



# **Peace Airshed Zone Association**

## **Ambient Air Monitoring Network Summary**

**Continuous Ambient Air Quality Monitoring Program  
Monthly Report  
August 2015**

October 15<sup>th</sup>, 2015

**Alberta Environment**  
 11<sup>th</sup> Floor, Oxbridge Place  
 9820-106 Street  
 Edmonton Alberta T5K 2J6

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

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

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

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

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

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

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

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

During the month of **August** 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 August with the exception of the THC analyzer, which experienced equipment failure and returned an uptime of 77.7%. **Reference #303779.**

**Evergreen Park Station:**

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

**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 August.

**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 August.

**Valleyview Station:**

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

**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 August.

**Clairmont Station:**

- ◆ The measured ambient air quality was within the AAAQO for the Clairmont station.
- ◆ All analyzers and sensors at the Clairmont station had an operational uptime greater than 90% for the month of August.
- ◆ The station was removed from service for relocation on September 5<sup>th</sup>, August represents the end of data reporting for this location.

**Passive Monitoring - 46 Stations throughout the PAZA zone:**

There were five duplicate sites sampled in the month of August: Saddle Hills, Wanham, Wembley, McLennan, and Gift Lake. 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<sub>2</sub> passives ranged from 0.1 ppb to 0.5 ppb, with a mean of 0.2 ppb.
- Monthly average concentrations for NO<sub>2</sub> passives ranged from 0.1 ppb to 2.7 ppb, with a mean of 0.6 ppb.
- Monthly average concentrations for O<sub>3</sub> passives ranged from 15.5 ppb to 76.2 ppb, with a mean of 23.1 ppb.
- Monthly average concentrations for H<sub>2</sub>S passives ranged from 0.1 ppb to 0.3 ppb, with a mean of 0.2 ppb.

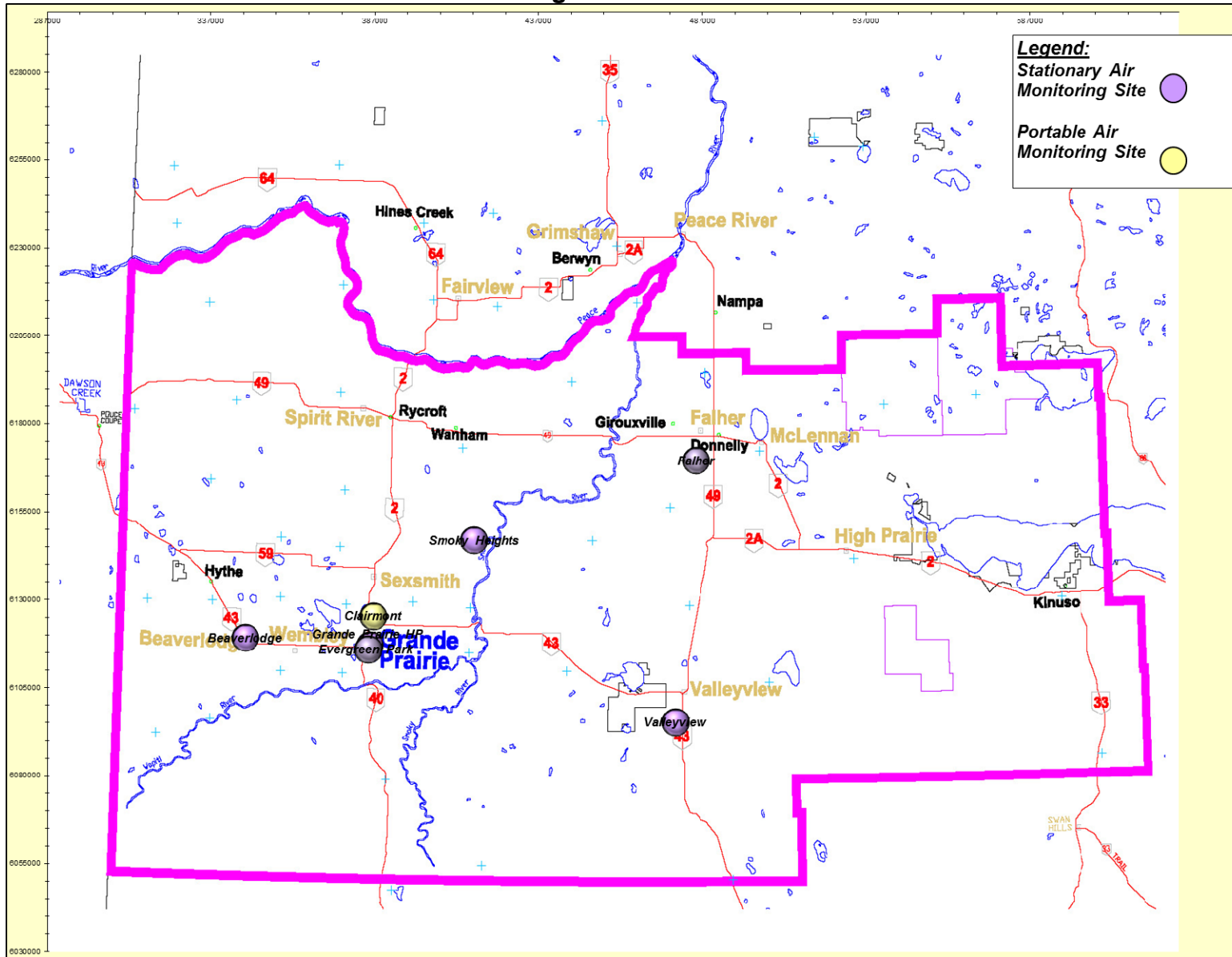
If you have any questions or concerns, please contact Patrick Andersen at 403.505.1041 or the PAZA office at 780.833.4343.

On Behalf of the  
Peace Airshed Zone Association



Patrick Andersen, B.Sc.  
Program Manager

# Location of PAZA Continuous Monitoring Stations



## PAZA Monthly Continuous Data Summary

Aug-2015		Peace Airshed Zone Association					Maximum Recorded Values				Operational Time (%)
							1-hr		24-hr / 8-hr		
Pollutant (units)	Objectives		Station	Monthly Average	Exceedence		Conc	Day	Conc	Day	
	1-hr	24-hr			1-hr	24-hr					
SO <sub>2</sub> (ppb)	172	48	Henry Pirker	0.1	0	0	2.2	Aug-14 11:00	0.4	Aug-14	100%
SO <sub>2</sub> (ppb)	172	48	Evergreen Park	0.1	0	0	0.8	Aug-14 14:00	0.3	Aug-14	100%
SO <sub>2</sub> (ppb)	172	48	Smoky Heights	0.3	0	0	15.1	Aug-13 13:00	1.8	Aug-13	99%
SO <sub>2</sub> (ppb)	172	48	Beaverlodge	0.1	0	0	1.9	Aug-14 13:00	0.5	Aug-15	100%
SO <sub>2</sub> (ppb)	172	48	Valleyview	1.2	0	0	44.2	Aug-04 02:00	5.2	Aug-06	100%
SO <sub>2</sub> (ppb)	172	48	Falher	0.1	0	0	0.7	Aug-16 10:00	0.3	Aug-16	100%
SO <sub>2</sub> (ppb)	172	48	Clairmont	0.2	0	0	3.4	Aug-24 09:00	0.8	Aug-08	97%
NO (ppb)			Henry Pirker	0.8	0	0	14.9	Aug-27 08:00	1.7	Aug-24	100%
NO <sub>2</sub> (ppb)	159	106	Henry Pirker	4.0	0	0	17.8	Aug-31 23:00	6.9	Aug-27	100%
NO <sub>x</sub> (ppb)			Henry Pirker	4.8	0	0	27.9	Aug-27 08:00	8.6	Aug-27	100%
NO (ppb)			Beaverlodge	0.2	0	0	11.9	Aug-11 13:00	0.8	Aug-11	100%
NO <sub>2</sub> (ppb)	159	106	Beaverlodge	2.0	0	0	15.2	Aug-14 04:00	3.3	Aug-25	100%
NO <sub>x</sub> (ppb)			Beaverlodge	2.2	0	0	15.5	Aug-14 04:00	3.9	Aug-25	100%
NO (ppb)			Clairmont	0.8	0	0	16.3	Aug-27 07:00	1.9	Aug-27	100%
NO <sub>2</sub> (ppb)	159	106	Clairmont	2.9	0	0	16.2	Aug-27 07:00	4.6	Aug-27	100%
NO <sub>x</sub> (ppb)			Clairmont	3.7	0	0	32.7	Aug-27 07:00	6.5	Aug-27	100%
O <sub>3</sub> (ppb)	82		Henry Pirker	23.3	0	-	45.0	Aug-26 16:00	29.2	Aug-19	100%
O <sub>3</sub> (ppb) - 8-hr			Henry Pirker		0				41.0	Aug-26	
O <sub>3</sub> (ppb)	82		Beaverlodge	24.7	0	-	44.9	Aug-26 17:00	32.5	Aug-26	100%
O <sub>3</sub> (ppb) - 8-hr			Beaverlodge		0				41.9	Aug-26	
O <sub>3</sub> (ppb)	82		Clairmont	22.6	0	-	43.5	Aug-26 18:00	29.8	Aug-26	97%
O <sub>3</sub> (ppb) - 8-hr			Clairmont		0				41.0	Aug-26	
CO (ppm)	13		Henry Pirker	0.14	0	-	0.4	Aug-30 00:00	0.2	Aug-26	100%
CO (ppm) - 8-hr		5	Henry Pirker		0				0.3	Aug-27	



## PAZA Monthly Continuous Data Summary – continued

Aug-2015		Peace Airshed Zone Association					Maximum Recorded Values				
							1-hr		24-hr / 8-hr		
THC (ppm)			Henry Pirker	1.9	-	-	2.9	Aug-05 06:00	2.1	Aug-27	78%
CH <sub>4</sub> (ppm)			Henry Pirker	1.9	-	-	2.9	Aug-05 06:00	2.1	Aug-27	78%
NMHC (ppm)			Henry Pirker	0.0	-	-	0.0	Aug-17 11:00	0.0	Aug-25	78%
THC (ppm)			Clairmont	2.00	-	-	3.8	Aug-27 03:00	2.2	Aug-02	100%
TRS (ppb)			Henry Pirker	0.2	-	-	0.8	Aug-29 08:00	0.4	Aug-09	100%
TRS (ppb)			Evergreen Park	0.3	-	-	1.9	Aug-05 02:00	0.6	Aug-05	100%
TRS (ppb)			Smoky Heights	0.3	-	-	0.9	Aug-03 00:00	0.4	Aug-05	99%
TRS (ppb)			Clairmont	0.5	-	-	5.4	Aug-27 04:00	0.8	Aug-27	97%
H <sub>2</sub> S (ppb)	10	3	Valleyview	0.2	0	0	3.1	Aug-12 14:00	0.3	Aug-26	100%
H <sub>2</sub> S (ppb)	10	3	Falher	0.3	0	0	5.4	Aug-27 04:00	0.9	Aug-27	100%
PM <sub>2.5</sub> (µg/m <sup>3</sup> )	80	30	Henry Pirker	3.8	0	0	15.2	Aug-27 03:00	7.8	Aug-27	100%
PM <sub>2.5</sub> (µg/m <sup>3</sup> )	80	30	Evergreen Park	2.7	0	0	25.3	Aug-27 13:00	7.0	Aug-27	100%
PM <sub>2.5</sub> (µg/m <sup>3</sup> )	80	30	Smoky Heights	5.0	0	0	62.0	Aug-02 22:00	10.3	Aug-24	99%
PM <sub>2.5</sub> (µg/m <sup>3</sup> )	80	30	Beaverlodge	3.7	0	0	21.3	Aug-03 04:00	7.2	Aug-27	100%
PM <sub>2.5</sub> (µg/m <sup>3</sup> )	80	30	Clairmont	2.2	0	0	33.3	Aug-24 21:00	6.0	Aug-24	100%
RH (%)			Henry Pirker	59.5	-	-	91.5	Aug-30 07:00	81.2	Aug-06	100%
RH (%)			Evergreen Park	63.3	-	-	97.7	Aug-30 08:00	86.4	Aug-06	100%
RH (%)			Beaverlodge	63.6	-	-	100.0	Aug-18 05:00	90.8	Aug-06	100%
RH (%)			Valleyview	67.3	-	-	99.6	Aug-26 10:00	91.8	Aug-06	100%
SR (W/m <sup>2</sup> )			Henry Pirker	184.2	-	-	761.0	Aug-04 13:00	267.2	Aug-04	100%
Temp (°C)			Henry Pirker	16.3	-	-	28.4	Aug-02 16:00	21.3	Aug-12	100%
Temp (°C)			Evergreen Park	15.7	-	-	26.4	Aug-10 17:00	20.7	Aug-12	100%
Temp (°C)			Smoky Heights	15.4	-	-	26.5	Aug-10 17:00	20.4	Aug-12	99%
Temp (°C)			Beaverlodge	15.2	-	-	25.4	Aug-10 16:00	20.3	Aug-12	100%
Temp (°C)			Valleyview	15.8	-	-	27.0	Aug-10 17:00	20.3	Aug-12	100%
Temp (°C)			Falher	15.5	-	-	27.6	Aug-03 16:00	20.4	Aug-03	100%
Temp (°C)			Clairmont	16.1	-	-	27.0	Aug-10 17:00	21.2	Aug-12	100%

## PAZA Monthly Continuous Data Summary – continued

Aug-2015 Peace Airshed Zone Association							Maximum Recorded Values				
							1-hr		24-hr / 8-hr		
WSPD s (km/hr)			Henry Pirker	6.7	-	-	25.0	Aug-13 18:00	11.7	Aug-19	100%
WSPD s (km/hr)			Evergreen Park	9.9	-	-	45.0	Aug-31 14:00	17.9	Aug-19	100%
WSPD s (km/hr)			Smoky Heights	11.2	-	-	41.0	Aug-31 13:00	19.1	Aug-11	99%
WSPD s (km/hr)			Beaverlodge	11.5	-	-	43.0	Aug-27 14:00	21.6	Aug-19	100%
WSPD s (km/hr)			Valleyview	3.3	-	-	18.0	Aug-19 12:00	7.0	Aug-21	100%
WSPD s (km/hr)			Falher	11.6	-	-	35.0	Aug-27 16:00	18.5	Aug-27	100%
WSPD s (km/hr)			Clairmont	7.5	-	-	24.0	Aug-31 13:00	11.6	Aug-31	100%
WSPD v (km/hr)			Henry Pirker	3.5	-	-	24.0	Aug-13 18:00	10.8	Aug-19	100%
WSPD v (km/hr)			Evergreen Park	5.5	-	-	45.0	Aug-31 14:00	15.3	Aug-19	100%
WSPD v (km/hr)			Smoky Heights	6.4	-	-	41.0	Aug-31 13:00	18.3	Aug-11	99%
WSPD v (km/hr)			Beaverlodge	5.4	-	-	42.0	Aug-27 14:00	20.6	Aug-19	100%
WSPD v (km/hr)			Valleyview	1.4	-	-	18.0	Aug-19 12:00	6.4	Aug-21	100%
WSPD v (km/hr)			Falher	4.9	-	-	34.0	Aug-27 16:00	15.6	Aug-27	100%
WSPD v (km/hr)			Clairmont	3.7	-	-	24.0	Aug-19 11:00	10.8	Aug-31	100%
WDIR			Henry Pirker	SW	-	-	-	-	-	-	100%
WDIR			Evergreen Park	W	-	-	-	-	-	-	100%
WDIR			Smoky Heights	SW	-	-	-	-	-	-	99%
WDIR			Beaverlodge	W	-	-	-	-	-	-	100%
WDIR			Valleyview	NW	-	-	-	-	-	-	100%
WDIR			Falher	SW	-	-	-	-	-	-	100%
WDIR			Clairmont	SW	-	-	-	-	-	-	100%

# Continuous Network Equipment Summary

## PAZA – Henry Pirker Station

### General Station Issues

Routine monthly calibrations were performed on August 4<sup>th</sup> (SO<sub>2</sub>, NO<sub>x</sub>, O<sub>3</sub>) and 5<sup>th</sup> (CO, THC, TRS).

Parameter	Make	Model	Notes
SO <sub>2</sub>	TEI	43C	No operational issues observed.
NO <sub>x</sub> /NO/NO <sub>2</sub>	TEI	42C/42i	No operational issues observed.
O <sub>3</sub>	TEI	49C/49i	No operational issues observed.
CO	TEI	48C	No operational issues observed.
THC/CH <sub>4</sub> /NMHC	TEI	55I	Actuator failure August 17 <sup>th</sup> , part ordered and replaced on August 24 <sup>th</sup> . <b>Reference #303779</b>
TRS	TEI	45C/43C	No operational issues observed.
PM <sub>2.5</sub>	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.

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**PAZA – Evergreen Park Station**

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**General Station Issues**

Routine monthly calibration performed on August 7<sup>th</sup> (SO<sub>2</sub>, TRS).

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<b>Parameter</b>	<b>Make</b>	<b>Model</b>	<b>Notes</b>
SO <sub>2</sub>	TEI	43i	No operational issues observed.
TRS	TEI	43C	No operational issues observed.
PM <sub>2.5</sub>	Sharp	5030	Manifold cleaned during calibration period.
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.

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**PAZA – Smoky Heights Station**

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**General Station Issues**

Routine monthly calibration performed on August 10<sup>th</sup> (SO<sub>2</sub>, TRS). Power outage on August 1<sup>st</sup>-2<sup>nd</sup> and 28<sup>th</sup>.

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<b>Parameter</b>	<b>Make</b>	<b>Model</b>	<b>Notes</b>
SO <sub>2</sub>	TEI	43C	No operational issues observed.
TRS	TEI	43C	No operational issues observed.
PM <sub>2.5</sub>	Sharp	5030	Manifold cleaned during calibration period.
ET	Met One	083D	No operational issues observed.
WS / WD	Met One	010C/020C	No operational issues observed.

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**PAZA – Beaverlodge Station**

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**General Station Issues**

Routine monthly calibrations performed on August 6<sup>th</sup> (SO<sub>2</sub>, O<sub>3</sub>, NO<sub>x</sub>) and 12<sup>th</sup> (PM<sub>2.5</sub>).

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<b>Parameter</b>	<b>Make</b>	<b>Model</b>	<b>Notes</b>
SO <sub>2</sub>	TEI	43CTL	No operational issues observed.
NO <sub>x</sub> /NO/NO <sub>2</sub>	TEI	42C	No operational issues observed.
O <sub>3</sub>	TEI	49C	No operational issues observed.
PM <sub>2.5</sub>	Sharp	5030	No operational issues observed.
ET	n/a	n/a	No operational issues observed.
RH	n/a	n/a	No operational issues observed.
WS / WD	Blue Sky	857	No operational issues observed.

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**PAZA – Valleyview Station**

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**General Station Issues**

Routine monthly calibrations were performed on August 11<sup>th</sup> (SO<sub>2</sub> & H<sub>2</sub>S).

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<b>Parameter</b>	<b>Make</b>	<b>Model</b>	<b>Notes</b>
SO <sub>2</sub>	TEI	43i	No operational issues observed.
H <sub>2</sub> S	TEI	43A	No operational issues observed.
ET	Gill	Met Pak 3	No operational issues observed.
RH	Gill	Met Pak 3	No operational issues observed.
WS / WD	Gill	Met Pak 3	No operational issues observed.

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**PAZA – Falher Station**

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**General Station Issues**

Routine monthly calibrations were performed on August 13<sup>th</sup> (SO<sub>2</sub> & H<sub>2</sub>S).

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<b>Parameter</b>	<b>Make</b>	<b>Model</b>	<b>Notes</b>
SO <sub>2</sub>	TEI	43i	No operational issues observed.
H <sub>2</sub> S	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.

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**PAZA – Portable-Clairmont**

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**General Station Issues**

Routine monthly calibrations were performed on August 20<sup>th</sup> (TRS) and 21<sup>st</sup> (SO<sub>2</sub>, NO<sub>x</sub>, O<sub>3</sub>, THC). Station was relocated on September 5<sup>th</sup>.

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<b>Parameter</b>	<b>Make</b>	<b>Model</b>	<b>Notes</b>
SO <sub>2</sub>	TEI	43i	Electrical bus failure on August 18 <sup>th</sup> caused 25 hours of downtime.
NO <sub>x</sub>	TEI	42i	No operational issues observed.
O <sub>3</sub>	TEI	49C	Electrical bus failure on August 18 <sup>th</sup> caused 25 hours of downtime.
TRS	TEI	39C	Electrical bus failure on August 18 <sup>th</sup> caused 25 hours of downtime.
THC	TEI	51C	No operational issues observed.
PM <sub>2.5</sub>	Sharp	5030	Manifold cleaned during calibration period.
ET	Gill	Met Pak 3	No operational issues observed.
WS / WD	Gill	Met Pak 3	No operational issues observed.

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PAZA

Henry Pirker Station

Monthly Summary Tables, Graphs and  
Roses

## Hourly Averages

Sulphur Dioxide (SO<sub>2</sub>) - ppb

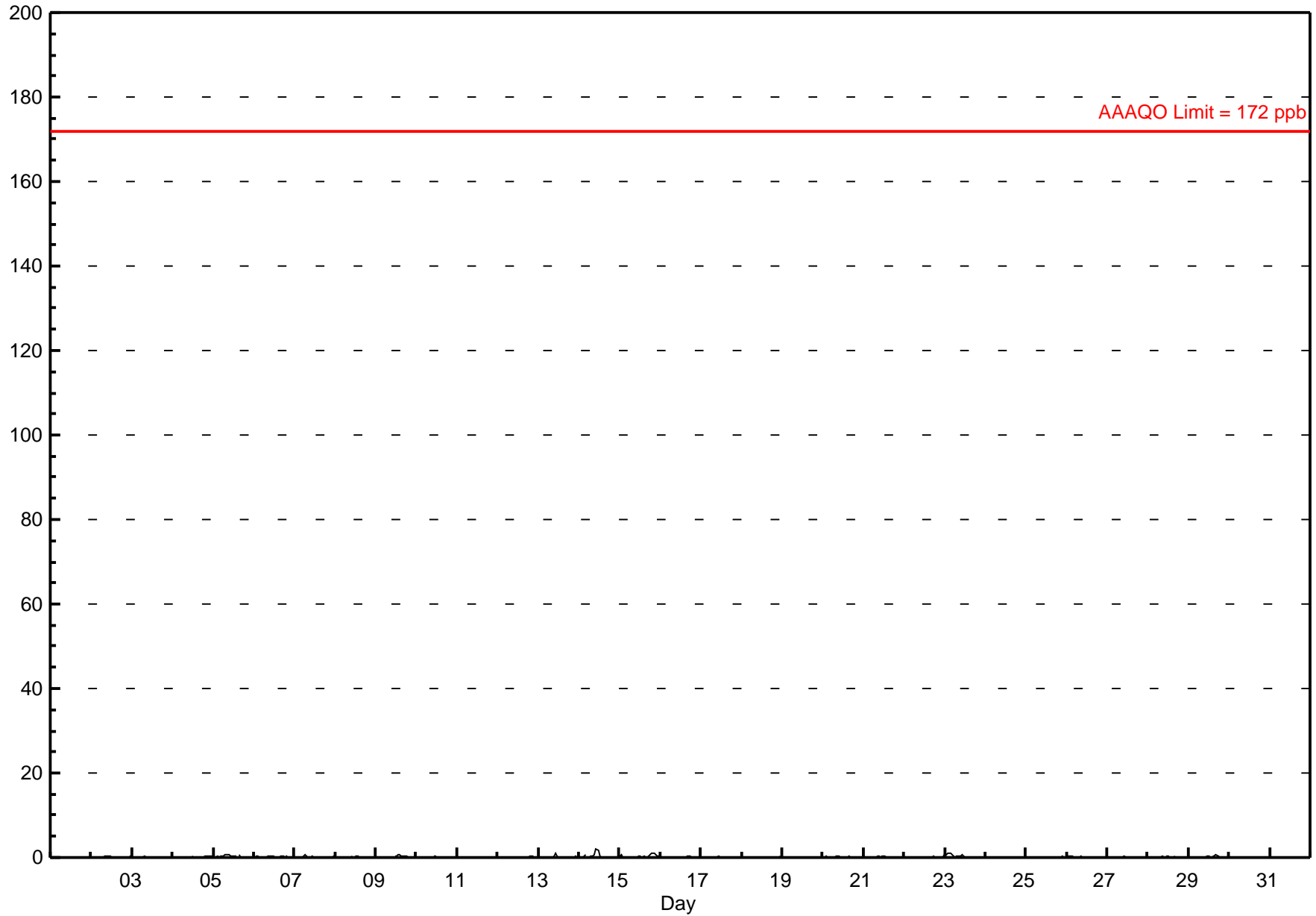
Henry Pirker - August 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 2.2 ppb on Aug 14 11:00      Maximum Daily Average: 0.4 ppb on Aug 14		Hours in Service: 744 Hours of Data: 708 Hours of Missing Data: 36 Hours of Calibration: 36 Percent Operational Time: 100.0																								
Minimum Value: 0 ppb on Aug 1 01:00 Maximum Diurnal Average: 0.2 ppb at hour 11 Monthly Average: 0.10 ppb		Minimum Daily Average: 0.0 ppb on Aug 30 Minimum Diurnal Average: 0.1 ppb at hour 19 Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.0 Median = 0.0 Q <sub>3</sub> = 0.1 P <sub>90</sub> = 0.3 P <sub>99</sub> = 0.9																								
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Aug	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
2-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.1	0.4
3-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.0	0.2
4-Aug	0	0	0	0	0	0	0	C	C	C	C	0	0	0	0	A	0	0	0	0	0	0	0	0	0.1	0.4
5-Aug	0	0	0	0	0	0	0	1	1	1	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0.3	0.7
6-Aug	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
7-Aug	0	0	0	0	0	0	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.8
8-Aug	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	0.5
9-Aug	0	0	0	0	0	0	0	0	0	0	0	A	0	1	1	0	0	0	0	0	0	0	0	0	0.2	0.8
10-Aug	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	0.4
11-Aug	0	0	0	0	0	0	0	0	A	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
12-Aug	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	0.3
13-Aug	0	0	0	0	0	0	A	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.0
14-Aug	0	0	0	0	1	A	0	0	0	1	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0.4	2.2
15-Aug	0	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0.3	1.0
16-Aug	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
17-Aug	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
18-Aug	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
19-Aug	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
20-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	A	0	0.1	0.3
21-Aug	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
22-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	0	0.1	0.5
23-Aug	1	1	1	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0.3	1.0
24-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	A	0	0	0	0	0.0	0.2
25-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.0	0.2
26-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	A	0	0	0	0	0	0	0	0.1	0.3
27-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.0	0.2
28-Aug	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
29-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0.1	0.6
30-Aug	0	0	0	0	0	0	0	0	0	0	0	A	A	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
31-Aug	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
																								Diurnal Average	Diurnal Maximum	
																								0.1	0.9	
																								0.1	0.7	
																								0.1	0.9	
																								0.1	1.0	
																								0.1	0.7	
																								0.1	0.4	
																								0.1	0.8	
																								0.1	0.5	
																								0.1	0.7	
																								0.1	0.7	
																								0.2	2.2	
																								0.2	1.8	
																								0.1	0.5	
																								0.1	0.6	
																								0.1	0.8	
																								0.1	0.7	
																								0.1	0.6	
																								0.1	0.5	
																								0.1	0.7	
																								0.1	1.0	
																								0.1	0.9	
																								0.1	0.6	
																								0.1	0.5	
																								0.1	0.5	

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

**Hourly Averages**

**Sulphur Dioxide (SO<sub>2</sub>) - ppb**  
**Henry Pirker - August 2015**



# Hourly Maximums

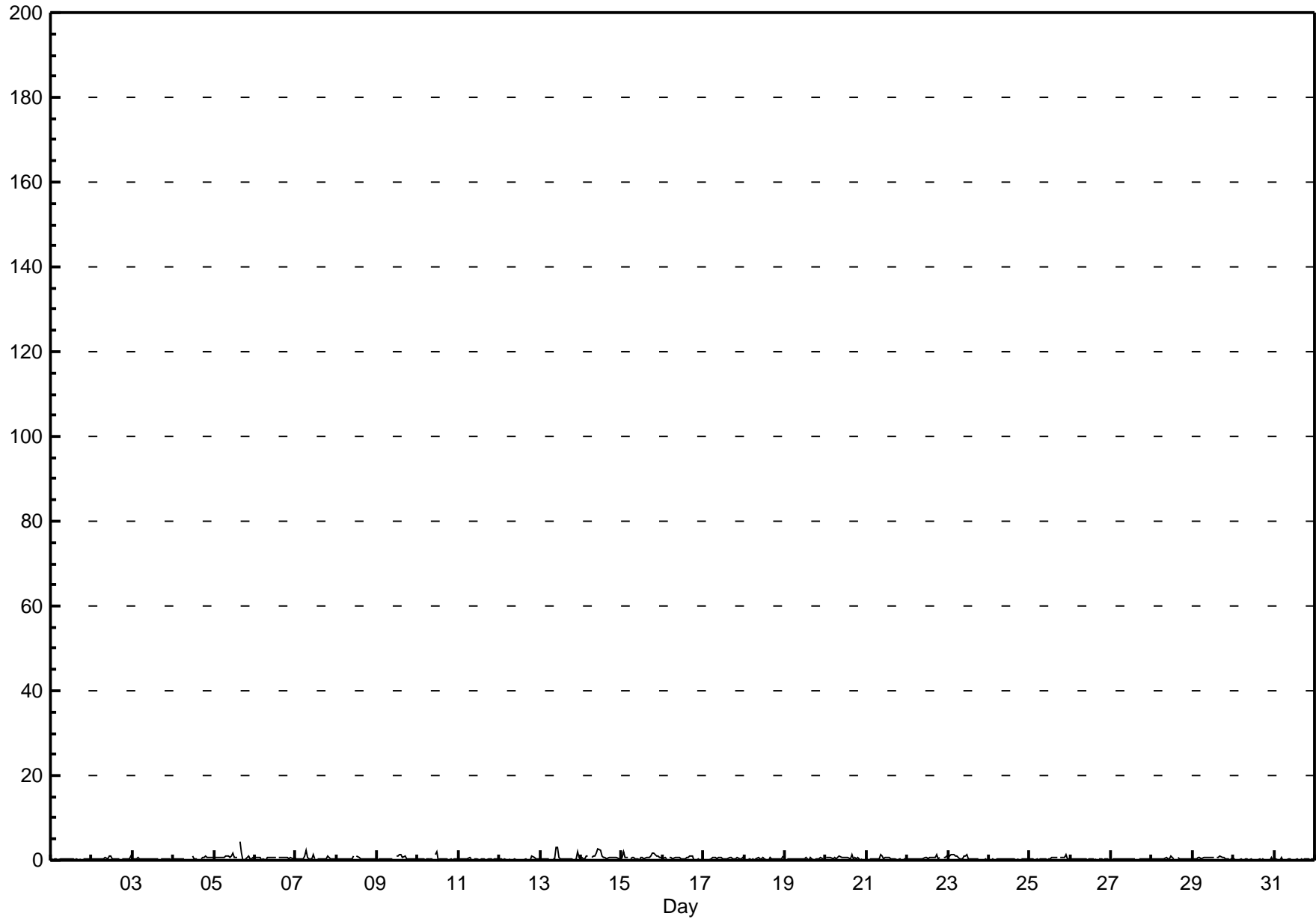
Sulphur Dioxide (SO<sub>2</sub>) - ppb

Henry Pirker - August 2015

Maximum Value: 4.5 ppb on Aug 5 16:00		Maximum Daily Average: 0.9 ppb on Aug 5		Hours in Service: 744																						
Minimum Value: 0 ppb on Aug 10 19:00		Minimum Daily Average: 0.1 ppb on Aug 30		Hours of Data: 708																						
Maximum Diurnal Average: 0.7 ppb at hour 12		Minimum Diurnal Average: 0.4 ppb at hour 21		Hours of Missing Data: 36																						
Monthly Average: 0.48 ppb		Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.1 Q <sub>1</sub> = 0.3 Median = 0.5 Q <sub>3</sub> = 0.5 P <sub>90</sub> = 0.7 P <sub>99</sub> = 1.9		Hours of Calibration: 36																						
				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-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.4	0.5
2-Aug	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	A	0	0	0	0	0	1	0.5	0.9
3-Aug	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.4	0.6
4-Aug	0	0	0	0	0	0	0	C	C	C	C	1	0	0	0	A	1	1	1	1	1	1	1	1	0.5	1.0
5-Aug	1	1	1	1	1	1	1	1	1	1	1	2	1	1	A	4	2	0	0	1	1	0	0	1	0.9	4.5
6-Aug	1	1	1	1	0	0	0	1	1	1	1	1	1	A	1	1	1	1	1	1	0	1	0	1	0.5	0.7
7-Aug	1	1	1	0	0	1	2	1	0	0	1	0	A	0	0	0	0	0	0	1	0	0	0	0	0.6	2.4
8-Aug	0	0	0	0	0	0	0	0	0	0	0	0	A	1	1	0	0	0	0	0	0	0	0	0	0.5	1.0
9-Aug	0	0	0	0	0	0	0	0	0	0	0	0	A	1	1	1	1	1	0	0	0	0	0	0	0.6	1.4
10-Aug	0	0	0	0	0	0	0	0	0	A	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0.5	1.9
11-Aug	0	0	0	0	0	0	1	1	A	1	1	1	0	1	0	0	0	1	0	0	0	0	0	0	0.4	0.5
12-Aug	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0.2	1.0
13-Aug	0	0	0	0	0	0	A	0	0	3	3	1	1	0	0	0	0	0	0	0	0	2	1	0.6	3.0	
14-Aug	1	0	0	1	1	A	1	1	1	2	3	3	1	1	1	0	1	1	1	1	1	1	0	0	0.8	2.8
15-Aug	1	2	1	1	A	0	1	1	0	0	0	1	1	0	1	1	1	1	2	2	1	1	1	1	0.7	2.0
16-Aug	0	1	0	A	1	1	0	1	1	1	1	0	0	0	1	1	1	1	0	0	0	0	0	0	0.4	1.1
17-Aug	0	0	A	0	0	1	1	1	0	1	1	0	0	0	0	1	1	0	0	0	1	0	0	1	0.4	0.6
18-Aug	0	A	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0.4	0.9
19-Aug	A	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	A	0.3	0.5
20-Aug	1	1	1	1	0	1	0	1	1	1	1	1	1	1	0	1	0	1	0	1	0	1	A	0	0.5	1.5
21-Aug	0	0	0	0	0	0	0	0	1	1	0	1	1	1	0	0	0	0	0	0	0	0	A	0	0.5	1.5
22-Aug	0	0	0	0	0	0	0	1	1	0	1	1	1	1	1	1	1	1	0	1	A	1	1	1	0.5	1.5
23-Aug	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	A	0	0	0	0	0.7	1.5
24-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.3	0.5
25-Aug	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	A	1	1	1	1	0	0	0.4	1.5
26-Aug	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.4	0.5
27-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.4	0.5
28-Aug	0	0	0	0	0	0	0	0	1	0	1	1	0	0	1	0	0	0	0	0	0	0	0	1	0.5	1.0
29-Aug	0	0	0	1	1	0	1	1	1	1	1	1	1	A	1	1	1	1	1	0	0	0	0	1	0.5	1.0
30-Aug	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	0	0.1	0.5
31-Aug	0	0	0	0	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
		0.4	0.5	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.7	0.7	0.5	0.4	0.4	0.6	0.5	0.5	0.4	0.5	0.4	0.5	0.5	0.4	Diurnal Average
		1.4	2.0	1.5	1.5	1.0	1.0	2.4	1.1	1.5	3.0	3.0	2.5	1.1	1.4	1.4	4.5	1.6	1.5	1.5	1.5	1.0	1.5	2.0	1.0	Diurnal Maximum
C - Calibration		A - Automated Daily Zero Span																								

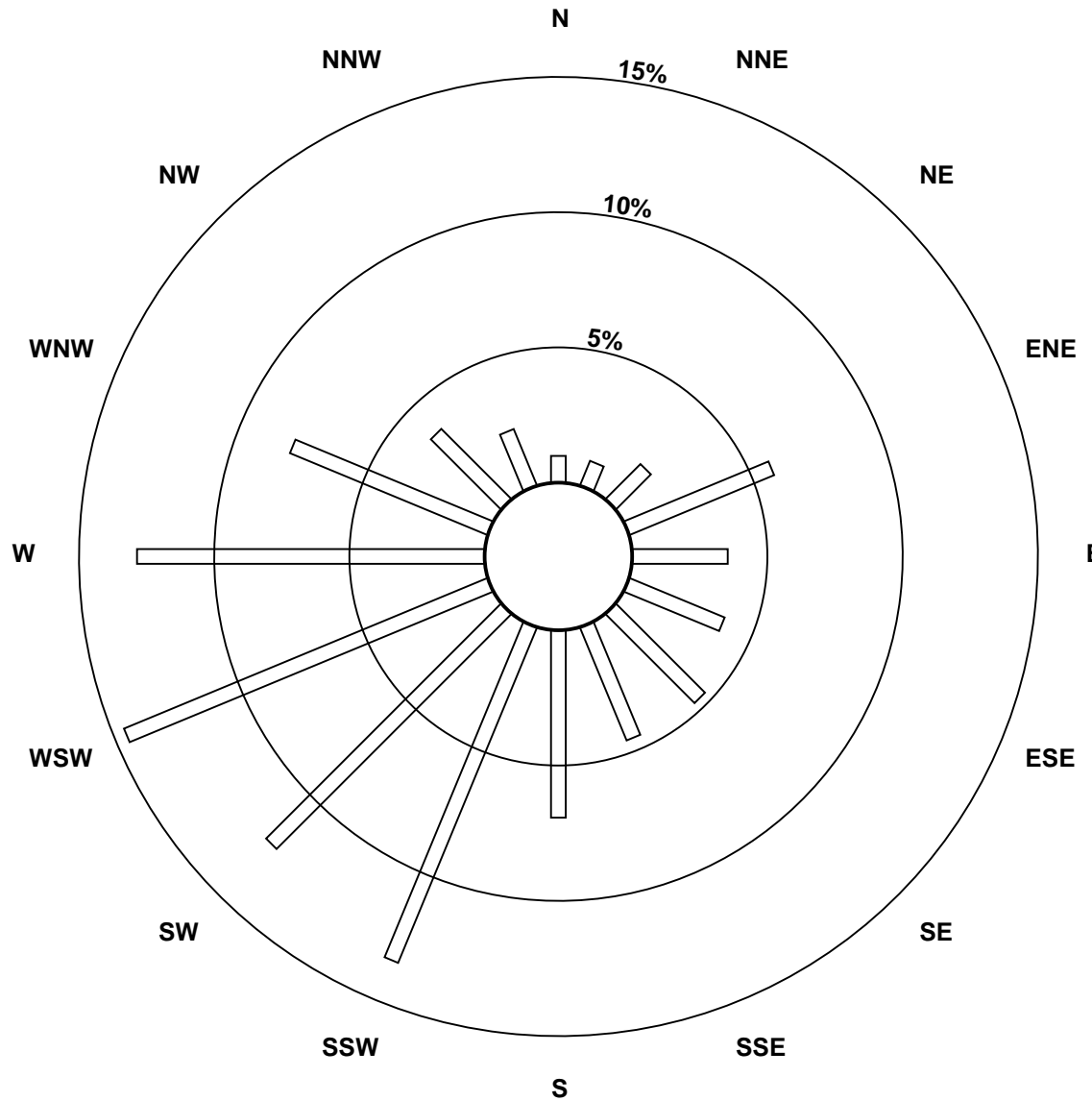
**Hourly Maximums**

**Sulphur Dioxide (SO<sub>2</sub>) - ppb**  
**Henry Pirker - August 2015**

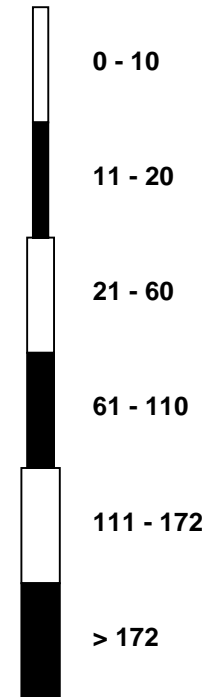


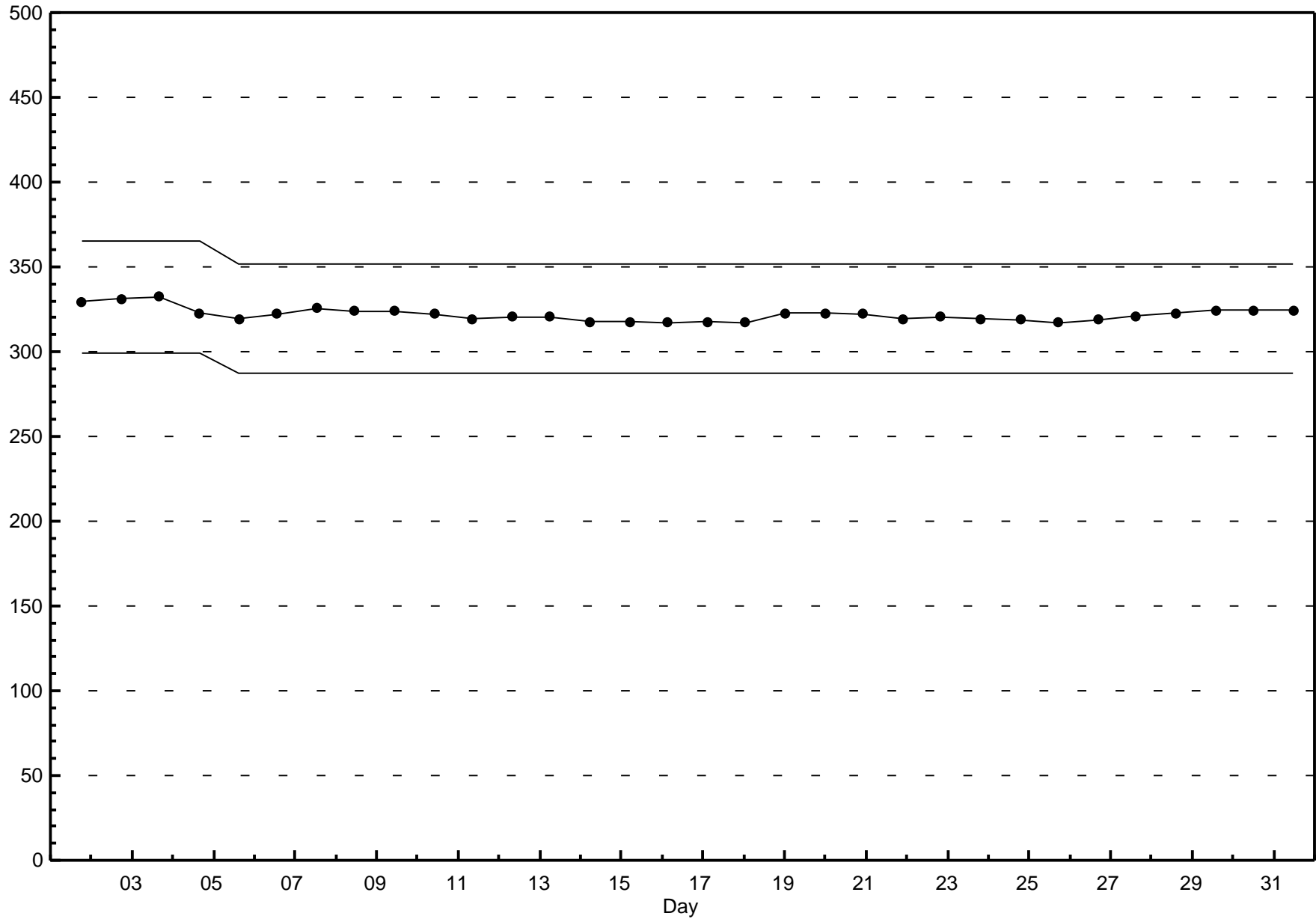
**Pollutant Rose**

**Sulphur Dioxide (SO<sub>2</sub>) - ppb**  
**Henry Pirker - August 2015**



**Pollutant Classes (ppb)**







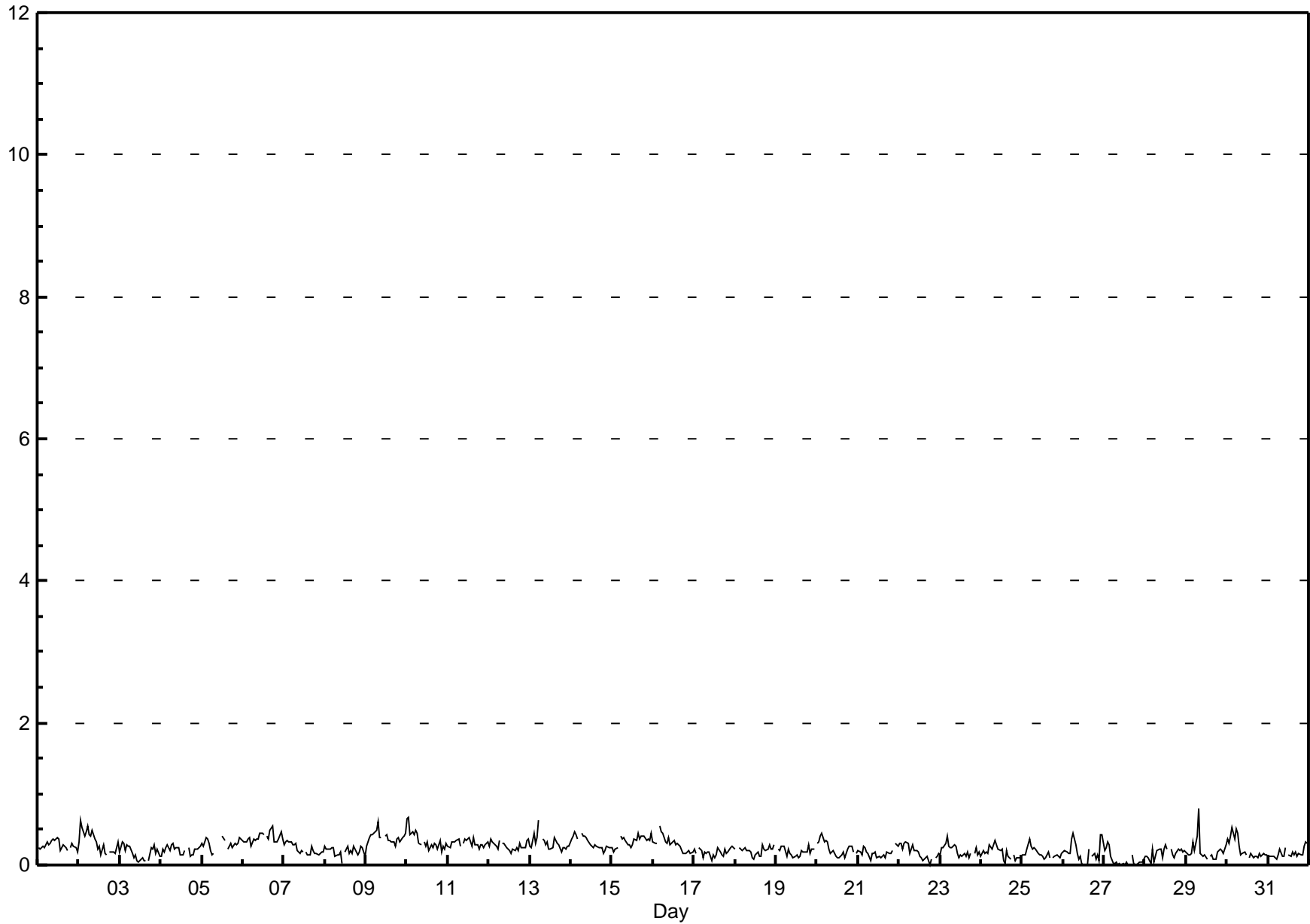
## Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - August 2015

Number of Exceedences (AAAQO):		1-hr: 0		24-hr: 0		Hours in Service:		744																		
Maximum Value: 0.8 ppb on Aug 29 08:00		Maximum Daily Average: 0.4 ppb on Aug 9		Hours of Data:		708		Hours of Missing Data:		36																
Minimum Value: 0 ppb on Aug 22 19:00		Minimum Daily Average: 0.1 ppb on Aug 27		Hours of Calibration:		36		Percent Operational Time:		100.0																
Maximum Diurnal Average: 0.3 ppb at hour 5		Minimum Diurnal Average: 0.2 ppb at hour 14		Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.1 Q <sub>1</sub> = 0.2 Median = 0.2 Q <sub>3</sub> = 0.3 P <sub>90</sub> = 0.4 P <sub>99</sub> = 0.5																						
Monthly Average: 0.24 ppb																										
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-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.3	0.4
2-Aug	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.3	0.6
3-Aug	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
4-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.2	0.3
5-Aug	0	0	0	0	0	0	0	0	C	C	C	C	0	0	A	0	0	0	0	0	0	0	0	0	0.3	0.4
6-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	0	0	0	0	0	0	0.4	0.6
7-Aug	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
8-Aug	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
9-Aug	0	0	0	0	0	0	0	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.4	0.6
10-Aug	1	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
11-Aug	0	0	0	0	0	0	0	0	A	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
12-Aug	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
13-Aug	0	0	0	0	0	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
14-Aug	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
15-Aug	0	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
16-Aug	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
17-Aug	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
18-Aug	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
19-Aug	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
20-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.2	0.4
21-Aug	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
22-Aug	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
23-Aug	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
24-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.2	0.4
25-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.2	0.4
26-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.2	0.4
27-Aug	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
28-Aug	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
29-Aug	0	0	0	0	0	0	0	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.2	0.8
30-Aug	0	0	0	1	0	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
31-Aug	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
		0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	Diurnal Average	
		0.7	0.7	0.5	0.5	0.6	0.6	0.5	0.8	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.6	0.4	0.4	0.3	0.4	0.5	0.4	Diurnal Maximum

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



## Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

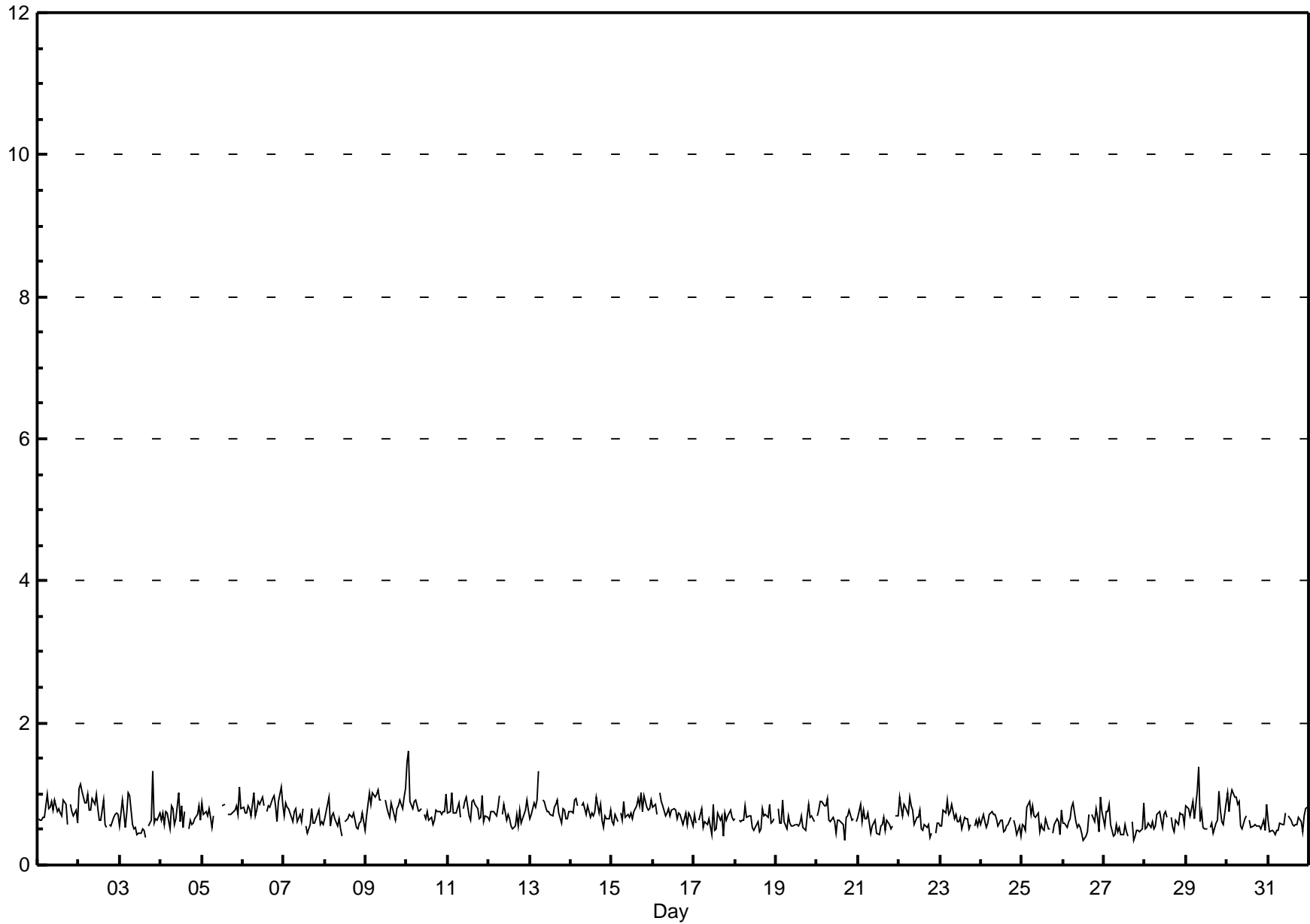
Henry Pirker - August 2015

Maximum Value: 1.6 ppb on Aug 10 02:00		Maximum Daily Average: 0.9 ppb on Aug 9		Hours in Service: 744																							
Minimum Value: 0 ppb on Aug 20 17:00		Minimum Daily Average: 0.5 ppb on Aug 27		Hours of Data: 708																							
Maximum Diurnal Average: 0.8 ppb at hour 7		Minimum Diurnal Average: 0.6 ppb at hour 14		Hours of Missing Data: 36																							
Monthly Average: 0.69 ppb		Percentiles: P <sub>1</sub> = 0.4 P <sub>10</sub> = 0.5 Q <sub>1</sub> = 0.6 Median = 0.7 Q <sub>3</sub> = 0.8 P <sub>90</sub> = 0.9 P <sub>99</sub> = 1.1		Hours of Calibration: 36																							
				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-Aug	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	1.0	
2-Aug	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0.8	1.1	
3-Aug	1	1	1	1	1	1	1	1	1	1	0	0	0	1	0	0	A	1	1	1	1	1	1	1	0.6	1.3	
4-Aug	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0.7	1.0	
5-Aug	1	1	1	1	1	1	1	1	C	C	C	C	1	1	A	1	1	1	1	1	1	1	1	1	0.8	1.1	
6-Aug	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.8	1.1	
7-Aug	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0	1	1	1	1	1	1	1	1	1	0.7	0.9	
8-Aug	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0	0.6	1.0	
9-Aug	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.9	1.1	
10-Aug	1	2	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.6	
11-Aug	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0	
12-Aug	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0	
13-Aug	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.3	
14-Aug	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0	
15-Aug	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0	
16-Aug	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0	
17-Aug	1	1	A	1	1	1	1	1	1	1	0	1	0	1	1	1	1	0	1	1	1	1	1	1	0.6	0.9	
18-Aug	1	A	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0.6	0.9	
19-Aug	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0.6	0.9	
20-Aug	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	1	1	1	A	1	0.7	0.9	
21-Aug	1	1	1	1	1	1	1	0	1	1	1	0	0	1	1	1	0	1	1	1	1	1	A	1	0.6	0.9	
22-Aug	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	0	A	0	1	1	0.7	1.0	
23-Aug	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	A	1	1	1	1	0.7	0.9	
24-Aug	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	A	1	1	0	1	0	0.6	0.7	
25-Aug	1	1	0	1	1	1	1	1	1	1	0	1	1	0	1	1	1	A	0	1	1	1	0	1	0.6	0.9	
26-Aug	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	1	A	1	1	1	1	0	1	1	0.6	1.0	
27-Aug	1	1	1	1	1	0	0	1	0	1	0	0	1	0	0	A	1	0	0	0	0	0	1	1	0.5	0.9	
28-Aug	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0	1	1	1	1	1	0.6	0.7	
29-Aug	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0	1	1	1	1	1	1	0.7	1.4	
30-Aug	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0	1	0.7	1.1	
31-Aug	1	0	0	0	0	0	0	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0	1	1	0.6	0.8	
		0.7	0.8	0.7	0.7	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.6	0.7	0.7	0.6	0.6	0.7	0.7	0.7	0.7	0.7	Diurnal Average	
		1.4	1.6	1.0	1.1	1.0	1.3	1.0	1.4	0.9	0.9	1.0	1.0	0.8	0.9	0.9	1.0	0.9	1.0	1.0	1.3	1.0	0.9	1.1	1.1	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

**Hourly Maximums**

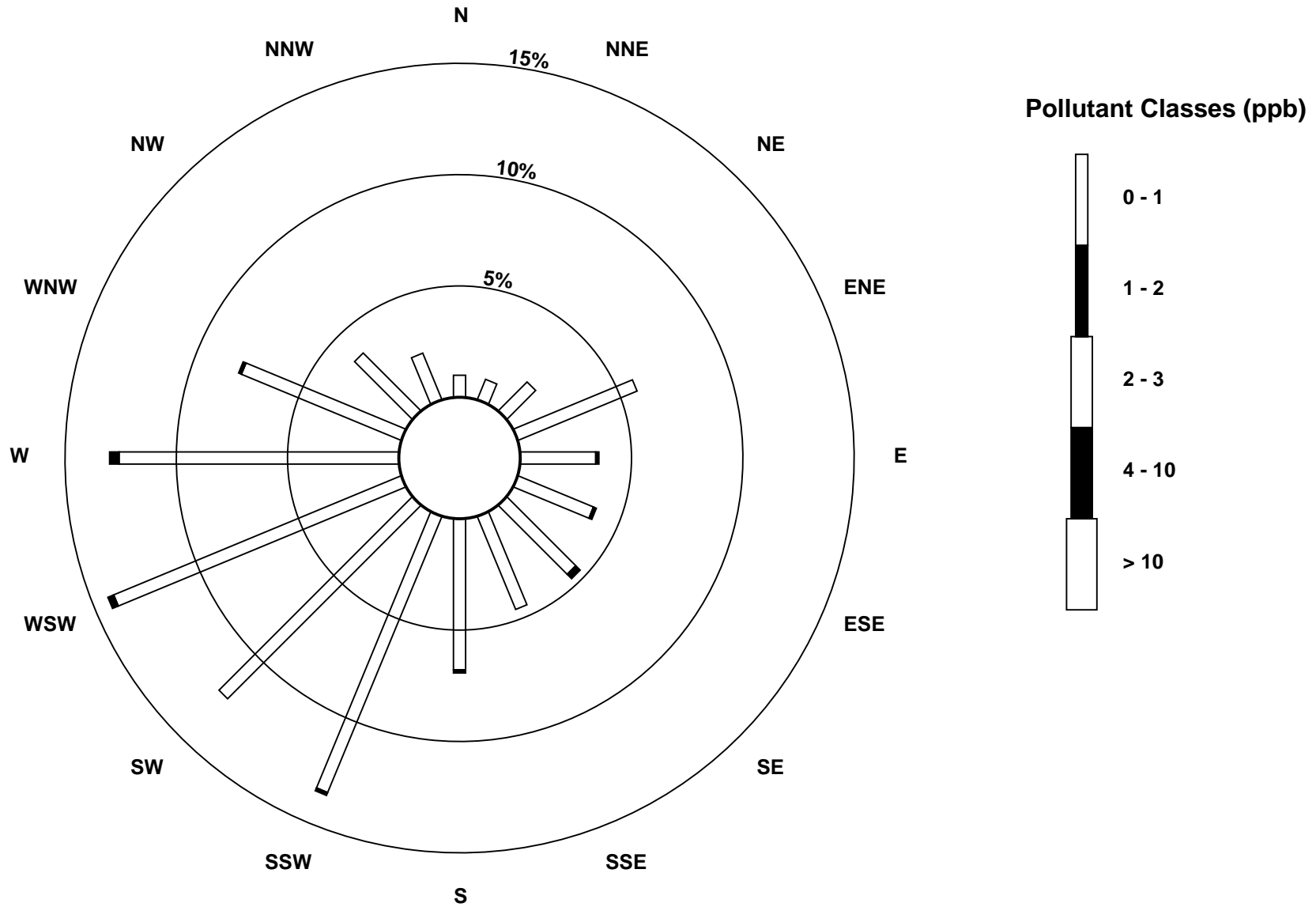
**Total Reduced Sulphur (TRS) - ppb**

**Henry Pirker - August 2015**



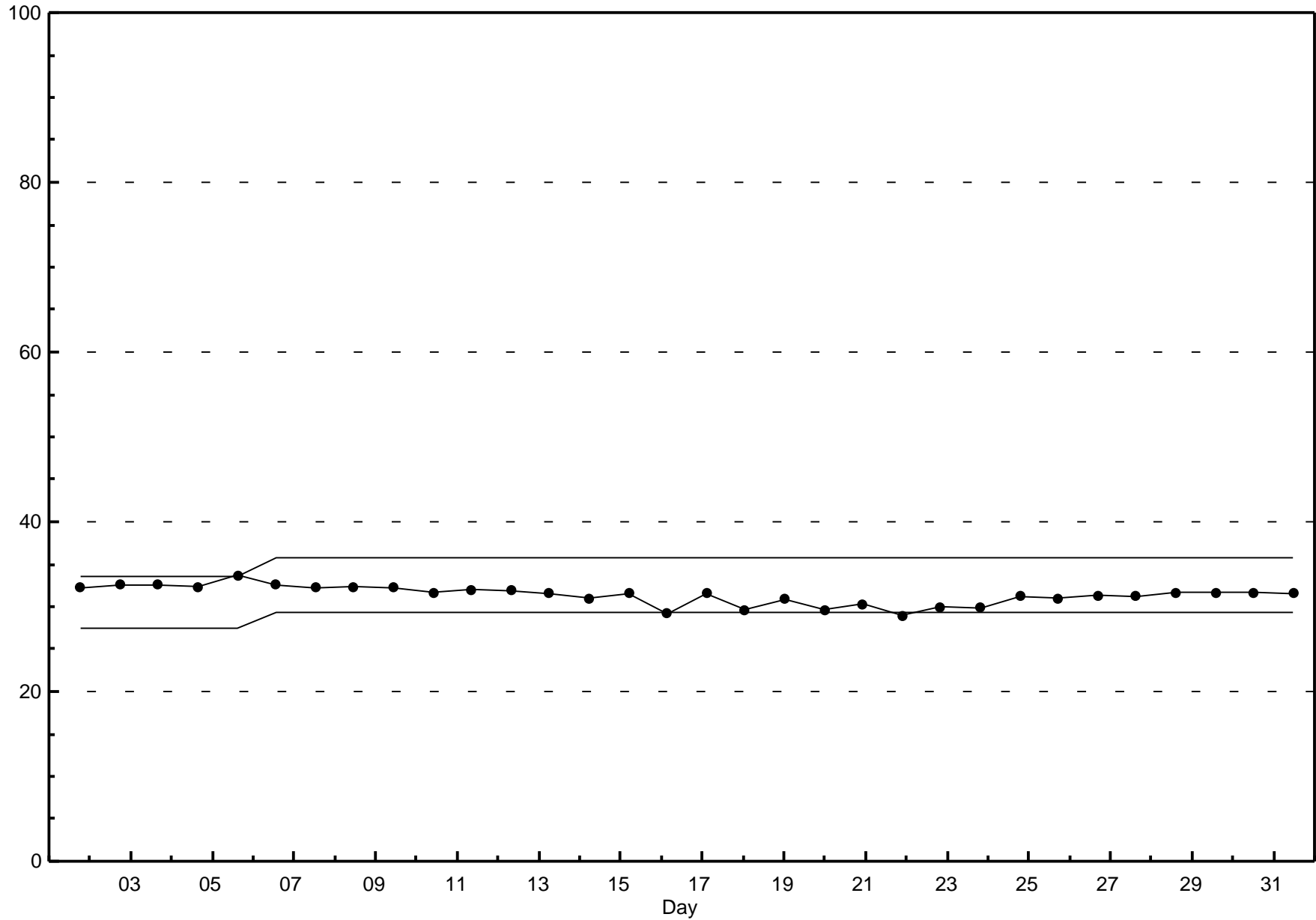
**Pollutant Rose**

**Total Reduced Sulphur (TRS) - ppb**  
**Henry Pirker - August 2015**



### Span Responses

Total Reduced Sulphur (TRS)  
Henry Pirker - August 2015



## Hourly Averages

## Nitrogen Dioxide (NO<sub>2</sub>) - ppb

### Henry Pirker - August 2015

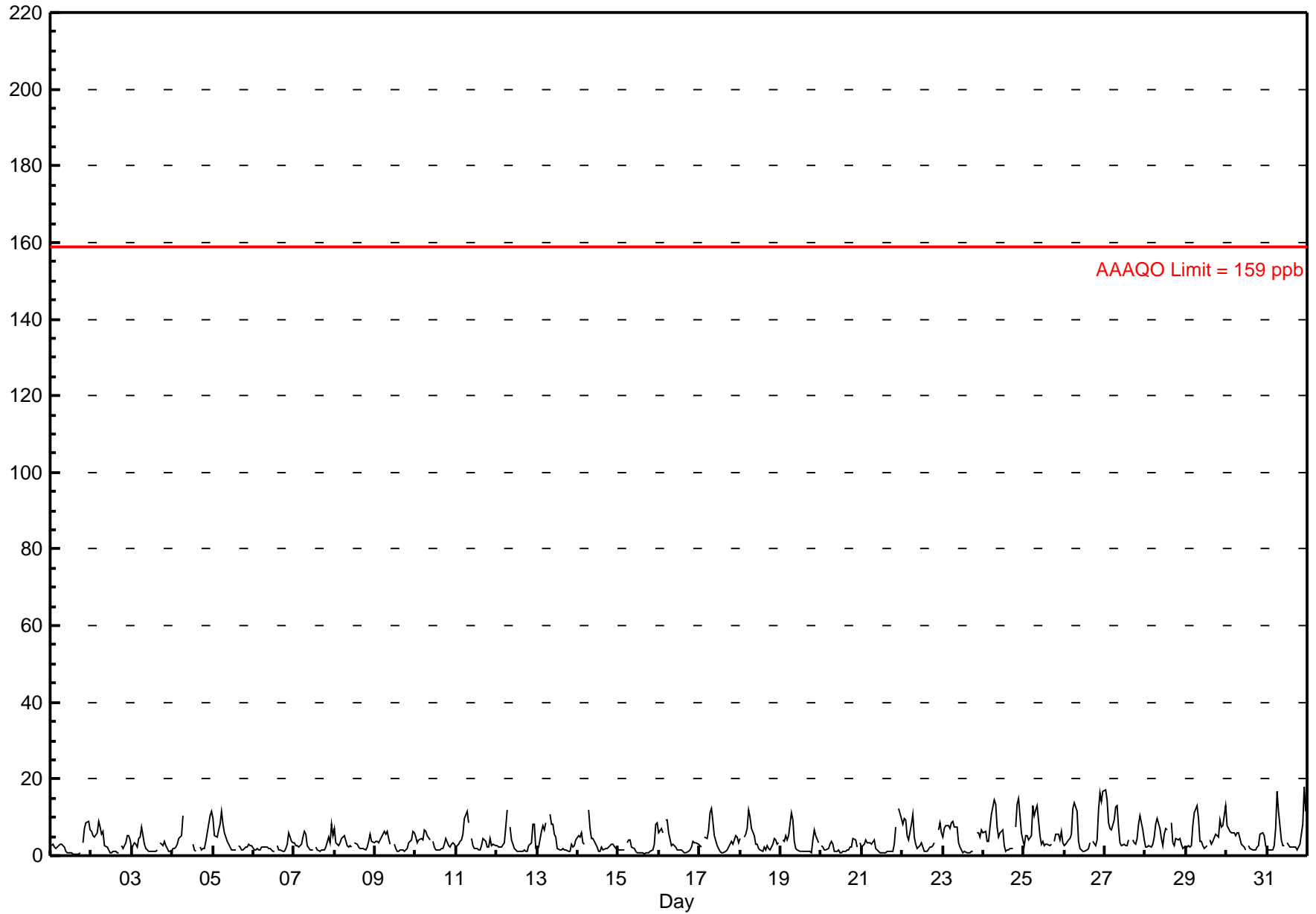
Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 17.8 ppb on Aug 31 23:00	Maximum Daily Average: 6.9 ppb on Aug 27		Hours of Data:	707
Minimum Value: 0 ppb on Aug 1 17:00	Minimum Daily Average: 2.1 ppb on Aug 6		Hours of Missing Data:	37
Maximum Diurnal Average: 8.7 ppb at hour 7	Minimum Diurnal Average: 1.6 ppb at hour 15		Hours of Calibration:	37
Monthly Average: 3.99 ppb	Percentiles: P <sub>1</sub> = 0.6 P <sub>10</sub> = 1.2 Q <sub>1</sub> = 1.7 Median = 3.0 Q <sub>3</sub> = 5.3 P <sub>90</sub> = 8.3 P <sub>99</sub> = 14.2		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-Aug	3	3	2	2	2	3	3	3	2	1	1	1	1	1	0	1	0	1	A	3	7	9	9	7	2.8	8.8
2-Aug	6	5	5	6	9	7	5	6	3	2	1	1	1	1	1	1	1	A	3	2	3	5	5	4	3.7	9.1
3-Aug	2	3	3	2	4	5	7	3	2	1	1	1	1	1	1	1	A	3	3	4	3	2	1	1	2.5	7.5
4-Aug	2	2	2	3	4	5	10	C	C	C	C	C	3	1	1	A	2	2	2	2	4	8	10	12	4.2	11.7
5-Aug	10	5	5	7	8	12	8	6	4	3	2	1	1	1	A	3	2	2	2	2	2	3	3	2	4.1	11.6
6-Aug	1	2	2	2	2	2	2	2	2	2	2	1	1	A	2	2	1	1	1	2	3	6	4	3	2.1	6.0
7-Aug	4	3	3	2	3	5	6	6	3	2	2	1	A	2	1	1	1	1	2	2	5	3	8	5	3.1	8.0
8-Aug	7	3	3	3	5	5	5	3	2	3	2	A	3	3	2	2	2	2	2	2	4	5	4	3	3.3	6.9
9-Aug	4	4	3	4	5	6	6	6	4	3	A	3	2	1	1	1	2	1	1	2	3	4	7	6	3.4	6.5
10-Aug	5	3	4	4	4	7	6	5	4	A	4	2	1	1	1	2	2	3	4	3	2	3	3	3	3.4	6.6
11-Aug	2	3	4	4	6	10	12	9	A	4	3	2	2	2	2	3	4	4	2	2	4	3	3	3	3.9	11.7
12-Aug	2	2	2	2	3	8	12	A	8	4	2	1	1	1	1	1	1	1	1	3	3	8	8	2	3.4	12.0
13-Aug	2	2	6	8	7	9	A	11	8	8	6	5	2	1	1	2	2	1	1	1	3	2	2	4	4.1	10.7
14-Aug	5	5	6	3	3	A	12	7	4	4	4	2	1	1	2	2	2	2	2	3	3	3	2	2	3.5	11.8
15-Aug	1	2	2	1	A	4	4	4	2	2	1	1	1	1	1	1	1	1	1	1	1	3	8	9	2.2	8.6
16-Aug	6	7	6	A	9	9	6	2	3	3	2	1	1	1	1	1	1	1	2	2	4	3	3	3	3.4	9.5
17-Aug	3	2	A	5	5	7	11	12	9	5	3	2	1	1	1	1	1	2	3	4	3	5	5	3	4.1	12.5
18-Aug	4	A	5	5	7	12	10	7	5	3	3	2	2	1	2	1	3	2	2	3	4	4	3	3	4.2	12.1
19-Aug	A	4	4	5	4	5	11	9	4	2	1	1	1	1	1	1	1	1	1	4	7	5	3	A	3.5	11.3
20-Aug	2	2	1	2	2	3	4	3	1	1	1	1	1	1	1	2	1	2	2	4	4	2	A	3	2.1	4.4
21-Aug	2	3	4	4	3	3	3	4	2	2	1	1	1	1	1	1	1	1	1	3	7	A	12	10	3.1	12.3
22-Aug	8	10	9	5	4	8	11	5	3	2	2	3	2	1	1	1	2	2	3	3	A	7	8	6	4.7	10.7
23-Aug	5	7	8	8	7	9	9	8	7	4	2	1	1	1	1	1	1	1	1	A	6	6	5	7	4.6	9.1
24-Aug	6	6	4	4	7	11	14	13	7	5	6	7	3	1	1	1	2	2	A	7	13	15	6	4	6.4	14.9
25-Aug	3	5	5	4	5	13	10	12	13	5	3	4	3	3	3	3	3	A	4	6	5	4	6	3	5.5	13.1
26-Aug	3	3	4	5	6	12	14	12	4	2	2	1	1	1	2	3	A	4	3	4	12	16	14	17	6.3	16.9
27-Aug	17	14	9	7	7	9	13	13	7	3	3	3	3	3	4	A	4	3	3	4	8	10	7	4	6.9	17.0
28-Aug	2	2	3	2	3	5	8	10	7	4	3	6	7	7	A	9	3	3	4	4	5	3	2	2	4.5	9.6
29-Aug	2	3	2	3	8	11	13	10	4	4	3	2	3	A	4	3	4	6	5	5	9	8	8	13	5.7	13.1
30-Aug	8	7	7	6	6	5	6	6	4	3	2	1	A	3	2	1	1	1	2	3	6	6	5	2	4.1	8.0
31-Aug	2	2	1	2	2	7	17	11	4	3	3	A	3	2	2	2	2	2	2	3	5	8	18	12	5.1	17.8
	4.3	4.1	4.1	4.0	5.0	7.2	8.7	7.2	4.6	3.1	2.4	2.1	1.8	1.7	1.6	1.8	1.9	2.0	2.2	3.1	5.0	5.7	6.1	5.3	Diurnal Average	
	17.0	14.4	9.2	7.8	9.5	12.9	16.8	13.3	13.1	8.0	5.9	6.6	7.0	6.6	4.0	8.5	4.3	5.5	5.2	7.3	13.4	16.3	17.8	16.9	Diurnal Maximum	

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

### Hourly Averages

**Nitrogen Dioxide (NO<sub>2</sub>) - ppb**  
**Henry Pirker - August 2015**





## Hourly Maximums

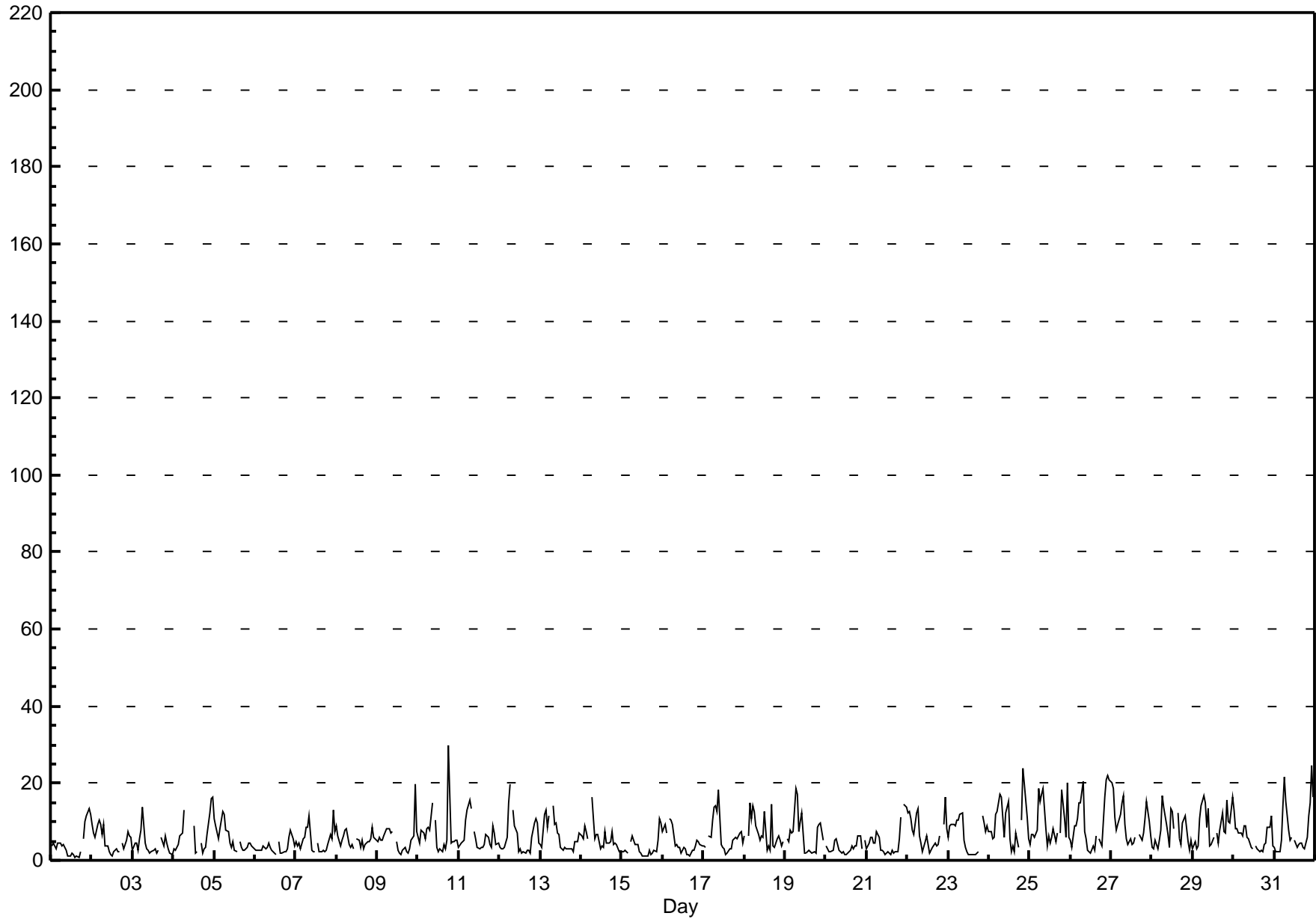
Nitrogen Dioxide (NO<sub>2</sub>) - ppb

Henry Pirker - August 2015

Maximum Value: 29.8 ppb on Aug 10 19:00		Maximum Daily Average: 9.8 ppb on Aug 24		Hours in Service: 744																							
Minimum Value: 1 ppb on Aug 1 17:00		Minimum Daily Average: 3.3 ppb on Aug 6		Hours of Data: 707																							
Maximum Diurnal Average: 12.1 ppb at hour 7		Minimum Diurnal Average: 2.9 ppb at hour 14		Hours of Missing Data: 37																							
Monthly Average: 6.33 ppb		Percentiles: P <sub>1</sub> = 1.2 P <sub>10</sub> = 2.1 Q <sub>1</sub> = 3.0 Median = 5.1 Q <sub>3</sub> = 8.2 P <sub>90</sub> = 12.7 P <sub>99</sub> = 20.7		Hours of Calibration: 37																							
				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-Aug	4	5	4	3	4	5	4	4	3	3	1	1	2	2	1	1	1	2	A	5	10	11	13	12	4.4	13.4	
2-Aug	9	7	6	9	10	9	7	9	4	4	2	1	1	2	3	2	2	A	5	3	5	7	6	6	5.3	10.4	
3-Aug	3	5	5	3	6	8	14	5	3	3	2	2	3	3	2	2	A	6	4	6	4	3	2	2	4.0	13.9	
4-Aug	3	2	3	4	6	7	13	C	C	C	C	C	9	2	2	A	4	2	3	3	7	12	16	16	6.5	16.3	
5-Aug	11	9	6	8	10	13	12	8	7	5	3	5	3	2	A	5	3	3	3	3	5	4	4	4	5.9	12.6	
6-Aug	3	3	3	3	3	4	3	3	4	3	3	2	1	A	5	2	2	2	2	3	6	8	6	4	3.3	7.9	
7-Aug	5	4	4	3	5	6	9	8	11	3	2	2	A	4	2	2	3	2	3	4	7	5	13	8	5.0	13.0	
8-Aug	9	6	4	5	6	8	8	4	3	4	3	A	5	5	3	5	3	4	5	5	6	8	6	5	5.3	8.9	
9-Aug	5	6	5	5	6	8	8	8	7	7	A	5	3	2	2	3	3	2	2	3	5	6	20	7	5.6	19.7	
10-Aug	6	4	8	7	6	8	9	8	15	A	11	3	2	3	2	4	3	5	30	5	5	5	5	5	6.9	29.8	
11-Aug	3	5	5	5	10	13	16	13	A	7	5	3	3	3	3	4	7	6	4	3	9	7	4	5	6.3	15.6	
12-Aug	3	3	3	4	6	15	20	A	13	9	7	2	3	2	2	2	3	3	2	6	10	11	10	4	6.1	19.9	
13-Aug	4	3	12	13	8	12	A	14	9	10	7	7	3	3	3	3	3	3	3	2	5	5	5	7	6.3	14.1	
14-Aug	6	6	9	8	6	A	16	11	6	7	7	3	4	3	7	4	4	5	7	4	5	4	2	2	5.9	16.3	
15-Aug	2	2	3	2	A	5	6	5	4	4	2	2	1	1	1	1	2	1	2	3	2	5	11	10	3.4	10.8	
16-Aug	8	9	7	A	11	10	9	4	4	3	3	2	3	3	2	1	1	2	3	4	5	5	4	4	4.7	10.9	
17-Aug	4	3	A	7	6	10	14	14	13	18	4	3	3	1	2	3	3	5	6	6	5	7	7	4	6.5	18.2	
18-Aug	6	A	7	15	11	14	13	9	7	5	6	6	13	3	4	3	15	4	3	5	6	5	4	5	7.2	14.8	
19-Aug	A	6	5	8	7	8	19	17	7	10	12	2	2	2	3	2	2	2	2	8	9	10	5	A	6.7	18.7	
20-Aug	4	3	2	2	3	5	6	4	3	2	2	2	2	2	3	4	3	4	4	7	6	3	A	5	3.4	6.5	
21-Aug	3	4	6	6	4	4	7	6	3	3	2	2	2	2	2	3	2	2	2	6	11	A	15	14	4.8	14.6	
22-Aug	12	12	11	8	7	12	13	6	4	2	5	6	4	2	3	3	4	4	4	6	A	9	16	8	7.1	16.4	
23-Aug	6	9	9	9	9	10	11	12	12	5	3	2	1	2	1	1	1	2	2	A	12	10	7	9	6.4	12.3	
24-Aug	8	7	6	6	12	13	17	17	11	6	12	15	6	2	4	2	7	3	A	10	24	20	11	6	9.8	24.0	
25-Aug	4	7	7	6	8	18	15	17	19	8	4	6	5	6	8	5	7	A	7	18	11	6	20	6	9.5	20.0	
26-Aug	5	3	9	9	11	15	15	20	7	5	3	2	2	4	3	6	A	5	4	10	17	21	22	21	9.5	22.2	
27-Aug	20	19	11	8	9	12	15	17	9	5	4	6	4	4	6	A	7	6	5	7	11	15	10	6	9.5	20.3	
28-Aug	3	3	5	3	5	8	17	14	9	7	3	13	13	8	A	12	6	4	10	12	8	5	3	5	7.6	16.8	
29-Aug	3	5	3	4	11	14	17	15	9	13	4	4	6	A	7	4	8	12	7	7	16	10	10	16	8.9	16.8	
30-Aug	13	8	8	7	7	6	9	9	6	6	3	3	A	4	3	2	3	2	4	4	9	9	12	4	6.1	13.0	
31-Aug	4	2	2	2	5	14	21	15	8	5	6	A	5	4	4	5	4	3	3	6	11	15	25	16	8.1	24.7	
		6.0	5.7	5.9	6.0	7.3	9.8	12.1	10.2	7.7	5.9	4.6	4.1	3.9	2.9	3.2	3.4	4.0	3.7	4.8	5.9	8.4	8.4	9.8	7.5	Diurnal Average	
		20.3	18.6	11.8	14.8	12.0	18.5	21.5	20.3	18.7	18.2	12.3	15.4	12.7	8.2	8.0	12.2	14.7	12.1	29.8	18.1	24.0	20.7	24.7	20.8	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

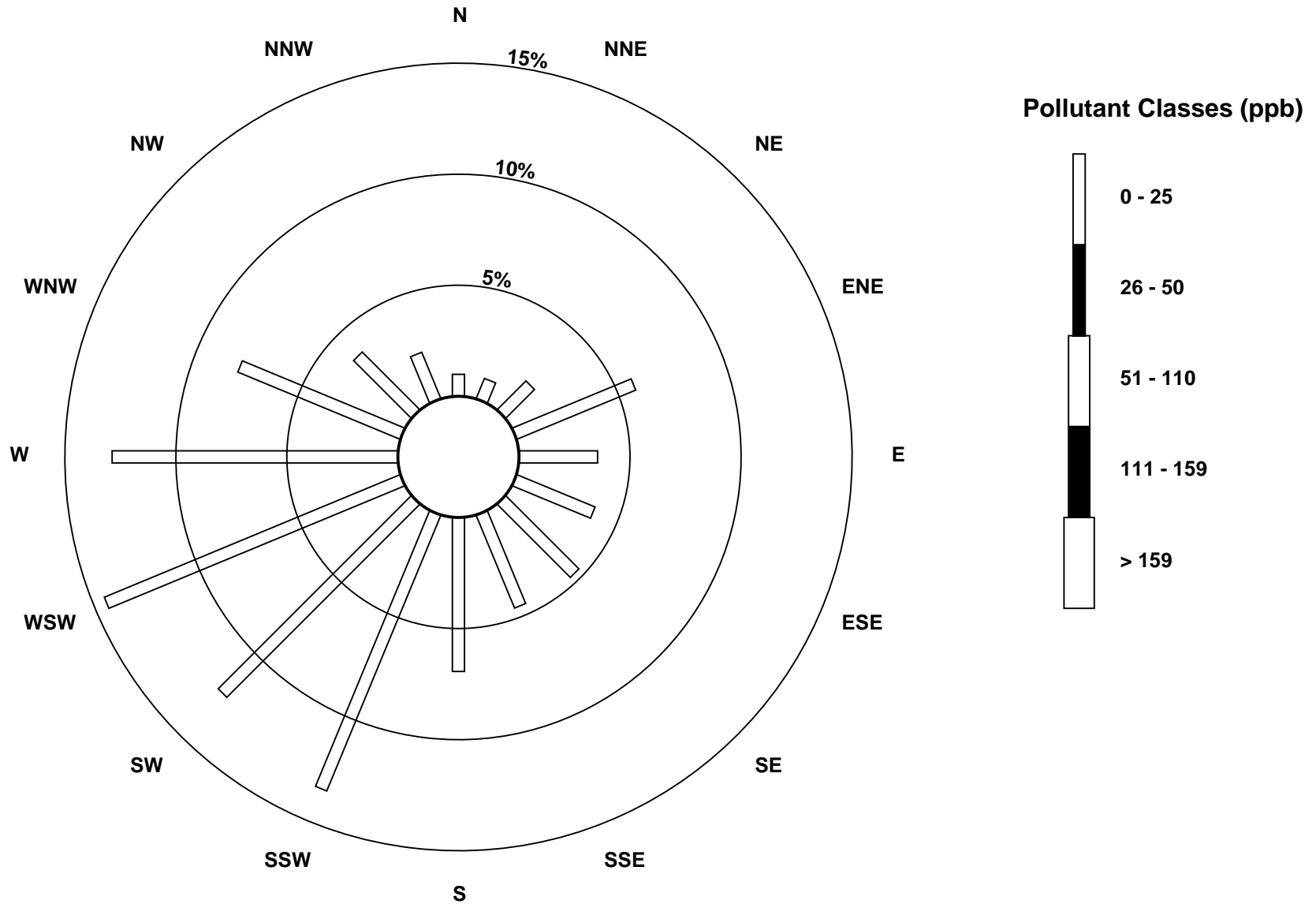
# Hourly Maximums

**Nitrogen Dioxide (NO<sub>2</sub>) - ppb**  
**Henry Pirker - August 2015**



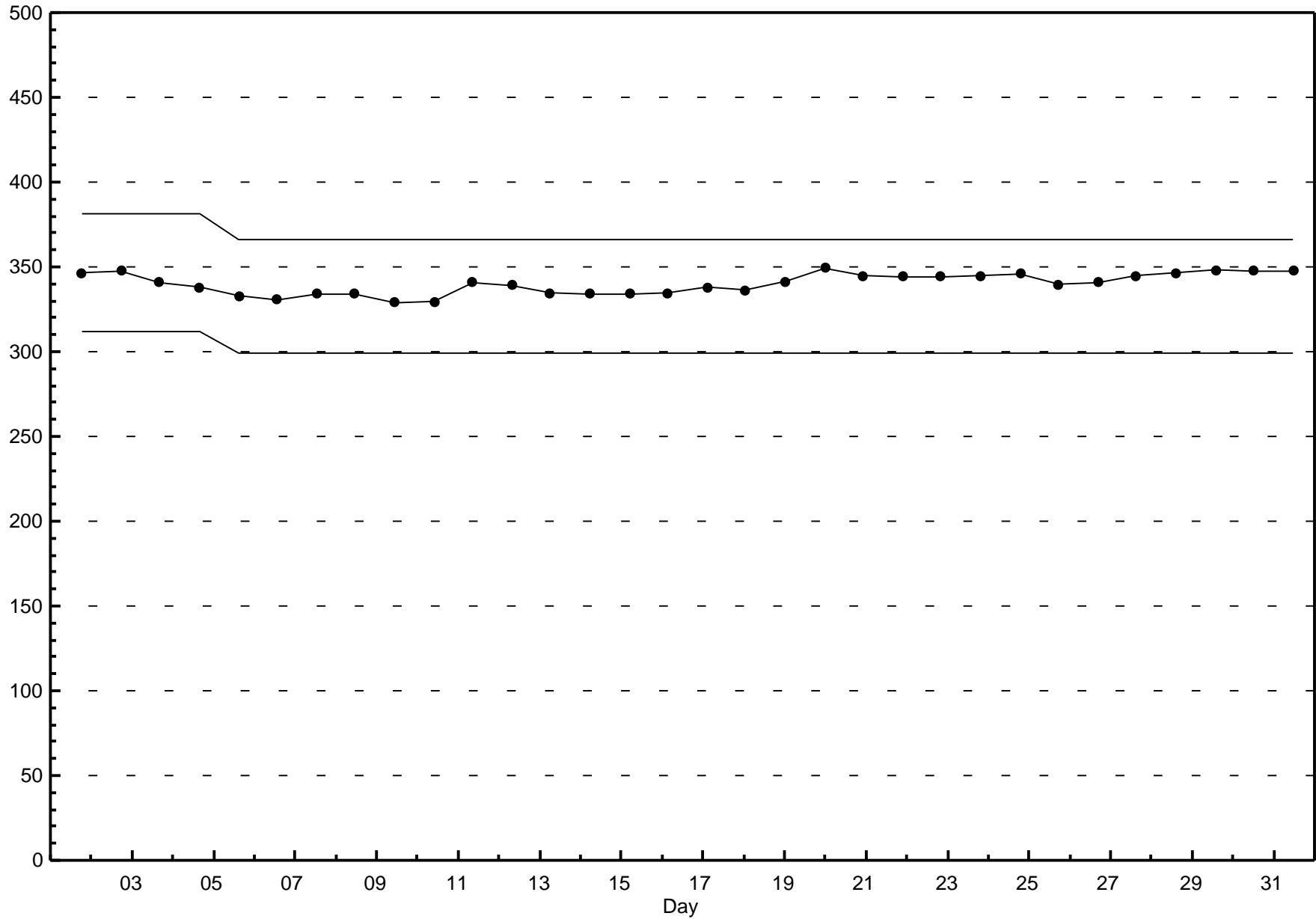
**Pollutant Rose**

**Nitrogen Dioxide (NO<sub>2</sub>) - ppb**  
**Henry Pirker - August 2015**



### Span Responses

**Nitrogen Dioxide (NO<sub>2</sub>)**  
**Henry Pirker - August 2015**



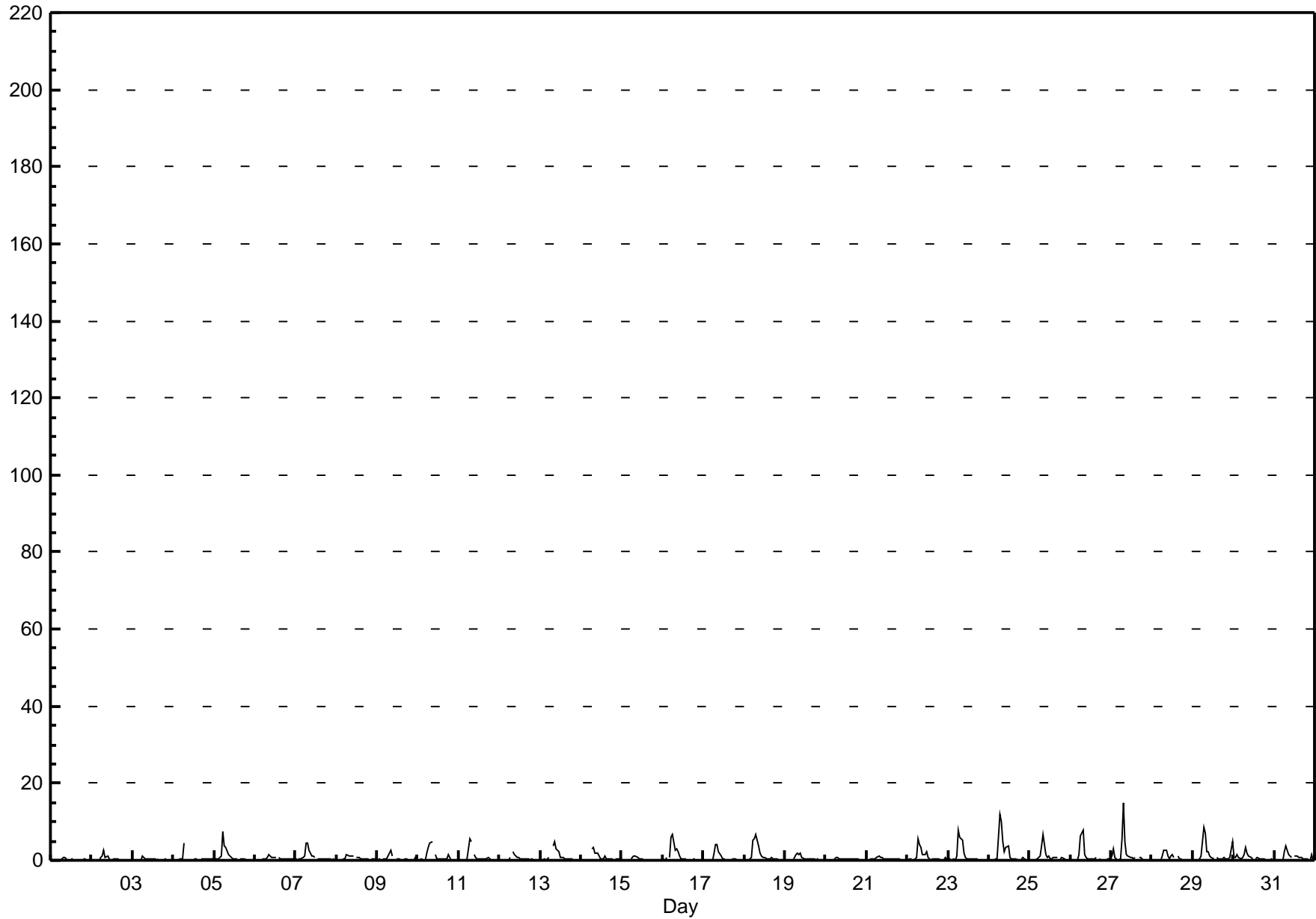
## Hourly Averages

**Nitrogen Oxide (NO) - ppb**  
**Henry Pirker - August 2015**

Number of Exceedences (AAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 14.9 ppb on Aug 27 08:00	Maximum Daily Average: 1.7 ppb on Aug 24		Hours of Data:	707
Minimum Value: 0 ppb on Aug 17 01:00	Minimum Daily Average: 0.2 ppb on Aug 3		Hours of Missing Data:	37
Maximum Diurnal Average: 3.9 ppb at hour 8	Minimum Diurnal Average: 0.1 ppb at hour 22		Hours of Calibration:	37
Monthly Average: 0.77 ppb	Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.1 Median = 0.3 Q <sub>3</sub> = 0.7 P <sub>90</sub> = 1.9 P <sub>99</sub> = 7.3		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-Aug	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	A	A	0	0	0	0	0	0.2	0.9
2-Aug	0	0	0	0	0	1	1	3	1	1	0	0	0	0	0	0	0	A	A	0	0	0	0	0	0.4	2.6
3-Aug	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	A	A	0	0	0	0	0	0	0.2	1.1
4-Aug	0	0	0	0	0	0	4	C	C	C	C	C	0	0	0	A	A	0	0	0	0	0	0	0	0.5	4.3
5-Aug	1	0	0	1	1	7	4	3	1	1	1	1	0	0	A	0	0	0	0	0	0	0	0	0	1.1	7.5
6-Aug	0	0	0	0	0	0	0	1	2	1	1	1	1	A	1	1	1	0	0	0	0	0	0	0	0.5	1.6
7-Aug	0	0	0	0	1	1	4	5	3	1	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0.9	4.5
8-Aug	0	0	0	0	0	0	2	1	1	1	1	A	1	1	0	0	0	0	0	0	0	0	0	0	0.5	1.6
9-Aug	0	0	0	0	0	0	1	2	3	1	A	0	0	0	0	0	0	0	0	0	0	1	0	0.5	2.8	
10-Aug	0	0	0	0	0	2	3	4	5	A	2	1	0	0	0	0	0	0	0	2	0	0	0	0.9	4.8	
11-Aug	0	0	0	0	0	0	6	5	A	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0.7	5.6	
12-Aug	0	0	0	0	0	0	1	A	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.4	2.2	
13-Aug	0	0	0	0	0	1	A	4	5	3	3	2	1	1	0	0	0	0	0	0	0	0	0	0.9	4.7	
14-Aug	0	0	0	0	0	A	3	3	2	2	2	0	0	0	1	1	0	0	0	0	0	0	0	0.8	3.5	
15-Aug	0	0	0	0	A	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.3	
16-Aug	0	0	1	A	1	6	7	3	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	1.1	6.7	
17-Aug	0	0	A	0	0	0	2	4	4	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0.7	4.0	
18-Aug	0	A	0	0	1	5	5	7	4	2	1	1	1	0	0	0	1	0	0	0	0	0	0	1.3	6.8	
19-Aug	A	0	0	0	0	0	1	2	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0.5	2.0	
20-Aug	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	1	0	0	0	0	0	A	A	0.3	0.9	
21-Aug	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0.4	1.0	
22-Aug	0	0	0	0	0	1	6	4	3	2	2	2	1	0	0	0	0	0	0	0	A	A	1	1.0	5.7	
23-Aug	0	0	0	0	0	1	8	6	5	2	1	0	0	0	0	0	0	0	0	A	0	0	0	1.1	7.8	
24-Aug	0	0	0	0	0	0	12	10	5	2	3	4	1	0	0	0	0	0	A	0	1	0	0	1.7	11.8	
25-Aug	0	0	0	0	0	1	1	4	7	1	1	1	0	0	1	1	1	A	0	1	0	0	0	0.9	6.6	
26-Aug	0	0	0	0	0	2	6	8	2	1	0	0	0	0	0	1	A	0	0	0	0	0	0	1.0	7.8	
27-Aug	1	3	1	0	0	0	6	15	5	2	1	1	1	1	1	A	1	1	0	0	0	0	0	1.7	14.9	
28-Aug	0	0	0	0	0	0	1	3	3	1	1	1	1	1	A	1	0	0	0	0	0	0	0	0.6	2.8	
29-Aug	0	0	0	0	0	1	9	7	2	2	1	1	1	A	1	0	0	0	1	0	0	1	5	1.5	8.7	
30-Aug	1	1	1	1	0	1	2	3	2	1	1	1	A	1	1	0	0	0	0	0	0	0	0	0.8	3.2	
31-Aug	0	0	0	0	0	0	2	4	1	1	1	A	1	1	1	1	1	0	0	0	0	0	1	0.7	3.8	
	0.2	0.2	0.2	0.2	0.2	1.1	3.3	3.9	2.6	1.4	1.0	0.7	0.5	0.4	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.2	0.3	Diurnal Average	
	1.3	2.8	1.5	0.8	1.1	7.5	11.8	14.9	6.6	3.1	3.2	3.6	1.5	1.0	1.0	1.1	0.8	0.6	1.5	0.6	0.6	0.3	1.3	4.7	Diurnal Maximum	

C - Calibration                      A - Automated Daily Zero Span



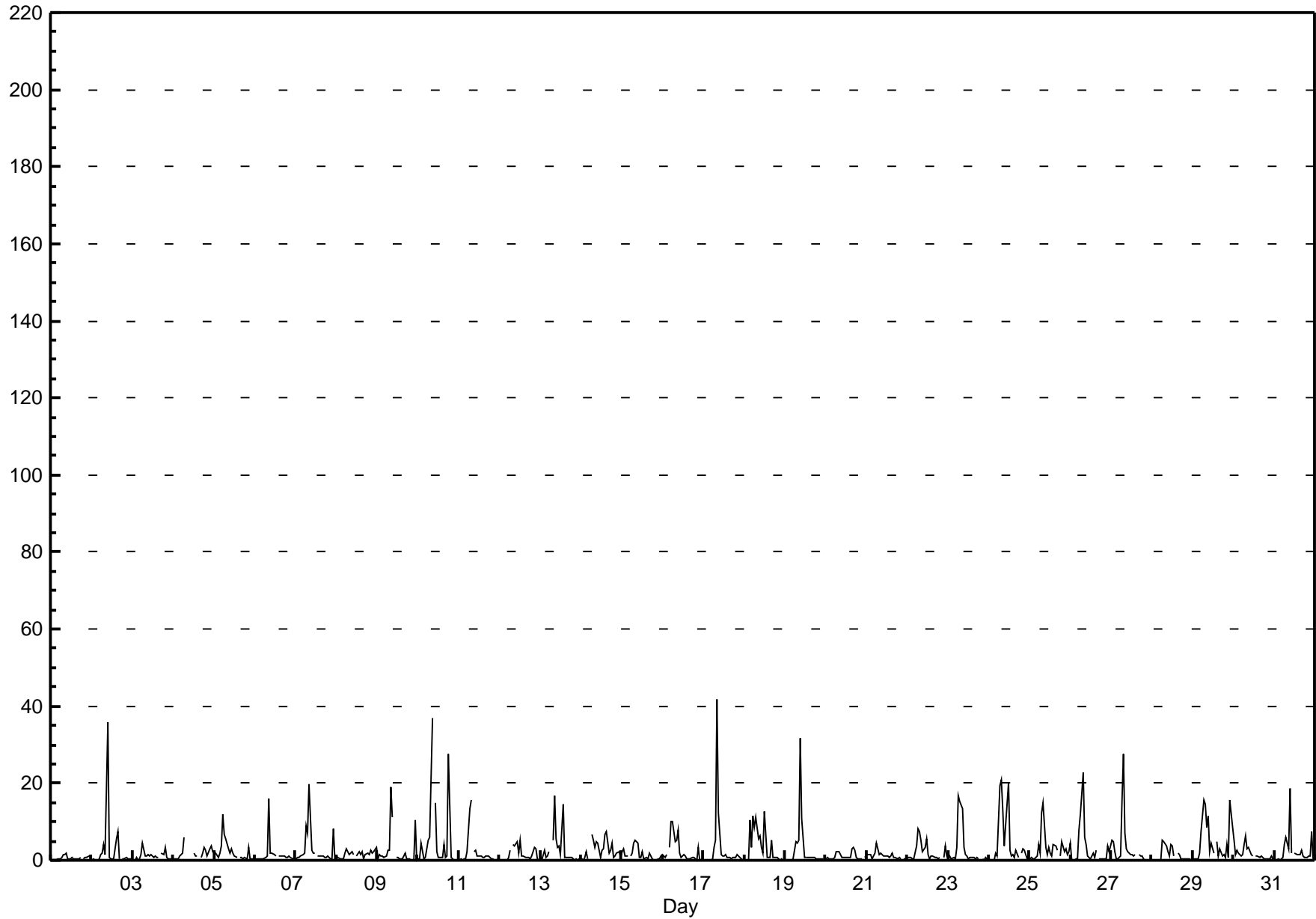
## Hourly Maximums

**Nitrogen Oxide (NO) - ppb**  
**Henry Pirker - August 2015**

Maximum Value: 41.8 ppb on Aug 17 09:00		Maximum Daily Average: 4.8 ppb on Aug 10		Hours in Service: 744																							
Minimum Value: 0 ppb on Aug 17 01:00		Minimum Daily Average: 0.6 ppb on Aug 1		Hours of Data: 707																							
Maximum Diurnal Average: 9.3 ppb at hour 9		Minimum Diurnal Average: 0.8 ppb at hour 2		Hours of Missing Data: 37																							
Monthly Average: 2.49 ppb		Percentiles: P <sub>1</sub> = 0.1 P <sub>10</sub> = 0.2 Q <sub>1</sub> = 0.4 Median = 1.0 Q <sub>3</sub> = 2.4 P <sub>90</sub> = 5.4 P <sub>99</sub> = 20.0		Hours of Calibration: 37																							
				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-Aug	0	0	0	0	0	0	1	2	1	2	0	0	1	0	0	0	0	1	A	0	1	1	1	1	0.6	1.9	
2-Aug	0	1	0	0	1	2	2	4	1	36	1	0	0	0	5	8	0	A	0	0	1	0	0	0	2.7	35.8	
3-Aug	0	0	1	0	0	2	4	1	1	2	1	1	1	1	1	1	A	2	2	3	1	0	0	0	1.1	4.4	
4-Aug	0	1	0	0	1	2	6	C	C	C	C	C	2	1	1	A	1	2	3	3	1	3	4	2	1.9	6.1	
5-Aug	2	2	1	2	4	12	7	5	3	2	3	2	1	1	A	1	1	1	1	0	4	0	0	0	2.3	12.1	
6-Aug	0	0	0	0	0	0	1	1	16	2	2	2	1	A	1	1	1	1	1	1	1	1	1	1	1.5	16.1	
7-Aug	1	1	1	1	2	2	9	7	20	3	2	2	A	1	1	1	1	1	1	1	0	0	8	1	2.9	19.9	
8-Aug	1	1	0	1	0	2	3	2	2	2	1	A	A	1	2	2	1	1	2	1	3	2	2	3	1.6	3.3	
9-Aug	0	1	1	1	1	1	3	3	19	11	A	1	1	0	0	0	2	0	0	0	0	10	0	0	2.5	18.9	
10-Aug	0	0	5	0	1	3	5	6	37	A	15	2	1	1	1	4	1	1	28	1	0	0	0	0	4.8	36.7	
11-Aug	0	0	0	0	0	2	13	16	A	2	3	1	1	1	1	1	1	1	1	0	0	0	0	0	2.0	15.5	
12-Aug	0	0	0	0	0	1	2	A	4	4	5	2	5	1	1	1	1	1	0	1	3	3	0	0	1.5	5.1	
13-Aug	0	0	3	1	1	2	A	5	17	6	3	4	1	15	1	1	1	1	1	0	0	0	0	0	2.8	16.8	
14-Aug	0	0	1	2	0	A	7	5	3	5	5	1	3	3	7	8	2	3	4	1	1	2	2	1	2.8	7.6	
15-Aug	2	3	1	1	A	1	2	5	5	5	1	1	2	0	1	0	2	1	0	0	0	0	0	1	1.5	5.2	
16-Aug	1	1	1	A	3	10	10	5	5	8	2	1	2	1	0	0	1	1	1	0	0	3	0	0	2.5	10.0	
17-Aug	0	0	A	0	0	0	3	5	42	12	1	1	1	1	1	1	1	1	1	1	1	0	0	0	3.3	41.8	
18-Aug	0	A	0	10	3	11	9	11	5	6	3	2	13	1	1	1	5	1	1	1	0	0	0	0	3.7	12.7	
19-Aug	A	0	0	0	0	0	5	5	5	32	11	1	1	1	1	1	1	1	0	0	0	0	0	A	3.0	31.8	
20-Aug	0	1	0	0	1	1	2	2	2	1	1	1	1	1	1	3	3	3	1	0	0	0	A	1	1.1	3.5	
21-Aug	1	1	1	0	1	2	5	1	2	2	1	1	1	1	1	2	1	1	1	1	0	A	0	0	1.2	4.6	
22-Aug	1	1	1	0	0	4	8	7	5	2	3	6	2	0	1	1	1	1	0	1	A	1	4	1	2.2	8.2	
23-Aug	0	1	0	1	0	3	17	15	13	3	1	1	0	1	1	1	0	1	0	A	0	0	1	0	2.7	16.7	
24-Aug	0	0	0	0	2	1	19	21	13	4	9	20	3	1	1	1	2	1	A	2	3	3	0	0	4.7	20.8	
25-Aug	0	1	0	0	1	4	2	12	15	3	1	3	2	1	4	4	3	A	1	5	2	3	2	2	3.2	14.8	
26-Aug	4	0	0	0	0	8	12	23	6	4	1	1	0	2	1	3	A	0	0	0	0	0	4	2	3.1	22.8	
27-Aug	5	5	2	1	0	1	16	28	7	3	2	2	2	1	2	A	1	1	1	0	0	0	0	0	3.5	27.5	
28-Aug	0	0	0	0	0	0	5	5	4	2	1	4	4	1	A	2	1	1	0	0	0	0	0	0	1.4	5.3	
29-Aug	0	0	0	0	2	8	16	15	9	12	2	5	2	A	5	1	3	1	2	1	4	1	16	9	4.8	15.8	
30-Aug	5	2	3	2	1	2	4	6	3	3	2	1	A	1	1	1	1	1	0	0	0	0	1	0	1.8	6.3	
31-Aug	0	0	0	0	0	1	4	6	3	19	2	A	2	2	2	2	3	1	1	1	1	1	7	1	2.4	18.5	
		0.9	0.8	0.8	0.9	0.9	2.9	6.7	7.9	9.3	6.8	3.0	2.4	1.9	1.5	1.5	1.7	1.4	1.0	1.9	0.9	1.0	0.9	2.2	0.9	Diurnal Average	
		5.4	4.9	4.6	10.4	3.7	12.1	19.5	27.5	41.8	35.8	15.1	20.1	12.7	14.7	6.7	7.6	5.3	2.7	27.7	5.0	4.0	3.5	15.6	8.5	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

### Hourly Maximums

**Nitrogen Oxide (NO) - ppb**  
**Henry Pirker - August 2015**







Peace Airshed Zone Association

# Hourly Averages

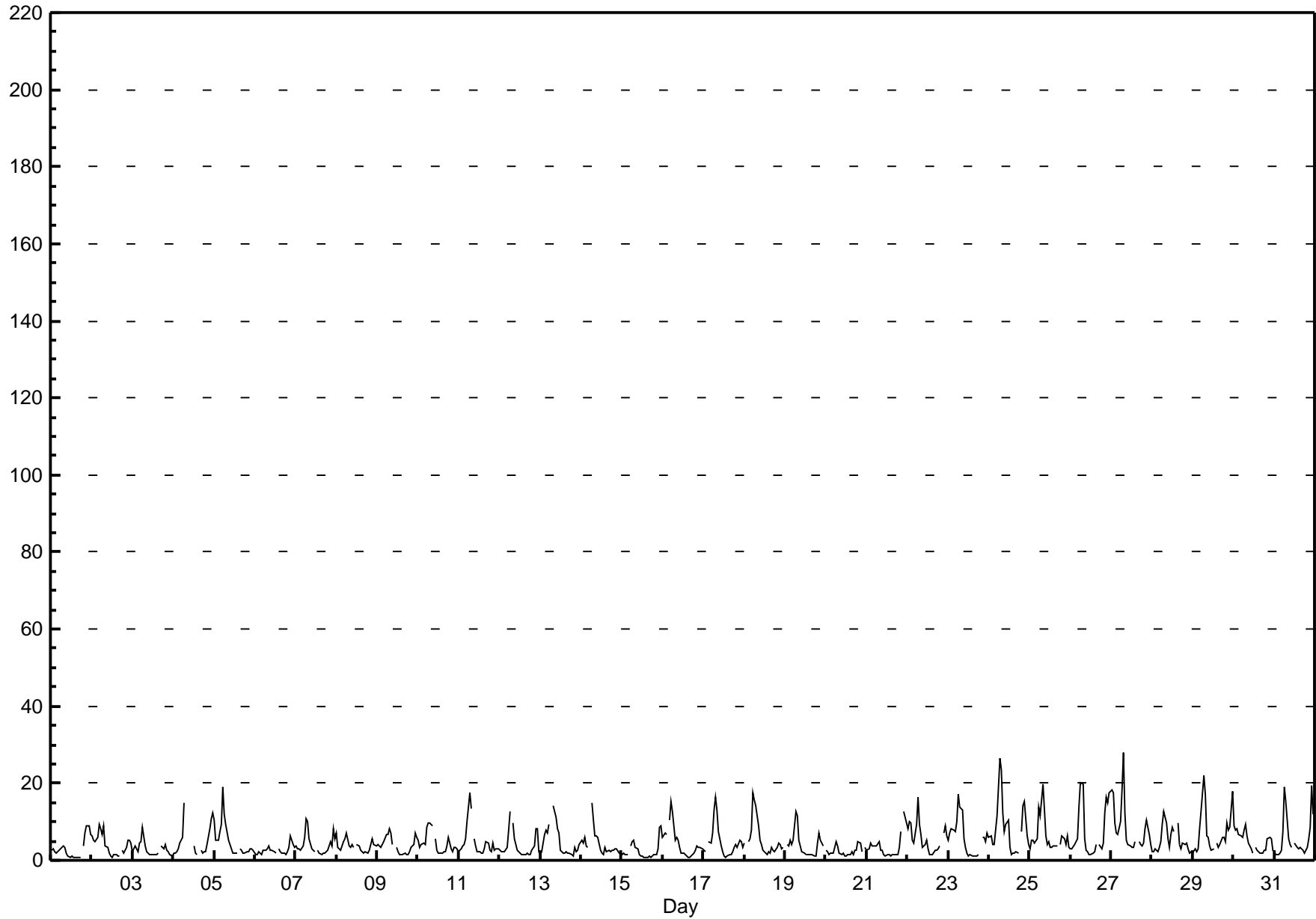
Oxides of Nitrogen (NO<sub>x</sub>) - ppb

Henry Pirker - August 2015

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 27.9 ppb on Aug 27 08:00	Maximum Daily Average: 8.6 ppb on Aug 27		Hours of Data:	707
Minimum Value: 1 ppb on Aug 1 17:00	Minimum Daily Average: 2.4 ppb on Aug 20		Hours of Missing Data:	37
Maximum Diurnal Average: 12.1 ppb at hour 7	Minimum Diurnal Average: 2.1 ppb at hour 15		Hours of Calibration:	37
Monthly Average: 4.81 ppb	Percentiles: P <sub>1</sub> = 0.8 P <sub>10</sub> = 1.5 Q <sub>1</sub> = 2.1 Median = 3.5 Q <sub>3</sub> = 5.9 P <sub>90</sub> = 9.8 P <sub>99</sub> = 19.5		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-Aug	3	3	2	2	2	3	4	4	3	2	1	1	1	1	1	1	1	1	A	4	7	9	9	7	3.0	9.0
2-Aug	6	5	5	6	9	8	7	9	4	3	2	1	1	2	1	1	1	A	3	2	3	5	5	4	4.1	9.3
3-Aug	2	4	3	2	5	5	9	4	2	2	1	1	2	2	1	2	A	4	3	4	3	2	1	1	2.8	8.6
4-Aug	2	2	2	3	4	6	15	C	C	C	C	C	4	2	2	A	3	2	2	2	4	8	11	12	4.8	14.8
5-Aug	11	5	5	8	9	19	12	9	5	4	3	2	2	2	A	3	3	2	2	2	2	3	3	3	5.2	19.1
6-Aug	2	2	2	2	2	3	2	3	4	3	3	2	2	A	3	2	2	2	2	2	3	6	4	3	2.6	6.3
7-Aug	4	3	3	3	4	6	11	10	6	3	3	2	A	3	2	2	2	2	2	3	5	4	8	5	4.1	10.8
8-Aug	7	4	3	4	5	6	7	4	3	4	3	A	4	4	3	2	2	2	2	2	4	6	4	4	3.8	7.1
9-Aug	4	4	4	4	5	7	7	8	7	4	A	3	2	1	1	2	2	2	2	2	3	4	7	6	3.9	8.3
10-Aug	5	3	4	4	4	9	10	10	9	A	5	3	2	2	2	2	2	2	4	6	3	2	3	3	4.4	9.8
11-Aug	2	3	4	4	6	10	17	14	A	6	4	2	2	2	2	3	5	4	2	2	5	3	3	3	4.7	17.4
12-Aug	3	2	2	2	3	8	13	A	10	6	3	2	2	1	2	2	2	1	1	3	4	8	8	2	3.9	12.8
13-Aug	2	2	7	8	7	9	A	14	13	11	8	7	3	2	2	2	2	2	1	1	3	2	2	4	5.0	14.3
14-Aug	5	5	6	4	3	A	15	11	6	6	6	3	2	2	3	2	2	2	3	3	3	3	2	2	4.3	14.9
15-Aug	2	2	2	1	A	4	5	5	4	3	1	1	1	1	1	1	1	1	1	1	1	3	8	9	2.6	8.8
16-Aug	6	7	7	A	10	15	13	5	6	5	3	2	2	2	1	1	1	1	2	3	4	3	3	3	4.6	15.4
17-Aug	3	2	A	5	5	7	13	16	13	8	4	2	1	1	1	1	2	2	4	4	3	5	5	3	4.8	16.5
18-Aug	4	A	5	6	8	17	16	14	9	5	4	3	2	2	2	3	3	2	3	4	4	3	4	4	5.5	17.4
19-Aug	A	4	4	5	4	5	13	11	5	4	2	2	1	1	2	1	1	1	1	4	7	5	4	A	4.0	12.7
20-Aug	3	2	2	2	2	3	5	4	2	2	2	1	1	1	2	2	2	2	2	5	4	2	A	3	2.4	4.7
21-Aug	3	3	5	4	4	4	4	5	3	3	2	1	1	1	1	2	1	1	2	3	8	A	13	10	3.5	12.5
22-Aug	8	10	10	5	4	9	16	9	7	4	4	5	3	2	1	2	3	3	3	4	A	7	9	6	5.8	16.4
23-Aug	5	7	8	8	7	10	17	14	13	5	3	2	1	1	1	1	1	1	1	A	6	6	5	7	5.7	17.0
24-Aug	6	6	4	4	8	12	26	23	12	7	9	10	3	2	2	2	2	2	A	8	14	15	6	4	8.2	26.4
25-Aug	3	5	5	4	6	14	12	16	20	7	4	5	3	3	4	4	4	A	4	6	6	4	6	3	6.4	19.8
26-Aug	3	3	4	5	6	14	20	20	5	3	2	2	1	2	2	4	A	4	3	4	12	16	15	18	7.3	20.2
27-Aug	18	17	10	7	7	10	18	28	12	5	4	4	3	3	5	A	5	4	4	5	8	11	7	4	8.6	27.9
28-Aug	2	2	3	2	3	5	9	13	10	6	3	7	9	7	A	10	4	3	5	4	5	3	2	2	5.1	12.5
29-Aug	2	3	2	3	8	13	22	17	6	6	4	3	3	A	5	3	4	6	6	5	10	8	9	18	7.2	21.9
30-Aug	9	8	8	7	6	6	8	9	6	4	3	2	A	3	3	2	2	2	2	3	6	6	5	3	4.9	9.2
31-Aug	2	2	1	2	3	7	19	15	6	4	3	A	4	3	3	3	3	3	2	3	6	8	19	12	5.8	19.2
	4.5	4.4	4.3	4.2	5.3	8.4	12.1	11.2	7.3	4.6	3.4	2.9	2.4	2.1	2.1	2.3	2.3	2.3	2.5	3.4	5.2	5.8	6.4	5.6	Diurnal Average	
	18.4	17.4	9.6	7.9	10.3	19.1	26.4	27.9	19.8	11.2	9.2	10.3	8.6	7.4	4.8	9.7	4.8	5.8	6.0	7.6	14.1	16.5	19.2	17.8	Diurnal Maximum	

C - Calibration                      A - Automated Daily Zero Span



# Hourly Maximums

Oxides of Nitrogen (NO<sub>x</sub>) - ppb

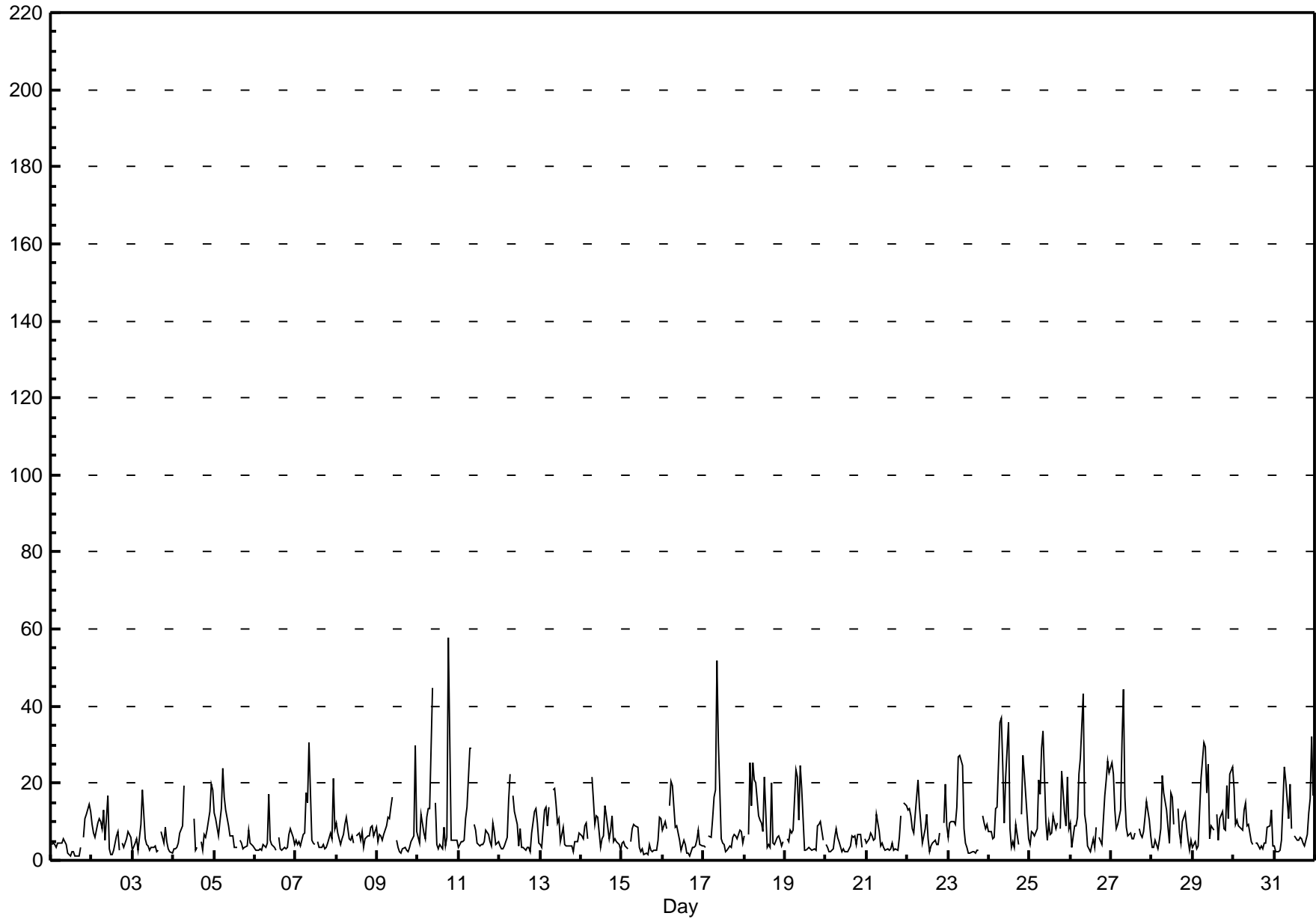
Henry Pirker - August 2015

Maximum Value: 57.7 ppb on Aug 10 19:00		Maximum Daily Average: 14.3 ppb on Aug 24		Hours in Service: 744																							
Minimum Value: 1 ppb on Aug 1 17:00		Minimum Daily Average: 4.4 ppb on Aug 20		Hours of Data: 707																							
Maximum Diurnal Average: 18.5 ppb at hour 7		Minimum Diurnal Average: 4.1 ppb at hour 14		Hours of Missing Data: 37																							
Monthly Average: 8.49 ppb		Percentiles: P <sub>1</sub> = 1.5 P <sub>10</sub> = 2.7 Q <sub>1</sub> = 3.9 Median = 6.1 Q <sub>3</sub> = 10.1 P <sub>90</sub> = 18.3 P <sub>99</sub> = 35.3		Hours of Calibration: 37																							
				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-Aug	4	5	4	3	5	5	4	6	5	4	2	1	2	2	1	1	1	3	A	6	11	12	15	13	5.0	14.5	
2-Aug	9	7	6	10	11	10	8	13	5	17	3	2	2	3	6	8	3	A	5	3	6	8	7	6	6.8	16.6	
3-Aug	3	4	5	3	6	9	18	6	4	4	3	3	3	4	2	3	A	7	4	9	5	3	2	2	4.9	18.4	
4-Aug	3	3	3	4	7	9	19	C	C	C	C	C	11	3	3	A	5	3	7	6	8	13	20	18	8.1	19.8	
5-Aug	12	11	6	10	14	24	16	13	9	6	6	6	3	3	A	5	4	3	3	4	8	5	4	4	7.9	24.0	
6-Aug	3	3	3	3	3	4	3	4	17	5	4	3	3	A	6	3	3	3	3	4	7	8	6	4	4.5	17.3	
7-Aug	5	4	5	4	7	7	18	15	31	5	4	4	A	5	3	3	4	3	4	4	7	6	21	8	7.7	30.6	
8-Aug	10	7	4	5	7	9	11	6	5	6	4	A	6	7	5	7	3	5	6	6	8	9	7	9	6.7	11.0	
9-Aug	5	7	6	5	7	9	11	11	14	16	A	5	3	2	2	3	4	3	2	3	5	6	30	7	7.3	29.8	
10-Aug	6	4	12	7	6	11	14	14	45	A	15	4	3	4	3	9	4	6	58	5	5	5	5	5	10.8	57.7	
11-Aug	4	5	5	5	11	14	29	29	A	9	8	4	4	4	4	5	8	7	5	4	10	7	4	5	8.2	29.3	
12-Aug	4	3	3	4	6	16	22	A	17	13	9	4	8	3	3	3	3	3	2	7	13	13	10	5	7.5	22.4	
13-Aug	4	3	13	14	9	14	A	18	19	15	10	11	5	9	4	4	4	4	4	2	5	5	5	7	8.1	18.8	
14-Aug	6	6	9	10	6	A	22	16	9	12	11	4	6	6	14	12	6	8	12	5	5	5	4	3	8.4	21.5	
15-Aug	5	5	4	3	A	5	8	9	9	9	3	2	3	1	2	1	4	3	2	3	2	5	11	11	4.8	11.1	
16-Aug	8	10	8	A	14	20	19	9	9	7	5	2	5	4	2	2	1	3	3	4	5	8	4	4	6.9	20.4	
17-Aug	4	4	A	6	6	11	16	18	52	31	5	5	4	2	3	4	3	6	7	6	6	8	7	4	9.5	52.0	
18-Aug	6	A	7	25	14	25	21	20	11	10	10	8	22	3	4	3	20	4	4	6	6	5	4	5	10.7	25.3	
19-Aug	A	6	5	8	7	8	24	22	10	25	19	3	3	3	3	3	3	3	2	9	9	10	5	A	8.6	24.6	
20-Aug	4	4	2	2	3	6	8	6	5	2	3	2	2	2	4	6	6	6	4	7	7	3	A	6	4.4	8.2	
21-Aug	4	6	7	6	5	5	12	7	4	4	3	2	3	2	3	4	3	3	3	6	12	A	15	14	5.9	14.9	
22-Aug	13	13	12	8	7	16	21	14	9	4	8	12	6	2	4	4	5	4	4	7	A	10	20	9	9.3	21.0	
23-Aug	6	10	10	10	9	14	27	27	25	8	5	3	2	2	2	2	2	3	3	A	12	10	8	9	9.1	27.2	
24-Aug	8	7	6	6	14	14	36	37	24	10	22	36	8	3	5	3	9	4	A	12	27	22	11	6	14.3	36.8	
25-Aug	4	8	7	6	8	21	17	29	33	10	5	10	7	7	12	8	10	A	8	23	12	9	22	8	12.4	33.5	
26-Aug	10	3	9	9	11	22	26	43	12	9	4	3	2	6	3	9	A	6	4	10	17	21	26	23	12.5	43.4	
27-Aug	26	22	13	8	9	13	31	45	16	8	6	7	6	6	7	A	8	7	6	7	11	15	10	6	12.9	44.5	
28-Aug	3	3	5	3	5	8	22	18	13	9	4	18	16	9	A	13	7	5	10	12	8	5	3	5	8.9	22.2	
29-Aug	3	5	3	4	12	21	31	29	17	25	6	9	8	A	12	5	11	13	8	8	20	11	22	24	13.4	30.7	
30-Aug	18	9	11	9	8	8	13	15	9	9	5	4	A	5	4	3	4	3	4	5	9	9	13	4	7.8	18.5	
31-Aug	4	2	2	3	5	15	24	20	11	20	8	A	6	5	5	6	6	5	4	7	12	16	32	17	10.2	32.1	
		6.8	6.3	6.5	6.8	8.0	12.5	18.5	17.9	15.6	10.8	7.0	6.3	5.6	4.1	4.6	4.9	5.2	4.7	6.6	6.7	9.2	9.1	11.8	8.3	Diurnal Average	
		25.5	22.4	13.1	25.2	14.2	25.3	35.9	44.5	52.0	30.6	21.7	35.6	21.8	9.2	14.2	13.3	20.1	12.6	57.7	23.1	27.1	22.2	32.1	24.1	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

### Hourly Maximums

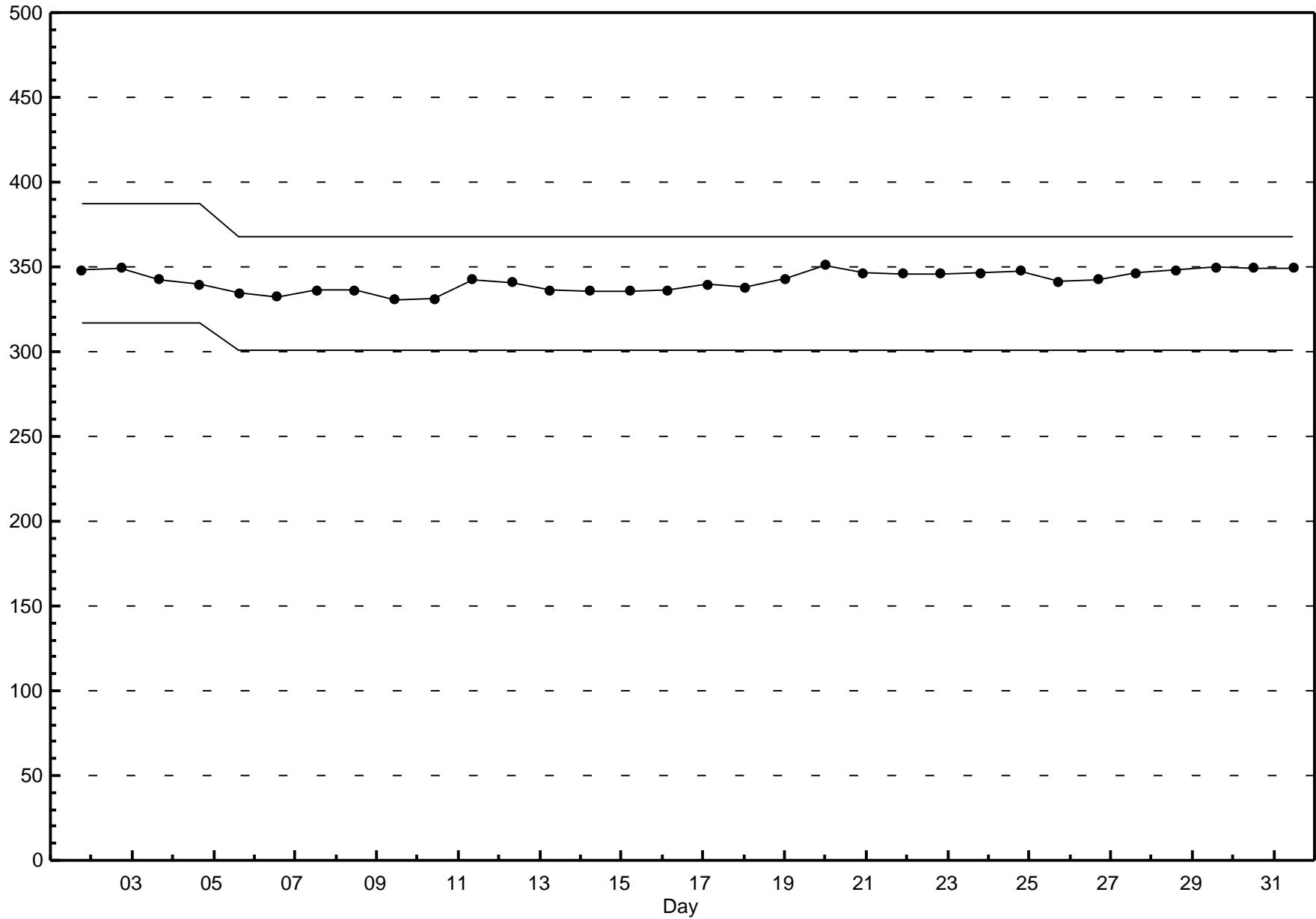
Oxides of Nitrogen (NO<sub>x</sub>) - ppb

Henry Pirker - August 2015



### Span Responses

Oxides of Nitrogen (NO<sub>x</sub>)  
Henry Pirker - August 2015



## Hourly Averages

Ozone (O<sub>3</sub>) - ppb

Henry Pirker - August 2015

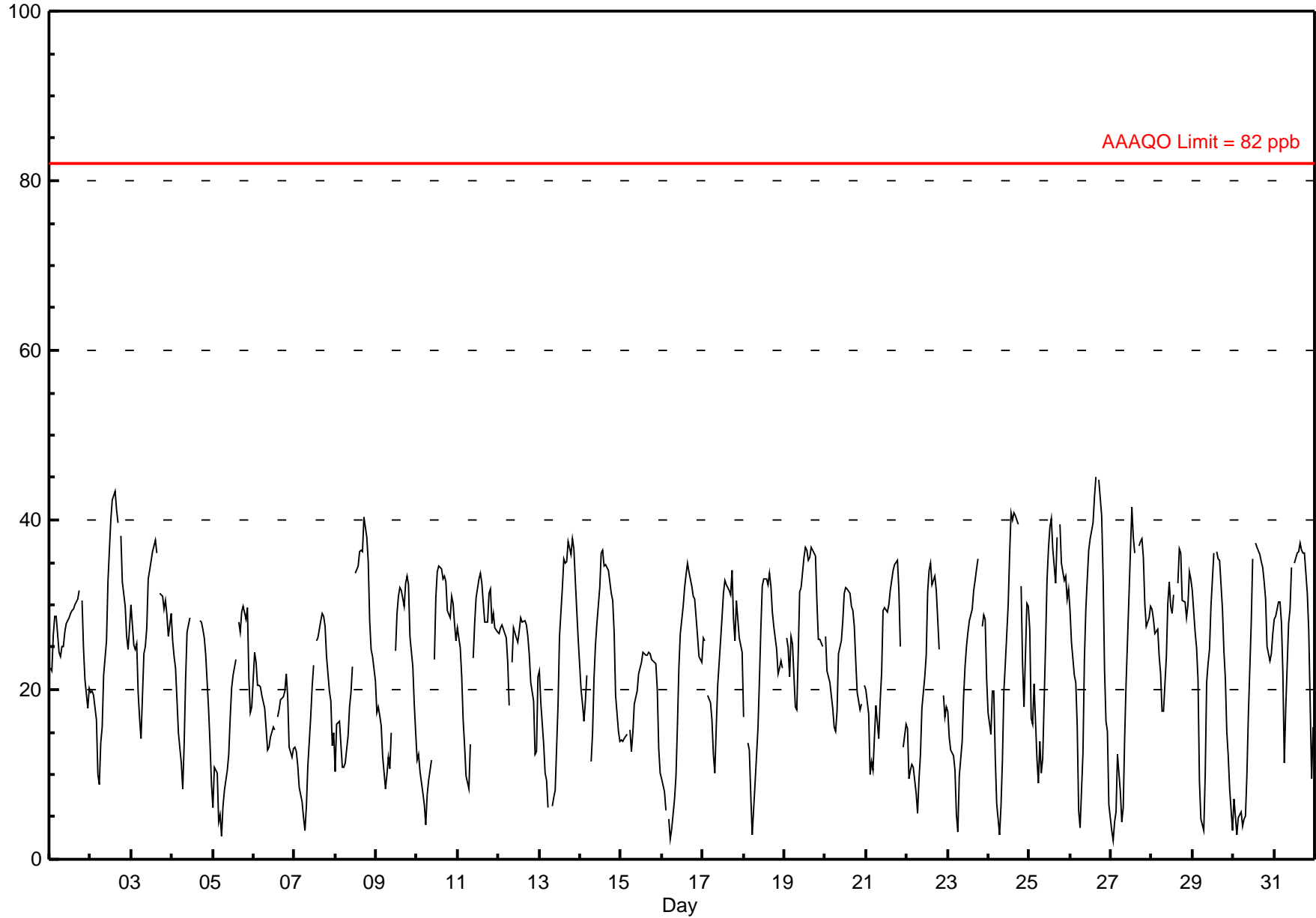
Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 45.0 ppb on Aug 26 16:00	Maximum Daily Average: 29.2 ppb on Aug 19		Hours of Data:	708
Minimum Value: 2 ppb on Aug 27 02:00	Minimum Daily Average: 16.8 ppb on Aug 5		Hours of Missing Data:	36
Maximum Diurnal Average: 33.4 ppb at hour 15	Minimum Diurnal Average: 10.4 ppb at hour 7		Hours of Calibration:	36
Monthly Average: 23.28 ppb	Percentiles: P <sub>1</sub> = 3.4 P <sub>10</sub> = 9.8 Q <sub>1</sub> = 15.6 Median = 24.7 Q <sub>3</sub> = 30.7 P <sub>90</sub> = 35.4 P <sub>99</sub> = 41.1		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-Aug	22	22	27	29	29	24	24	25	25	27	28	28	29	29	29	30	31	32	A	31	25	21	18	20	26.3	31.7																						
2-Aug	20	20	19	16	10	9	14	16	22	26	33	36	40	42	43	41	40	A	38	33	30	26	25	27	27.2	43.4																						
3-Aug	30	25	25	25	20	17	14	24	25	27	33	34	36	37	38	36	A	31	31	29	30	29	26	29	28.4	37.6																						
4-Aug	26	24	22	19	15	11	8	14	21	27	28	C	C	C	C	A	28	28	27	26	24	18	14	9	20.5	28.5																						
5-Aug	6	11	10	4	5	3	6	8	11	12	17	20	22	24	A	28	27	29	30	28	30	21	17	18	16.8	29.9																						
6-Aug	24	23	21	21	20	19	18	15	13	13	14	16	15	A	17	18	19	19	20	22	19	13	12	13	17.6	24.4																						
7-Aug	13	13	11	8	7	5	3	6	11	17	20	23	A	26	26	28	29	29	28	24	20	19	13	15	17.1	28.9																						
8-Aug	10	16	16	14	11	11	11	15	18	20	23	A	34	35	36	36	36	40	38	35	28	25	24	21	24.0	40.3																						
9-Aug	17	18	17	16	12	8	10	12	11	15	A	25	29	31	32	32	30	33	33	32	26	23	18	15	21.5	33.3																						
10-Aug	12	12	10	8	6	4	8	9	12	A	24	31	34	35	34	33	33	33	33	29	28	31	30	28	26	22.2	34.6																					
11-Aug	27	25	21	17	13	10	8	14	A	24	28	31	33	34	32	30	28	28	31	32	28	29	27	27	25.1	33.7																						
12-Aug	27	27	28	27	26	23	18	A	23	27	26	26	27	28	28	28	28	26	24	21	19	12	13	22	24.1	28.4																						
13-Aug	22	19	14	10	9	6	A	6	7	8	13	18	26	32	35	35	35	37	36	38	37	33	29	26	23.2	37.8																						
14-Aug	20	18	16	19	22	A	12	15	21	25	28	32	36	36	35	35	34	33	31	31	27	19	15	14	24.9	36.4																						
15-Aug	14	14	14	15	A	15	13	15	18	20	22	23	23	24	24	24	24	24	24	23	23	20	13	10	19.1	24.4																						
16-Aug	10	8	6	A	5	2	3	7	10	16	23	27	30	32	34	35	34	32	31	31	28	26	24	23	20.7	34.9																						
17-Aug	26	26	A	19	19	16	12	10	16	21	26	28	31	33	32	32	31	34	28	26	31	26	25	24	24.9	34.1																						
18-Aug	17	A	14	13	8	3	6	9	16	21	27	32	33	33	32	34	32	29	27	25	22	23	23	23	21.8	33.8																						
19-Aug	A	26	25	22	26	25	18	18	24	31	32	36	37	36	35	36	37	36	36	30	26	26	25	A	29.2	36.8																						
20-Aug	26	22	22	21	18	16	15	17	24	26	28	31	32	32	31	30	29	28	23	20	18	18	A	21	23.8	32.1																						
21-Aug	20	17	10	11	11	14	18	14	19	22	29	30	29	30	32	33	34	35	35	32	25	A	13	16	23.0	35.3																						
22-Aug	15	9	11	11	11	8	5	9	12	18	22	24	32	34	35	32	33	32	28	25	A	19	17	18	20.1	34.9																						
23-Aug	17	14	13	12	11	5	3	10	14	19	23	25	27	28	29	32	33	34	35	A	27	29	28	21	21.4	35.4																						
24-Aug	17	15	20	20	12	7	3	6	12	20	23	30	36	41	40	41	40	39	A	32	23	18	30	30	24.1	40.9																						
25-Aug	27	17	16	21	12	9	14	10	12	25	33	37	39	40	37	33	38	A	39	35	33	33	31	32	27.0	40.1																						
26-Aug	29	26	22	21	16	6	4	13	23	30	33	36	38	40	43	45	A	45	40	33	22	16	15	6	26.2	45.0																						
27-Aug	3	2	4	6	12	8	4	6	14	21	26	36	41	38	36	A	37	37	38	36	30	27	28	30	22.7	41.5																						
28-Aug	29	28	27	27	24	22	17	18	24	30	33	30	29	31	A	33	37	36	30	30	28	30	34	33	28.7	36.6																						
29-Aug	32	27	25	21	9	5	3	10	21	23	25	30	36	A	36	36	35	30	25	21	15	12	8	3	21.2	36.3																						
30-Aug	7	5	3	5	6	4	5	5	10	17	28	35	A	37	37	36	35	34	33	31	25	23	24	27	20.5	37.2																						
31-Aug	28	29	30	30	28	22	11	18	28	29	34	A	35	36	36	37	36	36	36	31	27	18	10	16	28.0	37.3																						
																								19.9	18.6	17.2	16.9	14.4	11.3	10.4	12.5	17.2	21.9	26.0	28.9	31.8	33.4	33.4	33.0	32.5	32.4	31.3	29.0	25.9	22.8	21.0	20.5	Diurnal Average
																								31.8	28.6	30.3	30.4	28.6	25.4	23.8	25.2	27.7	31.5	34.4	36.5	41.5	42.3	43.4	45.0	40.4	44.8	40.5	37.8	36.6	33.4	33.9	33.1	Diurnal Maximum

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

### Hourly Averages

Ozone (O<sub>3</sub>) - ppb  
Henry Pirker - August 2015



# Hourly Maximums

Ozone (O<sub>3</sub>) - ppb

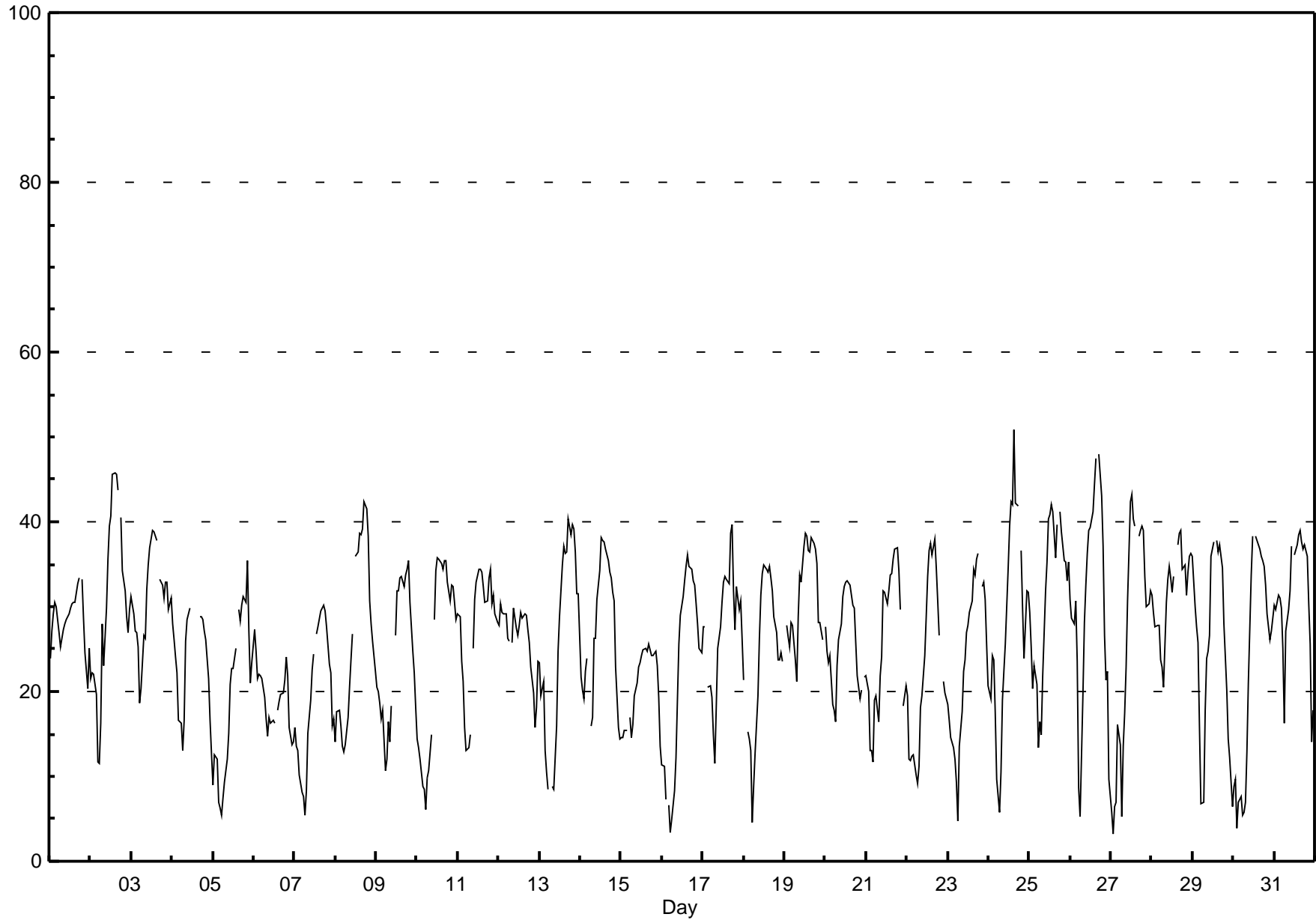
Henry Pirker - August 2015

Maximum Value: 50.9 ppb on Aug 24 16:00		Maximum Daily Average: 31.7 ppb on Aug 28		Hours in Service: 744																						
Minimum Value: 3 ppb on Aug 27 02:00		Minimum Daily Average: 19.2 ppb on Aug 7		Hours of Data: 708																						
Maximum Diurnal Average: 35.2 ppb at hour 15		Minimum Diurnal Average: 13.3 ppb at hour 7		Hours of Missing Data: 36																						
Monthly Average: 25.83 ppb		Percentiles: P <sub>1</sub> = 5.3 P <sub>10</sub> = 12.2 Q <sub>1</sub> = 19.1 Median = 27.1 Q <sub>3</sub> = 33.0 P <sub>90</sub> = 37.4 P <sub>99</sub> = 43.7		Hours of Calibration: 36																						
				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-Aug	24	27	29	30	30	27	25	26	27	28	29	29	30	30	31	31	33	33	A	33	29	25	20	25	28.3	33.5
2-Aug	21	22	22	20	12	12	16	28	23	30	36	39	41	46	46	46	44	A	40	34	32	29	27	30	30.2	45.7
3-Aug	31	29	27	27	25	19	20	27	26	32	35	37	39	39	38	38	A	33	33	31	33	33	30	31	31.0	38.9
4-Aug	28	26	24	22	17	16	13	17	26	28	30	C	C	C	C	A	29	29	29	27	26	22	17	13	23.0	29.8
5-Aug	9	13	12	7	6	5	7	9	12	15	21	23	23	25	A	30	28	30	31	30	35	27	21	23	19.3	35.5
6-Aug	27	25	22	22	22	22	19	17	15	17	16	17	16	A	18	19	20	20	21	24	22	16	14	14	19.3	27.3
7-Aug	16	14	13	10	8	8	5	8	15	19	23	24	A	27	28	29	30	30	29	28	23	22	16	17	19.2	30.1
8-Aug	14	18	18	16	14	13	14	17	21	24	27	A	36	36	39	38	39	42	42	38	31	28	26	22	26.6	42.4
9-Aug	21	20	19	17	18	11	12	16	14	18	A	27	32	32	33	34	32	34	34	35	30	25	22	18	24.1	35.4
10-Aug	14	13	12	9	9	6	10	11	15	A	28	34	36	36	35	34	35	35	33	31	32	32	31	28	24.4	35.7
11-Aug	29	29	24	21	16	13	13	15	A	25	31	33	34	34	34	32	30	31	33	34	30	31	29	28	27.5	34.5
12-Aug	28	30	29	29	29	26	26	A	26	30	27	27	28	29	29	29	29	27	26	23	20	16	18	24	26.3	30.3
13-Aug	23	20	21	13	11	9	A	9	8	12	16	25	29	35	37	36	36	40	38	40	39	36	32	32	26.0	40.3
14-Aug	22	20	19	22	24	A	16	17	26	26	31	34	38	38	38	37	35	34	33	32	31	23	16	14	27.2	38.1
15-Aug	15	15	15	15	A	17	14	16	19	21	23	23	24	25	25	25	26	25	24	24	25	23	19	14	20.6	25.6
16-Aug	11	11	7	A	7	3	5	8	12	19	26	29	31	33	35	36	35	34	33	33	30	28	25	25	22.5	36.1
17-Aug	28	28	A	21	21	19	15	11	18	25	28	31	33	34	33	33	39	40	32	27	32	30	31	26	27.5	39.7
18-Aug	21	A	15	14	13	5	9	13	20	26	31	34	35	34	34	35	33	32	29	27	24	24	25	24	24.2	34.9
19-Aug	A	28	27	25	28	28	24	21	29	34	33	37	39	38	37	36	38	37	37	35	28	28	26	A	31.5	38.6
20-Aug	28	25	23	24	18	18	16	23	26	28	31	32	33	33	32	31	30	30	26	22	19	20	A	22	25.7	33.0
21-Aug	22	20	13	13	12	19	20	16	22	24	32	32	30	32	34	34	36	37	37	34	30	A	18	21	25.5	37.0
22-Aug	20	12	12	12	13	10	9	11	18	20	24	29	34	37	37	36	38	35	31	27	A	21	20	19	22.8	38.0
23-Aug	18	17	15	13	12	9	5	13	18	22	24	27	28	29	31	34	34	36	36	A	32	33	31	26	23.6	36.3
24-Aug	21	19	24	24	18	10	6	10	19	22	26	35	40	42	42	51	42	42	A	37	30	24	32	32	28.1	50.9
25-Aug	29	25	20	23	21	13	17	15	22	32	35	40	41	42	41	36	40	A	41	39	35	35	33	35	30.9	42.0
26-Aug	31	29	28	31	24	9	5	20	28	33	36	39	39	41	44	47	A	48	43	37	27	21	22	10	30.1	48.0
27-Aug	6	3	6	7	16	14	5	14	17	23	31	42	43	40	40	A	38	39	39	39	34	30	30	32	25.6	43.2
28-Aug	31	29	28	28	28	24	23	20	30	33	35	33	32	33	A	37	39	39	34	35	31	34	36	36	31.7	39.0
29-Aug	36	30	28	26	16	7	7	18	24	25	27	36	38	A	38	36	37	35	28	24	20	14	12	6	24.6	37.9
30-Aug	9	10	4	7	8	5	6	7	13	21	34	38	A	38	38	37	36	35	35	33	29	26	27	29	22.8	38.4
31-Aug	30	30	31	31	30	25	16	27	30	32	37	A	36	37	39	39	38	37	37	36	30	26	14	18	30.7	38.9
		22.1	21.2	19.6	19.4	17.4	14.0	13.3	16.1	20.7	24.8	28.7	31.6	33.4	34.9	35.2	35.1	34.5	34.4	33.3	31.6	29.0	26.1	24.0	23.1	Diurnal Average
		35.9	30.3	31.3	31.1	30.1	27.7	26.0	28.0	30.5	33.7	37.1	42.4	43.2	45.6	45.7	50.9	43.7	48.0	43.1	39.7	39.2	36.5	35.9	36.2	Diurnal Maximum
C - Calibration		A - Automated Daily Zero Span																								



### Hourly Maximums

Ozone (O<sub>3</sub>) - ppb  
Henry Pirker - August 2015





# Eight Hour Running Averages

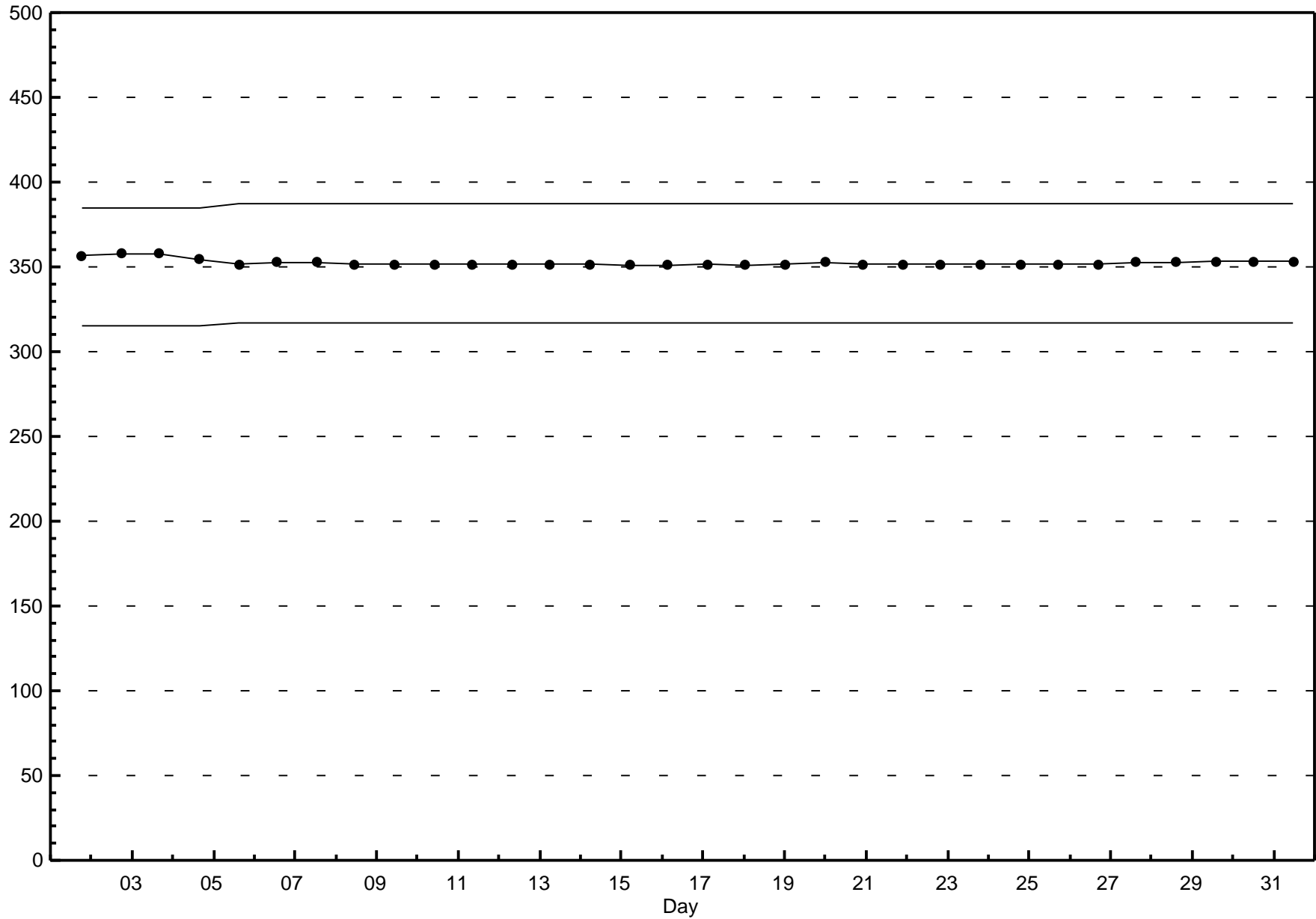
Ozone (O<sub>3</sub>) - ppb

Henry Pirker - August 2015

Maximum Value: 41.0 ppb on Aug 26 19:00																						Hours in Service:	744		
Minimum Value: 4.7 ppb on Aug 30 07:00																						Hours of Data:	736		
Percentiles: P <sub>1</sub> = 5.9 P <sub>10</sub> = 12.3 Q <sub>1</sub> = 17.3 Median = 24.2 Q <sub>3</sub> = 29.5 P <sub>90</sub> = 32.8 P <sub>99</sub> = 37.8																						Hours of Missing Data:	8		
																						Hours of Calibration:	8		
																						Percent Operational Time:	100.0		
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Aug	25	24	24	25	25	25	25	25	26	26	26	26	26	27	28	28	29	30	30	30	30	28	27	25	30.1
2-Aug	24	22	22	20	18	16	16	15	16	16	18	21	24	29	32	35	38	39	40	40	38	36	33	31	40.2
3-Aug	30	29	28	27	25	24	23	23	22	22	23	24	26	29	32	33	34	35	35	34	33	32	30	29	35.0
4-Aug	29	28	27	26	24	22	19	17	17	17	18	18	18	N	N	N	N	N	N	N	N	25	23	22	29.0
5-Aug	19	17	15	12	10	8	7	7	7	7	8	10	12	15	16	19	21	24	26	27	28	28	26	25	27.9
6-Aug	25	24	23	22	21	20	21	20	19	18	17	16	15	15	15	15	16	17	18	18	19	18	18	17	24.7
7-Aug	16	16	15	13	11	10	9	8	8	9	10	12	12	15	18	22	24	26	27	27	26	25	24	22	27.0
8-Aug	20	18	17	15	14	13	13	13	14	14	15	15	19	22	26	29	31	34	37	36	36	34	33	31	36.5
9-Aug	29	26	23	21	19	17	15	14	13	13	12	13	16	19	22	25	28	30	31	31	31	30	28	26	31.5
10-Aug	24	21	19	16	13	11	9	9	9	8	10	13	17	22	25	29	32	32	33	32	32	32	31	30	32.8
11-Aug	29	28	27	26	23	21	18	17	15	15	16	18	21	24	28	30	30	30	31	31	30	30	29	29	31.1
12-Aug	29	29	28	27	27	27	25	25	25	25	24	24	24	25	27	27	27	27	27	26	25	23	21	20	28.6
13-Aug	20	19	18	16	15	14	14	12	10	9	9	10	12	16	18	22	25	29	32	34	36	36	35	34	35.8
14-Aug	32	30	27	25	23	21	19	17	18	19	20	22	24	26	29	31	33	34	34	34	33	31	28	25	34.0
15-Aug	23	21	18	17	15	14	14	14	15	16	17	18	19	20	21	22	23	24	24	24	24	23	22	20	23.9
16-Aug	18	16	14	13	10	8	6	6	6	7	9	12	15	18	22	26	29	31	32	32	32	31	30	29	32.3
17-Aug	28	27	26	25	23	22	20	18	17	16	17	19	20	22	25	27	29	31	31	31	31	30	29	28	31.3
18-Aug	26	25	23	21	18	15	12	10	10	11	13	15	18	22	25	29	31	32	32	31	29	28	27	26	31.7
19-Aug	25	24	24	23	24	24	24	23	23	24	25	26	28	29	31	33	35	36	36	35	34	33	31	31	36.0
20-Aug	29	27	25	24	23	21	20	20	19	20	21	22	24	26	28	29	30	30	30	28	26	25	24	22	30.2
21-Aug	21	20	18	16	15	15	15	14	14	15	17	20	22	24	26	28	30	31	32	32	32	32	30	27	32.4
22-Aug	24	21	17	14	12	12	11	10	10	11	12	14	16	20	23	26	29	30	31	31	31	29	27	25	31.4
23-Aug	22	20	18	16	15	13	12	11	10	11	12	14	16	19	22	25	27	29	30	31	31	31	31	30	31.4
24-Aug	28	25	23	22	20	18	14	12	12	12	13	14	17	21	26	30	34	36	38	39	37	33	32	30	38.6
25-Aug	29	25	24	23	21	20	18	16	14	15	17	19	22	26	29	32	35	37	37	37	36	35	35	34	37.5
26-Aug	33	32	30	28	26	23	19	17	16	17	18	20	23	27	32	36	38	40	41	41	38	35	31	26	41.0
27-Aug	23	17	13	9	8	7	6	6	7	9	12	16	20	23	27	30	34	36	38	38	36	34	33	33	37.7
28-Aug	32	31	29	28	28	27	26	24	23	24	25	25	25	26	28	30	32	33	32	32	32	32	32	32	32.6
29-Aug	32	31	30	29	26	23	19	16	15	15	15	16	19	21	26	29	32	32	32	31	28	26	23	19	32.5
30-Aug	15	12	9	7	6	5	5	5	5	7	10	14	15	20	24	29	32	35	35	35	33	32	30	29	35.4
31-Aug	28	27	27	27	27	27	26	25	25	25	25	24	25	27	31	34	35	36	36	36	35	32	29	26	36.2
33.2 32.3 30.0 28.8 27.6 27.3 25.7 25.2 25.5 26.1 26.3 27.6 29.0 32.2 35.9 37.7 39.9 41.0 40.5 38.3 35.9 35.0 34.4																									
Diurnal Maximums																									
N - Not Valid																									

### Span Responses

Ozone (O<sub>3</sub>)  
Henry Pirker - August 2015

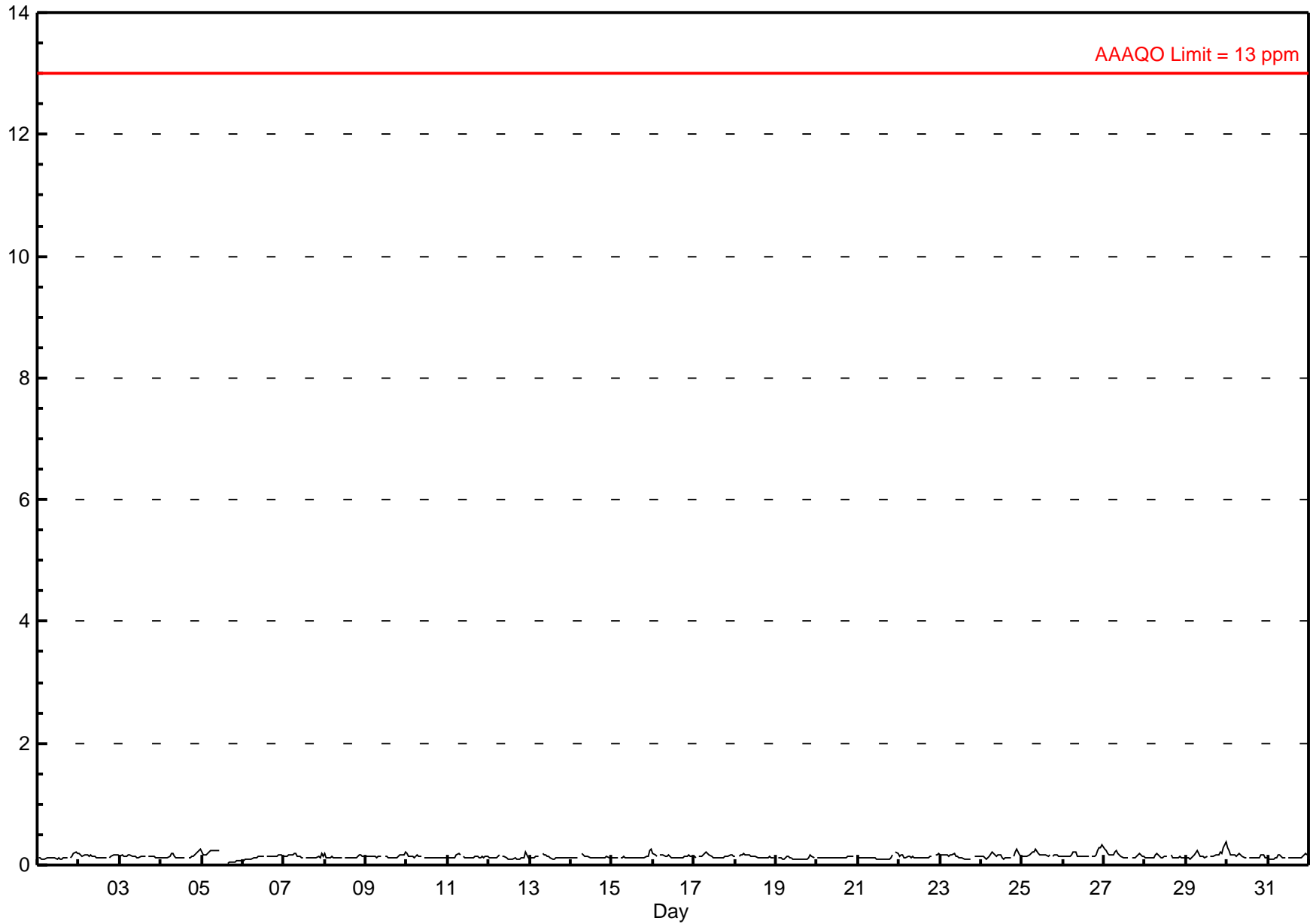


## Hourly Averages

Carbon Monoxide (CO) - ppm

Henry Pirker - August 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 0.39 ppm on Aug 30 00:00 Maximum Daily Average: 0.17 ppm on Aug 26		Hours in Service: 744 Hours of Data: 709 Hours of Missing Data: 35 Hours of Calibration: 35 Percent Operational Time: 100.0																																														
Minimum Value: 0.0 ppm on Aug 5 16:00 Maximum Diurnal Average: 0.17 ppm at hour 7 Monthly Average: 0.139 ppm		Minimum Daily Average: 0.11 ppm on Aug 19 Minimum Diurnal Average: 0.12 ppm at hour 17 Percentiles: P <sub>1</sub> = 0.07 P <sub>10</sub> = 0.11 Q <sub>1</sub> = 0.12 Median = 0.13 Q <sub>3</sub> = 0.15 P <sub>90</sub> = 0.18 P <sub>99</sub> = 0.26																																														
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-Aug	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	A	0.1	0.2	0.2	0.2	0.2	0.12	0.21																						
2-Aug	0.2	0.2	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	0.1	0.1	0.2	0.2	0.2	0.2	0.14	0.18																						
3-Aug	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.14	0.18																						
4-Aug	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.15	0.25																						
5-Aug	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	C	C	C	C	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.14	0.24																						
6-Aug	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	0.2	0.2	0.2	0.13	0.17																						
7-Aug	0.1	0.2	0.2	0.2	0.2	0.2	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	0.2	0.2	0.14	0.20																						
8-Aug	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.13	0.19																						
9-Aug	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	A	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.14	0.21																						
10-Aug	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.13	0.20																						
11-Aug	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.13	0.20																						
12-Aug	0.1	0.1	0.1	0.1	0.1	0.1	0.2	A	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	0.1	0.12	0.21																						
13-Aug	0.1	0.1	0.1	0.1	0.1	0.2	A	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	0.13	0.18																						
14-Aug	0.1	0.1	0.1	0.1	0.1	A	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	0.13	0.18																						
15-Aug	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	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.13	0.26																						
16-Aug	0.2	0.2	0.1	A	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.14	0.18																						
17-Aug	0.1	0.1	A	0.2	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	0.1	0.2	0.2	0.1	0.14	0.21																						
18-Aug	0.1	A	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.14	0.18																						
19-Aug	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	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	A	0.11	0.15																						
20-Aug	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	0.1	0.1	A	0.1	0.12	0.15																						
21-Aug	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	A	0.2	0.2	0.12	0.22																						
22-Aug	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.2	0.2	0.2	0.14	0.18																						
23-Aug	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	0.1	0.1	0.1	0.14	0.20																						
24-Aug	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	A	0.2	0.2	0.3	0.2	0.1	0.15	0.27																						
25-Aug	0.1	0.1	0.1	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	A	0.1	0.2	0.2	0.1	0.1	0.1	0.17	0.26																						
26-Aug	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.17	0.33																						
27-Aug	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.16	0.26																						
28-Aug	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	A	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.13	0.18																						
29-Aug	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	A	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.17	0.39																						
30-Aug	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.15	0.28																						
31-Aug	0.1	0.1	0.1	0.1	0.1	0.1	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	0.2	0.2	0.2	0.13	0.19																						
																								0.15	0.14	0.13	0.13	0.14	0.15	0.17	0.17	0.15	0.14	0.13	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.13	0.15	0.16	0.16	0.16	Diurnal Average
																								0.28	0.24	0.19	0.18	0.21	0.24	0.24	0.24	0.26	0.24	0.23	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.17	0.17	0.23	0.29	0.28	0.39	Diurnal Maximum
C - Calibration A - Automated Daily Zero Span Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 13 ppm 24-hr na																																																



# Hourly Maximums

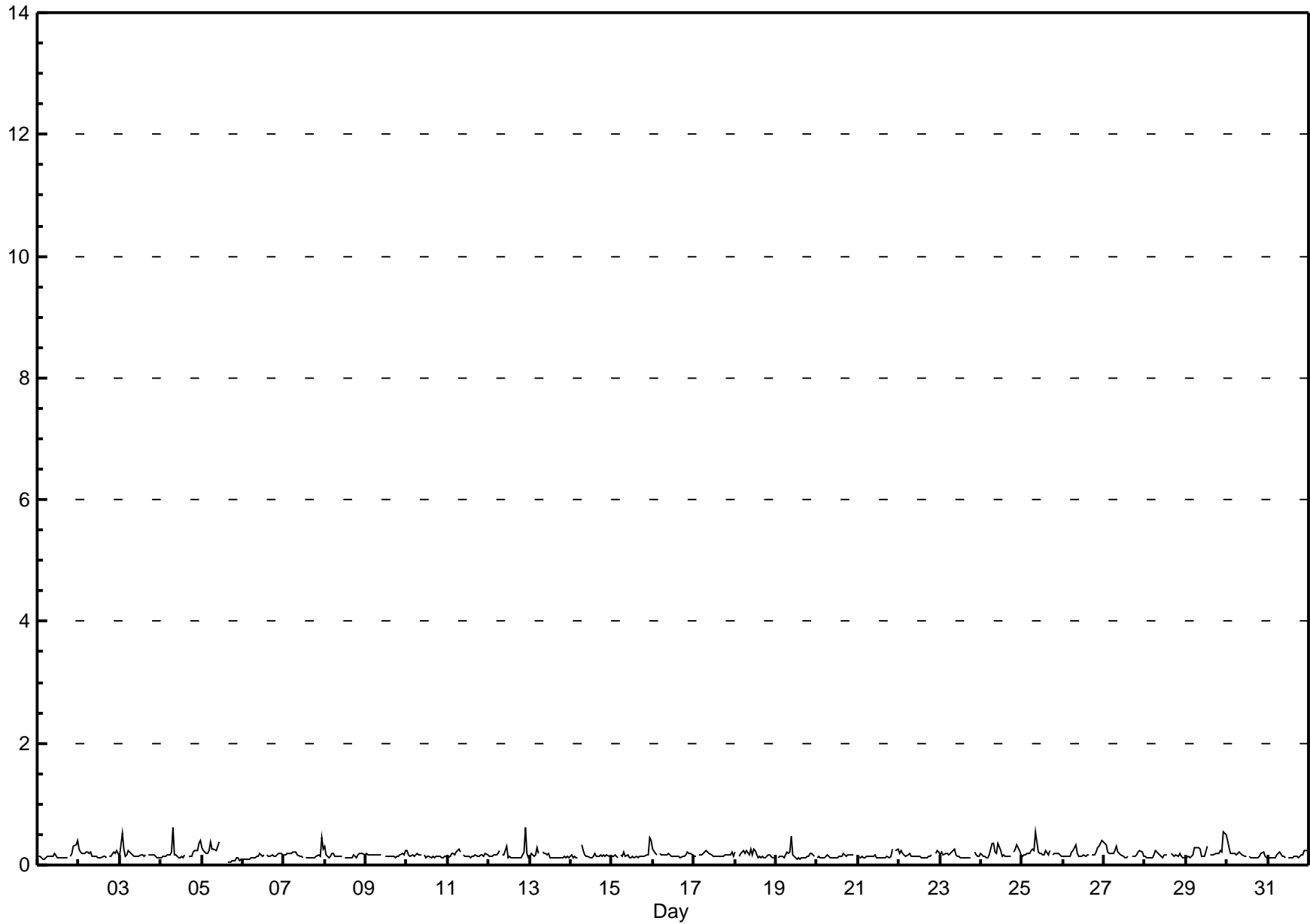
Carbon Monoxide (CO) - ppm

Henry Pirker - August 2015

Maximum Value: 0.63 ppm on Aug 12 22:00      Maximum Daily Average: 0.22 ppm on Aug 29 Minimum Value: 0.0 ppm on Aug 5 16:00      Minimum Daily Average: 0.14 ppm on Aug 6 Maximum Diurnal Average: 0.22 ppm at hour 8      Minimum Diurnal Average: 0.13 ppm at hour 14 Monthly Average: 0.171 ppm      Percentiles: P <sub>1</sub> = 0.09 P <sub>10</sub> = 0.12 Q <sub>1</sub> = 0.13 Median = 0.15 Q <sub>3</sub> = 0.19 P <sub>90</sub> = 0.24 P <sub>99</sub> = 0.47																								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)																								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-Aug	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.2	0.3	0.3	0.4	0.16	0.40																							
2-Aug	0.3	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	A	0.1	0.1	0.2	0.2	0.2	0.2	0.18	0.26																							
3-Aug	0.1	0.5	0.3	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	A	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.18	0.52																							
4-Aug	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.6	0.2	0.2	0.1	0.1	0.1	0.1	0.2	A	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.4	0.20	0.61																							
5-Aug	0.3	0.2	0.2	0.2	0.2	0.4	0.3	0.3	0.2	0.3	0.4	C	C	C	C	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.18	0.38																							
6-Aug	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	A	0.2	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.14	0.20																							
7-Aug	0.2	0.2	0.2	0.2	0.2	0.2	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	0.2	0.1	0.5	0.3	0.18	0.45																							
8-Aug	0.3	0.2	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	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.16	0.31																							
9-Aug	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.16	0.23																							
10-Aug	0.2	0.2	0.1	0.2	0.1	0.2	0.2	0.2	0.2	A	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.15	0.23																							
11-Aug	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.2	A	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.2	0.16	0.26																							
12-Aug	0.2	0.1	0.1	0.2	0.2	0.2	0.2	A	0.2	0.2	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.6	0.2	0.1	0.18	0.63																							
13-Aug	0.1	0.2	0.1	0.2	0.3	0.2	A	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	0.15	0.27																							
14-Aug	0.2	0.1	0.1	0.1	0.1	A	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.1	0.16	0.32																							
15-Aug	0.1	0.1	0.2	0.1	A	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	0.2	0.2	0.5	0.4	0.17	0.46																							
16-Aug	0.3	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.17	0.26																							
17-Aug	0.2	0.1	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.17	0.25																							
18-Aug	0.2	A	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.18	0.25																							
19-Aug	A	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.5	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	A	0.16	0.49																							
20-Aug	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.2	A	0.1	0.14	0.19																							
21-Aug	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	A	0.2	0.3	0.15	0.27																							
22-Aug	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	A	0.2	0.2	0.2	0.16	0.24																							
23-Aug	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	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	0.2	0.16	0.26																							
24-Aug	0.2	0.2	0.1	0.1	0.1	0.2	0.3	0.3	0.2	0.2	0.4	0.2	0.1	0.2	0.1	0.1	0.1	0.1	A	0.2	0.3	0.3	0.2	0.2	0.20	0.36																							
25-Aug	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.5	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	0.1	0.21	0.54																							
26-Aug	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.3	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.2	A	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.20	0.40																							
27-Aug	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.2	A	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.20	0.36																							
28-Aug	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	A	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.15	0.25																							
29-Aug	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.3	0.1	0.1	0.1	0.3	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.6	0.5	0.22	0.55																							
30-Aug	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.18	0.40																							
31-Aug	0.1	0.1	0.1	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	0.2	0.2	0.2	0.2	0.2	0.15	0.23																							
																								0.18	0.18	0.16	0.15	0.16	0.19	0.21	0.22	0.19	0.18	0.17	0.15	0.15	0.13	0.14	0.13	0.13	0.14	0.14	0.16	0.19	0.20	0.22	0.21	Diurnal Average	
																								0.40	0.52	0.26	0.20	0.27	0.38	0.34	0.61	0.54	0.49	0.38	0.25	0.30	0.17	0.24	0.19	0.24	0.19	0.20	0.22	0.27	0.63	0.55	0.51	Diurnal Maximum	
C - Calibration																								A - Automated Daily Zero Span																									

**Hourly Maximums**

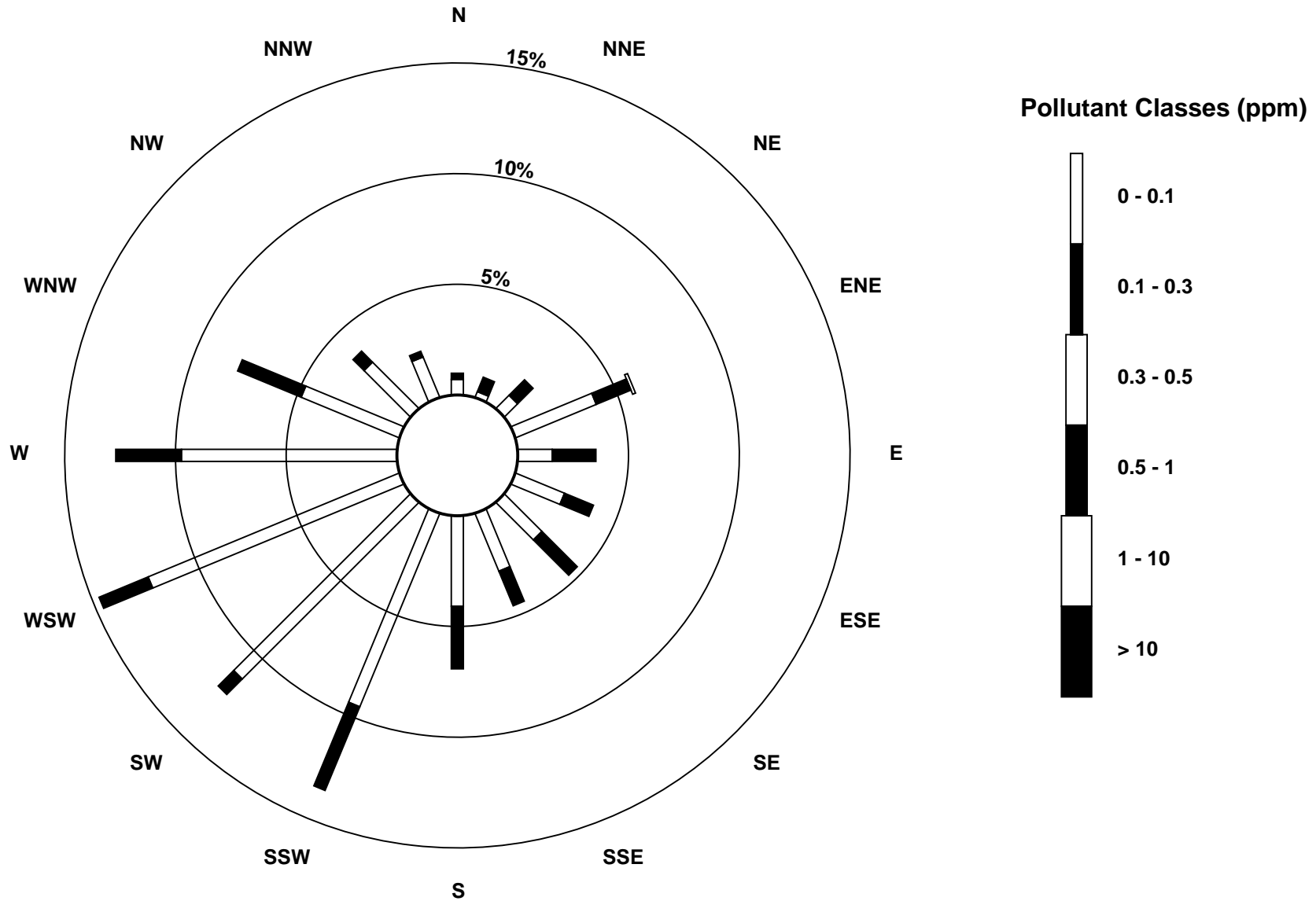
**Carbon Monoxide (CO) - ppm**  
**Henry Pirker - August 2015**





**Pollutant Rose**

**Carbon Monoxide (CO) - ppm**  
**Henry Pirker - August 2015**





Peace Airshed Zone Association

# Eight Hour Running Averages

Carbon Monoxide (CO) - ppm

Henry Pirker - August 2015

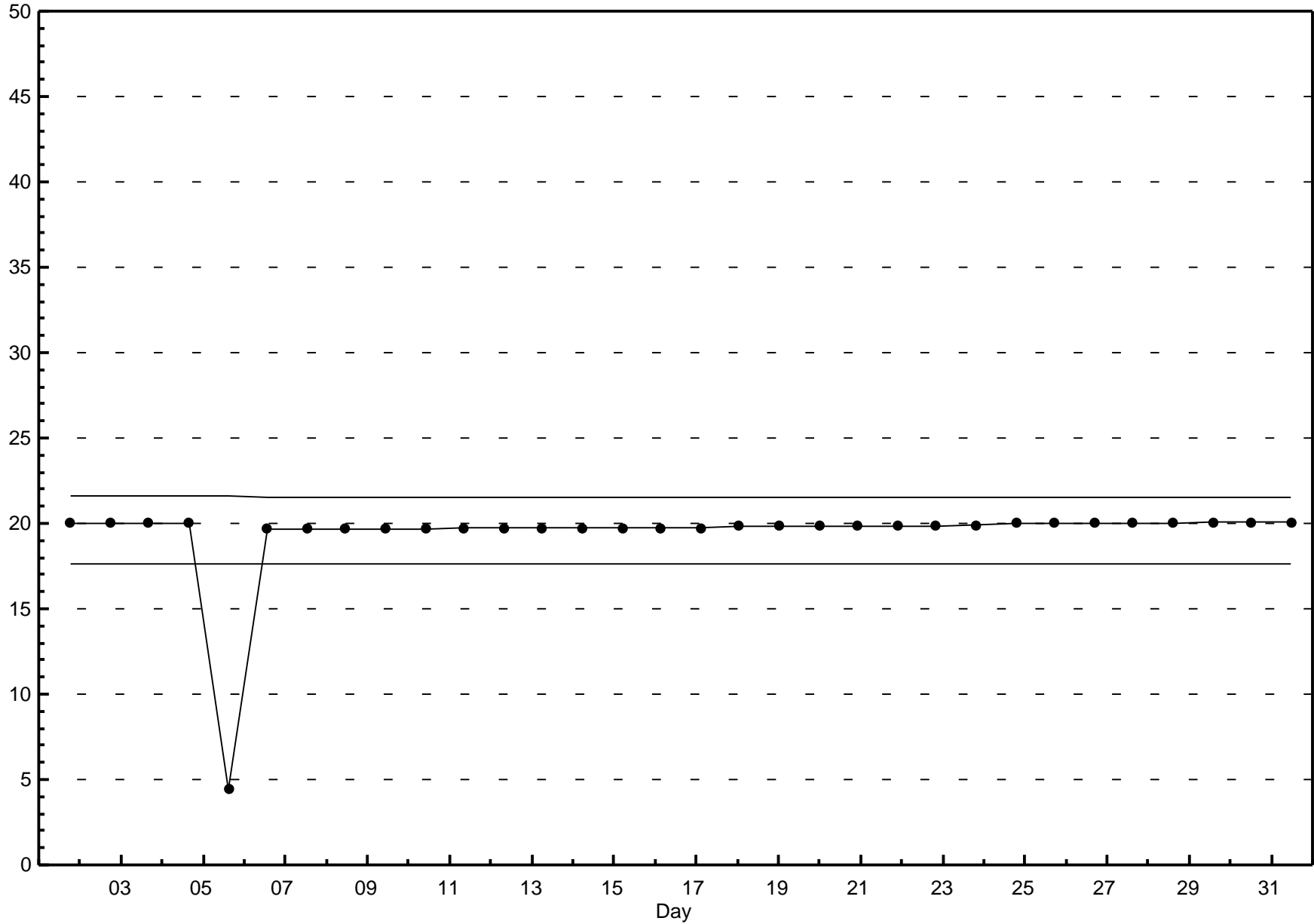
Number of Exceedences (AAAQO): 8-hr: 0	Hours in Service: 744
Maximum Value: 0.25 ppm on Aug 27 04:00	Hours of Data: 737
Minimum Value: 0.05 ppm on Aug 5 21:00	Hours of Missing Data: 7
	Hours of Calibration: 7
	Percent Operational Time: 100.0
Percentiles: P <sub>1</sub> = 0.08 P <sub>10</sub> = 0.11 Q <sub>1</sub> = 0.12 Median = 0.13 Q <sub>3</sub> = 0.15 P <sub>90</sub> = 0.17 P <sub>99</sub> = 0.24	

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-Aug	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	0.2	0.15																							
2-Aug	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.18																						
3-Aug	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.15																						
4-Aug	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	0.2	0.2	0.18																						
5-Aug	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	N	N	N	N	N	N	N	0.0	0.1	0.1	0.1	0.1	0.23																						
6-Aug	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	0.1	0.15																						
7-Aug	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.16																						
8-Aug	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	0.1	0.15																						
9-Aug	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	0.1	0.15																						
10-Aug	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	0.1	0.1	0.1	0.16																						
11-Aug	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	0.1	0.15																						
12-Aug	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	0.1	0.13																						
13-Aug	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	0.1	0.1	0.16																						
14-Aug	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	0.1	0.14																						
15-Aug	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	0.2	0.1	0.16																						
16-Aug	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.19																						
17-Aug	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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.17																						
18-Aug	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.16																						
19-Aug	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	0.1	0.12																						
20-Aug	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	0.1	0.13																						
21-Aug	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	0.1	0.14																						
22-Aug	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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.17																						
23-Aug	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.17																						
24-Aug	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	0.2	0.2	0.2	0.17																						
25-Aug	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19																						
26-Aug	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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.23																						
27-Aug	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.25																						
28-Aug	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	0.1	0.15																						
29-Aug	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	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.21																						
30-Aug	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.24																						
31-Aug	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	0.1	0.14																						
Diurnal Maximums																								0.23	0.24	0.25	0.25	0.24	0.23	0.22	0.21	0.21	0.22	0.22	0.23	0.23	0.19	0.18	0.18	0.16	0.16	0.16	0.16	0.16	0.16	0.18	0.20	0.23

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

### Span Responses

**Carbon Monoxide (CO)**  
**Henry Pirker - August 2015**



## Hourly Averages

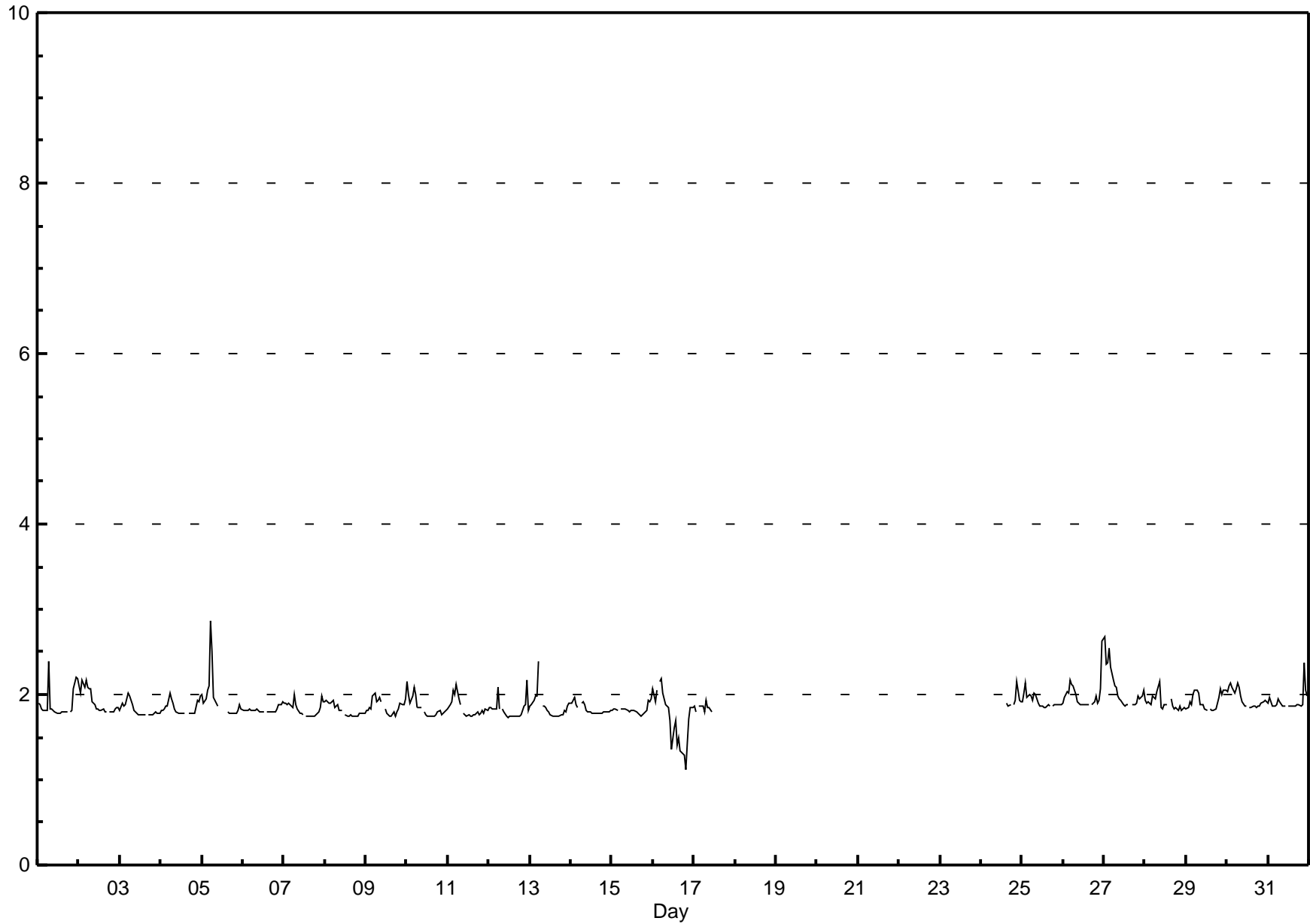
Total Hydrocarbons (THC) - ppm

Henry Pirker - August 2015

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 2.86 ppm on Aug 5 06:00	Maximum Daily Average: 2.06 ppm on Aug 27		Hours of Data:	544
Minimum Value: 1.1 ppm on Aug 16 20:00	Minimum Daily Average: 1.70 ppm on Aug 16		Hours of Missing Data:	200
Maximum Diurnal Average: 2.05 ppm at hour 6	Minimum Diurnal Average: 1.78 ppm at hour 18		Hours of Calibration:	34
Monthly Average: 1.875 ppm	Percentiles: P <sub>1</sub> = 1.41 P <sub>10</sub> = 1.76 Q <sub>1</sub> = 1.79 Median = 1.85 Q <sub>3</sub> = 1.92 P <sub>90</sub> = 2.05 P <sub>99</sub> = 2.48		Percent Operational Time:	77.7

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-Aug	1.9	1.9	1.8	1.8	1.8	1.8	2.4	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	2.1	2.2	2.2	1.88	2.39																						
2-Aug	2.1	2.0	2.2	2.1	2.2	2.1	2.1	2.1	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.92	2.17																						
3-Aug	1.8	1.9	1.9	1.9	2.0	2.0	2.0	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.82	2.02																						
4-Aug	1.8	1.8	1.8	1.9	1.9	2.0	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.9	1.9	2.0	1.84	2.01																						
5-Aug	2.0	1.9	1.9	2.1	2.1	2.9	2.5	2.0	1.9	1.9	C	C	C	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.96	2.86																						
6-Aug	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.82	1.91																						
7-Aug	1.9	1.9	1.9	1.9	1.9	1.8	2.0	1.9	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.7	1.8	1.8	2.0	1.9	1.8	1.83	2.00																						
8-Aug	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.9	1.8	1.8	1.8	A	1.8	1.8	1.7	1.8	1.8	1.7	1.7	1.7	1.8	1.8	1.8	1.8	1.82	1.94																						
9-Aug	1.8	1.8	1.8	1.8	2.0	2.0	1.9	1.9	2.0	1.9	A	1.8	1.8	1.8	1.7	1.7	1.8	1.7	1.8	1.8	1.9	1.9	1.9	2.0	1.86	2.02																						
10-Aug	2.1	2.0	1.9	2.0	2.1	2.0	1.9	1.8	1.9	A	1.8	1.8	1.8	1.8	1.7	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.85	2.15																						
11-Aug	1.8	1.9	1.9	2.0	2.0	2.1	2.0	1.9	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.84	2.12																						
12-Aug	1.9	1.9	1.8	1.8	1.8	2.1	1.8	A	1.8	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.8	1.9	1.9	2.2	1.82	2.16																						
13-Aug	1.9	1.9	1.9	2.0	2.0	2.4	A	1.9	1.9	1.8	1.8	1.8	1.8	1.7	1.7	1.8	1.7	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.85	2.39																						
14-Aug	1.9	1.9	2.0	1.9	1.9	A	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.83	1.97																						
15-Aug	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	2.0	1.82	1.95																						
16-Aug	2.1	1.9	2.1	A	2.2	2.2	2.0	1.9	1.9	1.8	1.7	1.4	1.6	1.7	1.4	1.5	1.3	1.3	1.3	1.1	1.4	1.7	1.8	1.8	1.70	2.19																						
17-Aug	1.9	1.8	A	1.9	1.9	1.9	1.8	1.9	1.8	1.8	1.8	C	C	C	N	N	N	N	N	N	N	N	N	N	--	1.93																						
18-Aug	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																					
19-Aug	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																					
20-Aug	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																					
21-Aug	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																					
22-Aug	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																					
23-Aug	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																					
24-Aug	N	N	N	N	N	N	N	N	N	N	N	N	C	C	C	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	--	2.15																					
25-Aug	1.9	2.0	2.1	2.0	2.0	2.0	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.92	2.13																						
26-Aug	1.9	2.0	2.0	2.0	2.2	2.1	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	2.0	1.9	1.9	2.1	1.99	2.63																						
27-Aug	2.7	2.4	2.4	2.5	2.3	2.2	2.1	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	2.0	1.9	2.0	2.1	2.06	2.68																						
28-Aug	1.9	1.9	1.9	1.9	2.0	2.0	1.9	2.0	2.2	1.8	1.8	1.9	1.9	A	1.9	1.9	1.8	1.8	1.8	1.8	1.9	1.8	1.8	1.9	1.90	2.16																						
29-Aug	1.8	1.8	1.9	1.9	2.0	2.0	2.1	2.0	1.9	1.9	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.9	2.0	2.1	2.0	2.0	2.0	1.92	2.06																						
30-Aug	2.0	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.0	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.95	2.14																						
31-Aug	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.4	2.1	2.0	1.91	2.37																						
																								1.94	1.92	1.95	1.95	1.98	2.05	1.99	1.93	1.89	1.84	1.81	1.79	1.79	1.79	1.78	1.79	1.78	1.78	1.78	1.79	1.83	1.89	1.92	1.93	Diurnal Average
																								2.68	2.36	2.38	2.55	2.32	2.86	2.51	2.09	2.16	1.94	1.93	1.89	1.88	1.89	1.89	1.95	1.87	1.89	1.91	1.99	2.06	2.37	2.20	2.63	Diurnal Maximum

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



# Hourly Maximums

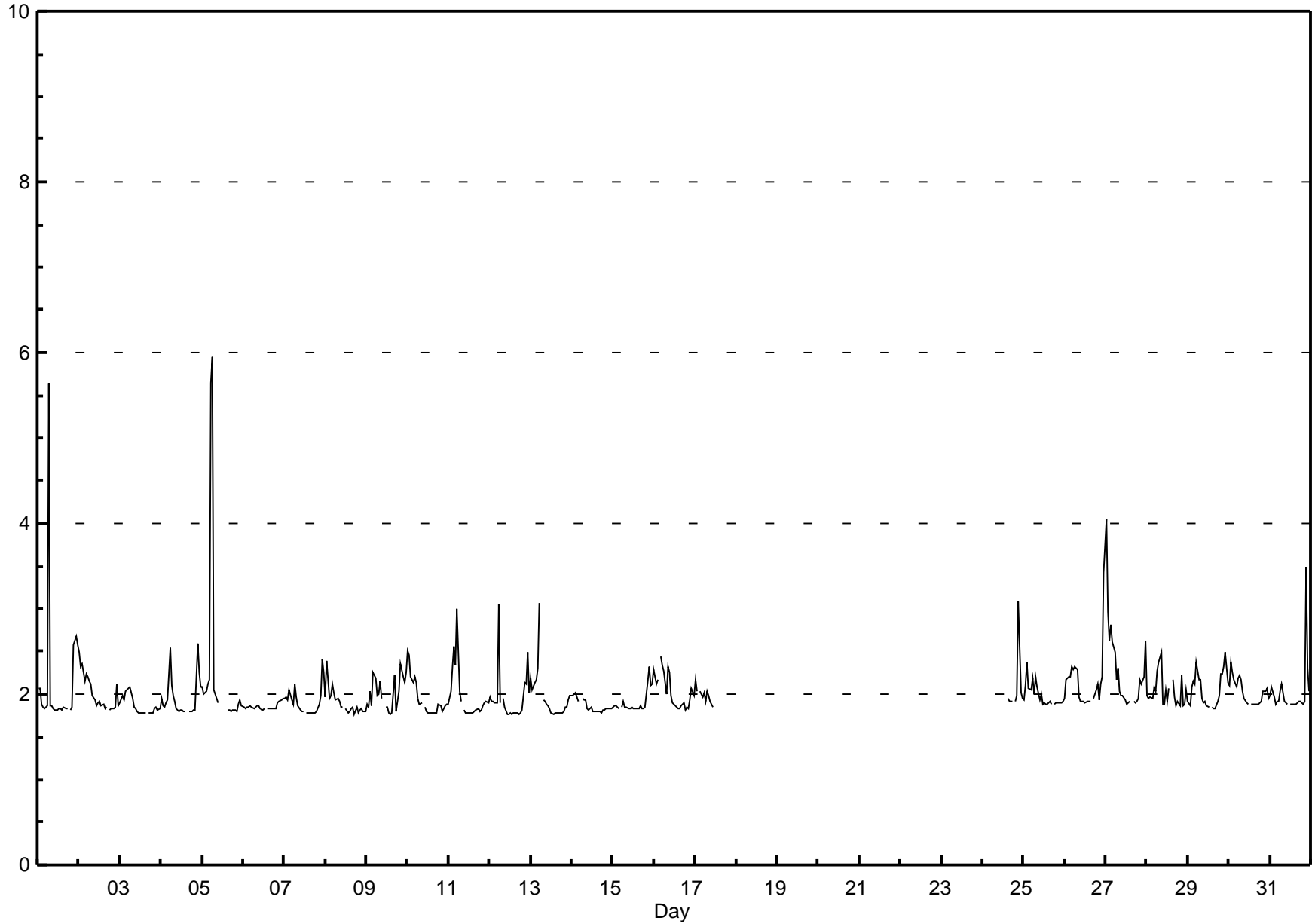
Total Hydrocarbons (THC) - ppm

Henry Pirker - August 2015

Maximum Value: 5.95 ppm on Aug 5 07:00		Maximum Daily Average: 2.31 ppm on Aug 5		Hours in Service: 744																																													
Minimum Value: 1.8 ppm on Aug 12 12:00		Minimum Daily Average: 1.85 ppm on Aug 6		Hours of Data: 544																																													
Maximum Diurnal Average: 2.40 ppm at hour 6		Minimum Diurnal Average: 1.82 ppm at hour 15		Hours of Missing Data: 200																																													
Monthly Average: 2.004 ppm		Percentiles: P <sub>1</sub> = 1.76 P <sub>10</sub> = 1.80 Q <sub>1</sub> = 1.84 Median = 1.91 Q <sub>3</sub> = 2.05 P <sub>90</sub> = 2.26 P <sub>99</sub> = 2.95		Hours of Calibration: 34																																													
Percent Operational Time: 77.7																										Daily Average	Daily Maximum																						
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-Aug	2.1	2.1	1.9	1.8	1.8	1.9	5.6	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	2.6	2.7	2.6	2.12	5.64																							
2-Aug	2.5	2.3	2.3	2.2	2.2	2.2	2.2	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	A	1.8	1.8	1.8	1.8	2.1	1.9	2.02	2.50																							
3-Aug	1.9	2.0	1.9	2.0	2.1	2.1	2.1	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.87	2.08																							
4-Aug	2.0	1.9	1.8	1.9	1.9	2.5	2.1	2.0	1.9	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	2.6	2.3	2.1	1.95	2.59																							
5-Aug	2.1	2.0	2.0	2.1	2.2	5.7	5.9	2.0	1.9	1.9	C	C	C	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	2.31	5.95																							
6-Aug	1.8	1.8	1.8	1.8	1.9	1.8	1.8	1.8	1.9	1.9	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	2.0	1.85	1.96																							
7-Aug	1.9	2.0	1.9	2.1	1.9	1.9	2.1	2.0	1.9	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	2.0	2.4	2.2	1.92	2.40																							
8-Aug	2.0	2.4	2.0	2.0	2.1	2.0	1.9	1.9	1.9	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.90	2.39																							
9-Aug	1.9	1.8	2.0	1.9	2.3	2.2	2.0	2.0	2.2	2.0	A	1.8	1.8	1.8	1.8	1.8	2.2	1.8	1.9	2.0	2.4	2.2	2.1	2.3	2.00	2.35																							
10-Aug	2.5	2.5	2.2	2.1	2.2	2.1	1.9	1.9	1.9	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.8	1.8	1.9	1.9	1.95	2.51																							
11-Aug	1.9	2.0	2.3	2.6	2.3	3.0	2.0	1.9	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.98	3.01																							
12-Aug	2.0	1.9	1.9	1.9	1.9	3.1	1.9	A	2.0	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	2.1	2.1	2.5	2.0	1.95	3.06																							
13-Aug	2.2	2.1	2.1	2.2	2.3	3.1	A	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	2.0	1.97	3.07																							
14-Aug	2.0	2.0	2.0	2.0	1.9	A	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.86	2.02																							
15-Aug	1.8	1.9	1.9	1.8	A	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.8	1.8	2.1	2.3	2.1	2.1	1.90	2.31																							
16-Aug	2.3	2.1	2.2	A	2.4	2.3	2.3	2.0	2.3	2.3	2.0	1.9	1.9	1.8	1.8	1.8	1.9	1.9	1.8	1.8	1.8	1.9	2.1	2.0	2.03	2.43																							
17-Aug	2.2	2.0	A	2.0	2.0	2.0	1.9	2.0	2.0	1.9	1.8	C	C	C	N	N	N	N	N	N	N	N	N	N	--	2.17																							
18-Aug	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																						
19-Aug	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																						
20-Aug	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																						
21-Aug	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																						
22-Aug	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																						
23-Aug	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																						
24-Aug	N	N	N	N	N	N	N	N	N	N	N	N	C	C	C	1.9	1.9	1.9	A	1.9	1.9	2.0	3.1	2.0	1.9	--	3.09																						
25-Aug	1.9	2.1	2.4	2.1	2.1	2.2	2.0	2.2	2.1	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.98	2.37																							
26-Aug	1.9	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	2.0	2.1	1.9	2.1	2.2	3.4	2.13	3.43																							
27-Aug	4.1	3.0	2.6	2.8	2.6	2.5	2.2	2.3	2.0	2.0	2.0	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	2.0	2.2	2.1	2.2	2.6	2.28	4.06																							
28-Aug	2.0	1.9	2.0	1.9	2.1	2.0	2.3	2.4	2.5	1.9	1.9	2.1	1.9	2.1	A	2.2	2.0	1.9	1.9	1.9	2.2	1.9	1.9	2.1	2.03	2.48																							
29-Aug	1.9	1.9	2.1	2.2	2.1	2.4	2.2	2.2	1.9	1.9	1.9	1.8	A	1.8	1.8	1.8	1.9	2.0	2.2	2.2	2.3	2.5	2.1	2.05	2.48																								
30-Aug	2.1	2.4	2.3	2.2	2.1	2.2	2.2	2.2	2.0	2.0	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.1	1.9	2.03	2.37																							
31-Aug	2.0	2.1	2.0	1.9	1.9	1.9	2.0	2.1	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	3.5	2.3	2.0	2.02	3.49																							
																								2.12	2.09	2.08	2.07	2.11	2.40	2.39	2.04	1.99	1.90	1.86	1.85	1.84	1.83	1.82	1.85	1.86	1.83	1.85	1.88	1.96	2.14	2.10	2.10	Diurnal Average	
																								4.06	2.96	2.63	2.81	2.61	5.65	5.95	2.38	2.48	2.25	1.99	2.06	1.91	2.07	1.92	2.17	2.22	1.94	2.05	2.23	2.35	3.49	2.67	3.43	Diurnal Maximum	
C - Calibration																								N - Not Valid				A - Automated Daily Zero Span																					

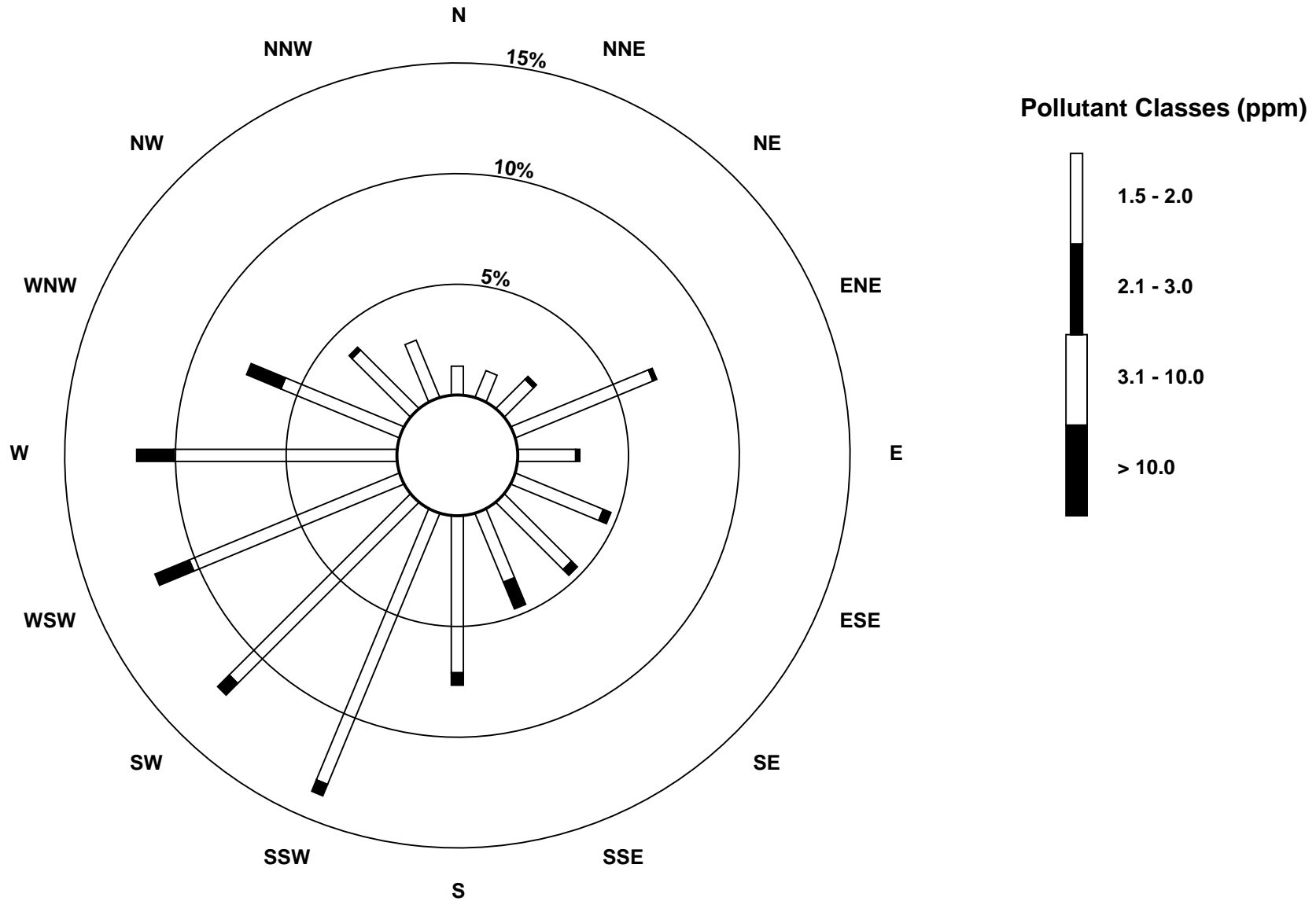
**Hourly Maximums**

**Total Hydrocarbons (THC) - ppm**  
**Henry Pirker - August 2015**



**Pollutant Rose**

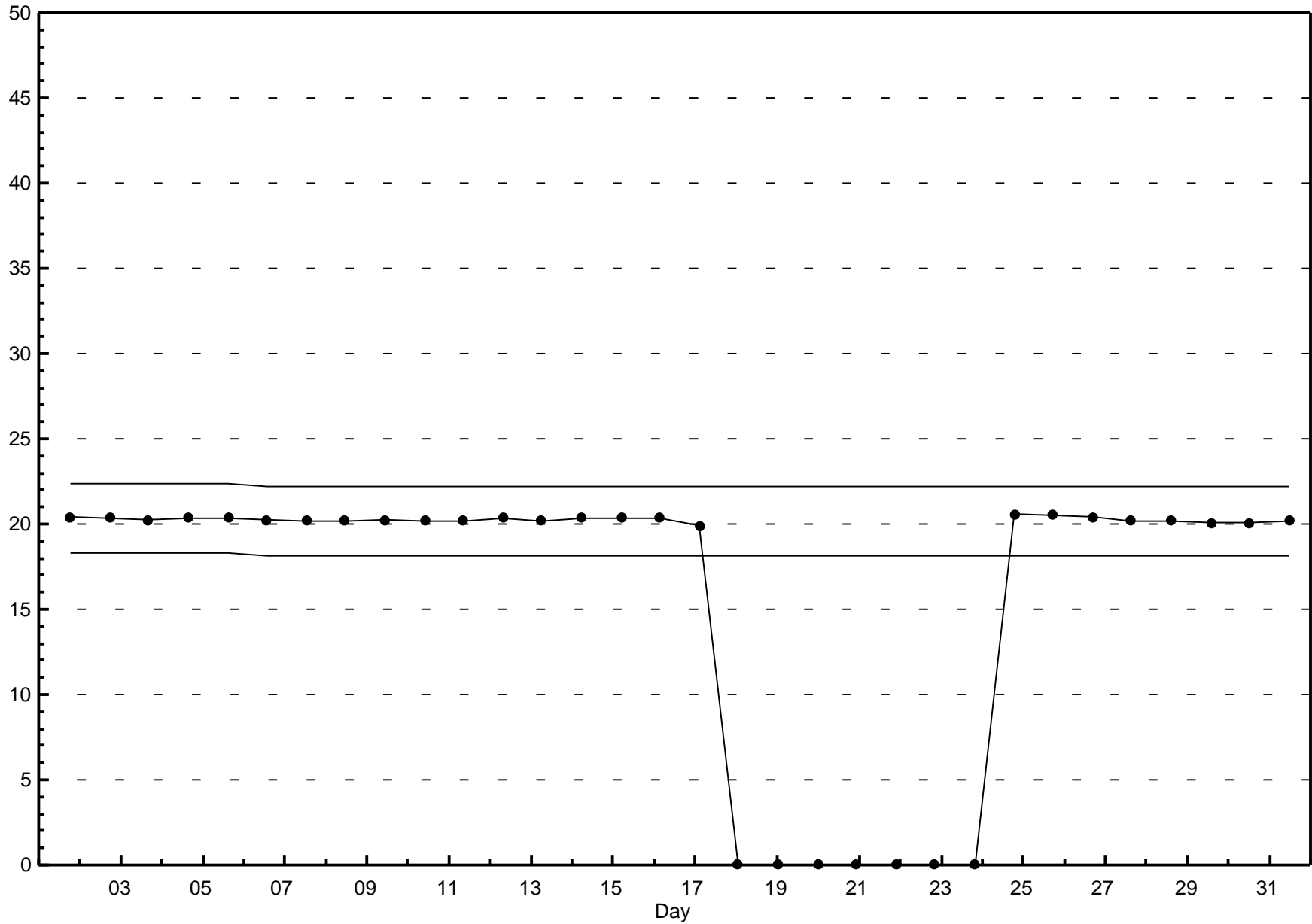
**Total Hydrocarbons (THC) - ppm**  
**Henry Pirker - August 2015**





### Span Responses

Total Hydrocarbons (THC)  
Henry Pirker - August 2015



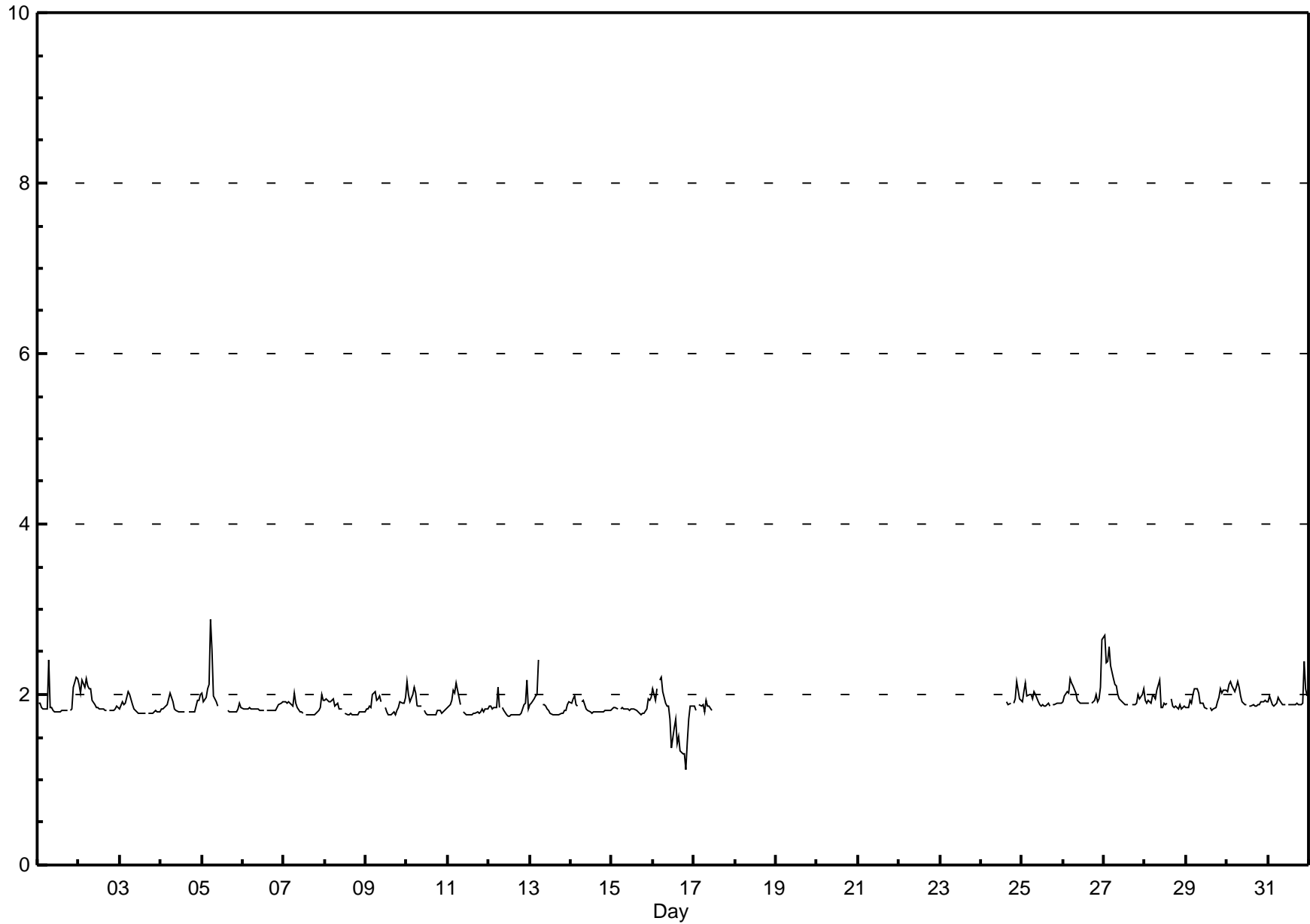
## Hourly Averages

Methane (CH<sub>4</sub>) - ppm  
Henry Pirker - August 2015

Number of Exceedences (AAQO): 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 2.88 ppm on Aug 5 06:00	Maximum Daily Average: 2.08 ppm on Aug 27
Minimum Value: 1.1 ppm on Aug 16 20:00	Hours of Data: 544
Maximum Diurnal Average: 2.06 ppm at hour 6	Hours of Missing Data: 200
Monthly Average: 1.888 ppm	Hours of Calibration: 34
Minimum Daily Average: 1.71 ppm on Aug 16	Percent Operational Time: 77.7
Minimum Diurnal Average: 1.79 ppm at hour 18	
Percentiles: P <sub>1</sub> = 1.42 P <sub>10</sub> = 1.77 Q <sub>1</sub> = 1.81 Median = 1.87 Q <sub>3</sub> = 1.93 P <sub>90</sub> = 2.06 P <sub>99</sub> = 2.49	

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-Aug	1.9	1.9	1.8	1.8	1.8	1.8	2.4	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	2.1	2.2	2.2	1.90	2.41																							
2-Aug	2.1	2.0	2.2	2.1	2.2	2.1	2.1	2.1	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.9	1.9	1.93	2.19																						
3-Aug	1.8	1.9	1.9	1.9	2.0	2.0	2.0	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.84	2.03																						
4-Aug	1.8	1.8	1.8	1.9	1.9	2.0	2.0	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.9	1.9	2.0	1.85	2.02																						
5-Aug	2.0	1.9	2.0	2.1	2.1	2.9	2.5	2.0	1.9	1.9	C	C	C	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.97	2.88																						
6-Aug	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.83	1.92																						
7-Aug	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	2.0	1.9	1.85	2.01																						
8-Aug	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.83	1.95																						
9-Aug	1.8	1.8	1.9	1.9	2.0	2.0	1.9	1.9	2.0	1.9	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	2.0	1.87	2.04																						
10-Aug	2.2	2.0	1.9	2.0	2.1	2.0	1.9	1.9	1.9	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.86	2.16																						
11-Aug	1.8	1.9	1.9	2.1	2.0	2.1	2.0	1.9	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.85	2.13																						
12-Aug	1.9	1.9	1.8	1.9	1.8	2.1	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	2.2	1.84	2.17																						
13-Aug	1.9	1.9	1.9	2.0	2.0	2.4	A	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.87	2.41																						
14-Aug	1.9	1.9	2.0	1.9	1.9	A	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.84	1.98																						
15-Aug	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	2.0	1.84	1.97																						
16-Aug	2.1	1.9	2.1	A	2.2	2.2	2.0	1.9	1.9	1.9	1.7	1.4	1.6	1.7	1.4	1.5	1.3	1.3	1.3	1.1	1.4	1.7	1.9	1.9	1.71	2.20																						
17-Aug	1.9	1.8	A	1.9	1.9	1.9	1.8	1.9	1.9	1.9	1.8	C	C	C	N	N	N	N	N	N	N	N	N	N	--	1.94																						
18-Aug	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																					
19-Aug	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																					
20-Aug	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																					
21-Aug	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																					
22-Aug	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																					
23-Aug	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																					
24-Aug	N	N	N	N	N	N	N	N	N	N	N	N	C	C	C	1.9	1.9	1.9	A	1.9	1.9	1.9	2.2	1.9	1.9	--	2.16																					
25-Aug	1.9	2.0	2.1	2.0	2.0	2.0	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.93	2.14																						
26-Aug	1.9	2.0	2.0	2.0	2.2	2.1	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	2.0	1.9	1.9	2.1	2.00	2.64																						
27-Aug	2.7	2.4	2.4	2.6	2.3	2.2	2.1	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.1	2.08	2.69																						
28-Aug	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.2	1.9	1.9	1.9	1.9	1.9	A	2.0	1.9	1.8	1.9	1.8	1.9	1.8	1.8	1.9	1.91	2.17																						
29-Aug	1.8	1.9	1.9	1.9	2.0	2.1	2.1	2.0	1.9	1.9	1.9	1.8	1.8	A	1.8	1.8	1.8	1.9	1.9	2.0	2.1	2.0	2.1	2.1	1.93	2.07																						
30-Aug	2.0	2.1	2.2	2.1	2.0	2.1	2.1	2.1	2.0	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.97	2.15																						
31-Aug	1.9	2.0	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.4	2.1	2.0	1.93	2.39																						
																								1.95	1.94	1.96	1.96	2.00	2.06	2.01	1.95	1.90	1.86	1.83	1.80	1.81	1.81	1.79	1.81	1.79	1.79	1.80	1.80	1.85	1.91	1.93	1.95	Diurnal Average
																								2.69	2.37	2.39	2.56	2.34	2.88	2.52	2.10	2.17	1.96	1.94	1.90	1.89	1.90	1.90	1.96	1.89	1.90	1.92	2.00	2.07	2.39	2.21	2.64	Diurnal Maximum

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



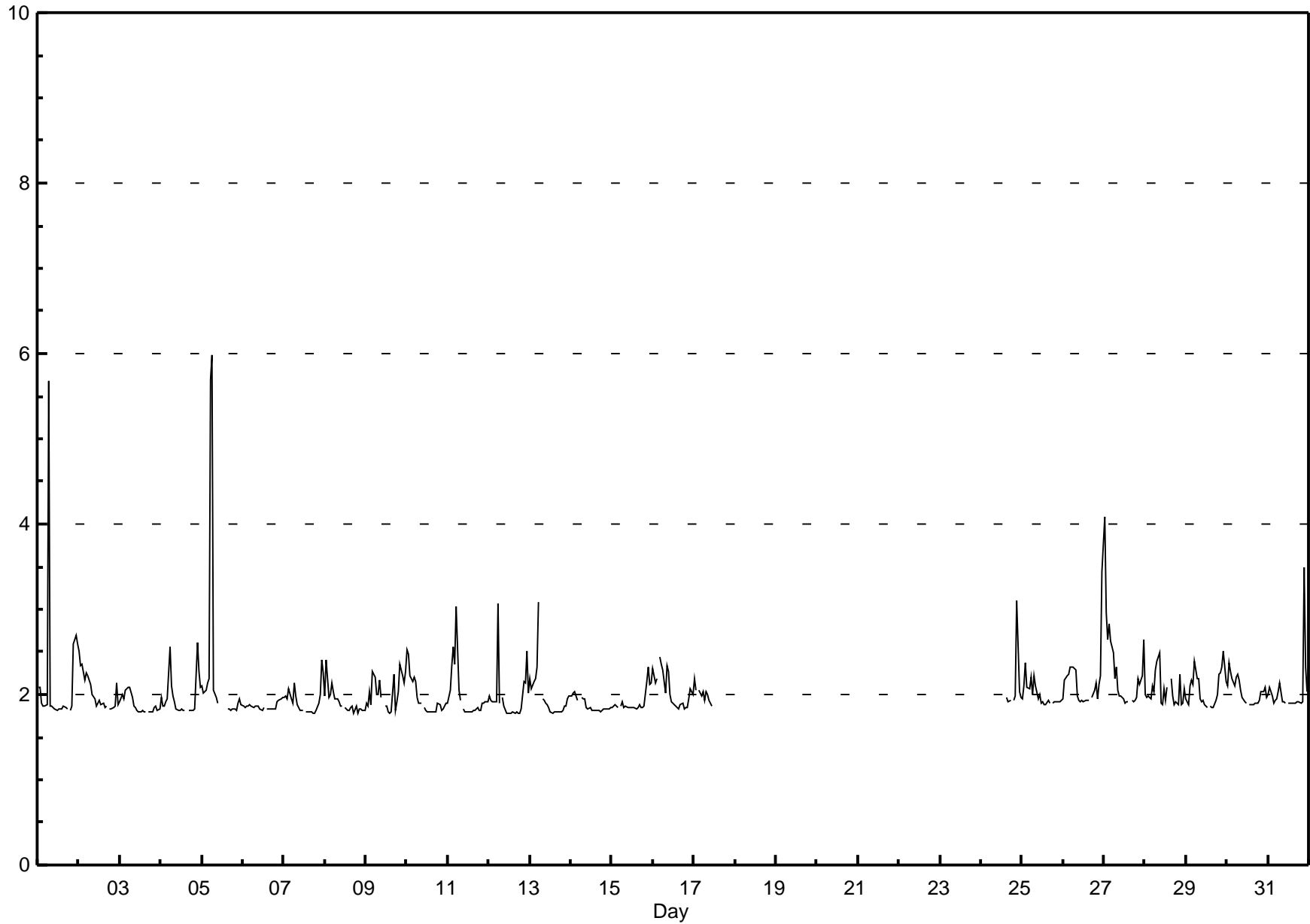
# Hourly Maximums

Methane (CH<sub>4</sub>) - ppm  
Henry Pirker - August 2015

Maximum Value: 5.99 ppm on Aug 5 07:00		Maximum Daily Average: 2.33 ppm on Aug 5		Hours in Service: 744																																													
Minimum Value: 1.8 ppm on Aug 12 12:00		Minimum Daily Average: 1.86 ppm on Aug 6		Hours of Data: 544																																													
Maximum Diurnal Average: 2.42 ppm at hour 6		Minimum Diurnal Average: 1.84 ppm at hour 15		Hours of Missing Data: 200																																													
Monthly Average: 2.017 ppm		Percentiles: P <sub>1</sub> = 1.78 P <sub>10</sub> = 1.81 Q <sub>1</sub> = 1.85 Median = 1.92 Q <sub>3</sub> = 2.07 P <sub>90</sub> = 2.28 P <sub>99</sub> = 2.95		Hours of Calibration: 34																																													
Percent Operational Time: 77.7																										Daily Average	Daily Maximum																						
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-Aug	2.1	2.1	1.9	1.9	1.9	1.9	5.7	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.8	A	1.8	1.9	2.6	2.7	2.6	2.14	5.67																							
2-Aug	2.5	2.3	2.4	2.2	2.3	2.2	2.2	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.9	A	1.8	1.8	1.8	1.9	2.1	1.9	2.03	2.51																							
3-Aug	1.9	2.0	1.9	2.1	2.1	2.1	2.1	2.0	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.9	1.9	1.8	1.8	1.89	2.09																							
4-Aug	2.0	1.9	1.9	1.9	1.9	2.6	2.1	2.0	1.9	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	2.6	2.3	2.1	1.96	2.61																							
5-Aug	2.1	2.0	2.0	2.1	2.2	5.7	6.0	2.0	2.0	1.9	C	C	C	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	2.33	5.99																							
6-Aug	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	A	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	2.0	1.86	1.97																							
7-Aug	2.0	2.0	1.9	2.1	1.9	1.9	2.1	2.0	1.9	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	2.0	2.4	2.3	1.93	2.41																							
8-Aug	2.0	2.4	2.0	2.0	2.1	2.0	1.9	2.0	1.9	1.9	1.9	A	1.8	1.8	1.8	1.8	1.9	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.91	2.41																							
9-Aug	1.9	1.9	2.0	1.9	2.3	2.2	2.0	2.0	2.2	2.0	A	1.9	1.9	1.8	1.8	1.8	2.2	1.8	1.9	2.0	2.4	2.2	2.1	2.3	2.02	2.36																							
10-Aug	2.5	2.5	2.2	2.1	2.2	2.1	2.0	1.9	1.9	A	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.8	1.8	1.9	1.9	1.96	2.52																							
11-Aug	1.9	2.1	2.3	2.6	2.4	3.0	2.0	1.9	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.99	3.03																							
12-Aug	2.0	1.9	1.9	1.9	1.9	3.1	1.9	A	2.0	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	2.2	2.1	2.5	2.0	1.96	3.07																							
13-Aug	2.2	2.1	2.2	2.2	2.3	3.1	A	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	2.0	1.98	3.08																							
14-Aug	2.0	2.0	2.0	2.0	1.9	A	2.0	2.0	1.9	1.8	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.88	2.03																							
15-Aug	1.9	1.9	1.9	1.8	A	1.9	1.9	1.9	1.9	1.8	1.8	1.9	1.8	1.8	1.8	1.8	1.9	1.8	1.8	1.9	2.2	2.3	2.1	2.1	1.91	2.33																							
16-Aug	2.3	2.1	2.2	A	2.4	2.4	2.3	2.0	2.3	2.3	2.0	1.9	1.9	1.9	1.8	1.8	1.9	1.9	1.8	1.9	1.8	1.9	2.1	2.0	2.04	2.44																							
17-Aug	2.2	2.1	A	2.0	2.0	2.0	1.9	2.0	2.0	1.9	1.9	C	C	C	N	N	N	N	N	N	N	N	N	N	--	2.18																							
18-Aug	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																						
19-Aug	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																						
20-Aug	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																						
21-Aug	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																						
22-Aug	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																						
23-Aug	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																						
24-Aug	N	N	N	N	N	N	N	N	N	N	N	N	C	C	C	2.0	1.9	1.9	A	1.9	1.9	2.0	3.1	2.0	2.0	--	3.10																						
25-Aug	1.9	2.1	2.4	2.1	2.1	2.2	2.0	2.2	2.1	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	2.00	2.38																							
26-Aug	2.0	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.0	2.1	2.1	1.9	2.1	2.2	3.4	2.14	3.45																							
27-Aug	4.1	3.0	2.6	2.8	2.6	2.5	2.2	2.3	2.1	2.0	2.0	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	2.0	2.2	2.1	2.2	2.7	2.29	4.08																							
28-Aug	2.0	2.0	2.0	2.0	2.1	2.0	2.3	2.4	2.5	1.9	1.9	2.1	1.9	2.1	A	2.2	2.0	1.9	1.9	1.9	2.2	1.9	1.9	2.1	2.04	2.49																							
29-Aug	1.9	1.9	2.1	2.2	2.1	2.4	2.2	2.2	2.0	1.9	1.9	1.9	1.9	A	1.9	1.8	1.8	1.9	2.0	2.2	2.3	2.3	2.5	2.2	2.06	2.50																							
30-Aug	2.1	2.4	2.3	2.2	2.1	2.2	2.2	2.2	2.0	2.0	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.1	2.0	2.04	2.38																							
31-Aug	2.0	2.1	2.0	1.9	1.9	1.9	2.0	2.1	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	3.5	2.3	2.0	2.03	3.50																							
																								2.13	2.11	2.10	2.08	2.13	2.42	2.40	2.05	2.00	1.91	1.87	1.87	1.85	1.85	1.84	1.86	1.87	1.85	1.87	1.89	1.97	2.15	2.11	2.11	Diurnal Average	
																								4.08	2.97	2.64	2.83	2.63	5.69	5.99	2.38	2.49	2.26	2.01	2.06	1.93	2.08	1.94	2.18	2.24	1.96	2.06	2.24	2.36	3.50	2.69	3.45	Diurnal Maximum	
C - Calibration																								N - Not Valid				A - Automated Daily Zero Span																					

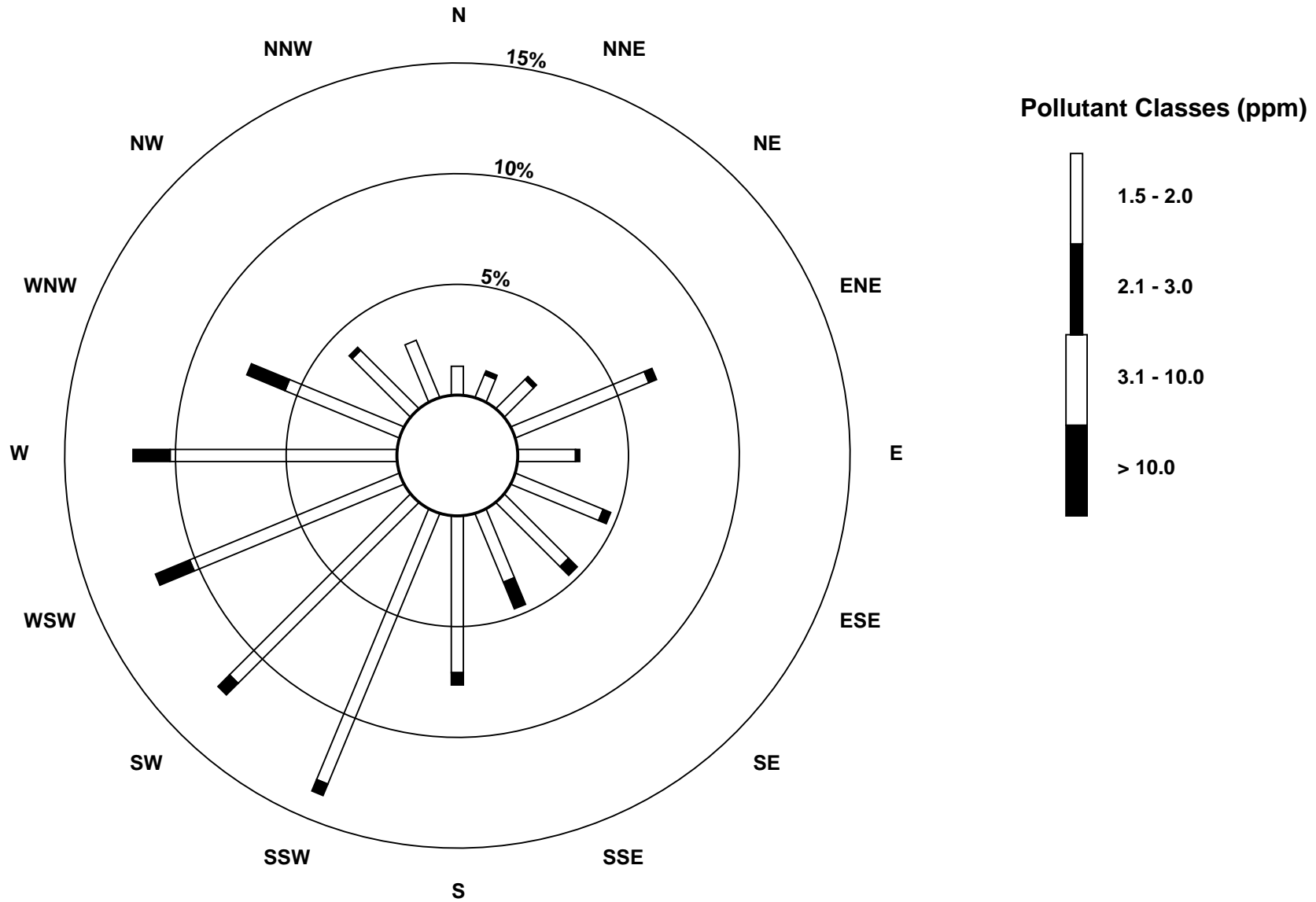
### Hourly Maximums

Methane (CH<sub>4</sub>) - ppm  
Henry Pirker - August 2015



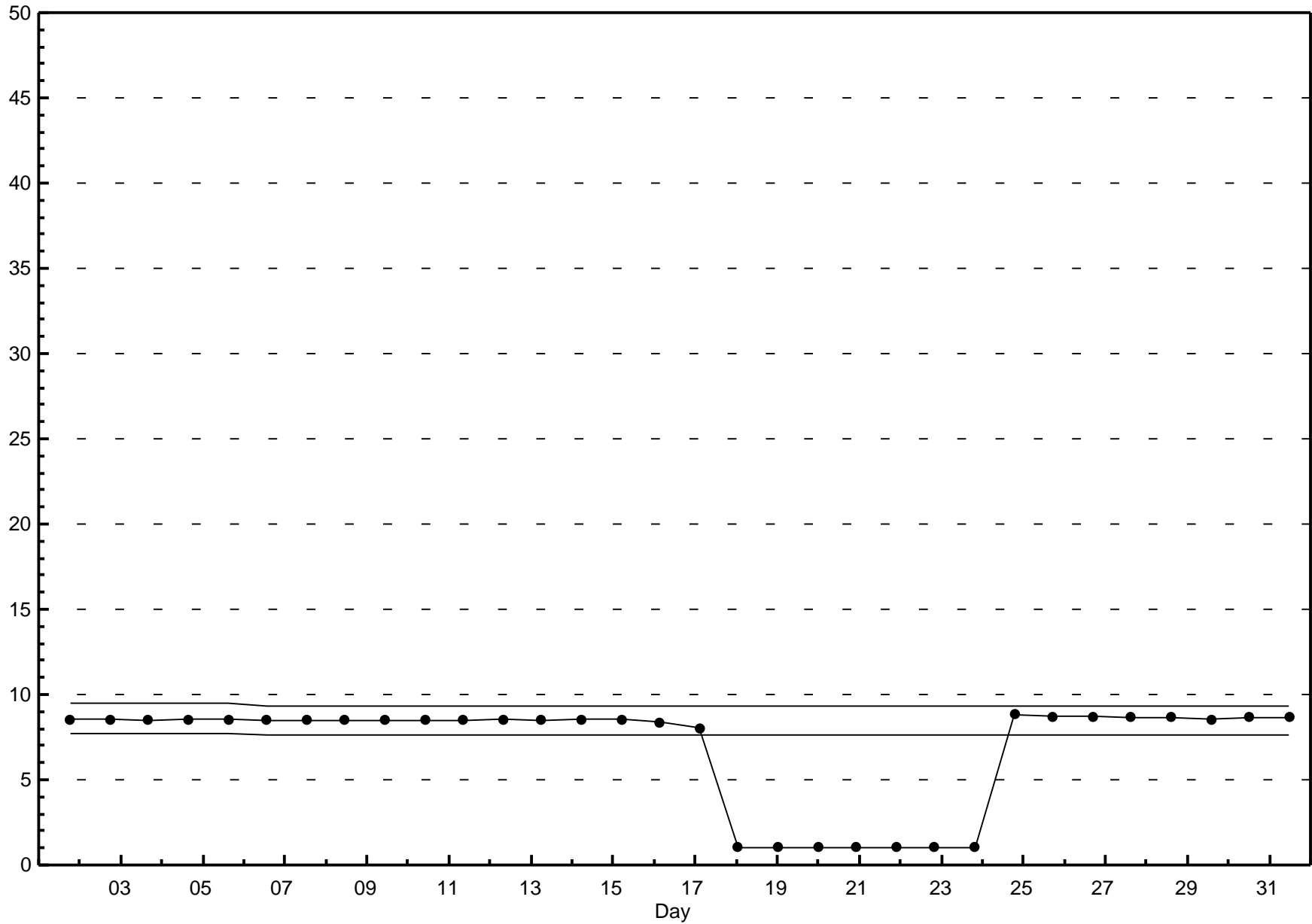
**Pollutant Rose**

**Methane (CH<sub>4</sub>) - ppm**  
**Henry Pirker - August 2015**



### Span Responses

Methane (CH<sub>4</sub>)  
Henry Pirker - August 2015



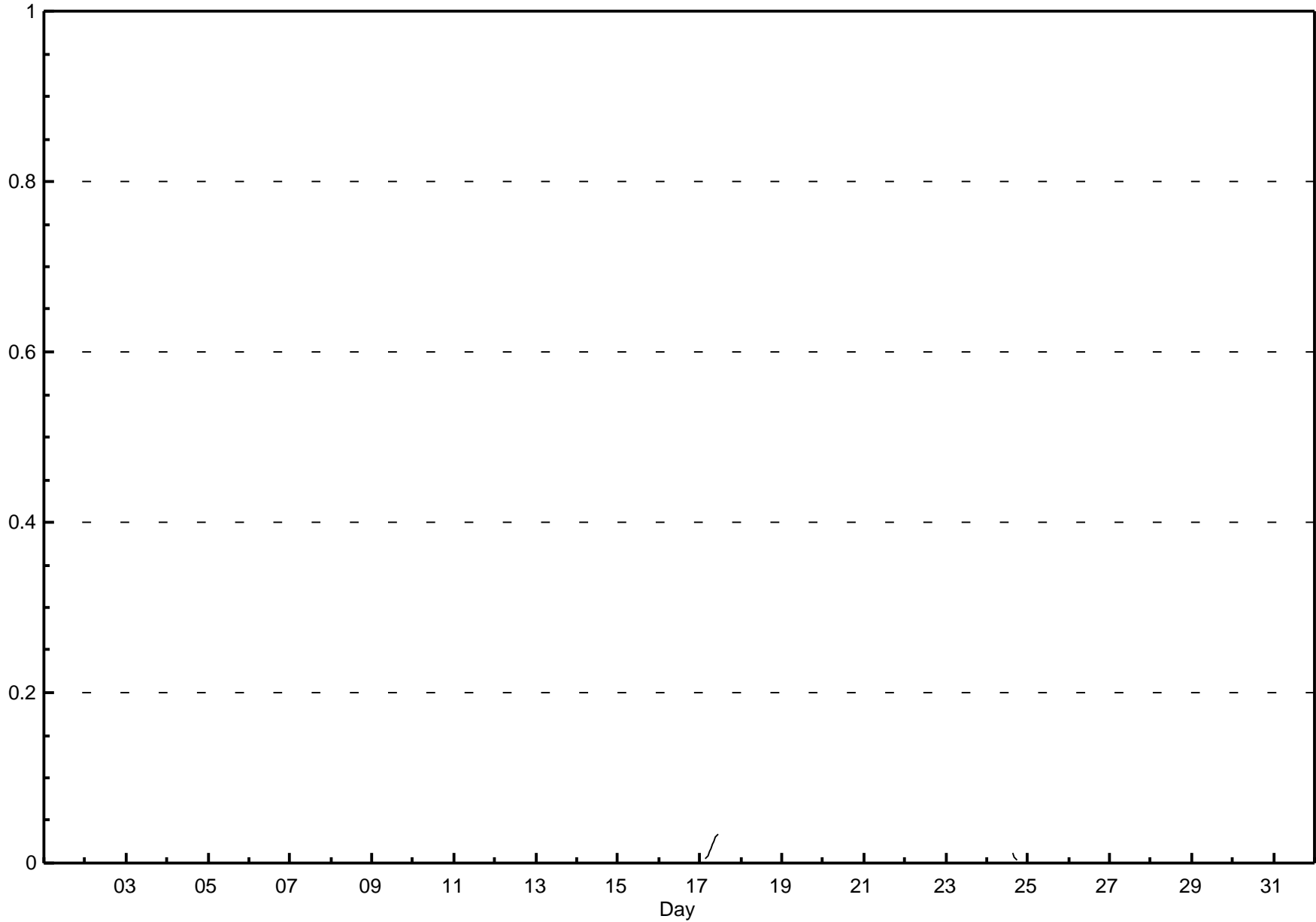
## Hourly Averages

## Non Methane Hydrocarbon (NMHC) - ppm

### Henry Pirker - August 2015

Number of Exceedences (AAQO):		1-hr: 0		24-hr: 0		Hours in Service:		744																																										
Maximum Value: 0.03 ppm on Aug 17 11:00		Maximum Daily Average: 0.00 ppm on Aug 25		Hours of Data:		544																																												
Minimum Value: 0.0 ppm on Aug 1 01:00		Minimum Daily Average: 0.00 ppm on Aug 2		Hours of Missing Data:		200																																												
Maximum Diurnal Average: 0.00 ppm at hour 11		Minimum Diurnal Average: 0.00 ppm at hour 13		Hours of Calibration:		34																																												
Monthly Average: 0.000 ppm		Percentiles: P <sub>1</sub> = 0.00 P <sub>10</sub> = 0.00 Q <sub>1</sub> = 0.00 Median = 0.00 Q <sub>3</sub> = 0.00 P <sub>90</sub> = 0.00 P <sub>99</sub> = 0.01		Percent Operational Time:		77.7																																												
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-Aug	0.0	0.0	0.0	0.0	0.0	0.0	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																							
2-Aug	0.0	0.0	0.0	0.0	0.0	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																							
3-Aug	0.0	0.0	0.0	0.0	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																							
4-Aug	0.0	0.0	0.0	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																							
5-Aug	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	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																							
6-Aug	0.0	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																							
7-Aug	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	0.0	0.00	0.00																							
8-Aug	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	0.0	0.00	0.00																							
9-Aug	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	0.0	0.00	0.00																							
10-Aug	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	0.0	0.00	0.00																							
11-Aug	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	0.0	0.00	0.00																							
12-Aug	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	0.0	0.00	0.00																							
13-Aug	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	0.0	0.00	0.00																							
14-Aug	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	0.0	0.00	0.00																							
15-Aug	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	0.0	0.00	0.00																							
16-Aug	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	0.0	0.00	0.00																							
17-Aug	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C	C	C	N	N	N	N	N	N	N	N	N	N	N	--	0.03																							
18-Aug	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																						
19-Aug	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																						
20-Aug	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																						
21-Aug	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																						
22-Aug	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																						
23-Aug	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																						
24-Aug	N	N	N	N	N	N	N	N	N	N	N	N	C	C	C	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	--	0.01																						
25-Aug	0.0	0.0	0.0	0.0	0.0	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																							
26-Aug	0.0	0.0	0.0	0.0	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																							
27-Aug	0.0	0.0	0.0	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																							
28-Aug	0.0	0.0	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																							
29-Aug	0.0	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																							
30-Aug	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	0.0	0.00	0.00																							
31-Aug	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	0.0	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	0.01	0.01	0.01	0.02	0.02	0.03	0.03	0.03	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Diurnal Maximum	
C - Calibration																								N - Not Valid				A - Automated Daily Zero Span																						



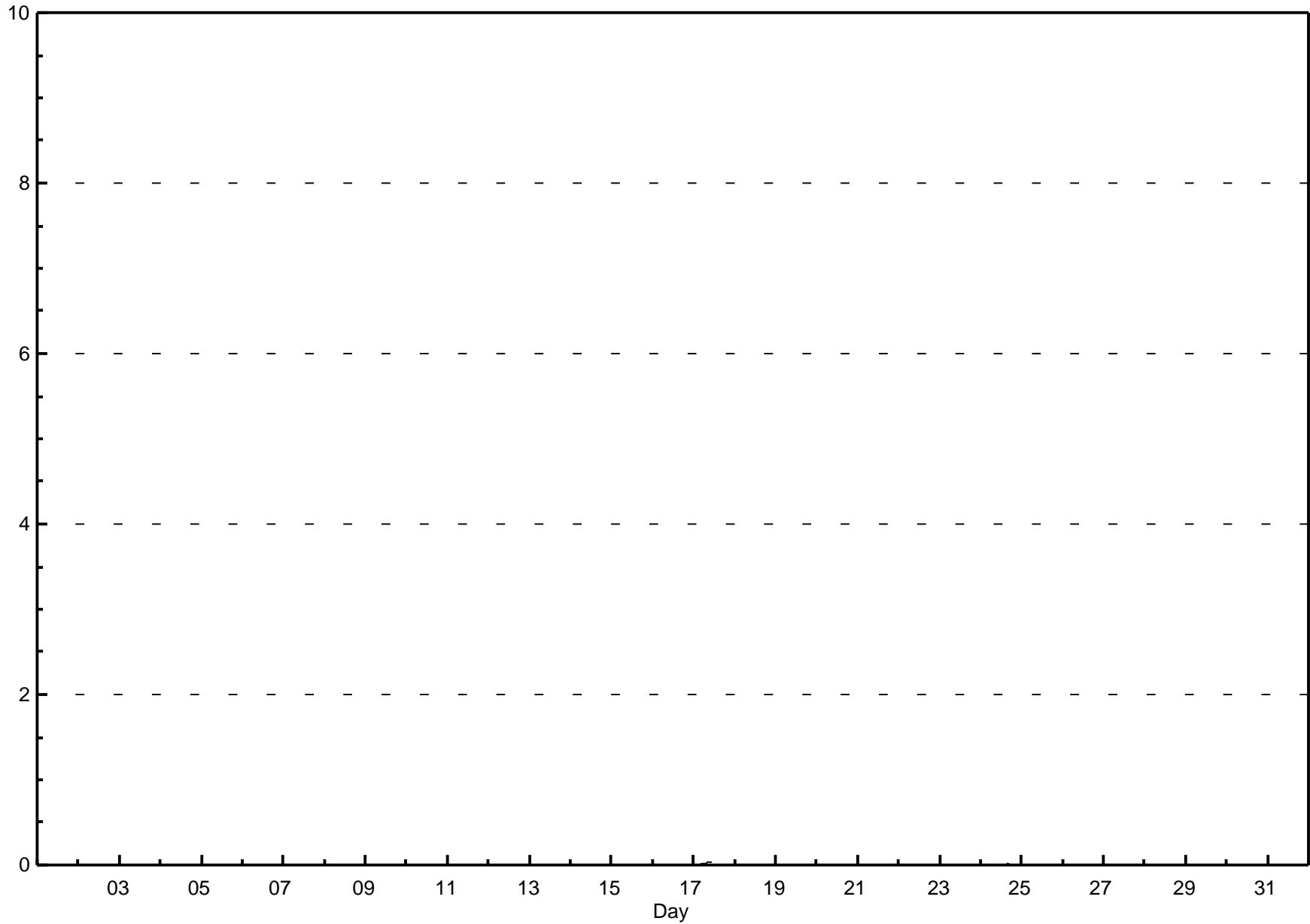


# Hourly Maximums

# Non Methane Hydrocarbon (NMHC) - ppm

## Henry Pirker - August 2015

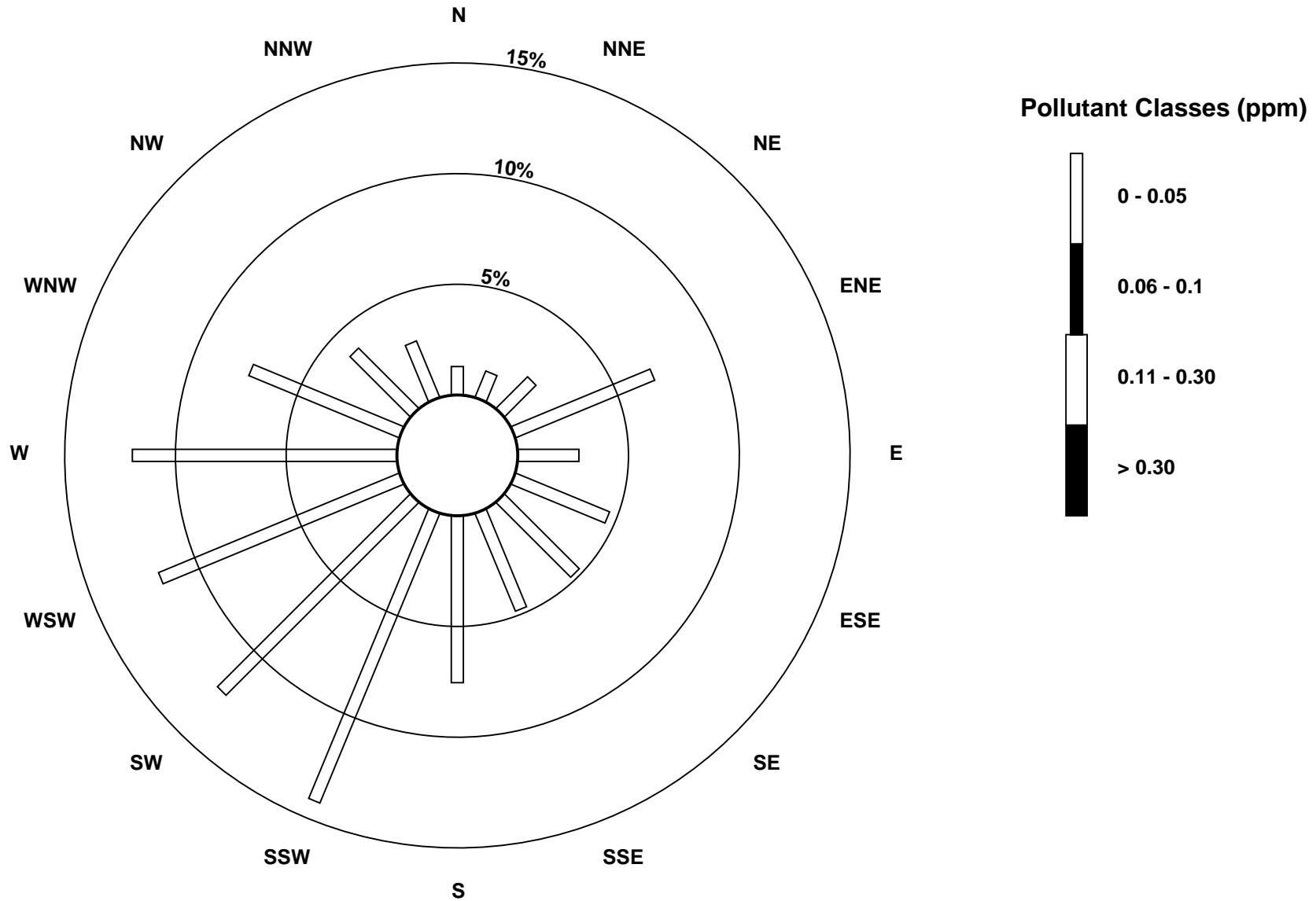
Maximum Value: 0.04 ppm on Aug 17 11:00      Maximum Daily Average: 0.00 ppm on Aug 3 Minimum Value: 0.0 ppm on Aug 1 03:00      Minimum Daily Average: 0.00 ppm on Aug 16 Maximum Diurnal Average: 0.00 ppm at hour 11      Minimum Diurnal Average: 0.00 ppm at hour 12 Monthly Average: 0.001 ppm      Percentiles: P <sub>1</sub> = 0.00 P <sub>10</sub> = 0.00 Q <sub>1</sub> = 0.00 Median = 0.00 Q <sub>3</sub> = 0.00 P <sub>90</sub> = 0.00 P <sub>99</sub> = 0.02																								Hours in Service: 744 Hours of Data: 544 Hours of Missing Data: 200 Hours of Calibration: 34 Percent Operational Time: 77.7			
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-Aug	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
2-Aug	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
3-Aug	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
4-Aug	0.0	0.0	0.0	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	
5-Aug	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	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
6-Aug	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
7-Aug	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
8-Aug	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
9-Aug	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	
10-Aug	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
11-Aug	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
12-Aug	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
13-Aug	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
14-Aug	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
15-Aug	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
16-Aug	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
17-Aug	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C	C	C	N	N	N	N	N	N	N	N	N	N	--	0.04	
18-Aug	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
19-Aug	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
20-Aug	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
21-Aug	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
22-Aug	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
23-Aug	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
24-Aug	N	N	N	N	N	N	N	N	N	N	N	N	C	C	C	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	--	0.01	
25-Aug	0.0	0.0	0.0	0.0	0.0	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		
26-Aug	0.0	0.0	0.0	0.0	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		
27-Aug	0.0	0.0	0.0	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		
28-Aug	0.0	0.0	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		
29-Aug	0.0	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		
30-Aug	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00		
31-Aug	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00		
																								0.00	0.00		
																								0.00	0.00		
C - Calibration      N - Not Valid      A - Automated Daily Zero Span																								Diurnal Average			
																								Diurnal Maximum			

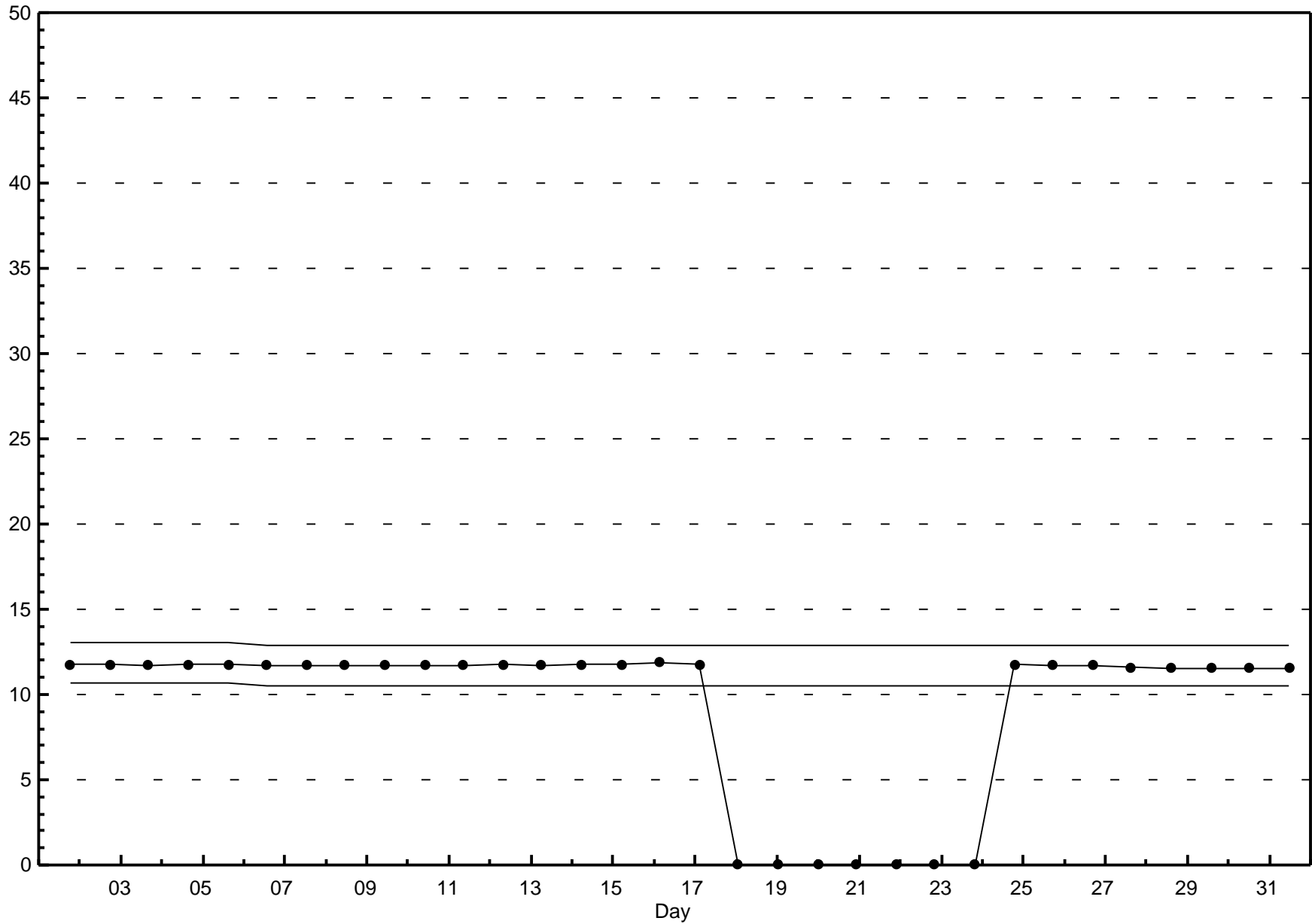


**Pollutant Rose**

**Non Methane Hydrocarbon (NMHC) - ppm**

**Henry Pirker - August 2015**







Peace Airshed Zone Association

# Hourly Averages

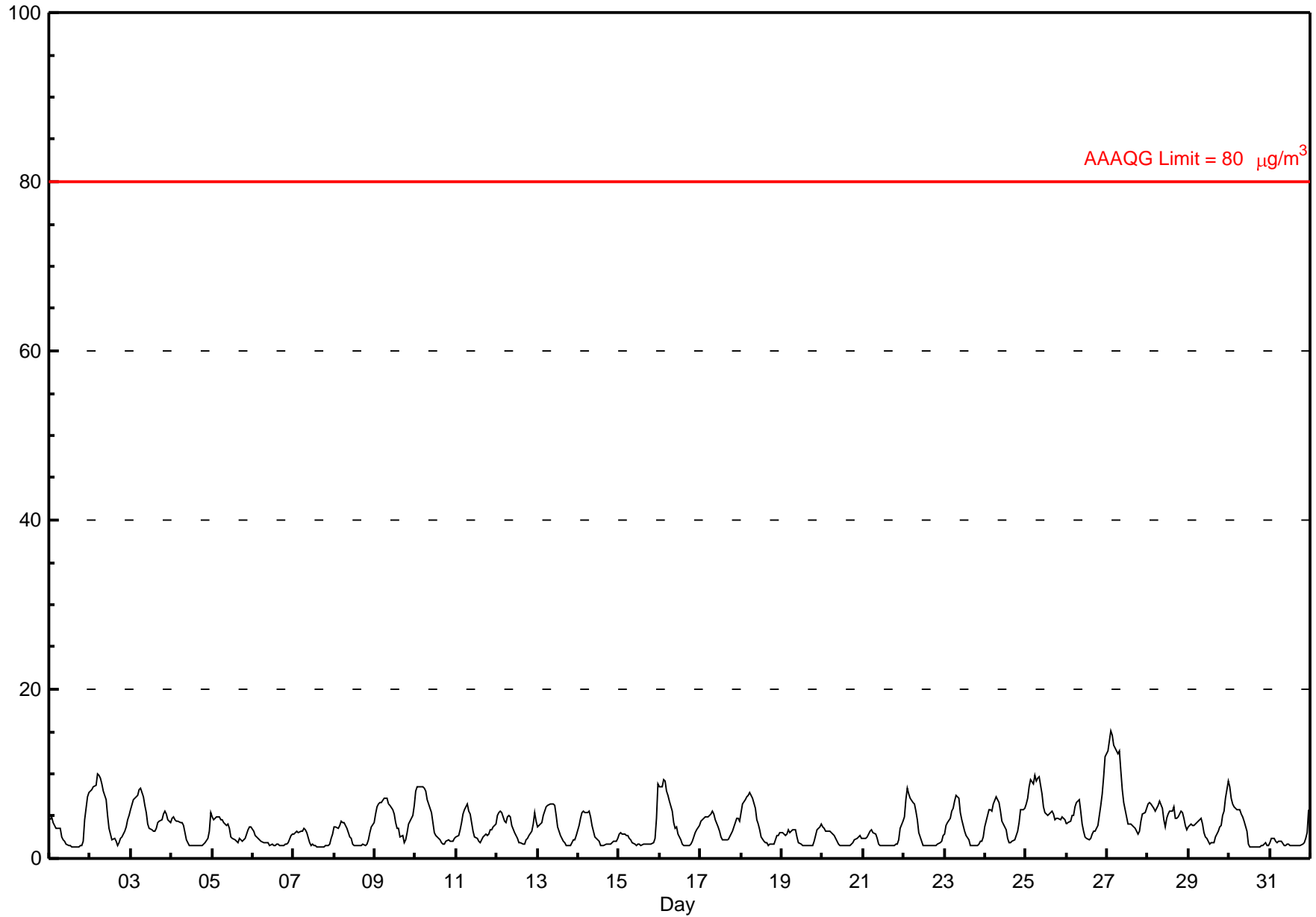
Particulate Matter 2.5 (PM<sub>2.5</sub>) - µg/m<sup>3</sup>

Henry Pirker - August 2015

Number of Exceedences: 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 15.2 µg/m <sup>3</sup> on Aug 27 03:00	Maximum Daily Average: 7.8 µg/m <sup>3</sup> on Aug 27
Minimum Value: 1 µg/m <sup>3</sup> on Aug 30 15:00	Hours of Data: 744
Maximum Diurnal Average: 5.7 µg/m <sup>3</sup> at hour 7	Hours of Missing Data: 0
Monthly Average: 3.82 µg/m <sup>3</sup>	Hours of Calibration: 0
Minimum Daily Average: 2.0 µg/m <sup>3</sup> on Aug 6	Percent Operational Time: 100.0
Minimum Diurnal Average: 2.1 µg/m <sup>3</sup> at hour 17	
Percentiles: P <sub>1</sub> = 1.4 P <sub>10</sub> = 1.5 Q <sub>1</sub> = 1.9 Median = 3.2 Q <sub>3</sub> = 5.1 P <sub>90</sub> = 6.9 P <sub>99</sub> = 12.7	

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-Aug	5	5	4	4	4	4	3	2	2	2	2	2	1	1	1	1	1	2	2	2	5	7	8	3.0	7.8	
2-Aug	8	8	8	9	10	10	9	9	8	7	5	4	3	2	2	2	2	2	2	2	3	4	5	5	5.4	10.0
3-Aug	6	7	7	7	8	8	8	7	6	5	4	4	3	3	3	4	4	4	5	5	6	5	5	4	5.4	8.3
4-Aug	5	5	5	4	4	4	4	4	3	2	2	2	2	2	2	2	2	2	2	2	2	2	3	5	2.9	5.4
5-Aug	5	5	5	5	5	5	5	4	4	4	4	3	2	2	2	2	2	2	2	2	3	3	4	4	3.5	5.0
6-Aug	3	3	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	2	2	3	3	2.0	3.1
7-Aug	3	3	3	3	3	3	4	3	3	2	2	2	2	1	1	1	1	1	1	1	2	2	2	3	2.2	3.5
8-Aug	4	4	4	4	4	4	4	4	3	2	2	2	2	2	2	2	2	2	2	2	2	3	4	4	2.8	4.4
9-Aug	5	6	6	7	7	7	7	7	6	6	6	5	4	3	3	3	3	2	2	2	3	4	5	6	5.0	7.2
10-Aug	8	8	9	8	9	8	8	7	6	5	4	3	3	2	2	2	2	2	2	2	2	2	2	2	4.5	8.5
11-Aug	2	3	3	4	5	6	6	6	5	4	3	3	2	2	2	3	3	3	3	3	3	3	4	4	3.5	6.5
12-Aug	5	5	6	5	4	4	5	5	5	4	3	3	2	2	2	2	2	2	2	3	3	4	5	4	3.7	5.7
13-Aug	4	4	4	5	6	6	6	6	6	6	6	5	4	3	2	2	2	2	2	1	2	2	2	3	3.8	6.5
14-Aug	4	5	5	6	5	5	6	5	4	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	3.1	5.6
15-Aug	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	5	9	2.5	8.9
16-Aug	8	9	9	9	8	7	7	6	4	4	4	3	2	2	2	2	2	2	2	2	3	3	3	4	4.3	9.3
17-Aug	4	5	5	5	5	5	5	6	5	5	4	3	3	2	2	2	2	3	3	3	4	5	5	4	3.9	5.6
18-Aug	5	6	7	7	7	8	7	7	6	5	4	3	3	2	2	2	2	2	2	2	2	3	3	3	4.1	7.7
19-Aug	3	3	3	3	3	3	3	3	3	3	2	2	2	1	2	2	2	2	1	2	3	3	4	4	2.5	4.1
20-Aug	4	4	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	2	2.3	3.7
21-Aug	2	2	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	4	4	2.3	4.4
22-Aug	5	7	8	8	7	7	6	6	5	3	2	2	2	1	1	1	2	2	2	2	2	2	2	3	3.6	8.4
23-Aug	3	4	4	5	6	6	7	8	7	5	4	4	3	3	2	1	2	2	2	2	2	2	2	3	3.6	7.5
24-Aug	4	5	6	6	6	6	7	7	7	6	4	4	3	2	2	2	2	2	3	3	4	6	6	6	4.5	7.2
25-Aug	6	7	8	9	9	10	9	9	10	8	6	5	5	5	5	6	5	5	5	5	5	5	5	5	6.5	9.8
26-Aug	4	4	4	5	5	6	7	7	6	4	3	3	2	2	2	3	3	3	4	5	6	8	10	12	5.0	12.1
27-Aug	13	14	15	15	13	13	12	13	10	8	7	5	4	4	4	4	4	3	3	3	4	5	5	6	7.8	15.2
28-Aug	6	7	6	6	6	6	6	7	6	5	4	5	5	6	6	6	5	5	5	6	5	5	4	3	5.4	6.8
29-Aug	4	4	4	4	4	4	5	5	4	3	3	2	2	2	2	2	2	3	4	4	5	6	7	9	3.9	9.2
30-Aug	8	7	6	6	6	6	6	5	5	4	3	2	1	1	1	1	1	1	1	2	2	2	2	2	3.4	8.4
31-Aug	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	6	2.0	5.7
	4.9	5.3	5.5	5.6	5.5	5.6	5.7	5.5	4.8	4.0	3.3	2.8	2.5	2.2	2.2	2.2	2.1	2.2	2.3	2.5	2.9	3.5	4.0	4.6	Diurnal Average	
	12.7	13.9	15.2	14.5	13.4	12.7	12.4	12.7	10.3	8.1	6.7	5.5	5.3	5.6	5.7	6.1	5.2	4.7	4.9	5.5	6.3	7.6	9.7	12.1	Diurnal Maximum	

Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 µg/m<sup>3</sup> Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 µg/m<sup>3</sup>



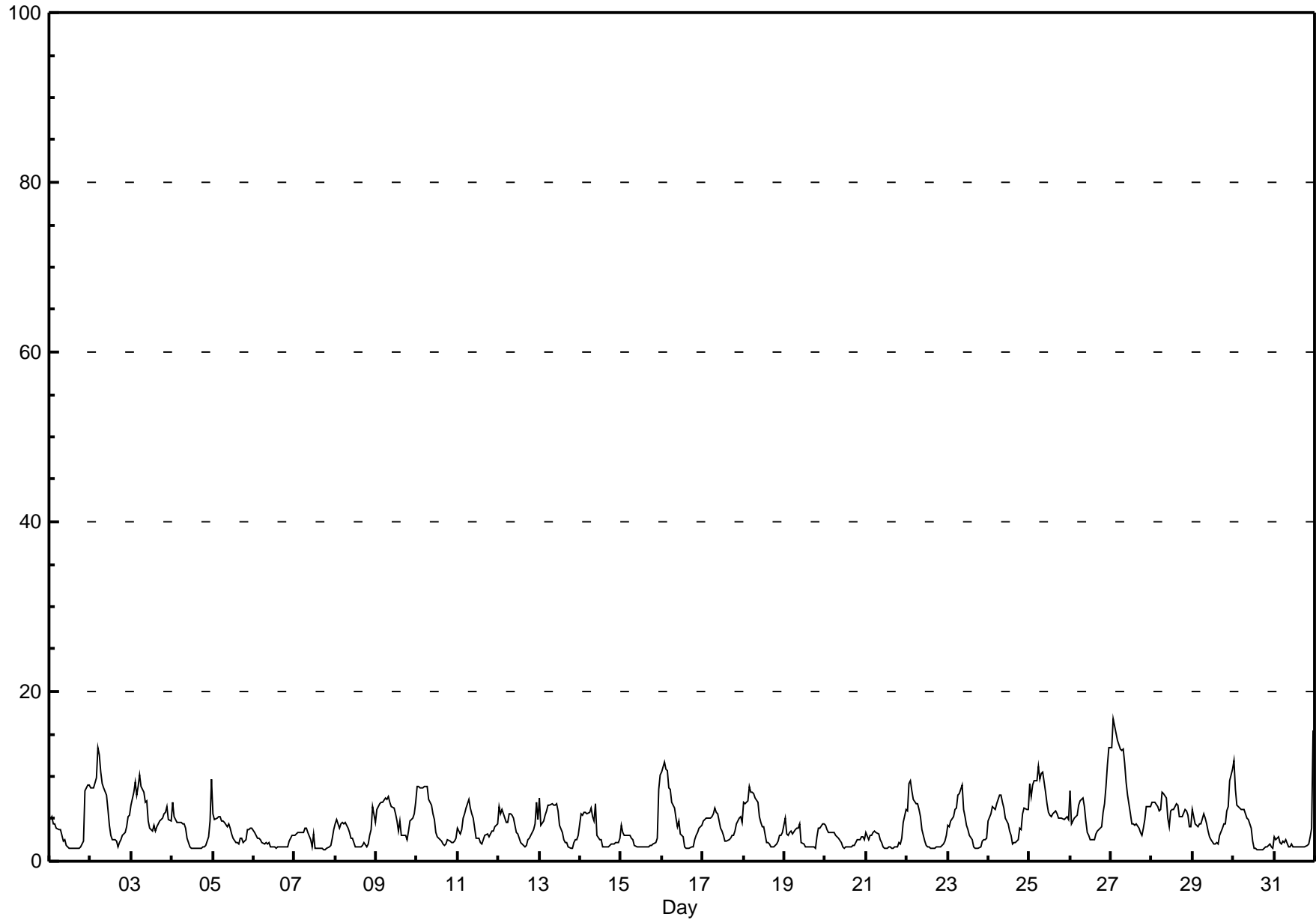
# Hourly Maximums

# Particulate Matter 2.5 (PM<sub>2.5</sub>) - µg/m<sup>3</sup>

## Henry Pirker - August 2015

Maximum Value: 16.8 µg/m <sup>3</sup> on Aug 27 02:00 Minimum Value: 1 µg/m <sup>3</sup> on Aug 30 15:00 Maximum Diurnal Average: 6.3 µg/m <sup>3</sup> at hour 1 Monthly Average: 4.32 µg/m <sup>3</sup>		Maximum Daily Average: 8.5 µg/m <sup>3</sup> on Aug 27 Minimum Daily Average: 2.2 µg/m <sup>3</sup> on Aug 6 Minimum Diurnal Average: 2.4 µg/m <sup>3</sup> at hour 16 Percentiles: P <sub>1</sub> = 1.5 P <sub>10</sub> = 1.7 Q <sub>1</sub> = 2.3 Median = 3.7 Q <sub>3</sub> = 5.7 P <sub>90</sub> = 7.8 P <sub>99</sub> = 13.4		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 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-Aug	5	5	4	4	4	4	4	3	2	3	2	2	2	2	2	2	2	2	2	2	2	8	9	9	3.5	9.1	
2-Aug	9	9	9	10	13	13	11	9	9	8	6	4	3	2	3	2	2	2	3	3	3	4	5	5	6.1	13.5	
3-Aug	7	8	9	8	9	10	9	8	7	7	5	4	4	4	4	4	4	5	5	6	6	6	5	5	6.1	10.2	
4-Aug	7	5	5	5	5	5	4	4	4	3	2	2	2	2	2	2	2	2	2	2	2	3	5	10	3.4	9.7	
5-Aug	6	5	5	5	5	5	5	5	4	4	4	3	3	2	2	2	3	3	2	3	4	4	4	4	3.8	5.7	
6-Aug	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	2.2	3.5	
7-Aug	3	3	3	3	3	3	4	4	3	3	2	3	2	2	2	2	2	1	1	2	2	2	3	4	2.5	4.0	
8-Aug	4	5	4	4	5	4	5	4	3	3	3	2	2	2	2	2	2	2	2	2	3	4	6	5	3.3	6.4	
9-Aug	6	7	7	7	7	7	7	8	7	7	6	6	5	4	5	3	3	3	3	4	5	5	6	7	5.5	7.6	
10-Aug	9	9	9	9	9	9	9	7	7	6	5	3	3	3	2	2	2	2	2	2	2	2	2	3	4.9	8.8	
11-Aug	4	3	4	5	6	6	7	6	6	5	4	3	3	2	2	2	3	3	3	3	4	4	4	4	4.0	7.4	
12-Aug	6	6	6	6	5	5	6	6	5	5	3	3	3	2	2	2	2	3	3	3	4	4	7	5	4.2	7.0	
13-Aug	7	4	5	5	6	7	7	7	7	7	7	6	4	3	3	2	2	2	2	2	2	2	2	3	4.3	7.5	
14-Aug	6	5	6	6	6	6	6	5	5	7	3	3	3	2	2	2	2	2	2	2	2	2	2	3	3.6	6.7	
15-Aug	4	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	3	8	10	2.9	10.2	
16-Aug	11	12	11	11	9	8	7	6	5	4	5	3	3	2	2	2	2	2	2	3	3	3	4	4	5.0	11.7	
17-Aug	5	5	5	5	5	5	6	6	6	6	4	4	3	2	2	3	3	3	3	4	4	5	5	5	4.3	6.3	
18-Aug	7	7	7	9	8	8	8	7	7	5	5	4	4	2	2	2	2	2	2	2	2	3	3	3	4.7	8.8	
19-Aug	5	3	3	3	4	3	4	4	4	4	2	2	2	2	2	2	2	2	2	3	4	4	4	4	3.0	5.1	
20-Aug	4	4	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	2.6	4.3	
21-Aug	3	3	3	3	3	4	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	3	5	6	2.6	6.0	
22-Aug	6	9	9	8	7	7	7	6	5	4	2	2	2	2	2	2	2	2	2	2	2	2	2	3	4.0	9.4	
23-Aug	4	4	5	5	6	6	8	8	9	6	5	4	4	3	3	2	2	2	2	2	2	2	3	3	4.1	9.0	
24-Aug	5	6	6	6	6	7	8	8	7	6	5	4	4	3	2	2	2	3	4	4	6	6	6	6	5.1	7.7	
25-Aug	9	8	9	10	10	11	10	10	11	8	7	6	5	5	6	6	6	5	5	5	5	5	5	5	7.1	11.1	
26-Aug	8	4	5	5	5	7	7	7	6	5	3	3	3	2	2	3	3	4	4	6	7	9	11	13	5.6	13.3	
27-Aug	13	17	16	15	14	13	13	13	12	9	8	6	4	4	4	4	4	3	3	4	5	6	6	6	8.5	16.8	
28-Aug	7	7	7	6	6	6	8	8	7	5	4	6	6	6	7	7	5	5	5	6	6	5	4	4	6.0	8.1	
29-Aug	6	4	4	4	4	4	6	5	4	4	3	3	2	2	2	2	3	4	4	4	6	7	10	11	4.5	10.9	
30-Aug	12	8	7	6	6	6	6	6	5	5	4	2	2	2	1	1	1	1	2	2	2	2	2	2	3.9	11.9	
31-Aug	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	4	15	2.7	15.4	
	6.3	5.9	6.0	6.0	6.0	6.1	6.2	5.9	5.4	4.7	3.8	3.2	2.8	2.5	2.4	2.4	2.4	2.4	2.5	2.9	3.4	4.0	4.8	5.6	Diurnal Average		
	13.4	16.8	15.9	15.0	14.2	13.2	13.1	13.2	11.5	9.3	7.8	5.9	6.0	6.1	6.7	6.6	5.7	5.3	5.3	6.2	6.8	8.8	11.4	15.4	Diurnal Maximum		

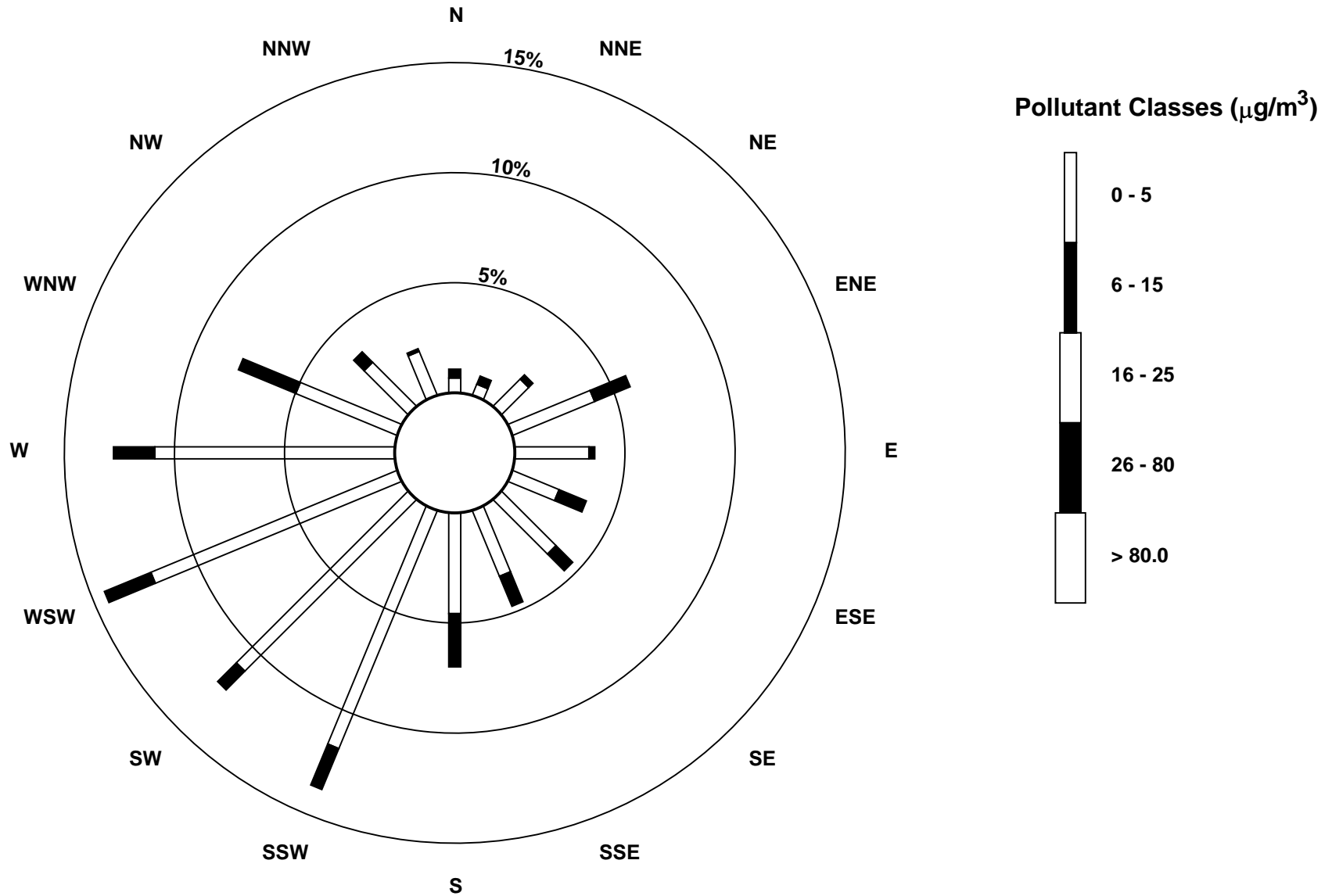




**Pollutant Rose**

**Particulate Matter 2.5 (PM<sub>2.5</sub>) - μg/m<sup>3</sup>**

**Henry Pirker - August 2015**





Peace Airshed Zone Association

# Hourly Averages

External Temperature (ET) - °C

Henry Pirker - August 2015

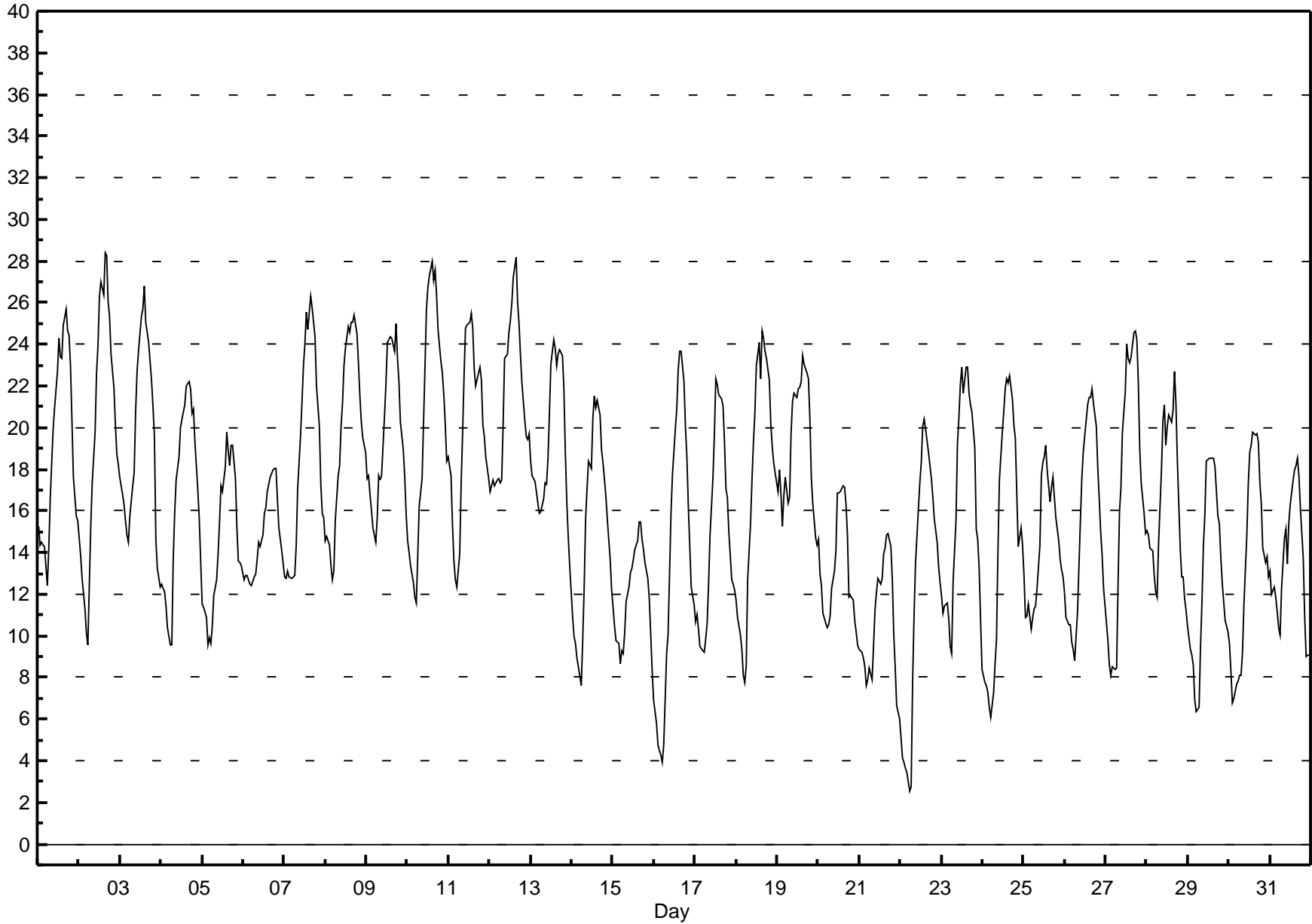
Number of Exceedences (AAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 28.4 °C on Aug 2 16:00	Maximum Daily Average: 21.3 °C on Aug 12		Hours of Data:	744
Minimum Value: 3 °C on Aug 22 06:00	Minimum Daily Average: 10.6 °C on Aug 21		Hours of Missing Data:	0
Maximum Diurnal Average: 21.9 °C at hour 16	Minimum Diurnal Average: 10.4 °C at hour 6		Hours of Calibration:	0
Monthly Average: 16.32 °C	Percentiles: P <sub>1</sub> = 4.3 P <sub>10</sub> = 9.5 Q <sub>1</sub> = 12.4 Median = 16.4 Q <sub>3</sub> = 20.3 P <sub>90</sub> = 23.5 P <sub>99</sub> = 27.2		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-Aug	15	14	15	14	14	12	14	17	18	20	21	23	24	23	25	26	25	24	23	20	18	16	16	19.2	25.7	
2-Aug	15	14	13	11	10	10	12	15	17	20	23	24	26	27	26	28	28	26	25	24	22	20	19	18	19.8	28.4
3-Aug	18	17	16	16	15	14	16	17	18	21	23	24	25	26	27	25	25	24	22	21	20	15	13	12	19.5	26.8
4-Aug	13	12	12	11	10	10	10	14	16	18	19	20	20	21	21	22	22	22	21	21	19	17	16	13	16.6	22.2
5-Aug	11	11	11	10	10	10	10	12	13	14	15	17	17	18	20	19	18	19	19	18	15	14	13	13	14.5	19.8
6-Aug	13	13	13	13	13	12	13	13	14	14	14	15	16	16	17	17	18	18	18	18	17	15	14	13	14.9	18.1
7-Aug	13	13	13	13	13	13	13	14	17	20	21	23	24	26	25	26	26	25	24	22	20	17	16	16	18.8	26.3
8-Aug	15	15	14	13	13	13	16	18	18	20	21	23	24	25	25	25	25	25	25	23	22	20	20	19	19.8	25.4
9-Aug	18	18	17	16	15	15	16	18	17	18	21	22	24	24	24	24	24	25	23	22	20	19	18	16	19.7	25.0
10-Aug	15	14	13	13	12	12	14	16	18	20	23	26	27	27	28	27	28	26	25	23	23	22	20	18	20.3	27.9
11-Aug	19	18	15	14	13	12	14	17	20	23	25	25	25	25	23	22	23	23	22	20	20	19	18	19.9	25.5	
12-Aug	17	17	17	17	17	18	17	17	20	23	24	25	25	26	27	28	26	25	23	22	20	20	19	20	21.3	28.2
13-Aug	18	18	17	17	16	16	16	17	17	17	19	21	23	24	24	23	24	24	23	22	19	16	15	13	19.1	24.2
14-Aug	11	10	10	9	9	8	10	12	16	17	18	18	20	22	21	21	21	19	18	18	17	16	14	12	15.2	21.5
15-Aug	11	10	10	10	9	9	9	10	12	12	13	13	14	14	15	15	15	15	14	14	13	12	10	8	12.0	15.5
16-Aug	7	6	5	4	4	4	5	9	10	13	16	18	20	21	23	24	24	22	20	19	16	14	12	12	13.6	23.7
17-Aug	11	11	10	9	9	9	10	11	12	15	18	20	22	22	22	21	21	19	17	17	15	13	12	12	14.9	22.3
18-Aug	12	11	10	9	8	8	9	13	15	17	19	21	23	24	22	25	24	24	23	22	20	19	18	18	17.3	24.6
19-Aug	17	18	17	15	17	18	16	17	20	21	22	21	22	22	22	23	23	23	22	20	18	16	15	14	19.1	23.5
20-Aug	15	13	12	11	11	10	11	11	12	13	14	17	17	17	17	16	15	12	12	12	12	11	10	10	13.1	17.2
21-Aug	9	9	9	9	8	8	8	8	10	11	12	13	12	13	14	14	15	15	14	13	10	8	7	6	10.6	14.9
22-Aug	5	4	4	4	3	3	3	8	11	13	16	17	18	20	20	20	19	18	18	17	16	14	13	13	12.4	20.4
23-Aug	12	11	11	12	11	9	9	13	16	19	20	22	23	22	23	23	22	21	21	19	15	15	13	11	16.3	22.9
24-Aug	8	8	8	7	7	6	7	9	10	14	17	20	21	22	22	22	22	21	20	20	17	14	15	14	14.7	22.5
25-Aug	13	11	11	12	10	11	11	11	12	14	18	18	19	19	18	16	17	18	17	16	15	14	13	13	14.4	19.2
26-Aug	12	11	11	11	10	9	9	11	13	16	18	19	20	21	21	21	22	21	20	18	17	15	14	12	15.5	21.8
27-Aug	11	10	9	8	9	8	8	12	16	17	20	22	24	23	23	23	25	25	24	22	19	17	16	15	16.9	24.7
28-Aug	15	15	14	14	13	12	12	14	18	20	21	19	20	21	20	21	23	21	18	14	13	13	12	11	16.5	22.7
29-Aug	10	9	9	9	7	6	7	9	12	14	16	18	19	19	19	19	18	16	15	14	13	12	11	10	12.9	18.5
30-Aug	10	8	7	7	8	8	8	8	9	12	15	17	19	19	20	20	20	19	17	16	14	14	14	13	13.4	19.8
31-Aug	13	12	12	12	11	10	10	12	15	15	13	15	16	17	18	18	19	18	16	14	11	9	9	9	13.6	18.5
	12.9	12.3	11.8	11.2	10.7	10.4	11.0	13.0	14.9	16.9	18.5	19.8	20.9	21.5	21.7	21.9	21.8	21.2	20.2	18.8	16.9	15.4	14.4	13.5	Diurnal Average	
	18.6	18.0	17.5	17.2	17.5	17.6	17.3	17.7	20.1	23.3	24.8	25.7	26.8	27.3	27.9	28.4	28.3	26.4	25.3	23.5	22.6	21.6	20.2	19.7	Diurnal Maximum	

**Hourly Averages**

**External Temperature (ET) - °C**

**Henry Pirker - August 2015**



# Hourly Averages

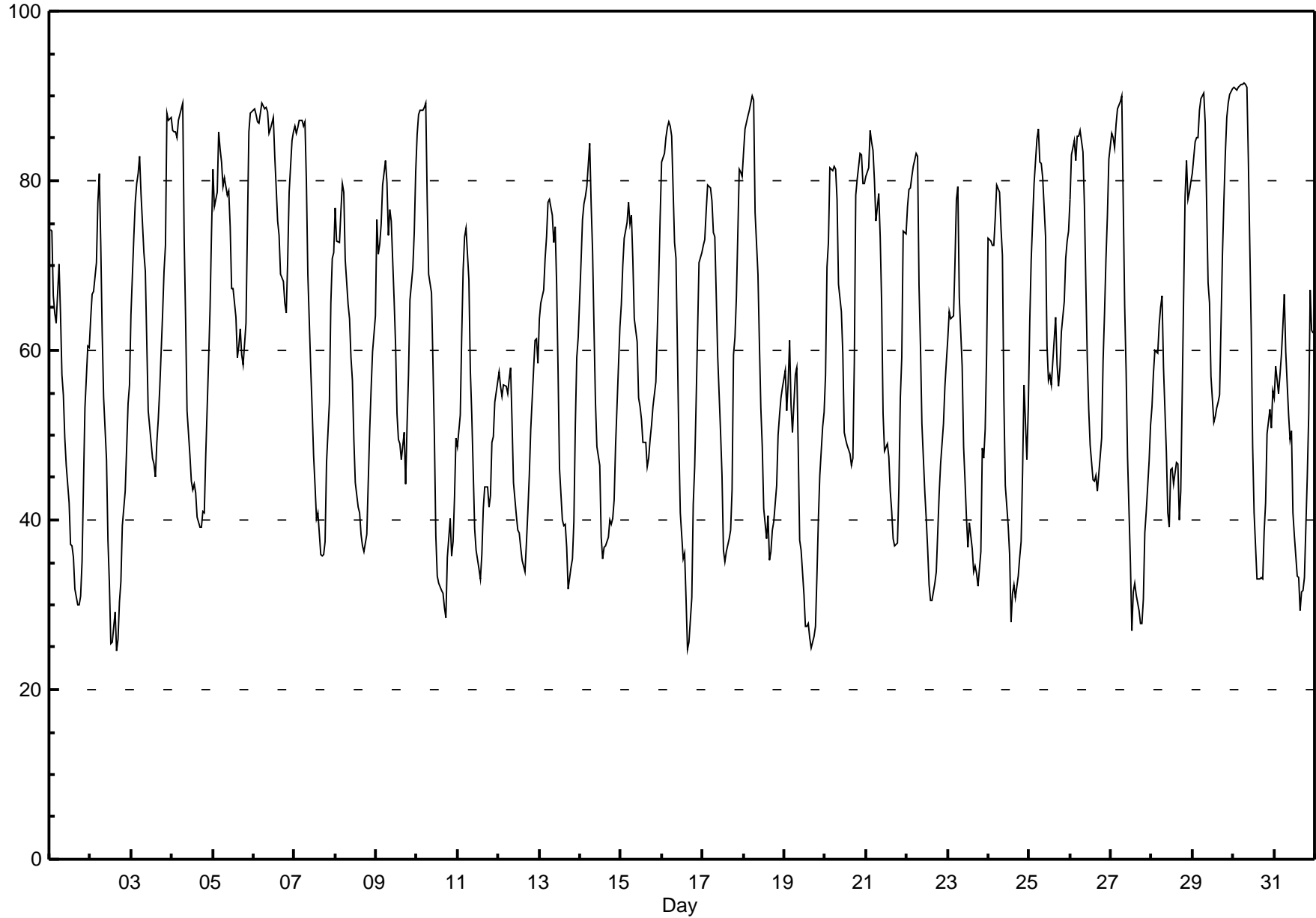
Relative Humidity (RH) - %

Henry Pirker - August 2015

Number of Exceedences (AAQO): 1-hr: 0 24-hr: 0 Maximum Value: 91.5 % on Aug 30 07:00      Maximum Daily Average: 81.2 % on Aug 6		Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0																								
Minimum Value: 25 % on Aug 2 16:00 Maximum Diurnal Average: 79.8 % at hour 6 Monthly Average: 59.47 %		Minimum Daily Average: 42.1 % on Aug 19 Minimum Diurnal Average: 39.8 % at hour 17 Percentiles: P <sub>1</sub> = 26.1 P <sub>10</sub> = 35.4 Q <sub>1</sub> = 44.1 Median = 58.5 Q <sub>3</sub> = 76.0 P <sub>90</sub> = 85.2 P <sub>99</sub> = 91.0																								
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-Aug	74	74	66	64	63	70	64	57	55	50	46	42	37	37	36	32	30	30	31	35	44	53	60	60	50.5	74.2
2-Aug	64	67	67	70	77	81	73	62	54	47	38	33	25	26	29	25	26	30	33	39	43	48	54	56	48.6	80.9
3-Aug	64	73	77	80	81	83	79	72	69	61	53	51	47	47	45	49	52	55	64	69	72	88	87	87	66.9	87.9
4-Aug	86	86	86	85	87	88	89	73	64	53	48	45	44	44	43	40	39	39	41	41	48	59	65	74	61.1	89.1
5-Aug	81	77	79	86	84	82	79	80	78	79	75	67	67	64	59	61	63	60	58	63	75	86	88	88	74.1	88.2
6-Aug	88	88	87	87	88	89	89	89	88	86	86	87	83	79	75	74	69	68	66	64	71	79	85	86	81.2	89.1
7-Aug	86	86	86	87	87	86	87	80	69	58	53	48	44	40	41	36	36	36	37	47	54	66	71	72	62.2	87.1
8-Aug	77	73	73	76	80	79	71	65	64	59	56	50	44	42	41	38	37	36	38	44	51	55	60	64	57.2	79.7
9-Aug	75	71	73	75	80	82	80	74	77	75	66	61	53	49	49	47	50	44	51	57	66	70	74	81	65.8	82.4
10-Aug	85	88	88	88	89	89	78	69	67	59	50	38	33	33	32	31	30	28	36	40	36	37	43	50	54.8	89.1
11-Aug	49	52	62	70	73	74	68	58	52	46	39	36	34	33	36	41	44	44	42	43	49	50	54	56	50.2	74.3
12-Aug	57	56	55	56	56	55	57	58	52	44	41	39	38	37	35	34	37	41	45	51	58	61	61	58	49.2	61.4
13-Aug	64	66	67	71	73	78	78	76	73	75	68	58	46	40	39	40	37	32	34	36	40	51	59	62	56.7	77.8
14-Aug	70	75	77	78	79	84	77	72	63	54	49	46	38	35	37	37	38	40	40	40	42	49	58	63	55.9	84.4
15-Aug	65	70	73	75	77	75	76	71	64	61	54	53	52	49	49	46	47	49	51	53	56	62	68	76	61.5	77.5
16-Aug	82	83	85	86	87	86	85	73	71	60	49	41	35	36	31	25	26	31	42	46	54	62	70	72	59.1	87.0
17-Aug	72	73	76	79	79	78	74	73	67	59	50	45	36	35	36	38	39	44	59	62	66	81	81	80	61.9	81.4
18-Aug	83	86	88	88	89	90	90	76	69	61	53	49	41	38	40	35	36	39	40	44	50	52	54	56	60.4	90.1
19-Aug	58	53	56	61	53	50	57	58	49	38	36	31	27	27	28	26	25	26	27	33	40	45	51	53	42.1	61.2
20-Aug	57	70	73	81	81	82	81	78	68	65	60	50	49	49	48	47	47	58	78	80	83	83	80	80	67.8	83.3
21-Aug	81	81	86	85	83	80	75	78	73	66	53	48	49	47	43	41	38	37	37	44	54	59	74	74	62.0	85.9
22-Aug	77	79	79	81	82	83	83	68	60	51	43	40	37	32	30	30	33	34	38	43	47	51	56	59	54.8	83.2
23-Aug	61	65	64	64	70	78	79	66	58	49	45	40	37	40	37	34	35	34	32	36	48	47	51	59	51.2	79.3
24-Aug	73	73	72	72	76	79	79	74	71	54	44	39	36	28	31	32	31	33	36	38	46	56	47	53	53.1	79.4
25-Aug	63	71	75	80	85	86	82	82	80	73	60	56	57	56	59	64	58	56	58	62	66	71	73	74	68.7	86.2
26-Aug	78	83	85	82	85	85	86	83	77	68	59	53	49	45	45	45	43	45	50	59	64	71	76	83	66.6	86.0
27-Aug	86	85	84	87	88	89	90	78	65	58	47	35	27	31	33	31	29	28	28	31	38	41	47	51	54.4	89.9
28-Aug	53	57	60	60	63	65	66	58	48	41	39	46	46	44	47	47	40	43	55	78	82	78	79	80	57.3	82.4
29-Aug	81	85	85	85	88	90	90	87	77	68	66	57	51	52	53	54	55	71	78	83	87	89	90	91	75.6	90.9
30-Aug	91	91	91	91	91	91	91	91	91	82	62	49	41	37	33	33	33	33	39	42	50	53	51	55	63.1	91.5
31-Aug	54	58	55	57	60	63	67	60	52	50	51	41	38	33	33	29	32	32	33	45	53	67	62	62	49.4	67.2
		72.2	74.0	75.1	77.0	78.6	79.8	78.0	72.2	66.6	59.6	52.9	47.6	43.4	41.5	41.1	40.1	39.8	41.2	45.1	50.0	55.9	62.0	65.4	68.2	Diurnal Average
		91.0	90.8	90.7	91.0	91.3	91.4	91.5	91.4	91.1	85.6	86.1	87.4	82.9	79.2	75.2	73.6	69.0	71.4	78.2	83.2	87.4	89.1	90.1	90.9	Diurnal Maximum

**Hourly Averages**

**Relative Humidity (RH) - %**  
**Henry Pirker - August 2015**

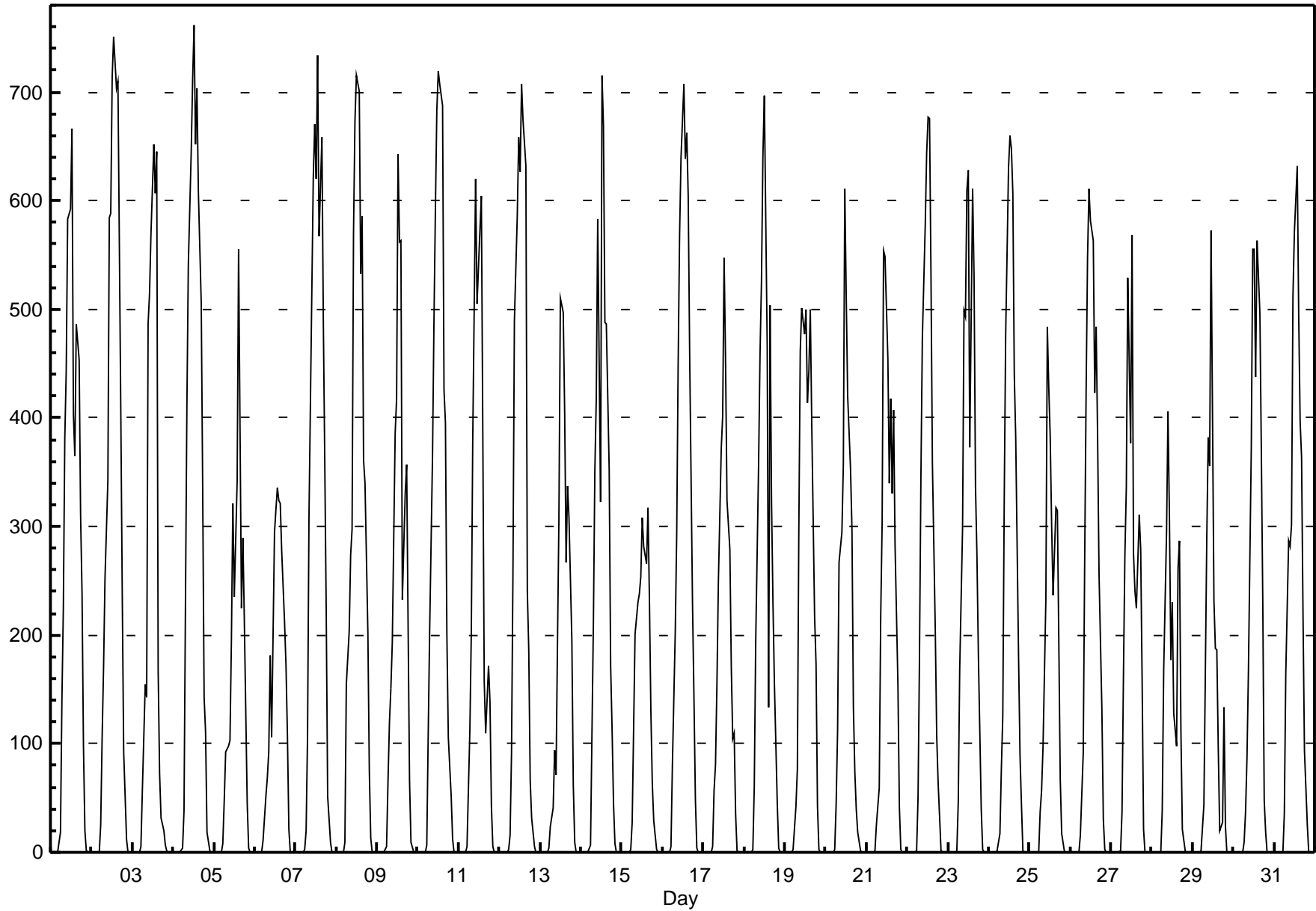


## Hourly Averages

## Solar Radiation (SR) - W/m<sup>2</sup>

### Henry Pirker - August 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 761.0 W/m <sup>2</sup> on Aug 4 13:00      Maximum Daily Average: 267.2 W/m <sup>2</sup> on Aug 4		Hours in Service: 744 Hours of Data: 744																								
Minimum Value: 0 W/m <sup>2</sup> on Aug 1 01:00 Maximum Diurnal Average: 557.2 W/m <sup>2</sup> at hour 13 Monthly Average: 184.16 W/m <sup>2</sup>		Minimum Daily Average: 105.6 W/m <sup>2</sup> on Aug 28 Minimum Diurnal Average: 0.0 W/m <sup>2</sup> at hour 1 Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.0 Median = 65.3 Q <sub>3</sub> = 336.5 P <sub>90</sub> = 566.3 P <sub>99</sub> = 712.8																								
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-Aug	0	0	0	0	0	19	140	225	380	443	584	592	666	403	365	487	453	310	239	98	19	1	0	0	226.0	665.7
2-Aug	0	0	0	0	0	25	105	170	253	342	584	588	714	751	703	710	558	404	239	92	12	0	0	0	260.5	751.4
3-Aug	0	0	0	0	0	6	56	154	142	486	515	570	652	607	646	168	73	32	20	7	1	0	0	0	172.2	652.0
4-Aug	0	0	0	0	0	4	38	228	410	540	644	711	761	652	704	609	505	334	142	112	18	1	0	0	267.2	761.0
5-Aug	0	0	0	0	0	9	47	92	97	103	196	321	235	342	555	389	225	290	213	45	4	0	0	0	131.8	554.7
6-Aug	0	0	0	0	0	10	52	69	92	181	106	294	315	336	323	321	277	212	172	107	21	0	0	0	120.5	336.3
7-Aug	0	0	0	0	0	2	20	107	309	518	622	670	620	734	567	658	488	358	223	52	9	0	0	0	248.3	733.7
8-Aug	0	0	0	0	0	10	155	204	273	298	570	673	715	701	532	585	361	340	202	75	13	0	0	0	237.8	715.1
9-Aug	0	0	0	0	0	6	64	119	150	194	386	417	642	562	563	233	330	357	209	66	9	0	0	0	179.5	642.2
10-Aug	0	0	0	0	0	6	109	204	364	487	591	683	719	707	687	426	396	200	106	52	11	0	0	0	239.5	718.8
11-Aug	0	0	0	0	0	5	112	202	380	498	620	505	572	605	387	158	110	171	139	42	5	0	0	0	188.1	620.1
12-Aug	0	0	0	0	0	3	17	91	260	489	585	658	626	707	674	633	241	186	67	32	5	0	0	0	219.7	706.8
13-Aug	0	0	0	0	0	4	23	41	94	71	193	307	510	497	405	267	337	308	195	63	9	0	0	0	138.5	510.0
14-Aug	0	0	0	0	0	6	109	211	351	418	584	323	715	669	487	487	352	172	114	45	7	0	0	0	210.4	715.2
15-Aug	0	0	0	0	0	2	28	113	201	230	238	253	308	282	265	317	232	131	63	30	3	0	0	0	112.4	316.7
16-Aug	0	0	0	0	0	6	80	204	293	449	569	640	707	639	662	604	460	229	143	49	4	0	0	0	239.1	707.4
17-Aug	0	0	0	0	0	5	57	80	155	248	371	402	548	452	324	279	170	105	110	36	1	0	0	0	139.3	548.0
18-Aug	0	0	0	0	0	2	61	194	357	459	525	642	697	466	134	504	324	230	157	45	4	0	0	0	200.0	696.6
19-Aug	0	0	0	0	0	3	42	76	295	462	500	478	499	414	443	500	395	217	174	42	3	0	0	0	189.3	500.5
20-Aug	0	0	0	0	0	3	45	112	267	295	357	611	513	420	353	297	133	74	39	18	1	0	0	0	147.5	610.8
21-Aug	0	0	0	0	0	1	25	60	215	303	554	548	455	340	417	331	408	282	154	43	3	0	0	0	172.4	553.7
22-Aug	0	0	0	0	0	2	50	180	345	474	576	644	676	675	533	359	204	108	64	33	2	0	0	0	205.2	676.3
23-Aug	0	0	0	0	0	1	47	168	299	498	493	610	628	372	611	530	338	274	183	40	2	0	0	0	212.3	628.3
24-Aug	0	0	0	0	0	1	17	76	126	324	476	631	659	647	607	441	382	178	89	44	1	0	0	0	195.8	659.2
25-Aug	0	0	0	0	0	1	36	57	96	235	484	428	384	302	237	317	314	195	68	17	1	0	0	0	132.1	484.3
26-Aug	0	0	0	0	0	0	16	92	267	423	547	610	581	563	423	483	384	256	131	31	2	0	0	0	200.4	610.4
27-Aug	0	0	0	0	0	1	36	163	274	335	529	377	568	275	241	225	311	279	159	21	0	0	0	0	158.1	568.3
28-Aug	0	0	0	0	0	1	38	167	294	406	310	177	231	128	97	262	287	113	22	1	0	0	0	0	105.6	406.1
29-Aug	0	0	0	0	0	1	43	164	288	382	355	572	231	187	187	96	20	27	134	24	0	0	0	0	113.0	572.3
30-Aug	0	0	0	0	0	0	10	37	87	167	372	555	555	437	564	495	367	230	47	19	0	0	0	0	164.3	563.7
31-Aug	0	0	0	0	0	0	36	164	288	281	302	512	571	632	494	397	363	220	94	25	0	0	0	0	182.4	631.7
		0.0	0.0	0.0	0.0	0.0	4.6	55.3	136.2	248.5	356.1	462.5	516.2	557.2	500.2	457.8	405.4	316.1	220.1	132.6	45.3	5.6	0.1	0.0	0.0	Diurnal Average
		0.0	0.1	0.1	0.1	0.3	24.8	154.7	227.5	410.2	540.1	643.9	710.7	761.0	751.4	703.6	710.1	558.2	404.3	239.5	111.6	21.2	0.9	0.1	0.0	Diurnal Maximum







Peace Airshed Zone Association

# Hourly Averages

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

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 Spd	4	2	8	12	12	6	7	8	8	10	10	9	9	8	8	7	7	7	8	6	3	2	1	2	6.3	12.2
Dir	239	220	230	223	220	249	229	223	209	249	268	258	234	256	253	255	257	277	281	280	281	269	300	251	246.3	220.2
2 Spd	3	2	1	2	2	2	1	1	4	2	5	4	4	3	4	3	2	8	8	9	6	5	5	8	1.3	8.5
Dir	240	259	258	285	287	292	250	244	189	218	270	256	216	179	120	221	187	84	85	103	92	79	94	93	131.2	102.7
3 Spd	7	3	3	1	2	0	2	5	5	6	7	8	8	10	12	12	8	10	6	6	7	17	15	8	2.2	16.6
Dir	78	241	295	206	250	75	75	67	74	68	65	67	69	62	67	66	46	60	37	313	269	247	233	263	51.4	246.8
4 Spd	2	4	3	3	1	0	3	5	8	11	11	8	10	8	11	10	9	9	7	4	3	1	0	1	4.6	11.1
Dir	201	199	200	215	232	241	186	203	251	255	264	255	269	277	288	282	283	289	292	316	16	70	153	273	265.2	263.9
5 Spd	1	6	5	3	3	3	4	3	6	7	9	12	11	8	12	14	11	8	9	11	9	4	4	5	6.8	13.9
Dir	265	297	288	270	271	259	273	261	243	245	249	251	279	269	255	272	279	272	278	285	288	266	257	268	269.1	272.2
6 Spd	7	9	7	8	7	7	7	8	8	7	8	10	13	16	14	13	13	11	10	6	4	3	3	3	8.1	16.1
Dir	248	232	227	243	248	245	251	251	265	279	272	269	266	269	265	260	266	266	269	271	261	199	197	198	257.2	268.7
7 Spd	3	4	4	3	2	2	2	4	6	12	13	11	10	9	10	10	12	12	12	9	7	4	2	2	6.3	13.2
Dir	204	209	210	190	174	147	123	201	230	221	227	232	243	260	258	223	211	208	224	233	218	244	207	258	224.2	226.5
8 Spd	1	6	5	4	3	4	4	4	3	3	2	3	2	2	1	4	1	3	4	7	5	4	4	3	0.9	6.6
Dir	261	204	208	213	210	224	249	226	226	193	178	150	156	113	224	138	145	338	75	62	55	37	25	36	168.1	61.9
9 Spd	3	3	2	2	3	2	2	0	5	6	7	6	11	13	12	7	2	3	6	6	4	4	2	3	2.3	13.1
Dir	291	351	12	6	189	298	315	142	197	199	222	238	247	267	287	266	263	115	129	154	130	167	135	108	233.4	267.1
10 Spd	4	1	2	2	3	5	5	4	5	5	6	7	8	8	10	11	10	12	9	8	11	10	7	5	5.8	12.2
Dir	123	182	93	122	147	146	184	195	178	193	195	219	202	198	207	208	209	216	236	245	228	225	210	187	205.1	216.4
11 Spd	7	5	3	2	2	1	3	5	9	10	11	13	17	19	14	11	7	8	13	12	7	7	5	4	7.5	19.4
Dir	216	228	202	139	149	151	148	191	193	190	195	209	237	231	234	242	233	214	234	239	246	251	244	244	222.3	230.6
12 Spd	5	5	5	6	4	7	4	4	5	8	21	19	18	19	14	12	14	11	8	4	0	3	2	7	7.9	20.7
Dir	213	213	214	215	232	216	206	217	216	208	214	217	247	243	239	225	244	255	258	266	226	130	163	256	229.9	214.0
13 Spd	1	3	2	2	1	4	2	3	3	2	4	6	11	15	15	17	23	24	17	13	8	8	5	4	7.0	24.4
Dir	228	120	96	294	297	129	160	190	194	175	182	211	227	225	238	232	233	231	242	247	251	273	264	275	231.6	230.6
14 Spd	3	3	5	7	2	0	2	3	1	2	1	1	3	3	7	6	7	10	8	6	7	8	9	7	4.3	9.9
Dir	275	272	297	297	288	352	296	281	292	304	314	154	314	310	318	327	329	324	330	341	343	327	342	342	320.0	323.7
15 Spd	6	4	5	7	3	6	6	7	5	5	7	9	8	7	6	7	5	5	5	3	1	1	1	2	4.3	8.6
Dir	353	15	337	324	287	320	309	319	345	337	305	292	287	280	278	256	270	292	302	276	309	177	293	277	304.0	291.5
16 Spd	2	2	2	1	1	1	2	3	4	5	7	7	5	6	3	6	4	7	12	8	6	4	2	3	2.8	11.6
Dir	291	269	256	187	200	264	125	183	127	130	125	134	134	130	155	278	264	232	195	201	196	192	175	210	181.4	194.7
17 Spd	2	4	3	3	3	2	1	2	5	6	10	11	10	12	12	12	11	12	9	4	6	0	3	6	5.4	11.9
Dir	277	242	207	191	199	195	94	121	201	209	217	239	248	249	251	252	258	249	219	257	322	288	216	214	238.0	251.1
18 Spd	4	4	3	1	1	2	2	2	4	4	5	6	9	9	12	14	16	15	17	9	6	6	7	8	6.1	17.0
Dir	238	227	214	257	281	254	275	231	201	179	150	144	179	206	226	232	208	201	212	198	181	165	167	163	201.4	212.0
19 Spd	5	6	3	3	4	5	3	3	12	21	20	22	22	19	20	19	20	15	13	7	6	8	8	7	10.8	21.8
Dir	178	186	214	225	216	228	241	241	223	236	243	246	257	243	257	250	247	252	252	248	223	196	203	208	238.8	256.7
20 Spd	7	9	13	9	10	8	8	7	9	7	8	7	7	9	8	8	6	8	6	3	5	7	7	5	6.3	12.6
Dir	279	286	283	279	274	238	244	260	272	259	245	255	268	263	264	309	297	287	257	194	224	263	40	46	270.6	282.7
21 Spd	2	1	2	4	4	6	9	5	9	13	18	16	15	14	14	13	15	11	11	5	3	1	1	1	7.6	17.6
Dir	42	299	280	288	282	309	307	271	265	270	286	297	290	277	277	280	273	270	272	268	250	273	208	175	280.7	285.8
22 Spd	1	1	2	4	3	2	1	2	2	5	4	5	7	4	6	7	9	8	6	7	6	4	5	5	2.5	8.9
Dir	202	251	256	246	249	279	297	262	223	195	191	143	137	144	136	116	104	92	85	92	89	85	77	73	122.3	104.1

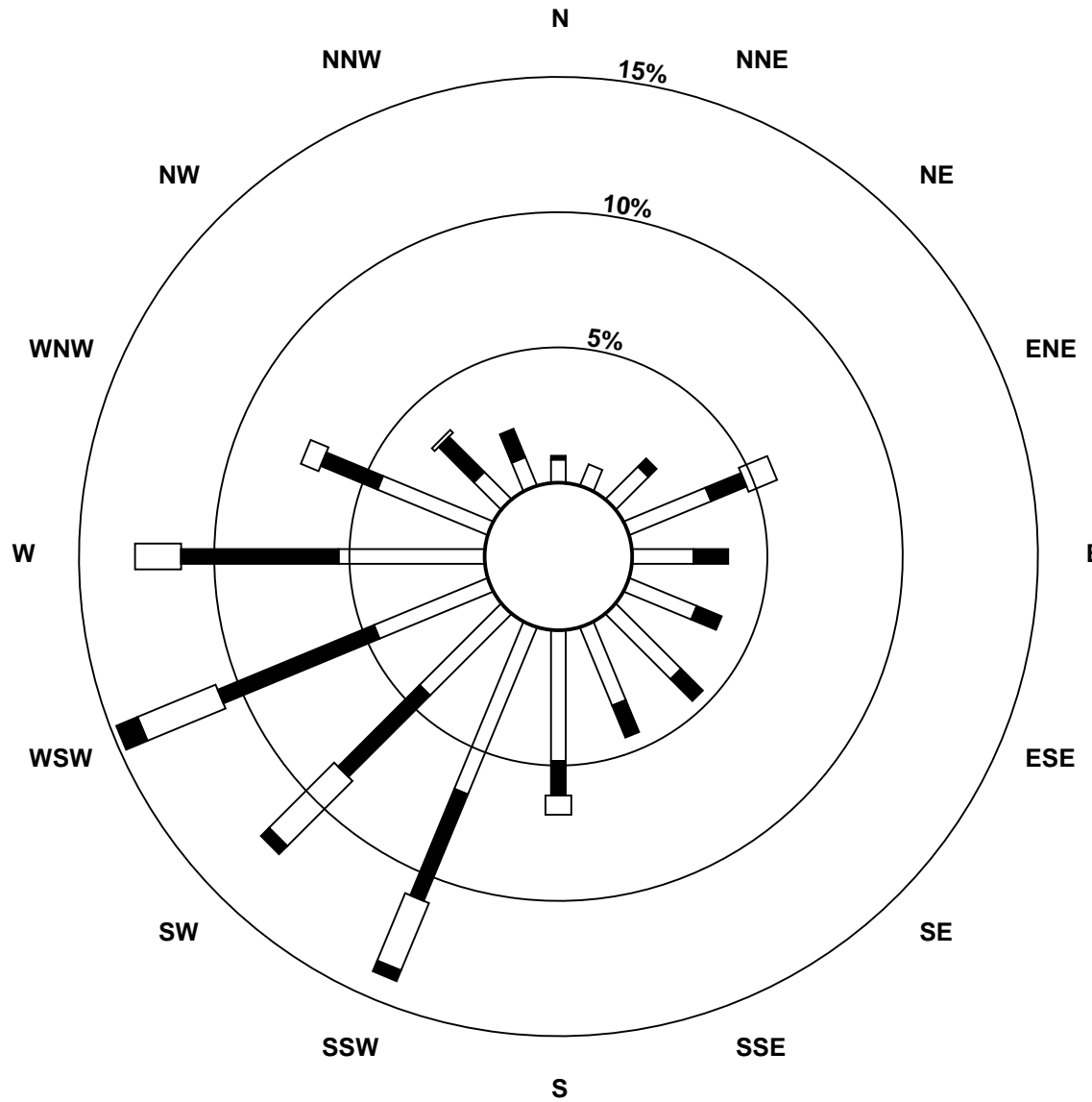
# Hourly Averages

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

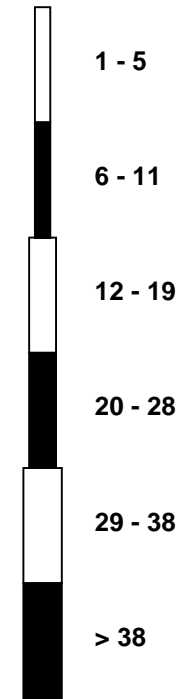
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	4	2	1	2	0	0	0	1	3	3	5	4	7	11	11	15	17	15	18	7	2	4	2	1	4.7	17.9
Dir	87	66	81	62	137	220	307	130	191	208	204	194	210	239	239	242	228	232	222	236	163	210	239	288	223.8	221.6
24 Spd	0	1	1	2	2	1	2	2	3	1	1	3	4	4	6	4	4	4	4	4	2	1	5	5	1.6	6.0
Dir	181	151	176	232	233	256	297	277	284	283	346	81	93	96	84	91	65	77	78	65	43	55	71	70	77.0	84.1
25 Spd	3	1	1	2	3	2	4	1	1	4	2	3	3	1	11	16	9	3	2	3	3	4	3	2	2.2	15.8
Dir	69	320	70	355	303	345	74	153	22	69	85	81	83	34	303	306	320	341	358	45	2	341	354	40	349.2	305.8
26 Spd	1	1	0	1	1	1	0	2	5	5	4	4	3	2	2	3	1	3	5	3	3	2	1	0	1.4	5.1
Dir	50	112	273	328	232	291	277	46	68	62	71	85	114	299	254	115	131	123	137	130	105	125	128	112	97.6	62.4
27 Spd	0	1	2	1	2	2	2	1	4	8	7	12	17	15	13	16	15	14	13	11	4	3	3	4	6.9	16.9
Dir	291	274	269	231	171	155	154	183	194	206	188	203	208	215	207	204	200	192	200	214	190	190	181	198	202.0	207.9
28 Spd	7	6	4	5	4	4	4	6	5	6	5	7	6	1	2	2	3	6	6	12	4	16	11	6	4.2	15.7
Dir	200	197	188	203	154	111	117	122	149	156	159	110	117	121	151	134	230	266	229	169	140	217	220	132	173.6	217.5
29 Spd	4	3	4	1	2	0	1	3	5	6	8	13	14	12	13	13	12	5	3	3	3	2	0	2	4.0	14.4
Dir	169	233	229	294	103	29	83	97	68	61	67	61	67	62	64	61	69	134	204	138	173	184	291	60	76.9	66.6
30 Spd	1	0	2	2	2	3	2	2	4	10	10	11	14	15	18	18	14	14	9	7	5	6	7	6	6.7	18.2
Dir	30	289	286	278	287	256	246	202	205	208	186	178	189	207	207	183	184	177	183	163	121	120	165	193	189.3	183.2
31 Spd	5	4	10	9	9	5	2	4	8	10	17	24	21	21	18	18	13	16	17	8	2	0	1	1	8.9	23.9
Dir	153	135	166	181	162	170	199	174	206	201	217	209	197	205	207	207	199	221	238	289	313	159	322	322	204.4	209.5
Spd	1.3	2.0	2.3	2.3	2.2	1.7	1.3	2.0	3.3	4.2	5.1	5.2	5.9	6.6	6.5	6.4	6.1	5.6	5.6	3.2	1.6	2.3	1.6	1.1	Diurnal Average	
Dir	218.4	232.6	235.9	242.1	227.7	235.7	238.5	219.3	217.7	220.5	224.8	223.2	230.0	237.0	244.4	240.5	238.3	234.2	234.1	233.0	231.7	223.5	209.5	205.5	Diurnal Maximum	
Spd	7.4	9.2	12.6	11.7	12.2	7.6	8.6	8.2	12.4	21.2	20.7	23.9	21.8	20.8	19.7	19.5	22.6	24.4	17.9	13.0	10.9	16.6	14.9	8.2	Diurnal Maximum	
Dir	279.0	286.1	282.7	222.8	220.2	237.6	306.5	223.3	223.0	236.4	214.0	209.5	256.7	204.6	257.3	250.4	232.7	230.6	221.6	246.8	228.0	246.8	233.3	92.8	Diurnal Maximum	
Maximum Speed Value: 24 km/h on Aug 13 18:00		Minimum Speed Value: 0 km/h on Aug 3 06:00										Hours in Service: 744														
Maximum Daily Speed Average: 10.8 km/h on Aug 19		Minimum Daily Speed Average: 0.9 km/h on Aug 26										Hours of Data: 744														
Maximum Diurnal Speed Average: 6.6 km/h at hour 14		Minimum Diurnal Speed Average: 1.1 km/h at hour 24										Hours of Missing Data: 0														
Monthly Average Velocity: 3.52 km/h 231.47 deg		Speed Percentiles: P <sub>1</sub> = 0.4 P <sub>10</sub> = 1.4 Q <sub>1</sub> = 2.6 Median = 5.1 Q <sub>3</sub> = 8.5 P <sub>90</sub> = 13.2 P <sub>99</sub> = 20.8										Percent Operational Time: 100.0														
All monthly, daily, and diurnal averages have been calculated using vector methods																										
Frequency Distribution																										
		Speed Range (km/h)																								
Direction	0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total																			
North	17	5	0	0	0	0	22																			
NorthEast	19	13	7	0	0	0	39																			
East	37	20	1	0	0	0	58																			
SouthEast	58	16	0	0	0	0	74																			
South	65	36	12	1	0	0	114																			
SouthWest	63	66	52	12	0	0	193																			
West	78	78	32	3	0	0	191																			
NorthWest	29	21	3	0	0	0	53																			
Total	366	255	107	16	0	0	744																			

**Wind Rose**

**Wind Speed (WS) (km/h)**  
**Henry Pirker - August 2015**



**Wind Speed Classes (km/h)**



# Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Henry Pirker - August 2015

Maximum Speed: 25 km/h on Aug 13 18:00	Maximum Daily Speed Average: 11.7 km/h on Aug 19	Hours in Service: 744
Minimum Speed: 0 km/h on Aug 27 01:00	Minimum Daily Speed Average: 2.7 km/h on Aug 26	Hours of Data: 744
Maximum Diurnal Speed Average: 11.2 km/h at hour 16	Minimum Diurnal Speed Average: 3.3 km/h at hour 6	Hours of Missing Data: 0
Monthly Average Speed: 6.65 km/h	Percentiles: P <sub>1</sub> = 0.6 P <sub>10</sub> = 1.7 Q <sub>1</sub> = 3.0 Median = 5.4 Q <sub>3</sub> = 8.9 P <sub>90</sub> = 13.4 P <sub>99</sub> = 21.4	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-Aug	5	3	8	12	12	6	7	8	8	11	11	9	10	9	9	8	7	8	8	6	3	2	1	3	7.2	12.3
2-Aug	3	3	2	2	2	2	1	2	4	3	6	5	4	4	6	5	5	9	9	9	6	6	5	9	4.6	8.8
3-Aug	7	4	3	2	2	1	3	5	5	6	8	8	9	11	12	13	8	10	6	7	11	18	15	8	7.6	17.7
4-Aug	4	4	4	4	2	1	3	5	8	11	11	9	11	9	11	10	9	9	8	5	3	1	1	1	6.1	11.5
5-Aug	1	6	5	3	3	3	4	4	6	7	9	13	11	9	12	14	11	8	10	11	9	4	4	5	7.2	14.1
6-Aug	7	9	8	8	7	7	7	8	8	7	8	10	13	16	14	13	14	11	10	6	4	3	4	3	8.6	16.3
7-Aug	3	4	4	3	2	3	2	4	6	12	14	12	10	9	10	10	13	12	12	9	7	4	2	3	7.2	13.6
8-Aug	1	6	6	4	3	4	5	4	3	3	3	4	3	3	4	5	3	4	5	7	5	4	4	3	4.1	6.7
9-Aug	3	3	2	3	4	3	2	1	6	6	8	6	11	13	12	7	3	4	6	6	4	4	3	3	5.2	13.4
10-Aug	4	1	2	2	3	5	5	4	5	6	7	7	9	9	11	12	11	13	9	8	11	10	8	5	6.8	12.5
11-Aug	7	6	3	3	3	2	3	5	9	11	12	14	17	20	15	12	8	8	13	12	7	7	5	4	8.5	19.8
12-Aug	5	5	6	6	5	7	4	4	5	8	21	20	18	19	15	13	14	11	8	4	1	3	2	7	8.8	21.1
13-Aug	2	3	3	2	2	4	2	4	4	2	4	6	11	16	16	17	23	25	17	13	8	8	5	4	8.4	24.9
14-Aug	3	3	5	7	3	1	2	4	1	3	3	2	5	5	8	7	8	10	8	7	7	8	9	7	5.2	10.1
15-Aug	6	4	6	7	3	7	6	7	5	5	7	9	8	8	7	7	6	6	5	3	0	1	2	2	5.3	9.1
16-Aug	2	2	2	1	1	1	2	4	4	5	7	7	6	7	5	8	5	8	12	8	6	4	2	4	4.7	11.8
17-Aug	3	5	3	3	3	2	1	2	5	6	10	12	11	12	12	12	11	12	9	6	6	1	3	6	6.5	12.3
18-Aug	4	4	3	2	1	2	2	2	5	4	5	7	11	10	12	15	16	15	17	9	6	6	7	8	7.2	17.3
19-Aug	5	6	4	3	4	5	3	3	13	22	21	22	22	20	20	20	20	16	13	7	7	8	8	8	11.7	22.1
20-Aug	8	9	13	9	10	8	8	8	10	8	8	8	8	9	9	8	6	8	7	4	5	7	8	5	7.9	12.8
21-Aug	2	1	2	4	4	7	9	5	9	13	18	16	15	14	15	14	16	12	11	5	3	1	1	1	8.2	17.9
22-Aug	1	2	3	4	3	2	1	2	3	5	4	6	7	6	7	8	9	9	6	7	6	5	5	5	4.8	9.3
23-Aug	5	2	2	2	0	1	1	2	3	4	5	5	8	12	12	16	18	16	18	8	2	4	3	2	6.2	18.2
24-Aug	1	1	1	2	3	1	2	2	3	1	2	4	5	5	7	6	5	5	4	4	2	1	5	5	3.3	7.4
25-Aug	3	2	2	4	3	2	4	2	2	4	3	3	4	2	12	16	9	4	2	3	4	4	3	2	4.1	16.0
26-Aug	2	1	0	1	1	1	1	2	5	6	5	4	4	3	3	5	3	4	5	3	3	2	1	1	2.7	5.5
27-Aug	0	1	2	1	2	3	2	2	5	8	7	12	17	16	14	16	16	15	14	11	4	3	3	4	7.3	17.2
28-Aug	7	6	5	5	5	4	5	6	5	6	7	8	6	1	3	3	3	6	7	13	5	16	12	7	6.2	16.0
29-Aug	5	4	4	2	2	1	1	3	6	6	9	14	15	13	13	13	12	8	3	3	3	2	1	2	6.0	14.6
30-Aug	1	1	2	2	2	4	3	3	5	10	11	11	14	16	18	19	14	15	9	7	5	6	8	7	8.0	18.9
31-Aug	5	5	10	9	9	5	3	5	8	10	17	24	22	21	18	19	14	16	17	8	2	2	2	1	10.5	24.2
	3.7	3.7	3.9	3.9	3.5	3.3	3.4	3.9	5.6	7.0	8.7	9.6	10.5	10.6	11.0	11.2	10.3	10.2	9.4	7.1	5.0	5.0	4.6	4.4	Diurnal Average	
	7.8	9.4	12.8	11.8	12.3	7.7	8.7	8.4	12.7	21.7	21.1	24.2	22.1	21.3	20.0	19.8	23.0	24.9	18.2	13.1	11.3	17.7	15.2	8.7	Diurnal Maximum	

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

# Hourly Standard Deviations

Wind Direction (WD) - deg  
Henry Pirker - August 2015

Maximum Value: 96.6 deg on Aug 30 02:00																		Hours in Service: 744							
Minimum Value: 4.9 deg on Aug 1 21:00																		Hours of Data: 744							
Percentiles: P <sub>1</sub> = 7.0 P <sub>10</sub> = 10.1 Q <sub>1</sub> = 13.4 Median = 19.2 Q <sub>3</sub> = 32.3 P <sub>90</sub> = 53.0 P <sub>99</sub> = 89.2																		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-Aug	37	56	11	8	8	14	11	13	15	27	20	16	22	24	22	30	24	21	14	9	5	18	44	35	55.8
2-Aug	12	28	38	15	19	23	29	32	14	23	38	33	43	56	73	62	78	20	19	13	11	9	22	20	77.7
3-Aug	24	42	21	77	59	89	69	16	18	22	16	27	26	18	17	14	12	15	31	18	66	24	16	17	89.3
4-Aug	49	40	16	26	79	58	20	15	17	11	14	20	25	21	17	21	22	18	12	35	22	41	81	20	80.5
5-Aug	20	9	14	25	17	12	12	22	14	17	15	15	13	16	12	11	13	14	14	12	11	14	11	14	24.6
6-Aug	9	8	12	11	9	7	8	8	12	15	10	9	10	8	11	11	12	11	13	12	13	19	16	14	19.5
7-Aug	22	37	22	18	16	38	33	24	16	14	14	17	21	17	23	21	21	18	11	18	24	31	22	46	46.0
8-Aug	63	12	14	21	19	17	32	30	23	20	61	51	48	73	76	59	86	48	33	10	11	11	14	34	86.0
9-Aug	15	21	25	47	56	31	27	82	20	20	19	19	18	13	15	15	52	67	16	22	22	17	22	18	82.0
10-Aug	20	60	25	44	14	14	19	14	20	17	25	24	25	22	22	22	18	14	11	8	6	8	21	9	59.7
11-Aug	17	28	22	66	47	44	38	14	14	15	15	10	12	22	10	18	15	10	8	8	8	9	11	11	66.5
12-Aug	18	24	22	24	14	10	26	24	20	22	11	18	14	11	23	24	14	10	9	12	54	34	36	17	54.3
13-Aug	53	14	54	72	88	10	30	25	21	29	28	23	14	16	13	10	11	11	8	8	10	13	12	18	87.8
14-Aug	25	24	6	6	36	82	18	15	51	67	85	89	67	73	34	45	24	12	18	17	18	14	17	13	89.5
15-Aug	21	25	17	12	17	14	16	10	24	24	30	21	17	21	26	22	32	22	22	16	45	64	53	16	63.6
16-Aug	38	23	14	19	43	78	22	18	22	18	18	19	38	22	63	40	60	31	10	11	11	20	40	44	78.4
17-Aug	27	12	21	10	16	42	42	19	17	19	17	15	14	18	13	12	13	14	24	38	32	96	24	9	95.9
18-Aug	17	22	22	26	39	17	15	44	19	32	30	24	30	23	15	16	14	12	11	10	13	13	7	8	43.7
19-Aug	15	14	16	27	27	36	30	29	14	12	10	11	9	17	10	10	11	10	10	6	24	8	11	26	36.0
20-Aug	18	11	11	11	8	11	9	12	14	21	17	28	22	20	14	25	17	20	15	31	24	17	36	10	36.3
21-Aug	19	40	5	7	9	23	10	10	11	11	10	9	14	14	15	15	12	17	9	8	12	34	49	17	49.4
22-Aug	42	22	19	11	17	10	20	19	47	22	27	32	29	60	44	35	16	11	13	9	10	14	12	11	59.5
23-Aug	10	17	18	32	51	62	92	39	20	24	18	32	29	16	19	20	15	16	11	13	43	23	31	38	91.9
24-Aug	37	60	43	47	43	68	35	21	18	52	92	66	45	48	50	55	60	42	17	9	14	13	6	7	91.5
25-Aug	39	39	84	74	41	48	18	42	43	21	61	65	43	78	21	10	19	28	45	16	20	13	16	28	83.8
26-Aug	39	38	70	50	68	38	62	21	23	25	47	46	56	64	56	48	70	37	24	12	8	15	59	89	88.7
27-Aug	40	32	33	60	22	35	34	38	26	16	18	13	11	17	13	10	11	10	11	14	12	10	10	13	59.9
28-Aug	8	9	12	15	32	43	9	10	29	20	32	21	15	49	40	38	43	31	28	26	36	13	29	41	48.9
29-Aug	34	49	17	59	34	74	63	33	15	18	16	14	10	9	11	10	9	51	43	15	24	69	90	27	90.3
30-Aug	43	97	26	46	67	41	38	50	17	12	13	19	14	19	13	15	14	14	10	10	15	16	23	12	96.6
31-Aug	21	27	8	9	13	17	53	32	17	20	14	9	13	12	16	18	14	18	14	11	31	81	53	49	81.0
Average	62.9	96.6	83.8	76.9	87.8	89.3	91.9	82.0	51.5	66.7	91.5	89.5	67.0	77.9	76.4	61.7	86.0	66.5	45.4	37.6	66.3	95.9	90.3	88.7	

PAZA

Evergreen Park Station

Monthly Summary Tables, Graphs and  
Roses

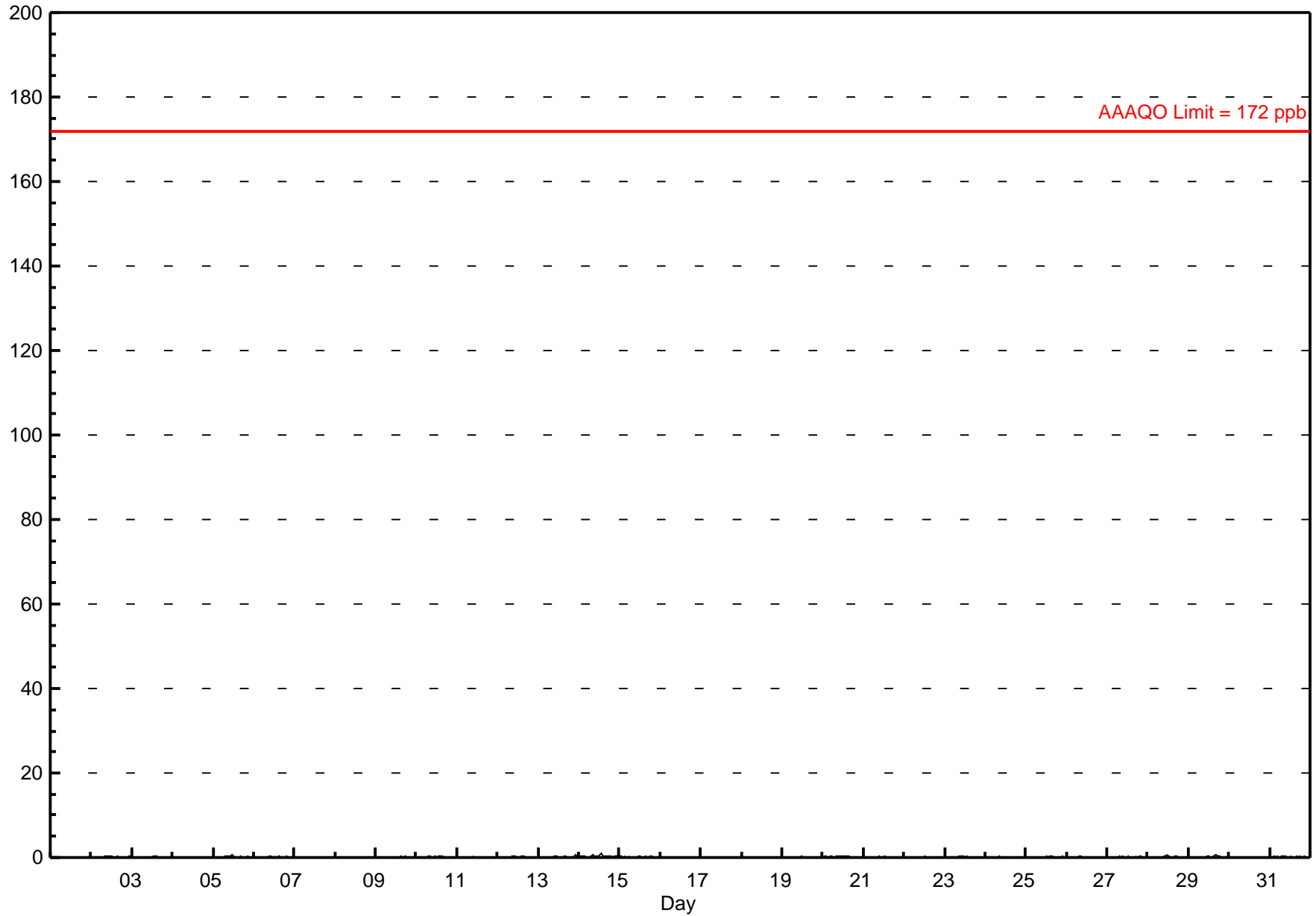
## Hourly Averages

## Sulphur Dioxide (SO<sub>2</sub>) - ppb Evergreen Park - August 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 0.8 ppb on Aug 14 14:00      Maximum Daily Average: 0.3 ppb on Aug 14		Hours in Service: 744 Hours of Data: 709 Hours of Missing Data: 35 Hours of Calibration: 35 Percent Operational Time: 100.0																								
Minimum Value: 0 ppb on Aug 1 01:00 Maximum Diurnal Average: 0.2 ppb at hour 12 Monthly Average: 0.10 ppb		Minimum Daily Average: 0.0 ppb on Aug 8 Minimum Diurnal Average: 0.1 ppb at hour 1 Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.0 Median = 0.1 Q <sub>3</sub> = 0.1 P <sub>90</sub> = 0.2 P <sub>99</sub> = 0.5																								
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-Aug	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
2-Aug	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
3-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.1	0.2
4-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.0	0.1
5-Aug	0	0	0	0	0	0	0	0	0	0	0	1	0	0	A	0	0	0	0	0	0	0	0	0	0.1	0.5
6-Aug	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
7-Aug	0	0	0	0	0	0	0	0	0	0	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0.0	0.2
8-Aug	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
9-Aug	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	0.3
10-Aug	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
11-Aug	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
12-Aug	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
13-Aug	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.2	0.8
14-Aug	0	0	0	0	0	A	0	1	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0.3	0.8
15-Aug	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
16-Aug	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
17-Aug	0	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
18-Aug	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
19-Aug	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
20-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.2	0.5
21-Aug	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	0.4
22-Aug	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	0.4
23-Aug	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
24-Aug	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
25-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.1	0.2
26-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.1	0.2
27-Aug	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
28-Aug	0	0	0	0	0	0	0	0	0	0	0	1	0	0	A	0	0	0	0	0	0	0	0	0	0.2	0.8
29-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0.2	0.5
30-Aug	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
31-Aug	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
		0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	Diurnal Average
		0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.5	0.6	0.4	0.3	0.8	0.6	0.8	0.5	0.3	0.5	0.3	0.3	0.2	0.3	0.2	0.8	0.7	Diurnal Maximum
C - Calibration      A - Automated Daily Zero Span Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb    24-hr 48 ppb    30-day 11 ppb																										

### Hourly Averages

Sulphur Dioxide (SO<sub>2</sub>) - ppb  
Evergreen Park - August 2015





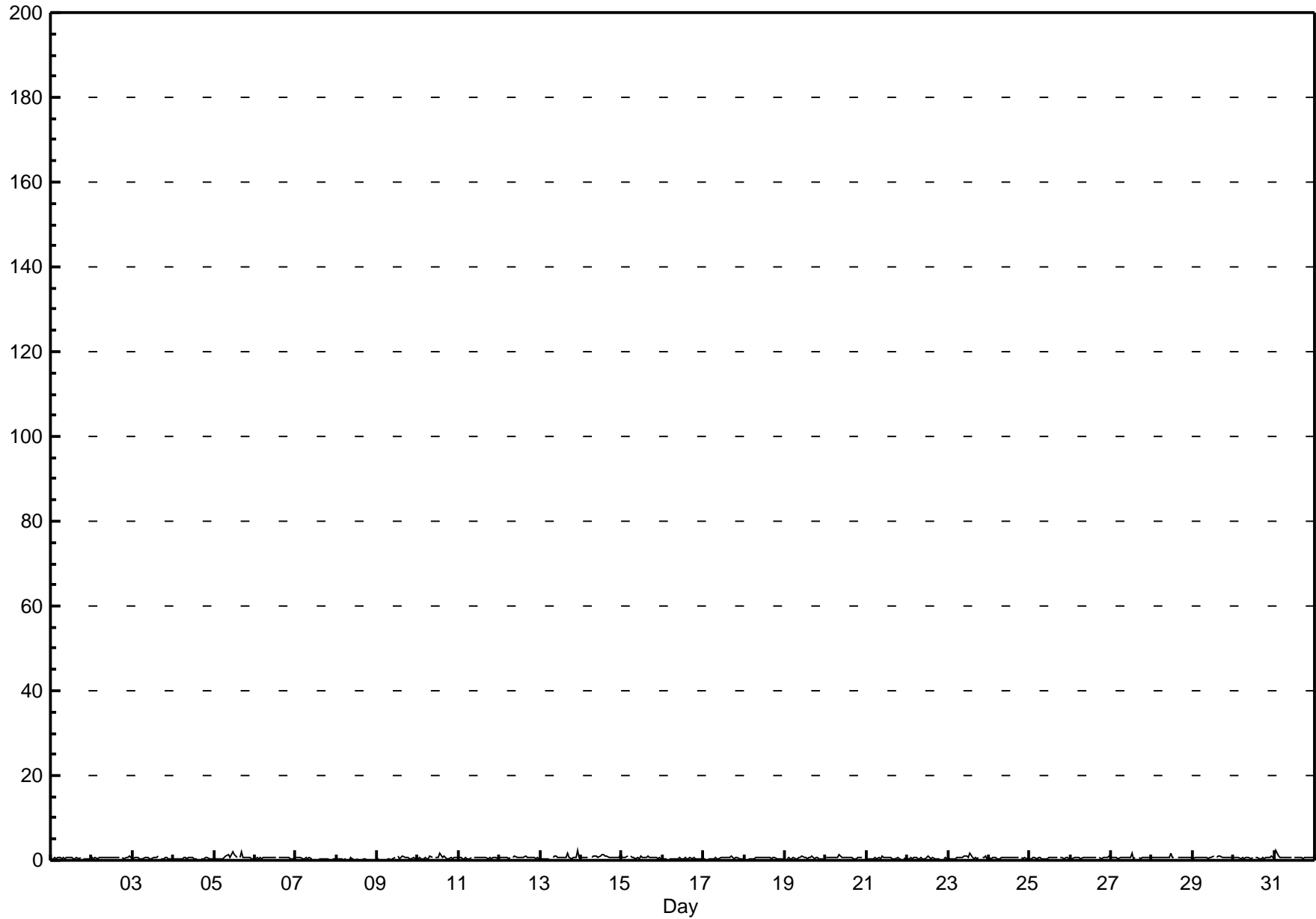
# Hourly Maximums

## Sulphur Dioxide (SO<sub>2</sub>) - ppb Evergreen Park - August 2015

Maximum Value: 2.2 ppb on Aug 31 02:00		Maximum Daily Average: 0.9 ppb on Aug 14		Hours in Service: 744																						
Minimum Value: 0 ppb on Aug 8 21:00		Minimum Daily Average: 0.2 ppb on Aug 8		Hours of Data: 709																						
Maximum Diurnal Average: 0.8 ppb at hour 12		Minimum Diurnal Average: 0.5 ppb at hour 6		Hours of Missing Data: 35																						
Monthly Average: 0.59 ppb		Percentiles: P <sub>1</sub> = 0.1 P <sub>10</sub> = 0.4 Q <sub>1</sub> = 0.5 Median = 0.6 Q <sub>3</sub> = 0.7 P <sub>90</sub> = 0.8 P <sub>99</sub> = 1.6		Hours of Calibration: 35																						
				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-Aug	0	0	1	0	1	1	0	1	1	1	1	1	0	0	1	0	1	A	A	0	0	0	0	0	0.5	0.7
2-Aug	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	A	A	1	0	1	1	1	1	0.6	1.0
3-Aug	0	1	1	1	0	1	0	1	1	1	0	0	1	1	1	A	A	0	0	1	1	0	0	0	0.6	0.9
4-Aug	0	0	0	0	0	0	1	1	0	1	1	1	0	0	0	A	0	0	0	1	1	0	0	0	0.5	0.7
5-Aug	0	0	0	0	0	0	1	1	1	1	1	2	1	1	A	1	2	1	1	1	1	1	0	0	0.8	1.9
6-Aug	1	1	0	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0	0	1	0.6	0.8
7-Aug	1	1	1	1	0	0	1	0	1	0	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0.4	0.8
8-Aug	0	0	0	0	0	0	0	0	0	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
9-Aug	0	0	0	0	0	0	0	0	0	0	1	A	A	1	0	1	1	1	1	0	0	1	0	0	0.4	0.9
10-Aug	0	1	0	0	1	0	0	1	1	A	1	1	1	2	1	1	1	1	0	0	1	1	1	1	0.7	1.6
11-Aug	1	1	0	0	1	0	0	1	A	A	1	1	1	1	1	1	1	0	1	0	1	1	1	0	0.6	0.8
12-Aug	1	1	1	1	1	0	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	0.6	0.9
13-Aug	0	0	0	0	0	0	A	1	1	1	1	1	1	1	1	1	2	1	0	1	1	1	2	1	0.7	2.2
14-Aug	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	0.9	1.6
15-Aug	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	0.6	0.9
16-Aug	0	0	0	A	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	0	0	0	0	0	0.4	0.6
17-Aug	0	1	A	0	0	0	0	1	0	0	1	1	1	1	1	1	1	1	0	1	1	0	0	0	0.5	1.0
18-Aug	0	A	0	0	0	0	0	1	1	1	1	1	1	1	1	0	1	1	0	0	0	0	0	0	0.5	0.8
19-Aug	A	0	1	0	0	1	0	0	1	1	1	1	1	0	1	1	1	0	1	1	0	0	0	0	0.6	1.1
20-Aug	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	0	0	1	1	1	1	1	A	0	0.7	1.5
21-Aug	0	0	0	0	0	1	1	1	0	1	1	1	1	1	0	0	0	0	1	0	0	A	0	1	0.5	1.0
22-Aug	0	0	1	0	1	1	0	0	1	0	0	1	1	1	0	1	0	0	0	0	A	0	1	0	0.5	0.9
23-Aug	1	0	0	0	0	1	1	1	1	1	1	1	2	1	0	1	0	1	0	1	A	1	1	0	0.7	1.7
24-Aug	1	0	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	A	1	0	1	0	0	0.6	0.8
25-Aug	0	0	1	1	0	1	1	0	1	0	0	1	1	1	1	1	1	A	1	1	1	1	1	1	0.6	0.8
26-Aug	1	0	1	1	1	1	0	1	1	1	1	1	1	1	1	A	1	0	1	1	1	1	1	1	0.6	0.9
27-Aug	1	1	1	1	0	1	1	1	1	1	1	2	0	1	A	1	0	1	1	1	1	1	1	1	0.7	1.7
28-Aug	1	1	1	1	1	1	1	1	1	1	1	2	1	1	A	1	1	1	1	1	1	1	1	1	0.7	1.7
29-Aug	0	1	1	1	1	1	1	1	1	0	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.7	1.0
30-Aug	1	1	1	1	1	1	1	1	1	1	0	1	A	1	1	0	0	1	0	1	1	1	1	1	0.6	0.9
31-Aug	1	2	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0	1	1	1	1	1	1	0.7	2.2
		0.5	0.6	0.5	0.5	0.5	0.5	0.5	0.6	0.7	0.7	0.6	0.8	0.7	0.7	0.6	0.6	0.7	0.5	0.6	0.5	0.5	0.5	0.6	0.5	Diurnal Average
		0.8	2.2	1.0	0.9	0.8	0.9	0.8	1.0	1.5	1.1	1.4	1.9	1.7	1.7	1.1	1.0	1.9	0.8	0.8	0.8	0.8	0.8	2.2	1.6	Diurnal Maximum
C - Calibration		A - Automated Daily Zero Span																								

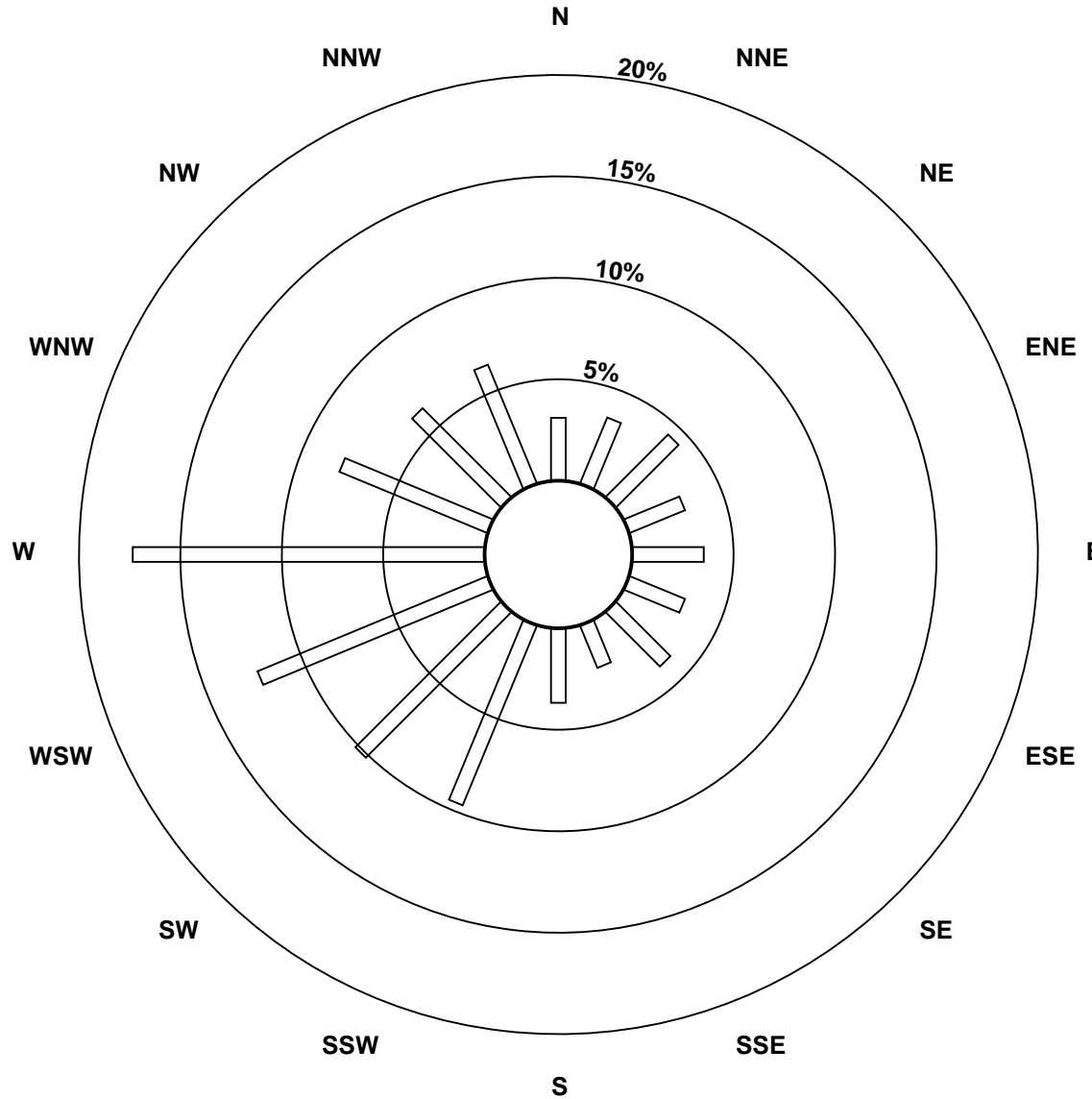
### Hourly Maximums

**Sulphur Dioxide (SO<sub>2</sub>) - ppb**  
**Evergreen Park - August 2015**

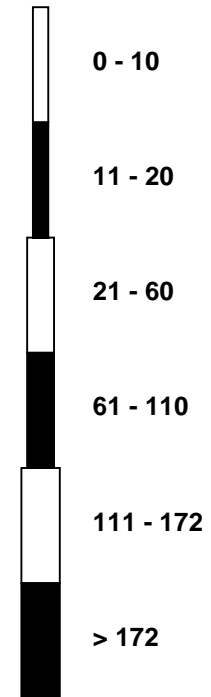


**Pollutant Rose**

**Sulphur Dioxide (SO<sub>2</sub>) - ppb**  
**Evergreen Park - August 2015**

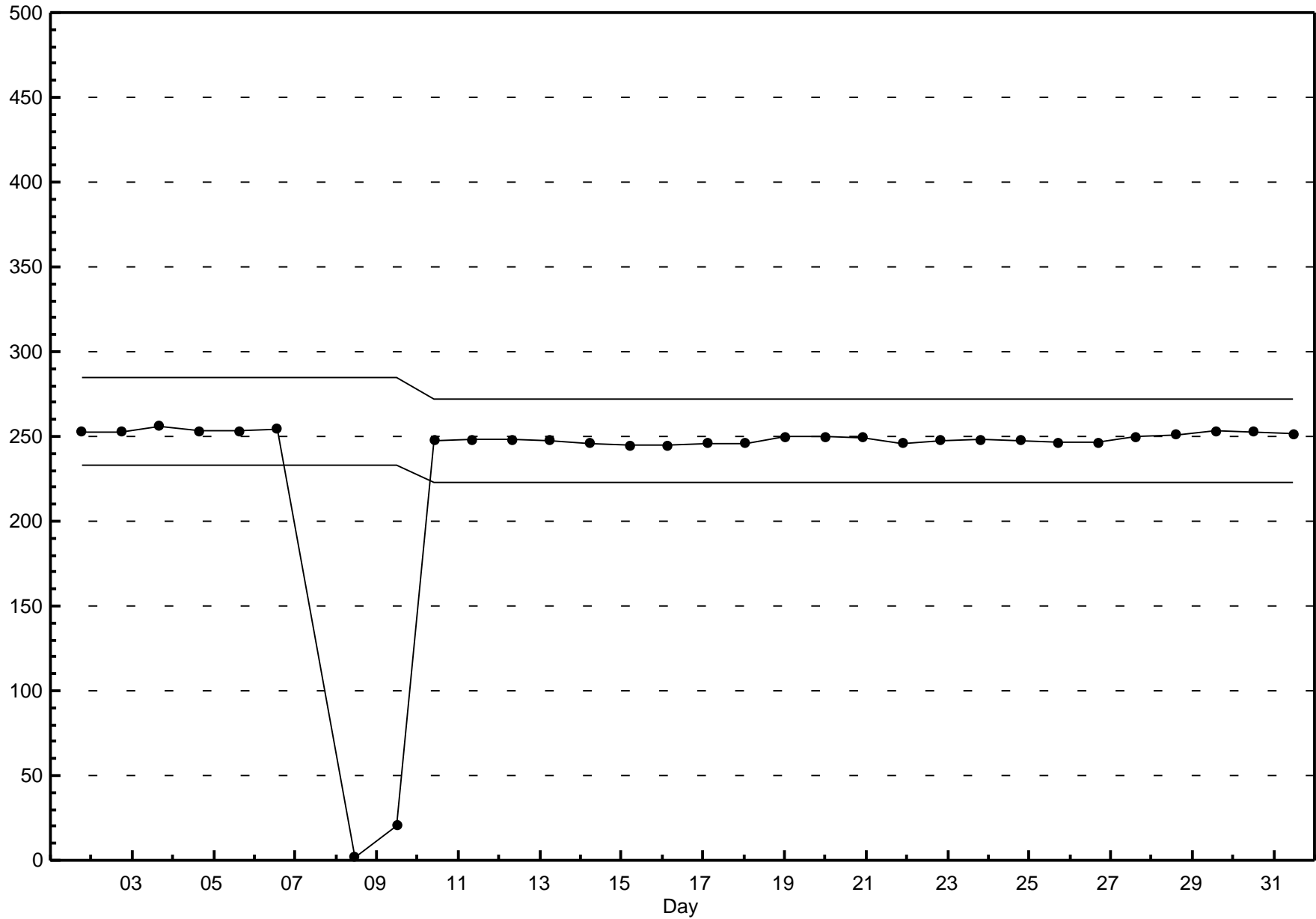


**Pollutant Classes (ppb)**



### Span Responses

Sulphur Dioxide (SO<sub>2</sub>)  
Evergreen Park - August 2015

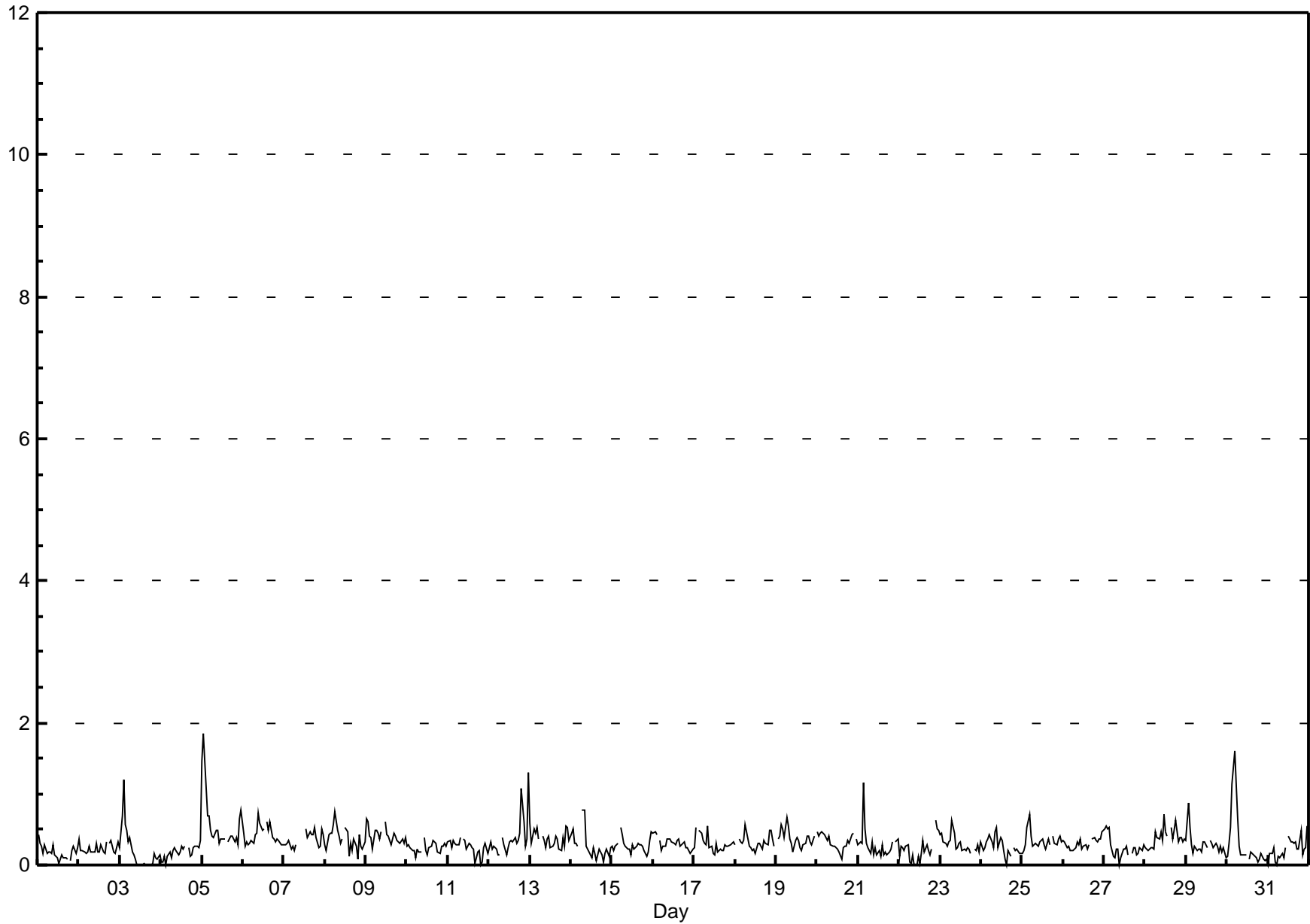


## Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Evergreen Park - August 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0		Hours in Service: 744																																														
Maximum Value: 1.9 ppb on Aug 5 02:00		Maximum Daily Average: 0.6 ppb on Aug 5																																														
Minimum Value: 0 ppb on Aug 3 11:00		Hours of Data: 708																																														
Maximum Diurnal Average: 0.4 ppb at hour 2		Hours of Missing Data: 36																																														
Monthly Average: 0.31 ppb		Hours of Calibration: 36																																														
		Percent Operational Time: 100.0																																														
		Minimum Daily Average: 0.2 ppb on Aug 1																																														
		Minimum Diurnal Average: 0.2 ppb at hour 15																																														
		Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.1 Q <sub>1</sub> = 0.2 Median = 0.3 Q <sub>3</sub> = 0.4 P <sub>90</sub> = 0.5 P <sub>99</sub> = 1.1																																														
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-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.2	0.4																						
2-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.2	0.4																						
3-Aug	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.2	1.2																						
4-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.2	0.4																						
5-Aug	1	2	1	1	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	1	1	0.6	1.9																						
6-Aug	0	0	0	0	0	0	0	0	0	1	1	0	1	A	1	0	1	0	0	0	0	0	0	0	0.4	0.7																						
7-Aug	0	0	0	0	0	0	0	0	C	C	C	C	A	1	0	0	0	0	1	0	0	0	1	0	0.4	0.5																						
8-Aug	0	0	0	0	0	1	1	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0.4	0.8																						
9-Aug	1	1	0	0	0	0	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6																						
10-Aug	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4																						
11-Aug	0	0	0	0	0	0	0	0	A	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4																						
12-Aug	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0.4	1.3																						
13-Aug	1	0	1	0	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0.4	0.6																						
14-Aug	0	1	0	0	0	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8																						
15-Aug	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5																						
16-Aug	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5																						
17-Aug	0	1	A	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5																						
18-Aug	0	A	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6																						
19-Aug	A	0	0	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.7																						
20-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	A	0	0.3	0.5																						
21-Aug	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.3	1.2																						
22-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	0	0	0.2	0.6																						
23-Aug	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.3	0.6																						
24-Aug	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	A	A	0	0	0	0	0.3	0.5																						
25-Aug	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.3	0.7																						
26-Aug	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	0.5																						
27-Aug	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.2	0.5																						
28-Aug	0	0	0	0	0	0	0	0	0	0	0	1	0	0	A	1	0	0	1	0	0	0	0	0	0.4	0.7																						
29-Aug	0	1	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.3	0.9																						
30-Aug	0	0	1	1	2	1	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.6																						
31-Aug	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	0.2	0.6																						
																								0.4	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	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	Diurnal Average
																								1.5	1.9	1.2	1.2	1.6	1.1	0.8	0.8	0.8	0.7	0.6	0.7	0.5	0.5	0.6	0.5	0.6	0.5	0.6	1.1	0.6	0.6	0.7	1.3	Diurnal Maximum
C - Calibration A - Automated Daily Zero Span																																																
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb																																																



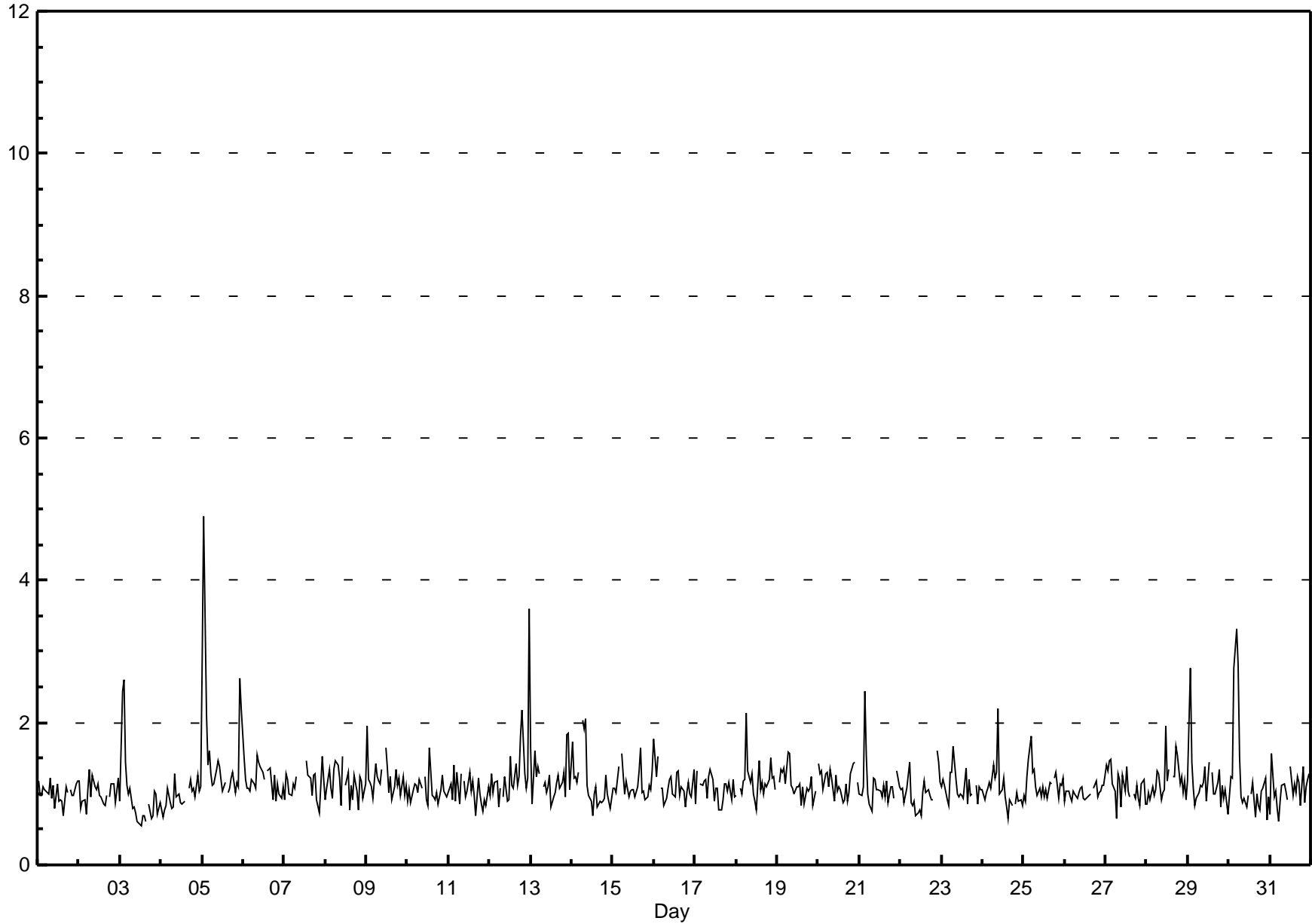
## Hourly Maximums

## Total Reduced Sulphur (TRS) - ppb Evergreen Park - August 2015

Maximum Value: 4.9 ppb on Aug 5 02:00		Maximum Daily Average: 1.6 ppb on Aug 5		Hours in Service: 744																						
Minimum Value: 1 ppb on Aug 3 13:00		Minimum Daily Average: 1.0 ppb on Aug 4		Hours of Data: 708																						
Maximum Diurnal Average: 1.3 ppb at hour 2		Minimum Diurnal Average: 1.0 ppb at hour 16		Hours of Missing Data: 36																						
Monthly Average: 1.13 ppb		Percentiles: P <sub>1</sub> = 0.6 P <sub>10</sub> = 0.8 Q <sub>1</sub> = 1.0 Median = 1.1 Q <sub>3</sub> = 1.2 P <sub>90</sub> = 1.4 P <sub>99</sub> = 2.8		Hours of Calibration: 36																						
				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-Aug	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1.0	1.2
2-Aug	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1.0	1.3
3-Aug	1	2	3	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1.0	2.6
4-Aug	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1.0	1.3
5-Aug	3	5	2	1	2	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	3	2	1.6	4.9
6-Aug	2	1	1	1	1	1	1	1	2	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1.2	1.5
7-Aug	1	1	1	1	1	1	1	1	C	C	C	C	A	1	1	1	1	1	1	1	1	2	1	1.1	1.5	
8-Aug	1	1	1	1	1	1	1	1	1	1	2	A	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.5
9-Aug	2	1	1	1	1	1	1	1	1	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1.2	1.9
10-Aug	1	1	1	1	1	1	1	1	1	A	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1.0	1.6
11-Aug	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
12-Aug	1	1	1	1	1	1	1	A	1	1	1	1	2	1	1	1	1	1	2	2	1	1	4	1.3	3.6	
13-Aug	2	1	2	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1.2	1.9	
14-Aug	2	1	1	1	1	A	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	2.1	
15-Aug	1	1	1	1	A	2	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1.1	1.7	
16-Aug	2	1	2	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.8	
17-Aug	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.3	
18-Aug	1	A	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1.2	2.1	
19-Aug	A	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.6	
20-Aug	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1.2	1.4	
21-Aug	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1.1	2.4	
22-Aug	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	2	1	1.0	1.6	
23-Aug	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1.1	1.7	
24-Aug	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	A	1	1	1	1	1.1	2.2	
25-Aug	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1.2	1.8	
26-Aug	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	1.2	
27-Aug	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1.1	1.5	
28-Aug	1	1	1	1	1	1	1	1	1	1	2	1	1	1	A	1	1	2	2	1	1	1	1	1.2	1.9	
29-Aug	1	3	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1.2	2.8	
30-Aug	1	1	1	3	3	3	2	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1.2	3.3	
31-Aug	1	2	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.6	
		1.2	1.3	1.2	1.2	1.2	1.2	1.2	1.2	1.1	1.1	1.1	1.0	1.1	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.2	Diurnal Average		
		2.8	4.9	2.6	2.8	3.3	2.8	2.1	1.9	2.1	2.2	1.5	1.9	1.5	1.6	1.4	1.4	1.7	1.7	1.8	2.2	1.5	1.8	2.6	3.6	Diurnal Maximum
C - Calibration		A - Automated Daily Zero Span																								

**Hourly Maximums**

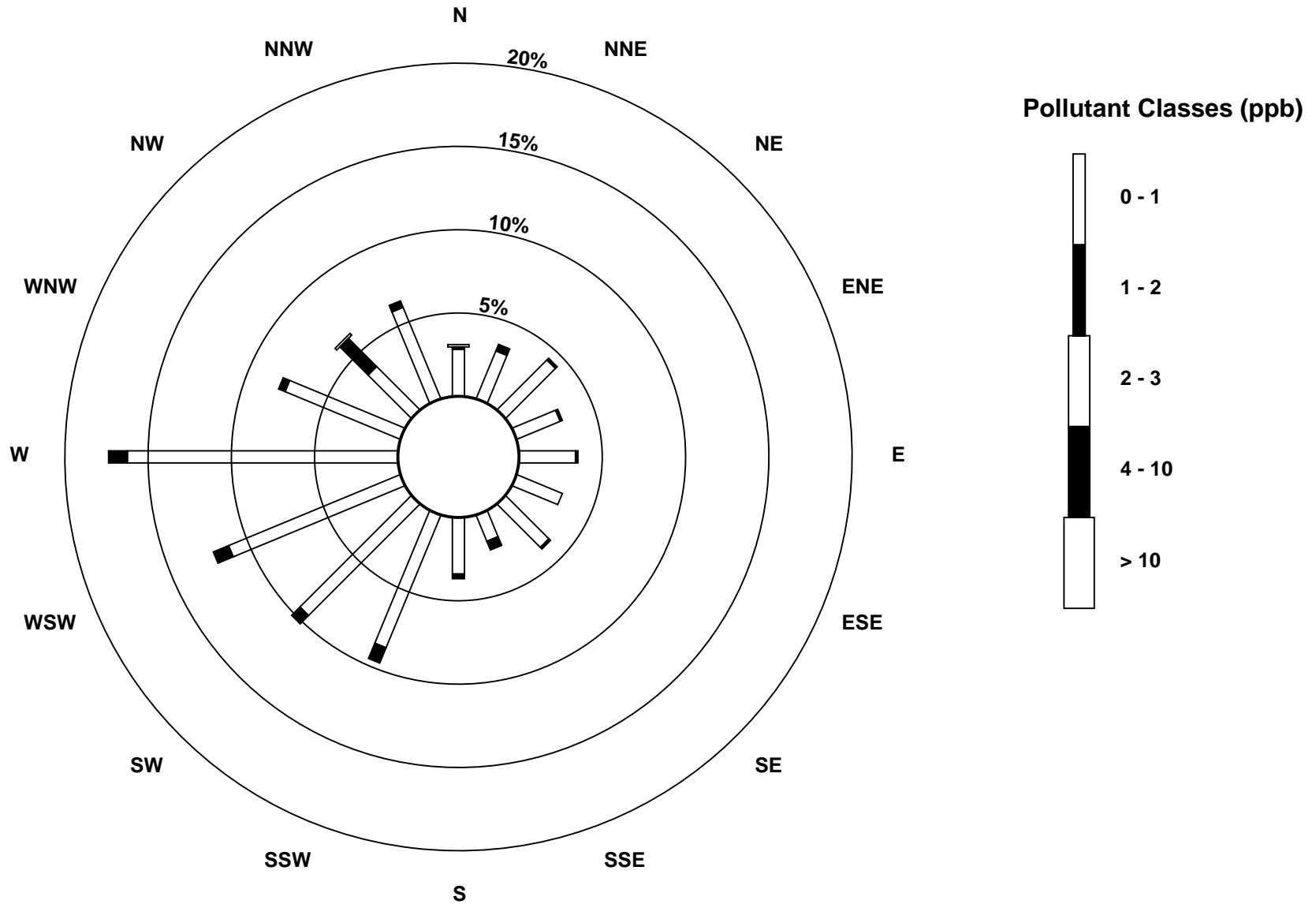
**Total Reduced Sulphur (TRS) - ppb**  
**Evergreen Park - August 2015**





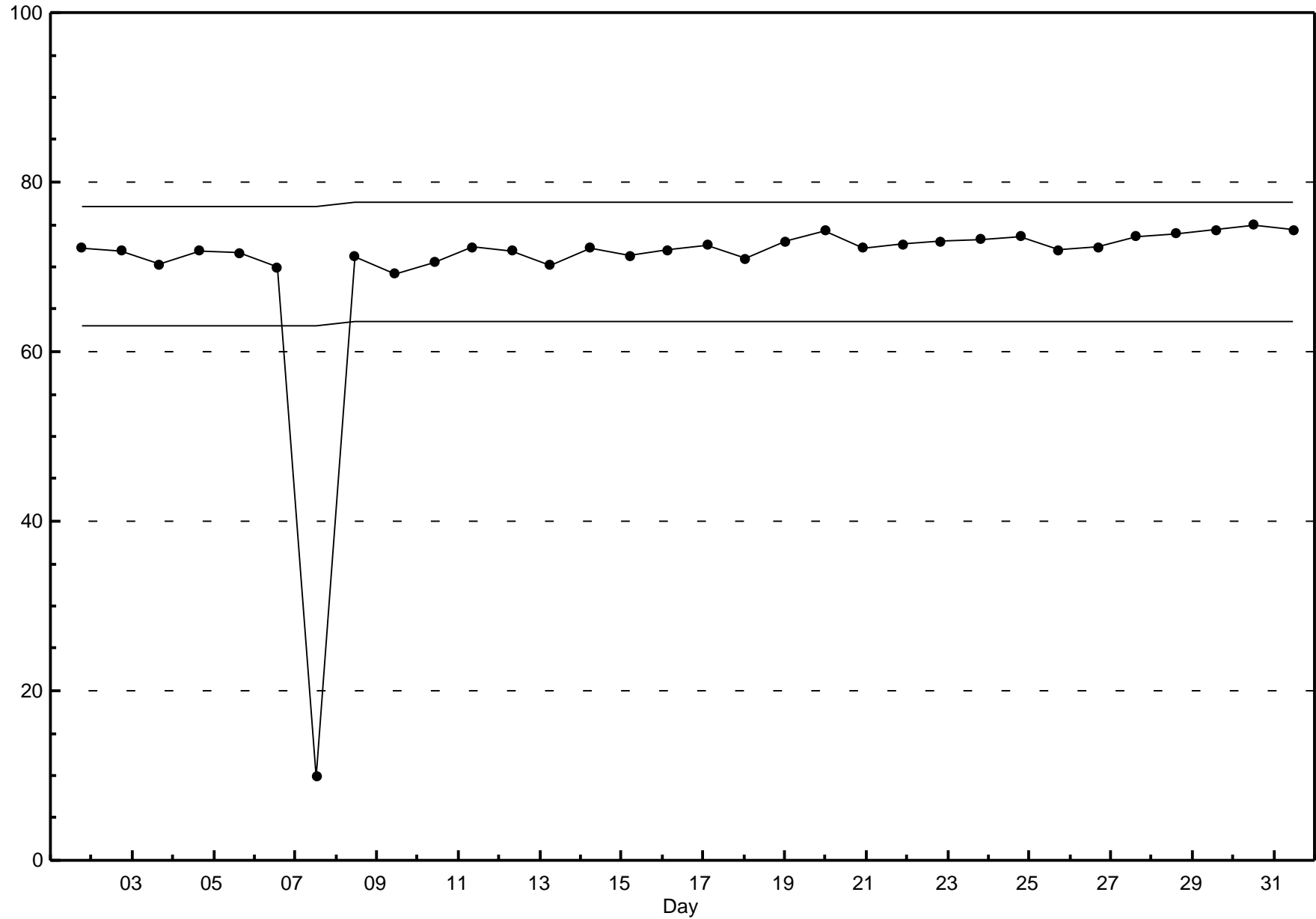
**Pollutant Rose**

**Total Reduced Sulphur (TRS) - ppb**  
**Evergreen Park - August 2015**



### Span Responses

Total Reduced Sulphur (TRS)  
Evergreen Park - August 2015



## Hourly Averages

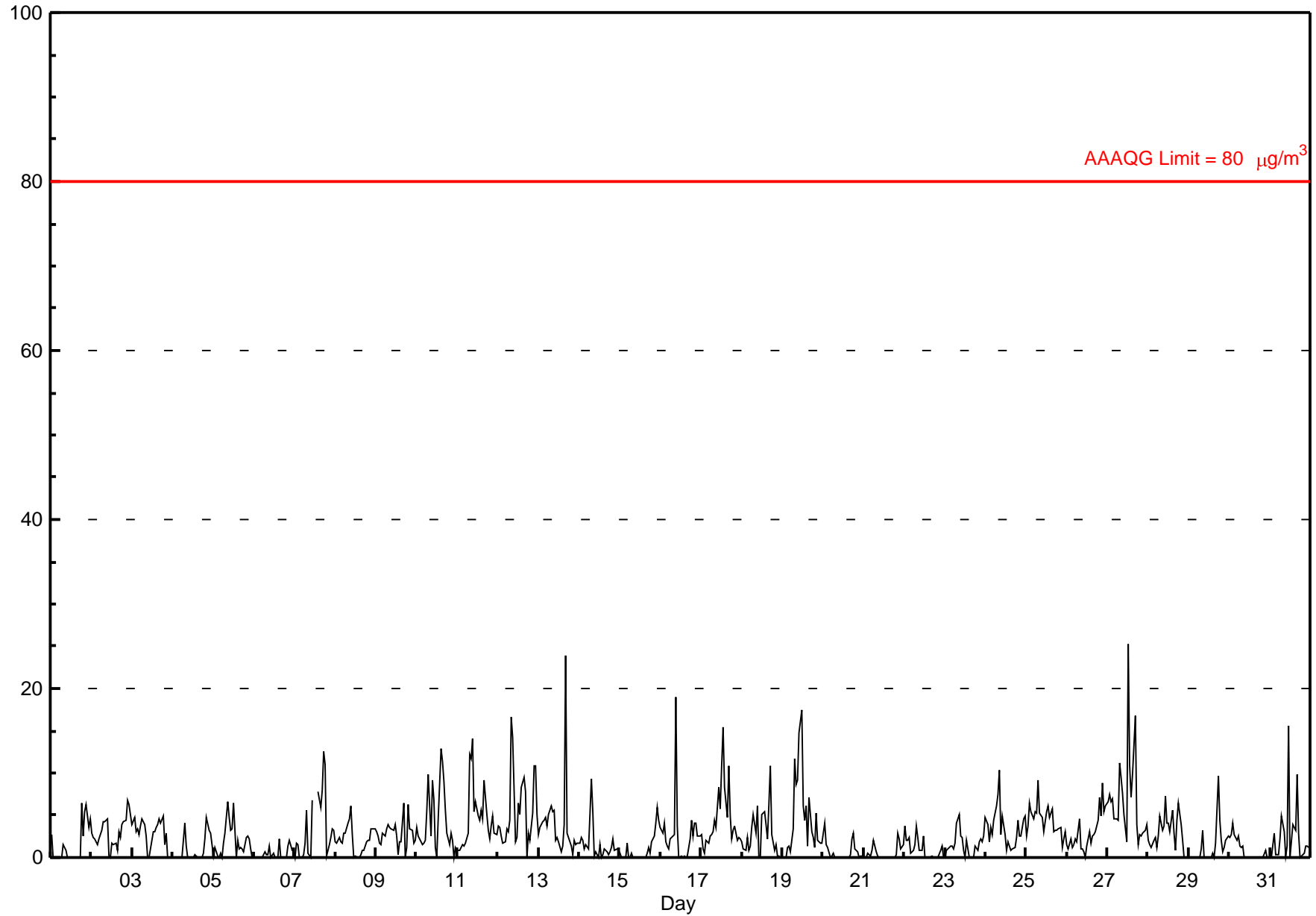
## Particulate Matter 2.5 (PM<sub>2.5</sub>) - µg/m<sup>3</sup>

### Evergreen Park - August 2015

Number of Exceedences: 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 25.3 µg/m <sup>3</sup> on Aug 27 13:00	Maximum Daily Average: 7.0 µg/m <sup>3</sup> on Aug 27
Minimum Value: 0 µg/m <sup>3</sup> on Aug 1 02:00	Hours of Data: 741
Maximum Diurnal Average: 4.8 µg/m <sup>3</sup> at hour 8	Hours of Missing Data: 3
Monthly Average: 2.70 µg/m <sup>3</sup>	Hours of Calibration: 0
Minimum Daily Average: 0.4 µg/m <sup>3</sup> on Aug 6	Percent Operational Time: 99.6
Minimum Diurnal Average: 1.6 µg/m <sup>3</sup> at hour 5	
Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.3 Median = 2.0 Q <sub>3</sub> = 3.8 P <sub>90</sub> = 6.1 P <sub>99</sub> = 14.7	

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-Aug	3	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	6	3	5	6	4	5	1.5	6.5																							
2-Aug	3	2	2	2	2	3	3	4	4	5	0	0	2	2	2	1	3	2	4	4	4	7	6	5	3.0	6.8																						
3-Aug	4	5	3	3	3	4	5	4	3	0	0	1	3	3	4	4	5	4	5	2	3	0	0	0	2.7	5.0																						
4-Aug	0	0	0	0	0	0	2	4	1	0	0	0	0	0	0	0	0	1	2	5	3	3	2	1.0	4.8																							
5-Aug	0	1	0	0	0	0	2	3	7	5	3	3	6	0	2	1	1	1	1	2	3	2	1	0	1.9	6.6																						
6-Aug	0	0	0	0	0	0	1	0	0	1	0	1	0	0	2	0	0	0	0	0	1	2	1	1	0.4	2.2																						
7-Aug	0	2	1	0	0	0	2	6	0	0	7	M	M	M	8	6	8	13	11	0	1	2	3	3	3.5	12.6																						
8-Aug	2	2	2	2	2	3	3	4	5	6	3	0	0	0	0	0	1	1	2	2	2	3	3	3	2.1	6.1																						
9-Aug	3	2	2	2	3	3	3	4	4	3	3	4	3	0	2	2	6	0	1	6	3	3	2	2	2.8	6.4																						
10-Aug	4	3	2	2	2	2	5	10	2	9	7	1	0	5	13	11	9	6	3	2	3	2	0	1	4.3	12.8																						
11-Aug	1	1	1	2	1	2	3	12	12	14	5	7	5	4	6	5	9	5	3	2	4	5	3	3	4.7	14.1																						
12-Aug	4	4	2	2	2	3	3	4	17	14	2	2	6	5	8	10	8	0	3	2	5	11	11	5	5.6	16.6																						
13-Aug	3	4	4	4	5	4	5	6	6	6	2	2	2	1	1	4	24	3	2	1	0	2	1	2	3.9	23.8																						
14-Aug	2	2	2	1	2	1	5	9	5	0	1	0	2	0	0	1	1	0	1	1	2	1	1	1	1.7	9.2																						
15-Aug	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	3	4	6	4	1.0	5.9																						
16-Aug	3	3	4	2	1	1	2	2	3	19	4	0	0	0	0	0	0	2	4	3	4	4	3	3	2.8	19.0																						
17-Aug	3	1	1	2	2	2	3	3	4	4	8	6	11	15	8	5	11	5	2	3	4	2	2	2	4.5	15.4																						
18-Aug	2	1	1	2	1	1	4	5	3	6	0	0	5	5	4	2	6	11	3	1	2	0	0	0	2.7	10.8																						
19-Aug	0	0	0	1	1	1	3	12	9	9	15	17	6	4	6	1	7	3	2	1	5	2	2	2	4.6	17.4																						
20-Aug	3	4	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	1	1	0	0	0	0.7	4.1																						
21-Aug	0	0	0	0	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	3	2	1	1	0.5	2.8																						
22-Aug	4	2	2	2	1	1	1	4	2	1	1	2	0	0	0	0	0	0	0	0	0	1	1	0	1.1	3.7																						
23-Aug	0	1	1	1	1	1	2	4	5	2	2	1	0	2	0	0	0	0	1	1	2	2	2	3	1.5	5.1																						
24-Aug	5	4	2	3	3	4	6	7	10	3	5	3	1	2	1	1	1	1	2	4	3	3	5	5	3.5	10.4																						
25-Aug	3	4	6	5	5	5	5	9	5	5	3	4	5	6	5	6	3	3	3	3	4	1	2	3	4.4	9.2																						
26-Aug	1	1	2	1	1	2	2	5	1	1	1	0	1	3	2	3	3	3	4	7	5	9	5	6	2.9	8.7																						
27-Aug	7	7	7	7	5	4	4	11	10	8	5	2	25	11	7	10	17	4	2	3	3	3	3	4	7.0	25.3																						
28-Aug	2	2	1	2	2	1	2	5	3	4	7	4	4	3	6	3	1	4	6	4	2	0	0	0	2.9	7.3																						
29-Aug	0	0	0	0	0	0	0	1	3	0	0	0	0	0	1	0	2	10	4	2	1	1	2	3	1.2	9.6																						
30-Aug	2	3	4	3	2	3	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.9	4.0																						
31-Aug	0	0	3	0	0	0	2	5	3	0	1	16	0	4	4	3	10	3	0	0	1	1	1	1	2.5	15.6																						
																								2.0	1.9	1.9	1.7	1.6	1.7	2.7	4.8	4.2	4.1	2.8	2.5	2.9	2.5	2.9	2.6	4.4	2.8	2.6	2.1	2.6	2.8	2.4	2.2	Diurnal Average
																								6.7	7.5	6.5	7.0	4.7	5.5	6.1	12.1	16.6	19.0	14.7	17.4	25.3	15.4	12.8	11.3	23.8	12.6	11.0	7.2	5.4	10.9	10.8	6.1	Diurnal Maximum

M - Maintenance  
 Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 µg/m<sup>3</sup> Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 µg/m<sup>3</sup>

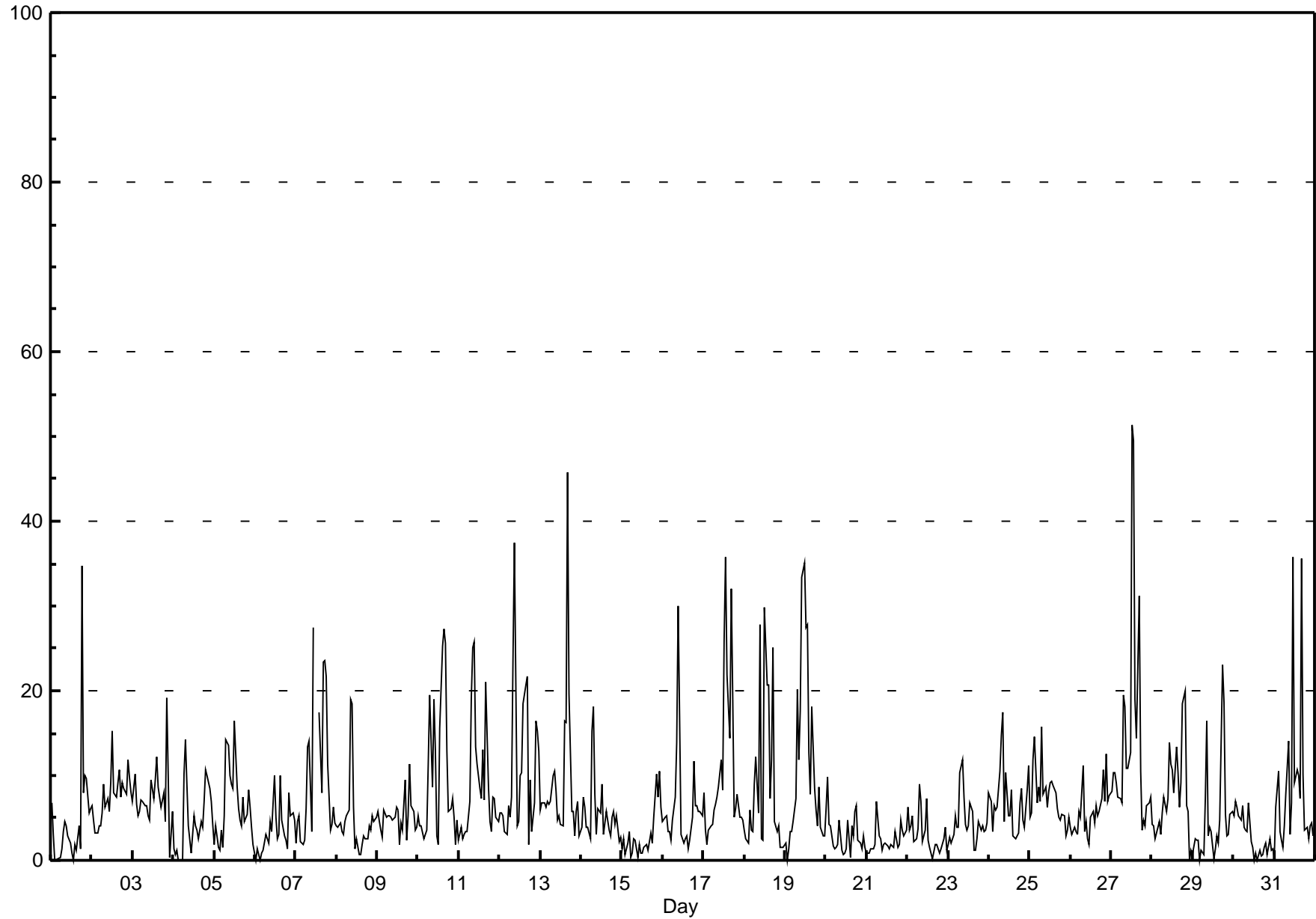


# Hourly Maximums

# Particulate Matter 2.5 (PM<sub>2.5</sub>) - µg/m<sup>3</sup>

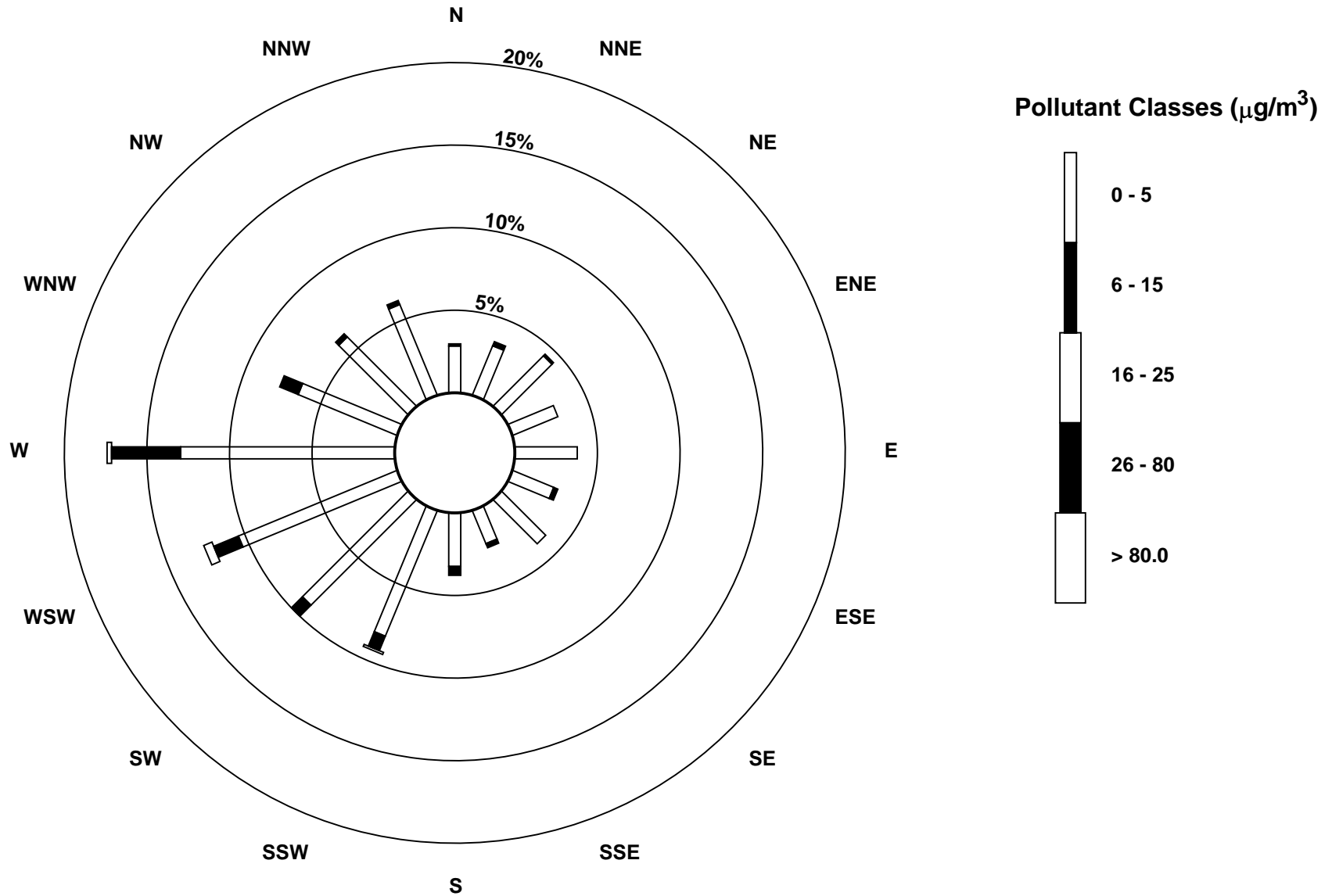
## Evergreen Park - August 2015

Maximum Value: 51.4 µg/m <sup>3</sup> on Aug 27 13:00 Minimum Value: 0 µg/m <sup>3</sup> on Aug 1 03:00 Maximum Diurnal Average: 11.5 µg/m <sup>3</sup> at hour 17 Monthly Average: 6.78 µg/m <sup>3</sup>		Maximum Daily Average: 14.2 µg/m <sup>3</sup> on Aug 27 Minimum Daily Average: 2.3 µg/m <sup>3</sup> on Aug 21 Minimum Diurnal Average: 3.5 µg/m <sup>3</sup> at hour 5 Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 1.4 Q <sub>1</sub> = 2.8 Median = 5.0 Q <sub>3</sub> = 8.0 P <sub>90</sub> = 14.3 P <sub>99</sub> = 35.3		Hours in Service: 744 Hours of Data: 741 Hours of Missing Data: 3 Hours of Calibration: 0 Percent Operational Time: 99.6																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Aug	7	3	0	0	0	0	1	3	5	4	3	2	1	0	2	1	4	1	35	8	10	10	6	6	4.7	34.8	
2-Aug	7	5	3	3	4	4	6	9	6	7	6	9	15	8	7	9	11	7	9	8	8	12	10	8	7.6	15.3	
3-Aug	7	10	7	5	6	7	7	7	7	5	5	9	7	9	12	9	7	6	8	5	19	10	0	6	7.5	19.2	
4-Aug	1	1	1	0	0	0	10	14	9	4	1	3	5	4	4	3	5	4	7	11	10	8	7	4	4.8	14.3	
5-Aug	2	4	2	1	4	2	5	14	14	10	9	8	17	9	6	5	4	7	5	6	8	6	4	2	6.3	16.5	
6-Aug	0	1	1	0	1	1	3	3	2	5	3	10	5	3	3	10	5	3	2	1	8	5	6	5	3.6	9.9	
7-Aug	2	5	5	2	2	2	6	13	14	3	27	M	M	M	17	8	23	24	22	11	4	4	6	4	9.8	27.4	
8-Aug	4	4	4	3	3	5	5	6	19	18	6	1	3	1	1	2	3	3	3	4	4	5	5	5	4.8	18.9	
9-Aug	6	4	3	3	6	5	5	5	5	5	5	6	6	2	4	4	9	2	5	11	7	6	4	4	5.1	11.4	
10-Aug	5	4	4	3	3	4	11	19	9	19	13	3	2	16	25	27	26	13	6	6	7	5	2	5	9.8	27.2	
11-Aug	2	4	3	3	3	3	7	19	25	26	13	11	8	7	13	7	21	8	5	3	7	7	5	5	9.1	25.8	
12-Aug	6	6	5	3	3	7	5	7	23	37	4	5	10	10	18	21	22	2	9	3	7	17	15	13	10.8	37.5	
13-Aug	6	7	7	6	7	7	7	10	10	8	5	5	4	4	17	16	46	20	6	6	3	6	7	3	9.2	45.8	
14-Aug	4	7	6	4	4	3	15	18	8	3	6	6	9	3	4	6	4	3	5	6	4	5	2	3	5.7	18.2	
15-Aug	1	3	1	2	3	0	1	3	2	0	2	1	1	2	2	1	2	3	2	5	10	7	10	6	3.0	10.4	
16-Aug	5	5	5	3	3	2	5	7	14	30	17	3	2	3	3	1	2	5	12	6	7	6	6	5	6.6	29.9	
17-Aug	8	4	2	4	4	4	6	7	7	9	12	8	26	36	22	14	32	19	5	6	8	5	5	5	10.7	35.8	
18-Aug	4	3	2	6	4	3	9	12	6	28	3	2	30	21	21	7	12	25	5	3	4	2	2	2	8.9	29.9	
19-Aug	2	0	1	3	3	5	7	20	12	18	33	35	27	28	13	8	18	8	6	4	9	4	3	3	11.3	35.1	
20-Aug	6	10	4	4	2	1	2	2	5	1	1	1	5	0	4	3	6	7	2	2	1	3	2	2	3.1	9.9	
21-Aug	1	1	1	1	1	2	7	3	3	1	2	2	2	1	2	2	2	3	2	2	5	4	3	4	2.3	7.0	
22-Aug	6	4	4	5	2	3	4	9	7	2	4	7	2	2	1	0	2	2	1	1	1	3	4	1	3.2	9.0	
23-Aug	2	3	2	3	5	4	4	10	12	7	4	4	4	7	6	1	1	3	5	4	4	3	4	4	4.4	11.9	
24-Aug	8	7	3	7	6	6	10	15	17	5	10	5	5	8	3	3	3	3	7	8	5	4	8	11	7.0	17.5	
25-Aug	5	6	12	15	7	9	7	16	8	9	6	8	9	9	9	8	6	5	5	6	5	3	4	5	7.5	15.8	
26-Aug	4	3	4	3	3	6	5	11	3	5	3	2	5	6	4	6	5	6	7	11	7	13	7	8	5.7	12.6	
27-Aug	8	10	10	9	7	7	7	19	18	11	11	13	51	49	19	14	31	10	4	5	4	7	7	7	14.2	51.4	
28-Aug	4	4	3	4	5	3	6	7	6	7	14	11	11	8	13	10	6	9	18	20	7	6	0	1	7.6	19.9	
29-Aug	1	3	2	2	0	1	1	7	16	3	4	3	0	1	3	2	5	23	19	6	3	3	5	6	5.0	23.1	
30-Aug	5	7	6	5	5	7	4	4	3	7	2	2	0	1	0	1	0	1	2	2	1	3	1	1	2.9	7.0	
31-Aug	0	6	10	3	2	2	4	8	14	3	7	36	9	11	10	7	36	10	4	4	3	4	4	3	8.3	35.8	
		4.2	4.6	4.0	3.8	3.5	3.7	5.9	10.0	10.0	9.7	7.8	7.4	9.3	9.1	8.5	7.0	11.5	7.9	7.6	5.9	6.1	5.9	4.9	4.7	Diurnal Average	
		8.2	10.4	11.9	14.6	7.4	8.7	15.3	20.2	25.0	37.5	33.3	35.8	51.4	49.4	25.3	27.2	45.8	25.1	34.8	19.9	19.2	16.5	15.3	12.9	Diurnal Maximum	
M - Maintenance																											



**Pollutant Rose**

**Particulate Matter 2.5 (PM<sub>2.5</sub>) - μg/m<sup>3</sup>**  
**Evergreen Park - August 2015**



# Hourly Averages

External Temperature (ET) - °C

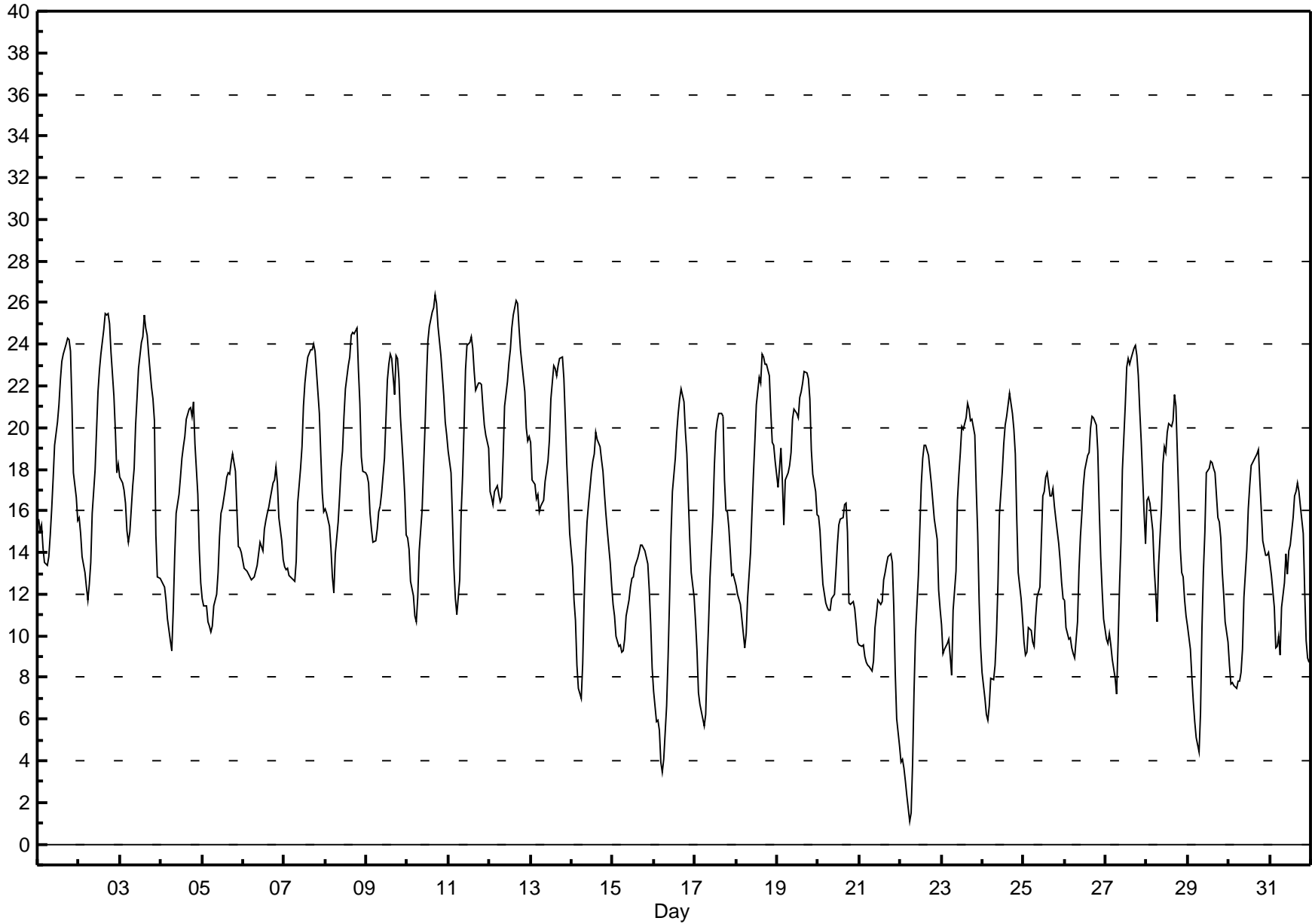
Evergreen Park - August 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 26.4 °C on Aug 10 17:00      Maximum Daily Average: 20.7 °C on Aug 12		Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0																									
Minimum Value: 1 °C on Aug 22 06:00 Maximum Diurnal Average: 20.8 °C at hour 17 Monthly Average: 15.74 °C		Minimum Daily Average: 10.3 °C on Aug 21 Minimum Diurnal Average: 10.3 °C at hour 6 Percentiles: P <sub>1</sub> = 3.9 P <sub>10</sub> = 9.3 Q <sub>1</sub> = 12.0 Median = 15.9 Q <sub>3</sub> = 19.6 P <sub>90</sub> = 22.8 P <sub>99</sub> = 25.5																									
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-Aug	16	15	15	14	14	13	14	15	16	18	19	20	21	22	23	24	24	24	24	24	21	18	17	16	18.6	24.3	
2-Aug	16	15	14	13	12	12	13	14	16	18	20	22	23	24	25	25	25	26	25	24	21	20	18	18	19.0	25.5	
3-Aug	18	17	17	16	15	14	15	17	18	20	21	23	24	24	25	25	24	24	22	21	20	15	13	13	19.3	25.4	
4-Aug	13	12	12	12	11	10	9	11	14	16	17	18	19	19	20	20	21	21	21	21	19	17	14	13	15.8	21.3	
5-Aug	12	11	11	11	10	10	10	11	12	13	15	16	16	17	18	18	18	18	19	18	16	14	14	14	14.3	18.7	
6-Aug	13	13	13	13	13	13	13	13	13	14	15	14	15	16	16	16	17	17	18	18	17	16	15	14	14.7	18.1	
7-Aug	13	13	13	13	13	13	13	14	16	18	19	21	22	23	23	24	24	24	24	23	21	19	17	16	18.2	24.0	
8-Aug	16	16	15	14	13	12	14	15	17	18	19	21	22	23	23	24	25	25	25	23	21	19	18	18	18.9	24.8	
9-Aug	18	17	16	15	15	15	15	16	16	17	18	20	22	23	24	23	22	23	23	22	21	18	17	15	18.8	23.6	
10-Aug	15	14	13	12	11	11	12	14	16	18	20	22	24	25	26	26	26	26	25	23	22	21	20	20	19.3	26.4	
11-Aug	19	18	16	13	12	11	13	16	18	20	23	24	24	24	23	22	22	22	22	22	21	20	20	19	19.3	24.4	
12-Aug	17	17	16	17	17	17	16	17	19	21	22	23	24	25	25	26	26	25	24	23	22	20	19	20	20.7	26.1	
13-Aug	19	18	17	17	17	16	16	17	17	18	18	19	21	23	23	23	23	23	23	22	20	18	17	15	19.2	23.4	
14-Aug	13	12	11	9	7	7	9	12	14	15	16	18	18	19	20	19	19	18	18	17	16	15	14	12	14.5	19.8	
15-Aug	11	11	10	9	10	9	9	10	11	12	12	13	13	13	14	14	14	14	14	14	13	12	11	8	11.8	14.4	
16-Aug	7	6	6	5	4	3	4	7	9	12	15	17	18	20	21	21	22	21	20	19	17	15	13	12	13.0	21.9	
17-Aug	11	9	7	7	6	6	6	9	11	13	16	18	20	20	21	21	21	17	16	16	15	13	13	13	13.5	20.7	
18-Aug	12	12	11	11	10	9	10	12	14	16	18	19	21	22	22	24	23	23	23	23	21	19	19	18	17.3	23.5	
19-Aug	17	18	19	17	15	18	18	18	19	20	21	21	20	21	22	22	23	23	22	21	19	18	17	16	19.4	22.7	
20-Aug	16	15	14	13	12	11	11	11	12	12	13	14	15	16	16	16	16	15	12	11	12	11	11	10	13.1	16.4	
21-Aug	10	10	10	9	9	9	8	8	9	10	11	12	12	12	13	13	13	14	14	14	11	8	6	5	10.3	13.9	
22-Aug	4	4	4	3	2	1	2	4	7	10	13	15	17	19	19	19	19	18	17	16	16	15	12	11	11.1	19.2	
23-Aug	11	9	9	10	10	9	8	11	13	17	18	19	20	20	20	21	21	20	20	20	17	15	12	9	15.0	21.2	
24-Aug	8	7	6	6	7	8	8	9	10	12	16	18	19	20	21	21	22	21	20	19	16	13	12	11	13.7	21.6	
25-Aug	10	9	9	10	10	10	10	11	12	12	15	17	17	18	18	17	17	17	16	16	14	14	13	12	13.4	17.9	
26-Aug	12	10	10	10	9	9	9	11	13	15	16	17	18	19	19	20	21	20	20	19	16	14	12	11	14.6	20.6	
27-Aug	10	10	10	10	9	8	7	10	12	15	18	21	23	23	23	23	24	24	23	22	21	19	16	14	16.5	24.0	
28-Aug	16	17	16	15	13	12	11	13	16	18	19	19	20	20	20	20	22	21	19	14	13	13	12	11	16.3	21.6	
29-Aug	10	9	8	7	6	5	4	6	10	13	15	18	18	18	18	18	18	16	15	15	13	12	11	10	12.3	18.4	
30-Aug	9	8	8	8	7	8	8	8	9	12	14	16	17	18	18	19	19	19	17	16	15	14	14	14	13.1	19.0	
31-Aug	13	13	11	9	9	10	9	11	13	14	13	14	14	16	17	17	17	17	16	15	12	10	9	9	12.9	17.4	
		13.0	12.4	11.9	11.2	10.6	10.3	10.4	11.9	13.6	15.4	16.9	18.3	19.3	20.0	20.5	20.7	20.8	20.6	19.9	19.1	17.4	15.6	14.3	13.4	Diurnal Average	
		19.3	18.1	19.0	17.4	17.2	17.5	17.9	18.2	18.8	21.0	22.8	23.9	24.1	24.8	25.5	26.1	26.4	26.0	25.0	23.7	22.5	21.5	20.3	19.6	Diurnal Maximum	



**Hourly Averages**

**External Temperature (ET) - °C**  
**Evergreen Park - August 2015**



# Hourly Averages

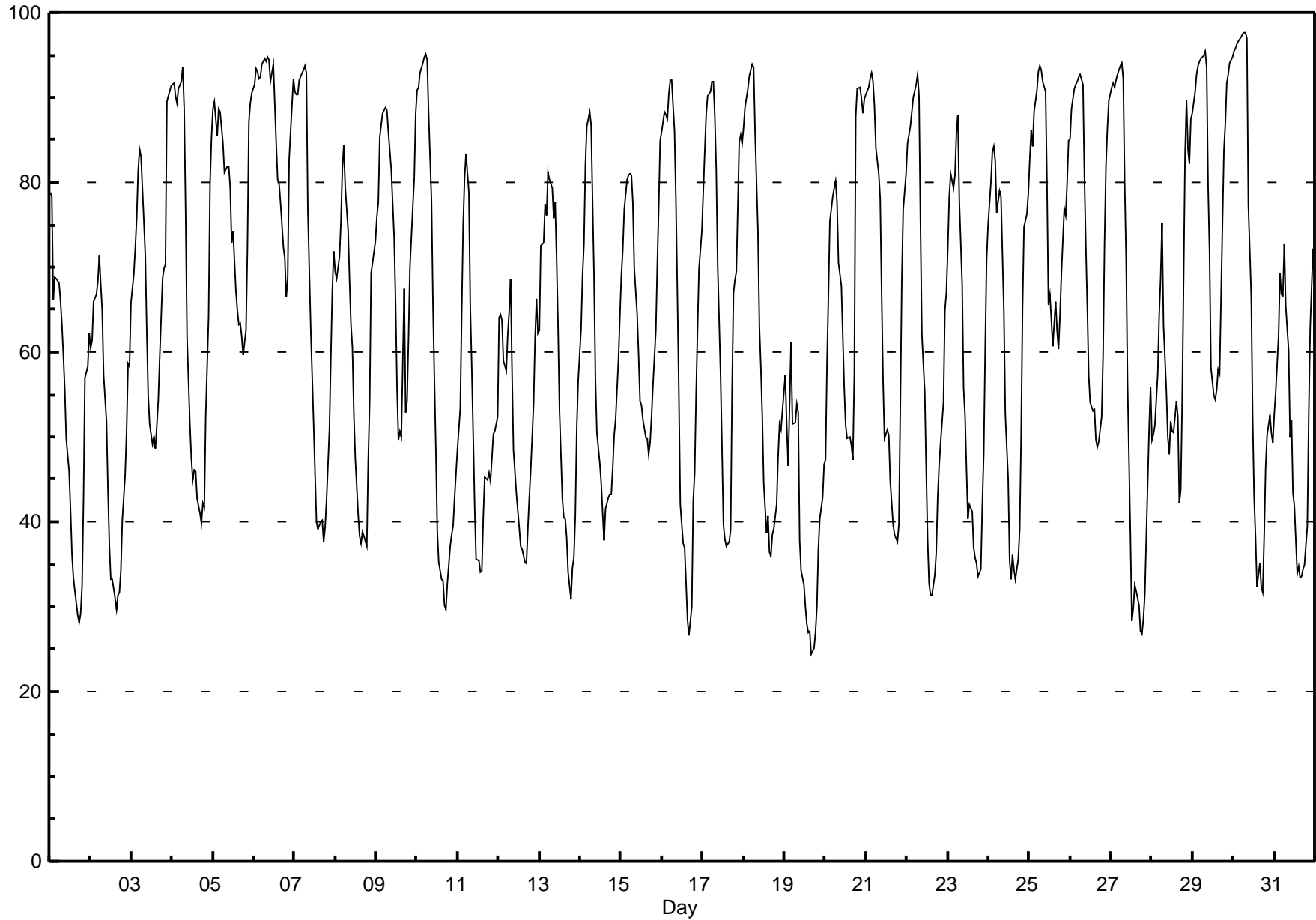
Relative Humidity (RH) - %

Evergreen Park - August 2015

Number of Exceedences (AAQO): 1-hr: 0 24-hr: 0 Maximum Value: 97.7 % on Aug 30 08:00 Maximum Daily Average: 86.4 % on Aug 6																			Hours in Service: 744 Hours of Data: 744							
Minimum Value: 24 % on Aug 19 17:00 Minimum Daily Average: 40.4 % on Aug 19 Maximum Diurnal Average: 84.3 % at hour 7 Minimum Diurnal Average: 42.1 % at hour 17 Monthly Average: 63.34 % Percentiles: P <sub>1</sub> = 27.1 P <sub>10</sub> = 35.8 Q <sub>1</sub> = 46.2 Median = 63.1 Q <sub>3</sub> = 81.5 P <sub>90</sub> = 91.5 P <sub>99</sub> = 95.9																			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-Aug	79	78	66	69	69	68	66	63	60	56	50	46	41	36	33	32	29	28	29	32	43	57	58	62	52.1	78.8
2-Aug	60	61	66	67	68	71	68	65	57	52	44	37	33	33	31	30	31	32	34	40	46	51	59	58	49.8	71.3
3-Aug	66	69	72	76	81	84	83	75	71	63	55	52	49	50	49	51	54	59	69	70	70	89	90	91	68.3	91.3
4-Aug	92	92	90	89	91	92	94	89	77	62	52	47	45	46	46	43	41	40	42	42	53	64	80	85	66.4	93.6
5-Aug	89	90	85	89	88	86	85	81	82	82	79	73	74	67	65	63	63	62	60	63	72	87	89	90	77.7	90.4
6-Aug	91	93	93	92	92	94	95	94	95	94	92	94	89	85	80	80	78	72	71	66	69	83	89	92	86.4	94.8
7-Aug	91	90	90	92	93	93	94	93	77	63	57	52	46	40	39	40	40	38	39	43	51	59	67	72	64.9	93.7
8-Aug	69	69	71	75	81	84	80	74	68	63	61	53	47	41	38	37	39	38	37	47	54	69	70	73	60.1	84.4
9-Aug	76	78	85	87	88	89	88	86	84	82	74	66	56	50	51	50	68	53	54	61	70	77	80	88	72.5	88.8
10-Aug	91	91	93	94	95	95	94	88	78	66	57	49	39	35	33	33	30	30	33	37	39	39	43	46	59.4	95.0
11-Aug	49	53	65	75	80	83	79	65	58	50	42	36	35	34	34	41	45	45	46	45	47	50	51	52	52.5	83.4
12-Aug	64	64	64	59	58	62	65	69	58	48	43	41	39	37	37	35	35	39	43	46	54	62	66	62	52.1	68.7
13-Aug	63	73	73	78	76	81	80	79	76	78	71	63	53	43	41	40	38	34	31	35	36	41	51	57	57.9	81.2
14-Aug	63	69	73	82	87	88	87	78	69	57	51	47	45	41	38	41	43	43	43	46	50	52	59	64	59.0	88.2
15-Aug	69	72	77	80	81	81	81	78	70	64	60	54	54	52	50	50	48	49	52	56	63	70	77	85	65.5	84.9
16-Aug	86	88	88	87	90	92	92	86	78	67	55	42	37	37	33	29	27	30	43	46	55	63	70	74	62.2	92.1
17-Aug	79	84	88	90	91	92	92	88	81	70	57	49	40	38	37	38	39	56	67	68	70	85	86	85	69.5	91.8
18-Aug	86	89	91	92	93	94	94	86	74	63	58	53	45	39	41	37	36	39	39	42	48	52	51	53	62.2	94.0
19-Aug	57	51	47	54	61	52	52	54	53	38	34	33	30	28	27	27	24	25	27	30	37	40	43	47	40.4	61.2
20-Aug	47	58	67	75	78	79	80	78	70	68	62	56	51	50	50	49	47	57	88	91	91	90	88	90	69.2	91.1
21-Aug	90	91	92	93	92	89	84	81	78	67	57	50	51	50	45	42	40	39	38	40	53	68	77	81	66.1	92.8
22-Aug	85	86	87	88	90	92	93	90	75	62	55	46	38	33	31	31	34	36	43	47	49	54	65	67	61.5	92.8
23-Aug	72	78	81	79	81	86	88	78	68	56	53	46	40	42	41	37	36	35	34	34	42	48	60	71	57.8	88.0
24-Aug	75	80	84	84	83	76	79	78	72	65	53	45	35	33	36	34	33	36	39	50	65	75	76	79	61.1	84.3
25-Aug	83	86	84	88	91	93	94	93	92	91	80	66	67	64	61	66	63	60	64	69	77	76	80	85	78.0	93.7
26-Aug	85	89	91	92	92	92	93	92	81	73	65	57	54	53	50	49	49	52	60	73	82	86	90	90	73.0	92.7
27-Aug	91	92	91	92	93	94	94	92	80	71	56	38	28	30	33	32	30	27	27	28	31	38	51	56	58.2	94.1
28-Aug	50	50	51	57	64	69	75	63	55	50	48	52	51	50	54	52	42	44	54	83	90	84	82	87	60.8	89.6
29-Aug	88	91	93	94	94	95	95	95	94	80	72	58	55	54	56	58	57	75	84	87	92	93	94	95	81.1	95.4
30-Aug	95	96	96	97	97	98	98	98	97	77	67	52	43	38	32	35	32	32	38	46	50	53	51	49	65.3	97.7
31-Aug	53	55	62	69	67	67	73	65	60	50	52	43	42	34	35	33	34	34	35	39	53	63	68	72	52.4	72.8
																								Diurnal Average		
																								Diurnal Maximum		

**Hourly Averages**

**Relative Humidity (RH) - %  
Evergreen Park - August 2015**





Peace Airshed Zone Association

# Hourly Averages

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

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 Spd	5	4	10	10	11	13	13	14	18	19	16	20	21	19	16	17	15	14	12	7	1	3	2	1	10.9	21.1
Dir	211	220	269	256	266	269	275	278	274	268	273	261	258	255	270	277	295	303	318	337	184	213	222	0	271.7	258.0
2 Spd	3	3	3	5	5	3	5	6	10	7	6	4	6	9	6	2	11	10	10	7	4	2	5	7	2.2	10.9
Dir	251	244	262	247	249	286	268	253	262	264	334	359	290	197	137	83	111	162	131	137	128	106	189	138	199.7	111.2
3 Spd	2	3	1	1	0	0	2	2	5	9	13	11	11	12	12	12	7	11	7	6	13	24	22	11	1.6	23.9
Dir	74	321	100	260	269	222	124	95	118	125	129	122	118	84	79	88	76	99	77	22	296	273	280	283	92.7	272.9
4 Spd	4	3	8	5	1	2	8	9	9	11	15	12	13	10	13	13	14	15	8	4	3	2	0	1	5.2	14.6
Dir	222	234	226	224	8	216	219	254	293	301	321	315	281	327	350	337	344	341	351	27	74	150	13	243	309.9	320.8
5 Spd	0	2	3	3	5	5	6	6	11	12	13	15	12	13	20	21	20	15	15	16	16	4	7	8	9.0	20.9
Dir	320	356	239	247	299	278	273	277	263	270	301	288	286	302	280	328	332	332	332	334	346	314	274	309	305.5	328.1
6 Spd	10	9	9	11	10	10	11	10	10	9	12	16	19	24	23	18	16	15	14	9	6	5	5	7	10.8	23.8
Dir	297	267	271	273	272	273	279	294	301	318	315	323	313	321	316	315	315	310	307	325	297	219	231	219	300.8	321.5
7 Spd	5	3	7	5	2	2	2	1	8	17	20	20	17	19	14	11	11	19	19	16	10	4	4	4	9.4	19.8
Dir	220	247	261	222	192	169	173	123	247	265	264	267	275	270	250	289	264	262	268	265	254	289	220	264	261.2	267.4
8 Spd	7	10	7	4	2	4	1	8	10	11	7	4	3	3	4	3	4	5	3	6	3	2	4	2	2.5	10.8
Dir	259	258	259	246	239	209	310	265	279	262	250	272	199	220	250	284	1	54	91	101	83	44	67	62	262.3	261.8
9 Spd	2	2	2	0	5	1	1	4	9	11	13	14	15	20	11	9	0	6	6	7	4	7	2	2	3.4	20.4
Dir	337	62	34	192	225	14	184	206	250	249	268	265	303	327	355	327	147	147	175	207	186	205	175	204	269.4	326.7
10 Spd	3	2	2	1	1	1	0	4	6	11	10	9	10	13	19	18	15	12	8	9	11	12	7	7	8.0	19.5
Dir	219	199	141	216	200	275	240	260	210	257	260	254	251	278	259	259	269	270	271	255	279	271	273	277	261.4	258.7
11 Spd	5	6	1	0	2	0	1	8	15	18	20	24	21	25	30	15	10	11	12	10	6	7	7	7	10.3	30.3
Dir	297	199	218	175	216	151	219	259	252	255	261	262	280	275	259	285	283	276	287	283	279	266	292	257	267.9	259.3
12 Spd	4	5	8	11	5	1	1	0	5	12	17	21	25	24	22	22	18	15	11	6	1	3	3	7	9.2	25.3
Dir	207	211	211	229	235	200	194	101	254	271	253	261	274	281	272	280	280	307	308	306	214	195	224	323	269.0	274.3
13 Spd	5	2	4	3	3	5	3	6	6	4	8	7	12	19	21	20	27	29	25	17	11	8	5	4	9.4	28.9
Dir	201	183	186	354	200	202	213	224	235	214	228	265	280	278	292	283	271	274	273	289	278	310	302	281	270.8	274.3
14 Spd	4	3	3	0	1	0	1	2	1	4	5	2	7	3	8	8	9	10	11	7	6	7	14	11	4.2	13.5
Dir	283	238	266	164	188	182	304	315	221	64	40	20	9	40	18	60	66	41	37	46	44	38	38	40	35.6	37.8
15 Spd	7	5	7	6	3	6	7	8	9	8	8	14	15	11	14	10	12	7	4	2	0	3	0	1	5.8	15.0
Dir	42	54	32	24	45	27	25	34	34	19	355	342	339	351	340	321	329	303	332	332	102	194	333	251	358.3	339.4
16 Spd	2	2	4	2	3	3	5	7	5	7	8	9	9	9	4	4	7	10	23	11	3	4	3	4	5.2	22.6
Dir	234	215	274	239	212	213	210	250	196	205	178	185	210	206	252	282	309	239	251	245	205	203	202	215	227.8	251.3
17 Spd	2	2	0	1	0	0	1	0	4	6	14	17	27	27	21	15	15	20	17	6	8	2	3	7	7.8	27.2
Dir	16	335	124	206	143	198	83	130	204	232	262	265	263	261	265	301	293	254	256	267	11	201	247	254	266.4	261.1
18 Spd	6	7	4	4	3	4	4	9	9	8	9	8	13	16	15	21	28	27	29	16	12	13	19	19	11.8	28.5
Dir	267	283	278	304	309	277	264	262	253	250	205	203	243	263	272	253	260	255	260	248	230	219	224	223	249.6	260.5
19 Spd	13	16	12	2	1	3	6	7	15	32	31	31	25	28	28	26	28	24	19	12	8	14	14	11	15.3	31.5
Dir	216	226	232	258	168	352	249	245	260	275	281	280	284	296	289	305	289	288	298	300	234	245	250	256	275.3	275.1
20 Spd	14	14	17	15	14	10	11	13	14	13	14	13	14	14	13	10	8	7	12	7	6	8	5	3	9.9	17.5
Dir	309	337	338	328	312	293	292	310	331	307	317	335	333	328	333	341	355	307	263	234	266	301	51	92	318.9	338.3
21 Spd	1	0	0	4	4	2	8	10	14	26	29	27	26	25	25	24	24	19	16	10	2	1	2	1	12.0	29.0
Dir	52	312	299	312	310	1	352	329	333	333	339	343	345	335	332	332	326	335	316	317	269	215	207	222	332.7	339.4
22 Spd	2	2	3	4	6	5	4	5	7	6	5	8	7	7	10	11	9	8	5	4	4	2	2	2	3.9	10.9
Dir	221	218	219	214	212	201	199	201	246	278	182	205	195	210	175	150	138	123	116	129	161	152	71	96	181.9	149.9



Peace Airshed Zone Association

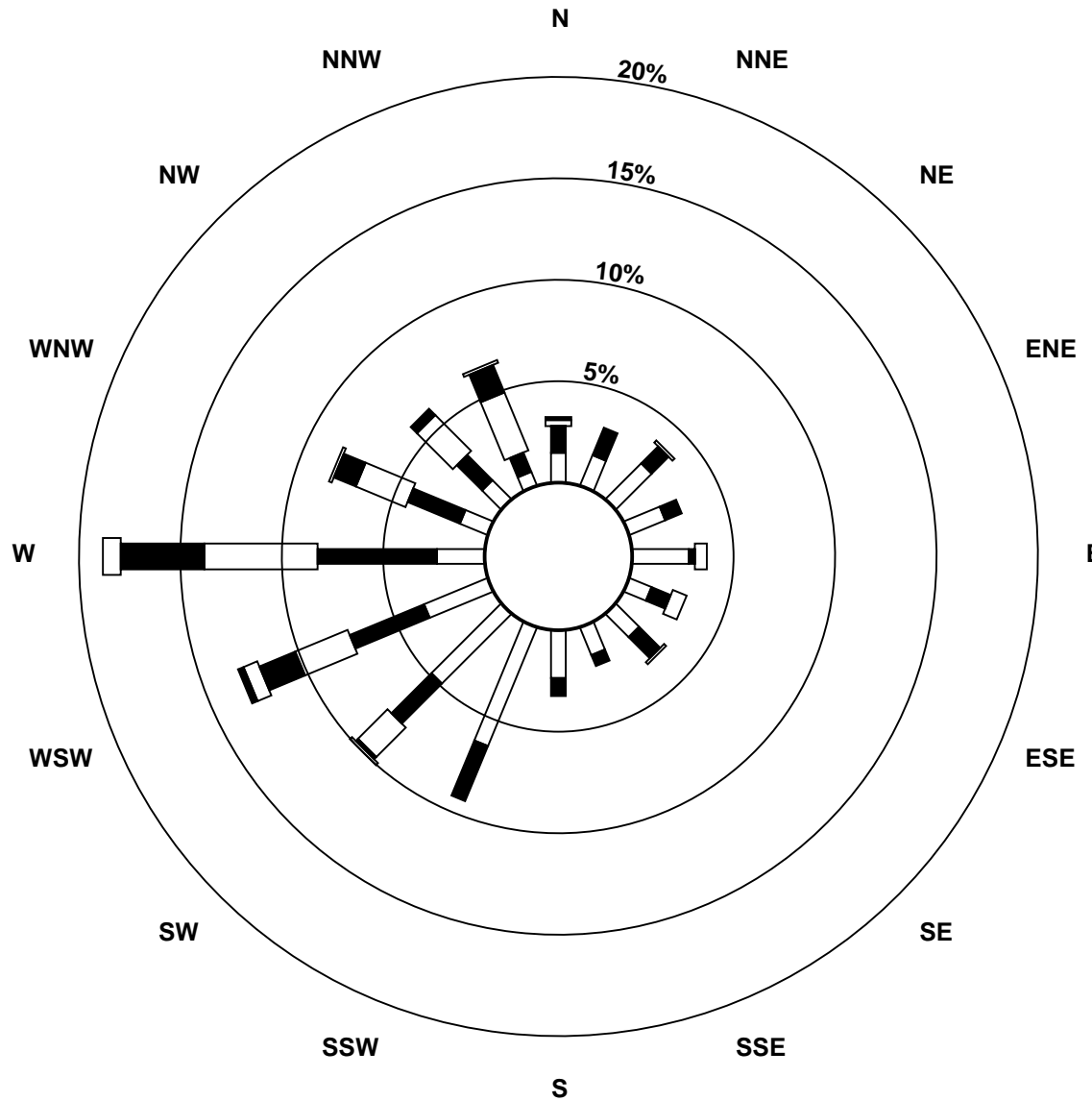
# Hourly Averages

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

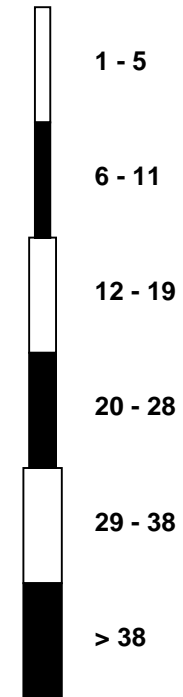
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	1	2	1	2	1	0	1	2	8	5	9	11	13	16	16	19	24	21	23	12	3	4	1	1	7.1	24.4
Dir	56	66	62	65	42	312	141	215	271	275	269	258	266	281	290	298	285	278	267	262	231	213	205	35	275.6	284.8
24 Spd	5	1	1	1	3	4	3	6	8	4	2	3	7	4	7	9	6	7	3	2	1	0	0	1	1.1	8.8
Dir	204	238	199	223	256	241	274	218	285	353	31	120	133	121	120	132	66	76	90	68	41	49	153	50	131.9	132.0
25 Spd	1	1	2	2	1	0	2	1	1	2	4	2	6	4	8	21	15	7	4	2	2	2	1	1	2.8	21.4
Dir	45	51	188	148	42	33	110	339	64	102	47	294	93	27	18	357	1	30	83	89	31	33	99	352	26.5	356.7
26 Spd	1	0	1	0	0	0	1	3	5	7	6	7	4	3	9	2	4	4	4	2	0	1	0	0	1.7	8.6
Dir	190	47	32	106	134	48	44	90	92	130	141	156	143	94	353	66	93	98	150	164	229	211	84	42	112.7	353.2
27 Spd	1	1	2	3	3	1	1	6	11	10	9	21	28	28	22	26	26	28	24	18	13	5	1	4	11.9	28.5
Dir	26	209	205	220	208	190	203	228	245	255	261	249	257	253	265	259	255	249	251	250	237	242	205	240	250.9	248.8
28 Spd	16	16	15	6	6	2	1	4	8	9	7	4	4	2	2	3	6	8	14	19	5	23	17	6	6.4	22.5
Dir	254	244	234	214	203	135	189	199	203	199	177	130	140	140	179	150	304	312	273	235	196	267	266	184	235.7	267.3
29 Spd	4	1	2	1	0	1	2	1	2	5	9	16	15	15	12	12	12	6	3	3	5	1	1	2	4.1	15.9
Dir	234	319	190	126	57	176	56	89	78	90	108	119	107	114	112	94	111	220	239	188	225	181	96	143	121.2	119.0
30 Spd	2	2	2	2	4	5	5	4	9	19	18	16	24	31	35	29	30	28	13	7	4	8	15	15	12.6	35.1
Dir	41	28	339	294	314	264	248	240	259	253	240	235	250	250	256	235	241	236	233	214	168	194	222	232	242.0	256.1
31 Spd	10	9	5	6	12	6	1	0	9	21	27	36	39	45	31	29	22	18	12	8	1	2	3	1	13.5	44.5
Dir	218	218	209	210	218	222	281	129	218	258	260	256	248	249	255	261	260	257	275	332	32	162	22	30	251.4	249.5
Spd	2.9	2.7	3.0	2.4	2.5	2.0	2.2	3.7	5.9	7.6	7.6	8.7	10.0	11.0	10.4	9.2	9.1	8.7	8.3	5.0	2.7	3.8	3.3	2.6	Diurnal Average	
Dir	252.8	250.8	253.4	258.2	253.4	258.7	264.5	263.4	264.0	269.9	272.9	269.7	273.5	278.6	284.0	293.0	291.0	278.3	276.9	275.1	263.5	251.2	255.3	249.4	Diurnal Maximum	
Spd	15.7	16.4	17.5	14.9	14.3	13.4	13.4	14.1	17.5	31.5	31.1	36.3	38.7	44.5	35.1	29.4	29.6	28.9	28.5	18.6	16.3	23.9	22.2	19.4	Diurnal Maximum	
Dir	254.4	244.3	338.3	328.2	312.3	268.8	275.3	277.7	273.8	275.1	281.4	256.5	247.8	249.5	256.1	234.6	241.1	274.3	260.5	235.1	346.1	272.9	279.9	223.2	Diurnal Maximum	
Maximum Speed Value: 45 km/h on Aug 31 14:00																		Minimum Speed Value: 0 km/h on Aug 17 05:00						Hours in Service: 744		
Maximum Daily Speed Average: 15.3 km/h on Aug 19																		Minimum Daily Speed Average: 1.1 km/h on Aug 26						Hours of Data: 744		
Maximum Diurnal Speed Average: 11.0 km/h at hour 14																		Minimum Diurnal Speed Average: 2.0 km/h at hour 6						Hours of Missing Data: 0		
Monthly Average Velocity: 5.51 km/h 272.56 deg																		Speed Percentiles: P <sub>1</sub> = 0.2 P <sub>10</sub> = 1.2 Q <sub>1</sub> = 2.8 Median = 6.7 Q <sub>3</sub> = 13.0 P <sub>90</sub> = 19.7 P <sub>99</sub> = 31.0						Percent Operational Time: 100.0		
All monthly, daily, and diurnal averages have been calculated using vector methods																										
Frequency Distribution																										
		Speed Range (km/h)																								
Direction	0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total																			
North	17	14	9	3	1	0	44																			
NorthEast	46	16	2	0	0	0	64																			
East	31	8	8	0	0	0	47																			
SouthEast	29	17	4	0	0	0	50																			
South	46	16	0	0	0	0	62																			
SouthWest	77	45	20	2	2	0	146																			
West	29	68	60	50	15	2	224																			
NorthWest	23	28	43	13	0	0	107																			
Total	298	212	146	68	18	2	744																			

**Wind Rose**

**Wind Speed (WS) (km/h)**  
**Evergreen Park - August 2015**



**Wind Speed Classes (km/h)**



# Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Evergreen Park - August 2015

Maximum Speed: 45 km/h on Aug 31 14:00	Maximum Daily Speed Average: 17.9 km/h on Aug 19	Hours in Service: 744
Minimum Speed: 0 km/h on Aug 17 05:00	Minimum Daily Speed Average: 4.1 km/h on Aug 26	Hours of Data: 744
Maximum Diurnal Speed Average: 18.0 km/h at hour 14	Minimum Diurnal Speed Average: 4.0 km/h at hour 6	Hours of Missing Data: 0
Monthly Average Speed: 9.88 km/h	Percentiles: P <sub>1</sub> = 0.8 P <sub>10</sub> = 1.9 Q <sub>1</sub> = 3.6 Median = 7.9 Q <sub>3</sub> = 14.1 P <sub>90</sub> = 21.3 P <sub>99</sub> = 32.2	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-Aug	6	6	11	11	12	14	14	15	18	19	17	21	22	21	18	19	17	16	13	8	2	3	2	3	12.7	22.4
2-Aug	3	3	3	6	5	3	5	7	11	8	7	7	9	11	10	9	13	11	11	7	5	3	5	8	7.1	13.4
3-Aug	3	5	2	2	3	2	3	3	6	10	14	13	13	14	14	14	8	12	9	8	20	27	24	13	10.0	26.7
4-Aug	5	5	8	6	3	2	8	10	10	12	16	15	15	13	15	14	16	16	9	5	3	3	1	1	8.7	15.9
5-Aug	1	2	4	3	5	5	7	7	12	12	15	17	14	15	21	22	21	15	16	16	17	4	7	8	11.1	22.4
6-Aug	11	9	9	11	10	10	11	11	10	9	12	16	20	25	23	19	17	17	15	10	8	5	5	7	12.5	24.6
7-Aug	5	3	7	5	3	3	3	3	9	18	20	21	19	20	16	13	13	20	20	16	10	6	4	6	10.9	21.3
8-Aug	8	10	8	5	3	4	3	9	11	12	8	7	6	8	9	7	7	6	4	6	3	2	4	4	6.4	11.6
9-Aug	3	2	2	1	6	2	2	5	10	12	13	15	19	22	13	10	5	8	7	8	5	7	3	3	7.6	21.7
10-Aug	3	2	3	1	2	1	1	5	7	12	11	11	11	15	20	18	19	16	12	8	9	11	12	7	9.1	20.2
11-Aug	6	6	2	1	2	1	2	8	16	19	20	25	22	26	31	15	10	11	12	11	7	8	7	7	11.4	31.1
12-Aug	5	6	8	11	6	1	2	1	6	13	18	22	27	26	23	23	20	15	12	7	1	4	3	7	11.1	26.6
13-Aug	5	3	4	3	4	5	3	7	7	4	9	9	14	20	22	21	27	30	26	18	12	9	5	5	11.3	29.5
14-Aug	5	3	4	2	2	2	2	3	3	6	7	7	10	6	12	10	10	10	11	7	6	8	14	11	6.7	13.7
15-Aug	7	5	8	7	4	7	8	9	9	10	11	15	16	13	15	12	12	9	5	2	0	4	2	1	7.9	16.1
16-Aug	2	2	4	3	4	3	5	7	6	8	9	11	11	11	8	11	8	11	23	12	3	4	3	4	7.2	23.0
17-Aug	2	2	1	1	0	1	1	1	4	6	14	18	28	28	23	15	16	21	18	9	9	5	3	7	9.8	28.3
18-Aug	7	7	4	4	3	4	5	9	9	9	10	10	16	19	16	22	29	27	29	16	13	13	19	19	13.3	28.9
19-Aug	14	16	12	3	3	5	8	8	15	32	32	33	27	30	31	28	29	25	20	12	9	14	14	11	17.9	32.9
20-Aug	16	14	18	16	15	11	12	14	16	14	16	16	17	17	14	11	9	11	13	7	6	8	8	4	12.6	18.5
21-Aug	1	1	0	4	4	3	8	11	14	26	30	28	27	25	26	25	24	20	16	11	3	2	2	1	13.0	29.7
22-Aug	2	2	3	4	6	5	4	6	7	7	7	10	9	11	12	12	10	8	5	5	4	2	3	2	6.1	12.1
23-Aug	1	3	1	3	1	1	2	2	8	6	10	12	14	18	19	21	26	23	23	13	4	4	2	1	9.1	25.8
24-Aug	5	2	2	2	4	5	4	7	9	6	4	6	9	9	9	10	7	7	3	2	1	1	1	1	5.0	10.4
25-Aug	2	1	4	9	2	2	2	2	1	3	5	5	8	7	11	22	16	8	4	2	2	2	1	1	5.1	22.5
26-Aug	2	2	1	1	1	1	1	4	6	8	8	9	9	6	10	7	7	6	5	2	1	1	1	1	4.1	10.0
27-Aug	1	1	3	3	3	1	1	6	11	11	10	22	29	29	23	27	26	29	24	18	13	5	1	4	12.6	28.9
28-Aug	16	17	15	7	7	4	1	5	8	9	8	5	5	3	3	4	9	9	16	20	7	24	18	9	9.4	23.7
29-Aug	6	2	3	3	2	2	2	2	3	6	10	17	16	16	13	12	13	9	4	4	6	3	3	3	6.6	16.7
30-Aug	3	3	2	2	4	7	8	5	9	19	18	17	24	31	36	30	31	28	13	7	5	8	16	16	14.3	36.3
31-Aug	10	9	6	6	12	6	3	2	10	22	29	37	39	45	32	30	23	19	14	10	1	4	4	2	15.6	45.2
	5.3	5.1	5.2	4.7	4.4	4.0	4.5	6.2	9.0	11.9	13.5	15.3	16.9	18.0	17.7	16.5	16.1	15.3	13.3	9.2	6.2	6.5	6.4	5.7	Diurnal Average	
	16.0	16.7	18.5	15.8	15.1	13.6	13.9	14.6	18.2	32.3	32.2	37.1	39.3	45.2	36.3	30.1	30.6	29.5	28.8	20.0	19.9	26.7	24.4	19.5	Diurnal Maximum	

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

# Hourly Standard Deviations

Wind Direction (WD) - deg  
Evergreen Park - August 2015

Maximum Value: 99.6 deg on Aug 26 04:00																				Hours in Service: 744					
Minimum Value: 5.1 deg on Aug 18 23:00																				Hours of Data: 744					
Percentiles: P <sub>1</sub> = 6.9 P <sub>10</sub> = 13.4 Q <sub>1</sub> = 18.0 Median = 27.7 Q <sub>3</sub> = 51.6 P <sub>90</sub> = 75.7 P <sub>99</sub> = 92.6																				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-Aug	36	64	19	21	12	10	16	15	16	17	25	20	22	24	26	23	28	24	24	23	89	14	48	73	89.0
2-Aug	21	30	15	14	15	40	33	29	18	35	41	71	52	58	60	86	42	35	28	16	19	40	37	35	85.8
3-Aug	63	72	77	76	86	84	50	53	44	31	27	40	44	35	33	25	32	21	40	42	61	28	26	30	86.1
4-Aug	45	72	32	51	77	70	5	23	27	28	24	36	33	52	35	39	31	24	29	33	14	70	83	80	83.2
5-Aug	77	65	43	38	29	23	26	29	24	14	31	30	34	26	23	23	19	18	18	14	18	30	14	14	76.8
6-Aug	18	14	13	15	14	13	18	16	17	20	21	14	17	15	16	20	18	25	22	18	44	12	17	8	44.0
7-Aug	17	43	14	17	48	23	56	61	30	21	15	22	20	21	33	31	28	18	14	10	8	45	39	47	61.4
8-Aug	19	13	21	53	52	27	84	34	17	21	40	69	76	94	68	80	61	48	68	17	18	16	14	63	93.7
9-Aug	58	27	41	89	44	76	79	23	26	16	18	19	36	21	36	42	88	51	25	28	39	12	69	80	89.3
10-Aug	24	26	76	93	56	75	67	44	23	33	20	33	39	31	16	16	22	19	14	21	16	14	12	20	93.1
11-Aug	25	24	87	90	84	84	65	24	10	16	16	18	19	15	13	18	17	17	16	18	27	21	18	17	89.8
12-Aug	17	17	17	15	56	72	38	84	23	23	23	20	19	18	19	18	21	15	15	21	62	21	40	19	83.5
13-Aug	31	55	32	23	51	21	41	22	23	54	18	32	25	19	22	16	14	12	16	14	14	22	20	26	55.4
14-Aug	60	55	52	90	91	87	66	51	73	60	60	87	55	68	58	39	34	25	14	10	9	11	11	12	91.4
15-Aug	20	33	14	19	48	14	18	26	26	33	44	31	26	38	22	33	22	39	44	52	77	69	76	43	76.8
16-Aug	80	16	26	35	9	26	11	27	29	35	39	42	43	50	79	79	47	43	10	13	24	16	22	35	79.9
17-Aug	49	83	80	61	87	73	46	68	25	33	15	21	14	17	23	19	26	20	17	48	36	83	52	12	86.6
18-Aug	16	20	24	22	19	22	21	17	19	37	24	44	39	35	21	17	13	10	8	10	15	8	5	6	43.6
19-Aug	6	7	10	52	70	55	40	20	11	12	16	20	20	23	25	20	18	19	17	16	20	11	6	7	69.7
20-Aug	30	16	21	21	19	19	20	23	26	21	27	37	34	34	27	31	31	66	46	17	28	21	54	28	65.8
21-Aug	32	56	56	13	26	57	20	18	13	12	15	16	19	14	15	18	15	18	18	15	45	33	52	20	57.4
22-Aug	27	14	28	11	9	27	10	14	21	40	60	36	64	66	36	28	21	19	15	19	26	33	30	25	66.0
23-Aug	46	67	78	48	85	95	85	36	26	60	31	28	33	28	32	27	19	21	16	19	18	26	79	91	94.6
24-Aug	26	87	44	83	54	41	71	31	29	63	88	71	53	80	51	41	47	26	18	28	54	81	86	61	87.5
25-Aug	67	61	87	84	67	95	58	81	54	39	44	80	53	52	51	19	22	40	34	26	30	30	75	39	94.8
26-Aug	49	69	85	100	90	97	87	38	42	44	49	56	78	79	36	87	75	66	42	57	95	59	88	77	99.6
27-Aug	59	86	71	30	66	75	79	34	13	19	31	15	11	12	16	10	11	10	8	10	7	32	69	29	86.3
28-Aug	7	11	13	29	26	51	78	19	12	14	36	44	53	63	49	41	57	34	29	57	46	18	29	66	77.5
29-Aug	64	92	71	64	89	83	35	52	53	31	30	19	24	20	20	23	17	53	79	43	13	84	72	68	92.2
30-Aug	47	53	55	69	46	45	56	52	20	7	14	15	12	10	16	13	15	12	12	12	20	21	10	18	68.6
31-Aug	9	18	47	22	9	15	81	77	19	13	18	12	10	10	13	17	17	15	24	33	56	84	60	56	84.3
79.9	92.2	87.0	99.6	91.4	96.9	86.7	83.5	73.2	62.6	87.5	86.5	78.5	93.7	79.0	87.2	87.6	65.8	79.5	57.5	95.3	84.3	87.6	91.3		



PAZA

## Smoky Heights Station

Monthly Summary Tables, Graphs and  
Roses

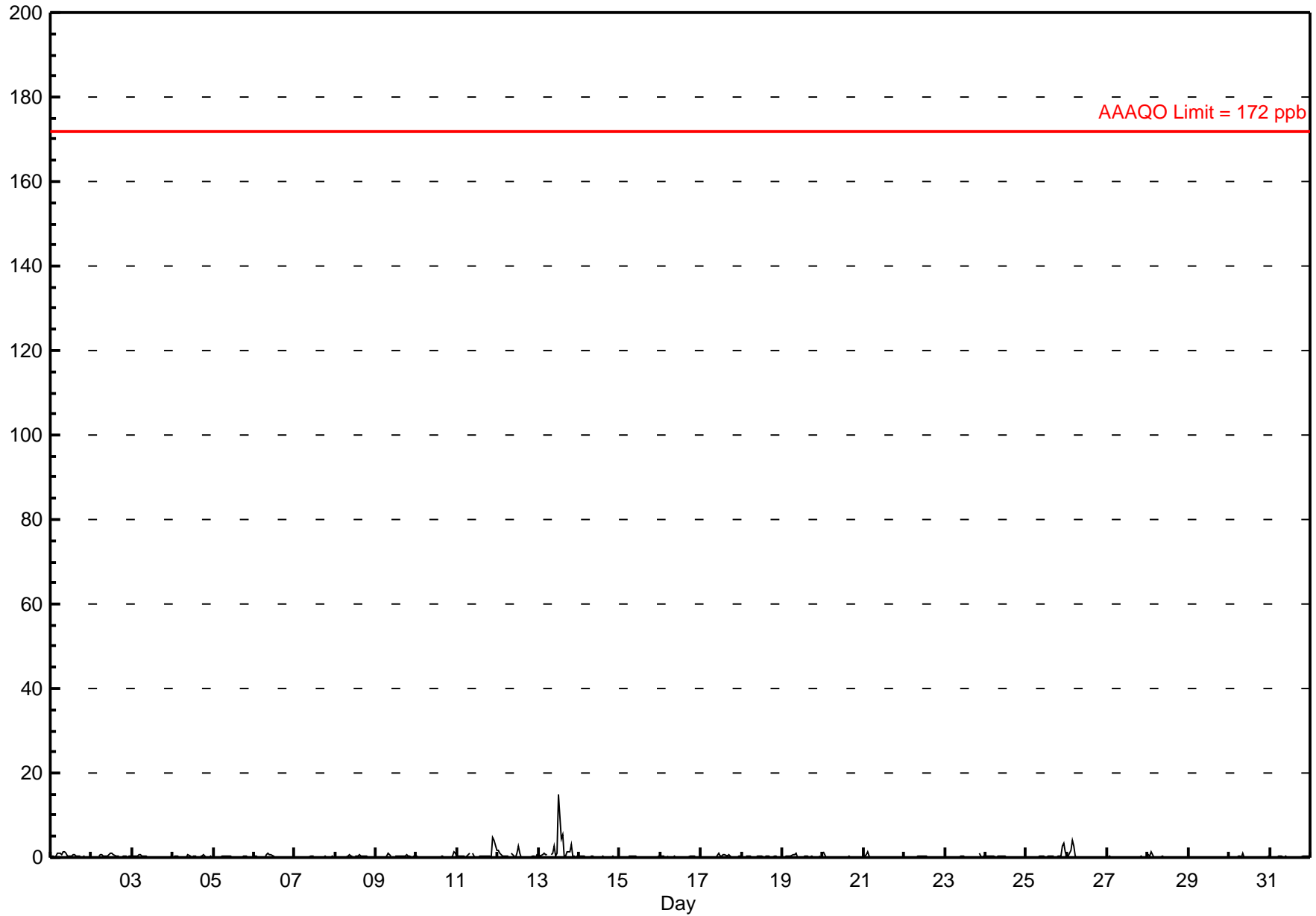
## Hourly Averages

## Sulphur Dioxide (SO<sub>2</sub>) - ppb Smoky Heights - August 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 15.1 ppb on Aug 13 13:00      Maximum Daily Average: 1.8 ppb on Aug 13		Hours in Service: 744 Hours of Data: 700 Hours of Missing Data: 44 Hours of Calibration: 35 Percent Operational Time: 98.8																																															
Minimum Value: 0 ppb on Aug 7 20:00 Maximum Diurnal Average: 0.8 ppb at hour 13 Monthly Average: 0.31 ppb		Minimum Daily Average: 0.0 ppb on Aug 29 Minimum Diurnal Average: 0.2 ppb at hour 17 Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.1 Median = 0.1 Q <sub>3</sub> = 0.3 P <sub>90</sub> = 0.6 P <sub>99</sub> = 3.0																																															
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-Aug	0	0	0	0	1	1	1	1	1	1	0	0	1	1	1	0	0	0	A	0	0	P	P	P	0.5	1.2																							
2-Aug	P	P	P	P	0	1	1	0	0	0	1	1	1	1	0	0	0	A	0	0	0	0	0	0	0.4	1.0																							
3-Aug	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.2	0.7																							
4-Aug	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	A	0	0	1	0	0	0	0	0	0.2	0.5																							
5-Aug	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																							
6-Aug	0	0	0	0	0	0	0	1	1	1	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0.2	1.0																							
7-Aug	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	0.5																							
8-Aug	0	0	0	0	0	0	0	0	1	0	0	A	0	0	1	0	0	0	0	0	0	0	0	0	0.2	0.5																							
9-Aug	0	0	0	0	0	0	0	1	1	0	A	0	0	0	0	0	0	0	1	0	0	0	0	0	0.3	1.1																							
10-Aug	0	0	0	0	0	0	0	0	0	A	3	C	C	C	0	0	0	0	0	0	0	0	1	1	0.4	2.9																							
11-Aug	0	0	0	0	0	0	1	1	A	1	0	0	0	0	0	0	0	0	0	0	5	4	2	0.7	4.6																								
12-Aug	2	1	1	0	0	0	0	A	1	1	0	1	3	1	0	0	0	0	0	0	0	0	1	0.5	2.6																								
13-Aug	1	0	1	1	1	1	A	1	1	3	0	1	15	4	5	0	0	1	1	3	0	0	0	1.8	15.1																								
14-Aug	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	0.2																								
15-Aug	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																								
16-Aug	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5																								
17-Aug	0	0	A	0	0	0	0	0	0	0	1	0	0	1	1	0	1	0	0	0	0	0	0	0.3	0.9																								
18-Aug	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.2	0.5																								
19-Aug	A	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.9																								
20-Aug	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	A	0.2	1.2																								
21-Aug	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.2	1.3																								
22-Aug	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																								
23-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	0	0	0.2	1.2																								
24-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.2	0.5																								
25-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	3	3	1	0.5	3.4																							
26-Aug	0	0	2	4	3	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.4	4.2																								
27-Aug	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																								
28-Aug	1	0	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	P	P	0.2	1.3																								
29-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.0	0.2																								
30-Aug	0	0	0	0	0	0	0	0	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.2	1.0																								
31-Aug	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																								
																								0.3	0.2	0.3	0.4	0.3	0.2	0.2	0.3	0.4	0.4	0.4	0.2	0.8	0.4	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.4	0.3	Diurnal Average
																								1.5	1.0	1.5	4.2	2.7	0.9	0.8	1.2	1.2	2.7	2.9	1.0	15.1	4.3	5.3	0.5	0.5	1.5	1.3	2.9	1.2	4.6	4.1	1.8	Diurnal Maximum	
C - Calibration      P - Power Failure      A - Automated Daily Zero Span Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb      24-hr 48 ppb      30-day 11 ppb																																																	

### Hourly Averages

**Sulphur Dioxide (SO<sub>2</sub>) - ppb**  
**Smoky Heights - August 2015**



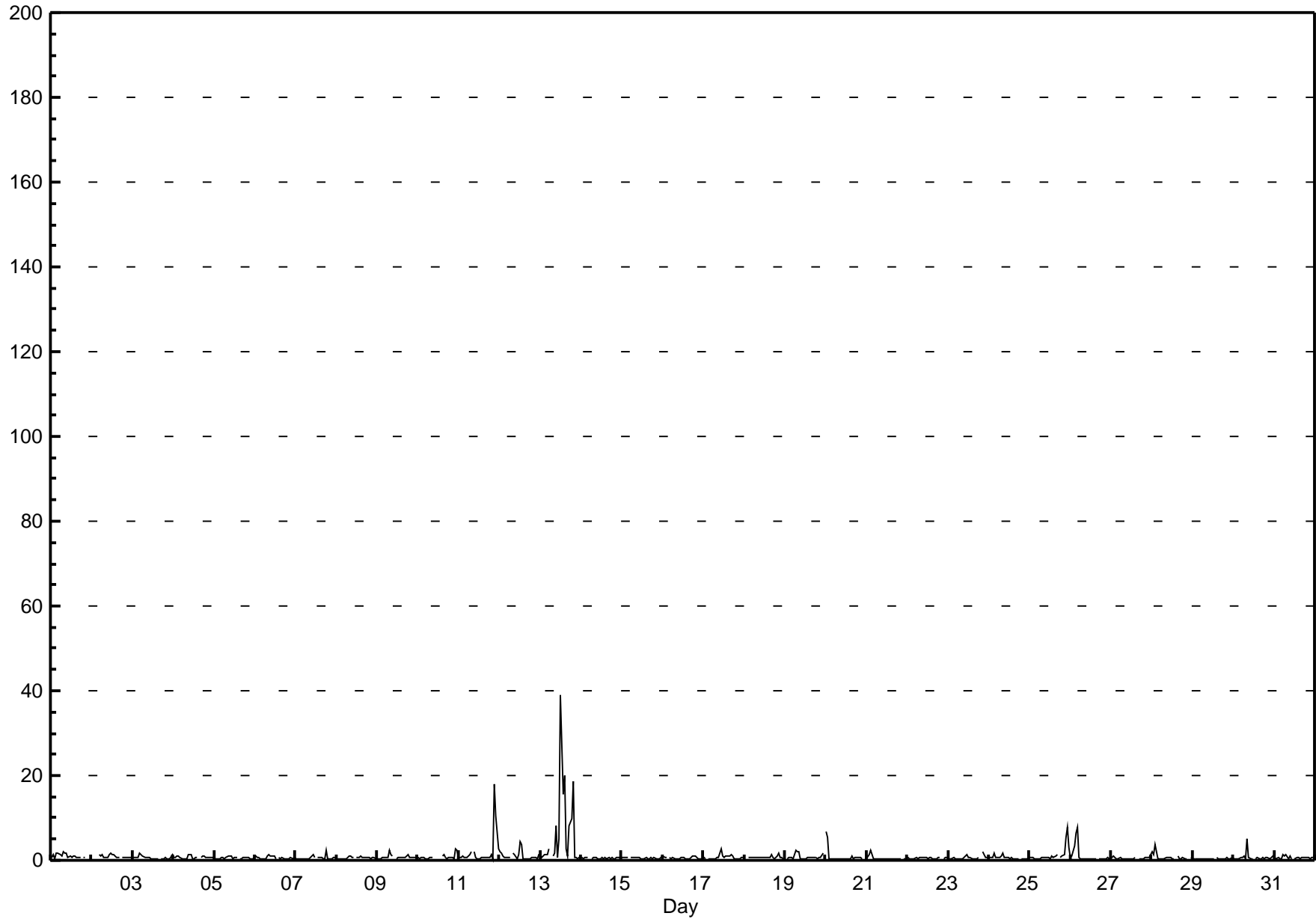
## Hourly Maximums

## Sulphur Dioxide (SO<sub>2</sub>) - ppb Smoky Heights - August 2015

Maximum Value: 38.9 ppb on Aug 13 13:00		Maximum Daily Average: 6.2 ppb on Aug 13		Hours in Service: 744																							
Minimum Value: 0 ppb on Aug 29 12:00		Minimum Daily Average: 0.4 ppb on Aug 29		Hours of Data: 700																							
Maximum Diurnal Average: 2.1 ppb at hour 13		Minimum Diurnal Average: 0.6 ppb at hour 17		Hours of Missing Data: 44																							
Monthly Average: 0.96 ppb		Percentiles: P <sub>1</sub> = 0.3 P <sub>10</sub> = 0.4 Q <sub>1</sub> = 0.5 Median = 0.5 Q <sub>3</sub> = 0.7 P <sub>90</sub> = 1.4 P <sub>99</sub> = 9.8		Hours of Calibration: 35																							
				Percent Operational Time: 98.8																							
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-Aug	1	1	0	2	2	2	1	2	2	2	1	1	1	1	1	1	1	1	A	1	1	P	P	P	1.1	1.9	
2-Aug	P	P	P	P	1	1	1	1	1	1	1	2	1	1	1	1	1	1	A	1	1	1	1	1	0.9	1.6	
3-Aug	1	1	1	1	2	1	1	1	1	1	1	0	0	0	0	0	A	0	0	1	0	0	0	1	0.6	1.8	
4-Aug	1	1	1	1	1	0	0	0	0	1	1	0	1	1	1	A	1	1	1	1	1	1	1	1	0.7	1.5	
5-Aug	0	0	0	0	1	1	1	1	1	1	1	0	1	1	A	0	0	1	1	1	1	0	0	0	0.6	1.0	
6-Aug	1	1	1	0	0	0	0	1	1	1	1	0	A	1	0	1	0	0	0	0	0	1	0	1	0.6	1.4	
7-Aug	0	0	0	0	0	0	0	0	0	1	1	1	A	1	1	1	0	0	2	0	0	0	1	1	0.6	2.4	
8-Aug	0	0	0	0	0	0	0	1	1	1	1	A	1	1	1	1	1	1	1	1	0	1	1	0	0.6	1.2	
9-Aug	0	0	0	1	1	1	1	2	1	1	A	0	1	1	1	1	1	1	1	1	1	1	1	1	0.8	2.3	
10-Aug	1	0	1	1	0	0	0	1	1	A	4	C	C	C	1	1	1	0	1	1	1	0	3	2	1.0	4.3	
11-Aug	1	1	1	1	1	1	1	2	A	2	1	0	1	1	1	1	1	1	1	1	0	18	10	3	2.1	18.1	
12-Aug	2	2	1	1	1	1	1	A	2	1	0	1	4	4	1	0	0	0	0	1	1	1	1	1	1.2	4.5	
13-Aug	1	1	1	1	1	3	A	1	2	8	1	5	39	15	20	3	1	8	10	19	1	1	0	1	6.2	38.9	
14-Aug	1	0	1	1	1	A	0	1	1	1	0	0	1	0	1	0	1	0	1	1	0	1	1	0	0.5	0.7	
15-Aug	1	1	1	1	A	1	1	1	1	1	1	0	0	0	1	0	0	1	0	1	0	0	0	1	0.5	0.8	
16-Aug	1	1	1	A	1	0	1	0	0	0	1	1	1	1	0	0	0	1	1	1	1	0	0	0	0.6	1.0	
17-Aug	1	0	A	0	0	0	0	0	1	1	3	1	1	1	1	1	1	1	0	0	0	0	1	1	0.7	2.7	
18-Aug	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	0	0.7	1.5	
19-Aug	A	0	1	1	1	0	2	2	2	0	0	1	0	1	1	1	1	1	1	1	0	1	1	2	A	0.8	2.4
20-Aug	7	5	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1	1	1	A	0	1.0	6.7	
21-Aug	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	0	0	0.6	2.5	
22-Aug	1	0	0	0	0	1	0	1	1	1	1	0	1	1	0	0	1	1	1	1	A	0	1	1	0.5	0.8	
23-Aug	0	0	0	1	0	0	0	0	0	1	1	1	1	0	0	0	0	0	1	A	2	1	1	1	0.7	2.0	
24-Aug	1	1	1	2	1	1	1	1	2	1	1	1	0	1	0	0	0	0	A	1	0	0	0	1	0.7	1.8	
25-Aug	1	1	1	0	0	0	1	1	1	1	1	0	1	1	1	1	A	1	1	1	1	5	8	3	1.3	7.9	
26-Aug	1	1	3	6	8	1	0	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	1	0	1.1	7.7	
27-Aug	1	1	1	0	0	1	0	0	0	0	0	0	0	0	1	A	0	0	0	0	1	1	1	1	0.5	1.3	
28-Aug	2	1	4	0	0	0	0	0	1	1	1	0	0	0	A	1	0	0	1	0	0	P	P	1	0.8	3.6	
29-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	1	0	0	0.4	0.6	
30-Aug	0	0	0	0	1	1	1	1	5	1	0	0	A	0	1	0	0	1	0	1	1	0	1	1	0.7	5.3	
31-Aug	1	0	1	0	0	1	1	1	0	1	0	A	0	1	1	0	1	1	1	1	1	0	1	1	0.7	1.4	
		0.9	0.8	0.9	0.9	0.9	0.7	0.7	0.8	1.0	1.0	0.9	0.8	2.1	1.3	1.3	0.7	0.6	0.8	1.0	1.2	0.6	1.3	1.2	0.9	Diurnal Average	
		6.7	5.4	3.6	6.5	7.7	2.6	2.4	2.3	5.3	8.1	4.3	5.2	38.9	15.4	20.1	2.7	1.4	8.3	10.0	18.6	2.0	18.1	10.4	3.0	Diurnal Maximum	
C - Calibration		P - Power Failure						A - Automated Daily Zero Span																			

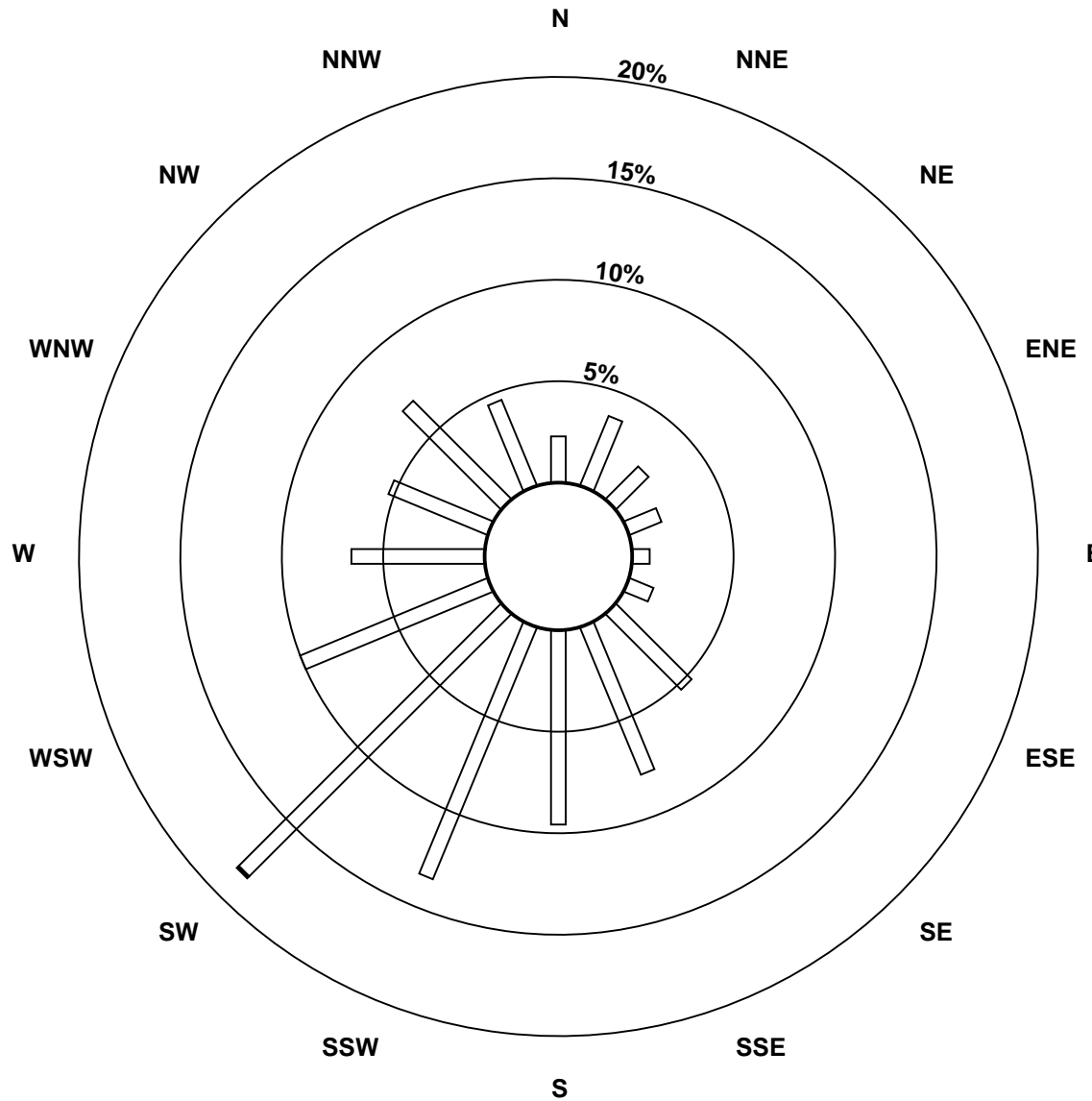
### Hourly Maximums

Sulphur Dioxide (SO<sub>2</sub>) - ppb  
Smoky Heights - August 2015

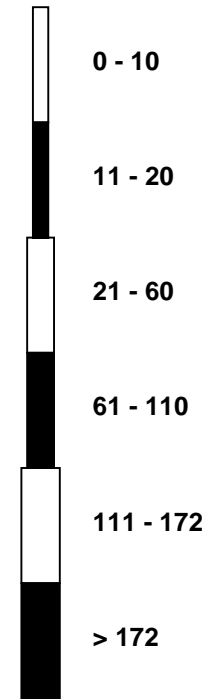


**Pollutant Rose**

**Sulphur Dioxide (SO<sub>2</sub>) - ppb**  
**Smoky Heights - August 2015**

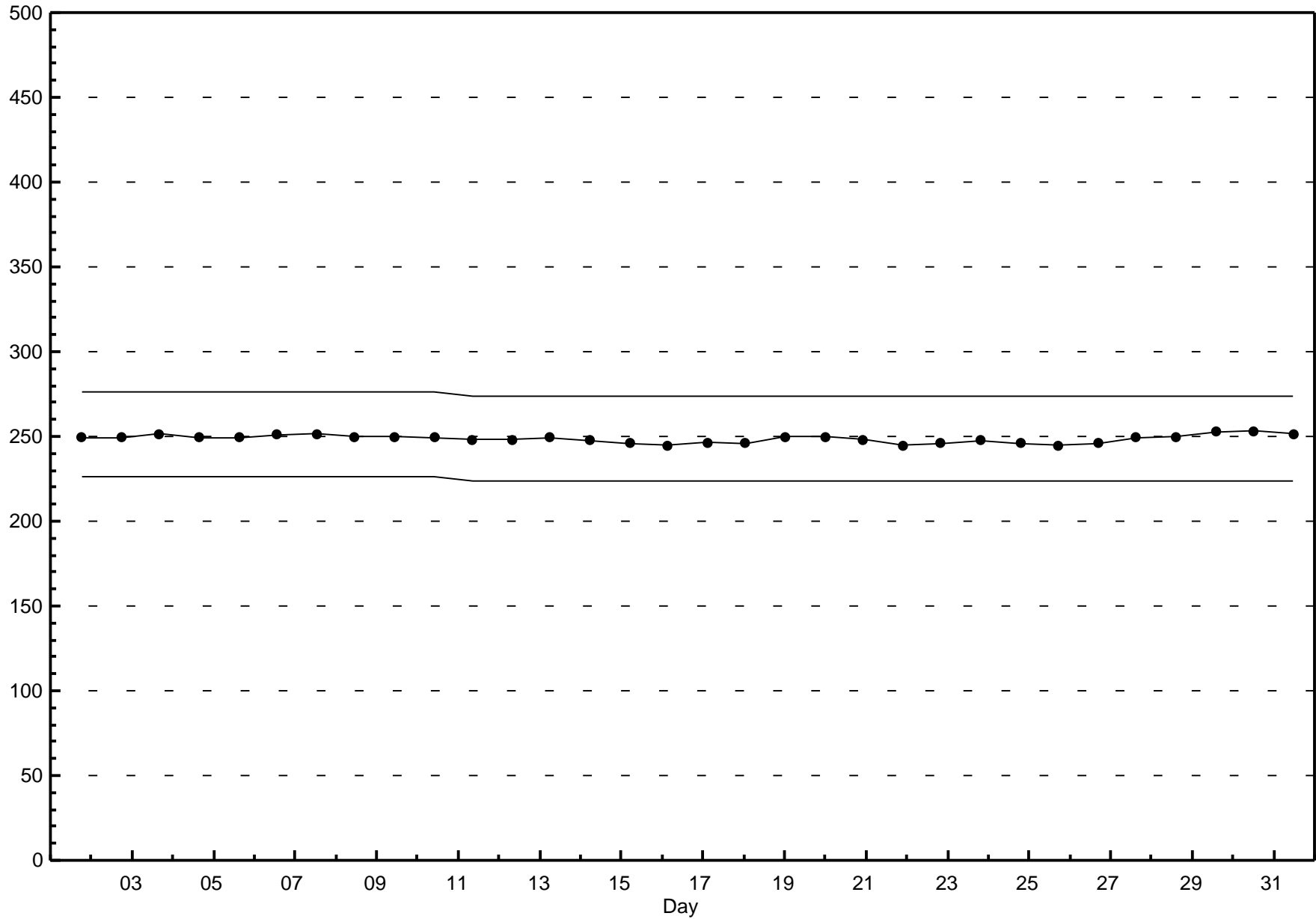


**Pollutant Classes (ppb)**



### Span Responses

Sulphur Dioxide (SO<sub>2</sub>)  
Smoky Heights - August 2015



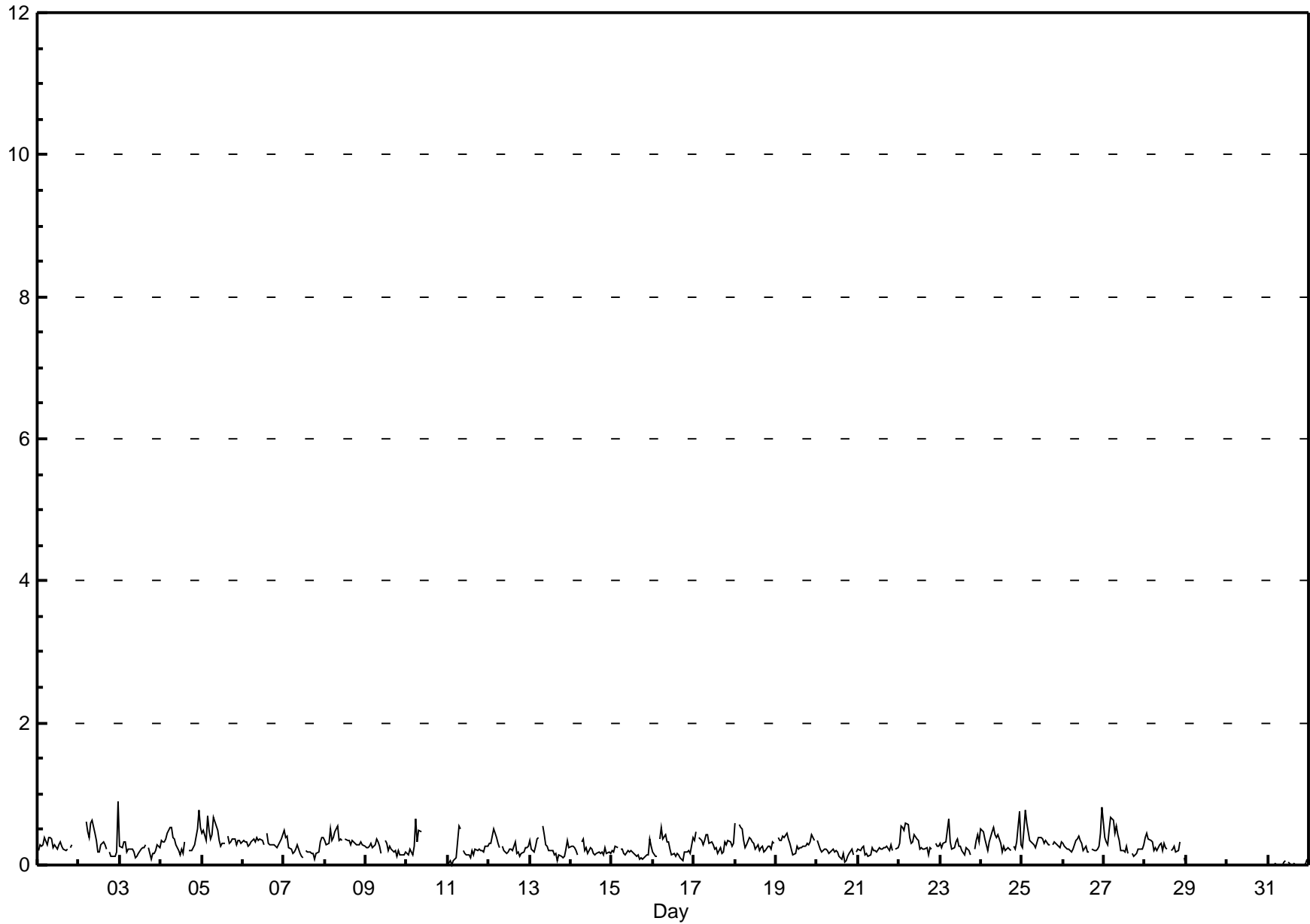
## Hourly Averages

## Total Reduced Sulphur (TRS) - ppb Smoky Heights - August 2015

Number of Exceedences (AAAQO):		1-hr: 0    24-hr: 0		Hours in Service:		744																					
Maximum Value: 0.9 ppb on Aug 3 00:00		Maximum Daily Average: 0.4 ppb on Aug 5		Hours of Data:		698																					
Minimum Value: 0 ppb on Aug 10 14:00		Minimum Daily Average: 0.0 ppb on Aug 29		Hours of Missing Data:		46																					
Maximum Diurnal Average: 0.3 ppb at hour 8		Minimum Diurnal Average: 0.2 ppb at hour 19		Hours of Calibration:		37																					
Monthly Average: 0.25 ppb		Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.2 Median = 0.2 Q <sub>3</sub> = 0.3 P <sub>90</sub> = 0.4 P <sub>99</sub> = 0.7		Percent Operational Time:		98.8																					
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-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	P	P	P	0.3	0.4	
2-Aug	P	P	P	P	1	0	0	1	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	1	0.3	0.9
3-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.2	0.3
4-Aug	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	1	1	1	0.3	0.8
5-Aug	0	0	0	1	0	0	0	1	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.4	0.7
6-Aug	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	0.3	0.4
7-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
8-Aug	0	0	0	1	0	0	0	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
9-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
10-Aug	0	0	0	0	0	1	0	0	0	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.7
11-Aug	0	0	0	0	0	0	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
12-Aug	0	0	0	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
13-Aug	0	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
14-Aug	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
15-Aug	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
16-Aug	0	0	0	A	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
17-Aug	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
18-Aug	1	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
19-Aug	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	0.4
20-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.2	0.4
21-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.2	0.3
22-Aug	0	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.3	0.6
23-Aug	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.3	0.7
24-Aug	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	1	0	0.3	0.7
25-Aug	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.4	0.8
26-Aug	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	0.8
27-Aug	0	0	0	0	1	1	0	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.3	0.7
28-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	P	P	0	0.3	0.4
29-Aug	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
30-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	C	C	0	0	0	0	0	0	0	0	0.0	0.0
31-Aug	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	0.1
		0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	Diurnal Average	
		0.6	0.5	0.8	0.7	0.7	0.7	0.5	0.7	0.6	0.5	0.4	0.4	0.4	0.3	0.4	0.4	0.3	0.3	0.4	0.4	0.4	0.5	0.8	0.9	Diurnal Maximum	

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





## Hourly Maximums

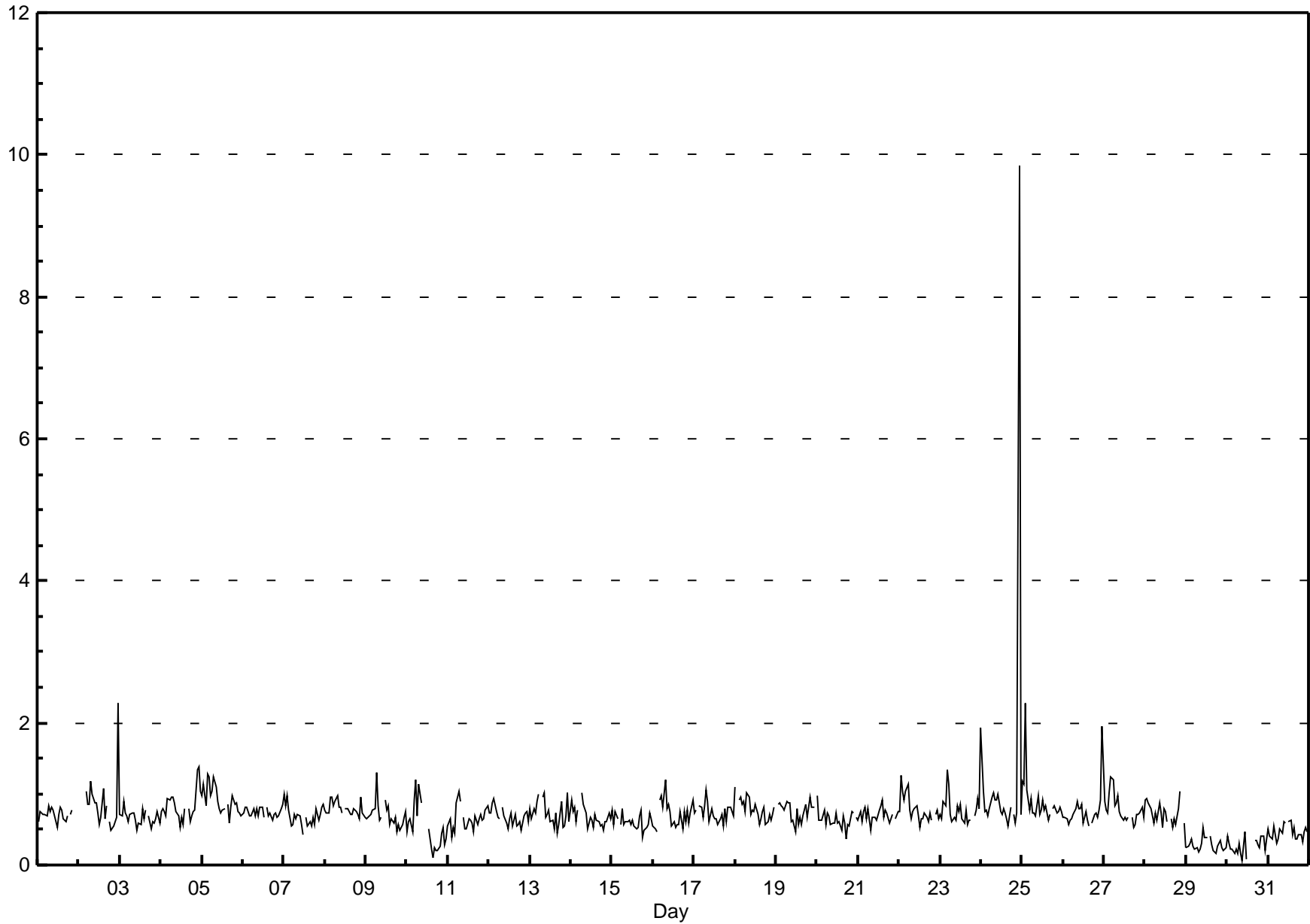
Total Reduced Sulphur (TRS) - ppb

Smoky Heights - August 2015

Maximum Value: 9.8 ppb on Aug 24 23:00		Maximum Daily Average: 1.2 ppb on Aug 24		Hours in Service:	744																						
Minimum Value: 0 ppb on Aug 30 10:00		Minimum Daily Average: 0.3 ppb on Aug 30		Hours of Data:	698																						
Maximum Diurnal Average: 1.1 ppb at hour 23		Minimum Diurnal Average: 0.6 ppb at hour 18		Hours of Missing Data:	46																						
Monthly Average: 0.71 ppb		Percentiles: P <sub>1</sub> = 0.2 P <sub>10</sub> = 0.5 Q <sub>1</sub> = 0.6 Median = 0.7 Q <sub>3</sub> = 0.8 P <sub>90</sub> = 0.9 P <sub>99</sub> = 1.3		Hours of Calibration:	37																						
				Percent Operational Time:	98.8																						
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-Aug	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	P	P	P	0.7	0.8	
2-Aug	P	P	P	P	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0	1	1	1	2	0.9	2.3
3-Aug	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	A	1	0	1	1	1	1	1	0.7	0.9	
4-Aug	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	1.4	
5-Aug	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	
6-Aug	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.7	0.9	
7-Aug	1	1	1	1	1	1	1	1	1	1	1	0	A	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0	
8-Aug	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0	
9-Aug	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0	1	0	1	1	0.7	1.3	
10-Aug	0	1	1	0	1	1	1	1	1	C	C	C	C	0	0	0	0	0	0	0	0	1	0	0	0.5	1.2	
11-Aug	1	1	0	1	0	1	1	1	A	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0.6	1.0	
12-Aug	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0.7	0.9	
13-Aug	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0.7	1.0	
14-Aug	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0.7	1.0	
15-Aug	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	0.6	0.8	
16-Aug	1	1	0	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.2	
17-Aug	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.1	
18-Aug	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1	
19-Aug	A	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0	
20-Aug	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	1	1	1	1	A	1	0.6	1.0	
21-Aug	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.7	0.9	
22-Aug	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	
23-Aug	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.8	1.3	
24-Aug	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	10	1	1.2	9.8	
25-Aug	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.9	2.3	
26-Aug	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	2	0.8	1.9	
27-Aug	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	1.3	
28-Aug	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	P	P	0.7	1.0	
29-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.3	0.5	
30-Aug	0	0	0	0	0	0	0	0	0	0	0	0	A	0	C	C	0	0	0	0	0	0	0	0	0.3	0.5	
31-Aug	1	0	0	1	0	0	0	1	0	1	1	A	1	1	0	1	0	0	0	0	0	0	0	0	0.5	0.6	
																								Diurnal Average			
																								Diurnal Maximum			

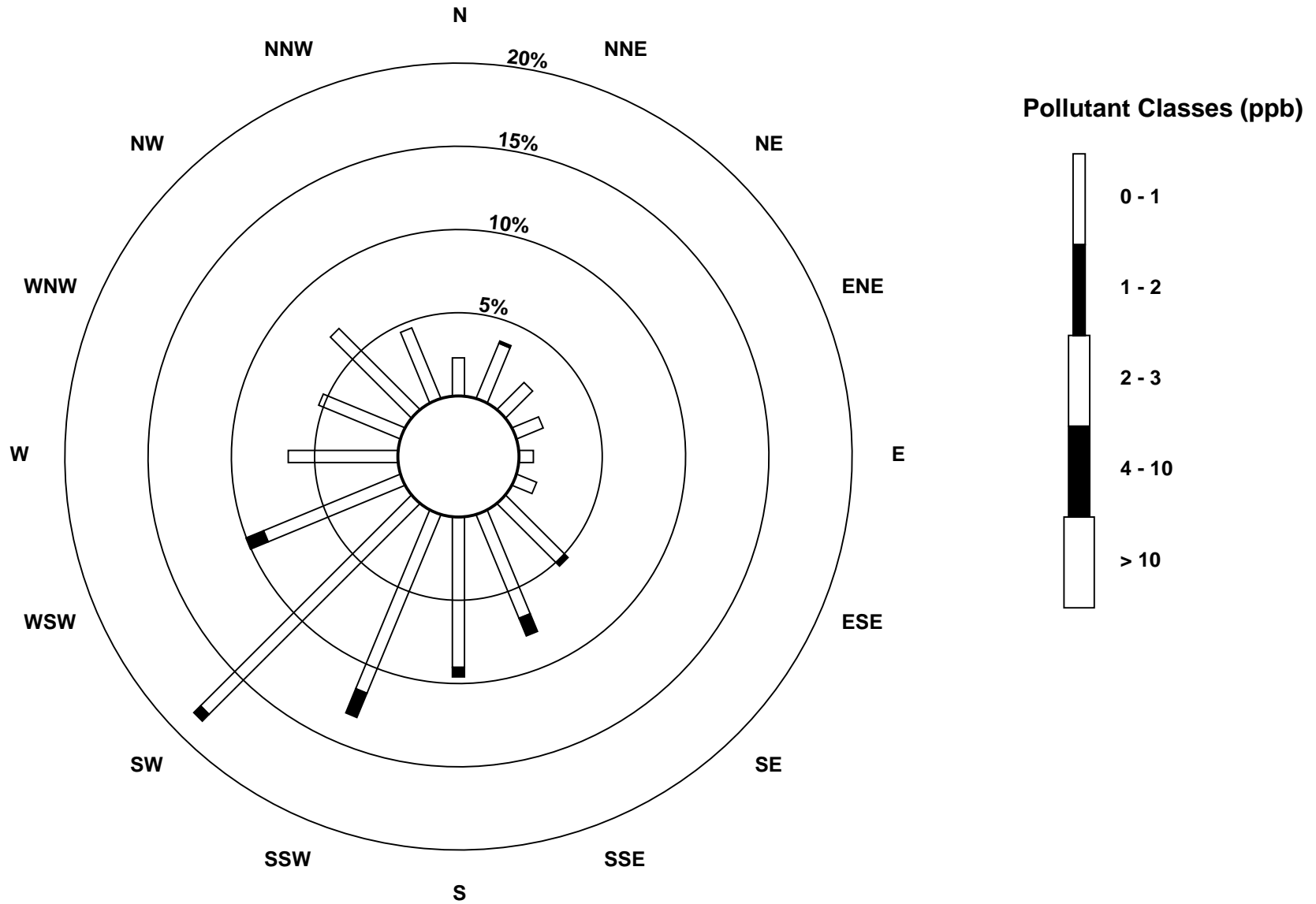
**Hourly Maximums**

**Total Reduced Sulphur (TRS) - ppb**  
**Smoky Heights - August 2015**



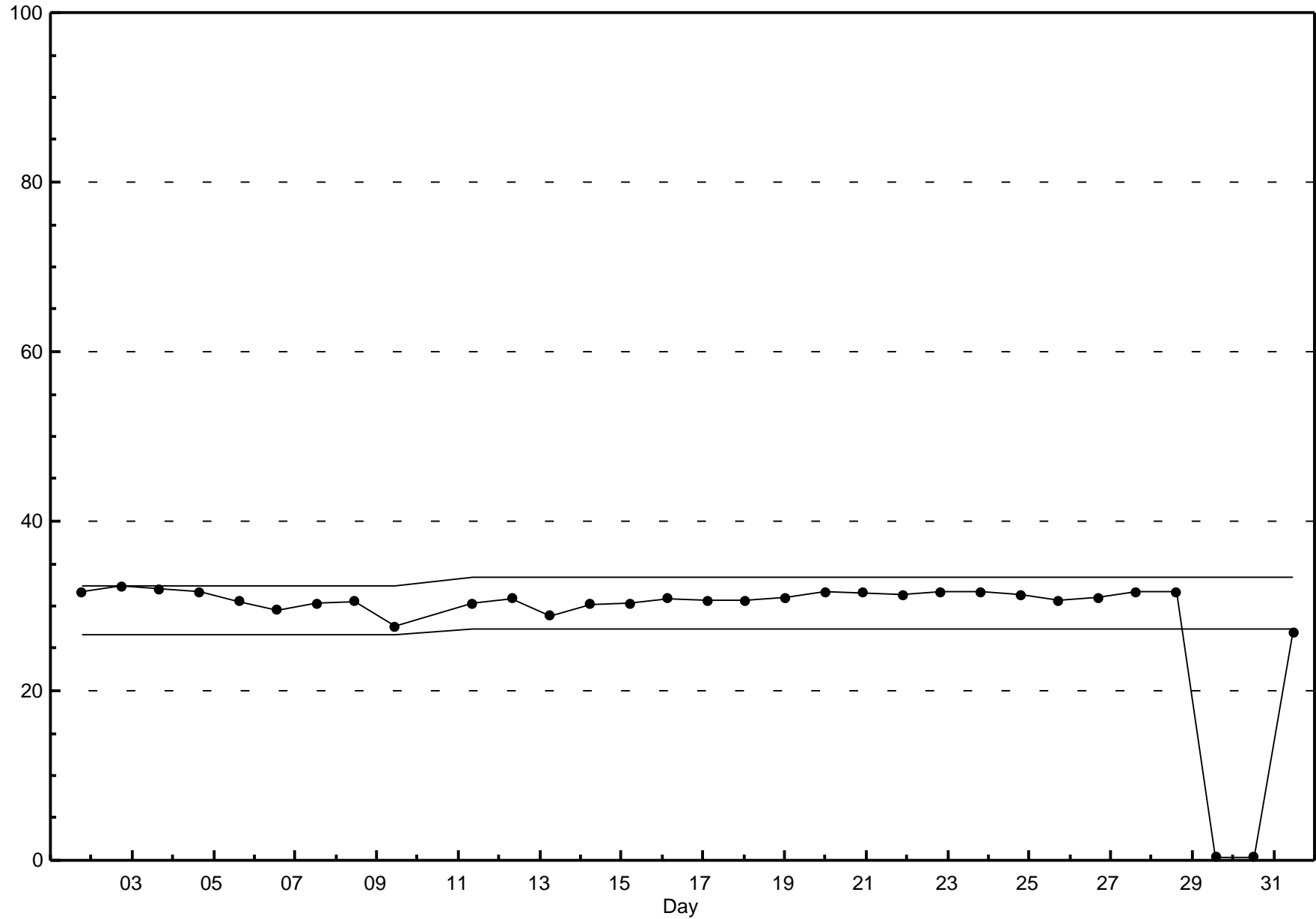
**Pollutant Rose**

**Total Reduced Sulphur (TRS) - ppb**  
**Smoky Heights - August 2015**



### Span Responses

**Total Reduced Sulphur (TRS)**  
**Smoky Heights - August 2015**





Peace Airshed Zone Association

# Hourly Averages

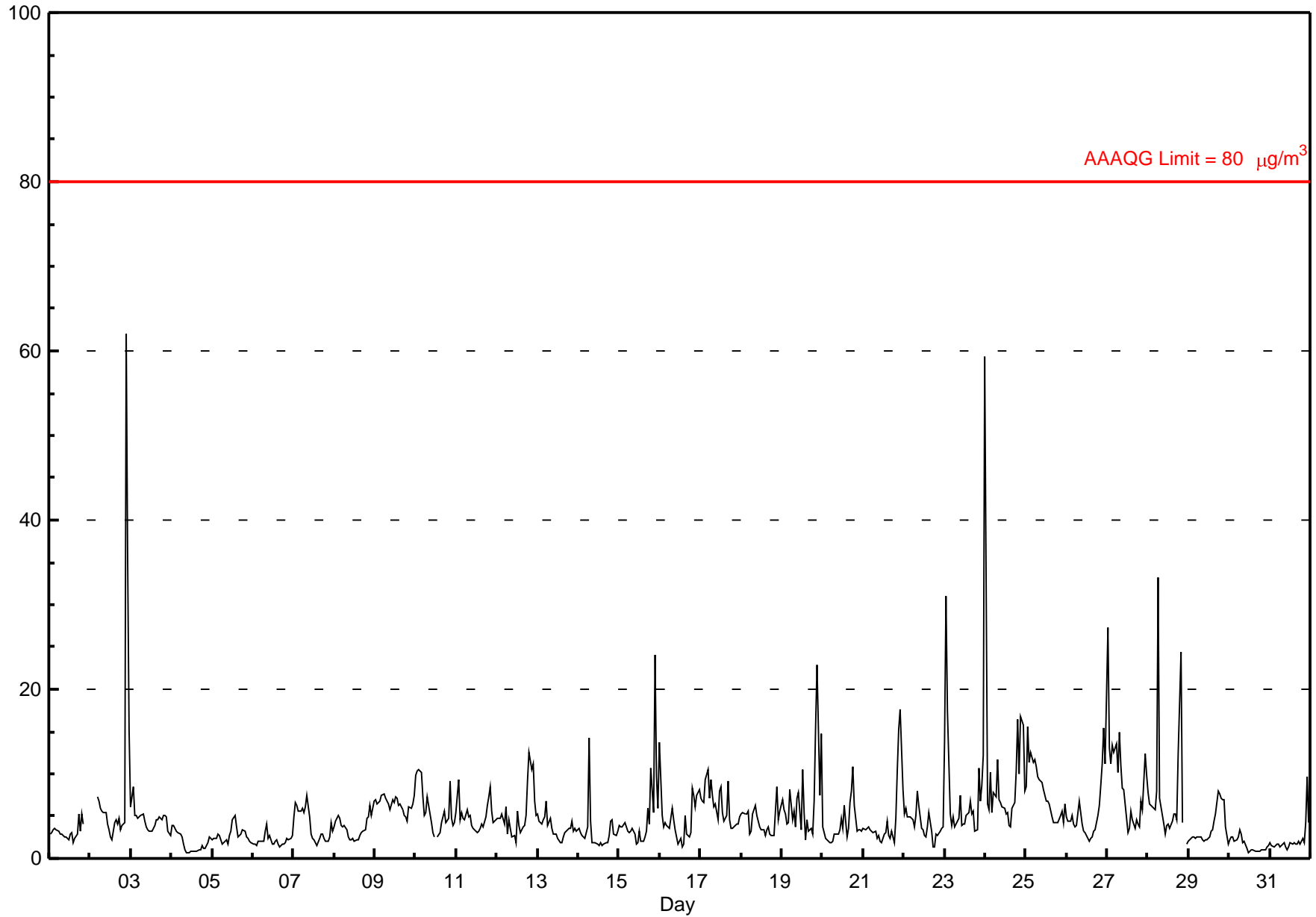
Particulate Matter 2.5 (PM<sub>2.5</sub>) - µg/m<sup>3</sup>

Smoky Heights - August 2015

Number of Exceedences: 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 62.0 µg/m <sup>3</sup> on Aug 2 22:00	Maximum Daily Average: 10.3 µg/m <sup>3</sup> on Aug 24
Minimum Value: 1 µg/m <sup>3</sup> on Aug 30 12:00	Hours of Data: 734
Maximum Diurnal Average: 9.0 µg/m <sup>3</sup> at hour 22	Hours of Missing Data: 10
Monthly Average: 5.00 µg/m <sup>3</sup>	Hours of Calibration: 0
Minimum Daily Average: 1.6 µg/m <sup>3</sup> on Aug 30	Percent Operational Time: 98.7
Minimum Diurnal Average: 3.2 µg/m <sup>3</sup> at hour 15	
Percentiles: P <sub>1</sub> = 0.9 P <sub>10</sub> = 1.8 Q <sub>1</sub> = 2.6 Median = 3.9 Q <sub>3</sub> = 5.7 P <sub>90</sub> = 8.5 P <sub>99</sub> = 22.0	

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-Aug	3	3	3	4	3	3	3	3	3	3	3	2	3	3	2	2	3	5	3	5	4	P	P	P	3.2	5.3
2-Aug	P	P	P	P	7	7	6	6	5	5	4	3	3	2	4	5	4	5	3	4	4	62	35	15	9.5	62.0
3-Aug	6	8	5	5	5	5	5	5	4	4	3	3	3	4	4	5	5	5	5	5	5	5	3	3	4.6	8.5
4-Aug	4	4	3	3	3	3	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	1.8	3.8
5-Aug	2	2	2	3	3	2	2	2	2	2	3	3	5	5	4	2	3	3	3	3	3	2	2	2	2.7	5.1
6-Aug	2	2	2	2	2	2	2	3	4	2	3	2	2	2	2	2	1	2	2	2	2	2	2	3	2.1	4.0
7-Aug	5	7	6	6	6	6	5	6	7	5	3	2	2	2	2	2	3	3	2	2	2	2	4	3	3.9	7.4
8-Aug	4	4	5	5	4	4	4	3	2	2	2	2	2	2	2	3	3	3	3	5	5	6	5	7	3.7	6.8
9-Aug	7	6	7	7	7	8	7	7	6	6	7	7	7	7	6	6	6	5	5	4	6	6	6	7	6.4	7.5
10-Aug	10	10	10	10	7	5	5	7	5	4	3	3	M	3	3	4	5	6	4	5	9	5	4	4	5.7	10.5
11-Aug	5	9	5	5	5	5	6	5	5	4	3	3	3	3	3	4	4	5	6	7	8	6	4	5	5.0	9.4
12-Aug	5	5	5	5	4	6	3	5	4	3	3	2	6	4	3	4	4	5	9	13	10	11	7	5	5.3	12.6
13-Aug	5	4	4	5	5	7	4	5	4	3	3	3	2	2	2	3	3	3	4	4	4	3	4	3	3.6	6.7
14-Aug	4	3	3	3	2	4	14	4	2	2	2	2	2	2	2	2	2	2	3	4	5	3	3	3	3.1	14.2
15-Aug	4	4	4	4	4	3	3	3	4	3	2	2	3	2	2	2	3	6	4	11	5	24	10	6	4.9	24.1
16-Aug	14	5	4	4	4	4	4	6	5	3	3	2	2	1	2	5	3	3	3	8	8	6	7	8	4.7	13.7
17-Aug	7	7	7	9	11	7	9	7	6	6	5	8	8	6	4	5	9	5	4	4	4	4	4	5	6.3	10.6
18-Aug	5	5	5	5	6	3	3	5	6	5	4	4	3	3	3	3	4	3	3	3	6	9	5	6	4.4	8.5
19-Aug	7	6	5	4	4	8	5	6	4	7	8	3	10	5	2	5	3	4	3	7	15	23	7	15	6.9	22.9
20-Aug	4	3	2	2	2	2	2	3	3	3	3	5	4	6	3	4	7	8	11	6	3	3	3	3	3.9	10.8
21-Aug	4	3	4	4	3	3	3	3	2	3	2	2	3	3	4	3	2	3	2	5	10	15	18	8	4.7	17.7
22-Aug	5	6	5	5	5	5	4	5	8	6	4	3	3	3	4	5	3	1	1	3	3	3	4	4	4.0	8.0
23-Aug	14	31	18	5	4	5	4	4	5	7	4	4	4	5	5	7	5	6	3	3	11	7	9	12	7.6	31.0
24-Aug	59	6	6	10	5	8	7	12	7	7	6	6	5	6	4	4	6	7	10	16	10	17	16	8	10.3	59.3
25-Aug	8	16	11	13	11	12	11	10	9	9	8	7	7	7	5	4	4	4	4	4	5	6	4	6	7.9	15.6
26-Aug	5	4	4	5	4	4	4	7	5	4	3	3	3	2	2	3	3	3	5	6	9	11	15	11	5.3	15.4
27-Aug	27	13	11	13	13	14	10	15	11	8	8	5	3	4	6	5	4	5	4	4	7	6	12	10	9.0	27.2
28-Aug	8	6	6	6	6	8	33	7	5	4	3	4	4	4	4	5	5	5	12	24	4	P	P	2	7.5	33.1
29-Aug	2	2	2	3	2	3	3	3	2	2	2	2	3	3	3	4	5	8	8	7	7	7	4	2	3.7	8.0
30-Aug	2	3	2	2	2	2	3	3	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1.6	3.4
31-Aug	2	1	1	2	2	2	1	2	2	1	1	1	2	2	2	2	2	2	2	2	2	4	10	4	2.2	9.6
	7.9	6.4	5.3	5.3	4.9	5.1	5.7	5.2	4.6	4.1	3.5	3.2	3.6	3.3	3.2	3.6	3.7	4.0	4.3	5.8	5.8	9.0	7.3	5.8	Diurnal Average	
	59.3	31.0	17.5	13.4	12.5	13.5	33.1	14.9	11.0	8.9	8.1	8.0	10.5	7.2	6.5	6.8	9.1	8.0	12.4	24.4	15.5	62.0	35.4	15.3	Diurnal Maximum	

P - Power Failure M - Maintenance  
 Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 µg/m<sup>3</sup> Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 µg/m<sup>3</sup>



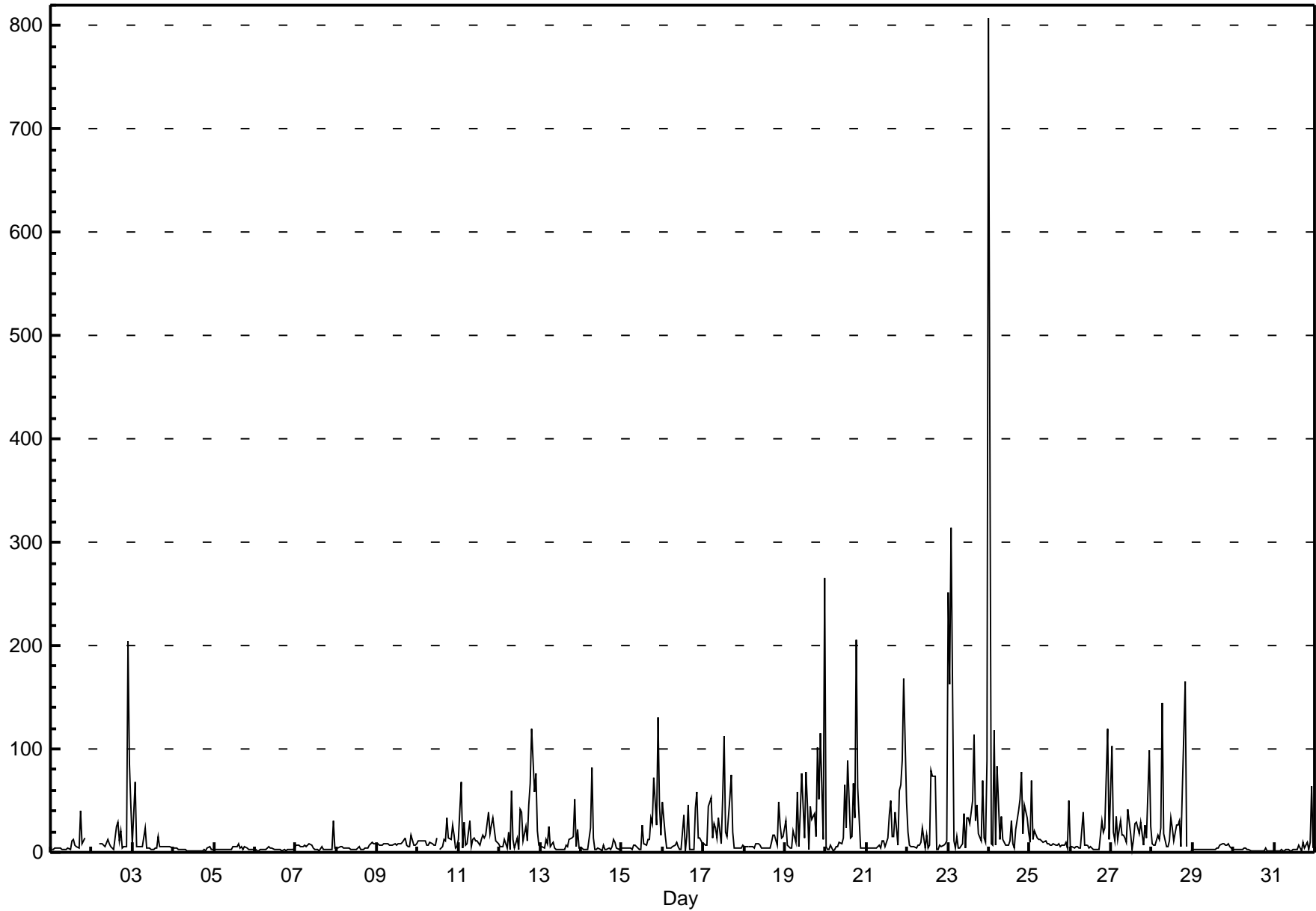
## Hourly Maximums

Particulate Matter 2.5 (PM<sub>2.5</sub>) - µg/m<sup>3</sup>

Smoky Heights - August 2015

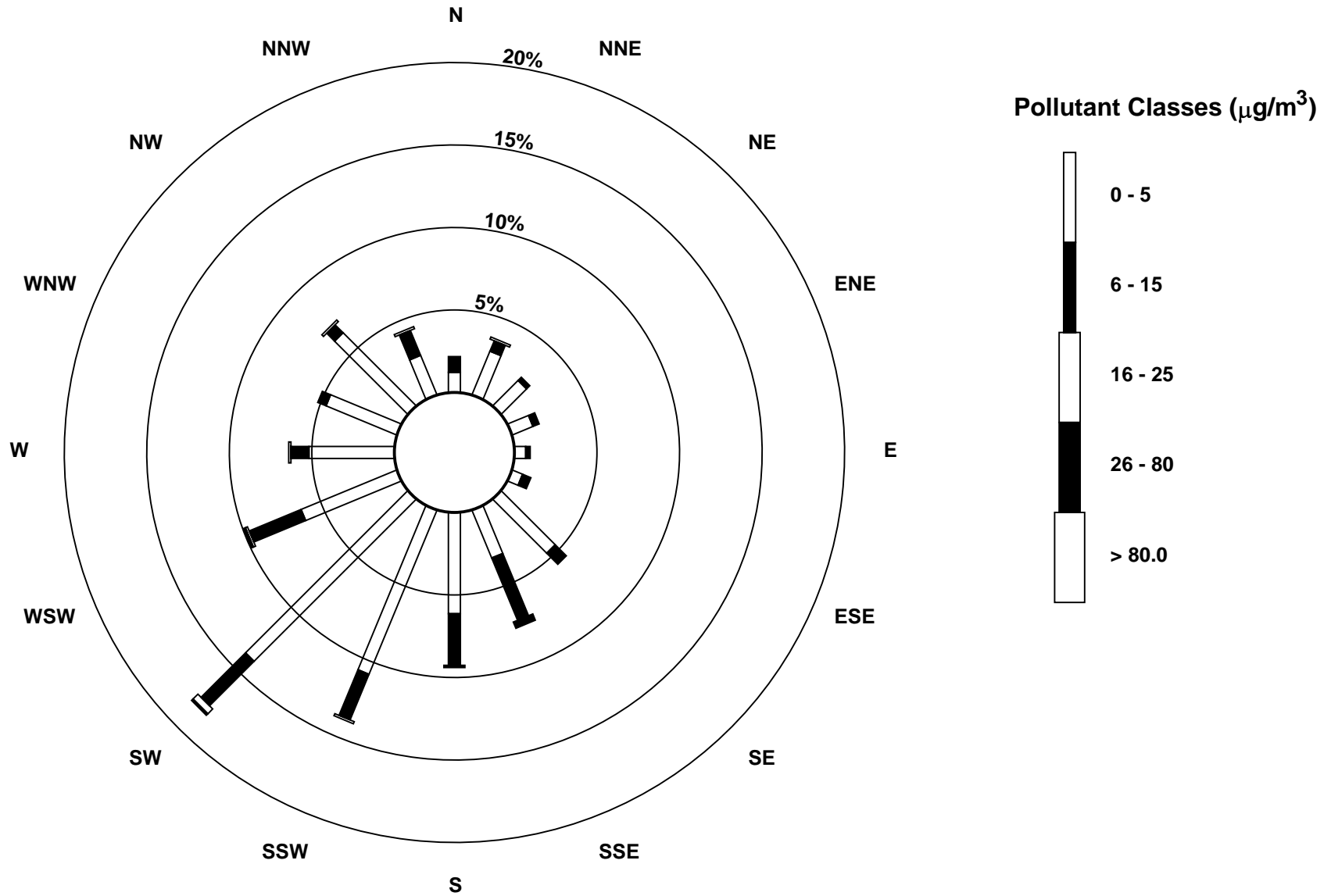
Maximum Value: 808.0 µg/m <sup>3</sup> on Aug 24 01:00		Maximum Daily Average: 61.5 µg/m <sup>3</sup> on Aug 24		Hours in Service: 744																						
Minimum Value: 1 µg/m <sup>3</sup> on Aug 4 12:00		Minimum Daily Average: 2.2 µg/m <sup>3</sup> on Aug 30		Hours of Data: 734																						
Maximum Diurnal Average: 46.6 µg/m <sup>3</sup> at hour 1		Minimum Diurnal Average: 6.9 µg/m <sup>3</sup> at hour 9		Hours of Missing Data: 10																						
Monthly Average: 17.70 µg/m <sup>3</sup>		Percentiles: P <sub>1</sub> = 1.0 P <sub>10</sub> = 2.4 Q <sub>1</sub> = 3.7 Median = 6.6 Q <sub>3</sub> = 14.4 P <sub>90</sub> = 43.3 P <sub>99</sub> = 136.4		Hours of Calibration: 0																						
				Percent Operational Time: 98.7																						
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-Aug	3	3	4	4	4	4	3	3	3	3	4	3	11	13	7	6	4	40	9	11	14	P	P	P	7.5	40.3
2-Aug	P	P	P	P	8	8	8	6	6	12	8	6	4	2	25	29	11	20	4	5	6	205	86	45	25.3	204.7
3-Aug	9	68	5	5	5	5	5	23	5	4	4	3	3	4	4	15	5	5	5	6	5	6	5	4	8.7	67.6
4-Aug	5	4	4	3	3	3	3	3	1	1	1	1	1	1	1	1	1	1	2	1	4	5	3	3	2.4	5.1
5-Aug	2	3	3	3	3	3	2	2	3	2	3	6	6	6	9	4	5	3	5	4	3	3	2	2	3.6	8.8
6-Aug	2	2	2	2	2	2	2	4	6	4	4	3	2	3	3	2	2	2	2	2	3	2	3	4	2.8	5.6
7-Aug	7	8	7	6	6	7	6	7	8	7	4	2	2	2	2	5	3	3	3	2	3	3	31	4	5.7	30.5
8-Aug	4	5	6	5	4	4	4	4	3	2	2	3	2	5	3	3	4	4	8	8	9	9	8	8	4.7	9.2
9-Aug	8	7	7	7	8	8	8	7	7	6	8	7	8	8	9	10	14	7	6	5	17	7	8	9	8.1	17.1
10-Aug	11	11	12	11	11	7	8	10	9	7	6	14	M	3	5	13	12	34	14	12	27	17	5	6	11.4	33.7
11-Aug	13	68	5	29	7	8	30	6	12	14	12	11	7	13	16	14	17	38	18	27	34	22	11	8	18.3	67.6
12-Aug	5	6	5	13	5	20	3	60	12	5	14	2	42	39	11	25	11	46	67	119	58	77	20	7	28.0	119.4
13-Aug	6	5	4	12	9	25	5	10	5	3	3	3	3	3	2	8	5	12	14	15	51	5	22	4	9.7	51.3
14-Aug	4	3	3	3	3	23	83	14	2	3	4	2	2	7	3	3	4	3	5	13	9	5	3	4	8.7	82.5
15-Aug	4	4	4	5	4	4	3	7	7	5	2	3	26	8	8	12	12	34	28	72	26	131	46	17	19.7	131.2
16-Aug	49	17	4	5	4	4	5	8	9	6	3	3	37	2	15	45	3	3	3	43	58	14	14	9	15.1	57.9
17-Aug	8	7	7	45	52	14	28	24	14	33	8	52	113	19	15	53	76	20	4	4	4	4	4	7	25.6	112.8
18-Aug	6	6	6	6	6	6	4	8	8	7	5	4	4	4	5	9	17	17	8	49	26	14	16	16	10.0	48.6
19-Aug	30	6	6	4	4	21	10	59	6	37	77	14	78	45	3	44	32	37	15	102	52	116	12	265	44.8	264.8
20-Aug	6	3	3	6	2	2	5	5	10	9	14	66	24	88	14	16	67	33	206	63	4	4	4	4	27.4	205.9
21-Aug	4	4	4	4	4	4	5	6	4	11	11	5	14	36	50	15	15	39	8	59	65	89	168	49	28.0	167.6
22-Aug	19	7	6	5	5	5	7	7	9	24	4	17	4	7	79	73	73	3	3	7	6	7	8	11	16.4	78.9
23-Aug	252	162	314	11	4	15	4	4	9	38	4	34	33	27	50	114	31	46	19	11	70	14	10	88	56.8	313.7
24-Aug	808	8	7	118	6	83	13	34	13	9	7	7	10	31	9	4	22	40	52	77	18	46	34	19	61.5	808.0
25-Aug	10	70	13	21	13	12	12	11	10	11	9	9	7	7	8	7	7	9	6	7	7	10	5	50	13.8	70.1
26-Aug	5	5	5	6	5	4	5	39	7	7	7	5	6	2	3	3	3	3	31	19	24	72	119	13	16.6	119.2
27-Aug	103	19	11	34	13	31	16	17	14	10	42	19	3	13	28	29	18	29	18	7	27	13	99	25	26.5	103.3
28-Aug	9	7	7	17	12	24	144	19	6	5	12	34	23	11	26	26	31	5	61	165	6	P	P	2	29.5	164.9
29-Aug	2	3	3	3	3	3	3	3	3	2	2	2	3	3	4	5	6	9	9	7	7	8	5	3	4.2	8.8
30-Aug	3	3	3	3	2	3	4	4	3	3	2	1	1	1	2	1	1	1	2	5	1	1	2	2	2.2	4.8
31-Aug	2	2	1	2	2	2	2	2	2	2	2	3	3	3	7	4	2	10	4	10	3	10	64	5	6.1	63.7
		46.6	17.5	15.6	13.3	7.1	11.7	14.2	13.4	6.9	9.4	9.4	11.2	16.1	13.5	13.6	19.1	16.3	18.0	20.7	28.9	21.5	32.1	28.0	22.9	Diurnal Average
		808.0	162.2	313.7	118.2	52.3	82.8	143.9	60.1	14.1	38.1	76.9	65.9	112.8	88.4	78.9	113.8	75.7	45.9	205.9	164.9	69.6	204.7	167.6	264.8	Diurnal Maximum
P - Power Failure		M - Maintenance																								





**Pollutant Rose**

**Particulate Matter 2.5 (PM<sub>2.5</sub>) - μg/m<sup>3</sup>**  
**Smoky Heights - August 2015**



## Hourly Averages

External Temperature (ET) - °C

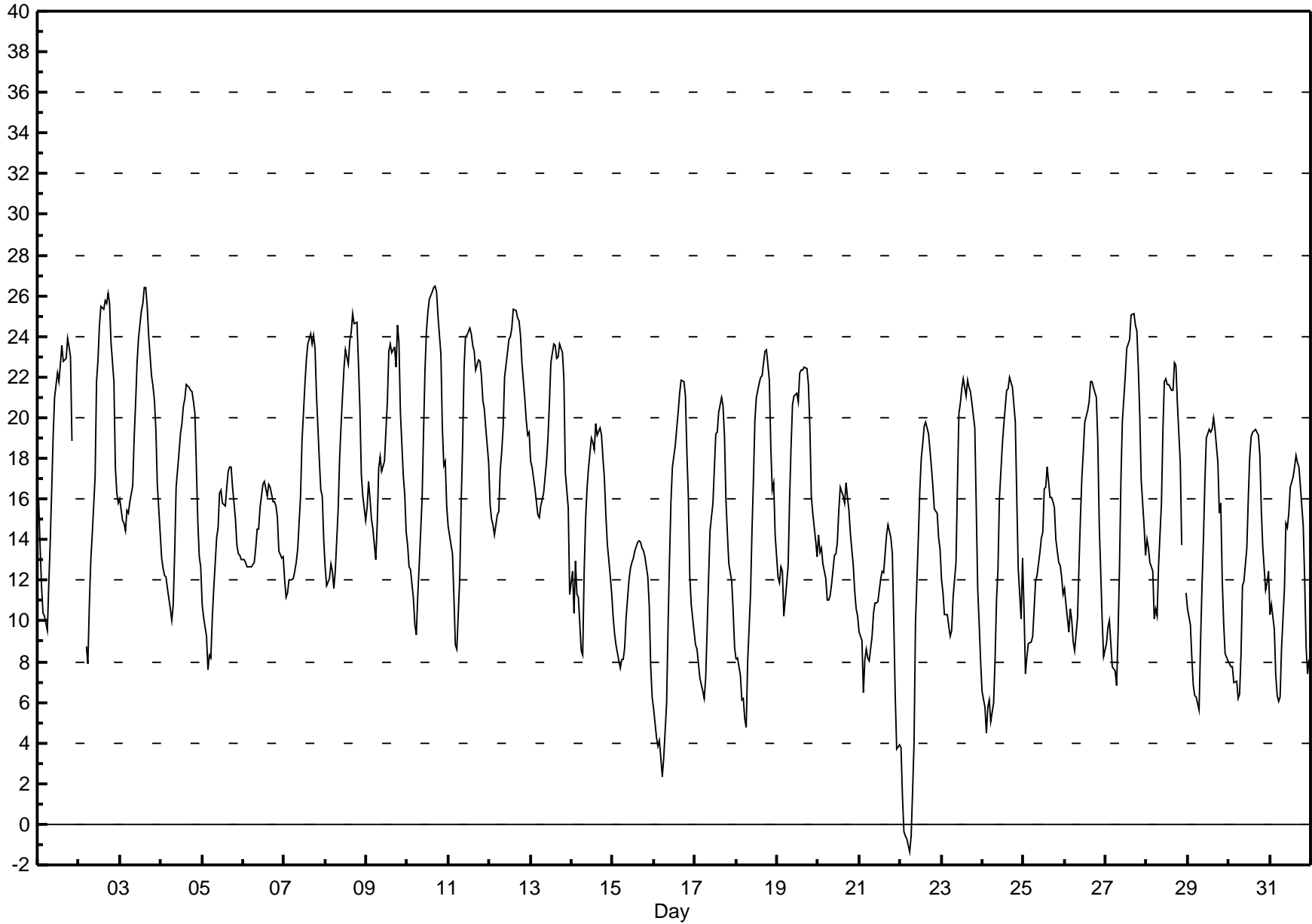
Smoky Heights - August 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 26.5 °C on Aug 10 17:00 Maximum Daily Average: 20.4 °C on Aug 12		Hours in Service: 744 Hours of Data: 735 Hours of Missing Data: 9 Hours of Calibration: 0 Percent Operational Time: 98.8																																															
Minimum Value: -1 °C on Aug 22 06:00 Maximum Diurnal Average: 21.1 °C at hour 17 Monthly Average: 15.40 °C		Minimum Daily Average: 10.0 °C on Aug 21 Minimum Diurnal Average: 9.0 °C at hour 6 Percentiles: P <sub>1</sub> = 2.2 P <sub>10</sub> = 8.1 Q <sub>1</sub> = 11.4 Median = 15.3 Q <sub>3</sub> = 19.9 P <sub>90</sub> = 23.0 P <sub>99</sub> = 26.1																																															
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-Aug	16	14	12	10	10	10	12	14	16	19	21	22	22	23	24	23	24	23	23	19	P	P	P		18.0	23.9																							
2-Aug	P	P	P	P	9	8	11	13	14	17	22	23	25	25	25	26	26	26	26	24	22	18	16	16	19.5	26.1																							
3-Aug	16	15	15	14	15	15	16	17	19	21	23	24	25	26	26	26	25	24	22	22	21	19	17	14	19.9	26.4																							
4-Aug	13	13	12	12	12	11	10	11	13	17	18	19	20	21	22	21	21	21	21	20	15	13	13	16.2	21.7																								
5-Aug	11	10	9	8	8	8	10	12	14	15	16	16	16	16	17	17	18	18	17	15	14	13	13	13	13.5	17.6																							
6-Aug	13	13	13	13	13	13	13	14	15	15	16	17	17	16	16	17	17	16	16	16	15	13	13	13	14.6	16.9																							
7-Aug	12	11	11	12	12	12	12	13	14	16	19	20	22	23	24	24	24	24	23	21	18	16	16	14	17.2	24.1																							
8-Aug	13	12	12	13	12	12	12	16	18	20	21	22	23	23	24	24	25	25	25	23	21	17	16	15	18.4	25.1																							
9-Aug	16	17	16	15	15	13	15	18	18	17	18	19	21	23	24	23	23	22	25	24	20	17	16	14	18.7	24.6																							
10-Aug	14	13	13	11	10	9	11	13	16	19	22	24	25	26	26	26	26	26	25	23	20	18	18	16	18.7	26.5																							
11-Aug	15	14	13	11	9	9	12	16	19	22	24	24	24	24	23	22	23	23	22	21	20	20	18	18.8	24.4																								
12-Aug	16	15	15	14	15	15	17	18	20	22	23	24	24	24	25	25	25	25	24	23	21	20	19	19	20.4	25.3																							
13-Aug	18	18	17	16	15	15	16	16	17	18	19	21	23	24	24	23	23	24	23	22	17	16	16	11	18.7	23.7																							
14-Aug	12	10	13	11	11	9	8	12	15	17	17	19	19	18	20	19	19	19	18	17	15	14	12	11	14.9	19.7																							
15-Aug	10	9	9	8	8	8	8	9	10	12	13	13	13	13	14	14	14	14	13	13	12	11	8	6	10.9	13.9																							
16-Aug	6	4	4	4	3	2	3	6	10	13	16	18	19	19	20	21	22	22	21	18	16	12	11	9	12.5	21.9																							
17-Aug	9	9	8	7	7	6	7	10	12	14	16	17	19	19	20	21	21	19	16	14	13	12	10	9	13.1	21.0																							
18-Aug	8	8	7	6	6	5	5	8	11	14	17	20	21	22	22	22	23	23	23	22	19	16	17	14	15.0	23.3																							
19-Aug	12	12	13	12	10	11	13	16	19	21	21	21	21	22	22	22	22	22	22	20	16	15	14	13	17.2	22.5																							
20-Aug	14	13	14	13	12	11	11	11	12	13	13	14	15	17	16	16	17	16	15	14	13	11	11	10	13.5	16.8																							
21-Aug	9	9	6	8	9	8	8	9	10	11	11	11	12	12	12	13	14	15	14	13	10	6	4	4	10.0	14.7																							
22-Aug	4	1	0	-1	-1	-1	-1	2	4	10	14	16	18	19	20	20	19	18	18	17	16	15	14	13	10.6	19.8																							
23-Aug	12	11	10	10	10	9	10	11	13	17	20	21	21	22	21	22	22	21	21	19	16	12	10	8	15.4	21.9																							
24-Aug	7	6	4	6	6	5	6	8	11	13	16	19	20	20	21	21	22	22	21	20	16	13	10	13	13.5	22.0																							
25-Aug	11	7	8	9	9	9	11	12	12	13	14	14	17	17	18	16	16	16	16	14	13	13	12	11	12.8	17.6																							
26-Aug	12	11	9	11	10	9	9	10	13	15	17	18	20	20	21	22	22	22	21	19	15	12	10	8	14.8	21.8																							
27-Aug	9	10	10	9	8	8	7	9	13	17	20	22	23	24	24	25	25	25	24	22	20	17	15	13	16.6	25.1																							
28-Aug	14	14	13	12	10	11	10	13	16	19	22	22	22	21	21	23	23	21	18	14	P	P	11	16.8	22.7																								
29-Aug	11	10	8	7	6	6	6	9	12	14	17	19	19	19	19	20	19	18	15	16	12	8	8	12.9	20.0																								
30-Aug	8	8	8	7	7	6	6	8	12	12	14	16	18	19	19	19	19	19	19	18	15	14	12	12	12	12.9	19.4																						
31-Aug	10	11	10	7	6	6	6	9	12	15	15	15	17	17	18	18	18	18	17	15	12	9	7	8	12.2	18.1																							
																								11.6	10.9	10.4	9.9	9.4	9.0	9.7	11.6	13.8	16.0	17.9	19.1	20.0	20.5	20.9	21.1	21.1	20.9	20.2	18.8	16.4	14.3	13.0	12.0	Diurnal Average	
																								17.8	17.6	16.5	15.9	15.4	15.4	17.5	18.3	19.5	22.4	24.0	24.3	25.3	25.8	26.4	26.4	26.5	26.2	25.6	23.7	21.7	20.4	19.5	19.3	Diurnal Maximum	
P - Power Failure																																																	

**Hourly Averages**

**External Temperature (ET) - °C**

**Smoky Heights - August 2015**





Peace Airshed Zone Association

# Hourly Averages

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

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 Spd	11	10	12	10	14	13	11	11	12	10	8	7	8	11	10	9	7	9	7	5	5	P	P	P	7.6	13.9	
Dir	235	192	199	219	233	229	225	208	196	219	271	259	219	256	287	285	260	307	343	19	P	P	P	238.3	232.8		
2 Spd	P	P	P	P	5	2	3	8	8	8	8	10	9	6	10	11	8	7	6	8	6	8	3	1	6	5.4	11.0
Dir	P	P	P	P	202	184	174	154	144	140	149	183	223	189	210	183	141	132	70	111	127	165	157	163	161.0	209.6	
3 Spd	6	2	8	3	8	7	6	6	8	8	9	9	12	13	16	18	15	16	12	15	9	7	28	15	5.5	27.6	
Dir	78	196	238	13	317	13	37	56	34	31	32	29	39	44	50	44	47	59	36	34	4	257	245	232	26.9	245.4	
4 Spd	11	13	15	14	10	12	11	11	10	12	11	7	9	5	5	6	9	9	9	6	2	3	6	9	7.0	14.8	
Dir	219	217	221	222	187	211	234	224	222	234	239	259	256	242	289	317	327	307	317	329	344	253	250	253	244.4	221.4	
5 Spd	10	9	2	3	4	2	3	4	4	7	7	9	12	13	9	12	10	9	6	7	2	3	7	7	4.8	12.9	
Dir	238	239	301	210	228	210	109	128	163	148	214	279	278	276	273	263	275	277	317	324	14	214	255	222	256.0	275.9	
6 Spd	6	12	11	9	9	8	6	7	6	7	8	10	12	10	13	9	9	11	7	8	8	6	7	7	7.6	12.7	
Dir	259	260	267	257	245	239	273	309	319	309	305	289	302	300	297	291	286	261	259	244	224	218	231	216	271.2	297.2	
7 Spd	9	4	6	5	7	6	7	8	9	12	20	19	14	13	11	8	10	12	16	8	9	8	5	7	8.2	19.9	
Dir	226	208	163	134	162	147	164	155	169	204	220	218	245	229	253	234	244	218	240	231	210	231	273	243	216.2	220.1	
8 Spd	7	7	7	1	1	1	3	7	8	6	2	4	4	1	5	1	5	3	5	3	4	4	4	4	1.0	8.0	
Dir	245	205	229	233	239	213	190	217	229	231	172	128	75	145	161	62	3	14	18	14	357	341	336	355	242.2	229.3	
9 Spd	4	6	4	6	6	3	2	4	2	4	6	4	8	8	9	9	5	3	2	3	5	7	6	5	1.5	9.3	
Dir	338	339	20	346	330	334	317	358	9	43	132	150	212	239	332	296	279	322	16	54	160	183	195	211	300.7	296.5	
10 Spd	9	7	9	8	6	7	6	8	11	10	13	14	17	18	20	20	25	17	14	5	6	7	11	11	11.0	25.1	
Dir	222	221	154	191	191	193	185	176	180	179	201	202	210	213	210	209	217	223	235	184	187	186	202	203	203.7	216.6	
11 Spd	12	12	9	7	8	9	7	7	6	23	32	38	35	33	30	28	22	20	27	23	17	19	15	12	18.3	37.7	
Dir	222	241	234	209	197	193	173	182	204	208	215	217	218	229	236	233	230	219	229	243	235	225	217	226	222.6	216.9	
12 Spd	9	9	7	9	11	9	17	16	14	25	31	31	28	23	29	32	27	21	14	4	4	5	6	12	15.7	32.3	
Dir	227	194	220	237	195	208	223	230	225	231	234	231	237	228	225	239	240	244	244	239	178	161	175	208	227.9	238.7	
13 Spd	9	11	7	6	8	3	6	6	11	15	14	20	24	28	26	29	29	32	26	18	11	14	13	10	14.6	31.6	
Dir	205	182	201	213	236	257	174	208	212	195	187	209	215	219	226	233	234	231	233	239	261	272	266	225	224.5	231.2	
14 Spd	10	6	12	6	5	2	4	6	2	4	8	6	9	8	11	11	11	12	9	6	7	11	9	10	6.2	11.7	
Dir	266	250	305	343	21	210	232	224	196	351	341	326	330	328	313	326	313	322	318	333	321	346	341	344	318.7	322.5	
15 Spd	9	9	12	9	3	8	10	9	6	8	9	9	10	10	8	8	9	7	5	6	6	5	8	9	6.7	11.6	
Dir	340	334	326	329	324	324	309	305	314	321	319	315	285	287	300	293	281	275	257	245	229	226	240	239	297.0	326.0	
16 Spd	10	10	7	10	7	8	6	9	8	9	9	10	10	11	11	4	4	6	8	5	8	10	9	11	5.9	11.4	
Dir	237	230	215	221	189	176	180	149	158	142	133	147	141	147	158	260	6	99	73	122	148	178	206	219	170.8	218.5	
17 Spd	10	12	8	11	9	10	10	11	15	19	20	14	6	9	6	5	11	17	12	7	3	7	4	9	7.8	20.1	
Dir	192	190	167	157	158	158	165	175	197	206	219	238	277	224	235	265	261	251	280	349	256	224	201	225	213.3	218.5	
18 Spd	11	10	6	6	6	4	7	4	4	9	11	13	16	14	14	14	16	24	22	18	10	10	13	9	9.1	23.8	
Dir	225	232	203	211	163	170	171	107	86	128	123	137	132	185	192	137	198	211	214	229	182	177	186	216	184.4	211.0	
19 Spd	10	10	8	11	8	8	10	14	20	32	35	30	26	27	29	27	26	23	17	10	9	10	10	11	16.7	34.7	
Dir	212	193	185	194	200	234	223	209	219	241	236	241	254	245	252	247	253	260	256	255	228	221	234	248	237.6	235.9	
20 Spd	14	9	14	12	15	8	11	8	12	12	12	10	6	8	11	10	9	8	6	7	15	10	6	5	8.1	15.4	
Dir	306	308	279	257	288	276	284	277	281	284	285	279	275	295	313	318	316	306	287	270	28	26	15	350	299.5	288.2	
21 Spd	5	5	3	8	10	12	13	13	14	17	17	17	21	22	15	18	18	17	14	9	8	9	11	13	12.2	22.1	
Dir	301	311	312	308	304	299	294	282	296	299	289	295	284	276	293	278	291	288	289	279	245	240	239	240	284.4	276.2	
22 Spd	7	5	5	8	8	7	7	7	8	6	7	8	13	15	11	14	14	13	11	9	8	11	12	13	8.5	14.6	
Dir	260	250	206	178	167	161	169	151	144	157	145	136	132	154	178	142	136	126	134	132	141	138	142	140	150.0	154.0	



Peace Airshed Zone Association

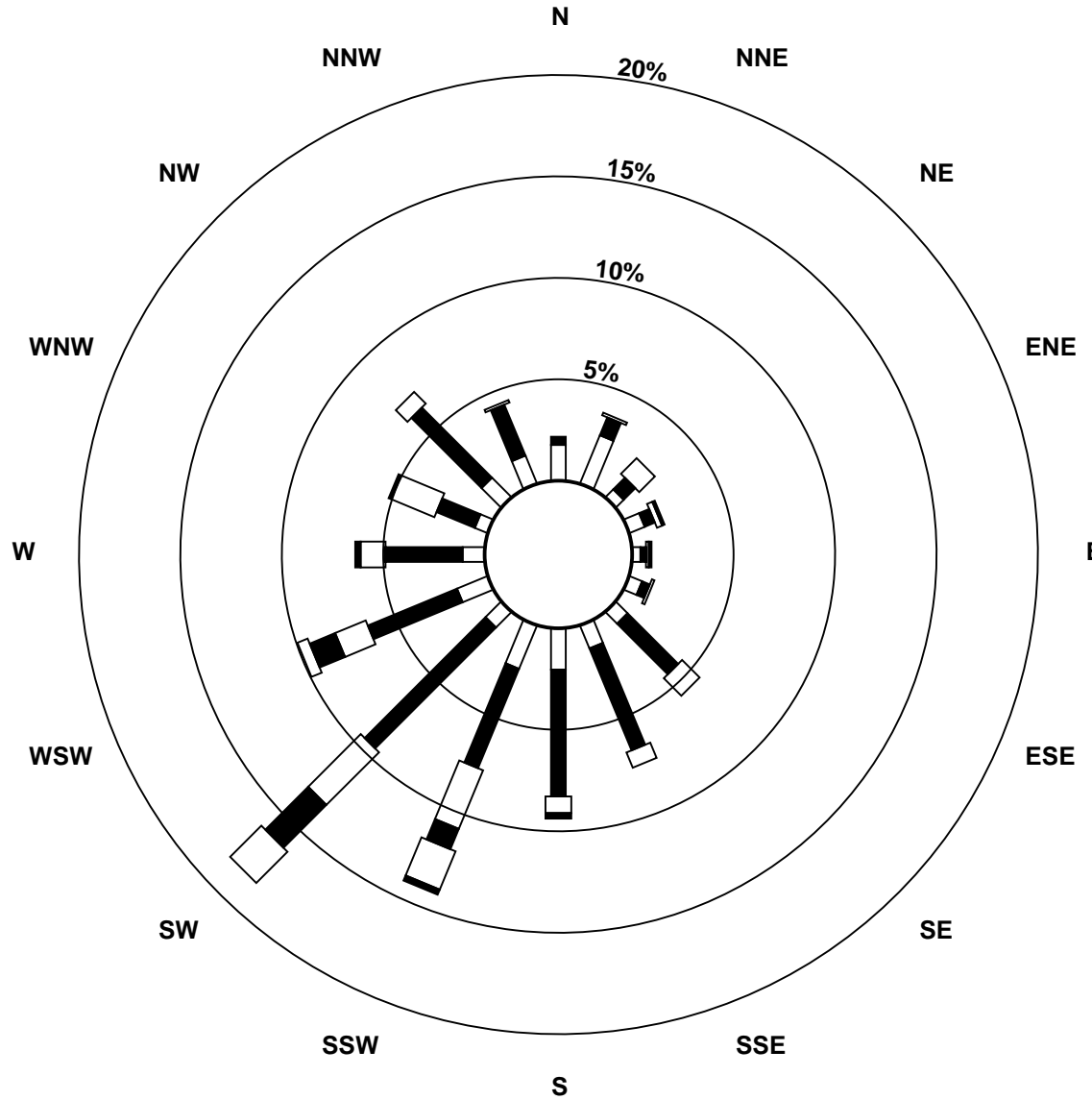
# Hourly Averages

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

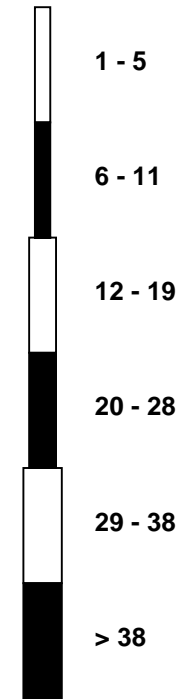
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	6	4	3	4	5	5	6	4	6	6	5	15	17	20	23	18	23	25	26	20	9	9	11	10	10.9	25.5
Dir	155	158	214	181	240	213	223	186	186	171	190	212	212	218	233	235	239	230	225	214	215	224	234	243	220.0	224.9
24 Spd	5	6	8	11	6	8	4	5	10	5	5	7	10	9	6	8	5	5	3	3	4	3	2	5	2.9	10.7
Dir	239	232	225	237	204	156	190	208	153	138	123	140	142	168	134	70	88	57	35	347	27	313	15	124	157.4	237.5
25 Spd	3	5	5	2	2	5	6	5	3	2	4	7	6	7	12	18	14	11	8	6	7	8	6	5	5.7	18.2
Dir	292	260	257	167	279	312	341	360	328	10	25	19	5	335	330	307	321	320	323	310	306	315	330	337	323.6	307.2
26 Spd	4	3	3	5	5	4	3	2	4	5	7	4	4	5	2	4	4	6	5	3	2	2	5	3	2.8	6.9
Dir	322	345	313	320	344	354	9	350	16	32	39	35	31	28	61	26	90	45	31	59	25	280	262	256	10.7	38.8
27 Spd	6	7	8	7	7	5	7	9	13	15	15	28	33	34	37	39	38	34	32	26	19	13	8	10	18.0	39.1
Dir	183	213	223	188	172	197	166	151	165	156	176	199	205	207	199	198	210	198	209	214	207	199	200	215	198.6	198.4
28 Spd	13	14	11	7	8	6	6	3	6	7	16	15	16	9	10	9	6	8	11	17	11	12	25	14	9.4	24.7
Dir	231	232	203	238	176	185	233	160	128	161	201	157	154	180	219	200	141	168	226	217	163	207	225	162	194.6	225.0
29 Spd	14	14	11	8	8	8	7	4	10	8	8	16	21	21	15	16	11	12	7	3	4	2	5	6	5.7	20.6
Dir	180	201	181	179	166	191	205	197	145	136	97	83	80	75	58	55	55	106	128	110	181	214	190	233	122.5	80.1
30 Spd	6	7	10	13	6	7	10	10	11	15	25	30	32	33	32	32	30	27	21	11	8	6	8	13	15.7	32.6
Dir	236	117	246	238	198	186	174	204	200	194	205	199	201	195	213	213	191	188	191	185	155	132	183	218	199.1	195.0
31 Spd	11	9	7	2	7	5	5	4	5	19	23	32	41	38	34	32	30	29	30	17	11	3	4	7	15.5	40.6
Dir	220	186	155	288	162	199	227	174	173	217	204	205	207	206	212	220	217	217	215	245	286	57	216	264	212.8	206.6
Spd	6.3	6.0	5.4	4.7	4.2	3.9	4.2	4.3	4.9	6.5	8.0	9.0	9.0	10.3	9.7	8.9	8.6	8.4	7.6	5.1	3.0	4.3	6.4	6.5	Diurnal Average	
Dir	232.9	223.5	225.5	226.4	213.5	212.7	215.4	202.9	197.7	207.9	214.7	214.2	219.1	220.0	232.3	237.9	238.9	231.0	237.8	239.6	216.0	219.2	227.9	223.9	Diurnal Maximum	
Spd	13.9	13.7	14.8	13.8	15.4	12.7	16.8	15.9	20.1	32.1	34.7	37.7	40.6	37.6	36.8	39.1	38.1	33.8	31.7	26.4	18.7	18.8	27.6	14.9	Diurnal Maximum	
Dir	179.6	201.2	221.4	221.7	288.2	228.8	222.7	230.3	218.5	241.3	235.9	216.9	206.6	206.4	198.5	198.4	210.0	198.0	209.5	213.8	207.1	225.0	245.4	232.3	Diurnal Maximum	
Maximum Speed Value: 41 km/h on Aug 31 13:00		Minimum Speed Value: 1 km/h on Aug 2 23:00										Hours in Service: 744														
Maximum Daily Speed Average: 18.3 km/h on Aug 11		Minimum Daily Speed Average: 1.0 km/h on Aug 26										Hours of Data: 737														
Maximum Diurnal Speed Average: 10.3 km/h at hour 14		Minimum Diurnal Speed Average: 3.0 km/h at hour 21										Hours of Missing Data: 7														
Monthly Average Velocity: 6.35 km/h 223.55 deg		Speed Percentiles: P <sub>1</sub> = 1.6 P <sub>10</sub> = 3.9 Q <sub>1</sub> = 5.9 Median = 8.8 Q <sub>3</sub> = 12.4 P <sub>90</sub> = 20.5 P <sub>99</sub> = 33.7										Percent Operational Time: 99.1														
All monthly, daily, and diurnal averages have been calculated using vector methods																										
P - Power Failure																										
Frequency Distribution																										
		Speed Range (km/h)																								
Direction	0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total																			
North	27	19	0	0	0	0	46																			
NorthEast	14	12	12	0	0	0	38																			
East	6	8	2	2	0	0	18																			
SouthEast	7	47	16	0	0	0	70																			
South	26	84	24	3	6	1	144																			
SouthWest	20	100	58	36	28	2	244																			
West	11	52	25	5	1	0	94																			
NorthWest	14	52	17	0	0	0	83																			
Total	125	374	154	46	35	3	737																			

**Wind Rose**

**Wind Speed (WS) (km/h)**  
**Smoky Heights - August 2015**



**Wind Speed Classes (km/h)**



# Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Smoky Heights - August 2015

Maximum Speed: 41 km/h on Aug 31 13:00	Maximum Daily Speed Average: 19.1 km/h on Aug 11	Hours in Service: 744
Minimum Speed: 2 km/h on Aug 2 23:00	Minimum Daily Speed Average: 4.7 km/h on Aug 26	Hours of Data: 737
Maximum Diurnal Speed Average: 16.6 km/h at hour 14	Minimum Diurnal Speed Average: 7.2 km/h at hour 6	Hours of Missing Data: 7
Monthly Average Speed: 11.23 km/h	Percentiles: P <sub>1</sub> = 2.8 P <sub>10</sub> = 4.8 Q <sub>1</sub> = 6.6 Median = 9.2 Q <sub>3</sub> = 12.9 P <sub>90</sub> = 21.0 P <sub>99</sub> = 34.1	Percent Operational Time: 99.1

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-Aug	12	11	12	10	14	13	11	11	12	12	9	9	9	11	12	10	8	10	8	6	5	F	F	F	7.8	13.2																						
3-Aug	6	6	8	5	9	8	6	6	8	8	9	10	13	14	17	19	15	16	12	16	10	11	29	16	11.5	29.2																						
4-Aug	11	14	15	14	10	12	11	11	11	12	12	9	10	8	6	7	10	10	9	7	2	3	6	9	9.6	14.8																						
5-Aug	10	9	3	4	4	4	3	5	5	8	9	9	12	13	9	13	11	10	7	7	3	3	8	7	7.4	13.1																						
6-Aug	6	12	11	9	9	8	7	7	6	7	8	10	13	11	13	10	9	11	7	8	8	6	7	7	8.9	13.1																						
7-Aug	9	5	7	6	7	6	7	9	9	12	20	19	15	14	12	9	11	13	16	8	9	8	6	7	10.1	20.2																						
8-Aug	7	7	7	5	3	4	3	8	8	7	4	5	7	5	8	3	6	4	5	3	4	4	4	4	5.2	8.4																						
9-Aug	4	6	6	6	7	4	4	4	3	4	6	5	9	9	10	10	6	4	3	4	5	7	6	5	5.8	10.2																						
10-Aug	9	7	9	8	7	7	6	8	11	10	13	14	18	19	21	21	26	17	15	6	6	7	11	11	12.0	25.8																						
11-Aug	12	12	9	8	8	9	7	7	7	23	33	38	35	33	30	28	22	20	27	23	17	19	15	12	19.1	38.0																						
12-Aug	9	10	7	9	11	9	17	16	14	25	32	31	28	24	29	33	27	21	14	5	5	5	7	12	16.7	32.6																						
13-Aug	10	11	7	6	8	5	6	7	11	15	15	20	25	28	27	29	29	32	27	19	11	15	13	10	16.1	32.0																						
14-Aug	10	7	12	8	7	3	4	6	4	5	8	8	10	9	11	11	12	12	10	6	7	11	9	10	8.3	12.0																						
15-Aug	9	9	12	9	4	8	10	10	6	8	9	9	10	11	8	9	9	7	5	6	6	5	8	10	8.2	11.7																						
16-Aug	10	10	7	10	8	8	6	9	8	9	9	11	12	12	12	10	7	7	8	7	9	10	10	11	9.1	12.4																						
17-Aug	11	12	9	11	9	10	10	11	15	19	20	14	8	10	7	7	12	17	15	7	4	8	5	9	10.9	20.4																						
18-Aug	11	11	6	6	6	4	8	7	8	9	12	14	16	15	16	14	19	24	22	18	10	10	14	9	12.1	24.4																						
19-Aug	10	10	8	11	8	9	11	14	21	32	35	31	27	28	30	27	26	24	17	10	9	10	11	11	18.0	35.1																						
20-Aug	14	9	14	12	15	10	12	8	13	12	12	10	8	9	12	10	10	8	7	10	15	10	6	5	10.5	15.4																						
21-Aug	5	6	3	8	10	13	13	13	14	17	18	17	21	23	15	18	19	18	14	9	8	9	11	13	13.1	22.8																						
22-Aug	9	5	5	8	8	7	7	7	9	7	7	9	13	16	12	15	14	13	11	10	8	11	12	13	9.9	16.4																						
23-Aug	6	4	4	5	5	5	6	4	7	7	6	16	18	22	23	20	24	25	26	20	9	9	11	10	12.1	25.8																						
24-Aug	5	6	9	11	8	8	5	5	10	5	6	8	11	10	8	9	7	6	3	3	5	3	3	6	6.7	11.1																						
25-Aug	3	5	6	4	5	7	7	5	4	3	4	7	6	8	12	19	15	11	8	6	7	8	6	5	7.2	18.5																						
26-Aug	4	3	4	6	6	4	3	2	4	5	7	6	6	7	5	6	6	7	5	3	2	3	5	4	4.7	7.4																						
27-Aug	6	7	8	7	7	5	7	9	13	16	17	28	33	34	37	40	38	34	32	26	19	13	8	10	19.0	39.6																						
28-Aug	13	14	11	7	8	6	6	5	7	9	17	16	16	11	10	9	8	9	12	19	14	13	25	17	11.7	24.9																						
29-Aug	15	14	11	8	8	9	7	9	10	9	8	16	21	21	15	16	12	12	10	4	6	5	5	6	10.7	20.9																						
30-Aug	7	9	10	14	8	7	10	11	14	16	25	30	32	33	32	32	30	27	22	12	8	6	8	13	17.4	33.0																						
31-Aug	11	9	9	3	7	5	8	4	5	19	24	33	41	38	34	33	30	29	30	18	11	4	4	8	17.4	40.9																						
																								8.8	8.7	8.3	7.9	7.8	7.2	7.5	7.9	9.1	11.7	13.8	15.4	16.5	16.6	16.5	16.3	15.7	15.0	13.4	10.1	8.1	8.1	9.2	9.3	Diurnal Average
																								14.6	13.9	14.8	13.9	15.4	12.7	16.9	15.9	20.5	32.5	35.1	38.0	40.9	38.0	37.1	39.6	38.3	34.1	31.9	26.4	18.8	18.9	29.2	16.8	Diurnal Maximum

P - Power Failure  
 All monthly, daily, and diurnal averages have been calculated using scalar methods



# Hourly Standard Deviations

Wind Direction (WD) - deg  
Smoky Heights - August 2015

Maximum Value: 90.6 deg on Aug 25 04:00																				Hours in Service: 744					
Minimum Value: 3.0 deg on Aug 1 06:00																				Hours of Data: 737					
Percentiles: P <sub>1</sub> = 4.2 P <sub>10</sub> = 7.3 Q <sub>1</sub> = 10.1 Median = 15.9 Q <sub>3</sub> = 25.8 P <sub>90</sub> = 45.9 P <sub>99</sub> = 79.1																				Hours of Missing Data: 7					
																				Hours of Calibration: 0					
																				Percent Operational Time: 99.1					
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-Aug	14	9	6	12	3	3	8	10	11	28	35	37	23	24	35	16	23	24	17	24	16	P	P	P	36.9
2-Aug	P	P	P	P	44	63	54	9	16	13	18	35	58	44	34	41	51	53	22	37	10	46	78	30	77.6
3-Aug	19	77	51	52	27	28	16	17	16	17	23	22	19	16	18	11	11	11	16	10	20	59	19	26	76.7
4-Aug	18	15	5	7	19	17	8	10	12	18	26	54	39	57	40	33	25	21	13	14	18	19	11	4	56.6
5-Aug	12	10	53	59	29	82	50	38	28	26	37	16	9	10	13	16	12	12	17	22	68	28	13	16	81.7
6-Aug	12	8	5	8	5	5	21	10	15	15	12	15	15	11	13	16	13	10	12	5	20	13	11	7	21.2
7-Aug	8	21	19	21	8	11	7	5	10	13	10	13	19	20	27	30	31	40	9	11	9	7	38	20	40.2
8-Aug	9	18	17	79	78	73	28	16	19	38	72	40	60	87	64	83	33	39	20	17	12	6	10	14	87.2
9-Aug	19	23	47	10	20	32	63	17	36	26	24	42	33	51	31	21	40	52	51	27	23	22	24	22	63.4
10-Aug	13	14	11	15	19	15	20	11	12	11	15	15	19	17	19	18	14	15	14	36	22	18	12	4	35.7
11-Aug	9	4	8	33	18	8	20	15	37	8	8	8	8	8	8	6	7	7	11	4	6	6	5	12	36.7
12-Aug	11	18	16	16	10	24	8	5	9	9	12	10	10	13	14	8	7	9	13	49	25	35	31	21	48.6
13-Aug	34	14	13	24	11	54	23	18	9	9	9	9	11	11	9	11	9	8	10	10	7	5	15	10	53.6
14-Aug	15	28	8	48	49	50	24	21	84	63	24	49	31	33	25	20	17	13	10	14	9	13	6	9	84.1
15-Aug	7	7	7	10	42	9	8	7	22	16	18	19	19	19	25	18	16	12	10	13	11	16	11	5	41.7
16-Aug	6	8	14	10	24	9	11	8	17	13	22	24	35	33	29	69	55	23	14	39	17	7	16	8	69.1
17-Aug	9	6	14	4	8	11	7	8	9	8	10	20	60	23	41	64	34	11	39	13	46	33	35	16	64.2
18-Aug	6	46	16	16	14	8	9	56	63	9	11	16	20	34	11	35	13	13	7	13	6	8	14	14	62.5
19-Aug	14	7	10	18	10	24	24	10	10	8	8	14	11	15	11	11	13	9	6	12	4	17	24	14	24.2
20-Aug	19	19	11	19	6	43	26	19	16	21	18	19	55	28	24	14	19	17	21	48	7	10	11	19	54.9
21-Aug	6	8	18	8	6	7	7	11	15	15	16	12	13	14	13	14	14	15	10	13	9	6	8	6	18.1
22-Aug	54	21	19	7	5	9	8	10	13	14	21	36	18	28	40	24	12	7	6	13	4	6	6	5	53.7
23-Aug	17	24	40	31	27	14	13	24	24	21	46	21	15	18	15	24	16	10	8	6	7	17	7	9	45.7
24-Aug	32	17	22	21	45	8	31	27	12	26	29	30	18	32	63	25	48	28	11	14	26	25	50	43	62.7
25-Aug	56	16	27	91	80	55	16	17	27	45	28	14	23	28	16	10	11	13	17	7	7	7	14	13	90.6
26-Aug	9	28	18	11	14	18	24	38	21	28	24	60	55	50	73	57	48	22	21	48	43	70	13	33	73.2
27-Aug	16	14	12	19	20	24	9	11	9	13	30	9	8	8	7	8	6	8	6	5	6	5	15	14	30.1
28-Aug	7	6	7	11	19	14	13	44	33	29	20	16	10	34	15	19	41	27	19	25	45	21	6	36	44.5
29-Aug	19	9	16	24	17	33	15	64	11	16	17	12	9	10	8	9	15	17	47	46	55	78	22	12	77.8
30-Aug	31	50	7	14	56	21	18	26	34	25	7	7	9	9	11	10	12	8	12	14	16	15	7	13	55.5
31-Aug	13	13	51	33	18	24	46	18	13	16	16	11	8	8	10	12	9	9	7	19	30	37	51	20	51.4
56.5 76.7 53.1 90.6 79.7 81.7 63.4 63.5 84.1 62.8 72.2 59.6 60.4 87.2 73.2 83.4 54.5 53.5 50.7 48.6 68.2 77.8 77.6 43.4																									
P - Power Failure																									

PAZA

Beaverlodge Station

Monthly Summary Tables, Graphs and  
Roses

# Hourly Averages

## Sulphur Dioxide (SO<sub>2</sub>) - ppb Beaverlodge - August 2015

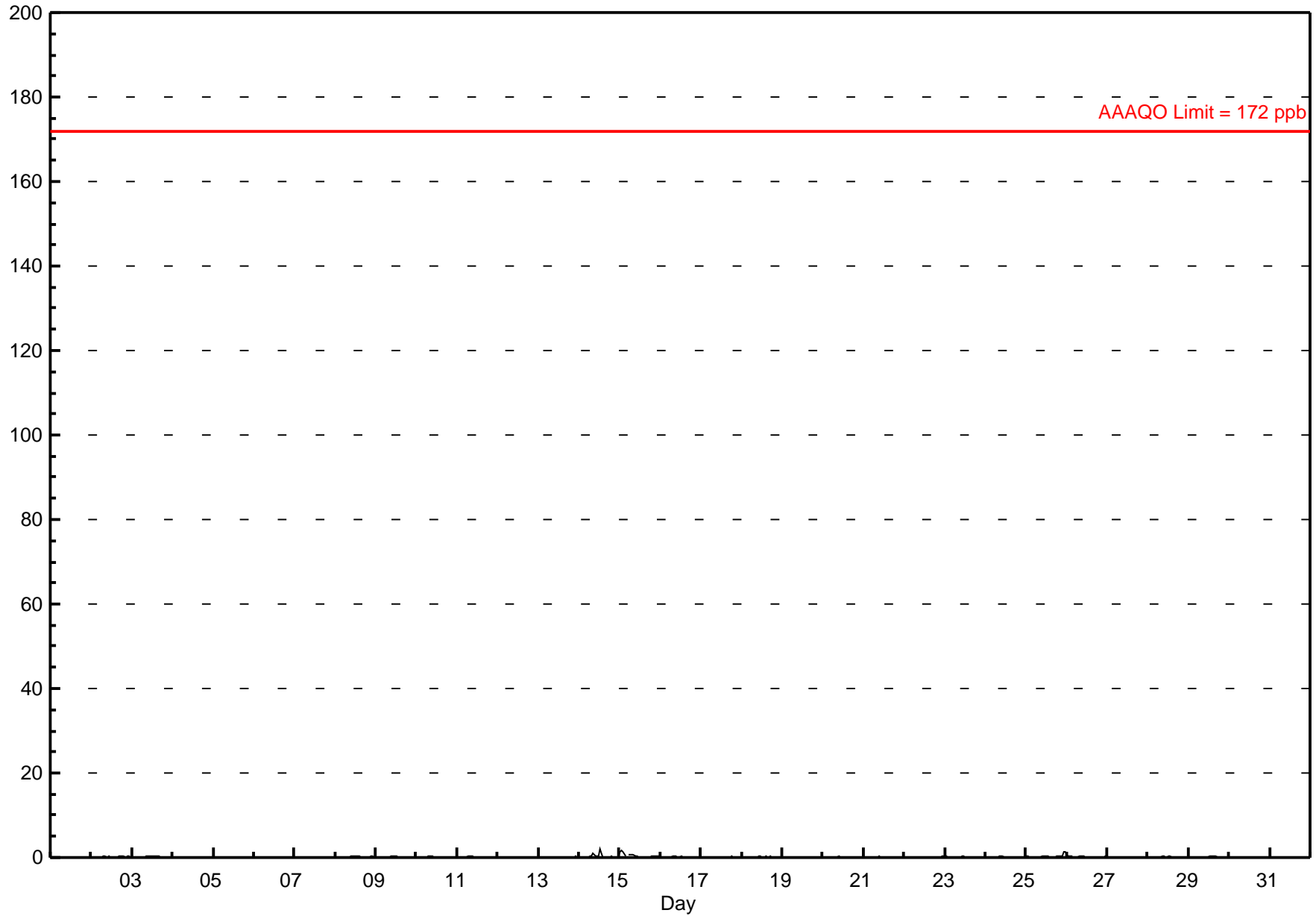
Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 1.9 ppb on Aug 14 13:00	Maximum Daily Average: 0.5 ppb on Aug 15		Hours of Data:	710
Minimum Value: 0 ppb on Aug 23 18:00	Minimum Daily Average: 0.0 ppb on Aug 31		Hours of Missing Data:	34
Maximum Diurnal Average: 0.2 ppb at hour 9	Minimum Diurnal Average: 0.1 ppb at hour 4		Hours of Calibration:	34
Monthly Average: 0.11 ppb	Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.0 Median = 0.1 Q <sub>3</sub> = 0.1 P <sub>90</sub> = 0.2 P <sub>99</sub> = 1.0		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-Aug	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1	
2-Aug	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
3-Aug	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
4-Aug	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
5-Aug	0	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
6-Aug	0	0	0	0	A	0	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0	0	0	0.1	0.2
7-Aug	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
8-Aug	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
9-Aug	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
10-Aug	0	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
11-Aug	0	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
12-Aug	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
13-Aug	0	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
14-Aug	0	0	0	0	A	0	0	0	1	1	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0.4	1.9
15-Aug	1	2	2	0	A	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	1.6
16-Aug	0	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
17-Aug	0	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
18-Aug	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
19-Aug	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
20-Aug	0	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
21-Aug	0	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-Aug	0	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
23-Aug	0	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
24-Aug	0	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
25-Aug	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0.3	1.5
26-Aug	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
27-Aug	0	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
28-Aug	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
29-Aug	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
30-Aug	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
31-Aug	0	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
	0.1	0.1	0.1	0.1	--	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		Diurnal Average
	1.5	1.6	1.5	0.4	--	0.6	0.7	0.8	1.1	0.7	0.4	0.5	1.9	1.1	0.3	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.2	1.4	1.5		Diurnal Maximum

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

### Hourly Averages

**Sulphur Dioxide (SO<sub>2</sub>) - ppb**  
**Beaverlodge - August 2015**



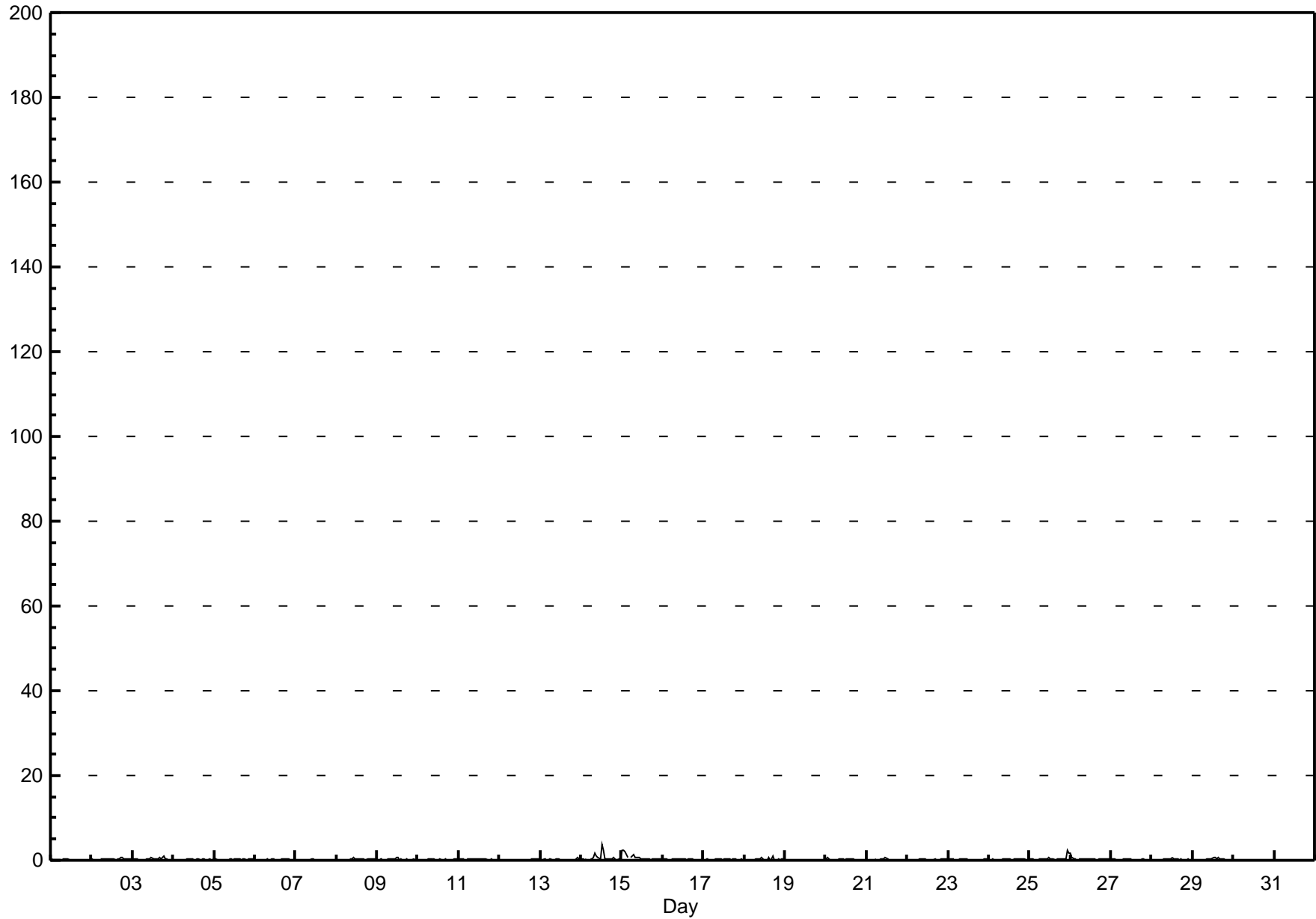
# Hourly Maximums

## Sulphur Dioxide (SO<sub>2</sub>) - ppb Beaverlodge - August 2015

Maximum Value: 3.6 ppb on Aug 14 13:00 Minimum Value: 0 ppb on Aug 31 17:00 Maximum Diurnal Average: 0.4 ppb at hour 13 Monthly Average: 0.23 ppb		Maximum Daily Average: 0.7 ppb on Aug 15 Minimum Daily Average: 0.1 ppb on Aug 31 Minimum Diurnal Average: 0.2 ppb at hour 4 Percentiles: P <sub>1</sub> = 0.1 P <sub>10</sub> = 0.1 Q <sub>1</sub> = 0.1 Median = 0.2 Q <sub>3</sub> = 0.2 P <sub>90</sub> = 0.4 P <sub>99</sub> = 1.6		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)																								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-Aug	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
2-Aug	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0.3	0.7
3-Aug	0	0	0	0	A	0	0	0	0	0	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0.3	0.9
4-Aug	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.2
5-Aug	1	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	0.7
6-Aug	0	0	0	0	A	0	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0	0	0.2	0.3
7-Aug	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
8-Aug	0	0	0	0	A	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
9-Aug	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	0.6
10-Aug	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
11-Aug	0	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
12-Aug	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
13-Aug	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.2	0.6
14-Aug	0	0	0	0	A	0	0	1	2	1	1	0	4	2	0	0	0	0	0	1	0	0	0	1	0.7	3.6
15-Aug	2	2	2	1	A	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.7	2.5
16-Aug	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
17-Aug	0	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
18-Aug	0	0	0	0	A	0	0	0	0	0	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0.2	1.0
19-Aug	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
20-Aug	0	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
21-Aug	0	0	0	0	A	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
22-Aug	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
23-Aug	0	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-Aug	0	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
25-Aug	0	0	0	0	A	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	2	0.5	2.3
26-Aug	2	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.7
27-Aug	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
28-Aug	0	0	0	0	A	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
29-Aug	0	0	0	0	A	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0.2	0.7
30-Aug	0	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
31-Aug	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
		0.3	0.3	0.2	0.2	--	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	Diurnal Average
		2.3	2.5	2.0	0.6	--	0.8	0.9	1.4	1.6	1.1	0.6	0.6	3.6	2.5	0.6	0.6	0.7	1.0	0.9	0.5	0.4	0.5	2.3	1.8	Diurnal Maximum
C - Calibration		A - Automated Daily Zero Span																								

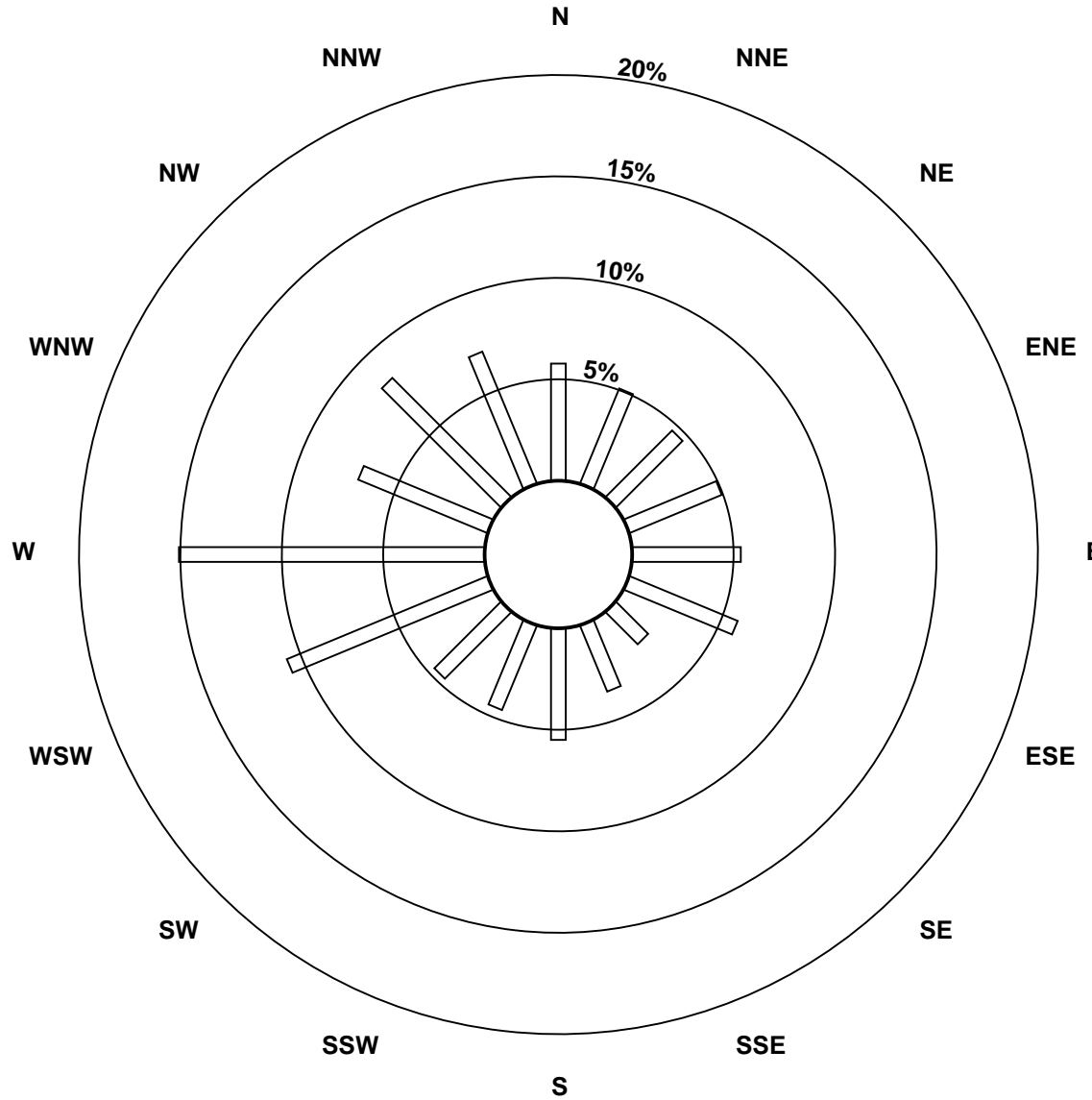
### Hourly Maximums

**Sulphur Dioxide (SO<sub>2</sub>) - ppb**  
**Beaverlodge - August 2015**

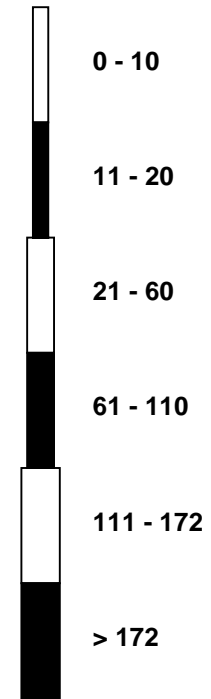


**Pollutant Rose**

**Sulphur Dioxide (SO<sub>2</sub>) - ppb**  
**Beaverlodge - August 2015**

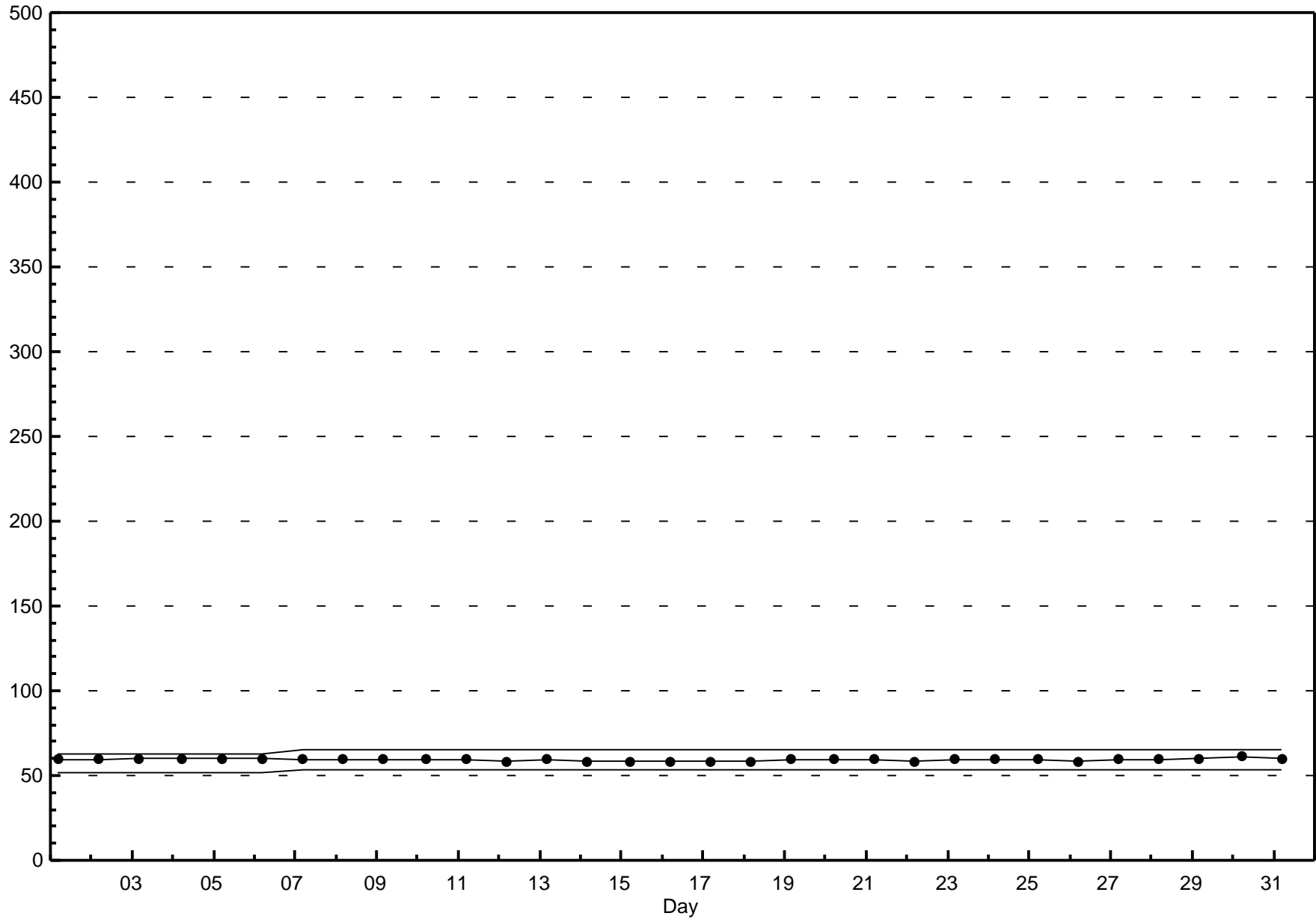


**Pollutant Classes (ppb)**



### Span Responses

Sulphur Dioxide (SO<sub>2</sub>)  
Beaverlodge - August 2015





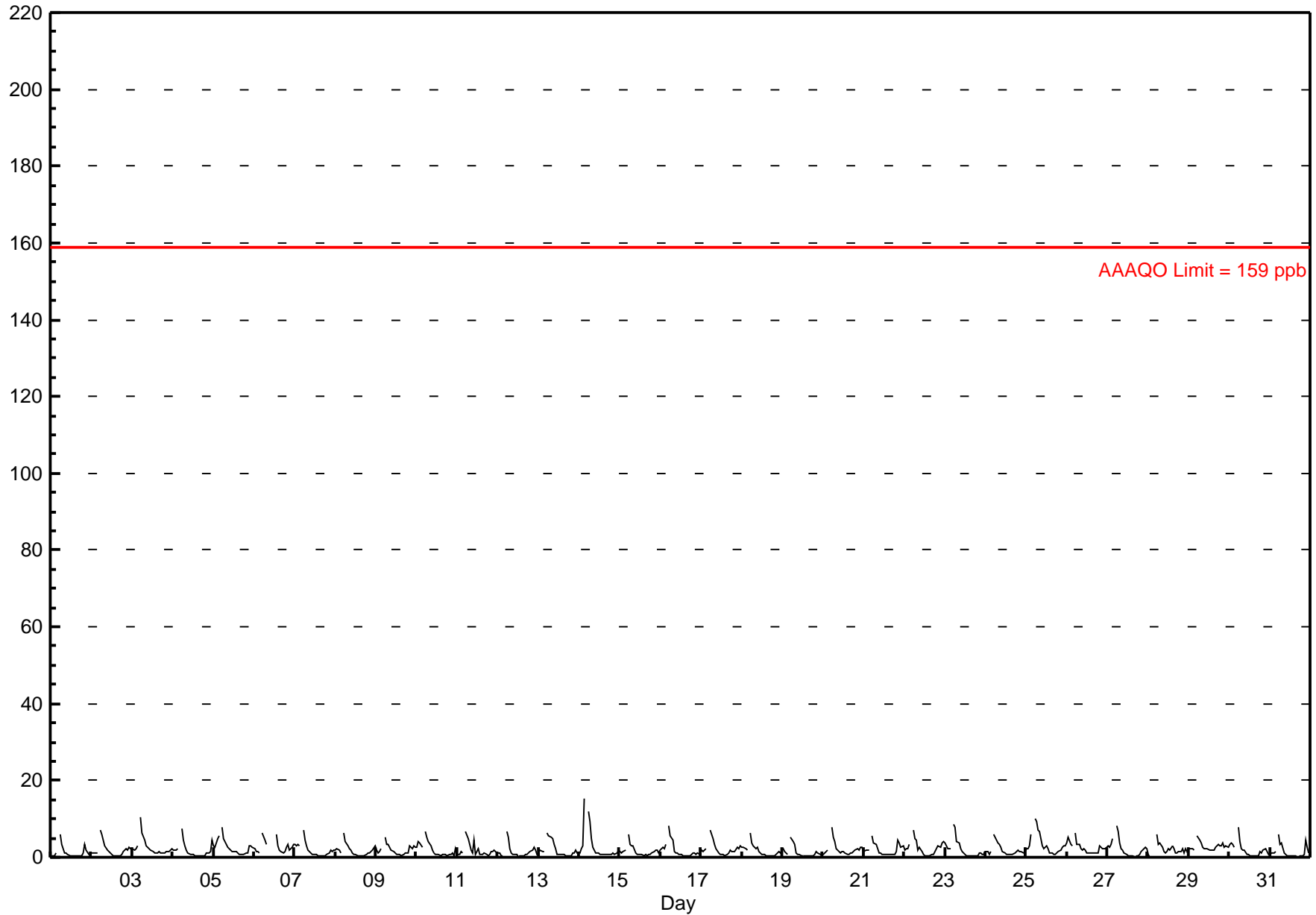
## Hourly Averages

## Nitrogen Dioxide (NO<sub>2</sub>) - ppb Beaverlodge - August 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 15.2 ppb on Aug 14 04:00      Maximum Daily Average: 3.3 ppb on Aug 25		Hours in Service: 744 Hours of Data: 708 Hours of Missing Data: 36 Hours of Calibration: 36 Percent Operational Time: 100.0																								
Minimum Value: 0 ppb on Aug 28 04:00 Maximum Diurnal Average: 7.1 ppb at hour 6 Monthly Average: 2.01 ppb		Minimum Daily Average: 1.3 ppb on Aug 1 Minimum Diurnal Average: 0.7 ppb at hour 16 Percentiles: P <sub>1</sub> = 0.2 P <sub>10</sub> = 0.5 Q <sub>1</sub> = 0.7 Median = 1.4 Q <sub>3</sub> = 2.6 P <sub>90</sub> = 4.3 P <sub>99</sub> = 8.1																								
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-Aug	1	0	1	1	A	6	4	2	1	1	1	0	0	0	0	0	0	0	1	4	2	1	1	1.3	6.1	
2-Aug	1	1	1	1	A	7	6	4	3	2	1	1	1	0	0	0	0	1	2	2	2	3	2	1.9	7.0	
3-Aug	2	2	2	3	A	10	6	4	3	3	2	2	2	1	1	1	1	1	1	2	1	1	2	2.5	10.5	
4-Aug	2	2	2	2	A	7	5	3	2	1	1	1	1	0	0	0	1	0	1	1	1	1	5	1.7	7.4	
5-Aug	3	3	5	6	A	8	5	4	3	2	2	1	1	1	1	1	1	1	1	1	3	3	3	2.6	8.0	
6-Aug	2	2	2	1	A	6	4	3	C	C	C	C	C	6	3	2	2	1	1	2	3	2	3	2.7	6.2	
7-Aug	3	3	4	3	A	7	4	3	2	1	1	1	1	1	1	0	0	1	0	1	1	2	2	1.9	7.0	
8-Aug	2	2	2	1	A	6	4	3	2	2	1	1	1	1	0	0	0	0	1	1	1	2	3	1.7	6.3	
9-Aug	2	1	1	2	A	5	3	3	3	2	1	1	1	1	1	1	1	1	1	3	2	3	2	1.8	5.3	
10-Aug	3	4	4	3	A	7	5	4	3	2	1	1	1	1	1	1	1	1	0	1	1	1	0	2.0	6.9	
11-Aug	1	1	1	1	A	7	5	3	2	1	4	1	2	1	1	1	1	1	1	1	2	1	2	1.8	6.8	
12-Aug	1	1	0	0	A	7	5	2	1	1	1	1	0	1	0	0	1	1	1	1	2	3	2	1.4	6.8	
13-Aug	1	2	2	2	A	6	6	5	5	4	2	1	1	1	1	1	0	0	0	1	1	2	1	1.9	6.2	
14-Aug	1	2	3	15	A	12	9	5	3	2	1	1	1	1	1	1	1	1	1	1	1	1	2	2.8	15.2	
15-Aug	2	1	1	2	A	6	3	3	3	1	1	1	1	0	1	1	1	1	1	1	2	2	2	1.5	5.9	
16-Aug	2	3	2	3	A	8	6	4	2	1	1	1	1	0	0	0	0	1	1	1	1	1	1	1.8	8.4	
17-Aug	2	2	2	2	A	7	6	5	3	2	1	1	1	1	1	1	2	2	1	1	2	2	3	2.2	7.0	
18-Aug	3	3	2	2	A	6	4	3	2	3	1	1	1	1	1	0	0	0	0	1	1	2	1	1.7	6.2	
19-Aug	2	2	1	1	A	5	4	3	1	1	1	0	0	0	0	0	0	0	1	1	2	1	1	1.3	5.2	
20-Aug	1	1	1	2	A	8	5	4	2	2	1	1	2	1	1	1	1	1	2	2	2	2	3	2.1	7.7	
21-Aug	2	2	2	2	A	6	4	3	2	1	1	1	1	1	1	1	1	1	2	5	4	3	3	2.0	5.7	
22-Aug	2	2	2	3	A	7	5	5	2	3	1	1	0	0	0	1	1	1	2	3	2	4	4	2.3	7.0	
23-Aug	4	3	2	2	A	9	8	4	4	2	2	1	1	0	0	0	0	0	0	1	1	1	1	2.1	8.5	
24-Aug	1	1	1	2	A	6	4	4	3	3	2	1	1	1	1	1	1	1	2	1	2	1	1	1.8	5.8	
25-Aug	2	2	3	6	A	10	9	7	7	3	2	3	3	2	1	1	1	1	2	2	2	3	3	3.3	9.9	
26-Aug	4	5	3	3	A	6	3	3	2	2	2	2	1	1	1	1	1	1	3	3	2	2	2	2.5	6.2	
27-Aug	3	3	3	5	A	8	7	4	2	2	1	1	1	0	0	1	0	0	1	1	2	2	2	2.2	8.2	
28-Aug	1	0	0	0	A	6	3	4	3	2	1	1	2	2	3	2	1	2	1	2	1	2	2	1.8	5.8	
29-Aug	2	2	2	2	A	5	5	4	3	2	2	2	2	2	2	3	3	3	3	4	3	3	3	2.8	5.5	
30-Aug	3	4	3	3	A	8	4	2	2	2	1	1	1	0	0	0	0	1	1	1	2	2	2	2.0	7.9	
31-Aug	1	1	1	2	A	6	3	4	1	1	1	0	0	0	0	0	0	0	0	1	5	3	1	1.4	5.8	
		1.9	2.0	2.0	2.7	--	7.1	5.0	3.8	2.6	1.8	1.4	1.0	0.9	0.9	0.8	0.7	0.7	0.8	0.9	1.2	1.9	1.9	2.0	2.0	Diurnal Average
		3.8	5.1	5.0	15.2	--	12.1	9.4	7.0	6.8	3.5	4.3	2.7	2.8	5.8	3.1	2.2	2.7	3.2	3.0	3.1	4.5	4.6	3.8	4.5	Diurnal Maximum
C - Calibration      A - Automated Daily Zero Span Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb      24-hr 106 ppb																										

### Hourly Averages

**Nitrogen Dioxide (NO<sub>2</sub>) - ppb**  
**Beaverlodge - August 2015**



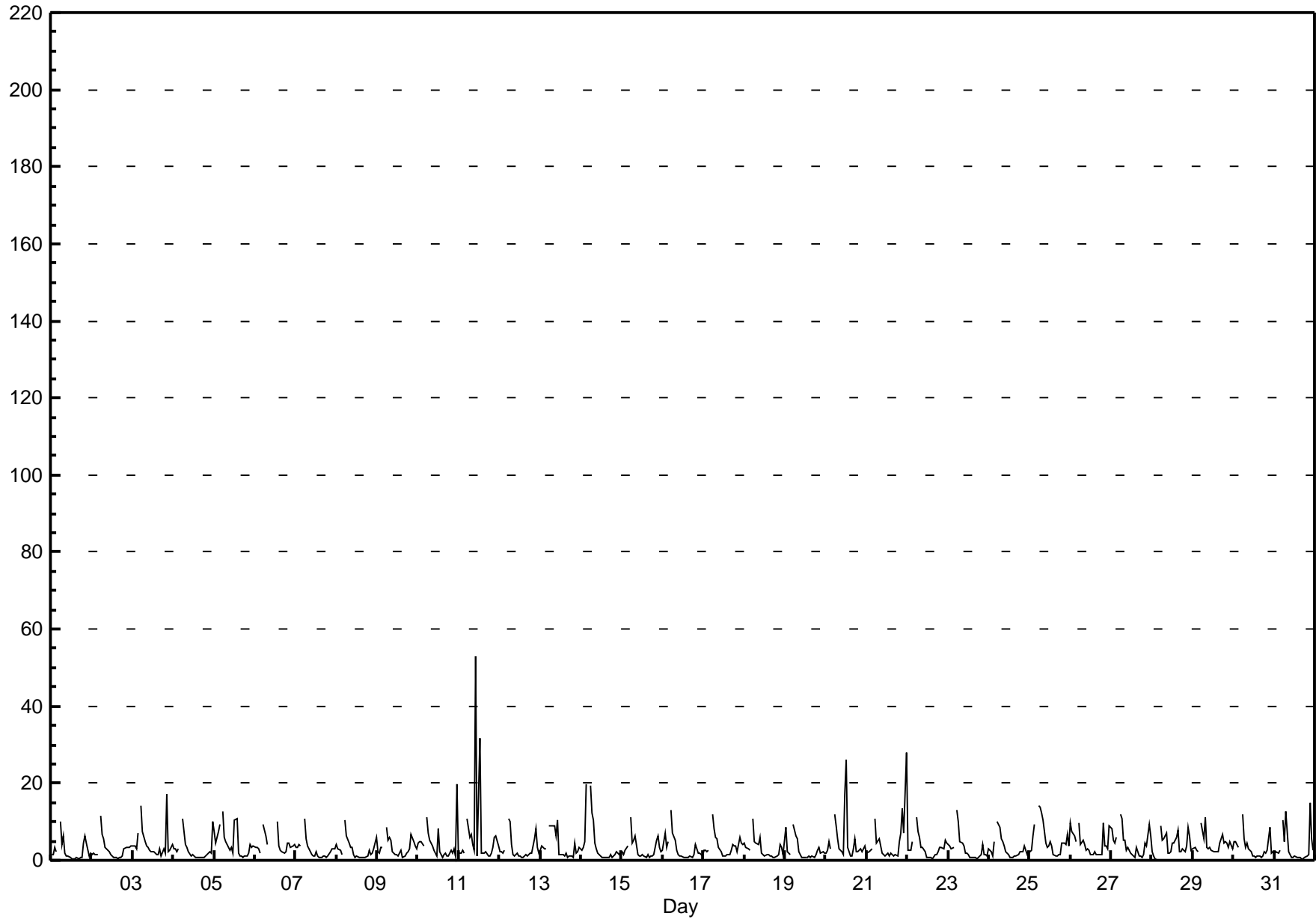
# Hourly Maximums

## Nitrogen Dioxide (NO<sub>2</sub>) - ppb Beaverlodge - August 2015

Maximum Value: 52.9 ppb on Aug 11 11:00		Maximum Daily Average: 6.8 ppb on Aug 11		Hours in Service: 744																							
Minimum Value: 0 ppb on Aug 28 04:00		Minimum Daily Average: 2.5 ppb on Aug 1		Hours of Data: 708																							
Maximum Diurnal Average: 11.3 ppb at hour 6		Minimum Diurnal Average: 1.4 ppb at hour 15		Hours of Missing Data: 36																							
Monthly Average: 3.66 ppb		Percentiles: P <sub>1</sub> = 0.5 P <sub>10</sub> = 0.9 Q <sub>1</sub> = 1.3 Median = 2.5 Q <sub>3</sub> = 4.4 P <sub>90</sub> = 8.2 P <sub>99</sub> = 18.9		Hours of Calibration: 36																							
				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-Aug	1	2	3	2	A	10	4	6	2	1	1	1	1	1	1	1	0	1	1	5	6	5	1	2	2.5	10.2	
2-Aug	2	2	2	2	A	11	7	6	3	3	2	1	1	1	1	0	1	1	1	3	3	3	3	4	2.7	11.4	
3-Aug	4	4	3	7	A	14	7	5	4	3	3	2	2	2	1	1	3	1	3	2	17	2	2	4	4.2	17.3	
4-Aug	3	3	2	3	A	11	7	4	3	2	1	1	1	1	1	1	1	1	1	1	1	2	2	10	2.7	10.6	
5-Aug	7	5	7	9	A	13	6	5	3	3	3	2	10	11	2	1	1	1	1	1	2	4	3	4	4.5	12.6	
6-Aug	4	3	3	2	A	9	6	4	C	C	C	C	C	10	4	2	2	2	2	5	4	3	4	4	4.1	10.0	
7-Aug	3	3	4	4	A	11	6	4	3	1	1	1	2	1	1	1	1	1	1	1	2	3	3	3	2.7	10.8	
8-Aug	4	3	3	1	A	10	6	4	4	3	1	1	1	1	1	1	1	1	1	3	2	2	3	6	2.7	10.4	
9-Aug	2	2	3	3	A	9	5	6	5	2	2	1	1	2	3	1	1	1	2	2	3	7	5	4	3	3.2	8.7
10-Aug	4	5	5	4	A	11	7	5	4	2	2	1	8	2	1	1	2	1	1	3	2	3	1	20	4.2	19.9	
11-Aug	2	2	3	2	A	11	6	7	4	3	53	1	32	2	2	2	2	1	1	2	3	6	6	4	6.8	52.9	
12-Aug	2	2	2	2	A	11	10	4	2	1	2	1	1	1	1	1	1	1	2	2	6	8	4	2	3.0	10.6	
13-Aug	2	4	3	3	A	9	9	9	9	6	10	1	2	2	1	2	1	1	1	1	4	2	2	3	3.8	10.4	
14-Aug	3	3	5	20	A	19	12	10	4	3	2	1	1	1	1	1	1	1	1	1	2	2	1	2	4.2	19.9	
15-Aug	2	1	3	4	A	11	4	5	6	1	1	1	1	1	1	1	1	1	1	2	5	6	3	2	2.9	11.4	
16-Aug	3	7	3	5	A	13	7	5	3	1	1	1	1	1	1	1	1	1	2	4	3	2	2	1	2.9	12.9	
17-Aug	3	2	2	3	A	12	8	6	5	3	2	1	1	1	1	2	2	4	4	4	2	6	5	4	3.6	12.0	
18-Aug	5	3	3	2	A	11	5	4	4	6	2	1	1	1	1	1	1	1	1	1	2	4	3	2	2.9	10.9	
19-Aug	9	2	2	1	A	9	6	6	2	1	1	1	1	1	1	1	1	1	1	2	3	2	2	2	2.6	9.3	
20-Aug	2	2	5	3	A	12	9	6	3	2	1	17	26	3	1	1	3	6	2	2	3	2	3	4	5.2	25.9	
21-Aug	2	2	2	3	A	11	4	6	4	2	2	1	2	1	2	1	1	1	1	5	7	14	7	28	4.7	27.8	
22-Aug	3	3	3	5	A	11	7	6	3	4	2	1	1	1	1	0	2	1	2	3	3	3	5	5	3.2	11.3	
23-Aug	4	4	3	3	A	13	10	5	4	4	2	2	1	1	1	1	1	0	1	2	4	2	2	1	3.0	12.9	
24-Aug	3	2	1	5	A	10	9	6	5	4	2	1	1	1	1	1	1	2	2	2	2	4	1	2	3.0	10.0	
25-Aug	2	3	6	9	A	14	14	12	11	5	3	4	5	4	1	1	1	1	1	4	5	4	7	4	5.3	14.2	
26-Aug	10	7	6	5	A	10	4	5	4	3	3	3	1	1	2	1	1	1	1	10	4	4	3	9	4.3	9.8	
27-Aug	8	5	4	6	A	12	11	5	5	3	3	2	1	1	1	3	1	1	1	2	5	4	9	6	4.3	12.0	
28-Aug	2	1	0	0	A	9	5	6	7	2	2	2	4	5	6	8	2	2	3	2	4	8	6	3	3.9	9.1	
29-Aug	3	3	3	2	A	10	6	11	3	3	3	3	2	2	2	2	4	7	5	5	4	4	5	3	4.1	11.1	
30-Aug	5	5	4	3	A	12	5	4	4	3	2	1	1	1	1	1	1	1	2	2	3	9	2	2	3.2	11.9	
31-Aug	2	2	2	2	A	11	5	13	2	2	1	1	1	1	1	1	0	1	1	1	1	15	5	3	3.1	15.1	
		3.5	3.2	3.3	4.1	--	11.3	7.1	6.1	4.2	2.7	3.9	2.0	3.8	2.0	1.4	1.4	1.4	1.5	1.6	2.7	3.9	4.6	3.6	4.8	Diurnal Average	
		9.6	7.5	7.3	19.9	--	19.3	13.9	12.5	10.5	6.2	52.9	17.2	31.8	10.7	5.8	7.9	4.3	6.5	4.6	9.7	17.3	15.1	9.2	27.8	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

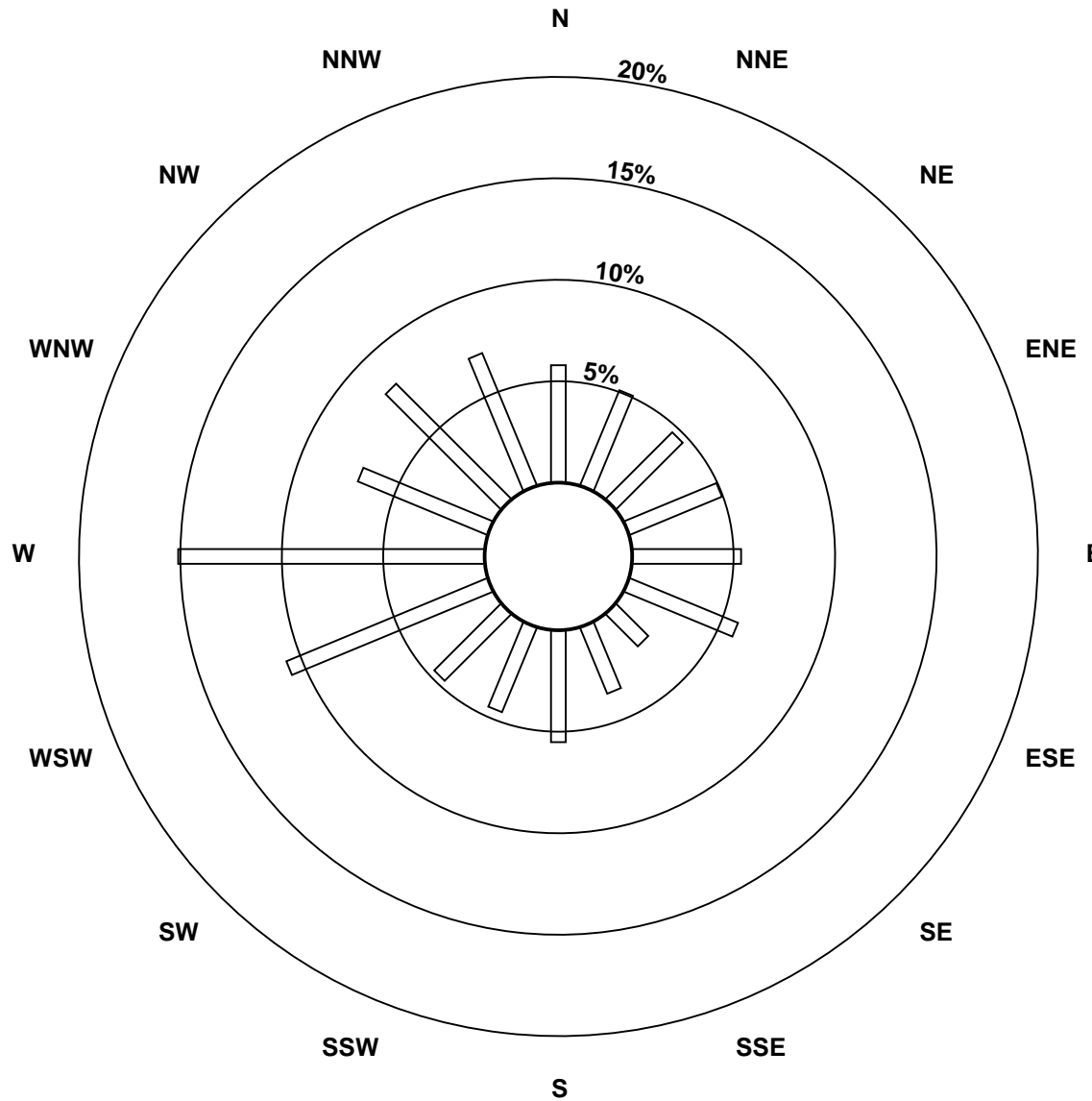
### Hourly Maximums

**Nitrogen Dioxide (NO<sub>2</sub>) - ppb**  
**Beaverlodge - August 2015**

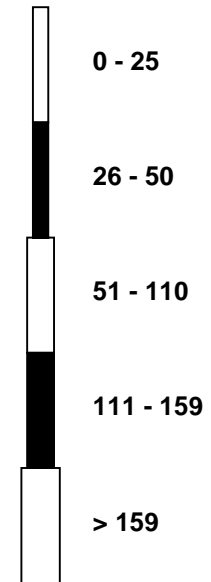


**Pollutant Rose**

**Nitrogen Dioxide (NO<sub>2</sub>) - ppb**  
**Beaverlodge - August 2015**

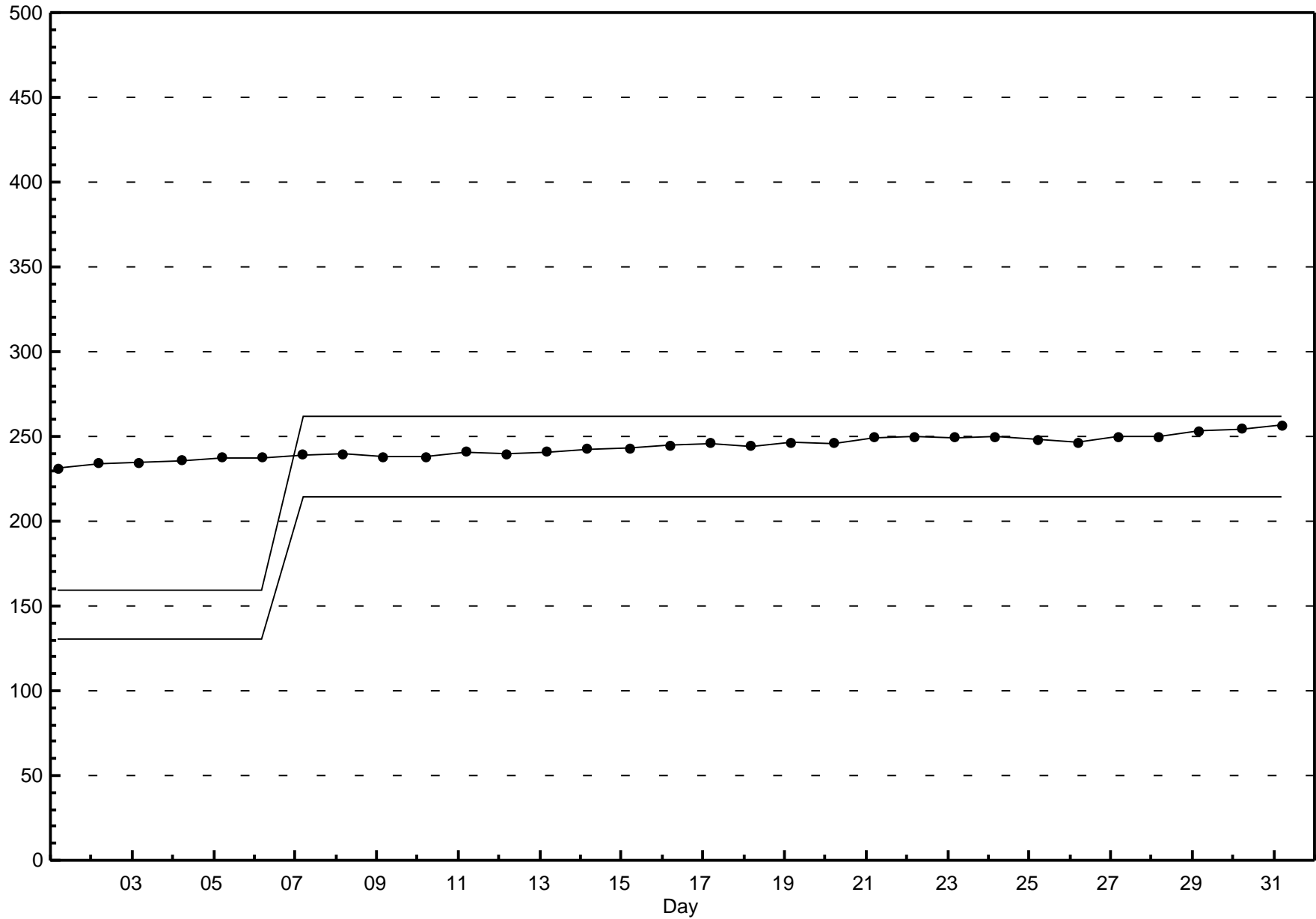


**Pollutant Classes (ppb)**



### Span Responses

**Nitrogen Dioxide (NO<sub>2</sub>)**  
**Beaverlodge - August 2015**



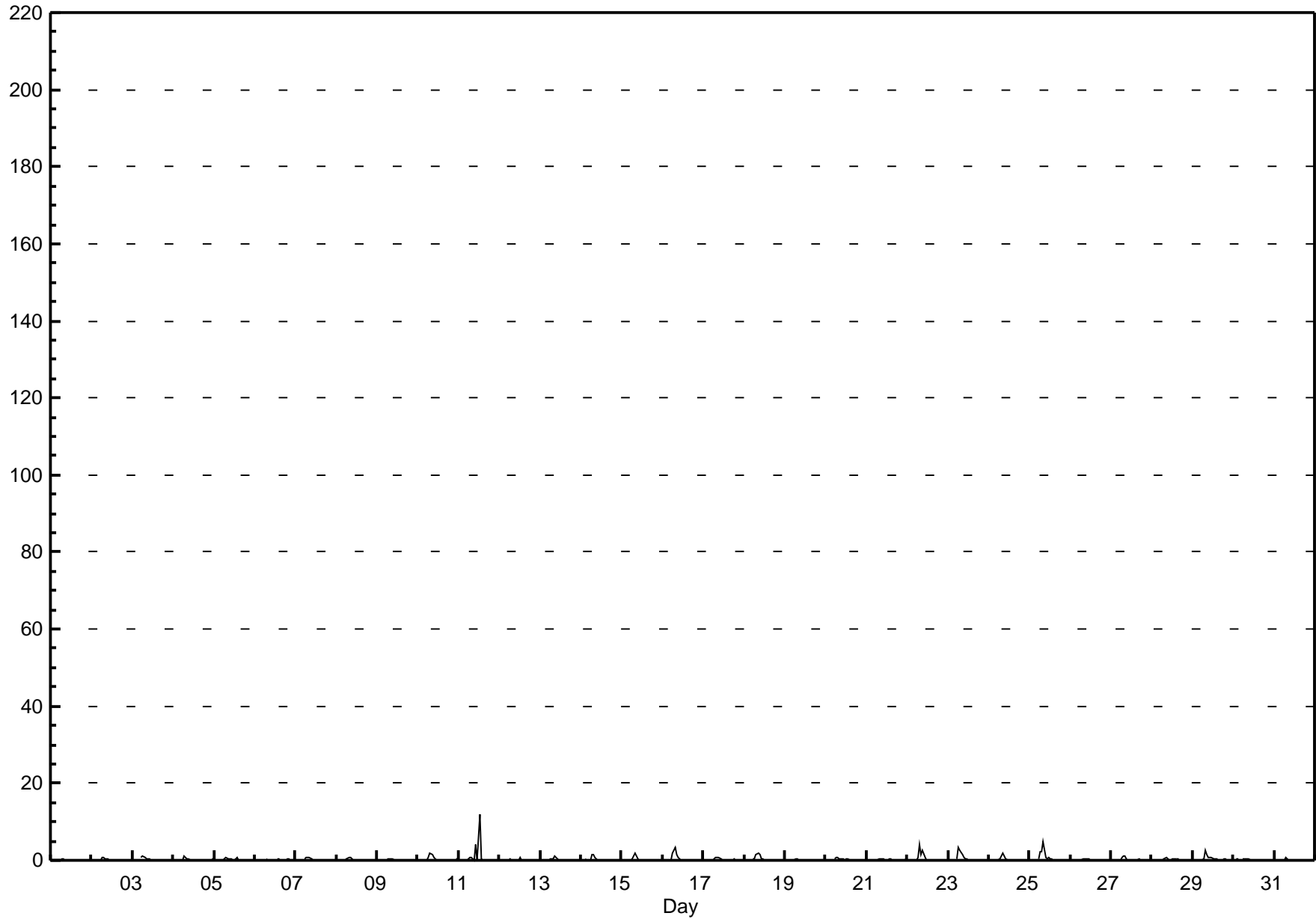
## Hourly Averages

## Nitrogen Oxide (NO) - ppb Beaverlodge - August 2015

Number of Exceedences (AAQO): 1-hr: 0 24-hr: 0 Maximum Value: 11.9 ppb on Aug 11 13:00 Maximum Daily Average: 0.8 ppb on Aug 11		Hours in Service: 744 Hours of Data: 708 Hours of Missing Data: 36 Hours of Calibration: 36 Percent Operational Time: 100.0																																															
Minimum Value: 0 ppb on Aug 1 01:00 Maximum Diurnal Average: 1.1 ppb at hour 8 Monthly Average: 0.22 ppb		Minimum Daily Average: 0.0 ppb on Aug 1 Minimum Diurnal Average: 0.0 ppb at hour 1 Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.0 Median = 0.0 Q <sub>3</sub> = 0.2 P <sub>90</sub> = 0.5 P <sub>99</sub> = 2.2																																															
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																									
1-Aug	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.3																							
2-Aug	0	0	0	0	A	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.8																							
3-Aug	0	0	0	0	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.9																							
4-Aug	0	0	0	0	A	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.1																							
5-Aug	0	0	0	0	A	0	0	1	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.2	0.9																							
6-Aug	0	0	0	0	A	0	0	0	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3																							
7-Aug	0	0	0	0	A	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.9																							
8-Aug	0	0	0	0	A	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.9																							
9-Aug	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5																							
10-Aug	0	0	0	0	A	0	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.7																							
11-Aug	0	0	0	0	A	0	1	1	0	0	4	0	12	0	0	0	0	0	0	0	0	0	0	0	0.8	11.9																							
12-Aug	0	0	0	0	A	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.1	0.6																							
13-Aug	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	1.1																							
14-Aug	0	0	0	0	A	0	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.7																							
15-Aug	0	0	0	0	A	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	2.0																							
16-Aug	0	0	0	0	A	0	2	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	3.4																							
17-Aug	0	0	0	0	A	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.9																							
18-Aug	0	0	0	0	A	0	0	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.8																							
19-Aug	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5																							
20-Aug	0	0	0	0	A	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.8																							
21-Aug	0	0	0	0	A	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5																							
22-Aug	0	0	0	0	A	0	1	4	1	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	4.2																							
23-Aug	0	0	0	0	A	0	3	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	3.2																							
24-Aug	0	0	0	0	A	0	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.9																							
25-Aug	0	0	0	0	A	0	2	2	5	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0.6	4.7																							
26-Aug	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5																							
27-Aug	0	0	0	0	A	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.2																							
28-Aug	0	0	0	0	A	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6																							
29-Aug	0	0	0	0	A	0	0	2	2	1	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0.4	2.5																							
30-Aug	0	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																							
31-Aug	0	0	0	0	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.9																							
																								0.0	0.0	0.0	0.0	--	0.1	0.7	1.1	1.0	0.5	0.4	0.1	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	Diurnal Average
																								0.1	0.1	0.2	0.4	--	0.9	3.2	4.2	4.7	2.6	3.9	0.6	11.9	0.9	0.4	0.4	0.3	0.2	0.6	0.2	0.2	0.2	0.1	0.4	Diurnal Maximum	
C - Calibration																								A - Automated Daily Zero Span																									

**Hourly Averages**

**Nitrogen Oxide (NO) - ppb**  
**Beaverlodge - August 2015**





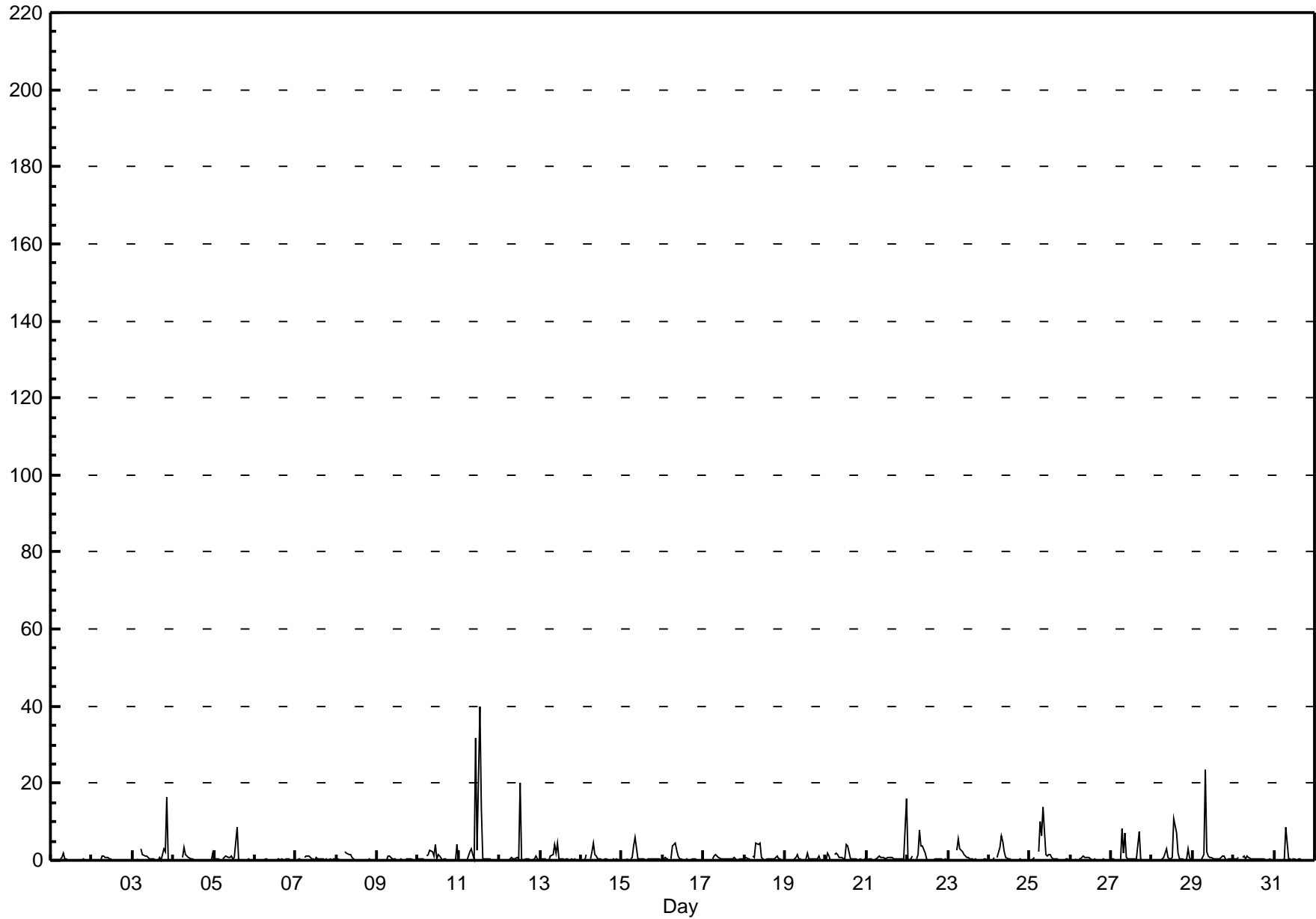
## Hourly Maximums

## Nitrogen Oxide (NO) - ppb Beaverlodge - August 2015

Maximum Value: 39.9 ppb on Aug 11 13:00		Maximum Daily Average: 4.3 ppb on Aug 11		Hours in Service: 744																									
Minimum Value: 0 ppb on Aug 8 17:00		Minimum Daily Average: 0.2 ppb on Aug 1		Hours of Data: 708																									
Maximum Diurnal Average: 3.3 ppb at hour 8		Minimum Diurnal Average: 0.2 ppb at hour 23		Hours of Missing Data: 36																									
Monthly Average: 0.89 ppb		Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.1 Median = 0.2 Q <sub>3</sub> = 0.6 P <sub>90</sub> = 1.6 P <sub>99</sub> = 12.8		Hours of Calibration: 36																									
				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-Aug	0	0	0	0	A	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.9			
2-Aug	0	0	0	0	A	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.2			
3-Aug	0	0	0	0	A	3	2	1	1	1	1	0	0	0	0	0	1	0	3	2	16	0	0	0	1.4	16.2			
4-Aug	0	0	0	0	A	1	4	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.6	3.5			
5-Aug	0	0	0	0	A	0	1	1	1	1	1	0	1	9	0	0	0	0	0	0	0	0	0	0	0.7	8.5			
6-Aug	0	0	0	0	A	0	0	0	C	C	C	C	C	0	0	0	1	0	0	1	0	0	0	0	0.2	0.6			
7-Aug	0	0	0	0	A	1	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.4	1.3			
8-Aug	0	0	0	0	A	2	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	2.2			
9-Aug	0	0	0	0	A	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.3			
10-Aug	0	1	0	1	A	1	2	3	2	1	4	0	1	1	0	0	0	0	0	0	0	0	0	4	1.0	4.1			
11-Aug	0	0	0	0	A	0	2	3	2	0	32	3	40	13	0	0	0	0	0	0	0	0	0	0	4.3	39.9			
12-Aug	0	0	0	0	A	0	1	1	0	0	1	0	20	0	0	0	0	0	0	0	0	0	1	0	1.2	20.1			
13-Aug	0	1	0	0	A	0	1	2	4	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0.8	4.3			
14-Aug	0	0	0	1	A	0	2	4	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	4.3			
15-Aug	0	0	0	0	A	0	1	4	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	5.9			
16-Aug	0	1	0	0	A	1	4	5	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.7	4.6			
17-Aug	0	0	0	0	A	0	1	2	1	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0.4	1.6			
18-Aug	0	1	0	0	A	1	1	4	4	5	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0.9	4.6			
19-Aug	0	0	0	0	A	0	1	1	0	0	0	0	0	2	0	0	0	0	0	0	1	0	0	0	0.4	1.9			
20-Aug	0	2	1	0	A	1	2	1	1	1	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0.9	4.0			
21-Aug	0	0	0	0	A	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	16	1.2	15.9			
22-Aug	0	0	0	1	A	0	2	8	4	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1.0	7.7			
23-Aug	0	0	0	0	A	3	5	3	2	1	1	1	1	0	0	0	0	0	0	0	0	0	1	0	0.8	5.4			
24-Aug	0	0	0	1	A	1	3	6	5	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.9	6.2			
25-Aug	0	0	0	1	A	2	10	6	14	2	1	1	2	1	0	0	0	0	0	0	0	0	0	0	1.9	13.9			
26-Aug	0	0	0	0	A	0	0	1	1	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0.3	1.0			
27-Aug	0	0	0	0	A	0	8	2	7	1	0	0	0	0	0	0	8	0	0	0	0	0	0	0	1.3	8.1			
28-Aug	0	0	0	0	A	0	0	1	3	1	0	0	1	11	7	2	0	0	0	0	0	3	1	0	1.4	10.9			
29-Aug	0	0	0	0	A	0	1	24	2	1	1	1	1	0	0	0	0	1	1	0	0	0	0	0	1.6	23.5			
30-Aug	1	1	0	1	A	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.1			
31-Aug	0	0	0	0	A	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	8.7			
		0.2	0.3	0.2	0.3	--	0.7	2.0	3.3	2.4	1.1	1.8	0.4	2.5	1.5	0.5	0.3	0.5	0.2	0.3	0.3	0.7	0.3	0.2	0.8	Diurnal Average			
		0.5	1.9	1.0	1.3	--	3.2	10.1	23.5	13.9	4.6	31.8	2.8	39.9	13.3	7.2	1.8	7.6	1.2	3.1	2.4	16.2	2.9	0.7	15.9	Diurnal Maximum			
C - Calibration					A - Automated Daily Zero Span																								

### Hourly Maximums

**Nitrogen Oxide (NO) - ppb**  
**Beaverlodge - August 2015**

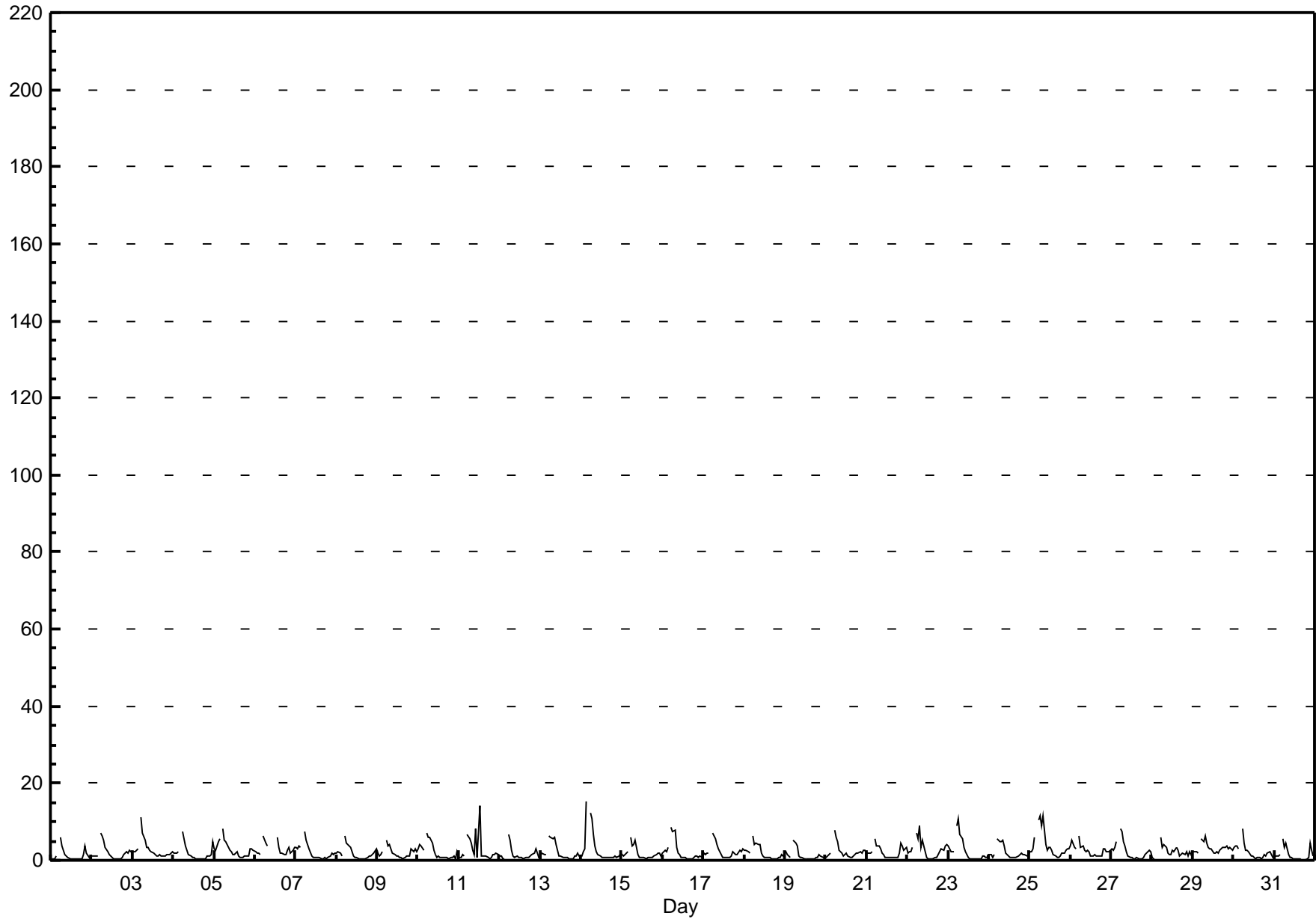


# Hourly Averages

Oxides of Nitrogen (NO<sub>x</sub>) - ppb

Beaverlodge - August 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 15.5 ppb on Aug 14 04:00 Maximum Daily Average: 3.9 ppb on Aug 25																			Hours in Service: 744 Hours of Data: 708 Hours of Missing Data: 36 Hours of Calibration: 36 Percent Operational Time: 100.0							
Minimum Value: 0 ppb on Aug 31 18:00 Minimum Daily Average: 1.3 ppb on Aug 19 Maximum Diurnal Average: 7.2 ppb at hour 6 Minimum Diurnal Average: 0.8 ppb at hour 16 Monthly Average: 2.23 ppb Percentiles: P <sub>1</sub> = 0.2 P <sub>10</sub> = 0.5 Q <sub>1</sub> = 0.8 Median = 1.5 Q <sub>3</sub> = 2.9 P <sub>90</sub> = 5.1 P <sub>99</sub> = 10.7																										
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-Aug	1	0	1	1	A	6	4	3	1	1	1	0	0	0	0	0	0	0	1	4	2	1	1	1.3	6.1	
2-Aug	1	1	1	1	A	7	6	5	3	2	1	1	1	0	0	0	0	0	1	2	2	2	3	2	2.0	7.0
3-Aug	2	2	2	3	A	11	7	5	3	3	3	2	2	1	1	1	2	1	1	2	1	1	2	2.7	11.3	
4-Aug	2	2	2	2	A	7	6	4	3	2	1	1	1	1	1	0	1	1	0	1	1	1	1	1.9	7.5	
5-Aug	3	3	5	6	A	8	5	5	3	3	2	1	2	2	1	1	1	1	1	1	1	3	3	2.7	8.1	
6-Aug	2	2	2	1	A	6	4	4	C	C	C	C	C	6	3	2	2	1	2	3	4	2	3	2.9	6.3	
7-Aug	3	3	4	3	A	7	5	4	3	1	1	1	1	1	1	1	1	1	0	1	1	2	2	2.0	7.3	
8-Aug	2	2	2	1	A	6	4	4	3	2	1	1	1	1	0	0	0	0	1	1	1	1	2	3	1.8	6.4
9-Aug	2	1	1	2	A	5	4	4	3	2	1	1	1	1	1	1	1	1	1	1	3	2	3	2.0	5.3	
10-Aug	3	4	4	3	A	7	6	6	4	3	2	1	1	1	1	1	1	1	1	1	1	1	0	2	2.3	6.9
11-Aug	1	1	1	1	A	7	5	4	2	1	8	1	14	1	1	1	1	1	1	1	2	2	2	1	2.6	14.1
12-Aug	1	1	0	0	A	7	5	3	1	1	1	1	1	1	1	1	1	1	1	1	2	3	2	1	1.5	6.8
13-Aug	1	2	2	2	A	6	6	6	6	4	3	1	1	1	1	1	1	1	1	0	1	1	2	1	2.1	6.2
14-Aug	1	2	3	15	A	12	11	7	4	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2	3.0	15.5
15-Aug	2	1	1	2	A	6	4	4	5	1	1	1	1	1	1	1	1	1	1	1	2	2	2	1	1.8	5.9
16-Aug	2	3	2	3	A	9	7	8	3	2	1	1	1	1	1	0	0	1	1	1	1	1	1	1	2.1	8.5
17-Aug	2	2	2	2	A	7	7	6	4	3	1	1	1	1	1	1	1	2	2	1	1	2	2	3	2.3	7.0
18-Aug	3	3	2	2	A	6	4	5	4	4	2	1	1	1	1	1	0	0	0	0	0	1	1	1	1.9	6.4
19-Aug	2	1	1	1	A	5	4	4	1	1	1	0	0	0	0	0	0	0	1	1	2	1	1	1	1.3	5.2
20-Aug	1	1	1	2	A	8	6	5	3	2	1	2	2	1	1	1	1	1	2	2	2	2	3	3	2.2	7.9
21-Aug	2	2	2	2	A	6	4	4	3	2	1	1	1	1	1	1	1	1	1	2	5	4	3	3	2.2	5.7
22-Aug	2	2	2	3	A	7	5	9	3	5	2	1	1	0	0	0	1	1	1	2	3	2	4	4	2.7	8.9
23-Aug	4	3	2	2	A	9	11	7	5	3	2	2	1	0	0	0	0	0	0	0	1	1	1	1	2.5	10.9
24-Aug	1	1	1	2	A	6	5	5	5	4	2	1	1	1	1	1	1	1	1	2	1	2	1	1	2.0	5.8
25-Aug	2	2	3	6	A	10	11	9	11	4	3	3	3	2	1	1	1	1	1	2	2	2	3	3	3.9	11.5
26-Aug	4	5	3	3	A	6	3	4	3	2	3	2	1	1	1	1	1	1	3	3	2	2	2	2	2.6	6.2
27-Aug	3	3	3	5	A	8	7	5	4	2	1	1	1	1	0	1	1	0	0	1	1	2	2	2	2.4	8.2
28-Aug	1	0	0	0	A	6	3	4	3	2	1	1	3	2	4	3	1	2	1	2	1	2	2	2	2.0	5.8
29-Aug	2	2	2	2	A	5	5	6	4	3	3	3	2	2	2	2	3	3	4	3	4	3	3	3	3.2	6.3
30-Aug	3	4	4	3	A	8	4	3	2	2	1	1	1	1	1	1	0	1	1	1	2	2	2	1	2.1	8.3
31-Aug	1	1	1	2	A	6	3	5	1	1	1	1	0	0	0	0	0	0	0	0	1	5	3	1	1.4	5.7
1.9 2.0 2.1 2.7 -- 7.2 5.6 4.9 3.6 2.4 1.8 1.2 1.5 1.1 0.9 0.8 0.8 0.9 1.0 1.3 1.9 1.9 2.0 2.0 Diurnal Average 3.8 5.1 5.0 15.5 -- 12.1 11.4 9.1 11.5 5.3 8.3 3.3 14.1 6.1 3.5 2.6 2.8 3.3 3.5 3.3 4.5 4.5 3.8 4.7 Diurnal Maximum																										
C - Calibration A - Automated Daily Zero Span																										



# Hourly Maximums

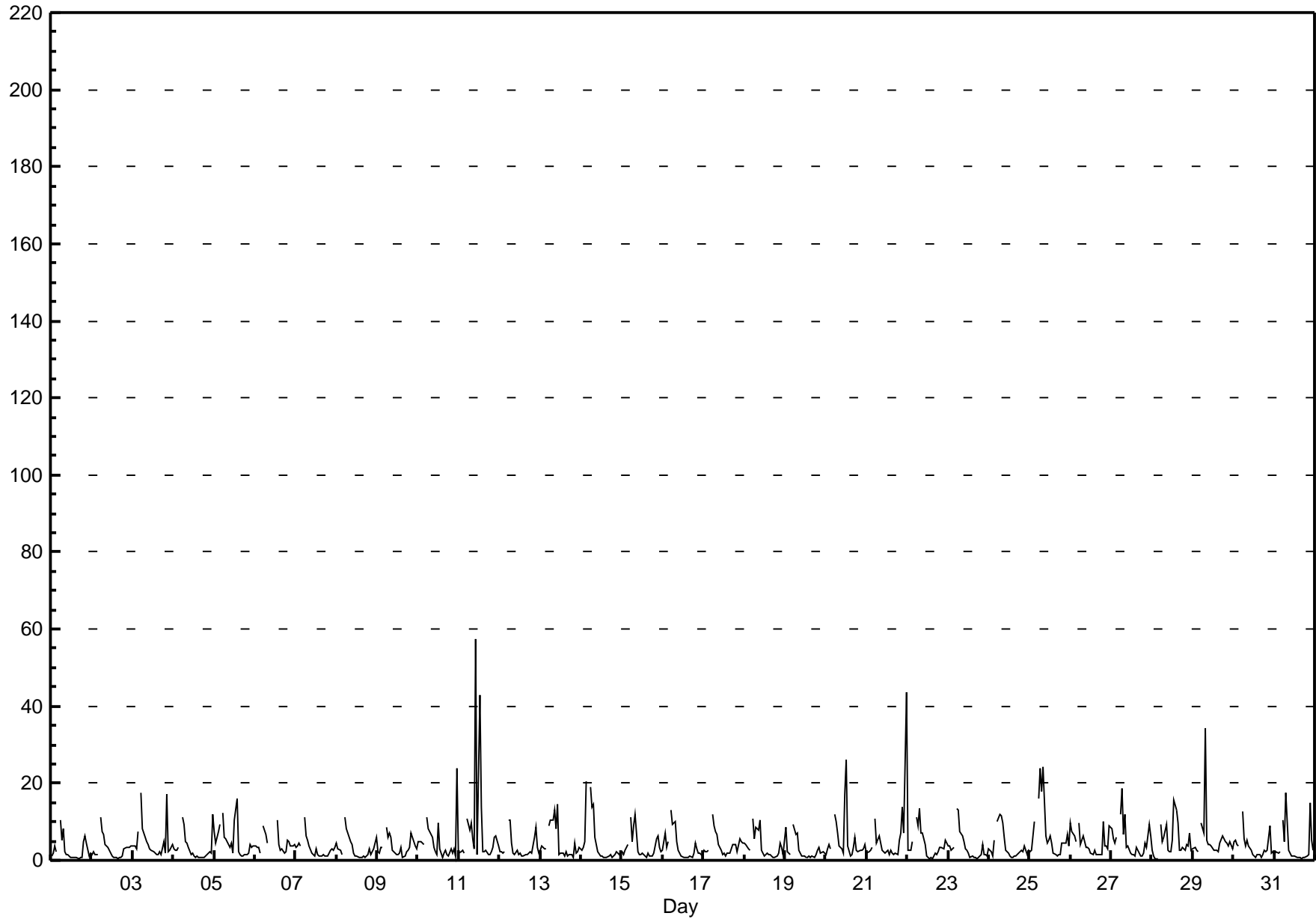
Oxides of Nitrogen (NO<sub>x</sub>) - ppb

Beaverlodge - August 2015

Maximum Value: 57.6 ppb on Aug 11 11:00		Maximum Daily Average: 8.4 ppb on Aug 11		Hours in Service: 744																						
Minimum Value: 0 ppb on Aug 28 04:00		Minimum Daily Average: 2.7 ppb on Aug 1		Hours of Data: 708																						
Maximum Diurnal Average: 11.5 ppb at hour 6		Minimum Diurnal Average: 1.6 ppb at hour 17		Hours of Missing Data: 36																						
Monthly Average: 4.26 ppb		Percentiles: P <sub>1</sub> = 0.5 P <sub>10</sub> = 1.0 Q <sub>1</sub> = 1.6 Median = 2.7 Q <sub>3</sub> = 5.0 P <sub>90</sub> = 9.6 P <sub>99</sub> = 23.6		Hours of Calibration: 36																						
				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-Aug	1	2	4	2	A	10	5	8	2	1	1	1	1	1	1	1	1	1	1	5	6	4	1	2	2.7	10.3
2-Aug	1	2	1	1	A	11	7	7	4	4	2	2	1	1	1	1	1	1	1	3	3	3	3	4	2.9	11.4
3-Aug	4	4	3	7	A	17	8	6	5	4	3	3	2	2	2	1	2	1	5	2	17	2	3	4	4.7	17.5
4-Aug	3	3	2	3	A	11	9	5	5	3	1	2	1	1	1	1	1	1	1	1	1	2	2	12	3.2	12.1
5-Aug	7	4	7	9	A	12	6	6	4	3	4	2	10	16	2	1	1	1	1	1	2	4	3	4	5.0	16.2
6-Aug	4	3	3	2	A	9	7	4	C	C	C	C	C	10	4	3	3	2	2	5	5	4	4	4	4.3	10.4
7-Aug	3	4	4	4	A	11	6	5	4	2	2	1	3	2	1	1	2	1	1	1	3	3	3	3	3.0	11.1
8-Aug	4	3	3	2	A	11	8	6	5	4	2	1	1	1	1	1	1	1	1	3	2	2	3	6	3.1	11.1
9-Aug	2	2	4	3	A	9	6	7	6	3	2	2	1	2	3	1	1	2	3	3	7	5	4	3	3.5	8.7
10-Aug	5	5	5	4	A	11	8	7	6	3	2	1	10	3	1	2	2	1	1	3	2	3	1	24	4.9	23.9
11-Aug	2	2	3	2	A	11	8	10	6	3	58	1	43	14	2	2	3	1	2	2	3	6	6	4	8.4	57.6
12-Aug	2	2	2	2	A	11	10	4	2	2	2	1	2	1	1	2	1	2	2	2	6	9	4	2	3.2	10.6
13-Aug	2	4	3	3	A	9	10	11	13	8	15	2	2	2	1	2	1	1	1	1	4	2	2	3	4.5	14.7
14-Aug	3	4	5	21	A	19	14	14	6	4	2	1	1	1	1	1	1	1	1	1	2	2	1	2	4.7	20.6
15-Aug	2	1	2	4	A	11	5	9	12	2	1	1	2	1	1	2	1	1	1	2	6	6	3	2	3.5	12.0
16-Aug	3	7	3	5	A	13	9	10	5	3	2	1	1	1	1	1	1	2	4	3	2	2	1	3.5	12.9	
17-Aug	3	2	2	3	A	12	9	7	7	4	3	1	2	1	2	2	3	4	4	4	2	6	5	4	4.0	11.8
18-Aug	5	4	3	3	A	11	5	9	8	10	3	2	1	2	2	1	1	1	1	1	2	5	3	2	3.6	10.8
19-Aug	9	2	2	1	A	9	7	7	3	2	1	1	1	1	1	1	1	1	2	3	3	2	2	2	2.7	9.3
20-Aug	2	3	4	3	A	12	10	7	4	3	2	17	26	4	1	2	3	6	3	2	3	2	3	4	5.5	26.0
21-Aug	2	2	3	3	A	11	4	7	5	3	2	2	3	2	3	2	2	2	2	5	7	14	7	44	5.8	43.6
22-Aug	3	3	3	5	A	11	9	13	7	7	4	1	1	1	1	1	2	2	2	3	3	3	5	5	4.1	13.5
23-Aug	4	4	3	3	A	14	13	8	6	5	3	2	2	1	1	1	1	0	1	2	4	2	2	1	3.5	13.5
24-Aug	3	2	1	5	A	10	12	12	10	6	3	2	1	1	1	1	1	2	2	2	2	4	1	2	3.7	11.8
25-Aug	2	3	6	10	A	16	24	18	24	6	4	5	6	4	2	2	1	2	1	4	5	5	7	4	7.0	24.4
26-Aug	10	8	6	5	A	10	4	6	5	3	3	3	2	1	2	1	1	1	2	10	4	4	3	9	4.5	10.1
27-Aug	8	6	4	6	A	12	19	7	12	4	4	2	1	1	1	4	2	1	1	2	5	4	9	6	5.2	18.8
28-Aug	2	1	0	0	A	9	5	6	9	3	2	2	5	16	13	10	3	2	3	2	4	4	7	2	4.9	15.5
29-Aug	3	3	3	2	A	10	7	34	5	4	4	4	3	3	2	2	4	6	6	5	4	4	5	3	5.5	34.5
30-Aug	5	5	4	4	A	13	6	4	5	4	3	1	1	1	1	1	1	1	3	2	3	9	2	2	3.5	12.6
31-Aug	2	2	2	2	A	10	5	17	2	2	1	1	1	1	1	1	1	1	1	1	2	15	5	2	3.4	17.4
		3.6	3.3	3.3	4.2	--	11.5	8.6	9.1	6.5	3.8	4.7	2.3	4.5	3.1	1.8	1.7	1.6	1.7	1.9	2.9	4.0	4.5	3.6	5.6	Diurnal Average
		9.8	7.5	7.4	20.6	--	19.2	23.8	34.5	24.4	10.5	57.6	17.3	42.7	16.2	13.0	9.7	4.4	6.2	5.6	10.1	17.3	15.0	9.2	43.6	Diurnal Maximum
C - Calibration		A - Automated Daily Zero Span																								

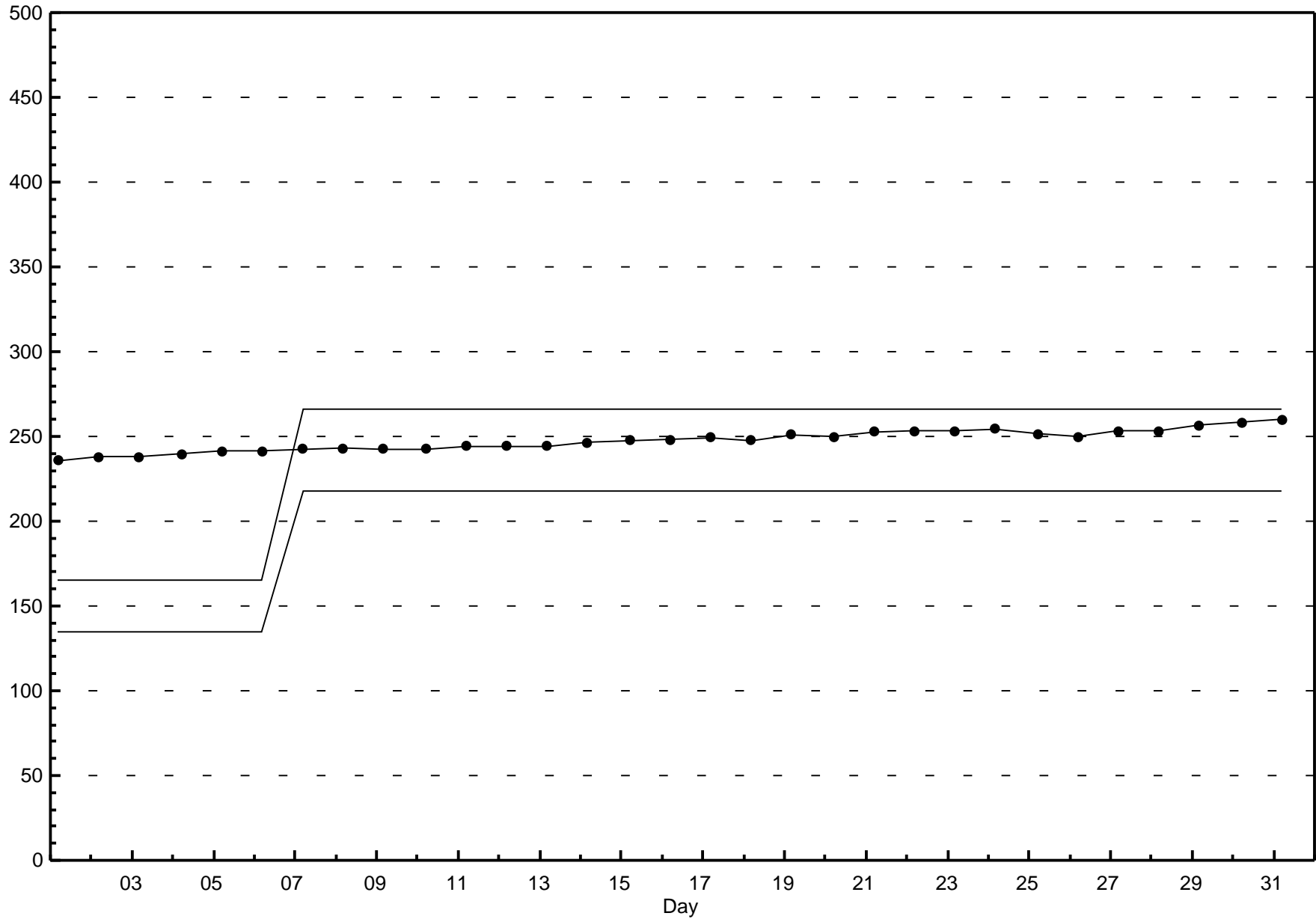
**Hourly Maximums**

**Oxides of Nitrogen (NO<sub>x</sub>) - ppb**  
**Beaverlodge - August 2015**



### Span Responses

Oxides of Nitrogen (NO<sub>x</sub>)  
Beaverlodge - August 2015





Peace Airshed Zone Association

# Hourly Averages

Ozone (O<sub>3</sub>) - ppb

Beaverlodge - August 2015

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 44.9 ppb on Aug 26 17:00	Maximum Daily Average: 32.5 ppb on Aug 26		Hours of Data:	710
Minimum Value: 3 ppb on Aug 23 07:00	Minimum Daily Average: 16.9 ppb on Aug 7		Hours of Missing Data:	34
Maximum Diurnal Average: 32.4 ppb at hour 17	Minimum Diurnal Average: 13.7 ppb at hour 7		Hours of Calibration:	34
Monthly Average: 24.68 ppb	Percentiles: P <sub>1</sub> = 5.8 P <sub>10</sub> = 12.5 Q <sub>1</sub> = 18.3 Median = 25.8 Q <sub>3</sub> = 30.9 P <sub>90</sub> = 35.0 P <sub>99</sub> = 42.1		Percent Operational Time:	100.0

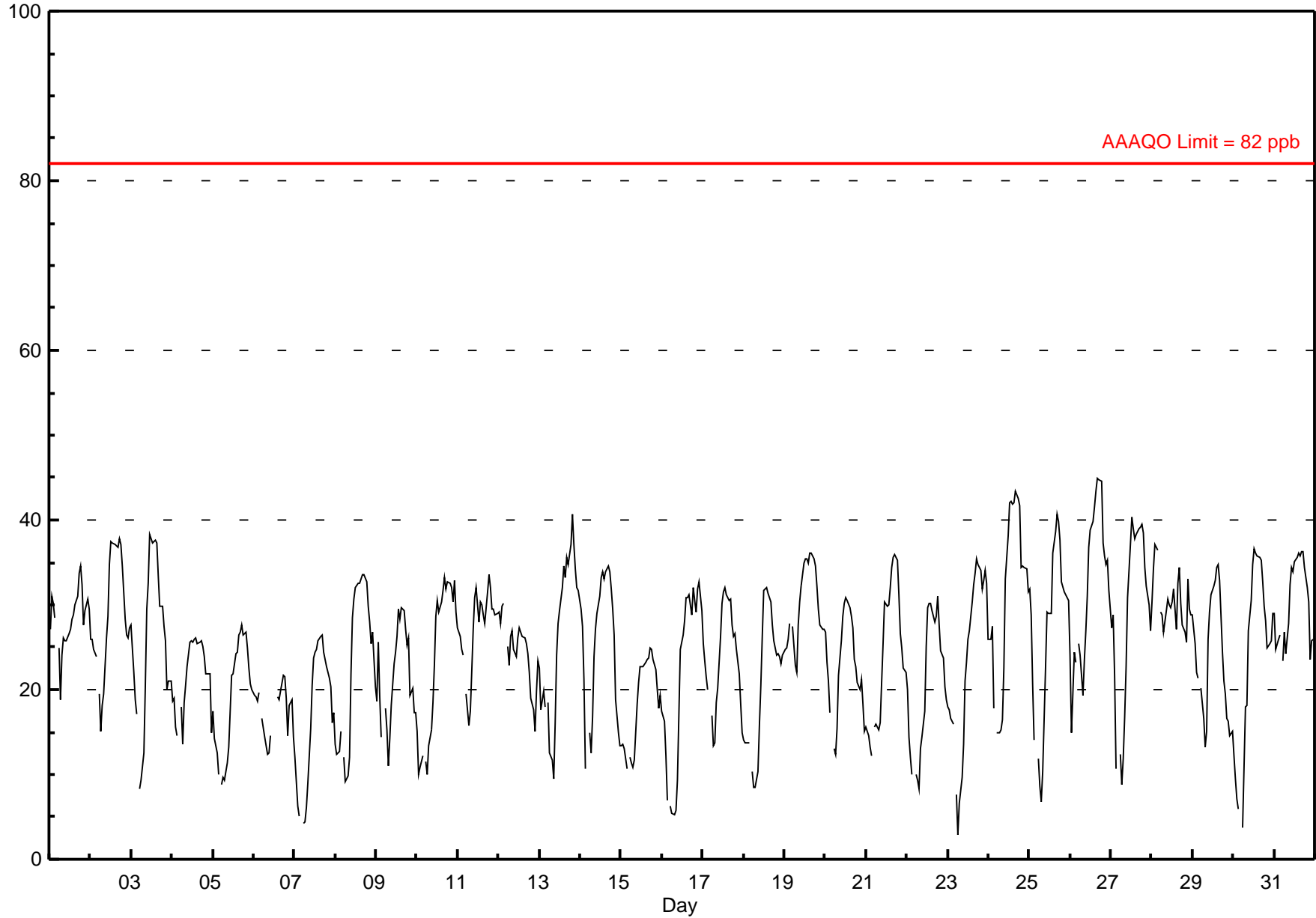
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Aug	27	31	30	29	A	25	19	24	26	26	27	27	28	29	30	31	34	35	32	28	29	31	29	28.3	34.5	
2-Aug	26	26	25	24	A	19	15	18	20	26	29	35	37	37	37	37	37	38	37	35	28	26	26	27	28.9	37.8
3-Aug	28	22	19	17	A	8	9	12	21	29	33	38	37	37	38	37	33	30	30	27	26	20	21	21	25.9	38.3
4-Aug	19	19	16	15	A	18	14	18	21	23	26	26	26	26	26	25	26	26	25	24	22	22	22	15	21.6	26.1
5-Aug	18	14	13	10	A	9	10	9	11	13	17	22	22	24	24	27	27	28	26	27	25	23	21	20	19.1	27.7
6-Aug	19	19	19	20	A	17	14	13	12	12	15	C	C	C	19	19	20	22	22	19	15	18	19	14	17.3	21.7
7-Aug	12	9	6	5	A	4	4	6	9	15	20	24	24	25	26	26	26	24	24	23	21	20	16	17	16.9	26.5
8-Aug	14	12	13	15	A	12	9	10	12	22	28	31	32	33	33	33	34	34	33	30	28	25	27	20	23.4	33.6
9-Aug	19	26	19	14	A	18	15	11	14	18	23	24	26	29	28	30	29	27	25	26	19	20	17	17	21.6	29.7
10-Aug	15	10	11	12	A	12	10	13	15	18	23	29	31	29	30	32	33	32	33	32	32	30	33	29	23.7	33.1
11-Aug	27	26	25	24	A	19	16	17	22	27	31	32	28	30	30	29	28	32	34	32	29	29	29	29	27.2	33.5
12-Aug	29	28	30	30	A	25	23	26	27	25	24	26	27	27	26	26	25	24	22	19	18	15	20	23	24.6	30.2
13-Aug	23	18	20	18	A	18	12	12	9	16	24	28	29	32	35	33	36	35	37	41	37	34	32	32	26.5	40.7
14-Aug	29	27	21	11	A	15	13	17	24	27	29	31	33	34	33	34	35	34	32	30	26	19	15	13	25.3	34.6
15-Aug	13	14	13	11	A	12	11	11	12	18	21	23	23	23	23	24	24	25	25	24	22	20	18	19	18.6	24.8
16-Aug	17	16	12	7	A	6	5	5	6	9	17	25	26	28	31	31	31	29	32	30	29	32	33	29	21.3	32.7
17-Aug	25	23	21	20	A	17	13	14	18	20	26	30	32	32	31	31	31	28	26	27	25	22	18	15	23.7	32.1
18-Aug	14	14	14	14	A	10	9	9	10	16	20	26	32	32	31	31	30	28	26	24	24	23	24	24	21.1	32.1
19-Aug	25	25	26	28	A	27	23	22	28	30	32	35	35	35	35	36	36	35	35	32	30	28	27	27	30.1	36.1
20-Aug	27	23	21	17	A	13	12	15	22	26	29	30	31	31	30	29	27	24	23	21	20	21	18	15	22.8	30.8
21-Aug	16	15	13	12	A	16	16	15	16	21	25	30	30	30	32	34	36	36	35	31	27	25	23	22	24.2	36.0
22-Aug	20	14	12	10	A	10	9	8	13	14	17	25	30	30	30	29	28	29	31	28	25	24	20	19	20.7	31.0
23-Aug	18	18	17	16	A	8	3	7	10	13	21	23	26	27	30	32	34	35	35	34	32	33	34	33	23.4	35.4
24-Aug	26	26	28	18	A	15	15	15	16	23	33	38	42	42	42	42	43	43	42	34	35	34	34	31	31.2	43.5
25-Aug	32	29	21	14	A	12	9	7	10	23	29	29	29	29	36	39	41	40	38	33	32	31	31	30	27.0	40.7
26-Aug	24	15	24	23	A	25	24	19	24	27	31	37	39	40	42	43	45	45	45	37	36	35	35	32	32.5	44.9
27-Aug	27	29	22	11	A	12	9	12	17	23	31	37	40	39	38	38	39	39	40	38	34	32	30	27	28.9	40.3
28-Aug	30	34	37	36	A	29	29	27	29	31	30	30	30	32	27	33	34	30	28	27	26	33	29	29	30.5	37.1
29-Aug	29	25	22	21	A	20	17	13	15	26	29	31	32	33	34	35	33	24	21	20	17	16	15	15	23.6	34.8
30-Aug	12	10	7	6	A	4	11	18	18	27	30	35	37	36	36	36	35	33	30	28	25	25	26	29	24.0	36.7
31-Aug	29	25	26	26	A	23	27	24	28	32	34	34	35	36	36	36	36	36	34	32	30	24	26	26	30.3	36.3
	22.2	20.7	19.4	17.2	--	15.5	13.7	14.5	17.3	21.9	26.0	29.7	31.0	31.6	31.6	32.1	32.4	31.5	30.9	28.9	26.5	25.5	24.8	23.6	Diurnal Average	
	31.8	34.2	37.1	36.4	--	29.1	28.9	26.8	29.4	32.4	34.4	38.3	42.0	42.3	41.9	43.4	44.9	44.8	44.5	40.7	37.1	34.7	35.3	32.6	Diurnal Maximum	

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



### Hourly Averages

Ozone (O<sub>3</sub>) - ppb  
Beaverlodge - August 2015



# Hourly Maximums

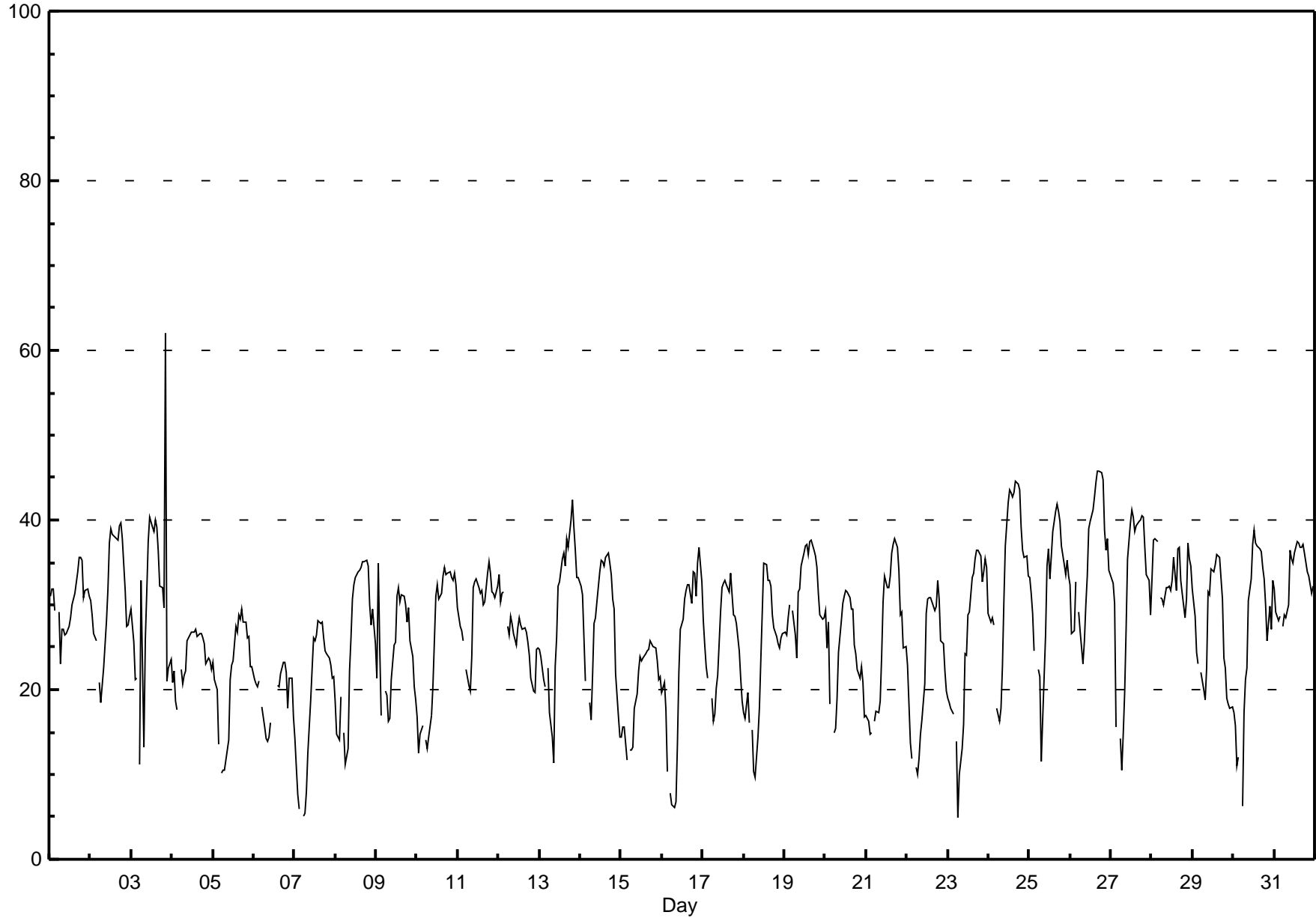
Ozone (O<sub>3</sub>) - ppb

Beaverlodge - August 2015

Maximum Value: 62.0 ppb on Aug 3 21:00		Maximum Daily Average: 35.8 ppb on Aug 26		Hours in Service: 744																						
Minimum Value: 5 ppb on Aug 23 07:00		Minimum Daily Average: 19.0 ppb on Aug 7		Hours of Data: 710																						
Maximum Diurnal Average: 34.0 ppb at hour 17		Minimum Diurnal Average: 17.3 ppb at hour 8		Hours of Missing Data: 34																						
Monthly Average: 27.28 ppb		Percentiles: P <sub>1</sub> = 6.5 P <sub>10</sub> = 15.6 Q <sub>1</sub> = 21.4 Median = 28.3 Q <sub>3</sub> = 33.2 P <sub>90</sub> = 37.0 P <sub>99</sub> = 44.3		Hours of Calibration: 34																						
				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-Aug	31	32	32	29	A	29	23	27	27	26	27	27	28	30	31	31	34	36	36	35	31	32	32	31	30.3	35.6
2-Aug	31	29	27	26	A	21	19	20	23	28	32	37	39	38	38	38	38	39	40	38	32	27	28	29	31.0	39.6
3-Aug	29	26	21	21	A	11	33	13	26	31	37	40	39	39	40	39	36	32	32	30	62	21	23	24	30.7	62.0
4-Aug	21	22	19	18	A	22	21	22	22	26	26	27	27	27	26	27	27	26	25	23	24	23	22		23.9	27.2
5-Aug	23	21	20	14	A	10	11	10	13	14	21	23	23	27	27	29	28	29	28	28	26	26	23	23	21.7	29.5
6-Aug	21	21	20	21	A	18	16	14	14	14	16	C	C	C	20	20	22	23	23	22	18	21	21	17	19.2	23.2
7-Aug	14	11	8	6	A	5	5	8	13	19	22	26	26	26	28	28	28	26	25	24	24	23	21	22	19.0	28.2
8-Aug	19	15	14	19	A	15	11	13	22	26	31	32	33	34	34	34	35	35	35	30	28	30	25		26.3	35.3
9-Aug	21	35	25	17	A	20	19	16	17	21	25	26	31	32	30	31	31	30	28	30	26	24	20	19	25.0	34.9
10-Aug	17	13	15	16	A	14	13	14	17	21	26	31	32	31	31	33	34	34	34	34	33	33	34	32	25.7	34.4
11-Aug	30	27	27	26	A	22	20	20	24	32	33	33	32	31	32	30	30	34	35	34	32	31	31	32	29.5	35.1
12-Aug	34	30	31	32	A	27	27	29	28	27	25	27	29	28	27	27	27	26	24	21	20	20	25	25	26.7	33.5
13-Aug	25	24	21	20	A	23	17	14	11	23	26	32	33	35	36	35	38	37	40	42	39	36	33	33	29.3	42.3
14-Aug	32	31	26	21	A	18	16	22	28	29	30	34	35	35	35	36	36	35	34	31	29	22	17	14	28.1	36.1
15-Aug	14	16	16	12	A	13	13	13	18	19	22	24	23	24	24	25	25	26	25	25	25	23	21	21	20.3	25.8
16-Aug	20	21	18	10	A	8	6	6	7	14	22	27	28	31	32	32	32	30	34	34	31	35	37	33	23.8	36.8
17-Aug	28	25	23	21	A	19	16	17	20	22	29	32	33	33	32	32	34	31	29	29	28	25	21	19	25.9	33.8
18-Aug	17	17	20	16	A	15	10	10	14	18	24	29	35	35	33	33	32	29	27	26	25	25	26	27	23.6	34.9
19-Aug	27	27	28	30	A	29	26	24	32	32	35	36	37	37	36	38	38	36	36	34	31	29	28	28	31.9	37.7
20-Aug	29	25	28	18	A	15	15	19	24	28	30	31	32	32	31	30	29	25	24	22	21	23	21	17	24.8	31.6
21-Aug	17	16	15	15	A	16	17	17	19	24	30	33	32	32	33	36	37	38	37	34	29	29	25	25	26.4	37.7
22-Aug	23	18	14	12	A	11	10	12	15	16	21	29	31	31	31	30	29	30	33	31	26	25	22	20	22.5	32.9
23-Aug	19	19	18	17	A	14	5	10	13	16	24	24	29	29	33	34	35	36	36	36	33	34	35	34	25.4	36.4
24-Aug	29	28	29	28	A	18	16	18	23	30	37	42	44	43	43	43	45	44	44	39	37	36	36	33	34.0	44.6
25-Aug	33	31	29	25	A	22	21	12	17	26	35	37	33	36	39	41	42	41	40	37	35	34	35	33	31.9	41.8
26-Aug	32	27	27	33	A	29	27	23	26	30	33	39	40	41	43	44	46	46	46	45	39	37	38	34	35.8	45.8
27-Aug	33	32	30	16	A	14	11	15	20	27	35	40	41	40	39	39	40	40	40	40	37	34	33	29	31.5	41.2
28-Aug	33	38	38	37	A	31	31	30	32	32	32	32	33	36	32	37	37	33	31	29	31	37	35	35	33.5	37.8
29-Aug	32	29	24	23	A	22	20	19	23	31	31	34	34	35	36	36	36	31	24	23	19	18	18	18	26.7	35.9
30-Aug	17	16	11	12	A	6	17	21	23	30	33	37	39	37	37	37	36	34	33	30	26	30	27	33	27.1	38.8
31-Aug	32	29	28	29	A	27	29	29	30	36	35	35	36	37	37	37	37	37	36	34	33	32	31	32	33.1	37.5
		25.3	24.1	22.6	20.6	--	18.3	17.5	17.3	20.6	24.8	28.6	31.9	32.9	33.4	33.1	33.6	34.0	33.2	32.7	31.5	30.0	28.2	27.4	26.4	Diurnal Average
		33.5	37.6	37.8	37.4	--	30.9	32.9	30.1	32.0	36.4	37.5	42.0	43.5	43.2	42.8	44.4	45.8	45.7	45.6	44.7	62.0	37.2	37.8	34.5	Diurnal Maximum
C - Calibration		A - Automated Daily Zero Span																								

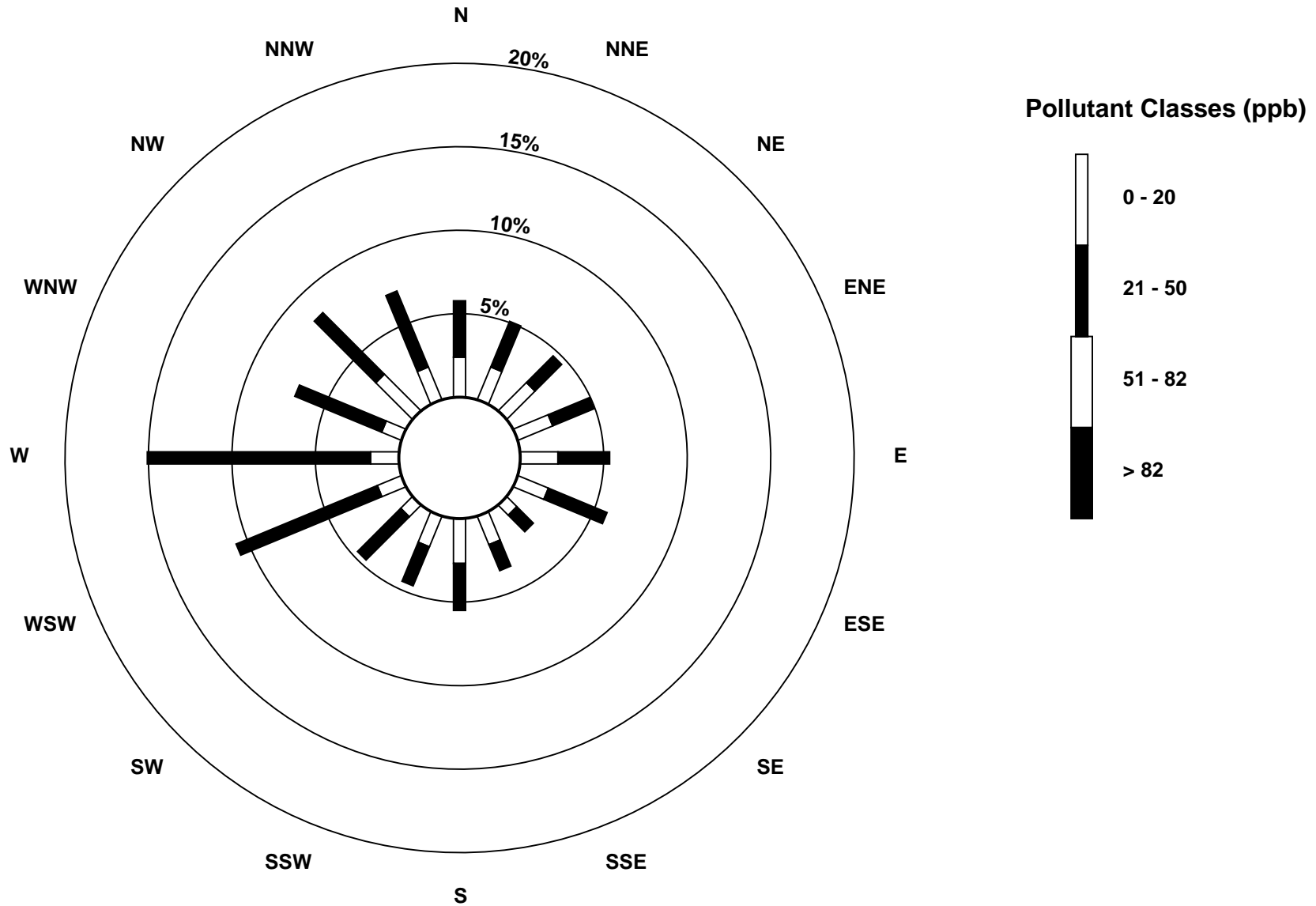
### Hourly Maximums

Ozone (O<sub>3</sub>) - ppb  
Beaverlodge - August 2015



**Pollutant Rose**

**Ozone (O<sub>3</sub>) - ppb**  
**Beaverlodge - August 2015**



# Eight Hour Running Averages

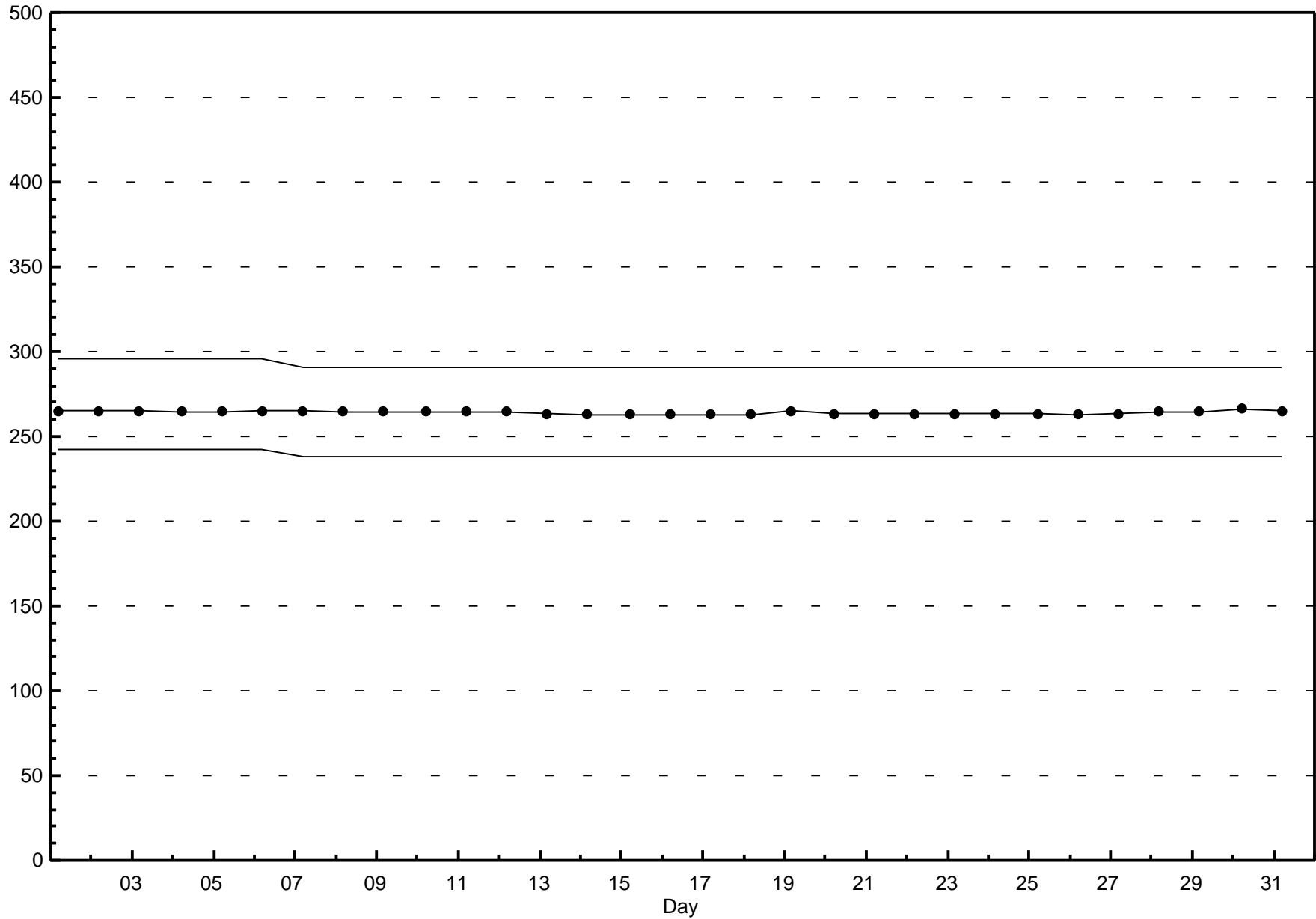
Ozone (O<sub>3</sub>) - ppb

Beaverlodge - August 2015

Maximum Value: 41.9 ppb on Aug 26 20:00																					Hours in Service:	744					
Minimum Value: 6.3 ppb on Aug 7 09:00																					Hours of Data:	738					
Percentiles: P <sub>1</sub> = 9.2 P <sub>10</sub> = 14.2 Q <sub>1</sub> = 19.1 Median = 25.0 Q <sub>3</sub> = 29.9 P <sub>90</sub> = 33.3 P <sub>99</sub> = 40.5																					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-Aug	27	27	27	27	27	27	26	26	26	25	25	25	25	25	27	27	28	29	30	31	31	31	31	31	31	31.1	
2-Aug	30	29	28	27	27	26	24	22	21	21	22	23	25	27	30	32	34	36	37	37	36	34	33	32	32	36.9	
3-Aug	31	29	26	24	24	21	19	17	16	17	19	22	24	27	31	34	35	35	35	34	32	30	28	26	26	35.5	
4-Aug	24	23	21	19	19	18	17	17	17	18	19	21	21	22	24	25	25	26	26	25	25	24	24	23	23	25.7	
5-Aug	22	20	19	17	16	14	13	12	11	11	11	13	14	16	18	20	22	24	25	26	26	26	25	24	24	26.0	
6-Aug	24	22	22	21	20	19	18	17	16	15	15	14	14	N	N	N	N	N	N	20	19	19	19	19	19	23.6	
7-Aug	18	16	14	12	12	10	8	7	6	7	9	12	13	16	19	21	23	25	25	25	24	24	23	22	22	24.9	
8-Aug	20	18	17	16	15	14	13	12	12	13	16	18	20	22	25	28	31	32	33	32	32	31	30	29	29	32.6	
9-Aug	27	26	24	22	21	20	19	17	17	16	16	18	19	20	22	24	26	27	28	28	27	26	24	23	23	27.7	
10-Aug	21	19	17	15	15	13	12	12	12	12	13	15	17	19	21	24	26	28	30	31	31	32	32	32	32	32.1	
11-Aug	31	30	29	28	28	26	24	22	21	22	22	24	24	25	27	29	29	30	30	30	30	30	30	30	30	31.1	
12-Aug	30	30	29	29	29	29	28	27	27	27	26	25	25	26	26	26	26	26	26	25	23	22	21	21	21	30.4	
13-Aug	20	20	19	19	19	20	19	17	15	15	16	17	19	20	23	26	29	31	33	35	36	36	36	35	35	35.9	
14-Aug	35	34	32	28	27	24	21	19	18	18	19	22	24	26	29	31	32	33	33	33	32	30	28	25	25	34.7	
15-Aug	23	20	18	16	14	13	12	12	12	13	14	15	16	18	19	21	22	23	24	24	24	23	23	22	22	23.7	
16-Aug	21	20	19	17	16	14	12	10	8	7	8	11	13	15	18	22	25	27	29	30	30	31	31	31	31	30.9	
17-Aug	30	29	28	27	26	24	21	19	18	18	18	20	21	23	25	28	29	30	30	30	29	27	26	24	24	30.0	
18-Aug	22	20	18	17	16	14	13	12	11	12	13	14	17	19	22	25	27	29	29	29	28	27	26	25	25	29.5	
19-Aug	25	24	24	25	25	25	25	25	26	26	27	28	29	30	32	33	34	35	35	35	34	33	32	31	31	35.3	
20-Aug	30	29	27	25	24	22	20	18	18	18	19	21	22	24	27	28	29	29	28	27	25	24	23	21	21	30.1	
21-Aug	20	19	17	16	16	15	15	15	15	16	17	20	21	23	25	27	30	32	33	33	33	32	31	29	29	33.1	
22-Aug	27	25	22	19	18	16	14	12	11	11	12	14	16	18	21	24	26	27	29	29	29	28	27	25	25	29.3	
23-Aug	24	23	21	19	19	16	14	12	11	10	11	12	14	16	20	23	26	29	30	32	32	33	34	34	34	33.7	
24-Aug	33	32	31	29	28	26	23	20	19	18	19	22	25	28	31	35	38	41	42	41	40	39	38	37	37	41.8	
25-Aug	36	34	31	29	28	25	21	18	14	14	15	17	18	21	24	28	32	34	35	35	36	36	35	34	34	36.0	
26-Aug	32	29	28	26	26	25	24	22	22	24	25	27	28	30	32	35	38	40	42	42	41	41	40	39	39	41.9	
27-Aug	36	34	32	28	27	24	20	17	16	15	16	20	23	26	30	33	36	38	39	39	38	37	36	35	35	38.9	
28-Aug	34	33	33	33	32	32	32	32	32	31	30	29	29	30	30	30	31	31	30	30	30	30	30	30	30	33.9	
29-Aug	29	28	27	27	27	25	23	21	19	19	20	22	23	25	27	29	32	32	32	30	29	27	25	23	20	31.7	
30-Aug	17	16	14	12	12	10	9	10	10	13	16	20	22	26	30	32	34	35	35	34	32	31	30	29	29	34.7	
31-Aug	28	27	27	26	27	26	26	26	26	27	28	29	30	31	32	34	35	35	35	35	35	35	33	32	31	31	35.4
<div style="display: flex; justify-content: space-between;"> <span>36.4</span><span>34.4</span><span>32.9</span><span>32.7</span><span>32.4</span><span>32.0</span><span>31.8</span><span>31.8</span><span>31.7</span><span>31.2</span><span>30.2</span><span>29.2</span><span>29.7</span><span>31.3</span><span>32.4</span><span>35.3</span><span>38.2</span><span>40.7</span><span>41.8</span><span>41.9</span><span>41.5</span><span>40.8</span><span>40.1</span><span>38.6</span> </div> <p style="text-align: center;">Diurnal Maximums</p>																											
N - Not Valid																											

### Span Responses

Ozone (O<sub>3</sub>)  
Beaverlodge - August 2015



## Hourly Averages

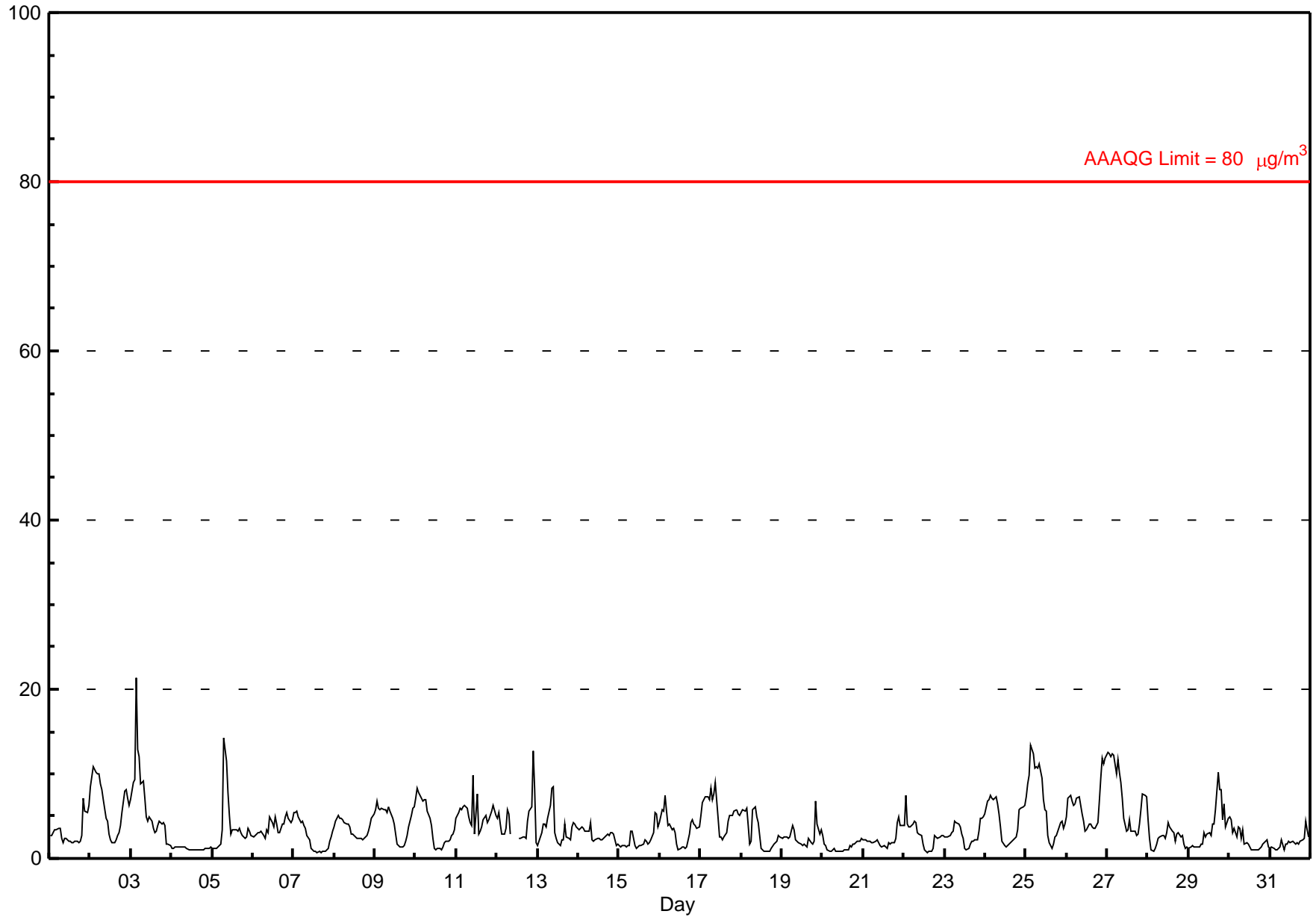
## Particulate Matter 2.5 (PM<sub>2.5</sub>) - µg/m<sup>3</sup>

### Beaverlodge - August 2015

Number of Exceedences: 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 21.3 µg/m <sup>3</sup> on Aug 3 04:00	Maximum Daily Average: 7.2 µg/m <sup>3</sup> on Aug 27
Minimum Value: 1 µg/m <sup>3</sup> on Aug 22 15:00	Hours of Data: 740
Maximum Diurnal Average: 5.2 µg/m <sup>3</sup> at hour 4	Hours of Missing Data: 4
Monthly Average: 3.70 µg/m <sup>3</sup>	Hours of Calibration: 4
Minimum Daily Average: 1.2 µg/m <sup>3</sup> on Aug 4	Percent Operational Time: 100.0
Minimum Diurnal Average: 2.1 µg/m <sup>3</sup> at hour 15	
Percentiles: P <sub>1</sub> = 0.8 P <sub>10</sub> = 1.2 Q <sub>1</sub> = 1.9 Median = 3.0 Q <sub>3</sub> = 4.8 P <sub>90</sub> = 7.1 P <sub>99</sub> = 12.3	

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-Aug	3	3	3	3	3	4	3	2	2	2	2	2	2	2	2	2	2	2	2	3	7	6	6	6	3.1	7.1																						
2-Aug	8	10	11	10	10	10	9	8	7	5	4	3	2	2	2	2	3	3	4	6	8	8	7	6	6.2	10.9																						
3-Aug	7	9	9	21	13	12	9	9	7	5	4	5	4	4	3	3	4	4	4	4	4	2	2	1	6.3	21.3																						
4-Aug	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	1.4																						
5-Aug	1	1	1	1	1	2	3	14	12	8	5	3	3	3	3	3	3	3	3	2	3	4	3	3	3.8	14.2																						
6-Aug	3	3	3	3	3	3	3	2	3	3	5	4	4	5	4	3	3	4	4	5	5	5	4	5	3.7	5.5																						
7-Aug	5	5	6	5	4	4	4	3	3	2	1	1	1	1	1	1	1	1	1	1	1	2	3	3	2.5	5.6																						
8-Aug	4	4	5	5	5	5	4	4	4	4	3	3	3	2	2	2	2	2	3	3	3	4	5	5	3.6	5.2																						
9-Aug	6	7	6	6	6	6	6	5	6	6	5	4	3	2	1	1	1	1	2	3	4	5	6	6	4.3	6.8																						
10-Aug	7	8	8	7	7	7	7	6	5	4	2	1	1	1	1	1	1	2	2	2	2	3	3	3	3.8	8.3																						
11-Aug	5	6	6	6	6	6	6	5	4	4	10	3	8	3	3	4	5	5	4	5	5	6	6	5	5.2	9.8																						
12-Aug	5	5	4	3	3	4	6	5	3	C	C	C	C	2	2	2	3	2	4	6	6	13	8	2	4.4	12.7																						
13-Aug	1	2	3	4	4	4	5	6	8	9	3	2	2	2	2	2	4	3	2	2	4	4	4	4	3.6	8.5																						
14-Aug	3	4	4	4	3	3	3	4	2	2	2	2	2	2	2	2	3	3	3	3	3	3	2	2	2.8	4.3																						
15-Aug	1	1	1	1	1	1	1	3	3	2	1	1	2	1	2	2	2	2	2	2	3	6	5	4	2.2	5.5																						
16-Aug	4	6	6	8	6	4	4	3	4	3	2	1	1	1	1	1	3	4	5	4	4	4	4	4	3.4	7.5																						
17-Aug	5	7	7	7	7	7	8	7	8	9	5	3	2	2	3	3	4	5	5	5	6	6	5	5	5.4	8.9																						
18-Aug	6	6	6	6	4	2	2	6	6	5	4	3	1	1	1	1	1	1	2	2	2	3	3	3	3.0	6.1																						
19-Aug	2	2	2	3	2	3	4	3	2	2	2	2	2	2	2	1	2	2	2	2	7	4	3	3	2.5	6.8																						
20-Aug	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	1.4	2.8																						
21-Aug	2	2	2	2	2	2	2	2	2	2	2	1	2	1	1	2	2	2	2	2	4	5	4	4	2.2	5.0																						
22-Aug	4	7	4	4	4	4	4	4	3	3	3	2	1	1	1	1	1	3	3	3	2	2	3	3	2.8	7.5																						
23-Aug	3	3	2	3	3	3	4	4	4	4	3	2	1	1	1	2	2	2	2	2	3	5	5	5	2.9	4.9																						
24-Aug	5	7	7	7	7	7	7	6	5	4	2	2	1	1	2	2	2	2	3	3	6	6	6	6	4.5	7.4																						
25-Aug	7	9	10	13	12	11	11	11	11	9	7	6	6	3	2	1	2	3	3	3	4	4	4	4	6.5	13.5																						
26-Aug	5	7	7	7	6	6	7	7	6	5	4	3	3	4	4	4	4	4	4	7	9	12	11	12	6.3	11.9																						
27-Aug	13	12	12	12	12	10	12	10	9	7	5	3	3	4	3	3	3	3	3	4	6	8	7	7	7.2	12.6																						
28-Aug	5	2	1	1	1	2	2	3	3	3	2	3	4	4	3	3	2	3	3	3	3	2	1	1	2.5	4.7																						
29-Aug	1	1	1	1	1	1	1	2	2	3	3	3	3	3	4	4	6	10	8	8	5	6	4	5	3.6	10.1																						
30-Aug	5	5	3	4	3	4	4	2	3	2	2	2	1	1	1	1	1	1	1	1	2	2	2	1	2.2	4.9																						
31-Aug	1	1	1	1	1	1	1	2	1	2	2	2	2	2	2	2	2	2	2	2	2	4	3	2	1.9	4.3																						
																								4.3	4.8	4.7	5.2	4.7	4.5	4.7	5.0	4.5	3.9	3.2	2.4	2.4	2.1	2.1	2.1	2.4	2.7	2.9	3.3	4.1	4.6	4.2	4.0	Diurnal Average
																								12.6	12.3	12.0	21.3	12.9	12.0	11.7	14.2	11.6	9.4	9.8	5.7	7.7	5.0	4.1	4.2	5.8	10.1	8.1	8.2	9.5	12.7	11.1	11.8	Diurnal Maximum

C - Calibration  
 Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 µg/m<sup>3</sup> Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 µg/m<sup>3</sup>

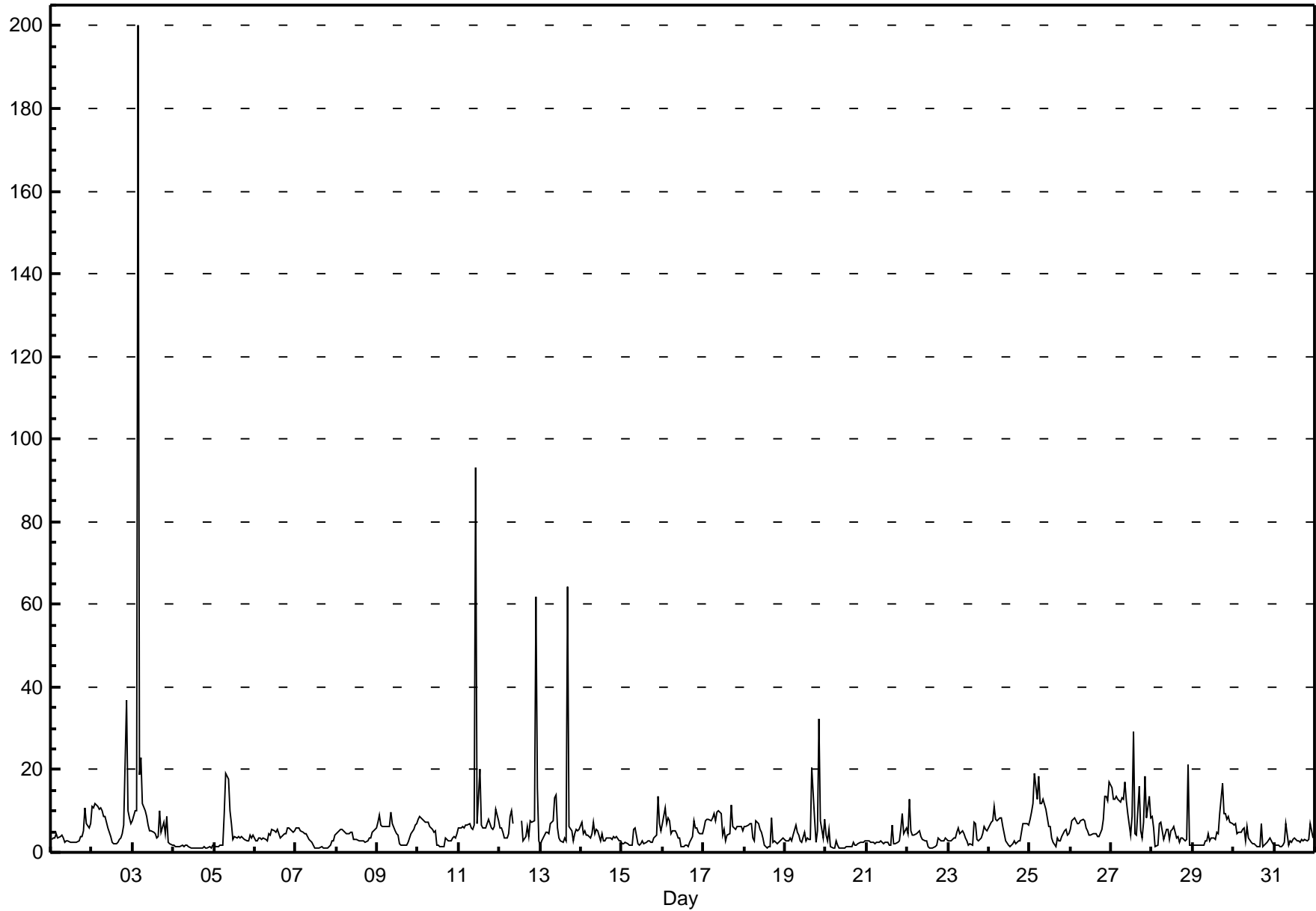




# Hourly Maximums

## Particulate Matter 2.5 (PM<sub>2.5</sub>) - µg/m<sup>3</sup> Beaverlodge - August 2015

Maximum Value: 200.3 µg/m <sup>3</sup> on Aug 3 04:00 Minimum Value: 1 µg/m <sup>3</sup> on Aug 7 18:00 Maximum Diurnal Average: 11.8 µg/m <sup>3</sup> at hour 4 Monthly Average: 5.59 µg/m <sup>3</sup>		Maximum Daily Average: 15.6 µg/m <sup>3</sup> on Aug 3 Minimum Daily Average: 1.4 µg/m <sup>3</sup> on Aug 4 Minimum Diurnal Average: 2.7 µg/m <sup>3</sup> at hour 15 Percentiles: P <sub>1</sub> = 1.2 P <sub>10</sub> = 1.7 Q <sub>1</sub> = 2.6 Median = 4.1 Q <sub>3</sub> = 6.3 P <sub>90</sub> = 9.3 P <sub>99</sub> = 26.7		Hours in Service: 744 Hours of Data: 740 Hours of Missing Data: 4 Hours of Calibration: 4 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-Aug	3	3	4	5	4	4	4	3	2	3	3	2	2	2	2	2	3	4	4	5	11	7	6	7	4.0	10.7	
2-Aug	11	11	12	11	11	11	10	9	9	6	5	4	2	2	2	2	3	3	5	7	37	10	8	7	8.2	36.7	
3-Aug	8	10	10	200	19	23	12	10	9	7	5	5	5	4	3	4	10	5	7	5	9	2	2	2	15.6	200.3	
4-Aug	2	1	1	1	1	2	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1.4	1.9	
5-Aug	2	1	1	2	2	2	9	19	18	10	7	3	4	4	4	4	4	3	3	3	3	4	4	4	5.0	19.0	
6-Aug	3	3	3	3	3	4	3	3	4	4	6	5	5	5	5	4	4	4	5	6	6	5	5	5	4.3	5.9	
7-Aug	6	6	6	5	5	5	4	4	3	2	2	1	1	1	1	1	1	1	1	1	2	3	3	4	2.9	5.9	
8-Aug	4	5	5	5	5	5	5	5	5	5	3	3	3	3	3	3	3	2	3	3	4	5	5	6	4.1	5.8	
9-Aug	7	9	7	6	6	6	6	6	10	7	5	5	4	2	2	2	2	2	2	4	4	6	7	7	5.1	9.8	
10-Aug	8	9	9	8	7	7	7	6	6	5	5	2	2	1	1	1	4	3	3	3	3	4	3	4	4.7	8.8	
11-Aug	6	6	6	6	7	7	7	6	6	7	93	7	20	7	6	6	6	8	7	6	6	6	10	8	10.8	93.1	
12-Aug	6	6	5	4	4	4	9	10	7	C	C	C	C	8	3	4	6	4	8	7	8	62	16	3	9.1	61.9	
13-Aug	2	3	4	5	5	5	7	8	13	14	6	4	3	2	4	3	64	6	5	3	5	6	5	6	7.8	64.3	
14-Aug	7	4	5	4	4	4	5	7	5	6	5	3	4	3	3	3	3	3	3	4	4	4	3	3	4.1	7.3	
15-Aug	2	2	2	2	2	2	2	6	6	2	2	2	3	2	2	3	3	2	2	4	4	14	7	5	3.5	13.7	
16-Aug	7	11	7	9	8	5	5	5	5	4	3	1	1	2	2	1	2	4	8	6	6	5	4	4	4.8	10.7	
17-Aug	6	8	8	8	8	9	9	8	10	10	9	4	6	3	4	5	11	6	6	6	6	6	6	5	7.0	11.5	
18-Aug	6	6	7	7	7	3	3	8	7	6	5	4	2	1	1	8	2	3	2	2	3	3	3	3	4.2	8.3	
19-Aug	3	3	3	4	3	4	7	5	4	3	2	5	3	3	3	3	20	8	2	5	32	8	4	8	6.0	32.3	
20-Aug	4	3	5	1	1	1	3	2	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	3	2.1	5.5	
21-Aug	3	3	2	2	2	2	2	2	3	2	2	2	2	2	2	7	2	2	2	3	6	10	5	6	3.2	9.5	
22-Aug	4	13	5	4	4	5	5	5	4	3	3	3	1	1	1	1	1	2	4	3	3	3	3	3	3.5	12.9	
23-Aug	3	3	3	3	4	5	6	5	5	4	4	3	2	2	2	7	7	3	3	3	5	6	6	5	4.1	7.3	
24-Aug	6	7	8	11	8	8	8	8	6	4	3	2	1	2	2	3	2	3	3	5	7	7	7	7	5.3	11.1	
25-Aug	8	10	12	19	13	18	12	12	13	10	8	6	6	4	2	1	3	3	3	4	5	6	4	5	7.8	19.1	
26-Aug	6	8	8	8	7	7	8	8	8	6	5	4	4	4	4	4	4	4	6	8	14	14	12	17	7.4	16.9	
27-Aug	16	13	13	13	13	12	13	13	17	12	9	4	9	29	4	4	16	5	4	7	19	9	14	9	11.5	29.3	
28-Aug	9	6	1	2	7	7	5	3	6	6	3	5	6	6	4	4	2	3	3	3	3	21	2	2	5.0	21.2	
29-Aug	2	2	2	2	2	2	2	3	3	5	3	4	3	3	5	5	9	17	10	9	8	9	7	7	5.0	16.8	
30-Aug	7	7	5	5	5	6	6	3	6	4	2	2	2	2	1	1	7	1	2	2	2	4	3	2	3.6	6.8	
31-Aug	2	2	2	1	1	2	2	7	2	3	2	3	4	3	3	2	3	3	3	3	3	7	5	3	3.0	7.1	
	5.4	5.9	5.5	11.8	5.7	5.9	6.1	6.4	6.5	5.4	7.1	3.4	3.8	3.8	2.7	3.1	7.1	3.9	3.9	4.3	7.4	8.3	5.6	5.2	Diurnal Average		
	15.6	12.9	13.0	200.3	18.8	23.0	13.2	19.0	17.9	13.9	93.1	7.0	20.3	29.3	5.8	7.3	64.3	16.8	9.5	9.3	36.7	61.9	15.7	16.9	Diurnal Maximum		
C - Calibration																											







Peace Airshed Zone Association

# Hourly Averages

External Temperature (ET) - °C

Beaverlodge - August 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 25.4 °C on Aug 10 16:00	Maximum Daily Average: 20.3 °C on Aug 12
Minimum Value: 2 °C on Aug 22 06:00	Hours of Data: 744
Minimum Daily Average: 10.0 °C on Aug 21	Hours of Missing Data: 0
Maximum Diurnal Average: 20.1 °C at hour 17	Hours of Calibration: 0
Monthly Average: 15.18 °C	Percent Operational Time: 100.0
Minimum Diurnal Average: 10.1 °C at hour 6	
Percentiles: P <sub>1</sub> = 3.7 P <sub>10</sub> = 8.9 Q <sub>1</sub> = 11.7 Median = 15.2 Q <sub>3</sub> = 18.8 P <sub>90</sub> = 21.9 P <sub>99</sub> = 24.4	

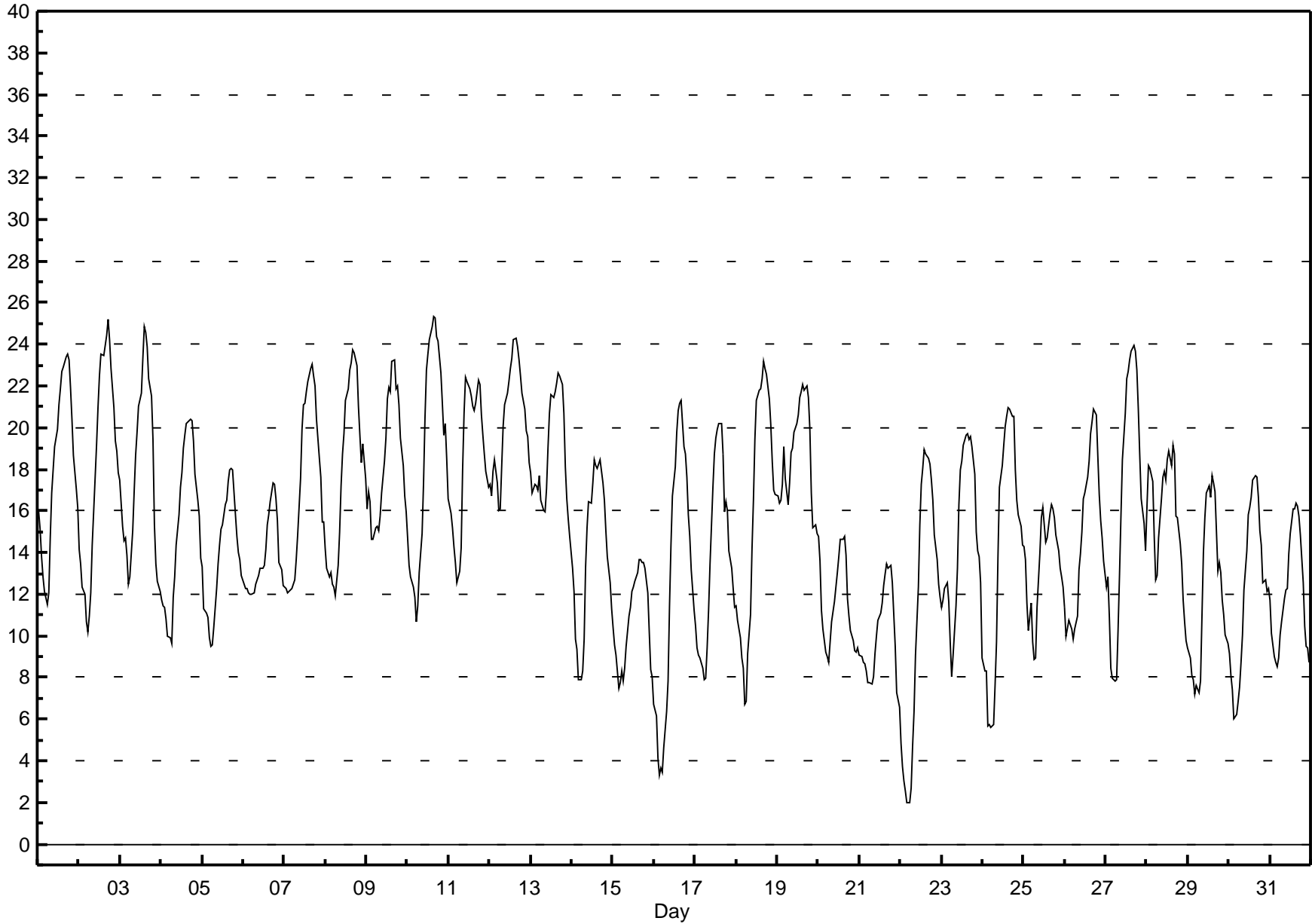
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Aug	16	15	14	13	12	12	12	15	17	18	19	20	21	22	23	23	23	23	23	22	20	19	17	16	18.1	23.5	
2-Aug	14	13	12	12	11	10	11	12	14	18	19	21	23	24	23	24	24	25	24	23	21	19	19	18	18.1	25.2	
3-Aug	18	15	15	15	14	13	13	15	17	19	20	21	22	23	25	25	24	22	21	19	15	13	13	12	17.8	24.8	
4-Aug	12	11	11	11	10	10	10	12	13	14	16	17	18	19	20	20	20	20	20	19	18	16	16	14	15.3	20.4	
5-Aug	13	11	11	11	10	9	10	10	12	13	14	15	15	16	16	17	18	18	18	16	15	14	14	13	13.8	18.0	
6-Aug	13	12	12	12	12	12	12	12	13	13	13	13	13	14	15	16	16	17	17	17	16	14	13	12	13.8	17.3	
7-Aug	12	12	12	12	12	13	13	14	15	18	20	21	21	22	22	23	23	23	22	20	19	18	15	15	17.3	23.1	
8-Aug	14	13	13	13	12	12	12	13	15	17	19	20	21	22	23	23	24	24	23	21	20	18	19	18	17.9	23.7	
9-Aug	16	17	16	15	15	15	15	15	16	17	18	20	21	22	22	23	23	23	22	22	21	19	18	17	16	18.4	23.2
10-Aug	15	13	13	12	12	11	11	13	15	17	20	23	24	24	25	25	25	24	24	23	21	20	20	19	18.7	25.4	
11-Aug	17	16	15	14	14	13	13	14	18	21	22	22	22	22	21	21	21	22	22	21	20	19	18	17	18.5	22.4	
12-Aug	17	17	18	18	17	16	16	18	20	21	22	22	23	23	24	24	24	23	22	22	21	20	20	18	20.3	24.3	
13-Aug	18	17	17	17	17	18	17	16	16	17	19	21	22	21	22	22	23	23	22	21	18	17	16	15	18.7	22.6	
14-Aug	13	12	10	9	8	8	8	10	13	15	16	16	17	18	18	18	18	18	17	16	15	14	13	11	14.0	18.5	
15-Aug	10	10	9	7	8	8	8	8	9	11	11	12	12	13	14	14	14	14	14	13	12	10	8	8	10.7	13.7	
16-Aug	7	6	4	3	4	3	5	6	8	11	14	17	18	20	21	21	21	19	19	18	16	15	13	11	12.5	21.3	
17-Aug	10	9	9	9	8	8	8	9	11	13	17	19	19	20	20	20	19	16	16	16	14	13	12	11	13.8	20.2	
18-Aug	11	11	10	9	8	7	7	9	11	14	16	19	21	22	22	22	23	23	23	21	20	18	17	17	16.0	23.2	
19-Aug	17	16	17	17	19	18	16	17	19	19	20	20	21	21	22	22	22	22	22	21	20	17	15	15	15	18.7	22.1
20-Aug	15	14	11	10	9	9	9	10	11	12	12	13	14	15	15	15	14	12	11	10	10	9	9	9	11.5	14.8	
21-Aug	9	9	9	9	8	8	8	8	8	9	10	11	11	12	12	13	13	13	13	13	11	10	7	7	10.0	13.5	
22-Aug	5	4	3	3	2	2	3	5	6	9	12	15	17	18	19	19	18	18	17	16	15	14	12	12	11.1	19.0	
23-Aug	11	12	12	13	12	10	8	9	11	13	16	18	18	19	20	20	19	20	19	18	15	14	14	13	14.7	19.7	
24-Aug	9	8	8	6	6	6	6	8	10	14	17	18	19	20	21	21	21	21	21	18	16	16	15	14	14.1	20.9	
25-Aug	14	14	12	10	12	10	9	9	11	14	16	16	15	15	15	16	16	16	16	15	14	13	13	12	13.4	16.3	
26-Aug	11	10	11	11	10	10	10	11	13	14	15	17	17	18	18	20	20	21	21	19	17	16	15	14	14.9	20.9	
27-Aug	12	13	11	8	8	8	8	10	13	16	18	21	22	23	23	24	24	24	23	21	19	17	15	14	16.4	23.9	
28-Aug	16	18	18	17	15	13	13	15	17	18	18	17	18	19	18	19	19	16	16	14	13	12	11	10	15.8	19.2	
29-Aug	9	9	8	8	7	8	7	8	11	14	16	17	17	17	18	17	17	13	13	13	12	11	10	10	12.1	17.7	
30-Aug	9	8	7	6	6	7	8	9	10	12	14	16	16	17	17	18	18	17	15	14	13	13	12	12	12.2	17.7	
31-Aug	12	10	9	9	9	9	10	11	12	12	12	14	15	16	16	16	16	16	15	13	10	9	9	9	12.0	16.4	

12.8	12.2	11.5	11.0	10.5	10.1	10.1	11.3	13.1	15.0	16.6	17.8	18.6	19.2	19.6	20.0	20.1	19.5	19.1	17.8	16.2	14.9	14.1	13.3	12.0	12.0	Diurnal Average
17.8	18.2	18.1	18.4	19.1	17.7	16.5	18.1	20.0	21.1	22.4	22.7	23.5	24.2	24.9	25.4	25.3	25.2	24.2	22.8	21.1	19.8	20.2	18.6	12.0	12.0	Diurnal Maximum

**Hourly Averages**

**External Temperature (ET) - °C**

**Beaverlodge - August 2015**



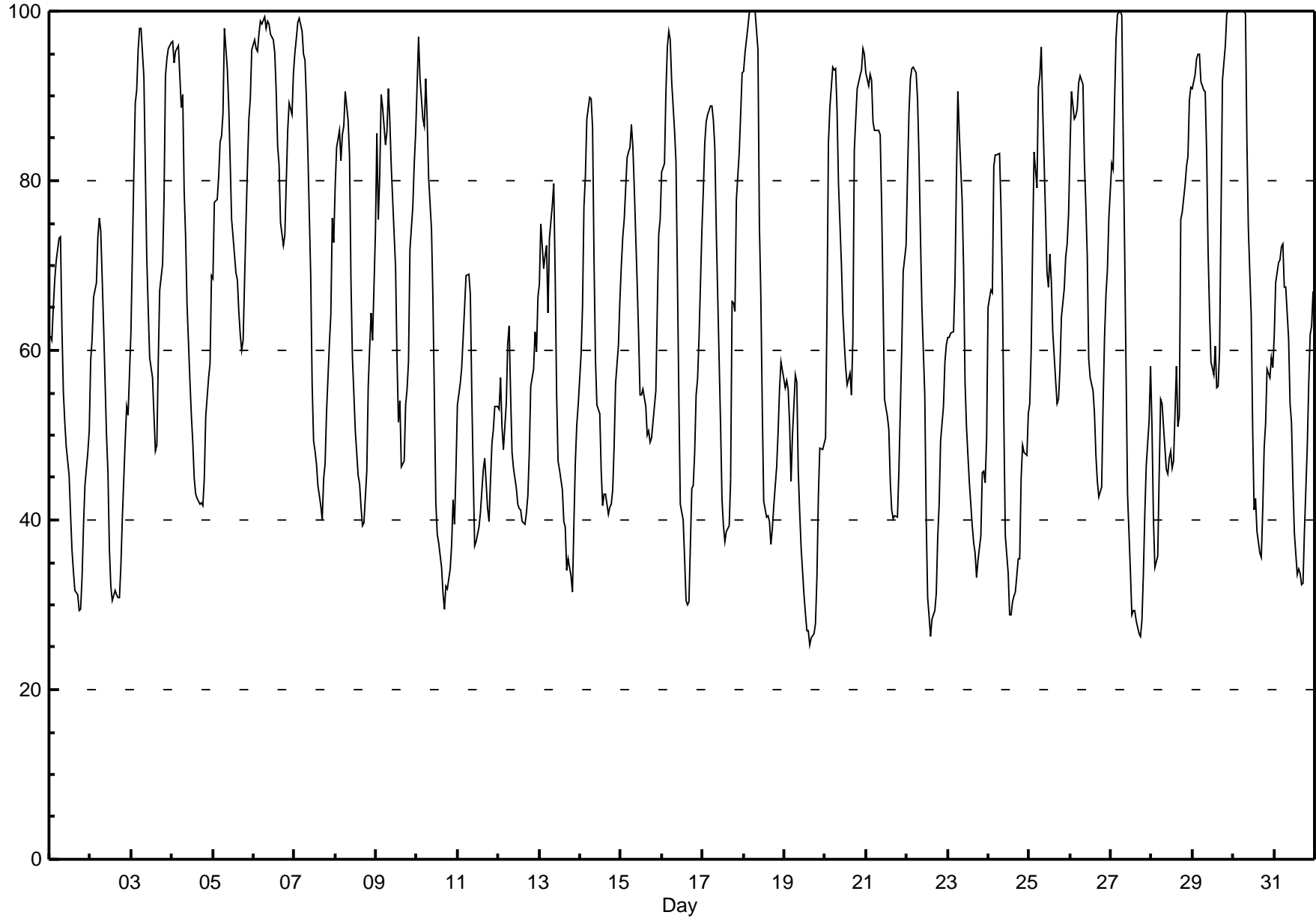
# Hourly Averages

Relative Humidity (RH) - %  
Beaverlodge - August 2015

Number of Exceedences (AAQO): 1-hr: 0 24-hr: 0 Maximum Value: 100.0 % on Aug 18 05:00 Maximum Daily Average: 90.8 % on Aug 6		Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0																								
Minimum Value: 25 % on Aug 19 16:00 Maximum Diurnal Average: 85.0 % at hour 7 Monthly Average: 63.61 %		Minimum Daily Average: 41.3 % on Aug 19 Minimum Diurnal Average: 42.3 % at hour 17 Percentiles: P <sub>1</sub> = 27.0 P <sub>10</sub> = 37.0 Q <sub>1</sub> = 45.9 Median = 61.3 Q <sub>3</sub> = 83.1 P <sub>90</sub> = 93.2 P <sub>99</sub> = 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-Aug	62	61	65	68	71	73	73	63	55	52	49	45	41	36	34	32	31	29	29	33	39	44	48	50	49.3	73.4
2-Aug	59	61	66	68	73	76	74	69	63	50	46	37	32	31	32	31	31	31	35	40	49	53	52	57	50.6	75.6
3-Aug	62	81	89	91	95	98	98	92	81	71	65	59	57	52	48	49	59	67	70	78	92	94	96	96	76.7	98.0
4-Aug	96	94	95	96	96	89	90	79	73	65	56	52	49	45	43	43	42	42	42	45	52	57	58	69	65.4	96.5
5-Aug	69	78	78	80	85	85	88	98	93	89	82	75	73	69	68	64	62	60	61	75	82	87	90	95	78.6	97.9
6-Aug	97	96	95	97	99	99	99	98	99	99	97	97	95	90	84	82	75	72	74	80	86	89	88	93	90.8	99.3
7-Aug	95	97	99	99	98	95	94	90	84	69	56	49	48	47	44	42	40	45	47	53	61	64	76	73	69.3	99.1
8-Aug	79	84	86	82	85	86	91	87	83	68	59	55	51	45	44	42	39	40	46	56	60	64	61	74	65.3	90.5
9-Aug	86	75	81	90	89	84	86	91	87	82	74	70	59	51	54	46	47	54	55	59	72	77	82	86	72.4	90.9
10-Aug	91	97	92	87	86	92	87	80	74	66	54	42	38	37	34	31	29	32	32	34	37	42	39	46	57.7	97.0
11-Aug	54	56	58	62	65	69	69	67	55	45	37	38	39	41	43	46	47	41	40	44	49	51	53	53	50.9	68.9
12-Aug	53	57	51	48	54	61	63	55	48	46	44	42	41	41	40	40	41	43	48	56	58	62	60	66	50.7	66.3
13-Aug	68	75	70	71	72	64	73	77	80	69	55	47	46	44	40	39	34	35	33	32	40	47	51	54	54.8	79.7
14-Aug	60	65	77	81	87	90	90	86	71	59	54	53	46	42	43	43	41	41	42	44	49	56	61	66	60.2	89.9
15-Aug	70	73	75	83	83	84	87	84	79	68	62	55	55	55	53	50	50	49	50	52	55	65	74	75	66.1	86.7
16-Aug	81	82	90	96	98	97	92	86	82	69	54	42	40	35	30	30	30	44	44	48	55	57	61	74	63.2	97.6
17-Aug	79	84	87	88	89	89	87	84	74	67	51	42	39	38	39	39	45	66	66	65	78	83	88	93	69.1	92.7
18-Aug	93	95	98	100	100	100	100	100	95	75	66	53	42	40	40	40	37	39	42	46	50	55	59	58	67.7	100.0
19-Aug	56	56	55	51	45	50	57	56	46	41	37	31	29	27	27	25	26	27	28	33	43	48	48	49	41.3	57.2
20-Aug	50	64	84	89	93	93	93	88	80	70	64	61	58	56	57	55	61	84	87	91	92	93	96	95	77.3	95.6
21-Aug	93	91	93	92	87	86	86	86	85	77	66	54	52	51	45	41	40	40	40	46	53	60	69	72	66.9	92.7
22-Aug	81	88	92	93	93	93	89	83	73	65	55	40	31	29	26	28	29	31	38	42	49	53	59	61	59.2	93.4
23-Aug	61	62	62	62	68	80	90	86	78	70	56	51	48	44	39	37	36	33	35	38	46	46	44	50	55.1	90.4
24-Aug	65	67	67	82	83	83	83	77	67	52	38	34	29	29	30	31	32	35	35	45	49	48	48	52	52.5	83.2
25-Aug	54	60	73	83	79	91	92	96	88	76	69	67	71	68	62	56	54	54	58	64	67	71	73	76	71.0	95.7
26-Aug	84	91	87	88	88	91	92	91	82	77	71	59	57	55	52	48	45	43	44	54	61	67	70	76	69.7	92.3
27-Aug	82	81	89	97	100	100	99	85	72	57	43	34	29	29	29	28	27	26	28	34	41	46	52	58	56.9	100.0
28-Aug	51	40	34	36	45	54	54	51	46	45	47	48	46	47	58	51	52	75	76	80	82	83	89	91	57.6	91.0
29-Aug	91	93	94	95	95	92	91	90	83	72	65	59	57	61	56	56	60	92	94	96	100	100	100	100	82.9	100.0
30-Aug	100	100	100	100	100	100	100	100	85	74	64	51	41	42	39	36	36	41	49	51	58	57	59	58	68.4	100.0
31-Aug	62	68	70	71	72	73	68	67	61	54	51	44	39	34	34	34	32	33	39	49	56	62	63	67	54.2	72.5
		73.6	76.5	79.2	81.5	83.1	84.4	85.0	82.0	75.0	65.7	57.7	51.2	47.7	45.5	44.2	42.4	42.3	46.6	48.6	53.5	60.0	64.0	66.7	70.4	Diurnal Average
		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.8	98.5	97.4	96.5	95.1	90.4	84.0	81.8	75.0	91.8	93.8	95.9	99.6	100.0	100.0	100.0	Diurnal Maximum

**Hourly Averages**

**Relative Humidity (RH) - %  
Beaverlodge - August 2015**





Peace Airshed Zone Association

# Hourly Averages

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

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 Spd	17	19	12	6	4	3	1	8	18	17	14	17	16	13	17	16	13	15	14	10	5	4	5	6	10.8	19.5
Dir	272	268	270	286	265	304	170	266	276	291	282	275	275	266	261	268	289	291	291	288	298	325	313	316	279	268
2 Spd	3	2	1	1	1	3	2	4	1	3	8	6	2	2	11	5	7	6	9	12	10	11	13	11	3.3	12.8
Dir	27	84	41	154	114	67	115	209	203	309	344	20	76	172	185	181	197	144	134	125	104	103	114	101	121	114
3 Spd	7	5	11	10	2	7	4	2	2	11	12	13	14	14	19	19	12	11	21	4	8	16	9	6	4.7	20.7
Dir	158	6	30	287	113	115	274	69	86	121	116	119	102	78	78	88	97	90	86	80	283	279	258	285	90	86
4 Spd	9	4	2	3	2	4	3	2	8	11	13	15	13	12	9	11	11	11	11	9	7	8	9	3	5.8	14.9
Dir	242	256	202	214	51	255	295	311	320	323	305	292	293	303	324	357	343	358	13	8	19	20	16	26	327	292
5 Spd	4	2	4	10	7	12	16	12	12	11	12	13	14	14	15	14	12	13	12	15	9	8	6	7	10.1	16.1
Dir	20	39	2	337	342	319	324	333	317	320	319	306	307	302	312	313	327	310	314	3	356	310	316	335	324	324
6 Spd	7	6	7	12	8	11	9	10	10	10	12	13	16	17	18	13	12	8	6	6	6	9	6	3	8.9	17.8
Dir	304	275	280	276	293	286	302	316	320	322	323	317	314	310	308	334	331	332	310	263	232	258	236	183	303	310
7 Spd	2	3	3	2	3	3	3	3	8	11	17	20	19	16	18	20	19	16	22	13	8	4	0	3	8.4	22.4
Dir	151	94	184	120	109	167	150	180	225	250	257	274	271	278	262	259	249	261	248	241	270	244	58	309	255	248
8 Spd	1	1	4	1	1	4	3	1	2	4	7	5	1	5	6	5	3	6	10	8	7	10	6	2	1.7	9.6
Dir	288	145	53	19	63	250	32	151	8	303	336	309	183	199	180	168	64	63	86	59	34	45	50	135	53	86
9 Spd	3	6	5	12	9	10	7	6	6	9	8	9	14	17	11	6	5	9	8	9	7	4	4	2	3.9	17.2
Dir	355	44	9	313	350	1	5	279	275	302	305	313	297	303	344	344	109	154	194	226	220	177	106	156	310	303
10 Spd	3	1	4	3	3	3	3	5	6	7	7	15	20	20	25	29	27	27	28	25	18	16	23	15	12.3	29.2
Dir	119	127	172	154	193	84	121	189	202	211	231	263	260	246	262	265	260	267	266	269	269	262	269	269	257	265
11 Spd	9	6	0	1	3	3	4	6	14	25	34	36	34	30	26	14	13	27	31	20	13	10	10	9	14.5	35.6
Dir	248	256	315	93	75	112	162	179	231	246	254	263	271	271	270	252	241	259	265	267	285	269	250	241	258	263
12 Spd	9	6	10	18	8	5	7	11	19	25	37	37	38	26	24	27	22	21	9	4	3	2	8	2	14.8	37.7
Dir	244	238	279	273	250	226	238	265	254	267	266	266	275	284	280	268	276	285	310	27	14	334	260	284	271	275
13 Spd	4	4	4	4	3	7	3	5	5	8	14	21	19	29	34	33	36	30	35	31	11	9	6	5	13.7	35.6
Dir	216	176	230	244	242	234	204	193	195	250	249	250	266	265	260	266	255	260	272	271	281	333	334	337	262	255
14 Spd	5	11	8	13	3	7	3	8	5	3	4	4	7	14	13	12	13	14	10	10	12	21	18	8	8.2	20.8
Dir	337	334	331	329	327	335	321	338	26	60	84	62	44	66	30	26	31	36	26	16	17	39	36	32	20	36
15 Spd	14	4	9	11	7	10	9	7	6	12	10	9	9	9	6	7	8	9	6	4	3	3	6	1	6.9	14.4
Dir	22	32	352	352	21	5	5	344	4	23	0	1	350	7	360	330	342	303	337	328	336	314	30	62	358	22
16 Spd	3	2	2	1	2	3	4	3	5	8	9	10	7	4	3	6	6	21	14	9	9	7	5	6	3.8	20.6
Dir	46	53	97	154	129	97	94	143	149	177	160	173	170	201	287	327	278	233	229	223	247	265	239	210	209	233
17 Spd	2	2	3	2	2	3	3	3	4	3	13	20	20	19	20	17	19	7	7	14	6	4	7	1	6.0	20.2
Dir	189	120	82	106	137	104	78	91	168	175	261	261	270	287	281	279	292	323	254	302	1	317	280	272	279	281
18 Spd	1	2	1	3	0	5	5	2	6	9	9	15	16	19	27	26	35	32	24	21	18	13	9	7	10.4	34.8
Dir	30	79	293	64	86	57	44	97	183	200	192	234	258	257	252	244	271	263	259	243	239	239	230	204	248	271
19 Spd	8	6	5	8	22	13	13	13	25	34	38	38	36	37	34	35	31	30	22	15	13	12	9	9	20.6	38.4
Dir	218	213	234	251	266	266	285	283	269	275	272	273	280	277	282	277	284	276	284	272	263	258	261	261	273	273
20 Spd	12	9	13	10	8	8	6	10	12	10	9	8	8	10	11	13	9	14	9	12	13	10	7	8	9.1	14.5
Dir	319	341	349	334	287	310	287	319	328	326	299	296	311	328	358	359	316	273	292	328	332	327	337	22	324	273
21 Spd	7	3	5	8	11	12	9	7	13	15	18	19	19	17	17	18	15	12	16	11	4	2	4	3	10.0	19.2
Dir	52	29	350	355	3	359	351	323	315	316	331	342	335	328	327	323	335	335	303	294	289	310	62	71	334	335
22 Spd	5	3	4	4	3	3	4	3	5	5	5	10	11	10	10	11	12	13	14	9	8	7	6	7	4.9	14.0
Dir	56	57	46	50	65	66	64	113	187	175	181	193	194	199	201	163	152	140	135	127	93	94	107	98	141	135



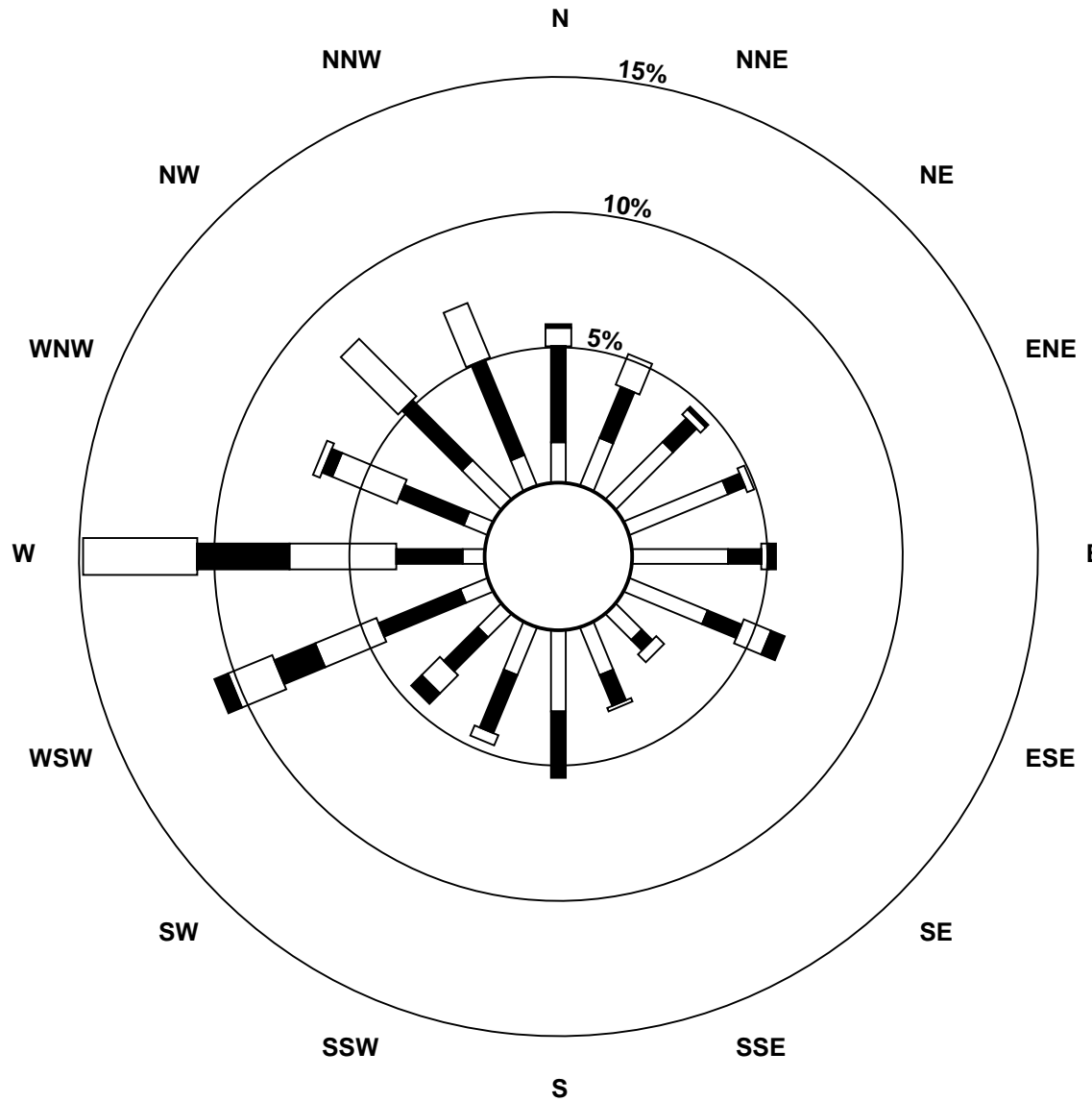
# Hourly Averages

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

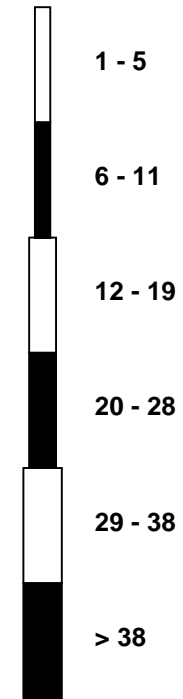
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	6	4	3	3	3	1	3	2	2	5	8	11	22	25	28	34	32	34	27	18	9	10	9	7	10.1	34.0
Dir	91	79	59	2	342	41	192	64	90	195	215	225	264	273	267	273	265	271	274	275	289	316	312	335	273	271
24 Spd	3	4	5	3	3	1	4	4	2	1	2	6	7	6	6	1	7	12	12	8	7	7	5	4	3.5	11.8
Dir	163	54	50	47	81	137	55	38	229	131	152	173	179	167	167	190	150	106	114	107	63	63	78	95	111	106
25 Spd	3	2	5	5	8	6	5	7	7	5	2	6	16	17	22	18	13	10	5	4	6	7	4	1	6.8	21.9
Dir	84	64	7	333	24	328	307	41	317	6	58	330	330	351	11	18	22	9	41	49	28	26	30	345	7	11
26 Spd	3	3	3	1	3	3	4	3	10	10	8	7	4	5	3	4	2	4	3	4	2	5	5	2	3.3	10.1
Dir	26	186	56	40	15	43	50	75	110	105	82	121	113	88	356	96	38	87	116	180	119	65	106	79	90	110
27 Spd	3	4	2	4	3	4	4	4	9	13	18	27	40	42	38	34	37	38	35	24	14	10	9	10	15.8	42.1
Dir	24	44	110	177	88	112	123	171	208	212	233	242	256	255	243	244	244	250	258	254	253	254	249	227	245	255
28 Spd	18	32	37	30	13	10	5	1	7	8	11	6	11	6	1	4	10	9	10	10	8	12	4	10	9.0	37.4
Dir	251	262	266	260	241	245	255	275	180	189	181	168	141	190	201	307	271	258	234	182	243	255	143	192	239	266
29 Spd	3	3	1	3	3	6	4	0	3	11	17	22	24	21	26	26	17	5	5	7	2	4	4	7	8.2	26.2
Dir	203	229	312	77	113	47	72	80	138	106	103	98	110	108	113	107	114	214	136	152	155	80	120	86	110	113
30 Spd	3	1	4	8	4	18	2	8	6	16	17	22	35	28	24	25	21	17	10	11	6	6	5	15	10.7	35.2
Dir	73	350	304	52	210	266	99	197	187	220	205	234	260	250	241	227	235	240	208	181	173	256	275	219	234	260
31 Spd	12	9	12	1	1	3	6	8	13	32	35	41	37	41	35	33	36	33	12	9	7	5	6	6	15.2	41.0
Dir	209	188	214	220	169	265	283	243	245	243	236	237	237	253	271	258	253	249	297	9	33	323	358	8	251	253
Spd	1.6	1.7	2.6	3.6	1.6	2.3	1.7	1.9	4.1	6.0	7.8	10.2	11.8	11.7	10.8	9.9	10.2	10.5	8.0	5.5	3.6	3.5	2.0	1.0	Diurnal Average	
Dir	276	280	307	304	310	313	330	287	260	260	260	262	270	273	275	274	271	269	270	271	290	299	306	282	Diurnal Maximum	
Spd	18.0	32.1	37.4	30.0	22.3	17.9	16.1	12.8	24.9	34.4	38.3	40.9	40.3	42.1	37.8	35.5	37.1	38.0	35.4	31.1	18.0	16.4	22.9	18.2	Diurnal Maximum	
Dir	251	262	266	260	266	266	324	283	269	275	272	237	256	255	243	277	244	250	258	271	269	262	269	32	Diurnal Maximum	
Maximum Speed Value: 42 km/h on Aug 27 14:00																		Minimum Speed Value: 0 km/h on Aug 29 08:00						Hours in Service: 744		
Maximum Daily Speed Average: 20.6 km/h on Aug 19																		Minimum Daily Speed Average: 1.7 km/h on Aug 26						Hours of Data: 744		
Maximum Diurnal Speed Average: 11.8 km/h at hour 13																		Minimum Diurnal Speed Average: 1.0 km/h at hour 24						Hours of Missing Data: 0		
Monthly Average Velocity: 5.38 km/h 274.8 deg																		Speed Percentiles: P <sub>1</sub> = 0.8 P <sub>10</sub> = 2.5 Q <sub>1</sub> = 4.2 Median = 8.2 Q <sub>3</sub> = 13.6 P <sub>90</sub> = 23.8 P <sub>99</sub> = 37.7						Percent Operational Time: 100.0		
All monthly, daily, and diurnal averages have been calculated using vector methods																										
Frequency Distribution																										
		Speed Range (km/h)																								
Direction	0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total																			
North	13	46	11	1	0	0	71																			
NorthEast	50	24	8	1	0	0	83																			
East	46	16	8	5	0	0	75																			
SouthEast	33	12	9	1	0	0	55																			
South	31	38	2	0	0	0	71																			
SouthWest	17	29	18	10	6	1	81																			
West	14	39	51	36	40	5	185																			
NorthWest	27	50	45	1	0	0	123																			
Total	231	254	152	55	46	6	744																			

**Wind Rose**

**Wind Speed (WS) (km/h)**  
**Beaverlodge - August 2015**



**Wind Speed Classes (km/h)**



# Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Beaverlodge - August 2015

Maximum Speed: 43 km/h on Aug 27 14:00	Maximum Daily Speed Average: 21.6 km/h on Aug 19	Hours in Service: 744
Minimum Speed: 1 km/h on Aug 16 00:00	Minimum Daily Speed Average: 5.2 km/h on Aug 26	Hours of Data: 744
Maximum Diurnal Speed Average: 18.9 km/h at hour 15	Minimum Diurnal Speed Average: 5.9 km/h at hour 5	Hours of Missing Data: 0
Monthly Average Speed: 11.46 km/h	Percentiles: P <sub>1</sub> = 2.1 P <sub>10</sub> = 3.5 Q <sub>1</sub> = 5.2 Median = 8.9 Q <sub>3</sub> = 14.2 P <sub>90</sub> = 24.4 P <sub>99</sub> = 38.0	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-Aug	18	20	12	6	4	5	2	9	18	17	14	17	17	14	18	17	15	15	14	10	5	4	5	6	11.8	19.6
2-Aug	4	3	2	2	3	4	2	4	3	4	8	7	7	7	11	6	8	8	9	12	11	11	13	11	6.6	12.9
3-Aug	8	7	11	12	4	8	6	2	3	11	12	14	14	14	19	19	13	12	21	22	13	17	12	6	11.7	21.8
4-Aug	9	5	4	3	3	5	5	4	8	11	14	16	14	14	11	11	11	12	11	9	7	8	9	5	8.7	15.5
5-Aug	4	3	6	11	8	12	16	12	12	12	12	14	15	14	15	14	13	14	12	15	9	8	6	8	11.1	16.2
6-Aug	7	6	7	12	8	11	9	10	10	12	13	16	17	18	16	13	12	9	6	7	6	9	7	4	10.3	17.9
7-Aug	3	3	4	2	3	3	3	3	8	12	18	20	19	17	19	21	20	17	23	13	9	5	2	4	10.4	22.6
8-Aug	4	2	4	3	2	5	4	2	4	5	8	6	5	7	7	7	5	7	10	9	7	10	6	8	5.6	9.8
9-Aug	5	6	8	13	10	11	8	6	7	9	9	9	15	18	12	7	7	10	8	10	8	5	4	3	8.6	17.8
10-Aug	4	4	4	3	3	3	4	6	6	7	7	16	22	22	26	30	27	27	28	25	18	17	23	15	14.4	29.6
11-Aug	9	7	5	2	3	3	4	6	14	26	35	36	35	31	26	14	13	27	31	20	13	11	10	9	16.2	36.2
12-Aug	10	6	10	18	9	5	7	11	20	25	38	38	38	26	25	27	22	22	9	4	3	5	8	5	16.3	38.1
13-Aug	4	5	4	4	4	8	5	5	5	8	14	21	21	30	34	33	36	30	35	31	12	9	6	6	15.4	35.9
14-Aug	6	11	9	13	5	7	4	8	5	4	6	6	8	8	15	13	13	13	14	10	10	13	21	18	10.1	20.9
15-Aug	14	6	10	11	8	11	9	7	7	12	10	10	10	9	7	9	9	10	7	5	4	4	6	1	8.1	14.5
16-Aug	3	2	3	3	3	4	5	4	6	9	10	11	9	8	9	8	9	21	15	9	10	8	6	6	7.5	20.8
17-Aug	3	3	4	2	3	3	3	3	4	4	14	20	20	20	21	18	20	8	8	15	7	5	8	5	9.1	20.9
18-Aug	3	2	2	3	3	5	5	3	6	9	9	16	18	19	27	27	35	33	24	21	18	13	9	8	13.3	35.2
19-Aug	8	7	8	10	22	13	13	13	25	35	38	39	36	37	35	36	31	31	22	15	13	12	9	9	21.6	39.2
20-Aug	14	12	14	10	8	8	6	10	12	11	9	9	9	11	12	14	10	15	11	12	13	10	8	9	10.8	14.8
21-Aug	7	4	5	8	11	12	10	7	13	16	18	19	20	18	18	19	16	13	16	11	4	3	4	3	11.5	19.8
22-Aug	5	3	4	4	4	3	4	3	5	6	6	11	12	11	12	11	12	13	14	10	8	7	6	7	7.5	14.1
23-Aug	6	4	4	4	4	3	4	3	3	5	9	12	23	25	28	34	32	34	27	18	10	11	9	8	13.3	34.4
24-Aug	4	5	5	5	5	4	5	6	2	3	4	8	8	8	8	7	8	12	12	8	7	7	5	5	6.2	12.0
25-Aug	4	3	7	8	9	8	8	7	8	6	6	8	16	18	22	19	14	10	5	4	6	7	5	2	8.7	22.2
26-Aug	4	4	4	3	4	3	4	4	10	10	8	8	6	6	6	7	4	5	4	4	4	5	5	4	5.2	10.5
27-Aug	4	4	3	4	4	5	4	5	9	13	18	27	41	43	38	35	37	38	36	24	14	11	10	10	18.1	42.5
28-Aug	18	32	38	30	13	10	6	3	7	9	11	6	11	8	4	6	10	10	11	11	11	14	7	10	12.4	37.5
29-Aug	5	5	4	4	4	6	4	3	4	11	17	22	24	21	26	26	18	9	6	7	4	5	4	8	10.3	26.4
30-Aug	7	6	6	8	7	23	25	13	15	16	17	22	35	29	24	26	22	17	10	11	6	8	6	15	15.6	35.4
31-Aug	12	10	13	4	2	5	7	9	14	32	35	41	37	42	36	33	36	33	17	9	7	6	7	6	18.9	41.6
	6.9	6.4	7.2	7.3	5.9	7.0	6.5	6.1	8.8	11.9	14.5	16.9	18.8	18.5	18.9	18.3	17.4	17.2	15.4	12.7	8.8	8.5	8.0	7.1	Diurnal Average	
	18.5	32.2	37.5	30.1	22.4	22.6	24.5	13.2	25.0	34.5	38.5	41.1	40.8	42.5	38.0	36.2	37.4	38.2	35.5	31.2	18.1	17.4	23.0	18.3	Diurnal Maximum	

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

# Hourly Standard Deviations

Wind Direction (WD) - deg  
Beaverlodge - August 2015

Maximum Value: 100.6 deg on Aug 24 16:00																						Hours in Service:	744		
Minimum Value: 3.3 deg on Aug 18 21:00																						Hours of Data:	744		
Percentiles: P <sub>1</sub> = 4.3 P <sub>10</sub> = 7.1 Q <sub>1</sub> = 10.6 Median = 18.0 Q <sub>3</sub> = 40.6 P <sub>90</sub> = 64.5 P <sub>99</sub> = 84.4																						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-Aug	13	6	9	23	45	80	67	47	10	10	17	16	22	23	23	18	30	16	15	10	16	19	27	11	79.7
2-Aug	46	48	76	74	60	25	48	17	82	48	16	37	87	94	20	42	33	49	15	9	6	8	5	15	94.4
3-Aug	33	53	10	44	83	16	70	34	65	15	14	17	16	20	14	12	34	44	33	84	78	61	42	68	84.5
4-Aug	8	67	62	53	85	19	60	73	15	17	13	17	22	32	45	21	21	24	16	10	8	8	5	70	84.9
5-Aug	44	68	71	29	53	7	10	12	10	11	11	15	14	15	8	16	16	13	10	11	10	7	14	21	70.8
6-Aug	7	10	11	7	9	8	11	7	14	9	13	9	6	6	8	12	10	19	21	11	5	10	26	44	44.2
7-Aug	51	29	54	21	26	22	13	44	16	13	16	15	12	24	15	13	11	27	7	5	27	63	79	46	79.2
8-Aug	83	58	31	81	84	33	39	54	69	48	32	37	88	58	42	50	66	28	21	16	6	8	15	67	87.5
9-Aug	63	34	59	21	23	16	41	30	12	16	23	11	19	15	25	37	67	21	31	43	25	40	12	53	66.6
10-Aug	40	66	45	35	33	25	29	17	16	17	23	19	18	22	13	10	8	5	6	5	5	10	5	12	65.9
11-Aug	9	46	87	62	29	38	21	22	10	8	9	10	7	7	7	9	4	8	5	8	6	13	11	12	87.4
12-Aug	34	41	9	9	35	11	17	8	8	11	8	11	9	13	14	10	10	10	17	27	47	80	13	71	80.1
13-Aug	37	33	19	25	50	44	71	19	20	10	6	8	25	10	7	10	8	8	5	4	14	17	12	47	70.6
14-Aug	57	5	53	4	82	22	62	14	23	59	50	50	37	42	18	12	18	15	7	6	8	9	4	5	82.5
15-Aug	5	68	23	16	15	12	8	20	33	12	16	21	17	22	47	41	31	16	29	32	64	66	24	53	68.5
16-Aug	53	60	64	60	49	40	40	25	21	15	18	22	34	63	84	41	73	7	9	10	12	15	58	15	84.0
17-Aug	48	32	40	44	30	32	19	25	17	23	28	11	13	18	16	15	18	30	11	20	31	45	28	86	86.4
18-Aug	68	45	83	49	88	25	12	43	16	19	17	18	30	14	9	12	9	13	10	5	3	6	12	22	87.8
19-Aug	13	18	72	65	6	11	9	10	6	5	7	13	10	10	11	12	10	10	10	7	5	7	4	6	71.9
20-Aug	33	78	25	9	18	9	30	13	13	25	25	29	22	26	24	15	26	13	39	7	6	8	36	20	78.3
21-Aug	7	27	7	7	8	6	9	13	8	15	14	13	15	17	16	19	20	20	11	7	12	49	12	12	48.8
22-Aug	6	12	14	11	24	29	43	37	14	22	27	20	27	27	28	18	9	6	7	15	15	13	13	7	43.0
23-Aug	10	11	31	34	37	76	32	55	34	17	19	23	12	12	14	9	9	9	8	8	13	15	12	27	75.6
24-Aug	43	21	14	66	75	85	21	66	45	73	80	45	44	47	41	101	38	11	10	15	8	8	11	38	100.6
25-Aug	63	53	49	55	39	43	69	10	16	36	81	60	12	14	9	12	19	17	9	11	7	3	48	41	81.1
26-Aug	19	45	22	86	60	45	13	29	16	16	23	27	58	47	66	68	77	41	50	30	53	12	29	67	86.1
27-Aug	38	17	37	15	22	25	23	26	15	9	10	8	9	8	6	8	7	7	5	6	8	11	17	12	38.0
28-Aug	14	4	4	5	12	8	70	76	19	27	12	16	21	46	84	54	28	36	18	45	47	83	61	13	83.9
29-Aug	68	57	80	58	65	21	21	93	36	15	9	12	7	8	7	7	7	94	36	19	59	32	36	45	94.0
30-Aug	81	85	69	24	64	49	94	50	64	11	12	15	6	11	10	12	13	7	10	6	10	41	35	7	94.3
31-Aug	10	17	12	91	57	87	22	33	14	7	6	5	9	9	15	12	7	7	45	10	23	48	29	16	91.5
82.9	84.5	87.4	91.5	87.8	87.3	94.3	93.1	81.6	73.2	81.1	59.7	87.5	94.4	84.0	100.6	77.1	94.0	49.8	84.5	78.0	82.6	79.2	86.4		

PAZA

## Valleyview Station

Monthly Summary Tables, Graphs and  
Roses



Peace Airshed Zone Association

# Hourly Averages

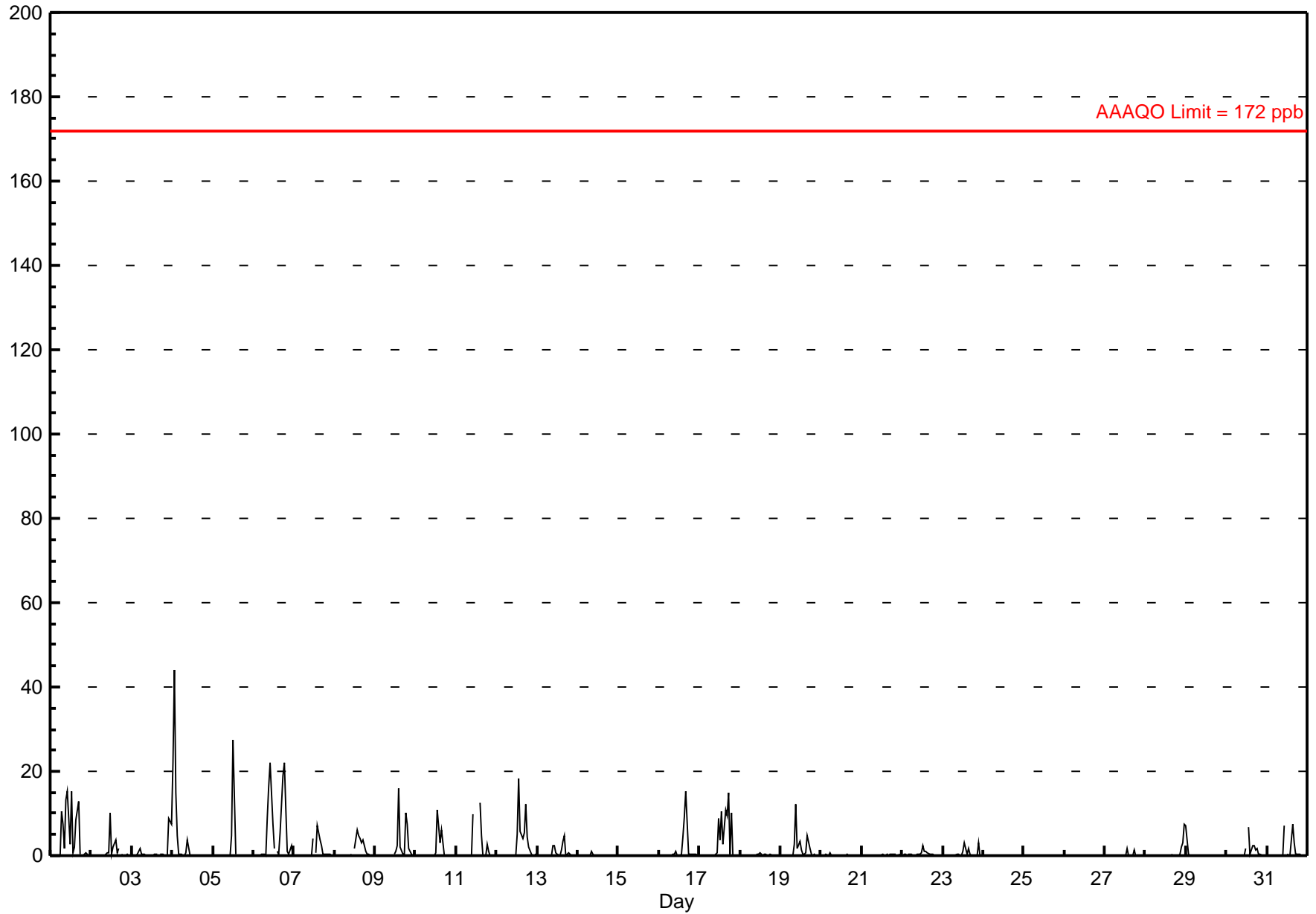
Sulphur Dioxide (SO<sub>2</sub>) - ppb

Valleyview - August 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 44.2 ppb on Aug 4 02:00	Maximum Daily Average: 5.2 ppb on Aug 6
Minimum Value: 0 ppb on Aug 1 02:00	Hours of Data: 709
Maximum Diurnal Average: 2.6 ppb at hour 17	Hours of Missing Data: 35
Monthly Average: 1.18 ppb	Hours of Calibration: 35
Minimum Daily Average: 0.0 ppb on Aug 25	Percent Operational Time: 100.0
Minimum Diurnal Average: 0.1 ppb at hour 5	
Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.0 Median = 0.1 Q <sub>3</sub> = 0.2 P <sub>90</sub> = 3.2 P <sub>99</sub> = 18.0	

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-Aug	0	0	0	0	0	0	10	7	2	13	15	3	15	1	2	8	13	0	A	0	0	1	0	0	4.0	15.3
2-Aug	0	0	0	0	0	0	0	0	0	1	1	10	0	2	4	1	2	A	0	0	0	0	0	0	0.9	10.3
3-Aug	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	9	7	1.0	8.8
4-Aug	22	44	15	5	0	0	0	0	1	4	0	0	0	0	0	A	0	0	0	0	0	0	0	0	4.0	44.2
5-Aug	0	0	0	0	0	0	0	0	0	0	0	5	28	0	A	0	0	0	0	0	0	0	0	0	1.4	27.6
6-Aug	0	0	0	0	0	0	0	0	9	16	22	7	2	A	1	0	5	19	22	11	1	0	2	0	5.2	22.0
7-Aug	0	0	0	0	0	0	0	0	0	0	0	4	A	1	7	4	3	0	0	0	0	0	0	0	0.9	7.1
8-Aug	0	0	0	0	0	0	0	0	0	0	0	0	A	2	6	5	4	3	4	1	0	0	0	0	1.1	6.0
9-Aug	0	0	0	0	0	0	0	0	0	0	0	0	A	1	3	16	2	0	0	10	7	2	0	0	1.9	16.1
10-Aug	0	0	0	0	0	0	0	0	0	0	A	0	0	1	11	3	6	3	0	0	0	0	0	0	1.0	11.0
11-Aug	0	0	0	0	0	0	0	0	A	0	10	C	C	C	13	5	0	0	3	1	0	0	0	0	1.5	12.6
12-Aug	0	0	0	0	0	0	0	A	0	0	0	0	0	5	18	6	4	5	12	5	2	0	0	0	2.5	18.3
13-Aug	0	0	0	0	0	0	A	0	0	2	2	1	0	0	1	4	5	0	1	0	0	0	0	0	0.8	4.7
14-Aug	0	0	0	0	0	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.2
15-Aug	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
16-Aug	0	0	0	A	0	0	0	0	0	0	1	0	0	0	4	9	15	0	0	0	0	0	0	0	1.4	15.3
17-Aug	0	0	A	0	0	0	0	0	0	0	1	9	4	10	3	11	10	15	0	10	0	0	0	0	3.2	15.0
18-Aug	0	A	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
19-Aug	A	0	0	0	0	0	0	0	0	3	12	2	3	1	0	0	1	5	2	0	0	0	0	0	1.4	12.2
20-Aug	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.1	0.5
21-Aug	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
22-Aug	0	0	0	0	0	0	0	0	0	0	0	1	2	1	1	1	0	0	0	0	A	0	0	0	0.4	2.5
23-Aug	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	2	0	0	0	A	0	3	0	0	0.5	3.2
24-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.0	0.1
25-Aug	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
26-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.0	0.1
27-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	A	0	1	0	0	0	0	0	0	0.2	1.6
28-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	2	3	0.6	7.6
29-Aug	7	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	7.1
30-Aug	0	0	0	0	0	0	0	0	0	0	0	2	A	7	0	2	2	1	2	0	0	0	0	0	0.8	6.7
31-Aug	0	0	0	0	0	0	0	0	0	0	7	A	0	0	4	7	3	0	0	0	0	0	0	0	1.0	7.5
	1.0	1.5	0.5	0.2	0.1	0.1	0.4	0.3	0.6	1.7	2.1	1.6	2.3	2.3	2.5	2.5	2.6	2.0	1.6	1.2	0.2	0.3	0.5	0.6	Diurnal Average	
	22.1	44.2	14.9	4.7	1.2	1.7	10.4	7.4	8.8	16.2	22.0	10.3	27.6	18.3	16.1	10.8	15.3	18.9	22.0	11.1	1.7	3.2	8.8	7.6	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



## Hourly Maximums

Sulphur Dioxide (SO<sub>2</sub>) - ppb

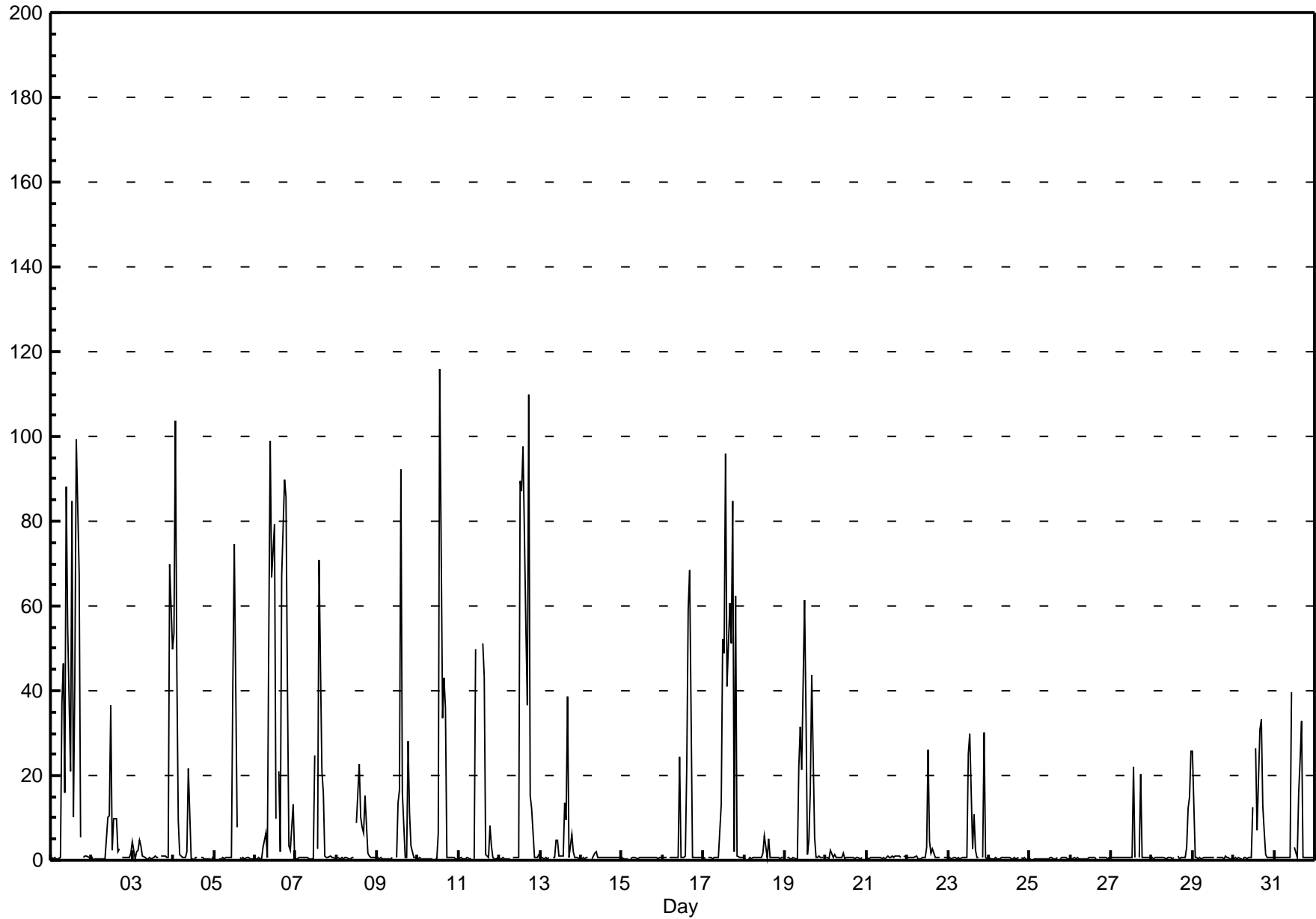
Valleyview - August 2015

Maximum Value: 115.9 ppb on Aug 10 14:00		Maximum Daily Average: 28.1 ppb on Aug 6		Hours in Service: 744																							
Minimum Value: 0 ppb on Aug 4 23:00		Minimum Daily Average: 0.4 ppb on Aug 25		Hours of Data: 709																							
Maximum Diurnal Average: 19.0 ppb at hour 15		Minimum Diurnal Average: 0.7 ppb at hour 5		Hours of Missing Data: 35																							
Monthly Average: 6.97 ppb		Percentiles: P <sub>1</sub> = 0.2 P <sub>10</sub> = 0.4 Q <sub>1</sub> = 0.5 Median = 0.6 Q <sub>3</sub> = 0.9 P <sub>90</sub> = 22.0 P <sub>99</sub> = 95.1		Hours of Calibration: 35																							
				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-Aug	1	0	1	0	0	1	37	47	16	88	55	21	85	10	43	99	68	5	A	1	1	1	1	0	25.3	99.5	
2-Aug	1	0	0	0	0	0	0	0	0	10	11	37	2	10	10	2	3	A	1	1	1	1	2	4.0	36.5		
3-Aug	4	0	2	2	5	3	1	1	0	0	1	0	1	1	1	A	1	1	1	1	1	70	50	6.4	69.7		
4-Aug	54	104	45	10	1	1	1	1	2	22	0	0	0	1	1	A	1	1	0	0	0	0	1	10.6	103.9		
5-Aug	0	0	0	0	0	1	0	1	1	1	1	42	74	8	A	1	0	1	0	1	1	0	0	5.8	74.4		
6-Aug	0	0	1	0	0	3	7	1	52	99	67	79	10	A	21	2	67	90	86	41	3	2	13	1	28.1	98.9	
7-Aug	0	0	1	1	1	1	1	1	0	0	0	25	A	3	71	21	16	1	1	1	1	1	0	6.4	70.9		
8-Aug	1	1	0	1	0	1	1	1	1	1	1	A	9	23	10	8	6	15	2	1	1	1	1	3.6	22.9		
9-Aug	1	0	1	0	0	0	0	0	0	1	A	1	13	17	92	16	1	1	28	11	3	1	1	0	8.3	92.4	
10-Aug	0	1	0	0	0	0	0	0	0	A	0	0	7	116	33	43	36	1	1	1	1	0	0	10.6	115.9		
11-Aug	0	1	0	0	0	1	0	0	A	0	50	C	C	C	51	43	1	1	8	4	1	0	0	1	8.2	51.2	
12-Aug	0	0	1	0	0	0	0	A	1	1	1	1	90	87	98	55	37	110	15	12	1	1	1	1	22.2	109.7	
13-Aug	1	1	0	1	0	1	A	1	1	5	5	1	1	1	13	10	39	1	6	2	1	1	1	0	3.9	38.6	
14-Aug	0	1	0	1	1	A	0	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	0	0.7	2.1		
15-Aug	1	0	1	1	A	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0.6	0.7	
16-Aug	1	1	1	A	1	1	1	1	1	1	24	1	1	1	22	59	69	1	1	1	1	1	1	1	8.2	68.6	
17-Aug	1	0	A	1	1	0	1	1	1	1	13	52	49	96	41	61	51	85	2	62	1	1	1	1	22.6	96.0	
18-Aug	1	A	0	1	0	1	1	1	1	1	1	2	6	1	5	1	1	1	1	1	1	0	1	1	1.1	5.9	
19-Aug	A	1	1	0	0	1	0	0	22	32	21	61	35	1	5	16	44	5	1	1	1	1	1	A	11.3	61.3	
20-Aug	1	1	0	2	1	1	1	1	1	1	2	0	1	1	1	1	1	0	1	1	0	1	A	1	0.8	2.4	
21-Aug	1	1	1	1	1	1	1	1	1	0	1	0	1	1	1	1	1	1	1	1	1	A	1	1	0.7	0.9	
22-Aug	1	1	1	1	1	1	1	0	0	1	1	3	26	4	2	3	1	1	1	1	A	1	1	1	2.2	26.0	
23-Aug	0	1	0	1	1	0	1	0	1	1	1	1	25	30	3	11	2	1	1	A	1	30	1	0	4.8	30.1	
24-Aug	1	0	0	0	1	0	0	1	1	1	1	1	1	0	0	1	0	1	A	1	0	1	0	0	0.5	0.7	
25-Aug	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	A	0	1	1	1	0	0	0.4	0.6	
26-Aug	0	0	1	0	1	0	0	0	0	0	0	1	1	1	1	0	A	1	1	1	1	1	0	1	0.5	0.8	
27-Aug	1	1	1	1	1	1	1	1	1	1	1	1	1	22	1	A	1	20	1	1	1	1	1	0	2.4	21.9	
28-Aug	1	0	1	1	1	1	1	1	0	1	1	1	1	1	1	A	1	1	1	1	3	12	15	26	2.9	25.8	
29-Aug	26	1	1	0	1	0	1	1	1	1	1	1	1	A	1	1	1	1	0	1	1	1	0	0	1.6	25.8	
30-Aug	0	1	0	1	0	0	1	1	1	1	1	13	A	27	7	31	33	13	7	1	1	1	1	1	6.0	33.4	
31-Aug	1	1	1	1	1	1	1	1	1	1	40	A	3	1	16	24	33	1	1	1	1	1	1	1	5.5	39.7	
		3.3	3.9	2.0	0.9	0.7	0.7	1.9	2.1	3.6	9.0	10.0	12.3	15.8	16.6	19.0	17.7	17.7	12.3	5.8	5.0	0.9	2.0	3.8	3.1	Diurnal Average	
		53.6	103.9	45.2	9.6	4.6	3.2	37.1	46.5	52.1	98.9	66.7	79.5	89.7	115.9	97.6	99.5	68.6	109.7	85.8	62.2	3.5	30.1	69.7	49.9	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									



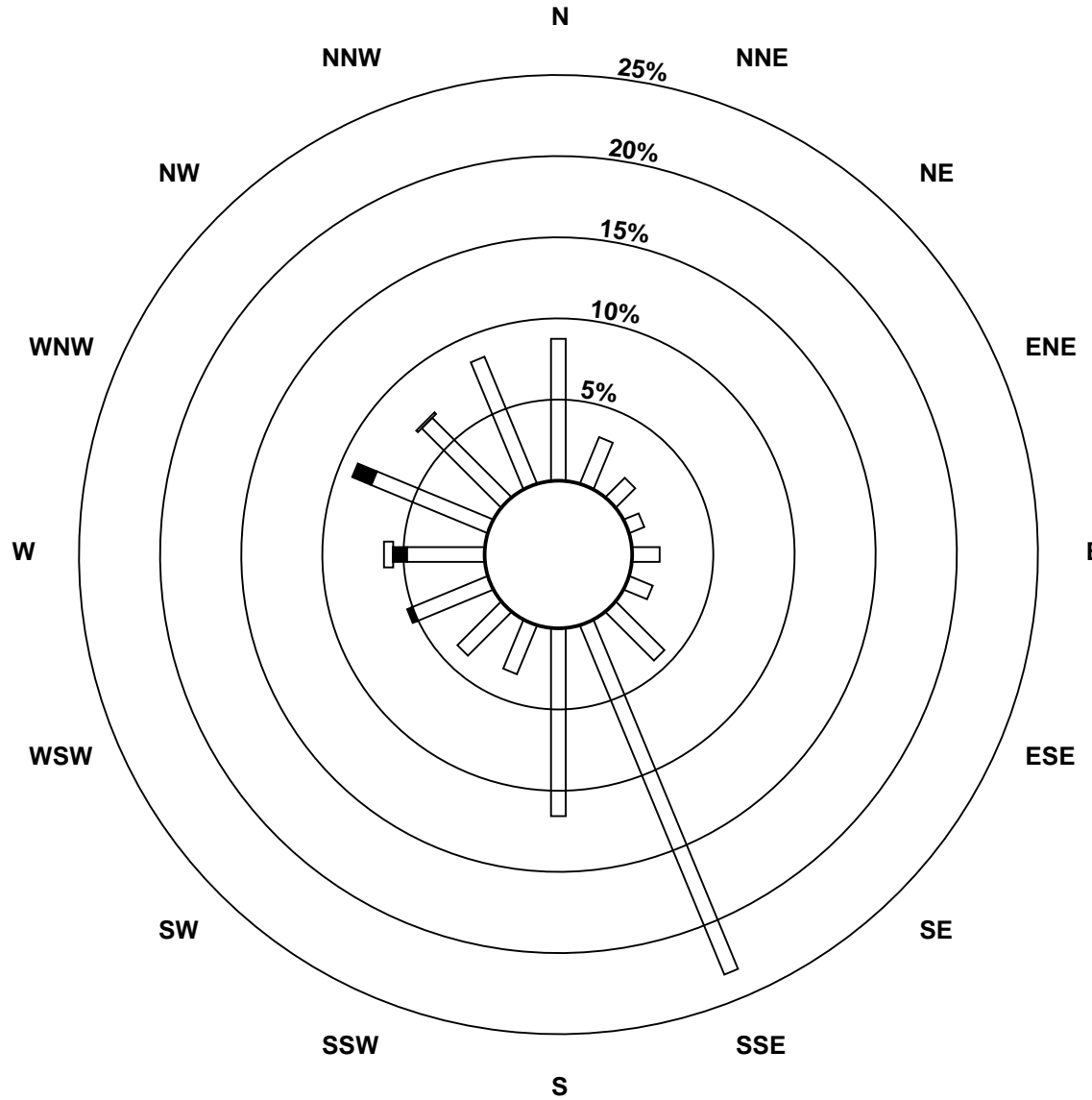
**Hourly Maximums**

**Sulphur Dioxide (SO<sub>2</sub>) - ppb**  
**Valleyview - August 2015**

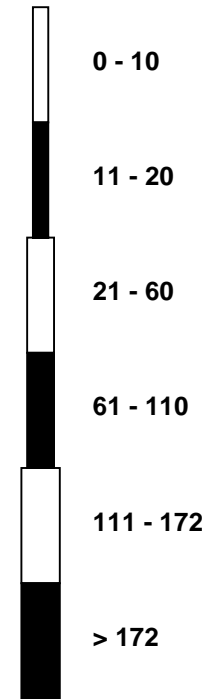


**Pollutant Rose**

**Sulphur Dioxide (SO<sub>2</sub>) - ppb**  
**Valleyview - August 2015**

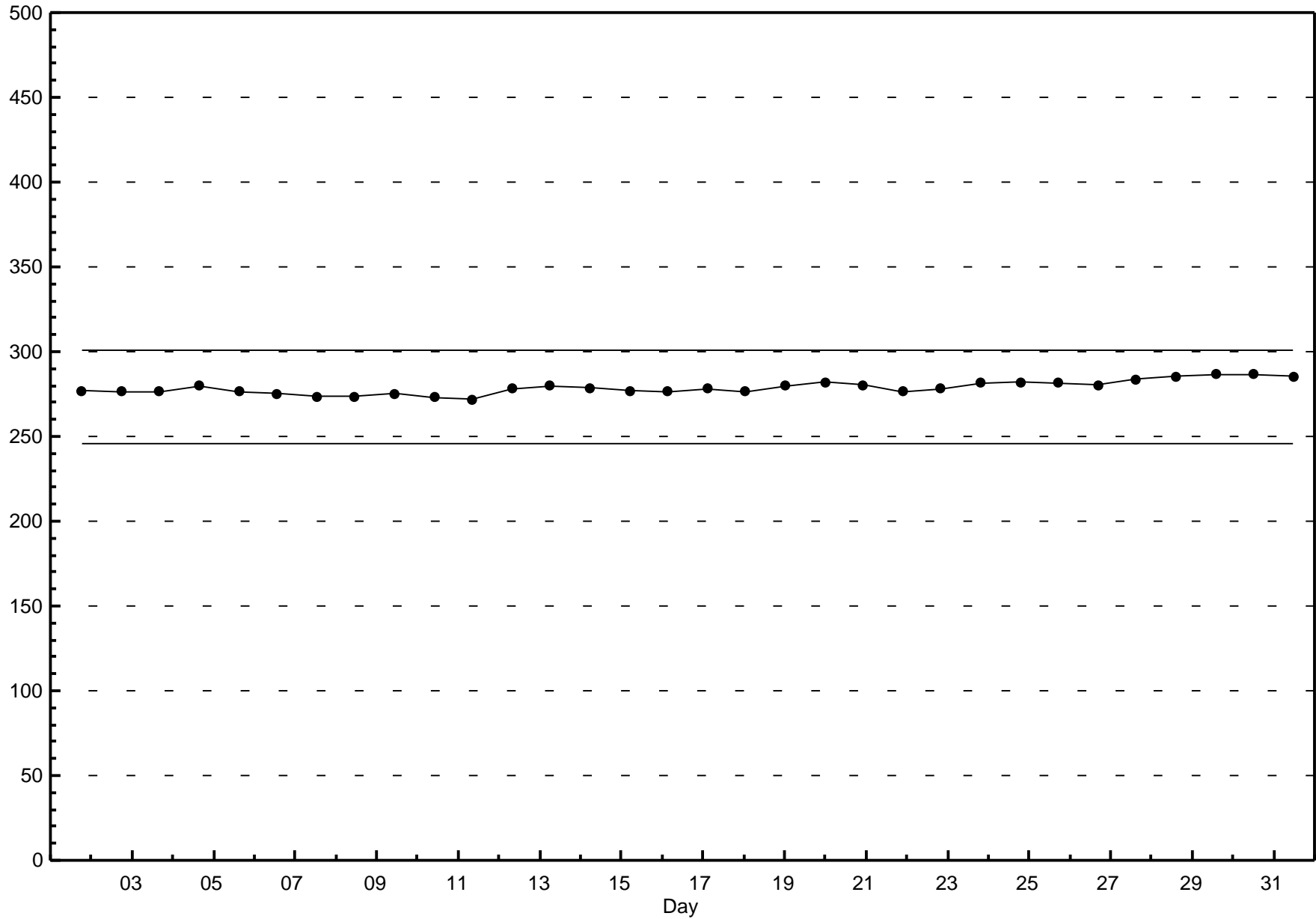


**Pollutant Classes (ppb)**



### Span Responses

Sulphur Dioxide (SO<sub>2</sub>)  
Valleyview - August 2015



## Hourly Averages

## Hydrogen Sulphide (H<sub>2</sub>S) - ppb

### Valleyview - August 2015

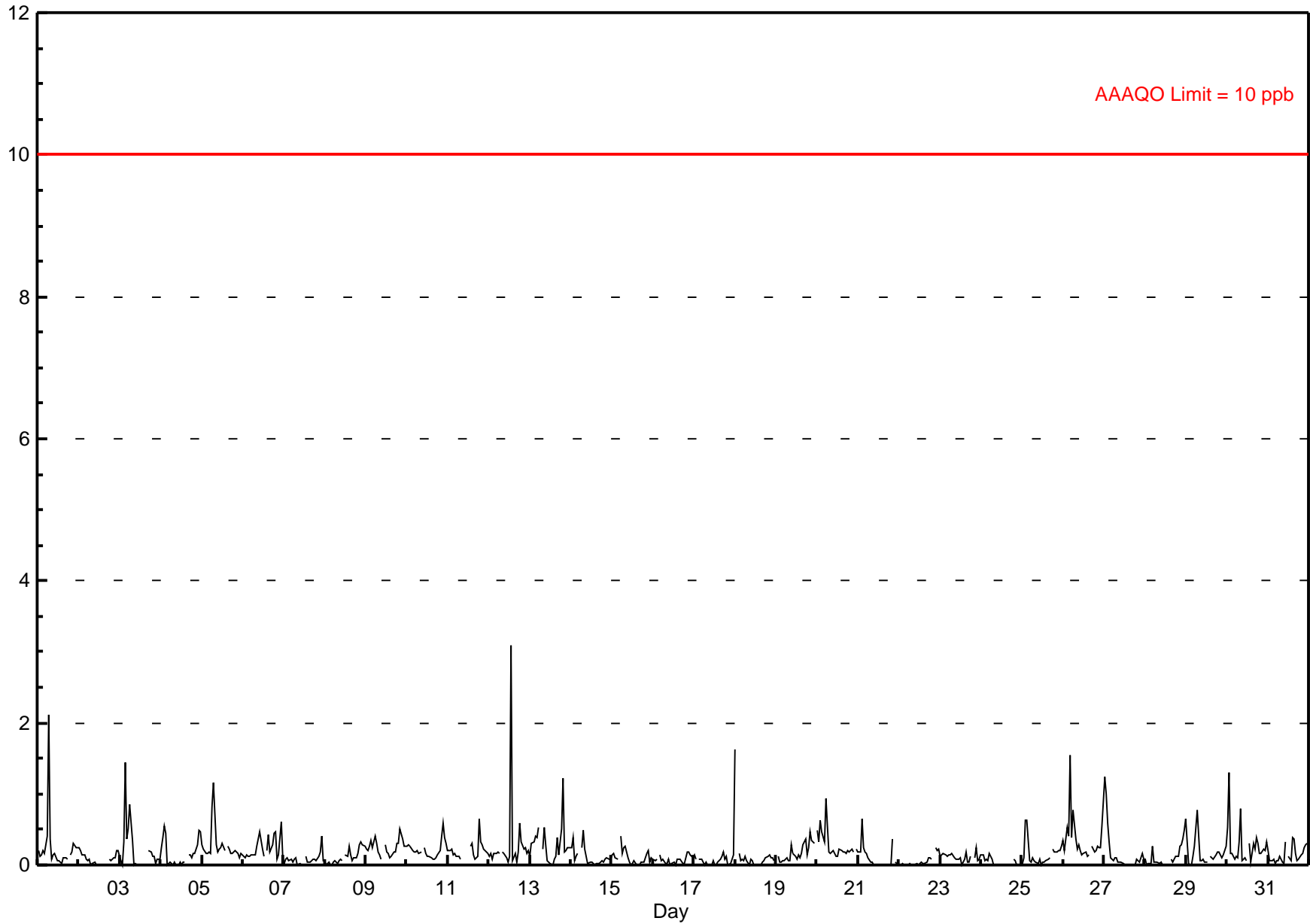
Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 3.1 ppb on Aug 12 14:00	Maximum Daily Average: 0.3 ppb on Aug 26		Hours of Data:	708
Minimum Value: 0 ppb on Aug 2 11:00	Minimum Daily Average: 0.0 ppb on Aug 24		Hours of Missing Data:	36
Maximum Diurnal Average: 0.3 ppb at hour 1	Minimum Diurnal Average: 0.1 ppb at hour 12		Hours of Calibration:	36
Monthly Average: 0.17 ppb	Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.0 Median = 0.1 Q <sub>3</sub> = 0.2 P <sub>90</sub> = 0.4 P <sub>99</sub> = 1.2		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-Aug	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.2	2.1
2-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.1	0.2
3-Aug	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.2	1.4
4-Aug	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.2	0.6
5-Aug	0	0	0	0	0	0	1	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.3	1.2
6-Aug	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	0	0.2	0.6
7-Aug	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
8-Aug	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
9-Aug	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	1	0	0	0	0.2	0.5
10-Aug	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.2	0.6
11-Aug	0	0	0	0	0	0	0	0	A	C	C	C	C	0	0	0	0	0	1	0	0	0	0	0	0.2	0.7
12-Aug	0	0	0	0	0	0	0	A	0	0	0	0	0	3	0	0	0	0	1	0	0	0	0	0	0.3	3.1
13-Aug	0	0	0	0	0	1	A	0	1	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0.3	1.2
14-Aug	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	0.5
15-Aug	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
16-Aug	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
17-Aug	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
18-Aug	2	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	1.6
19-Aug	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
20-Aug	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.3	0.9
21-Aug	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.7
22-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	0.2
23-Aug	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
24-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.0	0.2
25-Aug	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.1	0.6
26-Aug	0	0	1	0	2	0	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	1	0.3	1.5
27-Aug	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.2	1.2
28-Aug	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	0.5
29-Aug	1	0	0	0	0	0	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.2	0.8
30-Aug	1	1	0	0	0	0	0	0	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.3	1.3
31-Aug	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	Diurnal Average	
	1.6	1.3	0.7	1.4	1.5	0.9	2.1	1.2	0.8	0.4	0.5	0.3	0.3	3.1	0.4	0.4	0.4	0.4	0.7	1.2	0.5	0.6	0.6	Diurnal Maximum		

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

### Hourly Averages

Hydrogen Sulphide (H<sub>2</sub>S) - ppb  
Valleyview - August 2015



## Hourly Maximums

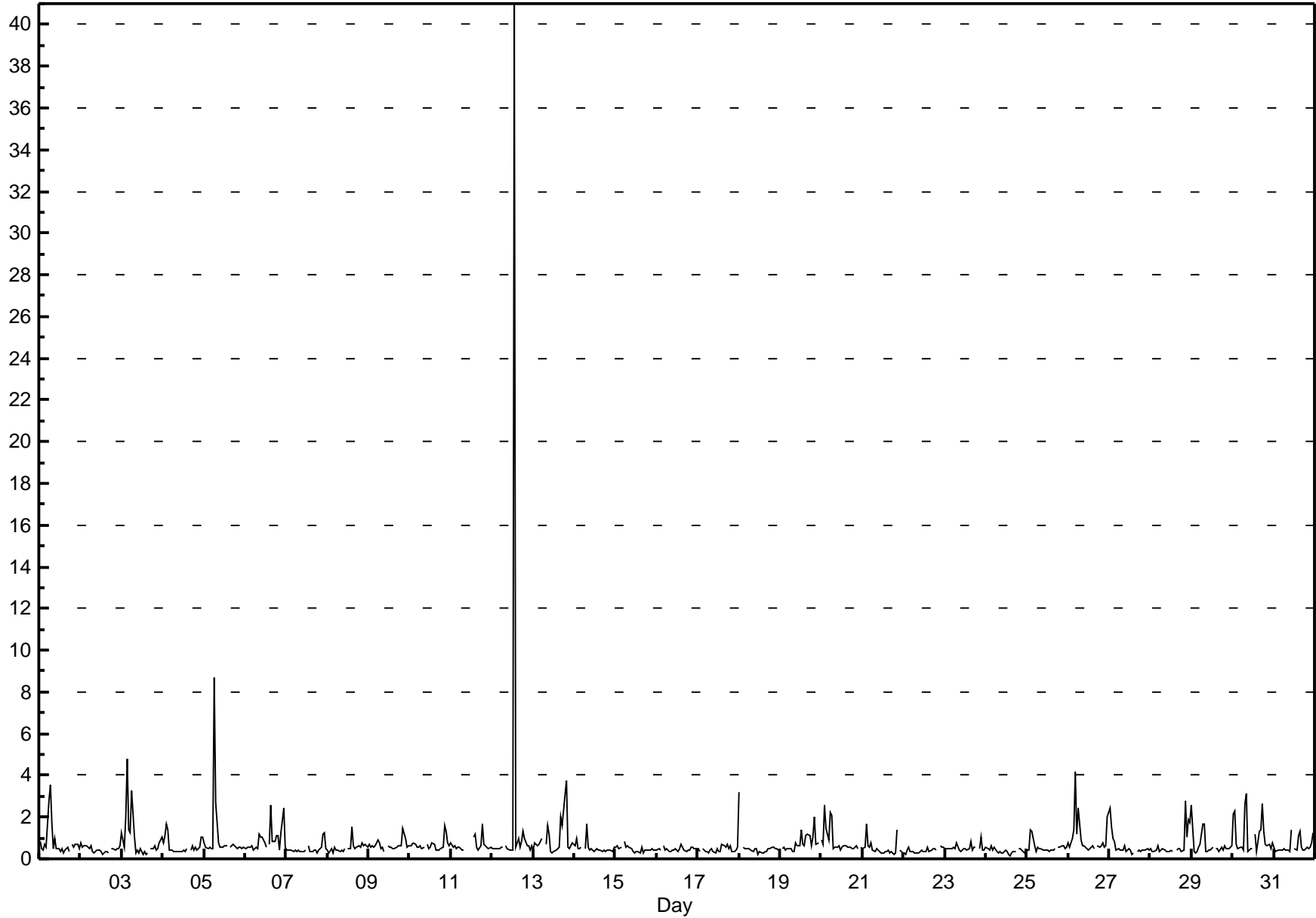
Hydrogen Sulphide (H<sub>2</sub>S) - ppb

Valleyview - August 2015

Maximum Value: 41.0 ppb on Aug 12 14:00		Maximum Daily Average: 2.4 ppb on Aug 12		Hours in Service: 744																						
Minimum Value: 0 ppb on Aug 24 15:00		Minimum Daily Average: 0.4 ppb on Aug 24		Hours of Data: 708																						
Maximum Diurnal Average: 1.9 ppb at hour 14		Minimum Diurnal Average: 0.4 ppb at hour 12		Hours of Missing Data: 36																						
Monthly Average: 0.72 ppb		Percentiles: P <sub>1</sub> = 0.2 P <sub>10</sub> = 0.3 Q <sub>1</sub> = 0.4 Median = 0.5 Q <sub>3</sub> = 0.6 P <sub>90</sub> = 1.2 P <sub>99</sub> = 3.1		Hours of Calibration: 36																						
				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-Aug	1	0	0	1	1	3	4	2	0	1	0	0	0	0	0	0	1	0	A	1	1	1	1	0	0.8	3.5
2-Aug	1	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	0	1	0.5	0.8
3-Aug	1	1	2	5	1	1	3	1	0	0	0	0	0	0	0	0	A	0	0	1	0	0	1	1	1.0	4.8
4-Aug	1	1	2	1	0	0	0	0	0	0	0	0	0	0	0	A	0	1	0	1	0	1	1	1	0.6	1.7
5-Aug	1	1	0	1	0	0	9	3	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0	1	1.0	8.7
6-Aug	1	1	1	1	1	0	1	1	1	1	1	1	1	A	1	3	1	1	1	1	1	0	1	2	0.9	2.6
7-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	0	0	0	0	0	0	1	1	1	0.5	1.2
8-Aug	0	0	0	0	1	0	0	0	0	0	0	0	A	1	0	2	1	0	1	1	1	1	1	1	0.5	1.6
9-Aug	1	1	1	1	1	1	1	1	0	1	0	0	A	1	1	1	1	1	1	1	1	1	1	1	0.6	1.5
10-Aug	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0	0	0	0	1	1	2	1	1	0.7	1.6
11-Aug	1	1	1	0	1	1	0	0	A	C	C	C	C	1	1	1	0	1	2	1	1	1	0	1	0.7	1.6
12-Aug	0	1	1	1	0	1	1	A	1	0	0	0	0	41	1	1	1	1	1	1	1	1	0	1	2.4	41.0
13-Aug	0	1	1	1	1	1	A	1	2	1	0	0	0	0	1	1	2	2	3	4	1	0	1	1	1.0	3.8
14-Aug	1	1	0	0	1	A	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.5	1.7
15-Aug	1	1	0	1	A	1	1	1	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0.5	0.9
16-Aug	0	0	0	A	1	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	1	1	0.5	0.7
17-Aug	1	0	A	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	1	0	0	0	1	0.5	0.7
18-Aug	3	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0.6	3.2
19-Aug	A	1	1	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	0.8	2.0
20-Aug	1	1	3	1	1	2	2	0	1	1	1	0	1	1	1	1	1	1	1	0	1	1	1	A	0.9	2.5
21-Aug	1	1	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	0	0.5	1.7
22-Aug	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	A	1	1	1	0.4	0.6
23-Aug	0	1	1	1	1	1	0	1	0	0	0	0	0	0	1	0	1	1	1	A	0	1	0	0	0.5	1.1
24-Aug	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.4	0.7
25-Aug	0	0	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	A	1	1	1	1	0	1	0.5	1.4
26-Aug	1	1	1	1	4	1	2	1	1	1	1	0	0	1	1	0	A	1	1	1	1	1	1	2	1.0	4.1
27-Aug	2	2	1	1	0	1	0	0	0	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.6	2.4
28-Aug	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	3	1	2	0.7	2.8
29-Aug	3	0	0	0	1	1	2	2	0	0	0	0	1	A	0	0	0	1	0	1	1	0	0	1	0.7	2.6
30-Aug	2	2	1	0	1	1	0	3	3	0	1	0	A	1	0	1	1	3	1	1	1	1	0	1	1.1	3.1
31-Aug	1	0	0	0	0	0	0	0	0	0	1	A	1	0	1	1	1	0	0	1	1	1	1	1	0.6	1.4
		0.9	0.6	0.8	0.8	0.7	0.7	1.1	0.8	0.6	0.5	0.5	0.4	0.5	1.9	0.5	0.6	0.6	0.7	0.7	0.7	0.7	0.6	0.7	0.7	Diurnal Average
		3.2	2.3	2.5	4.8	4.1	2.8	8.7	2.7	3.1	1.2	1.4	0.8	1.4	41.0	1.6	2.6	2.0	2.7	3.0	3.8	2.8	1.3	2.5	2.0	Diurnal Maximum
C - Calibration		A - Automated Daily Zero Span																								

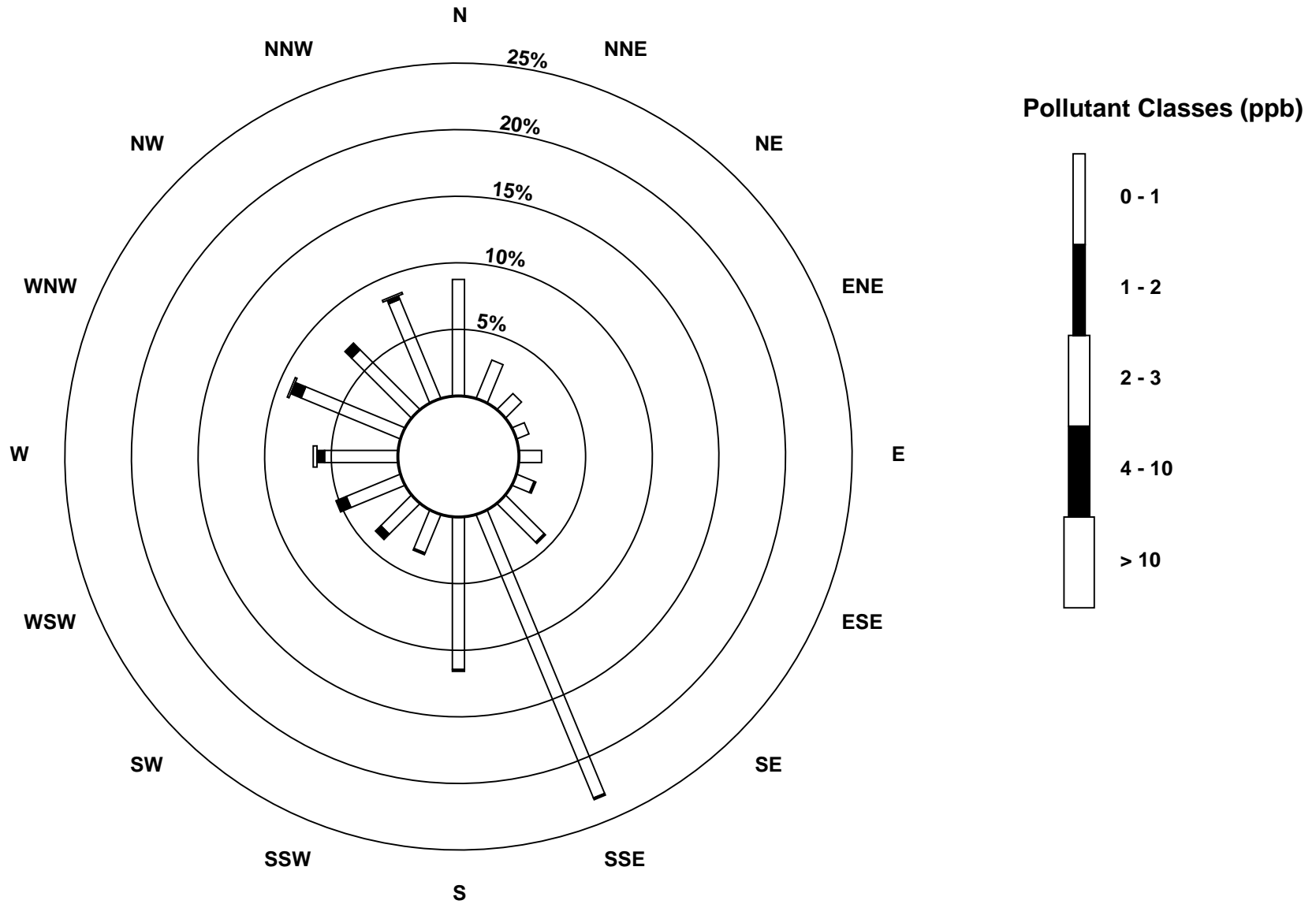
**Hourly Maximums**

**Hydrogen Sulphide (H<sub>2</sub>S) - ppb**  
**Valleyview - August 2015**



**Pollutant Rose**

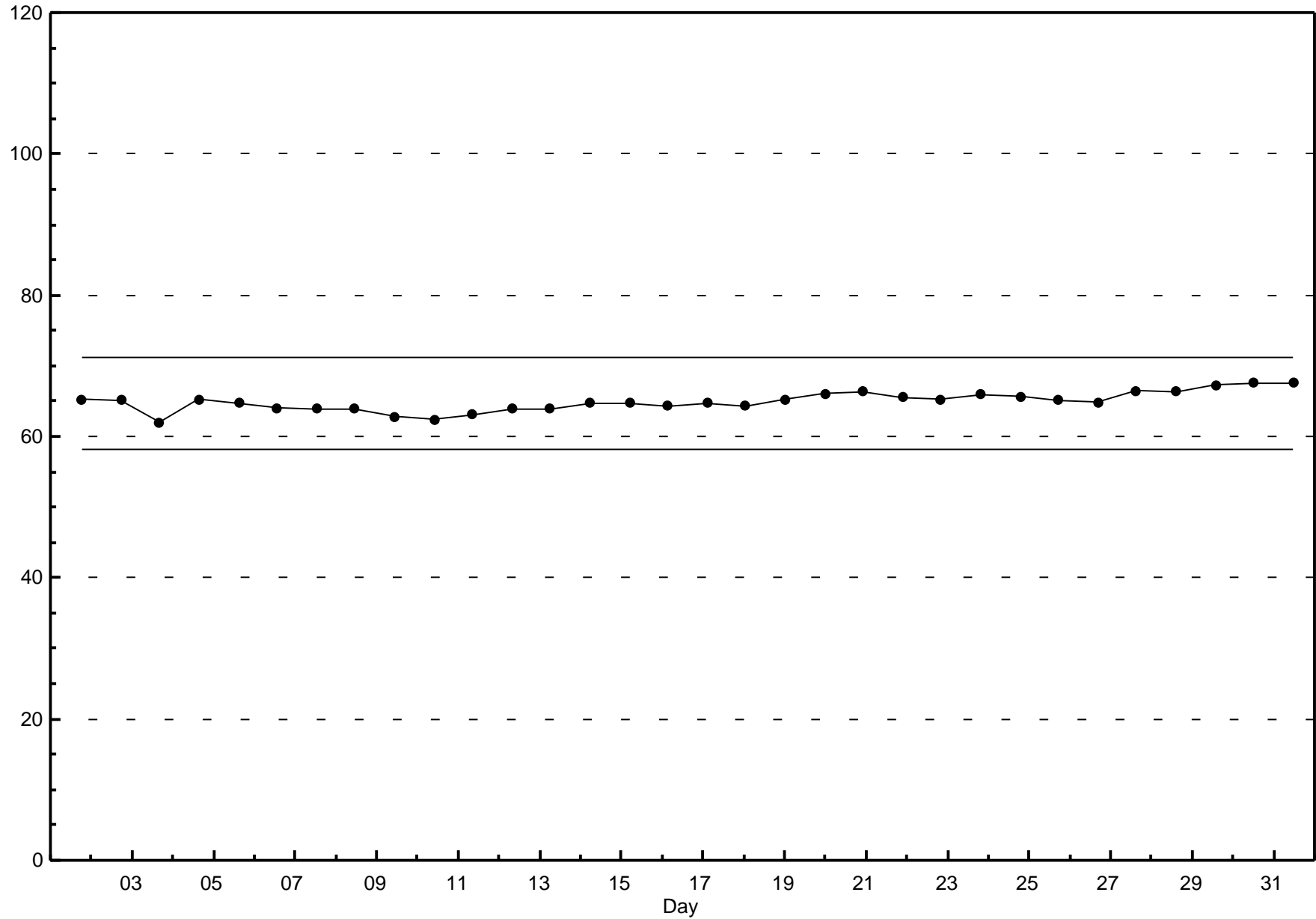
**Hydrogen Sulphide (H<sub>2</sub>S) - ppb**  
**Valleyview - August 2015**





### Span Responses

Hydrogen Sulphide (H<sub>2</sub>S)  
Valleyview - August 2015





Peace Airshed Zone Association

# Hourly Averages

External Temperature (ET) - °C

Valleyview - August 2015

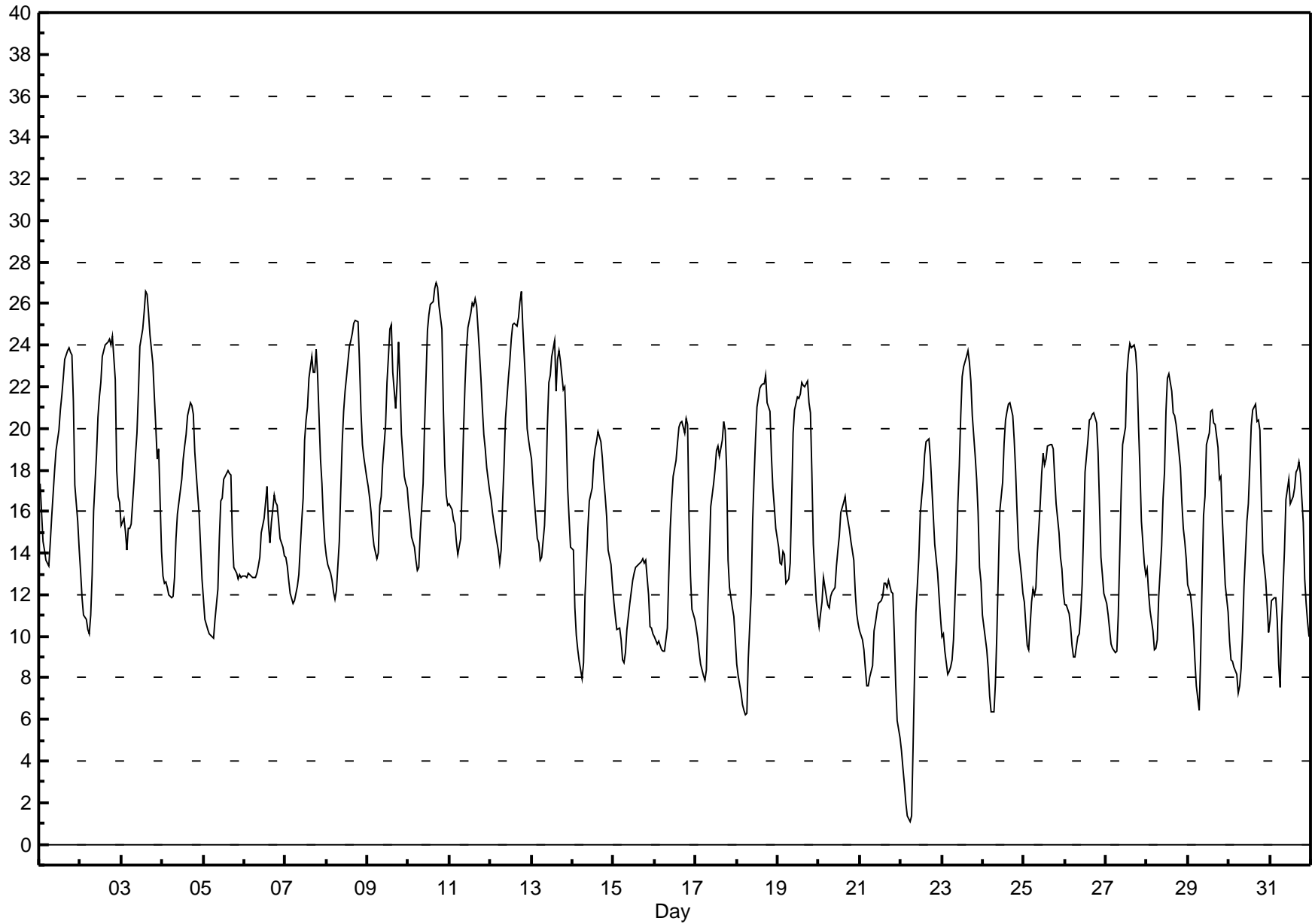
Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 27.0 °C on Aug 10 17:00	Maximum Daily Average: 20.3 °C on Aug 12		Hours of Data:	744
Minimum Value: 1 °C on Aug 22 06:00	Minimum Daily Average: 10.0 °C on Aug 21		Hours of Missing Data:	0
Maximum Diurnal Average: 21.1 °C at hour 16	Minimum Diurnal Average: 10.2 °C at hour 6		Hours of Calibration:	0
Monthly Average: 15.81 °C	Percentiles: P <sub>1</sub> = 4.6 P <sub>10</sub> = 9.6 Q <sub>1</sub> = 12.0 Median = 15.5 Q <sub>3</sub> = 19.8 P <sub>90</sub> = 22.5 P <sub>99</sub> = 26.0		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-Aug	17	16	15	14	14	13	14	16	17	18	19	20	21	22	22	23	24	24	24	24	21	17	16	14	18.5	23.9
2-Aug	13	12	11	11	10	10	11	13	16	19	21	22	22	23	24	24	24	24	24	24	22	18	17	16	18.0	24.4
3-Aug	15	16	15	14	15	15	15	18	19	20	22	24	25	26	27	26	26	25	23	22	20	19	19	14	19.9	26.6
4-Aug	13	13	13	12	12	12	12	13	15	16	17	18	19	19	20	21	21	21	21	19	18	16	14	13	16.0	21.2
5-Aug	12	11	10	10	10	10	10	11	12	15	17	17	18	18	18	18	18	15	13	13	13	13	13	13	13.6	18.0
6-Aug	13	13	13	13	13	13	13	13	13	14	15	16	16	17	15	15	15	17	16	16	16	15	14	14	14.5	17.2
7-Aug	14	13	13	12	12	12	12	12	13	16	17	19	20	21	22	23	23	23	24	23	19	17	16	15	17.1	23.8
8-Aug	14	13	13	13	12	12	12	15	17	19	21	22	23	24	24	25	25	25	25	23	21	19	19	18	18.9	25.2
9-Aug	17	17	16	15	14	14	14	16	17	18	20	22	23	25	25	23	21	22	24	22	20	18	17	17	19.1	25.0
10-Aug	16	16	15	14	14	13	13	15	17	20	22	25	25	26	26	27	27	27	26	25	21	18	17	16	20.1	27.0
11-Aug	16	16	16	15	15	14	15	17	20	22	24	25	26	26	26	26	26	24	22	21	20	19	18	17	20.2	26.2
12-Aug	17	16	15	15	14	14	14	16	18	20	22	23	24	25	25	25	25	26	27	25	22	20	19	19	20.3	26.6
13-Aug	19	17	16	15	15	14	14	15	17	20	22	23	23	24	22	23	24	23	22	22	20	17	16	14	19.0	24.2
14-Aug	14	11	10	9	9	8	9	12	13	15	17	17	18	19	19	20	19	19	18	17	16	14	13	12	14.6	19.8
15-Aug	12	11	10	10	10	9	9	9	10	12	12	13	13	13	13	14	14	14	14	14	12	10	10	10	11.6	13.7
16-Aug	10	10	10	10	9	9	9	10	13	15	17	18	18	19	20	20	20	20	20	20	16	13	11	11	14.5	20.5
17-Aug	10	10	9	9	8	8	8	11	14	16	17	18	19	19	19	19	20	20	18	14	12	11	11	10	13.8	20.3
18-Aug	9	8	7	7	6	6	6	9	12	16	18	19	21	22	22	22	22	23	21	21	19	17	16	15	15.2	22.6
19-Aug	14	14	13	14	14	13	13	14	17	20	21	22	21	22	22	22	22	22	21	21	18	14	12	11	17.3	22.3
20-Aug	10	11	12	13	12	12	11	12	12	12	13	14	15	16	16	17	16	16	15	15	14	12	11	11	13.2	16.7
21-Aug	10	10	9	8	8	8	8	9	10	11	11	12	12	12	13	13	12	13	12	12	10	8	6	5	10.0	12.7
22-Aug	4	4	3	2	1	1	1	5	8	11	14	16	17	17	19	19	19	19	17	16	14	13	12	11	11.0	19.5
23-Aug	10	10	9	8	8	9	9	10	14	16	18	21	22	23	23	24	23	22	21	19	18	16	13	13	15.8	23.7
24-Aug	11	10	9	8	7	6	6	8	10	13	16	17	19	20	21	21	21	21	19	18	16	14	13	12	14.1	21.2
25-Aug	12	11	10	9	12	12	12	12	14	16	18	19	18	19	19	19	19	19	18	16	15	14	13	12	14.9	19.2
26-Aug	12	12	11	10	10	9	9	10	10	11	12	15	18	19	20	21	21	21	20	19	16	14	13	12	14.4	20.8
27-Aug	12	11	10	10	9	9	9	11	14	17	19	20	23	24	24	24	24	24	23	20	18	16	14	13	16.5	24.1
28-Aug	13	12	11	10	9	9	10	12	14	17	18	21	22	23	22	21	21	20	20	18	16	15	15	14	16.0	22.6
29-Aug	13	12	11	10	9	8	6	9	13	16	17	19	20	21	21	20	20	19	18	18	16	14	12	11	14.7	20.9
30-Aug	10	9	9	8	8	7	8	8	10	12	16	16	18	20	21	21	20	20	20	17	14	13	11	10	13.7	21.1
31-Aug	11	12	12	12	11	9	8	11	14	17	17	18	16	17	17	18	18	18	18	15	13	12	11	10	13.8	18.4

12.7	12.1	11.5	11.1	10.6	10.2	10.4	12.0	14.0	16.1	17.7	19.0	19.9	20.7	20.9	21.1	21.0	20.8	20.1	18.9	16.9	15.0	13.9	13.0	Diurnal Average	
18.5	17.4	16.0	15.4	15.2	15.2	15.4	17.5	20.0	22.1	23.8	24.8	25.5	26.0	26.6	26.8	27.0	26.8	26.6	24.8	22.4	20.0	19.4	19.0	Diurnal Maximum	

**Hourly Averages**

**External Temperature (ET) - °C**  
**Valleyview - August 2015**



# Hourly Averages

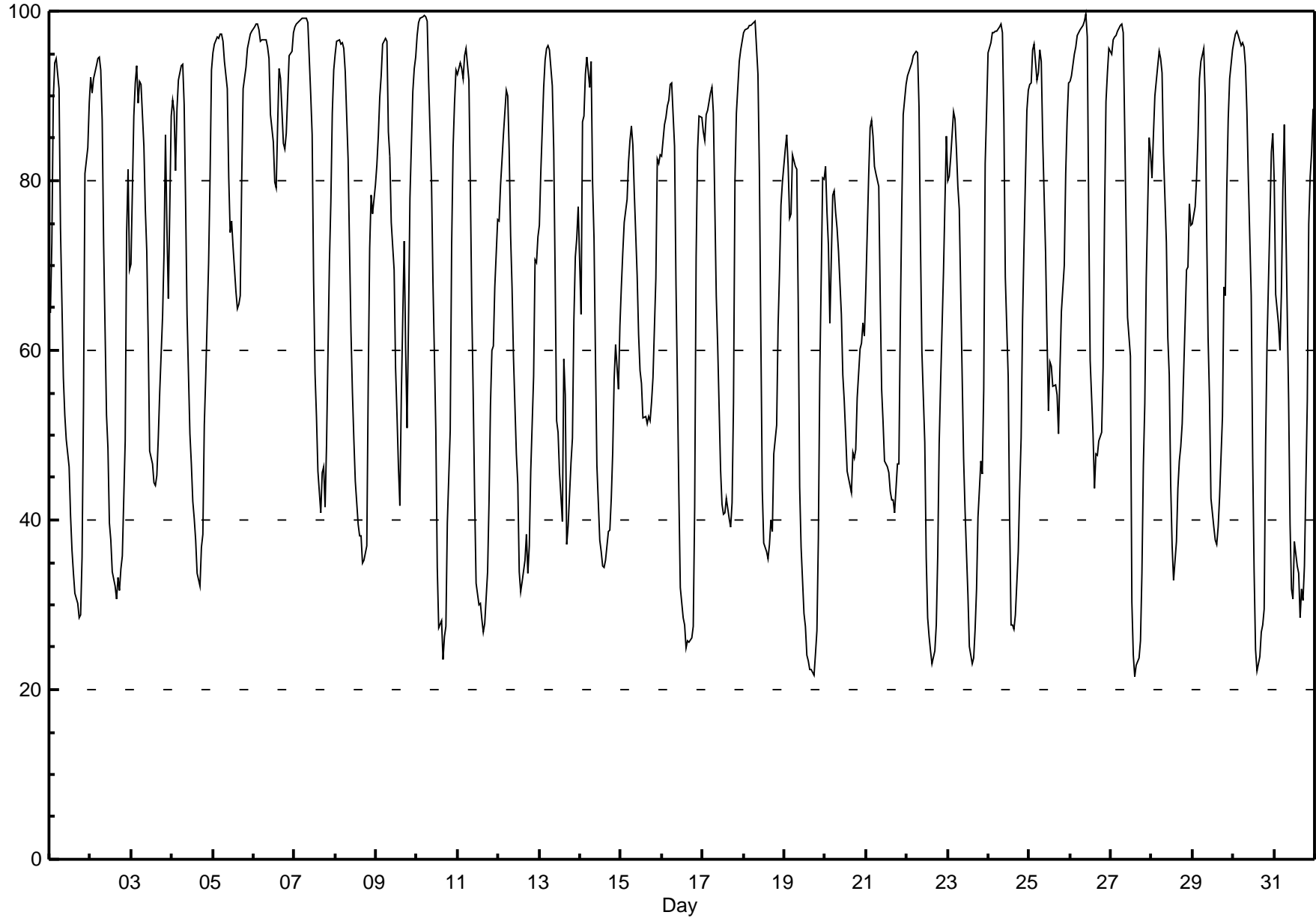
Relative Humidity (RH) - %

Valleyview - August 2015

Number of Exceedences (AAQO): 1-hr: 0 24-hr: 0 Maximum Value: 99.6 % on Aug 26 10:00 Maximum Daily Average: 91.8 % on Aug 6		Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0																									
Minimum Value: 21 % on Aug 27 15:00 Maximum Diurnal Average: 92.4 % at hour 6 Monthly Average: 67.32 %		Minimum Daily Average: 53.0 % on Aug 19 Minimum Diurnal Average: 38.7 % at hour 15 Percentiles: P <sub>1</sub> = 23.1 P <sub>10</sub> = 33.7 Q <sub>1</sub> = 46.4 Median = 71.6 Q <sub>3</sub> = 89.8 P <sub>90</sub> = 96.1 P <sub>99</sub> = 99.1																									
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-Aug	64	73	90	94	94	91	74	66	57	52	49	46	41	36	34	31	30	28	29	36	53	81	84	89	59.3	94.4	
2-Aug	92	90	92	94	94	95	93	87	73	52	48	40	38	34	32	31	33	32	34	36	49	74	81	70	62.2	94.5	
3-Aug	70	88	91	94	89	92	91	84	77	72	61	48	47	44	44	45	50	55	64	71	85	75	66	88	70.5	93.6	
4-Aug	90	88	81	88	92	94	94	89	78	64	50	47	42	40	38	34	32	37	38	51	57	70	80	93	65.3	93.8	
5-Aug	95	96	97	97	97	97	96	94	91	80	74	75	72	67	65	65	66	80	91	93	96	96	97	98	86.5	97.7	
6-Aug	98	98	98	98	96	97	97	97	96	94	88	85	80	79	87	93	92	84	84	86	90	95	95	97	91.8	98.5	
7-Aug	98	98	99	99	99	99	99	99	99	90	85	68	57	52	46	41	46	46	42	49	70	77	88	93	76.7	99.2	
8-Aug	95	96	97	96	96	96	93	83	72	62	55	50	45	39	38	35	35	37	56	72	78	76	79	95	67.5	96.6	
9-Aug	82	85	90	92	96	97	96	86	83	75	69	58	52	46	42	55	73	60	51	63	78	91	93	95	75.3	96.8	
10-Aug	97	99	99	99	100	99	99	92	80	68	59	50	34	27	28	24	26	27	40	51	72	84	89	93	68.2	99.5	
11-Aug	92	94	93	92	95	96	92	79	65	55	42	32	30	30	28	27	28	34	42	54	60	61	67	75	61.0	95.5	
12-Aug	75	80	82	85	91	90	84	74	67	59	48	44	34	32	33	35	38	34	37	46	57	71	70	73	60.0	90.8	
13-Aug	75	81	91	94	96	96	95	91	84	68	52	50	46	40	59	55	37	39	47	50	64	71	73	77	67.9	95.9	
14-Aug	64	87	88	93	95	91	94	80	73	59	46	38	36	35	34	35	39	39	43	48	57	61	55	63	60.5	94.6	
15-Aug	67	72	75	78	82	85	86	84	79	69	62	58	56	52	51	52	52	54	57	69	83	82	83	83	68.3	86.4	
16-Aug	83	87	87	89	89	91	91	84	68	56	43	32	28	28	25	26	26	26	28	42	71	84	88	88	60.8	91.5	
17-Aug	86	85	88	88	90	91	88	77	66	60	46	42	41	41	43	40	39	42	54	80	88	94	95	96	69.2	96.4	
18-Aug	97	98	98	98	98	99	99	99	93	81	62	44	37	36	35	37	40	39	48	51	63	69	77	80	69.9	98.9	
19-Aug	84	85	82	76	76	83	82	81	65	44	37	29	27	24	23	22	22	22	24	27	38	57	80	80	53.0	85.5	
20-Aug	82	76	72	63	78	79	76	74	72	64	57	54	50	46	44	43	48	47	48	54	60	61	63	62	61.5	81.6	
21-Aug	67	81	86	87	85	82	81	79	66	55	52	47	46	46	43	42	42	41	47	47	64	77	88	91	64.3	91.3	
22-Aug	92	93	93	94	95	95	95	89	73	60	49	36	28	26	25	23	25	28	36	49	56	69	77	85	62.1	95.2	
23-Aug	80	81	83	88	87	84	79	77	57	47	41	36	31	25	23	24	27	32	40	47	45	55	82	88	56.7	88.3	
24-Aug	95	96	97	98	98	98	98	99	98	87	69	57	40	28	28	27	29	36	44	50	64	72	88	91	70.2	98.5	
25-Aug	91	91	95	96	92	93	95	94	85	72	62	53	59	58	56	55	50	58	65	70	81	87	92	92	75.2	96.1	
26-Aug	92	92	95	96	97	97	98	98	99	100	97	76	59	50	44	48	48	49	50	58	76	89	93	96	79.0	99.6	
27-Aug	95	97	97	97	98	98	98	97	86	75	64	59	30	24	21	23	24	26	34	46	54	68	85	83	65.9	98.4	
28-Aug	80	85	90	94	95	94	93	83	73	62	57	44	37	33	37	44	47	49	51	63	69	70	77	75	66.8	95.2	
29-Aug	75	77	80	85	92	94	96	90	74	61	54	43	39	38	37	39	43	52	67	66	79	87	92	95	69.0	95.7	
30-Aug	96	97	98	97	96	96	96	93	88	80	66	47	34	25	22	24	27	28	30	49	61	75	83	86	66.5	97.6	
31-Aug	80	67	63	60	67	79	87	75	54	40	32	31	37	35	34	28	32	31	34	54	75	81	83	88	56.1	88.5	
		84.9	87.5	89.3	90.3	91.8	92.4	91.5	86.3	77.1	66.6	57.4	49.0	43.1	39.2	38.7	38.9	40.3	41.3	45.9	54.6	66.5	76.0	81.9	85.2	Diurnal Average	
		98.2	98.6	99.1	99.4	99.5	99.4	99.1	99.1	98.9	99.6	96.9	84.6	79.8	79.2	86.6	93.2	92.1	84.4	90.8	93.5	95.6	96.4	97.2	97.7	Diurnal Maximum	

**Hourly Averages**

**Relative Humidity (RH) - %**  
**Valleyview - August 2015**





Peace Airshed Zone Association

# Hourly Averages

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

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 Spd	3	4	0	0	1	2	5	7	9	7	7	8	9	10	8	6	5	6	5	2	0	0	0	0	4.1	9.7
Dir	302	315	188	152	230	250	279	289	297	289	291	306	286	321	307	283	301	310	316	349	161	186	178	184	298	321
2 Spd	0	0	1	0	0	0	0	0	1	2	1	2	2	1	1	1	0	1	1	1	0	0	0	3	0.2	2.7
Dir	184	234	194	173	171	174	168	183	166	241	172	330	43	133	68	134	173	127	131	128	353	356	290	304	153	304
3 Spd	5	1	1	3	1	1	1	1	3	4	2	4	4	5	4	4	3	2	1	5	5	14	9	14	0.9	14.2
Dir	243	84	281	292	300	263	271	84	25	1	56	113	112	130	124	108	78	81	43	132	141	140	259	281	145	281
4 Spd	14	7	6	1	1	1	1	0	0	4	8	10	7	8	8	8	7	4	5	1	1	0	0	1	3.6	14.1
Dir	276	276	286	157	215	183	189	101	319	322	308	323	321	334	334	334	325	342	3	327	298	300	163	163	313	276
5 Spd	1	1	0	0	1	1	1	0	1	3	0	2	3	8	8	9	9	3	0	2	1	1	1	1	1.4	9.1
Dir	163	159	182	164	168	153	293	247	276	346	96	21	318	308	319	340	338	91	322	247	227	189	186	159	322	340
6 Spd	1	1	1	5	7	6	5	4	5	7	7	5	4	1	5	1	3	6	6	2	2	1	1	1	3.2	6.7
Dir	183	226	207	248	256	259	253	253	262	267	273	289	318	272	351	241	256	273	273	258	237	229	229	150	267	256
7 Spd	1	0	1	1	2	2	2	2	2	3	2	1	4	4	3	2	1	1	1	1	1	0	1	1	0.6	3.9
Dir	158	163	165	160	157	156	156	156	157	159	159	286	284	328	322	275	240	160	207	174	159	217	164	177	201	328
8 Spd	1	1	1	1	2	1	1	2	2	1	1	2	3	0	1	2	3	2	2	1	0	1	1	2	0.1	2.7
Dir	166	165	163	160	158	150	107	155	152	174	208	285	285	291	300	60	334	359	337	343	142	330	343	320	289	285
9 Spd	2	1	1	0	0	0	0	1	2	1	1	1	2	1	5	4	2	5	0	0	0	1	1	1	0.7	5.2
Dir	331	6	342	20	9	179	192	157	162	163	196	228	269	300	304	318	316	326	116	137	279	154	158	229	296	304
10 Spd	1	1	2	1	2	1	0	2	2	2	0	1	7	8	7	4	2	2	2	0	0	1	0	1	0.9	7.9
Dir	158	156	161	168	160	186	169	159	158	160	183	191	273	266	287	317	359	6	333	345	167	233	160	143	257	266
11 Spd	1	1	1	1	1	0	1	2	2	1	4	9	10	9	11	9	11	8	1	0	1	1	0	1	2.5	10.7
Dir	155	157	161	164	178	189	173	162	159	156	252	265	257	279	268	296	318	316	253	191	171	183	179	171	270	318
12 Spd	1	2	1	1	0	2	2	2	1	1	2	2	8	12	11	7	2	4	0	2	1	2	1	1	1.7	11.5
Dir	166	160	167	161	160	167	161	157	159	161	160	169	263	279	257	272	314	256	308	321	327	335	141	162	249	279
13 Spd	0	0	1	0	0	0	0	0	0	3	3	7	5	3	1	0	5	5	1	1	0	1	1	0	1.2	7.0
Dir	213	267	354	248	182	220	175	180	198	330	334	352	333	344	334	273	294	302	253	268	206	205	196	194	318	352
14 Spd	1	1	1	0	1	0	1	0	1	2	3	4	2	4	6	4	3	7	5	3	1	3	9	7	2.5	9.0
Dir	295	167	165	352	176	7	166	305	119	11	22	5	11	351	359	33	22	8	12	15	2	344	2	4	8	2
15 Spd	8	5	6	3	4	8	5	5	8	9	8	9	8	8	7	7	6	4	4	1	1	0	0	1	4.9	9.5
Dir	1	4	9	4	345	1	12	354	11	8	5	358	358	351	325	307	323	336	330	328	233	164	160	165	353	358
16 Spd	0	1	0	0	0	0	1	1	1	1	1	2	2	1	1	2	3	6	2	0	0	0	0	2	0.3	6.2
Dir	143	149	165	180	157	157	151	159	163	157	184	191	219	173	286	295	298	340	352	111	172	173	169	158	232	340
17 Spd	2	2	1	2	1	1	2	2	3	1	6	9	9	9	6	4	4	4	1	4	1	1	0	0	1.8	9.3
Dir	160	163	163	160	165	166	160	155	157	167	249	284	301	294	302	284	271	285	196	337	74	179	178	56	270	284
18 Spd	0	0	1	1	0	1	0	1	2	1	2	2	1	3	3	1	2	2	1	2	2	1	1	1	1.0	3.2
Dir	303	164	159	159	161	160	222	153	153	152	232	257	234	230	241	180	162	154	162	162	164	183	169	174	189	241
19 Spd	1	1	2	2	1	0	1	1	3	9	15	18	16	16	16	14	14	14	8	4	1	1	1	1	5.8	17.9
Dir	166	167	163	163	170	196	193	163	244	275	285	287	300	292	294	292	292	283	298	290	227	189	161	154	285	287
20 Spd	1	1	1	3	0	1	3	6	8	9	7	8	8	9	7	6	7	7	5	2	1	10	6	5	4.2	10.2
Dir	102	93	256	263	223	255	288	314	315	316	319	297	331	339	340	332	17	18	9	339	16	10	22	18	338	10
21 Spd	2	1	1	1	1	5	3	6	12	13	14	12	15	14	14	13	12	11	7	2	0	0	1	1	6.4	14.7
Dir	3	281	331	334	328	2	348	338	350	350	340	343	331	321	314	321	329	316	314	211	181	161	155	335	343	
22 Spd	1	0	0	1	0	0	0	1	1	1	2	1	3	4	1	2	1	1	1	0	0	0	0	0	0.3	3.9
Dir	159	90	192	166	175	169	182	156	156	168	162	275	301	338	163	255	172	136	139	148	141	303	177	163	197	338

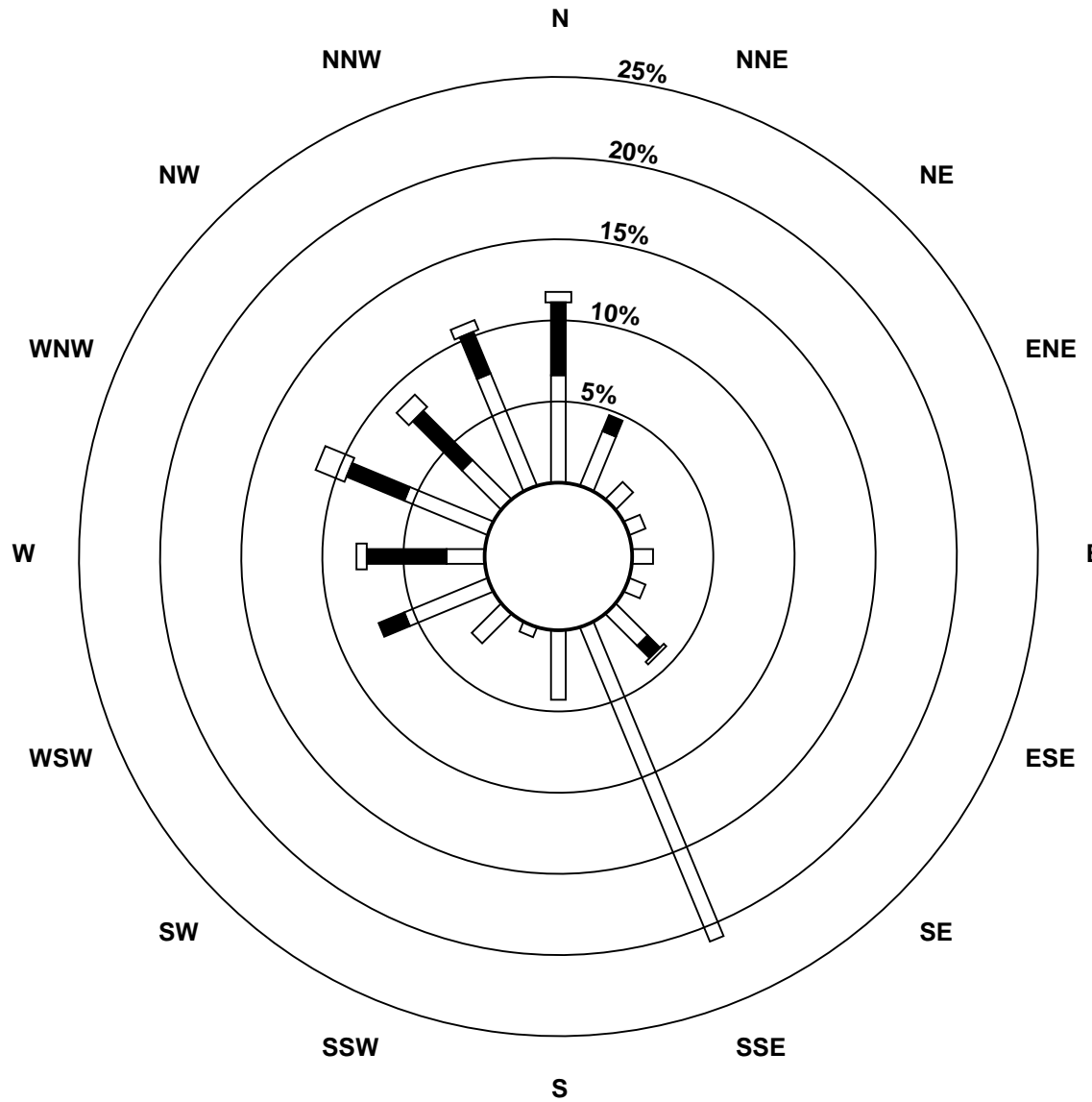
## Hourly Averages

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

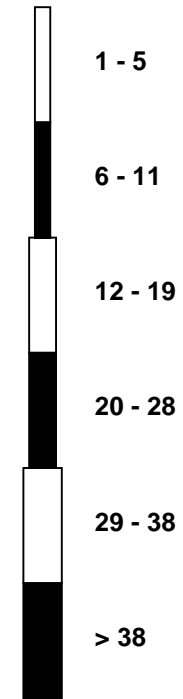
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	0	0	0	0	0	0	0	1	1	1	2	2	3	7	7	4	5	4	5	5	4	5	1	0	1.5	7.2
Dir	161	163	177	140	309	297	270	234	156	169	184	178	234	274	292	287	335	1	328	326	360	302	59	178	303	274
24 Spd	0	1	1	0	0	0	1	0	1	1	1	2	0	2	4	3	3	2	1	1	1	3	1	1	0.7	3.8
Dir	178	160	161	171	355	329	161	154	154	162	55	41	256	358	28	36	35	34	12	8	42	145	78	39	56	28
25 Spd	1	1	1	1	3	0	0	1	1	1	1	1	6	9	8	10	9	7	9	8	4	2	1	2	3.2	10.1
Dir	70	206	315	326	350	47	212	180	310	128	131	23	6	3	356	10	4	14	8	1	355	354	15	332	4	10
26 Spd	1	0	0	1	1	0	0	1	2	1	1	2	1	1	2	6	5	4	4	2	0	2	0	0	1.5	5.6
Dir	314	131	190	335	334	314	340	359	343	90	333	348	350	81	354	346	350	28	8	17	350	340	303	309	355	346
27 Spd	0	0	0	0	1	1	0	2	1	2	2	2	5	5	5	4	7	7	2	1	1	1	1	1	1.6	7.0
Dir	102	141	296	175	169	163	181	157	155	156	162	157	239	241	239	238	249	249	214	163	165	160	157	172	220	249
28 Spd	1	1	1	1	1	1	1	2	2	2	2	1	1	2	3	3	1	3	2	0	9	4	4	12	0.9	11.7
Dir	171	179	161	165	175	186	170	156	160	170	161	99	83	30	3	16	27	329	349	217	293	293	263	283	287	283
29 Spd	2	4	3	1	0	0	0	1	1	3	4	7	7	7	8	6	3	1	1	1	2	1	0	0	2.5	7.6
Dir	230	158	159	143	117	303	257	158	140	159	161	142	142	135	140	137	128	139	140	169	171	164	177	316	148	140
30 Spd	1	0	1	1	0	1	0	1	2	1	1	6	8	9	11	9	8	4	2	0	1	0	0	0	2.3	11.1
Dir	307	294	163	163	203	166	175	256	159	159	170	261	271	262	247	273	294	279	268	187	194	199	185	185	259	247
31 Spd	2	3	2	3	1	0	0	1	3	5	9	8	13	12	9	10	2	3	2	0	0	0	0	0	2.4	12.9
Dir	164	160	162	161	168	208	152	160	154	225	265	252	317	309	278	279	233	247	242	159	178	269	157	63	265	317
Spd	0.7	0.3	0.3	0.4	0.3	0.2	0.4	0.4	0.3	1.1	1.9	2.8	3.8	4.3	4.1	3.5	3.4	2.9	1.9	0.8	0.3	0.1	0.2	0.8	Diurnal Average	
Dir	270	202	196	207	234	267	249	232	288	300	292	302	304	307	303	310	319	323	330	334	280	17	303	291	Diurnal Maximum	
Spd	14.1	7.4	6.5	5.2	6.7	8.3	5.5	7.4	12.3	13.3	14.5	17.9	15.5	16.2	15.8	14.3	13.5	14.1	9.3	7.8	9.1	14.0	9.0	14.2	Diurnal Maximum	
Dir	276	276	9	248	256	1	12	289	350	350	285	287	300	292	294	292	292	283	8	1	293	140	2	281	Diurnal Maximum	
Maximum Speed Value: 18 km/h on Aug 19 12:00																		Minimum Speed Value: 0 km/h on Aug 30 00:00						Hours in Service:		744
Maximum Daily Speed Average: 6.4 km/h on Aug 21																		Minimum Daily Speed Average: 0.1 km/h on Aug 2						Hours of Data:		744
Maximum Diurnal Speed Average: 4.3 km/h at hour 14																		Minimum Diurnal Speed Average: 0.1 km/h at hour 22						Hours of Missing Data:		0
Monthly Average Velocity: 1.35 km/h 304.1 deg																		Speed Percentiles: P <sub>1</sub> = 0.1 P <sub>10</sub> = 0.3 Q <sub>1</sub> = 0.7 Median = 1.4 Q <sub>3</sub> = 4.2 P <sub>90</sub> = 8.0 P <sub>99</sub> = 14.1						Percent Operational Time:		100.0
All monthly, daily, and diurnal averages have been calculated using vector methods																										
Frequency Distribution																										
		Speed Range (km/h)																								
Direction	0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total																			
North	68	36	5	0	0	0	109																			
NorthEast	22	0	0	0	0	0	22																			
East	23	0	0	0	0	0	23																			
SouthEast	78	6	1	0	0	0	85																			
South	223	0	0	0	0	0	223																			
SouthWest	52	1	1	0	0	0	54																			
West	51	42	10	0	0	0	103																			
NorthWest	75	42	8	0	0	0	125																			
Total	592	127	25	0	0	0	744																			

**Wind Rose**

**Wind Speed (WS) (km/h)**  
**Valleyview - August 2015**



**Wind Speed Classes (km/h)**





# Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Valleyview - August 2015

Maximum Speed: 18 km/h on Aug 19 12:00 Minimum Speed: 0 km/h on Aug 2 00:00 Maximum Diurnal Speed Average: 7.0 km/h at hour 14 Monthly Average Speed: 3.29 km/h		Maximum Daily Speed Average: 7.0 km/h on Aug 21 Minimum Daily Speed Average: 1.1 km/h on Aug 2 Minimum Diurnal Speed Average: 1.4 km/h at hour 5 Percentiles: P <sub>1</sub> = 0.2 P <sub>10</sub> = 0.5 Q <sub>1</sub> = 0.9 Median = 1.9 Q <sub>3</sub> = 4.7 P <sub>90</sub> = 8.4 P <sub>99</sub> = 14.6		Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Aug	3	5	1	1	1	2	6	8	9	7	7	9	9	10	8	7	6	6	5	2	0	0	0	0	4.7	10.3	
2-Aug	0	0	1	1	0	0	1	0	1	3	1	2	3	2	2	2	0	1	1	1	0	1	1	3	1.1	2.9	
3-Aug	5	3	1	3	3	1	2	1	3	5	4	4	5	5	5	4	3	2	2	6	5	14	14	16	4.9	16.1	
4-Aug	15	8	6	1	1	1	1	1	1	5	9	10	8	8	8	9	7	5	5	1	1	1	0	1	4.7	14.6	
5-Aug	1	1	0	1	2	1	1	1	2	3	1	2	3	9	9	9	9	4	2	3	2	1	1	1	2.8	9.3	
6-Aug	1	1	1	5	7	6	5	4	5	7	7	6	4	2	6	1	4	7	7	2	2	1	1	1	3.9	6.9	
7-Aug	1	0	1	1	2	2	2	2	2	3	2	3	4	4	4	3	2	1	1	1	1	1	1	1	1.8	4.4	
8-Aug	1	1	1	1	2	1	1	2	2	2	2	3	3	2	3	2	3	2	2	1	1	1	1	2	1.8	3.4	
9-Aug	2	1	1	1	1	1	1	1	2	2	2	2	3	3	6	5	3	5	1	0	1	1	1	1	1.9	5.8	
10-Aug	1	1	2	1	2	1	1	2	2	2	2	2	7	9	7	4	3	2	2	0	1	1	1	1	2.3	8.6	
11-Aug	1	1	1	1	1	1	1	2	2	2	4	9	11	10	11	9	11	8	2	1	1	1	1	1	3.9	11.2	
12-Aug	1	2	1	1	0	2	2	2	2	1	1	2	2	9	12	11	8	3	4	1	2	1	2	2	3.1	11.9	
13-Aug	1	1	1	1	0	1	1	1	1	3	4	8	6	5	3	3	5	5	2	2	0	1	1	0	2.3	7.6	
14-Aug	2	1	1	1	1	1	1	1	2	3	4	6	4	5	7	5	4	7	5	3	1	3	9	7	3.4	9.1	
15-Aug	8	6	7	4	4	8	6	5	8	9	9	10	8	9	7	7	7	4	4	1	1	0	0	1	5.6	9.9	
16-Aug	1	1	0	0	0	0	1	2	2	2	3	3	3	3	3	4	6	3	0	0	0	0	2	1.8	6.3		
17-Aug	2	2	1	2	1	1	2	2	3	2	6	10	9	9	6	4	5	6	3	5	1	1	0	1	3.5	9.7	
18-Aug	1	0	1	1	0	1	0	1	2	1	3	3	3	4	4	2	2	2	1	2	2	1	1	1	1.6	4.2	
19-Aug	1	1	2	2	1	0	1	1	3	10	15	18	16	17	16	15	14	15	8	4	1	1	1	1	6.9	18.5	
20-Aug	1	2	2	4	1	1	4	6	9	9	8	8	9	10	8	6	7	7	5	2	1	10	6	5	5.4	10.3	
21-Aug	2	1	1	1	1	5	4	6	13	14	14	12	15	15	14	14	13	11	7	3	1	1	1	1	7.0	15.3	
22-Aug	1	0	0	1	0	0	0	1	1	2	2	3	5	5	3	3	2	1	1	0	0	0	0	0	1.4	5.3	
23-Aug	1	0	0	0	1	1	0	1	2	2	2	2	4	8	7	5	6	5	5	5	4	6	3	1	2.9	8.3	
24-Aug	1	1	1	0	1	0	1	1	1	1	1	3	2	3	5	4	3	2	1	1	3	4	2	2	1.8	4.7	
25-Aug	1	1	1	1	4	2	1	1	1	2	2	2	6	9	8	10	9	8	9	8	4	2	1	2	4.0	10.4	
26-Aug	2	0	0	1	1	0	0	1	2	1	2	3	3	3	3	6	5	4	4	2	0	2	1	1	2.0	6.0	
27-Aug	1	0	0	1	1	1	0	2	1	2	2	2	6	6	6	5	7	7	2	1	1	1	1	1	2.3	7.2	
28-Aug	2	1	1	1	1	1	1	2	2	2	1	2	2	2	3	4	1	3	2	1	10	4	4	12	2.7	11.9	
29-Aug	3	4	3	1	0	0	1	2	1	3	4	7	7	7	8	6	4	1	2	1	2	1	0	1	3.0	7.7	
30-Aug	1	1	1	1	1	1	0	2	2	1	2	6	9	10	12	10	9	5	2	1	1	1	0	0	3.3	11.6	
31-Aug	2	3	2	3	1	0	1	1	3	6	10	8	14	13	9	10	3	3	2	0	0	0	0	1	4.0	13.7	
		2.0	1.6	1.4	1.4	1.4	1.5	2.1	3.0	3.7	4.5	5.5	6.4	7.0	6.9	5.9	5.3	4.9	3.1	2.0	1.6	2.1	1.8	2.2	Diurnal Average		
		14.6	7.8	6.6	5.5	6.8	8.4	5.6	7.6	12.6	13.7	14.9	18.5	16.1	16.7	16.3	14.9	14.2	14.6	9.4	7.8	9.6	14.2	13.7	16.1	Diurnal Maximum	

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

# Hourly Standard Deviations

Wind Direction (WD) - deg  
Valleyview - August 2015

Maximum Value: 100.4 deg on Aug 8 15:00																		Hours in Service: 744							
Minimum Value: 6.3 deg on Aug 31 02:00																		Hours of Data: 744							
Percentiles: P <sub>1</sub> = 7.7 P <sub>10</sub> = 13.3 Q <sub>1</sub> = 18.7 Median = 35.5 Q <sub>3</sub> = 59.1 P <sub>90</sub> = 76.1 P <sub>99</sub> = 92.7																		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-Aug	38	51	89	55	45	46	11	14	16	28	27	23	23	21	25	38	33	22	19	61	57	11	43	43	89.1
2-Aug	59	66	41	32	22	33	34	49	28	51	63	67	49	48	54	34	46	25	30	38	48	89	81	42	88.7
3-Aug	38	66	73	49	92	70	80	48	38	31	69	30	33	28	34	31	33	39	67	18	15	9	71	42	91.5
4-Aug	17	24	17	50	50	36	31	62	94	30	23	23	33	25	20	20	22	24	13	23	25	77	75	19	94.4
5-Aug	14	14	67	50	33	39	82	75	83	50	79	67	47	19	17	12	12	36	99	32	47	40	36	22	98.6
6-Aug	31	44	38	28	10	13	11	14	14	14	23	33	26	72	52	63	42	15	14	43	33	50	49	27	72.5
7-Aug	20	21	13	11	9	15	10	8	9	15	22	83	49	28	50	64	66	51	36	37	8	69	21	37	82.8
8-Aug	31	37	13	19	11	43	54	20	32	52	80	66	45	96	100	44	49	43	19	31	70	75	41	21	100.4
9-Aug	74	83	72	93	85	70	83	38	13	29	55	73	67	91	31	29	61	16	70	64	73	37	33	47	93.3
10-Aug	18	59	35	80	8	56	42	18	25	42	88	69	41	26	25	28	43	34	13	73	76	53	62	25	88.5
11-Aug	39	18	33	47	37	67	56	36	17	22	52	18	17	27	20	22	16	16	63	75	51	56	58	28	75.1
12-Aug	29	19	24	23	57	21	24	15	24	20	26	38	25	15	18	24	37	30	88	47	90	75	70	15	90.1
13-Aug	81	92	62	79	70	68	59	73	91	48	39	40	37	59	88	87	27	15	58	64	22	36	60	83	92.3
14-Aug	38	19	27	90	53	90	39	82	52	49	55	54	72	58	30	35	41	14	12	10	21	13	8	9	90.0
15-Aug	9	12	12	39	13	8	13	17	14	17	19	17	16	22	17	15	17	22	13	27	44	23	35	75	75.2
16-Aug	55	27	26	35	20	36	25	25	57	49	70	54	73	76	92	67	56	14	32	66	31	16	18	7	92.0
17-Aug	7	23	22	9	7	10	9	8	12	35	20	18	22	24	23	34	64	71	52	74	72	44	89	88	89.0
18-Aug	66	55	19	17	50	21	64	16	28	41	57	76	72	54	56	35	16	20	17	8	18	36	16	20	75.8
19-Aug	17	15	8	11	24	74	58	33	44	13	14	14	16	14	14	17	18	15	13	13	25	26	15	10	74.0
20-Aug	49	72	75	64	74	37	17	18	20	16	28	22	23	22	28	30	18	16	16	13	19	11	10	14	75.1
21-Aug	20	58	19	15	13	7	19	10	12	13	14	15	16	13	17	13	12	18	13	26	43	22	15	17	58.1
22-Aug	18	62	50	26	20	38	59	18	28	69	55	83	79	57	70	75	46	34	21	33	73	88	81	55	88.3
23-Aug	47	73	67	72	92	73	68	55	46	50	44	48	53	35	28	60	29	18	20	9	17	54	77	76	91.7
24-Aug	50	27	33	77	86	86	57	82	15	41	86	54	93	73	55	55	28	29	25	20	80	40	61	74	92.6
25-Aug	59	66	76	80	53	85	56	45	93	37	53	76	32	15	14	15	17	17	11	8	11	41	88	23	92.5
26-Aug	45	91	50	81	51	73	64	47	39	73	77	46	71	78	62	31	26	22	14	18	44	7	84	96	96.2
27-Aug	94	81	82	33	31	22	41	11	48	47	30	17	41	47	39	31	14	18	36	11	12	10	26	14	93.8
28-Aug	27	33	16	19	34	62	72	13	36	17	32	47	85	43	17	32	73	38	34	70	53	71	39	11	85.1
29-Aug	56	12	15	57	88	78	72	24	64	38	13	14	14	11	12	12	24	51	77	79	39	22	64	98	97.7
30-Aug	96	86	46	68	77	15	65	55	64	14	43	33	21	23	20	42	17	42	60	60	51	60	48	65	96.3
31-Aug	31	6	10	14	18	50	85	20	10	43	24	30	21	17	20	17	49	37	37	70	42	68	60	72	85.1
96.3	92.3	89.1	93.3	91.7	90.0	85.1	82.3	94.4	72.9	88.5	83.1	92.6	96.4	100.4	87.1	73.0	70.6	98.6	78.7	90.1	88.7	89.0	97.7		

PAZA

Falher Station

Monthly Summary Tables, Graphs and  
Roses

## Hourly Averages

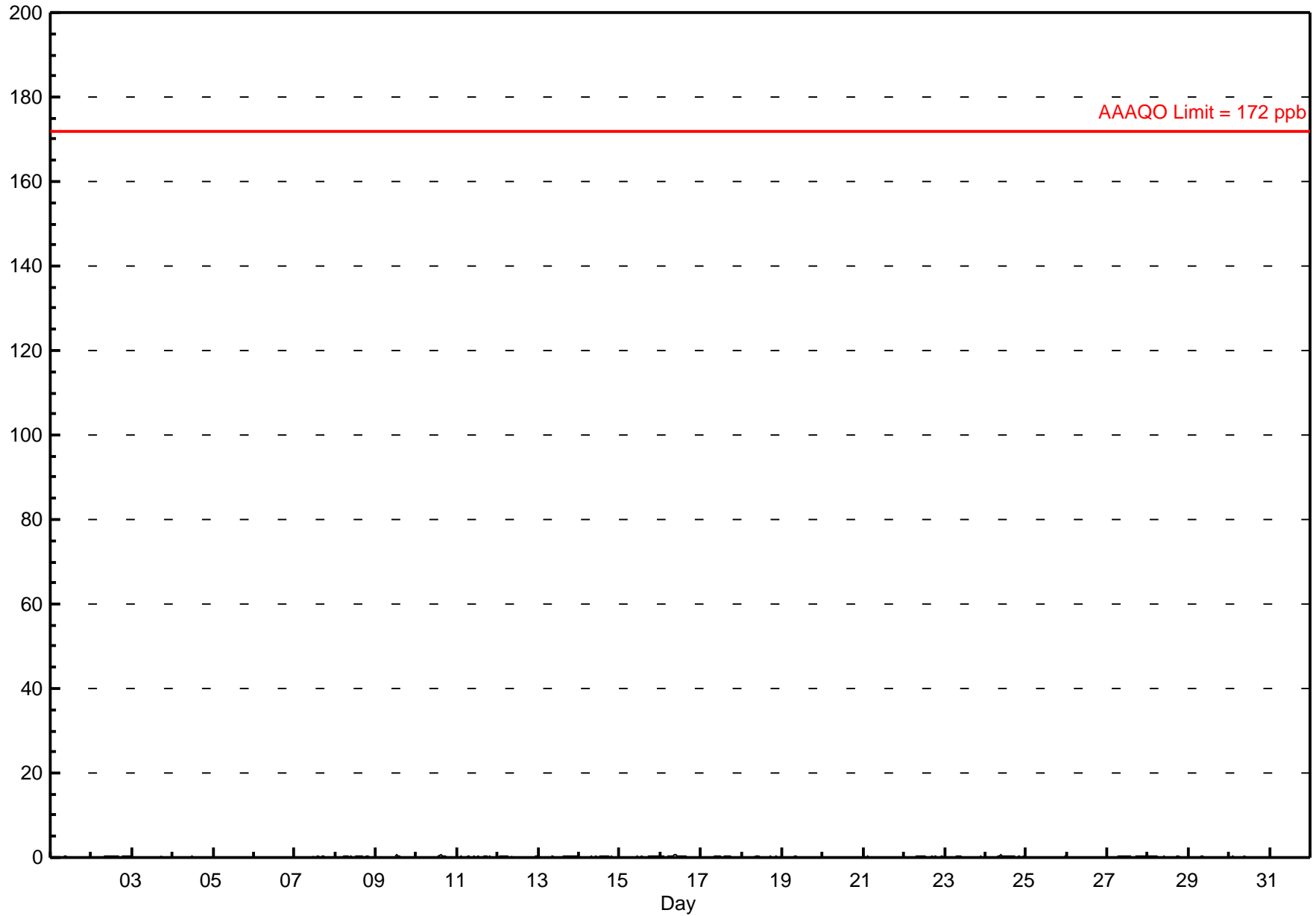
## Sulphur Dioxide (SO<sub>2</sub>) - ppb

Falher - August 2015

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 0.7 ppb on Aug 16 10:00	Maximum Daily Average: 0.3 ppb on Aug 16		Hours of Data:	710
Minimum Value: 0 ppb on Aug 1 01:00	Minimum Daily Average: 0.0 ppb on Aug 5		Hours of Missing Data:	34
Maximum Diurnal Average: 0.2 ppb at hour 10	Minimum Diurnal Average: 0.1 ppb at hour 4		Hours of Calibration:	34
Monthly Average: 0.12 ppb	Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.0 Median = 0.1 Q <sub>3</sub> = 0.2 P <sub>90</sub> = 0.2 P <sub>99</sub> = 0.4		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-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.1	0.2
2-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.2	0.4
3-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.1	0.2
4-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.1	0.2
5-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.0	0.1
6-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.0	0.1
7-Aug	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
8-Aug	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
9-Aug	0	0	0	0	0	0	0	0	0	0	A	0	1	0	0	0	0	0	0	0	0	0	0	0	0.1	0.6
10-Aug	0	0	0	0	0	0	0	0	0	A	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.1	0.7
11-Aug	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
12-Aug	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
13-Aug	0	0	0	0	0	0	A	0	0	0	0	0	C	C	0	0	0	0	0	0	0	0	0	0	0.2	0.4
14-Aug	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.2
15-Aug	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.2
16-Aug	0	0	0	A	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
17-Aug	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
18-Aug	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
19-Aug	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
20-Aug	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
21-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.2
22-Aug	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
23-Aug	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
24-Aug	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.2	0.5
25-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.0	0.2
26-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.0	0.1
27-Aug	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
28-Aug	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
29-Aug	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
30-Aug	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
31-Aug	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	Diurnal Average	
	0.3	0.3	0.3	0.3	0.4	0.3	0.4	0.5	0.6	0.7	0.4	0.4	0.6	0.4	0.7	0.3	0.2	0.4	0.3	0.3	0.2	0.3	0.3	Diurnal Maximum		

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



## Hourly Maximums

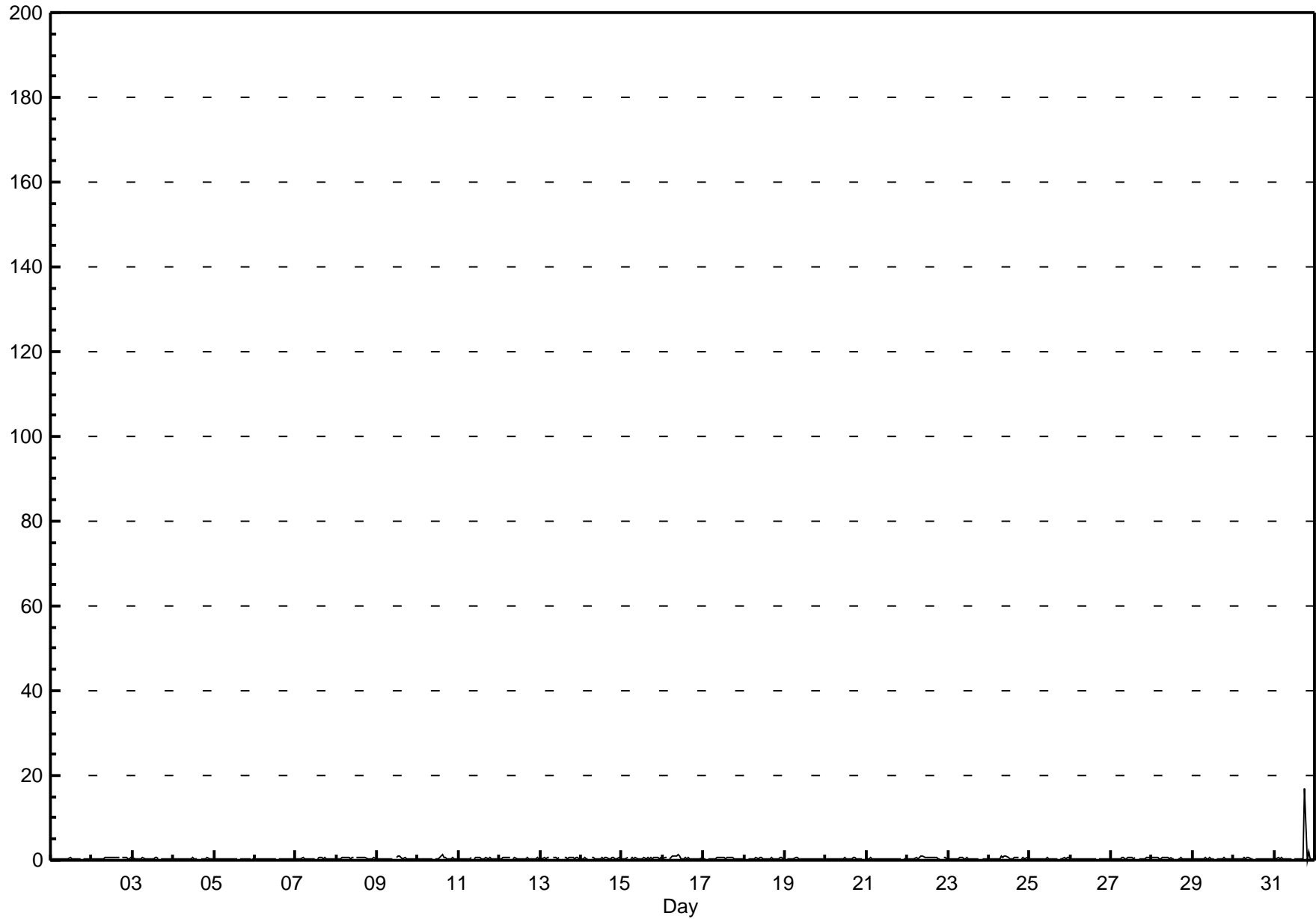
Sulphur Dioxide (SO<sub>2</sub>) - ppb

Falher - August 2015

Maximum Value: 16.8 ppb on Aug 31 19:00		Maximum Daily Average: 1.2 ppb on Aug 31		Hours in Service: 744																						
Minimum Value: 0 ppb on Aug 31 20:00		Minimum Daily Average: 0.3 ppb on Aug 5		Hours of Data: 710																						
Maximum Diurnal Average: 1.0 ppb at hour 19		Minimum Diurnal Average: 0.4 ppb at hour 20		Hours of Missing Data: 34																						
Monthly Average: 0.49 ppb		Percentiles: P <sub>1</sub> = 0.2 P <sub>10</sub> = 0.3 Q <sub>1</sub> = 0.4 Median = 0.4 Q <sub>3</sub> = 0.5 P <sub>90</sub> = 0.6 P <sub>99</sub> = 1.0		Hours of Calibration: 34																						
				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-Aug	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	A	0	0	0	0	0	0.4	0.5
2-Aug	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	A	1	1	1	0	0	1	0.5	0.8
3-Aug	1	0	0	1	0	0	1	0	0	0	0	0	0	1	1	0	A	0	0	0	0	0	0	0	0.5	0.6
4-Aug	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	A	0	1	0	0	1	0	0	0	0.4	0.6
5-Aug	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
6-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.4	0.5
7-Aug	0	0	0	0	1	0	0	0	0	0	0	0	0	A	0	1	1	0	1	0	0	0	0	0	0.5	0.6
8-Aug	0	0	0	1	1	1	1	1	1	0	1	0	1	1	1	1	1	1	1	1	1	0	1	0	0.5	0.6
9-Aug	0	0	0	1	0	0	0	0	0	0	0	0	0	0	A	1	1	1	1	0	0	0	0	0	0.5	1.0
10-Aug	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	1	1	1	0	0	0	1	0	0	0.5	1.3
11-Aug	0	0	0	0	0	0	0	1	0	A	0	1	1	1	0	0	0	1	0	1	0	1	0	0	0.5	0.8
12-Aug	0	0	1	1	1	1	1	A	0	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0.5	0.7
13-Aug	1	0	1	1	1	1	A	1	1	1	0	1	C	C	1	1	0	1	1	1	1	0	1	0	0.5	0.7
14-Aug	0	1	1	0	0	A	1	1	0	0	0	0	1	0	1	1	0	0	1	1	1	1	1	0	0.5	0.7
15-Aug	0	0	0	1	A	0	1	0	1	0	0	0	0	1	0	1	0	1	0	1	1	1	0	1	0.5	0.7
16-Aug	1	1	1	A	1	1	1	1	1	1	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0.6	1.3
17-Aug	0	0	A	0	0	0	0	0	0	1	1	1	1	0	1	1	1	1	0	0	0	0	0	0	0.5	0.7
18-Aug	0	A	0	0	0	0	0	1	0	1	0	1	0	0	0	0	1	1	0	0	0	1	1	0	0.5	0.7
19-Aug	A	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.7
20-Aug	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	A	0	0.4	0.6
21-Aug	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.4	0.7
22-Aug	0	0	0	0	0	1	0	1	1	1	1	1	1	1	1	1	1	1	0	0	A	1	1	0	0.5	1.0
23-Aug	1	0	0	0	0	0	0	1	1	0	0	1	0	0	0	0	0	0	0	A	0	0	0	0	0.4	0.6
24-Aug	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	1	1	1	A	1	1	0	1	0	0.6	1.0
25-Aug	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	A	0	0	1	0	1	1	0.4	0.6
26-Aug	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	0.5
27-Aug	0	0	0	0	0	0	1	1	1	0	1	1	1	0	1	A	0	0	0	0	0	1	1	1	0.5	0.7
28-Aug	1	1	1	1	0	0	1	1	1	1	0	1	0	0	0	A	0	1	0	0	0	0	0	0	0.5	0.8
29-Aug	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0.4	0.6
30-Aug	0	0	0	0	0	0	1	0	1	1	0	0	A	0	0	0	0	0	0	0	1	0	0	0	0.4	0.7
31-Aug	0	0	1	0	1	0	0	0	1	0	0	A	0	0	0	0	0	0	0	17	0	2	0	0	1.2	16.8
		0.4	0.4	0.5	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.0	0.4	0.5	0.4	0.4	0.4	Diurnal Average
		0.6	0.6	0.7	0.6	0.7	0.7	0.9	0.9	1.2	1.3	0.9	0.8	1.0	0.9	1.3	0.8	0.6	0.6	16.8	0.7	2.1	0.6	0.6	0.6	Diurnal Maximum
C - Calibration		A - Automated Daily Zero Span																								

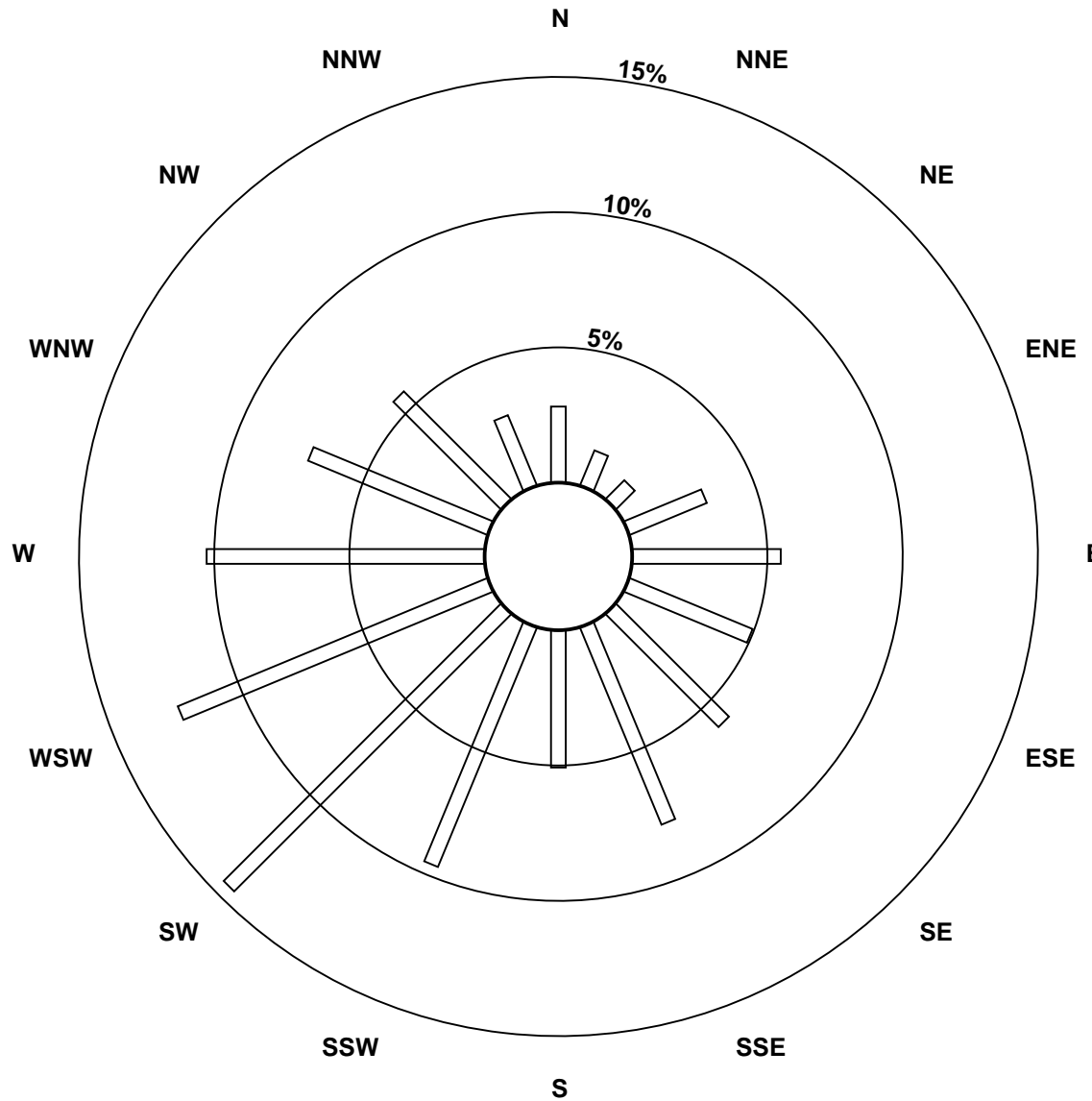
### Hourly Maximums

Sulphur Dioxide (SO<sub>2</sub>) - ppb  
Falher - August 2015

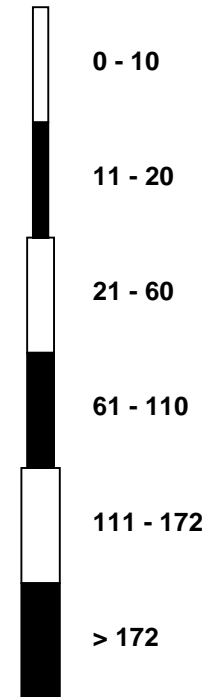


**Pollutant Rose**

**Sulphur Dioxide (SO<sub>2</sub>) - ppb**  
**Falher - August 2015**



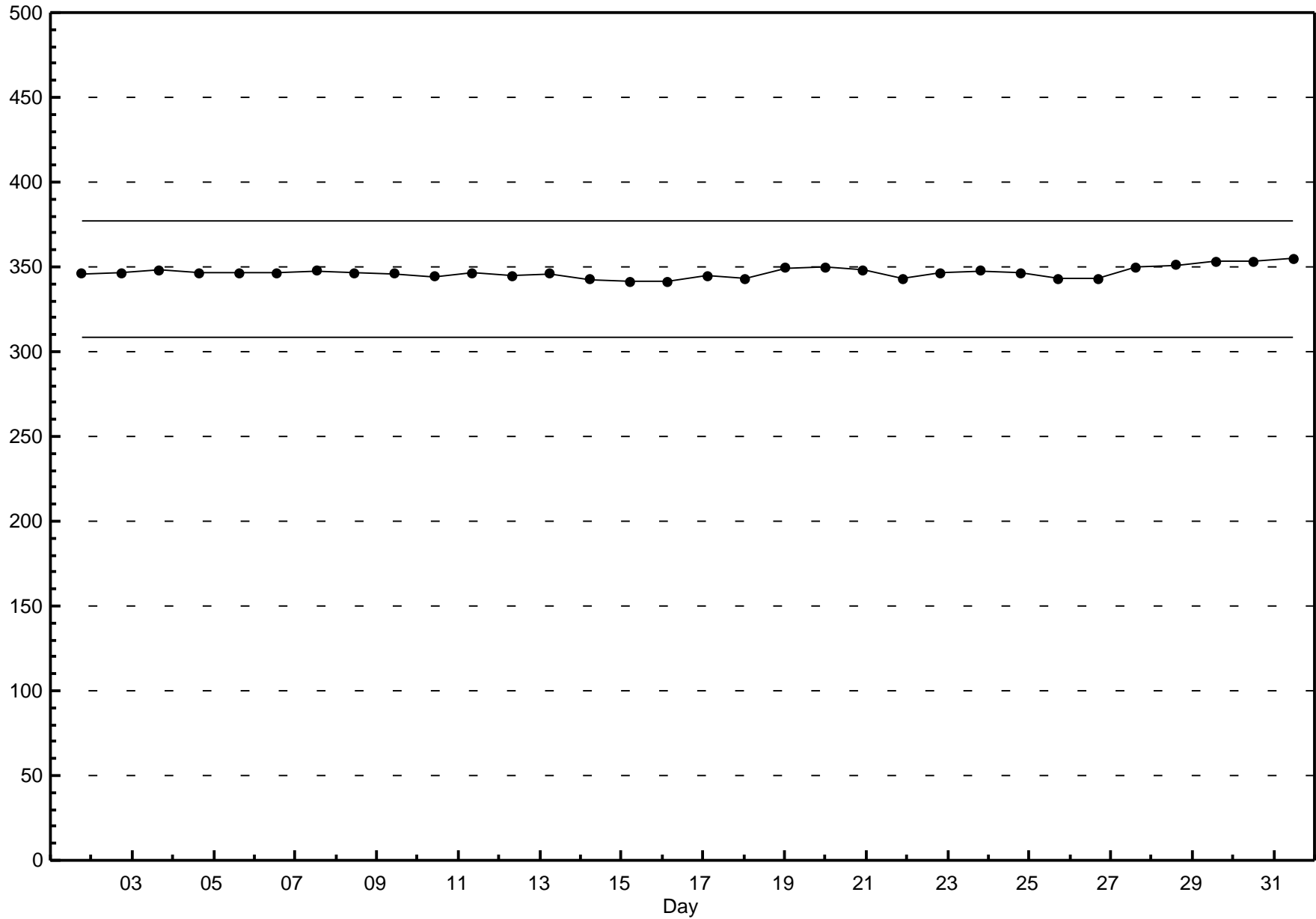
**Pollutant Classes (ppb)**





### Span Responses

Sulphur Dioxide (SO<sub>2</sub>)  
Falher - August 2015



## Hourly Averages

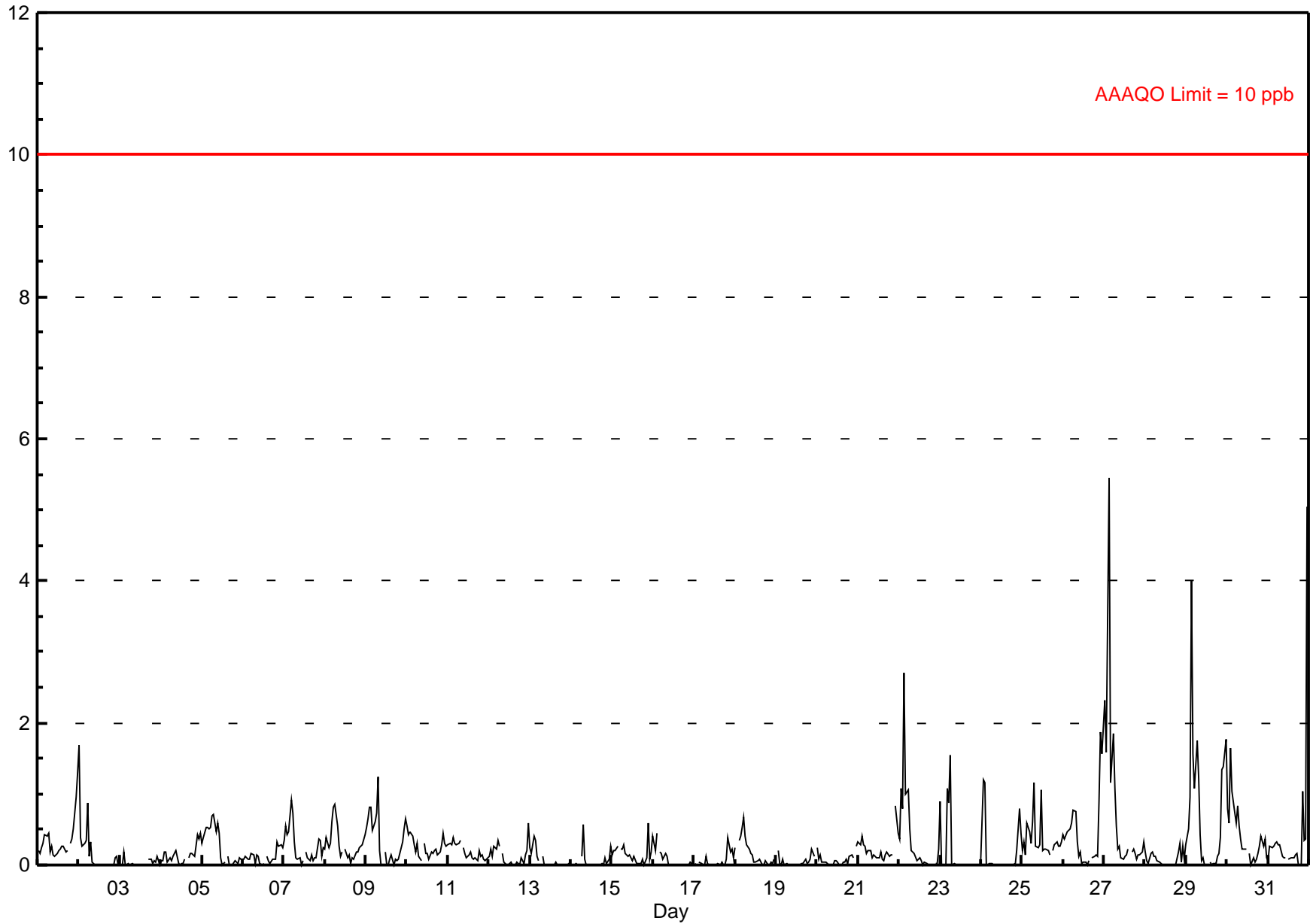
Hydrogen Sulphide (H<sub>2</sub>S) - ppb

Falher - August 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 5.4 ppb on Aug 27 04:00      Maximum Daily Average: 0.9 ppb on Aug 27		Hours in Service: 744 Hours of Data: 707 Hours of Missing Data: 37 Hours of Calibration: 37 Percent Operational Time: 100.0																																														
Minimum Value: 0 ppb on Aug 2 10:00 Maximum Diurnal Average: 0.7 ppb at hour 4 Monthly Average: 0.25 ppb		Minimum Daily Average: 0.0 ppb on Aug 3 Minimum Diurnal Average: 0.1 ppb at hour 16 Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.0 Median = 0.1 Q <sub>3</sub> = 0.3 P <sub>90</sub> = 0.6 P <sub>99</sub> = 1.6																																														
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum																						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																								
1-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	1	1	1	0.3	1.3																						
2-Aug	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.2	1.7																						
3-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.0	0.2																						
4-Aug	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																						
5-Aug	0	0	1	1	1	1	1	1	0	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.3	0.7																						
6-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.1	0.3																						
7-Aug	0	1	0	0	1	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.3	0.9																						
8-Aug	0	0	0	0	1	1	1	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.9																						
9-Aug	1	1	1	1	0	1	1	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0.4	1.2																						
10-Aug	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5																						
11-Aug	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4																						
12-Aug	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	0.6																						
13-Aug	0	0	0	0	0	0	A	0	0	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0.1	0.4																						
14-Aug	0	0	0	0	0	A	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.6																						
15-Aug	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.1	0.6																						
16-Aug	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5																						
17-Aug	0	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																						
18-Aug	0	A	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7																						
19-Aug	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	0.2																						
20-Aug	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																						
21-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	0	0.2	0.8																						
22-Aug	0	1	1	3	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.4	2.7																						
23-Aug	1	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.2	1.6																						
24-Aug	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	1	0	0.2	1.2																						
25-Aug	0	0	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	A	0	0	0	0	0	0	0.4	1.2																						
26-Aug	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	A	0	0	0	0	1	2	2	0.4	1.9																						
27-Aug	2	2	4	5	1	2	1	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.9	5.4																						
28-Aug	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																						
29-Aug	0	1	1	4	2	1	2	1	0	0	0	0	A	0	0	0	0	0	0	0	0	1	1	2	0.7	4.0																						
30-Aug	1	1	2	1	1	1	1	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.4	1.7																						
31-Aug	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	1	0	0	5	0.4	5.0																						
																								0.4	0.4	0.5	0.7	0.4	0.4	0.4	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.5	Diurnal Average
																								2.3	1.6	3.5	5.4	1.6	1.9	1.7	1.2	0.5	0.6	0.4	1.1	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.3	1.0	1.3	1.9	5.0	Diurnal Maximum
C - Calibration      A - Automated Daily Zero Span Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb    24-hr 3 ppb																																																

**Hourly Averages**

**Hydrogen Sulphide (H<sub>2</sub>S) - ppb**  
**Falher - August 2015**



## Hourly Maximums

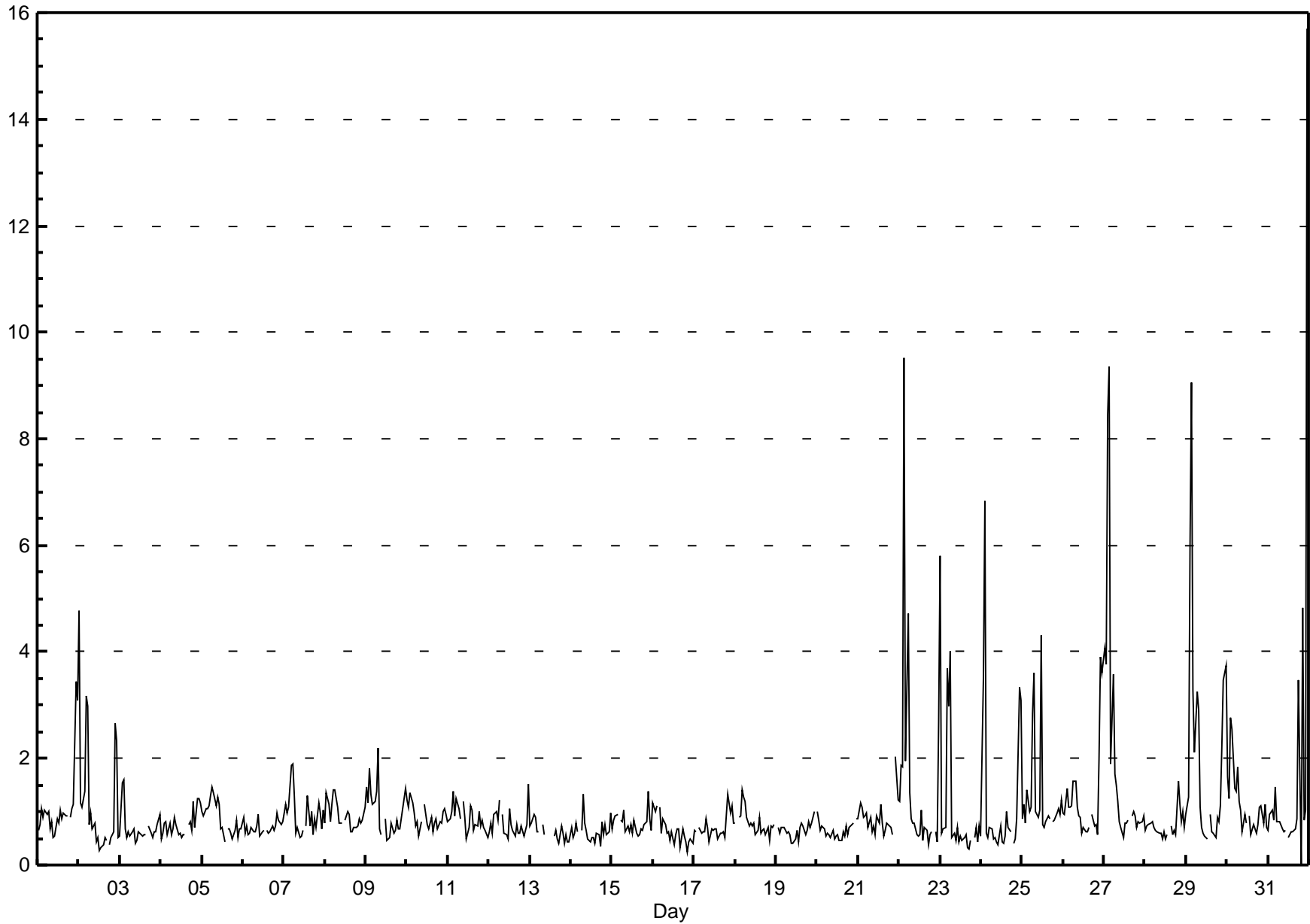
Hydrogen Sulphide (H<sub>2</sub>S) - ppb

Falher - August 2015

Maximum Value: 15.7 ppb on Sep 1 00:00		Maximum Daily Average: 2.0 ppb on Aug 29		Hours in Service: 744																							
Minimum Value: 0 ppb on Aug 31 20:00		Minimum Daily Average: 0.6 ppb on Aug 13		Hours of Data: 707																							
Maximum Diurnal Average: 1.8 ppb at hour 4		Minimum Diurnal Average: 0.6 ppb at hour 13		Hours of Missing Data: 37																							
Monthly Average: 1.01 ppb		Percentiles: P <sub>1</sub> = 0.3 P <sub>10</sub> = 0.5 Q <sub>1</sub> = 0.6 Median = 0.7 Q <sub>3</sub> = 1.0 P <sub>90</sub> = 1.4 P <sub>99</sub> = 5.5		Hours of Calibration: 37																							
				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-Aug	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	3	3	1.1	3.5	
2-Aug	5	1	1	1	3	3	1	1	1	1	0	1	0	0	0	1	0	A	0	1	1	3	2	1	1.2	4.8	
3-Aug	1	2	2	1	1	1	1	1	1	0	0	1	1	1	1	1	A	1	1	1	1	1	1	1	0.7	1.6	
4-Aug	0	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	1.2	
5-Aug	1	1	1	1	1	1	1	1	1	1	1	1	0	A	1	1	1	1	0	1	1	1	1	1	0.9	1.5	
6-Aug	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0	
7-Aug	1	1	1	1	2	2	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1.0	1.9	
8-Aug	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.4	
9-Aug	1	1	2	1	1	1	1	2	1	1	A	1	0	0	1	1	1	1	1	1	1	1	1	1	1.0	2.2	
10-Aug	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.4	
11-Aug	1	1	1	1	1	1	1	1	A	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.4	
12-Aug	1	1	1	1	1	1	1	A	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	2	0.8	1.5	
13-Aug	1	1	1	1	1	1	A	1	1	C	C	C	C	C	1	1	0	0	1	1	0	1	0	0	0.6	1.0	
14-Aug	1	1	1	1	1	A	1	1	1	1	0	0	1	1	0	1	1	0	1	1	1	1	1	1	0.6	1.3	
15-Aug	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.4	
16-Aug	1	1	1	A	1	1	1	1	1	1	0	1	0	1	1	1	0	1	1	0	0	0	1	0	0.6	1.2	
17-Aug	1	1	A	1	1	1	1	1	1	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0.7	1.3	
18-Aug	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0.8	1.4	
19-Aug	A	1	1	1	1	1	1	1	1	0	0	0	1	0	1	1	1	1	1	1	1	1	1	1	0.6	1.0	
20-Aug	1	1	1	1	1	1	1	1	1	1	0	1	1	0	0	1	1	1	1	1	1	1	A	1	0.6	1.0	
21-Aug	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	2	0.9	2.0	
22-Aug	1	2	2	10	2	5	1	1	1	1	1	1	1	0	1	1	1	0	1	1	A	1	0	3	1.5	9.5	
23-Aug	6	1	1	1	4	3	4	1	1	0	1	0	1	0	1	1	0	0	0	A	1	1	0	1	1.2	5.8	
24-Aug	1	4	7	1	1	1	1	0	1	0	0	1	0	0	1	1	1	1	A	0	0	1	3	3	1.2	6.8	
25-Aug	1	1	1	1	1	1	3	4	1	1	1	4	1	1	1	1	1	A	1	1	1	1	1	1	1.3	4.3	
26-Aug	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	A	1	1	1	1	1	2	4	1.2	3.9	
27-Aug	4	4	8	9	2	4	2	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	2.0	9.4	
28-Aug	1	1	1	1	1	1	1	1	1	0	1	0	1	0	1	1	1	1	1	1	2	1	1	1	0.7	1.6	
29-Aug	1	1	6	9	3	2	3	3	1	1	1	1	0	1	A	1	1	1	1	1	1	1	2	3	2.0	9.1	
30-Aug	2	1	3	3	1	1	2	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1.2	2.8	
31-Aug	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	3	0	5	1	1	16	1.7	15.7	
		1.3	1.1	1.7	1.8	1.3	1.3	1.2	1.1	0.8	0.7	0.7	0.8	0.6	0.7	0.7	0.7	0.7	0.7	0.8	0.7	0.9	1.0	1.3	1.8	Diurnal Average	
		5.8	3.8	8.5	9.5	3.7	4.7	4.0	3.6	1.2	1.3	1.2	4.3	1.1	1.1	1.3	1.0	1.0	1.0	3.5	1.6	4.8	2.7	3.9	15.7	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

**Hourly Maximums**

**Hydrogen Sulphide (H<sub>2</sub>S) - ppb**  
**Falher - August 2015**

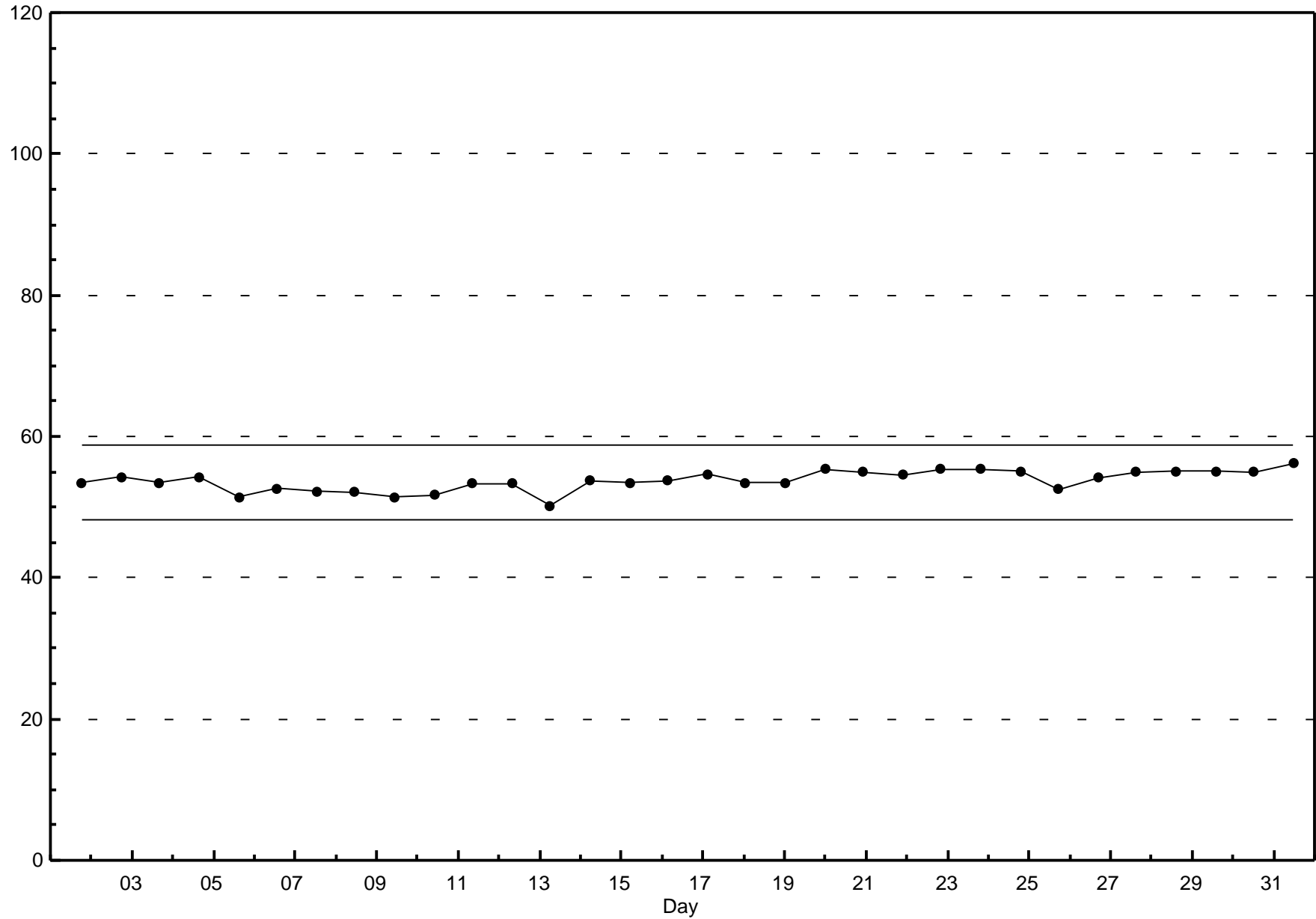




### Span Responses

Hydrogen Sulphide (H<sub>2</sub>S)

Falher - August 2015





Peace Airshed Zone Association

# Hourly Averages

External Temperature (ET) - °C

Falher - August 2015

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 27.6 °C on Aug 3 16:00	Maximum Daily Average: 20.4 °C on Aug 3		Hours of Data:	744
Minimum Value: -1 °C on Aug 22 06:00	Minimum Daily Average: 9.1 °C on Aug 21		Hours of Missing Data:	0
Maximum Diurnal Average: 21.7 °C at hour 16	Minimum Diurnal Average: 9.1 °C at hour 6		Hours of Calibration:	0
Monthly Average: 15.54 °C	Percentiles: P <sub>1</sub> = 3.7 P <sub>10</sub> = 8.3 Q <sub>1</sub> = 11.5 Median = 15.0 Q <sub>3</sub> = 20.2 P <sub>90</sub> = 23.2 P <sub>99</sub> = 26.4		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-Aug	15	14	13	12	10	10	12	14	17	19	21	21	22	23	24	24	21	21	22	21	18	14	13	12	17.3	23.9
2-Aug	12	11	12	12	11	9	11	13	15	18	21	23	24	25	25	26	26	26	26	25	20	17	15	16	18.2	26.2
3-Aug	16	15	15	15	14	14	14	17	19	22	23	24	25	26	27	28	27	25	24	22	21	20	20	19	20.4	27.6
4-Aug	17	15	14	13	13	13	13	13	14	15	17	19	19	21	21	22	22	22	22	20	17	14	13	12	16.7	22.4
5-Aug	12	12	10	9	9	10	11	13	14	14	16	16	17	17	17	16	13	14	14	14	13	13	13	13	13.3	17.0
6-Aug	13	12	12	12	12	12	12	13	14	15	16	17	18	18	19	20	20	19	19	16	14	13	12	13	15.0	19.7
7-Aug	12	11	10	9	8	8	11	14	15	18	20	20	21	22	22	24	24	24	23	22	20	18	16	14	16.9	24.4
8-Aug	14	14	13	12	10	9	10	13	18	20	21	22	24	25	25	25	26	25	25	23	20	18	15	15	18.4	25.8
9-Aug	14	13	13	13	13	14	14	17	21	23	24	23	24	25	25	25	24	24	24	23	21	18	16	16	19.4	24.9
10-Aug	14	14	12	11	12	11	14	16	19	22	24	25	26	26	27	27	27	27	26	25	21	17	16	15	19.7	27.4
11-Aug	14	13	12	11	9	9	14	18	19	21	23	25	25	25	25	24	23	23	23	22	21	19	17	16	18.7	25.3
12-Aug	16	16	15	14	14	15	16	17	19	22	22	23	24	25	25	26	25	25	25	23	21	18	17	15	19.9	25.5
13-Aug	16	16	15	16	16	16	17	18	18	16	17	21	23	24	25	25	24	23	23	21	18	16	14	12	18.8	24.7
14-Aug	10	10	8	7	7	6	9	12	14	16	17	18	19	20	20	21	20	20	18	16	14	12	11	10	14.1	20.6
15-Aug	9	8	7	6	7	7	7	9	10	11	12	13	13	14	15	15	15	14	14	14	12	11	10	9	11.0	14.6
16-Aug	7	6	5	7	7	7	8	9	11	15	16	18	19	20	21	20	21	21	21	19	16	10	9	10	13.5	21.4
17-Aug	8	6	5	5	6	7	8	11	14	15	15	17	18	18	19	19	19	19	13	12	11	10	9	8	12.1	19.3
18-Aug	6	6	6	4	4	3	6	10	12	14	16	18	20	21	22	22	23	22	21	20	19	18	16	15	14.3	22.7
19-Aug	13	12	13	12	12	14	15	18	19	21	21	21	21	21	23	23	23	22	22	19	16	15	15	13	17.7	23.1
20-Aug	12	13	11	9	8	9	11	11	12	13	13	14	15	17	17	17	16	15	13	12	12	11	9	6	12.4	17.4
21-Aug	4	3	4	4	6	4	6	8	10	10	10	11	12	13	13	13	13	13	13	11	10	9	8	8	9.1	13.5
22-Aug	6	5	3	2	1	-1	1	6	8	12	14	16	17	18	19	20	19	19	19	16	14	13	13	13	11.5	20.2
23-Aug	11	10	10	10	10	10	10	12	14	15	18	21	22	23	23	22	23	22	22	20	18	14	11	10	15.8	23.1
24-Aug	9	6	4	4	4	4	6	10	14	17	17	19	20	20	21	22	22	22	22	19	16	13	13	12	14.0	22.1
25-Aug	10	10	10	9	10	11	11	11	14	14	13	13	14	16	16	17	17	17	16	15	13	12	11	10	12.9	17.4
26-Aug	10	10	9	9	9	8	8	9	12	14	16	17	18	19	21	21	21	21	20	18	15	13	10	9	14.0	21.3
27-Aug	9	8	8	8	8	8	9	12	15	18	21	22	23	24	25	26	26	26	25	22	21	19	18	17	17.3	25.7
28-Aug	18	17	16	15	14	13	14	15	18	21	21	22	22	24	23	22	22	21	22	19	17	13	12	12	18.1	23.6
29-Aug	11	9	8	7	7	6	6	9	13	15	17	19	20	21	21	21	21	20	18	16	15	13	12	11	14.0	21.4
30-Aug	11	11	10	10	9	9	9	11	12	14	14	14	16	19	20	20	20	20	19	15	12	11	9	11	13.5	20.4
31-Aug	12	12	12	11	9	8	8	12	15	16	16	15	16	18	18	19	18	18	17	14	11	10	9	7	13.4	18.8

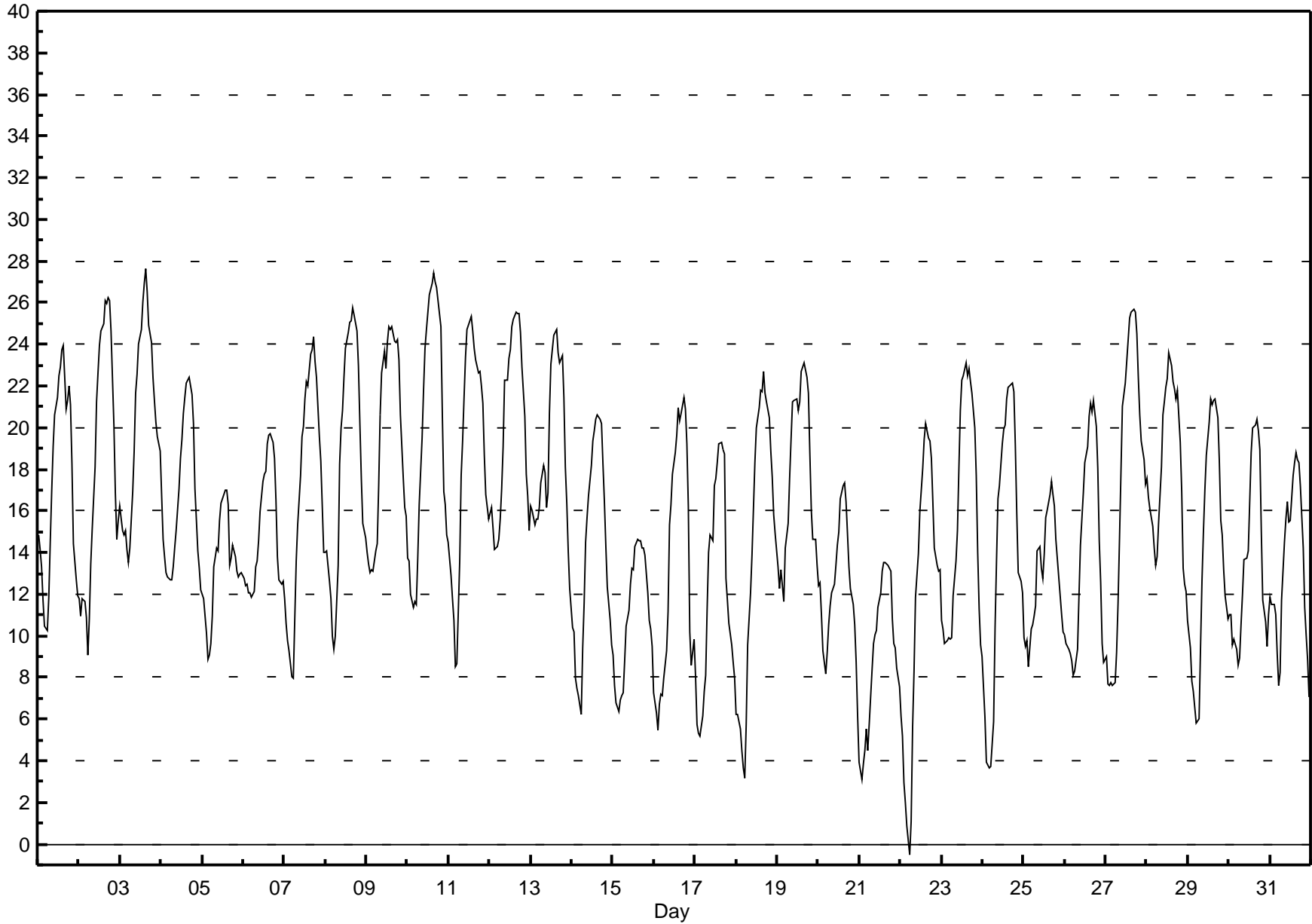
11.6	10.9	10.1	9.7	9.3	9.1	10.3	12.7	14.8	16.6	17.8	19.0	19.9	20.9	21.5	21.7	21.4	21.1	20.3	18.6	16.3	14.2	13.0	12.2	Diurnal Average	
17.5	16.7	16.1	15.6	15.6	16.2	17.4	18.2	20.6	22.6	23.8	24.7	25.5	26.4	27.0	27.6	27.0	26.7	26.1	24.9	21.3	20.3	19.6	18.9	Diurnal Maximum	



**Hourly Averages**

**External Temperature (ET) - °C**

**Falher - August 2015**





Peace Airshed Zone Association

# Hourly Averages

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

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 Spd	10	12	13	11	11	7	5	9	12	9	7	7	4	8	7	2	15	7	8	6	8	11	9	8	2.6	14.8
Dir	228	193	196	189	198	190	193	256	285	279	266	245	269	224	232	321	10	15	63	71	96	102	101	113	207	10
2 Spd	5	7	8	4	6	8	5	5	8	8	10	9	7	5	8	6	6	3	4	6	9	10	11	10	1.7	11.2
Dir	75	75	87	28	109	136	189	208	198	250	274	257	258	265	247	266	241	258	290	98	119	98	95	96	164	95
3 Spd	11	8	9	5	8	4	9	7	13	17	17	14	16	18	20	21	26	23	24	21	20	23	21	11	13.5	25.9
Dir	98	109	61	82	158	210	312	24	55	65	77	84	93	92	94	86	95	110	106	99	96	82	88	98	90	95
4 Spd	15	17	15	12	7	11	8	7	13	15	18	17	16	14	14	14	14	14	14	9	8	7	5	7	11.3	18.0
Dir	255	262	266	229	184	220	236	243	257	259	272	267	268	274	274	280	270	284	288	287	279	249	310	292	265	272
5 Spd	7	5	2	2	2	4	6	9	8	5	5	3	5	8	9	5	9	5	2	8	8	6	4	5	4.0	9.5
Dir	308	316	289	186	198	233	148	221	265	272	257	243	243	258	266	317	10	322	249	235	248	257	272	304	265	266
6 Spd	5	4	2	3	3	5	5	7	7	6	11	12	14	12	11	12	11	11	9	9	8	7	5	4	6.3	13.9
Dir	339	330	17	358	293	306	306	316	307	351	14	3	352	351	327	333	341	333	324	270	251	274	251	242	327	352
7 Spd	3	6	4	3	9	6	8	8	9	9	7	9	12	10	12	11	10	7	6	2	3	2	10	3	4.0	12.3
Dir	119	135	175	157	125	124	164	182	208	215	222	217	230	241	239	259	256	273	249	206	102	333	347	68	215	230
8 Spd	8	4	2	5	3	3	3	1	1	4	4	6	4	6	7	8	4	4	7	7	4	7	10	10	0.8	10.3
Dir	68	85	71	89	146	352	118	231	127	257	229	260	257	245	245	212	235	218	21	56	58	68	71	74	93	74
9 Spd	10	10	9	6	3	6	9	11	19	18	12	13	13	15	12	13	12	13	10	6	6	7	6	5	3.4	18.6
Dir	68	75	67	99	80	42	54	90	104	119	142	190	182	209	230	243	244	257	269	279	265	214	156	191	165	104
10 Spd	8	12	6	12	11	10	7	10	13	15	15	15	18	17	18	17	15	14	13	9	7	12	12	13	10.5	18.1
Dir	170	167	156	145	140	157	157	167	192	209	223	237	236	230	242	231	227	228	239	229	230	183	198	190	207	242
11 Spd	11	12	12	11	7	9	12	14	13	16	22	29	29	29	33	30	22	17	14	15	20	13	10	10	15.2	32.9
Dir	198	182	184	194	167	157	184	211	223	231	235	245	255	248	255	254	261	257	248	252	254	253	243	223	236	255
12 Spd	9	11	11	10	8	9	10	11	14	22	24	26	22	23	24	20	18	16	18	11	6	5	6	8	12.3	25.6
Dir	217	233	211	199	196	204	226	227	268	267	250	265	262	262	261	256	264	267	287	280	193	192	162	148	248	265
13 Spd	9	9	10	10	10	7	8	10	13	13	15	21	23	24	25	24	22	22	17	12	12	13	12	11	12.5	25.5
Dir	229	160	143	146	164	181	206	201	226	241	226	229	238	237	256	257	260	252	260	250	266	272	256	241	236	256
14 Spd	12	12	8	9	8	8	3	8	8	15	14	16	18	16	16	15	16	15	16	17	14	13	11	11	10.5	17.6
Dir	258	288	264	258	263	245	249	254	269	282	301	294	298	293	283	301	300	311	341	353	357	353	348	354	302	298
15 Spd	7	6	6	9	3	5	9	10	10	10	12	13	11	11	11	8	10	9	8	7	8	9	8	8	6.6	13.1
Dir	11	330	335	329	264	240	308	318	310	316	296	294	280	297	287	288	281	259	256	239	209	201	188	222	284	294
16 Spd	7	4	5	3	6	6	3	6	7	2	9	8	6	6	8	5	8	4	6	5	10	13	12	12	4.6	12.5
Dir	222	210	180	161	187	200	178	219	233	249	212	221	193	253	282	264	266	270	245	178	145	128	124	149	198	128
17 Spd	9	8	10	8	11	9	8	8	11	8	8	1	7	7	9	10	6	2	19	7	7	5	8	9	4.2	18.5
Dir	139	138	155	148	170	178	163	199	227	259	291	54	144	142	207	232	237	32	326	89	205	323	218	217	196	326
18 Spd	9	8	8	5	6	7	8	8	8	10	10	10	8	12	13	15	16	12	11	10	13	14	14	13	9.4	15.7
Dir	199	204	192	156	140	131	157	211	232	222	215	210	204	197	209	199	201	193	162	149	164	180	174	162	188	201
19 Spd	12	11	13	12	9	15	15	17	22	26	24	26	25	22	24	27	28	26	22	9	6	3	6	4	13.2	27.7
Dir	163	168	176	162	191	217	221	242	256	273	274	261	272	285	261	267	276	288	297	293	245	266	339	339	259	276
20 Spd	9	7	11	12	11	10	12	14	17	16	17	16	15	12	13	14	16	21	19	13	7	5	5	5	9.9	20.9
Dir	290	309	279	277	263	255	275	291	284	277	275	285	281	268	292	298	348	5	4	11	6	357	334	288	302	5
21 Spd	1	4	8	8	8	10	10	13	21	21	17	19	19	22	21	21	23	19	13	8	2	3	1	5	11.8	22.5
Dir	257	294	303	308	309	293	300	306	319	322	315	294	297	292	304	298	292	287	285	334	207	323	153	234	300	292
22 Spd	5	5	2	4	3	5	6	5	7	3	5	4	6	7	8	6	11	12	12	11	11	11	10	11	5.2	11.7
Dir	216	217	161	148	153	128	153	193	232	181	184	236	207	210	263	254	222	202	172	142	137	131	126	119	178	202



Peace Airshed Zone Association

# Hourly Averages

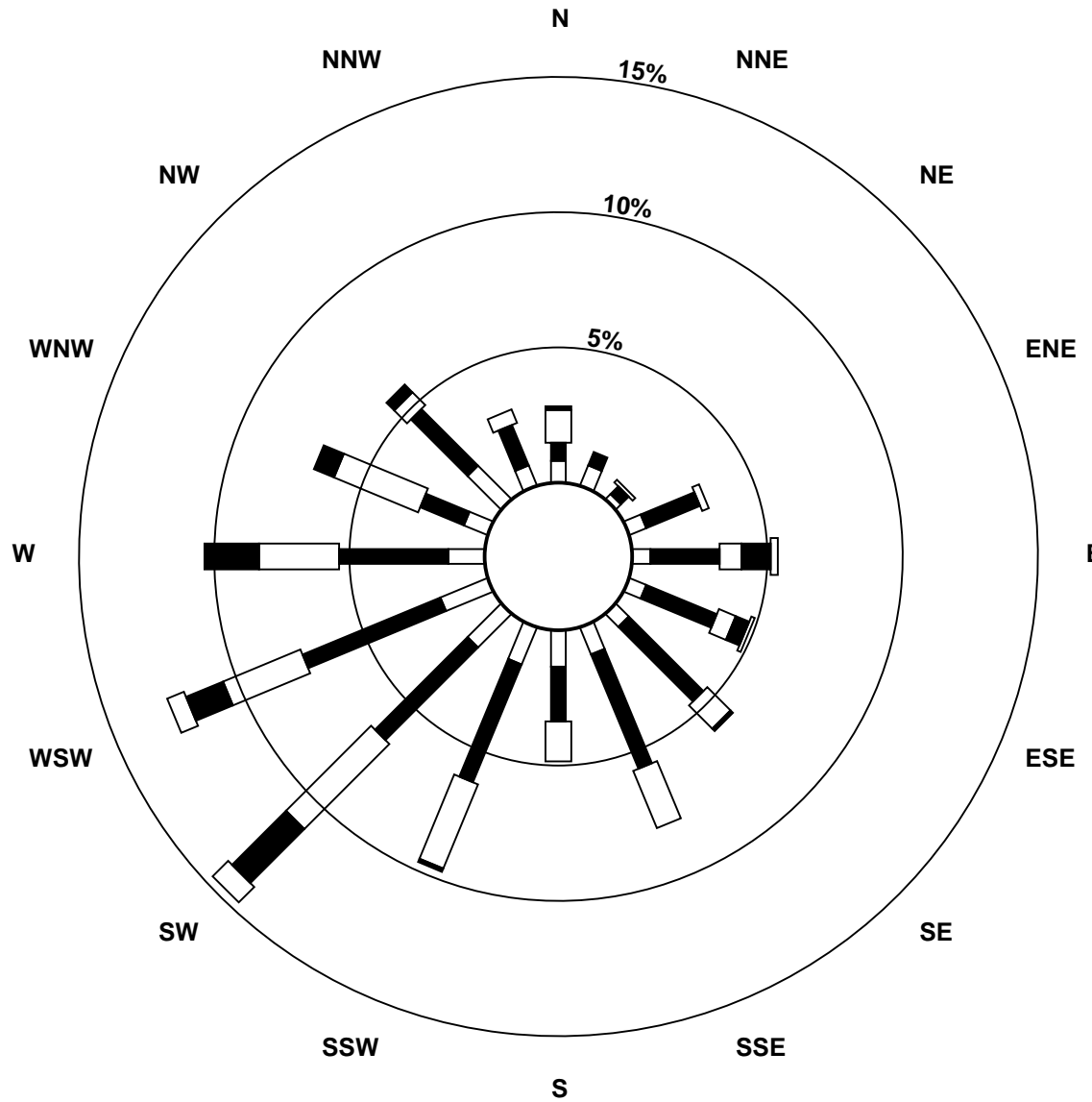
**Wind Speed (km/h)  
Wind Direction (deg)  
Falher - August 2015**

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		
23 Spd	12	12	13	11	9	8	8	12	11	9	9	6	8	16	17	26	21	16	16	12	14	13	10	10	6.1	25.5
Dir	102	94	95	98	111	104	118	149	159	152	150	185	235	220	228	266	255	252	253	240	236	231	246	253	207	266
24 Spd	2	5	12	9	8	7	11	9	6	7	8	9	10	8	2	5	5	5	3	5	9	9	11	11	3.4	11.6
Dir	256	146	155	163	166	147	174	205	273	257	225	239	240	239	306	201	194	234	306	54	72	68	88	102	180	155
25 Spd	7	10	6	4	5	10	8	2	10	9	2	9	12	9	9	14	15	16	11	6	9	10	6	7	3.6	16.1
Dir	87	73	62	28	151	84	109	49	92	95	123	89	95	34	305	303	314	325	326	313	308	325	339	309	16	325
26 Spd	5	6	6	8	7	6	6	4	4	3	2	2	4	2	2	6	6	5	6	5	1	4	9	8	2.0	9.5
Dir	299	306	293	320	316	324	337	345	6	67	11	17	309	216	13	240	247	264	243	265	353	87	114	135	306	114
27 Spd	10	9	9	7	8	8	9	11	15	17	22	27	27	27	28	34	32	31	26	21	18	16	15	13	15.3	34.1
Dir	133	122	118	110	105	131	136	169	199	211	229	228	224	214	221	220	223	233	227	225	229	229	227	206	212	220
28 Spd	13	12	14	15	13	14	14	14	17	18	15	13	10	15	16	14	11	6	4	2	7	20	2	14	11.6	20.4
Dir	215	223	216	212	207	205	210	213	221	238	228	226	230	236	217	224	244	261	313	138	271	192	234	206	221	192
29 Spd	12	6	5	9	13	11	9	9	7	8	12	18	21	24	28	31	34	30	22	10	8	10	6	12	13.7	33.8
Dir	160	200	105	133	137	130	113	129	129	126	106	121	121	115	94	100	98	103	130	102	92	164	134	159	118	98
30 Spd	12	12	10	14	8	9	7	9	10	13	14	12	18	23	26	23	27	24	21	11	13	15	13	16	12.3	27.5
Dir	158	159	133	142	142	155	149	163	179	214	229	208	210	232	230	226	224	227	218	204	167	145	145	149	194	224
31 Spd	16	8	12	12	16	8	5	18	28	32	27	27	25	32	28	29	26	26	17	9	11	9	5	7	15.6	32.1
Dir	167	154	136	148	152	154	186	209	224	233	230	217	220	226	226	236	235	239	245	211	197	203	220	119	214	226
Spd	3.6	3.2	3.4	3.8	5.1	4.3	3.8	5.3	6.4	7.1	7.9	9.0	8.9	9.8	10.7	10.5	8.8	7.6	5.9	2.4	3.1	3.1	2.4	4.0	Diurnal Average	
Dir	183	178	168	168	169	178	191	217	236	246	246	243	242	242	249	253	257	260	267	240	206	184	158	172		
Spd	15.7	17.3	15.3	15.1	16.1	14.8	14.9	18.0	27.6	31.6	26.6	29.1	29.1	32.1	32.9	34.1	33.8	30.7	25.9	21.4	19.6	22.9	20.6	15.8	Diurnal Maximum	
Dir	167	262	266	212	152	217	221	209	224	233	230	245	255	226	255	220	98	233	227	225	254	82	88	149		
Maximum Speed Value: 34 km/h on Aug 27 16:00		Minimum Speed Value: 1 km/h on Aug 17 12:00		Hours in Service: 744																						
Maximum Daily Speed Average: 15.6 km/h on Aug 27		Minimum Daily Speed Average: 0.8 km/h on Aug 26		Hours of Data: 744																						
Maximum Diurnal Speed Average: 10.7 km/h at hour 15		Minimum Diurnal Speed Average: 2.4 km/h at hour 20		Hours of Missing Data: 0																						
Monthly Average Velocity: 4.92 km/h 228.9 deg		Speed Percentiles: P <sub>1</sub> = 1.9 P <sub>10</sub> = 4.4 Q <sub>1</sub> = 6.6 Median = 9.6 Q <sub>3</sub> = 13.9 P <sub>90</sub> = 21.1 P <sub>99</sub> = 29.8		Percent Operational Time: 100.0																						
All monthly, daily, and diurnal averages have been calculated using vector methods																										
Frequency Distribution																										
Direction	Speed Range (km/h)						Total																			
	0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38																				
North	11	11	13	2	0	0	37																			
NorthEast	8	9	2	0	0	0	19																			
East	9	38	14	10	3	0	74																			
SouthEast	11	59	19	3	0	0	92																			
South	10	49	37	1	0	0	97																			
SouthWest	17	77	64	23	8	0	189																			
West	21	54	51	27	4	0	157																			
NorthWest	14	40	18	7	0	0	79																			
Total	101	337	218	73	15	0	744																			

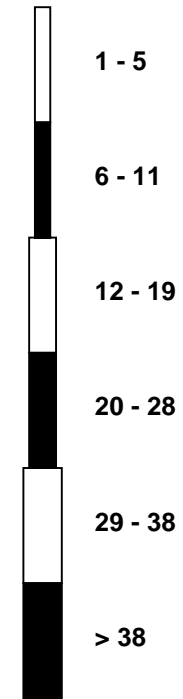
**Wind Rose**

**Wind Speed (WS) (km/h)**

**Falher - August 2015**



**Wind Speed Classes (km/h)**



# Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Falher - August 2015

Maximum Speed: 35 km/h on Aug 27 16:00	Maximum Daily Speed Average: 18.5 km/h on Aug 27	Hours in Service: 744
Minimum Speed: 1 km/h on Aug 21 01:00	Minimum Daily Speed Average: 5.6 km/h on Aug 26	Hours of Data: 744
Maximum Diurnal Speed Average: 16.7 km/h at hour 16	Minimum Diurnal Speed Average: 8.2 km/h at hour 7	Hours of Missing Data: 0
Monthly Average Speed: 11.60 km/h	Percentiles: P <sub>1</sub> = 2.5 P <sub>10</sub> = 5.4 Q <sub>1</sub> = 7.4 Median = 10.0 Q <sub>3</sub> = 14.2 P <sub>90</sub> = 21.4 P <sub>99</sub> = 30.0	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-Aug	10	12	13	11	11	8	6	10	12	9	8	8	7	10	9	10	15	7	9	6	8	11	10	8	9.4	15.2
2-Aug	5	7	8	6	6	8	6	5	8	8	10	10	8	8	10	7	8	6	4	6	10	11	11	11	7.9	11.2
3-Aug	11	9	9	6	9	6	10	8	13	17	18	15	16	18	21	22	26	23	24	21	20	23	21	11	15.7	26.5
4-Aug	18	18	16	12	8	12	8	7	13	15	18	18	17	15	14	14	14	14	14	9	8	7	6	7	12.5	18.4
5-Aug	7	5	3	3	3	4	6	9	8	5	5	4	6	9	10	8	10	5	2	8	8	6	4	6	6.0	10.1
6-Aug	5	4	3	6	4	5	5	7	8	7	12	13	14	12	12	13	11	11	10	9	8	7	5	4	8.1	14.3
7-Aug	3	6	4	3	9	7	8	8	9	9	8	10	13	11	12	12	10	8	6	3	6	4	10	6	7.7	13.1
8-Aug	8	4	2	5	4	4	4	2	3	5	5	7	6	8	8	10	6	6	9	7	4	7	10	10	6.1	10.5
9-Aug	10	10	9	10	7	7	9	11	19	18	13	14	13	16	13	13	12	13	10	6	6	7	7	6	10.8	18.7
10-Aug	8	12	6	12	11	10	7	10	14	15	15	16	18	18	19	18	16	14	13	9	7	12	12	13	12.7	18.6
11-Aug	11	12	12	11	8	9	13	15	13	16	22	30	29	29	33	30	22	17	15	15	20	13	10	10	17.3	33.2
12-Aug	10	11	11	10	8	9	10	11	14	22	24	26	22	23	25	20	18	16	18	11	7	6	7	9	14.5	26.0
13-Aug	9	10	10	10	10	7	8	11	13	14	15	22	23	25	26	25	22	22	17	12	12	13	12	11	14.9	25.9
14-Aug	12	12	9	9	9	8	3	8	8	15	15	17	18	17	17	16	17	15	16	17	15	13	11	11	12.9	18.2
15-Aug	7	6	7	9	7	7	9	10	10	11	13	13	12	11	11	9	10	10	8	7	8	9	8	8	9.1	13.3
16-Aug	7	4	5	3	6	6	3	7	7	4	10	10	8	9	10	6	8	6	7	6	10	13	12	12	7.5	12.6
17-Aug	9	8	10	8	11	9	8	8	11	8	9	4	8	8	10	10	7	4	20	9	8	7	8	9	8.8	19.8
18-Aug	9	8	8	5	6	7	8	8	9	10	10	11	9	12	14	15	16	12	11	10	13	14	14	13	10.6	16.1
19-Aug	12	12	14	12	10	15	15	17	22	27	25	26	26	22	24	28	28	27	22	9	6	5	6	4	17.2	28.2
20-Aug	10	7	11	12	12	10	13	14	17	16	18	17	15	13	14	15	16	21	19	13	7	5	5	5	12.7	21.0
21-Aug	1	4	8	8	8	10	10	13	21	21	18	20	20	22	22	22	23	19	14	8	3	3	3	6	12.8	23.0
22-Aug	5	5	2	4	3	6	6	5	7	4	6	6	8	9	10	8	11	12	12	11	11	11	10	11	7.7	12.2
23-Aug	12	12	13	11	9	8	8	12	11	9	9	7	10	16	17	26	21	17	17	12	14	13	10	10	12.7	26.3
24-Aug	3	6	12	9	8	7	11	10	7	7	9	10	11	9	7	8	7	6	4	6	9	9	12	11	8.2	12.3
25-Aug	8	10	7	7	6	10	9	4	12	10	8	10	12	10	9	15	15	16	11	7	9	10	6	7	9.5	16.4
26-Aug	5	7	6	8	7	6	6	4	5	3	4	4	5	4	4	7	7	6	7	6	2	5	10	8	5.6	9.6
27-Aug	10	9	9	7	8	8	9	11	15	17	23	27	27	27	29	35	32	31	26	21	18	16	15	13	18.5	34.5
28-Aug	13	12	14	15	13	14	14	14	17	18	16	14	11	15	16	14	11	7	4	3	10	22	9	14	13.0	22.2
29-Aug	12	9	6	9	13	11	9	9	7	9	12	19	21	24	28	31	34	30	23	13	9	10	8	12	15.3	33.9
30-Aug	12	12	10	14	9	9	8	9	11	13	14	13	18	24	26	24	28	24	21	11	14	15	13	16	15.4	28.1
31-Aug	16	9	12	12	16	8	6	18	28	32	27	28	25	32	29	30	27	27	17	9	11	9	5	8	18.4	32.3
	9.0	8.9	8.7	8.7	8.4	8.2	8.2	9.5	12.1	12.8	13.5	14.4	14.8	15.7	16.4	16.7	16.5	14.6	13.2	9.7	9.7	10.2	9.3	9.3	Diurnal Average	
	17.6	17.9	16.1	15.2	16.1	14.8	15.0	18.1	27.7	31.8	27.0	29.6	29.3	32.3	33.2	34.5	33.9	30.9	26.0	21.4	19.7	23.1	20.7	15.9	Diurnal Maximum	

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

# Hourly Standard Deviations

Wind Direction (WD) - deg

Falher - August 2015

Maximum Value: 96.7 deg on Aug 17 12:00		Hours in Service: 744																							
Minimum Value: 0.6 deg on Aug 21 01:00		Hours of Data: 744																							
Percentiles: P <sub>1</sub> = 3.2 P <sub>10</sub> = 5.4 Q <sub>1</sub> = 8.4 Median = 12.8 Q <sub>3</sub> = 21.4 P <sub>90</sub> = 43.2 P <sub>99</sub> = 79.1		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-Aug	20	10	4	9	4	21	25	24	10	18	30	49	63	38	42	89	13	20	17	5	13	13	9	15	89.3
2-Aug	8	9	6	50	22	16	22	20	11	17	24	29	46	64	43	31	46	67	35	39	11	10	5	9	66.7
3-Aug	5	30	19	37	27	48	31	30	9	11	11	24	16	15	15	11	11	5	6	8	8	6	5	16	47.7
4-Aug	53	16	20	13	13	20	9	9	7	9	11	10	12	14	20	18	13	14	10	6	7	14	31	11	53.0
5-Aug	12	15	70	59	61	35	29	14	17	22	19	33	21	15	9	47	26	21	37	13	8	9	8	18	69.9
6-Aug	12	20	38	61	27	9	7	14	10	37	13	19	14	18	22	21	19	11	20	10	12	14	17	11	60.7
7-Aug	56	7	20	47	14	31	5	8	14	18	32	28	20	19	13	18	23	35	24	35	51	77	14	68	77.4
8-Aug	17	26	27	21	45	36	51	61	87	45	57	34	57	47	42	40	59	40	50	12	22	17	5	10	86.6
9-Aug	6	9	5	49	70	17	7	12	7	10	22	18	18	21	22	14	14	8	12	12	17	20	29	21	69.9
10-Aug	20	14	18	7	5	14	12	10	11	13	11	11	12	16	12	18	17	13	9	14	19	8	4	6	20.4
11-Aug	15	9	6	9	8	9	13	13	6	8	10	11	7	12	7	5	6	8	9	4	4	5	7	9	14.7
12-Aug	16	4	13	7	4	6	9	10	6	9	8	10	12	9	10	12	14	11	7	14	17	18	25	24	25.0
13-Aug	22	27	9	8	8	10	9	11	16	16	8	7	9	9	10	9	9	6	6	8	7	8	5	8	27.1
14-Aug	10	10	21	9	16	10	24	12	22	13	17	13	15	17	19	20	20	15	14	5	5	4	5	4	23.7
15-Aug	17	26	16	5	62	40	5	8	9	12	13	11	16	18	12	14	15	14	14	15	5	4	6	9	62.3
16-Aug	5	23	16	27	8	3	17	33	29	69	26	38	43	57	50	52	34	65	27	22	4	4	4	8	69.0
17-Aug	5	8	5	7	10	7	9	8	11	19	29	97	30	23	26	17	16	83	29	59	41	43	11	7	96.7
18-Aug	6	10	9	16	10	10	18	14	10	12	12	24	39	19	21	12	13	10	8	5	5	5	7	4	39.4
19-Aug	4	6	9	6	23	4	7	5	9	8	10	7	18	10	13	12	11	9	7	9	17	57	7	18	57.0
20-Aug	11	29	15	5	13	9	9	12	9	10	13	15	17	25	20	17	14	7	7	7	5	8	11	12	28.8
21-Aug	1	11	3	4	6	4	6	7	10	12	17	13	11	11	15	16	13	10	11	7	57	41	71	18	71.0
22-Aug	11	2	43	14	26	13	6	24	17	58	53	60	65	44	37	53	18	17	15	6	8	5	5	7	65.0
23-Aug	4	2	3	4	7	8	14	12	6	11	16	37	39	17	16	14	10	16	9	5	6	4	13	6	38.6
24-Aug	81	32	13	14	6	9	7	14	20	20	18	28	22	24	83	57	50	45	47	33	10	14	20	8	83.1
25-Aug	17	11	25	54	27	21	18	65	35	43	77	41	19	27	16	11	13	11	10	11	10	7	9	15	76.8
26-Aug	17	12	17	12	12	18	16	22	29	40	78	77	66	72	71	33	50	47	14	12	51	13	10	10	77.9
27-Aug	4	10	7	16	6	15	6	13	10	10	9	8	8	9	15	9	8	7	7	4	4	3	4	4	15.7
28-Aug	7	6	2	3	6	5	4	5	10	9	20	18	25	20	11	12	6	29	42	24	40	24	92	12	91.8
29-Aug	16	52	69	10	4	7	9	12	13	12	16	10	9	6	5	4	4	20	41	22	24	24	47	10	68.8
30-Aug	9	6	14	11	23	11	26	12	17	11	7	16	11	13	9	12	11	11	6	7	17	4	5	5	26.3
31-Aug	8	23	12	6	5	33	18	5	5	6	9	13	8	7	10	12	7	8	7	13	8	9	22	45	44.5
	81.1	52.3	69.9	60.7	69.9	47.7	51.4	64.6	86.6	69.0	77.9	96.7	66.3	71.7	83.1	89.3	58.7	83.4	49.9	58.7	57.0	77.4	91.8	67.8	

PAZA

Portable – Clairmont Station  
Monthly Summary Tables, Graphs and  
Roses

## Hourly Averages

## Sulphur Dioxide (SO<sub>2</sub>) - ppb Portable Clairmont - August 2015

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 3.4 ppb on Aug 24 09:00	Maximum Daily Average: 0.8 ppb on Aug 8		Hours of Data:	684
Minimum Value: 0 ppb on Aug 7 12:00	Minimum Daily Average: 0.0 ppb on Aug 17		Hours of Missing Data:	60
Maximum Diurnal Average: 0.5 ppb at hour 9	Minimum Diurnal Average: 0.2 ppb at hour 16		Hours of Calibration:	35
Monthly Average: 0.23 ppb	Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.1 Median = 0.2 Q <sub>3</sub> = 0.3 P <sub>90</sub> = 0.5 P <sub>99</sub> = 1.6		Percent Operational Time:	96.6

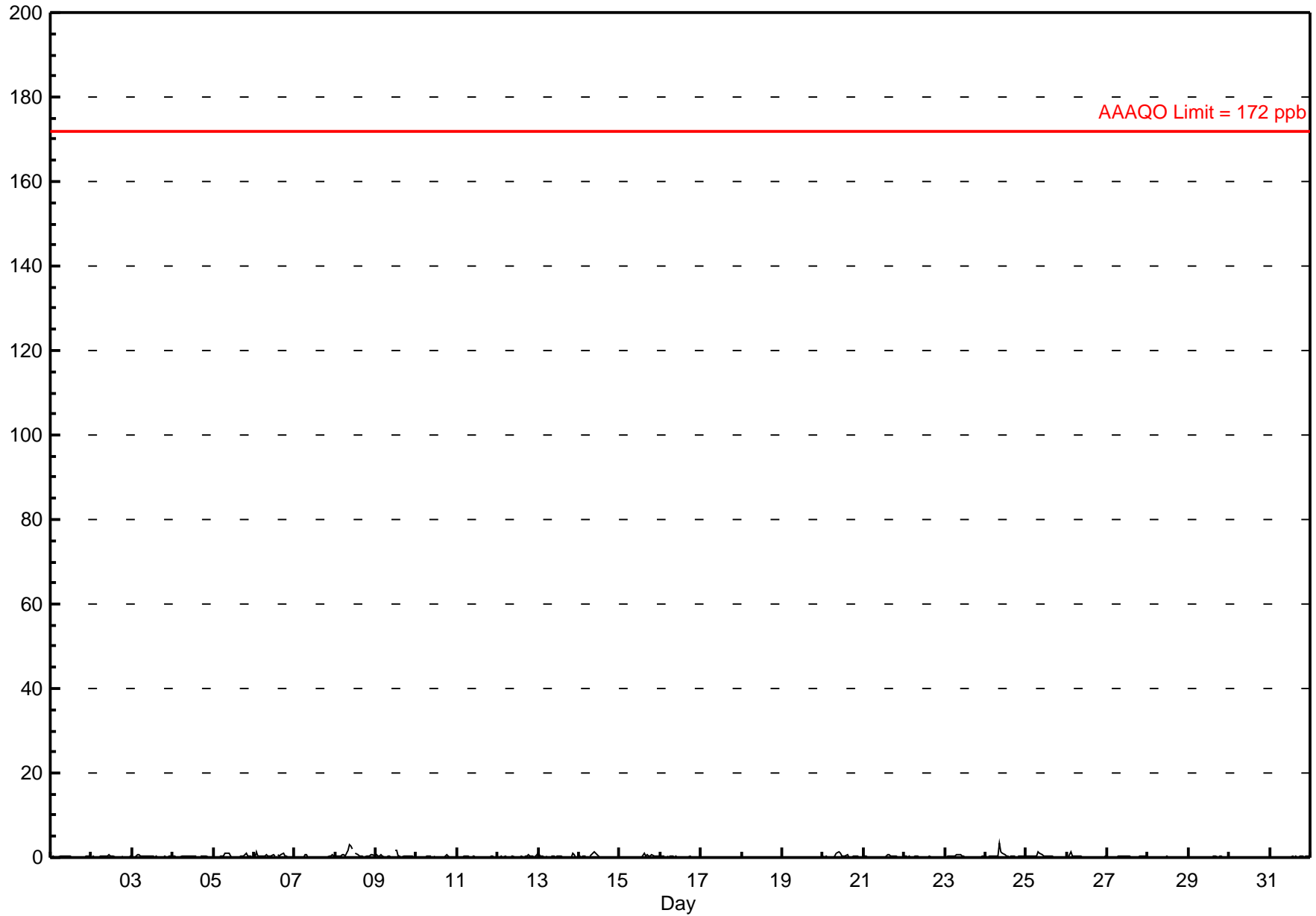
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.2	0.4	
2-Aug	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0.2	0.5	
3-Aug	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.3	0.7	
4-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.2	0.5	
5-Aug	0	0	0	0	0	0	0	1	1	1	0	0	0	0	A	0	0	0	0	1	0	0	0	0	0.4	1.2	
6-Aug	0	1	0	0	0	0	0	1	0	0	0	1	0	A	1	0	1	1	0	0	0	0	0	0	0.4	1.3	
7-Aug	0	0	0	0	0	0	1	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	0	0.2	0.7	
8-Aug	0	0	0	0	1	1	0	2	3	3	2	A	1	1	0	0	0	0	0	0	0	1	1	0	0.8	3.1	
9-Aug	1	0	0	1	0	0	0	0	0	0	0	A	2	2	0	0	0	0	0	0	0	0	0	0	0.4	1.6	
10-Aug	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	1	0	0	0	0	0	0.1	0.6	
11-Aug	0	0	0	0	0	0	0	0	A	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4	
12-Aug	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0.2	0.8	
13-Aug	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0.3	1.3	
14-Aug	0	0	0	0	0	A	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.4	
15-Aug	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	0	0	0	0	0.2	0.9	
16-Aug	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	
17-Aug	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2	
18-Aug	0	A	0	0	0	0	0	0	0	0	0	0	P	P	P	P	P	P	P	P	P	P	P	P	--	0.1	
19-Aug	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	--	0.1	
20-Aug	0	0	0	0	0	0	0	0	0	1	1	1	0	0	1	0	0	0	0	0	0	0	0	A	0	0.3	1.3
21-Aug	0	0	0	0	0	0	0	C	C	C	C	0	0	0	1	1	0	0	0	0	0	0	A	0	0.3	0.6	
22-Aug	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	
23-Aug	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.3	0.7	
24-Aug	0	0	0	0	0	0	0	0	3	1	1	1	0	0	0	0	0	0	A	0	0	0	0	0	0.5	3.4	
25-Aug	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.3	1.2	
26-Aug	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.2	1.2	
27-Aug	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	
28-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.1	0.2	
29-Aug	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	
30-Aug	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
31-Aug	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	
	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.5	0.5	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	Diurnal Average		
	1.3	1.3	1.2	0.7	0.7	0.7	0.5	1.6	3.4	2.6	2.0	1.6	1.6	0.6	0.9	0.6	0.8	1.0	0.7	1.0	1.1	0.5	0.7	0.8	Diurnal Maximum		

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



### Hourly Averages

Sulphur Dioxide (SO<sub>2</sub>) - ppb  
Portable Clairmont - August 2015



## Hourly Maximums

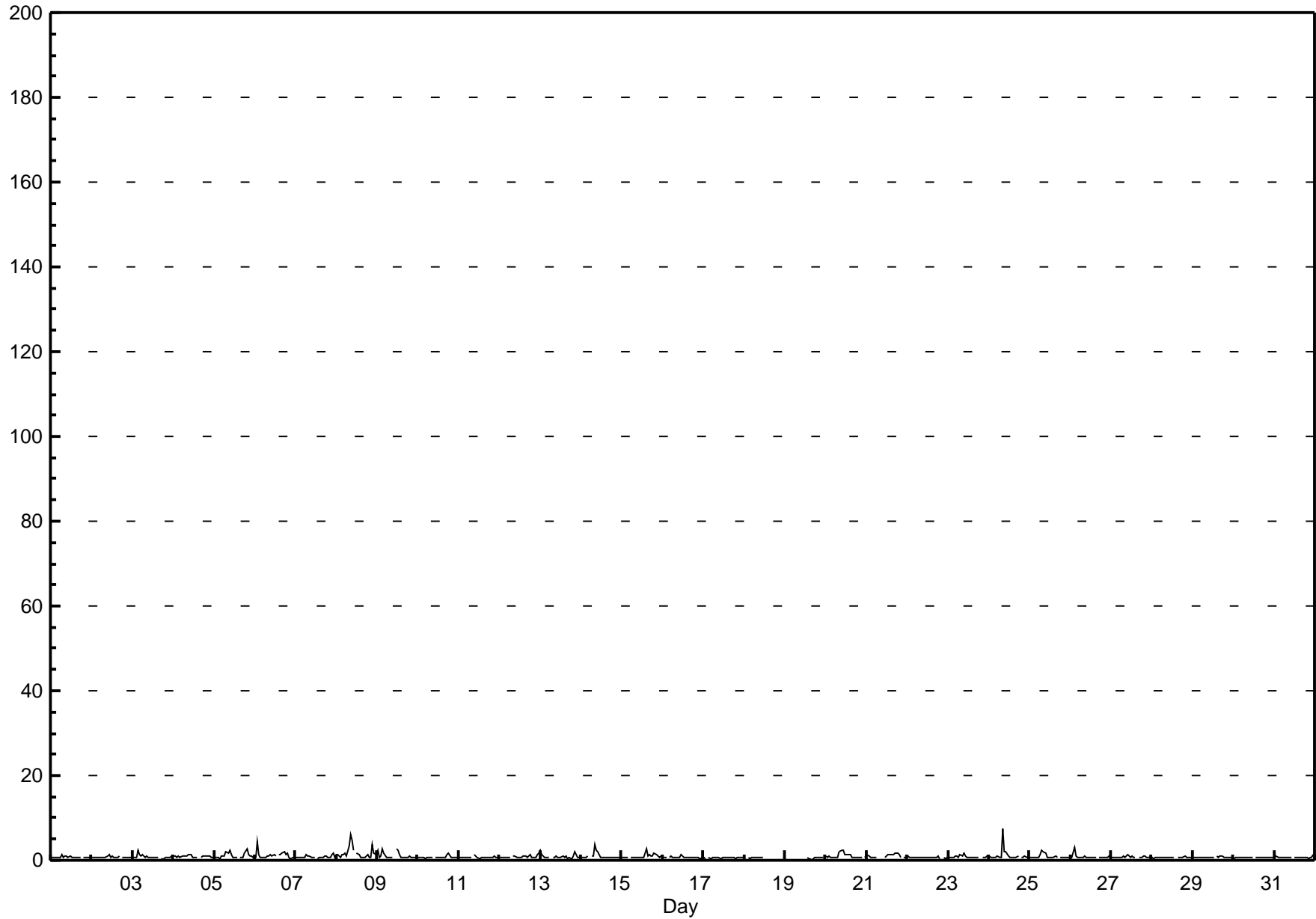
## Sulphur Dioxide (SO<sub>2</sub>) - ppb

### Portable Clairmont - August 2015

Maximum Value: 7.4 ppb on Aug 24 09:00		Maximum Daily Average: 1.8 ppb on Aug 8		Hours in Service: 744																						
Minimum Value: 0 ppb on Aug 19 17:00		Minimum Daily Average: 0.6 ppb on Aug 17		Hours of Data: 684																						
Maximum Diurnal Average: 1.4 ppb at hour 9		Minimum Diurnal Average: 0.8 ppb at hour 16		Hours of Missing Data: 60																						
Monthly Average: 0.89 ppb		Percentiles: P <sub>1</sub> = 0.4 P <sub>10</sub> = 0.6 Q <sub>1</sub> = 0.7 Median = 0.7 Q <sub>3</sub> = 0.9 P <sub>90</sub> = 1.3 P <sub>99</sub> = 3.2		Hours of Calibration: 35																						
				Percent Operational Time: 96.6																						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Aug	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	1.3
2-Aug	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	1.3
3-Aug	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	A	0	0	1	1	1	1	1	0.9	2.3
4-Aug	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0.9	1.4
5-Aug	1	1	1	1	1	1	1	2	2	2	1	1	1	1	A	1	1	1	2	3	1	1	1	1	1.1	2.6
6-Aug	1	4	1	1	1	1	1	1	1	1	1	1	1	A	1	1	2	2	1	2	1	0	1	1	1.3	4.3
7-Aug	1	1	1	1	1	1	1	1	1	1	1	1	A	0	1	1	1	1	1	1	1	1	2	1	0.9	1.7
8-Aug	1	1	1	1	1	2	1	3	6	5	2	A	2	1	1	1	1	1	1	1	1	4	2	1	1.8	6.0
9-Aug	2	1	1	3	2	1	1	1	1	1	A	2	2	1	1	1	1	1	1	1	1	1	1	1	1.1	2.7
10-Aug	1	1	1	1	0	1	1	1	1	1	A	1	1	1	1	1	1	1	2	1	1	1	1	1	0.7	1.7
11-Aug	1	1	1	1	1	1	1	1	A	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0.8	1.3
12-Aug	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	0.9	1.8
13-Aug	2	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0	1	0	1	2	1	1	1	1	0.9	2.3
14-Aug	1	1	1	1	1	A	1	1	4	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	3.7
15-Aug	1	1	1	1	A	1	1	1	1	1	1	1	1	1	3	1	1	1	1	2	1	1	1	1	1.0	2.8
16-Aug	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0.7	1.2
17-Aug	1	0	A	1	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0	1	1	1	1	0.6	0.7
18-Aug	1	A	1	1	1	1	1	1	1	1	1	1	P	P	P	P	P	P	P	P	P	P	P	P	--	0.7
19-Aug	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	--	0.8
20-Aug	1	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	2.3
21-Aug	1	1	1	1	1	1	1	C	C	C	C	1	1	1	1	1	1	2	2	1	1	A	1	1	1.0	1.5
22-Aug	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	A	1	0	1	0.7	1.0
23-Aug	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.8	1.6
24-Aug	1	1	1	1	1	1	1	1	7	2	2	1	1	1	1	1	1	1	A	1	1	1	1	1	1.2	7.4
25-Aug	1	1	1	1	1	1	1	2	2	2	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1.0	2.3
26-Aug	1	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.8	2.9
27-Aug	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	1.2
28-Aug	1	0	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.6	0.9
29-Aug	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0.7	1.0
30-Aug	0	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.7	0.8
31-Aug	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0	1	1	1	0.8	1.3
		0.9	0.9	0.8	0.9	0.8	0.8	0.8	1.0	1.4	1.2	1.0	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.9	0.9	0.8	0.9	0.8	0.9	Diurnal Average
		2.3	4.3	2.9	2.7	1.6	1.5	1.4	3.3	7.4	4.9	2.4	2.6	2.2	1.4	2.8	1.5	1.8	2.2	1.7	2.6	2.0	3.6	1.7	1.8	Diurnal Maximum
C - Calibration		P - Power Failure						A - Automated Daily Zero Span																		

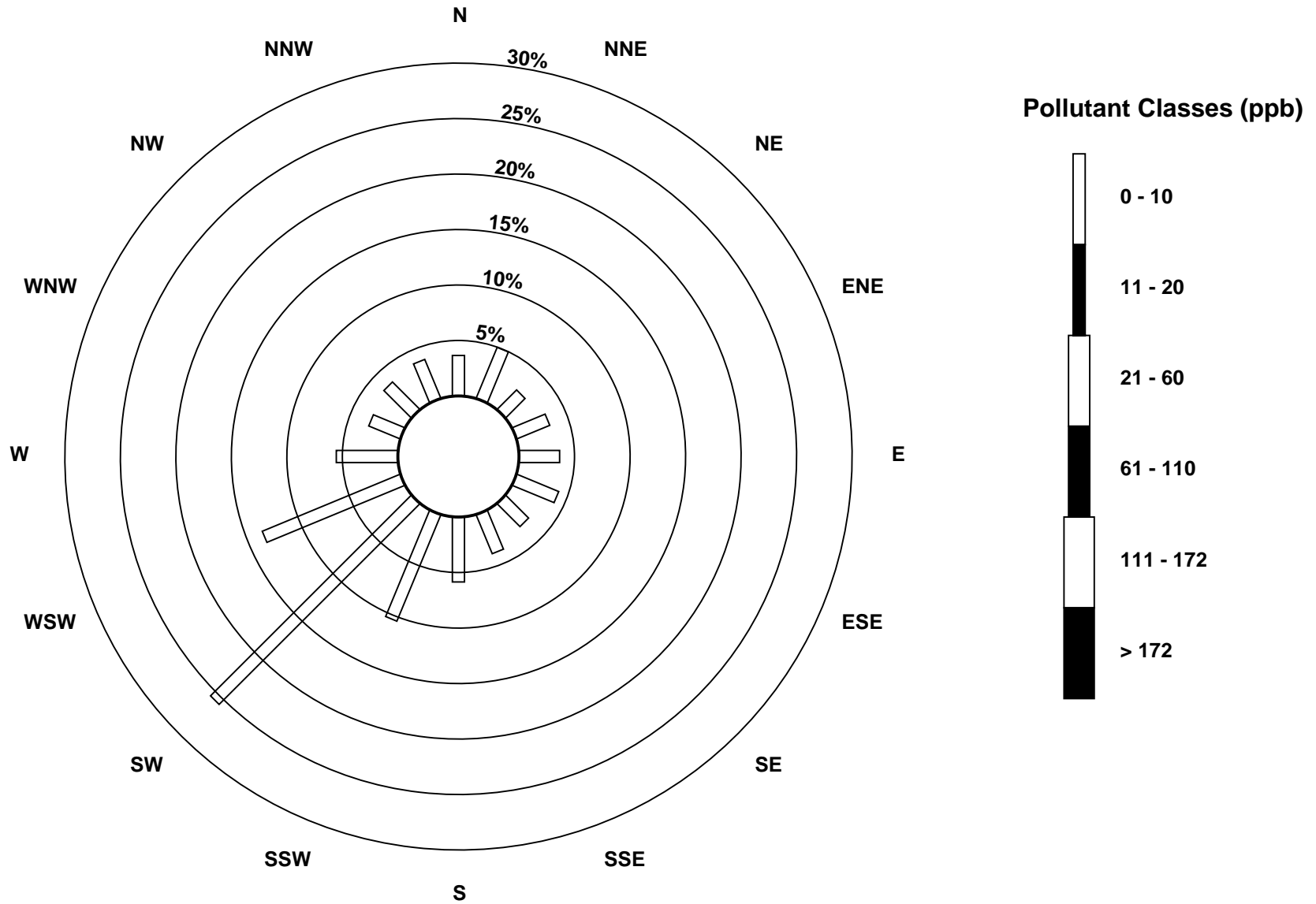
**Hourly Maximums**

**Sulphur Dioxide (SO<sub>2</sub>) - ppb**  
**Portable Clairmont - August 2015**



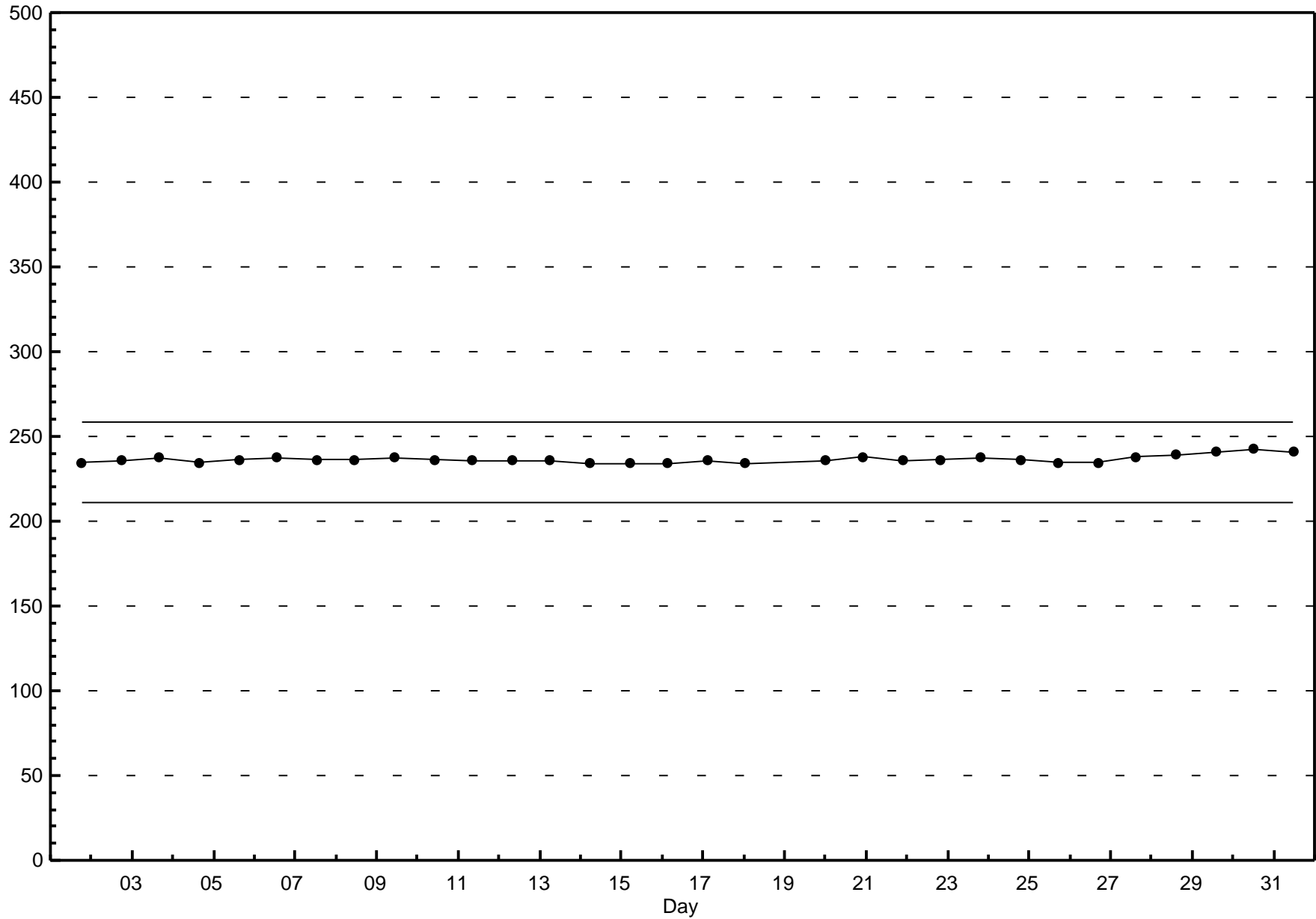
**Pollutant Rose**

**Sulphur Dioxide (SO<sub>2</sub>) - ppb**  
**Portable Clairmont - August 2015**



### Span Responses

Sulphur Dioxide (SO<sub>2</sub>)  
Portable Clairmont - August 2015

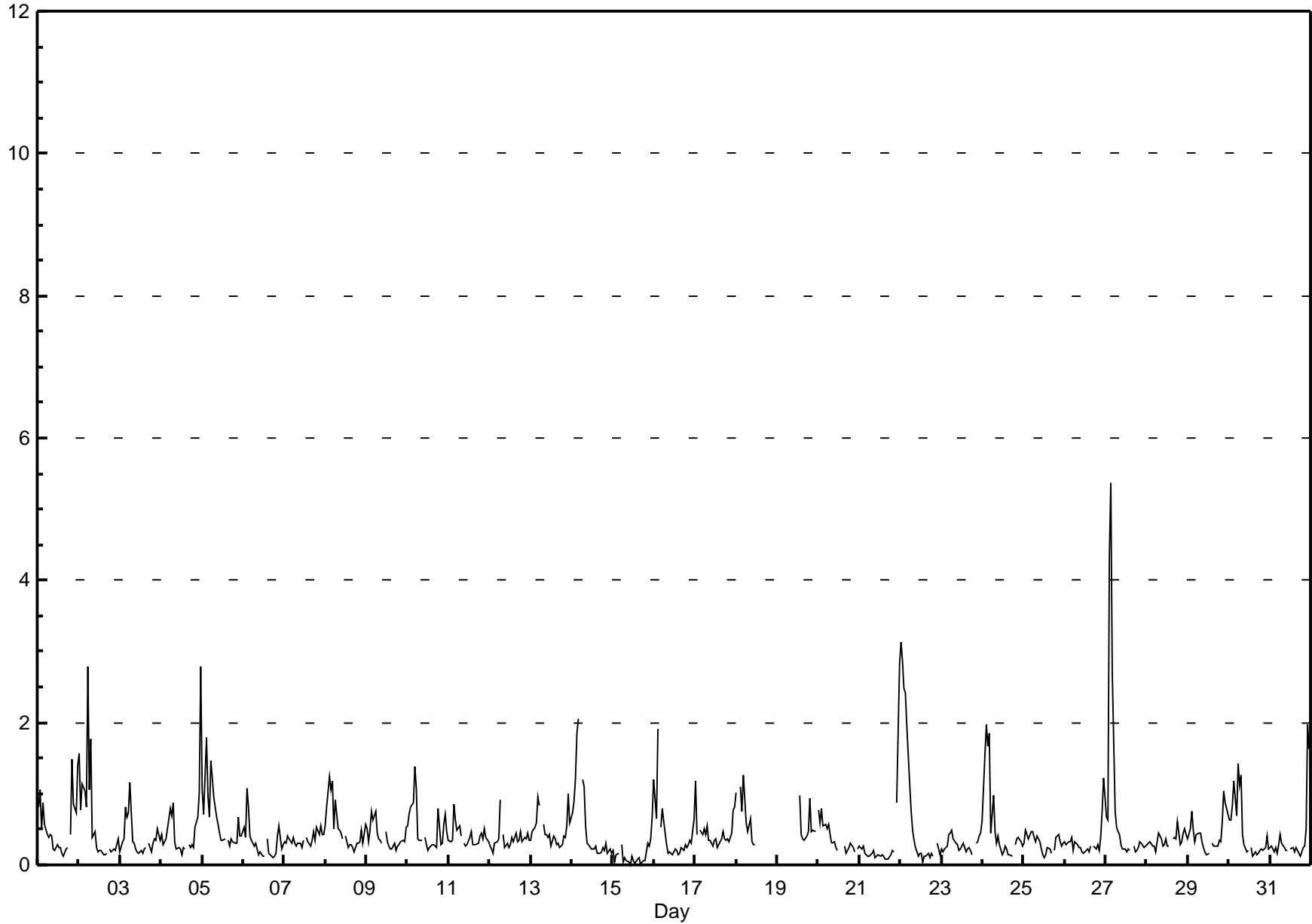


## Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Portable Clairmont - August 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 5.4 ppb on Aug 27 04:00 Maximum Daily Average: 0.8 ppb on Aug 27		Hours in Service: 744 Hours of Data: 685 Hours of Missing Data: 59 Hours of Calibration: 34 Percent Operational Time: 96.6																																															
Minimum Value: 0 ppb on Aug 15 11:00 Maximum Diurnal Average: 0.9 ppb at hour 3 Monthly Average: 0.46 ppb		Minimum Daily Average: 0.1 ppb on Aug 15 Minimum Diurnal Average: 0.2 ppb at hour 13 Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.2 Q <sub>1</sub> = 0.2 Median = 0.3 Q <sub>3</sub> = 0.5 P <sub>90</sub> = 0.9 P <sub>99</sub> = 2.8																																															
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-Aug	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	1	1	1	0.5	1.5																							
2-Aug	2	1	1	1	1	3	1	2	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.6	2.8																							
3-Aug	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	1	0	0.4	1.2																							
4-Aug	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	A	0	0	0	0	1	1	1	3	0.5	2.8																							
5-Aug	1	1	2	1	1	1	1	1	1	1	0	0	0	0	A	0	0	0	0	0	0	1	0	0	0.6	1.8																							
6-Aug	1	0	1	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	1	0	0	0.3	1.1																							
7-Aug	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	1	0	1	0	0	0.4	0.6																							
8-Aug	1	1	1	1	1	1	1	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	0.5	1.2																							
9-Aug	1	0	0	1	1	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	0.4	0.8																							
10-Aug	1	1	1	1	1	1	0	0	0	A	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0.5	1.4																							
11-Aug	0	0	0	1	1	0	1	0	A	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.4	0.9																							
12-Aug	0	0	0	0	0	0	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.9																							
13-Aug	0	0	1	1	1	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0.5	1.0																							
14-Aug	1	1	1	2	2	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	2.1																							
15-Aug	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	0.7																							
16-Aug	1	1	2	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.4	1.9																							
17-Aug	1	0	A	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.5	1.2																							
18-Aug	1	A	1	1	1	1	1	0	1	0	0	0	P	P	P	P	P	P	P	P	P	P	P	P	--	1.3																							
19-Aug	P	P	P	P	P	P	P	P	P	P	P	P	P	1	0	0	0	0	0	1	0	0	0	0	--	1.0																							
20-Aug	1	1	1	1	1	1	1	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0	A	0	0.4	0.8																							
21-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	3	0.3	2.8																							
22-Aug	3	3	2	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.8	3.1																							
23-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.3	0.5																							
24-Aug	1	2	2	2	2	0	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.6	2.0																							
25-Aug	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																							
26-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	1	1	0.3	1.2																							
27-Aug	1	1	4	5	3	1	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.8	5.4																							
28-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	0	0	1	0	0.3	0.6																							
29-Aug	0	1	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	1	1	1	1	0.4	1.0																							
30-Aug	1	1	1	1	1	1	1	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.5	1.4																							
31-Aug	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	2	2	0.4	2.0																							
																								Diurnal Average	Diurnal Maximum																								
																								0.7	0.6	0.9	0.9	0.8	0.7	0.6	0.5	0.4	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.7		
																								3.1	2.9	4.3	5.4	2.7	2.8	1.2	1.8	0.7	0.6	0.4	0.5	0.4	1.0	0.4	0.5	0.5	0.5	0.8	0.9	1.5	1.0	2.0	2.8		
C - Calibration      P - Power Failure      A - Automated Daily Zero Span Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb      24-hr 3 ppb																																																	



## Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

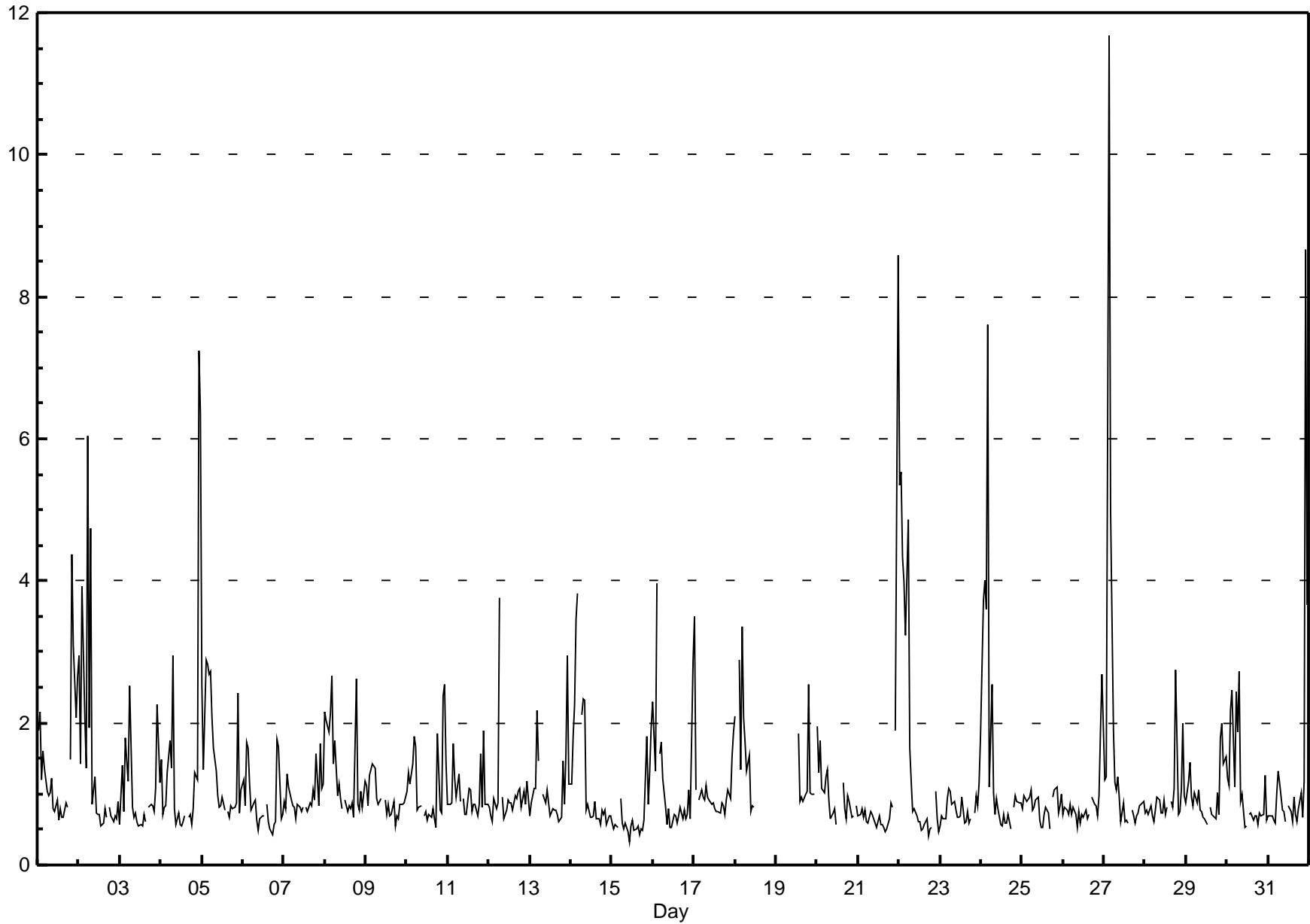
Portable Clairmont - August 2015

Maximum Value: 11.7 ppb on Aug 27 04:00		Maximum Daily Average: 1.8 ppb on Aug 27		Hours in Service: 744																							
Minimum Value: 0 ppb on Aug 15 11:00		Minimum Daily Average: 0.7 ppb on Aug 15		Hours of Data: 685																							
Maximum Diurnal Average: 1.9 ppb at hour 4		Minimum Diurnal Average: 0.7 ppb at hour 15		Hours of Missing Data: 59																							
Monthly Average: 1.17 ppb		Percentiles: P <sub>1</sub> = 0.5 P <sub>10</sub> = 0.6 Q <sub>1</sub> = 0.7 Median = 0.8 Q <sub>3</sub> = 1.1 P <sub>90</sub> = 2.1 P <sub>99</sub> = 6.2		Hours of Calibration: 34																							
				Percent Operational Time: 96.6																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Aug	2	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	4	3	2	3	1.4	4.4	
2-Aug	3	1	4	2	1	6	2	5	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1.6	6.0	
3-Aug	1	1	1	2	1	1	3	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	2	1	1.0	2.5	
4-Aug	1	1	1	1	1	2	1	3	1	1	1	1	1	1	1	A	1	1	1	1	1	1	7	6	1.5	7.2	
5-Aug	3	1	3	3	3	3	2	2	1	1	1	1	1	1	A	1	1	1	1	1	1	2	1	1	1.5	2.9	
6-Aug	1	1	2	2	1	1	1	1	1	0	1	1	1	A	1	1	1	0	1	1	2	2	1	1	0.9	1.8	
7-Aug	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	2	1	2	1	1	1.0	1.7	
8-Aug	2	2	2	2	3	1	2	1	1	1	1	A	1	1	1	1	1	1	3	1	1	1	1	1	1.3	2.7	
9-Aug	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.4	
10-Aug	1	1	1	1	2	2	1	1	1	A	1	1	1	1	1	1	1	1	2	1	1	2	3	1	1.1	2.5	
11-Aug	1	1	1	2	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	2	1	2	1	1	1.0	1.9	
12-Aug	1	1	1	1	1	1	4	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	3.8	
13-Aug	1	1	1	1	2	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	2	3	1	1	1.1	2.9	
14-Aug	1	2	2	3	4	A	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.3	3.8	
15-Aug	1	1	1	1	A	1	1	1	1	0	0	1	1	0	1	1	0	0	0	1	2	1	1	2	0.7	1.9	
16-Aug	2	1	4	A	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1.1	4.0	
17-Aug	4	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1.1	3.5	
18-Aug	2	A	3	1	3	2	2	1	2	1	1	P	P	P	P	P	P	P	P	P	P	P	P	P	--	3.3	
19-Aug	P	P	P	P	P	P	P	P	P	P	P	P	P	2	1	1	1	1	1	3	1	1	1	1	--	2.5	
20-Aug	2	1	2	1	1	1	1	1	1	1	1	C	C	C	1	1	1	1	1	1	1	A	1	1	1.0	2.0	
21-Aug	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	A	2	9	1.1	8.6	
22-Aug	5	6	4	4	3	5	2	1	1	1	1	1	0	1	1	1	0	1	1	1	A	1	0	1	1.7	5.5	
23-Aug	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	1.2	
24-Aug	2	4	4	4	8	1	3	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1.6	7.6	
25-Aug	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.8	1.1	
26-Aug	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	2	3	0.9	2.7	
27-Aug	1	1	6	12	5	2	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1.8	11.7	
28-Aug	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	3	1	1	1	2	1	1.0	2.8	
29-Aug	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	2	2	1	2	1.0	2.0	
30-Aug	1	1	2	2	1	2	2	3	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1.1	2.7	
31-Aug	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	9	4	1.3	8.7	
		1.5	1.3	1.8	1.9	1.9	1.6	1.4	1.3	0.9	0.8	0.7	0.7	0.7	0.8	0.7	0.7	0.7	0.7	0.9	0.9	1.1	1.2	1.7	1.8	Diurnal Average	
		5.3	5.5	6.3	11.7	7.6	6.0	3.8	4.7	2.3	1.2	1.1	0.9	1.1	1.8	0.9	1.2	0.9	1.1	2.8	2.5	4.4	3.1	8.7	8.6	Diurnal Maximum	
C - Calibration		P - Power Failure					A - Automated Daily Zero Span																				



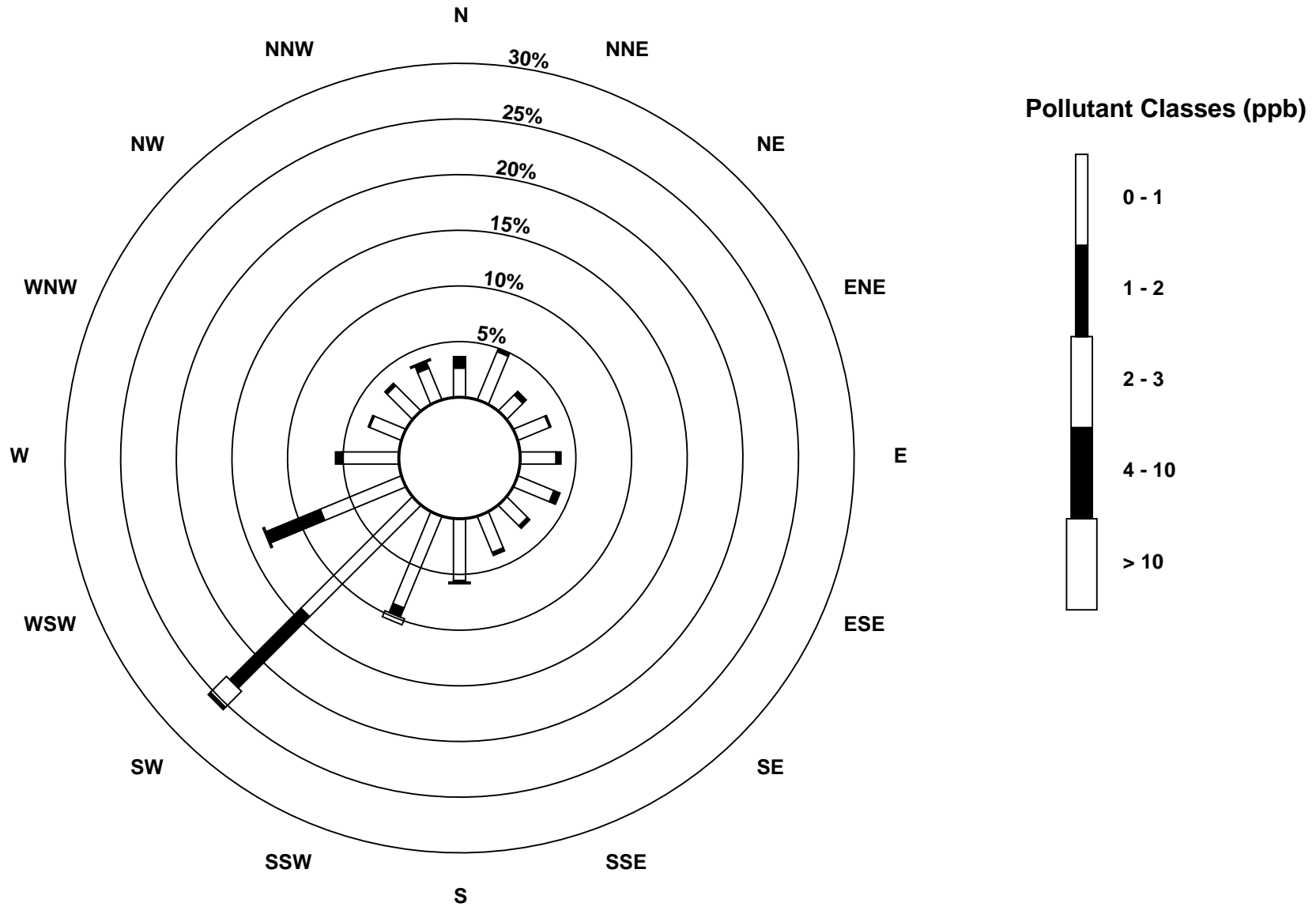
**Hourly Maximums**

**Total Reduced Sulphur (TRS) - ppb**  
**Portable Clairmont - August 2015**



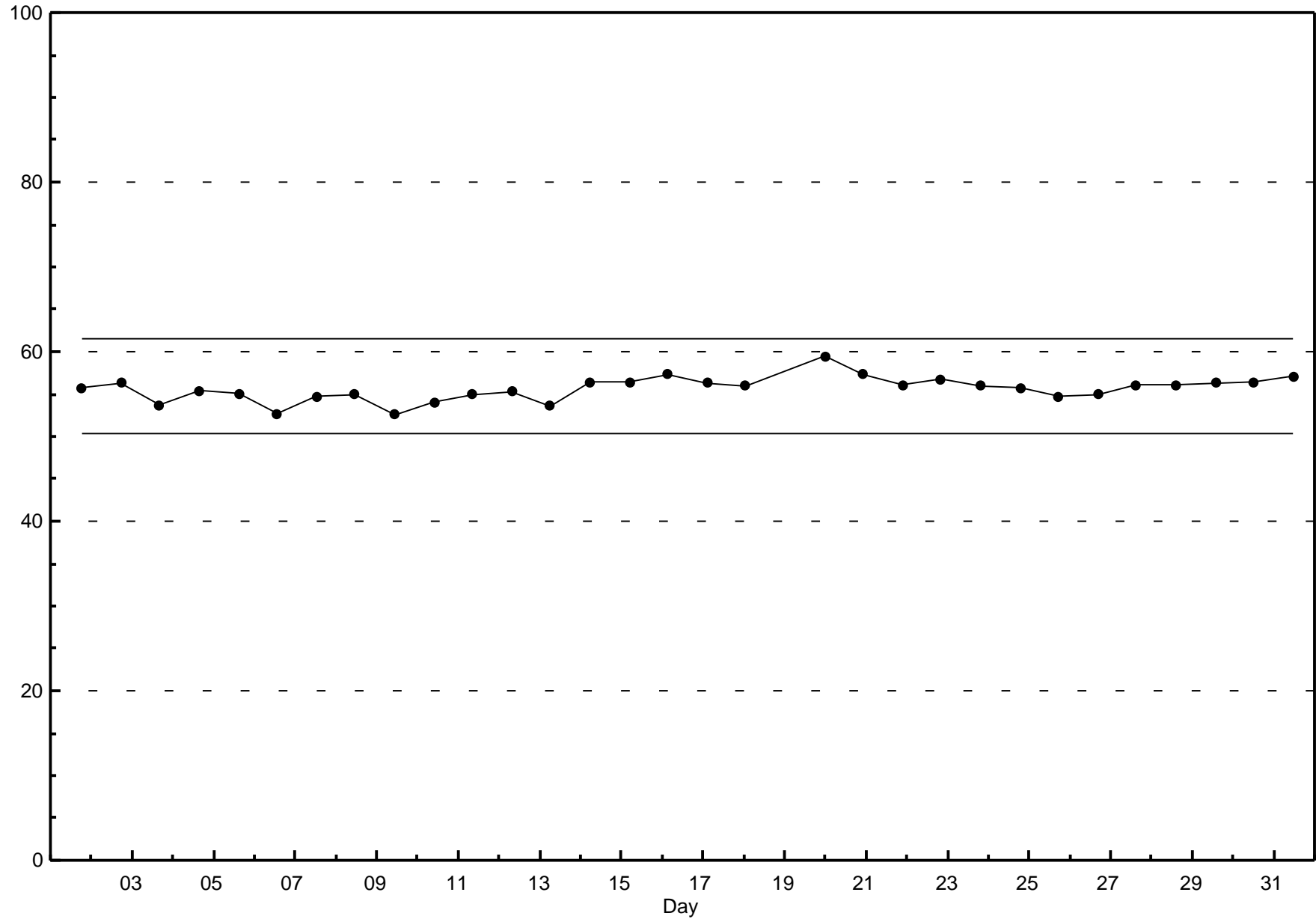
**Pollutant Rose**

**Total Reduced Sulphur (TRS) - ppb**  
**Portable Clairmont - August 2015**



### Span Responses

**Total Reduced Sulphur (TRS)**  
**Portable Clairmont - August 2015**



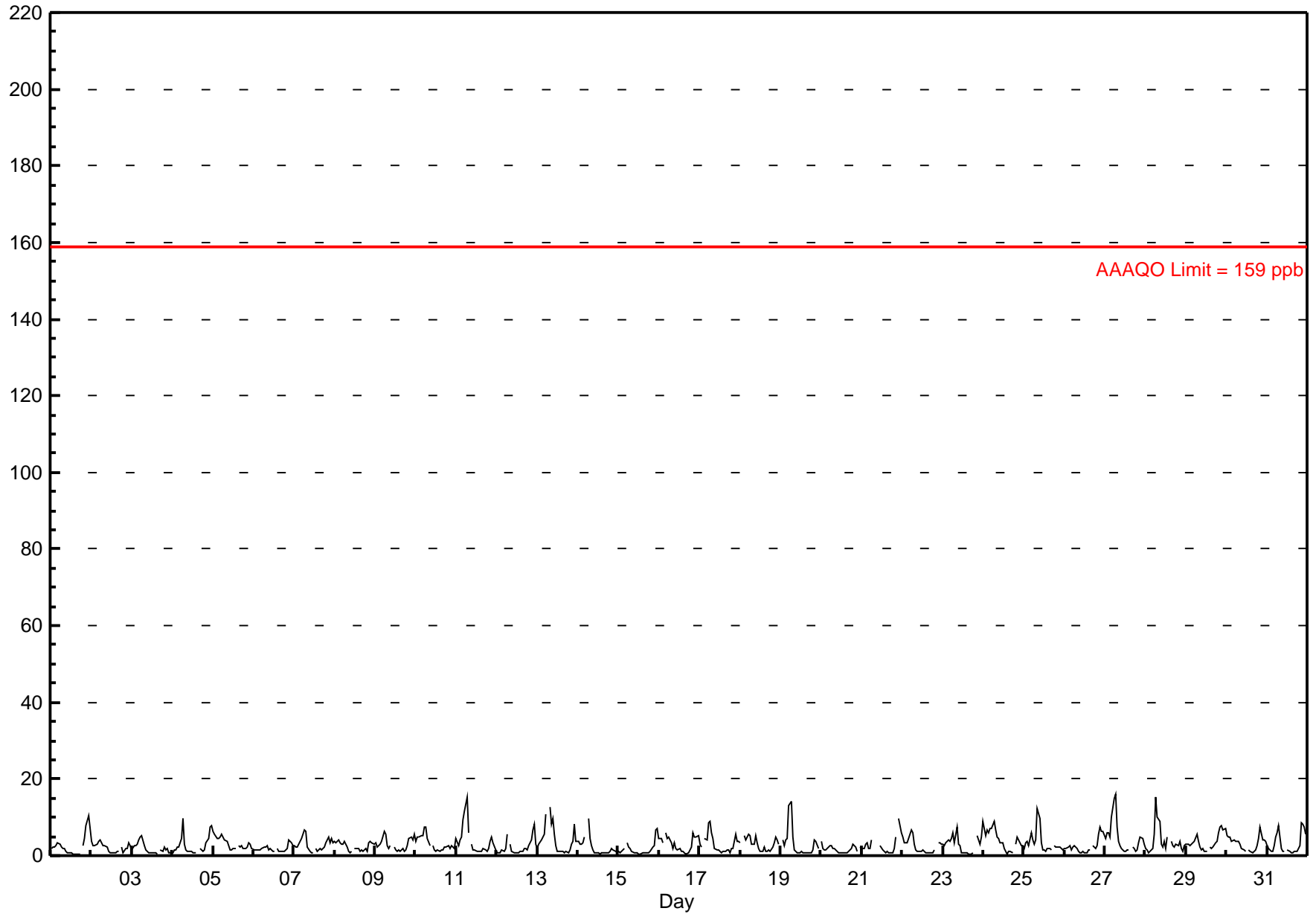
## Hourly Averages

## Nitrogen Dioxide (NO<sub>2</sub>) - ppb Portable Clairmont - August 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 16.2 ppb on Aug 27 07:00      Maximum Daily Average: 4.6 ppb on Aug 27		Hours in Service: 744 Hours of Data: 708 Hours of Missing Data: 36 Hours of Calibration: 36 Percent Operational Time: 100.0																																														
Minimum Value: 0 ppb on Aug 16 17:00 Maximum Diurnal Average: 6.6 ppb at hour 7 Monthly Average: 2.92 ppb		Minimum Daily Average: 1.7 ppb on Aug 20 Minimum Diurnal Average: 1.1 ppb at hour 15 Percentiles: P <sub>1</sub> = 0.5 P <sub>10</sub> = 0.8 Q <sub>1</sub> = 1.2 Median = 2.2 Q <sub>3</sub> = 3.8 P <sub>90</sub> = 5.9 P <sub>99</sub> = 12.7																																														
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-Aug	2	2	2	3	3	3	2	2	2	1	1	1	1	0	0	0	0	0	A	2	4	8	10	7	2.5	10.3																						
2-Aug	4	3	3	3	4	4	3	3	3	2	1	1	1	1	1	1	1	A	2	1	2	2	3	3	2.2	4.0																						
3-Aug	1	3	3	3	4	5	5	2	2	1	1	1	1	1	1	0	A	2	1	2	2	2	1	1	1.8	5.1																						
4-Aug	1	2	2	2	2	5	10	3	2	1	1	1	1	1	1	A	2	1	1	2	3	5	7	8	2.7	9.8																						
5-Aug	6	6	4	5	5	6	5	4	4	3	2	1	2	2	A	3	2	2	2	2	2	3	3	2	3.2	6.2																						
6-Aug	1	2	1	2	2	2	2	2	3	1	2	1	1	A	2	1	1	1	1	2	2	4	3	3	1.8	4.1																						
7-Aug	3	2	2	3	4	6	7	7	2	1	1	1	A	2	1	2	1	2	2	3	5	3	5	3	2.9	6.7																						
8-Aug	4	4	4	4	3	3	4	2	1	1	1	A	2	2	2	1	1	1	2	1	3	4	3	3	2.4	3.9																						
9-Aug	3	2	3	3	4	6	6	2	2	1	1	A	2	2	1	1	2	1	1	3	4	5	4	6	2.9	6.4																						
10-Aug	4	5	5	5	5	7	7	5	3	A	3	2	1	1	1	1	2	2	2	3	2	2	2	2	3.1	7.4																						
11-Aug	5	3	4	5	9	11	15	6	A	3	1	1	1	1	1	1	2	2	1	2	4	5	4	2	3.9	15.3																						
12-Aug	1	1	1	2	1	2	6	A	3	1	1	1	1	1	1	1	2	2	2	3	4	7	8	3	2.3	8.4																						
13-Aug	2	3	4	5	6	11	A	13	8	10	6	3	1	1	1	1	1	1	1	3	4	8	4	4	4.2	12.8																						
14-Aug	4	3	3	3	5	A	10	4	3	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	2.1	9.8																						
15-Aug	1	1	1	2	A	3	2	2	1	1	1	1	1	0	1	1	1	1	1	1	2	3	7	7	1.7	7.0																						
16-Aug	4	5	3	A	6	5	5	3	2	3	2	2	2	1	1	1	0	1	2	2	6	5	5	5	3.1	6.1																						
17-Aug	3	2	A	4	4	8	9	6	5	2	2	1	1	1	1	1	1	2	1	2	2	6	4	4	3.1	9.1																						
18-Aug	3	A	5	4	5	6	5	3	3	5	3	2	1	1	2	1	1	1	1	2	3	5	4	3	3.1	5.7																						
19-Aug	A	4	3	4	4	13	14	5	1	1	1	1	1	1	1	1	1	1	1	1	4	4	2	A	3.1	14.1																						
20-Aug	4	2	2	1	2	3	3	2	2	1	1	1	1	1	1	1	1	1	2	3	2	1	A	2	1.7	3.7																						
21-Aug	2	2	3	3	2	2	4	C	C	C	C	3	2	1	1	1	1	1	1	2	5	A	10	6	2.6	9.8																						
22-Aug	5	3	3	4	4	7	6	3	2	1	1	1	1	1	1	1	1	1	1	1	A	3	3	3	2.5	6.8																						
23-Aug	3	3	3	4	4	4	6	3	7	3	3	1	1	1	1	0	0	0	1	A	5	4	3	5	2.9	7.5																						
24-Aug	9	5	7	6	7	7	9	7	5	4	3	3	2	1	1	1	1	1	1	A	3	5	4	3	3	4.2	9.0																					
25-Aug	2	3	4	3	6	4	3	4	12	10	3	1	1	1	2	2	1	A	3	2	2	2	2	2	2	3.3	12.2																					
26-Aug	2	2	2	2	2	2	3	2	1	1	1	1	1	1	1	1	A	3	2	2	6	8	6	6	2.5	7.6																						
27-Aug	5	6	6	5	10	15	16	8	4	3	2	1	1	2	2	A	2	2	1	2	3	5	5	3	4.6	16.2																						
28-Aug	2	2	1	2	2	5	15	10	9	3	2	4	2	5	A	4	2	2	3	3	4	2	1	2	3.8	15.3																						
29-Aug	3	3	2	3	3	4	6	4	2	2	2	1	1	A	2	2	2	3	4	6	8	8	7	7	3.7	8.0																						
30-Aug	5	5	5	4	4	4	4	4	3	2	2	1	A	2	1	1	1	1	3	5	8	4	4	4	3.2	7.6																						
31-Aug	3	2	1	1	3	5	6	8	2	1	1	A	2	1	1	1	1	1	1	2	9	8	7	5	3.1	8.8																						
																								3.1	2.9	3.1	3.3	4.2	5.6	6.6	4.4	3.3	2.5	1.7	1.4	1.2	1.2	1.1	1.2	1.3	1.4	1.5	2.2	3.9	4.2	4.5	3.8	Diurnal Average
																								9.0	6.1	6.8	6.0	10.2	14.8	16.2	12.8	12.2	9.7	5.7	3.6	1.9	4.9	2.3	3.9	2.5	3.4	3.6	6.0	8.8	8.3	10.3	7.7	Diurnal Maximum
C - Calibration      A - Automated Daily Zero Span Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb      24-hr 106 ppb																																																

### Hourly Averages

**Nitrogen Dioxide (NO<sub>2</sub>) - ppb**  
**Portable Clairmont - August 2015**



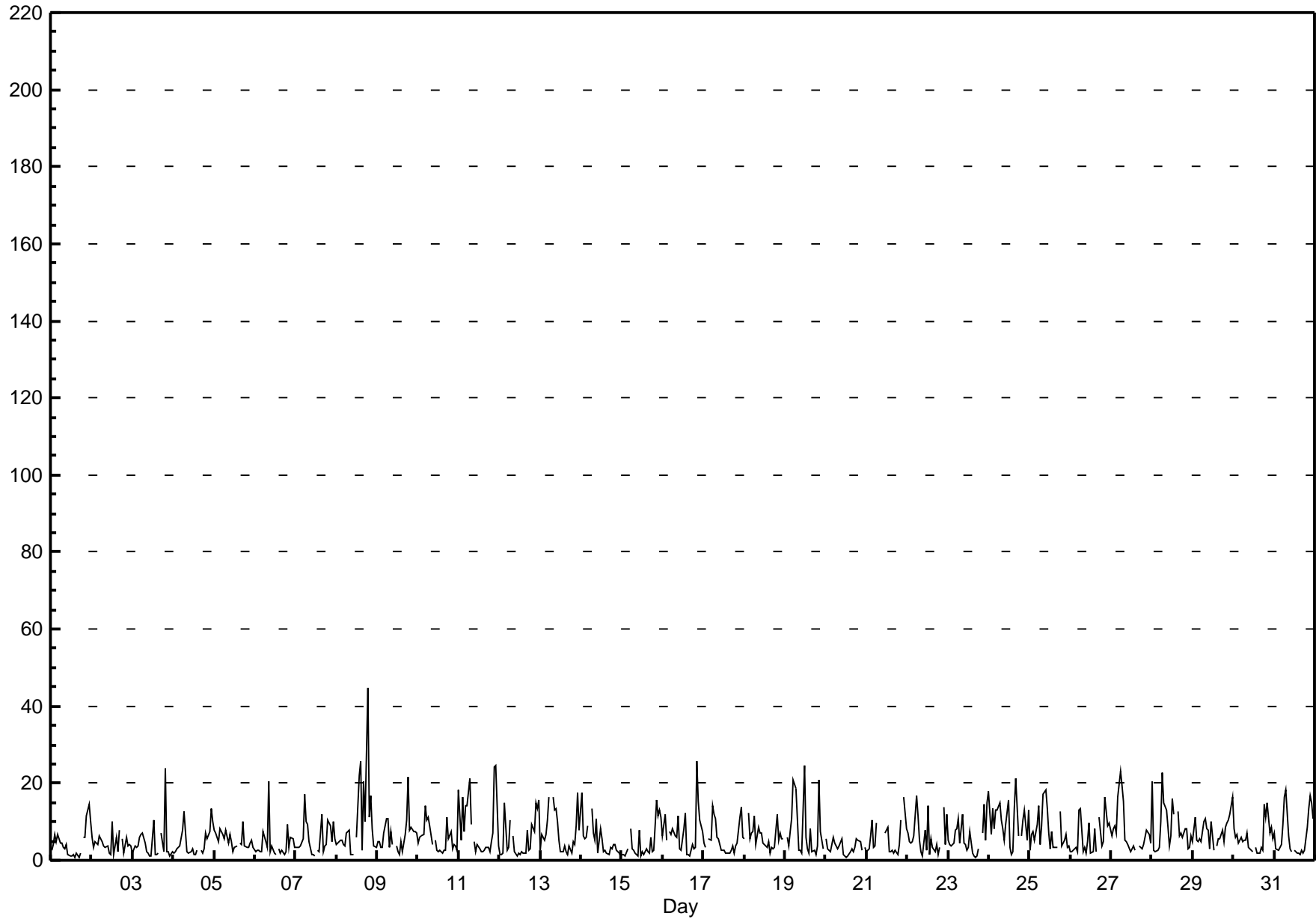
## Hourly Maximums

## Nitrogen Dioxide (NO<sub>2</sub>) - ppb Portable Clairmont - August 2015

Maximum Value: 44.6 ppb on Aug 8 19:00		Maximum Daily Average: 10.1 ppb on Aug 24		Hours in Service: 744																							
Minimum Value: 1 ppb on Aug 1 15:00		Minimum Daily Average: 3.3 ppb on Aug 20		Hours of Data: 708																							
Maximum Diurnal Average: 10.6 ppb at hour 7		Minimum Diurnal Average: 3.7 ppb at hour 16		Hours of Missing Data: 36																							
Monthly Average: 6.27 ppb		Percentiles: P <sub>1</sub> = 1.1 P <sub>10</sub> = 1.8 Q <sub>1</sub> = 2.6 Median = 4.7 Q <sub>3</sub> = 8.2 P <sub>90</sub> = 13.3 P <sub>99</sub> = 23.5		Hours of Calibration: 36																							
				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-Aug	2	4	7	5	7	5	5	3	3	4	1	1	1	2	1	2	1	2	A	6	6	12	15	10	4.5	14.6	
2-Aug	6	3	5	4	6	6	5	4	3	4	2	1	10	1	6	2	8	A	6	2	6	4	4	4	4.4	10.0	
3-Aug	2	4	3	4	6	7	7	4	2	2	1	1	10	2	2	2	A	7	2	24	2	2	1	2	4.3	23.8	
4-Aug	2	2	3	3	4	8	13	7	2	2	2	3	1	1	3	A	3	2	3	7	6	8	13	10	4.7	13.4	
5-Aug	8	7	5	8	7	7	6	8	4	7	5	2	3	4	A	4	4	10	4	3	3	5	5	3	5.3	10.2	
6-Aug	2	3	3	2	2	7	5	3	20	2	4	2	2	A	3	2	3	2	2	9	3	6	6	3	4.2	20.5	
7-Aug	3	3	3	4	6	17	10	9	5	2	2	1	A	3	2	12	2	4	4	10	9	5	10	6	5.7	17.1	
8-Aug	4	5	5	5	4	4	7	8	1	1	2	A	6	22	26	2	20	10	45	11	17	8	4	3	9.6	44.6	
9-Aug	5	5	3	3	7	11	11	4	7	4	A	4	2	2	5	2	7	11	22	8	9	7	8	7	6.6	21.6	
10-Aug	5	6	6	7	14	11	11	9	4	A	5	3	2	3	2	3	3	11	6	8	3	4	4	3	5.7	14.2	
11-Aug	18	5	17	8	14	14	21	10	A	5	2	4	3	2	2	3	3	3	2	5	7	24	25	4	8.8	24.7	
12-Aug	1	1	2	15	3	4	10	A	6	2	1	2	1	2	2	2	8	3	3	9	7	15	14	16	5.6	15.8	
13-Aug	3	7	5	7	10	17	A	16	13	13	10	5	2	2	4	2	1	4	2	5	4	9	18	8	7.2	17.6	
14-Aug	18	6	6	6	9	A	13	7	5	11	2	8	5	2	3	2	2	3	3	4	4	3	2	1	5.4	17.6	
15-Aug	1	1	1	3	A	8	3	3	2	1	8	1	2	2	3	2	2	6	2	3	16	11	13	11	4.6	15.8	
16-Aug	6	12	5	A	8	7	8	6	6	12	3	3	8	12	1	2	1	4	3	3	26	15	10	7	7.4	25.7	
17-Aug	4	4	A	5	5	14	12	11	6	6	2	2	3	2	2	2	2	4	2	4	4	11	14	6	5.6	14.3	
18-Aug	5	A	12	6	7	8	12	4	9	7	7	5	4	3	5	2	3	3	3	12	5	7	6	6	6.1	12.4	
19-Aug	A	6	4	7	11	21	19	11	3	3	2	25	6	3	2	8	2	2	2	4	21	7	3	A	7.7	24.7	
20-Aug	6	3	3	2	6	4	4	3	4	5	2	1	1	1	2	3	2	3	6	5	5	3	A	3	3.3	6.0	
21-Aug	2	3	6	11	3	4	10	C	C	C	C	7	8	2	2	3	2	3	2	4	10	A	16	8	5.6	16.4	
22-Aug	7	5	5	5	6	17	11	5	2	1	8	2	14	1	5	4	2	4	2	3	A	14	4	12	6.1	16.6	
23-Aug	5	4	4	5	8	8	11	5	12	4	4	2	3	8	2	1	1	1	3	A	7	15	5	15	5.8	14.9	
24-Aug	18	7	13	8	13	13	15	10	8	5	9	16	4	1	2	14	21	6	A	6	10	13	5	13	10.1	21.2	
25-Aug	3	7	7	5	9	14	4	9	17	18	14	7	3	7	3	3	3	A	13	4	5	7	3	4	7.4	18.2	
26-Aug	2	2	3	3	2	13	14	2	3	2	5	10	2	2	8	2	A	11	4	5	16	13	9	10	6.2	16.3	
27-Aug	6	8	9	7	16	23	19	15	5	5	4	2	3	4	3	A	4	3	3	4	6	8	7	4	7.4	23.3	
28-Aug	20	3	2	3	3	10	23	15	13	9	4	6	16	12	A	13	6	7	6	8	8	3	3	6	8.7	22.6	
29-Aug	5	11	5	5	6	5	10	11	8	8	3	10	3	A	4	6	6	8	5	8	10	10	12	16	7.6	16.3	
30-Aug	8	6	7	4	6	5	5	5	7	3	3	2	A	3	2	2	3	2	15	11	15	7	9	6	5.9	14.8	
31-Aug	7	3	2	3	4	9	16	18	6	3	2	A	2	2	2	2	3	2	2	9	13	17	15	11	6.7	18.1	
		6.2	4.8	5.4	5.5	7.1	9.9	10.6	7.8	6.5	5.2	4.1	4.8	4.6	3.9	3.7	3.7	4.4	4.9	6.0	6.8	8.8	9.0	8.7	7.3	Diurnal Average	
		20.4	11.9	16.6	15.1	16.3	23.3	22.6	18.1	20.5	18.2	13.6	24.7	16.1	22.0	25.6	13.6	21.2	11.3	44.6	23.8	25.7	24.2	24.7	16.3	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

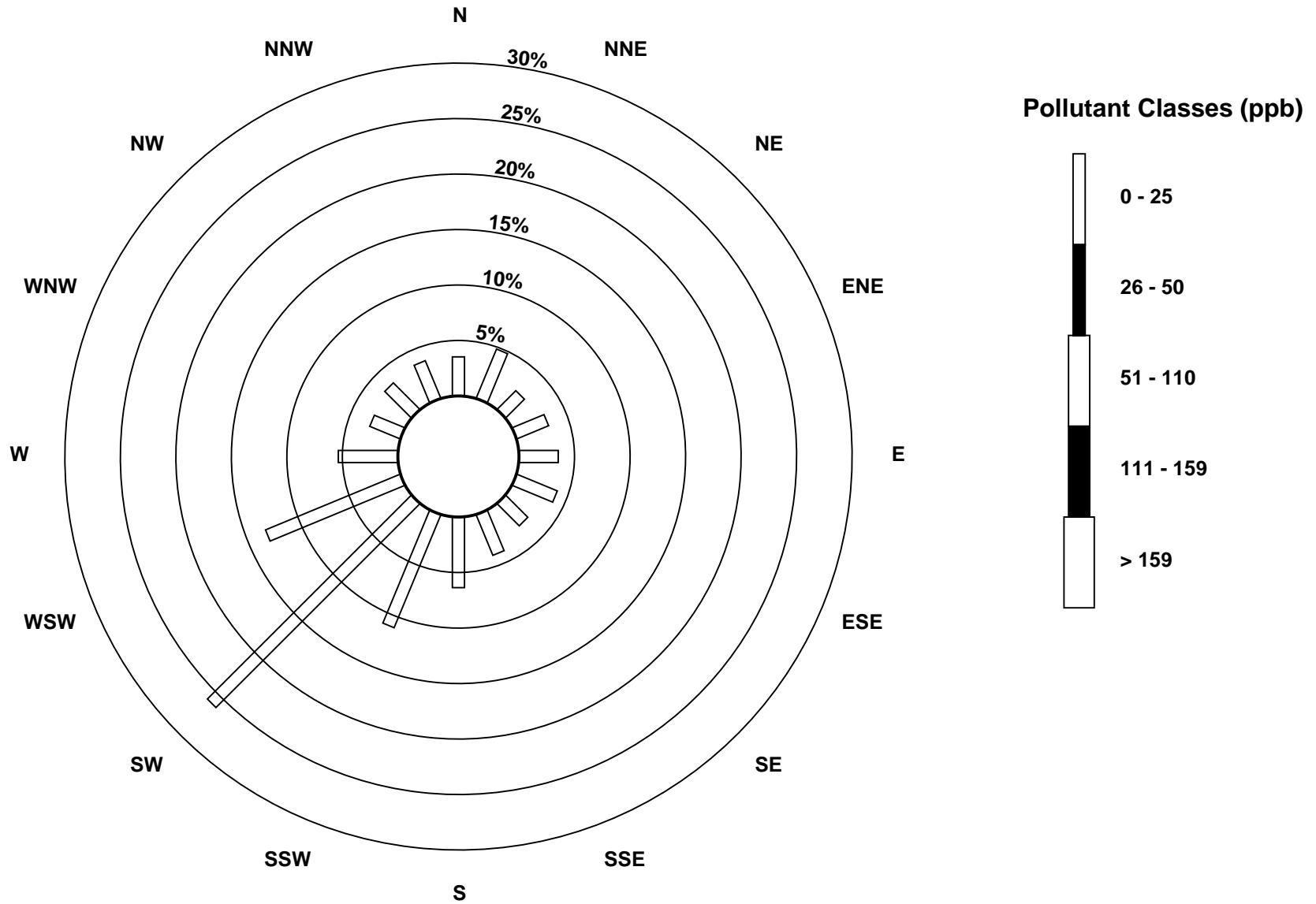
**Hourly Maximums**

**Nitrogen Dioxide (NO<sub>2</sub>) - ppb**  
**Portable Clairmont - August 2015**



**Pollutant Rose**

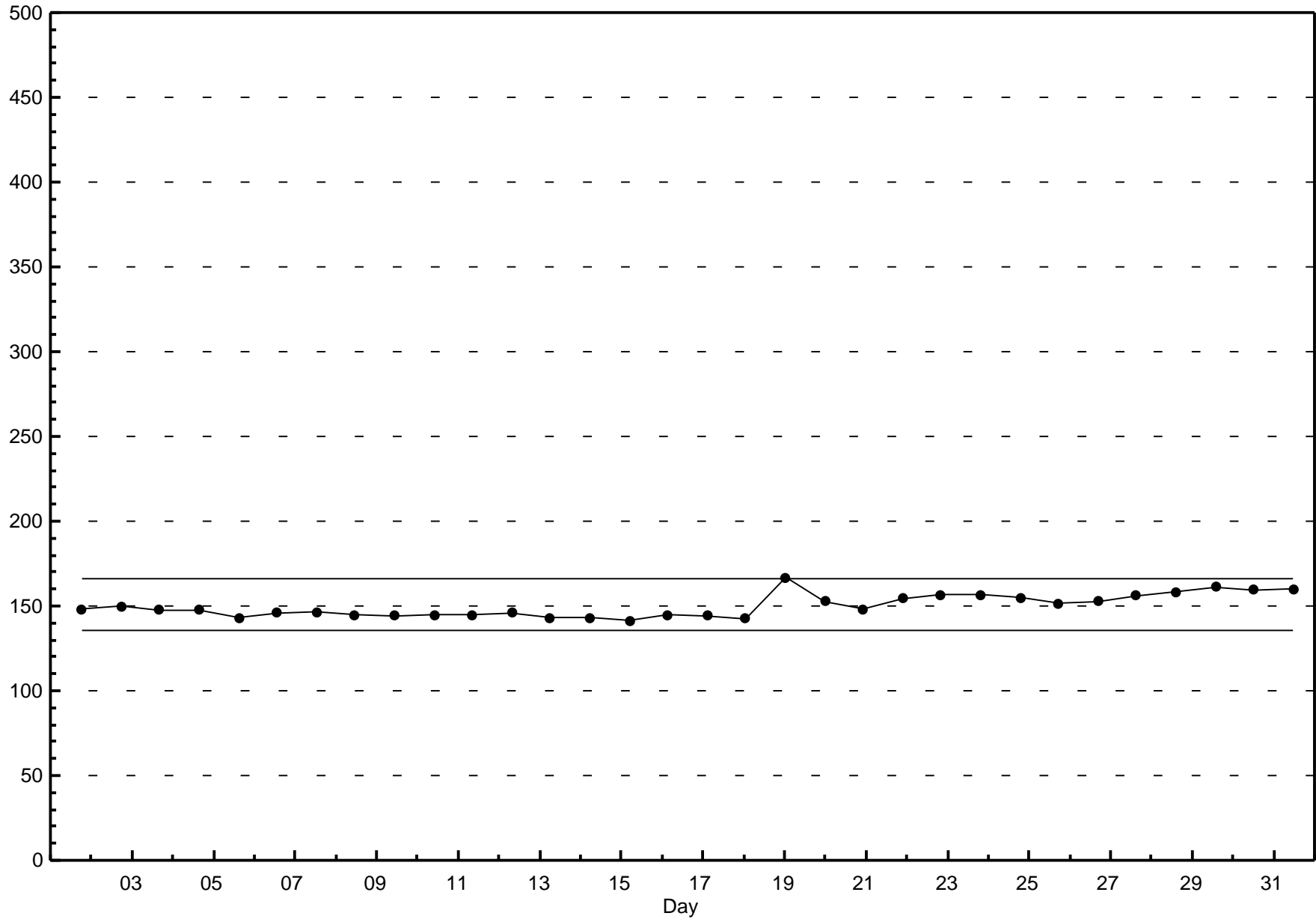
**Nitrogen Dioxide (NO<sub>2</sub>) - ppb**  
**Portable Clairmont - August 2015**





### Span Responses

**Nitrogen Dioxide (NO<sub>2</sub>)**  
**Portable Clairmont - August 2015**



## Hourly Averages

## Nitrogen Oxide (NO) - ppb Portable Clairmont - August 2015

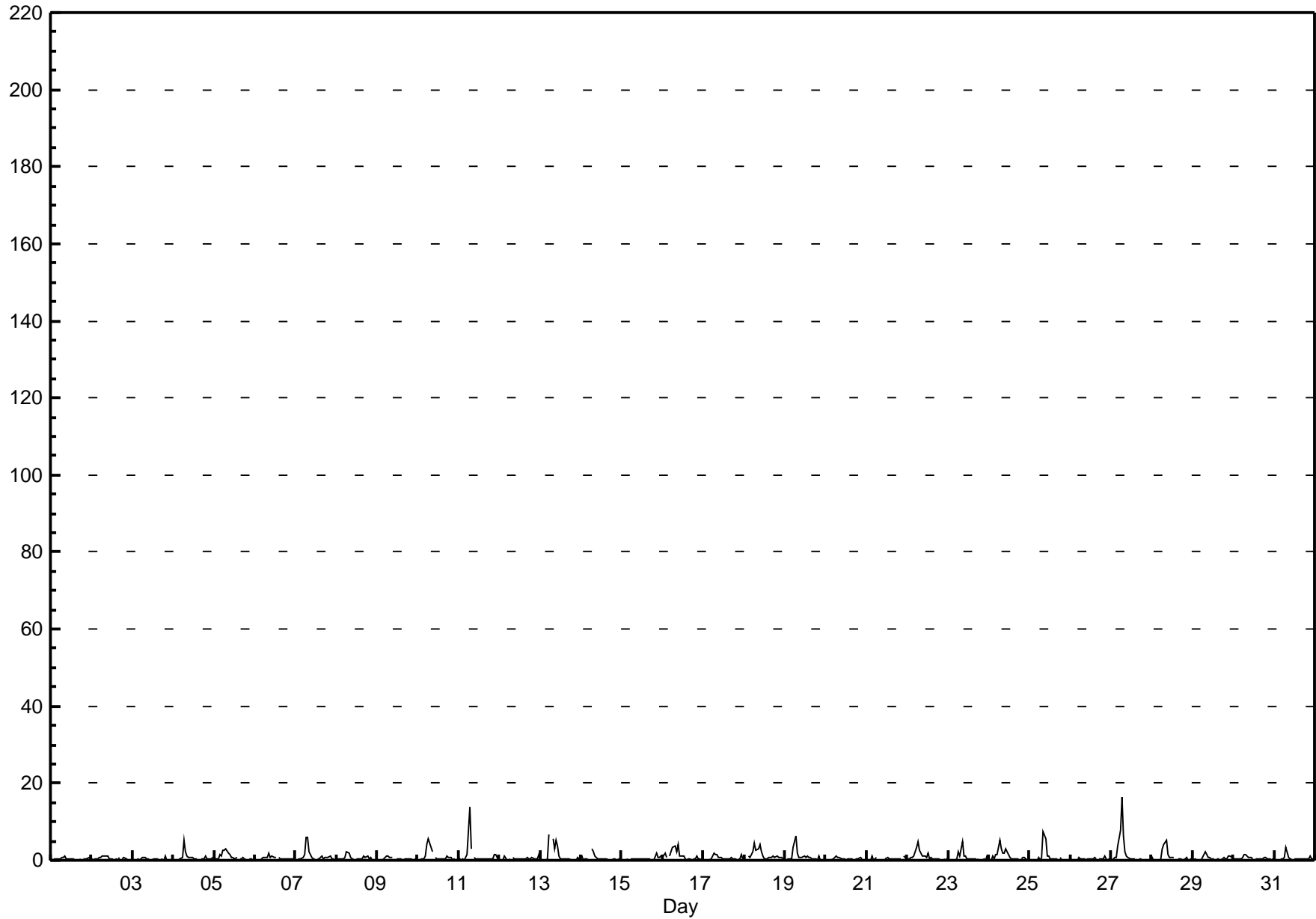
Number of Exceedences (AAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 16.3 ppb on Aug 27 07:00	Maximum Daily Average: 1.9 ppb on Aug 27		Hours of Data:	708
Minimum Value: 0 ppb on Aug 26 01:00	Minimum Daily Average: 0.3 ppb on Aug 3		Hours of Missing Data:	36
Maximum Diurnal Average: 3.2 ppb at hour 7	Minimum Diurnal Average: 0.2 ppb at hour 2		Hours of Calibration:	36
Monthly Average: 0.77 ppb	Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.1 Q <sub>1</sub> = 0.2 Median = 0.4 Q <sub>3</sub> = 0.8 P <sub>90</sub> = 1.5 P <sub>99</sub> = 6.3		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-Aug	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	A	0	0	0	1	0	0.4	1.0
2-Aug	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	1	A	0	1	0	0	0	0	0.4	1.2
3-Aug	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	A	0	0	1	0	0	0	0	0.3	1.2
4-Aug	0	0	0	0	0	1	5	2	1	1	1	1	0	0	0	A	0	0	0	1	0	1	0	1	0.7	5.3
5-Aug	1	0	1	2	1	3	3	3	2	1	1	1	1	1	A	1	1	1	0	0	0	0	0	0	0.9	2.9
6-Aug	0	0	0	0	0	1	1	1	2	1	1	1	1	A	1	1	1	0	0	0	0	0	0	0	0.5	2.0
7-Aug	0	0	0	0	1	2	6	6	2	1	0	0	A	0	0	1	1	1	1	1	1	0	0	0	1.1	5.9
8-Aug	0	0	0	1	1	1	2	2	1	0	0	A	0	0	1	0	1	1	1	0	1	0	0	0	0.6	2.1
9-Aug	0	0	0	0	0	1	1	1	1	1	1	0	A	0	0	0	0	1	0	1	0	0	0	0	0.4	1.3
10-Aug	0	0	0	0	1	4	6	4	2	A	1	0	0	0	0	0	1	1	1	1	0	0	0	0	1.1	5.7
11-Aug	1	0	0	0	1	1	14	3	A	1	0	0	0	0	0	0	0	0	0	0	0	2	1	0	1.2	13.6
12-Aug	0	0	0	1	0	0	1	A	1	0	0	0	1	0	1	1	1	0	0	1	0	1	0	2	0.4	1.5
13-Aug	0	0	0	0	0	7	A	6	3	5	4	1	0	0	0	0	0	0	0	0	0	0	1	0	1.3	6.8
14-Aug	1	0	0	0	0	A	3	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	3.1
15-Aug	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	1	1	0.4	2.0
16-Aug	1	2	1	A	1	2	3	4	2	4	1	1	1	0	0	0	0	0	0	0	1	0	0	0	1.2	4.1
17-Aug	0	0	A	0	0	1	2	1	1	1	1	1	0	0	0	0	1	0	0	1	0	0	1	0	0.6	2.0
18-Aug	0	A	1	1	1	2	5	3	3	4	2	1	0	0	1	1	1	1	1	1	1	1	1	1	1.4	4.6
19-Aug	A	0	0	0	0	3	6	2	1	1	1	1	1	1	1	1	0	0	0	0	1	0	0	A	1.0	6.4
20-Aug	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	1	0	A	0	0.3	0.9
21-Aug	0	0	0	1	0	0	1	C	C	C	C	0	1	0	0	1	0	0	0	0	0	0	A	1	0.4	1.1
22-Aug	1	1	1	1	1	3	5	3	2	1	1	1	2	0	1	0	0	0	0	0	0	A	0	0	1.0	4.9
23-Aug	0	0	0	0	0	0	2	1	5	1	1	0	0	0	0	0	0	0	0	A	0	0	0	1	0.7	4.9
24-Aug	1	0	1	0	2	2	5	3	2	2	3	2	1	0	0	0	0	1	A	0	1	1	0	0	1.1	5.1
25-Aug	0	0	0	0	0	1	0	1	7	6	1	1	0	1	0	0	0	A	1	0	0	0	0	0	0.9	7.3
26-Aug	0	0	0	0	0	1	0	0	0	0	0	1	0	0	1	0	A	0	0	0	1	0	0	0	0.3	1.3
27-Aug	0	0	1	1	4	8	16	6	2	1	1	0	0	0	0	A	0	0	0	0	0	0	0	0	1.9	16.3
28-Aug	1	0	0	0	0	0	3	4	5	1	1	1	1	1	0	A	0	0	0	0	1	0	0	0	0.9	5.2
29-Aug	0	0	0	0	0	0	1	2	1	1	1	1	0	0	0	A	0	0	0	1	0	0	1	1	0.6	2.2
30-Aug	0	0	0	0	0	1	1	2	1	1	1	1	A	0	0	0	1	0	1	1	1	0	0	0	0.5	1.6
31-Aug	0	0	0	0	1	0	1	3	1	0	0	A	0	0	0	0	0	0	0	0	0	1	0	1	0.5	3.4
	0.2	0.2	0.3	0.4	0.6	1.6	3.2	2.4	1.8	1.3	0.8	0.6	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.4	0.4	Diurnal Average
	1.1	2.0	1.1	1.5	3.7	8.0	16.3	6.5	7.3	5.7	3.7	1.6	1.8	1.0	0.8	1.0	1.2	1.1	1.0	1.2	2.0	1.5	1.5	1.5	Diurnal Maximum	

C - Calibration                      A - Automated Daily Zero Span

**Hourly Averages**

**Nitrogen Oxide (NO) - ppb**  
**Portable Clairmont - August 2015**



## Hourly Maximums

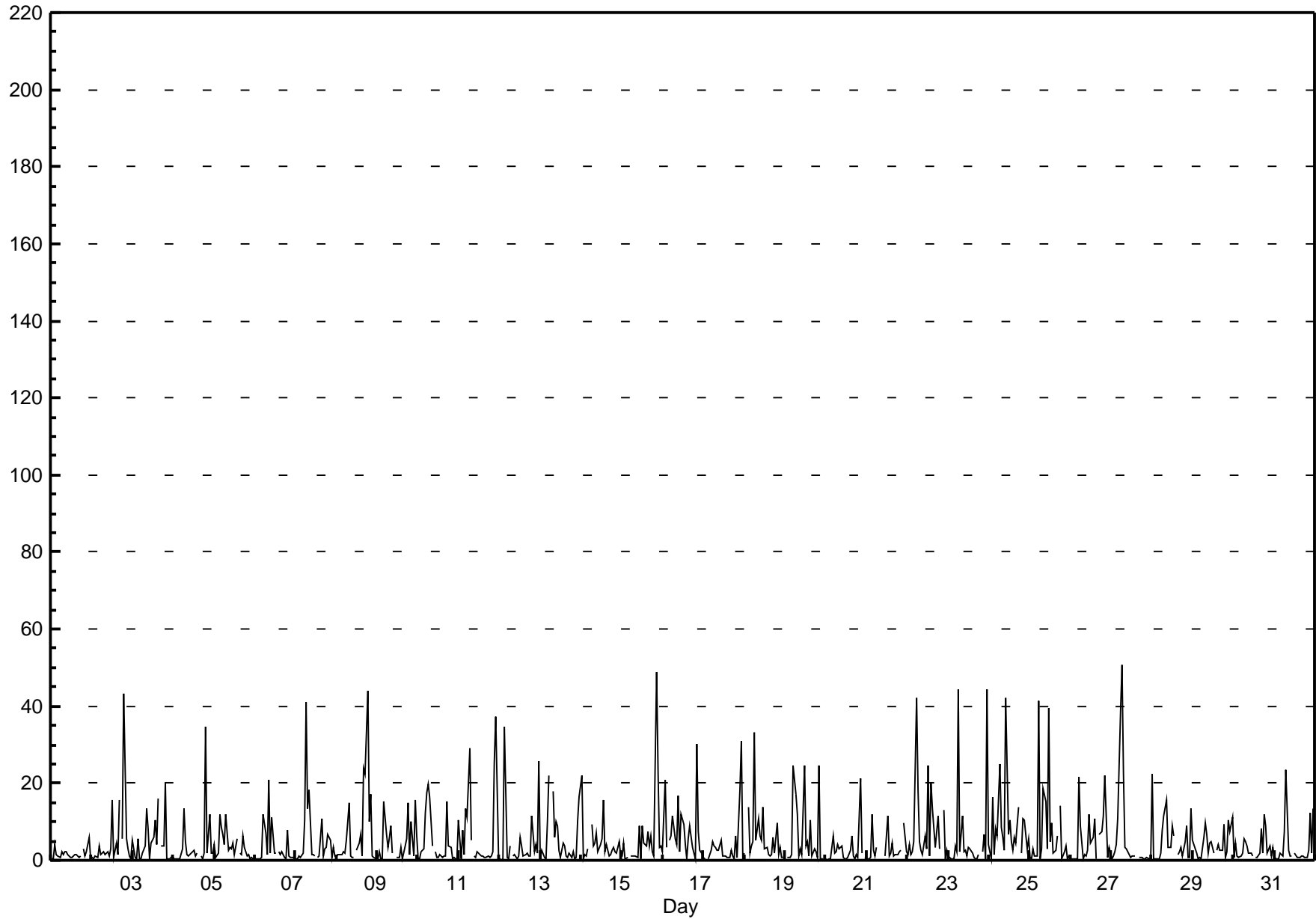
Nitrogen Oxide (NO) - ppb

Portable Clairmont - August 2015

Maximum Value: 50.8 ppb on Aug 27 07:00		Maximum Daily Average: 8.7 ppb on Aug 24		Hours in Service: 744																						
Minimum Value: 0 ppb on Aug 26 01:00		Minimum Daily Average: 1.7 ppb on Aug 1		Hours of Data: 708																						
Maximum Diurnal Average: 13.0 ppb at hour 7		Minimum Diurnal Average: 1.8 ppb at hour 2		Hours of Missing Data: 36																						
Monthly Average: 5.21 ppb		Percentiles: P <sub>1</sub> = 0.2 P <sub>10</sub> = 0.5 Q <sub>1</sub> = 0.9 Median = 2.2 Q <sub>3</sub> = 5.8 P <sub>90</sub> = 13.6 P <sub>99</sub> = 41.7		Hours of Calibration: 36																						
				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-Aug	0	0	4	2	1	1	2	2	2	2	2	1	1	1	1	1	1	1	A	3	1	2	6	1	1.7	5.8
2-Aug	1	1	1	1	4	2	2	2	2	2	1	3	15	1	4	2	16	A	6	43	6	3	1	0	5.1	43.3
3-Aug	5	1	0	5	1	1	2	4	14	8	0	4	6	10	4	16	A	4	4	20	0	0	0	1	4.9	20.2
4-Aug	0	0	0	0	1	3	14	5	2	1	2	2	3	1	2	A	1	1	2	35	2	12	2	2	3.9	34.6
5-Aug	4	1	2	12	9	7	4	12	3	3	3	5	1	5	A	2	1	6	3	1	1	0	1	1	3.8	12.0
6-Aug	0	0	0	1	1	12	7	2	21	2	11	2	2	A	2	1	2	1	1	8	1	1	1	0	3.4	20.9
7-Aug	0	1	1	1	2	10	41	14	18	1	1	1	A	1	1	11	1	3	3	7	5	1	3	1	5.6	41.2
8-Aug	1	1	2	1	2	2	5	15	1	1	1	A	2	5	7	1	24	22	44	10	17	1	1	0	7.2	44.0
9-Aug	0	2	0	0	15	7	3	6	9	2	A	1	1	1	3	1	4	6	15	2	10	1	16	6	4.8	15.8
10-Aug	0	0	2	3	12	17	20	16	4	A	2	1	1	1	1	1	1	15	4	3	0	1	1	0	4.7	19.6
11-Aug	11	0	8	1	13	11	29	5	A	1	1	2	1	1	1	1	1	1	1	1	2	25	37	0	6.8	37.3
12-Aug	0	0	0	35	1	0	4	A	1	1	0	1	6	4	1	1	2	1	1	11	2	4	2	26	4.6	34.8
13-Aug	0	3	1	1	10	22	A	18	6	10	9	3	1	4	4	1	1	2	1	2	0	1	10	17	5.4	22.2
14-Aug	22	0	2	1	3	A	9	4	5	7	2	4	6	16	2	4	1	1	2	3	2	2	5	1	4.6	22.2
15-Aug	1	4	0	1	A	1	1	1	1	1	9	1	9	5	4	8	4	6	2	1	49	23	4	4	6.0	48.9
16-Aug	2	21	3	A	5	6	12	6	4	17	2	12	9	4	0	5	9	3	2	0	30	7	3	1	7.2	30.1
17-Aug	0	0	A	0	2	5	4	3	2	2	5	1	1	1	1	1	3	1	1	6	1	18	31	1	4.0	30.9
18-Aug	2	A	14	2	4	5	33	5	11	6	5	14	3	3	1	1	1	6	2	10	1	3	1	1	5.9	33.1
19-Aug	A	1	1	1	1	25	17	12	1	3	2	25	4	5	1	10	1	3	2	1	24	0	0	A	6.4	24.7
20-Aug	0	0	0	0	6	2	2	4	3	4	1	0	0	1	3	6	1	0	1	1	21	2	A	1	2.7	21.2
21-Aug	0	0	1	12	3	1	3	C	C	C	C	1	12	1	2	5	1	1	1	2	3	A	10	2	3.2	12.0
22-Aug	1	4	2	2	5	42	18	5	3	2	6	3	24	1	20	13	3	7	12	3	A	13	0	3	8.4	42.1
23-Aug	0	1	0	0	4	2	44	2	11	2	3	1	3	3	2	1	1	0	1	A	2	7	0	44	5.9	44.5
24-Aug	4	0	16	1	8	6	25	9	6	3	42	7	10	5	3	6	4	14	A	2	11	10	3	5	8.7	42.3
25-Aug	1	0	3	1	1	42	0	3	19	15	3	40	5	10	2	3	6	A	14	0	2	4	0	1	7.6	41.5
26-Aug	0	0	0	0	0	22	9	0	1	1	3	12	4	6	11	1	A	7	7	11	22	12	1	3	5.9	22.0
27-Aug	1	1	2	4	11	39	51	23	3	3	2	1	1	1	1	A	1	1	1	1	1	1	0	0	6.5	50.8
28-Aug	22	0	0	0	0	2	8	12	16	3	3	9	6	A	2	2	4	1	5	9	1	1	13	5.4	22.4	
29-Aug	5	3	2	0	1	0	6	10	7	2	5	5	2	A	3	4	3	3	9	1	2	10	7	11	4.4	11.3
30-Aug	1	4	1	1	1	2	6	5	4	2	2	1	A	1	1	2	8	2	12	9	2	4	1	4	3.2	11.9
31-Aug	1	0	0	2	1	1	7	23	3	1	1	A	2	1	1	1	1	1	1	1	3	12	2	13	3.4	23.4
		3.0	1.8	2.4	3.1	4.2	9.9	13.0	7.8	6.3	3.8	4.5	5.4	5.0	3.6	3.0	3.8	3.6	4.3	5.4	6.8	7.8	6.1	5.0	5.5	Diurnal Average
		22.4	21.0	16.5	34.8	15.2	42.1	50.8	23.4	20.9	16.7	42.3	39.6	24.4	15.8	20.0	16.1	23.8	22.2	44.0	43.3	48.9	25.3	37.3	44.5	Diurnal Maximum
C - Calibration		A - Automated Daily Zero Span																								

# Hourly Maximums

Nitrogen Oxide (NO) - ppb  
Portable Clairmont - August 2015



## Hourly Averages

## Oxides of Nitrogen (NO<sub>x</sub>) - ppb Portable Clairmont - August 2015

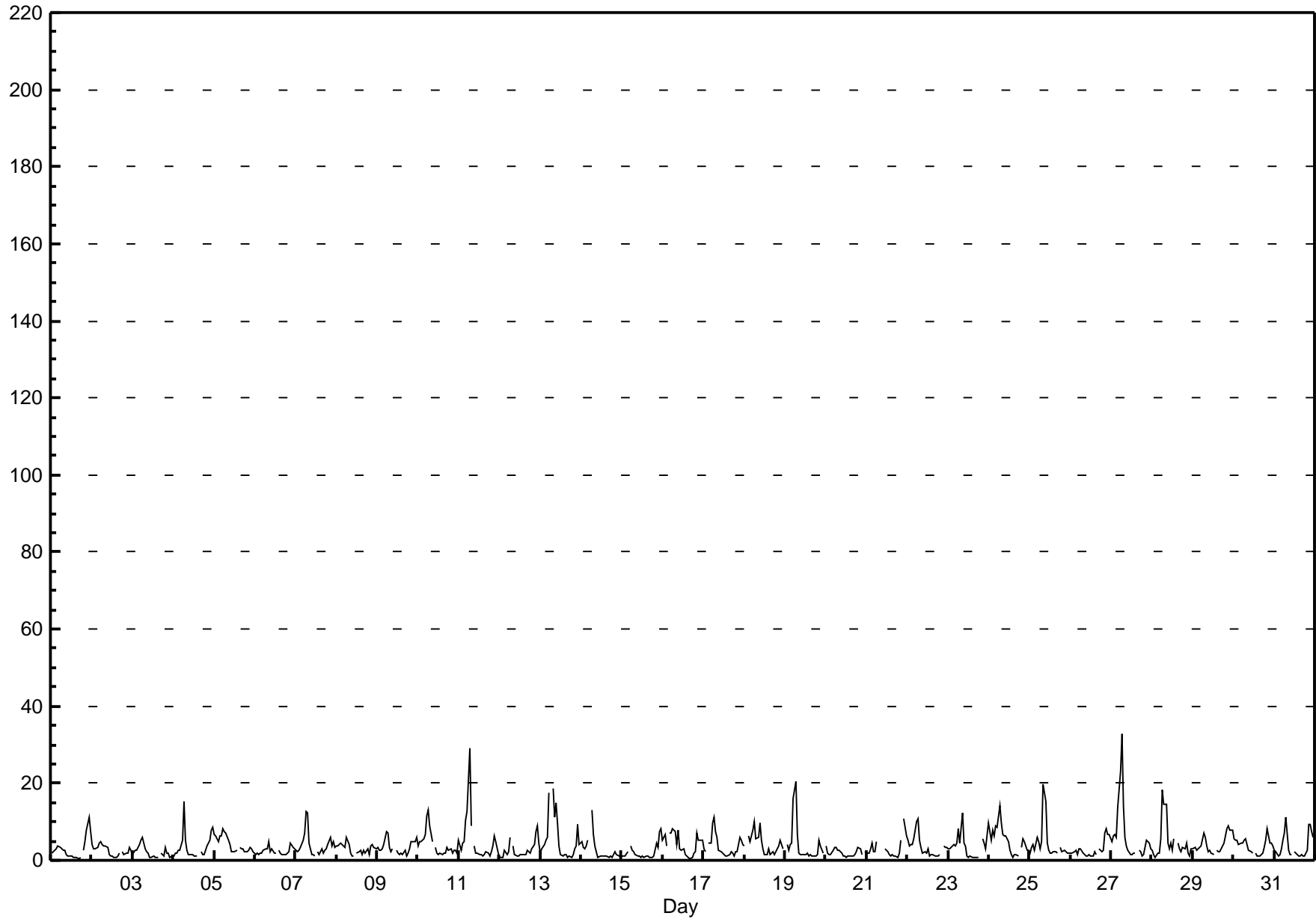
Number of Exceedences (AAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 32.7 ppb on Aug 27 07:00	Maximum Daily Average: 6.5 ppb on Aug 27		Hours of Data:	708
Minimum Value: 1 ppb on Aug 16 17:00	Minimum Daily Average: 2.0 ppb on Aug 20		Hours of Missing Data:	36
Maximum Diurnal Average: 9.8 ppb at hour 7	Minimum Diurnal Average: 1.5 ppb at hour 15		Hours of Calibration:	36
Monthly Average: 3.68 ppb	Percentiles: P <sub>1</sub> = 0.7 P <sub>10</sub> = 1.1 Q <sub>1</sub> = 1.6 Median = 2.7 Q <sub>3</sub> = 4.6 P <sub>90</sub> = 7.2 P <sub>99</sub> = 18.0		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-Aug	2	2	2	3	4	3	3	3	3	2	1	1	1	1	1	1	1	1	A	3	5	8	11	8	2.9	11.0																							
2-Aug	4	3	3	3	4	5	4	4	4	3	2	1	1	1	1	1	2	A	2	1	2	2	3	3	2.6	4.8																							
3-Aug	1	3	3	3	4	5	6	3	2	2	1	1	1	1	1	1	A	2	1	3	2	2	1	1	2.1	5.9																							
4-Aug	1	2	2	2	3	5	15	5	3	2	1	2	1	1	1	A	2	2	1	3	4	5	8	9	3.4	15.2																							
5-Aug	7	6	5	6	6	8	7	7	5	4	2	2	2	2	A	3	3	3	2	2	2	3	3	2	4.2	8.3																							
6-Aug	2	2	2	2	2	3	3	3	5	2	3	2	2	A	3	2	2	1	1	2	2	4	3	3	2.4	4.7																							
7-Aug	3	2	3	3	5	7	13	12	4	2	1	1	A	2	2	3	2	2	3	4	6	4	5	3	4.0	12.7																							
8-Aug	4	4	4	4	4	3	6	4	2	1	1	A	2	2	2	1	3	2	3	2	4	4	3	3	3.0	5.9																							
9-Aug	3	3	3	3	4	7	7	3	2	3	A	3	2	1	2	1	3	1	2	3	5	5	5	6	3.4	7.5																							
10-Aug	4	5	5	6	7	12	13	9	5	A	3	2	1	2	2	2	2	3	3	3	2	3	2	2	4.2	13.1																							
11-Aug	5	3	5	5	10	13	29	9	A	4	2	2	1	1	1	1	2	2	1	2	4	7	5	2	5.0	29.0																							
12-Aug	1	1	1	2	1	2	6	A	4	2	1	1	1	1	2	2	2	2	2	3	4	7	9	5	2.7	8.8																							
13-Aug	2	3	4	5	6	18	A	19	11	15	10	4	2	1	1	1	1	1	1	1	3	4	9	4	5.5	18.6																							
14-Aug	5	3	3	4	5	A	13	7	4	2	1	1	1	1	1	1	1	1	1	1	2	2	1	1	2.7	13.0																							
15-Aug	1	1	1	2	A	4	3	2	2	1	1	1	1	1	1	1	1	1	1	1	4	3	7	8	2.1	8.2																							
16-Aug	5	7	4	A	7	7	8	7	4	8	3	3	3	2	1	1	1	1	2	2	7	5	5	5	4.2	8.3																							
17-Aug	3	2	A	4	4	10	11	7	6	3	2	2	1	1	1	1	2	2	1	2	2	6	5	4	3.7	11.1																							
18-Aug	4	A	6	5	6	8	10	5	6	10	5	3	1	2	3	2	2	2	2	3	4	5	4	3	4.3	9.9																							
19-Aug	A	4	3	4	4	16	20	7	2	2	1	1	2	2	1	1	1	1	1	1	5	4	2	A	4.0	20.3																							
20-Aug	4	2	2	1	2	3	3	3	3	2	1	1	1	1	1	1	1	1	2	2	3	3	1	A	2	2.0	3.7																						
21-Aug	2	2	3	4	2	2	5	C	C	C	C	3	2	1	1	1	1	1	1	2	5	A	11	6	3.0	11.0																							
22-Aug	5	4	4	4	5	10	11	5	3	2	2	2	3	1	1	1	1	1	1	2	A	4	4	3	3.5	10.9																							
23-Aug	3	3	3	4	4	5	8	4	12	4	4	1	1	1	1	1	1	1	1	A	5	5	3	6	3.5	12.4																							
24-Aug	10	5	8	6	9	9	14	10	7	6	6	5	3	1	1	1	1	1	A	3	5	5	3	3	5.3	14.1																							
25-Aug	2	4	4	3	6	5	3	5	20	15	4	3	2	2	2	2	2	A	3	2	2	2	2	2	4.2	19.6																							
26-Aug	2	2	2	2	2	3	3	2	1	1	1	2	1	1	2	2	A	3	2	3	7	8	7	7	2.8	8.1																							
27-Aug	5	6	7	6	14	23	33	14	6	4	3	2	2	2	2	A	3	2	1	2	3	5	5	3	6.5	32.7																							
28-Aug	3	2	1	2	2	6	18	15	14	4	3	4	3	6	A	4	3	2	3	3	4	2	1	3	4.7	18.2																							
29-Aug	3	3	3	3	3	4	7	6	4	2	3	2	1	A	3	2	2	4	4	6	8	9	8	8	4.3	9.0																							
30-Aug	6	5	5	4	5	4	5	6	4	2	2	2	A	2	1	1	2	2	3	5	8	4	4	4	3.8	8.2																							
31-Aug	3	2	1	1	3	5	7	11	3	2	1	A	2	1	1	1	1	1	1	3	9	9	8	6	3.7	11.2																							
																								3.4	3.1	3.3	3.7	4.8	7.2	9.8	6.8	5.2	3.8	2.5	2.0	1.6	1.6	1.5	1.6	1.7	1.7	1.9	2.6	4.4	4.6	4.9	4.1	Diurnal Average	
																								9.6	6.6	7.9	6.4	14.0	23.0	32.7	18.6	19.6	15.4	9.5	5.0	3.1	5.7	2.8	4.3	2.9	3.7	4.3	6.4	9.1	9.3	11.0	8.5	Diurnal Maximum	

C - Calibration                      A - Automated Daily Zero Span

**Hourly Averages**

**Oxides of Nitrogen (NO<sub>x</sub>) - ppb**  
**Portable Clairmont - August 2015**



# Hourly Maximums

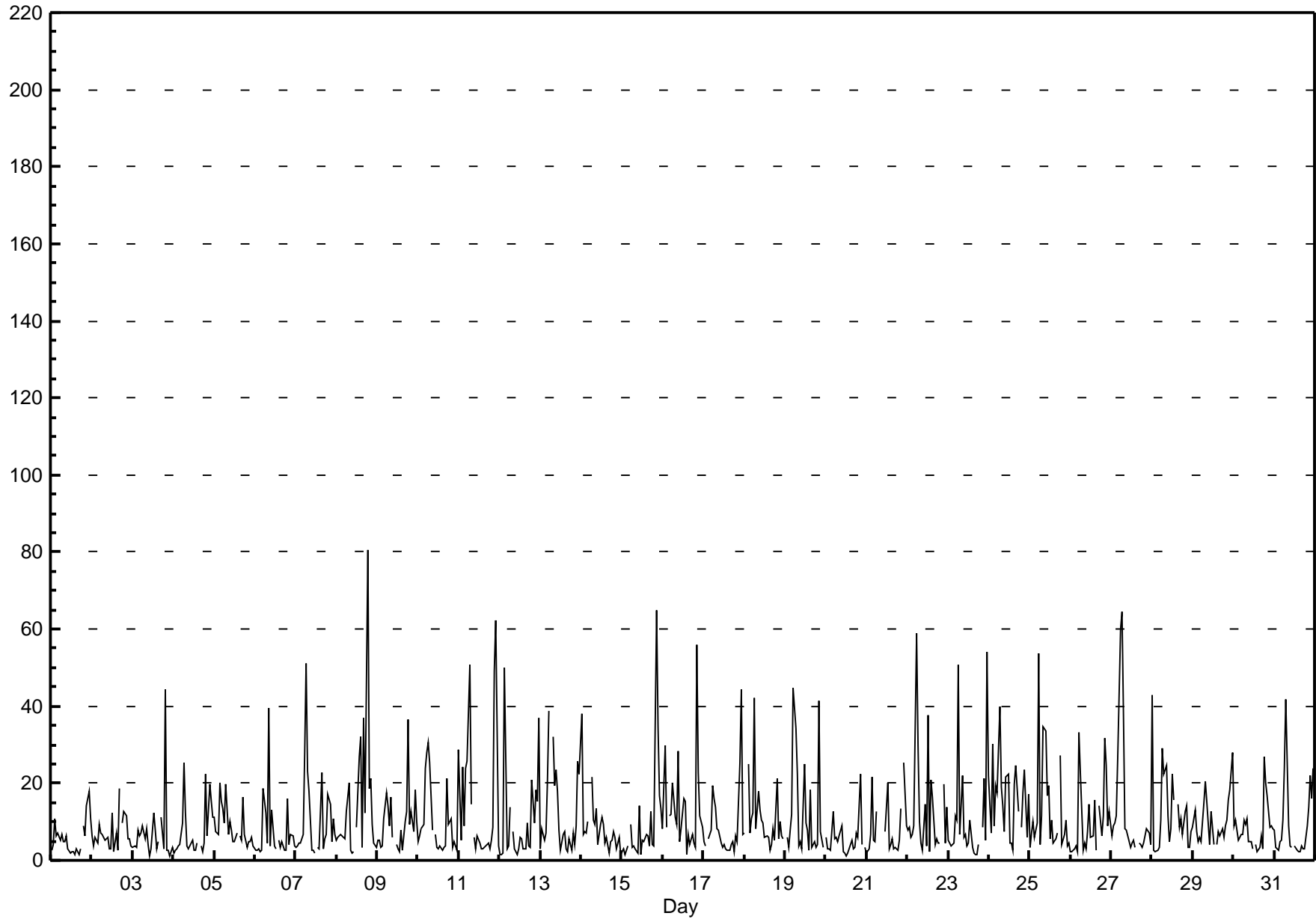
## Oxides of Nitrogen (NO<sub>x</sub>) - ppb Portable Clairmont - August 2015

<b>Maximum Value: 80.6 ppb on Aug 8 19:00</b>		<b>Maximum Daily Average: 16.1 ppb on Aug 24</b>		Hours in Service: 744 Hours of Data: 708 Hours of Missing Data: 36 Hours of Calibration: 36 Percent Operational Time: 100.0																							
<b>Minimum Value: 1 ppb on Aug 3 23:00</b>		<b>Minimum Daily Average: 5.4 ppb on Aug 20</b>																									
<b>Maximum Diurnal Average: 22.9 ppb at hour 7</b>		<b>Minimum Diurnal Average: 5.9 ppb at hour 15</b>																									
<b>Monthly Average: 10.39 ppb</b>		Percentiles: P <sub>1</sub> = 1.3 P <sub>10</sub> = 2.7 Q <sub>1</sub> = 3.8 Median = 6.5 Q <sub>3</sub> = 12.5 P <sub>90</sub> = 22.9 P <sub>99</sub> = 54.3																									
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-Aug	3	4	11	6	7	5	7	5	5	6	3	2	2	2	1	3	1	3	A	9	6	14	18	11	5.9	18.1	
2-Aug	6	4	6	5	9	7	7	6	5	6	3	3	12	2	7	2	19	A	10	13	12	6	5	4	6.9	18.8	
3-Aug	3	4	3	8	6	7	9	5	8	4	1	3	12	8	3	5	A	11	3	44	2	3	1	3	6.9	44.3	
4-Aug	2	2	3	4	4	10	25	12	4	3	4	5	3	3	4	A	4	2	4	23	6	20	15	11	7.5	25.2	
5-Aug	11	8	7	20	15	14	10	20	7	10	8	5	5	7	A	6	5	17	7	4	5	5	6	4	8.8	20.3	
6-Aug	3	3	3	2	3	19	12	5	39	4	13	4	3	A	5	3	5	2	3	16	4	7	6	4	7.2	39.5	
7-Aug	3	4	4	4	7	28	51	23	18	3	3	2	A	3	3	23	3	5	7	17	15	5	11	7	10.8	51.2	
8-Aug	5	6	7	6	6	13	20	3	2	2	A	8	27	32	3	37	12	81	18	21	9	4	3	14.5	80.6		
9-Aug	5	5	3	4	11	17	14	9	16	6	A	4	3	2	8	3	10	13	37	9	13	8	18	10	9.9	36.7	
10-Aug	5	6	8	9	24	28	30	25	8	A	7	3	3	4	3	4	4	21	9	11	3	5	4	3	9.9	30.5	
11-Aug	29	5	24	9	24	26	51	15	A	6	3	6	4	3	3	3	4	4	3	5	9	49	62	4	15.3	62.2	
12-Aug	1	1	2	50	3	4	14	A	7	3	1	3	6	6	3	3	10	4	3	21	10	18	15	37	9.8	50.0	
13-Aug	3	8	5	7	20	39	A	32	20	23	18	8	3	7	7	3	2	6	3	7	4	9	26	23	12.3	38.8	
14-Aug	38	7	7	7	10	A	22	10	9	13	4	9	11	9	5	6	2	5	5	7	6	3	6	2	8.9	37.9	
15-Aug	2	3	1	4	A	9	3	4	3	2	14	2	5	5	7	6	4	13	4	4	65	35	17	14	9.8	64.9	
16-Aug	8	30	9	A	12	12	20	11	9	28	5	8	16	15	2	7	4	7	5	3	56	23	12	9	13.5	56.0	
17-Aug	5	4	A	6	8	19	16	14	8	8	5	3	4	3	2	3	4	5	2	6	5	25	44	7	8.9	44.5	
18-Aug	7	A	25	7	11	12	42	8	18	13	10	10	6	6	6	3	4	8	5	21	6	10	6	6	10.9	42.3	
19-Aug	A	6	3	8	12	45	34	23	4	5	3	25	10	8	3	18	3	5	4	4	41	8	3	A	12.4	44.8	
20-Aug	6	3	3	3	13	6	6	5	6	9	2	2	1	2	4	5	3	3	7	6	23	4	A	3	5.4	22.6	
21-Aug	2	3	7	22	5	5	13	C	C	C	C	7	20	3	4	5	3	3	3	5	13	A	25	9	8.3	25.3	
22-Aug	8	8	6	7	9	59	30	10	5	3	14	4	38	2	21	16	4	6	5	5	A	20	4	14	12.8	59.0	
23-Aug	5	4	4	5	12	10	51	7	22	6	7	4	5	10	3	2	1	1	4	A	8	21	5	54	11.0	54.2	
24-Aug	22	7	30	9	19	18	40	19	14	8	21	22	5	4	2	20	25	13	A	8	18	24	6	17	16.1	39.8	
25-Aug	3	7	10	6	10	54	4	12	35	34	17	19	6	11	5	6	7	A	27	4	7	10	4	4	13.1	53.8	
26-Aug	2	2	3	4	2	33	23	2	4	3	7	14	6	6	16	3	A	14	6	12	32	25	9	13	10.5	33.0	
27-Aug	6	9	10	12	27	60	64	38	8	8	7	3	4	5	3	A	5	4	4	5	6	8	7	4	13.3	64.4	
28-Aug	43	3	2	3	4	11	29	22	25	12	5	8	22	16	A	14	9	11	7	13	14	3	3	8	12.4	43.0	
29-Aug	9	13	7	5	6	5	15	21	15	10	4	13	4	A	4	7	6	8	6	9	11	16	18	28	10.4	27.8	
30-Aug	9	10	8	5	7	7	10	9	11	5	5	3	A	4	2	3	7	3	27	20	17	8	9	8	8.6	26.8	
31-Aug	8	3	3	5	5	10	24	42	9	4	3	A	4	2	2	2	4	3	3	9	14	22	16	24	9.6	41.6	
		8.8	6.1	7.5	8.3	10.3	19.4	22.9	15.0	11.9	8.4	6.9	7.1	8.0	6.4	5.9	6.5	6.8	7.3	10.1	11.3	15.0	14.0	13.0	11.5	Diurnal Average	
		43.0	29.9	30.0	50.0	26.5	60.0	64.4	41.6	39.5	33.5	21.5	25.1	37.6	26.8	32.1	22.8	37.0	21.3	80.6	44.3	64.9	49.4	62.2	54.2	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									



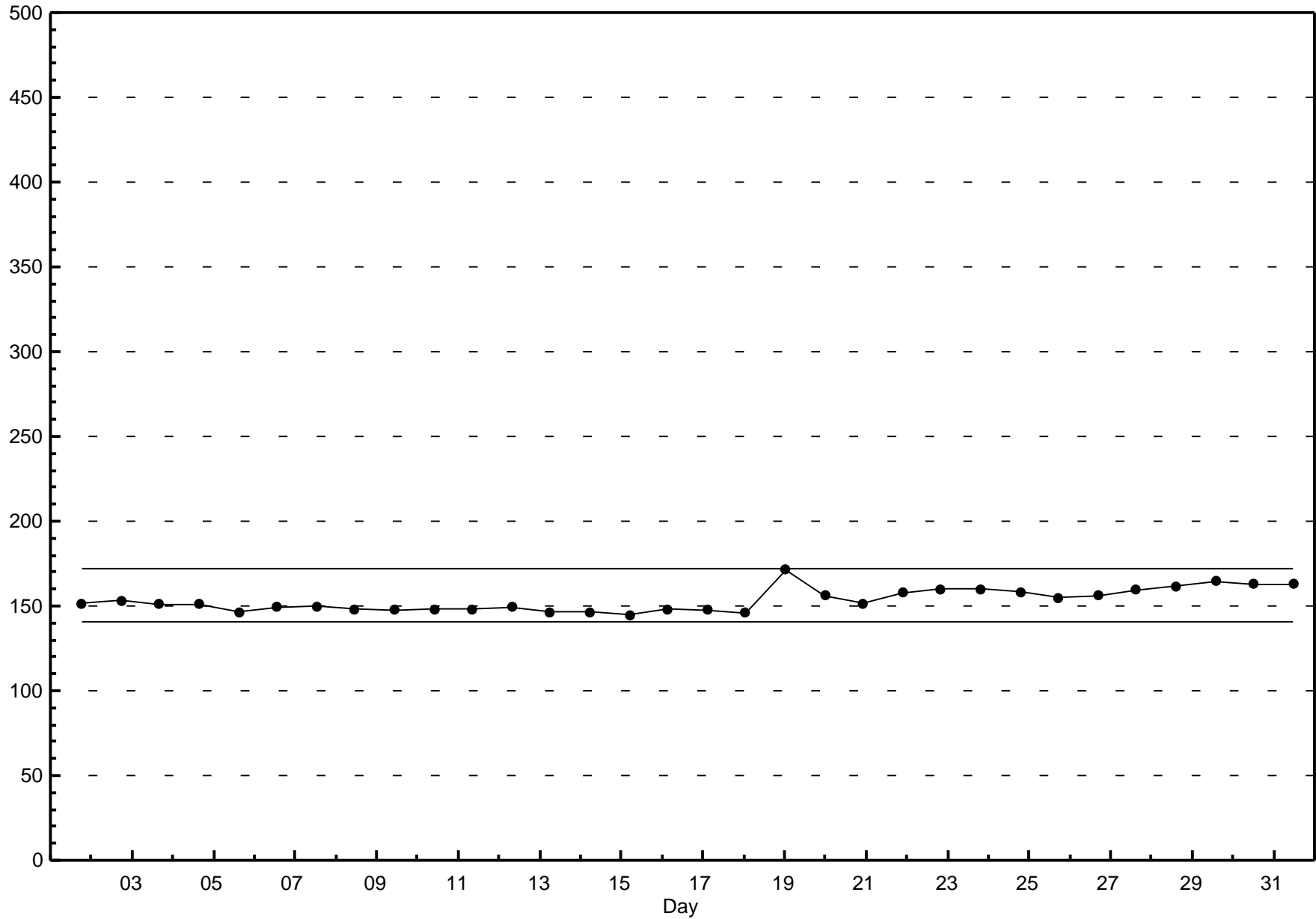
**Hourly Maximums**

**Oxides of Nitrogen (NO<sub>x</sub>) - ppb**  
**Portable Clairmont - August 2015**



### Span Responses

Oxides of Nitrogen (NO<sub>x</sub>)  
Portable Clairmont - August 2015





# Hourly Averages

Ozone (O<sub>3</sub>) - ppb

Peace Airshed Zone Association

## Portable Clairmont - August 2015

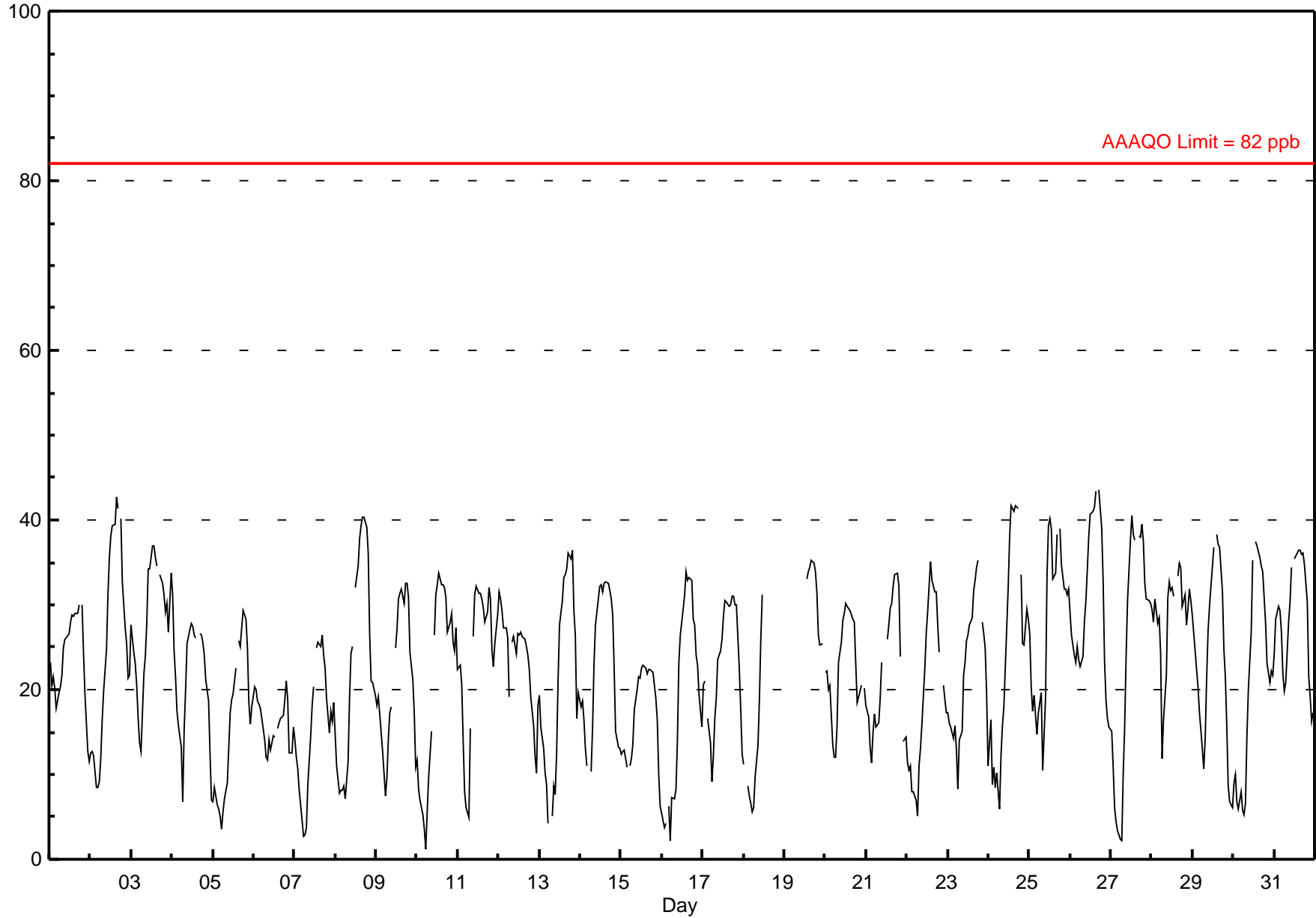
Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 43.5 ppb on Aug 26 18:00	Maximum Daily Average: 29.8 ppb on Aug 26		Hours of Data:	686
Minimum Value: 1 ppb on Aug 10 06:00	Minimum Daily Average: 15.5 ppb on Aug 7		Hours of Missing Data:	58
Maximum Diurnal Average: 32.3 ppb at hour 15	Minimum Diurnal Average: 10.6 ppb at hour 7		Hours of Calibration:	33
Monthly Average: 22.56 ppb	Percentiles: P <sub>1</sub> = 3.5 P <sub>10</sub> = 8.7 Q <sub>1</sub> = 15.1 Median = 23.1 Q <sub>3</sub> = 30.3 P <sub>90</sub> = 34.5 P <sub>99</sub> = 41.4		Percent Operational Time:	96.6

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum																						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																								
1-Aug	23	21	22	20	18	20	20	22	25	26	26	27	28	29	29	29	30	A	30	24	19	13	11	23.5	30.0																							
2-Aug	13	13	12	8	8	9	12	16	20	25	31	36	38	39	40	43	41	A	40	33	27	25	21	22	24.9	42.7																						
3-Aug	28	24	23	21	17	14	13	22	24	28	34	34	37	37	36	35	A	34	32	31	29	30	27	34	27.9	37.0																						
4-Aug	31	25	22	17	16	13	7	15	20	25	27	28	28	27	26	A	27	26	26	24	21	19	12	7	21.2	31.1																						
5-Aug	7	8	6	6	5	4	6	7	9	13	17	19	19	23	A	26	25	27	29	28	25	18	16	18	15.8	29.4																						
6-Aug	20	20	19	18	18	17	14	12	12	14	13	15	14	A	15	16	17	17	19	21	19	13	12	16	16.1	21.1																						
7-Aug	14	12	11	8	5	3	3	4	9	15	18	20	A	25	26	25	26	24	22	19	15	17	16	18	15.5	26.5																						
8-Aug	15	11	8	8	8	9	7	12	19	24	25	A	32	35	38	39	40	40	39	36	26	21	21	19	23.2	40.3																						
9-Aug	18	19	17	15	13	7	10	14	17	18	A	25	27	31	31	32	30	33	32	31	24	21	17	11	21.5	32.6																						
10-Aug	12	8	7	5	4	1	6	10	15	A	26	31	32	34	32	32	32	31	27	28	29	26	25	27	20.9	33.8																						
11-Aug	22	23	21	14	8	6	5	15	A	26	31	32	31	31	31	30	28	29	32	31	25	23	25	29	23.8	32.2																						
12-Aug	32	31	29	27	27	26	19	A	26	26	24	27	27	27	26	26	25	24	22	19	16	12	10	18	23.8	31.5																						
13-Aug	19	16	13	10	9	4	A	5	9	8	13	21	28	30	33	34	34	36	35	37	29	27	17	20	21.1	36.5																						
14-Aug	18	19	16	13	11	A	10	16	23	28	29	32	32	32	33	33	32	32	31	29	23	15	13	13	23.1	32.7																						
15-Aug	12	13	13	11	A	11	12	14	18	20	21	21	22	23	22	22	22	22	22	22	19	16	10	6	17.2	23.0																						
16-Aug	5	4	4	A	6	2	7	7	8	14	23	26	30	31	34	33	33	33	28	28	24	23	20	16	19.1	33.9																						
17-Aug	20	21	A	17	14	9	12	17	19	24	25	26	29	30	30	30	30	31	31	30	30	23	18	12	22.9	31.1																						
18-Aug	11	A	9	8	7	6	6	10	13	19	26	31	P	P	P	P	P	P	P	P	P	P	P	P	..	31.2																						
19-Aug	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	..	35.2																						
20-Aug	22	22	20	20	14	12	12	16	23	26	28	29	30	30	29	29	28	28	23	19	20	20	A	20	22.6	30.2																						
21-Aug	18	17	13	11	15	17	16	16	19	23	C	C	26	28	30	30	32	33	34	32	24	A	14	14	22.0	33.7																						
22-Aug	11	11	11	8	8	7	5	11	13	16	22	27	29	32	35	33	32	32	28	24	A	20	19	17	19.6	35.1																						
23-Aug	17	16	16	14	16	13	8	14	15	22	23	26	26	28	28	32	33	34	35	A	28	27	25	20	22.4	35.3																						
24-Aug	11	16	9	11	8	10	6	12	16	18	23	32	38	42	41	41	42	41	A	34	25	25	29	28	24.3	41.8																						
25-Aug	27	20	17	19	15	17	18	20	11	19	33	39	40	39	33	34	38	A	39	35	32	32	31	32	27.9	40.2																						
26-Aug	29	26	24	23	25	23	23	24	28	30	34	38	41	41	41	43	A	44	39	33	23	19	17	16	29.8	43.5																						
27-Aug	15	11	6	4	3	2	2	10	16	24	31	38	41	38	38	A	38	38	39	37	33	31	30	30	24.2	40.6																						
28-Aug	29	28	31	28	29	24	12	16	22	31	33	32	32	31	A	33	35	34	30	31	28	29	32	30	28.7	35.0																						
29-Aug	29	25	22	20	17	15	11	14	21	27	30	32	37	A	38	37	37	31	25	22	16	9	7	6	23.0	38.4																						
30-Aug	9	10	7	6	8	6	5	7	14	20	27	35	A	37	37	36	35	34	31	28	23	21	22	22	20.8	37.5																						
31-Aug	24	28	30	29	27	22	20	21	28	30	34	A	36	36	36	36	36	36	35	30	22	19	16	17	28.3	36.5																						
																								18.8	17.8	15.8	14.5	13.0	11.4	10.6	13.7	17.6	22.0	26.0	28.8	30.8	32.1	32.3	32.2	31.9	31.8	30.7	28.7	24.3	21.6	19.4	19.0	Diurnal Average
																								31.5	30.7	30.7	29.4	28.5	26.1	22.7	24.0	28.1	30.9	34.4	39.3	40.7	41.8	41.5	43.4	41.7	43.5	40.1	37.4	32.6	31.8	31.9	33.8	Diurnal Maximum

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

### Hourly Averages

Ozone (O<sub>3</sub>) - ppb  
Portable Clairmont - August 2015



## Hourly Maximums

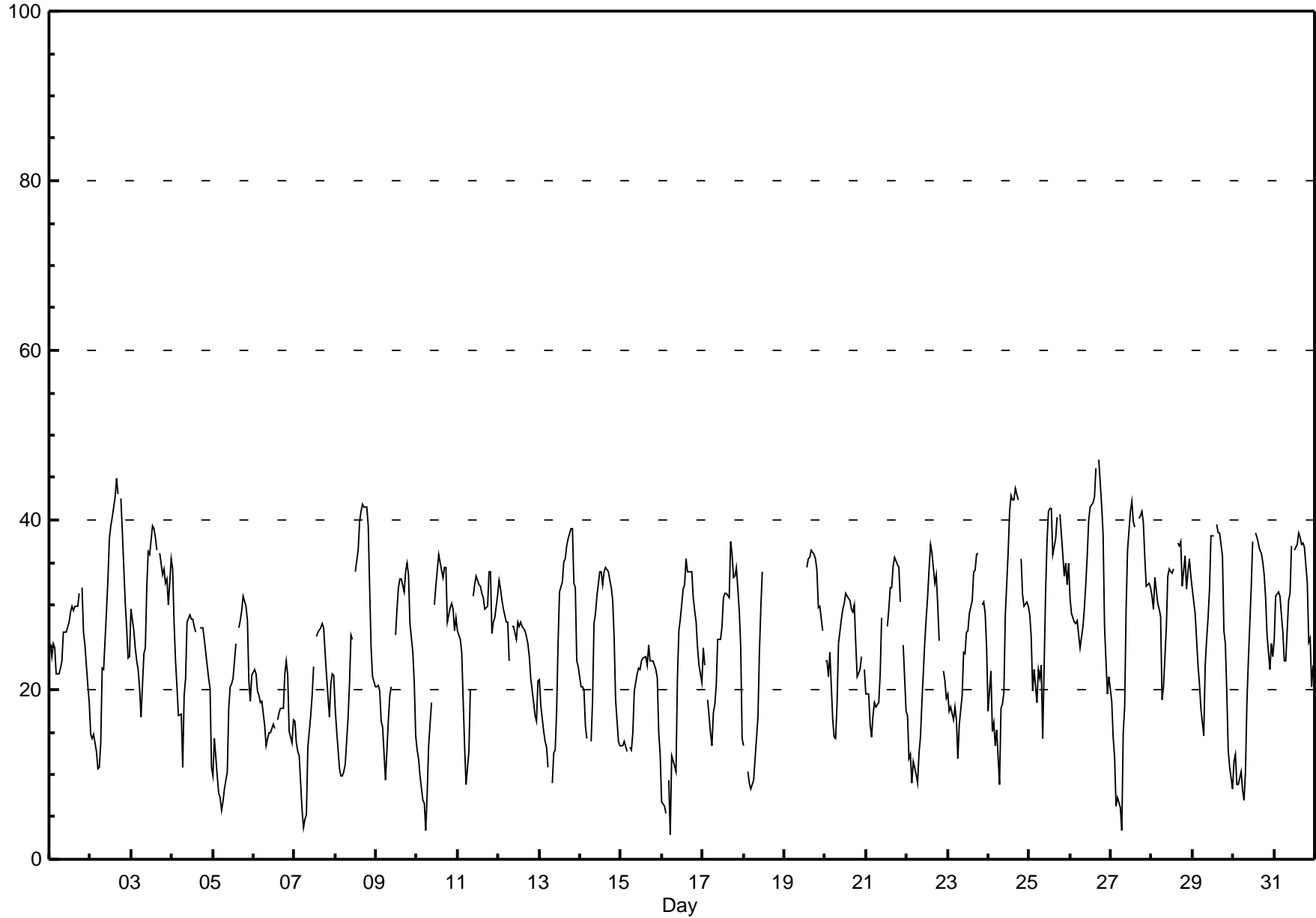
Ozone (O<sub>3</sub>) - ppb

Portable Clairmont - August 2015

Maximum Value: 47.0 ppb on Aug 26 18:00		Maximum Daily Average: 32.7 ppb on Aug 26		Hours in Service: 744																							
Minimum Value: 3 ppb on Aug 16 06:00		Minimum Daily Average: 17.7 ppb on Aug 6		Hours of Data: 686																							
Maximum Diurnal Average: 33.9 ppb at hour 16		Minimum Diurnal Average: 13.8 ppb at hour 7		Hours of Missing Data: 58																							
Monthly Average: 25.18 ppb		Percentiles: P <sub>1</sub> = 5.7 P <sub>10</sub> = 12.4 Q <sub>1</sub> = 18.3 Median = 25.9 Q <sub>3</sub> = 32.2 P <sub>90</sub> = 37.0 P <sub>99</sub> = 42.6		Hours of Calibration: 33																							
				Percent Operational Time: 96.6																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Aug	25	24	25	25	22	22	23	23	27	27	27	28	29	30	29	30	30	31	A	32	27	25	20	18	26.1	32.1	
2-Aug	15	14	15	13	11	11	14	23	22	29	33	38	39	40	43	45	43	A	43	39	30	27	24	24	27.6	44.9	
3-Aug	30	27	25	23	22	20	17	24	25	32	36	36	39	39	38	36	A	36	34	34	33	33	30	35	30.7	39.4	
4-Aug	34	28	23	20	17	17	11	19	21	28	29	28	28	28	27	A	27	27	27	26	24	21	20	11	23.7	34.2	
5-Aug	10	14	10	8	7	6	7	8	10	18	20	21	21	25	A	27	28	29	31	30	28	21	19	22	18.3	31.1	
6-Aug	22	22	20	19	18	19	16	13	14	15	15	16	15	A	17	17	18	18	22	23	22	15	14	16	17.7	23.4	
7-Aug	16	14	13	12	6	4	5	5	13	17	19	23	A	26	27	27	28	27	24	22	17	21	22	22	17.8	27.8	
8-Aug	18	15	11	10	10	10	11	17	21	26	26	A	34	36	40	41	42	41	41	39	32	25	22	20	25.6	41.8	
9-Aug	20	21	20	16	16	9	13	16	19	20	A	26	29	32	33	33	31	34	35	33	28	24	21	15	23.7	34.9	
10-Aug	13	12	10	7	7	3	8	13	18	A	30	32	34	36	34	33	34	34	28	30	30	29	27	28	23.1	35.9	
11-Aug	27	26	24	19	13	9	13	20	A	31	32	33	32	32	31	31	29	30	34	34	27	28	28	31	26.8	33.9	
12-Aug	33	32	30	29	28	28	23	A	27	27	26	28	27	28	27	27	26	25	24	21	18	17	16	21	25.8	33.0	
13-Aug	21	18	15	14	13	11	A	9	13	13	17	25	31	33	35	35	37	38	39	39	32	32	23	23	24.7	39.0	
14-Aug	20	20	20	16	14	A	14	19	28	29	31	34	34	32	34	34	34	33	32	30	26	19	14	13	25.3	34.5	
15-Aug	13	13	14	13	A	13	13	15	20	22	23	22	23	24	24	23	25	23	23	23	22	21	15	12	19.2	25.3	
16-Aug	7	6	5	A	9	3	12	11	10	21	27	28	32	32	35	34	34	34	31	29	28	25	23	21	21.7	35.4	
17-Aug	25	23	A	19	15	13	17	18	21	26	26	27	31	31	31	31	37	36	33	33	34	29	25	14	26.0	37.4	
18-Aug	13	A	10	9	8	9	9	12	17	24	30	34	P	P	P	P	P	P	P	P	P	P	P	P	--	33.9	
19-Aug	P	P	P	P	P	P	P	P	P	P	P	P	P	P	34	35	36	36	36	35	34	30	30	27	A	--	36.5
20-Aug	23	23	22	24	16	14	14	18	25	28	29	30	31	31	30	29	29	30	25	21	22	24	A	22	24.7	31.4	
21-Aug	19	19	16	14	17	18	18	18	22	29	C	C	28	30	32	32	35	36	35	34	30	A	25	17	25.0	35.6	
22-Aug	17	12	12	9	11	10	9	12	14	18	26	29	31	34	37	36	33	33	30	26	A	22	21	19	21.9	37.1	
23-Aug	20	17	18	16	18	16	12	16	19	24	24	27	27	29	30	34	34	36	36	A	30	30	29	25	24.7	36.2	
24-Aug	17	22	15	16	13	15	9	18	18	20	29	36	41	43	42	42	44	42	A	35	31	30	30	30	27.9	43.8	
25-Aug	29	26	20	22	18	22	21	23	14	31	37	41	41	41	36	38	40	A	41	38	33	35	32	35	31.2	41.3	
26-Aug	31	29	28	28	28	26	25	27	30	32	36	40	42	42	43	46	A	47	42	38	27	23	19	21	32.7	47.0	
27-Aug	19	14	12	6	7	6	3	15	18	30	36	41	42	40	39	A	40	41	41	40	36	32	33	32	27.1	42.3	
28-Aug	31	29	33	30	29	29	19	20	27	33	34	34	34	34	A	37	37	37	32	36	32	34	35	33	31.8	37.4	
29-Aug	32	29	26	23	21	18	15	23	26	28	32	38	38	A	39	38	38	36	27	25	20	13	11	8	26.3	39.5	
30-Aug	12	12	9	9	10	8	7	10	18	23	32	38	A	39	38	37	36	35	34	31	26	22	25	24	23.3	38.5	
31-Aug	26	31	31	31	29	27	23	23	30	31	37	A	36	37	38	38	37	37	37	32	26	26	20	23	30.8	38.5	
		21.3	20.5	18.4	17.3	15.7	14.4	13.8	17.0	20.4	25.4	28.6	30.9	32.3	33.6	33.8	33.9	33.7	33.8	32.7	31.4	27.7	25.4	23.2	22.0	Diurnal Average	
		34.2	31.9	33.1	31.0	29.5	28.6	24.9	27.4	30.5	33.4	37.4	41.0	42.3	43.0	42.7	46.0	43.8	47.0	42.5	39.6	35.5	34.9	35.4	35.5	Diurnal Maximum	
C - Calibration		P - Power Failure						A - Automated Daily Zero Span																			

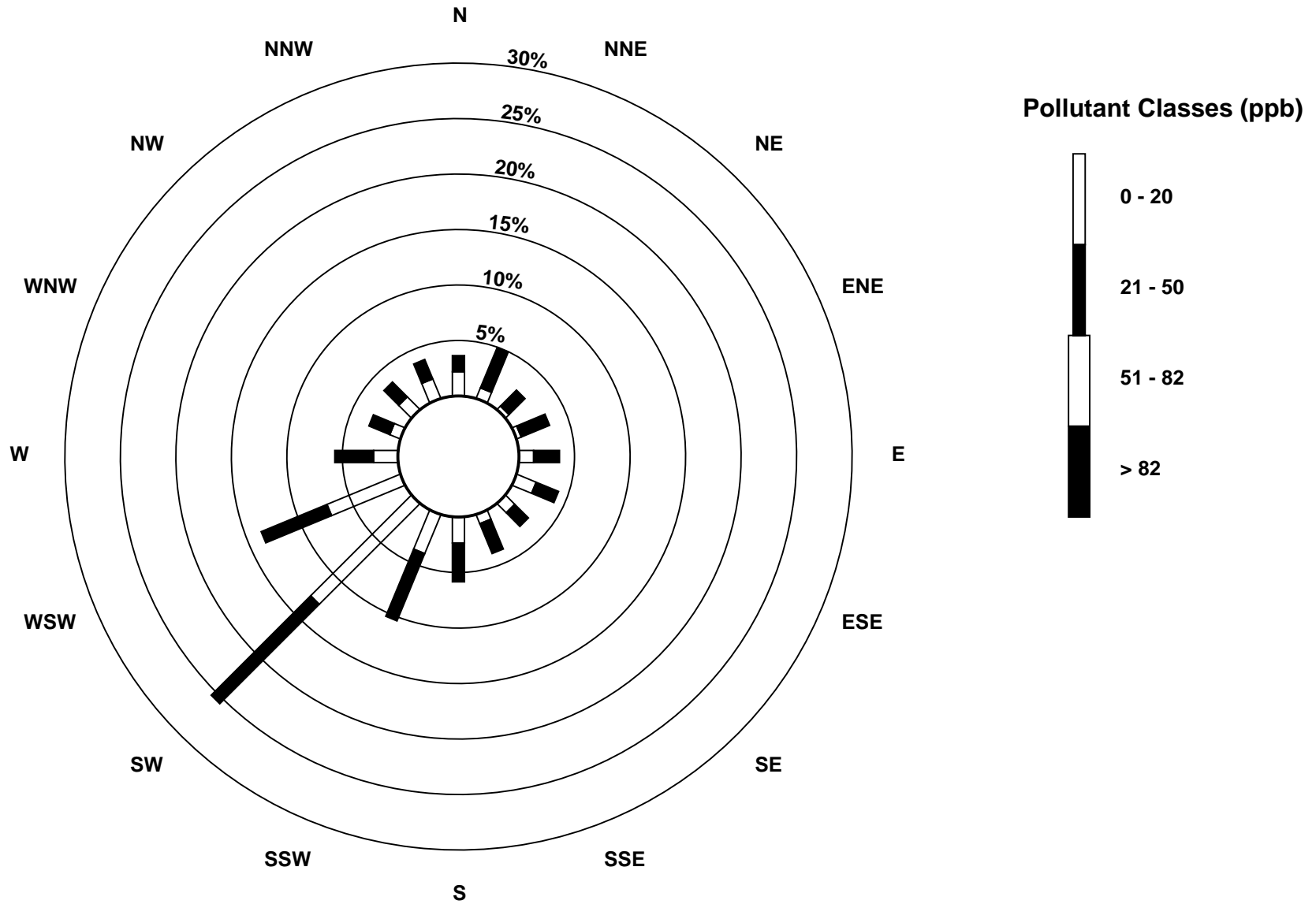
**Hourly Maximums**

**Ozone (O<sub>3</sub>) - ppb**  
**Portable Clairmont - August 2015**



**Pollutant Rose**

**Ozone (O<sub>3</sub>) - ppb**  
**Portable Clairmont - August 2015**



## Eight Hour Running Averages

Ozone (O<sub>3</sub>) - ppb

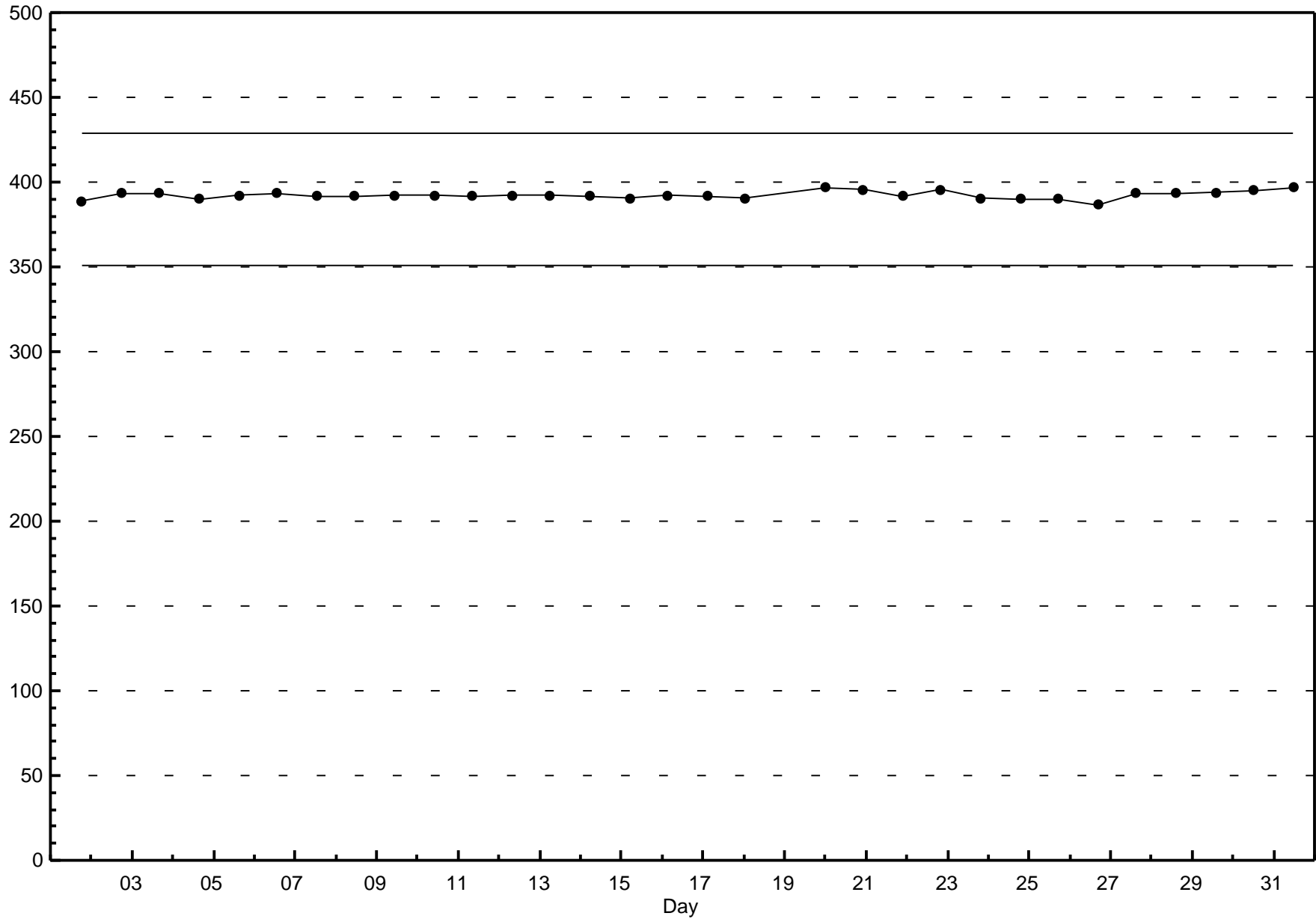
Portable Clairmont - August 2015

Maximum Value: 41.0 ppb on Aug 26 19:00																					Hours in Service:	744			
Minimum Value: 5.0 ppb on Aug 16 07:00																					Hours of Data:	716			
Percentiles: P <sub>1</sub> = 6.5 P <sub>10</sub> = 11.3 Q <sub>1</sub> = 16.3 Median = 23.3 Q <sub>3</sub> = 28.8 P <sub>90</sub> = 32.9 P <sub>99</sub> = 38.9																					Hours of Missing Data:	28			
																					Hours of Calibration:	0			
																					Percent Operational Time:	96.2			
Day	Hourly Period Ending At (MST)																								Daily Maximum
1-Aug	26	25	24	23	23	22	21	21	21	22	22	23	24	25	26	27	28	28	29	29	29	27	25	22	29.1
2-Aug	20	18	17	14	12	11	11	11	12	14	16	20	23	27	31	34	37	38	40	39	38	36	33	30	39.5
3-Aug	28	28	25	24	23	21	20	20	20	20	21	23	26	29	31	33	34	35	35	34	33	32	31	31	35.2
4-Aug	31	30	29	27	25	23	21	18	17	17	18	19	20	22	24	26	27	27	27	26	25	24	22	20	31.0
5-Aug	18	15	13	11	9	7	6	6	6	7	8	10	12	14	15	18	20	22	24	25	26	26	24	23	26.2
6-Aug	23	22	21	19	18	18	18	17	16	15	15	14	14	13	14	14	15	15	16	17	18	17	17	17	22.8
7-Aug	16	16	15	13	11	10	9	7	7	7	8	9	10	13	17	20	22	24	24	23	22	21	20	24.2	
8-Aug	18	17	15	14	13	12	11	10	10	12	14	15	18	22	26	30	33	36	38	37	37	35	33	30	37.7
9-Aug	28	25	22	20	18	16	15	14	14	14	13	15	17	20	23	26	28	30	30	31	31	29	28	25	30.9
10-Aug	23	20	16	13	11	8	7	7	7	7	10	13	17	22	26	29	32	31	31	31	31	30	29	28	31.5
11-Aug	27	26	25	23	21	18	16	14	13	14	15	18	21	25	28	30	30	30	31	30	30	28	28	28	30.5
12-Aug	28	28	28	28	28	28	28	27	26	26	25	25	25	25	26	26	26	26	25	25	23	21	19	18	28.3
13-Aug	18	17	15	14	13	12	13	11	9	8	8	10	12	16	18	22	25	29	31	33	34	33	31	29	33.6
14-Aug	27	25	23	20	17	16	15	15	15	17	19	21	24	25	28	30	31	32	32	32	30	28	26	23	32.0
15-Aug	21	19	16	14	13	12	12	12	13	14	15	17	17	19	20	21	22	22	22	22	22	21	20	18	22.3
16-Aug	15	13	11	9	7	5	5	5	6	7	10	12	15	18	22	25	28	30	31	31	31	29	28	25	31.2
17-Aug	24	22	22	20	19	17	16	16	16	16	17	18	20	23	25	27	28	29	30	30	30	29	28	26	30.4
18-Aug	23	22	19	16	12	10	8	8	8	10	12	15	16	18	N	N	N	N	N	N	N	N	N	N	23.3
19-Aug	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	34.2
20-Aug	28	27	25	23	21	19	17	17	17	18	19	20	22	24	26	28	29	29	29	28	27	26	25	23	29.0
21-Aug	21	20	18	17	16	16	16	15	16	16	17	18	20	21	24	26	28	30	30	31	30	31	29	26	30.8
22-Aug	23	20	17	13	11	10	9	9	9	10	11	14	16	19	23	26	28	30	31	31	31	29	27	25	30.8
23-Aug	22	20	19	17	17	16	15	14	14	15	16	17	18	20	23	25	27	29	30	31	31	31	31	29	31.2
24-Aug	26	23	19	18	16	14	11	10	11	11	13	16	19	23	28	31	35	37	40	40	38	36	34	32	39.8
25-Aug	30	27	26	24	23	22	20	19	17	17	19	22	25	27	29	31	35	37	37	37	36	35	34	34	37.5
26-Aug	33	32	30	29	28	27	26	25	25	25	26	28	30	32	35	37	38	40	41	40	38	35	31	27	41.0
27-Aug	26	22	17	14	11	9	8	7	7	9	12	16	20	25	29	32	35	37	39	38	37	36	35	35	38.5
28-Aug	34	32	31	30	29	29	26	25	24	24	25	25	26	28	30	32	33	33	32	32	32	32	31	31	33.5
29-Aug	30	29	28	27	26	24	21	19	18	19	19	21	23	25	29	32	34	35	34	32	29	27	23	19	34.6
30-Aug	16	13	11	9	8	7	7	7	8	9	12	15	16	21	25	29	32	34	35	34	33	30	29	27	34.9
31-Aug	26	25	25	25	25	26	25	25	26	26	26	26	27	29	32	34	35	36	36	35	33	31	29	26	35.9
33.5 32.3 31.2 30.0 29.5 28.6 27.5 27.3 26.5 25.9 26.5 28.2 30.1 32.3 34.7 37.1 38.4 40.3 41.0 40.3 38.0 36.3 35.2 34.6																									
Diurnal Maximums																									
N - Not Valid																									



### Span Responses

Ozone (O<sub>3</sub>)  
Portable Clairmont - August 2015



## Hourly Averages

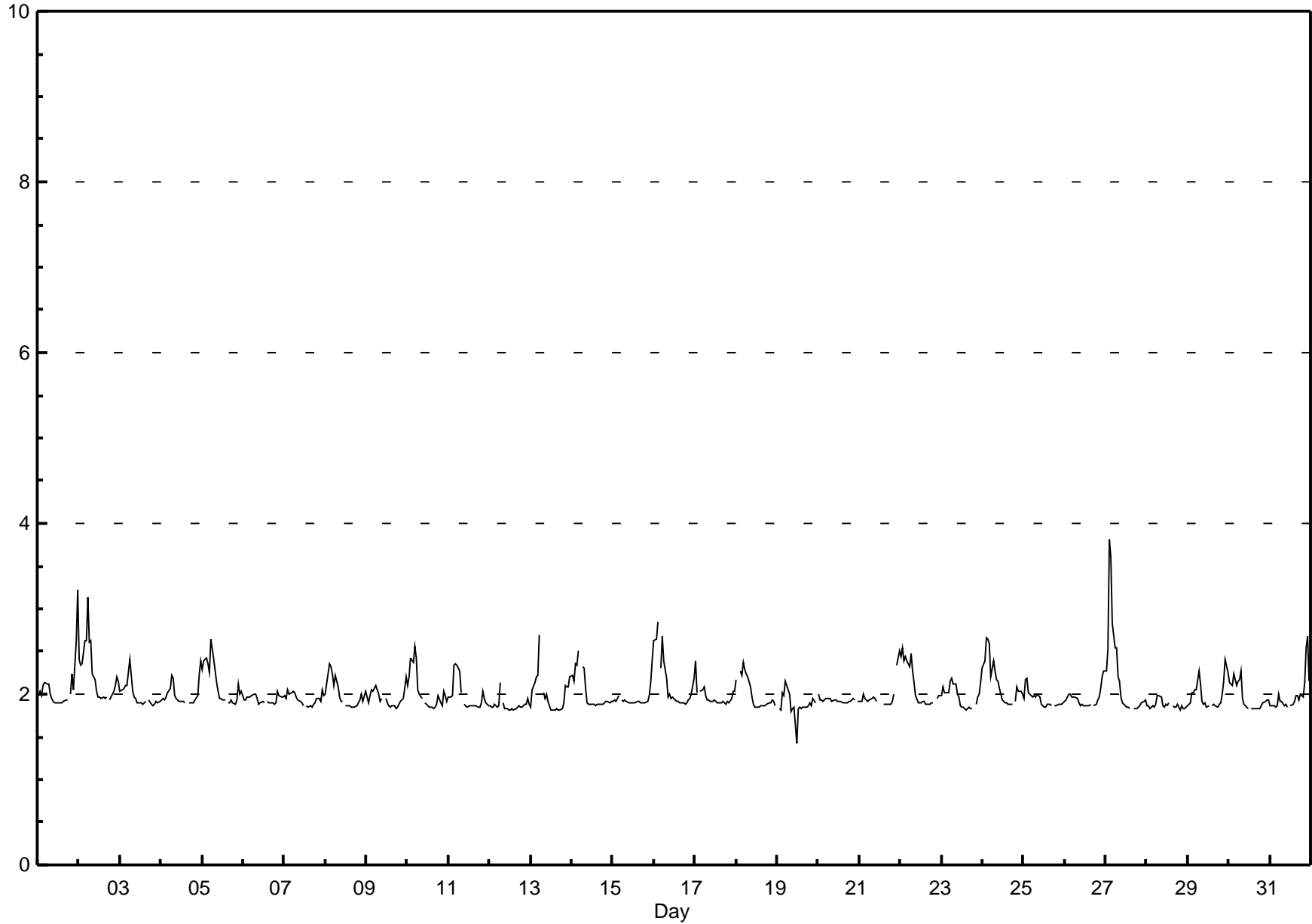
Total Hydrocarbons (THC) - ppm

Portable Clairmont - August 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 3.82 ppm on Aug 27 03:00 Maximum Daily Average: 2.23 ppm on Aug 2		Hours in Service: 744 Hours of Data: 709 Hours of Missing Data: 35 Hours of Calibration: 35 Percent Operational Time: 100.0																																															
Minimum Value: 1.4 ppm on Aug 19 12:00 Maximum Diurnal Average: 2.20 ppm at hour 6 Monthly Average: 2.004 ppm		Minimum Daily Average: 1.87 ppm on Aug 12 Minimum Diurnal Average: 1.87 ppm at hour 12 Percentiles: P <sub>1</sub> = 1.81 P <sub>10</sub> = 1.85 Q <sub>1</sub> = 1.88 Median = 1.93 Q <sub>3</sub> = 2.04 P <sub>90</sub> = 2.28 P <sub>99</sub> = 2.61																																															
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-Aug	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.0	2.2	2.1	2.6	3.2	2.08	3.22																							
2-Aug	2.4	2.3	2.4	2.6	2.6	3.1	2.6	2.6	2.2	2.2	2.0	2.0	2.0	2.0	2.0	1.9	2.0	A	1.9	2.0	2.0	2.1	2.2	2.2	2.23	3.13																							
3-Aug	2.0	2.1	2.1	2.1	2.1	2.3	2.4	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.99	2.40																							
4-Aug	1.9	1.9	1.9	2.0	2.0	2.1	2.2	2.2	2.0	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	2.0	2.2	2.4	2.00	2.39																							
5-Aug	2.3	2.4	2.4	2.4	2.2	2.6	2.5	2.4	2.1	2.0	2.0	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	2.1	2.0	2.0	2.12	2.64																							
6-Aug	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	1.94	2.04																							
7-Aug	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.1	2.0	1.94	2.05																							
8-Aug	2.0	2.1	2.4	2.3	2.2	2.1	2.2	2.1	2.0	1.9	1.9	A	1.9	1.9	1.9	1.8	1.8	1.8	1.9	1.9	1.9	2.0	1.9	2.0	2.00	2.35																							
9-Aug	2.0	1.9	2.0	2.0	2.0	2.1	2.1	2.0	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.9	1.9	1.9	2.1	2.2	1.95	2.21																							
10-Aug	2.1	2.2	2.4	2.4	2.6	2.4	2.0	2.0	2.0	A	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.9	2.0	1.9	1.9	2.0	2.0	1.9	2.03	2.56																							
11-Aug	2.0	2.0	2.0	2.3	2.4	2.3	2.3	2.0	A	1.9	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.9	2.0	2.0	1.9	1.9	1.98	2.35																						
12-Aug	1.9	1.9	1.8	1.9	1.9	1.9	2.1	A	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.8	1.8	1.9	1.9	2.0	1.9	1.87	2.13																							
13-Aug	1.9	2.0	2.1	2.2	2.2	2.7	A	2.0	2.0	2.0	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	2.1	2.1	2.1	2.2	2.00	2.69																							
14-Aug	2.2	2.2	2.4	2.3	2.5	A	2.3	2.3	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.03	2.52																							
15-Aug	1.9	1.9	1.9	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.4	1.95	2.39																								
16-Aug	2.6	2.6	2.8	A	2.3	2.7	2.4	2.2	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.2	2.12	2.85																							
17-Aug	2.4	2.0	A	2.0	2.1	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.97	2.39																							
18-Aug	2.2	A	2.3	2.2	2.4	2.3	2.2	2.2	2.1	2.0	1.9	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.00	2.37																							
19-Aug	A	1.8	1.8	2.0	2.0	2.1	2.1	2.0	1.8	1.8	1.9	1.4	1.8	1.9	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	A	1.88	2.15																							
20-Aug	2.0	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.93	2.00																							
21-Aug	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	C	C	C	1.9	1.9	1.9	1.9	1.9	1.9	2.0	A	2.3	2.5	1.98	2.51																							
22-Aug	2.4	2.5	2.4	2.4	2.4	2.3	2.5	2.3	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	A	2.0	2.0	2.10	2.54																							
23-Aug	2.0	2.1	2.0	2.0	2.0	2.2	2.2	2.1	2.1	2.0	2.0	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.9	2.0	2.0	1.97	2.19																							
24-Aug	2.3	2.4	2.7	2.6	2.6	2.2	2.4	2.3	2.2	2.2	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	2.1	2.0	2.0	2.14	2.66																							
25-Aug	1.9	2.2	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.8	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.94	2.18																							
26-Aug	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	2.0	2.1	2.2	2.3	1.95	2.28																							
27-Aug	2.3	2.5	3.8	3.6	2.8	2.5	2.5	2.2	2.1	2.0	1.9	1.9	1.9	1.8	1.8	A	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	2.21	3.82																							
28-Aug	1.9	1.9	1.8	1.9	1.8	1.9	2.0	2.0	2.0	1.9	1.8	1.9	1.9	1.9	A	1.9	1.8	1.8	1.9	1.8	1.9	1.8	1.8	1.9	1.87	1.98																							
29-Aug	1.9	1.9	2.0	2.0	2.0	2.1	2.3	2.1	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.2	2.4	2.2	1.99	2.41																							
30-Aug	2.1	2.1	2.1	2.2	2.1	2.2	2.2	2.3	1.9	1.9	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.97	2.27																							
31-Aug	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	2.0	2.0	1.9	2.0	2.0	2.1	2.5	2.7	2.2	1.99	2.68																							
																								2.07	2.08	2.18	2.18	2.17	2.20	2.18	2.10	1.99	1.94	1.91	1.87	1.88	1.88	1.88	1.88	1.88	1.88	1.88	1.90	1.96	1.99	2.07	2.10	Diurnal Average	
																								2.62	2.65	3.82	3.62	2.83	3.13	2.61	2.63	2.23	2.17	2.07	1.97	1.96	1.96	1.96	1.98	1.99	1.94	2.00	2.00	2.23	2.54	2.68	3.22	Diurnal Maximum	
C - Calibration																								A - Automated Daily Zero Span																									

**Hourly Averages**

**Total Hydrocarbons (THC) - ppm**  
**Portable Clairmont - August 2015**



# Hourly Maximums

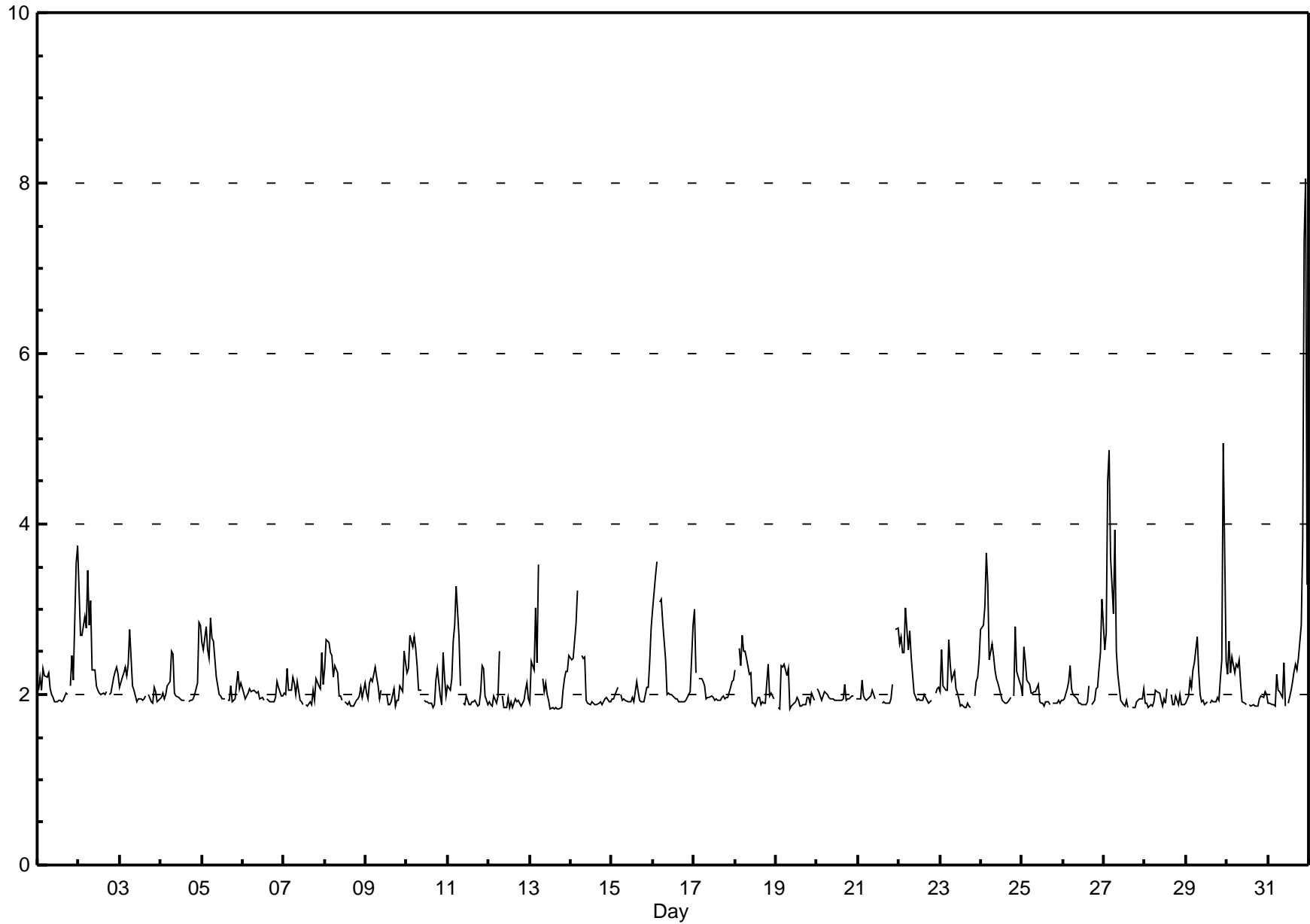
# Total Hydrocarbons (THC) - ppm

## Portable Clairmont - August 2015

Maximum Value: 8.05 ppm on Aug 31 23:00		Maximum Daily Average: 2.72 ppm on Aug 31		Hours in Service: 744																						
Minimum Value: 1.8 ppm on Aug 13 17:00		Minimum Daily Average: 1.93 ppm on Aug 28		Hours of Data: 709																						
Maximum Diurnal Average: 2.50 ppm at hour 23		Minimum Diurnal Average: 1.92 ppm at hour 13		Hours of Missing Data: 35																						
Monthly Average: 2.150 ppm		Percentiles: P <sub>1</sub> = 1.84 P <sub>10</sub> = 1.88 Q <sub>1</sub> = 1.92 Median = 1.99 Q <sub>3</sub> = 2.21 P <sub>90</sub> = 2.55 P <sub>99</sub> = 3.75		Hours of Calibration: 35																						
				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-Aug	2.1	2.2	2.1	2.3	2.2	2.2	2.3	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	A	2.1	2.5	2.2	3.5	3.7	2.21	3.74
2-Aug	3.2	2.7	2.7	2.9	2.8	3.5	2.8	3.1	2.3	2.3	2.1	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.2	2.3	2.3	2.2	2.41	3.46
3-Aug	2.1	2.2	2.3	2.3	2.2	2.4	2.8	2.1	2.1	2.0	1.9	2.0	1.9	1.9	2.0	2.0	A	2.0	1.9	1.9	2.1	2.0	1.9	1.9	2.08	2.76
4-Aug	2.0	2.0	1.9	2.0	2.1	2.2	2.5	2.5	2.0	2.0	2.0	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	2.0	2.0	2.1	2.8	2.8	2.11	2.85
5-Aug	2.6	2.5	2.8	2.5	2.4	2.9	2.7	2.6	2.2	2.1	2.0	2.0	2.0	2.0	A	1.9	1.9	2.1	1.9	1.9	2.1	2.3	2.1	2.1	2.25	2.90
6-Aug	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.0	2.0	2.0	2.0	1.9	A	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.2	2.1	2.0	2.0	2.00	2.15
7-Aug	2.0	2.0	2.3	2.0	2.0	2.2	2.1	2.0	2.1	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	2.0	1.9	2.2	2.1	2.1	2.5	2.1	2.05	2.49
8-Aug	2.3	2.6	2.6	2.5	2.5	2.2	2.3	2.3	2.0	2.0	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.0	2.1	2.11	2.64
9-Aug	2.0	2.0	2.1	2.2	2.2	2.3	2.2	2.1	1.9	2.0	A	2.0	2.0	1.9	1.9	1.9	2.1	1.9	1.9	1.9	2.1	2.0	2.5	2.4	2.07	2.50
10-Aug	2.3	2.3	2.7	2.6	2.7	2.5	2.3	2.0	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.2	2.3	2.0	1.9	2.5	2.2	2.0	2.17	2.69
11-Aug	2.1	2.1	2.2	2.6	2.8	3.3	2.7	2.1	A	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.3	2.3	2.0	1.9	2.15	3.27
12-Aug	1.9	1.9	1.9	2.0	1.9	2.0	2.5	A	2.0	1.9	1.8	2.0	1.8	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.9	2.1	2.1	2.0	1.95	2.51
13-Aug	1.9	2.4	2.3	3.0	2.4	3.5	A	2.2	2.0	2.1	2.0	1.9	1.8	1.8	1.8	1.9	1.8	1.8	1.9	2.1	2.2	2.3	2.3	2.5	2.17	3.52
14-Aug	2.4	2.4	2.6	2.8	3.2	A	2.5	2.4	2.4	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	2.15	3.22
15-Aug	1.9	1.9	2.0	2.1	A	2.0	1.9	2.0	1.9	1.9	1.9	1.9	2.0	1.9	2.2	2.0	1.9	1.9	1.9	1.9	2.1	2.1	2.4	2.8	2.03	2.78
16-Aug	3.0	3.4	3.6	A	3.1	3.1	2.8	2.4	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.8	2.33	3.55
17-Aug	3.0	2.3	A	2.2	2.2	2.2	2.1	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.1	2.2	2.2	2.2	2.08	3.00
18-Aug	2.3	A	2.5	2.3	2.7	2.5	2.4	2.2	2.3	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	2.4	2.0	2.0	2.0	1.9	2.14	2.69
19-Aug	A	1.8	1.8	2.3	2.3	2.4	2.2	2.3	1.8	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	2.0	1.9	A	1.99	2.35
20-Aug	2.1	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1	1.9	2.0	1.9	2.0	2.0	A	1.9	1.97	2.12
21-Aug	1.9	1.9	2.2	2.0	2.0	1.9	2.0	2.0	2.1	2.0	2.0	C	C	C	1.9	1.9	1.9	1.9	1.9	2.0	2.1	A	2.8	2.8	2.05	2.78
22-Aug	2.6	2.7	2.5	2.5	3.0	2.5	2.8	2.4	2.2	2.0	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	A	2.0	2.1	2.1	2.21	3.02
23-Aug	2.0	2.5	2.1	2.1	2.0	2.6	2.3	2.2	2.3	2.1	2.0	1.9	1.9	1.9	1.8	1.9	1.9	1.9	1.9	A	2.0	2.2	2.2	2.4	2.09	2.65
24-Aug	2.8	2.8	3.0	3.7	3.3	2.4	2.6	2.5	2.3	2.2	2.1	2.0	1.9	1.9	1.9	1.9	1.9	2.0	A	2.0	2.8	2.3	2.2	2.1	2.37	3.67
25-Aug	2.0	2.6	2.4	2.2	2.1	2.0	2.0	2.0	2.0	2.1	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	2.01	2.56
26-Aug	1.9	1.9	2.1	2.2	2.3	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1	A	1.9	1.9	2.1	2.1	2.3	2.5	3.1	2.08	3.12
27-Aug	2.5	2.7	4.5	4.9	3.6	2.9	3.9	2.5	2.2	2.1	1.9	1.9	1.9	1.9	1.9	A	1.8	1.8	1.8	1.9	1.9	1.9	1.9	2.1	2.47	4.86
28-Aug	1.9	1.9	1.9	1.9	1.9	1.9	2.1	2.0	2.0	1.9	1.9	2.0	1.9	2.1	A	2.0	1.9	1.9	2.0	1.9	2.0	1.9	1.9	1.9	1.93	2.07
29-Aug	1.9	2.0	2.2	2.1	2.3	2.4	2.7	2.3	2.0	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	2.0	1.9	2.2	2.4	5.0	2.4	2.21	4.95
30-Aug	2.2	2.6	2.3	2.4	2.3	2.3	2.3	2.4	2.1	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.08	2.63
31-Aug	1.9	1.9	1.9	1.9	1.9	2.2	2.1	2.0	2.0	2.4	1.9	A	1.9	2.0	2.2	2.3	2.4	2.3	2.4	2.8	3.8	7.3	8.0	3.3	2.72	8.05
		2.23	2.28	2.38	2.41	2.41	2.42	2.40	2.23	2.08	2.02	1.94	1.94	1.92	1.92	1.92	1.94	1.94	1.94	1.95	2.01	2.14	2.29	2.50	2.31	Diurnal Average
		3.22	3.39	4.52	4.86	3.62	3.52	3.93	3.10	2.44	2.37	2.14	2.05	2.01	2.07	2.16	2.27	2.35	2.29	2.42	2.81	3.81	7.34	8.05	3.74	Diurnal Maximum
C - Calibration		A - Automated Daily Zero Span																								

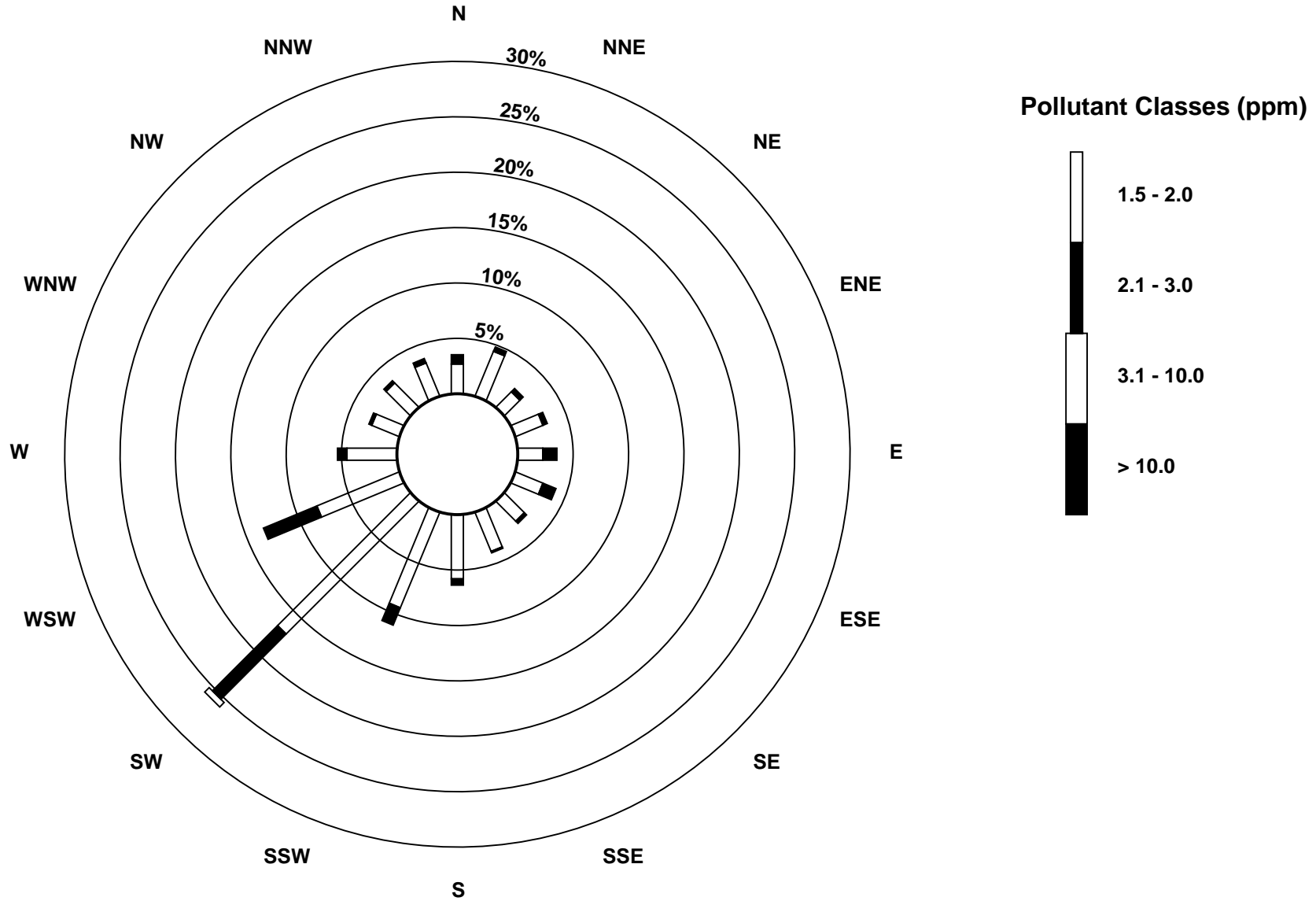
**Hourly Maximums**

**Total Hydrocarbons (THC) - ppm**  
**Portable Clairmont - August 2015**



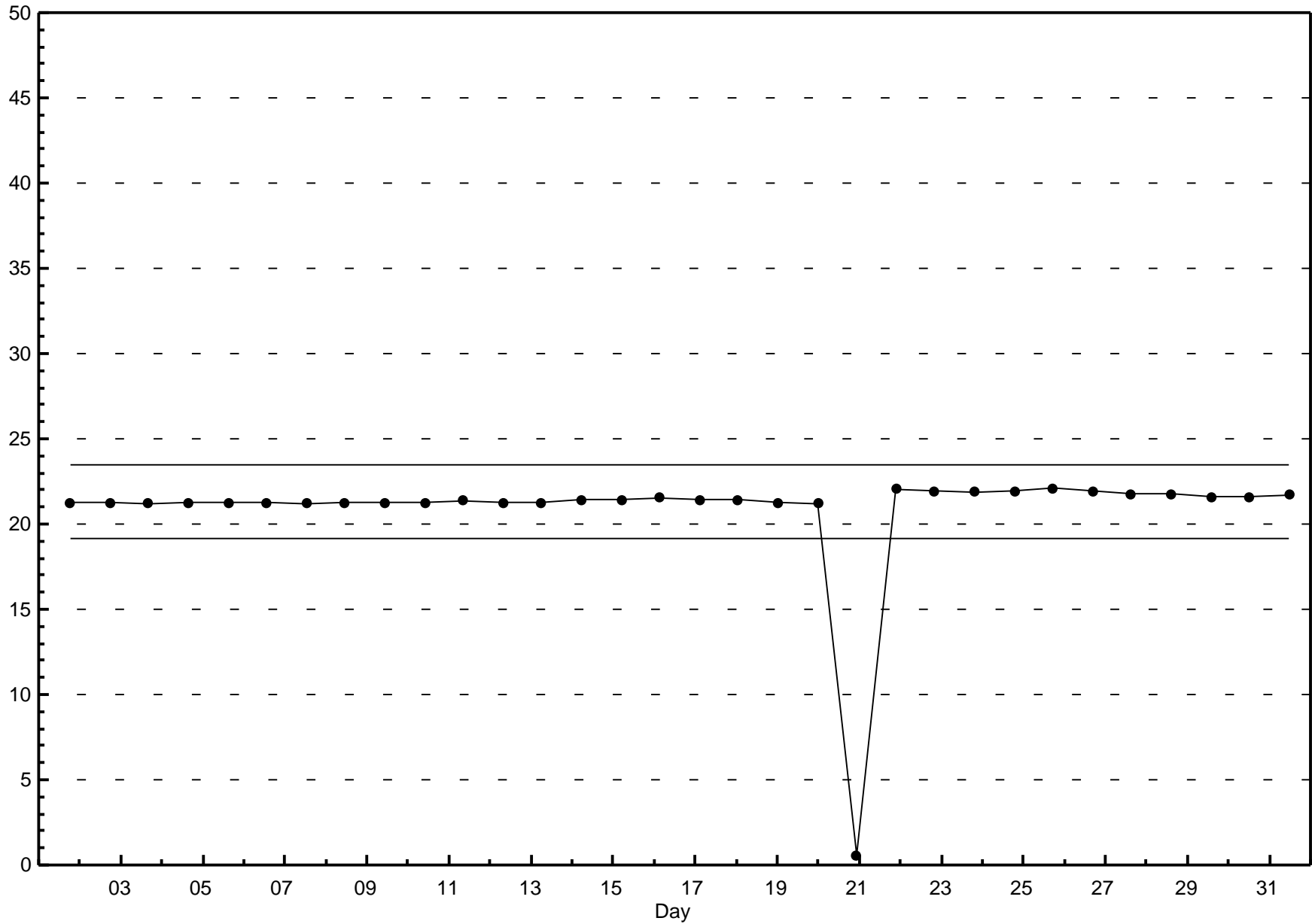
**Pollutant Rose**

**Total Hydrocarbons (THC) - ppm**  
**Portable Clairmont - August 2015**



### Span Responses

**Total Hydrocarbons (THC)**  
**Portable Clairmont - August 2015**



## Hourly Averages

PM2.5 (PM<sub>2.5</sub>) - µg/m<sup>3</sup>

Portable Clairmont - August 2015

Number of Exceedences: 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 33.3 µg/m <sup>3</sup> on Aug 24 21:00	Maximum Daily Average: 6.0 µg/m <sup>3</sup> on Aug 24
Minimum Value: 0 µg/m <sup>3</sup> on Aug 1 03:00	Hours of Data: 742
Maximum Diurnal Average: 4.4 µg/m <sup>3</sup> at hour 21	Hours of Missing Data: 2
Monthly Average: 2.15 µg/m <sup>3</sup>	Hours of Calibration: 0
Minimum Daily Average: 0.4 µg/m <sup>3</sup> on Aug 6	Percent Operational Time: 99.7
Minimum Diurnal Average: 0.9 µg/m <sup>3</sup> at hour 13	
Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.3 Median = 1.5 Q <sub>3</sub> = 3.1 P <sub>90</sub> = 5.2 P <sub>99</sub> = 10.3	

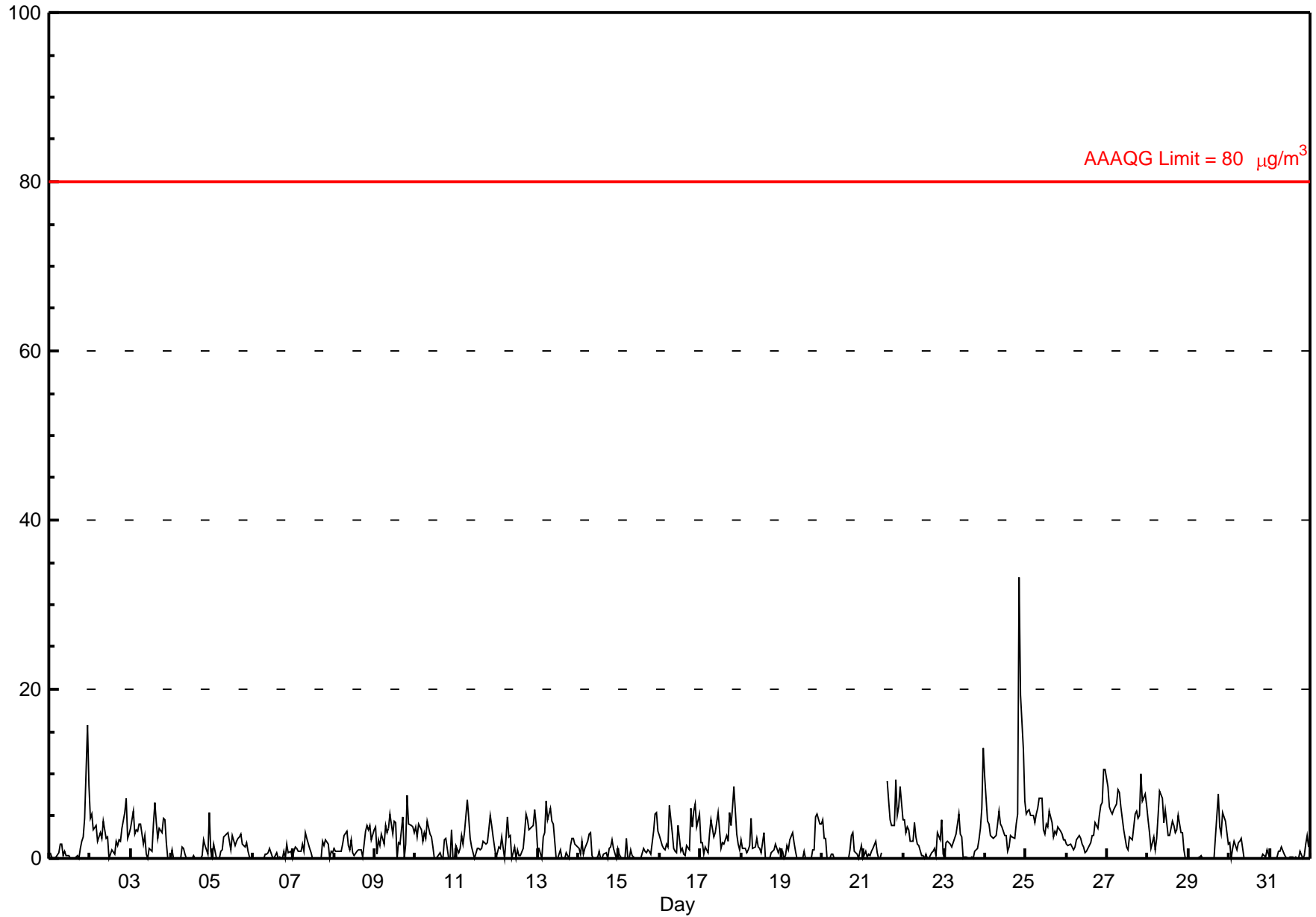
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum																						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																								
1-Aug	1	0	0	0	0	1	2	2	0	1	0	0	0	0	0	0	0	1	2	2	5	16	9	1.8	15.8																							
2-Aug	5	5	3	4	2	2	3	2	4	2	3	0	0	1	0	2	2	2	2	4	5	7	2	3	2.8	7.1																						
3-Aug	4	6	3	3	3	4	4	2	3	0	0	1	1	4	7	4	2	4	3	5	5	2	0	0	2.9	6.6																						
4-Aug	1	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	2	1	0	5	1	0.6	5.4																						
5-Aug	0	2	0	0	0	1	1	3	3	3	2	1	3	2	2	2	3	3	2	1	2	1	0	0	1.5	3.0																						
6-Aug	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	0	0	0	1	0	2	1	1	0	0.4	1.6																						
7-Aug	1	1	1	1	1	2	1	3	2	1	1	0	0	0	0	0	0	2	2	2	2	0	1	1	1.0	3.0																						
8-Aug	1	1	1	1	1	2	3	3	2	1	2	1	0	1	1	1	0	3	4	3	4	4	2	3	1.8	3.8																						
9-Aug	4	1	2	2	3	2	4	3	4	5	3	4	4	0	2	2	5	0	2	7	4	4	4	3	3.0	7.5																						
10-Aug	4	3	4	3	2	3	2	4	3	3	1	0	0	0	1	0	0	2	2	0	0	3	0	0	1.7	4.3																						
11-Aug	2	1	1	3	2	3	7	5	2	1	1	0	1	1	1	1	2	2	2	3	5	4	3	0	2.2	6.9																						
12-Aug	1	1	1	2	0	2	5	2	3	0	1	0	1	0	0	1	3	5	5	3	4	4	6	4	2.3	5.7																						
13-Aug	1	1	0	3	3	7	5	6	4	4	2	0	0	1	0	0	0	1	0	2	2	2	2	1	2.0	6.7																						
14-Aug	1	0	2	1	1	2	3	3	0	0	0	0	1	0	0	1	1	0	1	1	2	1	0	1	1.0	3.1																						
15-Aug	0	0	0	0	2	0	0	1	0	0	0	0	0	0	1	1	1	1	1	1	3	5	5	3	1.1	5.4																						
16-Aug	3	2	1	1	2	1	6	3	1	1	1	4	1	1	1	0	1	1	6	4	6	6	4	5	2.5	6.4																						
17-Aug	2	2	0	1	1	3	4	4	3	3	5	3	1	2	2	3	2	5	4	6	8	3	2	1	3.0	8.4																						
18-Aug	2	1	1	1	1	2	5	1	1	2	1	1	1	3	0	0	0	0	1	1	2	1	1	1	1.3	4.8																						
19-Aug	1	0	0	2	1	2	3	2	1	0	0	0	0	1	0	0	0	0	1	1	5	5	4	4	1.4	5.2																						
20-Aug	5	2	2	0	0	1	1	0	0	0	0	0	0	0	0	0	1	3	3	1	1	0	1	2	0.9	4.6																						
21-Aug	0	1	0	1	0	1	1	2	1	0	0	1	M	M	9	7	5	4	4	9	5	6	8	5	3.1	9.2																						
22-Aug	5	3	4	3	2	2	4	3	2	2	0	0	0	1	0	0	1	1	1	0	3	2	5	1	1.8	4.6																						
23-Aug	0	2	2	2	1	2	2	3	5	3	3	0	0	0	0	0	0	0	1	1	2	4	6	13	2.2	13.1																						
24-Aug	10	4	4	3	3	2	3	4	6	4	4	3	3	1	1	3	3	2	4	5	33	19	13	7	6.0	33.3																						
25-Aug	5	6	6	5	5	4	5	6	7	7	3	3	4	4	6	4	3	3	3	4	3	3	2	2	4.3	7.1																						
26-Aug	2	2	2	1	1	1	2	3	2	2	1	1	1	2	2	3	3	4	4	5	6	7	11	10	3.2	10.6																						
27-Aug	8	6	6	5	6	6	8	8	6	5	3	1	1	2	2	2	5	6	5	5	10	7	8	6	5.4	10.0																						
28-Aug	5	3	1	3	1	2	5	8	7	4	6	4	3	3	4	4	3	5	3	3	1	0	0	0	3.4	7.9																						
29-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	8	4	3	5	5	4	2	1.4	7.6																						
30-Aug	2	0	1	2	1	2	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.7	2.3																						
31-Aug	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	2	3	1	0.5	2.6																						
																								2.4	1.8	1.6	1.7	1.5	2.0	3.0	2.9	2.4	1.8	1.5	0.9	0.9	1.0	1.4	1.3	1.6	2.0	2.3	2.8	4.4	3.7	3.8	2.9	Diurnal Average
																								9.6	6.1	5.8	5.3	5.7	6.7	8.1	7.9	7.2	7.0	5.8	4.5	4.2	4.1	9.1	6.9	5.2	7.6	5.9	9.2	33.3	19.3	15.8	13.1	Diurnal Maximum

M - Maintenance  
 Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 µg/m<sup>3</sup> Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 µg/m<sup>3</sup>



**Hourly Averages**

**PM2.5 (PM<sub>2.5</sub>) -  $\mu\text{g}/\text{m}^3$**   
**Portable Clairmont - August 2015**



## Hourly Maximums

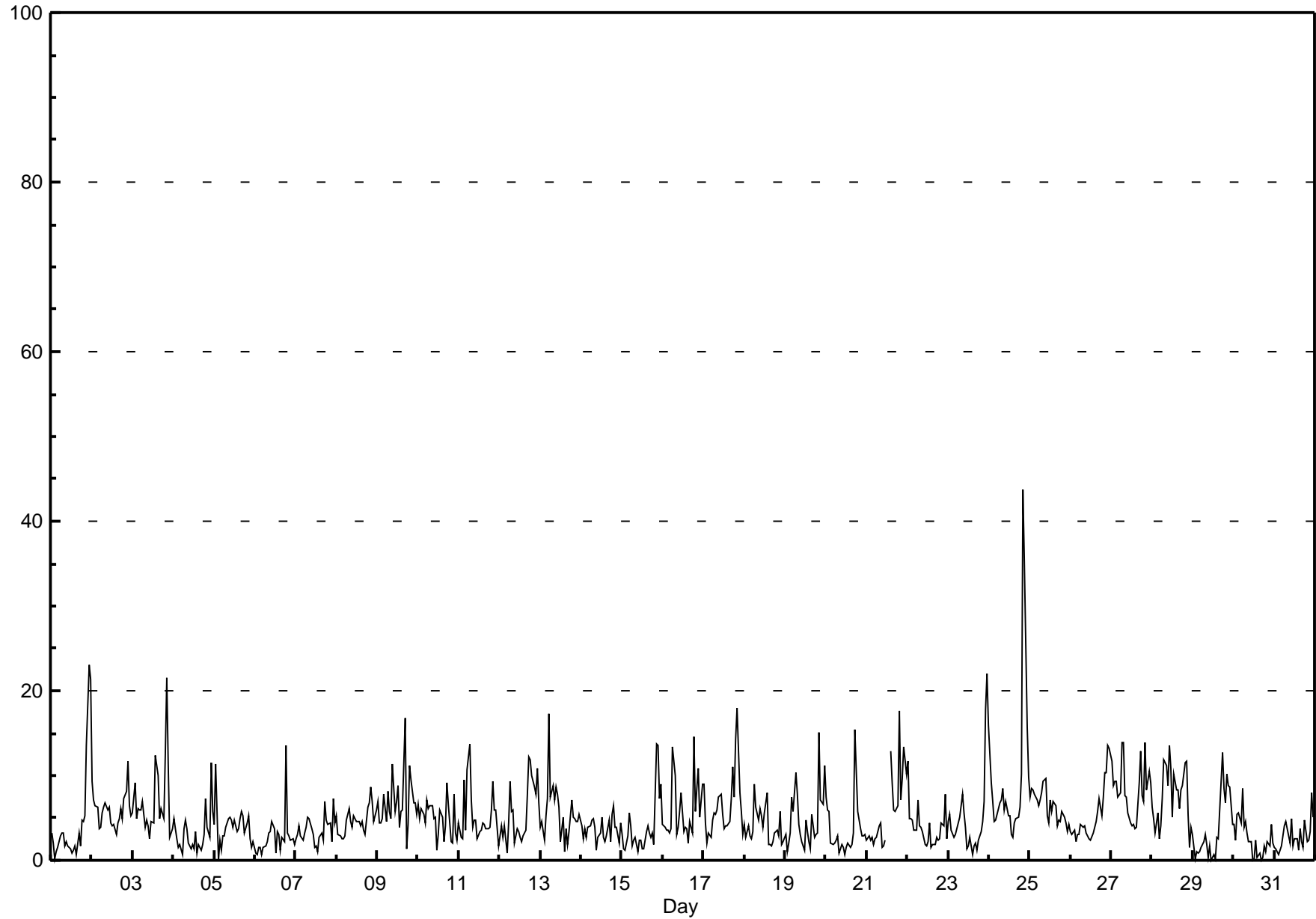
PM2.5 (PM<sub>2.5</sub>) - µg/m<sup>3</sup>

Portable Clairmont - August 2015

Maximum Value: 43.7 µg/m <sup>3</sup> on Aug 24 21:00		Maximum Daily Average: 9.7 µg/m <sup>3</sup> on Aug 24		Hours in Service: 744																							
Minimum Value: 0 µg/m <sup>3</sup> on Aug 29 12:00		Minimum Daily Average: 2.7 µg/m <sup>3</sup> on Aug 30		Hours of Data: 742																							
Maximum Diurnal Average: 8.9 µg/m <sup>3</sup> at hour 21		Minimum Diurnal Average: 3.3 µg/m <sup>3</sup> at hour 13		Hours of Missing Data: 2																							
Monthly Average: 5.08 µg/m <sup>3</sup>		Percentiles: P <sub>1</sub> = 0.2 P <sub>10</sub> = 1.7 Q <sub>1</sub> = 2.7 Median = 4.2 Q <sub>3</sub> = 6.4 P <sub>90</sub> = 9.3 P <sub>99</sub> = 14.7		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-Aug	3	2	0	1	2	3	3	3	2	2	2	1	1	1	2	1	3	2	5	5	5	14	23	21	4.4	23.1	
2-Aug	9	7	7	6	4	4	6	6	7	6	6	4	4	4	3	4	5	6	5	7	8	12	6	5	5.9	11.7	
3-Aug	6	9	5	6	6	6	7	4	5	4	3	5	4	12	11	10	5	6	5	13	21	11	3	4	7.1	21.5	
4-Aug	5	4	3	2	2	1	4	5	4	2	1	2	1	3	1	2	1	2	3	7	4	3	12	6	3.2	11.6	
5-Aug	4	11	0	2	1	3	3	4	5	5	5	4	5	3	4	5	6	5	3	4	5	3	2	2	3.9	11.4	
6-Aug	1	1	2	1	1	1	2	2	3	3	5	4	1	3	3	1	3	2	14	3	3	2	3	2	2.7	13.6	
7-Aug	3	3	4	3	2	3	4	5	5	4	3	2	2	1	3	3	2	7	5	4	4	2	7	4	3.6	7.3	
8-Aug	5	3	3	3	3	3	5	6	5	4	5	5	5	5	4	4	4	3	6	7	9	7	5	6	4.7	8.7	
9-Aug	7	4	4	5	8	4	8	6	5	11	6	7	9	4	6	6	17	1	4	11	9	7	7	5	6.8	16.8	
10-Aug	7	5	6	5	4	7	6	6	6	5	5	1	3	6	5	2	4	9	7	2	2	8	3	2	4.9	9.2	
11-Aug	4	3	3	10	4	11	14	7	4	5	5	2	3	4	4	4	4	4	4	6	9	6	6	2	5.2	13.8	
12-Aug	3	4	3	4	1	4	9	6	6	2	4	3	3	2	3	3	8	12	12	10	9	8	11	7	5.6	12.2	
13-Aug	4	5	2	5	7	17	8	9	7	9	8	6	2	5	1	4	2	3	7	5	5	5	5	5	5.7	17.2	
14-Aug	4	3	4	3	4	4	5	5	4	1	3	3	5	3	2	3	5	2	5	6	4	4	2	4	3.6	6.4	
15-Aug	3	1	1	3	6	4	2	2	3	1	2	2	1	1	3	4	3	3	3	2	14	14	7	9	4.0	13.8	
16-Aug	4	4	4	4	3	4	13	10	3	4	6	8	3	4	4	2	5	3	15	6	8	11	5	9	5.9	14.6	
17-Aug	9	4	2	3	3	5	6	5	6	8	8	5	4	4	4	5	7	11	7	14	18	8	6	3	6.5	17.9	
18-Aug	4	3	4	3	3	3	9	6	5	6	5	4	6	8	2	2	2	3	3	3	6	2	2	2	4.0	9.0	
19-Aug	3	1	2	3	7	6	10	8	4	3	2	1	5	3	2	1	5	3	3	3	15	7	7	11	4.9	15.0	
20-Aug	7	6	6	2	2	2	2	3	1	2	2	1	2	2	2	2	3	15	11	6	4	3	3	3	3.7	15.5	
21-Aug	2	3	2	3	2	3	3	4	4	2	2	2	M	M	13	9	6	6	6	18	7	10	13	10	5.9	17.6	
22-Aug	12	5	5	5	3	4	7	4	4	3	2	2	2	4	1	2	2	3	2	3	4	4	8	3	3.9	11.8	
23-Aug	5	5	3	3	3	4	4	5	8	6	4	1	2	3	1	2	2	1	2	3	5	7	18	22	4.9	22.0	
24-Aug	16	9	7	5	5	5	7	7	9	6	7	5	5	3	3	4	5	5	6	10	44	35	16	10	9.7	43.7	
25-Aug	7	8	8	8	7	6	7	8	9	10	5	4	7	6	7	7	4	5	5	6	5	4	3	4	6.3	9.6	
26-Aug	3	3	4	2	3	3	4	4	4	3	3	3	2	3	4	5	6	7	5	7	10	10	14	13	5.3	13.6	
27-Aug	12	9	9	9	7	8	14	14	8	8	6	4	4	4	4	4	9	13	8	7	14	8	10	9	8.4	14.0	
28-Aug	6	5	3	6	2	4	7	12	11	9	14	11	5	10	8	8	6	8	9	11	12	5	2	4	7.5	13.6	
29-Aug	3	0	1	1	1	2	2	3	2	0	2	0	1	0	3	3	6	13	9	7	10	9	9	4	3.7	12.8	
30-Aug	4	2	5	6	4	8	4	5	3	2	2	0	0	2	0	1	0	0	2	1	2	2	4	2	2.7	8.4	
31-Aug	2	1	1	1	2	3	4	5	3	2	5	2	3	3	1	4	2	2	5	2	2	3	8	5	2.9	8.0	
		5.4	4.3	3.6	3.9	3.6	4.7	6.1	5.8	4.9	4.4	4.3	3.4	3.3	4.0	3.7	3.8	4.6	5.3	6.0	6.5	8.9	7.6	7.3	6.5	Diurnal Average	
		16.0	11.4	9.3	9.5	7.8	17.2	14.0	13.9	11.1	11.4	13.6	10.8	8.8	12.5	12.9	10.1	16.8	15.5	14.6	17.6	43.7	35.2	23.1	22.0	Diurnal Maximum	
M - Maintenance																											

### Hourly Maximums

PM2.5 (PM<sub>2.5</sub>) -  $\mu\text{g}/\text{m}^3$   
Portable Clairmont - August 2015







Peace Airshed Zone Association

# Hourly Averages

External Temperature (ET) - °C

Portable Clairmont - August 2015

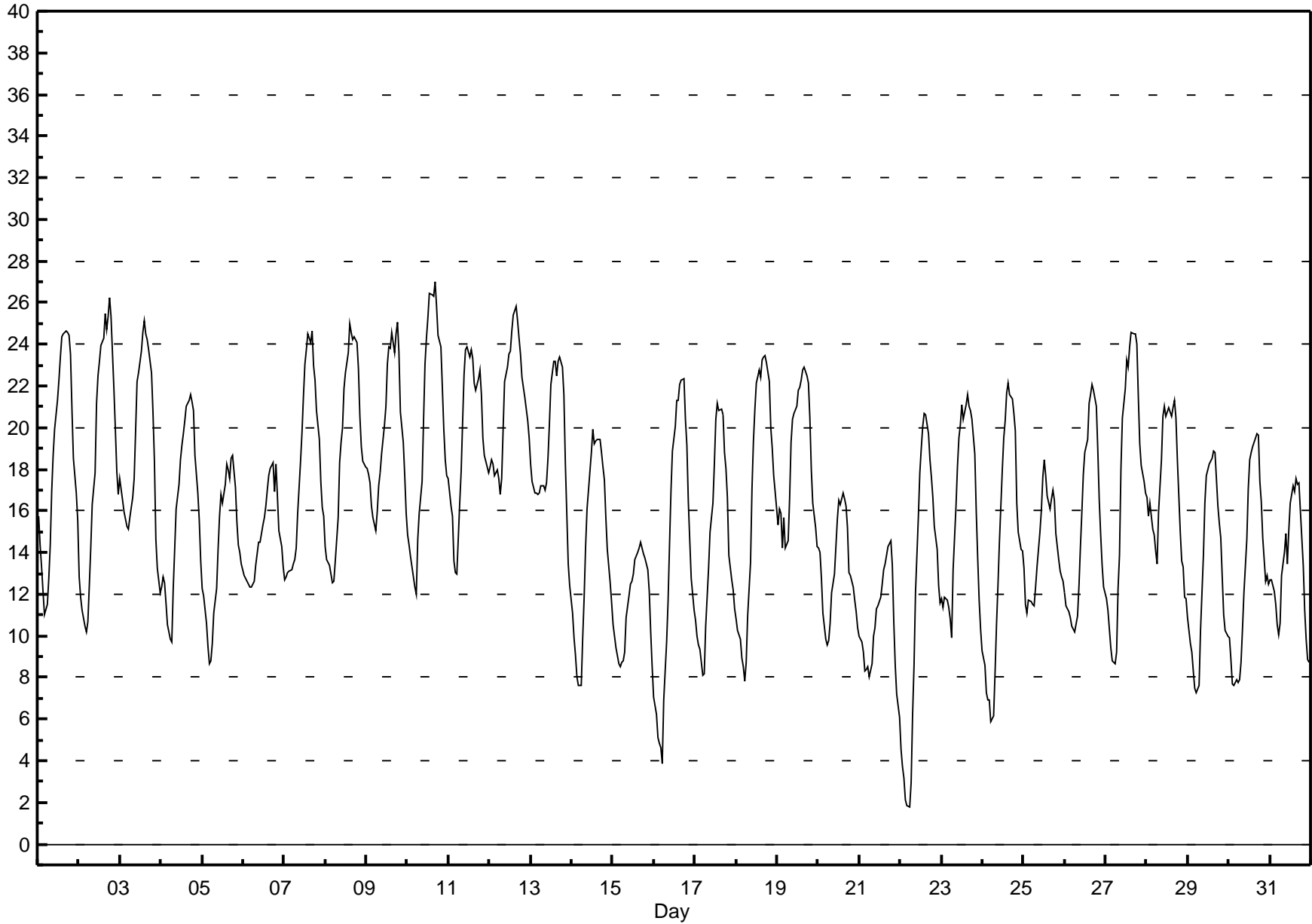
Number of Exceedences (AAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 27.0 °C on Aug 10 17:00	Maximum Daily Average: 21.2 °C on Aug 12		Hours of Data:	744
Minimum Value: 2 °C on Aug 22 06:00	Minimum Daily Average: 10.6 °C on Aug 21		Hours of Missing Data:	0
Maximum Diurnal Average: 21.2 °C at hour 16	Minimum Diurnal Average: 10.5 °C at hour 6		Hours of Calibration:	0
Monthly Average: 16.06 °C	Percentiles: P <sub>1</sub> = 4.5 P <sub>10</sub> = 9.6 Q <sub>1</sub> = 12.3 Median = 16.2 Q <sub>3</sub> = 20.0 P <sub>90</sub> = 23.0 P <sub>99</sub> = 25.7		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-Aug	16	14	13	12	11	12	13	14	17	19	20	21	22	23	24	25	25	25	24	24	21	19	17	16	18.6	24.7
2-Aug	13	12	11	10	10	11	12	14	16	18	21	23	23	24	24	25	25	25	26	25	22	20	18	17	18.6	26.3
3-Aug	18	17	16	16	15	15	16	17	18	20	22	23	24	25	25	25	24	24	23	21	18	15	13	12	19.1	25.2
4-Aug	12	13	13	12	11	10	10	12	14	16	17	18	19	20	20	21	21	22	21	21	19	17	16	14	16.1	21.6
5-Aug	12	12	11	9	9	9	10	11	12	14	16	17	16	17	18	18	18	19	19	17	16	14	14	13	14.2	18.7
6-Aug	13	13	13	12	12	12	13	13	14	15	14	15	16	16	17	18	18	18	17	18	17	15	14	13	14.9	18.3
7-Aug	13	13	13	13	13	13	14	14	16	18	20	21	23	24	24	24	25	23	22	21	19	17	16	16	18.2	24.6
8-Aug	14	14	13	13	13	13	14	16	18	19	20	22	23	24	25	25	24	24	24	23	21	19	18	18	19.0	25.0
9-Aug	18	18	17	16	16	15	16	17	18	19	20	21	23	24	24	25	24	24	25	24	21	19	18	16	19.9	25.1
10-Aug	15	14	14	13	12	12	15	16	17	20	23	24	25	26	26	26	27	26	24	24	22	20	18	18	20.0	27.0
11-Aug	18	16	16	14	13	13	16	18	20	23	24	24	23	24	23	22	22	22	23	22	19	19	18	18	19.6	23.9
12-Aug	18	18	18	18	18	18	17	18	20	22	23	24	24	25	25	26	25	24	24	22	21	21	20	19	21.2	25.8
13-Aug	18	17	17	17	17	17	17	17	17	19	20	22	23	23	22	23	23	23	23	22	18	16	13	12	18.9	23.4
14-Aug	11	10	9	8	8	8	10	12	14	16	17	19	20	19	19	19	19	19	18	17	16	14	13	12	14.5	19.9
15-Aug	11	10	9	9	9	9	9	9	11	12	12	13	13	14	14	14	14	14	14	13	12	10	8	11.5	14.5	
16-Aug	7	6	5	5	5	4	7	10	12	14	17	19	20	21	21	22	22	22	20	19	16	15	13	11	13.9	22.4
17-Aug	11	10	10	9	8	8	10	12	13	15	16	18	20	21	21	21	21	19	18	17	14	13	12	11	14.5	21.2
18-Aug	11	10	10	9	9	8	9	11	14	17	19	21	22	23	22	23	23	23	23	22	20	19	18	17	16.8	23.5
19-Aug	15	16	16	14	16	14	15	17	19	20	21	21	22	22	22	23	23	22	22	20	18	16	15	14	18.5	22.9
20-Aug	14	14	13	11	10	10	10	11	12	13	14	16	16	16	17	17	16	15	13	13	12	12	11	10	13.2	16.8
21-Aug	10	10	9	8	8	9	8	9	10	10	11	11	12	12	13	13	14	14	15	13	11	9	7	6	10.6	14.6
22-Aug	5	4	3	2	2	2	3	6	9	12	16	18	19	20	21	21	20	18	18	17	15	14	12	12	12.0	20.7
23-Aug	12	11	12	12	11	11	10	13	16	18	20	20	21	20	21	22	21	21	20	19	16	14	12	10	16.0	21.6
24-Aug	9	9	7	7	7	6	6	8	11	12	14	18	20	20	22	22	22	21	21	20	16	15	14	14	14.2	22.2
25-Aug	13	12	11	12	12	12	11	12	13	15	16	18	18	18	17	16	17	17	17	15	14	13	13	13	14.3	18.4
26-Aug	12	11	11	11	11	10	10	11	12	14	16	18	19	19	21	22	22	22	21	19	17	15	13	12	15.4	22.1
27-Aug	12	11	10	9	9	9	9	12	14	18	20	22	23	23	24	25	24	24	24	22	19	18	17	17	17.4	24.6
28-Aug	17	16	16	15	15	14	13	16	18	21	21	21	21	21	21	21	21	20	18	15	14	13	12	12	17.2	21.3
29-Aug	11	10	9	8	7	7	8	10	12	14	16	18	18	18	19	19	19	16	15	15	13	11	10	10	13.1	18.9
30-Aug	10	9	8	8	8	8	8	9	10	12	15	17	18	19	19	19	20	20	17	16	15	13	13	12	13.4	19.7
31-Aug	13	13	12	12	11	10	11	13	14	15	13	15	16	17	17	18	17	17	16	13	11	10	9	9	13.4	17.5

12.9	12.3	11.8	11.1	10.7	10.5	11.2	12.8	14.6	16.4	17.9	19.2	20.1	20.6	21.0	21.2	21.2	20.9	20.2	19.0	16.9	15.3	14.2	13.3	Diurnal Average
18.3	18.5	18.2	17.7	18.0	17.6	17.2	17.9	20.3	22.6	23.8	24.3	25.3	26.4	26.4	26.3	27.0	25.8	26.3	25.3	21.9	20.9	20.3	19.5	Diurnal Maximum

**Hourly Averages**

**External Temperature (ET) - °C**  
**Portable Clairmont - August 2015**





Peace Airshed Zone Association

# Hourly Averages

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

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 Spd	8	4	4	3	3	2	6	10	13	13	11	11	12	11	10	9	10	9	7	6	2	2	2	2	7.0	13.1
Dir	235	244	222	230	262	238	247	244	237	245	247	231	238	232	220	227	227	234	252	238	229	249	251	225	236.8	237.5
2 Spd	5	5	3	2	5	4	2	3	4	5	5	3	5	4	5	4	5	5	7	10	7	5	4	5	1.2	9.9
Dir	227	233	224	241	231	229	220	226	220	231	237	265	71	66	53	94	24	62	92	100	90	85	112	89	130.7	99.6
3 Spd	6	5	4	0	1	1	3	5	5	4	10	12	11	11	14	13	10	12	13	13	10	19	17	12	3.0	19.3
Dir	73	231	261	329	227	237	91	61	24	46	76	73	54	41	31	36	34	40	21	334	291	241	231	245	16.8	240.9
4 Spd	5	3	5	5	6	3	2	3	7	13	12	11	11	10	10	9	10	10	9	8	5	2	1	6	5.7	13.1
Dir	236	179	190	210	221	231	239	249	245	241	247	243	237	249	260	276	281	281	308	332	342	335	232	229	256.1	240.5
5 Spd	5	4	5	5	5	7	9	6	7	9	9	13	9	9	13	12	9	7	9	12	5	3	5	6	7.3	13.4
Dir	249	248	230	225	219	232	238	232	234	241	237	255	265	247	254	264	263	252	272	290	263	243	257	239	250.8	254.1
6 Spd	8	10	8	9	9	9	9	7	6	6	7	10	13	15	14	14	13	12	8	7	5	3	4	3	8.2	14.8
Dir	226	227	233	232	236	241	243	248	280	292	270	247	260	265	253	262	263	309	272	241	232	202	205	205	253.1	264.5
7 Spd	2	5	4	4	3	1	2	3	6	7	10	10	11	11	10	8	11	9	6	4	4	5	4	3	5.7	11.2
Dir	230	210	223	199	186	148	158	179	206	227	222	226	226	226	222	222	220	248	245	227	222	218	261	233	222.9	226.1
8 Spd	5	3	3	3	5	5	3	4	6	5	4	2	1	4	3	3	4	6	5	7	5	5	8	8	1.3	8.0
Dir	221	232	231	241	229	221	224	253	230	241	236	240	290	56	79	33	8	10	25	29	12	350	1	9	313.6	0.9
9 Spd	3	7	8	10	3	3	1	4	3	3	5	9	9	15	11	7	2	6	8	7	4	5	2	4	1.2	14.7
Dir	310	344	9	0	19	278	319	16	23	181	214	224	231	252	256	240	187	71	115	156	135	154	117	116	240.4	251.7
10 Spd	3	0	1	4	1	0	3	3	4	4	4	10	8	10	11	11	10	10	9	9	8	5	5	4	5.1	10.7
Dir	105	359	52	114	98	151	174	197	207	186	214	223	220	194	209	196	205	220	240	222	210	220	224	209	207.8	195.9
11 Spd	4	4	3	0	1	1	2	6	11	13	17	21	19	19	16	12	9	11	17	9	4	4	6	8	8.6	20.6
Dir	174	213	207	357	244	121	130	189	185	193	207	216	228	230	235	225	221	213	224	228	242	218	215	221	216.4	215.6
12 Spd	9	9	10	9	10	9	5	4	8	15	16	22	21	20	19	17	12	9	8	6	2	2	2	6	10.0	22.3
Dir	214	201	196	213	220	223	233	195	224	212	226	218	225	233	230	234	243	237	232	269	174	161	184	213	223.0	217.8
13 Spd	3	2	4	1	1	2	2	3	2	5	5	7	12	14	16	17	20	19	16	12	6	6	2	2	6.6	19.7
Dir	216	111	116	211	300	198	144	158	201	135	172	216	220	223	223	227	223	220	224	229	239	238	261	237	217.9	223.0
14 Spd	3	5	6	3	3	2	1	2	3	1	4	5	2	5	10	12	13	13	13	10	9	14	14	11	5.1	14.3
Dir	230	226	234	230	229	218	229	239	249	4	46	73	26	356	320	322	328	315	336	333	326	321	333	335	320.6	332.9
15 Spd	7	10	3	3	2	9	12	9	10	11	12	8	9	8	5	6	3	6	4	2	2	0	1	4	5.5	11.8
Dir	336	354	352	272	274	313	311	318	327	316	310	295	298	304	262	290	269	295	284	292	343	345	212	231	307.6	311.1
16 Spd	3	3	4	3	2	1	1	3	5	4	9	7	7	1	3	2	2	10	7	4	4	4	2	2	2.8	10.2
Dir	237	232	230	214	223	206	219	174	146	112	123	130	114	136	33	241	40	93	193	191	185	196	217	219	169.5	193.3
17 Spd	5	4	3	4	3	1	3	4	5	10	8	7	8	12	12	12	11	12	11	7	4	1	4	6	6.1	12.3
Dir	229	228	226	229	222	238	183	183	182	203	220	234	248	221	219	228	239	235	229	313	276	198	236	226	227.5	235.1
18 Spd	6	7	6	5	5	5	4	4	2	3	6	8	9	9	8	14	12	13	13	10	7	9	8	7	6.4	13.8
Dir	240	238	236	247	240	233	241	240	208	163	140	143	188	199	210	211	206	213	216	196	182	157	156	169	201.3	211.0
19 Spd	2	4	4	2	4	1	2	6	13	20	24	23	19	17	21	20	19	17	14	9	6	6	7	6	10.8	24.0
Dir	198	180	189	234	200	253	235	215	222	226	224	230	236	254	245	233	233	238	233	232	201	202	225	270	230.2	224.3
20 Spd	7	7	8	8	6	8	7	8	8	6	6	5	6	8	7	11	9	8	8	5	6	7	11	6	5.1	11.2
Dir	247	265	240	258	229	221	221	231	281	259	244	228	252	256	285	308	308	291	211	205	227	352	23	11	263.6	308.4
21 Spd	4	3	3	6	12	15	11	8	9	12	17	19	15	16	14	14	14	13	11	7	2	4	1	4	9.1	18.6
Dir	339	297	270	286	308	309	301	283	248	267	293	291	286	280	280	277	274	273	274	274	242	214	241	214	282.3	291.4
22 Spd	3	3	4	4	3	3	2	3	3	4	4	8	8	7	10	9	10	11	8	7	6	6	5	4	3.9	10.7
Dir	220	221	224	224	218	219	242	239	221	197	154	153	155	133	120	132	109	94	94	99	108	108	108	102	137.5	93.9



Peace Airshed Zone Association

# Hourly Averages

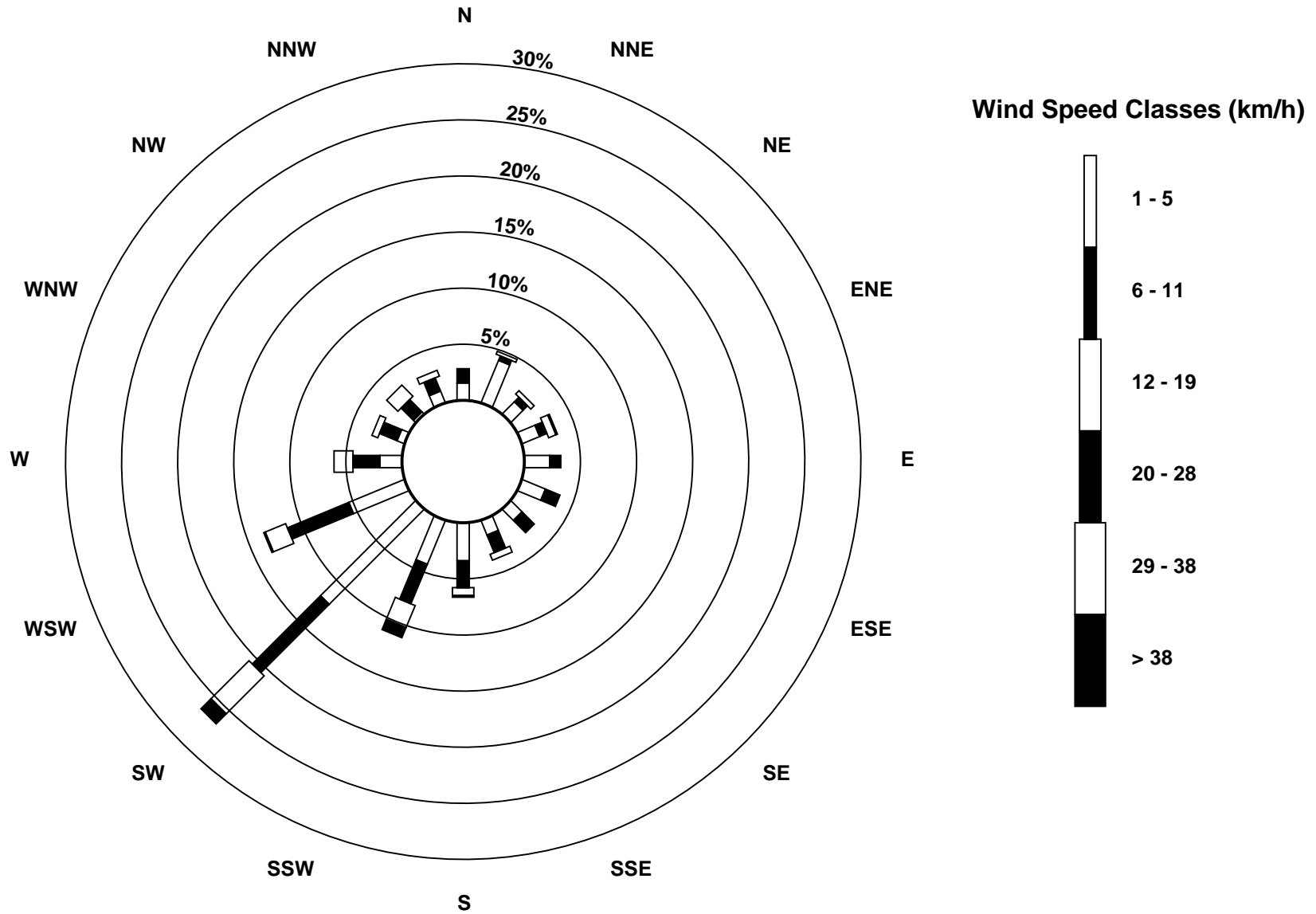
Wind Speed (km/h)  
Wind Direction (deg)  
Portable Clairmont - August 2015

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		
23 Spd	3	3	2	3	1	0	2	1	3	3	4	9	8	13	12	17	18	16	15	8	4	4	0	1	5.0	17.8
Dir	94	107	33	19	354	89	7	71	174	165	192	222	212	230	235	229	227	221	221	206	225	133	170	219.8	227.0	
24 Spd	2	2	2	1	3	3	2	4	2	0	2	3	4	4	5	5	3	2	3	3	2	3	3	5	1.0	5.1
Dir	230	180	252	202	220	212	235	249	222	244	33	49	30	27	69	84	36	58	56	80	21	33	25	36	50.0	69.4
25 Spd	5	1	1	1	1	3	7	1	1	3	3	4	4	8	17	18	14	8	5	6	6	5	5	5	4.4	17.7
Dir	23	278	103	338	302	5	15	338	139	85	20	70	60	1	316	315	316	341	3	340	332	347	339	345	343.5	315.4
26 Spd	3	2	0	1	1	2	2	4	5	5	4	3	3	3	3	1	1	5	6	6	5	2	0	0	2.1	6.0
Dir	23	354	102	342	1	28	28	15	30	15	20	32	31	65	99	119	133	84	100	114	120	97	16	353	56.3	99.7
27 Spd	0	0	1	2	1	1	1	3	4	7	11	17	17	17	18	21	20	16	21	14	8	7	6	8	9.1	20.9
Dir	8	218	226	222	195	203	128	226	213	181	195	204	199	193	186	202	184	193	207	206	183	175	179	202	195.7	202.2
28 Spd	10	8	9	8	10	8	7	7	7	8	7	8	7	3	4	5	6	8	6	13	2	14	9	4	5.8	13.6
Dir	191	185	197	177	175	153	135	127	134	158	165	127	102	122	221	223	247	246	237	160	107	213	215	128	175.7	212.7
29 Spd	4	3	3	2	2	2	1	2	7	8	9	17	19	19	21	17	14	9	2	5	3	1	1	1	5.5	20.6
Dir	174	225	225	240	125	71	96	100	75	51	65	65	60	61	66	51	62	109	151	158	206	313	63	85	72.4	66.0
30 Spd	2	2	0	4	6	7	5	4	7	11	9	13	16	20	20	17	13	15	10	8	6	5	7	7	7.6	19.8
Dir	35	49	5	237	252	236	251	232	220	204	196	177	178	207	200	188	171	165	173	156	136	113	180	175	188.5	200.0
31 Spd	5	9	12	12	10	5	4	7	10	11	18	21	24	20	19	18	17	18	15	7	3	0	1	2	10.0	23.9
Dir	162	156	166	162	161	178	190	168	199	200	195	201	193	199	210	222	216	211	228	277	286	327	211	328	199.2	193.4
Spd	2.3	2.6	2.9	2.6	2.9	2.6	1.9	2.5	3.5	4.6	5.0	6.0	5.6	6.0	6.3	6.7	5.5	5.1	4.9	3.0	1.8	2.1	1.7	1.7	Diurnal Average	
Dir	224.4	226.1	218.1	226.0	226.3	238.1	242.4	224.8	222.6	219.4	219.6	215.4	219.9	229.3	234.2	238.5	237.3	232.7	232.3	233.1	224.9	220.1	230.0	226.2		
Spd	10.0	10.0	11.9	12.0	12.3	14.8	11.8	9.7	13.2	20.3	24.0	23.0	23.9	19.8	20.6	20.9	20.0	19.5	20.9	13.7	10.5	19.3	17.4	11.8	Diurnal Maximum	
Dir	191.0	227.3	166.0	161.8	308.3	309.4	311.1	243.8	221.7	225.5	224.3	229.5	193.4	206.6	66.0	202.2	183.5	219.6	207.2	206.3	290.8	240.9	230.8	244.6		
Maximum Speed Value: 24 km/h on Aug 19 11:00		Minimum Speed Value: 0 km/h on Aug 23 23:00										Hours in Service: 744														
Maximum Daily Speed Average: 10.8 km/h on Aug 31		Minimum Daily Speed Average: 1.0 km/h on Aug 26										Hours of Data: 744														
Maximum Diurnal Speed Average: 6.7 km/h at hour 16		Minimum Diurnal Speed Average: 1.7 km/h at hour 23										Hours of Missing Data: 0														
Monthly Average Velocity: 3.71 km/h 227.76 deg		Speed Percentiles: P <sub>1</sub> = 0.4 P <sub>10</sub> = 1.8 Q <sub>1</sub> = 3.3 Median = 5.8 Q <sub>3</sub> = 9.7 P <sub>90</sub> = 14.0 P <sub>99</sub> = 20.5										Percent Operational Time: 100.0														
All monthly, daily, and diurnal averages have been calculated using vector methods																										
Frequency Distribution																										
Direction	Speed Range (km/h)							Total																		
	0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38																				
North	31	18	1	0	0	0	50																			
NorthEast	35	10	9	1	0	0	55																			
East	30	20	1	0	0	0	51																			
SouthEast	22	27	0	0	0	0	49																			
South	43	38	15	6	0	0	102																			
SouthWest	119	114	54	17	0	0	304																			
West	28	38	21	0	0	0	87																			
NorthWest	10	18	18	0	0	0	46																			
Total	318	283	119	24	0	0	744																			



**Wind Rose**

**Wind Speed (WS) (km/h)**  
**Portable Clairmont - August 2015**



# Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

## Portable Clairmont - August 2015

Maximum Speed: 24 km/h on Aug 31 13:00	Maximum Daily Speed Average: 11.6 km/h on Aug 31	Hours in Service: 744
Minimum Speed: 0 km/h on Aug 24 10:00	Minimum Daily Speed Average: 3.3 km/h on Aug 24	Hours of Data: 744
Maximum Diurnal Speed Average: 12.2 km/h at hour 15	Minimum Diurnal Speed Average: 4.3 km/h at hour 7	Hours of Missing Data: 0
Monthly Average Speed: 7.47 km/h	Percentiles: P <sub>1</sub> = 0.8 P <sub>10</sub> = 2.3 Q <sub>1</sub> = 3.7 Median = 6.1 Q <sub>3</sub> = 10.1 P <sub>90</sub> = 14.3 P <sub>99</sub> = 20.7	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-Aug	8	4	4	4	3	2	6	10	13	13	12	12	13	12	11	10	10	9	7	6	2	3	2	2	7.3	13.2
2-Aug	5	6	3	2	5	4	2	3	4	6	6	5	5	5	6	6	5	6	7	10	7	5	4	5	5.1	10.0
3-Aug	6	6	4	1	3	2	4	5	5	5	10	12	11	12	14	13	10	13	13	14	19	20	18	12	9.7	20.0
4-Aug	6	3	5	5	6	3	2	3	7	13	13	11	11	11	10	10	11	10	10	8	5	2	1	6	7.2	13.3
5-Aug	5	4	5	5	5	7	9	6	7	10	9	13	9	9	14	12	9	7	10	12	6	3	5	6	7.8	13.6
6-Aug	8	10	8	9	9	9	9	7	8	7	8	10	13	15	14	14	13	13	9	7	5	3	4	3	9.0	15.0
7-Aug	2	5	4	4	3	1	2	3	6	7	10	11	12	11	11	9	11	9	6	5	5	5	4	4	6.2	11.7
8-Aug	5	4	3	4	5	5	3	5	6	5	4	3	4	5	4	4	4	6	5	7	6	5	8	8	5.0	8.0
9-Aug	3	7	8	10	7	4	3	4	3	4	6	9	10	15	12	8	4	6	8	7	4	6	2	4	6.4	15.1
10-Aug	4	1	2	4	1	1	3	4	5	5	5	10	9	11	12	11	12	11	9	9	8	5	5	4	6.2	11.7
11-Aug	5	4	3	1	1	1	2	6	11	13	18	21	19	19	17	13	9	11	17	9	4	4	6	8	9.3	20.9
12-Aug	9	9	10	9	10	9	5	4	8	16	16	23	22	20	19	17	13	9	8	6	3	2	3	6	10.6	22.5
13-Aug	3	2	4	2	2	3	2	3	2	5	5	7	12	14	16	18	20	20	17	12	6	6	2	3	7.7	19.9
14-Aug	3	5	6	3	3	3	1	2	3	3	5	6	5	6	10	13	14	13	13	10	9	14	14	11	7.3	14.4
15-Aug	7	10	5	4	3	9	12	9	10	11	12	9	10	9	6	7	4	7	4	2	2	2	1	4	6.6	12.1
16-Aug	3	3	4	3	3	1	1	4	5	5	9	7	8	8	5	4	5	5	10	7	5	5	2	2	4.8	10.4
17-Aug	5	4	3	4	3	1	3	5	6	11	8	7	9	13	12	13	12	13	11	8	6	3	4	6	7.0	13.1
18-Aug	6	7	6	5	5	5	4	4	2	4	6	8	10	10	8	14	13	14	13	10	7	9	8	7	7.7	14.0
19-Aug	3	4	4	2	4	2	3	7	13	20	24	23	20	17	21	20	19	17	14	9	6	6	7	6	11.5	24.3
20-Aug	7	7	9	8	7	8	7	8	9	7	7	7	7	8	8	12	10	10	8	5	6	12	11	6	8.0	11.8
21-Aug	4	3	3	6	12	15	11	8	9	13	18	19	15	16	14	15	15	13	11	7	2	4	1	4	9.9	19.0
22-Aug	3	3	4	4	3	3	2	3	3	5	4	8	8	8	10	9	11	11	8	7	6	7	5	4	5.8	10.8
23-Aug	3	3	2	3	1	0	2	2	3	4	5	10	9	13	13	17	18	17	15	8	4	4	2	1	6.6	18.1
24-Aug	2	3	2	2	3	4	3	4	3	0	2	4	5	5	6	6	3	3	4	3	2	3	3	5	3.3	5.9
25-Aug	5	2	2	5	2	3	7	2	2	3	3	5	5	9	17	18	14	8	5	6	6	5	5	6	6.0	18.0
26-Aug	4	2	2	1	2	2	3	4	6	5	5	4	4	4	4	4	3	5	6	6	5	2	1	1	3.4	6.4
27-Aug	1	0	2	2	1	1	1	3	5	8	11	17	17	17	19	21	21	17	21	14	8	7	6	8	9.6	21.2
28-Aug	10	8	9	9	10	8	7	7	7	8	7	9	7	4	5	5	6	8	6	14	4	14	10	7	7.9	14.2
29-Aug	4	4	3	2	3	2	1	3	8	8	10	17	19	19	21	17	14	11	4	5	4	1	1	2	7.6	20.7
30-Aug	3	2	3	4	7	8	7	5	7	11	10	13	17	21	20	18	14	15	10	9	6	5	7	7	9.5	20.7
31-Aug	5	9	12	12	10	6	4	7	10	11	19	22	24	20	20	19	17	18	16	7	3	1	2	2	11.6	24.3
	4.8	4.6	4.7	4.5	4.6	4.3	4.3	4.8	6.3	7.9	9.2	11.0	11.2	11.8	12.2	12.0	11.0	10.8	9.8	8.1	5.5	5.6	5.1	5.2	Diurnal Average	
	10.2	10.0	12.0	12.1	12.4	14.8	11.8	9.8	13.3	20.5	24.3	23.3	24.3	20.7	20.8	21.2	20.7	19.6	21.0	14.2	19.4	20.0	17.7	12.1	Diurnal Maximum	

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

# Hourly Standard Deviations

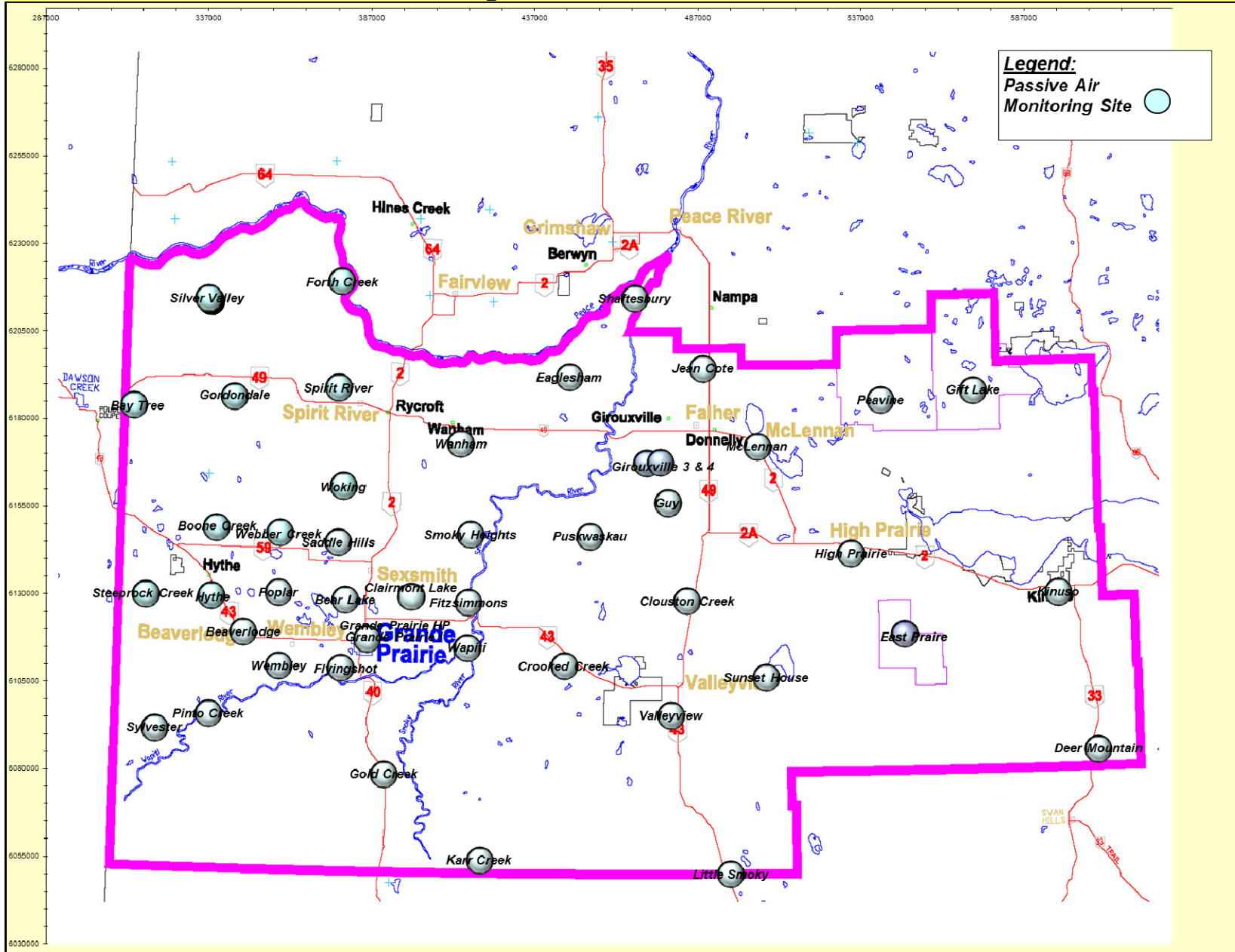
Wind Direction (WD) - deg  
 Portable Clairmont - August 2015

Maximum Value: 98.0 deg on Aug 23 23:00		Hours in Service: 744																							
Minimum Value: 3.7 deg on Aug 21 06:00		Hours of Data: 744																							
Percentiles: P <sub>1</sub> = 5.8 P <sub>10</sub> = 8.3 Q <sub>1</sub> = 11.1 Median = 16.7 Q <sub>3</sub> = 29.5 P <sub>90</sub> = 53.0 P <sub>99</sub> = 91.4		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-Aug	13	31	18	13	14	19	12	9	9	10	13	20	15	18	23	20	21	20	19	13	15	32	35	45	44.9
2-Aug	8	10	17	19	12	10	12	14	20	17	31	73	41	41	36	59	17	31	15	8	8	13	8	10	73.0
3-Aug	47	23	26	92	83	87	61	19	14	34	13	13	18	18	12	11	10	19	13	18	56	17	11	14	92.1
4-Aug	20	50	17	16	6	17	24	21	12	11	15	16	17	22	20	19	20	17	22	20	9	84	69	10	84.1
5-Aug	9	12	9	15	12	10	11	15	11	14	17	12	12	13	9	13	12	17	10	8	21	19	9	11	20.8
6-Aug	9	6	8	8	11	8	10	11	30	16	16	12	14	9	10	11	12	13	17	15	13	11	14	16	30.2
7-Aug	20	11	24	16	21	65	21	15	11	17	13	17	17	14	16	20	18	14	11	17	13	8	19	34	64.8
8-Aug	9	24	25	24	10	16	14	21	20	19	46	54	90	45	62	47	18	21	23	12	15	16	5	11	90.1
9-Aug	29	14	13	6	94	35	63	44	42	54	28	15	22	13	15	18	73	16	12	24	14	13	38	6	94.1
10-Aug	37	71	47	41	76	92	19	18	27	22	40	20	26	25	25	16	28	17	10	7	7	15	18	15	92.1
11-Aug	35	12	36	95	54	76	74	13	8	12	14	9	7	8	9	7	10	10	9	17	21	14	12	6	94.7
12-Aug	10	8	10	13	8	8	9	17	12	11	11	9	10	10	9	8	9	13	17	15	30	20	53	16	53.3
13-Aug	18	42	9	53	63	44	31	22	22	12	22	19	13	15	10	7	9	7	8	8	9	10	22	27	62.6
14-Aug	18	8	6	16	18	49	50	20	38	75	39	24	74	48	28	20	24	11	11	9	4	6	5	6	74.5
15-Aug	7	11	85	44	51	8	7	9	12	12	15	21	20	28	35	34	35	18	17	22	20	91	61	14	91.3
16-Aug	18	11	7	11	28	51	32	35	17	41	19	27	35	32	84	59	87	69	11	11	13	17	22	47	87.3
17-Aug	8	10	10	12	11	15	18	13	14	10	16	18	18	18	11	12	11	21	12	36	58	53	13	12	58.1
18-Aug	6	6	8	8	8	9	11	13	47	30	17	20	31	22	18	10	12	12	10	10	12	8	6	8	47.2
19-Aug	55	13	10	31	29	49	46	30	8	8	8	9	14	10	10	12	14	11	9	11	8	14	9	22	54.7
20-Aug	25	11	14	12	22	13	8	17	17	29	29	37	40	20	31	16	19	39	19	15	19	60	8	12	60.4
21-Aug	11	16	16	7	6	4	7	20	11	22	10	13	13	15	17	12	16	12	18	11	21	9	26	14	26.1
22-Aug	19	16	9	6	12	15	16	17	25	31	35	17	25	40	26	27	12	7	5	5	7	7	8	13	39.6
23-Aug	26	12	22	19	48	88	60	69	26	36	29	19	30	17	18	13	11	9	8	9	8	44	98	87	98.0
24-Aug	34	57	32	74	28	40	54	14	36	76	72	38	32	60	37	43	34	26	21	20	40	14	15	13	75.5
25-Aug	15	49	86	80	58	38	9	85	53	35	24	27	30	29	14	11	14	18	44	8	14	9	8	39	85.5
26-Aug	21	23	93	44	64	39	30	16	12	17	23	54	64	46	66	81	68	32	21	10	8	21	42	74	92.8
27-Aug	92	79	36	29	42	31	18	21	16	19	14	9	11	10	12	10	15	16	7	8	11	9	17	18	91.7
28-Aug	12	12	9	14	10	9	9	9	17	15	20	22	16	32	31	32	22	21	18	24	53	11	27	61	60.8
29-Aug	28	28	33	75	61	40	62	76	13	10	23	8	8	7	6	7	6	40	66	15	47	66	40	51	75.7
30-Aug	26	57	89	25	39	26	46	31	40	9	15	11	20	18	11	14	15	12	8	8	16	8	24	11	88.7
31-Aug	13	10	9	8	6	30	33	10	16	21	18	11	11	15	10	10	10	10	21	9	42	87	87	28	87.4
	91.7	79.2	92.8	94.7	94.1	92.1	74.3	85.5	53.1	75.5	72.0	73.0	90.1	60.0	83.8	81.3	87.3	69.4	65.8	35.6	58.1	91.3	98.0	86.5	

# PAZA

## Monthly Passive Data Summary

# Location of PAZA Passive Monitoring Stations



## PAZA Passive Results for August 2015

Station Number	Station Name	SO2 ppb	O3 ppb	NO2 ppb	H2S ppb	Site Legal
<b>Duplicates</b>						
18a	Saddle Hills	0.2	36.9	1.8		
18b	Saddle Hills	0.4	18.2	0.6		
19a	Wanham	0.2	20.2	0.3		
19b	Wanham	0.2	22.3	0.4		
24a	Wembley	0.1	14.5	0.4		
24b	Wembley	0.2	21.4	0.2		
40a	McLennan	0.3	25.1	0.2		
40b	McLennan	0.4	21.2	0.4		
45a	Gift Lake				BDL	
45b	Gift Lake				0.1	
1	Silver Valley	0.2	24.8	0.6		08-27-081-11 W6M
2	Bay Tree	0.1	20.3	0.4		13-16-078-13 W6M
3	Fourth Creek	0.1	23.5	0.4		04-13-082-07 W6M
4	Gordondale	0.2	25.8	0.3		04-34-078-10 W6M
5	Boone Creek	0.1	26.5	0.5		16-36-074-11 W6M
7	Steepprock Creek	0.4	21.0	0.7		09-35-072-13 W6M
9	Spirit River	0.3	22.2	0.5		08-12-079-07 W6M
10	Woking	0.1	19.7	0.5		01-13-076-07 W6M
11	Webber Creek	0.1	22.3	0.6		09-36-074-09 W6M
12	Hythe	0.2	23.5	0.9		14-36-072-11 W6M
14	Sylvester	0.4	21.8	0.8		08-06-069-12 W6M
16	Beaverlodge	0.2	25.3	0.2		15-36-071-10 W6M
17	Poplar	0.1	19.5	0.3		13-06-073-08 W6M
18	Saddle Hills	0.3	27.6	1.2		04-25-074-07 W6M
19	Wanham	0.2	21.3	0.3		16-22-077-03 W6M
20	Shaftesbury	0.1	25.2	0.6		04-03-082-23 W5M
21	Eaglesham	0.1	21.9	0.9		16-21-079-25 W5M
23	Bear Lake	0.3	19.6	0.4		15-31-072-06 W6M
24	Wembley	0.1	18.0	0.3		12-31-070-08 W6M
25	Pinto Creek	0.1	25.0	0.9		04-24-069-11 W6M
26	Flyingshot	0.1	18.1	0.4		15-36-070-07 W6M
27	Grande Prairie I	0.3	25.6	0.2		08-15-071-06 W6M

## PAZA Passive Results for August 2015 (Continued)

28	Clairmont Lake	0.1	21.6	0.1		09-06-073-04 W6M
29	Smoky Heights	0.2	17.9	0.5		04-06-075-02 W6M
30	Fitzsimmons	0.1	24.1	2.7		15-36-072-03 W6M
32	Gold Creek	0.2	18.5	0.3		06-33-067-05 W6M
33	Wapiti	0.3	29.7	0.4		02-25-071-03 W6M
34	Puskwaskau	0.5	20.2	0.3		15-35-074-25 W5M
35	Jean Cote	0.2	25.2	0.1		12-35-079-21 W5M
36	Guy	0.5	17.3	0.2		03-04-076-22 W5M
37	Crooked Creek	0.2	21.7	0.5		16-01-071-26 W5M
38	Karr Creek	0.3	22.2	1.1		10-16-065-02 W6M
39	Clouston Creek	0.1	18.6	1.3		12-01-073-22 W5M
40	McLennan	0.3	23.2	0.3		03-29-077-19 W5M
41	Valleyview	0.1	17.6	0.4		09-30-069-22 W5M
42	Sunset House	0.2	16.6	BDL		05-32-070-19 W5M
43	High Prairie	0.2	21.2	0.1		16-13-074-17 W5M
44	Peavine	0.1	22.6	0.5		03-05-079-15 W5M
45	Gift Lake	0.1	15.5	0.3	0.1	10-07-079-12 W5M
46	Little Smoky	0.3	76.2	0.4		12-01-065-21 W5M
47	Kinuso	0.3	21.5	0.3		12-10-073-10 W5M
48	Deer Mountain	0.2	21.0	1.2		15-22-068-09 W5M
49	Grande Prairie HP	0.3	17.7	0.8		17-26-071-06 W6M
50	East Prairie	0.1	27.4	1.8		13-02-072-15 W5M
63	Girouxville 3				0.2	14-02-077-23 W5M
64	Girouxville 4				0.3	4-08-077-22 W5M

\*BDL = Below Detection Level

\*NS - No sample

## Passive Summary for August 2015

Stats	Sulphur Dioxide SO <sub>2</sub>	Ozone O <sub>3</sub>	Nitrogen Dioxide NO <sub>2</sub>	Hydrogen Sulphide H <sub>2</sub> S
	ppb	ppb	ppb	ppb

Passive Summary for August 2015 (PAZA Zone)				
Mean	0.2	23.1	0.6	0.2
Standard Deviation	0.1	8.8	0.5	0.1
Minimum	0.1	15.5	0.1	0.1
Minimum At	Gift Lake (#45)	Gift Lake (#45)	High Prairie (#43)	Gift Lake (#45b)
Maximum	0.5	76.2	2.7	0.3
Maximum At	Puskwaskau (#34)	Little Smoky (#46)	Fitzsimmons (#30)	Girouxville 4 (#64)

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

	SO <sub>2</sub>	O <sub>3</sub>	NO <sub>2</sub>
PAZA Beaverlodge station	0.1	24.7	2.0
PAZA Beaverlodge passive	0.2	25.3	0.2

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

	SO <sub>2</sub>	O <sub>3</sub>	NO <sub>2</sub>
PAZA Henry Pirker station	0.1	23.3	4.0
PAZA Grande Prairie passive	0.3	17.7	0.8



# PAZA

## **ALBERTA ENVIRONMENT AND SUSTAINABLE RESOURCES INCIDENCE REPORT**

### **August 2015**

## Air Monitoring Directive Exceedence Report

### Alberta Environmental Monitoring, Evaluation and Reporting Agency

#### Energy & Environmental Response

111 Twin Atria Building

4999 – 98<sup>th</sup> Avenue

Edmonton, Alberta T6B 2X3

[erc.environment@gov.ab.ca](mailto:erc.environment@gov.ab.ca)

Phone: (780) 422-4505

Fax: (780) 427-1044

<b>Reference Number:</b>	<b>303779</b>	<b>Reported To (AESRD Contact):</b>	Erin
<b>Date &amp; Time Incident Reported to AESRD:</b>	Sept23, 2015	<b>Reported By:</b>	Lenin Flores
<b>Reported on Behalf of:</b>	PAZA	<b>Approval Number (if applicable):</b>	N/A
<b>Location(s) of Incident:</b>	Henry Pirker AQMS		
<b>Start Date &amp; Time of Incident:</b>	August 15, 2015	<b>End Date &amp; Time of Incident:</b>	August 24,2015
<b>Reason or Nature of Incident:</b>			
The Methane/Non-methane/Total Hydrocarbon analyzer had a below 90% uptime incident for the month of August.			
<b>Immediate Actions Taken:</b>			
Upon noticing the analyzer was having issues, technicians attempted to repair it, however they couldn't and decided to shut down the instrument until parts arrived form vendor.			
<b>Investigation Details:</b>			
N/A			
<b>Actions Taken to Prevent Reoccurrence (if any):</b>			
PAZA will try to stock some parts to prevent delays in getting parts from vendor and/or AEMERA			
<b>Additional Actions Required (if any):</b>			
N/A			
<b>Report Completed By:</b>	Lenin Flores	<b>Date Report Submitted:</b>	September 23, 2015
<b>7-Day Letter Due Date:</b>	September 30, 2015		

# August 2015 Calibration Reports

**PAZA - Henry Pirker Station with the following calibrations:  
SO<sub>2</sub>, NO, NO<sub>2</sub>, NO<sub>x</sub>, O<sub>3</sub>, CO, THC, TRS**

**PAZA – Evergreen Park Station with the following calibrations:  
SO<sub>2</sub>, TRS**

**PAZA – Smoky Heights Station with the following calibrations:  
SO<sub>2</sub>, TRS**

**PAZA – Beaverlodge Station with the following calibrations:  
SO<sub>2</sub>, NO, NO<sub>2</sub>, NO<sub>x</sub>, O<sub>3</sub>, PM<sub>2.5</sub>**

**PAZA – Valleyview Station with the following calibrations:  
SO<sub>2</sub> & H<sub>2</sub>S**

**PAZA – Falher Station with the following calibrations:  
SO<sub>2</sub> & H<sub>2</sub>S**

**PAZA – Clairmont Station with the following calibrations:  
SO<sub>2</sub>, NO, NO<sub>2</sub>, NO<sub>x</sub>, O<sub>3</sub>, THC, TRS**

# Calibration Report



AIR QUALITY MONITORING

Parameter SO2

Air Monitoring Network PAZA

## Station Information

Calibration Date	August 4, 2015	Previous Calibration	July 2, 2015
Station Number	1	Station Location	Henry Pirker
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
		<input type="checkbox"/> Other:	
Start Time (MST)	7:40	End Time (MST)	10:55
Barometric Pressure	721.000 mm	Station Temperature	21.0 Deg C
Calibrator	EnviroNics	Serial Number	3016
Cal Gas Conc	49.8 ppm	Cal Gas Cert Date	March 10, 2017
		Cal Gas Cylinder #	LL119493
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 1 volt	DACS channel #	10
	Before		After
Calculated slope	0.983204	Calculated slope	0.995173
Calculated intercept	2.747568	Calculated intercept	2.233995
Analyzer make	TEI 43C	Analyzer serial #	610816292

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	10.0		9.8	
Coefficient	0.764		0.746	
Pressure	645.9	mm Hg	643.2	mm Hg
Flow	0.483	lpm	0.479	lpm
Lamp intensity	44418	Hz	43808	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	0.0	N/A
4995	39.93	394.9	395.5	0.9986
4995	19.97	198.3	196.6	1.0088
4995	9.97	99.2	94.7	1.0471
4995	0.00	0.0	0.0	As Found Zero
4995	39.93	394.9	405.4	As Found Span
Average Correction Factor				1.0182

Calculated value of As Found Response: 401.3 ppb      Percent Change of As Found: -1.6%

	before calibration		after calibration	
Auto zero	0.0	ppb	0.0	ppb
Auto span	327.6	ppb	325.7	ppb

Notes: Span adjustment made

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Calibration Performed By: Dmytro Dolotii

# Calibration Summary



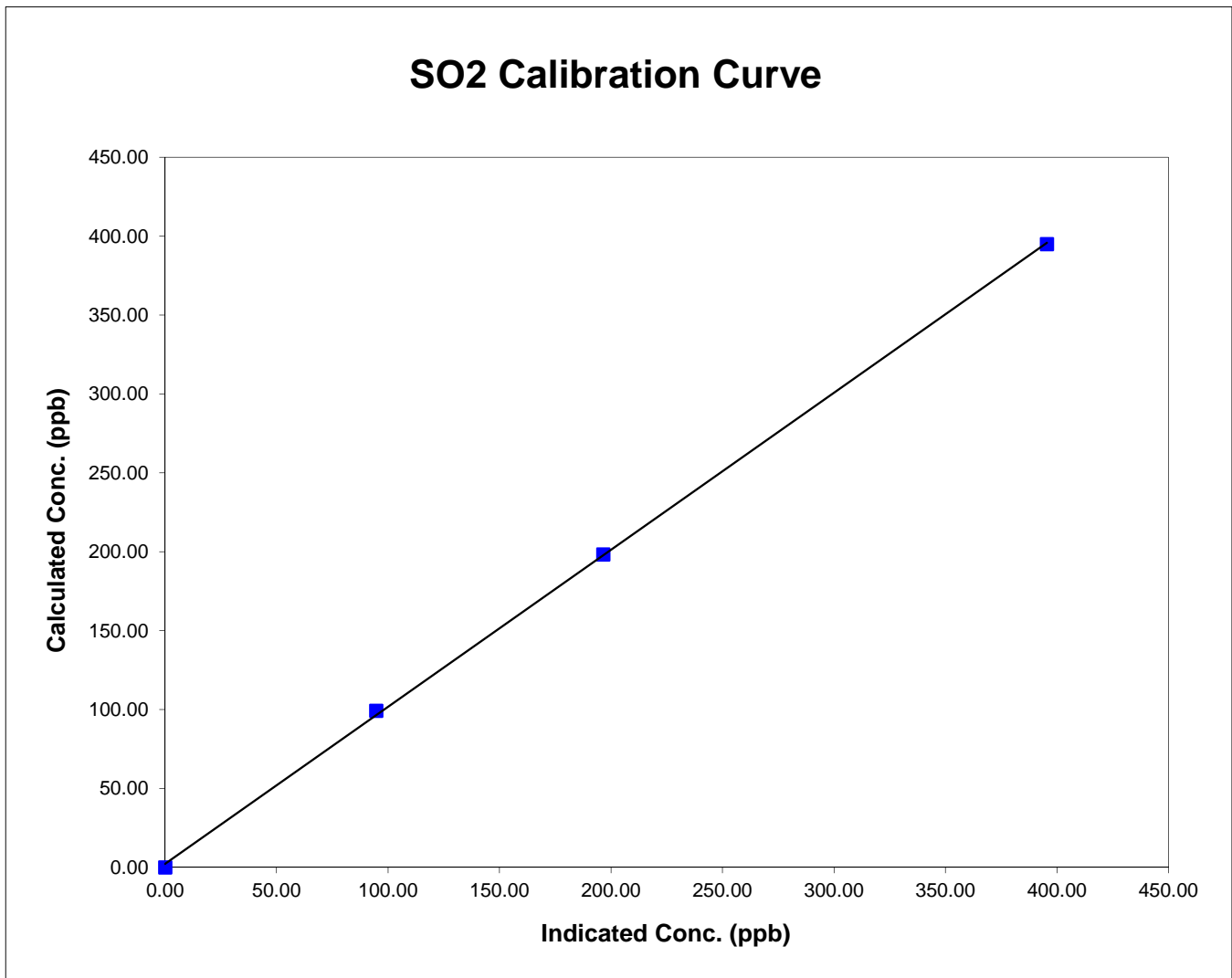
Parameter SO2  
 Air Monitoring Network PAZA

### Station Information

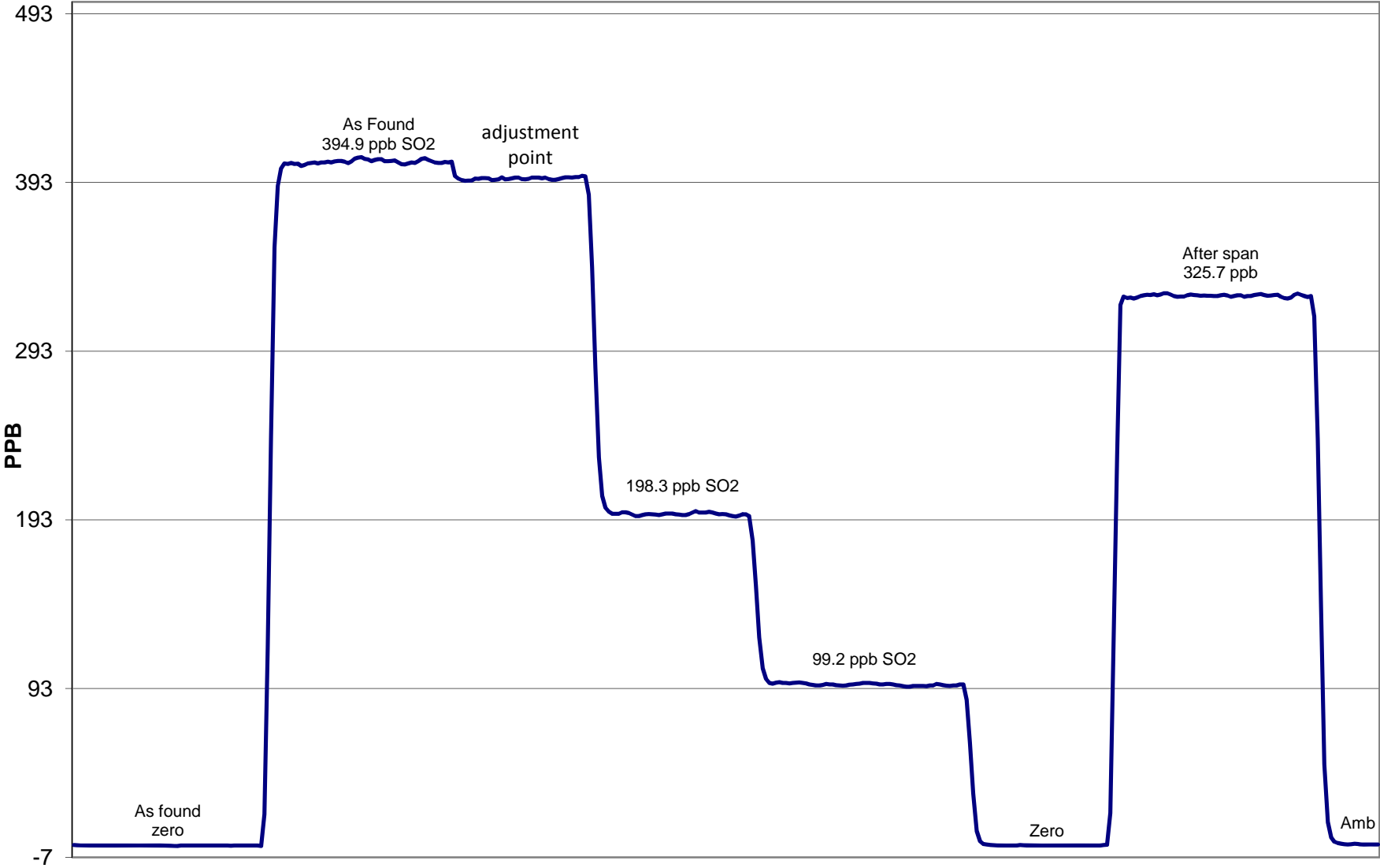
Calibration Date	August 4, 2015	Previous Calibration	July 2, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	7:40	End Time (MST)	10:55
Analyzer make/model	TEI 43C	Analyzer serial #	610816292

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A	Correlation Coefficient	0.999844
394.9	395.5	0.9986		
198.3	196.6	1.0088	Slope	0.995173
99.2	94.7	1.0471		
			Intercept	2.233995



# SO2 Calibration



August 4, 2015



# Calibration Report



Parameter **NOX-NO-NO2**  
 Air Monitoring Network **PAZA**

## Station Information

Calibration Date: August 4, 2015 Station Location: Henry Pirker

## Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor
zero	4995	0.00	0.0	0.0	0.0	0.1	0.2	0.1	N/A	N/A
1	4995	39.92	405.9	403.6	2.4	405.6	405.6	0.2	1.0009	0.9950
2	4995	19.96	203.8	202.6	1.2	200.9	200.0	0.5	1.0143	1.0128
3	4995	9.93	101.6	101.0	0.6	97.4	97.2	0.3	1.0429	1.0390
AFZ	4995	0.00	0.0	0.0	0.0	0.1	0.2	0.1	0.0000	0.0000
AFS	4995	39.92	405.9	403.6	0.8	412.8	412.9	0.2	0.9834	0.9774
Average Correction Factor									1.0194	1.0156

As Found Concentrations: NO<sub>x</sub>= 412.1 NO= 409.7 As Found Percent Change NO<sub>x</sub>= 1.5% NO= 1.5%

## GPT Calibration Data

Dilution Flow 4995 ccm Source Gas Flow 39.93 ccm

O3 Setpoint (ppb)	Indicated NO high point (ppb)	Indicated NO drop conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor	NO2 Correction factor	Converter Efficiency
0	0.2	0.2	0.0	0.1	0.2	0.1	N/A	N/A	N/A	N/A
NO point	405.3	405.3	0.0	405.6	405.3	0.1	0.9994	1.0000	N/A	N/A
300	405.3	94.8	310.5	404.3	94.8	309.5	1.0026	1.0000	1.0034	99.7%
200	405.3	193.6	211.7	404.7	193.6	210.2	1.0016	1.0000	1.0070	99.3%
100	405.3	293.9	111.4	405.7	293.9	110.8	0.9991	1.0000	1.0059	99.4%
Average Correction Factor							1.0011	1.0000	1.0054	99.5%

## AIC Data

Parameter	Previous calibration				Current calibration			
	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	0.1	0.1	0.2	ppb	0.0	0.0	0.2	ppb
Auto span	352.4	348.7	3.2	ppb	340.7	336.9	3.4	ppb

Calibration Performed By: Dmytro Dolotii



# Calibration Summary



Parameter NO<sub>2</sub>  
 Air Monitoring Network PAZA

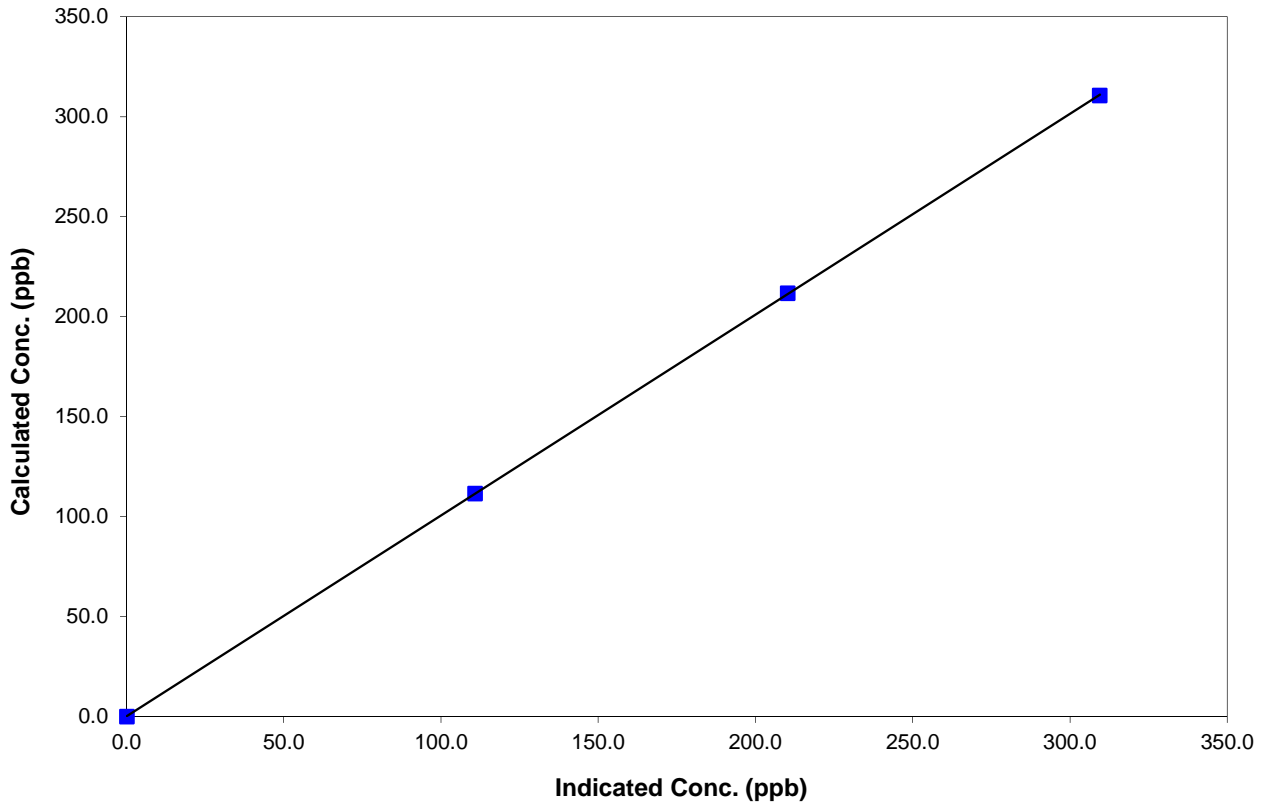
## Station Information

Calibration Date	August 4, 2015	Previous Calibration	July 2, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	7:45	End Time (MST)	12:10
Analyzer make	42i	Analyzer serial #	906535087

## Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A	Correlation Coefficient	0.999993
310.5	309.5	1.0034		
211.7	210.2	1.0070	Slope	1.004281
111.4	110.8	1.0059		
			Intercept	0.093729

### NO<sub>2</sub> Calibration Curve



# Calibration Summary



Parameter NO<sub>x</sub>

Air Monitoring Network PAZA

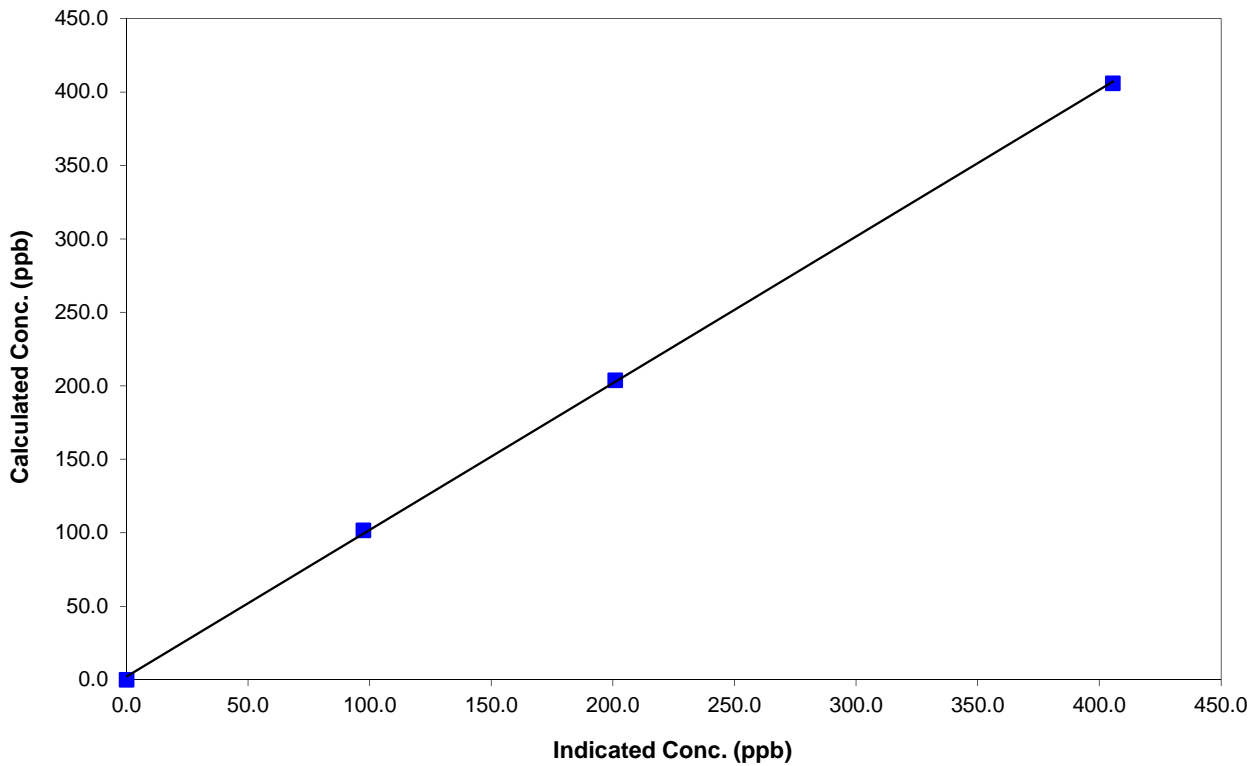
## Station Information

Calibration Date	August 4, 2015	Previous Calibration	July 2, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	7:45	End Time (MST)	12:10
Analyzer make	42i	Analyzer serial #	906535087

## Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A	Correlation Coefficient	0.999866
405.9	405.6	1.0009		
203.8	200.9	1.0143		
101.6	97.4	1.0429	Slope	0.998209
			Intercept	2.151097

## NO<sub>x</sub> Calibration Curve



# Calibration Summary



Parameter NO  
 Air Monitoring Network PAZA

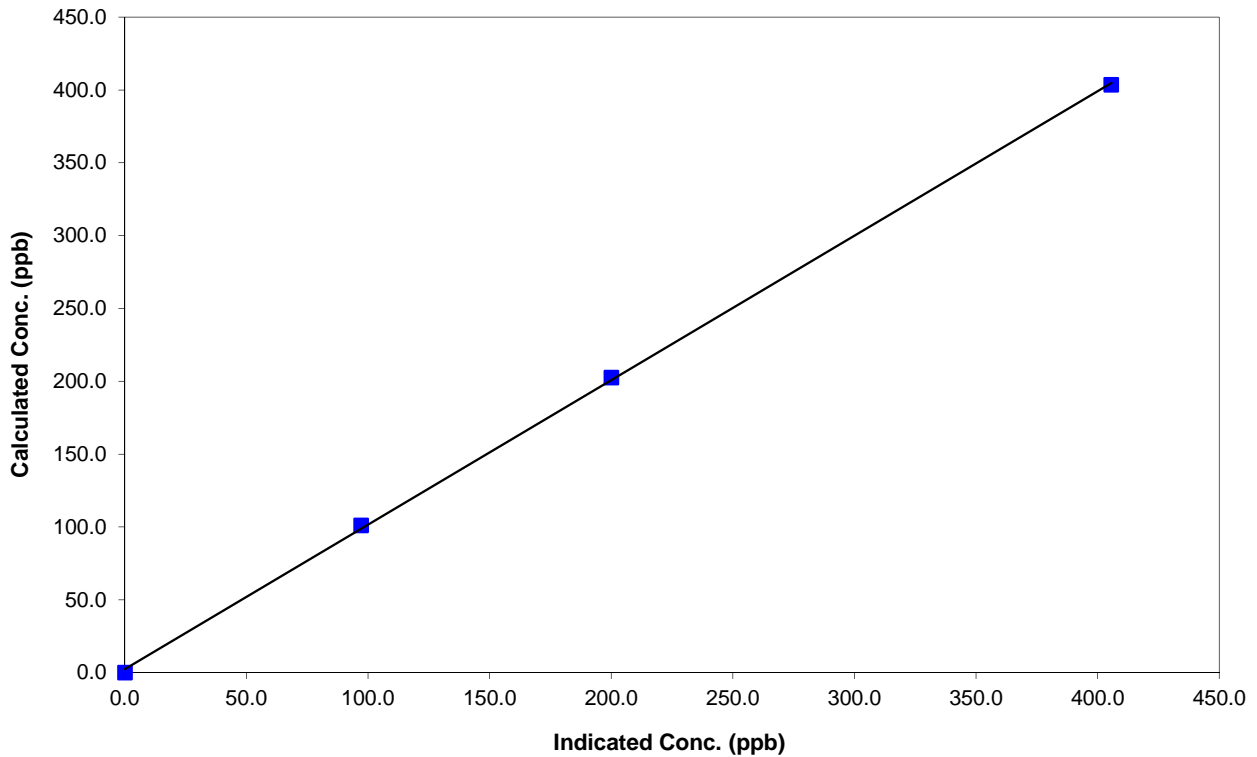
## Station Information

Calibration Date	August 4, 2015	Previous Calibration	July 2, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	7:45	End Time (MST)	12:10
Analyzer make	42i	Analyzer serial #	906535087

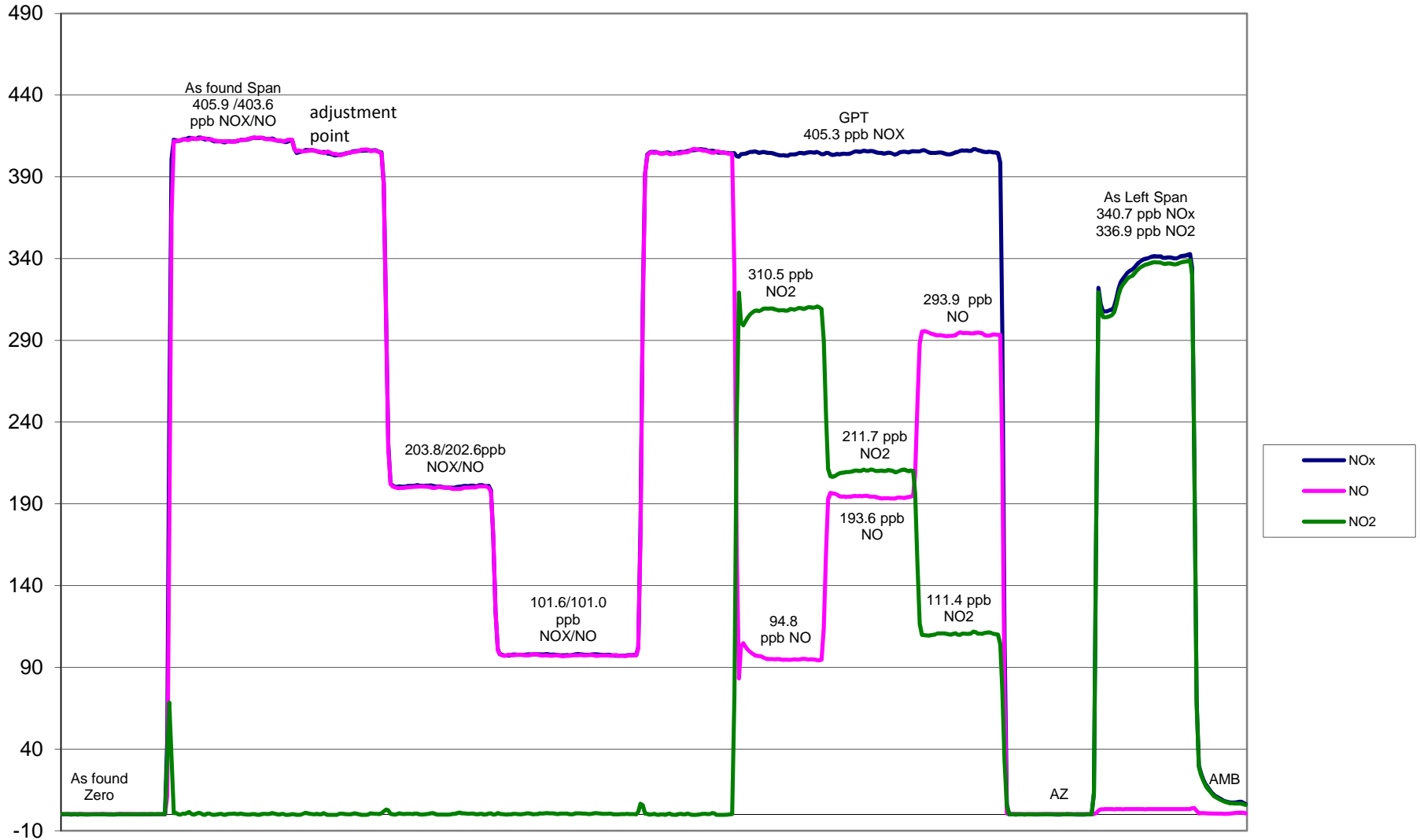
## Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A	Correlation Coefficient	0.999824
403.6	405.6	0.9950		
202.6	200.0	1.0128		
101.0	97.2	1.0390	Slope	0.992539
			Intercept	2.352894

## NO Calibration Curve



# NO<sub>x</sub> Calibration

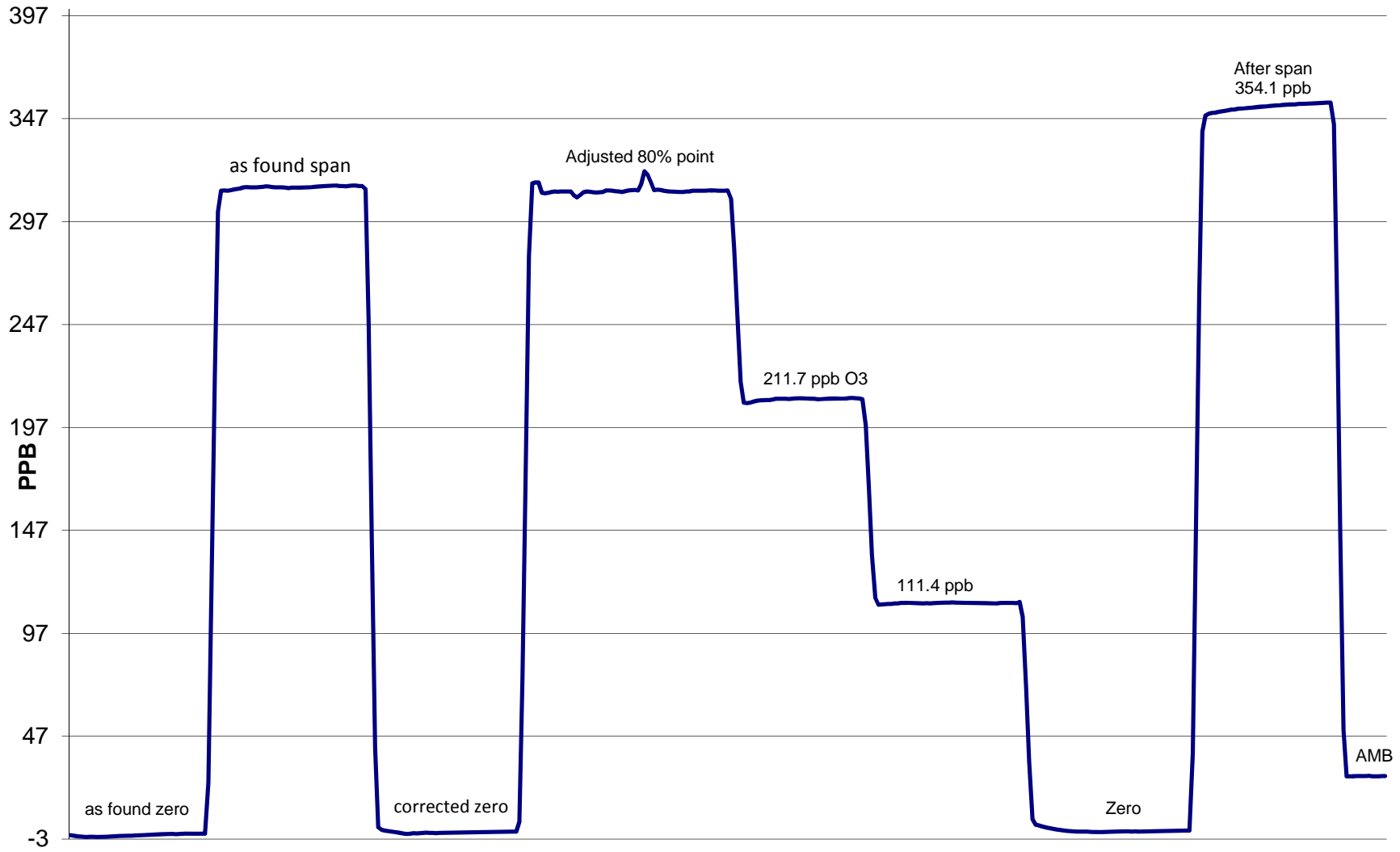


August 4, 2015





# O3 Calibration



August 4, 2015

# Calibration Report



AIR QUALITY MONITORING

Parameter CO

Air Monitoring Network PAZA

## Station Information

Calibration Date	August 5, 2015	Previous Calibration	July 3, 2015
Station Number	1	Station Location	Henry Pirker
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
		<input type="checkbox"/> Other:	
Start Time (MST)	11:35	End Time (MST)	14:35:00 PM
Barometric Pressure	726.0 mm/hg	Station Temperature	21.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3016
Cal Gas Conc	2898 ppm	Cal Gas Expiry Date	04/02/2013
		Cal Gas Cylinder #	LL83909
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 5 volt	DACS channel #	9
	<u>Before</u>		<u>After</u>
Calculated slope	1.002178	Calculated slope	1.000646
Calculated intercept	-0.075774	Calculated intercept	-0.067967
Analyzer make	Model 48I-TLE	Analyzer serial #	1408761378

	before		after	
Concentration range	0 - 50	ppm	0 - 50	ppm
CO zero setting	2.272		2.495	
CO span setting	1.001		1.001	
Sample pressure	698.6	mm Hg	693.5	mm Hg
Sample Flow	0.454	LPM	0.452	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	0.00	N/A
4995	69.94	40.02	40.02	0.9998
4995	34.96	20.14	20.23	0.9957
4995	17.96	10.38	10.51	0.9876
4995	0.00	0.00	0.22	As Found Zero
4995	69.94	40.02	40.61	As Found Span
Average Correction Factor				0.9944

Calculated value of As Found Response: 40.399 ppm      Percent Change of As Found: -1.0%

	before calibration		after calibration	
Auto zero	0.00	ppm	0.01	ppm
Auto span	19.62	ppm	19.60	ppm

Notes: Zero adjustment made

Calibration Performed By: Dmytro Dolotii



# Calibration Summary



Parameter CO  
 Air Monitoring Network PAZA

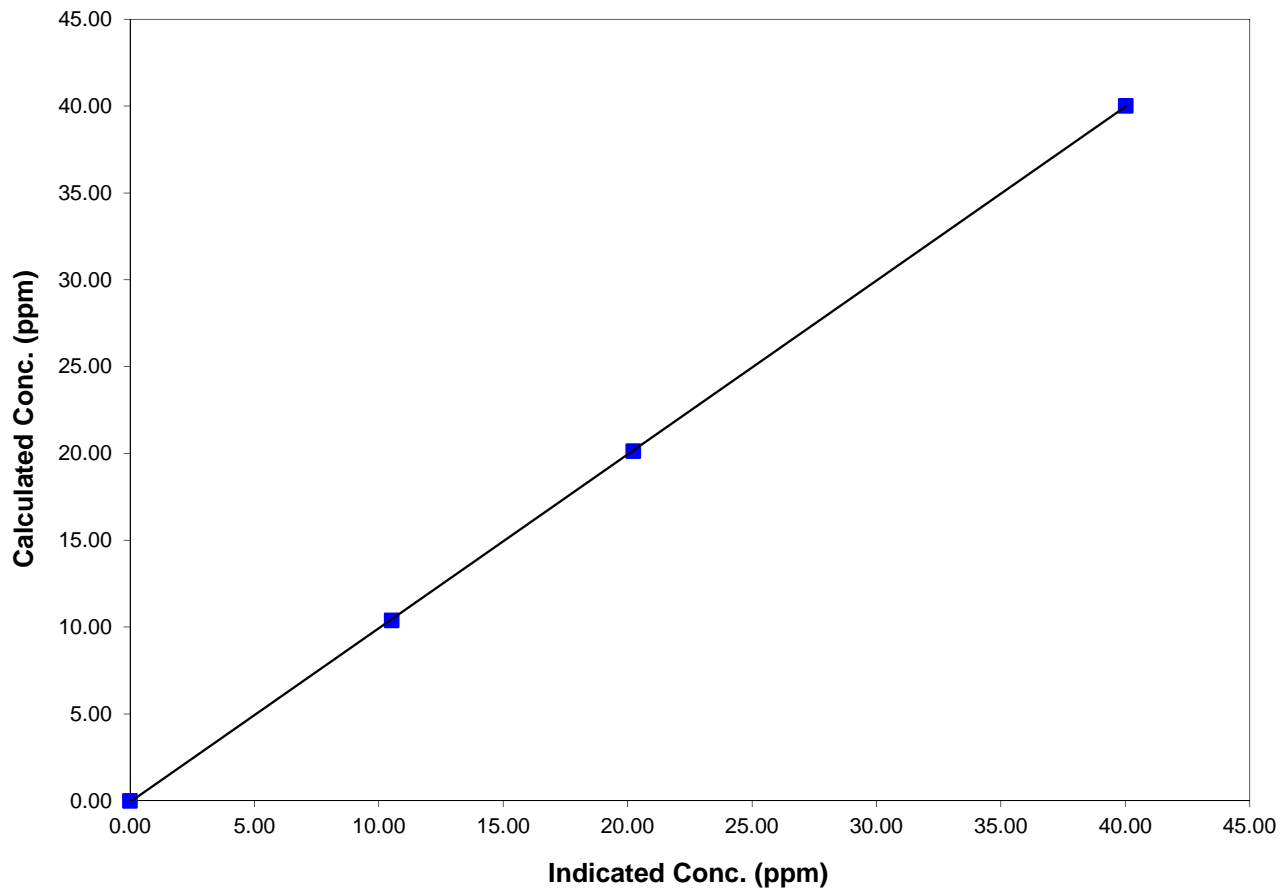
### Station Information

Calibration Date	August 5, 2015	Previous Calibration	July 3, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	11:35	End Time (MST)	14:35:00 PM
Analyzer make/model	Model 48I-TLE	Analyzer serial #	1408761378

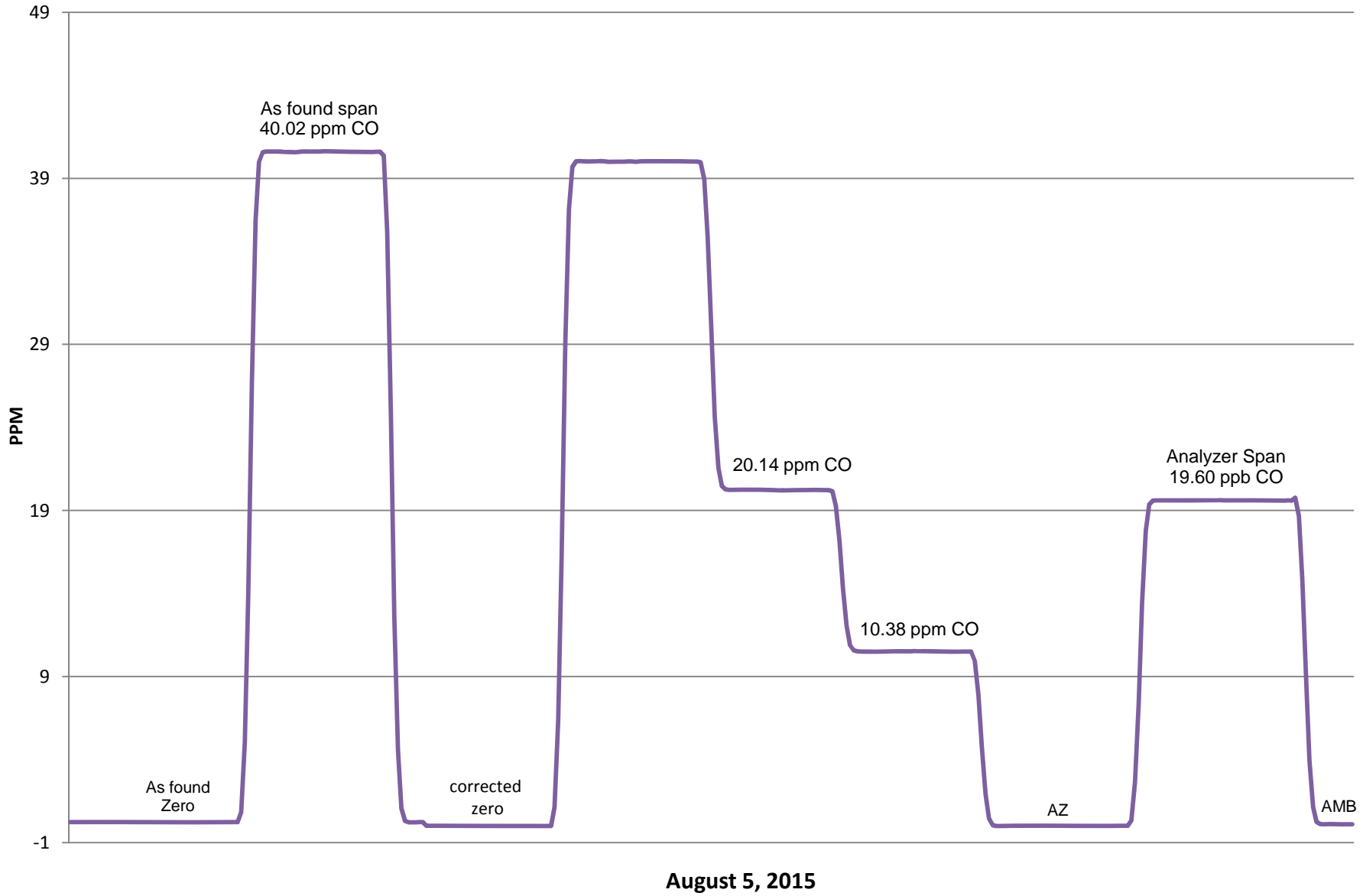
### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.001	N/A		
40.017	40.025	0.9998	Correlation Coefficient	0.999987
20.142	20.230	0.9957		
10.383	10.513	0.9876	Slope	1.000646
			Intercept	-0.067967

## CO Calibration Curve



# CO Calibration



# Calibration Report



Parameter CH4 / NMHC / THC

Air Monitoring Network PAZA

## Station Information

Calibration Date	August 5, 2015	Previous Calibration	July 27, 2015
Station Number	1	Station Location	Henry Pirker
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
		<input type="checkbox"/> Other:	

Start Time (MST)	10:25	End Time (MST)	12:30
Barometric Pressure	726.00 mm/hg	Station Temperature	21.0 Deg C
Calibrator	Envionics	Serial Number	3016
Cal Gas CH4 Conc	386 ppm CH4	Cal Gas Expiry Date	28/03/2014
Cal Gas C3H8 Conc	207 569.25 ppm CH4	Cal Gas Cylinder #	LL34318
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 5 volt	DACS channel #	SE 11,12,13

Analyzer make TEI 55I Analyzer serial # 1134650658

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

## CH4 Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
1996	0.00	0.00	0.02	N/A
1996	68.96	12.89	12.44	1.0365
1996	40.96	7.76	7.40	1.0485
1996	15.99	3.07	2.89	1.0623
1996	0.00	0.00	0.02	As Found Zero
1996	68.93	12.89	12.44	As Found Span
Average Correction Factor				1.0491

Calculated value of As Found Response: 12.697 ppm Percent Change of As Found: 1.5%

	Before		After
Calculated slope	1.019446	Calculated slope	1.037499
Calculated intercept	0.041041	Calculated intercept	0.028967

## Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.03	ppm	0.03	ppm
Auto span	8.39	ppm	8.33	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	18.70	1.0168
1996	40.96	11.45	11.36	1.0074
1996	15.99	4.52	4.64	0.9750
1996	0.00	0.00	0.02	As Found Zero
1996	68.93	19.00	18.70	As Found Span
Average Correction Factor				0.9997

Calculated value of As Found Response: 18.752 ppm      Percent Change of As Found: 1.3%

	<u>Before</u>		<u>After</u>
Calculated slope	1.008145	Calculated slope	1.020137
Calculated intercept	-0.077555	Calculated intercept	-0.109249

**Final Zero/Span Data**

	before calibration		after calibration	
Auto zero	0.02	ppm	0.02	ppm
Auto span	11.83	ppm	11.79	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	0.04	N/A
1996	68.96	31.90	31.11	1.0255
1996	40.96	19.21	18.75	1.0246
1996	15.99	7.59	7.51	1.0107
1996	0.00	0.00	0.03	As Found Zero
1996	68.93	31.89	31.11	As Found Span
Average Correction Factor				1.0203

Calculated value of As Found Response: 31.458 ppm      Percent Change of As Found: 1.3%

	<u>Before</u>		<u>After</u>
Calculated slope	1.013324	Calculated slope	1.027706
Calculated intercept	-0.029979	Calculated intercept	-0.072845

**Final Zero/Span Data**

	before calibration		after calibration	
Auto zero	0.02	ppm	0.02	ppm
Auto span	20.22	ppm	20.11	ppm

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

# Calibration Summary



Parameter CH4  
 Air Monitoring Network PAZA

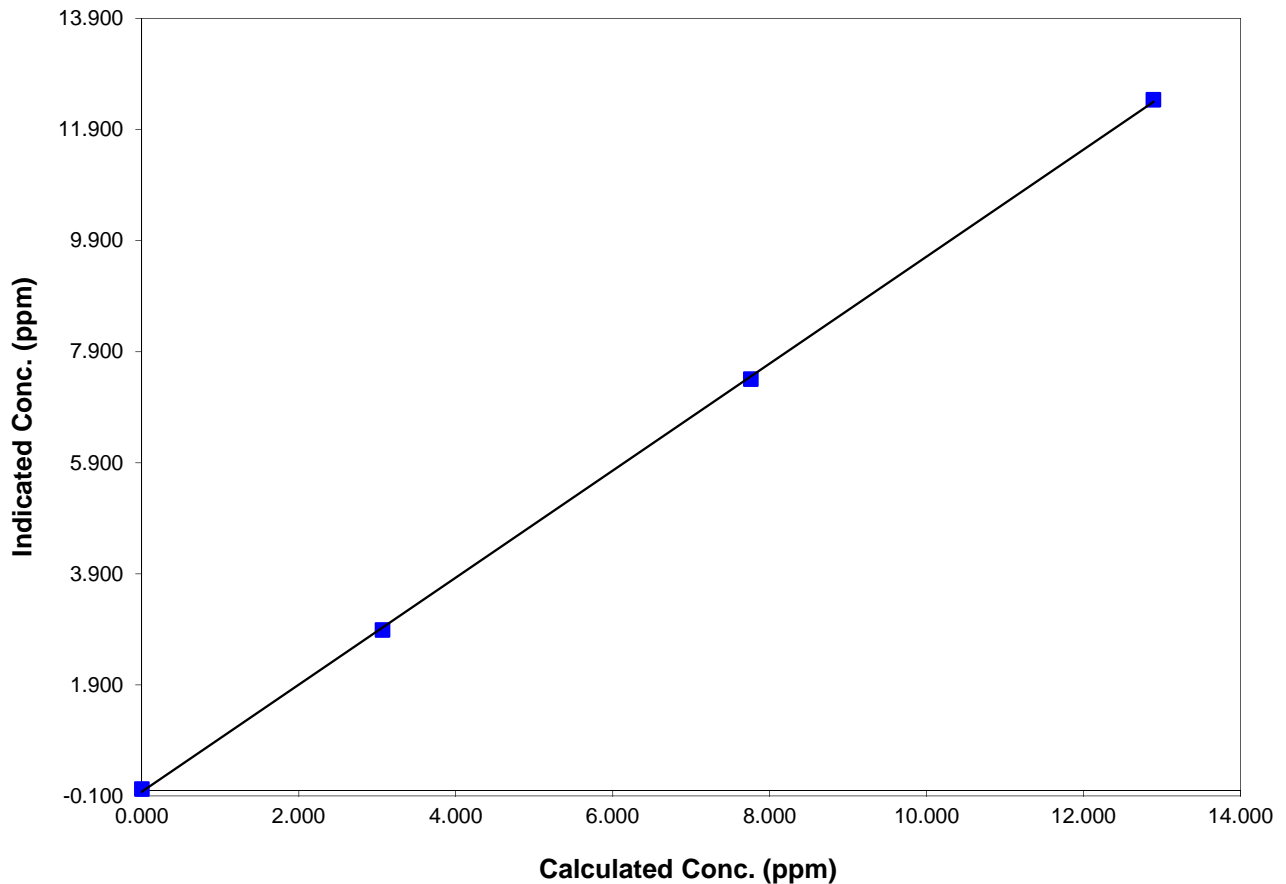
### Station Information

Calibration Date	August 5, 2015	Previous Calibration	July 27, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	10:25	End Time (MST)	12:30
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	0.024	N/A		
12.891	12.436	1.0365	Correlation Coefficient	0.999904
7.762	7.403	1.0485		
3.068	2.888	1.0623	Slope	1.037499
			Intercept	0.028967

## CH4 Calibration Data





# Calibration Summary



Parameter THC  
 Air Monitoring Network PAZA

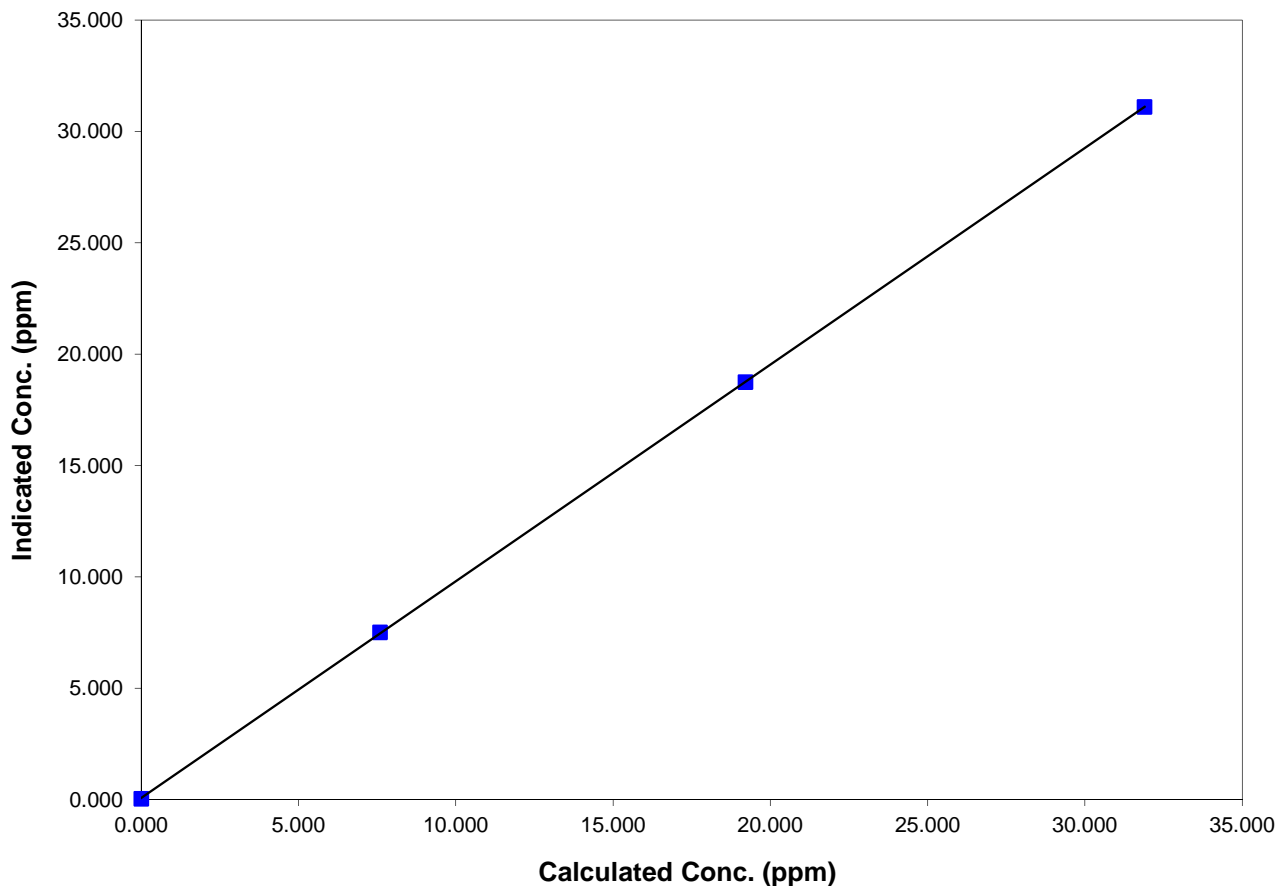
### Station Information

Calibration Date	August 5, 2015	Previous Calibration	July 27, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	10:25	End Time (MST)	12:30
Analyzer make/model	TEI 55I	Analyzer serial #	1134650658

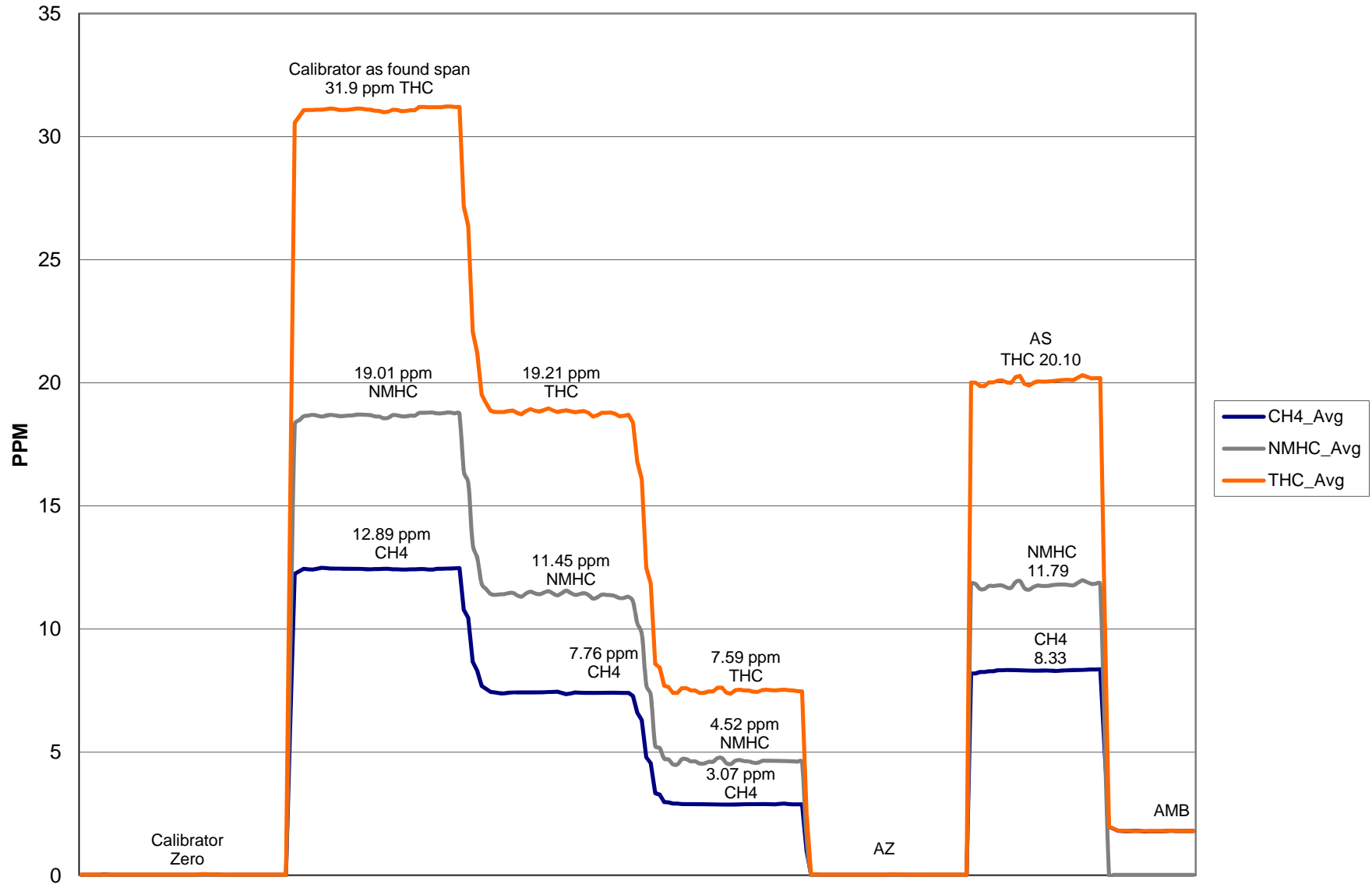
### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.036	N/A	Correlation Coefficient	0.999992
31.901	31.108	1.0255		
19.209	18.747	1.0246	Slope	1.027706
7.592	7.512	1.0107		
			Intercept	-0.072845

## THC Calibration Data



# THC/CH<sub>4</sub>/NMHC Calibration





# Calibration Report



Parameter CH4 / NMHC / THC

Air Monitoring Network PAZA

## Station Information

Calibration Date	August 24, 2015	Previous Calibration	July 27, 2015
Station Number	1	Station Location	Henry Pirker
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
		<input type="checkbox"/> Other:	

Start Time (MST)	12:46	End Time (MST)	15:00:00 PM
Barometric Pressure	726.00 mm/hg	Station Temperature	21.0 Deg C
Calibrator	EnviroNics	Serial Number	3016
Cal Gas CH4 Conc	386 ppm CH4	Cal Gas Expiry Date	28/03/2014
Cal Gas C3H8 Conc	207 569.25 ppm CH4	Cal Gas Cylinder #	LL34318
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 5 volt	DACS channel #	SE 11,12,13

Analyzer make TEI 55I Analyzer serial # 1134650658

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

## CH4 Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
1996	0.00	0.00	0.02	N/A
1996	68.96	12.89	12.90	0.9994
1996	40.96	7.76	7.69	1.0091
1996	15.99	3.07	2.99	1.0264
1996	0.00	0.00	0.02	As Found Zero
1996	68.93	12.89	12.67	As Found Span
Average Correction Factor				1.0117

Calculated value of As Found Response: 12.934 ppm Percent Change of As Found: -0.4%

	Before	After
Calculated slope	1.019446	0.999811
Calculated intercept	0.041041	0.030781

## Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.03	ppm	0.03	ppm
Auto span	8.39	ppm	8.55	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	18.98	1.0017
1996	40.96	11.45	11.67	0.9811
1996	15.99	4.52	4.68	0.9661
1996	0.00	0.00	0.02	As Found Zero
1996	68.93	19.00	19.33	As Found Span
Average Correction Factor				0.9829

Calculated value of As Found Response: 19.388 ppm      Percent Change of As Found: -2.0%

	<u>Before</u>		<u>After</u>
Calculated slope	1.008145	Calculated slope	1.002522
Calculated intercept	-0.077555	Calculated intercept	-0.114113

**Final Zero/Span Data**

	before calibration		after calibration	
Auto zero	0.02	ppm	0.02	ppm
Auto span	11.83	ppm	11.66	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	0.04	N/A
1996	68.96	31.90	31.85	1.0016
1996	40.96	19.21	19.34	0.9930
1996	15.99	7.59	7.67	0.9903
1996	0.00	0.00	0.04	As Found Zero
1996	68.93	31.89	31.98	As Found Span
Average Correction Factor				0.9950

Calculated value of As Found Response: 32.336 ppm      Percent Change of As Found: -1.4%

	<u>Before</u>		<u>After</u>
Calculated slope	1.013324	Calculated slope	1.002271
Calculated intercept	-0.029979	Calculated intercept	-0.081686

**Final Zero/Span Data**

	before calibration		after calibration	
Auto zero	0.02	ppm	0.02	ppm
Auto span	20.22	ppm	20.20	ppm

Notes: Span adjustment made  
Actuator replaced

Calibration Performed By: Dmytro Dolotii

# Calibration Summary



Parameter CH4  
 Air Monitoring Network PAZA

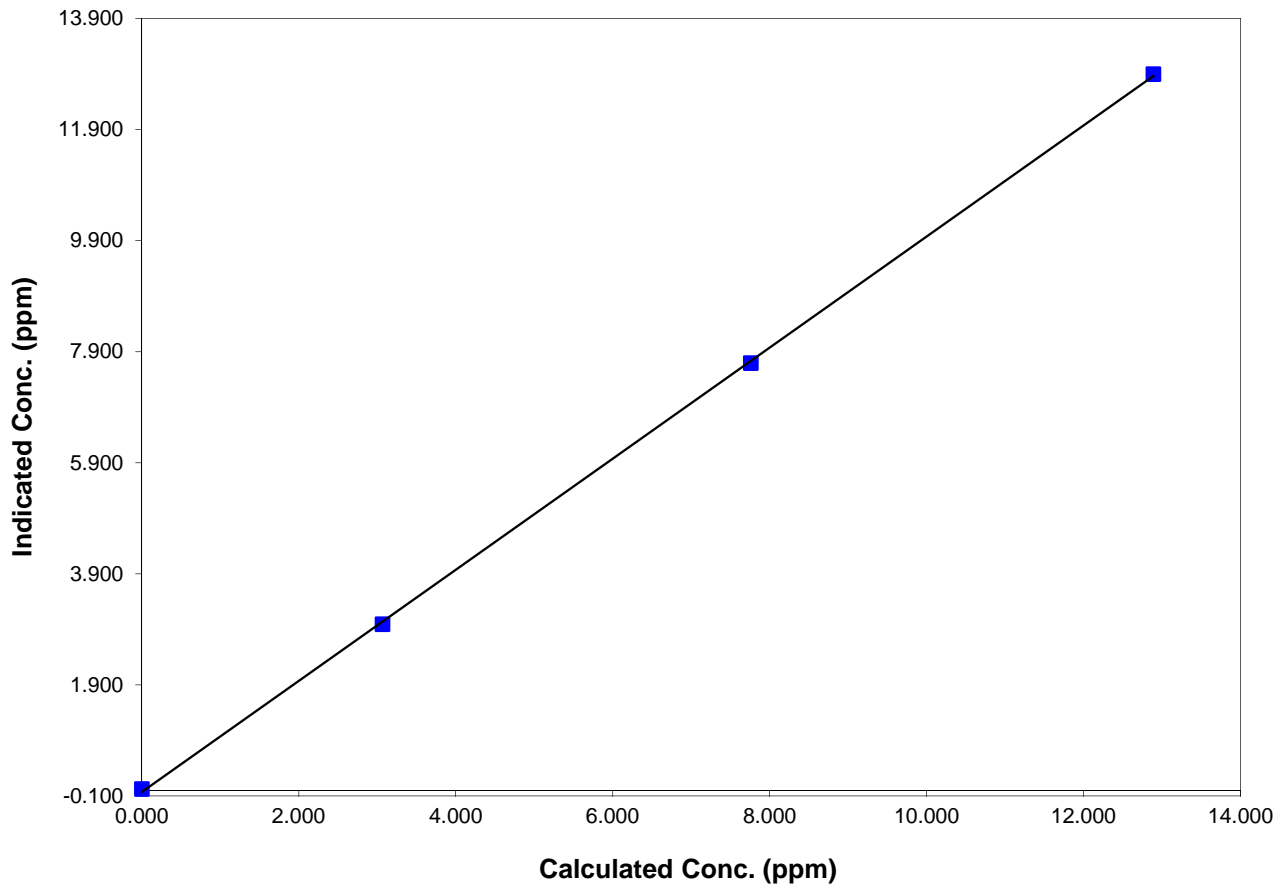
### Station Information

Calibration Date	August 24, 2015	Previous Calibration	July 27, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	12:46	End Time (MST)	15:00:00 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	0.023	N/A	Correlation Coefficient	0.999914
12.891	12.898	0.9994		
7.762	7.692	1.0091		
3.068	2.989	1.0264	Slope	0.999811
			Intercept	0.030781

## CH4 Calibration Data





# Calibration Summary



Parameter THC  
 Air Monitoring Network PAZA

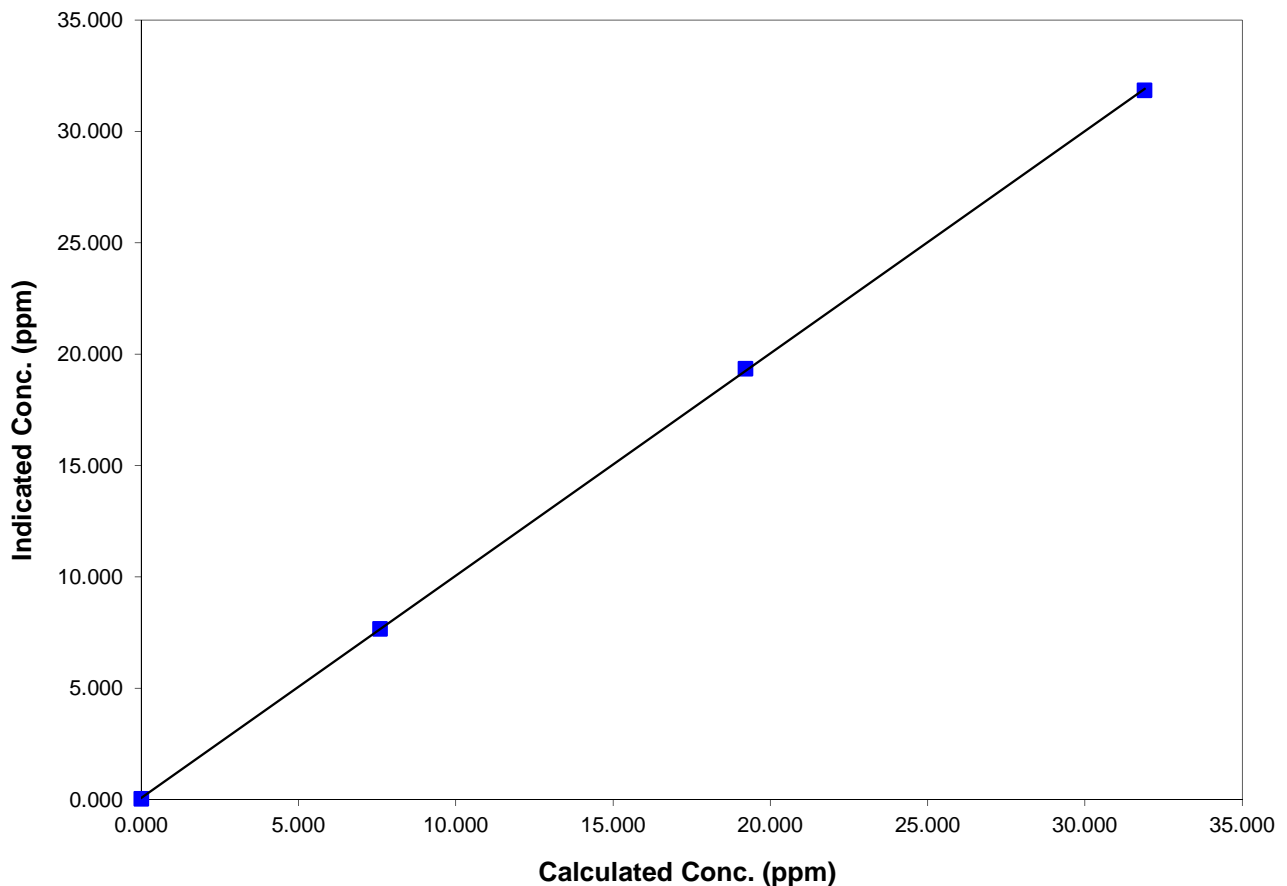
### Station Information

Calibration Date	August 24, 2015	Previous Calibration	July 27, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	12:46	End Time (MST)	15:00:00 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	0.036	N/A	Correlation Coefficient	0.999974
31.901	31.849	1.0016		
19.209	19.343	0.9930	Slope	1.002271
7.592	7.666	0.9903		
			Intercept	-0.081686

## THC Calibration Data





# Calibration Report



Parameter                                            
 Air Monitoring Network                                          

TR5

PAZA

## Station Information

Calibration Date	August 5, 2015	Previous Calibration	July 3, 2015
Station Number	1	Station Location	Henry Pirker
Reason:	<b>Routine</b>	Install	Removal
			Other:
Start Time (MST)	8:00	End Time (MST)	11:35
Barometric Pressure	726.00 mm/Hg	Station Temperature	21.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3016
Cal Gas Conc	10.32 ppb	Cal Gas Expiry Date	08/07/2016
		Cal Gas Cylinder #	LL110781
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 1 volt	DACS channel #	9
	Before		After
Calculated slope	0.988030	Calculated slope	0.987439
Calculated intercept	1.064174	Calculated intercept	0.851088
Analyzer make	TEI 45C	Analyzer serial #	630718528

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Coefficient	0.969		0.955	
Background	18.9		18.6	
Pressure	665.0	mm Hg	666.6	mm Hg
Flow	0.437	ccm	0.438	ccm
Lamp Voltage	896	v	896	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	-0.17	N/A
4995	39.93	81.84	82.37	0.9936
4995	19.95	41.05	40.17	1.0221
6995	9.95	14.66	13.49	1.0864
4995	0.00	0.00	-0.17	As Found Zero
4995	39.93	81.84	81.61	As Found Span
Average Correction Factor				1.0340

Calculated value of As Found Response: 81.9 ppb      Percent Change of As Found: 0.0%

	before calibration		after calibration	
Auto zero	0.03	ppb	0.03	ppb
Auto span	33.74	ppb	34.12	ppb

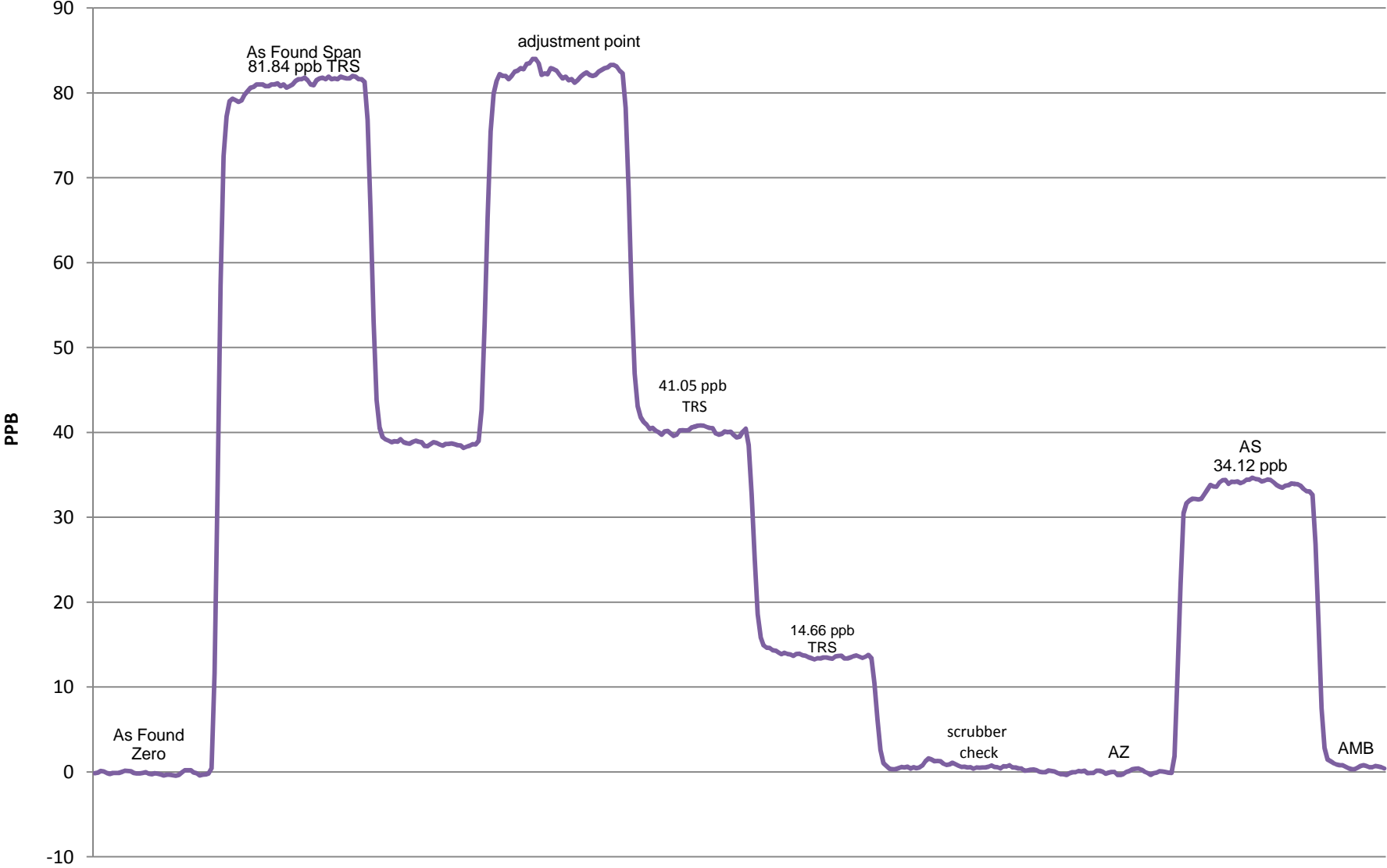
Notes: Span adjustment made  
Had to come back to the top point from the 2nd dilution point for adjustment

Calibration Performed By: Dmytro Dolotii





# TRS Calibration



August 5, 2015

# Calibration Report



Parameter SO<sub>2</sub>  
 Air Monitoring Network PAZA

## Station Information

Calibration Date	August 7 2015	Previous Calibration	July 7 2015
Station Number	2	Station Location	Evergreen Park
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
		<input type="checkbox"/> Other:	
Start Time (MST)	10:45	End Time (MST)	13:35:00 PM
Barometric Pressure	0.920 ATM	Station Temperature	22.0 Deg C
Calibrator	Envionics	Serial Number	3016
Cal Gas Concentration	49.8 ppm	Cal Gas Expiry Date	25/02/2025
Correction factor	0.031061	Cal Gas Cylinder #	LL105159
DACS make	CR3000	DACS serial No.	5236
DACS voltage range	0 - 5 volt	DACS channel #	6
	<u>Before</u>		<u>After</u>
Calculated slope	0.981086	Calculated slope	0.991882
Calculated intercept	1.410788	Calculated intercept	1.699403
Analyzer make	Teco 43i	Analyzer serial #	701120008

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	11.5		11.3	
coefficient	1.217		1.195	
Lamp Voltage	825	volts	826	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	666.5	mm Hg	669.2	mm Hg
Sample Flow	0.449	ccm	0.452	ccm
Lamp Intensity	89	%	89	%

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.0	0.00	0.2	N/A
4995	39.93	394.9	397.4	0.9938
4995	19.97	198.3	197.2	1.0055
4995	9.95	99.0	96.3	1.0282
4995	0.0	0.0	0.2	As Found Zero
4995	39.93	394.9	403.1	As Found Span
Average Correction Factor				1.0092

Calculated value of As Found Response: 396.765 ppm      Percent Change of As Found: -0.5%

	before calibration		after calibration	
Auto zero	0.2	ppm	0.1	ppm
Auto span	255.0	ppm	253.3	ppm

Notes: Span adjustment made

Calibration Performed By: Dmytro Dolotii

# Calibration Summary

Parameter SO2  
 Air Monitoring Network PAZA

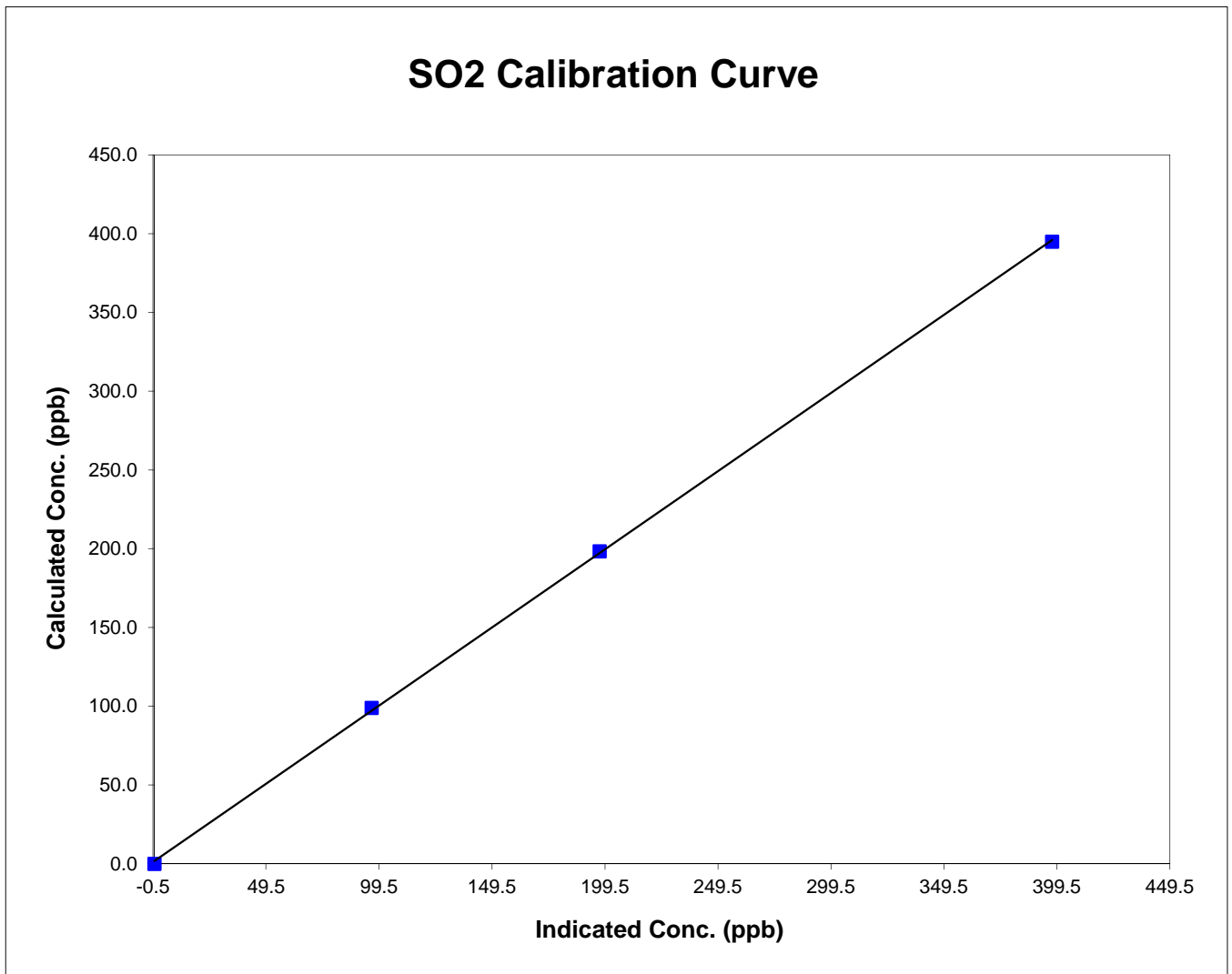


## Station Information

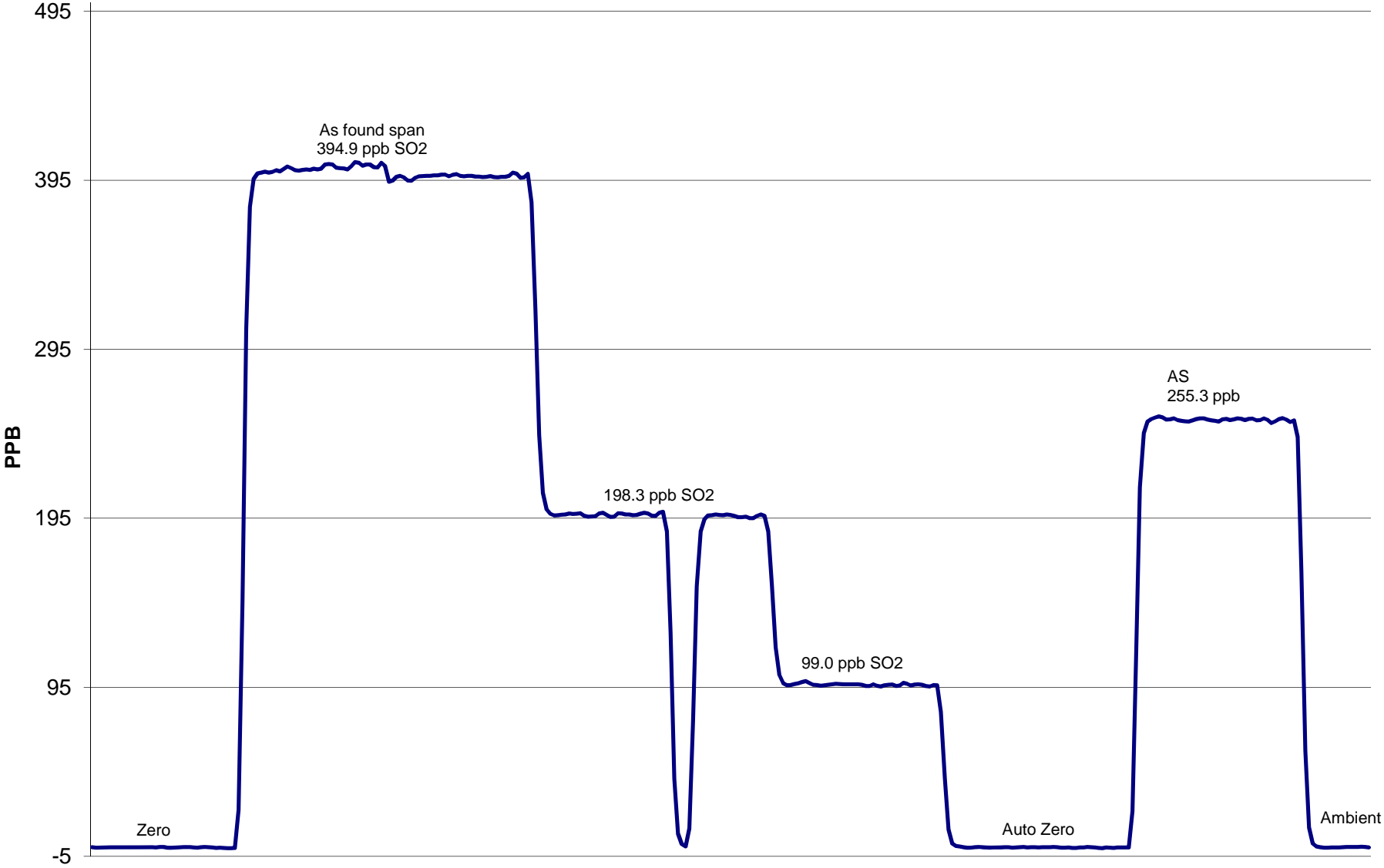
Calibration Date	August 7 2015	Previous Calibration	July 7 2015
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	10:45	End Time (MST)	13:35:00 PM
Analyzer make/model	Teco 43i	Analyzer serial #	701120008

## Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A	Correlation Coefficient	0.999900
394.9	397.4	0.9938		
198.3	197.2	1.0055	Slope	0.991882
99.0	96.3	1.0282		
			Intercept	1.699403



# SO2 Calibration

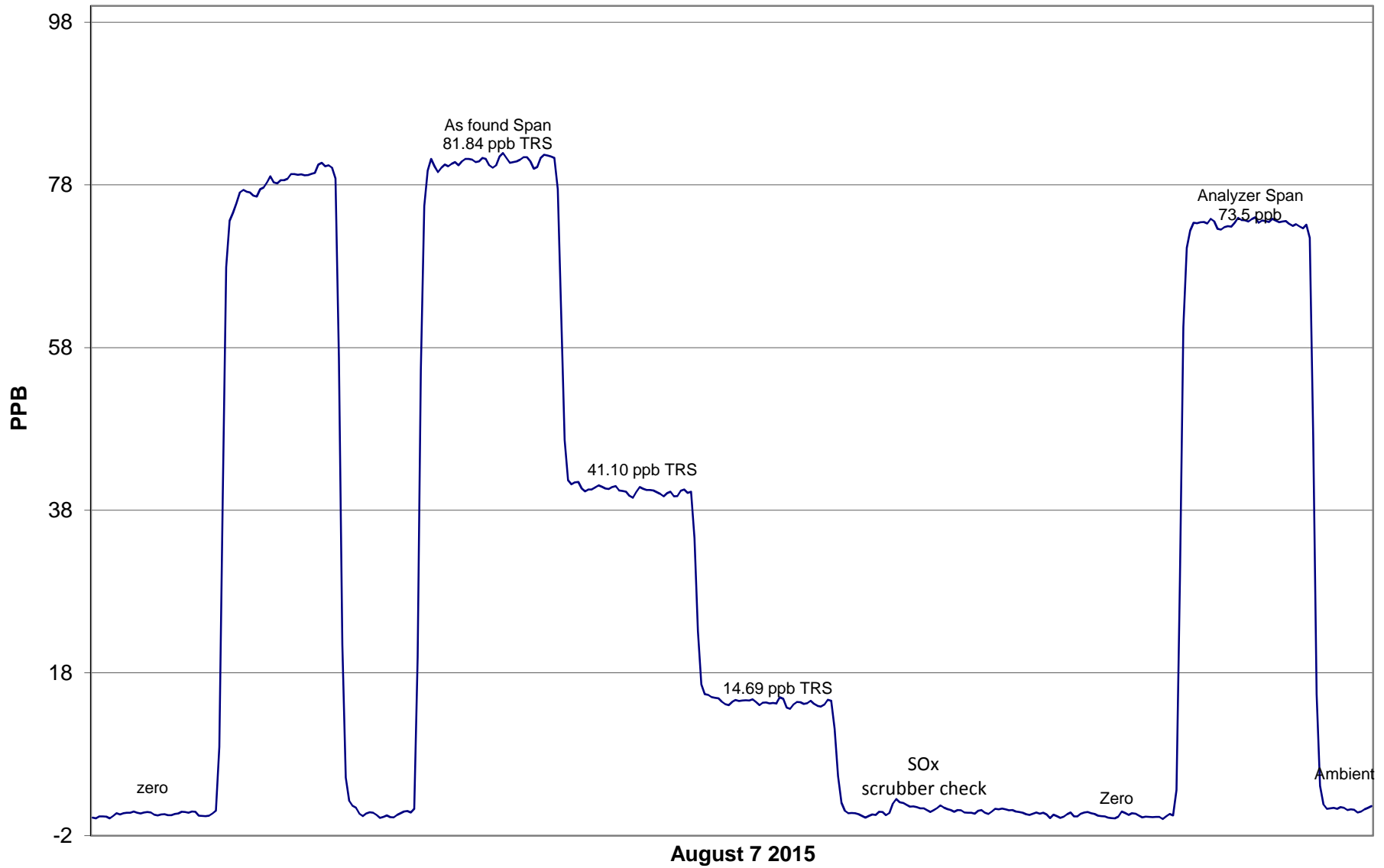


August 7 2015





# TRS Calibration



# Calibration Report



Parameter SO<sub>2</sub>

Air Monitoring Network PAZA

## Station Information

Calibration Date	August 10, 2015	Previous Calibration	July 6, 2015
Station Number	3	Station Location	Smokey Heights
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
		<input type="checkbox"/> Other:	
Start Time (MST)	10:40	End Time (MST)	13:55:00 PM
Barometric Pressure	0.927 ATM	Station Temperature	20.5 Deg C
Calibrator	EnviroNics	Serial Number	3016
Cal Gas Concentration	49.8 ppm	Cal Gas Cert Date	20/01/2016
Correction factor	0.031458	Cal Gas Cylinder #	LL1105159
DACS make	CR3000	DACS serial No.	5238
DACS voltage range	0 - 5 volt	DACS channel #	6
	<u>Before</u>		<u>After</u>
Calculated slope	0.993610	Calculated slope	0.994143
Calculated intercept	1.955296	Calculated intercept	2.493260
Analyzer make	Teco 43i	Analyzer serial #	701120009

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	11.7		11.7	
coefficient	0.921		0.921	
Lamp Voltage	930	volts	932	volts
Chamber Temp	45.3	Deg C	45	Deg C
Perm Gas Temp	45.01	Deg C	45	Deg C
Pressure	668.7	mm Hg	668.4	mm Hg
Sample Flow	0.447	lpm	0.449	lpm
Lamp Intensity	88	%	88	%

## Calibration Data

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.0	0.00	0.6	N/A
4995	39.93	394.94	396.3	0.9966
4995	19.97	198.31	195.2	1.0159
4995	9.97	99.20	94.4	1.0507
4995	0.0	0.00	0.6	As Found Zero
4995	39.93	394.94	396.3	As Found Span
Average Correction Factor				1.0210

Calculated value of As Found Response: 395.165 ppm      Percent Change of As Found: -0.1%

	before calibration		after calibration	
Auto zero	0.7	ppb	0.6	ppb
Auto span	248.1	ppb	248.6	ppb

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii



# Calibration Summary

Parameter SO2  
 Air Monitoring Network PAZA

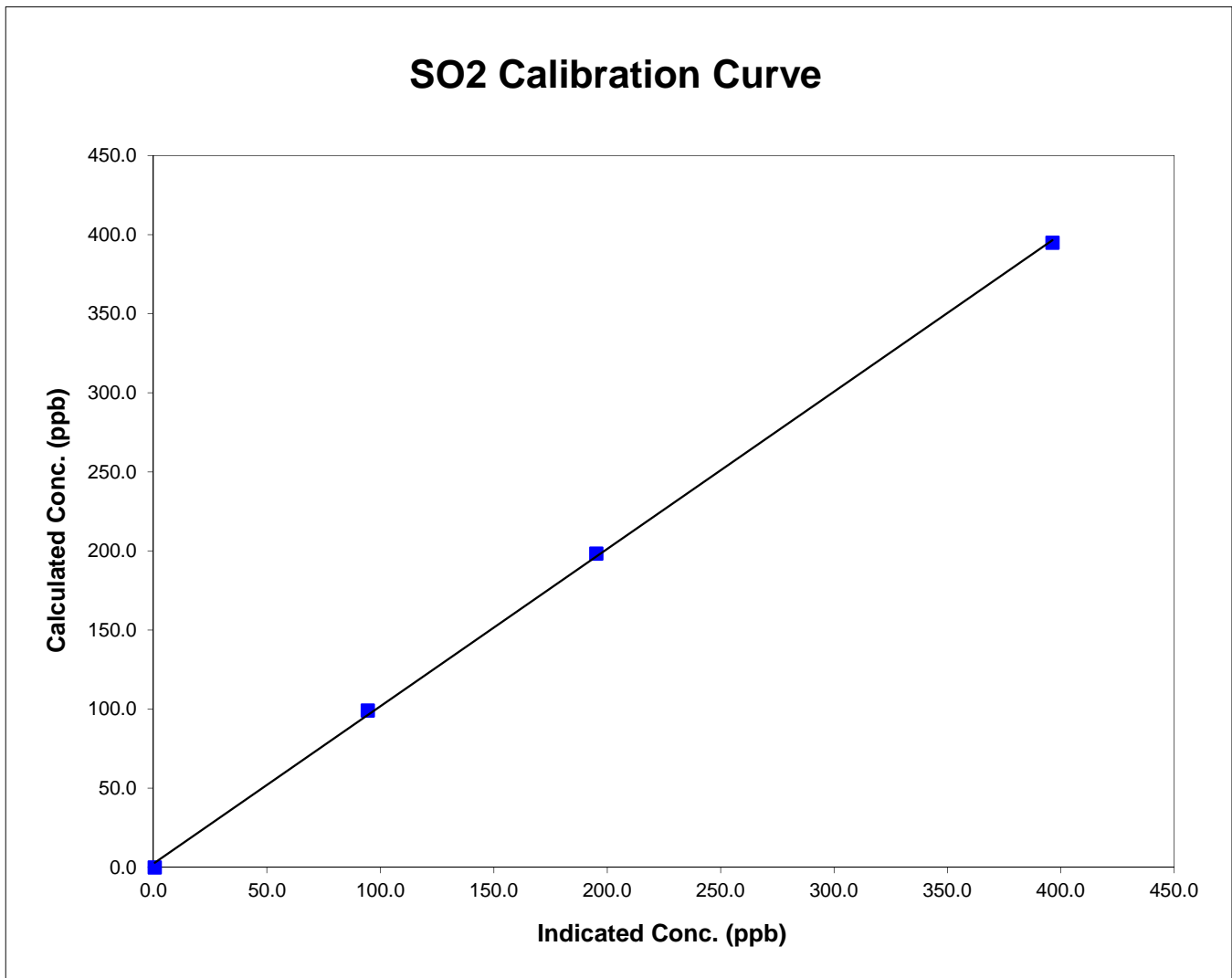


### Station Information

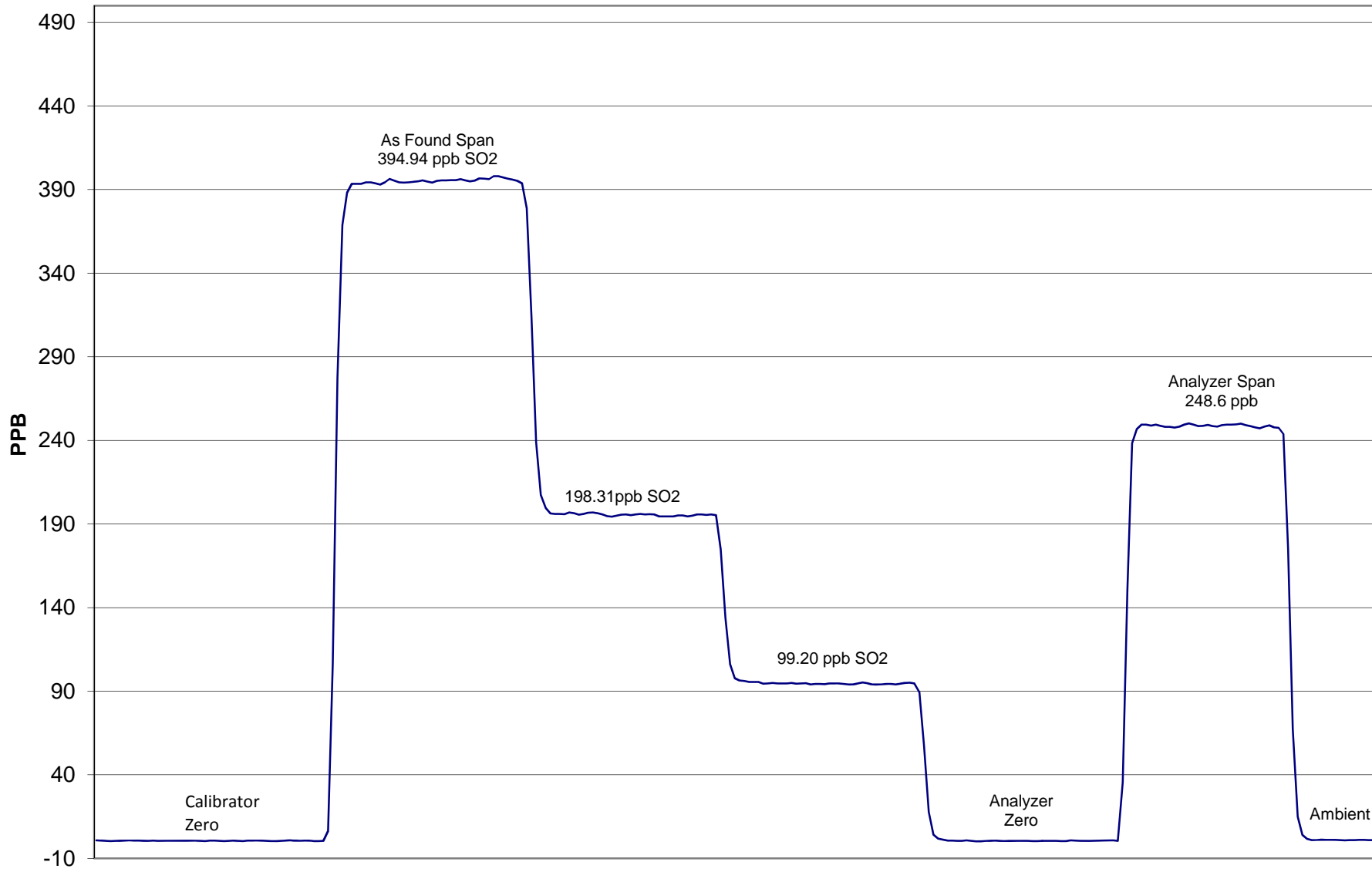
Calibration Date	August 10, 2015	Previous Calibration	July 6, 2015
Station Number	3	Station Location	Smokey Heights
Start Time (MST)	10:40	End Time (MST)	13:55:00 PM
Analyzer make/model	Teco 43i	Analyzer serial #	701120009

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.6	N/A	Correlation Coefficient	0.999732
394.9	396.3	0.9966		
198.3	195.2	1.0159	Slope	0.994143
99.2	94.4	1.0507		
			Intercept	2.493260



# Smokey Heights SO<sub>2</sub> Calibration

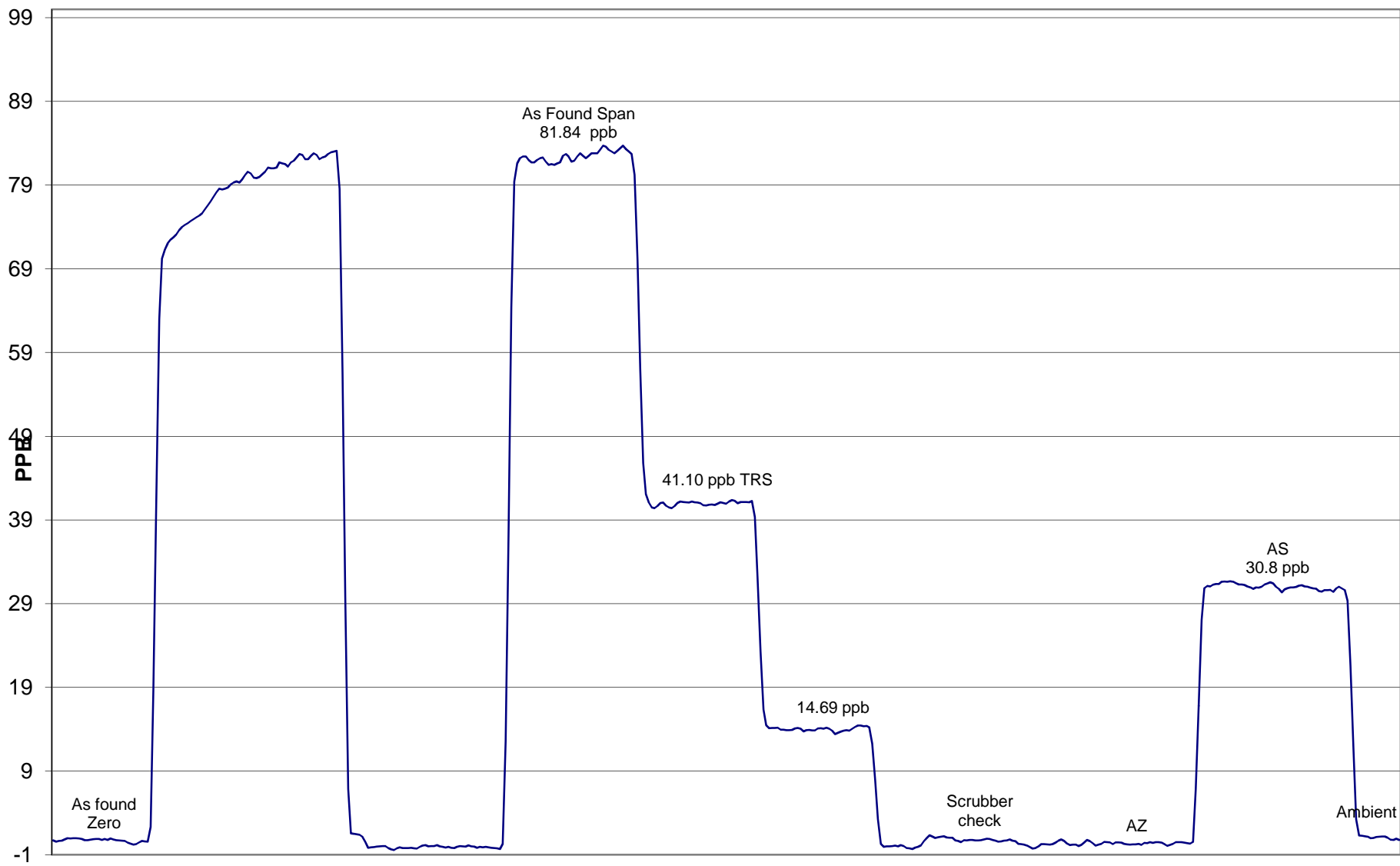


August 10, 2015





# Smokey Heights TRS Calibration



August 10, 2015

# Calibration Report

Parameter SO2  
Air Monitoring Network \_\_\_\_\_



PAZA

## Station Information

Calibration Date	August 6, 2015	Previous Calibration	July 9, 2015
Station Number	4	Station Location	Beaverlodge
Reason:	<b>Routine</b>	Install	Removal
		Other:	
Start Time (MST)	12:45	End Time (MST)	14:50:00 PM
Barometric Pressure	0.928 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
	<u>Before</u>		<u>After</u>
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.992313	Calculated slope	0.989043
Calculated intercept	0.195281	Calculated intercept	0.200775
Analyzer make	TEI Model 43i-TLE	Analyzer serial #	713021137

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	2.63		2.63	
Coefficient	1.005		1.005	
PMT	-768.5	V	-768.5	V
UV Lamp Voltage	1083	V	1083	V
Chamber Temp	45.5	Deg C	45.04	Deg C
Pressure	660.4	mm Hg	661.6	mm Hg
Sample Flow	0.46	LPM	0.462	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	86.5	0.9899
4994	19.96	43.0	43.1	0.9972
4994	9.96	21.5	21.3	1.0086
4994	0.00	0.0	0.0	As found zero
4994	39.92	85.6	86.5	As found span
Average Correction Factor				0.9986

Calculated value of As Found Response: 86.014 ppm      Percent Change of As Found: -0.4%

	before calibration		after calibration	
Auto zero	0.3	ppb	0.3	ppb
Auto span	59.9	ppb	59.2	ppb

Notes: No adjustment made

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Calibration Performed By: Dmytro Dolotii

# Calibration Summary

Parameter SO2  
 Air Monitoring Network PAZA

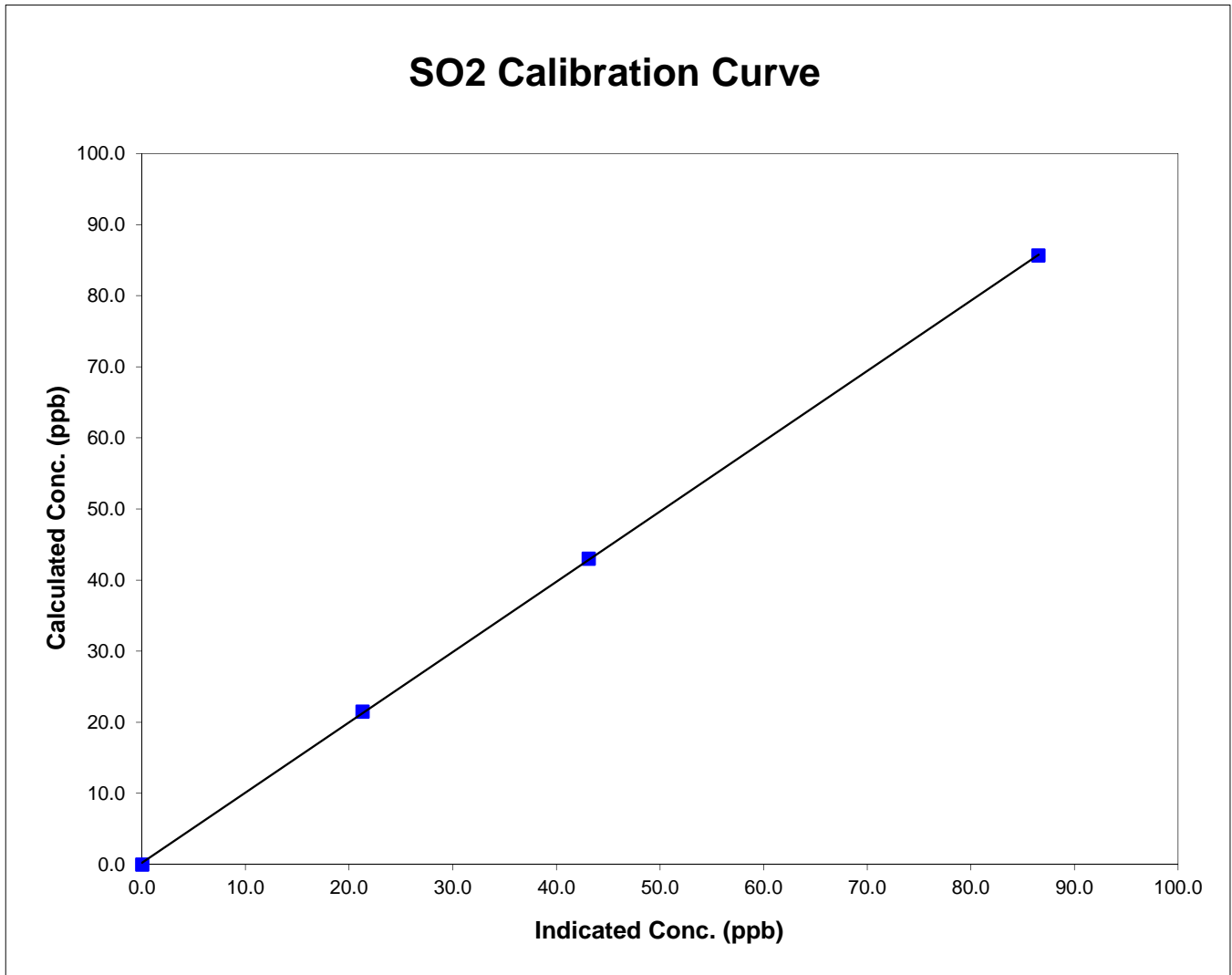


## Station Information

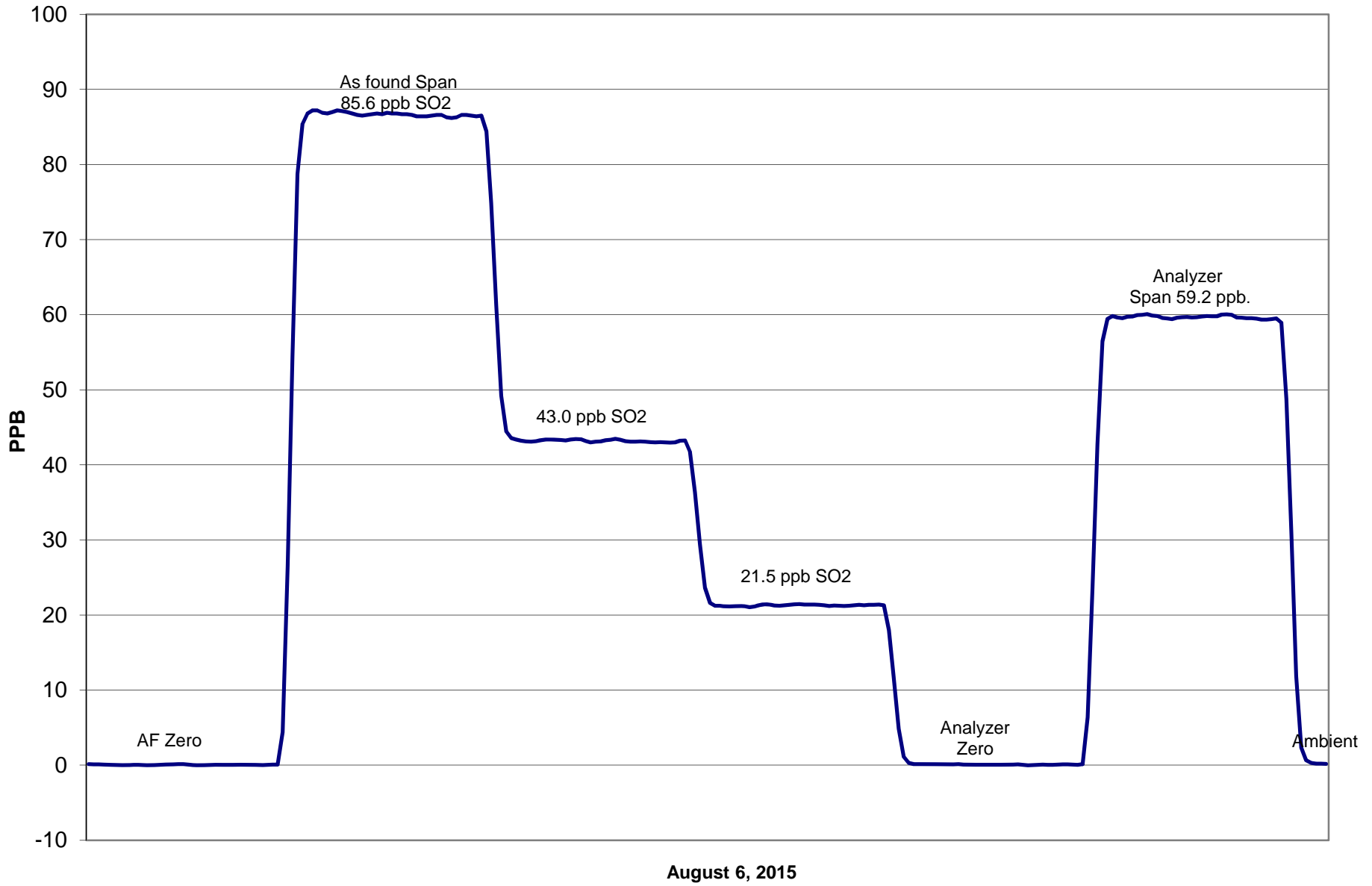
Calibration Date	August 6, 2015	Previous Calibration	July 9, 2015
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	12:45	End Time (MST)	14:50:00 PM
Analyzer make/model	TEI Model 43i-TLE	Analyzer serial #	713021137

## Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A	Correlation Coefficient	0.999965
85.6	86.5	0.9899		
43.0	43.1	0.9972	Slope	0.989043
21.5	21.3	1.0086		
			Intercept	0.200775



# SO2 Calibration







# Calibration Report



Parameter **NOX-NO-NO2**  
 Air Monitoring Network **PAZA**

## Station Information

Calibration Date: Station Location: Beaverlodge

## Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor	
zero	4995	0.00	0.0	0.0	0.0	0.9	0.1	0.7	N/A	N/A	
1	4995	39.92	405.9	403.6	2.4	405.4	402.3	2.3	1.0014	1.0032	
2	4995	19.96	203.8	202.6	1.2	202.1	199.8	1.3	1.0086	1.0138	
3	4995	9.93	101.6	101.0	0.6	98.7	97.7	0.8	1.0289	1.0332	
AFZ	4995	0.00	0.0	0.0	0.0	0.9	0.1	0.7	0.0000	0.0000	
AFS	4995	39.92	405.9	403.6	0.8	405.4	402.3	2.3	1.0014	1.0032	
									Average Correction Factor	1.0130	1.0167

As Found Concentrations: NO<sub>x</sub>= 406.2 NO= 402.2 As Found Percent Change NO<sub>x</sub>= 0.1% 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	0.1	0.1	0.0	0.9	0.1	0.7	N/A	N/A	N/A	N/A	
NO point	400.8	400.8	0.0	402.9	400.8	1.3	0.9949	1.0000	N/A	N/A	
300	400.8	94.6	306.2	403.4	94.6	308.2	0.9937	1.0000	0.9937	100.6%	
200	400.8	192.9	207.9	403.6	192.9	209.8	0.9933	1.0000	0.9911	100.9%	
100	400.8	290.5	110.3	402.6	290.5	111.4	0.9955	1.0000	0.9897	101.0%	
							Average Correction Factor	0.9942	1.0000	0.9915	100.9%

## AIC Data

Parameter	Previous calibration				Current calibration			
	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	-0.4	-0.3	-0.2	ppb	0.4	0.2	0.1	ppb
Auto span	155.1	154.1	0.7	ppb	273.8	269.9	3.0	ppb

Calibration Performed By: Dmytro Dolotii

# Calibration Summary



Parameter NO<sub>2</sub>  
 Air Monitoring Network PAZA

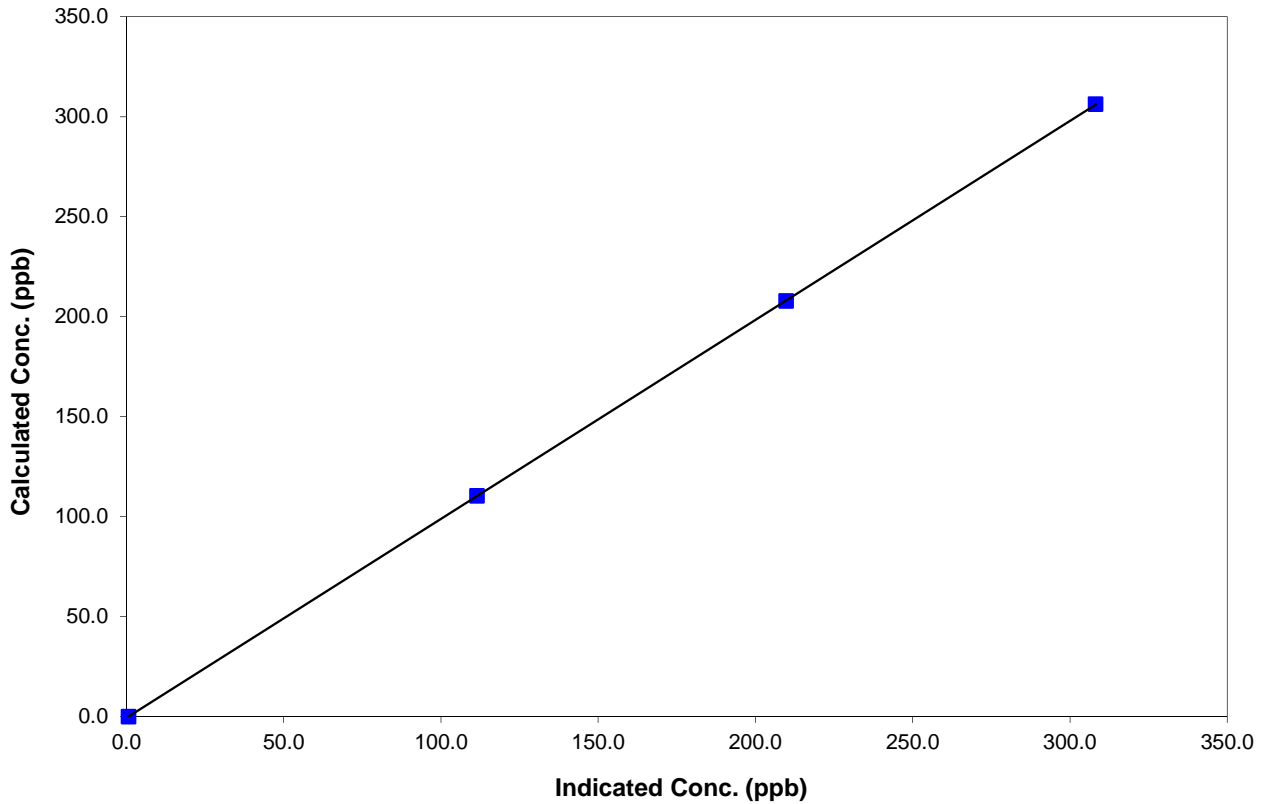
### Station Information

Calibration Date	August 6 2015	Previous Calibration	July 8 2015
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	8:36	End Time (MST)	12:40
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	0.7	N/A	Correlation Coefficient	0.999999
306.2	308.2	0.9937		
207.9	209.8	0.9911	Slope	0.995528
110.3	111.4	0.9897		
			Intercept	-0.699384

**NO<sub>2</sub> Calibration Curve**



# Calibration Summary



Parameter NO<sub>x</sub>

Air Monitoring Network PAZA

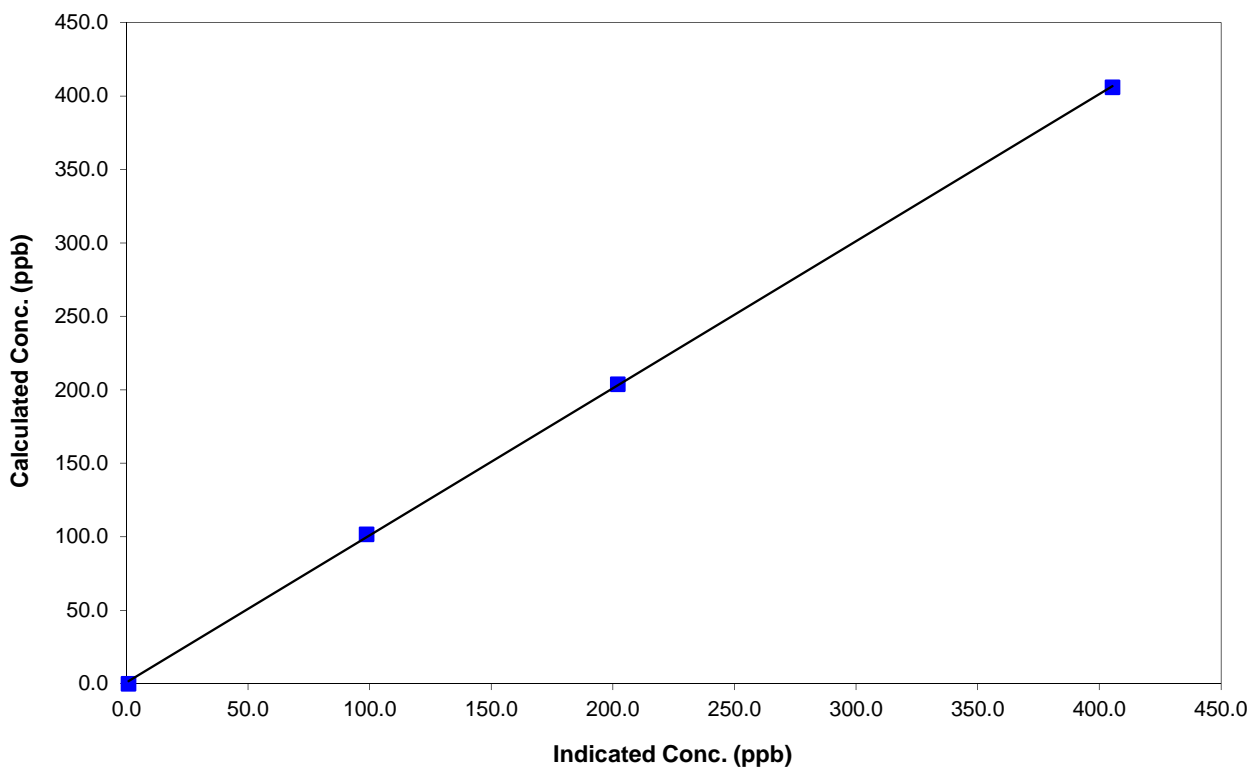
## Station Information

Calibration Date	August 6 2015	Previous Calibration	July 8 2015
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	8:36	End Time (MST)	12:40
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	0.9	N/A	Correlation Coefficient	0.999917
405.9	405.4	1.0014		
203.8	202.1	1.0086		
101.6	98.7	1.0289	Slope	1.001164
			Intercept	0.871716

## NO<sub>x</sub> Calibration Curve



# Calibration Summary



Parameter NO  
 Air Monitoring Network PAZA

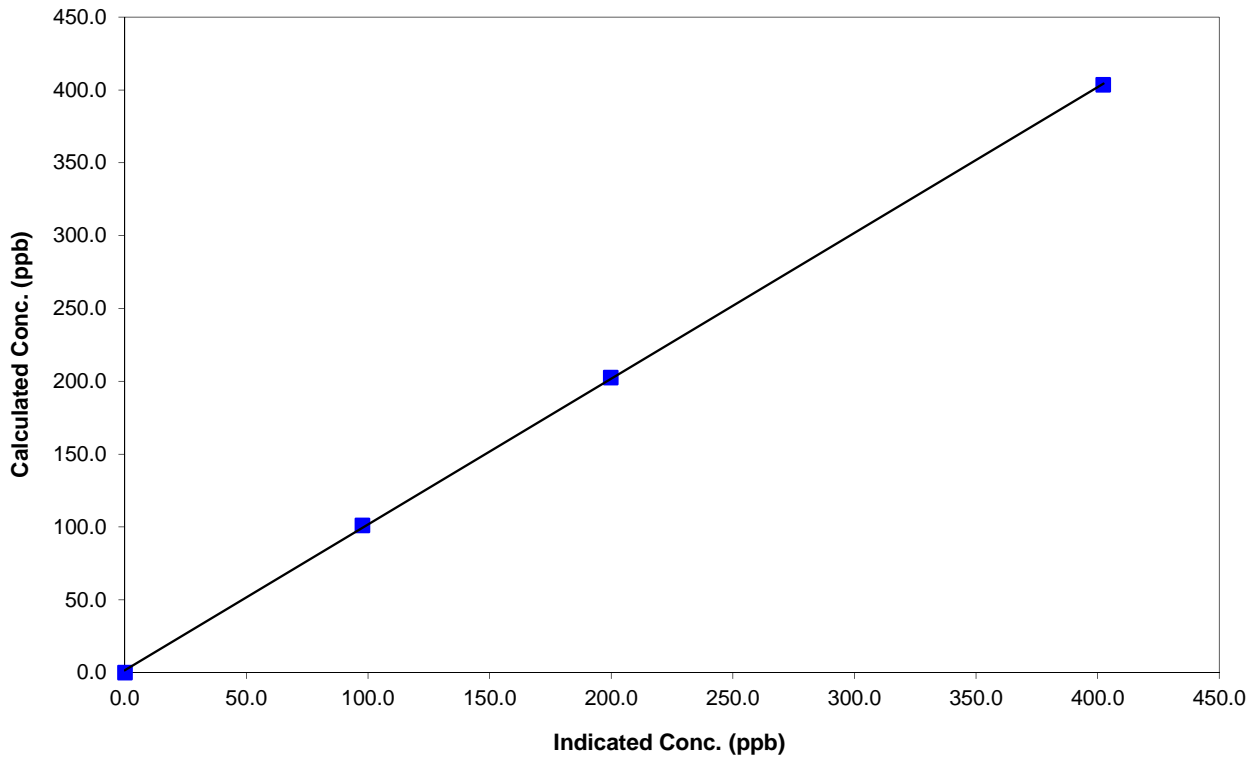
## Station Information

Calibration Date	August 6 2015	Previous Calibration	July 8 2015
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	8:36	End Time (MST)	12:40
Analyzer make	TEI 42i	Analyzer serial #	906535068

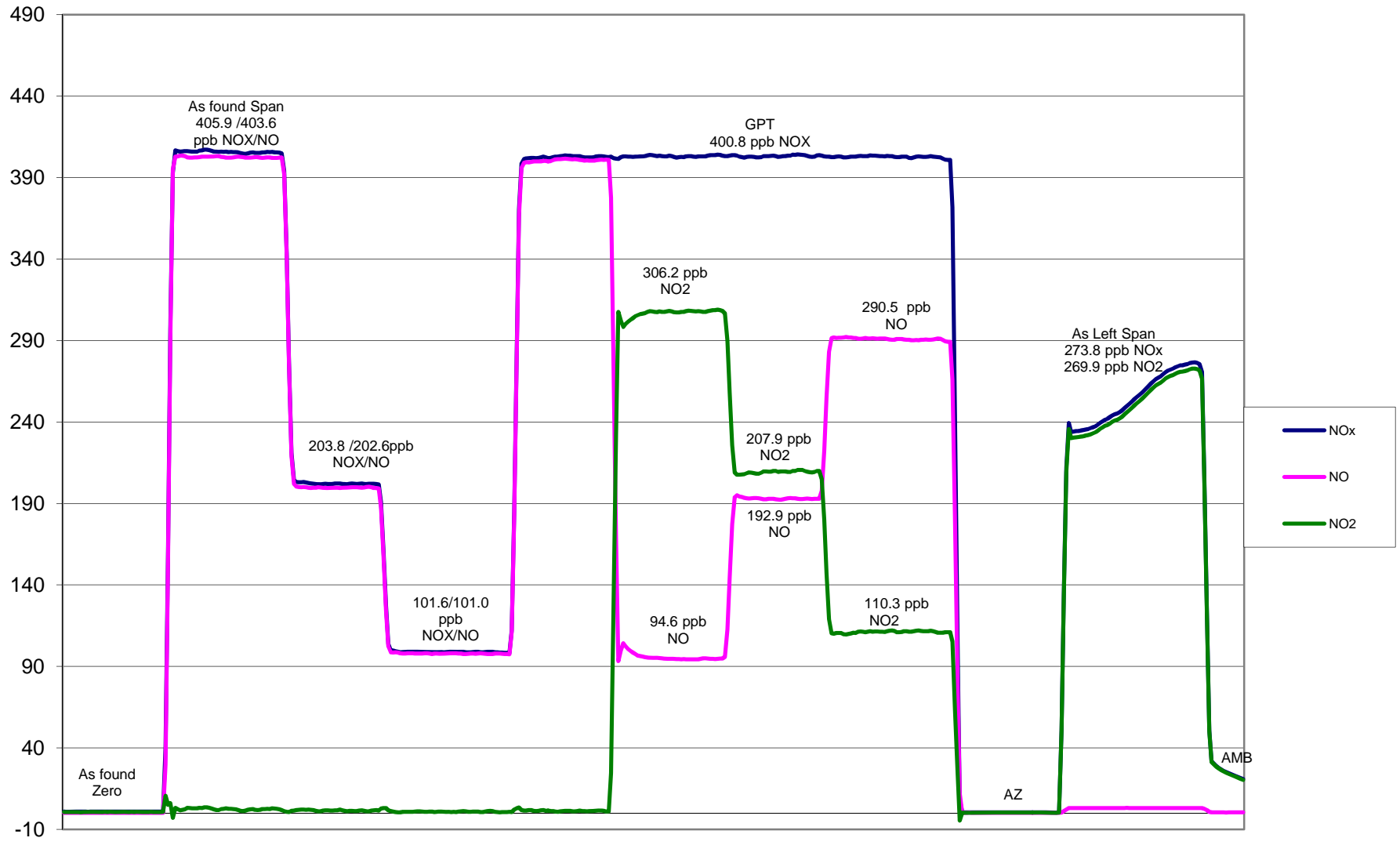
## Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A	Correlation Coefficient	0.999927
403.6	402.3	1.0032		
202.6	199.8	1.0138	Slope	1.001356
101.0	97.7	1.0332		

## NO Calibration Curve



# NO<sub>x</sub> Calibration



August 6 2015

# Calibration Report



AIR QUALITY MONITORING

Parameter 03

Air Monitoring Network PAZA

## Station Information

Calibration Date	August 6, 2014	Previous Calibration	July 8, 2014
Station Number	4	Station Location	Beaverlodge
Reason:	<b>Routine</b>	Install	Removal
		Other:	
Start Time (MST)	11:20	End Time (MST)	13:50:00 PM
Barometric Pressure	0.928 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	1.003897	Calculated slope	0.995362
Calculated intercept	0.162457	Calculated intercept	0.514075
Analyzer make	Teco 49i	Analyzer serial #	1136451236,AMU 1879

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
offset	-0.20	ppb	-0.20	ppb
slope	1.004		1.004	
Lamp temp	53.8	mV	53.8	mV
Lamp Intensity A/B	57778/62503	mV	57759/62469	mV
Pressure	677.5	mm Hg	679.9	mm Hg
Flow A	0.781	LPM	0.784	LPM
Flow B	0.742	LPM	0.743	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	0.1	N/A
5035	0.30	306.2	307.6	0.9956
5035	0.20	207.9	208.2	0.9986
5035	0.10	110.3	109.4	1.0087
5035	0.00	0.0	0.1	As found zero
5035	0.30	306.2	307.6	As found span
Average Correction Factor				1.0009

Calculated value of As Found Response: 308.8 ppm      Percent Change of As Found: 0.8%

	before calibration		after calibration	
Auto zero	0.1	ppb	0.1	ppb
Auto span	266.7	ppb	264.5	ppb

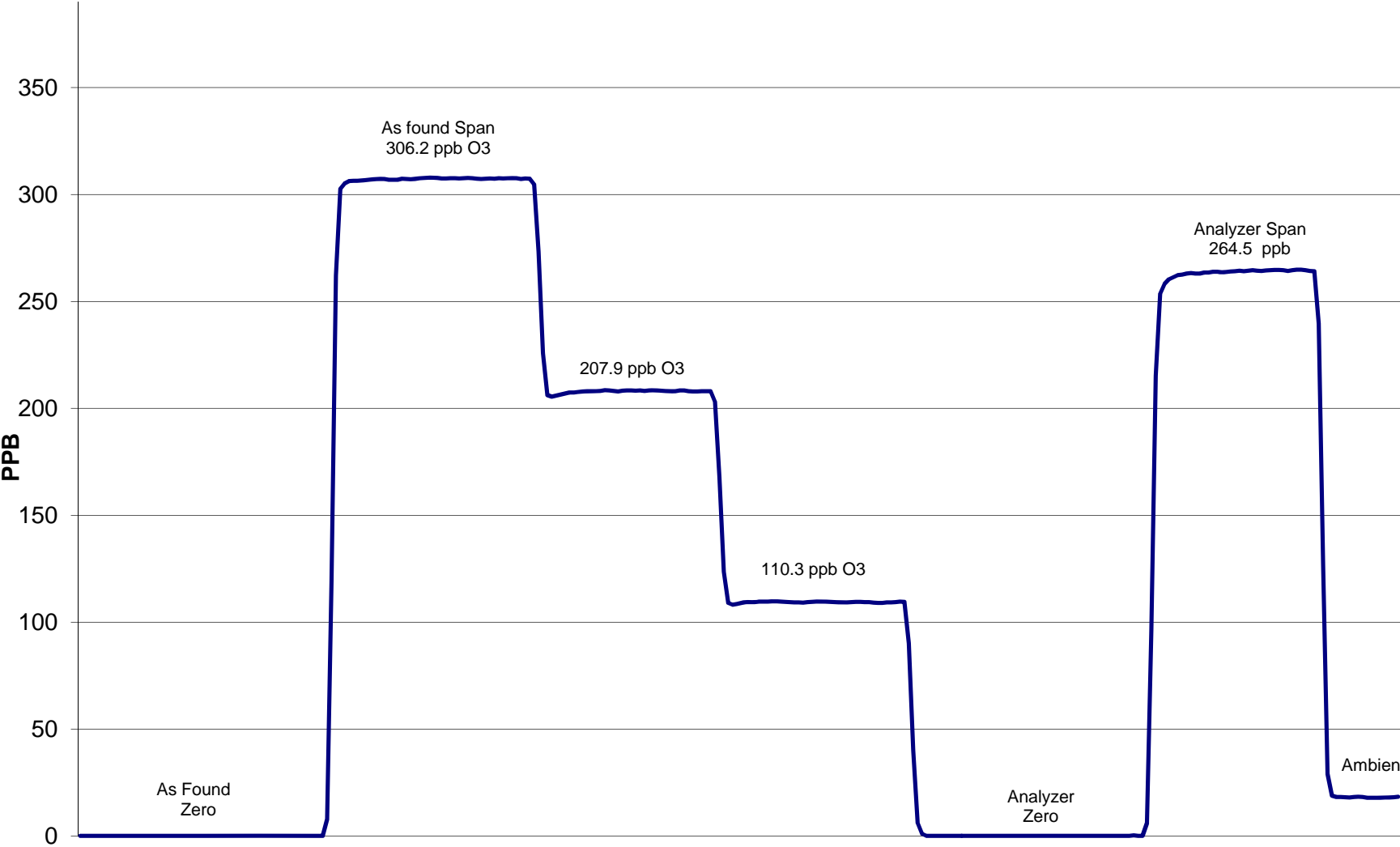
Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii





# O3 Calibration



August 6, 2014

# SHARP 5030 PM2.5 Calibration



STATION: Beaverlodge  
 LOCATION: Beaverlodge agriculture centre  
 START TIME (MST): 9:00

OPERATOR: Grover Christiansen  
 DATE: August 12 2015  
 END TIME (MST): 15:05:00 PM

MONITOR INFO / PARAMETER VALUES:

Make/Model	SHARP 5030	Audit Device Model	Delta cal
Configuration	PM 2.5	Audit Device S/N	AMU 1789
Serial Number	AMU 1969	Certification Date	01-Oct-15

AUDIT / CALIBRATION RESULTS:

	Ambient Temp. (°C)	Ambient Pres. (mbar)	Leak Check (L/min)	Flow Rate (lpm)	Time settings (hh:mm)
<i>As Found Data</i>					
Audit values (I)	22.2	905	16.67	16.67	11:47
MEASURED ( AF )	22.2	906	17.31	16.73	11:48
AF Difference (AF-I)	0.0	1	-0.64	0.06	0:01
<i>Adjusted Data</i>					
MEASURED ( M )	22.1	906	16.70	16.72	11:48
Adj Difference (M-I)	-0.1	1	0.03	0.05	0:01
<b>LIMITS</b>	<b>± 4.0 °C</b>	<b>6.7 mbar</b>	<b>1.0 L/min</b>	<b>± 1.0 L/min</b>	<b>±2 min</b>

Sample Head Inspect/Cleaning: Cleaned sample head

Status of sampling tape: 90% full

Nozzle Inspection / cleanliness: \_\_\_\_\_

COMMENTS: \_\_\_\_\_

Foil calibration Old value 6997 New value 6995

Nephelometer zero. Analog as found = 0.9 adsuted conc = -0.0

# Calibration Report



Parameter SO2

Air Monitoring Network PAZA

## Station Information

Calibration Date	August 11 2015	Previous Calibration	July 22 2015
Station Number	6	Station Location	Valleyview
Reason:	<b>Routine</b>	Install	Removal
		Other:	
Start Time (MST)	11:25	End Time (MST)	14:00:00 PM
Barometric Pressure	0.929 atm	Station Temperature	22.5 Deg C
Calibrator	Envionics	Serial Number	3016
Cal Gas Concentration	49.8 ppm	Cal Gas Exp Date	March 10, 2017
Gas Cylinder Num.	LL119493		
DACS make	CR3000	DACS serial No.	5409
DACS voltage range	0 - 5 volt	DACS channel #	4
	<u>Before</u>		<u>After</u>
DACS Scale High	500	DACS slope	500
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.995832	Calculated slope	0.990146
Calculated intercept	2.590787	Calculated intercept	2.045951
Analyzer make	TEI 43C	Analyzer serial #	609716239

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Background	15.2		15.5	
Coefficient	0.993		1.012	
UV Lamp Voltage	726	LPM	728	LPM
Chamber Temp	43.1	V	43	V
Perm Gas Temp	45	C	45	C
Pressure	672	in Hg	673.2	in Hg
Sample Flow	0.486	LPM	0.487	LPM
Lamp Intensity	47792	Hz	47622	Hz

## Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.0	0.1	N/A
4995	39.93	394.9	398.1	0.9922
4995	19.97	198.3	196.6	1.0087
4995	9.95	99.0	96.1	1.0303
4995	0.00	0.0	0.1	As found zero
4995	39.93	394.9	389.5	As found span
Average Correction Factor				1.0104

Calculated value of As Found Response: 390.3 ppm      Percent Change of As Found: 1.2%

	before calibration		after calibration	
Auto zero	0.2	ppm	0.1	ppm
Auto span	278.0	ppm	276.3	ppm

Notes: Span adjustment made  
Vent filter need to be replaced on the back of the analyzer

Calibration Performed By: Dmytro Dolotii

# Calibration Summary



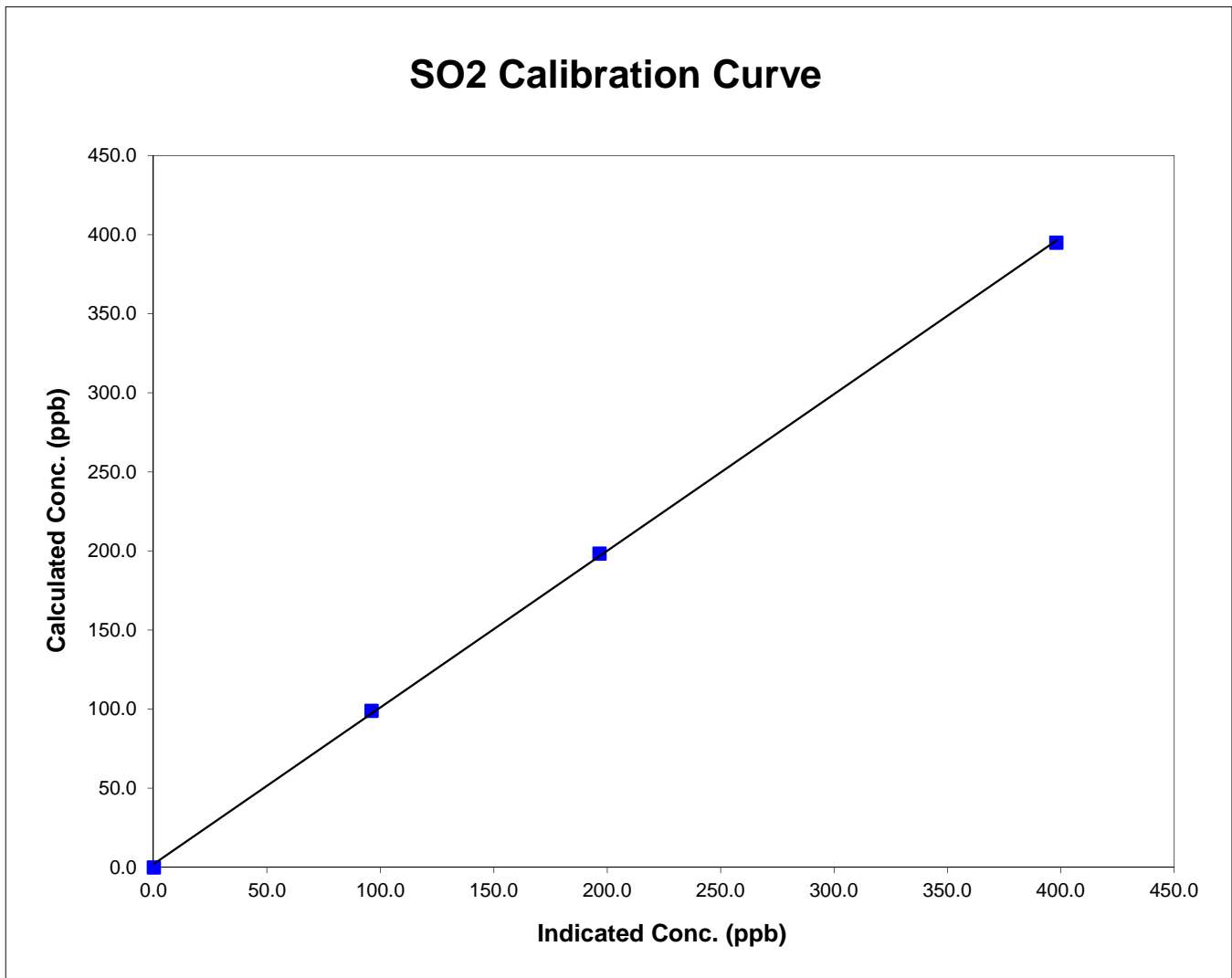
Parameter SO2  
 Air Monitoring Network PAZA

### Station Information

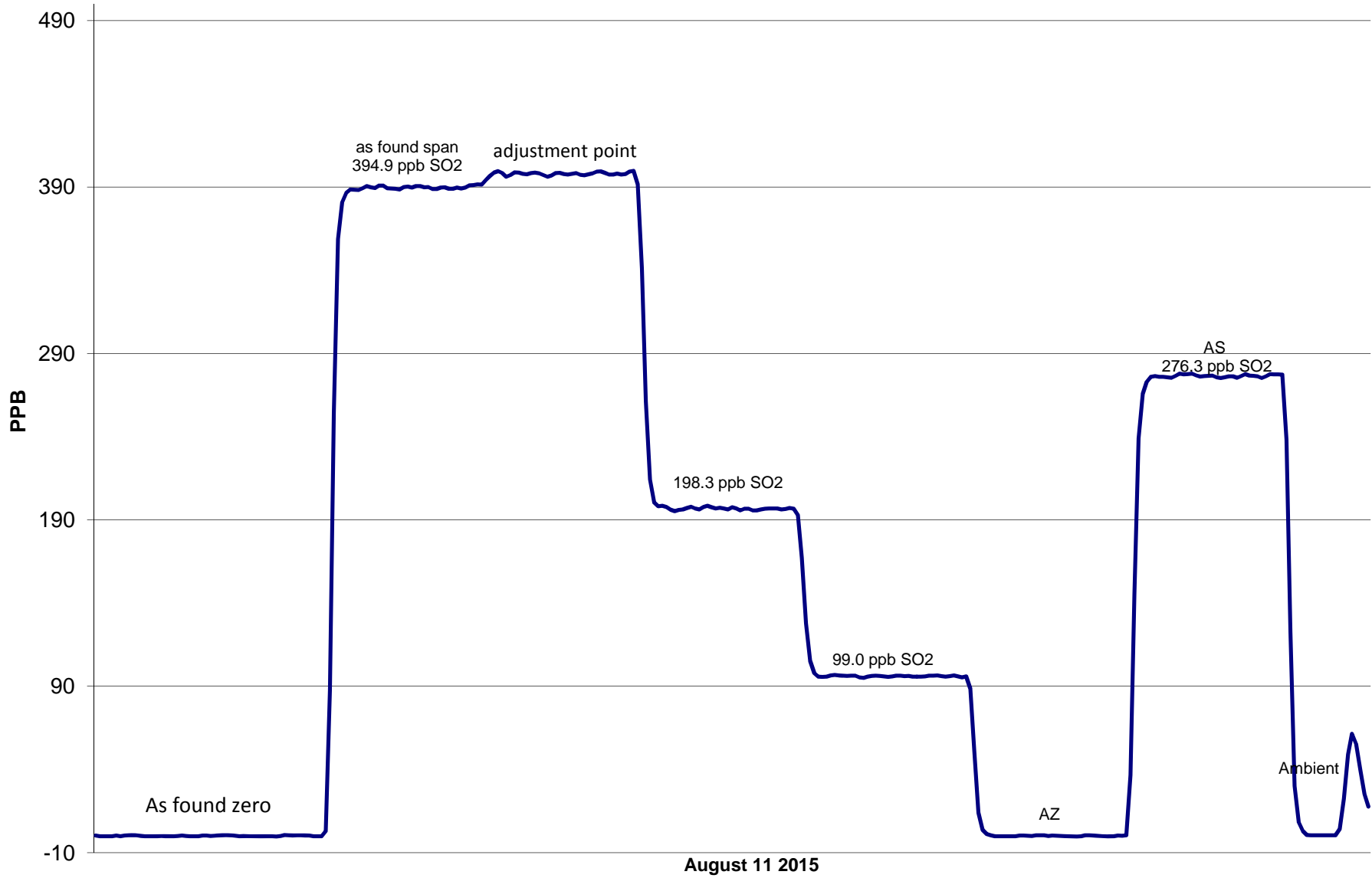
Calibration Date	August 11 2015	Previous Calibration	July 22 2015
Station Number	6	Station Location	Valleyview
Start Time (MST)	11:25	End Time (MST)	14:00:00 PM
Analyzer make/model	TEI 43C	Analyzer serial #	609716239

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A	Correlation Coefficient	0.999857
394.9	398.1	0.9922		
198.3	196.6	1.0087	Slope	0.990146
99.0	96.1	1.0303		
			Intercept	2.045951



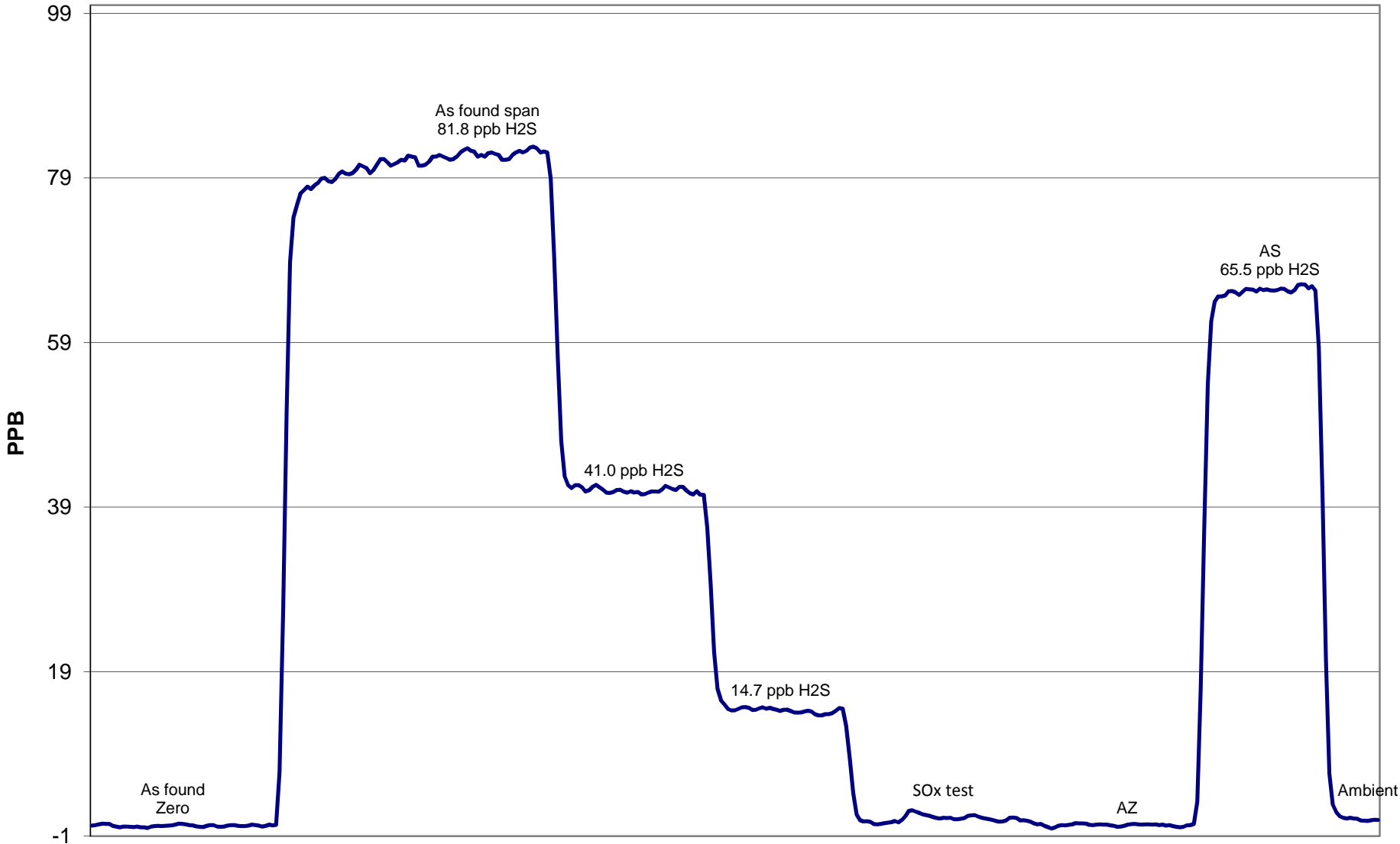
### SO2 Calibration







# H2S Calibration



August 11 2015



# Calibration Report



Parameter SO<sub>2</sub>

Air Monitoring Network PAZA

## Station Information

Calibration Date	August 13, 2015	Previous Calibration	July 10, 2015
Station Number	1	Station Location	Falher
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	12:00	End Time (MST)	14:05:00 PM
Barometric Pressure	0.921 mm	Station Temperature	21.5 Deg C
Calibrator	EnviroNics	Serial Number	3474
Cal Gas Concentration	49.8 ppm	Cal Gas Expiry Date	10/03/2017
Correction factor	0.031148	Cal Gas Cylinder #	LL119493
DACS make	CR1000	DACS serial No.	3980
DACS voltage range	0 - 5 volt	DACS channel #	6
	<u>Before</u>		<u>After</u>
Calculated slope	1.002059	Calculated slope	1.002904
Calculated intercept	2.059935	Calculated intercept	2.160736
Analyzer make	Teco 43i	Analyzer serial #	1207452008

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	6.4		6.4	
coefficient	0.887		0.887	
Lamp Voltage	832	volts	835	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	678.2	mm Hg	679.1	mm Hg
Sample Flow	0.406	ccm	0.405	ccm
Lamp Intensity	96	%	96	%

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.0	0.00	0.1	N/A
4995	39.93	394.9	392.8	1.0054
4995	19.96	198.2	194.1	1.0211
4995	9.97	99.2	94.7	1.0480
4995	0.0	0.0	0.1	As Found Zero
4995	39.93	394.9	392.8	As Found Span
Average Correction Factor				1.0248

Calculated value of As Found Response: 395.561 ppm      Percent Change of As Found: **-0.2%**

	before calibration		after calibration	
Auto zero	0.4	ppm	0.2	ppm
Auto span	344.9	ppm	340.5	ppm

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

# Calibration Summary



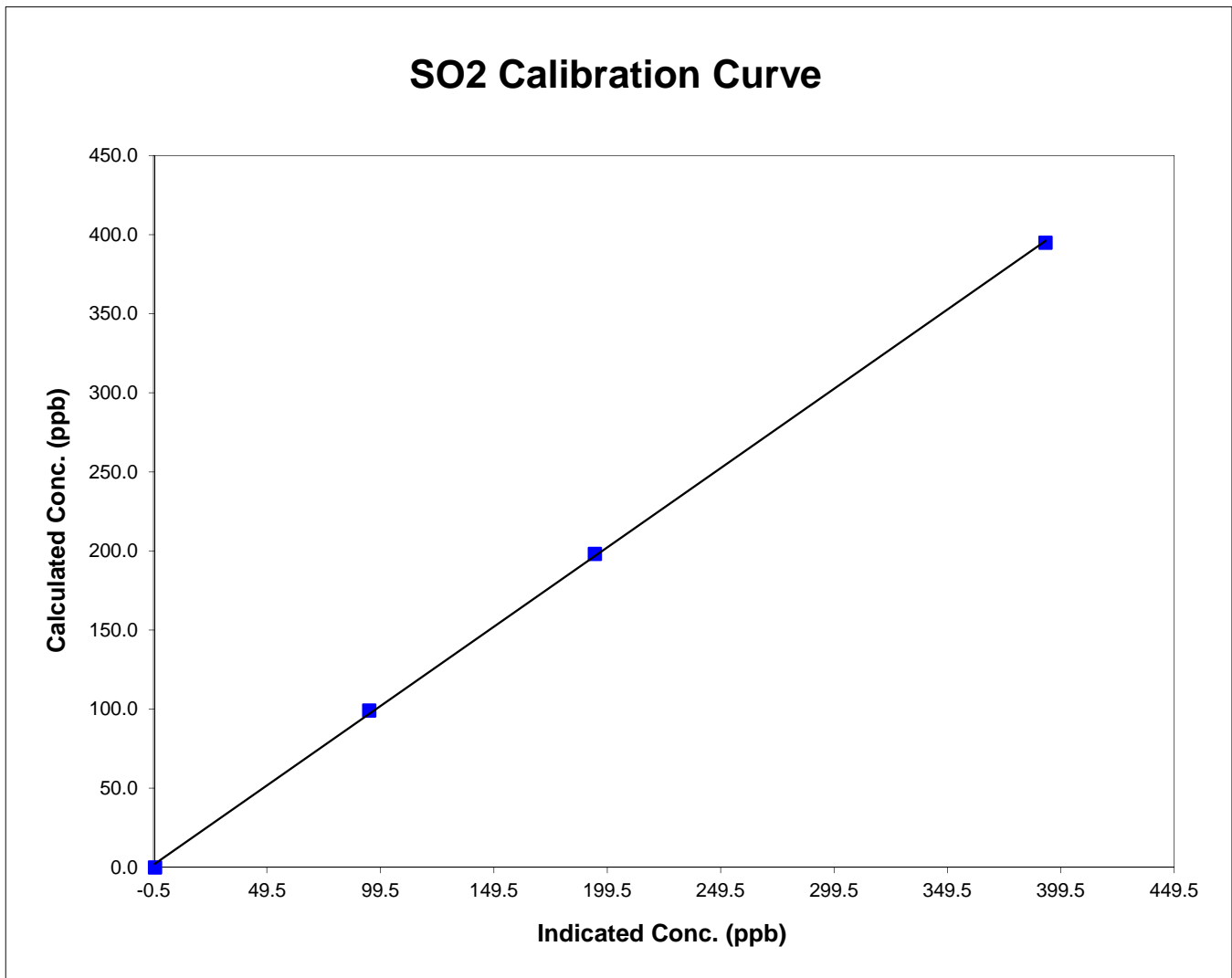
Parameter SO2  
 Air Monitoring Network PAZA

### Station Information

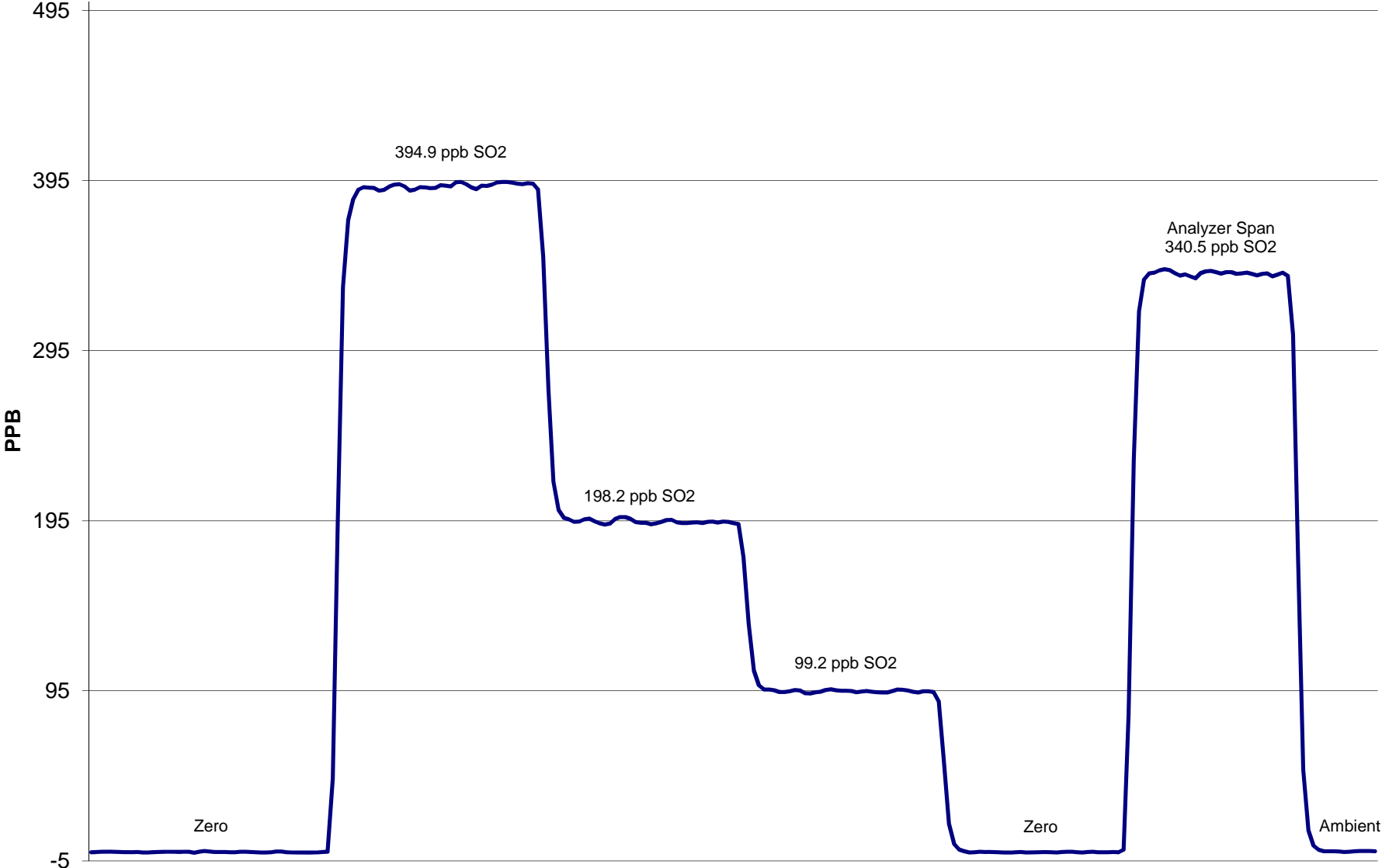
Calibration Date	August 13, 2015	Previous Calibration	July 10, 2015
Station Number	1	Station Location	Falher
Start Time (MST)	12:00	End Time (MST)	14:05:00 PM
Analyzer make/model	Teco 43i	Analyzer serial #	1207452008

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A	Correlation Coefficient	0.999848
394.9	392.8	1.0054		
198.2	194.1	1.0211		
99.2	94.7	1.0480	Slope	1.002904
			Intercept	2.160736



# SO2 Calibration

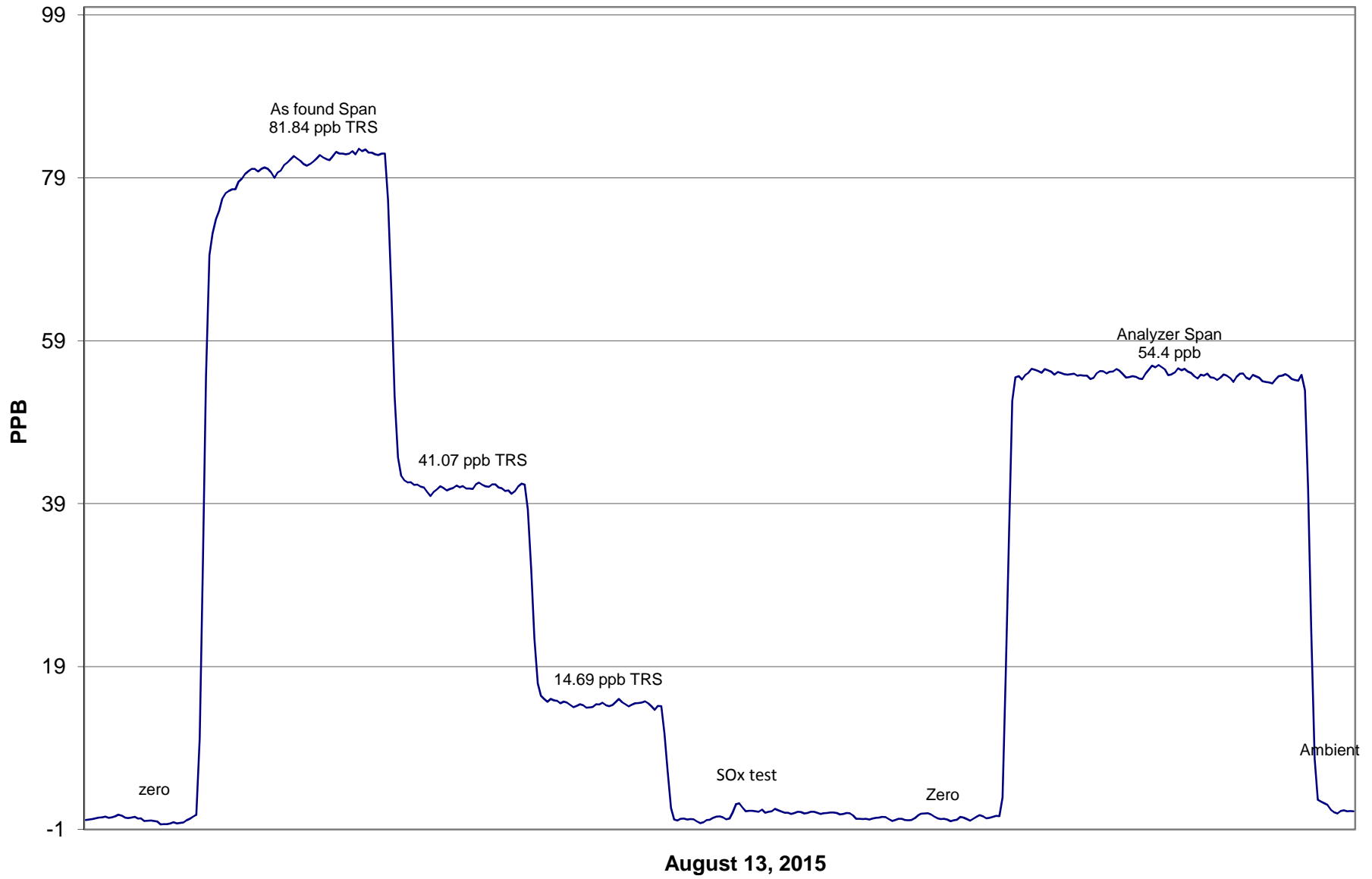


August 13, 2015





# H2S Calibration



# Calibration Report



AIR QUALITY MONITORING

Parameter SO2

Air Monitoring Network PAZA

### Station Information

Calibration Date	August 21, 2015	Previous Calibration	July 17, 2015
Station Number	10	Station Location	Clairmont
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
		<input type="checkbox"/> Other:	
Start Time (MST)	7:34	End Time (MST)	10:00
Barometric Pressure	0.925 Atm	Station Temperature	20.5 Deg C
Calibrator	EnviroNics 6100	Serial Number	3016
Cal Gas Concentration	49.8 ppm	Cal Gas Expiry Date	10/03/2017
Gas Cert Reference	LL119493		
DACS make	CR3000	DACS serial No.	5407
DACS voltage range	0 - 5 Volt	DACS channel #	2
	<u>Before</u>		<u>After</u>
DACS Scale High	500	DACS slope	500
DACS Scale Low	0	DACS intercept	0
Calculated slope	1.005081	Calculated slope	0.996117
Calculated intercept	2.402888	Calculated intercept	1.950524
Analyzer make	TEI 43C	Analyzer serial #	436610005

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Background	21.4		21.4	
Coefficient	1.018		1.018	
UV Lamp Voltage	878	V	877	V
Chamber Temp	44.5	C	44.5	C
Perm Gas Temp	45	C	45	C
Pressure	671.8	mm Hg	670.9	mm Hg
Sample Flow	0.466	LPM	0.465	LPM
Lamp Intesity	30544	Hz	30533	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	0.3	N/A
4995	39.93	394.9	395.7	0.9980
4995	19.97	198.3	195.6	1.0136
4995	9.97	99.2	95.7	1.0370
4995	0.00	0.0	0.3	As found zero
4995	39.93	394.9	395.7	As found span
Average Correction Factor				1.0162

Calculated value of As Found Response: 399.858 ppm      Percent Change of As Found: -1.2%

	before calibration		after calibration	
Auto zero	0.3	ppm	0.3	ppm
Auto span	231.4	ppm	233.0	ppm

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

# Calibration Summary

Parameter SO2  
 Air Monitoring Network PAZA



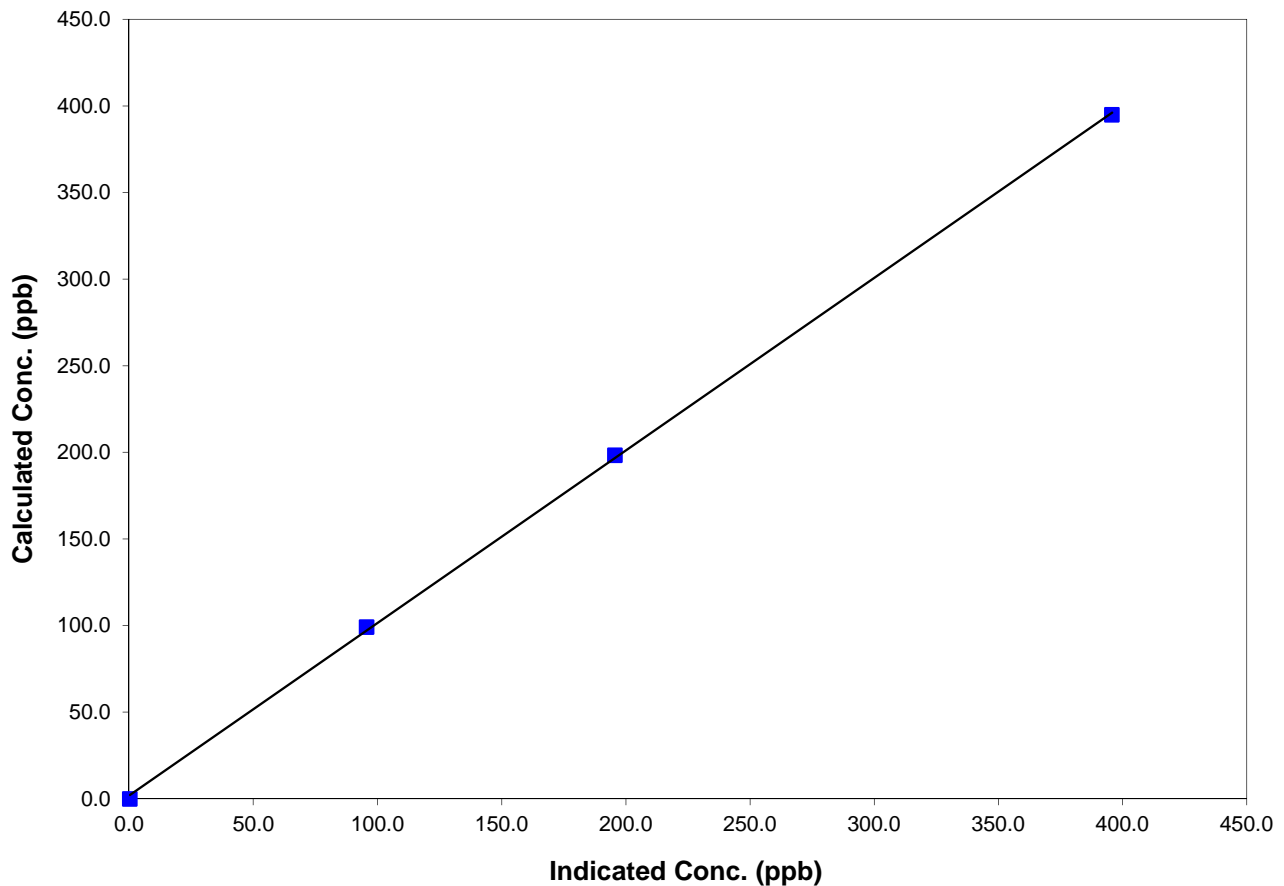
### Station Information

Calibration Date	August 21, 2015	Previous Calibration	July 17, 2015
Station Number	10	Station Location	Clairmont
Start Time (MST)	7:34	End Time (MST)	10:00
Analyzer make/model	TEI 43C	Analyzer serial #	436610005

### Calibration Data

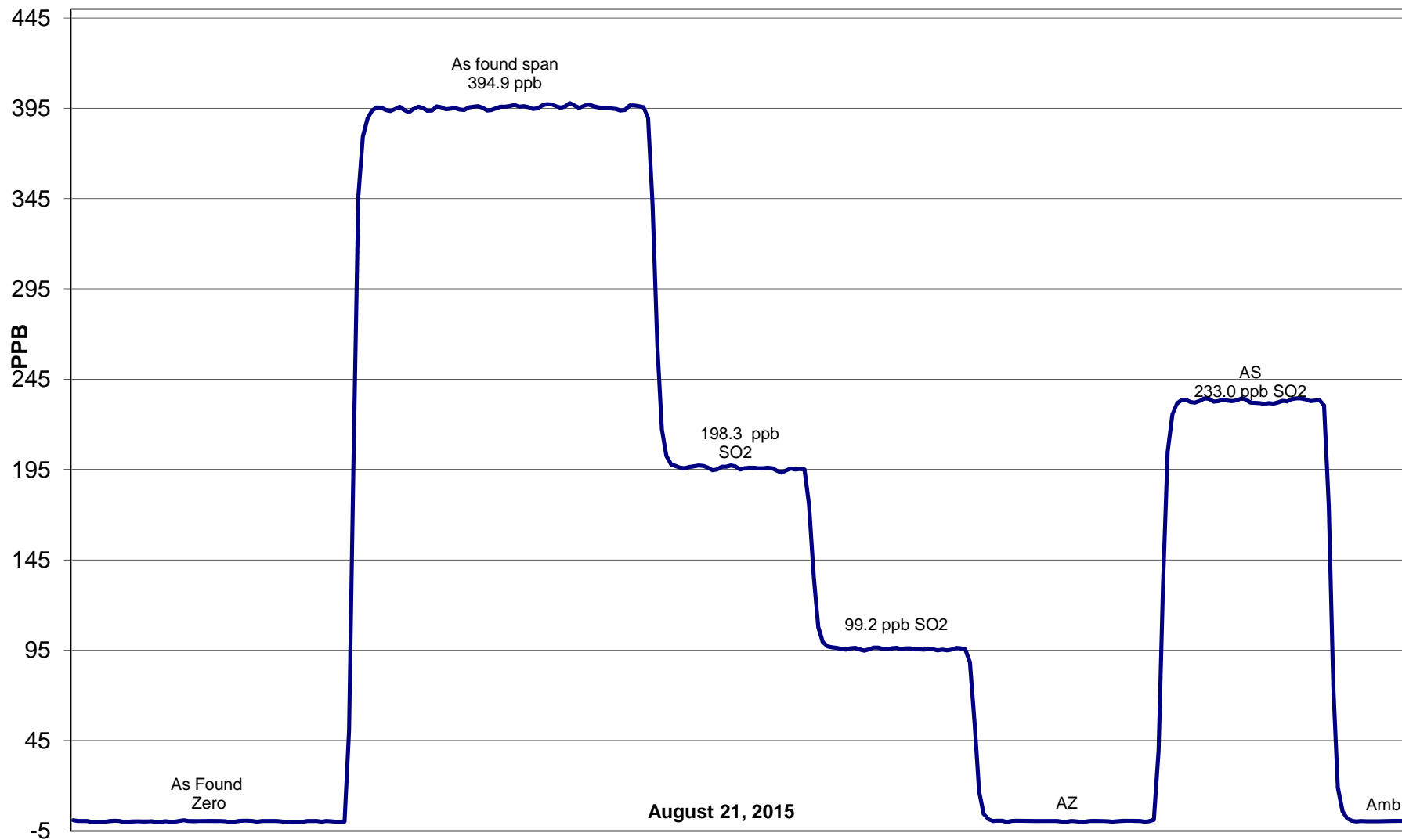
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	N/A	Correlation Coefficient	0.999854
394.9	395.7	0.9980		
198.3	195.6	1.0136	Slope	0.996117
99.2	95.7	1.0370		
			Intercept	1.950524

## SO2 Calibration Curve





# SO2 Calibration





# Calibration Report



Parameter **NOX-NO-NO2**  
 Air Monitoring Network **PAZA**

## Station Information

Calibration Date: August 21, 2015 Station Location: Clairmont

## Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor	
zero	4995	0.00	0.0	0.0	0.0	0.2	0.0	0.3	N/A	N/A	
1	4995	39.92	405.9	403.6	2.4	405.8	404.9	-0.7	1.0003	0.9968	
2	4995	19.96	203.8	202.6	1.2	201.8	200.9	0.2	1.0096	1.0085	
3	4995	9.93	101.6	101.0	0.6	98.8	99.0	-0.1	1.0287	1.0198	
AFZ	4995	0.00	0.0	0.0	0.0	0.2	0.0	0.3	0.0000	0.0000	
AFS	4995	39.92	405.9	403.6	0.8	388.0	387.1	-0.7	1.0463	1.0426	
									Average Correction Factor	1.0129	1.0084

As Found Concentrations: NO<sub>x</sub>= 388.9 NO= 386.6 As Found Percent Change NO<sub>x</sub>= -4.2% NO= -4.2%

## GPT Calibration Data

Dilution Flow 4995 ccm Source Gas Flow 39.93 ccm

O3 Setpoint (ppb)	Indicated NOx high point (ppb)	Indicated NO drop conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor	NO2 Correction factor	Converter Efficiency	
0	0.0	0.0	0.0	0.2	0.0	0.3	N/A	N/A	N/A	N/A	
NO point	404.5	404.5	0.0	406.0	404.5	-0.4	0.9963	1.0000	N/A	N/A	
300	404.5	99.5	304.9	404.0	99.5	303.0	1.0011	1.0000	1.0065	99.4%	
200	404.5	197.2	207.3	404.7	197.2	205.5	0.9995	1.0000	1.0086	99.2%	
100	404.5	295.4	109.1	404.5	295.4	107.2	0.9999	1.0000	1.0184	98.2%	
							Average Correction Factor	1.0002	1.0000	1.0111	98.9%

## AIC Data

Parameter	Previous calibration				Current calibration			
	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	0.2	0.2	0.1	ppb	0.1	0.1	0.1	ppb
Auto span	157.6	155.7	1.3	ppb	156.9	155.0	1.3	ppb

Calibration Performed By: Dmytro Dolotii

# Calibration Summary



Parameter NO<sub>2</sub>

Air Monitoring Network PAZA

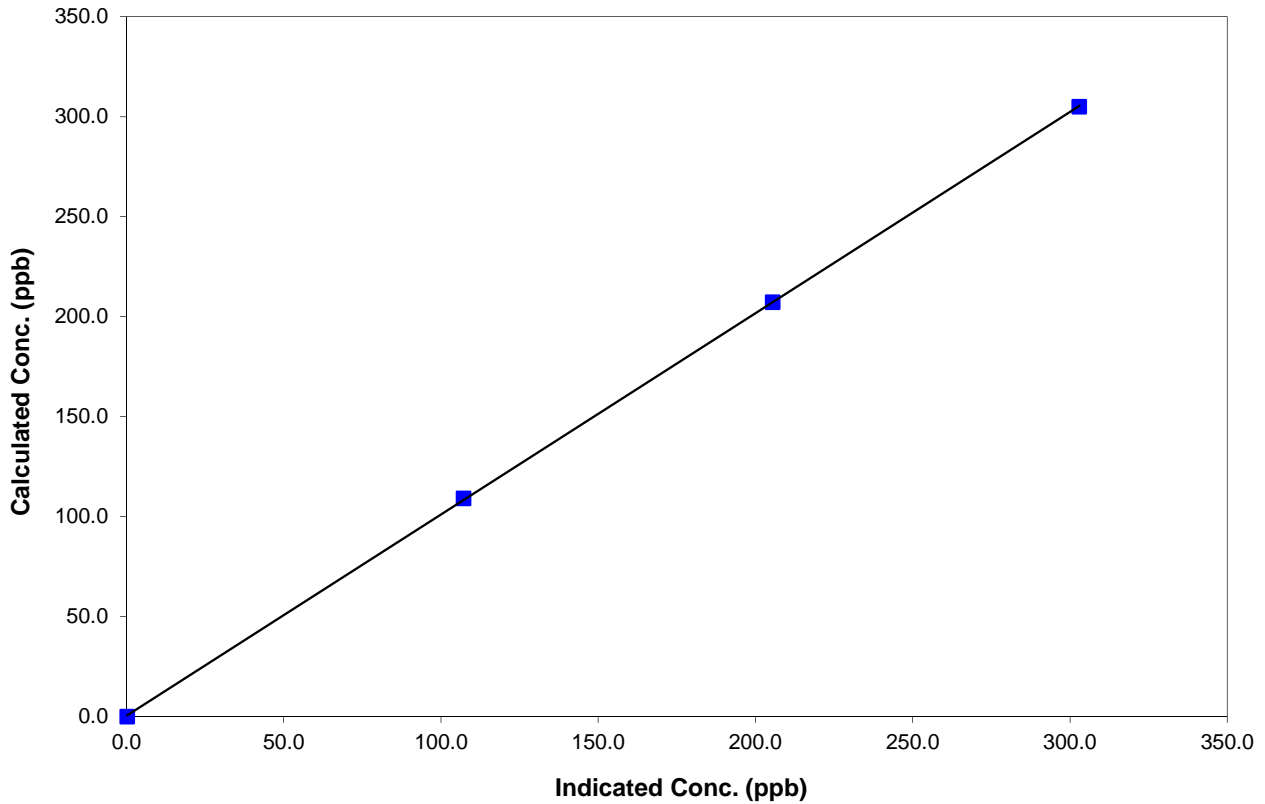
## Station Information

Calibration Date	August 21, 2015	Previous Calibration	July 17, 2015
Station Number	10	Station Location	Clairmont
Start Time (MST)	7:40	End Time (MST)	11:15
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	0.3	N/A	Correlation Coefficient	0.999974
304.9	303.0	1.0065		
207.3	205.5	1.0086	Slope	1.006558
109.1	107.2	1.0184		
			Intercept	0.352482

**NO<sub>2</sub> Calibration Curve**



# Calibration Summary



Parameter NO<sub>x</sub>

Air Monitoring Network PAZA

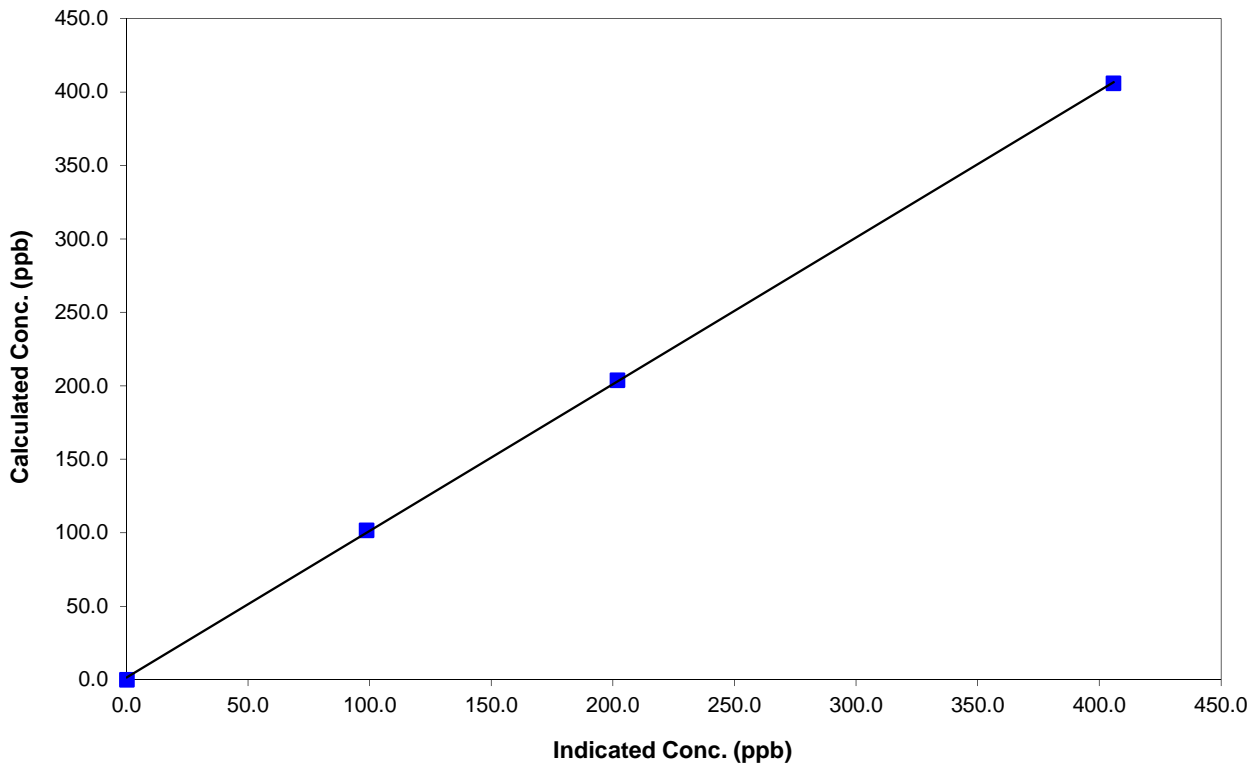
## Station Information

Calibration Date	August 21, 2015	Previous Calibration	July 17, 2015
Station Number	10	Station Location	Clairmont
Start Time (MST)	7:40	End Time (MST)	11:15
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	Correlation Coefficient	0.999933
405.9	405.8	1.0003		
203.8	201.8	1.0096	Slope	0.998778
101.6	98.8	1.0287		
			Intercept	1.401329

## NO<sub>x</sub> Calibration Curve



# Calibration Summary



Parameter NO  
 Air Monitoring Network PAZA

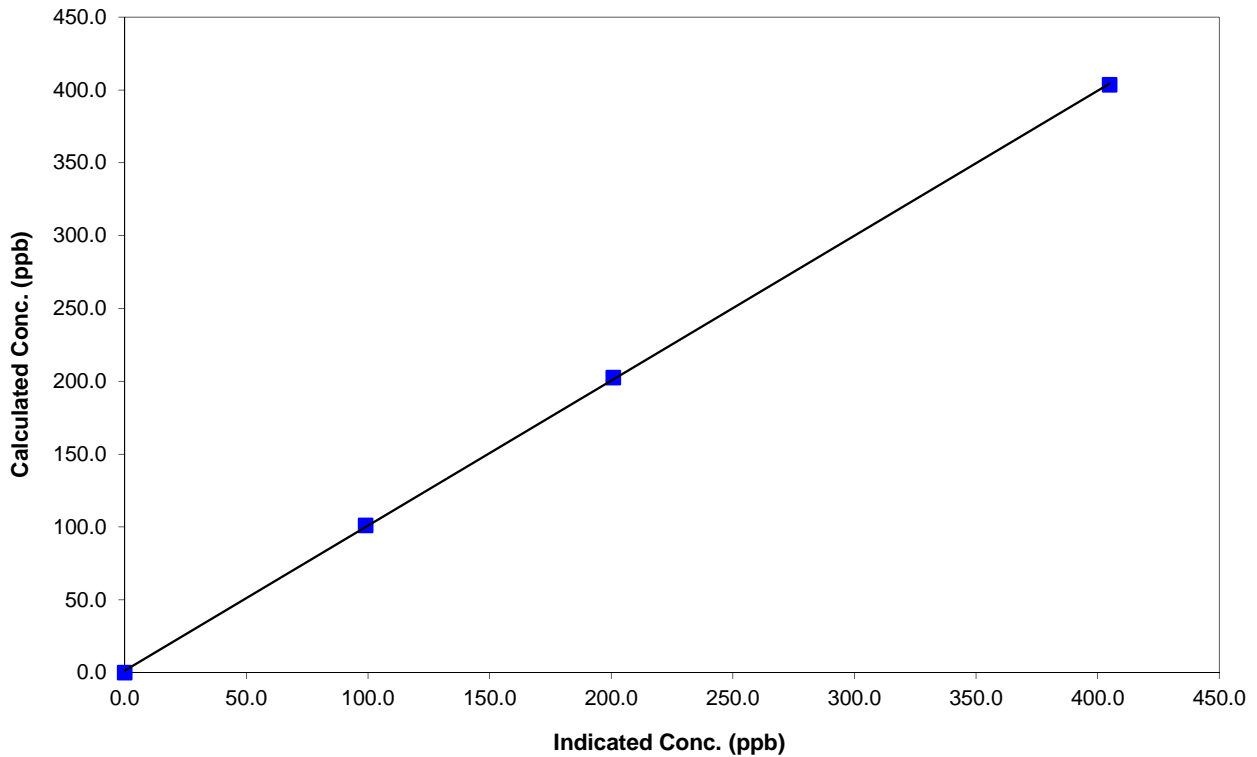
## Station Information

Calibration Date	August 21, 2015	Previous Calibration	July 17, 2015
Station Number	10	Station Location	Clairmont
Start Time (MST)	7:40	End Time (MST)	11:15
Analyzer make	TEI 42i	Analyzer serial #	0701120011

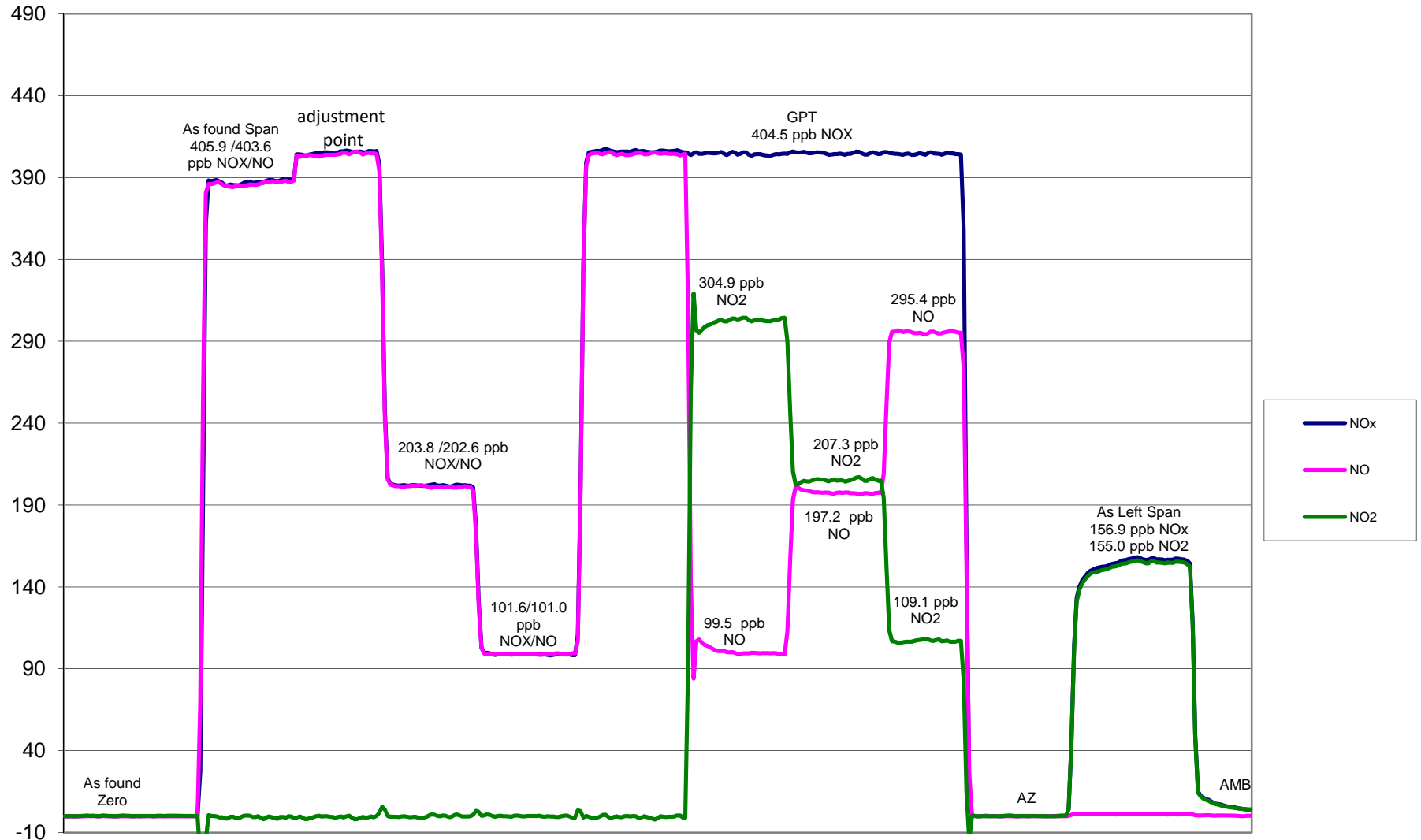
## Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A	Correlation Coefficient	0.999942
403.6	404.9	0.9968		
202.6	200.9	1.0085	Slope	0.995516
101.0	99.0	1.0198		
			Intercept	1.383123

## NO Calibration Curve



# NO<sub>x</sub> Calibration



August 21, 2015

# Calibration Report



AIR QUALITY MONITORING

Parameter 03

Air Monitoring Network PAZA

## Station Information

Calibration Date	August 21 2015	Previous Calibration	July 17 2015
Station Number	10	Station Location	Clairmont
Reason:	<b>Routine</b>	Install	Removal
		Other:	
Start Time (MST)	10:15	End Time (MST)	12:15
Barometric Pressure	0.925 atm	Station Temperature	20.5 Deg C
Calibrator	EnviroNics 6100	Serial Number	3016
DACS make	CR3000	DACS serial No.	5407
DACS voltage range	0 - 5 Volts	DACS channel #	6
	Before		After
Calculated slope	1.005778	Calculated slope	0.991411
Calculated intercept	-0.353531	Calculated intercept	1.028868
Analyzer make	TEI Model 49C	Analyzer serial #	49C-0609716240

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Offset	0	ppb	0	ppb
Span	0.980		0.980	
Cell A intensity	72022	Hz	72032	Hz
Cell B intensity	71722	Hz	71742	Hz
Pressure	666.60	in Hg	669.50	in Hg
CellA Flow	0.702	ccm	0.705	ccm
Cell B Flow	0.624	cmm	0.695	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	0.0	N/A
5035	0.30	304.9	307.5	0.9914
5035	0.20	207.3	207.1	1.0010
5035	0.10	109.1	107.9	1.0110
5035	0.00	0.0	0.0	As found zero
5035	0.30	304.9	307.5	As found span
Average Correction Factor				1.0011

Calculated value of As Found Response: 309.0 ppm      Percent Change of As Found: 1.3%

	before calibration		after calibration	
Auto zero	0.2	ppb	0.0	ppb
Auto span	399.1	ppb	391.0	ppb

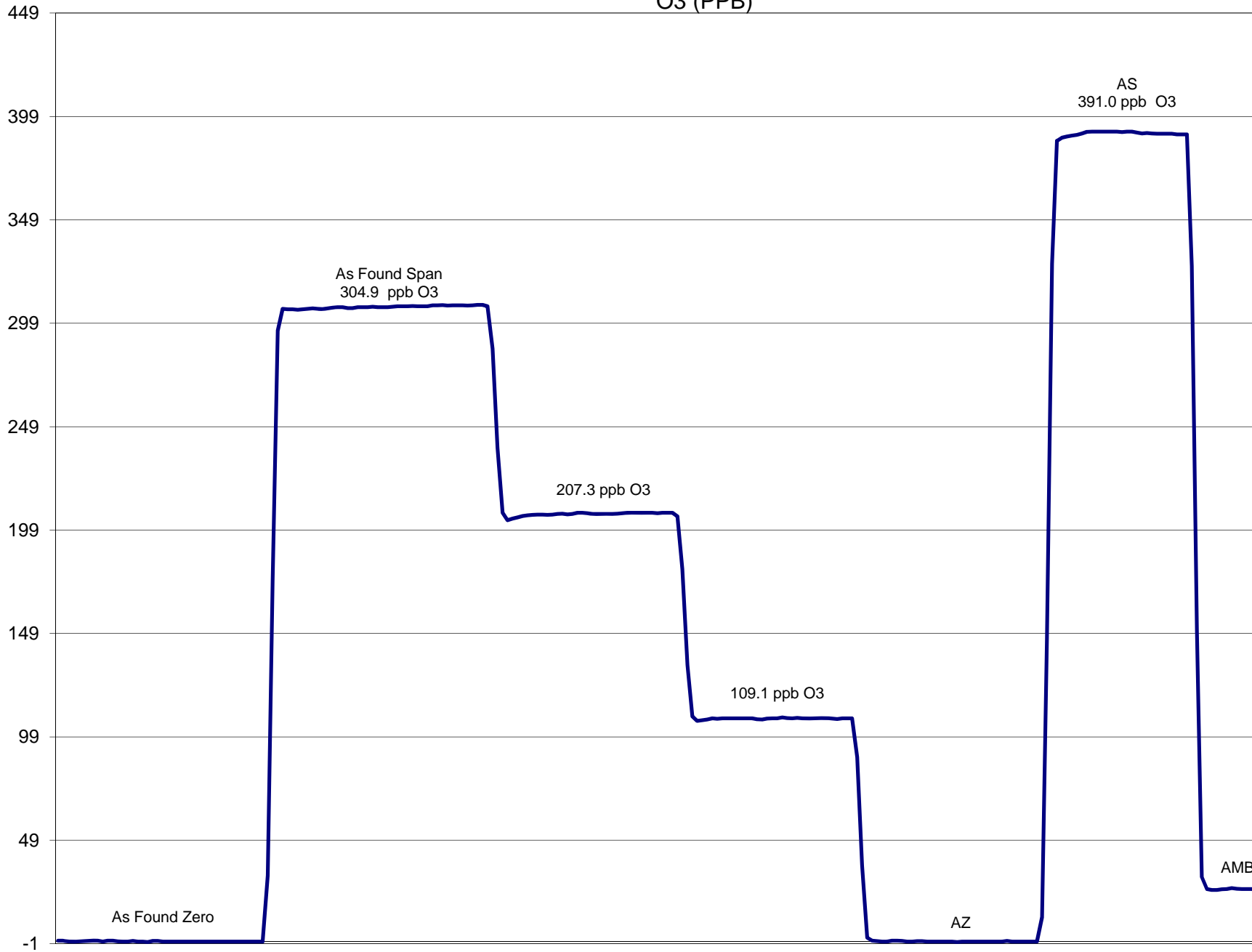
Notes: NO adjustment made

Calibration Performed By: Dmytro Dolotii





# O3 (PPB)



August 21 2015

# Calibration Report



Parameter THC  
 Air Monitoring Network PAZA

## Station Information

Calibration Date	August 21, 2015	Previous Calibration	July 16, 2015
Station Number	10	Station Location	Clairmont
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	11:40	End Time (MST)	13:40:00 PM
Barometric Pressure	0.925 ATM	Station Temperature	21.0 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
	<u>Before</u>		<u>After</u>
Calculated slope	0.983262	Calculated slope	0.998033
Calculated intercept	0.190807	Calculated intercept	0.146914
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	2329	capture	2329	capture
THC span offset	2300	capture	2251	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	0.04	N/A
2996	69.89	21.81	21.77	1.0017
2996	29.96	9.47	9.23	1.0268
2996	9.97	3.17	2.90	1.0956
2996	0.00	0.00	0.04	As Found Zero
2996	69.93	21.82	22.30	As Found Span
Average Correction Factor				1.0414

Calculated value of As Found Response: 22.076 ppm      Percent Change of As Found: -1.2%

	before calibration		after calibration	
Auto zero	0.00	ppm	0.02	ppm
Auto span	21.42	ppm	22.18	ppm

Notes: Span adjustment made \_\_\_\_\_  
 \_\_\_\_\_

Calibration Performed By: Dmytro Dolotii

# Calibration Summary



Parameter THC  
 Air Monitoring Network PAZA

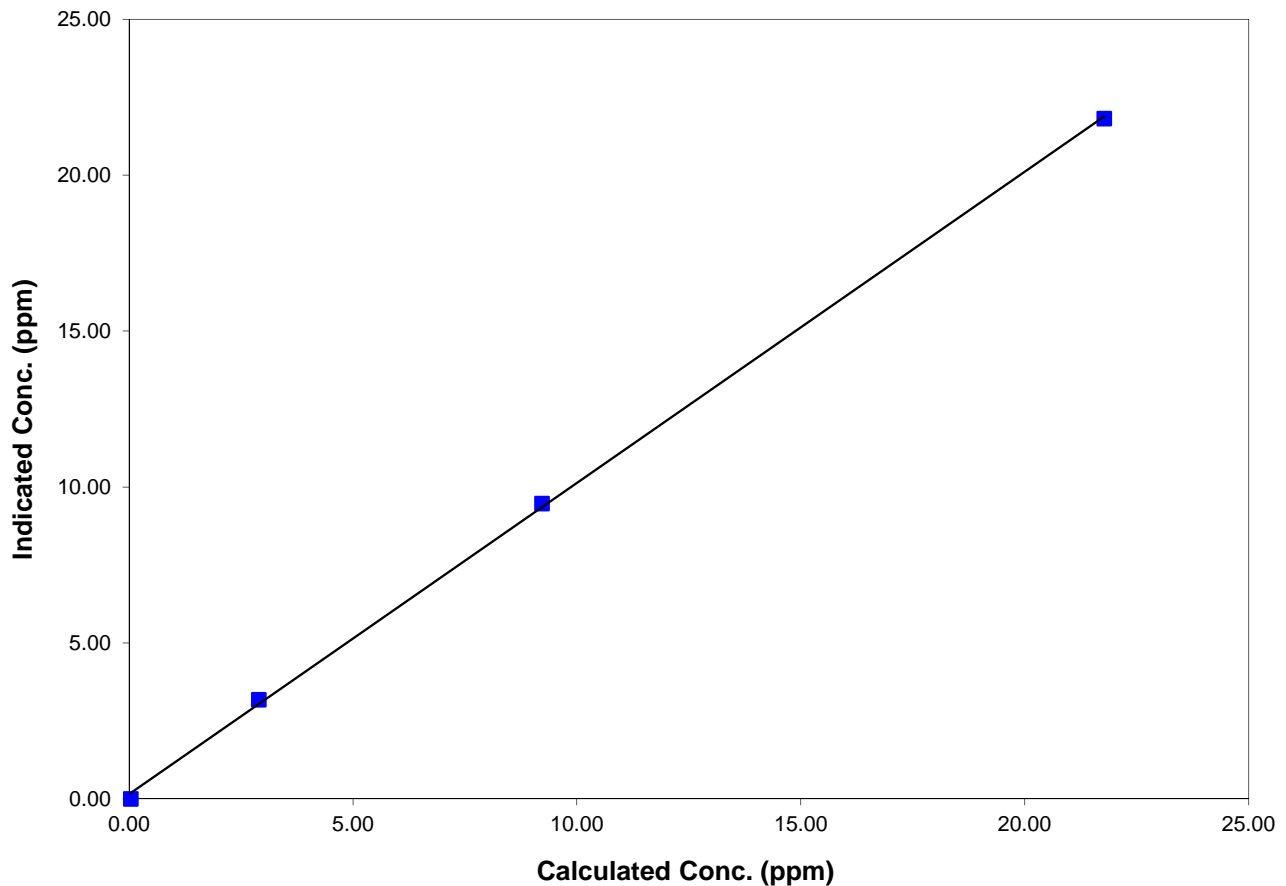
### Station Information

Calibration Date	August 21, 2015	Previous Calibration	July 16, 2015
Station Number	10	Station Location	Clairmont
Start Time (MST)	11:40	End Time (MST)	13:40:00 PM
Analyzer make/model	TEI Model 51C-LT	Analyzer serial #	51CLT-79009-390

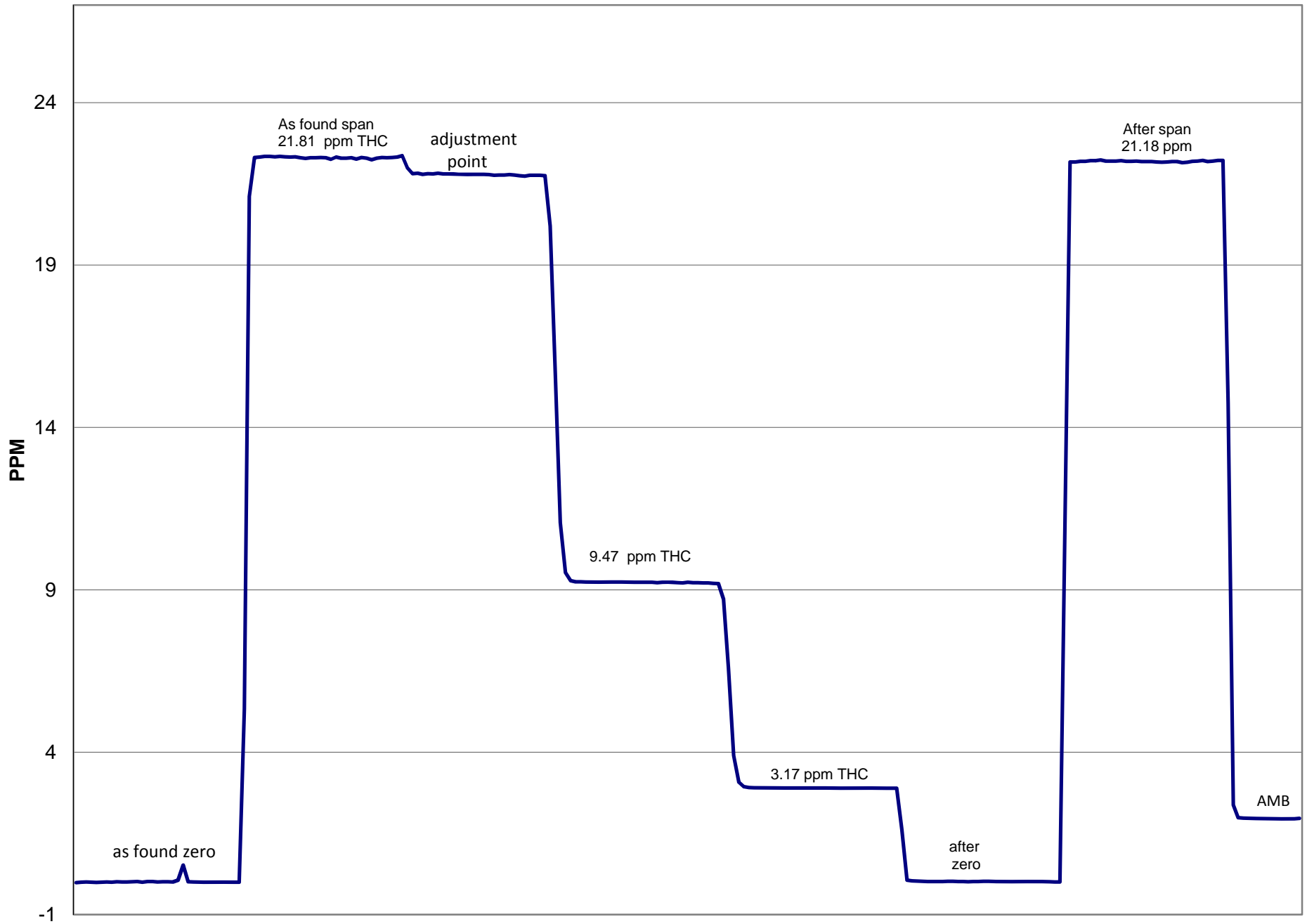
### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.039	N/A	Correlation Coefficient	0.999742
21.81	21.77	1.0017		
9.47	9.23	1.0268	Slope	0.998033
3.17	2.90	1.0956		
			Intercept	0.146914

## THC Calibration Curve



# THC Calibration







# TRS Calibration

