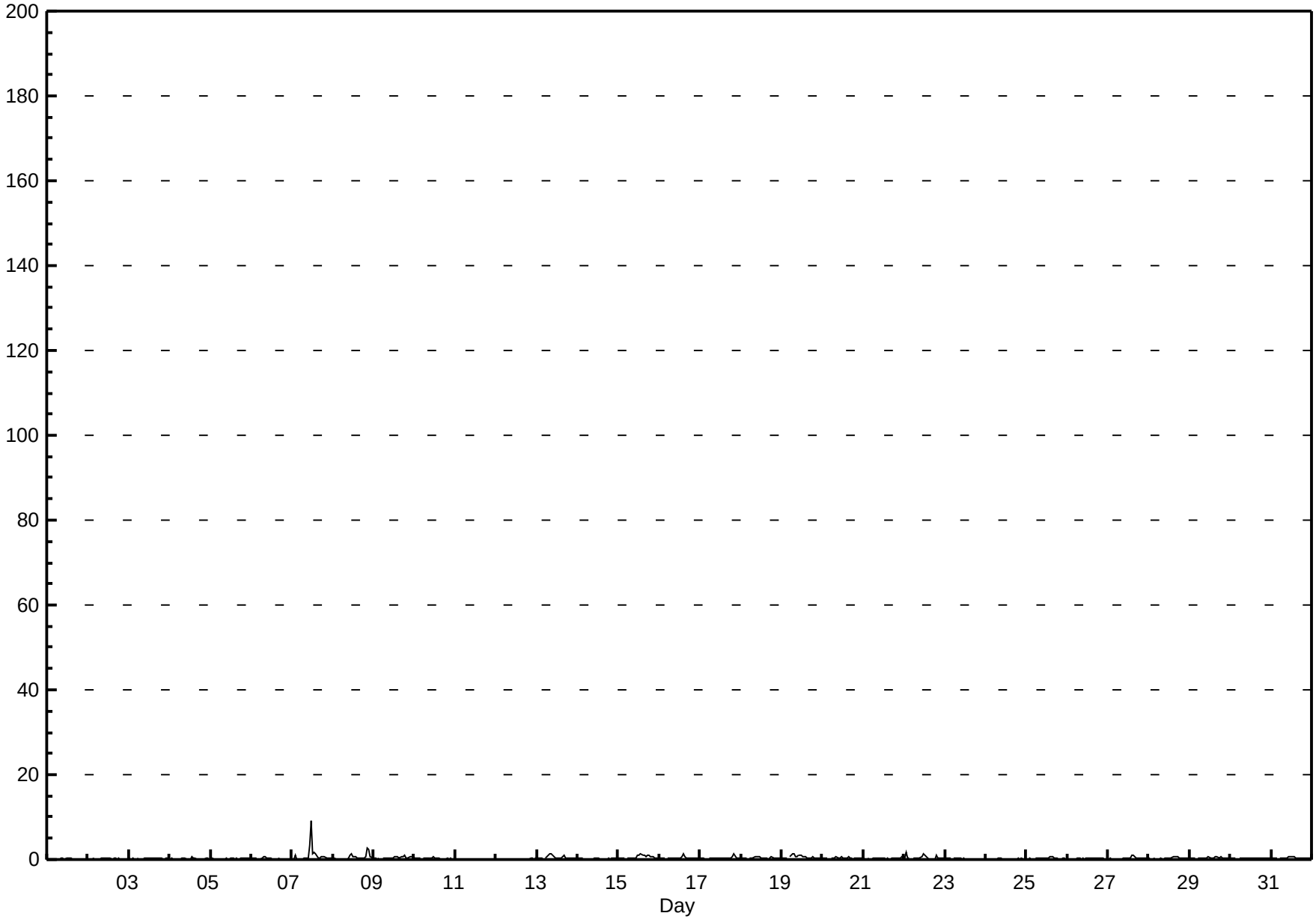
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

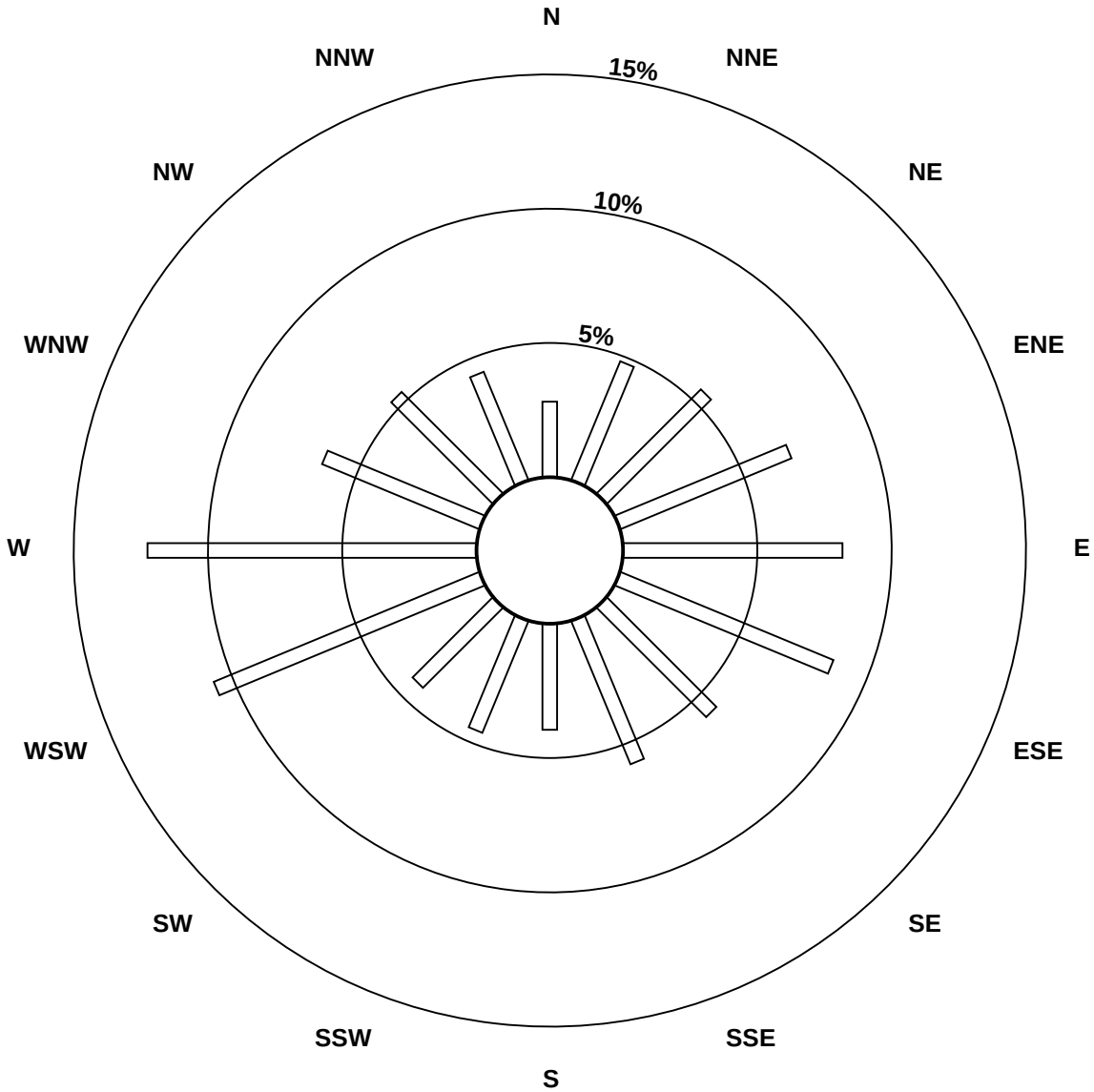
Beaverlodge - October 2014



Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Beaverlodge - October 2014



Pollutant Classes (ppb)

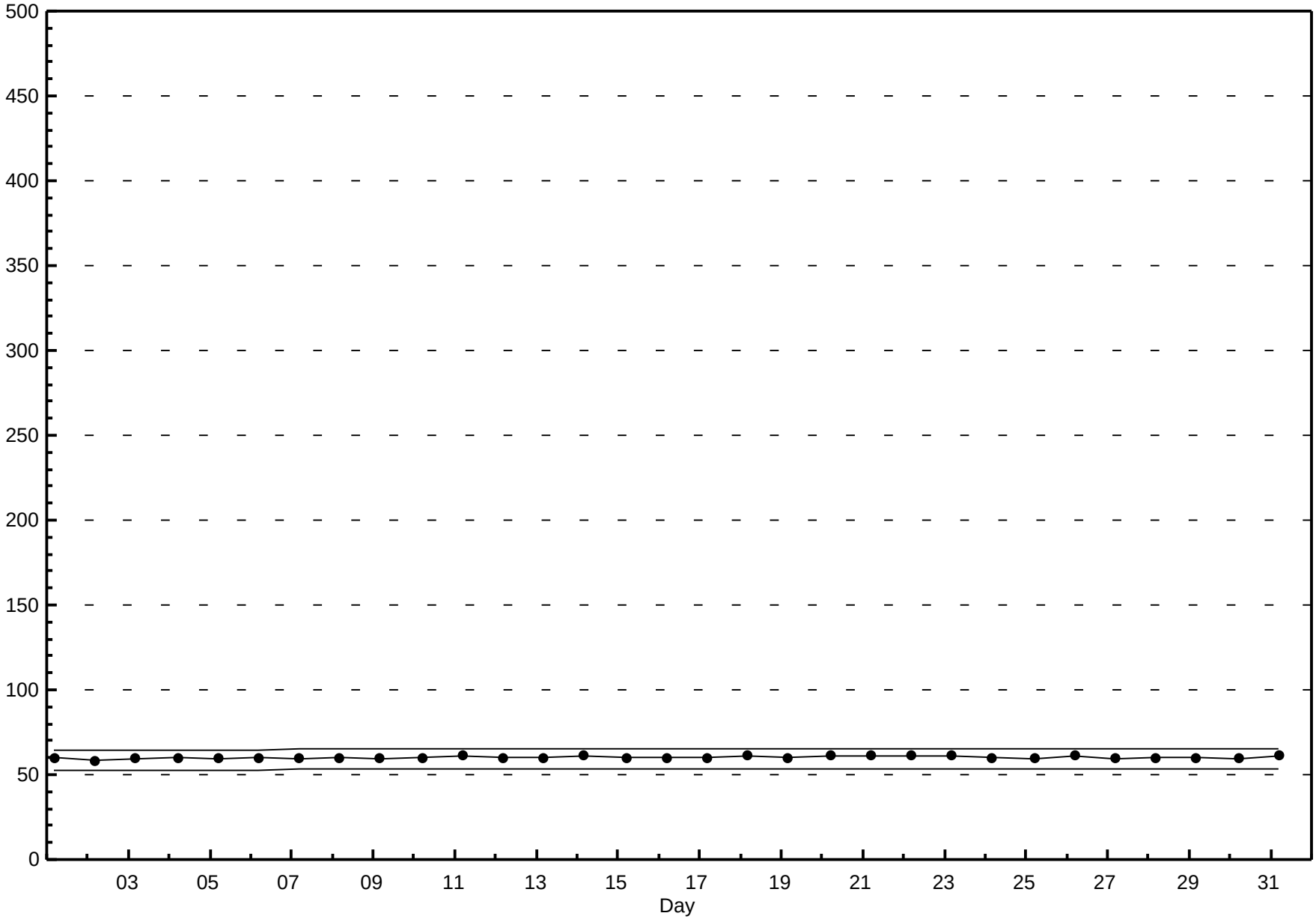
- 0 - 10
- 11 - 20
- 21 - 60
- 61 - 110
- 111 - 172
- > 172

Peace Airshed Zone Association

Span Responses

Sulphur Dioxide (SO_2)

Beaverlodge - October 2014



Peace Airshed Zone Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Beaverlodge - October 2014

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

Maximum Value: 15.7 ppb on Oct 9 09:00

Maximum Daily Average: 8.6 ppb on Oct 17

Minimum Value: 0 ppb on Oct 5 14:00

Minimum Daily Average: 0.9 ppb on Oct 11

Maximum Diurnal Average: 6.5 ppb at hour 6

Minimum Diurnal Average: 2.5 ppb at hour 16

Monthly Average: 4.21 ppb

Percentiles: $P_1 = 0.4$ $P_{10} = 0.6$ $Q_1 = 1.7$ Median = 3.5 $Q_3 = 6.2$ $P_{90} = 9.0$ $P_{99} = 12.3$

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-Oct	2	2	4	2	A	5	4	2	3	2	1	1	1	1	1	0	0	0	1	1	2	2	3	2	1.8	5.2
2-Oct	2	3	3	3	A	9	7	9	6	4	2	1	1	1	0	1	1	2	2	2	3	3	4	5	3.2	9.2
3-Oct	3	6	7	6	A	9	7	9	6	8	7	7	5	5	5	5	5	1	1	1	1	0	0	0	4.6	8.7
4-Oct	0	1	1	1	A	3	2	4	4	2	1	1	0	0	1	0	0	1	1	2	2	2	2	1	1.4	3.7
5-Oct	1	2	3	2	A	4	3	5	6	8	3	1	0	0	1	1	1	1	2	6	7	2	5	5	3.0	7.7
6-Oct	3	3	3	4	A	4	2	4	8	C	C	C	C	C	2	1	1	1	1	3	1	2	3	2	2.6	7.8
7-Oct	2	2	2	2	A	7	6	8	10	7	4	3	1	1	2	1	2	4	6	8	6	5	4	4	4.2	9.9
8-Oct	1	1	2	1	A	7	7	7	8	5	2	1	1	1	1	1	1	2	2	2	2	1	1	1	2.5	8.4
9-Oct	1	1	2	2	A	6	9	11	16	12	9	6	5	6	5	4	4	8	9	9	7	7	8	8	6.7	15.7
10-Oct	7	5	4	3	A	6	7	5	6	8	4	3	3	2	2	1	1	1	1	1	2	2	1	1	3.3	8.4
11-Oct	1	1	1	1	A	3	2	1	1	1	1	1	0	1	1	0	0	0	1	1	1	1	0	0	0.9	2.9
12-Oct	1	0	0	0	A	3	1	1	1	0	0	0	0	0	0	0	0	0	1	2	3	3	2	3	1.0	3.3
13-Oct	6	6	5	7	A	9	7	7	7	5	6	4	4	3	3	3	5	3	2	2	2	3	3	3	4.6	9.5
14-Oct	4	3	4	4	A	9	8	4	3	1	2	1	0	0	0	0	1	2	2	3	2	4	3	3	2.7	8.9
15-Oct	3	2	2	2	A	4	2	2	2	2	2	3	2	2	1	1	2	2	2	2	2	1	2	1	2.1	4.4
16-Oct	2	2	2	1	A	4	5	4	4	3	2	2	2	2	2	3	6	9	10	11	10	12	11	10	5.2	11.6
17-Oct	11	11	9	7	A	10	10	7	8	7	6	7	7	5	6	7	8	9	10	12	11	11	11	11	8.6	11.5
18-Oct	10	10	9	7	A	10	10	7	5	3	1	1	1	1	0	0	1	2	3	1	2	2	3	3	4.0	10.3
19-Oct	3	2	2	3	A	5	6	8	11	9	7	9	9	8	8	6	4	6	6	6	7	6	5	4	6.0	10.8
20-Oct	2	5	6	5	A	9	8	5	12	10	12	5	10	4	6	2	2	2	4	5	6	5	4	3	5.7	11.9
21-Oct	3	3	2	3	A	6	8	12	7	5	4	3	3	2	2	1	3	8	8	11	9	8	6	4	5.2	12.0
22-Oct	2	2	3	4	A	5	5	5	8	7	6	5	5	2	2	1	1	2	3	4	2	4	7	4	3.9	7.5
23-Oct	4	7	7	6	A	7	6	4	5	5	4	3	4	5	6	4	3	4	4	6	6	4	5	6	5.1	7.1
24-Oct	6	7	6	4	A	4	4	6	6	2	2	1	0	0	0	1	1	2	3	8	6	3	4	2	3.3	8.4
25-Oct	5	6	4	4	A	5	7	15	10	7	4	4	3	4	4	4	4	3	2	1	1	1	1	1	4.2	14.7
26-Oct	1	1	1	1	A	3	2	2	1	2	1	2	2	2	2	3	3	3	3	2	3	2	4	2	2.0	3.5
27-Oct	3	2	5	3	A	3	2	2	2	2	2	4	4	3	3	5	8	7	7	7	7	9	12	13	4.9	12.8
28-Oct	14	12	12	12	A	12	13	12	7	7	6	5	3	3	3	3	3	3	4	5	4	5	3	4	6.9	14.1
29-Oct	4	4	6	10	A	12	9	6	6	5	3	3	4	4	3	4	6	8	8	10	10	10	9	9	6.8	12.4
30-Oct	9	10	9	9	A	10	7	6	6	4	5	4	4	4	4	5	6	8	9	10	10	9	8	8	7.2	10.3
31-Oct	9	9	8	8	A	10	10	8	7	7	5	4	3	4	6	8	4	7	7	10	7	5	5	5	6.7	10.0
	4.1	4.3	4.3	4.2	--	6.5	6.0	6.0	6.1	5.0	3.8	3.0	3.0	2.6	2.6	2.5	2.9	3.6	3.9	4.9	4.6	4.4	4.4	4.2	Diurnal Average	
	14.1	12.0	12.3	12.2	--	12.4	12.6	14.7	15.7	11.9	11.9	8.7	9.8	7.6	8.3	8.2	8.3	9.5	10.2	11.5	10.7	11.6	11.7	12.8	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

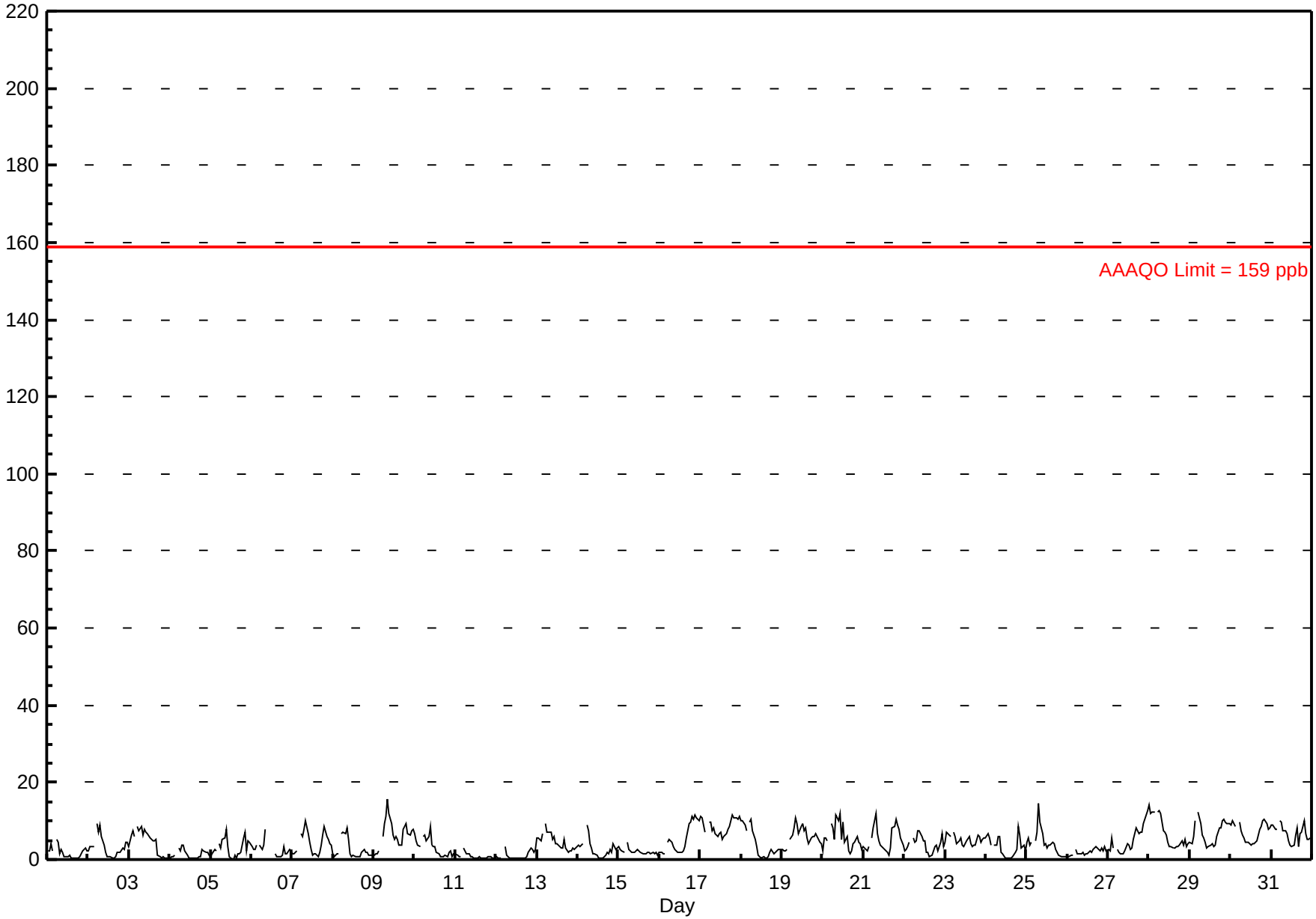
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb 24-hr 106 ppb

Peace Airshed Zone Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Beaverlodge - October 2014



Peace Airshed Zone Association

Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

Beaverlodge - October 2014

Maximum Value: 50.4 ppb on Oct 22 15:00

Maximum Daily Average: 10.4 ppb on Oct 17

Minimum Value: 1 ppb on Oct 1 18:00

Minimum Daily Average: 2.1 ppb on Oct 12

Maximum Diurnal Average: 10.1 ppb at hour 9

Minimum Diurnal Average: 3.9 ppb at hour 16

Monthly Average: 6.51 ppb

Percentiles: $P_1 = 0.7$ $P_{10} = 1.4$ $Q_1 = 2.9$ Median = 5.5 $Q_3 = 9.1$ $P_{90} = 12.5$ $P_{99} = 22.1$

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-Oct	4	3	6	4	A	15	10	3	9	6	2	3	1	1	1	1	1	1	1	2	2	3	6	4	3.8	15.1
2-Oct	3	7	6	7	A	18	10	17	8	7	3	1	2	2	1	1	5	6	3	3	4	4	5	7	5.7	18.0
3-Oct	5	8	12	8	A	11	9	12	8	10	10	9	6	6	6	6	6	5	1	1	2	1	1	1	6.3	12.1
4-Oct	1	1	2	2	A	6	4	6	6	5	2	1	1	1	1	1	1	1	3	5	8	4	3	2	2.9	8.0
5-Oct	1	4	5	3	A	6	9	9	10	14	5	2	1	1	2	2	3	6	5	9	10	3	8	6	5.5	14.0
6-Oct	5	4	4	7	A	6	4	5	17	C	C	C	C	C	3	1	1	2	2	11	2	9	8	4	5.3	16.6
7-Oct	3	2	5	4	A	8	10	17	17	8	6	3	2	2	22	1	15	5	9	10	9	8	6	5	7.7	22.3
8-Oct	3	1	4	3	A	9	9	16	13	7	6	1	2	1	1	1	1	3	4	2	3	2	3	2	4.3	16.4
9-Oct	2	2	2	3	A	8	14	15	25	18	17	7	6	7	9	4	6	11	9	12	7	9	9	10	9.2	24.6
10-Oct	10	7	4	5	A	8	16	7	11	12	6	5	4	3	2	3	5	2	3	3	4	5	2	2	5.5	16.0
11-Oct	3	2	1	1	A	5	5	2	3	3	2	2	1	7	7	1	1	1	2	2	2	2	1	1	2.5	7.0
12-Oct	1	1	1	1	A	8	2	1	1	1	1	1	1	1	1	1	1	1	2	4	7	4	3	4	2.1	7.8
13-Oct	7	7	7	15	A	13	9	8	13	8	8	5	5	5	7	6	7	5	2	3	3	3	3	5	6.6	15.4
14-Oct	6	4	5	5	A	12	12	8	7	3	2	2	1	1	1	2	2	5	4	6	2	7	4	4	4.5	12.2
15-Oct	4	3	3	2	A	6	3	4	2	2	3	3	3	2	2	2	2	2	3	3	3	2	3	1	2.8	6.5
16-Oct	2	2	2	2	A	8	6	7	6	3	3	2	2	2	3	4	8	12	11	13	12	13	12	15	6.6	14.7
17-Oct	13	12	11	10	A	12	13	10	9	9	7	8	8	7	7	7	9	10	12	14	11	14	13	12	10.4	14.2
18-Oct	11	11	11	8	A	12	13	12	6	6	2	3	1	2	1	1	1	4	9	4	5	4	4	3	5.9	12.8
19-Oct	3	3	2	3	A	9	14	22	18	11	11	12	11	13	11	8	8	7	8	8	10	8	6	5	9.3	21.9
20-Oct	4	10	8	9	A	11	17	6	23	21	16	15	11	8	8	9	4	3	7	9	9	6	7	4	9.8	22.7
21-Oct	4	3	3	4	A	7	17	25	13	7	5	4	3	3	3	2	6	23	12	12	12	10	7	6	8.3	24.6
22-Oct	5	5	6	6	A	8	7	8	10	9	8	7	39	8	50	3	3	6	7	7	4	8	10	6	10.0	50.4
23-Oct	8	13	14	7	A	10	11	8	7	9	6	4	7	7	8	6	4	4	5	11	11	5	6	7	7.7	14.3
24-Oct	7	10	8	5	A	7	5	15	12	4	4	1	3	1	1	1	3	5	7	15	13	9	10	5	6.6	15.4
25-Oct	9	10	6	5	A	7	22	21	11	9	6	6	4	5	4	6	6	4	3	2	1	1	1	2	6.5	21.7
26-Oct	1	1	2	1	A	5	2	2	2	2	2	3	3	3	3	3	5	5	4	3	5	4	5	4	3.0	5.0
27-Oct	3	6	8	4	A	5	4	3	2	3	3	7	6	5	4	8	15	11	8	8	8	10	13	15	6.9	15.1
28-Oct	17	15	15	16	A	18	16	14	11	11	9	6	4	5	4	4	4	4	5	7	5	9	5	5	9.1	17.6
29-Oct	5	4	11	14	A	18	13	8	18	6	4	4	5	5	5	5	9	9	12	12	11	11	10	10	9.0	17.6
30-Oct	10	10	10	9	A	13	9	7	6	5	5	5	4	5	5	6	9	9	10	13	12	11	8	9	8.2	13.0
31-Oct	9	10	9	8	A	12	11	9	9	8	7	5	4	6	11	15	8	13	10	13	12	8	10	8	9.4	14.5
	5.4	5.8	6.3	5.8	--	9.6	9.8	9.9	10.1	7.6	5.7	4.6	5.1	4.2	6.2	3.9	5.2	6.0	5.9	7.3	6.7	6.4	6.2	5.6	Diurnal Average	
	17.2	15.2	14.9	15.9	--	18.0	21.7	24.6	24.6	21.1	16.5	14.9	38.8	13.1	50.4	14.5	15.2	22.6	12.3	15.4	12.9	14.2	12.7	15.0	Diurnal Maximum	

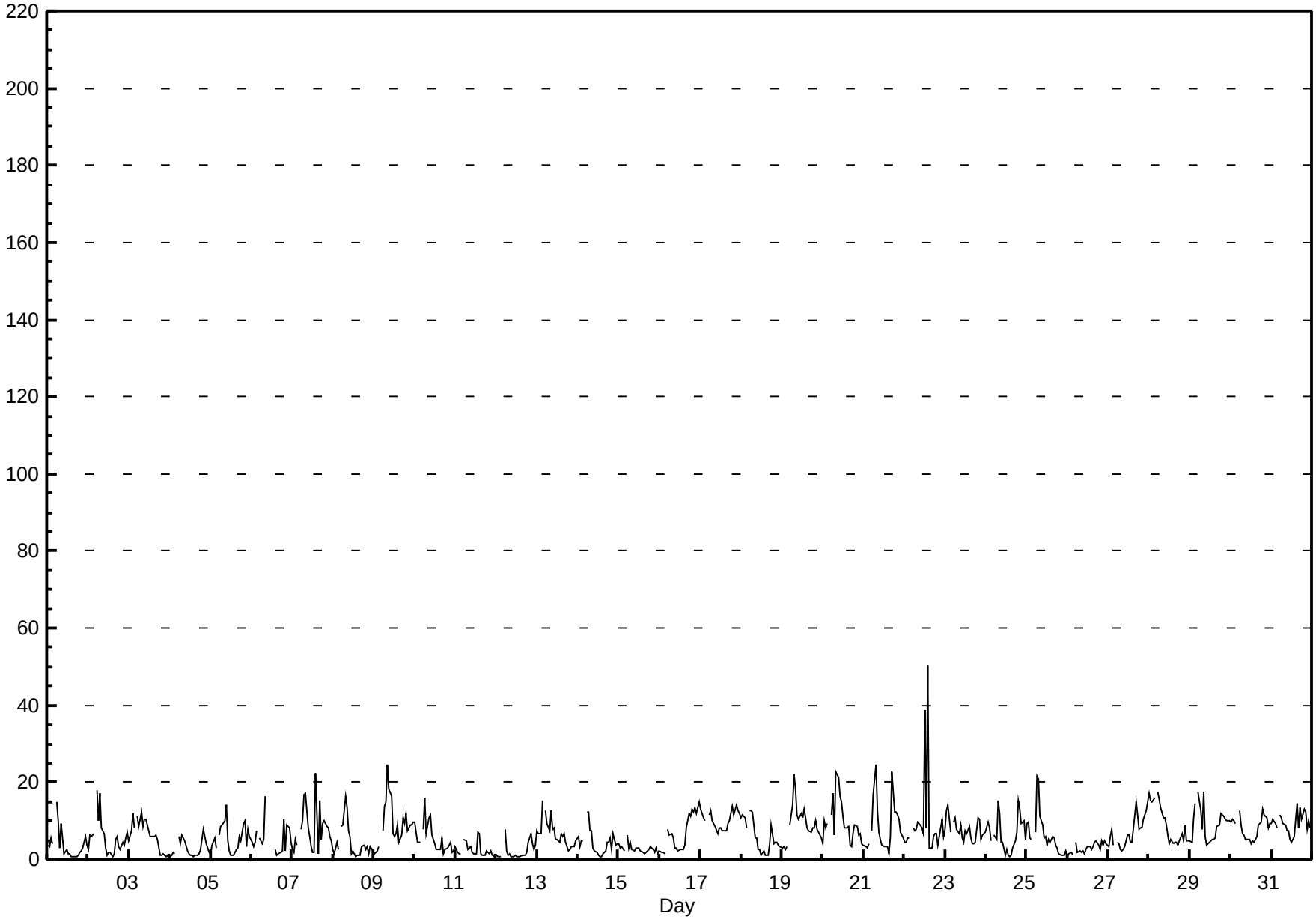
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

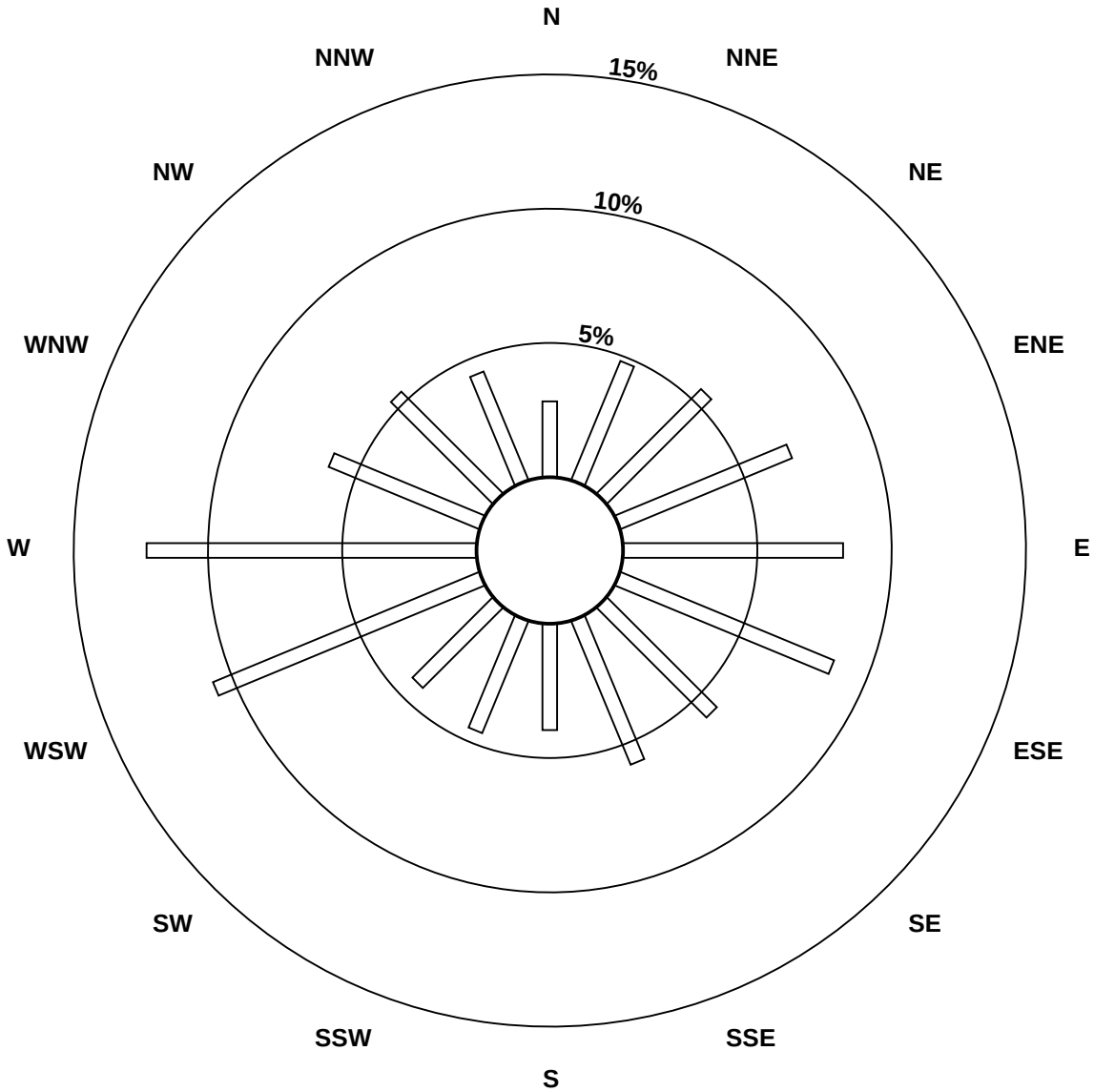
Beaverlodge - October 2014



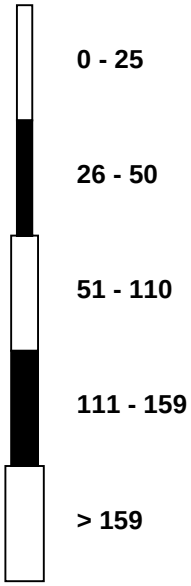
Pollutant Rose

Nitrogen Dioxide (NO_2) - ppb

Beaverlodge - October 2014



Pollutant Classes (ppb)

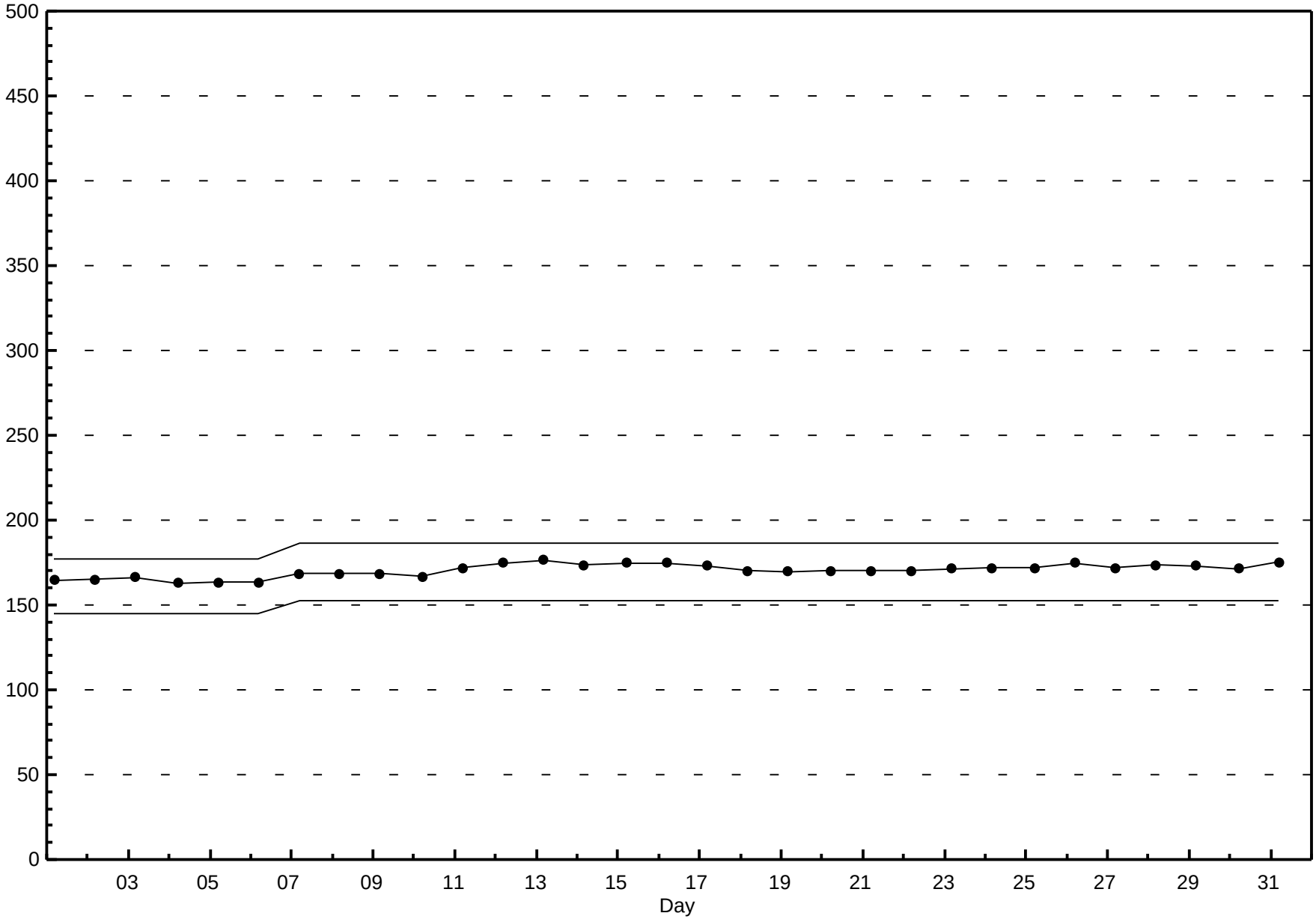


Peace Airshed Zone Association

Span Responses

Nitrogen Dioxide (NO_2)

Beaverlodge - October 2014



Peace Airshed Zone Association

Hourly Averages

Nitrogen Oxide (NO) - ppb

Beaverlodge - October 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 11.3 ppb on Oct 17 07:00 Maximum Daily Average: 4.1 ppb on Oct 17

Minimum Value: 0 ppb on Oct 1 21:00 Minimum Daily Average: 0.0 ppb on Oct 12
Maximum Diurnal Average: 2.5 ppb at hour 10 Minimum Diurnal Average: 0.1 ppb at hour 23
Monthly Average: 0.92 ppb Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.0$ Median = 0.1 $Q_3 = 0.9$ $P_{90} = 2.9$ $P_{99} = 8.0$

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-Oct	0	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
2-Oct	0	0	0	0	A	0	0	1	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0.3	1.3
3-Oct	0	0	0	0	A	0	0	1	1	2	2	3	2	4	3	2	2	0	0	0	0	0	0	0	1.0	3.6
4-Oct	0	0	0	0	A	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.3
5-Oct	0	0	0	0	A	0	0	0	2	5	1	0	0	1	0	6	0	0	0	0	0	0	0	0	0.7	5.6
6-Oct	0	0	0	0	A	0	0	0	2	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0.2	2.1
7-Oct	0	0	0	0	A	0	0	1	5	4	2	1	1	0	0	0	1	0	0	0	0	0	0	0	0.6	4.6
8-Oct	0	0	0	0	A	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.5
9-Oct	0	0	0	0	A	0	0	0	5	4	4	4	5	5	4	2	1	1	0	0	0	0	0	0	1.6	5.3
10-Oct	0	0	0	0	A	0	0	0	2	7	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0.7	7.4
11-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
12-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
13-Oct	0	0	0	0	A	0	0	0	1	2	3	2	2	1	1	0	0	0	0	0	0	0	0	0	0.6	2.8
14-Oct	0	0	0	0	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.1
15-Oct	0	0	0	0	A	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.3	1.0
16-Oct	0	0	0	0	A	0	0	0	1	1	1	1	2	2	2	3	3	3	1	3	1	2	1	3	1.3	3.1
17-Oct	5	2	1	1	A	7	11	11	10	6	4	7	5	3	4	5	4	3	2	2	1	0	1	2	4.1	11.3
18-Oct	1	3	2	3	A	3	1	4	5	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.1	4.8
19-Oct	0	0	0	0	A	0	0	1	1	1	1	3	2	4	2	1	1	0	0	0	0	0	0	0	0.8	3.6
20-Oct	0	0	0	0	A	0	0	0	11	9	10	3	4	1	1	0	0	0	0	0	0	0	0	0	1.7	10.6
21-Oct	0	0	0	0	A	0	0	1	1	2	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0.4	1.8
22-Oct	0	0	0	0	A	0	0	0	0	1	1	1	2	0	0	1	0	0	0	0	0	0	0	0	0.3	1.5
23-Oct	0	0	0	0	A	0	0	0	0	0	0	0	1	1	1	1	1	0	0	2	1	0	0	0	0.4	2.1
24-Oct	0	1	0	0	A	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.2
25-Oct	0	0	0	0	A	0	1	5	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.5	5.1
26-Oct	0	0	0	0	A	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0.3	1.2
27-Oct	0	0	0	0	A	0	0	0	0	1	2	6	5	3	2	3	3	1	0	0	0	0	0	0	1.2	6.4
28-Oct	8	1	0	0	A	0	1	1	1	3	5	3	2	2	1	1	1	0	0	0	0	0	0	0	1.4	7.6
29-Oct	0	0	0	0	A	2	2	1	3	4	4	4	4	4	3	3	3	1	0	1	1	1	0	2	2.0	4.5
30-Oct	1	2	1	2	A	3	6	5	5	7	8	8	7	5	5	5	5	2	1	3	3	3	1	2	3.9	8.0
31-Oct	0	3	2	3	A	1	2	4	7	8	8	4	2	2	2	1	0	0	0	0	0	0	0	0	2.1	8.2
	0.5	0.4	0.2	0.3	--	0.6	0.9	1.2	2.2	2.5	2.2	1.9	1.7	1.4	1.2	1.1	0.8	0.5	0.2	0.4	0.2	0.2	0.1	0.4	Diurnal Average	
	7.6	2.6	2.2	3.4	--	6.7	11.3	11.0	10.6	8.6	10.3	7.9	6.6	5.4	4.8	5.6	4.7	2.8	1.7	2.9	3.0	2.8	1.3	3.1	Diurnal Maximum	

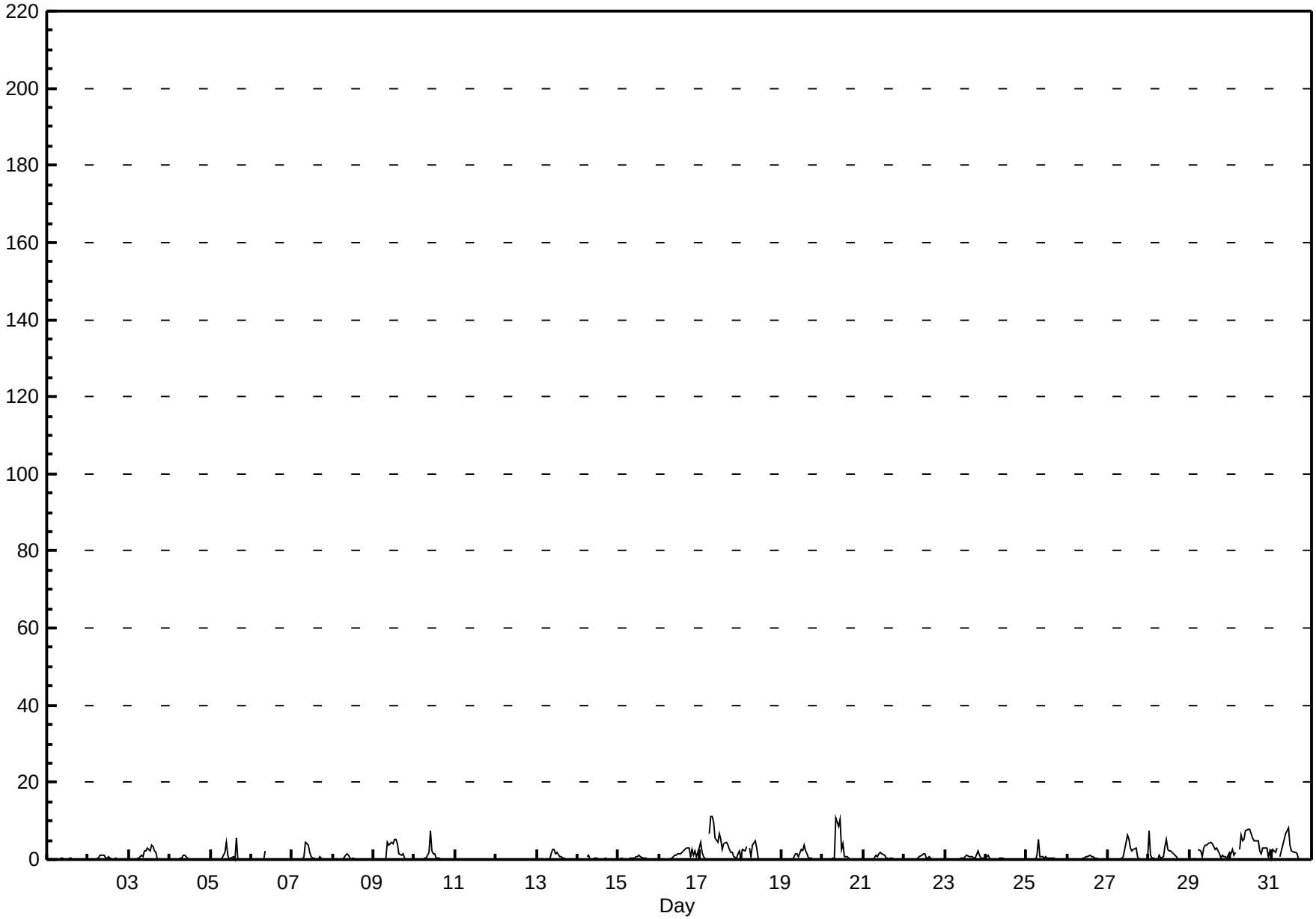
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Nitrogen Oxide (NO) - ppb

Beaverlodge - October 2014



Peace Airshed Zone Association

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Beaverlodge - October 2014

Maximum Value: 328.4 ppb on Oct 5 16:00

Maximum Daily Average: 16.9 ppb on Oct 5

Minimum Value: 0 ppb on Oct 6 23:00

Minimum Daily Average: 0.2 ppb on Oct 12

Maximum Diurnal Average: 13.0 ppb at hour 16

Minimum Diurnal Average: 0.7 ppb at hour 3

Monthly Average: 2.92 ppb

Percentiles: $P_1 = 0.1$ $P_{10} = 0.1$ $Q_1 = 0.2$ Median = 0.5 $Q_3 = 2.8$ $P_{90} = 6.6$ $P_{99} = 28.5$

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-Oct	0	0	0	1	A	0	0	0	2	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.5	2.4
2-Oct	0	0	0	0	A	4	1	5	2	2	1	7	1	1	0	0	2	0	0	0	0	0	0	0	1.3	7.0
3-Oct	0	0	0	0	A	1	2	3	2	5	9	5	3	5	4	4	3	1	0	0	0	0	0	0	2.2	8.7
4-Oct	0	0	0	0	A	0	1	2	3	2	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0.5	2.8
5-Oct	0	0	0	0	A	0	0	1	5	12	2	0	6	29	0	328	0	1	0	1	0	0	0	0	16.9	328.4
6-Oct	0	0	0	0	A	0	0	0	6	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0.5	5.6
7-Oct	0	0	1	1	A	0	0	6	10	8	4	1	9	1	1	1	21	3	0	0	0	0	0	0	2.8	20.7
8-Oct	0	0	0	0	A	0	2	11	7	3	3	0	1	0	0	0	0	0	0	0	0	0	0	0	1.3	10.5
9-Oct	0	0	0	0	A	0	0	1	17	7	17	5	6	6	21	2	2	2	1	0	0	1	0	0	3.9	21.1
10-Oct	2	1	0	0	A	0	5	1	7	13	4	3	2	1	0	0	0	0	0	1	0	0	0	0	1.9	12.9
11-Oct	0	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
12-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0.2	0.6
13-Oct	0	0	0	1	A	0	0	0	4	8	5	2	2	2	4	1	0	0	0	0	0	0	0	0	1.4	8.3
14-Oct	0	1	0	0	A	3	7	0	0	0	1	1	1	0	0	1	1	0	0	0	0	0	0	1	0.8	6.7
15-Oct	0	0	1	0	A	1	0	2	1	1	2	1	2	1	1	1	1	0	1	1	0	0	1	0	0.7	1.9
16-Oct	0	0	0	0	A	0	1	1	2	1	2	2	2	3	3	4	4	5	3	10	4	9	3	21	3.5	20.6
17-Oct	10	4	2	2	A	16	37	32	20	13	6	11	6	5	5	5	4	4	4	8	4	3	5	7	9.3	36.7
18-Oct	6	10	4	5	A	5	3	11	6	7	1	1	1	1	0	0	0	0	0	0	0	0	0	0	2.7	10.7
19-Oct	0	0	0	0	A	0	1	6	7	9	4	5	3	9	4	3	1	1	0	0	0	0	0	0	2.3	9.4
20-Oct	0	0	1	0	A	0	2	0	57	35	27	16	8	1	1	1	0	0	0	0	0	0	0	0	6.6	57.0
21-Oct	0	0	0	0	A	0	1	7	2	3	3	2	2	1	1	0	1	2	0	0	0	0	0	0	1.2	7.3
22-Oct	0	0	0	0	A	0	1	0	1	2	2	3	26	2	7	26	0	0	0	0	0	0	0	0	3.1	26.4
23-Oct	0	0	0	0	A	0	1	1	0	1	1	0	1	2	2	1	1	1	1	11	7	1	1	2	1.6	11.2
24-Oct	1	5	1	0	A	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.7	5.5
25-Oct	0	0	0	0	A	0	29	29	5	2	1	1	1	1	0	1	1	0	0	0	0	0	0	1	3.2	29.4
26-Oct	0	0	0	0	A	0	0	0	0	1	1	1	1	2	1	1	1	1	0	0	0	0	0	0	0.5	1.5
27-Oct	0	0	0	0	A	0	1	0	1	1	4	12	11	6	4	4	5	2	0	0	0	0	0	5	2.5	11.7
28-Oct	22	3	1	2	A	1	4	2	2	7	9	3	3	3	2	3	1	1	0	0	0	1	2	0	3.1	21.9
29-Oct	0	0	1	2	A	5	9	2	21	6	4	5	6	5	6	4	4	3	5	4	2	3	2	3	4.5	21.2
30-Oct	4	5	2	2	A	4	8	6	7	9	9	9	8	6	6	6	8	4	3	9	5	9	4	3	5.9	8.9
31-Oct	1	6	5	4	A	2	6	8	14	11	17	7	3	3	3	4	1	0	1	0	1	0	1	0	4.3	17.1
	1.6	1.2	0.7	0.7	--	1.5	3.9	4.5	6.8	5.7	4.6	3.6	3.9	3.3	2.6	13.0	2.1	1.1	0.7	1.6	0.9	0.9	0.8	1.5	Diurnal Average	
	21.9	9.7	5.2	4.9	--	15.9	36.7	31.9	57.0	34.6	27.3	16.5	25.7	28.6	21.1	328.4	20.7	4.9	5.5	11.2	7.4	9.2	5.1	20.6	Diurnal Maximum	

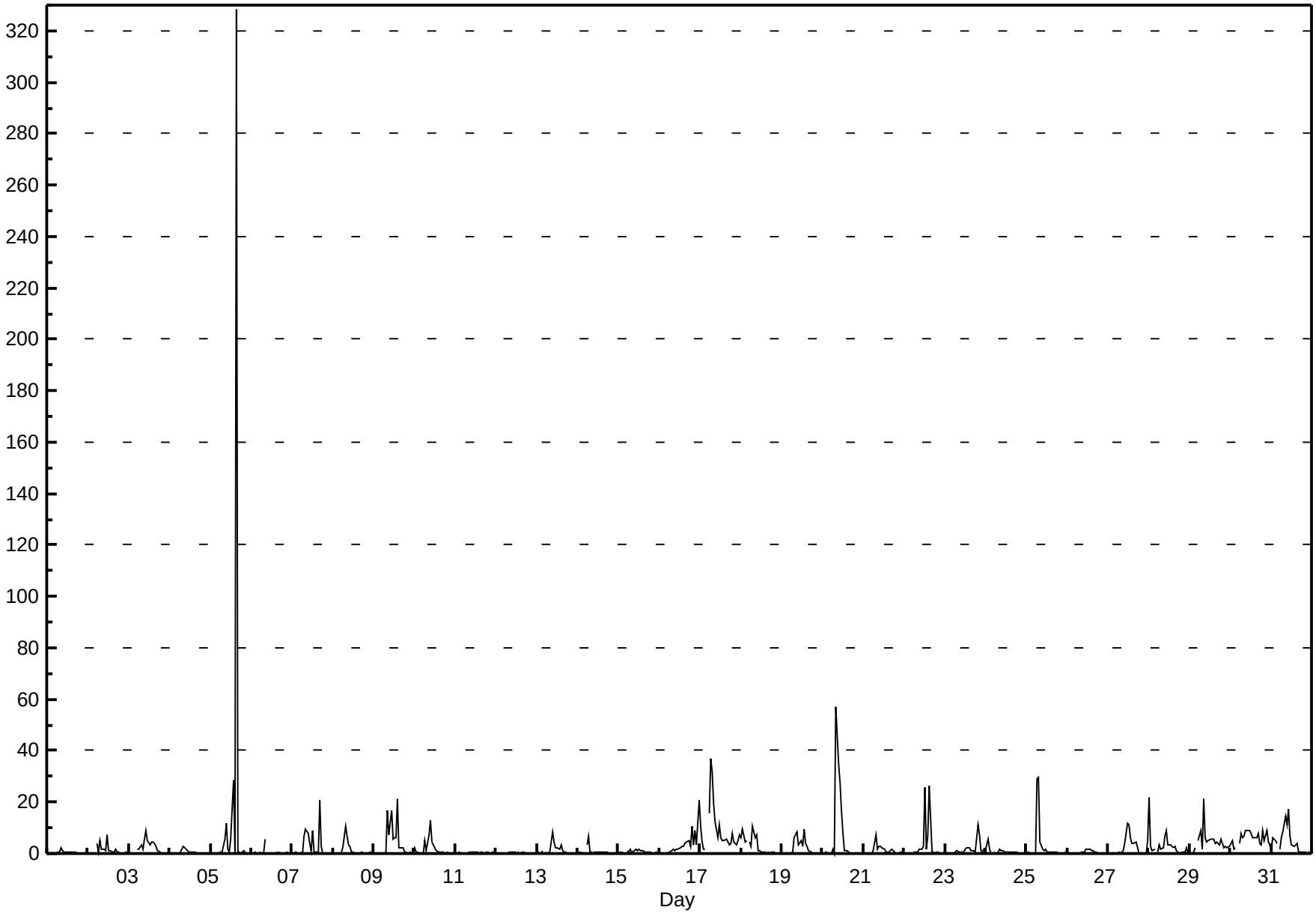
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Beaverlodge - October 2014



Peace Airshed Zone Association

Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Beaverlodge - October 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 22.3 ppb on Oct 20 09:00
Maximum Daily Average: 12.8 ppb on Oct 17

Minimum Value: 0 ppb on Oct 1 18:00
Maximum Diurnal Average: 8.4 ppb at hour 9
Monthly Average: 5.15 ppb

Minimum Daily Average: 0.9 ppb on Oct 11
Minimum Diurnal Average: 3.5 ppb at hour 16
Percentiles: P_1 = 0.4 P_{10} = 0.7 Q_1 = 1.8 Median = 4.0 Q_3 = 7.8 P_{90} = 11.2 P_{99} = 18.3

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-Oct	2	2	4	2	A	5	5	2	3	2	1	1	1	1	1	1	0	0	1	1	2	2	3	2	1.9	5.3
2-Oct	2	3	3	3	A	9	7	10	7	5	2	1	2	1	1	1	1	2	2	2	3	3	4	5	3.5	10.1
3-Oct	3	6	7	6	A	9	8	10	7	10	9	10	8	9	8	7	7	1	1	1	1	1	0	1	5.6	10.0
4-Oct	0	1	1	1	A	3	3	4	5	3	2	1	1	1	1	1	1	1	1	3	2	2	2	1	1.6	5.0
5-Oct	1	2	3	2	A	4	3	5	7	12	4	1	1	1	1	1	2	2	2	6	7	2	5	5	3.4	12.3
6-Oct	3	3	3	4	A	4	3	4	10	C	C	C	C	C	2	1	1	1	1	4	1	2	3	2	2.8	9.8
7-Oct	2	2	2	2	A	7	6	9	15	11	6	3	2	2	2	1	3	4	6	8	6	5	4	4	4.8	14.5
8-Oct	1	1	2	1	A	7	7	8	10	7	2	1	1	1	1	1	1	2	3	2	2	1	1	1	2.7	9.9
9-Oct	1	1	2	2	A	6	9	11	20	16	14	10	11	11	9	5	5	9	9	9	7	7	8	8	8.3	20.3
10-Oct	7	5	4	4	A	6	7	5	8	16	6	5	5	3	2	1	1	1	1	1	2	2	1	1	4.0	15.8
11-Oct	2	1	1	1	A	3	2	2	2	1	1	1	1	1	1	1	1	0	1	1	1	1	0	0	0.9	2.9
12-Oct	1	0	0	0	A	3	1	1	1	0	0	0	0	0	0	0	0	1	1	2	3	3	2	3	1.1	3.4
13-Oct	6	6	5	7	A	10	7	7	9	8	9	6	6	4	4	4	6	3	2	2	2	3	3	3	5.2	9.5
14-Oct	4	3	4	4	A	10	9	4	3	1	2	2	1	0	0	1	1	2	2	3	2	4	3	3	2.9	9.7
15-Oct	3	3	2	2	A	5	3	2	2	2	3	3	3	2	2	2	2	2	2	2	2	1	2	1	2.4	4.6
16-Oct	2	2	2	1	A	4	5	5	4	4	4	3	4	4	4	6	9	12	10	14	11	14	12	13	6.5	14.0
17-Oct	16	13	10	8	A	16	21	18	18	13	10	13	12	8	10	11	12	11	12	13	11	11	12	14	12.8	21.0
18-Oct	11	13	11	11	A	13	11	11	10	6	1	1	1	1	1	1	1	2	3	2	2	2	3	3	5.1	12.8
19-Oct	3	2	2	3	A	5	7	9	12	11	8	11	11	11	11	7	5	6	6	6	7	6	5	4	6.8	12.3
20-Oct	2	5	6	5	A	10	8	5	22	19	22	8	14	5	7	3	2	2	4	5	6	5	4	3	7.4	22.3
21-Oct	3	3	2	3	A	6	8	13	8	7	5	5	4	3	2	1	3	9	8	11	9	8	6	4	5.7	13.1
22-Oct	2	3	3	5	A	6	5	5	8	8	7	6	6	2	2	1	1	2	3	4	2	4	7	4	4.2	8.2
23-Oct	4	7	7	6	A	7	6	4	5	6	4	4	5	6	7	5	4	4	4	8	7	5	5	6	5.5	8.4
24-Oct	6	8	6	4	A	4	4	6	7	2	2	1	1	1	1	1	1	2	3	8	6	3	4	2	3.5	8.5
25-Oct	5	6	4	4	A	5	8	20	11	8	4	5	3	4	4	5	4	3	2	1	1	1	1	1	4.7	19.8
26-Oct	1	1	1	1	A	3	2	2	1	2	2	2	2	4	3	3	4	4	3	2	3	2	4	2	2.3	3.6
27-Oct	3	2	6	3	A	3	2	2	2	3	5	11	9	6	5	8	11	8	7	7	7	9	12	13	6.2	13.3
28-Oct	22	13	13	13	A	13	14	13	8	11	11	7	6	6	5	4	4	4	4	5	4	5	4	4	8.3	21.8
29-Oct	4	4	6	11	A	15	12	7	9	8	7	7	8	8	7	7	9	10	9	11	11	11	10	11	8.8	14.9
30-Oct	11	12	11	10	A	12	14	11	11	12	13	12	10	10	9	10	11	10	10	13	13	12	9	11	11.2	13.8
31-Oct	9	12	10	11	A	11	12	12	14	14	13	7	6	6	8	10	4	7	7	10	7	5	5	5	8.9	14.2
	4.6	4.7	4.5	4.5	--	7.1	7.0	7.3	8.4	7.5	6.0	5.0	4.8	4.0	3.8	3.5	3.7	4.1	4.1	5.3	4.9	4.6	4.5	4.5	Diurnal Average	
	21.8	13.1	12.7	12.7	--	16.3	21.0	19.8	22.3	18.9	22.3	13.4	13.8	11.4	10.8	11.4	11.7	12.4	12.1	13.9	13.3	14.0	12.0	13.5	Diurnal Maximum	

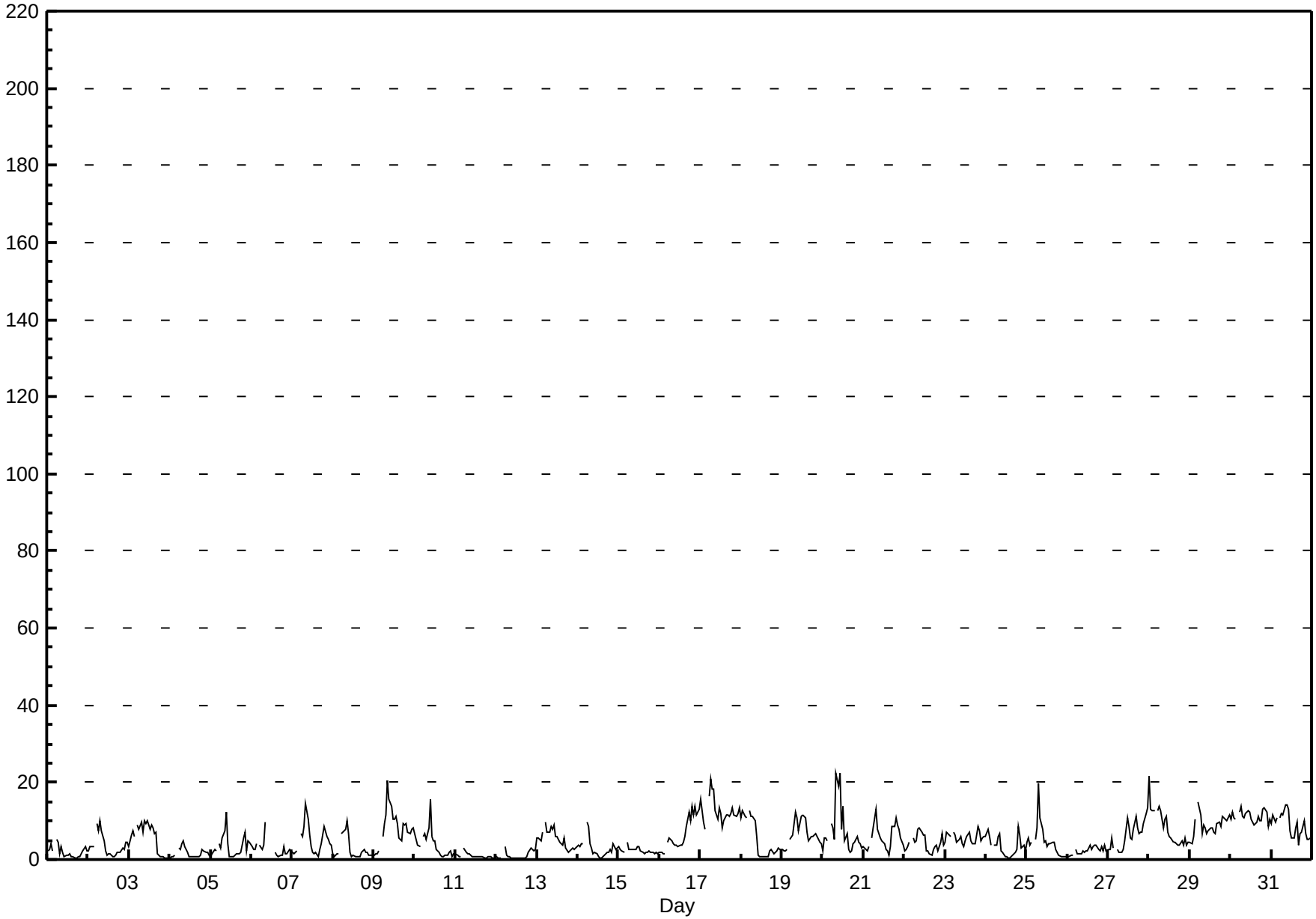
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Beaverlodge - October 2014



Peace Airshed Zone Association

Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

Beaverlodge - October 2014

Maximum Value: 73.8 ppb on Oct 20 09:00

Maximum Daily Average: 18.9 ppb on Oct 17

Minimum Value: 1 ppb on Oct 1 18:00

Minimum Daily Average: 2.2 ppb on Oct 12

Maximum Diurnal Average: 16.1 ppb at hour 9

Minimum Diurnal Average: 5.5 ppb at hour 16

Monthly Average: 8.60 ppb

Percentiles: P_1 = 0.8 P_{10} = 1.7 Q_1 = 3.3 Median = 6.6 Q_3 = 11.5 P_{90} = 17.2 P_{99} = 47.1

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-Oct	4	3	6	5	A	15	10	3	11	7	2	3	2	2	1	1	1	1	1	2	2	3	6	4	4.1	15.5
2-Oct	3	6	6	7	A	22	11	21	10	9	4	2	3	3	1	2	7	6	4	3	5	4	5	7	6.5	21.5
3-Oct	5	7	12	8	A	11	10	15	10	16	18	14	9	10	10	9	9	6	2	1	2	1	1	1	8.2	18.2
4-Oct	1	1	2	2	A	6	4	7	8	7	3	2	1	2	1	1	1	2	3	5	8	4	3	2	3.4	8.3
5-Oct	1	4	5	3	A	7	9	9	16	26	6	3	2	7	2	3	3	7	5	9	10	3	8	6	6.7	25.9
6-Oct	5	3	5	7	A	6	4	5	22	C	C	C	C	C	3	1	2	2	3	11	2	9	8	4	5.8	21.9
7-Oct	3	2	6	4	A	8	10	23	26	16	9	4	3	2	23	2	36	5	10	10	9	8	6	5	10.1	36.1
8-Oct	3	1	4	3	A	9	10	25	20	10	9	2	3	1	1	1	1	4	4	3	3	2	4	2	5.4	25.2
9-Oct	2	2	2	3	A	8	14	15	42	25	31	11	11	13	18	7	8	13	10	12	8	9	9	10	12.2	41.6
10-Oct	10	7	4	5	A	8	21	8	18	24	11	8	6	4	3	3	5	2	3	4	4	5	2	2	7.2	23.8
11-Oct	3	2	2	1	A	5	5	3	3	4	2	2	2	7	7	1	1	1	3	2	2	2	1	1	2.8	7.2
12-Oct	1	1	1	1	A	8	2	1	2	1	1	1	1	1	1	2	2	1	2	4	7	4	3	4	2.2	7.9
13-Oct	7	7	7	17	A	13	9	8	17	16	13	7	7	6	10	7	7	5	2	3	4	3	3	5	8.0	17.0
14-Oct	6	4	5	5	A	14	18	8	8	3	3	3	2	1	1	2	3	5	5	6	3	7	4	5	5.1	18.1
15-Oct	4	3	4	2	A	7	3	6	3	3	4	4	4	3	3	2	2	3	3	4	3	2	3	2	3.4	6.5
16-Oct	2	2	2	2	A	8	7	8	7	4	4	4	5	5	6	7	12	17	14	23	16	22	14	32	9.7	32.4
17-Oct	24	16	12	11	A	25	48	41	28	21	13	19	14	12	12	13	13	13	15	20	16	16	16	19	18.9	48.1
18-Oct	17	20	14	12	A	15	13	18	11	12	4	4	1	3	1	1	1	4	9	4	5	5	4	3	7.9	20.0
19-Oct	3	4	2	3	A	9	15	27	23	19	14	17	13	22	15	10	9	8	8	8	10	8	6	5	11.3	27.3
20-Oct	4	10	9	10	A	12	19	6	74	50	43	31	18	9	9	10	4	3	7	9	9	6	7	4	15.7	73.8
21-Oct	4	3	3	4	A	8	18	32	14	9	8	6	5	4	4	2	7	25	12	12	12	10	7	6	9.4	31.8
22-Oct	5	5	6	6	A	8	8	8	11	11	10	10	56	10	57	3	3	6	7	7	4	8	11	6	11.5	57.3
23-Oct	8	13	14	7	A	10	11	9	7	10	6	5	8	9	11	7	5	5	5	21	18	6	7	7	9.1	21.2
24-Oct	8	15	10	5	A	6	5	16	13	5	6	2	3	1	1	2	3	5	7	16	13	9	10	5	7.2	15.6
25-Oct	10	10	6	5	A	7	50	50	16	10	7	7	4	6	5	6	6	4	3	2	1	1	1	3	9.6	50.3
26-Oct	1	1	2	1	A	5	2	3	2	3	2	4	5	5	4	5	5	5	4	3	5	4	5	4	3.5	5.5
27-Oct	3	6	8	4	A	5	5	3	3	4	7	18	18	11	8	11	20	14	8	8	8	10	13	20	9.3	20.1
28-Oct	38	18	16	18	A	18	18	15	12	17	18	10	7	8	6	7	5	4	5	7	5	9	7	5	11.9	38.3
29-Oct	5	5	11	16	A	21	21	10	31	12	8	9	11	10	10	9	12	12	17	16	13	12	12	13	12.9	31.0
30-Oct	14	15	12	11	A	15	15	13	12	14	14	14	12	11	10	12	17	13	13	21	16	17	12	11	13.6	21.4
31-Oct	11	15	13	12	A	13	17	17	22	17	20	12	7	9	13	18	9	14	11	13	13	8	11	9	13.2	22.4
	6.9	6.8	6.8	6.4	--	10.7	13.4	14.0	16.1	12.8	10.0	7.9	8.2	6.6	8.3	5.5	7.1	6.9	6.6	8.7	7.5	7.1	6.7	6.9	Diurnal Average	
	38.3	20.0	16.0	17.7	--	24.8	50.3	50.2	73.8	49.7	42.6	31.4	56.1	22.3	57.3	18.1	36.1	24.6	17.5	23.4	18.1	22.2	16.5	32.4	Diurnal Maximum	

C - Calibration

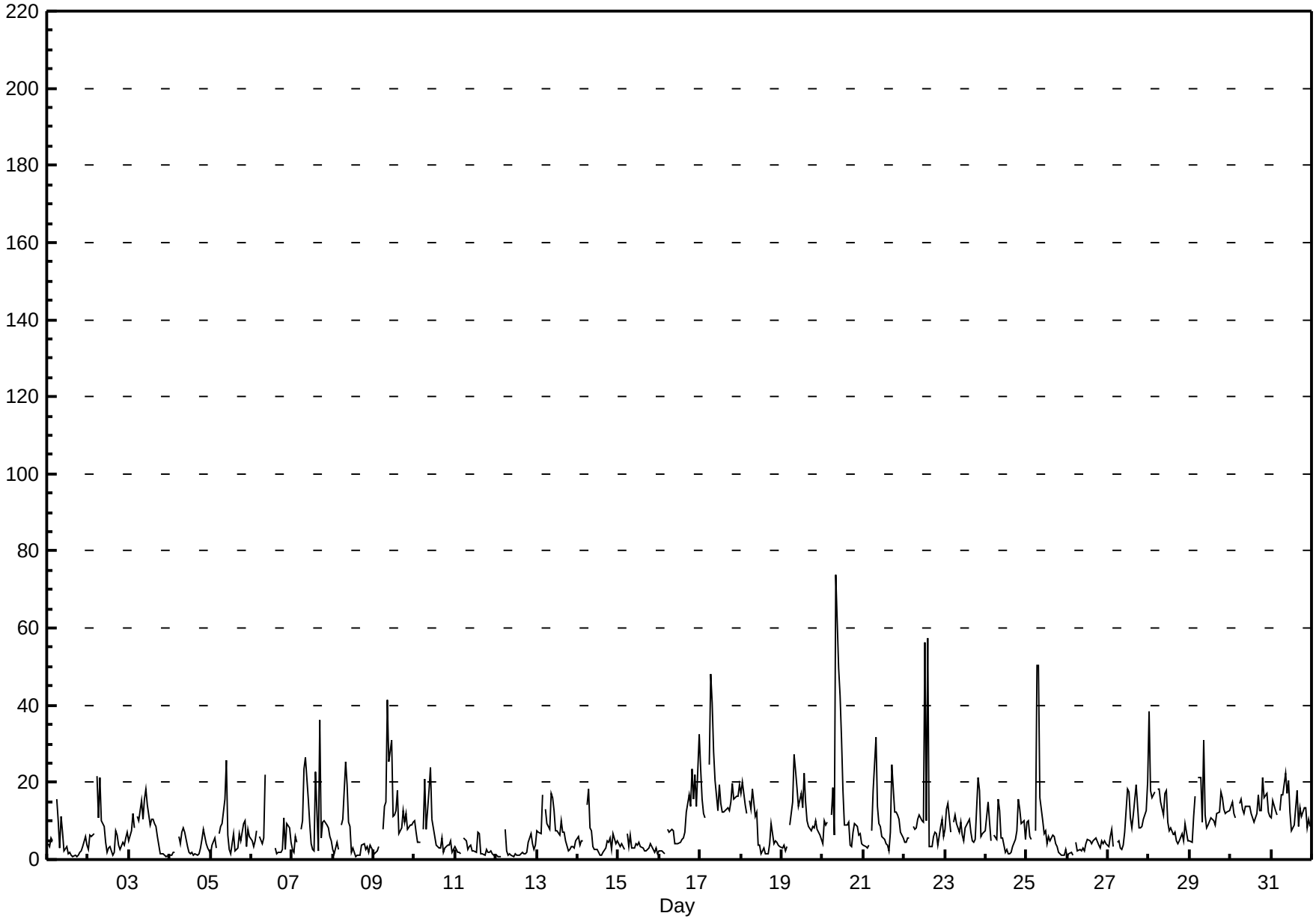
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

Beaverlodge - October 2014

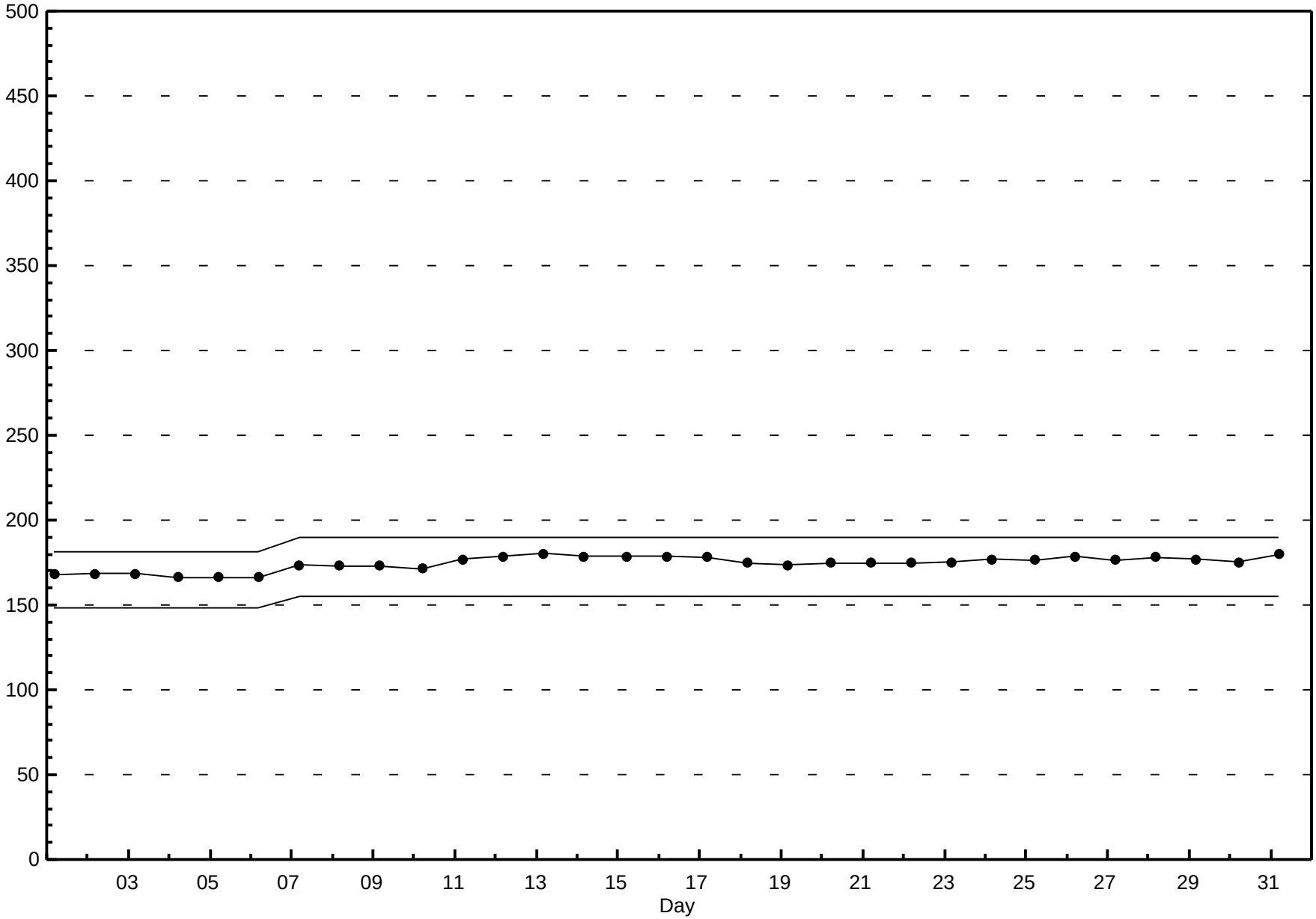


Peace Airshed Zone Association

Span Responses

Oxides of Nitrogen (NO_X)

Beaverlodge - October 2014



Peace Airshed Zone Association

Hourly Averages

Ozone (O_3) - ppb

Beaverlodge - October 2014

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

Maximum Value: 40.1 ppb on Oct 7 16:00

Maximum Daily Average: 33.3 ppb on Oct 11

Minimum Value: 1 ppb on Oct 31 04:00

Minimum Daily Average: 3.3 ppb on Oct 30

Maximum Diurnal Average: 26.9 ppb at hour 16

Minimum Diurnal Average: 15.9 ppb at hour 9

Monthly Average: 21.55 ppb

Percentiles: P_1 = 1.4 P_{10} = 5.6 Q_1 = 12.9 Median = 23.1 Q_3 = 30.4 P_{90} = 35.2 P_{99} = 39.1

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-Oct	22	24	20	26	A	30	28	33	32	33	35	34	33	28	22	19	19	23	25	22	23	21	20	23	25.9	34.9
2-Oct	23	21	20	20	A	14	10	7	10	15	21	23	24	25	27	26	26	25	24	23	20	22	17	16	19.9	26.9
3-Oct	18	14	14	13	A	8	6	6	11	9	11	10	10	11	10	12	12	24	25	25	23	23	23	21	14.7	25.1
4-Oct	22	19	18	17	A	19	16	16	16	23	28	37	39	39	39	40	39	39	37	35	34	35	36	37	29.5	39.6
5-Oct	38	33	31	31	A	29	30	24	21	17	26	37	39	39	37	35	34	32	31	26	22	28	21	20	29.6	38.7
6-Oct	21	23	19	18	A	32	32	30	25	30	35	38	C	C	C	38	39	39	37	34	34	33	30	30	30.9	39.0
7-Oct	32	32	28	29	A	25	25	20	11	18	25	31	35	35	37	40	37	32	30	26	31	33	34	34	29.6	40.1
8-Oct	34	34	31	25	A	17	15	14	12	20	33	36	36	37	37	38	38	34	33	34	33	35	35	36	30.3	38.0
9-Oct	35	35	34	32	A	28	23	21	11	16	15	15	15	17	20	22	22	16	15	13	16	17	15	13	20.3	35.0
10-Oct	14	15	16	16	A	16	14	14	13	13	22	26	28	32	33	34	36	35	34	33	31	30	33	31	24.7	36.2
11-Oct	31	30	30	32	A	33	33	31	30	35	35	37	37	38	38	37	35	35	33	32	31	30	31	31	33.3	38.0
12-Oct	29	29	30	31	A	28	31	31	32	33	34	35	36	36	36	35	35	34	32	29	29	30	29	28	31.8	35.8
13-Oct	25	24	24	17	A	13	19	23	21	15	19	22	20	26	28	28	24	24	25	25	26	25	25	24	22.7	28.3
14-Oct	22	21	20	17	A	6	7	25	28	28	27	26	34	37	39	39	38	38	36	34	27	18	20	14	26.2	39.4
15-Oct	14	10	10	10	A	8	9	8	8	8	10	10	10	11	12	14	13	10	8	10	11	11	10	11	10.3	14.4
16-Oct	10	12	13	12	A	10	8	7	9	9	8	8	9	10	11	11	9	7	6	4	4	2	3	4	8.1	12.7
17-Oct	2	2	3	3	A	2	2	2	3	5	6	6	7	10	10	7	6	4	2	4	5	6	4	2	4.5	10.2
18-Oct	5	4	2	1	A	2	3	2	4	17	31	37	37	37	39	40	39	38	35	35	32	30	30	32	23.1	39.6
19-Oct	32	34	34	31	A	28	22	18	13	15	24	14	20	21	22	28	31	28	30	26	27	29	31	33	25.7	34.1
20-Oct	36	25	23	25	A	15	14	24	14	17	14	25	21	31	25	33	37	36	32	31	28	29	30	31	26.0	36.9
21-Oct	30	29	25	25	A	22	18	15	19	22	23	26	28	30	33	39	34	28	26	26	25	25	27	28	26.2	38.6
22-Oct	31	32	29	27	A	28	29	28	23	24	26	28	30	33	37	36	36	33	31	29	30	30	29	28	29.8	36.8
23-Oct	27	23	24	23	A	21	23	22	17	16	22	26	17	14	12	12	11	10	8	5	5	6	6	5	15.4	27.3
24-Oct	4	3	5	11	A	23	22	26	26	29	29	35	35	35	37	37	36	34	32	28	28	31	29	30	26.4	37.1
25-Oct	23	21	26	24	A	24	20	8	15	20	27	28	30	28	28	27	25	25	26	31	32	31	30	29	25.2	31.7
26-Oct	29	28	27	26	A	26	22	21	22	21	21	21	21	20	23	24	23	22	24	24	24	25	24	25	23.7	29.0
27-Oct	25	24	21	23	A	24	24	23	21	20	19	18	19	23	25	23	19	17	21	21	19	16	13	9	20.2	24.9
28-Oct	3	4	7	5	A	7	6	7	13	13	15	17	18	19	18	18	18	17	17	14	14	12	14	13	12.4	18.6
29-Oct	13	14	11	6	A	4	4	6	6	8	10	12	12	13	13	12	9	6	6	4	3	2	2	2	7.7	13.8
30-Oct	2	2	2	1	A	1	1	1	2	4	5	6	7	8	8	7	5	3	2	2	2	2	2	1	3.3	8.1
31-Oct	3	2	1	1	A	2	2	1	2	5	8	17	22	24	25	24	30	25	19	11	11	13	16	14	12.1	30.1
	21.1	20.1	19.2	18.6	--	17.6	16.7	16.6	15.9	18.0	21.4	23.9	24.2	25.5	26.0	26.9	26.4	24.9	24.0	22.5	22.0	21.9	21.4	21.1	Diurnal Average	
	38.4	35.0	34.1	32.0	--	33.0	33.1	33.3	31.7	35.0	35.3	37.9	39.4	38.8	39.2	40.1	39.3	39.0	37.5	34.9	34.3	34.8	35.7	37.2	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

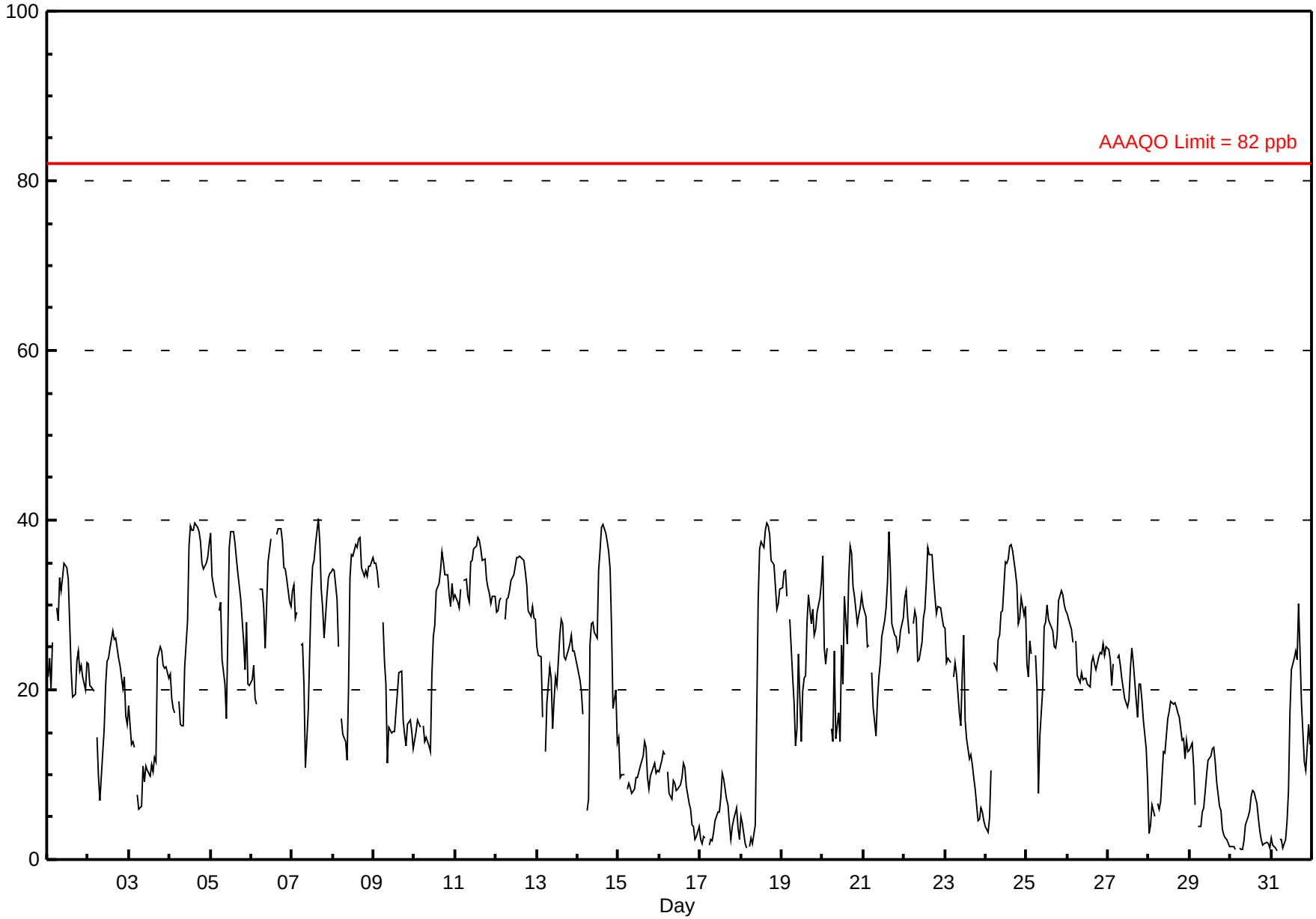
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82 ppb 24-hr na

Peace Airshed Zone Association

Hourly Averages

Ozone (O_3) - ppb

Beaverlodge - October 2014



Peace Airshed Zone Association

Hourly Maximums

Ozone (O_3) - ppb

Beaverlodge - October 2014

Maximum Value: 41.4 ppb on Oct 7 16:00

Maximum Daily Average: 34.8 ppb on Oct 11

Minimum Value: 1 ppb on Oct 31 04:00

Minimum Daily Average: 4.3 ppb on Oct 30

Maximum Diurnal Average: 28.6 ppb at hour 16

Minimum Diurnal Average: 19.7 ppb at hour 7

Monthly Average: 23.95 ppb

Percentiles: P_1 = 1.8 P_{10} = 7.3 Q_1 = 15.2 Median = 25.7 Q_3 = 33.0 P_{90} = 37.1 P_{99} = 40.6

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-Oct	24	27	24	35	A	34	33	35	34	35	36	36	34	30	26	20	21	25	26	24	24	23	22	24	28.4	36.0
2-Oct	24	23	22	22	A	19	14	13	13	17	23	25	25	28	28	27	27	27	25	24	24	25	22	18	22.4	27.8
3-Oct	20	16	16	16	A	11	7	9	13	11	13	12	11	14	12	15	13	26	26	25	24	23	24	23	16.6	26.4
4-Oct	23	20	19	19	A	20	20	18	18	26	34	39	40	40	40	41	40	40	39	37	36	36	37	38	31.4	40.8
5-Oct	39	39	35	33	A	33	34	33	30	22	32	39	40	40	39	37	36	35	32	29	28	29	24	23	33.0	39.9
6-Oct	23	25	22	26	A	33	33	31	32	34	37	39	C	C	C	40	40	40	39	38	35	35	33	32	33.3	40.2
7-Oct	32	33	33	31	A	28	27	30	20	21	30	34	36	36	40	41	41	36	32	29	36	37	38	36	32.9	41.4
8-Oct	36	37	38	28	A	19	17	18	18	25	38	38	38	38	38	39	39	38	37	36	35	36	35	37	32.8	38.9
9-Oct	36	36	36	33	A	32	26	25	19	18	17	17	17	19	22	23	24	21	16	16	17	17	16	15	22.6	36.2
10-Oct	17	17	18	17	A	16	17	18	17	20	27	28	30	34	35	36	37	37	36	35	33	36	35	33	27.3	37.4
11-Oct	33	32	32	35	A	35	36	35	32	37	36	38	38	39	38	38	36	36	34	33	32	32	32	32	34.8	38.9
12-Oct	31	31	32	32	A	30	32	32	32	34	34	36	36	36	36	37	37	35	34	32	32	32	30	29	33.1	36.5
13-Oct	27	27	28	28	A	18	21	26	26	24	21	24	22	30	30	29	26	26	26	26	28	25	26	25	25.6	30.4
14-Oct	23	24	23	20	A	10	13	29	30	31	29	30	36	38	40	41	40	40	38	37	37	22	27	18	29.4	41.0
15-Oct	18	12	11	11	A	10	10	9	9	10	10	10	11	12	13	15	14	12	10	11	12	12	11	11	11.4	17.5
16-Oct	11	13	13	13	A	13	10	10	10	10	9	9	9	11	13	12	11	8	8	6	6	4	4	7	9.5	13.4
17-Oct	6	3	5	3	A	3	6	8	8	6	6	7	8	15	10	9	7	6	3	7	7	9	6	4	6.7	15.5
18-Oct	7	7	2	2	A	2	3	3	8	30	35	38	38	39	40	41	40	40	41	37	36	31	31	33	25.4	40.8
19-Oct	34	35	36	32	A	33	30	30	23	20	31	25	22	26	26	35	36	32	32	30	29	32	33	34	30.1	36.1
20-Oct	38	38	32	34	A	18	19	27	27	29	22	32	27	35	28	39	39	39	33	35	34	31	32	36	31.4	39.0
21-Oct	31	31	26	26	A	24	22	22	22	24	27	29	33	32	41	41	37	35	28	27	27	27	29	32	29.3	40.7
22-Oct	33	33	33	29	A	29	31	31	25	25	28	33	34	37	38	37	37	36	35	33	33	33	30	30	32.4	38.3
23-Oct	30	30	27	25	A	24	27	24	25	21	25	30	24	16	13	13	12	11	9	7	6	7	7	5	18.1	29.8
24-Oct	5	5	9	14	A	27	27	30	30	31	32	36	36	37	38	37	38	37	34	34	31	32	33	33	29.0	37.7
25-Oct	31	24	29	26	A	25	26	13	19	24	30	30	31	30	28	29	26	26	30	32	32	32	31	30	27.4	32.3
26-Oct	30	29	29	26	A	26	26	21	23	22	23	23	22	22	24	25	24	24	25	25	26	27	25	26	24.8	29.8
27-Oct	26	25	23	24	A	24	25	24	22	21	20	20	22	26	26	26	21	19	24	24	20	18	15	12	22.0	26.2
28-Oct	9	6	10	7	A	10	8	9	14	16	18	19	18	21	20	19	18	18	18	17	15	15	15	14	14.5	20.6
29-Oct	14	14	14	10	A	10	7	7	8	9	11	12	14	14	14	13	11	7	7	5	3	3	3	2	9.2	14.5
30-Oct	2	2	2	2	A	2	1	1	3	5	6	7	8	9	9	8	7	4	3	2	3	3	4	4	4.3	9.3
31-Oct	3	3	3	1	A	3	5	2	4	6	11	21	25	26	27	26	32	28	27	19	12	18	19	17	14.7	32.3
	23.0	22.4	22.0	21.2	--	20.1	19.7	20.1	19.9	21.4	24.2	26.3	26.3	27.6	27.8	28.6	28.0	27.2	26.0	24.8	24.3	23.9	23.5	22.9	Diurnal Average	
	38.9	38.8	37.8	34.7	--	34.7	35.5	35.0	34.5	37.2	38.2	39.5	40.1	39.8	40.6	41.4	41.2	40.2	40.6	37.9	36.7	36.9	38.0	38.3	Diurnal Maximum	

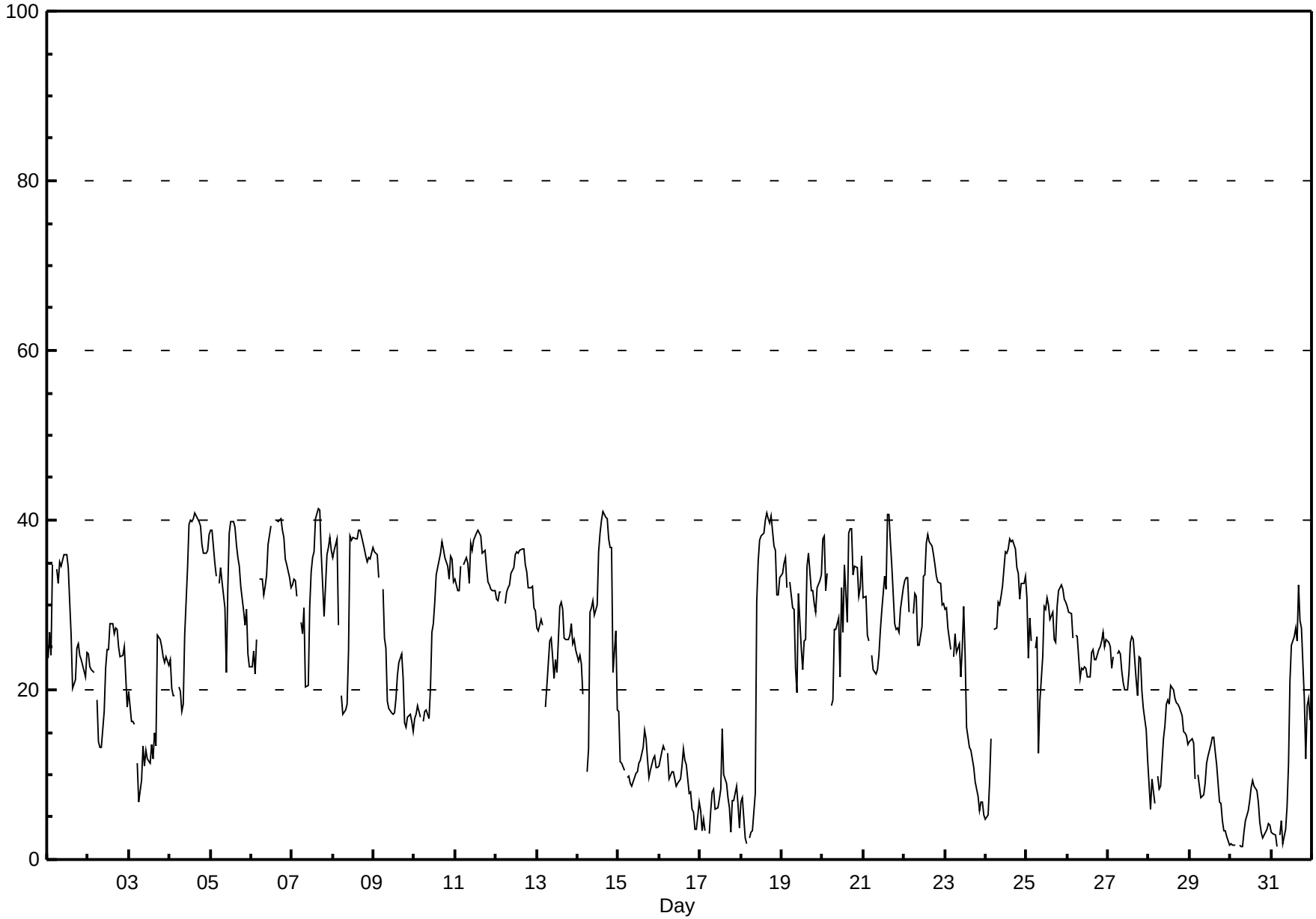
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Ozone (O_3) - ppb

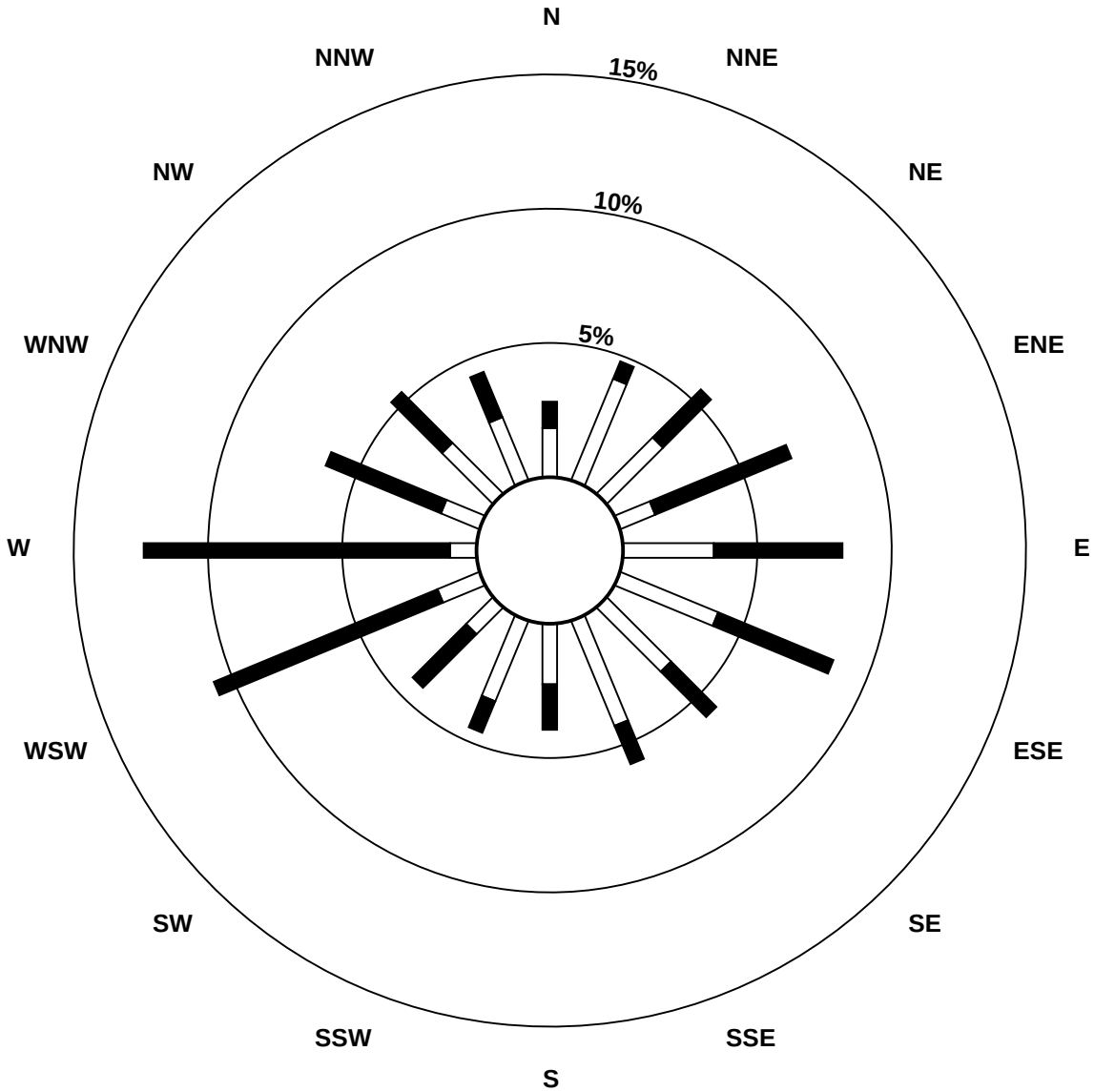
Beaverlodge - October 2014



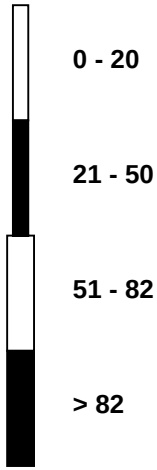
Pollutant Rose

Ozone (O_3) - ppb

Beaverlodge - October 2014



Pollutant Classes (ppb)



Peace Airshed Zone Association

Eight Hour Running Averages

Ozone (O_3) - ppb

Beaverlodge - October 2014

Maximum Value: 38.6 ppb on Oct 4 19:00

Minimum Value: 1.4 ppb on Oct 30 08:00

Percentiles: P_1 = 1.8 P_{10} = 6.1 Q_1 = 14.2 Median = 22.6 Q_3 = 29.7 P_{90} = 33.5 P_{99} = 37.0

Hours in Service:	744
Hours of Data:	738
Hours of Missing Data:	6
Hours of Calibration:	6
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Oct	26	25	24	24	23	24	25	26	27	29	31	32	32	32	31	30	28	27	26	24	23	22	22	22	32.3
2-Oct	23	22	22	21	21	20	19	16	15	14	14	14	16	17	19	21	23	25	25	25	24	24	23	22	25.0
3-Oct	21	19	18	17	16	14	13	11	10	10	9	9	9	9	10	11	11	13	14	16	18	19	21	22	21.8
4-Oct	23	23	22	21	20	20	19	18	17	18	19	22	24	27	30	33	35	37	39	38	38	37	37	37	38.6
5-Oct	36	36	35	35	35	34	33	31	29	26	25	26	28	29	30	31	33	35	35	34	32	31	29	27	36.4
6-Oct	25	24	23	22	21	22	24	25	25	26	29	32	32	32	N	N	N	N	N	N	37	37	36	35	37.1
7-Oct	34	33	32	31	31	30	29	28	25	22	22	22	24	25	26	29	32	34	35	34	34	33	33	32	34.6
8-Oct	32	32	32	32	32	30	27	24	21	19	19	21	23	25	28	31	34	36	36	36	36	35	35	35	36.1
9-Oct	34	34	35	34	34	33	32	30	26	24	21	18	18	17	16	16	18	18	18	18	18	18	17	16	34.5
10-Oct	15	15	15	15	15	15	15	15	15	15	15	17	18	20	23	25	28	31	32	33	33	33	33	33	33.5
11-Oct	32	32	31	31	31	31	31	31	31	32	33	34	34	35	35	36	36	36	36	36	35	34	33	32	36.5
12-Oct	32	31	31	30	30	30	30	30	30	31	31	32	32	33	34	34	35	35	35	34	33	33	32	31	35.0
13-Oct	29	28	27	26	25	23	21	21	20	19	18	19	19	21	22	23	23	24	25	25	26	26	25	25	29.5
14-Oct	24	24	23	22	22	19	17	17	18	19	20	21	23	26	30	32	34	35	36	37	36	34	31	28	37.0
15-Oct	25	22	18	15	14	12	11	10	9	9	9	9	9	9	10	10	11	11	11	11	11	11	11	11	25.2
16-Oct	10	10	11	11	11	11	11	10	10	10	9	9	9	9	9	9	9	9	9	8	8	7	6	5	11.3
17-Oct	4	3	3	3	3	3	3	2	2	3	3	4	4	5	6	7	7	7	7	6	6	6	5	4	7.1
18-Oct	4	4	4	4	4	3	3	3	3	4	8	13	16	21	25	30	35	37	38	38	37	36	35	34	37.8
19-Oct	33	32	32	32	32	32	30	28	26	23	22	19	19	19	19	20	22	23	24	26	27	28	29	29	33.0
20-Oct	30	30	29	29	29	27	24	23	20	19	18	18	18	20	22	23	25	28	30	31	32	31	32	32	32.0
21-Oct	31	30	29	28	28	27	26	23	22	21	20	21	22	23	24	27	29	30	30	30	30	29	29	27	30.8
22-Oct	27	28	28	28	28	29	29	29	28	27	26	27	27	28	29	30	31	32	33	33	33	33	32	31	33.1
23-Oct	30	28	27	27	26	25	24	23	22	21	21	21	21	20	18	17	16	16	14	11	10	9	8	7	29.5
24-Oct	6	5	5	5	6	8	10	13	17	20	24	27	28	30	32	33	34	35	35	34	34	33	32	31	35.3
25-Oct	29	28	27	27	26	25	24	21	20	20	20	20	22	22	23	25	27	27	27	27	28	28	28	29	29.4
26-Oct	29	30	30	29	29	28	27	25	24	23	23	22	22	21	21	22	22	22	22	23	23	24	24	24	29.6
27-Oct	24	24	24	24	24	24	24	23	23	22	22	21	21	21	21	21	21	20	20	21	21	20	19	17	24.4
28-Oct	15	13	11	10	8	7	6	5	7	8	9	11	12	13	15	16	17	17	18	17	17	16	16	15	17.7
29-Oct	14	14	13	12	12	11	9	8	7	6	6	7	8	9	10	11	11	11	10	9	8	7	5	4	14.2
30-Oct	3	3	2	2	2	2	1	1	1	2	2	3	4	4	5	6	6	6	6	5	5	4	3	2	6.3
31-Oct	2	2	2	2	2	2	2	2	2	2	3	5	8	10	13	16	19	22	23	22	21	20	18	17	23.1
Diurnal Maximums	36.4	35.8	35.0	34.5	34.5	33.8	33.0	31.5	31.3	32.0	32.8	33.5	33.9	34.6	35.1	35.8	36.4	37.4	38.6	38.3	37.7	37.2	36.8	36.5	

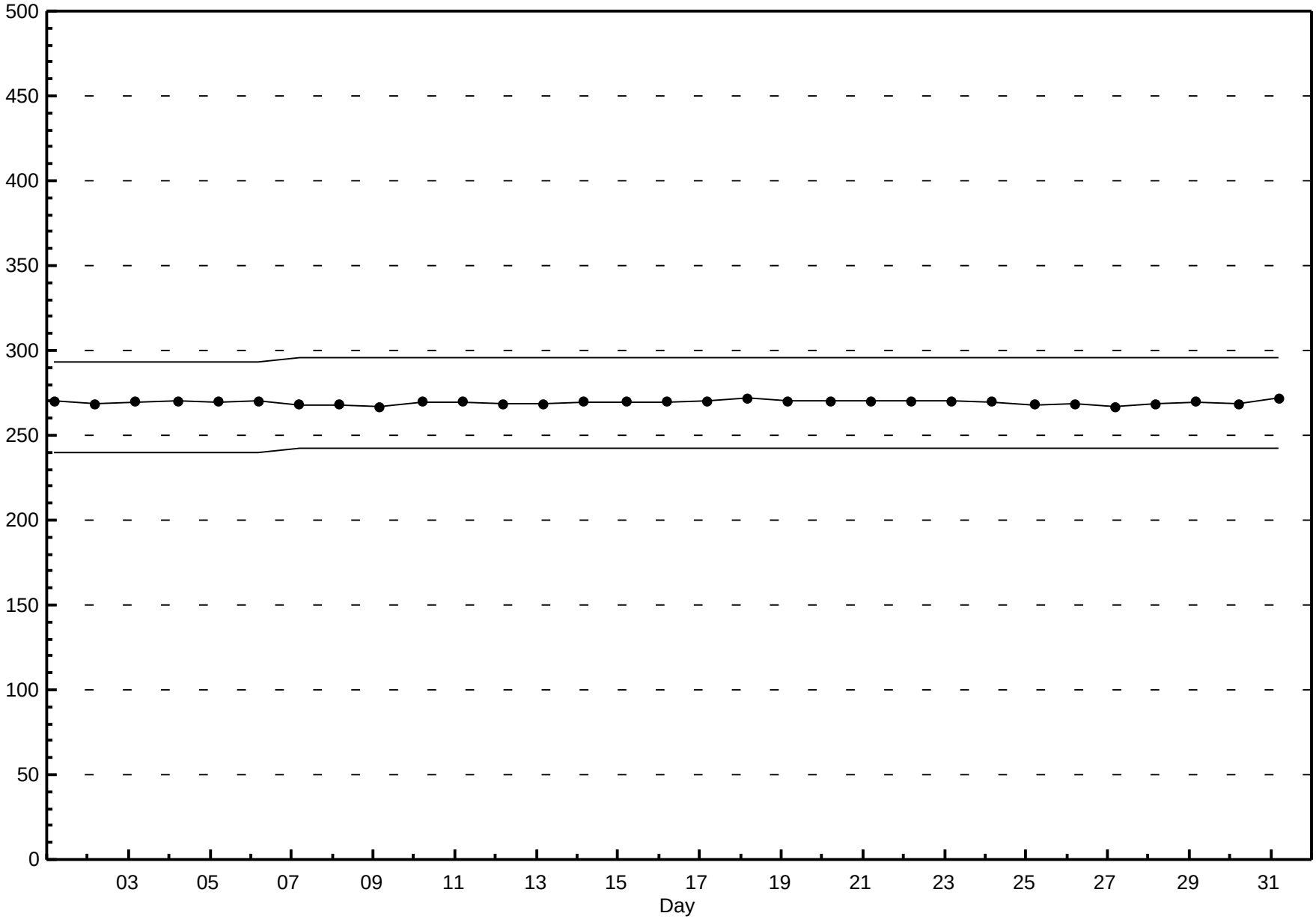
N - Not Valid

Peace Airshed Zone Association

Span Responses

Ozone (O_3)

Beaverlodge - October 2014



Peace Airshed Zone Association

Hourly Averages

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

Beaverlodge - October 2014

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

Maximum Value: 25.9 $\mu g/m^3$ on Oct 30 07:00

Maximum Daily Average: 7.8 $\mu g/m^3$ on Oct 30

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

Maximum Diurnal Average: 4.3 $\mu g/m^3$ at hour 7

Monthly Average: 2.94 $\mu g/m^3$

Minimum Daily Average: 0.2 $\mu g/m^3$ on Oct 2

Minimum Diurnal Average: 1.8 $\mu g/m^3$ at hour 17

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 2.1 Q_3 = 4.7 P_{90} = 7.5 P_{99} = 14.5

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Oct	2	2	4	0	0	0	0	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	3.8
2-Oct	0	0	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0.2	1.8
3-Oct	0	0	1	2	0	0	2	1	0	0	0	3	11	0	3	2	3	3	3	0	0	0	0	0	1.4	10.9
4-Oct	0	1	0	0	0	0	0	0	0	0	0	0	2	0	0	1	2	4	0	1	0	0	2	2	0.6	3.7
5-Oct	0	0	0	1	4	0	0	0	0	1	5	2	1	0	0	0	0	1	0	0	0	0	0	0	0.6	4.8
6-Oct	2	0	0	0	3	1	0	0	0	1	1	0	0	0	0	C	0	0	5	1	0	0	4	4	1.0	5.2
7-Oct	3	1	2	2	0	4	7	0	9	8	3	6	6	5	2	4	5	5	8	8	5	3	3	3	4.3	9.4
8-Oct	4	2	0	2	4	5	2	5	2	0	7	1	3	5	6	3	2	0	3	2	0	0	0	3	2.5	7.1
9-Oct	1	3	3	1	4	5	7	8	8	10	8	8	7	2	3	9	4	2	3	5	6	9	8	3	5.3	10.0
10-Oct	7	3	0	0	0	3	2	5	6	1	6	4	4	3	1	0	0	0	3	4	0	1	1	1	2.2	7.1
11-Oct	0	0	0	0	1	0	3	4	4	0	1	0	0	0	0	5	0	0	0	0	0	0	0	0	0.8	5.0
12-Oct	0	0	0	0	0	5	0	5	4	3	5	1	0	1	1	0	0	0	0	0	0	0	0	2	1.1	4.9
13-Oct	2	3	3	1	1	11	19	12	6	0	6	5	2	1	2	5	4	5	3	2	1	2	1	0	4.0	18.8
14-Oct	4	2	2	6	5	4	1	3	0	0	0	2	2	4	2	1	1	0	2	3	1	1	2	2	2.0	5.8
15-Oct	7	5	1	3	4	6	6	7	8	5	4	0	2	2	5	1	2	6	3	4	0	1	5	4	3.8	7.8
16-Oct	0	4	0	2	2	0	4	8	5	2	5	4	6	4	10	0	8	8	7	5	8	8	6	8	4.8	10.3
17-Oct	6	6	3	5	1	7	6	8	11	6	6	8	12	6	9	5	4	5	8	8	13	8	10	7	7.0	13.2
18-Oct	11	6	4	8	3	3	3	4	7	5	2	1	0	2	1	0	0	0	3	3	3	0	1	4	3.1	11.4
19-Oct	2	0	0	3	2	6	3	4	5	7	6	3	6	6	1	4	0	1	3	3	2	2	2	2	3.0	6.6
20-Oct	0	3	3	6	5	2	4	0	2	5	2	3	2	7	5	3	0	0	1	0	0	0	0	0	2.3	7.2
21-Oct	0	5	4	0	3	1	6	1	0	4	2	2	0	0	0	0	3	4	3	5	9	3	1	3	2.5	8.8
22-Oct	2	0	0	3	3	4	3	0	4	2	2	2	0	2	0	0	0	0	0	3	0	0	0	0	1.3	4.1
23-Oct	3	0	4	5	4	3	1	0	4	5	0	5	7	2	0	7	2	1	2	2	1	4	11	5	3.2	10.6
24-Oct	1	0	2	2	2	1	0	0	3	2	6	5	3	1	0	0	0	0	3	4	2	3	0	1	1.7	6.1
25-Oct	0	1	2	0	3	2	2	1	2	1	7	6	1	0	0	0	0	5	6	5	0	10	0	0	2.2	9.7
26-Oct	0	3	0	0	0	0	0	0	1	0	8	1	1	2	6	0	1	0	3	4	0	6	4	4	1.8	8.2
27-Oct	5	0	0	2	1	0	3	0	0	0	0	1	0	0	8	0	3	4	6	4	3	2	1	11	2.2	11.1
28-Oct	3	7	6	6	13	12	11	13	11	6	10	3	2	4	9	5	6	6	7	5	4	10	9	7	7.2	12.8
29-Oct	3	6	5	6	8	4	6	5	11	6	17	10	15	15	5	2	0	5	4	10	7	8	11	11	7.5	16.7
30-Oct	0	3	10	13	12	16	26	21	3	0	3	2	6	9	6	6	6	10	0	4	10	7	7	6	7.8	25.9
31-Oct	5	2	7	8	3	4	3	2	3	5	3	0	0	0	2	2	0	1	7	10	0	2	1	5	3.1	10.2
	2.4	2.2	2.1	2.8	2.9	3.5	4.3	3.8	3.8	2.9	4.0	2.8	3.2	2.7	2.8	2.1	1.8	2.5	3.1	3.4	2.5	2.8	3.0	3.2	Diurnal Average	
	11.4	7.2	9.9	12.9	12.6	15.5	25.9	21.3	11.4	10.0	16.7	9.6	15.0	14.8	10.3	8.7	7.5	9.8	8.5	10.2	13.2	9.7	10.7	11.1	Diurnal Maximum	

C - Calibration

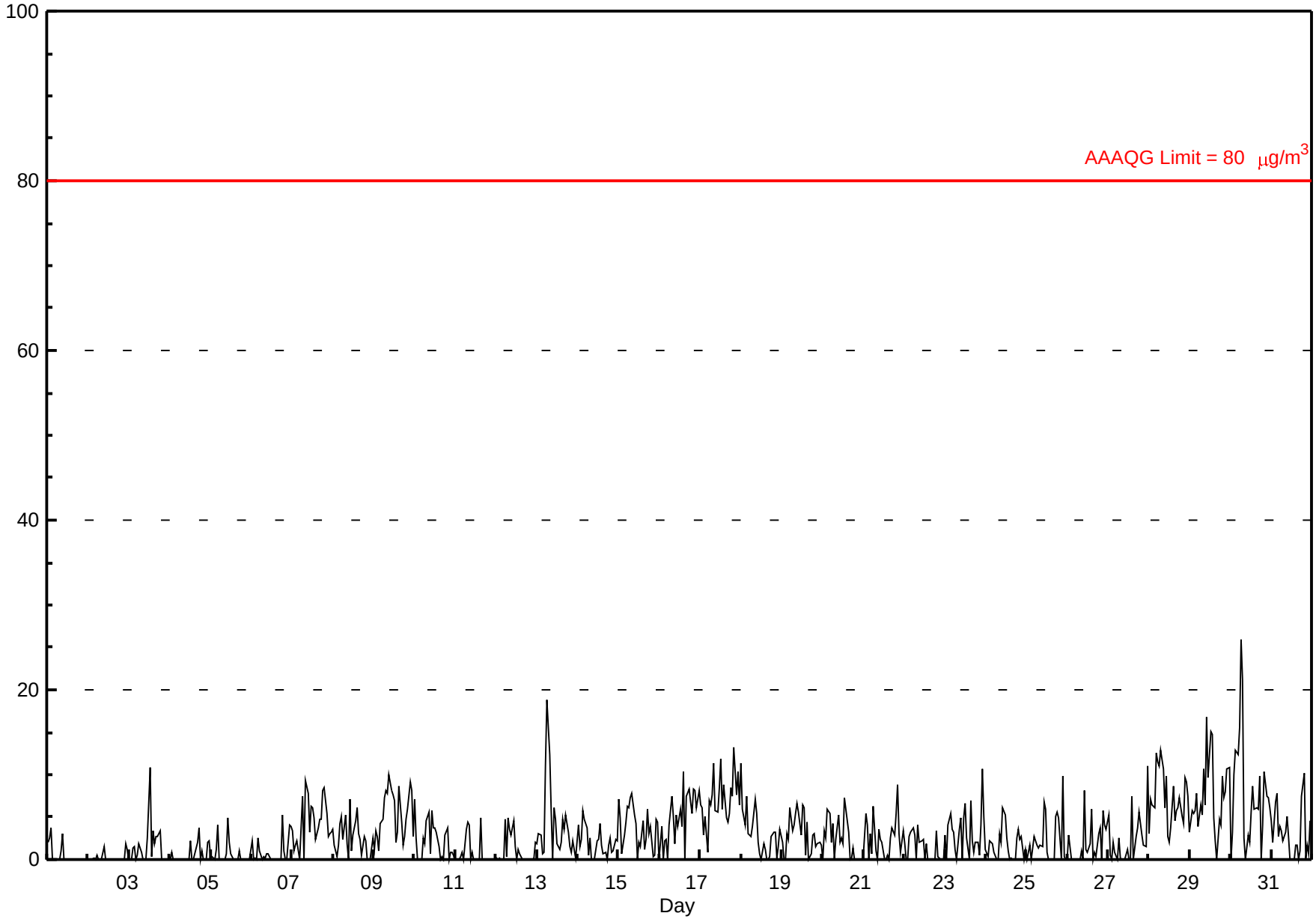
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 $\mu g/m^3$ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 $\mu g/m^3$

Peace Airshed Zone Association

Hourly Averages

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

Beaverlodge - October 2014



Peace Airshed Zone Association

Hourly Maximums

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

Beaverlodge - October 2014

Maximum Value: 29.1 $\mu g/m^3$ on Oct 30 07:00

Maximum Daily Average: 11.3 $\mu g/m^3$ on Oct 30

Minimum Value: 0 $\mu g/m^3$ on Oct 1 05:00

Maximum Diurnal Average: 6.3 $\mu g/m^3$ at hour 7

Monthly Average: 5.12 $\mu g/m^3$

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

Minimum Diurnal Average: 3.9 $\mu g/m^3$ at hour 16

Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 1.9$ Median = 4.5 $Q_3 = 7.6$ $P_{90} = 10.4$ $P_{99} = 15.3$

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Oct	4	4	5	1	0	0	0	0	6	6	1	2	2	0	0	0	0	0	0	0	0	0	0	0	1.3	6.4
2-Oct	0	0	0	2	1	1	0	1	1	3	1	0	0	0	0	0	0	0	0	0	0	0	3	2	0.6	3.4
3-Oct	1	1	2	3	1	3	5	3	1	1	0	9	12	5	6	5	5	6	6	3	0	0	0	0	3.2	12.5
4-Oct	1	2	0	0	0	0	1	0	0	0	1	4	4	0	0	2	4	5	1	2	1	0	4	3	1.4	5.1
5-Oct	4	4	1	6	6	1	1	0	2	3	6	5	2	1	1	0	0	2	2	0	0	0	0	2	2.1	6.4
6-Oct	3	0	1	1	4	4	0	1	1	2	2	1	0	0	1	C	1	3	8	2	2	0	8	7	2.3	7.7
7-Oct	8	4	7	7	2	5	9	3	13	12	5	8	7	6	4	5	6	6	10	10	8	4	4	4	6.6	12.9
8-Oct	4	3	2	5	5	7	5	6	4	7	9	3	6	6	8	4	4	4	4	3	1	0	3	4	4.5	9.2
9-Oct	3	4	4	4	7	6	10	10	10	11	9	9	8	6	9	10	7	4	4	6	7	13	15	7	7.5	15.1
10-Oct	8	5	0	0	0	5	5	6	9	5	7	5	6	6	2	0	1	2	5	5	0	3	3	2	3.9	9.5
11-Oct	1	0	1	2	3	3	7	6	6	4	3	3	2	2	6	8	1	0	0	0	3	1	0	1	2.6	8.1
12-Oct	1	0	4	0	3	6	5	8	5	5	5	4	1	2	2	0	0	0	0	0	1	2	3	4	2.6	8.3
13-Oct	3	5	5	1	2	20	20	17	8	4	8	7	3	2	4	6	5	7	5	3	3	4	2	2	6.2	20.4
14-Oct	5	4	6	7	7	5	4	4	1	0	0	4	4	5	3	2	2	0	4	4	2	4	3	4	3.5	7.0
15-Oct	8	9	3	6	6	8	8	9	10	7	5	2	4	5	6	3	5	8	5	6	3	3	7	6	5.9	9.9
16-Oct	3	7	0	5	4	1	6	9	6	5	8	7	8	6	14	6	11	10	8	8	9	9	9	10	6.9	13.6
17-Oct	11	10	6	7	5	8	7	11	13	9	10	11	14	9	10	9	6	9	10	10	15	13	12	11	9.8	15.4
18-Oct	13	8	6	9	6	4	5	5	10	9	3	2	0	4	3	1	0	3	3	4	4	2	4	5	4.8	13.4
19-Oct	5	1	3	4	4	7	5	8	8	9	6	5	8	7	3	6	3	5	6	7	4	4	4	2	5.2	8.6
20-Oct	1	5	5	7	7	4	6	2	5	7	5	5	7	8	7	5	4	2	3	0	0	0	2	3	4.0	8.1
21-Oct	3	9	6	1	4	3	8	5	2	6	3	3	0	0	2	0	6	6	5	8	10	8	3	5	4.3	9.9
22-Oct	4	1	2	5	4	5	4	3	5	4	4	4	3	4	0	0	0	0	1	6	5	0	0	7	3.0	7.4
23-Oct	8	6	6	9	7	5	5	0	7	7	4	6	10	8	6	10	9	5	5	3	5	8	18	9	6.9	17.5
24-Oct	7	4	3	4	4	3	0	2	5	4	9	9	4	3	0	1	1	0	7	5	6	5	1	5	3.8	8.8
25-Oct	3	4	6	2	5	4	4	4	4	4	11	11	4	4	0	1	3	9	9	8	4	13	10	2	5.3	12.7
26-Oct	3	5	0	1	0	2	1	0	2	13	15	11	11	5	10	2	8	8	7	6	3	11	11	9	6.0	15.5
27-Oct	8	2	2	3	3	2	5	2	1	2	2	5	0	3	11	5	5	7	8	7	5	4	8	13	4.7	13.4
28-Oct	7	11	11	10	15	14	14	16	13	10	15	9	6	9	14	7	9	9	12	11	8	11	11	9	10.8	15.6
29-Oct	6	8	11	11	10	9	9	7	14	12	20	15	18	16	11	4	1	7	7	12	10	11	12	12	10.5	20.4
30-Oct	9	9	12	14	15	21	29	28	10	5	7	6	10	11	8	8	7	14	2	8	12	10	9	8	11.3	29.1
31-Oct	7	7	8	13	13	11	7	8	10	8	4	0	0	2	7	7	8	6	11	12	4	4	3	8	7.0	13.0
	4.9	4.6	4.1	4.8	4.9	5.7	6.3	5.9	6.1	5.9	6.1	5.6	5.2	4.8	5.1	3.9	4.0	4.7	5.1	5.1	4.3	4.8	5.6	5.4	Diurnal Average	
	13.4	11.0	11.8	13.7	14.7	21.3	29.1	28.1	14.1	12.6	20.4	14.6	17.8	16.3	14.4	9.7	10.8	14.2	11.7	12.4	15.4	13.1	17.5	13.4	Diurnal Maximum	

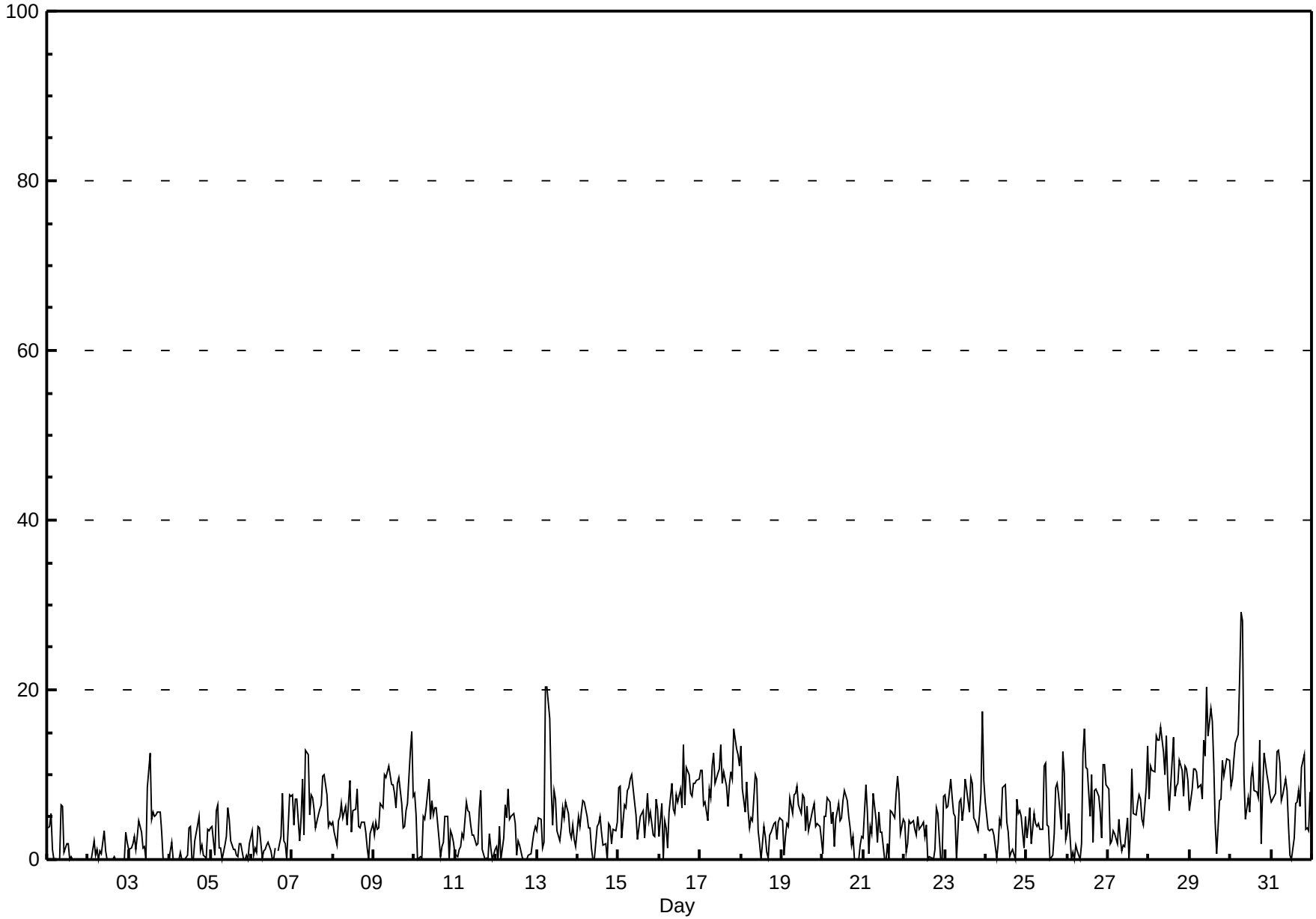
C - Calibration

Peace Airshed Zone Association

Hourly Maximums

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

Beaverlodge - October 2014

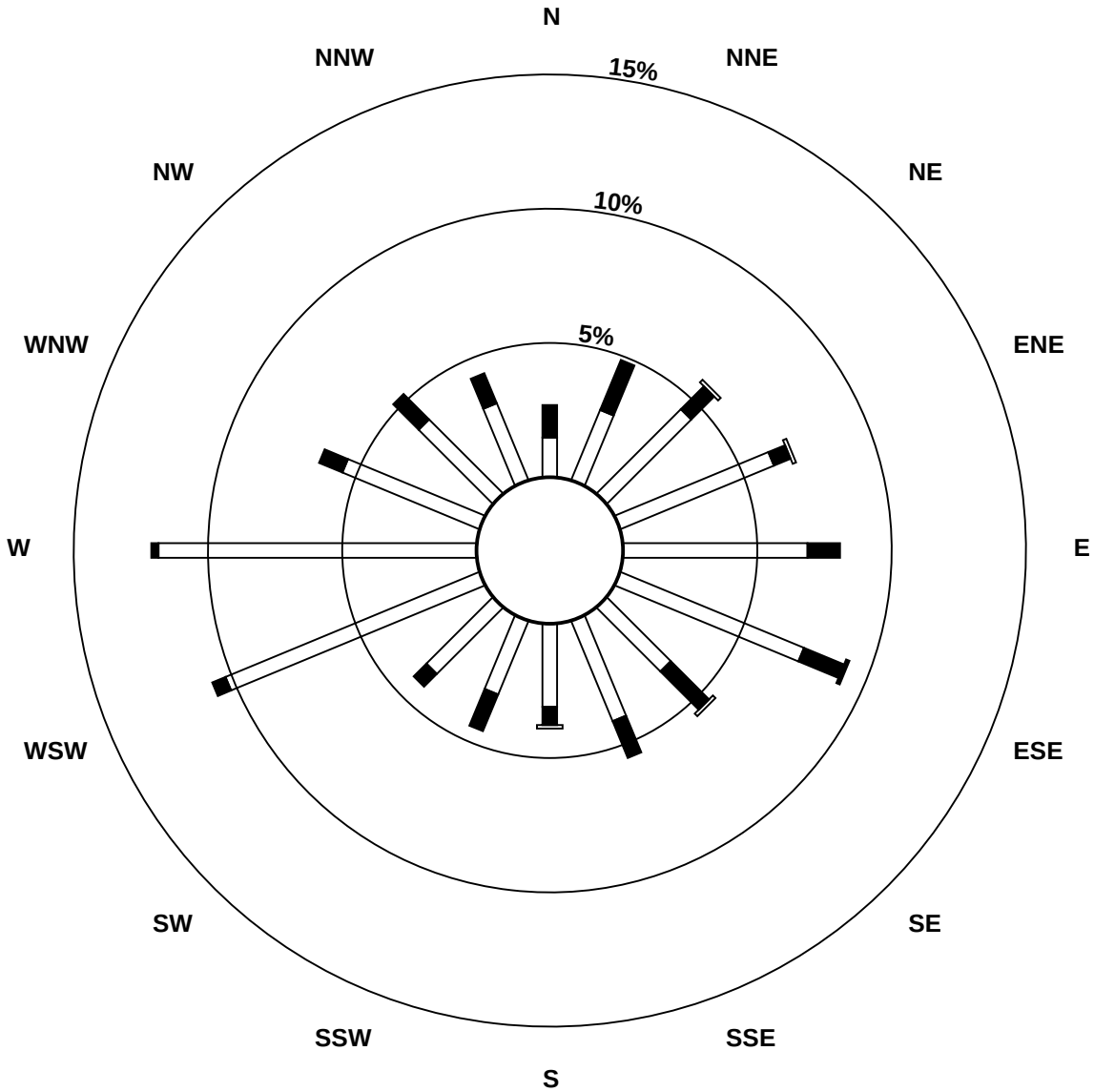


Peace Airshed Zone Association

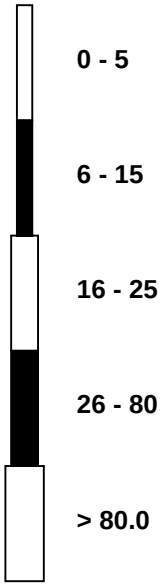
Pollutant Rose

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

Beaverlodge - October 2014



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



Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Beaverlodge - October 2014

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

Maximum Value: 20.9 ^{o}C on Oct 10 14:00

Maximum Daily Average: 12.8 ^{o}C on Oct 4

Minimum Value: -5 ^{o}C on Oct 27 05:00

Maximum Diurnal Average: 9.3 ^{o}C at hour 16

Monthly Average: 5.70 ^{o}C

Minimum Daily Average: -2.6 ^{o}C on Oct 28

Minimum Diurnal Average: 3.1 ^{o}C at hour 8

Percentiles: P_1 = -4.7 P_{10} = -1.0 Q_1 = 0.5 Median = 5.9 Q_3 = 9.7 P_{90} = 13.1 P_{99} = 17.7

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

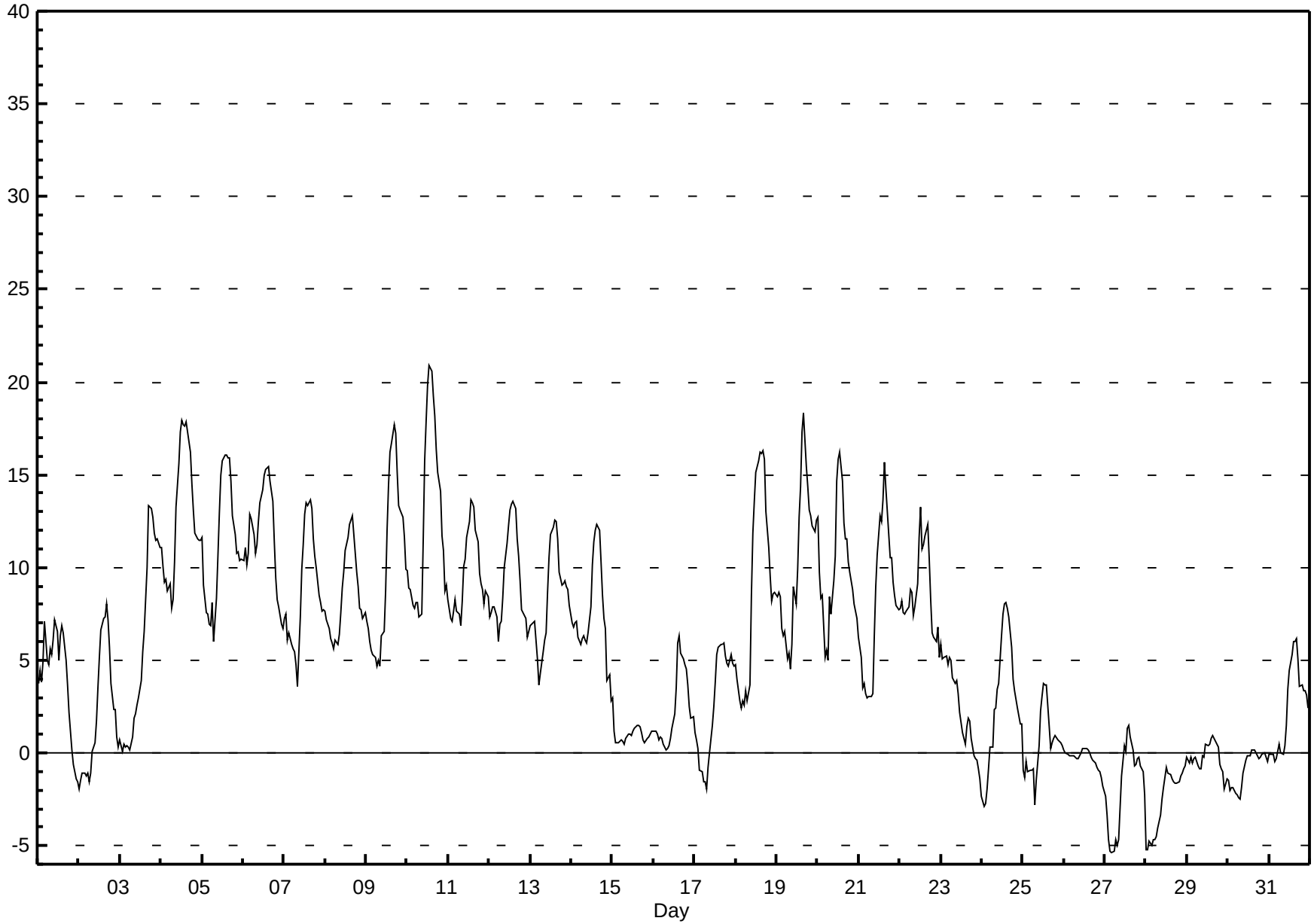
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	4	4	4	5	7	5	5	6	5	6	7	7	5	6	7	6	5	4	2	1	0	-1	-1	-2	4.1	7.2
2-Oct	-2	-1	-1	-1	-1	-1	-2	-1	0	1	2	4	5	7	7	7	8	7	6	4	2	2	1	0	2.2	8.0
3-Oct	1	0	0	0	0	0	0	1	2	2	3	3	4	5	7	8	10	13	13	13	12	11	12	11	5.5	13.3
4-Oct	11	10	9	9	9	9	8	8	10	13	16	17	18	18	18	18	17	16	15	13	12	12	11	11	12.8	17.9
5-Oct	12	9	8	7	7	7	8	6	8	11	13	15	16	16	16	16	16	15	13	12	11	11	10	10	11.3	16.1
6-Oct	10	11	10	11	13	13	12	11	11	12	13	14	15	15	15	15	15	14	11	9	8	8	7	7	11.7	15.4
7-Oct	7	8	6	6	6	6	5	5	4	7	10	11	13	14	13	14	13	12	11	10	9	8	8	8	8.8	13.6
8-Oct	8	7	7	6	6	6	6	6	6	8	9	10	11	12	12	13	13	12	10	9	8	8	7	8	8.5	12.8
9-Oct	7	7	6	6	5	5	5	5	5	6	7	9	12	14	16	17	18	17	15	13	13	13	12	10	10.1	17.7
10-Oct	10	9	9	8	8	8	8	7	7	11	16	18	20	21	21	19	18	16	15	14	12	11	9	9	12.7	20.9
11-Oct	8	7	7	8	8	8	7	7	8	10	10	12	13	14	13	13	12	11	10	9	9	8	9	8	9.6	13.6
12-Oct	7	8	8	8	7	6	7	7	8	10	11	12	13	13	14	13	12	11	9	8	7	7	6	7	9.2	13.5
13-Oct	7	7	7	6	5	4	4	5	6	6	9	11	12	12	13	13	12	10	9	9	9	9	9	8	8.4	12.5
14-Oct	7	7	7	7	6	6	6	6	6	6	6	8	10	11	12	12	12	10	9	7	7	4	4	3	7.5	12.3
15-Oct	3	1	1	1	1	1	1	0	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1.0	3.0
16-Oct	1	1	1	1	1	1	0	0	0	0	1	1	2	4	6	6	5	5	5	5	4	2	2	2	2.4	6.3
17-Oct	1	1	0	-1	-1	-2	-2	-2	-1	0	1	2	4	5	6	6	6	6	5	5	5	5	5	5	2.5	5.9
18-Oct	5	4	3	2	3	3	3	3	4	9	12	14	15	16	16	16	16	16	13	11	9	8	9	9	9.1	16.3
19-Oct	8	9	8	7	6	7	5	5	5	6	9	8	10	13	14	17	18	15	14	13	13	12	12	13	10.3	18.3
20-Oct	13	10	8	9	5	6	5	8	8	9	11	15	16	16	15	12	12	12	10	10	9	8	8	7	10.0	16.2
21-Oct	6	5	4	4	3	3	3	3	3	6	9	11	13	13	14	16	14	13	11	11	9	9	8	8	8.2	15.7
22-Oct	8	8	8	8	8	8	9	9	7	8	9	12	13	11	11	12	12	10	8	6	6	6	7	5	8.7	13.2
23-Oct	6	5	5	5	5	5	5	4	4	4	3	2	2	1	0	1	2	2	1	0	0	0	-1	-1	2.5	5.8
24-Oct	-2	-3	-3	-2	-1	0	0	2	2	3	4	6	7	8	8	8	7	6	4	3	3	2	2	2	2.8	8.1
25-Oct	-1	-1	0	-1	-1	-1	-1	-3	-1	0	2	3	4	4	4	1	0	1	1	1	1	1	1	0	0.5	3.8
26-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-1	-1	-1	-1	-1	-2	-0.3	0.3
27-Oct	-2	-3	-5	-5	-5	-5	-5	-5	-5	-3	-1	0	0	1	1	1	0	-1	-1	0	0	-1	-1	-2	-1.9	1.5
28-Oct	-5	-5	-5	-5	-5	-5	-5	-4	-3	-2	-2	-1	-1	-1	-1	-1	-2	-2	-2	-2	-1	-1	-1	-1	-2.6	-0.7
29-Oct	0	-1	0	-1	0	0	-1	-1	-1	0	0	0	0	0	1	1	1	0	0	-1	-1	-1	-2	-1	-0.2	0.9
30-Oct	-1	-2	-2	-2	-2	-2	-2	-2	-2	-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-0.9	0.2
31-Oct	0	0	0	0	0	0	0	0	0	0	2	3	4	5	6	6	6	5	4	4	3	3	3	2	2.4	6.2
	4.4	3.9	3.5	3.4	3.3	3.2	3.1	3.1	3.5	4.9	6.2	7.3	8.3	8.9	9.2	9.3	9.0	8.3	7.1	6.3	5.7	5.3	4.9	4.6	Diurnal Average	
	12.7	11.1	10.1	10.7	12.8	12.6	11.8	10.8	11.2	13.3	15.7	17.9	19.8	20.9	20.6	19.2	18.3	17.3	15.1	14.1	13.1	12.7	12.0	12.6	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Beaverlodge - October 2014



Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Beaverlodge - October 2014

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

Maximum Value: 100.0 % on Oct 14 06:00

Maximum Daily Average: 100.0 % on Oct 26

Minimum Value: 34 % on Oct 6 17:00

Minimum Daily Average: 57.9 % on Oct 6

Maximum Diurnal Average: 87.8 % at hour 7

Minimum Diurnal Average: 65.4 % at hour 16

Monthly Average: 79.11 %

Percentiles: P_1 = 38.6 P_{10} = 52.9 Q_1 = 63.7 Median = 82.6 Q_3 = 98.3 P_{90} = 100.0 P_{99} = 100.0

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

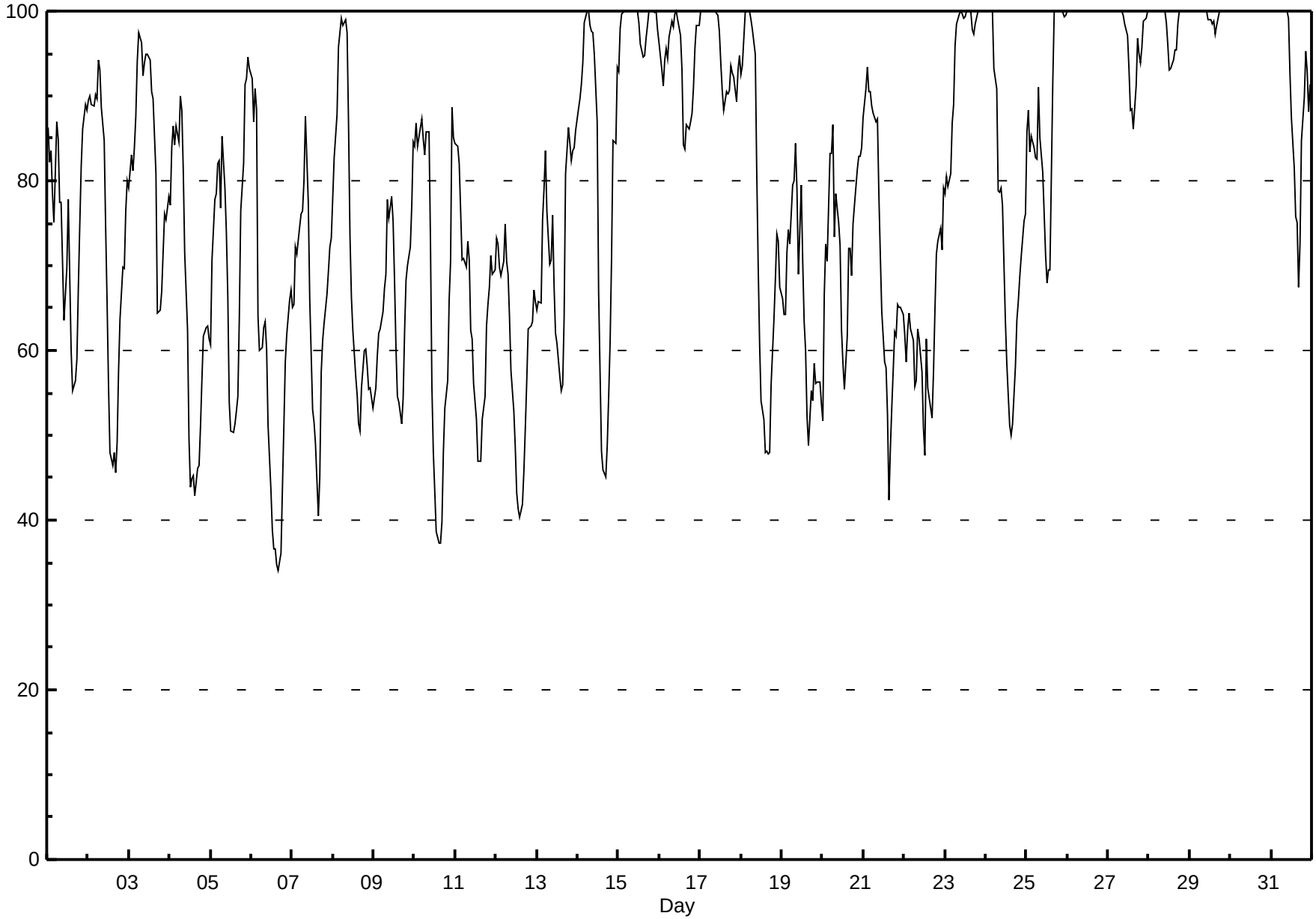
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	86	82	84	78	75	87	85	78	77	70	64	70	78	69	60	55	56	59	67	75	82	86	89	88	75.0	88.9
2-Oct	89	90	89	89	90	90	94	93	89	85	75	66	56	48	46	48	46	49	58	64	70	70	76	80	72.8	94.3
3-Oct	79	83	81	84	88	94	98	96	92	94	95	95	94	91	90	85	81	64	65	67	72	76	75	78	84.0	97.5
4-Oct	77	84	86	84	86	85	90	88	81	72	62	49	44	45	45	43	46	46	51	57	62	63	63	61	65.5	90.0
5-Oct	61	71	78	79	82	82	77	85	79	74	66	54	51	50	51	53	55	64	76	82	91	92	95	93	72.5	94.6
6-Oct	92	87	91	88	64	60	60	63	63	60	51	43	39	37	37	35	34	36	44	51	59	62	66	67	57.9	92.0
7-Oct	65	65	72	71	74	76	77	80	88	78	66	60	53	51	49	40	45	57	61	63	67	69	72	73	65.6	87.6
8-Oct	78	83	88	96	97	99	98	99	97	87	74	66	62	57	55	51	50	56	60	60	58	55	56	53	72.4	99.1
9-Oct	54	56	59	62	63	65	67	69	78	76	78	75	68	60	55	54	51	54	62	68	70	72	77	85	65.8	84.5
10-Oct	84	87	84	86	87	85	83	86	86	73	56	48	43	39	37	37	40	48	53	56	66	70	89	85	67.0	88.6
11-Oct	84	84	82	76	71	71	70	73	71	62	61	56	52	47	47	47	52	55	63	66	68	71	69	69	65.3	84.4
12-Oct	73	73	70	69	71	75	71	69	64	58	53	49	43	41	40	42	46	51	56	63	63	63	67	66	59.8	74.9
13-Oct	65	66	66	75	79	84	76	70	71	76	68	62	61	57	55	56	64	81	86	84	82	84	84	86	72.4	86.3
14-Oct	88	90	91	94	99	100	100	98	98	97	95	87	67	57	48	46	45	49	55	61	71	85	84	93	79.1	100.0
15-Oct	93	98	100	100	100	100	100	100	100	100	100	100	99	96	95	95	97	98	100	100	100	100	100	98	98.6	100.0
16-Oct	96	93	91	94	96	94	97	99	98	100	100	99	97	93	84	84	87	86	87	88	91	96	98	98	93.6	100.0
17-Oct	100	100	100	100	100	100	100	100	100	100	100	98	94	91	88	90	90	91	94	93	92	89	93	95	95.7	100.0
18-Oct	93	93	100	100	100	100	99	98	95	81	70	61	54	52	48	48	48	48	56	64	69	74	73	67	74.6	100.0
19-Oct	66	64	64	71	74	72	79	80	84	79	69	79	71	63	60	52	49	55	54	58	56	56	56	54	65.4	84.3
20-Oct	52	67	73	71	83	83	87	73	78	75	72	62	59	55	62	72	72	69	75	77	81	83	83	84	72.8	86.6
21-Oct	87	91	93	91	90	89	88	87	87	78	71	65	59	58	52	42	48	53	62	62	66	65	65	64	71.4	93.5
22-Oct	62	59	62	64	63	61	56	56	63	61	58	51	48	61	56	54	52	58	65	71	73	74	72	79	61.6	79.2
23-Oct	78	81	79	81	87	89	96	98	100	100	100	99	99	100	100	100	98	97	98	100	100	100	100	100	95.0	100.0
24-Oct	100	100	100	100	100	93	91	79	79	79	77	64	58	55	51	50	51	58	64	66	69	71	75	76	75.2	100.0
25-Oct	86	88	83	85	84	83	83	91	85	81	76	71	68	70	70	92	100	100	100	100	100	100	99	100	87.2	100.0
26-Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100.0	100.0
27-Oct	100	100	100	100	100	100	100	100	100	100	98	97	93	88	89	86	91	97	95	94	96	99	99	100	96.7	100.0
28-Oct	100	100	100	100	100	100	100	100	100	100	99	96	93	93	94	95	95	98	100	100	100	100	100	100	98.5	100.0
29-Oct	100	100	100	100	100	100	100	100	100	100	100	99	99	98	99	97	98	100	100	100	100	100	100	100	99.6	100.0
30-Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100.0	100.0
31-Oct	100	100	100	100	100	100	100	100	100	100	99	93	88	81	76	75	67	73	85	90	95	93	88	91	91.4	100.0
	83.6	84.9	86.0	86.8	87.2	87.6	87.8	87.4	87.2	83.7	79.1	74.6	70.6	67.9	65.8	65.4	66.3	69.4	73.9	76.7	79.6	81.2	82.7	83.4	Diurnal Average	
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Beaverlodge - October 2014



Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Beaverlodge - October 2014

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	7	5	5	19	25	13	12	16	13	23	23	24	21	24	25	25	24	22	15	12	10	7	8	9	12.7	25.4
Dir	228	233	201	245	275	282	258	259	244	261	280	335	334	323	321	332	345	347	348	344	334	322	295	307	304	332
2 Spd	7	6	5	5	5	3	3	0	0	4	5	6	10	12	13	13	14	8	10	8	2	2	4	3	4.9	14.3
Dir	315	304	323	310	305	285	254	190	118	240	260	245	232	238	262	261	247	269	255	264	342	1	145	87	264	247
3 Spd	4	4	4	5	1	1	5	6	5	6	11	9	1	2	3	4	5	22	18	19	14	18	23	19	5.9	23.2
Dir	119	155	152	255	47	168	167	113	139	160	130	143	161	168	168	194	189	255	258	258	241	235	249	245	223	249
4 Spd	21	7	9	7	7	8	13	8	2	4	7	31	41	38	35	37	34	24	20	13	11	10	9	7	16.2	41.0
Dir	249	243	252	242	234	249	231	227	197	266	272	273	275	272	275	276	266	278	271	278	261	280	283	304	267	275
5 Spd	4	4	0	1	1	5	4	7	6	2	7	19	23	19	15	12	7	18	7	4	4	3	3	3	5.1	22.7
Dir	319	243	278	267	119	47	348	235	251	159	258	278	281	280	291	294	261	246	238	169	69	97	120	147	269	281
6 Spd	2	5	6	11	22	20	15	9	8	15	28	29	25	26	30	31	34	24	16	10	12	8	3	3	15.6	33.5
Dir	101	233	274	279	287	291	300	309	292	280	281	287	289	278	267	264	267	277	280	265	260	257	219	69	278	267
7 Spd	2	1	3	2	4	3	6	1	1	4	5	4	1	0	3	11	4	5	5	3	6	2	1	3	0.9	11.2
Dir	62	108	65	90	58	60	39	41	63	134	157	128	307	140	234	245	301	55	127	192	211	170	98	206	136	245
8 Spd	6	4	5	6	6	1	1	3	2	5	12	12	12	8	6	3	6	4	7	8	10	11	14	14	1.7	14.4
Dir	238	242	213	213	241	237	187	60	69	323	314	323	299	340	282	54	54	62	46	66	72	86	100	100	26	100
9 Spd	8	7	8	7	9	5	5	3	3	1	5	3	4	5	6	11	9	7	7	4	6	5	4	3	4.6	10.7
Dir	101	97	101	129	118	138	130	121	301	115	236	196	162	155	159	151	148	142	122	102	79	98	120	111	129	151
10 Spd	2	3	5	4	2	1	3	1	4	2	3	4	6	8	10	28	36	33	19	24	12	8	16	8	7.8	36.0
Dir	174	88	147	149	104	33	299	100	92	149	161	192	178	192	257	264	251	262	252	245	260	299	237	235	245	251
11 Spd	17	15	19	19	18	16	17	15	12	25	24	39	40	41	43	39	31	36	21	19	20	18	27	22	24.1	43.3
Dir	224	236	232	239	248	237	246	237	224	257	258	264	266	269	264	263	267	265	265	264	262	253	260	258	257	264
12 Spd	15	17	18	17	13	7	15	15	24	30	34	34	37	36	38	35	28	21	15	6	2	3	5	4	18.3	37.6
Dir	249	254	256	258	258	236	262	255	259	261	264	265	269	270	267	252	255	249	248	229	211	105	70	73	259	267
13 Spd	3	1	2	3	3	4	7	5	1	3	3	2	3	12	16	19	15	12	11	11	13	13	8	6	6.6	19.1
Dir	89	77	43	83	187	129	50	59	45	86	198	172	150	125	109	103	116	93	87	91	104	110	119	116	105	103
14 Spd	2	2	4	3	2	4	5	13	10	10	15	14	20	20	28	22	18	15	10	5	10	1	8	4	7.3	28.0
Dir	141	58	353	37	237	326	283	301	273	212	226	236	261	265	270	266	289	290	318	319	16	42	22	44	278	270
15 Spd	5	10	12	12	11	10	11	11	11	9	9	10	11	13	10	10	8	10	11	9	6	5	6	6	8.4	12.6
Dir	38	348	5	16	13	14	11	23	24	43	27	34	31	33	28	35	50	36	41	52	79	114	97	106	32	33
16 Spd	8	9	9	8	1	2	3	3	5	5	5	5	6	6	8	10	7	2	2	4	2	3	3	2	3.5	10.1
Dir	88	94	96	81	121	168	179	196	196	175	169	148	135	123	144	148	116	73	125	205	307	358	32	44	126	148
17 Spd	0	1	0	2	3	1	1	10	6	9	5	11	8	5	4	5	6	3	3	3	2	3	3	4	1.9	11.1
Dir	134	236	322	20	17	35	290	39	256	325	335	326	348	16	219	164	196	216	318	28	8	359	329	30	338	326
18 Spd	6	2	1	3	2	2	5	4	3	2	32	32	29	30	28	22	11	4	5	7	6	8	9	7	5.7	32.3
Dir	31	42	210	90	92	119	51	182	196	54	241	246	251	261	249	254	254	300	342	54	78	85	100	104	249	241
19 Spd	6	3	3	2	1	2	0	1	4	2	5	4	5	1	3	5	5	8	5	6	6	5	7	7	3.2	8.3
Dir	107	117	126	222	51	241	66	336	143	186	57	195	131	152	155	108	82	78	136	116	121	112	131	139	121	78
20 Spd	7	12	8	1	3	3	5	4	2	1	1	3	1	2	7	20	12	13	7	4	4	5	6	1	1.6	19.6
Dir	73	334	19	353	47	88	62	83	20	99	230	88	125	187	173	290	241	241	268	214	187	241	269	230	276	290
21 Spd	3	3	4	5	4	4	4	4	2	3	5	4	4	6	4	5	7	4	7	7	4	3	2	3	2.6	7.3
Dir	79	95	72	53	66	68	107	175	14	60	175	185	170	181	226	186	147	107	70	70	93	116	102	70	114	70
22 Spd	5	7	8	15	20	16	24	21	16	12	10	8	6	24	18	16	17	13	5	4	4	6	6	9	3.7	24.5
Dir	74	78	98	102	103	98	111	116	120	121	144	153	249	279	251	277	270	270	257	57	72	63	55	77	122	111

Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Beaverlodge - October 2014

Day	Hourly Period Ending At (MST) 1	2	3	4	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	6	7	5	7	7	8	21	7	9	18	20	20	19	12	13	10	8	8	5	7	8	5	7	5.3	20.6
Dir	90	125	114	154	121	102	28	32	198	285	291	297	301	293	303	314	314	334	352	315	335	350	5	339	325	32
24 Spd	4	1	1	1	2	2	3	12	10	13	9	34	40	41	42	39	32	17	14	11	7	4	4	1	13.7	42.3
Dir	39	117	29	23	345	7	275	285	272	250	251	267	264	269	267	276	276	267	265	275	284	271	255	314	271	267
25 Spd	2	3	3	3	2	1	1	4	5	7	15	25	32	29	25	23	15	24	26	28	29	29	23	18	15.0	31.5
Dir	147	77	87	104	103	30	174	194	92	102	105	101	95	90	82	104	72	72	73	82	86	86	81	72	87	95
26 Spd	16	12	13	13	12	11	9	10	10	10	11	9	9	10	13	13	14	12	12	12	11	9	6	6	7.7	16.3
Dir	65	56	49	42	44	40	9	3	350	345	351	338	333	322	316	306	304	300	302	302	295	290	285	286	344	65
27 Spd	6	3	1	3	3	5	5	4	4	4	3	2	3	3	4	4	6	7	7	7	5	2	3	2	2.5	7.2
Dir	285	288	47	63	62	52	61	54	69	71	81	120	164	136	146	136	113	94	83	84	91	140	163	244	92	83
28 Spd	4	3	5	1	5	5	6	6	9	2	4	6	2	7	8	11	9	6	5	6	6	6	6	5	4.1	10.5
Dir	271	349	331	343	289	28	295	336	31	149	327	203	247	19	8	13	13	11	7	336	358	348	14	30	355	13
29 Spd	2	5	0	2	1	3	3	3	3	3	5	5	7	5	6	6	6	6	5	7	5	3	3	1	3.4	7.4
Dir	87	104	204	316	199	156	189	172	175	138	175	143	159	158	147	141	134	109	105	110	116	137	100	197	138	110
30 Spd	2	3	2	5	4	5	8	7	2	1	6	7	11	13	7	3	5	3	5	5	2	2	5	4	2.0	12.5
Dir	353	35	207	137	81	61	113	133	76	101	134	87	114	120	128	222	268	210	267	306	314	195	274	28	119	120
31 Spd	3	4	4	4	8	6	3	6	3	3	4	3	3	4	7	5	8	7	2	5	3	3	6	2	2.1	8.2
Dir	321	272	205	231	295	320	304	202	114	71	74	133	241	291	287	323	319	263	147	168	173	228	252	200	263	295
Spd	0.3	0.3	0.1	0.8	1.2	0.8	0.9	0.7	1.4	2.9	5.3	7.1	8.0	8.4	9.2	9.0	7.6	6.2	3.3	1.5	0.5	0.3	0.5	0.6	Diurnal Average	
Dir	122	300	142	233	294	357	301	291	249	254	258	268	271	274	267	269	269	278	290	289	357	85	219	74		
Spd	20.6	16.6	19.4	18.7	25.2	20.5	24.5	20.9	23.7	29.9	33.6	39.4	41.0	41.5	43.3	39.5	36.0	35.5	26.0	28.3	29.3	28.7	26.7	21.8	Diurnal Maximum	
Dir	249	254	232	245	275	291	111	116	259	261	264	264	275	269	264	276	251	265	73	82	86	86	260	258		

Maximum Speed Value: 43 km/h on Oct 11 15:00
Maximum Daily Speed Average: 24.1 km/h on Oct 11
Maximum Diurnal Speed Average: 9.2 km/h at hour 15

Minimum Speed Value: 0 km/h on Oct 29 03:00
Minimum Daily Speed Average: 0.9 km/h on Oct 7
Minimum Diurnal Speed Average: 0.1 km/h at hour 3

Monthly Average Velocity: 2.98 km/h 271.2 deg

Speed Percentiles: $P_1 = 0.4$ $P_{10} = 1.9$ $Q_1 = 3.4$ Median = 6.2 $Q_3 = 11.9$ $P_{90} = 21.9$ $P_{99} = 38.7$

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

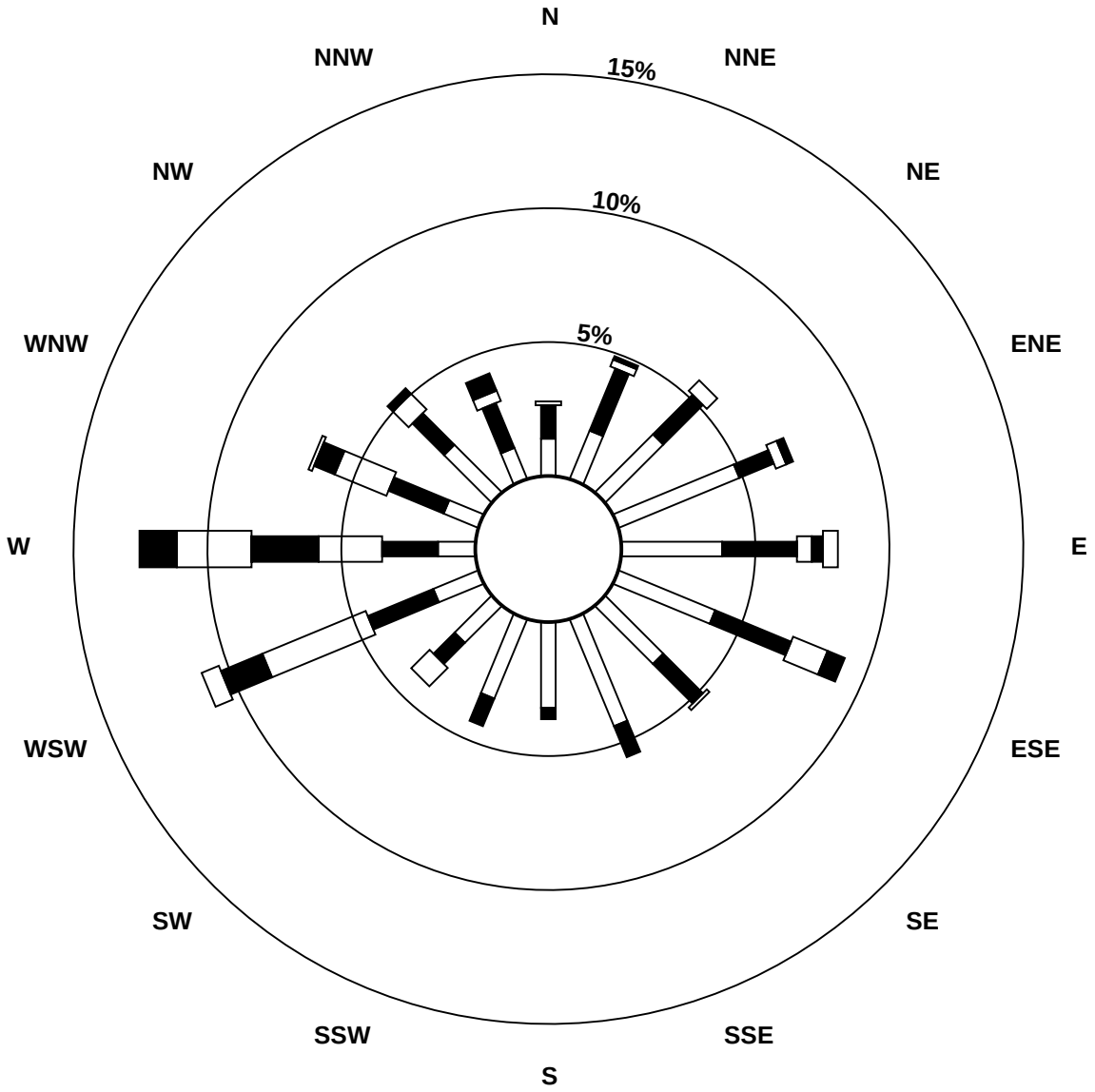
Frequency Distribution

Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	20	26	5	2	0	0	53
NorthEast	47	29	8	1	0	0	85
East	57	39	13	9	5	0	123
SouthEast	52	41	6	1	0	0	100
South	52	14	0	0	0	0	66
SouthWest	34	19	21	3	2	0	79
West	17	38	38	34	25	11	163
NorthWest	23	27	18	7	0	0	75
Total	302	233	109	57	32	11	744

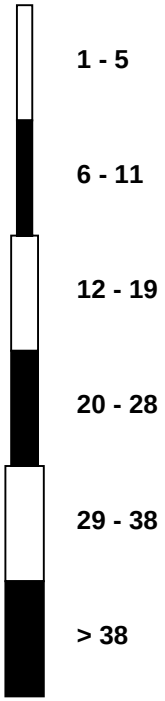
Wind Rose

Wind Speed (WS) (km/h)

Beaverlodge - October 2014



Wind Speed Classes (km/h)



Peace Airshed Zone Association

Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Beaverlodge - October 2014

Maximum Speed: 44 km/h on Oct 11 15:00

Maximum Daily Speed Average: 24.9 km/h on Oct 11

Minimum Speed: 0 km/h on Oct 29 03:00

Minimum Daily Speed Average: 4.1 km/h on Oct 27

Maximum Diurnal Speed Average: 16.6 km/h at hour 16

Minimum Diurnal Speed Average: 6.1 km/h at hour 2

Monthly Average Speed: 9.86 km/h

Percentiles: P_1 = 1.6 P_{10} = 3.0 Q_1 = 4.3 Median = 6.7 Q_3 = 12.2 P_{90} = 22.1 P_{99} = 39.1

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-Oct	7	5	5	20	26	13	12	16	14	23	24	28	21	24	26	26	25	22	15	12	10	7	8	9	16.7	27.7
2-Oct	7	6	5	5	5	4	4	2	1	4	5	7	10	13	14	13	15	8	10	8	4	3	4	4	6.8	14.6
3-Oct	5	5	4	6	6	5	6	6	6	7	11	9	3	3	3	7	7	23	19	20	14	18	23	19	9.7	23.3
4-Oct	21	8	9	7	7	8	13	8	3	5	8	32	41	39	35	37	34	24	20	13	11	10	9	8	17.1	41.3
5-Oct	4	4	3	3	2	5	4	7	7	3	8	19	23	19	15	12	7	18	8	4	4	3	4	4	7.9	23.2
6-Oct	4	6	7	11	22	21	15	9	9	15	28	29	25	27	31	31	34	24	16	11	12	8	4	4	16.8	33.7
7-Oct	3	1	3	3	4	3	6	2	4	5	5	5	5	4	5	11	5	6	6	3	6	3	2	4	4.3	11.5
8-Oct	6	4	6	7	6	3	2	3	2	6	13	13	13	9	8	5	6	5	8	8	10	12	14	14	7.5	14.5
9-Oct	9	7	8	8	9	6	5	4	5	2	6	4	5	5	7	11	9	7	7	4	6	5	4	5	6.1	10.9
10-Oct	2	5	5	5	3	3	4	2	4	3	3	4	7	8	10	28	37	33	19	24	12	10	16	9	10.6	36.6
11-Oct	17	15	19	19	18	17	18	15	12	26	24	40	40	42	44	39	31	36	21	20	20	18	27	22	24.9	43.7
12-Oct	15	17	18	17	13	7	15	15	24	30	34	35	37	37	38	36	28	21	15	8	3	3	5	5	19.8	37.9
13-Oct	4	2	2	4	5	5	7	6	3	3	4	2	4	12	16	19	16	12	11	11	13	13	8	6	7.8	19.2
14-Oct	4	2	5	3	2	5	7	13	10	11	15	14	20	20	28	23	18	15	10	8	10	4	8	5	10.8	28.3
15-Oct	5	10	12	12	11	10	11	11	11	9	9	10	12	13	10	10	8	10	11	9	6	5	6	6	9.5	12.7
16-Oct	9	9	9	8	2	2	3	4	5	6	6	5	6	6	9	10	8	3	3	5	5	4	4	3	5.6	10.3
17-Oct	2	2	3	3	4	2	3	11	8	9	6	12	9	7	4	6	6	3	3	3	4	3	4	5	5.0	11.5
18-Oct	6	4	3	4	4	4	5	4	3	5	32	32	29	30	28	22	12	5	7	7	7	9	9	7	11.6	32.4
19-Oct	6	3	4	2	3	3	3	3	4	3	5	8	6	4	4	5	7	9	6	6	7	6	8	7	5.1	8.9
20-Oct	7	15	9	4	5	5	6	4	4	4	2	4	3	4	7	21	12	13	7	4	4	6	6	3	6.6	20.9
21-Oct	3	3	4	5	4	4	5	4	5	4	5	5	5	7	5	7	7	5	7	7	4	3	3	4	4.8	7.5
22-Oct	5	7	9	15	20	16	25	21	16	12	10	9	8	25	18	16	17	13	7	5	5	6	6	10	12.5	24.9
23-Oct	8	6	8	5	9	7	9	21	11	11	19	20	20	19	13	13	10	8	8	6	7	8	5	7	10.7	20.8
24-Oct	5	2	2	2	4	4	5	12	10	13	9	35	41	41	43	40	32	17	14	11	8	4	5	2	15.1	42.6
25-Oct	2	4	5	3	2	2	2	4	5	7	15	25	32	29	25	24	15	24	26	28	29	29	23	18	15.8	31.6
26-Oct	16	12	13	13	12	11	9	10	10	10	11	10	9	10	13	13	14	12	12	12	11	9	6	7	11.1	16.3
27-Oct	6	4	1	3	3	5	5	4	4	4	3	2	3	3	4	5	6	7	7	7	5	2	3	2	4.1	7.2
28-Oct	6	5	6	3	6	6	8	7	9	4	6	8	4	8	8	11	9	6	5	6	6	6	6	6	6.4	10.6
29-Oct	2	5	0	2	1	3	3	3	3	3	5	6	7	5	6	6	6	7	6	8	5	4	4	4	4.3	7.7
30-Oct	5	4	3	6	5	5	8	7	3	3	6	7	11	13	7	4	5	4	6	5	3	3	5	5	5.5	12.7
31-Oct	4	4	4	5	9	6	6	7	3	3	5	4	4	5	7	6	9	10	3	5	3	4	7	3	5.2	9.7
	6.6	6.1	6.3	6.8	7.4	6.5	7.5	7.9	7.0	8.1	11.0	14.2	14.8	15.8	15.8	16.6	14.6	13.3	10.5	9.3	8.2	7.4	7.9	7.0	Diurnal Average	
	20.7	16.7	19.4	19.5	26.2	20.6	24.6	21.0	23.8	30.0	33.8	39.6	41.3	42.0	43.7	39.6	36.6	35.7	26.0	28.4	29.3	28.8	26.8	21.8	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 - October 2014

Maximum Value: 98.8 deg on Oct 7 14:00

Minimum Value: 2.3 deg on Oct 22 05:00

Percentiles: P_1 = 3.4 P_{10} = 5.7 Q_1 = 8.7 Median = 17.4 Q_3 = 37.8 P_{90} = 65.2 P_{99} = 87.5

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)																								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-Oct	20	32	32	14	17	15	19	5	8	10	9	31	13	9	14	13	12	10	8	9	7	12	9	3	32.3
2-Oct	7	9	12	7	11	39	35	88	93	24	20	29	20	27	24	15	12	13	5	9	54	71	20	38	92.8
3-Oct	30	9	15	18	92	81	31	19	24	20	11	13	85	66	28	64	55	29	9	5	11	5	6	5	91.9
4-Oct	5	28	12	16	19	10	8	63	49	44	27	10	7	9	7	7	7	7	7	7	7	7	7	18	63.3
5-Oct	21	44	85	83	60	17	35	21	43	35	22	10	12	8	6	10	21	12	10	15	39	30	38	42	84.8
6-Oct	56	76	26	14	10	6	5	27	11	7	6	7	10	12	7	7	6	7	4	9	3	17	56	47	76.1
7-Oct	21	60	40	41	51	14	8	79	92	35	23	32	86	99	60	16	34	25	30	35	8	66	76	28	98.8
8-Oct	7	18	27	11	10	85	80	16	31	33	11	17	15	23	41	66	22	25	14	13	6	9	4	6	84.7
9-Oct	20	12	12	16	10	14	22	24	76	63	29	44	37	33	19	10	12	18	10	26	10	19	24	53	76.0
10-Oct	58	59	22	28	35	84	45	60	28	42	32	34	21	17	13	7	10	6	6	6	18	64	17	18	84.1
11-Oct	7	4	4	5	7	13	38	12	13	12	7	6	7	9	9	6	5	6	5	5	3	6	3	4	37.8
12-Oct	5	5	3	4	5	14	4	7	4	5	6	8	8	11	7	7	5	5	4	53	74	24	13	19	74.2
13-Oct	55	72	58	53	58	35	14	22	84	32	25	50	37	15	7	6	7	7	6	8	7	11	9	15	83.7
14-Oct	66	72	41	42	53	42	49	11	14	22	9	9	9	8	8	12	7	7	19	49	9	75	16	45	75.2
15-Oct	36	19	14	10	6	5	6	6	7	12	8	11	10	8	13	9	9	9	8	7	11	11	10	4	36.1
16-Oct	8	6	10	11	37	38	19	25	24	35	35	31	26	28	12	11	24	55	40	35	76	59	31	78	77.9
17-Oct	87	70	89	54	52	80	69	35	51	14	17	17	24	67	26	13	11	47	40	54	72	49	54	32	89.1
18-Oct	35	85	88	27	55	57	29	43	49	79	4	5	10	12	9	10	9	24	46	10	29	16	14	17	88.5
19-Oct	16	35	32	35	84	69	91	78	36	67	43	58	17	78	53	50	39	22	31	22	14	25	21	21	91.2
20-Oct	8	54	37	81	80	51	67	20	58	89	79	65	81	66	23	25	18	14	17	36	56	62	25	74	89.3
21-Oct	36	26	17	14	21	24	39	13	82	35	24	26	45	20	37	40	12	32	12	8	23	25	47	59	82.3
22-Oct	12	14	24	5	2	5	6	7	12	6	15	13	35	13	12	8	7	7	81	77	34	11	8	15	80.6
23-Oct	11	21	21	35	36	9	25	9	50	37	10	7	8	11	20	7	9	10	7	30	15	14	28	27	50.0
24-Oct	63	72	63	55	48	57	82	10	16	5	8	7	5	6	7	5	5	5	5	6	13	33	62	65	82.3
25-Oct	66	41	45	30	29	89	87	33	45	16	7	4	4	5	6	8	7	4	3	5	4	5	4	5	88.5
26-Oct	4	4	8	4	5	6	6	6	5	6	5	11	7	6	6	5	5	4	5	5	4	9	11	12	11.7
27-Oct	11	31	43	11	15	14	13	14	11	7	20	43	10	14	12	11	7	12	3	4	8	40	12	63	63.3
28-Oct	52	53	36	91	49	51	37	26	19	60	56	68	74	34	9	5	10	8	9	6	8	16	8	12	91.1
29-Oct	26	7	78	33	65	20	23	13	25	41	14	8	9	12	11	11	10	21	21	15	19	53	38	79	79.3
30-Oct	70	77	53	43	28	22	14	22	68	80	26	17	12	9	20	22	32	40	16	16	75	63	34	27	80.3
31-Oct	37	48	36	46	22	21	73	17	44	20	31	30	77	18	13	36	18	41	55	9	14	37	34	26	77.2
	87.0	85.1	89.1	91.1	91.9	88.5	91.2	88.4	92.8	89.3	78.7	68.3	86.0	98.8	60.0	66.2	54.8	54.9	80.6	77.0	76.1	75.2	76.4	79.3	

PAZA
Valleyview Station
Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Valleyview - October 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 17.6 ppb on Oct 12 07:00 Maximum Daily Average: 5.7 ppb on Oct 12

Minimum Value: 0 ppb on Oct 1 17:00 Minimum Daily Average: 0.0 ppb on Oct 26
Maximum Diurnal Average: 1.2 ppb at hour 15 Minimum Diurnal Average: 0.2 ppb at hour 5
Monthly Average: 0.55 ppb Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.1 Q_3 = 0.3 P_{90} = 1.3 P_{99} = 8.4

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-Oct	A	0	0	0	0	0	0	1	1	1	2	1	2	6	5	0	0	0	0	0	0	0	0	A	0.9	6.3
2-Oct	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.2	1.3
3-Oct	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
4-Oct	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	1	2	A	0	0	0	0.3	1.9
5-Oct	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	A	0	0	0	0	0.1	2.4
6-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	1	0	0	A	0	0	1	3	4	0.5	4.4
7-Oct	2	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.4	2.2
8-Oct	0	0	0	0	0	0	0	0	0	0	0	C	C	C	0	0	A	0	0	0	0	0	0	0	0.1	0.2
9-Oct	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	A	0	0	0	0	0	0	0	0	0.2	1.0
10-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	1	0	0	0	1	1	1	0.3	1.4
11-Oct	2	0	0	0	0	0	0	0	0	0	0	2	4	A	1	4	7	3	1	6	3	5	4	0	1.9	6.9
12-Oct	6	10	15	9	2	5	18	14	13	13	2	1	A	5	3	2	5	1	5	0	0	0	0	0	5.7	17.6
13-Oct	0	0	0	0	0	0	0	0	0	0	0	A	1	0	0	1	0	0	1	0	0	0	0	0	0.2	1.0
14-Oct	0	0	0	0	0	0	0	0	0	0	A	2	2	1	7	3	1	0	0	0	0	0	0	0	0.7	6.5
15-Oct	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0.2	2.6
16-Oct	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
17-Oct	0	3	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	2.7
18-Oct	0	0	0	0	0	0	A	0	0	0	0	0	4	3	2	1	0	0	0	0	0	0	0	0	0.5	3.9
19-Oct	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
20-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
21-Oct	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
22-Oct	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0.1	0.8
23-Oct	0	A	0	0	0	0	0	0	0	0	1	0	0	3	5	6	2	3	2	1	0	0	0	0	1.0	6.2
24-Oct	A	0	0	0	0	0	0	0	0	0	0	4	4	2	1	1	0	0	0	0	0	0	0	A	0.6	4.3
25-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	A	0	0.1	0.8
26-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.0	0.1
27-Oct	0	1	1	0	1	0	0	2	2	1	2	2	0	0	0	0	0	0	0	0	A	0	0	0	0.6	1.8
28-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	2	A	0	0	0	0	0.4	3.1
29-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	2	1	3	1	0	0.4	3.0
30-Oct	0	0	0	0	0	1	1	0	0	0	0	0	1	1	1	1	1	A	1	1	0	0	0	0	0.5	1.2
31-Oct	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.4	1.8
	0.4	0.6	0.7	0.4	0.2	0.3	0.7	0.6	0.6	0.7	0.4	0.6	0.7	0.9	1.2	0.8	0.7	0.4	0.5	0.4	0.3	0.4	0.4	0.3	Diurnal Average	
	6.3	10.5	15.1	9.2	2.5	5.2	17.6	13.5	12.7	13.0	2.4	4.3	3.9	6.3	6.5	6.2	6.9	3.1	5.3	6.2	2.9	4.7	4.0	4.4	Diurnal Maximum	

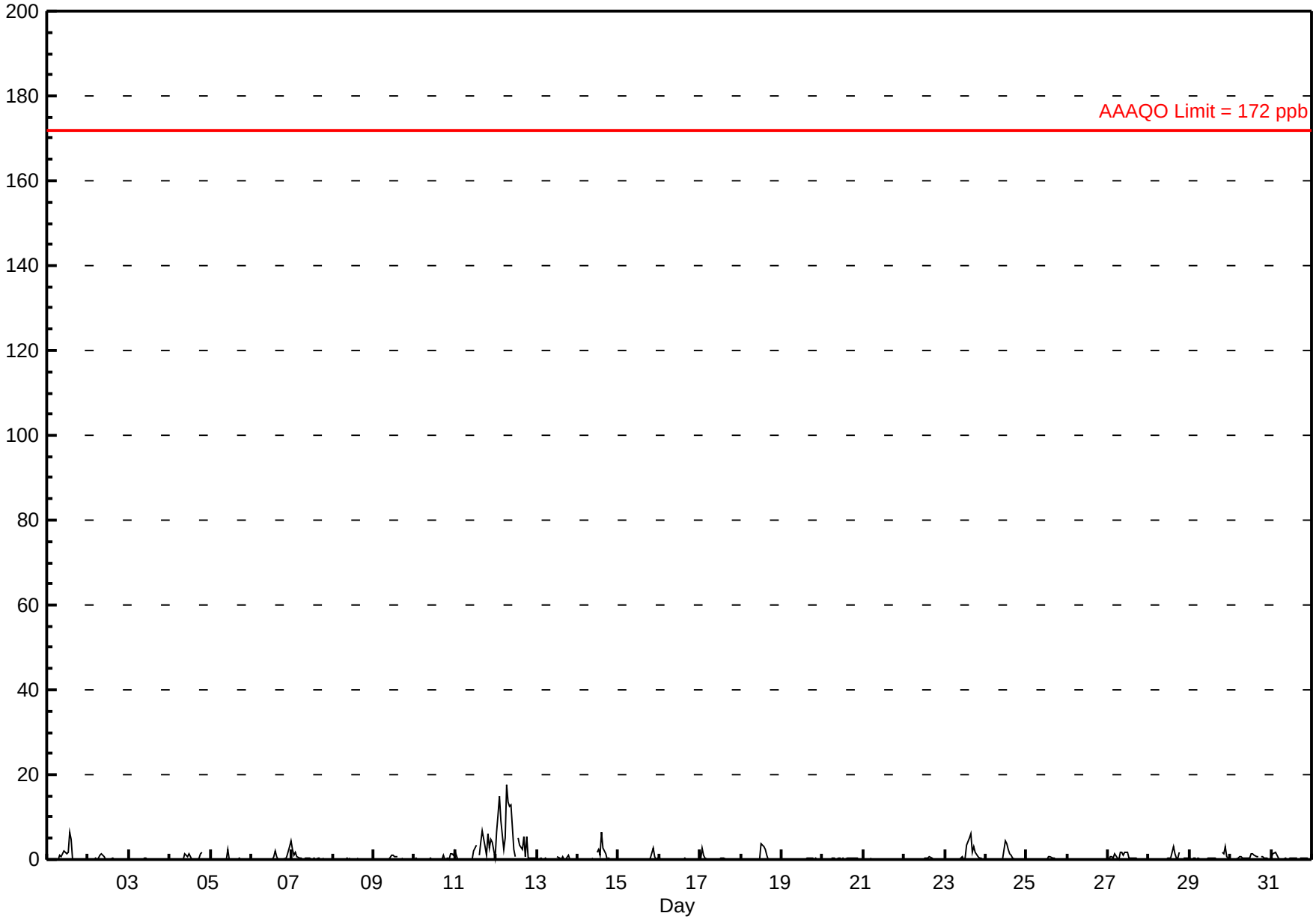
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Valleyview - October 2014



Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Valleyview - October 2014

Maximum Value: 33.1 ppb on Oct 24 10:00

Maximum Daily Average: 13.1 ppb on Oct 12

Minimum Value: 0 ppb on Oct 13 22:00

Minimum Daily Average: 0.4 ppb on Oct 26

Maximum Diurnal Average: 4.1 ppb at hour 15

Minimum Diurnal Average: 1.1 ppb at hour 5

Monthly Average: 2.13 ppb

Percentiles: $P_1 = 0.2$ $P_{10} = 0.4$ $Q_1 = 0.5$ Median = 0.6 $Q_3 = 0.9$ $P_{90} = 6.0$ $P_{99} = 21.2$

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-Oct	A	1	1	0	1	1	1	5	4	9	8	13	10	18	16	1	1	1	1	1	1	0	0	A	4.1	18.1
2-Oct	0	0	0	1	1	1	2	2	4	2	1	1	0	2	8	1	1	0	1	0	0	0	A	1	1.3	8.4
3-Oct	1	1	0	0	1	0	1	0	1	1	1	1	1	1	1	0	1	0	0	1	0	A	0	0	0.5	0.9
4-Oct	0	1	0	0	0	0	0	0	0	13	4	12	7	0	0	0	1	1	3	6	A	1	1	1	2.3	12.6
5-Oct	1	1	0	1	0	1	0	0	1	1	4	1	1	0	0	1	1	2	0	A	0	0	1	0	0.7	4.4
6-Oct	0	0	0	0	0	1	0	0	0	1	1	0	1	3	3	3	1	1	A	1	1	5	9	9	1.8	9.3
7-Oct	8	3	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0	0	1	1.2	7.8
8-Oct	1	1	1	1	1	1	1	0	1	0	1	C	C	C	3	1	A	1	1	1	1	1	1	0	0.7	2.5
9-Oct	0	1	1	1	1	1	1	1	1	1	2	1	1	1	1	A	1	1	1	1	1	1	1	1	0.8	1.6
10-Oct	1	1	1	1	0	1	1	1	1	1	1	1	1	0	A	1	0	16	0	2	1	9	7	10	2.3	16.1
11-Oct	9	0	1	0	1	1	1	1	1	1	0	13	12	A	7	19	20	21	3	20	12	19	16	1	7.7	21.2
12-Oct	18	19	21	16	11	15	29	22	25	26	13	2	A	15	23	13	14	2	13	1	1	1	1	1	13.1	28.8
13-Oct	1	1	1	1	1	1	1	1	1	1	1	A	2	1	1	2	1	2	2	1	1	0	1	0	0.8	2.2
14-Oct	0	0	1	1	0	0	0	1	1	1	A	8	15	5	18	13	8	1	1	1	1	1	1	1	3.4	18.3
15-Oct	1	1	0	1	1	1	0	1	1	A	1	1	0	1	0	0	1	0	0	5	7	3	2	2	1.2	7.3
16-Oct	1	1	0	1	0	0	1	0	A	0	0	1	0	1	1	2	1	1	1	0	0	1	1	0	0.6	1.5
17-Oct	0	7	4	1	1	1	0	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	6.6
18-Oct	1	1	0	1	1	1	A	1	1	1	0	7	13	18	13	14	2	0	1	1	1	1	1	0	3.2	17.8
19-Oct	1	1	0	0	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
20-Oct	1	1	1	0	A	1	1	1	1	1	1	0	1	1	1	1	1	2	1	2	2	1	1	0	0.8	1.8
21-Oct	1	0	0	A	1	1	1	0	1	1	0	0	1	1	1	0	0	1	0	0	0	0	1	1	0.5	0.8
22-Oct	1	1	A	0	1	0	1	1	1	1	1	1	1	1	1	5	2	1	1	1	0	1	1	0	0.8	4.6
23-Oct	1	A	1	1	1	1	1	1	1	1	1	1	6	9	10	16	10	12	4	2	1	1	1	1	3.4	15.5
24-Oct	A	1	1	1	1	1	1	1	1	33	4	18	16	16	6	6	1	1	1	0	1	0	0	A	5.0	33.1
25-Oct	1	0	1	0	0	1	1	0	1	1	1	1	0	2	1	4	3	1	0	0	1	0	A	0	0.8	3.8
26-Oct	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1	A	1	1	0.4	0.8
27-Oct	1	2	2	2	4	1	1	10	6	3	8	9	1	1	1	1	1	1	0	0	A	0	0	1	2.4	10.1
28-Oct	0	1	1	1	1	0	0	0	0	0	1	1	1	1	5	3	1	1	3	A	1	1	1	1	1.1	5.1
29-Oct	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	4	3	7	2	1	1.3	7.3
30-Oct	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	1	1	A	1	1	1	1	1	1	1.0	1.8
31-Oct	1	2	3	2	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	2	1	1	1	1.0	2.8
	1.8	1.5	1.6	1.2	1.1	1.1	1.6	1.8	1.8	3.4	2.0	3.3	3.3	3.5	4.1	3.6	2.6	2.4	1.4	1.8	1.4	2.0	1.7	1.2	Diurnal Average	
	18.4	18.8	21.3	16.4	10.9	15.4	28.8	21.6	24.6	33.1	12.9	18.0	15.6	18.1	22.9	18.5	19.9	21.2	12.9	19.9	11.9	19.4	16.2	9.6	Diurnal Maximum	

C - Calibration

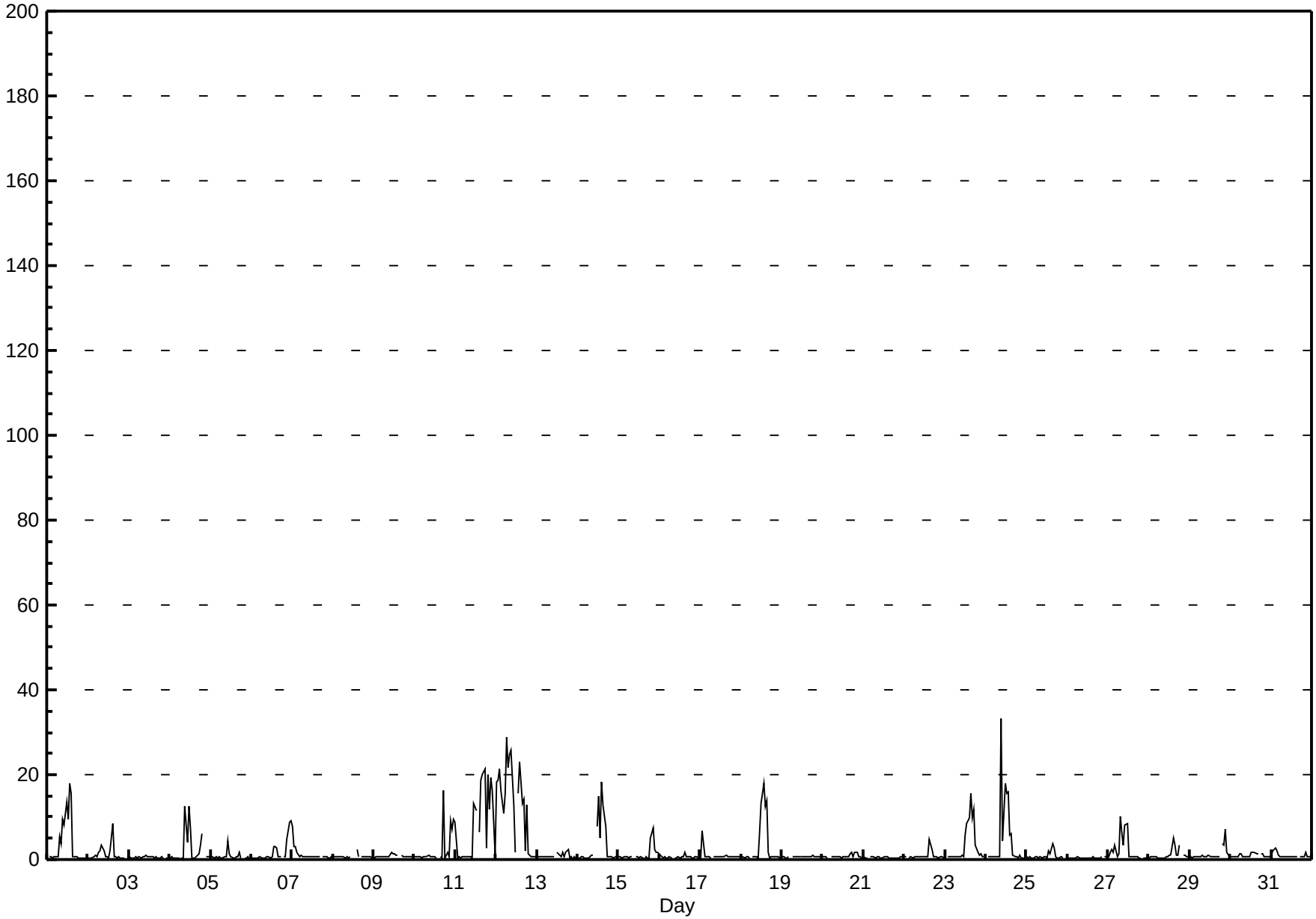
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Valleyview - October 2014

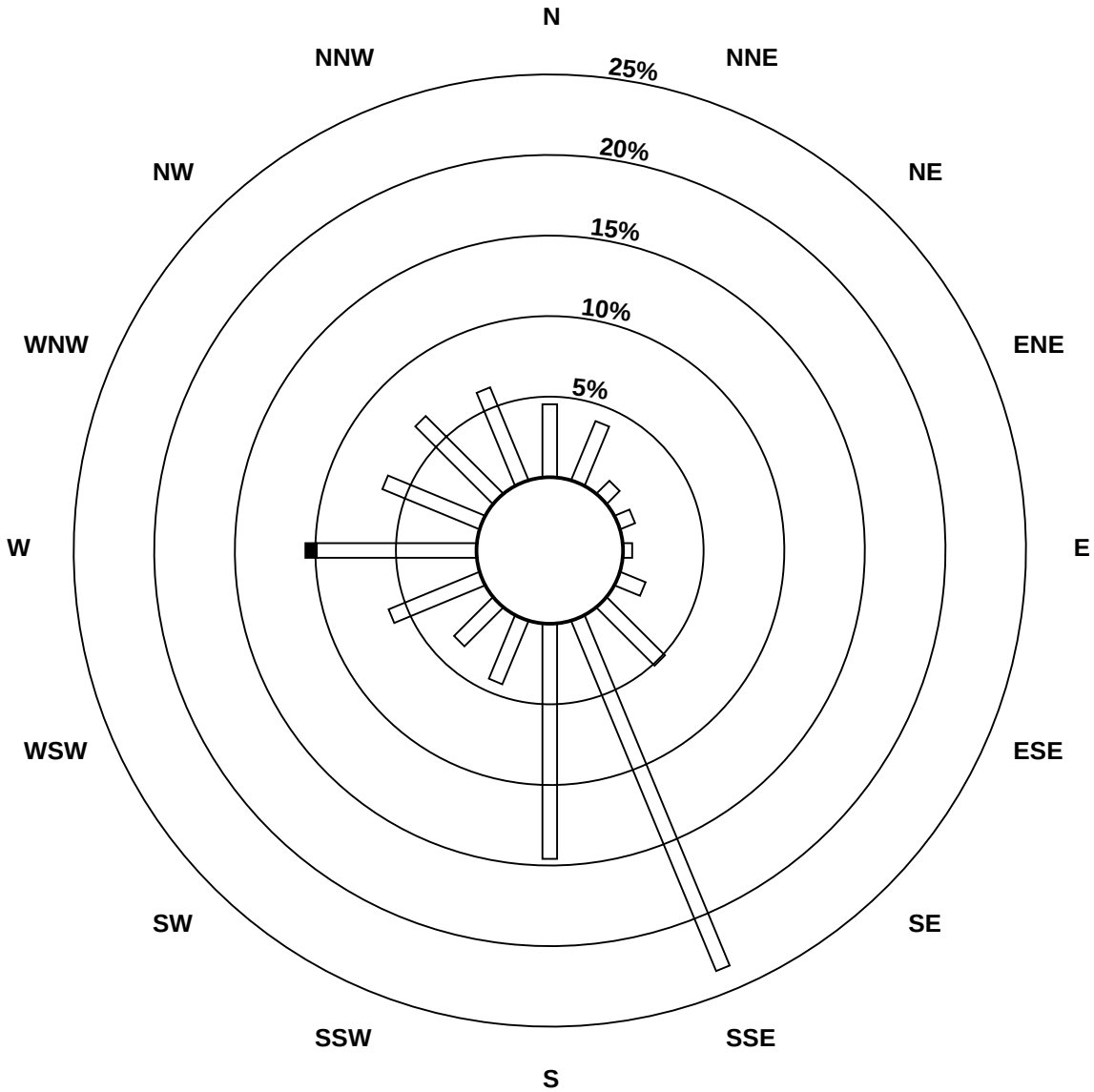


Peace Airshed Zone Association

Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Valleyview - October 2014



Pollutant Classes (ppb)

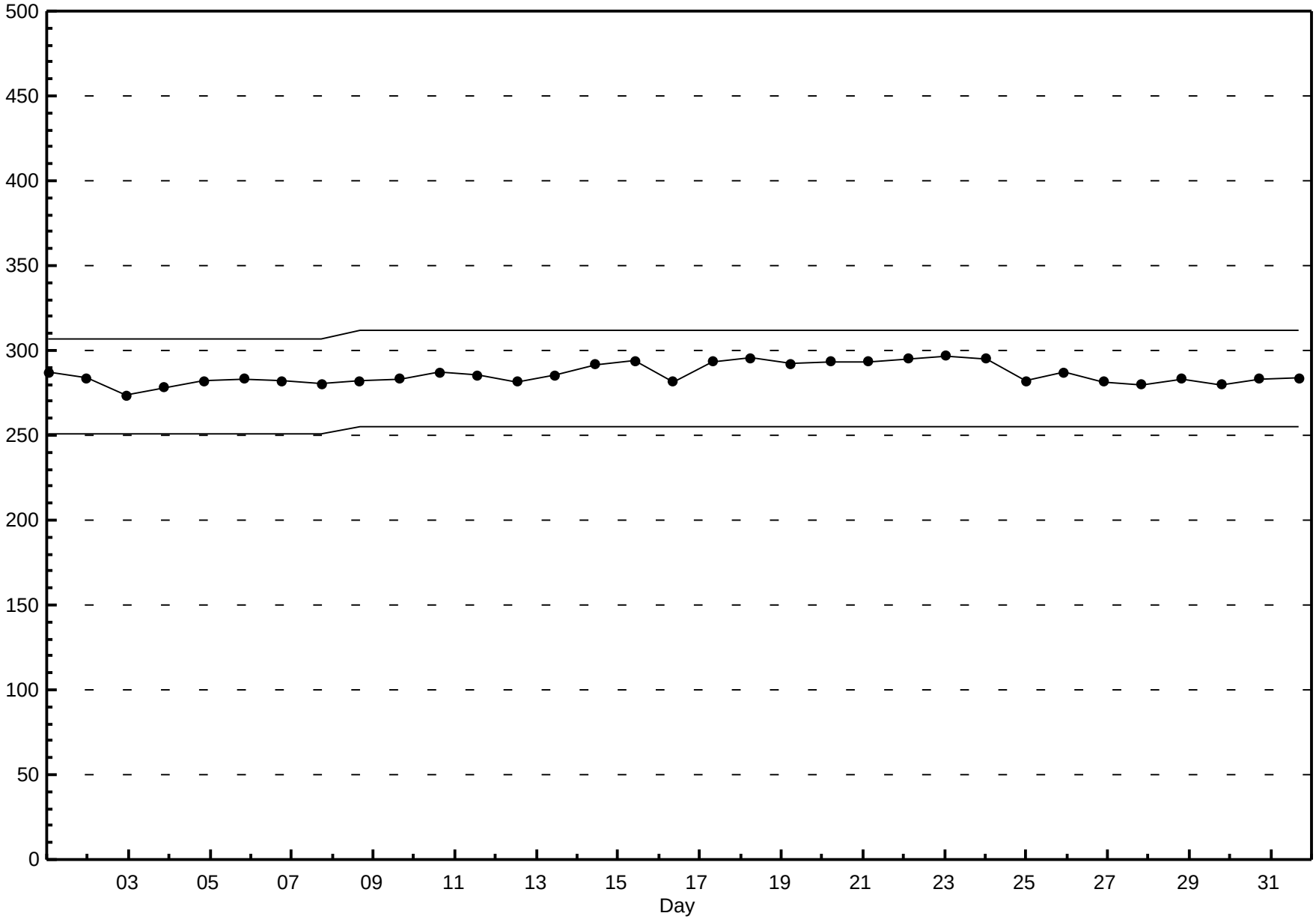
- 0 - 10
- 11 - 20
- 21 - 60
- 61 - 110
- 111 - 172
- > 172

Peace Airshed Zone Association

Span Responses

Sulphur Dioxide (SO_2)

Valleyview - October 2014



Peace Airshed Zone Association

Hourly Averages

Hydrogen Sulphide (H_2S) - ppb

Valleyview - October 2014

Number of Exceedences (AAAQO): 1-hr: 3 24-hr: 1
Maximum Value: 36.3 ppb on Oct 7 06:00 Maximum Daily Average: 3.6 ppb on Oct 7

Minimum Value: 0 ppb on Oct 1 16:00 Minimum Daily Average: 0.1 ppb on Oct 16
Maximum Diurnal Average: 1.5 ppb at hour 6 Minimum Diurnal Average: 0.1 ppb at hour 14
Monthly Average: 0.35 ppb Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.1 Median = 0.1 Q_3 = 0.2 P_{90} = 0.4 P_{99} = 2.9

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-Oct	A	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	A	0.2	1.0
2-Oct	0	0	0	0	0	0	1	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.3	2.9
3-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.1
4-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	0	0	0	0.1	1.0
5-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.1	0.2
6-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	36	1	0	0	0	1.7	36.3
7-Oct	0	0	0	6	32	36	1	1	3	3	0	0	0	0	0	0	0	A	0	0	0	0	0	0	3.6	36.3
8-Oct	0	0	0	0	0	0	0	0	0	C	C	C	C	0	0	0	A	0	0	0	0	0	0	0	0.1	0.4
9-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	1	0	0	0	0.2	0.5
10-Oct	0	0	0	0	0	0	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	1	0	0.3	0.7
11-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.2	0.4
12-Oct	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
13-Oct	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
14-Oct	0	0	0	0	0	0	0	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	0.6
15-Oct	0	2	1	0	1	2	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	2.1
16-Oct	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
17-Oct	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
18-Oct	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.3	0.6
19-Oct	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.1	0.5
20-Oct	0	0	0	0	A	1	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.0
21-Oct	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0.2	0.6
22-Oct	0	0	A	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.4
23-Oct	0	A	1	0	2	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.6
24-Oct	A	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0.1	0.6
25-Oct	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
26-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.2
27-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	0.4
28-Oct	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
29-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.2	0.3
30-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.2	0.3
31-Oct	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
	0.2	0.2	0.2	0.4	1.3	1.5	0.3	0.4	0.4	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	1.5	0.2	0.2	0.2	0.2	Diurnal Average	
	0.5	2.1	0.7	6.0	31.8	36.3	1.1	2.9	2.9	3.4	0.6	0.8	0.3	0.4	0.7	0.3	0.6	0.3	0.4	36.3	1.3	0.5	0.7	0.5	Diurnal Maximum	

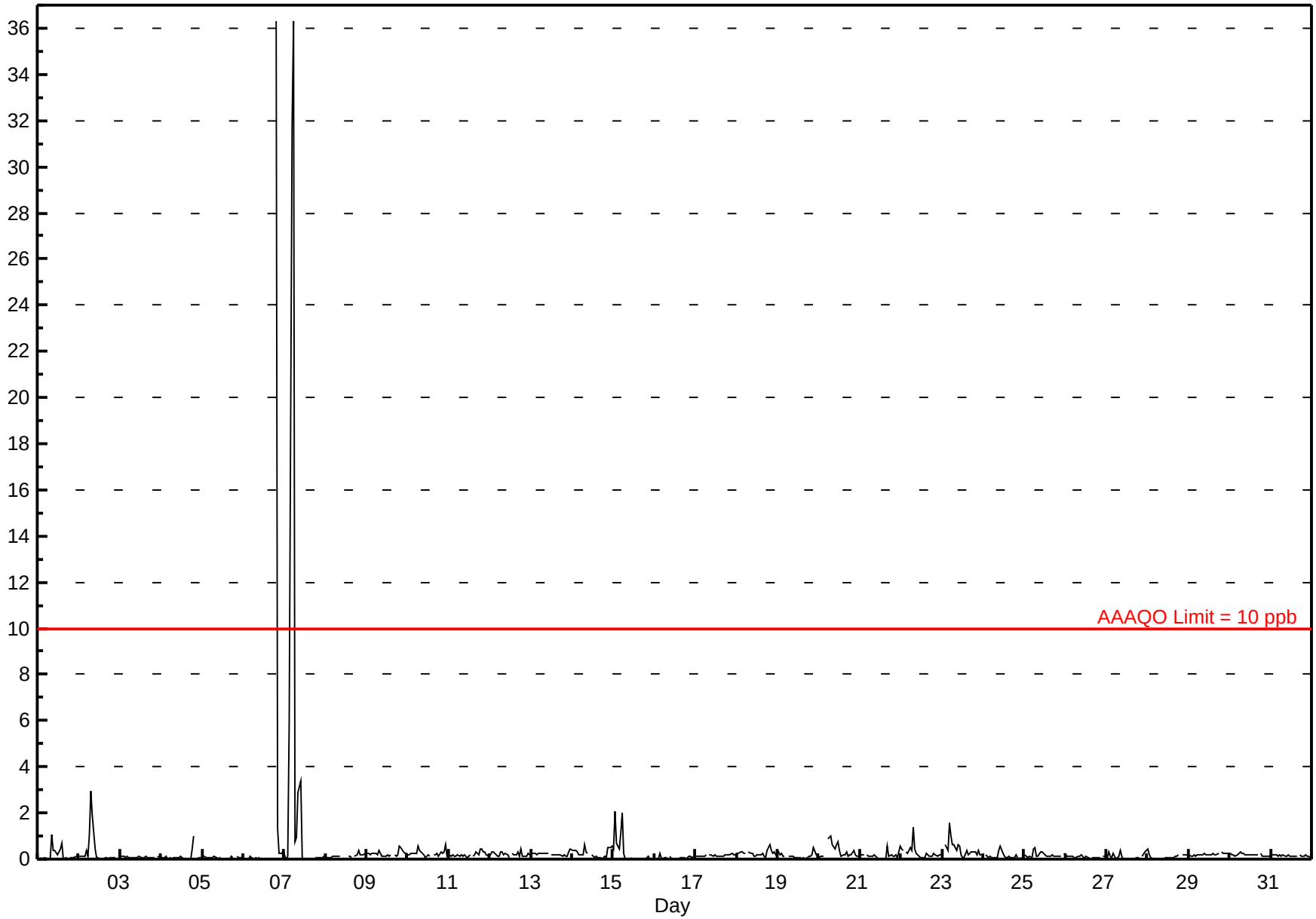
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb

Peace Airshed Zone Association

Hourly Averages

Hydrogen Sulphide (H_2S) - ppb

Valleyview - October 2014



Peace Airshed Zone Association

Hourly Maximums

Hydrogen Sulphide (H_2S) - ppb

Valleyview - October 2014

Maximum Value: 104.6 ppb on Oct 7 05:00

Maximum Daily Average: 13.1 ppb on Oct 7

Minimum Value: 0 ppb on Oct 27 13:00

Minimum Daily Average: 0.4 ppb on Oct 16

Maximum Diurnal Average: 4.2 ppb at hour 5

Minimum Diurnal Average: 0.5 ppb at hour 18

Monthly Average: 1.22 ppb

Percentiles: $P_1 = 0.2$ $P_{10} = 0.3$ $Q_1 = 0.4$ Median = 0.5 $Q_3 = 0.6$ $P_{90} = 1.0$ $P_{99} = 10.1$

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-Oct	A	0	0	0	0	0	0	1	3	1	1	1	1	2	2	0	0	0	0	1	0	0	0	A	0.8	3.3
2-Oct	1	1	0	0	2	0	5	6	3	2	0	0	0	0	0	0	1	0	0	0	0	0	A	1	1.1	5.7
3-Oct	1	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	A	0	0	0.4	0.7
4-Oct	0	0	0	1	0	0	0	0	0	1	1	1	1	0	0	0	1	0	1	2	A	0	0	0	0.5	1.9
5-Oct	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.4	1.2
6-Oct	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	103	11	1	1	1	5.4	103.0
7-Oct	1	0	0	66	105	102	1	2	10	10	1	0	0	0	0	0	0	A	0	0	0	0	0	0	13.1	104.6
8-Oct	0	0	0	0	0	1	0	0	0	C	C	C	C	0	1	0	A	0	1	1	1	1	1	1	0.5	0.8
9-Oct	1	1	1	1	1	1	1	1	1	0	0	0	1	1	1	A	1	0	1	1	1	1	1	1	0.6	1.0
10-Oct	0	0	1	1	1	1	1	1	1	0	0	1	1	1	A	1	1	1	0	1	1	1	2	1	0.8	1.6
11-Oct	1	0	1	0	0	1	1	1	0	0	1	0	1	A	0	1	1	1	1	1	1	1	1	0	0.6	0.9
12-Oct	1	1	1	1	1	0	1	1	0	1	1	0	A	1	1	1	4	1	1	0	0	0	0	0	0.7	4.3
13-Oct	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0	1	0	1	1	0.6	1.0
14-Oct	1	1	1	1	1	1	1	1	1	1	A	1	1	0	1	1	1	0	0	1	0	1	1	1	0.7	1.2
15-Oct	1	6	1	1	3	3	1	0	0	A	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1.0	6.4
16-Oct	0	0	0	1	1	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.4	0.8
17-Oct	0	1	0	1	0	0	1	A	1	0	0	0	1	1	0	1	0	1	1	0	0	1	1	1	0.5	0.6
18-Oct	1	1	1	1	1	1	A	1	1	1	1	0	1	0	1	1	1	0	1	1	1	1	1	1	0.7	1.1
19-Oct	1	1	1	1	1	A	1	0	0	1	1	0	0	0	0	0	0	0	1	0	1	1	1	1	0.6	1.2
20-Oct	0	0	0	1	A	4	2	2	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1	0	1.0	3.8
21-Oct	0	1	0	A	1	1	1	1	1	0	0	0	0	0	0	0	1	1	1	0	0	0	0	2	0.6	1.5
22-Oct	1	1	A	1	1	2	1	6	1	1	1	0	0	0	0	1	0	0	1	1	1	0	1	0	0.9	6.0
23-Oct	1	A	1	1	2	1	1	1	1	1	1	1	0	1	7	1	1	1	1	1	1	1	1	1	1.2	7.4
24-Oct	A	0	0	0	1	0	0	0	0	5	1	1	1	0	1	1	0	0	0	1	0	0	1	A	0.7	5.2
25-Oct	1	1	0	0	0	2	2	0	0	1	1	1	1	1	1	0	1	0	0	1	0	1	A	1	0.7	2.0
26-Oct	0	0	1	0	1	0	0	0	1	0	1	0	0	0	0	0	0	1	0	0	0	A	1	0	0.5	0.8
27-Oct	0	1	1	0	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	A	0	1	1	0.5	1.1
28-Oct	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	A	1	1	0	1	0.5	0.9
29-Oct	1	1	0	1	1	0	0	0	1	1	1	0	0	1	1	1	1	1	A	1	1	1	1	1	0.5	0.7
30-Oct	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	0	1	A	1	0	0	1	1	0	0.6	0.7
31-Oct	1	1	1	1	1	1	1	1	0	1	1	1	1	0	0	1	A	1	0	1	1	1	0	0	0.6	0.9
	0.6	0.8	0.6	2.7	4.2	4.1	0.8	1.0	1.1	1.1	0.6	0.6	0.5	0.5	0.7	0.5	0.7	0.5	0.5	4.2	0.9	0.6	0.6	0.6	Diurnal Average	
	1.2	6.4	1.5	66.0	104.6	101.6	5.4	6.0	10.4	10.2	1.3	1.4	1.3	1.5	7.4	1.1	4.3	0.9	1.0	103.0	10.7	1.2	1.6	1.5	Diurnal Maximum	

C - Calibration

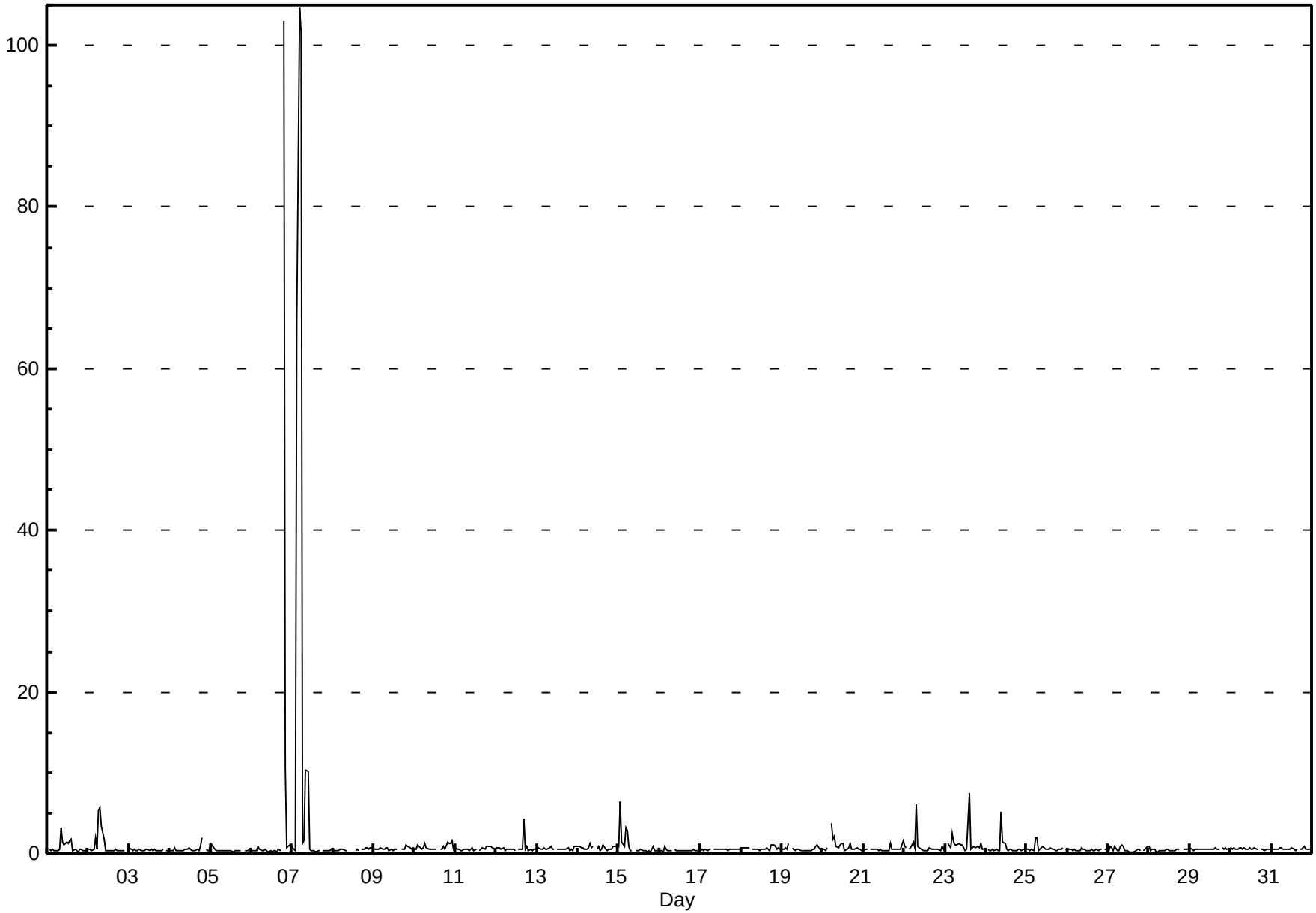
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Hydrogen Sulphide (H_2S) - ppb

Valleyview - October 2014

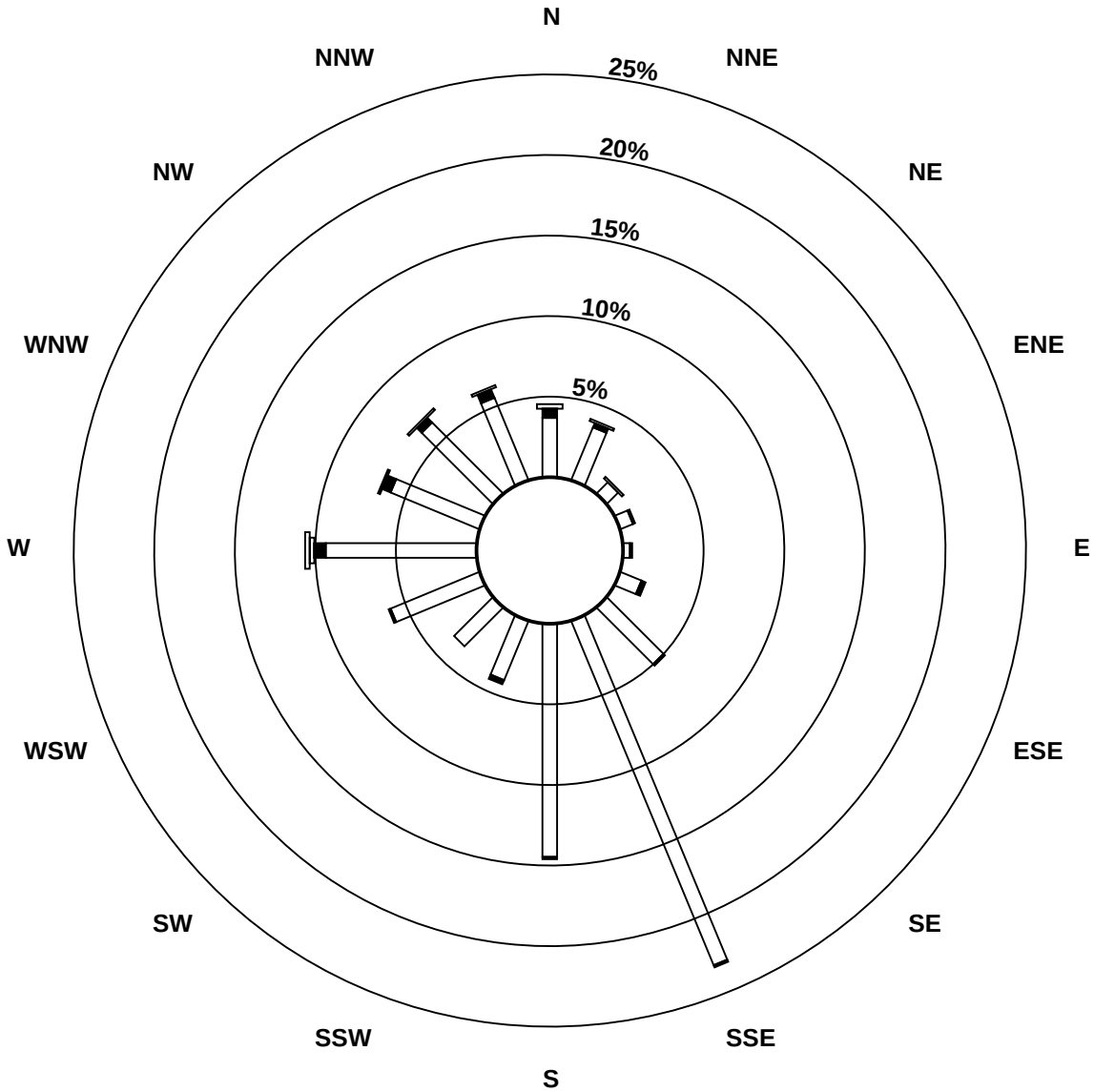


Peace Airshed Zone Association

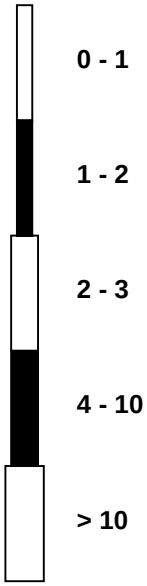
Pollutant Rose

Hydrogen Sulphide (H_2S) - ppb

Valleyview - October 2014



Pollutant Classes (ppb)

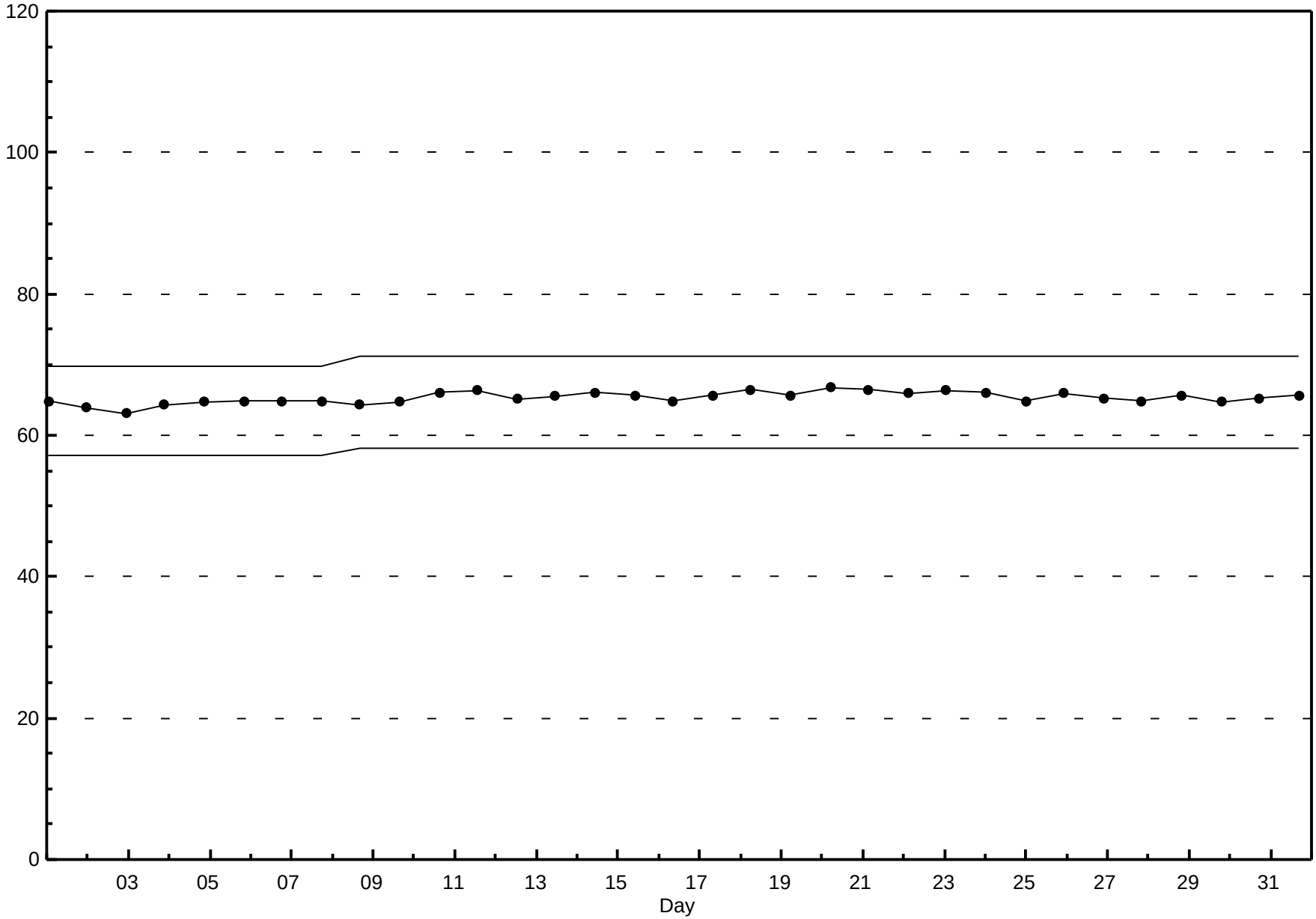


Peace Airshed Zone Association

Span Responses

Hydrogen Sulphide (H_2S)

Valleyview - October 2014



Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Valleyview - October 2014

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

Maximum Value: 24.6 ^{o}C on Oct 10 16:00

Maximum Daily Average: 14.2 ^{o}C on Oct 10

Minimum Value: -4 ^{o}C on Oct 25 08:00

Maximum Diurnal Average: 11.6 ^{o}C at hour 16

Monthly Average: 6.62 ^{o}C

Minimum Daily Average: 0.2 ^{o}C on Oct 25

Minimum Diurnal Average: 3.0 ^{o}C at hour 8

Percentiles: P_1 = -3.0 P_{10} = 0.1 Q_1 = 1.8 Median = 5.9 Q_3 = 10.6 P_{90} = 14.8 P_{99} = 19.5

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-Oct	5	5	4	4	4	4	5	6	7	8	9	6	8	6	7	8	7	4	3	1	0	1	0	1	4.7	8.9
2-Oct	0	0	0	0	-1	-1	-2	-2	-1	0	2	3	4	5	6	6	6	7	5	2	0	-1	-2	-2	1.4	6.5
3-Oct	-3	-3	-3	-3	-3	-3	-2	-1	1	3	3	4	4	5	7	8	9	10	9	9	8	8	8	8	3.5	9.8
4-Oct	8	9	10	10	9	9	9	9	10	14	15	16	18	18	18	18	19	18	16	15	14	13	13	12	13.4	18.8
5-Oct	12	9	7	6	5	5	4	3	6	9	13	15	16	16	16	16	16	15	14	12	12	11	11	10	10.7	16.1
6-Oct	10	10	10	10	10	13	12	12	13	13	14	15	15	15	16	16	16	15	13	12	11	10	10	10	12.5	16.0
7-Oct	10	10	9	8	7	7	5	4	7	7	10	12	13	14	14	15	14	13	12	11	10	10	10	9	10.1	14.5
8-Oct	9	8	8	8	8	8	8	7	8	9	11	12	12	13	13	13	13	13	11	9	8	8	7	6	9.6	13.3
9-Oct	5	5	5	5	4	4	4	4	5	8	11	13	15	16	17	19	20	19	15	13	10	11	11	10	10.3	19.9
10-Oct	9	8	7	6	6	6	6	5	7	12	14	18	20	22	24	25	24	22	20	19	17	16	16	15	14.2	24.6
11-Oct	12	11	10	10	9	9	9	8	9	12	13	14	14	14	15	16	15	14	13	12	11	10	9	8	11.6	15.6
12-Oct	9	10	10	10	10	10	10	10	10	11	12	13	13	14	15	15	15	14	12	10	9	7	5	5	10.8	15.1
13-Oct	4	3	2	3	4	5	5	5	5	6	9	12	13	15	15	15	15	14	12	11	11	11	10	9	8.9	15.1
14-Oct	8	8	8	8	8	7	7	7	7	9	9	9	10	12	13	13	13	12	10	7	4	3	2	1	8.1	12.9
15-Oct	0	-1	-1	-1	-2	-2	-2	-2	-1	0	1	2	4	6	7	6	5	5	5	4	3	2	2	3	1.7	6.9
16-Oct	2	1	0	-1	-2	-1	0	0	1	3	7	9	11	12	13	13	13	11	8	7	6	6	6	5	5.5	13.2
17-Oct	5	5	5	5	5	4	4	3	4	5	7	8	9	11	13	13	12	11	10	10	9	7	6	6	7.3	13.3
18-Oct	6	5	4	3	3	2	1	1	3	6	12	16	18	18	19	18	18	17	14	11	8	7	6	4	9.2	18.6
19-Oct	3	2	2	1	2	3	2	2	2	5	10	13	15	16	17	19	18	16	14	12	10	9	10	12	9.0	18.6
20-Oct	13	11	11	11	10	8	7	5	5	7	9	11	14	18	19	18	17	15	13	12	11	10	10	10	11.5	18.5
21-Oct	9	8	7	7	6	5	4	3	3	7	10	13	15	16	17	17	16	14	11	8	6	4	4	3	9.0	17.4
22-Oct	2	1	1	1	1	1	1	3	6	8	10	10	11	12	12	12	12	12	11	8	5	3	2	1	6.1	12.5
23-Oct	0	-1	-1	0	0	1	1	1	1	1	5	6	8	7	7	6	5	4	4	3	3	2	1	1	2.6	8.0
24-Oct	0	0	0	0	0	0	-1	-1	0	N	N	7	8	9	9	9	9	8	7	6	5	4	2	0	3.6	9.1
25-Oct	-1	-1	-1	-2	-2	-3	-3	-4	-3	-2	-1	0	2	5	6	4	4	2	1	1	1	1	1	1	0.2	6.2
26-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0.8	1.2
27-Oct	0	0	0	1	0	0	0	0	-1	0	0	1	2	3	3	4	4	2	0	-1	-1	-2	-2	-3	0.5	4.0
28-Oct	-3	-3	-3	-3	-3	-2	-2	-2	-1	0	1	2	3	4	3	3	3	2	2	1	1	1	1	1	0.2	3.6
29-Oct	0	0	0	0	0	0	0	1	1	1	2	2	2	3	3	3	3	3	3	3	2	2	1	1	1.6	3.5
30-Oct	1	0	0	0	1	1	2	2	2	2	3	3	3	3	3	3	3	2	2	3	3	3	3	3	2.1	3.4
31-Oct	3	3	3	2	2	2	1	1	1	2	2	4	5	6	7	7	7	6	6	6	5	5	6	5	4.1	7.4
	4.5	4.1	3.7	3.5	3.4	3.3	3.1	3.0	3.8	5.5	7.4	8.7	9.9	10.8	11.5	11.6	11.3	10.4	9.0	7.6	6.6	5.9	5.5	4.9	Diurnal Average	
	12.6	11.4	10.6	11.4	10.1	13.0	12.3	11.9	12.6	13.8	15.5	17.8	20.3	22.1	23.8	24.6	23.8	21.8	19.9	18.5	16.9	15.7	16.2	15.0	Diurnal Maximum	

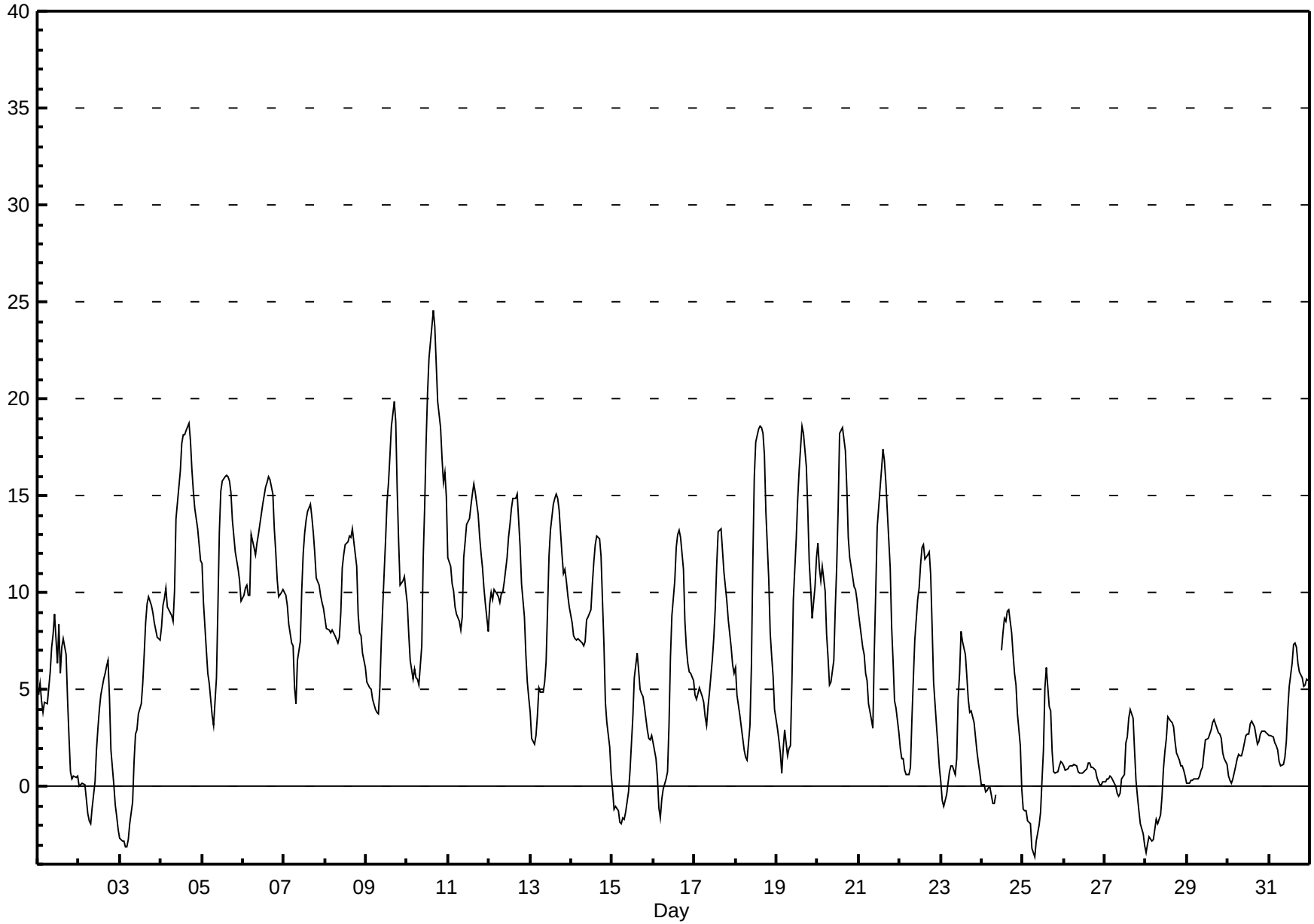
N - Not Valid

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Valleyview - October 2014



Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Valleyview - October 2014

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

Maximum Value: 98.8 % on Oct 15 12:00 Maximum Daily Average: 94.7 % on Oct 26

Minimum Value: 26 % on Oct 10 16:00 Minimum Daily Average: 45.4 % on Oct 12

Maximum Diurnal Average: 86.3 % at hour 7 Minimum Diurnal Average: 51.0 % at hour 16

Monthly Average: 72.15 % Percentiles: P_1 = 29.9 P_{10} = 41.1 Q_1 = 53.3 Median = 77.6 Q_3 = 89.6 P_{90} = 95.0 P_{99} = 97.6

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-Oct	84	79	83	83	80	79	74	69	65	62	53	76	56	78	68	44	47	57	70	86	95	88	84	84	72.7	94.5
2-Oct	91	87	86	83	83	83	83	84	80	75	67	58	52	48	45	45	44	45	59	82	89	91	92	92	72.7	92.4
3-Oct	92	92	93	93	93	91	89	87	75	63	74	78	82	82	76	72	70	68	71	73	76	79	82	84	80.6	93.0
4-Oct	86	89	90	87	91	93	94	94	85	64	54	50	45	41	43	38	34	36	39	43	46	48	51	55	62.4	93.9
5-Oct	56	65	78	86	89	93	94	94	86	72	57	47	43	42	41	43	44	49	57	65	66	70	81	94	67.2	94.5
6-Oct	96	96	95	96	96	71	69	63	52	49	45	39	36	36	33	30	28	31	34	37	40	44	44	45	54.5	96.3
7-Oct	47	49	51	55	59	61	76	83	73	63	51	46	41	40	39	39	42	46	55	67	67	71	72	76	57.1	83.4
8-Oct	86	93	95	95	95	95	95	95	94	88	77	71	61	57	52	49	45	46	55	64	66	64	66	69	73.8	95.3
9-Oct	74	78	76	76	81	86	87	87	87	84	69	63	56	52	49	45	42	46	61	71	82	78	75	79	70.0	87.2
10-Oct	80	86	92	94	94	94	94	94	86	63	50	41	36	32	28	26	27	30	33	36	41	44	42	50	58.0	94.3
11-Oct	72	74	77	70	67	66	65	67	68	52	44	40	39	35	34	32	34	36	39	43	47	51	55	61	52.8	77.5
12-Oct	55	52	53	52	53	53	53	52	52	49	43	39	35	32	30	30	29	30	33	39	45	54	62	66	45.4	65.7
13-Oct	69	77	77	77	74	68	73	74	71	66	56	47	43	40	40	40	39	42	62	68	66	69	73	77	62.0	77.5
14-Oct	83	86	88	88	86	87	90	92	92	91	88	80	70	55	44	42	41	44	54	63	77	80	86	90	74.9	92.4
15-Oct	93	95	95	95	95	95	96	96	97	97	98	99	93	80	73	74	77	77	77	79	83	87	89	89	88.7	98.8
16-Oct	91	94	95	96	97	97	97	97	98	98	87	75	65	57	52	51	51	62	74	80	83	86	86	87	81.5	98.1
17-Oct	89	91	91	89	90	90	92	93	89	85	74	67	59	49	44	46	50	55	59	61	65	73	79	80	73.2	92.7
18-Oct	80	86	91	93	93	94	95	95	90	77	56	43	35	33	31	32	33	37	45	57	67	71	77	84	66.3	94.9
19-Oct	87	85	87	88	85	81	87	84	86	75	62	49	43	40	36	31	30	35	41	49	53	60	51	46	61.2	88.1
20-Oct	42	48	50	47	52	61	66	71	73	76	66	62	49	36	35	36	38	48	65	77	87	90	88	89	60.5	89.6
21-Oct	92	95	96	96	96	97	96	97	96	85	69	50	39	36	32	34	36	42	53	67	72	81	82	84	71.8	96.7
22-Oct	87	90	88	87	86	86	86	74	65	56	45	43	41	39	41	45	50	49	54	67	80	90	92	93	68.2	93.3
23-Oct	94	95	96	96	96	97	96	95	95	94	85	78	68	71	72	72	79	85	86	88	89	89	91	92	87.5	96.6
24-Oct	94	94	94	95	95	95	94	92	88	N	N	52	46	43	43	41	39	40	44	48	50	55	63	77	67.4	95.1
25-Oct	84	81	78	80	79	85	86	87	83	84	84	82	78	60	48	73	77	90	95	96	97	95	92	92	82.9	96.7
26-Oct	94	95	95	95	95	95	96	96	96	97	97	98	98	98	98	95	95	96	95	90	89	89	89	90	94.7	98.2
27-Oct	91	91	92	89	89	90	89	90	89	86	83	82	75	74	71	70	73	82	91	94	95	95	95	96	86.3	95.9
28-Oct	95	95	92	90	89	88	85	87	86	84	79	76	73	72	71	72	76	80	79	81	82	83	85	90	82.9	95.4
29-Oct	93	94	95	95	96	96	96	97	97	97	96	91	88	86	86	85	85	89	92	92	93	94	94	94	92.5	96.8
30-Oct	95	96	96	95	94	92	91	90	89	87	84	83	81	79	78	79	81	82	83	82	82	82	82	83	86.1	95.7
31-Oct	84	84	85	86	88	90	92	92	91	90	87	81	77	74	68	67	70	74	77	79	81	73	70	73	80.6	92.1
	82.5	84.2	85.5	85.5	85.7	85.4	86.3	86.0	83.0	76.9	69.3	64.0	58.2	54.8	51.7	51.0	51.7	55.8	62.4	68.4	72.6	75.0	76.5	79.4	Diurnal Average	
	95.7	95.9	95.9	96.3	96.8	97.0	97.1	97.3	97.6	98.1	97.9	98.8	98.0	98.2	97.8	95.0	95.4	96.3	95.4	96.1	96.7	95.2	95.2	95.9	Diurnal Maximum	

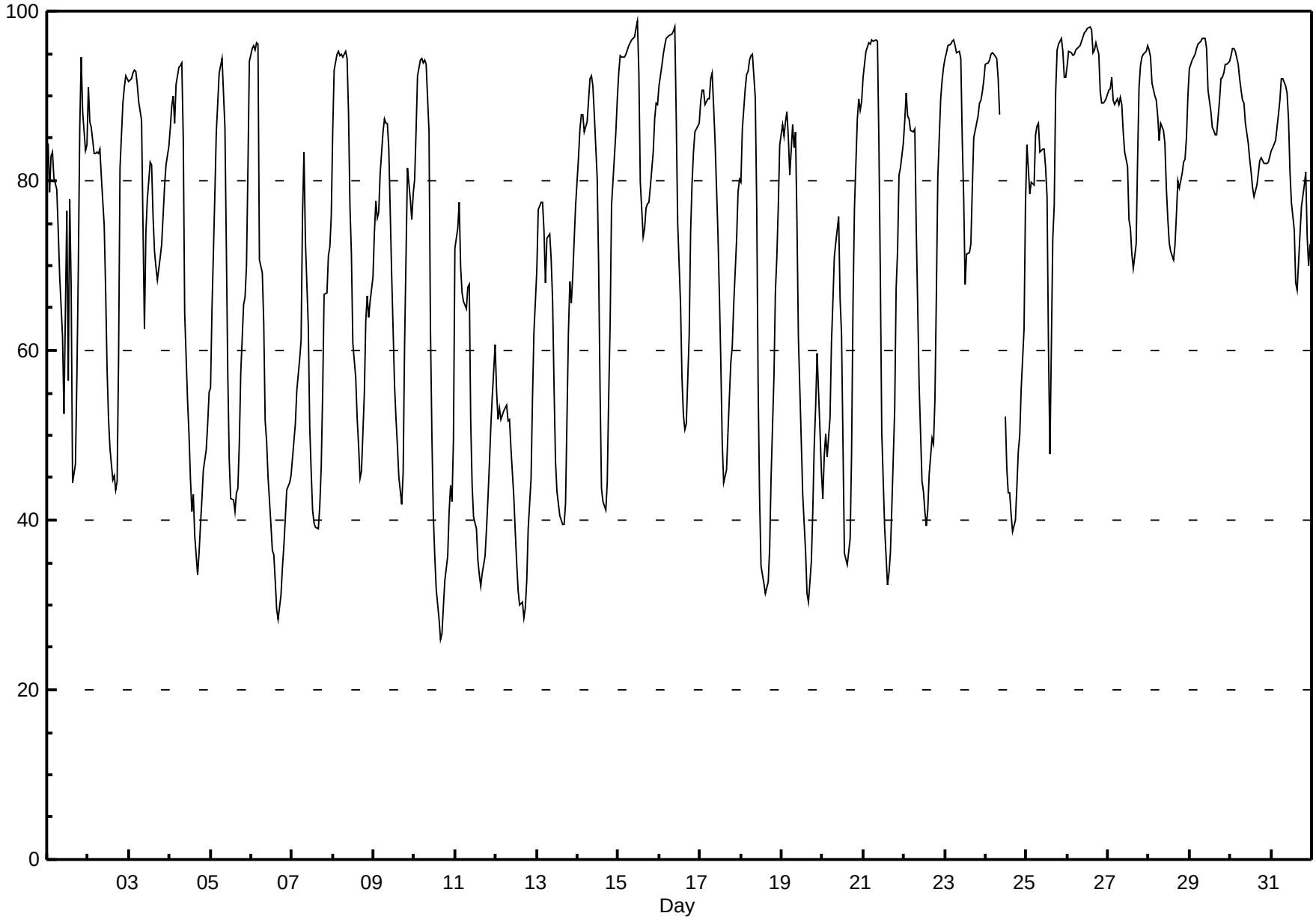
N - Not Valid

Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Valleyview - October 2014



Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Valleyview - October 2014

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	1	2	1	2	2	2	1	2	8	9	13	10	14	10	9	18	22	19	16	13	5	11	9	7	6.5	21.9
Dir	168	168	166	162	163	164	189	229	277	281	275	268	278	270	289	319	334	346	353	339	339	330	324	326	311	334
2 Spd	10	8	8	7	7	7	7	7	8	9	8	11	9	10	9	5	2	1	0	0	0	0	0	0	5.1	10.5
Dir	325	302	302	305	282	290	279	277	274	291	304	319	313	322	316	337	13	95	106	164	186	173	226	233	304	319
3 Spd	0	0	0	0	0	0	0	0	2	4	3	3	5	5	6	5	4	3	1	1	1	1	2	2	1.9	5.6
Dir	213	151	153	151	245	290	181	148	160	162	165	161	161	165	164	161	160	161	162	179	185	178	167	163	164	164
4 Spd	1	1	1	1	1	1	1	1	1	2	12	14	15	16	13	12	16	13	7	6	6	7	5	6	5.8	15.6
Dir	167	160	247	235	183	163	166	169	158	228	281	276	288	298	315	304	289	282	275	274	266	248	255	255	281	289
5 Spd	5	1	0	1	0	0	0	0	1	2	1	8	10	11	10	7	2	0	0	1	0	1	0	2	1.8	11.2
Dir	251	226	204	199	192	182	163	144	145	145	109	329	324	311	310	309	301	221	189	147	167	167	214	159	303	311
6 Spd	2	2	1	0	2	13	11	11	10	12	14	15	15	18	17	15	14	11	5	4	5	6	7	7	8.1	18.3
Dir	158	161	191	178	253	303	300	300	300	320	311	306	310	332	328	318	317	321	304	269	254	257	260	260	306	332
7 Spd	7	7	7	3	4	2	0	0	0	1	2	2	1	1	3	2	1	1	0	1	1	1	1	2	1.0	7.2
Dir	259	256	260	290	278	311	81	177	28	35	149	177	184	102	131	141	108	139	159	144	146	171	187	163	232	256
8 Spd	2	2	1	2	1	2	1	1	1	2	2	2	6	7	6	7	5	1	0	3	2	1	3	2	0.9	7.0
Dir	165	157	160	160	171	164	165	161	174	162	162	166	270	284	309	327	296	290	208	352	6	8	359	19	286	327
9 Spd	2	1	2	1	0	0	1	0	0	1	3	4	4	3	3	2	1	0	0	1	0	1	2	2	0.9	3.8
Dir	343	354	352	14	312	47	329	277	183	173	159	164	165	162	162	159	178	77	139	297	161	159	166	166	162	165
10 Spd	2	0	0	0	0	0	0	0	1	5	5	4	5	6	4	3	1	9	9	6	2	3	8	17	2.2	17.0
Dir	167	207	23	157	159	132	270	165	161	160	161	161	163	161	160	162	171	295	295	281	243	257	271	252	228	252
11 Spd	8	2	2	1	2	2	3	1	2	3	9	9	11	16	18	17	15	11	10	11	10	7	6	2	6.5	18.2
Dir	253	195	174	178	172	165	166	160	141	184	247	269	279	274	283	265	270	280	279	272	271	256	252	235	263	283
12 Spd	8	12	11	11	10	11	11	13	14	14	18	17	16	15	15	14	17	15	12	7	3	1	1	1	10.7	17.9
Dir	258	266	264	262	255	258	264	265	262	268	275	282	282	268	268	280	267	282	267	251	231	160	153	158	268	275
13 Spd	0	0	0	1	3	1	0	0	1	3	3	3	3	4	5	6	6	6	5	6	2	1	1	0	2.2	5.9
Dir	178	213	259	202	172	187	35	141	185	169	165	156	132	152	149	139	142	155	156	129	149	111	16	356	150	142
14 Spd	0	1	0	1	1	0	1	0	2	5	8	10	7	8	13	11	8	4	0	0	1	1	0	1	3.0	12.5
Dir	316	347	299	237	168	104	4	26	232	279	287	272	251	271	273	279	289	324	142	352	188	11	178	359	278	273
15 Spd	1	2	0	0	2	1	2	3	3	6	8	11	14	13	11	11	9	7	4	2	4	4	2	0	4.2	13.6
Dir	348	347	205	133	350	356	25	24	27	24	11	9	359	7	15	347	340	333	328	272	251	250	245	68	355	359
16 Spd	0	0	0	2	4	0	1	0	1	1	2	4	5	3	5	4	5	6	6	5	4	4	7	6	2.6	7.5
Dir	151	194	278	341	332	347	240	153	237	166	183	165	166	167	153	149	141	136	150	160	164	169	166	164	160	166
17 Spd	4	5	5	5	4	4	3	3	5	6	8	10	8	8	6	6	6	4	1	2	2	1	0	1	4.4	9.8
Dir	167	163	169	168	169	164	167	168	168	163	166	166	164	168	167	160	163	171	176	180	178	189	193	196	167	166
18 Spd	1	0	0	0	0	0	1	1	2	2	1	4	11	11	12	11	7	1	0	0	1	0	0	0	2.2	12.1
Dir	202	241	8	242	160	289	187	184	179	163	163	225	269	279	277	279	294	17	347	204	186	120	174	208	267	277
19 Spd	1	1	1	1	1	0	1	1	1	1	1	3	6	4	2	6	5	3	1	2	1	0	2	3	1.6	6.0
Dir	330	313	235	213	292	285	204	236	166	185	182	181	177	171	170	154	161	142	180	176	274	109	173	165	173	177
20 Spd	3	1	2	1	1	1	1	1	1	1	1	1	1	1	5	4	5	14	6	3	1	3	1	1	1.4	13.6
Dir	188	161	165	174	279	7	10	348	321	282	307	103	308	340	339	359	327	307	317	293	261	170	181	234	310	307
21 Spd	0	0	0	1	1	1	0	1	1	1	3	5	2	3	3	3	2	1	1	1	0	1	1	1	1.2	5.0
Dir	171	192	98	158	195	182	177	197	170	196	173	171	181	172	181	216	282	150	158	193	202	193	225	339	185	171
22 Spd	0	0	1	0	1	1	1	1	1	5	8	7	7	4	0	3	4	4	1	1	0	1	1	1	1.0	8.1
Dir	232	273	275	347	313	313	320	283	179	177	171	173	171	177	275	304	310	351	218	227	179	187	299	188	202	171

Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Valleyview - October 2014

Day	Hourly Period Ending At (MST) 1	2	3	4	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	0	1	0	1	1	1	0	1	1	1	2	14	17	18	18	14	11	6	5	4	4	2	0	4.7	17.9
Dir	7	23	339	296	6	320	332	139	275	58	32	215	251	261	263	269	276	273	289	263	254	259	245	43	267	263
24 Spd	1	1	1	1	2	2	2	1	2	N	N	7	9	10	13	14	12	10	5	1	4	3	0	1	3.8	13.6
Dir	191	203	152	166	172	186	185	180	200	N	N	259	272	277	283	280	289	309	296	242	237	245	240	172	270	280
25 Spd	1	3	2	1	1	1	0	1	0	1	2	2	3	3	8	9	8	6	7	7	8	7	6	6	2.6	9.1
Dir	165	171	178	183	183	8	243	193	282	14	357	359	6	103	127	104	71	73	57	43	29	28	28	29	62	104
26 Spd	5	5	4	4	4	5	3	3	3	4	4	4	4	5	5	7	5	3	6	8	9	8	8	7	4.5	9.1
Dir	5	6	6	27	18	16	26	342	338	340	342	344	338	331	322	330	326	311	307	295	305	307	302	307	331	305
27 Spd	7	5	6	6	5	7	4	4	3	3	1	1	1	2	2	3	1	1	0	0	0	0	1	0	1.8	7.2
Dir	314	293	280	283	269	253	305	255	271	280	233	225	162	136	138	152	148	17	328	256	300	139	345	325	274	314
28 Spd	0	0	2	1	1	4	5	2	1	1	2	3	4	2	4	2	4	3	2	1	1	1	1	1	1.8	4.7
Dir	264	136	172	135	170	158	160	156	143	148	145	157	153	97	125	131	128	139	133	171	141	120	74	22	143	160
29 Spd	2	2	2	2	1	2	2	1	1	0	0	1	2	3	2	1	2	2	1	1	1	3	3	2	0.6	3.5
Dir	23	52	43	348	23	25	353	3	348	36	183	173	173	174	157	139	156	156	159	172	157	169	171	179	134	174
30 Spd	1	2	2	5	12	11	9	10	8	9	11	14	14	11	12	9	11	13	13	14	11	13	13	12	10.2	14.4
Dir	162	172	176	166	164	162	164	165	165	166	164	164	163	165	161	161	162	161	164	162	164	164	164	166	164	162
31 Spd	10	10	7	6	5	3	1	2	1	1	2	2	2	2	2	3	1	2	3	2	1	6	6	4	3.1	10.3
Dir	165	165	166	165	169	170	184	248	162	161	179	164	175	166	174	172	150	163	166	149	197	247	229	215	180	165
Spd	1.1	1.0	1.0	0.9	1.1	1.0	0.9	1.2	1.3	1.3	2.2	2.6	3.5	3.6	3.5	3.5	3.3	2.5	1.6	1.3	1.2	1.3	1.4	1.3	Diurnal Average	
Dir	247	235	242	231	221	239	251	248	245	241	249	250	261	271	275	284	288	296	283	256	245	244	239	232		
Spd	10.3	12.0	11.3	11.1	12.3	12.8	10.9	13.1	13.7	14.1	17.9	16.8	16.3	18.3	18.2	18.1	21.9	19.4	16.0	14.4	11.2	13.3	13.4	17.0	Diurnal Maximum	
Dir	165	266	264	262	164	303	300	265	262	268	275	282	282	332	283	319	334	346	353	162	164	164	164	252		

Maximum Speed Value: 22 km/h on Oct 1 17:00
Maximum Daily Speed Average: 10.7 km/h on Oct 12
Maximum Diurnal Speed Average: 3.6 km/h at hour 14

Minimum Speed Value: 0 km/h on Oct 14 01:00
Minimum Daily Speed Average: 0.6 km/h on Oct 21
Minimum Diurnal Speed Average: 0.9 km/h at hour 7

Monthly Average Velocity: 1.70 km/h 260.6 deg

Speed Percentiles: $P_1 = 0.0$ $P_{10} = 0.3$ $Q_1 = 0.9$ Median = 2.3 $Q_3 = 6.4$ $P_{90} = 11.1$ $P_{99} = 17.9$

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

Hours in Service: 744
Hours of Data: 742
Hours of Missing Data: 2

Percent Operational Time: 99.7

N - Not Valid

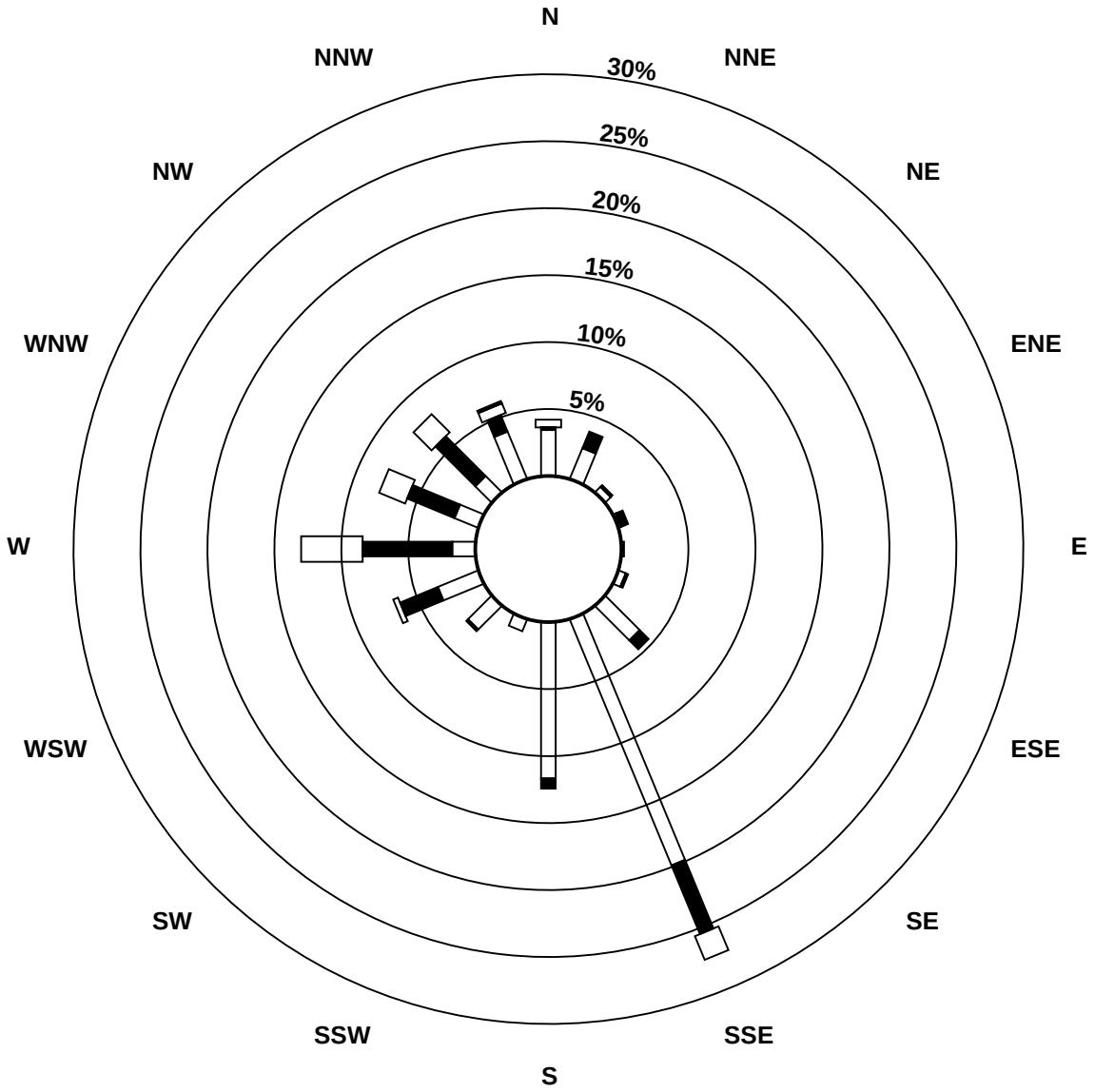
Frequency Distribution

Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	62	2	7	1	0	0	72
NorthEast	21	7	0	0	0	0	28
East	16	3	0	0	0	0	19
SouthEast	64	10	0	0	0	0	74
South	220	35	14	0	0	0	269
SouthWest	50	3	0	0	0	0	53
West	40	54	42	0	0	0	136
NorthWest	36	38	16	1	0	0	91
Total	509	152	79	2	0	0	742

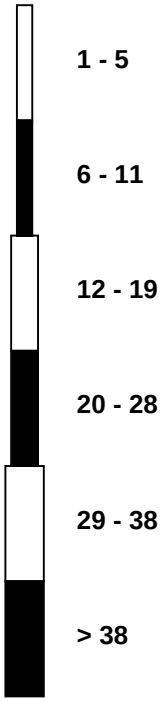
Wind Rose

Wind Speed (WS) (km/h)

Valleyview - October 2014



Wind Speed Classes (km/h)



Peace Airshed Zone Association

Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Valleyview - October 2014

Maximum Speed: 22 km/h on Oct 1 17:00

Maximum Daily Speed Average: 11.3 km/h on Oct 12

Minimum Speed: 0 km/h on Oct 3 00:00

Minimum Daily Speed Average: 1.7 km/h on Oct 9

Maximum Diurnal Speed Average: 8.1 km/h at hour 15

Minimum Diurnal Speed Average: 2.4 km/h at hour 3

Monthly Average Speed: 4.46 km/h

Percentiles: $P_1 = 0.1$ $P_{10} = 0.6$ $Q_1 = 1.1$ Median = 2.6 $Q_3 = 6.6$ $P_{90} = 11.4$ $P_{99} = 18.1$

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Oct	1	2	1	2	2	2	2	2	8	9	14	10	14	10	10	19	22	20	16	13	5	11	9	7	8.8	22.1
2-Oct	10	8	8	8	8	7	7	7	8	9	9	11	10	10	10	5	3	1	0	0	0	0	0	0	5.8	11.0
3-Oct	0	0	0	0	0	0	0	0	2	4	3	4	5	5	6	5	4	3	1	1	1	1	2	2	2.0	5.7
4-Oct	1	1	1	1	1	1	1	1	1	4	12	14	15	16	13	13	16	13	7	6	6	7	5	6	6.8	16.0
5-Oct	5	2	0	1	0	0	0	0	1	2	1	9	10	12	11	7	2	1	0	1	1	1	1	2	2.9	11.6
6-Oct	2	2	2	1	2	13	11	11	11	13	14	15	16	19	18	16	15	11	6	4	5	6	8	7	9.3	18.6
7-Oct	7	7	7	4	4	4	0	0	1	2	2	3	2	3	3	2	1	1	0	1	1	1	1	2	2.5	7.2
8-Oct	2	2	1	2	1	2	1	1	1	2	2	3	7	7	7	7	6	1	0	3	2	1	3	2	2.8	7.5
9-Oct	2	2	3	1	0	0	1	0	1	1	3	4	4	4	4	2	1	0	0	1	0	1	2	2	1.7	3.9
10-Oct	2	0	0	0	0	0	0	0	1	5	5	5	5	6	4	3	1	10	10	6	2	3	8	17	4.0	17.2
11-Oct	9	2	2	2	2	2	3	1	2	3	9	10	11	16	19	17	15	11	11	12	10	7	6	2	7.7	18.7
12-Oct	8	12	11	11	10	11	11	13	14	14	18	17	17	16	16	14	17	15	12	7	3	1	1	1	11.3	18.3
13-Oct	0	0	0	1	4	1	1	1	1	3	3	3	4	4	5	6	6	6	6	6	2	1	1	0	2.7	6.0
14-Oct	0	1	1	1	1	1	1	1	2	5	8	10	7	9	13	12	8	4	0	1	1	2	0	1	3.7	12.8
15-Oct	1	2	0	0	2	1	3	3	4	6	8	11	14	13	11	12	10	7	4	3	4	4	2	0	5.2	13.9
16-Oct	1	0	0	2	4	1	1	1	1	1	3	4	5	4	5	5	5	6	6	5	4	4	8	6	3.3	7.5
17-Oct	4	5	5	5	4	5	3	3	5	6	8	10	9	8	6	6	6	4	1	2	2	1	0	1	4.5	9.9
18-Oct	1	1	0	1	1	1	1	1	2	2	2	5	12	11	12	11	8	2	1	1	2	2	1	0	3.3	12.4
19-Oct	1	1	1	1	1	0	1	1	1	1	2	3	6	4	2	6	5	3	1	2	2	2	2	3	2.3	6.1
20-Oct	3	2	2	2	1	2	2	2	1	2	1	1	2	1	5	5	5	14	7	3	2	3	2	1	2.9	13.9
21-Oct	0	0	1	1	1	1	0	1	1	1	4	5	3	3	4	3	2	1	1	1	1	1	2	1	1.7	5.1
22-Oct	1	1	1	1	1	1	1	3	1	5	8	7	7	4	2	5	7	5	2	1	1	1	1	1	2.8	8.2
23-Oct	1	1	1	1	3	3	3	1	1	1	1	3	14	17	18	18	14	11	7	5	4	4	2	1	5.7	18.2
24-Oct	1	1	1	2	2	2	2	1	2	N	N	8	9	11	13	14	13	10	5	2	4	4	1	1	4.9	13.9
25-Oct	1	3	2	1	1	1	0	1	0	1	2	2	3	4	8	10	9	6	7	7	8	7	6	6	4.0	10.2
26-Oct	5	5	4	4	4	5	3	3	3	4	4	4	4	5	5	7	5	3	6	9	9	8	9	7	5.2	9.2
27-Oct	7	5	6	6	5	7	5	4	3	3	1	2	2	3	2	3	1	1	0	0	0	0	1	0	2.8	7.3
28-Oct	0	0	2	1	2	4	5	2	1	1	2	3	4	2	4	3	4	4	3	1	1	1	1	1	2.2	4.7
29-Oct	2	2	2	2	1	2	2	1	1	1	1	1	2	4	2	2	2	2	2	1	1	3	3	2	1.7	3.6
30-Oct	1	2	3	5	12	12	9	10	8	9	11	15	15	11	12	9	11	13	13	15	11	13	13	12	10.3	14.6
31-Oct	10	10	7	6	5	3	2	3	1	1	2	2	2	2	2	3	1	2	3	2	3	6	6	4	3.7	10.4
Diurnal Average	2.9	2.7	2.4	2.4	2.7	3.0	2.6	2.6	2.9	4.1	5.4	6.6	7.7	7.9	8.1	8.0	7.3	6.1	4.4	3.9	3.1	3.4	3.4	3.3		
Diurnal Maximum	10.4	12.1	11.5	11.4	12.4	13.0	11.0	13.2	13.9	14.3	18.3	17.2	16.8	18.6	18.7	18.6	22.1	19.9	16.4	14.6	11.3	13.4	13.5	17.2		

N - Not Valid

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

Peace Airshed Zone Association

Hourly Standard Deviations

Wind Direction (WD) - deg

Valleyview - October 2014

Maximum Value: 95.7 deg on Oct 10 03:00

Minimum Value: 4.9 deg on Oct 26 11:00

Percentiles: P_1 = 6.1 P_{10} = 8.7 Q_1 = 11.3 Median = 19.5 Q_3 = 47.2 P_{90} = 75.3 P_{99} = 92.1

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 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-Oct	16	6	8	7	10	8	33	37	14	19	16	28	13	18	32	13	8	13	12	8	16	9	9	17	37.4
2-Oct	10	11	13	11	10	11	9	9	11	17	17	18	26	16	22	25	45	42	50	70	45	38	77	77	76.8
3-Oct	64	56	41	62	74	66	61	90	58	10	10	11	9	9	9	8	9	12	16	17	28	24	11	8	90.4
4-Oct	13	16	49	30	17	35	27	14	26	56	18	12	14	11	13	13	13	11	9	10	10	5	7	7	55.7
5-Oct	11	29	34	17	67	56	32	43	26	33	91	25	13	14	14	13	23	36	19	12	35	21	83	13	91.5
6-Oct	11	21	47	62	53	10	10	9	11	11	11	13	16	11	16	11	11	12	19	11	12	9	11	10	61.9
7-Oct	9	7	8	35	20	58	73	93	93	65	48	43	91	77	39	48	27	48	28	21	12	53	22	8	93.2
8-Oct	9	7	16	16	26	12	21	9	31	15	23	29	36	21	25	21	22	39	56	26	43	37	17	16	55.7
9-Oct	54	49	56	70	85	82	58	88	62	60	25	14	13	20	18	24	38	43	42	67	65	27	8	7	88.4
10-Oct	22	51	96	46	72	93	75	91	21	9	10	14	13	12	12	20	11	34	15	17	29	19	12	10	95.7
11-Oct	41	20	16	24	10	18	14	18	10	35	13	23	14	14	13	15	8	13	9	12	18	14	10	21	41.5
12-Oct	12	8	9	12	9	9	8	8	9	9	11	13	13	14	17	14	14	9	10	9	15	22	20	20	21.6
13-Oct	27	75	58	49	42	52	88	88	33	13	19	22	16	18	14	12	9	13	15	10	32	71	42	73	88.5
14-Oct	89	83	70	70	48	87	57	90	37	15	13	16	30	32	14	13	22	11	83	93	27	89	50	92	93.5
15-Oct	86	69	76	68	49	85	20	22	35	13	10	10	11	14	12	21	9	6	11	68	14	18	22	81	85.9
16-Oct	62	94	81	21	32	89	61	36	40	28	24	17	18	22	21	18	12	8	12	10	10	10	6	9	93.9
17-Oct	9	7	7	8	12	11	12	10	9	10	8	9	10	9	10	11	10	8	23	11	13	33	44	30	43.7
18-Oct	42	73	90	54	64	80	50	19	10	25	39	55	20	17	14	14	14	77	88	85	47	67	62	46	89.6
19-Oct	69	60	77	38	66	76	40	75	28	63	55	41	9	12	19	14	9	17	38	27	59	83	21	12	83.1
20-Oct	8	14	12	87	50	88	74	81	85	90	81	80	75	48	12	24	33	12	22	35	67	33	35	71	90.1
21-Oct	69	39	77	56	16	19	52	49	37	56	17	12	42	26	31	33	47	33	79	55	57	57	67	66	78.8
22-Oct	63	72	76	90	71	67	90	89	70	11	7	8	9	10	80	81	89	66	36	53	89	47	72	62	90.2
23-Oct	82	91	67	76	91	78	78	62	68	58	83	44	27	10	10	11	11	11	16	11	11	26	16	76	91.1
24-Oct	22	20	25	14	11	11	12	17	22	N	N	41	20	26	13	12	15	9	23	24	8	79	78	27	78.7
25-Oct	11	7	10	17	29	77	38	22	53	40	17	19	20	54	8	26	24	17	8	8	7	7	6	8	77.3
26-Oct	15	12	10	13	11	10	20	9	5	5	5	6	6	7	9	6	12	11	10	11	9	8	9	10	19.6
27-Oct	10	32	9	13	12	11	43	14	18	23	58	76	66	60	40	18	16	46	57	84	74	67	63	42	84.2
28-Oct	82	79	15	80	24	12	10	12	39	52	38	17	17	41	13	17	11	11	21	20	47	64	31	12	81.8
29-Oct	12	16	31	17	29	15	14	20	26	73	57	67	20	18	24	31	17	11	21	15	35	22	16	9	72.8
30-Oct	19	13	14	11	8	8	9	7	8	8	8	8	8	11	10	11	8	7	8	7	9	9	7	8	18.6
31-Oct	8	7	9	8	10	12	25	32	62	26	20	21	16	29	14	10	25	18	24	29	47	16	15	21	61.7
	89.0	93.9	95.7	89.5	91.1	92.8	90.2	93.2	93.2	90.1	91.5	79.9	91.0	76.9	79.8	81.3	89.4	77.5	87.7	93.5	89.3	89.3	82.7	92.4	

N - Not Valid

PAZA
Falher Station
Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Falher - October 2014

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

Maximum Value: 2.6 ppb on Oct 30 11:00

Maximum Daily Average: 0.4 ppb on Oct 30

Minimum Value: 0 ppb on Oct 4 14:00

Minimum Daily Average: 0.0 ppb on Oct 15

Maximum Diurnal Average: 0.3 ppb at hour 11

Minimum Diurnal Average: 0.1 ppb at hour 20

Monthly Average: 0.15 ppb

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

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-Oct	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
2-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.1	0.2
3-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.2	0.3
4-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	0.2
5-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.2	0.4
6-Oct	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
7-Oct	0	0	0	0	0	0	0	0	1	1	1	0	C	C	C	0	0	A	0	0	0	0	0	0	0.3	0.6
8-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.1	0.4
9-Oct	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	A	1	1	1	0	0	0	0	0	0.3	0.9
10-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.3	0.5
11-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.2	0.3
12-Oct	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
13-Oct	0	0	0	0	0	0	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0.1	0.7
14-Oct	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
15-Oct	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
16-Oct	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0.1	0.6
17-Oct	0	0	0	0	0	0	0	A	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
18-Oct	0	0	0	0	0	0	A	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.7
19-Oct	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0.1	0.6
20-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.2	1.4
21-Oct	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
22-Oct	0	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
23-Oct	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
24-Oct	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.2	0.3
25-Oct	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
26-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.2
27-Oct	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
28-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	A	0	0	0	0	0.2	1.2
29-Oct	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
30-Oct	0	0	0	0	0	0	0	0	0	1	3	2	1	0	0	0	0	A	0	0	0	0	0	0	0.4	2.6
31-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	1	0	0.3	0.6
Diurnal Average	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
Diurnal Maximum	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.6	1.0	2.6	2.1	1.1	0.7	1.4	1.2	1.0	0.7	0.8	0.5	0.4	0.4	0.6	0.4		

C - Calibration A - Automated Daily Zero Span

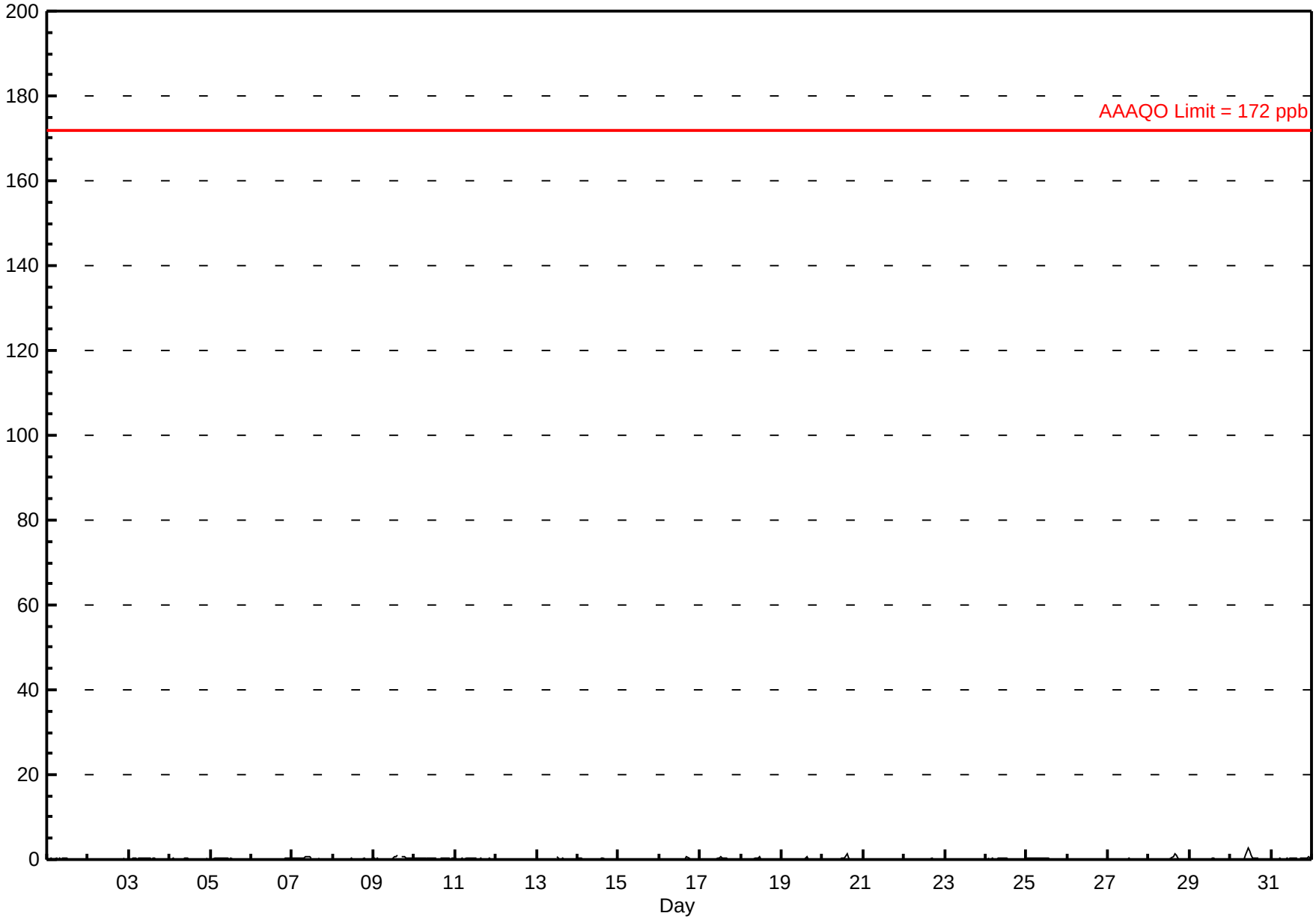
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Falher - October 2014



Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Falher - October 2014

Maximum Value: 23.7 ppb on Oct 18 12:00

Maximum Daily Average: 1.8 ppb on Oct 18

Minimum Value: 0 ppb on Oct 18 14:00

Minimum Daily Average: 0.4 ppb on Oct 15

Maximum Diurnal Average: 1.4 ppb at hour 12

Minimum Diurnal Average: 0.4 ppb at hour 20

Monthly Average: 0.57 ppb

Percentiles: $P_1 = 0.2$ $P_{10} = 0.3$ $Q_1 = 0.4$ Median = 0.5 $Q_3 = 0.6$ $P_{90} = 0.7$ $P_{99} = 2.6$

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-Oct	A	0	1	0	0	0	0	1	0	1	1	1	1	0	0	0	1	0	0	1	0	0	0	A	0.5	0.7
2-Oct	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	0	0	0	0	1	A	0	0.4	0.6
3-Oct	0	0	0	1	1	1	1	1	1	1	1	1	1	0	0	1	0	0	0	0	0	A	0	1	0.5	0.7
4-Oct	1	1	0	1	0	0	1	0	1	1	1	1	1	0	0	1	0	0	0	0	A	0	0	1	0.5	0.6
5-Oct	0	1	1	0	1	1	0	1	1	1	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0.5	0.9
6-Oct	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	A	0	0	0	1	1	0.5	0.9
7-Oct	1	1	1	1	1	1	1	1	1	1	1	1	C	C	C	1	1	A	1	0	1	0	0	0	0.7	1.1
8-Oct	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0	A	0	0	0	1	0	1	1	0.5	0.9
9-Oct	0	0	0	0	0	1	0	1	0	0	0	1	1	2	2	A	1	1	1	1	1	1	1	1	0.8	2.0
10-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.6	0.9
11-Oct	1	0	1	1	0	1	0	0	0	1	1	0	1	A	0	0	1	1	0	1	1	0	0	0	0.5	0.7
12-Oct	0	1	0	0	0	0	0	0	0	1	1	0	A	1	0	0	0	0	0	0	0	1	1	0	0.4	0.7
13-Oct	0	0	0	0	0	0	1	1	0	1	1	A	3	0	0	1	0	0	0	0	1	0	0	0	0.6	3.2
14-Oct	0	1	1	0	0	1	0	0	1	0	A	0	0	0	1	0	0	0	0	0	0	0	0	0	0.4	0.7
15-Oct	0	1	1	0	0	0	0	0	0	A	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0.4	0.6
16-Oct	0	1	0	0	0	1	0	0	A	0	1	0	0	0	0	0	2	1	0	0	0	0	1	1	0.5	1.6
17-Oct	0	1	0	1	1	0	1	A	0	0	1	1	2	1	1	1	0	0	0	0	1	1	1	1	0.6	1.5
18-Oct	0	0	0	0	1	0	A	1	1	0	1	24	6	0	3	0	0	0	0	0	0	0	0	0	1.8	23.7
19-Oct	0	0	0	0	0	A	0	0	0	0	0	1	1	0	1	2	1	0	0	0	0	0	0	0	0.5	2.3
20-Oct	0	0	0	0	A	0	1	1	0	0	0	0	0	2	4	1	0	0	0	0	0	0	0	0	0.7	4.2
21-Oct	1	1	0	A	1	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0.4	0.7
22-Oct	0	0	A	0	0	0	0	0	0	0	0	0	0	1	1	1	0	1	0	0	1	0	0	0	0.4	0.6
23-Oct	1	A	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0.4	1.1
24-Oct	A	1	1	1	0	1	0	1	1	1	1	1	1	1	1	0	0	1	0	1	0	0	0	A	0.5	0.8
25-Oct	1	0	1	1	1	1	1	0	0	0	1	1	1	1	0	0	0	0	0	0	0	1	A	0	0.6	0.8
26-Oct	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	0	0	0	0	1	A	0	0	0.4	0.5
27-Oct	0	0	0	0	1	1	0	1	0	0	0	0	1	1	1	0	0	1	0	0	A	0	0	0	0.5	0.8
28-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	2	1	1	A	0	0	0	0	0.6	2.3
29-Oct	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	1	0	A	0	0	0	0	0	0.4	0.7
30-Oct	0	0	0	1	1	1	0	0	0	2	4	3	2	1	1	1	1	A	0	0	0	0	0	0	0.9	3.6
31-Oct	0	1	1	0	0	0	0	0	1	1	1	1	1	1	1	1	A	1	2	1	1	1	1	1	0.7	1.7
	0.5	0.5	0.5	0.4	0.5	0.5	0.5	0.5	0.5	0.6	0.6	1.4	0.9	0.6	0.8	0.6	0.6	0.5	0.5	0.4	0.5	0.4	0.5	0.5	Diurnal Average	
	1.1	0.8	0.8	0.8	0.8	0.8	0.9	0.8	0.9	2.0	3.6	23.7	6.3	2.0	4.2	2.3	1.7	1.4	1.7	1.1	1.1	0.8	1.0	1.0	Diurnal Maximum	

C - Calibration

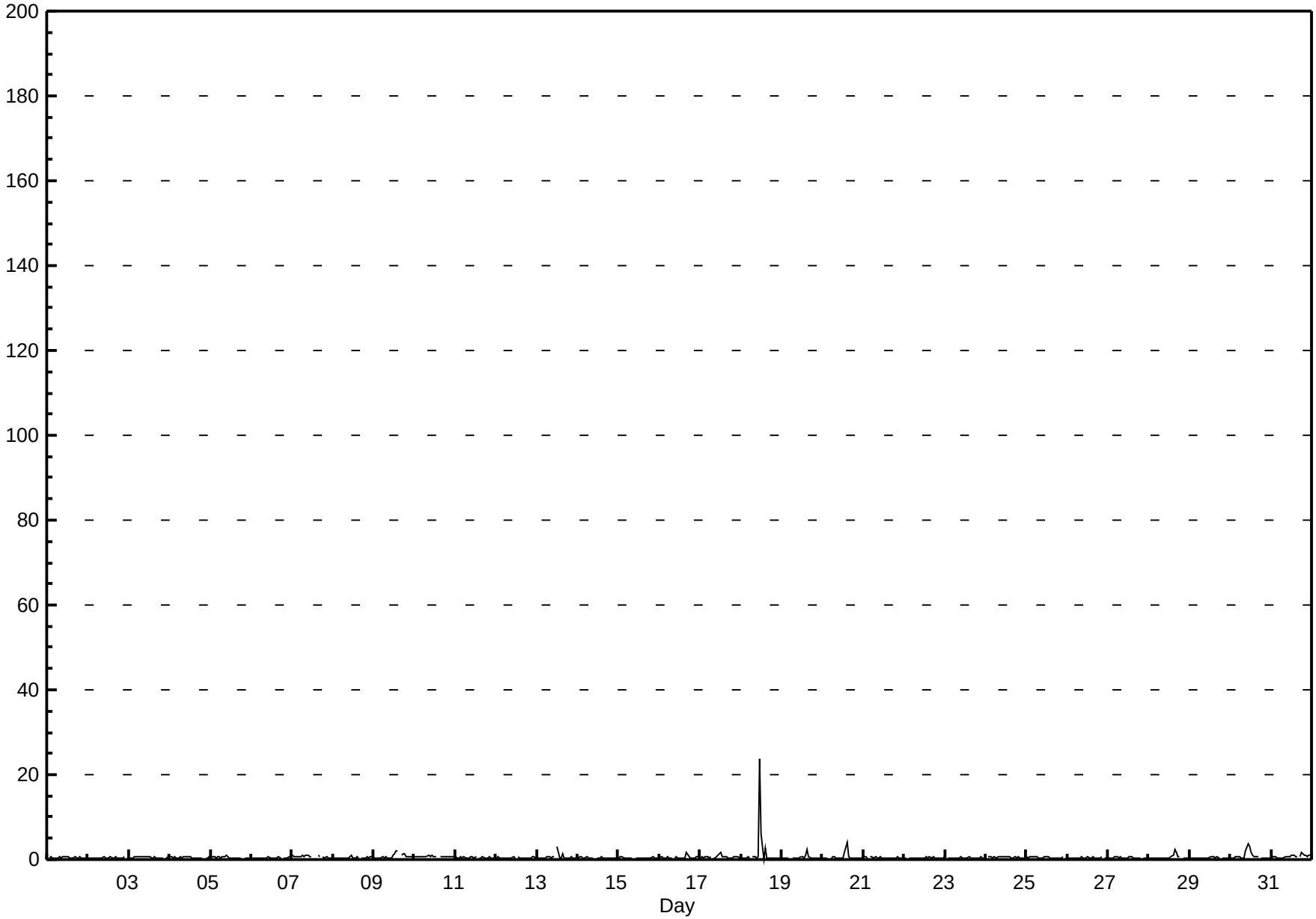
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

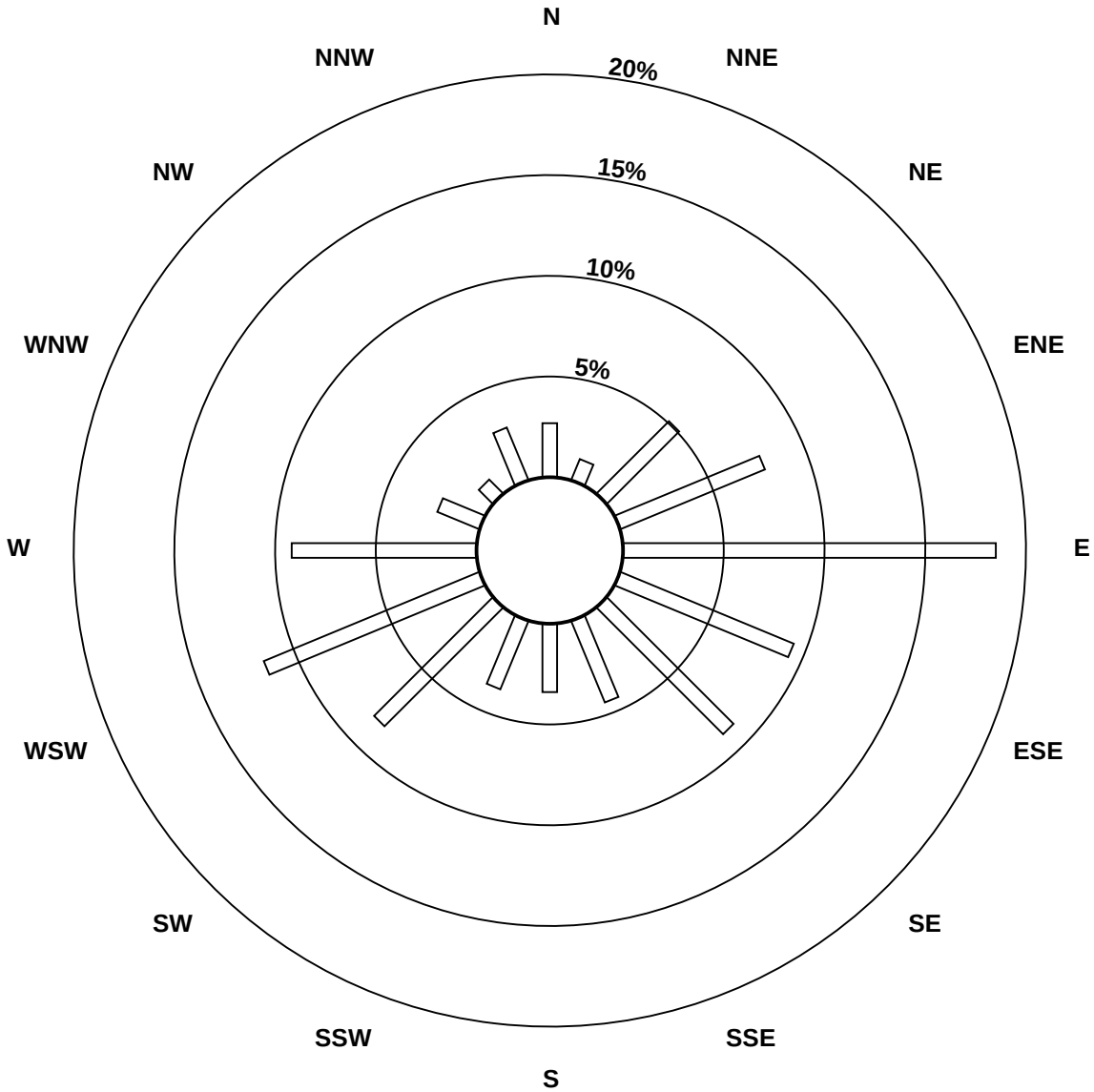
Falher - October 2014



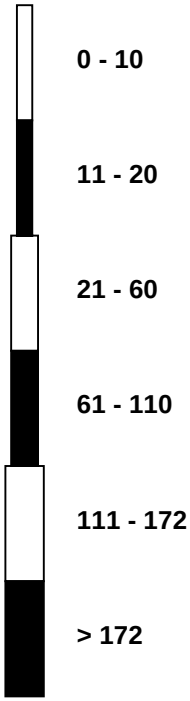
Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Falher - October 2014



Pollutant Classes (ppb)

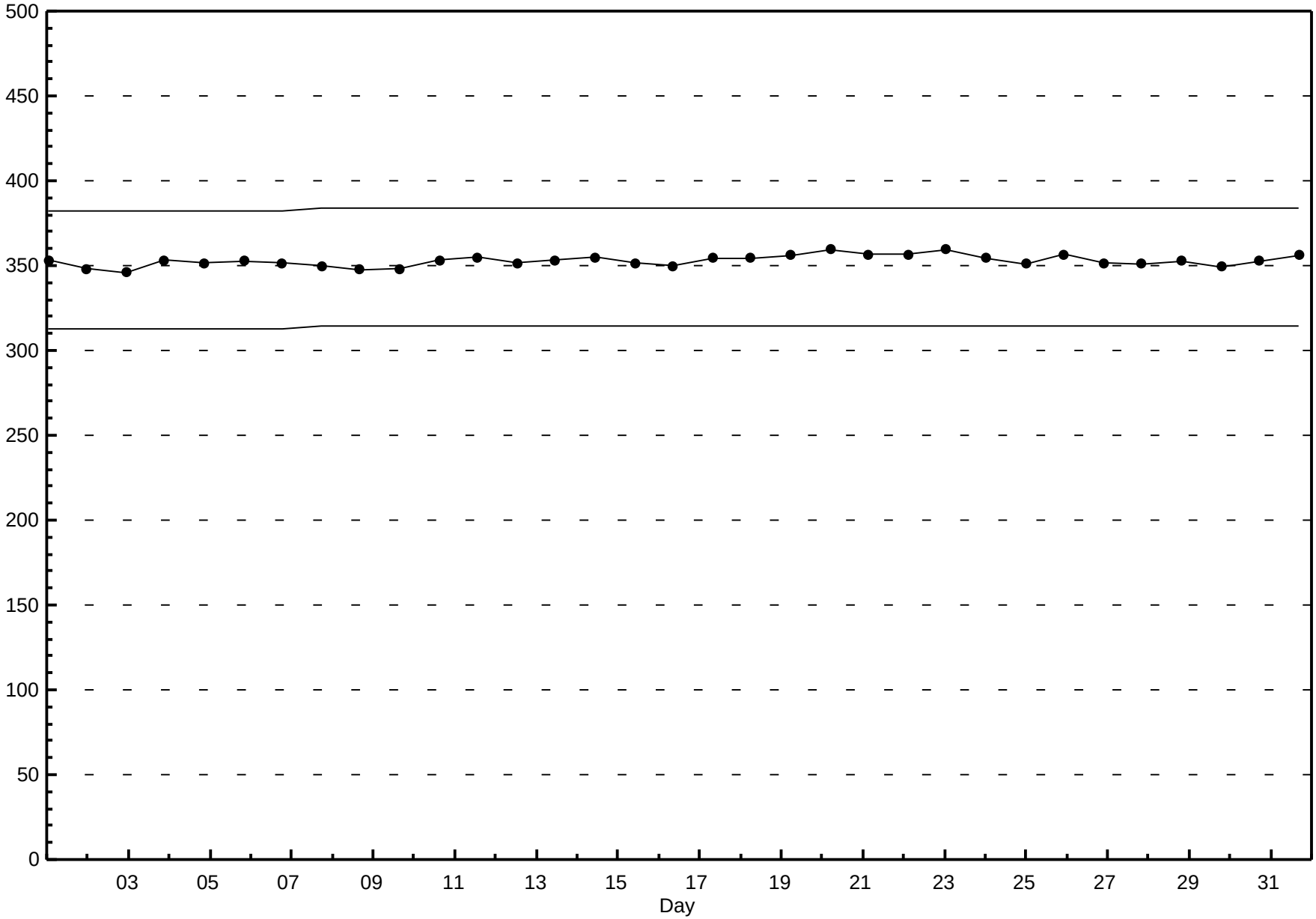


Peace Airshed Zone Association

Span Responses

Sulphur Dioxide (SO_2)

Falher - October 2014



Peace Airshed Zone Association

Hourly Averages

Hydrogen Sulphide (H_2S) - ppb

Falher - October 2014

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

Maximum Value: 1.8 ppb on Oct 21 08:00

Maximum Daily Average: 0.5 ppb on Oct 30

Minimum Value: 0 ppb on Oct 1 03:00

Maximum Diurnal Average: 0.3 ppb at hour 1

Monthly Average: 0.16 ppb

Minimum Daily Average: 0.0 ppb on Oct 1

Minimum Diurnal Average: 0.0 ppb at hour 16

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

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-Oct	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.0	0.1
2-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	A	1	0.1	1.2
3-Oct	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.2	0.5
4-Oct	1	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.3	0.9
5-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	0	0	0.1	0.9
6-Oct	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
7-Oct	0	0	0	0	0	0	0	0	1	0	C	C	C	C	0	0	0	A	0	0	0	0	0	0	0.2	0.6
8-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	1	2	0	0.2	1.6
9-Oct	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
10-Oct	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.1	0.6
11-Oct	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
12-Oct	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
13-Oct	0	0	0	0	0	0	0	1	1	0	0	A	0	0	0	0	0	0	0	0	1	0	0	0	0.2	1.0
14-Oct	1	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.5
15-Oct	0	0	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
16-Oct	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0.2	1.6
17-Oct	1	0	1	0	0	0	0	A	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.9
18-Oct	1	0	1	1	0	0	A	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0.3	1.4
19-Oct	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
20-Oct	0	0	0	0	A	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
21-Oct	0	0	0	A	1	1	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.8
22-Oct	0	0	A	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	1	0	0	0.2	1.6
23-Oct	1	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	0.6
24-Oct	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.1	0.3
25-Oct	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.1	0.6
26-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.2
27-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	0.3
28-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.2	0.3
29-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	1	0	0	0.1	0.7
30-Oct	0	0	1	1	1	1	0	1	0	0	1	0	0	0	0	0	0	A	0	1	0	1	1	0	0.5	1.0
31-Oct	0	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.2	0.8
	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.3	0.2	0.2	0.2	Diurnal Average	
	1.4	1.5	0.8	1.0	1.0	0.8	0.6	1.8	1.1	0.5	0.7	0.4	0.3	0.2	1.3	0.2	0.2	0.4	0.3	0.5	1.6	0.9	1.6	1.2	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

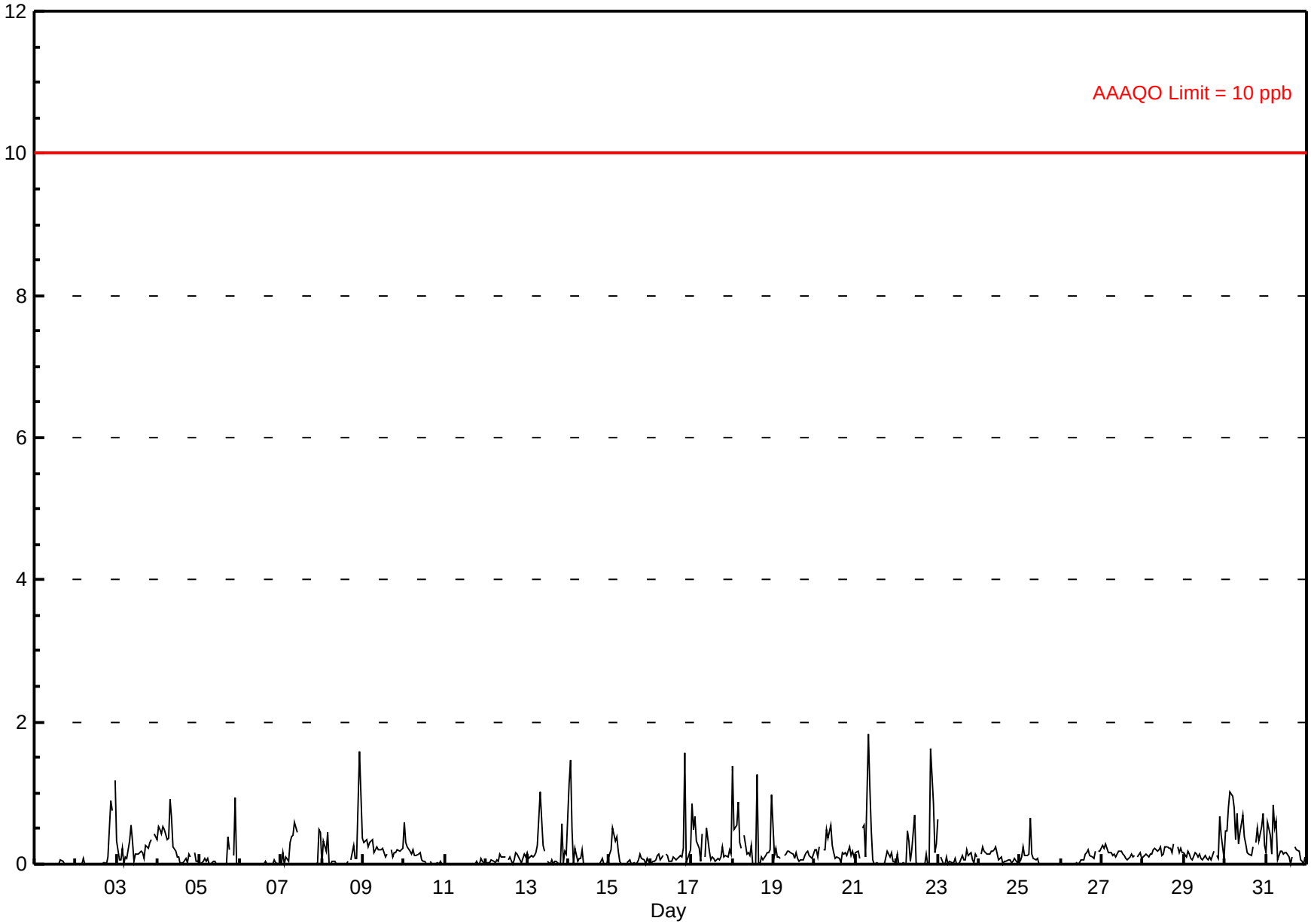
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb

Peace Airshed Zone Association

Hourly Averages

Hydrogen Sulphide (H_2S) - ppb

Falher - October 2014



Peace Airshed Zone Association

Hourly Maximums

Hydrogen Sulphide (H_2S) - ppb

Falher - October 2014

Maximum Value: 7.2 ppb on Oct 21 08:00

Maximum Daily Average: 1.7 ppb on Oct 18

Minimum Value: 0 ppb on Oct 18 14:00

Minimum Daily Average: 0.5 ppb on Oct 6

Maximum Diurnal Average: 1.2 ppb at hour 8

Minimum Diurnal Average: 0.6 ppb at hour 14

Monthly Average: 0.91 ppb

Percentiles: $P_1 = 0.3$ $P_{10} = 0.5$ $Q_1 = 0.6$ Median = 0.7 $Q_3 = 0.9$ $P_{90} = 1.6$ $P_{99} = 4.5$

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-Oct	A	1	0	1	1	1	1	1	0	0	0	1	1	1	0	1	1	1	1	1	0	0	1	A	0.5	0.7
2-Oct	1	1	0	1	1	1	1	1	1	1	0	0	0	1	0	1	1	0	1	1	3	3	A	4	1.0	3.6
3-Oct	1	1	1	1	1	1	1	2	2	2	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.9	1.7
4-Oct	2	1	1	2	1	1	1	3	2	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1.0	2.9
5-Oct	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	4	1	A	2	4	0	0	0.9	4.1
6-Oct	0	1	0	1	1	0	0	1	1	0	0	0	0	1	1	1	0	0	A	0	1	1	0	1	0.5	1.0
7-Oct	0	1	1	1	0	1	1	1	1	1	C	C	C	C	0	1	0	A	0	1	0	1	3	2	0.8	2.6
8-Oct	1	2	1	3	0	0	0	1	1	0	0	0	1	0	0	1	A	1	1	1	1	5	6	1	1.3	6.4
9-Oct	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
10-Oct	1	1	1	1	1	1	1	1	1	1	0	1	1	0	A	1	0	0	1	1	1	0	0	0	0.6	1.2
11-Oct	0	1	1	1	1	1	1	0	0	0	1	0	0	A	0	0	1	1	1	1	0	1	1	1	0.6	0.8
12-Oct	1	1	1	1	0	1	1	1	1	1	1	1	A	1	1	0	1	1	1	1	1	1	1	1	0.6	0.8
13-Oct	1	1	1	1	1	1	1	3	3	1	1	A	1	0	1	1	1	1	1	0	3	1	2	1	1.0	2.9
14-Oct	4	4	5	1	2	1	1	1	1	0	A	1	1	0	1	1	1	1	0	1	1	0	0	1	1.2	5.2
15-Oct	1	1	1	1	2	1	1	0	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.5
16-Oct	0	1	1	1	1	1	1	2	A	1	1	1	0	1	1	1	1	1	1	3	4	1	1	1	0.9	3.9
17-Oct	4	2	3	1	1	1	2	A	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	3.7
18-Oct	4	1	4	3	1	1	A	2	1	1	1	5	2	0	5	0	1	1	1	1	1	1	1	4	1.7	4.6
19-Oct	1	2	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.7
20-Oct	1	1	1	1	A	1	1	1	1	5	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1.0	4.7
21-Oct	1	1	1	A	2	3	1	7	3	2	1	1	1	1	1	0	1	0	1	1	1	1	1	1	1.3	7.2
22-Oct	1	1	A	1	1	1	3	2	2	1	2	1	1	0	1	0	1	3	1	0	7	3	1	2	1.5	6.9
23-Oct	3	A	1	0	1	2	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0.8	3.5
24-Oct	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	A	0.7	1.1
25-Oct	1	1	1	1	1	1	2	1	1	1	1	1	1	1	0	1	1	1	0	1	0	0	A	1	0.7	2.1
26-Oct	1	1	0	0	1	1	1	0	1	1	1	1	0	1	1	1	1	1	1	1	1	A	1	1	0.7	1.0
27-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.7	1.0
28-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.8	1.0
29-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	2	2	1	0.9	1.9
30-Oct	2	2	2	3	3	2	2	2	1	2	1	1	1	1	1	1	1	A	1	2	1	1	1	1	1.5	2.9
31-Oct	1	2	2	1	2	2	2	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1.0	2.3
	1.2	1.1	1.1	0.9	0.9	0.9	0.9	1.2	1.0	1.0	0.7	0.8	0.6	0.6	0.7	0.6	0.6	0.9	0.8	0.8	1.2	1.2	1.1	1.0	Diurnal Average	
	4.0	4.5	5.2	2.9	2.8	2.7	2.9	7.2	3.0	4.7	1.9	4.6	1.8	0.9	4.6	1.0	1.1	4.1	1.5	2.6	6.9	5.5	6.4	4.4	Diurnal Maximum	

C - Calibration

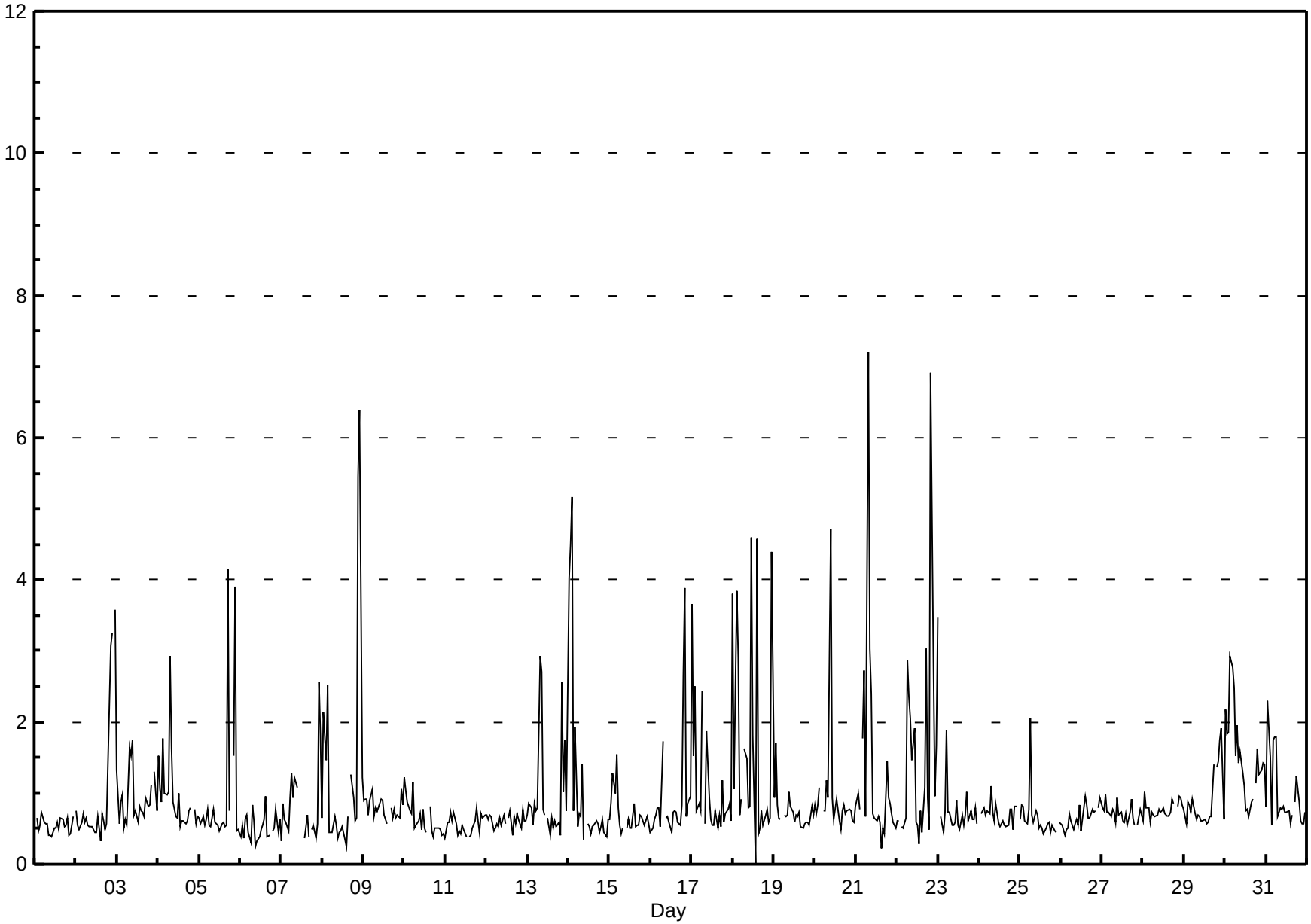
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Hydrogen Sulphide (H_2S) - ppb

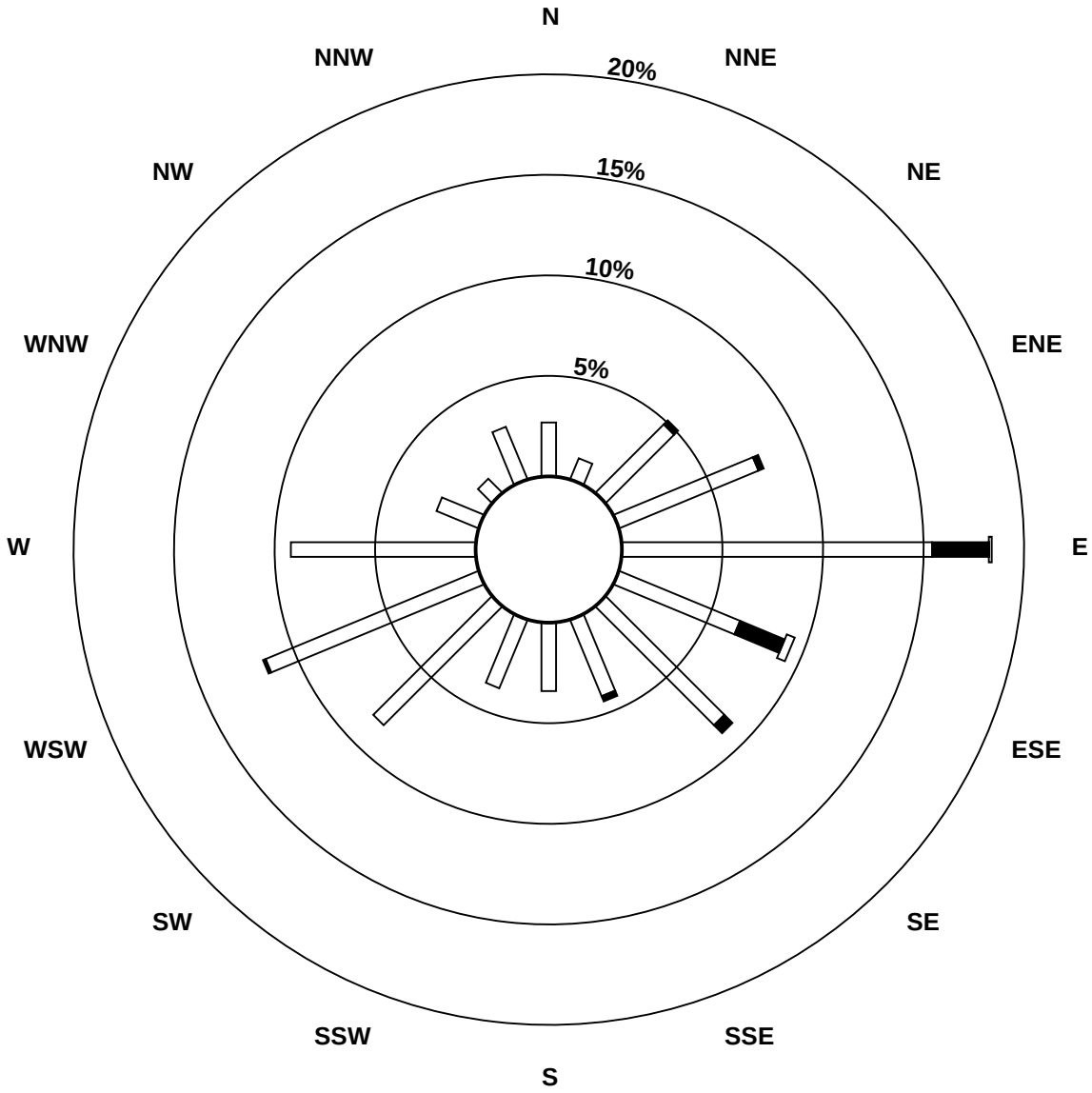
Falher - October 2014



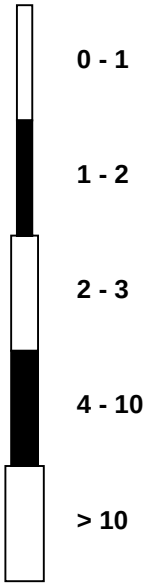
Pollutant Rose

Hydrogen Sulphide (H_2S) - ppb

Falher - October 2014



Pollutant Classes (ppb)

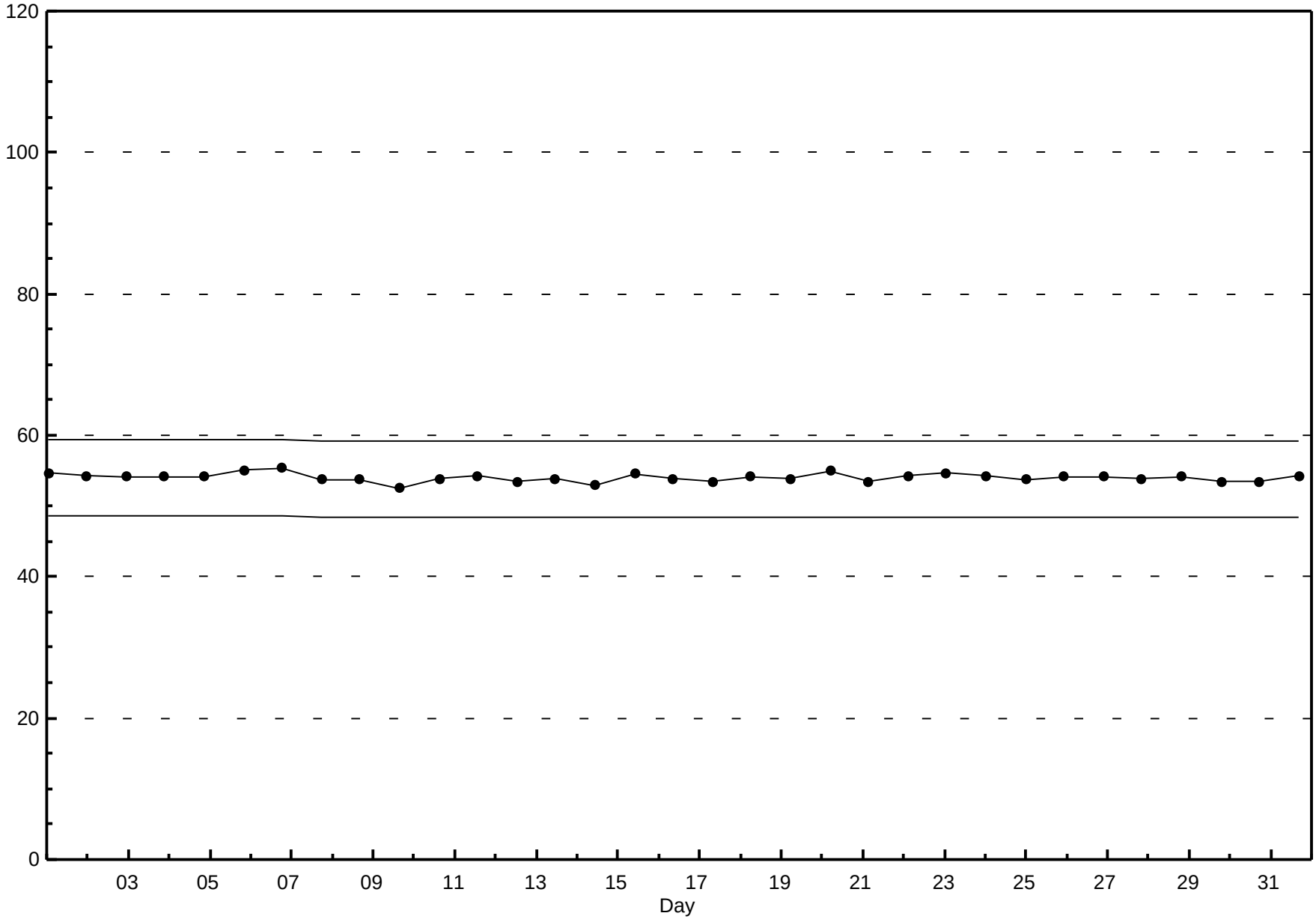


Peace Airshed Zone Association

Span Responses

Hydrogen Sulphide (H_2S)

Falher - October 2014



Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Falher - October 2014

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

Maximum Value: 23.2 ^{o}C on Oct 10 16:00

Maximum Daily Average: 13.5 ^{o}C on Oct 10

Minimum Value: -4 ^{o}C on Oct 2 08:00

Maximum Diurnal Average: 10.3 ^{o}C at hour 16

Monthly Average: 5.45 ^{o}C

Minimum Daily Average: -1.6 ^{o}C on Oct 27

Minimum Diurnal Average: 2.4 ^{o}C at hour 7

Percentiles: P_1 = -3.4 P_{10} = -0.8 Q_1 = 1.2 Median = 5.0 Q_3 = 8.9 P_{90} = 13.4 P_{99} = 18.4

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

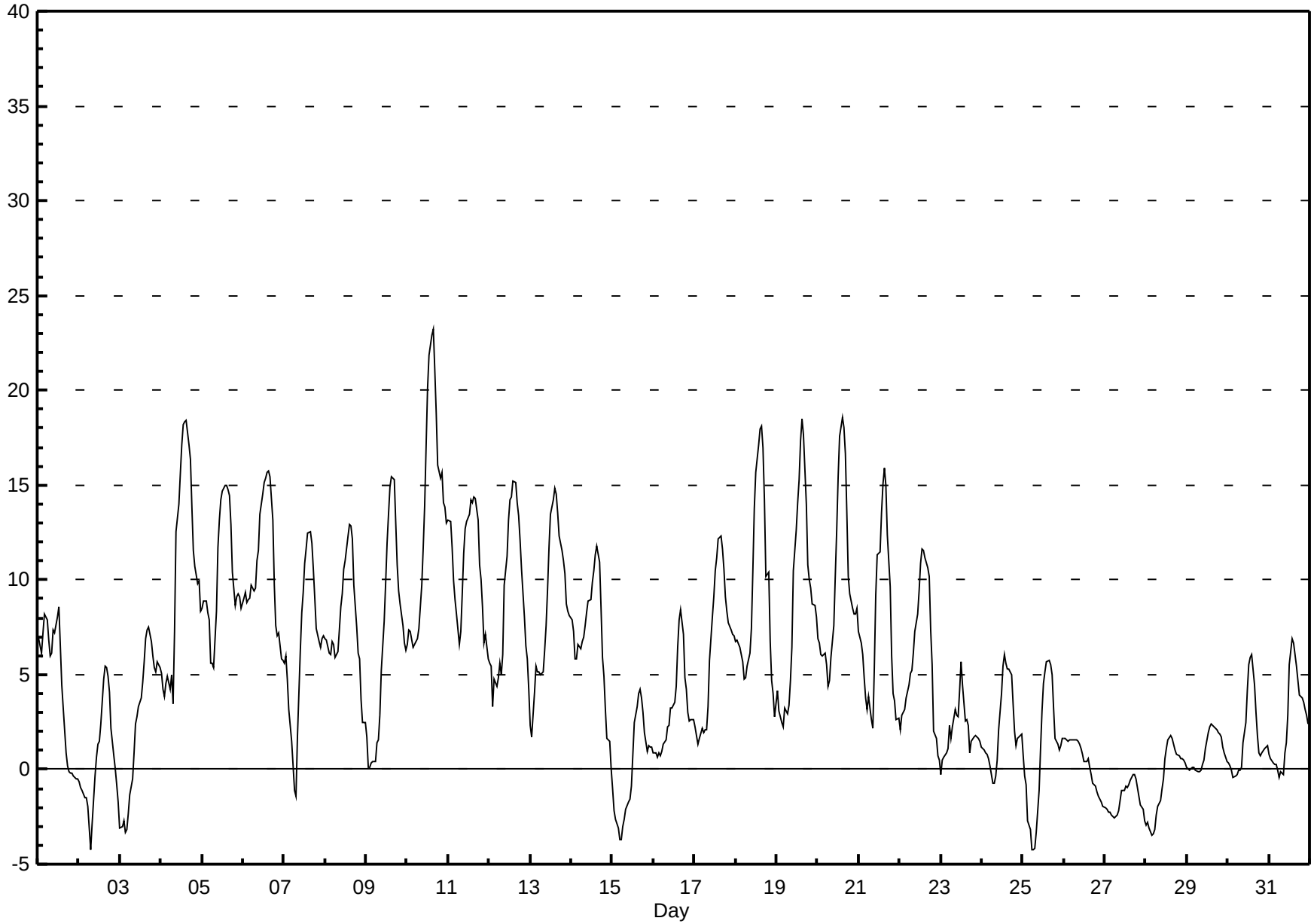
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	7	6	6	7	8	8	7	6	6	7	7	8	9	7	4	3	1	0	0	0	0	0	0	-1	4.4	8.6
2-Oct	-1	-1	-1	-1	-1	-2	-3	-4	-3	0	1	1	1	2	5	5	5	5	4	2	1	0	-1	-2	0.5	5.4
3-Oct	-3	-3	-3	-3	-3	-2	-1	-1	1	2	3	3	4	5	6	7	7	8	7	6	5	5	6	5	2.5	7.5
4-Oct	5	4	4	5	5	4	5	3	7	13	14	16	17	18	18	18	17	16	14	12	11	10	10	8	10.6	18.4
5-Oct	9	9	9	8	8	6	6	5	8	12	13	14	15	15	15	15	14	13	10	9	9	9	9	9	10.3	15.0
6-Oct	9	9	9	9	9	10	9	10	11	12	13	15	15	15	16	16	15	13	10	8	7	7	6	6	10.8	15.8
7-Oct	6	6	5	3	1	0	-1	-1	2	6	8	9	11	12	13	13	12	11	9	7	7	6	7	7	6.6	12.5
8-Oct	7	7	6	6	7	7	6	6	7	9	9	11	11	12	13	13	12	10	8	6	6	4	2	2	7.7	12.9
9-Oct	2	0	0	0	0	0	1	2	3	5	8	10	12	13	15	15	15	13	11	9	9	8	7	6	6.9	15.4
10-Oct	7	7	7	6	7	7	7	7	10	12	14	17	20	22	23	23	21	19	16	15	16	14	14	13	13.5	23.2
11-Oct	13	13	12	10	9	8	7	7	9	11	13	13	13	14	14	14	14	13	11	10	9	7	7	6	10.7	14.3
12-Oct	6	5	3	5	4	5	6	5	6	10	11	13	14	14	15	15	14	13	12	11	8	7	6	4	8.9	15.2
13-Oct	2	2	4	5	5	5	5	5	6	8	9	12	13	14	15	15	14	12	12	11	10	9	8	8	8.8	14.8
14-Oct	8	7	6	6	7	6	7	7	8	8	9	9	10	11	11	12	11	8	6	5	3	2	1	0	7.0	11.8
15-Oct	-1	-2	-3	-3	-4	-4	-3	-3	-2	-2	-2	-1	1	2	3	4	4	4	3	2	1	1	1	1	0.0	4.2
16-Oct	1	1	1	1	1	1	1	2	2	2	3	3	4	4	6	8	8	7	5	4	3	3	3	3	3.2	8.4
17-Oct	2	2	1	2	2	2	2	2	3	6	8	9	10	11	12	12	12	11	9	8	8	7	7	7	6.5	12.3
18-Oct	7	7	6	6	6	5	5	5	6	7	10	14	16	17	18	18	17	14	10	10	7	5	4	3	9.3	18.1
19-Oct	4	3	3	3	2	3	3	3	5	6	10	13	14	15	17	19	18	14	11	10	10	9	9	8	8.8	18.5
20-Oct	7	7	6	6	6	5	4	5	6	8	10	13	15	18	19	18	17	14	10	9	8	8	8	8	9.8	18.6
21-Oct	7	7	6	5	4	3	4	3	2	5	9	11	11	14	15	16	15	12	10	6	4	4	3	3	7.4	15.9
22-Oct	2	3	3	3	4	4	5	5	6	7	8	9	11	12	12	11	11	10	7	6	2	2	1	0	6.0	11.6
23-Oct	0	0	1	1	1	2	2	2	3	3	3	4	6	4	3	3	2	1	1	2	2	2	2	2	2.1	5.7
24-Oct	1	1	1	1	1	0	-1	-1	0	1	2	4	5	6	6	5	5	5	3	2	1	2	2	2	2.3	6.1
25-Oct	1	0	-1	-3	-3	-4	-4	-4	-3	-1	1	3	5	5	6	6	6	5	3	2	1	1	1	2	0.9	5.8
26-Oct	2	2	2	2	2	2	2	2	2	1	1	1	0	0	1	0	0	-1	-1	-1	-1	-2	-2	-2	0.4	1.6
27-Oct	-2	-2	-2	-2	-2	-3	-2	-2	-2	-2	-1	-1	-1	-1	-1	-1	0	0	0	-1	-1	-2	-2	-3	-1.6	-0.2
28-Oct	-3	-3	-3	-3	-3	-3	-2	-2	-2	-1	-1	1	1	2	2	2	1	1	1	1	1	1	1	0	-0.6	1.8
29-Oct	0	0	0	0	0	0	0	0	0	0	1	1	2	2	2	2	2	2	2	2	2	1	1	0	1.0	2.4
30-Oct	0	0	0	0	0	0	0	0	0	1	3	4	5	6	6	4	3	2	1	1	1	1	1	1	1.7	6.0
31-Oct	1	1	0	0	0	0	0	0	0	1	1	3	6	7	7	6	5	5	4	4	4	3	3	2	2.6	6.9
	3.4	3.2	2.8	2.7	2.6	2.4	2.4	2.4	3.5	5.1	6.5	7.8	8.9	9.7	10.2	10.3	9.7	8.4	6.7	5.7	4.9	4.2	4.0	3.6	Diurnal Average	
	13.2	13.1	11.7	9.9	9.0	9.7	9.4	9.5	11.0	12.6	14.0	17.0	20.1	21.9	22.9	23.2	21.1	18.8	16.1	15.3	15.7	14.1	13.8	13.0	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Falher - October 2014



Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Falher - October 2014

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1 Spd	15	16	15	19	23	23	20	22	13	23	25	32	37	42	40	41	31	28	28	21	20	23	27	24	22.8	42.2
Dir	199	203	201	205	213	222	240	251	244	249	242	236	258	282	287	284	273	277	276	273	260	257	259	259	255	282
2 Spd	21	19	18	17	18	16	14	10	9	16	15	13	13	14	11	8	6	1	5	10	10	10	11	12	7.6	20.7
Dir	254	251	248	239	232	234	240	232	215	256	252	253	259	269	267	267	285	51	90	110	99	107	109	91	239	254
3 Spd	11	14	15	12	15	16	15	16	16	20	23	26	25	22	22	25	19	10	7	6	8	8	8	6	13.7	25.6
Dir	78	76	81	80	74	78	84	88	100	126	135	129	127	128	132	138	139	140	149	131	146	147	152	132	116	129
4 Spd	3	5	6	8	5	5	7	8	4	7	11	12	20	27	26	25	19	15	13	13	12	14	16	15	8.4	26.5
Dir	98	86	94	159	150	101	162	158	114	254	255	289	281	268	279	281	282	269	259	241	236	235	237	238	254	268
5 Spd	16	16	16	15	12	5	11	7	5	6	19	15	16	15	14	12	5	5	9	12	13	10	11	14	7.0	19.0
Dir	239	243	247	245	239	190	211	230	230	262	270	274	267	273	266	268	272	118	123	127	117	121	164	145	232	270
6 Spd	17	14	12	13	11	19	19	19	21	21	23	23	22	20	21	21	22	13	13	10	13	14	16	14	14.0	22.7
Dir	157	148	169	198	229	257	263	267	266	260	273	271	272	272	274	284	288	260	254	239	226	229	219	217	251	273
7 Spd	11	9	10	6	6	6	2	5	5	4	8	11	13	14	10	13	9	11	16	15	14	14	18	19	6.0	18.9
Dir	221	244	268	292	256	252	283	65	77	95	89	102	82	75	120	139	145	85	89	92	87	97	96	99	104	99
8 Spd	17	19	14	12	11	9	7	11	10	13	12	15	17	20	22	22	17	10	8	9	7	6	7	3	5.1	22.4
Dir	92	106	109	119	142	153	136	151	168	200	226	256	252	258	264	267	268	253	241	237	245	85	93	51	209	267
9 Spd	5	6	9	10	9	10	12	11	15	19	20	16	13	12	16	17	17	15	16	18	19	16	15	16	12.8	19.5
Dir	357	11	57	54	49	68	66	65	90	97	103	103	100	107	121	111	101	97	97	99	98	96	103	102	92	103
10 Spd	16	15	13	13	15	14	14	12	15	20	21	18	15	10	11	11	9	18	15	14	17	15	17	14	8.9	20.8
Dir	109	116	116	112	118	115	130	112	132	138	142	152	147	161	181	207	248	260	240	222	250	233	223	238	166	142
11 Spd	22	29	28	19	21	18	13	18	22	28	30	30	31	31	29	25	23	20	19	20	15	15	16	15	21.2	30.9
Dir	222	226	214	214	222	217	190	212	220	232	242	237	240	250	266	262	269	260	251	251	239	221	219	208	235	250
12 Spd	13	13	12	15	14	15	16	15	13	18	25	28	23	22	19	24	18	21	14	17	16	13	12	14	15.5	27.6
Dir	212	219	204	220	210	218	225	214	198	249	257	266	262	260	263	243	254	251	239	232	223	206	192	179	234	266
13 Spd	13	9	7	12	12	9	14	7	11	14	12	17	17	17	20	19	23	20	20	21	16	13	12	9	13.2	22.5
Dir	163	137	136	146	161	145	126	102	123	133	125	129	137	138	142	104	97	93	95	97	103	89	87	107	119	97
14 Spd	13	12	13	11	8	4	7	8	12	18	20	16	16	20	21	24	17	11	9	10	6	9	9	1	6.9	23.6
Dir	103	105	98	86	108	216	216	237	255	261	256	243	222	225	246	255	278	298	274	270	287	277	313	348	248	255
15 Spd	2	2	5	6	5	9	10	12	15	15	13	17	19	19	20	20	15	12	13	11	10	10	11	11	11.3	19.9
Dir	144	57	50	0	15	332	336	345	359	348	339	342	345	349	344	356	355	352	352	5	336	347	354	358	351	356
16 Spd	12	8	5	1	3	9	18	18	15	12	13	10	9	6	3	3	4	5	9	16	16	15	17	20	5.9	20.3
Dir	9	9	10	207	36	62	75	86	100	210	202	216	205	206	124	109	42	31	59	92	104	116	95	90	95	90
17 Spd	14	15	13	14	18	18	18	18	17	19	19	23	19	18	16	18	8	5	11	13	14	12	10	8	13.6	23.0
Dir	91	90	87	85	88	94	95	93	99	107	118	135	134	147	145	165	171	127	87	96	100	96	90	99	110	135
18 Spd	5	1	5	7	9	6	3	9	11	11	13	24	27	24	31	33	22	14	13	13	5	10	10	14	8.6	33.1
Dir	111	15	105	138	146	146	149	110	175	181	220	226	223	238	251	246	243	238	213	205	129	97	98	118	208	246
19 Spd	16	14	14	14	13	15	15	16	12	13	22	21	18	14	17	14	13	14	15	16	16	16	18	18	14.5	21.6
Dir	137	93	86	78	82	78	81	82	84	100	130	135	142	122	132	111	103	92	96	89	90	91	90	95	102	130
20 Spd	17	17	13	14	14	9	10	5	8	8	7	6	10	6	7	7	5	19	20	3	12	10	13	13	5.2	20.1
Dir	92	90	74	81	89	87	88	50	82	120	140	171	157	124	96	79	95	272	280	360	142	186	174	186	116	280
21 Spd	11	10	9	7	5	11	12	10	11	9	8	12	9	8	7	4	4	6	5	9	7	10	12	13	6.3	12.6
Dir	182	186	191	163	142	135	137	115	105	122	140	170	137	166	202	180	179	215	145	63	57	75	83	76	137	76
22 Spd	14	16	16	17	20	19	20	17	16	21	24	21	20	20	11	10	7	5	11	6	10	8	10	8	13.3	23.6
Dir	92	89	86	86	88	88	97	103	105	101	106	112	128	141	142	161	190	118	141	164	118	108	85	83	108	106

Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Falher - October 2014

Day	Hourly Period Ending At (MST) 1	2	3	4	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	7	9	9	10	9	12	5	11	11	16	16	15	15	16	16	14	21	20	20	19	17	16	12	11	7.5	21.3
Dir	44	56	49	52	46	72	221	313	321	328	334	327	324	282	274	249	237	239	246	253	257	263	258	238	285	237
24 Spd	11	13	8	7	8	10	10	11	13	13	15	18	19	20	27	24	23	23	13	10	11	11	8	9	13.3	26.6
Dir	225	230	230	216	218	215	212	221	218	215	223	243	246	257	262	258	260	257	253	240	228	232	221	222	239	262
25 Spd	9	8	11	12	12	7	10	9	9	10	13	14	17	16	17	19	22	26	26	27	26	24	26	26	13.6	27.1
Dir	218	190	175	154	143	83	73	67	68	66	76	79	81	74	61	64	71	85	72	53	49	49	49	52	72	53
26 Spd	24	21	20	19	19	19	19	16	15	13	12	13	15	17	17	16	13	14	15	14	14	12	11	13	10.4	24.4
Dir	50	43	43	42	39	35	33	20	8	3	347	329	330	334	330	315	304	294	286	274	274	274	272	266	349	50
27 Spd	10	10	9	9	7	6	6	6	6	4	3	6	5	9	8	8	7	10	13	15	14	14	16	14	3.2	15.8
Dir	267	263	265	271	287	307	335	343	4	39	109	137	137	161	142	115	90	73	75	76	72	69	69	67	70	69
28 Spd	16	18	16	16	13	15	19	18	17	19	20	20	21	21	21	22	18	15	13	13	13	11	10	8	16.1	22.2
Dir	67	68	71	68	63	58	59	57	55	66	67	75	75	71	69	67	59	56	45	52	52	44	39	33	62	67
29 Spd	9	10	11	8	7	7	7	6	6	7	7	10	14	10	12	14	12	11	10	11	11	13	11	12	8.9	13.9
Dir	24	24	38	53	54	44	40	39	55	61	83	80	99	112	89	93	105	88	90	99	93	95	94	89	78	93
30 Spd	16	16	14	13	15	18	18	19	16	20	23	25	28	31	30	33	30	28	29	26	26	27	25	19	22.6	32.8
Dir	91	93	94	91	95	94	97	95	101	98	101	102	109	112	106	91	93	94	94	95	92	95	91	95	97	91
31 Spd	14	17	17	17	17	14	5	7	11	8	8	8	10	11	11	6	10	11	12	12	12	12	5	2	6.6	17.3
Dir	104	95	98	99	95	93	137	167	157	176	198	219	246	256	265	249	171	140	142	151	157	175	191	176	146	99
Spd	4.8	4.5	4.7	4.7	4.7	4.2	4.3	3.4	3.9	3.3	4.2	5.0	4.9	5.0	4.9	4.0	2.7	1.8	1.6	3.1	3.8	3.9	4.3	4.7	Diurnal Average	
Dir	129	120	116	121	125	114	117	107	121	164	185	195	202	224	239	237	241	239	158	129	126	127	122	120		
Spd	24.4	29.1	28.2	19.2	22.8	23.3	19.9	22.2	22.3	28.2	29.9	32.4	37.1	42.2	40.5	40.8	31.1	28.3	28.9	27.1	26.5	26.8	26.6	26.3	Diurnal Maximum	
Dir	50	226	214	205	213	222	240	251	220	232	242	236	258	282	287	284	273	94	94	53	92	95	259	52		

Maximum Speed Value: 42 km/h on Oct 1 14:00
Maximum Daily Speed Average: 22.8 km/h on Oct 1
Maximum Diurnal Speed Average: 5.0 km/h at hour 12

Minimum Speed Value: 1 km/h on Oct 16 04:00
Minimum Daily Speed Average: 3.2 km/h on Oct 21
Minimum Diurnal Speed Average: 1.6 km/h at hour 19

Monthly Average Velocity: 2.82 km/h 150.5 deg

Speed Percentiles: P_1 = 2.4 P_{10} = 6.5 Q_1 = 9.9 Median = 13.6 Q_3 = 17.8 P_{90} = 22.3 P_{99} = 32.0

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

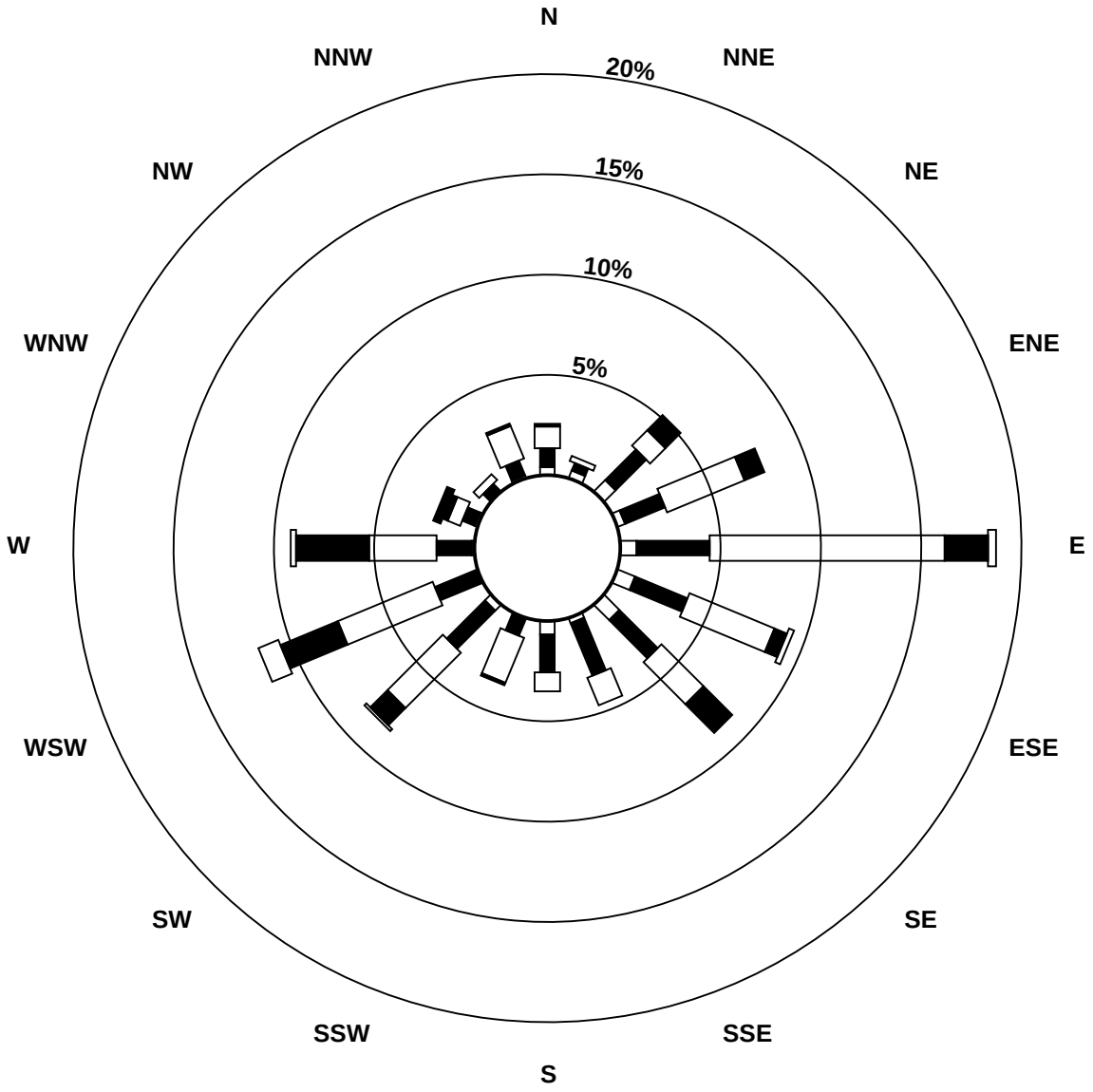
Frequency Distribution

Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	3	10	16	3	0	0	32
NorthEast	9	27	19	13	0	0	68
East	6	43	132	31	6	0	218
SouthEast	10	40	40	18	0	0	108
South	4	26	20	0	0	0	50
SouthWest	2	32	61	19	8	0	122
West	2	22	44	49	6	3	126
NorthWest	0	7	13	0	0	0	20
Total	36	207	345	133	20	3	744

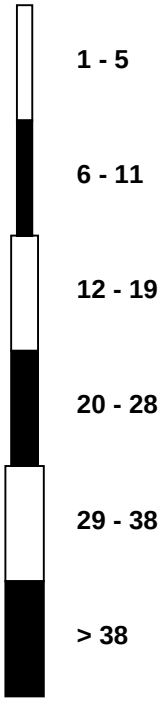
Wind Rose

Wind Speed (WS) (km/h)

Falher - October 2014



Wind Speed Classes (km/h)



Peace Airshed Zone Association

Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Falher - October 2014

Maximum Speed: 42 km/h on Oct 1 14:00

Maximum Daily Speed Average: 25.5 km/h on Oct 1

Minimum Speed: 2 km/h on Oct 2 18:00

Minimum Daily Speed Average: 9.0 km/h on Oct 21

Maximum Diurnal Speed Average: 18.3 km/h at hour 15

Minimum Diurnal Speed Average: 12.2 km/h at hour 4

Monthly Average Speed: 14.39 km/h

Percentiles: $P_1 = 3.4$ $P_{10} = 6.9$ $Q_1 = 10.0$ Median = 13.7 $Q_3 = 18.0$ $P_{90} = 22.5$ $P_{99} = 32.2$

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-Oct	15	16	15	19	23	23	20	22	14	23	25	33	38	42	41	41	31	28	28	21	20	23	27	24	25.5	42.5
2-Oct	21	19	18	17	18	16	14	10	10	16	15	13	14	14	12	8	6	2	5	10	10	10	11	12	12.5	20.7
3-Oct	11	14	15	12	15	16	15	16	16	20	23	26	25	22	22	25	19	10	7	6	8	8	8	6	15.3	25.7
4-Oct	5	6	7	9	7	7	7	8	4	7	11	13	20	27	26	25	19	15	13	14	12	14	16	15	12.7	26.8
5-Oct	16	16	16	15	12	5	11	8	8	7	19	15	16	15	15	12	5	5	9	12	13	10	11	14	11.9	19.1
6-Oct	17	14	12	13	11	19	19	19	22	21	23	23	22	20	21	22	23	14	13	11	13	14	16	14	17.4	22.8
7-Oct	11	10	10	7	6	6	4	5	5	4	8	11	13	15	12	13	9	11	16	15	14	14	18	19	10.7	18.9
8-Oct	17	19	14	12	11	9	7	11	10	13	13	15	17	21	23	23	17	10	9	9	7	7	7	4	12.7	22.8
9-Oct	6	7	9	11	9	10	12	12	15	19	20	16	13	13	17	17	17	15	16	18	19	16	15	16	14.1	19.7
10-Oct	16	15	13	13	15	14	14	12	15	20	21	18	15	11	12	11	9	19	16	14	17	16	17	14	14.9	20.8
11-Oct	22	29	28	19	21	19	13	18	22	28	30	31	31	31	29	26	24	20	19	20	15	15	16	16	22.6	31.3
12-Oct	13	13	12	15	14	16	16	15	13	18	25	28	23	22	19	24	18	21	14	17	16	13	13	14	17.2	27.9
13-Oct	13	9	7	12	12	9	14	7	11	14	12	17	17	17	20	20	23	20	20	21	16	13	13	10	14.4	22.6
14-Oct	13	12	13	11	8	5	7	8	12	18	20	16	16	20	21	24	18	12	9	10	7	9	9	5	12.7	23.7
15-Oct	3	2	5	6	6	9	10	12	15	15	14	17	19	19	20	20	15	12	13	11	10	11	11	11	11.9	20.0
16-Oct	12	8	6	2	3	9	18	19	15	12	13	11	9	7	4	4	4	5	9	16	16	15	17	20	10.5	20.4
17-Oct	14	15	13	14	18	18	18	18	17	19	19	23	20	18	17	18	8	5	11	13	14	12	10	9	15.0	23.1
18-Oct	5	2	6	7	9	7	5	9	11	11	13	24	27	25	31	33	22	14	13	13	8	10	10	14	13.8	33.3
19-Oct	16	15	14	14	13	15	15	16	12	13	22	21	18	15	17	15	13	14	15	16	16	16	18	18	15.7	21.7
20-Oct	17	17	14	14	15	9	10	6	8	9	7	7	10	6	8	7	7	20	20	7	13	10	13	13	11.1	20.5
21-Oct	12	10	10	7	5	11	12	10	11	9	9	12	10	9	7	5	5	7	7	9	7	10	12	13	9.0	12.7
22-Oct	14	16	16	17	20	19	20	17	16	21	24	21	21	20	12	11	7	8	11	6	10	9	11	9	14.9	23.6
23-Oct	8	9	9	10	9	14	7	11	11	16	16	15	16	17	16	14	21	20	20	19	17	16	12	11	13.9	21.3
24-Oct	11	13	8	7	8	10	10	11	13	13	15	18	20	20	27	24	24	23	13	10	11	11	8	9	14.0	26.7
25-Oct	9	8	11	12	12	8	10	9	9	10	13	14	17	16	17	19	22	26	26	27	26	24	26	26	16.6	27.2
26-Oct	24	21	20	19	19	19	19	16	15	13	12	13	15	17	17	16	13	14	15	14	14	12	12	13	15.9	24.4
27-Oct	10	10	9	9	7	6	6	6	6	5	3	6	6	9	9	8	7	10	13	15	14	14	16	14	9.1	15.8
28-Oct	16	18	16	16	13	15	19	18	17	19	20	20	21	21	21	22	18	15	13	13	13	11	10	8	16.4	22.2
29-Oct	9	10	11	8	7	7	7	6	6	7	7	10	14	10	12	14	12	11	10	11	11	13	12	12	9.9	14.0
30-Oct	16	16	14	13	15	18	18	19	16	20	23	25	28	31	31	33	30	28	29	26	26	27	25	19	22.8	32.8
31-Oct	14	17	17	17	17	15	9	7	11	8	8	8	10	11	11	7	10	11	12	12	12	12	5	3	11.0	17.3
	13.1	13.1	12.6	12.2	12.2	12.3	12.4	12.3	12.5	14.5	16.2	17.4	18.1	18.1	18.3	18.1	15.4	14.3	14.4	14.1	13.7	13.4	13.7	13.0	Diurnal Average	
	24.4	29.2	28.3	19.2	22.9	23.3	20.0	22.5	22.3	28.4	30.0	32.5	38.2	42.5	40.8	41.1	31.3	28.3	28.9	27.2	26.5	26.8	26.6	26.4	Diurnal Maximum	

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

Peace Airshed Zone Association

Hourly Standard Deviations

Wind Direction (WD) - deg

Falher - October 2014

Maximum Value: 89.2 deg on Oct 15 00:00

Minimum Value: 1.3 deg on Oct 9 20:00

Percentiles: P_1 = 1.6 P_{10} = 2.7 Q_1 = 4.2 Median = 6.8 Q_3 = 11.2 P_{90} = 20.5 P_{99} = 57.3

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 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-Oct	2	3	3	3	6	5	5	8	8	9	7	6	14	7	6	7	6	5	3	8	2	2	3	3	13.5
2-Oct	3	3	2	7	4	8	12	16	26	2	4	8	7	9	11	24	14	59	8	14	12	6	7	6	59.2
3-Oct	5	3	2	4	2	2	4	5	4	15	3	4	3	3	3	3	3	12	11	17	8	12	12	13	17.0
4-Oct	46	23	21	37	41	46	17	12	15	51	11	12	15	8	6	8	8	5	6	7	3	4	2	2	51.1
5-Oct	2	3	2	2	3	35	7	36	69	26	8	12	9	10	11	6	14	67	10	5	8	12	12	11	68.7
6-Oct	3	8	11	14	8	6	3	3	6	5	6	7	7	10	10	11	7	10	3	15	2	3	3	2	14.7
7-Oct	9	22	12	28	12	7	60	12	8	16	11	10	13	14	27	17	13	11	3	3	2	3	3	3	60.1
8-Oct	7	3	6	11	8	8	9	12	9	9	11	10	9	14	11	9	8	9	16	12	4	56	15	34	56.3
9-Oct	18	18	6	12	7	4	7	18	4	6	7	7	11	23	14	8	4	3	3	1	3	3	3	2	23.4
10-Oct	4	3	3	4	3	4	7	4	7	4	4	8	12	21	25	14	12	11	8	17	5	11	7	7	25.3
11-Oct	5	3	6	7	2	10	4	13	3	6	5	5	6	9	8	5	5	7	3	4	4	3	7	10	12.6
12-Oct	9	5	4	2	6	4	2	13	9	8	4	8	10	9	7	8	5	4	7	4	6	12	9	5	12.9
13-Oct	14	6	13	7	8	14	7	10	11	6	8	6	9	10	8	19	4	3	2	5	4	8	15	13	19.1
14-Oct	3	3	3	4	22	25	6	8	5	4	5	6	13	6	7	6	15	7	10	4	32	10	11	89	89.2
15-Oct	60	21	22	19	25	8	9	7	8	9	16	9	9	8	7	5	5	4	3	8	12	6	3	7	60.2
16-Oct	4	5	16	82	14	8	3	10	11	17	7	11	14	20	45	28	21	10	10	10	4	5	6	4	82.0
17-Oct	2	3	5	5	2	2	2	3	2	3	9	5	10	6	6	5	13	16	5	4	3	3	4	9	16.1
18-Oct	47	58	33	7	13	12	49	24	15	6	11	6	6	14	8	7	6	2	14	12	49	11	7	10	57.8
19-Oct	5	12	5	3	4	4	5	2	4	8	6	5	7	23	10	15	8	4	5	5	3	2	2	3	22.7
20-Oct	3	2	7	7	18	7	23	29	14	26	26	32	17	25	20	12	43	21	10	63	27	10	13	3	63.3
21-Oct	5	11	32	16	31	12	10	9	5	10	19	11	20	21	16	20	32	13	40	5	12	12	4	6	40.4
22-Oct	6	4	2	3	3	2	4	6	5	5	2	2	11	3	9	30	27	83	11	8	14	14	21	13	83.3
23-Oct	21	9	11	9	8	33	42	7	8	4	6	11	11	22	8	9	4	3	4	7	5	7	7	12	41.6
24-Oct	7	9	10	7	10	6	5	5	3	3	8	8	6	7	6	4	3	3	4	15	5	5	7	6	15.1
25-Oct	11	22	10	8	11	23	12	6	6	9	5	8	5	8	4	4	7	8	8	5	3	3	3	2	22.8
26-Oct	4	3	3	3	3	3	3	5	6	6	4	4	4	4	7	4	7	5	6	5	5	4	5	4	7.4
27-Oct	5	6	5	6	5	7	7	5	12	27	17	9	13	10	24	20	13	6	3	2	2	3	2	3	26.6
28-Oct	2	1	3	4	7	7	2	6	4	3	3	6	4	7	5	5	6	5	8	4	3	7	5	3	7.7
29-Oct	3	5	5	4	6	6	5	11	19	7	7	8	9	8	6	6	6	5	5	9	8	4	7	4	18.7
30-Oct	3	2	2	3	2	2	2	4	2	3	3	4	3	3	9	3	3	2	3	2	3	2	3	5	9.2
31-Oct	6	4	5	4	3	4	52	18	12	12	13	10	9	8	5	34	8	8	7	5	6	11	42	26	52.3
	60.2	57.8	33.3	82.0	40.9	45.9	60.1	36.4	68.7	51.1	26.5	31.9	19.7	24.7	45.1	33.9	43.2	83.3	40.4	63.3	48.9	56.3	42.4	89.2	

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

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Portable Clairmont - October 2014

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

Maximum Value: 6.7 ppb on Oct 6 12:00 Maximum Daily Average: 0.8 ppb on Oct 28

Minimum Value: 0 ppb on Oct 5 18:00 Minimum Daily Average: 0.0 ppb on Oct 11

Maximum Diurnal Average: 0.6 ppb at hour 12 Minimum Diurnal Average: 0.2 ppb at hour 20

Monthly Average: 0.29 ppb Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.1 Median = 0.2 Q_3 = 0.3 P_{90} = 0.6 P_{99} = 1.8

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-Oct	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.2	0.3
2-Oct	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0.3	0.6
3-Oct	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
4-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	0.3
5-Oct	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0.1	0.6
6-Oct	0	0	0	0	0	0	0	0	1	1	0	7	6	0	0	0	0	0	A	0	0	0	0	0	0.7	6.7
7-Oct	0	0	0	0	0	0	0	1	1	0	0	0	1	1	1	1	1	A	0	0	0	0	0	0	0.4	1.1
8-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	1	1	2	1	1	0.4	1.6
9-Oct	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
10-Oct	1	0	0	0	0	1	1	1	C	C	C	1	0	0	A	0	0	0	0	0	0	0	0	0	0.3	0.8
11-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.0	0.2
12-Oct	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
13-Oct	0	0	0	0	0	0	0	0	0	0	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.9
14-Oct	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
15-Oct	0	0	0	0	0	0	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.3	0.9
16-Oct	1	0	0	1	3	2	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.6	3.2
17-Oct	1	0	0	0	0	0	0	A	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
18-Oct	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
19-Oct	0	1	1	1	1	A	1	1	1	1	2	1	0	1	1	1	1	0	0	0	0	0	0	1	0.6	1.6
20-Oct	2	0	0	0	A	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0.3	1.6
21-Oct	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
22-Oct	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
23-Oct	0	A	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.2
24-Oct	A	2	1	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	A	0.3	1.9
25-Oct	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
26-Oct	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.2	0.7
27-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	A	0	1	1	0.3	0.9
28-Oct	0	0	0	1	0	0	0	0	1	1	2	3	1	1	0	0	0	0	1	A	1	0	0	3	0.8	2.9
29-Oct	2	3	0	1	2	1	1	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.6	2.7
30-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.1	0.3
31-Oct	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0	A	0	0	0	0	0	0	0	0.4	0.9
	0.3	0.3	0.3	0.2	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.6	0.5	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	Diurnal Average	
	2.1	2.7	1.2	0.7	3.2	2.2	1.2	1.2	1.1	1.3	2.2	6.7	5.7	1.1	0.9	0.7	0.5	0.5	0.6	0.7	1.4	1.6	0.9	2.9	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

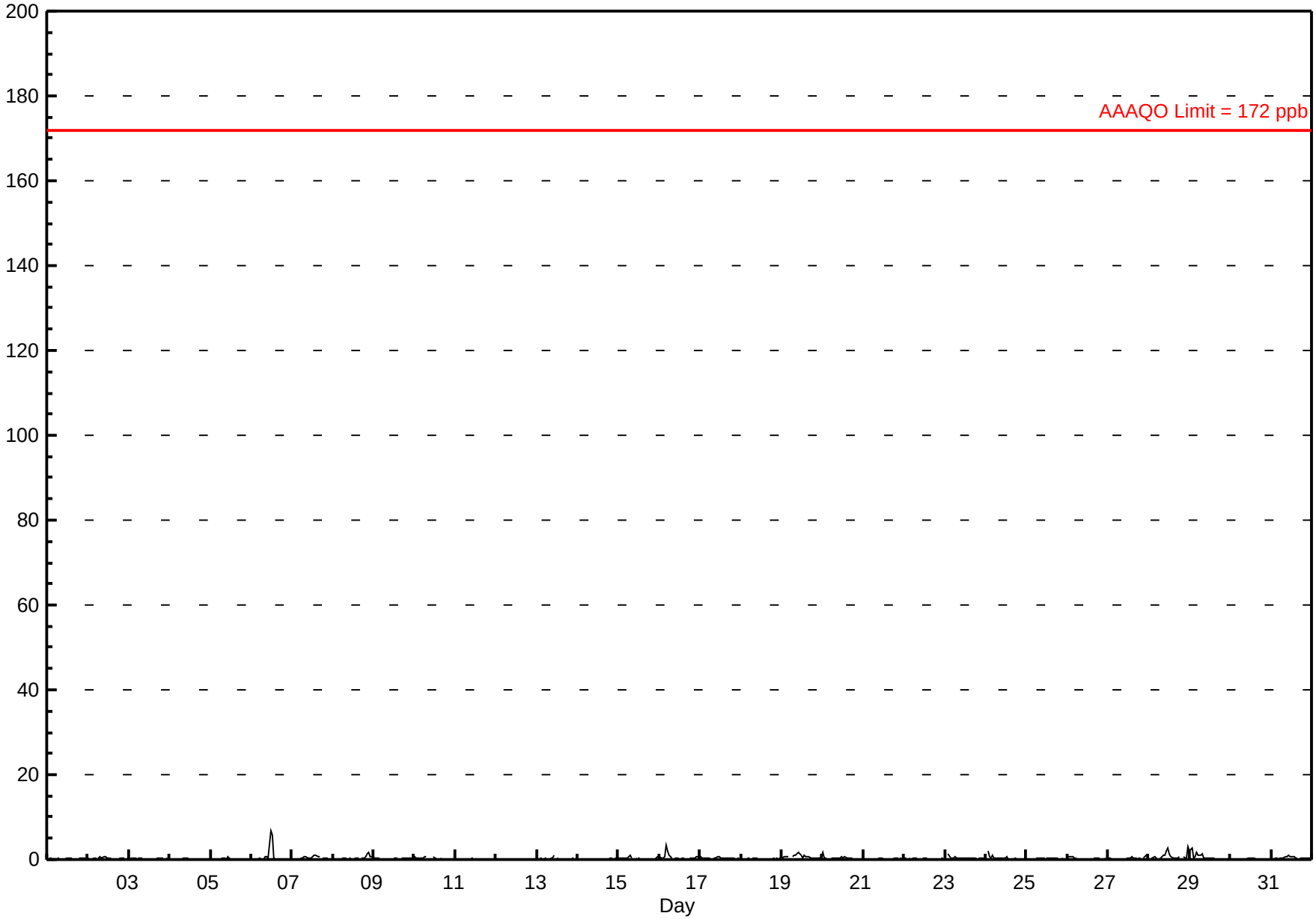
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Portable Clairmont - October 2014



Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Portable Clairmont - October 2014

Maximum Value: 21.2 ppb on Oct 6 12:00

Maximum Daily Average: 2.7 ppb on Oct 6

Minimum Value: 0 ppb on Oct 29 20:00

Maximum Diurnal Average: 2.4 ppb at hour 12

Monthly Average: 1.04 ppb

Minimum Daily Average: 0.6 ppb on Oct 12

Minimum Diurnal Average: 0.8 ppb at hour 20

Percentiles: $P_1 = 0.4$ $P_{10} = 0.5$ $Q_1 = 0.6$ Median = 0.8 $Q_3 = 1.0$ $P_{90} = 1.4$ $P_{99} = 5.4$

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-Oct	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	A	0.8	1.0
2-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	A	1	0.9	1.4
3-Oct	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	1.3
4-Oct	1	1	1	1	0	0	1	1	1	1	1	1	0	1	0	1	1	0	0	1	A	0	1	0	0.6	0.9
5-Oct	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	A	1	1	1	1	0.7	1.3
6-Oct	0	0	0	0	1	1	1	0	3	1	7	21	19	2	1	1	0	0	A	0	0	1	1	0	2.7	21.2
7-Oct	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1.0	1.5
8-Oct	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	A	1	2	1	7	6	2	1	1.4	6.8
9-Oct	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
10-Oct	1	1	1	1	1	1	1	2	C	C	C	1	1	1	A	1	1	1	1	0	1	1	1	0	0.9	1.8
11-Oct	0	0	1	1	1	1	0	1	0	1	1	1	0	A	1	0	0	1	0	1	1	0	0	1	0.6	1.2
12-Oct	0	0	1	1	1	0	1	1	0	1	1	1	A	0	1	1	0	1	0	0	1	1	1	0	0.6	0.9
13-Oct	1	1	1	1	1	1	1	1	1	1	2	A	1	1	1	1	1	1	0	0	0	1	0	1	0.7	2.4
14-Oct	1	1	1	1	1	1	1	0	1	1	A	1	0	1	1	1	0	1	1	1	1	1	1	1	0.7	1.3
15-Oct	2	1	2	1	1	1	3	1	1	A	1	1	1	0	1	1	0	1	1	1	1	0	1	2	1.1	2.7
16-Oct	2	1	1	3	4	4	2	1	A	1	1	1	1	1	1	1	1	1	2	2	1	1	1	2	1.5	4.4
17-Oct	2	1	1	2	2	1	1	A	1	1	2	19	1	1	1	1	1	1	1	1	1	1	1	1	1.9	19.3
18-Oct	1	1	1	0	1	1	A	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0.7	1.0
19-Oct	1	1	1	1	1	A	1	2	3	4	4	5	1	2	1	2	2	2	1	1	1	1	1	1	1.8	5.0
20-Oct	4	1	1	1	A	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1.0	3.5
21-Oct	0	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0.8	1.4
22-Oct	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.2
23-Oct	1	A	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	2.8
24-Oct	A	4	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1.1	3.9
25-Oct	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	1.2
26-Oct	2	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0	A	1	1	0.9	1.7
27-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.9	1.4
28-Oct	1	1	1	1	1	0	1	1	2	2	3	4	3	2	1	1	1	1	1	A	1	1	1	5	1.6	4.9
29-Oct	6	7	1	2	3	2	2	2	1	1	1	1	1	1	1	1	1	1	A	0	1	0	1	1	1.5	6.6
30-Oct	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0	1	1	0.7	0.9
31-Oct	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	1.5
	1.2	1.1	0.9	1.0	1.0	0.9	1.0	1.0	1.0	1.0	1.4	2.4	1.5	1.0	0.8	0.8	0.8	0.8	0.9	0.8	1.0	0.9	0.9	1.0	Diurnal Average	
	5.7	6.6	2.8	2.9	4.4	4.0	2.7	2.1	3.0	4.0	6.7	21.2	18.7	2.5	1.5	1.9	2.3	2.3	1.9	1.8	6.8	5.9	1.9	4.9	Diurnal Maximum	

C - Calibration

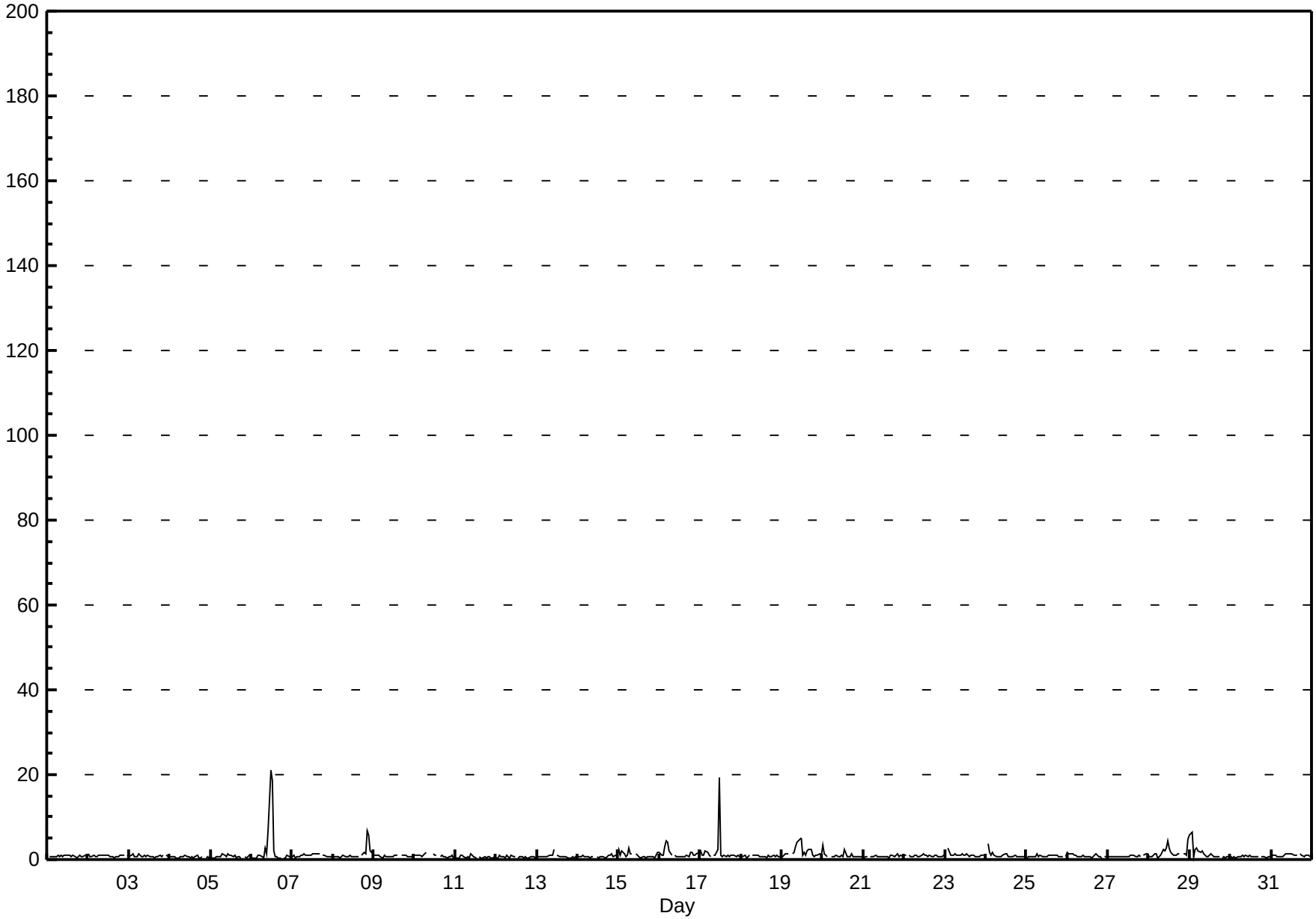
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

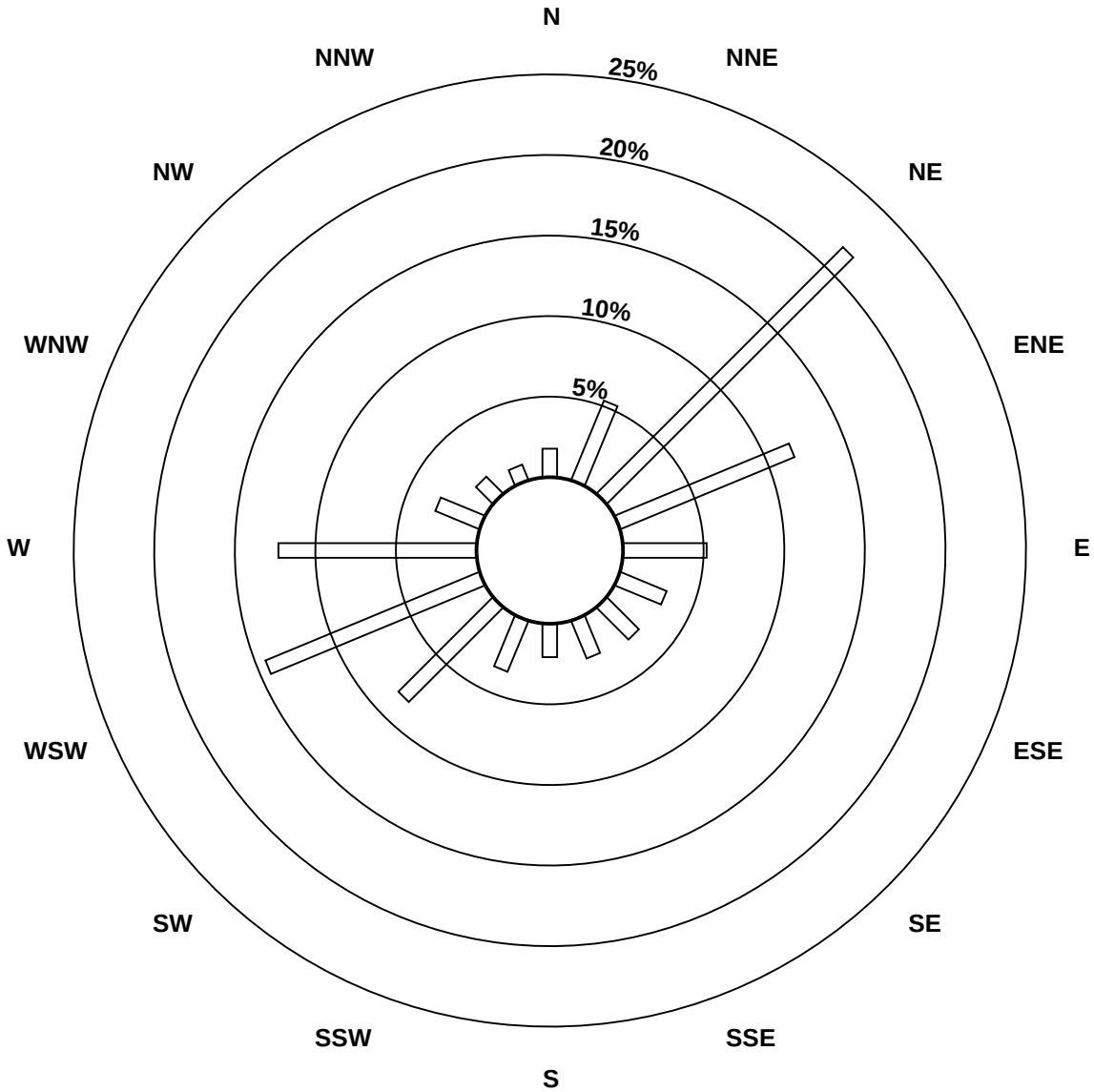
Portable Clairmont - October 2014



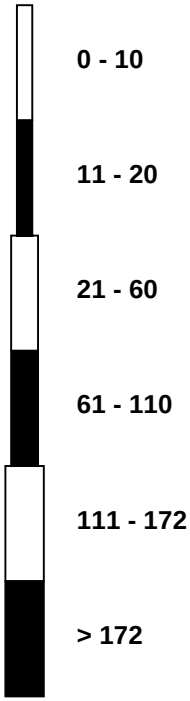
Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Portable Clairmont - October 2014



Pollutant Classes (ppb)

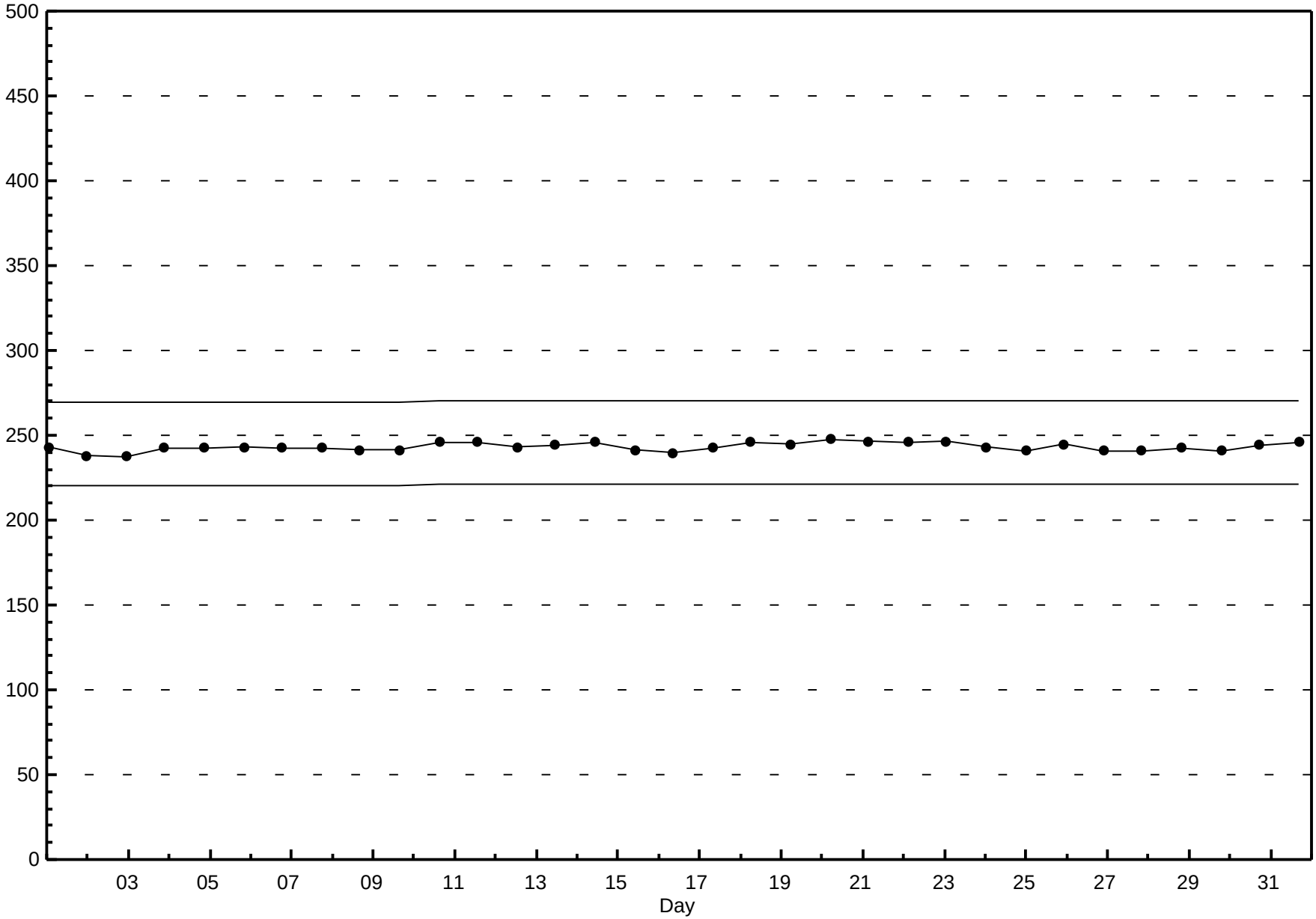


Peace Airshed Zone Association

Span Responses

Sulphur Dioxide (SO_2)

Portable Clairmont - October 2014



Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Portable Clairmont - October 2014

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

Maximum Value: 2.5 ppb on Oct 5 04:00 Maximum Daily Average: 0.7 ppb on Oct 5

Minimum Value: 0 ppb on Oct 13 16:00 Minimum Daily Average: 0.1 ppb on Oct 28

Maximum Diurnal Average: 0.5 ppb at hour 7 Minimum Diurnal Average: 0.3 ppb at hour 14

Monthly Average: 0.36 ppb Percentiles: $P_1 = 0.1$ $P_{10} = 0.2$ $Q_1 = 0.2$ Median = 0.3 $Q_3 = 0.4$ $P_{90} = 0.6$ $P_{99} = 1.4$

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-Oct	A	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.4	0.7
2-Oct	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
3-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	A	0	0	0.3	0.7
4-Oct	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	1	0	A	1	1	1	0.5	1.3
5-Oct	1	1	1	2	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	A	0	0	1	1	0.7	2.5
6-Oct	1	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.4	0.9
7-Oct	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	1	0	0.4	0.7
8-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.3	0.4
9-Oct	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
10-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.3	0.5
11-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.2	0.3
12-Oct	0	0	0	0	0	0	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.4	1.0
13-Oct	0	0	0	0	0	0	0	1	0	0	0	A	C	C	C	0	0	0	0	0	0	0	0	0	0.2	0.6
14-Oct	0	0	0	0	0	1	1	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.3
15-Oct	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
16-Oct	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0.4	0.5
17-Oct	0	0	0	0	0	0	0	A	0	0	0	1	0	0	0	0	0	1	1	1	2	2	2	1	0.7	2.4
18-Oct	1	1	1	1	1	1	A	1	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.5	1.2
19-Oct	0	0	0	1	1	A	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.1
20-Oct	0	0	1	1	A	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0.4	0.9
21-Oct	0	1	1	A	1	1	2	1	1	1	1	0	0	0	0	0	1	1	1	0	0	0	1	1	0.6	1.7
22-Oct	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0.4	0.7
23-Oct	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
24-Oct	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	A	0.3	0.5
25-Oct	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
26-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.2	0.4
27-Oct	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0.4	0.9
28-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.1	0.2
29-Oct	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
30-Oct	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
31-Oct	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	A	0	0	0	0	0	0	0	0.3	0.6
	0.4	0.3	0.4	0.4	0.4	0.4	0.5	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	Diurnal Average	
	1.2	1.1	1.0	2.5	1.1	1.4	1.7	1.2	1.3	1.4	0.8	0.7	0.4	0.4	0.5	0.6	0.7	0.9	0.9	1.0	2.0	2.4	1.6	1.2	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

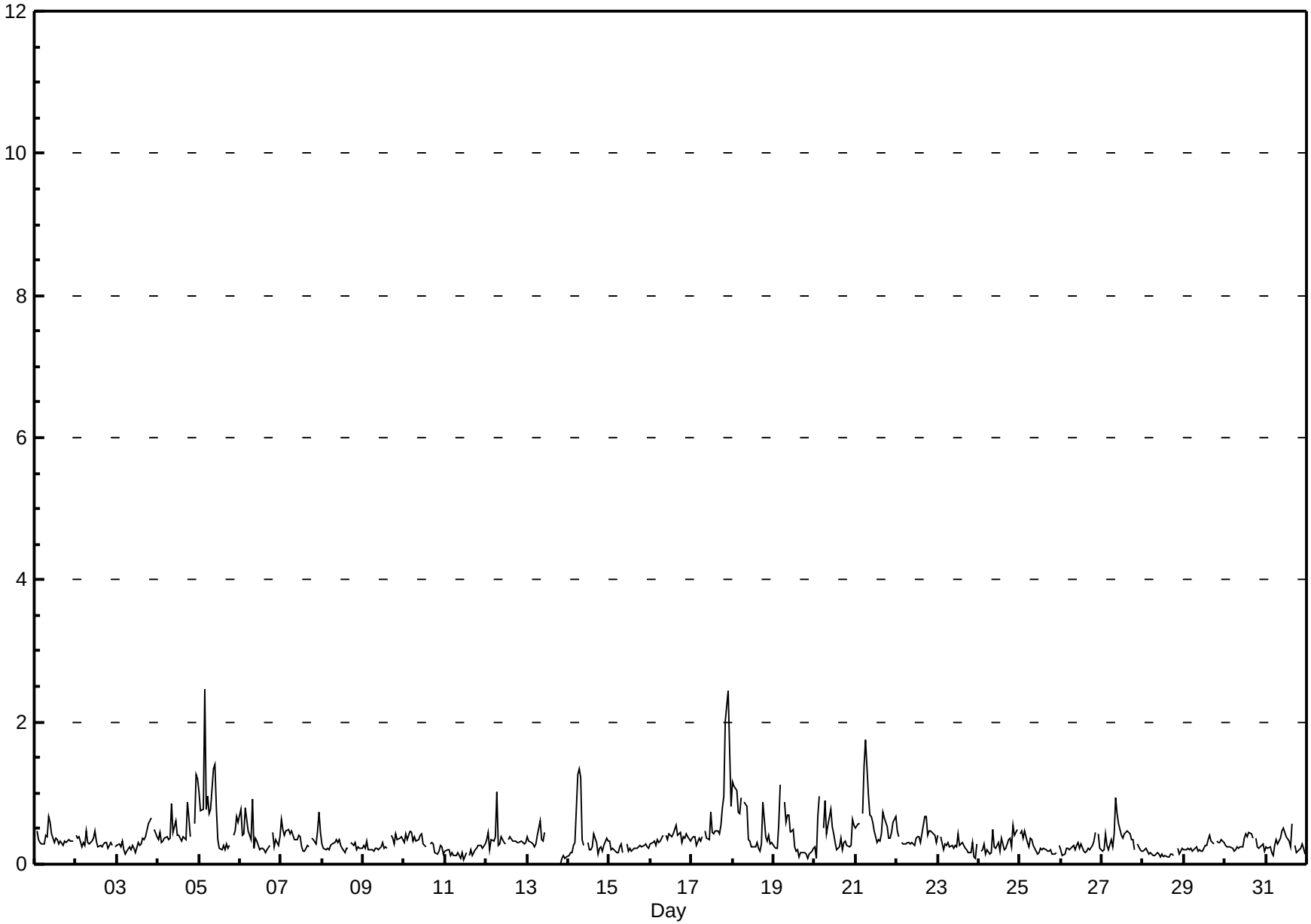
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb

Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Portable Clairmont - October 2014



Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

Portable Clairmont - October 2014

Maximum Value: 32.4 ppb on Oct 17 12:00

Maximum Daily Average: 3.0 ppb on Oct 17

Minimum Value: 0 ppb on Oct 13 19:00

Minimum Daily Average: 0.6 ppb on Oct 28

Maximum Diurnal Average: 1.9 ppb at hour 12

Minimum Diurnal Average: 0.8 ppb at hour 13

Monthly Average: 0.98 ppb

Percentiles: $P_1 = 0.5$ $P_{10} = 0.6$ $Q_1 = 0.7$ Median = 0.8 $Q_3 = 1.0$ $P_{90} = 1.3$ $P_{99} = 3.8$

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-Oct	A	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.9	1.7
2-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.8	1.1
3-Oct	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	1.1
4-Oct	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	2	1	1	A	1	2	2	1.2	2.0
5-Oct	2	1	2	4	2	1	1	1	3	3	2	1	1	1	1	1	1	1	1	A	1	1	1	1	1.4	3.8
6-Oct	1	1	1	2	2	2	1	2	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1.1	2.4
7-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0.9	1.3
8-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.7	0.9
9-Oct	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	1.1
10-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.9	1.3
11-Oct	1	1	1	1	1	1	0	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.7	0.8
12-Oct	1	1	1	1	1	2	2	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1.0	2.2
13-Oct	1	1	1	1	1	1	1	1	1	1	1	A	C	C	C	1	1	0	0	1	1	1	1	1	0.7	1.2
14-Oct	1	1	1	1	1	4	4	3	2	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	4.0
15-Oct	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
16-Oct	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.1
17-Oct	1	1	1	1	1	1	1	A	1	1	1	32	1	1	1	1	1	1	2	2	9	5	2	2	3.0	32.4
18-Oct	2	3	2	1	1	2	A	2	1	1	1	1	1	1	1	1	1	1	4	1	1	1	1	1	1.3	3.6
19-Oct	1	1	1	1	2	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.7
20-Oct	1	0	2	2	A	1	2	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	2.2
21-Oct	1	1	1	A	2	4	4	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.3	4.5
22-Oct	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1.0	1.9
23-Oct	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
24-Oct	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	A	0.9	1.7
25-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.7	1.1
26-Oct	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
27-Oct	1	1	1	1	1	1	1	2	2	2	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1.0	1.9
28-Oct	1	1	1	1	1	1	1	1	1	0	1	1	0	1	0	1	1	1	1	A	1	1	1	1	0.6	0.8
29-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.8	1.1
30-Oct	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
31-Oct	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	2	A	1	1	1	1	1	1	1	0.8	1.6
	0.9	0.9	0.9	1.0	0.9	1.1	1.2	1.1	1.0	1.0	0.9	1.9	0.8	0.8	0.8	0.9	0.8	0.9	1.0	0.9	1.1	1.0	1.0	0.9	Diurnal Average	
	2.0	3.4	2.4	3.8	1.9	3.8	4.5	3.1	3.0	2.7	1.6	32.4	1.1	1.1	1.1	1.8	1.9	1.7	3.6	1.6	9.3	4.9	2.4	1.8	Diurnal Maximum	

C - Calibration

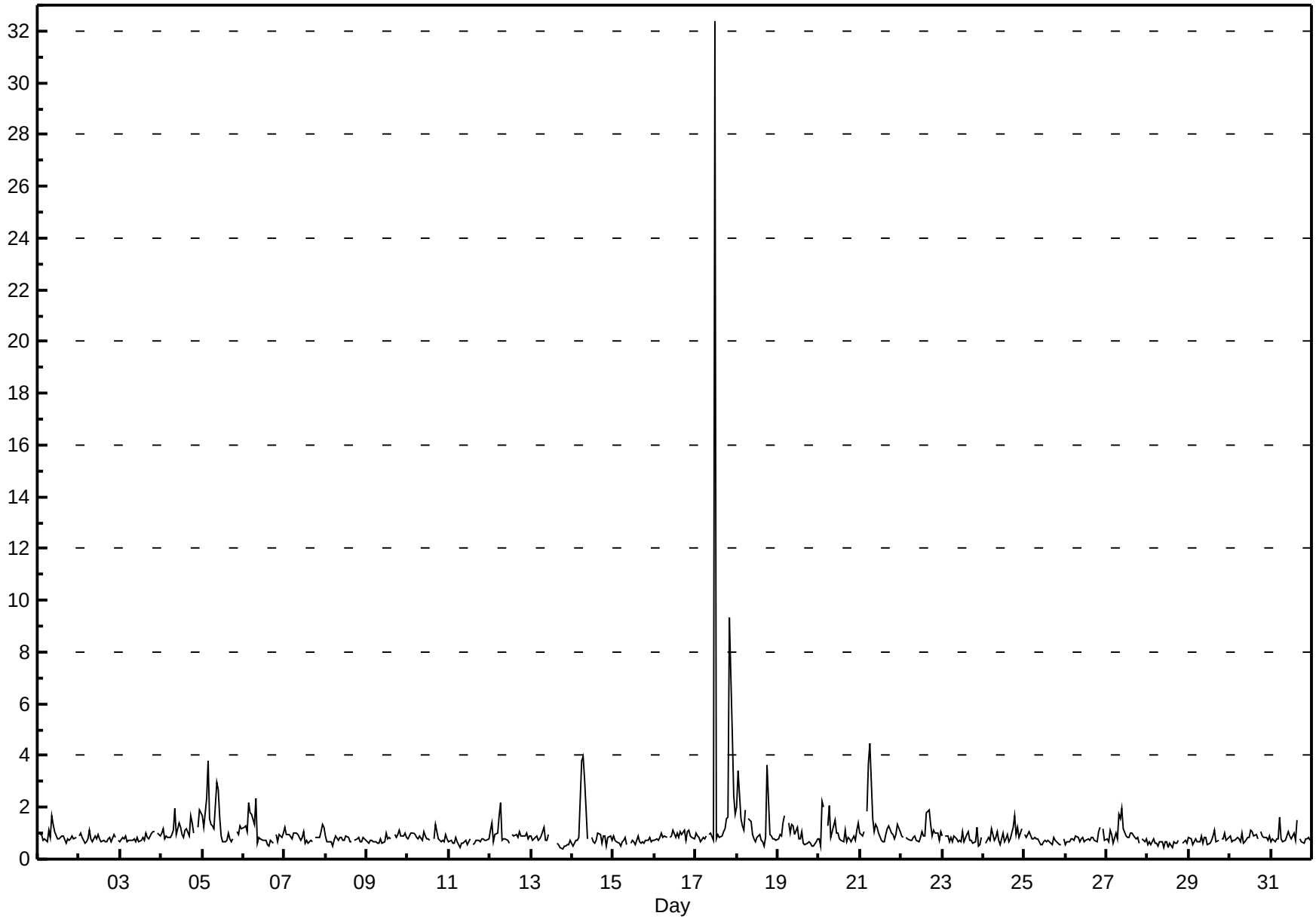
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

Portable Clairmont - October 2014

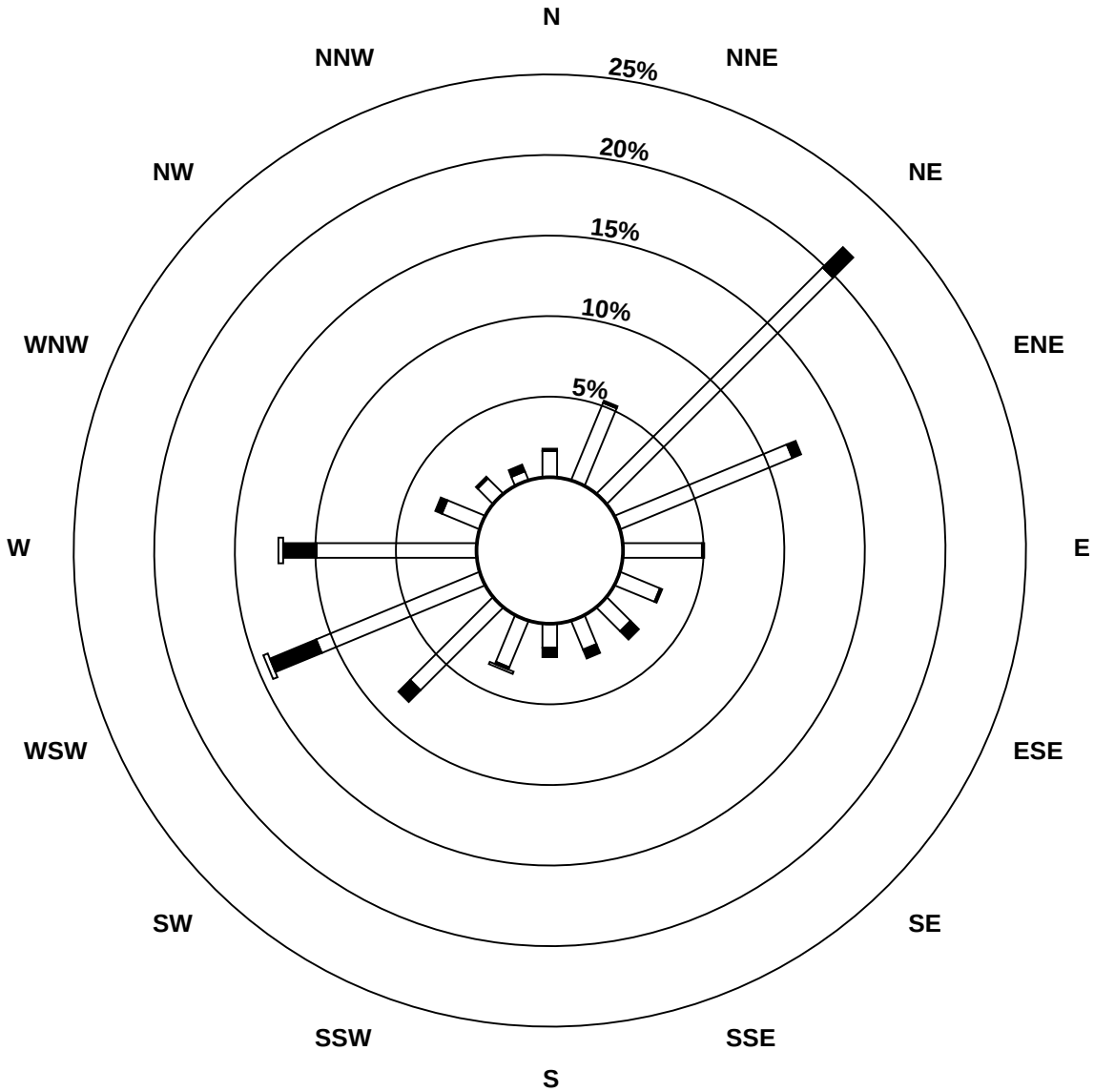


Peace Airshed Zone Association

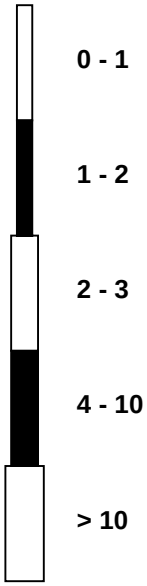
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb

Portable Clairmont - October 2014



Pollutant Classes (ppb)

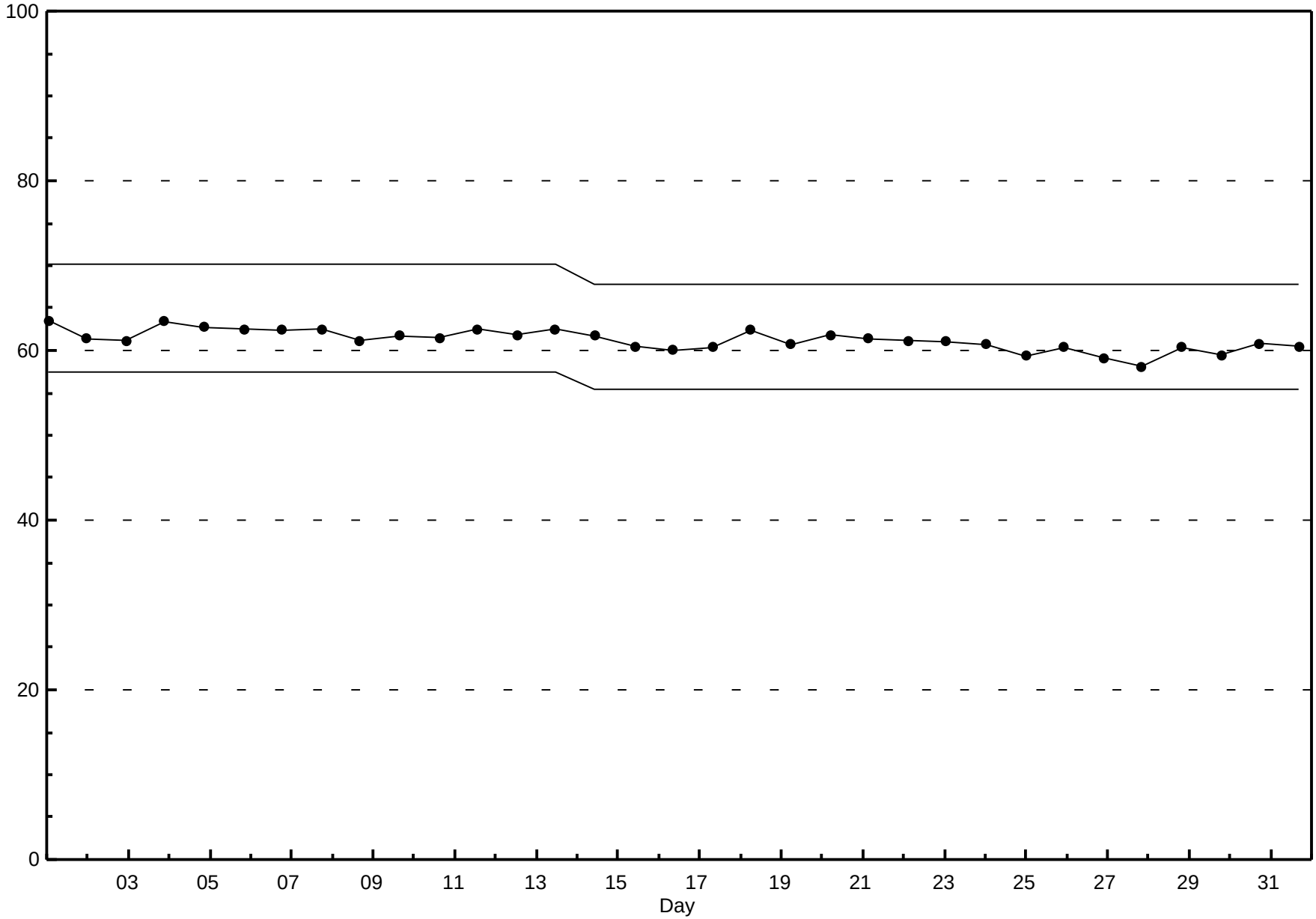


Peace Airshed Zone Association

Span Responses

Total Reduced Sulphur (TRS)

Portable Clairmont - October 2014



Peace Airshed Zone Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Portable Clairmont - October 2014

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

Maximum Value: 27.2 ppb on Oct 27 16:00

Maximum Daily Average: 13.8 ppb on Oct 20

Minimum Value: 1 ppb on Oct 25 21:00

Minimum Daily Average: 2.0 ppb on Oct 11

Maximum Diurnal Average: 8.4 ppb at hour 22

Minimum Diurnal Average: 4.3 ppb at hour 17

Monthly Average: 6.19 ppb

Percentiles: $P_1 = 0.6$ $P_{10} = 1.3$ $Q_1 = 2.5$ Median = 4.3 $Q_3 = 8.1$ $P_{90} = 14.8$ $P_{99} = 21.2$

Hours in Service:	744
Hours of Data:	706
Hours of Missing Data:	38
Hours of Calibration:	38
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Oct	A	5	4	5	3	2	4	5	4	2	2	2	1	1	1	1	1	1	1	1	2	3	3	A	2.5	5.1
2-Oct	3	3	3	3	8	6	6	7	5	3	2	1	1	1	1	1	1	2	7	4	6	3	A	4	3.4	7.9
3-Oct	4	4	5	5	4	4	4	4	3	3	3	3	2	2	3	11	7	13	20	13	13	A	9	4	6.3	20.1
4-Oct	2	1	1	4	8	8	8	9	10	3	2	2	1	1	1	1	1	1	3	4	A	13	17	15	5.0	16.5
5-Oct	15	16	11	12	14	16	13	16	13	7	4	5	2	1	3	3	4	5	6	A	17	12	17	9	9.7	17.4
6-Oct	7	7	5	5	2	3	5	5	3	3	1	1	1	1	1	1	1	2	A	6	4	3	4	4	3.3	6.8
7-Oct	6	8	9	10	16	7	21	12	4	4	4	3	3	1	2	2	2	A	6	6	9	10	9	8	7.0	20.8
8-Oct	4	4	4	5	6	10	17	14	16	11	4	2	1	1	2	2	A	3	4	4	5	4	4	3	5.7	17.2
9-Oct	3	3	3	2	2	3	2	4	3	2	3	3	2	4	8	A	7	6	10	12	13	8	8	9	5.3	12.5
10-Oct	6	8	7	8	7	6	6	6	C	C	C	C	C	15	A	7	3	2	2	3	2	3	1	2	5.3	14.6
11-Oct	1	1	1	1	1	4	3	4	1	3	5	2	1	A	2	1	1	1	1	2	3	2	2	2	2.0	4.6
12-Oct	2	1	1	2	2	3	3	2	2	1	1	1	A	2	1	1	1	1	2	4	10	12	10	8	3.2	11.9
13-Oct	9	7	7	13	15	11	15	16	7	6	8	A	4	3	2	2	3	5	3	2	3	3	3	3	6.5	15.9
14-Oct	4	7	9	8	13	9	8	6	3	3	A	3	2	2	2	2	2	4	7	6	3	8	10	3	5.3	13.1
15-Oct	2	1	1	2	1	2	4	3	1	A	1	2	2	1	1	1	1	2	3	8	7	2	1	1	2.2	7.8
16-Oct	1	1	1	1	2	2	5	11	A	7	6	6	7	4	3	4	4	5	4	4	4	3	3	3	4.0	10.5
17-Oct	3	3	3	3	4	4	5	A	5	5	5	4	7	7	5	5	8	16	20	16	14	13	12	11	7.8	20.2
18-Oct	9	10	8	8	8	9	A	10	12	10	4	2	1	2	2	2	3	7	22	14	15	18	6	5	8.1	21.9
19-Oct	5	6	6	5	4	A	4	3	4	4	4	5	5	5	3	3	4	5	5	4	5	11	7	6	4.9	10.7
20-Oct	5	6	8	13	A	17	14	16	18	11	17	18	13	7	17	21	4	18	13	18	12	21	17	16	13.8	20.7
21-Oct	13	17	17	A	16	19	16	19	18	15	17	16	10	14	13	9	8	12	11	6	7	11	8	6	13.0	19.4
22-Oct	5	6	A	5	4	4	3	4	4	5	6	8	13	23	4	6	5	11	20	23	22	13	5	5	8.8	23.4
23-Oct	3	A	5	3	3	3	2	2	1	2	2	8	5	4	5	5	5	4	4	4	4	4	6	5	3.8	8.1
24-Oct	A	5	4	4	5	8	12	13	15	14	9	5	3	1	1	1	2	4	8	5	16	17	18	A	7.7	17.6
25-Oct	14	17	16	15	15	11	10	7	7	4	3	4	3	2	3	2	2	1	1	1	1	1	A	1	6.1	17.3
26-Oct	1	1	1	1	1	1	1	1	2	4	2	1	2	4	2	3	4	5	4	3	2	A	3	3	2.2	5.0
27-Oct	3	4	3	4	8	15	18	20	17	10	7	12	15	19	24	27	26	25	21	12	A	11	8	6	13.7	27.2
28-Oct	5	6	5	4	4	4	3	4	3	3	1	1	2	1	2	2	2	1	3	A	5	4	4	3	3.2	6.1
29-Oct	3	3	4	3	2	3	3	4	3	3	2	3	4	4	5	6	7	6	A	7	6	7	7	8	4.5	7.5
30-Oct	8	7	7	6	6	7	7	8	5	4	4	4	4	5	6	5	6	A	8	6	6	5	5	6	5.9	8.0
31-Oct	6	6	5	5	5	8	9	9	13	14	16	12	12	10	10	15	A	15	18	21	20	19	15	4	11.4	20.7
	5.2	5.8	5.5	5.4	6.4	6.9	7.8	8.1	7.0	5.7	5.0	4.8	4.5	4.9	4.4	5.1	4.3	6.4	8.2	7.6	8.1	8.4	7.7	5.6	Diurnal Average	
	14.8	17.3	17.2	14.6	16.5	18.7	20.8	20.0	18.4	14.9	17.1	17.6	15.3	23.1	23.9	27.2	26.4	24.7	21.9	23.4	21.7	20.6	17.6	16.0	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

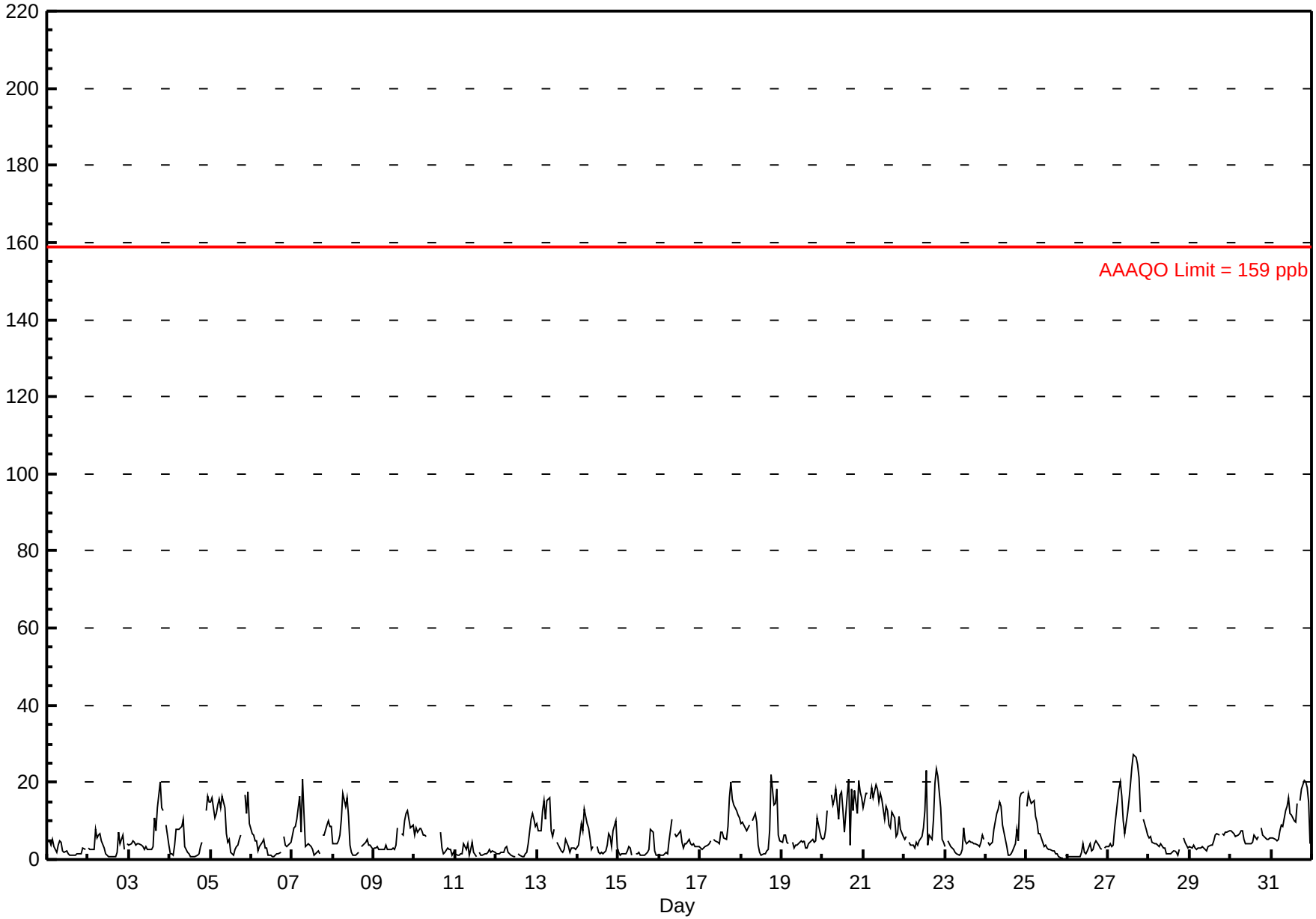
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb 24-hr 106 ppb

Peace Airshed Zone Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Portable Clairmont - October 2014



Peace Airshed Zone Association

Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

Portable Clairmont - October 2014

Maximum Value: 64.7 ppb on Oct 5 06:00

Maximum Daily Average: 22.0 ppb on Oct 20

Minimum Value: 1 ppb on Oct 26 05:00

Minimum Daily Average: 4.5 ppb on Oct 11

Maximum Diurnal Average: 16.0 ppb at hour 19

Minimum Diurnal Average: 7.5 ppb at hour 1

Monthly Average: 11.52 ppb

Percentiles: P_1 = 1.1 P_{10} = 3.0 Q_1 = 5.1 Median = 8.8 Q_3 = 16.2 P_{90} = 23.7 P_{99} = 39.4

Hours in Service:	744
Hours of Data:	706
Hours of Missing Data:	38
Hours of Calibration:	38
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Oct	A	6	5	14	6	7	8	10	7	8	5	10	6	3	2	3	4	3	6	5	3	4	4	A	5.8	13.7
2-Oct	4	5	4	4	17	13	16	12	11	8	3	2	10	2	2	2	6	8	32	10	48	14	A	5	10.3	47.5
3-Oct	4	5	6	5	5	5	7	11	4	4	7	8	9	9	11	15	20	19	27	19	17	A	17	18	10.9	27.2
4-Oct	2	3	3	9	13	13	11	12	18	7	3	13	1	2	2	2	2	3	8	9	A	21	21	24	8.8	23.7
5-Oct	17	21	12	15	18	65	34	29	26	17	7	10	6	2	5	9	12	19	17	A	24	24	20	17	18.6	64.7
6-Oct	13	10	6	8	12	6	7	13	5	6	3	3	2	3	4	3	3	3	A	10	8	8	6	8	6.5	12.9
7-Oct	11	12	14	15	21	19	52	31	8	12	9	24	29	13	6	25	15	A	15	12	22	22	27	11	18.5	52.3
8-Oct	7	7	7	13	12	17	20	23	22	16	8	4	4	2	10	4	A	8	8	25	13	7	5	3	10.8	25.0
9-Oct	4	7	4	3	3	4	7	19	3	7	31	16	6	7	13	A	14	19	14	23	18	12	12	12	11.2	31.3
10-Oct	9	11	10	16	19	8	14	10	C	C	C	C	C	19	A	13	6	3	3	6	5	5	4	8	9.5	19.4
11-Oct	3	3	2	3	3	9	6	10	3	12	10	4	4	A	3	2	2	4	3	3	6	3	3	3	4.5	11.7
12-Oct	3	3	3	5	3	23	5	3	3	10	2	1	A	3	2	2	2	4	4	9	19	18	15	17	6.9	23.2
13-Oct	12	11	11	20	24	15	22	25	10	7	13	A	7	10	5	2	23	13	5	6	5	4	3	3	11.1	24.6
14-Oct	6	9	12	10	18	14	10	10	4	22	A	5	4	3	3	3	4	7	16	12	10	12	16	5	9.4	22.1
15-Oct	3	2	2	3	2	24	6	6	8	A	4	8	3	4	46	11	7	5	6	11	12	6	2	1	7.8	46.2
16-Oct	4	2	2	2	3	4	26	17	A	12	8	8	9	13	9	29	10	11	5	5	14	7	4	6	9.0	29.5
17-Oct	4	3	4	4	4	16	14	A	8	11	28	32	42	10	12	8	20	20	30	22	19	15	13	13	15.3	41.8
18-Oct	14	11	11	10	10	13	A	12	15	13	7	4	3	6	6	8	5	13	30	26	22	21	18	7	12.4	30.3
19-Oct	10	16	11	6	5	A	7	4	13	7	9	8	7	8	4	5	17	30	8	13	12	16	9	7	10.1	30.0
20-Oct	7	7	16	19	A	28	22	21	23	15	23	23	19	10	51	31	7	33	30	33	17	24	22	25	22.0	51.3
21-Oct	16	23	22	A	19	30	24	31	25	20	31	24	13	16	23	17	21	29	24	15	18	20	11	8	21.0	31.3
22-Oct	6	7	A	6	4	9	9	21	5	7	8	28	19	38	6	11	9	29	30	30	28	21	7	10	15.1	38.4
23-Oct	4	A	6	4	4	5	4	15	2	3	6	11	11	5	6	6	12	10	5	7	5	6	8	7	6.6	15.2
24-Oct	A	11	4	9	6	19	21	17	22	26	12	7	7	2	2	4	5	6	20	11	26	23	25	A	12.9	26.2
25-Oct	17	26	17	16	19	17	16	9	10	7	7	6	9	6	11	4	8	3	35	1	4	1	A	2	10.8	35.4
26-Oct	1	1	1	2	1	1	1	1	5	11	4	3	8	11	3	6	8	7	11	6	3	A	4	5	4.6	11.3
27-Oct	5	20	6	6	18	24	23	35	25	15	9	20	19	23	31	53	32	26	25	21	A	12	9	7	20.1	53.3
28-Oct	6	7	5	5	5	5	9	22	6	22	7	5	3	5	14	11	6	4	11	A	17	5	4	7	8.4	22.3
29-Oct	7	9	5	4	3	14	14	12	13	9	10	7	10	5	32	22	15	9	A	10	14	9	8	14	11.2	31.6
30-Oct	8	7	7	7	8	8	14	16	7	6	28	8	6	6	16	10	15	A	9	8	17	6	6	11	10.2	28.3
31-Oct	12	6	6	6	10	10	18	10	15	18	25	19	14	13	12	25	A	34	22	26	24	21	23	7	16.3	33.7
	7.5	9.0	7.5	8.3	9.7	14.6	14.9	15.6	11.4	11.7	11.2	11.2	10.0	8.7	11.7	11.6	10.7	13.2	16.0	13.6	15.4	12.7	11.3	9.3	Diurnal Average	
	17.0	26.1	22.1	20.4	23.7	64.7	52.3	34.6	26.1	26.2	31.3	32.4	41.8	38.4	51.3	53.3	31.8	33.7	35.4	33.0	47.5	24.5	27.4	24.7	Diurnal Maximum	

C - Calibration

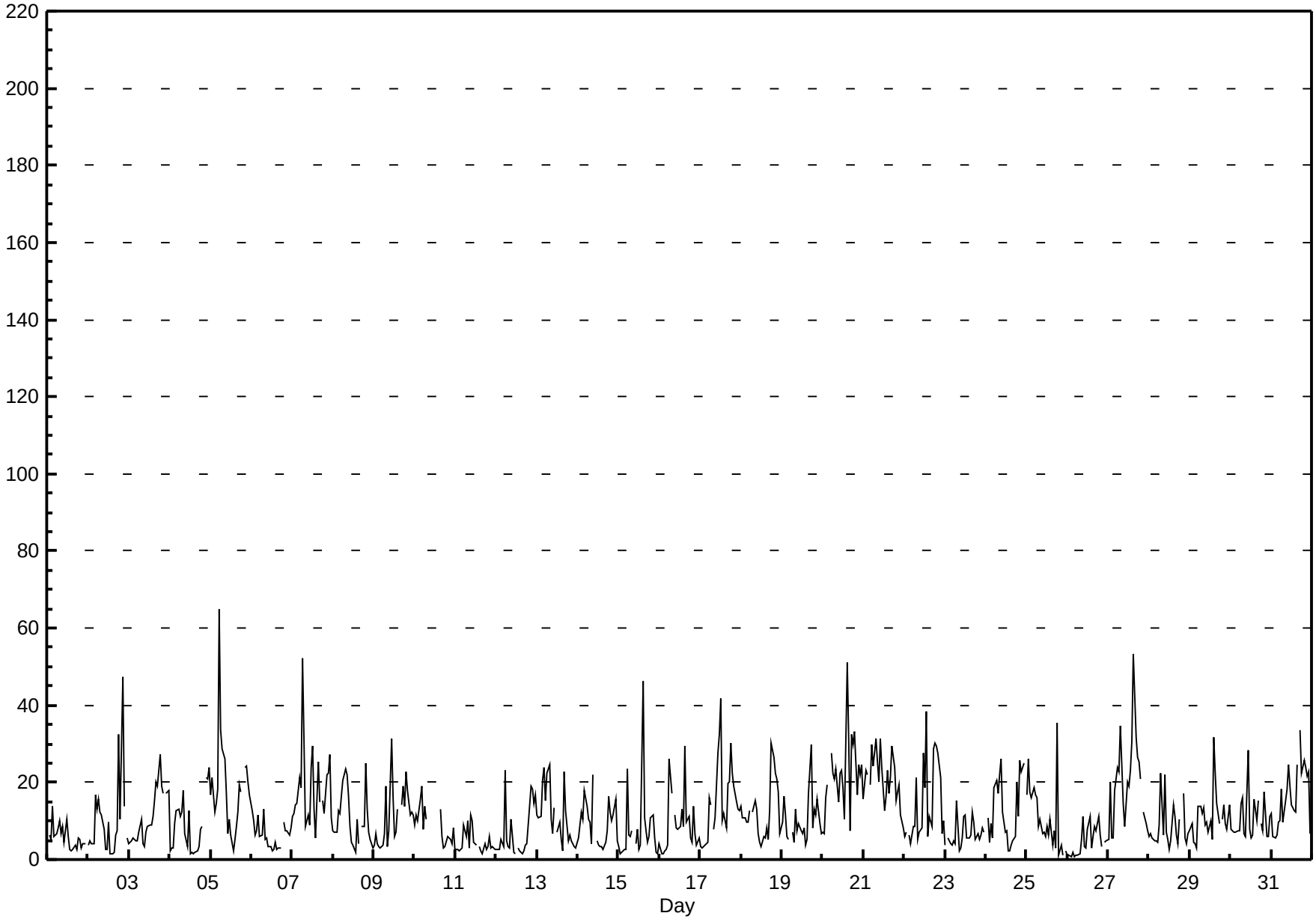
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

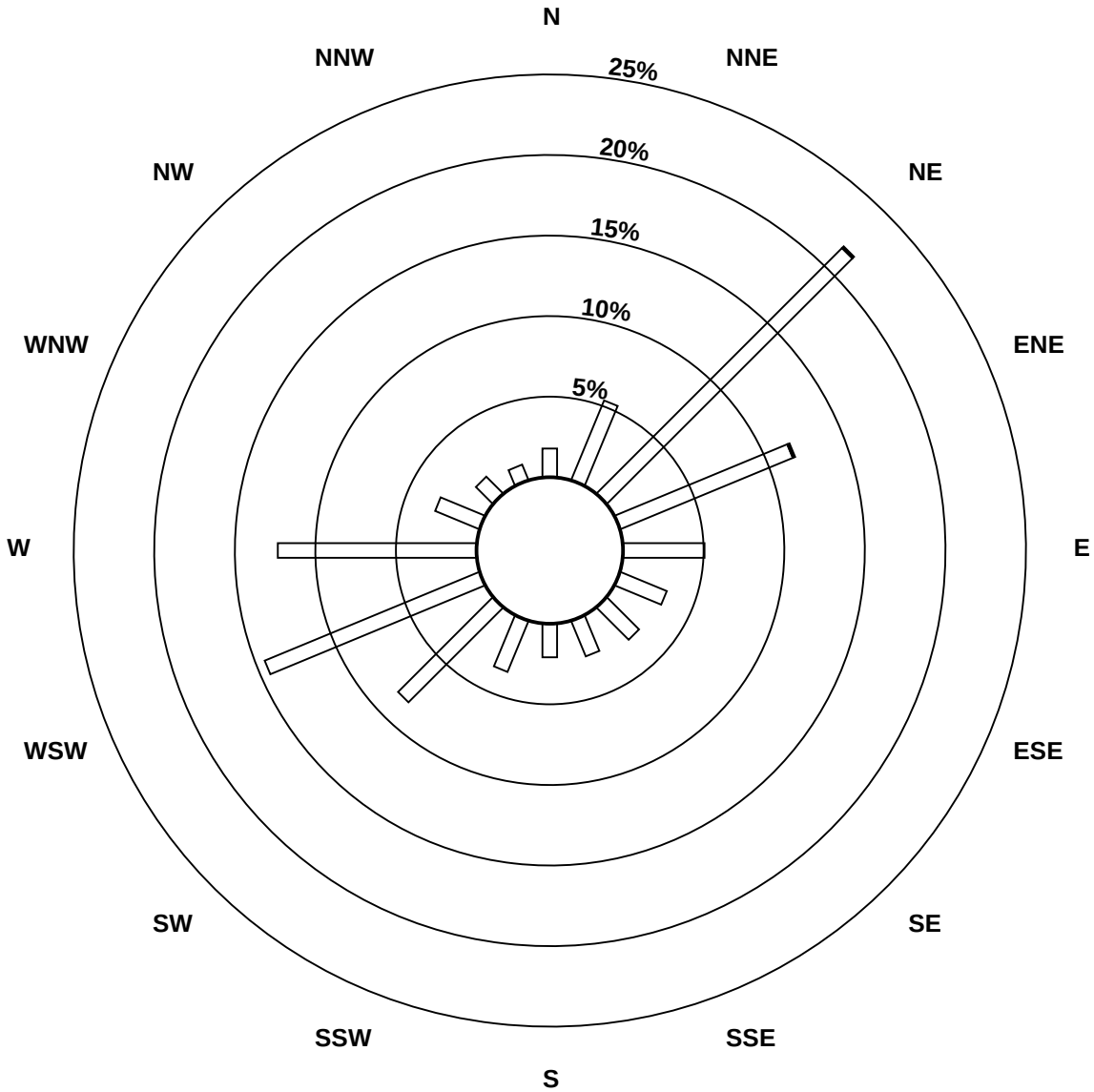
Portable Clairmont - October 2014



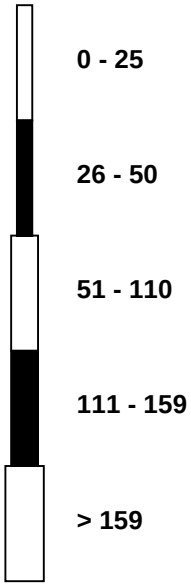
Pollutant Rose

Nitrogen Dioxide (NO_2) - ppb

Portable Clairmont - October 2014



Pollutant Classes (ppb)

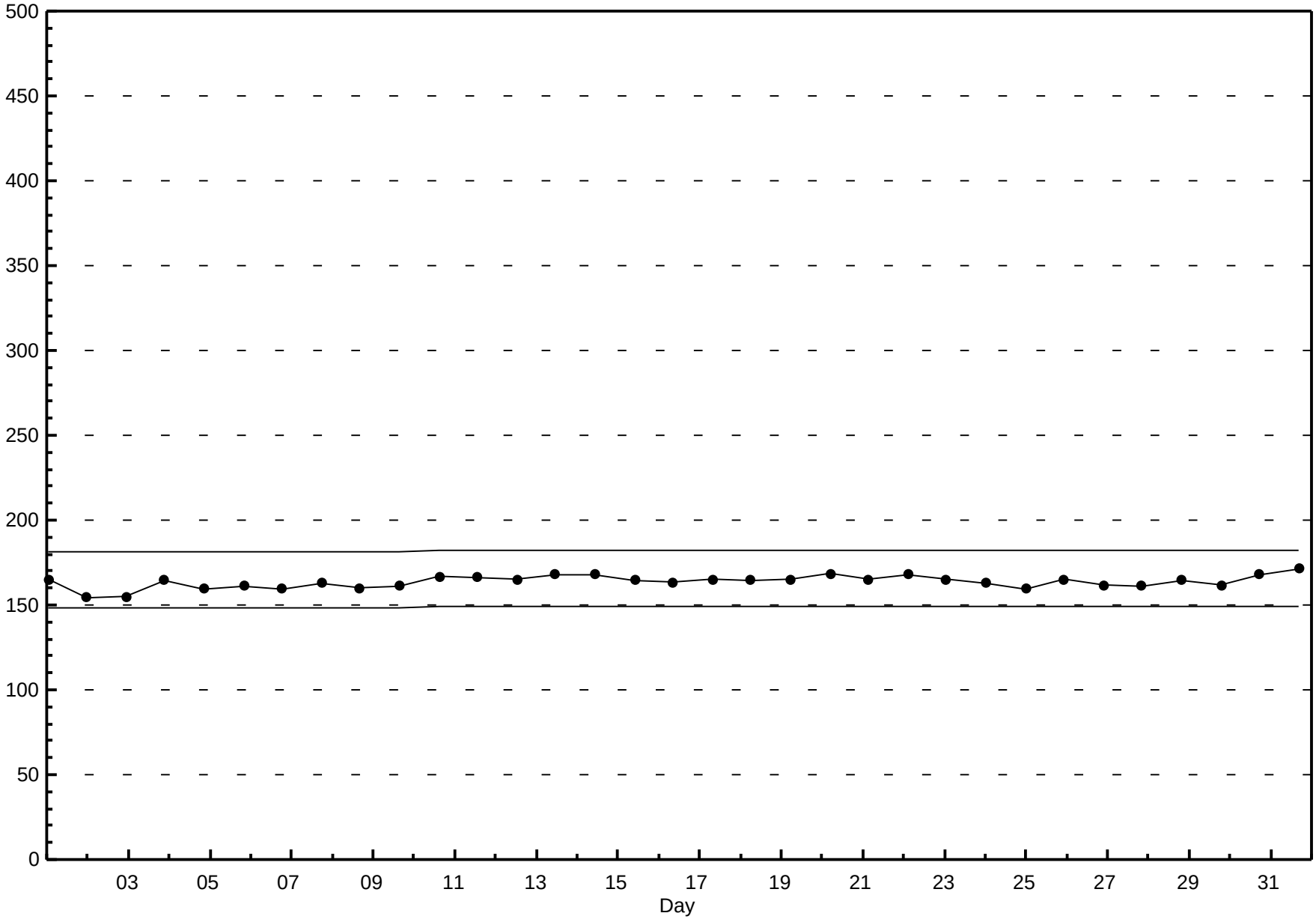


Peace Airshed Zone Association

Span Responses

Nitrogen Dioxide (NO_2)

Portable Clairmont - October 2014



Peace Airshed Zone Association

Hourly Averages

Nitrogen Oxide (NO) - ppb

Portable Clairmont - October 2014

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

Maximum Value: 61.4 ppb on Oct 31 11:00

Maximum Daily Average: 12.4 ppb on Oct 31

Minimum Value: 0 ppb on Oct 3 00:00

Minimum Daily Average: 0.5 ppb on Oct 12

Maximum Diurnal Average: 8.6 ppb at hour 9

Minimum Diurnal Average: 0.7 ppb at hour 1

Monthly Average: 3.38 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.1$ $Q_1 = 0.3$ Median = 0.9 $Q_3 = 2.6$ $P_{90} = 7.6$ $P_{99} = 40.9$

Hours in Service:	744
Hours of Data:	706
Hours of Missing Data:	38
Hours of Calibration:	38
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Oct	A	0	0	1	0	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	A	0.8	1.9
2-Oct	1	1	1	1	2	2	2	3	3	2	1	1	1	1	1	0	1	1	2	1	6	2	A	0	1.6	5.7
3-Oct	0	0	0	0	1	0	1	4	1	1	1	1	1	1	3	8	4	7	42	18	11	A	3	2	4.8	41.8
4-Oct	0	0	0	1	1	1	1	4	11	2	1	1	0	0	0	0	0	0	0	0	A	2	2	2	1.4	11.0
5-Oct	5	4	2	3	3	17	8	37	25	6	2	2	1	0	0	1	1	1	1	A	1	1	1	0	5.3	37.4
6-Oct	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	1	0	0	A	0	0	0	1	0	0.5	1.5
7-Oct	1	0	1	1	4	0	16	9	1	2	2	2	1	0	1	2	0	A	1	1	0	1	2	0	2.1	16.1
8-Oct	0	0	0	0	0	1	2	2	4	3	1	1	0	0	1	0	A	0	0	1	0	0	0	0	0.8	4.2
9-Oct	0	0	0	0	0	0	1	3	0	1	2	2	2	4	9	A	3	3	1	4	4	1	2	2	1.9	8.6
10-Oct	1	3	1	2	2	0	3	1	C	C	C	C	C	9	A	1	0	0	0	0	0	0	0	0	1.3	8.7
11-Oct	0	0	0	0	0	1	0	1	0	2	4	1	1	A	1	0	0	0	0	0	0	0	0	0	0.6	4.5
12-Oct	0	0	0	0	0	2	0	0	0	1	0	0	A	0	0	0	0	0	0	0	1	1	1	1	0.5	2.2
13-Oct	0	0	0	2	2	0	7	10	3	3	5	A	2	1	0	0	0	0	0	0	0	0	0	0	1.6	10.0
14-Oct	0	0	1	1	5	6	4	1	0	2	A	1	1	1	1	1	1	1	1	1	1	2	3	0	1.4	6.2
15-Oct	0	0	0	0	0	0	1	1	0	A	1	1	1	1	2	1	2	1	1	1	2	0	0	0	0.8	1.6
16-Oct	0	0	0	0	0	1	3	14	A	6	6	7	10	5	6	5	2	1	0	1	1	1	0	0	3.0	14.0
17-Oct	0	0	0	0	0	0	1	A	1	2	3	3	6	6	4	3	4	6	38	40	20	14	13	6	7.4	39.8
18-Oct	7	6	9	12	15	31	A	43	60	12	2	1	0	0	1	1	0	1	3	2	3	2	0	0	9.3	59.6
19-Oct	1	1	0	0	0	A	0	1	1	1	1	2	3	2	2	2	3	2	2	2	2	2	2	2	1.4	2.6
20-Oct	0	0	0	1	A	11	12	16	14	8	28	24	8	3	9	11	0	4	1	2	0	1	1	2	6.9	27.6
21-Oct	1	9	9	A	7	22	15	21	25	21	25	20	7	6	6	3	2	1	2	1	1	1	0	0	9.0	25.5
22-Oct	0	0	A	0	0	0	1	2	1	1	2	3	5	10	1	1	1	1	4	5	9	3	0	0	2.2	10.3
23-Oct	0	A	0	0	0	0	1	3	0	0	1	2	2	1	2	2	3	2	1	2	1	2	3	2	1.3	3.0
24-Oct	A	2	1	3	2	5	14	19	43	21	5	2	2	1	1	1	1	1	2	1	5	4	4	A	6.4	43.4
25-Oct	3	14	6	3	6	1	0	0	1	1	1	1	1	0	1	0	0	0	0	0	0	0	A	0	1.8	14.3
26-Oct	0	0	0	0	0	0	0	0	1	1	1	1	1	3	1	1	2	2	2	1	1	A	1	1	0.9	3.2
27-Oct	1	1	1	1	2	3	7	13	11	11	9	22	32	36	41	36	25	10	1	0	A	0	0	0	11.5	41.2
28-Oct	0	0	0	0	0	0	1	2	1	1	2	1	1	1	2	1	1	2	1	A	0	0	0	1	0.9	2.5
29-Oct	0	0	0	0	0	0	1	3	1	2	2	5	4	3	7	5	4	2	A	1	0	0	0	0	1.8	6.5
30-Oct	0	0	1	2	4	4	2	2	2	4	6	7	7	7	8	5	2	A	0	0	0	0	0	0	2.8	7.6
31-Oct	0	0	0	0	1	4	7	5	35	55	61	39	27	11	5	8	A	3	3	4	4	7	5	0	12.4	61.4
	0.7	1.5	1.2	1.1	2.0	3.9	3.8	7.4	8.6	6.0	6.1	5.3	4.4	3.9	3.9	3.4	2.3	2.0	3.9	3.2	2.6	1.7	1.6	0.8	Diurnal Average	
	7.4	14.3	9.4	12.1	15.5	31.2	16.1	43.3	59.6	54.8	61.4	39.4	31.8	36.1	41.2	36.3	24.8	10.3	41.8	39.8	20.5	14.2	13.1	5.5	Diurnal Maximum	

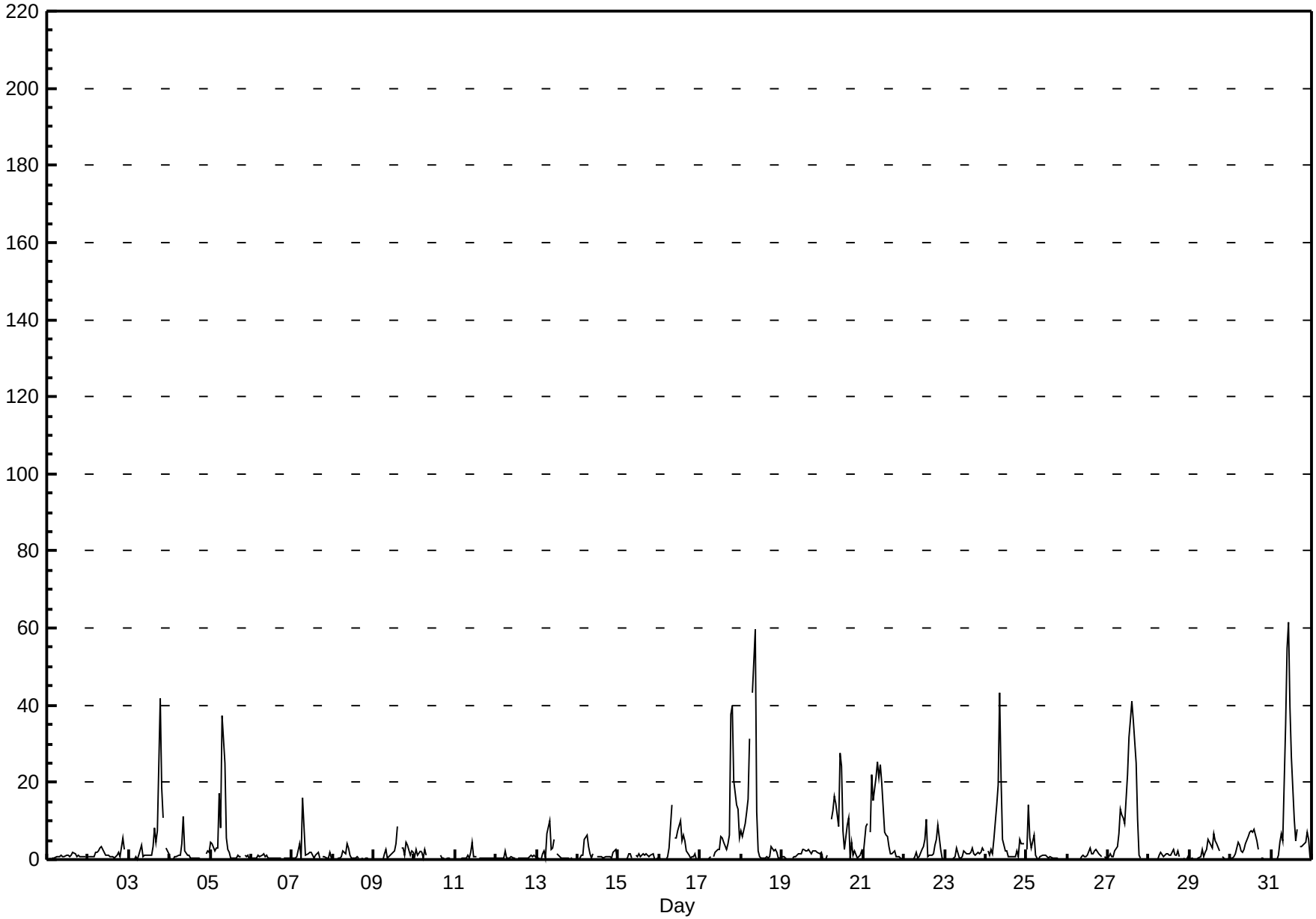
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Nitrogen Oxide (NO) - ppb

Portable Clairmont - October 2014



Peace Airshed Zone Association

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Portable Clairmont - October 2014

Maximum Value: 132.9 ppb on Oct 5 08:00

Maximum Daily Average: 28.2 ppb on Oct 5

Minimum Value: 0 ppb on Oct 20 01:00

Minimum Daily Average: 2.3 ppb on Oct 11

Maximum Diurnal Average: 27.3 ppb at hour 8

Minimum Diurnal Average: 3.7 ppb at hour 3

Monthly Average: 13.54 ppb

Percentiles: $P_1 = 0.2$ $P_{10} = 0.6$ $Q_1 = 1.8$ Median = 6.0 $Q_3 = 17.7$ $P_{90} = 37.4$ $P_{99} = 88.0$

Hours in Service:	744
Hours of Data:	706
Hours of Missing Data:	38
Hours of Calibration:	38
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Oct	A	1	0	11	1	5	3	4	3	4	3	12	5	4	3	4	4	3	4	4	2	3	3	A	3.9	12.2
2-Oct	2	3	3	3	8	7	12	10	9	12	4	2	20	2	1	1	11	18	40	12	78	116	A	0	16.3	115.8
3-Oct	0	0	2	0	34	5	19	28	4	5	3	2	7	7	17	18	26	24	70	65	75	A	117	37	24.7	117.0
4-Oct	0	1	1	2	3	3	2	10	40	5	3	14	1	1	1	1	1	1	1	1	A	9	18	29	6.4	39.6
5-Oct	43	34	6	12	7	88	107	133	82	30	4	5	4	1	2	3	23	10	12	A	8	16	18	0	28.2	132.9
6-Oct	1	1	1	1	30	2	3	12	2	3	2	3	1	1	3	1	1	1	A	1	1	3	4	3	3.5	30.1
7-Oct	5	1	2	3	15	3	74	56	21	9	10	16	6	2	9	23	4	A	5	10	8	8	34	1	14.1	73.7
8-Oct	1	0	0	1	1	3	8	5	9	6	8	2	2	1	12	1	A	6	2	23	7	1	1	0	4.4	23.2
9-Oct	0	4	0	0	2	1	24	19	1	7	15	21	6	9	16	A	38	51	9	88	20	11	10	7	15.7	88.2
10-Oct	10	45	14	16	35	2	25	25	C	C	C	C	C	21	A	2	1	1	1	1	4	1	0	3	11.4	45.1
11-Oct	0	1	0	0	1	2	1	2	1	9	13	3	3	A	1	1	1	3	1	6	1	1	1	1	2.3	13.0
12-Oct	1	1	2	2	1	55	1	1	1	17	1	1	A	1	1	1	1	1	1	1	20	20	13	20	7.1	54.9
13-Oct	1	4	4	7	17	2	19	27	5	5	12	A	4	14	1	1	8	8	9	8	7	1	1	1	7.2	26.7
14-Oct	1	1	3	10	27	19	9	5	2	38	A	2	2	2	2	1	2	1	7	23	8	17	15	0	8.5	38.2
15-Oct	0	0	0	1	1	16	8	5	4	A	22	4	4	7	16	26	15	6	3	3	10	2	2	12	7.3	25.5
16-Oct	10	0	0	0	0	27	29	52	A	15	10	13	17	14	29	44	7	6	6	17	23	68	0	4	17.1	68.4
17-Oct	0	0	0	0	0	8	8	A	2	9	11	32	79	24	21	8	59	17	86	79	37	20	18	9	23.1	86.0
18-Oct	19	8	13	19	25	41	A	58	88	42	5	2	1	3	2	6	3	1	15	30	20	7	3	12	18.4	87.6
19-Oct	14	9	4	1	0	A	5	22	6	6	21	5	33	9	8	23	45	13	42	21	28	7	3	7	14.5	44.7
20-Oct	0	0	1	3	A	39	35	39	39	16	46	62	16	6	33	42	1	35	17	16	1	6	9	39	21.8	62.0
21-Oct	2	15	25	A	15	64	25	100	65	55	55	30	11	10	45	17	15	8	12	15	18	20	3	0	27.3	99.7
22-Oct	0	0	A	0	0	4	9	20	1	3	19	16	20	40	2	2	2	16	20	25	28	9	7	3	10.8	39.8
23-Oct	0	A	0	0	0	18	24	29	4	1	5	8	15	3	3	4	37	12	4	15	4	5	6	8	9.0	37.4
24-Oct	A	31	4	46	6	14	27	48	60	64	8	4	6	1	1	1	2	1	33	4	29	11	15	A	19.0	63.9
25-Oct	8	31	14	7	22	15	11	3	6	14	14	4	2	2	12	4	3	5	9	2	3	1	A	1	8.4	30.7
26-Oct	1	0	0	5	0	0	4	0	6	3	2	2	4	26	3	4	7	5	6	3	2	A	1	2	3.8	25.6
27-Oct	2	28	3	4	28	12	13	45	23	27	14	62	53	49	67	62	35	23	7	3	A	2	0	2	24.5	66.6
28-Oct	0	0	5	0	0	7	23	17	9	5	26	9	4	3	21	23	13	76	25	A	9	4	0	42	14.1	76.1
29-Oct	5	18	0	0	5	6	21	28	11	14	23	20	10	5	30	14	46	22	A	5	5	3	2	3	12.9	46.4
30-Oct	2	0	2	3	6	15	10	8	6	13	13	13	11	11	20	24	8	A	5	18	3	0	0	2	8.4	23.8
31-Oct	6	0	0	1	9	9	40	10	60	63	70	50	43	24	9	44	A	37	13	20	18	42	21	1	25.6	70.4
	4.7	8.0	3.7	5.3	10.1	16.5	19.9	27.3	19.6	17.3	15.2	14.5	13.4	10.0	13.0	13.6	14.5	14.2	16.1	18.0	16.5	14.3	11.2	8.6	Diurnal Average	
	43.2	45.1	24.6	45.5	35.1	88.0	106.9	132.9	87.6	63.9	70.4	62.0	79.2	48.8	66.6	61.6	58.8	76.1	86.0	88.2	77.6	115.8	117.0	41.6	Diurnal Maximum	

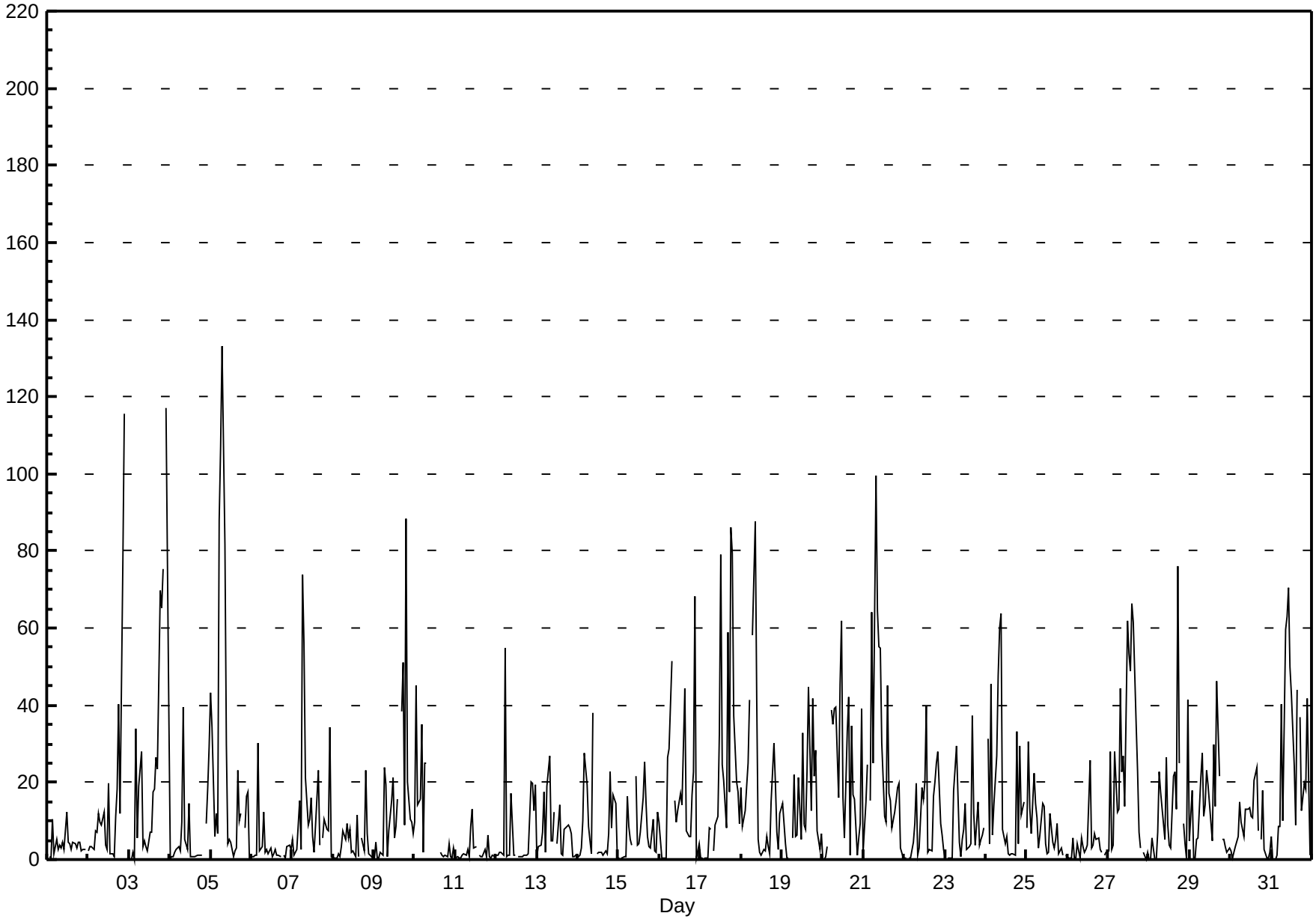
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Portable Clairmont - October 2014



Peace Airshed Zone Association

Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Portable Clairmont - October 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 77.3 ppb on Oct 31 11:00 Maximum Daily Average: 25.4 ppb on Oct 27

Minimum Value: 1 ppb on Oct 25 22:00 Minimum Daily Average: 2.5 ppb on Oct 11
Maximum Diurnal Average: 15.6 ppb at hour 9 Minimum Diurnal Average: 6.0 ppb at hour 1
Monthly Average: 9.61 ppb Percentiles: $P_1 = 0.8$ $P_{10} = 1.8$ $Q_1 = 3.1$ Median = 5.6 $Q_3 = 11.2$ $P_{90} = 22.1$ $P_{99} = 56.4$

Hours in Service:	744
Hours of Data:	706
Hours of Missing Data:	38
Hours of Calibration:	38
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Oct	A	5	4	6	4	2	4	6	6	3	3	3	3	2	2	3	2	2	2	2	2	3	3	A	3.3	5.8
2-Oct	4	3	4	3	10	8	9	10	8	5	3	3	2	1	1	1	2	3	9	5	12	5	A	4	5.0	12.1
3-Oct	4	4	5	5	4	4	5	7	4	4	4	4	3	4	7	19	12	21	62	32	24	A	12	5	11.1	62.1
4-Oct	2	1	1	4	9	9	9	13	21	6	3	2	1	1	1	1	1	2	3	5	A	14	19	17	6.4	21.5
5-Oct	20	21	13	15	17	33	22	54	38	12	7	7	2	1	3	4	5	6	7	A	18	13	19	9	15.1	53.9
6-Oct	7	7	5	5	3	4	6	7	4	4	2	1	1	1	1	2	2	2	A	6	4	3	5	5	3.8	7.0
7-Oct	7	9	9	11	21	8	37	21	5	6	6	5	4	2	3	4	2	A	7	7	9	11	11	9	9.1	37.1
8-Oct	4	4	4	5	6	11	20	15	20	14	5	2	2	1	2	2	A	4	4	5	6	4	4	3	6.5	20.3
9-Oct	3	3	3	2	3	3	4	6	3	3	4	5	5	8	17	A	10	9	11	17	16	9	11	11	7.2	16.8
10-Oct	7	11	8	10	9	7	9	7	C	C	C	C	C	24	A	8	3	2	2	3	3	3	1	2	6.7	23.6
11-Oct	1	1	1	2	2	5	3	5	2	4	9	3	1	A	2	2	1	2	2	2	3	2	2	2	2.5	9.1
12-Oct	2	2	2	2	2	5	4	2	2	2	1	1	A	2	1	1	1	2	2	4	12	13	11	9	3.7	12.6
13-Oct	10	8	8	14	17	11	22	26	10	9	13	A	6	4	3	2	3	6	4	2	3	3	3	3	8.2	26.0
14-Oct	4	7	10	9	19	16	12	7	3	5	A	4	3	2	2	2	3	4	7	7	4	10	13	3	6.8	18.6
15-Oct	2	1	1	2	1	3	5	5	1	A	3	2	3	2	3	3	3	3	3	9	9	3	1	1	3.0	9.0
16-Oct	1	1	1	2	2	2	8	25	A	12	12	14	18	9	9	9	7	6	5	4	5	5	4	3	7.1	24.7
17-Oct	3	3	3	3	4	4	6	A	6	7	7	6	13	13	10	8	13	23	58	56	35	27	25	17	15.2	58.3
18-Oct	17	16	18	20	24	40	A	54	72	22	6	2	2	2	2	3	3	8	26	17	17	21	7	5	17.5	71.6
19-Oct	5	7	6	5	4	A	5	4	4	5	6	6	7	7	5	5	7	7	7	7	7	13	9	7	6.3	12.8
20-Oct	5	6	8	14	A	28	27	32	33	19	44	42	20	10	26	32	4	23	14	20	13	21	19	18	20.8	44.3
21-Oct	14	26	27	A	23	41	31	41	44	36	42	35	18	20	19	13	10	14	13	7	7	12	8	6	22.0	43.9
22-Oct	5	6	A	5	4	4	4	6	4	6	8	12	18	34	4	7	6	12	24	29	31	16	6	5	11.2	33.7
23-Oct	3	A	5	3	3	3	3	5	2	2	3	11	7	5	6	7	8	6	5	6	5	6	9	8	5.2	10.6
24-Oct	A	7	5	7	6	13	26	33	58	35	14	7	6	2	2	2	3	5	10	6	22	21	22	A	14.2	58.4
25-Oct	17	32	21	18	22	13	10	7	7	6	5	5	3	3	3	3	3	2	2	1	1	1	A	1	8.0	31.8
26-Oct	1	1	1	1	1	1	1	1	3	5	3	2	3	7	4	4	7	8	6	4	3	A	4	4	3.1	7.5
27-Oct	4	5	4	5	11	18	25	33	28	21	16	34	47	55	65	64	51	35	23	13	A	11	8	7	25.4	65.3
28-Oct	5	6	5	4	4	4	4	6	4	4	3	3	3	3	5	3	3	3	3	A	6	5	4	4	4.1	6.2
29-Oct	3	3	4	3	3	3	4	6	4	4	5	9	7	7	12	11	11	9	A	8	7	7	7	8	6.3	11.5
30-Oct	8	7	7	8	11	11	10	10	8	8	10	11	12	12	14	10	8	A	8	6	6	5	5	6	8.7	14.0
31-Oct	6	5	5	5	6	12	16	14	47	69	77	51	38	21	15	22	A	19	22	25	25	26	20	4	24.0	77.3
	6.0	7.3	6.6	6.6	8.5	10.9	11.7	15.5	15.6	11.6	11.1	10.1	8.9	8.8	8.3	8.6	6.6	8.4	12.2	10.8	10.8	10.1	9.3	6.4	Diurnal Average	
	19.6	31.8	26.6	19.9	23.7	40.7	37.1	53.9	71.6	68.6	77.3	51.4	47.2	55.5	65.3	63.7	51.5	35.3	62.1	55.7	35.0	27.1	24.8	18.5	Diurnal Maximum	

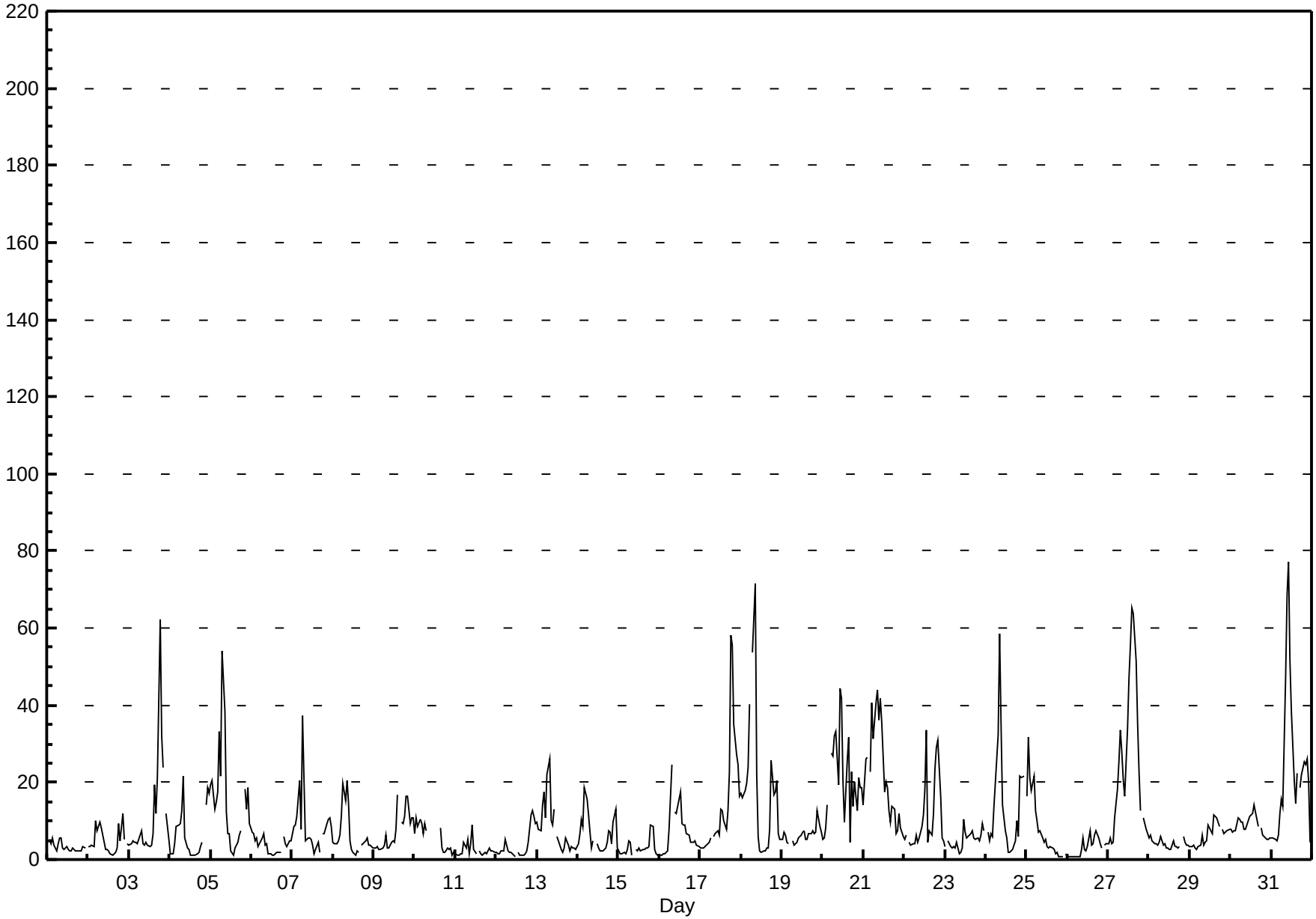
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Portable Clairmont - October 2014



Peace Airshed Zone Association

Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

Portable Clairmont - October 2014

Maximum Value: 162.5 ppb on Oct 5 08:00

Maximum Daily Average: 44.4 ppb on Oct 21

Minimum Value: 1 ppb on Oct 26 05:00

Minimum Daily Average: 6.0 ppb on Oct 11

Maximum Diurnal Average: 39.9 ppb at hour 8

Minimum Diurnal Average: 10.5 ppb at hour 3

Monthly Average: 22.64 ppb

Percentiles: P_1 = 1.6 P_{10} = 3.8 Q_1 = 6.7 Median = 14.6 Q_3 = 29.8 P_{90} = 54.0 P_{99} = 119.8

Hours in Service:	744
Hours of Data:	706
Hours of Missing Data:	38
Hours of Calibration:	38
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Oct	A	7	5	24	7	12	11	14	9	13	7	22	10	5	5	7	7	6	10	9	4	6	6	A	9.4	24.5
2-Oct	6	8	7	7	24	20	28	22	20	20	6	5	30	3	3	3	12	13	68	16	126	93	A	6	23.7	125.8
3-Oct	4	5	7	5	19	5	10	26	6	5	10	10	11	15	21	31	35	42	97	78	75	A	129	55	30.6	128.8
4-Oct	2	3	3	11	15	17	14	22	56	12	6	27	2	3	2	3	3	4	9	9	A	28	26	48	14.1	55.7
5-Oct	57	51	18	25	25	136	135	163	105	47	10	16	11	3	7	11	22	29	28	A	32	33	33	17	44.0	162.5
6-Oct	14	11	7	9	40	7	10	25	7	8	5	6	3	4	7	4	4	4	A	11	8	11	10	11	9.7	40.1
7-Oct	13	13	16	17	35	21	121	87	26	21	16	32	35	15	11	49	19	A	21	17	23	26	62	11	30.7	120.7
8-Oct	8	8	7	13	12	18	26	29	31	21	15	5	6	3	21	5	A	12	9	44	15	8	5	3	14.2	43.8
9-Oct	4	11	4	3	3	4	20	29	4	9	47	26	11	16	28	A	47	38	22	107	38	20	20	18	23.0	106.7
10-Oct	19	54	23	30	52	9	38	26	C	C	C	C	C	29	A	15	7	4	4	6	10	6	5	11	19.4	53.6
11-Oct	3	3	2	3	3	10	6	13	4	15	20	7	7	A	4	3	2	7	3	4	6	3	4	3	6.0	19.7
12-Oct	4	3	4	6	4	73	5	4	4	26	3	2	A	4	3	2	4	4	5	9	36	34	20	36	12.8	72.7
13-Oct	12	14	15	27	40	16	42	52	15	11	22	A	10	21	6	3	26	20	6	7	5	5	4	4	16.6	51.5
14-Oct	6	10	13	19	41	32	19	15	5	61	A	6	6	5	5	4	6	9	23	31	18	28	29	5	17.2	60.6
15-Oct	4	2	2	3	3	40	13	11	11	A	12	12	5	10	57	36	18	10	9	13	21	8	2	10	13.6	57.5
16-Oct	7	2	2	2	3	17	53	61	A	27	17	19	23	27	22	74	15	17	7	8	16	33	4	7	20.1	74.2
17-Oct	4	3	4	4	5	20	18	A	9	17	39	33	119	25	22	15	70	37	104	100	52	35	31	21	34.2	119.0
18-Oct	33	19	22	28	35	54	A	69	99	54	12	6	5	8	8	12	7	15	39	33	40	25	21	16	28.6	98.8
19-Oct	24	26	15	7	5	A	12	15	17	9	30	10	31	18	6	20	62	43	25	28	37	22	12	12	21.1	62.2
20-Oct	7	7	17	23	A	63	57	58	60	31	66	85	35	15	79	66	8	66	44	44	18	26	31	61	41.9	85.2
21-Oct	17	34	46	A	30	87	49	120	87	75	86	54	24	24	56	34	37	38	32	25	20	23	14	8	44.4	120.1
22-Oct	6	7	A	7	4	10	15	41	6	9	17	37	34	78	8	14	11	45	47	44	49	31	9	11	23.4	77.8
23-Oct	4	A	6	4	4	12	12	34	6	4	10	15	26	8	9	10	50	22	8	21	8	10	14	14	13.6	49.7
24-Oct	A	42	7	53	10	33	47	62	78	89	19	11	14	3	4	5	6	7	52	15	51	31	36	A	30.7	88.7
25-Oct	23	57	30	21	39	26	25	11	13	10	10	8	10	7	13	5	8	4	45	1	4	2	A	2	16.3	57.1
26-Oct	2	1	1	4	1	1	2	2	9	15	6	5	11	34	6	10	15	12	17	9	5	A	5	5	7.6	33.8
27-Oct	7	47	7	8	42	36	35	78	43	42	22	82	72	66	91	100	65	49	30	24	A	13	9	9	42.4	100.4
28-Oct	6	7	7	5	5	10	18	30	10	27	28	14	4	8	34	23	15	20	25	A	25	8	4	33	15.9	34.4
29-Oct	12	13	5	4	5	20	18	38	25	21	26	16	18	10	57	31	60	22	A	14	20	11	9	17	20.5	60.1
30-Oct	9	8	9	9	12	15	21	20	9	11	42	19	14	15	24	17	20	A	10	10	20	7	7	13	14.8	41.9
31-Oct	18	6	5	7	18	18	55	19	74	79	90	65	56	37	22	65	A	71	35	46	36	52	43	7	40.2	90.4
	11.4	16.0	10.5	13.0	18.1	28.1	31.1	39.9	29.2	27.2	24.1	22.6	22.1	17.3	21.4	22.5	22.8	23.0	28.8	27.0	28.3	22.0	20.8	16.4	Diurnal Average	
	57.1	57.1	45.7	53.0	52.3	136.3	134.9	162.5	105.4	88.7	90.4	85.2	119.0	77.8	90.8	100.4	69.9	70.6	104.5	106.7	125.8	92.7	128.8	60.6	Diurnal Maximum	

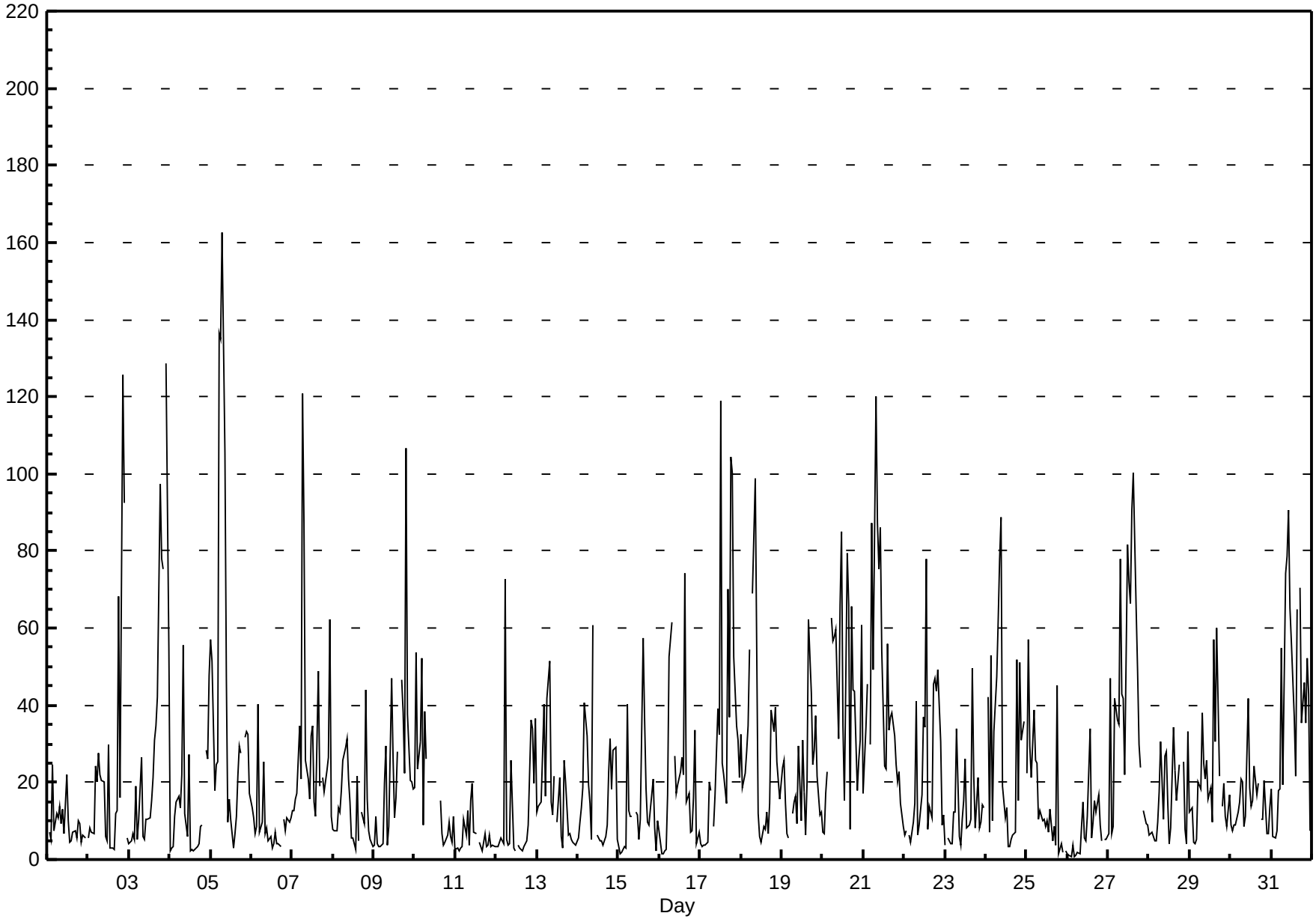
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

Portable Clairmont - October 2014

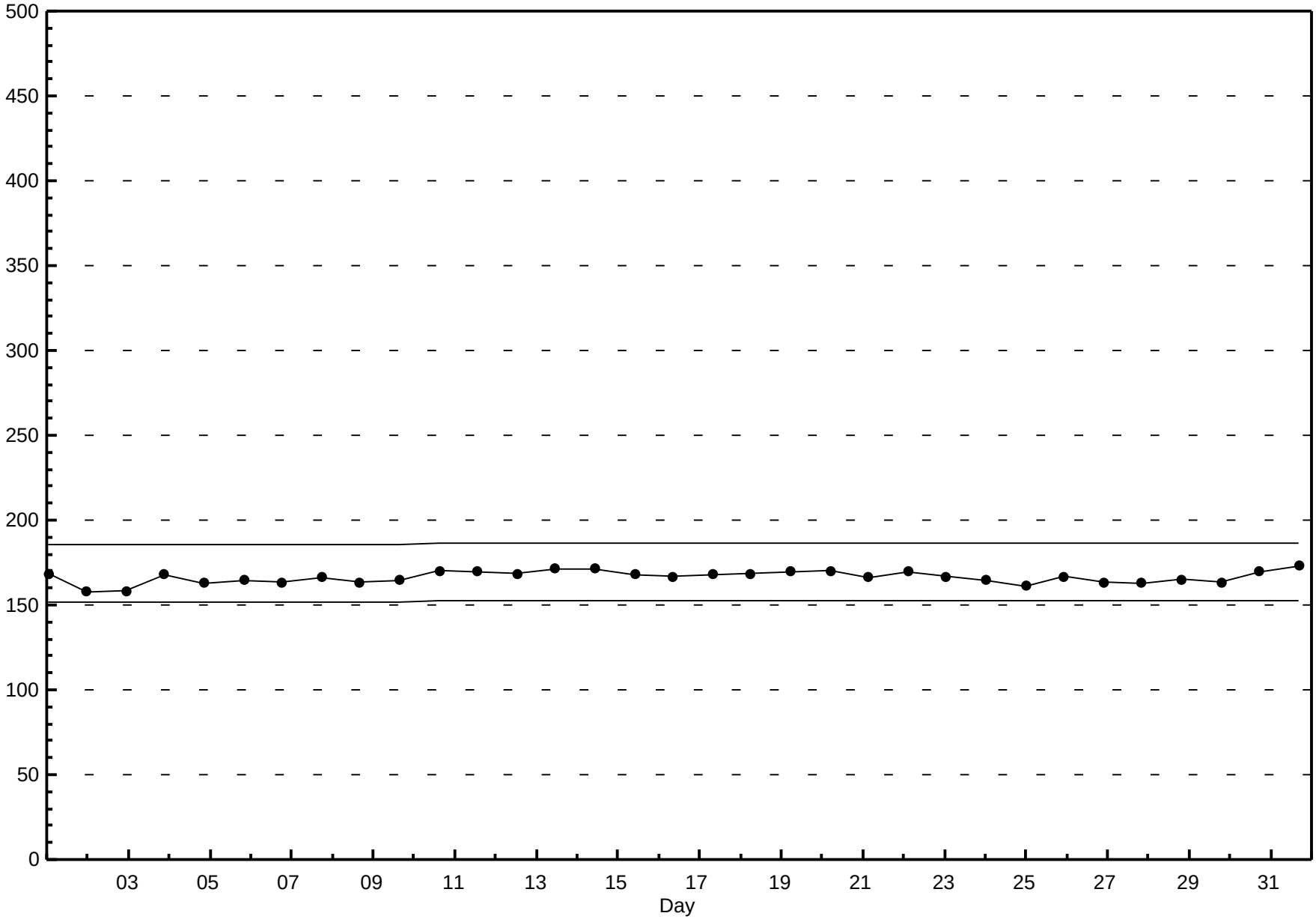


Peace Airshed Zone Association

Span Responses

Oxides of Nitrogen (NO_X)

Portable Clairmont - October 2014



Peace Airshed Zone Association

Hourly Averages

Ozone (O_3) - ppb

Portable Clairmont - October 2014

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

Maximum Value: 39.6 ppb on Oct 8 14:00

Maximum Daily Average: 31.5 ppb on Oct 11

Minimum Value: 0 ppb on Oct 30 07:00

Minimum Daily Average: 4.7 ppb on Oct 30

Maximum Diurnal Average: 23.9 ppb at hour 17

Minimum Diurnal Average: 11.5 ppb at hour 8

Monthly Average: 16.82 ppb

Percentiles: P_1 = 0.6 P_{10} = 3.5 Q_1 = 8.7 Median = 15.5 Q_3 = 24.8 P_{90} = 31.8 P_{99} = 38.6

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-Oct	A	21	22	20	25	34	29	26	25	30	30	32	31	25	19	16	19	18	18	19	18	17	18	A	23.3	34.2
2-Oct	17	17	15	17	11	14	12	12	14	19	21	22	23	24	25	25	25	24	17	17	16	15	A	14	18.0	25.3
3-Oct	13	12	10	10	9	9	8	8	9	10	13	16	17	16	15	8	9	4	1	1	1	A	12	19	10.1	18.5
4-Oct	20	19	19	15	9	10	10	7	7	16	23	30	36	38	38	39	38	37	32	27	A	16	7	9	21.8	38.8
5-Oct	5	5	7	3	3	1	2	1	6	14	21	26	34	37	35	34	32	28	26	A	15	12	6	15	16.1	37.4
6-Oct	13	15	13	11	21	21	20	20	28	30	35	36	37	38	39	39	39	37	A	28	30	30	26	25	27.4	38.8
7-Oct	18	15	15	11	4	15	9	15	23	24	24	26	31	35	36	36	35	A	25	23	22	21	21	17	21.8	36.2
8-Oct	30	32	28	26	23	17	9	13	11	15	26	35	37	40	39	39	A	36	31	30	27	28	29	30	27.4	39.6
9-Oct	30	29	28	28	22	19	18	17	17	19	16	14	14	14	14	A	18	17	9	5	5	7	5	4	16.0	29.9
10-Oct	8	4	4	4	5	6	7	7	7	8	15	C	C	C	A	25	30	32	32	29	29	26	33	33	17.0	32.8
11-Oct	33	33	32	31	31	27	29	27	33	33	33	34	37	A	37	37	36	34	32	29	27	28	26	25	31.5	37.3
12-Oct	26	26	25	26	24	24	22	25	27	30	32	34	A	35	35	35	35	33	31	27	19	16	15	16	27.0	35.4
13-Oct	14	19	17	11	9	11	5	2	12	15	16	A	25	28	29	29	28	24	27	27	22	22	24	23	19.2	29.4
14-Oct	16	11	7	7	3	2	5	15	27	28	A	29	29	32	34	36	36	31	26	19	14	7	4	11	18.7	36.0
15-Oct	10	11	10	10	10	10	8	9	11	A	9	9	7	10	11	12	12	12	11	6	7	11	13	15	10.2	14.5
16-Oct	14	14	14	13	12	12	9	3	A	7	7	6	6	8	9	11	13	10	10	11	13	15	16	13	10.7	15.6
17-Oct	12	12	10	9	8	8	7	A	8	8	9	11	11	10	14	14	14	5	1	1	2	1	1	1	7.7	14.2
18-Oct	1	1	1	1	1	1	A	1	1	9	24	34	36	36	36	36	36	26	10	11	10	6	16	17	15.2	36.5
19-Oct	19	19	17	20	20	A	21	23	24	22	22	20	20	23	29	30	26	24	20	20	18	12	22	31	21.7	30.9
20-Oct	28	28	20	10	A	3	2	2	5	6	5	7	13	17	16	13	31	15	22	18	23	11	6	6	13.3	31.2
21-Oct	4	2	2	A	1	1	2	2	2	6	9	11	21	23	23	26	30	23	17	21	19	11	16	17	12.6	29.7
22-Oct	19	16	A	20	21	21	23	21	22	23	20	21	21	13	31	28	28	22	12	3	2	8	18	17	18.6	30.5
23-Oct	21	A	19	21	21	21	25	28	28	27	22	13	17	17	13	12	13	12	10	8	7	5	5	5	16.1	28.4
24-Oct	A	8	9	8	7	4	2	1	1	9	14	22	26	34	35	34	32	28	22	25	9	7	6	A	15.6	35.2
25-Oct	3	1	1	2	3	10	12	12	15	18	19	19	22	23	23	24	25	26	30	31	32	30	A	29	17.8	31.9
26-Oct	29	29	28	28	27	27	24	22	19	16	19	21	19	16	15	16	17	15	18	18	19	A	21	23	21.1	28.8
27-Oct	26	25	24	23	17	9	4	3	5	11	13	12	10	10	8	8	5	2	4	9	A	9	12	12	11.3	25.9
28-Oct	13	12	14	15	15	15	14	14	15	15	16	17	18	19	20	20	19	18	16	A	14	13	14	14	15.6	19.8
29-Oct	13	13	12	12	12	12	12	11	10	10	10	9	10	10	9	7	6	4	A	4	4	3	2	2	8.6	13.4
30-Oct	1	1	0	0	0	0	0	0	3	5	7	7	8	9	8	9	8	A	6	7	8	7	7	5	4.7	8.9
31-Oct	4	4	5	5	4	2	1	1	1	1	2	3	5	9	12	8	A	16	6	3	2	2	10	23	5.6	22.9
	15.8	15.1	14.3	13.8	12.7	12.2	11.7	11.5	13.9	16.1	17.8	19.9	21.4	22.4	23.6	23.5	23.9	21.2	18.0	16.5	14.8	13.7	14.2	16.2	Diurnal Average	
	32.5	32.8	31.9	30.6	31.5	34.2	29.3	28.4	32.8	32.7	35.3	36.4	37.4	39.6	39.4	39.0	38.6	37.2	32.2	31.3	31.9	30.2	32.8	32.5	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

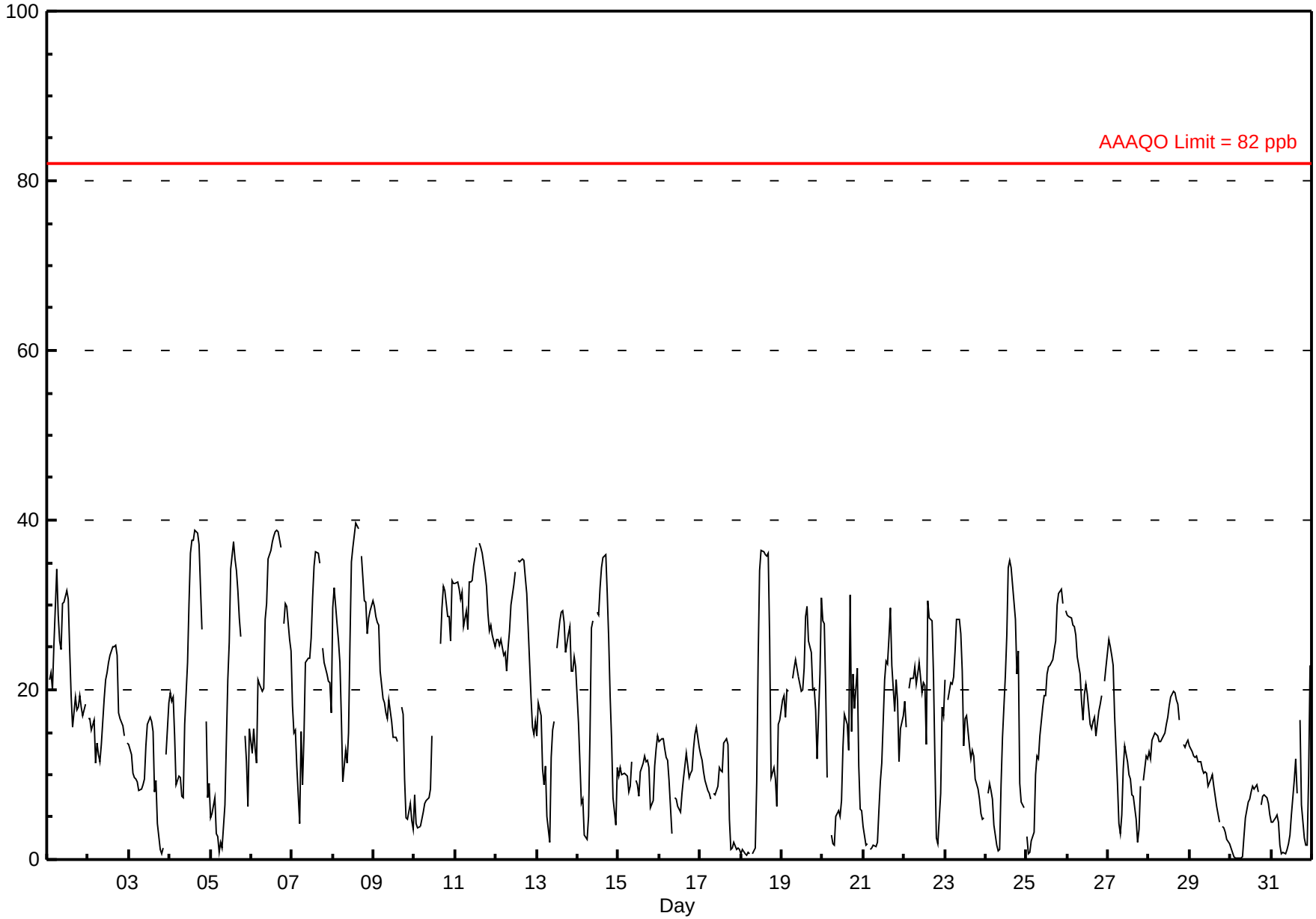
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82 ppb 24-hr na

Peace Airshed Zone Association

Hourly Averages

Ozone (O_3) - ppb

Portable Clairmont - October 2014



Peace Airshed Zone Association

Hourly Maximums

Ozone (O_3) - ppb

Portable Clairmont - October 2014

Maximum Value: 41.8 ppb on Oct 10 23:00

Maximum Daily Average: 33.5 ppb on Oct 11

Minimum Value: 0 ppb on Oct 30 05:00

Minimum Daily Average: 5.4 ppb on Oct 30

Maximum Diurnal Average: 26.3 ppb at hour 16

Minimum Diurnal Average: 14.1 ppb at hour 7

Monthly Average: 19.59 ppb

Percentiles: P_1 = 1.3 P_{10} = 5.7 Q_1 = 11.0 Median = 19.0 Q_3 = 28.1 P_{90} = 34.3 P_{99} = 40.1

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-Oct	A	23	24	23	40	42	35	30	28	33	33	34	34	27	24	18	21	19	21	22	19	18	20	A	26.5	41.5
2-Oct	18	18	17	17	16	16	15	15	19	20	23	23	24	25	26	26	27	25	24	18	18	18	A	15	20.1	26.6
3-Oct	14	14	11	10	10	10	10	9	10	10	16	17	18	17	16	13	12	7	2	3	3	A	19	21	12.0	21.2
4-Oct	21	20	20	18	14	13	13	11	13	19	29	33	38	39	39	40	40	39	37	31	A	26	16	16	25.4	39.6
5-Oct	9	14	16	7	5	2	5	3	13	19	25	29	39	40	37	37	35	34	29	A	20	20	10	18	20.2	39.6
6-Oct	18	18	18	16	25	23	22	27	31	34	37	37	38	39	40	40	40	39	A	30	33	32	28	28	30.2	40.3
7-Oct	24	18	21	17	13	21	19	25	27	26	25	30	33	38	38	38	37	A	29	28	28	28	25	22	26.4	37.8
8-Oct	34	35	29	29	27	22	13	17	16	25	30	38	40	41	41	41	A	40	34	34	28	31	32	32	30.7	40.9
9-Oct	31	31	30	29	25	20	19	20	19	21	18	15	15	15	15	A	20	19	15	8	9	9	10	8	18.3	31.1
10-Oct	10	7	6	7	8	9	9	8	8	10	20	C	C	C	A	28	35	34	35	31	30	28	42	41	20.3	41.8
11-Oct	35	34	33	32	33	33	31	30	35	36	35	39	38	A	38	38	38	36	34	32	29	29	28	26	33.5	38.8
12-Oct	27	28	26	28	28	27	24	26	29	32	34	35	A	36	36	36	36	35	34	30	24	22	20	21	29.2	36.4
13-Oct	18	22	21	17	14	13	12	5	16	17	19	A	28	30	31	31	30	29	29	29	24	25	25	25	22.1	30.6
14-Oct	20	15	13	12	8	4	9	27	29	31	A	31	31	36	36	38	39	35	31	25	17	11	8	14	22.6	38.7
15-Oct	11	12	11	12	11	11	10	11	12	A	10	10	9	12	12	13	13	13	12	9	11	12	15	15	11.7	15.3
16-Oct	15	15	15	14	13	12	11	6	A	10	10	7	6	10	10	13	14	11	11	12	17	17	17	14	12.3	17.3
17-Oct	13	13	11	10	9	9	8	A	8	8	9	19	13	15	16	16	16	11	2	3	6	3	6	2	9.9	19.1
18-Oct	2	3	1	2	7	1	A	1	3	15	33	36	38	37	38	38	38	34	20	20	16	14	24	21	19.3	38.1
19-Oct	24	23	19	24	22	A	23	24	25	23	23	22	22	26	32	34	28	27	26	22	21	17	31	33	24.7	33.6
20-Oct	32	31	27	16	A	9	4	4	9	7	11	14	15	21	28	30	33	31	30	29	29	20	8	9	19.4	33.1
21-Oct	6	4	4	A	3	3	3	3	3	9	15	17	25	26	28	32	34	33	23	24	23	16	21	24	16.4	33.8
22-Oct	22	20	A	22	23	22	25	23	24	25	22	24	25	28	36	32	33	29	19	6	6	20	20	23	22.9	35.6
23-Oct	24	A	20	23	23	23	27	32	30	28	24	21	18	19	18	15	15	15	11	10	8	7	6	9	18.5	31.6
24-Oct	A	10	10	9	10	7	3	4	2	16	19	25	34	36	36	36	34	30	29	28	20	13	13	A	19.3	36.2
25-Oct	6	3	2	5	9	13	13	13	17	19	21	21	23	24	24	27	27	29	31	32	33	32	A	30	19.7	32.6
26-Oct	30	30	29	29	28	28	26	23	21	19	21	21	21	19	17	22	21	17	21	19	20	A	23	25	22.9	29.6
27-Oct	28	28	26	24	23	16	9	7	8	13	15	15	11	10	8	9	6	3	8	9	A	11	14	13	13.7	28.1
28-Oct	13	14	16	16	16	16	15	15	15	16	16	18	19	21	21	21	19	19	18	A	15	14	14	14	16.6	20.8
29-Oct	14	13	13	12	13	12	12	12	11	11	11	11	10	11	10	9	8	6	A	5	4	4	3	2	9.4	13.8
30-Oct	2	2	1	1	0	1	0	1	4	6	7	8	9	9	9	9	9	A	7	8	8	8	7	6	5.4	9.2
31-Oct	5	5	6	6	7	3	1	1	2	2	3	3	11	12	15	11	A	26	16	5	3	3	19	25	8.2	25.7
	18.1	17.4	16.5	16.2	16.1	14.6	14.1	14.5	16.2	18.7	20.4	22.5	23.6	24.8	25.8	26.3	26.1	24.9	22.0	19.4	18.0	17.4	18.1	19.0	Diurnal Average	
	34.6	35.1	33.5	32.1	39.5	41.5	34.6	31.6	34.9	36.0	37.0	38.8	40.1	40.6	40.9	40.9	40.3	40.1	37.1	33.6	33.0	32.0	41.8	41.1	Diurnal Maximum	

C - Calibration

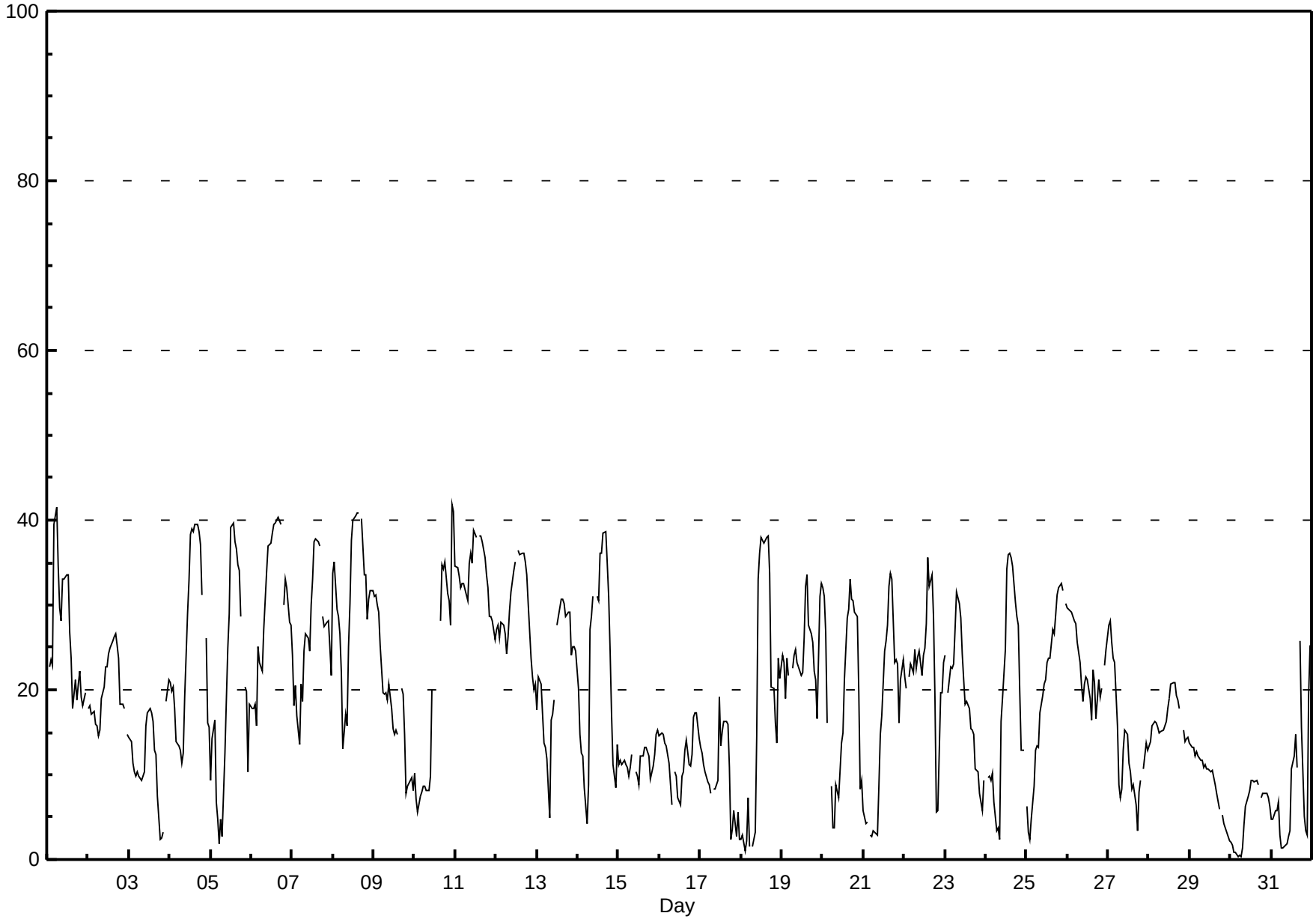
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Ozone (O_3) - ppb

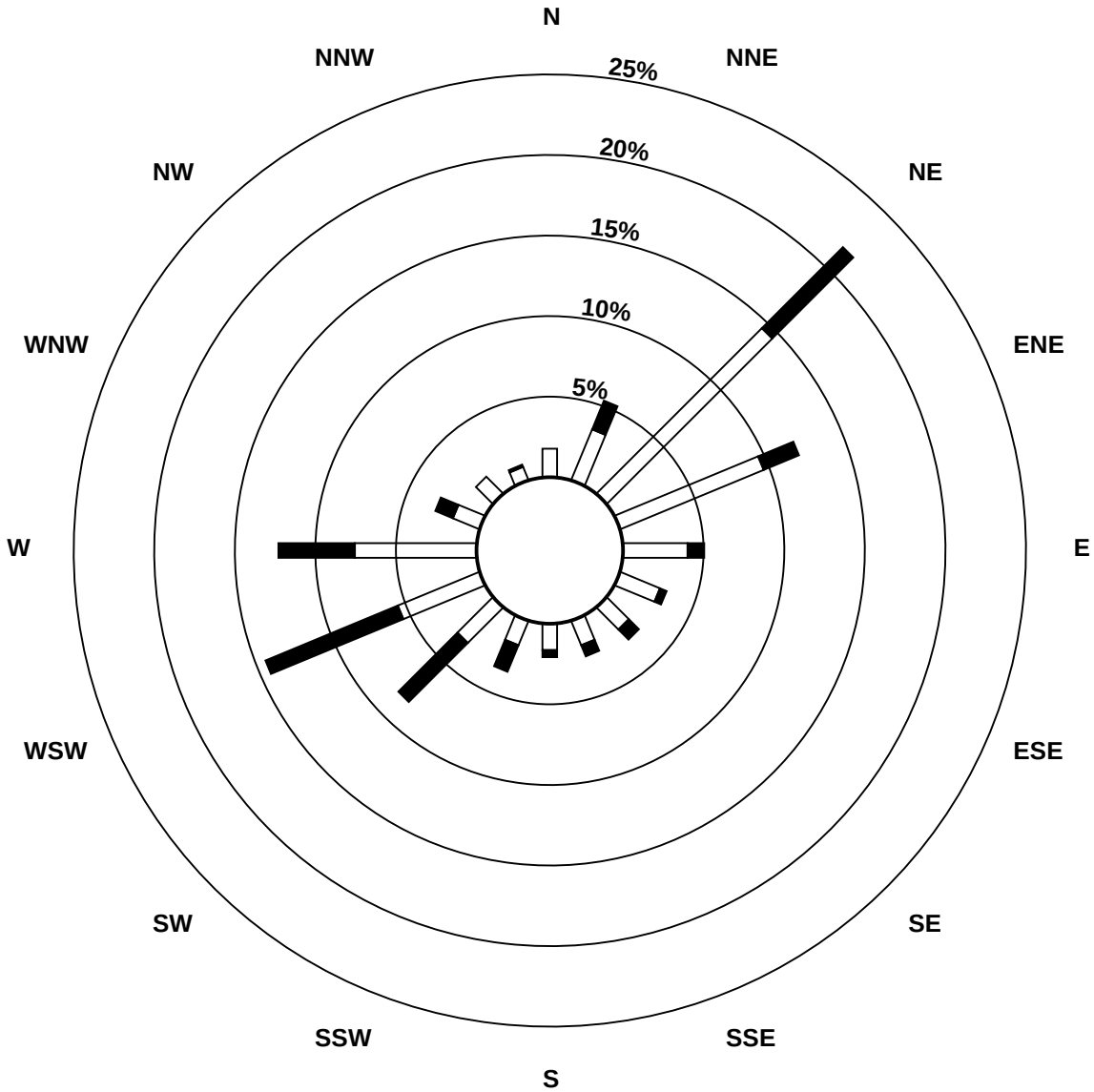
Portable Clairmont - October 2014



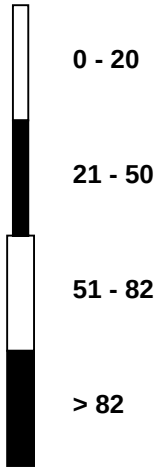
Pollutant Rose

Ozone (O_3) - ppb

Portable Clairmont - October 2014



Pollutant Classes (ppb)



Peace Airshed Zone Association

Eight Hour Running Averages

Ozone (O_3) - ppb

Portable Clairmont - October 2014

Maximum Value: 37.8 ppb on Oct 6 19:00

Minimum Value: 0.5 ppb on Oct 30 08:00

Percentiles: P_1 = 0.9 P_{10} = 5.7 Q_1 = 9.6 Median = 16.3 Q_3 = 23.6 P_{90} = 30.2 P_{99} = 35.8

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-Oct	26	24	24	23	23	24	25	25	25	26	27	29	30	28	27	26	25	24	22	21	19	18	18	18	29.6
2-Oct	18	18	17	17	16	15	15	14	14	14	15	16	17	18	20	22	23	24	23	23	22	20	20	18	23.7
3-Oct	17	15	14	13	12	11	11	10	10	9	10	10	11	12	13	13	13	12	11	9	7	6	5	7	16.5
4-Oct	8	10	13	15	16	15	15	13	12	12	12	14	17	21	24	28	32	35	36	36	36	32	28	24	36.0
5-Oct	19	15	11	8	7	5	4	3	4	5	6	9	13	18	22	26	29	31	32	33	30	26	22	19	32.5
6-Oct	16	15	13	13	13	15	16	17	19	21	23	27	29	31	33	35	37	38	38	37	36	34	33	31	37.8
7-Oct	28	24	23	21	18	16	14	13	13	15	16	17	21	23	27	29	31	32	32	32	30	28	26	23	32.0
8-Oct	23	24	24	25	25	24	23	22	20	18	17	19	20	23	27	30	33	36	37	36	34	33	31	30	36.6
9-Oct	30	29	29	29	28	27	26	24	22	21	20	18	17	16	16	16	16	15	15	13	12	11	9	9	30.2
10-Oct	7	6	5	5	5	5	5	5	5	6	7	8	8	N	N	N	N	N	N	N	29	29	29	30	30.2
11-Oct	31	31	31	31	31	32	31	30	30	30	31	31	32	32	33	35	35	35	35	35	33	32	31	30	35.5
12-Oct	28	27	27	26	26	25	25	25	25	25	26	27	28	29	31	33	34	34	34	33	31	29	26	24	34.3
13-Oct	21	20	18	16	15	14	13	11	11	10	10	10	12	15	18	22	24	26	27	27	27	26	26	25	27.3
14-Oct	23	22	19	17	14	12	9	8	10	12	13	16	19	24	28	31	32	32	32	30	29	26	22	19	32.5
15-Oct	15	13	11	10	9	9	10	10	10	10	10	9	9	9	10	10	10	10	11	10	10	10	10	11	15.4
16-Oct	11	11	12	13	13	13	13	11	11	10	9	8	7	7	7	8	8	9	9	10	11	11	12	12	13.3
17-Oct	12	13	13	13	12	11	10	10	9	8	8	8	9	9	10	10	11	11	10	9	8	6	5	3	12.7
18-Oct	2	1	1	1	1	1	1	1	1	2	5	10	15	20	22	27	31	33	31	28	25	21	19	16	33.0
19-Oct	14	13	14	15	17	18	19	20	20	21	22	22	22	22	23	24	24	24	24	24	24	22	21	22	24.0
20-Oct	22	22	22	21	21	20	17	13	10	7	5	4	5	7	9	10	14	15	17	18	19	19	17	16	22.3
21-Oct	13	11	9	8	4	3	2	2	2	2	3	4	7	10	12	15	19	21	22	23	23	21	20	19	23.1
22-Oct	18	17	17	17	17	19	20	20	21	22	21	21	21	20	21	22	23	23	22	20	17	17	15	14	23.1
23-Oct	13	11	12	15	18	20	21	22	23	24	24	23	23	22	21	19	17	15	13	13	12	10	9	8	24.1
24-Oct	7	7	7	7	7	7	6	6	5	5	6	7	10	14	18	22	26	28	29	30	27	24	20	18	29.7
25-Oct	14	10	7	4	3	4	5	5	7	9	11	14	16	17	19	20	22	23	24	25	27	28	28	29	29.0
26-Oct	30	30	30	29	29	28	28	27	25	24	23	22	21	20	18	18	18	17	17	17	17	17	18	19	30.0
27-Oct	20	21	22	23	23	21	19	16	14	12	11	9	8	8	9	9	9	8	7	7	6	6	7	7	23.0
28-Oct	9	10	11	12	13	13	14	14	14	14	15	15	15	16	17	17	18	18	18	19	18	17	16	15	18.6
29-Oct	15	14	13	13	13	13	12	12	12	11	11	11	10	10	10	9	9	8	8	7	6	5	5	4	14.7
30-Oct	3	3	2	2	1	1	1	0	1	1	2	3	4	5	6	7	8	8	8	8	8	8	7	7	8.0
31-Oct	6	6	6	6	5	5	4	3	3	2	2	2	2	3	4	5	6	8	9	9	8	7	7	9	8.8
Diurnal Maximums	30.6	30.7	30.7	30.9	31.3	31.5	31.1	30.4	30.4	30.4	30.6	31.0	31.7	32.3	33.5	35.4	36.7	37.5	37.8	36.6	35.6	34.4	32.6	30.5	

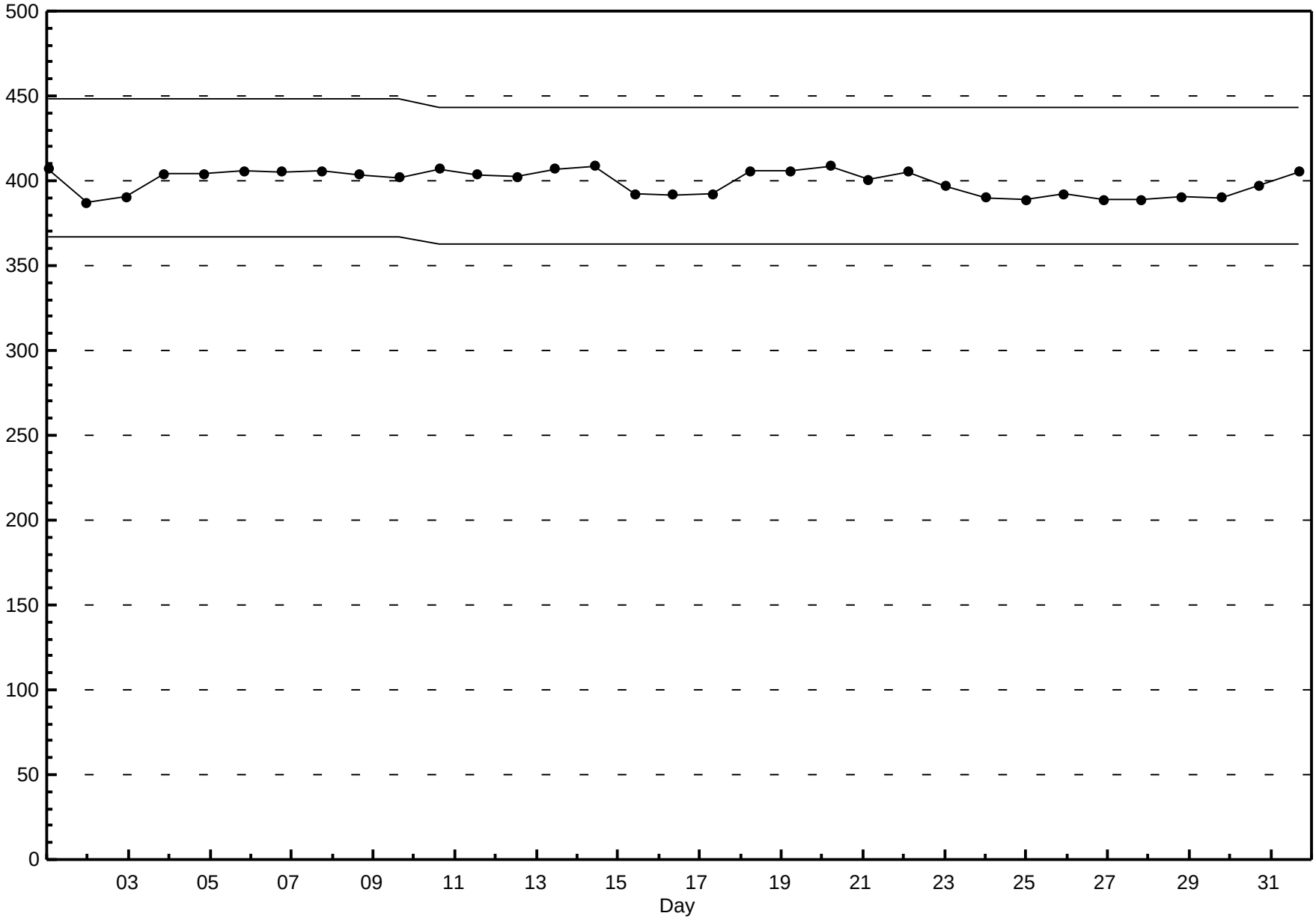
N - Not Valid

Peace Airshed Zone Association

Span Responses

Ozone (O_3)

Portable Clairmont - October 2014



Peace Airshed Zone Association

Hourly Averages

Total Hydrocarbons (THC) - ppm

Portable Clairmont - October 2014

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

Maximum Value: 4.02 ppm on Oct 17 22:00

Maximum Daily Average: 2.44 ppm on Oct 17

Minimum Value: 1.4 ppm on Oct 10 13:00

Minimum Daily Average: 1.93 ppm on Oct 11

Maximum Diurnal Average: 2.24 ppm at hour 8

Minimum Diurnal Average: 2.05 ppm at hour 17

Monthly Average: 2.155 ppm

Percentiles: P_1 = 1.92 P_{10} = 1.97 Q_1 = 2.03 Median = 2.10 Q_3 = 2.22 P_{90} = 2.40 P_{99} = 2.91

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-Oct	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	A	2.04	2.11
2-Oct	2.1	2.1	2.2	2.2	2.2	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	2.2	2.1	2.1	2.2	A	2.1	2.14	2.21
3-Oct	2.1	2.2	2.2	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.4	2.4	2.3	A	2.1	2.0	2.18	2.45
4-Oct	1.9	2.0	2.0	2.2	2.2	2.0	2.0	2.1	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	A	2.2	2.5	2.4	2.07	2.47
5-Oct	2.6	2.5	2.6	3.0	2.6	2.7	2.6	2.6	2.8	2.6	2.4	2.2	2.1	2.0	2.0	2.0	2.0	2.1	2.1	A	2.1	2.2	2.2	2.1	2.36	2.96
6-Oct	2.1	2.1	2.3	2.3	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.1	2.0	2.0	2.1	2.1	2.07	2.27
7-Oct	2.3	2.3	2.3	2.4	2.6	2.3	2.4	2.3	2.2	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	A	2.1	2.1	2.1	2.1	2.3	2.2	2.20	2.59
8-Oct	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	A	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.05	2.12
9-Oct	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	A	2.1	2.1	2.1	2.2	2.3	2.4	2.4	2.6	2.17	2.60
10-Oct	2.2	2.4	2.4	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.1	2.0	1.4	C	C	C	2.0	1.9	2.0	2.0	1.9	1.9	1.9	1.9	2.08	2.44
11-Oct	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.9	2.0	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.93	1.97
12-Oct	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	A	1.9	2.0	1.9	1.9	1.9	2.0	2.0	2.2	2.1	2.3	2.2	2.01	2.31
13-Oct	2.2	2.2	2.2	2.3	2.2	2.2	2.3	2.4	2.3	2.2	2.2	A	2.1	2.0	2.0	1.9	1.9	2.0	2.0	1.9	1.9	2.0	2.0	2.0	2.11	2.41
14-Oct	2.1	2.1	2.3	2.4	2.2	2.3	2.4	2.1	2.0	1.9	A	1.9	1.9	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.1	2.10	2.45
15-Oct	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.03	2.08
16-Oct	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.2	2.1	2.10	2.16
17-Oct	2.2	2.2	2.2	2.2	2.3	2.2	2.3	A	2.2	2.2	2.2	2.0	2.2	2.2	2.2	2.2	2.2	2.3	2.7	2.9	3.7	4.0	2.9	2.7	2.44	4.02
18-Oct	2.6	2.6	2.7	2.8	2.9	3.0	A	2.8	2.9	2.2	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.2	2.2	2.3	2.3	2.1	2.2	2.33	2.97
19-Oct	2.1	2.1	2.2	2.2	2.1	A	2.1	2.0	2.0	2.1	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.1	2.1	2.08	2.23
20-Oct	2.1	2.1	2.4	2.7	A	2.4	2.9	2.5	2.5	2.6	2.5	2.4	2.2	2.1	2.1	2.1	1.9	2.0	2.0	2.0	2.0	2.1	2.2	2.2	2.26	2.85
21-Oct	2.4	2.5	2.6	A	2.7	2.8	3.1	3.0	2.5	2.5	2.3	2.1	2.0	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.2	2.2	2.2	2.34	3.08
22-Oct	2.1	2.2	A	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.2	2.0	2.0	2.0	2.0	2.1	2.3	2.3	2.2	2.1	2.1	2.09	2.34
23-Oct	2.1	A	2.1	2.1	2.1	2.0	2.0	1.9	1.9	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.07	2.19
24-Oct	A	2.2	2.1	2.1	2.2	2.2	2.2	2.6	2.5	2.3	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.2	2.2	2.3	A	2.18	2.56
25-Oct	2.4	2.6	2.4	2.5	2.5	2.4	2.4	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.19	2.56
26-Oct	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.03	2.14
27-Oct	2.1	2.1	2.1	2.1	2.2	2.3	2.3	2.4	2.5	2.4	2.4	2.3	2.3	2.3	2.4	2.4	2.4	2.3	2.3	2.2	A	2.2	2.2	2.2	2.28	2.49
28-Oct	2.2	2.2	2.2	2.2	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	2.1	A	2.1	2.1	2.1	2.1	2.11	2.22
29-Oct	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	A	2.2	2.2	2.2	2.2	2.2	2.13	2.23
30-Oct	2.2	2.2	2.3	2.3	2.4	2.4	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.2	A	2.2	2.2	2.2	2.2	2.2	2.2	2.29	2.45
31-Oct	2.2	2.2	2.2	2.2	2.2	2.3	2.4	2.5	2.5	2.6	2.6	2.5	2.4	2.4	2.3	2.4	A	2.1	2.2	2.3	2.4	2.4	2.3	2.1	2.34	2.58
	2.16	2.18	2.21	2.23	2.22	2.23	2.23	2.24	2.22	2.18	2.15	2.10	2.06	2.08	2.06	2.07	2.05	2.07	2.11	2.13	2.18	2.21	2.18	2.16	Diurnal Average	
	2.62	2.65	2.73	2.96	2.93	2.97	3.08	2.98	2.88	2.65	2.58	2.51	2.43	2.40	2.35	2.40	2.41	2.32	2.71	2.92	3.65	4.02	2.88	2.70	Diurnal Maximum	

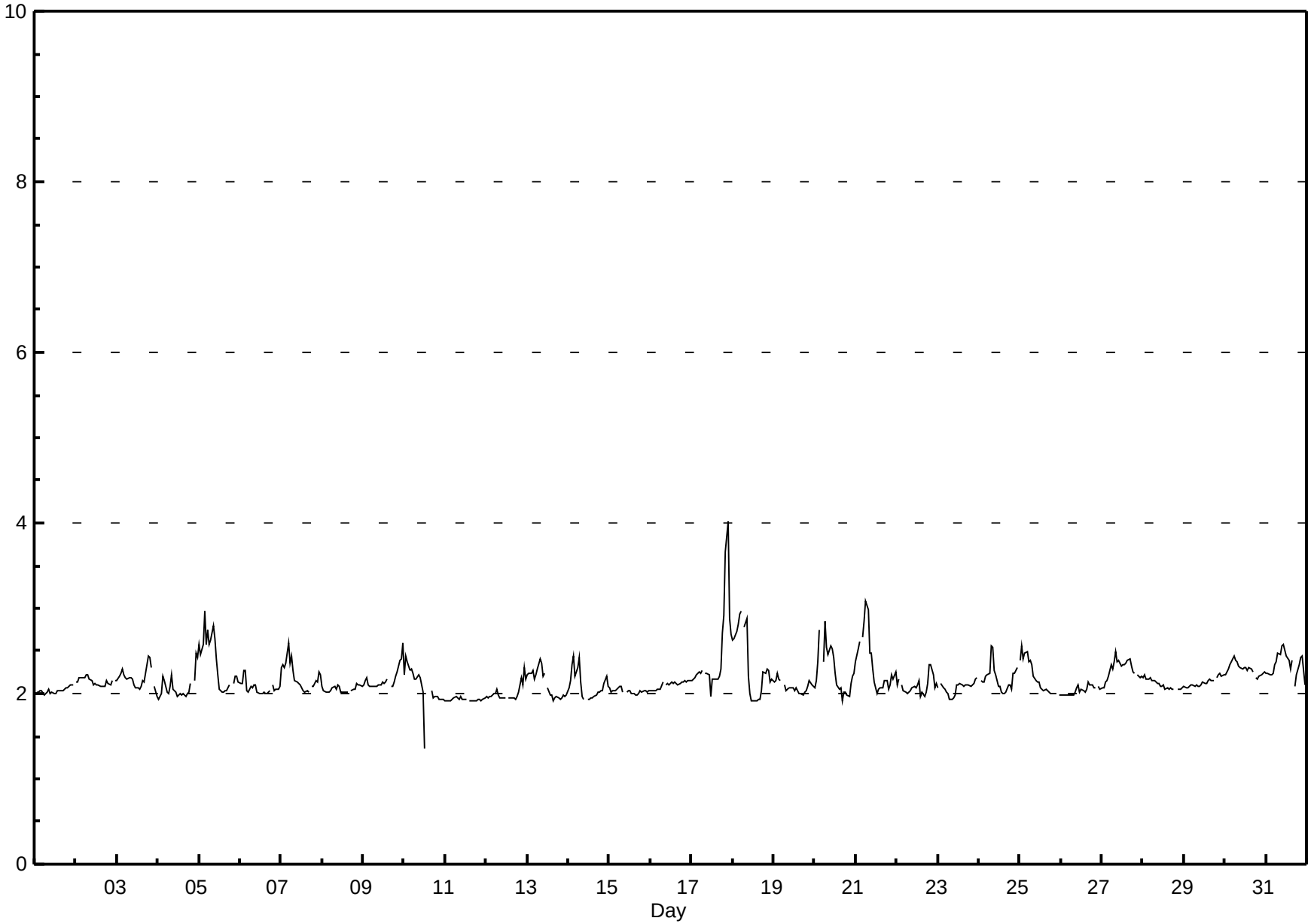
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Total Hydrocarbons (THC) - ppm

Portable Clairmont - October 2014



Peace Airshed Zone Association

Hourly Maximums

Total Hydrocarbons (THC) - ppm

Portable Clairmont - October 2014

Maximum Value: 6.84 ppm on Oct 17 21:00

Maximum Daily Average: 2.86 ppm on Oct 17

Minimum Value: 1.9 ppm on Oct 11 18:00

Minimum Daily Average: 1.99 ppm on Oct 11

Maximum Diurnal Average: 2.49 ppm at hour 21

Minimum Diurnal Average: 2.14 ppm at hour 15

Monthly Average: 2.301 ppm

Percentiles: P_1 = 1.94 P_{10} = 2.01 Q_1 = 2.09 Median = 2.19 Q_3 = 2.37 P_{90} = 2.73 P_{99} = 3.62

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-Oct	A	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.1	2.0	2.1	2.0	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.08	2.15
2-Oct	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.5	2.2	2.2	2.2	A	2.2	2.20	2.47
3-Oct	2.2	2.3	2.3	2.3	2.3	2.2	2.3	2.4	2.3	2.2	2.2	2.1	2.1	2.1	2.2	2.2	2.2	2.6	2.7	2.9	2.4	A	2.8	2.0	2.32	2.91
4-Oct	2.0	2.0	2.2	3.1	2.3	2.1	2.0	2.3	2.9	2.1	2.1	2.0	2.3	2.0	2.0	2.1	2.0	2.1	2.1	2.3	A	2.4	2.6	2.5	2.24	3.14
5-Oct	3.6	2.9	2.9	3.2	2.9	2.9	2.7	2.7	3.2	3.0	2.8	2.3	2.1	2.1	2.0	2.3	2.4	2.4	2.3	A	2.3	2.4	2.4	2.2	2.61	3.62
6-Oct	2.3	2.2	2.5	2.5	2.5	2.1	2.3	2.2	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	A	2.2	2.2	2.1	2.1	2.2	2.18	2.54
7-Oct	2.6	2.4	2.4	2.5	3.2	2.8	2.8	2.6	2.3	2.2	2.2	2.2	2.1	2.1	2.0	2.2	2.1	A	2.2	2.2	2.7	2.3	2.4	2.3	2.38	3.21
8-Oct	2.2	2.1	2.0	2.1	2.1	2.1	2.2	2.1	2.1	2.2	2.1	2.1	2.0	2.0	2.1	2.0	A	2.5	2.1	2.1	2.2	2.2	2.2	2.1	2.13	2.52
9-Oct	2.2	2.2	2.3	2.2	2.1	2.1	2.1	2.2	2.1	2.1	2.2	2.2	2.1	2.2	2.2	A	2.1	2.1	2.2	2.4	2.3	3.1	2.8	3.7	2.32	3.73
10-Oct	2.3	3.5	2.6	2.6	2.7	2.4	2.3	2.3	2.3	2.3	2.2	2.3	2.1	C	C	C	2.2	2.0	2.0	2.1	2.0	2.0	2.0	1.9	2.29	3.50
11-Oct	1.9	1.9	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.6	2.0	2.0	1.9	A	2.0	1.9	1.9	1.9	2.0	2.0	1.9	1.9	2.0	2.0	1.99	2.63
12-Oct	2.0	2.0	2.0	2.0	2.1	2.1	2.1	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	3.6	2.4	3.8	2.6	2.20	3.77
13-Oct	2.4	3.5	2.4	2.5	2.5	2.4	2.9	2.6	2.7	2.3	2.8	A	2.2	2.0	2.0	2.0	2.2	2.1	2.3	2.0	2.0	2.0	2.1	2.1	2.35	3.52
14-Oct	2.2	2.3	2.5	3.0	2.2	2.4	3.0	2.3	2.0	2.0	A	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.1	2.1	2.3	2.8	2.2	2.24	3.01
15-Oct	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.2	2.2	A	2.0	2.2	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.0	2.1	2.09	2.19
16-Oct	2.1	2.0	2.1	2.1	2.1	2.1	2.2	2.3	A	2.3	2.2	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.2	2.17	2.29
17-Oct	2.2	2.2	2.2	2.3	2.3	2.3	2.4	A	2.3	2.3	2.3	2.3	2.2	2.3	2.2	2.4	2.3	2.4	3.6	3.8	6.8	6.5	3.1	3.2	2.86	6.84
18-Oct	2.9	3.1	3.3	3.0	3.7	3.3	A	3.1	3.6	2.6	2.1	1.9	1.9	1.9	1.9	2.0	2.0	2.1	3.0	2.7	3.0	2.6	2.3	2.3	2.62	3.66
19-Oct	2.4	2.7	2.7	2.2	2.2	A	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.3	2.1	2.1	2.1	2.0	2.1	2.1	2.3	2.6	2.2	2.1	2.22	2.72
20-Oct	2.2	2.3	2.9	3.1	A	2.5	3.5	2.7	2.8	2.7	3.0	2.5	2.3	2.2	2.3	2.2	2.1	2.2	2.2	2.2	2.0	2.4	2.3	2.6	2.49	3.46
21-Oct	2.6	2.8	3.1	A	2.9	3.6	4.0	3.5	2.7	2.8	2.6	2.2	2.1	2.1	2.2	2.8	2.5	2.4	2.5	2.1	2.5	2.5	2.2	2.8	2.68	3.96
22-Oct	2.2	2.2	A	2.2	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.2	2.5	2.0	2.1	2.0	2.2	2.9	2.9	2.8	2.6	2.2	2.3	2.26	2.89
23-Oct	2.1	A	2.2	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.2	2.1	2.2	2.2	2.2	2.1	2.2	2.2	2.1	2.1	2.2	2.2	2.3	2.12	2.27
24-Oct	A	2.2	2.2	2.2	2.3	2.4	2.4	2.7	2.7	2.4	2.3	2.1	2.1	2.0	2.0	2.0	2.1	2.2	2.2	2.1	2.4	2.3	2.4	A	2.26	2.74
25-Oct	2.5	3.1	2.8	2.8	2.6	2.5	2.6	2.4	2.3	2.2	2.2	2.2	2.1	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	A	2.0	2.29	3.13
26-Oct	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.2	2.1	2.2	2.2	2.0	2.2	2.3	2.3	2.2	2.1	2.1	A	2.1	2.1	2.10	2.31
27-Oct	2.1	2.2	2.2	2.2	2.3	2.7	2.4	2.7	2.7	2.5	2.5	2.4	2.4	2.4	2.5	2.8	2.5	2.4	2.3	2.3	A	2.3	2.2	2.3	2.40	2.79
28-Oct	2.2	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.2	2.16	2.26
29-Oct	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.1	2.2	2.1	2.3	2.2	2.1	2.5	2.4	2.2	2.3	A	2.3	2.3	2.4	2.3	2.3	2.22	2.51
30-Oct	2.3	2.3	2.3	2.4	2.5	2.5	2.4	2.4	2.3	2.4	2.4	2.3	2.3	2.3	2.4	2.4	2.3	A	2.2	2.2	2.2	2.2	2.3	2.3	2.34	2.51
31-Oct	2.3	2.3	2.2	2.3	2.4	2.6	2.5	2.6	2.7	2.7	2.7	2.6	2.5	2.5	2.5	2.7	A	2.3	2.3	2.6	3.4	2.7	2.5	2.2	2.51	3.38
	2.28	2.38	2.36	2.39	2.38	2.37	2.40	2.38	2.37	2.30	2.26	2.17	2.15	2.14	2.14	2.20	2.16	2.19	2.29	2.28	2.49	2.46	2.37	2.32	Diurnal Average	
	3.62	3.52	3.27	3.22	3.66	3.61	3.96	3.54	3.64	2.99	2.97	2.55	2.54	2.54	2.53	2.79	2.54	2.58	3.57	3.76	6.84	6.51	3.77	3.73	Diurnal Maximum	

C - Calibration

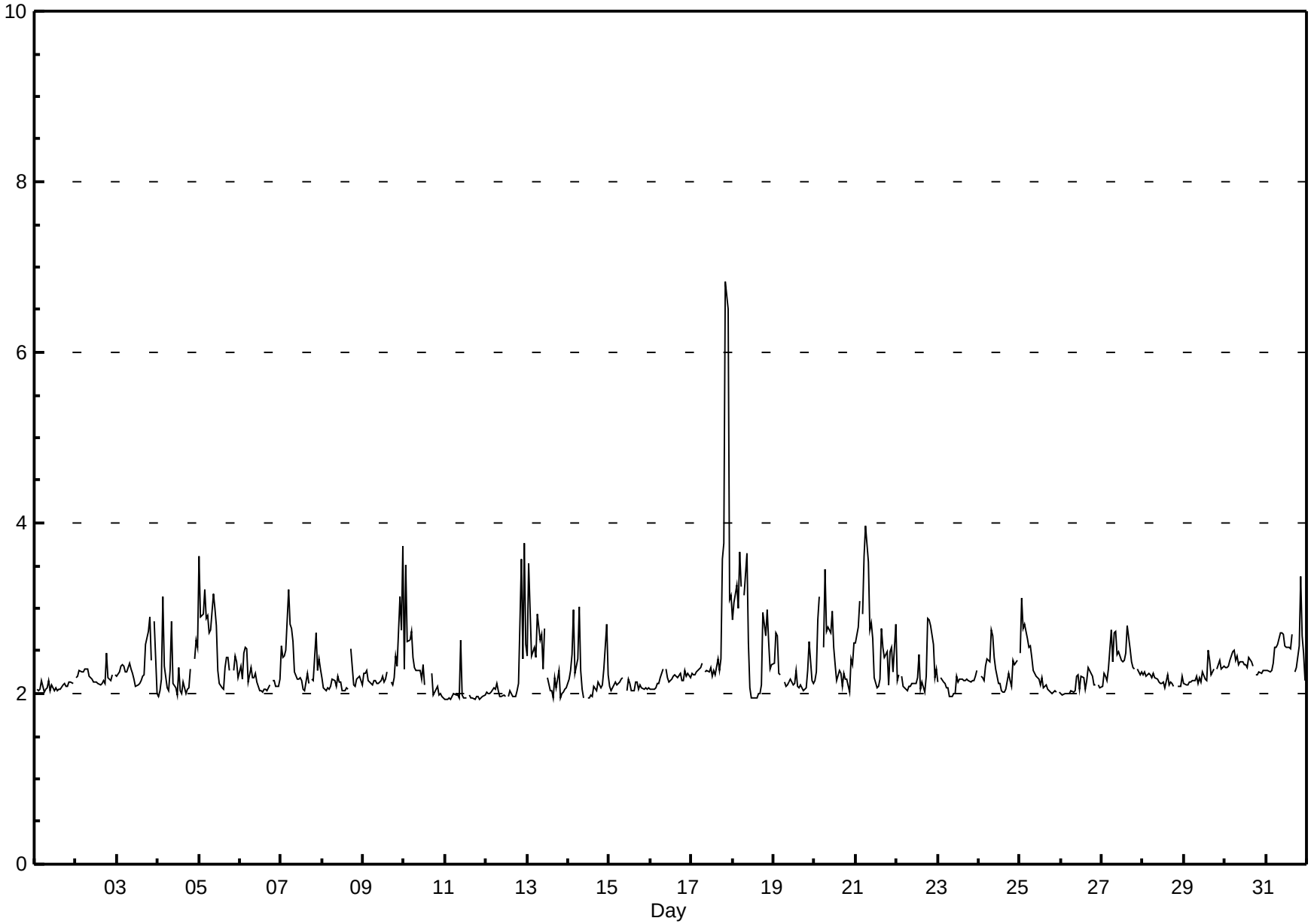
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Total Hydrocarbons (THC) - ppm

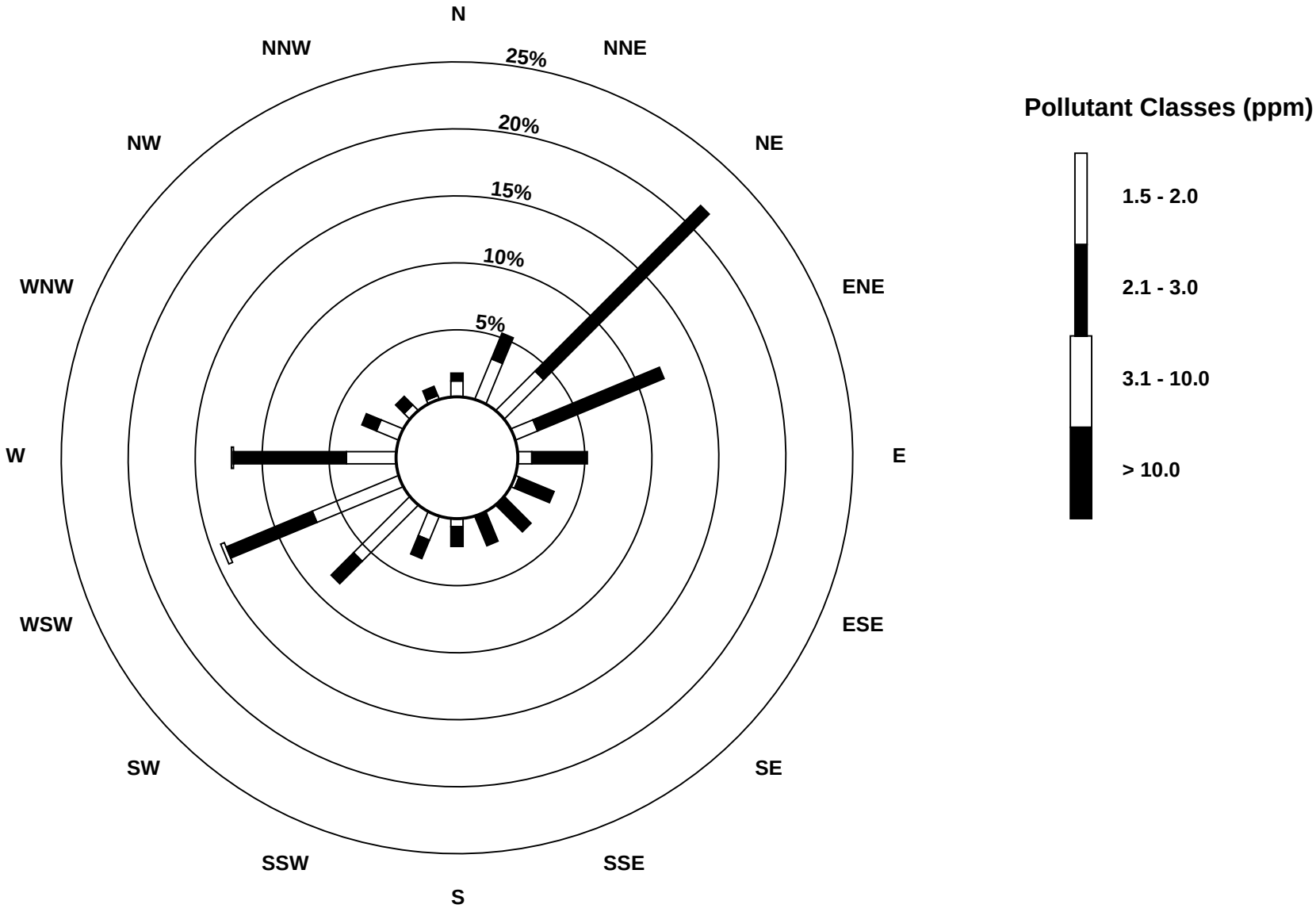
Portable Clairmont - October 2014



Pollutant Rose

Total Hydrocarbons (THC) - ppm

Portable Clairmont - October 2014

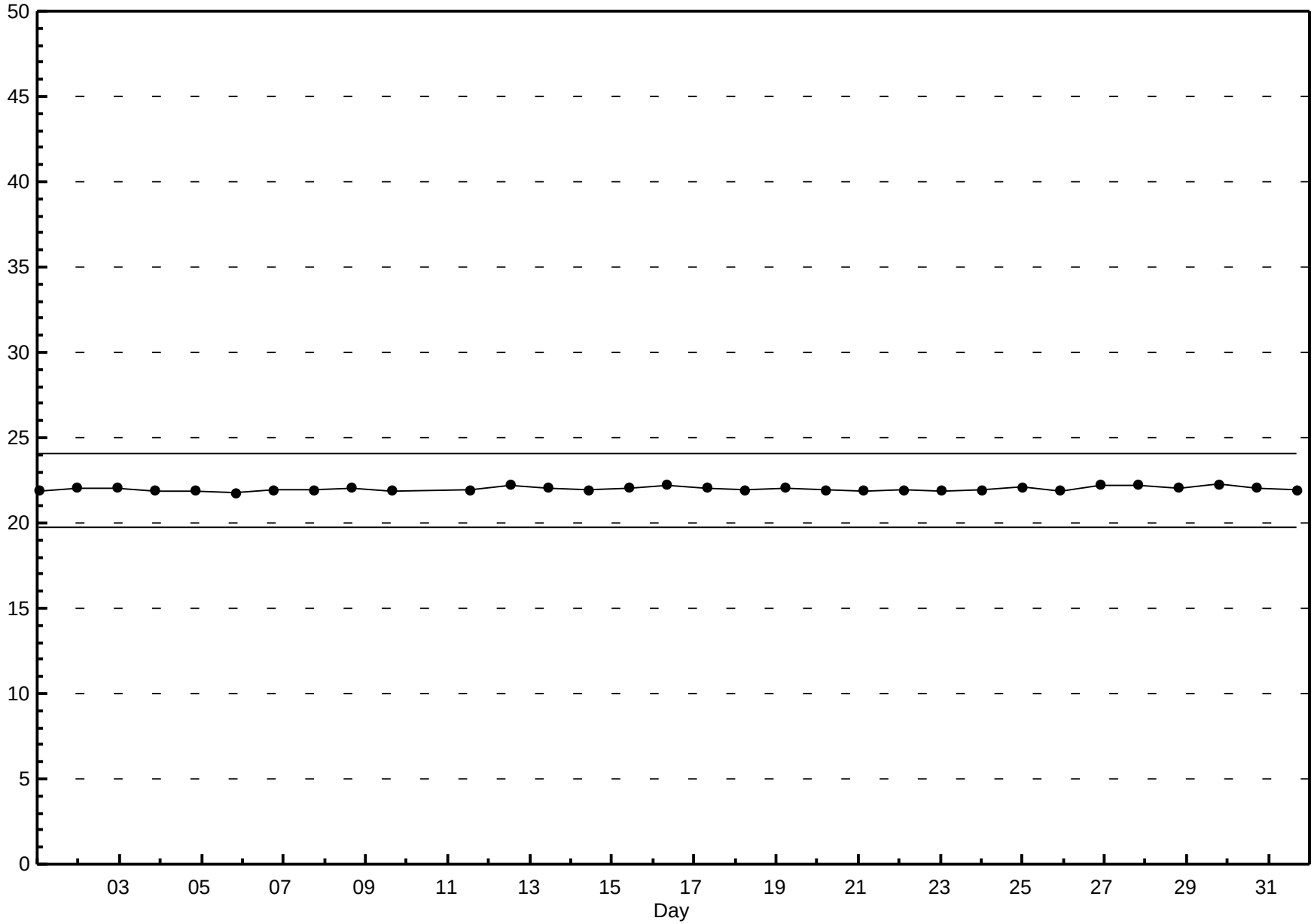


Peace Airshed Zone Association

Span Responses

Total Hydrocarbons (THC)

Portable Clairmont - October 2014



Peace Airshed Zone Association

Hourly Averages

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

Portable Clairmont - October 2014

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

Maximum Value: 98.3 $\mu g/m^3$ on Oct 29 00:00

Maximum Daily Average: 10.2 $\mu g/m^3$ on Oct 29

Minimum Value: 0 $\mu g/m^3$ on Oct 1 03:00

Maximum Diurnal Average: 5.3 $\mu g/m^3$ at hour 24

Monthly Average: 2.75 $\mu g/m^3$

Minimum Daily Average: 0.8 $\mu g/m^3$ on Oct 25

Minimum Diurnal Average: 1.7 $\mu g/m^3$ at hour 4

Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.5$ Median = 1.8 $Q_3 = 3.7$ $P_{90} = 6.1$ $P_{99} = 11.0$

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Oct	0	0	0	1	2	0	2	0	1	0	0	2	0	0	1	2	2	3	3	3	1	1	1	1	1.0	3.1
2-Oct	1	1	1	0	0	1	2	2	2	1	0	0	0	0	0	0	0	1	6	2	1	2	2	1	1.0	5.8
3-Oct	0	1	0	0	0	1	0	0	0	1	0	1	0	1	1	5	5	6	14	9	7	7	1	0	2.5	13.9
4-Oct	0	0	0	0	0	1	0	0	4	2	0	0	0	0	1	0	1	1	1	2	2	3	4	4	1.1	4.3
5-Oct	10	5	3	4	4	5	2	6	7	3	2	3	0	0	0	1	3	1	3	2	10	5	5	4	3.7	9.8
6-Oct	5	3	2	2	1	0	0	0	1	8	0	0	0	0	0	0	1	1	2	2	0	2	2	1	1.3	7.8
7-Oct	3	2	1	2	3	2	3	4	1	2	2	2	1	1	2	3	4	3	4	4	3	5	4	5	2.7	5.1
8-Oct	2	2	2	1	1	1	3	2	5	3	1	0	2	1	1	2	2	2	4	3	3	3	1	2	2.0	4.6
9-Oct	2	2	1	2	3	2	2	3	3	3	3	3	3	3	5	5	5	5	6	7	6	4	4	6	3.7	6.6
10-Oct	4	5	4	2	3	2	2	3	2	2	5	6	10	10	6	C	20	12	6	4	3	4	3	2	5.2	19.7
11-Oct	0	0	0	0	0	0	0	1	1	8	12	5	3	0	0	1	1	1	2	0	1	1	1	1	1.6	11.8
12-Oct	1	2	2	4	4	4	3	3	3	2	3	0	0	0	0	0	0	0	0	0	3	4	2	1	1.7	3.9
13-Oct	1	0	5	2	2	0	4	8	5	3	1	1	0	0	0	0	0	4	0	0	0	0	0	0	1.5	7.9
14-Oct	0	0	1	2	1	2	3	2	1	0	1	0	0	0	0	0	0	1	1	4	5	3	5	2	1.4	5.1
15-Oct	0	1	0	0	0	0	1	2	1	1	1	3	2	1	0	1	1	1	1	2	1	0	0	0	0.9	2.8
16-Oct	0	1	2	2	2	2	1	2	2	3	5	5	6	4	3	3	2	1	2	3	3	2	3	1	2.5	5.8
17-Oct	2	2	1	1	2	1	0	2	1	2	2	2	2	3	3	3	2	4	11	11	12	4	6	3	3.5	12.4
18-Oct	2	4	4	4	5	7	7	7	12	4	1	0	0	0	0	0	0	3	4	4	3	4	0	1	3.2	11.7
19-Oct	0	1	1	2	0	0	1	1	1	0	0	3	1	0	0	1	0	0	1	2	0	1	2	5	1.0	4.6
20-Oct	4	2	2	2	3	6	7	4	11	6	9	8	5	2	4	7	1	3	3	2	0	3	4	4	4.2	10.6
21-Oct	4	7	3	2	3	3	3	3	3	5	3	5	1	3	4	3	4	4	2	2	2	1	2	2	3.0	6.5
22-Oct	0	1	0	0	0	1	0	0	1	1	2	3	5	12	1	1	0	1	4	5	3	1	1	0	1.7	12.2
23-Oct	0	0	0	0	0	0	0	0	0	1	2	4	0	2	1	1	1	2	0	0	2	1	5	5	1.2	5.5
24-Oct	0	3	3	1	2	1	4	4	7	8	3	3	4	0	0	1	2	4	4	1	6	5	4	5	3.1	7.7
25-Oct	2	3	1	2	2	3	2	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0.8	3.2
26-Oct	0	0	0	0	0	0	0	1	1	1	0	2	0	2	1	3	10	2	2	2	0	1	1	0	1.3	9.5
27-Oct	0	1	2	0	0	3	0	1	4	4	1	3	5	7	11	11	10	6	3	1	1	1	3	2	3.4	11.2
28-Oct	2	3	3	2	1	1	2	3	1	2	1	3	1	2	3	4	4	1	3	3	3	4	4	98	6.4	98.3
29-Oct	61	31	18	10	7	6	6	4	5	5	6	6	4	8	8	9	8	6	10	8	7	4	4	2	10.2	60.9
30-Oct	4	1	1	0	2	2	1	2	4	3	6	0	1	0	0	2	2	7	10	10	9	6	3	3	3.3	10.4
31-Oct	5	7	7	6	7	8	6	7	6	7	9	2	1	0	0	2	2	3	4	7	9	9	11	1	5.3	11.2
	3.8	2.9	2.2	1.7	1.9	2.1	2.2	2.6	3.1	2.9	2.7	2.4	1.9	2.0	1.8	2.4	3.0	2.9	3.7	3.4	3.5	2.9	2.8	5.3	Diurnal Average	
	60.9	31.4	17.7	10.0	7.0	8.1	7.2	7.9	11.7	8.0	11.8	7.8	10.0	12.2	11.1	11.2	19.7	11.7	13.9	10.9	12.4	9.5	11.2	98.3	Diurnal Maximum	

C - Calibration

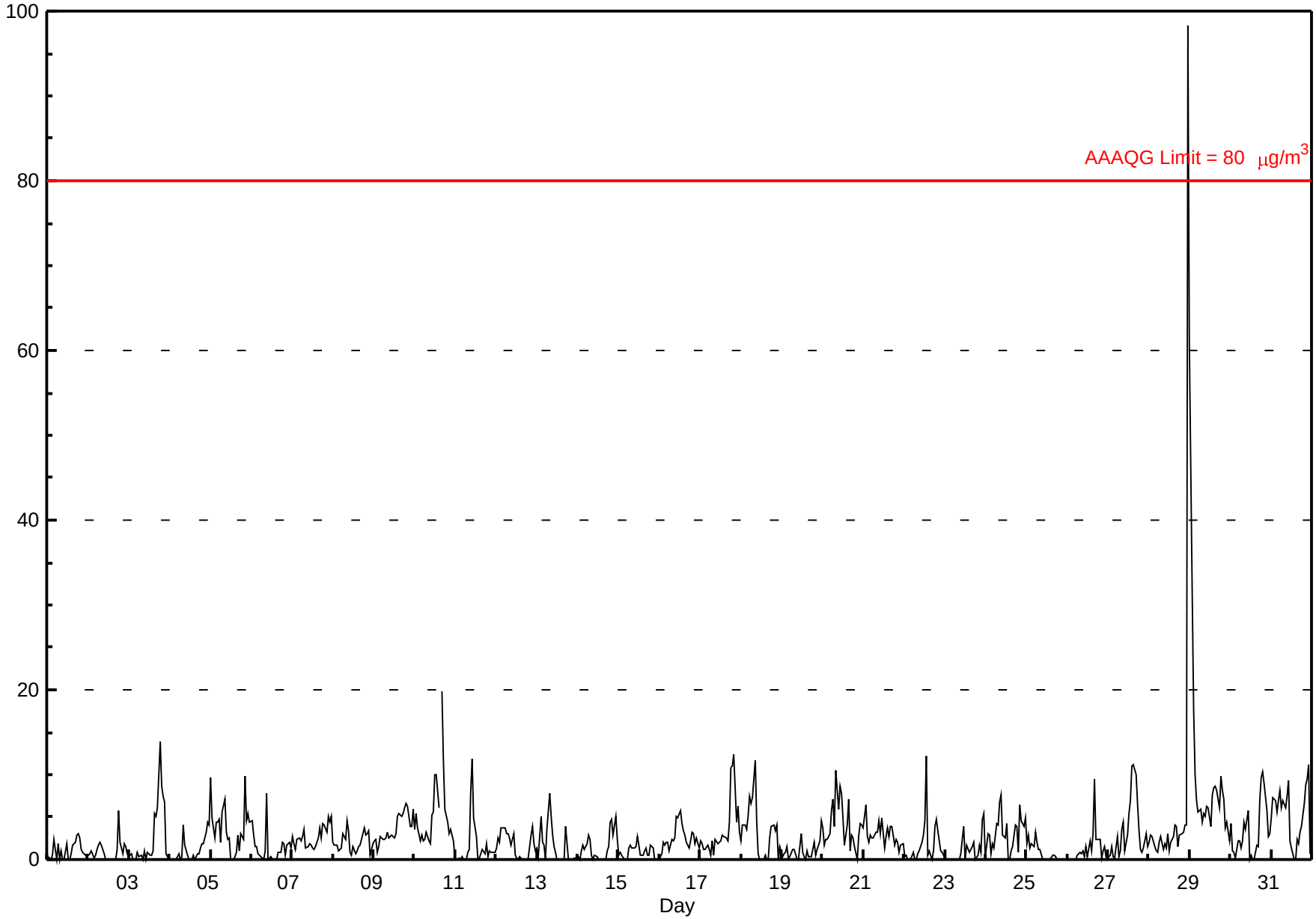
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 $\mu g/m^3$ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 $\mu g/m^3$

Peace Airshed Zone Association

Hourly Averages

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

Portable Clairmont - October 2014



Peace Airshed Zone Association

Hourly Maximums

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

Portable Clairmont - October 2014

Maximum Value: 130.8 $\mu g/m^3$ on Oct 29 00:00

Maximum Daily Average: 14.4 $\mu g/m^3$ on Oct 29

Minimum Value: 0 $\mu g/m^3$ on Oct 13 14:00

Minimum Daily Average: 2.4 $\mu g/m^3$ on Oct 15

Maximum Diurnal Average: 8.8 $\mu g/m^3$ at hour 24

Minimum Diurnal Average: 3.9 $\mu g/m^3$ at hour 4

Monthly Average: 5.77 $\mu g/m^3$

Percentiles: P_1 = 0.1 P_{10} = 1.8 Q_1 = 2.8 Median = 4.4 Q_3 = 7.0 P_{90} = 10.4 P_{99} = 22.0

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

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	2	1	1	2	10	10	4	2	5	4	4	5	4	2	4	5	4	5	6	5	2	2	2	2	3.9	10.3
2-Oct	3	3	3	2	2	4	5	3	4	3	2	3	1	2	2	2	3	5	13	6	3	4	4	3	3.7	13.2
3-Oct	2	3	2	2	2	3	3	3	1	3	2	3	2	3	3	8	9	9	21	20	16	15	3	1	5.8	21.1
4-Oct	4	5	2	1	2	3	1	2	8	4	3	1	2	2	3	3	3	3	3	3	4	6	7	8	3.4	8.2
5-Oct	16	9	6	6	8	7	4	18	21	7	7	6	3	3	3	9	9	4	8	5	18	8	9	9	8.4	20.7
6-Oct	6	5	4	5	3	3	2	2	4	23	3	3	2	2	2	3	3	4	5	4	3	3	4	4	4.2	22.9
7-Oct	7	3	3	4	4	4	7	9	5	4	5	4	4	3	5	6	7	5	10	7	7	7	6	7	5.6	10.0
8-Oct	6	4	4	3	3	3	5	4	7	5	4	4	6	4	5	4	5	8	9	5	7	6	3	3	4.8	8.7
9-Oct	4	5	4	4	5	4	4	4	5	6	5	5	5	5	9	7	8	8	10	9	9	7	6	10	6.1	9.9
10-Oct	7	10	9	6	5	4	4	6	4	5	10	11	13	12	12	C	31	22	9	8	6	6	12	5	9.5	30.9
11-Oct	2	1	4	1	2	1	1	3	4	25	18	19	13	2	3	3	3	2	3	2	2	2	3	3	5.1	25.2
12-Oct	3	4	4	5	6	5	5	4	4	3	17	2	2	2	3	2	2	1	1	4	5	10	5	4	4.3	16.9
13-Oct	5	3	11	6	8	3	6	13	13	6	4	2	1	0	1	2	0	9	2	0	2	1	2	2	4.2	12.8
14-Oct	3	3	3	4	4	4	4	5	2	1	6	3	2	2	3	3	2	3	3	10	9	6	7	5	4.1	10.2
15-Oct	2	3	2	1	2	2	3	3	3	4	4	5	3	2	2	2	2	2	2	3	3	1	0	1	2.4	4.7
16-Oct	1	3	3	3	4	4	2	5	6	4	7	7	9	7	5	5	4	3	3	5	5	4	4	2	4.5	8.9
17-Oct	3	3	3	3	5	5	4	5	2	7	6	4	6	5	5	4	5	8	13	15	20	6	12	5	6.5	19.5
18-Oct	4	8	6	5	13	12	9	10	15	10	6	2	2	2	3	1	0	4	8	10	10	11	2	4	6.5	14.6
19-Oct	4	4	4	5	3	1	2	5	4	2	4	8	4	8	2	5	3	3	3	3	3	3	4	6	3.9	7.9
20-Oct	7	4	5	4	6	9	12	8	20	20	13	10	7	5	9	14	9	8	8	6	3	6	7	6	8.6	20.4
21-Oct	5	10	6	4	5	5	6	6	7	10	10	8	6	6	6	8	6	9	4	5	4	5	7	5	6.3	10.4
22-Oct	5	3	2	1	1	3	5	2	3	4	4	6	9	20	10	4	2	4	9	8	8	3	4	2	5.1	19.5
23-Oct	1	2	3	0	2	0	2	1	2	3	6	6	6	3	4	4	3	9	1	2	4	2	9	14	3.7	14.2
24-Oct	2	5	5	2	5	4	11	7	12	14	6	6	11	2	2	3	3	8	8	4	13	11	6	10	6.8	14.2
25-Oct	5	6	6	6	4	6	4	4	4	1	2	2	0	0	0	4	2	2	1	2	0	0	0	1	2.6	6.2
26-Oct	1	1	1	1	2	1	2	3	2	2	2	2	2	7	2	12	12	5	6	6	3	5	3	2	3.6	12.0
27-Oct	2	3	4	2	2	6	2	4	6	8	4	6	8	10	14	13	13	8	7	3	4	3	6	3	5.9	14.2
28-Oct	4	5	6	5	4	3	5	5	2	5	4	6	4	4	5	6	6	4	5	5	5	6	6	131	9.9	130.8
29-Oct	84	40	22	15	10	9	9	8	8	9	9	8	8	9	11	11	11	8	13	10	10	10	8	5	14.4	83.6
30-Oct	8	6	3	4	5	6	5	6	7	7	11	3	4	1	3	5	6	9	13	13	11	9	7	5	6.5	13.4
31-Oct	9	12	9	8	11	11	9	9	11	11	15	5	5	2	2	7	5	9	8	10	11	11	18	4	8.8	18.2
	7.0	5.7	4.9	3.9	4.8	4.7	4.8	5.5	6.6	7.0	6.5	5.3	4.9	4.4	4.6	5.4	5.9	6.2	7.0	6.5	6.7	5.8	5.7	8.8	Diurnal Average	
	83.6	39.8	22.5	15.2	13.4	11.7	12.5	18.2	20.7	25.2	18.4	18.8	13.4	19.5	14.2	14.1	30.9	21.8	21.1	19.9	19.5	14.6	18.2	130.8	Diurnal Maximum	

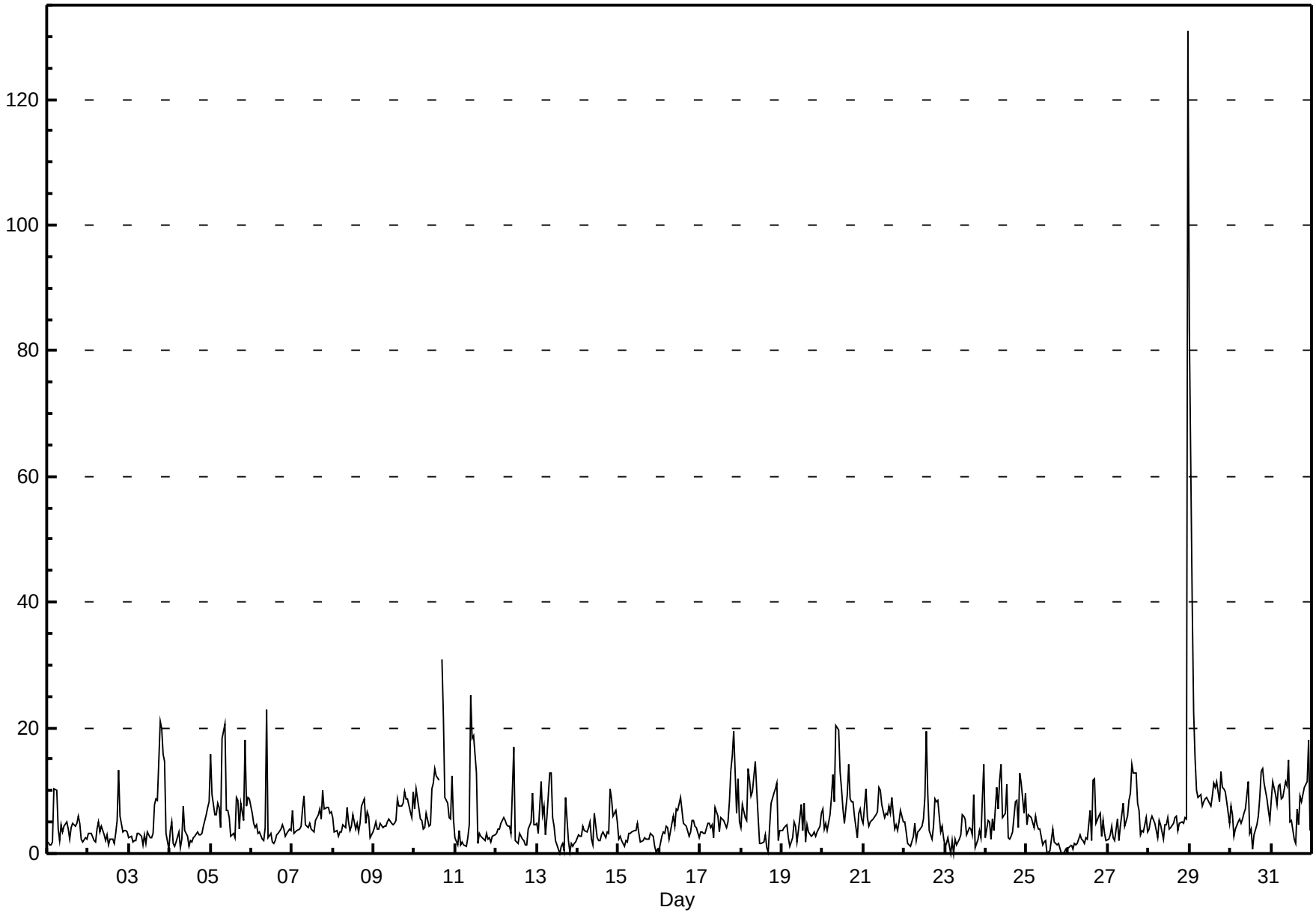
C - Calibration

Peace Airshed Zone Association

Hourly Maximums

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

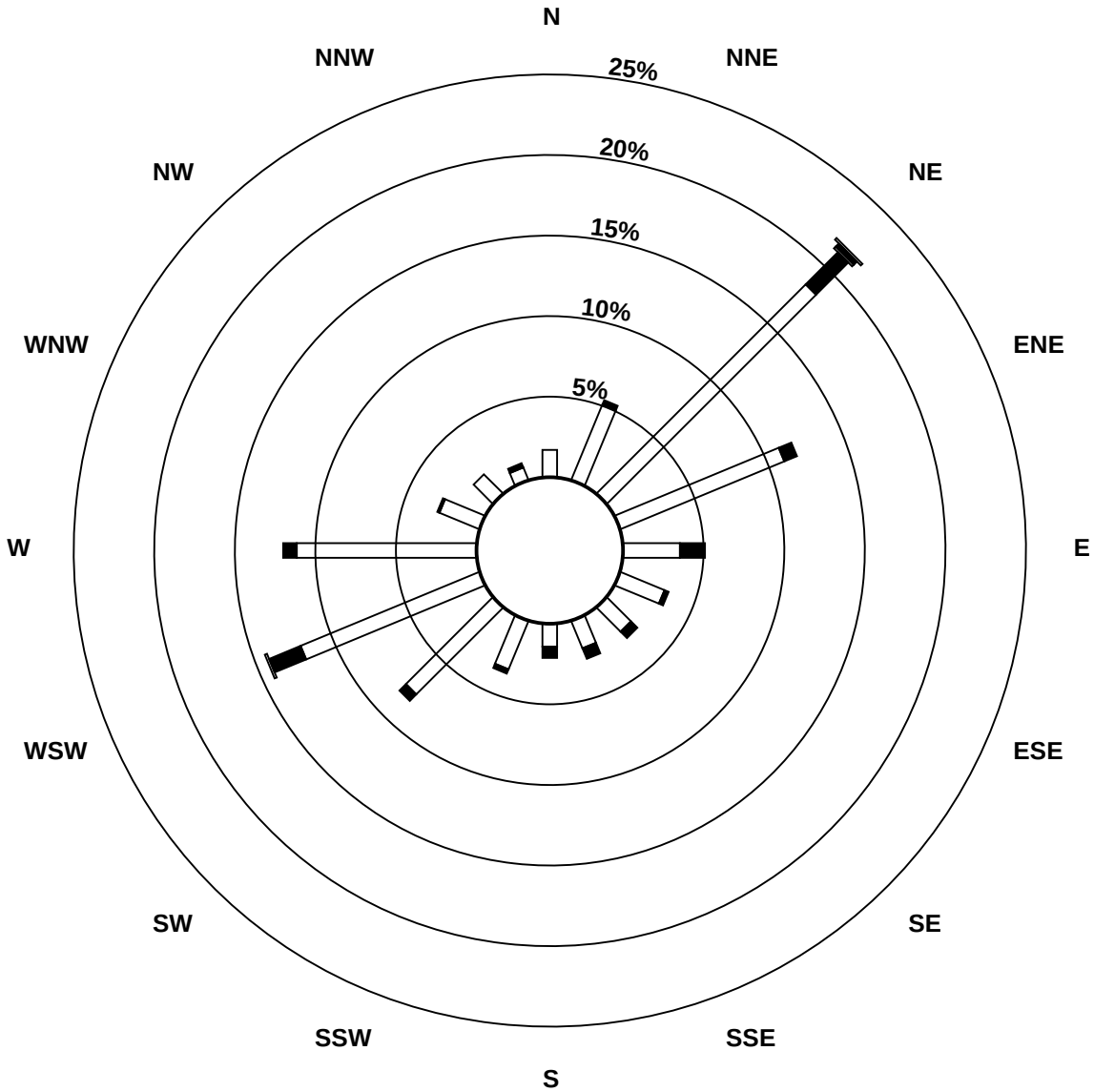
Portable Clairmont - October 2014



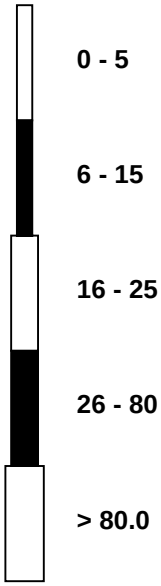
Pollutant Rose

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

Portable Clairmont - October 2014



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



Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Portable Clairmont - October 2014

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

Maximum Value: 20.1 ^{o}C on Oct 10 16:00

Maximum Daily Average: 11.9 ^{o}C on Oct 4

Minimum Value: -6 ^{o}C on Oct 27 09:00

Maximum Diurnal Average: 9.6 ^{o}C at hour 16

Monthly Average: 5.36 ^{o}C

Minimum Daily Average: -2.7 ^{o}C on Oct 27

Minimum Diurnal Average: 2.4 ^{o}C at hour 7

Percentiles: P_1 = -4.0 P_{10} = -0.7 Q_1 = 1.0 Median = 5.1 Q_3 = 8.7 P_{90} = 12.9 P_{99} = 18.2

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

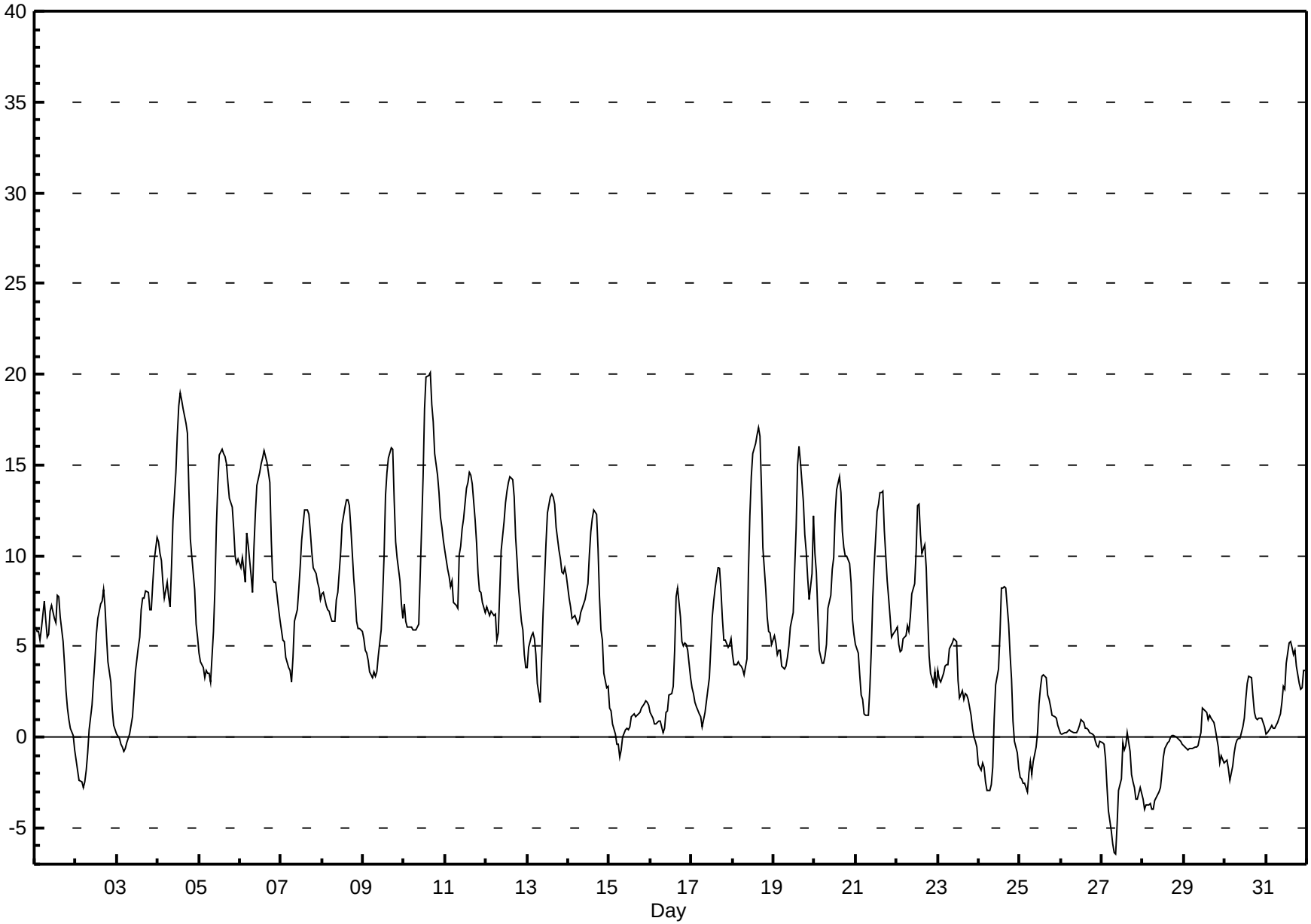
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	6	6	6	5	6	8	6	6	6	7	7	7	6	8	8	7	5	4	3	2	1	0	0	-1	4.9	7.8
2-Oct	-1	-2	-2	-2	-3	-2	-2	-1	0	2	3	4	6	7	7	8	8	7	6	4	3	2	1	0	2.1	8.1
3-Oct	0	0	0	-1	-1	-1	0	0	1	1	2	4	5	6	7	8	8	8	8	7	7	8	10	11	4.0	11.0
4-Oct	11	10	10	9	8	9	8	7	9	12	15	17	18	19	19	18	17	17	14	11	10	8	6	6	11.9	19.0
5-Oct	5	4	4	3	4	3	4	3	6	8	12	14	16	16	16	15	15	14	13	13	11	10	10	10	9.5	15.9
6-Oct	9	10	9	9	11	11	9	8	10	12	14	15	15	15	16	15	15	14	11	9	9	9	7	6	11.2	15.8
7-Oct	6	5	5	4	4	4	3	4	6	7	8	9	11	12	12	13	12	11	10	9	9	9	8	8	7.9	12.5
8-Oct	8	8	7	7	7	7	6	6	8	8	9	10	12	13	13	13	13	12	9	8	6	6	6	6	8.6	13.1
9-Oct	5	5	5	4	4	3	4	3	4	4	6	8	10	13	15	15	16	16	13	11	10	9	7	7	8.2	16.0
10-Oct	7	6	6	6	6	6	6	6	6	9	12	14	18	20	20	20	18	17	16	14	13	12	12	11	11.8	20.1
11-Oct	10	9	9	8	9	7	7	7	10	11	12	12	14	14	15	14	14	12	11	9	8	8	7	7	10.2	14.6
12-Oct	7	7	7	7	7	7	5	6	8	10	12	13	14	14	14	14	13	11	10	8	6	6	5	4	8.9	14.3
13-Oct	4	5	6	6	5	5	3	2	4	7	9	11	12	13	13	13	13	12	10	10	9	9	9	9	8.3	13.4
14-Oct	8	7	7	7	7	6	6	7	7	7	8	8	10	11	12	13	12	10	8	6	5	3	3	3	7.6	12.5
15-Oct	2	1	1	0	0	0	-1	-1	0	0	0	0	1	1	1	1	1	1	1	2	2	2	2	2	0.8	2.0
16-Oct	1	1	1	1	1	1	1	0	0	1	1	2	2	3	5	8	8	7	5	5	5	5	5	3	3.1	8.2
17-Oct	3	2	2	2	1	1	1	1	1	2	3	5	7	8	8	9	9	8	7	5	5	5	5	5	4.4	9.4
18-Oct	5	4	4	4	4	4	4	3	4	9	12	14	16	16	17	17	17	14	10	8	7	6	6	5	8.7	17.1
19-Oct	6	5	5	5	5	4	4	4	4	5	6	7	9	11	15	16	15	13	11	10	9	8	9	12	8.2	16.0
20-Oct	10	9	7	5	4	4	4	5	7	8	9	10	12	14	14	13	11	10	10	10	10	9	6	6	8.7	14.4
21-Oct	5	5	3	2	2	1	1	1	3	5	8	9	12	13	13	13	14	11	9	8	7	6	6	6	6.8	13.6
22-Oct	6	5	5	5	5	6	6	6	7	8	8	10	13	13	11	10	11	9	7	4	4	3	4	3	7.0	12.8
23-Oct	4	3	3	4	4	4	4	5	5	5	5	5	3	2	3	2	2	2	2	1	0	0	0	-1	2.9	5.4
24-Oct	-1	-2	-1	-2	-2	-3	-3	-3	-2	1	3	4	6	8	8	8	8	6	5	3	1	0	-1	-2	1.6	8.3
25-Oct	-2	-2	-3	-3	-3	-2	-1	-2	-1	-1	0	2	3	3	3	3	2	2	2	1	1	1	1	0	0.2	3.4
26-Oct	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	1	0	0	0	0	0	0	-1	0	0.3	1.0
27-Oct	0	0	-1	-3	-4	-5	-6	-6	-6	-5	-3	-2	0	-1	0	0	-1	-2	-2	-3	-3	-3	-3	-3	-2.7	0.2
28-Oct	-3	-4	-4	-4	-4	-4	-4	-4	-3	-3	-3	-2	-1	-1	0	0	0	0	0	0	0	0	0	0	-1.8	0.1
29-Oct	-1	-1	-1	-1	-1	-1	-1	-1	0	0	0	2	1	1	1	1	1	1	0	0	-1	-1	-1	-1	0.0	1.6
30-Oct	-1	-1	-2	-2	-2	-1	0	0	0	0	1	1	2	3	3	3	2	1	1	1	1	1	1	1	0.5	3.3
31-Oct	0	0	1	1	1	1	1	1	1	2	3	3	4	5	5	5	5	5	4	3	3	3	4	4	2.5	5.3
	3.8	3.5	3.1	2.8	2.7	2.6	2.4	2.4	3.4	4.6	5.9	7.0	8.3	9.1	9.5	9.6	9.3	8.2	6.8	5.8	5.1	4.5	4.3	4.0	Diurnal Average	
	10.8	10.1	9.7	8.5	11.2	10.6	8.9	8.0	10.4	12.4	14.6	16.6	18.3	19.9	19.9	20.1	18.3	17.4	15.6	14.4	13.4	12.1	11.5	12.2	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Portable Clairmont - October 2014



Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Portable Clairmont - October 2014

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1 Spd	12	10	14	11	16	20	12	9	6	14	14	19	21	24	26	27	27	22	18	13	13	13	11	12	13.0	27.0
Dir	192	205	193	193	231	241	248	285	257	249	259	286	279	286	296	307	305	317	311	291	277	274	269	256	272.4	306.8
2 Spd	10	8	8	9	6	7	8	7	7	11	12	10	11	7	9	5	1	5	5	7	6	6	6	6	3.9	12.0
Dir	266	277	269	278	287	250	252	280	276	270	263	250	241	257	255	253	143	85	123	65	76	58	60	66	266.8	263.2
3 Spd	7	7	8	10	10	8	10	7	8	8	10	10	7	4	4	5	4	5	2	2	4	4	4	10	4.5	10.2
Dir	71	68	65	52	47	53	56	64	61	62	94	101	111	92	117	126	64	148	264	59	148	188	188	223	84.4	222.8
4 Spd	15	8	10	5	5	5	6	5	3	6	11	15	24	27	25	23	22	19	11	6	7	4	2	3	10.7	26.7
Dir	213	245	229	231	184	212	221	239	303	249	251	261	254	248	246	245	251	257	244	240	236	265	263	267	244.8	247.9
5 Spd	1	3	2	2	2	1	1	2	3	3	5	6	16	17	12	7	1	6	8	7	5	2	5	7	2.4	17.4
Dir	136	216	261	196	155	11	120	197	257	267	253	286	273	275	290	303	59	139	150	153	186	75	142	142	237.9	274.7
6 Spd	5	10	6	5	16	11	11	11	12	14	21	21	21	22	19	22	22	17	11	8	10	10	6	5	12.4	22.2
Dir	159	202	276	250	262	258	265	262	271	270	263	263	262	255	269	277	275	273	260	237	224	221	250	259	259.7	254.6
7 Spd	4	3	3	2	2	5	1	5	4	5	4	4	6	5	5	4	6	4	4	3	2	3	5	4	1.5	6.2
Dir	267	261	276	260	251	53	65	83	79	41	38	60	65	56	42	43	78	80	57	45	141	265	258	250	48.3	78.1
8 Spd	5	7	7	6	4	2	3	4	5	5	9	10	8	11	8	6	3	3	9	10	12	12	11	9	1.4	11.6
Dir	212	195	188	177	197	226	234	236	219	231	271	274	266	260	286	272	309	37	39	38	34	40	44	52	290.4	34.3
9 Spd	8	8	9	11	13	13	10	11	13	11	9	7	5	4	1	3	3	4	5	3	3	3	1	3	6.2	13.3
Dir	51	61	54	54	38	39	43	44	40	46	44	38	43	125	99	58	55	100	91	96	79	79	69	74	53.1	40.2
10 Spd	3	3	3	4	3	6	4	5	5	3	2	2	1	3	1	8	15	18	12	10	9	9	19	13	2.7	18.8
Dir	68	83	85	64	60	56	61	62	63	58	62	96	161	62	335	239	252	244	247	230	220	225	234	203	226.7	233.6
11 Spd	16	19	19	16	14	9	14	14	20	15	18	19	27	26	27	26	28	21	17	11	11	12	9	8	16.8	28.1
Dir	196	206	210	219	221	215	219	215	230	233	238	241	250	247	241	243	240	236	237	222	219	226	236	240	230.6	239.7
12 Spd	10	9	10	10	9	9	7	10	13	20	22	24	21	24	24	26	27	17	12	9	2	3	3	4	12.5	26.6
Dir	238	249	239	255	261	252	245	231	235	235	247	245	243	245	238	232	229	224	221	203	161	76	128	104	236.4	228.7
13 Spd	4	1	0	0	4	6	2	2	5	3	6	7	6	9	11	12	9	8	10	11	10	9	7	5	5.4	11.7
Dir	108	184	355	216	104	136	322	51	63	87	105	104	114	108	101	91	80	122	71	53	42	57	71	69	85.4	90.8
14 Spd	4	1	1	3	3	6	7	10	13	12	11	11	14	13	15	15	16	11	6	6	6	1	3	9	5.5	15.6
Dir	76	24	264	160	249	257	257	270	260	236	208	236	227	252	265	258	264	266	284	359	87	327	102	55	253.7	263.9
15 Spd	11	13	11	5	8	9	7	8	14	15	15	14	14	13	13	11	10	10	7	3	2	4	9	10	9.3	15.4
Dir	23	20	29	8	36	34	358	355	18	18	26	13	355	5	23	14	359	359	344	300	312	359	34	50	14.6	18.1
16 Spd	11	14	14	10	7	4	2	3	4	4	2	3	3	5	4	5	7	7	10	11	8	9	8	10	5.5	13.8
Dir	44	47	42	31	25	48	88	167	239	209	208	204	86	76	31	88	69	53	38	44	57	58	54	43	52.0	46.6
17 Spd	10	10	11	9	9	10	8	8	13	10	10	6	1	2	4	2	3	1	1	1	4	5	4	4	4.3	13.4
Dir	45	43	40	40	49	39	45	47	45	47	42	37	308	94	89	87	121	319	218	331	256	262	261	262	40.1	44.9
18 Spd	3	3	2	2	1	2	3	2	1	5	16	22	24	21	22	14	11	7	4	4	4	4	6	4	6.0	24.1
Dir	258	225	332	171	154	248	248	179	186	215	228	228	235	228	229	230	228	253	290	120	131	107	60	79	225.5	234.6
19 Spd	4	3	5	6	7	10	8	9	9	11	11	8	6	6	6	5	8	11	11	7	6	6	10	12	6.4	12.0
Dir	60	64	65	57	48	42	40	40	50	44	41	58	71	83	80	70	46	38	36	68	71	115	148	154	62.0	154.5
20 Spd	8	6	2	1	3	1	5	4	4	4	7	4	3	6	0	9	15	3	6	8	9	5	2	0	1.9	15.1
Dir	145	149	253	34	235	221	273	285	237	264	132	89	70	39	63	242	280	281	199	191	182	157	32	234	208.8	279.5
21 Spd	2	2	3	0	1	3	8	1	2	2	4	1	3	3	2	3	3	3	5	8	6	3	4	4	1.0	7.8
Dir	124	238	258	28	76	251	258	229	331	236	184	50	144	49	47	34	51	47	54	52	67	66	55	63	59.1	257.8
22 Spd	8	10	12	12	12	12	15	15	7	6	5	8	9	9	13	7	10	5	3	1	4	4	7	5	3.5	14.7
Dir	42	43	40	44	40	45	33	38	57	71	110	131	151	247	268	271	247	231	233	113	123	46	60	47	46.9	37.6

Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Portable Clairmont - October 2014

Day	Hourly Period Ending At (MST) 1	2	3	4	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	11	8	8	5	10	14	16	10	17	8	11	22	22	19	17	13	12	10	10	10	8	7	8	4.4	22.1
Dir	39	39	48	42	59	32	16	21	36	42	58	197	248	269	266	260	268	267	267	245	247	256	261	263	301.0	269.1
24 Spd	9	8	7	7	6	4	2	1	1	4	6	6	10	26	28	25	18	11	7	8	3	3	3	2	8.2	28.0
Dir	263	264	261	250	273	261	240	246	232	242	229	243	266	256	257	249	257	260	239	239	285	275	261	120	254.5	256.8
25 Spd	1	0	2	2	2	5	5	8	11	12	12	11	18	19	21	18	16	18	21	20	22	22	20	18	12.6	22.0
Dir	83	49	45	54	42	67	65	44	38	41	41	43	40	40	42	53	52	48	46	44	46	45	41	37	44.7	45.4
26 Spd	18	19	19	18	18	16	13	9	5	5	9	8	6	7	9	7	7	7	8	N	N	N	N	N	8.0	19.4
Dir	33	28	30	33	30	27	19	15	350	322	341	343	323	291	292	289	273	271	264	N	N	N	N	N	1.4	30.4
27 Spd	N	N	N	N	N	N	N	N	N	N	N	3	2	4	3	4	6	8	N	N	N	N	N	N	--	7.7
Dir	N	N	N	N	N	N	N	N	N	N	N	245	234	36	45	63	41	43	N	N	N	N	N	N	--	42.6
28 Spd	N	N	N	N	N	N	N	N	N	N	N	N	N	13	11	12	11	9	11	13	11	12	12	12	--	13.1
Dir	N	N	N	N	N	N	N	N	N	N	N	N	N	20	39	21	25	35	31	35	39	36	32	34	--	20.2
29 Spd	11	8	7	4	4	4	5	5	4	4	5	6	5	4	4	5	5	4	4	5	5	6	6	7	4.6	10.9
Dir	38	37	36	30	29	36	40	39	45	45	80	125	139	104	56	83	84	82	40	38	47	47	45	36	54.0	37.8
30 Spd	6	7	8	9	8	8	9	6	13	12	13	12	12	13	11	13	15	15	16	15	13	12	11	11	11.0	16.2
Dir	50	32	54	65	64	69	79	77	77	69	68	73	70	73	65	66	51	49	53	54	52	46	44	41	59.9	52.8
31 Spd	11	9	8	8	1	8	9	8	3	3	2	2	1	3	5	4	5	4	4	1	2	3	9	11	0.7	11.0
Dir	37	37	37	47	50	258	258	244	201	149	134	23	293	252	280	263	315	279	172	92	63	149	189	203	262.1	37.4
Spd	1.6	1.3	1.5	1.6	1.5	1.5	1.7	1.7	1.6	1.3	1.5	2.8	5.0	5.3	5.4	4.6	4.5	2.5	1.4	1.5	1.4	1.5	1.3	1.5	Diurnal Average	
Dir	64.1	37.6	27.3	39.7	16.5	7.5	337.5	353.0	0.9	322.4	266.0	258.6	255.5	267.7	273.5	270.0	279.6	289.5	321.4	45.8	74.6	44.0	51.5	69.1		
Spd	18.3	19.0	19.4	17.7	17.9	20.3	14.6	15.5	19.9	19.5	22.3	23.6	27.2	26.7	28.0	27.0	28.1	22.0	21.3	20.0	21.8	22.0	19.8	18.0	Diurnal Maximum	
Dir	33.2	28.1	30.4	32.6	30.1	241.4	33.4	21.0	230.3	235.4	246.7	245.5	249.8	247.9	256.8	306.8	239.7	317.0	46.0	43.6	45.5	45.4	40.7	37.2		

Maximum Speed Value: 28 km/h on Oct 11 17:00
Maximum Daily Speed Average: 16.8 km/h on Oct 11
Maximum Diurnal Speed Average: 5.4 km/h at hour 15

Minimum Speed Value: 0 km/h on Oct 21 04:00
Minimum Daily Speed Average: 0.7 km/h on Oct 21
Minimum Diurnal Speed Average: 1.3 km/h at hour 2

Monthly Average Velocity: 1.26 km/h 305.71 deg

Speed Percentiles: $P_1 = 0.6$ $P_{10} = 2.3$ $Q_1 = 4.2$ Median = 7.5 $Q_3 = 11.2$ $P_{90} = 17.5$ $P_{99} = 26.7$

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

Hours in Service:	744
Hours of Data:	709
Hours of Missing Data:	35
Percent Operational Time:	95.3

N - Not Valid

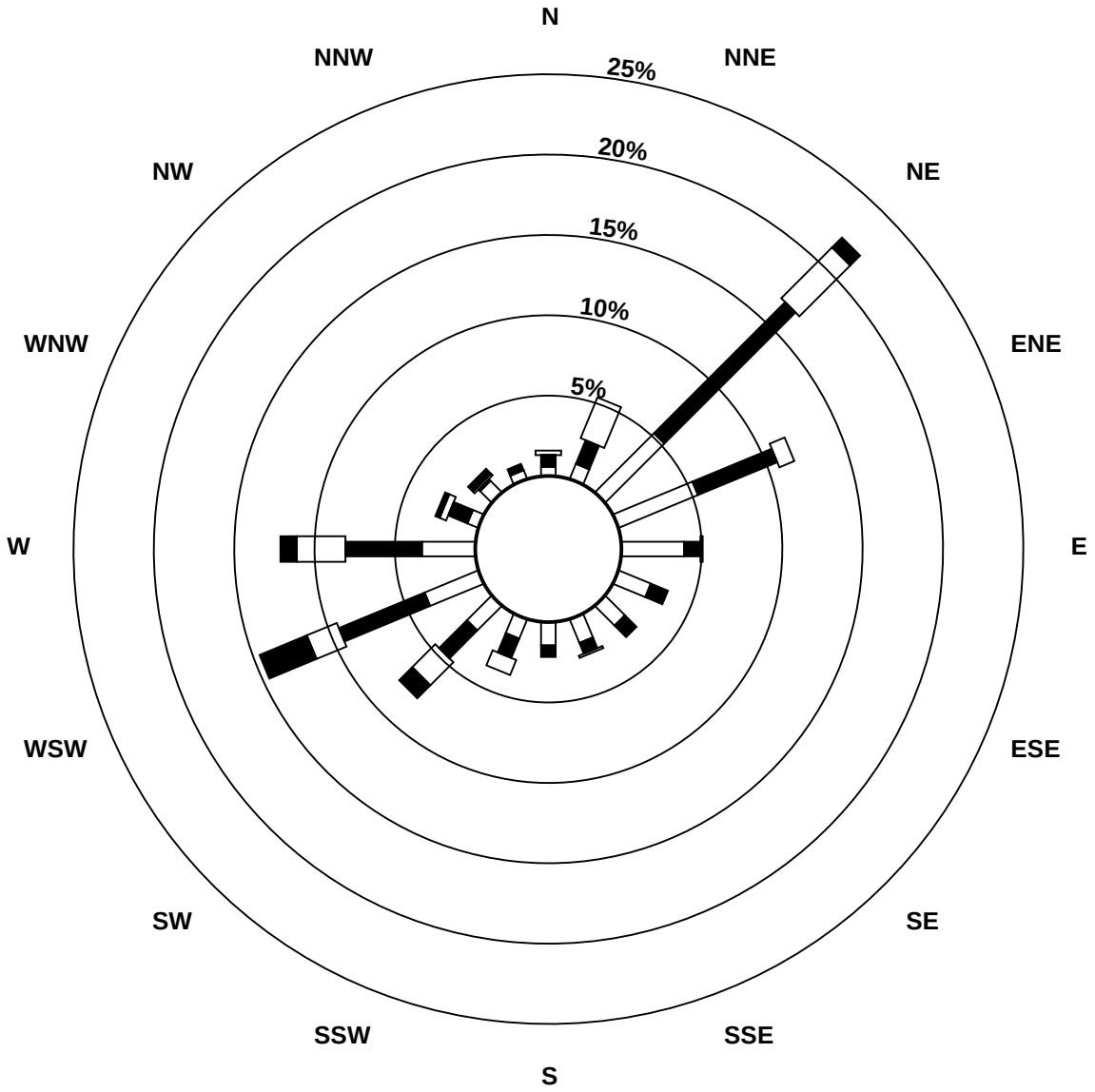
Frequency Distribution

Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	3	11	12	0	0	0	26
NorthEast	66	109	52	7	0	0	234
East	42	30	7	0	0	0	79
SouthEast	23	19	1	0	0	0	43
South	18	10	4	0	0	0	32
SouthWest	29	39	29	20	1	0	118
West	39	63	33	19	1	0	155
NorthWest	15	2	1	4	0	0	22
Total	235	283	139	50	2	0	709

Wind Rose

Wind Speed (WS) (km/h)

Portable Clairmont - October 2014



Wind Speed Classes (km/h)

Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Portable Clairmont - October 2014

Maximum Speed: 28 km/h on Oct 11 17:00

Maximum Daily Speed Average: 17.5 km/h on Oct 11

Minimum Speed: 1 km/h on Oct 24 08:00

Minimum Daily Speed Average: 4.1 km/h on Oct 21

Maximum Diurnal Speed Average: 12.4 km/h at hour 14

Minimum Diurnal Speed Average: 7.2 km/h at hour 22

Monthly Average Speed: 8.97 km/h

Percentiles: P_1 = 1.8 P_{10} = 3.2 Q_1 = 4.6 Median = 7.7 Q_3 = 11.5 P_{90} = 17.7 P_{99} = 26.8

Hours in Service: 744

Hours of Data: 709

Hours of Missing Data: 35

Percent Operational Time: 95.3

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-Oct	12	10	14	12	17	20	13	9	6	14	14	20	21	24	26	28	27	22	18	13	13	13	11	12	16.2	27.6
2-Oct	11	9	8	9	6	7	8	7	8	11	12	11	11	8	10	6	5	5	5	7	7	6	6	6	7.9	12.1
3-Oct	7	7	8	10	10	8	10	7	8	8	10	10	8	5	5	7	5	5	3	3	5	6	5	10	7.0	10.5
4-Oct	15	9	10	6	6	6	6	5	4	7	11	15	24	27	25	23	22	19	11	6	7	5	3	4	11.6	26.9
5-Oct	2	3	3	3	3	2	2	2	3	4	6	6	16	18	12	7	3	6	9	7	5	3	5	7	5.8	17.6
6-Oct	6	10	7	6	16	12	11	11	13	14	22	21	21	23	20	22	22	17	11	8	10	10	6	5	13.4	22.5
7-Oct	4	4	4	3	3	5	2	5	5	5	4	5	6	5	5	5	6	4	4	3	3	4	5	4	4.3	6.3
8-Oct	5	8	7	6	5	2	3	4	5	5	9	10	9	11	9	6	4	5	9	10	12	12	11	9	7.3	11.8
9-Oct	8	8	9	11	13	13	10	11	13	11	9	7	5	5	4	3	3	4	5	3	3	3	1	3	6.9	13.4
10-Oct	4	3	4	4	3	6	5	6	5	3	3	3	2	3	2	8	16	18	13	10	9	9	20	13	7.2	19.7
11-Oct	16	19	19	16	15	9	14	14	20	15	18	19	27	26	28	26	28	21	17	11	11	12	9	8	17.5	28.3
12-Oct	10	9	10	11	9	9	7	10	13	20	23	24	22	24	25	26	27	18	12	9	3	4	3	5	13.8	26.8
13-Oct	4	3	2	3	5	7	3	2	6	3	6	7	6	9	11	12	10	8	10	11	10	9	7	5	6.7	11.8
14-Oct	4	2	1	4	4	6	7	11	13	13	11	12	15	13	15	15	16	11	6	8	7	2	4	9	8.7	15.8
15-Oct	11	13	11	6	8	9	7	8	14	16	15	14	14	13	13	11	11	10	7	3	2	4	9	10	10.0	15.7
16-Oct	11	14	14	10	7	4	3	4	4	5	4	4	5	6	4	6	7	7	10	11	9	9	8	10	7.3	13.9
17-Oct	10	10	11	10	9	10	8	8	13	10	10	6	3	3	4	3	3	2	2	2	4	5	5	4	6.5	13.5
18-Oct	4	4	4	3	2	4	4	3	3	6	16	22	24	22	22	14	11	7	4	4	5	5	7	4	8.5	24.3
19-Oct	4	3	5	7	7	10	9	9	9	11	11	9	7	6	6	6	8	12	12	8	6	6	10	12	8.0	12.0
20-Oct	8	8	4	4	6	3	6	5	4	4	8	5	4	7	4	10	15	4	7	9	9	5	3	2	5.9	15.4
21-Oct	2	3	4	2	3	4	8	4	3	4	5	3	5	3	3	3	3	3	5	8	6	4	4	4	4.1	7.9
22-Oct	8	10	12	12	13	12	15	15	7	7	5	8	9	11	14	7	10	6	4	3	5	5	7	6	8.7	14.9
23-Oct	8	11	8	8	6	10	14	16	11	17	10	11	23	22	19	18	13	12	10	10	10	8	7	8	12.1	22.7
24-Oct	9	8	7	7	6	5	2	1	1	4	6	6	10	26	28	25	18	11	7	8	3	4	4	3	8.8	28.2
25-Oct	1	4	2	2	3	5	5	8	11	12	12	11	18	19	21	19	16	18	21	20	22	22	20	18	13.0	22.0
26-Oct	18	19	19	18	18	16	13	9	5	5	9	8	7	7	9	7	7	7	8	N	N	N	N	N	11.1	19.4
27-Oct	N	N	N	N	N	N	N	N	N	N	N	3	3	4	3	4	6	8	N	N	N	N	N	N	--	7.8
28-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	13	11	12	11	9	11	13	11	12	12	12	--	13.3
29-Oct	11	8	7	4	4	4	5	5	4	4	5	6	5	5	4	5	5	4	5	5	5	6	6	7	5.4	10.9
30-Oct	6	7	8	9	9	8	10	6	13	13	13	12	12	13	11	13	15	15	16	15	13	12	12	11	11.4	16.3
31-Oct	11	10	8	8	4	8	9	8	3	3	2	3	2	4	6	4	5	8	5	3	3	3	9	11	5.9	11.0
	7.9	8.1	8.0	7.3	7.6	7.7	7.4	7.4	7.9	8.8	10.0	10.0	11.5	12.4	12.3	11.7	11.6	9.9	8.9	8.1	7.6	7.2	7.6	7.7	Diurnal Average	
	18.3	19.0	19.4	17.8	17.9	20.4	14.8	15.9	20.0	19.6	22.5	23.9	27.5	26.9	28.2	27.6	28.3	22.2	21.3	20.0	21.9	22.0	19.8	18.1	Diurnal Maximum	

N - Not Valid

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

Peace Airshed Zone Association

Hourly Standard Deviations

Wind Direction (WD) - deg

Portable Clairmont - October 2014

Maximum Value: 96.3 deg on Oct 21 04:00

Minimum Value: 3.2 deg on Oct 26 02:00

Percentiles: P_1 = 3.8 P_{10} = 6.4 Q_1 = 8.4 Median = 12.9 Q_3 = 26.8 P_{90} = 51.4 P_{99} = 89.3

Hours in Service:	744
Hours of Data:	709
Hours of Missing Data:	35
Hours of Calibration:	0
Percent Operational Time:	95.3

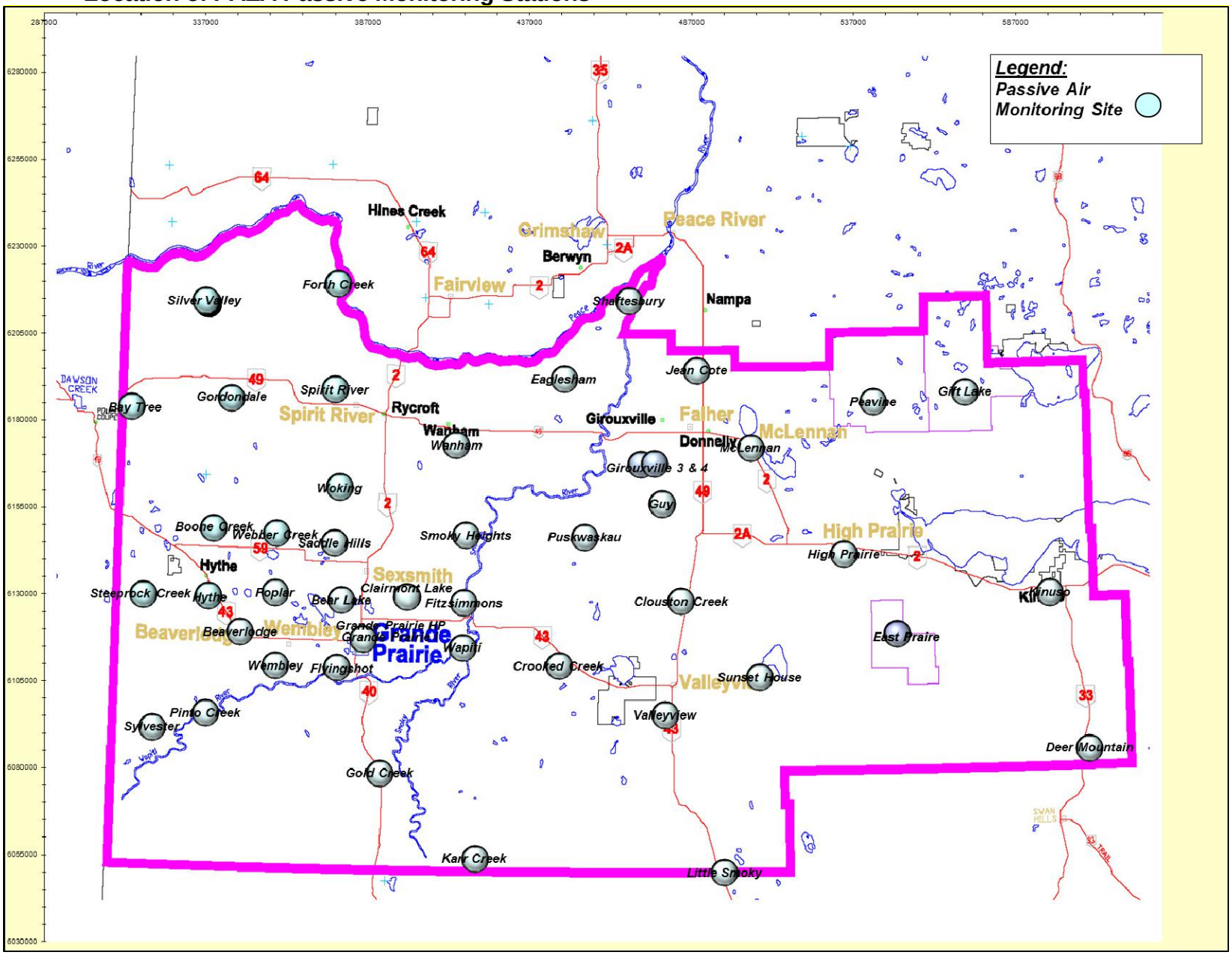
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Oct	10	18	7	12	18	7	17	13	16	11	17	14	10	9	11	12	9	9	8	9	8	7	9	8	17.8
2-Oct	12	12	16	7	9	10	9	14	18	11	10	15	16	35	25	42	90	14	12	19	12	16	11	8	89.5
3-Oct	9	10	14	8	8	9	8	11	7	9	9	8	13	20	24	41	45	19	55	52	34	49	59	18	59.4
4-Oct	12	28	9	32	45	39	14	17	35	27	11	12	8	6	6	7	7	8	7	11	15	25	51	75	75.0
5-Oct	77	44	67	59	71	82	62	24	27	28	17	16	13	9	9	14	76	19	7	6	27	53	9	23	82.1
6-Oct	49	16	23	33	10	13	9	12	9	7	7	8	12	10	12	9	8	7	12	8	13	11	23	13	49.2
7-Oct	22	36	17	47	54	39	85	28	46	18	14	29	20	24	17	25	10	8	27	30	39	38	8	12	85.1
8-Oct	15	13	9	13	18	48	37	14	12	19	12	12	21	19	32	26	37	74	9	9	8	12	9	5	73.9
9-Oct	10	10	14	9	6	4	11	6	7	6	10	10	21	31	83	37	33	13	11	11	18	21	57	19	83.2
10-Oct	49	16	16	17	36	14	29	17	19	21	46	60	84	50	55	33	15	10	8	16	8	14	18	11	84.1
11-Oct	7	7	7	11	9	10	9	11	6	9	8	10	9	7	9	9	8	6	7	14	8	7	7	9	13.8
12-Oct	9	8	8	9	18	10	9	7	7	6	9	8	9	10	9	8	7	8	9	22	42	57	39	20	56.7
13-Oct	28	59	91	91	31	51	66	46	24	32	15	11	20	8	12	8	12	19	17	9	6	11	14	13	91.0
14-Oct	23	74	49	49	53	20	9	13	12	20	21	11	11	17	11	8	9	8	17	44	40	88	45	15	87.9
15-Oct	11	6	6	39	16	18	12	7	9	13	10	9	10	11	9	10	15	10	14	15	45	15	9	11	44.7
16-Oct	8	6	7	7	43	54	33	45	17	27	82	56	62	35	29	24	13	8	8	7	14	15	6	6	82.1
17-Oct	6	6	4	7	10	6	7	8	6	24	8	14	84	70	28	43	19	74	35	76	13	7	16	24	83.7
18-Oct	52	46	74	51	60	70	41	38	89	32	10	8	8	9	9	13	9	7	19	33	37	33	15	22	89.2
19-Oct	21	24	14	12	9	7	7	7	12	7	6	30	19	19	15	31	7	8	9	32	17	22	12	5	31.5
20-Oct	7	48	75	71	76	88	19	44	29	40	16	18	47	10	94	44	30	68	17	16	6	32	66	90	94.3
21-Oct	45	46	17	96	76	80	7	85	67	54	42	78	50	40	50	21	30	21	10	9	14	27	26	23	96.3
22-Oct	8	8	6	5	7	10	9	9	16	22	18	15	14	39	19	20	11	23	44	71	44	23	11	27	70.5
23-Oct	7	7	12	5	27	8	5	12	10	8	34	15	18	7	9	17	9	9	11	9	13	9	8	12	33.6
24-Oct	12	15	13	12	14	19	17	35	29	16	14	13	11	6	7	6	12	8	17	9	40	45	54	52	54.2
25-Oct	59	88	29	24	44	16	12	7	4	4	7	5	4	7	4	9	6	4	4	4	4	4	5	4	87.8
26-Oct	4	3	4	4	4	4	4	6	12	13	6	7	14	10	7	10	11	8	7	N	N	N	N	N	13.6
27-Oct	N	N	N	N	N	N	N	N	N	N	N	18	58	11	21	29	8	8	N	N	N	N	N	N	57.8
28-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	9	10	7	7	7	4	4	4	4	4	4	9.8
29-Oct	5	5	4	7	6	9	5	7	13	13	12	22	21	18	18	20	13	20	14	22	11	9	18	15	22.3
30-Oct	19	13	18	14	14	14	6	7	6	6	8	6	6	7	10	8	9	6	6	6	9	5	7	6	19.5
31-Oct	8	6	7	10	91	14	12	17	23	36	67	48	83	19	26	12	25	57	61	64	60	53	10	11	90.5
	76.6	87.8	91.0	96.3	90.5	87.7	85.1	84.7	89.2	53.6	82.1	78.0	84.1	70.4	94.3	43.6	89.5	73.9	60.8	76.0	59.5	87.9	66.3	90.0	

N - Not Valid

PAZA

Monthly Passive Data Summary

Location of PAZA Passive Monitoring Stations



PAZA Passive Results for October 2014

Station Number	Station Name	SO2 ppb	O3 ppb	NO2 ppb	H2S ppb	Site Legal
Duplicates						
7a	Steeprock Creek	**0.1**	**24.3**	**1.0**		
7b	Steeprock Creek	**0.1**	**28.3**	**0.9**		
18a	Saddle Hills	**0.1**	**20.4**	**1.0**		
18b	Saddle Hills	**0.2**	**22.3**	**1.2**		
37a	Crooked Creek	**0.1**	**19.9**	**1.6**		
37b	Crooked Creek	**0.1**	**23.6**	**1.3**		
43a	High Prairie	**0.1**	**23.7**	**0.9**		
43b	High Prairie	**0.1**	**23.8**	**1.2**		
64a	Girouxville 4				**0.2**	
64b	Girouxville 4				**0.2**	
1	Silver Valley	**0.2**	**24.5**	**1.0**		08-27-081-11 W6M
2	Bay Tree	**0.1**	**22.7**	**1.2**		13-16-078-13 W6M
3	Fourth Creek	**0.2**	**25.6**	**1.3**		04-13-082-07 W6M
4	Gordondale	**0.4**	**29.9**	**1.3**		04-34-078-10 W6M
5	Boone Creek	**0.2**	**19.6**	**1.4**		16-36-074-11 W6M
7	Steeprock Creek	**0.1**	**26.3**	**0.9**		09-35-072-13 W6M
9	Spirit River	**0.2**	**23.3**	**1.3**		08-12-079-07 W6M
10	Woking	**0.2**	**25.3**	**1.0**		01-13-076-07 W6M
11	Webber Creek	**0.1**	**19.1**	**1.5**		09-36-074-09 W6M
12	Hythe	**0.2**	**19.1**	**1.5**		14-36-072-11 W6M
14	Sylvester	**BDL**	**16.8**	**1.0**		08-06-069-12 W6M
16	Beaverlodge	**0.2**	**25.9**	**2.5**		15-36-071-10 W6M
17	Poplar	**0.1**	**18.1**	**1.7**		13-06-073-08 W6M
18	Saddle Hills	**0.2**	**21.4**	**1.1**		04-25-074-07 W6M
19	Wanham	**0.3**	**26.0**	**0.7**		16-22-077-03 W6M
20	Shaftesbury	**0.1**	**21.3**	**1.1**		04-03-082-23 W5M
21	Eaglesham	**0.1**	**17.5**	**1.7**		16-21-079-25 W5M
23	Bear Lake	**0.2**	**21.3**	**4.5**		15-31-072-06 W6M
24	Wembley	**0.1**	**19.6**	**2.7**		12-31-070-08 W6M
25	Pinto Creek	**BDL**	**20.5**	**1.2**		04-24-069-11 W6M
26	Flyingshot	**0.1**	**19.9**	**2.9**		15-36-070-07 W6M
27	Grande Prairie I	**0.1**	**15.3**	**6.3**		08-15-071-06 W6M

PAZA Passive Results for October 2014 (Continued)

28	Clairmont Lake	**0.2**	**26.3**	**1.9**		09-06-073-04 W6M
29	Smoky Heights	**0.2**	**24.0**	**1.9**		04-06-075-02 W6M
30	Fitzsimmons	**0.2**	**17.9**	**1.1**		15-36-072-03 W6M
32	Gold Creek	**0.2**	**17.1**	**3.1**		06-33-067-05 W6M
33	Wapiti	**0.3**	**20.8**	**1.6**		02-25-071-03 W6M
34	Puskwaskau	**BDL**	**16.1**	**0.3**		15-35-074-25 W5M
35	Jean Cote	**0.2**	**19.9**	**1.9**		12-35-079-21 W5M
36	Guy	**0.1**	**19.0**	**1.2**		03-04-076-22 W5M
37	Crooked Creek	**0.1**	**21.8**	**1.5**		16-01-071-26 W5M
38	Karr Creek	**0.1**	**20.7**	**1.1**		10-16-065-02 W6M
39	Clouston Creek	**0.1**	**19.9**	**0.9**		12-01-073-22 W5M
40	McLennan	**0.1**	**20.4**	**1.3**		03-29-077-19 W5M
41	Valleyview	**0.3**	**22.1**	**1.3**		09-30-069-22 W5M
42	Sunset House	**0.2**	**26.9**	**1.3**		05-32-070-19 W5M
43	High Prairie	**0.1**	**23.7**	**1.1**		16-13-074-17 W5M
44	Peavine	**0.1**	**21.5**	**0.5**		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**	**15.3**	**2.1**		12-01-065-21 W5M
47	Kinuso	**0.1**	**20.2**	**0.9**		12-10-073-10 W5M
48	Deer Mountain	**0.2**	**21.5**	**0.9**		15-22-068-09 W5M
49	Grande Prairie HP	**0.1**	**15.0**	**6.8**		17-26-071-06 W6M
50	East Prairie	**0.1**	**20.9**	**0.5**		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 October 2014

Stats	Sulphur Dioxide SO_2	Ozone O_3	Nitrogen Dioxide NO_2	Hydrogen Sulphide H_2S
	ppb	ppb	ppb	ppb
	Passive Summary for October 2014 (PAZA Zone)			
Mean	**0.2**	**21.0**	**1.7**	**0.1**
Standard Deviation	**0.1**	**3.5**	**1.3**	**0.0**
Minimum	**0.1**	**15.0**	**0.3**	**0.1**
Minimum At	**East Prairie (#50)**	**Grande Prairie HP**	**Gift Lake (#45)**	**Girouxville 3 (#63)**
Maximum	**0.4**	**29.9**	**6.8**	**0.2**
Maximum At	**Gordondale (#4)**	**Gordondale (#4)**	**Grande Prairie HP**	**Girouxville 4 (#64)**

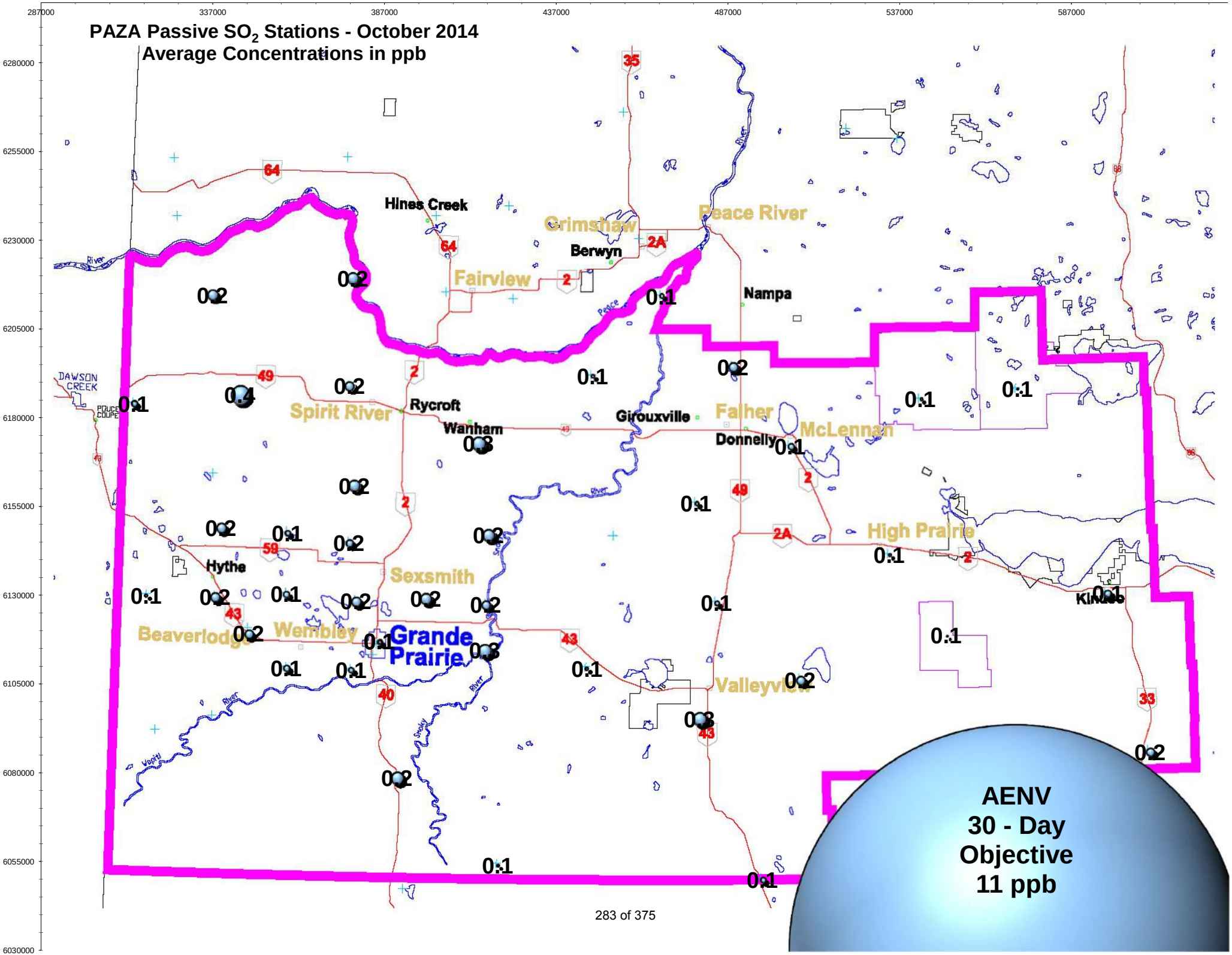
Comparison between Continuous and Passive monitoring at Beaverlodge (passive #16 Beaverlodge)

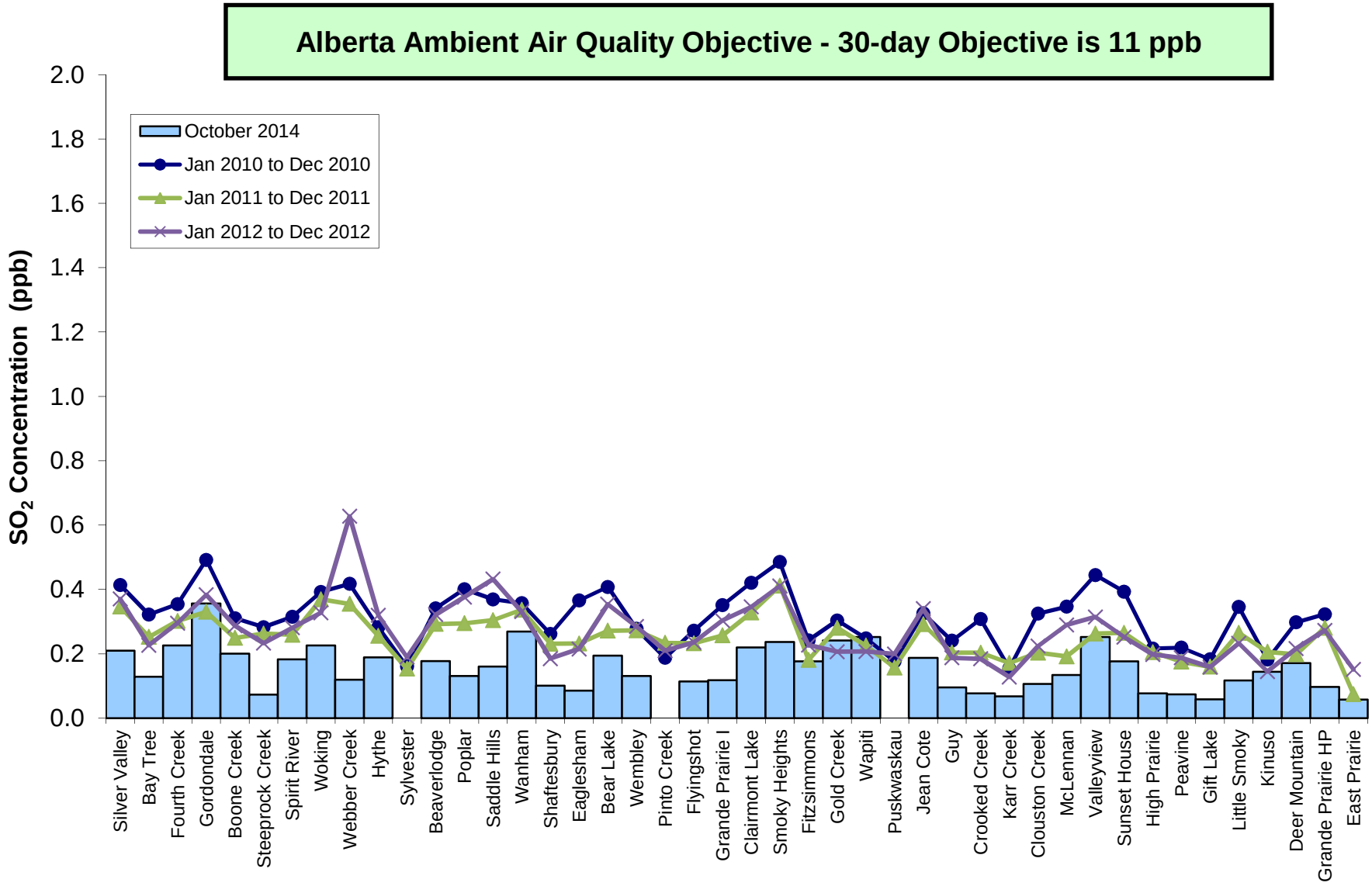
	SO_2	O_3	NO_2
PAZA Beaverlodge station	**0.2**	**21.6**	**4.2**
PAZA Beaverlodge passive	**0.2**	**25.9**	**2.5**

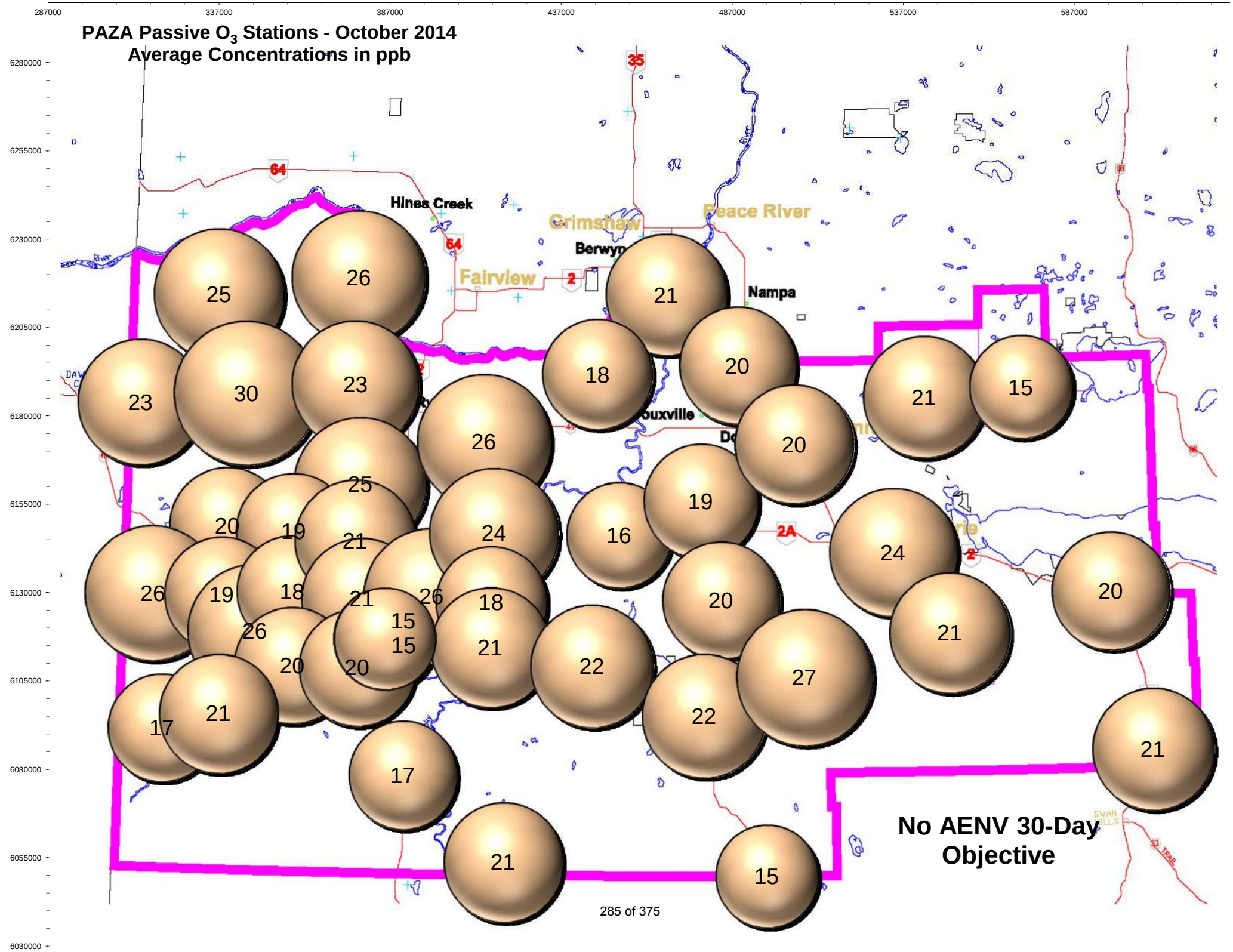
Comparison between Continuous and Passive monitoring at Henry Pirker (passive #49 Grande Prairie HP)

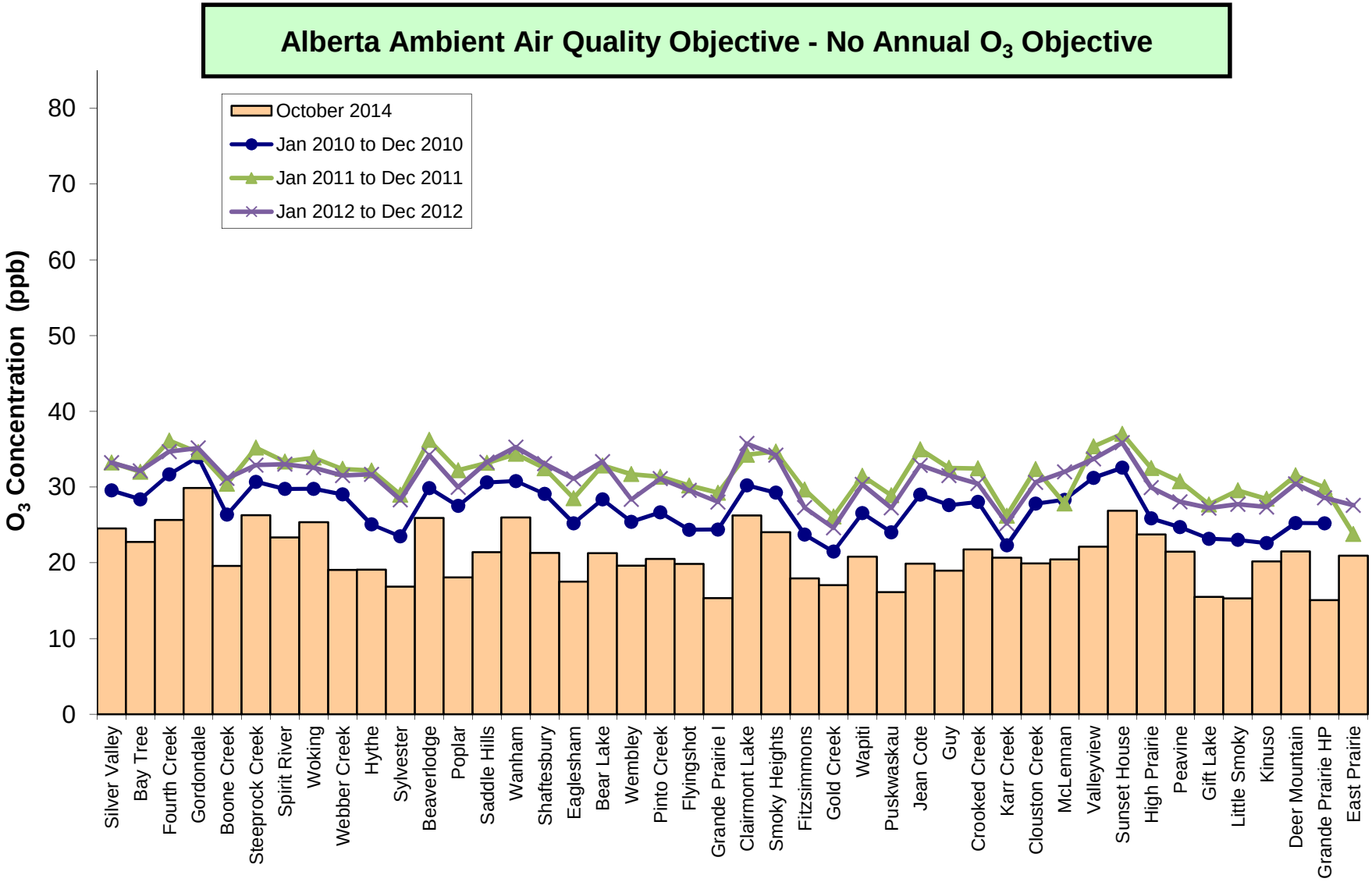
	SO_2	O_3	NO_2
PAZA Henry Pirker station	**0.2**	**14.7**	**10.3**
PAZA Grande Prairie passive	**0.1**	**15.0**	**6.8**

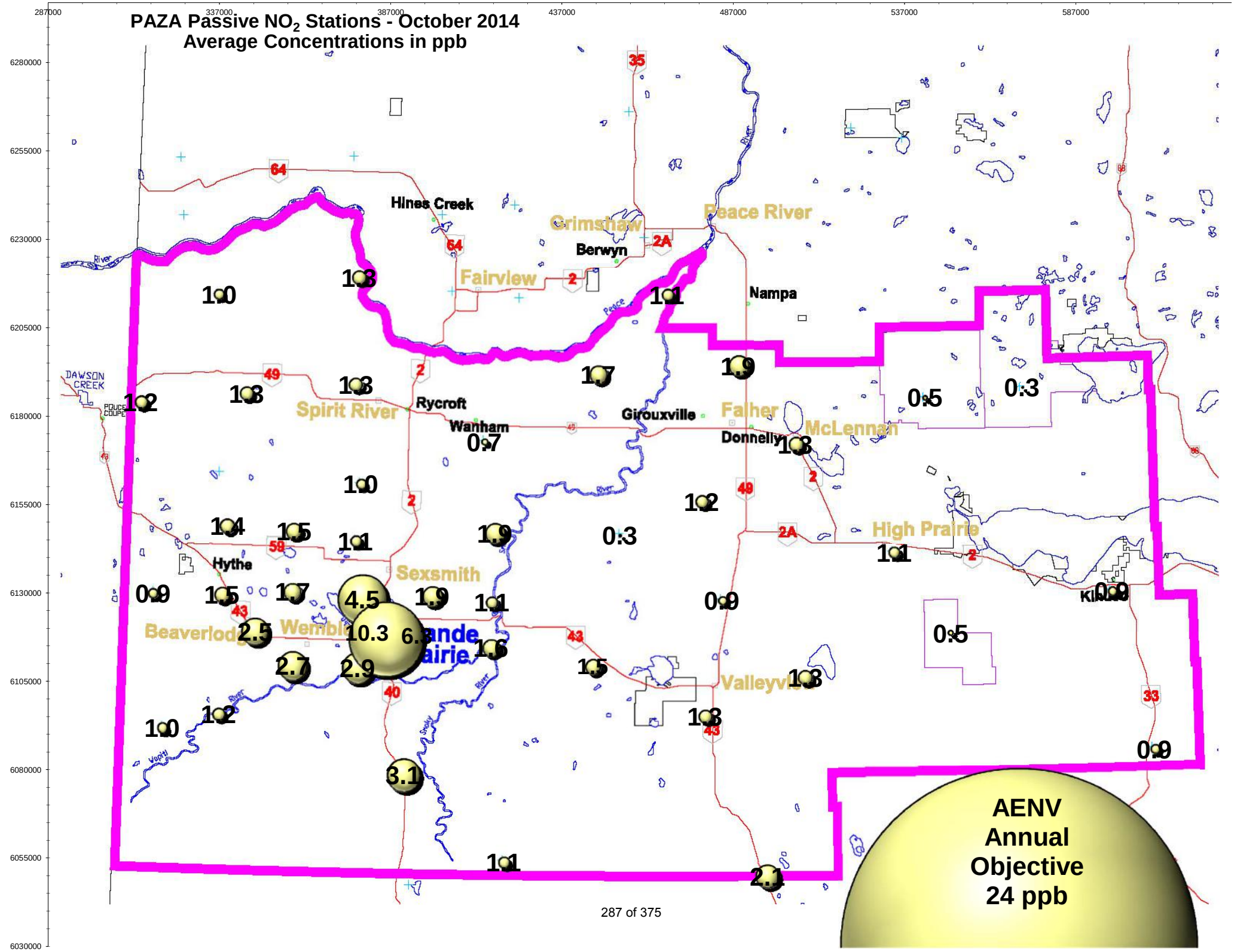
PAZA Passive SO_2 Stations - October 2014
Average Concentrations in ppb

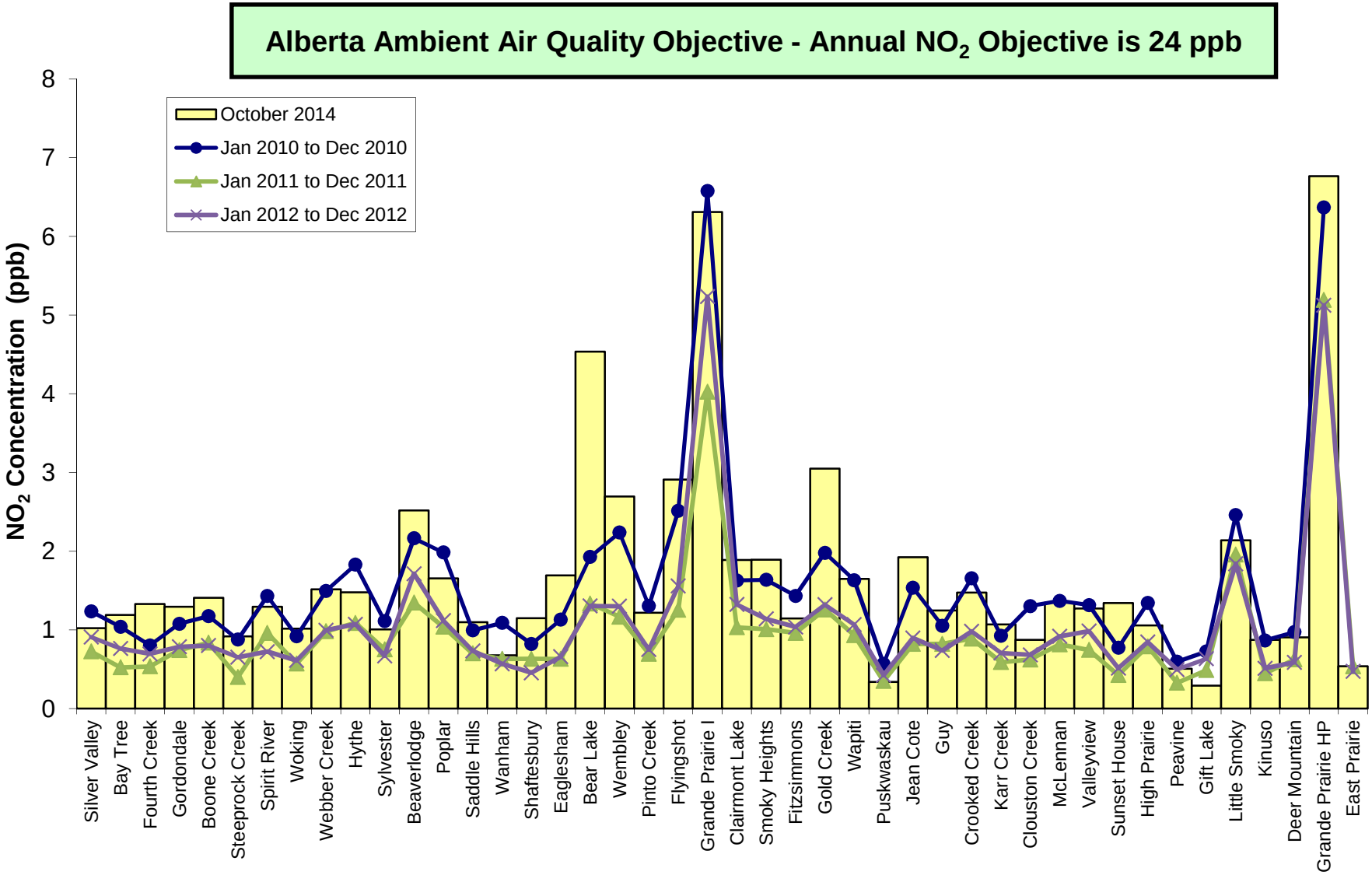



Alberta Ambient Air Quality Objective - 30-day Objective is 11 ppb
October 2014
Jan 2010 to Dec 2010
Jan 2011 to Dec 2011
Jan 2012 to Dec 2012
SO2 Concentration (ppb)
2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
Silver Valley
Bay Tree
Fourth Creek
Gordondale
Boone Creek
Steeprock Creek
Spirit River
Woking
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

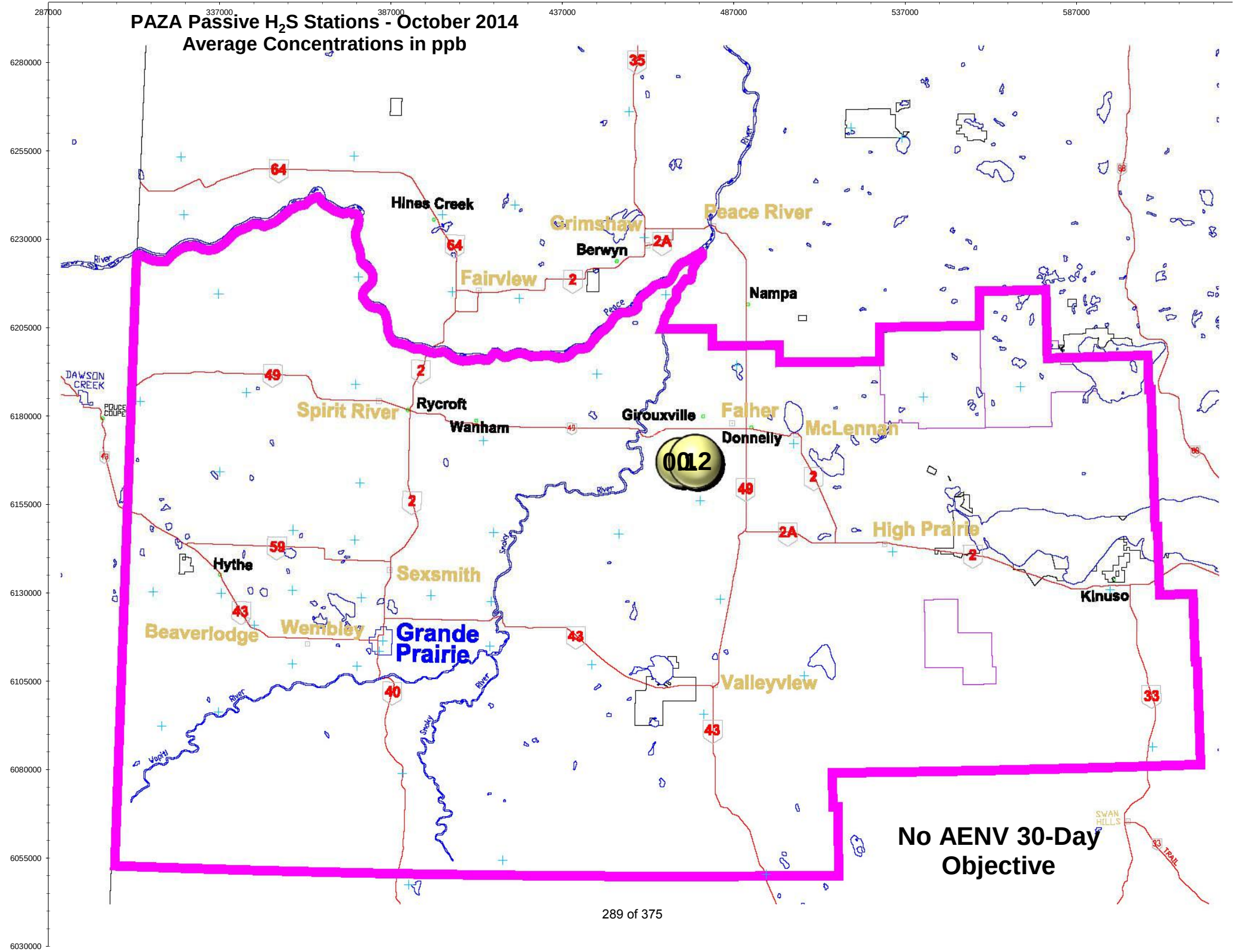

PAZA Passive O_3 Stations - October 2014
Average Concentrations in ppb
287000
337000
387000
437000
487000
537000
587000
6280000
6255000
6230000
6205000
6180000
6155000
6130000
6105000
6080000
6055000
6030000
Hines Creek
Grimshaw
Peace River
Berwyn
Fairview
Nampa
No AENV 30-Day Objective

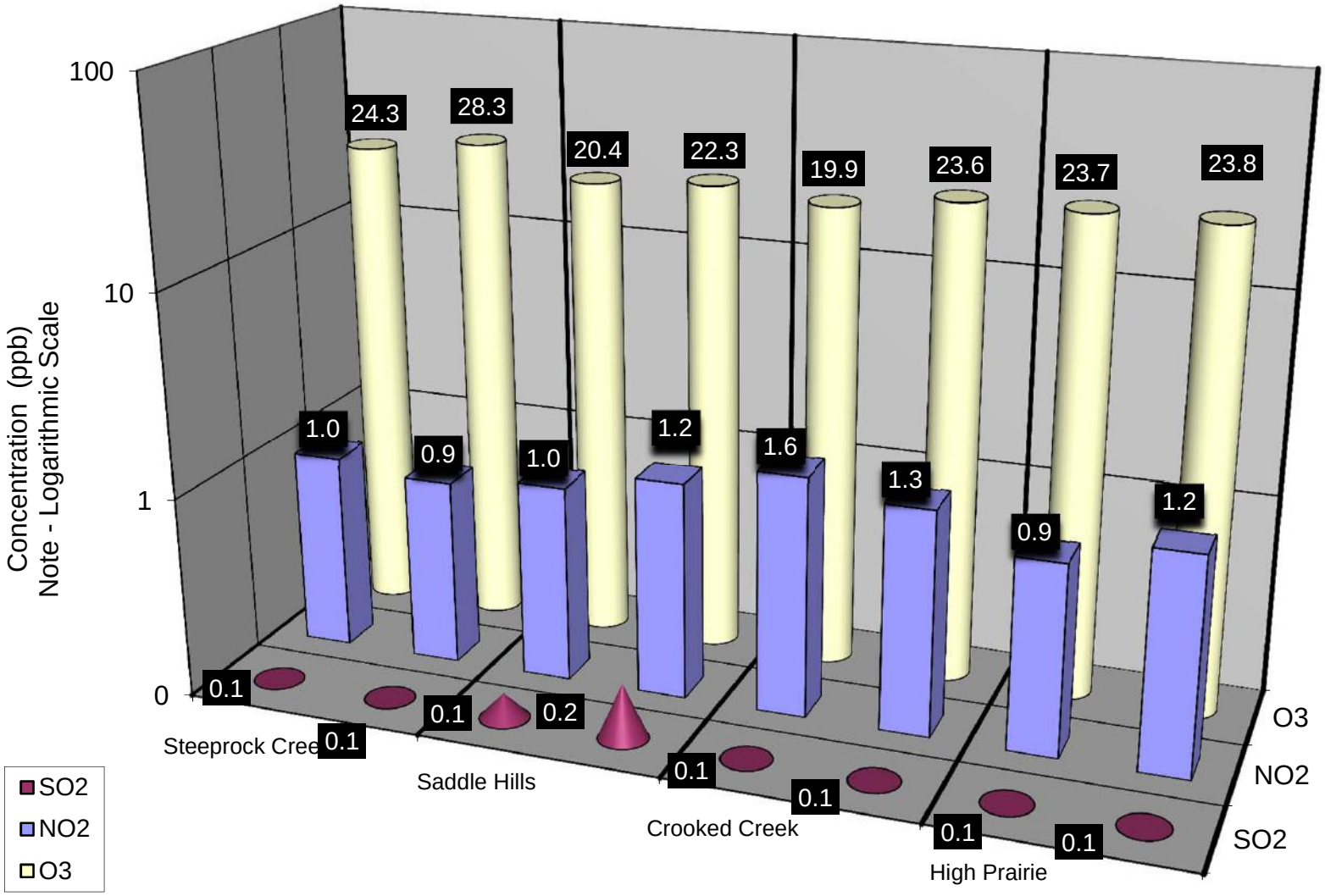

Alberta Ambient Air Quality Objective - No Annual O_3 Objective
October 2014
Jan 2010 to Dec 2010
Jan 2011 to Dec 2011
Jan 2012 to Dec 2012
O_3 Concentration (ppb)
0
10
20
30
40
50
60
70
80
Silver Valley
Bay Tree
Fourth Creek
Gordondale
Boone Creek
Steeprock Creek
Spirit River
Woking
Webber Creek
Hythe
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


PAZA Passive NO_2 Stations - October 2014
Average Concentrations in ppb
287000
337000
387000
437000
487000
537000
587000
6280000
6255000
6230000
6205000
6180000
6155000
6130000
6105000
6080000
6055000
6030000
Hines Creek
Grimshaw
Berwyn
Peace River
Fairview
Nampa
DAWSON CREEK
Spirit River
Rycroft
Wanham
Girouxville
Falher
Donnelly
McLennan
High Prairie
Hythe
Sexsmith
Beaverlodge
Valleyview
1.0
1.3
1.1
1.2
1.3
1.3
1.7
1.9
0.5
0.3
0.7
1.0
1.2
1.4
1.5
1.1
1.9
0.3
1.3
1.1
0.9
1.5
1.7
4.5
1.9
1.1
0.9
0.9
2.5
10.3
6.3
1.6
0.5
2.7
2.9
1.5
1.3
1.0
1.2
1.3
0.9
3.1
1.1
2.1
AENV
Annual
Objective
24 ppb


Alberta Ambient Air Quality Objective - Annual NO_2 Objective is 24 ppb
October 2014
Jan 2010 to Dec 2010
Jan 2011 to Dec 2011
Jan 2012 to Dec 2012
NO_2 Concentration (ppb)
0
1
2
3
4
5
6
7
8
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 - October 2014
Average Concentrations in ppb





Duplicate Summary Chart

PAZA

ALBERTA ENVIRONMENT AND SUSTAINABLE RESOURCES INCIDENCE REPORT

November 2014

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:	290408	Reported To (AESRD Contact):	Rymond
Date & Time Incident Reported to AESRD:	Oct 07, 2014 08:30	Reported By:	Dmytro Dolotii
Reported on Behalf of:	PAZA	Approval Number (if applicable):	N/A
Location(s) of Incident:	Valleyview		
Start Date & Time of Incident:	Oct 06, 2014 20:00MST	End Date & Time of Incident:	Oct 06, 2014 21:00

Reason or Nature of Incident:

On October 6, 2014 the H2S analyzer exceeded 1-hour AAAQ Objective of 10 ppb , details as follows:

20:00 HR Average H2S =36.8 ppb WS=3.5 km/hr WD=269.4 degrees

Reviewed and confirmed the data as valid, called it in to AESRD.

Investigation Details:

Thief Hatch failed on tank at the gas plant. It was repaired/replaced.

Actions Taken to Prevent Reoccurrence (if any):

N/A

Additional Actions Required (if any):

N/A

Report Completed By:	Dmytro Dolotii	Date Report Submitted:	October 08, 2014
7-Day Letter Due Date:	October 15, 2014		

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:	290409	Reported To (AESRD Contact):	Rymond
Date & Time Incident Reported to AESRD:	Oct 07, 2014 08:30	Reported By:	Dmytro Dolotii
Reported on Behalf of:	Paza	Approval Number (if applicable):	N/A
Location(s) of Incident:	Valleyview		
Start Date & Time of Incident:	Oct 07, 2014 05:00MST	End Date & Time of Incident:	Oct 08, 2014 00:00

Reason or Nature of Incident:

On October 7, 2014 the H2S analyzer exceeded 1-hour AAAQ Objective of 10 ppb and 24 hour AAAQ Objective of 3 ppb, details as follows:

05:00 HR Average	H2S =32.3 ppb	WS=3.6 km/hr	WD=277.6 degrees
06:00 HR Average	H2S =36.8 ppb	WS=2.1 km/hr	WD=310.8 degrees
24 HR Average	H2S =4.1 ppb	WS=2.1 km/hr	WD=169.9 degrees

Reviewed and confirmed the data as valid, called it in to AESRD.

Investigation Details:

Thief Hatch failed on tank at the gas plant. It was repaired/replaced.

Actions Taken to Prevent Reoccurrence (if any):

N/A

Additional Actions Required (if any):

N/A

Report Completed By:	Dmytro Dolotii	Date Report Submitted:	October 08, 2014
7-Day Letter Due Date:	October 15, 2014		

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:	291366	Reported To (AESRD Contact):	Meghan
Date & Time Incident Reported to AESRD:	October 29, 2014 13:15	Reported By:	Grover Christiansen
Reported on Behalf of:	PAZA	Approval Number (if applicable):	N/A
Location(s) of Incident:	Clairmont		
Start Date & Time of Incident:	Oct 28, 2014 00:00 MST	End Date & Time of Incident:	Oct 28, 2014 00:00 MST

Reason or Nature of Incident:

The $PM_{2.5}$ analyzer (TEOM) within the Clairmont station, currently located near Grande Prairie, exceeded the AENV hourly average $PM_{2.5}$ hourly guideline (80 µg/m^3) as detailed below:

00:00 MST PM2.5 98.3 ug/m3 WS: 11.9 km/hr WD: 34.1 degrees

Reviewed and confirmed the data as valid, called it in to AESRD.

Investigation Details:

Unknown.

Actions Taken to Prevent Reoccurrence (if any):

N/A

Additional Actions Required (if any):

N/A

Report Completed By:	Grover Christiansen	Date Report Submitted:	Oct 29, 2014
7-Day Letter Due Date:			

October 2014 Calibration Reports

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

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

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

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**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	October 2, 2014	Previous Calibration	September 5, 2014
Station Number	1	Station Location	Henry Pirker
Reason:	Routine / Install	Removal	Other:
Start Time (MST)	9:35	End Time (MST)	12:50
Barometric Pressure	705.000 mm	Station Temperature	20.5 Deg C
Calibrator	Environics	Serial Number	3016
Cal Gas Conc	50.2 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	0.987270	Calculated slope	1.000185
Calculated intercept	2.024477	Calculated intercept	2.006672
Analyzer make	TEI 43C	Analyzer serial #	610816292

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	9.4		9.3	
Coefficient	0.774		0.762	
Pressure	653.6	mm Hg	652.9	mm Hg
Flow	0.482	lpm	0.483	lpm
Lamp intensity	44311	Hz	43831	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	0.3	N/A
4995	39.93	398.1	397.2	1.0022
4995	19.97	199.9	196.4	1.0176
4995	9.97	100.0	95.9	1.0430
4995	0.00	0.0	0.3	As Found Zero
4995	39.93	398.1	403.0	As Found Span
			Average Correction Factor	1.0209

Calculated value of As Found Response: 399.6 ppb Percent Change of As Found: -0.4%

	before calibration		after calibration	
Auto zero	0.1	ppb	0.1	ppb
Auto span	259.4	ppb	245.3	ppb

Notes: Span adjustment made

Calibration Performed By: Dmytro Dolotii, Grover Chrisitiansen

Calibration Summary

Parameter **SO2**

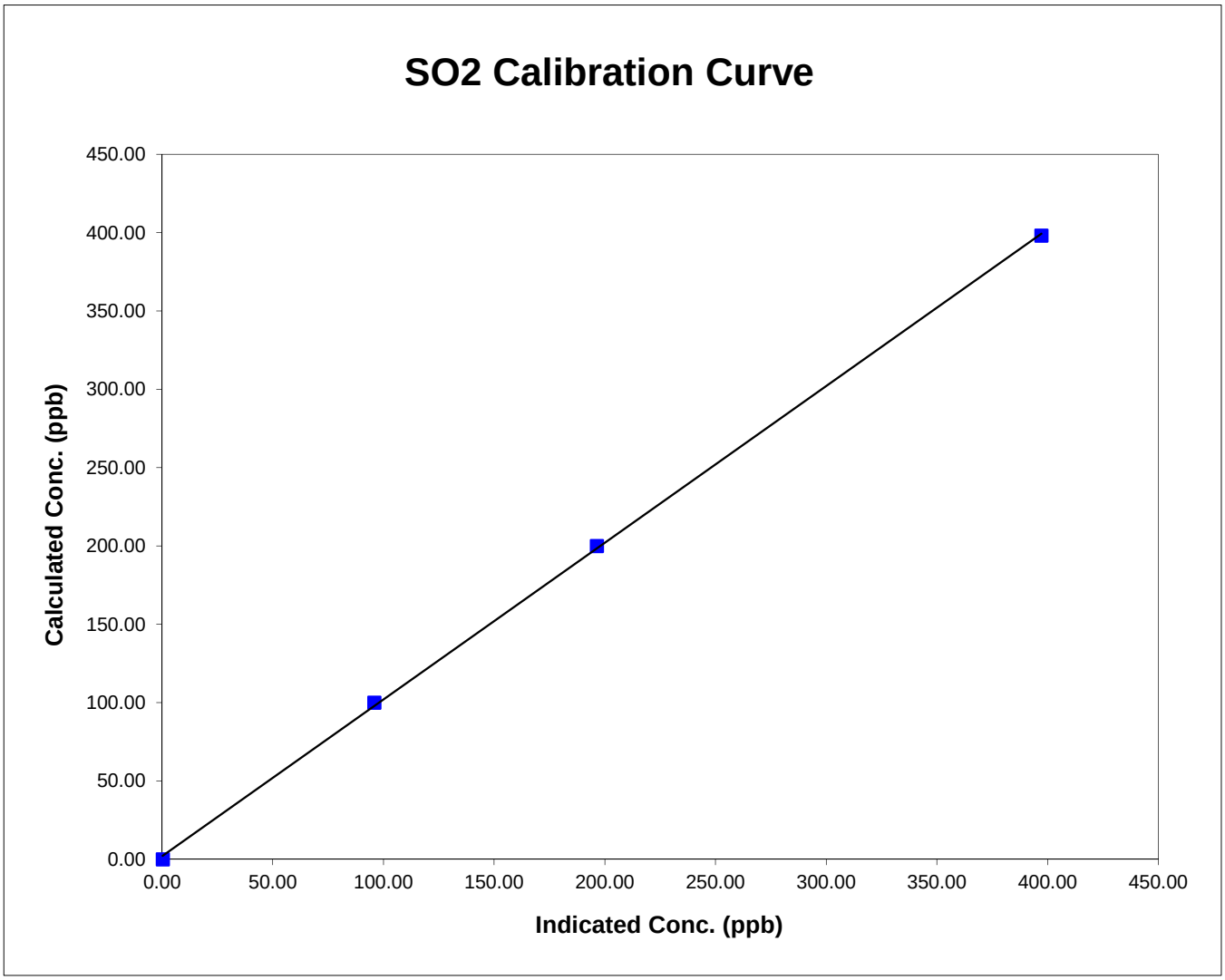
Air Monitoring Network **PAZA**

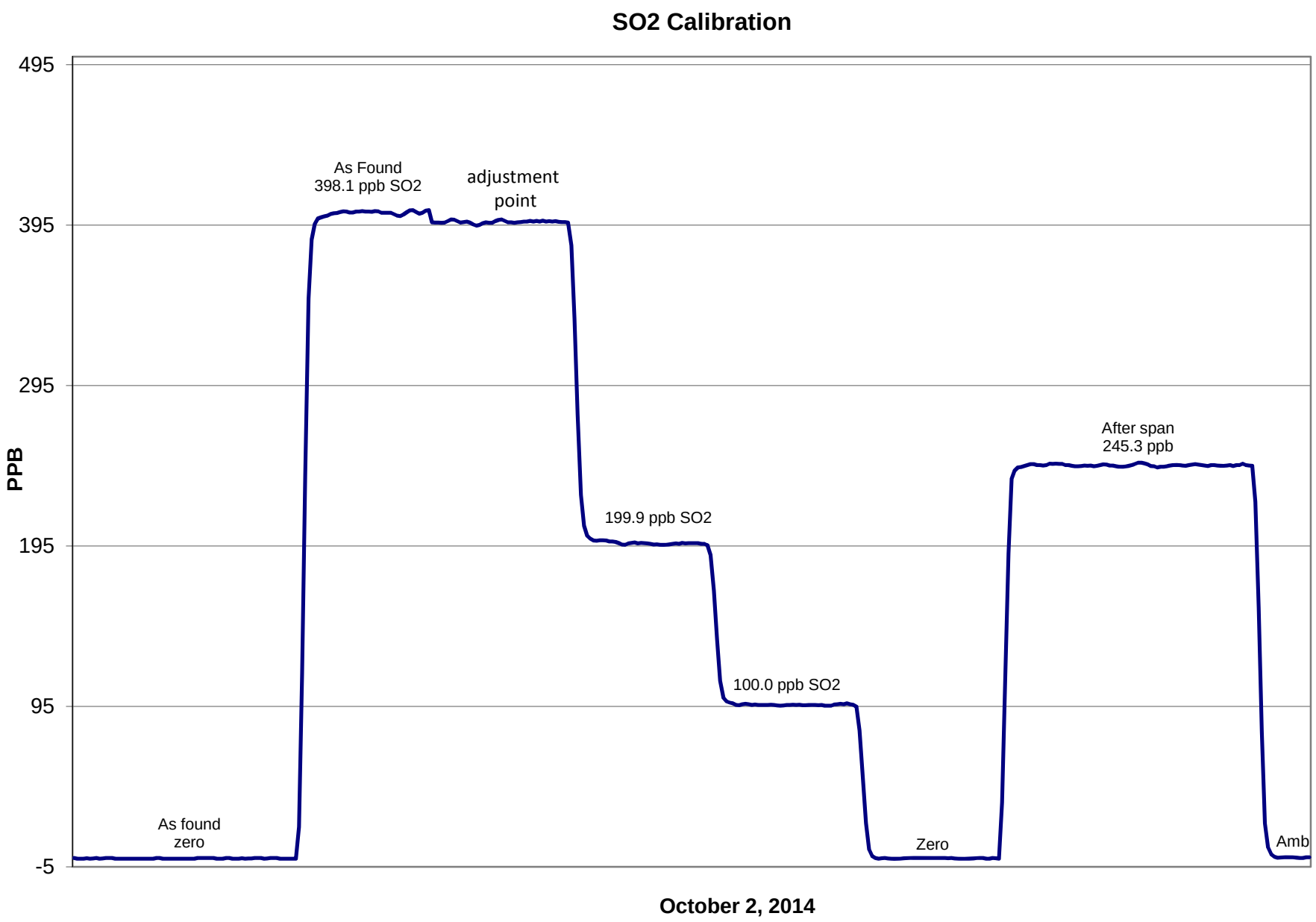
Station Information

Calibration Date	October 2, 2014	Previous Calibration	September 5, 2014
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:35	End Time (MST)	12:50
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	0.3	N/A		
398.1	397.2	1.0022	Correlation Coefficient	0.999848
199.9	196.4	1.0176		
100.0	95.9	1.0430	Slope	1.000185
			Intercept	2.006672




SO2 Calibration
495
395
295
195
95
-5
PPB
As Found
398.1 ppb SO2
adjustment
point
199.9 ppb SO2
100.0 ppb SO2
Zero
After span
245.3 ppb
Amb
As found
zero
October 2, 2014

Calibration Report

Parameter **NO_X-NO-NO_2**

Air Monitoring Network

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	October 2, 2014	Previous Calibration	September 5, 2014
Station Number	1	Station Location	Henry Pirker

Reason: Routine Installation Removal Other: Maintanance

Start Time (MST)	7:40		End Time (MST)	12:20	
Barometric Pressure	705.000	mm	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.: 5237

Parameter		NO2	NOx	NO
Before	Data Slope	0.998385	1.007001	1.003939
	Data Offset	-0.462577	1.197666	1.227754
After	Data Slope	0.996572	0.999825	0.997753
	Data Offset	-1.031683	1.604645	1.847336
Channel #		8	6	7
Voltage Range		0 - 5 VDC	0 - 5 VDC	0 - 5 VDC

Analyzer Information

Analyzer make/model: CR3000 Analyzer serial #: 5408

Test Point	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
NO offset	15.1	mV	15.4	mV
NOx bkgnd	15.7	mV	16.0	mV
NO coefficient	1.042		1.056	
NOx coefficient	1.000		1.003	
NO2 conv temp	319.0	Deg C	318.0	Deg C
Cooler Temp	-2.5	Deg C	-2.5	Deg C
PMT Volt	-788.0	mV	-789.0	mV
R Cell Press	232.9	in Hg	230,8	in Hg
Sample Flow	0.654	LPM	0.663	LPM

Notes: Span adjustment made

Calibration Report

Parameter **NOX-NO-NO2**

Air Monitoring Network **0**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date: October 2, 2014 Station Location: Henry Pirker

Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor
zero	4995	0.00	0.0	0.0	0.0	0.0	-0.4	0.2	N/A	N/A
1	4995	39.92	405.9	403.6	2.4	405.2	403.4	1.8	1.0017	1.0005
2	4995	19.96	203.8	202.6	1.2	201.3	200.4	0.9	1.0122	1.0111
3	4995	9.93	101.6	101.0	0.6	98.4	98.0	0.3	1.0323	1.0309
AFZ	4995	0.00	0.0	0.0	0.0	0.0	-0.4	0.2	0.0000	0.0000
AFS	4995	39.92	405.9	403.6	0.8	396.6	395.7	0.8	1.0236	1.0199
							Average Correction Factor		1.0154	1.0141

As Found Concentrations: NO_X= 400.5 NO= 398.8 As Found Percent Change NO_X= -1.3% NO= -1.2%

GPT Calibration Data

Dilution Flow 4995 ccm Source Gas Flow 39.93 ccm

O3 Setpoint (ppb)	Indicated NO high point (ppb)	Indicated NO drop conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor	NO2 Correction factor	Converter Efficiency
0	-0.4	-0.4	0.0	0.0	-0.4	0.2	N/A	N/A	N/A	N/A
NO point	403.4	403.4	0.0	404.8	403.4	1.3	0.9966	1.0000	N/A	N/A
300	403.4	91.4	312.1	404.9	91.4	313.7	0.9964	1.0000	0.9948	100.5%
200	403.4	193.3	210.2	405.2	193.3	212.0	0.9957	1.0000	0.9916	100.8%
100	403.4	293.9	109.6	406.1	293.9	112.3	0.9934	1.0000	0.9759	102.5%
					Average Correction Factor		0.9952	1.0000	0.9874	101.3%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	-0.2	0.0	-0.1	ppb	-0.3	0.0	-0.3	ppb
Auto span	300.9	298.9	2.2	ppb	295.7	293.7	2.1	ppb

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **NO_2**

Air Monitoring Network **0**

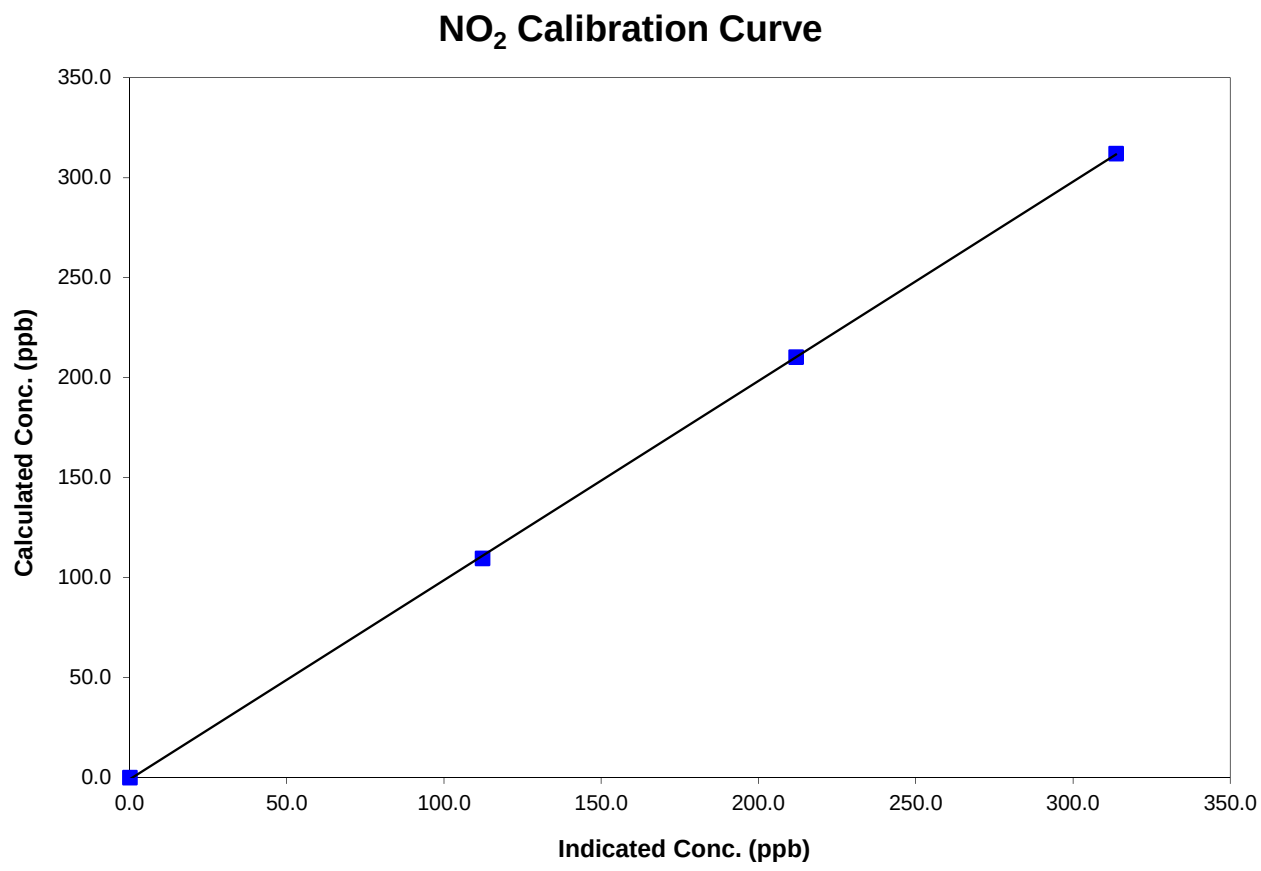
FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	October 2, 2014	Previous Calibration	September 5, 2014
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	7:40	End Time (MST)	12:20
Analyzer make	CR3000	Analyzer serial #	5408

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A		
312.1	313.7	0.9948	Correlation Coefficient	0.999952
210.2	212.0	0.9916		
109.6	112.3	0.9759	Slope	0.996572
			Intercept	-1.031683



Calibration Summary

Parameter **NO_x**

Air Monitoring Network **0**

FOCUS AIR QUALITY MONITORING

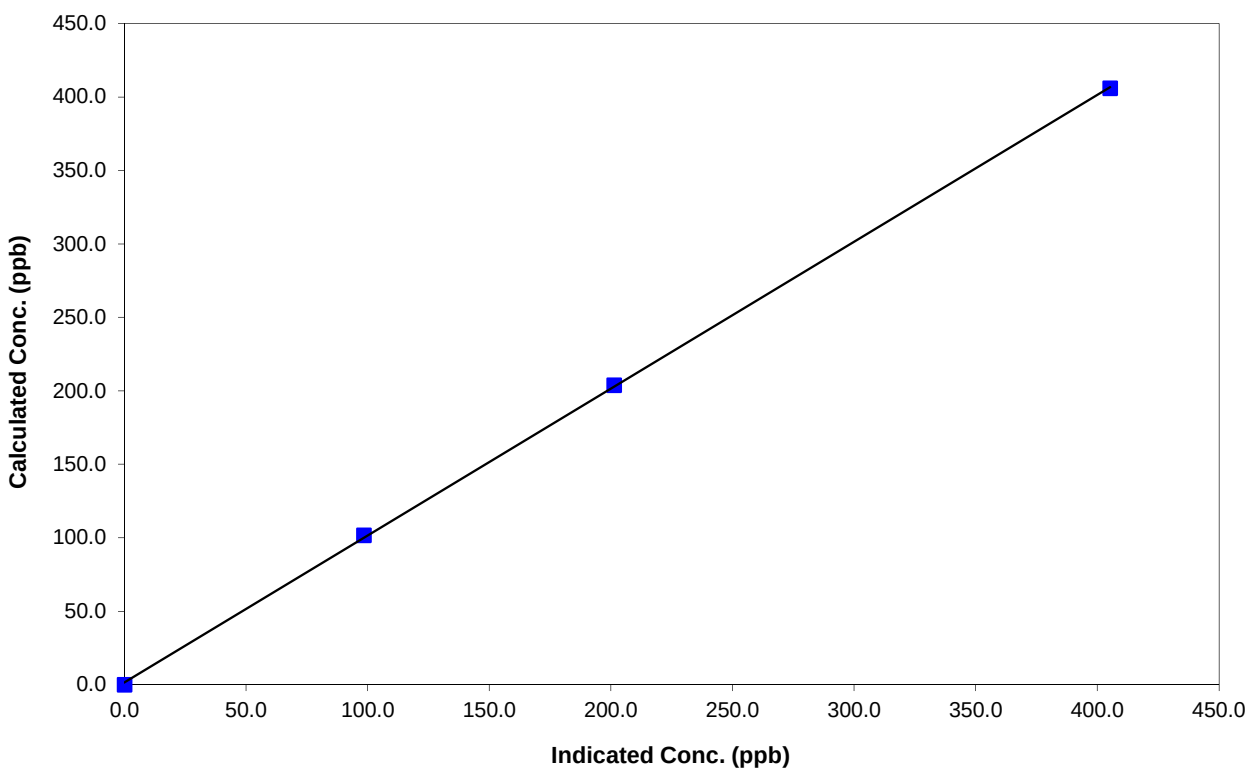
Station Information

Calibration Date	October 2, 2014	Previous Calibration	September 5, 2014
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	7:40	End Time (MST)	12:20
Analyzer make	CR3000	Analyzer serial #	5408

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A		
405.9	405.2	1.0017	Correlation Coefficient	0.999925
203.8	201.3	1.0122		
101.6	98.4	1.0323	Slope	0.999825
			Intercept	1.604645

NOx Calibration Curve



Calibration Summary

Parameter **NO**

Air Monitoring Network **0**

FOCUS AIR QUALITY MONITORING

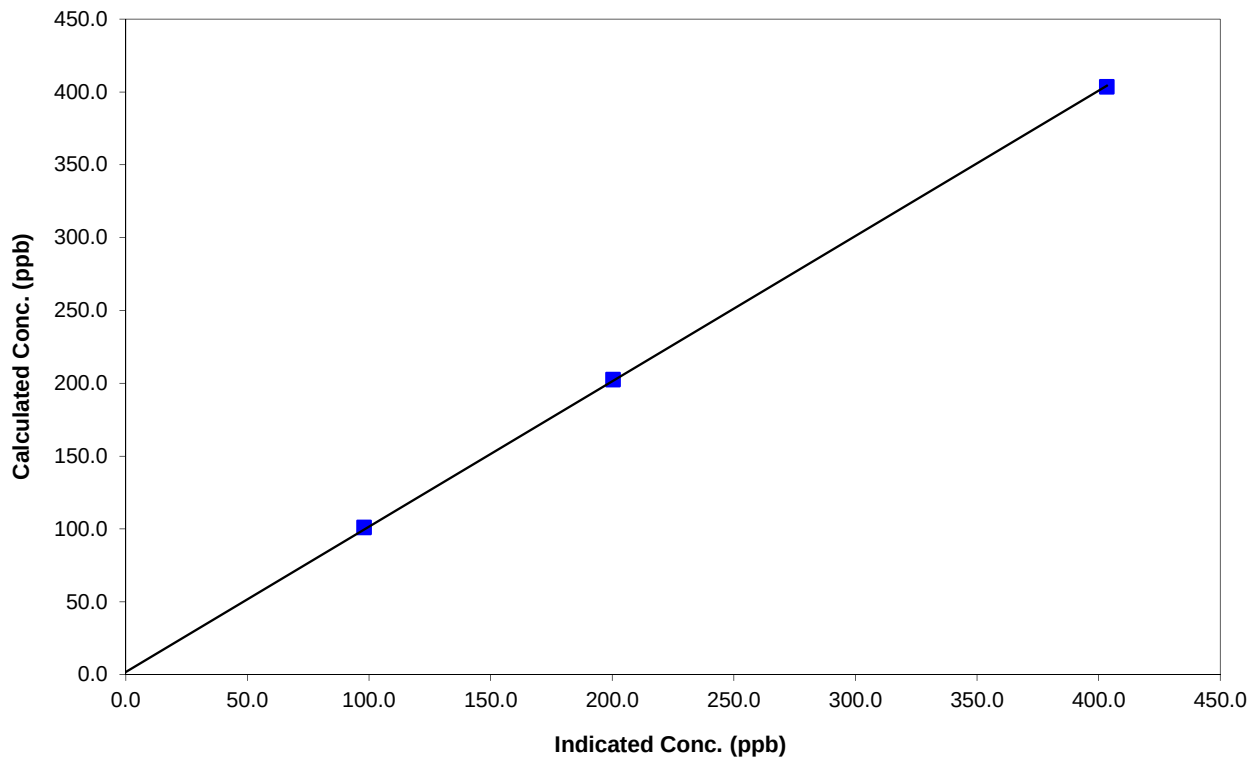
Station Information

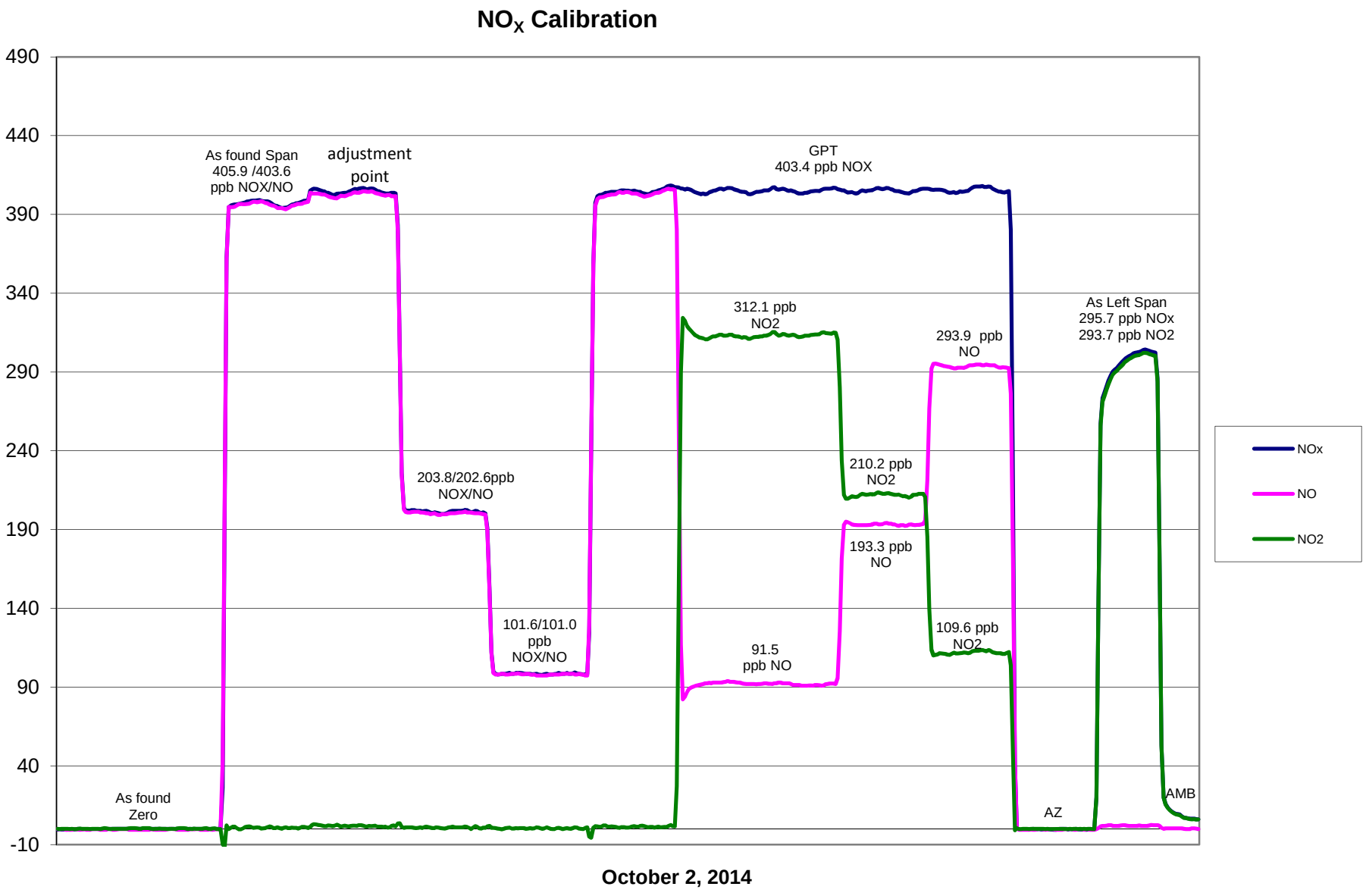
Calibration Date	October 2, 2014	Previous Calibration	September 5, 2014
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	7:40	End Time (MST)	12:20
Analyzer make	CR3000	Analyzer serial #	5408

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.4	N/A		
403.6	403.4	1.0005	Correlation Coefficient	0.999940
202.6	200.4	1.0111		
101.0	98.0	1.0309	Slope	0.997753
			Intercept	1.847336

NO Calibration Curve




NOx Calibration
490
440
390
340
290
240
190
140
90
40
-10
As found Span
405.9 /403.6
ppb NOX/NO
adjustment
point
GPT
403.4 ppb NOX
312.1 ppb
NO2
293.9 ppb
NO
As Left Span
295.7 ppb NOx
293.7 ppb NO2
203.8/202.6ppb
NOX/NO
210.2 ppb
NO2
193.3 ppb
NO
101.6/101.0
ppb
NOX/NO
91.5
ppb NO
109.6 ppb
NO2
As found
Zero
AZ
AMB
NOx
NO
NO2
October 2, 2014

Calibration Report

Parameter **O3**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	October 2, 2014	Previous Calibration	September 5, 2014
Station Number	1	Station Location	Henry Pirker
Reason:	Routine / Install	Removal	Other:
Start Time (MST)	13:15:00 PM	End Time (MST)	16:15:00 PM
Barometric Pressure	705.000 mm	Station Temperature	20.5 Deg C
Calibrator	Environics	Serial Number	3016
Cal Gas Concentration	NA	Cal Gas Expiry Date	NA
DACS make	CR3000	DACS serial No.	5237
DACS voltage range	0 - 5 volt	DACS channel #	9
	Before		After
Calculated slope	0.998880	Calculated slope	0.992295
Calculated intercept	0.155713	Calculated intercept	-0.269272
Analyzer make	Teco 49C	Analyzer serial #	607415761

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
offset	-0.20	ppb	-0.20	ppb
slope	0.995		1.015	
Lamp temp	56.9	mV	57	mV
Lamp Intensity A/B	100993/94619	mV	104546/98055	mV
Pressure	687.5	mm Hg	688	mm Hg
Flow A	0.733	ccm	0.733	ccm
Flow B	0.731	ccm	0.732	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	0.2	N/A
5035	0.3	312.1	314.8	0.9913
5035	0.2	210.2	211.9	0.9920
5035	0.1	109.6	111.0	0.9878
5035	0.0	0.0	0.2	As found zero
5035	0.3	312.1	307.4	As found span
			Average Correction Factor	0.9903

Calculated value of As Found Response: 307.0 ppm Percent Change of As Found: -1.6%

	before calibration		after calibration	
Auto zero	0.3	ppb	-0.1	ppb
Auto span	419.1	ppb	443.3	ppb

Notes: Span adjustment made

Calibration Performed By: Dmytro Dolotii,Grover Chrisitiansen

Calibration Summary

Parameter **O3**

Air Monitoring Network **PAZA**

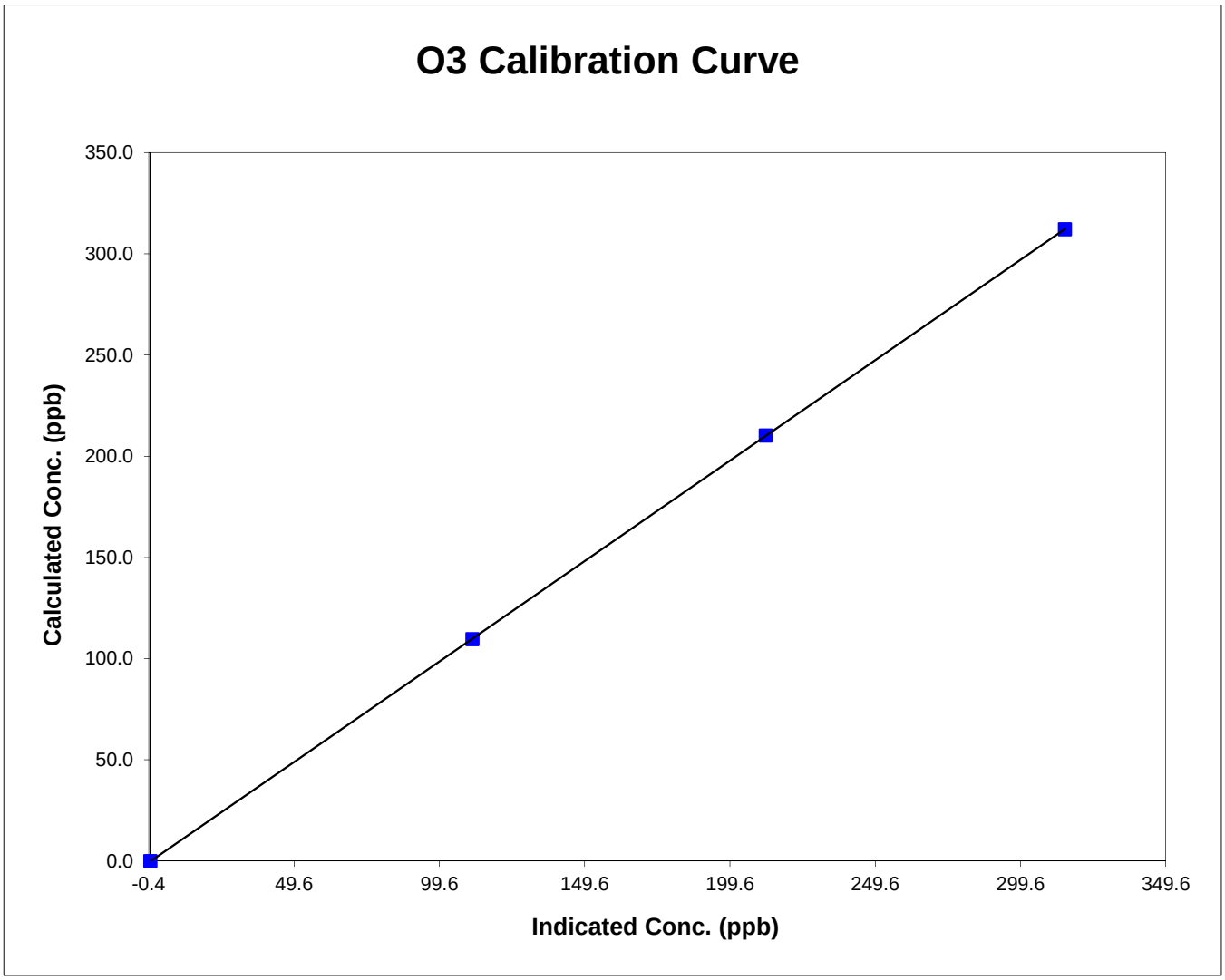
FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	October 2, 2014	Previous Calibration	September 5, 2014
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	13:15:00 PM	End Time (MST)	16:15:00 PM
Analyzer make/model	Teco 49C	Analyzer serial #	607415761

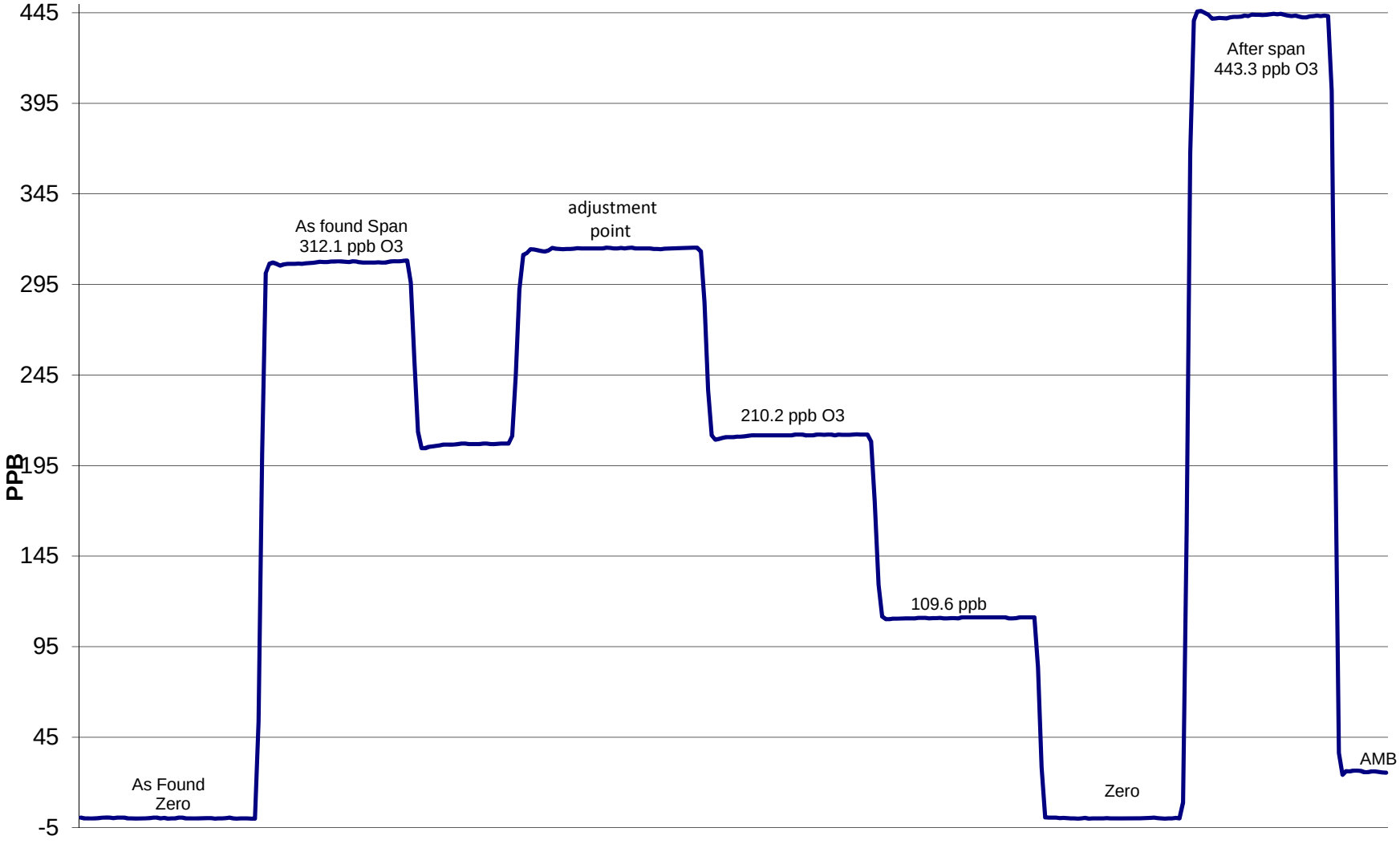
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	NA		
312.1	314.8	0.9913	Correlation Coefficient	0.999998
210.2	211.9	0.9920		
109.6	111.0	0.9878	Slope	0.992295
			Intercept	-0.269272



As Found
Zero

O3 Calibration



October 2, 2014

Calibration Report

Parameter **CO**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	October 3, 2014	Previous Calibration	September 8, 2014
Station Number	1	Station Location	Henry Pirker
Reason: Routine	Install	Removal	Other:
Start Time (MST)	11:40	End Time (MST)	14:00:00 PM
Barometric Pressure	708.0 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 - 1 volt	DACS channel #	9
	Before		After
Calculated slope	0.998776	Calculated slope	0.998700
Calculated intercept	0.166942	Calculated intercept	0.131103
Analyzer make	TEI Model 48C	Analyzer serial #	508011062

	before		after	
Concentration range	0 - 50	ppm	0 - 50	ppm
CO zero setting	1.463		1.463	
CO span setting	1.016		1.016	
Sample pressure	682.1	mm Hg	682.3	mm Hg
Sample Flow	1.123	LPM	1.123	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	0.04	N/A
4995	69.94	40.02	40.03	0.9996
4995	34.96	20.14	19.92	1.0109
4995	17.96	10.38	10.12	1.0264
4995	0.00	0.00	0.04	As Found Zero
4995	69.94	40.02	40.03	As Found Span
			Average Correction Factor	1.0123

Calculated value of As Found Response: 40.113 ppm Percent Change of As Found: -0.2%

	before calibration		after calibration	
Auto zero	0.03	ppm	0.03	ppm
Auto span	20.04	ppm	19.97	ppm

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **CO**

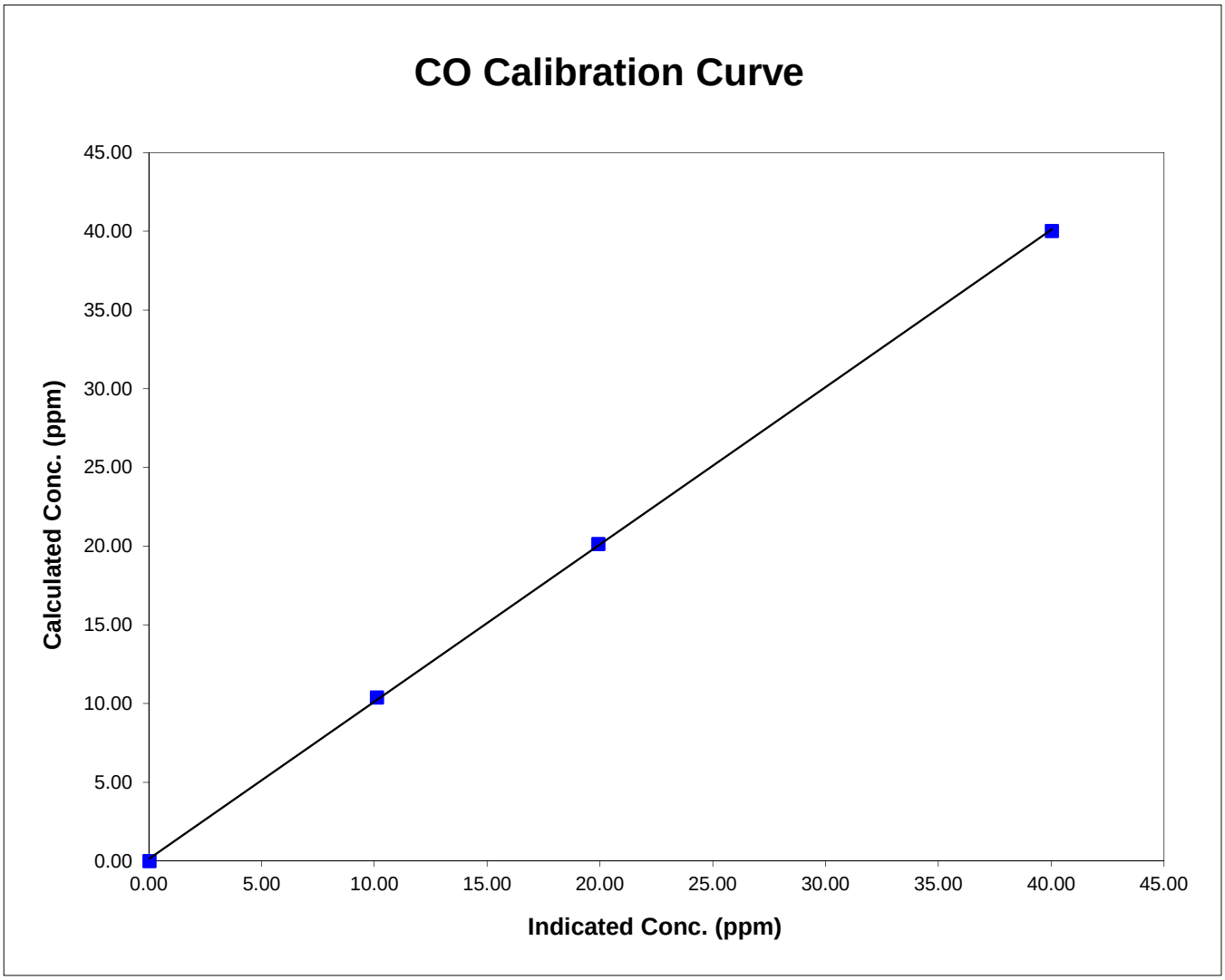
Air Monitoring Network **PAZA**

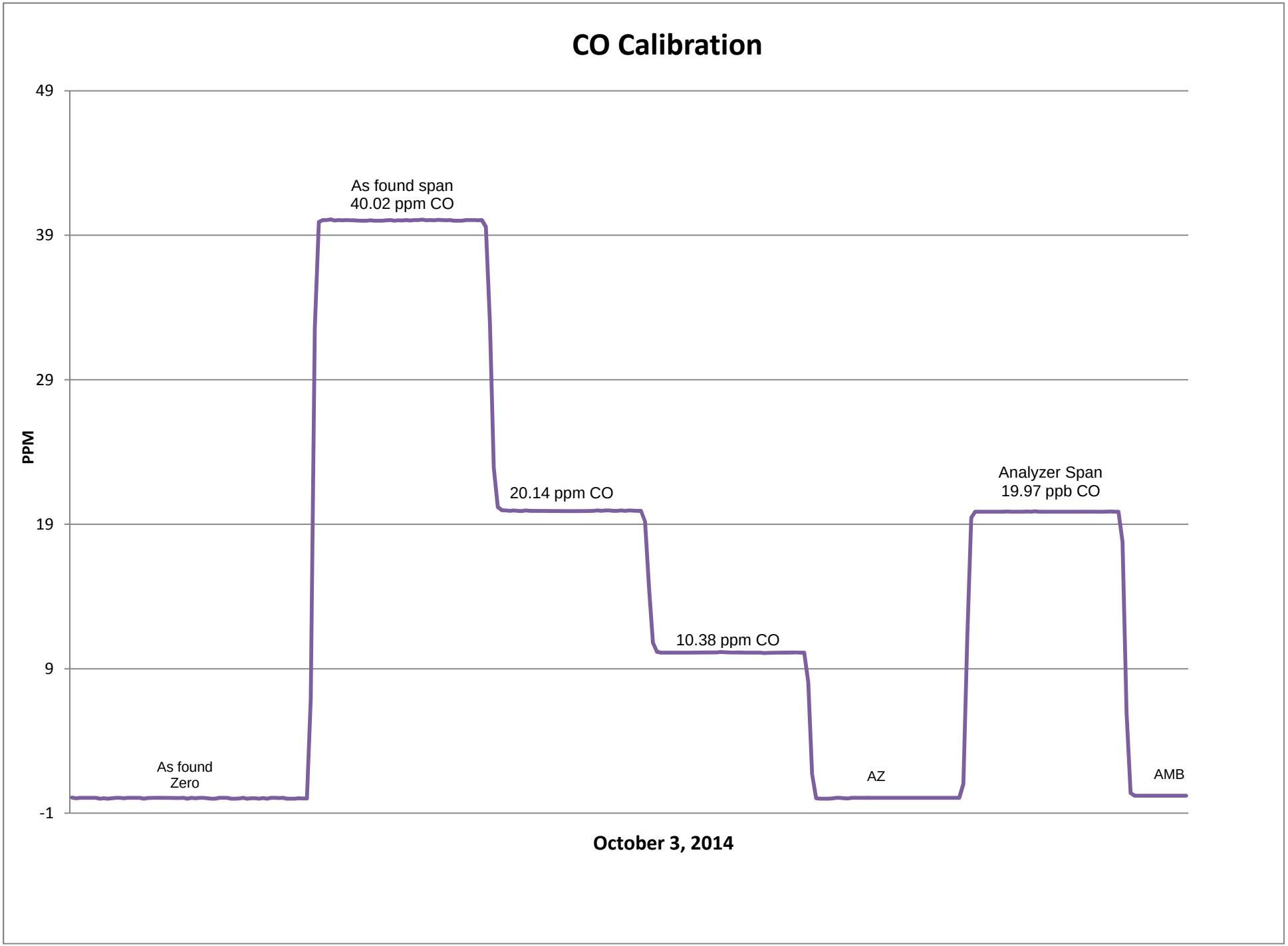
Station Information

Calibration Date	October 3, 2014	Previous Calibration	September 8, 2014
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	11:40	End Time (MST)	14:00:00 PM
Analyzer make/model	TEI Model 48C	Analyzer serial #	508011062

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.037	N/A		
40.017	40.032	0.9996	Correlation Coefficient	0.999917
20.142	19.925	1.0109		
10.383	10.115	1.0264	Slope	0.998700
			Intercept	0.131103




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
19.97 ppb CO
As found
Zero
AZ
AMB
October 3, 2014

Calibration Report

Parameter **CH4 / NMHC / THC**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	October 3, 2014	Previous Calibration	September 8, 2014
Station Number	1	Station Location	Henry Pirker

Reason: Routine | Install | Removal | Other:

Start Time (MST)	13:05:00 PM	End Time (MST)	15:55:00 PM
Barometric Pressure	705.00 mm/hg	Station Temperature	20.0 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	27.9	PSI
Fuel pressure	42.1	PSI	42.1	PSI
Carrier pressure	30.3	PSI	30.3	PSI
CH4 cal factor	5.68		5.82	E^{-4}
NMHC cal factor	1.64		1.91	E^{-4}
Rt	12.60	Sec	12.60	Sec
Pk Index	23.00		23.00	

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	12.96	0.9949
1996	40.96	7.76	7.75	1.0018
1996	15.99	3.07	3.01	1.0177
1996	0.00	0.00	0.02	As Found Zero
1996	68.93	12.89	12.72	As Found Span
			Average Correction Factor	1.0048

Calculated value of As Found Response: 12.522 ppm Percent Change of As Found: 2.8%

	Before		After
Calculated slope	0.980828	Calculated slope	0.994933
Calculated intercept	0.062193	Calculated intercept	0.025788

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.03	ppm	0.03	ppm
Auto span	8.36	ppm	9.47	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	19.03	0.9991
1996	40.96	11.45	11.55	0.9913
1996	15.99	4.52	4.54	0.9965
1996	0.00	0.00	0.02	As Found Zero
1996	68.93	19.00	18.76	As Found Span
			Average Correction Factor	0.9956

Calculated value of As Found Response: 18.321 ppm Percent Change of As Found: 3.6%

	Before		After
Calculated slope	0.977001	Calculated slope	0.998917
Calculated intercept	0.008152	Calculated intercept	-0.028456

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.02	ppm	0.02	ppm
Auto span	11.57	ppm	13.10	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	31.96	0.9982
1996	40.96	19.21	19.28	0.9964
1996	15.99	7.59	7.54	1.0063
1996	0.00	0.00	0.03	As Found Zero
1996	68.93	31.89	31.46	As Found Span
			Average Correction Factor	1.0003

Calculated value of As Found Response: 30.849 ppm Percent Change of As Found: 3.3%

	Before		After
Calculated slope	0.978991	Calculated slope	0.997940
Calculated intercept	0.077450	Calculated intercept	0.002233

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.02	ppm	0.02	ppm
Auto span	19.91	ppm	22.57	ppm

Notes: Span adjustments made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **CH4**

Air Monitoring Network **PAZA**

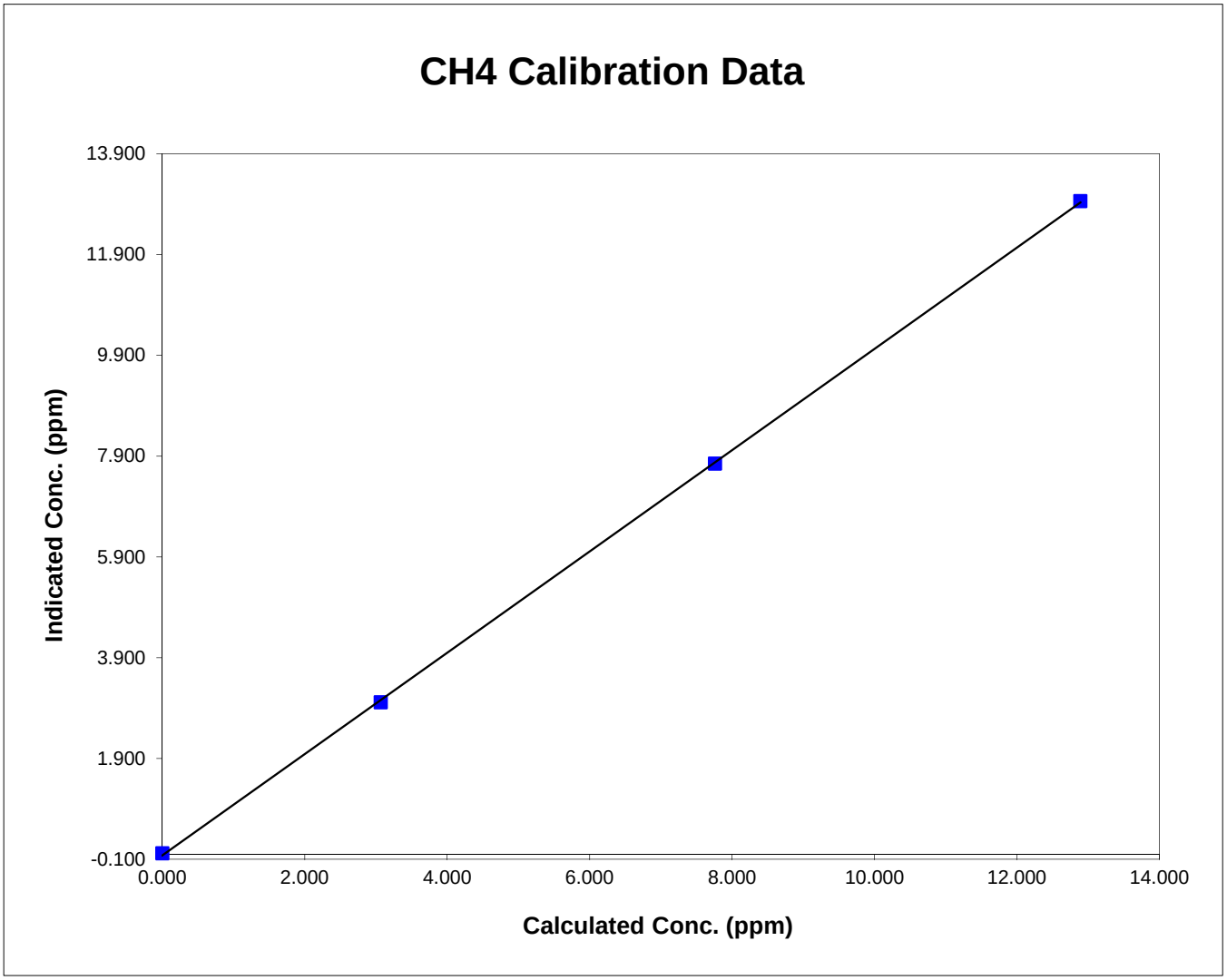
FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	October 3, 2014	Previous Calibration	September 8, 2014
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	13:05:00 PM	End Time (MST)	15:55:00 PM
Analyzer make/model	TEI 55I	Analyzer serial #	1134650658

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.018	N/A		
12.891	12.957	0.9949	Correlation Coefficient	0.999945
7.762	7.748	1.0018		
3.068	3.014	1.0177	Slope	0.994933
			Intercept	0.025788



Calibration Summary

Parameter **NMHC**

Air Monitoring Network **PAZA**

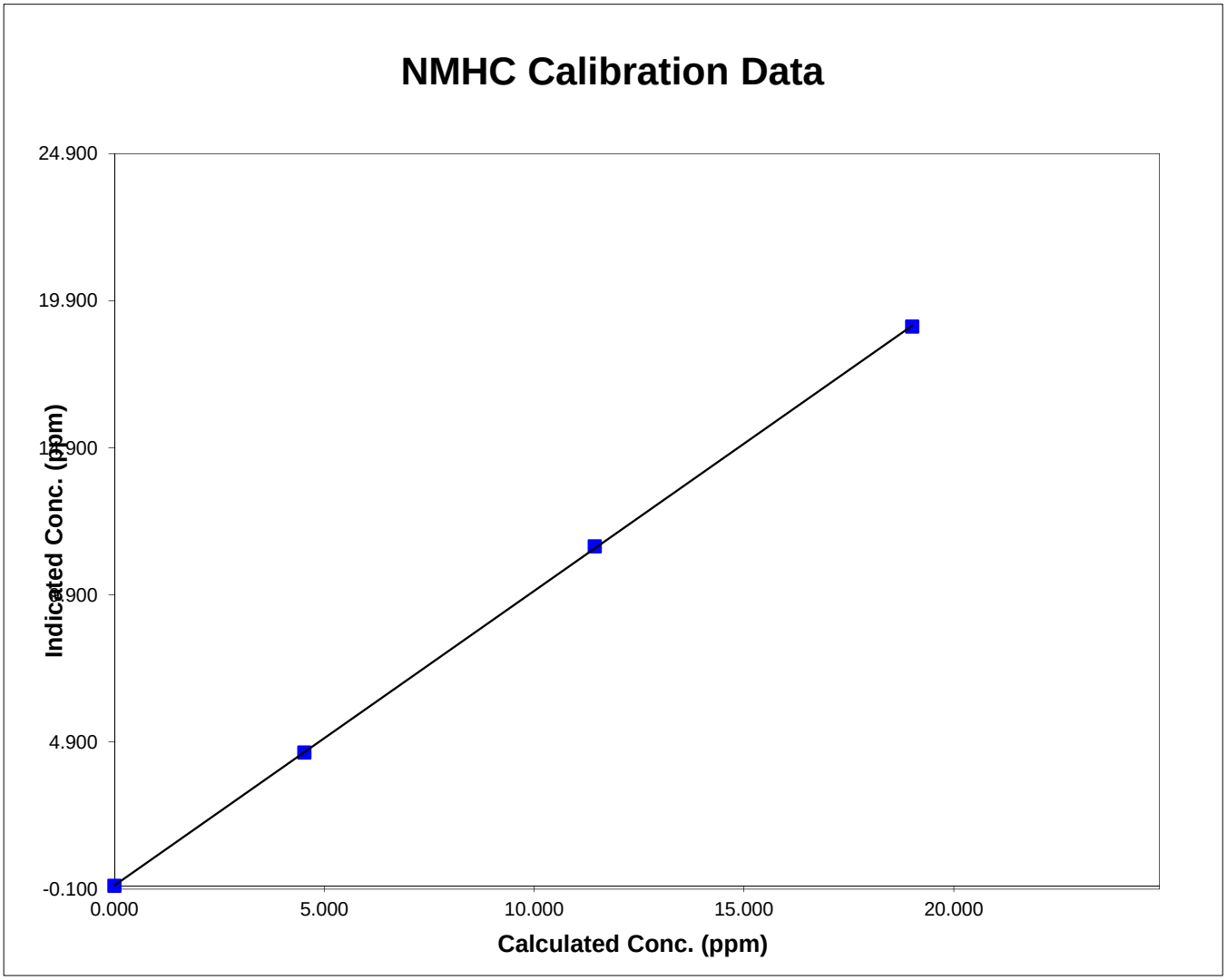
FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	October 3, 2014	Previous Calibration	September 8, 2014
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	13:05:00 PM	End Time (MST)	15:55:00 PM
Analyzer make/model	TEI 55I	Analyzer serial #	1134650658

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.018	N/A		
19.010	19.027	0.9991	Correlation Coefficient	0.999976
11.447	11.547	0.9913		
4.524	4.540	0.9965	Slope	0.998917
			Intercept	-0.028456



Calibration Summary

Parameter **THC**

Air Monitoring Network **PAZA**

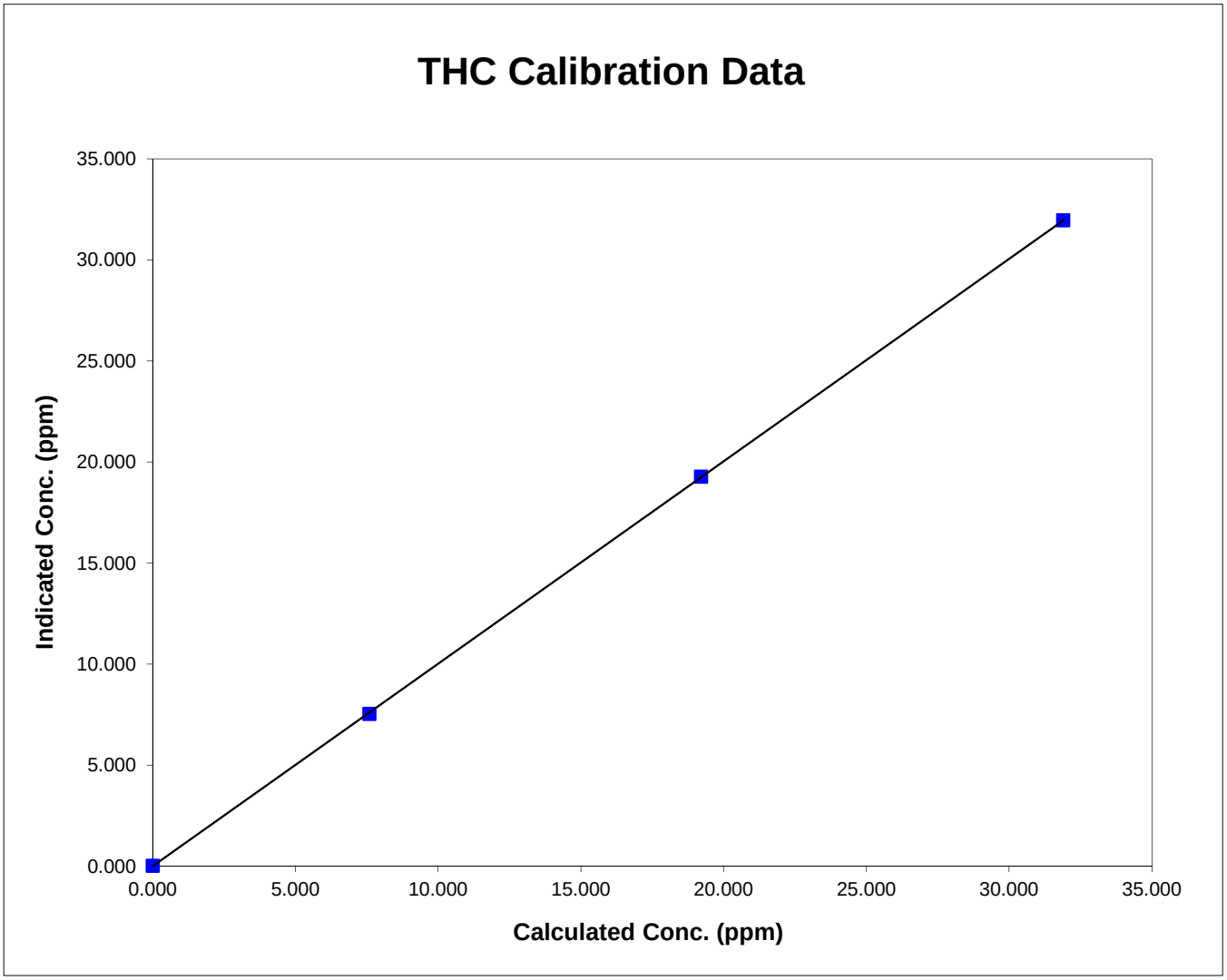
FOCUS AIR QUALITY MONITORING

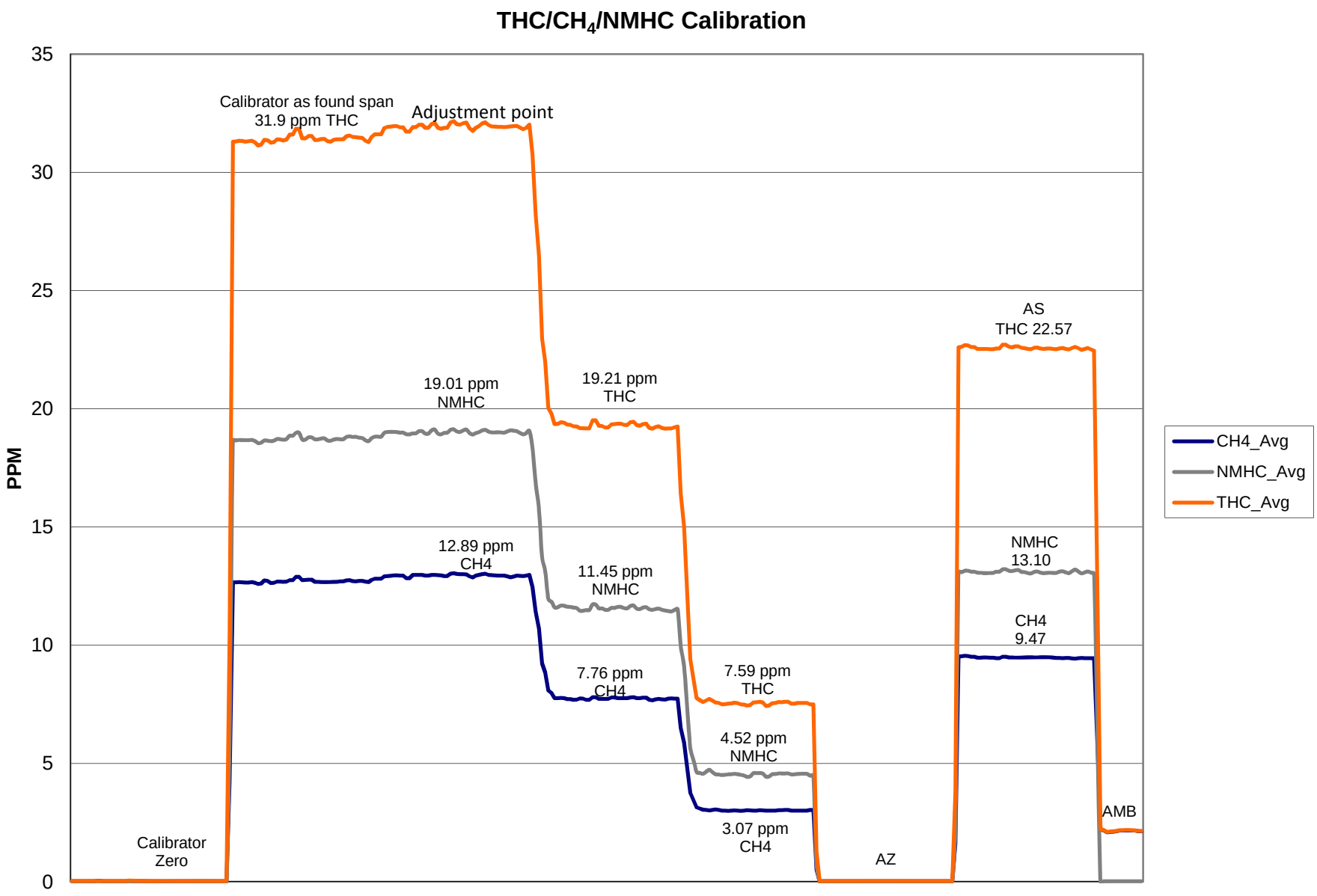
Station Information

Calibration Date	October 3, 2014	Previous Calibration	September 8, 2014
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	13:05:00 PM	End Time (MST)	15:55:00 PM
Analyzer make/model	TEI 55I	Analyzer serial #	1134650658

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.032	N/A		
31.901	31.960	0.9982	Correlation Coefficient	0.999990
19.209	19.278	0.9964		
7.592	7.545	1.0063	Slope	0.997940
			Intercept	0.002233




THC/CH4/NMHC Calibration
PPM
35
30
25
20
15
10
5
0
Calibrator as found span
31.9 ppm THC
Adjustment point
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 22.57
NMHC
13.10
CH4
9.47
AMB
CH4_Avg
NMHC_Avg
THC_Avg

Calibration Report

Parameter **TRS**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	October 3, 2014	Previous Calibration	September 8, 2014
Station Number	1	Station Location	Henry Pirker
Reason: Routine	Install	Removal	Other:
Start Time (MST)	8:05	End Time (MST)	13:00:00 PM
Barometric Pressure	705.00 mm/Hg	Station Temperature	20.0 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	0.983666	Calculated slope	0.992340
Calculated intercept	0.619583	Calculated intercept	0.592659
Analyzer make	TEI 45C	Analyzer serial #	630718528

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Coefficient	0.959		0.939	
Background	17.1		16.8	
Pressure	660.7	mm Hg	658.5	mm Hg
Flow	0.453	ccm	0.452	ccm
Lamp Voltage	882	V	881	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	-0.07	N/A
4995	39.93	81.84	82.11	0.9968
4995	19.95	41.05	40.46	1.0147
6995	9.95	14.66	13.73	1.0678
4995	0.00	0.00	-0.22	As Found Zero
4995	39.93	81.84	82.17	As Found Span
			Average Correction Factor	1.0264

Calculated value of As Found Response: 81.7 ppb Percent Change of As Found: 0.2%

	before calibration		after calibration	
Auto zero	0.50	ppb	0.35	ppb
Auto span	35.65	ppb	35.32	ppb

Notes: Span & zero adjustments made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **TRS**

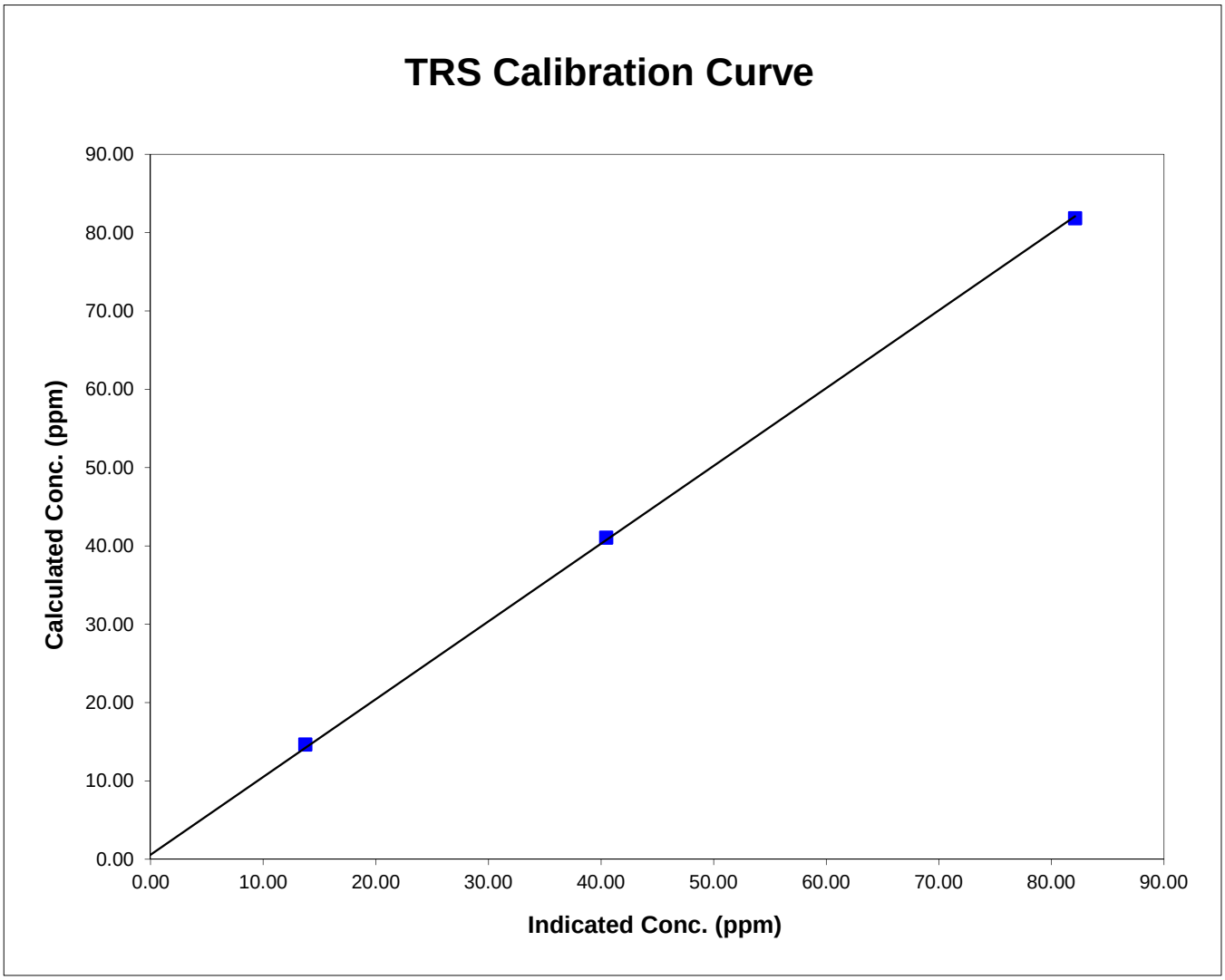
Air Monitoring Network **PAZA**

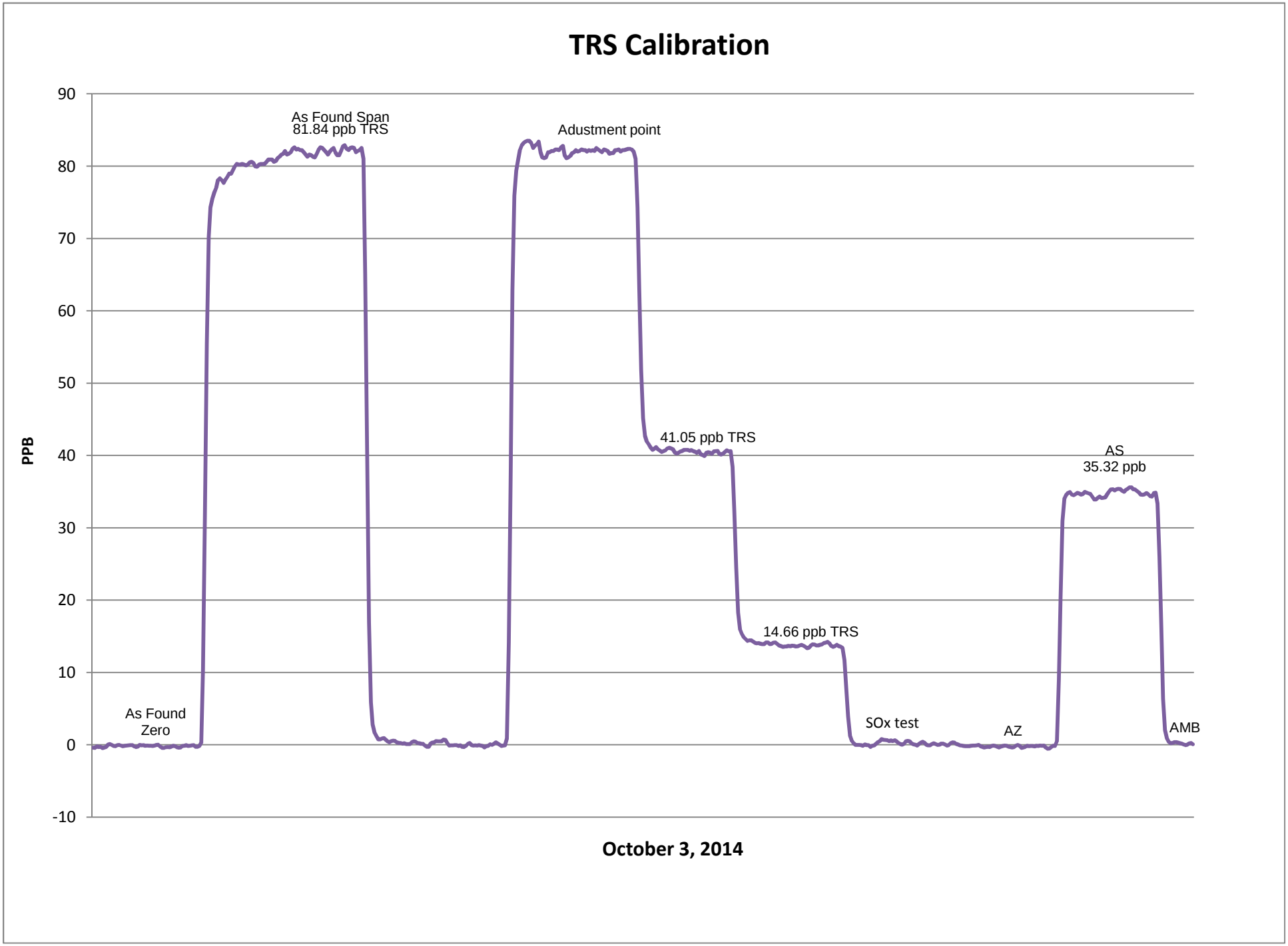
Station Information

Calibration Date	October 3, 2014	Previous Calibration	September 8, 2014
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	8:05	End Time (MST)	13:00:00 PM
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	-0.067	N/A		
81.844	82.108	0.9968	Correlation Coefficient	0.999839
41.054	40.461	1.0147		
14.659	13.728	1.0678	Slope	0.992340
			Intercept	0.592659




TRS Calibration
PPB
90
80
70
60
50
40
30
20
10
0
-10
As Found Span
81.84 ppb TRS
Adustment point
41.05 ppb TRS
14.66 ppb TRS
SOx test
AZ
AS
35.32 ppb
AMB
As Found
Zero
October 3, 2014

Calibration Report

Parameter **SO_2**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	October 23 2014	Previous Calibration	September 10 2014
Station Number	2	Station Location	Evergreen Park
Reason: Routine	Install	Removal	Other:

Start Time (MST)	10:15	End Time (MST)	13:04
Barometric Pressure	0.906 ATM	Station Temperature	20.0 Deg C
Calibrator	Environics	Serial Number	3016
Cal Gas Concentration	49.8 ppm	Cal Gas Expiry Date	25/02/2025
Correction factor	0.030797	Cal Gas Cylinder #	LL105159
DACS make	CR3000	DACS serial No.	5236
DACS voltage range	0 - 5 volt	DACS channel #	6
	Before		After
Calculated slope	0.991854	Calculated slope	0.989773
Calculated intercept	1.660232	Calculated intercept	2.428104

Analyzer make	Teco 43i	Analyzer serial #	701120008

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	11.6		11.3	
coefficient	1.219		1.219	
Lamp Voltage	829	volts	829	volts
Chamber Temp	45.2	Deg C	45.2	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	656.8	mm Hg	656.4	mm Hg
Sample Flow	0.446	ccm	0.447	ccm
Lamp Intensity	88	%	88	%

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.0	0.00	0.2	N/A
4995	39.93	394.9	397.9	0.9925
4995	19.97	198.3	196.3	1.0100
4995	9.97	99.2	95.3	1.0406
4995	0.0	0.0	0.2	As Found Zero
4995	39.93	394.9	397.9	As Found Span
			Average Correction Factor	1.0144

Calculated value of As Found Response: 396.149 ppm Percent Change of As Found: -0.3%

	before calibration		after calibration	
Auto zero	0.1	ppm	0.0	ppm
Auto span	282.3	ppm	281.3	ppm

Notes: No adjustments made.

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **SO2**

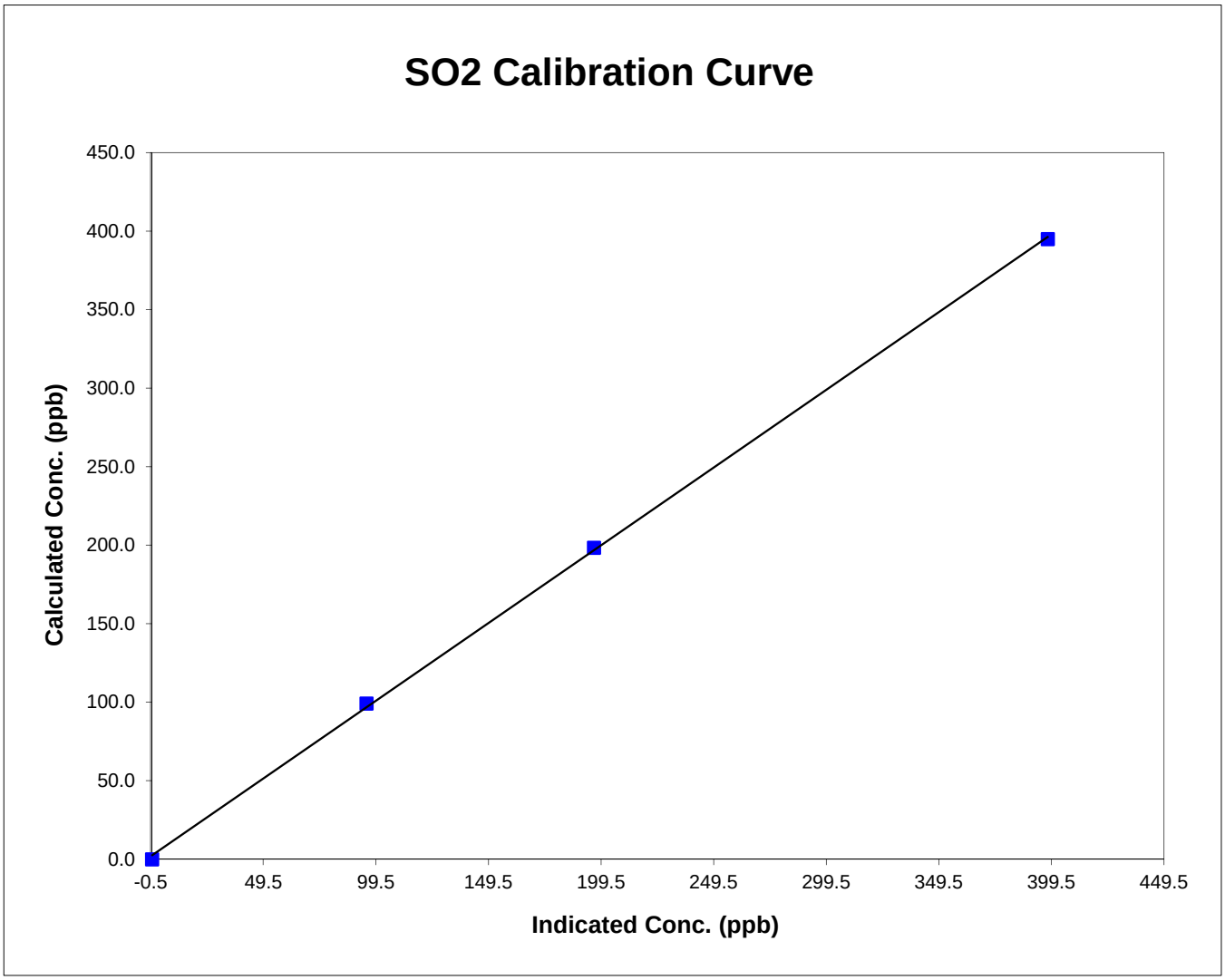
Air Monitoring Network **PAZA**

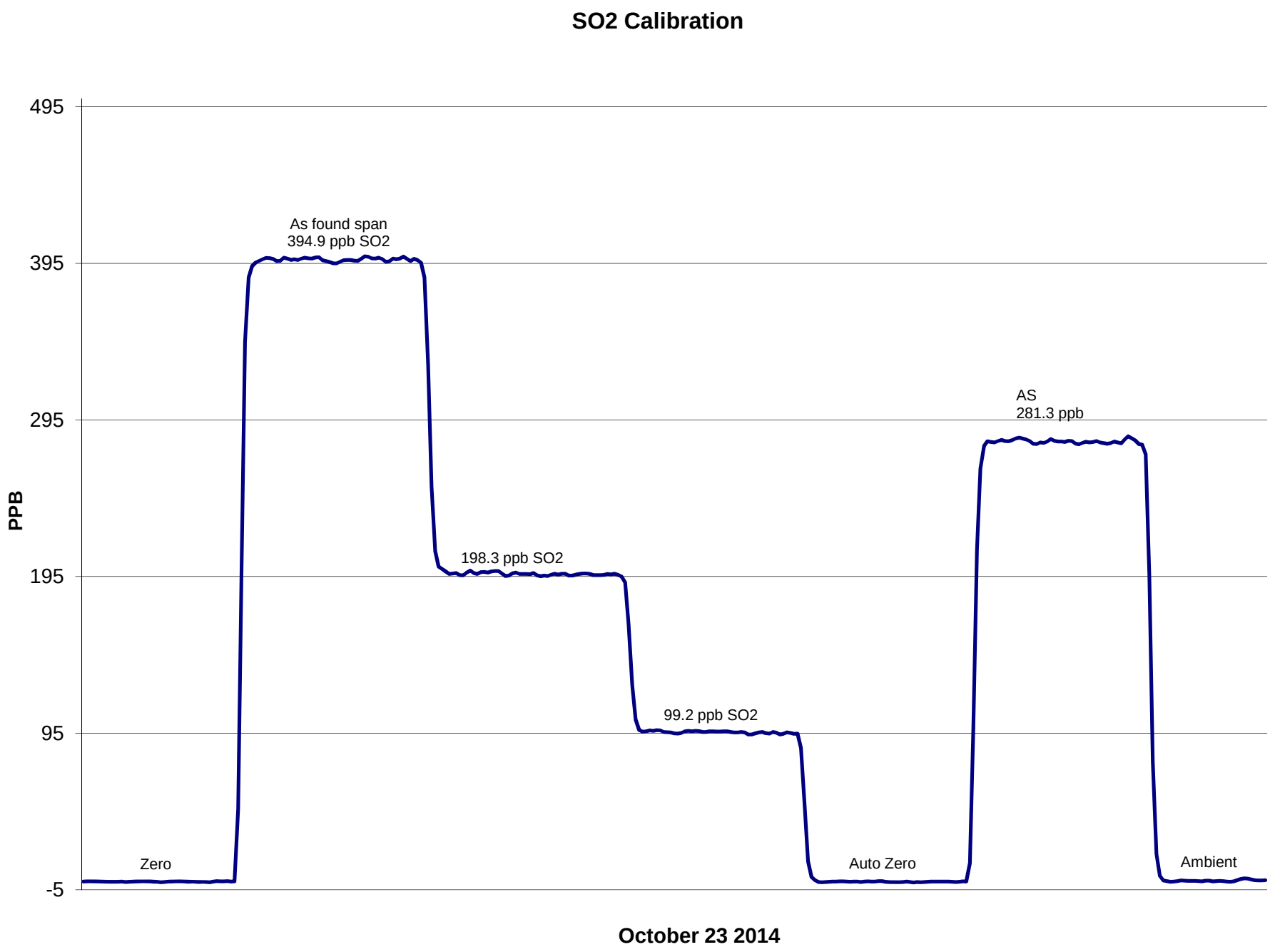
Station Information

Calibration Date	October 23 2014	Previous Calibration	September 10 2014
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	10:15	End Time (MST)	13:04
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	0.2	N/A		
394.9	397.9	0.9925	Correlation Coefficient	0.999802
198.3	196.3	1.0100		
99.2	95.3	1.0406	Slope	0.989773
			Intercept	2.428104




SO2 Calibration
495
395
295
195
95
-5
PPB
As found span
394.9 ppb SO2
198.3 ppb SO2
99.2 ppb SO2
AS
281.3 ppb
Zero
Auto Zero
Ambient
October 23 2014

Calibration Report

FOCUS AIR QUALITY MONITORING

Parameter **TRS**

Air Monitoring Network **PAZA**

Station Information

Calibration Date	October 23 2014	Previous Calibration	September 10 2014
Station Number	2	Station Location	Evergreen Park
Reason: Routine	Install	Removal	Other:

Start Time (MST)	8:30	End Time (MST)	11:21
Barometric Pressure	0.906 ATM	Station Temperature	22.0 Deg C
Calibrator	Environics	Serial Number	3016
Cal Gas Conc	10.4 ppm	Cal Gas Expiry Date	08/07/2016
Correction factor	0.030589	Cal Gas Cylinder #	LL110781
DACS make	CR3000	DACS serial No.	5236
DACS voltage range	0 - 5 volt	DACS channel #	5
	Before		After
Calculated slope	0.984639	Calculated slope	1.000473
Calculated intercept	0.519463	Calculated intercept	0.296830

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

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	40.5	ppb	40.5	ppb
coefficient	1.010		1.010	
Lamp Voltage	1043	volts	1043	volts
Chamber Temp	44.4	Deg C	44.4	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	628.7	mm Hg	628.7	mm Hg
Sample Flow	0.600	ccm	0.602	ccm
Lamp Intensity	31,623	mv	31,455	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	0.1	N/A
4995	39.93	82.48	82.3	1.0023
4995	19.97	41.41	40.9	1.0119
6995	9.97	14.80	14.1	1.0462
4995	9.97		#DIV/0!	Sox Test
4995	0.00	0.00	0.1	As Found Zero
4995	39.93	82.48	82.3	As Found Span
			Average Correction Factor	1.0201

Calculated value of As Found Response: 81.46 ppm Percent Change of As Found: 1.2%

	before calibration		after calibration	
Auto zero	-0.2	ppm	0.8	ppm
Auto span	72.8	ppm	75.8	ppm

Notes: No adjustments made.

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **TRS**

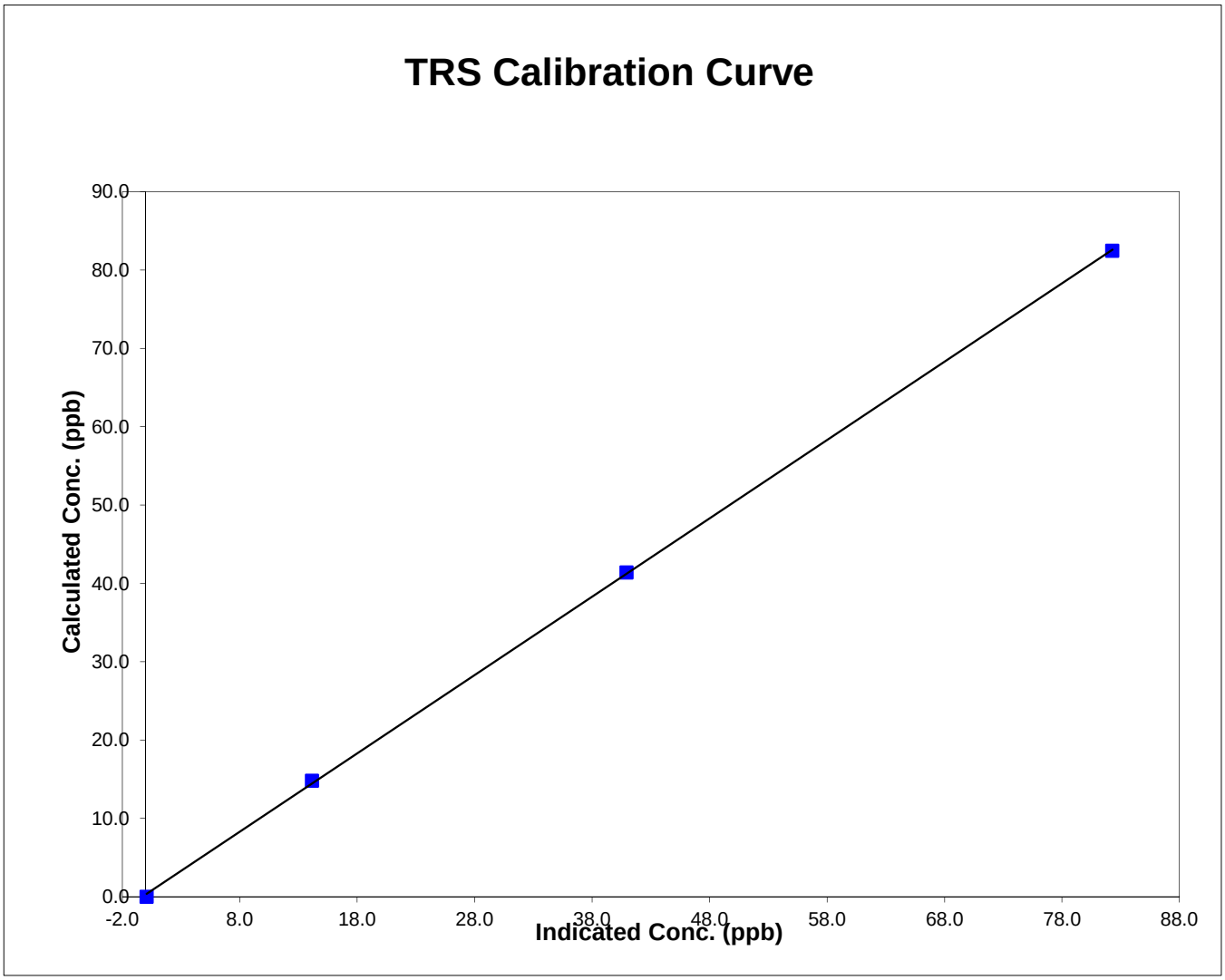
Air Monitoring Network **PAZA**

Station Information

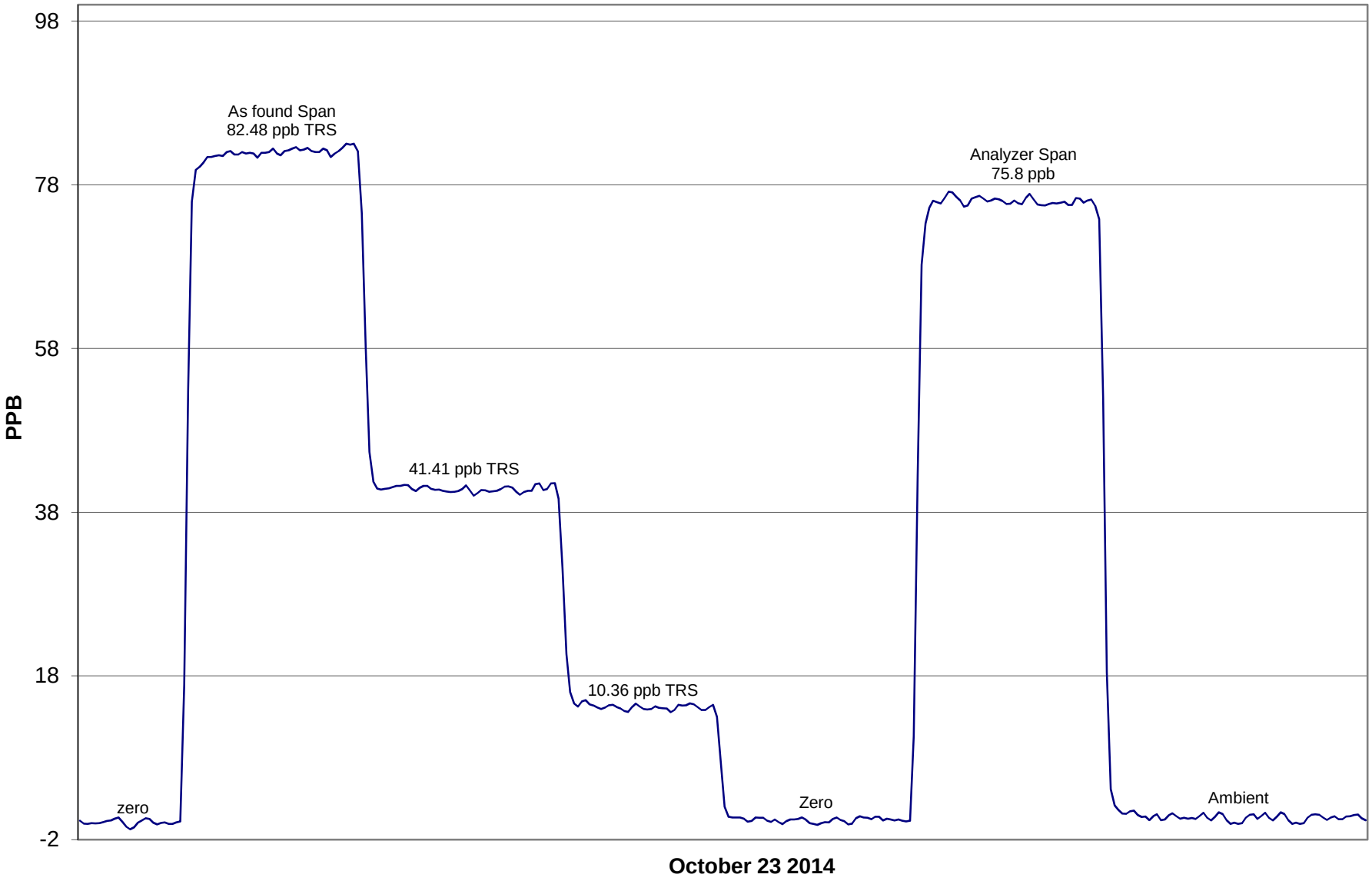
Calibration Date	October 23 2014	Previous Calibration	September 10 2014
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	8:30	End Time (MST)	11:21
Analyzer make/model	TEI Model 43C	Analyzer serial #	31990000000491

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A		
82.5	82.3	1.0023	Correlation Coefficient	0.999920
41.4	40.9	1.0119		
14.8	14.1	1.0462	Slope	1.000473
			Intercept	0.296830



TRS Calibration



AB TEOM PM2.5 Calibration

FOCUS AIR QUALITY MONITORING

STATION: **Evergreen Park**

LOCATION: PAZA - Grande Prairie

OPERATOR: Grover Christiansen

DATE: 23-Oct-14

MONITOR INFO / PARAMETER VALUES:

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

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

RECENT CALIBRATION AND AUDIT HISTORY

Previous Audit	05-Jul-14
Previous Calibration	NA

PUMP CAPACITY CHECK *	PASS

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

"FAIL" indicates that pump requires service.

LEAK CHECK	Indicated Flow (lpm)	
	Main	Auxiliary
PUMP ON	0.030	0.040
PUMP OFF	0.000	0.000
NET	0.030	0.040
LIMITS	*<0.15*	*<0.60*

		Ambient Temp. (^{0} C)	Ambient Pres. (atm)	Ko *	Bypass flow (lpm)	Sample flow (lpm)
	SET POINT (S)	na	na	16147	13.67	3.000
	INDICATED (I)	4.1	0.906		13.66	2.999
As Found Data	MEASURED (AF)	4.7	0.906		13.65	2.989
Adjusted Data	MEASURED (M)	4.7	0.906	16259	13.65	2.989
	DIFFERENCE (M-I)	0.6	0.000	0.7%	-0.02	-0.01
	LIMITS	*± 2 ^{0} C*	*± 0.005 atm*	*± 2.5 %*	*± 1.0 L/min*	*± 0.2 L/min*

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

COMMENTS: Pass.

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

Calibration Report

Parameter **SO_2**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	October 27, 2014	Previous Calibration	September 12, 2014
Station Number	3	Station Location	Smokey Heights
Reason:	Routine / Install	Removal	Other:
Start Time (MST)	10:45	End Time (MST)	13:26
Barometric Pressure	0.929 ATM	Station Temperature	20.0 Deg C
Calibrator	Environics	Serial Number	3016
Cal Gas Concentration	49.8 ppm	Cal Gas Cert Date	20/01/2016
Correction factor	0.031579	Cal Gas Cylinder #	LL1105159
DACS make	CR3000	DACS serial No.	5238
DACS voltage range	0 - 5 volt	DACS channel #	6
	Before		After
Calculated slope	0.990960	Calculated slope	0.982623
Calculated intercept	1.822408	Calculated intercept	1.479453
Analyzer make	Teco 43i	Analyzer serial #	701120009

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	12.2		12.2	
coefficient	0.952		0.952	
Lamp Voltage	929	volts	928	volts
Chamber Temp	45.2	Deg C	45.2	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	669.2	mm Hg	673.2	mm Hg
Sample Flow	0.459	lpm	0.451	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	0.3	N/A
4995	39.93	394.94	401.2	0.9844
4995	19.97	198.31	199.7	0.9929
4995	9.97	99.20	97.5	1.0175
4995	0.0	0.00	0.3	As Found Zero
4995	39.93	394.94	401.2	As Found Span
			Average Correction Factor	0.9983

Calculated value of As Found Response: 399.115 ppm Percent Change of As Found: -1.1%

	before calibration		after calibration	
Auto zero	0.2	ppb	0.2	ppb
Auto span	250.5	ppb	254.7	ppb

Notes: No adjustments made

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **SO2**

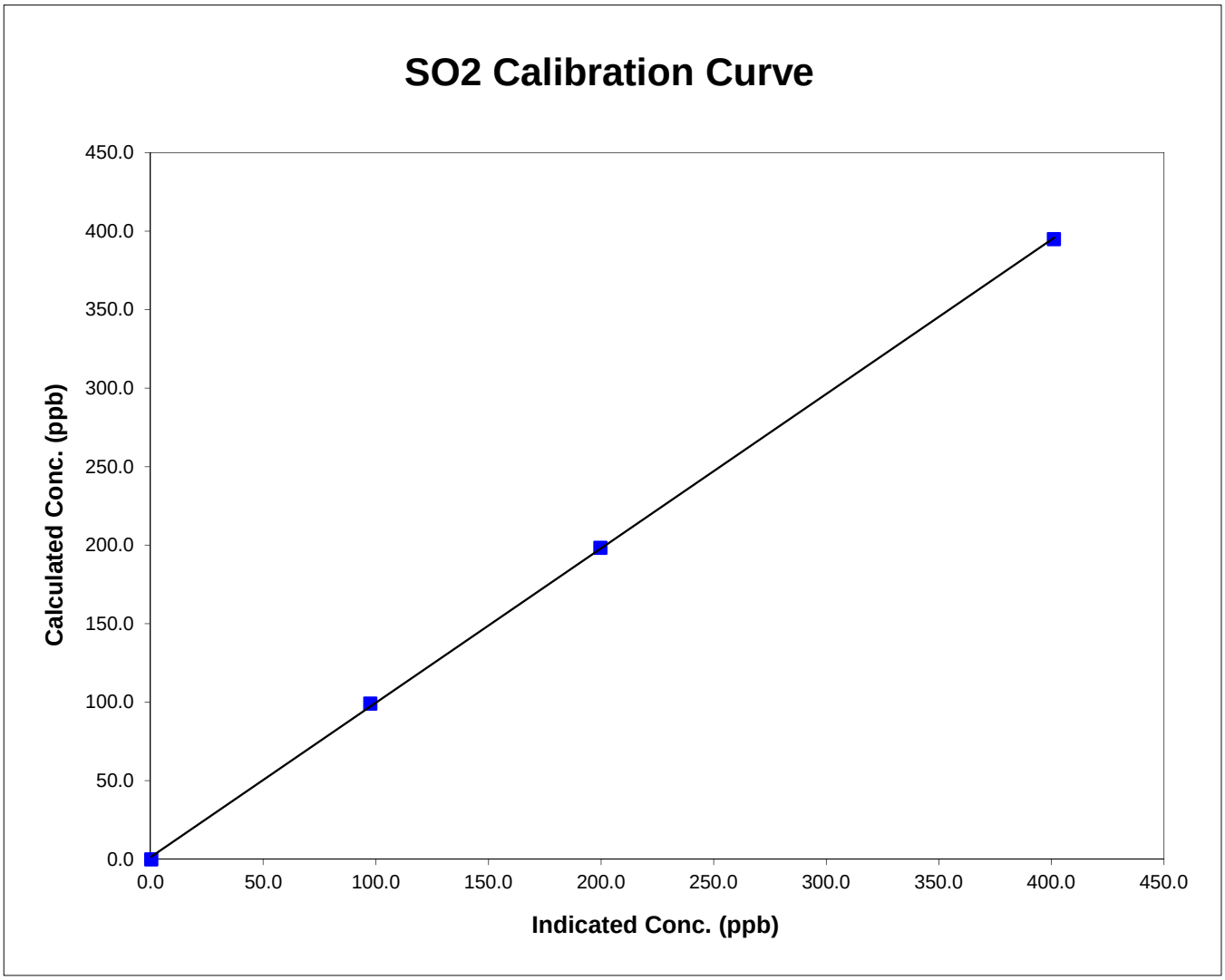
Air Monitoring Network **PAZA**

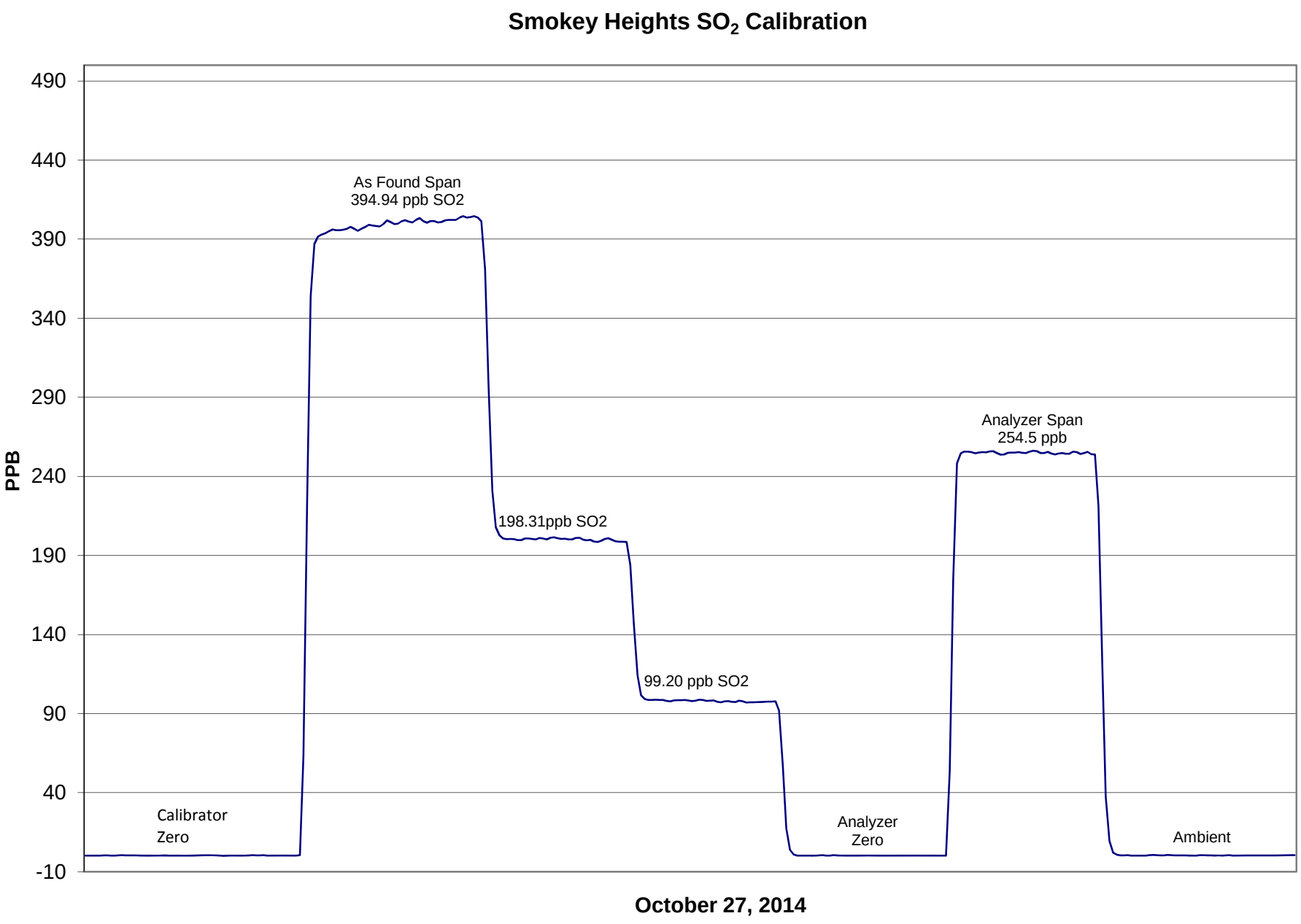
Station Information

Calibration Date	October 27, 2014	Previous Calibration	September 12, 2014
Station Number	3	Station Location	Smokey Heights
Start Time (MST)	10:45	End Time (MST)	13:26
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	0.3	N/A		
394.9	401.2	0.9844	Correlation Coefficient	0.999910
198.3	199.7	0.9929		
99.2	97.5	1.0175	Slope	0.982623
			Intercept	1.479453




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
254.5 ppb
Calibrator
Zero
Analyzer
Zero
Ambient
October 27, 2014

Calibration Report

Parameter **TRS**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	October 27, 2014	Previous Calibration	September 12, 2014
Station Number	3	Station Location	Smokey Heights
Reason: Routine	Install	Removal	Other:

Start Time (MST)	9:00	End Time (MST)	12:02
Barometric Pressure	0.929 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	0.031579	Cal Gas Cylinder #	BLM00586
DACS make	CR3000	DACS serial No.	5238
DACS voltage range	0 - 5 volt	DACS channel #	5
	Before		After
Calculated slope	0.992641	Calculated slope	0.995876
Calculated intercept	0.645787	Calculated intercept	0.606317

Analyzer make	TEI Model 43C	Analyzer serial #	0436610005

	before		after	
Concentration range	100	ppb	100	ppb
Background	19.2	ppb	19.2	ppb
coefficient	0.983		0.983	
Lamp Voltage	837	volts	838	volts
Chamber Temp	43.9	Deg C	43.9	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	592.4	mm Hg	608.5	mm Hg
Sample Flow	0.619	lpm	0.632	lpm
Lamp Intensity	35,278	mv	35,196	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	0.1	N/A
4995	39.93	81.84	82.0	0.9986
4995	19.97	41.10	40.0	1.0264
6995	9.97	14.69	13.6	1.0780
4995	9.97		0.8	Sox test
4995	0.0	0.00	0.1	As Found Zero
4995	39.93	81.84	82.0	As Found Span
			Average Correction Factor	1.0343

Calculated value of As Found Response: 81.87 ppm Percent Change of As Found: 0.0%

	before calibration		after calibration	
Auto zero	0.8	ppm	0.7	ppm
Auto span	30.8	ppm	32.4	ppm

Notes: No adjustments made, scrubber check performed.

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **TRS**

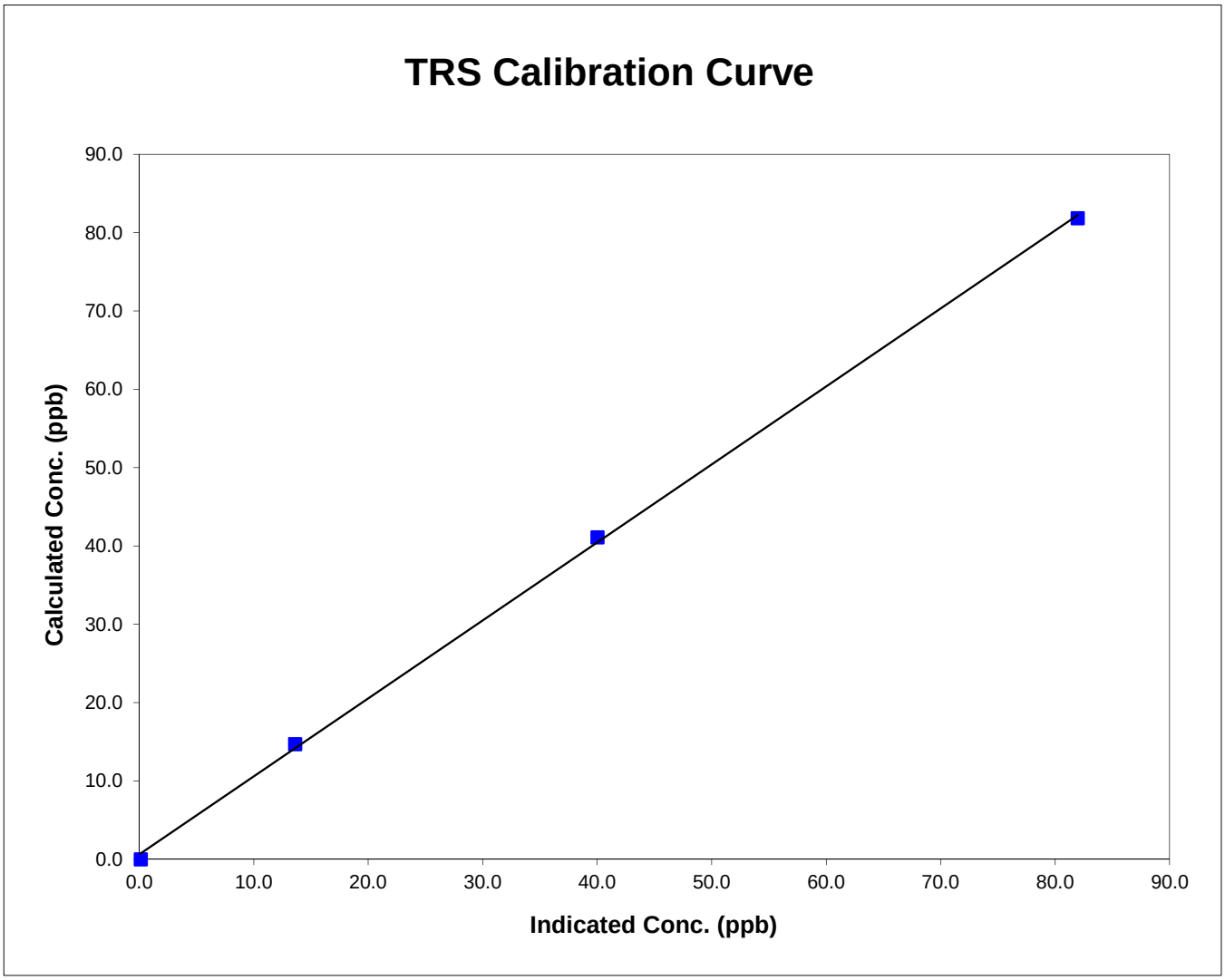
Air Monitoring Network **PAZA**

Station Information

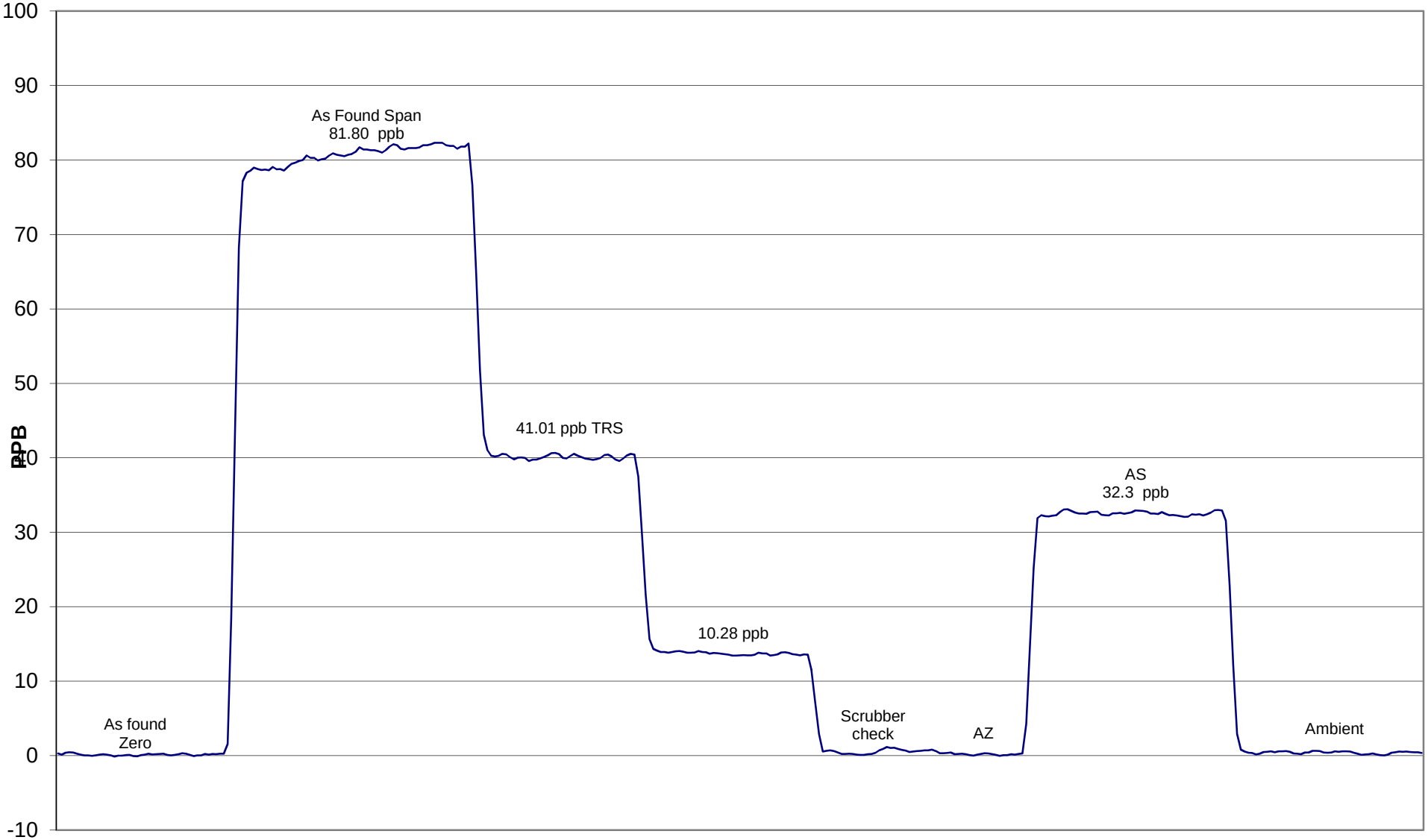
Calibration Date	October 27, 2014	Previous Calibration	September 12, 2014
Station Number	3	Station Location	Smokey Heights
Start Time (MST)	9:00	End Time (MST)	12:02
Analyzer make/model	TEI Model 43C	Analyzer serial #	0436610005

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A		
81.8	82.0	0.9986	Correlation Coefficient	0.999653
41.1	40.0	1.0264		
14.7	13.6	1.0780	Slope	0.995876
			Intercept	0.606317



Smokey Heights TRS Calibration



October 27, 2014

AB TEOM PM2.5 Calibration

FOCUS
AIR QUALITY MONITORING

STATION: **Smokey Heights**

LOCATION: PASZA - Grande Prairie

OPERATOR: Grover Christiansen

DATE: 27-Oct-14

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	0.995
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	31-Jan-14
Previous Calibration	16-May-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	-0.020
PUMP OFF	0.010	-0.060
NET	0.010	0.040
LIMITS	*<0.15*	*<0.60*

		Ambient Temp. (^{0} C)	Ambient Pres. (atm)	Ko *	Bypass flow (lpm)	Sample flow (lpm)
	SET POINT (S)	na	na	12122	13.68	3.000
	INDICATED (I)	-0.8	0.929		13.67	3.000
As Found Data	MEASURED (AF)	-2.2	0.929		13.66	3.080
Adjusted Data	MEASURED (M)	-2.2	0.929	12248	13.66	3.080
	DIFFERENCE (M-I)	-1.4	0.000	1.0%	-0.02	0.08
	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

Changed filter

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

Calibration Report

Parameter **SO2**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	October 6, 2014	Previous Calibration	September 3, 2014
Station Number	4	Station Location	Beaverlodge
Reason: Routine	Install	Removal	Other:
Start Time (MST)	13:35:00 PM	End Time (MST)	16:15:00 PM
Barometric Pressure	0.908 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	0.994809	Calculated slope	1.002565
Calculated intercept	0.325952	Calculated intercept	0.252803
Analyzer make	TEI Model 43i-TLE	Analyzer serial #	713021137

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	2.73		2.68	
Coefficient	1.042		1.035	
PMT	-768.1	V	-768.1	V
UV Lamp Voltage	1068	V	1066	V
Chamber Temp	45	Deg C	45	Deg C
Pressure	658	mm Hg	666.1	mm Hg
Sample Flow	0.516	LPM	0.518	LPM
Lamp Intensity	96	%	96	%

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4994	0.00	0.0	0.0	N/A
4994	39.92	85.6	85.3	1.0040
4994	19.96	43.0	42.5	1.0118
4994	9.96	21.5	20.9	1.0269
4994	0.00	0.0	0.0	As found zero
4994	39.92	85.6	86.5	As found span
			Average Correction Factor	1.0142

Calculated value of As Found Response: 86.317 ppm Percent Change of As Found: -0.8%

	before calibration		after calibration	
Auto zero	0.4	ppb	0.3	ppb
Auto span	60.3	ppb	59.7	ppb

Notes: Span adjustments made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **SO2**

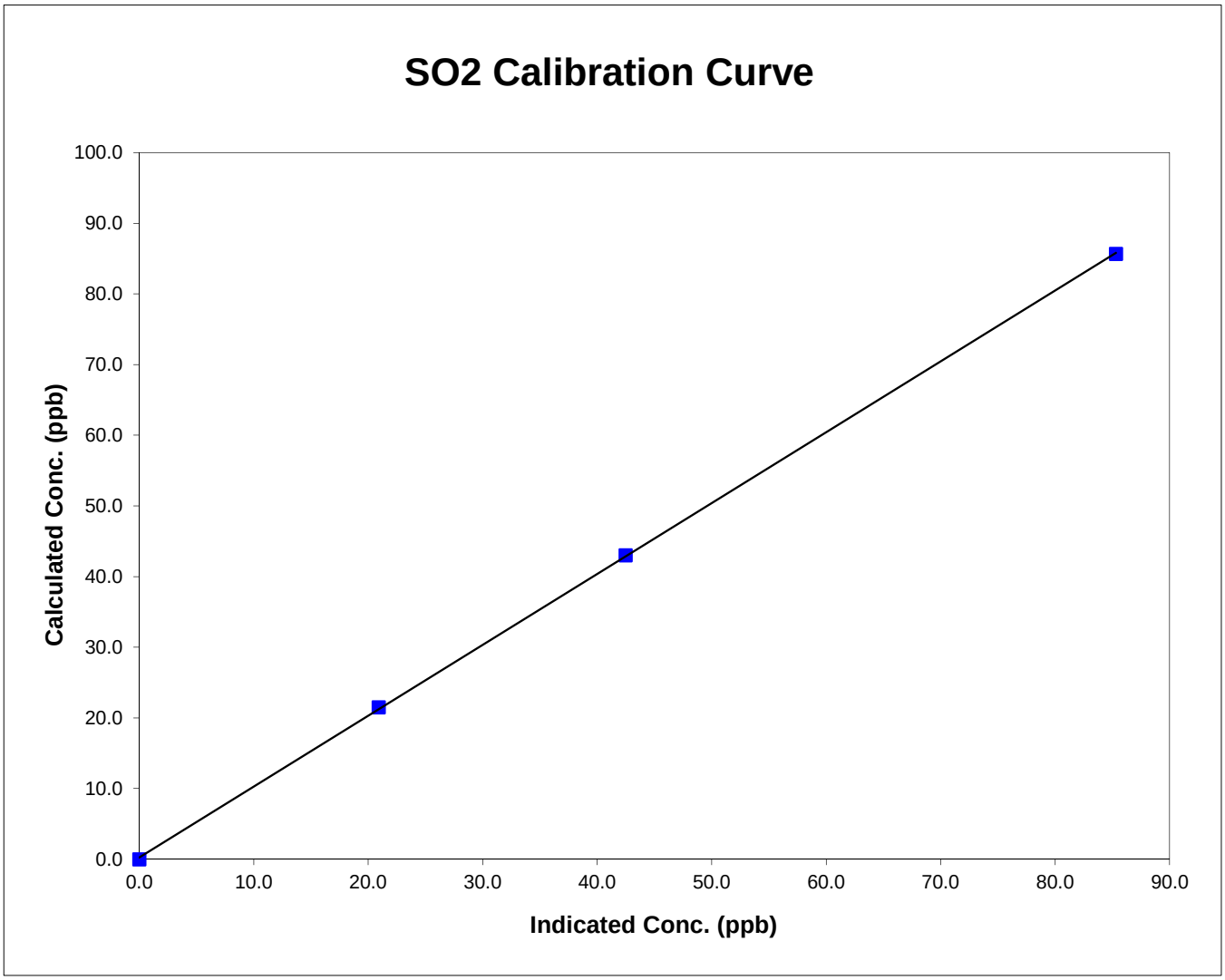
Air Monitoring Network **PAZA**

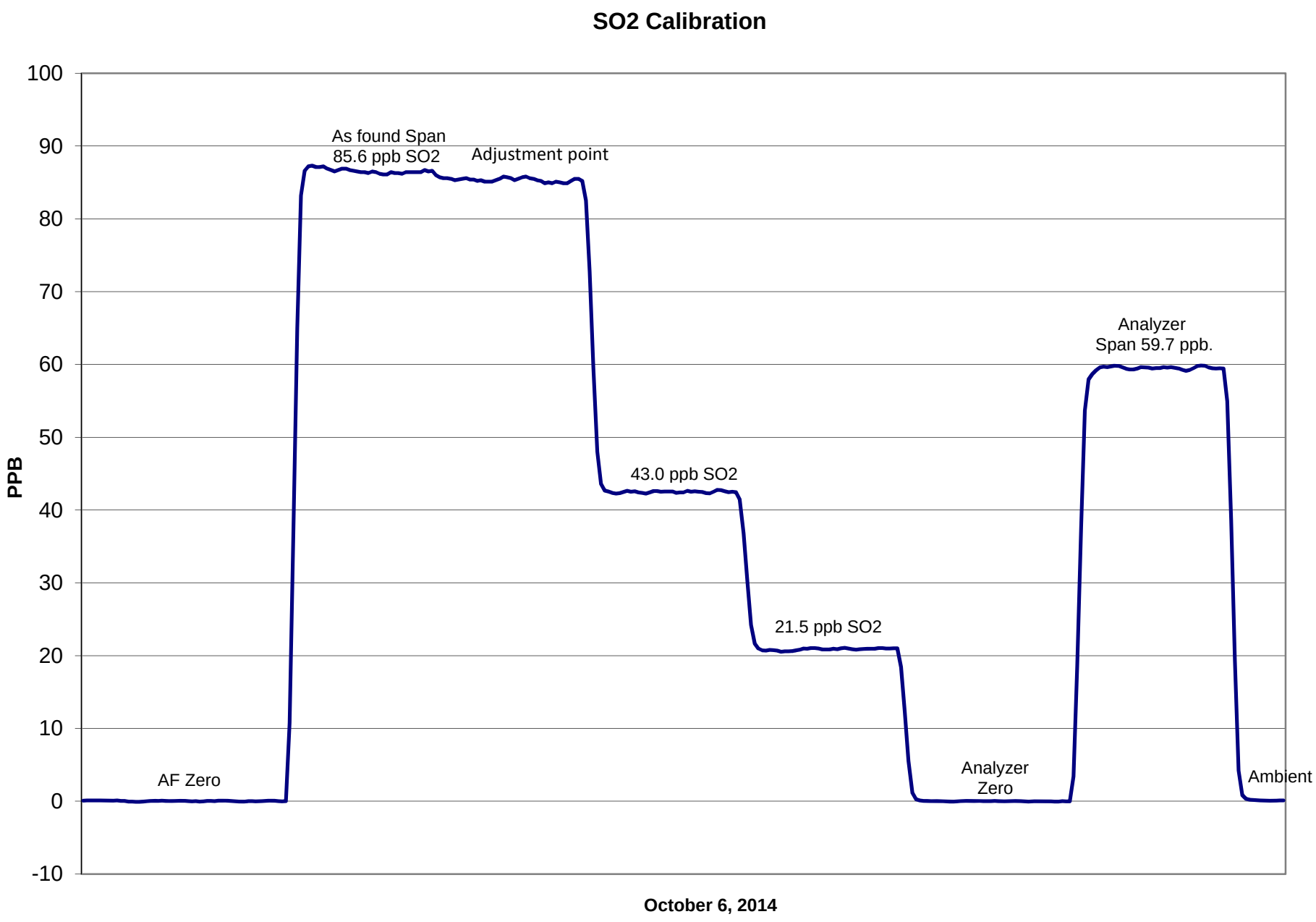
Station Information

Calibration Date	October 6, 2014	Previous Calibration	September 3, 2014
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	13:35:00 PM	End Time (MST)	16:15:00 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	0.0	N/A		
85.6	85.3	1.0040	Correlation Coefficient	0.999957
43.0	42.5	1.0118		
21.5	20.9	1.0269	Slope	1.002565
			Intercept	0.252803




SO2 Calibration
100
90
80
70
60
50
40
30
20
10
0
-10
PPB
As found Span
85.6 ppb SO2
Adjustment point
43.0 ppb SO2
21.5 ppb SO2
Analyzer
Span 59.7 ppb.
AF Zero
Analyzer
Zero
Ambient
October 6, 2014

Calibration Report

Parameter **NO_X-NO-NO_2**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	October 6, 2014	Previous Calibration	September 3, 2014
Station Number	4	Station Location	Beaverlodge

Reason: Routine Installation Removal Other:

Start Time (MST)	9:20		End Time (MST)	13:30:00 PM	
Barometric Pressure	0.907	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	0.999602	0.994905	0.992230
	Data Offset	-0.681539	1.815864	2.110704
After	Data Slope	0.996108	0.999206	0.996046
	Data Offset	-0.726819	1.803197	1.921956
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	3.0	mV	3.1	mV
NOx bkgnd	3.3	mV	3.4	mV
NO coefficient	1.013		1.036	
NOx coefficient	1.000		1.002	
NO2 conv temp	324.2	Deg C	324.3	Deg C
PMT Temp	-2.8	Deg C	-2.8	Deg C
PMT Volt	-747.8	mV	-747.0	mV
R Cell Press	225.9	in Hg	227.1	in Hg
Sample Flow	0.606	LPM	0.606	LPM

Notes: Span adjustments made.

Calibration Report

Parameter **NOX-NO-NO2**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date: October 6, 2014 Station Location: Beaverlodge

Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor
zero	4995	0.00	0.0	0.0	0.0	0.0	-0.1	0.0	N/A	N/A
1	4995	39.92	405.9	403.6	2.4	405.3	404.2	0.3	1.0015	0.9984
2	4995	19.96	203.8	202.6	1.2	201.2	200.3	0.0	1.0128	1.0115
3	4995	9.93	101.6	101.0	0.6	98.2	97.8	0.1	1.0349	1.0323
AFZ	4995	0.00	0.0	0.0	0.0	0.0	-0.1	0.0	0.0000	0.0000
AFS	4995	39.92	405.9	403.6	0.8	396.6	395.9	0.0	1.0236	1.0193
							Average Correction Factor		1.0164	1.0141

As Found Concentrations: NO_X= 396.4 NO= 395.1 As Found Percent Change NO_X= -2.3% NO= -2.1%

GPT Calibration Data

Dilution Flow 4995 ccm Source Gas Flow 39.93 ccm

O3 Setpoint (ppb)	Indicated NOx high point (ppb)	Indicated NO drop conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor	NO2 Correction factor	Converter Efficiency
0	-0.1	-0.1	0.0	0.0	-0.1	0.0	N/A	N/A	N/A	N/A
NO point	402.0	402.0	0.0	402.8	402.0	0.0	0.9981	1.0000	N/A	N/A
300	402.0	95.6	306.4	404.1	95.6	307.9	0.9949	1.0000	0.9952	100.5%
200	402.0	195.4	206.6	404.5	195.4	208.2	0.9939	1.0000	0.9922	100.8%
100	402.0	294.5	107.5	404.9	294.5	109.8	0.9928	1.0000	0.9792	102.1%
					Average Correction Factor		0.9939	1.0000	0.9889	101.1%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	0.0	-0.1	-0.1	ppb	-0.1	-0.1	-0.1	ppb
Auto span	176.9	175.5	1.1	ppb	170.5	169.2	1.0	ppb

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **NO_2**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

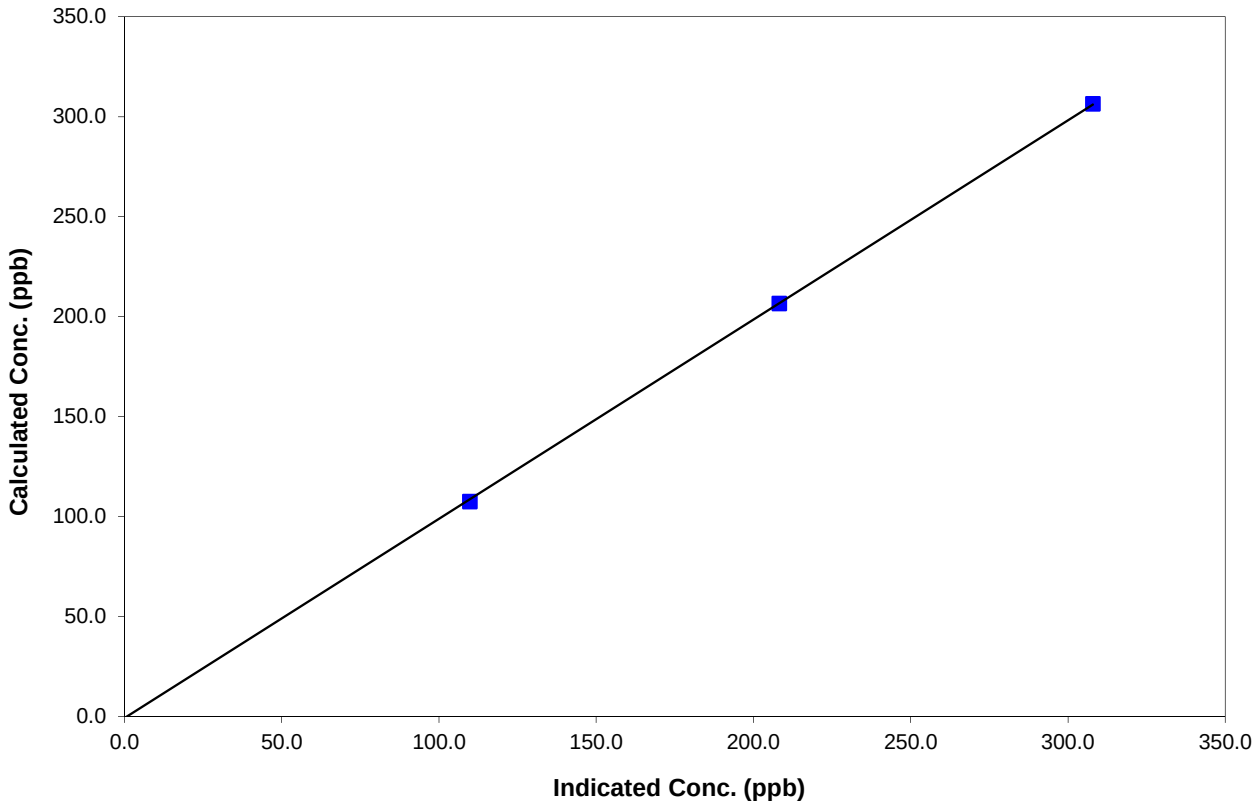
Station Information

Calibration Date	October 6, 2014	Previous Calibration	September 3, 2014
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	9:20	End Time (MST)	13:30:00 PM
Analyzer make	TEI 42i	Analyzer serial #	906535068

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A		
306.4	307.9	0.9952	Correlation Coefficient	0.999960
206.6	208.2	0.9922		
107.5	109.8	0.9792	Slope	0.996108
			Intercept	-0.726819

NO_2 Calibration Curve



Calibration Summary

Parameter **NO_x**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

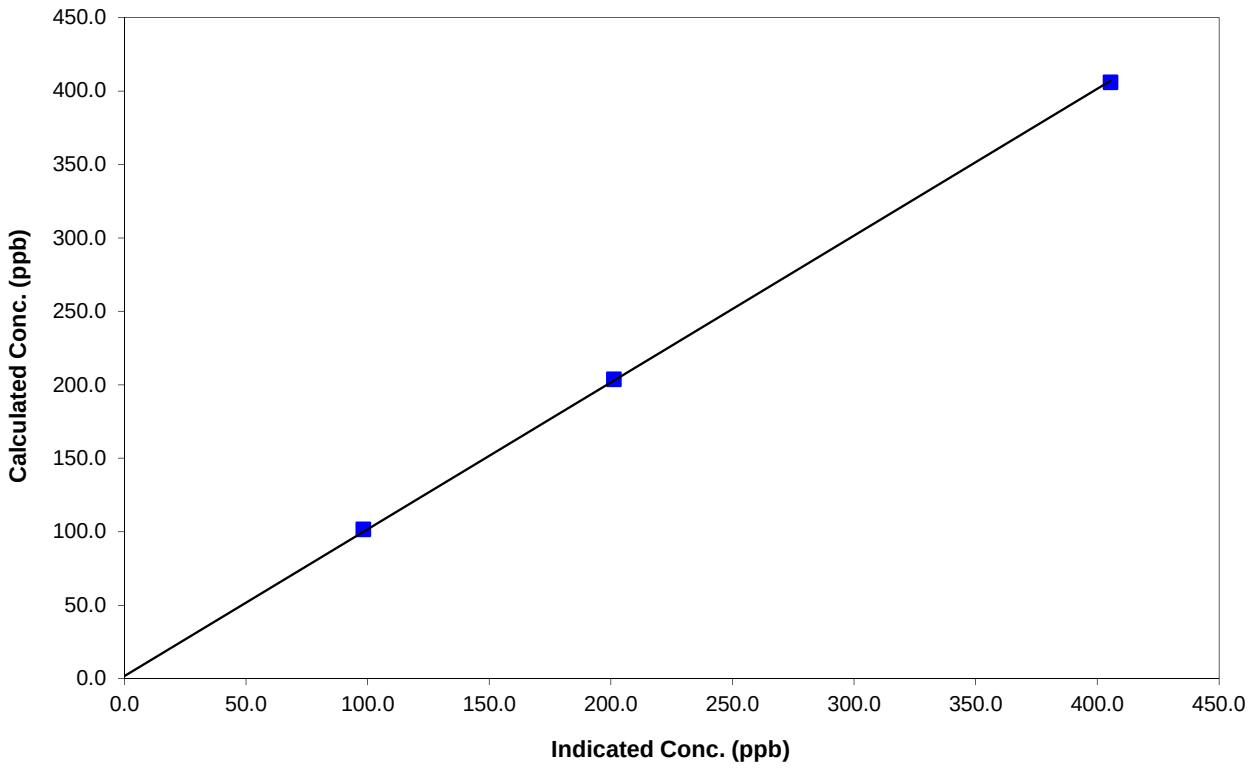
Station Information

Calibration Date	October 6, 2014	Previous Calibration	September 3, 2014
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	9:20	End Time (MST)	13:30:00 PM
Analyzer make	TEI 42i	Analyzer serial #	906535068

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A		
405.9	405.3	1.0015	Correlation Coefficient	0.999915
203.8	201.2	1.0128		
101.6	98.2	1.0349	Slope	0.999206
			Intercept	1.803197

NOx Calibration Curve



Calibration Summary

Parameter **NO**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

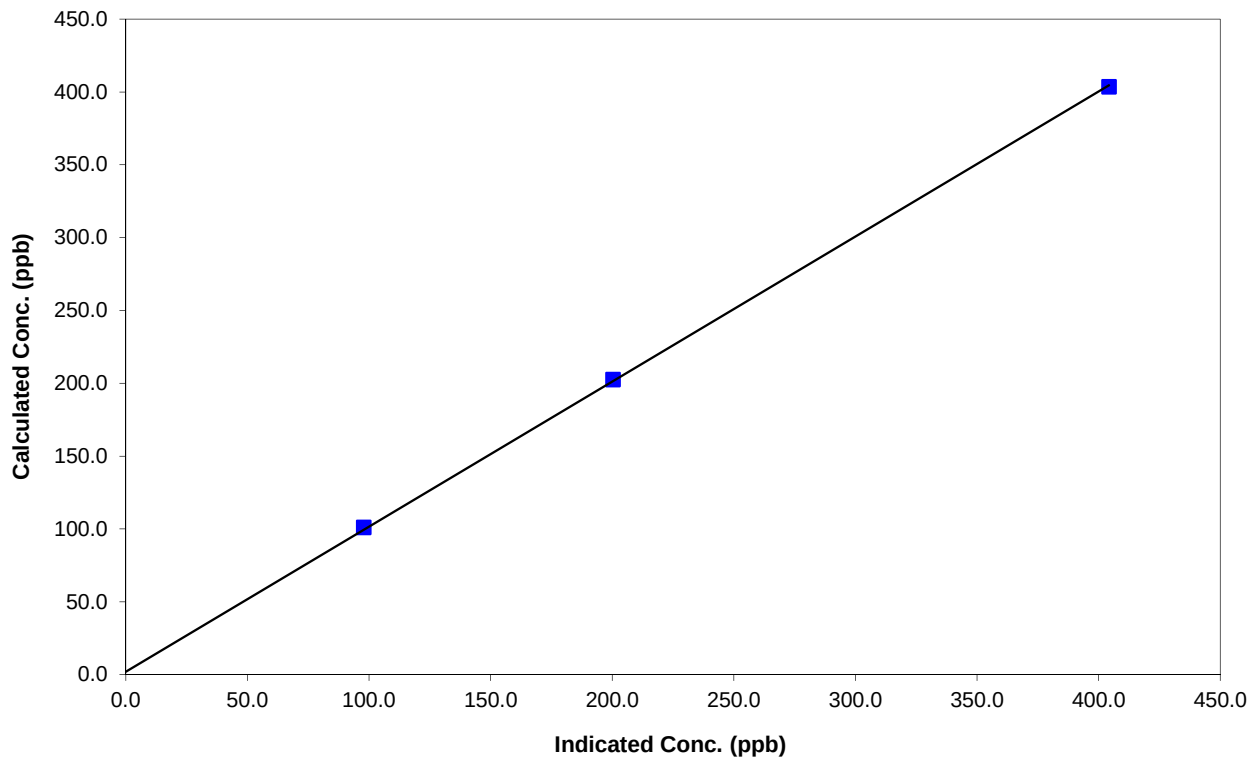
Station Information

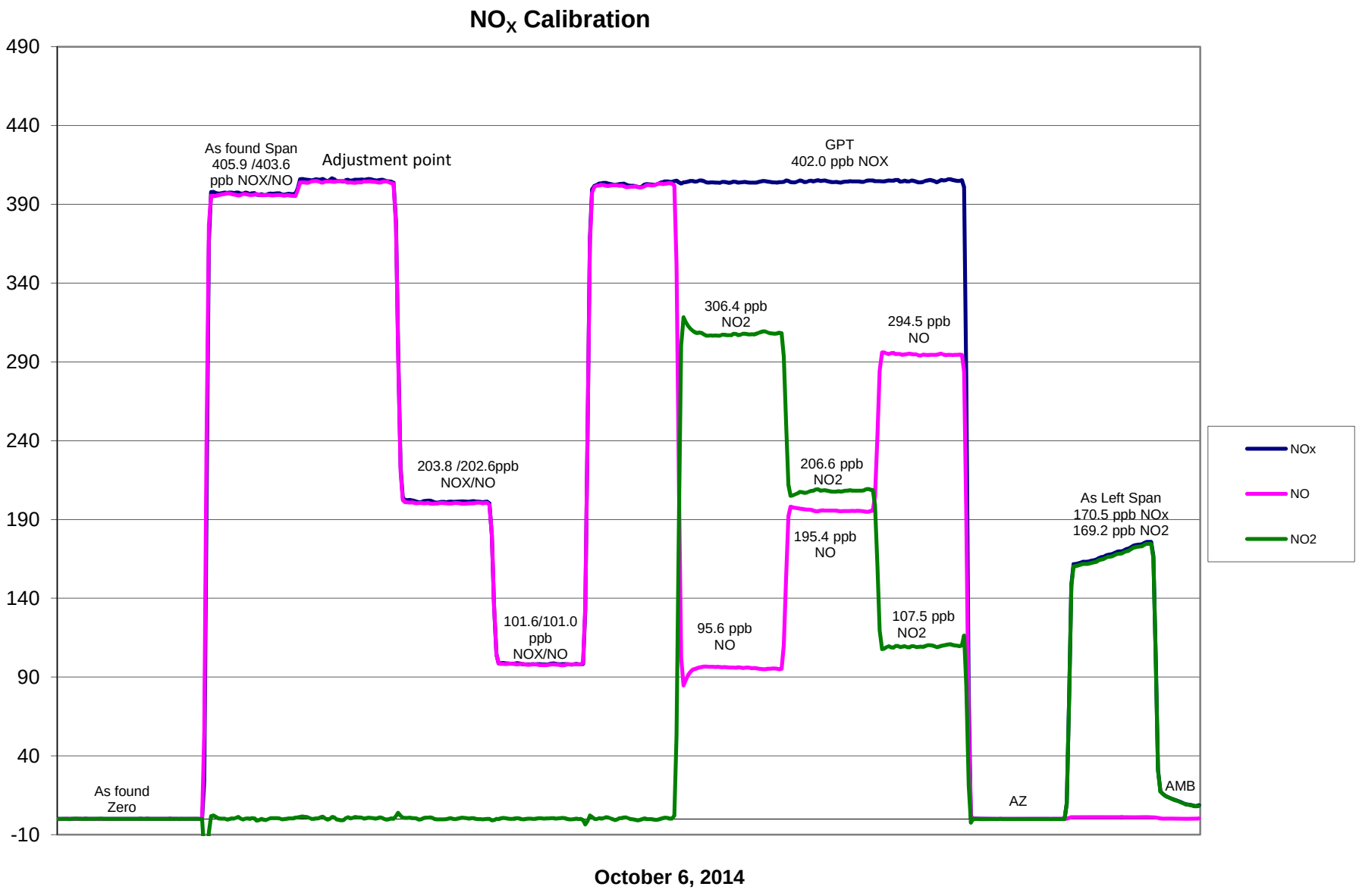
Calibration Date	October 6, 2014	Previous Calibration	September 3, 2014
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	9:20	End Time (MST)	13:30:00 PM
Analyzer make	TEI 42i	Analyzer serial #	906535068

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	N/A		
403.6	404.2	0.9984	Correlation Coefficient	0.999907
202.6	200.3	1.0115		
101.0	97.8	1.0323	Slope	0.996046
			Intercept	1.921956

NO Calibration Curve




NOx Calibration
490
440
390
340
290
240
190
140
90
40
-10
As found Span
405.9 /403.6
ppb NOX/NO
Adjustment point
GPT
402.0 ppb NOX
306.4 ppb
NO2
294.5 ppb
NO
203.8 /202.6ppb
NOX/NO
206.6 ppb
NO2
195.4 ppb
NO
As Left Span
170.5 ppb NOx
169.2 ppb NO2
101.6/101.0
ppb
NOX/NO
95.6 ppb
NO
107.5 ppb
NO2
As found
Zero
AZ
AMB
NOx
NO
NO2
October 6, 2014

Calibration Report

Parameter **O3**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	October 6, 2014	Previous Calibration	September 3, 2014
Station Number	4	Station Location	Beaverlodge
Reason: Routine	Install	Removal	Other:
Start Time (MST)	12:30	End Time (MST)	14:45:00 PM
Barometric Pressure	0.907 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	1.008841	Calculated slope	1.001884
Calculated intercept	-0.521694	Calculated intercept	-0.407944
Analyzer make	Teco 49i	Analyzer serial #	1136451236,AMU 1879

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
offset	-0.60	ppb	-0.60	ppb
slope	1.002		1.002	
Lamp temp	53.8	mV	53.9	mV
Lamp Intensity A/B	75102/77160	mV	75136/77179	mV
Pressure	677.5	mm Hg	682.4	mm Hg
Flow A	0.757	LPM	0.76	LPM
Flow B	0.733	LPM	0.736	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	0.3	N/A
5035	0.30	306.4	306.3	1.0003
5035	0.20	206.6	206.3	1.0015
5035	0.10	107.5	108.1	0.9945
5035	0.00	0.0	0.3	As found zero
5035	0.30	306.4	306.3	As found span
			Average Correction Factor	0.9987

Calculated value of As Found Response: 308.2 ppm Percent Change of As Found: 0.6%

	before calibration		after calibration	
Auto zero	-0.2	ppb	0.0	ppb
Auto span	268.6	ppb	269.1	ppb

Notes: No adjustments made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **O3**

Air Monitoring Network **PAZA**

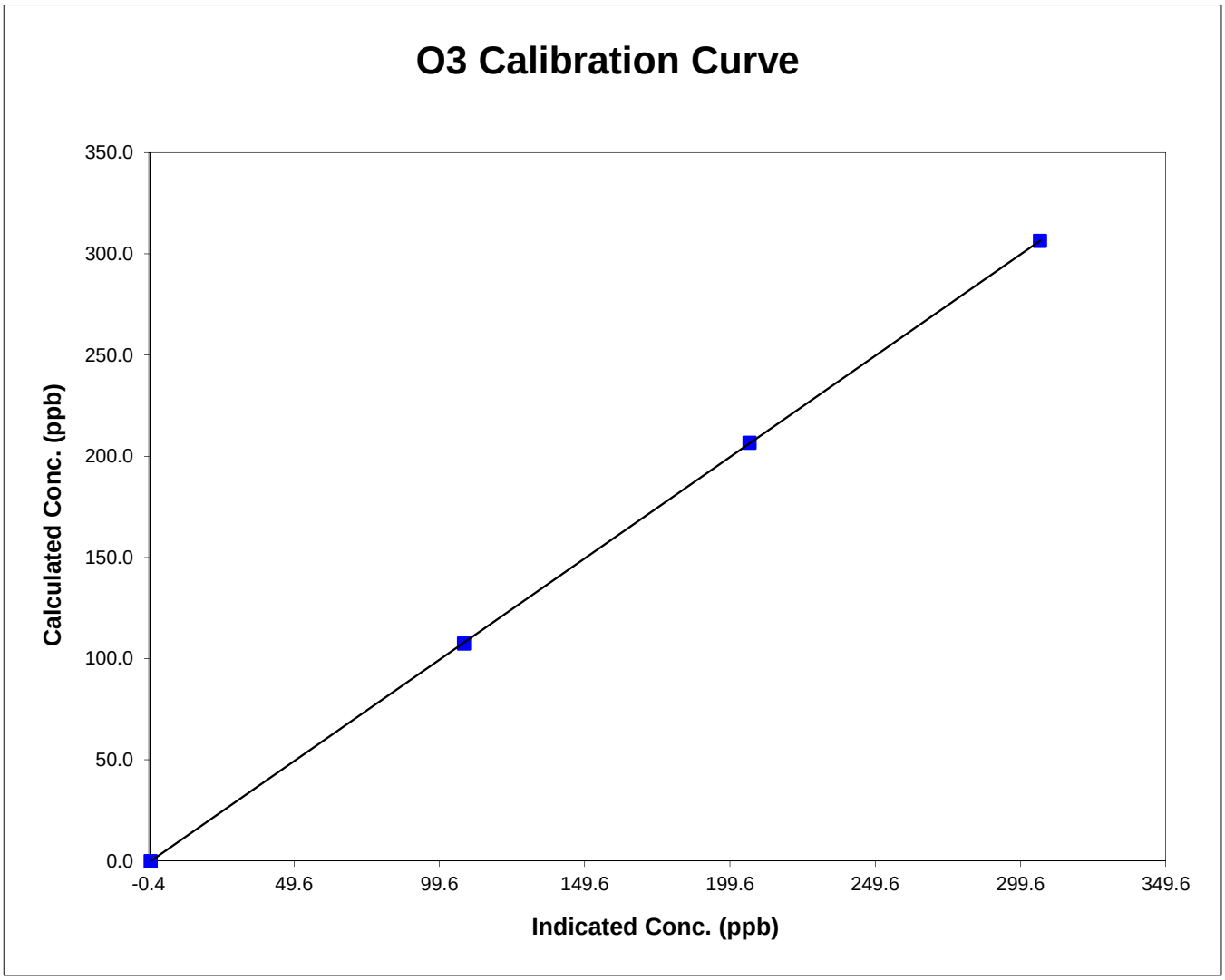
FOCUS AIR QUALITY MONITORING

Station Information

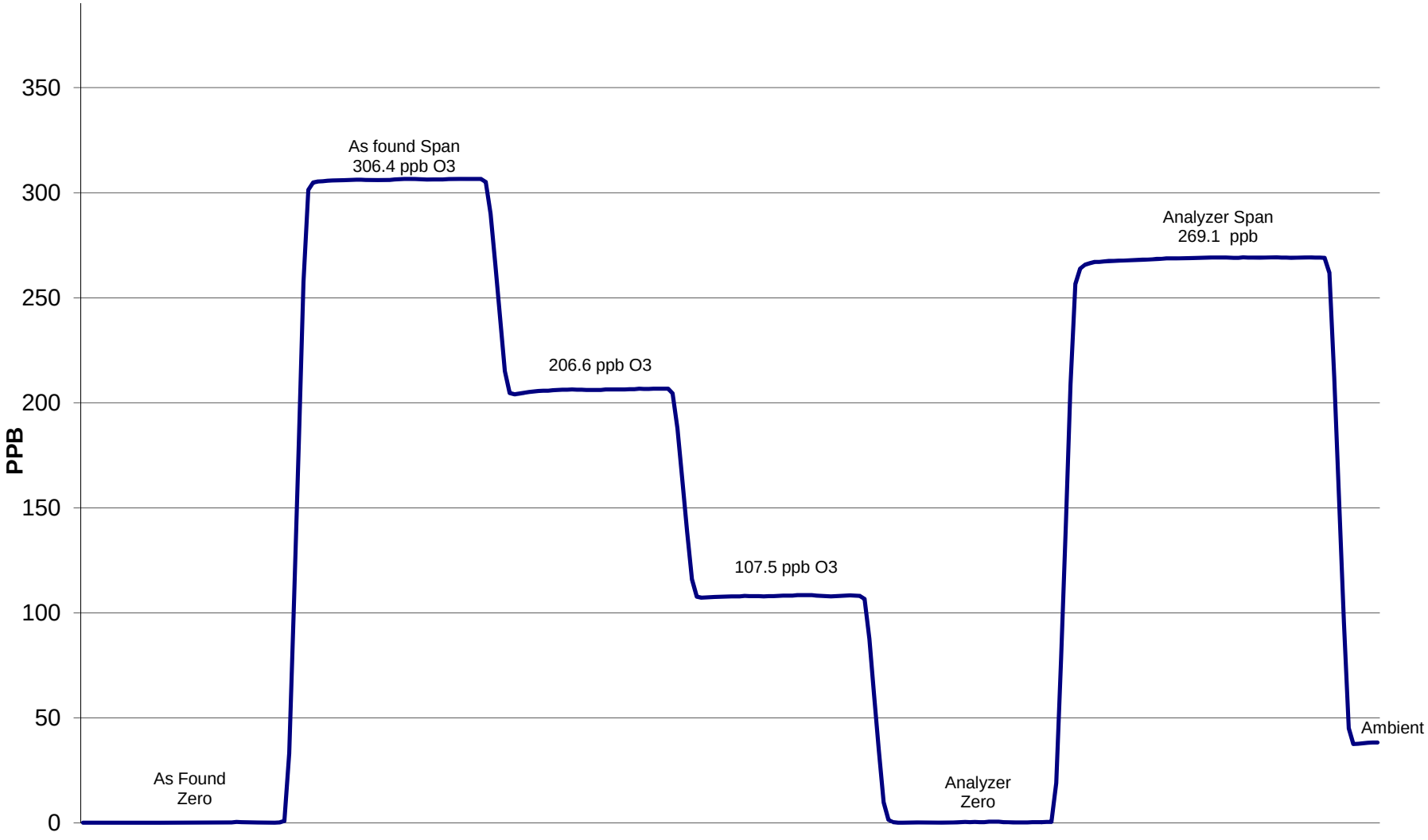
Calibration Date	October 6, 2014	Previous Calibration	September 3, 2014
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	12:30	End Time (MST)	14:45:00 PM
Analyzer make/model	Teco 49i	Analyzer serial #	1136451236,AMU 1879

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	NA		
306.4	306.3	1.0003	Correlation Coefficient	0.999995
206.6	206.3	1.0015		
107.5	108.1	0.9945	Slope	1.001884
			Intercept	-0.407944



O3 Calibration



October 6, 2014

Calibration Report

Parameter **SO2**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	Ocotober 8 2014	Previous Calibration	Septemeber 26 2014
Station Number	6	Station Location	Valleyview
Reason: Routine	Install	Removal	Other:
Start Time (MST)	11:20	End Time (MST)	13:50:00 PM
Barometric Pressure	706.00 mmHg	Station Temperature	23.0 Deg C
Calibrator	Environics	Serial Number	3016
Cal Gas Concentratior	50.2 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	0.994427	Calculated slope	1.000353
Calculated intercept	2.145420	Calculated intercept	1.822880
Analyzer make	TEI 43C	Analyzer serial #	609716239

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Background	15		15.1	
Coefficient	0.981		0.989	
UV Lamp Voltage	735	LPM	735	LPM
Chamber Temp	43.2	V	43.2	V
Perm Gas Temp	45	C	45	C
Pressure	672.9	in Hg	675.6	in Hg
Sample Flow	0.486	LPM	0.488	LPM
Lamp Intensity	47616	Hz	47664	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	0.2	N/A
4995	39.91	397.9	397.0	1.0022
4995	19.97	199.9	196.7	1.0164
4995	9.95	99.8	96.2	1.0375
4995	0.00	0.0	0.2	As found zero
4995	39.91	397.9	393.2	As found span
			Average Correction Factor	1.0187

Calculated value of As Found Response: 392.9 ppm Percent Change of As Found: 1.2%

	before calibration		after calibration	
Auto zero	0.0	ppm	0.0	ppm
Auto span	278.6	ppm	279.6	ppm

Notes: Span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **SO2**

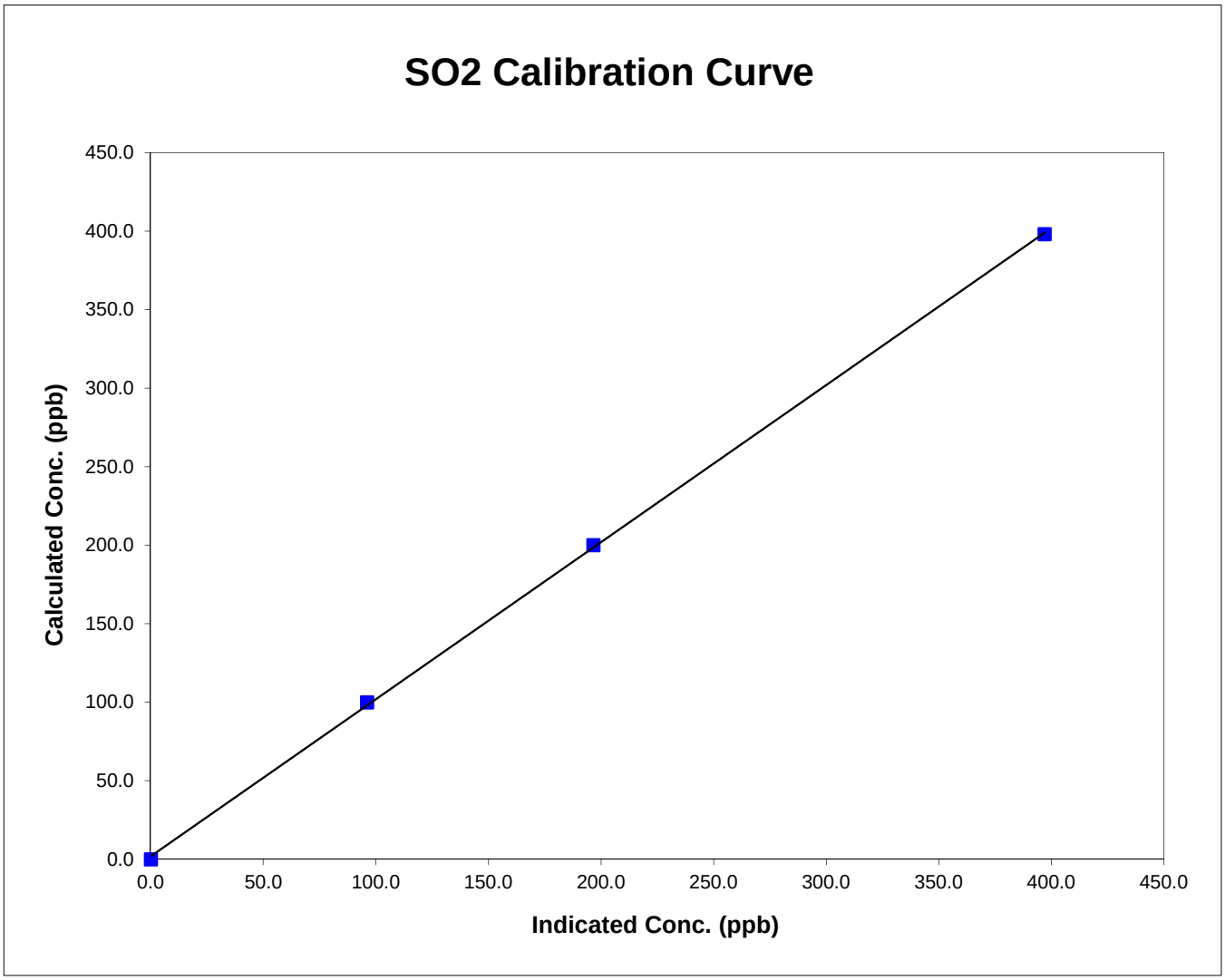
Air Monitoring Network **PAZA**

Station Information

Calibration Date	Ocotober 8 2014	Previous Calibration	Septemeber 26 2014
Station Number	6	Station Location	Valleyview
Start Time (MST)	11:20	End Time (MST)	13:50:00 PM
Analyzer make/model	TEI 43C	Analyzer serial #	609716239

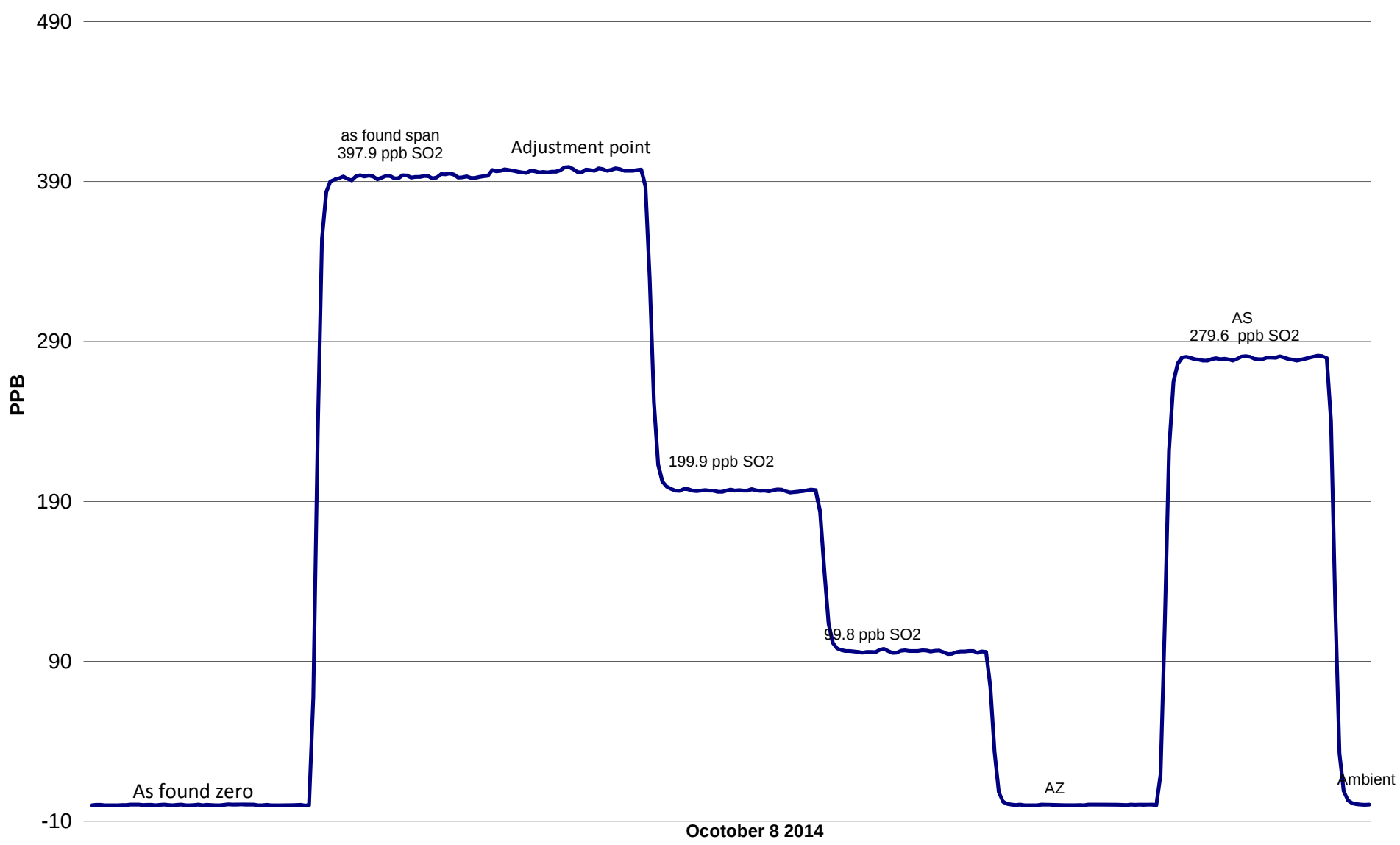
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A		
397.9	397.0	1.0022	Correlation Coefficient	0.999885
199.9	196.7	1.0164		
99.8	96.2	1.0375	Slope	1.000353
			Intercept	1.822880



AZ

SO2 Calibration



Calibration Report

Parameter **H2S**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	Ocotber 8 2014	Previous Calibration	September 26 2014
Station Number	6	Station Location	Valleyview
Reason: Routine	Install	Removal	Other:
Start Time (MST)	9:20	End Time (MST)	12:15
Barometric Pressure	706.00 mm	Station Temperature	23.0 Deg C
Calibrator	Environics	Serial Number	3016
Cal Gas Concentratior	10.32 ppm	Cal Gas Expiry Date	July 03 2016
Gas Cert Reference	LL110781		
DACS make	CR3000	DACS serial No.	5409
DACS voltage range	0 - 5 volt	DACS channel #	9
	Before		After
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.993011	Calculated slope	0.999601
Calculated intercept	0.404692	Calculated intercept	0.276812
Analyzer make	TEI Model 43i - APSCB	Analyzer serial #	701120010

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Back Ground	7.4	ppb	7.4	ppb
Coefficient	0.888		0.888	
Lamp Voltage	786	V	785	V
Chamber Temp	45	c	45	c
Perm Oven Temp	45	c	45	c
Pressure	572.90	mm Hg	573.00	mm Hg
Sample Flow	0.392	ccm	0.392	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	0.0	N/A
4997	39.91	81.8	81.6	1.0020
4997	19.94	41.0	40.7	1.0078
6995	9.97	14.7	14.1	1.0404
4997	9.97		2.8	Sox Test
4997	0.00	0.0	0.0	As found zero
4997	39.93	81.8	81.6	As found span
			Average Correction Factor	1.0167

Calculated value of As Found Response: 81.44 ppm Percent Change of As Found: 0.5%

	before calibration		after calibration	
Auto zero	0.5	ppm	0.3	ppm
Auto span	64.8	ppm	65.0	ppm

Notes: NO adjustments made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **H2S**

Air Monitoring Network **PAZA**

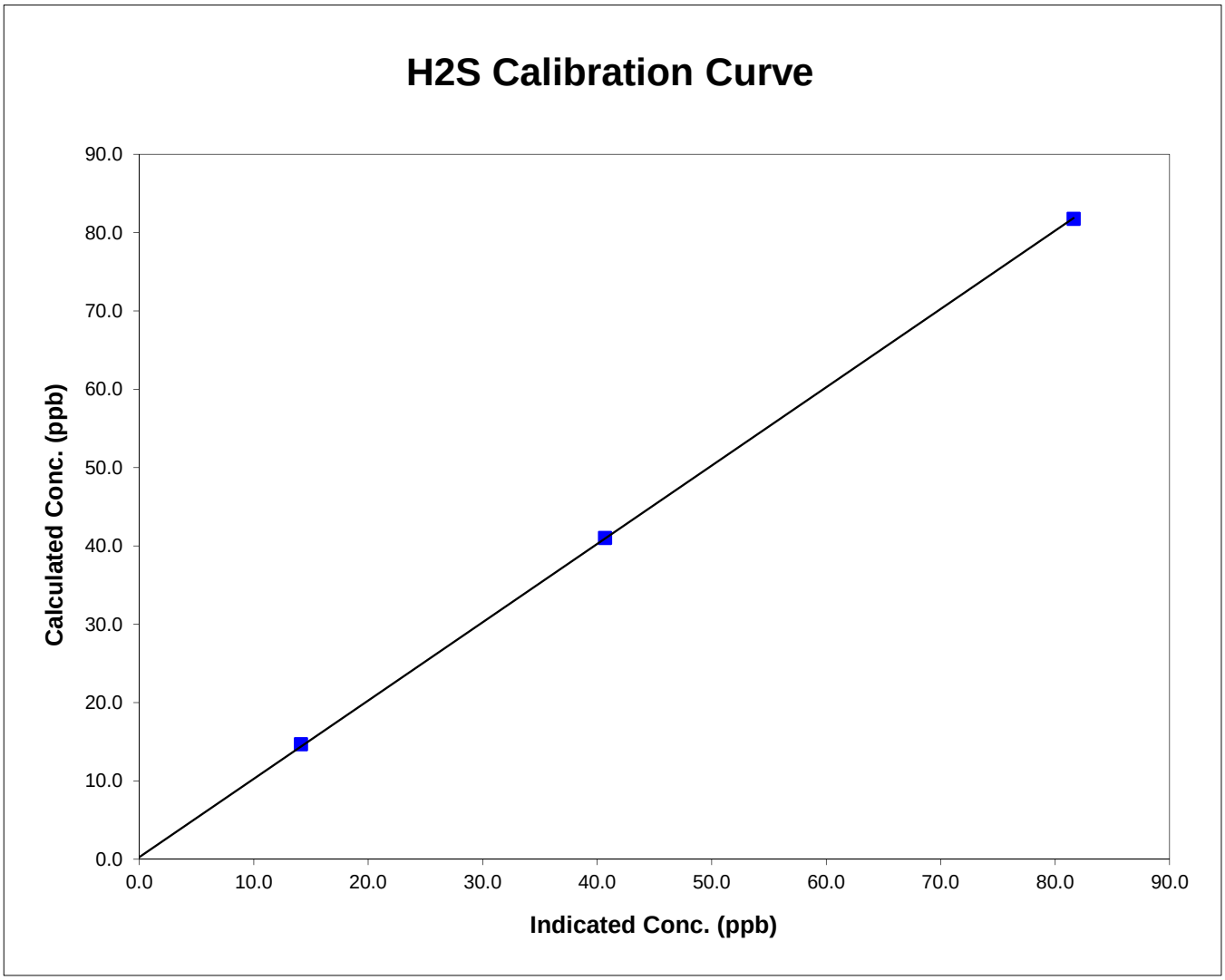
FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	Ocotber 8 2014	Previous Calibration	September 26 2014
Station Number	6	Station Location	Valleyview
Start Time (MST)	9:20	End Time (MST)	12:15
Analyzer make/model	TEI Model 43i - APSCB	Analyzer serial #	701120010

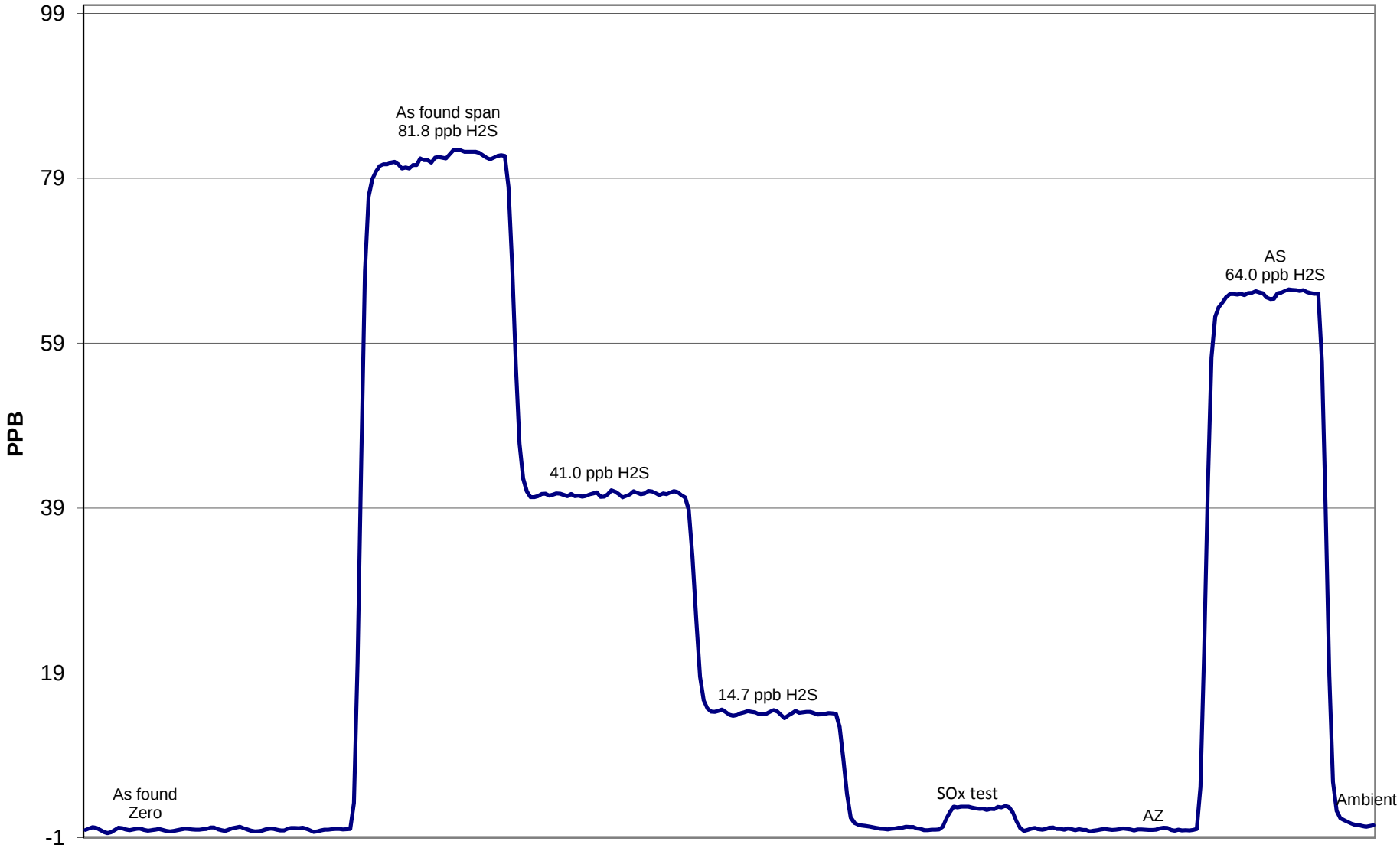
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A		
81.8	81.6	1.0020	Correlation Coefficient	0.999954
41.0	40.7	1.0078		
14.7	14.1	1.0404	Slope	0.999601
			Intercept	0.276812



10.4 ppb H2S

H2S Calibration



Ocotber 8 2014

Calibration Report

Parameter **SO_2**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	October 7, 2014	Previous Calibration	September 24, 2014
Station Number	1	Station Location	Falher
Reason:	Routine / Install	Removal	Other:

Start Time (MST)	12:45	End Time (MST)	15:00:00 PM
Barometric Pressure	0.908 mm	Station Temperature	20.0 Deg C
Calibrator	Environics	Serial Number	3474
Cal Gas Concentration	50.2 ppm	Cal Gas Expiry Date	10/03/2017
Correction factor	0.030865	Cal Gas Cylinder #	LL119493
DACS make	CR1000	DACS serial No.	3980
DACS voltage range	0 - 5 volt	DACS channel #	6
	Before		After
Calculated slope	0.993464	Calculated slope	0.990712
Calculated intercept	1.143159	Calculated intercept	0.596053

Analyzer make	Teco 43i	Analyzer serial #	1207452008

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	6.7		6.7	
coefficient	0.922		0.922	
Lamp Voltage	834	volts	834	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	681.2	mm Hg	680.6	mm Hg
Sample Flow	0.413	ccm	0.414	ccm
Lamp Intensity	97	%	97	%

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.0	0.00	0.4	N/A
4995	39.93	398.1	401.6	0.9914
4995	19.96	199.8	201.1	0.9934
4995	9.97	100.0	99.0	1.0104
4995	0.0	0.0	0.4	As Found Zero
4995	39.93	398.1	401.6	As Found Span
			Average Correction Factor	0.9984

Calculated value of As Found Response: 399.673 ppm Percent Change of As Found: -0.4%

	before calibration		after calibration	
Auto zero	0.3	ppm	0.5	ppm
Auto span	356.2	ppm	351.3	ppm

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **SO2**

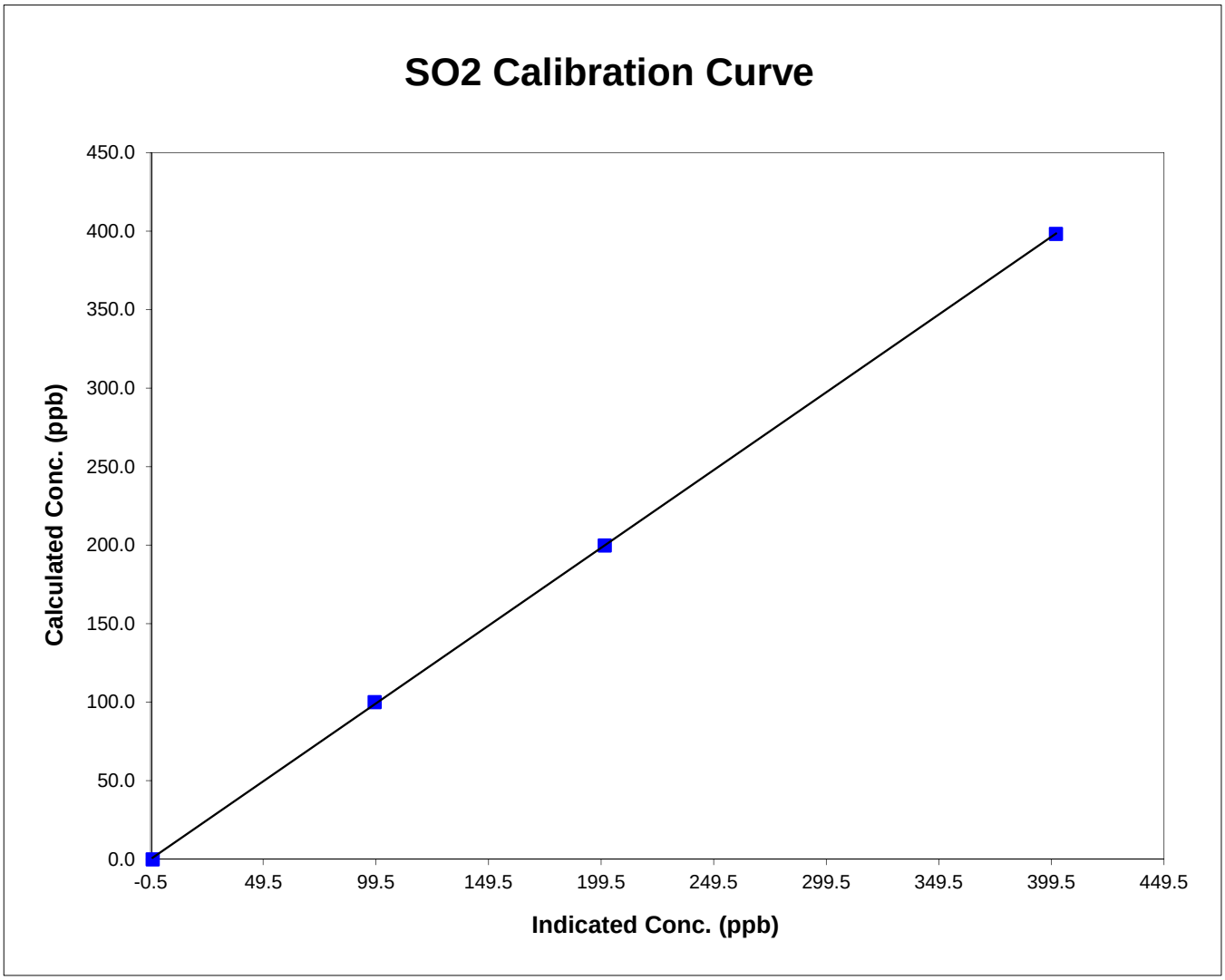
Air Monitoring Network **PAZA**

Station Information

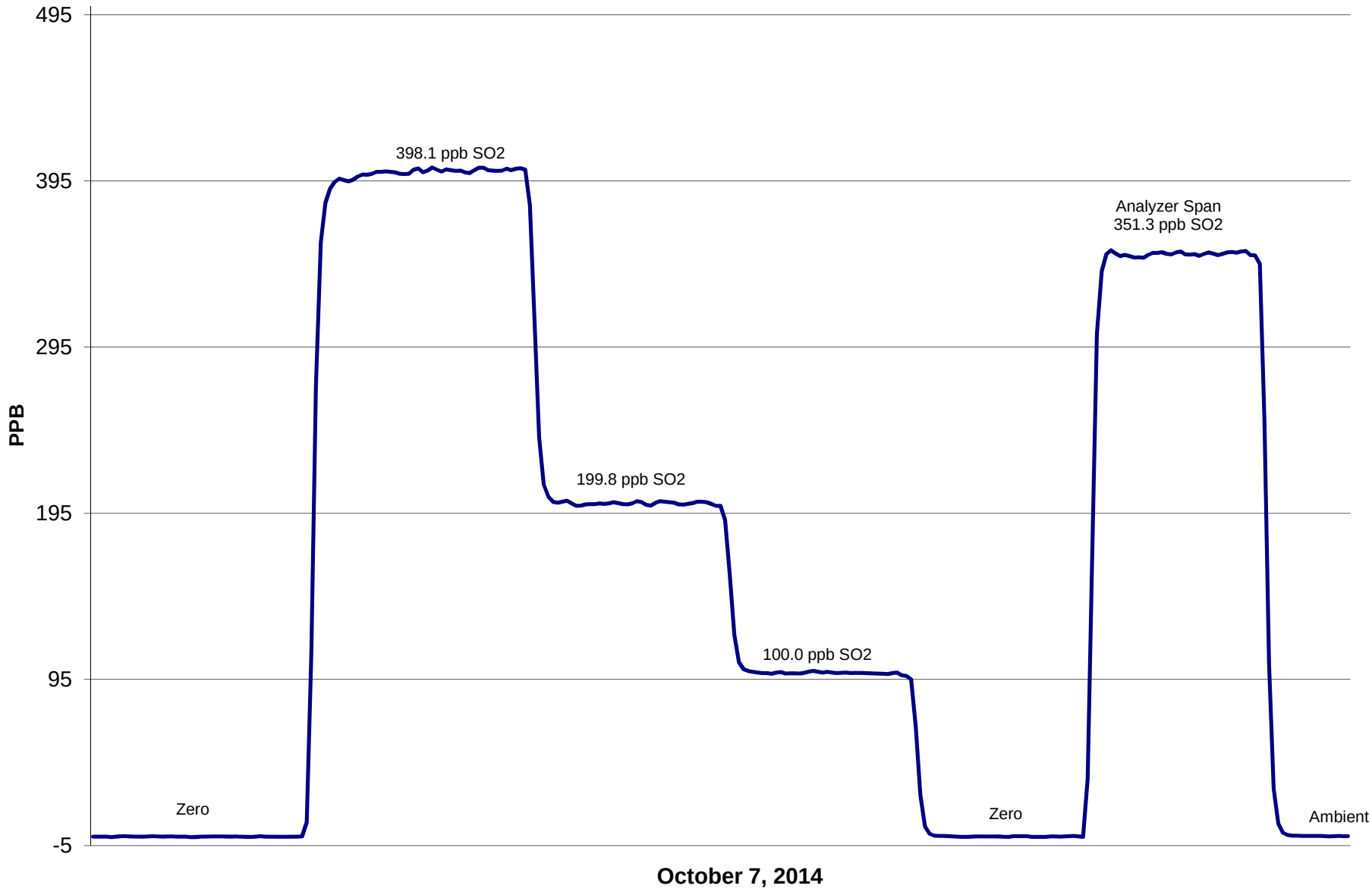
Calibration Date	October 7, 2014	Previous Calibration	September 24, 2014
Station Number	1	Station Location	Falher
Start Time (MST)	12:45	End Time (MST)	15:00:00 PM
Analyzer make/model	Teco 43i	Analyzer serial #	1207452008

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.4	N/A		
398.1	401.6	0.9914	Correlation Coefficient	0.999966
199.8	201.1	0.9934		
100.0	99.0	1.0104	Slope	0.990712
			Intercept	0.596053



SO2 Calibration



Calibration Report

Parameter **H2S**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	October 7, 2014	Previous Calibration	September 24, 2014
Station Number	1	Station Location	Falher
Reason: Routine	Install	Removal	Other:

Start Time (MST)	10:30	End Time (MST)	13:40:00 PM
Barometric Pressure	0.908 mm	Station Temperature	20.0 Deg C
Calibrator	Environics	Serial Number	3016
Cal Gas Conc	10.32 ppm	Cal Gas Expiry Date	08/07/2016
Correction factor	0.030865	Cal Gas Cylinder #	LL110781
DACS make	CR1000	DACS serial No.	3980
DACS voltage range	0 - 5 volt	DACS channel #	5
	Before		After
Calculated slope	0.996700	Calculated slope	0.983630
Calculated intercept	0.039305	Calculated intercept	-0.176060

Analyzer make	Thermo 450i	Analyzer serial #	1207452006

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	13.7	ppb	13.5	ppb
coefficient	1.13		1.117	
Lamp Voltage	795	volts	797	volts
Chamber Temp	45.1	Deg C	45.2	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	557.2	mm Hg	559.1	mm Hg
Sample Flow	0.874	lpm	0.875	lpm
Lamp Intensity	90	mv	90	mv

Calibration Data

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.00	0.5	N/A
4995	39.93	81.84	83.6	0.9796
4995	19.96	41.07	41.7	0.9859
6994	9.97	14.69	14.9	0.9834
4995	0.00	0.00	0.5	As Found Zero
4995	39.93	81.84	83.5	As Found Span
			Average Correction Factor	0.9830

Calculated value of As Found Response: 82.80 ppm Percent Change of As Found: -1.2%

	before calibration		after calibration	
Auto zero	0.3	ppm	0.2	ppm
Auto span	55.9	ppm	54.2	ppm

Notes: Span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **H2S**

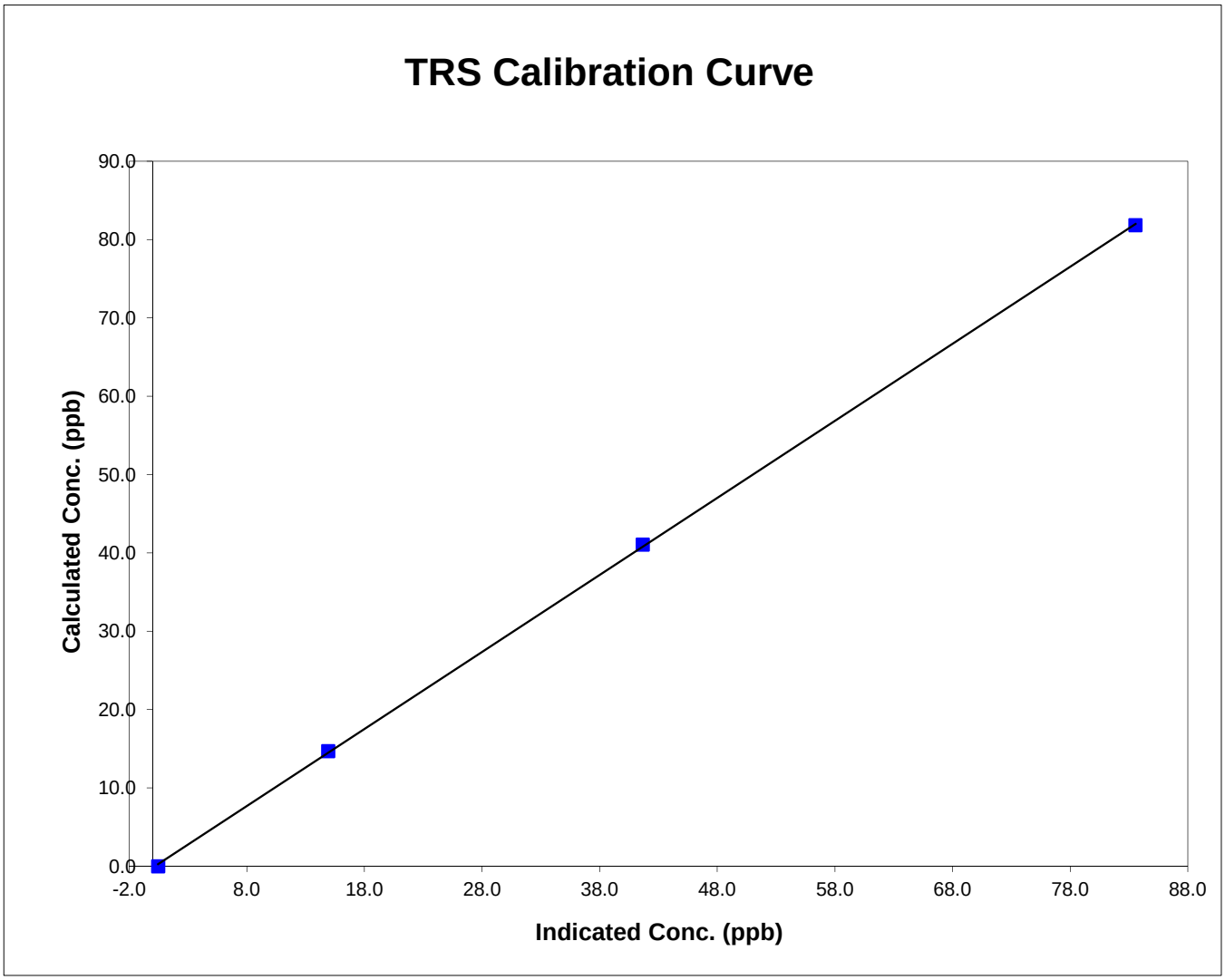
Air Monitoring Network **PAZA**

Station Information

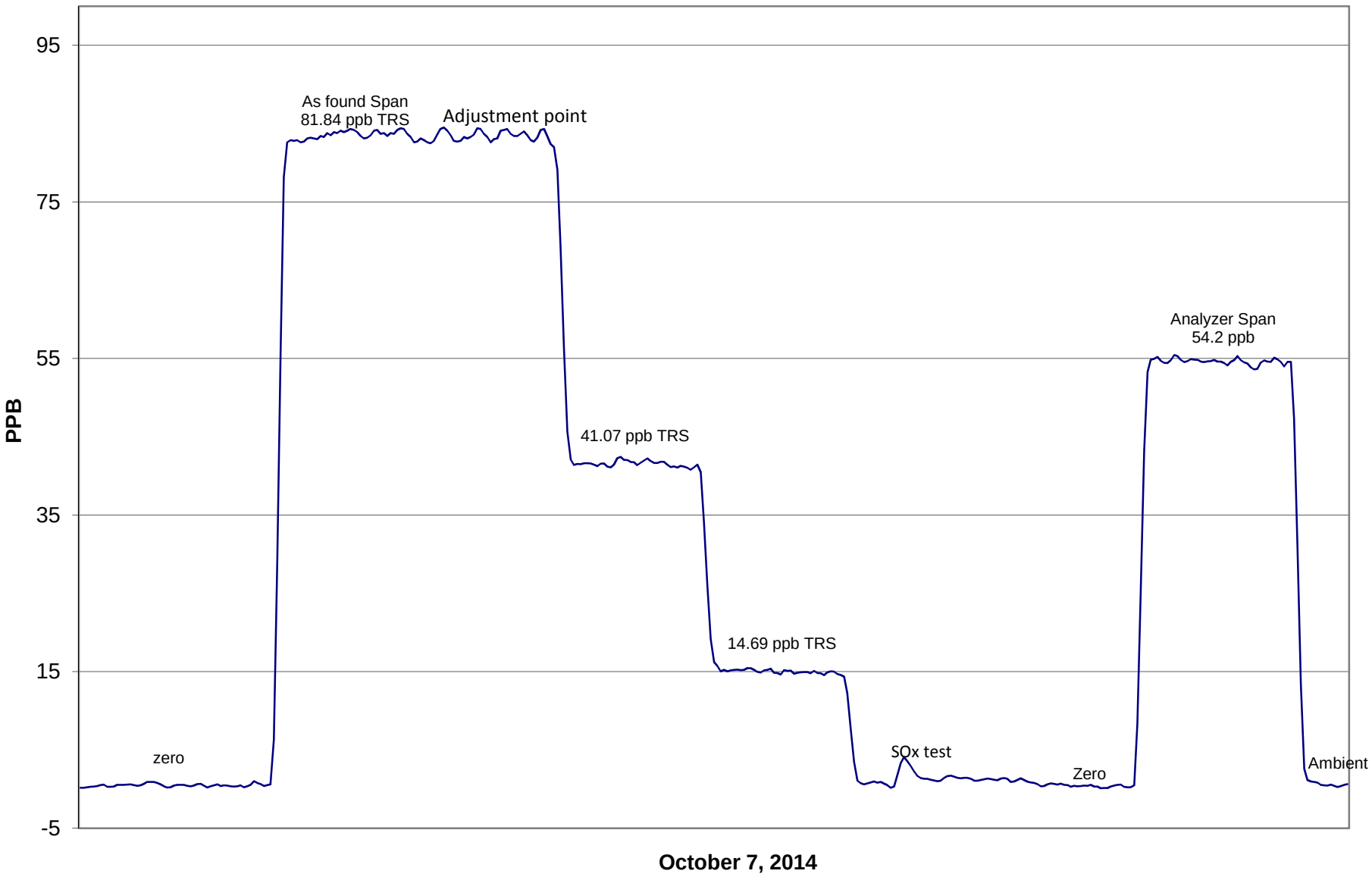
Calibration Date	October 7, 2014	Previous Calibration	September 24, 2014
Station Number	1	Station Location	Falher
Start Time (MST)	10:30	End Time (MST)	13:40:00 PM
Analyzer make/model	Thermo 450i	Analyzer serial #	1207452006

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.5	N/A		
81.8	83.6	0.9796	Correlation Coefficient	0.999946
41.1	41.7	0.9859		
14.7	14.9	0.9834	Slope	0.983630
			Intercept	-0.176060



H2S Calibration



Calibration Report

Parameter **SO2**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	October 10, 2014	Previous Calibration	September 22, 2014
Station Number	10	Station Location	Clairmont
Reason: Routine	Install	Removal	Other:
Start Time (MST)	8:30	End Time (MST)	10:55
Barometric Pressure	0.926 Atm	Station Temperature	20.0 Deg C
Calibrator	Environics 6100	Serial Number	3016
Cal Gas Concentration	50.2 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	0.998647	Calculated slope	1.001042
Calculated intercept	2.308746	Calculated intercept	1.819016
Analyzer make	TEI 43C	Analyzer serial #	436610005

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Background	21.3		21.4	
Coefficient	1.042		1.042	
UV Lamp Voltage	873	V	872	V
Chamber Temp	44.5	C	44.5	C
Perm Gas Temp	45	C	45	C
Pressure	667.2	mm Hg	666	mm Hg
Sample Flow	0.463	LPM	0.463	LPM
Lamp Intesity	30504	Hz	30573	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	398.1	396.7	1.0037
4995	19.97	199.9	197.4	1.0129
4995	9.97	100.0	95.9	1.0427
4995	0.00	0.0	0.1	As found zero
4995	39.93	398.1	396.7	As found span
			Average Correction Factor	1.0197

Calculated value of As Found Response: 398.347 ppm Percent Change of As Found: -0.1%

	before calibration		after calibration	
Auto zero	0.3	ppm	0.3	ppm
Auto span	243.9	ppm	243.2	ppm

Notes: NO adjustments made

Calibration Performed By: Dmytro Dolotii.

Calibration Summary

Parameter **SO2**

Air Monitoring Network **PAZA**

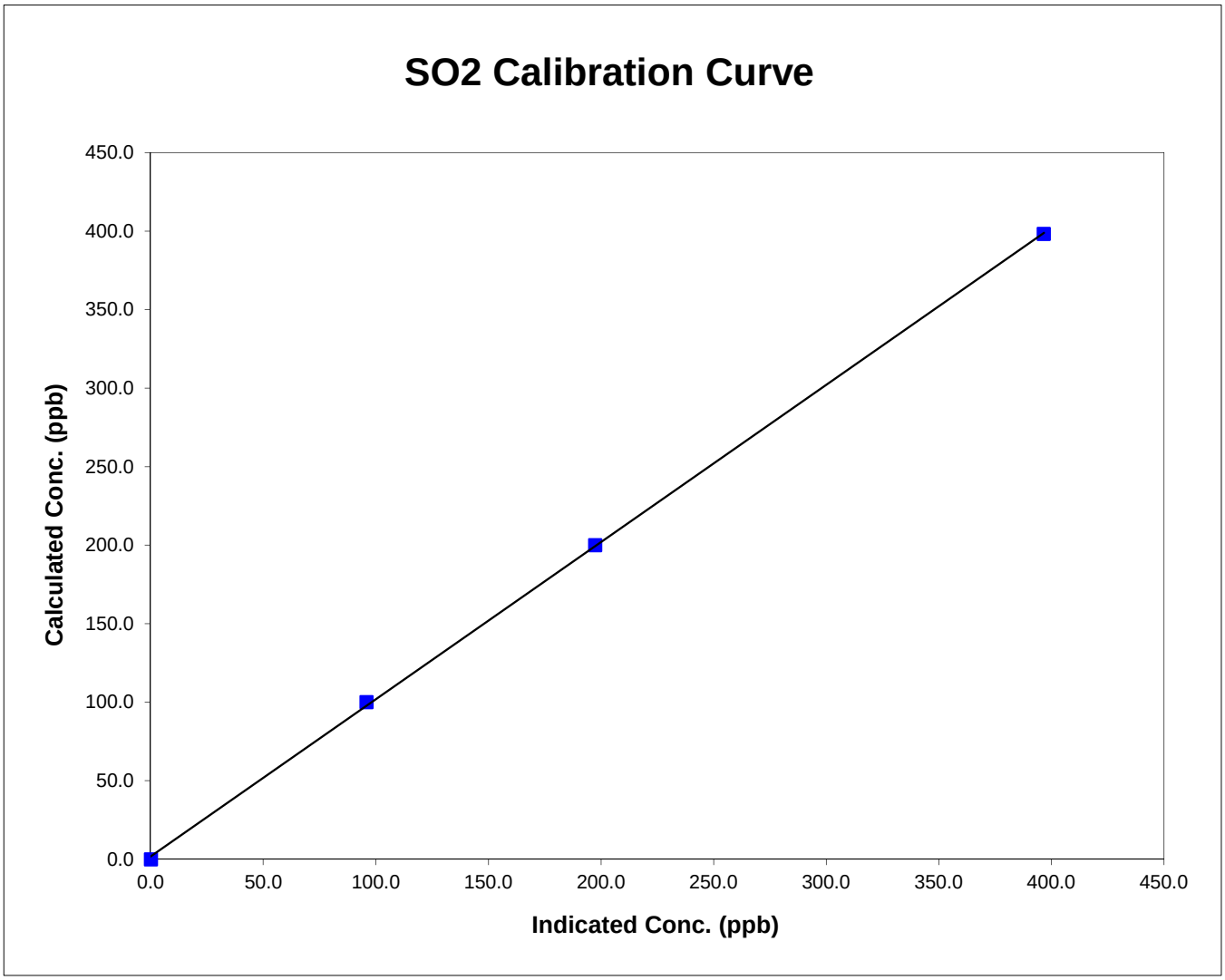
FOCUS AIR QUALITY MONITORING

Station Information

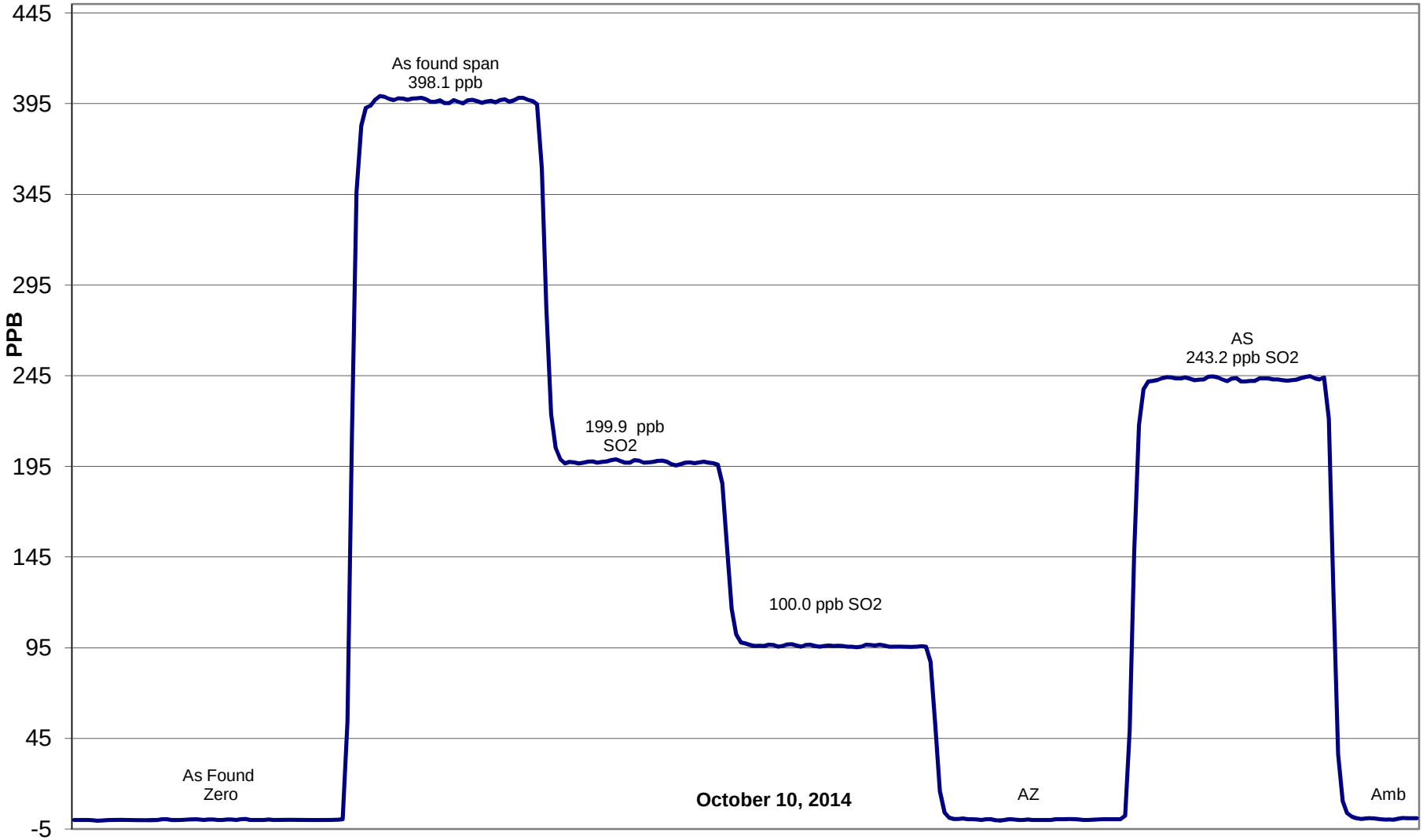
Calibration Date	October 10, 2014	Previous Calibration	September 22, 2014
Station Number	10	Station Location	Clairmont
Start Time (MST)	8:30	End Time (MST)	10:55
Analyzer make/model	TEI 43C	Analyzer serial #	436610005

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A		
398.1	396.7	1.0037	Correlation Coefficient	0.999893
199.9	197.4	1.0129		
100.0	95.9	1.0427	Slope	1.001042
			Intercept	1.819016



SO2 Calibration



Calibration Report

Parameter **NO_X-NO-NO_2**

Air Monitoring Network

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	October 10, 2014	Previous Calibration	September 22, 2014
Station Number	10	Station Location	Clairmont

Reason: Routine Installation Removal Other:

Start Time (MST)	8:20		End Time (MST)	12:30	
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.: 5407

Parameter		NO2	NOx	NO
Before	Data Slope	1.003152	1.001211	0.997766
	Data Offset	0.228420	2.170560	1.973631
After	Data Slope	1.003152	1.001211	0.997766
	Data Offset	0.228420	2.170560	1.973631
Channel #		8	6	7
Voltage Range		0 - 5 VDC	0 - 5 VDC	0 - 5 VDC

Analyzer Information

Analyzer make/model: TEI 42i Analyzer serial #: 0701120011

Test Point	before		after	
Concentration range	0-500	ppb	0-500	ppb
NO offset	6.8	mV	6.9	mV
NOx bkgnd	7.0	mV	7.0	mV
NO coefficient	1.190		1.190	
NOx coefficient	0.999		0.999	
NO2 conv temp	325.0	Deg C	326.6	Deg C
PMT Temp	-2.9	Deg C	-2.9	Deg C
PMT Volt	-846.2	mV	-846.2	mV
R Cell Press	211.0	in Hg	206.5	in Hg
Sample Flow	0.667	LPM	0.690	LPM

Notes: NO adjustments made

Calibration Report

Parameter **NOX-NO-NO2**

Air Monitoring Network **0**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date: October 10, 2014 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	0.1	0.2	0.0	N/A	N/A
1	4995	39.92	405.9	403.6	2.4	405.4	403.7	0.0	1.0014	0.9996
2	4995	19.96	203.8	202.6	1.2	202.6	201.5	0.3	1.0059	1.0055
3	4995	9.93	101.6	101.0	0.6	98.9	98.9	0.1	1.0268	1.0211
AFZ	4995	0.00	0.0	0.0	0.0	0.1	0.2	0.0	0.0000	0.0000
AFS	4995	39.92	405.9	403.6	0.8	405.4	403.7	0.0	1.0014	0.9996
							Average Correction Factor		1.0114	1.0087

As Found Concentrations: NO_X= 408.0 NO= 404.6 As Found Percent Change NO_X= 0.5% NO= 0.3%

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	0.2	0.2	0.0	0.1	0.2	0.0	N/A	N/A	N/A	N/A
NO point	404.9	404.9	0.0	406.4	404.9	-0.3	0.9962	1.0000	N/A	N/A
300	404.9	96.5	308.4	406.4	96.5	308.2	0.9962	1.0000	1.0006	99.9%
200	404.9	196.4	208.5	406.7	196.4	208.1	0.9957	1.0000	1.0018	99.8%
100	404.9	295.4	109.5	406.1	295.4	108.6	0.9969	1.0000	1.0077	99.2%
					Average Correction Factor		0.9963	1.0000	1.0034	99.7%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	0.1	0.2	0.0	ppb	0.1	0.1	0.1	ppb
Auto span	178.9	176.6	1.4	ppb	165.6	163.6	1.3	ppb

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **NO_2**

Air Monitoring Network **0**

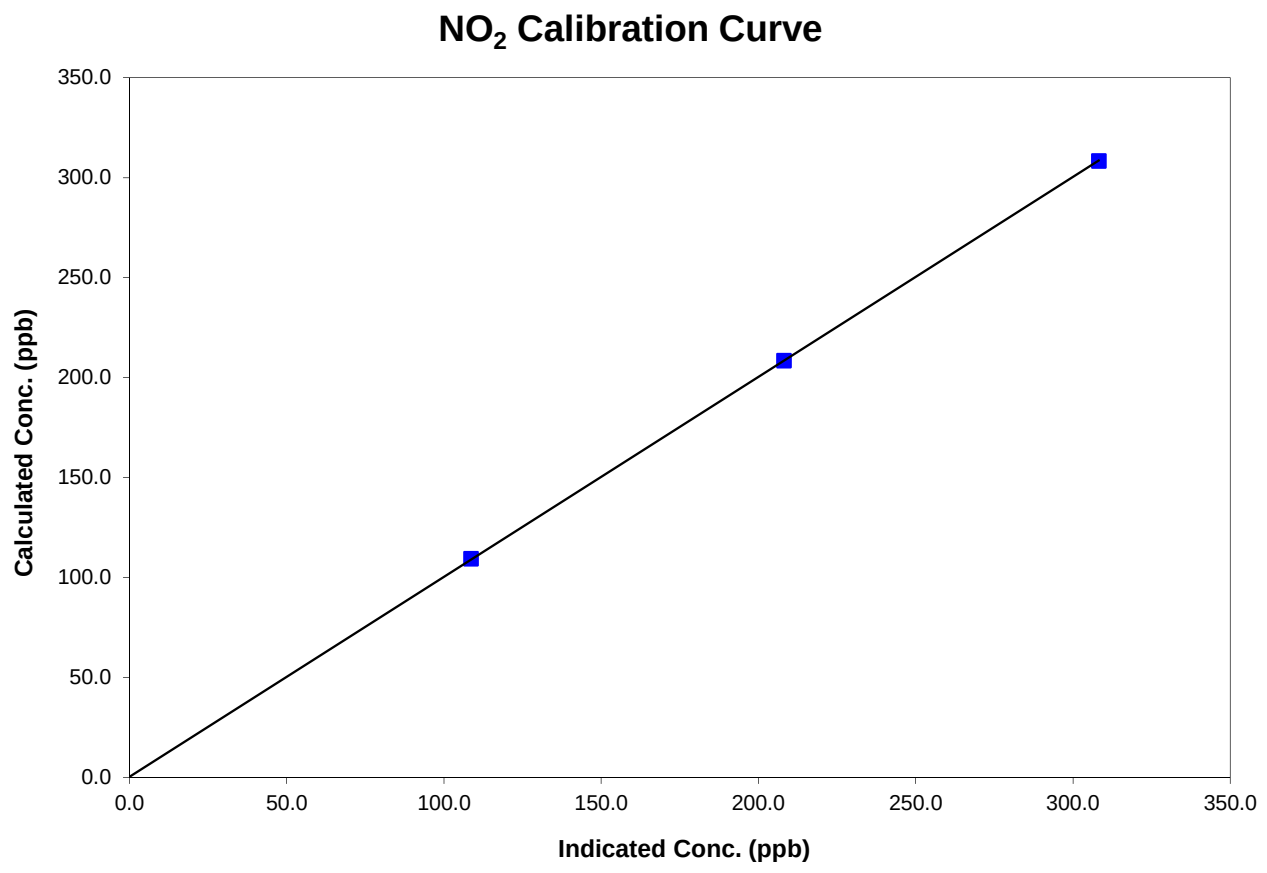
FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	October 10, 2014	Previous Calibration	September 22, 2014
Station Number	10	Station Location	Clairmont
Start Time (MST)	8:20	End Time (MST)	12:30
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	0.0	N/A		
308.4	308.2	1.0006	Correlation Coefficient	0.999993
208.5	208.1	1.0018		
109.5	108.6	1.0077	Slope	1.000114
			Intercept	0.340855



Calibration Summary

Parameter **NO_x**

Air Monitoring Network **0**

FOCUS AIR QUALITY MONITORING

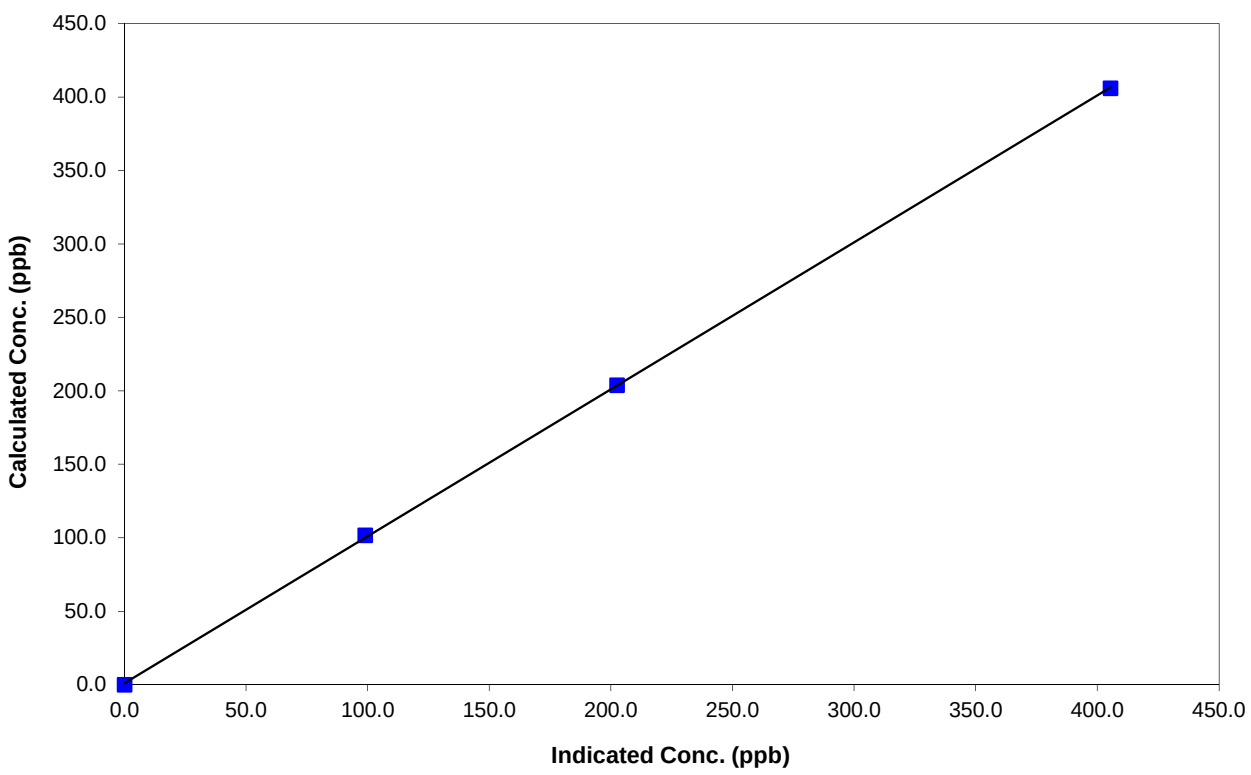
Station Information

Calibration Date	October 10, 2014	Previous Calibration	September 22, 2014
Station Number	10	Station Location	Clairmont
Start Time (MST)	8:20	End Time (MST)	12:30
Analyzer make	TEI 42i	Analyzer serial #	0701120011

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A		
405.9	405.4	1.0014	Correlation Coefficient	0.999955
203.8	202.6	1.0059		
101.6	98.9	1.0268	Slope	0.999605
			Intercept	1.150230

NOx Calibration Curve



Calibration Summary

Parameter **NO**

Air Monitoring Network **0**

FOCUS AIR QUALITY MONITORING

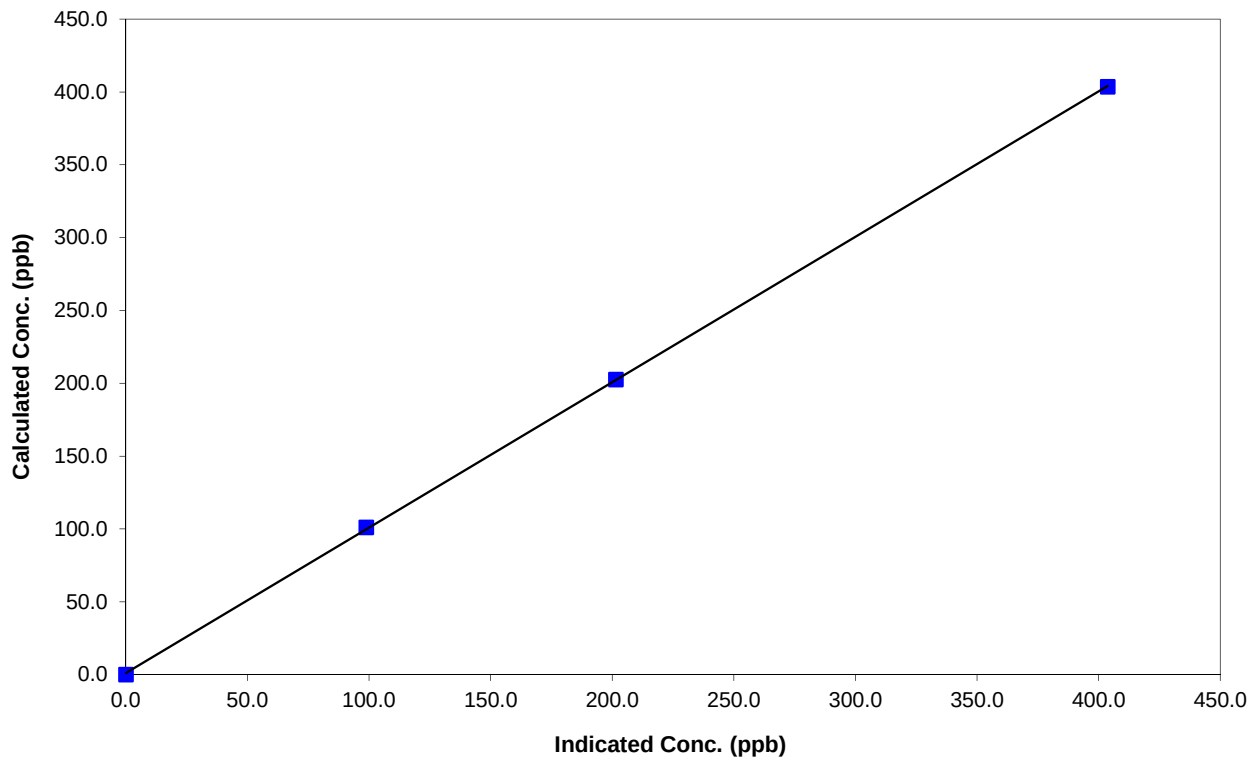
Station Information

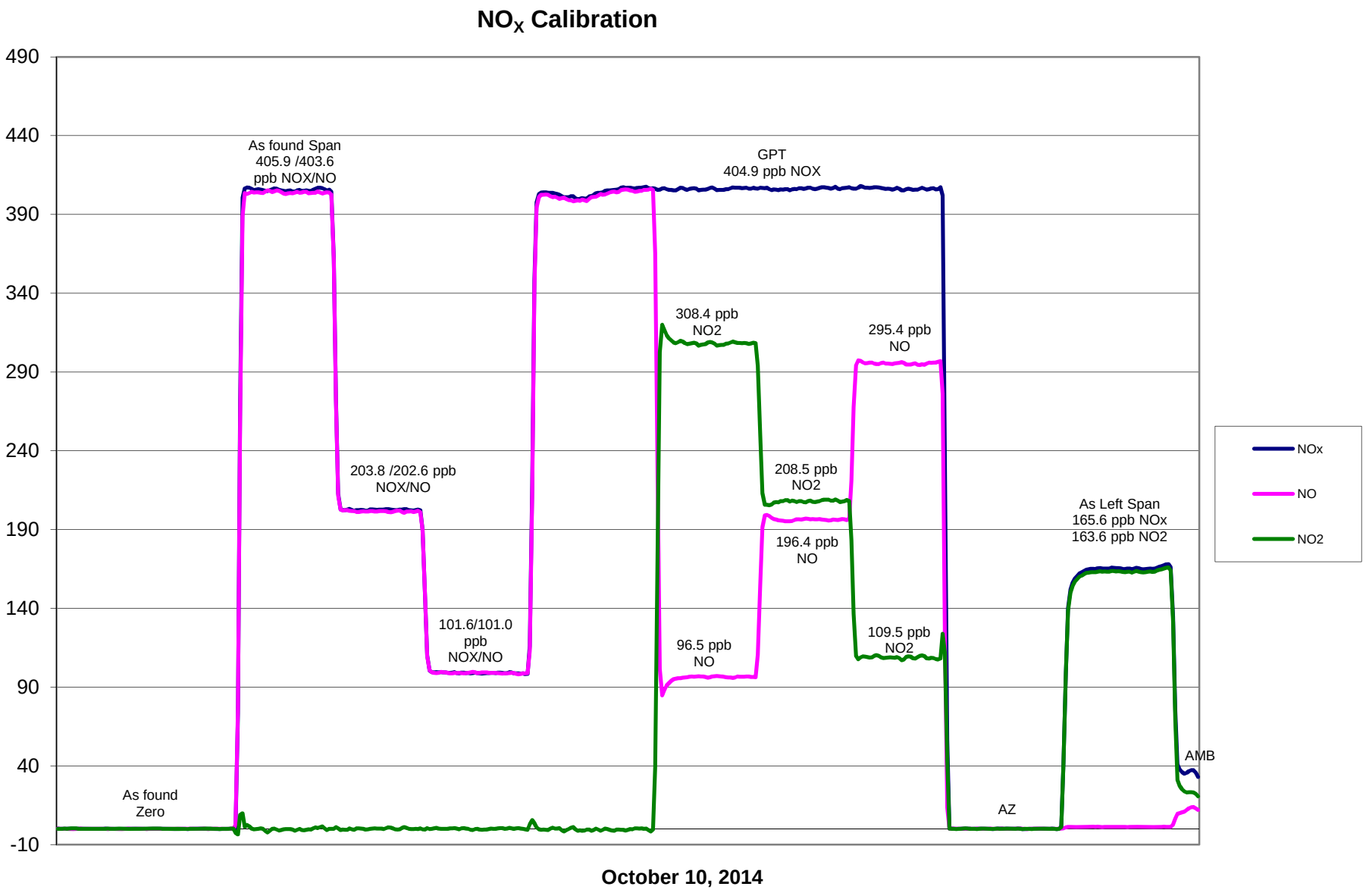
Calibration Date	October 10, 2014	Previous Calibration	September 22, 2014
Station Number	10	Station Location	Clairmont
Start Time (MST)	8:20	End Time (MST)	12:30
Analyzer make	TEI 42i	Analyzer serial #	0701120011

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A		
403.6	403.7	0.9996	Correlation Coefficient	0.999963
202.6	201.5	1.0055		
101.0	98.9	1.0211	Slope	0.998446
			Intercept	0.994233

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
404.9 ppb NOX
308.4 ppb
NO2
295.4 ppb
NO
203.8 /202.6 ppb
NOX/NO
208.5 ppb
NO2
196.4 ppb
NO
As Left Span
165.6 ppb NOx
163.6 ppb NO2
101.6/101.0
ppb
NOX/NO
96.5 ppb
NO
109.5 ppb
NO2
AMB
As found
Zero
AZ
NOx
NO
NO2
October 10, 2014

Calibration Report

FOCUS AIR QUALITY MONITORING

Parameter **O3**

Air Monitoring Network **PAZA**

Station Information

Calibration Date	October 10 2014	Previous Calibration	September 22 2014
Station Number	10	Station Location	Clairmont
Reason: Routine	Install	Removal remove	Other:
Start Time (MST)	11:25	End Time (MST)	13:40:00 PM
Barometric Pressure	0.925 atm	Station Temperature	20.0 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	0.993721	Calculated slope	0.993991
Calculated intercept	0.253056	Calculated intercept	0.661519
Analyzer make	TEI Model 49C	Analyzer serial #	49C-0609716240

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Offset	0	ppb	0	ppb
Span	0.992		0.992	
Cell A intensity	91227	Hz	91240	Hz
Cell B intensity	88534	Hz	88545	Hz
Pressure	660.70	in Hg	660.90	in Hg
CellA Flow	0.695	ccm	0.695	ccm
Cell B Flow	0.690	cmm	0.690	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	0.1	N/A
5035	0.30	308.4	310.3	0.9940
5035	0.20	208.5	208.6	0.9996
5035	0.10	109.5	108.6	1.0083
5035	0.00	0.0	0.1	As found zero
5035	0.30	308.4	310.3	As found span
			Average Correction Factor	1.0006

Calculated value of As Found Response: 308.5 ppm Percent Change of As Found: 0.0%

	before calibration		after calibration	
Auto zero	0.3	ppb	0.7	ppb
Auto span	415.8	ppb	403.9	ppb

Notes: NO adjustments made

Calibration Performed By: Dmytro Dolotii.

Calibration Summary

Parameter **O3**

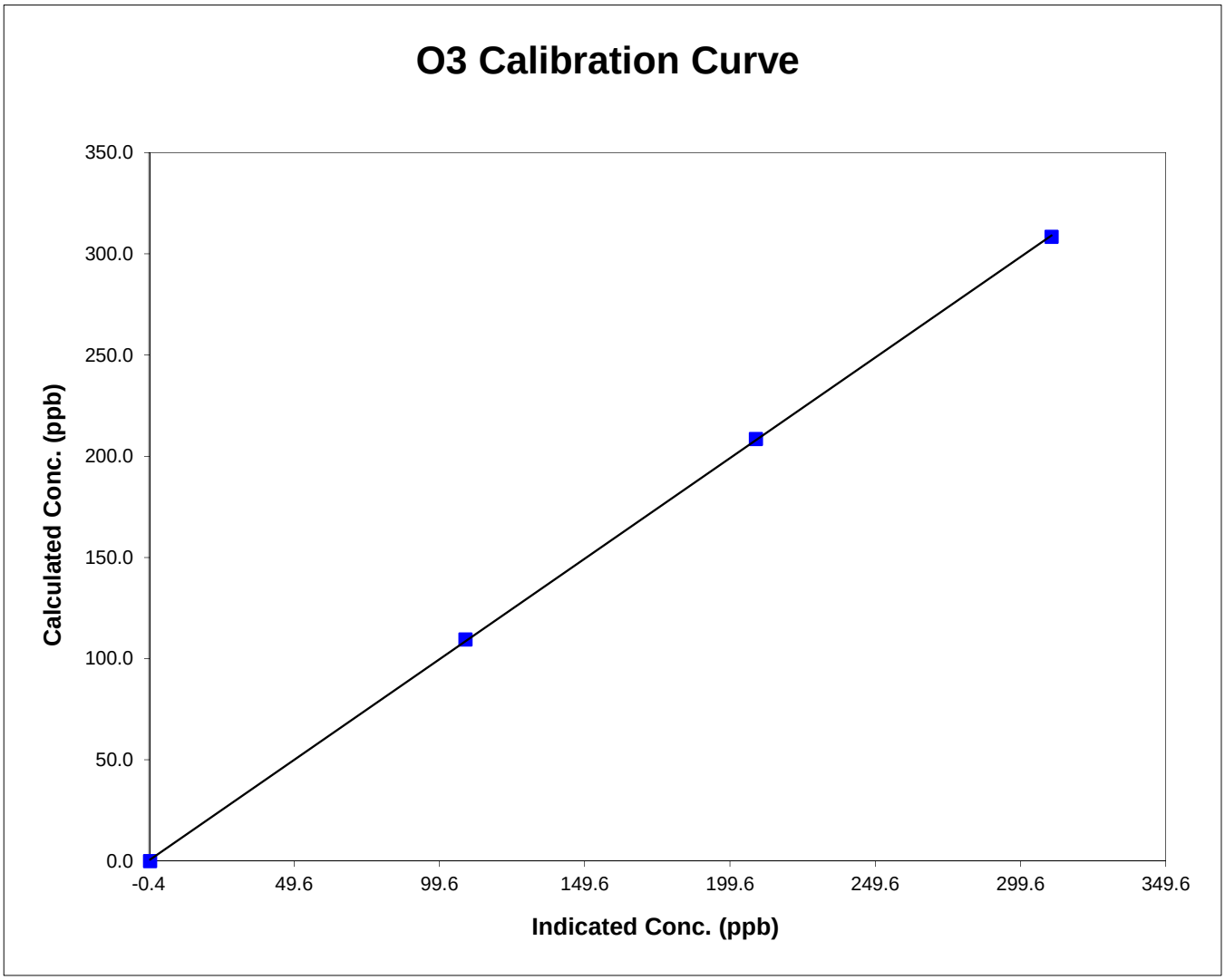
Air Monitoring Network **PAZA**

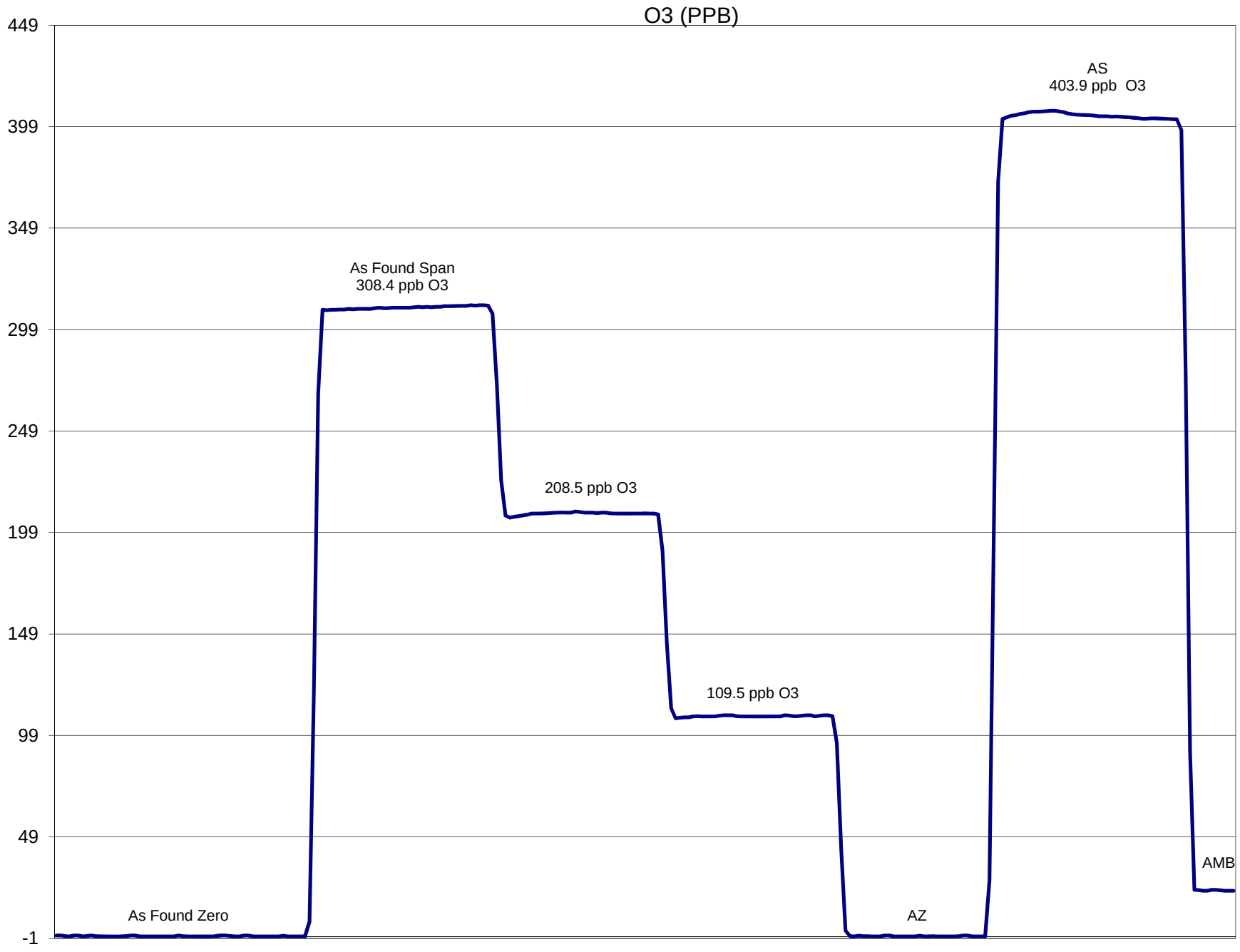
Station Information

Calibration Date	October 10 2014	Previous Calibration	September 22 2014
Station Number	10	Station Location	Clairmont
Start Time (MST)	11:25	End Time (MST)	13:40:00 PM
Analyzer make/model	TEI Model 49C	Analyzer serial #	49C-0609716240

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	NA		
308.4	310.3	0.9940	Correlation Coefficient	0.999961
208.5	208.6	0.9996		
109.5	108.6	1.0083	Slope	0.993991
			Intercept	0.661519





October 10 2014

Calibration Report

Parameter **THC**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	September 25, 2014	Previous Calibration	September 23, 2014
Station Number	10	Station Location	Clairmont
Reason:	Routine / Install	Removal	Other:
Start Time (MST)	12:40	End Time (MST)	15:45:00 PM
Barometric Pressure	0.926 ATM	Station Temperature	20.0 Deg C
Calibrator	Environics 6100	Serial Number	3016
Cal Gas Concentration	404 ppm CH4/ 201 ppm C3H8	Cal Gas Expiry Date	28/03/2014
Cal Gas CH4 equiv	956.75 ppm	Cal Gas Cylinder #	LL34989
DACS make	CR3000	DACS serial No.	5407
DACS voltage range	0 - 1 volt	DACS channel #	12
	Before		After
Calculated slope	0.998771	Calculated slope	0.996918
Calculated intercept	0.049825	Calculated intercept	0.126058
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	2320	capture	2320	capture
THC span offset	2370	capture	2328	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	0.00	N/A
2996	69.89	21.81	21.80	1.0006
2996	29.96	9.47	9.30	1.0185
2996	9.97	3.17	2.96	1.0724
2996	0.00	0.00	-0.10	As Found Zero
2996	69.93	21.82	21.83	As Found Span
			Average Correction Factor	1.0305

Calculated value of As Found Response: 21.955 ppm Percent Change of As Found: -0.6%

	before calibration		after calibration	
Auto zero	0.05	ppm	0.12	ppm
Auto span	21.95	ppm	21.91	ppm

Notes: Zero adjustment made using zero valve on the back of the analyzer.
Span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **THC**

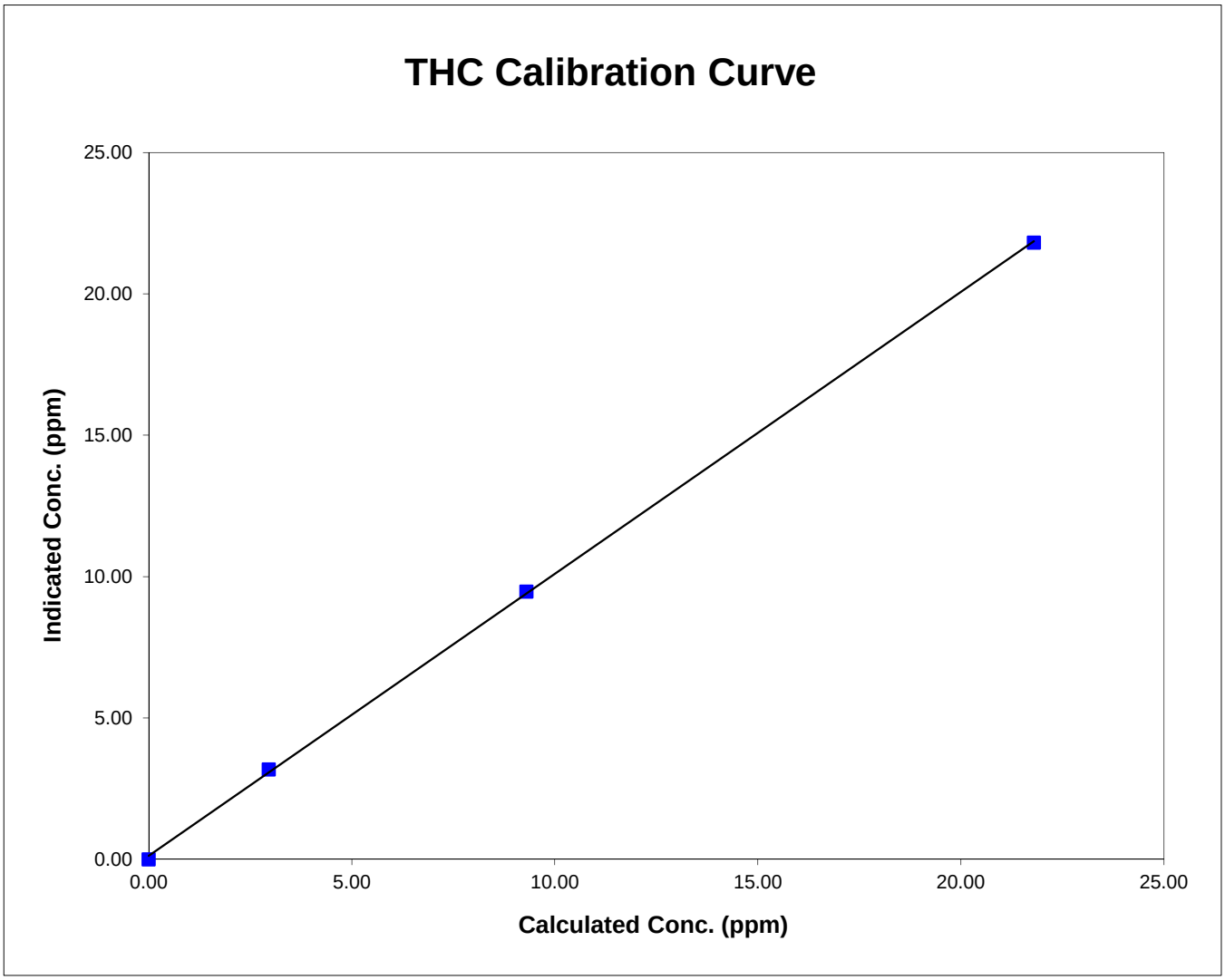
Air Monitoring Network **PASZA**

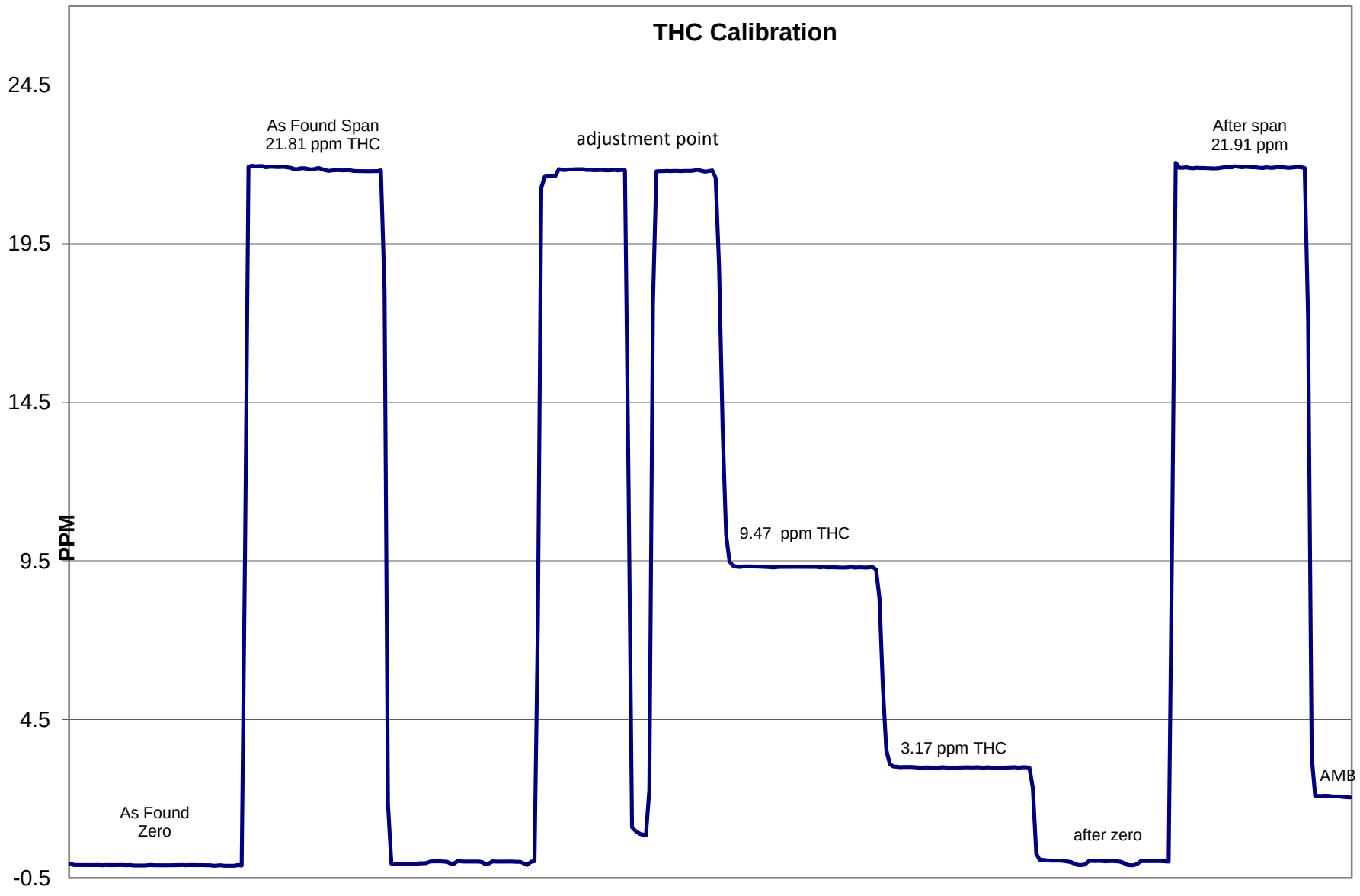
Station Information

Calibration Date	September 25, 2014	Previous Calibration	September 23, 2014
Station Number	10	Station Location	Clairmont
Start Time (MST)	12:40	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	0.001	N/A		
21.81	21.80	1.0006	Correlation Coefficient	0.999881
9.47	9.30	1.0185		
3.17	2.96	1.0724	Slope	0.996918
			Intercept	0.126058





September 25, 2014

Calibration Report

Parameter **TRS**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	October 13, 2014	Previous Calibration	September 23 2014
Station Name	PAZA Rover	Station Location	Clairmont
Reason: Routine	Install	Removal	Other:
Start Time (MST)	12:00 PM	End Time (MST)	14:50
Barometric Pressure	0.917 Atm	Station Temperature	20.0 Deg C
Calibrator	Environics	Serial Number	3016
Cal Gas Concentration	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	0.983125	Calculated slope	0.970837
Calculated intercept	0.370387	Calculated intercept	0.102171
Analyzer make	TEI 43C	Analyzer serial #	609716238

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	26.1	ppb	26.1	ppb
Coefficient	0.992		0.992	
Lamp Voltage	790	V	790	V
Chamber Temp	44	C	44	C
Perm gas Temp	45	C	45	C
Pressure	655.6	mmHg	652.5	mmHg
Sample Flow	0.429	lpm	0.430	lpm
Lamp Intensity	44130	Hz	44030	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	84.3	0.9705
4995	19.97	41.1	42.0	0.9774
6995	9.97	14.7	14.7	0.9961
4995	9.97		1.0	Sox Test
4995	0.00	0.0	0.2	As found zero
4995	39.93	81.8	84.3	As found span
			Average Correction Factor	0.9813

Calculated value of As Found Response: 83.07 ppm Percent Change of As Found: -1.5%

	before calibration		after calibration	
Auto zero	-0.1	ppm	0.3	ppm
Auto span	63.3	ppm	65.1	ppm

Notes: No adjustments made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **TRS**

Air Monitoring Network **PAZA**

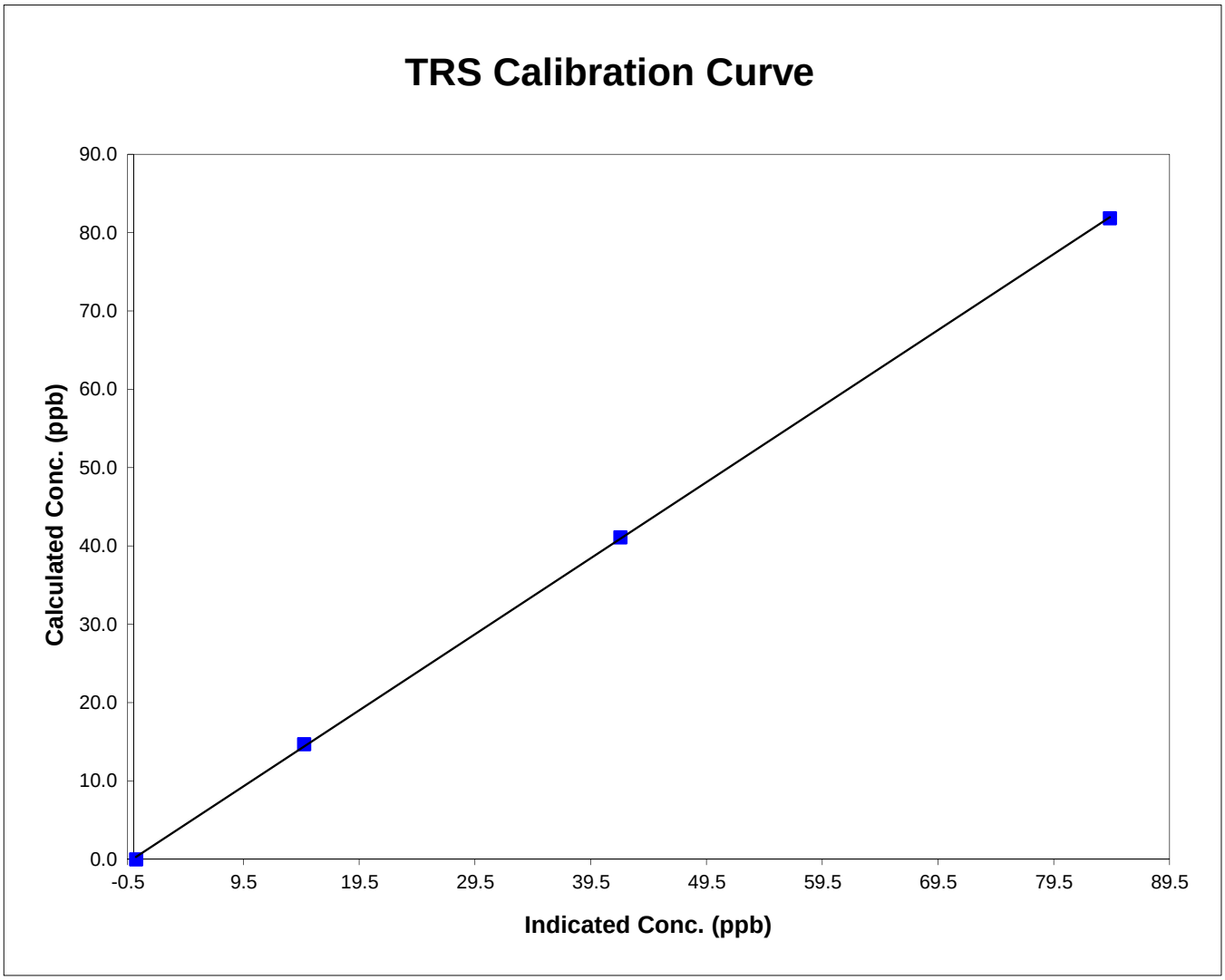
FOCUS AIR QUALITY MONITORING

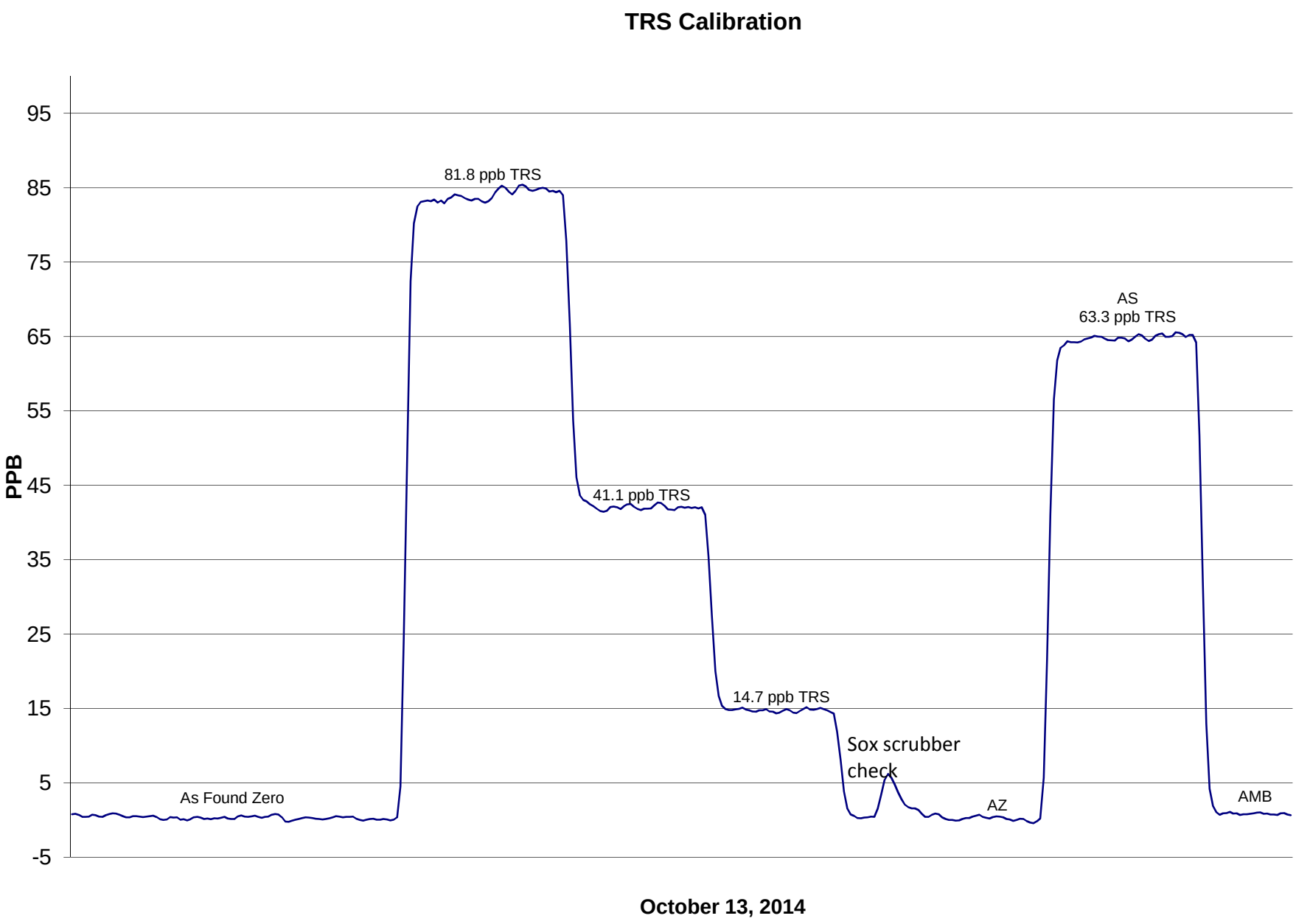
Station Information

Calibration Date	October 13, 2014	Previous Calibration	September 23 2014
Station Number	PAZA Rover	Station Location	Clairmont
Start Time (MST)	12:00	End Time (MST)	14:50
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	84.3	0.9705	Correlation Coefficient	0.999944
41.1	42.0	0.9774		
14.7	14.7	0.9961	Slope	0.970837
			Intercept	0.102171




TRS Calibration
PPB
95
85
75
65
55
45
35
25
15
5
-5
81.8 ppb TRS
41.1 ppb TRS
14.7 ppb TRS
Sox scrubber check
AS
63.3 ppb TRS
As Found Zero
AZ
AMB
October 13, 2014