



Peace Airshed Zone Association

Ambient Air Monitoring Network Summary

Continuous Ambient Air Quality Monitoring Program

Monthly Report

September 2015

October 21st, 2015

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

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

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

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

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

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

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

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

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

During the month of **September** 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 September.

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 September with the exception of the Temperature/RH probe, which was vandalized and out of commission for September and much of October.

Smoky Heights Station:

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

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 September.

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 September.

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 September.

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 September.
- ◆ The station was removed from service for relocation on October 5th, September 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 September: Wocking, Sylvester, Fitzsimmons, Peavine, 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 SO₂ passives ranged from 0.1 ppb to 0.5 ppb, with a mean of 0.1 ppb.
- Monthly average concentrations for NO₂ passives ranged from 0.1 ppb to 3.1 ppb, with a mean of 0.7 ppb.
- Monthly average concentrations for O₃ passives ranged from 15.5 ppb to 32.4 ppb, with a mean of 23.4 ppb.
- Monthly average concentrations for H₂S were 0.2 ppb.

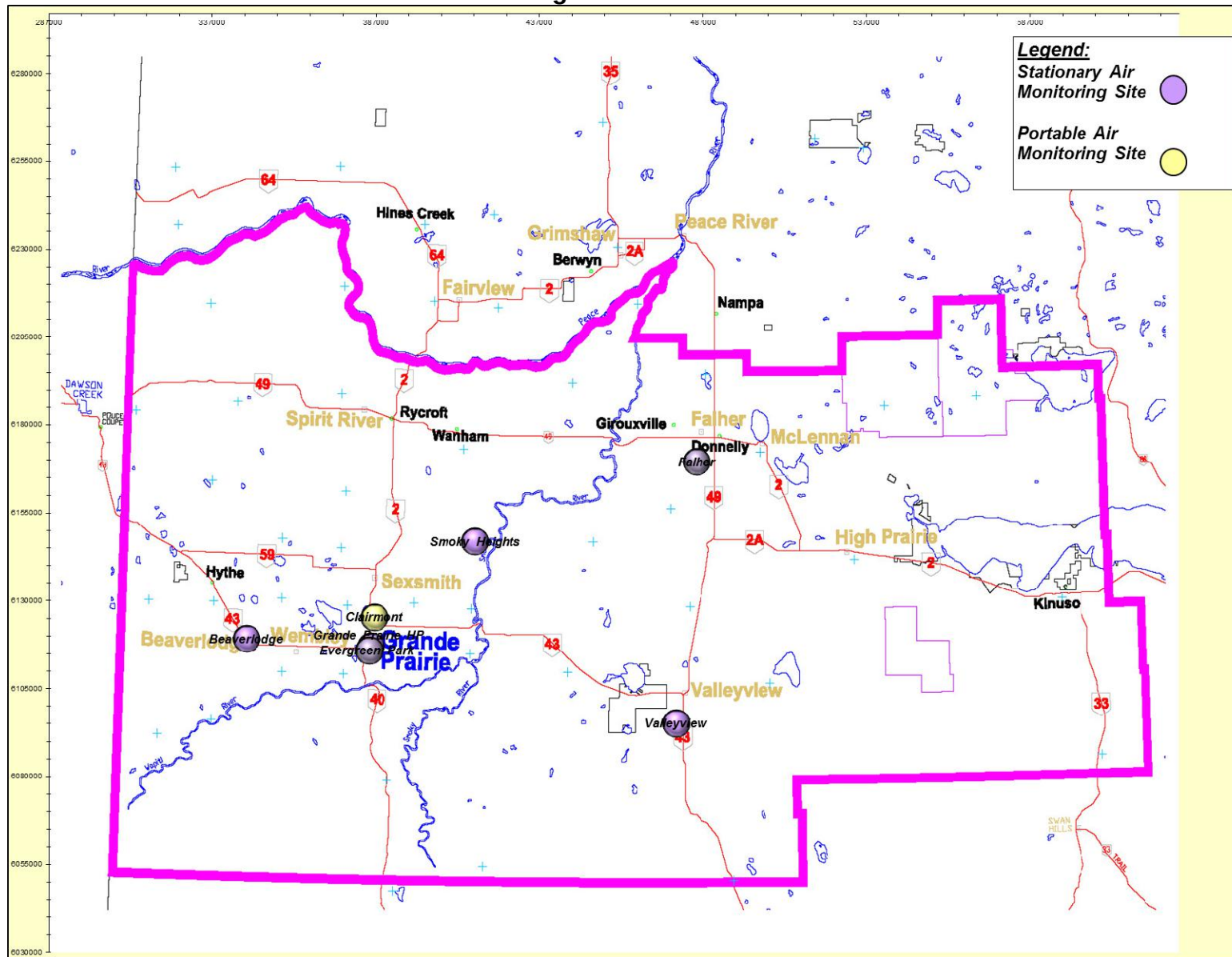
If you have any questions or concerns, please contact Patrick Andersen at 403.505.1041 or the PAZA office at 780.833.4343.

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

Sep-2015 Peace Airshed Zone Association							Maximum Recorded Values				
							1-hr		24-hr / 8-hr		
Pollutant (units)	Objectives		Station	Monthly Average	Exceedence		Conc	Day	Conc	Day	Operational Time (%)
	1-hr	24-hr			1-hr	24-hr					
SO ₂ (ppb)	172	48	Henry Pirker	0.1	0	0	2.6	Sep-03 10:00	0.5	Sep-03	100%
SO ₂ (ppb)	172	48	Evergreen Park	0.1	0	0	4.0	Sep-24 17:00	0.3	Sep-24	100%
SO ₂ (ppb)	172	48	Smoky Heights	0.3	0	0	3.0	Sep-20 10:00	0.8	Sep-20	100%
SO ₂ (ppb)	172	48	Beaverlodge	0.1	0	0	1.0	Sep-22 11:00	0.3	Sep-24	97%
SO ₂ (ppb)	172	48	Valleyview	1.4	0	0	31.0	Sep-20 23:00	7.5	Sep-03	100%
SO ₂ (ppb)	172	48	Falher	0.1	0	0	1.1	Sep-11 23:00	0.2	Sep-07	99%
SO ₂ (ppb)	172	48	Clairmont	0.2	0	0	1.3	Sep-20 10:00	0.4	Sep-20	100%
NO (ppb)			Henry Pirker	2.0	0	0	40.1	Sep-28 08:00	8.5	Sep-28	100%
NO ₂ (ppb)	159	106	Henry Pirker	5.4	0	0	25.2	Sep-30 23:00	10.2	Sep-30	100%
NO _x (ppb)			Henry Pirker	7.5	0	0	62.0	Sep-28 11:00	16.9	Sep-28	100%
NO (ppb)			Beaverlodge	0.4	0	0	8.4	Sep-23 08:00	1.4	Sep-22	97%
NO ₂ (ppb)	159	106	Beaverlodge	2.2	0	0	10.4	Sep-22 07:00	4.9	Sep-24	97%
NO _x (ppb)			Beaverlodge	2.5	0	0	18.0	Sep-22 07:00	5.7	Sep-24	97%
NO (ppb)			Clairmont	1.8	0	0	49.8	Sep-17 08:00	8.1	Sep-28	100%
NO ₂ (ppb)	159	106	Clairmont	3.7	0	0	19.2	Sep-28 11:00	7.2	Sep-08	100%
NO _x (ppb)			Clairmont	5.5	0	0	66.4	Sep-17 08:00	14.7	Sep-28	100%
O ₃ (ppb)	82		Henry Pirker	20.5	0	-	40.2	Sep-12 13:00	30.5	Sep-25	100%
O ₃ (ppb) - 8-hr			Henry Pirker		0				35.1	Sep-12	
O ₃ (ppb)	82		Beaverlodge	23.0	0	-	39.2	Sep-12 22:00	30.7	Sep-12	97%
O ₃ (ppb) - 8-hr			Beaverlodge		0				34.4	Sep-23	
O ₃ (ppb)	82		Clairmont	20.2	0	-	38.7	Sep-12 13:00	28.0	Sep-18	100%
O ₃ (ppb) - 8-hr			Clairmont		0				34.5	Sep-23	
CO (ppm)	13		Henry Pirker	0.15	0	-	0.6	Oct-01 00:00	0.2	Sep-30	100%
CO (ppm) - 8-hr	5		Henry Pirker		0				0.3	Oct-01	

PAZA Monthly Continuous Data Summary – continued

Sep-2015Peace Airshed Zone Association							Maximum Recorded Values				
							1-hr		24-hr / 8-hr		
THC (ppm)			Henry Pirker	2.0	-	-	4.0	Sep-30 07:00	2.2	Sep-30	100%
CH ₄ (ppm)			Henry Pirker	2.0	-	-	4.0	Sep-30 07:00	2.2	Sep-30	100%
NMHC (ppm)			Henry Pirker	0.0	-	-	0.0	Sep-22 07:00	0.0	Sep-22	100%
THC (ppm)			Clairmont	1.95	-	-	2.9	Sep-09 07:00	2.1	Sep-17	100%
TRS (ppb)			Henry Pirker	0.2	-	-	1.2	Sep-09 09:00	0.3	Sep-09	100%
TRS (ppb)			Evergreen Park	0.2	-	-	1.9	Sep-22 10:00	0.4	Sep-22	100%
TRS (ppb)			Smoky Heights	0.1	-	-	0.8	Sep-13 05:00	0.2	Sep-12	100%
TRS (ppb)			Clairmont	0.4	-	-	4.7	Sep-09 07:00	1.0	Sep-14	100%
H ₂ S (ppb)	10	3	Valleyview	0.2	0	0	4.3	Sep-14 05:00	0.6	Sep-14	100%
H ₂ S (ppb)	10	3	Falher	0.3	0	0	6.3	Sep-09 07:00	0.9	Sep-13	99%
PM _{2.5} (µg/m3)	80	30	Henry Pirker	3.4	0	0	16.7	Sep-02 04:00	6.7	Sep-24	100%
PM _{2.5} (µg/m3)	80	30	Evergreen Park	2.4	0	0	53.0	Sep-26 14:00	5.5	Sep-30	100%
PM _{2.5} (µg/m3)	80	30	Smoky Heights	3.4	0	0	25.4	Sep-24 21:00	7.7	Sep-24	100%
PM _{2.5} (µg/m3)	80	30	Beaverlodge	3.0	0	0	11.7	Sep-05 03:00	5.4	Sep-24	97%
PM _{2.5} (µg/m3)	80	30	Clairmont	1.7	0	0	42.7	Sep-24 19:00	5.4	Sep-30	100%
RH (%)			Henry Pirker	64.2	-	-	89.9	Sep-09 07:00	80.5	Sep-03	100%
RH (%)			Evergreen Park	62.8	-	-	91.8	Sep-01 07:00	62.8	Sep-01	3%
RH (%)			Beaverlodge	69.0	-	-	100.0	Sep-05 06:00	88.3	Sep-13	97%
RH (%)			Valleyview	69.5	-	-	98.5	Sep-16 10:00	90.7	Sep-13	100%
SR (W/m ²)			Henry Pirker	123.3	-	-	623.2	Sep-05 13:00	185.2	Sep-05	100%
Temp (°C)			Henry Pirker	10.1	-	-	27.7	Sep-11 15:00	19.7	Sep-11	100%
Temp (°C)			Evergreen Park	11.3	-	-	16.3	Sep-01 17:00	11.3	Sep-01	3%
Temp (°C)			Smoky Heights	9.2	-	-	27.5	Sep-11 16:00	19.3	Sep-11	100%
Temp (°C)			Beaverlodge	9.4	-	-	26.0	Sep-11 15:00	19.3	Sep-11	97%
Temp (°C)			Valleyview	9.9	-	-	28.2	Sep-11 16:00	18.2	Sep-11	100%
Temp (°C)			Falher	9.6	-	-	27.8	Sep-11 17:00	20.3	Sep-11	100%
Temp (°C)			Clairmont	9.8	-	-	27.1	Sep-11 16:00	19.5	Sep-11	100%

PAZA Monthly Continuous Data Summary – continued

Sep-2015 Peace Airshed Zone Association							Maximum Recorded Values				
							1-hr		24-hr / 8-hr		
WSPD s (km/hr)			Henry Pirker	7.1	-	-	34.0	Sep-26 16:00	18.8	Sep-26	100%
WSPD s (km/hr)			Evergreen Park	10.6	-	-	57.0	Sep-26 14:00	28.7	Sep-26	100%
WSPD s (km/hr)			Smoky Heights	12.3	-	-	47.0	Sep-26 17:00	26.8	Sep-26	99%
WSPD s (km/hr)			Beaverlodge	11.2	-	-	52.0	Sep-26 14:00	27.2	Sep-26	97%
WSPD s (km/hr)			Valleyview	3.3	-	-	22.0	Sep-26 18:00	7.6	Sep-26	100%
WSPD s (km/hr)			Falher	13.6	-	-	36.0	Sep-11 16:00	21.7	Sep-26	100%
WSPD s (km/hr)			Clairmont	7.6	-	-	31.0	Sep-26 15:00	17.1	Sep-26	100%
WSPD v (km/hr)			Henry Pirker	4.3	-	-	33.0	Sep-26 16:00	18.2	Sep-26	100%
WSPD v (km/hr)			Evergreen Park	7.2	-	-	56.0	Sep-26 16:00	27.7	Sep-26	100%
WSPD v (km/hr)			Smoky Heights	8.3	-	-	46.0	Sep-26 17:00	26.1	Sep-26	99%
WSPD v (km/hr)			Beaverlodge	6.2	-	-	52.0	Sep-26 14:00	25.8	Sep-26	97%
WSPD v (km/hr)			Valleyview	1.5	-	-	21.0	Sep-26 18:00	6.7	Sep-26	100%
WSPD v (km/hr)			Falher	5.3	-	-	36.0	Sep-11 16:00	19.5	Sep-26	100%
WSPD v (km/hr)			Clairmont	3.9	-	-	31.0	Sep-26 15:00	16.7	Sep-26	100%
WDIR			Henry Pirker	SW	-	-	-	-	-	-	100%
WDIR			Evergreen Park	WSW	-	-	-	-	-	-	100%
WDIR			Smoky Heights	SW	-	-	-	-	-	-	99%
WDIR			Beaverlodge	W	-	-	-	-	-	-	97%
WDIR			Valleyview	WSW	-	-	-	-	-	-	100%
WDIR			Falher	SSW	-	-	-	-	-	-	100%
WDIR			Clairmont	SSW	-	-	-	-	-	-	100%

Continuous Network Equipment Summary

PAZA – Henry Pirker Station

General Station Issues

Routine monthly calibrations were performed on September 21st (SO₂), 22nd (SO₂, NO_x, O₃) and 23rd (CO, THC, TRS).

Parameter	Make	Model	Notes
SO ₂	TEI	43C/43i	43C removed September 21 st , 43i installed and allowed to stabilize before calibration on September 22 nd .
NOx/NO/NO ₂	TEI	42C/42i	No operational issues observed.
O ₃	TEI	49C/49i	No operational issues observed.
CO	TEI	48C	No operational issues observed.
THC/CH ₄ /NMHC	TEI	55I	No operational issues observed.
TRS	TEI	45C/43C	No operational issues observed.
PM _{2.5}	Sharp	5030	No operational issues observed.
RH	Met One	083D	No operational issues observed.
ET	Met One	083D	No operational issues observed.
SR	Met One	096-1	No operational issues observed.
WS / WD	Met One	010C/020C	No operational issues observed.

PAZA – Evergreen Park Station

General Station Issues

Routine monthly calibration performed on September 15th (SO₂, TRS).

Parameter	Make	Model	Notes
SO ₂	TEI	43i	No operational issues observed.
TRS	TEI	43C	No operational issues observed.
PM _{2.5}	Sharp	5030	Manifold cleaned during calibration period.
ET	Met One/Gill	083D	Sensor vandalized September 1 st , replacement ordered and installed in October.
RH	Met One/Gill		Sensor vandalized September 1 st , replacement ordered and installed in October.
WS / WD	Met One/ Gill		No operational issues observed.

PAZA – Smoky Heights Station

General Station Issues

Routine monthly calibration performed on September 10th (SO₂) and 11th (TRS).

Parameter	Make	Model	Notes
SO ₂	TEI	43C	No operational issues observed.
TRS	TEI	43C	Calibration started on September 10 th , new calibrator did not respond as expected. Aborted and redone September 11 th with old calibrator.
PM _{2.5}	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.

PAZA – Beaverlodge Station

General Station Issues

Routine monthly calibrations performed on September 9th (SO₂, O₃, NO_x). Power outage September 24th-25th invalidated 24 hours of data.

Parameter	Make	Model	Notes
SO ₂	TEI	43CTL	No operational issues observed.
NO _x /NO/NO ₂	TEI	42C	No operational issues observed.
O ₃	TEI	49C	No operational issues observed.
PM _{2.5}	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.

PAZA – Valleyview Station

General Station Issues

Routine monthly calibrations were performed on September 18th (SO₂ & H₂S).

Parameter	Make	Model	Notes
SO ₂	TEI	43i	No operational issues observed.
H ₂ 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.

PAZA – Falher Station

General Station Issues

Routine monthly calibrations were performed on September 17th (SO₂ & H₂S).

Parameter	Make	Model	Notes
SO ₂	TEI	43i	Power interrupted to analyzer on September 24 th , invalidating 6 hours of data.
H ₂ S	Thermo	450i	Power interrupted to analyzer on September 24 th , invalidating 6 hours of data.
ET	Gill	RM Young 5103	No operational issues observed.
WS / WD	Gill	RM Young 5103	No operational issues observed.

PAZA – Portable-Clairmont

General Station Issues

Routine monthly calibrations were performed on September 24th (SO₂, NO_x, O₃) and 25th (THC, TRS). Station was relocated on October 5th.

Parameter	Make	Model	Notes
SO ₂	TEI	43i	Manifold cleaning during September 25 th calibration period.
NO _x	TEI	42i	Manifold cleaning during September 25 th calibration period.
O ₃	TEI	49C	Manifold cleaning during September 25 th calibration period.
TRS	TEI	39C	No operational issues observed.
THC	TEI	51C	No operational issues observed.
PM _{2.5}	Sharp	5030	Manifold cleaning during September 25 th calibration period.
ET	Gill	Met Pak 3	No operational issues observed.
WS / WD	Gill	Met Pak 3	No operational issues observed.

PAZA

Henry Pirker Station

Monthly Summary Tables, Graphs and
Roses

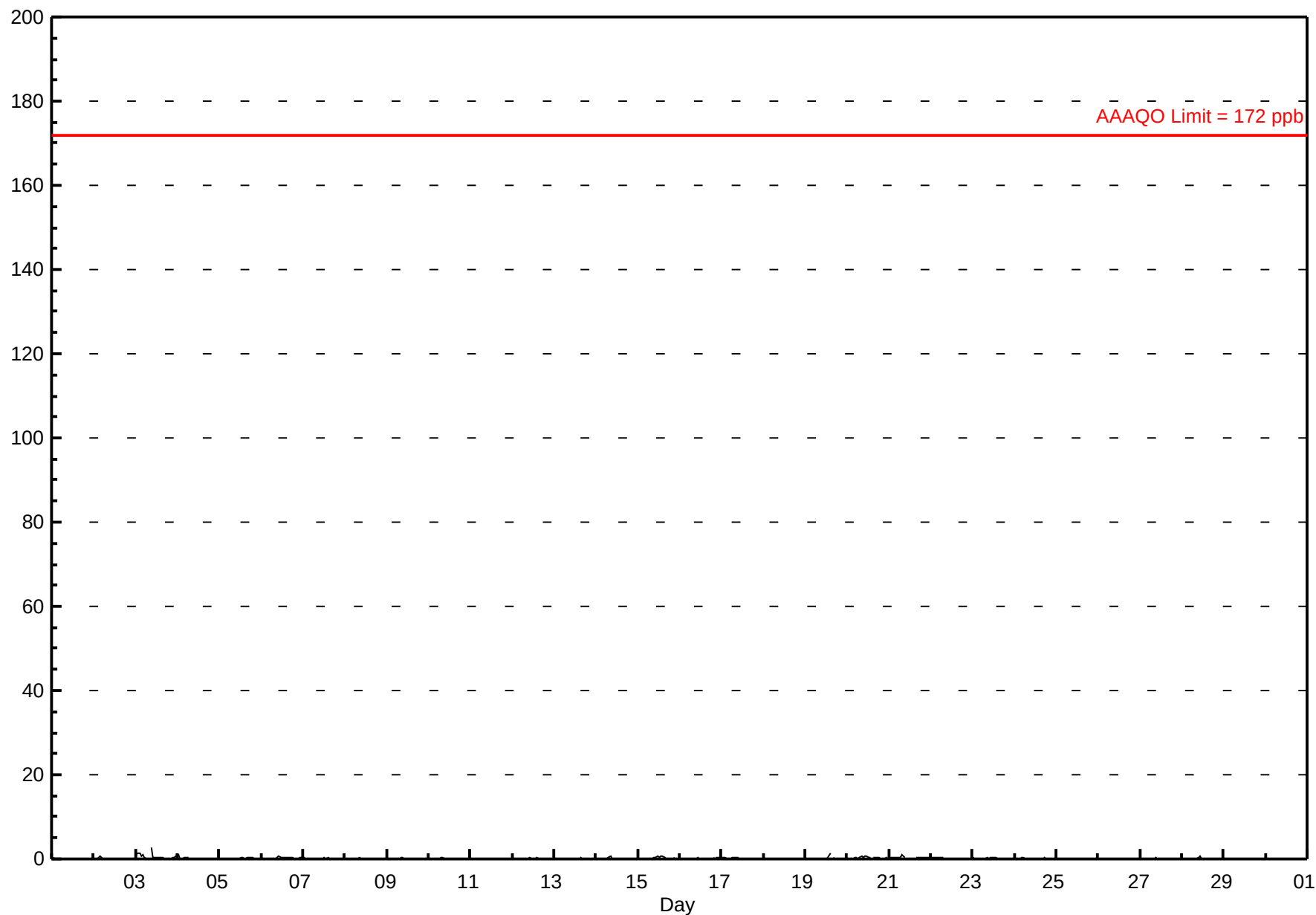
Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Henry Pirker - September 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0																				Hours in Service: 720							
Maximum Value: 2.6 ppb on Sep 3 10:00																				Maximum Daily Average: 0.5 ppb on Sep 3		Hours of Data: 681					
Minimum Value: 0 ppb on Sep 1 05:00																				Minimum Daily Average: 0.0 ppb on Sep 26		Hours of Missing Data: 39					
Maximum Diurnal Average: 0.2 ppb at hour 10																				Minimum Diurnal Average: 0.1 ppb at hour 21		Hours of Calibration: 39					
Monthly Average: 0.10 ppb																				Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.0 Q ₃ = 0.1 P ₉₀ = 0.3 P ₉₉ = 0.9		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-Sep	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.3	
2-Sep	0	0	0	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.8	
3-Sep	0	1	1	1	1	0	0	0	A	3	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.5	2.6	
4-Sep	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.1	
5-Sep	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4	
6-Sep	0	0	0	0	0	A	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7	
7-Sep	0	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-Sep	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2	
9-Sep	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	0.3	
10-Sep	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3	
11-Sep	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.0	0.1	
12-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.1	0.2	
13-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.0	0.2	
14-Sep	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	0.5	
15-Sep	0	0	0	0	0	0	0	0	0	1	0	1	0	1	1	0	0	0	0	A	0	0	0	0	0.2	0.8	
16-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.1	0.3	
17-Sep	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	
18-Sep	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	
19-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	0	0	0	0	0	0	0	0	0.1	1.4	
20-Sep	0	0	0	0	0	0	0	0	1	0	1	1	0	0	A	0	0	0	0	0	0	0	0	0	0.3	0.7	
21-Sep	0	0	0	0	0	0	0	1	1	0	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0.3	1.0	
22-Sep	0	0	0	0	0	0	0	0	C	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0.1	0.3	
23-Sep	0	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	0.4	
24-Sep	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	
25-Sep	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1	
26-Sep	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	
27-Sep	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2	
28-Sep	0	0	0	0	0	0	A	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.5	
29-Sep	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	
30-Sep	0	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	
0.1 1.1		0.1 1.3	0.1 1.4	0.1 0.8	0.1 0.9	0.1 0.3	0.1 0.4	0.1 1.0	0.1 0.7	0.2 2.6	0.2 0.7	0.1 0.6	0.1 0.5	0.1 0.7	0.1 1.4	0.1 0.4	0.1 0.4	0.1 0.4	0.1 0.4	0.1 0.4	0.1 0.2	0.1 0.3	0.1 0.3	0.1 0.4	0.1 0.6	Diurnal Average 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 (SO₂) - ppb
Henry Pirker - September 2015



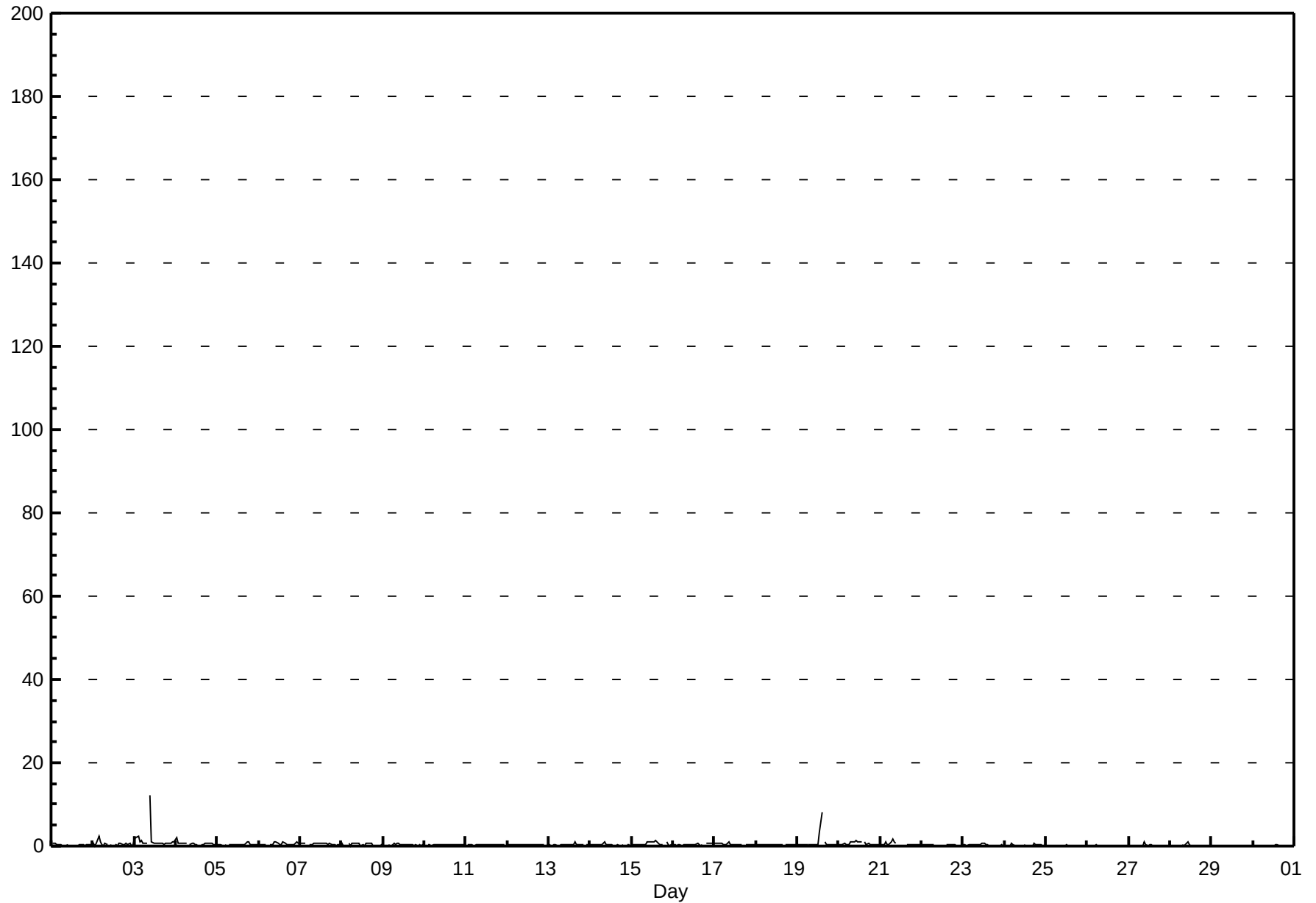
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Henry Pirker - September 2015

Maximum Value: 12.3 ppb on Sep 3 10:00																				Maximum Daily Average: 1.4 ppb on Sep 3										Hours in Service: 720	
Minimum Value: 0 ppb on Sep 11 05:00																				Minimum Daily Average: 0.0 ppb on Sep 26										Hours of Data: 681	
Maximum Diurnal Average: 0.9 ppb at hour 10																				Minimum Diurnal Average: 0.3 ppb at hour 6										Hours of Missing Data: 39	
Monthly Average: 0.39 ppb																				Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.4 Q ₃ = 0.5 P ₉₀ = 0.5 P ₉₉ = 2.0										Hours of Calibration: 39	
																														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-Sep	1	1	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6					
2-Sep	1	0	1	2	1	0	0	1	1	A	0	0	0	0	0	1	1	0	0	1	0	1	0	0	0	0.5	2.5				
3-Sep	2	2	2	1	2	1	1	1	A	12	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1.4	12.3				
4-Sep	2	1	1	1	1	1	1	A	0	1	1	0	0	0	0	0	0	1	1	1	1	1	1	0	0.5	2.0					
5-Sep	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0.5	0.9					
6-Sep	0	0	0	0	0	A	0	0	0	1	1	1	0	0	1	1	0	0	0	1	1	1	1	1	0.6	1.0					
7-Sep	1	1	1	1	A	0	0	0	1	1	1	1	1	1	1	1	0	1	0	0	0	0	0	0	0.4	0.5					
8-Sep	1	0	0	A	1	0	1	1	1	1	1	0	0	0	1	1	1	1	0	0	0	0	0	0	0.3	0.5					
9-Sep	0	0	A	0	0	0	1	0	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7					
10-Sep	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5					
11-Sep	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.3	0.4					
12-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	A	0	0.4	0.5					
13-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	A	0	0	0.4	0.9					
14-Sep	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.3	0.9					
15-Sep	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	0	0	A	1	0	0	0	0.6	1.3					
16-Sep	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0	0	0	A	1	1	1	1	1	0.4	0.5					
17-Sep	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.5	0.9					
18-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.4	0.5					
19-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	3	8	A	1	0	0	0	0	0	0	0	0.9	8.0					
20-Sep	0	0	0	1	0	0	0	1	1	1	1	1	1	1	A	1	0	1	0	0	0	0	0	0	0.7	1.4					
21-Sep	0	0	0	1	0	0	1	2	1	1	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0.6	1.8					
22-Sep	0	0	0	0	0	0	0	0	C	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0.2	0.4					
23-Sep	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7					
24-Sep	0	0	0	0	1	0	0	0	0	0	A	0	0	0	0	0	0	1	0	0	0	0	0	0	0.2	0.6					
25-Sep	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.3					
26-Sep	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2					
27-Sep	0	0	0	0	0	0	0	A	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.0					
28-Sep	0	0	0	0	0	0	A	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.0					
29-Sep	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2					
30-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3					
0.4 0.3 0.4 0.4 0.3 0.3 0.3 0.4 0.4 0.9 0.5 0.4 0.4 0.4 0.6 0.3 0.3 0.4 0.3 0.3 0.3 0.3 0.3 0.3 0.3																								Diurnal Average							
2.0 2.0 2.5 2.5 1.5 0.6 0.9 1.8 0.9 12.3 1.4 1.1 0.9 3.4 8.0 0.9 0.9 0.9 0.9 0.9 0.5 0.9 0.7 1.0 1.1																								Diurnal Maximum							
C - Calibration																								A - Automated Daily Zero Span							

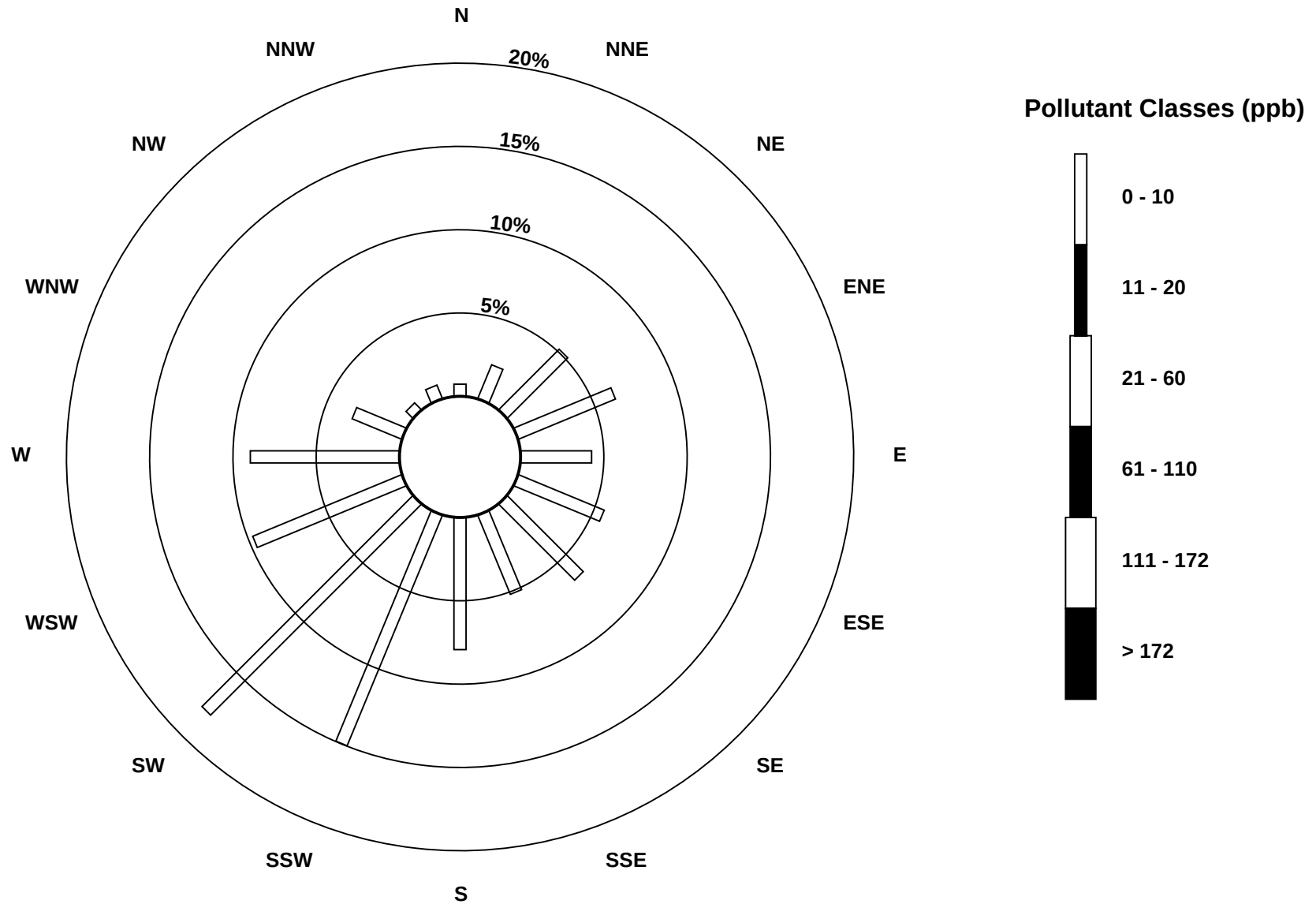
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Henry Pirker - September 2015



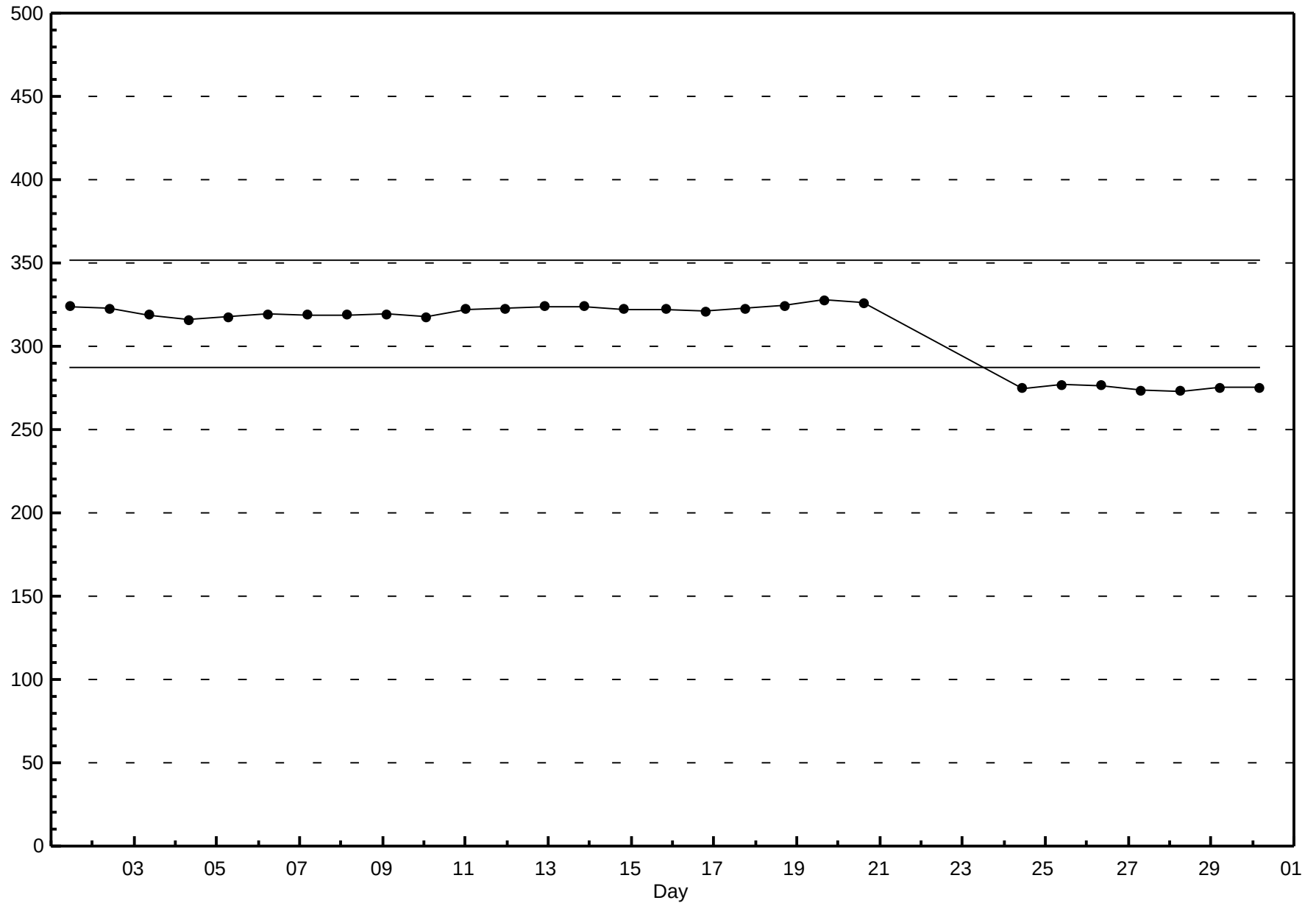
Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Henry Pirker - September 2015



Span Responses

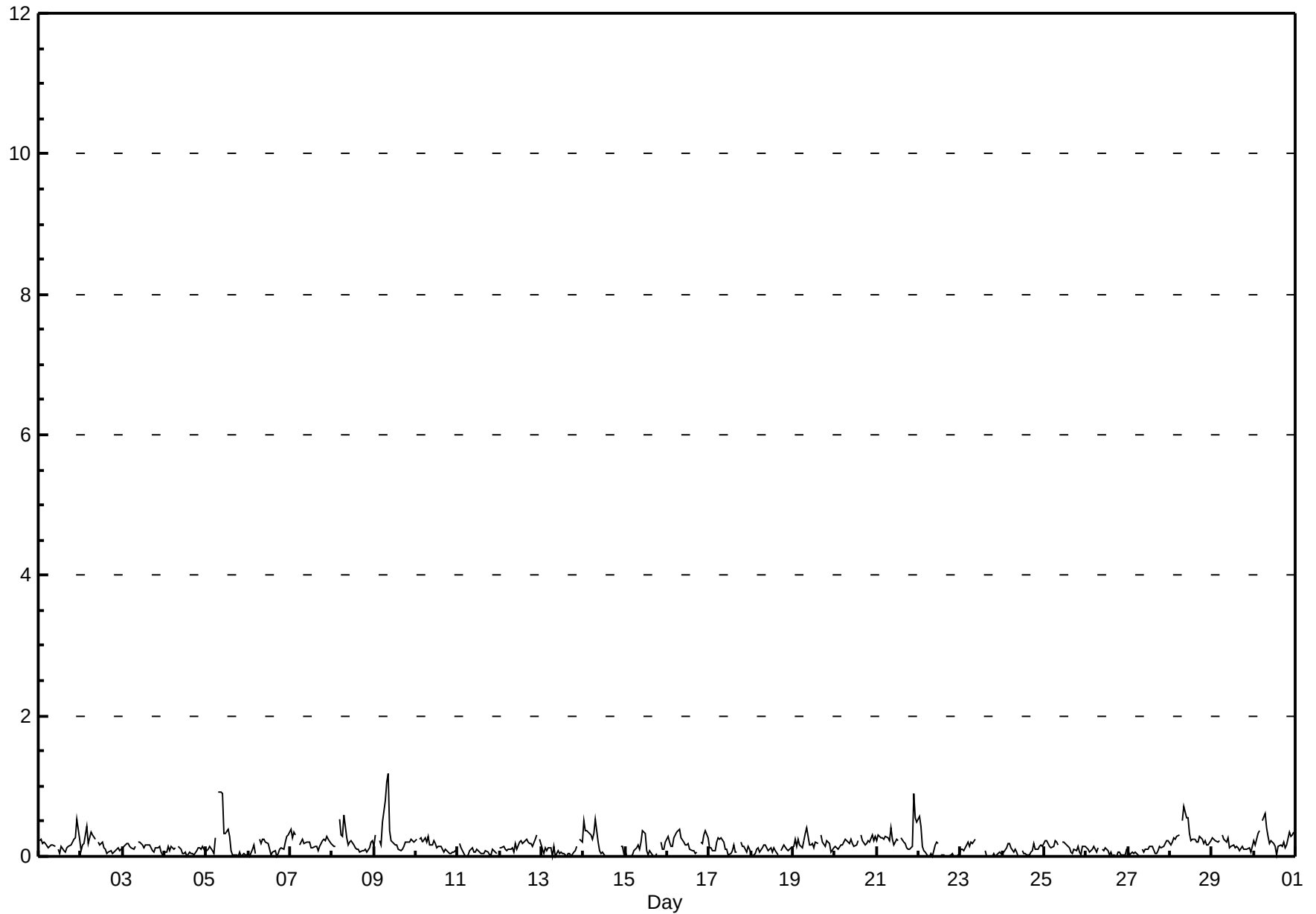
Sulphur Dioxide (SO₂)
Henry Pirker - September 2015



Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - September 2015



Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

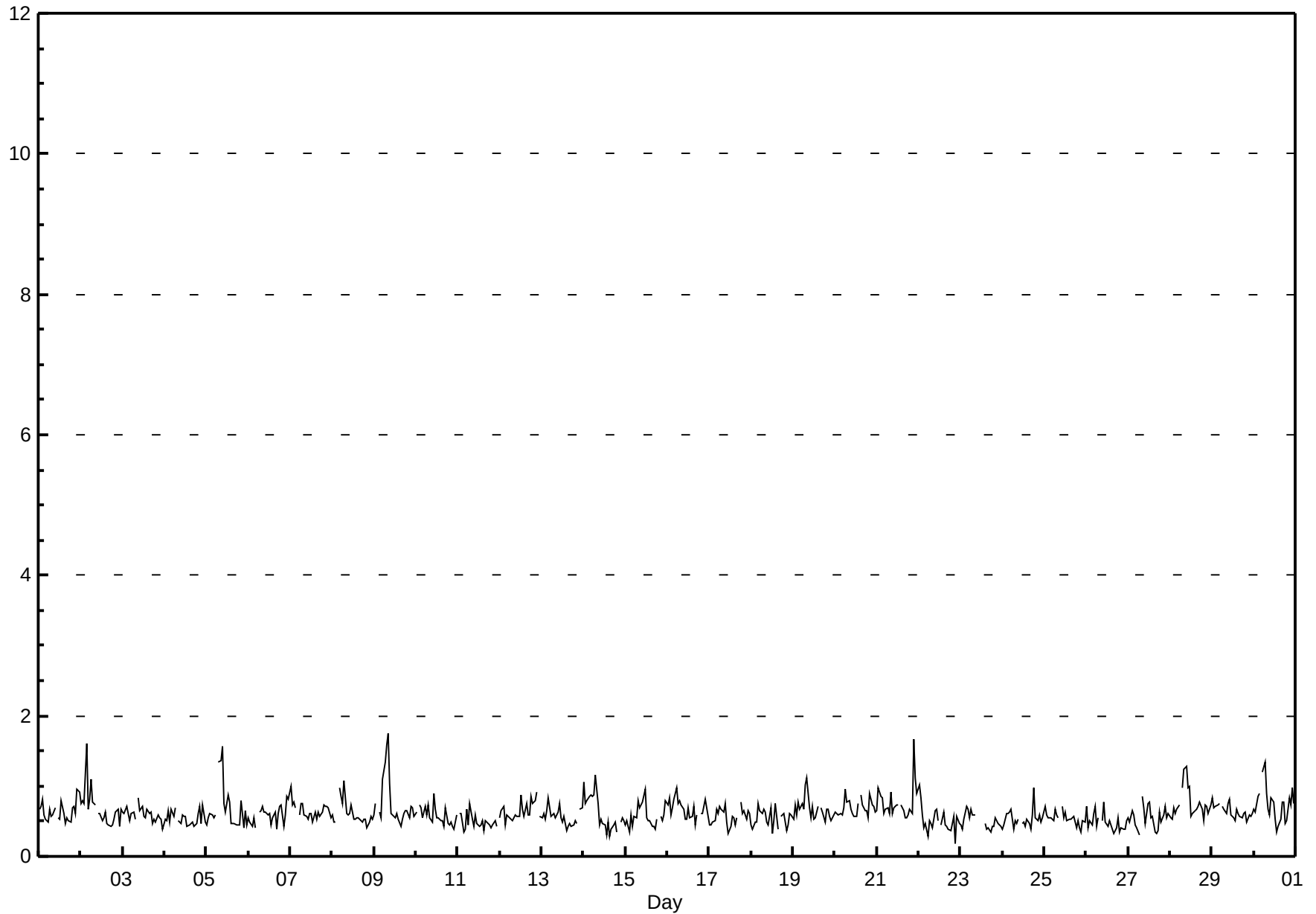
Henry Pirker - September 2015

Maximum Value: 1.7 ppb on Sep 9 09:00																				Maximum Daily Average: 0.8 ppb on Sep 21						Hours in Service: 720	
Minimum Value: 0 ppb on Sep 22 22:00																				Minimum Daily Average: 0.5 ppb on Sep 26						Hours of Data: 685	
Maximum Diurnal Average: 0.8 ppb at hour 8																				Minimum Diurnal Average: 0.5 ppb at hour 16						Hours of Missing Data: 35	
Monthly Average: 0.61 ppb																				Percentiles: P ₁ = 0.3 P ₁₀ = 0.4 Q ₁ = 0.5 Median = 0.6 Q ₃ = 0.7 P ₉₀ = 0.8 P ₉₉ = 1.3						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-Sep	1	1	1	1	1	0	1	1	1	1	A	1	1	1	1	0	1	1	0	1	1	1	1	1	0.6	1.0	
2-Sep	1	1	1	2	1	1	1	1	1	A	1	1	1	1	1	0	0	0	0	1	1	1	0	1	0.7	1.6	
3-Sep	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0	1	0	1	1	1	0	0.6	0.8	
4-Sep	1	1	1	0	1	1	1	A	1	0	1	1	1	0	0	0	0	0	0	1	1	0	1	0	0.5	0.7	
5-Sep	0	1	1	1	1	1	A	1	1	2	1	1	1	1	0	0	0	0	0	0	1	0	1	0	0.7	1.6	
6-Sep	1	0	0	1	0	A	1	1	1	1	1	1	1	0	1	1	0	1	1	1	0	1	1	1	0.6	0.8	
7-Sep	1	1	1	1	A	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0.7	1.0	
8-Sep	1	0	0	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	0	1	1	0.6	1.1	
9-Sep	1	1	A	1	1	1	1	1	2	2	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0.8	1.7	
10-Sep	1	A	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0	1	0	0	0	0	0	1	0.6	0.9	
11-Sep	A	1	1	0	0	1	0	1	1	0	1	0	0	0	1	0	1	0	0	0	0	1	0	A	0.5	0.8	
12-Sep	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.6	0.9	
13-Sep	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	0	0	0	0	0	0	A	1	1	0.6	0.8	
14-Sep	1	1	1	1	1	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	A	0	1	1	0.6	1.2	
15-Sep	0	1	0	1	0	1	1	1	1	1	1	1	1	1	1	0	0	0	1	A	1	0	1	1	0.6	1.0	
16-Sep	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	A	1	1	1	1	1	0.7	1.0	
17-Sep	0	0	0	1	1	1	1	1	1	1	0	0	0	1	1	0	1	A	1	1	1	1	1	1	0.6	0.8	
18-Sep	0	0	0	0	1	1	1	1	1	0	0	1	0	1	1	0	A	1	1	1	0	0	1	1	0.5	0.8	
19-Sep	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0	1	1	1	1	1	0.7	1.1	
20-Sep	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.7	1.0	
21-Sep	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	2	1	1	0.8	1.7	
22-Sep	1	1	1	0	0	0	1	0	0	1	1	1	A	0	1	0	0	0	0	0	1	0	1	0	0.5	1.0	
23-Sep	0	0	1	1	1	1	1	1	1	C	C	C	C	C	0	0	0	0	0	0	1	0	0	0	0.5	0.7	
24-Sep	0	0	1	1	1	1	0	1	0	1	A	0	0	0	1	0	0	1	1	1	1	1	0	1	0.5	1.0	
25-Sep	1	1	1	1	1	0	1	1	1	A	1	1	1	1	1	1	1	1	1	0	1	0	0	1	0	0.5	0.7
26-Sep	1	0	1	0	1	1	0	1	A	1	1	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0.5	0.8
27-Sep	1	0	1	1	0	0	0	A	1	1	0	1	1	1	1	0	0	0	1	0	1	1	1	1	0.6	0.9	
28-Sep	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.3	
29-Sep	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0.6	0.8	
30-Sep	1	1	1	1	A	1	1	1	1	1	1	1	1	0	0	1	1	1	0	1	1	1	1	1	0.7	1.4	
0.6 0.6 0.6 0.6 0.6 0.7 0.7 0.8 0.7 0.7 0.7 0.6 0.6 0.5 0.6 0.5 0.5 0.5 0.6 0.6 0.6 0.6 0.6 0.6 0.6																								Diurnal Average			
1.1 1.0 0.9 1.6 1.0 1.2 1.4 1.6 1.7 1.6 1.0 1.0 0.9 0.8 0.8 0.9 0.8 0.8 1.0 0.7 0.9 1.7 1.1 0.9																								Diurnal Maximum			
C - Calibration																								A - Automated Daily Zero Span			

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

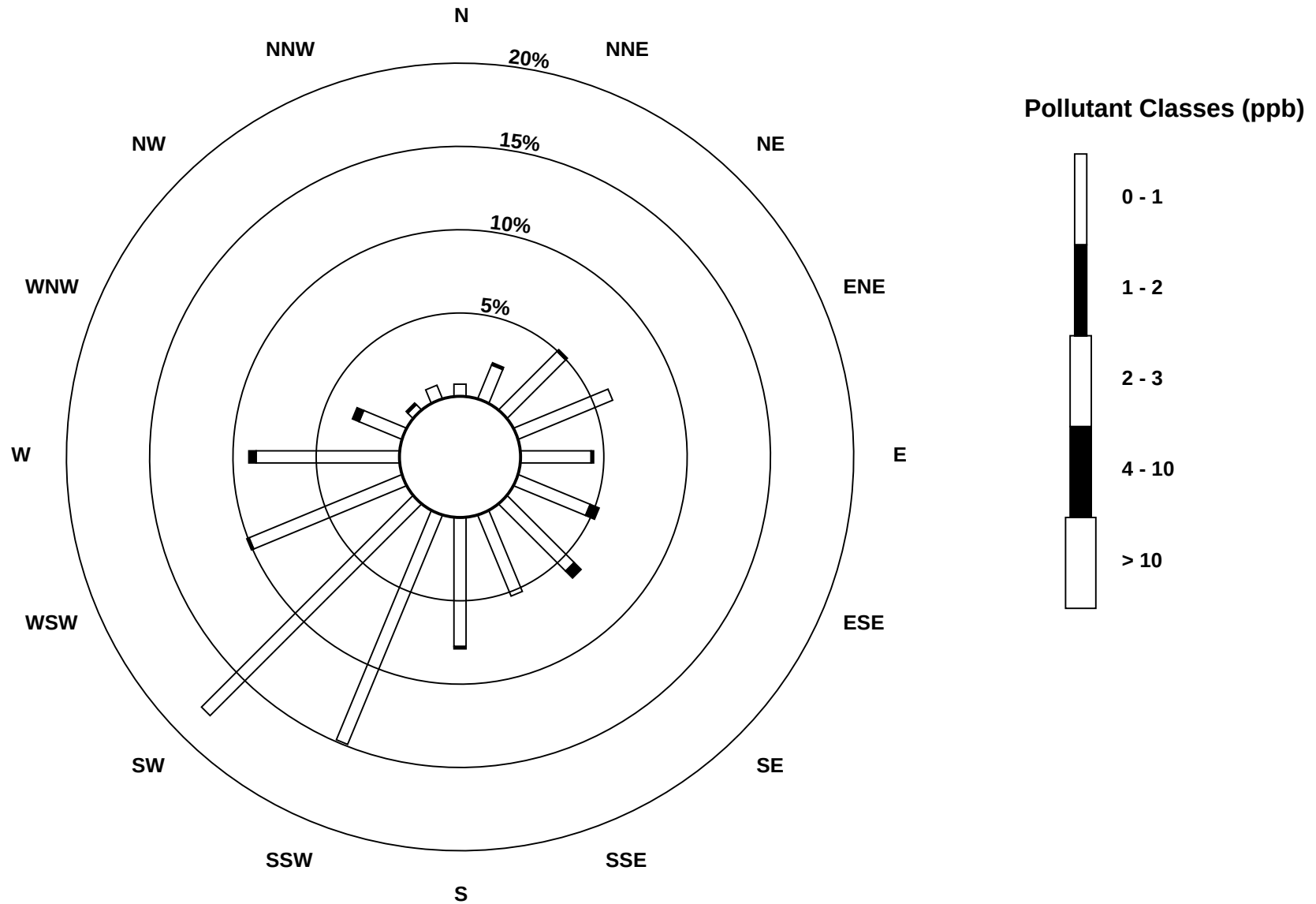
Henry Pirker - September 2015



Pollutant Rose

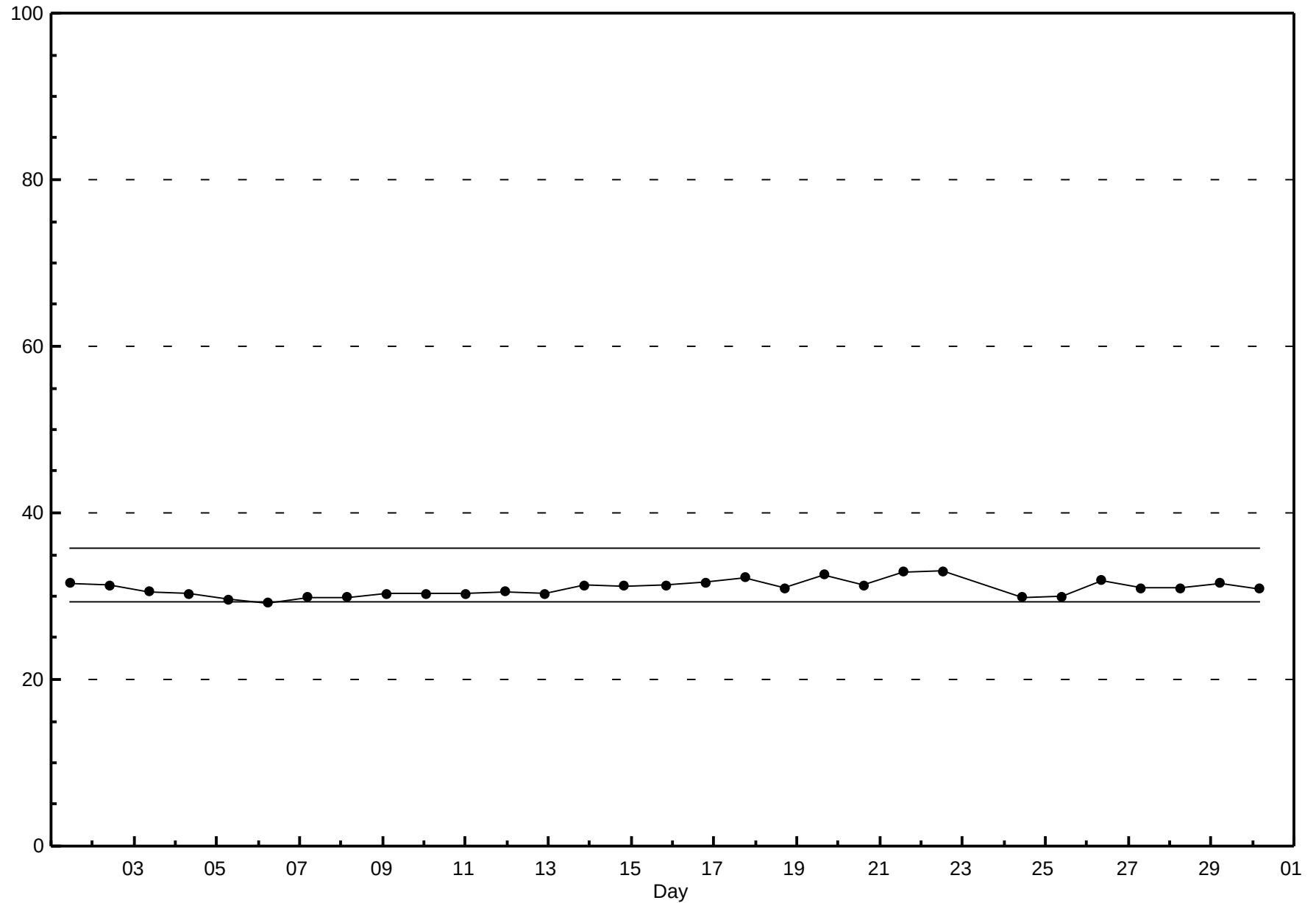
Total Reduced Sulphur (TRS) - ppb

Henry Pirker - September 2015



Span Responses

Total Reduced Sulphur (TRS)
Henry Pirker - September 2015



Hourly Averages

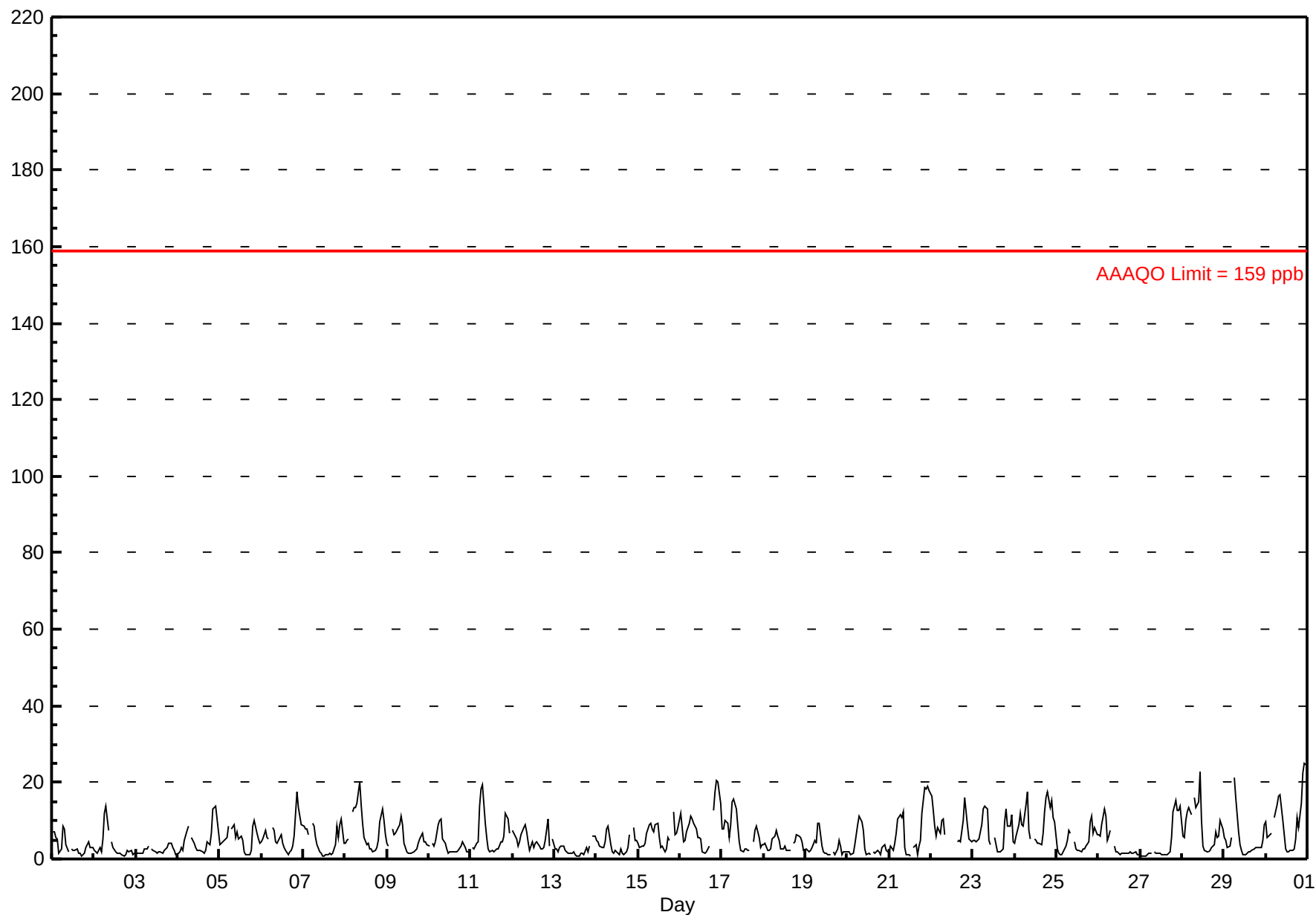
Nitrogen Dioxide (NO₂) - ppb

Henry Pirker - September 2015

Number of Exceedences (AAAO): 1-hr: 0 24-hr: 0 Maximum Value: 25.2 ppb on Sep 30 23:00 Maximum Daily Average: 10.2 ppb on Sep 30																				Hours in Service: 720 Hours of Data: 684 Hours of Missing Data: 36 Hours of Calibration: 36 Percent Operational Time: 100.0						
Minimum Value: 1 ppb on Sep 7 13:00 Maximum Diurnal Average: 10.6 ppb at hour 8 Monthly Average: 5.43 ppb										Minimum Daily Average: 2.2 ppb on Sep 3 Minimum Diurnal Average: 2.1 ppb at hour 16 Percentiles: P ₁ = 0.9 P ₁₀ = 1.5 Q ₁ = 2.1 Median = 4.1 Q ₃ = 7.5 P ₉₀ = 12.0 P ₉₉ = 19.9																
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-Sep	7	7	6	5	2	3	8	8	4	2	A	2	2	2	2	1	1	1	1	3	4	5	3	3	3.6	8.4
2-Sep	2	2	1	3	2	5	12	14	7	A	5	3	2	1	1	1	1	1	1	2	2	2	1	1	3.2	13.7
3-Sep	2	2	2	2	2	2	2	3	A	3	2	2	2	2	2	2	2	3	4	4	3	2	1	2.2	4.0	
4-Sep	2	2	3	2	5	7	9	A	6	4	3	2	2	2	2	2	2	5	4	7	13	13	14	7	5.1	14.0
5-Sep	4	4	4	5	6	9	A	8	9	6	7	5	6	5	2	1	1	1	2	9	10	7	5	4	5.2	10.2
6-Sep	4	5	8	6	5	A	8	7	4	4	5	6	4	3	2	1	2	2	3	6	18	13	11	9	6.0	17.6
7-Sep	9	8	8	6	A	9	8	6	4	2	2	1	1	1	1	1	1	1	4	8	6	9	10	4	4.8	10.5
8-Sep	4	5	5	A	12	13	13	14	20	14	9	6	4	4	3	3	2	2	3	5	10	13	10	6	7.9	20.0
9-Sep	4	3	A	8	6	7	8	9	11	9	4	2	2	1	1	2	2	3	4	5	7	4	4	4	4.8	11.2
10-Sep	3	A	4	3	4	9	10	10	5	4	3	2	2	2	2	2	2	2	3	5	4	3	2	2	3.8	10.3
11-Sep	A	3	3	4	5	14	18	19	9	6	3	2	2	2	2	3	3	5	4	6	12	11	7	A	6.4	19.4
12-Sep	7	7	5	3	4	6	8	9	7	4	2	4	3	4	4	3	3	3	3	5	11	3	A	5	5.0	10.5
13-Sep	3	3	2	3	3	3	2	2	1	1	2	2	1	1	1	2	2	1	3	2	3	A	6	6	2.4	6.0
14-Sep	5	4	4	3	3	4	8	8	4	2	2	2	1	1	3	1	1	2	3	6	A	8	5	5	3.7	8.5
15-Sep	4	3	3	3	4	7	9	9	8	7	9	9	6	3	3	2	3	6	5	A	12	6	7	8	5.9	12.2
16-Sep	12	8	5	5	7	9	11	11	9	8	6	6	5	2	2	2	2	3	A	13	17	20	20	14	8.6	20.4
17-Sep	8	8	10	9	6	9	15	16	13	9	5	2	2	3	2	2	2	A	4	7	9	6	3	4	6.6	15.6
18-Sep	4	4	2	2	3	5	6	7	6	5	3	3	3	2	2	2	A	4	5	6	6	6	5	2	4.0	7.3
19-Sep	3	2	2	2	3	5	4	9	9	3	2	1	2	1	1	A	2	1	3	5	3	1	2	2	3.0	9.3
20-Sep	2	2	1	1	4	6	9	11	10	7	3	1	1	1	A	2	1	2	2	1	3	4	2	2	3.4	11.3
21-Sep	2	3	2	4	7	10	11	11	12	3	1	1	1	A	3	4	1	3	5	12	19	18	19	18	7.4	19.0
22-Sep	16	13	9	6	8	7	10	11	6	C	C	C	C	C	C	5	5	5	10	16	12	9	5	4	8.7	16.3
23-Sep	5	5	5	5	7	9	13	14	13	5	4	A	6	4	2	2	2	3	10	13	9	9	11	4	6.9	13.8
24-Sep	4	6	9	12	9	9	14	18	7	5	A	5	5	4	4	4	7	12	16	17	14	15	11	10	9.4	17.5
25-Sep	3	1	1	1	2	3	5	8	7	A	4	3	2	2	2	3	3	3	5	10	11	7	8	6	4.3	11.0
26-Sep	6	6	9	13	11	5	6	8	A	3	2	2	1	1	1	1	2	2	2	2	2	2	1	1	3.8	13.2
27-Sep	1	1	1	1	1	1	1	A	2	2	2	1	1	1	1	1	1	2	6	12	15	13	13	14	4.1	15.4
28-Sep	6	6	10	12	13	12	A	16	13	15	23	10	3	2	2	2	2	3	4	7	6	6	10	8	8.3	22.8
29-Sep	6	5	3	3	6	A	21	16	7	4	2	1	1	1	2	2	2	2	3	3	3	3	5	9	4.8	21.2
30-Sep	10	6	6	7	A	11	14	16	17	13	10	3	2	2	2	2	3	5	11	8	15	22	25	24	10.2	25.2
5.0 4.6 4.5 4.9 5.3 7.2 9.5 10.6 8.3 5.5 4.5 3.2 2.6 2.2 2.1 2.1 2.2 3.0 4.5 7.1 8.9 8.3 7.9 6.5																								Diurnal Average		
16.3 12.9 10.2 13.2 13.3 14.0 21.2 19.4 20.0 15.1 22.8 10.1 6.1 4.8 4.3 4.5 6.9 12.2 16.1 17.4 18.8 22.4 25.2 24.4																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAO): 1-hr 159 ppb 24-hr 106 ppb																										

Hourly Averages

Nitrogen Dioxide (NO₂) - ppb
Henry Pirker - September 2015



Hourly Maximums

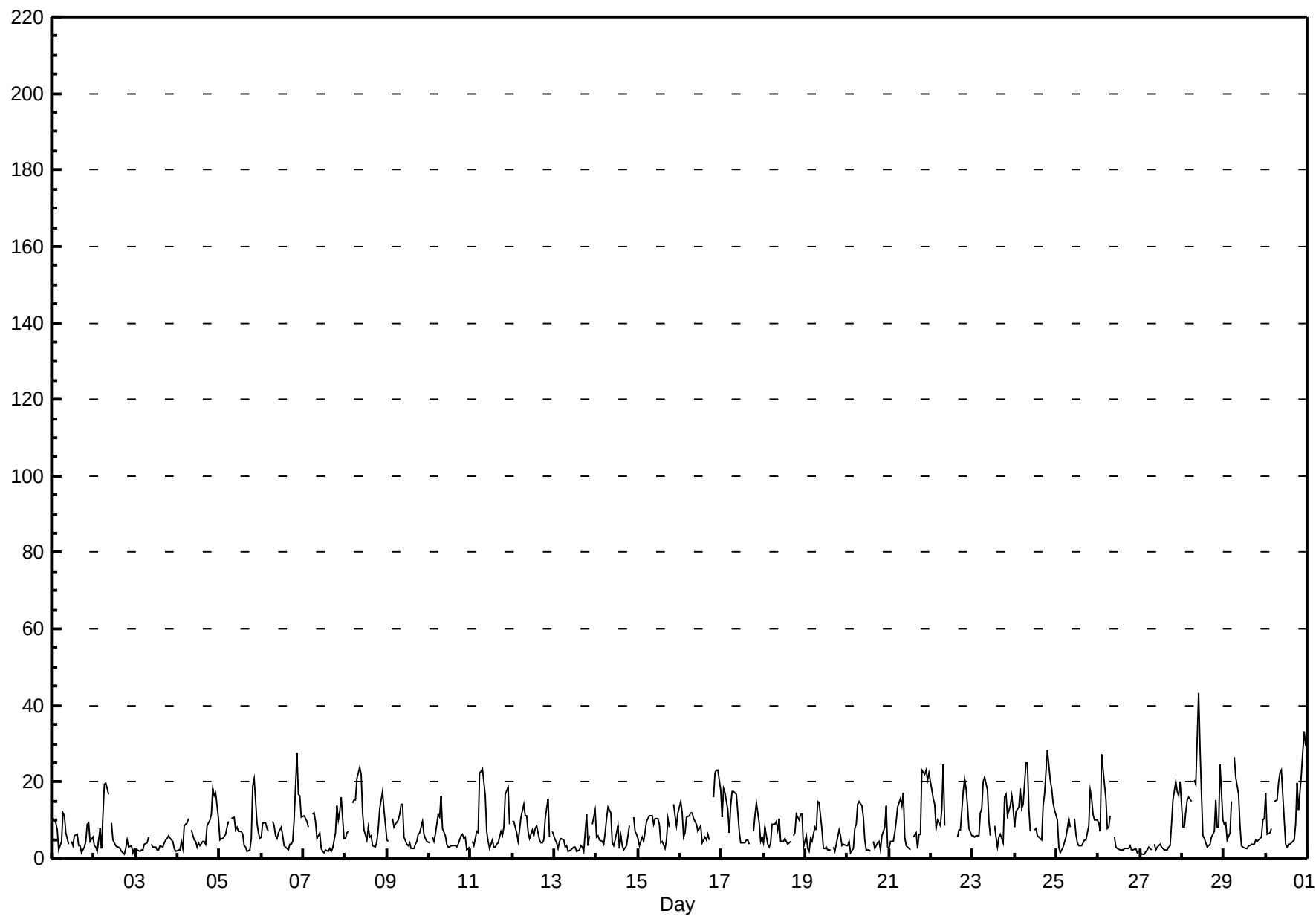
Nitrogen Dioxide (NO₂) - ppb

Henry Pirker - September 2015

Maximum Value: 43.4 ppb on Sep 28 10:00																					Maximum Daily Average: 14.3 ppb on Sep 24					Hours in Service: 720	
Minimum Value: 1 ppb on Sep 27 02:00																					Minimum Daily Average: 3.4 ppb on Sep 3					Hours of Data: 684	
Maximum Diurnal Average: 14.8 ppb at hour 8																					Minimum Diurnal Average: 3.9 ppb at hour 16					Hours of Missing Data: 36	
Monthly Average: 8.22 ppb																					Percentiles: P ₁ = 1.7 P ₁₀ = 2.6 Q ₁ = 3.7 Median = 6.2 Q ₃ = 11.0 P ₉₀ = 16.8 P ₉₉ = 27.6					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-Sep	10	10	9	7	2	5	12	11	7	4	A	4	3	6	6	3	3	2	3	5	9	9	5	5	6.2	12.1	
2-Sep	3	3	2	8	3	11	20	20	17	A	9	5	3	3	3	3	2	1	2	5	3	3	2	3	5.8	19.9	
3-Sep	2	2	2	2	2	4	4	5	A	4	3	3	2	2	3	3	4	5	5	6	5	4	3	2	3.4	5.9	
4-Sep	2	2	5	3	8	9	10	A	8	5	5	3	4	3	4	4	4	9	10	11	18	16	17	11	7.5	18.1	
5-Sep	5	5	5	6	8	10	A	10	11	7	8	7	7	6	3	3	2	2	5	19	21	9	7	5	7.6	20.9	
6-Sep	6	9	9	8	7	A	10	8	6	5	7	8	6	3	3	2	4	4	4	10	28	17	16	11	8.3	27.7	
7-Sep	11	10	10	8	A	11	12	10	5	7	2	2	1	2	2	3	2	3	7	14	10	12	16	5	7.2	16.2	
8-Sep	5	7	7	A	14	15	15	21	24	22	12	7	5	8	6	6	3	3	5	8	13	17	13	9	10.7	23.9	
9-Sep	5	4	A	11	8	9	10	11	14	14	5	4	3	4	3	3	4	4	6	7	10	6	5	5	6.8	14.3	
10-Sep	4	A	6	5	6	12	11	16	8	6	4	3	3	4	3	3	3	4	6	6	5	6	2	3	5.6	16.4	
11-Sep	A	4	3	7	7	22	23	23	17	7	4	3	5	3	3	4	4	7	6	8	17	19	9	A	9.3	23.4	
12-Sep	10	10	7	4	8	11	14	11	11	7	5	7	6	8	9	5	4	4	5	10	16	6	A	7	8.0	15.8	
13-Sep	5	4	2	4	5	5	3	3	2	2	3	3	3	2	2	3	3	2	12	3	6	A	9	13	4.4	12.6	
14-Sep	6	6	5	5	4	7	10	14	12	4	4	5	8	3	6	3	2	3	6	9	A	11	7	6	6.3	13.5	
15-Sep	5	3	5	4	7	10	11	11	11	9	10	11	9	4	5	3	5	10	8	A	14	11	9	12	8.2	14.3	
16-Sep	15	12	5	7	11	11	12	12	11	9	7	8	9	4	6	5	6	5	A	16	22	23	23	18	11.1	23.1	
17-Sep	11	18	17	13	7	14	17	17	17	12	7	4	4	4	5	5	4	A	7	11	15	9	4	6	9.9	18.3	
18-Sep	4	8	4	3	4	9	9	10	7	10	5	5	5	4	4	5	A	6	7	11	10	12	11	3	6.8	11.7	
19-Sep	6	3	2	5	4	8	7	15	15	8	3	3	3	2	2	A	3	2	6	8	6	3	4	3	5.2	15.1	
20-Sep	3	4	1	3	8	9	14	15	14	11	5	2	2	2	A	4	2	4	4	2	6	8	14	3	6.2	15.0	
21-Sep	3	5	5	7	10	13	16	14	17	6	3	2	2	A	5	7	3	6	7	23	22	23	20	22	10.5	23.2	
22-Sep	18	16	14	8	10	9	13	24	9	C	C	C	C	C	C	6	8	7	17	21	18	14	8	6	12.5	24.5	
23-Sep	6	6	6	6	12	13	20	21	18	10	6	A	8	6	3	6	6	4	16	17	11	14	16	13	10.6	21.1	
24-Sep	8	12	14	18	13	14	25	25	13	7	A	7	8	6	6	5	14	17	23	28	21	18	14	13	14.3	28.5	
25-Sep	10	3	2	2	3	5	8	10	8	A	11	6	4	3	3	4	5	5	9	18	16	11	10	10	7.3	17.8	
26-Sep	9	7	27	19	16	8	8	11	A	6	3	3	2	2	2	3	3	3	3	2	2	3	2	2	6.3	27.3	
27-Sep	2	1	1	2	2	3	2	A	4	2	3	4	3	2	2	2	3	3	9	15	20	18	16	20	6.1	20.2	
28-Sep	8	8	12	15	16	15	A	20	20	43	29	17	6	5	3	3	4	6	7	15	8	8	25	10	13.2	43.4	
29-Sep	9	9	5	7	15	A	26	21	17	9	3	3	3	3	3	3	4	4	5	5	5	5	10	10	8.0	26.3	
30-Sep	17	7	7	8	A	15	15	20	22	23	17	4	3	4	4	5	5	9	20	13	22	28	33	29	14.2	33.2	
7.2 6.9 6.9 7.1 7.9 10.2 12.9 14.8 12.2 9.6 6.7 5.1 4.6 3.9 3.9 3.9 3.9 4.0 5.0 7.9 11.3 13.1 11.9 11.4 9.2																									Diurnal Average		
17.7 18.3 27.3 19.2 16.0 22.4 26.3 25.1 23.9 43.4 28.6 16.7 9.0 8.2 8.5 6.8 13.6 16.9 22.6 28.5 27.7 28.1 33.2 29.3																									Diurnal Maximum		
C - Calibration																											
A - Automated Daily Zero Span																											

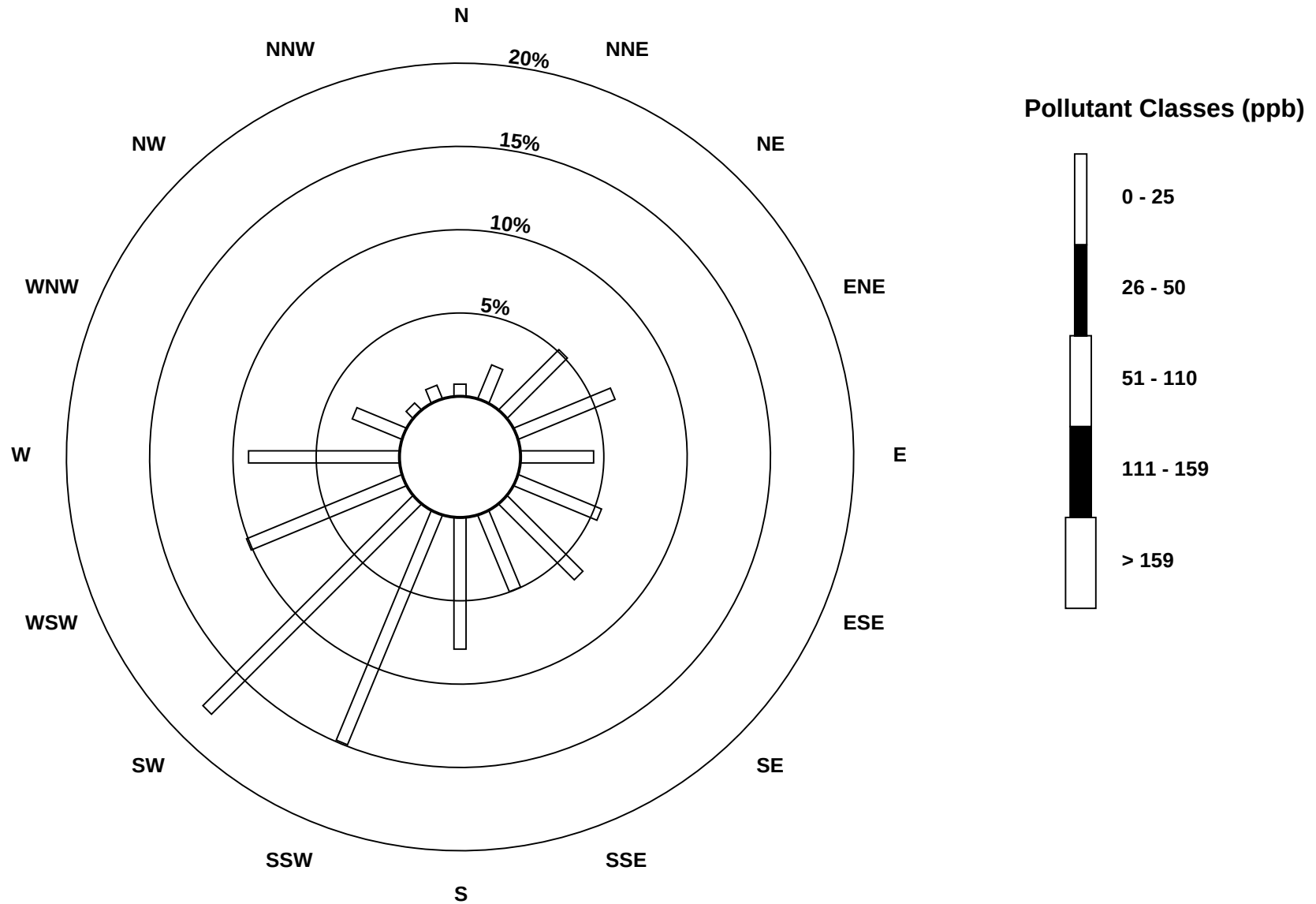
Hourly Maximums

Nitrogen Dioxide (NO₂) - ppb
Henry Pirker - September 2015



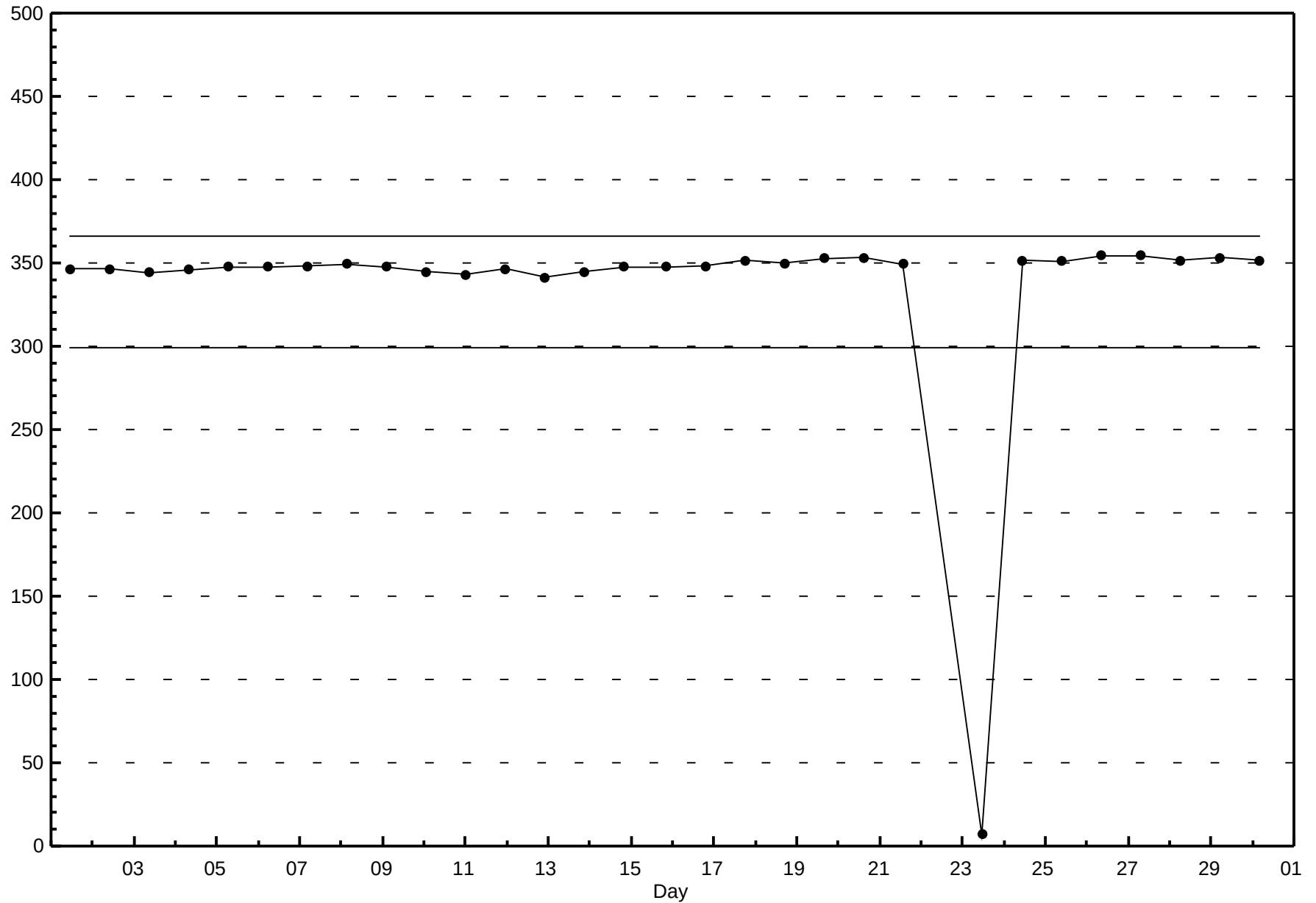
Pollutant Rose

Nitrogen Dioxide (NO₂) - ppb
Henry Pirker - September 2015



Span Responses

Nitrogen Dioxide (NO₂)
Henry Pirker - September 2015



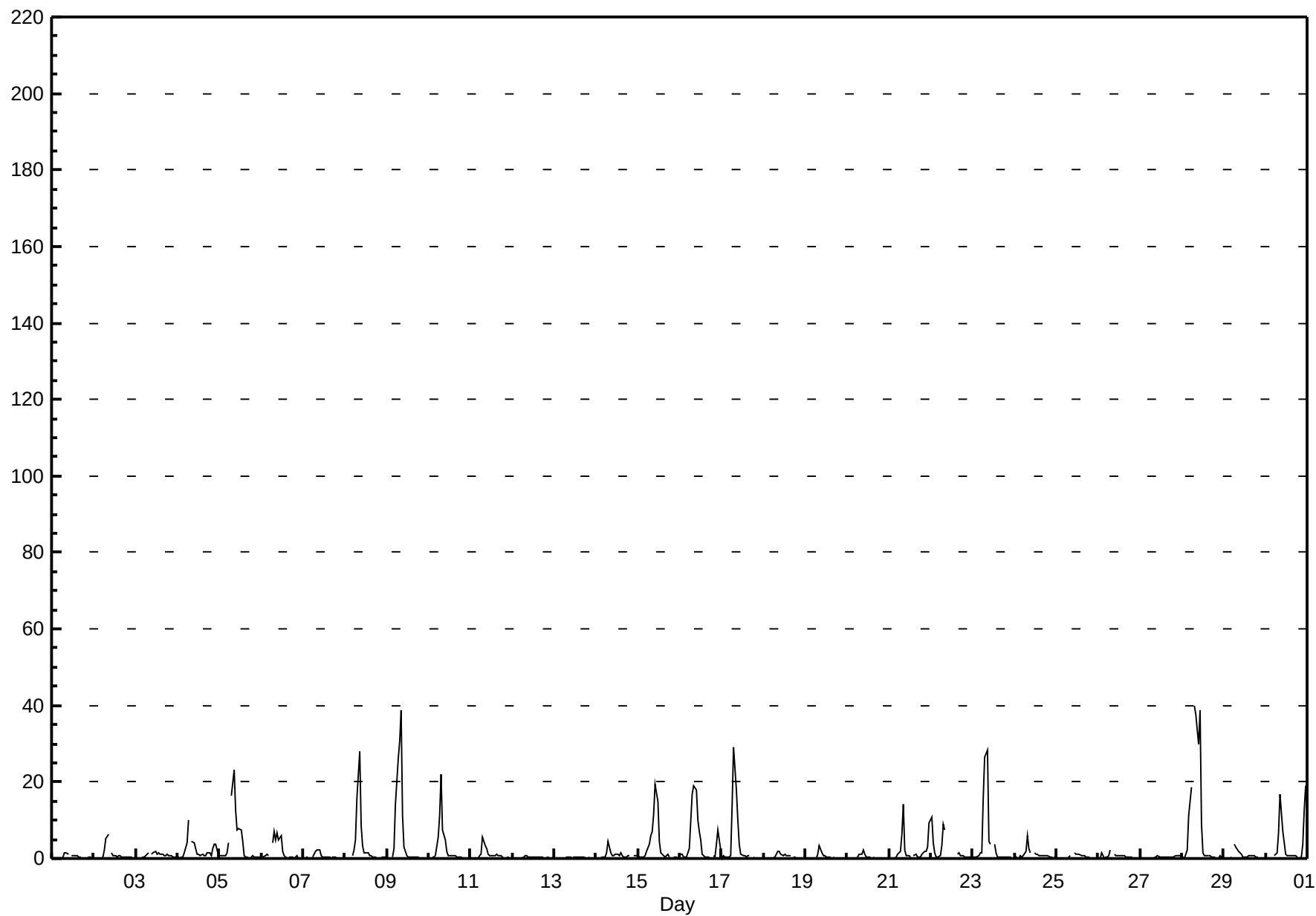
Hourly Averages

Nitrogen Oxide (NO) - ppb
Henry Pirker - September 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 40.1 ppb on Sep 28 08:00 Maximum Daily Average: 8.5 ppb on Sep 28																				Hours in Service: 720 Hours of Data: 684 Hours of Missing Data: 36 Hours of Calibration: 36 Percent Operational Time: 100.0						
Minimum Value: 0 ppb on Sep 8 01:00 Minimum Daily Average: 0.2 ppb on Sep 13 Maximum Diurnal Average: 10.1 ppb at hour 9 Minimum Diurnal Average: 0.3 ppb at hour 4 Monthly Average: 2.04 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.2 Median = 0.5 Q ₃ = 1.1 P ₉₀ = 4.6 P ₉₉ = 28.7																										
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-Sep	0	0	0	0	0	0	0	1	1	1	A	1	1	1	1	1	0	0	0	0	0	0	0	0	0.4	1.4
2-Sep	0	0	0	0	0	1	2	5	6	A	1	1	1	0	1	1	0	0	0	0	0	0	0	0	1.0	6.5
3-Sep	0	0	0	0	0	1	1	2	A	1	2	2	1	1	1	1	1	1	1	1	1	0	0	0	0.8	1.7
4-Sep	0	0	0	0	2	4	10	A	4	4	2	1	1	1	1	1	1	2	1	1	2	4	4	1	2.1	10.0
5-Sep	1	1	1	1	1	4	A	16	23	13	8	8	7	4	1	0	0	0	0	1	0	0	0	0	4.0	23.1
6-Sep	0	0	1	1	1	A	4	7	5	7	5	6	2	1	0	0	0	0	0	0	1	0	0	0	1.8	7.0
7-Sep	0	0	0	0	A	0	1	2	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	2.3
8-Sep	0	0	0	A	1	2	5	16	28	8	3	1	1	2	1	1	0	0	0	0	0	0	0	0	3.1	27.8
9-Sep	0	0	A	1	3	14	26	31	39	11	3	1	0	0	0	0	0	0	0	0	0	0	0	0	5.7	38.8
10-Sep	0	A	0	0	1	5	11	22	7	5	2	1	1	1	1	1	1	0	0	0	0	0	0	0	2.6	22.1
11-Sep	A	0	0	0	0	1	1	5	3	3	1	1	1	1	1	1	1	1	0	0	0	0	0	A	1.0	5.4
12-Sep	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	A	0	0.3	0.9
13-Sep	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
14-Sep	0	0	0	0	0	0	2	4	2	1	1	1	1	1	2	1	0	0	1	1	A	1	1	1	0.9	4.5
15-Sep	1	0	0	1	1	2	4	6	7	11	19	15	4	2	1	1	1	1	0	A	0	1	0	0	3.4	19.5
16-Sep	1	1	0	0	0	3	10	17	19	18	10	7	5	1	1	0	0	0	A	1	0	4	7	2	4.7	19.2
17-Sep	0	1	0	1	0	1	14	29	18	10	4	1	1	1	1	1	1	A	0	0	0	0	0	0	3.6	28.9
18-Sep	0	0	0	0	0	0	0	1	2	2	1	1	1	1	1	0	1	A	0	0	0	0	0	0	0.5	1.7
19-Sep	0	0	0	0	0	0	0	1	4	1	1	1	1	0	0	A	0	0	0	0	0	0	0	0	0.4	3.5
20-Sep	0	0	0	0	0	0	1	1	1	2	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0.4	2.3
21-Sep	0	0	0	0	0	1	2	6	14	2	1	1	1	A	1	1	0	0	0	1	2	2	3	9	2.1	14.0
22-Sep	11	4	1	1	0	1	3	9	8	C	C	C	C	C	C	1	1	1	1	1	0	0	0	0	2.4	10.7
23-Sep	0	0	0	1	1	2	16	27	28	5	4	A	4	1	1	0	0	0	0	0	0	0	0	0	4.0	28.5
24-Sep	0	0	0	1	0	1	2	6	2	2	A	1	1	1	1	1	1	1	1	1	1	0	0	0	1.0	5.9
25-Sep	0	0	0	0	0	0	0	0	1	A	2	1	1	1	1	1	1	1	0	0	0	0	0	0	0.4	1.6
26-Sep	0	0	2	0	0	0	1	2	A	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0.5	2.1
27-Sep	0	0	0	0	0	0	0	A	0	0	1	0	0	0	1	0	0	0	0	0	1	1	1	1	0.3	0.9
28-Sep	0	0	1	2	11	19	A	40	38	30	39	9	2	1	1	1	1	1	0	0	0	0	1	0	8.5	40.1
29-Sep	0	0	0	0	0	A	4	3	2	2	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0.8	3.8
30-Sep	0	0	0	0	A	1	2	7	17	12	7	1	1	1	1	1	1	1	0	0	0	4	13	19	3.8	19.0
0.6 0.3 0.3 0.3 0.9 2.2 4.4 9.5 10.1 5.7 4.4 2.3 1.4 0.9 0.7 0.6 0.5 0.5 0.4 0.3 0.4 0.6 1.1 1.2																								Diurnal Average		
10.7 4.1 1.7 2.1 11.0 18.6 26.2 40.1 38.8 29.8 38.9 15.1 7.4 4.3 1.6 1.3 1.4 1.5 1.5 1.1 2.4 3.8 12.7 19.0																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										

Hourly Averages

Nitrogen Oxide (NO) - ppb
Henry Pirker - September 2015



Hourly Maximums

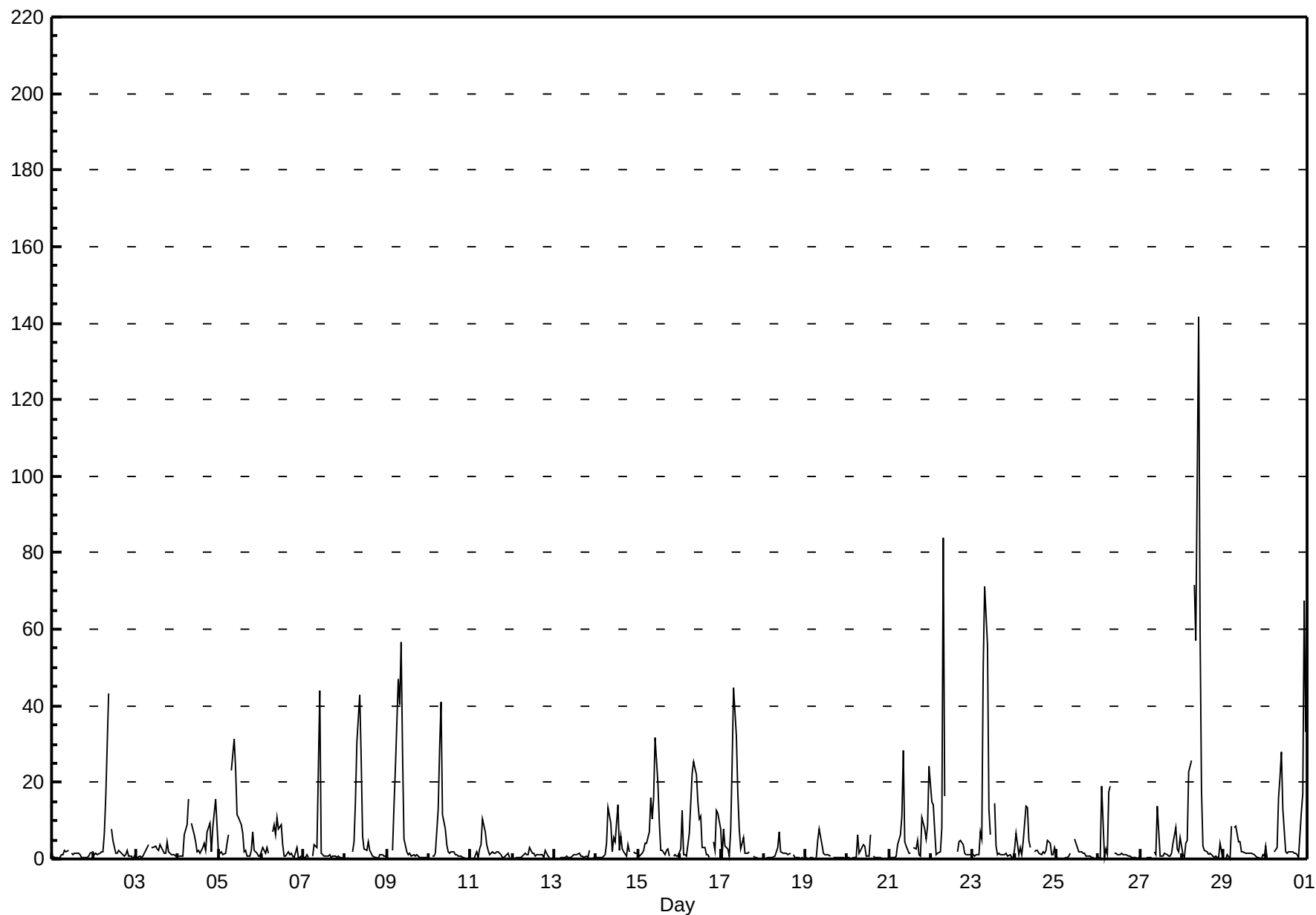
Nitrogen Oxide (NO) - ppb

Henry Pirker - September 2015

Maximum Value: 141.6 ppb on Sep 28 10:00																					Maximum Daily Average: 18.4 ppb on Sep 28					Hours in Service: 720	
Minimum Value: 0 ppb on Sep 8 01:00																					Minimum Daily Average: 0.6 ppb on Sep 13					Hours of Data: 684	
Maximum Diurnal Average: 20.8 ppb at hour 8																					Minimum Diurnal Average: 1.1 ppb at hour 4					Hours of Missing Data: 36	
Monthly Average: 4.83 ppb																					Percentiles: P ₁ = 0.1 P ₁₀ = 0.2 Q ₁ = 0.6 Median = 1.4 Q ₃ = 3.6 P ₉₀ = 12.7 P ₉₉ = 56.0					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-Sep	1	0	0	0	0	1	1	2	2	A	2	1	2	2	2	1	0	0	0	0	1	2	2	1.1	2.4		
2-Sep	1	1	1	2	2	2	7	16	43	A	8	5	2	1	2	2	1	1	1	2	1	1	0	1	4.5	43.3	
3-Sep	0	0	1	0	1	2	3	4	A	3	3	4	2	2	4	2	2	1	5	2	1	1	1	1	2.0	4.5	
4-Sep	1	1	1	1	6	9	16	A	9	6	5	2	2	1	3	4	2	7	9	2	8	12	16	2	5.4	15.8	
5-Sep	2	2	1	2	4	6	A	23	31	24	12	11	9	7	2	2	1	1	2	7	2	1	1	1	6.7	31.3	
6-Sep	2	3	2	3	1	A	7	9	6	11	8	9	4	1	1	2	1	1	1	0	3	0	0	1	3.3	11.0	
7-Sep	0	0	1	0	A	1	4	3	3	44	1	1	1	1	1	1	0	1	1	0	1	0	0	0	2.9	44.0	
8-Sep	0	0	0	A	2	4	15	30	43	27	6	2	2	4	2	2	1	0	0	0	1	1	1	1	6.4	42.9	
9-Sep	0	1	A	2	14	24	47	40	57	28	5	2	1	1	1	1	1	1	1	0	0	0	0	0	9.9	56.7	
10-Sep	0	A	1	1	1	13	29	41	12	8	4	2	2	2	2	1	1	1	1	0	0	0	0	0	5.3	41.2	
11-Sep	A	0	0	2	0	2	4	10	7	4	2	1	2	1	2	2	2	1	0	0	1	1	0	A	2.1	10.5	
12-Sep	0	0	0	0	0	0	1	1	1	1	3	2	2	1	1	1	1	1	0	2	1	0	A	0	0.9	2.8	
13-Sep	0	0	0	0	0	0	0	1	0	0	1	1	1	1	2	1	1	0	1	0	2	A	0	1	0.6	2.3	
14-Sep	0	0	0	0	1	1	4	13	9	2	6	4	14	2	6	3	2	1	4	2	A	2	2	2	3.5	14.2	
15-Sep	1	1	2	2	4	4	7	16	10	16	32	20	9	2	2	1	2	3	1	A	1	1	1	1	6.0	31.8	
16-Sep	3	13	1	1	1	7	15	22	25	22	15	11	11	3	3	1	1	0	A	5	2	13	12	8	8.4	25.5	
17-Sep	0	8	3	3	1	8	25	45	32	17	8	3	5	1	1	1	2	A	1	0	0	0	0	0	7.2	44.9	
18-Sep	0	0	0	0	0	0	1	2	3	7	2	1	1	2	1	1	A	1	0	0	0	0	0	0	1.1	7.0	
19-Sep	0	0	0	0	0	0	0	5	8	4	1	1	1	1	1	A	0	0	0	0	0	0	0	0	1.1	7.8	
20-Sep	0	0	0	0	0	0	6	2	3	4	3	1	1	6	A	1	0	0	0	0	0	0	0	0	1.3	6.4	
21-Sep	0	0	0	0	1	4	6	11	28	5	3	2	1	A	3	3	5	1	1	11	8	5	9	24	5.7	28.3	
22-Sep	15	14	7	1	1	2	8	84	17	C	C	C	C	C	C	2	5	5	4	1	1	1	1	1	9.5	84.0	
23-Sep	1	1	1	1	7	5	50	71	56	13	6	A	14	3	1	2	1	1	1	1	1	1	0	0	10.5	71.1	
24-Sep	3	7	1	3	1	4	14	14	5	3	A	2	2	2	1	1	2	1	2	5	4	1	1	3	3.6	13.6	
25-Sep	0	0	0	0	0	0	0	1	2	A	5	4	3	2	2	1	1	1	1	1	0	0	0	0	1.1	5.0	
26-Sep	0	0	19	0	3	1	18	19	A	2	1	1	1	1	1	1	1	1	1	0	0	0	0	0	3.2	19.2	
27-Sep	0	0	0	0	0	0	0	A	2	1	14	1	1	1	1	1	1	1	2	4	8	2	2	5	2.1	14.0	
28-Sep	1	0	4	5	23	26	A	72	57	142	60	18	3	2	2	1	1	1	0	1	0	0	4	0	18.4	141.6	
29-Sep	0	0	1	0	9	A	8	8	5	5	2	2	1	1	2	2	1	1	1	0	0	0	1	1	2.2	8.8	
30-Sep	3	0	0	0	A	2	3	16	21	28	13	2	2	2	2	2	1	1	1	0	12	17	67	33	10.0	67.5	
1.3 1.9 1.7 1.1 3.0 4.6 10.7 20.8 17.8 15.8 8.5 4.1 3.6 2.1 1.9 1.6 1.5 1.3 1.4 1.7 2.1 2.3 4.2 3.1																									Diurnal Average		
14.9 14.0 19.2 4.9 22.6 25.6 49.9 84.0 57.0 141.6 59.9 19.6 14.5 6.8 6.1 4.1 4.9 7.0 9.2 10.7 12.2 17.0 67.5 33.1																									Diurnal Maximum		
C - Calibration																									A - Automated Daily Zero Span		

Hourly Maximums

Nitrogen Oxide (NO) - ppb
Henry Pirker - September 2015



Hourly Averages

Oxides of Nitrogen (NO_x) - ppb

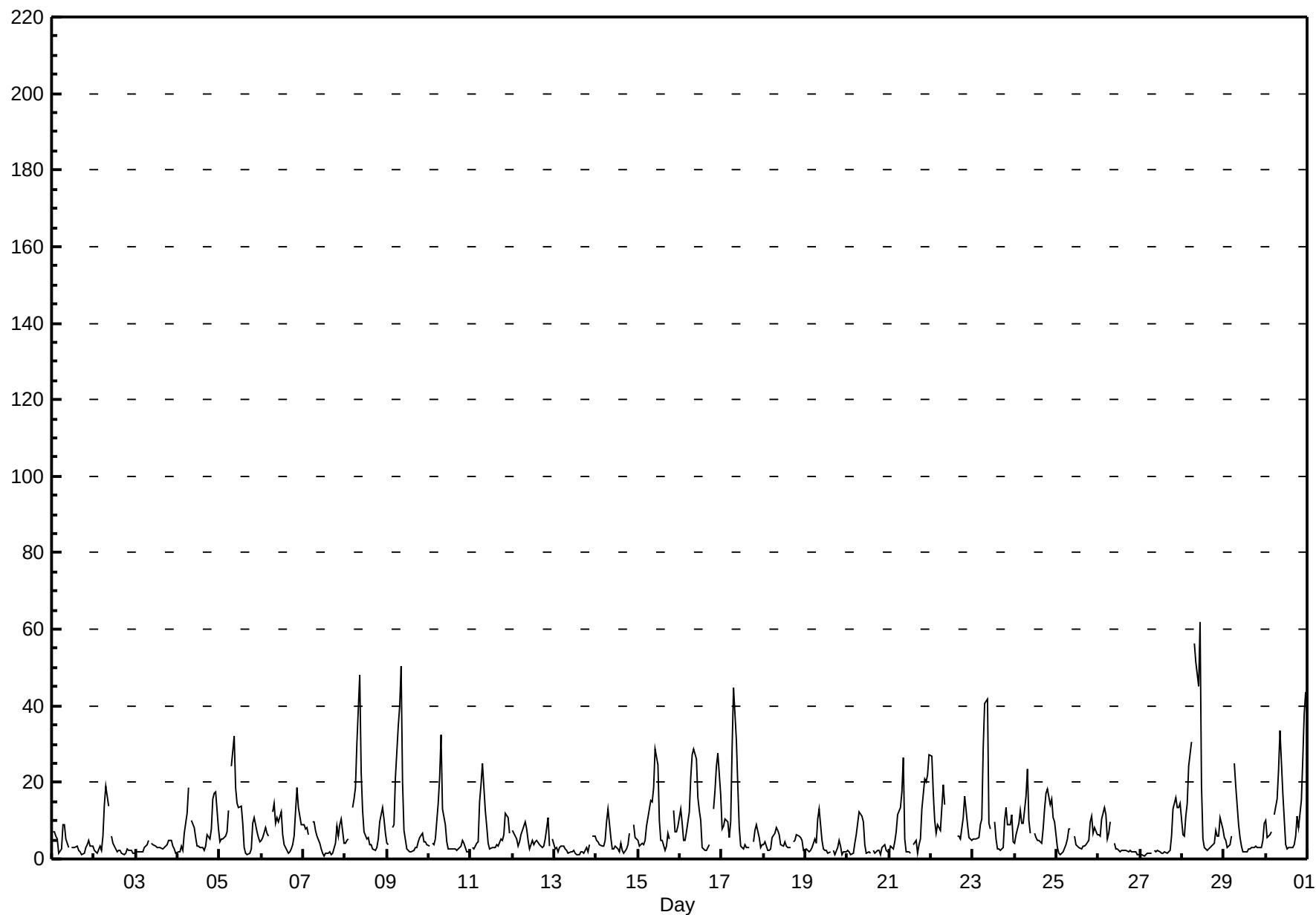
Henry Pirker - September 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 62.0 ppb on Sep 28 11:00 Maximum Daily Average: 16.9 ppb on Sep 28																					Hours in Service: 720 Hours of Data: 684 Hours of Missing Data: 36 Hours of Calibration: 36 Percent Operational Time: 100.0					
Minimum Value: 1 ppb on Sep 27 03:00 Minimum Daily Average: 2.6 ppb on Sep 13 Maximum Diurnal Average: 20.3 ppb at hour 8 Minimum Diurnal Average: 2.7 ppb at hour 17 Monthly Average: 7.52 ppb Percentiles: P ₁ = 1.1 P ₁₀ = 1.8 Q ₁ = 2.7 Median = 4.8 Q ₃ = 9.2 P ₉₀ = 16.4 P ₉₉ = 44.7																										
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-Sep	7	7	6	5	2	3	9	9	5	3	A	3	3	3	3	2	2	1	2	3	4	5	3	3	4.0	9.0
2-Sep	2	2	1	3	2	6	14	19	14	A	6	4	3	2	2	2	2	1	2	3	2	2	1	2	4.2	19.0
3-Sep	2	2	2	2	2	3	4	5	A	4	4	3	3	3	3	3	3	3	4	5	5	3	3	1	3.1	4.9
4-Sep	2	2	3	2	7	12	19	A	10	8	6	3	3	3	3	2	3	6	5	8	16	17	18	8	7.3	18.8
5-Sep	5	5	5	6	7	13	A	24	32	18	15	13	14	9	3	2	1	1	3	9	11	7	6	5	9.3	32.2
6-Sep	5	6	8	7	6	A	12	15	9	11	10	12	6	4	3	1	2	2	4	6	18	14	11	9	7.8	18.5
7-Sep	9	8	8	6	A	10	10	7	6	4	2	1	1	1	1	2	1	2	4	9	6	9	11	4	5.3	10.6
8-Sep	4	5	5	A	13	15	19	30	48	23	13	7	5	6	4	4	3	2	3	5	10	13	10	7	11.0	48.1
9-Sep	4	4	A	8	9	21	35	40	50	20	7	3	2	2	2	2	3	3	4	5	7	5	4	4	10.6	50.2
10-Sep	3	A	4	4	5	14	21	33	13	9	5	2	3	3	2	3	2	3	4	5	4	3	2	2	6.4	32.6
11-Sep	A	3	3	4	5	15	19	25	13	8	4	3	3	3	3	4	3	5	5	6	12	11	7	A	7.4	24.8
12-Sep	7	7	5	3	4	6	9	10	8	5	3	5	4	5	5	4	3	3	3	5	11	3	A	5	5.3	10.8
13-Sep	3	3	2	3	3	3	3	2	2	2	2	2	2	1	1	2	2	2	3	2	4	A	6	6	2.6	6.1
14-Sep	5	5	4	3	3	5	10	13	6	3	2	3	3	2	4	2	2	3	4	7	A	9	6	5	4.6	13.0
15-Sep	5	3	4	4	5	9	13	15	15	19	29	25	10	5	5	2	3	7	5	A	13	7	7	8	9.4	28.7
16-Sep	13	9	5	5	7	12	21	27	29	26	16	12	10	3	2	2	3	4	A	13	18	24	27	17	13.4	28.7
17-Sep	8	9	11	10	6	10	29	45	31	19	8	4	3	4	3	3	3	A	5	8	9	6	3	4	10.3	44.8
18-Sep	4	4	2	2	3	5	7	8	8	6	4	3	4	3	3	3	A	5	5	6	6	6	5	2	4.6	8.3
19-Sep	3	2	2	2	3	5	4	11	13	5	3	2	2	1	2	A	2	1	3	5	4	1	2	2	3.5	12.9
20-Sep	2	2	1	2	4	7	9	12	11	10	4	2	2	2	A	2	2	2	2	1	3	4	2	2	3.9	12.5
21-Sep	2	3	3	4	7	12	14	17	26	5	2	2	1	A	4	5	2	4	5	13	21	20	22	27	9.6	27.4
22-Sep	27	17	10	7	9	8	13	19	14	C	C	C	C	C	C	6	6	5	11	16	13	9	6	5	11.1	27.0
23-Sep	5	5	5	6	9	11	29	41	42	9	8	A	10	5	3	3	2	3	10	14	9	9	12	4	10.9	41.6
24-Sep	4	6	9	13	9	9	16	24	10	7	A	7	6	5	5	4	8	13	17	18	14	16	11	10	10.5	23.5
25-Sep	3	1	1	1	2	4	5	8	8	A	6	4	3	3	3	3	4	4	5	10	11	7	8	6	4.8	11.2
26-Sep	6	6	11	13	11	5	7	10	A	4	2	3	2	2	2	2	2	2	2	2	2	1	1	1	4.4	13.3
27-Sep	1	1	1	1	1	2	2	A	2	2	2	2	2	1	2	2	2	2	6	13	16	13	13	15	4.5	16.2
28-Sep	6	6	11	14	24	30	A	56	51	45	62	19	5	3	2	3	3	3	4	7	6	6	11	8	16.9	62.0
29-Sep	6	5	3	4	6	A	25	19	9	6	3	2	2	2	2	3	3	3	3	3	3	3	5	9	5.6	25.0
30-Sep	10	6	6	7	A	12	16	23	33	25	17	4	3	3	3	3	4	6	11	8	15	26	38	44	14.0	43.5
5.6 5.0 4.9 5.3 6.2 9.5 14.0 20.3 18.5 11.3 9.0 5.6 4.1 3.1 2.9 2.8 2.7 3.5 4.9 7.4 9.3 9.0 9.0 7.8 27.0 17.0 11.3 14.4 24.4 30.5 34.7 56.4 51.4 45.1 62.0 24.7 13.7 9.2 5.0 5.8 7.8 13.1 17.0 18.2 20.8 26.0 37.9 43.5																									Diurnal Average	Diurnal Maximum
C - Calibration A - Automated Daily Zero Span																										

Hourly Averages

Oxides of Nitrogen (NO_x) - ppb

Henry Pirker - September 2015



Hourly Maximums

Oxides of Nitrogen (NO_x) - ppb

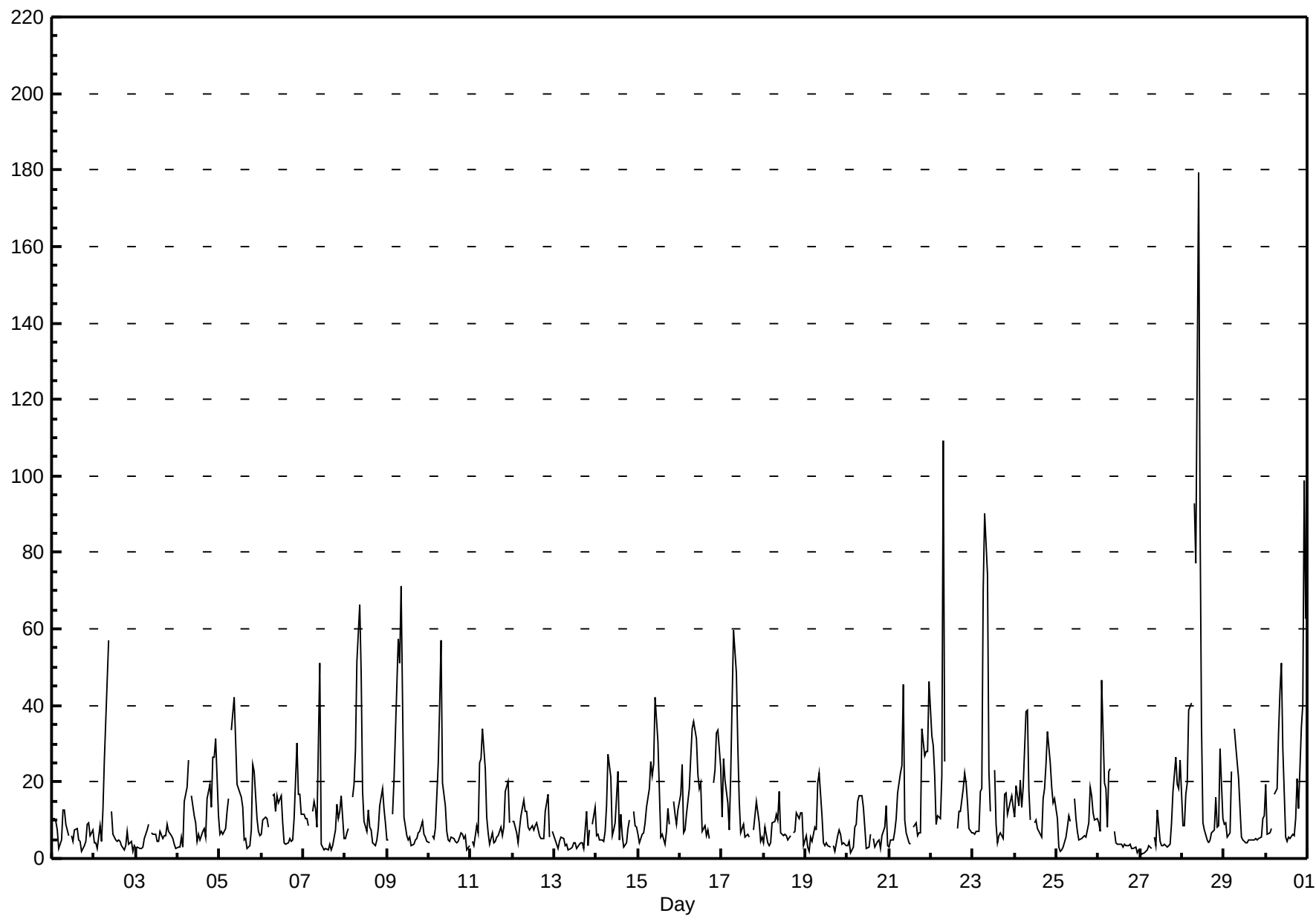
Henry Pirker - September 2015

Maximum Value: 179.4 ppb on Sep 28 10:00																					Maximum Daily Average: 31.4 ppb on Sep 28					Hours in Service: 720	
Minimum Value: 1 ppb on Sep 27 02:00																					Minimum Daily Average: 4.9 ppb on Sep 13					Hours of Data: 684	
Maximum Diurnal Average: 34.9 ppb at hour 8																					Minimum Diurnal Average: 5.4 ppb at hour 17					Hours of Missing Data: 36	
Monthly Average: 12.80 ppb																					Percentiles: P ₁ = 1.9 P ₁₀ = 3.3 Q ₁ = 4.9 Median = 7.8 Q ₃ = 15.6 P ₉₀ = 26.4 P ₉₉ = 73.2					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-Sep	11	11	10	7	2	5	13	13	9	6	A	6	5	7	8	5	4	2	3	5	9	9	6	7	7.1	12.9	
2-Sep	4	4	3	8	4	13	26	36	57	A	12	6	5	4	5	5	3	2	3	7	4	4	2	3	9.7	57.1	
3-Sep	2	3	3	3	3	5	7	9	A	7	6	6	5	4	7	5	6	6	9	7	6	5	4	3	5.3	9.1	
4-Sep	3	3	5	3	15	19	26	A	16	11	9	5	6	5	7	8	6	16	19	13	26	26	31	11	12.7	31.4	
5-Sep	6	7	6	8	12	16	A	34	42	31	19	18	16	13	5	5	2	3	8	25	23	10	7	6	14.1	42.3	
6-Sep	6	10	11	10	8	A	16	17	12	17	14	17	9	4	4	4	5	5	5	10	30	17	17	11	11.3	30.2	
7-Sep	11	11	10	9	A	12	15	13	8	51	4	3	2	3	2	4	2	3	7	14	10	12	17	5	10.0	51.1	
8-Sep	5	7	8	A	16	19	28	51	66	48	17	10	7	13	8	7	4	3	5	8	14	18	13	9	16.8	66.5	
9-Sep	5	5	A	12	21	33	58	51	71	41	11	6	5	5	3	4	5	5	7	7	10	6	6	5	16.5	71.2	
10-Sep	4	A	6	5	8	25	40	57	20	14	7	5	4	6	5	5	4	4	7	6	5	6	2	3	10.8	57.2	
11-Sep	A	4	4	9	7	25	26	34	24	11	7	4	7	4	4	5	6	8	6	8	18	20	9	A	11.3	33.9	
12-Sep	10	10	7	4	8	11	15	12	12	8	8	8	7	9	9	6	5	5	5	12	17	6	A	7	8.8	16.7	
13-Sep	5	4	3	4	5	5	3	4	2	3	3	4	4	3	4	4	4	3	12	3	8	A	9	13	4.9	13.3	
14-Sep	6	6	5	5	4	7	14	27	21	6	7	9	23	5	11	6	3	4	8	10	A	12	9	8	9.4	27.1	
15-Sep	6	4	6	7	9	13	18	25	22	25	42	30	18	6	6	4	7	13	9	A	15	12	9	13	13.9	42.2	
16-Sep	17	25	7	7	12	18	26	34	36	31	22	18	20	7	8	6	7	5	A	20	23	33	33	24	19.1	35.8	
17-Sep	11	26	20	15	7	21	41	60	48	29	15	7	9	5	6	6	6	A	8	11	15	9	4	6	16.8	59.7	
18-Sep	4	8	4	3	4	9	10	11	10	18	7	6	6	6	5	6	A	7	7	12	10	12	12	3	7.9	17.6	
19-Sep	6	3	2	5	4	8	8	20	22	11	4	3	4	3	3	A	3	2	6	8	6	4	4	4	6.3	22.4	
20-Sep	4	4	2	3	8	9	15	17	16	13	8	3	3	6	A	5	3	5	5	3	6	8	14	3	7.1	16.6	
21-Sep	3	5	5	7	11	17	22	24	45	10	7	4	4	A	8	9	6	7	7	34	27	28	28	46	15.8	46.1	
22-Sep	32	29	21	9	11	10	22	109	25	C	C	C	C	C	C	8	12	12	18	22	20	15	8	7	21.7	109.1	
23-Sep	7	6	7	7	17	18	71	90	74	23	12	A	23	9	4	6	7	5	17	17	12	15	17	13	20.8	90.4	
24-Sep	11	19	14	21	13	19	39	39	18	10	A	9	10	8	7	6	16	18	25	33	25	19	15	16	17.7	38.7	
25-Sep	10	3	2	2	3	6	8	11	10	A	16	11	7	5	5	6	6	5	9	19	16	12	10	10	8.4	18.8	
26-Sep	9	7	47	20	18	8	23	24	A	A	7	4	4	4	3	4	3	3	4	3	3	3	2	2	9.0	46.5	
27-Sep	2	1	1	2	2	3	2	A	6	4	13	4	4	3	4	3	4	4	9	17	26	19	18	26	7.7	26.4	
28-Sep	8	9	17	20	39	41	A	93	77	179	88	35	9	8	5	4	5	7	8	16	8	9	29	10	31.4	179.4	
29-Sep	9	9	6	7	23	A	34	30	21	13	5	5	4	4	5	5	5	5	5	5	5	5	10	11	10.0	33.8	
30-Sep	19	6	7	8	A	17	18	33	44	51	29	5	5	6	5	6	6	10	21	13	34	40	99	63	23.7	98.8	
8.2 8.6 8.5 7.9 10.6 14.7 23.0 34.9 29.9 25.1 14.7 9.0 8.1 5.9 5.7 5.4 5.4 6.2 9.0 12.7 14.9 13.7 15.3 12.0																									Diurnal Average		
32.0 29.4 46.5 20.6 38.7 40.5 70.6 109.1 77.1 179.4 88.3 34.5 23.0 13.3 11.4 9.4 15.6 18.4 24.7 33.8 34.3 40.4 98.8 62.7																									Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																											

Hourly Maximums

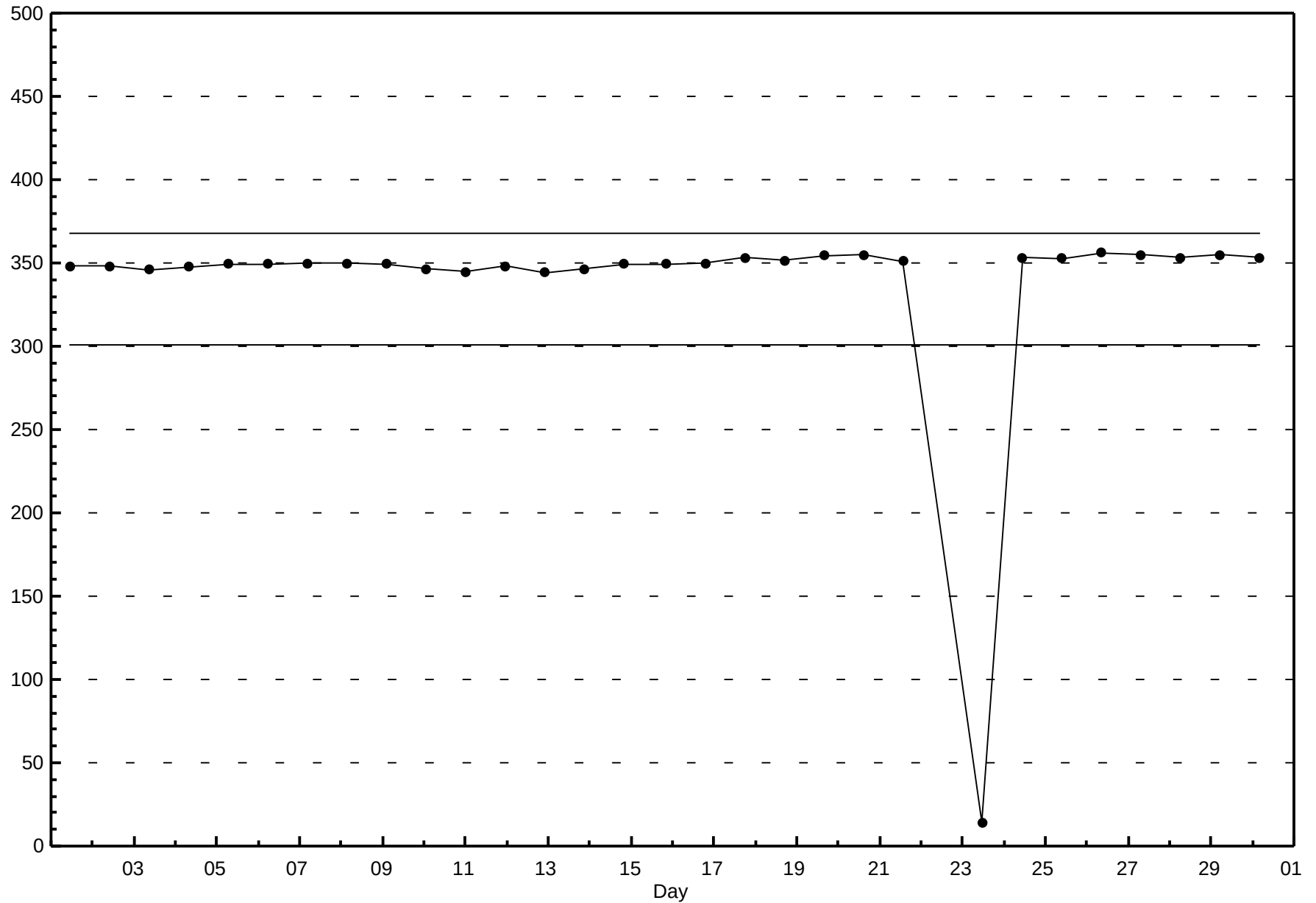
Oxides of Nitrogen (NO_x) - ppb

Henry Pirker - September 2015



Span Responses

Oxides of Nitrogen (NO_x)
Henry Pirker - September 2015



Hourly Averages

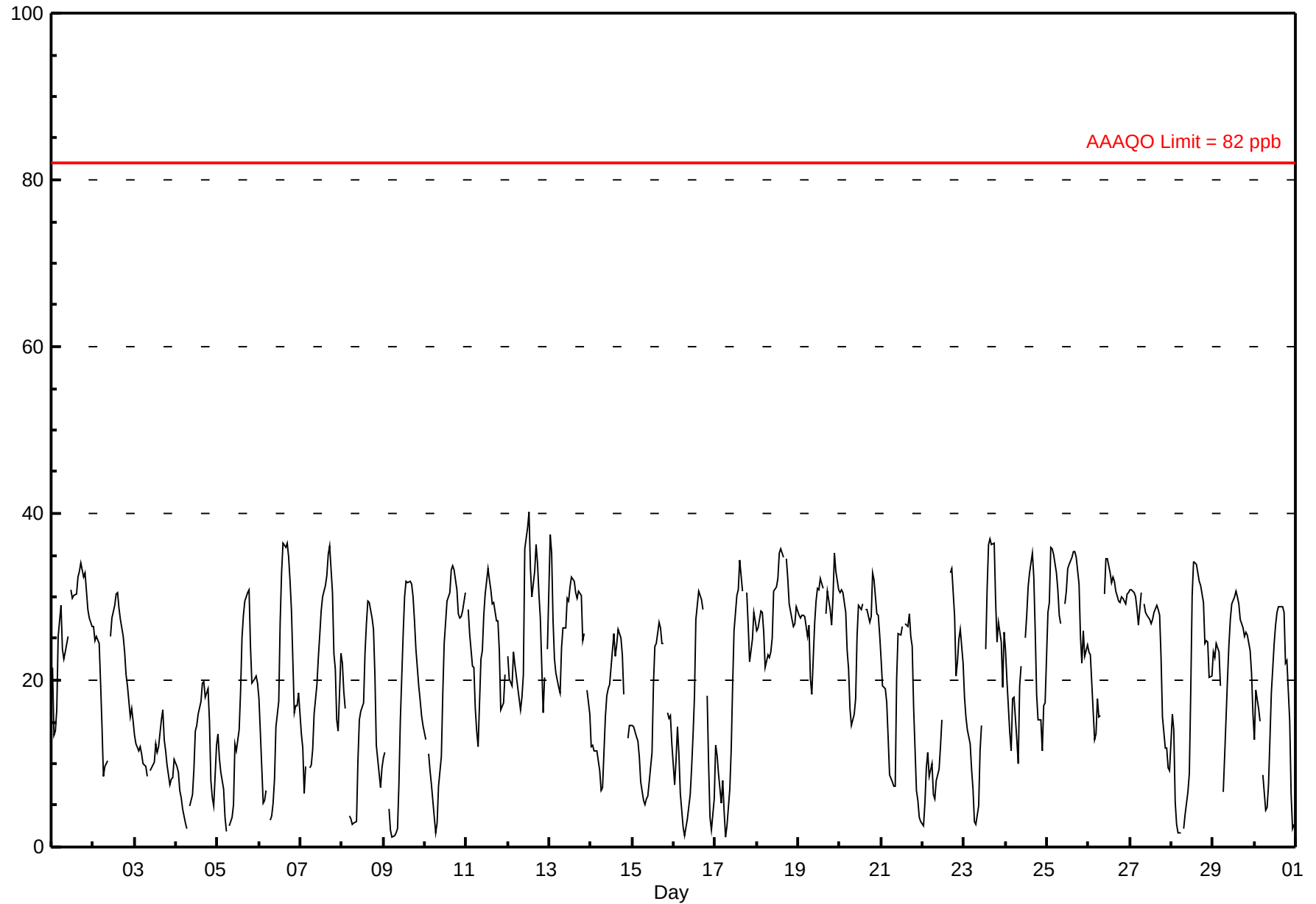
Ozone (O₃) - ppb

Henry Pirker - September 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 40.2 ppb on Sep 12 13:00 Maximum Daily Average: 30.5 ppb on Sep 25																								Hours in Service: 720 Hours of Data: 687 Hours of Missing Data: 33 Hours of Calibration: 33 Percent Operational Time: 100.0			
Minimum Value: 1 ppb on Sep 9 06:00 Minimum Daily Average: 10.7 ppb on Sep 4 Maximum Diurnal Average: 30.1 ppb at hour 16 Minimum Diurnal Average: 10.0 ppb at hour 8 Monthly Average: 20.52 ppb Percentiles: P ₁ = 1.7 P ₁₀ = 6.4 Q ₁ = 12.3 Median = 22.5 Q ₃ = 28.5 P ₉₀ = 31.8 P ₉₉ = 36.4																											
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-Sep	22	13	14	16	25	29	24	23	23	25	A	31	30	30	30	32	33	34	32	33	31	28	27	27	26.7	34.0	
2-Sep	26	25	25	24	20	14	9	10	10	A	25	27	29	30	31	29	27	25	23	21	19	16	17	15	21.7	30.6	
3-Sep	13	12	12	12	11	10	10	8	A	9	9	10	12	11	12	15	16	13	12	10	7	8	8	10	11.0	16.4	
4-Sep	10	9	7	6	5	3	2	A	5	6	9	14	15	16	17	20	20	18	19	15	8	6	5	12	10.7	19.9	
5-Sep	14	11	9	7	4	2	A	3	4	5	12	12	14	19	25	28	30	30	31	24	20	20	20	20	15.7	30.8	
6-Sep	18	14	5	6	7	A	3	4	5	8	14	18	27	33	36	36	36	35	32	28	16	17	17	18	18.8	36.4	
7-Sep	14	12	6	10	A	9	10	12	16	19	23	25	28	30	31	33	35	36	31	23	21	15	14	23	20.7	36.1	
8-Sep	22	19	17	A	4	3	3	3	3	10	15	16	17	23	27	29	29	27	26	21	12	9	7	10	15.3	29.5	
9-Sep	11	11	A	5	2	1	1	2	2	8	15	26	30	32	32	32	31	30	27	24	19	18	16	15	16.9	31.8	
10-Sep	13	A	11	9	7	4	2	3	7	11	18	24	27	29	31	33	34	33	31	28	27	28	28	30	20.4	33.7	
11-Sep	A	29	26	22	22	17	14	12	23	24	28	30	33	32	31	29	29	27	27	24	16	17	21	A	24.2	33.4	
12-Sep	23	20	19	23	22	20	18	17	18	21	36	38	40	33	30	33	36	34	30	27	16	20	A	24	26.1	40.2	
13-Sep	38	35	27	23	21	19	18	24	26	26	30	29	31	32	32	31	30	31	30	25	26	A	19	16	26.9	37.5	
14-Sep	12	12	12	11	10	9	7	7	16	18	19	20	24	26	23	24	26	25	23	18	A	13	14	15	16.7	26.1	
15-Sep	15	14	13	13	11	8	6	5	6	6	8	11	19	24	24	27	26	24	24	A	16	15	16	12	15.0	26.9	
16-Sep	7	11	14	11	6	2	1	2	3	6	9	13	18	27	31	30	30	28	A	18	10	4	2	6	12.7	30.7	
17-Sep	12	11	9	5	8	4	1	3	7	12	19	26	30	31	34	33	31	A	30	27	22	25	28	27	18.9	34.4	
18-Sep	26	26	28	28	26	22	23	23	23	25	31	31	32	35	36	35	A	35	32	29	27	27	27	29	28.5	35.7	
19-Sep	28	28	28	28	28	25	27	20	18	27	29	31	31	32	31	A	28	31	28	27	30	35	33	31	28.4	35.2	
20-Sep	31	31	30	28	24	21	17	15	16	18	25	29	29	29	A	29	28	27	28	33	32	28	28	25	26.1	32.9	
21-Sep	23	19	19	17	13	9	8	7	7	20	26	25	26	A	27	26	28	25	24	17	7	6	4	3	16.8	27.9	
22-Sep	2	5	10	11	8	10	6	6	8	9	12	15	A	25	C	C	33	33	28	20	22	25	26	22	16.1	33.4	
23-Sep	18	16	14	12	9	7	3	3	5	12	15	A	24	31	36	37	36	36	30	25	27	25	19	26	20.2	37.0	
24-Sep	24	20	14	12	18	18	13	10	19	22	A	25	28	31	33	35	32	26	18	15	15	11	17	17	20.6	35.3	
25-Sep	28	29	36	36	35	33	31	28	27	A	29	31	33	34	35	35	35	35	31	25	22	26	23	24	30.5	35.9	
26-Sep	23	23	20	13	14	18	16	16	A	30	35	35	33	32	32	32	31	30	29	30	30	29	30	30	26.5	34.6	
27-Sep	31	31	30	30	28	27	31	A	29	28	28	27	27	27	28	29	28	28	23	16	12	12	10	9	24.7	30.9	
28-Sep	16	14	5	3	2	2	A	2	4	7	9	19	30	34	34	33	32	31	29	24	25	25	20	21	18.3	34.2	
29-Sep	23	23	24	23	19	A	7	11	20	24	27	29	30	31	30	29	27	26	25	26	25	23	21	16	23.6	30.7	
30-Sep	13	19	17	15	A	9	4	5	8	13	19	24	27	28	29	29	29	28	22	22	15	6	2	3	16.7	28.8	
19.1 18.7 17.3 15.8 14.6 12.7 11.1 10.0 12.8 16.0 20.5 23.9 26.7 28.6 29.6 30.1 30.0 29.1 26.8 23.3 19.9 18.5 17.9 18.5 37.5 35.2 35.9 35.8 35.2 32.8 30.9 27.8 29.2 30.3 35.8 38.3 40.2 35.3 36.4 37.0 36.4 36.5 32.4 32.9 32.1 35.2 33.1 30.9																										Diurnal Average	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 (O₃) - ppb
Henry Pirker - September 2015



Hourly Maximums

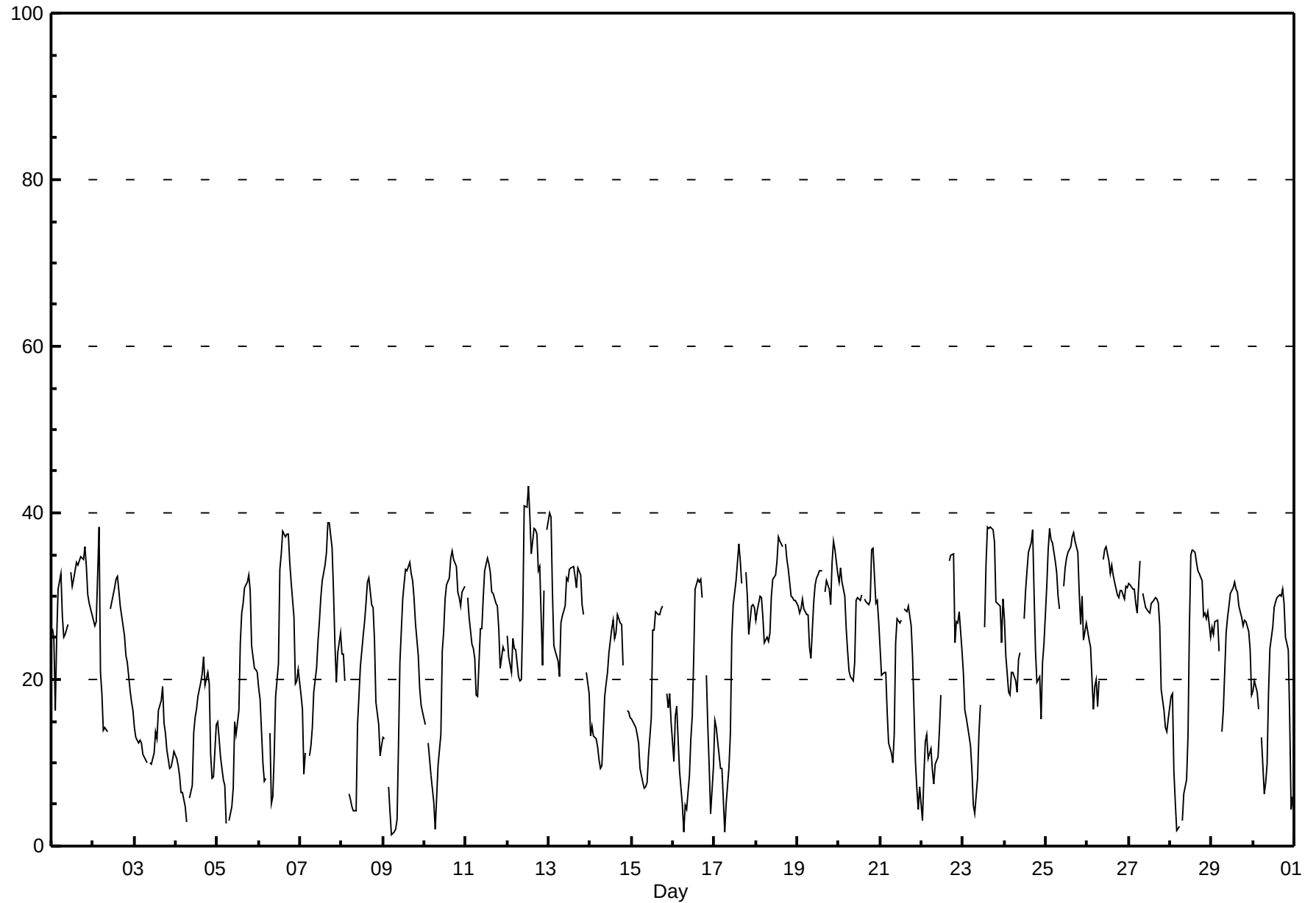
Ozone (O₃) - ppb

Henry Pirker - September 2015

Maximum Value: 43.2 ppb on Sep 12 13:00																				Maximum Daily Average: 33.0 ppb on Sep 25					Hours in Service: 720	
Minimum Value: 1 ppb on Sep 9 06:00																				Minimum Daily Average: 12.5 ppb on Sep 3					Hours of Data: 687	
Maximum Diurnal Average: 31.8 ppb at hour 17																				Minimum Diurnal Average: 12.9 ppb at hour 8					Hours of Missing Data: 33	
Monthly Average: 23.09 ppb																				Percentiles: P ₁ = 2.1 P ₁₀ = 9.0 Q ₁ = 15.2 Median = 25.4 Q ₃ = 30.6 P ₉₀ = 34.2 P ₉₉ = 38.6					Hours of Calibration: 33	
																									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-Sep	26	25	16	25	31	33	28	25	25	27	A	33	31	32	34	34	34	35	34	36	34	30	29	28	29.8	36.0
2-Sep	27	27	27	38	21	18	14	14	14	A	28	29	31	32	32	31	29	26	25	23	22	19	17	16	24.4	38.4
3-Sep	14	13	12	13	12	11	10	10	A	10	10	11	14	13	16	17	19	15	14	12	9	9	10	11	12.5	19.1
4-Sep	11	10	8	7	7	5	3	A	6	7	14	15	16	18	20	21	23	19	21	19	11	8	8	15	12.6	22.8
5-Sep	15	13	11	8	7	3	A	3	5	7	15	13	16	24	28	29	31	32	32	31	24	21	21	21	17.9	32.5
6-Sep	19	18	10	8	8	A	14	5	6	11	18	22	33	35	38	37	37	37	34	32	27	19	20	21	22.1	37.8
7-Sep	18	16	9	11	A	11	12	14	19	21	25	27	30	32	34	35	39	39	36	30	24	20	23	26	23.9	38.9
8-Sep	23	23	20	A	6	6	5	4	4	14	18	21	25	27	29	32	32	29	29	25	17	15	11	12	18.6	32.2
9-Sep	13	13	A	7	4	1	2	2	3	12	22	30	31	33	33	34	33	32	30	27	23	19	17	16	19.0	34.0
10-Sep	15	A	12	10	8	5	2	6	10	13	23	26	30	31	32	35	35	34	34	31	30	29	30	31	22.3	35.5
11-Sep	A	30	27	24	24	22	18	18	26	26	30	33	35	34	33	31	30	29	29	26	21	24	23	A	27.0	34.6
12-Sep	25	23	21	25	24	23	20	20	20	28	41	41	43	40	35	38	38	37	33	33	22	31	A	38	30.4	43.2
13-Sep	40	40	30	24	23	22	20	27	28	29	32	32	33	33	33	32	31	33	32	29	28	A	21	18	29.3	40.1
14-Sep	13	14	13	13	12	10	9	10	18	19	21	23	26	27	25	26	28	27	27	22	A	16	16	15	18.7	27.8
15-Sep	15	15	14	13	12	9	8	7	7	8	11	15	26	26	28	28	28	29	29	A	18	17	18	15	17.2	28.9
16-Sep	10	16	17	13	9	5	2	5	4	9	13	16	22	31	32	32	32	30	A	20	14	9	4	9	15.4	32.1
17-Sep	15	14	13	9	9	6	2	5	9	14	25	29	32	34	36	34	32	A	33	30	25	29	29	29	21.4	36.2
18-Sep	27	28	30	30	27	24	25	25	26	30	32	33	34	37	37	36	A	36	34	33	30	30	29	30	30.6	37.1
19-Sep	29	28	28	30	28	28	28	24	23	29	31	32	33	33	33	A	31	32	31	29	34	37	36	33	30.4	36.6
20-Sep	32	33	32	30	26	23	21	20	20	22	30	30	29	30	A	30	29	29	29	36	36	29	30	27	28.4	35.8
21-Sep	24	21	21	21	16	12	11	10	13	24	27	27	27	A	29	28	29	28	26	23	10	7	4	7	19.4	28.8
22-Sep	3	8	13	13	10	12	9	7	10	11	14	18	A	31	C	C	34	35	35	24	27	27	28	23	18.7	35.1
23-Sep	21	16	15	13	12	9	5	4	8	13	17	A	26	34	38	38	38	38	36	29	29	29	24	30	22.8	38.3
24-Sep	27	23	18	18	21	21	20	19	22	23	A	27	31	33	35	36	38	30	24	20	20	15	22	24	24.7	38.0
25-Sep	31	36	38	37	36	34	33	30	29	A	31	33	35	35	36	37	38	37	35	30	27	30	25	27	33.0	38.1
26-Sep	26	25	24	16	19	20	17	20	A	34	36	36	34	33	34	33	32	30	30	31	31	30	31	31	28.3	36.0
27-Sep	32	31	31	31	29	28	34	A	30	29	29	28	28	29	29	30	30	29	26	19	16	14	14	15	26.6	34.2
28-Sep	18	18	9	5	2	2	A	3	6	8	13	26	35	36	35	34	33	33	32	28	28	27	28	25	21.1	35.6
29-Sep	26	25	27	27	23	A	14	16	26	27	29	30	31	32	31	31	29	28	26	27	27	26	24	18	26.1	31.7
30-Sep	19	20	18	16	A	13	6	8	10	18	24	26	29	29	30	30	30	31	29	25	23	15	4	6	20.0	30.9
21.2 21.4 19.5 18.5 16.8 14.9 14.0 12.9 15.2 18.8 23.5 26.3 29.2 30.8 31.7 31.7 31.8 31.0 29.9 26.9 23.8 21.7 20.6 21.3																									Diurnal Average	
40.1 39.5 38.1 38.4 36.4 34.2 34.2 30.1 30.3 34.5 40.8 40.6 43.2 39.7 38.3 38.2 38.9 38.8 36.5 36.0 35.8 36.6 35.6 38.0																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										

Hourly Maximums

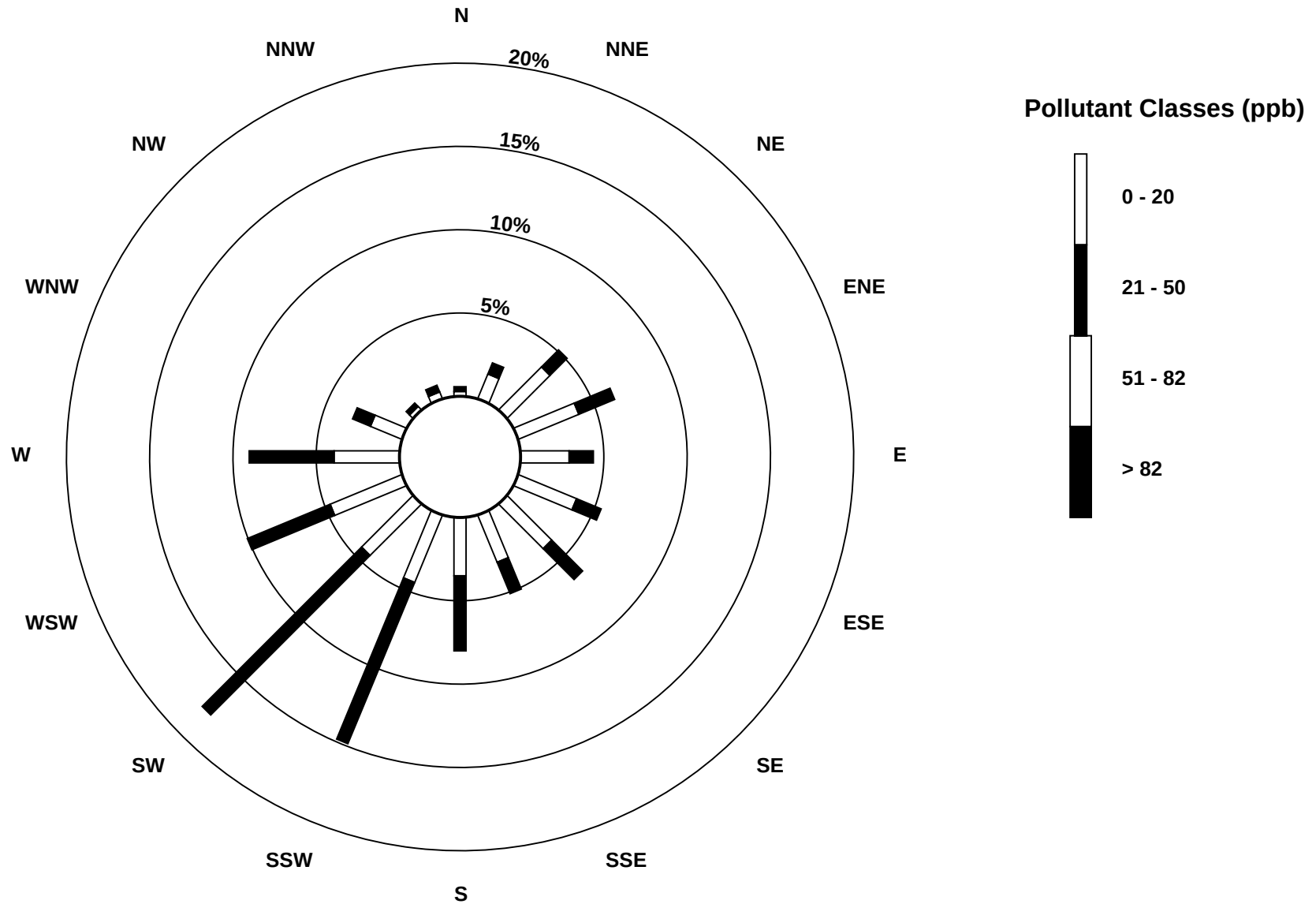
Ozone (O₃) - ppb
Henry Pirker - September 2015



Pollutant Rose

Ozone (O₃) - ppb

Henry Pirker - September 2015



Eight Hour Running Averages

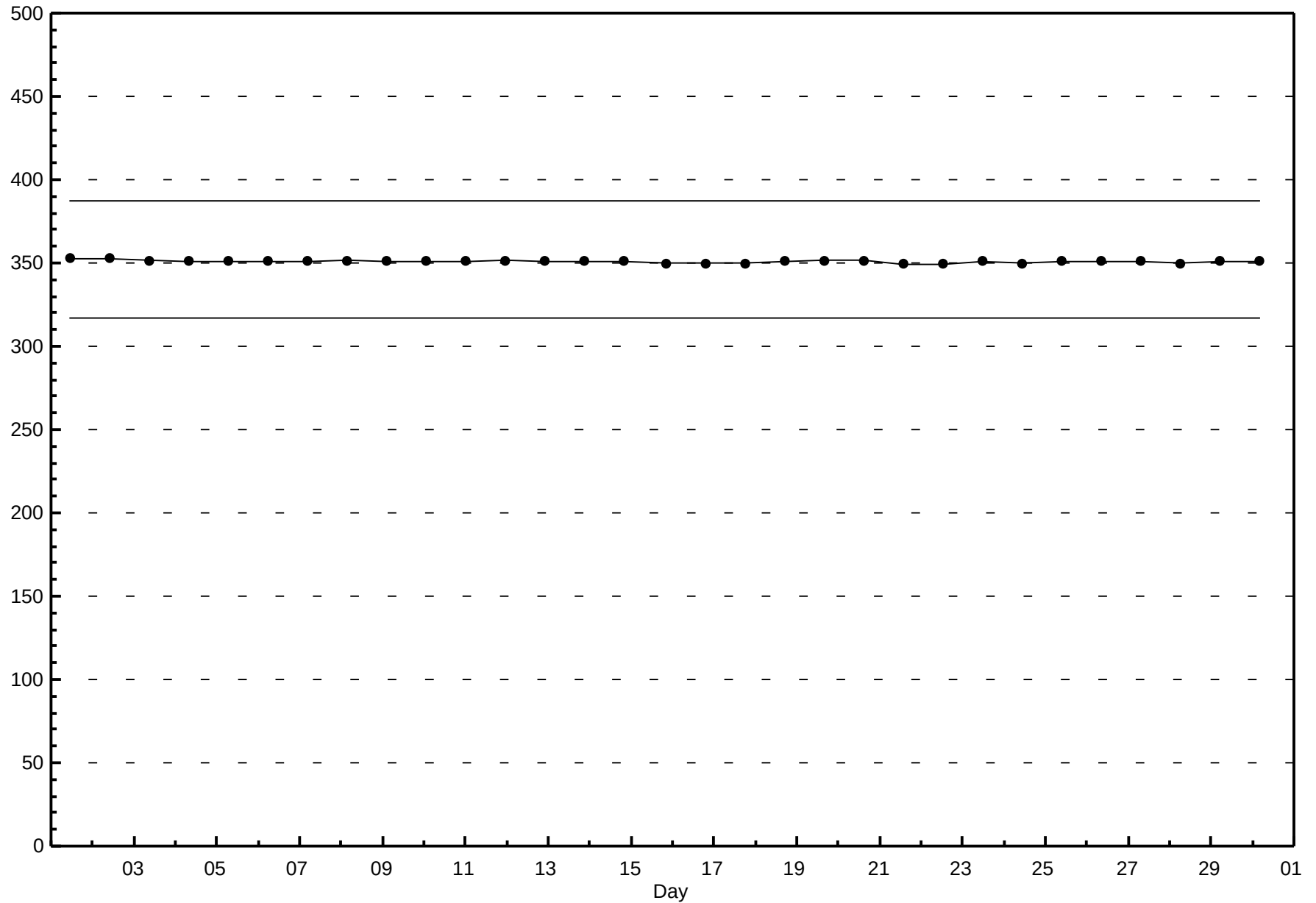
Ozone (O₃) - ppb

Henry Pirker - September 2015

Maximum Value: 35.1 ppb on Sep 12 18:00																								Hours in Service: 720	
Minimum Value: 2.9 ppb on Sep 9 10:00																								Hours of Data: 715	
																								Hours of Missing Data: 5	
Percentiles: P ₁ = 4.6 P ₁₀ = 8.3 Q ₁ = 13.4 Median = 21.9 Q ₃ = 27.5 P ₉₀ = 30.3 P ₉₉ = 33.4																								Hours of Calibration: 5	
																								Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Sep	24	22	19	17	17	18	20	21	21	22	24	26	26	27	27	29	30	32	32	32	32	32	31	31	32.0
2-Sep	30	29	28	27	25	24	21	19	17	16	16	16	18	20	23	26	28	28	28	27	26	24	22	20	29.9
3-Sep	19	17	16	15	14	13	12	11	11	10	10	10	10	10	10	11	12	12	13	13	12	12	11	11	18.7
4-Sep	10	9	9	8	8	7	6	6	5	5	5	6	8	10	12	13	15	16	17	17	17	15	14	13	17.4
5-Sep	12	11	10	9	8	8	8	7	5	5	5	6	7	10	12	15	18	21	23	25	26	26	25	24	25.9
6-Sep	23	21	18	15	14	13	10	8	6	5	7	8	11	14	18	22	26	29	32	33	32	30	27	25	33.0
7-Sep	22	19	16	14	13	12	11	10	11	12	14	16	18	20	23	26	28	30	31	31	30	28	26	25	31.2
8-Sep	23	21	19	19	16	15	13	10	7	6	6	7	9	11	14	18	21	23	24	25	24	23	20	18	25.0
9-Sep	15	13	11	9	8	7	6	5	3	3	4	7	11	14	18	22	26	28	30	30	28	27	25	22	29.9
10-Sep	20	19	16	14	13	11	9	7	6	7	8	10	12	15	19	23	26	29	30	31	31	31	30	30	30.8
11-Sep	29	29	28	27	26	25	23	20	20	20	20	21	23	24	27	29	30	30	30	29	27	25	24	23	30.0
12-Sep	22	21	20	20	21	21	21	20	20	20	22	24	26	28	29	31	33	35	34	33	30	28	28	27	35.1
13-Sep	27	27	27	26	27	27	26	26	24	23	23	24	26	27	29	30	30	31	31	30	29	29	27	25	30.8
14-Sep	23	20	17	15	13	13	11	10	11	11	12	13	15	17	19	21	22	23	24	24	24	22	21	19	23.8
15-Sep	18	16	15	14	13	13	12	11	9	8	8	8	9	11	13	16	18	21	23	24	24	23	21	19	24.3
16-Sep	17	15	13	13	12	10	8	7	7	6	5	6	7	10	14	17	21	23	25	26	25	22	17	14	26.1
17-Sep	11	9	9	7	7	7	7	7	6	6	7	10	13	16	20	24	27	29	31	31	30	29	28	27	30.8
18-Sep	26	26	26	26	27	26	26	25	25	25	25	26	28	30	31	32	33	34	33	33	33	31	30	29	33.7
19-Sep	29	28	28	28	28	27	27	26	25	25	25	26	26	27	27	29	30	30	30	30	30	30	30	30	30.4
20-Sep	31	31	31	31	30	29	27	25	23	21	20	20	21	22	23	25	27	28	28	29	29	29	29	29	31.1
21-Sep	28	27	26	24	22	19	17	14	12	13	13	14	16	17	20	23	26	26	26	25	22	20	17	14	27.9
22-Sep	11	8	7	6	6	7	7	7	8	9	9	9	10	12	13	N	N	N	N	N	27	27	27	26	26.9
23-Sep	24	22	20	19	18	16	13	10	9	8	8	8	10	13	18	23	27	31	33	32	32	31	29	28	32.9
24-Sep	26	24	22	21	20	19	18	16	15	16	16	18	19	21	24	28	29	30	29	27	26	23	21	19	30.1
25-Sep	19	19	21	24	26	29	31	32	32	32	31	30	30	30	31	32	33	33	34	33	32	31	29	28	33.7
26-Sep	26	25	23	22	21	20	19	18	17	18	20	23	26	28	30	33	32	32	32	31	31	30	30	30	32.6
27-Sep	30	30	30	30	30	30	30	30	29	29	29	28	28	28	28	28	28	28	27	26	24	22	20	17	30.2
28-Sep	16	14	12	10	9	8	7	6	5	3	4	6	10	15	17	21	25	28	30	31	30	29	27	26	31.0
29-Sep	25	24	23	23	22	22	20	19	18	18	19	20	21	22	25	28	29	29	29	28	27	27	25	24	28.8
30-Sep	22	21	20	19	18	16	13	12	11	10	10	12	13	16	19	22	25	26	27	27	25	23	19	16	26.9
30.7 30.7 31.0 31.1 30.3 29.7 30.7 32.0 31.8 32.2 31.2 30.5 30.2 30.4 30.9 32.6 33.5 35.1 34.4 33.4 32.7 31.8 31.4 30.7																									
Diurnal Maximums																									
N - Not Valid																									

Span Responses

Ozone (O₃)
Henry Pirker - September 2015



Hourly Averages

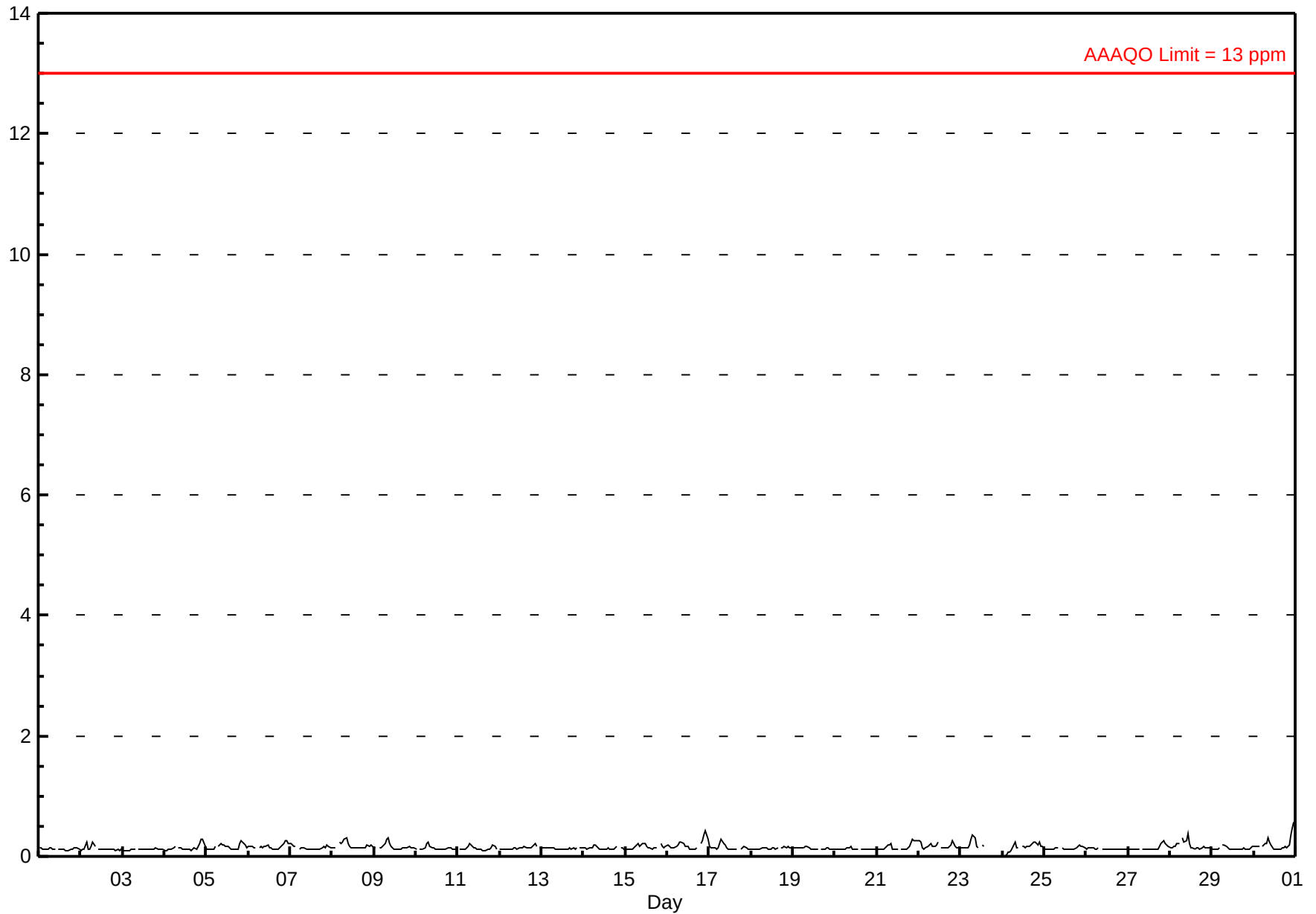
Carbon Monoxide (CO) - ppm

Henry Pirker - September 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 0.57 ppm on Oct 1 00:00 Maximum Daily Average: 0.21 ppm on Sep 30																				Hours in Service: 720 Hours of Data: 686 Hours of Missing Data: 34 Hours of Calibration: 34 Percent Operational Time: 100.0						
Minimum Value: 0.0 ppm on Sep 23 18:00 Maximum Diurnal Average: 0.20 ppm at hour 8 Monthly Average: 0.147 ppm										Minimum Daily Average: 0.11 ppm on Sep 3 Minimum Diurnal Average: 0.12 ppm at hour 16 Percentiles: P ₁ = 0.00 P ₁₀ = 0.11 Q ₁ = 0.12 Median = 0.13 Q ₃ = 0.16 P ₉₀ = 0.21 P ₉₉ = 0.35																
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-Sep	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.12	0.15
2-Sep	0.1	0.1	0.1	0.2	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	0.13	0.24
3-Sep	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.11	0.13
4-Sep	0.1	0.1	0.1	0.1	0.1	0.1	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	0.2	0.2	0.3	0.3	0.2	0.14	0.28
5-Sep	0.1	0.1	0.1	0.1	0.1	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.2	0.1	0.16	0.26
6-Sep	0.2	0.2	0.2	0.1	0.1	A	0.1	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.2	0.17	0.27
7-Sep	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	0.2	0.2	0.2	0.2	0.1	0.14	0.21
8-Sep	0.1	0.1	0.2	A	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.18	0.32
9-Sep	0.1	0.1	A	0.2	0.1	0.2	0.2	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.16	0.31
10-Sep	0.1	A	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.14	0.25
11-Sep	A	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	0.1	0.1	0.1	0.2	0.2	0.1	A	0.13	0.22
12-Sep	0.1	0.1	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	0.1	0.1	0.2	0.2	0.2	0.2	A	0.1	0.14	0.22
13-Sep	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	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	0.13	0.14
14-Sep	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	0.2	A	0.1	0.1	0.1	0.14	0.20
15-Sep	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	0.2	A	0.2	0.2	0.2	0.2	0.16	0.22
16-Sep	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	A	0.2	0.3	0.4	0.4	0.3	0.20	0.43
17-Sep	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.2	0.1	0.1	0.1	0.15	0.30
18-Sep	0.1	0.1	0.1	0.1	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	0.2	0.1	0.2	0.1	0.1	0.13	0.16
19-Sep	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	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.13	0.17
20-Sep	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	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.12	0.16
21-Sep	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.3	0.3	0.16	0.29
22-Sep	0.3	0.2	0.1	0.1	0.1	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	0.2	0.3	0.2	0.2	0.1	0.1	0.18	0.27
23-Sep	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.4	0.3	0.2	0.2	A	0.2	0.2	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.13	0.35
24-Sep	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.1	0.1	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.15	0.24
25-Sep	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.13	0.19
26-Sep	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.13	0.15
27-Sep	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.2	0.2	0.14	0.25
28-Sep	0.1	0.1	0.2	0.2	0.2	0.2	A	0.3	0.2	0.3	0.4	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.18	0.39
29-Sep	0.1	0.1	0.1	0.1	0.1	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	0.2	0.14	0.19
30-Sep	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.4	0.5	0.6	0.21	0.57
0.14 0.13 0.13 0.13 0.13 0.14 0.17 0.20 0.18 0.16 0.15 0.14 0.13 0.13 0.12 0.12 0.12 0.12 0.13 0.15 0.17 0.18 0.17 0.16																									Diurnal Average	
0.27 0.23 0.17 0.24 0.24 0.21 0.30 0.35 0.32 0.27 0.39 0.23 0.18 0.18 0.16 0.16 0.18 0.20 0.23 0.26 0.29 0.36 0.48 0.57																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 13 ppm 24-hr na																										

Hourly Averages

Carbon Monoxide (CO) - ppm
Henry Pirker - September 2015



Hourly Maximums

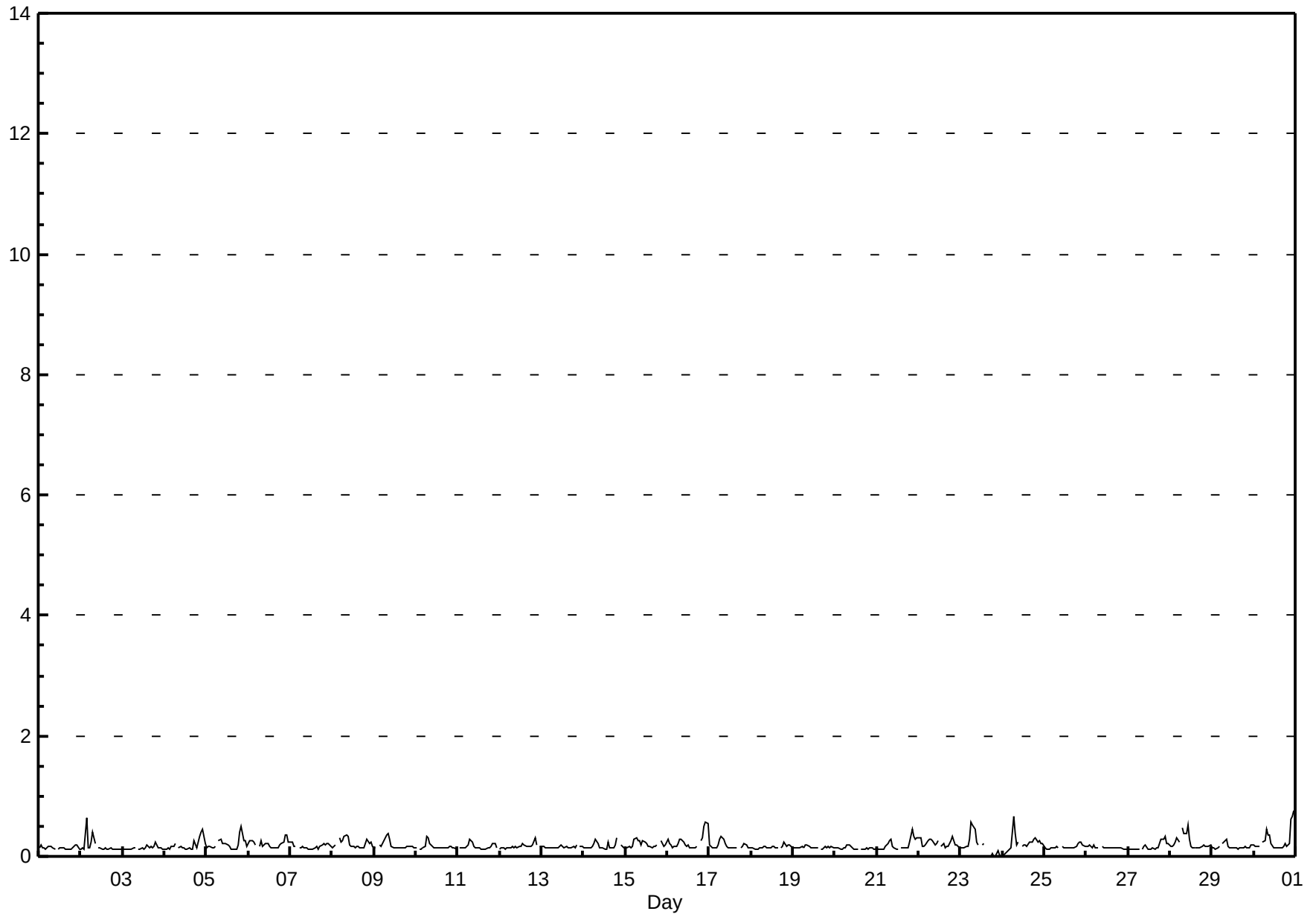
Carbon Monoxide (CO) - ppm

Henry Pirker - September 2015

Maximum Value: 0.76 ppm on Oct 1 00:00																					Maximum Daily Average: 0.27 ppm on Sep 30					Hours in Service: 720	
Minimum Value: 0.0 ppm on Sep 23 18:00																					Minimum Daily Average: 0.14 ppm on Sep 20					Hours of Data: 686	
Maximum Diurnal Average: 0.27 ppm at hour 8																					Minimum Diurnal Average: 0.14 ppm at hour 16					Hours of Missing Data: 34	
Monthly Average: 0.181 ppm																					Percentiles: P ₁ = 0.03 P ₁₀ = 0.12 Q ₁ = 0.14 Median = 0.15 Q ₃ = 0.20 P ₉₀ = 0.28 P ₉₉ = 0.56					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-Sep	0.1	0.2	0.1	0.1	0.1	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	0.1	0.1	0.2	0.2	0.2	0.1	0.14	0.19	
2-Sep	0.1	0.1	0.1	0.6	0.1	0.1	0.2	0.4	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	0.17	0.63	
3-Sep	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.14	0.24	
4-Sep	0.1	0.1	0.1	0.1	0.2	0.2	0.2	A	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.3	0.2	0.2	0.3	0.4	0.5	0.2	0.19	0.46	
5-Sep	0.1	0.2	0.2	0.1	0.1	0.2	A	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.4	0.5	0.3	0.3	0.2	0.20	0.51	
6-Sep	0.2	0.3	0.3	0.2	0.2	A	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.4	0.4	0.2	0.21	0.37	
7-Sep	0.2	0.2	0.2	0.2	A	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.17	0.25	
8-Sep	0.1	0.2	0.2	A	0.3	0.2	0.3	0.3	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.3	0.2	0.2	0.2	0.21	0.36	
9-Sep	0.1	0.1	A	0.2	0.2	0.2	0.3	0.4	0.4	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.19	0.39	
10-Sep	0.1	A	0.1	0.1	0.1	0.2	0.3	0.3	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	0.1	0.1	0.1	0.16	0.34	
11-Sep	A	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.1	A	0.16	0.29	
12-Sep	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	A	0.2	0.16	0.30	
13-Sep	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.2	A	0.2	0.2	0.16	0.19	
14-Sep	0.1	0.1	0.1	0.1	0.1	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	0.2	0.3	A	0.2	0.2	0.1	0.17	0.30	
15-Sep	0.1	0.1	0.2	0.1	0.2	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	A	0.3	0.2	0.2	0.2	0.20	0.30	
16-Sep	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	A	0.3	0.3	0.5	0.6	0.5	0.24	0.56	
17-Sep	0.2	0.2	0.1	0.2	0.1	0.2	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.2	0.2	0.2	0.1	0.1	0.18	0.34	
18-Sep	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.1	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.15	0.23	
19-Sep	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.2	0.1	0.2	0.1	0.2	0.2	0.15	0.18	
20-Sep	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.14	0.19	
21-Sep	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.2	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.2	0.4	0.3	0.3	0.3	0.19	0.44	
22-Sep	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.3	A	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.1	0.22	0.34	
23-Sep	0.1	0.1	0.1	0.2	0.2	0.3	0.6	0.5	0.4	0.2	0.2	A	0.2	0.2	C	C	C	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.18	0.57	
24-Sep	0.0	0.0	0.1	0.1	0.1	0.2	0.7	0.4	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.3	0.2	0.2	0.21	0.66	
25-Sep	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	A	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	0.16	0.24	
26-Sep	0.2	0.2	0.2	0.1	0.2	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	0.1	0.1	0.14	0.20	
27-Sep	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.3	0.2	0.2	0.17	0.33	
28-Sep	0.2	0.2	0.2	0.2	0.3	0.2	A	0.5	0.4	0.4	0.5	0.3	0.2	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.23	0.52	
29-Sep	0.1	0.1	0.1	0.1	0.2	A	0.2	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.16	0.28	
30-Sep	0.2	0.2	0.2	0.2	A	0.2	0.3	0.5	0.3	0.4	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.6	0.7	0.8	0.27	0.76	
0.16 0.16 0.15 0.16 0.16 0.18 0.23 0.27 0.23 0.20 0.18 0.16 0.15 0.14 0.15 0.14 0.14 0.15 0.17 0.20 0.22 0.23 0.22 0.20																									Diurnal Average		
0.32 0.30 0.27 0.63 0.30 0.29 0.66 0.53 0.44 0.38 0.52 0.28 0.21 0.21 0.24 0.23 0.25 0.26 0.29 0.41 0.51 0.62 0.67 0.76																									Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																											

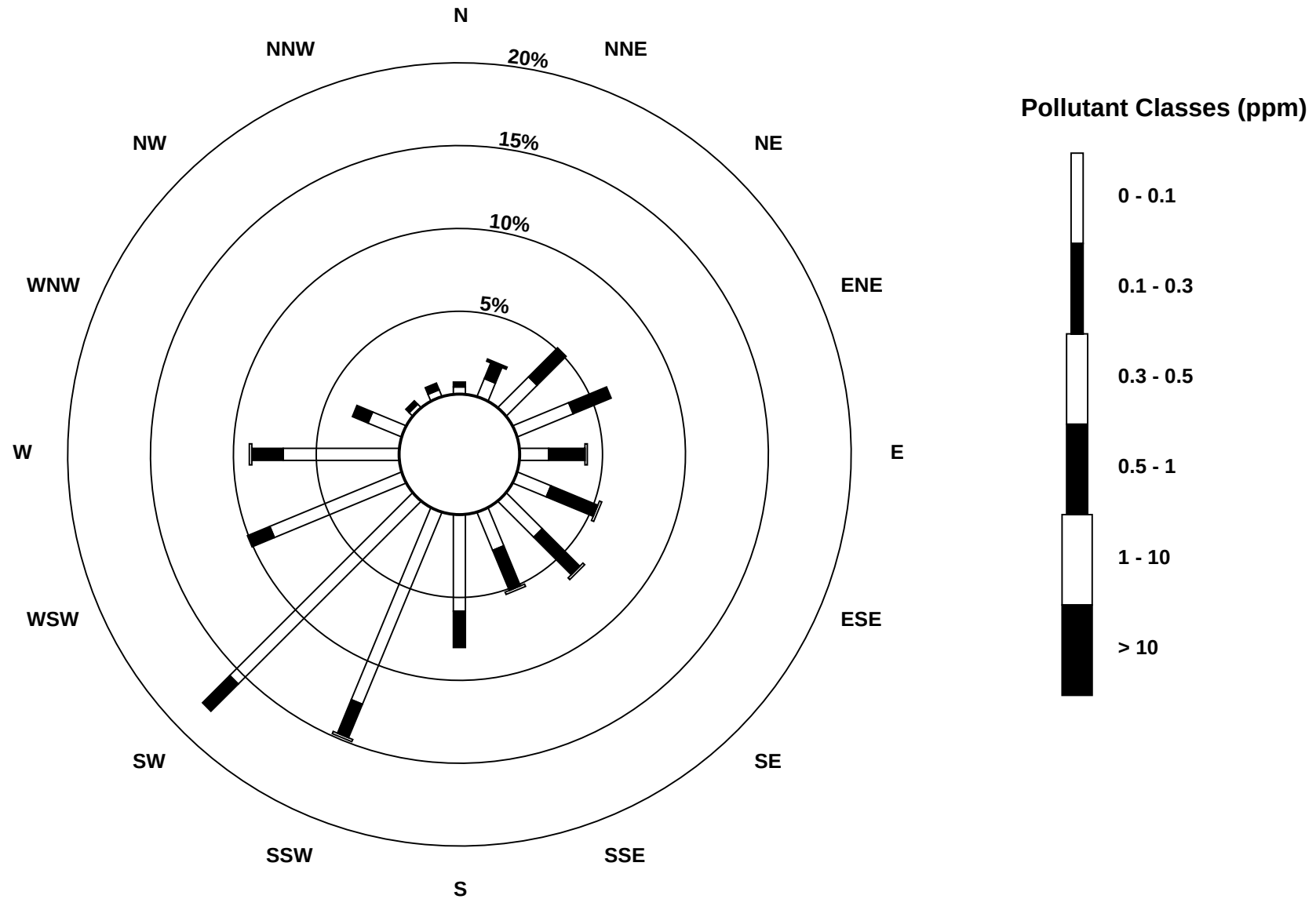
Hourly Maximums

Carbon Monoxide (CO) - ppm
Henry Pirker - September 2015



Pollutant Rose

Carbon Monoxide (CO) - ppm
Henry Pirker - September 2015



Eight Hour Running Averages

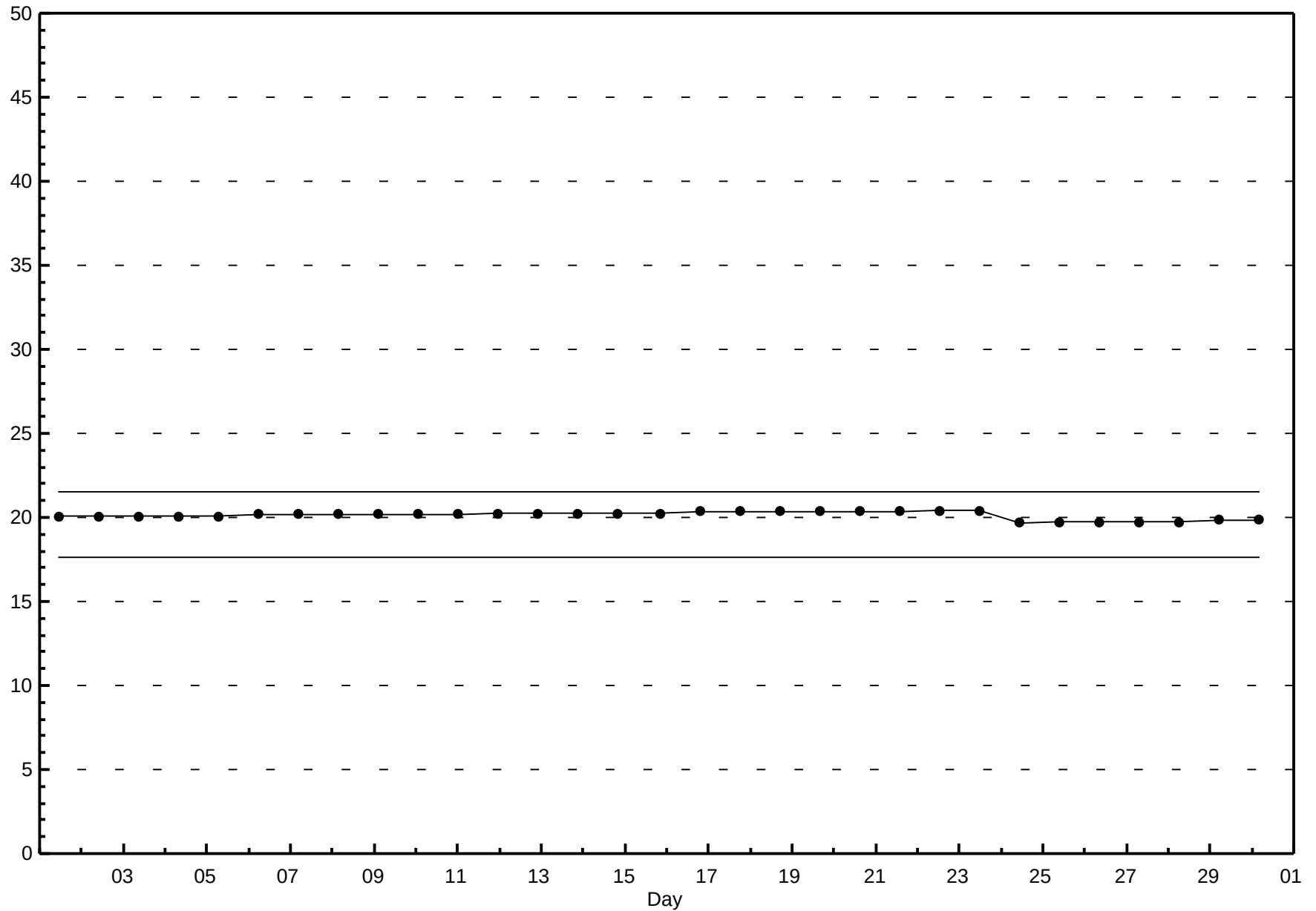
Carbon Monoxide (CO) - ppm

Henry Pirker - September 2015

Number of Exceedences (AAAQO): 8-hr: 0 Maximum Value: 0.27 ppm on Oct 1 00:00																								Hours in Service: 720 Hours of Data: 713 Hours of Missing Data: 7 Hours of Calibration: 7 Percent Operational Time: 100.0		
Minimum Value: 0.00 ppm on Sep 23 23:00 Percentiles: P ₁ = 0.00 P ₁₀ = 0.12 Q ₁ = 0.13 Median = 0.14 Q ₃ = 0.16 P ₉₀ = 0.19 P ₉₉ = 0.25																										
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-Sep	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.15
2-Sep	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.17
3-Sep	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.12
4-Sep	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.18
5-Sep	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.19
6-Sep	0.2	0.2	0.2	0.2	0.2	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	0.2	0.2	0.2	0.2	0.19
7-Sep	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	0.21
8-Sep	0.2	0.2	0.2	0.2	0.2	0.2	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	0.2	0.2	0.2	0.24
9-Sep	0.2	0.2	0.2	0.2	0.2	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	0.21
10-Sep	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	0.16
11-Sep	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	0.15
12-Sep	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.16
13-Sep	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	0.1	0.1	0.1	0.16
14-Sep	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.15
15-Sep	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.19
16-Sep	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.26	
17-Sep	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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.27
18-Sep	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.15
19-Sep	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.15
20-Sep	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	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-Sep	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.20
22-Sep	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.24
23-Sep	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	N	N	N	N	N	N	N	0.0	0.0	0.24	
24-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20
25-Sep	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	0.1	0.1	0.1	0.19
26-Sep	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	0.1	0.1	0.1	0.1	0.15
27-Sep	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.18
28-Sep	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.27
29-Sep	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	0.1	0.1	0.1	0.1	0.1	0.1	0.15
30-Sep	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.27	
0.27 0.27 0.25 0.24 0.22 0.20 0.19 0.20 0.23 0.24 0.26 0.27 0.26 0.24 0.23 0.21 0.19 0.17 0.17 0.18 0.19 0.20 0.24 0.27																									Diurnal Maximums	
N - Not Valid Alberta Ambient Air Quality Objectives (AAAQO): 8-hr 5 ppm																										

Span Responses

Carbon Monoxide (CO)
Henry Pirker - September 2015



Hourly Averages

Total Hydrocarbons (THC) - ppm

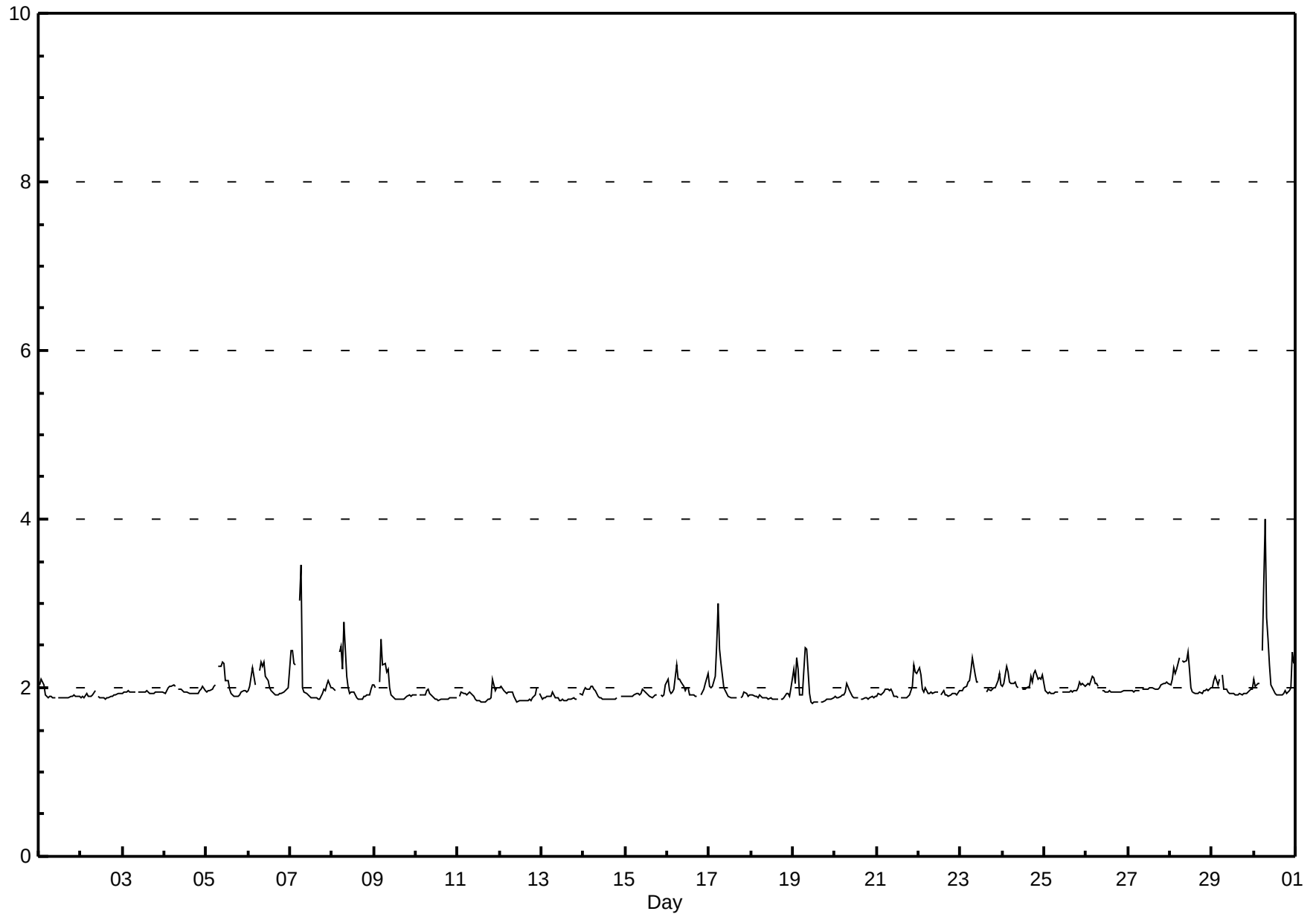
Henry Pirker - September 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 4.00 ppm on Sep 30 07:00 Maximum Daily Average: 2.19 ppm on Sep 30																								Hours in Service: 720 Hours of Data: 686 Hours of Missing Data: 34 Hours of Calibration: 34 Percent Operational Time: 100.0		
Minimum Value: 1.8 ppm on Sep 19 12:00 Maximum Diurnal Average: 2.16 ppm at hour 7 Monthly Average: 1.983 ppm												Minimum Daily Average: 1.88 ppm on Sep 13 Minimum Diurnal Average: 1.90 ppm at hour 16 Percentiles: P ₁ = 1.83 P ₁₀ = 1.87 Q ₁ = 1.90 Median = 1.94 Q ₃ = 2.00 P ₉₀ = 2.13 P ₉₉ = 2.51														
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-Sep	2.0	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	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.92	2.10
2-Sep	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.90	1.96
3-Sep	1.9	1.9	2.0	2.0	1.9	2.0	2.0	2.0	A	1.9	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.95	1.96
4-Sep	1.9	2.0	2.0	2.0	2.0	2.0	2.0	A	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	2.0	2.0	1.97	2.03
5-Sep	2.0	2.0	2.0	2.0	2.0	2.0	A	2.3	2.3	2.3	2.3	2.1	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.02	2.30
6-Sep	2.0	2.0	2.2	2.1	2.0	A	2.2	2.3	2.3	2.3	2.1	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.05	2.31
7-Sep	2.4	2.4	2.3	2.3	A	3.0	3.5	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.1	2.0	2.12	3.46
8-Sep	2.0	2.0	2.0	A	2.4	2.5	2.2	2.8	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	2.0	2.0	2.04	2.78
9-Sep	2.0	2.0	A	2.1	2.6	2.3	2.3	2.2	2.2	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.00	2.58
10-Sep	1.9	A	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	1.9	1.89	1.98
11-Sep	A	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	2.1	2.0	2.0	A	1.91	2.10
12-Sep	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.8	1.9	1.9	2.0	A	1.9	1.90	2.01
13-Sep	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.88	1.94
14-Sep	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.91	2.01
15-Sep	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	2.0	1.92	2.03
16-Sep	2.1	2.0	1.9	2.0	2.0	2.3	2.1	2.1	2.1	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	A	1.9	2.0	2.0	2.0	2.2	2.00	2.27
17-Sep	2.0	2.0	2.0	2.1	2.5	3.0	2.5	2.3	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	2.05	3.00
18-Sep	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.89	1.99
19-Sep	2.2	2.0	2.4	2.2	1.9	1.9	2.2	2.5	2.5	1.9	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.99	2.47
20-Sep	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.90	2.04
21-Sep	1.9	1.9	1.9	1.9	1.9	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	2.0	2.3	2.2	2.2	1.96	2.26
22-Sep	2.2	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	A	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.96	2.24
23-Sep	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.4	2.2	2.1	2.1	A	C	C	C	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.0	2.06	2.36
24-Sep	2.0	2.0	2.3	2.2	2.1	2.0	2.1	2.1	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.2	2.08	2.25
25-Sep	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.0	1.97	2.06
26-Sep	2.0	2.1	2.0	2.1	2.1	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.99	2.13
27-Sep	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.00	2.07
28-Sep	2.0	2.1	2.2	2.2	2.2	2.4	A	2.3	2.3	2.3	2.4	2.2	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.10	2.43
29-Sep	2.0	2.1	2.1	2.0	2.1	A	2.2	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.98	2.16
30-Sep	2.1	2.0	2.0	2.0	A	2.4	4.0	2.8	2.6	2.3	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.0	2.0	2.4	2.3	2.19	4.00
2.01 2.00 2.02 2.01 2.04 2.11 2.16 2.12 2.05 2.00 1.96 1.93 1.92 1.91 1.90 1.90 1.91 1.91 1.92 1.93 1.95 1.97 1.99 1.99																								Diurnal Average		
2.45 2.44 2.36 2.27 2.58 3.04 4.00 2.83 2.58 2.32 2.43 2.23 2.09 2.00 2.00 2.01 2.13 2.07 2.17 2.20 2.11 2.26 2.42 2.28																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										

Hourly Averages

Total Hydrocarbons (THC) - ppm

Henry Pirker - September 2015



Hourly Maximums

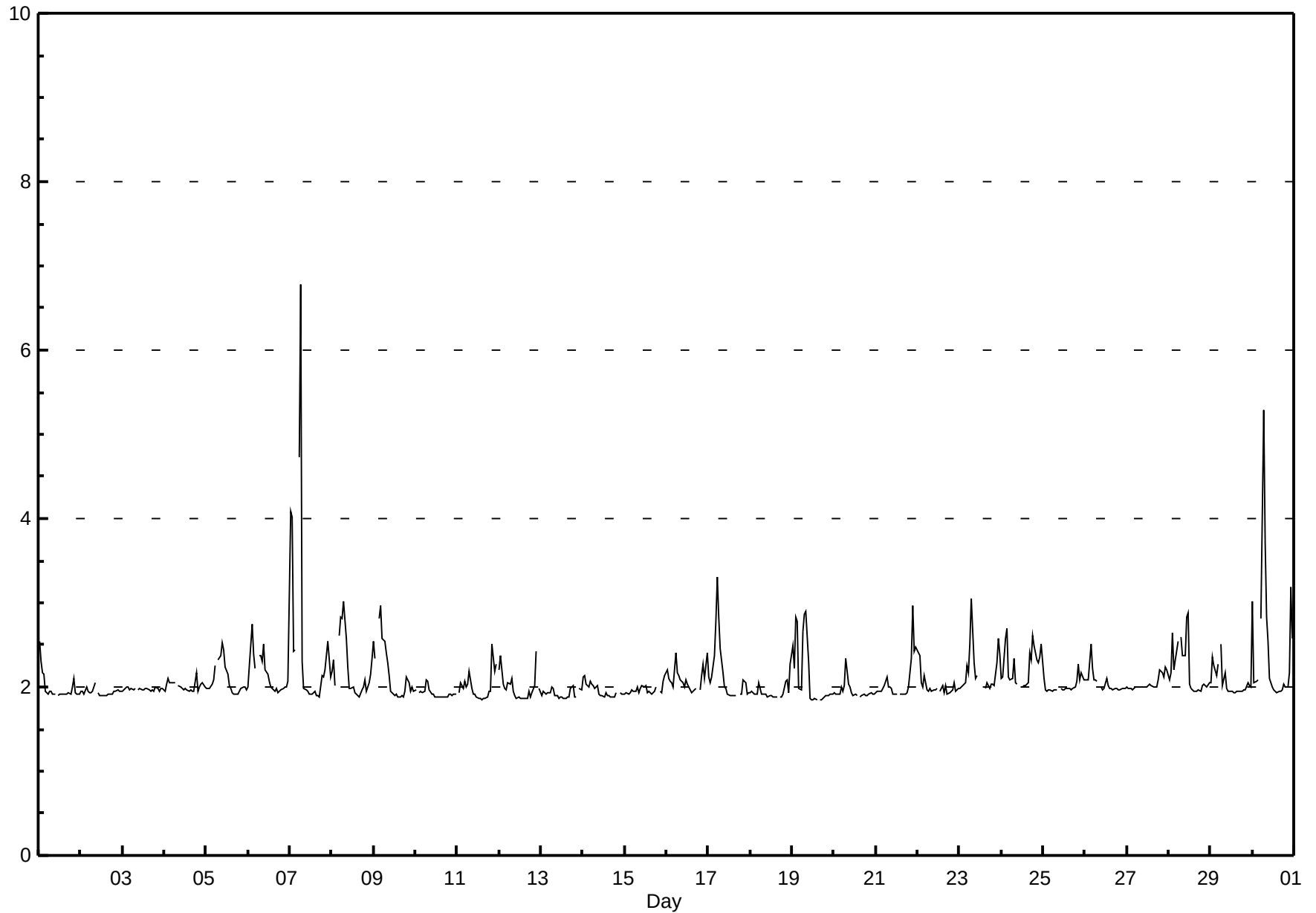
Total Hydrocarbons (THC) - ppm

Henry Pirker - September 2015

Maximum Value: 6.78 ppm on Sep 7 07:00																				Maximum Daily Average: 2.59 ppm on Sep 7					Hours in Service: 720				
Minimum Value: 1.8 ppm on Sep 19 17:00																				Minimum Daily Average: 1.92 ppm on Sep 13					Hours of Data: 686				
Maximum Diurnal Average: 2.45 ppm at hour 7																				Minimum Diurnal Average: 1.93 ppm at hour 16					Hours of Missing Data: 34				
Monthly Average: 2.083 ppm																				Percentiles: P ₁ = 1.86 P ₁₀ = 1.90 Q ₁ = 1.93 Median = 1.98 Q ₃ = 2.08 P ₉₀ = 2.38 P ₉₉ = 3.17					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-Sep	2.5	2.3	2.2	2.2	2.0	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1	1.9	1.9	1.9	2.00	2.55			
2-Sep	1.9	1.9	1.9	2.0	1.9	1.9	1.9	2.0	2.1	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.0	1.94	2.06			
3-Sep	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.97	1.99			
4-Sep	2.0	2.0	2.1	2.1	2.1	2.1	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	2.2	2.0	2.0	2.0	2.1	2.0	2.01	2.17			
5-Sep	2.0	2.0	2.0	2.0	2.1	2.3	A	2.3	2.4	2.5	2.4	2.2	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.09	2.52			
6-Sep	2.0	2.3	2.8	2.4	2.2	A	2.4	2.4	2.3	2.5	2.2	2.1	2.1	2.0	2.0	1.9	2.0	1.9	1.9	2.0	2.0	2.0	2.0	2.1	2.15	2.75			
7-Sep	4.1	4.0	2.4	2.4	A	4.7	6.8	2.3	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1	2.1	2.2	2.4	2.5	2.1	2.59	6.78			
8-Sep	2.2	2.3	2.0	A	2.6	2.8	2.8	3.0	2.6	2.2	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.1	2.0	2.1	2.2	2.3	2.21	3.02			
9-Sep	2.5	2.3	A	2.8	3.0	2.6	2.5	2.4	2.3	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.1	1.9	2.0	1.9	2.17	2.96			
10-Sep	2.0	A	1.9	1.9	1.9	1.9	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	1.9	1.93	2.08			
11-Sep	A	1.9	2.1	2.0	2.1	2.0	2.0	2.2	2.0	1.9	1.9	1.9	1.9	1.9	1.8	1.9	1.9	1.9	1.9	1.9	2.5	2.2	2.3	A	2.00	2.51			
12-Sep	2.2	2.4	2.0	2.0	2.0	2.0	2.0	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	2.0	2.4	A	2.0	1.99	2.42			
13-Sep	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.9	A	2.0	2.0	1.92	2.01			
14-Sep	2.1	2.1	2.0	2.0	2.1	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.96	2.14			
15-Sep	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	1.9	2.0	1.9	1.9	1.9	2.0	A	1.9	1.9	2.1	2.1	1.97	2.13			
16-Sep	2.2	2.1	2.1	2.1	2.0	2.4	2.2	2.1	2.1	2.1	2.0	2.1	2.0	2.0	1.9	2.0	2.0	2.0	A	2.0	2.1	2.3	2.1	2.4	2.09	2.41			
17-Sep	2.1	2.1	2.1	2.4	2.8	3.3	2.8	2.5	2.2	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	2.1	2.1	1.9	1.9	2.15	3.31			
18-Sep	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	2.1	2.1	1.9	2.3	1.94	2.27			
19-Sep	2.5	2.2	2.8	2.8	2.0	2.0	2.7	2.9	2.9	2.3	1.9	1.8	1.8	1.9	1.8	A	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	2.15	2.89			
20-Sep	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.3	2.0	2.0	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.95	2.34			
21-Sep	1.9	1.9	1.9	2.0	2.0	2.0	2.1	2.0	2.0	2.0	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	2.0	2.3	3.0	2.4	2.5	2.06	2.96			
22-Sep	2.4	2.4	2.1	2.0	2.1	2.0	2.0	2.0	1.9	2.0	2.0	2.0	A	2.0	2.0	1.9	2.0	1.9	1.9	2.0	2.0	2.0	1.9	2.0	2.02	2.40			
23-Sep	2.0	2.0	2.0	2.0	2.3	2.2	2.5	3.0	2.3	2.1	2.1	A	C	C	C	2.0	2.1	2.0	2.0	2.0	2.0	2.3	2.6	2.4	2.20	3.05			
24-Sep	2.1	2.1	2.6	2.7	2.1	2.1	2.1	2.3	2.1	2.0	A	2.0	2.0	2.0	2.0	2.0	2.4	2.3	2.6	2.5	2.3	2.3	2.4	2.5	2.24	2.69			
25-Sep	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.3	2.1	2.2	2.1	2.01	2.27			
26-Sep	2.1	2.1	2.1	2.5	2.2	2.1	2.1	2.1	A	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.05	2.51			
27-Sep	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.2	2.2	2.2	2.04	2.24			
28-Sep	2.1	2.2	2.6	2.2	2.3	2.5	A	2.6	2.4	2.4	2.8	2.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.21	2.89			
29-Sep	2.1	2.4	2.3	2.1	2.3	A	2.5	2.0	2.2	2.0	2.0	1.9	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.1	2.0	2.0	2.06	2.51			
30-Sep	3.0	2.1	2.1	2.1	A	2.8	5.3	3.7	2.8	2.5	2.1	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.2	3.2	2.6	2.44	5.28			
2.20 2.16 2.13 2.15 2.13 2.27 2.45 2.29 2.14 2.07 2.02 1.99 1.95 1.94 1.93 1.93 1.95 1.95 1.99 2.00 2.06 2.10 2.12 2.10																									Diurnal Average				
4.08 4.01 2.83 2.82 2.96 4.73 6.78 3.70 2.89 2.55 2.83 2.89 2.15 2.03 2.02 2.04 2.40 2.32 2.61 2.48 2.51 2.96 3.19 2.58																									Diurnal Maximum				
C - Calibration A - Automated Daily Zero Span																													

Hourly Maximums

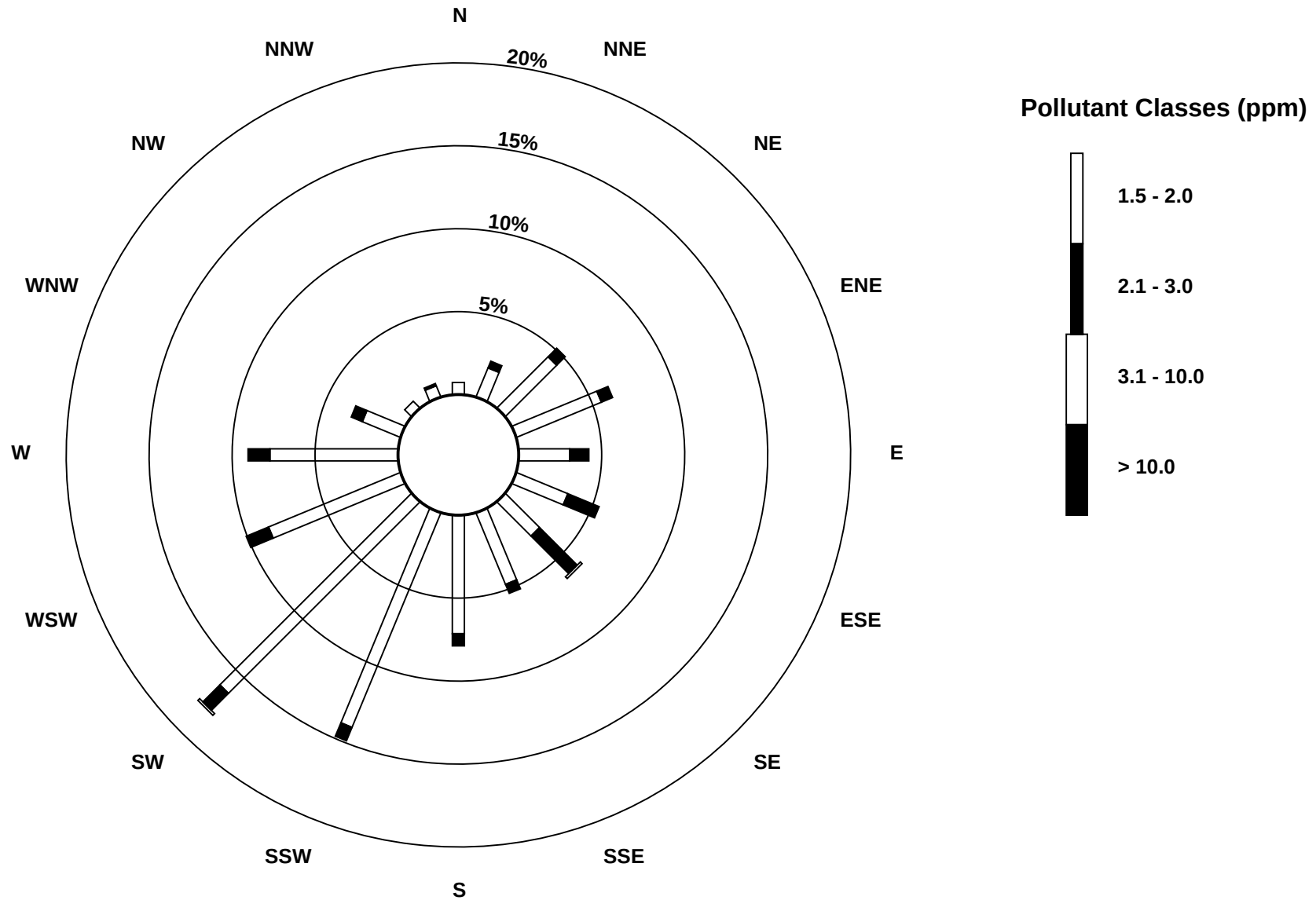
Total Hydrocarbons (THC) - ppm
Henry Pirker - September 2015



Pollutant Rose

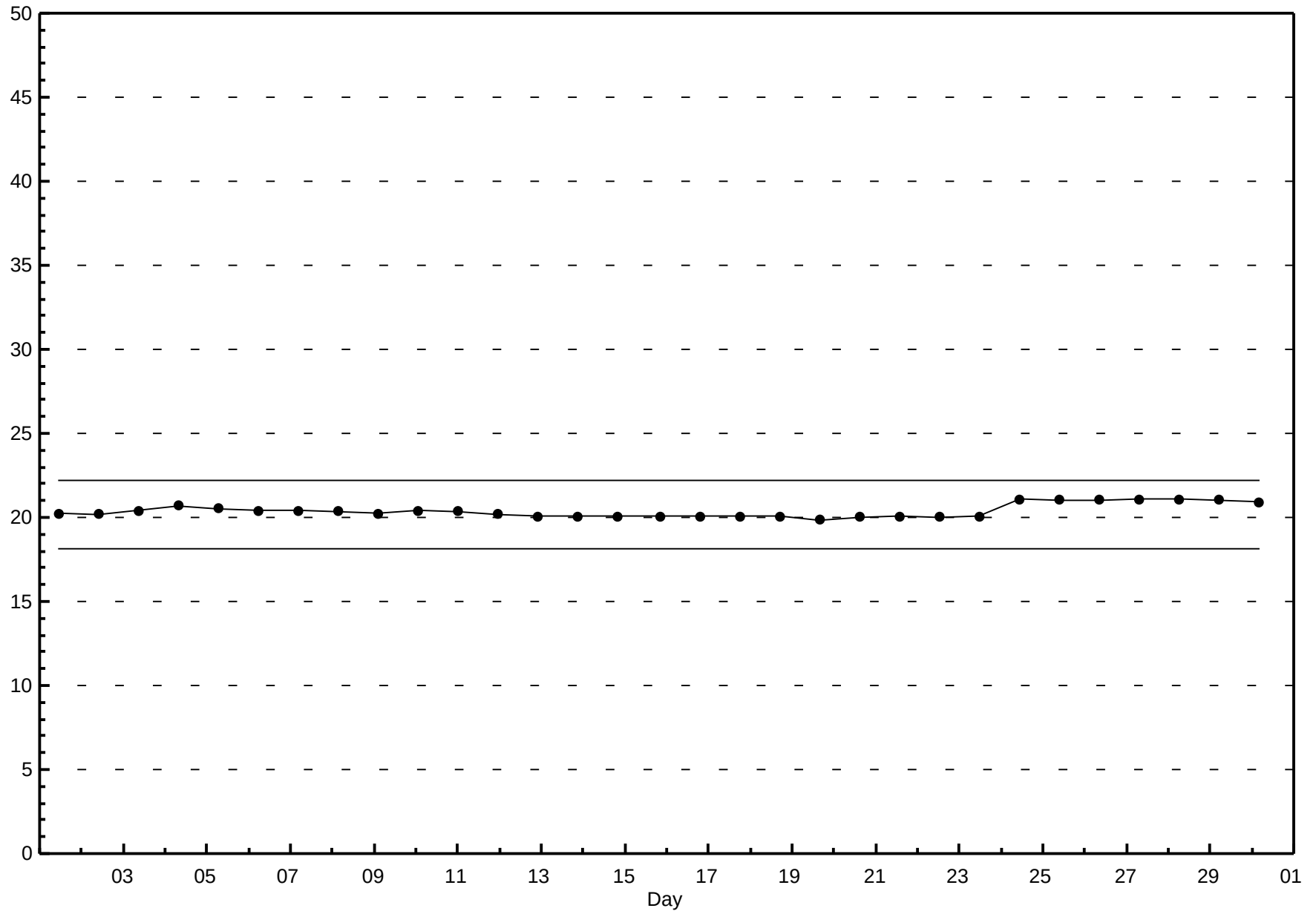
Total Hydrocarbons (THC) - ppm

Henry Pirker - September 2015



Span Responses

Total Hydrocarbons (THC)
Henry Pirker - September 2015



Hourly Averages

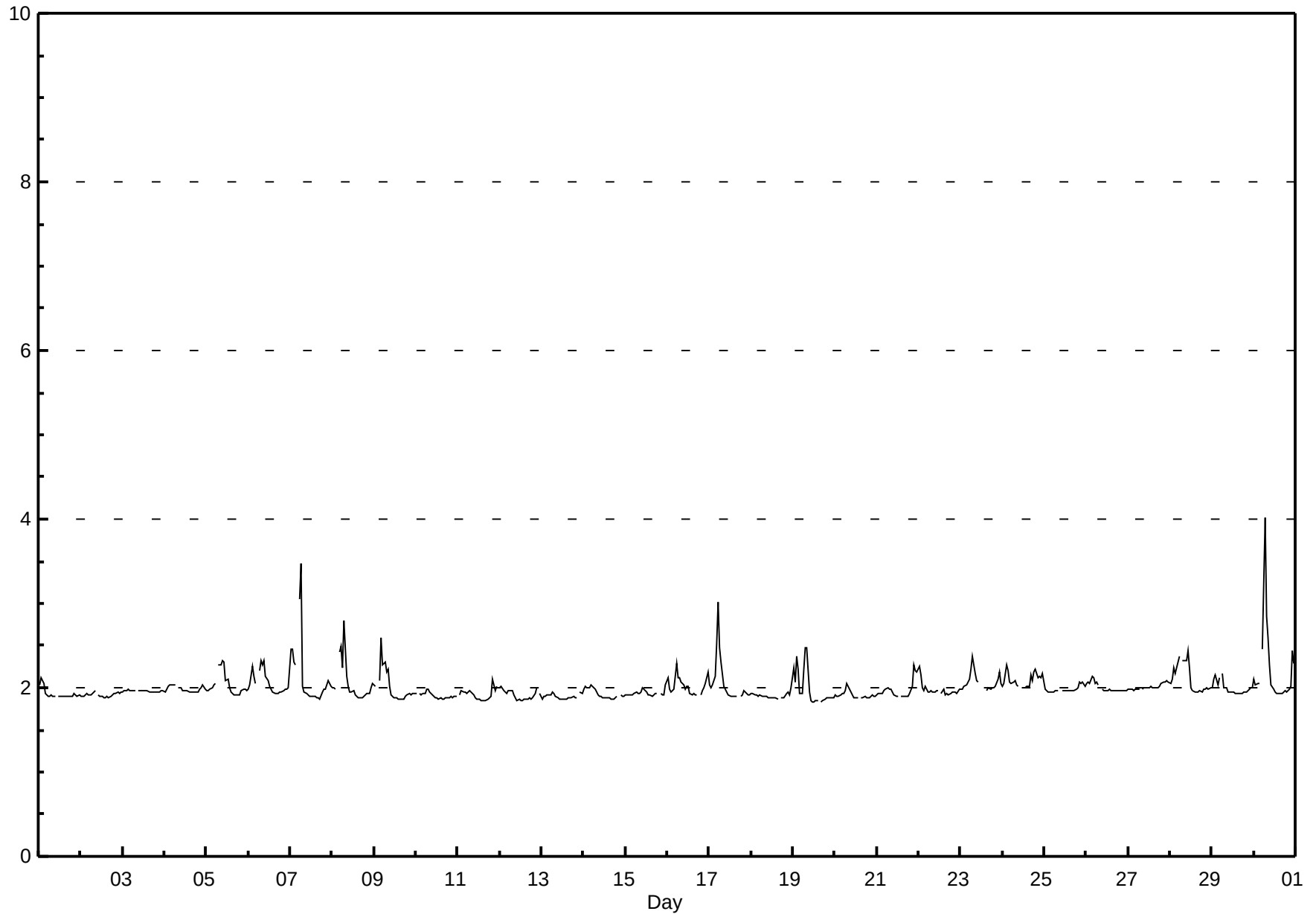
Methane (CH₄) - ppm

Henry Pirker - September 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 4.02 ppm on Sep 30 07:00 Maximum Daily Average: 2.21 ppm on Sep 30																								Hours in Service: 720 Hours of Data: 686 Hours of Missing Data: 34 Hours of Calibration: 34 Percent Operational Time: 100.0		
Minimum Value: 1.8 ppm on Sep 19 12:00 Maximum Diurnal Average: 2.18 ppm at hour 7 Monthly Average: 1.996 ppm												Minimum Daily Average: 1.89 ppm on Sep 13 Minimum Diurnal Average: 1.92 ppm at hour 16 Percentiles: P ₁ = 1.85 P ₁₀ = 1.88 Q ₁ = 1.91 Median = 1.96 Q ₃ = 2.01 P ₉₀ = 2.14 P ₉₉ = 2.52														
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-Sep	2.0	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	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.93	2.11
2-Sep	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.91	1.97
3-Sep	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	1.96	1.98
4-Sep	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	1.98	2.04
5-Sep	2.0	2.0	2.0	2.0	2.0	2.1	A	2.3	2.3	2.3	2.3	2.1	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.04	2.32
6-Sep	2.0	2.0	2.2	2.1	2.0	A	2.2	2.3	2.3	2.3	2.1	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.06	2.32
7-Sep	2.5	2.5	2.3	2.3	A	3.1	3.5	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.1	2.0	2.14	3.48
8-Sep	2.0	2.0	2.0	A	2.4	2.5	2.2	2.8	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.05	2.80
9-Sep	2.0	2.0	A	2.1	2.6	2.3	2.3	2.2	2.2	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.01	2.60
10-Sep	1.9	A	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	1.9	1.91	1.99
11-Sep	A	1.9	2.0	2.0	2.0	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.9	1.9	1.9	2.1	2.0	2.0	A	1.92	2.11
12-Sep	2.0	2.0	2.0	2.0	1.9	2.0	2.0	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	2.0	A	1.9	1.92	2.02
13-Sep	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.89	1.96
14-Sep	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.93	2.03
15-Sep	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	2.0	1.93	2.04
16-Sep	2.1	2.0	2.0	2.0	2.0	2.3	2.1	2.1	2.1	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	A	1.9	2.0	2.0	2.1	2.2	2.02	2.28
17-Sep	2.0	2.0	2.0	2.1	2.5	3.0	2.5	2.3	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	2.0	1.9	1.9	1.9	2.06	3.02
18-Sep	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.91	2.01
19-Sep	2.2	2.1	2.4	2.2	1.9	1.9	2.2	2.5	2.5	1.9	1.9	1.8	1.8	1.8	1.8	A	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	2.00	2.48
20-Sep	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.0	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.91	2.06
21-Sep	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.3	2.2	2.2	1.98	2.28
22-Sep	2.2	2.2	2.0	2.0	2.0	2.0	1.9	2.0	1.9	2.0	2.0	2.0	A	1.9	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	2.0	1.98	2.25
23-Sep	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.4	2.2	2.1	2.1	A	C	C	C	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.0	2.07	2.37
24-Sep	2.0	2.1	2.3	2.2	2.1	2.1	2.1	2.1	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.2	2.09	2.27
25-Sep	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.0	1.98	2.07
26-Sep	2.0	2.1	2.0	2.1	2.1	2.1	2.1	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.01	2.14
27-Sep	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.01	2.08
28-Sep	2.0	2.1	2.2	2.2	2.2	2.4	A	2.3	2.3	2.3	2.4	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.11	2.44
29-Sep	2.0	2.1	2.2	2.0	2.1	A	2.2	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.0	2.0	2.0	1.99	2.17
30-Sep	2.1	2.0	2.1	2.1	A	2.5	4.0	2.9	2.6	2.3	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.4	2.3	2.21	4.02
2.02 2.01 2.03 2.03 2.05 2.12 2.18 2.13 2.06 2.01 1.98 1.95 1.93 1.92 1.92 1.92 1.92 1.92 1.93 1.94 1.97 1.99 2.01 2.00																								Diurnal Average		
2.46 2.45 2.37 2.28 2.60 3.06 4.02 2.85 2.59 2.33 2.44 2.24 2.10 2.01 2.01 2.02 2.14 2.08 2.18 2.22 2.12 2.28 2.43 2.29																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										

Hourly Averages

Methane (CH₄) - ppm
Henry Pirker - September 2015



Hourly Maximums

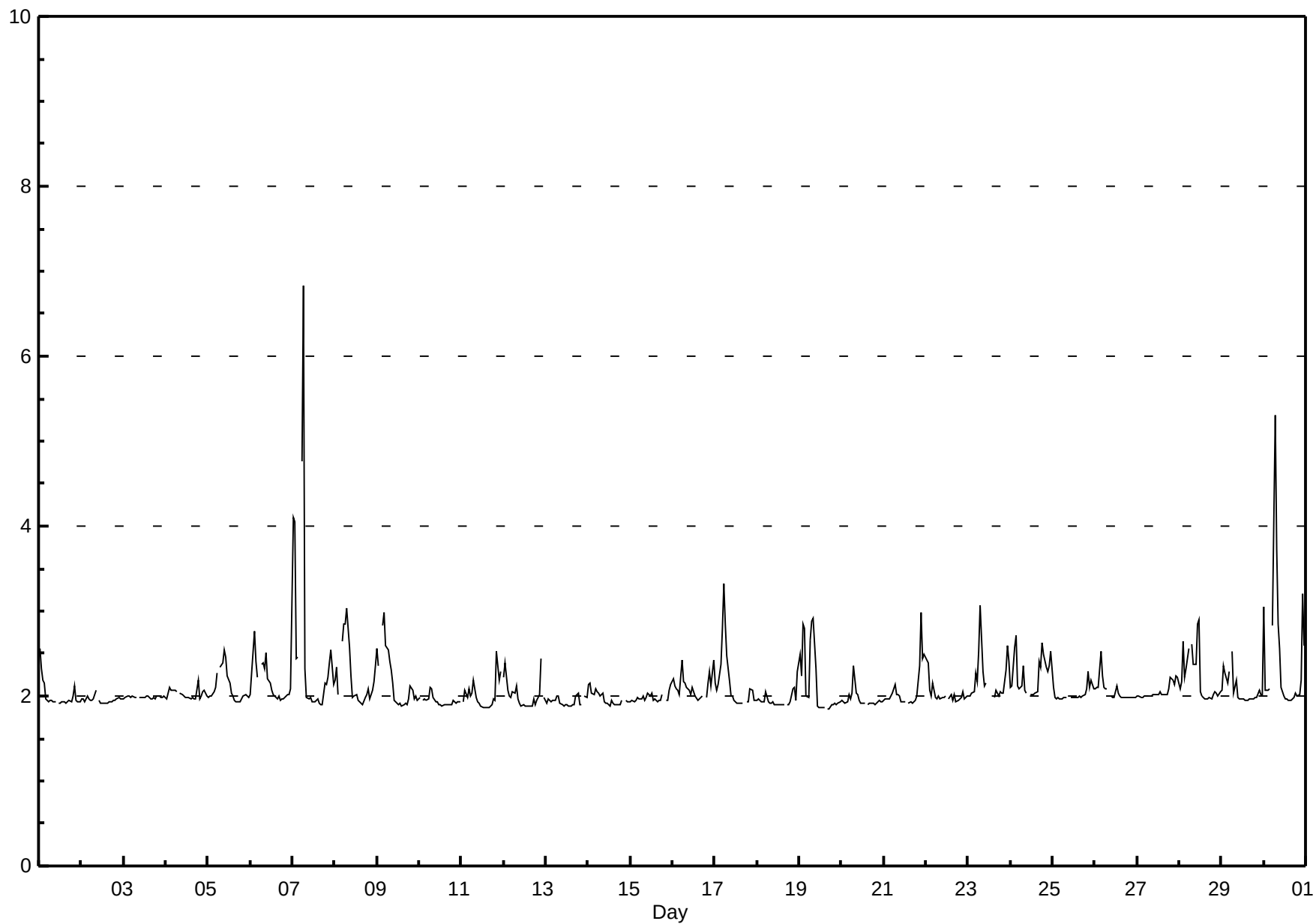
Methane (CH₄) - ppm

Henry Pirker - September 2015

Maximum Value: 6.83 ppm on Sep 7 07:00																					Maximum Daily Average: 2.61 ppm on Sep 7					Hours in Service: 720	
Minimum Value: 1.9 ppm on Sep 19 17:00																					Minimum Daily Average: 1.93 ppm on Sep 13					Hours of Data: 686	
Maximum Diurnal Average: 2.47 ppm at hour 7																					Minimum Diurnal Average: 1.94 ppm at hour 16					Hours of Missing Data: 34	
Monthly Average: 2.095 ppm																					Percentiles: P ₁ = 1.87 P ₁₀ = 1.91 Q ₁ = 1.95 Median = 1.99 Q ₃ = 2.10 P ₉₀ = 2.39 P ₉₉ = 3.18					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-Sep	2.6	2.3	2.2	2.2	2.0	1.9	2.0	2.0	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1	1.9	1.9	1.9	2.01	2.56	
2-Sep	2.0	2.0	1.9	2.0	2.0	1.9	1.9	2.0	2.1	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	1.95	2.07	
3-Sep	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.99	2.01	
4-Sep	2.0	2.0	2.1	2.1	2.1	2.1	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.0	2.0	2.1	2.1	2.0	2.02	2.18	
5-Sep	2.0	2.0	2.0	2.0	2.1	2.3	A	2.3	2.4	2.5	2.5	2.2	2.2	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.10	2.54	
6-Sep	2.0	2.3	2.8	2.4	2.2	A	2.4	2.4	2.3	2.5	2.2	2.2	2.1	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.1	2.16	2.77	
7-Sep	4.1	4.0	2.4	2.5	A	4.8	6.8	2.3	2.0	2.0	2.0	1.9	1.9	1.9	2.0	1.9	1.9	1.9	2.2	2.1	2.2	2.4	2.5	2.1	2.61	6.83	
8-Sep	2.2	2.3	2.0	A	2.6	2.9	2.8	3.0	2.6	2.2	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.1	2.0	2.1	2.2	2.4	2.22	3.04	
9-Sep	2.6	2.4	A	2.8	3.0	2.6	2.5	2.4	2.3	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.1	2.0	2.0	2.0	2.18	2.98	
10-Sep	2.0	A	1.9	2.0	1.9	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	1.9	1.94	2.10	
11-Sep	A	1.9	2.1	2.0	2.1	2.0	2.0	2.2	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.5	2.2	2.3	A	2.01	2.52	
12-Sep	2.2	2.4	2.1	2.0	2.0	2.1	2.0	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.0	2.0	2.4	A	2.0	2.01	2.44	
13-Sep	1.9	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	2.0	2.0	1.9	1.9	A	2.0	2.0	1.93	2.03	
14-Sep	2.1	2.1	2.0	2.0	2.1	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.97	2.15	
15-Sep	1.9	2.0	1.9	1.9	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	1.9	2.0	1.9	1.9	1.9	2.0	2.0	A	2.0	1.9	2.1	2.1	1.98	2.14	
16-Sep	2.2	2.1	2.1	2.1	2.0	2.4	2.2	2.2	2.1	2.1	2.0	2.1	2.0	2.0	1.9	2.0	2.0	2.0	A	2.0	2.2	2.3	2.1	2.4	2.10	2.43	
17-Sep	2.1	2.1	2.1	2.4	2.8	3.3	2.9	2.5	2.2	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	2.1	2.1	1.9	2.16	3.32	
18-Sep	1.9	2.0	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	2.1	2.1	1.9	2.3	1.96	2.29	
19-Sep	2.5	2.2	2.8	2.8	2.0	2.0	2.7	2.9	2.9	2.3	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.16	2.91	
20-Sep	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.4	2.0	2.0	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.96	2.35	
21-Sep	1.9	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	2.0	2.4	3.0	2.4	2.5	2.07	2.98	
22-Sep	2.4	2.4	2.1	2.0	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	1.9	2.0	1.9	1.9	2.0	2.0	2.1	2.0	2.0	2.03	2.42	
23-Sep	2.0	2.0	2.0	2.1	2.3	2.2	2.5	3.1	2.3	2.1	2.1	A	C	C	C	2.0	2.1	2.0	2.0	2.0	2.0	2.3	2.6	2.4	2.21	3.06	
24-Sep	2.1	2.1	2.6	2.7	2.1	2.1	2.1	2.3	2.1	2.0	A	2.0	2.0	2.0	2.0	2.0	2.4	2.3	2.6	2.5	2.3	2.3	2.4	2.5	2.25	2.71	
25-Sep	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.3	2.1	2.2	2.1	2.03	2.28	
26-Sep	2.1	2.1	2.1	2.5	2.2	2.1	2.1	2.1	A	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.06	2.52	
27-Sep	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.2	2.1	2.2	2.2	2.06	2.24	
28-Sep	2.1	2.2	2.7	2.2	2.3	2.6	A	2.6	2.4	2.4	2.9	2.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.23	2.90	
29-Sep	2.1	2.4	2.3	2.1	2.3	A	2.5	2.0	2.2	2.0	2.0	2.0	2.0	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.07	2.52	
30-Sep	3.0	2.1	2.1	2.1	A	2.8	5.3	3.7	2.8	2.6	2.1	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.2	3.2	2.6	2.45	5.31	
2.21 2.18 2.14 2.16 2.14 2.28 2.47 2.30 2.15 2.08 2.03 2.00 1.97 1.95 1.94 1.94 1.96 1.96 2.00 2.01 2.07 2.11 2.13 2.11																								Diurnal Average			
4.11 4.04 2.85 2.83 2.98 4.76 6.83 3.72 2.91 2.56 2.85 2.90 2.15 2.04 2.04 2.05 2.41 2.33 2.62 2.50 2.52 2.98 3.20 2.59																								Diurnal Maximum			
C - Calibration																								A - Automated Daily Zero Span			

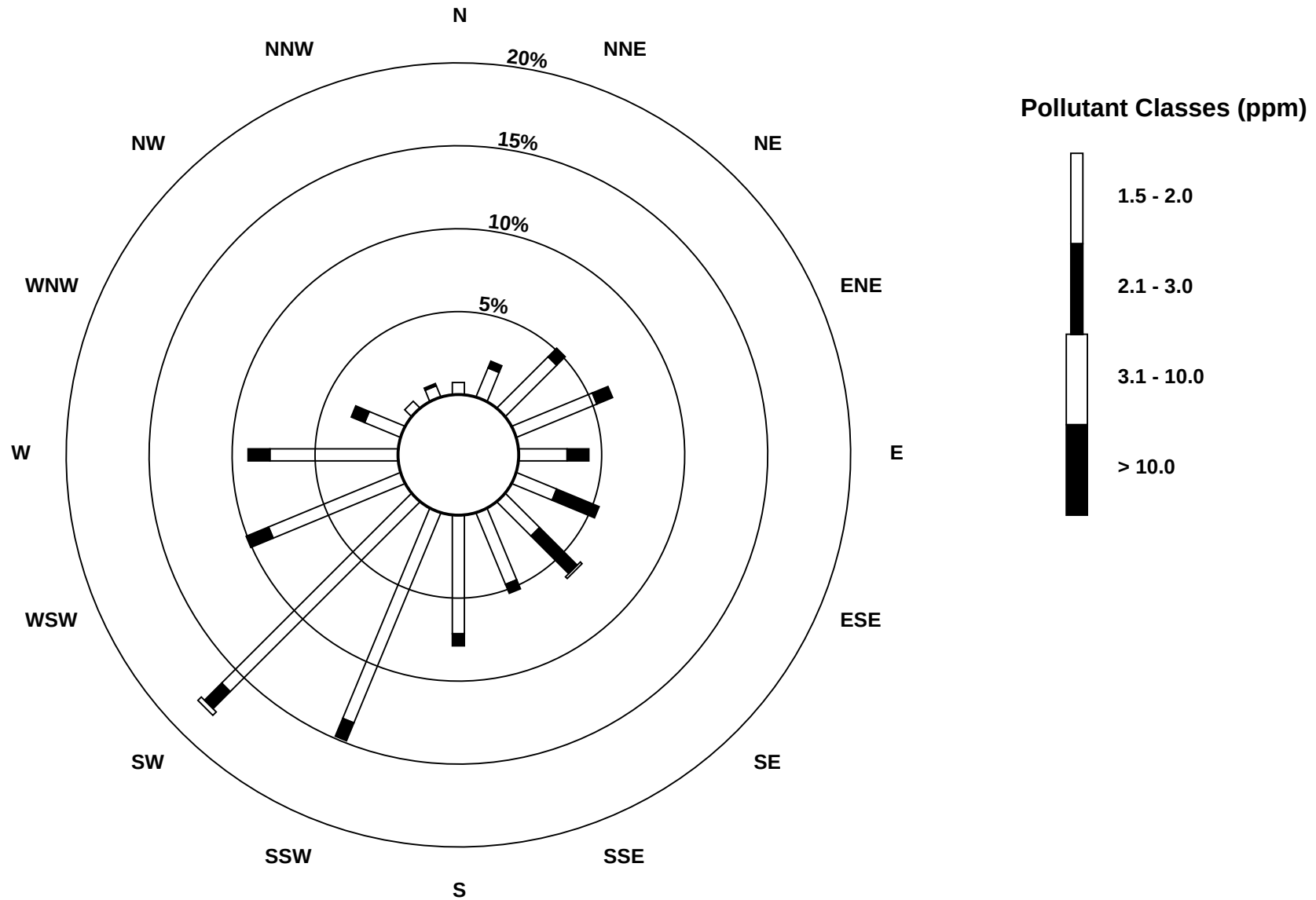
Hourly Maximums

Methane (CH₄) - ppm
Henry Pirker - September 2015



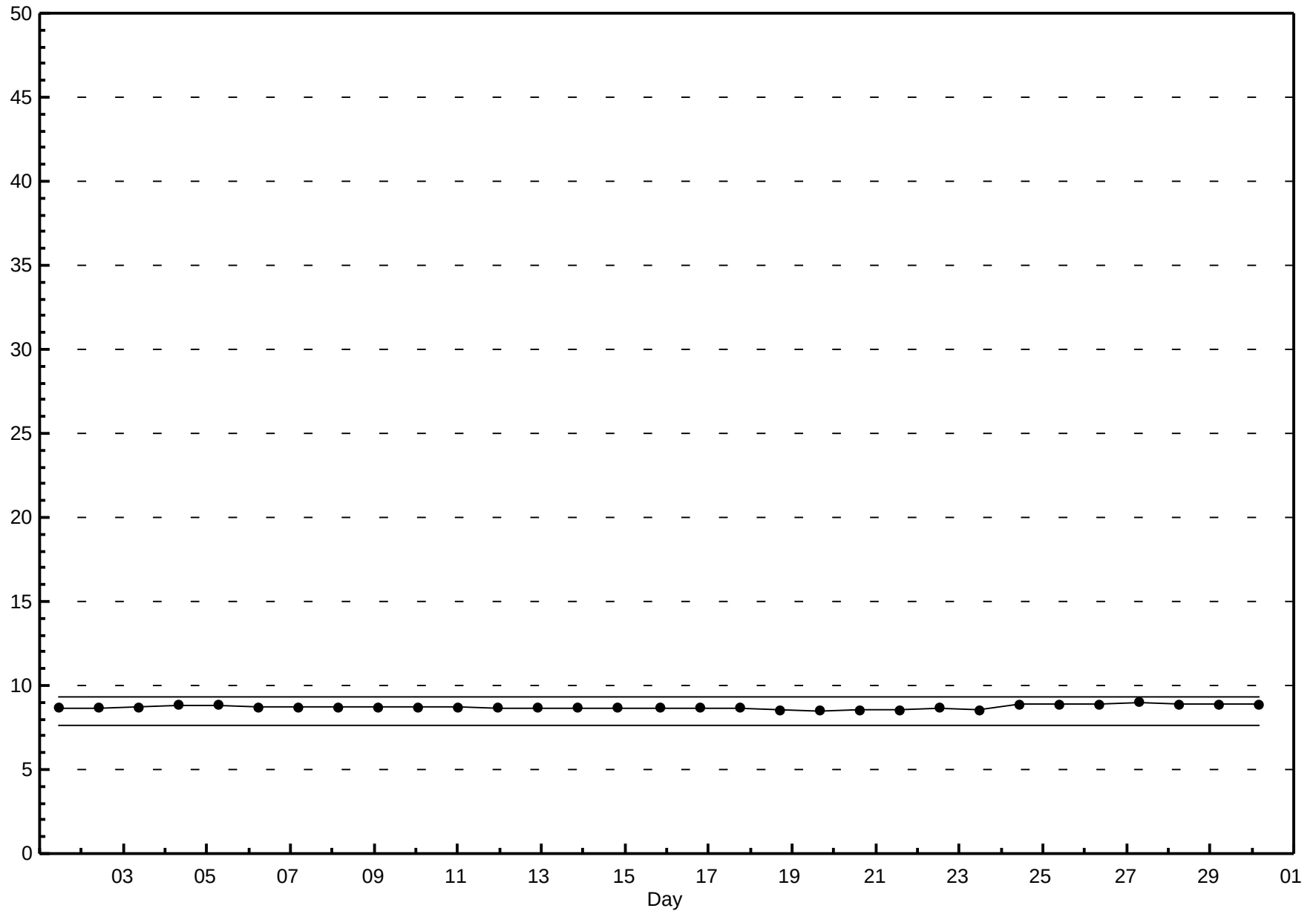
Pollutant Rose

Methane (CH₄) - ppm
Henry Pirker - September 2015



Span Responses

Methane (CH₄)
Henry Pirker - September 2015

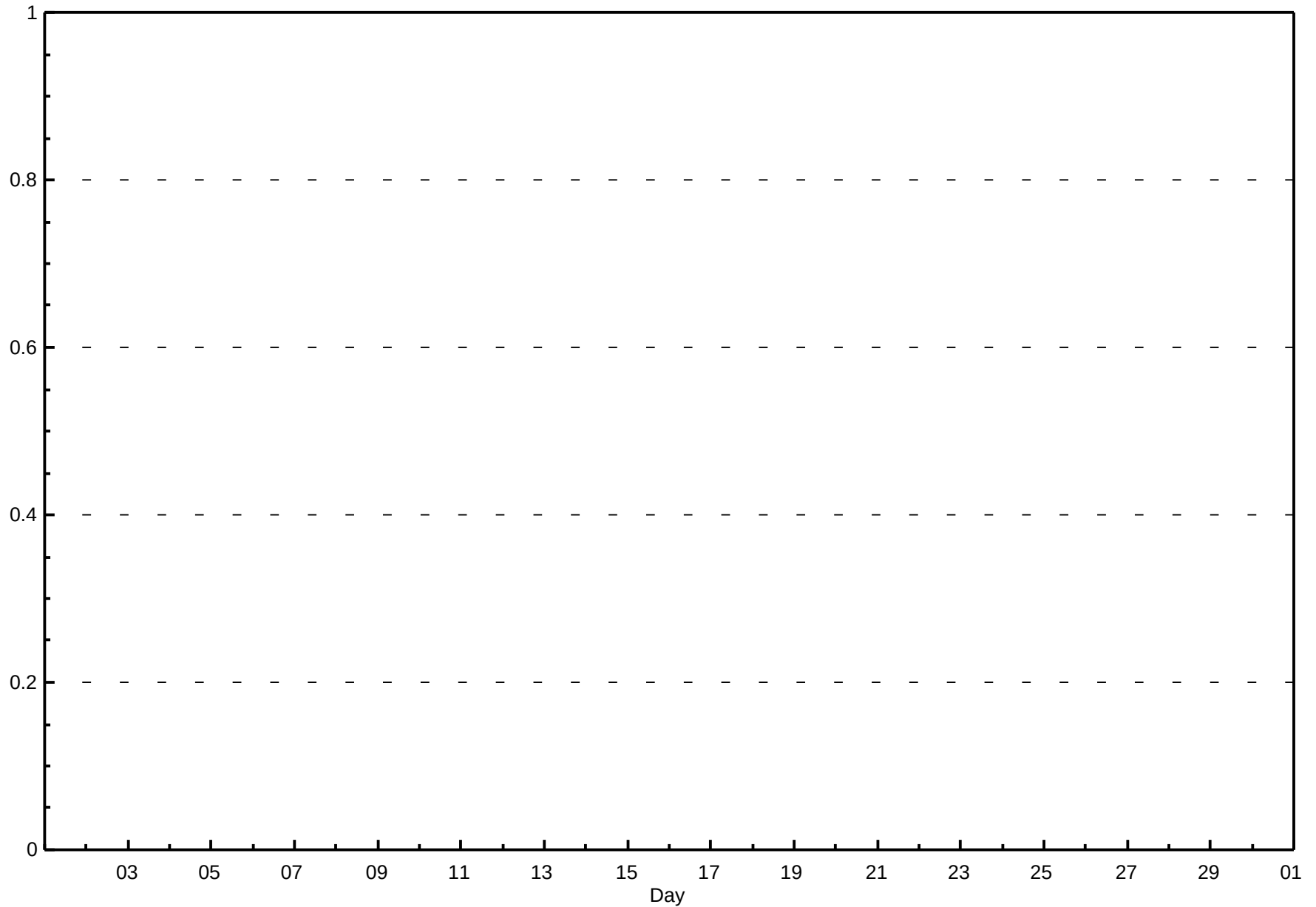


Hourly Averages

Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - September 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 0.00 ppm on Sep 22 07:00 Maximum Daily Average: 0.00 ppm on Sep 22																							Hours in Service: 720 Hours of Data: 686 Hours of Missing Data: 34 Hours of Calibration: 34 Percent Operational Time: 100.0			
Minimum Value: 0.0 ppm on Sep 1 02:00 Maximum Diurnal Average: 0.00 ppm at hour 7 Monthly Average: 0.000 ppm											Minimum Daily Average: 0.00 ppm on Sep 2 Minimum Diurnal Average: 0.00 ppm at hour 14 Percentiles: P ₁ = 0.00 P ₁₀ = 0.00 Q ₁ = 0.00 Median = 0.00 Q ₃ = 0.00 P ₉₀ = 0.00 P ₉₉ = 0.00															
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-Sep	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
2-Sep	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
3-Sep	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
4-Sep	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
5-Sep	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
6-Sep	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
7-Sep	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
8-Sep	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
9-Sep	0.0	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
10-Sep	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
11-Sep	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.00	0.00
12-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.00	0.00
13-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.00	0.00
14-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.00	0.00
15-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.00	0.00
16-Sep	0.0	0.0	0.0	0.0	0.0	0.0	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
17-Sep	0.0	0.0	0.0	0.0	0.0	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
18-Sep	0.0	0.0	0.0	0.0	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
19-Sep	0.0	0.0	0.0	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
20-Sep	0.0	0.0	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
21-Sep	0.0	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
22-Sep	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
23-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
24-Sep	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
25-Sep	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
26-Sep	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
27-Sep	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
28-Sep	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
29-Sep	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
30-Sep	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
0.00 0.00																								Diurnal Average	Diurnal Maximum	
0.00 0.00																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										



Hourly Maximums

Non Methane Hydrocarbon (NMHC) - ppm

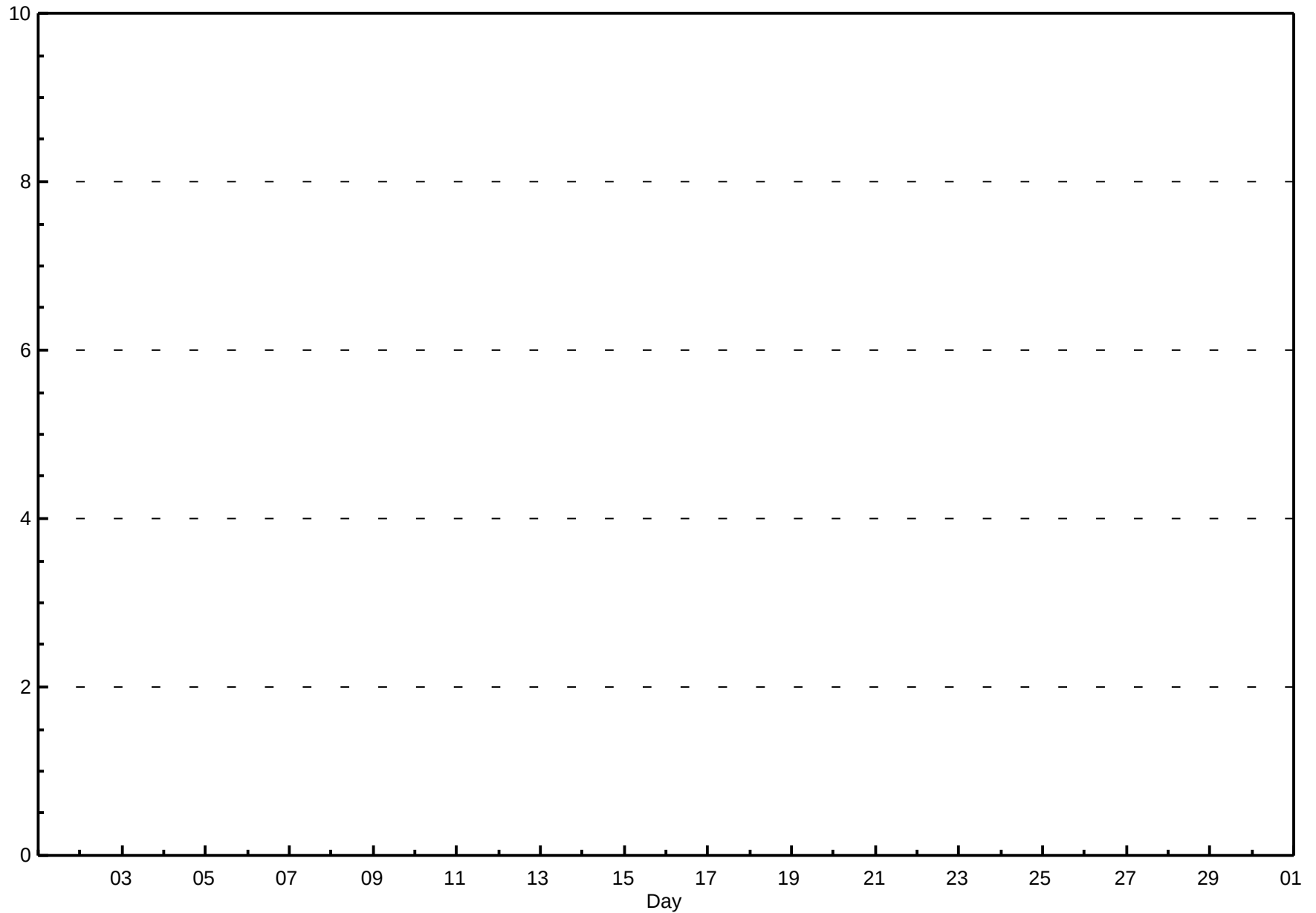
Henry Pirker - September 2015

Maximum Value: 0.00 ppm on Sep 22 10:00																					Maximum Daily Average: 0.00 ppm on Sep 24					Hours in Service: 720	
Minimum Value: 0.0 ppm on Sep 10 14:00																					Minimum Daily Average: 0.00 ppm on Sep 10					Hours of Data: 686	
Maximum Diurnal Average: 0.00 ppm at hour 19																					Minimum Diurnal Average: 0.00 ppm at hour 8					Hours of Missing Data: 34	
Monthly Average: 0.000 ppm																					Percentiles: P ₁ = 0.00 P ₁₀ = 0.00 Q ₁ = 0.00 Median = 0.00 Q ₃ = 0.00 P ₉₀ = 0.00 P ₉₉ = 0.00					Hours 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-Sep	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	
2-Sep	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	
3-Sep	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	
4-Sep	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	
5-Sep	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	
6-Sep	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	
7-Sep	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	
8-Sep	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	
9-Sep	0.0	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	
10-Sep	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
11-Sep	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.00	0.00	
12-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.00	0.00	
13-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.00	0.00	
14-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.00	0.00	
15-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.00	0.00	
16-Sep	0.0	0.0	0.0	0.0	0.0	0.0	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	
17-Sep	0.0	0.0	0.0	0.0	0.0	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	
18-Sep	0.0	0.0	0.0	0.0	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	
19-Sep	0.0	0.0	0.0	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	
20-Sep	0.0	0.0	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	
21-Sep	0.0	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	
22-Sep	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	
23-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
24-Sep	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	
25-Sep	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	
26-Sep	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	
27-Sep	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	
28-Sep	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	
29-Sep	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	
30-Sep	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	
0.00 0.00																								Diurnal Average			
0.00 0.00																								Diurnal Maximum			
C - Calibration A - Automated Daily Zero Span																											

Hourly Maximums

Non Methane Hydrocarbon (NMHC) - ppm

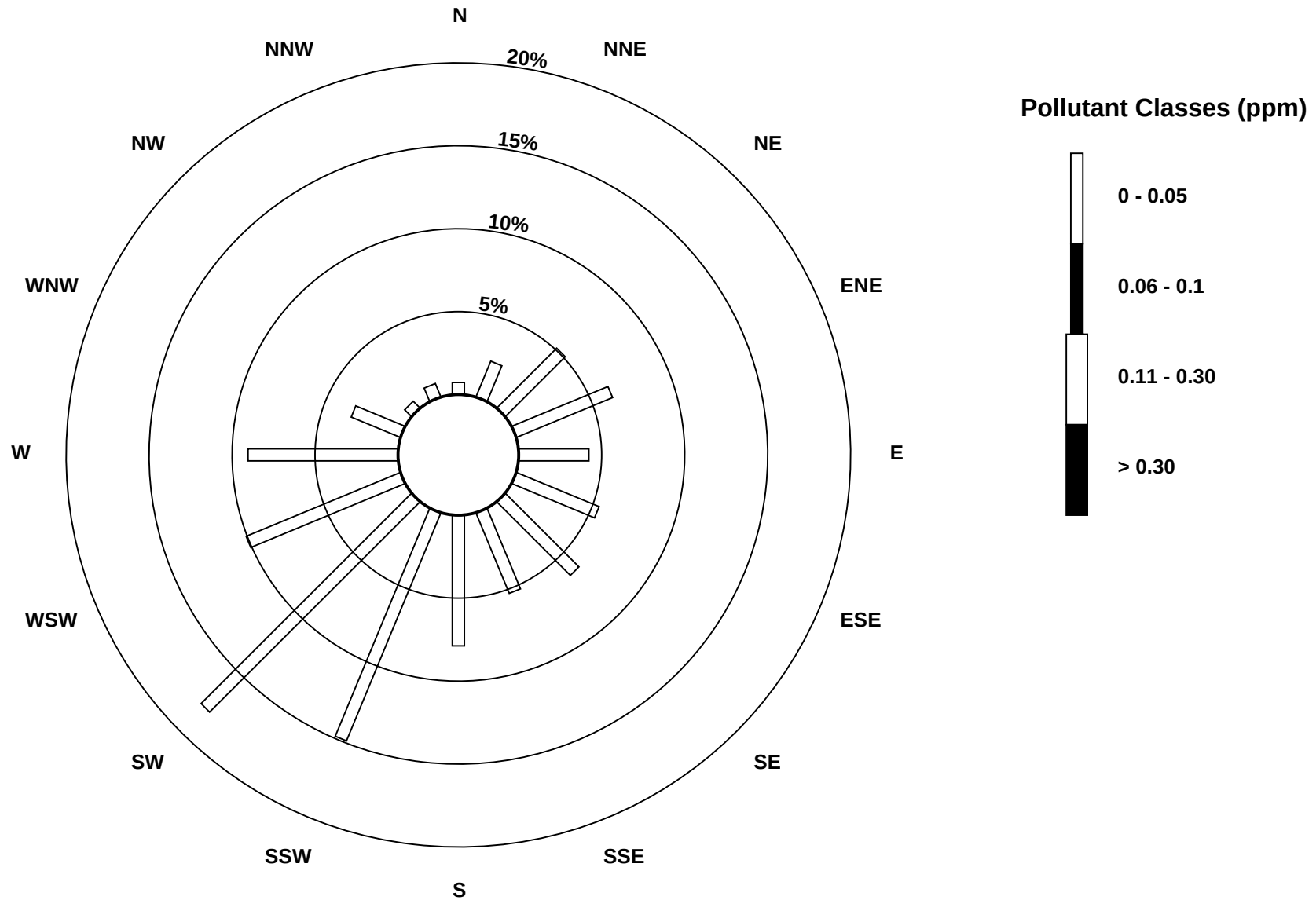
Henry Pirker - September 2015

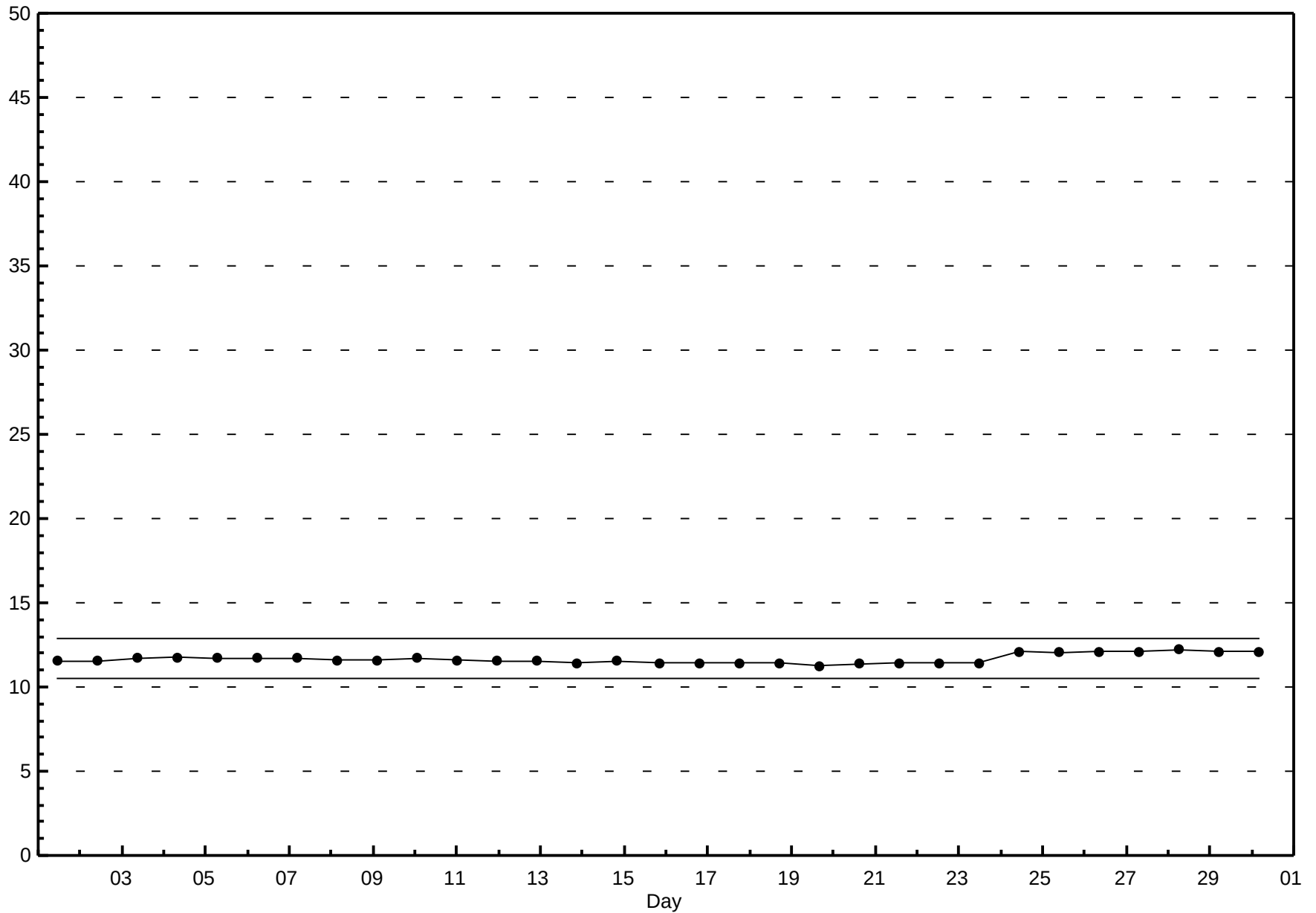


Pollutant Rose

Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - September 2015



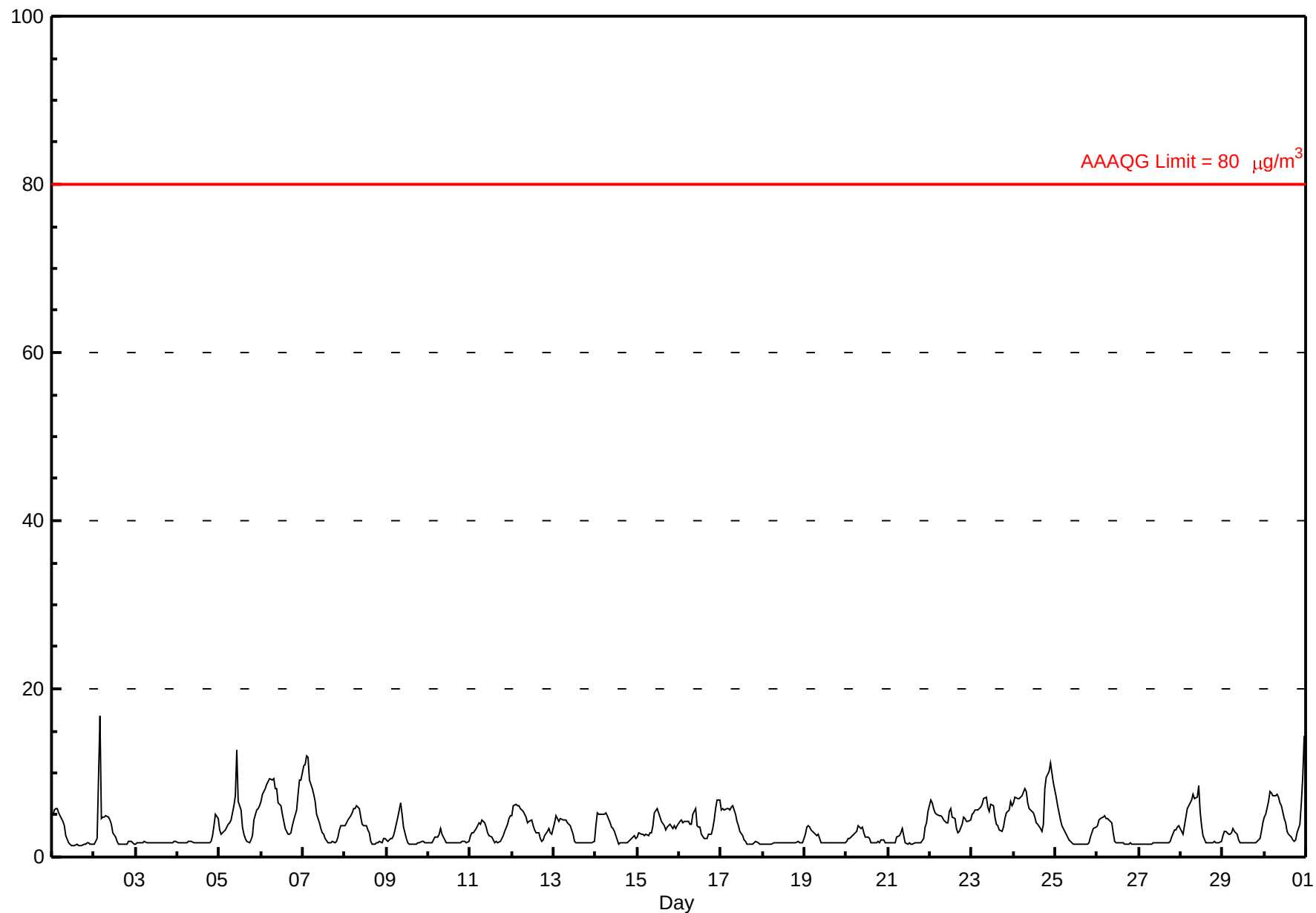


Hourly Averages

Particulate Matter 2.5 (PM_{2.5}) - µg/m³

Henry Pirker - September 2015

Number of Exceedences: 1-hr: 0 24-hr: 0 Maximum Value: 16.7 µg/m³ on Sep 2 04:00																								Maximum Daily Average: 6.7 µg/m³ on Sep 24				Hours in Service: 720 Hours of Data: 720 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0			
Minimum Value: 1 µg/m³ on Sep 1 18:00 Maximum Diurnal Average: 4.8 µg/m³ at hour 4 Monthly Average: 3.40 µg/m³												Minimum Daily Average: 1.6 µg/m³ on Sep 18 Minimum Diurnal Average: 1.9 µg/m³ at hour 17 Percentiles: P ₁ = 1.5 P ₁₀ = 1.6 Q ₁ = 1.7 Median = 2.7 Q ₃ = 4.5 P ₉₀ = 6.1 P ₉₉ = 10.8																			
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-Sep	5	6	6	6	5	5	4	4	3	2	2	1	1	1	1	1	1	1	1	2	2	2	2	2	2.7	5.7					
2-Sep	2	2	2	17	5	5	5	5	5	4	4	3	2	2	2	2	2	2	2	2	2	2	2	2	3.2	16.7					
3-Sep	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1.7	1.9					
4-Sep	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	4	5	5	2.1	5.1					
5-Sep	3	3	3	3	4	4	4	4	6	7	13	7	6	4	3	2	2	2	2	2	4	6	6	6	4.3	12.7					
6-Sep	7	8	8	9	9	9	9	9	8	8	7	6	5	4	3	3	3	3	4	4	6	8	9	9	6.5	9.3					
7-Sep	11	11	12	12	9	8	7	7	5	4	3	3	3	2	2	2	2	2	2	2	2	3	4	4	5.0	12.0					
8-Sep	4	4	4	5	5	6	6	6	6	5	4	4	4	3	3	2	2	2	2	2	2	2	2	2	3.5	6.1					
9-Sep	2	2	2	2	3	3	5	6	6	5	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2.6	6.4					
10-Sep	2	2	2	2	2	2	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1.9	3.3					
11-Sep	3	3	3	3	4	4	4	4	4	4	3	3	2	2	2	2	2	2	2	2	3	4	5	5	3.1	4.9					
12-Sep	5	6	6	6	6	6	5	5	5	4	4	4	4	3	3	3	2	2	2	3	3	3	3	3	4.0	6.2					
13-Sep	4	5	5	4	5	4	4	4	4	4	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2.9	4.9					
14-Sep	4	5	5	5	5	5	5	5	4	4	3	3	2	2	2	2	2	2	2	2	2	3	2	2	3.2	5.2					
15-Sep	2	3	3	3	3	3	3	3	3	4	5	6	5	5	4	4	3	4	4	4	3	4	3	4	3.6	5.8					
16-Sep	4	4	4	4	4	4	4	4	5	6	4	3	4	3	2	2	2	3	3	3	4	6	7	7	4.0	6.7					
17-Sep	6	6	6	6	6	6	6	6	5	4	4	3	3	2	2	2	2	2	2	2	2	2	2	2	3.5	6.0					
18-Sep	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1.6	1.8					
19-Sep	3	4	4	4	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.2	3.7					
20-Sep	2	2	2	2	3	3	3	4	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2.3	3.7					
21-Sep	2	2	2	2	2	2	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	3	4	5	2.2	5.4					
22-Sep	7	7	6	5	5	5	5	5	4	4	4	5	6	5	5	3	3	3	4	5	5	4	4	4	4.7	6.7					
23-Sep	5	5	6	6	6	6	6	7	7	6	5	6	6	5	4	4	3	3	4	5	5	6	7	6	5.3	7.2					
24-Sep	7	7	7	7	7	7	8	8	6	6	6	5	5	4	4	3	3	4	8	9	10	11	10	9	6.7	11.1					
25-Sep	7	6	5	4	4	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	2.7	7.1					
26-Sep	4	4	5	5	5	5	5	4	4	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.7	5.0					
27-Sep	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	4	4	1.9	3.8					
28-Sep	3	3	4	5	6	6	7	8	7	7	9	5	4	3	2	2	2	2	2	2	2	2	2	2	3.8	8.5					
29-Sep	3	3	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	3	4	4	2.3	4.1					
30-Sep	5	5	7	8	8	7	7	7	7	6	6	5	4	3	3	2	2	2	2	3	4	7	10	14	5.6	14.5					
3.8 4.1 4.2 4.8 4.4 4.4 4.4 4.5 4.3 3.9 3.7 3.2 2.9 2.5 2.2 2.0 1.9 2.0 2.2 2.5 2.9 3.4 3.7 3.9																								Diurnal Average							
10.8 10.9 12.0 16.7 9.1 9.3 9.1 9.3 8.2 8.1 12.7 6.6 6.1 4.8 4.6 3.8 3.3 3.8 8.1 9.4 10.1 11.1 10.1 14.5																								Diurnal Maximum							
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 µg/m³ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 µg/m³																															

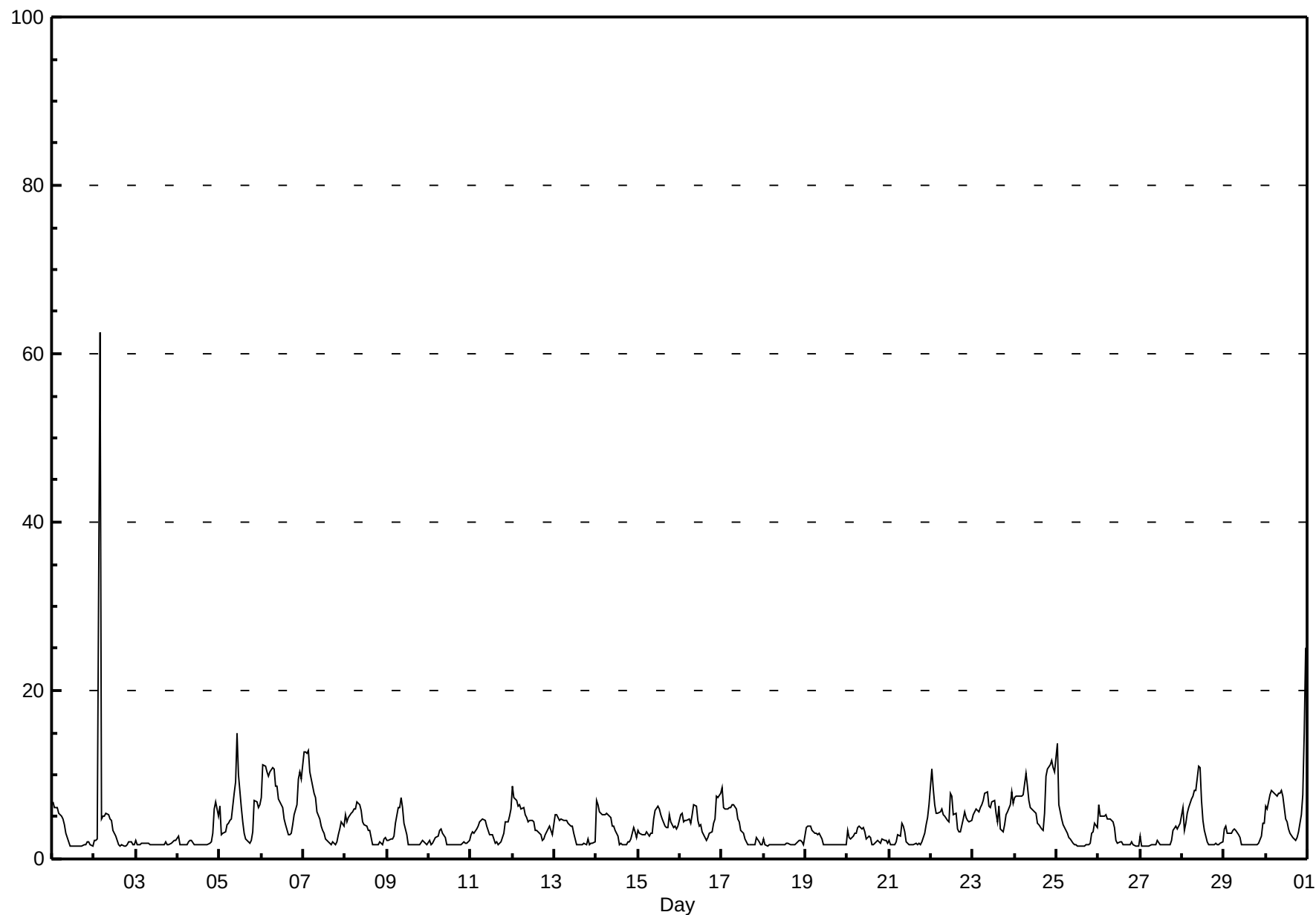


Hourly Maximums

Particulate Matter 2.5 (PM_{2.5}) - µg/m³

Henry Pirker - September 2015

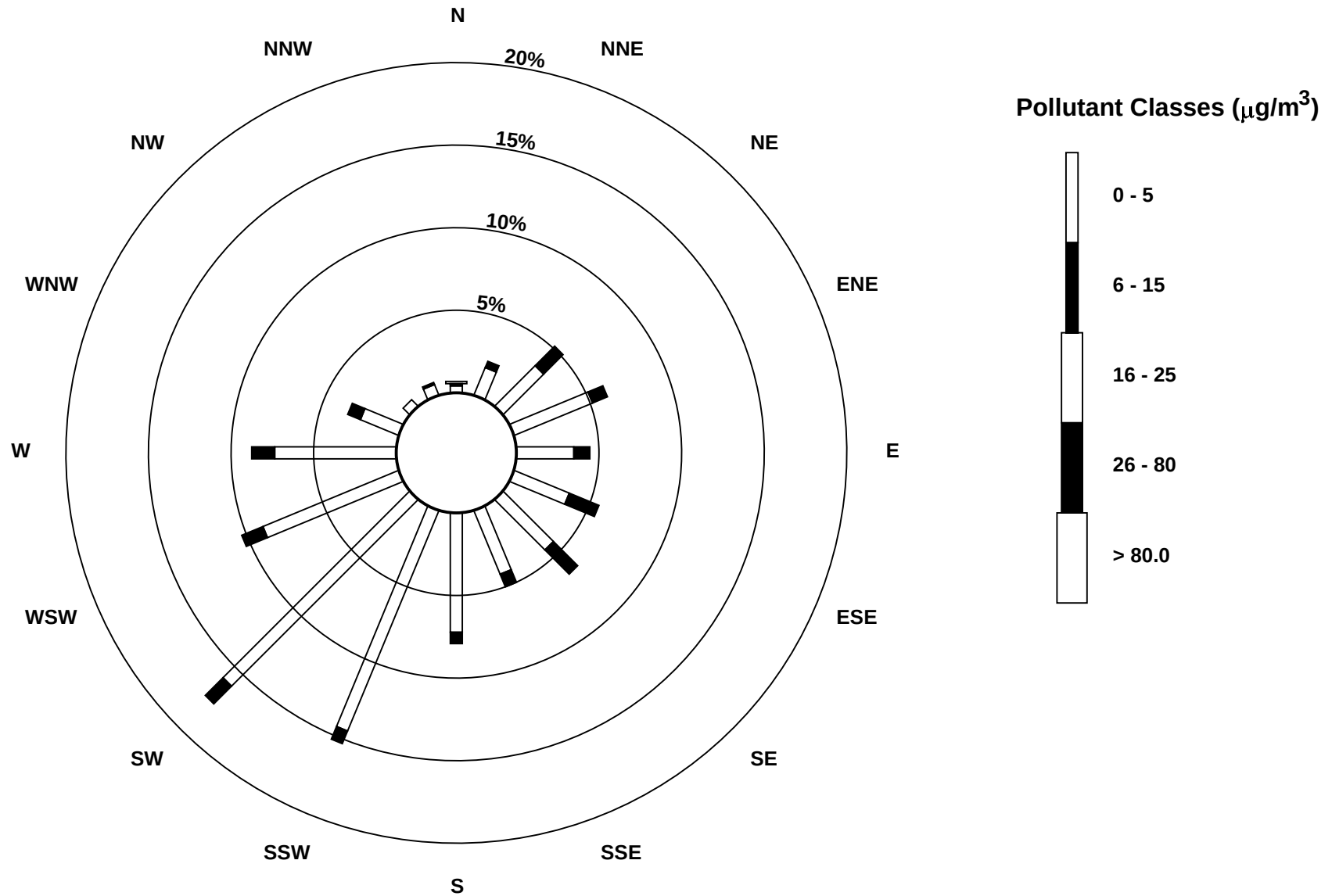
Maximum Value: 62.5 μg/m³ on Sep 2 04:00																				Maximum Daily Average: 7.5 μg/m³ on Sep 6					Hours in Service: 720	
Minimum Value: 2 μg/m³ on Sep 1 18:00																				Minimum Daily Average: 1.8 μg/m³ on Sep 18					Hours of Data: 720	
Maximum Diurnal Average: 6.6 μg/m³ at hour 4																				Minimum Diurnal Average: 2.1 μg/m³ at hour 17					Hours of Missing Data: 0	
Monthly Average: 3.95 μg/m³																				Percentiles: P ₁ = 1.5 P ₁₀ = 1.7 Q ₁ = 1.8 Median = 3.1 Q ₃ = 5.2 P ₉₀ = 7.2 P ₉₉ = 12.6					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-Sep	7	6	6	6	5	5	5	4	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3.0	6.7
2-Sep	2	2	2	63	5	5	5	5	5	5	5	3	3	2	2	2	2	2	2	2	2	2	2	2	5.4	62.5
3-Sep	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1.9	2.3
4-Sep	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	6	7	5	2.4	6.8
5-Sep	6	3	3	3	4	4	5	5	8	9	15	10	6	4	3	2	2	2	2	3	7	7	6	6	5.3	14.9
6-Sep	7	11	11	10	10	10	11	11	9	9	7	6	6	5	4	3	3	3	4	5	6	9	10	9	7.5	11.1
7-Sep	13	13	13	13	10	9	8	7	6	5	4	3	3	2	2	2	2	2	2	2	3	4	4	4	5.6	12.9
8-Sep	5	4	5	5	6	6	6	7	6	6	4	4	4	3	3	3	2	2	2	2	2	2	2	3	3.9	6.8
9-Sep	2	2	2	2	3	4	6	6	7	6	4	3	2	2	2	2	2	2	2	2	2	2	2	2	2.9	7.2
10-Sep	2	2	2	2	3	3	3	4	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.1	3.6
11-Sep	3	3	3	4	4	4	5	5	5	4	3	3	3	2	2	2	2	2	2	3	4	4	5	6	3.5	5.9
12-Sep	9	7	7	6	6	6	6	5	5	4	5	5	4	3	3	3	3	2	2	3	4	4	3	3	4.6	8.7
13-Sep	5	5	5	5	5	5	5	5	4	4	4	3	2	2	2	2	2	2	2	2	2	2	2	2	3.2	5.2
14-Sep	7	6	6	5	5	5	5	5	5	4	4	3	3	2	2	2	2	2	2	2	2	4	3	2	3.7	7.0
15-Sep	3	3	3	3	3	3	3	3	3	5	6	6	6	5	5	4	4	4	5	4	4	4	4	4	4.0	6.3
16-Sep	5	5	4	5	5	5	4	5	6	6	5	4	4	3	2	2	3	3	3	4	5	7	7	8	4.7	7.8
17-Sep	8	6	6	6	6	6	6	7	6	5	4	3	3	2	2	2	2	2	2	2	3	2	2	2	3.9	8.5
18-Sep	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1.8	2.4
19-Sep	4	4	4	4	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.4	3.9
20-Sep	3	2	2	3	3	3	4	4	4	4	3	2	3	3	2	2	2	2	2	2	2	2	2	2	2.6	4.0
21-Sep	2	2	2	2	2	3	3	4	4	3	2	2	2	2	2	2	2	2	2	2	3	4	5	6	2.6	6.4
22-Sep	11	8	6	5	5	6	6	5	5	5	4	8	7	5	5	4	3	3	5	6	5	5	4	5	5.5	10.8
23-Sep	5	6	6	6	6	6	7	8	8	6	6	7	7	5	4	6	4	3	4	5	6	7	8	7	6.0	8.0
24-Sep	7	7	7	7	7	8	10	9	7	6	6	6	5	4	4	4	3	5	10	11	11	12	11	10	7.5	11.7
25-Sep	14	6	6	5	4	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	3	3	4	4	3.3	13.7
26-Sep	6	5	5	5	5	5	5	5	4	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3.1	6.4
27-Sep	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	4	4	4	4	2.2	4.2
28-Sep	6	3	4	5	6	7	7	8	8	11	11	7	5	3	2	2	2	2	2	2	2	2	2	2	4.6	11.0
29-Sep	4	4	3	3	3	3	4	3	3	3	2	2	2	2	2	2	2	2	2	2	2	3	4	4	2.6	4.3
30-Sep	6	6	8	8	8	8	7	8	8	8	7	5	4	4	3	3	2	2	2	3	5	8	15	25	6.8	25.1
5.5 4.7 4.6 6.6 4.7 4.8 5.0 5.0 4.8 4.5 4.2 3.7 3.3 2.7 2.4 2.2 2.1 2.2 2.5 2.9 3.4 3.9 4.3 4.6																									Diurnal Average	
13.7 12.7 12.6 62.5 10.3 10.3 10.9 10.8 8.6 11.0 14.9 10.0 7.5 5.4 5.4 6.3 3.7 5.4 9.8 10.6 11.1 11.7 14.9 25.1																									Diurnal Maximum	



Pollutant Rose

Particulate Matter 2.5 (PM_{2.5}) - µg/m³

Henry Pirker - September 2015



Hourly Averages

External Temperature (ET) - °C

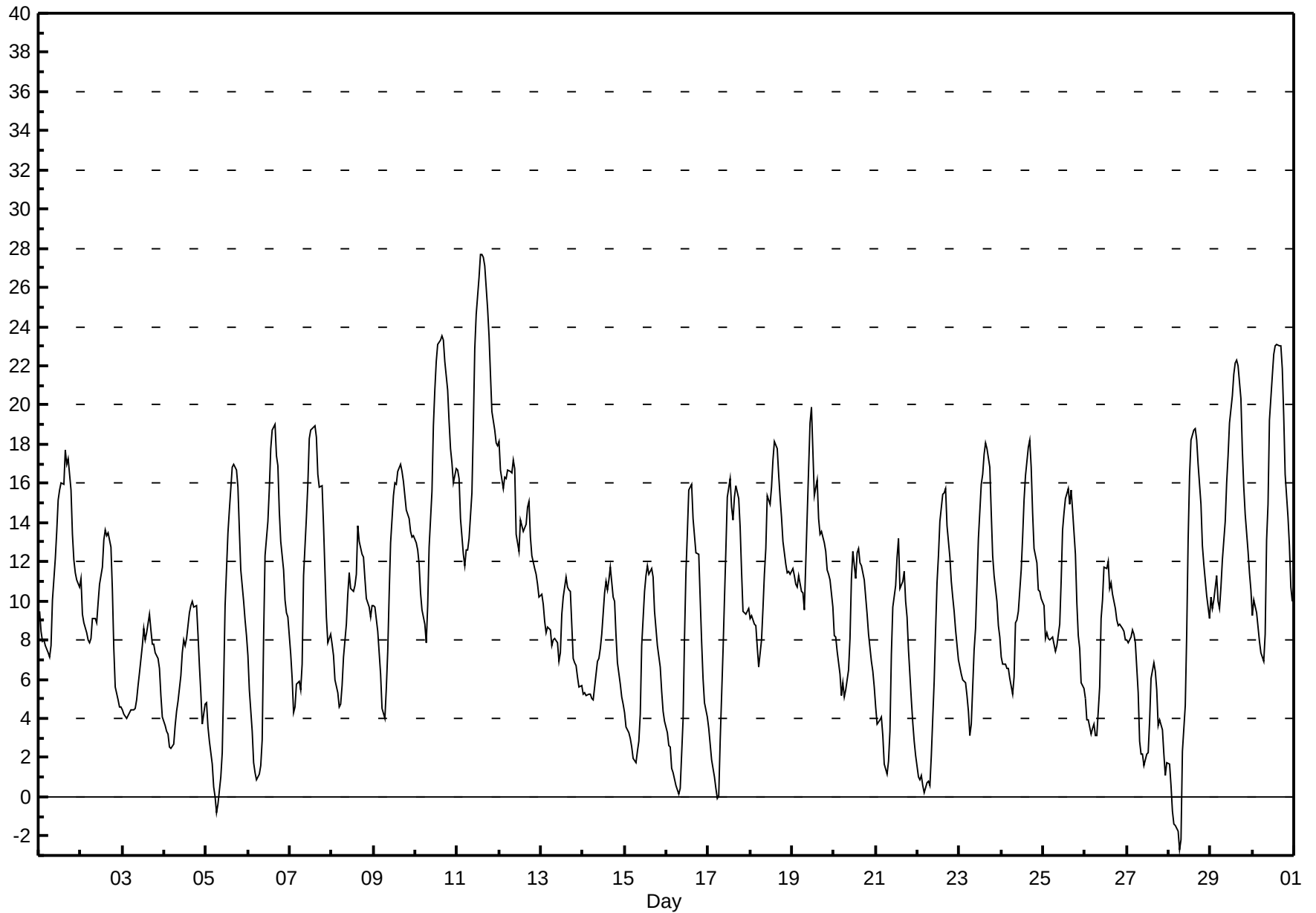
Henry Pirker - September 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 27.7 °C on Sep 11 15:00 Maximum Daily Average: 19.7 °C on Sep 11																								Hours in Service: 720 Hours of Data: 720 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0		
Minimum Value: -3 °C on Sep 28 07:00 Minimum Daily Average: 4.6 °C on Sep 27 Maximum Diurnal Average: 15.5 °C at hour 16 Minimum Diurnal Average: 5.2 °C at hour 7 Monthly Average: 10.08 °C Percentiles: P ₁ = -0.5 P ₁₀ = 3.1 Q ₁ = 6.0 Median = 9.7 Q ₃ = 13.6 P ₉₀ = 17.2 P ₉₉ = 24.3																										
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-Sep	9	8	8	8	8	7	7	8	10	12	14	15	16	16	16	18	17	17	16	13	12	11	11	11	12.0	17.7
2-Sep	11	9	9	8	8	8	8	9	9	9	10	11	12	13	14	13	13	13	11	8	6	5	5	5	9.4	13.6
3-Sep	4	4	4	4	4	4	4	5	5	6	6	8	9	8	8	9	9	8	8	7	7	7	5	4	6.2	9.3
4-Sep	4	3	3	3	2	3	4	4	5	6	7	8	8	8	9	10	10	10	10	8	7	5	4	5	6.1	10.0
5-Sep	5	4	3	2	1	0	-1	0	1	2	6	10	13	15	16	17	17	17	16	14	12	10	9	8	8.1	16.9
6-Sep	7	5	3	2	1	1	1	2	3	8	12	14	16	18	19	19	17	17	15	13	12	10	9	9	9.7	19.0
7-Sep	7	6	4	5	6	6	5	7	11	14	16	18	19	19	19	18	16	16	16	14	11	9	8	8	11.6	18.9
8-Sep	8	7	6	5	5	5	6	7	9	10	11	11	10	11	11	14	13	12	12	11	10	10	9	10	9.3	13.8
9-Sep	10	10	8	7	6	4	4	6	7	10	13	15	16	16	17	17	17	16	15	15	14	14	13	13	11.8	16.9
10-Sep	13	13	12	10	10	9	8	10	13	16	19	21	22	23	23	24	23	22	21	19	18	17	16	17	16.5	23.5
11-Sep	17	16	14	12	12	13	13	13	16	19	23	25	27	28	28	28	27	25	23	22	20	19	18	18	19.7	27.7
12-Sep	18	17	16	16	16	17	17	17	17	17	13	13	14	14	14	14	15	15	13	12	12	11	11	10	14.5	18.2
13-Sep	10	10	9	8	9	9	8	8	8	8	7	7	9	10	11	11	11	10	7	7	7	6	6	6	8.4	11.2
14-Sep	5	5	5	5	5	5	5	6	7	7	8	8	10	11	11	11	12	10	10	8	7	6	5	5	7.4	11.7
15-Sep	4	4	3	3	3	2	2	2	3	4	8	10	11	12	11	12	11	9	9	8	7	5	4	4	6.3	11.8
16-Sep	3	3	3	1	1	1	0	0	0	4	8	11	13	16	16	14	13	12	12	10	8	6	5	4	6.9	16.0
17-Sep	4	3	2	1	0	0	0	3	7	10	13	15	16	15	14	15	16	15	14	12	9	9	9	10	8.8	16.2
18-Sep	9	9	9	9	8	7	8	10	11	13	15	15	16	17	18	18	16	15	14	13	12	11	11	11	12.3	18.2
19-Sep	12	11	11	11	11	10	10	10	12	17	19	20	18	15	16	14	13	14	13	13	12	11	11	10	13.1	19.9
20-Sep	8	8	7	6	5	6	5	5	6	8	11	12	11	12	13	12	12	11	10	9	8	7	6	6	8.7	12.7
21-Sep	5	4	4	4	3	2	1	2	3	7	10	11	12	13	11	11	12	10	9	8	5	4	3	2	6.4	13.2
22-Sep	1	1	1	1	0	1	1	1	2	6	9	11	12	14	15	15	16	14	12	11	10	9	9	7	7.4	15.8
23-Sep	7	6	6	6	5	4	3	4	8	9	11	13	16	16	18	18	18	17	14	12	11	10	9	8	10.4	18.1
24-Sep	7	7	7	7	7	6	5	6	9	9	9	12	13	15	16	18	18	17	15	13	12	11	11	10	10.8	18.2
25-Sep	10	8	8	8	8	8	8	7	8	9	11	14	15	15	16	15	16	15	12	10	8	8	6	6	10.3	15.7
26-Sep	5	4	4	3	3	4	3	3	6	9	10	12	12	12	11	11	10	10	9	9	9	9	8	8	7.6	12.0
27-Sep	8	8	8	9	8	8	5	3	2	2	2	2	2	4	6	7	6	5	4	4	3	2	1	2	4.6	8.5
28-Sep	2	1	-1	-1	-1	-2	-3	-2	2	5	8	13	16	18	19	19	18	17	15	13	12	11	10	9	8.2	18.8
29-Sep	10	10	10	11	10	10	11	12	14	16	17	19	20	22	22	22	22	20	18	16	14	13	11	11	15.1	22.3
30-Sep	9	10	9	9	8	7	7	8	13	15	19	21	23	23	23	23	23	22	19	16	14	13	11	10	14.9	23.1
																								Diurnal Average		
																								Diurnal Maximum		

Hourly Averages

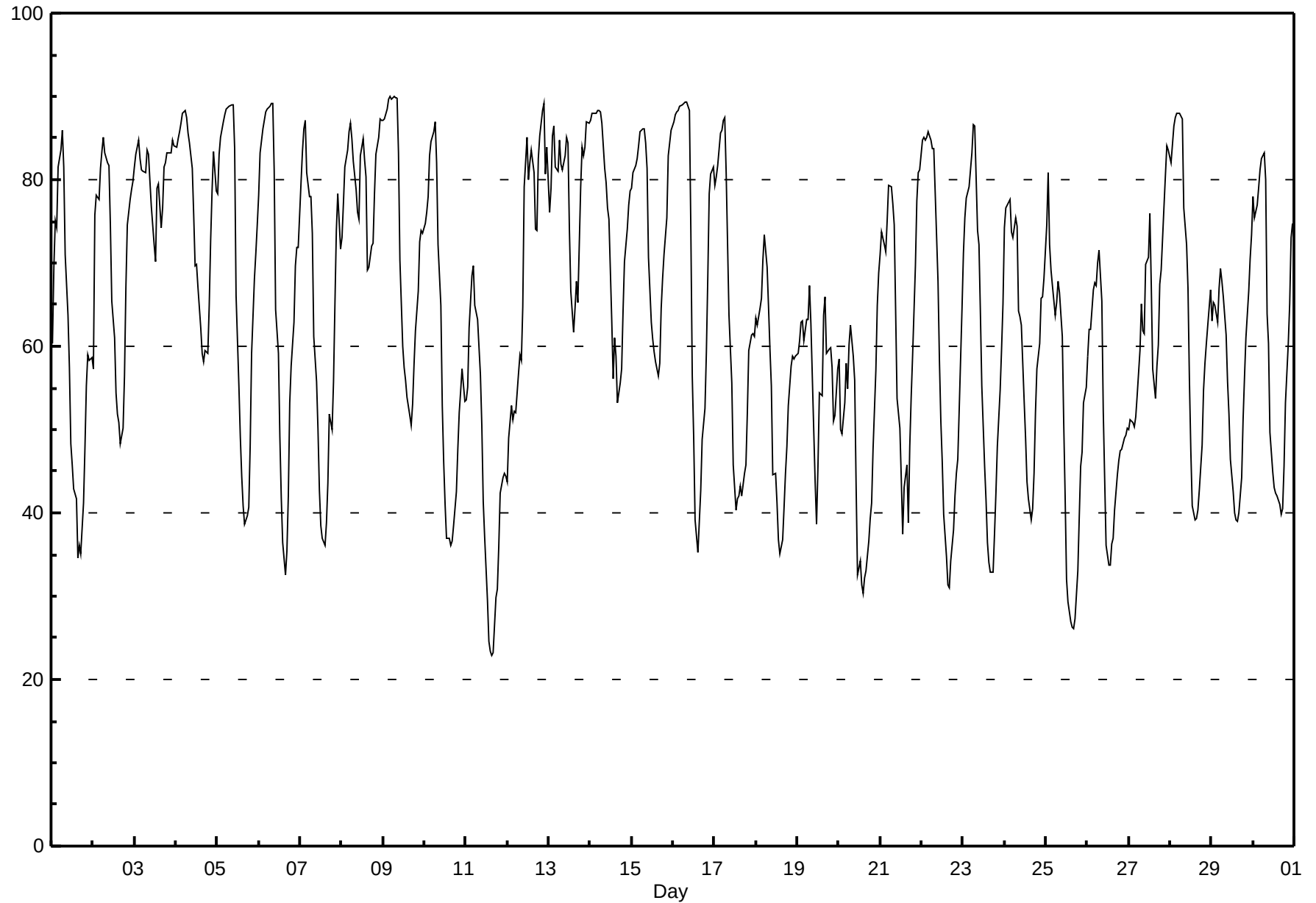
External Temperature (ET) - °C

Henry Pirker - September 2015



Hourly Averages

Relative Humidity (RH) - %
Henry Pirker - September 2015

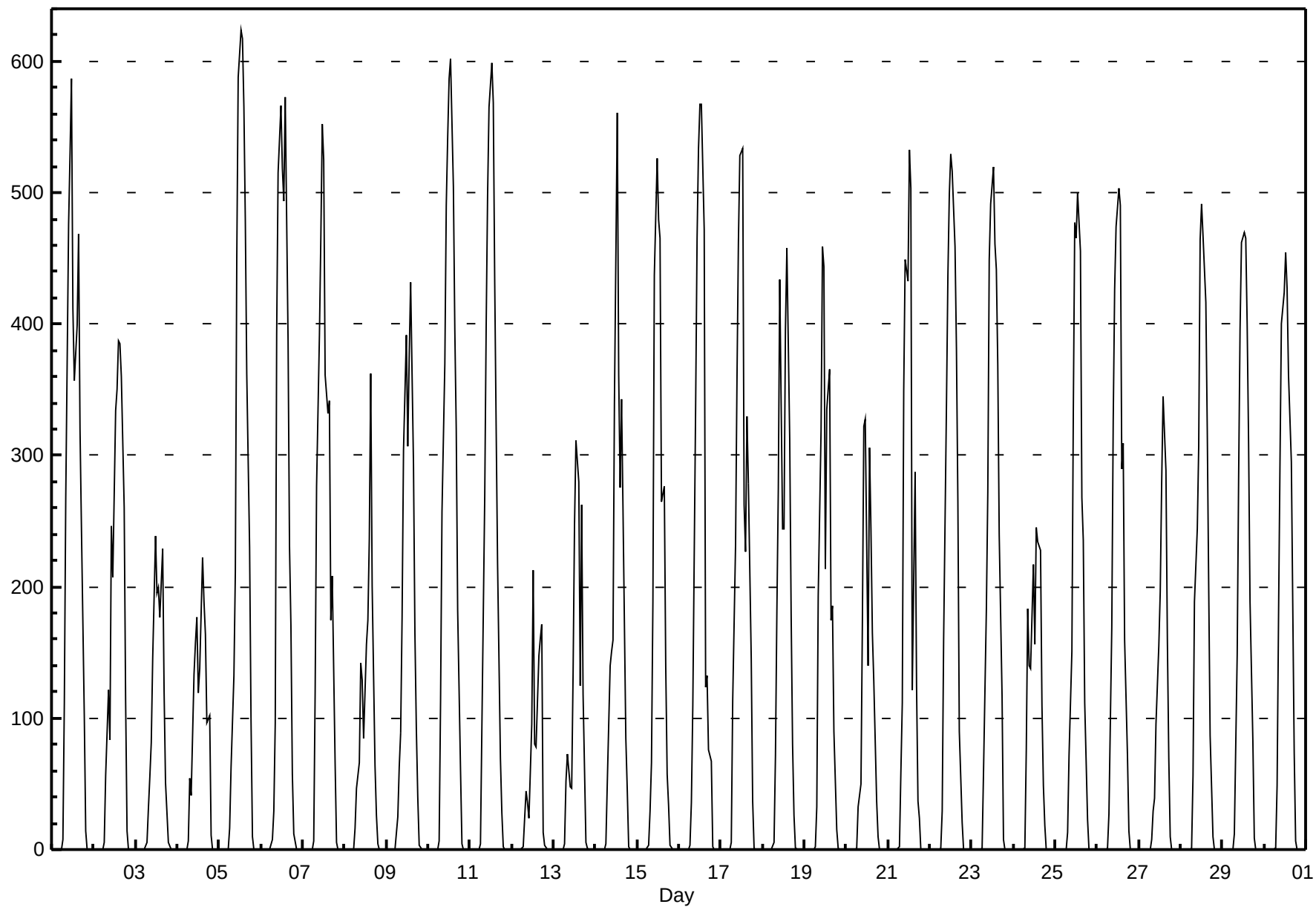


Hourly Averages

Solar Radiation (SR) - W/m²

Henry Pirker - September 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 623.2 W/m ² on Sep 5 13:00 Maximum Daily Average: 185.2 W/m ² on Sep 5																								Hours in Service: 720 Hours of Data: 720 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0		
Minimum Value: 0 W/m ² on Sep 1 01:00 Minimum Daily Average: 45.5 W/m ² on Sep 12 Maximum Diurnal Average: 396.5 W/m ² at hour 13 Minimum Diurnal Average: 0.0 W/m ² at hour 22 Monthly Average: 123.26 W/m ² Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 9.4 Q ₃ = 215.6 P ₉₀ = 433.1 P ₉₉ = 586.6																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Sep	0	0	0	0	0	0	8	112	268	476	530	587	412	357	400	469	320	245	101	14	0	0	0	0	179.1	586.9
2-Sep	0	0	0	0	0	0	6	57	121	83	247	207	334	351	387	385	360	260	114	15	0	0	0	0	121.9	387.2
3-Sep	0	0	0	0	0	0	5	31	55	82	145	238	195	199	177	229	120	51	28	6	0	0	0	0	65.1	238.3
4-Sep	0	0	0	0	0	0	6	55	41	134	158	177	120	138	222	189	164	96	102	11	0	0	0	0	67.1	222.1
5-Sep	0	0	0	0	0	0	16	63	132	212	449	588	623	617	565	479	362	230	99	10	0	0	0	0	185.2	623.2
6-Sep	0	0	0	0	0	0	8	30	96	392	515	566	519	494	572	387	231	170	57	12	0	0	0	0	168.7	572.4
7-Sep	0	0	0	0	0	0	7	120	276	392	467	552	525	361	332	341	175	208	66	6	0	0	0	0	159.5	551.8
8-Sep	0	0	0	0	0	0	16	47	66	142	129	85	156	174	236	363	201	64	25	4	0	0	0	0	71.2	362.8
9-Sep	0	0	0	0	0	0	25	63	88	176	304	391	307	376	432	293	165	92	40	4	0	0	0	0	114.8	432.1
10-Sep	0	0	0	0	0	0	6	113	257	370	491	543	587	602	504	396	320	182	61	5	0	0	0	0	184.9	602.4
11-Sep	0	0	0	0	0	0	4	94	269	398	498	565	598	569	431	323	218	69	28	3	0	0	0	0	169.4	598.3
12-Sep	0	0	0	0	0	0	2	24	44	36	24	96	212	81	78	148	160	171	13	3	0	0	0	0	45.5	212.5
13-Sep	0	0	0	0	0	0	4	53	73	48	46	135	247	311	280	125	262	118	6	1	0	0	0	0	71.1	311.0
14-Sep	0	0	0	0	0	0	4	50	140	151	160	339	561	362	275	342	260	85	45	3	0	0	0	0	115.7	561.2
15-Sep	0	0	0	0	0	0	3	29	66	188	437	526	480	465	265	276	140	58	33	4	0	0	0	0	123.8	526.2
16-Sep	0	0	0	0	0	0	3	36	109	339	465	534	567	568	472	123	132	76	67	2	0	0	0	0	145.6	567.7
17-Sep	0	0	0	0	0	0	5	114	232	358	463	528	534	263	227	330	279	145	37	1	0	0	0	0	146.5	534.0
18-Sep	0	0	0	0	0	0	5	72	183	274	434	244	244	396	458	312	179	80	26	1	0	0	0	0	121.1	457.6
19-Sep	0	0	0	0	0	0	2	33	193	319	459	443	213	335	365	175	185	90	16	1	0	0	0	0	117.9	458.5
20-Sep	0	0	0	0	0	0	2	33	49	173	323	328	140	306	244	165	128	37	9	0	0	0	0	0	80.8	327.5
21-Sep	0	0	0	0	0	0	2	58	112	349	450	433	533	503	121	287	125	37	23	0	0	0	0	0	126.5	532.9
22-Sep	0	0	0	0	0	0	1	29	160	340	437	499	530	517	459	381	264	90	21	0	0	0	0	0	155.3	529.8
23-Sep	0	0	0	0	0	0	1	59	183	272	449	491	519	461	441	369	240	117	8	0	0	0	0	0	150.4	519.1
24-Sep	0	0	0	0	0	0	2	76	183	139	138	216	156	245	234	228	110	49	19	0	0	0	0	0	74.8	245.1
25-Sep	0	0	0	0	0	0	0	13	71	151	333	477	465	500	456	268	235	112	22	0	0	0	0	0	129.4	500.5
26-Sep	0	0	0	0	0	0	1	27	169	327	426	474	503	491	289	310	160	72	14	0	0	0	0	0	135.9	503.4
27-Sep	0	0	0	0	0	0	0	7	29	39	96	156	197	279	345	288	160	69	10	0	0	0	0	0	69.8	345.3
28-Sep	0	0	0	0	0	0	1	56	189	244	307	465	491	467	417	318	201	87	10	0	0	0	0	0	135.5	491.1
29-Sep	0	0	0	0	0	0	0	12	149	282	396	462	469	465	399	309	188	83	8	0	0	0	0	0	134.3	469.4
30-Sep	0	0	0	0	0	0	1	49	176	292	400	424	454	427	361	295	184	74	7	0	0	0	0	0	131.0	454.3
0.0 0.0 0.0 0.0 0.0 0.0 4.9 53.8 139.4 239.2 339.1 392.3 396.5 389.4 348.2 296.7 207.6 110.6 37.2 3.4 0.0 0.0 0.0 0.0																								Diurnal Average		
0.1 0.1 0.2 0.1 0.1 0.1 25.2 120.2 276.5 476.0 529.7 588.0 623.2 617.2 572.4 478.9 361.9 260.2 113.5 14.5 0.2 0.0 0.1 0.0																								Diurnal Maximum		



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Henry Pirker - September 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	1	3	2	5	9	3	6	7	5	10	11	11	9	11	8	9	7	3	9	6	8	8	6	4	3.9	11.2
Dir	36	255	290	236	239	264	167	159	178	206	207	210	215	223	195	189	171	136	120	119	115	63	48	31	186.5	210.2
2 Spd	3	5	5	5	3	3	1	1	7	9	14	15	15	13	15	19	18	18	14	12	11	10	12	11	7.5	18.8
Dir	58	59	9	9	18	352	348	18	187	204	228	224	242	250	267	280	277	274	263	266	266	247	252	238	259.0	279.5
3 Spd	10	11	10	11	10	10	9	9	9	9	10	9	9	9	8	8	7	3	4	4	2	4	6	6	7.3	11.2
Dir	221	219	225	226	233	241	241	236	247	245	240	233	257	251	247	240	254	254	279	286	286	288	274	272	243.5	219.0
4 Spd	6	3	4	4	2	2	3	4	4	4	4	3	6	4	2	2	2	2	4	3	3	2	1	6	1.1	6.5
Dir	279	262	249	248	230	226	207	194	185	203	196	182	154	175	268	235	291	27	48	65	59	25	16	46	213.0	278.9
5 Spd	8	6	5	2	1	1	1	1	3	3	3	3	2	3	5	5	3	4	4	2	4	5	8	7	2.9	7.7
Dir	62	72	77	87	109	75	245	293	97	138	174	136	217	108	114	99	83	66	59	29	48	44	50	57	77.1	61.6
6 Spd	4	1	1	2	2	2	2	2	2	2	2	3	2	2	2	4	1	6	7	5	4	3	3	3	0.8	7.1
Dir	44	355	288	274	291	252	242	280	245	222	133	96	126	199	215	266	88	57	68	85	89	109	115	100	93.2	68.3
7 Spd	1	2	2	2	5	4	4	4	6	6	10	10	11	11	11	14	14	7	5	4	5	1	2	3	5.6	13.7
Dir	132	244	265	244	230	223	234	203	205	225	226	242	246	237	238	250	265	272	242	213	271	268	191	227	240.1	249.7
8 Spd	0	1	1	1	2	2	1	1	1	2	2	5	5	7	5	3	8	5	3	2	3	1	2	2	1.5	7.6
Dir	166	132	168	120	117	116	145	127	228	207	249	259	278	271	276	174	168	183	157	134	142	170	161	174	196.7	168.5
9 Spd	1	2	1	0	1	1	1	1	0	3	6	7	6	7	8	6	7	7	4	4	5	4	4	4	3.5	8.4
Dir	173	187	209	154	142	274	276	284	292	193	212	208	190	170	167	192	198	187	188	170	162	164	167	190	186.9	167.1
10 Spd	3	3	6	4	5	4	0	2	4	5	9	15	17	20	18	18	19	20	17	12	10	10	12	17	10.1	20.3
Dir	198	190	191	191	194	194	345	178	155	168	205	219	215	218	217	218	229	220	217	216	213	214	221	224	213.8	217.9
11 Spd	12	11	5	1	4	6	4	3	7	7	15	20	22	23	23	21	21	12	6	4	4	7	6	4	9.8	23.3
Dir	218	221	191	197	175	179	171	154	153	184	212	215	214	220	221	224	219	196	185	182	205	219	204	174	208.4	220.5
12 Spd	5	3	4	7	7	7	7	6	7	10	12	6	8	6	7	7	6	5	4	1	3	6	3	1	4.7	12.1
Dir	199	154	182	197	201	205	211	203	199	267	281	235	226	236	227	209	227	155	157	166	103	166	233	211	213.3	281.4
13 Spd	3	3	4	4	7	6	11	9	10	9	8	7	9	9	4	7	9	7	5	7	3	1	3	3	5.0	10.6
Dir	218	203	202	199	231	244	265	277	264	266	295	288	294	297	312	221	203	228	235	279	331	100	204	247	256.8	264.9
14 Spd	1	2	4	4	3	2	2	3	3	3	3	5	7	1	6	5	5	6	6	5	5	5	5	5	2.1	7.0
Dir	254	231	279	282	276	277	307	315	67	69	95	86	92	135	334	28	79	91	56	50	41	57	63	57	47.9	92.0
15 Spd	5	4	4	5	2	3	3	3	3	1	2	2	3	6	7	8	8	7	5	5	4	6	3	2	3.3	8.4
Dir	52	43	46	46	42	41	54	66	80	143	193	206	131	115	119	130	141	138	106	90	88	74	97	90	96.9	140.7
16 Spd	2	2	3	2	1	1	2	2	2	1	3	3	3	4	4	4	7	5	4	3	3	1	2	1	2.0	7.2
Dir	47	31	73	114	138	125	124	151	120	122	163	151	138	178	167	175	133	128	62	71	105	88	114	220	127.1	133.4
17 Spd	3	1	1	1	3	2	3	1	2	2	4	7	12	15	11	11	13	12	13	8	4	5	8	7	5.8	15.2
Dir	164	157	185	135	113	128	135	151	190	199	177	196	209	201	205	209	208	213	224	221	190	199	193	192	200.5	200.9
18 Spd	5	6	9	9	10	5	11	9	11	9	14	16	16	19	22	22	20	15	12	8	7	4	6	5	10.6	21.8
Dir	201	185	189	209	196	239	208	197	198	194	190	202	204	200	200	203	199	202	197	193	141	136	139	121	195.5	202.9
19 Spd	7	6	5	5	9	6	5	5	6	7	12	22	20	18	20	19	20	16	8	7	9	12	11	8	7.2	22.4
Dir	127	124	123	131	146	137	126	127	129	178	195	213	240	279	278	266	263	253	242	230	239	248	244	245	230.1	213.0
20 Spd	8	8	8	7	2	3	0	1	2	0	2	9	9	9	9	9	6	7	9	12	8	8	9	6	5.9	12.3
Dir	242	255	260	265	226	241	221	216	273	256	244	267	273	252	239	268	278	261	246	253	228	213	216	233	249.5	252.9
21 Spd	6	7	7	7	5	3	4	3	2	6	7	5	7	8	12	6	6	5	5	2	1	2	1	1	3.9	11.9
Dir	228	224	242	228	213	207	300	280	239	281	273	254	245	253	251	180	277	268	188	289	13	110	110	88	244.3	250.9
22 Spd	0	2	3	3	1	2	2	3	3	1	2	3	2	0	1	1	2	2	3	3	3	4	8	8	1.9	8.3
Dir	21	42	59	61	15	49	49	79	81	158	181	220	128	15	168	354	339	23	42	49	56	56	50	64	59.6	50.4

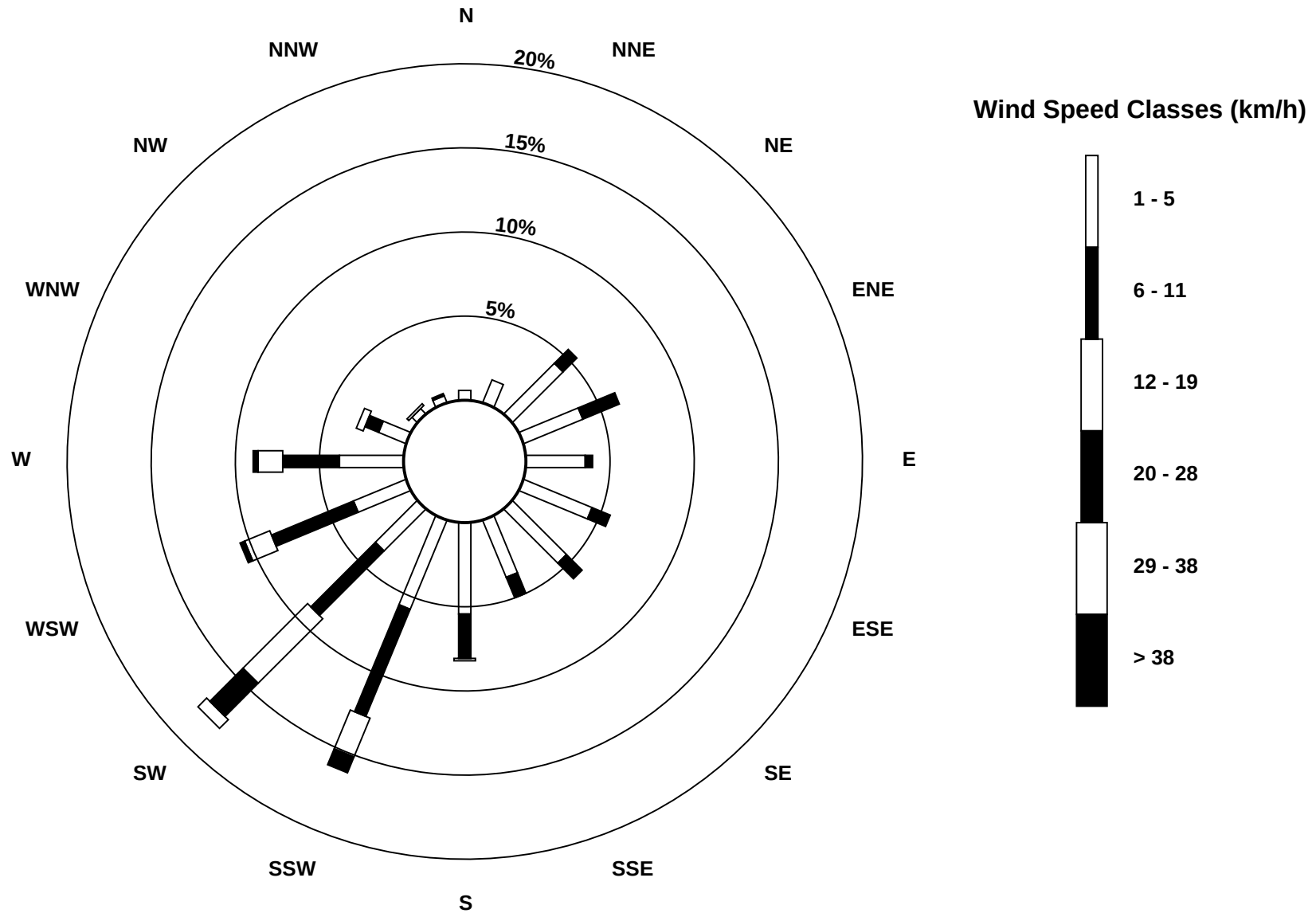
Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Henry Pirker - September 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	8	7	7	5	3	2	1	1	0	3	5	3	2	2	3	6	6	7	5	4	7	2	3	8	2.8	8.3
Dir	59	57	52	52	44	48	59	194	347	57	107	107	179	127	88	87	63	48	48	49	71	92	220	268	65.9	268.2
24 Spd	3	2	0	2	3	3	2	2	4	5	6	9	10	9	9	5	2	3	2	4	3	1	4	3	2.0	9.5
Dir	268	108	19	66	79	59	48	58	51	53	50	66	68	70	70	75	238	253	245	219	225	127	242	242	67.8	68.3
25 Spd	12	10	13	10	11	11	9	6	7	8	12	12	17	19	17	16	14	14	11	7	5	5	5	6	10.0	19.4
Dir	269	253	201	187	177	177	198	205	207	206	212	212	220	225	223	222	220	214	232	227	208	215	184	188	214.4	225.5
26 Spd	5	4	3	1	2	10	8	7	8	13	20	24	32	31	33	33	31	27	24	24	26	23	28	26	18.2	33.3
Dir	199	188	173	226	145	202	202	237	195	213	214	219	221	220	221	217	218	218	215	217	217	225	216	212	216.2	217.1
27 Spd	26	23	23	24	22	14	12	16	12	10	9	4	6	6	6	7	4	2	1	0	2	2	1	3	7.2	26.0
Dir	213	214	217	218	218	232	314	303	304	295	299	230	228	239	205	206	193	201	108	283	87	79	86	98	234.7	213.4
28 Spd	2	1	1	0	0	1	2	1	1	1	2	3	8	14	16	18	18	19	15	7	10	7	5	5	6.0	18.7
Dir	60	92	264	226	270	140	290	274	270	177	130	199	199	214	217	216	224	231	218	220	231	213	194	162	216.4	230.7
29 Spd	6	5	4	5	2	3	5	6	11	15	19	18	17	17	18	20	17	17	15	16	11	5	1	1	9.6	19.6
Dir	162	133	199	173	120	130	200	205	235	227	230	243	243	242	231	237	232	227	225	228	245	261	211	188	227.1	237.4
30 Spd	5	6	6	4	3	4	5	2	1	4	5	11	16	16	17	16	17	10	7	7	2	1	1	0	5.0	16.7
Dir	112	119	115	116	120	114	125	121	117	126	164	204	214	215	223	216	218	222	230	242	144	276	154	23	196.7	217.9
Spd	2.3	2.4	2.5	2.6	3.0	2.5	2.1	2.0	2.6	3.7	5.6	7.1	8.1	8.5	8.3	8.4	8.0	6.1	4.5	3.6	2.4	2.2	2.8	2.6	Diurnal Average	
Dir	205.3	199.4	203.4	206.5	199.0	205.0	218.5	223.7	203.6	215.7	218.1	217.8	222.3	225.3	224.6	221.5	222.8	219.7	212.7	221.1	202.9	204.4	203.9	206.0	Diurnal Maximum	
Spd	26.0	23.0	22.9	24.3	22.5	14.0	12.5	16.1	11.7	14.8	19.8	24.0	31.8	31.3	32.5	33.3	30.6	27.4	24.3	24.4	25.7	22.9	27.9	25.6	Diurnal Maximum	
Dir	213.4	213.8	216.5	217.7	217.6	231.8	314.4	302.6	303.7	227.0	214.2	219.1	221.2	220.1	221.3	217.1	218.2	218.1	215.0	216.9	217.2	224.7	215.8	212.5		
Maximum Speed Value: 33 km/h on Sep 26 16:00							Minimum Speed Value: 0 km/h on Sep 28 04:00													Hours in Service: 720						
Maximum Daily Speed Average: 18.2 km/h on Sep 26							Minimum Daily Speed Average: 0.8 km/h on Sep 22													Hours of Data: 720						
Maximum Diurnal Speed Average: 8.5 km/h at hour 14							Minimum Diurnal Speed Average: 2.0 km/h at hour 8													Hours of Missing Data: 0						
Monthly Average Velocity: 4.28 km/h 216.28 deg							Speed Percentiles: P ₁ = 0.3 P ₁₀ = 1.4 Q ₁ = 2.7 Median = 5.1 Q ₃ = 8.8 P ₉₀ = 15.7 P ₉₉ = 27.0													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	16		1		0		0		0		0		17													
NorthEast	52		23		0		0		0		0		75													
East	44		15		0		0		0		0		59													
SouthEast	63		25		0		0		0		0		88													
South	68		51		9		3		0		0		131													
SouthWest	54		92		54		28		5		0		233													
West	50		31		19		2		0		0		102													
NorthWest	6		6		3		0		0		0		15													
Total	353		244		85		33		5		0		720													

Wind Rose

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



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Henry Pirker - September 2015

Maximum Speed: 34 km/h on Sep 26 16:00																				Maximum Daily Speed Average: 18.8 km/h on Sep 26										Hours in Service: 720	
Minimum Speed: 0 km/h on Sep 28 04:00																				Minimum Daily Speed Average: 2.8 km/h on Sep 8										Hours of Data: 720	
Maximum Diurnal Speed Average: 11.6 km/h at hour 16																				Minimum Diurnal Speed Average: 4.2 km/h at hour 8										Hours of Missing Data: 0	
Monthly Average Speed: 7.13 km/h																				Percentiles: P ₁ = 0.7 P ₁₀ = 1.7 Q ₁ = 3.1 Median = 5.5 Q ₃ = 9.2 P ₉₀ = 15.9 P ₉₉ = 27.3										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-Sep	1	3	2	6	9	5	6	7	6	10	11	12	10	11	8	9	7	4	9	6	10	8	6	4	7.2	12.1					
2-Sep	4	7	6	5	3	3	1	2	7	10	14	15	15	13	15	19	19	18	14	12	11	10	12	11	10.3	19.1					
3-Sep	10	11	10	11	10	10	9	9	9	9	10	10	9	9	8	9	7	4	5	4	2	4	6	6	8.0	11.5					
4-Sep	7	3	4	4	3	2	3	4	5	4	5	5	6	4	3	3	3	2	4	3	3	2	2	6	3.7	6.5					
5-Sep	8	6	5	1	1	1	1	1	3	3	3	4	3	4	6	6	4	4	4	2	4	5	8	7	4.0	7.8					
6-Sep	4	1	1	2	2	2	2	2	2	2	2	3	3	2	3	5	3	7	7	5	4	4	3	4	3.2	7.3					
7-Sep	1	3	2	2	5	4	4	4	6	6	10	10	12	11	12	15	14	8	5	4	5	1	2	3	6.3	15.5					
8-Sep	0	1	1	1	2	2	1	1	1	2	3	5	5	7	5	4	8	5	3	2	3	1	2	2	2.8	8.0					
9-Sep	2	2	1	1	1	1	1	1	0	4	6	7	7	7	9	8	7	7	5	4	5	4	4	4	4.1	8.8					
10-Sep	3	3	6	5	5	4	1	2	5	6	9	15	17	21	19	19	20	20	17	12	10	10	12	17	10.7	21.0					
11-Sep	12	12	6	2	5	6	4	3	8	7	15	20	23	24	23	22	21	12	7	4	4	7	6	4	10.6	23.8					
12-Sep	5	4	4	8	7	7	7	6	7	13	12	6	8	6	7	7	7	5	5	2	4	7	5	2	6.3	13.3					
13-Sep	4	4	4	4	7	6	11	10	10	9	9	7	9	9	6	7	9	9	6	7	4	2	3	3	6.6	10.9					
14-Sep	1	2	4	4	3	2	2	3	4	4	3	6	8	3	7	5	5	6	6	5	5	5	5	5	4.3	7.6					
15-Sep	5	4	4	5	2	3	3	3	4	2	2	2	4	7	7	9	9	7	6	5	4	6	3	2	4.5	8.7					
16-Sep	2	2	4	2	1	2	2	2	2	2	3	4	4	5	6	6	7	5	4	4	3	1	2	2	3.1	7.5					
17-Sep	3	1	1	1	3	2	3	2	2	2	4	7	13	15	11	11	13	12	14	8	4	5	9	7	6.5	15.5					
18-Sep	5	6	9	9	10	7	12	9	11	9	14	16	16	20	22	22	20	16	12	8	7	4	6	5	11.5	22.2					
19-Sep	7	6	5	5	9	6	5	5	6	8	13	23	25	19	20	19	20	16	8	7	9	12	11	8	11.3	24.8					
20-Sep	8	9	8	7	4	4	1	2	2	1	2	9	10	9	10	9	7	7	9	13	8	8	9	6	6.7	12.7					
21-Sep	6	7	7	7	5	3	4	3	2	7	7	6	8	9	14	7	7	7	5	2	2	2	2	2	5.4	14.1					
22-Sep	0	2	3	3	1	2	2	4	3	1	2	3	3	2	3	3	2	3	3	3	3	4	8	8	3.0	8.3					
23-Sep	8	7	7	5	3	2	1	2	1	3	6	3	3	3	4	6	6	7	5	4	7	4	3	8	4.6	8.5					
24-Sep	3	2	1	2	3	3	2	3	5	5	7	10	10	9	9	5	2	3	2	5	3	2	4	4	4.4	9.8					
25-Sep	13	11	13	10	11	12	9	6	7	8	13	13	17	20	18	17	14	14	11	7	6	5	5	6	11.0	19.9					
26-Sep	5	4	4	1	3	10	8	8	8	13	20	25	32	32	33	34	31	28	24	25	26	23	28	26	18.8	33.6					
27-Sep	26	23	23	24	23	14	13	16	12	10	9	5	6	7	7	7	5	2	1	1	2	2	1	3	10.1	26.2					
28-Sep	2	1	2	0	1	1	2	1	2	2	3	3	9	15	16	18	18	19	15	7	10	7	5	6	6.9	18.9					
29-Sep	6	5	5	6	3	3	5	6	11	15	19	18	17	18	19	20	18	18	15	16	11	5	2	1	11.0	20.0					
30-Sep	5	6	6	4	3	4	5	2	1	4	6	11	16	17	17	17	17	11	7	7	3	2	1	0	7.1	17.1					
5.6 5.2 5.3 4.9 4.9 4.5 4.4 4.2 4.9 6.0 8.1 9.4 10.9 11.3 11.5 11.6 11.1 9.5 8.0 6.5 6.1 5.5 5.8 5.7																									Diurnal Average						
26.2 23.1 23.0 24.4 22.6 14.4 13.0 16.2 11.9 15.1 20.1 24.5 32.2 31.9 32.9 33.6 30.9 27.6 24.4 24.6 25.9 23.1 28.0 25.7																									Diurnal Maximum						
All monthly, daily, and diurnal averages have been calculated using scalar methods																															

Hourly Standard Deviations

Wind Direction (WD) - deg

Henry Pirker - September 2015

Maximum Value: 97.8 deg on Sep 28 04:00																			Hours in Service: 720						
Minimum Value: 3.8 deg on Sep 30 02:00																			Hours of Data: 720						
																			Hours of Missing Data: 0						
Percentiles: P ₁ = 6.0 P ₁₀ = 8.7 Q ₁ = 11.4 Median = 17.0 Q ₃ = 31.9 P ₉₀ = 52.3 P ₉₉ = 89.9																			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-Sep	45	19	22	29	13	57	20	14	34	17	17	23	22	18	18	20	22	61	18	18	32	13	12	15	60.9
2-Sep	36	41	14	16	32	21	38	50	12	15	9	10	11	13	15	10	11	9	12	10	12	10	9	11	49.7
3-Sep	15	13	10	8	10	9	10	11	8	10	14	13	18	13	12	18	19	44	35	15	11	12	8	8	44.5
4-Sep	7	12	14	10	25	34	20	10	13	25	22	45	20	31	44	58	52	55	21	14	20	38	31	7	57.7
5-Sep	8	8	9	45	24	63	73	40	35	27	35	49	64	60	28	47	52	59	19	19	24	8	6	7	72.6
6-Sep	18	45	43	18	20	36	24	17	18	33	57	48	59	44	81	56	93	51	12	9	13	11	8	18	92.8
7-Sep	53	27	12	14	8	9	11	17	11	36	15	14	14	15	17	28	20	23	13	20	23	66	24	26	66.0
8-Sep	45	19	16	18	27	19	38	66	29	37	20	13	14	11	19	37	19	14	54	18	12	23	23	28	66.1
9-Sep	33	36	34	60	40	41	29	22	59	20	16	19	21	21	18	33	20	21	17	12	9	13	11	11	60.4
10-Sep	32	16	10	10	8	14	86	50	19	16	23	14	17	16	16	16	15	10	9	7	13	12	10	7	85.6
11-Sep	13	9	14	90	22	12	16	53	11	15	11	11	13	12	11	9	11	12	12	12	15	17	16	17	90.0
12-Sep	12	62	32	12	9	11	13	17	8	44	9	24	12	26	13	15	14	36	22	67	42	30	48	61	67.3
13-Sep	37	21	15	16	26	11	12	13	8	13	11	14	17	17	60	36	11	44	35	13	39	78	19	19	77.8
14-Sep	21	32	8	9	12	15	13	23	29	28	65	22	24	70	27	30	33	15	18	11	9	11	9	9	70.1
15-Sep	7	8	9	10	11	17	17	26	23	45	53	52	49	32	19	19	18	13	15	11	12	11	30	21	53.3
16-Sep	43	16	23	36	41	25	25	33	28	56	31	46	36	48	53	47	21	12	25	21	25	32	25	53	55.6
17-Sep	24	41	20	70	12	37	10	24	21	31	34	20	14	11	15	18	13	14	11	11	22	27	10	9	70.1
18-Sep	10	12	11	14	8	40	20	10	10	15	11	13	11	12	12	10	12	10	9	16	15	21	11	9	40.1
19-Sep	13	10	7	17	8	10	10	9	10	25	19	12	35	11	8	8	7	8	8	9	9	9	8	10	35.5
20-Sep	20	33	11	19	61	35	85	37	31	66	80	13	12	15	17	16	19	10	23	15	23	19	14	16	85.0
21-Sep	19	11	12	14	18	21	35	23	19	17	19	38	23	29	32	48	32	44	16	22	69	21	42	59	69.0
22-Sep	89	25	20	21	69	44	23	17	28	45	48	30	91	94	93	85	47	72	12	8	14	14	9	9	94.1
23-Sep	7	11	8	9	10	23	48	66	97	39	34	47	52	73	53	35	21	13	7	18	8	64	39	12	97.2
24-Sep	47	57	88	32	10	21	34	28	18	13	12	12	13	12	14	27	51	13	34	26	47	88	37	35	88.1
25-Sep	22	19	16	8	10	11	14	17	16	11	15	15	14	12	14	14	14	14	9	10	16	20	11	7	21.9
26-Sep	13	8	32	63	79	13	18	26	17	10	10	12	10	11	9	8	9	7	6	7	7	7	6	6	78.6
27-Sep	6	6	7	6	6	14	20	9	10	14	15	32	21	18	29	21	27	51	58	92	53	17	46	16	91.8
28-Sep	25	62	29	98	79	45	16	30	20	72	52	32	22	16	12	10	11	7	11	8	8	11	15	21	97.8
29-Sep	11	23	50	31	33	19	16	13	10	13	9	11	11	14	12	11	15	9	9	9	8	14	55	81	81.3
30-Sep	6	4	4	8	7	6	6	9	31	16	34	15	13	14	14	15	9	14	10	15	29	46	56	60	59.6
	89.4	62.1	87.8	97.8	79.5	62.8	85.6	66.1	97.2	71.6	80.2	51.5	90.7	94.1	92.8	85.3	92.8	72.5	58.3	91.8	69.0	88.1	55.6	81.3	

PAZA

Evergreen Park Station

Monthly Summary Tables, Graphs and
Roses

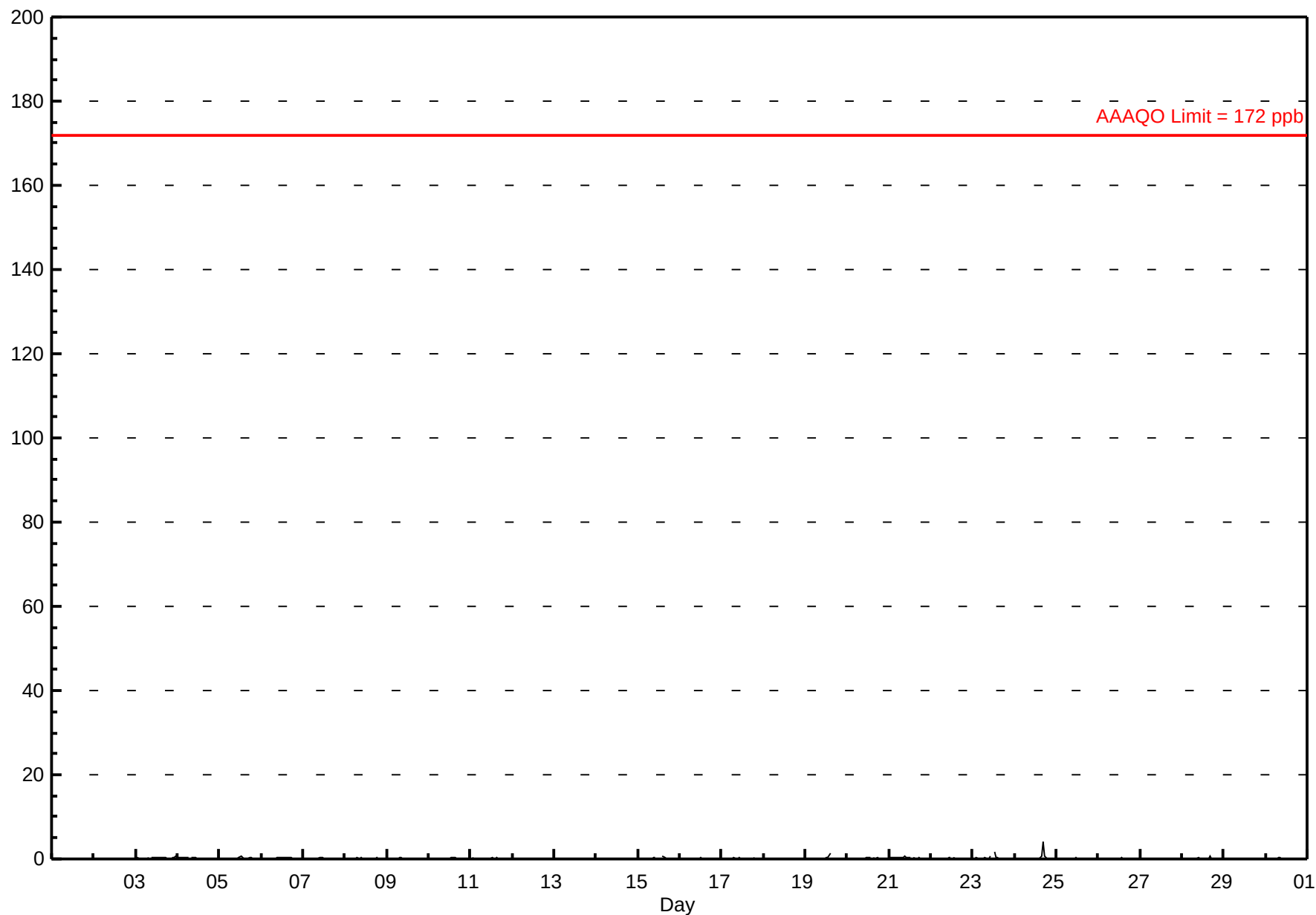
Hourly Averages

Sulphur Dioxide (SO₂) - ppb Evergreen Park - September 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 4.0 ppb on Sep 24 17:00 Maximum Daily Average: 0.3 ppb on Sep 24																				Hours in Service: 720 Hours of Data: 686 Hours of Missing Data: 34 Hours of Calibration: 34 Percent Operational Time: 100.0						
Minimum Value: 0 ppb on Sep 1 02:00 Maximum Diurnal Average: 0.2 ppb at hour 17 Monthly Average: 0.10 ppb										Minimum Daily Average: 0.0 ppb on Sep 1 Minimum Diurnal Average: 0.1 ppb at hour 4 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.1 P ₉₀ = 0.2 P ₉₉ = 0.6																
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-Sep	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
2-Sep	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
3-Sep	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	0.6
4-Sep	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
5-Sep	0	0	0	0	0	0	A	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
6-Sep	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
7-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
8-Sep	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
9-Sep	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
10-Sep	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
11-Sep	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.1	0.2
12-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.1	0.2
13-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.0	0.1
14-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.0	0.1
15-Sep	0	0	0	0	0	0	0	0	0	0	0	C	C	C	1	0	0	0	0	A	0	0	0	0	0.1	0.8
16-Sep	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
17-Sep	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
18-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.1	0.1
19-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	0	0	0	0	0	0	0	0	0.1	1.2
20-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.1	0.4
21-Sep	0	0	0	0	0	0	0	0	0	1	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0.2	0.6
22-Sep	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
23-Sep	0	0	0	0	0	0	0	0	0	0	0	1	A	2	0	0	0	0	0	0	0	0	0	0	0.2	1.6
24-Sep	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	1	4	1	0	0	0	0	0	0	0.3	4.0
25-Sep	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
26-Sep	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
27-Sep	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
28-Sep	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0.1	0.6
29-Sep	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
30-Sep	0	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
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 0.2 0.1 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1																								Diurnal Average		
0.5 0.2 0.2 0.3 0.2 0.2 0.3 0.2 0.3 0.6 0.7 0.3 1.6 0.4 1.2 0.6 4.0 0.8 0.4 0.2 0.1 0.2 0.2 0.6																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb																										

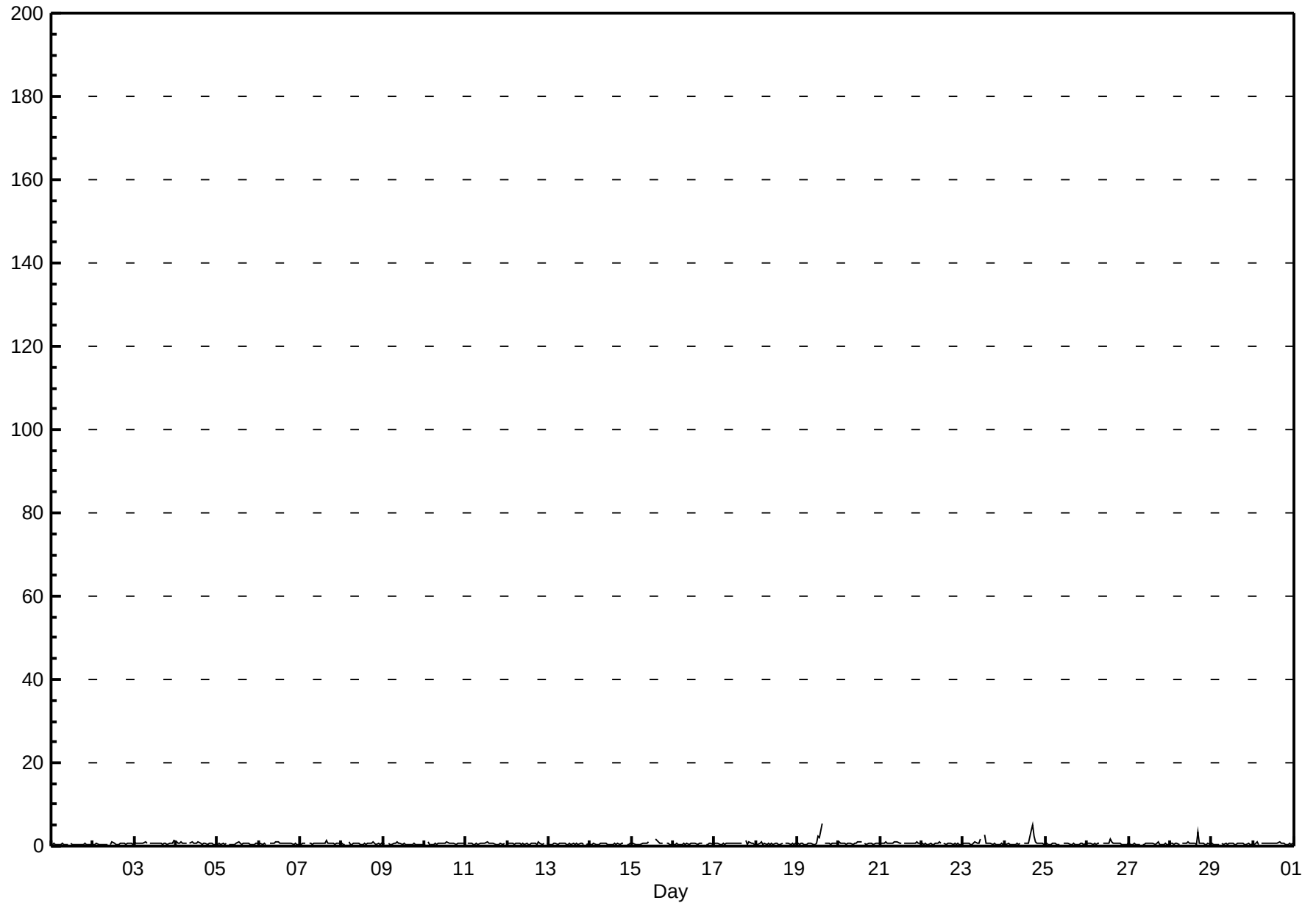
Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Evergreen Park - September 2015



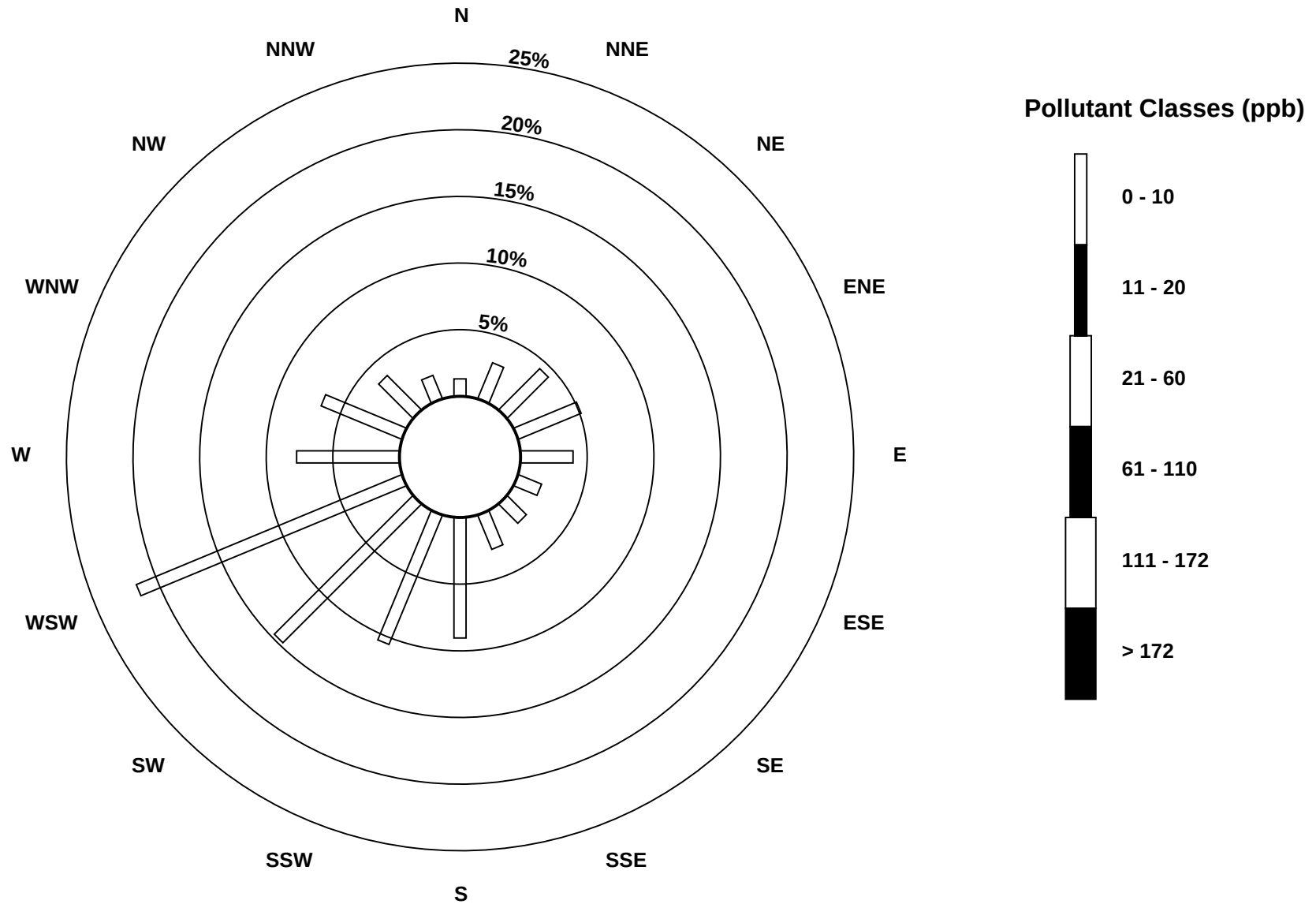
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Evergreen Park - September 2015



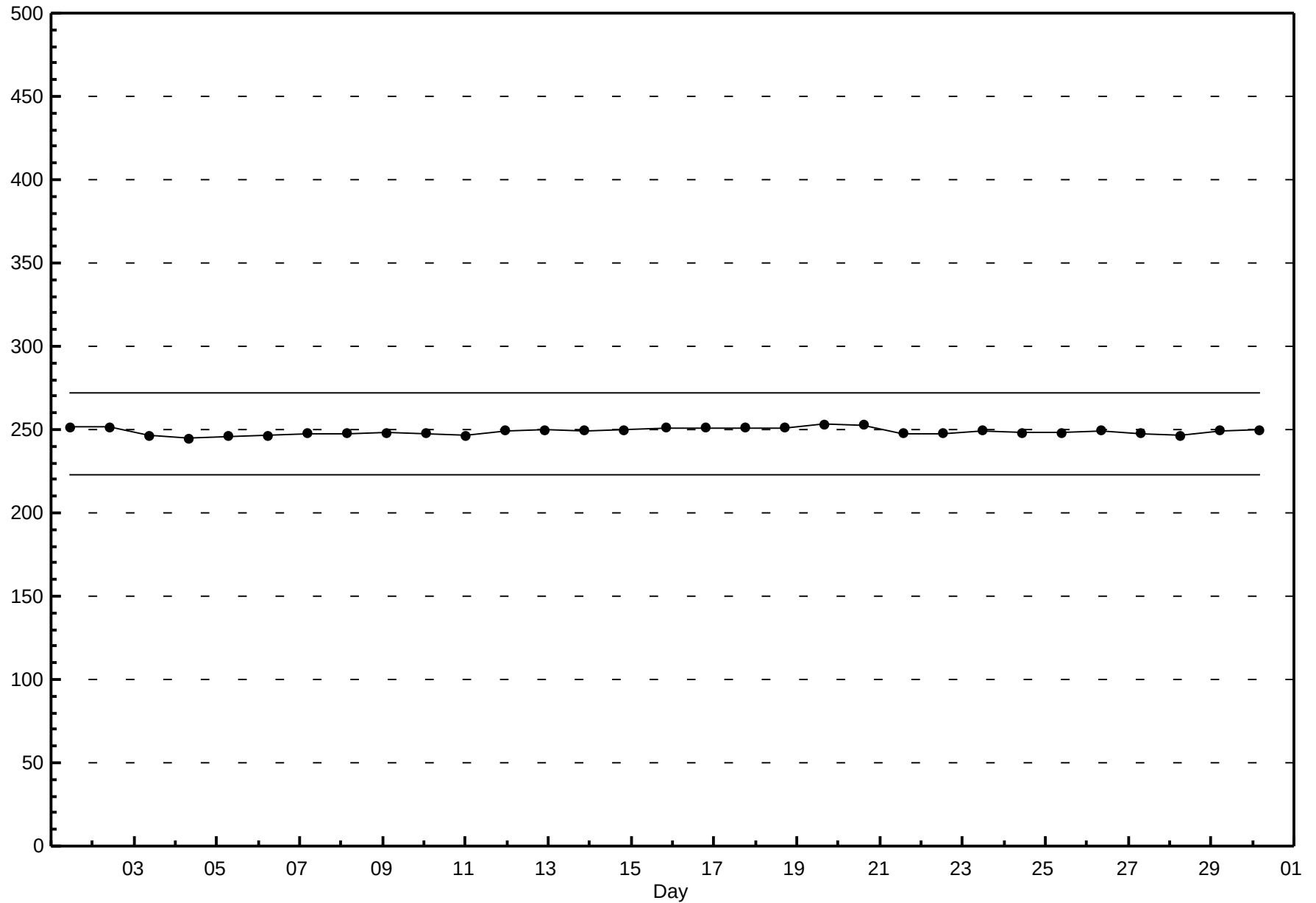
Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Evergreen Park - September 2015



Span Responses

Sulphur Dioxide (SO₂)
Evergreen Park - September 2015



Hourly Averages

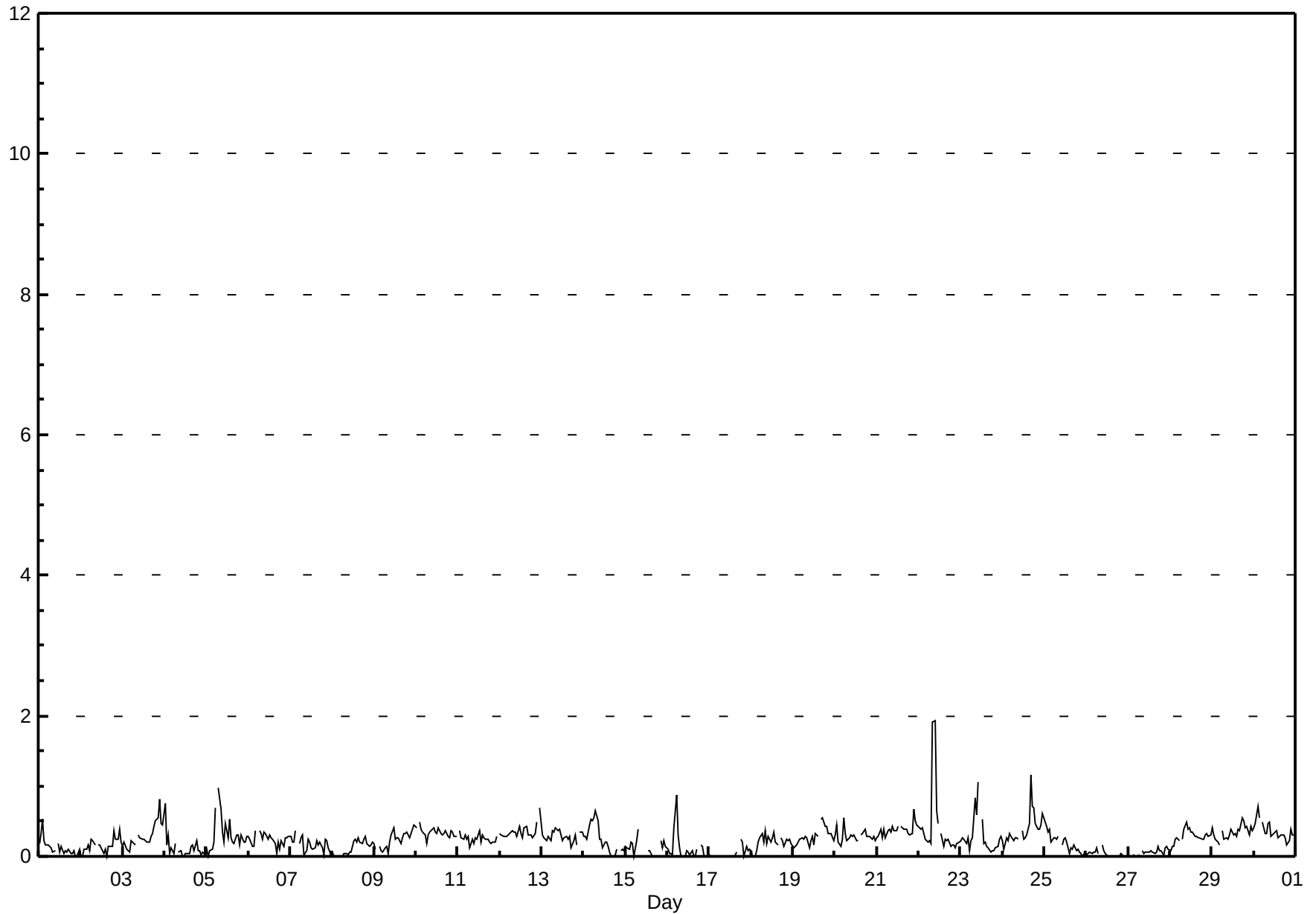
Total Reduced Sulphur (TRS) - ppb

Evergreen Park - September 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 1.9 ppb on Sep 22 10:00 Maximum Daily Average: 0.4 ppb on Sep 22																					Hours in Service: 720 Hours of Data: 684 Hours of Missing Data: 36 Hours of Calibration: 36 Percent Operational Time: 100.0					
Minimum Value: 0 ppb on Sep 1 22:00 Maximum Diurnal Average: 0.3 ppb at hour 9 Monthly Average: 0.23 ppb										Minimum Daily Average: 0.0 ppb on Sep 26 Minimum Diurnal Average: 0.2 ppb at hour 15 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.2 Q ₃ = 0.3 P ₉₀ = 0.4 P ₉₉ = 0.8																
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-Sep	0	0	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
2-Sep	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
3-Sep	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0.3	0.8
4-Sep	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.8
5-Sep	0	0	0	0	0	1	A	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.3	1.0
6-Sep	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
7-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
8-Sep	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
9-Sep	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	0.4
10-Sep	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
11-Sep	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.2	0.4
12-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	0.3	0.7
13-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.3	0.4
14-Sep	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	0.7
15-Sep	0	0	0	0	0	0	0	0	C	C	C	C	C	0	0	0	0	0	0	A	0	0	0	0	0.1	0.4
16-Sep	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.1	0.9
17-Sep	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
18-Sep	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
19-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	1	0	0	0	0	0	0	0.3	0.6
20-Sep	0	0	0	0	0	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.3	0.5
21-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	1	1	0	0.4	0.7
22-Sep	0	0	0	0	0	0	0	0	2	2	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0.4	1.9
23-Sep	0	0	0	0	0	0	0	0	1	1	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0.3	1.0
24-Sep	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	1	1	1	0	0	0	0	1	0.4	1.2
25-Sep	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
26-Sep	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
27-Sep	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
28-Sep	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
29-Sep	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0.3	0.5
30-Sep	0	0	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.7
0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.3 0.3 0.3 0.3 0.3 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2																									Diurnal Average	
0.8 0.5 0.7 0.6 0.5 0.9 0.6 1.0 1.9 1.9 1.0 0.5 0.5 0.5 0.4 0.5 1.2 0.7 0.7 0.5 0.5 0.8 0.5 0.7																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb																										

Hourly Averages

Total Reduced Sulphur (TRS) - ppb
Evergreen Park - September 2015



Hourly Maximums

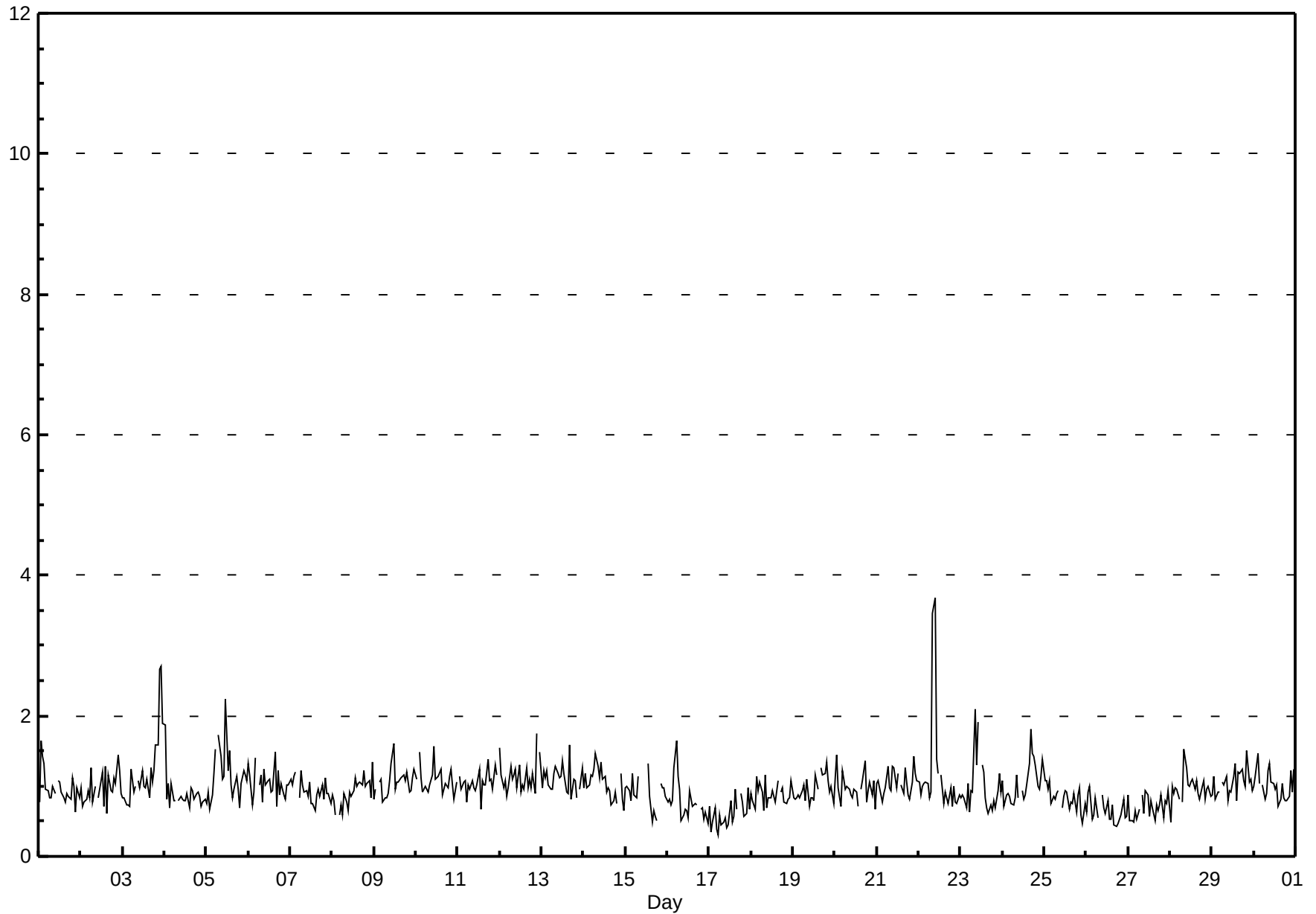
Total Reduced Sulphur (TRS) - ppb

Evergreen Park - September 2015

Maximum Value: 3.7 ppb on Sep 22 10:00																				Maximum Daily Average: 1.2 ppb on Sep 3					Hours in Service: 720		
Minimum Value: 0 ppb on Sep 17 06:00																				Minimum Daily Average: 0.6 ppb on Sep 17					Hours of Data: 684		
Maximum Diurnal Average: 1.1 ppb at hour 9																				Minimum Diurnal Average: 0.9 ppb at hour 15					Hours of Missing Data: 36		
Monthly Average: 0.97 ppb																				Percentiles: P ₁ = 0.4 P ₁₀ = 0.7 Q ₁ = 0.8 Median = 0.9 Q ₃ = 1.1 P ₉₀ = 1.3 P ₉₉ = 1.9					Hours of Calibration: 36		
																				Percent Operational Time: 100.0							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
1-Sep	1	2	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.6	
2-Sep	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.5
3-Sep	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	2	2	3	3	2	1.2	2.7	
4-Sep	2	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.9	
5-Sep	1	1	1	1	1	2	A	2	1	1	1	2	1	2	1	1	1	1	1	1	1	1	1	1	1.1	2.2	
6-Sep	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.5	
7-Sep	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.2	
8-Sep	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.3	
9-Sep	1	1	A	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.6	
10-Sep	1	A	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.6	
11-Sep	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1.0	1.4	
12-Sep	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	A	1	1.1	1.7	
13-Sep	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	A	1	1	1.1	1.6	
14-Sep	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1.0	1.5	
15-Sep	1	1	1	1	1	1	1	1	C	C	C	C	C	1	1	0	1	1	1	A	1	1	1	1	0.9	1.3	
16-Sep	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0	0.8	1.6	
17-Sep	1	0	0	1	0	0	1	0	0	1	0	0	1	0	1	1	1	A	1	1	1	1	1	1	0.6	1.0	
18-Sep	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.9	1.2	
19-Sep	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	
20-Sep	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1.0	1.4	
21-Sep	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1.1	1.4	
22-Sep	1	1	1	1	1	1	1	1	3	4	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1.2	3.7	
23-Sep	1	1	1	1	1	1	1	1	2	1	2	A	1	1	1	1	1	1	1	1	1	1	1	1	1.0	2.1	
24-Sep	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	2	1	1	1	1	1	1	1	1.1	1.8	
25-Sep	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0	1	0.8	1.1	
26-Sep	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0	0	0	1	1	1	1	1	0.6	1.0	
27-Sep	1	1	1	0	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9	
28-Sep	0	1	1	1	1	1	1	A	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.5	
29-Sep	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1.0	1.5	
30-Sep	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.5	
1.0 1.0 0.9 0.9 0.9 0.9 0.9 1.0 1.1 1.1 1.0 1.0 1.0 1.0 0.9 0.9 1.0 1.0 0.9 1.0 1.0 1.0 1.0 1.0																									Diurnal Average		
1.9 1.6 1.5 1.3 1.4 1.6 1.3 1.7 3.5 3.7 1.9 2.2 1.4 1.5 1.3 1.5 1.8 1.5 1.4 1.6 1.6 2.7 2.7 1.9																									Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																											

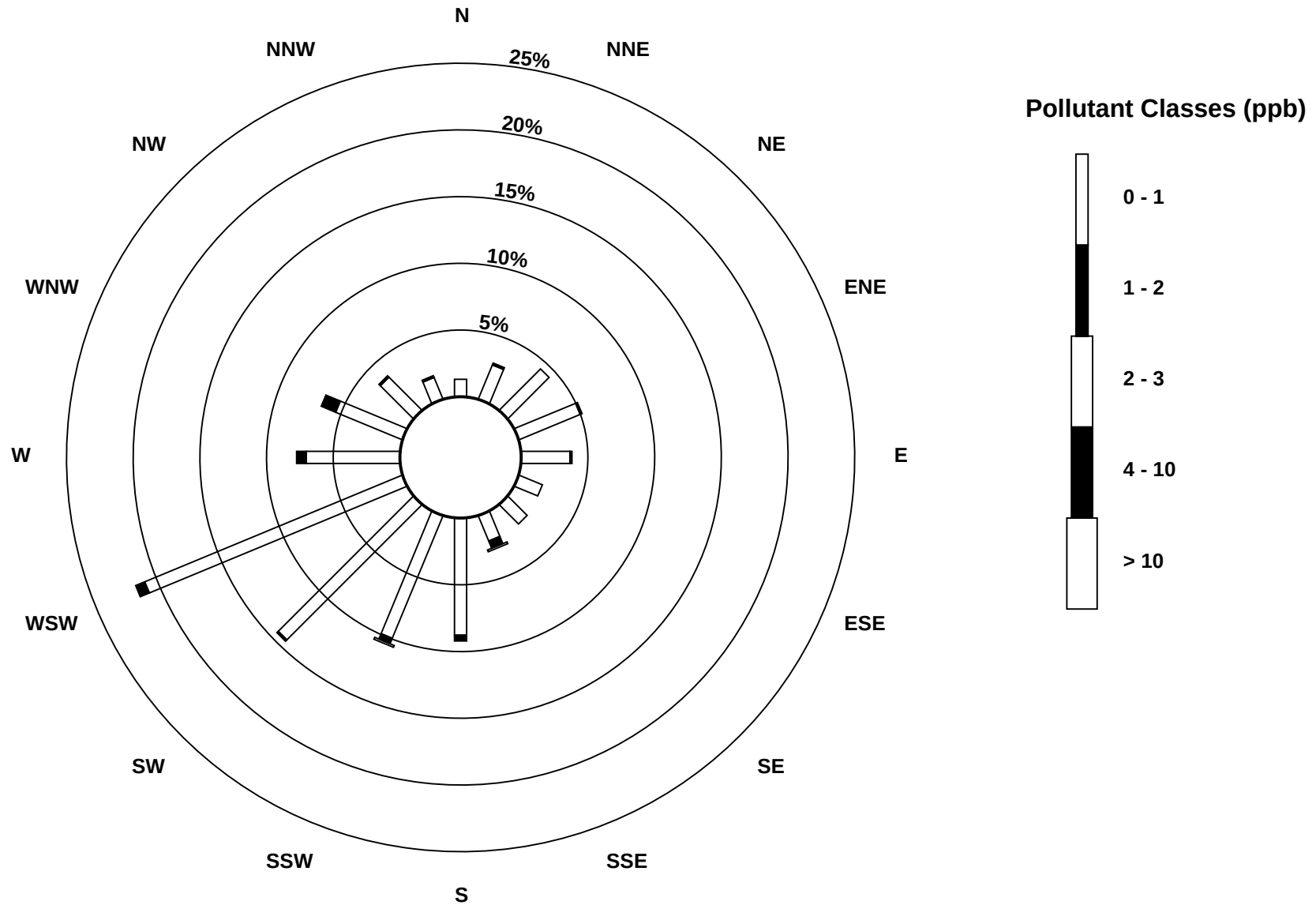
Hourly Maximums

Total Reduced Sulphur (TRS) - ppb
Evergreen Park - September 2015



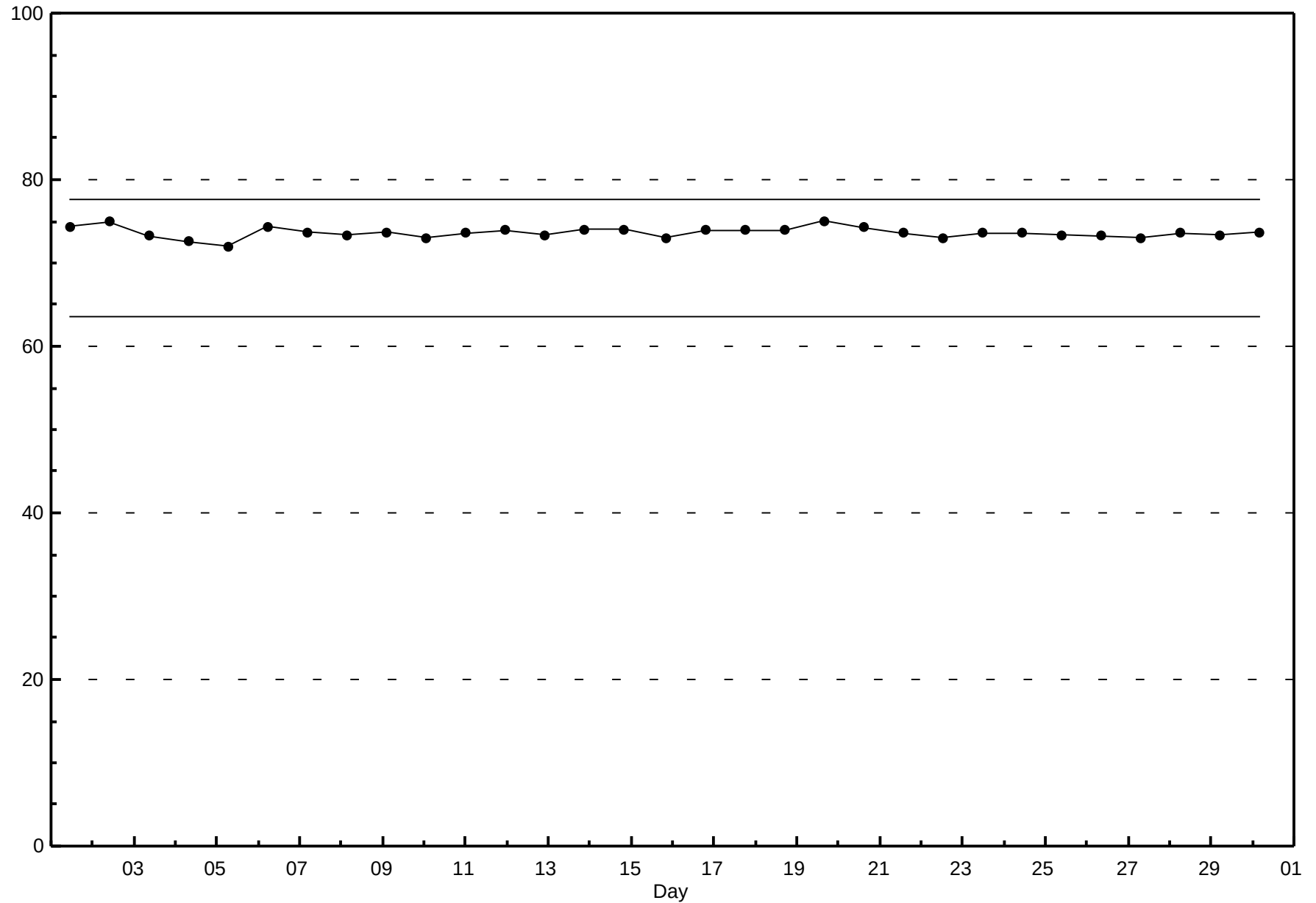
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb
Evergreen Park - September 2015



Span Responses

Total Reduced Sulphur (TRS)
Evergreen Park - September 2015

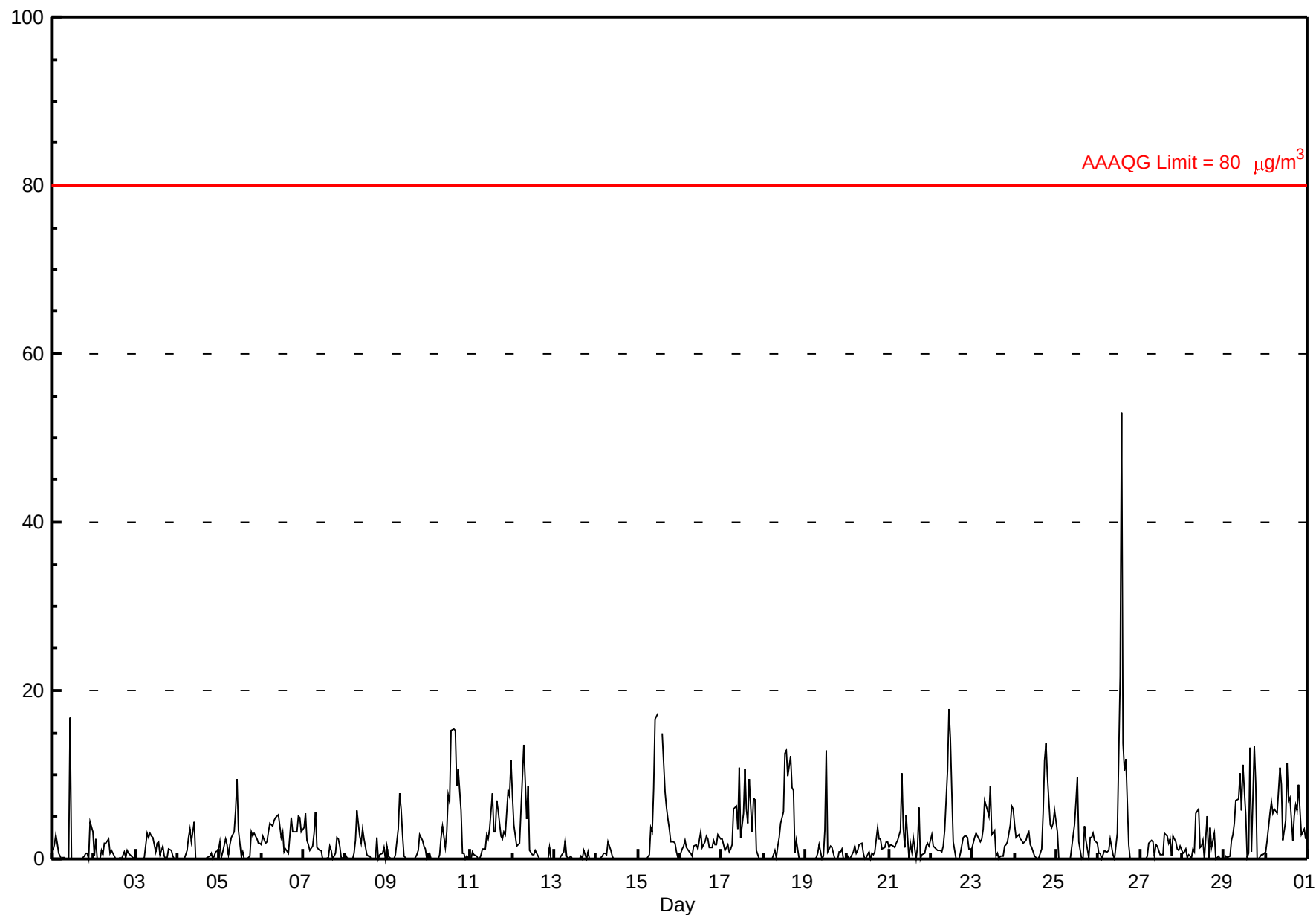


Hourly Averages

Particulate Matter 2.5 (PM_{2.5}) - µg/m³

Evergreen Park - September 2015

Number of Exceedences: 1-hr: 0 24-hr: 0 Maximum Value: 53.0 µg/m ³ on Sep 26 14:00																								Hours in Service: 720 Hours of Data: 718 Hours of Missing Data: 2 Hours of Calibration: 0 Percent Operational Time: 99.7		
Minimum Value: 0 µg/m ³ on Sep 1 06:00 Maximum Diurnal Average: 4.3 µg/m ³ at hour 11 Monthly Average: 2.37 µg/m ³												Minimum Daily Average: 0.2 µg/m ³ on Sep 14 Minimum Diurnal Average: 0.9 µg/m ³ at hour 3 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 1.1 Q ₃ = 2.9 P ₉₀ = 6.0 P ₉₉ = 14.5														
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Sep	1	2	3	2	1	0	0	0	0	0	17	0	0	0	0	0	0	0	0	1	1	0	4	3	1.5	16.8
2-Sep	0	2	0	0	1	1	2	2	2	1	1	0	0	0	0	0	0	1	0	1	1	0	0	0	0.7	2.4
3-Sep	0	0	0	0	0	0	3	3	3	3	3	1	2	2	0	1	0	0	0	1	1	0	0	0	1.0	3.1
4-Sep	0	0	0	0	0	1	2	4	2	4	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0.7	4.5
5-Sep	2	0	1	2	2	1	2	3	3	6	10	3	0	1	0	0	0	0	3	3	3	2	2	2	2.1	9.5
6-Sep	2	3	2	2	3	4	4	5	5	5	5	3	3	1	1	1	3	5	3	3	3	5	5	3	3.3	5.3
7-Sep	4	6	2	2	1	2	3	6	1	1	1	0	0	0	0	1	1	0	1	3	2	2	0	0	1.6	5.7
8-Sep	1	0	0	0	0	1	2	6	3	2	4	2	1	0	0	0	0	0	3	0	0	1	1	0	1.1	5.8
9-Sep	2	0	0	0	0	0	4	8	6	3	0	0	0	0	0	0	0	1	1	3	2	2	1	0	1.4	7.8
10-Sep	1	0	0	0	0	0	1	3	4	1	3	8	7	15	15	15	9	11	6	1	1	0	0	0	4.2	15.4
11-Sep	0	1	0	0	0	0	0	1	1	3	2	4	8	3	3	7	6	3	2	3	3	8	7	12	3.3	11.8
12-Sep	8	4	2	2	2	6	14	9	5	9	1	1	1	1	1	0	0	0	0	0	0	1	0	0	2.7	13.5
13-Sep	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0.3	2.2
14-Sep	0	0	0	0	1	1	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	2.0
15-Sep	0	0	0	0	0	0	1	4	3	8	17	17	M	M	15	8	6	5	4	2	2	2	1	0	4.3	17.2
16-Sep	1	1	1	2	1	1	1	0	2	2	1	2	3	1	2	3	2	1	1	2	2	2	3	2	1.7	3.2
17-Sep	2	2	1	2	1	1	2	6	6	4	11	3	5	11	6	4	9	3	7	7	1	0	0	0	3.9	10.9
18-Sep	0	0	0	0	0	0	1	0	2	3	4	6	13	13	10	12	8	8	1	2	0	0	0	0	3.4	12.8
19-Sep	0	0	0	0	0	0	0	1	2	0	0	3	13	1	2	1	1	0	0	1	1	1	0	0	1.1	12.8
20-Sep	0	0	0	1	2	1	1	2	2	1	0	0	1	0	1	1	1	4	2	2	1	1	2	2	1.1	3.7
21-Sep	1	2	2	1	2	2	3	10	4	1	5	0	2	1	3	0	1	6	0	0	1	2	2	1	2.2	10.2
22-Sep	3	2	1	1	1	1	1	2	3	10	18	14	8	2	0	0	0	1	3	3	3	3	1	1	3.4	17.8
23-Sep	2	3	3	2	2	2	4	7	6	5	9	3	3	0	1	0	0	0	1	2	2	4	6	6	3.1	8.6
24-Sep	4	3	3	2	2	2	2	3	3	2	1	0	0	0	0	1	5	12	14	10	4	4	4	6	3.7	13.7
25-Sep	3	0	0	0	0	0	0	0	0	3	4	7	10	2	0	0	4	2	0	3	2	3	2	2	2.0	9.7
26-Sep	1	1	0	1	1	1	1	2	0	0	2	3	22	53	14	11	12	2	0	0	0	0	0	0	5.2	53.0
27-Sep	0	0	0	0	0	2	2	2	0	2	2	1	1	1	3	3	2	2	0	3	2	1	1	1	1.3	3.0
28-Sep	1	1	1	0	0	0	1	1	5	6	1	1	2	0	5	0	4	1	3	0	0	0	0	0	1.5	5.9
29-Sep	0	0	0	0	2	3	4	7	7	10	6	11	5	0	1	13	1	13	9	0	0	0	0	1	4.0	13.4
30-Sep	1	2	5	7	5	6	5	8	11	9	2	5	11	7	7	2	5	6	6	9	3	3	4	2	5.5	11.4
1.3 1.1 0.9 1.0 1.0 1.3 2.3 3.5 3.1 3.4 4.3 3.3 4.1 4.0 3.0 2.9 2.7 3.0 2.4 2.2 1.4 1.6 1.7 1.5 7.6 5.5 5.5 6.8 5.5 6.0 13.5 10.2 10.9 10.4 17.8 17.2 21.7 53.0 15.4 15.3 11.9 13.4 13.7 9.8 4.1 8.1 7.4 11.8																								Diurnal Average		
																								Diurnal Maximum		
M - Maintenance Alberta Ambient Air Quality Guideline (AAQG): 1-hr 80 µg/m ³ Alberta Ambient Air Quality Objective (AAQO): 24-hr 30 µg/m ³																										



Hourly Maximums

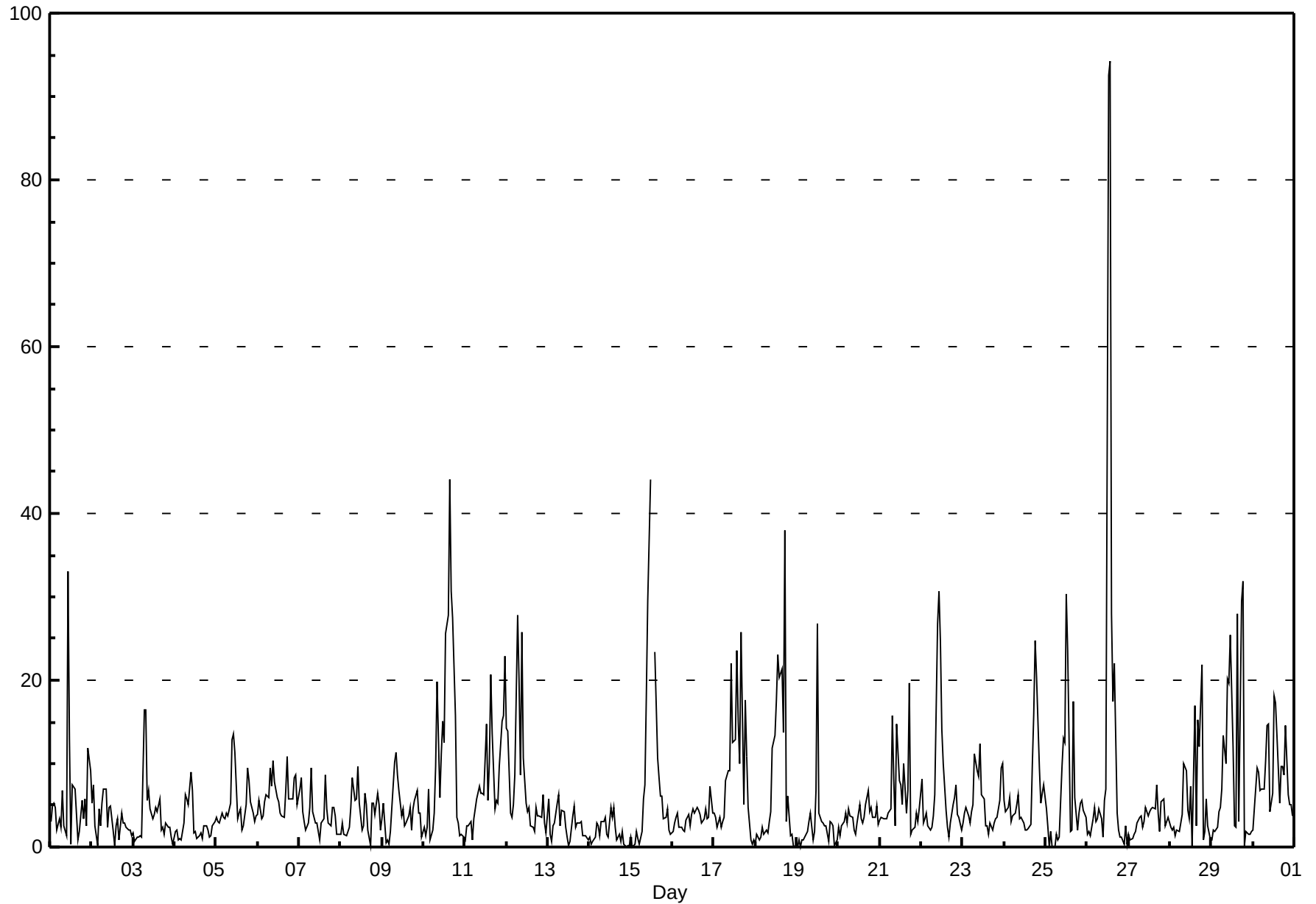
Particulate Matter 2.5 (PM_{2.5}) - µg/m³

Evergreen Park - September 2015

Maximum Value: 94.3 µg/m ³ on Sep 26 14:00																								Hours in Service: 720 Hours of Data: 718 Hours of Missing Data: 2 Hours of Calibration: 0 Percent Operational Time: 99.7		
Maximum Daily Average: 12.8 µg/m ³ on Sep 26																										
Minimum Value: 0 µg/m ³ on Sep 14 22:00																										
Minimum Daily Average: 1.8 µg/m ³ on Sep 14 Maximum Diurnal Average: 11.1 µg/m ³ at hour 13 Monthly Average: 5.97 µg/m ³																										
Minimum Daily Average: 2.5 µg/m ³ at hour 3 Percentiles: P ₁ = 0.0 P ₁₀ = 1.1 Q ₁ = 2.1 Median = 3.8 Q ₃ = 6.3 P ₉₀ = 13.3 P ₉₉ = 31.0																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Sep	3	5	5	5	2	3	2	7	3	1	33	13	0	7	7	4	1	2	6	3	6	3	12	9	5.9	33.1
2-Sep	5	7	3	0	5	3	5	7	7	2	5	5	2	0	3	3	1	4	3	3	2	2	2	1	3.4	7.5
3-Sep	2	1	1	1	1	1	16	16	6	7	5	3	4	5	4	6	2	2	2	3	2	2	1	0	3.9	16.5
4-Sep	2	2	1	1	1	3	6	6	5	9	7	2	2	1	1	2	1	3	3	2	1	1	3	3	2.8	9.0
5-Sep	4	3	3	4	4	3	4	4	5	13	14	11	3	4	5	2	3	5	9	8	6	4	3	4	5.3	13.6
6-Sep	4	6	3	4	6	6	6	9	7	10	8	6	6	4	4	4	7	11	6	6	6	8	9	5	6.2	10.9
7-Sep	7	8	4	3	2	3	5	9	4	3	3	2	1	3	3	9	5	3	3	5	5	4	2	2	4.0	9.4
8-Sep	2	3	2	1	2	2	5	8	6	6	10	5	2	3	6	5	2	0	5	5	4	6	5	2	4.0	9.7
9-Sep	3	5	0	1	0	2	7	10	11	9	7	4	5	3	3	4	5	2	5	6	7	4	4	1	4.5	11.4
10-Sep	2	1	2	7	1	2	4	10	20	6	11	15	13	26	28	44	31	27	16	4	3	1	2	1	11.5	44.1
11-Sep	1	3	3	3	1	3	5	6	7	6	6	6	15	6	10	21	14	5	6	5	10	15	16	23	8.1	22.8
12-Sep	14	14	4	4	5	9	28	20	9	26	11	5	4	5	3	2	2	5	4	4	4	6	3	2	7.9	27.7
13-Sep	6	2	1	3	3	5	6	3	4	4	2	1	0	1	4	5	2	3	3	3	1	1	1	1	2.7	6.3
14-Sep	1	0	1	1	3	3	1	3	3	4	2	1	5	4	5	2	1	2	1	2	0	0	0	0	1.8	4.8
15-Sep	1	0	0	2	1	0	2	6	7	18	29	44	M	M	23	11	8	6	6	3	4	5	2	2	8.2	44.1
16-Sep	2	3	4	4	2	2	2	2	3	4	3	4	5	4	5	4	4	3	3	5	3	4	7	4	3.5	7.2
17-Sep	4	4	2	4	2	3	3	8	9	9	22	13	13	24	15	10	26	5	18	11	5	1	0	1	8.8	25.7
18-Sep	0	2	1	1	2	2	2	2	3	4	12	13	18	23	20	21	14	38	3	6	1	2	0	0	7.9	38.0
19-Sep	0	1	0	1	1	2	2	3	4	1	2	7	27	4	3	3	3	3	1	3	3	3	0	1	3.1	26.7
20-Sep	2	1	3	3	4	3	5	4	4	2	2	3	5	3	3	4	5	7	4	5	4	3	5	3	3.5	6.7
21-Sep	3	4	3	3	3	4	5	16	8	3	15	8	7	5	10	4	7	20	2	2	2	4	3	5	6.1	19.7
22-Sep	8	3	3	4	3	2	2	4	6	27	31	25	14	10	4	2	1	3	5	6	7	4	4	2	7.5	30.6
23-Sep	3	4	5	4	3	4	5	11	9	8	12	6	6	3	3	2	3	2	3	3	4	6	9	10	5.3	12.4
24-Sep	6	4	5	6	3	4	4	5	6	3	4	3	2	2	2	3	10	16	25	20	9	5	6	7	6.7	24.7
25-Sep	5	2	0	2	0	0	2	1	1	10	13	13	30	24	2	2	17	6	2	4	5	6	4	4	6.4	30.4
26-Sep	2	2	1	3	5	3	3	5	3	1	6	7	93	94	28	17	22	4	2	1	1	0	3	0	12.8	94.3
27-Sep	2	1	1	2	2	3	4	4	2	3	5	4	4	5	5	5	7	4	2	5	6	3	3	3	3.5	7.5
28-Sep	2	2	2	1	2	2	3	4	10	9	4	3	7	0	17	3	15	12	22	1	2	6	3	1	5.6	21.8
29-Sep	1	2	2	2	4	5	7	13	10	20	20	25	12	3	2	28	3	29	32	0	2	2	2	2	9.5	31.9
30-Sep	2	5	9	9	7	7	7	10	15	15	4	7	18	17	13	5	10	10	9	15	6	5	5	4	8.9	18.2
3.3 3.3 2.5 3.0 2.6 3.1 5.3 7.2 6.6 8.1 10.1 8.8 11.1 10.0 8.0 7.9 7.7 8.0 6.9 5.0 4.0 3.8 4.0 3.4 14.3 13.8 9.4 8.9 6.7 8.7 27.7 19.9 19.8 26.7 33.1 44.1 92.6 94.3 28.0 44.1 30.7 38.0 31.9 20.3 9.7 15.0 15.8 22.8																									Diurnal Average	
																										Diurnal Maximum
M - Maintenance																										

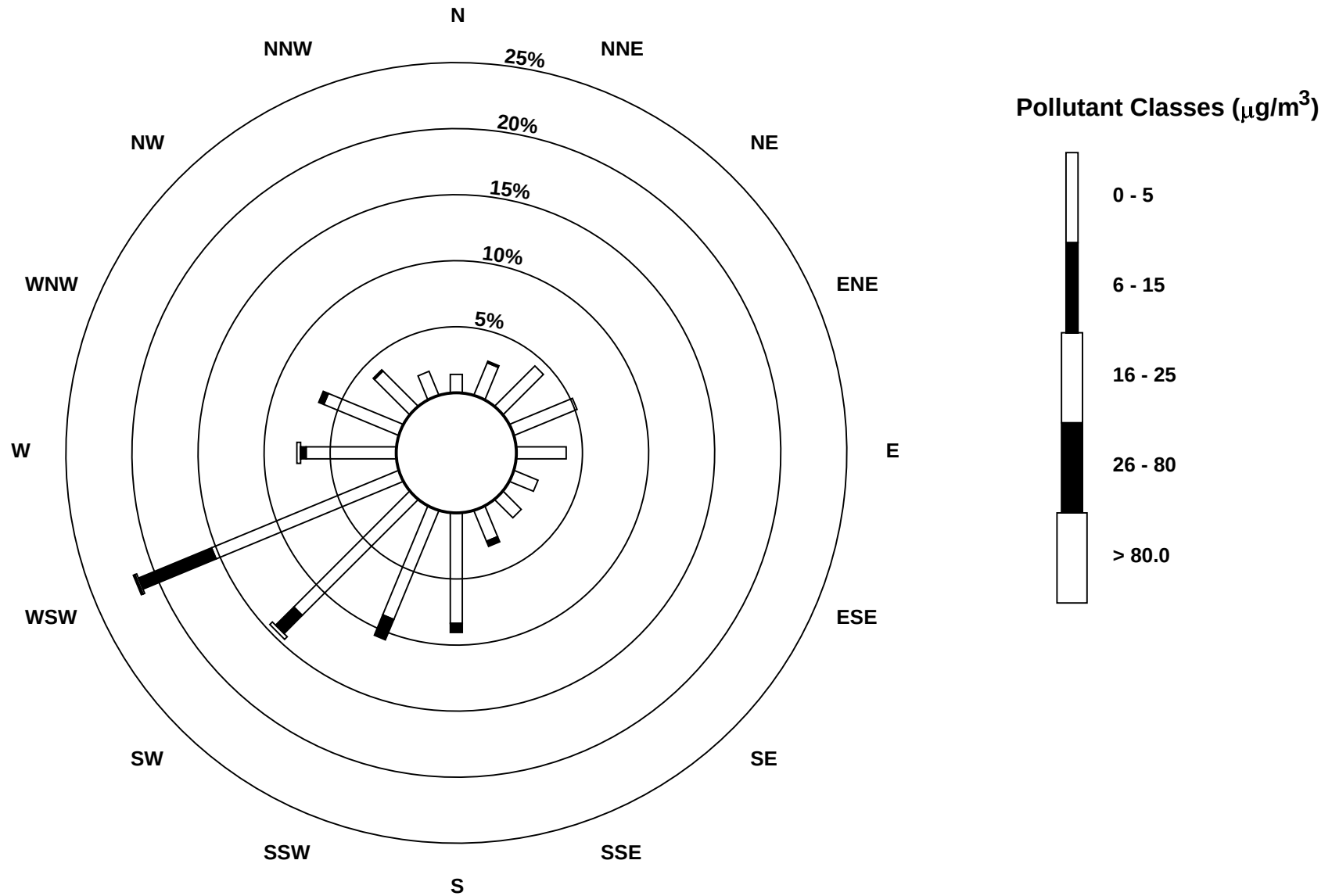
Hourly Maximums

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Evergreen Park - September 2015



Pollutant Rose

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Evergreen Park - September 2015



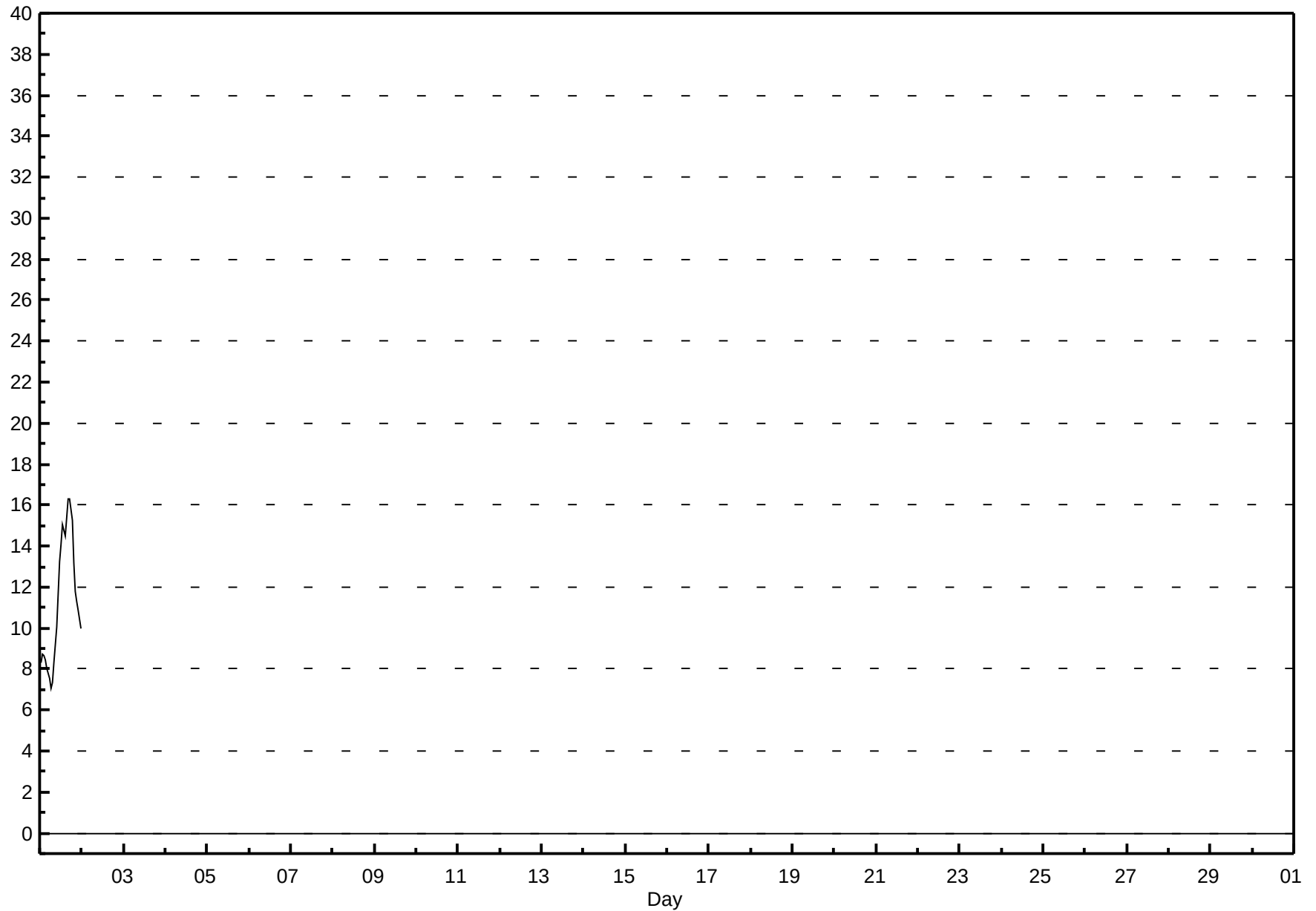
Hourly Averages

External Temperature (ET) - °C
Evergreen Park - September 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 16.3 °C on Sep 1 17:00 Maximum Daily Average: 11.3 °C on Sep 1																								Hours in Service: 720 Hours of Data: 24 Hours of Missing Data: 696 Hours of Calibration: 0 Percent Operational Time: 3.3		
Minimum Value: 7 °C on Sep 1 07:00 Minimum Daily Average: 11.3 °C on Sep 1 Maximum Diurnal Average: 16.3 °C at hour 17 Minimum Diurnal Average: 7.1 °C at hour 7 Monthly Average: 11.31 °C Percentiles: P ₁ = 7.1 P ₁₀ = 7.5 Q ₁ = 8.3 Median = 11.1 Q ₃ = 14.3 P ₉₀ = 16.3 P ₉₉ = 16.3																										
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-Sep	8	9	9	8	8	8	7	7	8	10	12	13	14	15	15	15	16	16	15	13	12	11	11	10	11.3	16.3
2-Sep	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
3-Sep	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
4-Sep	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
5-Sep	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
6-Sep	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
7-Sep	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
8-Sep	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
9-Sep	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
10-Sep	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
11-Sep	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
12-Sep	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
13-Sep	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
14-Sep	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
15-Sep	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
16-Sep	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
17-Sep	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
18-Sep	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-Sep	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-Sep	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-Sep	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-Sep	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-Sep	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-Sep	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
25-Sep	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
26-Sep	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
27-Sep	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
28-Sep	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
29-Sep	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
30-Sep	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
8.3 8.7 8.6 8.4 8.0 7.6 7.1 7.4 8.3 10.1 11.7 13.3 14.1 15.0 14.5 15.4 16.3 16.3 15.3 13.2 11.8 11.3 10.9 10.0																								Diurnal Average		
8.3 8.7 8.6 8.4 8.0 7.6 7.1 7.4 8.3 10.1 11.7 13.3 14.1 15.0 14.5 15.4 16.3 16.3 15.3 13.2 11.8 11.3 10.9 10.0																								Diurnal Maximum		
N - Not Valid																										

Hourly Averages

External Temperature (ET) - °C
Evergreen Park - September 2015



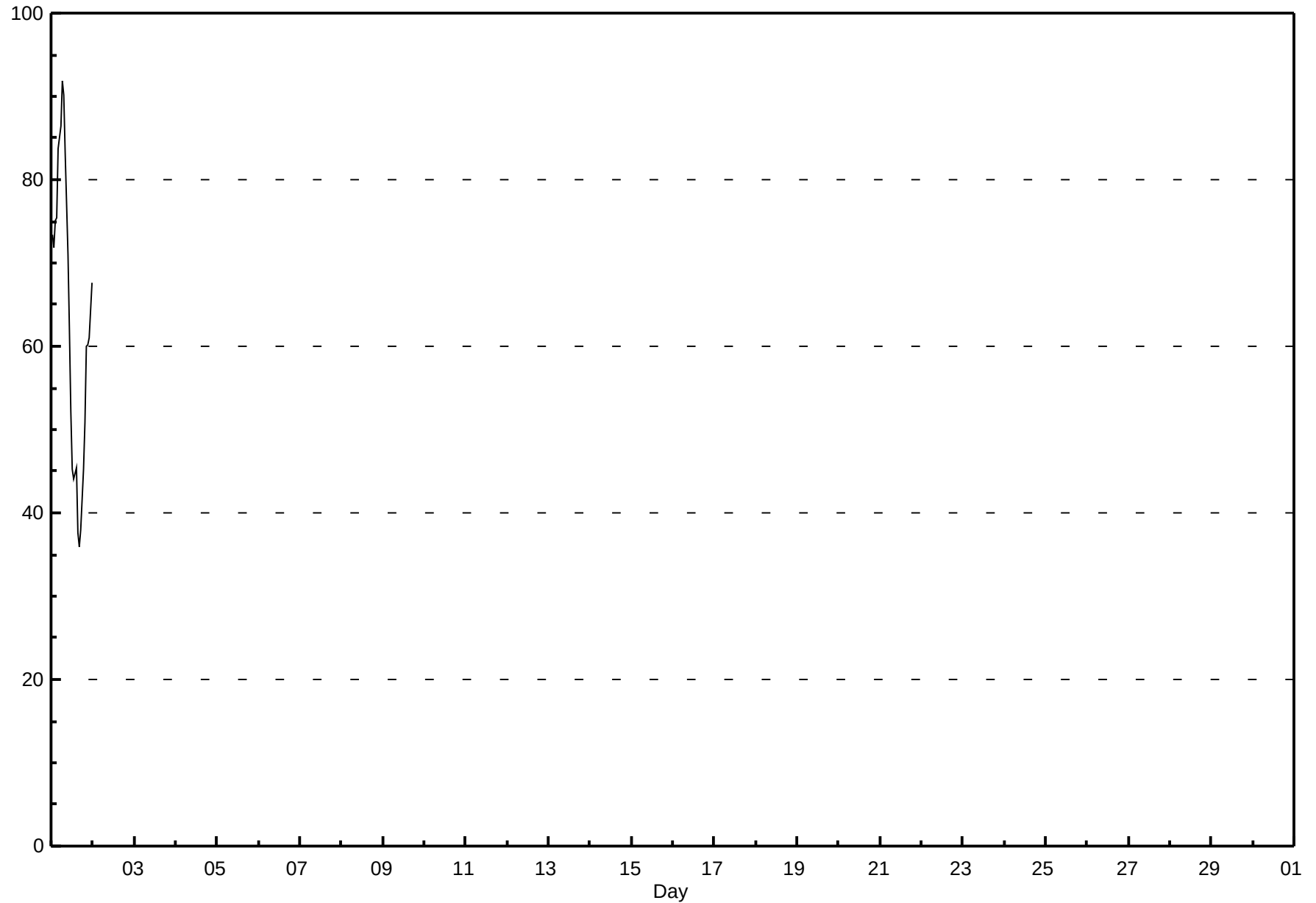
Hourly Averages

Relative Humidity (RH) - % Evergreen Park - September 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0																		Hours in Service: 720																			
Maximum Value: 91.8 % on Sep 1 07:00																		Maximum Daily Average: 62.8 % on Sep 1										Hours of Data: 24									
Minimum Value: 36 % on Sep 1 17:00																		Minimum Daily Average: 62.8 % on Sep 1										Hours of Missing Data: 696									
Maximum Diurnal Average: 91.8 % at hour 7																		Minimum Diurnal Average: 36.0 % at hour 17										Hours of Calibration: 0									
Monthly Average: 62.82 %																		Percentiles: P ₁ = 36.0 P ₁₀ = 37.3 Q ₁ = 42.6 Median = 59.1 Q ₃ = 71.6 P ₉₀ = 88.8 P ₉₉ = 91.8										Percent Operational Time: 3.3									
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-Sep	73	72	75	75	84	86	92	90	83	71	62	52	45	44	45	38	36	38	45	51	60	60	61	68	62.8	91.8											
2-Sep	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--											
3-Sep	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--											
4-Sep	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--											
5-Sep	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--											
6-Sep	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--											
7-Sep	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--											
8-Sep	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--											
9-Sep	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--											
10-Sep	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--											
11-Sep	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--											
12-Sep	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--											
13-Sep	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--											
14-Sep	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--											
15-Sep	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--											
16-Sep	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--											
17-Sep	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--											
18-Sep	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-Sep	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-Sep	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-Sep	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-Sep	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-Sep	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-Sep	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--											
25-Sep	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--											
26-Sep	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--											
27-Sep	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--											
28-Sep	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--											
29-Sep	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--											
30-Sep	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--											
73.4		71.9	75.1	75.5	83.7	86.4	91.8	90.2	83.2	71.0	62.0	52.2	45.3	44.0	45.4	37.6	36.0	37.9	45.3	50.9	60.0	60.2	61.0	67.7	Diurnal Average												
73.4		71.9	75.1	75.5	83.7	86.4	91.8	90.2	83.2	71.0	62.0	52.2	45.3	44.0	45.4	37.6	36.0	37.9	45.3	50.9	60.0	60.2	61.0	67.7	Diurnal Maximum												
N - Not Valid																																					

Hourly Averages

Relative Humidity (RH) - %
Evergreen Park - September 2015



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Evergreen Park - September 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	1	5	4	10	16	5	7	10	14	17	18	19	20	17	11	16	9	8	10	7	6	9	5	2	7.3	20.3
Dir	60	304	298	272	283	263	224	218	221	259	266	262	255	261	285	255	241	172	168	173	182	97	87	57	247.6	254.5
2 Spd	1	6	5	2	0	1	2	2	14	18	17	20	20	20	20	21	28	29	29	18	17	11	15	13	10.8	29.1
Dir	220	77	62	59	259	349	217	256	246	250	262	261	275	292	318	334	340	333	329	319	311	295	316	291	304.8	332.6
3 Spd	20	18	16	16	16	14	14	14	14	15	17	15	16	11	13	15	9	9	5	1	3	4	12	7	11.7	20.5
Dir	257	258	263	271	273	278	269	271	281	269	270	284	267	289	289	257	293	306	305	266	291	319	334	313	276.9	257.4
4 Spd	6	5	4	7	6	3	5	8	9	7	4	1	1	1	6	6	3	4	5	2	2	1	1	1	2.6	8.6
Dir	282	275	294	261	267	285	234	241	260	257	242	298	178	181	250	309	252	72	60	85	96	3	17	58	267.0	260.2
5 Spd	2	0	0	0	1	1	1	2	3	4	3	4	2	4	3	6	3	5	3	1	2	3	3	2	1.3	6.3
Dir	55	360	134	273	121	344	349	272	170	205	147	163	219	164	130	138	137	97	74	36	56	45	54	61	124.7	138.0
6 Spd	1	1	0	0	1	3	7	6	7	6	1	7	5	1	4	3	3	8	7	3	1	1	2	2	1.2	7.6
Dir	21	311	235	224	217	233	256	246	248	229	199	265	197	352	15	300	91	101	98	103	190	199	175	184	217.8	101.0
7 Spd	0	7	7	4	1	1	3	6	10	14	20	15	18	19	19	24	22	18	9	5	4	5	2	2	8.7	23.7
Dir	59	246	278	284	213	237	278	250	255	257	260	274	293	300	292	252	314	302	276	220	232	240	203	177	275.0	251.8
8 Spd	1	1	0	1	0	2	0	2	3	4	3	7	7	7	6	7	12	10	4	2	2	0	1	1	2.2	11.7
Dir	143	41	85	183	146	185	353	212	179	211	290	282	294	306	313	226	211	207	194	94	194	59	188	189	235.7	211.3
9 Spd	2	4	1	0	1	0	1	0	1	6	13	17	13	16	14	14	13	12	7	3	5	5	6	8	6.5	16.6
Dir	189	175	179	98	210	209	209	205	194	224	241	241	219	223	216	231	222	214	207	191	195	196	199	207	218.7	241.0
10 Spd	6	8	8	1	1	2	1	1	3	7	12	25	26	29	31	33	33	31	25	19	22	22	21	19	15.5	33.1
Dir	199	206	216	169	177	167	98	187	230	197	230	237	239	247	257	239	234	236	238	245	245	249	244	246	238.5	234.1
11 Spd	21	15	8	1	5	4	1	3	8	13	23	34	34	31	31	30	29	24	19	4	6	1	5	5	14.2	34.0
Dir	242	236	214	87	196	196	133	180	199	220	234	239	244	236	234	241	233	229	223	219	203	192	212	197	230.9	243.5
12 Spd	5	5	6	11	11	12	13	9	15	15	20	8	9	9	9	11	7	8	7	3	2	9	9	5	7.5	20.1
Dir	205	192	195	210	215	235	242	242	234	267	326	286	229	241	224	235	218	192	198	198	138	227	250	258	236.2	325.9
13 Spd	10	3	9	6	20	13	13	13	17	14	11	11	13	15	5	6	13	13	8	7	3	1	6	5	6.9	19.9
Dir	213	213	217	211	232	247	293	302	294	297	339	330	324	332	18	216	241	236	317	289	5	189	241	253	276.9	232.1
14 Spd	7	7	5	3	3	4	4	2	2	3	4	7	5	5	6	9	7	8	7	5	2	1	2	0	1.5	8.7
Dir	261	258	278	293	269	281	288	303	92	78	48	95	90	71	27	47	82	118	103	86	59	60	60	58	60.5	46.6
15 Spd	0	1	1	0	1	0	1	3	1	4	5	5	5	6	10	11	15	11	3	3	3	3	0	0	3.0	15.5
Dir	17	358	16	355	205	245	184	195	86	218	233	230	188	171	150	179	206	203	143	117	123	107	227	57	185.5	205.7
16 Spd	2	2	1	2	1	3	3	4	4	4	4	3	4	4	3	11	15	9	5	1	1	4	3	2	3.3	15.0
Dir	50	39	161	199	76	193	221	202	201	180	187	175	181	224	255	163	179	164	159	67	187	189	185	199	181.4	179.0
17 Spd	3	1	0	2	0	0	0	2	4	4	3	12	19	25	18	16	23	19	13	6	6	16	14	13	8.9	25.4
Dir	200	176	272	165	168	258	212	197	225	222	205	237	242	241	254	231	241	250	246	237	220	221	227	223	235.1	241.0
18 Spd	10	8	19	20	18	26	28	23	23	18	28	28	31	36	37	40	35	29	14	6	6	10	14	10	20.9	40.3
Dir	214	200	211	216	219	222	235	218	223	228	231	232	238	237	235	239	237	236	227	223	176	190	188	179	226.2	239.2
19 Spd	12	9	11	12	11	8	7	5	8	10	19	36	40	27	24	27	28	20	14	10	7	5	13	14	10.3	39.5
Dir	177	165	181	191	189	187	176	155	175	181	220	240	249	317	323	310	297	296	264	237	243	229	241	259	249.8	249.1
20 Spd	16	10	8	3	1	3	2	4	2	3	1	8	10	14	13	12	9	10	19	17	13	18	15	15	8.1	19.4
Dir	252	257	238	204	287	212	67	189	175	170	232	322	265	305	298	305	299	249	250	270	267	235	255	246	261.9	249.7
21 Spd	15	12	12	12	10	12	5	6	8	10	9	8	8	11	14	7	9	11	4	1	3	0	1	1	6.8	15.5
Dir	250	256	248	245	250	246	265	253	269	309	268	321	259	305	273	207	206	245	282	26	154	227	190	46	259.0	249.9
22 Spd	1	2	1	1	1	0	0	2	2	1	0	1	2	5	4	2	4	2	2	2	2	1	6	6	0.8	6.4
Dir	2	47	38	74	12	42	38	142	159	213	264	216	313	217	302	18	318	33	81	75	57	55	75	74	52.8	74.2

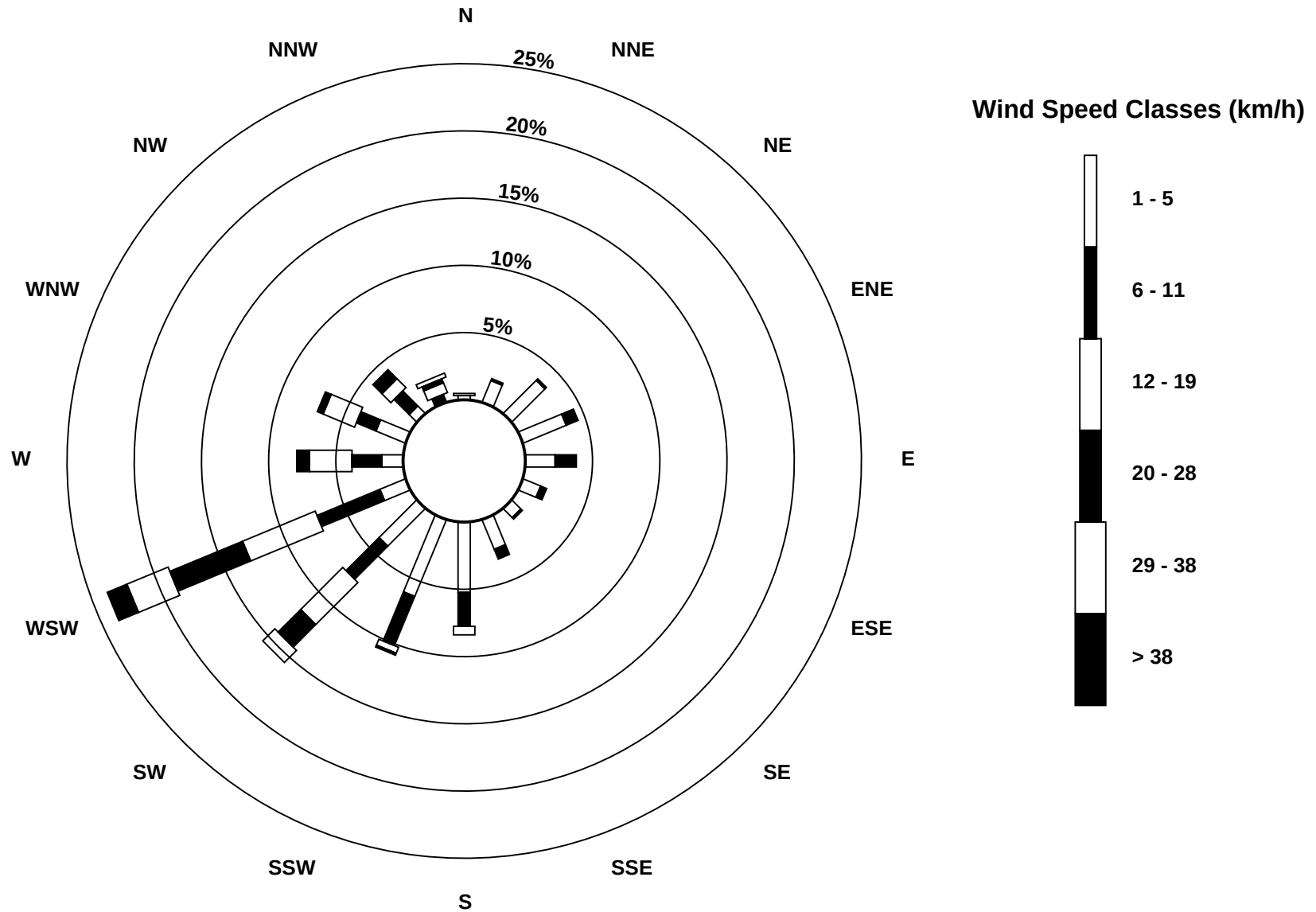
Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Evergreen Park - September 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	5	5	4	2	0	0	0	4	3	2	8	3	2	3	5	6	8	8	3	4	3	1	2	10	1.7	10.4	
Dir	64	75	66	46	15	275	184	256	33	168	181	162	61	111	122	100	80	69	50	88	118	145	232	274	97.1	273.6	
24 Spd	3	1	2	1	1	1	1	1	4	5	6	9	7	9	9	6	3	4	4	9	6	2	0	2	1.4	9.5	
Dir	201	184	50	61	42	51	29	52	44	53	61	79	73	89	109	99	195	290	248	229	225	29	18	248	95.1	229.2	
25 Spd	15	17	24	23	19	22	20	18	16	17	24	27	24	26	27	24	24	20	13	11	5	2	3	5	16.5	26.9	
Dir	293	300	236	225	220	213	224	223	229	237	237	242	248	261	258	257	235	238	248	256	261	221	192	191	241.7	241.6	
26 Spd	2	1	2	1	5	9	8	14	16	24	29	42	42	56	55	56	54	48	38	36	35	25	40	37	27.7	55.8	
Dir	204	187	175	212	195	216	232	239	223	237	243	238	252	257	252	250	247	247	245	243	240	239	239	241	243.8	249.8	
27 Spd	26	30	30	28	38	30	14	19	15	11	12	4	10	10	8	4	4	1	2	0	2	0	1	1	8.9	37.6	
Dir	233	238	232	241	245	250	344	350	340	338	326	253	251	255	251	239	215	37	58	35	124	141	42	26	260.6	245.0	
28 Spd	2	0	0	0	0	0	1	0	1	1	3	3	9	20	25	27	30	24	20	12	8	5	11	7	8.0	30.2	
Dir	53	244	190	59	32	103	42	26	202	188	180	236	251	240	256	257	259	261	246	252	250	239	205	195	247.6	258.7	
29 Spd	8	7	2	2	2	10	13	11	5	14	24	25	22	27	29	28	29	27	24	21	15	6	2	1	13.7	29.3	
Dir	188	192	91	48	158	202	233	235	233	250	254	253	253	249	248	245	246	252	249	253	253	279	300	104	245.3	247.5	
30 Spd	1	2	4	3	0	2	1	0	0	4	8	16	24	21	23	23	26	17	10	7	2	1	1	1	7.3	26.0	
Dir	143	146	154	159	229	190	219	289	289	190	192	246	245	250	260	254	240	240	247	256	17	185	183	47	241.1	240.1	
Spd	5.0	4.2	4.8	4.5	5.4	5.6	4.4	4.7	5.5	7.1	8.9	11.5	12.9	12.7	12.2	12.8	12.7	10.2	7.3	5.1	4.3	3.8	4.7	4.6	Diurnal Average		
Dir	236.1	237.9	229.8	232.2	235.9	232.7	247.2	242.6	240.5	244.7	250.1	249.4	250.9	259.4	260.6	250.0	247.2	246.4	246.4	246.8	239.7	233.5	237.9	239.4	Diurnal Maximum		
Spd	26.3	30.4	29.7	28.2	37.6	29.8	27.7	22.9	22.6	24.1	28.8	41.6	42.4	55.7	55.5	55.8	54.4	47.9	38.4	36.1	34.8	24.7	39.6	37.3	Diurnal Maximum		
Dir	233.3	237.6	232.4	240.9	245.0	250.1	234.9	217.5	222.8	236.8	243.1	237.8	251.6	256.8	252.4	249.8	247.3	247.2	245.4	242.9	239.9	239.3	238.8	241.1			
Maximum Speed Value: 56 km/h on Sep 26 16:00																				Minimum Speed Value: 0 km/h on Sep 28 06:00				Hours in Service: 720			
Maximum Daily Speed Average: 27.7 km/h on Sep 26																				Minimum Daily Speed Average: 0.8 km/h on Sep 22				Hours of Data: 720			
Maximum Diurnal Speed Average: 12.9 km/h at hour 13																				Minimum Diurnal Speed Average: 3.8 km/h at hour 22				Hours of Missing Data: 0			
Monthly Average Velocity: 7.21 km/h 246.09 deg																				Speed Percentiles: P ₁ = 0.2 P ₁₀ = 0.7 Q ₁ = 2.3 Median = 6.4 Q ₃ = 14.3 P ₉₀ = 23.7 P ₉₉ = 41.0				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	22		0		4		1		1		0		28														
NorthEast	60		4		0		0		0		0		64														
East	25		22		0		0		0		0		47														
SouthEast	21		5		0		0		0		0		26														
South	82		34		6		0		0		0		122														
SouthWest	53		50		52		34		27		6		222														
West	32		42		42		27		4		5		152														
NorthWest	14		15		18		10		2		0		59														
Total	309		172		122		72		34		11		720														

Wind Rose

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



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Evergreen Park - September 2015

Maximum Speed: 57 km/h on Sep 26 14:00																				Maximum Daily Speed Average: 28.7 km/h on Sep 26										Hours in Service: 720																				
Minimum Speed: 0 km/h on Sep 28 04:00																				Minimum Daily Speed Average: 3.6 km/h on Sep 22										Hours of Data: 720																				
Maximum Diurnal Speed Average: 18.1 km/h at hour 16																				Minimum Diurnal Speed Average: 6.2 km/h at hour 22										Hours of Missing Data: 0																				
Monthly Average Speed: 10.58 km/h																				Percentiles: P ₁ = 0.5 P ₁₀ = 1.5 Q ₁ = 3.3 Median = 7.5 Q ₃ = 15.1 P ₉₀ = 24.6 P ₉₉ = 43.1										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-Sep	1	5	6	12	16	10	8	11	15	17	19	20	22	19	12	16	12	9	11	7	10	9	5	3	11.5	21.5																								
2-Sep	3	7	5	2	1	2	4	4	14	18	18	20	21	22	21	22	29	30	30	19	17	11	15	14	14.6	29.8																								
3-Sep	21	19	17	16	17	15	14	15	15	16	18	16	17	12	14	15	10	9	5	4	3	5	12	8	12.9	20.7																								
4-Sep	7	5	5	7	6	4	5	8	9	8	4	2	2	3	8	7	5	5	6	3	2	1	1	1	4.7	9.2																								
5-Sep	2	1	1	0	1	1	1	3	4	5	4	7	7	7	7	9	7	6	4	1	2	3	3	3	3.7	8.6																								
6-Sep	1	1	0	0	1	3	7	6	8	7	5	9	8	7	7	5	6	9	7	3	1	1	2	3	4.6	9.3																								
7-Sep	1	8	7	4	1	1	3	6	10	14	21	17	20	20	20	25	23	20	9	6	6	5	2	2	10.5	24.6																								
8-Sep	1	1	1	1	1	3	3	3	4	4	3	7	8	7	6	8	12	11	4	3	2	1	1	1	4.1	12.4																								
9-Sep	2	4	1	2	1	1	1	1	2	6	14	17	14	16	15	15	13	12	7	3	5	5	6	8	7.1	17.2																								
10-Sep	6	9	9	1	2	3	4	1	3	7	12	25	27	30	32	33	34	32	25	20	22	22	21	19	16.6	33.6																								
11-Sep	21	15	8	4	5	4	1	4	9	14	23	34	35	32	31	31	29	24	19	5	6	2	5	5	15.3	34.7																								
12-Sep	5	6	6	11	12	12	14	10	15	21	21	9	9	9	9	12	8	8	8	4	5	10	13	8	10.1	20.9																								
13-Sep	13	4	9	6	20	13	14	14	17	15	12	11	15	16	9	9	13	14	9	8	4	2	6	5	10.8	20.1																								
14-Sep	7	8	5	3	4	5	4	2	3	4	5	8	6	7	7	10	8	8	7	5	2	2	2	1	5.2	9.8																								
15-Sep	1	1	1	1	1	0	1	3	1	4	6	6	7	9	12	12	16	11	3	3	3	3	1	1	4.5	15.7																								
16-Sep	3	2	2	2	2	3	4	4	4	5	6	5	6	9	8	12	16	10	5	2	1	4	4	2	5.0	15.9																								
17-Sep	3	3	0	2	1	1	1	2	5	5	4	13	20	26	18	16	24	20	14	6	6	16	14	13	9.7	25.8																								
18-Sep	10	8	19	21	18	26	28	23	23	18	29	29	31	36	38	41	36	30	14	7	6	10	14	10	21.9	40.6																								
19-Sep	12	9	12	12	11	9	8	6	8	10	20	36	45	28	25	28	29	21	15	10	7	5	13	14	16.4	44.9																								
20-Sep	17	11	9	5	6	5	3	4	3	4	5	10	12	15	14	13	9	11	20	18	14	18	16	16	10.7	20.0																								
21-Sep	16	12	13	12	10	12	6	6	9	11	11	10	12	15	18	11	10	12	5	2	3	1	1	2	9.2	18.2																								
22-Sep	1	2	1	2	2	1	1	2	3	3	4	5	5	7	8	5	7	4	2	3	3	1	7	7	3.6	8.0																								
23-Sep	5	6	4	2	0	1	2	5	4	4	9	6	5	7	8	8	10	9	3	4	3	2	2	11	5.0	11.3																								
24-Sep	5	2	3	2	2	2	2	2	4	5	6	10	8	11	9	8	4	4	4	10	7	3	2	4	4.9	10.9																								
25-Sep	17	18	25	23	19	22	21	18	16	17	24	27	24	27	28	25	24	20	13	11	6	3	4	6	18.3	28.3																								
26-Sep	3	2	3	3	5	10	8	14	16	25	30	42	44	57	56	57	55	48	39	36	35	25	40	38	28.7	57.1																								
27-Sep	26	31	30	29	38	30	18	21	16	13	13	7	11	11	9	8	6	3	2	2	4	2	2	3	13.9	37.8																								
28-Sep	2	1	1	0	1	0	1	1	2	2	4	4	10	21	26	28	31	24	20	12	9	6	12	7	9.4	30.9																								
29-Sep	8	7	5	3	4	10	13	11	5	14	25	26	23	28	30	29	30	28	24	21	16	6	4	2	15.5	29.9																								
30-Sep	1	2	5	3	1	2	1	1	1	5	8	17	24	22	24	24	26	17	10	7	4	3	3	2	8.9	26.4																								
																									7.4	7.0	7.1	6.4	7.0	7.0	6.7	7.1	8.3	10.1	12.8	15.2	16.6	17.9	17.7	18.1	18.1	15.6	11.5	8.2	7.1	6.2	7.8	7.2	Diurnal Average	
																									26.4	30.5	29.9	28.7	37.8	30.5	27.8	23.1	22.9	24.6	29.5	42.3	44.9	57.1	56.2	56.5	55.0	48.3	38.7	36.4	35.1	25.0	40.0	37.6	Diurnal Maximum	
All monthly, daily, and diurnal averages have been calculated using scalar methods																																																		

Hourly Standard Deviations

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

Maximum Value: 98.9 deg on Sep 17 03:00																			Hours in Service: 720						
Minimum Value: 5.6 deg on Sep 18 07:00																			Hours of Data: 720						
Percentiles: P ₁ = 6.7 P ₁₀ = 9.8 Q ₁ = 14.9 Median = 26.1 Q ₃ = 59.0 P ₉₀ = 78.7 P ₉₉ = 94.3																			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-Sep	61	30	47	32	14	71	44	10	13	15	19	18	21	31	33	19	46	35	18	25	49	21	26	55	70.8
2-Sep	79	30	19	49	89	73	90	83	13	10	15	12	18	28	23	17	11	13	17	15	17	17	18	22	89.5
3-Sep	9	9	15	11	12	16	14	14	16	13	15	20	15	27	21	15	30	19	60	78	24	28	10	20	78.1
4-Sep	17	20	34	14	17	25	24	14	21	25	47	56	89	78	47	36	63	35	26	40	46	58	31	48	89.3
5-Sep	68	58	87	60	65	57	49	59	41	39	70	69	86	69	91	68	82	45	35	17	55	16	20	21	90.5
6-Sep	65	66	76	63	77	26	12	15	19	25	84	49	66	91	75	74	67	39	17	18	67	85	60	69	91.2
7-Sep	96	26	15	17	35	48	27	20	27	16	18	30	28	20	23	17	20	23	18	22	38	20	45	21	96.4
8-Sep	49	87	78	72	80	59	99	84	26	28	35	21	21	22	32	40	22	14	59	57	88	87	80	78	98.8
9-Sep	31	16	84	86	81	63	59	77	78	36	14	18	19	16	15	24	12	11	12	14	12	13	10	7	85.6
10-Sep	10	9	10	65	74	40	71	84	66	31	22	12	17	16	13	11	10	10	8	9	7	9	8	9	83.9
11-Sep	7	7	23	67	48	41	70	83	49	19	10	8	12	10	10	12	11	8	9	69	29	80	26	51	83.0
12-Sep	18	62	31	10	17	10	11	10	6	40	16	33	18	22	14	19	26	22	21	61	64	29	42	58	64.4
13-Sep	67	48	9	26	10	17	31	16	14	14	28	21	28	26	57	72	16	25	42	40	35	79	22	18	78.6
14-Sep	21	21	20	31	49	17	13	43	36	46	29	34	31	46	41	30	25	24	13	15	29	29	29	84	83.9
15-Sep	84	52	49	77	81	72	89	49	67	41	32	45	50	52	39	25	10	12	34	14	25	49	94	77	94.0
16-Sep	60	54	62	70	80	36	39	28	26	31	65	84	71	71	85	29	20	18	16	93	87	12	86	55	92.6
17-Sep	28	85	99	63	89	96	96	43	26	29	62	23	18	10	16	17	14	13	13	10	17	10	7	10	98.9
18-Sep	18	13	7	10	7	9	6	8	10	11	13	13	11	10	10	7	8	9	8	28	25	11	10	15	27.9
19-Sep	13	13	8	9	9	11	22	15	15	18	24	12	32	23	19	17	16	16	23	14	30	35	11	15	35.5
20-Sep	22	27	36	65	82	68	79	46	63	50	78	48	39	22	23	21	18	29	14	22	23	11	18	12	81.7
21-Sep	10	17	12	10	13	9	34	22	30	28	43	53	55	52	42	60	31	26	57	77	36	88	69	73	87.9
22-Sep	58	60	49	97	42	84	70	69	37	75	95	91	83	64	89	81	64	83	29	50	69	61	17	12	96.8
23-Sep	15	17	21	33	77	63	92	59	49	81	40	63	78	87	59	61	34	28	14	26	42	93	47	22	92.8
24-Sep	52	62	82	71	54	58	61	68	29	18	27	27	31	36	26	52	44	19	35	10	28	61	88	71	88.4
25-Sep	25	25	13	8	11	8	8	11	10	10	11	11	15	15	20	17	12	13	15	15	24	72	22	17	72.4
26-Sep	63	77	62	80	25	16	26	12	13	11	12	11	15	13	9	9	8	7	8	7	8	10	8	7	80.0
27-Sep	7	6	6	10	6	13	43	21	22	28	31	88	27	29	40	70	66	73	45	90	58	73	70	69	90.1
28-Sep	37	92	92	73	92	81	68	91	76	92	51	57	34	22	17	15	13	11	7	8	12	48	13	12	92.5
29-Sep	9	19	77	41	72	15	9	9	23	11	18	15	20	15	11	11	8	9	9	9	11	19	84	53	84.0
30-Sep	67	57	19	33	55	18	80	89	78	22	15	23	13	18	19	14	11	10	12	23	73	86	89	74	89.5
96.4 92.5 98.9 96.8 91.9 95.8 98.8 90.8 77.8 91.6 94.9 91.4 89.3 91.2 90.5 80.7 82.0 83.1 60.1 92.6 88.2 92.8 94.0 83.9																									

PAZA
Smoky Heights Station
Monthly Summary Tables, Graphs and
Roses

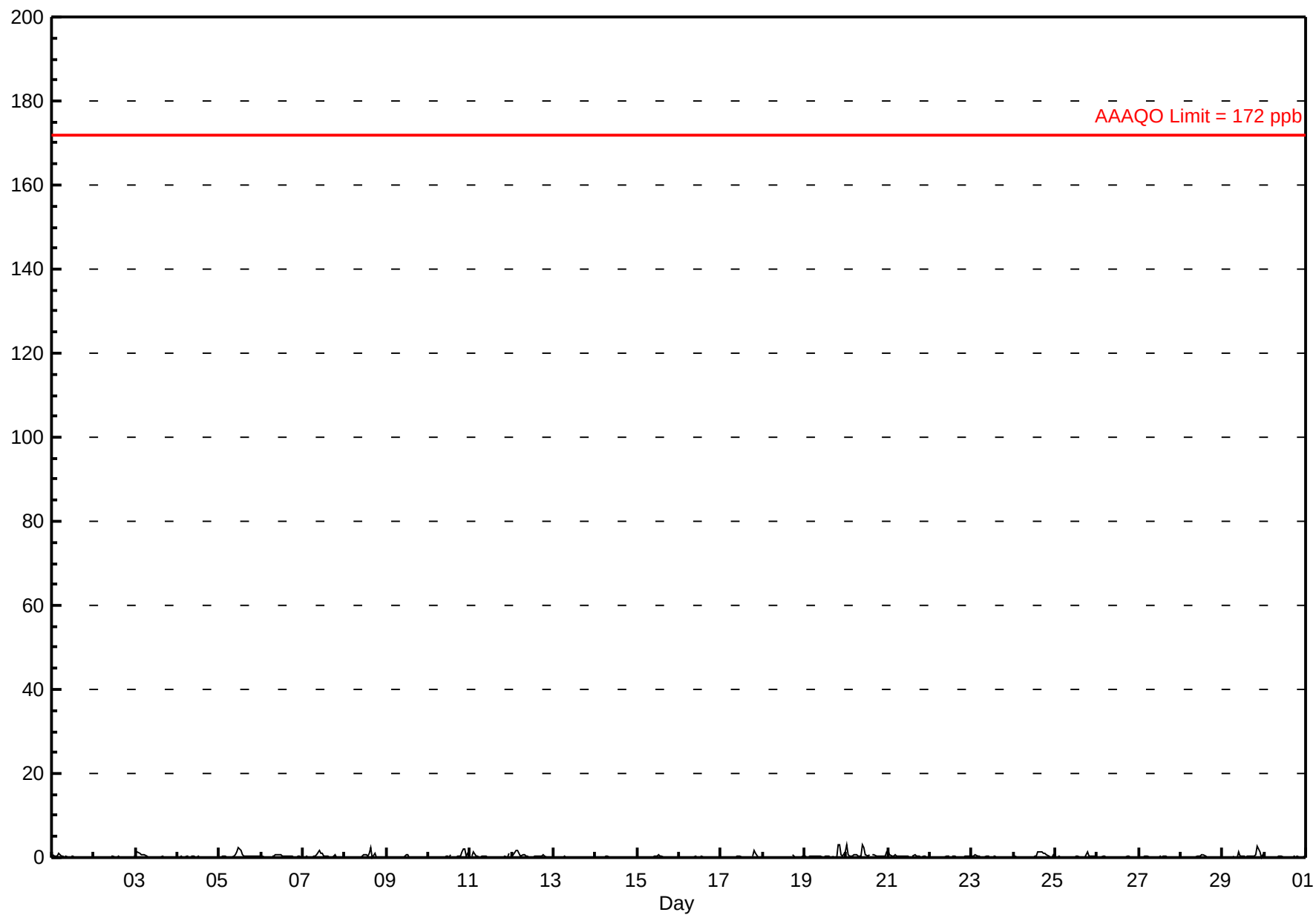
Hourly Averages

Sulphur Dioxide (SO₂) - ppb Smoky Heights - September 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 3.0 ppb on Sep 20 10:00 Maximum Daily Average: 0.8 ppb on Sep 20																								Hours in Service: 720 Hours of Data: 687 Hours of Missing Data: 33 Hours of Calibration: 33 Percent Operational Time: 100.0		
Minimum Value: 0 ppb on Sep 3 21:00 Minimum Daily Average: 0.1 ppb on Sep 14 Maximum Diurnal Average: 0.4 ppb at hour 10 Minimum Diurnal Average: 0.2 ppb at hour 23 Monthly Average: 0.26 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.1 Q ₃ = 0.3 P ₉₀ = 0.6 P ₉₉ = 2.2																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Sep	1	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	1.0
2-Sep	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
3-Sep	1	1	1	1	1	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.3
4-Sep	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
5-Sep	0	0	0	0	0	0	A	0	0	1	1	2	2	1	0	0	0	0	0	0	0	0	0	0	0.5	2.2
6-Sep	0	0	0	0	0	A	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8
7-Sep	0	0	0	0	A	0	0	0	1	2	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0.4	1.6
8-Sep	0	0	0	A	0	0	0	0	0	0	0	1	1	0	1	2	0	1	0	0	0	0	0	0	0.3	2.3
9-Sep	0	0	A	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0.1	0.6
10-Sep	0	A	0	0	0	0	0	0	0	0	0	0	0	1	C	C	0	0	0	1	2	2	0	2	0.5	2.1
11-Sep	A	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	0.2	1.5
12-Sep	0	1	2	2	1	0	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	A	0	0.5	1.7
13-Sep	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
14-Sep	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
15-Sep	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	A	0	0	0	0	0.1	0.5
16-Sep	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
17-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	2	1	0	0	0	0.2	1.8
18-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.1	0.5
19-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	3	3	1	0	1	0.5	3.0
20-Sep	3	1	0	0	1	1	1	0	0	3	2	1	0	1	A	1	1	0	0	0	0	0	0	1	0.8	3.0
21-Sep	2	1	0	0	1	0	0	0	0	0	0	0	A	0	1	0	0	0	0	0	0	0	0	0	0.4	1.8
22-Sep	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
23-Sep	0	0	1	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
24-Sep	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	1	1	1	1	1	0	0	1	0.4	1.3
25-Sep	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	1	0	0	0	0	0	0.2	1.4
26-Sep	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
27-Sep	0	0	0	0	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
28-Sep	0	0	0	0	0	0	A	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0.2	0.8
29-Sep	0	0	0	0	0	A	0	0	0	1	0	0	0	0	0	0	0	0	0	1	3	1	0	1	0.4	2.8
30-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
0.3 0.2 0.3 0.2 0.2 0.2 0.2 0.2 0.2 0.4 0.4 0.3 0.3 0.2 0.2 0.3 0.2 0.2 0.3 0.4 0.4 0.2 0.2 0.3																								Diurnal Average		
2.9 1.3 1.7 1.7 1.2 0.7 0.7 0.8 0.8 3.0 2.3 2.2 1.7 0.8 1.3 2.3 1.3 1.2 1.4 3.0 3.0 2.1 0.9 1.6																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb																										

Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Smoky Heights - September 2015



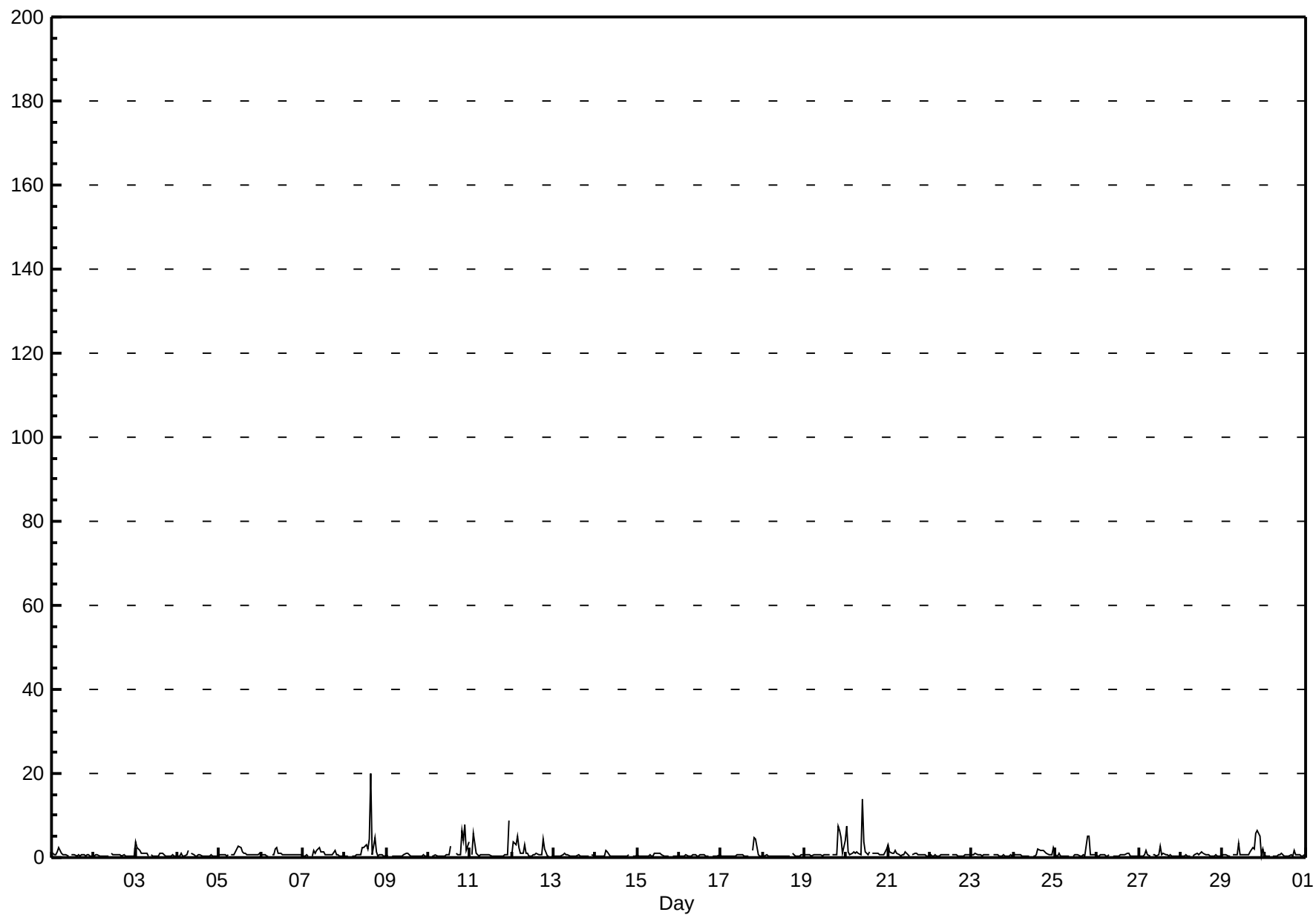
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb Smoky Heights - September 2015

Maximum Value: 20.1 ppb on Sep 8 16:00																				Maximum Daily Average: 2.1 ppb on Sep 8										Hours in Service: 720	
Minimum Value: 0 ppb on Sep 24 08:00																				Minimum Daily Average: 0.5 ppb on Sep 16										Hours of Data: 687	
Maximum Diurnal Average: 1.5 ppb at hour 20																				Minimum Diurnal Average: 0.6 ppb at hour 6										Hours of Missing Data: 33	
Monthly Average: 0.89 ppb																				Percentiles: P ₁ = 0.3 P ₁₀ = 0.4 Q ₁ = 0.4 Median = 0.5 Q ₃ = 0.7 P ₉₀ = 1.5 P ₉₉ = 6.2										Hours of Calibration: 33	
																				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-Sep	1	1	1	1	2	1	1	1	1	0	A	1	1	1	0	1	0	1	1	0	1	0	0	0	0.7	2.3					
2-Sep	0	1	1	0	0	0	0	0	0	A	1	1	1	1	1	1	0	1	0	0	0	0	0	0	0.5	1.0					
3-Sep	4	2	2	1	1	1	1	0	A	1	0	0	0	0	1	1	1	0	0	0	0	1	0	0	0.8	3.6					
4-Sep	0	0	1	0	0	1	2	A	1	1	0	1	1	1	0	0	0	0	0	1	0	0	0	0	0.6	1.6					
5-Sep	1	1	1	1	0	1	A	1	1	1	2	3	2	1	1	1	1	1	1	1	1	1	1	1	0.9	2.8					
6-Sep	1	1	1	0	0	A	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	2.5					
7-Sep	0	0	1	0	A	1	2	1	2	2	2	1	1	1	1	1	1	1	2	1	1	0	0	0	0.9	2.4					
8-Sep	0	0	0	A	0	0	0	1	1	1	2	2	3	2	4	20	1	5	1	0	1	1	0	0	2.1	20.1					
9-Sep	1	0	A	0	0	1	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	1	0	0	0.5	1.2					
10-Sep	0	A	1	0	1	0	0	0	0	0	1	1	1	3	C	C	1	1	1	6	4	8	2	4	1.6	7.9					
11-Sep	A	1	6	1	1	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	1	1	9	A	1.2	8.9					
12-Sep	1	4	3	5	2	1	1	3	1	1	1	1	1	1	1	1	1	1	4	2	0	0	A	0	1.5	5.0					
13-Sep	0	0	0	0	0	1	1	1	1	0	0	0	0	0	1	0	0	0	0	0	0	A	1	0	0.5	1.1					
14-Sep	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	1	A	0	0	0	0.5	1.6					
15-Sep	1	0	0	0	0	0	0	1	1	0	1	1	1	1	1	0	0	0	1	A	0	0	0	0	0.6	1.1					
16-Sep	0	0	0	0	1	0	0	0	1	1	0	0	1	1	1	0	0	0	A	0	0	0	0	1	0.5	0.7					
17-Sep	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	A	2	5	4	1	0	0	0.9	4.7					
18-Sep	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	1	0	0	0	1	1	0.5	1.0					
19-Sep	1	1	1	1	0	1	1	1	1	1	0	1	1	1	1	A	1	1	1	7	6	5	1	4	1.5	7.4					
20-Sep	7	2	1	1	2	1	1	1	1	14	4	1	1	1	A	1	1	1	1	1	1	1	1	2	2.0	13.8					
21-Sep	3	1	1	1	2	1	1	0	1	1	1	1	0	A	1	1	1	1	1	1	1	1	0	0	0.9	3.1					
22-Sep	1	0	0	1	0	0	1	1	1	1	1	1	A	1	1	1	0	0	0	0	1	1	1	1	0.5	0.8					
23-Sep	1	1	1	1	1	1	0	1	1	1	1	A	1	1	1	1	0	0	1	0	0	0	1	0	0.6	1.0					
24-Sep	1	1	1	1	1	0	0	0	0	0	A	0	0	1	2	2	2	2	1	1	1	1	1	2	0.9	2.2					
25-Sep	0	0	1	0	0	0	0	0	0	0	A	0	1	1	1	0	0	1	0	5	5	1	1	1	0.9	5.2					
26-Sep	0	0	1	1	1	0	0	1	A	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0.6	1.2					
27-Sep	0	0	0	1	2	1	0	A	1	1	0	1	3	1	1	1	1	0	1	0	0	0	0	0	0.7	2.6					
28-Sep	0	0	0	1	0	0	A	0	1	1	1	1	1	1	1	1	1	0	0	0	1	0	0	0	0.6	1.4					
29-Sep	1	1	1	0	0	A	1	1	1	4	1	1	1	1	1	1	1	2	2	6	7	5	0	2	1.6	6.5					
30-Sep	1	0	0	0	A	0	0	0	1	1	1	0	0	0	0	1	0	2	1	1	1	0	0	1	0.6	1.9					
1.0		0.7	0.9	0.7	0.7	0.6	0.7	0.6	0.7	1.3	0.9	0.8	0.9	0.8	0.8	1.3	0.6	0.8	1.0	1.5	1.2	1.1	0.9	0.9	Diurnal Average						
7.4		3.6	5.7	5.0	2.5	1.1	1.6	2.9	2.1	13.8	3.8	2.8	3.0	2.8	4.4	20.1	1.7	4.8	5.2	7.4	6.5	7.9	8.9	4.2	Diurnal Maximum						
C - Calibration		A - Automated Daily Zero Span																													

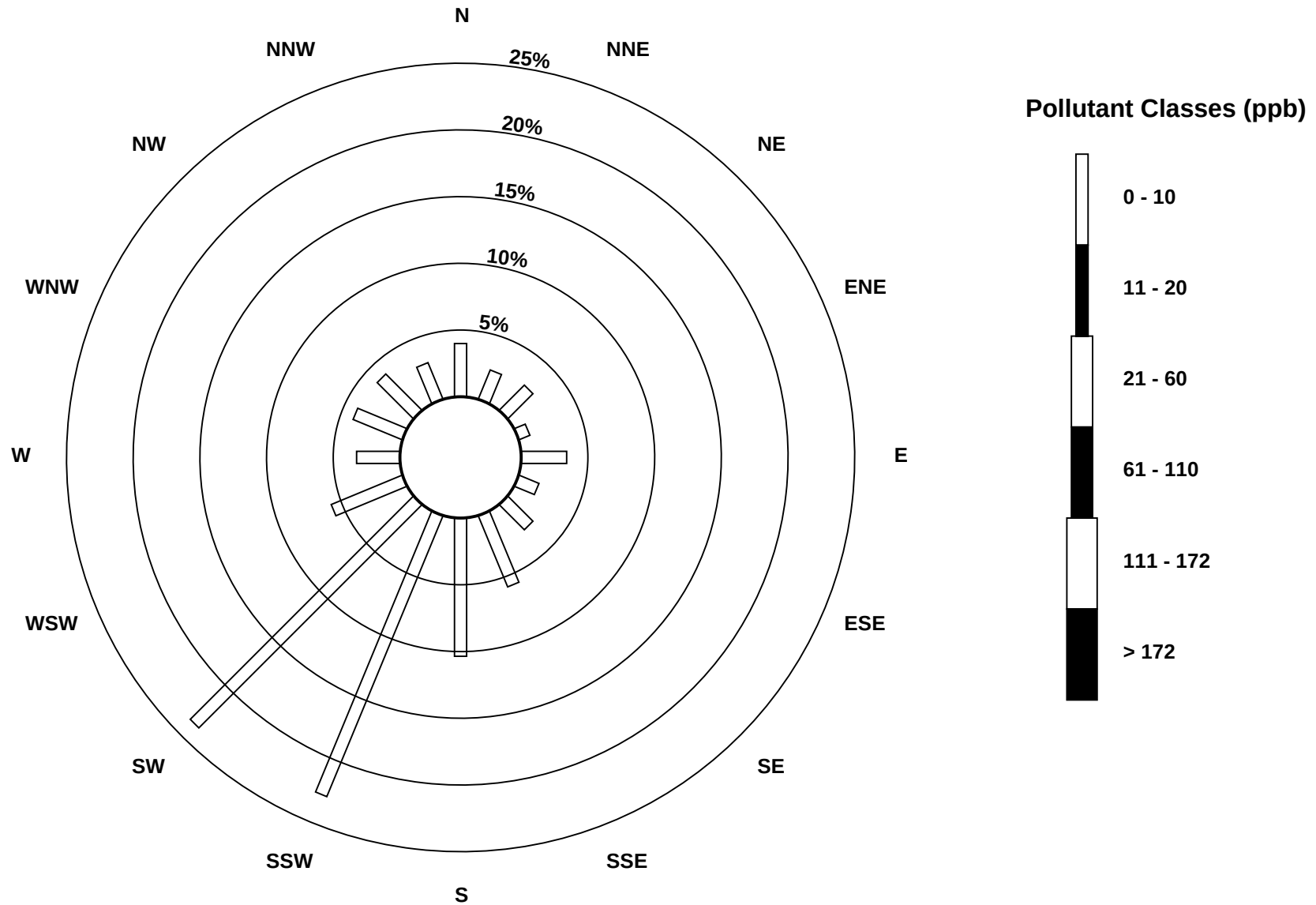
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Smoky Heights - September 2015



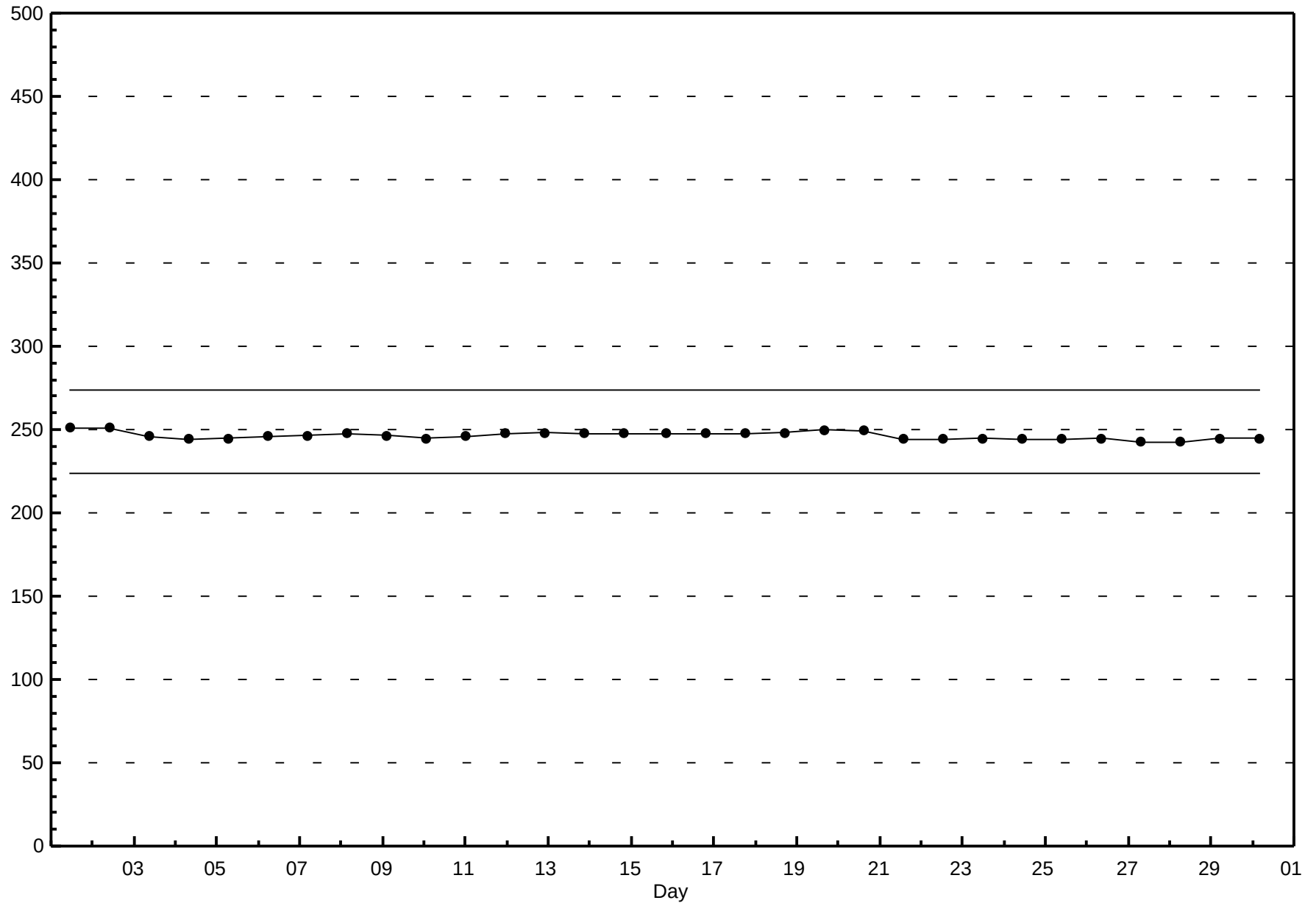
Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Smoky Heights - September 2015



Span Responses

Sulphur Dioxide (SO₂)
Smoky Heights - September 2015



Hourly Averages

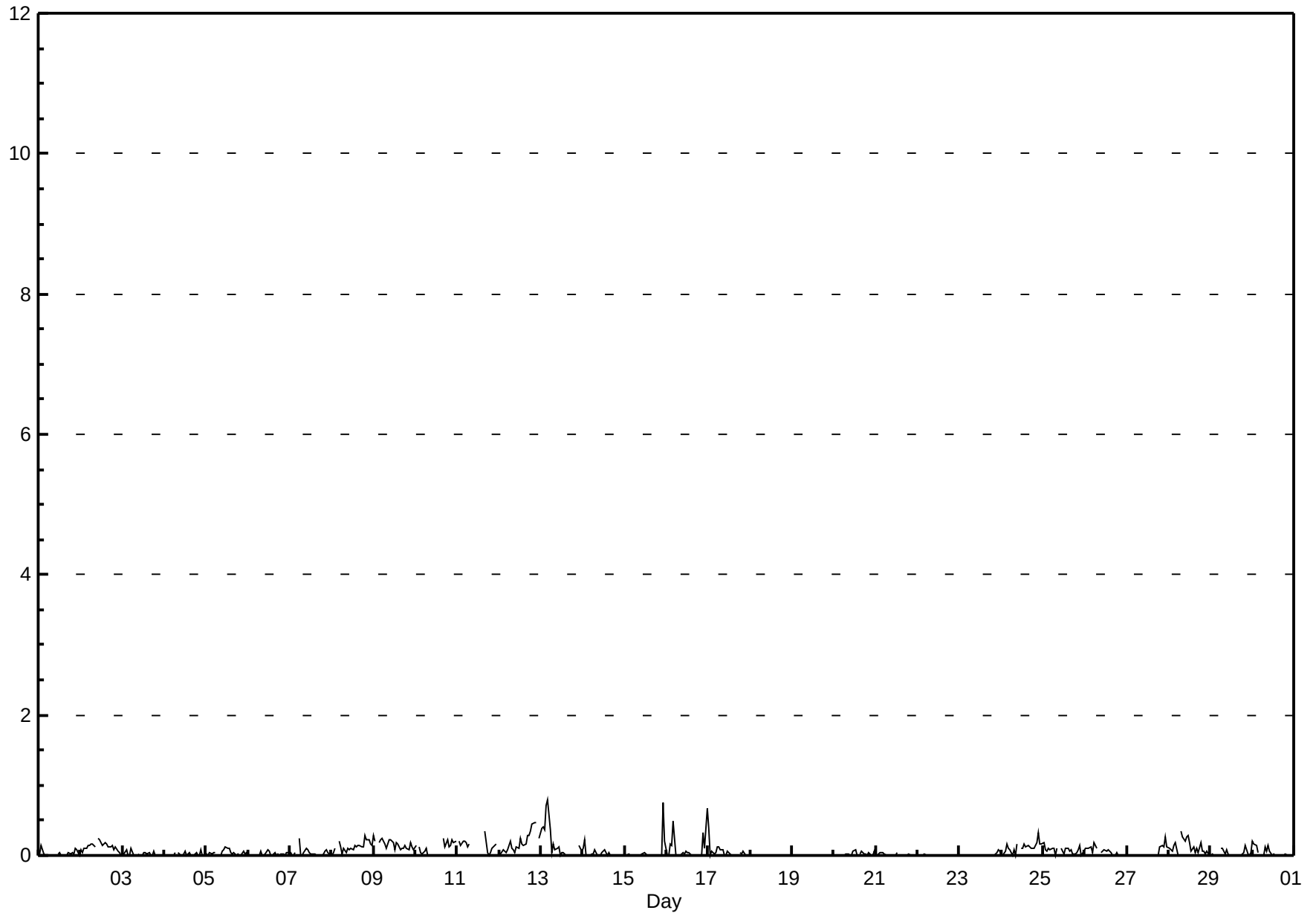
Total Reduced Sulphur (TRS) - ppb

Smoky Heights - September 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 0.8 ppb on Sep 13 05:00 Maximum Daily Average: 0.2 ppb on Sep 12																				Hours in Service: 720 Hours of Data: 674 Hours of Missing Data: 46 Hours of Calibration: 46 Percent Operational Time: 100.0						
Minimum Value: 0 ppb on Sep 1 05:00 Maximum Diurnal Average: 0.1 ppb at hour 5 Monthly Average: 0.06 ppb										Minimum Daily Average: 0.0 ppb on Sep 18 Minimum Diurnal Average: 0.0 ppb at hour 16 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.0 Q ₃ = 0.1 P ₉₀ = 0.2 P ₉₉ = 0.5																
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-Sep	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
2-Sep	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
3-Sep	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
4-Sep	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
5-Sep	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
6-Sep	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
7-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
8-Sep	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
9-Sep	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
10-Sep	0	A	0	0	0	0	0	0	0	C	C	C	C	C	C	C	0	0	0	0	0	0	0	0	--	0.2
11-Sep	A	0	0	0	0	0	0	0	C	C	C	C	C	C	C	C	0	0	0	0	0	0	0	A	--	0.3
12-Sep	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
13-Sep	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.2	0.8
14-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.0	0.2
15-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	1	0	0.0	0.8
16-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	1	0.1	0.7
17-Sep	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	0.4
18-Sep	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
19-Sep	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
20-Sep	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
21-Sep	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
22-Sep	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
23-Sep	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
24-Sep	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
25-Sep	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
26-Sep	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
27-Sep	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
28-Sep	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
29-Sep	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
30-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
0.1 0.1 0.1 0.1 0.1 0.1 0.0 0.1 0.0 0.1 0.1 0.1 0.1 0.1 0.0 0.0 0.1 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.1																								Diurnal Average		
0.4 0.4 0.4 0.7 0.8 0.4 0.2 0.3 0.3 0.2 0.3 0.3 0.3 0.2 0.2 0.2 0.3 0.3 0.3 0.5 0.5 0.5 0.8 0.7																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb																										

Hourly Averages

Total Reduced Sulphur (TRS) - ppb
Smoky Heights - September 2015



Hourly Maximums

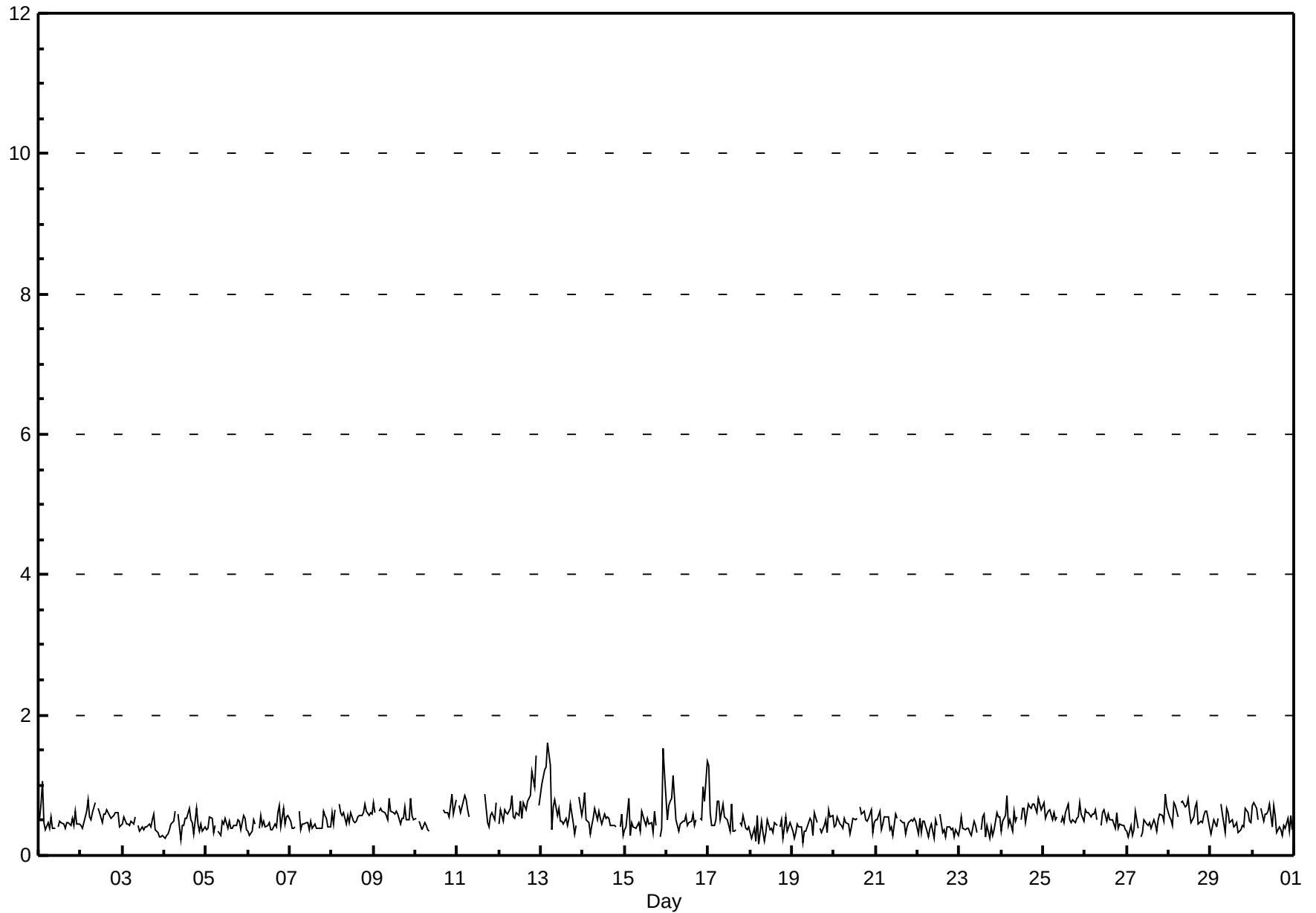
Total Reduced Sulphur (TRS) - ppb

Smoky Heights - September 2015

Maximum Value: 1.6 ppb on Sep 13 05:00																				Maximum Daily Average: 0.7 ppb on Sep 13										Hours in Service: 720			
Minimum Value: 0 ppb on Sep 18 06:00																				Minimum Daily Average: 0.4 ppb on Sep 18										Hours of Data: 674			
Maximum Diurnal Average: 0.6 ppb at hour 22																				Minimum Diurnal Average: 0.5 ppb at hour 10										Hours of Missing Data: 46			
Monthly Average: 0.52 ppb																				Percentiles: P ₁ = 0.2 P ₁₀ = 0.3 Q ₁ = 0.4 Median = 0.5 Q ₃ = 0.6 P ₉₀ = 0.7 P ₉₉ = 1.2										Hours of Calibration: 46			
																														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-Sep	1	1	1	0	0	0	0	1	0	0	A	0	0	0	0	0	0	0	0	1	0	1	0	0	0.5	1.0							
2-Sep	0	0	0	1	1	1	1	1	1	A	1	1	0	1	1	1	1	1	1	1	1	1	0	0	0.6	0.8							
3-Sep	0	1	0	0	0	0	0	1	A	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0.4	0.6							
4-Sep	0	0	0	0	0	0	1	A	1	0	0	0	1	1	1	0	0	0	1	0	0	0	0	0	0.4	0.7							
5-Sep	0	0	1	1	0	0	A	0	0	0	0	1	0	0	0	0	0	0	1	0	0	1	1	0	0.4	0.6							
6-Sep	0	0	0	1	0	A	0	1	0	0	0	0	0	0	0	0	0	1	1	0	1	0	1	1	0.5	0.7							
7-Sep	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0.4	0.6							
8-Sep	1	0	1	A	1	1	1	1	0	1	0	1	0	0	0	1	1	1	1	1	1	1	1	1	0.6	0.7							
9-Sep	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	1	0.6	0.8							
10-Sep	1	A	0	0	0	0	0	0	0	C	C	C	C	C	C	C	C	1	1	1	1	1	1	1	--	0.9							
11-Sep	A	1	1	1	1	1	1	1	C	C	C	C	C	C	C	C	C	1	0	0	1	1	1	1	A	--	0.9						
12-Sep	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.7	1.4							
13-Sep	1	1	1	1	2	1	0	1	1	1	1	0	0	0	1	0	1	1	0	0	0	A	1	1	0.7	1.6							
14-Sep	1	1	0	0	0	0	1	1	1	1	1	0	1	1	1	1	0	0	0	0	A	0	1	0	0.5	0.9							
15-Sep	0	0	1	0	0	0	0	0	0	0	1	0	0	1	0	0	0	1	0	A	0	0	2	1	0.5	1.5							
16-Sep	1	1	1	1	1	1	0	0	0	0	0	1	0	0	0	1	0	1	A	1	1	1	1	1	0.6	1.3							
17-Sep	1	1	0	0	1	1	1	1	1	1	1	1	0	1	0	0	0	A	0	0	1	0	0	0	0.5	1.3							
18-Sep	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	A	0	1	0	1	0	0	0.4	0.6							
19-Sep	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	A	0	0	0	1	0	1	1	1	0.4	0.6							
20-Sep	0	0	1	0	0	0	1	0	0	0	0	1	1	1	A	1	1	1	1	0	1	1	0	0	0.5	0.7							
21-Sep	1	0	1	0	0	1	1	1	0	0	0	1	1	A	1	0	0	0	0	0	1	0	1	0	0.5	0.6							
22-Sep	0	1	0	0	0	0	0	0	0	0	1	0	A	1	0	0	0	0	0	0	0	0	0	0	0.4	0.6							
23-Sep	0	1	0	0	0	0	0	0	0	0	0	A	0	1	1	0	0	0	0	0	0	1	1	1	0.4	0.6							
24-Sep	0	0	1	1	0	1	0	1	0	1	A	1	1	1	0	1	1	1	1	1	1	1	1	1	0.6	0.8							
25-Sep	1	1	1	1	1	1	1	1	1	A	0	1	0	1	1	0	0	1	0	1	1	1	1	0	0.6	0.8							
26-Sep	1	1	1	1	1	1	1	1	A	0	1	1	0	1	1	1	0	0	1	0	0	0	0	0	0.5	0.7							
27-Sep	0	0	0	0	0	1	0	A	0	0	1	0	0	0	0	1	0	0	1	1	1	0	1	1	0.5	0.9							
28-Sep	1	1	0	1	1	1	A	1	1	1	1	1	1	0	1	1	1	0	0	0	1	1	1	0	0.6	0.8							
29-Sep	0	0	1	0	1	A	1	1	0	1	1	0	1	0	0	0	0	0	0	0	1	1	0	0	0.5	0.7							
30-Sep	1	1	1	1	A	1	0	1	1	1	1	0	1	1	0	0	0	0	0	0	1	0	1	0	0.5	0.8							
0.5 0.5 0.6 0.5 0.6 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.6 0.6 0.5																									Diurnal Average								
1.3 1.1 1.2 1.3 1.6 1.3 0.8 0.9 0.8 0.8 0.7 0.8 0.8 0.7 0.8 0.7 0.9 0.8 0.8 1.2 1.0 1.4 1.5 1.3																									Diurnal Maximum								
C - Calibration																									A - Automated Daily Zero Span								

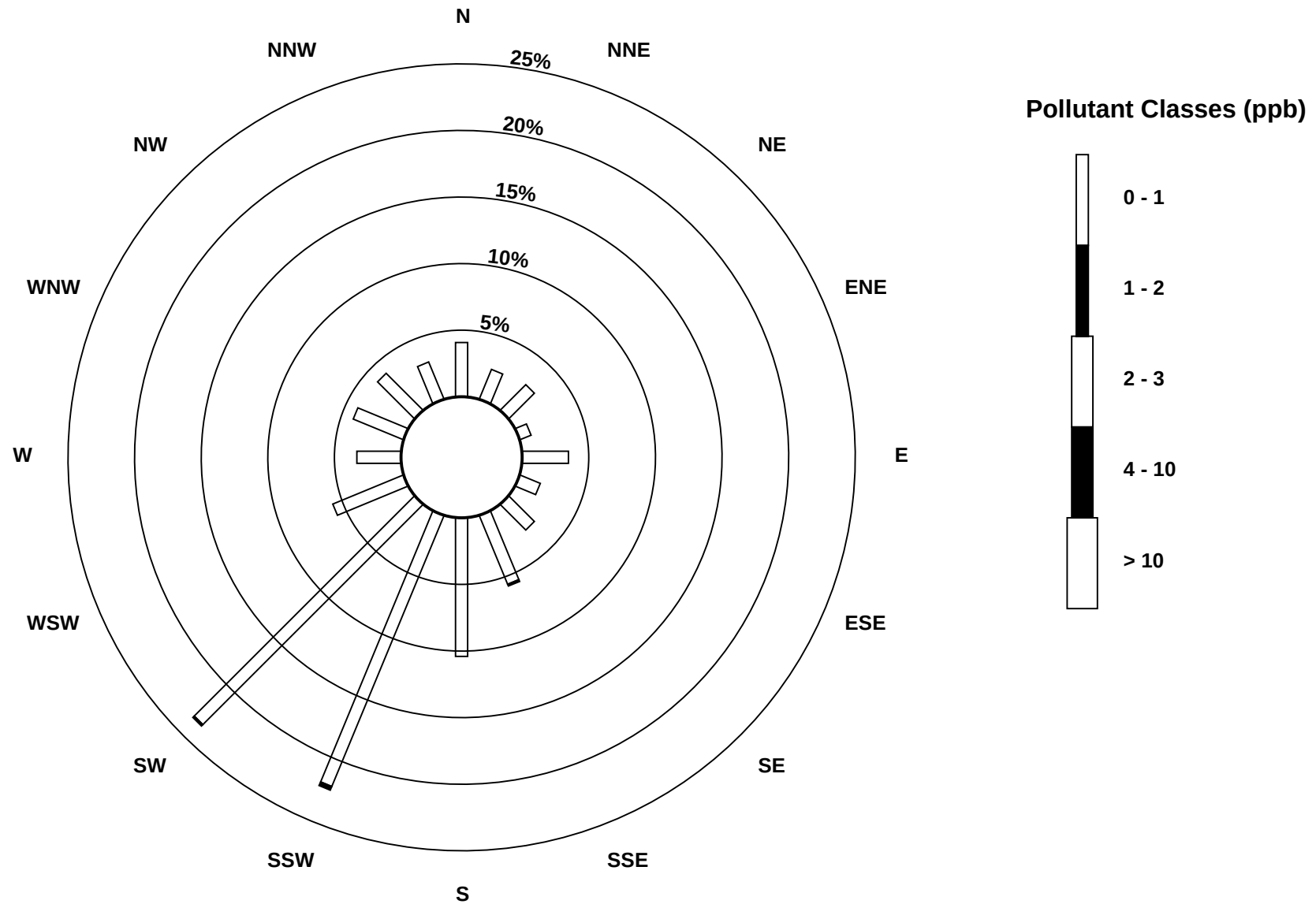
Hourly Maximums

Total Reduced Sulphur (TRS) - ppb
Smoky Heights - September 2015



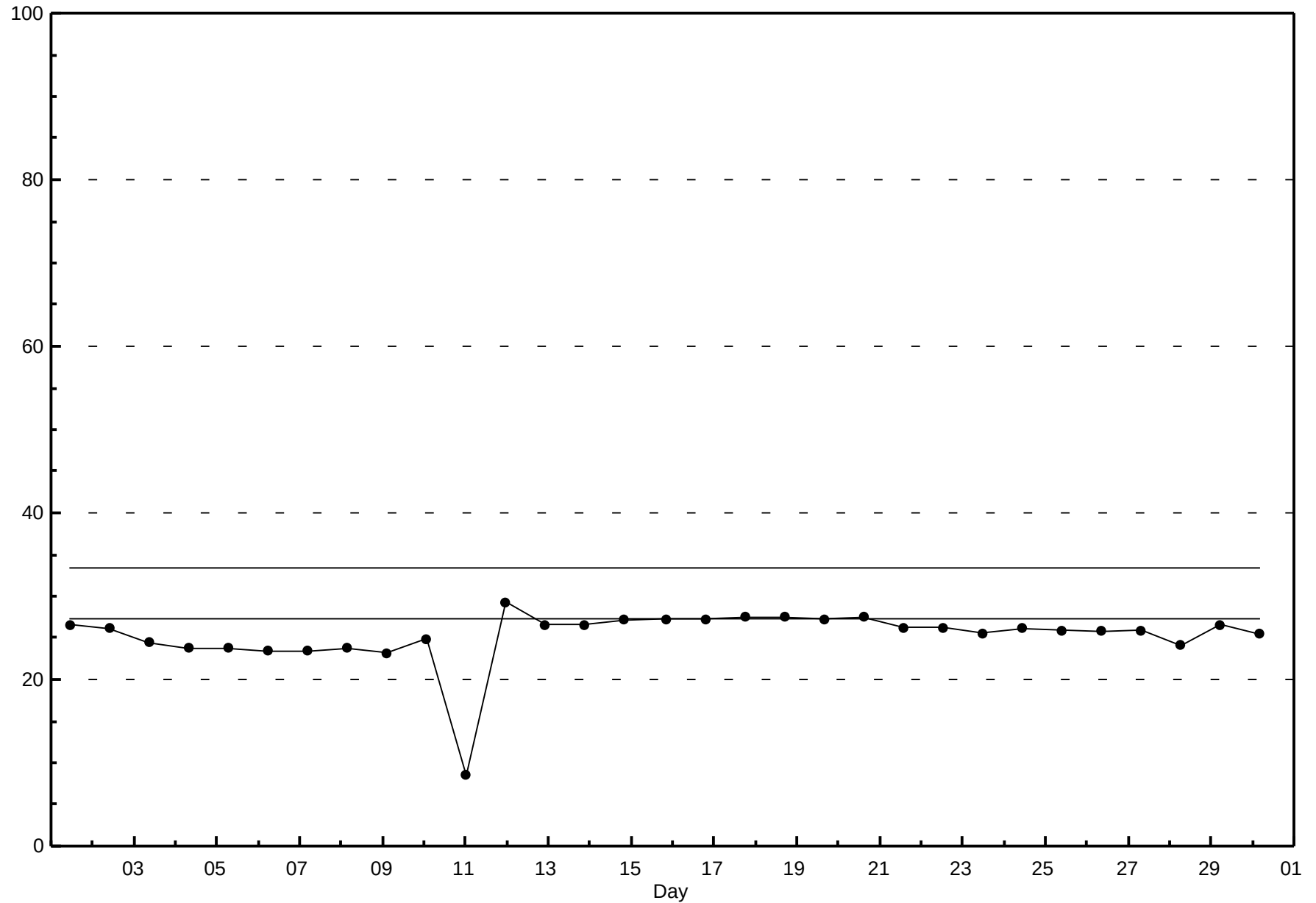
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb
Smoky Heights - September 2015



Span Responses

Total Reduced Sulphur (TRS)
Smoky Heights - September 2015



Hourly Averages

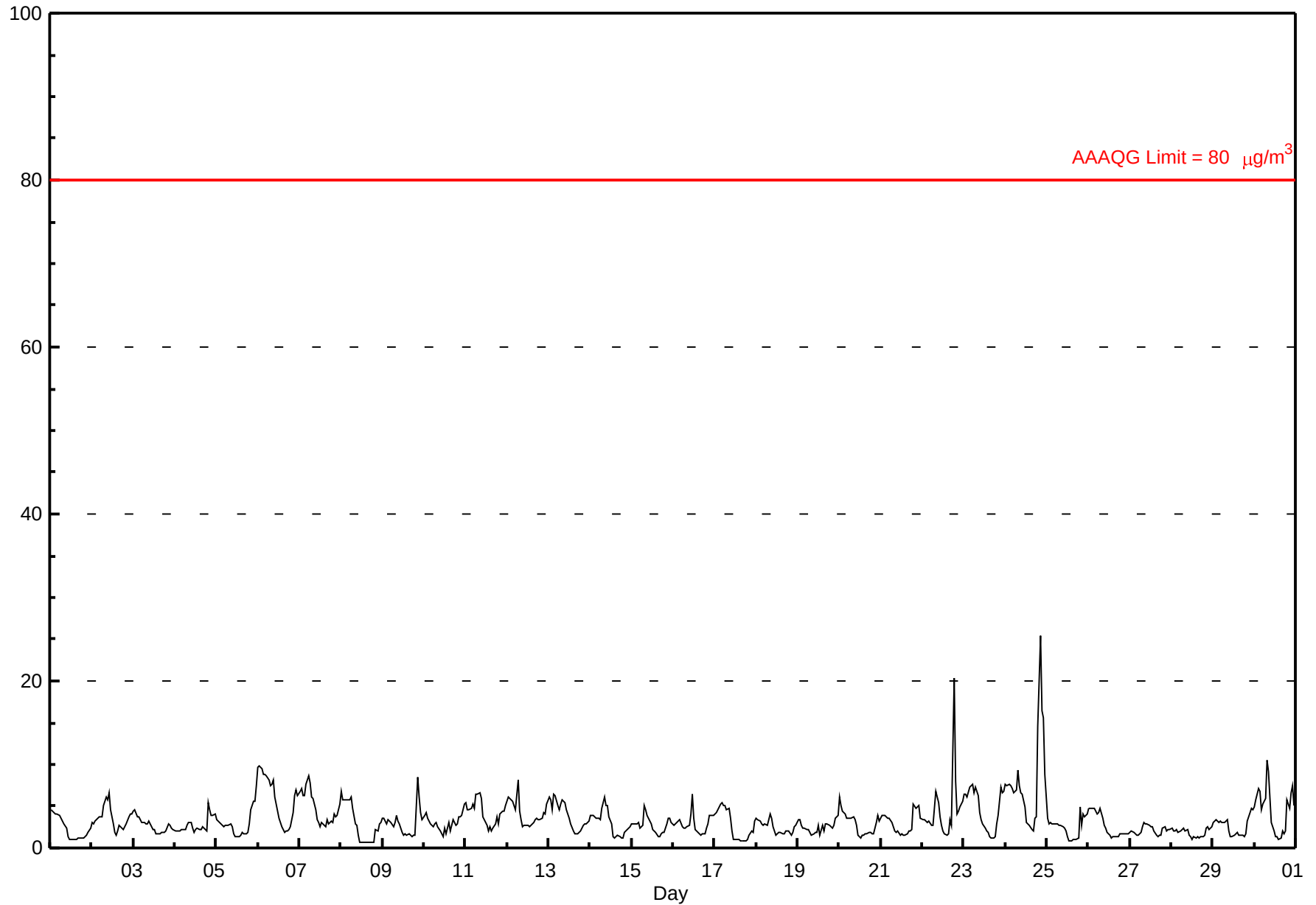
Particulate Matter 2.5 (PM_{2.5}) - µg/m³

Smoky Heights - September 2015

Number of Exceedences: 1-hr: 0 24-hr: 0 Maximum Value: 25.4 µg/m ³ on Sep 24 21:00 Minimum Value: 1 µg/m ³ on Sep 8 13:00 Maximum Diurnal Average: 4.4 µg/m ³ at hour 1 Monthly Average: 3.38 µg/m ³																								Hours in Service: 720 Hours of Data: 720 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0		
Maximum Daily Average: 7.7 µg/m ³ on Sep 24 Minimum Daily Average: 1.8 µg/m ³ on Sep 28 Minimum Diurnal Average: 1.7 µg/m ³ at hour 16 Percentiles: P ₁ = 0.8 P ₁₀ = 1.4 Q ₁ = 1.9 Median = 2.9 Q ₃ = 4.1 P ₉₀ = 6.1 P ₉₉ = 9.3																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Sep	5	4	4	4	4	4	4	3	3	2	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2.3	4.6
2-Sep	3	3	3	4	4	4	4	5	6	6	7	5	3	2	1	2	3	2	2	3	3	4	4	4	3.6	6.6
3-Sep	4	5	4	4	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	3	3	2	2	2.7	4.5
4-Sep	2	2	2	2	2	2	2	3	3	3	2	2	2	2	2	2	3	2	2	5	5	4	4	4	2.7	5.4
5-Sep	3	3	3	3	3	3	3	3	3	3	2	1	1	1	1	2	2	2	2	3	5	6	6	7	2.9	7.4
6-Sep	10	10	9	9	9	9	8	7	8	8	6	4	3	3	3	2	2	2	2	2	4	6	7	6	5.9	9.8
7-Sep	7	7	6	6	8	9	8	6	6	5	3	3	3	3	3	3	3	3	3	3	4	4	4	5	4.7	8.7
8-Sep	7	6	6	6	6	6	6	5	3	3	2	1	1	1	1	1	1	1	1	1	2	2	3	3	2.9	6.8
9-Sep	4	4	3	3	3	3	3	3	4	3	3	2	2	2	2	2	1	1	1	2	9	6	4	3	3.0	8.5
10-Sep	4	4	4	3	3	3	3	3	3	2	2	1	2	2	3	2	3	3	3	3	4	4	4	5	3.0	5.2
11-Sep	5	5	5	5	5	5	6	6	7	6	4	3	3	2	3	2	2	3	4	3	4	4	4	5	4.2	6.6
12-Sep	6	6	6	6	5	5	8	4	3	3	3	3	3	3	3	3	3	4	3	3	4	4	4	5	4.1	8.2
13-Sep	6	6	5	6	6	5	5	5	6	5	5	4	4	3	2	2	2	2	2	2	3	3	3	3	3.9	6.4
14-Sep	4	4	4	4	4	4	3	5	6	5	5	4	3	1	1	1	1	1	1	1	2	2	2	3	3.0	6.0
15-Sep	3	3	3	3	3	2	3	5	5	4	4	3	2	2	2	1	1	2	2	2	3	3	4	3	2.8	5.0
16-Sep	3	3	3	3	3	3	2	2	3	3	4	6	4	2	2	2	2	2	2	2	3	4	4	4	2.9	6.5
17-Sep	4	4	5	5	5	5	5	5	5	4	2	1	1	1	1	1	1	1	1	1	2	2	2	3	2.7	5.4
18-Sep	4	3	3	3	3	3	3	3	4	4	3	2	2	2	2	2	2	2	2	2	2	2	3	3	2.5	4.1
19-Sep	3	3	3	2	2	2	2	2	2	2	2	3	2	3	2	3	3	3	3	3	2	3	3	4	2.5	3.9
20-Sep	6	5	4	4	4	4	4	3	4	3	3	2	1	1	1	2	2	2	2	2	2	3	4	3	2.9	6.2
21-Sep	4	4	4	4	3	3	3	2	2	2	2	2	2	1	2	2	2	2	2	5	5	5	5	4	3.0	5.3
22-Sep	3	3	3	3	3	3	3	5	7	5	4	3	2	2	2	2	3	3	20	8	4	4	5	6	4.4	20.3
23-Sep	6	6	6	7	7	8	7	7	6	4	3	3	2	2	2	1	1	1	1	3	4	7	7	7	4.6	7.7
24-Sep	8	7	8	7	7	7	7	9	7	7	6	5	3	3	3	2	2	4	4	15	25	16	16	9	7.7	25.4
25-Sep	3	3	3	3	3	3	3	3	3	2	2	2	1	1	1	1	1	1	1	5	3	4	4	4	2.5	4.9
26-Sep	5	5	5	5	4	4	4	5	4	3	2	2	2	1	1	1	1	1	2	2	2	2	2	2	2.7	4.8
27-Sep	2	2	2	2	2	2	2	2	3	3	3	3	2	2	2	2	1	1	2	2	2	2	2	2	2.1	3.0
28-Sep	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	2	2	3	2	2	1.8	2.6
29-Sep	3	3	3	3	3	3	3	3	3	2	1	1	2	2	2	2	2	2	1	2	3	4	5	5	2.6	4.8
30-Sep	5	6	7	7	5	5	6	10	9	6	3	2	1	1	1	1	2	2	2	6	5	7	7	5	4.7	10.5
4.4 4.4 4.2 4.2 4.2 4.0 4.1 4.4 4.3 3.7 3.1 2.5 2.1 1.8 1.8 1.7 1.9 1.9 2.6 3.2 4.0 4.1 4.2 4.1 9.6 9.8 9.5 8.9 8.8 8.7 8.2 10.5 9.2 8.2 6.6 6.5 3.6 3.0 3.1 3.0 3.5 3.5 20.3 14.5 25.4 16.4 15.6 8.7																								Diurnal Average		
																								Diurnal Maximum		
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 µg/m ³ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 µg/m ³																										

Hourly Averages

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Smoky Heights - September 2015



Hourly Maximums

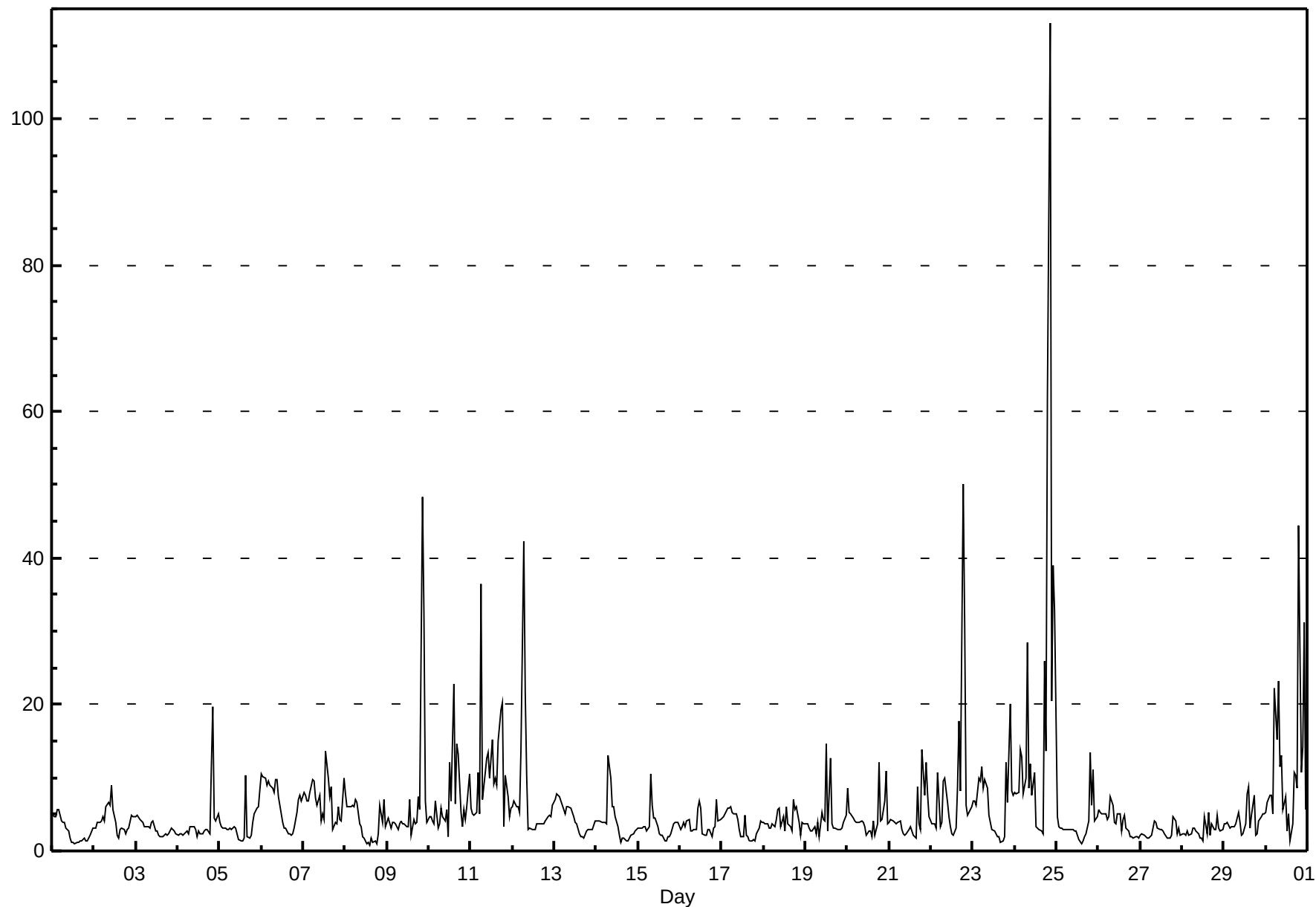
Particulate Matter 2.5 (PM_{2.5}) - µg/m³

Smoky Heights - September 2015

Maximum Value: 113.1 µg/m ³ on Sep 24 21:00																								Hours in Service: 720		
Maximum Daily Average: 19.1 µg/m ³ on Sep 24																								Hours of Data: 720		
Minimum Value: 1 µg/m ³ on Sep 8 15:00																								Hours of Missing Data: 0		
Maximum Diurnal Average: 10.3 µg/m ³ at hour 21																								Hours of Calibration: 0		
Monthly Average: 5.57 µg/m ³																								Percent Operational Time: 100.0		
Minimum Daily Average: 2.6 µg/m ³ on Sep 27																								Daily Average		
Minimum Diurnal Average: 3.6 µg/m ³ at hour 16																										
Percentiles: P ₁ = 1.2 P ₁₀ = 1.9 Q ₁ = 2.7 Median = 3.9 Q ₃ = 6.1 P ₉₀ = 10.0 P ₉₉ = 36.8																								Daily Maximum		
Day	Hourly Period Ending At (MST)																									
	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-Sep	5	5	5	6	6	4	4	4	3	3	2	1	1	1	1	1	1	1	2	1	1	2	2	3	2.7	5.6
2-Sep	3	3	4	4	4	5	4	6	7	6	9	6	4	2	2	3	3	3	2	3	3	5	5	5	4.2	9.0
3-Sep	5	5	4	4	4	3	3	3	3	4	4	3	3	2	2	2	2	2	2	2	3	3	3	2	3.1	4.9
4-Sep	2	2	2	2	2	3	2	3	3	3	3	2	3	2	2	3	3	3	2	11	20	4	4	5	4.0	19.8
5-Sep	4	3	3	3	3	3	3	3	3	3	2	2	1	1	2	10	2	2	2	4	5	6	6	8	3.6	10.2
6-Sep	10	10	10	9	10	9	9	8	10	10	7	5	4	3	3	2	2	2	2	3	5	7	8	7	6.5	10.5
7-Sep	8	8	7	7	8	10	9	7	6	8	4	5	4	14	10	7	9	3	4	4	6	4	4	10	6.9	13.6
8-Sep	8	6	6	6	6	6	7	7	4	3	2	2	1	1	1	2	1	1	1	2	6	4	7	3	3.9	7.8
9-Sep	4	4	3	4	4	4	3	4	4	4	4	3	3	7	2	4	4	4	7	6	48	32	7	4	7.2	48.3
10-Sep	5	5	4	4	7	3	4	6	5	4	6	2	12	7	23	6	15	13	5	3	6	4	6	10	6.8	22.8
11-Sep	6	5	5	5	11	5	36	7	11	13	13	10	15	9	10	9	15	19	20	3	10	7	5	6	10.7	36.4
12-Sep	6	7	6	6	5	14	42	22	10	3	3	3	3	3	4	4	4	4	4	4	5	5	5	6	7.3	42.2
13-Sep	7	8	8	7	7	6	5	6	6	6	5	5	4	4	2	2	2	2	3	3	3	3	3	4	4.5	7.8
14-Sep	4	4	4	4	4	4	4	13	10	6	6	5	3	2	1	2	2	1	1	2	2	2	3	3	3.9	13.2
15-Sep	3	3	3	3	3	3	3	10	6	4	4	3	2	2	2	1	1	2	2	2	4	4	4	4	3.4	10.5
16-Sep	3	3	4	3	4	4	3	3	3	3	6	7	6	2	2	2	3	3	2	3	3	7	4	4	3.7	7.1
17-Sep	4	5	5	6	6	6	5	5	5	4	3	2	2	5	2	2	1	1	2	1	2	3	4	4	3.6	6.1
18-Sep	4	4	4	3	3	4	3	4	6	6	3	5	3	6	4	3	3	7	6	6	4	2	4	4	4.1	7.0
19-Sep	4	4	3	3	3	3	2	4	2	5	4	4	15	3	13	4	3	3	3	3	3	3	4	5	4.2	14.6
20-Sep	9	5	5	4	4	4	4	4	4	4	3	2	3	3	2	4	2	4	12	4	4	7	11	4	4.7	12.2
21-Sep	4	4	4	4	4	4	4	3	2	2	2	3	3	3	2	2	9	4	3	14	8	12	8	5	4.7	13.9
22-Sep	4	4	4	3	11	3	4	9	10	7	5	3	2	2	3	9	18	8	50	31	6	5	5	6	8.8	50.0
23-Sep	7	7	6	10	9	11	9	10	9	5	4	3	3	2	2	2	1	1	2	12	7	20	8	8	6.6	20.0
24-Sep	8	8	8	14	13	8	10	29	9	12	8	11	3	3	3	3	2	26	14	62	113	20	39	33	19.1	113.1
25-Sep	5	3	3	3	3	3	3	3	3	3	3	3	2	2	1	1	2	2	4	13	6	11	4	5	3.8	13.4
26-Sep	6	5	5	5	5	4	5	7	6	4	4	5	5	3	4	5	3	3	2	2	2	2	2	2	4.0	7.3
27-Sep	2	2	2	2	2	2	2	3	4	4	3	3	3	3	2	2	2	2	2	5	4	2	3	2	2.6	4.6
28-Sep	2	2	2	3	2	2	3	3	3	2	2	2	1	5	2	5	2	4	3	3	5	3	3	3	2.8	5.3
29-Sep	4	4	4	3	3	3	3	4	5	4	2	2	4	8	9	3	5	8	2	2	4	5	5	5	4.2	8.8
30-Sep	5	7	8	8	5	22	15	23	11	13	6	7	3	5	1	4	11	10	9	44	11	14	31	6	11.6	44.4
5.0 4.8 4.7 4.9 5.4 5.5 7.2 7.4 5.8 5.3 4.4 3.9 4.1 3.8 4.0 3.6 4.4 4.9 5.8 8.7 10.3 7.0 6.8 5.8																									Diurnal Average	
10.5 10.2 10.0 13.9 12.9 22.2 42.2 28.5 11.5 13.2 13.4 10.7 15.1 13.6 22.8 10.2 17.8 25.9 50.0 62.0 113.1 32.5 39.1 32.9																										Diurnal Maximum

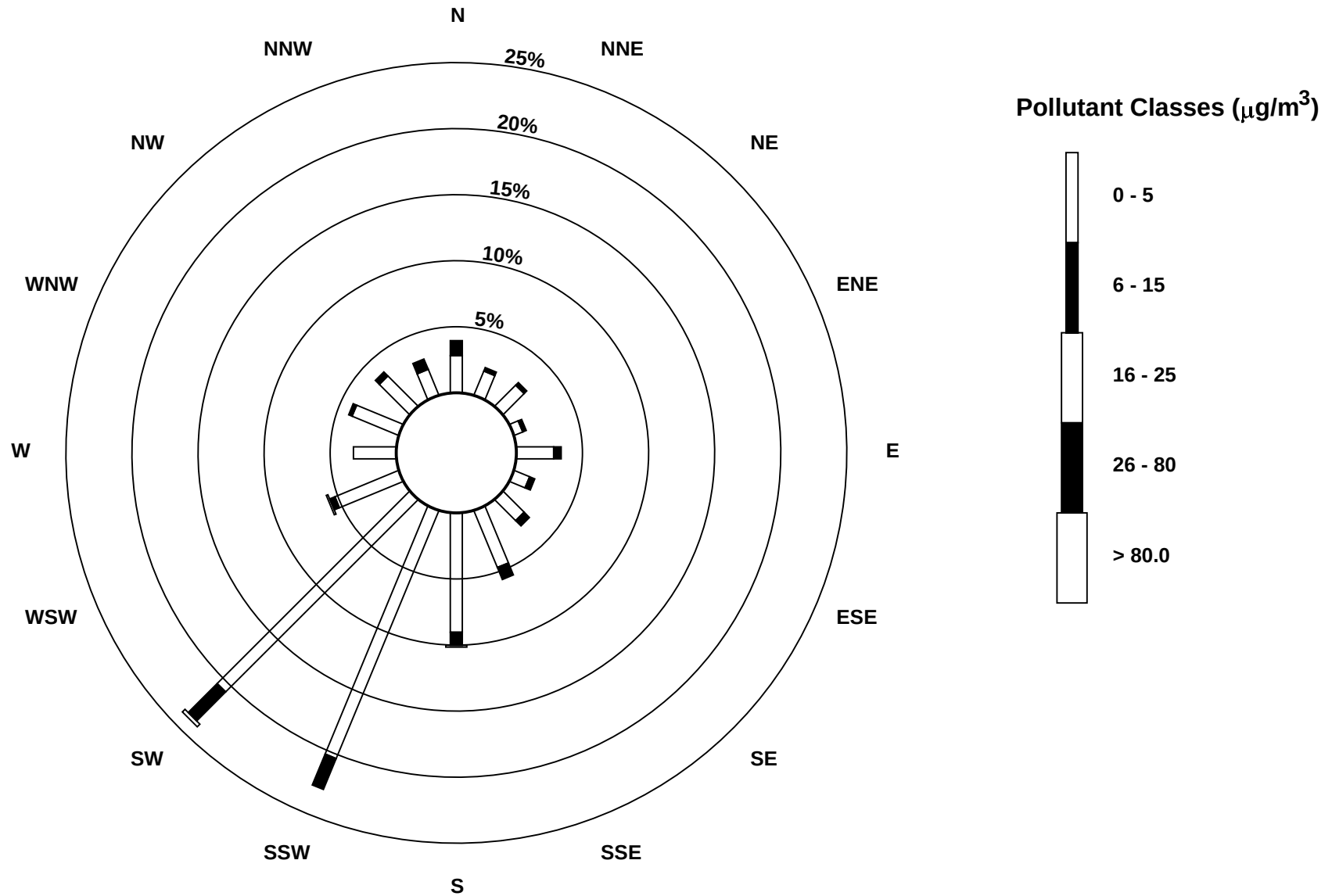
Hourly Maximums

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Smoky Heights - September 2015



Pollutant Rose

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Smoky Heights - September 2015



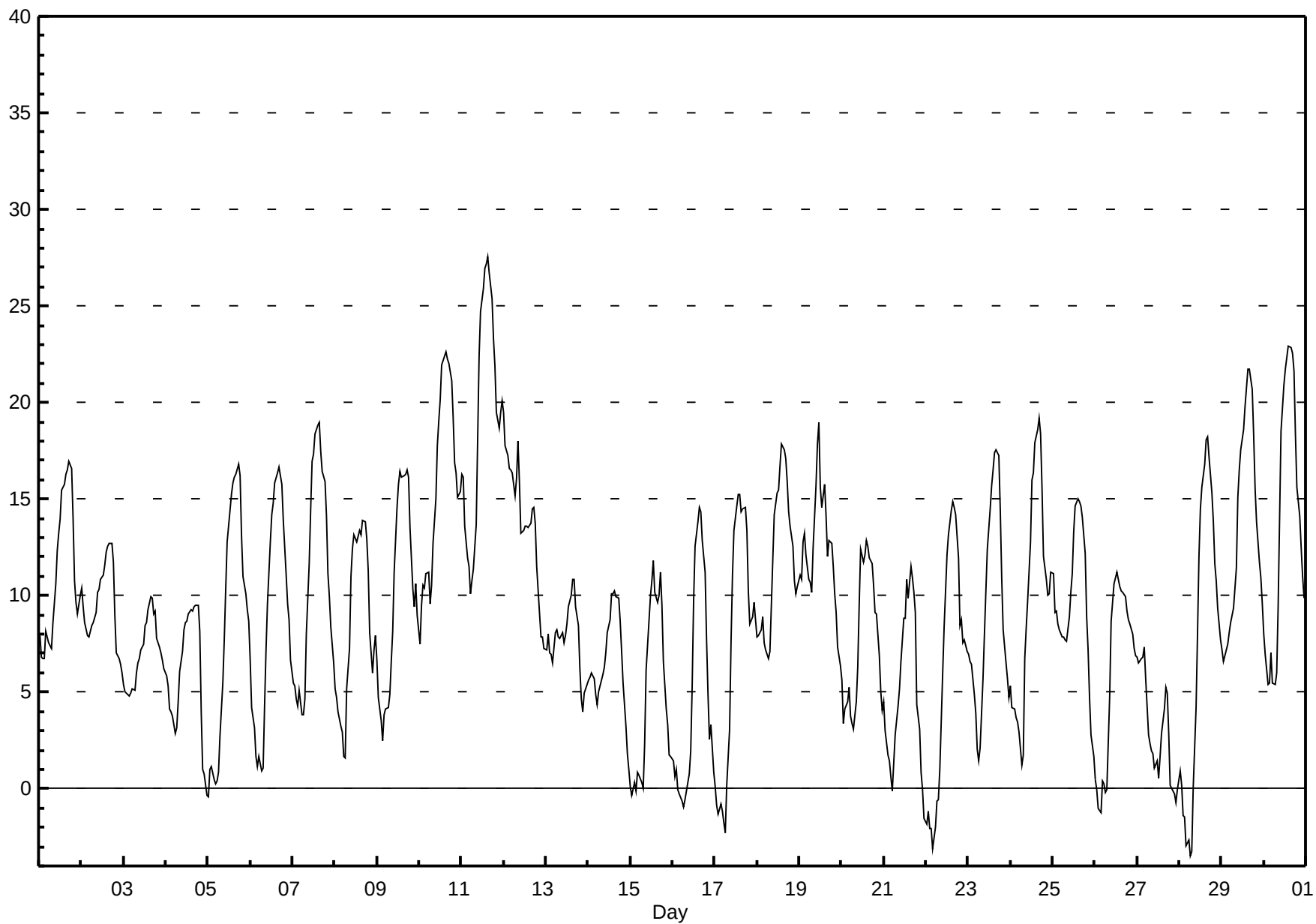
Hourly Averages

External Temperature (ET) - °C
Smoky Heights - September 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 27.5 °C on Sep 11 16:00 Maximum Daily Average: 19.3 °C on Sep 11																								Hours in Service: 720 Hours of Data: 720 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0		
Minimum Value: -3 °C on Sep 28 07:00 Minimum Daily Average: 3.0 °C on Sep 27 Maximum Diurnal Average: 15.0 °C at hour 16 Minimum Diurnal Average: 4.3 °C at hour 7 Monthly Average: 9.23 °C Percentiles: P ₁ = -2.1 P ₁₀ = 1.0 Q ₁ = 5.1 Median = 9.0 Q ₃ = 13.4 P ₉₀ = 16.7 P ₉₉ = 24.2																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Sep	8	7	7	7	8	8	7	7	9	11	12	13	14	15	16	16	16	17	17	14	11	10	9	10	11.2	16.9
2-Sep	10	9	9	8	8	8	8	9	9	10	10	11	11	12	12	13	13	13	12	9	7	7	6	6	9.6	12.7
3-Sep	5	5	5	5	5	5	5	6	7	7	7	7	8	9	9	10	10	9	9	8	7	7	7	6	7.0	9.9
4-Sep	6	5	4	4	4	3	3	4	6	7	8	9	9	9	9	9	9	10	10	8	4	1	1	0	5.9	9.5
5-Sep	0	1	1	0	0	0	1	3	6	8	10	13	14	15	16	16	16	17	16	13	11	10	9	9	8.6	16.8
6-Sep	7	4	3	2	1	2	1	1	4	7	10	13	14	15	16	16	17	16	16	14	11	10	9	7	8.9	16.6
7-Sep	5	5	5	4	5	4	4	5	8	12	14	17	17	18	19	19	17	16	16	14	11	10	8	7	10.9	19.0
8-Sep	5	5	4	3	3	2	2	5	7	11	12	13	13	13	13	13	14	14	13	11	8	6	7	8	8.6	13.9
9-Sep	7	5	4	3	4	4	4	5	7	8	11	15	16	16	16	16	16	16	16	14	10	9	11	9	10.1	16.5
10-Sep	7	9	11	10	11	11	10	11	13	15	18	19	20	22	22	23	22	22	21	19	17	16	15	15	15.9	22.6
11-Sep	16	16	14	12	12	10	11	11	14	18	22	25	26	27	27	28	27	25	23	22	19	19	19	20	19.3	27.5
12-Sep	20	18	17	17	16	16	15	16	18	16	13	13	14	14	13	14	14	15	14	11	9	8	8	7	14.0	19.5
13-Sep	7	8	7	7	7	8	8	8	8	8	8	8	9	9	10	11	11	9	8	6	5	4	5	5	7.7	10.9
14-Sep	6	6	6	6	5	4	5	5	6	6	7	8	9	10	10	10	10	10	9	7	5	3	2	1	6.5	10.3
15-Sep	0	0	0	0	1	1	0	0	2	6	7	10	11	12	10	10	10	11	10	7	4	3	2	2	4.9	11.8
16-Sep	1	1	1	0	0	-1	-1	-1	0	1	2	5	10	13	14	15	14	13	11	8	5	3	3	1	4.9	14.6
17-Sep	0	-1	-1	-1	-1	-2	-2	0	3	8	11	13	15	15	15	14	15	15	13	10	9	9	10	9	7.3	15.3
18-Sep	8	8	8	9	8	7	7	7	10	12	14	15	15	17	18	18	17	16	14	14	13	11	10	10	11.9	17.8
19-Sep	11	11	13	13	12	11	11	10	12	16	18	19	16	15	16	14	12	13	13	12	10	9	7	6	12.4	19.0
20-Sep	6	3	4	5	5	4	3	3	5	6	9	12	12	12	13	13	12	12	11	9	9	7	5	4	7.6	12.9
21-Sep	4	3	2	1	1	0	3	4	4	5	7	9	9	11	10	12	11	10	9	4	3	1	0	-2	5.0	11.5
22-Sep	-2	-1	-2	-2	-3	-2	-1	-1	1	6	8	10	12	13	14	15	15	14	12	8	9	8	8	7	6.1	14.8
23-Sep	7	7	6	5	4	2	1	2	6	8	10	12	14	16	16	17	18	17	14	11	8	7	6	5	9.2	17.5
24-Sep	5	4	4	4	3	3	1	2	7	8	10	13	16	16	18	19	19	18	16	12	11	10	10	11	10.0	19.2
25-Sep	11	9	9	9	8	8	8	8	8	9	10	11	13	15	15	15	15	14	12	9	7	5	3	2	9.6	15.0
26-Sep	0	0	-1	-1	0	0	0	0	5	9	10	11	11	11	11	10	10	10	9	9	9	8	7	7	6.0	11.2
27-Sep	7	6	7	7	7	6	3	2	2	2	1	1	1	2	3	4	5	5	3	0	0	0	-1	0	3.0	7.4
28-Sep	1	0	-1	-1	-3	-3	-3	-3	0	4	8	12	14	16	17	18	18	17	15	14	12	11	9	8	7.5	18.2
29-Sep	7	7	7	8	8	9	9	9	11	15	17	18	19	20	21	22	22	21	18	16	14	12	11	10	13.6	21.8
30-Sep	8	7	5	5	7	5	5	6	9	14	19	21	22	22	23	23	23	22	18	16	14	13	11	10	13.7	22.9
	6.2	5.6	5.2	4.9	4.9	4.5	4.3	4.8	6.8	9.1	10.8	12.6	13.4	14.3	14.8	15.0	14.9	14.6	13.3	10.9	9.1	7.8	7.3	6.6	Diurnal Average	
	19.5	17.8	17.2	16.6	16.5	16.4	15.2	16.0	18.0	18.1	22.4	24.7	25.9	27.0	27.2	27.5	26.7	25.4	23.3	21.9	19.5	18.7	19.5	20.1	Diurnal Maximum	

Hourly Averages

External Temperature (ET) - °C
Smoky Heights - September 2015



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Smoky Heights - September 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	3	7	2	14	16	20	N	11	17	18	19	16	19	24	15	14	15	10	10	3	1	6	11	9.1	24.4
Dir	286	208	245	241	230	234	239	N	177	192	207	212	219	227	218	196	203	182	160	128	115	299	14	40	209.1	217.5
2 Spd	11	11	6	9	11	10	10	9	5	4	13	17	18	20	19	17	15	13	13	14	13	12	14	13	7.3	20.5
Dir	27	11	337	352	356	22	6	17	29	138	206	227	233	234	248	259	270	282	278	275	273	266	254	243	274.2	233.7
3 Spd	17	16	15	14	12	12	12	9	9	8	7	7	9	10	11	11	11	12	11	10	12	13	16	15	8.4	17.1
Dir	216	221	214	216	213	218	234	265	289	353	360	335	317	317	309	309	307	301	308	294	287	287	290	296	275.2	216.2
4 Spd	13	9	2	3	6	8	9	8	8	9	9	8	11	11	11	8	8	7	4	2	3	3	2	2	4.6	13.0
Dir	298	307	60	207	237	231	227	218	204	192	191	198	151	172	182	189	180	191	217	20	344	320	296	248	210.0	298.3
5 Spd	1	2	2	3	7	8	8	6	11	11	11	9	8	9	11	10	8	9	12	11	11	8	9	8	5.9	12.0
Dir	244	216	218	225	214	203	217	206	161	157	153	143	125	100	101	106	91	110	105	93	91	91	94	103	129.2	105.4
6 Spd	3	2	2	4	3	3	2	1	1	5	7	3	6	4	0	8	7	8	6	4	8	5	3	6	1.8	8.0
Dir	55	331	346	313	342	343	325	190	150	101	103	92	96	92	206	325	358	45	53	26	101	141	158	230	53.3	100.9
7 Spd	6	4	6	7	11	11	14	7	6	3	8	9	10	9	15	12	15	22	13	10	11	10	12	12	9.2	21.9
Dir	209	195	182	179	226	227	229	211	193	152	181	182	249	283	232	254	243	223	234	257	240	225	220	224	225.2	222.8
8 Spd	12	9	6	7	7	6	7	6	7	8	10	18	16	13	14	16	14	15	12	8	7	5	5	4	9.2	17.9
Dir	228	227	219	209	206	205	209	161	179	153	194	212	217	222	216	212	220	217	217	207	220	210	210	184	210.1	211.9
9 Spd	6	7	5	5	5	7	8	7	8	8	10	15	13	12	13	12	12	14	15	12	9	10	6	6	8.9	15.3
Dir	209	174	185	175	219	208	176	165	169	174	181	209	218	205	194	188	191	206	210	208	224	230	223	193	199.2	208.7
10 Spd	8	5	6	7	10	12	4	N	21	13	18	19	27	29	28	28	24	21	23	18	13	18	18	25	15.0	29.1
Dir	218	215	213	207	206	201	140	N	54	200	212	215	236	222	227	227	218	222	217	216	216	214	211	221	216.7	222.1
11 Spd	26	20	12	7	8	6	12	8	10	19	35	37	36	33	33	36	40	28	16	16	15	17	19	21	20.1	40.3
Dir	232	230	167	153	189	169	164	132	152	177	205	215	212	215	214	213	212	213	196	206	215	212	209	214	206.4	211.8
12 Spd	13	11	12	12	13	13	9	14	11	16	13	N	10	8	6	7	7	9	4	8	7	5	6	5	8.5	15.7
Dir	215	204	206	211	205	219	210	231	238	279	253	N	186	234	176	143	200	213	251	233	234	193	216	165	218.0	279.0
13 Spd	6	5	6	3	6	6	9	14	14	14	14	11	15	13	10	6	2	6	6	9	4	9	6	8	5.5	15.1
Dir	175	160	198	162	220	301	296	306	305	302	303	309	292	317	311	294	262	156	186	352	209	242	236	238	282.3	292.4
14 Spd	8	3	2	6	5	2	5	3	4	5	6	7	5	3	3	5	6	7	6	7	5	2	2	5	3.0	7.6
Dir	239	302	295	310	306	325	327	356	10	44	42	48	85	42	43	26	358	38	53	41	62	16	3	298	12.3	239.4
15 Spd	2	3	4	5	6	6	7	7	5	3	6	9	11	12	9	9	4	4	6	6	2	2	7	5	0.6	12.5
Dir	339	324	342	348	341	341	342	347	354	17	127	128	163	190	25	10	10	127	142	147	137	192	203	213	63.3	189.5
16 Spd	1	2	3	5	7	8	7	N	9	9	9	8	8	7	9	12	13	16	11	5	5	5	6	3	6.4	16.2
Dir	233	227	225	224	212	198	195	N	178	179	163	178	134	142	171	189	176	165	134	185	241	208	228	204	181.4	164.9
17 Spd	5	7	8	7	7	6	6	10	10	12	17	18	20	21	25	26	26	22	17	13	13	13	19	20	13.8	26.0
Dir	185	178	163	175	165	200	182	168	161	163	193	203	206	212	204	205	206	205	205	213	213	210	207	208	198.7	205.5
18 Spd	17	16	15	19	20	19	16	19	22	22	26	35	37	34	35	35	34	29	20	25	15	14	14	16	22.3	36.8
Dir	213	201	222	216	200	203	199	203	208	213	207	201	212	210	207	206	212	202	203	201	189	157	153	148	202.8	212.4
19 Spd	18	14	23	27	24	18	17	16	18	13	25	38	20	13	15	18	24	27	25	21	16	18	14	16	16.2	37.7
Dir	161	166	169	175	169	157	160	190	189	190	211	213	269	301	277	244	244	234	225	216	222	198	228	221	207.5	213.4
20 Spd	15	12	15	10	8	9	9	7	7	10	8	4	6	4	5	8	13	9	9	11	14	17	15	12	9.3	16.8
Dir	218	244	236	249	233	216	239	230	180	214	214	227	238	245	207	227	215	264	279	259	251	232	228	231	233.5	231.8
21 Spd	13	14	13	12	11	5	12	16	10	7	5	6	8	3	5	2	4	2	3	2	2	2	2	2	4.6	15.5
Dir	215	223	221	207	221	217	267	273	281	300	349	278	317	279	359	212	354	18	349	256	264	323	260	278	258.7	273.4
22 Spd	3	2	3	4	1	2	4	6	5	4	4	4	5	5	6	6	7	4	0	4	9	6	10	10	2.0	10.1
Dir	219	335	338	320	257	326	335	354	353	1	106	81	115	123	131	156	184	105	180	352	51	82	108	105	77.9	105.1



Hourly Averages

Wind Speed (km/h)

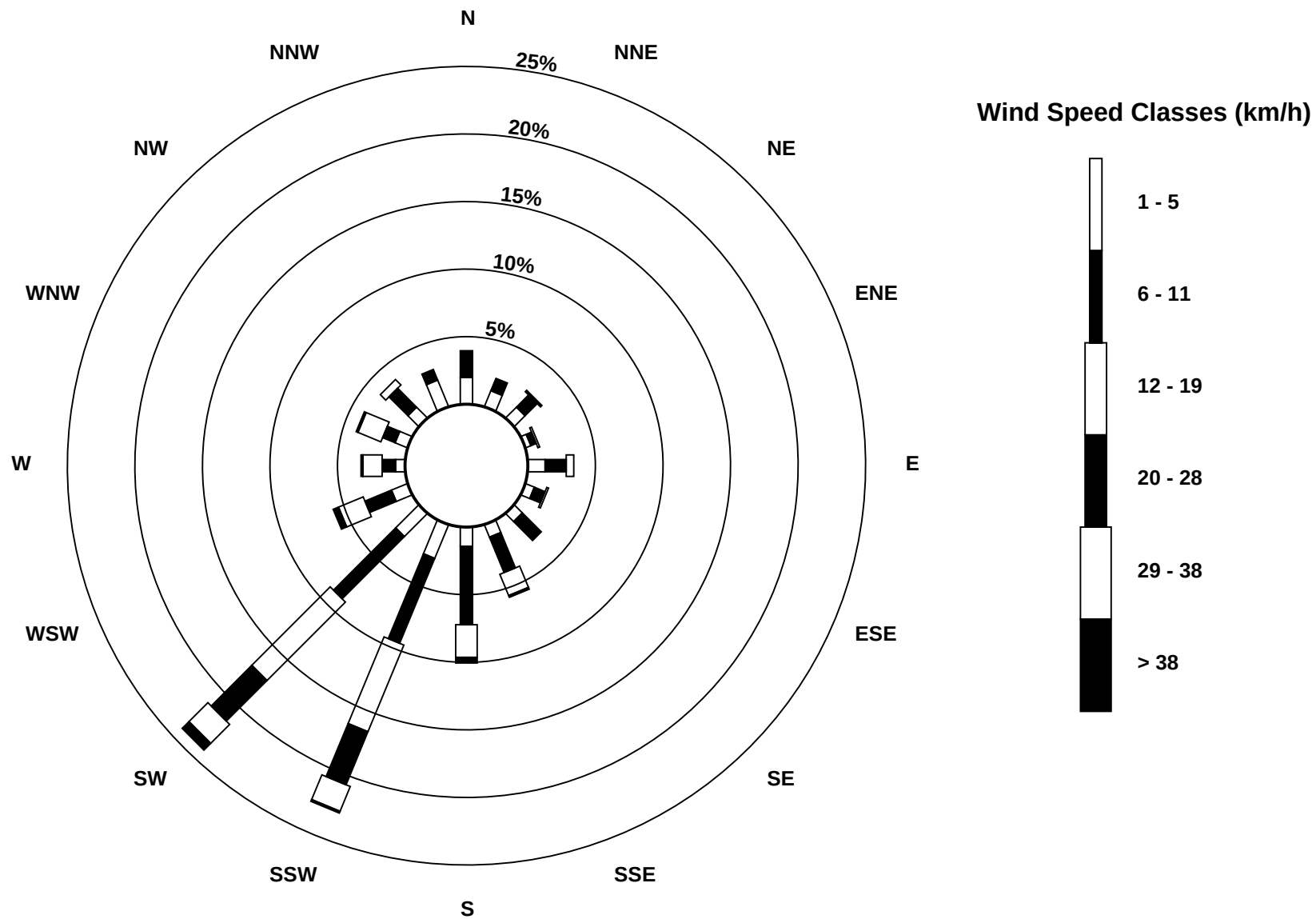
Wind Direction (deg)

Smoky Heights - September 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	9	7	8	5	5	2	5	5	2	6	3	5	4	4	3	3	6	5	9	5	3	1	5	11	2.7	11.0								
Dir	91	79	73	341	340	14	352	351	35	125	75	82	56	91	91	92	63	52	28	32	48	135	201	228	59.3	228.2								
24 Spd	7	2	5	3	3	4	4	3	6	6	7	9	16	19	19	15	14	10	8	9	11	9	14	12	1.8	19.0								
Dir	256	192	231	221	165	247	297	303	2	359	351	26	69	93	95	101	100	134	165	214	228	232	241	248	138.2	93.2								
25 Spd	18	19	21	20	20	17	18	18	14	16	24	21	18	24	25	27	26	24	16	14	12	10	10	10	17.1	27.1								
Dir	267	250	223	201	190	172	178	184	188	208	207	203	216	216	213	210	202	215	223	234	235	250	204	214	211.5	210.4								
26 Spd	9	9	7	9	10	10	9	11	19	31	39	38	42	38	40	41	46	38	36	33	31	31	28	28	26.1	46.5								
Dir	211	225	204	218	179	188	187	223	223	217	219	214	224	224	221	226	226	226	219	215	215	218	210	215	218.1	225.6								
27 Spd	29	26	25	23	19	17	18	20	14	10	9	11	21	21	20	19	18	8	4	5	6	5	6	3	12.0	29.4								
Dir	218	218	215	217	242	308	299	289	303	307	264	232	209	205	204	199	207	193	169	211	209	227	231	189	230.6	218.2								
28 Spd	4	4	5	6	6	7	7	6	N	10	11	16	21	21	16	20	25	26	23	21	15	16	15	12	13.3	26.1								
Dir	205	172	177	203	190	191	192	197	N	193	196	194	219	222	209	216	210	206	213	217	206	208	194	170	205.0	205.6								
29 Spd	12	9	4	6	10	8	8	N	N	N	N	N	N	N	7	16	19	23	25	23	19	19	16	11	8	12.5	24.6							
Dir	181	195	196	201	175	212	194	N	N	N	N	N	N	N	320	231	223	215	216	225	228	225	227	228	202	216.9	216.1							
30 Spd	9	9	9	9	7	7	5	5	8	9	12	21	28	32	32	36	33	25	13	14	11	11	10	10	14.6	36.1								
Dir	202	230	219	197	177	189	193	216	192	171	157	195	205	212	210	216	215	215	210	216	246	229	233	228	209.5	215.6								
Spd	7.5	6.3	6.5	6.4	7.0	5.9	5.5	4.9	4.2	6.1	9.5	11.5	11.5	10.9	11.6	12.3	12.8	11.7	8.7	7.7	7.0	7.7	7.8	7.7	Diurnal Average									
Dir	218.8	219.4	208.6	210.5	209.1	213.4	221.5	229.8	205.3	202.3	204.7	207.2	215.9	217.4	213.8	215.0	215.0	211.1	212.2	220.2	221.9	218.6	216.5	214.3	Diurnal Maximum									
Spd	29.4	26.4	24.9	27.0	23.6	19.3	19.5	20.5	22.2	30.6	39.2	38.0	42.1	38.3	40.1	40.9	46.5	38.4	36.1	33.3	31.4	31.1	28.4	27.6	Diurnal Maximum									
Dir	218.2	217.8	214.6	175.3	169.2	202.8	238.8	288.8	207.8	217.3	218.7	214.1	223.9	223.7	221.3	226.0	225.6	225.6	218.5	215.3	214.7	217.9	210.2	215.2										
Maximum Speed Value: 46 km/h on Sep 26 17:00																				Minimum Speed Value: 0 km/h on Sep 22 19:00										Hours in Service:				720
Maximum Daily Speed Average: 26.1 km/h on Sep 26																				Minimum Daily Speed Average: 0.6 km/h on Sep 6										Hours of Data:				709
Maximum Diurnal Speed Average: 12.8 km/h at hour 17																				Minimum Diurnal Speed Average: 4.2 km/h at hour 9										Hours of Missing Data:				11
Monthly Average Velocity: 8.25 km/h 214.07 deg																				Speed Percentiles: P ₁ = 1.3 P ₁₀ = 3.4 Q ₁ = 5.9 Median = 9.6 Q ₃ = 15.5 P ₉₀ = 22.9 P ₉₉ = 37.8										Percent Operational Time:				98.5
All monthly, daily, and diurnal averages have been calculated using vector methods																																		
N - Not Valid																																		
Frequency Distribution																																		
Direction		0 to 5		5 to 11		11 to 19		Speed Range (km/h)		19 to 28		28 to 38		> 38		Total																		
North		24		26		0		0		0		0		0		50																		
NorthEast		9		18		1		1		0		0		0		29																		
East		11		18		7		1		0		0		0		37																		
SouthEast		9		22		8		0		0		0		0		39																		
South		17		75		42		9		2		0		0		145																		
SouthWest		28		81		104		58		28		8		0		307																		
West		10		13		23		3		0		0		0		49																		
NorthWest		18		22		13		0		0		0		0		53																		
Total		126		275		198		72		30		8		709																				

Wind Rose

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



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Smoky Heights - September 2015

Maximum Speed: 47 km/h on Sep 26 17:00		Maximum Daily Speed Average: 26.8 km/h on Sep 26		Hours in Service: 720																						
Minimum Speed: 1 km/h on Sep 22 19:00		Minimum Daily Speed Average: 5.0 km/h on Sep 6		Hours of Data: 709																						
Maximum Diurnal Speed Average: 17.3 km/h at hour 17		Minimum Diurnal Speed Average: 8.9 km/h at hour 3		Hours of Missing Data: 11																						
Monthly Average Speed: 12.28 km/h		Percentiles: P ₁ = 2.2 P ₁₀ = 4.4 Q ₁ = 6.5 Median = 10.1 Q ₃ = 15.9 P ₉₀ = 23.7 P ₉₉ = 38.1		Percent Operational Time: 98.5																						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Sep	4	4	7	5	14	16	20	N	13	18	18	19	18	19	25	16	15	16	10	10	3	3	6	11	12.6	25.1
2-Sep	11	11	7	10	11	10	10	9	5	6	14	17	18	21	20	18	16	13	14	14	13	12	14	14	12.9	20.7
3-Sep	17	16	15	14	12	12	12	9	9	9	8	8	10	10	11	11	12	12	11	10	12	13	16	15	11.8	17.2
4-Sep	13	10	5	4	6	8	9	9	8	9	9	8	11	12	12	9	9	8	4	3	3	3	3	2	7.4	13.1
5-Sep	2	2	2	3	7	8	8	7	12	12	11	9	9	11	12	11	9	10	12	11	11	8	9	8	8.6	12.4
6-Sep	4	2	3	4	4	4	3	3	2	5	7	4	6	5	6	8	8	9	7	4	9	5	3	6	5.0	8.9
7-Sep	6	4	6	7	12	11	14	7	6	18	9	10	11	11	16	15	16	22	14	10	11	11	12	12	11.3	22.1
8-Sep	12	9	6	7	7	6	7	6	7	8	12	18	16	13	14	17	15	16	12	8	7	5	6	4	9.9	18.2
9-Sep	6	7	6	5	5	7	9	7	8	8	10	16	14	13	14	13	12	14	15	12	9	10	6	7	9.7	15.7
10-Sep	9	5	6	7	10	12	20	N	30	13	19	20	28	30	28	28	24	21	23	18	13	18	18	25	18.5	30.0
11-Sep	26	20	12	8	9	7	12	8	11	20	35	38	37	34	34	36	41	28	16	16	15	17	19	21	21.7	40.6
12-Sep	13	11	12	12	13	13	11	15	12	16	13	N	11	9	7	7	8	9	5	11	8	6	6	6	10.1	16.1
13-Sep	6	5	7	7	7	7	9	14	14	15	14	11	15	13	10	7	4	6	9	10	6	9	6	8	9.1	15.4
14-Sep	8	4	3	6	5	3	6	5	5	6	7	8	6	6	4	6	6	7	6	7	5	2	3	5	5.3	7.7
15-Sep	2	3	4	5	6	6	7	7	5	3	7	10	12	13	11	9	6	4	7	6	3	3	7	5	6.2	12.9
16-Sep	2	2	3	5	7	8	7	N	9	9	9	8	8	8	10	13	13	17	11	6	5	5	6	4	7.6	16.5
17-Sep	5	7	8	7	7	6	6	10	10	12	17	18	20	21	25	26	26	22	17	13	13	13	19	20	14.6	26.4
18-Sep	17	16	16	19	20	19	16	19	22	22	26	35	37	34	36	36	34	29	20	25	16	14	14	16	23.3	37.0
19-Sep	18	14	23	27	24	18	17	16	18	13	25	38	25	13	15	18	24	27	25	21	16	18	14	16	20.2	38.3
20-Sep	15	13	15	10	9	10	10	7	7	10	8	6	7	6	7	9	13	10	9	11	14	17	15	12	10.4	16.8
21-Sep	13	14	13	12	11	6	12	16	10	7	5	7	9	6	6	5	6	3	3	3	5	3	3	2	7.5	15.6
22-Sep	3	2	3	4	3	3	4	7	6	5	5	5	6	7	7	7	8	4	1	5	9	7	10	10	5.5	10.2
23-Sep	9	7	8	5	5	2	5	5	4	7	4	6	6	5	5	5	7	6	9	5	4	3	5	11	5.7	11.3
24-Sep	8	4	5	4	4	4	4	4	6	7	7	9	17	19	19	15	15	10	8	10	11	9	14	12	9.4	19.3
25-Sep	19	20	21	20	20	17	18	18	14	16	25	21	19	25	25	28	26	24	16	14	12	10	11	10	18.6	27.7
26-Sep	9	10	7	10	11	10	10	12	19	31	40	38	43	39	41	41	47	39	36	33	31	31	28	28	26.8	46.7
27-Sep	29	26	25	23	19	17	19	21	14	11	10	11	21	21	20	19	18	9	5	5	6	5	7	4	15.2	29.5
28-Sep	4	4	5	7	6	7	7	6	N	10	12	16	21	22	17	21	26	26	23	21	15	16	15	13	13.9	26.2
29-Sep	12	10	5	7	10	8	8	N	N	N	N	N	N	24	17	20	24	25	23	19	19	16	12	8	14.6	24.7
30-Sep	9	9	9	9	8	8	5	8	8	10	13	22	28	33	32	36	33	26	13	15	11	11	10	10	15.6	36.4
10.4		9.1	8.9	9.1	9.7	9.1	10.1	9.7	10.5	11.5	13.8	15.6	16.9	16.6	16.8	17.0	17.3	15.7	12.8	11.8	10.5	10.2	10.5	10.9	Diurnal Average	
29.5		26.4	24.9	27.0	23.7	19.4	20.3	20.8	30.0	30.8	39.6	38.3	42.6	38.6	40.5	41.1	46.7	38.6	36.3	33.4	31.5	31.2	28.4	27.8	Diurnal Maximum	
N - Not Valid																										
All monthly, daily, and diurnal averages have been calculated using scalar methods																										

Hourly Standard Deviations

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

Maximum Value: 93.9 deg on Sep 1 22:00																		Hours in Service: 720							
Minimum Value: 0.6 deg on Sep 29 10:00																		Hours of Data: 720							
Percentiles: P ₁ = 2.9 P ₁₀ = 5.4 Q ₁ = 8.2 Median = 13.6 Q ₃ = 22.0 P ₉₀ = 39.9 P ₉₉ = 78.9																		Hours of Missing Data: 0							
																		Hours of Calibration: 0							
																		Percent Operational Time: 100.0							
Day	Hourly Period Ending At (MST)																							Daily Maximum	
1-Sep	37	51	31	76	9	8	15	64	22	20	11	14	25	16	13	17	18	14	25	9	27	94	16	14	93.9
2-Sep	11	15	32	23	11	15	11	14	16	50	23	9	12	10	16	16	16	19	11	13	8	12	8	13	50.0
3-Sep	7	5	4	5	5	7	14	12	12	14	15	15	18	18	14	13	14	14	11	12	6	10	10	7	17.9
4-Sep	8	56	86	54	18	9	8	45	7	12	21	20	15	21	15	17	25	30	19	43	29	15	40	28	86.2
5-Sep	45	31	28	20	11	7	13	26	8	8	14	21	33	34	24	25	30	22	15	7	9	15	12	14	44.9
6-Sep	40	18	13	21	31	12	36	70	54	22	18	43	25	45	90	23	30	29	22	20	20	16	24	10	89.9
7-Sep	4	7	17	16	5	4	4	19	18	65	24	35	26	30	21	39	20	8	7	13	17	19	7	15	64.7
8-Sep	4	14	14	14	9	13	12	16	19	25	34	10	8	10	11	14	17	11	7	7	15	18	16	17	34.4
9-Sep	18	15	13	19	16	19	39	10	9	10	15	12	14	21	20	21	18	10	7	4	6	5	13	15	39.3
10-Sep	17	24	9	10	6	6	62	1	72	19	13	15	12	12	11	10	11	8	6	6	8	5	4	6	71.9
11-Sep	3	10	11	28	26	27	21	7	14	18	6	7	8	9	12	7	6	9	6	7	4	4	4	7	27.7
12-Sep	20	17	4	8	5	8	21	12	18	14	8	39	15	22	36	20	42	10	47	38	18	35	30	26	47.1
13-Sep	20	19	24	73	34	29	10	9	8	10	10	10	11	14	14	37	64	26	44	24	54	11	23	17	73.3
14-Sep	13	57	43	24	17	40	11	59	24	22	17	20	34	71	70	31	20	14	7	5	12	27	38	8	71.0
15-Sep	44	15	19	12	11	7	6	8	13	37	22	14	22	15	45	10	43	29	13	16	45	38	13	6	45.4
16-Sep	36	32	15	12	10	11	65	76	10	12	14	23	22	24	34	30	17	13	7	31	19	14	13	23	75.7
17-Sep	15	17	17	12	12	11	17	17	8	8	12	12	10	14	11	8	10	12	7	6	12	7	7	4	17.4
18-Sep	3	5	7	7	4	4	20	4	4	6	8	9	7	7	8	7	7	6	4	4	18	8	4	5	20.4
19-Sep	5	7	5	4	3	3	4	11	6	14	8	10	33	19	15	12	7	6	5	4	6	7	13	8	33.1
20-Sep	9	18	11	10	24	22	13	12	30	10	16	68	30	54	56	35	12	11	14	6	7	4	9	5	68.1
21-Sep	7	9	7	10	9	26	13	7	16	22	36	59	25	79	25	79	40	32	12	60	66	62	62	30	79.4
22-Sep	35	12	21	15	81	44	15	14	16	27	37	41	44	51	50	43	36	31	85	40	9	31	10	8	84.8
23-Sep	9	10	11	15	9	49	14	10	66	24	50	44	50	61	74	73	31	19	7	15	14	80	27	14	80.0
24-Sep	43	58	14	43	39	25	28	49	19	13	12	10	21	10	12	13	13	11	13	20	10	10	7	5	58.0
25-Sep	17	13	7	6	4	9	5	7	6	9	7	15	22	12	11	12	9	7	6	8	13	13	23	16	23.0
26-Sep	11	28	23	25	22	15	13	20	10	6	7	8	9	7	8	7	6	6	5	4	5	5	4	6	28.4
27-Sep	4	3	4	4	12	13	10	9	19	22	24	15	8	5	8	10	8	18	19	12	15	12	16	22	24.1
28-Sep	12	17	6	20	18	5	7	10	75	9	12	16	11	14	15	12	8	5	5	5	9	4	5	9	74.7
29-Sep	7	12	20	42	8	12	4	73	1	1	1	1	13	74	18	13	10	6	5	4	4	6	17	17	74.3
30-Sep	14	9	8	10	16	19	16	39	12	17	14	16	8	10	8	8	6	5	5	17	8	5	17	4	38.7
44.9 58.0 86.2 76.3 81.1 49.4 65.2 75.7 74.7 64.7 49.8 68.1 50.0 78.6 89.9 79.4 63.7 31.9 84.8 60.3 65.9 93.9 61.8 29.7																									

PAZA
Beaverlodge Station
Monthly Summary Tables, Graphs and
Roses

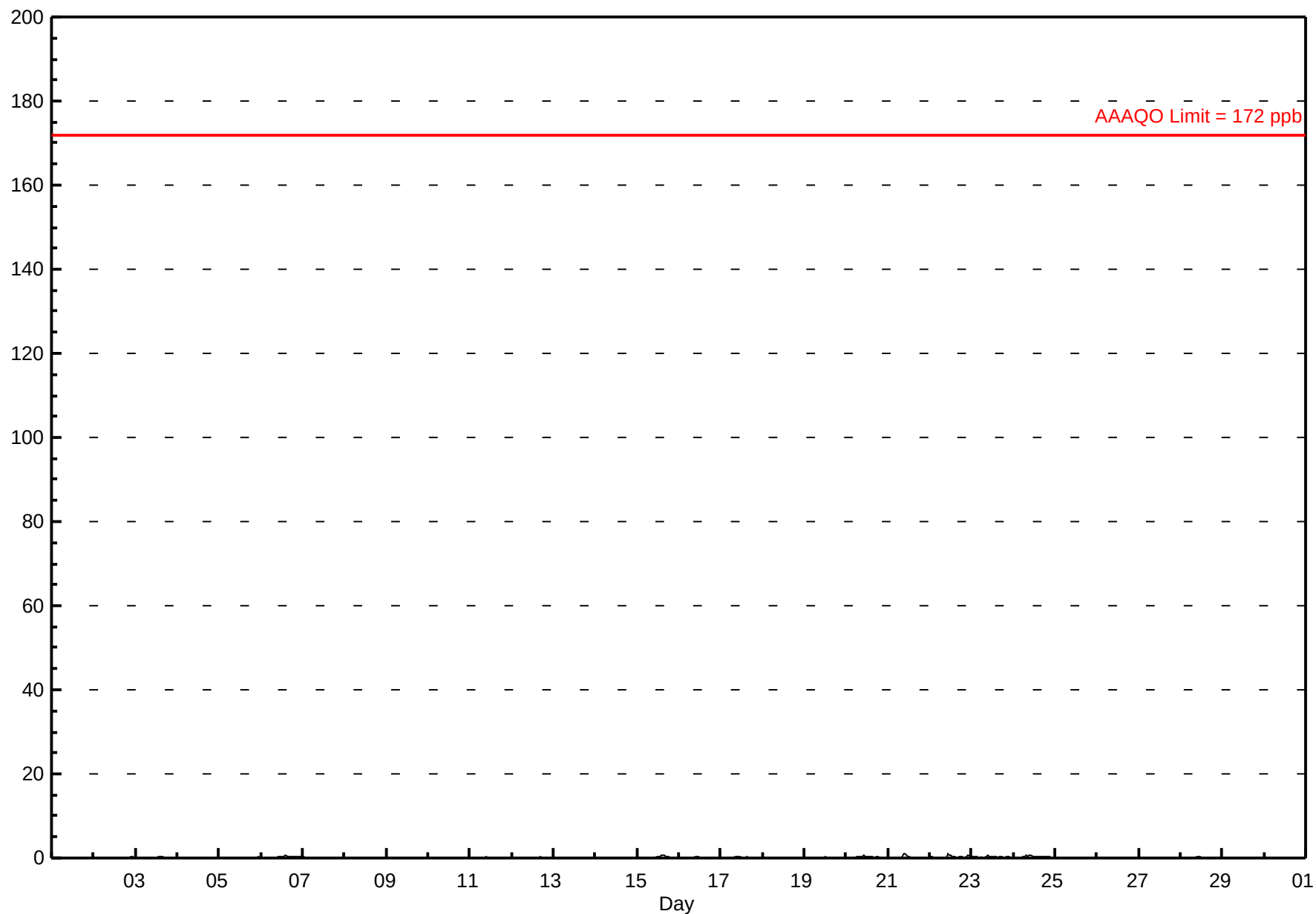
Hourly Averages

Sulphur Dioxide (SO₂) - ppb Beaverlodge - September 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 1.0 ppb on Sep 22 11:00 Maximum Daily Average: 0.3 ppb on Sep 24																								Hours in Service: 720 Hours of Data: 664 Hours of Missing Data: 56 Hours of Calibration: 32 Percent Operational Time: 96.7		
Minimum Value: 0 ppb on Sep 1 02:00 Minimum Daily Average: 0.0 ppb on Sep 1 Maximum Diurnal Average: 0.2 ppb at hour 11 Minimum Diurnal Average: 0.1 ppb at hour 4 Monthly Average: 0.10 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.1 P ₉₀ = 0.2 P ₉₉ = 0.7																										
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-Sep	0	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
2-Sep	0	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
3-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
4-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
5-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
6-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.2	0.7
7-Sep	0	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-Sep	0	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
9-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0.1	0.1
10-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
11-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
12-Sep	0	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-Sep	0	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
14-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
15-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0.2	0.8
16-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
17-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
18-Sep	0	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
19-Sep	0	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
20-Sep	0	0	0	0	A	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
21-Sep	0	0	0	0	A	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.0
22-Sep	0	0	0	0	A	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	1	0	0.3	1.0
23-Sep	0	0	0	0	A	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
24-Sep	0	0	0	0	A	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	P	P	0.3	0.7
25-Sep	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	0	0	--	0.0
26-Sep	0	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
27-Sep	0	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
28-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
29-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
30-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
0.1 0.1 0.1 0.1 -- 0.1 0.1 0.1 0.1 0.2 0.2 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1																								Diurnal Average		
0.4 0.4 0.3 0.2 -- 0.3 0.3 0.6 0.5 0.9 1.0 0.8 0.5 0.4 0.7 0.8 0.5 0.3 0.4 0.3 0.2 0.4 0.7 0.4																								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 (SO₂) - ppb
Beaverlodge - September 2015



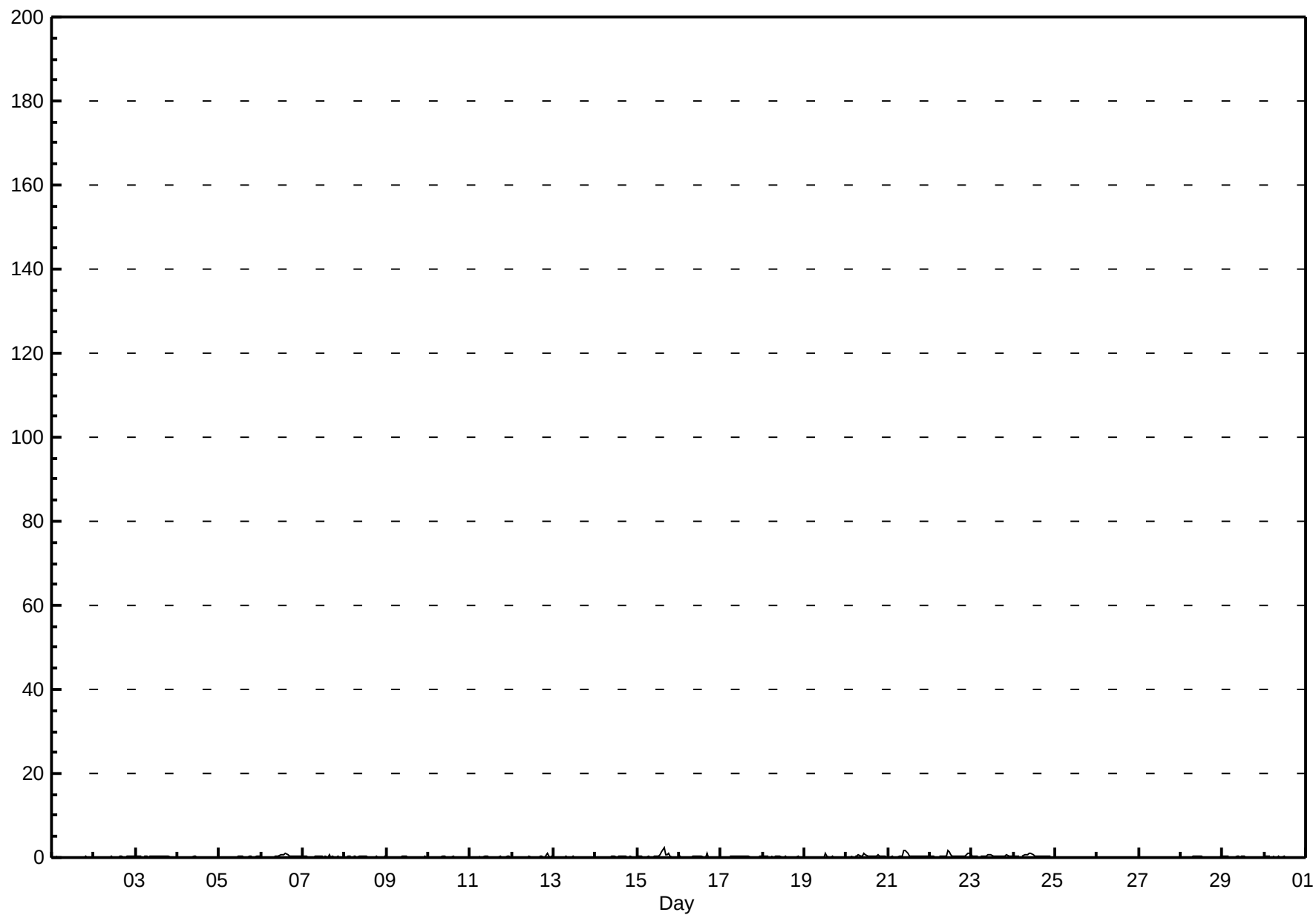
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Beaverlodge - September 2015

Maximum Value: 2.2 ppb on Sep 15 16:00																				Maximum Daily Average: 0.5 ppb on Sep 22					Hours in Service: 720	
Minimum Value: 0 ppb on Sep 1 03:00																				Minimum Daily Average: 0.1 ppb on Sep 1					Hours of Data: 664	
Maximum Diurnal Average: 0.4 ppb at hour 11																				Minimum Diurnal Average: 0.2 ppb at hour 3					Hours of Missing Data: 56	
Monthly Average: 0.22 ppb																				Percentiles: P ₁ = 0.1 P ₁₀ = 0.1 Q ₁ = 0.1 Median = 0.2 Q ₃ = 0.2 P ₉₀ = 0.4 P ₉₉ = 1.2					Hours of Calibration: 32	
																				Percent Operational Time: 96.7						
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-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
2-Sep	0	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
3-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
4-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
5-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
6-Sep	0	0	0	0	A	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0.4	1.1
7-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0.2	0.8
8-Sep	0	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
9-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0.2	0.2
10-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
11-Sep	0	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
12-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.2	1.2
13-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
14-Sep	0	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
15-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	1	1	2	1	1	1	0	0	0	0	0	0.4	2.2
16-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0.2	0.9
17-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
18-Sep	0	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
19-Sep	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	0.9
20-Sep	0	0	0	0	A	0	0	1	0	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0.4	0.9
21-Sep	0	0	0	0	A	0	0	0	0	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.8
22-Sep	0	0	0	0	A	0	0	0	0	0	2	1	1	1	0	0	0	0	0	0	0	1	1	1	0.5	1.7
23-Sep	0	0	0	0	A	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0.4	0.7
24-Sep	0	0	0	0	A	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	P	P	0.5	1.1
25-Sep	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	0	0	--	0.1
26-Sep	0	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
27-Sep	0	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
28-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
29-Sep	0	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
30-Sep	0	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
																								Diurnal Average		
																								Diurnal Maximum		
C - Calibration					P - Power Failure					A - Automated Daily Zero Span																

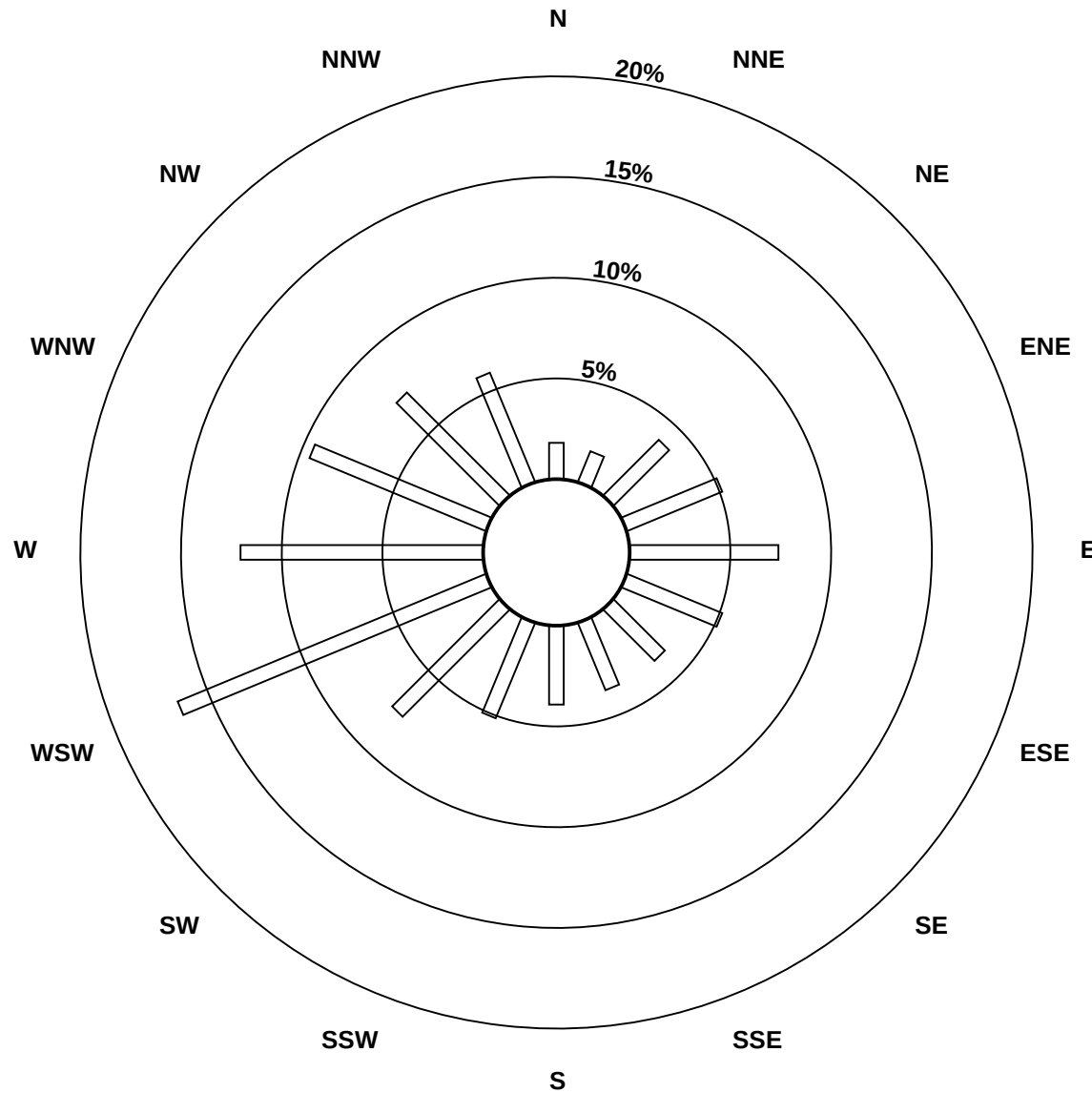
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Beaverlodge - September 2015

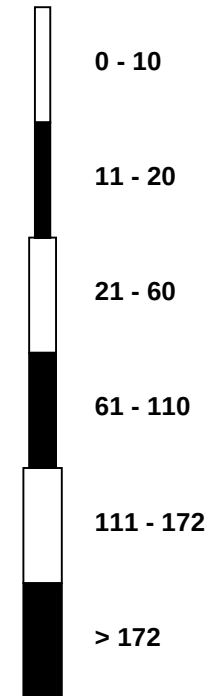


Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Beaverlodge - September 2015

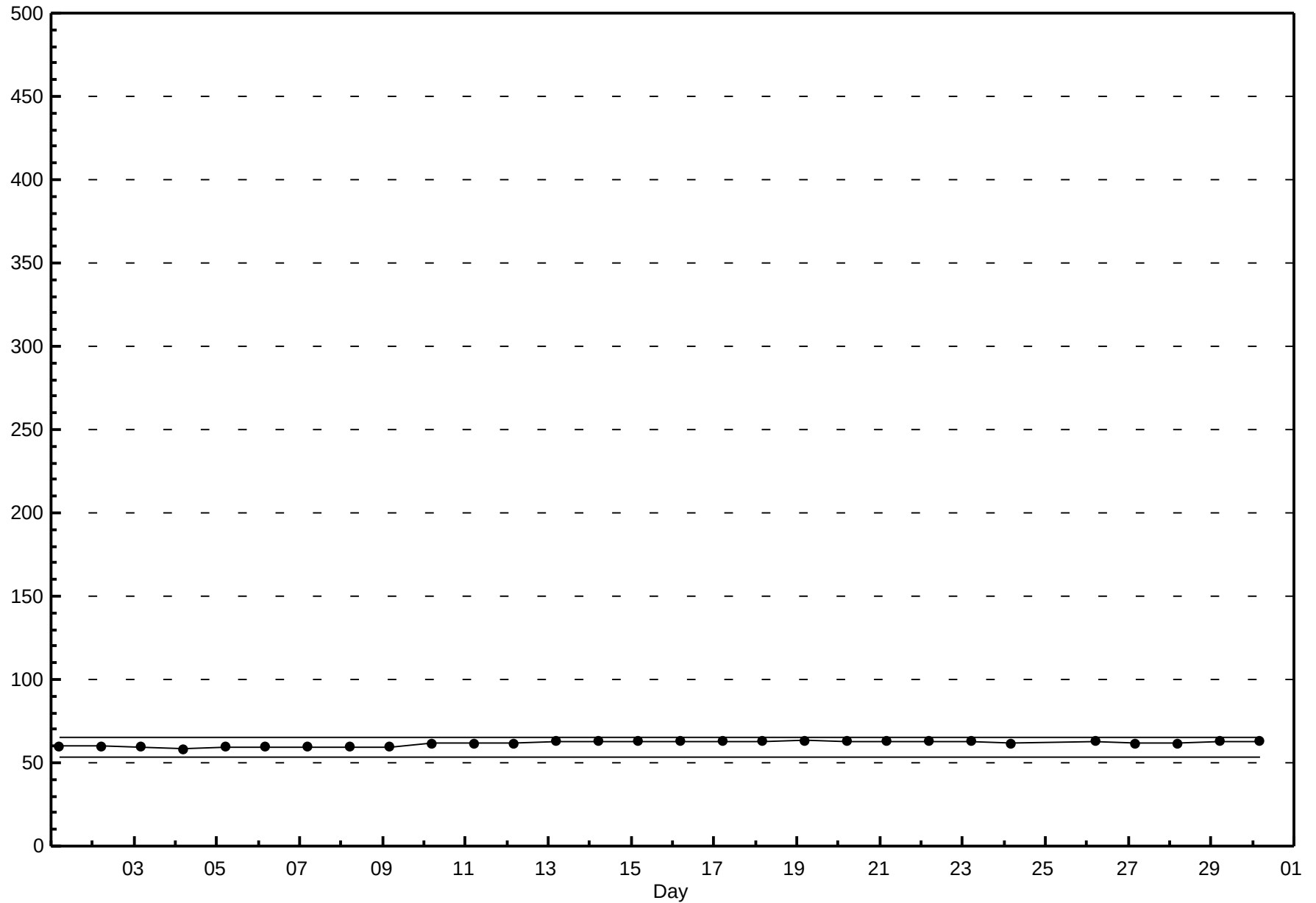


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Beaverlodge - September 2015



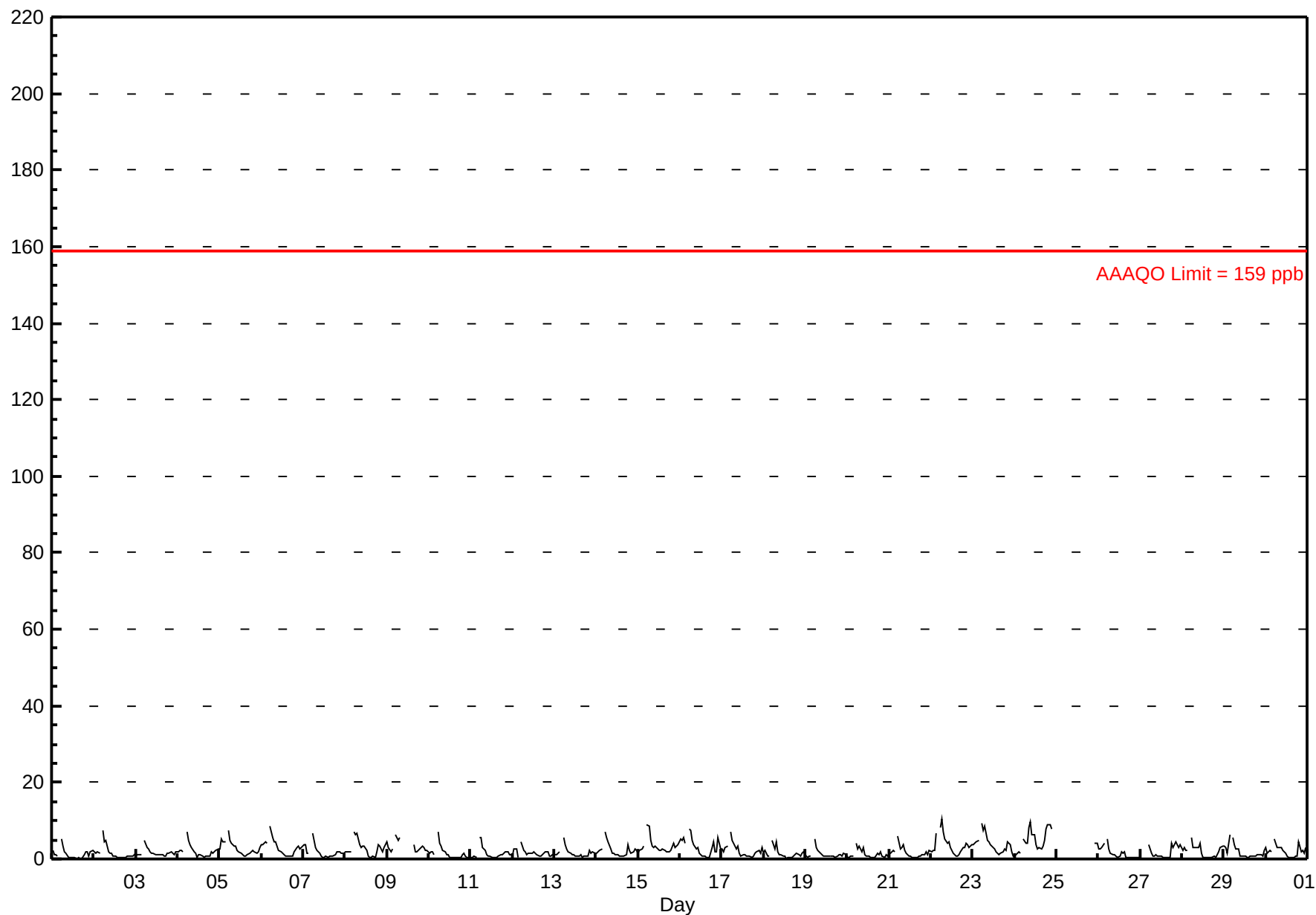
Hourly Averages

Nitrogen Dioxide (NO₂) - ppb Beaverlodge - September 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 10.4 ppb on Sep 22 07:00 Maximum Daily Average: 4.9 ppb on Sep 24																				Hours in Service: 720 Hours of Data: 660 Hours of Missing Data: 60 Hours of Calibration: 36 Percent Operational Time: 96.7						
Minimum Value: 0 ppb on Sep 18 14:00 Maximum Diurnal Average: 6.3 ppb at hour 6 Monthly Average: 2.18 ppb										Minimum Daily Average: 1.2 ppb on Sep 19 Minimum Diurnal Average: 0.8 ppb at hour 15 Percentiles: P ₁ = 0.1 P ₁₀ = 0.5 Q ₁ = 0.8 Median = 1.7 Q ₃ = 3.0 P ₉₀ = 4.6 P ₉₉ = 8.8																
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-Sep	2	1	1	1	A	5	3	2	1	0	0	0	0	0	0	0	0	0	1	2	2	1	2	2	1.3	5.2
2-Sep	2	1	2	2	A	7	5	5	2	1	1	1	1	1	1	0	0	0	1	1	1	1	1	1	1.6	7.4
3-Sep	1	1	1	1	A	5	3	3	2	1	1	1	1	1	1	1	1	1	1	1	2	2	1	2	1.6	5.0
4-Sep	2	2	2	2	A	7	5	4	3	2	2	0	1	1	1	1	1	1	1	2	2	2	2	3	2.0	7.2
5-Sep	3	5	5	4	A	7	5	4	4	3	2	2	2	1	1	1	1	2	2	2	2	2	2	3	2.8	7.5
6-Sep	4	4	4	4	A	8	6	4	4	3	2	2	2	1	1	1	1	1	1	2	3	3	3	3	2.9	8.4
7-Sep	4	4	2	2	A	7	5	3	2	2	1	1	0	1	0	1	1	1	1	2	2	2	2	1	1.9	6.8
8-Sep	2	2	2	2	A	7	6	7	4	3	3	3	2	1	0	1	1	1	2	4	3	2	3	4	2.8	7.1
9-Sep	4	3	2	3	A	6	5	5	C	C	C	C	C	C	C	4	2	2	2	2	3	3	2	2	--	6.4
10-Sep	2	2	2	1	A	7	4	4	2	2	1	1	1	0	1	0	0	1	1	1	1	1	0	0	1.6	7.1
11-Sep	0	1	1	0	A	5	6	3	2	1	1	1	1	1	0	0	1	1	1	2	2	2	1	1	1.4	5.5
12-Sep	1	2	2	0	A	4	2	2	1	1	2	2	2	2	1	1	1	1	1	2	2	1	1	1	1.5	4.4
13-Sep	1	1	1	2	A	6	4	3	2	2	1	1	1	1	1	1	1	1	1	1	2	2	2	1	1.6	5.6
14-Sep	2	2	2	3	A	7	6	4	3	2	2	1	1	1	1	1	1	1	4	2	1	2	3	2	2.2	7.1
15-Sep	1	2	3	3	A	9	9	5	4	3	3	3	2	2	2	2	2	2	2	2	4	3	3	4	3.3	8.8
16-Sep	5	5	6	4	A	8	7	5	4	3	3	1	1	1	1	0	0	1	3	4	2	2	6	3	3.2	7.9
17-Sep	3	2	3	3	A	7	5	4	3	3	2	1	1	1	1	1	1	1	1	2	2	2	2	3	2.2	7.0
18-Sep	2	2	1	1	A	5	3	4	2	1	1	1	1	0	0	0	1	1	1	2	1	1	2	2	1.4	4.7
19-Sep	1	0	1	1	A	5	3	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	5.4
20-Sep	0	0	1	1	A	4	3	3	2	3	1	1	1	0	0	0	0	2	1	2	1	1	1	1	1.3	4.3
21-Sep	2	1	2	2	A	6	3	3	4	2	2	1	1	0	0	0	0	1	1	1	1	2	1	2	1.6	6.0
22-Sep	2	2	2	7	A	8	10	7	5	4	5	3	2	1	1	1	1	2	3	3	4	4	3	4	3.7	10.4
23-Sep	4	4	4	5	A	9	8	9	5	4	4	3	3	2	1	1	2	2	3	2	4	4	2	1	3.7	9.4
24-Sep	1	1	2	1	A	5	4	4	8	10	6	6	4	3	3	3	3	5	8	9	9	8	P	P	4.9	9.7
25-Sep	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	--	4.3
26-Sep	3	3	3	4	A	5	3	1	1	1	1	0	1	2	1	2	0	0	0	0	1	0	0	0	1.5	5.3
27-Sep	0	0	0	0	A	4	2	1	1	1	1	1	1	1	0	0	0	0	4	3	5	4	3	4	1.5	4.6
28-Sep	2	3	2	2	A	6	3	3	3	3	4	1	1	1	0	0	0	0	1	0	1	2	3	3	2.0	5.8
29-Sep	3	3	2	6	A	6	4	3	3	1	1	1	1	0	0	1	1	1	1	1	1	1	2	2	1.8	6.2
30-Sep	3	1	2	2	A	5	3	3	3	3	2	1	1	0	0	1	1	1	1	5	2	2	2	3	2.0	5.1
2.1 2.1 2.2 2.4 -- 6.3 4.5 3.8 2.9 2.4 2.0 1.4 1.2 0.9 0.8 0.9 0.8 1.0 1.7 2.2 2.3 2.1 2.0 2.2																								Diurnal Average		
5.1 5.3 5.7 6.5 -- 9.4 10.4 8.8 8.3 9.7 6.3 6.2 3.9 2.7 2.8 3.7 3.3 4.8 7.9 8.9 9.0 7.7 5.6 4.3																								Diurnal Maximum		
C - Calibration P - Power Failure A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb 24-hr 106 ppb																										

Hourly Averages

Nitrogen Dioxide (NO₂) - ppb
Beaverlodge - September 2015



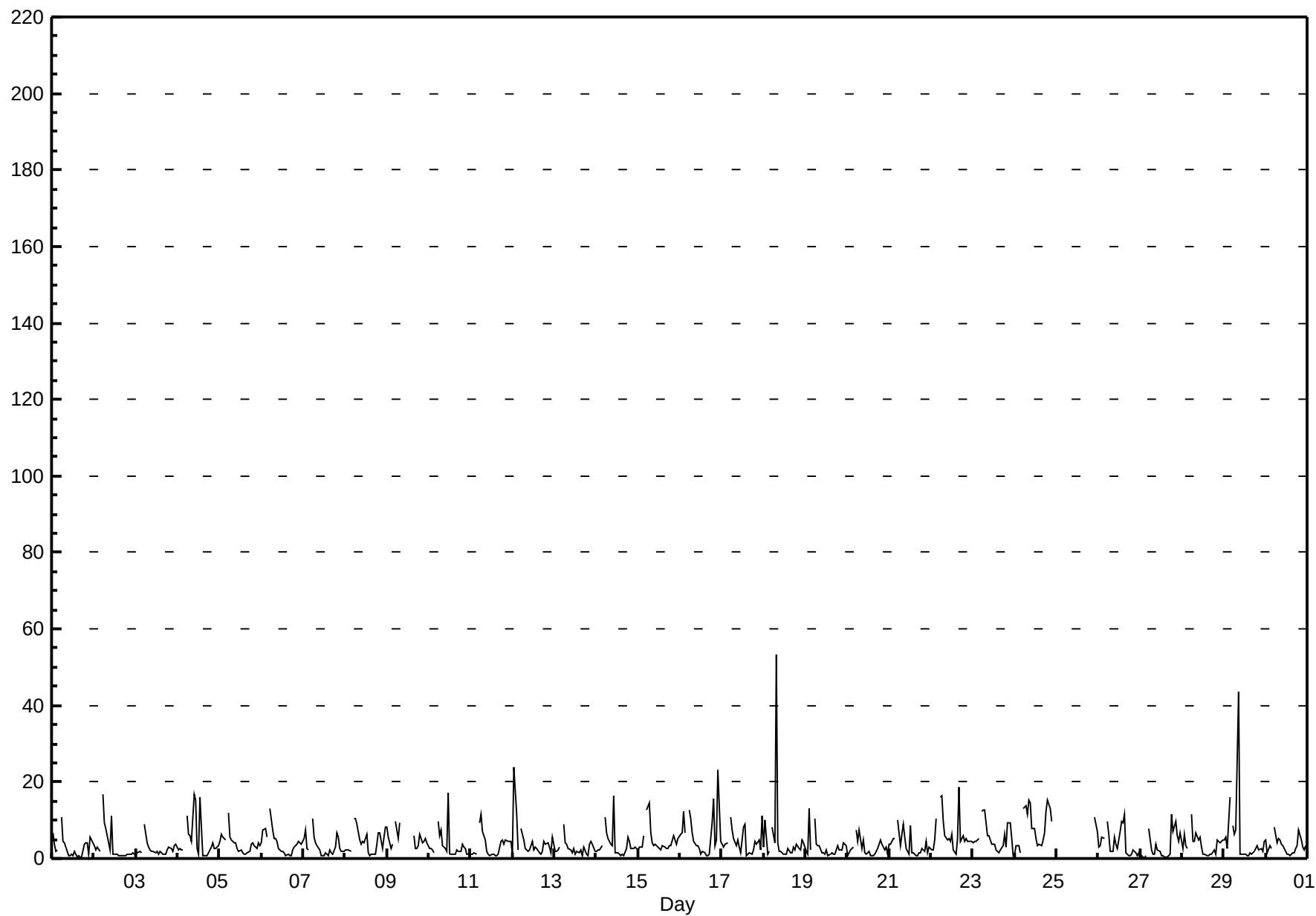
Hourly Maximums

Nitrogen Dioxide (NO₂) - ppb Beaverlodge - September 2015

Maximum Value: 53.5 ppb on Sep 18 08:00																				Maximum Daily Average: 8.1 ppb on Sep 24										Hours in Service: 720	
Minimum Value: 0 ppb on Sep 27 03:00																				Minimum Daily Average: 2.4 ppb on Sep 3										Hours of Data: 660	
Maximum Diurnal Average: 10.6 ppb at hour 6																				Minimum Diurnal Average: 1.6 ppb at hour 15										Hours of Missing Data: 60	
Monthly Average: 4.17 ppb																				Percentiles: P ₁ = 0.6 P ₁₀ = 1.0 Q ₁ = 1.6 Median = 3.0 Q ₃ = 5.0 P ₉₀ = 9.2 P ₉₉ = 16.9										Hours of Calibration: 36	
																				Percent Operational Time: 96.7											
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-Sep	7	4	2	2	A	11	5	4	3	1	1	1	1	2	0	1	0	1	4	4	4	1	5	4	2.9	10.6					
2-Sep	3	2	3	2	A	17	9	8	4	2	11	1	1	1	1	1	1	1	1	1	1	1	1	1	3.3	16.8					
3-Sep	1	2	2	2	A	9	4	3	2	2	2	1	2	1	2	1	1	1	2	3	3	2	3	4	2.4	8.9					
4-Sep	2	2	2	2	A	11	6	6	4	17	15	3	1	16	1	1	1	1	2	3	4	3	3	3	4.8	16.9					
5-Sep	4	7	6	5	A	12	6	5	4	4	3	2	2	2	1	1	2	2	4	4	3	2	4	4	3.8	12.0					
6-Sep	4	7	8	5	A	13	7	5	5	5	3	2	2	1	1	1	1	1	2	3	4	4	4	4	4.0	13.2					
7-Sep	5	8	3	2	A	11	6	4	3	2	1	1	1	2	1	2	1	1	3	7	6	3	2	2	3.2	10.6					
8-Sep	2	2	2	2	A	10	10	9	5	4	5	4	6	1	1	1	1	1	4	7	7	3	6	8	4.4	10.3					
9-Sep	8	6	3	4	A	10	5	9	C	C	C	C	C	C	C	6	3	2	3	6	4	5	5	4	--	9.7					
10-Sep	3	2	2	2	A	10	6	8	3	2	2	17	1	1	1	1	2	2	2	4	3	3	1	1	3.4	17.1					
11-Sep	1	1	1	1	A	9	12	7	5	2	1	1	1	1	1	1	1	4	5	4	5	4	4	4	3.3	11.7					
12-Sep	1	24	12	2	A	8	5	3	2	2	2	5	2	3	2	1	1	2	5	4	4	3	1	5	4.3	23.8					
13-Sep	2	2	2	3	A	9	4	4	2	2	2	3	1	2	2	2	1	3	1	1	4	5	4	2	2.7	8.9					
14-Sep	2	2	2	3	A	11	7	5	4	3	16	1	2	1	1	1	1	3	6	4	3	3	3	3	3.8	16.2					
15-Sep	2	3	3	6	A	13	15	7	4	3	4	3	3	2	3	3	2	3	4	3	6	5	4	5	4.6	14.6					
16-Sep	6	7	12	7	A	13	10	7	4	3	3	3	1	2	2	1	1	1	9	16	3	5	23	5	6.2	23.2					
17-Sep	4	3	4	4	A	11	7	5	4	5	3	1	8	9	1	1	1	1	2	5	4	5	2	11	4.4	11.2					
18-Sep	3	10	1	2	A	8	4	53	4	2	2	1	1	1	2	1	1	3	2	4	3	2	5	4	5.2	53.5					
19-Sep	2	1	13	2	A	11	4	3	4	2	1	1	2	1	1	2	1	1	3	2	2	2	4	3	3.0	13.0					
20-Sep	1	2	2	3	A	7	4	8	3	5	2	1	2	1	1	1	1	3	4	5	4	2	3	1	2.8	7.6					
21-Sep	4	4	5	5	A	10	3	6	9	6	3	1	9	2	1	1	1	1	2	2	2	5	1	3	3.7	10.1					
22-Sep	2	2	5	10	A	16	16	10	6	5	5	5	6	2	1	5	19	4	6	4	5	4	5	5	6.5	18.5					
23-Sep	4	5	5	5	A	12	13	13	6	6	5	4	4	2	2	2	2	3	6	3	9	9	5	1	5.4	12.6					
24-Sep	1	3	3	2	A	13	14	11	15	14	8	8	5	3	4	3	5	7	12	15	13	10	P	P	8.1	15.5					
25-Sep	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	11	7	--	10.8					
26-Sep	3	3	6	5	A	10	6	2	2	5	4	3	7	10	9	11	2	1	1	1	2	1	1	2	4.2	11.5					
27-Sep	0	1	0	1	A	8	2	1	1	4	2	2	1	1	0	0	1	1	12	7	10	6	4	7	3.1	11.7					
28-Sep	3	6	3	3	A	12	4	4	7	5	5	3	1	1	1	1	1	1	2	1	5	5	4	5	3.6	11.6					
29-Sep	5	6	3	16	A	8	6	7	44	1	1	1	1	1	1	2	1	2	2	3	2	2	2	5	5.3	43.7					
30-Sep	5	2	3	2	A	8	4	5	5	4	3	2	1	1	1	2	1	3	3	7	5	3	2	4	3.3	8.0					
3.1 4.4 4.1 3.8 -- 10.6 7.1 7.7 5.9 4.2 4.1 2.9 2.7 2.6 1.6 2.0 2.0 2.0 3.9 4.6 4.5 3.7 4.3 4.0																										Diurnal Average					
8.1 23.8 13.0 16.0 -- 16.8 16.4 53.5 43.7 16.9 16.2 17.1 8.6 16.0 9.2 11.5 18.5 6.6 12.2 15.6 13.0 9.8 23.2 11.2																										Diurnal Maximum					
C - Calibration P - Power Failure A - Automated Daily Zero Span																															

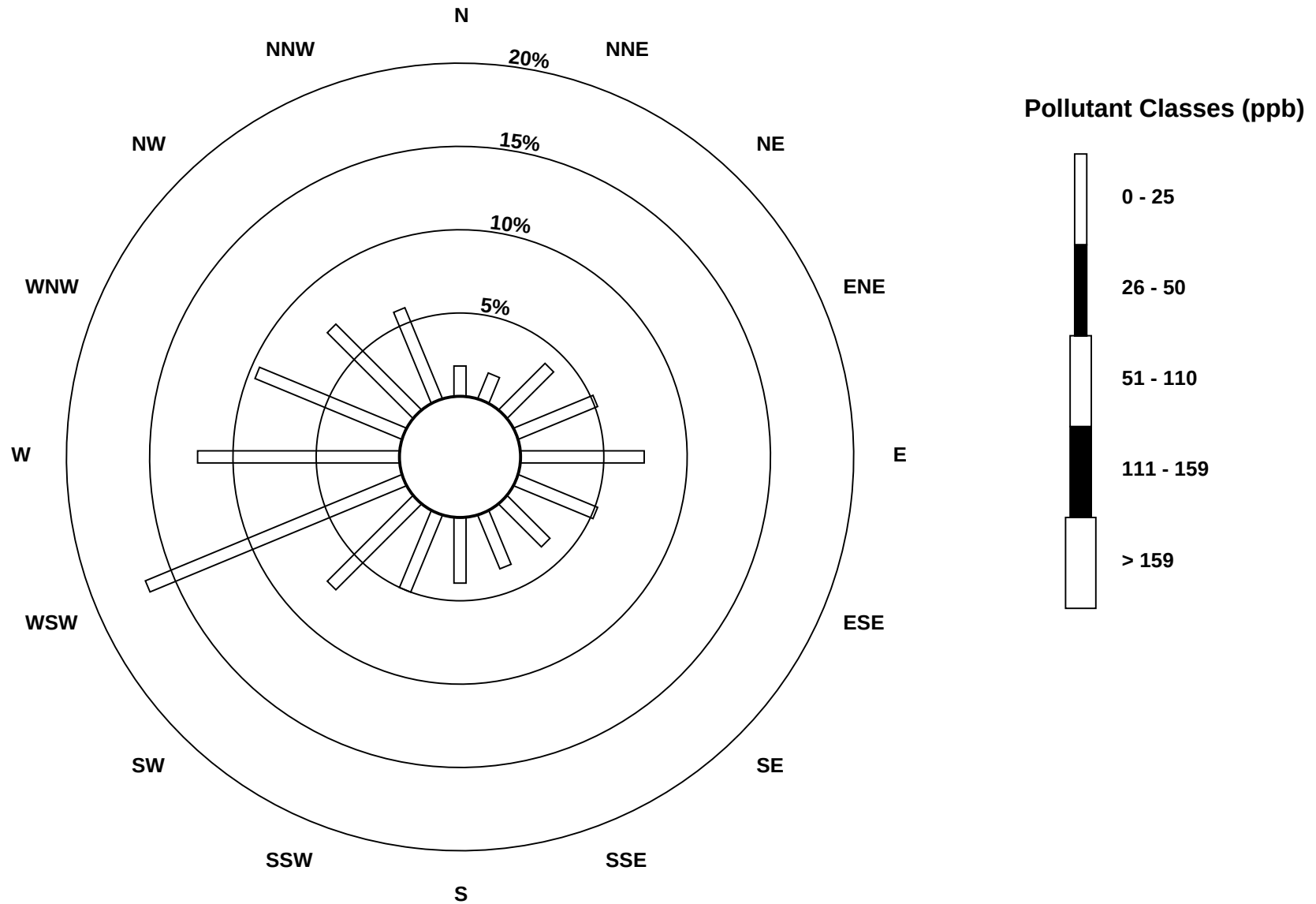
Hourly Maximums

Nitrogen Dioxide (NO₂) - ppb
Beaverlodge - September 2015



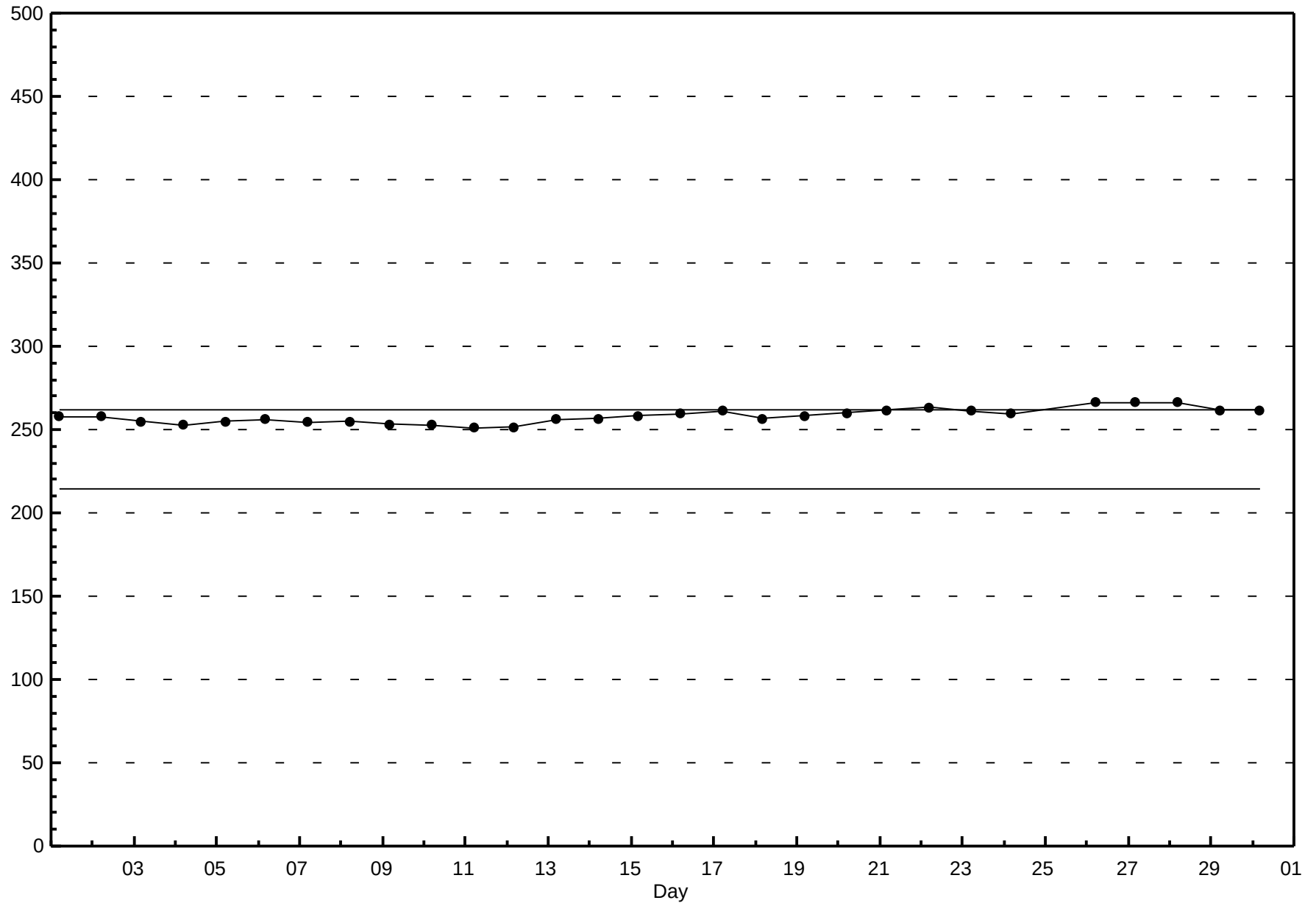
Pollutant Rose

Nitrogen Dioxide (NO₂) - ppb
Beaverlodge - September 2015



Span Responses

Nitrogen Dioxide (NO₂)
Beaverlodge - September 2015



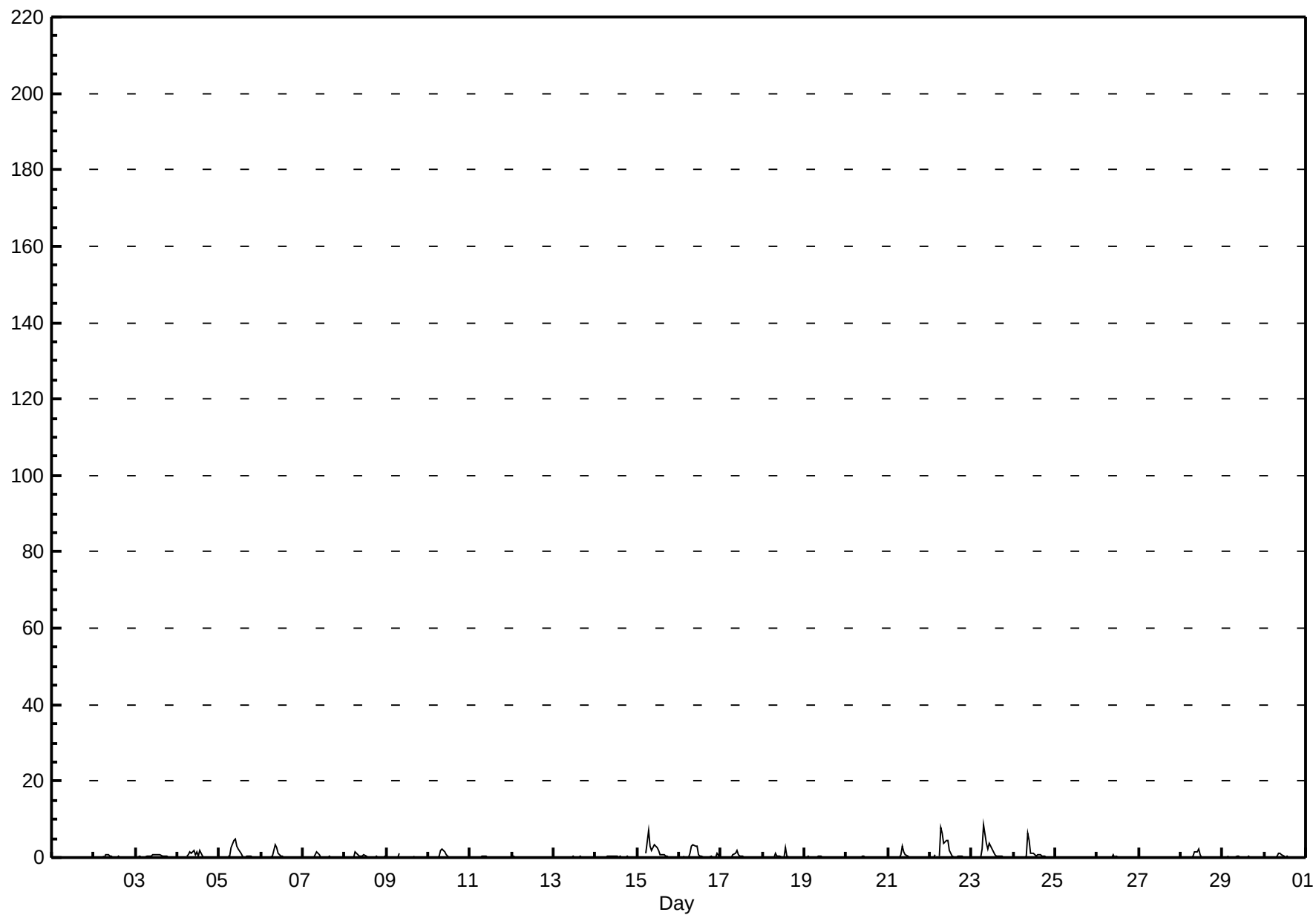
Hourly Averages

Nitrogen Oxide (NO) - ppb Beaverlodge - September 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 8.4 ppb on Sep 23 08:00 Maximum Daily Average: 1.4 ppb on Sep 22																								Hours in Service: 720 Hours of Data: 660 Hours of Missing Data: 60 Hours of Calibration: 36 Percent Operational Time: 96.7		
Minimum Value: 0 ppb on Sep 1 01:00 Maximum Diurnal Average: 1.5 ppb at hour 9 Monthly Average: 0.38 ppb												Minimum Daily Average: 0.0 ppb on Sep 1 Minimum Diurnal Average: 0.0 ppb at hour 1 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 0.9 P ₉₉ = 4.6														
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-Sep	0	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
2-Sep	0	0	0	0	A	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
3-Sep	0	0	0	0	A	0	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0.4	0.9
4-Sep	0	0	0	0	A	0	1	1	1	2	1	2	0	2	0	0	0	0	0	0	0	0	0	0	0.5	2.0
5-Sep	0	0	0	0	A	0	0	3	5	5	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0.9	4.9
6-Sep	0	0	0	0	A	0	0	2	3	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	3.3
7-Sep	0	0	0	0	A	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.4
8-Sep	0	0	0	0	A	0	2	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.6
9-Sep	0	0	0	0	A	0	0	1	C	C	C	C	C	C	C	0	0	0	0	0	0	0	0	0	--	1.2
10-Sep	0	0	0	0	A	0	0	2	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	2.2
11-Sep	0	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
12-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
13-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
14-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.2	0.5
15-Sep	0	0	0	0	A	1	7	3	2	2	3	2	2	1	1	1	1	0	0	0	0	0	0	0	1.2	7.3
16-Sep	0	0	0	0	A	0	1	3	3	3	3	1	0	0	0	0	0	0	0	0	0	0	1	0	0.7	3.5
17-Sep	0	0	0	0	A	0	0	1	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.8
18-Sep	0	0	0	0	A	0	0	1	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0.3	2.7
19-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
20-Sep	0	0	0	0	A	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
21-Sep	0	0	0	0	A	0	0	1	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	2.8
22-Sep	0	0	0	1	A	0	8	7	4	5	4	2	1	1	0	0	0	0	0	0	0	0	0	0	1.4	7.7
23-Sep	0	0	0	0	A	0	2	8	4	2	4	3	1	1	0	0	0	0	0	0	0	0	0	0	1.2	8.4
24-Sep	0	0	0	0	A	0	0	0	6	4	1	1	1	1	1	1	0	0	0	0	0	0	P	P	0.8	6.3
25-Sep	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	0	0	--	0.0
26-Sep	0	0	0	0	A	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.6
27-Sep	0	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
28-Sep	0	0	0	0	A	0	0	0	1	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	2.4
29-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
30-Sep	0	0	0	0	A	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.1
0.0 0.0 0.0 0.1 -- 0.1 0.8 1.3 1.5 1.4 1.0 0.7 0.4 0.4 0.2 0.2 0.2 0.2 0.1 0.1 0.1 0.0 0.1 0.0																								Diurnal Average		
0.3 0.3 0.2 0.9 -- 1.2 7.7 8.4 6.3 4.9 4.4 3.0 1.7 0.9 0.9 0.6 0.4 0.5 0.2 0.1 0.2 1.0 0.5																								Diurnal Maximum		
C - Calibration P - Power Failure A - Automated Daily Zero Span																										

Hourly Averages

Nitrogen Oxide (NO) - ppb
Beaverlodge - September 2015



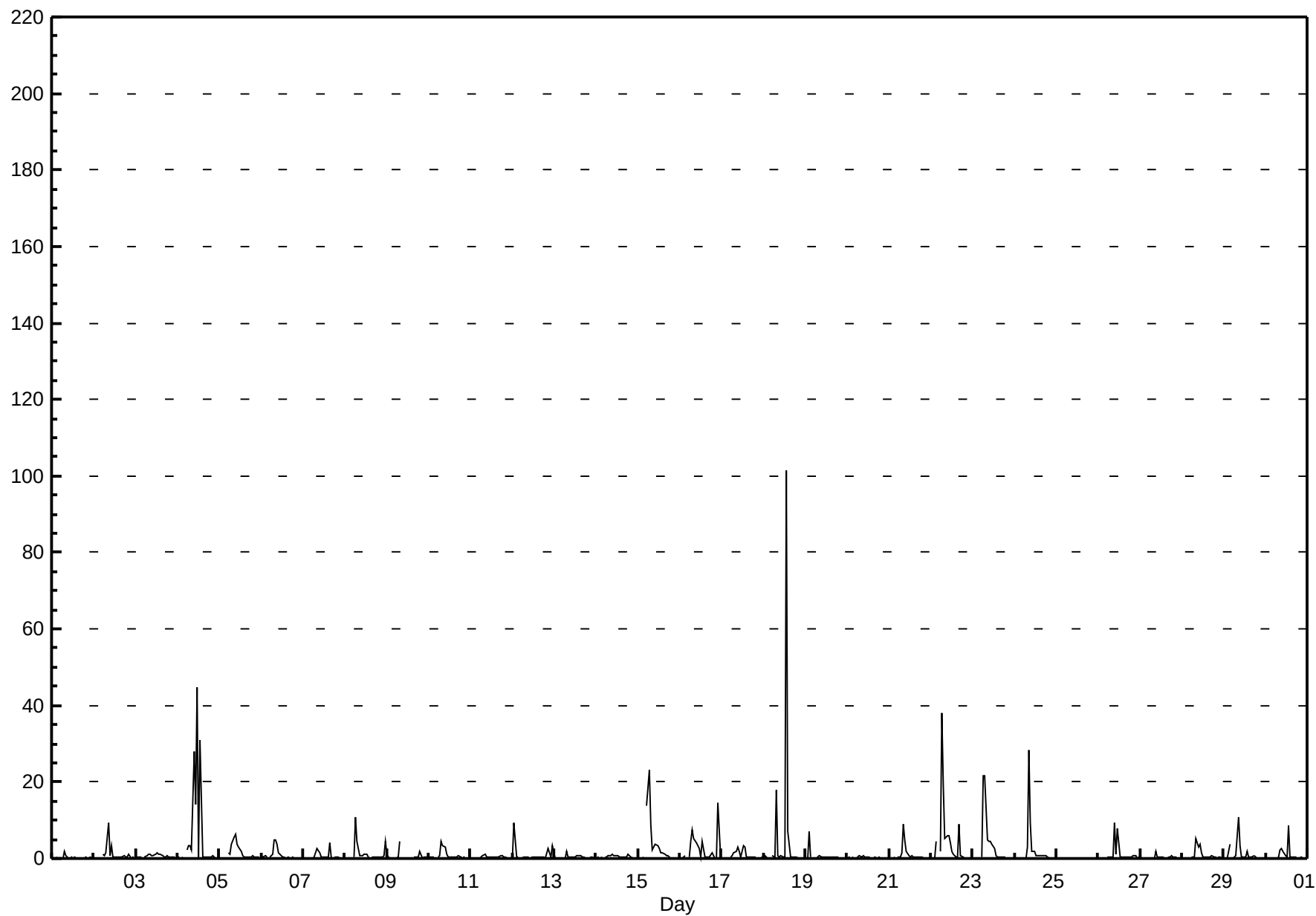
Hourly Maximums

Nitrogen Oxide (NO) - ppb
Beaverlodge - September 2015

Maximum Value: 101.5 ppb on Sep 18 14:00																				Maximum Daily Average: 5.8 ppb on Sep 4					Hours in Service: 720	
Minimum Value: 0 ppb on Sep 1 01:00																				Minimum Daily Average: 0.2 ppb on Sep 1					Hours of Data: 660	
Maximum Diurnal Average: 5.8 ppb at hour 14																				Minimum Diurnal Average: 0.2 ppb at hour 1					Hours of Missing Data: 60	
Monthly Average: 1.48 ppb																				Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.1 Median = 0.3 Q ₃ = 0.7 P ₉₀ = 3.3 P ₉₉ = 22.8					Hours of Calibration: 36	
																				Percent Operational Time: 96.7						
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-Sep	0	0	0	0	A	0	0	2	1	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0.2	1.9
2-Sep	0	0	0	0	A	1	1	2	9	1	3	0	0	0	0	0	0	1	0	0	1	0	0	0	1.0	9.3
3-Sep	0	0	0	0	A	0	1	1	1	1	1	1	2	1	1	1	1	0	1	0	0	0	0	0	0.6	1.6
4-Sep	0	0	0	0	A	2	3	3	2	28	14	45	0	31	0	0	0	0	1	0	1	0	0	0	5.8	44.7
5-Sep	0	0	0	0	A	1	1	4	6	6	4	3	2	1	0	0	1	0	1	1	0	0	0	0	1.4	6.3
6-Sep	0	0	1	0	A	0	1	5	5	4	2	1	0	0	0	1	0	0	0	0	0	0	0	0	0.9	4.7
7-Sep	0	0	0	0	A	0	0	1	3	1	0	0	0	1	0	4	0	0	0	1	0	0	0	0	0.6	4.0
8-Sep	0	0	0	0	A	0	11	5	1	1	1	1	1	0	0	0	0	0	0	0	0	1	1	5	1.2	10.8
9-Sep	1	1	0	0	A	0	0	5	C	C	C	C	C	C	C	0	0	0	0	2	0	0	0	0	--	4.6
10-Sep	0	0	0	0	A	0	1	5	3	3	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0.8	4.6
11-Sep	0	0	0	0	A	0	0	1	1	1	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0.3	1.0
12-Sep	0	9	0	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	3	1.0	9.2
13-Sep	0	0	0	0	A	0	0	2	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0.4	2.0
14-Sep	0	0	0	0	A	0	0	1	1	1	1	1	1	0	0	0	0	0	1	1	0	0	0	0	0.4	1.3
15-Sep	0	0	0	0	A	14	23	9	2	3	4	3	2	1	2	1	1	1	0	0	0	0	0	0	2.9	23.3
16-Sep	0	0	1	1	A	0	5	8	5	4	4	2	1	4	0	0	0	0	1	1	0	0	14	0	2.3	14.4
17-Sep	0	0	0	0	A	0	1	2	2	3	2	1	3	3	0	0	1	0	0	0	0	0	0	1	0.8	3.4
18-Sep	0	1	0	0	A	1	0	18	1	1	1	0	0	101	7	0	1	0	0	0	0	0	0	0	5.8	101.5
19-Sep	0	0	7	0	A	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	7.2
20-Sep	0	0	0	0	A	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.9
21-Sep	0	0	0	0	A	0	0	2	9	5	2	1	0	1	0	0	0	0	0	0	0	0	0	0	1.0	8.9
22-Sep	0	0	0	5	A	2	38	19	5	6	6	4	2	1	0	1	9	1	0	0	0	0	0	0	4.3	37.9
23-Sep	0	0	0	0	A	0	22	22	5	4	4	4	3	1	1	0	0	0	0	0	0	0	0	0	3.0	21.8
24-Sep	0	0	0	0	A	0	0	3	29	9	2	2	1	1	1	1	1	1	1	0	0	0	P	P	2.4	28.5
25-Sep	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	0	0	--	0.1
26-Sep	0	0	0	0	A	0	1	0	0	9	1	8	0	0	0	0	0	0	0	0	1	1	0	0	1.1	9.2
27-Sep	0	0	0	0	A	0	0	0	0	2	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0.3	2.0
28-Sep	0	0	0	0	A	1	0	1	5	3	4	2	0	0	0	0	0	1	0	0	0	0	0	0	0.8	5.3
29-Sep	0	0	0	4	A	0	0	1	11	3	0	0	0	2	0	1	0	1	1	0	0	0	0	0	1.1	10.7
30-Sep	0	0	0	0	A	0	0	0	2	3	2	1	0	8	0	1	0	1	0	0	0	0	0	0	0.9	8.4
																									Diurnal Average	
																									Diurnal Maximum	
C - Calibration					P - Power Failure					A - Automated Daily Zero Span																

Hourly Maximums

Nitrogen Oxide (NO) - ppb
Beaverlodge - September 2015



Hourly Averages

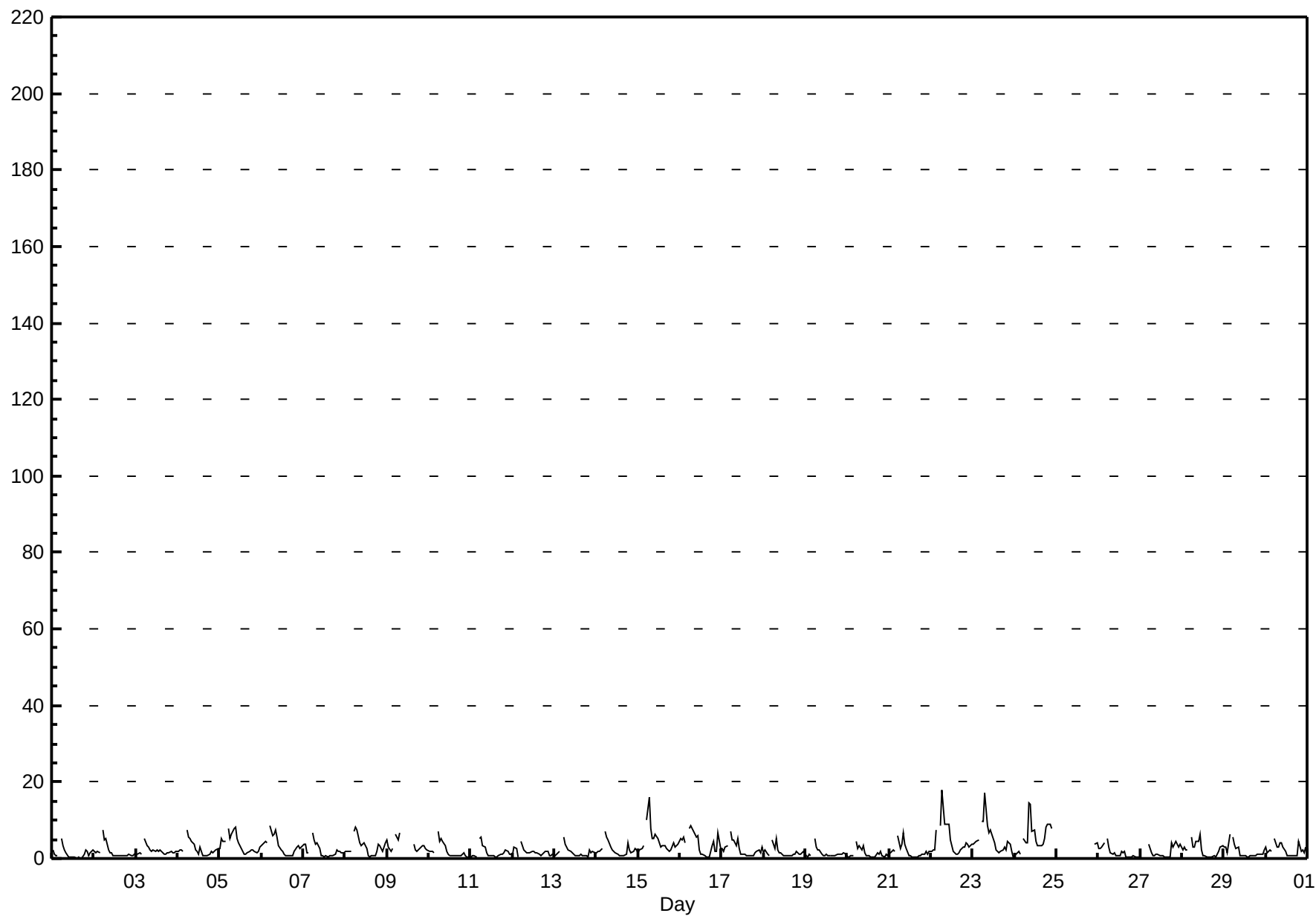
Oxides of Nitrogen (NO_x) - ppb

Beaverlodge - September 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 18.0 ppb on Sep 22 07:00 Maximum Daily Average: 5.7 ppb on Sep 24																				Hours in Service: 720 Hours of Data: 660 Hours of Missing Data: 60 Hours of Calibration: 36 Percent Operational Time: 96.7						
Minimum Value: 0 ppb on Sep 27 04:00 Maximum Diurnal Average: 6.4 ppb at hour 6 Monthly Average: 2.53 ppb										Minimum Daily Average: 1.3 ppb on Sep 1 Minimum Diurnal Average: 0.9 ppb at hour 17 Percentiles: P ₁ = 0.2 P ₁₀ = 0.6 Q ₁ = 0.9 Median = 1.9 Q ₃ = 3.4 P ₉₀ = 5.4 P ₉₉ = 9.6																
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-Sep	2	1	1	1	A	5	3	2	2	1	0	0	0	0	0	0	0	0	1	2	2	1	2	2	1.3	5.1
2-Sep	2	1	2	2	A	7	5	5	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1.7	7.5
3-Sep	1	1	1	1	A	5	3	3	2	2	2	2	2	2	2	1	1	1	2	1	2	2	1	2	1.9	5.1
4-Sep	2	2	2	2	A	7	6	5	4	4	2	2	1	3	1	1	1	1	1	2	2	2	2	2	2.5	7.4
5-Sep	3	5	5	4	A	8	5	6	8	8	5	4	3	2	1	1	2	2	2	2	2	1	2	3	3.6	8.1
6-Sep	3	4	4	4	A	8	6	6	8	6	4	2	2	1	1	1	1	1	1	2	3	3	3	3	3.3	8.4
7-Sep	4	4	2	2	A	7	5	4	4	2	1	1	0	1	0	1	1	1	1	2	2	2	2	1	2.1	6.8
8-Sep	2	2	2	2	A	7	8	8	4	3	4	4	3	1	1	1	1	1	2	4	3	2	3	4	3.0	8.0
9-Sep	5	3	2	3	A	6	5	7	C	C	C	C	C	C	C	4	2	2	2	3	3	3	3	2	--	6.6
10-Sep	2	2	2	1	A	7	4	5	5	4	2	1	1	1	1	1	1	1	1	1	1	1	1	0	1.9	7.1
11-Sep	0	1	1	0	A	5	6	3	3	1	1	1	1	1	0	0	1	1	1	2	2	2	1	1	1.5	5.6
12-Sep	1	3	2	1	A	4	2	2	1	1	2	2	2	2	1	1	1	1	2	2	2	1	1	1	1.6	4.5
13-Sep	1	1	1	2	A	6	4	3	2	2	1	1	1	1	1	1	1	1	1	1	2	2	2	1	1.6	5.6
14-Sep	2	2	2	3	A	7	6	5	3	2	2	1	1	1	1	1	1	1	4	2	1	2	3	2	2.4	7.1
15-Sep	1	2	3	3	A	10	16	8	5	5	6	5	4	3	3	3	3	2	2	2	4	3	3	4	4.4	15.9
16-Sep	5	5	6	4	A	8	8	8	7	6	6	2	1	1	1	0	1	1	3	4	2	2	7	2	3.9	8.5
17-Sep	3	2	3	3	A	7	5	5	3	5	2	1	1	1	1	1	1	1	1	2	2	2	2	3	2.4	7.0
18-Sep	2	2	1	1	A	5	3	5	2	1	1	1	1	1	1	1	1	1	1	2	1	1	2	2	1.6	5.4
19-Sep	1	0	1	1	A	5	3	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.3	5.4
20-Sep	0	1	1	1	A	4	3	3	2	3	2	1	1	1	1	0	1	2	1	2	1	1	1	1	1.4	4.3
21-Sep	2	1	2	2	A	6	3	4	7	4	3	1	1	0	1	0	0	1	1	1	1	2	1	2	1.9	6.6
22-Sep	2	2	2	7	A	8	18	13	9	9	9	5	4	2	1	1	1	2	3	3	4	4	3	4	5.1	18.0
23-Sep	4	4	4	5	A	10	10	17	9	7	7	6	4	2	2	2	2	2	3	2	4	4	2	1	4.9	17.2
24-Sep	1	1	2	1	A	5	4	4	15	14	7	7	4	3	3	3	4	5	8	9	9	8	P	P	5.7	14.6
25-Sep	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	--	4.2
26-Sep	3	3	3	4	A	5	3	1	1	2	1	1	1	2	1	2	0	0	0	0	1	0	0	0	1.5	5.3
27-Sep	0	0	0	0	A	4	2	1	1	1	1	1	1	1	0	0	0	1	4	3	5	4	3	4	1.6	4.6
28-Sep	2	3	2	2	A	6	3	3	4	4	6	2	1	1	1	0	0	1	1	0	1	2	3	3	2.3	6.3
29-Sep	3	3	2	6	A	6	4	3	3	1	1	1	1	0	1	1	1	1	1	1	1	1	2	1.8	6.3	
30-Sep	3	1	2	2	A	5	3	3	4	4	3	2	1	1	1	1	1	1	1	5	2	2	2	3	2.2	5.1
2.1 2.2 2.2 2.4 -- 6.4 5.3 5.0 4.4 3.8 3.0 2.1 1.5 1.2 1.0 1.1 0.9 1.1 1.8 2.2 2.3 2.1 2.0 2.2																								Diurnal Average		
5.1 5.2 5.7 7.4 -- 9.9 18.0 17.2 14.6 14.1 9.0 7.3 4.5 3.2 3.4 3.9 3.6 5.1 8.1 8.9 8.9 7.7 6.5 4.2																								Diurnal Maximum		
C - Calibration P - Power Failure A - Automated Daily Zero Span																										

Hourly Averages

Oxides of Nitrogen (NO_x) - ppb
Beaverlodge - September 2015



Hourly Maximums

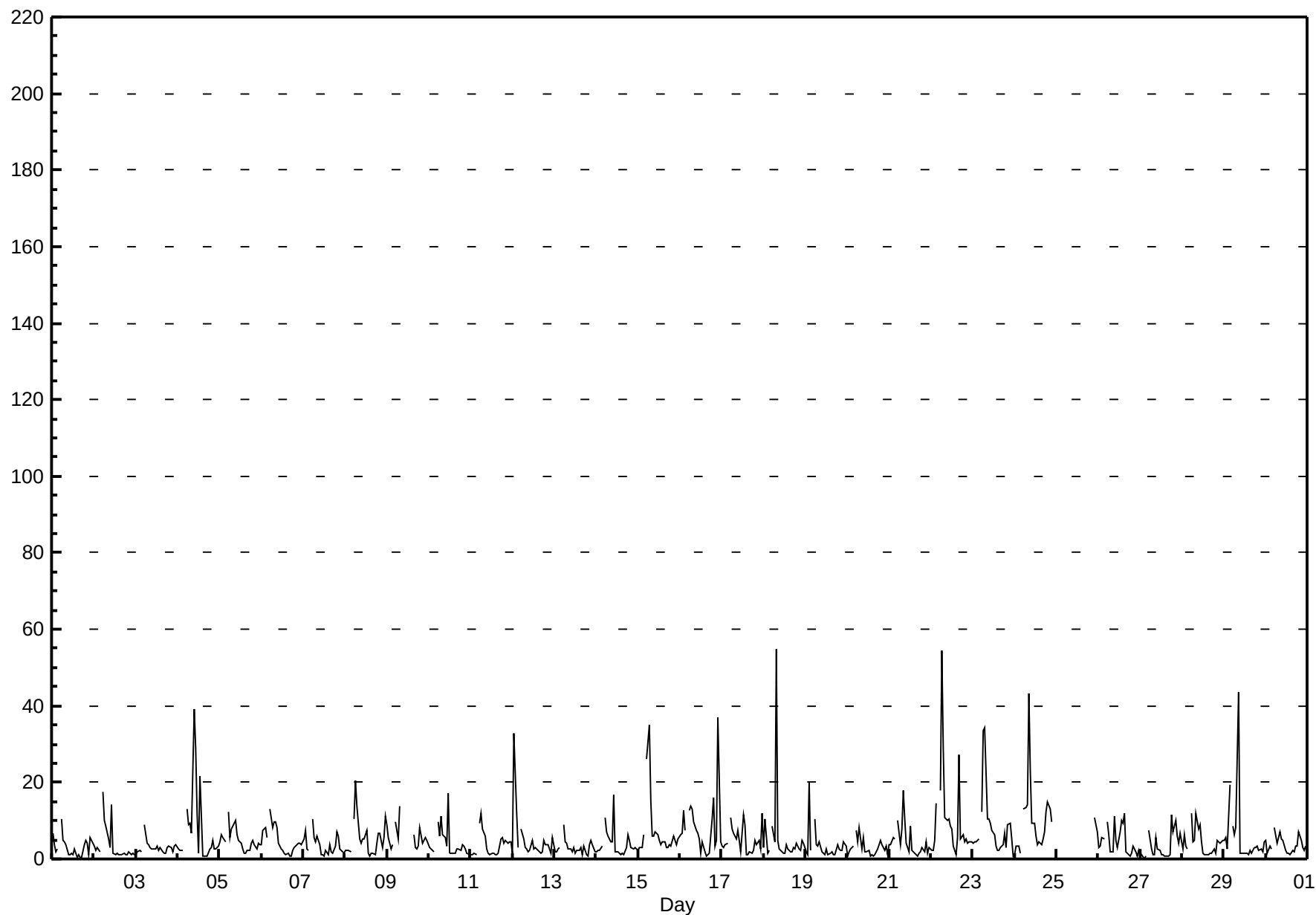
Oxides of Nitrogen (NO_x) - ppb

Beaverlodge - September 2015

Maximum Value: 54.8 ppb on Sep 18 08:00																				Maximum Daily Average: 10.6 ppb on Sep 22					Hours in Service: 720	
Minimum Value: 0 ppb on Sep 27 03:00																				Minimum Daily Average: 2.8 ppb on Sep 13					Hours of Data: 660	
Maximum Diurnal Average: 11.3 ppb at hour 6																				Minimum Diurnal Average: 1.9 ppb at hour 15					Hours of Missing Data: 60	
Monthly Average: 5.14 ppb																				Percentiles: P ₁ = 0.7 P ₁₀ = 1.2 Q ₁ = 1.9 Median = 3.4 Q ₃ = 5.8 P ₉₀ = 10.4 P ₉₉ = 34.8					Hours of Calibration: 36	
																				Percent Operational Time: 96.7						
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-Sep	7	4	2	3	A	11	5	5	4	1	1	2	1	2	1	1	1	0	4	5	4	1	6	4	3.1	10.6
2-Sep	3	2	3	2	A	18	10	9	5	3	14	2	1	1	1	1	1	1	1	1	2	1	2	1	3.7	17.6
3-Sep	1	2	2	2	A	9	4	4	3	3	3	3	3	2	3	2	2	2	3	3	3	2	3	4	2.9	9.1
4-Sep	3	2	2	2	A	13	9	9	7	39	29	12	1	22	1	1	1	1	3	3	5	3	3	3	7.6	39.0
5-Sep	4	6	5	5	A	12	6	8	9	10	6	5	4	2	1	1	2	2	4	5	4	3	4	4	4.9	12.3
6-Sep	4	8	8	5	A	13	8	10	10	8	4	3	2	1	1	1	1	1	2	3	4	4	4	4	4.8	13.2
7-Sep	5	8	3	2	A	11	6	4	6	4	1	1	1	2	1	4	2	1	3	7	6	3	2	2	3.6	10.6
8-Sep	2	2	2	2	A	10	20	14	5	4	5	5	8	2	1	1	1	1	4	7	7	3	6	11	5.4	20.4
9-Sep	9	6	3	4	A	10	5	14	C	C	C	C	C	C	C	6	3	3	3	8	4	5	6	5	--	13.9
10-Sep	3	3	2	2	A	10	6	11	6	5	3	17	1	1	1	2	2	3	2	4	3	3	1	1	4.1	17.3
11-Sep	1	1	1	1	A	9	12	8	6	2	2	1	1	1	1	1	1	5	6	4	5	4	5	4	3.6	11.8
12-Sep	1	33	12	3	A	8	5	3	3	2	2	5	3	3	3	2	1	2	5	4	4	3	1	6	4.9	32.9
13-Sep	2	2	2	3	A	9	4	4	3	3	2	3	1	2	2	3	1	3	1	1	4	5	4	2	2.8	8.9
14-Sep	2	2	2	3	A	11	7	6	4	5	17	2	2	1	1	1	1	3	6	5	3	3	3	3	4.1	16.8
15-Sep	2	3	3	6	A	26	35	15	6	6	7	6	5	4	5	4	3	3	4	3	6	5	4	5	7.3	35.0
16-Sep	6	7	13	7	A	13	14	13	10	7	7	5	2	5	2	1	1	1	10	16	3	5	37	5	8.2	36.9
17-Sep	3	3	4	4	A	11	8	7	5	7	5	2	11	9	1	1	2	2	2	5	4	5	2	12	5.0	11.8
18-Sep	3	10	1	2	A	9	4	55	5	2	2	2	1	4	3	2	2	3	3	4	3	2	5	4	5.7	54.8
19-Sep	2	1	20	2	A	11	4	3	4	2	1	1	2	1	1	2	1	1	4	2	2	2	4	3	3.5	20.2
20-Sep	1	2	3	3	A	7	5	8	3	6	2	2	2	1	1	1	1	3	4	5	4	2	3	1	3.0	8.0
21-Sep	4	4	5	5	A	10	4	8	18	11	4	2	9	2	2	1	1	2	2	3	2	5	1	3	4.6	17.8
22-Sep	2	2	5	15	A	18	54	29	11	10	10	9	8	3	1	6	27	5	6	4	5	4	5	5	10.6	54.3
23-Sep	4	5	5	5	A	12	34	34	11	10	9	7	6	3	2	2	3	4	7	3	9	9	5	1	8.3	34.2
24-Sep	1	3	3	2	A	13	14	14	43	23	9	9	6	4	4	4	5	7	12	15	13	10	P	P	10.3	43.1
25-Sep	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	11	7	--	10.8
26-Sep	3	3	5	5	A	10	6	2	2	11	5	3	7	10	9	12	2	1	1	1	3	2	1	2	4.7	11.8
27-Sep	1	1	0	1	A	8	3	1	1	6	3	2	1	1	1	1	1	1	12	7	10	6	4	7	3.3	11.7
28-Sep	3	6	3	3	A	12	4	5	12	8	9	4	1	1	1	1	1	2	3	1	5	5	4	5	4.3	11.9
29-Sep	5	5	3	19	A	8	6	8	44	2	1	1	1	1	1	2	2	3	3	3	2	2	2	5	5.7	43.7
30-Sep	5	2	3	2	A	8	4	6	7	5	5	2	2	1	1	2	2	3	3	7	5	3	2	3	3.7	8.0
3.2 4.8 4.4 4.2 -- 11.3 10.5 10.9 9.0 7.3 6.1 4.2 3.4 3.4 1.9 2.4 2.6 2.4 4.3 4.8 4.6 3.7 4.8 4.1																									Diurnal Average	
9.1 32.9 20.2 19.5 -- 26.0 54.3 54.8 43.7 39.0 29.2 17.3 11.4 21.8 9.4 11.8 27.3 7.1 12.5 16.1 13.1 9.7 36.9 11.8																									Diurnal Maximum	
C - Calibration P - Power Failure A - Automated Daily Zero Span																										

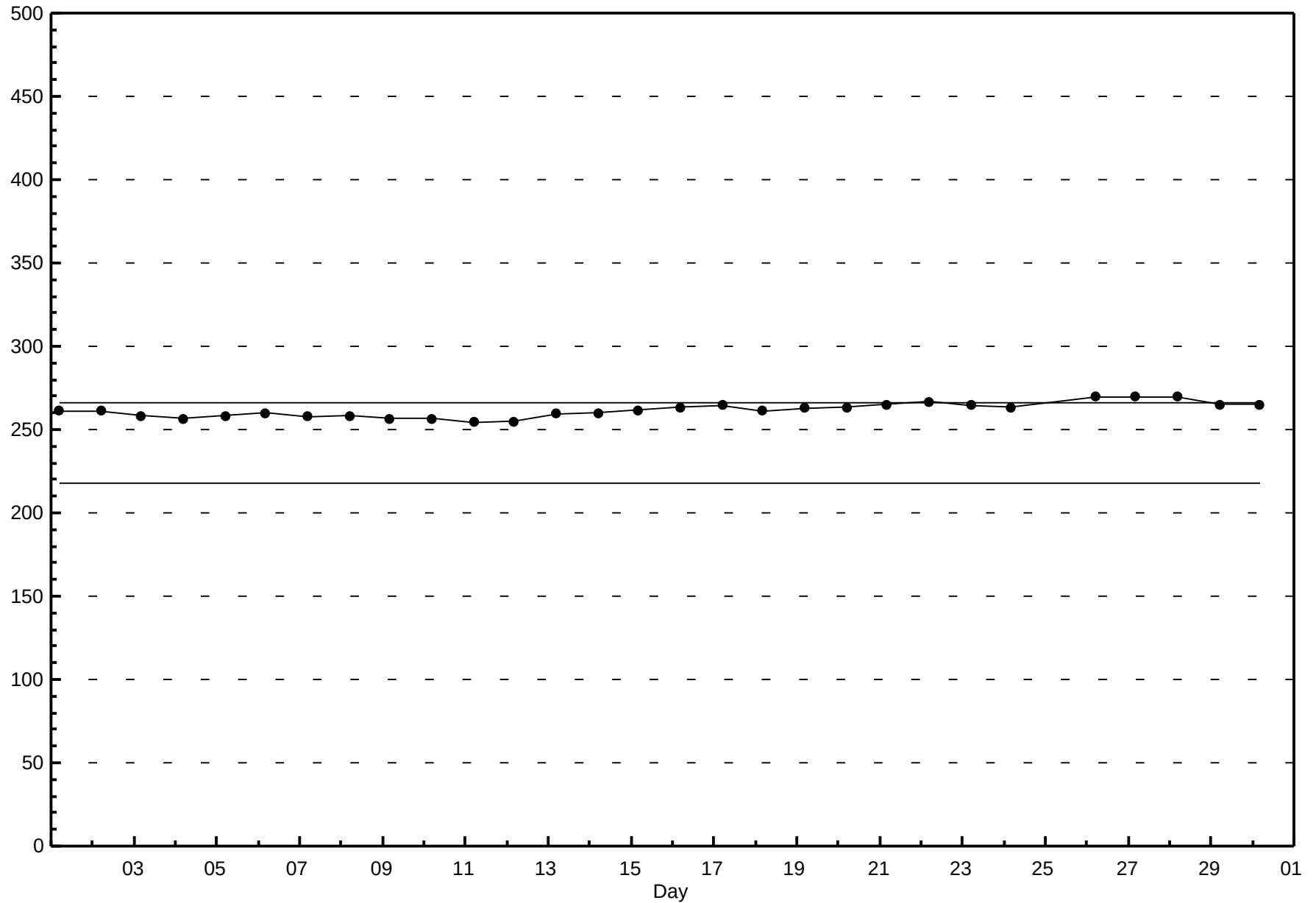
Hourly Maximums

Oxides of Nitrogen (NO_x) - ppb
Beaverlodge - September 2015



Span Responses

Oxides of Nitrogen (NO_x)
Beaverlodge - September 2015



Hourly Averages

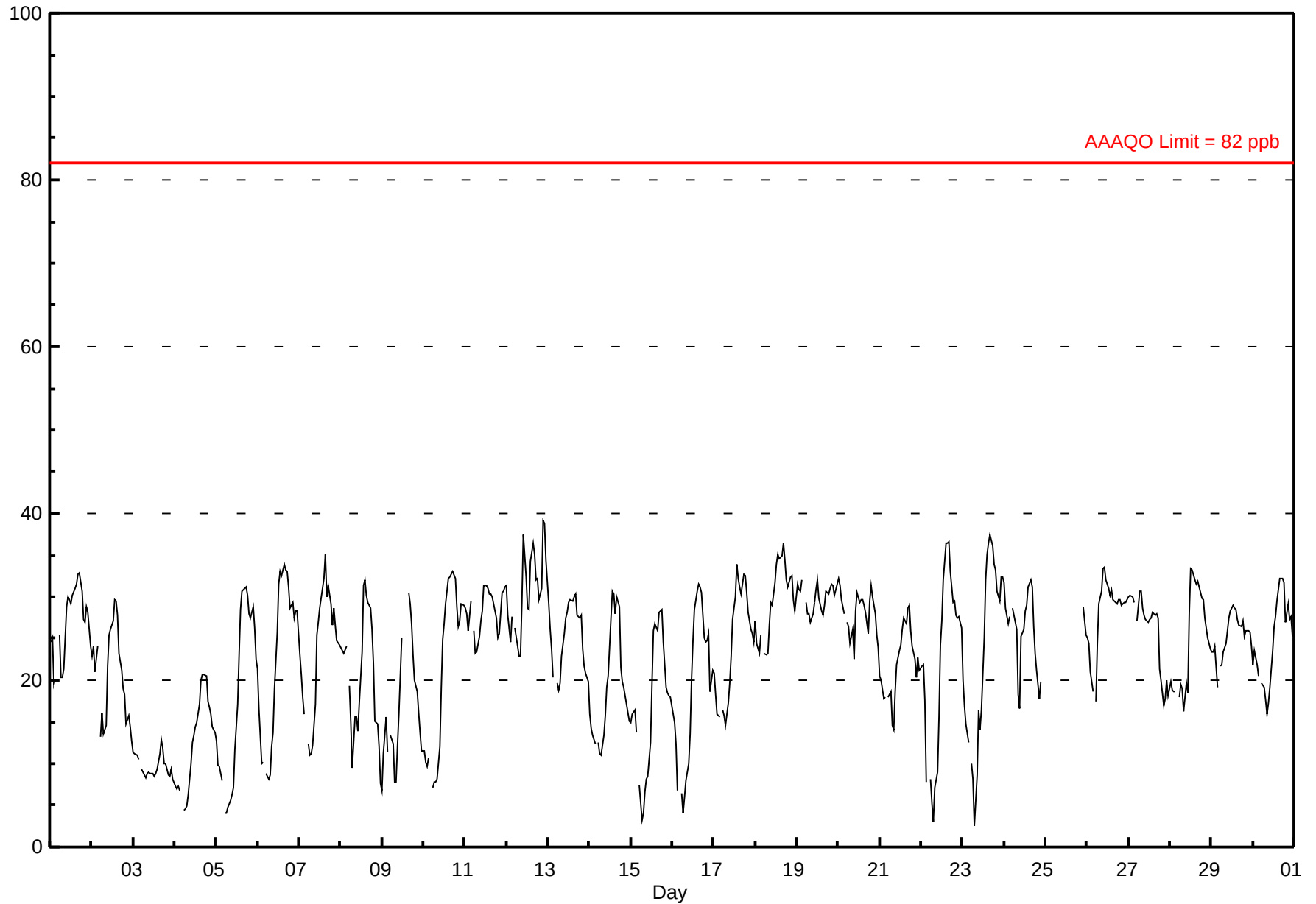
Ozone (O₃) - ppb

Beaverlodge - September 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 39.2 ppb on Sep 12 22:00 Maximum Daily Average: 30.7 ppb on Sep 12																								Hours in Service: 720 Hours of Data: 664 Hours of Missing Data: 56 Hours of Calibration: 32 Percent Operational Time: 96.7		
Minimum Value: 3 ppb on Sep 23 08:00 Minimum Daily Average: 9.7 ppb on Sep 3 Maximum Diurnal Average: 29.9 ppb at hour 16 Minimum Diurnal Average: 15.2 ppb at hour 8 Monthly Average: 23.00 ppb Percentiles: P ₁ = 4.1 P ₁₀ = 10.0 Q ₁ = 17.1 Median = 25.3 Q ₃ = 29.3 P ₉₀ = 31.9 P ₉₉ = 36.5																										
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-Sep	25	25	19	20	A	25	20	20	21	29	30	30	29	30	31	31	33	33	31	27	27	29	28	24	26.9	32.9
2-Sep	23	24	21	24	A	13	16	14	15	22	25	26	27	30	30	28	23	21	19	18	15	16	14	13	20.7	29.6
3-Sep	11	11	11	10	A	9	9	8	9	9	9	9	9	9	9	11	13	12	10	10	9	9	9	8	9.7	12.9
4-Sep	7	7	7	7	A	4	5	5	6	10	12	13	14	15	17	20	21	21	21	17	17	16	14	14	12.7	20.7
5-Sep	13	10	10	8	A	4	4	5	6	6	7	12	17	23	29	31	31	31	30	28	27	29	26	22	17.7	31.2
6-Sep	21	17	10	10	A	9	8	9	12	14	19	26	32	33	33	34	33	33	31	29	29	27	28	28	22.8	33.8
7-Sep	23	21	18	16	A	12	11	11	12	17	25	27	29	30	32	35	30	31	29	27	29	27	25	24	23.5	35.1
8-Sep	24	24	23	24	A	19	15	9	16	16	14	17	23	31	32	30	29	29	26	22	15	15	12	8	20.6	32.0
9-Sep	7	11	16	11	A	13	12	8	8	12	16	25	C	C	C	31	29	27	23	20	19	16	14	12	16.4	30.5
10-Sep	11	10	10	11	A	7	8	8	8	12	19	25	27	29	32	32	33	33	32	29	26	27	29	29	21.2	33.0
11-Sep	29	28	26	29	A	26	23	23	25	27	28	31	31	31	30	30	30	28	27	25	26	31	31	31	28.2	31.4
12-Sep	31	28	25	28	A	26	24	23	23	29	37	32	29	28	34	37	35	32	32	30	31	39	39	34	30.7	39.2
13-Sep	29	26	24	20	A	20	19	20	23	26	27	28	29	30	30	30	30	28	27	28	24	22	21	20	25.2	30.4
14-Sep	16	14	13	12	A	12	11	11	13	16	19	21	27	31	30	28	30	29	22	20	19	17	16	15	19.3	30.7
15-Sep	15	16	16	14	A	7	3	4	7	8	8	13	19	26	27	26	28	28	28	25	19	18	18	18	17.1	28.5
16-Sep	16	15	12	7	A	6	4	6	8	10	14	20	25	28	31	32	31	30	25	25	25	26	19	21	18.9	31.5
17-Sep	21	18	16	16	A	16	16	15	17	20	23	27	30	34	32	31	30	33	33	30	28	26	26	25	24.4	34.0
18-Sep	27	24	23	25	A	23	23	23	27	29	29	32	34	35	35	35	36	34	32	31	32	33	30	28	29.6	36.4
19-Sep	31	31	31	32	A	29	28	28	27	28	29	31	32	30	28	28	29	31	30	31	32	31	30	32	30.0	32.0
20-Sep	32	31	30	28	A	27	26	24	26	22	28	30	29	30	30	29	28	26	30	31	30	28	25	24	28.1	32.2
21-Sep	20	20	18	18	A	18	19	15	14	19	22	24	24	26	28	27	29	29	26	24	22	20	23	21	21.9	29.0
22-Sep	22	22	18	8	A	8	5	3	7	9	16	24	27	32	36	36	37	33	29	29	28	28	28	26	22.2	36.6
23-Sep	20	17	15	13	A	10	8	3	9	16	14	16	25	32	35	36	37	36	34	33	31	30	32	32	23.2	37.5
24-Sep	32	29	27	28	A	29	27	26	18	17	25	26	28	29	31	32	31	26	23	21	18	20	P	P	25.8	32.0
25-Sep	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	29	25	--	28.9
26-Sep	25	24	21	19	A	17	24	29	31	33	34	32	31	30	31	30	30	29	30	30	29	29	29	30	28.1	33.6
27-Sep	30	30	30	29	A	27	31	31	29	28	27	27	27	28	28	28	28	27	21	20	17	18	20	18	26.1	30.7
28-Sep	20	19	19	19	A	18	19	19	16	20	19	28	33	33	32	31	32	31	30	30	27	26	25	24	24.8	33.3
29-Sep	23	23	24	19	A	22	22	23	24	26	28	28	29	29	28	27	27	26	27	25	26	26	26	24	25.4	29.0
30-Sep	22	24	22	21	A	20	19	18	16	17	19	24	27	28	30	32	32	32	32	27	29	27	28	25	24.7	32.3
21.6 20.6 19.1 18.1 -- 16.6 15.9 15.2 16.3 18.8 21.5 24.3 26.6 28.5 29.7 29.9 29.8 29.0 27.3 25.6 24.3 24.3 23.9 22.6																								Diurnal Average		
32.2 31.3 30.7 32.0 -- 29.2 30.6 30.7 30.7 33.3 37.4 32.4 33.9 35.1 36.5 36.5 37.5 36.2 33.9 33.2 32.3 39.2 38.8 34.3																								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 (O₃) - ppb
Beaverlodge - September 2015



Hourly Maximums

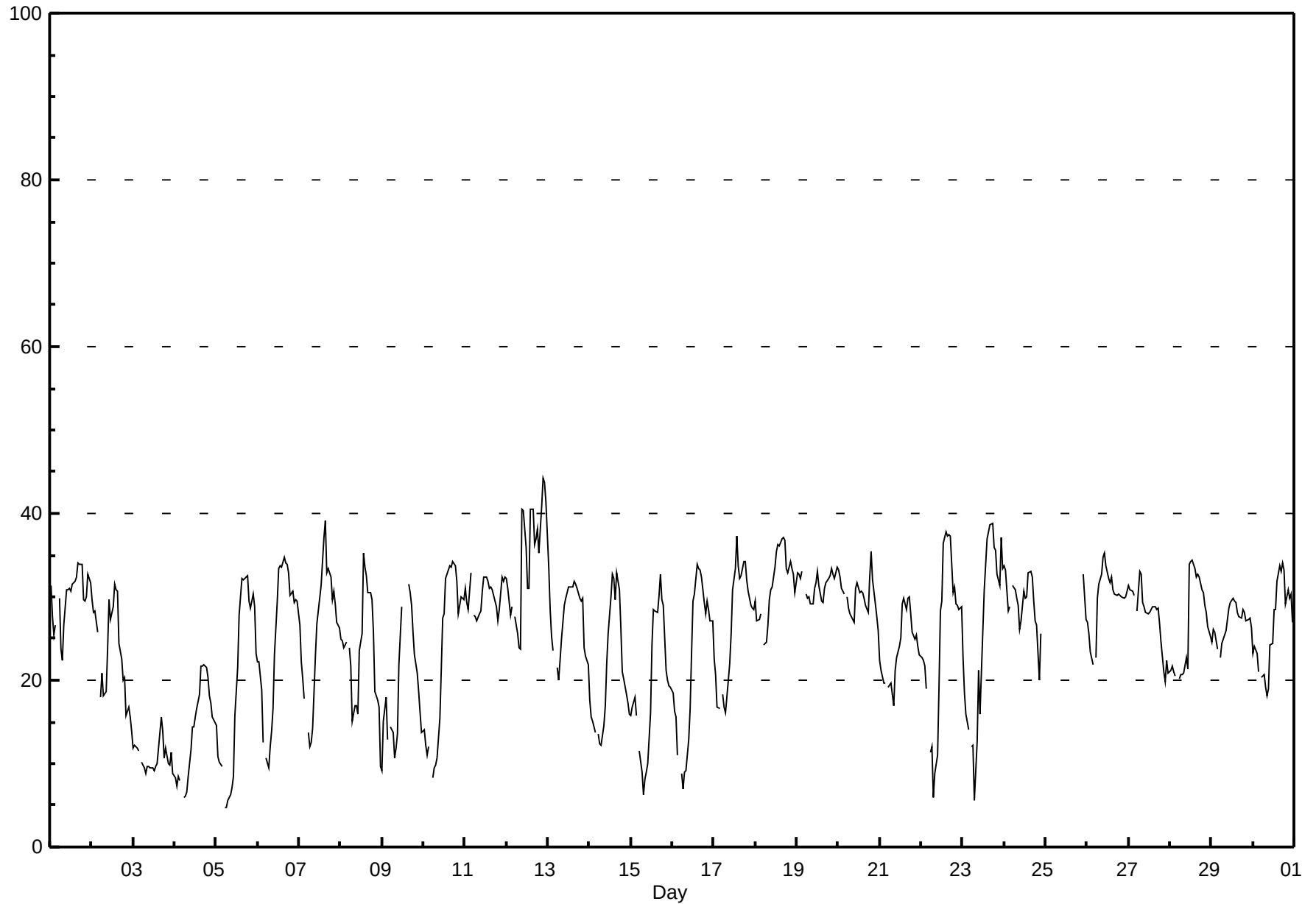
Ozone (O₃) - ppb

Beaverlodge - September 2015

Maximum Value: 44.3 ppb on Sep 12 22:00																				Maximum Daily Average: 34.7 ppb on Sep 12					Hours in Service: 720	
Minimum Value: 5 ppb on Sep 5 06:00																				Minimum Daily Average: 10.8 ppb on Sep 3					Hours of Data: 664	
Maximum Diurnal Average: 31.6 ppb at hour 16																				Minimum Diurnal Average: 17.7 ppb at hour 8					Hours of Missing Data: 56	
Monthly Average: 25.23 ppb																				Percentiles: P ₁ = 6.3 P ₁₀ = 12.0 Q ₁ = 20.0 Median = 28.0 Q ₃ = 31.0 P ₉₀ = 33.5 P ₉₉ = 40.5					Hours of Calibration: 32	
																									Percent Operational Time: 96.7	
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-Sep	31	28	25	27	A	30	24	22	27	31	31	31	32	32	32	34	34	34	30	29	30	33	32	29.9	34.1	
2-Sep	30	28	28	26	A	18	21	18	19	24	30	27	29	32	31	31	24	22	20	16	17	16	14	23.5	31.6	
3-Sep	12	12	12	12	A	10	9	9	10	10	10	9	9	10	10	14	16	14	11	12	10	10	11	9	10.8	15.6
4-Sep	8	7	8	8	A	6	6	7	9	12	14	14	16	17	18	22	22	22	22	20	18	17	16	15	14.1	21.9
5-Sep	15	11	10	10	A	5	5	6	6	7	9	16	22	28	30	32	32	32	32	29	29	30	29	23	19.4	32.5
6-Sep	22	22	19	13	A	11	10	12	14	17	23	29	33	34	34	35	34	34	33	30	31	29	30	29	25.1	34.8
7-Sep	27	22	20	18	A	14	12	12	14	23	27	28	30	31	37	39	33	33	32	30	31	29	27	26	25.9	39.2
8-Sep	25	25	24	25	A	24	22	15	17	17	16	24	26	35	34	33	31	30	30	26	19	18	17	10	23.4	35.3
9-Sep	9	15	18	13	A	14	14	11	12	14	22	29	C	C	C	31	30	29	26	23	21	19	16	14	18.9	31.4
10-Sep	14	12	11	12	A	8	9	10	11	15	21	28	28	32	33	34	34	34	34	32	28	29	30	30	23.0	34.2
11-Sep	31	29	28	33	A	28	28	27	28	28	31	32	32	32	31	31	31	29	29	27	28	32	32	32	30.1	32.9
12-Sep	32	31	28	29	A	28	26	24	24	40	40	36	31	31	40	41	36	37	38	35	41	44	44	41	34.7	44.3
13-Sep	34	28	25	24	A	22	20	22	25	29	30	31	31	31	31	32	32	31	30	29	30	24	23	22	27.6	33.5
14-Sep	18	16	15	14	A	14	12	12	15	17	22	26	30	33	32	30	33	31	26	21	20	18	17	16	21.2	32.8
15-Sep	16	17	18	16	A	11	9	6	8	9	10	16	24	29	28	28	30	33	30	29	21	20	19	19	19.4	32.6
16-Sep	18	16	16	11	A	9	7	9	9	13	17	23	29	30	34	33	33	32	29	28	30	29	27	27	22.2	33.9
17-Sep	23	21	17	17	A	18	17	16	20	22	26	31	33	37	34	32	33	34	34	32	31	29	29	28	26.6	37.3
18-Sep	30	27	27	28	A	24	25	27	30	31	31	34	35	36	36	37	37	37	33	33	34	33	33	31	31.7	37.0
19-Sep	33	33	32	33	A	30	30	30	29	29	31	32	33	31	29	29	31	32	32	32	33	33	32	34	31.5	33.5
20-Sep	33	32	31	30	A	30	29	28	27	27	31	32	30	31	30	30	29	28	32	35	32	29	28	26	30.1	35.5
21-Sep	22	21	20	20	A	19	20	18	17	21	23	24	25	29	30	28	30	30	28	26	25	25	24	23	23.8	30.0
22-Sep	23	22	22	19	A	11	12	6	9	11	19	28	30	36	38	37	37	37	31	31	29	29	28	29	25.0	37.7
23-Sep	23	19	16	14	A	12	12	6	13	21	16	21	31	34	37	38	39	39	36	36	33	31	37	33	25.9	38.8
24-Sep	34	33	28	29	A	31	31	30	29	26	27	31	30	30	33	33	32	29	27	27	20	26	P	P	29.3	33.7
25-Sep	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	33	27	--	32.8
26-Sep	27	26	23	22	A	23	30	31	33	35	35	34	32	32	32	31	30	30	30	30	30	30	30	31	29.9	35.3
27-Sep	31	31	31	30	A	28	33	33	29	29	28	28	28	29	29	29	28	29	27	25	21	20	22	21	27.7	33.1
28-Sep	21	22	21	20	A	20	21	21	21	23	21	34	34	34	33	32	33	32	31	31	29	28	27	25	26.7	34.3
29-Sep	25	26	26	24	A	23	24	25	26	27	29	29	30	29	29	28	28	28	28	28	27	27	27	26	26.9	29.9
30-Sep	23	24	23	21	A	20	21	19	18	19	24	24	28	28	32	34	33	34	33	29	31	30	30	27	26.4	34.1
23.7 22.7 21.5 20.5 -- 18.7 18.5 17.7 18.9 21.6 23.9 26.9 28.6 30.5 31.4 31.6 31.2 31.0 29.6 28.2 26.8 26.4 26.4 24.8																										Diurnal Average
33.7 33.3 32.2 33.1 -- 31.3 33.1 32.8 32.7 40.5 40.4 35.9 35.4 37.3 40.5 40.6 38.6 38.8 38.1 35.6 40.9 44.3 43.8 41.3																										Diurnal Maximum
C - Calibration P - Power Failure A - Automated Daily Zero Span																										

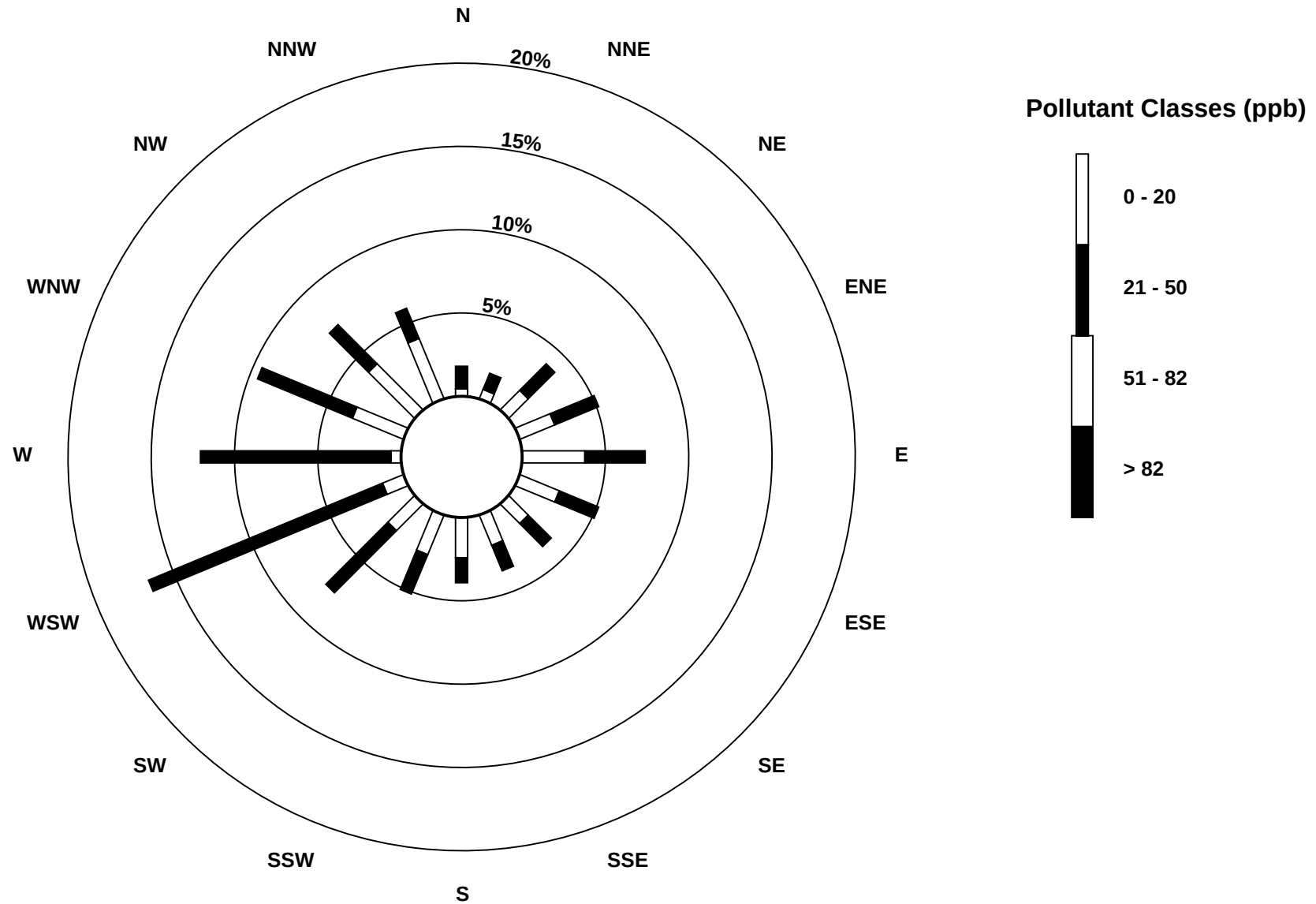
Hourly Maximums

Ozone (O₃) - ppb
Beaverlodge - September 2015



Pollutant Rose

Ozone (O₃) - ppb
Beaverlodge - September 2015



Eight Hour Running Averages

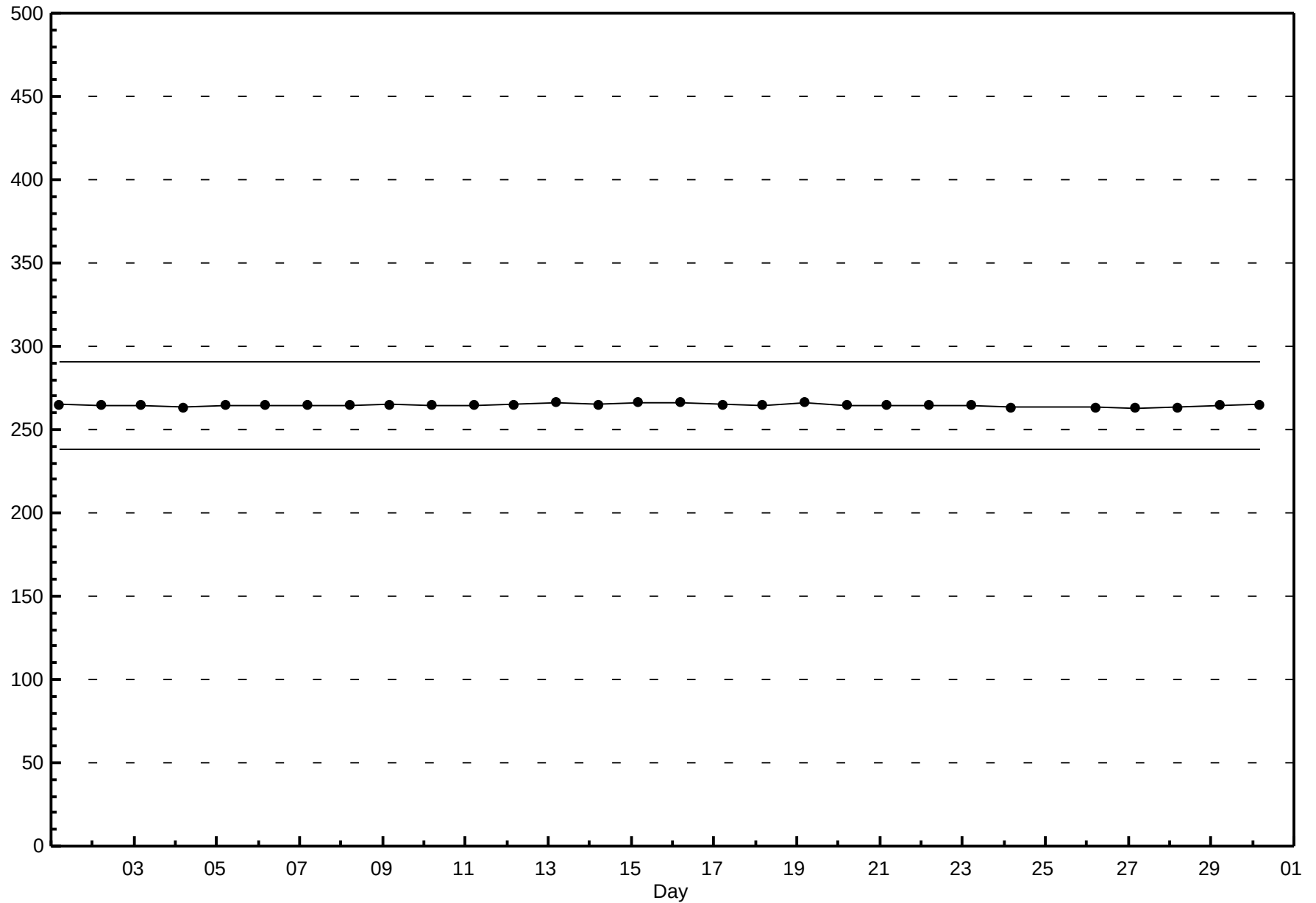
Ozone (O₃) - ppb

Beaverlodge - September 2015

Maximum Value: 34.4 ppb on Sep 23 21:00																								Hours in Service: 720	
Minimum Value: 5.7 ppb on Sep 5 11:00																								Hours of Data: 687	
																								Hours of Missing Data: 33	
Percentiles: P ₁ = 6.2 P ₁₀ = 11.1 Q ₁ = 18.1 Median = 24.7 Q ₃ = 28.7 P ₉₀ = 30.4 P ₉₉ = 33.8																								Hours of Calibration: 6	
																								Percent Operational Time: 96.3	
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Sep	29	28	26	24	23	24	23	22	22	22	24	25	26	26	28	29	30	31	31	31	30	30	30	29	31.0
2-Sep	28	27	25	25	25	23	21	19	18	18	19	20	22	23	25	26	26	26	25	24	23	21	19	17	27.7
3-Sep	16	15	14	13	12	11	11	10	10	9	9	9	9	9	9	9	10	10	10	10	10	10	10	10	15.9
4-Sep	9	9	8	8	8	7	6	6	6	6	7	8	9	10	12	14	15	17	18	18	19	19	18	18	18.7
5-Sep	17	15	14	13	12	10	9	8	7	6	6	6	8	10	13	16	19	22	25	27	29	29	29	28	29.4
6-Sep	27	25	23	20	19	17	14	12	11	10	12	14	16	19	22	25	28	30	32	32	32	31	31	30	32.1
7-Sep	29	27	25	24	23	21	18	16	14	14	15	17	18	20	23	26	28	30	30	30	30	30	29	28	30.4
8-Sep	27	26	25	25	24	23	22	20	19	17	16	15	16	18	20	22	24	26	27	28	27	25	22	19	27.9
9-Sep	17	14	13	12	11	11	11	11	11	11	12	13	13	13	N	N	N	N	N	N	25	23	22	20	24.7
10-Sep	18	16	14	13	12	11	10	9	9	9	10	12	14	17	20	23	26	29	30	31	31	31	30	30	30.9
11-Sep	29	29	28	28	28	28	27	26	26	26	26	26	27	28	29	29	30	30	30	29	29	28	29	29	30.1
12-Sep	29	29	28	29	29	29	28	26	25	25	27	28	28	28	30	31	33	33	32	32	32	34	34	34	34.3
13-Sep	33	33	31	30	30	27	25	22	22	22	22	23	24	25	26	28	29	29	29	29	28	27	26	25	33.3
14-Sep	23	21	20	18	17	16	14	13	13	13	14	15	16	19	21	23	25	27	27	27	26	24	23	21	27.2
15-Sep	19	17	17	16	16	14	12	11	10	9	7	7	9	11	14	17	19	22	24	26	26	25	24	23	26.0
16-Sep	21	20	18	15	15	13	11	10	8	8	8	10	12	14	18	21	24	26	28	28	28	28	26	25	28.4
17-Sep	24	22	21	20	19	18	18	17	16	16	17	19	20	23	25	27	28	30	31	32	31	30	30	29	31.6
18-Sep	28	27	26	26	25	25	24	24	24	25	26	27	28	29	30	32	33	34	34	34	34	34	33	32	34.2
19-Sep	31	31	31	31	31	30	30	30	29	29	29	29	29	29	29	29	29	30	30	30	30	30	30	31	31.5
20-Sep	31	31	31	31	31	30	29	28	28	26	26	26	27	27	28	28	28	29	29	29	29	29	28	28	31.2
21-Sep	27	26	25	23	22	21	20	18	17	17	18	18	19	20	21	23	25	26	26	27	26	26	25	24	26.8
22-Sep	23	23	22	19	19	17	15	12	10	8	8	10	12	15	19	24	27	30	32	33	33	32	31	30	32.6
23-Sep	28	26	24	22	21	18	15	12	10	10	10	11	13	15	19	23	27	29	32	34	34	34	34	33	34.4
24-Sep	32	32	31	30	30	30	29	28	26	24	24	24	25	25	25	26	27	29	28	28	26	25	24	23	32.5
25-Sep	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--
26-Sep	N	N	N	24	24	23	22	23	24	25	27	29	29	31	31	31	31	31	30	30	30	30	29	29	31.4
27-Sep	29	30	30	30	30	29	30	30	30	29	29	28	28	28	28	28	28	28	27	26	25	23	22	21	29.7
28-Sep	20	19	19	19	19	19	19	19	18	19	19	20	22	23	25	27	29	30	31	32	31	30	29	28	31.6
29-Sep	27	26	25	24	24	23	22	22	23	23	23	25	25	26	27	27	28	28	28	27	27	27	26	26	27.8
30-Sep	25	25	24	24	23	22	22	21	20	19	18	19	20	21	22	24	26	28	29	30	30	30	30	29	30.2
33.3 32.5 31.5 31.0 30.8 30.3 30.1 30.0 29.5 29.2 28.8 28.7 29.0 30.6 31.4 31.9 33.1 33.8 34.2 34.1 34.4 34.1 34.3 34.0																									Diurnal Maximums
N - Not Valid																									

Span Responses

Ozone (O₃)
Beaverlodge - September 2015

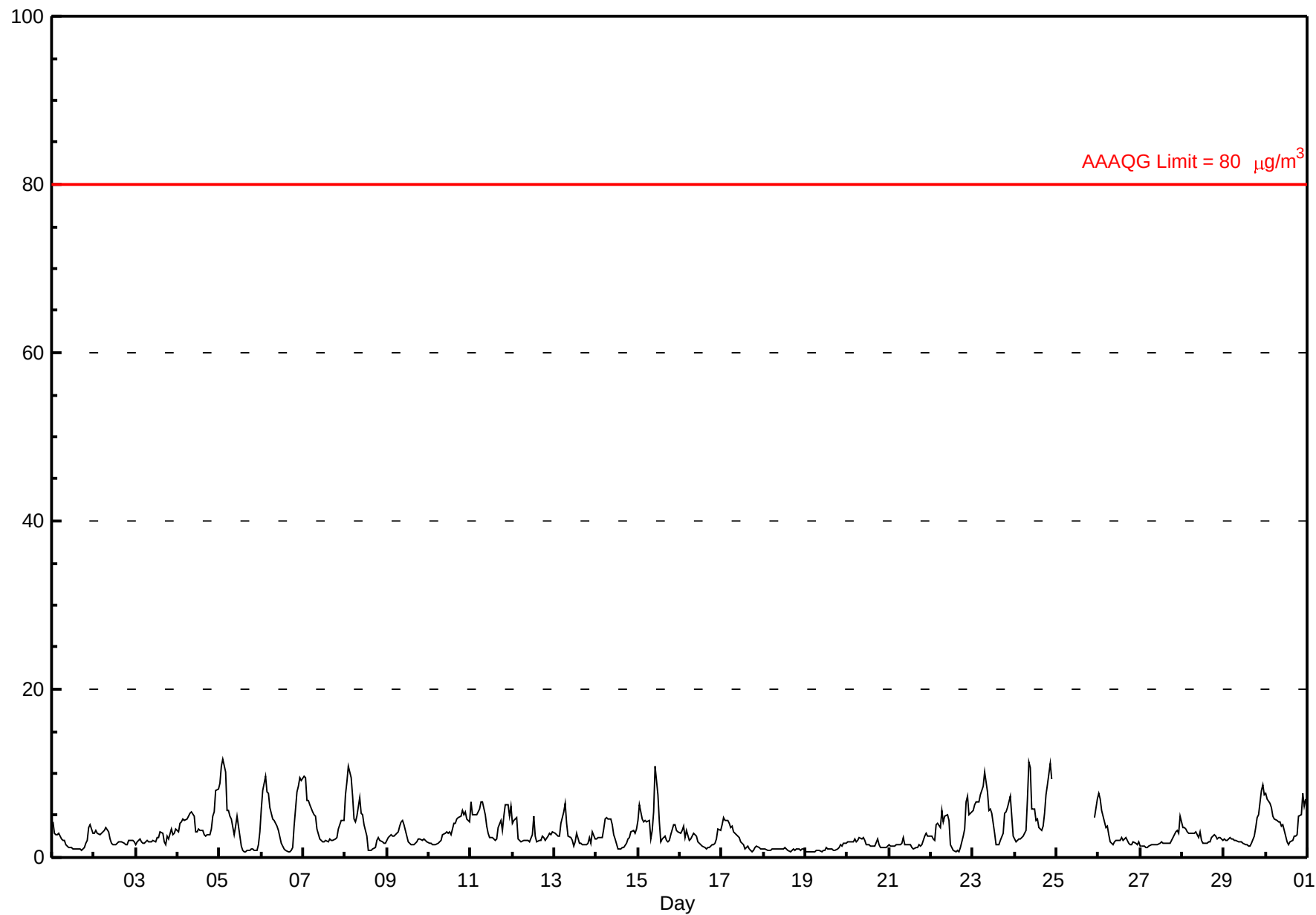


Hourly Averages

Particulate Matter 2.5 (PM_{2.5}) - µg/m³

Beaverlodge - September 2015

Number of Exceedences: 1-hr: 0 24-hr: 0 Maximum Value: 11.7 µg/m³ on Sep 5 03:00																								Maximum Daily Average: 5.4 µg/m³ on Sep 24												Hours in Service: 720	
Minimum Value: 1 µg/m³ on Sep 5 16:00 Maximum Diurnal Average: 4.1 µg/m³ at hour 2 Monthly Average: 3.03 µg/m³																								Minimum Daily Average: 0.9 µg/m³ on Sep 18 Minimum Diurnal Average: 1.7 µg/m³ at hour 15 Percentiles: P ₁ = 0.7 P ₁₀ = 1.0 Q ₁ = 1.6 Median = 2.3 Q ₃ = 4.0 P ₉₀ = 5.8 P ₉₉ = 10.5												Hours of Data: 696	
																								Hours of Missing Data: 24													
																								Hours of Calibration: 0													
																								Percent Operational Time: 96.7													
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-Sep	4	3	3	3	3	2	2	2	2	1	1	1	1	1	1	1	1	1	1	2	2	3	4	3	2.0	4.2											
2-Sep	3	3	3	3	3	3	3	4	3	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2.3	3.6											
3-Sep	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	2	2	3	2	3	3	3	3	2.2	3.4											
4-Sep	3	4	4	5	4	5	5	5	5	5	3	3	3	3	3	3	3	3	3	3	5	5	8	8	4.3	8.2											
5-Sep	9	11	12	10	6	6	5	5	3	4	5	4	1	1	1	1	1	1	1	1	1	1	2	3	3.8	11.7											
6-Sep	6	8	10	8	8	6	5	4	4	4	3	2	1	1	1	1	1	1	1	4	8	9	9	9	4.7	9.6											
7-Sep	10	10	7	7	6	6	5	5	3	2	2	2	2	2	2	2	2	2	2	2	3	4	4	4	4.0	9.7											
8-Sep	8	9	11	9	7	5	4	5	7	5	5	4	3	1	1	1	1	1	2	2	2	2	2	2	4.1	10.8											
9-Sep	2	2	3	3	3	3	3	4	4	4	4	3	2	2	2	2	2	2	2	2	2	2	2	2	2.5	4.5											
10-Sep	2	2	2	2	2	2	2	2	3	3	3	3	3	3	4	4	5	5	5	6	5	5	4	4	3.3	5.7											
11-Sep	7	5	5	5	5	6	7	7	5	4	3	2	2	2	2	2	4	4	3	5	6	6	5	6	4.5	6.7											
12-Sep	4	4	5	2	2	2	2	2	2	2	2	3	5	3	2	2	2	3	2	2	3	3	3	3	2.7	4.9											
13-Sep	3	3	2	3	4	5	6	4	3	2	2	1	2	3	2	2	2	2	2	2	2	2	3	2	2.6	6.5											
14-Sep	2	2	2	2	3	5	5	5	5	4	3	2	1	1	1	1	1	2	2	2	3	3	3	3	2.7	4.7											
15-Sep	4	6	5	4	4	4	4	2	3	5	11	7	4	2	2	3	2	2	2	3	4	4	3	3	4.0	10.9											
16-Sep	3	3	4	2	3	2	2	3	3	3	2	2	2	1	1	1	1	1	2	2	2	2	3	3	2.2	3.8											
17-Sep	4	5	4	4	4	4	4	3	3	3	2	2	2	1	1	1	1	1	1	1	1	1	1	1	2.3	4.7											
18-Sep	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.1											
19-Sep	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1.0	1.7											
20-Sep	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	2	1	1	1	1	1	1	1.7	2.4											
21-Sep	1	1	1	1	1	1	2	2	2	2	2	1	2	1	1	1	1	2	1	2	3	3	3	2	1.6	2.8											
22-Sep	3	2	2	4	4	4	6	4	5	5	4	1	1	1	1	1	1	1	3	3	7	7	5	5	3.3	7.2											
23-Sep	6	6	7	7	7	8	9	10	8	6	6	5	3	2	2	2	2	3	5	5	6	7	5	3	5.3	10.1											
24-Sep	2	2	2	2	2	2	3	7	11	11	6	6	4	5	3	3	4	5	7	9	11	9	P	P	5.4	11.4											
25-Sep	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	5	7	--	7.0											
26-Sep	8	7	6	4	4	4	3	2	2	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2.8	7.6											
27-Sep	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	3	3	3	5	1.9	5.0											
28-Sep	4	4	3	3	3	3	3	3	3	2	3	2	2	2	2	2	2	2	3	3	2	2	2	2	2.5	3.6											
29-Sep	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	2	3	4	5	5	8	9	7	3.0	8.6											
30-Sep	8	7	6	6	5	5	4	4	4	4	4	3	2	2	2	2	3	2	3	5	5	8	6	7	4.4	7.6											
3.9 4.1 4.0 3.7 3.5 3.4 3.5 3.5 3.5 3.2 3.1 2.5 2.1 1.8 1.7 1.7 1.8 2.0 2.3 2.8 3.5 3.8 3.6 3.7																								Diurnal Average													
9.7 10.8 11.7 10.2 7.6 8.0 8.5 10.1 11.4 10.6 10.9 7.4 4.9 4.6 4.0 4.1 4.7 5.2 7.4 8.7 11.2 9.4 9.5 9.1																								Diurnal Maximum													
P - Power Failure																																					
Alberta Ambient Air Quality Guideline (AAQG): 1-hr 80 µg/m³ Alberta Ambient Air Quality Objective (AAQO): 24-hr 30 µg/m³																																					



Hourly Maximums

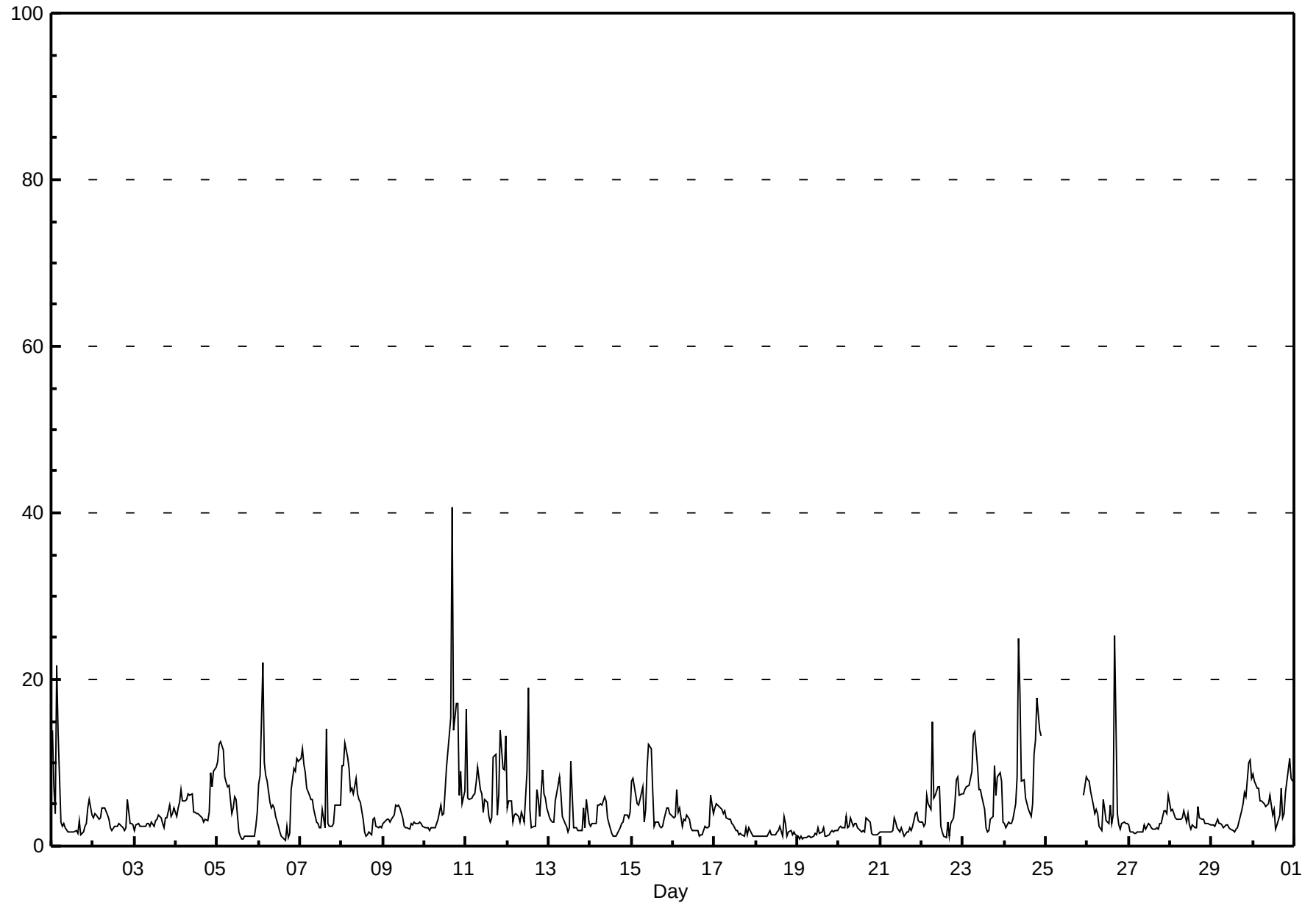
Particulate Matter 2.5 (PM_{2.5}) - µg/m³

Beaverlodge - September 2015

Maximum Value: 40.7 μg/m³ on Sep 10 17:00																				Maximum Daily Average: 8.2 μg/m³ on Sep 24					Hours in Service: 720	
Minimum Value: 1 μg/m³ on Sep 6 16:00																				Minimum Daily Average: 1.4 μg/m³ on Sep 19					Hours of Data: 696	
Maximum Diurnal Average: 5.3 μg/m³ at hour 21																				Minimum Diurnal Average: 2.5 μg/m³ at hour 15					Hours of Missing Data: 24	
Monthly Average: 4.34 μg/m³																				Percentiles: P ₁ = 1.0 P ₁₀ = 1.4 Q ₁ = 2.2 Median = 3.2 Q ₃ = 5.4 P ₉₀ = 8.5 P ₉₉ = 18.3					Hours of Calibration: 0	
																				Percent Operational Time: 96.7						
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-Sep	14	7	4	22	14	3	2	3	2	2	2	2	2	2	2	1	3	1	2	2	3	5	6	4	4.5	21.7
2-Sep	3	4	4	3	3	5	5	5	4	3	2	2	2	2	2	3	2	2	2	2	6	3	3	2	3.1	5.6
3-Sep	2	2	3	2	2	2	2	3	3	2	3	2	3	3	4	3	3	2	3	3	5	4	4	5	3.0	4.9
4-Sep	4	5	5	7	5	5	6	6	6	6	4	4	4	4	4	3	3	3	3	4	9	7	9	10	5.3	9.5
5-Sep	10	12	12	12	8	8	7	7	4	5	6	6	2	1	1	1	1	1	1	1	1	1	2	4	4.8	12.5
6-Sep	8	9	22	10	9	8	5	5	5	5	4	2	2	1	1	1	2	1	1	7	9	9	10	10	6.0	22.0
7-Sep	10	12	10	9	7	6	6	6	4	3	3	2	2	4	2	14	3	2	2	3	5	5	5	5	5.4	14.1
8-Sep	10	10	12	11	9	7	7	6	8	6	6	5	3	2	1	1	2	1	3	3	2	2	2	2	5.1	12.4
9-Sep	3	3	3	3	3	3	4	5	5	5	5	3	2	2	2	2	3	2	3	3	3	3	3	2	3.1	4.9
10-Sep	2	2	2	2	2	2	2	3	3	5	4	4	7	10	13	15	41	14	17	17	6	9	5	7	8.1	40.7
11-Sep	16	6	6	6	6	6	8	10	7	6	4	6	5	4	3	3	11	11	4	6	14	9	9	13	7.4	16.4
12-Sep	5	5	5	3	4	4	4	3	4	4	3	9	19	4	2	2	2	7	6	4	9	6	6	5	5.2	19.0
13-Sep	3	3	3	3	5	7	8	6	4	3	2	2	2	10	2	2	2	2	2	2	5	2	6	3	3.7	10.2
14-Sep	2	3	3	3	5	5	5	5	6	5	3	3	1	1	1	1	1	2	3	3	4	4	3	4	3.2	5.9
15-Sep	8	8	6	5	5	6	7	3	4	9	12	12	7	2	3	3	2	2	2	3	5	5	4	4	5.3	12.2
16-Sep	3	4	7	4	5	2	3	3	4	3	2	2	2	2	2	1	1	1	2	2	2	2	6	4	3.0	6.8
17-Sep	5	5	5	5	4	4	4	3	3	3	3	2	2	2	1	1	1	1	2	1	2	1	1	1	2.7	5.1
18-Sep	1	1	1	1	1	1	1	1	2	1	1	1	2	2	2	1	4	3	1	2	2	1	2	1	1.6	3.6
19-Sep	1	1	1	1	1	1	1	1	1	1	1	1	2	1	2	2	1	1	1	2	2	2	2	2	1.4	2.2
20-Sep	2	2	2	2	4	2	2	3	2	3	3	2	2	2	2	2	3	3	3	1	1	1	1	1	2.3	3.6
21-Sep	2	2	2	2	2	2	2	2	3	3	2	2	2	2	1	2	2	2	2	2	4	4	3	3	2.2	4.1
22-Sep	3	2	3	6	5	4	15	6	6	7	7	2	2	1	1	3	1	3	3	5	8	8	6	6	4.8	14.9
23-Sep	6	7	7	7	8	9	13	14	10	7	7	6	4	2	2	2	3	4	10	6	8	9	8	3	6.7	13.7
24-Sep	3	2	3	3	3	3	5	8	25	19	8	8	6	5	4	4	5	11	13	18	14	13	P	P	8.2	24.9
25-Sep	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	6	8	--	8.3
26-Sep	8	8	7	5	4	4	4	2	2	6	4	3	3	5	3	4	25	4	2	2	3	3	3	3	4.8	25.3
27-Sep	2	2	2	1	2	2	2	2	2	2	2	3	2	2	2	2	2	2	3	3	4	4	4	6	2.5	6.1
28-Sep	4	4	4	3	3	3	3	3	4	3	4	2	2	2	2	2	5	3	3	3	3	3	3	2	3.2	4.7
29-Sep	2	2	2	3	3	3	2	2	2	2	2	2	2	2	2	2	3	4	5	6	6	10	10	8	3.8	10.3
30-Sep	9	8	7	7	5	5	5	5	5	5	6	4	4	2	2	4	7	3	4	6	9	11	8	8	5.8	10.6
5.2 4.9 5.2 5.2 4.7 4.2 4.9 4.5 4.8 4.6 4.0 3.6 3.5 2.9 2.5 3.1 5.0 3.5 3.8 4.3 5.3 5.0 4.8 4.7																									Diurnal Average	
16.4 12.2 22.0 21.7 13.6 9.0 14.9 13.7 24.9 18.6 12.2 11.7 19.0 10.2 13.4 15.4 40.7 13.9 17.1 17.8 13.9 13.2 10.5 13.2																									Diurnal Maximum	
P - Power Failure																										

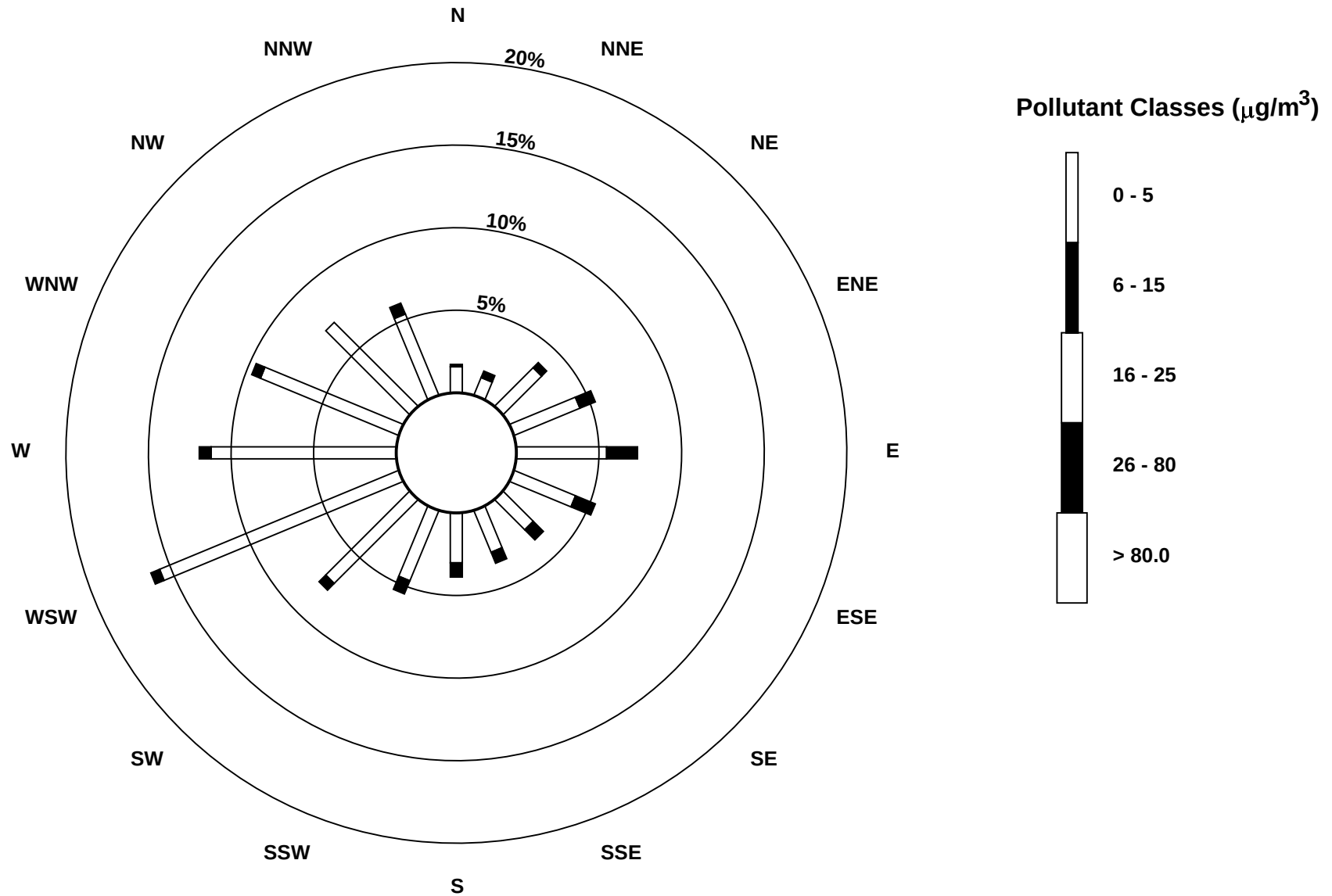
Hourly Maximums

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Beaverlodge - September 2015



Pollutant Rose

Particulate Matter 2.5 (PM_{2.5}) - µg/m³
Beaverlodge - September 2015



Hourly Averages

External Temperature (ET) - °C

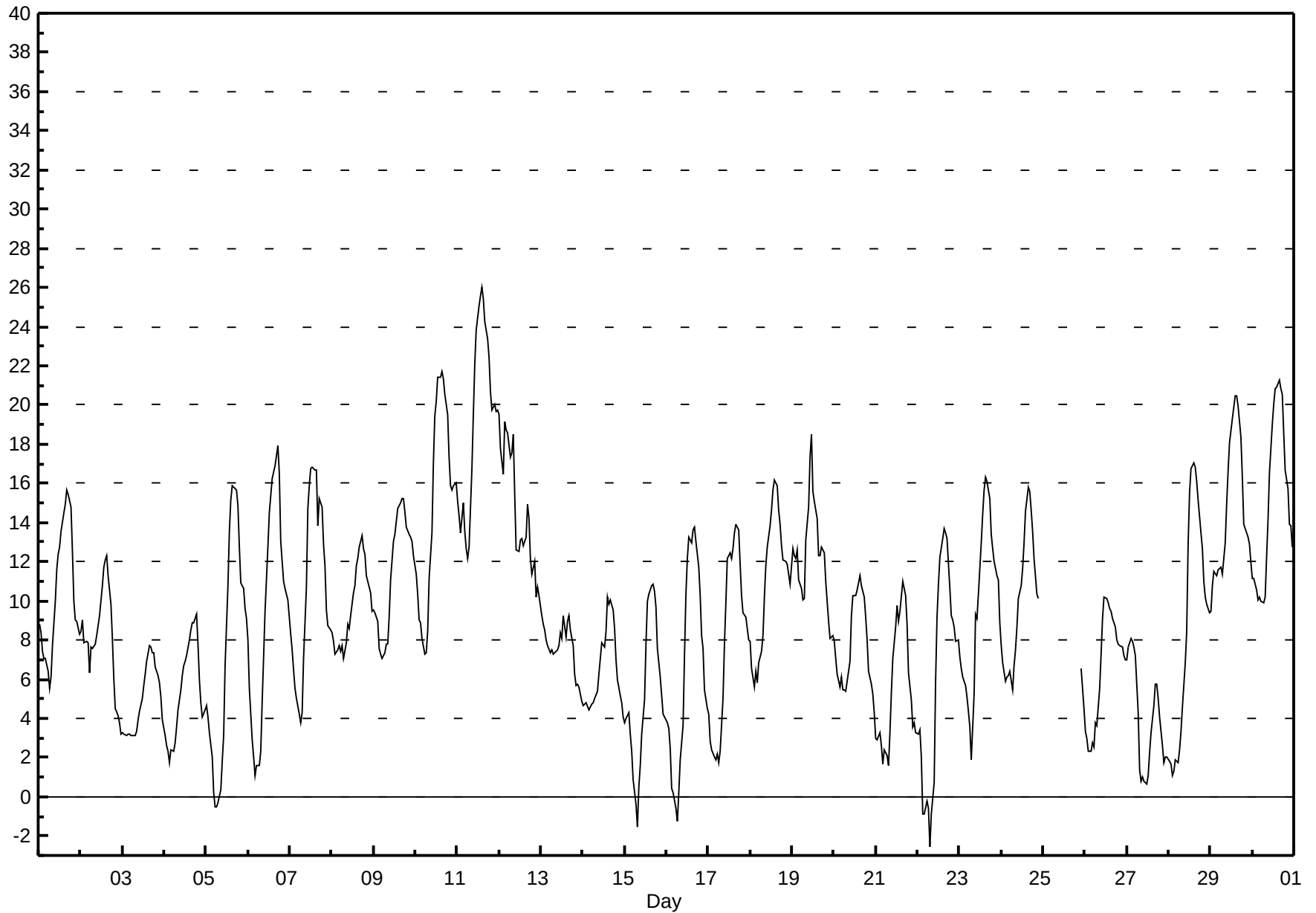
Beaverlodge - September 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 26.0 °C on Sep 11 15:00 Maximum Daily Average: 19.3 °C on Sep 11																			Hours in Service: 720 Hours of Data: 696																														
Minimum Value: -3 °C on Sep 22 08:00 Minimum Daily Average: 3.9 °C on Sep 27 Maximum Diurnal Average: 14.0 °C at hour 16 Minimum Diurnal Average: 5.3 °C at hour 7 Monthly Average: 9.37 °C Percentiles: P ₁ = -0.6 P ₁₀ = 2.5 Q ₁ = 5.6 Median = 9.0 Q ₃ = 12.7 P ₉₀ = 16.2 P ₉₉ = 23.2																			Hours of Missing Data: 24 Hours of Calibration: 0 Percent Operational Time: 96.7																														
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-Sep	9	8	7	7	7	6	6	6	8	10	12	12	13	14	14	15	16	15	15	13	10	9	9	8	10.4	15.6																							
2-Sep	8	9	8	8	8	6	8	8	8	8	9	9	11	12	12	12	11	10	8	6	4	4	4	3	8.1	12.3																							
3-Sep	3	3	3	3	3	3	3	3	3	4	4	5	6	6	7	8	8	7	7	7	6	6	5	4	4.9	7.7																							
4-Sep	3	3	2	2	2	2	3	4	4	5	6	7	7	7	8	9	9	9	9	8	6	5	4	4	5.3	9.3																							
5-Sep	5	4	3	2	0	-1	0	0	0	2	3	7	11	14	15	16	16	16	15	13	11	11	10	9	7.5	15.9																							
6-Sep	8	6	3	2	1	2	2	2	5	7	9	13	15	15	16	17	17	18	17	13	11	11	10	10	9.5	17.9																							
7-Sep	8	8	6	6	5	4	4	4	7	11	15	16	17	17	17	17	14	15	15	13	12	10	9	8	10.7	16.8																							
8-Sep	8	8	7	7	8	7	8	7	8	9	9	10	11	12	12	13	13	13	12	11	11	10	9	9	9.7	13.3																							
9-Sep	10	9	9	8	7	7	7	8	8	9	11	13	13	14	15	15	15	15	15	14	13	13	13	12	11.4	15.3																							
10-Sep	11	10	9	9	8	7	7	8	11	13	17	19	20	21	21	22	21	21	20	17	16	16	16	16	14.9	21.7																							
11-Sep	15	14	13	15	14	13	12	13	17	20	22	24	25	26	26	25	24	23	22	21	20	20	20	20	19.3	26.0																							
12-Sep	20	18	16	19	19	19	17	18	18	15	13	12	13	13	13	13	15	14	12	11	12	10	11	10	14.7	19.5																							
13-Sep	9	9	8	8	8	7	7	7	7	7	8	8	8	9	8	9	9	9	8	6	6	6	6	5	7.6	9.3																							
14-Sep	5	5	5	4	5	5	5	5	5	6	7	8	8	8	10	10	10	10	9	7	6	5	5	4	6.5	10.2																							
15-Sep	4	4	4	3	2	1	0	-2	0	2	3	5	8	10	10	11	11	10	10	8	6	5	4	4	5.2	10.9																							
16-Sep	4	3	2	0	0	-1	-1	0	2	4	7	10	12	13	13	14	14	13	12	10	8	8	5	5	6.6	13.8																							
17-Sep	4	3	2	2	2	2	2	2	5	8	10	12	12	12	13	13	14	14	12	10	9	9	9	8	7.9	13.9																							
18-Sep	8	7	6	6	6	7	7	8	10	12	13	14	15	16	16	16	15	14	13	12	12	12	11	11	11.0	16.2																							
19-Sep	13	12	12	13	11	11	10	10	13	15	17	18	16	15	14	12	12	13	12	11	10	9	8	8	12.3	18.5																							
20-Sep	8	7	6	6	6	5	5	5	6	7	9	10	10	11	11	11	11	10	9	8	6	6	5	4	7.7	11.3																							
21-Sep	3	3	3	3	2	2	2	2	3	5	7	9	10	9	9	11	11	10	9	6	5	4	4	3	5.6	11.0																							
22-Sep	3	3	2	-1	-1	0	-1	-3	-1	1	6	9	11	12	13	14	13	13	11	9	9	9	8	8	6.2	13.7																							
23-Sep	7	7	6	6	5	4	4	2	5	9	9	10	13	14	16	16	16	15	13	13	12	11	11	9	9.8	16.3																							
24-Sep	8	7	6	6	6	6	5	7	8	9	10	11	12	13	15	16	16	15	14	12	10	10	P	P	10.0	15.8																							
25-Sep	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	7	4	--	6.5																							
26-Sep	3	3	2	2	3	3	4	4	6	7	9	10	10	10	10	9	9	9	8	8	8	8	7	7	6.6	10.2																							
27-Sep	7	8	8	8	8	7	4	1	1	1	1	1	1	2	3	5	6	6	5	4	3	2	2	2	3.9	8.0																							
28-Sep	2	2	1	1	2	2	2	3	5	7	8	13	15	17	17	17	16	15	14	13	11	10	10	9	8.8	17.1																							
29-Sep	9	11	11	11	12	12	12	11	13	15	17	18	19	20	20	20	20	18	16	14	14	13	13	12	14.7	20.5																							
30-Sep	11	11	11	10	10	10	10	10	12	14	17	19	20	21	21	21	21	21	19	17	16	14	14	13	15.0	21.3																							
																									Diurnal Average	Diurnal Maximum																							
																									7.5 19.5	7.0 17.8	6.4 16.5	6.1 19.2	5.8 18.7	5.5 18.6	5.3 17.4	5.3 17.5	6.8 18.5	8.4 19.5	9.9 22.1	11.5 23.8	12.4 25.1	13.2 25.6	13.7 26.0	14.0 25.5	13.9 24.3	13.5 23.4	12.4 22.4	10.9 20.7	9.8 19.7	9.1 20.0	8.6 19.7	8.0 19.8	
P - Power Failure																																																	

Hourly Averages

External Temperature (ET) - °C

Beaverlodge - September 2015



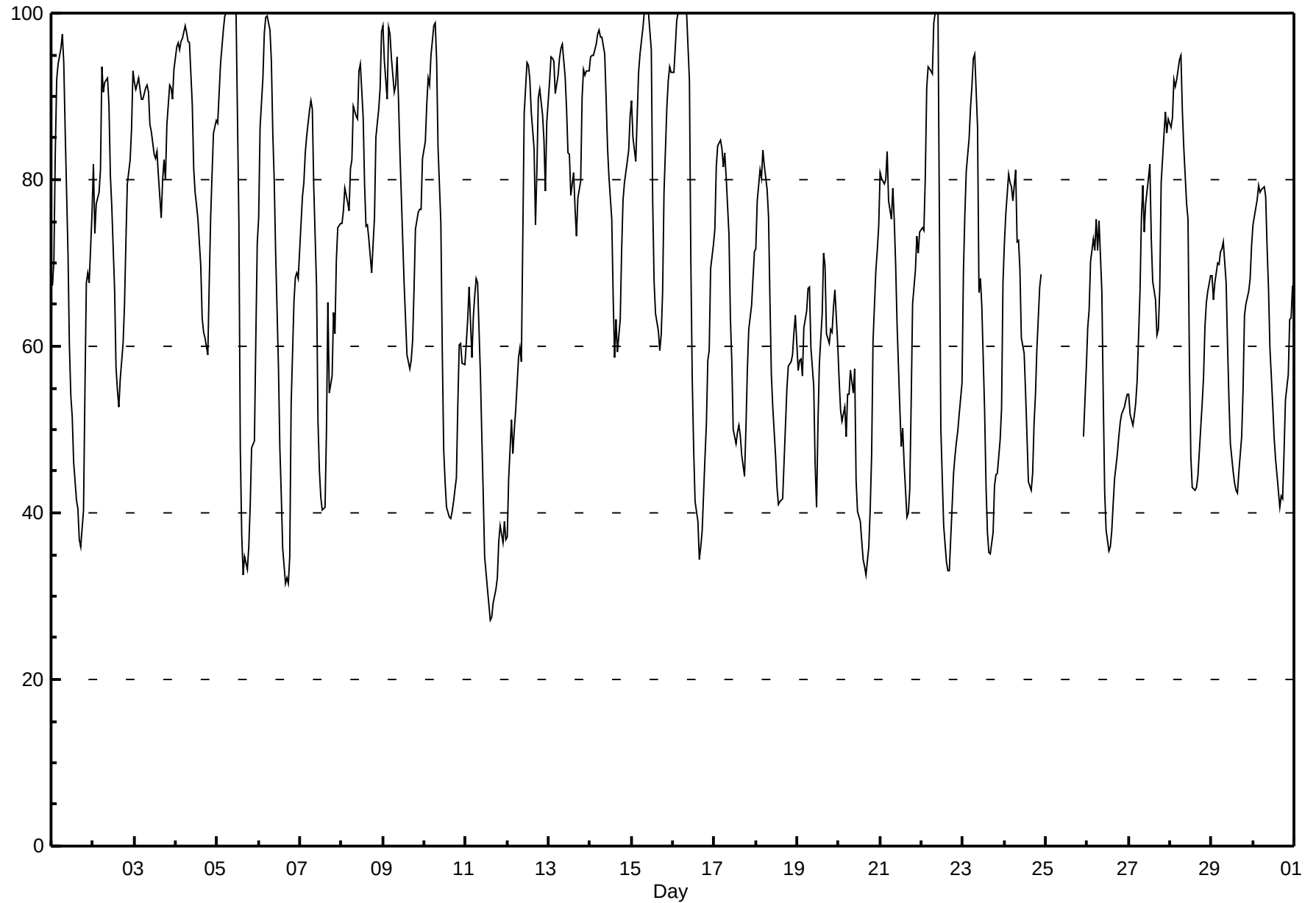
Hourly Averages

Relative Humidity (RH) - %
Beaverlodge - September 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 100.0 % on Sep 5 06:00 Maximum Daily Average: 88.3 % on Sep 13																								Hours in Service: 720 Hours of Data: 696 Hours of Missing Data: 24 Hours of Calibration: 0 Percent Operational Time: 96.7		
Minimum Value: 27 % on Sep 11 15:00 Maximum Diurnal Average: 85.0 % at hour 8 Monthly Average: 68.95 %												Minimum Daily Average: 45.5 % on Sep 11 Minimum Diurnal Average: 49.8 % at hour 16 Percentiles: P ₁ = 31.2 P ₁₀ = 41.7 Q ₁ = 52.9 Median = 70.0 Q ₃ = 85.3 P ₉₀ = 94.3 P ₉₉ = 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-Sep	67	70	83	92	94	96	97	94	86	71	60	54	52	46	42	40	37	36	40	55	68	69	68	76	66.4	97.5
2-Sep	82	74	77	79	81	93	90	92	92	89	81	77	67	57	55	53	56	60	65	73	80	82	86	93	76.4	93.5
3-Sep	92	91	92	91	90	90	91	91	91	87	86	83	83	83	80	75	80	82	80	87	91	91	90	93	87.1	93.2
4-Sep	96	96	96	97	97	98	98	97	96	89	81	79	77	75	70	63	62	61	59	68	75	81	86	87	82.6	98.5
5-Sep	87	90	94	98	100	100	100	100	100	100	100	100	75	48	37	33	35	33	36	41	48	49	61	72	72.3	100.0
6-Sep	76	86	92	98	99	100	98	94	86	80	71	58	48	42	36	32	32	32	35	53	66	68	69	68	67.4	99.6
7-Sep	75	78	80	83	85	88	89	88	79	67	51	45	42	40	41	50	65	54	57	64	62	70	74	75	66.8	89.5
8-Sep	75	76	79	77	76	81	82	89	88	87	93	94	87	79	74	75	73	69	72	75	85	88	91	98	81.9	97.8
9-Sep	98	94	90	98	97	95	90	91	95	90	83	73	68	63	59	57	58	61	67	74	76	76	76	82	79.7	98.4
10-Sep	85	89	92	91	95	99	99	94	84	75	59	48	44	41	39	39	40	41	44	53	60	60	58	58	66.1	98.8
11-Sep	60	63	67	59	64	66	68	68	57	49	42	35	31	29	27	27	29	31	32	37	39	37	39	37	45.5	68.1
12-Sep	37	44	51	47	50	52	59	60	58	73	88	94	94	92	88	84	75	81	90	91	88	85	79	87	72.7	94.0
13-Sep	92	95	95	94	90	93	95	96	96	92	89	83	83	78	81	77	73	78	80	90	93	93	93	93	88.3	96.3
14-Sep	95	95	95	96	98	98	97	97	95	90	84	80	75	66	59	63	59	63	72	78	80	82	83	88	82.8	97.9
15-Sep	89	85	82	88	93	95	98	100	100	100	100	96	77	68	64	62	59	61	66	79	89	92	94	93	84.6	100.0
16-Sep	93	96	99	100	100	100	100	100	100	92	70	56	48	41	39	34	36	38	47	51	58	59	69	72	70.8	100.0
17-Sep	74	82	84	85	84	81	83	80	73	63	58	50	48	50	50	49	47	44	50	57	62	65	68	71	65.0	84.8
18-Sep	72	77	81	80	84	82	79	76	66	57	53	47	43	41	41	42	46	50	55	58	58	59	62	64	61.3	83.6
19-Sep	57	58	58	56	62	64	67	67	60	55	46	41	51	58	64	71	70	61	60	62	62	65	67	60	60.1	71.1
20-Sep	56	52	51	53	49	54	54	57	54	57	44	40	39	37	34	33	33	36	41	47	61	69	71	74	49.9	74.4
21-Sep	81	80	79	80	83	77	75	79	75	70	63	52	48	50	46	39	40	43	53	65	69	73	71	74	65.3	83.4
22-Sep	74	74	80	91	93	93	93	99	100	100	75	50	44	38	34	33	33	37	45	47	48	50	52	56	64.2	100.0
23-Sep	69	76	81	85	89	91	94	95	86	67	68	65	52	43	38	35	35	38	43	45	45	49	53	68	62.9	95.1
24-Sep	72	76	81	80	79	77	81	72	73	69	61	59	54	49	44	43	45	51	54	60	67	69	P	P	64.4	81.2
25-Sep	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	49	58	--	57.5
26-Sep	62	64	70	73	71	75	72	75	67	54	43	38	35	36	38	41	44	47	49	51	52	53	54	54	54.9	75.3
27-Sep	54	52	51	52	53	56	66	75	79	74	77	80	82	73	68	66	61	62	67	80	85	88	86	87	69.8	88.2
28-Sep	86	87	92	91	92	94	95	88	84	77	75	58	47	43	43	43	44	47	53	56	62	65	67	68	69.2	94.9
29-Sep	69	66	68	70	70	71	72	73	68	60	53	48	45	44	43	42	45	49	55	64	65	67	68	72	60.2	72.6
30-Sep	75	76	78	79	78	79	79	78	72	67	60	53	49	47	45	41	42	42	47	53	57	63	63	67	62.0	79.2
75.8 77.4 79.9 81.5 82.7 84.1 84.9 85.0 81.3 75.9 69.5 63.3 58.2 53.7 51.0 49.8 50.1 51.4 55.6 62.4 67.2 69.6 70.5 74.0																								Diurnal Average		
98.4 96.4 99.1 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 93.7 92.0 88.2 83.8 80.0 82.5 89.8 90.8 93.2 92.5 93.6 97.8																								Diurnal Maximum		
P - Power Failure																										

Hourly Averages

Relative Humidity (RH) - %
Beaverlodge - September 2015



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Beaverlodge - September 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	6	5	4	2	2	8	5	10	10	20	23	23	18	18	14	13	11	8	3	12	9	8	3	4	6.9	23.5
Dir	308	350	253	270	172	231	169	181	236	258	243	241	256	246	250	250	247	241	112	160	91	82	104	193	236	243
2 Spd	6	13	8	3	3	9	5	5	13	15	18	20	22	22	20	22	21	21	18	17	15	17	17	14	12.4	22.4
Dir	35	26	26	247	287	311	345	318	251	264	277	277	280	293	297	312	315	321	323	327	324	303	305	300	305	293
3 Spd	14	15	15	16	16	13	12	15	14	13	12	12	14	14	13	13	11	12	11	11	9	8	8	8	11.9	15.7
Dir	295	296	293	292	298	301	302	307	308	314	306	308	310	311	317	320	340	342	335	343	328	342	341	331	313	298
4 Spd	9	12	11	5	3	5	7	5	5	5	5	3	4	7	5	4	4	6	5	5	7	8	9	8	1.1	11.8
Dir	331	329	321	340	296	284	293	258	288	298	288	235	241	183	200	180	134	144	125	103	44	57	86	92	324	329
5 Spd	8	4	3	3	4	5	3	3	4	4	3	2	2	1	5	7	10	8	6	8	8	9	9	6	2.9	10.3
Dir	101	133	180	126	198	210	29	357	317	144	202	150	162	339	134	130	106	95	60	39	38	35	53	61	88	106
6 Spd	3	2	2	3	4	6	8	4	5	5	5	7	2	8	6	8	7	4	5	8	8	6	1	1	1.7	8.4
Dir	283	34	351	330	339	342	332	315	302	224	210	174	207	269	286	333	347	359	22	80	95	110	171	20	333	332
7 Spd	1	4	1	1	2	2	2	4	3	4	21	19	20	17	22	8	6	2	6	6	5	1	2	3	4.4	22.1
Dir	275	243	214	118	121	128	160	62	115	225	278	284	278	280	269	258	76	149	203	253	286	174	60	62	269	269
8 Spd	4	3	3	4	2	4	1	2	4	1	3	2	5	9	7	13	9	10	8	2	2	2	2	2	1.6	13.1
Dir	50	67	63	55	71	48	200	134	149	179	241	282	331	285	262	236	262	263	293	270	51	44	210	119	272	236
9 Spd	2	4	7	2	4	4	2	1	4	6	9	14	14	15	13	12	11	13	5	2	1	4	4	4	5.2	14.9
Dir	177	215	224	71	62	59	131	179	163	199	216	226	221	219	224	225	226	226	261	123	103	262	248	239	219	219
10 Spd	6	4	5	8	2	1	4	3	3	6	17	31	34	32	33	33	34	31	22	16	15	14	17	22	15.1	34.5
Dir	233	214	220	246	193	97	49	54	132	201	248	257	255	263	266	257	262	262	262	254	246	266	261	258	256	255
11 Spd	15	11	11	14	10	3	5	1	10	19	32	38	37	37	37	37	28	22	22	15	14	15	13	14	19.0	37.8
Dir	261	257	241	249	239	204	213	290	241	243	244	250	249	253	249	249	253	247	241	243	256	279	257	256	249	250
12 Spd	7	10	3	27	25	22	15	14	18	19	13	5	7	9	9	7	9	6	6	2	1	6	4	6	8.8	27.5
Dir	276	221	215	256	260	265	262	275	264	324	335	292	285	290	258	255	261	296	285	327	207	178	16	216	271	256
13 Spd	9	5	5	4	5	12	10	9	11	15	12	12	8	7	6	7	9	11	6	8	8	5	5	7	6.2	14.7
Dir	228	215	193	209	301	312	330	302	306	303	314	313	14	337	340	278	249	283	331	40	295	289	301	326	304	303
14 Spd	7	7	6	6	7	9	7	5	6	3	1	3	10	6	5	9	9	10	9	7	7	8	8	10	3.4	10.3
Dir	319	316	326	343	346	348	335	356	15	42	220	80	149	144	75	46	100	129	123	64	68	83	79	90	57	129
15 Spd	9	7	7	2	4	2	2	5	2	3	2	5	6	8	13	13	14	17	14	9	6	7	9	7	5.4	16.7
Dir	91	78	82	169	270	346	204	229	228	173	172	185	175	156	163	164	161	158	143	143	94	96	98	95	143	158
16 Spd	5	2	2	1	2	3	2	3	3	4	6	10	6	4	12	13	17	8	7	5	2	2	5	4	2.8	16.5
Dir	119	136	263	311	228	37	342	60	158	168	186	217	216	225	241	249	285	265	282	259	48	50	329	45	249	285
17 Spd	2	3	3	3	3	3	4	4	3	3	10	19	24	18	16	19	23	29	19	13	8	1	5	9	7.9	29.0
Dir	104	119	85	109	108	113	60	68	149	179	212	231	238	241	242	230	252	262	262	261	243	218	224	233	239	262
18 Spd	8	11	4	13	8	21	16	14	14	18	21	27	22	29	30	36	30	17	18	18	13	17	10	4	16.8	36.2
Dir	220	238	196	245	258	241	246	229	244	234	233	244	249	251	251	254	261	239	218	221	216	214	189	176	239	254
19 Spd	15	12	20	20	8	4	3	1	5	12	34	45	28	20	28	30	25	23	16	16	12	11	9	9	14.0	44.6
Dir	213	207	213	223	211	268	207	97	219	246	258	264	297	326	306	298	295	286	283	284	281	262	247	269	269	264
20 Spd	15	18	13	5	6	8	5	6	9	2	10	17	11	12	11	12	15	11	18	12	18	12	6	9	10.0	18.1
Dir	295	273	287	11	316	359	11	327	318	332	312	281	302	313	298	321	320	322	297	300	275	275	286	303	302	275
21 Spd	8	8	7	6	3	6	9	5	5	5	7	10	7	14	12	14	14	7	2	5	6	5	6	3	5.1	14.2
Dir	300	295	297	274	309	324	329	348	319	302	300	312	317	272	275	276	315	314	46	63	56	68	79	107	310	276
22 Spd	4	2	0	2	4	7	3	1	2	1	3	1	1	3	2	2	2	8	9	8	8	8	11	14	2.9	14.1
Dir	99	76	57	206	331	37	287	204	212	319	75	49	293	178	189	288	71	80	69	77	88	93	93	96	84	96



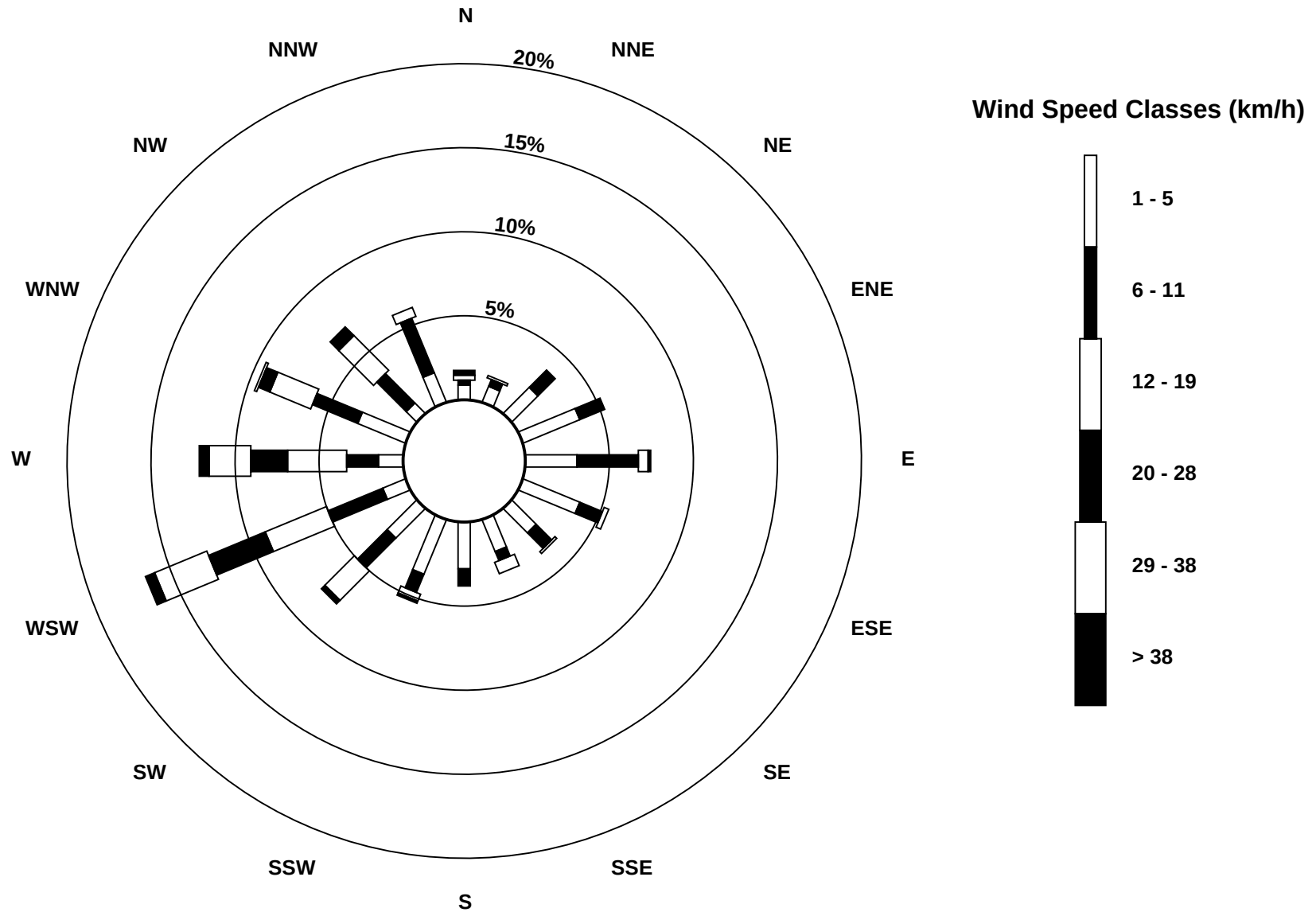
Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Beaverlodge - September 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	13	12	9	5	1	1	1	1	5	5	10	8	5	9	10	11	11	10	7	7	3	7	18	9	4.1	17.7			
Dir	100	92	96	113	113	293	339	153	43	14	165	141	95	130	118	108	108	106	71	73	139	196	281	317	106	281			
24 Spd	7	1	3	5	5	4	2	4	2	7	11	13	17	20	13	9	6	6	6	4	3	4	P	P	4.4	20.4			
Dir	327	323	95	88	82	85	78	77	169	130	99	104	100	100	108	114	160	246	262	267	84	235	P	P	107	100			
25 Spd	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	5	1	--	4.8			
Dir	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	236	170	--	236			
26 Spd	2	3	3	2	3	4	14	17	20	30	40	43	50	52	51	49	40	37	32	35	28	31	26	29	25.8	52.1			
Dir	91	102	172	158	196	194	252	253	237	243	249	252	263	259	263	258	258	262	259	254	249	253	247	250	254	259			
27 Spd	27	33	36	34	26	19	21	24	13	12	8	6	5	4	5	1	4	4	4	4	7	6	6	4	7.0	36.1			
Dir	249	264	267	265	262	281	9	8	354	358	359	327	298	292	268	289	196	168	146	65	129	108	124	107	287	267			
28 Spd	2	2	1	1	4	3	3	2	3	3	5	14	26	21	29	31	32	31	23	25	13	13	10	8	10.6	32.0			
Dir	95	48	85	103	57	60	84	88	93	163	172	235	243	268	247	249	243	247	250	258	239	226	220	211	243	243			
29 Spd	9	11	9	6	9	10	10	13	15	22	29	28	26	31	30	29	24	24	23	13	9	5	9	4	15.9	31.2			
Dir	217	239	226	226	251	244	257	265	270	267	274	276	277	266	274	281	267	246	257	250	257	231	223	193	261	266			
30 Spd	2	3	3	4	3	3	2	3	2	7	12	21	29	28	35	34	31	23	20	9	10	3	3	2	9.3	34.7			
Dir	100	156	128	78	79	100	96	124	119	197	213	246	263	254	253	254	265	254	269	268	252	70	116	120	250	253			
Spd	2.7	3.3	3.3	4.1	3.4	3.5	3.1	2.7	4.1	5.9	9.6	12.6	12.0	12.2	13.1	12.8	10.8	9.3	7.0	4.4	3.0	2.5	2.5	2.3	Diurnal Average				
Dir	264	266	256	255	269	290	304	298	269	260	255	256	262	262	260	261	264	259	265	266	266	255	255	257					
Spd	26.5	33.1	36.1	34.4	26.2	22.1	21.3	23.6	19.7	29.6	40.3	44.6	49.8	52.1	50.5	49.1	39.7	37.2	32.3	34.5	28.0	30.9	26.0	28.7	Diurnal Maximum				
Dir	249	264	267	265	262	265	9	8	237	243	249	264	263	259	263	258	258	262	259	254	249	253	247	250					
Maximum Speed Value: 52 km/h on Sep 26 14:00																			Minimum Speed Value: 0 km/h on Sep 22 03:00							Hours in Service:			720
Maximum Daily Speed Average: 25.8 km/h on Sep 26																			Minimum Daily Speed Average: 1.1 km/h on Sep 22							Hours of Data:			696
Maximum Diurnal Speed Average: 13.1 km/h at hour 15																			Minimum Diurnal Speed Average: 2.3 km/h at hour 24							Hours of Missing Data:			24
Monthly Average Velocity: 6.17 km/h 262.9 deg																			Speed Percentiles: P ₁ = 0.8 P ₁₀ = 2.2 Q ₁ = 3.9 Median = 7.8 Q ₃ = 13.8 P ₉₀ = 23.5 P ₉₉ = 39.2							Percent Operational Time:			96.7
All monthly, daily, and diurnal averages have been calculated using vector methods																													
P - Power Failure																													
Frequency Distribution																													
Direction		0 to 5		5 to 11		11 to 19		19 to 28		28 to 38		> 38		Total															
North		11		22		3		2		0		0		38															
NorthEast		30		17		1		0		0		0		48															
East		42		38		8		1		0		0		89															
SouthEast		32		17		1		0		0		0		50															
South		40		14		5		0		0		0		59															
SouthWest		35		33		35		17		5		0		125															
West		23		36		44		26		39		8		176															
NorthWest		20		42		38		10		1		0		111															
Total		233		219		135		56		45		8		696															

Wind Rose

Wind Speed (WS) (km/h)
Beaverlodge - September 2015



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Beaverlodge - September 2015

Maximum Speed: 52 km/h on Sep 26 14:00																				Maximum Daily Speed Average: 27.2 km/h on Sep 26										Hours in Service: 720	
Minimum Speed: 1 km/h on Sep 28 03:00																				Minimum Daily Speed Average: 5.0 km/h on Sep 8										Hours of Data: 696	
Maximum Diurnal Speed Average: 18.0 km/h at hour 16																				Minimum Diurnal Speed Average: 6.7 km/h at hour 5										Hours of Missing Data: 24	
Monthly Average Speed: 11.21 km/h																				Percentiles: P ₁ = 1.6 P ₁₀ = 3.3 Q ₁ = 4.8 Median = 8.2 Q ₃ = 13.9 P ₉₀ = 23.7 P ₉₉ = 39.3										Percent Operational Time: 96.7	
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-Sep	7	6	5	4	4	9	5	10	11	20	24	23	19	19	15	14	12	9	3	13	10	8	7	5	10.9	23.8					
2-Sep	8	13	10	3	4	10	6	7	13	15	18	21	22	23	21	22	22	21	18	17	15	17	17	14	15.0	22.8					
3-Sep	14	15	15	16	16	13	12	15	15	13	12	12	14	14	14	13	11	12	11	11	10	8	8	8	12.5	15.8					
4-Sep	9	12	11	7	4	6	7	5	5	5	5	4	4	8	6	5	5	6	6	5	7	8	9	8	6.5	11.8					
5-Sep	8	4	3	4	5	5	4	3	4	5	4	3	4	5	7	8	11	9	6	8	8	9	9	6	5.8	10.6					
6-Sep	4	3	4	4	5	6	9	5	5	5	5	7	6	10	8	9	9	6	5	8	8	6	3	3	5.9	9.6					
7-Sep	2	4	3	3	2	3	2	4	3	5	21	19	21	18	23	10	6	4	6	7	6	3	2	3	7.5	22.6					
8-Sep	5	3	4	4	2	4	3	4	4	2	4	3	5	10	8	14	10	10	8	3	2	2	3	4	5.0	13.6					
9-Sep	2	4	7	4	4	5	2	2	4	6	10	14	14	15	13	12	13	6	3	2	2	4	5	5	7.0	15.2					
10-Sep	6	4	5	8	2	2	4	4	4	7	17	31	35	32	34	34	34	31	22	16	15	14	17	22	16.7	34.7					
11-Sep	15	11	11	14	10	3	7	6	10	19	32	38	37	37	38	38	28	22	22	15	14	15	14	14	19.7	38.2					
12-Sep	7	10	5	28	25	22	15	14	18	22	14	6	7	9	9	7	9	9	8	4	4	8	5	7	11.4	27.7					
13-Sep	9	6	5	4	6	13	11	11	12	15	13	12	9	8	7	8	9	11	11	9	8	5	5	7	8.8	14.8					
14-Sep	7	7	6	6	7	9	7	6	6	4	2	6	10	7	6	9	10	11	9	7	8	8	8	10	7.3	10.8					
15-Sep	9	7	7	3	4	3	3	5	3	4	3	6	6	10	14	14	15	18	14	9	6	7	9	7	7.6	17.9					
16-Sep	5	2	4	3	2	4	4	3	3	5	6	11	8	7	13	13	19	9	7	6	3	2	6	5	6.3	19.1					
17-Sep	3	3	4	3	3	3	4	4	5	4	11	19	24	18	16	20	24	29	19	13	8	3	5	9	10.7	29.2					
18-Sep	8	12	6	14	9	21	16	14	14	19	22	27	22	29	31	36	30	17	18	18	13	17	10	7	18.0	36.4					
19-Sep	15	12	20	20	8	6	5	3	5	13	34	45	34	20	28	30	25	23	16	16	12	11	9	10	17.5	44.9					
20-Sep	15	18	14	7	7	9	6	7	9	4	10	17	12	12	12	12	15	11	18	12	19	12	7	10	11.4	19.0					
21-Sep	8	8	7	7	5	7	9	6	6	6	8	11	8	16	13	15	15	8	6	6	7	5	6	4	8.3	16.1					
22-Sep	4	3	3	5	6	8	5	5	3	4	4	4	5	5	5	5	4	8	9	8	8	8	11	14	5.9	14.2					
23-Sep	14	12	9	6	2	2	4	2	6	8	11	9	6	9	11	12	11	10	7	7	7	9	19	10	8.4	18.7					
24-Sep	7	4	4	5	5	5	3	5	3	7	11	13	18	21	14	10	7	6	6	5	4	6	P	P							
	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	5	3	--	5.4					
26-Sep	4	3	4	4	4	6	15	18	20	30	40	43	50	52	51	49	40	37	33	35	28	31	26	29	27.2	52.4					
27-Sep	27	33	36	34	26	20	22	24	14	13	8	7	5	5	6	5	5	5	5	5	7	6	6	4	13.7	36.2					
28-Sep	3	3	1	2	4	4	3	2	3	3	5	15	26	22	29	32	32	32	24	25	13	13	11	8	13.1	32.1					
29-Sep	9	11	9	7	9	10	10	13	15	22	29	29	27	32	31	30	25	24	23	14	9	6	9	5	17.0	31.6					
30-Sep	2	3	3	4	3	3	3	3	3	7	13	21	29	29	35	35	31	23	20	9	10	4	4	3	12.5	35.4					
8.1 8.1 7.8 8.0 6.7 7.5 7.2 7.2 7.7 10.0 13.6 16.5 16.9 17.3 17.8 18.0 16.7 15.0 12.6 10.8 9.3 8.9 8.8 8.3																								Diurnal Average							
26.7 33.3 36.2 34.5 26.3 22.2 22.2 23.7 19.8 29.8 40.5 44.9 50.2 52.4 50.8 49.4 40.0 37.4 32.5 34.7 28.2 31.1 26.1 28.8																								Diurnal Maximum							
P - Power Failure																															
All monthly, daily, and diurnal averages have been calculated using scalar methods																															

Hourly Standard Deviations

Wind Direction (WD) - deg
Beaverlodge - September 2015

Maximum Value: 99.1 deg on Sep 27 16:00																			Hours in Service: 720						
Minimum Value: 2.7 deg on Sep 29 08:00																			Hours of Data: 696						
																			Hours of Missing Data: 24						
Percentiles: P ₁ = 4.1 P ₁₀ = 6.4 Q ₁ = 9.3 Median = 16.6 Q ₃ = 36.3 P ₉₀ = 60.7 P ₉₉ = 90.4																			Hours of Calibration: 0						
																			Percent Operational Time: 96.7						
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Sep	41	37	80	91	70	23	17	15	21	11	8	10	13	16	19	19	23	30	36	19	26	9	62	32	90.6
2-Sep	47	4	63	31	37	27	72	42	13	11	11	8	12	10	12	11	13	10	9	13	10	7	9	8	72.1
3-Sep	7	8	5	7	6	6	6	8	7	10	7	11	8	9	9	11	18	14	12	11	11	11	9	6	18.0
4-Sep	6	4	6	37	40	19	9	28	20	26	29	48	40	19	36	40	45	32	43	27	6	13	4	8	48.4
5-Sep	9	18	22	32	9	17	47	29	23	40	57	70	68	91	42	55	18	16	14	4	4	5	7	11	90.6
6-Sep	51	44	79	50	53	26	17	58	33	27	28	29	88	41	62	43	32	62	11	15	16	17	86	67	87.7
7-Sep	62	20	81	55	21	38	48	10	31	43	11	13	19	22	14	81	48	66	10	29	27	80	58	18	80.9
8-Sep	8	16	19	10	28	14	84	54	24	55	15	42	24	18	27	17	28	15	9	53	38	44	45	62	83.8
9-Sep	34	27	14	76	9	13	35	37	9	16	14	13	12	11	16	17	12	12	38	52	40	32	38	33	75.9
10-Sep	20	19	39	29	55	49	9	43	42	23	11	10	7	9	9	9	10	7	7	11	12	7	8	5	54.7
11-Sep	7	6	7	7	5	34	62	78	9	9	7	8	7	9	8	7	5	4	4	7	9	7	11	9	78.4
12-Sep	11	10	79	7	7	6	6	8	5	30	13	33	16	12	12	16	11	63	58	73	96	68	46	54	95.6
13-Sep	20	17	10	34	37	11	10	36	7	6	10	11	26	29	50	33	23	7	55	17	12	31	18	8	54.7
14-Sep	10	10	12	13	7	5	10	11	14	36	85	63	15	23	47	15	33	17	7	11	17	8	5	7	84.7
15-Sep	7	11	10	42	27	54	66	16	28	53	60	24	27	34	14	21	21	23	8	15	13	16	8	8	66.0
16-Sep	14	53	70	75	60	47	57	33	46	30	21	20	52	63	24	16	32	31	13	31	92	44	46	27	91.7
17-Sep	50	34	39	35	26	39	13	18	58	29	22	11	8	9	14	10	14	7	6	10	14	92	27	5	91.5
18-Sep	7	10	60	9	33	7	6	7	13	15	13	7	10	8	9	6	6	14	6	4	8	4	22	69	68.8
19-Sep	13	14	8	4	14	54	71	68	34	22	10	7	34	9	9	5	7	9	6	4	8	6	13	35	71.1
20-Sep	11	6	12	45	33	26	27	32	10	64	15	11	17	17	18	14	9	11	14	11	18	13	16	25	63.6
21-Sep	12	11	6	26	66	20	15	24	60	28	26	33	49	46	28	19	17	37	77	30	20	43	23	31	76.6
22-Sep	14	68	90	76	55	14	62	90	54	81	32	92	84	57	77	76	84	14	11	8	6	10	3	6	91.5
23-Sep	7	6	20	11	58	91	75	73	54	61	28	28	34	27	26	16	13	12	11	12	82	34	28	12	91.1
24-Sep	22	85	40	17	11	22	59	53	72	28	9	12	13	8	15	16	28	20	15	58	25	64	P	P	85.5
25-Sep	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	35	60	60.3
26-Sep	68	37	45	69	73	63	39	9	7	6	6	8	8	7	6	6	6	6	6	5	5	7	6	5	73.0
27-Sep	7	5	4	4	5	17	20	5	14	13	17	36	44	41	32	99	55	45	19	55	16	7	15	28	99.1
28-Sep	64	68	41	49	13	32	21	28	27	28	10	26	9	19	11	8	5	5	3	5	4	15	11	11	67.6
29-Sep	13	13	17	56	11	5	4	3	5	7	8	9	12	9	10	9	18	7	7	11	23	26	13	33	55.9
30-Sep	25	14	17	9	11	30	33	37	38	14	16	11	11	8	12	10	6	7	10	16	34	36	47	54	53.9
67.9 85.5 90.4 90.6 73.0 91.1 83.8 90.4 72.2 80.6 84.7 91.5 87.7 90.6 76.7 99.1 84.4 65.7 76.6 73.1 95.6 91.5 86.3 68.8																									
P - Power Failure																									

PAZA
Valleyview Station
Monthly Summary Tables, Graphs and
Roses

Hourly Averages

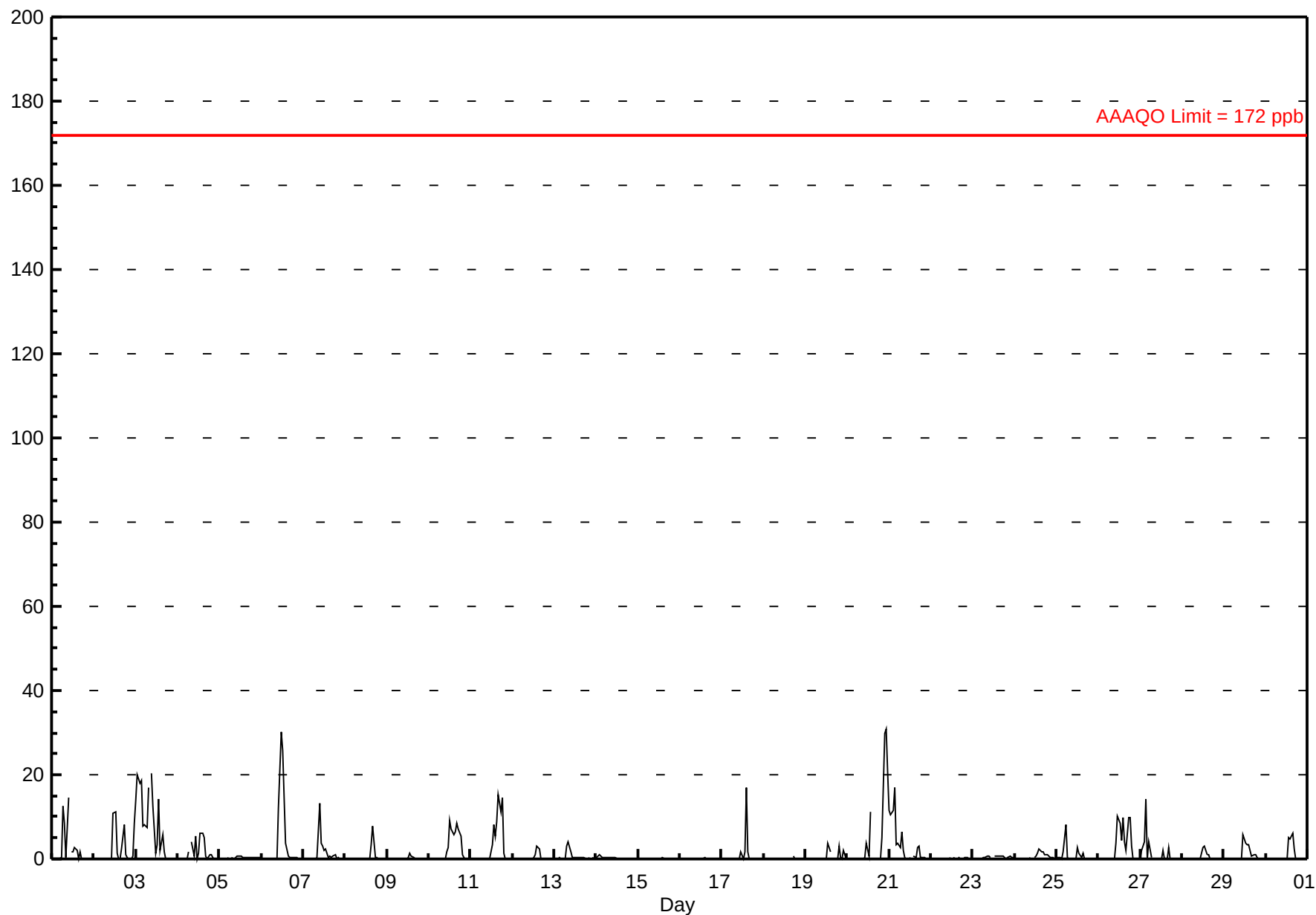
Sulphur Dioxide (SO₂) - ppb

Valleyview - September 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 31.0 ppb on Sep 20 23:00 Maximum Daily Average: 7.5 ppb on Sep 3																					Hours in Service: 720 Hours of Data: 686 Hours of Missing Data: 34 Hours of Calibration: 34 Percent Operational Time: 100.0					
Minimum Value: 0 ppb on Sep 1 23:00 Maximum Diurnal Average: 3.5 ppb at hour 14 Monthly Average: 1.44 ppb										Minimum Daily Average: 0.0 ppb on Sep 16 Minimum Diurnal Average: 0.3 ppb at hour 21 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.5 P ₉₀ = 4.0 P ₉₉ = 19.7																
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-Sep	0	0	0	0	0	0	13	9	0	14	A	2	2	3	2	0	2	0	0	0	0	0	0	0	2.0	14.4
2-Sep	0	0	0	0	0	0	0	0	0	A	0	11	11	1	0	0	2	8	1	0	0	0	1	8	1.9	11.1
3-Sep	14	20	18	19	8	8	7	17	A	20	13	2	4	14	2	6	2	0	0	0	0	0	0	0	7.5	20.3
4-Sep	0	0	0	0	0	0	2	A	4	1	6	0	1	6	6	5	1	0	1	1	0	0	0	0	1.5	6.1
5-Sep	0	0	0	0	0	0	A	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
6-Sep	0	0	0	0	0	A	0	0	0	0	12	30	26	15	4	1	0	0	0	0	0	0	0	0	3.9	30.1
7-Sep	0	0	0	0	A	0	0	0	0	13	4	3	2	2	0	1	0	1	1	0	0	0	0	0	1.2	13.4
8-Sep	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	4	8	0	0	0	0	0	0	0	0.5	7.7
9-Sep	0	0	A	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0.1	1.2
10-Sep	0	A	0	0	0	0	0	0	0	0	2	3	9	7	6	6	9	7	5	1	0	0	0	0	2.4	9.2
11-Sep	A	0	0	0	0	0	0	0	0	0	0	0	3	8	5	9	15	11	15	1	0	0	0	A	3.1	15.1
12-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	2	0	0	0	0	0	0	A	0	0.3	3.1
13-Sep	0	0	0	0	0	0	0	3	4	2	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.5	4.2
14-Sep	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	0.9
15-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.0	0.3
16-Sep	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
17-Sep	0	0	0	0	0	0	0	0	0	0	0	2	0	2	17	2	0	A	0	0	0	0	0	0	1.0	16.8
18-Sep	0	0	0	0	0	0	0	0	0	0	0	C	C	C	0	0	A	1	0	0	0	0	0	0	0.0	0.6
19-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2	A	0	0	0	3	0	0	2	0	0.5	3.7
20-Sep	0	0	0	0	0	0	0	0	0	0	0	4	1	11	A	0	0	0	0	0	5	30	31	21	4.4	31.0
21-Sep	11	11	11	17	3	4	3	6	2	0	0	0	0	A	1	0	3	3	0	1	0	0	0	0	3.4	17.0
22-Sep	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
23-Sep	0	0	0	0	0	0	0	0	1	1	0	A	1	1	1	1	1	1	0	0	0	1	0	0	0.3	0.7
24-Sep	0	0	0	0	0	0	0	0	0	0	A	0	1	1	3	2	2	1	1	1	1	0	0	0	0.6	2.5
25-Sep	0	0	0	0	2	8	0	0	0	A	0	0	3	1	0	1	0	0	0	0	0	0	0	0	0.8	8.3
26-Sep	0	0	0	0	0	0	0	0	A	0	4	10	8	4	10	4	2	10	10	3	0	0	0	0	2.9	10.3
27-Sep	0	2	4	14	0	4	0	A	0	0	0	0	0	2	0	0	3	0	0	0	0	0	0	0	1.3	14.2
28-Sep	0	0	0	0	0	0	A	0	0	0	0	1	3	3	1	1	0	0	0	0	0	0	0	0	0.4	3.0
29-Sep	0	0	0	0	0	A	0	0	0	0	0	6	4	3	4	2	1	1	1	0	0	0	0	0	0.9	5.9
30-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	5	5	6	2	0	0	0	0	0	0	0	0.8	6.1
0.9 1.2 1.2 1.8 0.5 0.9 0.9 1.3 0.4 1.9 1.5 2.7 2.8 3.5 2.5 1.9 1.8 1.6 1.3 0.5 0.3 1.1 1.2 1.0																								Diurnal Average		
14.0 19.9 17.9 18.8 7.6 8.3 12.6 16.9 4.2 20.3 12.5 30.1 25.9 14.6 16.8 9.0 15.1 11.1 14.7 3.2 4.9 29.7 31.0 20.5																								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 (SO₂) - ppb
Valleyview - September 2015



Hourly Maximums

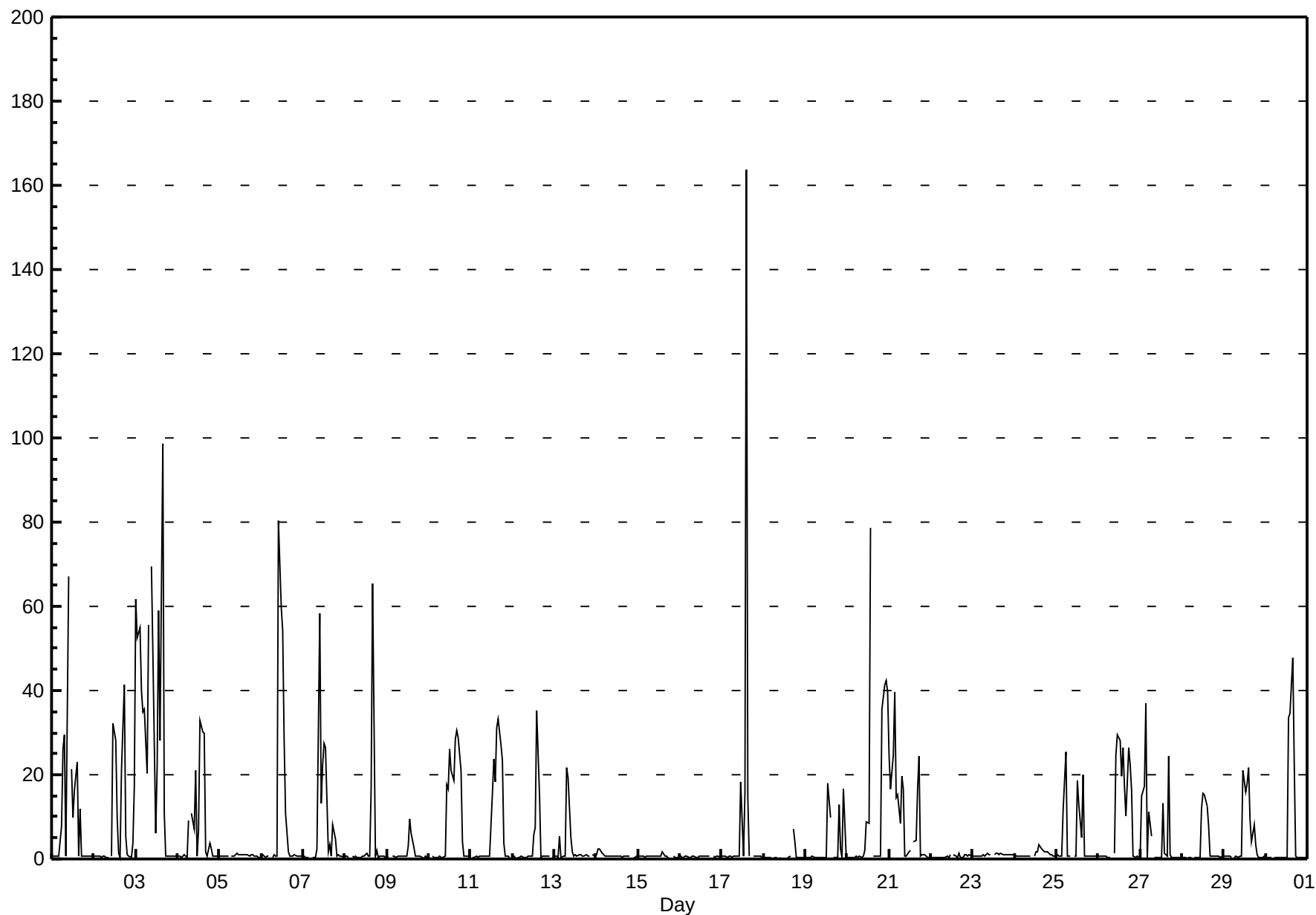
Sulphur Dioxide (SO₂) - ppb

Valleyview - September 2015

Maximum Value: 163.6 ppb on Sep 17 15:00																				Maximum Daily Average: 30.5 ppb on Sep 3					Hours in Service: 720	
Minimum Value: 0 ppb on Sep 18 09:00																				Minimum Daily Average: 0.6 ppb on Sep 16					Hours of Data: 686	
Maximum Diurnal Average: 16.7 ppb at hour 14																				Minimum Diurnal Average: 1.9 ppb at hour 21					Hours of Missing Data: 34	
Monthly Average: 5.95 ppb																				Percentiles: P ₁ = 0.2 P ₁₀ = 0.4 Q ₁ = 0.5 Median = 0.6 Q ₃ = 1.8 P ₉₀ = 21.1 P ₉₉ = 64.7					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-Sep	1	1	1	1	1	8	26	29	1	67	A	22	10	16	23	1	12	1	1	1	1	1	1	1	9.6	67.2
2-Sep	1	1	1	1	0	1	1	1	0	A	1	32	28	10	2	1	21	41	5	1	1	1	4	17	7.3	41.5
3-Sep	62	53	55	40	35	36	20	56	A	69	49	6	22	59	28	99	11	1	1	1	1	1	1	1	30.5	98.5
4-Sep	1	1	0	1	1	0	9	A	11	7	21	1	7	33	30	30	2	1	4	2	1	1	1	1	7.1	32.9
5-Sep	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0.8	1.3
6-Sep	0	1	0	1	1	A	0	1	1	1	80	60	54	28	11	2	1	1	1	1	1	1	1	1	10.8	80.4
7-Sep	1	0	0	0	A	0	0	0	2	58	13	23	27	26	2	3	1	8	5	1	1	1	1	0	7.6	58.3
8-Sep	1	1	0	A	1	0	1	0	0	0	1	1	1	1	1	17	65	1	2	1	1	1	1	0	4.2	65.3
9-Sep	1	0	A	1	1	0	1	1	1	1	1	1	3	9	6	3	1	1	1	1	0	0	1	0	1.4	9.5
10-Sep	0	A	1	0	0	0	1	0	0	1	18	17	26	21	19	28	31	29	21	4	1	1	1	1	9.6	30.5
11-Sep	A	0	0	1	0	1	1	1	1	1	1	1	16	24	18	31	33	27	24	4	1	1	0	A	8.4	33.2
12-Sep	0	1	0	0	0	1	0	1	0	1	1	1	6	7	35	15	0	1	1	1	1	1	A	0	3.2	35.3
13-Sep	1	1	0	6	0	1	1	22	19	5	2	1	1	1	1	1	1	1	1	1	1	A	1	1	2.9	21.6
14-Sep	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	A	0	0	1	0.9	2.4
15-Sep	1	1	1	1	0	1	1	1	1	1	1	1	1	1	2	1	1	0	0	A	1	0	0	0	0.6	1.8
16-Sep	1	0	0	1	1	0	0	1	1	0	1	1	1	1	1	1	1	1	A	1	0	1	1	0	0.6	0.8
17-Sep	1	1	1	0	1	1	0	1	1	1	1	18	1	16	164	15	1	A	1	1	1	1	1	0	9.7	163.6
18-Sep	0	0	0	0	0	0	0	0	0	0	0	C	C	C	0	1	A	7	4	0	0	0	0	0	0.9	7.2
19-Sep	0	0	0	0	1	0	0	0	0	0	0	0	18	10	A	0	0	0	13	2	0	16	0	0	2.9	17.9
20-Sep	0	0	0	0	1	1	1	1	0	1	2	9	9	79	A	1	1	1	1	1	36	41	42	40	11.5	78.5
21-Sep	25	16	25	40	14	15	8	20	17	1	1	2	2	A	4	4	17	25	1	1	1	1	0	0	10.4	39.6
22-Sep	0	0	0	0	0	0	0	0	0	1	0	1	A	1	1	0	1	0	0	1	1	1	1	1	0.6	1.5
23-Sep	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	2	1	1	1	1	1	1	1	0.9	1.5
24-Sep	1	1	1	1	1	1	1	1	1	1	A	1	2	2	3	2	2	2	2	2	1	1	1	1	1.2	3.3
25-Sep	1	1	1	1	12	25	1	1	1	A	1	1	19	13	5	20	1	1	1	1	1	1	1	1	4.5	25.4
26-Sep	1	1	1	1	1	1	1	0	A	1	25	29	28	20	26	17	10	26	23	16	1	0	1	0	9.9	29.3
27-Sep	0	15	17	37	0	11	5	A	0	0	0	0	0	13	1	1	24	1	0	0	0	0	0	0	5.8	36.8
28-Sep	0	0	0	0	0	0	A	0	0	0	0	12	15	15	13	8	1	1	1	1	1	0	1	3.1	15.4	
29-Sep	1	1	1	1	0	A	0	1	0	1	1	21	16	18	22	10	4	8	3	1	0	0	0	1	4.8	21.7
30-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	34	34	48	23	1	0	0	0	0	0	0	6.4	47.7
3.5 3.4 3.8 4.7 2.7 3.8 2.9 5.0 2.2 7.9 7.9 9.3 10.6 16.7 16.0 12.4 9.2 6.4 3.6 1.9 1.9 2.0 2.7 2.4																									Diurnal Average	
61.5 52.6 55.1 40.2 34.8 35.7 25.9 55.7 19.3 69.3 80.4 59.6 54.3 78.5 163.6 98.5 65.3 41.5 23.5 16.2 35.7 41.3 42.4 39.6																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										

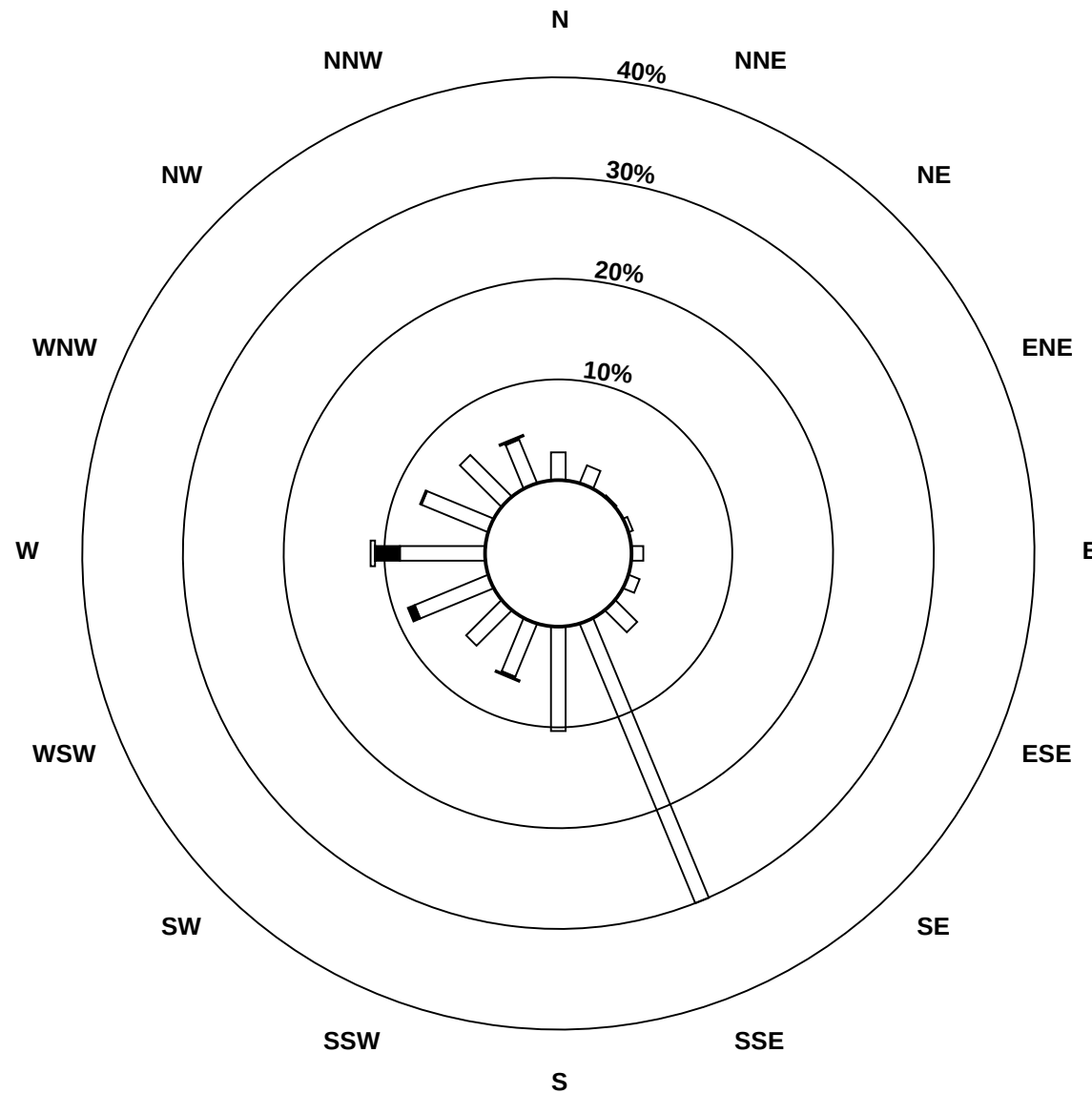
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Valleyview - September 2015

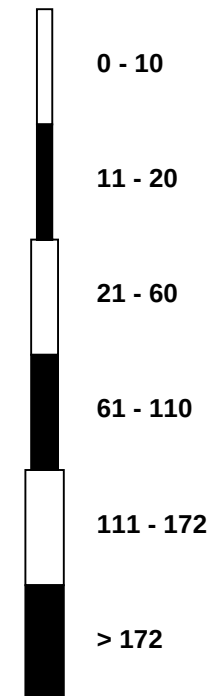


Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Valleyview - September 2015

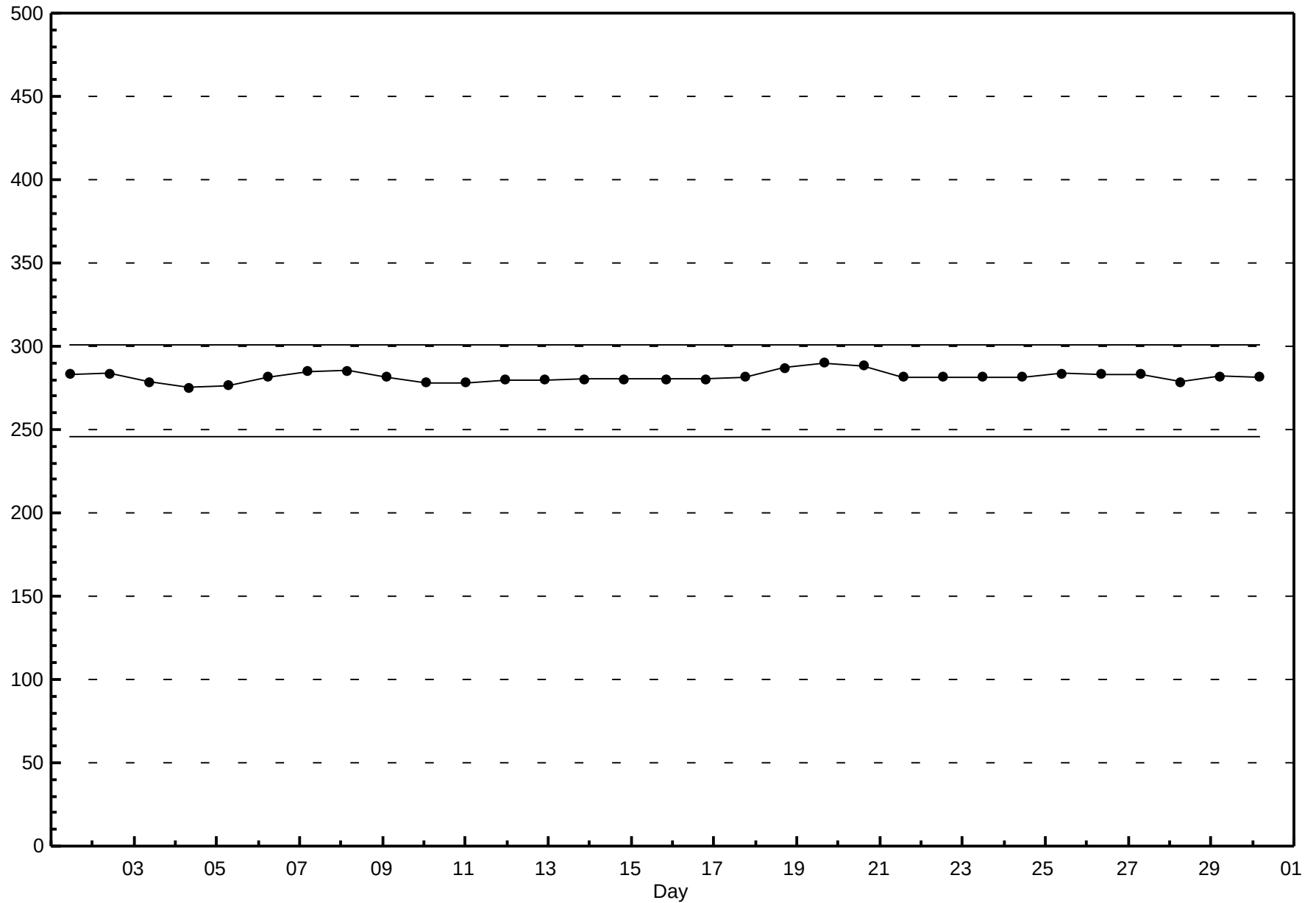


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Valleyview - September 2015



Hourly Averages

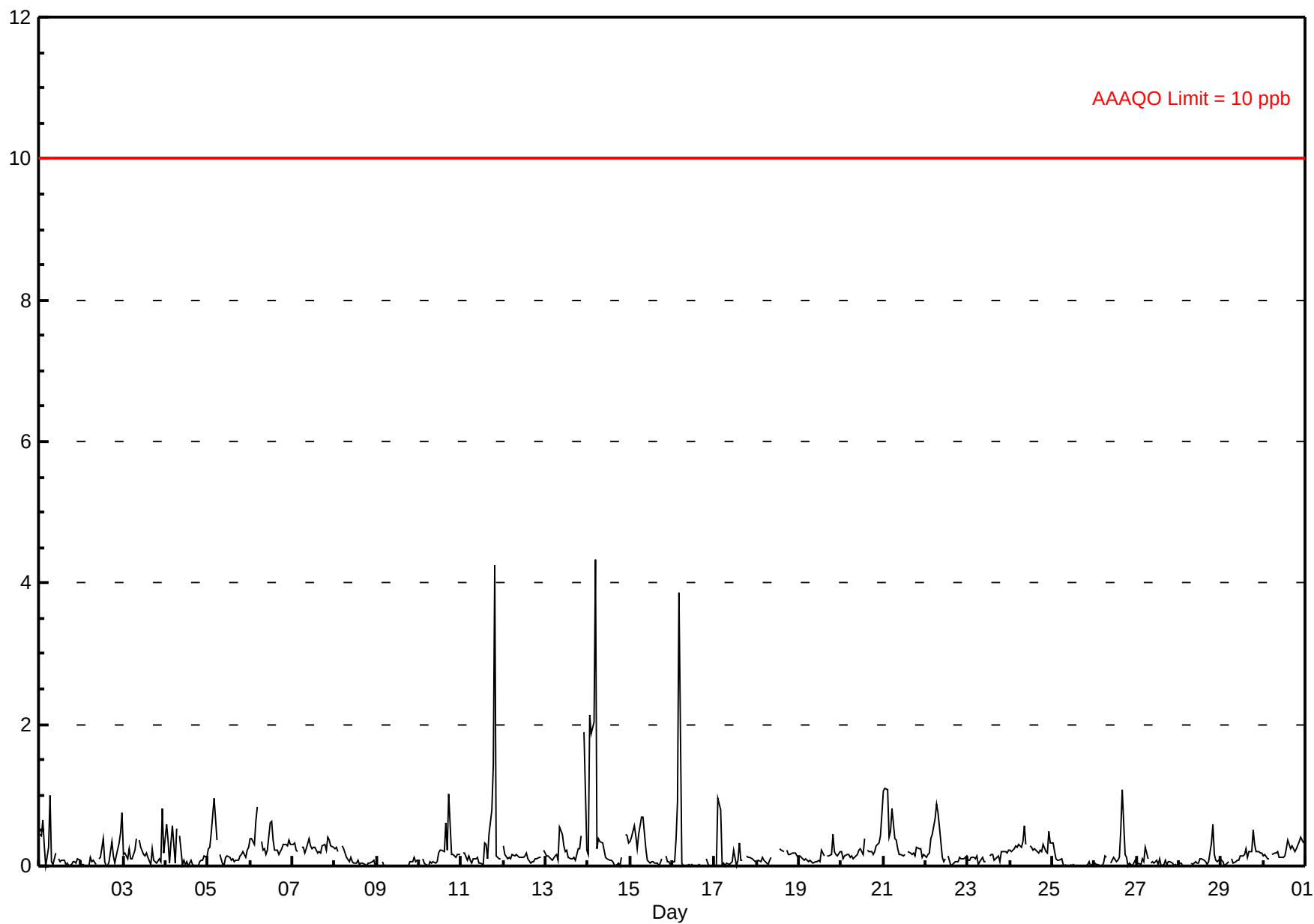
Hydrogen Sulphide (H₂S) - ppb

Valleyview - September 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 4.3 ppb on Sep 14 05:00 Maximum Daily Average: 0.6 ppb on Sep 14																						Hours in Service: 720				
Minimum Value: 0 ppb on Sep 1 18:00 Maximum Diurnal Average: 0.5 ppb at hour 5 Monthly Average: 0.20 ppb																						Minimum Daily Average: 0.0 ppb on Sep 9 Minimum Diurnal Average: 0.1 ppb at hour 11 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 0.4 P ₉₉ = 1.9		Hours of Data: 685		
																						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-Sep	0	0	1	0	0	0	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.0
2-Sep	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	0.8
3-Sep	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.2	0.8
4-Sep	1	0	0	0	1	0	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
5-Sep	0	0	0	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.0
6-Sep	0	0	0	1	1	A	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8
7-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
8-Sep	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
9-Sep	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
10-Sep	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0.2	1.0
11-Sep	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	4	0	0	0	A	0.4	4.3
12-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.1	0.3
13-Sep	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	A	2	0	0.3	1.9
14-Sep	0	2	2	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.6	4.3
15-Sep	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.2	0.7
16-Sep	0	0	0	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.2	3.9
17-Sep	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	1.0
18-Sep	0	0	0	0	0	0	0	0	0	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
19-Sep	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
20-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	1	0.2	0.7
21-Sep	1	1	1	0	0	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.4	1.1
22-Sep	0	0	0	0	0	1	1	1	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.2	0.9
23-Sep	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
24-Sep	0	0	0	0	0	0	0	0	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
25-Sep	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.3
26-Sep	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0.1	1.1
27-Sep	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
28-Sep	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.1	0.6
29-Sep	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.1	0.5
30-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
0.2 1.1																									Diurnal Average	
1.1 2.1 1.9 2.0 4.3 0.8 1.0 0.8 0.6 0.5 0.3 0.6 0.6 0.4 0.4 0.6 1.1 1.0 1.4 4.3 0.4 0.5 1.9 0.8																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb																										

Hourly Averages

Hydrogen Sulphide (H₂S) - ppb
Valleyview - September 2015



Hourly Maximums

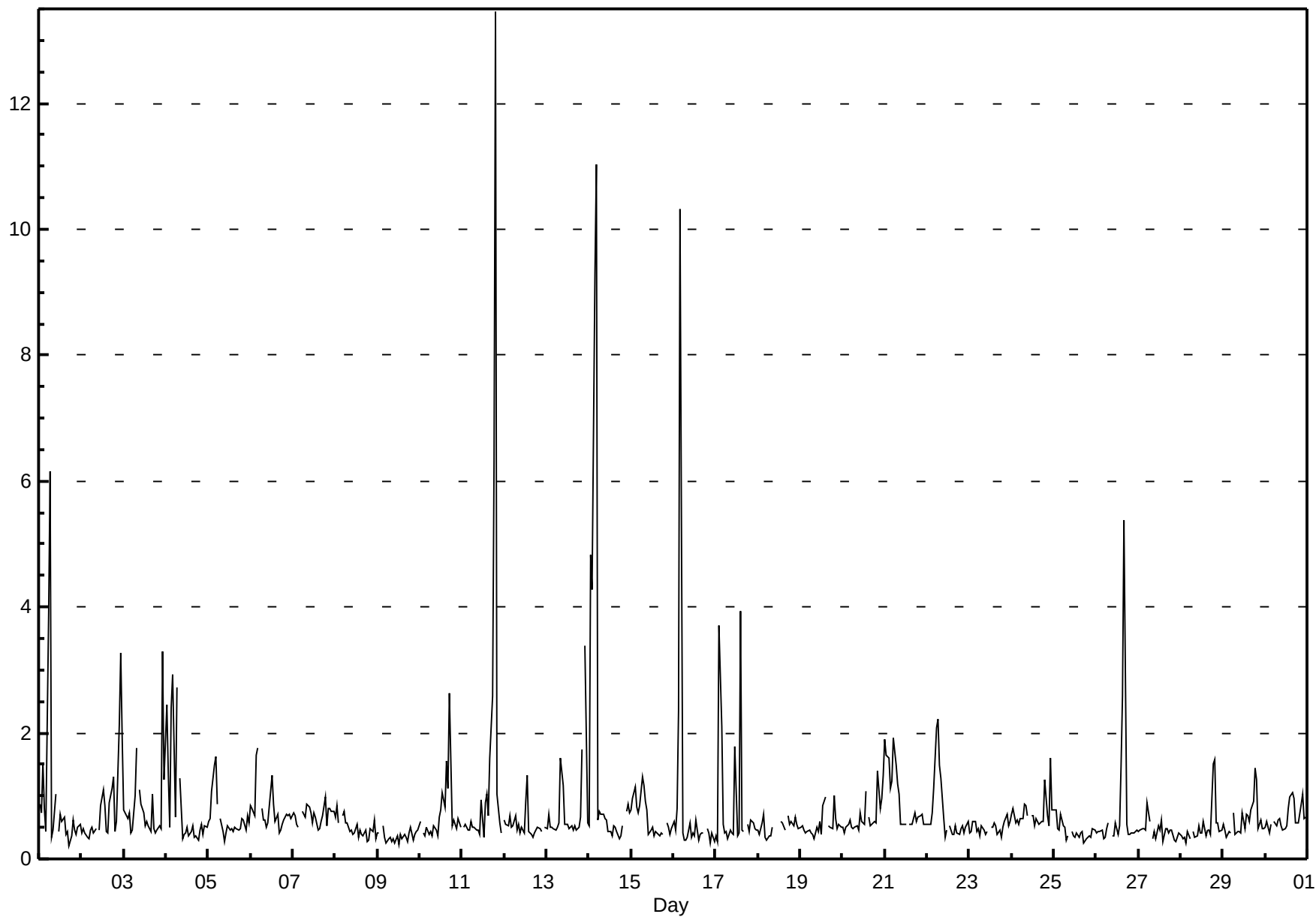
Hydrogen Sulphide (H₂S) - ppb

Valleyview - September 2015

Maximum Value: 13.5 ppb on Sep 11 20:00																				Maximum Daily Average: 1.8 ppb on Sep 14					Hours in Service: 720	
Minimum Value: 0 ppb on Sep 1 18:00																				Minimum Daily Average: 0.4 ppb on Sep 9					Hours of Data: 685	
Maximum Diurnal Average: 1.4 ppb at hour 5																				Minimum Diurnal Average: 0.5 ppb at hour 11					Hours of Missing Data: 35	
Monthly Average: 0.75 ppb																				Percentiles: P ₁ = 0.3 P ₁₀ = 0.4 Q ₁ = 0.4 Median = 0.5 Q ₃ = 0.7 P ₉₀ = 1.1 P ₉₉ = 5.1					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-Sep	1	1	2	1	0	4	6	0	0	1	A	0	1	1	1	0	0	0	0	1	0	0	1	1	1.0	6.1
2-Sep	0	0	0	0	0	0	1	0	0	A	0	1	1	1	1	0	0	1	1	0	1	2	3	2	0.9	3.3
3-Sep	1	1	1	1	0	0	1	2	A	1	1	1	1	1	1	0	1	0	0	0	1	0	3	1	0.8	3.3
4-Sep	2	1	1	2	3	1	3	A	1	0	0	0	1	0	0	1	0	0	0	0	1	0	1	1	0.9	2.9
5-Sep	1	1	1	1	2	1	A	1	0	0	0	1	0	0	0	1	0	0	0	0	1	1	0	1	0.6	1.6
6-Sep	1	1	1	2	2	A	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	0.8	1.8
7-Sep	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	0.7	1.0
8-Sep	1	1	1	A	1	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0.5	0.9
9-Sep	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.4	0.5
10-Sep	1	A	0	0	1	0	0	0	1	0	0	1	1	1	1	2	1	3	1	1	1	0	1	0	0.7	2.6
11-Sep	A	1	1	0	0	1	1	1	0	0	0	1	0	1	1	1	2	3	6	13	1	1	0	A	1.6	13.5
12-Sep	1	1	1	1	1	1	1	0	1	0	1	0	1	1	0	0	0	0	0	1	0	0	A	1	0.6	1.3
13-Sep	0	1	0	1	0	0	0	1	2	1	1	1	1	0	1	0	1	0	1	1	2	A	3	1	0.8	3.4
14-Sep	1	5	4	9	11	1	1	1	1	1	1	0	0	0	1	0	0	0	0	1	A	1	1	1	1.8	11.0
15-Sep	1	1	1	1	1	1	1	1	1	1	0	0	1	0	0	0	0	0	0	A	1	0	0	0	0.7	1.3
16-Sep	1	0	1	2	10	0	0	0	0	1	0	0	0	1	0	0	0	0	A	0	0	0	0	0	0.9	10.3
17-Sep	0	0	4	2	1	0	0	0	0	0	0	2	0	0	4	0	0	A	1	0	1	1	0	0	0.9	3.9
18-Sep	0	0	1	1	0	0	0	0	0	1	C	C	C	C	1	1	0	A	1	1	1	1	1	0	0.5	0.7
19-Sep	1	1	0	0	0	0	0	0	0	1	0	1	0	1	1	A	1	0	0	1	1	0	1	1	0.5	1.0
20-Sep	1	0	1	1	1	1	0	1	1	0	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.7	1.4
21-Sep	2	2	2	1	1	2	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.9	1.9
22-Sep	1	1	1	1	1	2	2	1	1	1	0	0	A	1	0	0	1	0	0	0	1	0	0	1	0.7	2.2
23-Sep	0	0	1	1	0	0	0	1	0	0	0	A	1	1	1	1	0	0	0	0	1	1	1	1	0.5	0.7
24-Sep	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	2	1	0.7	1.6
25-Sep	1	1	0	0	1	1	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.8
26-Sep	0	0	0	0	0	0	0	1	A	0	0	1	0	1	1	3	5	1	0	0	0	0	0	0	0.8	5.4
27-Sep	0	0	0	0	0	1	1	A	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0.5	0.9
28-Sep	0	0	0	0	0	0	A	0	0	0	0	1	0	0	1	0	0	0	0	2	2	1	1	0	0.5	1.6
29-Sep	1	0	0	0	0	A	1	0	0	0	0	1	0	1	1	1	1	1	1	1	0	1	0	0	0.6	1.4
30-Sep	1	1	0	1	A	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.1
0.7 0.8 0.9 1.1 1.4 0.8 0.9 0.6 0.6 0.6 0.5 0.6 0.6 0.6 0.7 0.6 0.8 0.6 0.8 1.1 0.6 0.6 0.9 0.6																								Diurnal Average		
2.5 4.8 4.3 9.3 11.0 3.9 6.1 1.8 1.6 1.2 0.9 1.8 1.3 1.3 3.9 2.6 5.4 2.6 6.3 13.5 1.7 2.1 3.4 1.9																								Diurnal Maximum		
C - Calibration																								A - Automated Daily Zero Span		

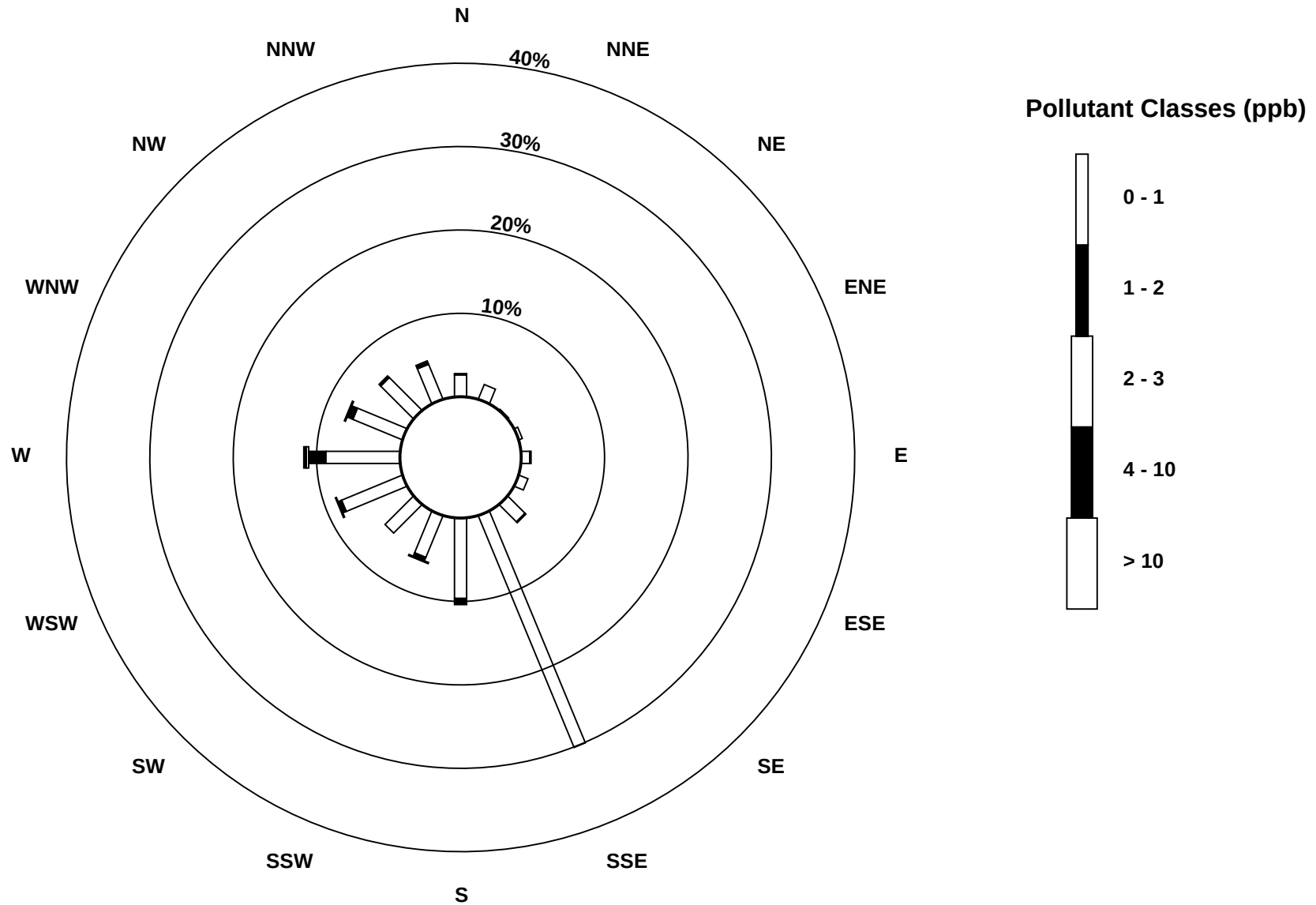
Hourly Maximums

Hydrogen Sulphide (H₂S) - ppb
Valleyview - September 2015



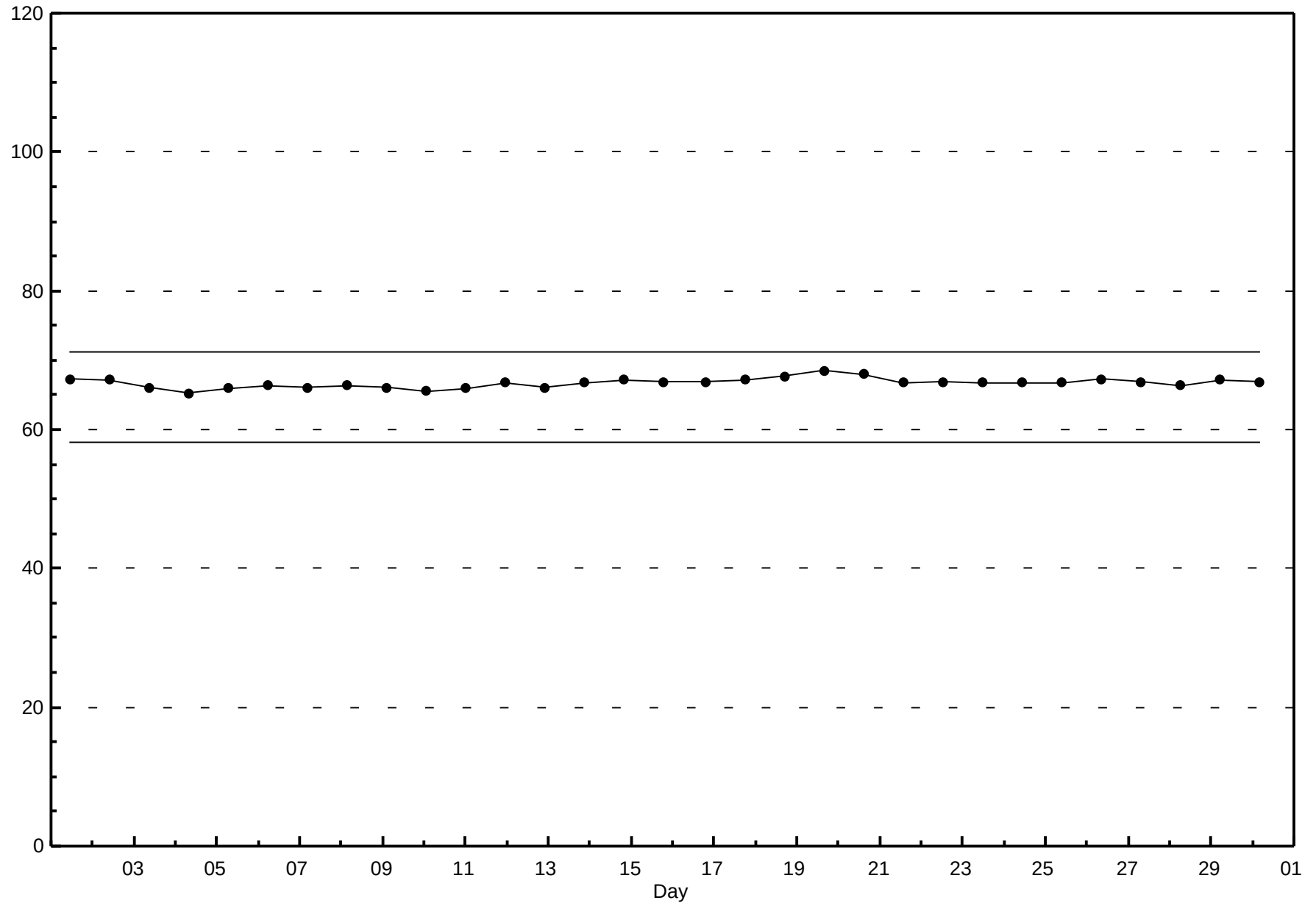
Pollutant Rose

Hydrogen Sulphide (H₂S) - ppb
Valleyview - September 2015



Span Responses

Hydrogen Sulphide (H_2S)
Valleyview - September 2015



Hourly Averages

External Temperature (ET) - °C

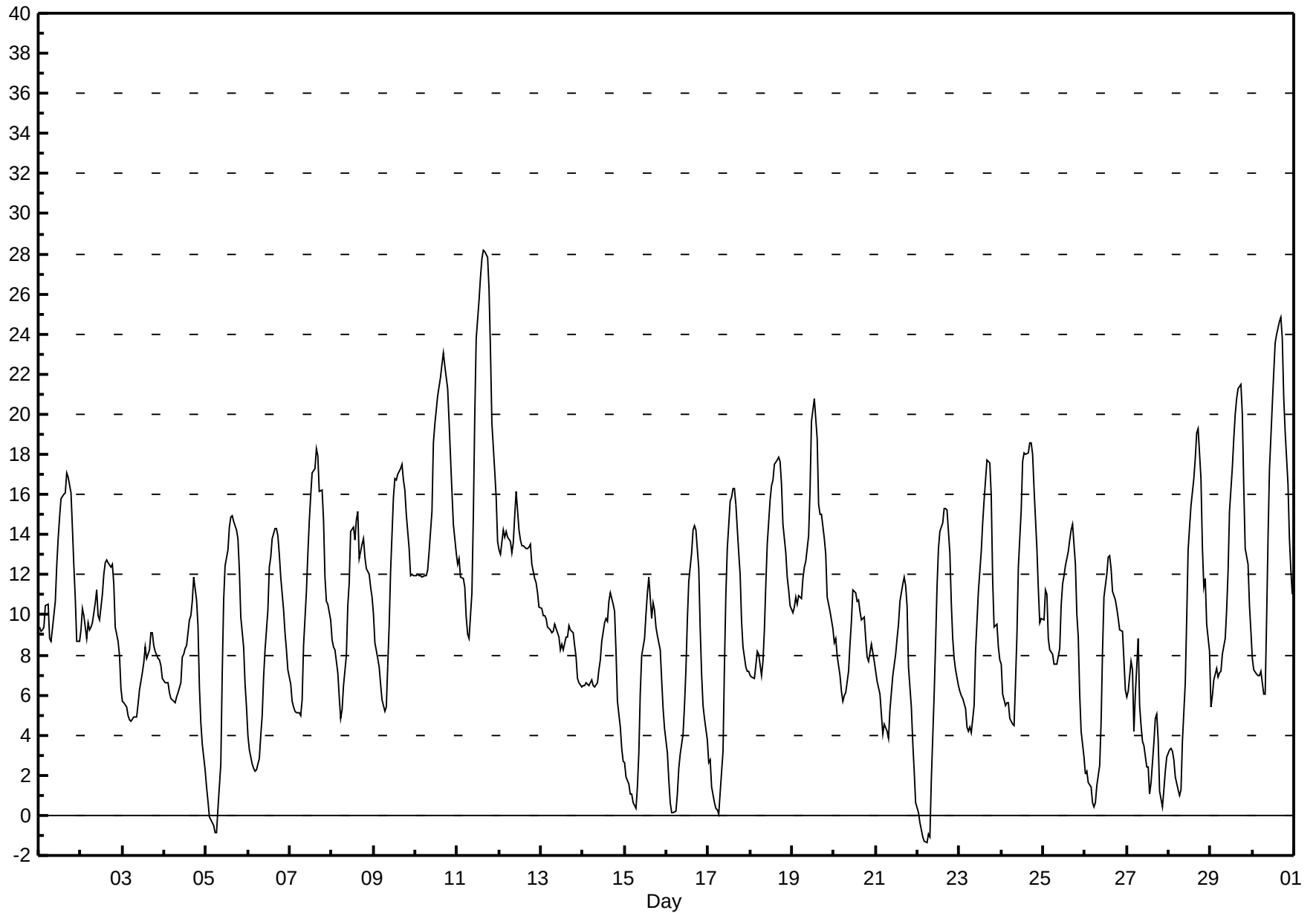
Valleyview - September 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 28.2 °C on Sep 11 16:00 Maximum Daily Average: 18.2 °C on Sep 11																				Hours in Service: 720							
Minimum Value: -1 °C on Sep 22 06:00 Minimum Daily Average: 4.0 °C on Sep 27 Maximum Diurnal Average: 15.1 °C at hour 17 Minimum Diurnal Average: 5.5 °C at hour 7 Monthly Average: 9.86 °C Percentiles: P ₁ = -0.8 P ₁₀ = 2.9 Q ₁ = 6.2 Median = 9.4 Q ₃ = 13.2 P ₉₀ = 16.7 P ₉₉ = 25.3																				Hours of Data: 720							
																				Hours of Missing Data: 0							
																				Hours of Calibration: 0							
																				Percent Operational Time: 100.0							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
1-Sep	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
2-Sep	9	9	9	9	10	10	9	9	10	11	11	10	10	11	12	13	13	13	12	13	12	9	11	9	9	12.1	17.1
3-Sep	9	10	10	9	10	9	9	10	11	11	10	10	11	12	13	13	13	12	13	12	9	9	8	6	6	10.3	12.7
4-Sep	6	6	5	5	5	5	5	5	5	6	6	7	8	8	8	8	9	9	8	8	8	8	7	7	7	6.7	9.1
5-Sep	7	7	7	6	6	6	6	6	6	6	7	8	8	8	8	10	10	11	12	11	9	6	5	4	2	7.2	11.8
6-Sep	1	1	0	0	0	-1	-1	0	3	7	11	12	13	14	15	15	15	14	14	12	10	8	7	5	5	7.3	15.0
7-Sep	4	3	3	2	2	2	3	4	5	7	8	10	12	13	14	14	14	14	13	12	10	9	8	7	7	8.1	14.3
8-Sep	7	6	5	5	5	5	5	6	8	11	13	15	16	17	17	18	18	16	16	15	12	11	11	10	10	11.2	18.3
9-Sep	9	8	8	7	6	5	5	6	8	10	12	14	14	14	15	15	13	13	14	13	12	12	11	11	11	10.7	15.2
10-Sep	10	9	8	7	7	6	5	5	7	9	12	16	17	17	17	17	17	17	16	15	13	12	12	12	12	11.8	17.5
11-Sep	12	12	12	12	12	12	12	12	13	15	19	19	20	21	22	23	23	22	21	20	18	16	14	13	13	16.5	23.1
12-Sep	13	13	12	12	11	10	9	9	11	15	20	24	26	27	28	28	28	28	26	23	20	17	16	14	14	18.2	28.2
13-Sep	13	13	14	14	14	14	14	13	14	15	16	14	14	13	13	13	13	13	13	13	12	12	11	10	10	13.3	16.2
14-Sep	10	10	10	10	9	9	9	9	10	9	9	8	9	8	9	9	9	9	9	8	8	7	7	6	6	8.8	10.3
15-Sep	6	6	7	7	7	7	6	6	7	7	8	9	10	10	10	11	11	11	10	8	6	4	3	3	3	7.4	11.1
16-Sep	3	2	2	1	1	1	0	1	3	6	8	9	10	11	12	10	11	10	9	9	8	7	5	4	4	6.0	11.9
17-Sep	3	2	1	0	0	0	1	2	3	4	5	7	10	12	13	14	14	14	12	9	7	5	5	4	4	6.2	14.5
18-Sep	3	3	1	1	0	0	0	1	3	7	11	13	16	16	16	16	15	13	12	10	8	7	7	7	7	7.9	16.3
19-Sep	7	7	7	7	8	8	7	8	9	12	14	16	16	17	17	18	18	18	16	15	13	12	11	10	10	12.1	17.9
20-Sep	10	10	11	11	11	11	12	12	13	14	16	20	20	21	19	16	15	15	14	13	11	11	10	9	9	13.5	20.8
21-Sep	9	9	8	7	6	6	6	6	7	9	10	11	11	11	11	10	10	10	9	8	8	9	8	8	8	8.5	11.3
22-Sep	7	7	6	5	4	5	4	4	5	6	7	8	9	10	11	12	12	11	10	7	5	4	2	1	1	6.7	11.9
23-Sep	0	0	-1	-1	-1	-1	-1	-1	2	6	9	11	13	14	15	15	15	15	13	11	9	8	7	6	6	6.8	15.3
24-Sep	6	6	6	5	4	4	4	4	5	8	10	11	13	15	16	17	18	18	16	12	9	10	8	8	8	9.7	17.7
25-Sep	8	6	5	6	6	5	5	5	7	9	12	15	18	18	18	18	19	19	18	16	13	11	10	10	10	11.4	18.6
26-Sep	10	11	11	9	8	8	8	8	8	8	10	12	12	12	13	14	14	15	13	10	9	6	4	3	3	9.8	14.5
27-Sep	2	2	2	1	1	0	1	1	2	5	8	11	12	13	13	12	11	11	10	10	9	9	8	6	6	6.7	13.0
28-Sep	6	6	8	7	4	6	9	5	4	4	3	2	2	1	2	4	5	5	4	1	0	1	2	3	3	4.0	8.8
29-Sep	3	3	3	3	2	1	1	1	4	7	10	13	14	15	17	18	19	19	17	13	11	12	10	8	8	9.4	19.3
30-Sep	5	6	7	7	7	7	7	8	9	10	12	15	17	19	20	21	21	22	20	16	13	12	10	9	9	12.6	21.5
31-Sep	8	7	7	7	7	7	6	6	10	14	17	20	22	24	24	25	25	24	21	19	17	14	12	11	11	14.7	24.9
Diurnal Average																											
Diurnal Maximum																											

Hourly Averages

External Temperature (ET) - °C

Valleyview - September 2015



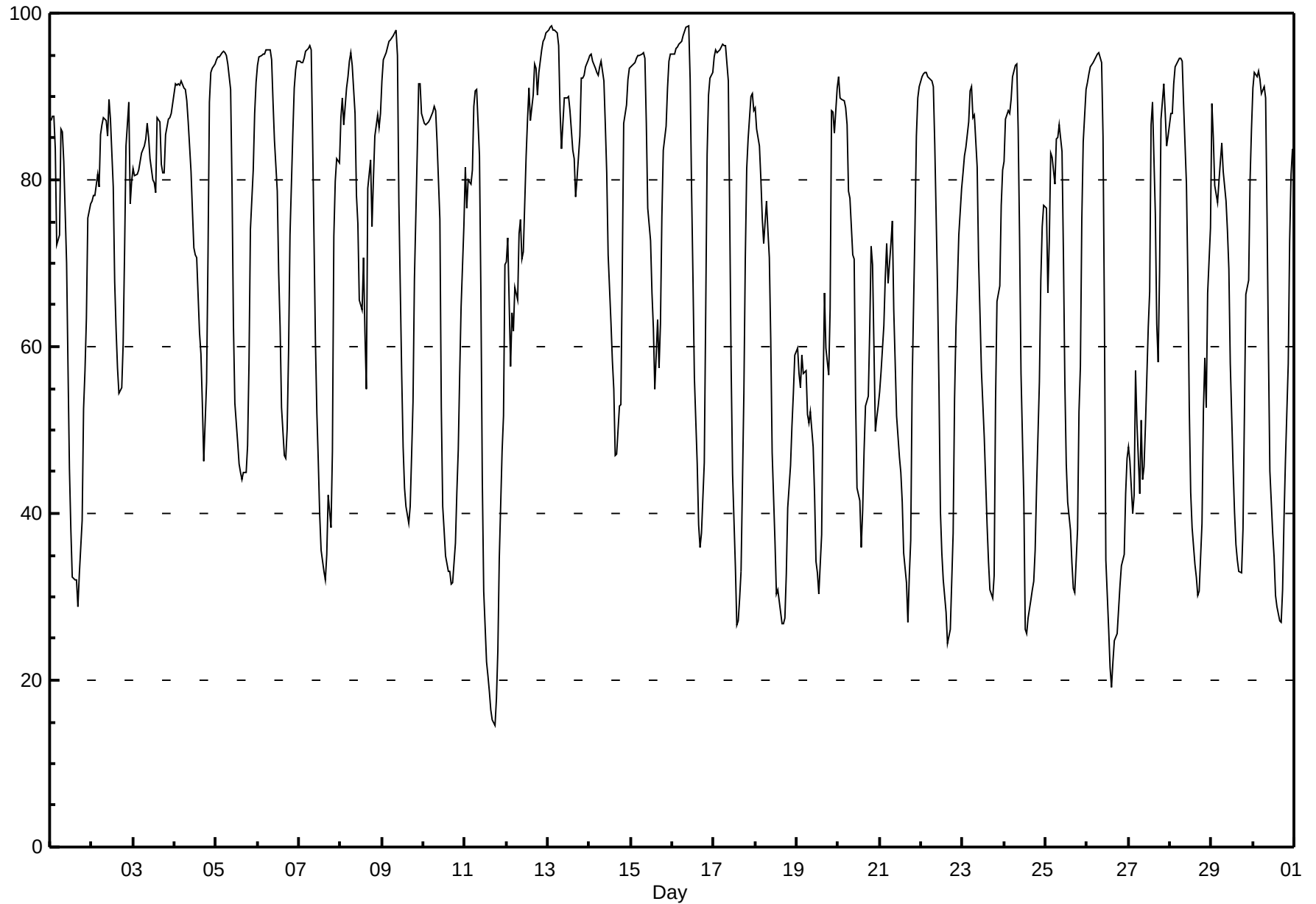
Hourly Averages

Relative Humidity (RH) - %
Valleyview - September 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 98.5 % on Sep 16 10:00 Maximum Daily Average: 90.7 % on Sep 13																								Hours in Service: 720 Hours of Data: 720 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0		
Minimum Value: 15 % on Sep 11 18:00 Maximum Diurnal Average: 86.5 % at hour 7 Monthly Average: 69.46 %												Minimum Daily Average: 51.9 % on Sep 11 Minimum Diurnal Average: 44.2 % at hour 17 Percentiles: P ₁ = 21.4 P ₁₀ = 33.9 Q ₁ = 51.4 Median = 76.6 Q ₃ = 89.7 P ₉₀ = 94.5 P ₉₉ = 97.9														
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-Sep	87	88	88	84	72	73	86	86	82	70	57	45	38	32	32	29	33	39	53	57	63	75	77	61.6	87.7	
2-Sep	77	78	78	81	79	85	87	87	87	85	90	87	79	68	62	57	54	55	60	71	84	89	77	80	76.7	89.7
3-Sep	81	80	81	81	82	83	84	85	87	85	83	80	80	78	87	87	82	81	81	85	87	87	88	89	83.6	89.2
4-Sep	92	91	92	91	92	91	91	89	87	81	76	72	71	71	62	59	53	46	56	71	89	93	93	94	79.3	93.9
5-Sep	94	95	95	95	95	95	95	94	91	79	63	53	48	46	45	44	45	45	48	58	74	81	88	92	73.3	95.3
6-Sep	94	95	95	95	95	96	96	96	94	89	85	79	69	62	53	47	47	50	60	73	86	91	93	94	80.5	95.7
7-Sep	94	94	94	95	95	96	96	96	85	61	52	46	40	36	33	32	35	42	38	47	73	80	83	82	67.7	96.1
8-Sep	87	90	87	91	92	94	95	94	88	78	75	66	64	71	62	55	79	82	74	80	85	88	86	88	81.3	95.2
9-Sep	92	94	95	96	97	97	97	98	98	95	77	57	48	43	41	39	41	47	53	68	83	91	91	88	76.1	97.9
10-Sep	87	87	87	87	87	88	89	88	85	75	53	41	38	35	33	33	31	32	36	43	48	57	65	75	61.6	88.8
11-Sep	81	77	80	79	81	89	91	91	83	66	44	31	22	21	19	16	15	15	18	24	35	47	52	70	51.9	90.8
12-Sep	70	73	58	64	62	67	66	74	75	70	71	83	87	91	87	90	94	93	90	93	96	97	97	98	81.1	97.6
13-Sep	98	98	98	98	98	98	96	88	84	90	90	90	90	88	83	82	78	80	85	92	92	93	93	94	90.7	98.4
14-Sep	95	95	94	93	93	92	94	94	92	87	81	71	63	58	55	47	47	53	53	69	87	89	92	93	78.7	95.2
15-Sep	93	94	94	95	95	95	95	95	95	87	77	73	66	62	55	63	57	63	76	84	87	91	94	95	82.5	95.3
16-Sep	95	95	96	96	96	97	97	98	98	99	92	79	68	56	46	39	36	38	46	64	83	90	92	93	78.7	98.5
17-Sep	95	96	95	96	96	96	96	96	92	75	57	45	34	27	27	30	33	54	71	81	85	90	90	88	72.7	96.2
18-Sep	89	86	84	80	75	72	77	74	71	61	47	37	30	31	29	27	27	27	33	41	46	51	54	59	54.5	88.7
19-Sep	60	57	55	59	57	57	52	51	52	48	42	34	33	30	37	54	67	60	57	64	88	88	86	91	57.5	91.1
20-Sep	92	90	90	89	89	87	79	78	71	71	54	43	42	36	40	48	53	54	62	72	70	50	51	53	65.1	92.4
21-Sep	55	57	62	68	72	68	72	75	64	58	52	47	45	41	35	32	27	32	37	55	74	85	90	91	58.2	91.2
22-Sep	92	93	93	93	92	92	92	91	84	67	55	40	35	32	28	24	25	26	38	54	62	67	73	79	63.7	92.9
23-Sep	81	83	84	87	91	91	88	88	82	70	64	57	49	44	39	34	31	30	33	54	65	67	77	81	65.3	91.1
24-Sep	82	87	88	88	90	92	94	94	86	73	57	42	26	26	28	30	31	32	36	43	56	68	74	77	62.4	93.8
25-Sep	77	67	73	83	83	80	85	85	87	83	71	56	46	41	38	34	31	30	38	52	58	75	84	91	64.5	90.8
26-Sep	92	93	94	94	94	95	95	95	94	85	63	34	26	22	19	22	25	26	29	31	34	35	42	47	57.7	95.3
27-Sep	48	46	40	42	57	51	42	51	44	46	51	62	67	87	89	76	63	58	69	87	92	88	84	85	63.5	91.6
28-Sep	88	88	92	94	94	95	95	94	89	79	68	53	43	38	34	32	30	31	39	52	59	53	67	74	65.8	94.6
29-Sep	89	85	79	77	80	82	84	81	77	74	69	58	45	40	36	34	33	33	38	52	66	68	80	86	64.6	89.2
30-Sep	91	93	92	93	92	90	91	90	76	59	45	38	35	30	29	27	27	31	39	46	58	73	81	84	62.9	93.0
85.0 84.8 84.4 85.5 85.8 86.1 86.5 86.5 82.6 74.9 65.3 56.6 50.9 48.1 45.5 44.3 44.2 46.0 51.0 62.0 71.9 76.2 79.8 83.0																								Diurnal Average		
98.0 98.2 98.4 98.0 97.9 97.7 97.2 97.9 98.3 98.5 92.1 89.8 90.0 90.9 89.3 90.2 94.0 93.3 90.2 93.0 95.5 96.7 96.9 97.6																								Diurnal Maximum		

Hourly Averages

Relative Humidity (RH) - %
Valleyview - September 2015



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Valleyview - September 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	2	1	1	1	4	2	7	4	5	7	7	9	8	6	5	3	3	2	1	1	1	2	2	1	2.5	8.7
Dir	325	155	179	176	158	186	258	248	245	272	260	255	289	286	273	238	311	12	97	31	87	357	340	321	267	255
2 Spd	2	1	2	4	2	3	1	1	0	0	5	5	5	6	8	8	8	4	1	1	2	1	5	6	2.7	8.0
Dir	116	84	354	334	349	331	21	30	324	230	241	263	282	289	293	302	305	279	261	14	324	288	293	271	297	302
3 Spd	7	7	8	7	4	3	2	6	7	6	7	7	6	6	5	4	3	3	6	1	2	1	1	1	4.1	8.3
Dir	254	265	257	266	256	256	267	268	261	271	269	286	277	270	302	297	300	314	5	356	304	311	280	355	278	257
4 Spd	1	2	1	3	1	3	3	3	4	3	1	3	3	3	1	2	2	0	0	0	0	0	0	0	1.5	4.2
Dir	290	304	296	326	269	316	283	282	283	287	277	312	278	242	13	285	354	71	219	125	150	198	179	334	294	283
5 Spd	0	0	1	0	0	0	0	1	1	2	6	6	6	7	7	7	7	6	3	1	1	1	0	0	2.4	7.2
Dir	345	195	314	174	196	293	260	259	201	158	158	151	154	151	151	146	145	148	146	135	151	333	314	283	153	146
6 Spd	1	0	0	0	0	0	0	0	1	0	1	1	0	1	0	1	1	0	0	0	0	0	0	0	0.2	0.9
Dir	299	338	309	179	242	170	232	150	160	212	209	191	330	337	98	151	115	121	146	183	168	144	148	157	186	209
7 Spd	0	0	0	0	0	0	1	1	1	4	5	7	11	9	10	7	7	4	6	1	1	1	1	1	2.7	10.6
Dir	202	205	234	178	164	161	159	154	250	273	279	271	289	297	310	314	340	270	302	309	163	167	172	175	293	289
8 Spd	0	1	1	1	0	0	0	1	2	1	2	2	2	2	1	2	7	1	2	1	0	0	2	0	1.0	6.6
Dir	148	159	164	164	175	160	163	157	159	165	159	159	241	193	221	237	250	214	241	231	146	220	238	195	209	250
9 Spd	0	0	0	0	0	0	1	0	1	1	2	1	1	3	2	2	2	1	1	1	0	0	0	1	0.7	3.2
Dir	156	163	167	170	163	161	232	170	161	160	171	172	240	269	271	247	174	168	210	184	164	169	168	157	203	269
10 Spd	1	1	1	1	2	1	1	1	1	2	3	9	10	10	10	8	8	9	4	3	2	1	1	1	3.1	10.4
Dir	158	159	157	159	162	161	159	162	157	155	241	268	273	269	275	281	266	276	255	250	236	218	199	172	258	273
11 Spd	1	1	1	1	1	1	0	0	1	3	3	6	13	12	14	14	14	13	6	2	1	1	1	1	3.8	14.0
Dir	167	191	179	160	158	166	162	207	154	154	163	235	256	271	271	267	267	270	267	265	214	210	211	162	255	267
12 Spd	1	1	1	1	0	1	0	1	2	1	5	8	3	2	5	3	2	1	2	0	0	0	1	1	0.7	8.5
Dir	134	173	176	155	152	165	204	153	161	161	323	334	298	228	250	244	192	182	242	170	163	139	169	173	254	334
13 Spd	0	1	1	1	1	2	1	1	7	6	8	6	6	9	7	7	5	4	2	0	3	2	1	0	2.4	8.8
Dir	152	152	151	132	170	156	178	257	286	286	293	339	320	357	354	345	328	342	331	154	2	339	249	214	324	357
14 Spd	0	0	1	1	0	1	2	2	2	3	6	6	6	9	8	5	3	3	2	0	1	1	0	1	2.4	8.7
Dir	218	259	260	282	281	309	359	8	23	21	343	10	8	2	4	8	19	32	22	28	336	331	323	325	2	2
15 Spd	0	0	0	0	0	0	1	0	0	0	0	1	2	2	1	5	4	3	1	0	1	1	0	0	0.7	5.1
Dir	290	328	237	32	256	315	331	355	197	103	99	237	214	220	232	138	136	144	133	128	164	160	155	283	162	138
16 Spd	0	0	0	0	0	1	2	2	3	3	3	4	4	2	1	1	2	2	4	1	0	2	1	0	1.5	3.7
Dir	170	321	335	291	202	163	160	156	155	162	159	150	140	143	122	163	154	158	161	163	174	165	160	290	155	140
17 Spd	1	0	0	0	0	0	0	1	1	1	1	1	2	6	5	5	6	7	1	1	2	1	2	2	1.6	6.9
Dir	163	180	144	176	173	190	175	165	162	161	170	251	190	251	254	236	235	249	185	164	161	159	161	160	217	249
18 Spd	2	2	2	2	1	3	1	2	2	5	7	9	15	13	11	13	10	14	5	1	2	2	2	2	4.6	14.8
Dir	161	162	158	160	205	243	193	209	177	226	238	245	250	263	244	247	239	251	246	213	162	158	160	161	236	250
19 Spd	2	4	3	4	4	4	5	5	5	5	5	5	3	7	8	7	3	6	7	1	1	2	2	1	1.2	7.6
Dir	160	160	160	159	159	158	162	160	159	160	159	162	172	271	329	6	34	334	326	288	192	213	206	158	177	329
20 Spd	1	1	0	1	1	1	2	1	1	1	1	0	1	3	1	2	1	1	2	2	6	11	9	9	2.0	11.2
Dir	164	172	151	207	191	234	235	173	194	159	333	239	224	260	203	182	175	175	203	205	252	265	265	272	245	265
21 Spd	8	9	8	7	6	5	2	4	8	8	9	9	8	9	8	6	7	5	2	0	0	1	0	0	4.9	9.4
Dir	275	275	273	263	287	278	235	260	291	311	310	303	315	323	311	310	290	300	313	188	109	164	176	323	293	310
22 Spd	0	0	1	0	0	0	0	1	0	2	1	4	3	2	0	2	0	1	2	4	5	5	3	3	1.3	5.4
Dir	184	195	301	335	276	321	87	334	310	153	162	157	165	225	123	219	58	131	140	144	149	158	156	150	159	149

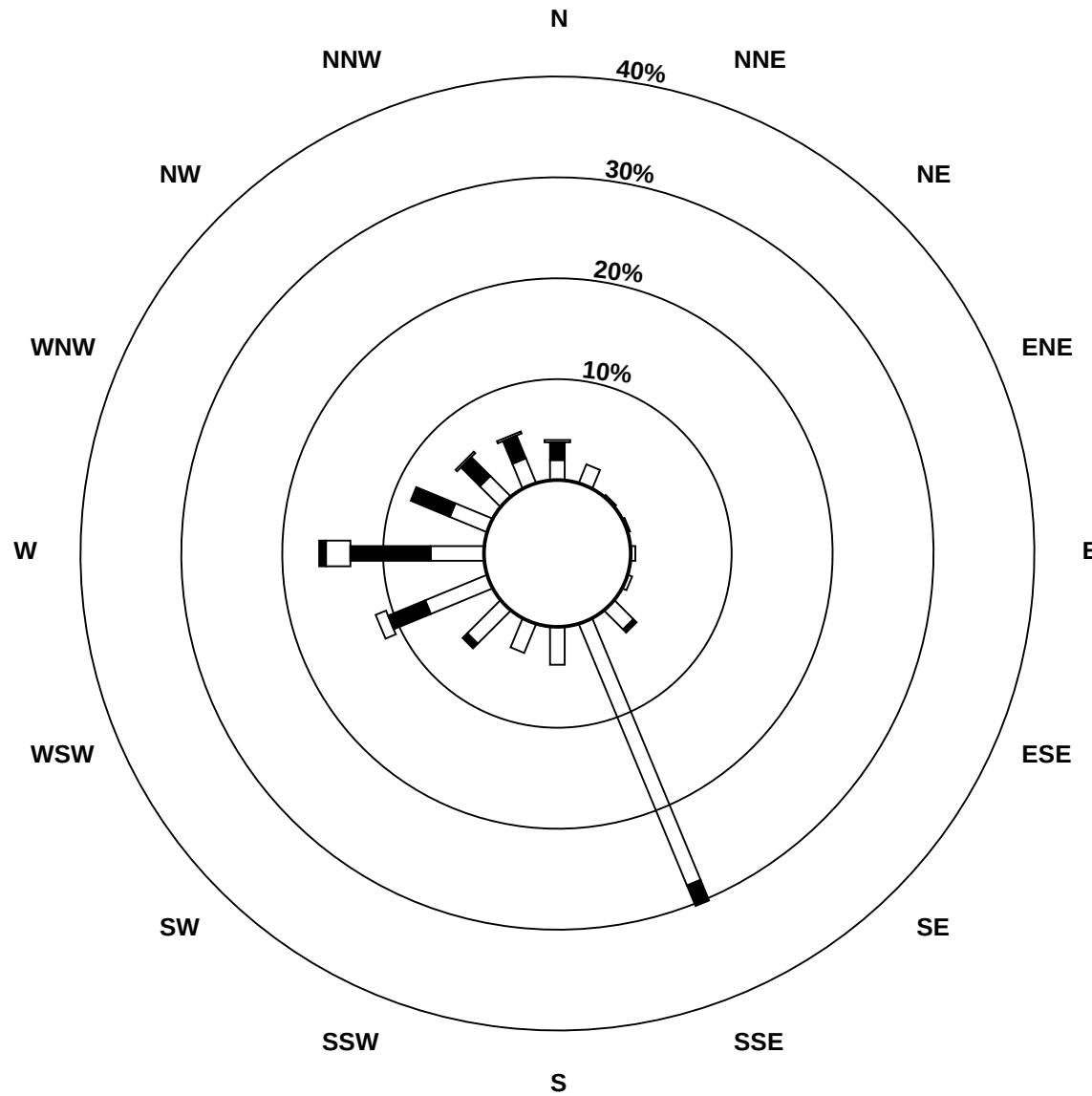
Hourly Averages

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

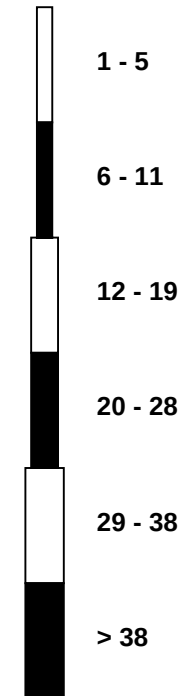
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
23 Spd	2	1	0	0	0	1	2	2	3	5	5	5	3	3	3	2	1	1	1	0	1	1	0	2	1.8	5.4	
Dir	149	151	301	254	154	158	166	163	160	160	162	163	160	163	166	158	91	71	111	90	146	161	170	165	157	162	
24 Spd	2	1	1	0	0	0	0	1	0	1	1	2	8	8	7	6	5	5	4	1	1	0	0	0	2.1	8.0	
Dir	175	176	168	196	156	160	274	305	177	147	150	150	159	159	155	152	145	149	161	216	152	157	182	219	158	159	
25 Spd	1	7	10	9	5	5	2	1	3	3	2	5	8	7	6	5	3	2	1	1	1	0	0	0	2.3	9.8	
Dir	293	299	319	328	288	252	159	160	159	162	193	232	250	247	242	249	215	184	166	164	174	239	166	157	254	319	
26 Spd	1	0	1	0	0	0	0	1	1	1	3	13	15	15	21	20	18	21	15	12	6	5	1	2	6.7	21.3	
Dir	164	156	175	167	150	354	280	167	164	171	262	269	266	260	269	278	277	271	269	256	234	229	163	167	264	271	
27 Spd	2	4	8	6	2	5	13	14	13	10	8	10	5	4	4	6	7	3	0	0	0	1	1	1	3.4	14.2	
Dir	164	248	251	254	159	266	312	359	344	331	326	338	342	284	237	243	260	253	158	154	168	162	152	184	303	359	
28 Spd	2	2	2	2	1	2	2	1	2	2	2	3	10	8	4	1	1	1	0	0	0	3	1	0	1.2	9.6	
Dir	161	158	155	164	155	163	165	165	162	152	154	250	283	280	285	267	216	191	323	207	201	235	175	184	227	283	
29 Spd	1	1	1	1	1	0	0	0	1	1	2	4	11	10	7	6	5	4	1	0	1	1	0	1	1.9	10.7	
Dir	160	162	165	186	251	198	166	177	179	161	159	262	276	277	267	281	294	287	261	209	171	187	179	167	263	276	
30 Spd	0	1	1	1	1	1	0	0	2	3	3	3	3	8	7	6	5	5	3	0	0	1	1	0	1.1	7.8	
Dir	171	177	178	165	158	167	160	152	158	159	160	164	163	266	275	271	275	320	338	197	169	150	162	186	237	266	
Spd	0.7	0.8	1.0	0.9	0.7	0.8	0.8	0.5	0.9	1.1	1.8	2.7	4.0	4.5	3.9	3.4	2.9	2.6	1.3	0.7	0.7	0.9	0.7	0.6	Diurnal Average		
Dir	210	236	253	255	219	233	247	254	239	233	248	264	265	271	275	270	268	267	269	227	204	222	227	219	Diurnal Maximum		
Spd	7.6	8.6	9.8	8.7	5.6	5.1	12.8	14.2	13.0	10.3	9.4	13.2	15.4	15.4	20.6	19.9	18.3	21.3	15.4	11.8	6.5	11.2	9.0	9.3	Diurnal Maximum		
Dir	275	275	319	328	287	278	312	359	344	331	310	269	266	260	269	278	277	271	269	256	234	265	265	272			
Maximum Speed Value: 21 km/h on Sep 26 18:00							Minimum Speed Value: 0 km/h on Sep 23 04:00													Hours in Service: 720							
Maximum Daily Speed Average: 6.7 km/h on Sep 26							Minimum Daily Speed Average: 0.2 km/h on Sep 6													Hours of Data: 720							
Maximum Diurnal Speed Average: 4.5 km/h at hour 14							Minimum Diurnal Speed Average: 0.5 km/h at hour 8													Hours of Missing Data: 0							
Monthly Average Velocity: 1.54 km/h 257.4 deg							Speed Percentiles: P ₁ = 0.1 P ₁₀ = 0.3 Q ₁ = 0.6 Median = 1.6 Q ₃ = 4.5 P ₉₀ = 7.6 P ₉₉ = 15.4													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	26		13		2		0		0		0		41														
NorthEast	8		0		0		0		0		0		8														
East	13		0		0		0		0		0		13														
SouthEast	81		12		0		0		0		0		93														
South	243		7		0		0		0		0		250														
SouthWest	70		13		1		0		0		0		84														
West	63		65		16		3		0		0		147														
NorthWest	54		29		1		0		0		0		84														
Total	558		139		20		3		0		0		720														

Wind Rose

Wind Speed (WS) (km/h)
Valleyview - September 2015



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Valleyview - September 2015

Maximum Speed: 22 km/h on Sep 26 18:00																				Maximum Daily Speed Average: 7.6 km/h on Sep 26										Hours in Service: 720	
Minimum Speed: 0 km/h on Sep 7 00:00																				Minimum Daily Speed Average: 0.7 km/h on Sep 6										Hours of Data: 720	
Maximum Diurnal Speed Average: 7.0 km/h at hour 14																				Minimum Diurnal Speed Average: 1.4 km/h at hour 24										Hours of Missing Data: 0	
Monthly Average Speed: 3.25 km/h																				Percentiles: P ₁ = 0.1 P ₁₀ = 0.4 Q ₁ = 0.8 Median = 1.9 Q ₃ = 4.8 P ₉₀ = 8.0 P ₉₉ = 15.6										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-Sep	2	1	1	1	4	4	7	4	5	8	7	9	9	7	6	4	4	3	1	1	1	2	2	2	4.0	9.3					
2-Sep	3	2	3	4	2	3	1	1	0	0	5	5	6	7	8	8	9	4	2	2	2	1	5	6	3.7	8.9					
3-Sep	7	8	8	7	5	4	3	6	7	6	8	7	6	7	5	4	4	4	7	1	2	1	1	1	4.9	8.4					
4-Sep	1	2	1	3	1	3	3	3	4	4	2	3	4	3	2	3	3	1	1	0	0	1	0	0	2.1	4.4					
5-Sep	1	0	1	0	0	0	0	1	2	2	6	6	7	7	7	8	7	6	3	1	1	1	1	0	2.9	7.5					
6-Sep	1	0	0	0	1	0	1	0	1	1	1	1	1	2	1	1	1	0	0	0	0	0	0	0	0.7	1.6					
7-Sep	0	0	0	0	1	0	1	1	2	5	6	8	11	10	11	9	7	5	7	2	1	1	1	1	3.7	11.1					
8-Sep	0	1	1	1	0	0	0	1	2	1	2	2	3	3	2	2	7	1	3	1	1	0	2	0	1.6	6.8					
9-Sep	0	0	0	0	0	0	1	1	1	1	2	2	2	4	3	3	3	2	1	1	0	0	0	1	1.2	4.2					
10-Sep	1	1	1	1	2	1	1	1	1	2	6	9	11	11	10	9	8	9	4	3	2	1	1	1	4.1	10.9					
11-Sep	1	1	1	1	1	1	0	0	1	3	3	7	13	13	14	14	14	13	6	2	1	1	1	1	4.8	14.4					
12-Sep	1	1	1	1	1	1	0	1	2	1	5	9	4	2	5	4	2	1	2	1	0	1	1	1	1.9	8.8					
13-Sep	0	1	1	1	1	2	1	2	7	7	9	6	6	9	7	7	6	4	2	0	3	3	1	1	3.6	9.1					
14-Sep	1	1	1	1	0	1	2	2	2	3	7	6	7	9	8	5	4	3	2	0	1	1	1	1	2.9	9.1					
15-Sep	0	0	0	0	0	0	1	0	0	0	1	1	3	3	2	5	5	3	1	0	1	1	0	0	1.3	5.2					
16-Sep	0	0	0	0	1	1	2	2	3	3	3	4	4	3	2	2	2	2	4	1	0	2	1	0	1.8	4.0					
17-Sep	1	1	0	0	0	1	0	1	1	2	2	2	3	7	6	7	6	7	1	1	2	1	2	2	2.4	7.4					
18-Sep	2	2	2	2	2	3	1	2	2	5	7	10	15	14	11	13	11	14	5	1	2	2	2	2	5.5	15.1					
19-Sep	2	4	3	4	4	4	5	5	5	5	5	5	3	7	12	8	3	7	7	1	2	2	2	1	4.5	11.9					
20-Sep	1	1	1	1	1	1	2	1	1	1	2	1	2	4	1	2	2	1	2	2	7	11	9	9	2.8	11.4					
21-Sep	8	9	8	7	6	5	3	4	9	8	10	9	9	10	9	7	7	6	2	0	1	1	0	1	5.8	9.8					
22-Sep	0	0	1	0	0	0	0	1	0	2	2	4	3	3	3	3	2	2	2	4	6	5	3	3	2.0	5.5					
23-Sep	2	1	0	0	0	1	2	2	3	5	6	5	4	3	3	2	2	1	1	0	1	1	0	2	2.1	5.6					
24-Sep	2	2	1	0	0	0	0	1	0	1	1	2	8	8	7	6	5	5	4	2	1	0	1	1	2.5	8.2					
25-Sep	1	7	10	9	6	5	3	1	3	3	3	5	9	7	6	6	3	2	1	1	1	1	0	0	4.0	10.0					
26-Sep	1	0	1	0	1	1	1	1	1	1	4	14	16	16	21	21	19	22	16	12	7	5	1	2	7.6	21.6					
27-Sep	2	5	8	7	2	5	14	14	13	10	8	10	5	5	4	6	7	3	0	0	0	1	1	1	5.5	14.4					
28-Sep	2	2	2	2	1	2	2	1	2	2	2	5	10	9	5	4	2	1	1	0	1	3	1	0	2.5	10.2					
29-Sep	1	1	1	1	1	0	1	0	1	1	2	5	11	11	8	6	6	4	1	0	1	1	1	1	2.7	11.1					
30-Sep	0	1	1	1	1	1	0	0	3	3	3	3	3	8	7	7	6	5	3	0	0	1	1	0	2.5	8.5					
1.5 1.8 2.0 2.0 1.5 1.8 2.0 2.1 2.9 3.3 4.3 5.6 6.6 7.0 6.6 6.2 5.5 4.8 3.0 1.5 1.6 1.7 1.5 1.4																									Diurnal Average						
7.7 8.7 10.0 8.9 6.0 5.3 13.6 14.4 13.2 10.5 9.8 13.5 15.9 15.8 21.1 20.7 18.9 21.6 15.6 12.1 6.9 11.4 9.1 9.4																									Diurnal Maximum						
All monthly, daily, and diurnal averages have been calculated using scalar methods																															

Hourly Standard Deviations

Wind Direction (WD) - deg
Valleyview - September 2015

Maximum Value: 97.4 deg on Sep 23 04:00																			Hours in Service: 720						
Minimum Value: 5.1 deg on Sep 19 06:00																			Hours of Data: 720						
																			Hours of Missing Data: 0						
Percentiles: P ₁ = 7.0 P ₁₀ = 12.5 Q ₁ = 17.2 Median = 30.0 Q ₃ = 49.8 P ₉₀ = 70.0 P ₉₉ = 93.9																			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-Sep	68	69	49	25	11	59	13	26	25	23	24	27	27	30	27	50	55	47	31	39	39	54	17	52	68.8
2-Sep	69	65	36	15	19	16	22	34	46	97	27	22	18	21	17	17	26	18	45	85	50	57	13	15	97.0
3-Sep	18	12	11	15	21	37	59	17	15	17	18	18	26	21	20	30	34	30	16	29	27	28	45	53	59.1
4-Sep	51	47	39	33	30	16	19	17	18	25	67	24	34	37	74	57	45	77	62	72	53	71	62	89	89.5
5-Sep	81	63	39	65	71	95	52	24	49	17	23	14	15	19	15	16	16	13	13	23	37	57	73	73	94.7
6-Sep	73	81	61	70	57	50	41	53	30	46	51	69	96	82	91	58	42	25	32	50	48	43	43	65	95.7
7-Sep	49	79	66	19	52	43	22	18	62	20	34	29	18	27	23	34	13	54	19	84	30	29	30	13	83.7
8-Sep	29	11	8	21	44	26	37	22	13	67	15	36	55	45	70	62	29	40	45	29	62	63	30	32	70.0
9-Sep	46	48	72	31	34	30	47	43	30	19	28	60	88	54	72	41	33	29	30	31	18	15	13	10	87.7
10-Sep	13	17	12	11	35	11	23	24	19	16	54	17	19	21	20	15	19	14	15	19	14	37	29	44	54.4
11-Sep	53	58	54	30	26	39	66	72	19	14	15	41	16	16	16	13	12	14	12	35	28	30	46	15	72.0
12-Sep	51	29	21	27	75	26	87	45	8	16	70	15	35	41	19	46	31	44	37	52	29	74	38	29	86.7
13-Sep	49	27	28	50	37	14	24	79	19	16	25	18	16	14	17	24	24	16	24	68	55	45	48	41	78.9
14-Sep	39	53	48	25	20	28	24	44	29	28	41	21	31	18	17	49	68	32	20	68	42	39	51	54	67.7
15-Sep	80	70	84	72	88	60	22	83	92	91	90	60	49	51	60	10	14	12	42	75	10	14	60	94	94.1
16-Sep	61	71	75	56	49	24	13	17	15	14	17	18	25	50	62	73	34	21	11	54	45	15	24	78	78.2
17-Sep	17	84	92	62	53	46	33	18	26	50	45	68	53	36	46	42	30	32	35	7	7	19	17	10	92.1
18-Sep	18	7	9	13	29	22	37	30	23	24	18	23	13	12	21	14	22	16	22	38	14	7	8	6	37.5
19-Sep	12	7	13	7	7	5	7	6	6	8	10	12	35	20	57	16	36	52	29	70	34	35	39	38	69.7
20-Sep	29	33	33	34	29	44	38	18	32	21	69	79	46	32	39	27	26	34	32	32	44	9	9	9	79.3
21-Sep	12	11	12	16	13	14	21	36	15	20	16	18	19	18	35	36	27	29	82	34	77	11	54	88	87.8
22-Sep	80	71	39	84	69	80	82	26	70	46	63	39	38	63	93	58	85	32	19	10	10	8	13	10	92.8
23-Sep	11	15	69	97	77	10	10	8	12	11	12	15	18	29	22	40	76	33	27	58	46	41	61	36	97.4
24-Sep	30	50	45	54	70	61	78	76	84	61	90	56	14	13	11	13	13	10	16	55	46	90	89	67	90.4
25-Sep	95	61	9	11	26	47	30	13	11	10	34	42	17	26	32	32	37	30	8	16	39	50	49	52	95.4
26-Sep	54	50	37	66	67	84	80	38	49	52	40	15	15	13	13	16	14	9	11	13	23	26	18	14	84.3
27-Sep	13	43	23	26	17	47	19	10	10	9	17	11	27	34	35	26	16	22	39	28	36	44	16	38	47.0
28-Sep	25	12	11	31	11	9	17	14	14	18	25	61	18	26	57	94	38	36	71	76	46	26	38	45	94.4
29-Sep	19	24	32	29	46	37	38	58	23	15	13	53	17	27	27	34	23	24	41	45	32	21	25	24	58.4
30-Sep	17	19	13	43	27	25	61	68	15	13	16	14	25	29	34	34	30	26	14	73	34	33	34	30	72.5
95.4 83.9 92.1 97.4 88.0 94.7 86.7 83.2 91.6 97.0 90.4 79.3 95.7 82.1 92.8 94.4 84.8 77.5 82.0 84.7 77.0 90.4 88.7 94.1																									

PAZA
Falher Station
Monthly Summary Tables, Graphs and
Roses

Hourly Averages

Sulphur Dioxide (SO₂) - ppb

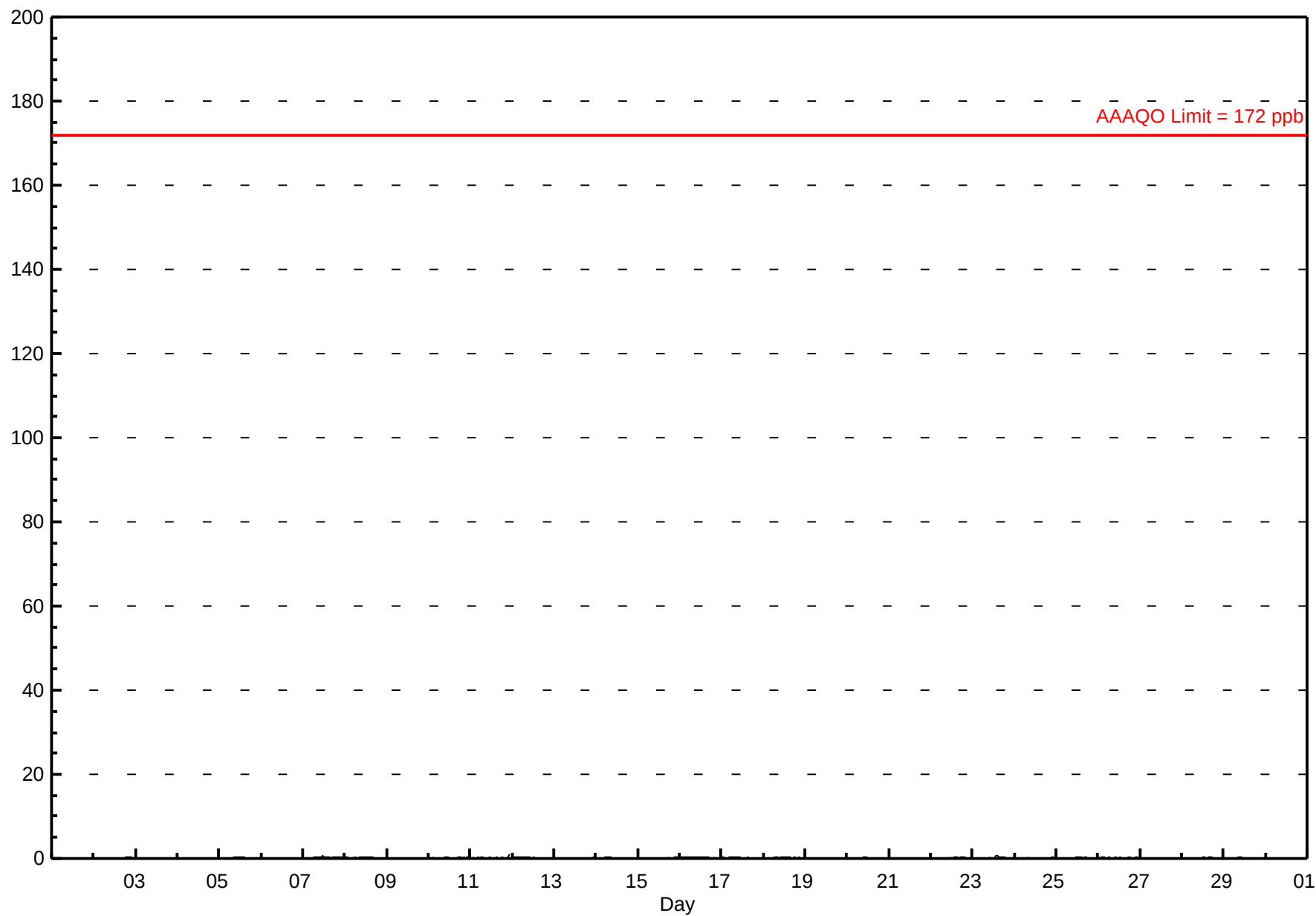
Falher - September 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 1.1 ppb on Sep 11 23:00 Maximum Daily Average: 0.2 ppb on Sep 7																								Hours in Service: 720 Hours of Data: 682 Hours of Missing Data: 38 Hours of Calibration: 32 Percent Operational Time: 99.2		
Minimum Value: 0 ppb on Sep 1 06:00 Minimum Daily Average: 0.0 ppb on Sep 30 Maximum Diurnal Average: 0.2 ppb at hour 12 Minimum Diurnal Average: 0.1 ppb at hour 2 Monthly Average: 0.12 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 0.2 P ₉₉ = 0.4																										
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-Sep	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
2-Sep	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
3-Sep	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
4-Sep	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
5-Sep	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
6-Sep	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
7-Sep	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	0.5
8-Sep	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
9-Sep	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
10-Sep	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
11-Sep	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	0.2	1.1
12-Sep	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
13-Sep	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
14-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	0.3
15-Sep	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
16-Sep	0	0	0	0	0	0	0	0	0	0	0	0	C	C	0	0	0	A	0	0	0	0	0	0	0.2	0.3
17-Sep	0	0	0	0	0	0	0	0	0	0	0	0	C	C	0	0	0	0	0	0	0	0	0	0	0.2	0.3
18-Sep	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	0.2
19-Sep	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
20-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.1	0.3
21-Sep	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
22-Sep	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
23-Sep	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	0.6
24-Sep	0	0	0	0	0	0	0	0	0	P	P	P	P	P	P	0	0	0	0	0	0	0	0	0	0.1	0.3
25-Sep	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
26-Sep	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
27-Sep	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
28-Sep	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
29-Sep	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
30-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
0.1 0.1 0.1 0.1 0.1 0.1 0.1 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 0.1 0.1 0.1																								Diurnal Average		
0.4 0.3 0.3 0.4 0.3 0.3 0.3 0.3 0.3 0.3 0.4 0.4 0.5 0.5 0.6 0.6 0.3 0.3 0.4 0.4 0.3 0.3 0.3 1.1 0.3																								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 (SO₂) - ppb

Falher - September 2015



Hourly Maximums

Sulphur Dioxide (SO₂) - ppb

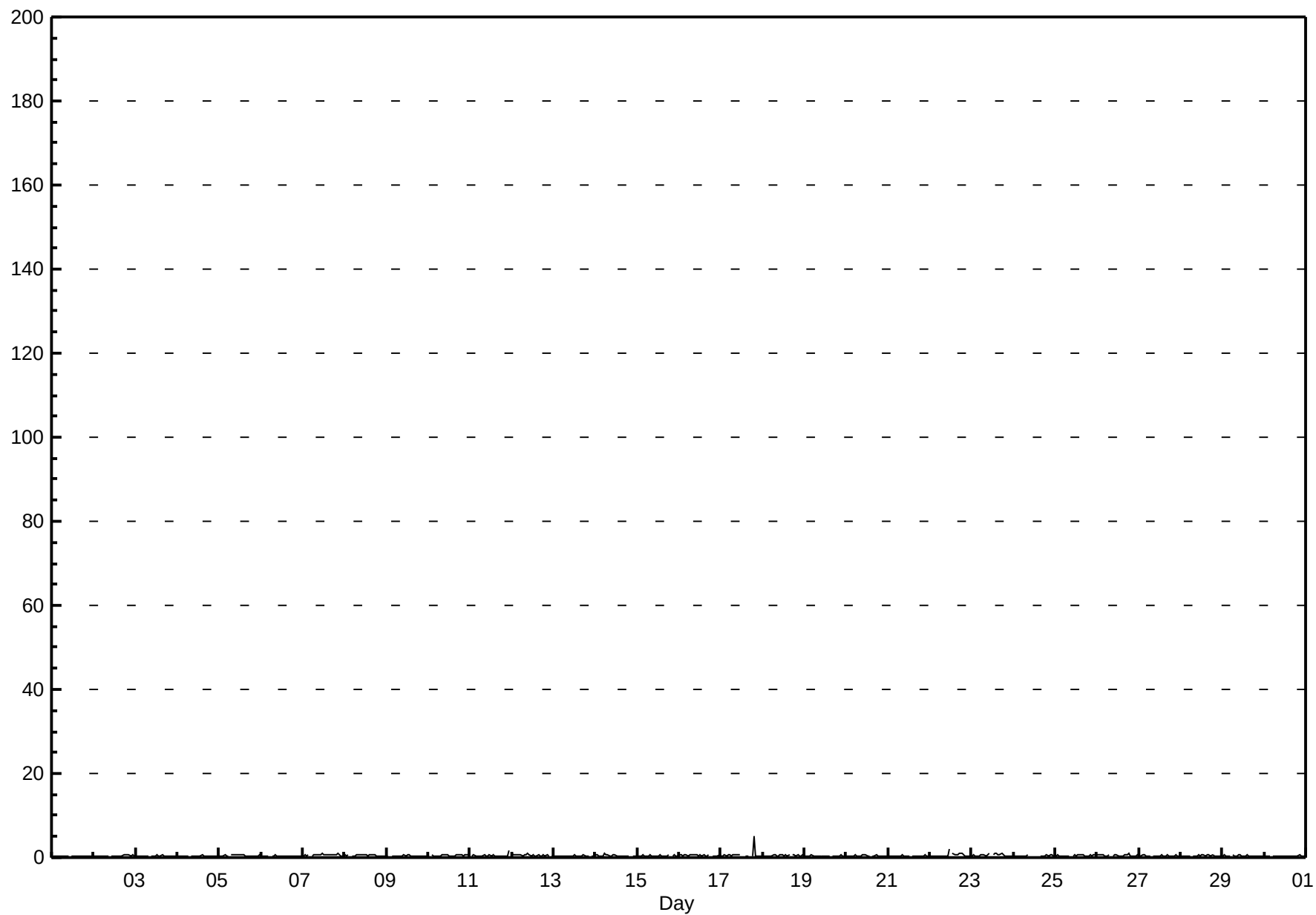
Falher - September 2015

Maximum Value: 5.0 ppb on Sep 17 20:00																				Maximum Daily Average: 0.7 ppb on Sep 17										Hours in Service: 720	
Minimum Value: 0 ppb on Sep 4 11:00																				Minimum Daily Average: 0.4 ppb on Sep 30										Hours of Data: 682	
Maximum Diurnal Average: 0.6 ppb at hour 20																				Minimum Diurnal Average: 0.4 ppb at hour 3										Hours of Missing Data: 38	
Monthly Average: 0.47 ppb																				Percentiles: P ₁ = 0.3 P ₁₀ = 0.3 Q ₁ = 0.4 Median = 0.4 Q ₃ = 0.5 P ₉₀ = 0.6 P ₉₉ = 1.0										Hours of Calibration: 32	
																				Percent Operational Time: 99.2											
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-Sep	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5					
2-Sep	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	1	1	1	1	0	1	0	0.4	0.8					
3-Sep	0	0	0	0	0	0	0	0	A	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0.4	0.6					
4-Sep	0	0	0	0	0	0	0	A	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0.4	0.6					
5-Sep	0	0	0	1	0	0	A	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	1	0.5	0.7					
6-Sep	0	0	0	0	0	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5					
7-Sep	0	1	0	1	A	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0.6	1.0					
8-Sep	1	0	1	A	0	0	0	1	1	1	1	1	1	0	1	1	1	1	1	0	0	0	0	0	0.5	0.8					
9-Sep	0	0	A	0	0	0	0	0	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0.4	0.6					
10-Sep	0	A	1	0	0	0	0	0	1	1	1	1	0	0	0	0	1	1	1	1	0	1	1	1	0.5	0.8					
11-Sep	A	0	1	0	0	0	0	0	1	0	0	1	0	1	0	0	0	0	0	0	0	0	2	A	0.5	1.7					
12-Sep	1	1	1	1	1	1	0	1	1	1	1	0	1	0	1	1	0	0	1	0	1	0	A	0	0.6	1.1					
13-Sep	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	A	0	0	0.4	0.6					
14-Sep	1	1	0	0	0	1	1	1	0	0	1	1	0	0	0	0	0	0	0	0	A	0	0	0	0.5	0.9					
15-Sep	0	0	0	1	0	0	0	1	0	0	0	0	0	1	0	0	0	0	1	A	0	1	0	0	0.5	0.8					
16-Sep	1	1	0	1	1	0	1	1	1	1	1	0	1	0	1	0	0	1	A	0	0	0	0	1	0.6	0.8					
17-Sep	0	0	1	0	1	1	0	1	1	1	1	C	C	0	0	0	0	A	1	5	0	0	0	0	0.7	5.0					
18-Sep	0	0	0	0	0	0	1	1	0	0	1	1	0	1	1	1	A	1	1	1	1	0	0	1	0.5	0.7					
19-Sep	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	1	0	0	0.4	0.6					
20-Sep	0	0	0	0	0	1	0	0	0	1	1	1	0	0	A	0	0	1	0	0	0	0	0	0	0.5	0.7					
21-Sep	0	0	0	0	1	0	0	0	1	0	0	0	0	A	0	1	0	0	0	0	0	1	0	0	0.4	0.6					
22-Sep	0	0	0	0	0	0	0	0	0	0	0	2	A	1	1	1	1	1	1	1	0	0	0	0	0.6	2.1					
23-Sep	0	1	0	0	0	1	1	1	0	1	1	A	1	1	1	1	1	1	1	0	0	0	0	0	0.6	1.2					
24-Sep	0	0	0	0	0	0	0	0	1	P	P	P	P	P	P	0	0	0	0	1	0	1	1	0	0.4	0.6					
25-Sep	0	1	0	0	0	0	0	0	0	A	0	1	0	1	1	1	1	0	0	0	1	0	1	1	0.5	0.7					
26-Sep	1	1	1	1	0	0	0	1	A	0	1	1	0	0	0	0	1	1	1	0	0	0	0	1	0.5	0.8					
27-Sep	0	0	1	1	0	1	1	A	0	0	0	0	0	1	0	0	1	0	0	0	0	1	0	0	0.5	0.6					
28-Sep	0	0	0	0	0	0	A	0	0	0	1	0	1	1	0	1	1	0	1	0	0	0	0	0	0.4	0.7					
29-Sep	0	1	0	0	0	A	1	0	0	1	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0.5	0.7					
30-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.4	0.5					
0.4 0.4 0.4 0.4 0.4 0.5 0.4 0.5 0.5 0.5 0.5 0.6 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.6 0.4 0.4 0.5 0.4																									Diurnal Average						
1.1 0.6 0.6 0.8 0.6 0.9 0.6 0.8 0.7 0.9 0.9 2.1 0.8 1.0 1.2 0.8 0.8 0.9 1.0 5.0 0.9 0.8 1.7 0.7																									Diurnal Maximum						
C - Calibration P - Power Failure A - Automated Daily Zero Span																															

Hourly Maximums

Sulphur Dioxide (SO₂) - ppb

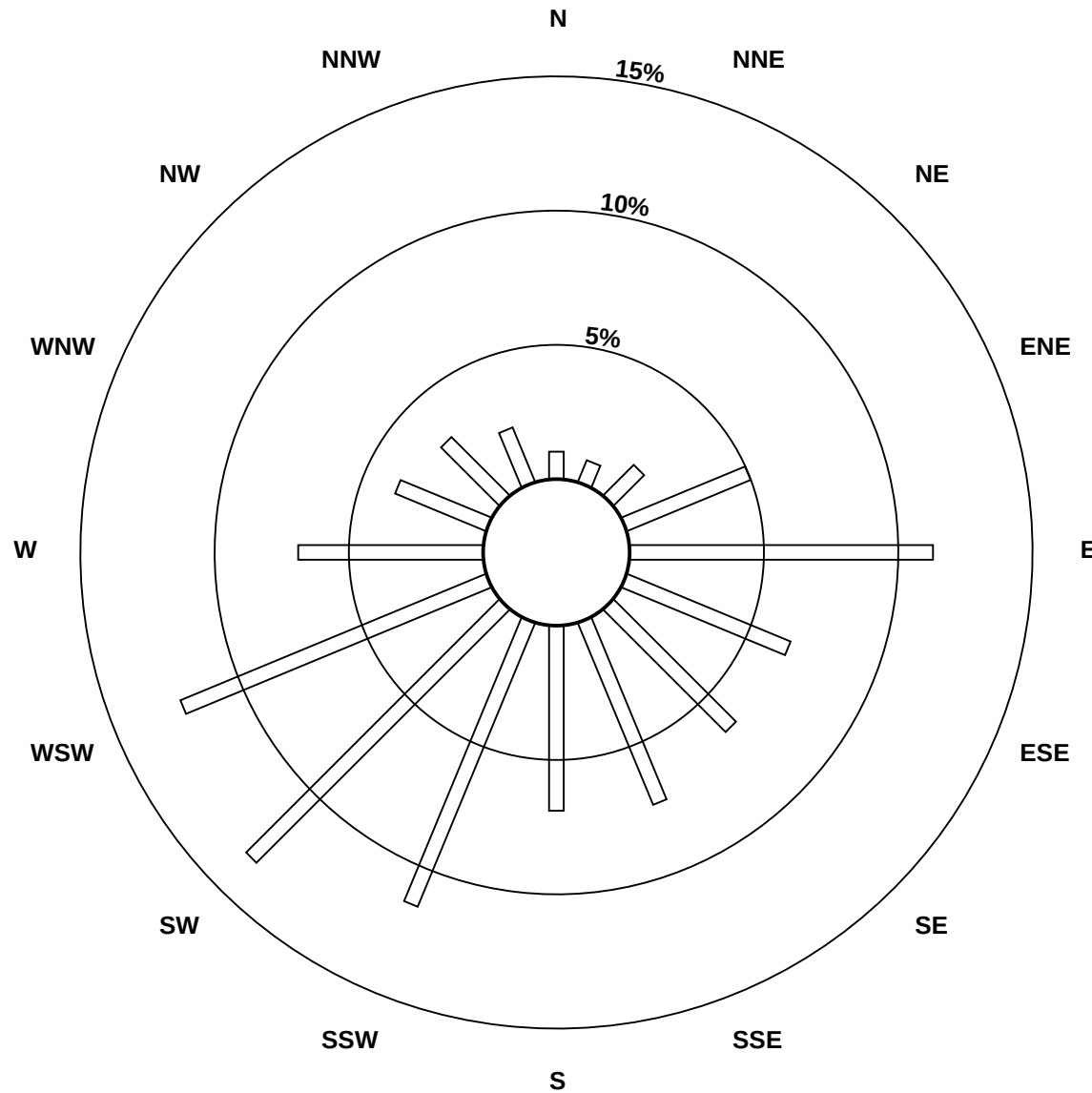
Falher - September 2015



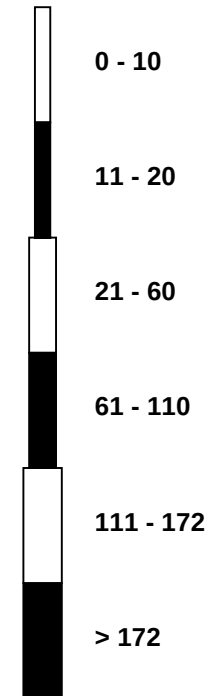
Pollutant Rose

Sulphur Dioxide (SO₂) - ppb

Falher - September 2015

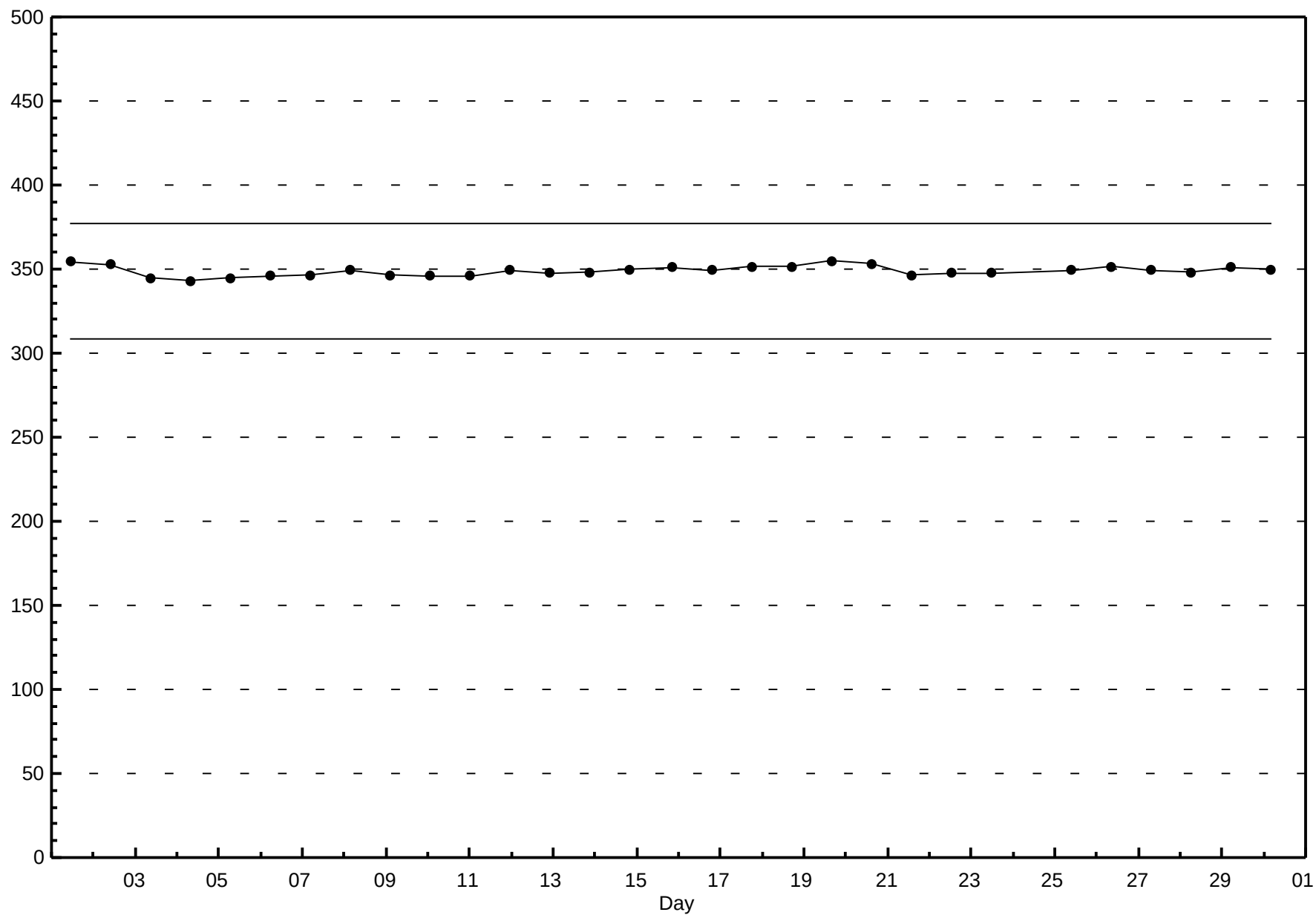


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Falher - September 2015



Hourly Averages

Hydrogen Sulphide (H₂S) - ppb

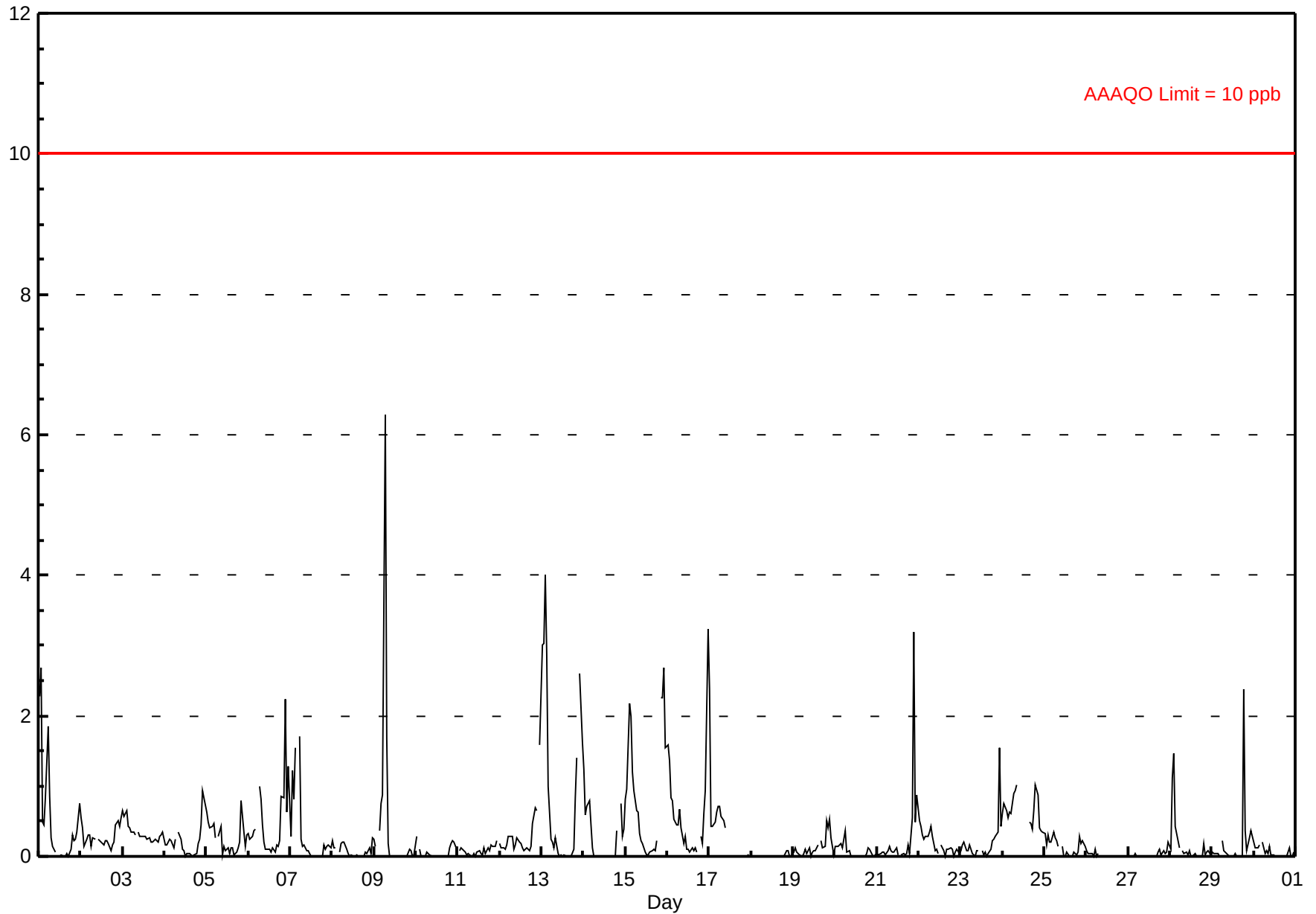
Falher - September 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 6.3 ppb on Sep 9 07:00 Maximum Daily Average: 0.9 ppb on Sep 13																				Hours in Service: 720						
Minimum Value: 0 ppb on Sep 1 13:00 Minimum Daily Average: 0.0 ppb on Sep 18 Maximum Diurnal Average: 0.6 ppb at hour 1 Minimum Diurnal Average: 0.0 ppb at hour 14 Monthly Average: 0.28 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.3 P ₉₀ = 0.7 P ₉₉ = 2.9																				Hours of Data: 680						
																				Hours of Missing Data: 40						
																				Hours of Calibration: 34						
																				Percent Operational Time: 99.2						
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-Sep	2	3	0	0	1	2	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0.5	2.7
2-Sep	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0.3	0.6
3-Sep	1	1	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
4-Sep	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.2	0.9
5-Sep	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.3	0.8
6-Sep	0	0	0	0	0	A	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	2	1	1	0.5	2.2
7-Sep	0	1	1	2	A	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.7
8-Sep	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
9-Sep	0	0	A	0	1	1	6	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	6.3
10-Sep	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
11-Sep	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.1	0.2
12-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	A	2	0.3	1.6
13-Sep	3	3	4	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	A	3	2	0.9	4.0
14-Sep	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	0	0	0.2	1.3
15-Sep	1	1	2	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	A	2	2	3	2	0.8	2.7
16-Sep	2	1	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	A	0	0	1	1	3	0.6	3.2
17-Sep	2	0	0	0	1	1	1	1	1	0	C	C	C	C	0	0	0	A	0	0	0	0	0	0	0.4	2.4
18-Sep	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
19-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	0	1	0	0	0.1	0.5
20-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.1	0.4
21-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	1	3	0	1	0.3	3.2
22-Sep	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
23-Sep	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	2	0	0.2	1.5
24-Sep	1	1	1	1	1	1	1	1	1	P	P	P	P	P	P	0	0	0	1	1	1	0	0	0	0.6	1.0
25-Sep	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
26-Sep	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
27-Sep	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
28-Sep	0	1	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.5
29-Sep	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0.2	2.4
30-Sep	0	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
0.6 0.5 0.5 0.5 0.3 0.4 0.5 0.3 0.2 0.1 0.1 0.1 0.0 0.0 0.0 0.1 0.1 0.1 0.2 0.2 0.4 0.5 0.5 0.5																								Diurnal Average		
3.0 3.0 4.0 2.9 1.2 1.9 6.3 1.7 1.0 0.4 0.3 0.3 0.3 0.3 0.2 0.5 0.5 0.4 2.4 1.0 2.3 3.2 2.7 3.2																								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 Averages

Hydrogen Sulphide (H₂S) - ppb

Falher - September 2015



Hourly Maximums

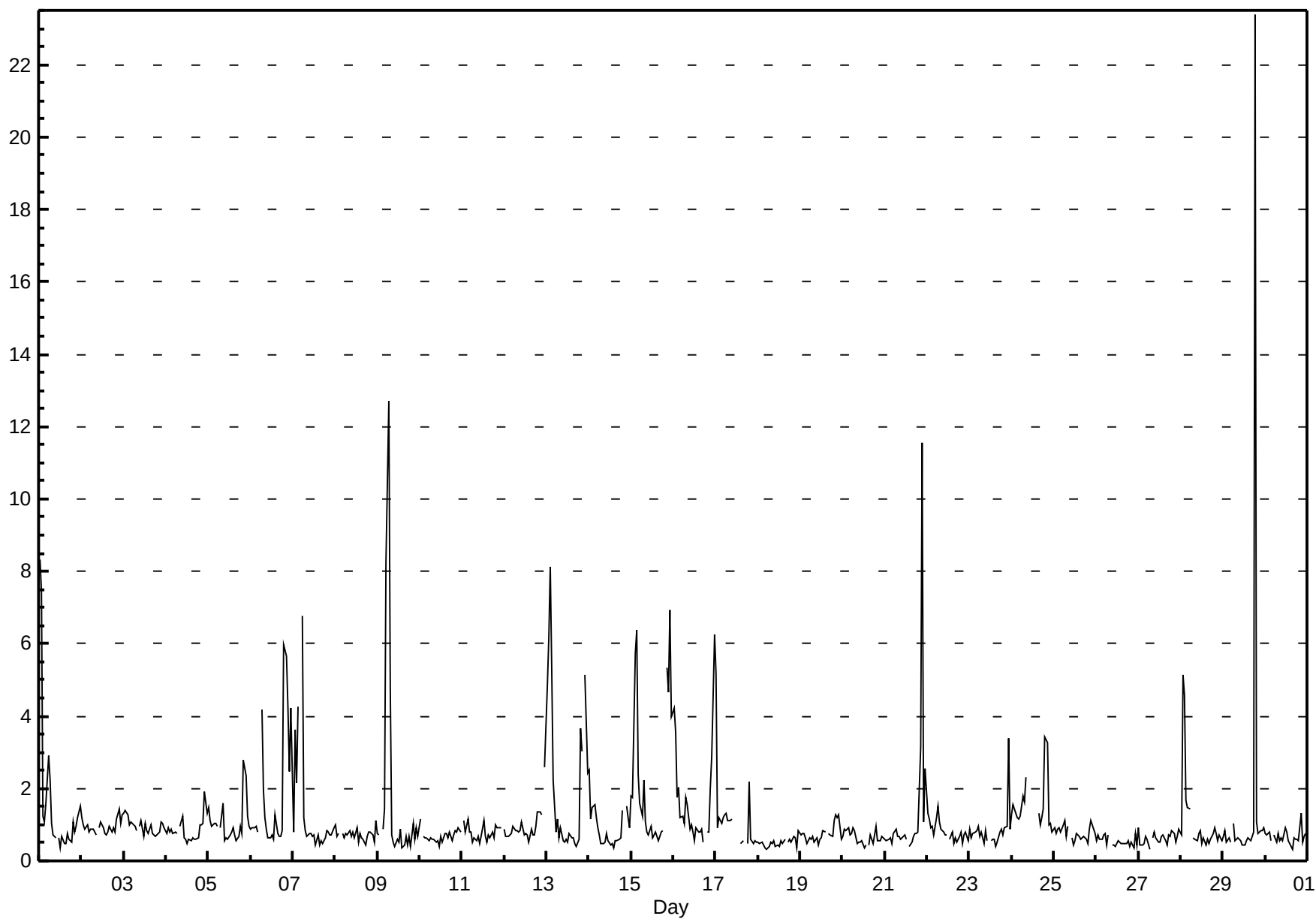
Hydrogen Sulphide (H₂S) - ppb

Falher - September 2015

Maximum Value: 23.4 ppb on Sep 29 19:00																				Maximum Daily Average: 2.3 ppb on Sep 15					Hours in Service: 720	
Minimum Value: 0 ppb on Sep 27 07:00																				Minimum Daily Average: 0.5 ppb on Sep 18					Hours of Data: 680	
Maximum Diurnal Average: 1.6 ppb at hour 2																				Minimum Diurnal Average: 0.6 ppb at hour 16					Hours of Missing Data: 40	
Monthly Average: 1.11 ppb																				Percentiles: P ₁ = 0.4 P ₁₀ = 0.5 Q ₁ = 0.6 Median = 0.8 Q ₃ = 1.0 P ₉₀ = 1.5 P ₉₉ = 7.3					Hours of Calibration: 34	
																				Percent Operational Time: 99.2						
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-Sep	8	7	1	1	2	3	2	1	1	1	A	1	0	1	0	0	1	1	1	1	1	1	1	2	1.6	8.3
2-Sep	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.4
3-Sep	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.4
4-Sep	1	1	1	1	1	1	1	A	1	1	1	1	0	1	1	1	1	1	1	1	1	1	2	1	0.8	1.9
5-Sep	1	1	1	1	1	1	A	1	2	1	1	1	1	1	1	1	1	1	1	1	1	3	2	1	1.1	2.8
6-Sep	1	1	1	1	1	A	4	2	1	1	1	1	1	1	1	1	1	1	1	6	6	4	2	4	1.8	6.0
7-Sep	1	4	2	4	A	7	1	1	1	1	1	1	0	1	0	1	0	1	1	1	1	1	1	1	1.3	6.8
8-Sep	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0.7	1.1
9-Sep	1	1	A	1	1	8	13	5	1	1	0	1	1	1	0	0	1	0	1	0	1	1	1	1	1.7	12.7
10-Sep	1	A	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.1
11-Sep	A	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	A	0.8	1.1
12-Sep	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	3	0.9	2.6
13-Sep	5	6	8	5	2	1	1	1	1	1	1	1	1	1	1	1	0	0	1	4	3	A	5	2	2.2	8.1
14-Sep	3	1	1	2	1	1	1	0	0	1	1	1	0	0	0	1	1	1	1	1	A	2	1	1	0.9	2.5
15-Sep	2	2	6	6	2	2	1	2	1	1	1	1	1	1	1	1	1	1	1	A	5	5	7	4	2.3	6.9
16-Sep	4	4	2	2	1	1	1	2	2	1	1	1	1	1	1	1	1	0	A	1	1	2	3	6	1.7	6.2
17-Sep	5	1	1	1	1	1	1	1	1	1	C	C	C	C	0	1	1	A	0	2	1	0	1	1	1.2	5.2
18-Sep	1	0	1	0	0	0	0	1	0	1	0	0	0	1	0	1	A	1	1	1	1	0	1	1	0.5	0.8
19-Sep	1	1	1	1	0	1	1	1	1	1	0	1	1	1	1	A	1	1	1	1	1	1	1	1	0.8	1.3
20-Sep	1	1	1	1	1	1	1	1	0	1	1	1	0	0	A	0	1	0	1	1	1	1	1	1	0.7	1.0
21-Sep	1	1	1	1	0	1	1	1	1	1	1	1	1	A	0	1	1	1	1	1	3	12	1	3	1.3	11.6
22-Sep	1	1	1	1	1	1	2	1	1	1	1	1	A	1	1	0	1	1	1	1	0	1	1	1	0.8	1.5
23-Sep	1	1	1	1	1	1	1	1	0	1	1	A	1	1	1	0	1	1	1	1	1	1	3	1	0.8	3.4
24-Sep	1	2	1	1	1	1	2	2	2	P	P	P	P	P	P	1	1	1	1	3	3	1	1	1	1.6	3.4
25-Sep	1	1	1	1	1	1	1	1	1	A	1	0	1	1	1	1	1	1	1	0	1	1	1	1	0.8	1.1
26-Sep	1	1	1	1	1	1	0	1	A	0	0	0	1	1	0	0	0	0	1	0	1	0	1	0	0.5	0.8
27-Sep	1	0	0	0	1	1	0	A	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0.6	0.9
28-Sep	1	5	5	2	1	1	A	1	1	1	1	1	0	1	0	1	0	1	1	1	1	1	1	1	1.1	5.1
29-Sep	1	1	1	1	1	A	1	1	1	1	1	0	0	1	1	1	1	1	23	1	1	1	1	1	1.7	23.4
30-Sep	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	0.7	1.3
																								Diurnal Average		
																								Diurnal Maximum		
C - Calibration P - Power Failure A - Automated Daily Zero Span																										

Hourly Maximums

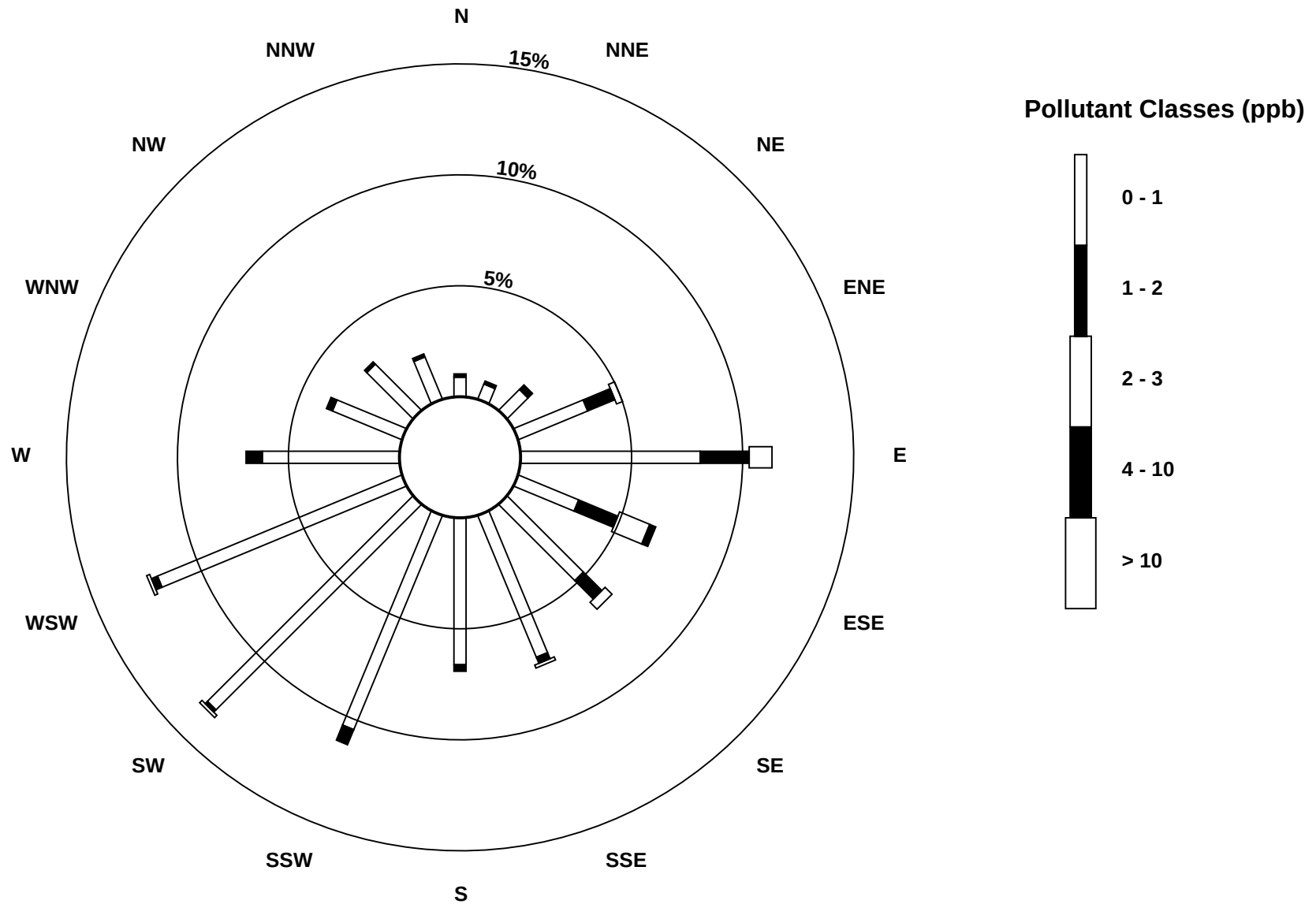
Hydrogen Sulphide (H₂S) - ppb
Falher - September 2015



Pollutant Rose

Hydrogen Sulphide (H₂S) - ppb

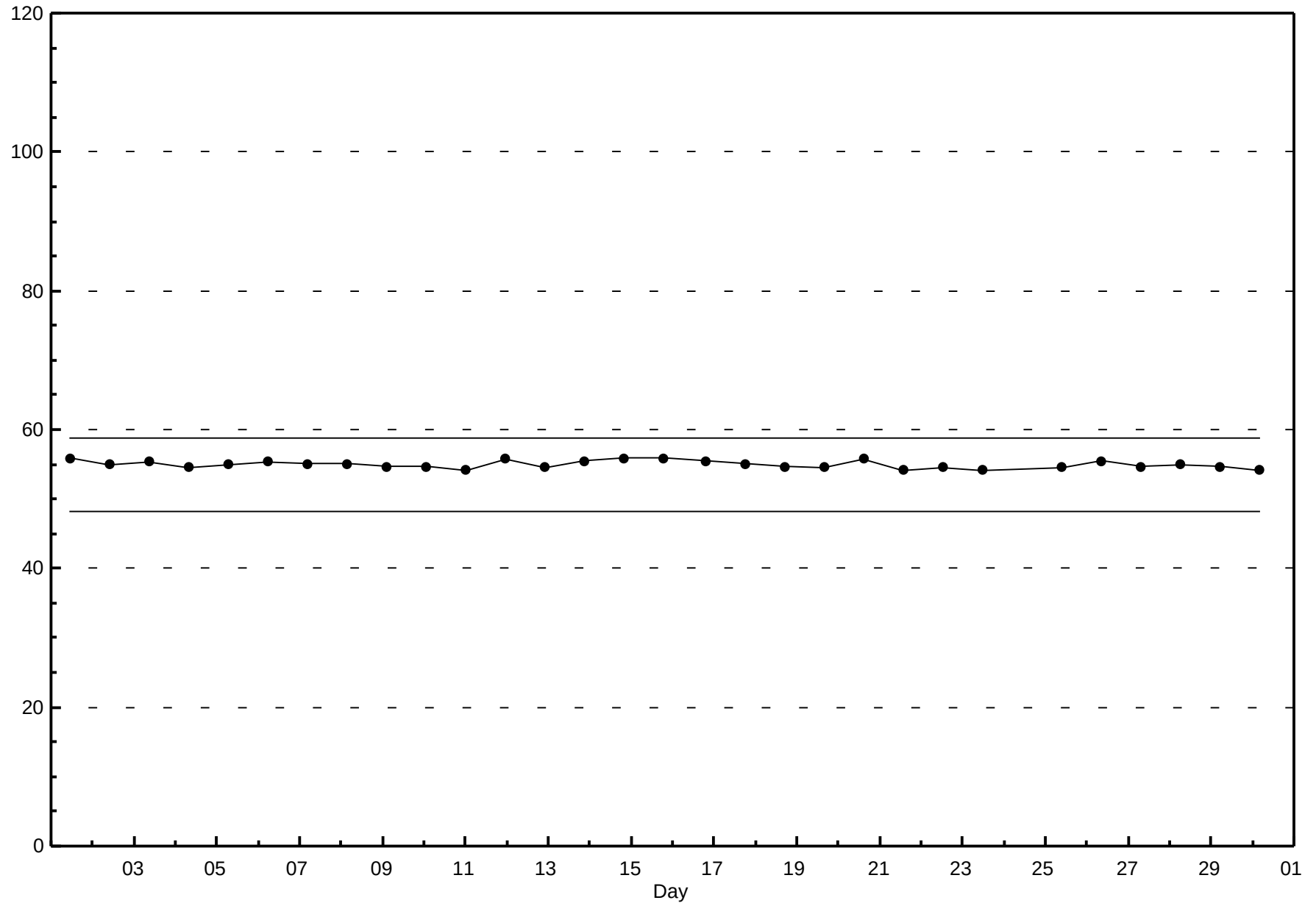
Falher - September 2015



Span Responses

Hydrogen Sulphide (H_2S)

Falher - September 2015



Hourly Averages

External Temperature (ET) - °C

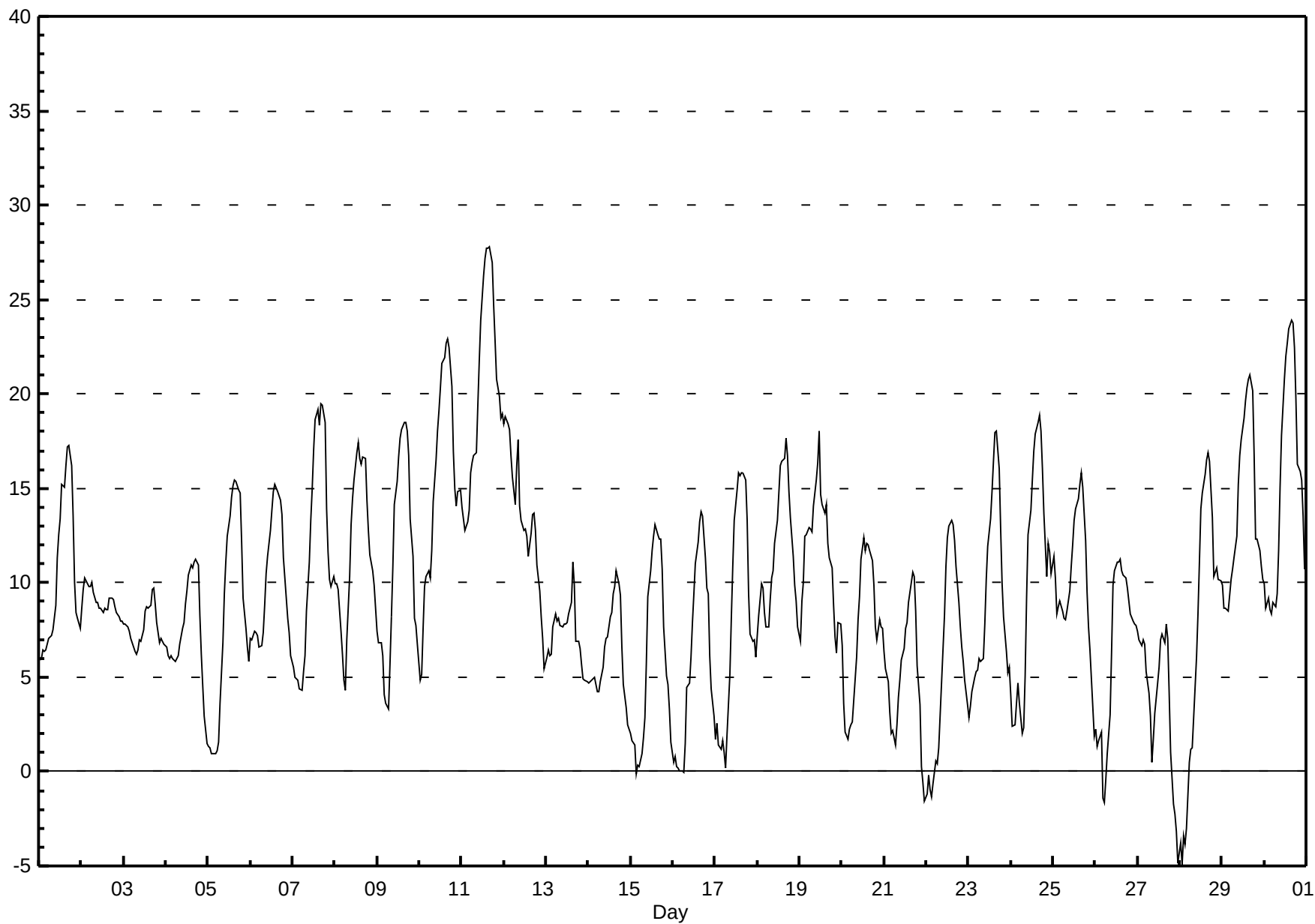
Falher - September 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 27.8 °C on Sep 11 17:00 Maximum Daily Average: 20.3 °C on Sep 11																								Hours in Service: 720 Hours of Data: 720 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0		
Minimum Value: -5 °C on Sep 28 02:00 Minimum Daily Average: 3.8 °C on Sep 27 Maximum Diurnal Average: 15.2 °C at hour 17 Minimum Diurnal Average: 5.7 °C at hour 7 Monthly Average: 9.57 °C Percentiles: P ₁ = -2.4 P ₁₀ = 2.2 Q ₁ = 6.1 Median = 9.0 Q ₃ = 13.3 P ₉₀ = 16.9 P ₉₉ = 23.6																										
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-Sep	6	6	6	6	6	7	7	7	8	9	11	13	13	15	15	16	17	17	16	13	10	8	8	8	10.5	17.3
2-Sep	9	10	10	10	10	10	10	10	9	9	9	9	8	9	9	9	9	9	9	9	8	8	8	8	9.0	10.3
3-Sep	8	8	8	7	7	7	6	6	6	7	7	8	8	9	9	9	10	10	9	8	7	7	7	7	7.6	9.7
4-Sep	7	6	6	6	6	6	6	6	7	8	8	9	10	10	11	11	11	11	11	8	6	5	3	1	7.4	11.3
5-Sep	1	1	1	1	1	1	2	4	7	9	11	12	14	14	15	15	15	15	15	12	9	8	7	6	8.2	15.4
6-Sep	7	7	7	7	7	7	7	7	9	10	11	13	14	15	15	15	15	14	14	11	9	8	7	6	10.1	15.2
7-Sep	6	5	5	5	4	4	5	6	8	11	13	15	17	19	19	18	19	19	19	14	12	10	10	10	11.4	19.5
8-Sep	10	10	10	7	6	5	4	7	10	13	14	15	17	17	17	16	17	17	14	13	11	11	10	9	11.7	17.4
9-Sep	7	7	7	6	4	4	3	6	8	11	14	15	17	18	18	19	19	18	17	13	11	8	8	7	11.0	18.5
10-Sep	5	5	8	10	10	11	10	12	14	17	18	19	20	22	22	23	23	22	20	17	15	14	15	15	15.3	22.9
11-Sep	14	13	13	13	14	16	16	17	17	19	22	24	26	27	28	28	28	27	25	23	21	20	19	19	20.3	27.8
12-Sep	18	19	18	18	17	16	14	16	18	14	13	13	13	12	11	13	14	14	13	11	10	8	7	5	13.5	18.8
13-Sep	6	6	6	6	8	8	8	8	8	8	8	8	8	8	9	11	10	7	7	6	6	5	5	5	7.3	11.1
14-Sep	5	5	5	5	5	4	4	5	5	7	7	7	8	8	9	10	11	10	9	7	5	3	2	2	6.2	10.7
15-Sep	2	2	1	0	0	0	1	2	3	6	9	11	12	12	13	13	12	12	11	8	5	5	3	2	6.0	13.1
16-Sep	0	1	0	0	0	0	0	1	4	5	6	8	9	11	12	13	14	14	11	10	9	6	4	3	6.0	13.7
17-Sep	2	3	1	1	2	1	0	2	5	8	11	13	15	16	16	16	16	15	13	9	7	7	7	6	8.0	15.8
18-Sep	7	8	10	10	8	8	8	9	10	11	12	13	15	16	16	17	18	17	15	13	11	10	9	8	11.6	17.6
19-Sep	7	9	10	12	13	13	13	13	14	15	16	18	15	14	14	14	12	11	11	9	7	6	8	8	11.8	18.0
20-Sep	7	4	2	2	2	2	3	4	6	8	9	11	12	12	12	12	12	11	10	8	7	8	8	8	7.4	12.4
21-Sep	6	5	5	3	2	2	1	2	4	5	6	6	8	8	9	10	11	10	9	6	4	0	-1	-2	5.0	10.6
22-Sep	-1	0	-1	-1	-1	1	0	1	3	6	8	11	12	13	13	13	12	11	9	8	7	6	5	4	5.8	13.3
23-Sep	3	3	4	5	5	5	6	6	6	8	10	12	13	15	16	18	18	16	13	10	8	6	5	6	9.1	18.0
24-Sep	4	2	2	4	5	4	2	2	5	9	13	14	15	17	18	18	19	18	16	14	10	12	12	10	10.3	18.9
25-Sep	11	10	8	9	9	8	8	8	8	10	11	12	13	14	14	15	16	15	12	9	8	6	5	2	10.2	15.9
26-Sep	2	1	2	2	-1	-2	0	1	3	6	10	11	11	11	11	11	10	10	10	9	8	8	8	8	6.2	11.2
27-Sep	7	7	7	7	7	5	4	3	1	2	3	5	6	7	7	7	8	7	4	1	-2	-2	-3	-5	3.8	7.8
28-Sep	-4	-5	-3	-4	-3	1	1	1	3	6	8	11	14	15	16	17	17	16	13	10	11	11	10	10	7.2	16.9
29-Sep	10	9	9	8	9	10	11	11	12	15	17	18	19	20	20	21	21	20	17	12	12	12	11	10	13.9	21.0
30-Sep	10	9	9	9	8	9	9	9	12	15	18	21	22	23	23	24	24	22	20	16	16	15	13	11	15.3	23.9
																								Diurnal Average		
																								Diurnal Maximum		

Hourly Averages

External Temperature (ET) - °C

Falher - September 2015



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Falher - September 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	5	5	1	3	2	7	11	10	8	6	11	11	16	12	9	9	5	2	5	10	12	13	14	1.7	16.0
Dir	119	85	56	323	16	80	208	217	240	249	236	233	209	228	265	221	290	266	105	98	65	67	69	64	207	228
2 Spd	16	21	24	24	21	20	25	25	26	24	25	9	11	18	15	14	15	12	11	13	7	7	8	5	15.4	25.7
Dir	61	69	89	65	77	62	75	75	84	83	85	85	30	41	51	65	79	80	76	79	19	2	4	347	68	84
3 Spd	4	5	8	9	10	12	15	15	14	14	14	15	16	14	17	15	10	11	9	10	5	7	5	10	10.3	17.2
Dir	307	264	260	339	343	342	348	351	345	327	323	323	335	320	339	339	327	303	308	310	291	311	286	298	325	339
4 Spd	9	9	5	6	9	9	6	7	6	8	6	6	8	10	8	10	10	10	10	9	3	2	6	8	5.6	10.4
Dir	309	296	283	260	268	273	257	273	254	254	240	230	231	204	253	243	225	222	234	217	211	219	85	81	247	225
5 Spd	10	7	9	10	12	13	11	14	16	21	23	25	21	20	21	18	20	18	17	14	14	12	12	13	13.8	24.9
Dir	83	65	76	90	86	85	86	103	124	148	156	158	146	146	147	139	127	132	131	121	109	103	86	94	123	158
6 Spd	12	11	13	11	10	9	6	8	8	6	9	7	5	5	5	2	7	6	8	8	11	11	9	9	7.2	12.6
Dir	85	86	92	84	95	94	113	98	116	147	151	161	159	175	184	207	124	117	117	110	119	108	103	98	113	92
7 Spd	9	7	7	8	7	8	10	8	10	12	10	11	12	12	13	14	16	13	9	9	12	10	8	2	5.5	16.1
Dir	97	117	124	120	115	123	158	176	211	242	250	238	259	271	274	278	282	277	271	241	254	257	259	201	240	282
8 Spd	11	12	11	11	11	11	10	5	7	6	9	10	10	10	14	18	14	13	11	5	6	1	4	5	7.7	18.1
Dir	203	224	224	179	174	157	157	145	210	213	192	206	250	259	224	234	239	245	230	312	274	279	188	149	215	234
9 Spd	10	8	8	7	6	8	7	5	5	4	5	10	11	13	10	11	15	12	12	10	10	10	14	11	6.9	15.4
Dir	165	149	155	152	121	121	106	128	142	160	177	212	210	234	247	255	240	233	223	204	173	158	166	166	188	240
10 Spd	8	8	7	8	7	8	11	10	16	19	18	20	24	22	23	18	17	17	12	10	12	11	14	16	11.3	23.6
Dir	141	141	138	156	164	163	167	188	212	241	250	248	255	258	249	250	252	247	264	255	222	201	206	211	227	255
11 Spd	12	13	6	13	9	16	17	15	15	20	26	25	32	33	33	36	34	32	27	18	16	19	18	16	19.2	35.6
Dir	195	187	192	175	181	232	226	204	181	208	222	234	248	260	255	246	249	247	250	249	238	227	220	225	232	246
12 Spd	14	15	12	9	9	12	13	6	19	9	8	4	1	4	9	4	5	7	8	8	9	10	5	3	4.6	19.4
Dir	227	229	232	246	212	204	197	231	311	350	300	293	173	326	9	47	126	147	191	201	203	182	168	159	228	311
13 Spd	5	4	6	6	6	11	16	15	9	15	15	16	16	15	11	10	9	9	4	2	5	4	4	5	4.7	16.3
Dir	103	62	112	141	239	331	37	45	285	311	295	275	264	272	281	249	304	320	222	263	238	231	235	239	290	275
14 Spd	9	8	7	5	7	12	10	7	8	9	8	8	9	9	6	6	4	7	8	11	8	10	12	11	4.5	12.2
Dir	268	272	285	291	313	336	346	323	312	307	322	322	341	351	356	15	41	46	70	74	69	81	84	81	357	84
15 Spd	8	8	7	6	7	7	8	9	10	12	12	7	7	13	10	6	10	11	7	12	11	10	10	10	7.8	13.2
Dir	67	61	77	82	55	72	77	103	84	91	116	143	151	123	131	108	20	29	101	139	93	111	117	98	96	123
16 Spd	10	9	10	11	10	13	10	11	14	19	18	21	22	20	15	10	9	11	10	6	11	14	13	12	11.2	21.5
Dir	90	92	90	90	81	81	83	102	135	142	138	150	148	150	156	171	165	149	138	199	96	100	98	108	125	148
17 Spd	8	9	11	14	12	10	10	8	11	11	11	10	9	16	18	20	22	23	16	13	15	14	14	10	10.7	23.3
Dir	114	137	127	133	137	142	130	133	185	207	204	213	228	222	222	226	224	220	219	194	178	177	172	164	189	220
18 Spd	12	14	23	19	17	16	14	13	14	19	19	19	20	28	23	18	19	28	20	18	15	13	14	14	16.5	28.3
Dir	167	192	216	210	211	209	208	206	211	223	230	228	229	227	230	230	248	244	234	222	202	181	157	150	216	227
19 Spd	13	15	16	20	21	19	19	13	12	11	17	28	26	23	10	21	22	27	18	12	15	13	19	17	14.1	27.9
Dir	138	144	166	184	181	187	180	180	175	209	218	223	283	290	265	258	230	202	202	208	196	201	210	222	209	223
20 Spd	14	8	7	9	13	14	14	9	8	14	14	11	11	12	10	9	11	9	8	9	10	13	14	13	9.2	14.3
Dir	224	201	194	180	176	185	198	221	244	257	255	251	263	251	265	263	287	278	260	239	242	275	284	283	243	255
21 Spd	10	12	15	14	14	18	17	17	19	17	14	12	12	12	13	15	13	12	5	3	2	8	9	7	9.4	18.9
Dir	251	239	249	246	238	251	253	265	272	281	278	282	264	259	285	297	281	272	279	322	63	95	66	66	267	272
22 Spd	11	11	11	14	14	15	11	11	17	25	24	26	25	21	25	29	30	30	27	27	24	21	17	13	19.5	30.4
Dir	48	54	71	75	60	91	76	75	86	94	95	100	101	105	102	100	99	93	87	86	89	92	94	98	90	99

Hourly Averages

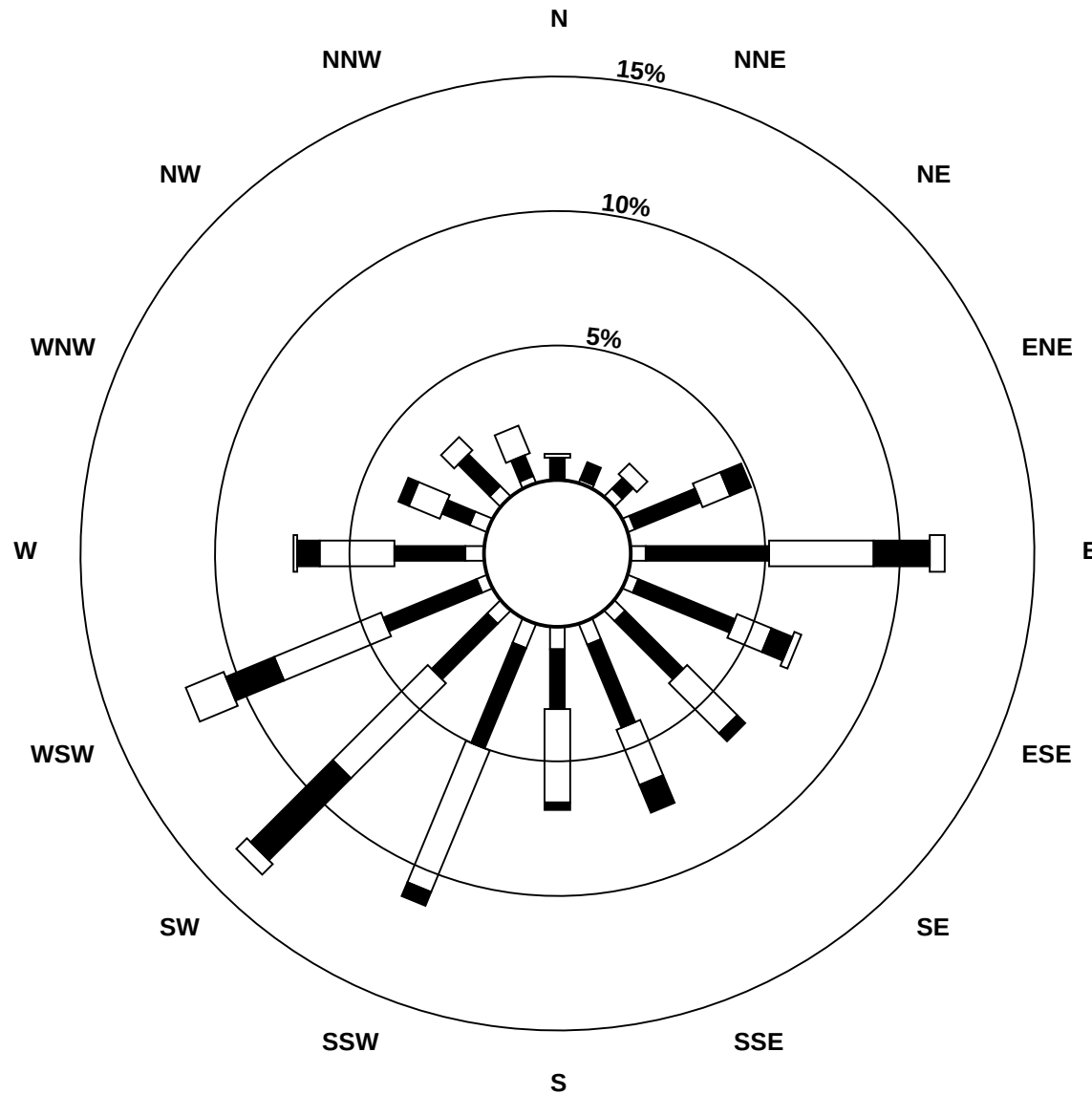
Wind Speed (km/h)
Wind Direction (deg)
Falher - September 2015

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	11	12	15	20	24	17	18	18	15	20	20	19	17	14	8	3	2	14	13	15	13	16	14	11	13.2	24.1
Dir	86	92	82	86	88	95	91	87	96	110	126	148	147	148	185	192	116	100	90	93	97	105	106	84	105	88
24 Spd	4	5	4	10	12	10	8	8	7	5	11	22	28	32	32	30	26	21	15	11	14	15	8	11	12.2	31.9
Dir	163	218	198	151	142	131	69	93	109	94	95	101	98	104	105	100	122	122	113	113	128	207	225	185	119	104
25 Spd	14	20	9	12	15	15	14	16	17	23	30	25	22	23	23	19	20	20	18	14	14	13	11	3	16.2	29.8
Dir	246	279	232	206	194	199	196	191	198	213	216	228	233	221	210	226	224	228	207	206	206	204	200	177	216	216
26 Spd	8	12	13	12	8	10	13	12	11	17	31	35	35	32	30	31	29	33	27	25	20	22	22	26	18.7	35.4
Dir	168	165	178	176	133	130	144	152	192	212	232	234	240	243	247	247	237	242	234	229	219	221	225	226	223	234
27 Spd	25	20	17	15	21	26	21	22	16	16	18	24	23	25	26	26	24	20	15	13	13	12	9	8	16.5	26.4
Dir	228	226	228	246	283	275	269	266	243	234	242	241	240	240	237	227	242	234	218	192	173	172	145	121	236	275
28 Spd	9	9	8	10	12	12	9	10	12	8	10	8	9	8	5	7	5	7	8	13	13	13	13	14	5.8	13.9
Dir	126	96	88	78	85	124	125	131	141	160	191	222	276	241	251	223	194	216	135	145	199	226	212	206	168	206
29 Spd	14	12	11	12	12	10	8	11	10	17	20	22	18	17	17	15	10	5	10	14	15	12	13	12	10.3	21.6
Dir	207	198	184	179	179	187	198	205	223	253	269	272	263	264	262	249	245	191	129	146	189	225	225	218	224	272
30 Spd	14	13	15	15	16	19	19	18	18	18	17	21	25	26	27	29	28	23	17	14	13	15	10	6	15.4	28.9
Dir	196	177	174	161	160	153	151	157	170	186	189	224	231	222	220	226	240	238	242	222	238	240	237	210	206	226
Spd	4.4	4.0	4.8	5.4	4.9	4.4	4.7	4.4	4.9	5.9	7.7	9.7	8.7	9.1	8.2	8.5	7.9	7.6	5.9	5.5	5.8	5.5	5.0	4.4	Diurnal Average	
Dir	166	167	162	152	148	156	151	155	184	204	211	219	231	231	232	232	231	221	200	181	177	179	172	165	Diurnal Maximum	
Spd	25.2	20.5	23.5	23.9	24.1	26.4	24.7	25.3	25.7	24.5	31.1	35.4	35.1	33.2	33.0	35.6	34.5	32.6	27.3	27.4	24.1	22.4	22.3	26.4	Diurnal Maximum	
Dir	228	69	89	65	88	275	75	75	84	94	232	234	240	260	255	246	249	242	234	86	89	221	225	226		
Maximum Speed Value: 36 km/h on Sep 11 16:00																								Hours in Service: 720		
Maximum Daily Speed Average: 19.5 km/h on Sep 26																								Hours of Data: 720		
Maximum Diurnal Speed Average: 9.7 km/h at hour 12																								Hours of Missing Data: 0		
Minimum Speed Value: 1 km/h on Sep 12 13:00																								Percent Operational Time: 100.0		
Minimum Daily Speed Average: 1.7 km/h on Sep 4																										
Minimum Diurnal Speed Average: 4.0 km/h at hour 2																										
Monthly Average Velocity: 5.30 km/h 196.6 deg																										
Speed Percentiles: P ₁ = 2.0 P ₁₀ = 6.0 Q ₁ = 8.7 Median = 11.8 Q ₃ = 16.6 P ₉₀ = 23.1 P ₉₉ = 32.3																										
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	2		13		6		0		0		0		21													
NorthEast	4		11		11		2		0		0		28													
East	2		50		48		22		7		0		129													
SouthEast	3		51		33		15		0		0		102													
South	12		35		55		5		0		0		107													
SouthWest	7		50		79		42		15		0		193													
West	3		40		43		16		4		0		106													
NorthWest	5		18		10		1		0		0		34													
Total	38		268		285		103		26		0		720													

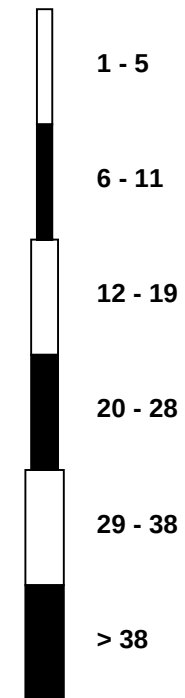
Wind Rose

Wind Speed (WS) (km/h)

Falher - September 2015



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Falher - September 2015

Maximum Speed: 36 km/h on Sep 11 16:00																				Maximum Daily Speed Average: 21.7 km/h on Sep 26					Hours in Service: 720																								
Minimum Speed: 2 km/h on Sep 4 22:00																				Minimum Daily Speed Average: 7.8 km/h on Sep 4					Hours of Data: 720																								
Maximum Diurnal Speed Average: 18.2 km/h at hour 14																				Minimum Diurnal Speed Average: 10.8 km/h at hour 24					Hours of Missing Data: 0																								
Monthly Average Speed: 13.63 km/h																				Percentiles: P ₁ = 3.6 P ₁₀ = 6.8 Q ₁ = 9.1 Median = 12.2 Q ₃ = 17.0 P ₉₀ = 23.2 P ₉₉ = 32.1					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-Sep	8	6	5	2	4	5	8	11	10	8	6	12	12	17	12	10	10	6	4	6	10	13	14	14	8.8	17.1																							
2-Sep	17	21	24	25	21	21	25	25	26	25	25	17	13	18	15	14	16	12	11	13	7	7	8	5	17.1	25.8																							
3-Sep	4	5	8	9	10	12	15	15	14	14	14	16	16	15	18	16	11	12	9	10	6	7	6	10	11.3	17.6																							
4-Sep	9	9	6	6	9	9	6	8	6	8	7	7	9	10	9	11	11	10	10	9	4	2	6	9	7.8	10.7																							
5-Sep	10	7	9	10	12	13	11	14	16	21	23	25	22	20	21	19	20	18	18	15	14	12	12	13	15.7	25.3																							
6-Sep	12	11	13	11	10	9	7	8	8	7	9	8	6	6	7	4	7	6	8	8	11	11	9	9	8.4	12.6																							
7-Sep	9	7	7	8	7	8	10	8	10	12	11	11	13	13	15	14	16	13	9	9	12	10	8	3	10.2	16.4																							
8-Sep	11	13	11	11	11	11	10	6	7	6	10	11	11	11	15	18	15	13	11	6	6	7	4	5	10.0	18.4																							
9-Sep	10	8	8	7	6	8	7	5	6	5	6	10	12	14	11	12	16	13	13	10	10	10	14	11	9.6	16.0																							
10-Sep	9	8	7	8	7	8	11	10	16	19	19	20	24	24	24	19	17	17	12	10	12	12	14	16	14.3	24.1																							
11-Sep	12	13	6	13	10	16	17	16	16	20	26	26	32	34	33	36	35	32	27	18	17	19	18	16	21.2	35.8																							
12-Sep	15	15	12	9	10	12	13	8	21	10	8	5	3	6	10	5	5	8	8	8	9	10	6	4	9.1	20.6																							
13-Sep	6	5	6	8	8	14	16	16	13	15	15	16	16	15	12	10	13	9	6	2	5	4	4	5	10.0	16.4																							
14-Sep	9	8	7	6	7	12	11	7	8	9	8	8	9	9	7	7	6	7	8	11	8	10	12	11	8.6	12.3																							
15-Sep	8	8	7	6	7	7	8	9	10	12	12	7	8	14	11	7	11	11	10	13	11	11	11	10	9.7	14.5																							
16-Sep	10	9	10	11	10	13	10	11	15	19	18	22	22	21	15	10	9	12	10	11	11	14	13	12	13.3	21.9																							
17-Sep	9	9	11	14	12	10	10	9	11	11	12	10	10	17	19	21	23	24	16	13	15	14	14	10	13.5	23.5																							
18-Sep	12	15	23	19	18	16	14	13	15	19	19	19	20	29	24	18	20	28	20	18	15	13	14	14	18.0	28.5																							
19-Sep	13	15	16	20	21	19	19	13	12	12	18	28	29	23	10	21	23	27	18	12	15	13	19	17	18.1	29.4																							
20-Sep	14	8	7	9	13	14	14	9	9	14	14	11	12	13	10	10	11	9	8	9	11	14	14	13	11.3	14.3																							
21-Sep	11	12	15	14	15	18	17	17	19	17	14	13	13	13	13	15	14	12	6	3	3	9	9	9	12.5	19.0																							
22-Sep	11	11	11	14	14	15	11	12	17	25	24	26	26	22	25	29	31	30	27	27	24	21	17	13	20.1	30.6																							
23-Sep	11	13	15	20	24	18	18	18	15	21	21	20	17	14	9	5	5	14	13	15	14	16	14	11	15.0	24.2																							
24-Sep	7	5	7	10	12	10	8	8	7	6	11	23	28	32	32	30	26	21	15	11	14	15	8	11	14.9	32.1																							
25-Sep	16	20	10	12	16	15	14	16	18	23	30	25	23	23	23	21	20	20	18	14	14	13	11	5	17.6	29.9																							
26-Sep	8	12	13	12	8	10	13	12	11	18	31	36	35	33	31	31	29	33	27	25	21	22	22	26	21.7	35.7																							
27-Sep	25	20	17	15	22	26	21	23	17	16	18	25	24	25	26	27	24	21	15	13	13	12	10	8	19.3	26.7																							
28-Sep	9	9	8	10	12	12	9	10	12	9	10	8	10	10	8	8	6	8	8	14	13	13	13	14	10.1	14.0																							
29-Sep	14	12	12	12	12	10	8	11	10	17	20	22	18	18	17	15	10	6	10	14	16	12	13	12	13.4	21.9																							
30-Sep	14	13	15	15	16	19	19	18	18	18	17	21	25	27	27	29	29	23	17	14	13	15	10	7	18.3	29.5																							
																									11.0	10.9	10.9	11.6	12.2	13.1	12.7	12.1	13.2	14.5	15.9	17.0	17.2	18.2	17.0	16.5	16.3	15.8	13.1	12.1	11.8	12.1	11.6	10.8	Diurnal Average
																									25.3	20.7	23.6	24.5	24.2	26.4	24.9	25.3	25.8	24.7	31.2	35.7	35.4	33.7	33.4	35.8	34.6	32.6	27.4	27.5	24.1	22.4	22.3	26.4	Diurnal Maximum
All monthly, daily, and diurnal averages have been calculated using scalar methods																																																	

Hourly Standard Deviations

Wind Direction (WD) - deg

Falher - September 2015

Maximum Value: 96.4 deg on Sep 1 06:00																			Hours in Service: 720						
Minimum Value: 1.8 deg on Sep 5 06:00																			Hours of Data: 720						
																			Hours of Missing Data: 0						
Percentiles: P ₁ = 2.2 P ₁₀ = 3.9 Q ₁ = 5.7 Median = 9.4 Q ₃ = 15.8 P ₉₀ = 25.9 P ₉₉ = 66.8																			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-Sep	8	32	20	66	36	96	32	9	7	41	22	22	20	22	23	30	21	36	50	26	6	7	11	5	96.4
2-Sep	4	8	5	13	7	7	8	4	6	9	5	84	52	8	6	6	8	13	5	6	27	13	16	25	83.8
3-Sep	21	16	8	13	6	5	6	6	8	9	11	12	11	12	11	16	26	15	9	8	13	7	10	6	26.3
4-Sep	6	6	19	11	12	7	10	8	10	15	26	22	24	23	23	15	11	18	13	5	21	13	58	8	57.6
5-Sep	4	7	6	3	4	2	4	4	13	6	8	11	12	13	11	18	9	11	13	6	5	13	6	4	17.5
6-Sep	5	4	3	5	6	4	13	6	13	21	13	21	40	47	57	68	50	19	9	6	5	6	5	6	67.6
7-Sep	8	17	15	17	7	18	5	10	15	9	14	16	20	22	26	17	12	14	6	14	21	10	15	47	47.3
8-Sep	17	16	12	7	6	3	9	14	23	29	22	25	27	28	16	10	12	12	8	24	12	92	18	36	92.3
9-Sep	9	7	7	12	9	12	5	10	12	32	46	19	27	26	18	17	15	11	9	12	9	6	5	11	46.2
10-Sep	5	4	12	12	9	6	5	6	9	9	11	12	12	20	11	14	13	9	6	11	4	11	3	2	19.5
11-Sep	8	3	38	12	33	5	4	15	13	12	9	10	8	9	9	7	6	5	6	3	5	4	5	5	37.7
12-Sep	6	3	5	6	20	8	4	37	19	24	8	13	75	51	12	38	22	18	7	4	4	10	16	38	74.9
13-Sep	23	23	13	44	48	41	9	15	47	14	13	7	5	13	17	15	42	24	40	33	9	12	13	22	48.2
14-Sep	6	3	11	15	7	15	18	21	12	20	39	16	18	19	33	33	59	15	12	5	5	5	4	3	59.1
15-Sep	10	3	15	18	12	5	10	15	5	7	12	34	22	24	29	26	19	17	48	8	14	11	14	5	47.8
16-Sep	3	6	4	5	6	4	4	5	15	7	7	8	11	11	17	23	17	16	9	70	13	5	2	4	69.8
17-Sep	12	12	4	6	9	10	6	8	15	10	13	14	25	18	12	11	10	8	4	8	6	3	6	5	24.6
18-Sep	4	20	2	2	3	4	5	6	12	4	4	5	8	7	8	6	12	5	8	8	6	12	8	9	19.8
19-Sep	6	11	7	3	2	5	3	8	9	20	9	10	27	8	17	11	11	6	7	4	6	10	5	4	26.9
20-Sep	2	20	16	17	6	5	5	8	11	3	6	16	23	12	12	14	15	10	7	13	16	12	6	7	23.5
21-Sep	23	8	3	8	5	4	4	3	6	10	14	18	17	17	21	16	22	14	20	14	51	19	19	31	51.1
22-Sep	8	3	11	8	8	10	6	8	3	4	5	7	11	12	11	9	7	5	4	3	2	2	2	5	12.0
23-Sep	6	6	3	3	2	8	5	4	4	8	18	10	12	15	40	74	82	17	6	6	7	5	6	6	82.5
24-Sep	57	11	48	11	4	15	13	8	7	12	13	7	7	5	6	5	9	4	2	3	14	19	25	12	56.6
25-Sep	30	5	29	16	15	6	6	4	5	4	5	9	9	11	8	20	14	10	6	7	4	9	5	65	65.2
26-Sep	21	7	9	20	19	8	5	9	11	12	6	8	8	8	9	7	4	4	4	3	5	3	4	3	21.1
27-Sep	3	3	4	8	16	4	6	12	17	7	8	7	8	9	13	9	7	9	7	12	3	2	33	5	32.8
28-Sep	10	14	12	5	13	5	3	4	9	18	12	20	22	31	59	39	36	23	15	19	9	5	6	3	59.1
29-Sep	3	11	19	6	5	5	7	3	12	12	10	9	12	13	14	15	14	31	10	9	19	8	4	8	30.7
30-Sep	7	4	6	4	2	2	2	5	6	5	8	16	9	11	8	11	7	4	4	7	6	3	16	43	43.3
	56.6	32.4	48.4	66.4	48.2	96.4	32.3	37.3	47.4	40.8	46.2	83.8	74.9	50.7	59.1	74.1	82.5	35.6	49.8	69.8	51.1	92.3	57.6	65.2	

PAZA

Portable – Clairmont Station
Monthly Summary Tables, Graphs and
Roses

Hourly Averages

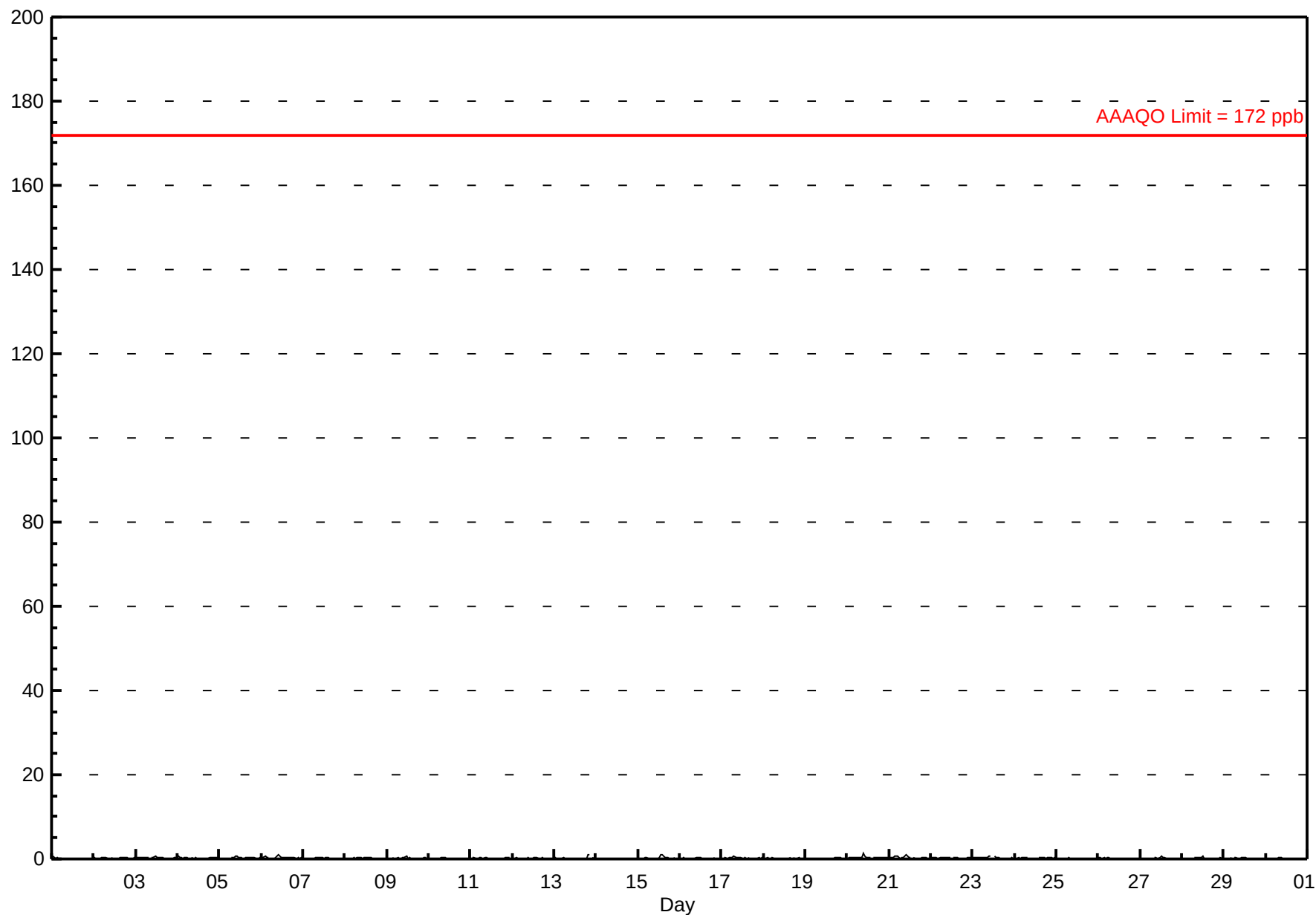
Sulphur Dioxide (SO₂) - ppb

Portable Clairmont - September 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 1.3 ppb on Sep 20 10:00 Maximum Daily Average: 0.4 ppb on Sep 25																				Hours in Service: 720 Hours of Data: 683 Hours of Missing Data: 37 Hours of Calibration: 36 Percent Operational Time: 99.9						
Minimum Value: 0 ppb on Sep 13 10:00 Minimum Daily Average: 0.0 ppb on Sep 25 Maximum Diurnal Average: 0.3 ppb at hour 10 Minimum Diurnal Average: 0.1 ppb at hour 19 Monthly Average: 0.18 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 0.4 P ₉₉ = 0.9																										
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-Sep	1	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	0.6
2-Sep	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
3-Sep	0	0	0	0	0	0	0	0	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
4-Sep	1	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	0.7
5-Sep	0	0	0	0	0	0	A	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8
6-Sep	0	0	1	1	0	A	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.9
7-Sep	0	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
8-Sep	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	0.5
9-Sep	0	0	A	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
10-Sep	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	0.4
11-Sep	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.2	0.3
12-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.2	0.3
13-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	A	0	0	0.2	1.1
14-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.0	0.1
15-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	A	0	0	0	0	0.2	1.1
16-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.1	0.3
17-Sep	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.2	0.6
18-Sep	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
19-Sep	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
20-Sep	0	0	0	0	0	0	0	0	0	1	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0.4	1.3
21-Sep	0	0	0	1	1	1	0	0	0	1	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0.3	0.9
22-Sep	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
23-Sep	0	0	0	0	0	0	0	0	0	1	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8
24-Sep	0	0	0	0	0	0	0	0	C	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0.2	0.4
25-Sep	0	0	0	0	0	0	0	0	0	A	0	M	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
26-Sep	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
27-Sep	0	0	0	0	0	0	0	A	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
28-Sep	0	0	0	0	0	0	A	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
29-Sep	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
30-Sep	0	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
0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.3 0.3 0.2 0.2 0.2 0.2 0.2 0.1 0.1 0.1 0.2 0.2 0.1 0.1 0.2																								Diurnal Average		
0.7 0.4 0.8 0.5 0.5 0.7 0.4 0.6 0.4 1.3 0.9 0.7 0.6 1.1 1.1 0.5 0.5 0.4 0.5 1.1 1.1 0.4 0.3 0.4																								Diurnal Maximum		
C - Calibration M - Maintenance A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb																										

Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Portable Clairmont - September 2015



Hourly Maximums

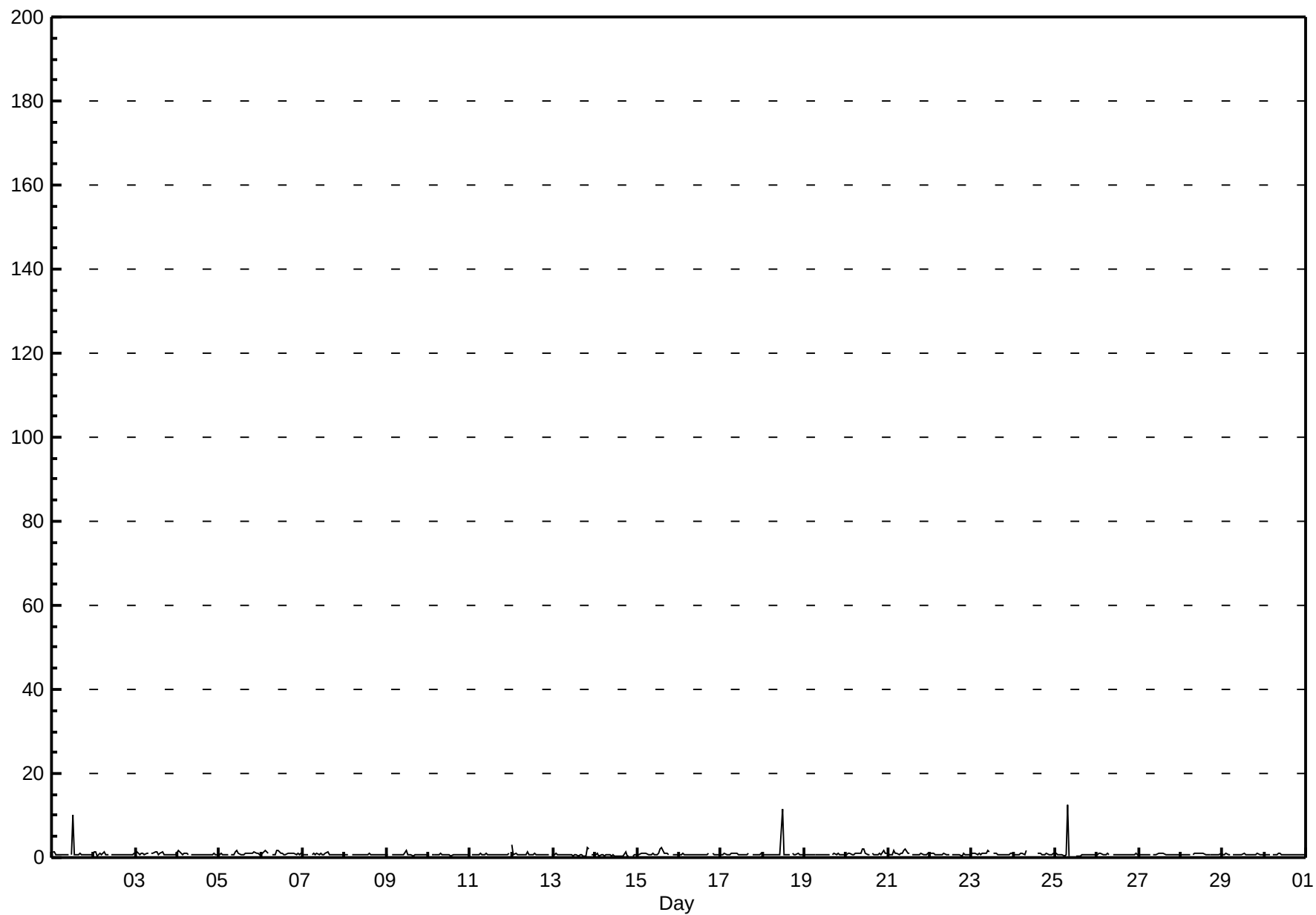
Sulphur Dioxide (SO₂) - ppb

Portable Clairmont - September 2015

Maximum Value: 12.5 ppb on Sep 25 08:00																				Maximum Daily Average: 1.2 ppb on Sep 18					Hours in Service: 720		
Minimum Value: 0 ppb on Sep 9 16:00																				Minimum Daily Average: 0.6 ppb on Sep 14					Hours of Data: 683		
Maximum Diurnal Average: 1.2 ppb at hour 12																				Minimum Diurnal Average: 0.7 ppb at hour 19					Hours of Missing Data: 37		
Monthly Average: 0.83 ppb																				Percentiles: P ₁ = 0.5 P ₁₀ = 0.6 Q ₁ = 0.6 Median = 0.7 Q ₃ = 0.9 P ₉₀ = 1.1 P ₉₉ = 2.1					Hours of Calibration: 36		
																				Percent Operational Time: 99.9							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
1-Sep	1	1	1	1	1	1	1	1	1	1	A	1	10	1	1	1	1	1	1	1	1	1	1	1	1.2	10.3	
2-Sep	1	1	0	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.2	
3-Sep	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.2	
4-Sep	2	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.7	
5-Sep	1	1	1	1	1	1	A	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.6	
6-Sep	1	1	2	1	1	A	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.6	
7-Sep	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	1.5	
8-Sep	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	1.2	
9-Sep	1	1	A	1	1	1	1	1	1	1	1	2	1	1	0	1	1	1	1	1	1	1	1	1	0.7	1.7	
10-Sep	1	A	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0.7	1.2	
11-Sep	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.7	1.0	
12-Sep	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.8	3.1	
13-Sep	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0	0	2	2	A	1	1	0.8	2.5	
14-Sep	1	1	0	1	1	0	1	1	1	0	1	0	0	0	0	0	0	1	0	1	A	1	1	1	0.6	1.2	
15-Sep	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	A	1	1	1	1	0.9	2.2	
16-Sep	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.7	1.1	
17-Sep	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	1.2	
18-Sep	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	11.5	
19-Sep	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	
20-Sep	1	1	1	1	1	1	1	1	1	2	2	1	1	1	A	1	1	1	1	1	1	1	2	1	1	1.1	2.2
21-Sep	1	1	1	2	1	1	1	1	1	2	2	1	1	A	1	1	1	1	1	1	1	1	1	1	1.0	2.0	
22-Sep	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0	1	1	1	1	0.8	1.1	
23-Sep	1	1	1	1	1	1	1	1	1	2	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.6	
24-Sep	1	1	1	1	1	1	1	2	C	C	C	C	C	C	1	1	1	1	1	1	1	1	1	1	0.8	1.6	
25-Sep	1	1	1	1	1	0	1	13	0	A	0	M	0	1	0	1	1	1	1	1	1	1	1	1	1.1	12.5	
26-Sep	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0	
27-Sep	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	1.2	
28-Sep	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1	
29-Sep	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9	
30-Sep	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	1.0	
0.9 0.8 0.8 0.8 0.8 0.7 0.8 1.2 0.8 1.0 0.9 1.2 1.1 0.8 0.8 0.7 0.7 0.7 0.7 0.8 0.8 0.7 0.7 0.7																									Diurnal Average		
3.1 1.2 1.5 1.6 1.1 1.1 1.2 12.5 1.2 2.2 2.0 11.5 10.3 2.1 2.2 1.2 1.1 1.2 0.9 2.5 2.2 1.6 1.1 1.1																									Diurnal Maximum		
C - Calibration M - Maintenance A - Automated Daily Zero Span																											

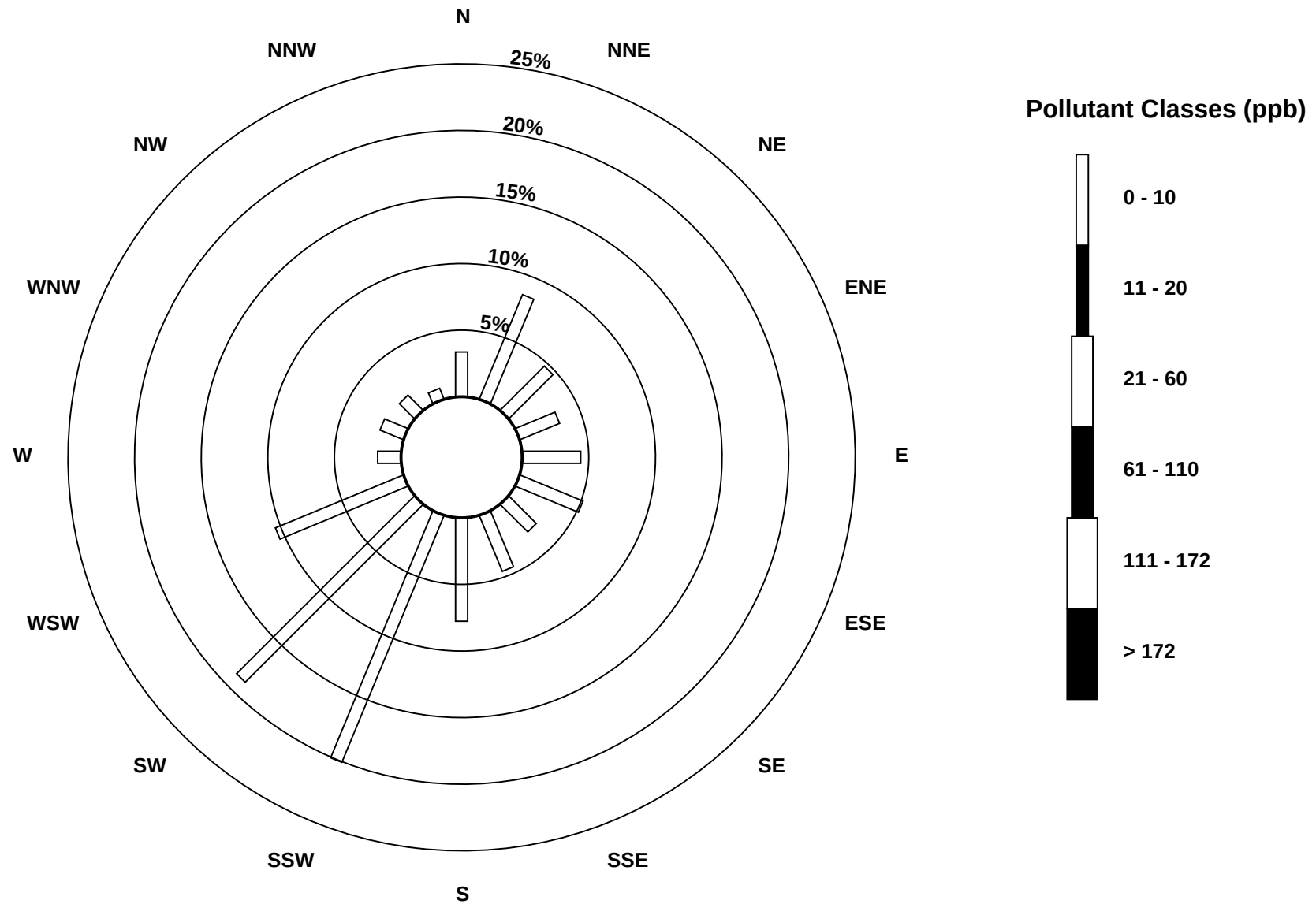
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Portable Clairmont - September 2015



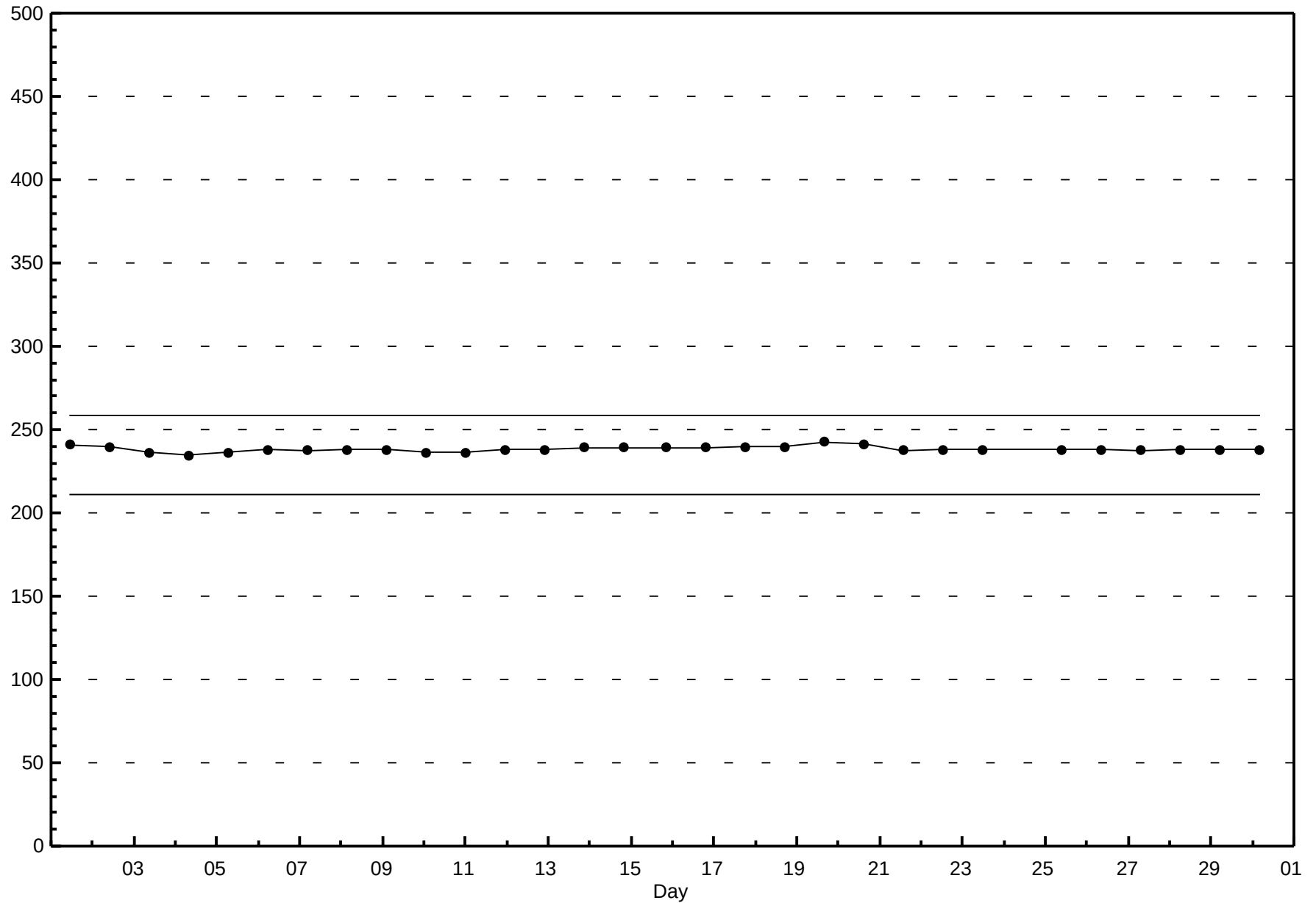
Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Portable Clairmont - September 2015



Span Responses

Sulphur Dioxide (SO₂)
Portable Clairmont - September 2015



Hourly Averages

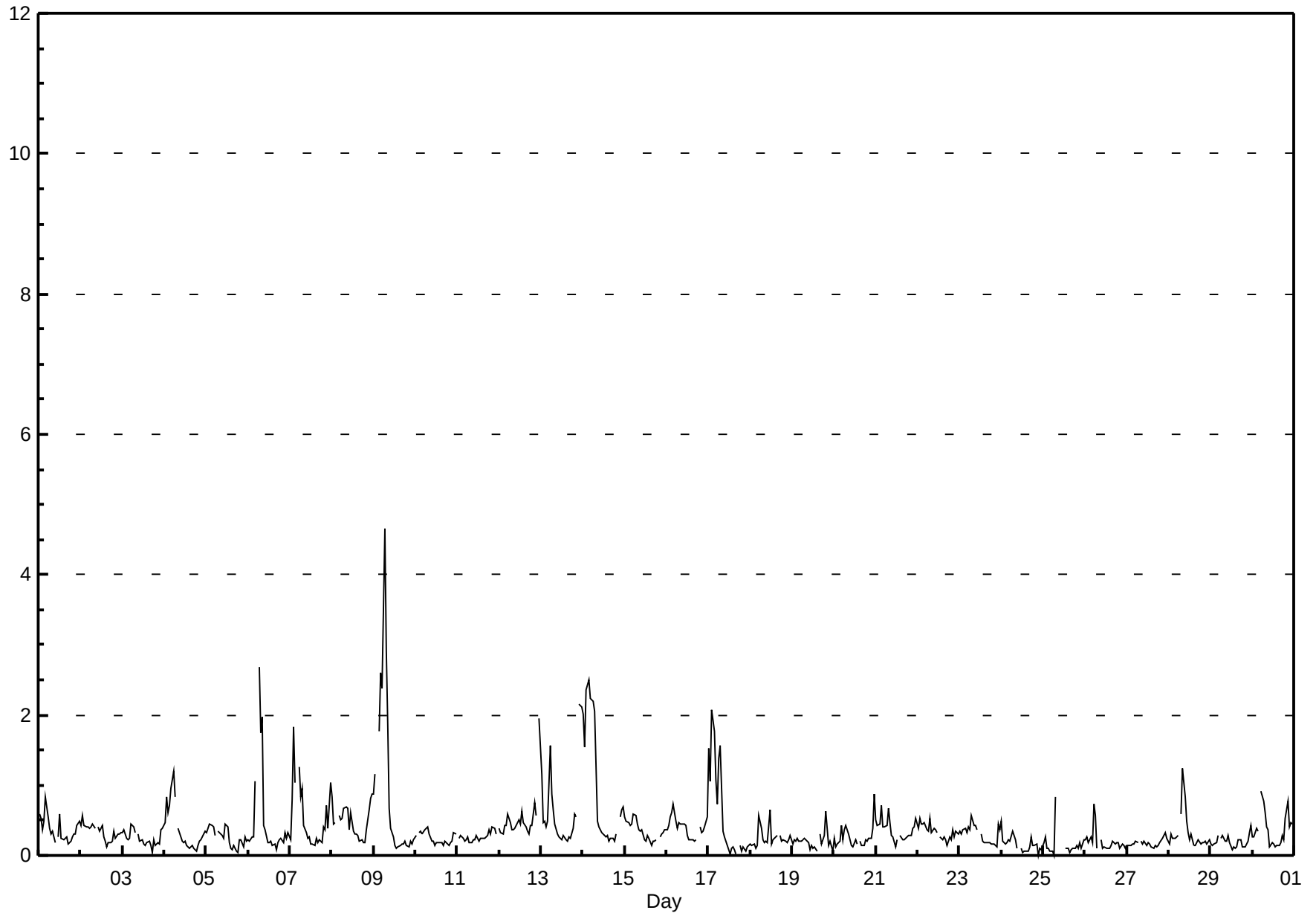
Total Reduced Sulphur (TRS) - ppb

Portable Clairmont - September 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 4.7 ppb on Sep 9 07:00 Maximum Daily Average: 1.0 ppb on Sep 14																				Hours in Service: 720 Hours of Data: 685 Hours of Missing Data: 35 Hours of Calibration: 35 Percent Operational Time: 100.0						
Minimum Value: 0 ppb on Sep 25 07:00 Maximum Diurnal Average: 0.8 ppb at hour 7 Monthly Average: 0.38 ppb																				Minimum Daily Average: 0.2 ppb on Sep 25 Minimum Diurnal Average: 0.2 ppb at hour 16 Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.2 Median = 0.3 Q ₃ = 0.4 P ₉₀ = 0.7 P ₉₉ = 2.3						
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-Sep	1	1	0	0	1	1	0	0	0	0	A	0	1	0	0	0	0	0	0	0	0	0	0	0	0.4	0.8
2-Sep	0	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	0.6
3-Sep	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
4-Sep	0	1	1	1	1	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.2
5-Sep	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
6-Sep	0	0	0	0	1	A	3	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	2.7
7-Sep	0	1	2	1	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0.5	1.8
8-Sep	1	0	0	A	1	1	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	1	1	1	0.5	0.9
9-Sep	1	1	A	2	3	2	5	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.9	4.7
10-Sep	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
11-Sep	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.3	0.4
12-Sep	0	0	0	0	0	1	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	1	A	2	0.5	1.9
13-Sep	1	0	0	0	0	2	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	A	2	2	0.6	2.2
14-Sep	2	2	2	2	2	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	A	1	1	1	1.0	2.5
15-Sep	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.4	0.6
16-Sep	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	1	0.4	0.7
17-Sep	2	1	2	2	1	1	1	2	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.6	2.1
18-Sep	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	A	0	0	0	0	0	0	0	0.2	0.7
19-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	0	0	0	0	0.2	0.6
20-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	1	0.3	0.9
21-Sep	1	0	0	1	0	0	0	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	0.4	0.7
22-Sep	0	1	0	0	0	0	0	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
23-Sep	0	0	0	0	0	0	0	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
24-Sep	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	0.5
25-Sep	0	0	0	0	0	0	0	1	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0.2	0.8
26-Sep	0	0	0	0	0	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
27-Sep	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
28-Sep	0	0	0	0	0	0	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.2
29-Sep	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
30-Sep	0	0	0	0	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0.4	0.9
0.5 0.5 0.5 0.5 0.6 0.7 0.8 0.7 0.5 0.3 0.3 0.3 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.3 0.3 0.3 0.4 0.5																								Diurnal Average		
2.0 1.5 2.4 2.5 2.6 2.4 4.7 2.9 2.0 0.8 0.5 0.7 0.6 0.6 0.5 0.4 0.3 0.3 0.4 0.6 0.8 0.7 2.2 2.1																								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

Total Reduced Sulphur (TRS) - ppb
Portable Clairmont - September 2015



Hourly Maximums

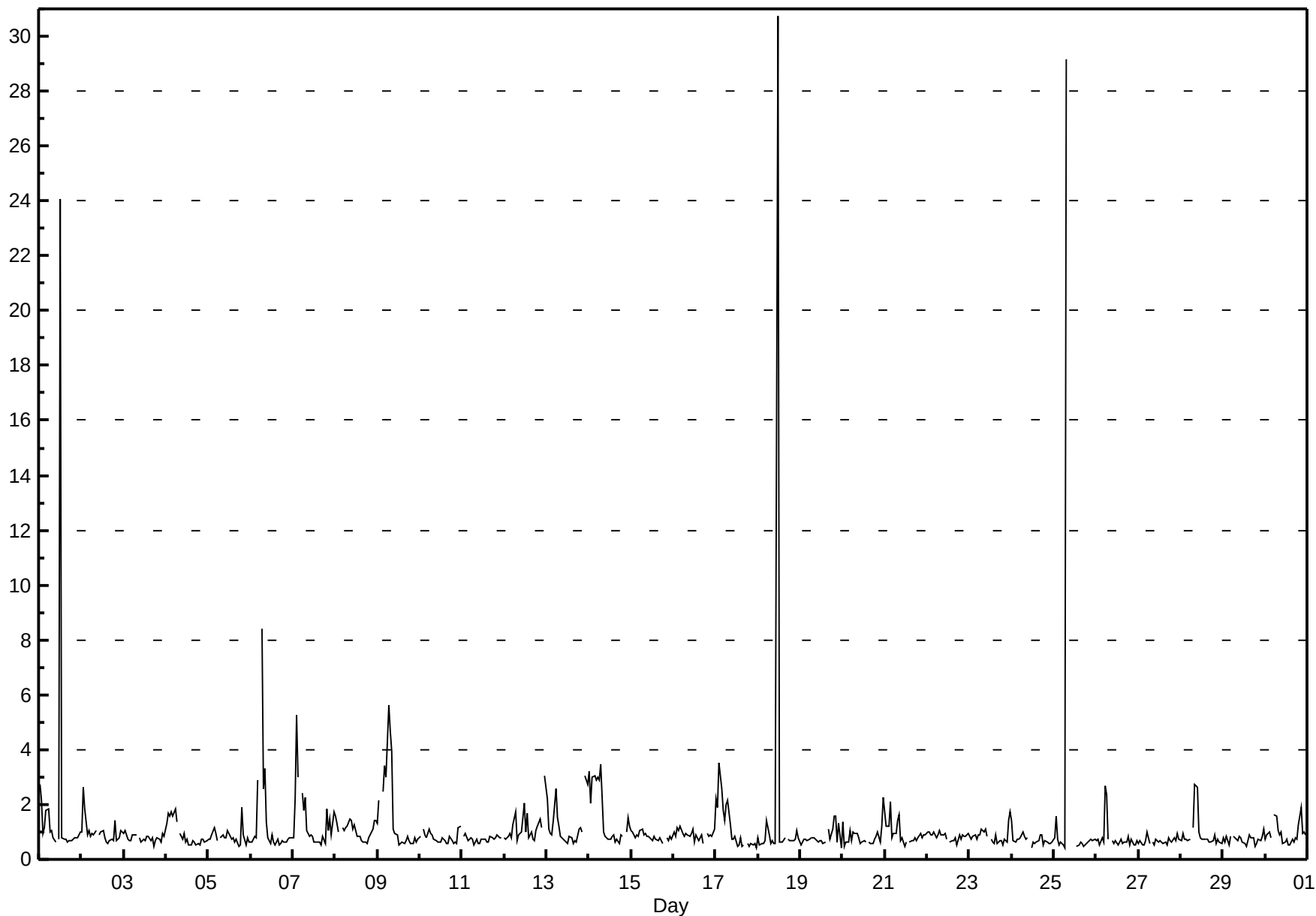
Total Reduced Sulphur (TRS) - ppb

Portable Clairmont - September 2015

Maximum Value: 30.7 ppb on Sep 18 12:00																				Maximum Daily Average: 2.2 ppb on Sep 25					Hours in Service: 720	
Minimum Value: 0 ppb on Sep 24 12:00																				Minimum Daily Average: 0.7 ppb on Sep 27					Hours of Data: 685	
Maximum Diurnal Average: 2.3 ppb at hour 8																				Minimum Diurnal Average: 0.7 ppb at hour 18					Hours of Missing Data: 35	
Monthly Average: 1.09 ppb																				Percentiles: P ₁ = 0.4 P ₁₀ = 0.6 Q ₁ = 0.7 Median = 0.8 Q ₃ = 1.0 P ₉₀ = 1.6 P ₉₉ = 4.4					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-Sep	3	2	1	1	2	2	1	1	1	1	A	1	24	1	1	1	1	1	1	1	1	1	1	1	2.1	24.0
2-Sep	1	3	2	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	2.6
3-Sep	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0.8	1.1
4-Sep	1	2	2	2	2	2	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.8
5-Sep	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0	1	2	1	1	1	1	0.8	1.9
6-Sep	1	1	1	1	3	A	8	3	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.3	8.4
7-Sep	1	2	5	3	A	2	2	2	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	2	1.4	5.3
8-Sep	2	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	1.6
9-Sep	1	2	A	2	3	3	6	5	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.6	5.6
10-Sep	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	1.2
11-Sep	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.7	1.0
12-Sep	1	1	1	1	1	1	2	1	1	1	1	2	1	2	1	1	1	1	1	1	1	1	A	3	1.2	3.1
13-Sep	2	1	1	1	1	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	3	3	1.2	3.0
14-Sep	3	2	3	3	3	3	3	3	1	1	1	1	1	1	1	1	1	1	1	1	A	1	2	1	1.6	3.5
15-Sep	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.8	1.1
16-Sep	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.9	1.2
17-Sep	2	2	4	3	2	1	2	2	1	1	1	1	0	1	1	0	1	A	1	0	1	1	1	0	1.2	3.5
18-Sep	1	1	1	1	1	1	1	1	1	1	1	31	1	1	1	1	A	1	1	1	1	1	1	1	2.0	30.7
19-Sep	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	2	2	1	1	0	0.8	1.6
20-Sep	1	0	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	2	0.8	2.3
21-Sep	2	1	1	2	1	1	1	1	2	1	1	0	1	A	1	1	1	1	1	1	1	1	1	1	1.0	2.1
22-Sep	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
23-Sep	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	2	0.9	1.7	
24-Sep	1	1	1	1	1	1	1	1	1	1	A	0	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.4
25-Sep	1	2	1	1	1	1	0	29	C	C	C	C	C	0	1	1	1	0	1	1	1	1	1	1	2.2	29.2
26-Sep	1	1	1	1	1	3	2	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	2.7
27-Sep	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
28-Sep	1	1	1	1	1	1	A	1	3	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	2.7
29-Sep	1	1	1	1	1	A	1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	1	1	1	0.7	1.1
30-Sep	1	1	1	1	A	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	0.9	1.9
1.2 1.2 1.2 1.1 1.2 1.3 1.6 2.3 1.2 0.9 0.8 1.9 1.5 0.7 0.7 0.7 0.7 0.7 0.7 0.9 0.9 0.8 1.0 1.1																								Diurnal Average		
3.2 2.6 5.3 3.0 3.4 3.0 8.4 29.2 3.9 2.6 1.1 30.7 24.0 1.7 0.9 1.0 1.1 0.9 1.1 1.9 1.9 1.5 3.0 3.1																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										

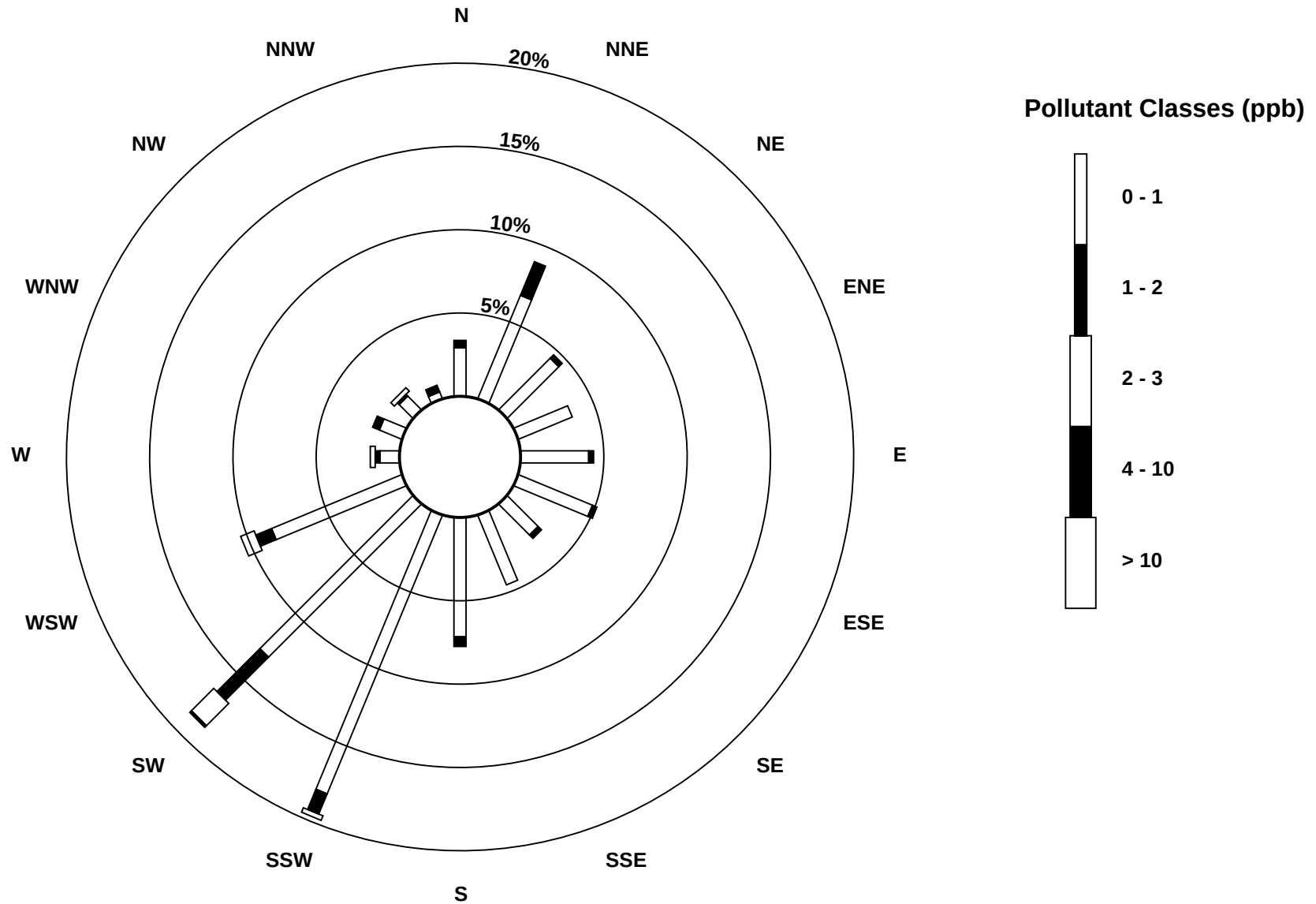
Hourly Maximums

Total Reduced Sulphur (TRS) - ppb
Portable Clairmont - September 2015



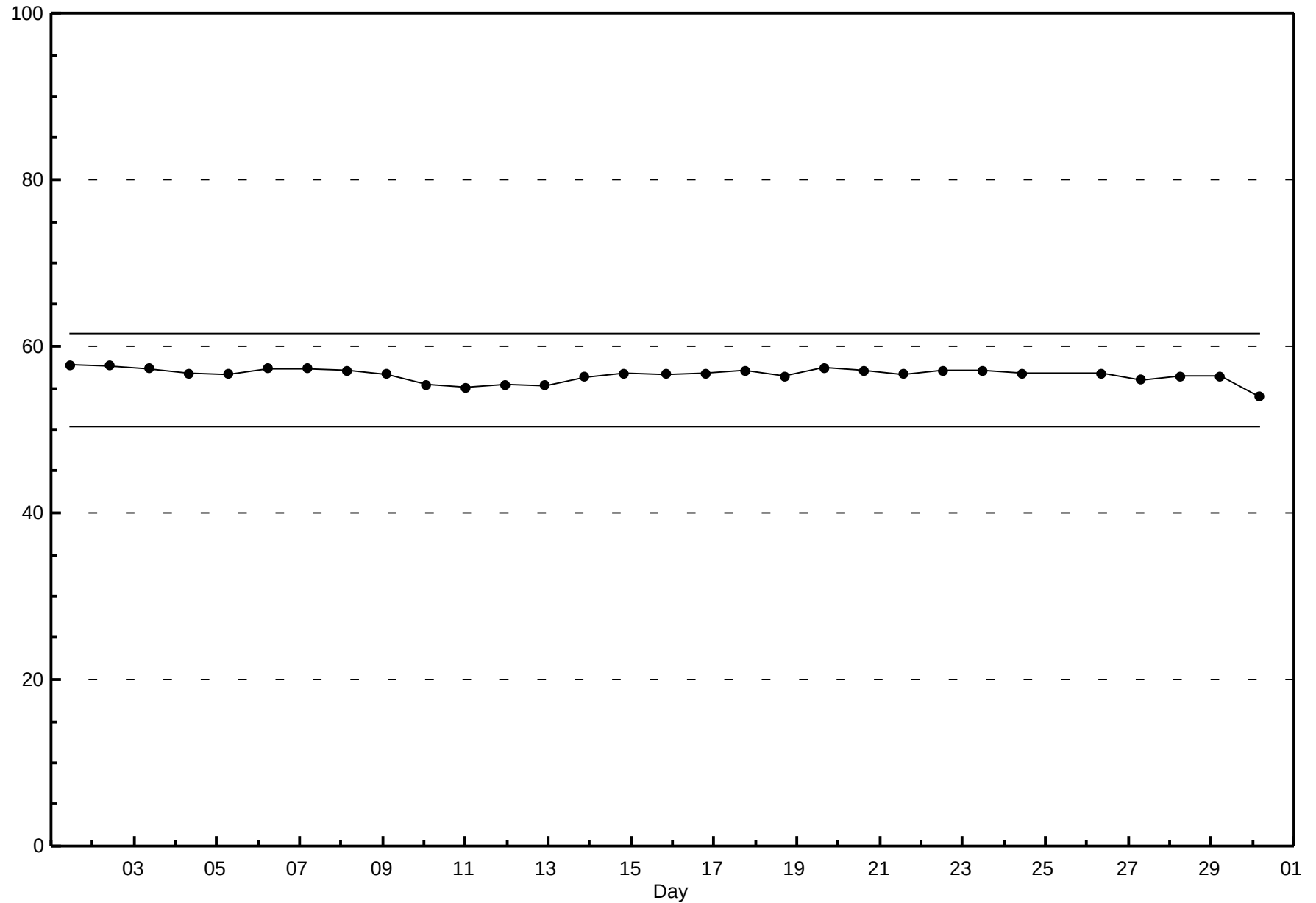
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb
Portable Clairmont - September 2015



Span Responses

Total Reduced Sulphur (TRS)
Portable Clairmont - September 2015



Hourly Averages

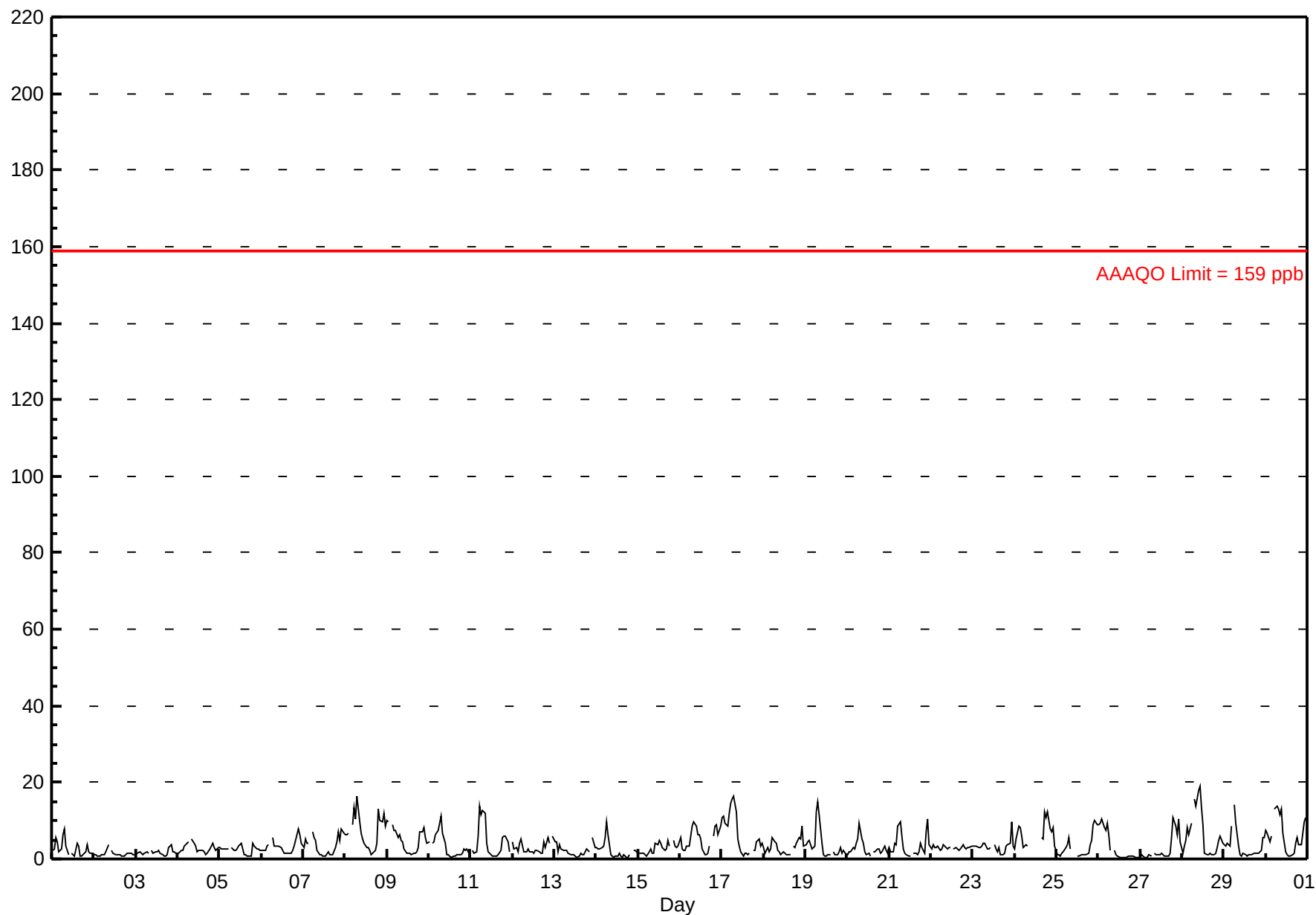
Nitrogen Dioxide (NO₂) - ppb

Portable Clairmont - September 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 19.2 ppb on Sep 28 11:00 Maximum Daily Average: 7.2 ppb on Sep 8																				Hours in Service: 720 Hours of Data: 682 Hours of Missing Data: 38 Hours of Calibration: 37 Percent Operational Time: 99.9							
Minimum Value: 0 ppb on Sep 14 18:00 Maximum Diurnal Average: 7.1 ppb at hour 8 Monthly Average: 3.65 ppb																				Minimum Daily Average: 1.3 ppb on Sep 2 Minimum Diurnal Average: 1.4 ppb at hour 17 Percentiles: P ₁ = 0.4 P ₁₀ = 0.9 Q ₁ = 1.4 Median = 2.6 Q ₃ = 4.5 P ₉₀ = 8.7 P ₉₉ = 14.8							
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-Sep	2	3	6	4	2	3	6	8	3	1	A	2	1	1	4	3	1	1	1	2	4	2	2	2	2.7	7.7	
2-Sep	1	1	1	1	1	1	1	2	4	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1.3	3.6	
3-Sep	1	1	2	1	1	1	2	1	A	2	2	2	2	2	2	1	1	1	1	3	4	2	2	1	1.7	3.7	
4-Sep	1	2	2	2	3	4	4	A	5	4	3	2	2	2	2	2	1	2	3	3	4	3	2	3	2.8	5.3	
5-Sep	3	2	3	3	3	3	A	3	2	2	3	3	4	3	1	1	1	1	1	4	3	3	2	2	2.4	4.2	
6-Sep	2	2	2	3	4	A	6	3	3	3	3	3	2	2	1	1	1	2	2	3	6	8	6	4	3.3	7.9	
7-Sep	3	5	4	4	A	7	6	5	2	1	1	1	1	1	2	1	1	1	3	4	7	5	8	7	3.4	7.8	
8-Sep	6	6	7	A	9	13	11	17	10	7	5	4	3	3	2	1	2	2	4	13	10	10	12	9	7.2	16.6	
9-Sep	10	10	A	9	7	8	6	6	5	4	3	1	1	1	1	1	1	2	3	7	7	8	6	4	4.9	10.1	
10-Sep	5	A	4	4	6	7	9	11	7	4	1	1	1	1	1	1	1	1	1	1	3	2	2	1	3.3	11.3	
11-Sep	A	2	1	2	6	14	11	13	12	4	2	1	1	1	1	1	1	2	6	6	6	4	2	A	4.5	13.7	
12-Sep	5	2	3	2	4	5	2	2	2	3	2	2	2	2	2	2	1	2	5	3	6	4	A	6	2.9	6.1	
13-Sep	5	4	2	4	3	2	2	2	1	1	1	1	1	1	1	2	1	1	3	2	2	A	6	3	2.2	5.5	
14-Sep	3	2	3	3	3	6	10	6	1	1	0	1	1	1	1	1	1	0	1	1	A	2	2	2	2.2	9.6	
15-Sep	2	1	1	1	1	1	2	3	1	1	4	4	5	4	3	2	3	5	4	A	5	3	3	3	2.7	5.0	
16-Sep	6	3	2	2	3	4	6	9	10	8	6	6	5	3	1	1	1	3	A	6	9	9	6	9	5.2	9.8	
17-Sep	11	11	9	8	12	15	16	16	12	5	3	2	1	1	1	1	2	A	2	2	4	5	3	4	6.5	16.4	
18-Sep	3	2	3	2	3	6	5	4	2	2	1	2	1	1	1	1	A	3	3	4	6	5	9	3	3.1	8.5	
19-Sep	4	5	5	4	2	3	12	15	12	4	1	1	1	1	1	A	2	1	1	2	3	1	2	1	3.7	15.0	
20-Sep	1	2	2	3	3	4	5	9	5	4	2	1	1	1	A	2	2	3	2	2	2	3	2	2	2.7	9.2	
21-Sep	3	2	2	4	4	8	10	6	3	2	1	1	1	A	1	1	1	2	4	3	2	7	10	4	3.6	10.4	
22-Sep	3	4	3	3	3	2	2	4	3	3	3	3	A	2	3	3	2	2	4	3	3	3	3	3	2.9	3.9	
23-Sep	4	3	3	3	3	3	4	4	3	2	3	A	4	3	2	3	1	1	2	3	4	4	10	3	3.3	9.8	
24-Sep	3	5	9	8	6	3	4	3	C	C	C	C	C	C	C	6	5	12	11	12	8	7	8	3	--	12.5	
25-Sep	1	1	1	1	2	3	4	6	2	A	2	M	1	1	1	1	1	1	2	4	5	9	10	9	3.1	10.1	
26-Sep	9	9	10	8	7	9	6	2	A	2	1	1	0	0	0	1	0	1	1	1	1	0	0	0	3.1	10.3	
27-Sep	0	1	1	0	1	1	1	A	2	1	1	1	2	1	1	1	1	1	6	11	8	6	10	4	2.7	10.9	
28-Sep	2	3	5	8	6	9	A	16	14	18	19	13	9	1	1	1	1	1	1	2	3	5	6	4	6.5	19.2	
29-Sep	4	3	4	3	9	A	14	9	3	1	1	2	1	1	1	1	1	1	2	2	2	2	5	6	3.4	14.3	
30-Sep	8	7	4	6	A	13	14	13	12	13	7	2	1	1	1	1	1	4	6	4	4	7	10	11	6.4	13.7	
																									Diurnal Average		
																									Diurnal Maximum		
C - Calibration M - Maintenance A - Automated Daily Zero Span																											
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb 24-hr 106 ppb																											

Hourly Averages

Nitrogen Dioxide (NO₂) - ppb
Portable Clairmont - September 2015



Hourly Maximums

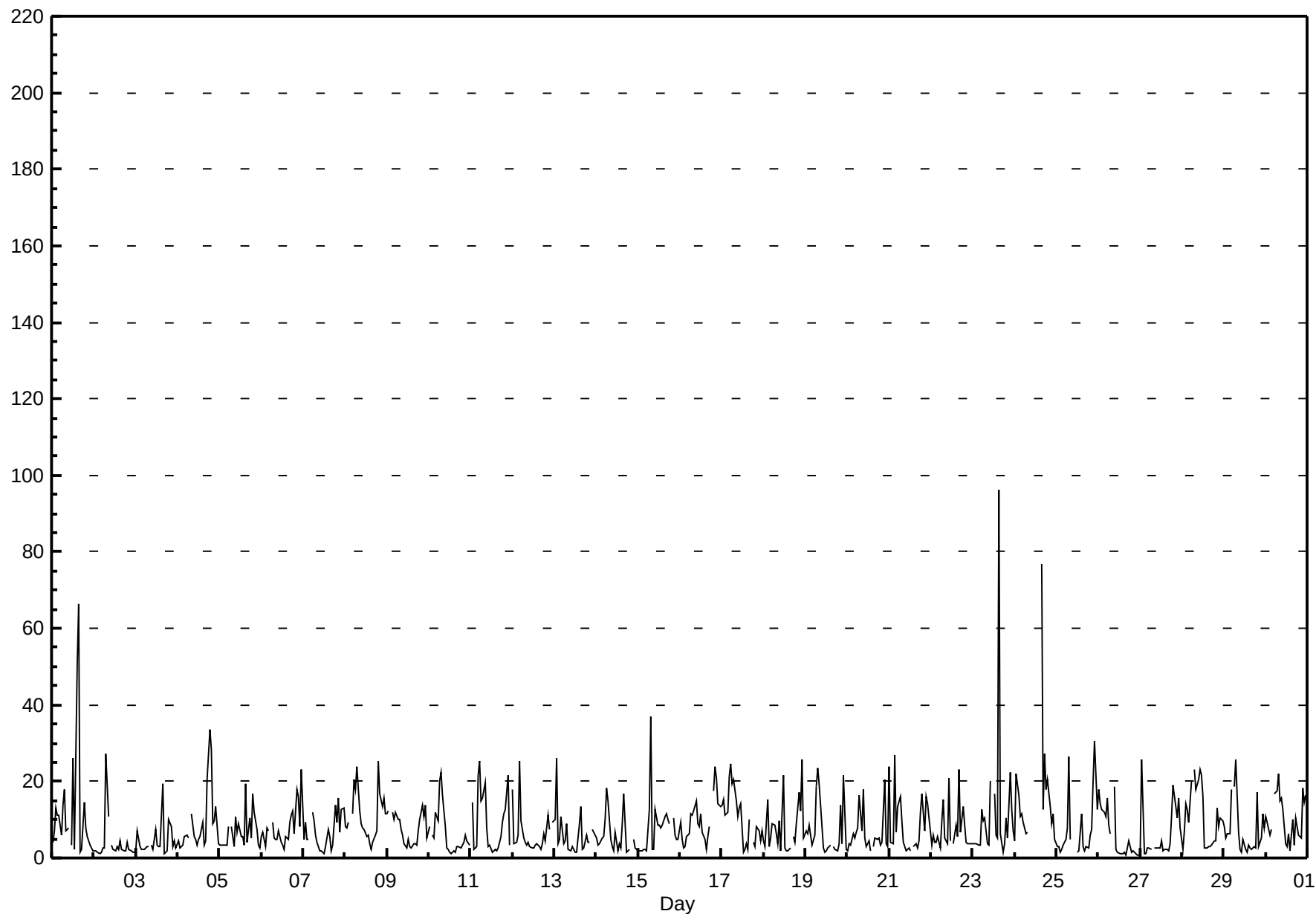
Nitrogen Dioxide (NO₂) - ppb

Portable Clairmont - September 2015

Maximum Value: 96.2 ppb on Sep 23 16:00																				Maximum Daily Average: 12.6 ppb on Sep 1					Hours in Service: 720	
Minimum Value: 1 ppb on Sep 26 23:00																				Minimum Daily Average: 3.7 ppb on Sep 2					Hours of Data: 682	
Maximum Diurnal Average: 15.3 ppb at hour 8																				Minimum Diurnal Average: 3.3 ppb at hour 14					Hours of Missing Data: 38	
Monthly Average: 8.15 ppb																				Percentiles: P ₁ = 1.0 P ₁₀ = 2.0 Q ₁ = 3.0 Median = 5.5 Q ₃ = 11.2 P ₉₀ = 17.8 P ₉₉ = 29.4					Hours of Calibration: 37	
																				Percent Operational Time: 99.9						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Sep	4	7	13	11	11	6	14	18	7	8	A	3	26	2	51	66	2	2	14	8	5	5	3	2	12.6	66.3
2-Sep	2	2	1	1	1	2	3	27	11	A	3	2	2	3	2	5	2	2	2	4	2	2	2	2	3.7	27.3
3-Sep	2	7	3	2	2	2	3	3	A	3	2	7	3	3	3	20	1	2	2	10	8	3	5	3	4.3	19.6
4-Sep	5	2	3	3	6	6	5	A	11	6	5	3	5	6	9	3	4	21	34	28	9	10	14	4	8.8	33.7
5-Sep	4	3	3	3	3	8	A	8	3	11	7	9	5	5	3	19	4	11	5	17	12	8	3	3	6.9	19.4
6-Sep	6	7	3	8	7	A	9	5	5	5	7	4	3	2	6	5	9	11	12	6	18	16	8	23	8.1	23.2
7-Sep	5	9	5	5	A	12	10	6	4	2	2	2	1	3	8	6	2	3	14	9	16	7	13	13	6.7	15.6
8-Sep	8	8	9	A	11	20	18	24	12	9	8	7	6	6	4	2	4	6	7	25	17	13	16	12	11.0	25.5
9-Sep	12	12	A	12	10	12	10	10	7	6	4	3	5	3	3	4	4	3	7	10	14	11	14	5	7.8	14.0
10-Sep	8	A	6	5	12	10	20	22	16	8	3	2	1	1	2	2	3	3	3	4	4	6	4	3	6.5	22.3
11-Sep	A	14	2	3	22	25	15	16	20	8	3	3	1	2	2	2	3	6	9	12	13	22	3	A	9.4	25.2
12-Sep	18	4	4	6	25	10	5	4	3	4	3	3	2	4	4	3	2	4	6	5	11	7	A	9	6.4	25.4
13-Sep	10	26	4	5	11	4	4	9	2	2	3	2	2	1	9	13	2	2	6	4	4	A	7	6	6.1	26.0
14-Sep	5	3	4	5	6	10	18	15	5	3	2	7	2	4	3	9	17	1	2	2	A	5	3	2	5.7	18.3
15-Sep	2	2	2	2	2	2	13	37	2	2	13	8	9	8	9	11	12	10	9	A	10	6	5	5	7.8	37.1
16-Sep	9	5	3	3	6	6	12	11	12	15	9	8	12	7	5	2	6	8	A	17	24	21	14	14	9.9	24.0
17-Sep	14	15	11	12	21	25	19	21	15	11	13	14	2	2	4	2	10	A	4	3	8	7	5	7	10.7	24.6
18-Sep	5	3	15	3	5	9	9	6	4	10	2	22	2	2	2	3	A	6	4	9	17	12	26	5	7.8	25.7
19-Sep	7	6	9	6	3	6	19	23	19	8	3	1	2	3	3	A	3	2	2	4	14	4	22	2	7.4	23.4
20-Sep	2	4	3	6	5	7	8	16	7	18	5	3	4	2	A	3	5	5	5	4	4	20	4	3	6.2	20.5
21-Sep	24	4	4	27	7	13	16	10	4	3	2	3	2	A	3	4	3	4	12	17	7	16	14	11	9.0	26.9
22-Sep	3	6	4	4	6	3	10	15	5	4	21	5	A	4	9	6	23	7	14	8	4	4	4	4	7.4	23.3
23-Sep	4	4	4	3	3	13	10	11	4	3	20	A	17	6	5	96	6	1	4	10	5	22	13	7	11.8	96.2
24-Sep	4	22	17	11	12	9	6	7	C	C	C	C	C	C	C	77	13	27	18	21	14	9	12	5	--	76.9
25-Sep	3	3	1	2	3	5	8	27	5	A	3	M	2	2	12	3	2	3	3	6	7	20	30	13	7.3	30.4
26-Sep	18	14	13	12	11	16	9	6	A	19	2	1	1	1	1	1	1	5	3	1	2	1	1	1	6.1	18.8
27-Sep	1	26	1	1	2	2	2	A	2	3	3	3	5	2	2	2	2	4	11	19	13	11	16	8	6.1	25.6
28-Sep	2	7	14	13	9	20	A	23	18	20	23	22	16	3	3	3	3	4	4	5	13	8	10	10	11.0	23.1
29-Sep	8	5	6	6	18	A	19	26	7	2	1	5	2	1	3	3	2	3	3	17	3	5	12	8	7.2	25.6
30-Sep	11	9	6	8	A	17	18	22	15	15	13	4	3	6	2	10	3	11	8	6	5	18	15	16	10.4	21.8
7.0 8.3 5.9 6.5 8.6 10.0 11.1 15.3 8.4 7.7 6.5 5.8 5.1 3.3 6.0 13.2 5.3 6.0 7.8 10.1 9.8 10.3 10.1 7.0																									Diurnal Average	
24.0 26.0 16.5 26.9 25.4 25.2 20.0 37.1 19.8 20.5 23.1 21.8 26.2 7.7 51.0 96.2 23.3 27.2 33.7 28.4 24.0 22.4 30.4 23.2																									Diurnal Maximum	
C - Calibration M - Maintenance A - Automated Daily Zero Span																										

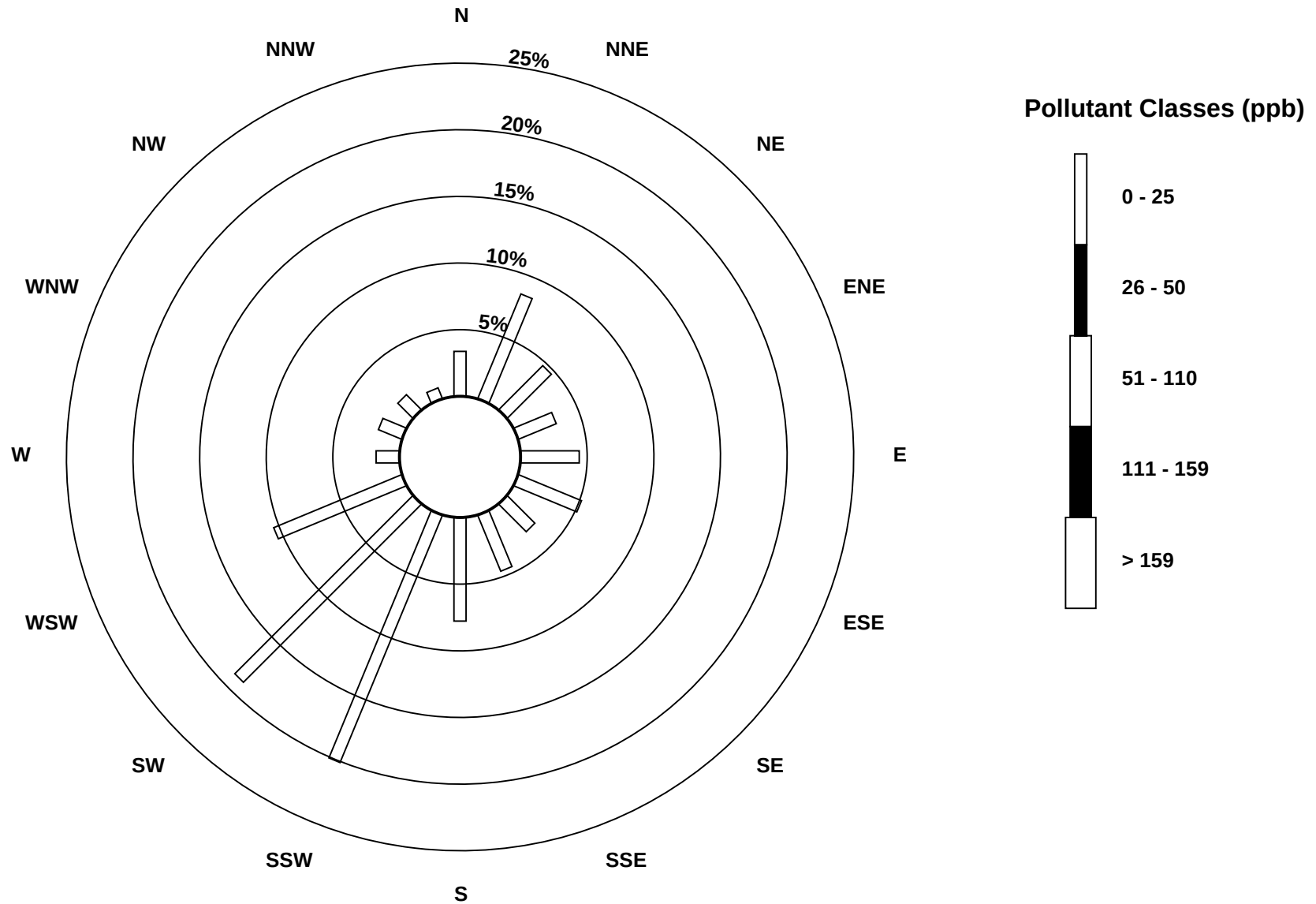
Hourly Maximums

Nitrogen Dioxide (NO₂) - ppb
Portable Clairmont - September 2015



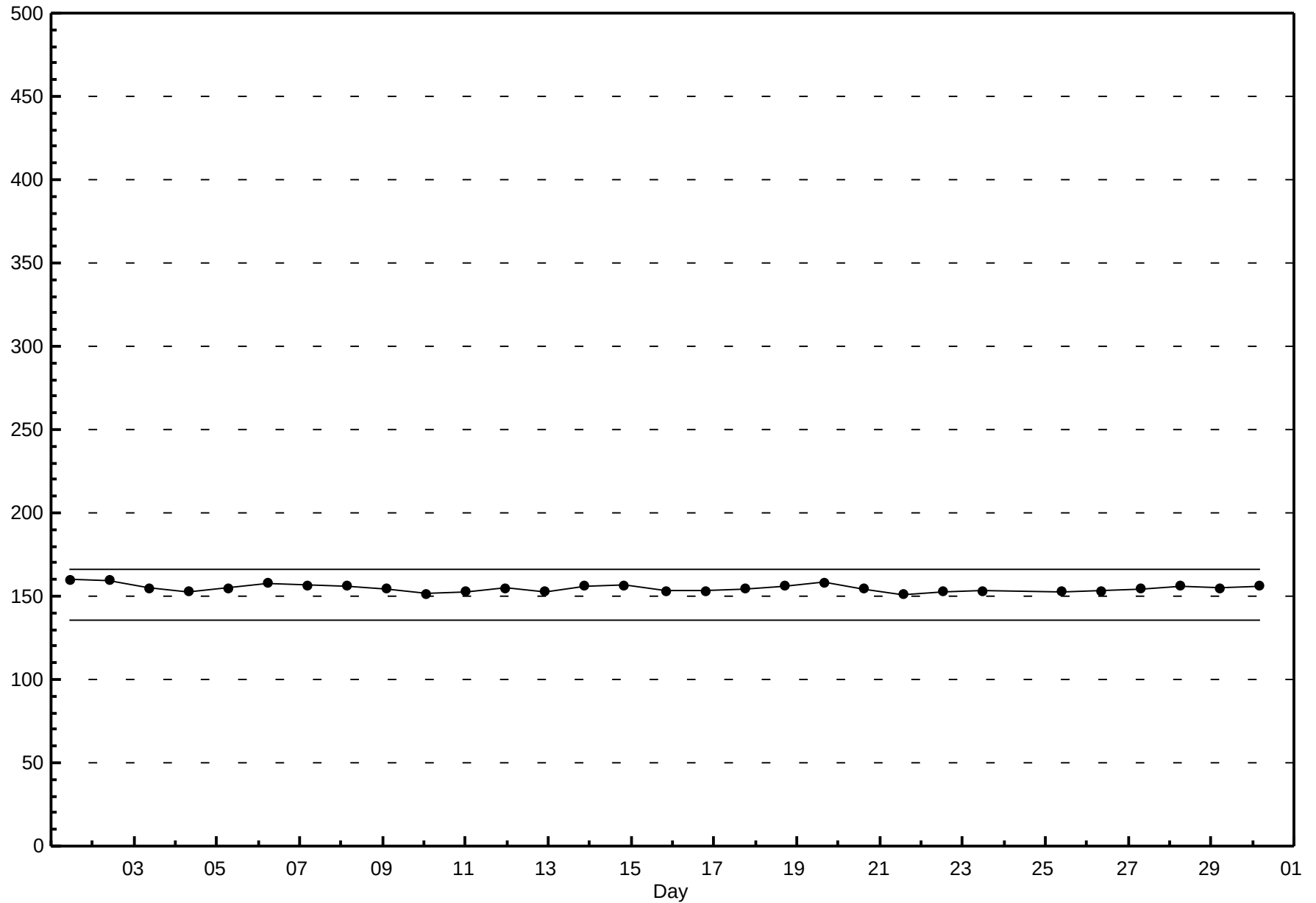
Pollutant Rose

Nitrogen Dioxide (NO₂) - ppb
Portable Clairmont - September 2015



Span Responses

Nitrogen Dioxide (NO₂)
Portable Clairmont - September 2015



Hourly Averages

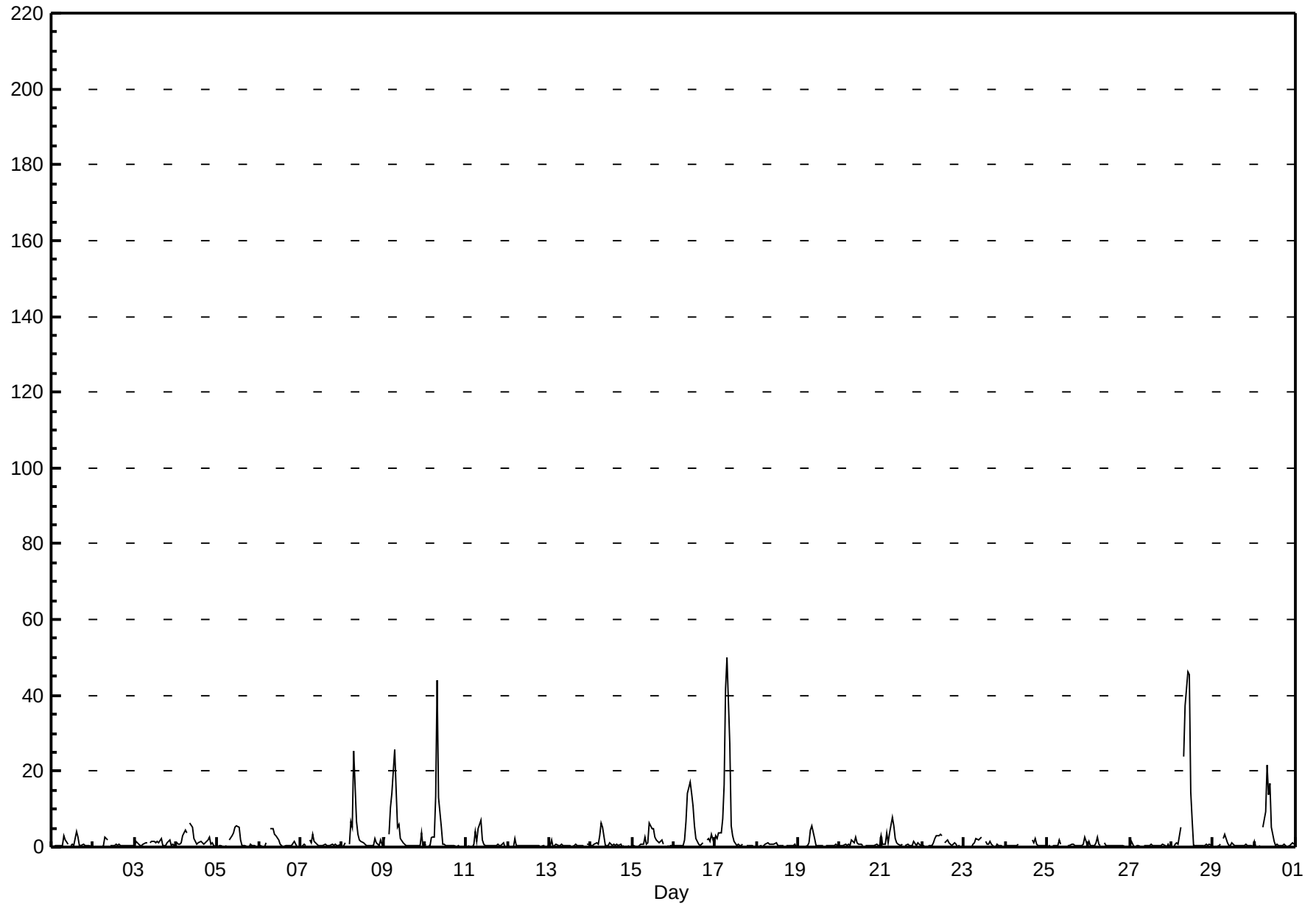
Nitrogen Oxide (NO) - ppb

Portable Clairmont - September 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 49.8 ppb on Sep 17 08:00 Maximum Daily Average: 8.1 ppb on Sep 28																				Hours in Service: 720 Hours of Data: 682 Hours of Missing Data: 38 Hours of Calibration: 37 Percent Operational Time: 99.9						
Minimum Value: 0 ppb on Sep 6 00:00 Minimum Daily Average: 0.4 ppb on Sep 12 Maximum Diurnal Average: 8.6 ppb at hour 8 Minimum Diurnal Average: 0.3 ppb at hour 24 Monthly Average: 1.81 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.2 Q ₁ = 0.3 Median = 0.5 Q ₃ = 1.2 P ₉₀ = 3.5 P ₉₉ = 23.8																										
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-Sep	0	0	0	0	0	0	1	3	2	1	A	0	1	0	4	3	0	0	1	1	0	0	0	0	0.8	4.2
2-Sep	0	0	0	0	0	0	0	2	2	A	1	0	0	1	0	1	1	0	0	0	0	0	0	0	0.5	2.4
3-Sep	0	2	1	0	1	1	1	1	A	1	1	2	1	1	1	2	0	0	0	1	2	0	1	0	0.9	2.1
4-Sep	1	1	1	1	3	4	4	A	6	5	2	1	1	1	1	1	1	1	2	2	1	1	0	0	1.8	6.3
5-Sep	0	0	0	0	0	0	A	2	3	4	5	6	5	2	1	0	0	0	0	1	1	0	0	0	1.3	5.8
6-Sep	0	0	0	0	1	A	5	5	5	3	3	2	1	0	0	0	0	0	0	0	2	1	0	0	1.3	4.9
7-Sep	0	0	1	1	A	2	1	3	1	1	1	0	0	0	1	0	0	0	1	1	1	0	0	1	0.7	3.3
8-Sep	0	0	1	A	1	7	5	25	7	3	2	2	1	1	1	0	0	0	0	2	1	1	2	1	2.8	25.4
9-Sep	1	3	A	3	10	14	26	15	5	6	2	1	1	1	1	0	0	0	0	0	0	0	4	0	4.2	25.8
10-Sep	1	A	0	0	3	3	14	44	13	5	1	1	0	0	0	0	0	0	0	0	0	0	0	0	3.8	43.9
11-Sep	A	1	0	0	1	4	1	5	7	2	1	1	0	0	0	0	0	0	1	0	0	1	0	A	1.2	6.9
12-Sep	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.4	2.1
13-Sep	0	2	0	0	1	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	A	1	1	0.4	1.9
14-Sep	1	0	1	1	1	3	6	5	0	0	0	1	1	1	0	1	0	1	0	0	A	0	0	0	1.1	6.3
15-Sep	0	0	0	0	0	1	1	3	1	1	6	5	5	3	2	1	2	2	1	A	0	0	0	0	1.5	6.4
16-Sep	1	0	0	0	0	1	2	7	14	17	14	11	6	2	1	0	1	1	A	2	2	2	3	1	3.8	17.2
17-Sep	3	2	4	4	7	17	42	50	27	6	3	1	0	1	0	1	1	A	0	0	0	0	0	0	7.4	49.8
18-Sep	0	0	1	0	0	1	1	1	1	1	1	1	0	0	0	0	A	1	0	0	1	0	1	0	0.5	1.1
19-Sep	0	0	0	0	0	0	1	5	6	2	1	0	0	1	0	A	0	0	0	0	0	0	1	0	0.8	5.7
20-Sep	0	0	0	1	1	1	1	2	1	3	1	1	1	0	A	0	1	0	0	0	0	1	0	0	0.7	2.6
21-Sep	3	1	1	4	1	4	8	6	2	1	1	1	1	A	0	1	0	0	0	2	0	1	1	0	1.6	7.7
22-Sep	0	0	0	0	0	0	1	2	3	3	3	3	A	1	2	1	1	0	1	1	0	0	0	0	1.1	3.3
23-Sep	0	0	0	0	0	1	1	2	2	2	3	A	2	1	1	1	1	0	0	1	0	0	0	0	0.8	2.6
24-Sep	0	0	0	0	0	0	0	1	C	C	C	C	C	C	C	2	1	2	1	0	0	0	0	0	--	2.2
25-Sep	0	0	0	0	0	0	1	2	1	A	1	M	0	0	1	1	0	0	0	0	0	1	2	0	0.5	2.5
26-Sep	1	0	0	0	1	3	1	0	A	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0.5	2.7
27-Sep	0	2	0	0	0	0	0	A	0	0	0	0	1	1	0	0	0	0	0	1	0	0	1	0	0.4	1.7
28-Sep	0	0	1	1	1	5	A	24	37	46	45	15	7	0	0	1	0	0	0	0	1	0	1	0	8.1	46.2
29-Sep	0	0	0	0	1	A	2	4	1	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0.6	3.5
30-Sep	2	0	0	0	A	5	9	22	14	17	5	1	1	1	0	0	0	1	0	0	0	1	1	1	3.5	21.6
																									Diurnal Average	
																									Diurnal Maximum	
C - Calibration M - Maintenance A - Automated Daily Zero Span																										

Hourly Averages

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



Hourly Maximums

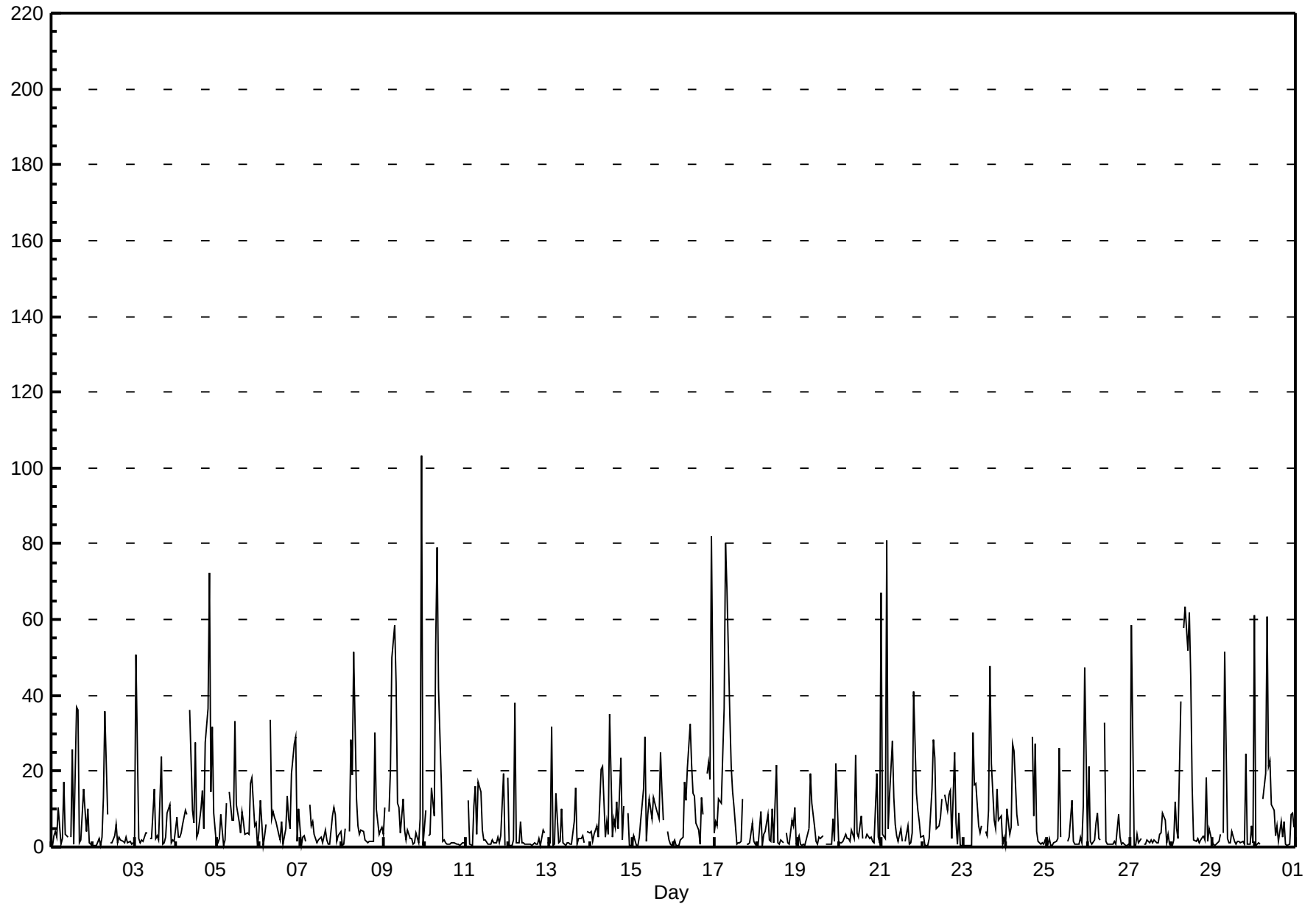
Nitrogen Oxide (NO) - ppb

Portable Clairmont - September 2015

Maximum Value: 103.3 ppb on Sep 9 23:00																				Maximum Daily Average: 17.2 ppb on Sep 28					Hours in Service: 720			
Minimum Value: 0 ppb on Sep 6 00:00																				Minimum Daily Average: 3.7 ppb on Sep 7					Hours of Data: 682			
Maximum Diurnal Average: 25.2 ppb at hour 8																				Minimum Diurnal Average: 1.9 ppb at hour 24					Hours of Missing Data: 38			
Monthly Average: 8.40 ppb																				Percentiles: P ₁ = 0.2 P ₁₀ = 0.7 Q ₁ = 1.1 Median = 2.9 Q ₃ = 9.7 P ₉₀ = 22.3 P ₉₉ = 66.5					Hours of Calibration: 37			
																				Percent Operational Time: 99.9								
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
1-Sep	0	3	4	3	10	1	2	17	3	2	A	3	26	1	37	36	1	2	15	10	4	10	1	0	8.4	37.1		
2-Sep	0	0	0	2	0	3	13	36	9	A	1	1	3	6	1	3	2	1	1	2	1	2	1	1	3.9	35.8		
3-Sep	1	51	2	1	2	2	4	4	A	2	2	15	2	3	2	24	1	1	2	9	11	1	2	2	6.4	50.9		
4-Sep	8	3	3	4	6	10	9	A	36	10	6	27	3	4	10	15	5	28	36	72	14	32	9	0	15.2	72.3		
5-Sep	1	2	9	0	2	11	A	15	7	7	33	11	7	4	9	7	3	4	3	17	18	6	6	0	7.9	33.1		
6-Sep	4	12	0	3	6	A	34	8	9	8	7	3	2	7	1	5	13	7	5	19	27	29	2	10	9.6	33.6		
7-Sep	0	3	3	2	A	11	6	7	3	1	2	2	3	1	4	2	1	1	8	10	8	1	3	4	3.7	11.0		
8-Sep	0	1	5	A	4	28	19	51	13	5	3	5	4	2	2	1	2	2	2	30	10	3	4	5	8.8	51.5		
9-Sep	3	11	A	9	20	50	59	43	12	11	4	13	4	2	5	2	2	1	1	4	1	8	103	0	16.0	103.3		
10-Sep	10	A	3	4	16	8	53	79	42	17	2	2	1	1	1	1	1	1	1	1	0	1	1	1	10.6	79.1		
11-Sep	A	12	1	0	11	16	3	17	15	4	2	2	1	1	1	2	1	1	3	1	3	19	0	A	5.3	19.5		
12-Sep	18	1	0	2	38	1	1	7	1	1	1	1	1	1	1	1	1	1	2	0	4	4	A	1	3.8	37.9		
13-Sep	1	32	0	1	14	1	2	10	1	0	1	1	1	1	7	16	1	2	2	3	1	A	4	4	4.6	31.8		
14-Sep	4	2	3	6	2	11	21	21	3	7	3	35	2	8	5	12	5	24	2	11	A	9	0	0	8.5	35.0		
15-Sep	0	3	0	0	2	7	15	29	1	9	13	7	13	11	10	7	25	15	7	A	4	2	1	1	8.0	29.0		
16-Sep	2	1	0	0	2	3	17	12	21	32	21	14	14	6	5	1	13	9	A	19	22	18	82	4	13.8	82.1		
17-Sep	7	5	13	12	24	37	80	68	35	21	15	11	1	1	1	1	13	A	1	1	1	6	2	1	15.5	80.3		
18-Sep	1	0	9	1	3	4	9	2	1	10	1	22	1	1	2	1	A	4	1	1	7	6	10	1	4.2	21.6		
19-Sep	3	1	0	1	0	3	5	19	12	5	2	1	3	2	3	A	1	1	1	1	8	1	22	1	4.1	22.1		
20-Sep	1	1	1	3	2	2	2	5	2	24	4	3	8	2	A	2	3	2	3	2	1	19	3	1	4.2	24.2		
21-Sep	67	3	2	81	5	14	28	13	6	3	2	5	2	A	1	6	1	1	4	41	14	10	7	2	13.7	81.0		
22-Sep	3	0	0	0	2	15	28	24	5	6	8	13	A	14	10	14	15	2	25	6	1	9	0	0	8.7	28.4		
23-Sep	0	0	0	0	0	30	16	17	6	4	6	A	4	3	10	48	22	7	5	15	7	8	1	2	9.2	47.8		
24-Sep	0	10	3	5	27	25	9	6	C	C	C	C	C	C	C	29	8	27	4	1	1	1	1	2	--	29.2		
25-Sep	1	2	0	1	1	2	2	26	3	A	3	M	1	2	12	1	1	1	1	3	1	11	47	2	5.6	47.2		
26-Sep	21	1	1	2	6	9	2	2	A	33	1	1	1	1	1	1	1	8	3	1	1	0	0	1	4.3	32.9		
27-Sep	0	59	0	0	3	1	2	A	1	1	2	1	2	1	2	1	1	3	4	9	7	1	3	1	4.6	58.6		
28-Sep	0	2	12	5	2	39	A	58	63	52	62	45	16	2	2	2	1	2	3	2	18	1	5	1	17.2	63.2		
29-Sep	1	0	1	1	3	A	4	51	2	1	1	4	2	1	2	1	1	1	1	24	1	1	6	1	4.8	51.4		
30-Sep	61	0	1	1	A	13	19	61	21	23	11	10	3	6	1	7	3	7	1	0	1	9	9	5	11.9	61.2		
																									Diurnal Average			
																									Diurnal Maximum			
C - Calibration																									M - Maintenance		A - Automated Daily Zero Span	

Hourly Maximums

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



Hourly Averages

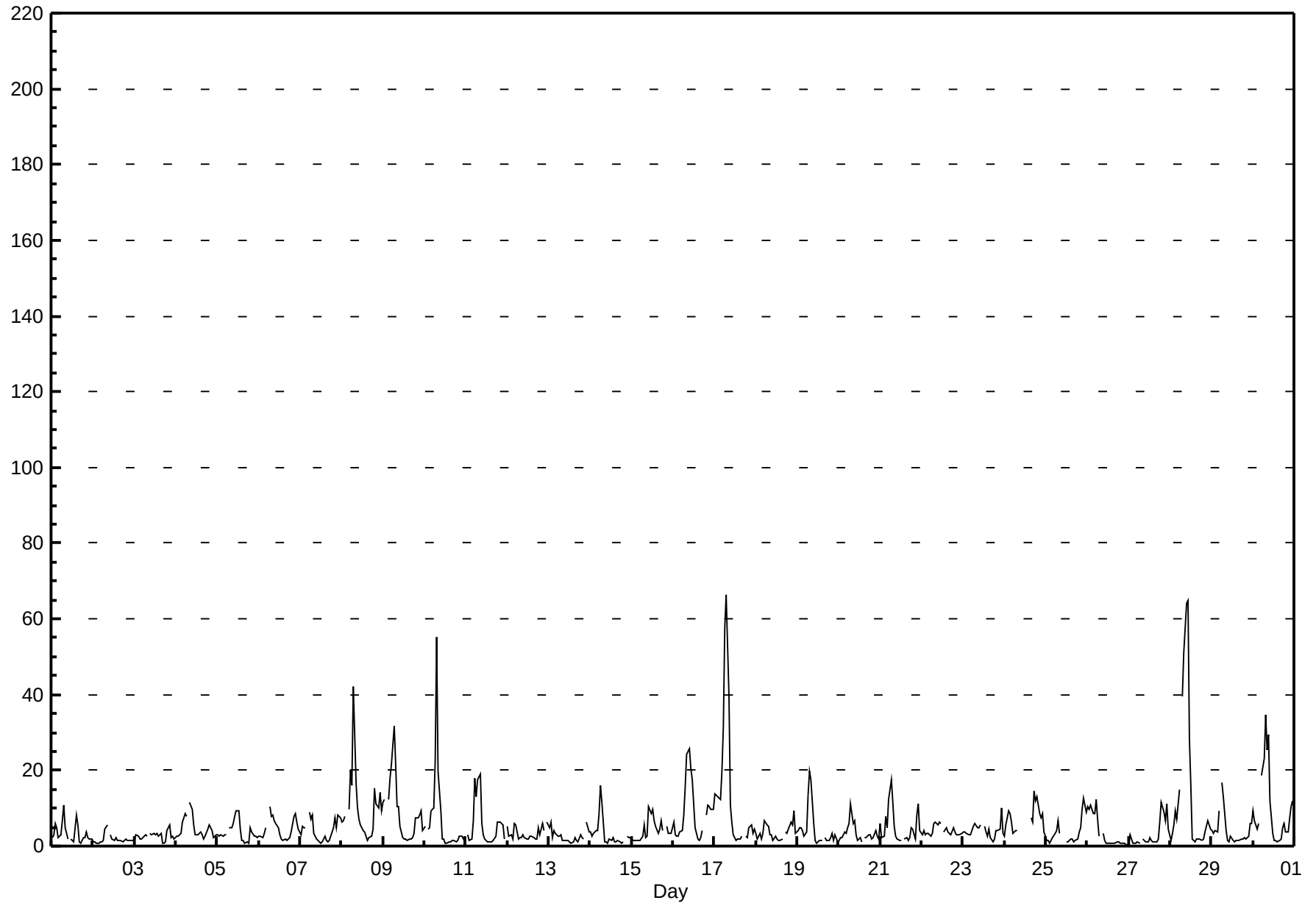
Oxides of Nitrogen (NO_x) - ppb

Portable Clairmont - September 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 66.4 ppb on Sep 17 08:00 Maximum Daily Average: 14.7 ppb on Sep 28																				Hours in Service: 720 Hours of Data: 682 Hours of Missing Data: 38 Hours of Calibration: 37 Percent Operational Time: 99.9						
Minimum Value: 0 ppb on Sep 26 23:00 Minimum Daily Average: 1.8 ppb on Sep 2 Maximum Diurnal Average: 15.7 ppb at hour 8 Minimum Diurnal Average: 1.9 ppb at hour 17 Monthly Average: 5.47 ppb Percentiles: P ₁ = 0.7 P ₁₀ = 1.3 Q ₁ = 1.8 Median = 3.2 Q ₃ = 6.1 P ₉₀ = 11.1 P ₉₉ = 39.2																										
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-Sep	2	3	6	5	2	3	7	11	5	2	A	2	2	1	8	6	1	1	2	2	4	2	2	2	3.5	10.8
2-Sep	1	1	1	1	1	1	1	4	6	A	3	2	1	2	1	2	1	1	2	2	2	2	1	1	1.8	5.6
3-Sep	2	3	3	2	2	2	3	3	A	3	3	3	3	3	3	3	1	1	1	4	6	2	2	2	2.6	5.7
4-Sep	3	3	3	4	7	9	8	A	12	10	6	3	3	3	4	3	2	3	5	6	5	4	2	3	4.6	11.7
5-Sep	3	3	3	3	3	3	A	5	5	6	8	9	9	5	2	1	1	1	1	5	4	3	3	2	3.7	9.3
6-Sep	2	3	2	3	5	A	10	8	8	7	6	5	3	2	2	2	2	2	2	4	8	9	6	4	4.6	10.4
7-Sep	3	5	5	5	A	9	7	8	3	2	2	1	1	1	3	2	1	1	4	5	8	5	8	8	4.1	8.9
8-Sep	6	7	8	A	10	20	16	42	16	10	7	6	4	4	3	2	2	3	4	15	11	10	14	9	10.0	42.1
9-Sep	12	12	A	12	18	22	32	22	10	10	5	2	2	2	2	2	2	3	7	7	8	9	4	4	9.1	31.7
10-Sep	5	A	4	5	9	10	23	55	20	9	2	2	1	1	1	1	1	1	1	2	3	3	3	1	7.1	55.4
11-Sep	A	3	1	2	7	18	13	17	19	6	3	2	1	1	1	1	1	3	6	6	6	5	2	A	5.7	19.1
12-Sep	5	3	3	2	6	6	2	2	2	3	2	2	2	3	3	2	2	2	5	3	6	4	A	6	3.3	6.4
13-Sep	5	6	2	4	3	3	2	3	2	1	1	1	1	1	1	2	1	1	3	2	2	A	6	4	2.6	6.3
14-Sep	4	3	3	4	4	9	16	12	1	1	1	2	1	2	1	1	2	1	1	1	A	3	2	2	3.4	16.0
15-Sep	2	2	2	2	2	2	3	5	2	3	10	9	10	7	5	3	4	7	4	A	5	3	3	3	4.2	10.5
16-Sep	6	3	3	3	4	4	8	15	24	26	21	18	11	5	2	1	2	4	A	8	11	11	10	10	9.0	25.7
17-Sep	14	14	13	12	20	31	58	66	39	11	6	3	1	2	2	2	2	A	3	2	5	6	3	4	13.9	66.4
18-Sep	3	2	3	2	3	7	6	5	3	3	2	2	2	1	1	2	A	4	3	5	6	6	9	3	3.6	9.1
19-Sep	4	5	5	4	3	4	13	20	17	6	2	1	1	2	2	A	2	2	1	2	3	2	3	1	4.5	19.7
20-Sep	2	2	2	4	3	5	6	11	6	7	3	2	2	1	A	2	2	3	3	2	2	4	3	2	3.4	11.0
21-Sep	6	2	3	8	5	12	17	12	5	3	2	1	1	A	2	2	1	2	5	5	2	8	11	4	5.2	17.4
22-Sep	3	4	3	3	3	3	3	6	6	6	6	6	A	4	5	4	3	3	5	4	3	3	3	3	4.0	6.5
23-Sep	4	4	3	3	3	4	5	6	5	5	6	A	5	4	3	4	2	1	2	4	4	4	10	4	4.1	10.0
24-Sep	3	6	9	9	6	3	4	4	C	C	C	C	C	C	C	8	7	15	12	13	8	7	9	4	--	14.5
25-Sep	1	2	1	1	2	4	4	7	3	A	3	M	1	1	2	2	1	1	2	4	5	10	13	9	3.6	12.7
26-Sep	11	10	11	8	8	12	7	3	A	3	1	1	1	1	1	1	1	1	1	1	1	1	0	1	3.7	12.2
27-Sep	0	3	1	1	1	1	1	A	2	2	1	1	2	2	1	1	1	2	6	12	9	7	11	4	3.1	11.7
28-Sep	2	3	6	9	7	15	A	40	51	64	65	28	16	2	1	2	2	2	1	2	4	5	7	5	14.7	64.8
29-Sep	4	3	4	4	9	A	17	13	4	2	1	3	1	1	1	2	1	2	2	2	2	3	6	6	4.0	16.7
30-Sep	9	7	4	6	A	19	23	35	25	30	12	3	2	2	1	2	2	5	6	4	4	7	11	12	9.9	34.8
																									Diurnal Average	
																									Diurnal Maximum	
C - Calibration M - Maintenance A - Automated Daily Zero Span																										

Hourly Averages

Oxides of Nitrogen (NO_x) - ppb
Portable Clairmont - September 2015



Hourly Maximums

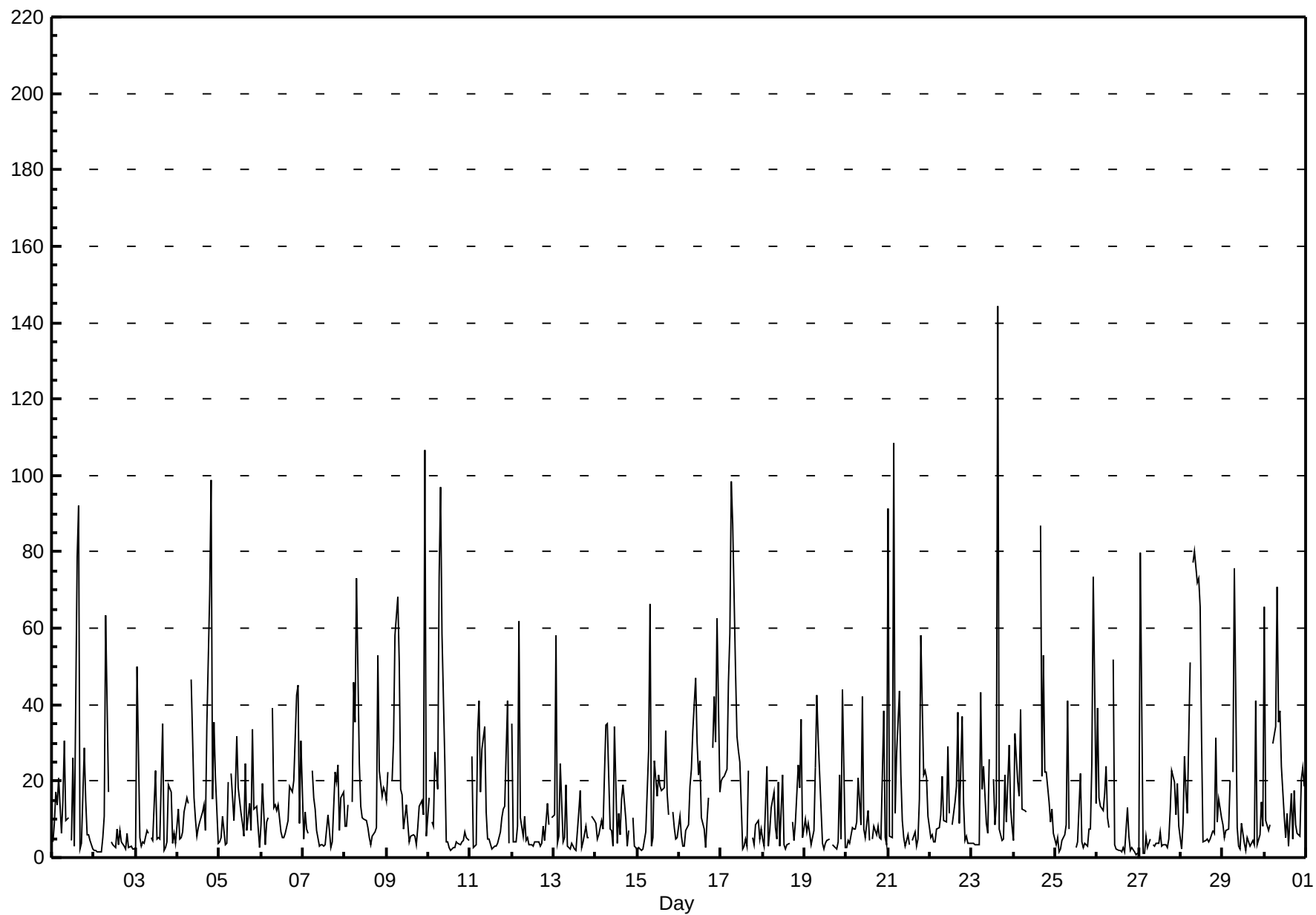
Oxides of Nitrogen (NO_x) - ppb

Portable Clairmont - September 2015

Maximum Value: 144.2 ppb on Sep 23 16:00																				Maximum Daily Average: 26.9 ppb on Sep 28										Hours in Service: 720									
Minimum Value: 1 ppb on Sep 26 23:00																				Minimum Daily Average: 6.9 ppb on Sep 2										Hours of Data: 682									
Maximum Diurnal Average: 37.9 ppb at hour 8																				Minimum Diurnal Average: 5.8 ppb at hour 14										Hours of Missing Data: 38									
Monthly Average: 15.18 ppb																				Percentiles: P ₁ = 1.4 P ₁₀ = 2.9 Q ₁ = 4.2 Median = 8.3 Q ₃ = 18.8 P ₉₀ = 35.2 P ₉₉ = 90.7										Hours of Calibration: 37									
																				Percent Operational Time: 99.9																			
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24															
1-Sep	4	9	17	14	21	6	15	30	10	10	A	4	26	3	79	92	2	4	29	15	6	6	4	2	17.8	92.2													
2-Sep	2	2	1	2	1	5	11	63	17	A	4	3	3	8	3	7	4	3	2	7	3	3	2	2	6.9	63.5													
3-Sep	3	50	5	3	4	4	7	6	A	5	4	23	5	5	5	35	2	3	4	19	17	4	6	4	9.7	50.0													
4-Sep	13	5	5	7	12	16	14	A	47	16	10	6	8	9	12	14	7	35	69	99	15	35	21	4	20.7	99.0													
5-Sep	4	5	11	3	4	20	A	22	10	18	32	18	12	9	6	25	7	14	7	34	13	14	8	2	12.9	33.6													
6-Sep	8	19	3	10	10	A	39	13	14	12	14	7	5	5	6	10	19	18	17	20	43	45	9	30	16.4	45.0													
7-Sep	5	12	7	6	A	23	16	13	7	3	3	3	3	3	11	7	3	4	22	20	24	7	16	17	10.3	24.2													
8-Sep	8	8	14	A	15	46	35	73	25	13	11	10	10	8	5	3	6	7	8	53	23	16	18	17	18.7	72.9													
9-Sep	15	22	A	20	31	58	68	51	18	16	8	14	9	4	6	6	6	4	8	13	15	11	107	6	22.4	106.8													
10-Sep	16	A	9	8	27	18	73	97	58	25	4	4	2	2	3	3	4	4	3	4	4	7	5	4	16.8	96.8													
11-Sep	A	26	3	3	33	41	17	28	34	12	5	5	2	3	3	3	4	7	10	13	13	41	4	A	14.1	41.1													
12-Sep	35	4	4	8	62	10	6	11	4	5	3	4	3	4	4	4	3	4	8	5	14	9	A	10	9.8	61.7													
13-Sep	11	58	4	6	25	4	5	19	3	2	4	3	2	2	12	18	3	4	8	5	5	A	11	10	9.7	58.1													
14-Sep	9	5	6	10	7	22	35	35	8	7	3	34	4	11	6	15	19	10	3	7	A	10	3	2	11.8	34.9													
15-Sep	2	2	2	2	4	7	28	66	3	5	25	16	22	19	17	18	33	17	11	A	12	8	5	5	14.4	66.3													
16-Sep	11	5	3	3	7	9	19	23	33	47	30	22	25	10	7	3	10	16	A	29	42	30	63	17	20.2	62.7													
17-Sep	20	21	21	23	46	59	98	87	48	32	28	25	2	3	5	3	23	A	5	3	9	10	5	8	25.4	98.4													
18-Sep	5	3	24	3	7	13	17	8	5	20	3	22	3	2	3	4	A	9	5	9	24	18	36	5	10.8	36.3													
19-Sep	10	7	9	6	3	7	23	42	31	13	4	2	4	5	5	A	3	3	2	4	22	5	44	2	11.2	43.8													
20-Sep	3	4	4	8	7	8	9	21	9	42	7	5	12	4	A	5	8	6	8	5	5	39	5	4	9.9	42.2													
21-Sep	91	6	5	108	12	27	44	22	10	5	3	6	3	A	4	7	3	5	15	58	22	23	21	11	22.2	108.4													
22-Sep	5	6	4	4	7	8	11	21	10	9	29	12	A	9	14	19	38	9	37	14	5	6	4	4	12.4	37.9													
23-Sep	4	4	3	3	3	43	18	24	9	6	26	A	21	9	14	144	7	5	5	22	9	29	13	8	18.7	144.2													
24-Sep	5	32	20	16	39	13	12	12	C	C	C	C	C	C	C	87	21	53	22	22	14	9	13	6	--	86.9													
25-Sep	3	5	1	2	4	6	9	41	7	A	5	M	3	4	22	4	2	4	3	7	8	25	74	14	11.5	73.6													
26-Sep	39	16	13	12	17	24	10	8	A	52	3	2	2	2	2	3	2	13	6	2	3	1	1	1	10.1	51.8													
27-Sep	1	80	1	1	5	3	5	A	3	3	4	4	7	3	3	3	2	5	12	23	20	11	19	8	9.8	79.7													
28-Sep	2	9	26	18	12	51	A	77	80	72	73	65	31	4	4	5	4	5	7	6	31	9	15	10	26.9	80.0													
29-Sep	9	5	7	8	20	A	22	76	8	3	2	9	4	2	5	4	3	4	3	41	3	6	15	8	11.6	75.8													
30-Sep	66	10	7	8	A	30	34	71	35	38	24	11	5	11	3	17	5	18	9	6	6	21	24	19	20.7	70.9													
																									Diurnal Average														
																									Diurnal Maximum														
C - Calibration				M - Maintenance				A - Automated Daily Zero Span																															

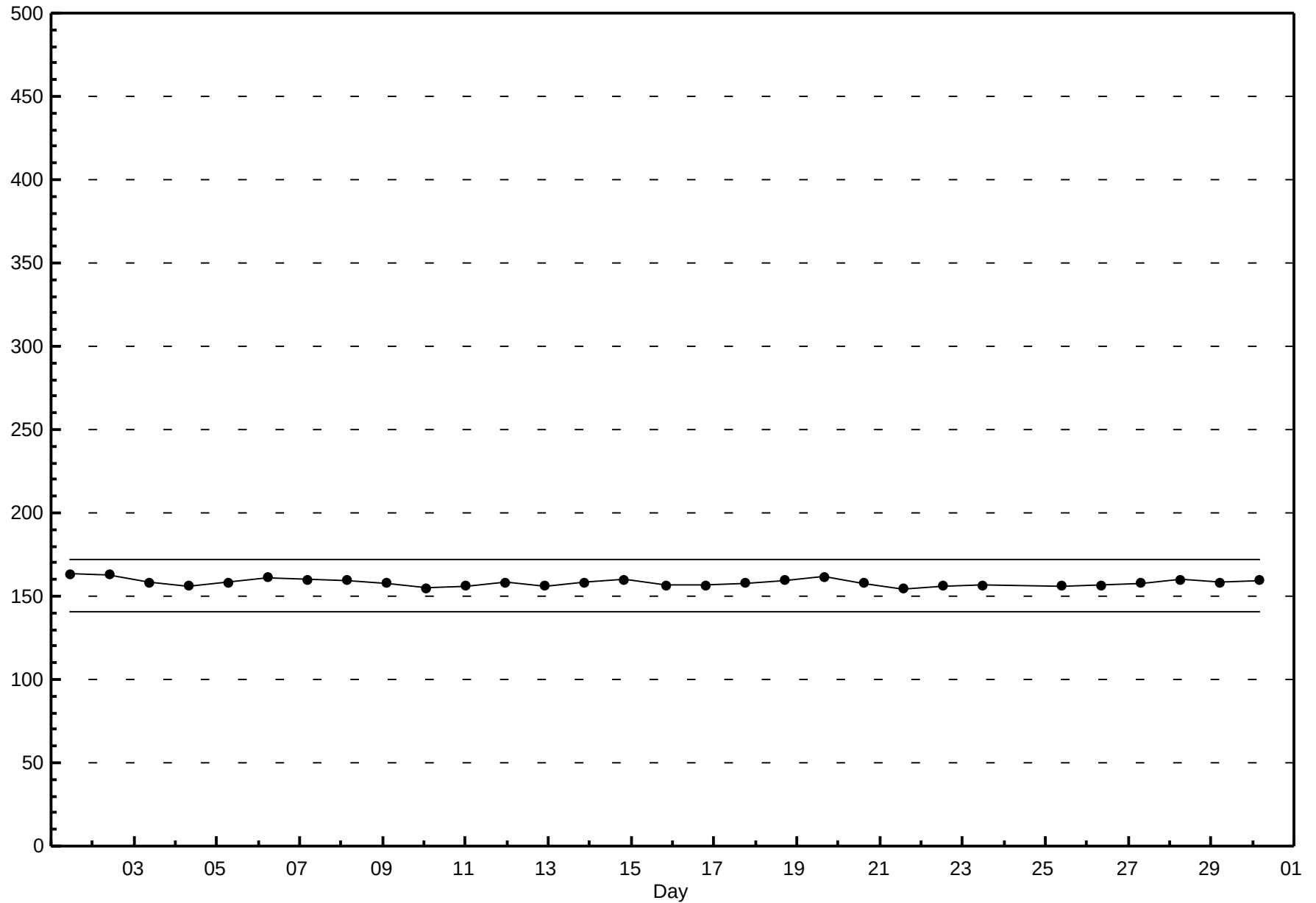
Hourly Maximums

Oxides of Nitrogen (NO_x) - ppb
Portable Clairmont - September 2015



Span Responses

Oxides of Nitrogen (NO_x)
Portable Clairmont - September 2015



Hourly Averages

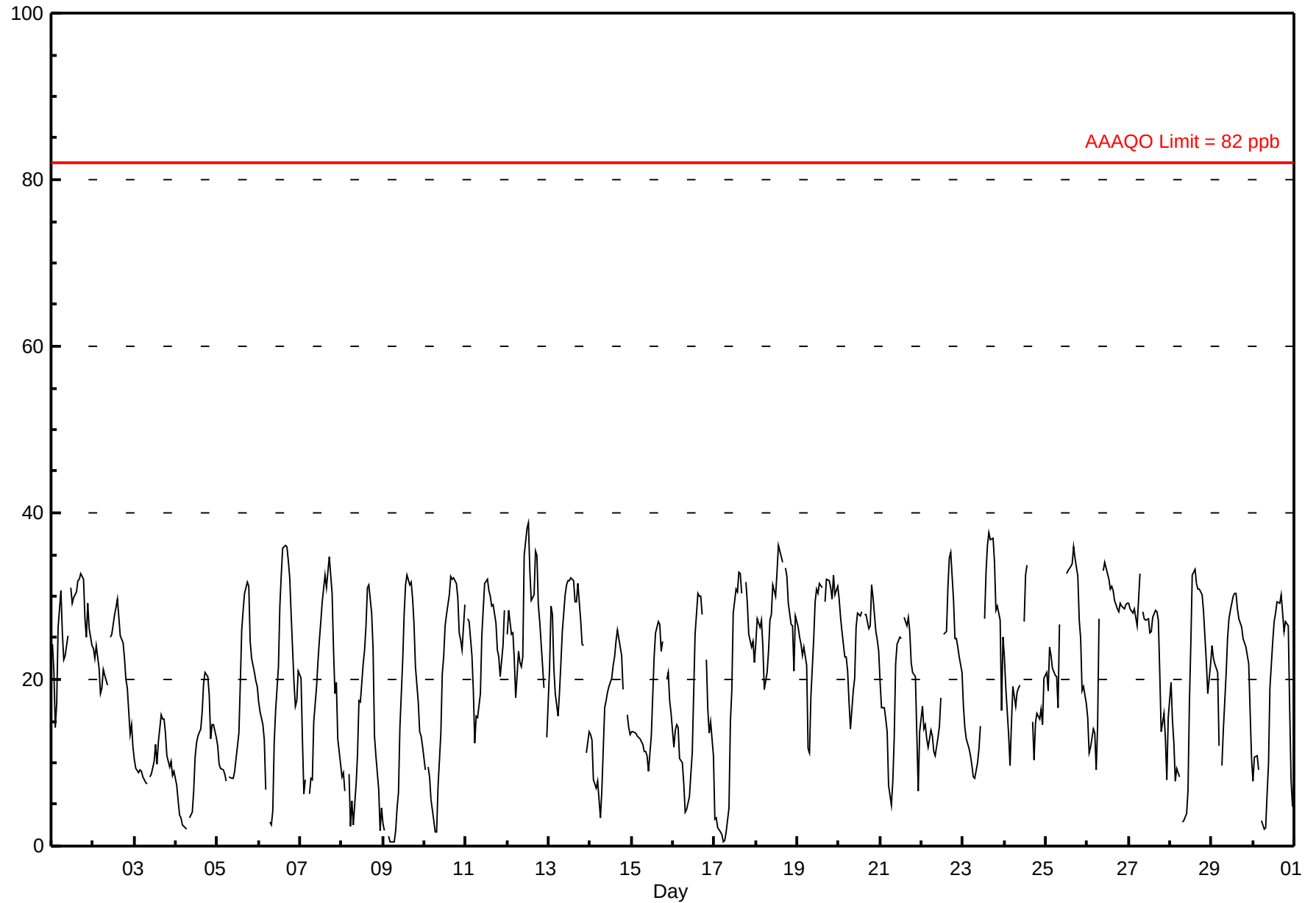
Ozone (O₃) - ppb

Portable Clairmont - September 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 38.7 ppb on Sep 12 13:00 Maximum Daily Average: 28.0 ppb on Sep 18																								Hours in Service: 720 Hours of Data: 686 Hours of Missing Data: 34 Hours of Calibration: 33 Percent Operational Time: 99.9			
Minimum Value: 0 ppb on Sep 9 05:00 Maximum Diurnal Average: 29.4 ppb at hour 16 Monthly Average: 20.24 ppb												Minimum Daily Average: 10.4 ppb on Sep 3 Minimum Diurnal Average: 11.3 ppb at hour 8 Percentiles: P ₁ = 1.6 P ₁₀ = 7.7 Q ₁ = 13.0 Median = 21.5 Q ₃ = 27.9 P ₉₀ = 31.5 P ₉₉ = 36.1															
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
1-Sep	24	21	14	17	26	31	26	22	23	25	A	31	29	30	30	32	32	33	32	27	25	29	26	24	26.5	32.8	
2-Sep	24	23	24	21	18	19	21	20	19	A	25	25	28	29	30	27	25	24	23	20	19	13	15	12	22.0	29.6	
3-Sep	10	9	9	9	9	8	8	7	A	8	9	10	12	10	13	16	15	15	14	11	10	10	8	9	10.4	15.8	
4-Sep	7	5	4	3	3	2	2	A	3	4	7	11	12	13	14	16	20	21	20	18	13	15	15	13	10.5	20.9	
5-Sep	12	10	9	9	9	8	A	8	8	8	9	11	14	19	26	28	30	32	31	25	23	21	20	19	16.9	31.7	
6-Sep	17	16	15	13	7	A	3	3	4	12	16	22	29	33	36	36	36	34	32	28	20	17	17	21	20.2	36.1	
7-Sep	20	13	6	8	A	6	8	8	15	19	22	25	27	29	32	31	33	35	30	24	18	20	13	10	19.7	34.8	
8-Sep	8	9	7	A	9	2	5	2	7	11	18	17	22	24	26	31	31	28	24	13	11	7	2	5	13.9	31.4	
9-Sep	3	2	A	1	0	1	1	2	5	7	14	22	28	31	33	31	32	30	27	21	17	14	13	12	15.0	32.6	
10-Sep	9	A	9	8	6	3	2	2	7	14	21	23	26	28	30	32	32	32	32	30	26	25	24	29	19.5	32.4	
11-Sep	A	27	27	23	19	12	16	15	18	25	28	31	32	31	30	29	29	27	24	23	20	24	28	A	24.5	32.1	
12-Sep	25	28	25	26	22	18	23	22	22	23	35	38	39	33	29	30	35	35	29	27	22	19	A	13	26.9	38.7	
13-Sep	21	29	28	21	18	16	18	22	26	30	31	32	32	32	32	29	29	32	27	24	24	A	11	14	25.2	32.2	
14-Sep	13	13	8	7	8	6	3	7	17	17	18	19	20	22	23	25	26	24	23	19	A	16	14	13	15.7	25.9	
15-Sep	14	14	14	13	13	13	12	11	11	11	9	13	18	23	26	27	27	23	25	A	20	21	18	16	17.0	26.9	
16-Sep	12	14	14	14	10	10	7	4	4	6	9	11	18	25	30	30	30	28	A	22	16	14	15	11	15.5	30.4	
17-Sep	3	3	2	2	1	1	1	2	5	15	19	28	31	31	33	33	30	A	32	29	25	24	25	22	17.2	32.9	
18-Sep	24	27	26	27	24	19	21	23	27	28	31	30	33	36	35	34	A	33	32	29	27	27	21	28	28.0	36.2	
19-Sep	26	25	24	23	24	22	12	11	18	25	29	31	30	32	31	A	29	32	32	31	30	33	30	31	26.6	32.6	
20-Sep	30	27	26	23	23	21	17	14	19	20	26	28	28	28	A	28	28	26	26	31	30	26	25	23	24.9	31.3	
21-Sep	20	17	17	15	14	7	5	8	13	22	24	25	25	A	27	26	27	26	22	21	20	13	7	14	18.1	27.4	
22-Sep	17	14	15	13	12	14	13	11	11	13	14	18	A	25	26	31	34	35	30	25	25	24	23	21	20.2	35.3	
23-Sep	17	14	13	12	11	10	8	8	10	12	14	A	27	33	36	38	37	37	34	28	29	27	16	25	21.6	37.6	
24-Sep	23	19	13	10	15	19	17	19	19	19	A	27	33	34	C	C	15	10	15	16	15	16	15	20	18.5	33.7	
25-Sep	21	19	24	23	21	21	20	17	27	A	29	M	33	33	34	34	36	35	32	27	25	19	19	17	25.6	35.9	
26-Sep	15	11	12	14	14	9	14	27	A	33	34	33	32	31	31	31	30	28	28	29	29	28	29	29	24.9	34.0	
27-Sep	29	28	28	28	27	27	33	A	28	27	27	27	26	26	27	28	28	27	21	14	16	13	8	15	24.3	32.6	
28-Sep	20	15	12	8	9	8	A	3	3	4	7	17	24	33	33	32	31	31	30	28	25	22	18	22	18.9	33.3	
29-Sep	24	23	22	21	12	A	10	14	21	25	27	28	30	30	30	28	27	26	25	24	24	22	16	10	22.6	30.3	
30-Sep	8	11	11	9	A	3	2	2	6	10	19	25	27	28	29	29	30	28	26	27	26	16	8	5	16.7	30.1	
17.2 16.7 15.8 14.5 13.7 11.9 11.7 11.3 14.2 16.9 20.5 23.5 26.3 27.9 29.1 29.4 29.2 28.5 26.8 23.9 21.7 19.8 17.2 17.4																								Diurnal Average			
29.7 28.9 28.0 28.4 27.5 30.8 32.6 27.3 28.2 33.0 34.9 38.1 38.7 36.2 36.1 37.6 36.8 36.9 34.1 31.3 29.8 32.6 30.2 31.2																								Diurnal Maximum			
C - Calibration M - Maintenance A - Automated Daily Zero Span																											
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82 ppb 24-hr na																											

Hourly Averages

Ozone (O₃) - ppb
Portable Clairmont - September 2015



Hourly Maximums

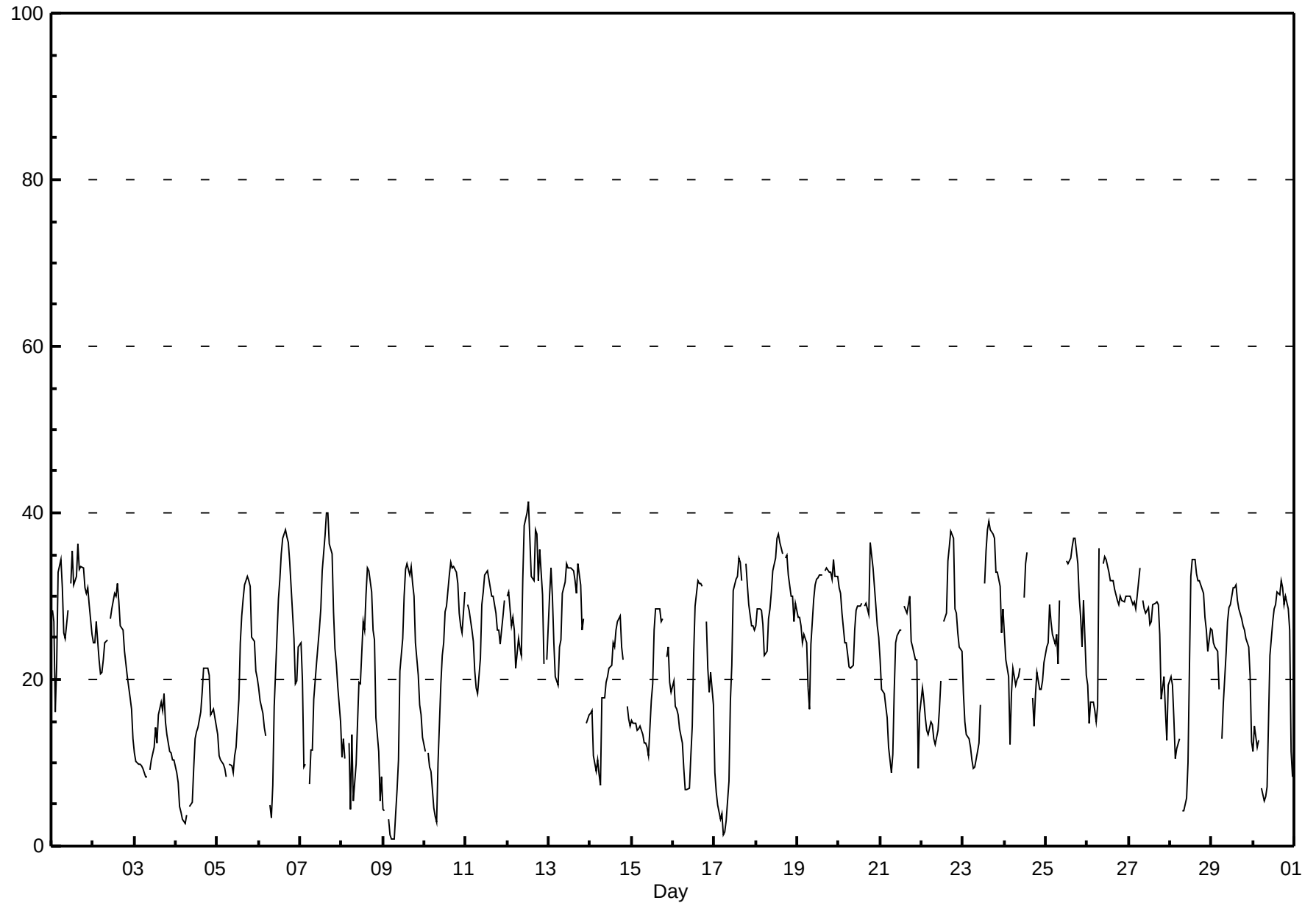
Ozone (O₃) - ppb

Portable Clairmont - September 2015

Maximum Value: 41.4 ppb on Sep 12 13:00																				Maximum Daily Average: 30.6 ppb on Sep 12					Hours in Service: 720	
Minimum Value: 1 ppb on Sep 9 07:00																				Minimum Daily Average: 11.9 ppb on Sep 3					Hours of Data: 686	
Maximum Diurnal Average: 31.3 ppb at hour 16																				Minimum Diurnal Average: 14.5 ppb at hour 8					Hours of Missing Data: 34	
Monthly Average: 22.82 ppb																				Percentiles: P ₁ = 2.9 P ₁₀ = 9.8 Q ₁ = 15.7 Median = 24.4 Q ₃ = 30.0 P ₉₀ = 33.4 P ₉₉ = 37.9					Hours of Calibration: 33	
																									Percent Operational Time: 99.9	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Sep	28	27	16	22	33	34	31	26	25	28	A	32	35	31	32	36	33	34	33	31	30	31	29	25	29.8	36.3
2-Sep	24	24	27	22	21	21	22	24	25	A	27	28	30	30	31	29	26	26	23	22	20	18	16	13	24.0	31.5
3-Sep	11	10	10	10	10	9	8	8	A	9	10	12	14	12	16	17	16	18	15	13	11	11	10	10	11.9	18.3
4-Sep	9	8	5	4	3	3	4	A	5	5	9	13	14	14	16	19	21	21	21	21	16	16	17	14	12.0	21.4
5-Sep	13	11	10	10	9	8	A	10	10	9	11	12	18	24	28	30	31	32	32	31	25	25	21	20	18.7	32.5
6-Sep	19	17	16	14	13	A	5	3	7	17	21	30	32	35	37	38	37	37	34	31	25	19	20	24	23.1	38.0
7-Sep	24	20	9	10	A	7	11	11	18	22	24	26	28	33	37	40	40	36	35	28	24	22	19	15	23.5	40.1
8-Sep	11	13	11	A	12	4	13	5	10	15	20	19	27	26	30	33	33	30	26	25	15	11	5	8	17.6	33.4
9-Sep	4	4	A	3	1	1	1	4	7	10	21	25	30	33	34	33	34	32	30	24	20	17	16	13	17.3	33.9
10-Sep	11	A	11	9	9	5	4	3	10	19	23	24	28	29	33	34	33	34	33	32	28	27	26	31	21.5	34.1
11-Sep	A	29	28	26	25	21	19	18	22	29	31	33	33	32	31	30	30	28	26	26	24	28	30	A	27.2	33.0
12-Sep	30	30	26	27	26	21	25	24	23	32	38	40	41	37	32	32	38	37	32	36	30	22	A	22	30.6	41.4
13-Sep	30	33	30	24	20	19	24	25	30	32	34	33	33	33	33	32	30	34	31	26	27	A	15	16	28.1	33.9
14-Sep	16	16	11	9	10	9	7	18	18	20	20	21	22	24	24	26	27	28	24	22	A	17	15	14	18.2	27.7
15-Sep	15	15	15	14	14	14	13	12	12	12	11	17	20	26	28	28	28	27	27	A	23	24	20	19	18.9	28.5
16-Sep	20	17	16	16	14	12	9	7	7	7	11	14	23	29	32	31	31	31	A	27	21	18	21	17	18.8	31.8
17-Sep	9	7	5	3	4	1	2	3	8	17	22	31	32	32	34	34	32	A	34	31	29	26	26	26	19.5	34.5
18-Sep	26	28	28	28	27	23	23	27	28	30	33	34	37	38	36	35	A	34	35	32	30	30	27	29	30.6	37.5
19-Sep	27	27	26	24	25	24	19	16	24	30	31	32	32	32	32	A	33	33	33	32	34	32	32	32	29.1	34.5
20-Sep	31	30	28	24	24	23	22	21	22	26	28	29	29	29	A	29	29	28	36	35	33	29	26	25	27.7	36.4
21-Sep	22	19	18	17	15	12	9	11	19	24	25	26	26	A	29	28	29	30	25	24	22	22	9	16	20.8	30.0
22-Sep	19	17	15	14	13	15	15	13	12	14	16	20	A	27	28	34	36	38	37	28	28	26	24	23	22.3	37.8
23-Sep	18	15	13	13	12	10	9	10	11	12	17	A	31	35	38	39	38	37	37	33	33	31	26	28	23.9	38.9
24-Sep	25	22	20	12	18	21	19	20	20	21	A	30	34	35	C	C	18	14	18	21	19	19	20	22	21.5	35.3
25-Sep	24	24	29	27	25	24	25	22	29	A	30	M	34	34	35	36	37	37	34	30	27	24	29	21	29.0	37.0
26-Sep	19	15	17	17	16	15	17	36	A	34	35	34	33	32	32	32	31	29	29	30	29	29	30	30	27.0	35.8
27-Sep	30	30	29	29	28	30	33	A	29	28	28	29	27	27	29	29	29	29	25	18	20	16	13	19	26.4	33.5
28-Sep	20	19	15	10	12	13	A	4	4	6	10	21	32	34	34	33	32	32	31	30	27	26	23	26	21.6	34.4
29-Sep	26	24	24	23	19	A	13	17	23	27	29	29	31	31	31	29	28	27	26	26	25	24	20	13	24.6	31.3
30-Sep	11	14	12	13	A	7	5	6	7	15	23	27	28	29	30	30	32	31	29	30	28	26	11	8	19.7	31.9
19.9 19.6 18.0 16.5 16.5 14.6 14.6 14.5 16.7 19.7 22.8 25.8 28.8 29.9 30.9 31.3 30.9 30.5 29.4 27.4 25.0 23.1 20.6 20.0																								Diurnal Average	Diurnal Maximum	
30.9 33.4 29.9 29.4 32.9 34.4 33.5 35.8 30.4 33.9 38.5 40.0 41.4 37.5 38.0 40.1 40.1 37.8 37.0 35.6 33.4 34.5 32.4 32.5																										
C - Calibration M - Maintenance A - Automated Daily Zero Span																										

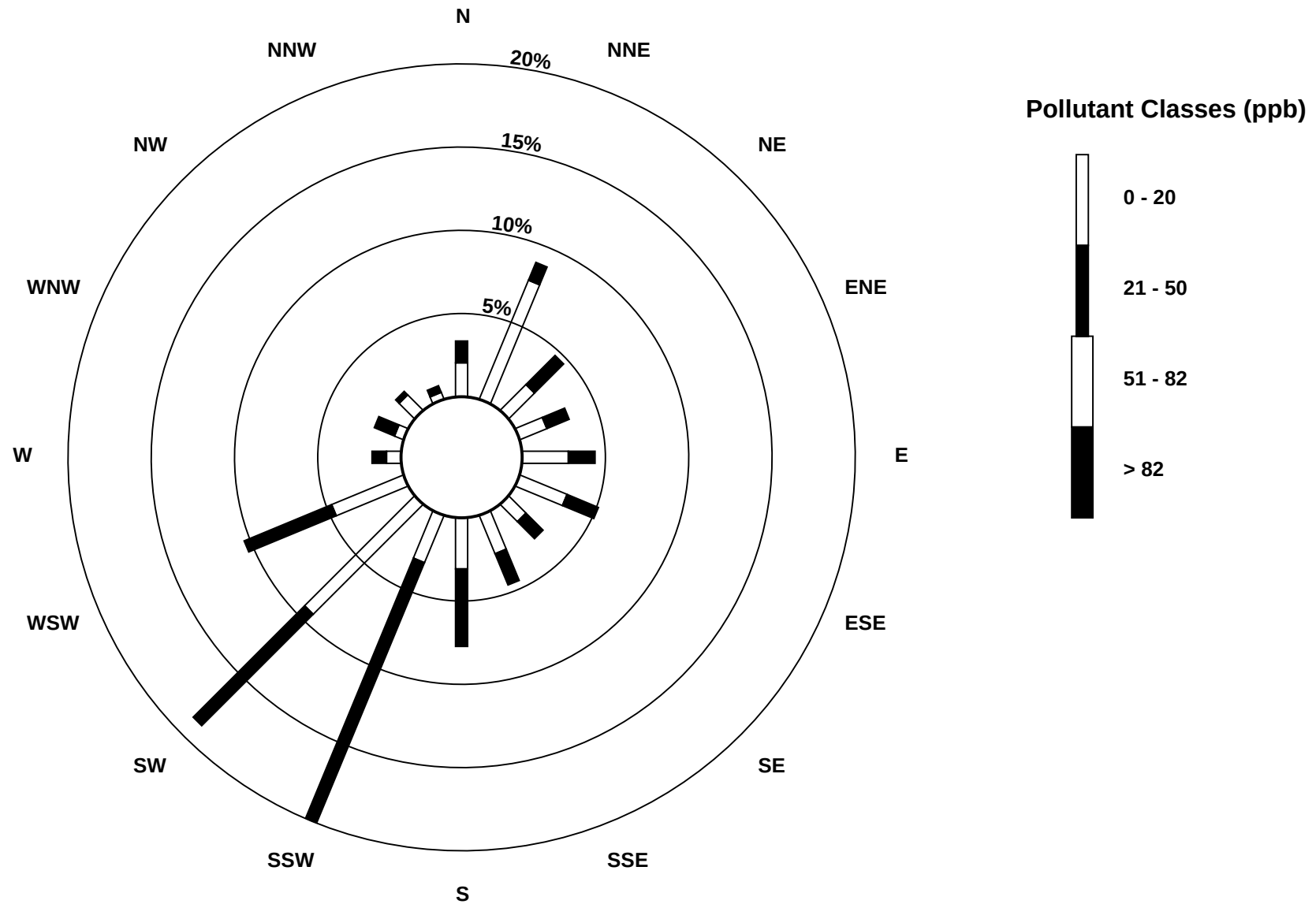
Hourly Maximums

Ozone (O₃) - ppb
Portable Clairmont - September 2015



Pollutant Rose

Ozone (O₃) - ppb
Portable Clairmont - September 2015



Eight Hour Running Averages

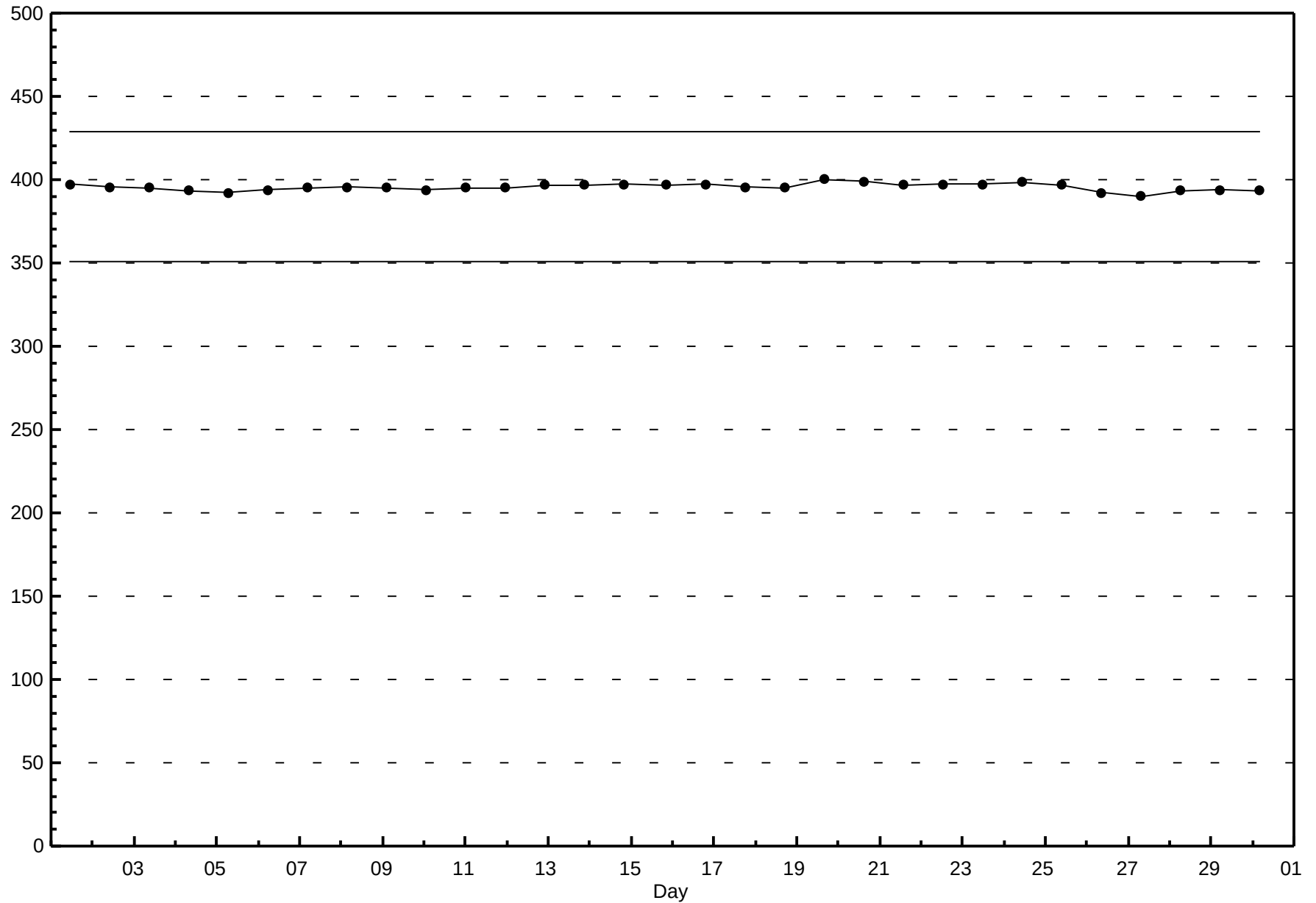
Ozone (O₃) - ppb

Portable Clairmont - September 2015

Maximum Value: 34.5 ppb on Sep 23 19:00																								Hours in Service: 720	
Minimum Value: 1.3 ppb on Sep 9 08:00																								Hours of Data: 717	
																								Hours of Missing Data: 3	
Percentiles: P ₁ = 2.7 P ₁₀ = 8.9 Q ₁ = 13.6 Median = 21.4 Q ₃ = 26.5 P ₉₀ = 29.6 P ₉₉ = 33.4																								Hours of Calibration: 3	
																								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-Sep	25	23	20	19	19	21	22	23	23	23	24	26	27	27	27	29	30	31	31	31	30	30	30	29	31.1
2-Sep	28	26	25	24	24	22	22	21	21	21	21	23	24	25	26	27	27	26	26	26	25	23	21	19	27.5
3-Sep	17	15	13	12	11	10	9	9	8	8	8	8	9	9	10	11	12	12	13	13	13	13	12	12	17.0
4-Sep	11	9	8	7	6	5	4	4	3	3	3	5	6	7	9	10	12	14	16	17	17	17	17	17	17.1
5-Sep	16	14	13	12	11	11	10	9	9	9	8	9	9	11	13	15	18	21	24	26	27	27	26	25	26.9
6-Sep	23	21	19	18	16	15	13	10	9	8	8	10	13	15	19	23	27	30	32	33	32	30	28	26	32.9
7-Sep	24	21	18	15	15	13	12	10	9	10	12	15	16	19	22	25	27	29	30	30	29	28	25	23	30.3
8-Sep	20	16	13	12	11	8	7	6	6	6	8	9	11	13	16	20	23	25	25	25	24	21	18	15	25.4
9-Sep	11	8	6	4	3	2	2	1	2	2	4	6	10	14	18	21	25	28	29	29	28	26	23	21	29.1
10-Sep	18	16	14	12	10	9	7	6	5	6	8	9	12	15	19	23	26	28	29	30	30	30	29	29	30.3
11-Sep	28	27	27	26	25	23	22	20	20	19	20	21	22	25	26	28	29	30	29	28	27	26	25	25	29.7
12-Sep	24	25	25	25	26	25	24	24	23	23	24	25	27	29	30	31	33	34	34	32	30	28	28	26	34.3
13-Sep	24	23	23	22	21	21	21	22	22	22	23	24	26	28	30	31	31	31	31	30	29	28	25	23	31.2
14-Sep	21	18	15	13	11	10	9	8	9	9	10	12	13	15	18	20	21	22	23	23	23	22	21	19	22.9
15-Sep	18	16	15	14	14	13	13	13	13	12	12	12	12	14	15	17	19	21	23	24	24	24	23	21	24.2
16-Sep	19	18	16	16	15	14	12	11	10	9	8	8	9	11	14	17	20	23	25	26	26	24	22	19	26.3
17-Sep	16	12	11	8	6	5	3	2	2	3	6	9	13	16	20	24	27	29	31	31	30	29	28	27	31.2
18-Sep	26	26	25	25	25	24	24	24	24	24	25	25	27	29	31	32	33	33	33	33	32	31	29	28	33.5
19-Sep	28	27	26	25	25	24	23	21	20	20	20	21	22	23	26	28	30	31	31	31	31	31	31	31	31.0
20-Sep	31	30	30	29	28	26	25	23	21	20	20	21	22	23	23	25	27	27	27	28	28	28	27	27	31.0
21-Sep	26	25	23	21	19	17	15	13	12	13	14	15	16	17	21	23	25	26	26	25	24	23	20	19	25.9
22-Sep	17	16	15	14	13	13	14	14	13	13	13	13	14	15	17	20	23	26	28	29	29	29	28	27	29.5
23-Sep	25	22	20	18	17	15	13	12	11	10	11	10	13	16	20	24	28	32	35	34	34	33	31	29	34.5
24-Sep	27	25	23	20	19	17	18	17	16	16	17	19	22	24	25	N	N	N	22	20	17	15	15	15	27.4
25-Sep	16	17	18	19	20	20	21	21	21	22	23	22	24	26	29	31	33	33	34	33	32	30	28	26	33.7
26-Sep	24	21	18	17	15	14	13	15	14	18	21	24	26	29	32	32	32	31	31	30	30	29	29	29	32.2
27-Sep	29	29	29	29	29	28	29	29	29	28	28	28	28	28	27	27	27	27	26	25	23	22	19	18	28.8
28-Sep	17	15	14	13	13	12	13	11	8	7	6	7	9	13	15	19	23	26	29	30	30	29	27	26	30.3
29-Sep	25	24	23	22	20	20	19	18	17	18	18	20	22	23	26	28	28	29	28	28	27	26	24	22	28.5
30-Sep	19	17	16	14	12	10	8	7	6	6	7	10	12	15	18	22	25	27	28	28	28	27	24	21	28.0
Diurnal Maximums																									
N - Not Valid																									

Span Responses

Ozone (O₃)
Portable Clairmont - September 2015



Hourly Averages

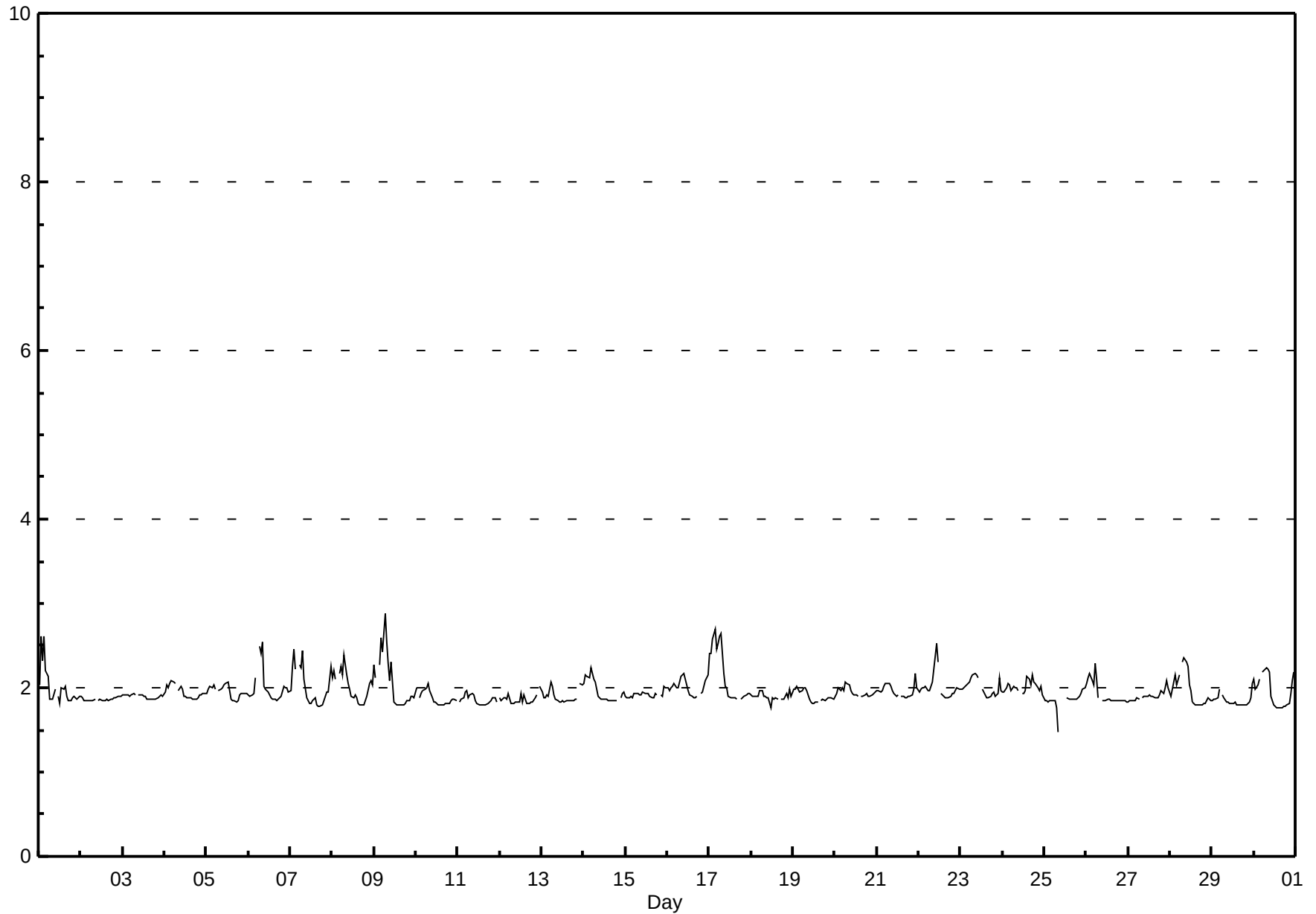
Total Hydrocarbons (THC) - ppm

Portable Clairmont - September 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 2.88 ppm on Sep 9 07:00 Maximum Daily Average: 2.14 ppm on Sep 17																					Hours in Service: 720 Hours of Data: 686 Hours of Missing Data: 34 Hours of Calibration: 34 Percent Operational Time: 100.0					
Minimum Value: 1.5 ppm on Sep 25 09:00 Minimum Daily Average: 1.85 ppm on Sep 29 Maximum Diurnal Average: 2.07 ppm at hour 8 Minimum Diurnal Average: 1.85 ppm at hour 17 Monthly Average: 1.951 ppm Percentiles: P ₁ = 1.78 P ₁₀ = 1.82 Q ₁ = 1.86 Median = 1.91 Q ₃ = 2.00 P ₉₀ = 2.13 P ₉₉ = 2.59																										
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-Sep	2.0	2.6	2.3	2.6	2.2	2.1	1.9	1.9	1.9	2.0	A	1.9	1.8	2.0	2.0	2.0	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.9	2.01	2.61
2-Sep	1.9	1.9	1.8	1.8	1.9	1.9	1.8	1.9	1.9	A	1.8	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.86	1.91
3-Sep	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.90	1.92
4-Sep	1.9	2.0	2.0	2.0	2.1	2.1	2.1	A	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.95	2.09
5-Sep	1.9	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.1	2.1	2.0	1.9	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.95	2.06
6-Sep	1.9	1.9	1.9	1.9	2.1	A	2.5	2.4	2.5	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.9	2.01	2.55
7-Sep	2.0	2.3	2.5	2.2	A	2.3	2.2	2.4	2.1	1.9	1.8	1.8	1.8	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	2.3	2.00	2.45
8-Sep	2.1	2.2	2.1	A	2.2	2.3	2.2	2.4	2.2	2.0	2.0	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.9	2.0	2.1	2.0	2.01	2.39
9-Sep	2.3	2.1	A	2.3	2.6	2.4	2.9	2.5	2.3	2.1	2.3	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	2.07	2.88
10-Sep	2.0	A	1.9	1.9	2.0	2.0	2.0	2.0	2.0	1.9	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	1.8	1.88	2.04
11-Sep	A	1.8	1.9	1.9	2.0	2.0	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	1.9	1.9	1.8	A	1.86	1.96
12-Sep	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.9	1.9	A	2.0	1.86	2.01
13-Sep	2.0	1.9	1.9	1.9	1.9	2.1	2.0	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.8	1.8	1.9	1.9	A	2.0	2.0	1.90	2.07
14-Sep	2.1	2.2	2.1	2.1	2.2	2.2	2.1	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	A	1.9	1.9	1.9	1.96	2.23
15-Sep	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	2.0	2.0	1.92	2.01
16-Sep	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	A	1.9	2.0	2.0	2.1	2.1	2.00	2.17
17-Sep	2.4	2.4	2.6	2.7	2.5	2.5	2.6	2.6	2.2	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	2.14	2.70
18-Sep	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	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	2.0	1.9	1.89	1.98
19-Sep	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	1.9	1.8	1.8	1.8	1.8	1.8	A	1.8	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.90	2.02
20-Sep	1.9	1.9	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.95	2.07
21-Sep	2.0	2.0	1.9	2.0	2.0	2.0	2.1	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	1.9	2.0	2.2	2.0	1.96	2.17
22-Sep	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.4	2.5	2.3	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.01	2.53
23-Sep	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.2	2.2	2.2	2.1	A	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	2.1	2.0	2.00	2.17
24-Sep	2.0	1.9	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	A	1.9	1.9	2.0	2.1	2.1	2.0	2.2	2.1	2.0	2.0	2.0	2.0	1.9	2.01	2.15
25-Sep	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.8	1.5	A	C	C	C	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.85	2.01
26-Sep	2.0	2.1	2.2	2.1	2.0	2.3	2.1	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.93	2.28
27-Sep	1.8	1.8	1.8	1.8	1.8	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.0	2.1	2.0	1.90	2.08
28-Sep	1.9	2.0	2.1	2.1	2.0	2.1	A	2.3	2.4	2.3	2.2	2.0	2.0	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.98	2.36
29-Sep	1.8	1.9	1.9	1.9	2.0	A	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	1.9	2.1	1.85	2.05
30-Sep	2.1	2.0	2.0	2.1	A	2.2	2.2	2.2	2.2	2.2	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	2.1	2.2	1.96	2.24
1.98 2.01 2.01 2.03 2.03 2.06 2.07 2.07 2.01 1.99 1.97 1.90 1.88 1.88 1.87 1.86 1.85 1.86 1.86 1.88 1.90 1.92 1.97 1.97																								Diurnal Average		
2.42 2.61 2.58 2.70 2.59 2.53 2.88 2.65 2.55 2.38 2.53 2.30 2.06 2.00 2.14 2.11 2.03 2.15 2.08 2.05 2.02 2.05 2.17 2.26																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										

Hourly Averages

Total Hydrocarbons (THC) - ppm
Portable Clairmont - September 2015



Hourly Maximums

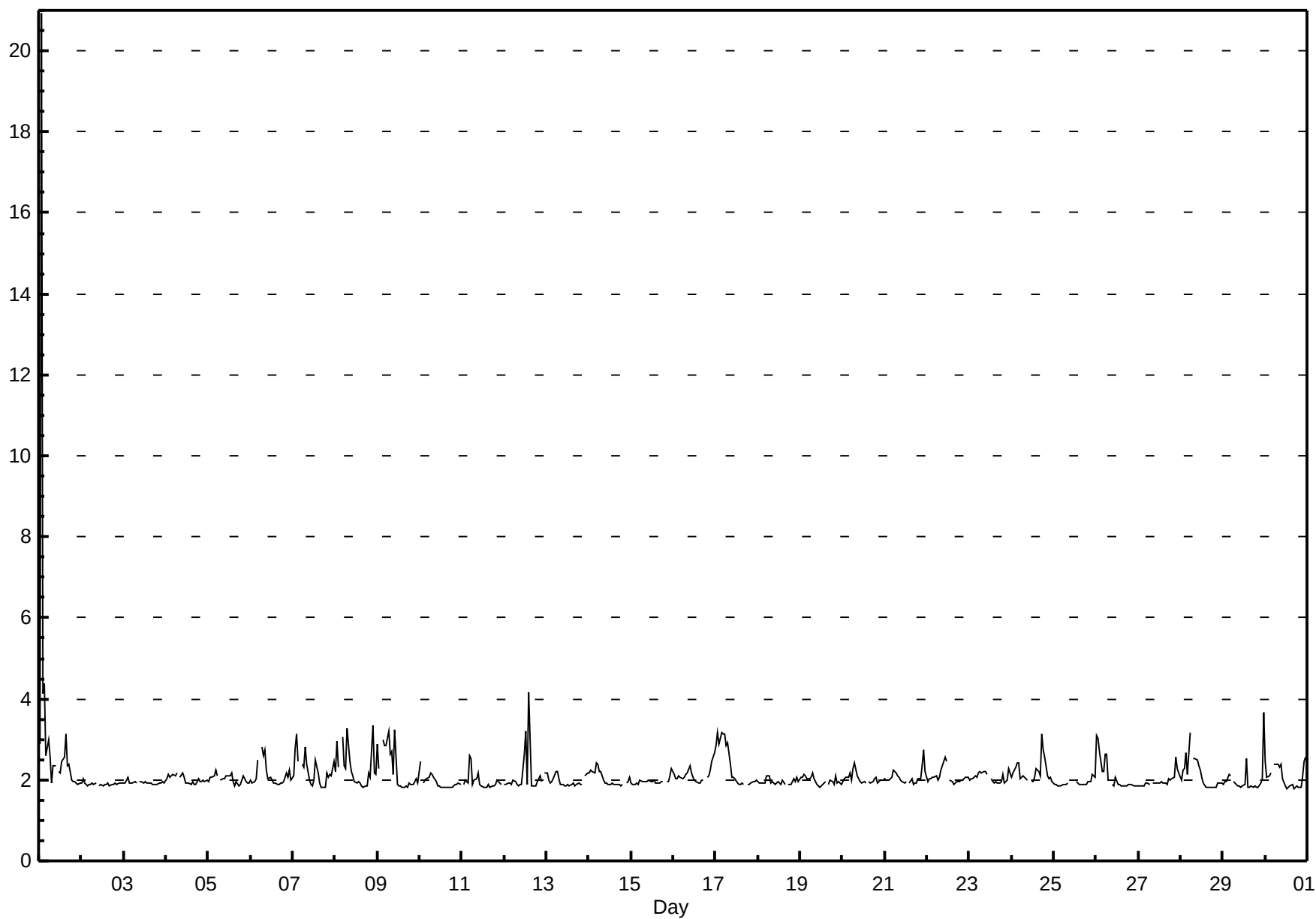
Total Hydrocarbons (THC) - ppm

Portable Clairmont - September 2015

Maximum Value: 20.91 ppm on Sep 1 02:00																					Maximum Daily Average: 3.30 ppm on Sep 1				Hours in Service: 720	
Minimum Value: 1.8 ppm on Sep 30 17:00																					Minimum Daily Average: 1.90 ppm on Sep 2				Hours of Data: 686	
Maximum Diurnal Average: 2.81 ppm at hour 2																					Minimum Diurnal Average: 1.90 ppm at hour 17				Hours of Missing Data: 34	
Monthly Average: 2.104 ppm																					Percentiles: P ₁ = 1.81 P ₁₀ = 1.85 Q ₁ = 1.90 Median = 1.96 Q ₃ = 2.12 P ₉₀ = 2.45 P ₉₉ = 3.23				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-Sep	2.9	20.9	4.1	4.4	2.6	3.0	2.6	1.9	2.4	2.4	A	2.2	2.2	2.5	2.6	3.1	2.4	2.4	2.0	2.0	1.9	1.9	1.9	1.9	3.30	20.91
2-Sep	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.90	2.04
3-Sep	1.9	1.9	2.1	1.9	1.9	1.9	2.0	1.9	A	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.93	2.07
4-Sep	2.0	2.1	2.1	2.1	2.1	2.1	2.2	A	2.1	2.2	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	2.0	2.0	2.0	2.01	2.16
5-Sep	2.0	2.1	2.1	2.1	2.2	2.1	A	2.0	2.0	2.0	2.1	2.1	2.1	2.2	2.0	1.9	2.0	1.9	1.9	2.0	2.1	2.0	1.9	1.9	2.02	2.24
6-Sep	2.0	1.9	1.9	2.0	2.5	A	2.8	2.6	2.8	2.3	2.0	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.2	2.0	2.2	2.0	2.12	2.83
7-Sep	2.1	2.8	3.1	2.5	A	2.4	2.3	2.8	2.4	2.0	1.9	1.9	2.0	2.5	2.2	1.9	1.8	1.8	1.8	2.2	2.1	2.1	2.1	2.5	2.22	3.15
8-Sep	2.2	3.0	2.3	A	3.1	2.3	2.3	3.3	2.5	2.2	2.1	2.0	1.9	1.9	1.9	1.9	1.8	1.9	1.8	2.2	2.1	3.4	2.2	2.1	2.27	3.36
9-Sep	2.9	2.3	A	3.0	2.8	2.9	3.2	2.6	2.7	2.1	3.3	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.9	1.9	1.9	2.0	1.9	1.9	2.27	3.25
10-Sep	2.5	A	1.9	2.0	2.0	2.1	2.2	2.1	2.1	1.9	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	1.94	2.45
11-Sep	A	1.9	2.0	1.9	2.6	2.5	1.9	2.0	2.0	2.2	1.9	1.8	1.8	1.8	1.8	1.9	1.8	1.8	1.8	1.9	2.0	1.9	1.9	A	1.96	2.59
12-Sep	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.8	1.9	1.9	2.6	3.2	1.9	4.2	1.8	1.8	1.8	1.9	1.9	2.1	2.0	A	2.2	2.11	4.17
13-Sep	2.2	2.0	1.9	2.0	2.0	2.2	2.2	2.0	1.9	1.9	1.8	1.8	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.1	2.2	1.97	2.20
14-Sep	2.2	2.3	2.2	2.2	2.4	2.4	2.2	2.2	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	2.0	2.0	2.03	2.42
15-Sep	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	1.9	1.9	1.9	2.0	2.0	A	1.9	2.0	2.1	2.3	1.97	2.29
16-Sep	2.1	2.0	2.0	2.1	2.1	2.0	2.1	2.1	2.2	2.3	2.2	2.1	2.0	2.0	1.9	1.9	2.0	2.0	A	2.0	2.1	2.2	2.5	2.7	2.11	2.67
17-Sep	2.8	3.2	2.9	3.2	3.1	3.1	2.8	2.9	2.4	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	2.33	3.17
18-Sep	2.0	1.9	1.9	1.9	1.9	2.1	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	A	1.9	1.9	1.9	2.0	1.9	2.1	2.0	1.95	2.12
19-Sep	2.0	2.0	2.2	2.1	2.0	2.0	2.1	2.2	2.0	1.9	1.9	1.8	1.8	1.9	2.0	A	1.9	2.0	2.0	1.9	2.1	1.9	1.9	1.9	1.98	2.17
20-Sep	1.9	2.0	2.0	2.1	2.2	2.0	2.3	2.4	2.1	2.0	2.0	1.9	2.0	1.9	A	2.0	1.9	2.0	2.0	2.1	1.9	2.0	2.0	2.0	2.03	2.41
21-Sep	2.0	2.0	2.0	2.0	2.1	2.2	2.2	2.1	2.1	2.0	2.0	1.9	1.9	A	1.9	2.0	1.9	1.9	1.9	2.0	2.0	2.3	2.7	2.2	2.07	2.74
22-Sep	2.0	2.0	2.0	2.1	2.0	2.1	2.0	2.1	2.2	2.5	2.6	2.4	A	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.1	2.1	2.08	2.56
23-Sep	2.0	2.0	2.0	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.1	A	2.0	2.0	1.9	2.0	1.9	1.9	2.0	2.1	1.9	2.0	2.3	2.2	2.07	2.28
24-Sep	2.1	2.2	2.3	2.4	2.4	2.0	2.1	2.0	2.0	2.0	A	2.0	2.0	2.0	2.3	2.2	2.1	3.1	2.7	2.6	2.1	2.0	2.1	2.0	2.21	3.13
25-Sep	1.9	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.9	A	C	C	C	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.1	2.1	1.92	2.12
26-Sep	3.1	3.0	2.7	2.2	2.2	2.6	2.6	2.0	A	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.9	1.8	2.12	3.10
27-Sep	1.8	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	1.9	1.9	1.9	2.0	2.0	2.0	2.1	2.5	2.3	2.2	1.98	2.55
28-Sep	2.0	2.3	2.3	2.7	2.1	3.2	A	2.5	2.5	2.5	2.3	2.2	2.1	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	2.14	3.17
29-Sep	1.9	2.0	1.9	2.1	2.1	A	1.9	1.9	1.8	1.9	1.8	1.9	1.9	2.5	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	2.0	3.6	2.00	3.65
30-Sep	2.4	2.1	2.1	2.2	A	2.4	2.4	2.4	2.3	2.4	2.0	1.8	1.8	1.8	1.8	1.9	1.8	1.8	1.9	1.8	1.8	2.1	2.4	2.6	2.09	2.58
2.16 2.81 2.19 2.23 2.22 2.27 2.22 2.21 2.15 2.08 2.05 1.99 1.98 1.98 2.02 1.95 1.90 1.95 1.94 1.97 1.98 2.06 2.08 2.13																									Diurnal Average	
3.10 20.91 4.12 4.39 3.11 3.17 3.20 3.26 2.76 2.50 3.25 2.63 3.21 2.53 4.17 3.14 2.36 3.13 2.75 2.56 2.18 3.36 2.74 3.65																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										

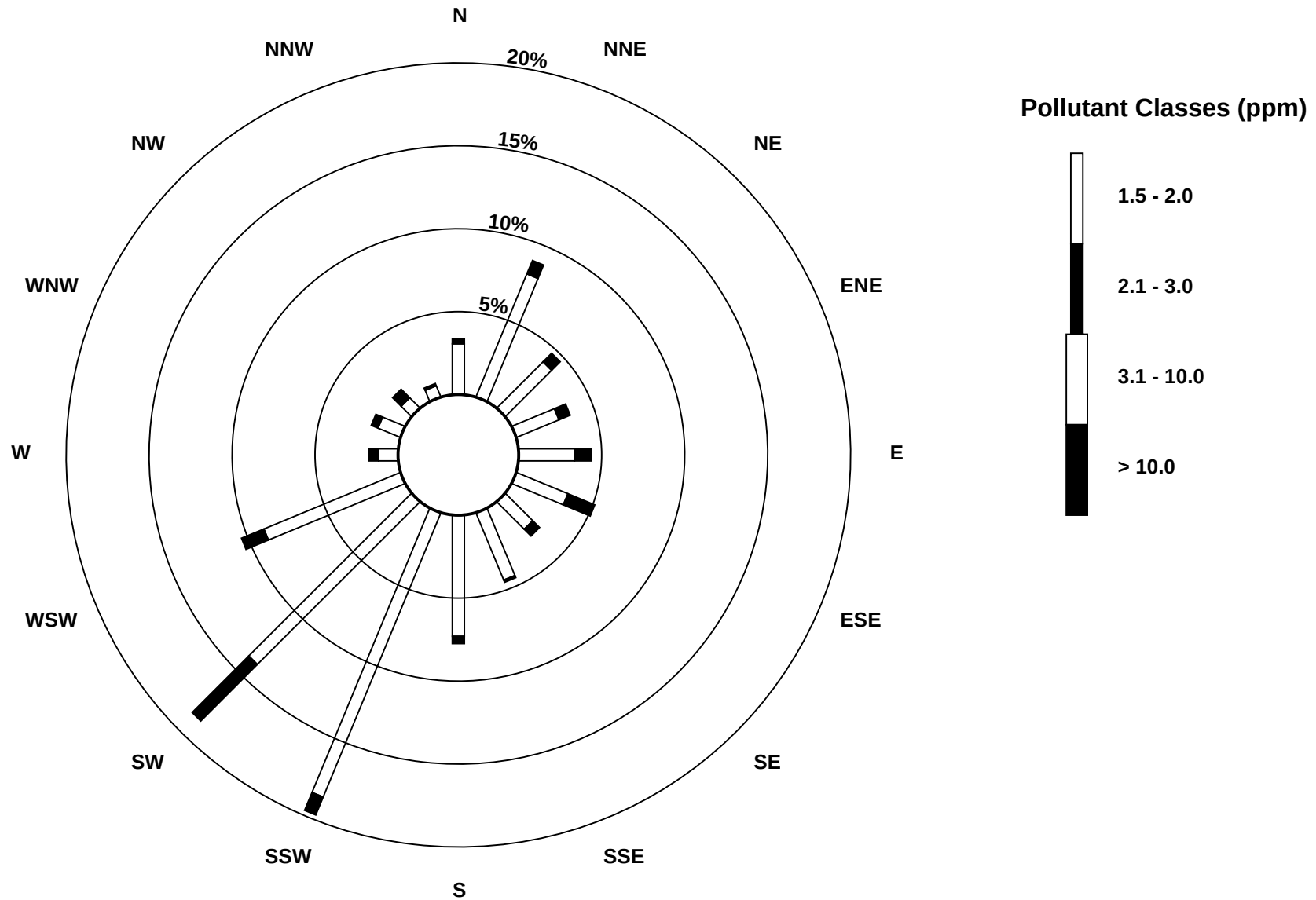
Hourly Maximums

Total Hydrocarbons (THC) - ppm
Portable Clairmont - September 2015



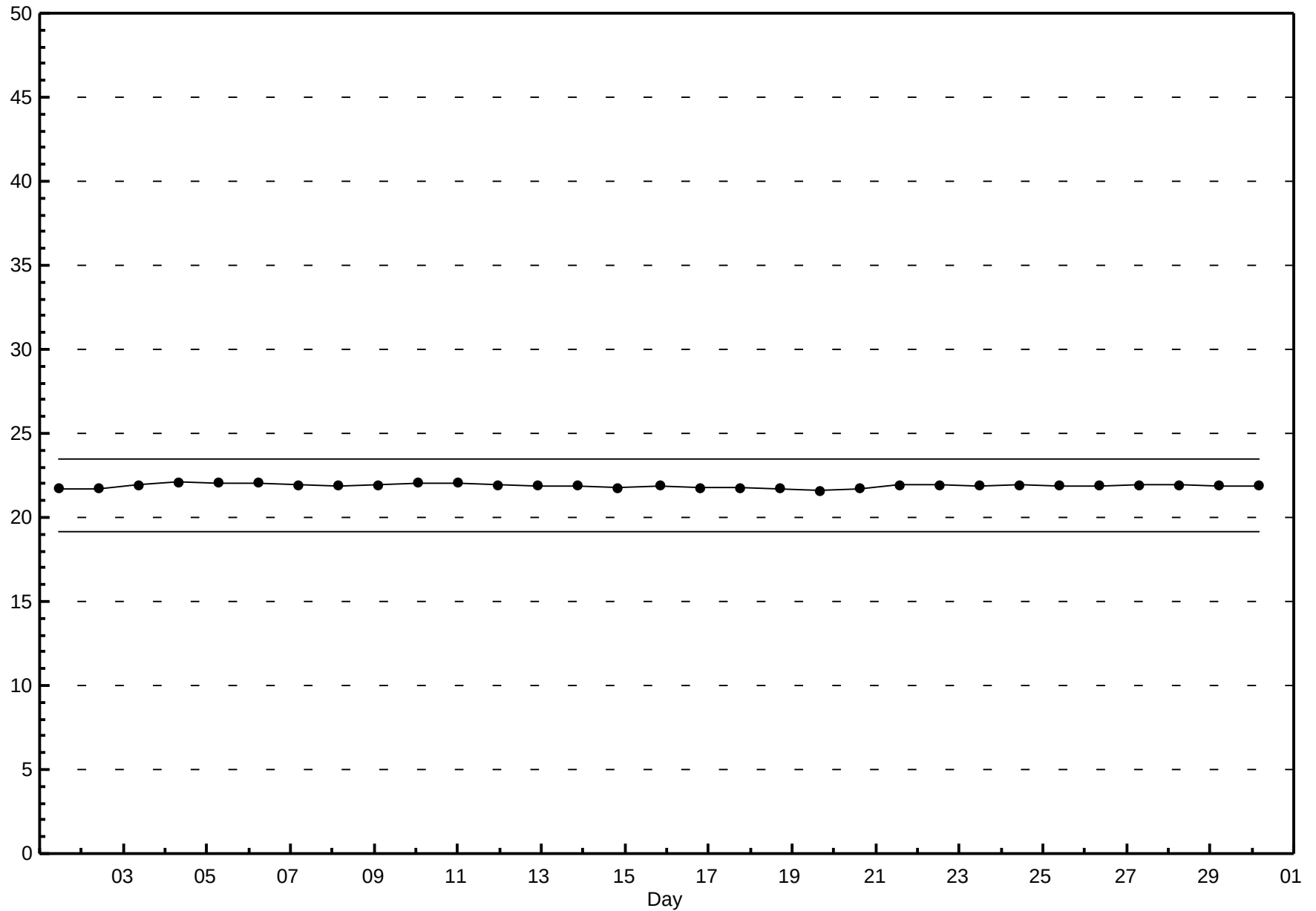
Pollutant Rose

Total Hydrocarbons (THC) - ppm
Portable Clairmont - September 2015



Span Responses

Total Hydrocarbons (THC)
Portable Clairmont - September 2015



Hourly Averages

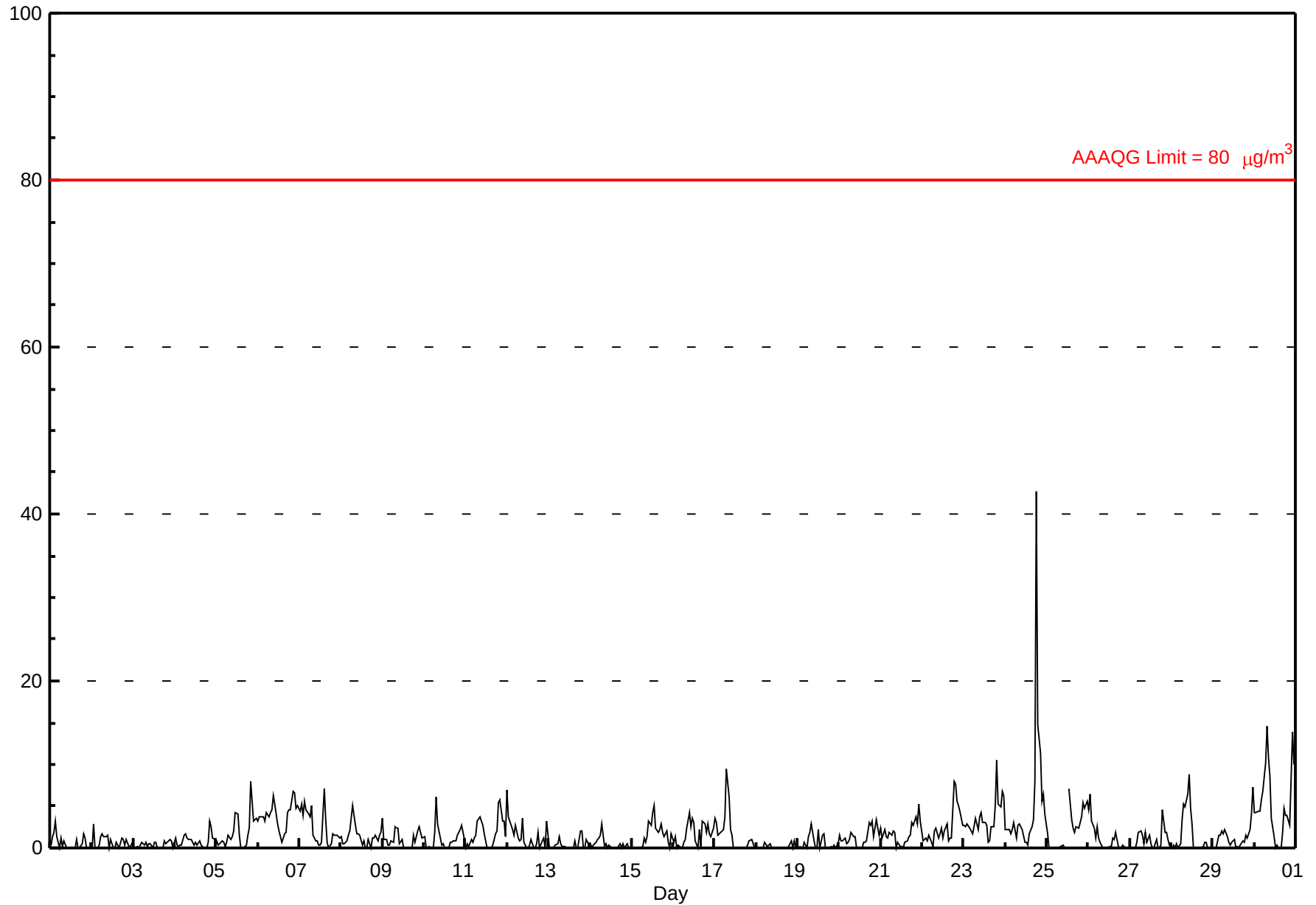
PM2.5 (PM_{2.5}) - µg/m³

Portable Clairmont - September 2015

Number of Exceedences: 1-hr: 0 24-hr: 0 Maximum Value: 42.7 µg/m³ on Sep 24 19:00 Minimum Value: 0 µg/m³ on Sep 1 06:00 Maximum Diurnal Average: 3.1 µg/m³ at hour 19 Monthly Average: 1.69 µg/m³																								Hours in Service: 720 Hours of Data: 718 Hours of Missing Data: 2 Hours of Calibration: 0 Percent Operational Time: 99.7		
Maximum Daily Average: 5.4 µg/m³ on Sep 30 Minimum Daily Average: 0.2 µg/m³ on Sep 18 Minimum Diurnal Average: 0.8 µg/m³ at hour 17 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 1.0 Q ₃ = 2.3 P ₉₀ = 4.3 P ₉₉ = 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-Sep	0	1	2	3	1	0	1	0	1	0	0	0	0	0	0	1	0	0	0	2	1	0	0	0	0.6	3.1
2-Sep	0	3	0	0	0	1	2	1	1	2	0	1	0	0	1	0	0	1	1	0	1	0	0	0	0.7	2.8
3-Sep	0	0	0	0	0	1	0	1	0	0	0	0	1	1	0	0	0	0	1	1	1	1	1	0	0.4	1.1
4-Sep	1	0	0	0	0	2	2	1	1	1	1	0	1	0	1	0	0	0	0	1	3	3	1	1	0.9	3.3
5-Sep	1	0	1	1	1	0	1	1	1	1	2	4	4	2	0	0	0	0	2	2	8	3	3	4	1.7	7.9
6-Sep	3	4	4	4	3	4	4	4	5	6	5	3	2	1	1	2	2	4	5	5	7	7	5	5	3.9	6.7
7-Sep	4	5	4	6	4	4	4	5	2	1	1	0	0	1	7	3	1	0	1	2	2	2	1	1	2.5	7.1
8-Sep	1	1	1	1	1	2	4	5	3	2	2	2	0	1	0	0	1	0	1	1	2	1	2	2	1.4	5.0
9-Sep	4	1	1	0	0	1	1	3	2	2	0	1	0	0	0	0	0	0	2	1	2	3	2	1	1.1	3.5
10-Sep	1	0	0	0	0	0	2	6	3	1	0	0	0	0	0	1	1	1	1	2	2	2	3	1	1.1	6.1
11-Sep	0	1	0	1	1	1	2	3	4	3	3	2	0	0	0	0	0	2	2	5	6	3	3	1	1.8	5.8
12-Sep	7	4	3	2	1	3	1	1	1	3	1	0	0	0	1	0	0	1	2	0	1	1	0	3	1.5	6.9
13-Sep	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	2	2	0	0	1	0	0.4	2.1
14-Sep	0	0	0	1	1	1	2	3	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	0.4	2.9
15-Sep	0	0	0	0	0	0	0	1	1	1	3	3	4	5	2	2	2	3	2	1	2	1	0	2	1.5	5.1
16-Sep	1	1	0	0	0	0	1	1	2	4	2	4	3	1	0	2	0	3	3	2	3	2	1	2	1.7	4.3
17-Sep	4	3	2	2	2	2	4	9	6	2	2	0	0	0	0	0	0	0	0	0	1	1	0	0	1.7	9.4
18-Sep	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0.2	0.9
19-Sep	0	0	0	0	1	0	1	2	3	1	0	0	2	0	2	2	0	0	0	0	0	0	0	0	0.6	2.9
20-Sep	1	1	1	1	0	1	1	2	1	1	0	0	0	0	1	1	1	3	3	3	1	3	2	2	1.3	3.4
21-Sep	2	1	2	1	1	2	1	2	2	0	1	0	0	0	1	1	1	1	3	3	4	3	5	3	1.7	5.3
22-Sep	1	1	1	1	1	1	0	2	2	1	2	2	1	2	3	1	1	1	8	8	6	5	4	3	2.4	7.9
23-Sep	3	3	3	2	2	2	2	4	2	4	4	3	3	3	1	1	3	2	5	11	5	5	7	6	3.5	10.5
24-Sep	2	2	2	2	2	3	1	3	3	2	2	1	1	0	2	3	3	8	43	15	11	6	6	4	5.3	42.7
25-Sep	2	0	0	0	0	0	0	0	0	0	0	M	M	7	3	2	2	3	2	3	4	5	5	6	2.0	7.1
26-Sep	5	6	3	2	1	2	1	1	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	1.1	6.4
27-Sep	0	0	0	0	1	2	2	2	1	2	1	2	0	0	0	1	0	0	0	5	2	2	1	0	0.9	4.5
28-Sep	0	0	0	0	0	1	3	5	5	6	9	5	3	0	0	0	0	0	0	1	1	0	0	0	1.6	8.8
29-Sep	0	0	0	2	2	2	2	2	1	1	0	1	1	0	0	0	0	1	1	2	1	2	4	7	1.3	7.3
30-Sep	4	4	4	4	6	7	10	15	11	9	4	1	0	0	0	0	2	5	4	4	3	8	14	10	5.4	14.5
																								Diurnal Average		
																								Diurnal Maximum		
M - Maintenance																										
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 µg/m³ Alberta Ambient Air Quality Objective (AAAO): 24-hr 30 µg/m³																										

Hourly Averages

PM2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Portable Clairmont - September 2015



Hourly Maximums

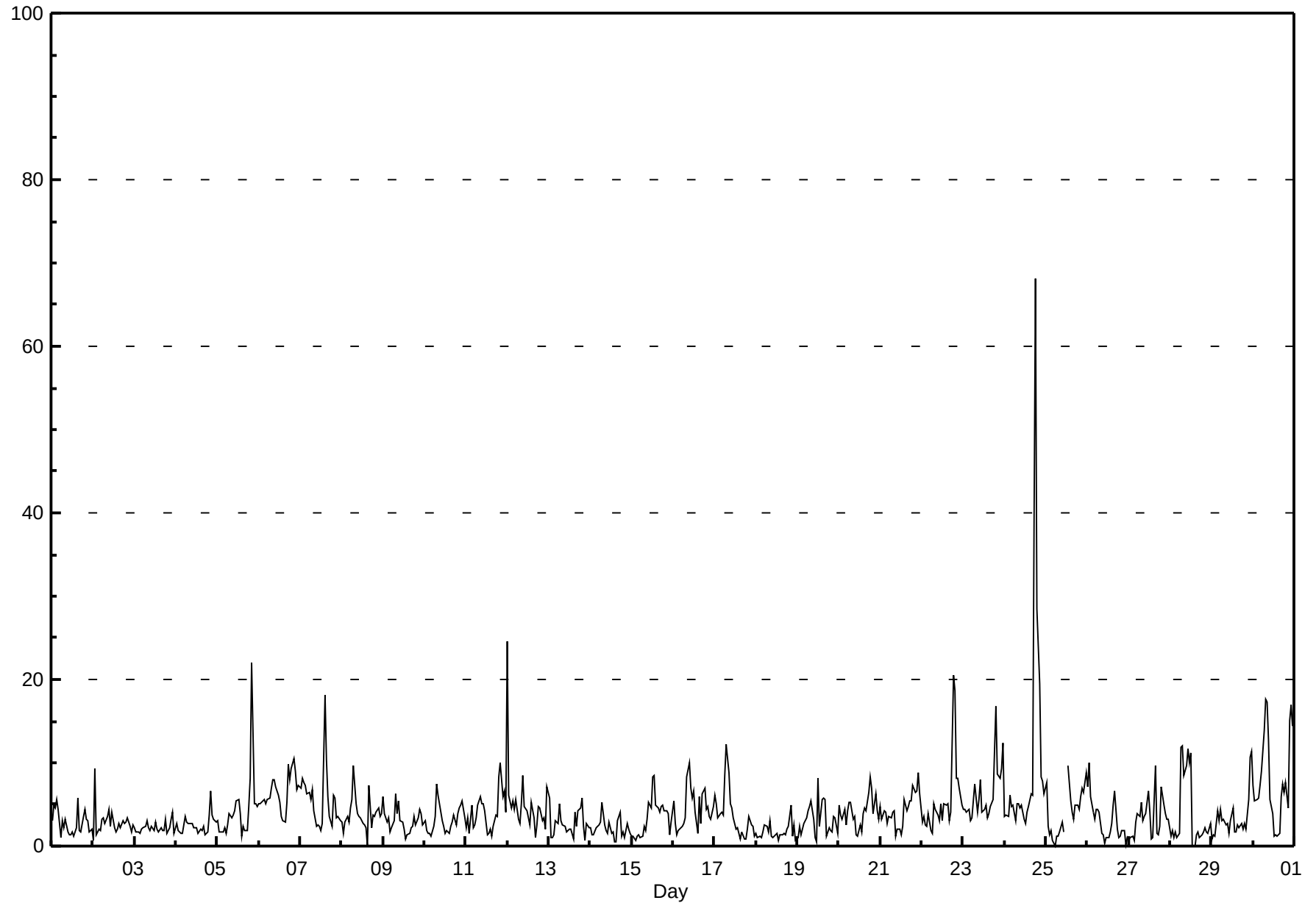
PM2.5 (PM_{2.5}) - µg/m³

Portable Clairmont - September 2015

Maximum Value: 68.1 μg/m³ on Sep 24 19:00																								Maximum Daily Average: 10.6 μg/m³ on Sep 24										Hours in Service: 720	
Minimum Value: 0 μg/m³ on Sep 25 06:00																								Minimum Daily Average: 1.7 μg/m³ on Sep 18										Hours of Data: 718	
Maximum Diurnal Average: 6.6 μg/m³ at hour 19																								Minimum Diurnal Average: 2.7 μg/m³ at hour 14										Hours of Missing Data: 2	
Monthly Average: 4.14 μg/m³																								Percentiles: P ₁ = 0.5 P ₁₀ = 1.3 Q ₁ = 1.9 Median = 3.2 Q ₃ = 5.1 P ₉₀ = 7.5 P ₉₉ = 18.7										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-Sep	3	5	5	6	4	1	3	2	3	2	1	1	2	1	2	6	2	2	4	4	3	3	2	2	2.9	5.8									
2-Sep	1	9	1	2	2	3	3	3	4	4	2	4	2	2	2	3	2	3	3	3	3	2	2	2	2.9	9.4									
3-Sep	2	2	2	2	2	2	2	3	2	2	2	2	3	2	2	2	2	2	3	2	2	3	4	2	2.2	4.1									
4-Sep	3	2	2	1	2	4	3	3	3	3	2	2	2	2	2	2	2	1	2	4	7	4	3	3	2.6	6.5									
5-Sep	3	2	2	2	2	2	2	4	3	4	4	5	6	4	1	2	2	2	5	8	22	5	5	5	4.2	22.0									
6-Sep	5	5	5	6	5	6	6	7	8	8	7	6	5	4	3	3	5	10	8	9	11	9	7	7	6.4	10.6									
7-Sep	7	8	8	7	6	6	6	7	4	2	3	2	2	3	18	10	6	4	2	6	6	3	4	3	5.6	18.1									
8-Sep	3	2	3	4	3	5	6	10	5	4	4	3	3	3	2	0	7	2	4	4	4	5	4	4	3.8	9.7									
9-Sep	6	4	3	3	2	2	3	6	4	5	3	3	2	1	1	2	2	2	4	2	3	4	4	3	3.2	6.3									
10-Sep	3	2	2	2	1	2	4	7	6	4	3	2	2	2	2	2	3	4	3	4	5	5	5	3	3.2	7.5									
11-Sep	2	3	1	5	2	2	3	5	6	5	5	4	1	2	2	1	2	4	4	8	10	6	7	4	4.0	10.0									
12-Sep	25	6	5	5	4	6	3	3	5	9	5	4	3	3	5	3	1	3	5	5	3	3	2	7	5.1	24.6									
13-Sep	6	1	1	1	3	3	5	3	3	2	2	2	2	2	1	4	2	4	5	6	2	1	3	2	2.7	5.8									
14-Sep	2	1	1	2	2	2	3	5	2	2	2	3	2	2	1	0	3	4	1	2	1	3	2	2	2.1	5.2									
15-Sep	1	1	1	1	1	1	1	2	2	3	5	5	8	9	5	5	4	5	5	4	4	4	1	3	3.4	8.5									
16-Sep	5	3	1	2	2	2	3	3	8	10	7	6	7	4	1	6	3	6	7	4	5	4	3	5	4.5	10.1									
17-Sep	6	5	3	4	4	4	8	12	9	5	5	3	2	2	1	1	2	1	1	2	3	3	2	1	3.8	12.2									
18-Sep	1	1	1	1	2	3	2	2	3	1	1	1	2	1	1	1	1	1	2	2	5	1	3	1	1.7	4.9									
19-Sep	1	2	1	2	3	3	4	5	5	3	1	0	8	2	6	6	6	1	2	2	2	4	3	1	3.1	8.1									
20-Sep	5	4	3	4	3	4	5	5	3	4	1	1	2	2	4	5	4	6	8	7	4	6	4	3	4.1	8.3									
21-Sep	5	3	4	4	3	4	3	4	4	1	2	2	1	2	6	4	5	5	5	7	7	7	9	6	4.3	8.9									
22-Sep	3	4	3	2	4	2	2	5	4	4	3	5	3	5	5	5	3	4	21	19	8	8	7	5	5.5	20.5									
23-Sep	4	4	4	4	3	3	5	7	4	6	8	4	4	5	3	4	5	6	11	17	9	8	9	12	6.3	16.8									
24-Sep	3	4	3	6	5	5	3	5	5	5	5	3	3	4	5	6	6	39	68	29	19	8	8	6	10.6	68.1									
25-Sep	8	2	1	2	1	0	1	1	2	3	2	M	M	10	5	4	3	5	5	4	6	7	6	9	4.0	9.7									
26-Sep	7	10	6	4	3	4	4	4	2	1	0	1	1	2	3	5	7	2	1	1	2	2	0	1	3.1	10.0									
27-Sep	1	1	1	1	3	4	4	5	3	4	4	7	4	1	1	10	2	1	2	7	5	4	3	3	3.3	9.7									
28-Sep	1	2	1	2	1	2	12	12	8	10	12	10	11	0	0	1	2	1	1	2	2	2	1	3	4.1	12.0									
29-Sep	1	1	1	4	3	4	3	3	3	3	2	3	5	2	2	3	2	3	2	3	2	6	11	11	3.4	11.3									
30-Sep	7	5	6	6	7	9	14	18	17	13	6	4	1	1	1	2	6	7	6	8	5	15	17	14	8.1	17.6									
4.4 3.5 2.7 3.2 3.0 3.3 4.3 5.4 4.7 4.3 3.6 3.5 3.4 2.7 3.1 3.6 3.4 4.7 6.6 6.2 5.6 4.8 4.7 4.5																								Diurnal Average											
24.6 10.0 7.6 7.3 7.4 9.0 13.9 17.6 17.2 12.8 11.7 10.0 11.3 9.7 18.1 10.4 7.3 38.6 68.1 28.5 22.0 15.2 16.9 14.5																								Diurnal Maximum											
M - Maintenance																																			

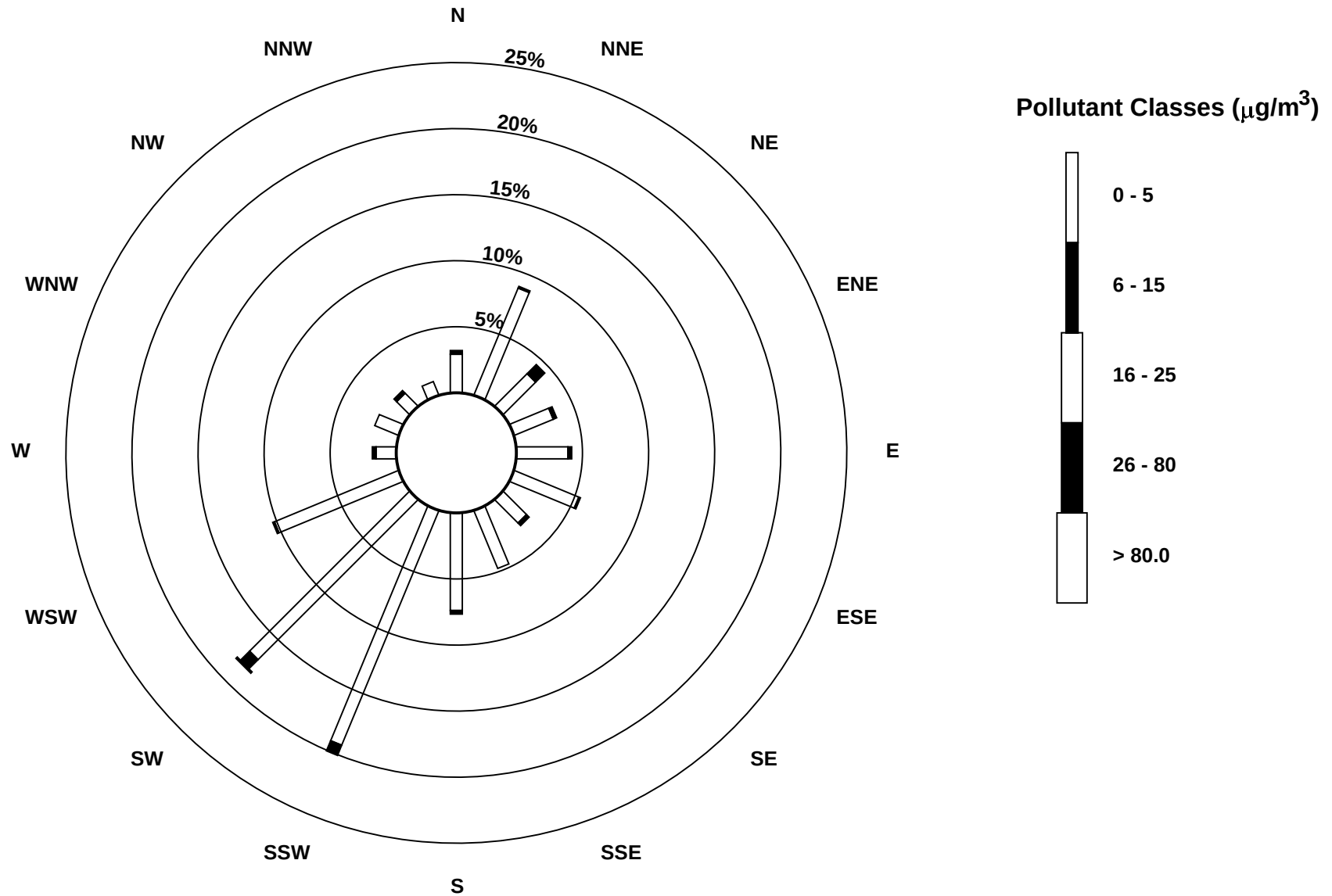
Hourly Maximums

PM2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Portable Clairmont - September 2015



Pollutant Rose

PM_{2.5} (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Portable Clairmont - September 2015



Hourly Averages

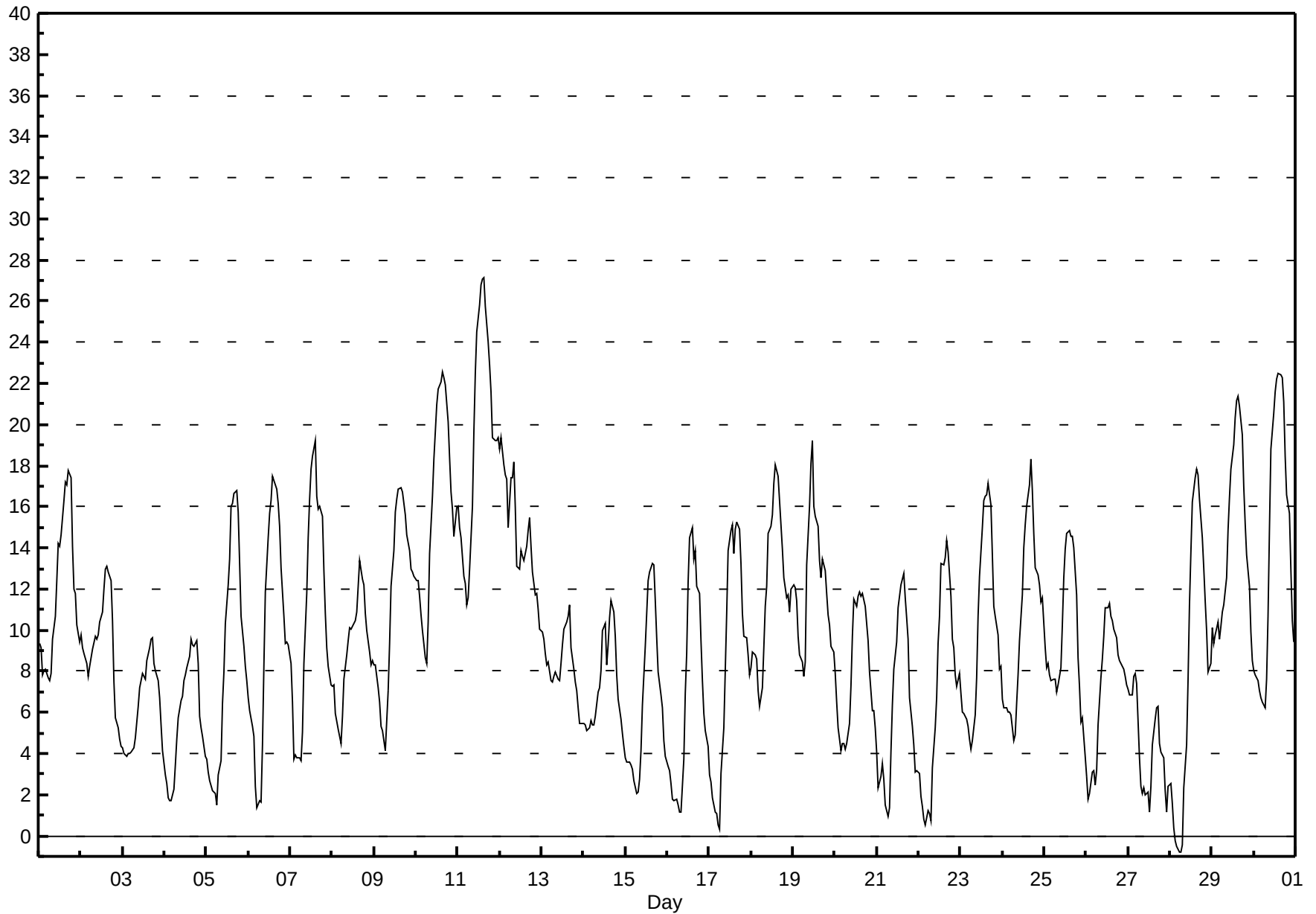
External Temperature (ET) - °C

Portable Clairmont - September 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 27.1 °C on Sep 11 16:00 Maximum Daily Average: 19.5 °C on Sep 11																								Hours in Service: 720 Hours of Data: 720 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0		
Minimum Value: -1 °C on Sep 28 06:00 Minimum Daily Average: 4.3 °C on Sep 27 Maximum Diurnal Average: 15.0 °C at hour 17 Minimum Diurnal Average: 5.2 °C at hour 7 Monthly Average: 9.81 °C Percentiles: P ₁ = 0.5 P ₁₀ = 3.1 Q ₁ = 5.9 Median = 9.3 Q ₃ = 13.2 P ₉₀ = 16.8 P ₉₉ = 23.7																										
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-Sep	9	9	8	8	8	8	8	8	10	11	12	14	14	15	16	17	17	18	17	14	12	12	10	9	11.9	17.7
2-Sep	10	9	9	8	8	8	9	9	10	10	10	11	12	13	13	13	12	10	8	6	5	5	4	9.2	13.1	
3-Sep	4	4	4	4	4	4	4	5	6	6	7	8	8	8	9	9	10	10	8	8	8	7	5	4	6.4	9.7
4-Sep	3	3	2	2	2	2	3	5	6	7	7	8	8	8	9	10	9	9	9	8	6	5	5	4	5.8	9.6
5-Sep	4	3	3	2	2	2	1	3	4	6	8	10	12	13	16	16	17	17	16	13	11	9	8	8	8.5	16.8
6-Sep	7	6	5	5	2	1	2	2	4	8	12	14	16	16	17	17	17	16	15	13	11	9	9	9	9.8	17.5
7-Sep	8	7	4	4	4	4	4	5	8	12	14	16	18	18	19	17	16	16	16	13	11	9	8	7	10.7	19.2
8-Sep	7	7	6	5	5	5	6	8	9	9	10	10	10	10	11	12	13	12	12	11	10	9	8	9	9.0	13.4
9-Sep	8	8	7	6	5	5	4	6	7	9	12	14	16	16	17	17	17	16	16	15	14	13	13	13	11.4	16.9
10-Sep	12	12	12	11	10	9	8	10	14	17	18	20	21	22	22	23	22	22	20	18	17	16	15	16	16.1	22.5
11-Sep	16	15	15	13	12	11	12	13	16	20	22	25	26	27	27	27	26	24	23	22	19	19	19	19	19.5	27.1
12-Sep	19	19	18	18	17	15	17	17	18	16	13	13	14	14	13	14	15	15	14	13	12	12	11	10	14.9	19.4
13-Sep	10	10	9	8	8	8	8	8	8	8	8	8	9	10	10	11	11	9	8	7	7	6	5	5	8.3	11.2
14-Sep	5	5	5	5	6	5	5	6	7	7	8	10	10	8	9	11	11	11	10	8	7	6	5	4	7.3	11.4
15-Sep	4	4	4	3	3	3	2	2	3	4	6	9	11	12	13	13	13	11	10	8	7	6	5	4	6.7	13.2
16-Sep	3	3	3	2	2	2	1	1	1	4	7	9	12	15	15	13	14	12	12	9	8	6	5	4	6.8	15.0
17-Sep	3	3	2	1	1	1	0	3	5	8	11	14	15	15	14	15	15	15	13	11	10	10	9	8	8.4	15.3
18-Sep	8	9	9	9	7	6	7	9	11	12	15	15	16	17	18	17	16	15	14	13	12	12	11	12	12.1	18.0
19-Sep	12	12	11	10	9	8	8	13	16	18	19	16	16	15	13	13	13	13	13	12	11	10	9	9	12.3	19.2
20-Sep	8	6	5	4	5	4	4	4	5	7	10	12	11	12	12	12	12	11	10	9	8	6	6	5	7.9	11.8
21-Sep	4	2	3	4	3	1	1	1	4	6	8	9	11	12	12	13	12	11	10	7	5	4	3	3	6.2	12.7
22-Sep	3	2	1	1	1	1	1	1	3	5	7	9	11	13	13	14	14	14	12	10	9	8	7	8	7.0	14.3
23-Sep	7	6	6	6	5	5	4	5	6	8	11	13	15	16	17	17	17	16	14	11	11	10	8	8	10.0	17.1
24-Sep	7	6	6	6	6	6	5	5	6	8	9	12	14	15	16	17	18	17	15	13	13	12	11	12	10.6	18.3
25-Sep	9	8	8	8	8	8	8	7	7	8	10	13	14	15	15	15	15	14	12	9	7	6	6	4	9.6	14.8
26-Sep	3	2	2	3	3	2	3	5	8	9	10	11	11	11	10	10	10	9	9	8	8	8	7	7	7.2	11.3
27-Sep	7	7	7	8	8	7	4	2	2	2	2	1	2	4	6	6	6	4	4	4	4	2	1	2	4.3	7.9
28-Sep	3	2	0	0	-1	-1	-1	0	2	4	8	11	14	16	17	18	18	16	14	13	11	10	8	8	8.0	17.8
29-Sep	10	9	10	10	10	10	11	11	13	15	16	18	19	20	21	21	21	19	17	15	14	12	10	8	14.2	21.4
30-Sep	8	8	8	7	7	7	6	8	11	15	19	21	22	22	22	22	22	21	18	17	16	13	10	9	14.1	22.5
	7.4	6.9	6.4	6.0	5.6	5.3	5.2	5.9	7.6	9.2	11.0	12.6	13.5	14.3	14.8	15.0	15.0	14.3	13.0	11.3	10.0	9.1	8.2	7.8	Diurnal Average	
	18.8	19.4	18.0	17.5	17.3	15.0	17.4	17.4	18.2	19.7	22.5	24.5	25.8	26.8	27.1	27.1	25.8	24.0	22.9	21.6	19.4	19.2	19.2	19.3	Diurnal Maximum	

Hourly Averages

External Temperature (ET) - °C
Portable Clairmont - September 2015



Hourly Averages

Wind Speed (km/h)

Wind Direction (deg)

Portable Clairmont - September 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	2	3	2	7	11	7	6	8	9	10	11	13	14	12	10	8	7	5	6	8	6	7	8	11	4.2	14.4
Dir	333	234	266	241	231	244	167	155	175	214	213	202	212	220	205	189	194	131	114	104	104	55	7	10	195.3	212.5
2 Spd	15	5	13	13	15	11	6	4	2	11	13	15	18	15	17	16	17	17	14	14	12	10	12	13	7.2	17.7
Dir	7	28	350	359	5	9	19	352	42	188	220	228	231	250	246	256	256	246	248	242	251	242	240	230	263.0	231.1
3 Spd	12	11	10	12	14	12	12	10	11	12	11	9	7	8	8	5	11	13	11	7	6	6	4	6	7.7	13.7
Dir	232	225	218	221	226	230	236	244	243	242	238	241	241	223	216	346	315	317	318	296	278	247	216	222	246.9	225.9
4 Spd	6	6	5	6	4	4	4	3	4	5	4	4	4	5	4	4	2	4	3	3	2	3	4	5	1.7	6.1
Dir	230	230	215	228	228	225	220	201	182	161	169	185	181	177	170	151	88	21	47	52	4	8	24	17	192.3	229.9
5 Spd	6	6	7	5	4	5	3	3	5	6	5	5	0	3	5	6	6	4	3	1	4	5	7	8	4.0	7.8
Dir	26	22	21	22	36	35	14	20	61	97	76	100	96	55	100	78	84	78	53	19	43	6	13	18	46.7	18.1
6 Spd	7	8	6	3	4	2	5	3	1	1	4	5	4	4	5	1	4	7	8	6	3	2	2	4	2.1	8.2
Dir	14	11	14	9	228	226	229	231	231	230	94	102	87	87	87	163	60	71	94	96	107	68	72	43	68.7	10.9
7 Spd	2	2	6	5	4	4	4	3	5	9	11	12	13	12	13	15	10	9	5	4	4	4	2	2	6.4	15.2
Dir	49	221	227	232	222	218	216	240	231	233	236	234	230	238	231	219	208	193	218	228	246	211	217	222	225.6	218.6
8 Spd	0	0	0	1	1	0	0	1	1	3	4	6	7	7	5	4	5	5	4	2	2	0	0	0	1.8	7.2
Dir	1	105	326	111	110	178	38	210	234	247	244	238	246	243	249	203	186	193	159	147	97	84	335	329	216.6	246.1
9 Spd	0	1	0	0	1	1	2	1	2	3	6	5	5	7	7	7	9	7	6	4	3	1	1	1	3.1	8.8
Dir	107	283	342	317	211	235	233	220	219	192	198	206	207	163	169	183	203	195	184	166	174	156	160	176	189.4	203.2
10 Spd	1	3	3	3	2	1	2	2	4	6	10	13	16	18	16	17	16	17	13	11	8	9	4	11	8.2	18.4
Dir	151	159	189	203	217	214	143	101	161	175	200	205	216	210	224	215	217	212	210	210	198	195	203	227	207.7	210.2
11 Spd	10	7	6	3	3	5	5	8	9	11	12	19	22	21	21	25	20	10	8	9	4	8	7	7	10.3	25.1
Dir	228	227	216	170	171	151	160	158	160	180	198	207	206	211	212	209	216	204	192	190	216	197	207	187	201.3	208.9
12 Spd	7	10	7	6	6	3	10	8	7	13	9	7	9	7	7	7	8	5	3	1	3	5	4	1	5.5	12.6
Dir	184	182	170	217	208	211	219	223	216	274	253	214	224	225	194	198	221	213	174	192	143	132	209	259	211.7	273.9
13 Spd	2	3	5	4	7	7	7	8	9	10	11	9	12	11	4	5	10	14	6	4	1	2	2	3	4.6	13.5
Dir	190	192	209	206	215	241	259	253	268	281	301	298	295	315	48	192	189	296	246	259	33	153	233	235	263.1	296.1
14 Spd	3	6	4	3	2	3	1	1	3	7	7	9	8	4	6	5	4	9	10	8	7	5	5	5	2.7	9.7
Dir	229	245	230	225	241	261	248	307	16	3	37	106	101	300	341	35	47	8	29	13	18	19	23	21	16.4	28.8
15 Spd	7	6	8	7	8	8	8	8	7	3	3	2	4	7	9	8	9	9	9	5	5	6	3	2	3.8	9.4
Dir	14	11	10	15	14	21	17	17	22	22	41	91	67	119	123	122	145	145	122	120	73	78	115	84	66.0	145.0
16 Spd	1	3	7	3	2	2	1	2	1	2	2	2	3	6	5	5	1	9	7	6	3	2	3	2	1.8	9.5
Dir	322	19	18	26	356	101	138	222	191	119	133	27	110	121	182	240	55	135	114	122	108	113	118	219	114.7	134.6
17 Spd	1	1	2	2	1	0	1	1	0	2	2	8	13	15	14	11	14	13	14	9	7	6	4	2	5.6	14.9
Dir	225	180	244	202	207	90	295	278	232	223	193	204	212	195	199	190	198	202	208	211	179	170	192	211	200.7	195.5
18 Spd	4	9	7	8	6	4	7	8	13	13	14	18	17	18	21	20	19	12	12	8	8	7	6	11	10.7	21.1
Dir	189	167	175	194	207	231	224	196	195	203	195	200	194	189	190	193	191	186	192	180	155	158	131	151	188.6	189.9
19 Spd	10	10	8	6	5	6	4	3	6	7	14	23	19	18	20	18	20	19	15	12	8	12	9	11	8.8	23.2
Dir	142	146	140	124	101	107	129	153	173	185	209	214	250	257	259	242	244	236	228	231	230	227	205	206	217.9	213.5
20 Spd	11	9	6	5	5	3	1	2	2	4	6	9	10	9	9	8	8	9	9	12	8	5	5	8	6.7	12.2
Dir	222	254	240	245	242	204	244	191	250	249	243	241	244	249	240	239	239	253	246	244	215	235	239	233	239.2	243.8
21 Spd	8	8	10	9	7	3	4	6	7	6	6	5	9	8	14	11	8	4	3	4	3	3	1	3	4.9	14.3
Dir	244	224	225	234	242	246	256	222	223	235	243	230	210	275	230	203	272	250	211	340	23	78	96	29	235.9	229.7
22 Spd	4	6	7	7	4	8	10	7	3	5	2	2	4	3	4	3	2	2	3	2	3	8	8	10	4.3	9.7
Dir	22	12	18	20	8	14	16	28	70	94	73	107	76	113	52	17	42	89	6	37	35	6	36	54	34.0	16.0

Hourly Averages

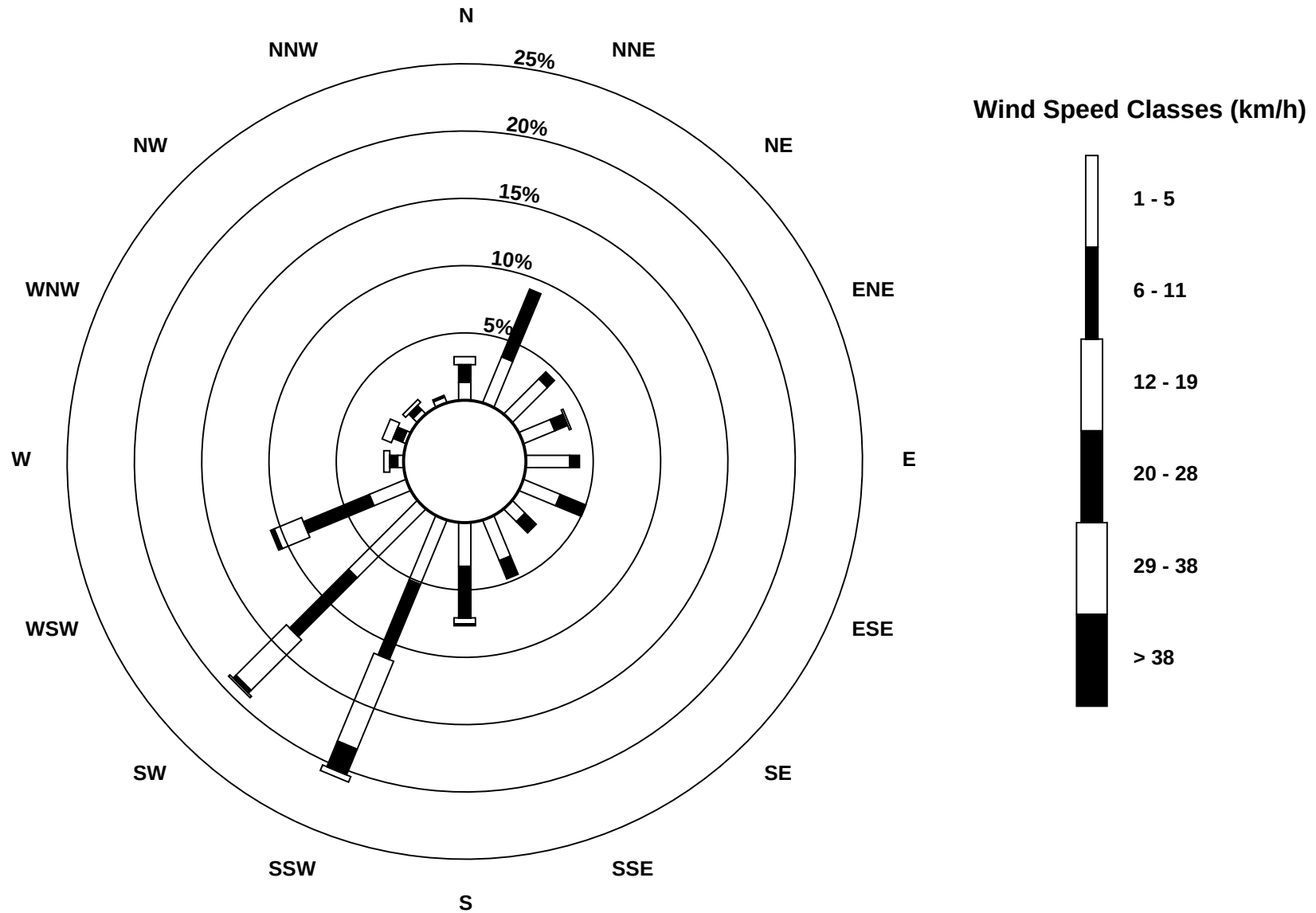
Wind Speed (km/h)
Wind Direction (deg)
Portable Clairmont - September 2015

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	10	11	10	8	7	5	4	4	6	4	7	6	4	4	5	5	6	7	5	4	5	3	2	9	4.1	11.4
Dir	29	15	19	18	18	18	23	19	17	43	90	104	116	103	81	58	74	39	53	51	80	77	235	242	43.3	15.3
24 Spd	4	1	1	2	2	4	6	10	11	10	10	11	13	11	11	6	1	4	5	5	6	5	6	10	2.3	12.9
Dir	225	168	188	104	67	26	27	19	16	17	23	28	60	66	69	76	138	225	215	196	203	186	203	230	49.9	60.0
25 Spd	14	8	14	11	8	9	10	9	10	9	12	12	14	16	17	16	17	12	11	7	5	1	3	1	9.7	17.0
Dir	259	238	192	188	181	180	187	189	203	209	203	213	218	204	211	206	210	213	215	212	202	163	180	259	207.2	211.5
26 Spd	2	0	3	2	1	3	5	13	18	19	22	27	29	30	31	29	26	22	18	23	21	20	20	19	16.7	30.7
Dir	245	142	123	157	197	224	197	215	209	203	207	207	215	207	207	212	213	214	206	204	207	209	205	205	208.1	207.2
27 Spd	16	14	10	14	13	12	19	14	13	12	9	5	8	8	8	8	5	5	2	1	2	1	1	2	5.8	18.6
Dir	207	197	205	213	214	266	310	290	292	292	291	258	240	213	213	209	216	202	212	194	80	82	108	58	242.8	310.4
28 Spd	3	1	1	1	1	1	0	0	1	2	2	2	2	11	12	17	18	17	16	12	9	4	3	4	4.9	18.3
Dir	54	80	124	115	112	120	338	298	272	54	48	154	197	228	217	202	198	205	208	202	197	187	210	184	200.7	197.7
29 Spd	5	2	5	4	4	3	5	5	6	12	17	16	16	13	15	16	17	14	14	13	9	6	1	1	8.4	16.9
Dir	155	151	155	158	138	154	173	203	220	225	230	225	223	216	225	218	220	224	211	204	210	218	234	95	212.1	229.7
30 Spd	2	1	1	1	1	2	1	1	1	3	9	13	18	19	20	18	16	7	9	8	5	2	0	0	5.7	20.2
Dir	107	83	23	324	321	310	3	22	65	139	167	190	209	212	210	207	210	220	212	210	217	201	210	37	204.9	210.4
Spd	1.6	1.7	1.3	1.7	1.8	1.1	1.5	1.9	2.6	3.8	5.0	7.1	7.9	7.8	8.2	8.2	7.8	5.8	4.8	4.3	2.7	2.1	1.8	2.1	Diurnal Average	
Dir	233.2	214.5	215.0	220.5	226.6	244.9	244.9	228.2	216.9	218.9	215.6	210.2	216.6	214.6	211.0	207.5	212.5	215.3	205.2	205.2	194.8	192.9	203.8	215.1	Diurnal Maximum	
Spd	16.1	13.7	13.6	13.8	15.3	12.4	18.6	13.7	17.7	19.5	22.3	27.3	28.7	29.8	30.7	29.2	26.4	22.1	18.1	23.3	20.6	20.2	20.0	19.1	Diurnal Maximum	
Dir	207.5	196.8	192.5	213.4	5.4	230.4	310.4	290.1	209.2	203.4	207.2	207.4	214.9	206.6	207.2	211.6	213.1	214.0	206.1	203.7	207.5	208.6	205.1	204.8		
Maximum Speed Value: 31 km/h on Sep 26 15:00								Minimum Speed Value: 0 km/h on Sep 28 08:00												Hours in Service: 720						
Maximum Daily Speed Average: 16.7 km/h on Sep 26								Minimum Daily Speed Average: 1.7 km/h on Sep 8												Hours of Data: 720						
Maximum Diurnal Speed Average: 8.2 km/h at hour 16								Minimum Diurnal Speed Average: 1.1 km/h at hour 6												Hours of Missing Data: 0						
Monthly Average Velocity: 3.90 km/h 213.23 deg								Speed Percentiles: P ₁ = 0.3 P ₁₀ = 1.4 Q ₁ = 3.2 Median = 6.1 Q ₃ = 10.1 P ₉₀ = 14.8 P ₉₉ = 24.1												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	26		42		6		0		0		0		74													
NorthEast	43		15		1		0		0		0		59													
East	47		19		1		0		0		0		67													
SouthEast	31		23		0		0		0		0		54													
South	48		52		21		2		0		0		123													
SouthWest	74		104		77		20		4		0		279													
West	14		13		12		2		0		0		41													
NorthWest	13		4		6		0		0		0		23													
Total	296		272		124		24		4		0		720													

Wind Rose

Wind Speed (WS) (km/h)

Portable Clairmont - September 2015



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Portable Clairmont - September 2015

Maximum Speed: 31 km/h on Sep 26 15:00																				Maximum Daily Speed Average: 17.1 km/h on Sep 26										Hours in Service: 720	
Minimum Speed: 0 km/h on Sep 28 08:00																				Minimum Daily Speed Average: 2.8 km/h on Sep 8										Hours of Data: 720	
Maximum Diurnal Speed Average: 11.9 km/h at hour 15																				Minimum Diurnal Speed Average: 4.8 km/h at hour 23										Hours of Missing Data: 0	
Monthly Average Speed: 7.60 km/h																				Percentiles: P ₁ = 0.3 P ₁₀ = 1.8 Q ₁ = 3.6 Median = 6.3 Q ₃ = 10.3 P ₉₀ = 15.2 P ₉₉ = 24.3										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-Sep	2	4	2	7	11	7	7	8	10	10	11	14	15	12	11	9	7	6	7	8	7	8	9	11	8.5	14.7					
2-Sep	15	9	13	13	15	11	6	4	7	11	13	15	18	15	18	17	17	17	14	15	12	11	12	13	13.0	17.9					
3-Sep	12	11	10	12	14	13	12	10	11	12	11	9	8	8	8	8	11	13	11	7	6	6	5	6	9.7	13.7					
4-Sep	6	6	5	6	4	4	4	3	4	6	5	5	4	5	5	5	4	4	3	3	2	3	4	5	4.2	6.2					
5-Sep	6	6	7	5	5	5	3	3	6	6	5	6	3	4	5	6	6	5	3	2	5	5	7	8	5.1	7.8					
6-Sep	7	8	6	3	4	2	5	3	1	2	5	5	5	5	6	3	4	7	8	6	3	2	2	4	4.4	8.3					
7-Sep	2	2	6	5	4	4	4	3	5	9	11	12	14	13	13	17	10	10	5	5	5	4	2	2	6.9	16.5					
8-Sep	0	0	1	1	1	0	2	2	1	3	4	6	7	7	5	5	6	5	4	3	2	1	0	0	2.8	7.4					
9-Sep	0	1	0	1	1	1	2	1	2	3	6	6	6	8	8	7	9	7	6	4	3	1	1	2	3.6	9.0					
10-Sep	1	3	4	3	2	2	2	2	4	7	10	13	17	19	16	17	17	17	13	11	8	9	4	11	8.9	18.7					
11-Sep	10	8	6	3	3	5	5	8	9	11	13	19	23	21	22	25	20	10	8	9	4	8	7	7	11.0	25.3					
12-Sep	7	10	7	6	6	4	10	8	8	14	9	7	10	7	7	7	8	5	4	2	3	6	4	2	6.7	13.7					
13-Sep	3	4	5	4	7	8	7	8	9	10	11	10	13	11	5	6	10	16	7	4	3	3	2	3	7.0	15.9					
14-Sep	3	6	4	3	2	3	1	2	3	7	8	9	9	8	8	6	5	10	10	8	7	6	5	5	5.7	10.0					
15-Sep	7	6	8	7	8	8	8	8	7	3	3	3	4	7	9	9	9	10	9	5	5	6	3	2	6.5	9.6					
16-Sep	1	3	7	3	2	3	1	2	1	2	3	4	4	7	6	5	2	10	7	6	3	2	3	2	3.8	9.7					
17-Sep	1	2	2	2	1	0	1	1	1	2	4	8	13	15	14	12	14	13	14	9	7	6	4	3	6.2	15.5					
18-Sep	4	9	7	8	6	4	7	8	13	13	14	18	17	19	21	21	19	12	13	8	8	7	6	11	11.4	21.4					
19-Sep	10	10	8	6	6	6	5	3	6	7	14	24	22	18	20	18	20	19	15	12	8	12	9	11	12.0	23.6					
20-Sep	11	9	6	5	5	4	3	3	2	4	6	10	10	9	9	8	8	9	9	12	9	6	5	8	7.1	12.4					
21-Sep	8	8	10	9	7	3	4	6	7	7	6	6	10	10	15	13	9	4	4	4	3	3	1	3	6.7	15.2					
22-Sep	5	6	7	7	5	8	10	7	4	5	3	3	4	4	4	4	3	2	4	2	3	8	9	10	5.3	10.0					
23-Sep	10	11	10	8	7	5	4	4	6	5	7	6	5	5	5	5	6	7	5	4	5	4	3	9	6.1	11.5					
24-Sep	4	2	1	2	2	4	6	10	11	10	10	11	13	11	11	6	2	4	5	5	6	5	6	10	6.6	13.1					
25-Sep	14	9	14	11	8	9	10	9	10	9	12	13	14	16	17	16	17	12	11	7	5	2	3	1	10.5	17.3					
26-Sep	2	1	3	2	2	4	5	13	18	20	23	28	29	30	31	30	27	22	18	23	21	20	20	19	17.1	31.1					
27-Sep	16	14	10	14	13	15	19	14	13	12	10	6	8	8	8	8	6	5	2	1	2	2	1	2	8.7	18.7					
28-Sep	3	2	1	1	1	1	0	0	1	3	2	3	5	11	12	17	19	18	16	13	9	4	3	5	6.3	18.5					
29-Sep	5	2	5	5	4	3	5	6	6	12	17	16	16	14	15	16	17	14	14	13	9	6	2	1	9.3	17.1					
30-Sep	2	1	1	1	1	2	1	1	1	4	10	14	18	19	20	18	16	7	9	8	5	2	1	1	6.9	20.4					
6.0 5.7 5.8 5.4 5.3 4.9 5.3 5.3 6.2 7.6 8.9 10.3 11.5 11.6 11.9 11.5 10.9 10.0 8.5 7.4 6.0 5.6 4.8 6.0																									Diurnal Average						
16.2 13.9 13.8 13.9 15.4 15.1 18.7 13.9 17.9 19.6 22.6 27.6 29.1 30.0 31.1 29.6 26.7 22.3 18.3 23.4 20.7 20.3 20.1 19.2																									Diurnal Maximum						
All monthly, daily, and diurnal averages have been calculated using scalar methods																															

Hourly Standard Deviations

Wind Direction (WD) - deg

Portable Clairmont - September 2015

Maximum Value: 95.1 deg on Sep 9 05:00																			Hours in Service: 720						
Minimum Value: 4.4 deg on Sep 6 00:00																			Hours of Data: 720						
																			Hours of Missing Data: 0						
Percentiles: P ₁ = 4.9 P ₁₀ = 7.0 Q ₁ = 9.4 Median = 14.2 Q ₃ = 28.5 P ₉₀ = 53.1 P ₉₉ = 87.5																			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-Sep	39	73	35	11	7	30	29	13	17	14	15	14	13	12	23	32	25	30	35	12	27	28	15	7	73.2
2-Sep	7	58	10	5	5	7	16	15	77	15	8	7	8	11	10	10	9	8	10	11	8	10	13	9	76.8
3-Sep	13	8	7	7	6	7	8	8	10	9	10	13	15	14	15	66	13	9	10	14	11	11	18	11	65.8
4-Sep	14	9	8	9	9	10	13	16	15	21	39	22	18	18	23	25	57	22	17	28	17	15	9	8	56.7
5-Sep	11	7	6	7	10	11	23	28	29	15	29	48	93	52	24	25	20	25	10	39	31	21	6	4	93.3
6-Sep	6	7	6	48	38	24	6	7	29	55	62	27	33	53	42	82	20	21	7	5	10	15	25	13	81.9
7-Sep	58	61	7	6	10	5	5	16	13	10	11	14	13	15	17	24	22	20	16	31	20	21	29	42	61.4
8-Sep	85	37	57	42	62	89	75	64	36	22	11	12	12	10	16	27	18	14	12	57	22	70	81	62	88.9
9-Sep	95	47	73	73	95	74	18	14	20	31	16	35	37	20	26	20	14	14	12	10	17	64	38	43	95.1
10-Sep	19	15	33	28	27	37	36	25	22	22	14	14	11	10	11	11	11	8	8	6	9	7	23	6	37.1
11-Sep	9	9	14	52	21	15	21	8	7	17	11	11	9	8	9	7	7	11	8	9	29	12	9	11	51.8
12-Sep	10	8	12	25	12	48	7	6	9	26	13	16	9	17	14	11	12	16	27	63	15	23	19	61	63.0
13-Sep	35	13	11	19	13	18	8	12	11	9	11	18	14	21	42	50	12	41	36	24	64	49	20	17	64.2
14-Sep	19	9	12	12	13	10	19	48	24	12	24	21	21	69	34	31	30	35	8	8	10	5	6	7	69.4
15-Sep	5	5	7	5	6	6	5	5	13	44	48	79	42	28	20	23	15	11	7	12	17	14	10	23	79.3
16-Sep	46	19	12	25	37	59	56	37	58	30	50	71	54	36	44	32	67	11	13	8	18	12	19	68	71.3
17-Sep	48	47	31	46	75	91	24	51	80	47	58	35	14	16	9	14	12	8	6	8	19	10	9	30	91.1
18-Sep	18	8	9	15	15	16	12	10	8	10	12	11	10	11	10	10	8	9	9	15	6	11	9	6	18.2
19-Sep	7	6	9	11	14	12	77	72	18	14	12	10	27	10	9	10	8	7	8	6	13	11	9	7	77.0
20-Sep	15	13	19	16	25	27	63	39	26	22	15	15	12	13	15	16	13	8	12	10	16	19	15	6	62.6
21-Sep	9	9	9	7	10	18	12	9	10	17	23	40	23	41	20	35	27	30	30	25	19	24	46	10	46.2
22-Sep	11	6	9	7	25	9	8	9	27	15	51	70	34	49	36	56	58	39	38	29	21	10	26	18	70.1
23-Sep	11	5	5	7	5	8	9	10	9	24	18	21	31	25	26	28	14	11	10	21	12	56	52	12	56.1
24-Sep	13	42	81	55	26	12	8	4	6	6	5	9	10	11	8	13	59	11	13	10	8	9	13	16	80.6
25-Sep	7	15	12	14	14	11	8	9	8	16	10	15	15	12	11	9	9	8	7	8	15	86	59	35	86.2
26-Sep	51	93	15	57	47	22	14	8	8	8	9	9	10	7	9	9	9	8	7	6	6	6	6	6	92.7
27-Sep	6	8	11	7	7	34	7	10	8	12	14	37	12	15	22	17	22	20	30	83	48	38	35	25	82.6
28-Sep	12	53	41	31	44	41	50	65	54	52	55	73	88	16	10	15	9	7	7	10	6	17	19	22	88.1
29-Sep	21	58	9	28	47	37	10	15	6	6	8	10	12	12	10	10	8	8	8	5	7	11	65	66	66.3
30-Sep	20	41	35	78	34	35	36	45	29	58	14	11	11	10	9	8	10	9	7	7	10	71	81	78	81.3
	95.1	92.7	80.6	78.2	95.1	91.1	77.0	71.7	79.8	57.7	62.0	79.3	93.3	69.4	44.1	81.9	66.5	40.8	38.4	82.6	64.2	86.2	81.3	78.4	

PAZA

Monthly Passive Data Summary

[illegible]

PAZA Passive Results for September 2015

Station Number	Station Name	SO2 ppb	O3 ppb	NO2 ppb	H2S ppb	Site Legal
Duplicates						
10a	Woking	BDL	23.7	0.7		
10b	Woking	BDL	24.6	0.6		
14a	Sylvester	BDL	18.8	0.2		
14b	Sylvester	BDL	18.5	0.2		
30a	Fitzsimmons	BDL	21.0	0.6		
30b	Fitzsimmons	BDL	22.8	0.8		
44a	Peavine	0.2	19.8	0.1		
44b	Peavine	BDL	19.5	0.1		
45a	Gift Lake				BDL	
45b	Gift Lake				BDL	
1	Silver Valley	BDL	25.2	0.5		08-27-081-11 W6M
2	Bay Tree	BDL	23.9	0.6		13-16-078-13 W6M
3	Fourth Creek	0.5	27.5	0.5		04-13-082-07 W6M
4	Gordondale	0.1	29.6	0.9		04-34-078-10 W6M
5	Boone Creek	BDL	23.2	0.5		16-36-074-11 W6M
7	Steeprock Creek	BDL	24.1	0.2		09-35-072-13 W6M
9	Spirit River	BDL	26.5	1.2		08-12-079-07 W6M
10	Woking	BDL	24.1	0.7		01-13-076-07 W6M
11	Webber Creek	BDL	22.6	0.7		09-36-074-09 W6M
12	Hythe	BDL	23.0	0.6		14-36-072-11 W6M
14	Sylvester	BDL	18.7	0.2		08-06-069-12 W6M
16	Beaverlodge	BDL	32.4	1.0		15-36-071-10 W6M
17	Poplar	0.1	23.7	0.7		13-06-073-08 W6M
18	Saddle Hills	0.1	23.8	0.5		04-25-074-07 W6M
19	Wanham	0.1	31.6	0.4		16-22-077-03 W6M
20	Shaftesbury	BDL	27.1	0.4		04-03-082-23 W5M
21	Eaglesham	BDL	24.6	0.4		16-21-079-25 W5M
23	Bear Lake	BDL	26.1	1.3		15-31-072-06 W6M
24	Wembley	BDL	22.8	1.2		12-31-070-08 W6M
25	Pinto Creek	BDL	21.4	0.6		04-24-069-11 W6M
26	Flyingshot	BDL	19.6	1.0		15-36-070-07 W6M
27	Grande Prairie I	BDL	23.5	1.4		08-15-071-06 W6M

PAZA Passive Results for September 2015 (Continued)

28	Clairmont Lake	BDL	24.1	1.0		09-06-073-04 W6M
29	Smoky Heights	BDL	28.7	0.7		04-06-075-02 W6M
30	Fitzsimmons	BDL	21.9	0.7		15-36-072-03 W6M
32	Gold Creek	BDL	15.5	1.2		06-33-067-05 W6M
33	Wapiti	BDL	22.3	0.9		02-25-071-03 W6M
34	Puskwaskau	BDL	19.4	0.2		15-35-074-25 W5M
35	Jean Cote	0.2	22.9	1.9		12-35-079-21 W5M
36	Guy	BDL	23.4	0.7		03-04-076-22 W5M
37	Crooked Creek	0.1	23.3	0.5		16-01-071-26 W5M
38	Karr Creek	BDL	15.9	0.4		10-16-065-02 W6M
39	Clouston Creek	BDL	24.2	0.5		12-01-073-22 W5M
40	McLennan	0.1	23.4	0.7		03-29-077-19 W5M
41	Valleyview	BDL	28.6	0.6		09-30-069-22 W5M
42	Sunset House	BDL	28.5	0.4		05-32-070-19 W5M
43	High Prairie	BDL	24.0	0.4		16-13-074-17 W5M
44	Peavine	0.2	19.7	0.1		03-05-079-15 W5M
45	Gift Lake	0.1	15.5	0.3	BDL	10-07-079-12 W5M
46	Little Smoky	BDL	15.9	1.2		12-01-065-21 W5M
47	Kinuso	BDL	20.8	0.3		12-10-073-10 W5M
48	Deer Mountain	BDL	21.8	0.2		15-22-068-09 W5M
49	Grande Prairie HP	0.1	26.7	3.1		17-26-071-06 W6M
50	East Prairie	BDL	16.4	0.1		13-02-072-15 W5M
63	Girouxville 3				0.2	14-02-077-23 W5M
64	Girouxville 4				0.2	4-08-077-22 W5M

*BDL = Below Detection Level

*N/S - No sample

Passive Summary for September 2015

Stats	Sulphur Dioxide SO ₂	Ozone O ₃	Nitrogen Dioxide NO ₂	Hydrogen Sulphide H ₂ S
	ppb	ppb	ppb	ppb

Passive Summary for September 2015 (PAZA Zone)				
Mean	0.1	23.4	0.7	0.2
Standard Deviation	0.1	4.1	0.5	0.0
Minimum	0.1	15.5	0.1	0.2
Minimum At	Saddle Hills (#18)	Gift Lake (#45)	Peavine (#44a)	Girouxville 4 (#64)
Maximum	0.5	32.4	3.1	0.2
Maximum At	Fourth Creek (#3)	Beaverlodge (#16)	Grande Prairie HP	Girouxville 3 (#63)

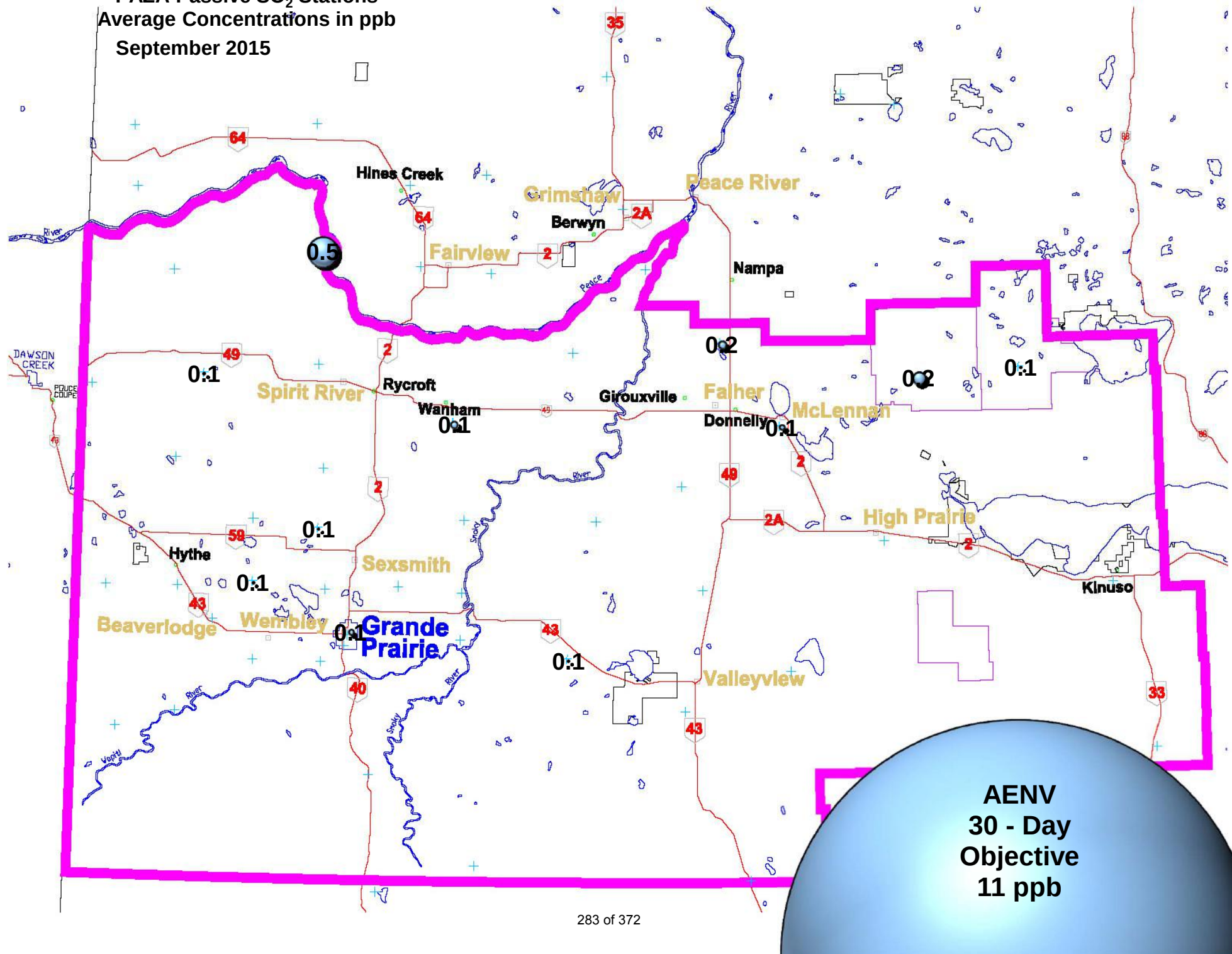
Comparison between Continuous and Passive monitoring at Beaverlodge (passive #16 Beaverlodge)

	SO ₂	O ₃	NO ₂
PAZA Beaverlodge station	0.1	23.0	2.2
PAZA Beaverlodge passive	BDL	32.4	1.0

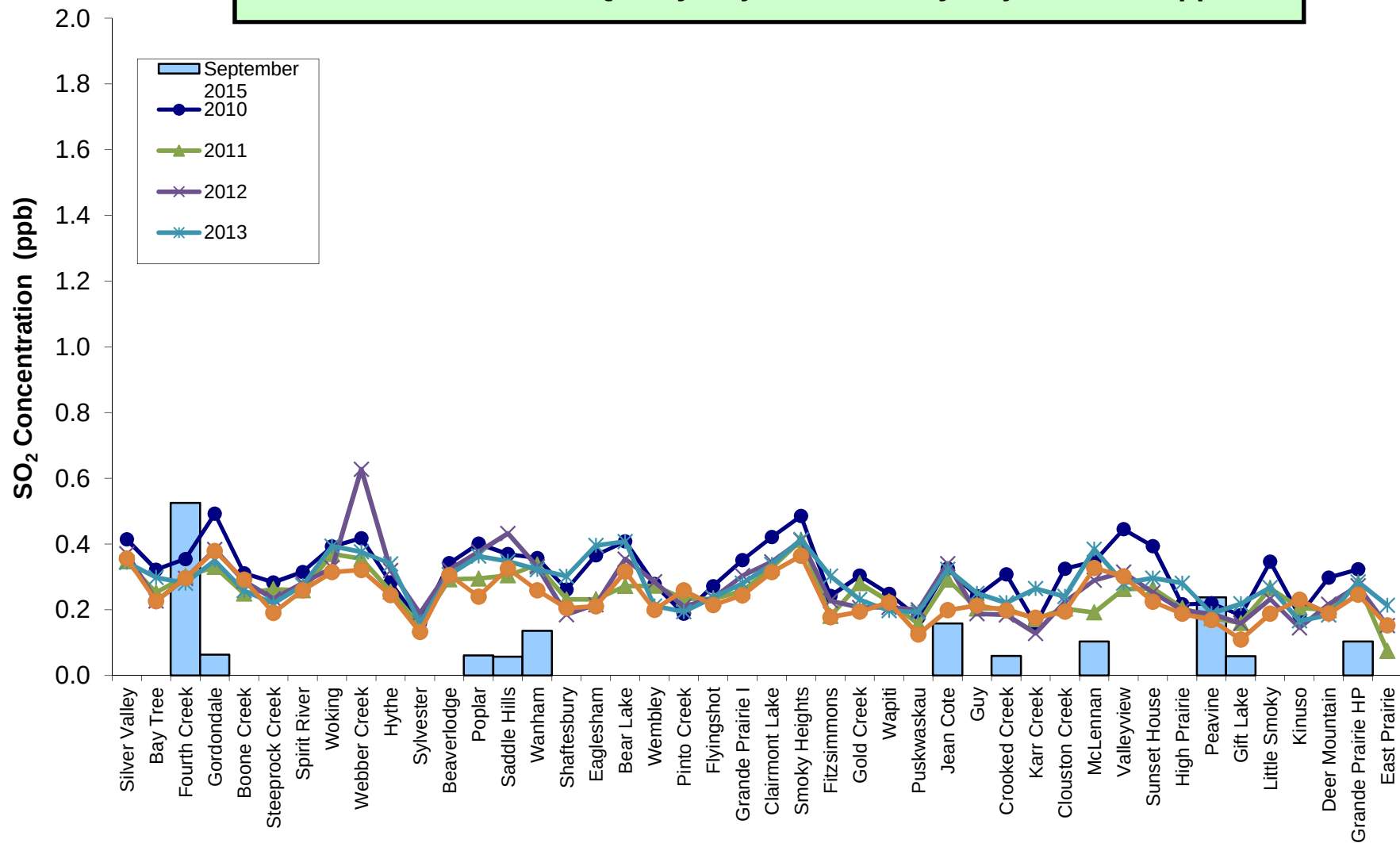
Comparison between Continuous and Passive monitoring at Henry Pirker (passive #49 Grande Prairie HP)

	SO ₂	O ₃	NO ₂
PAZA Henry Pirker station	0.1	20.5	5.4
PAZA Grande Prairie passive	0.1	26.7	3.1

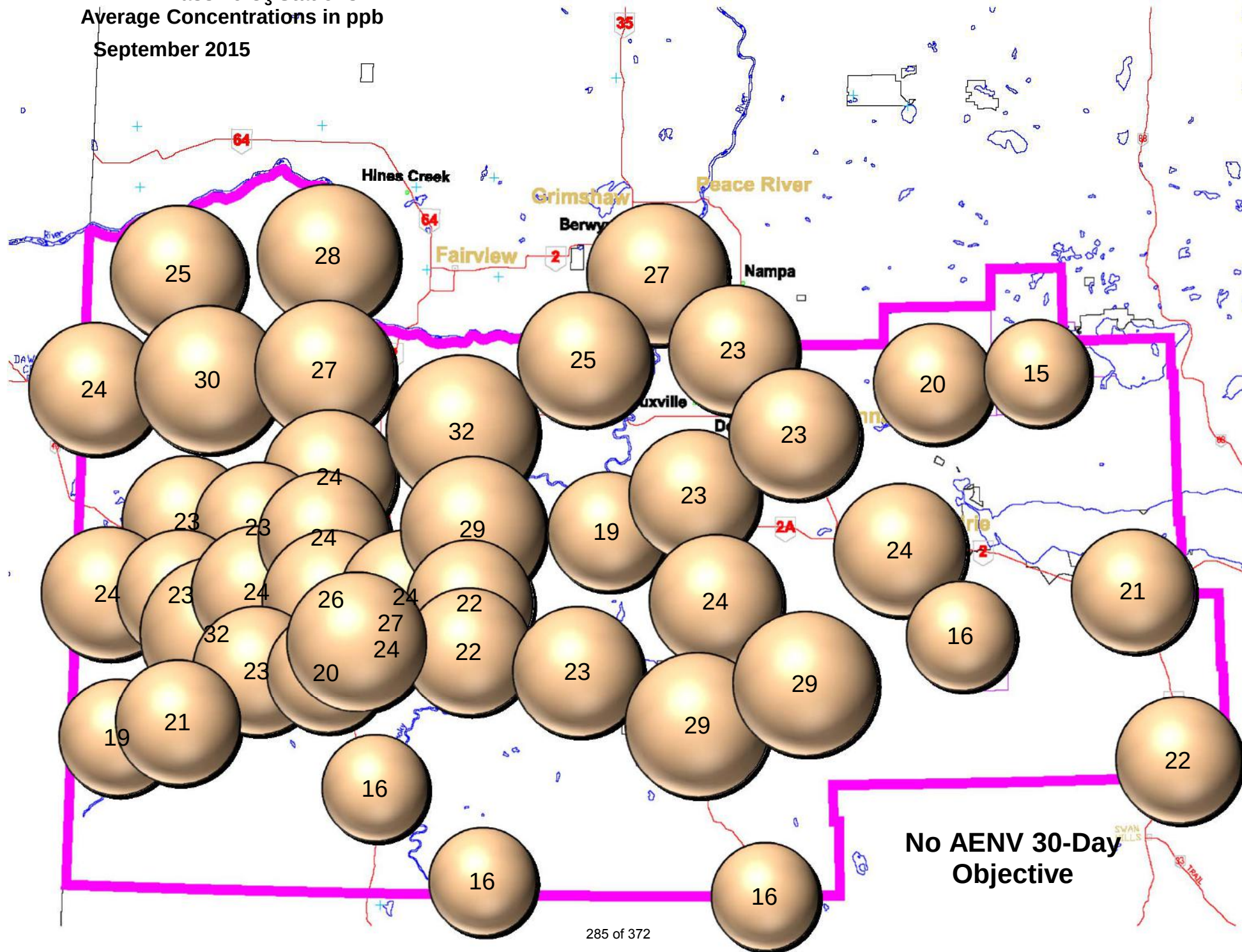
**PAZA Passive SO₂ Stations
Average Concentrations in ppb
September 2015**



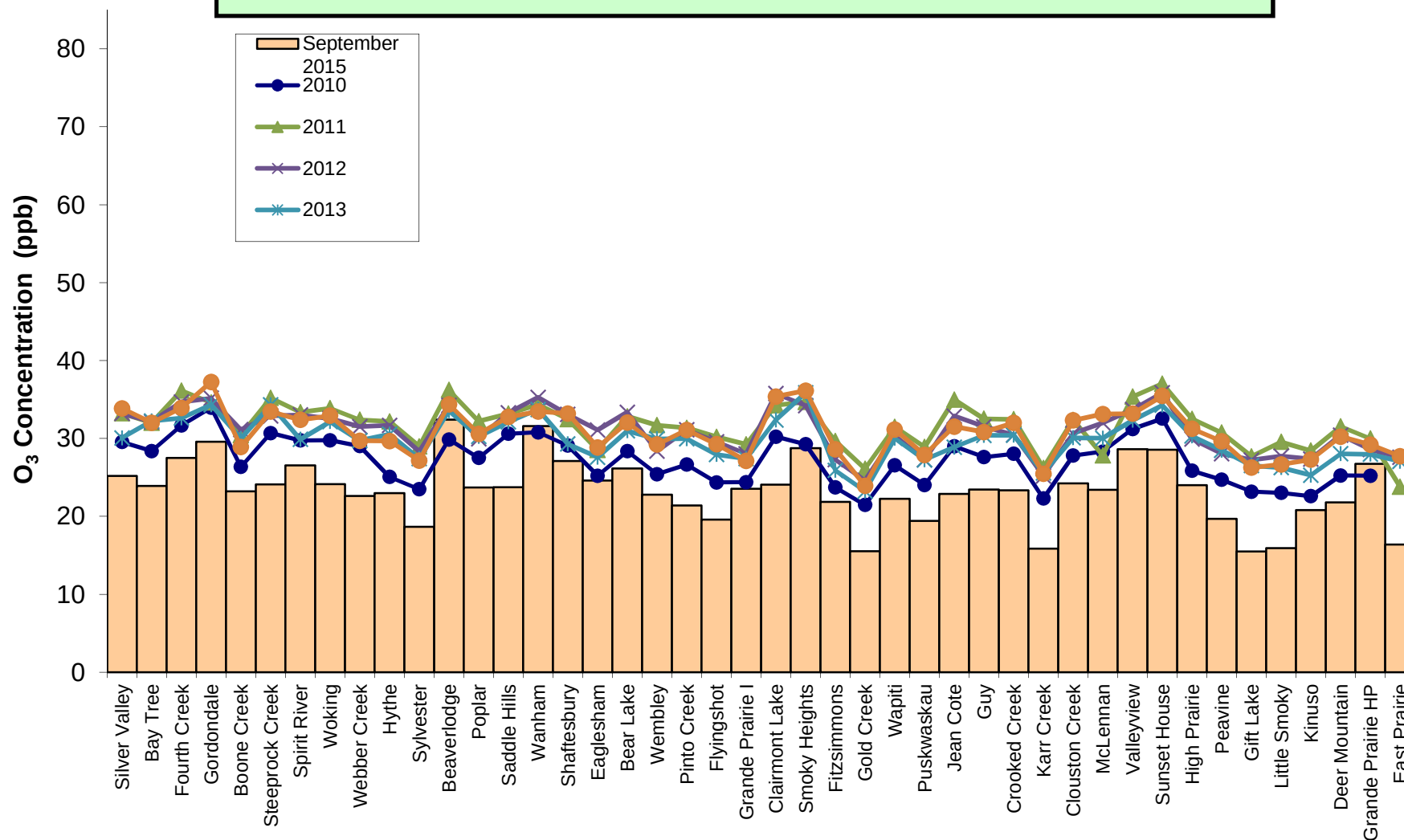
Alberta Ambient Air Quality Objective - 30-day Objective is 11 ppb



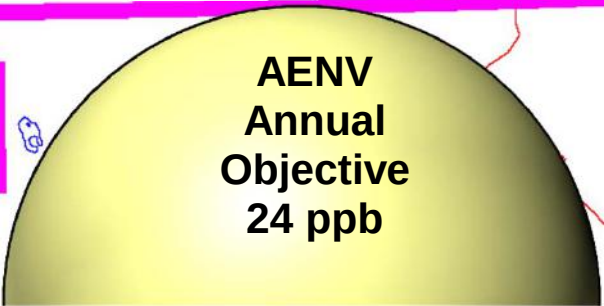
PAZA Passive O₃ Stations
Average Concentrations in ppb
September 2015



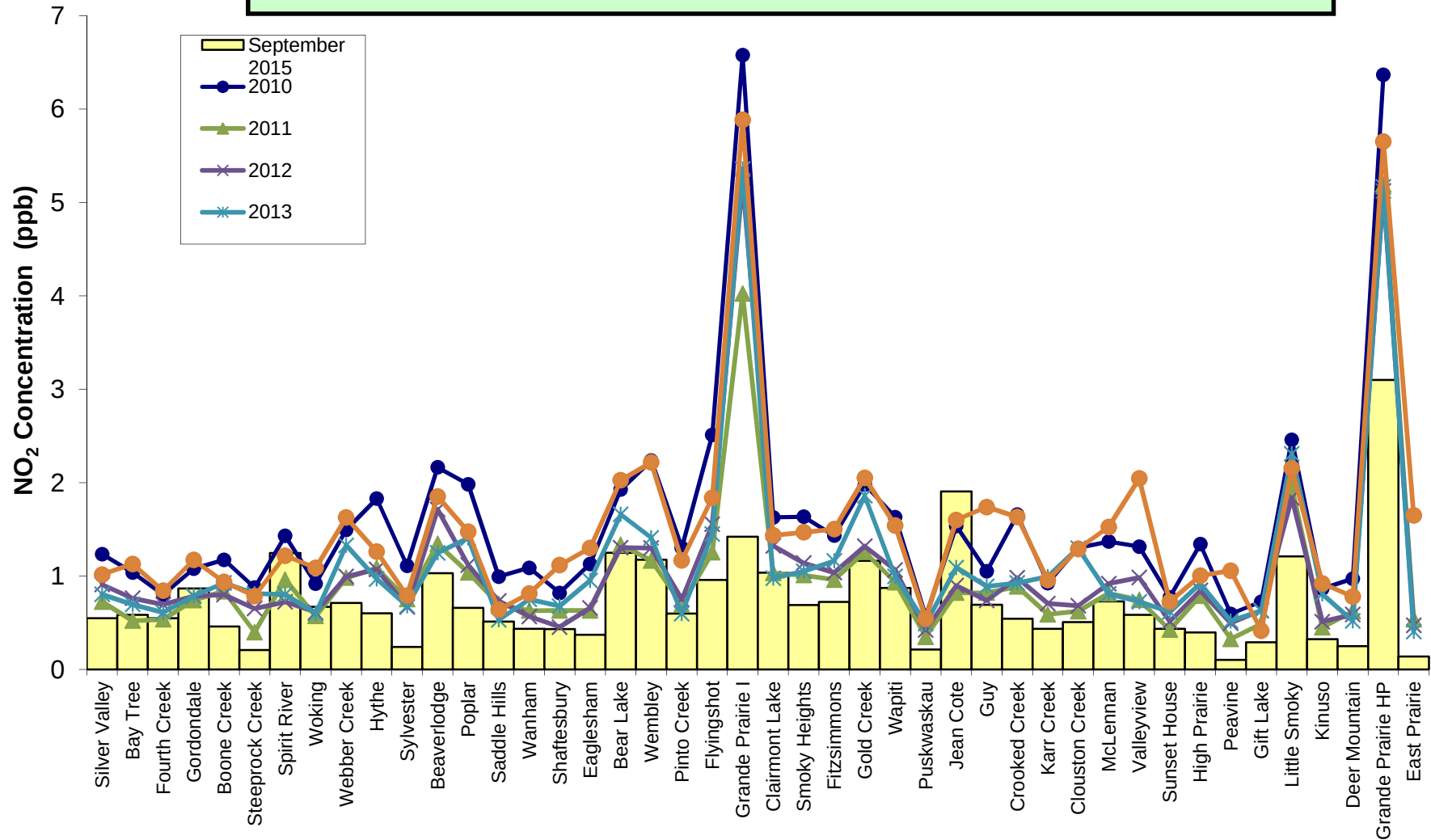
Alberta Ambient Air Quality Objective - No Annual O₃ Objective



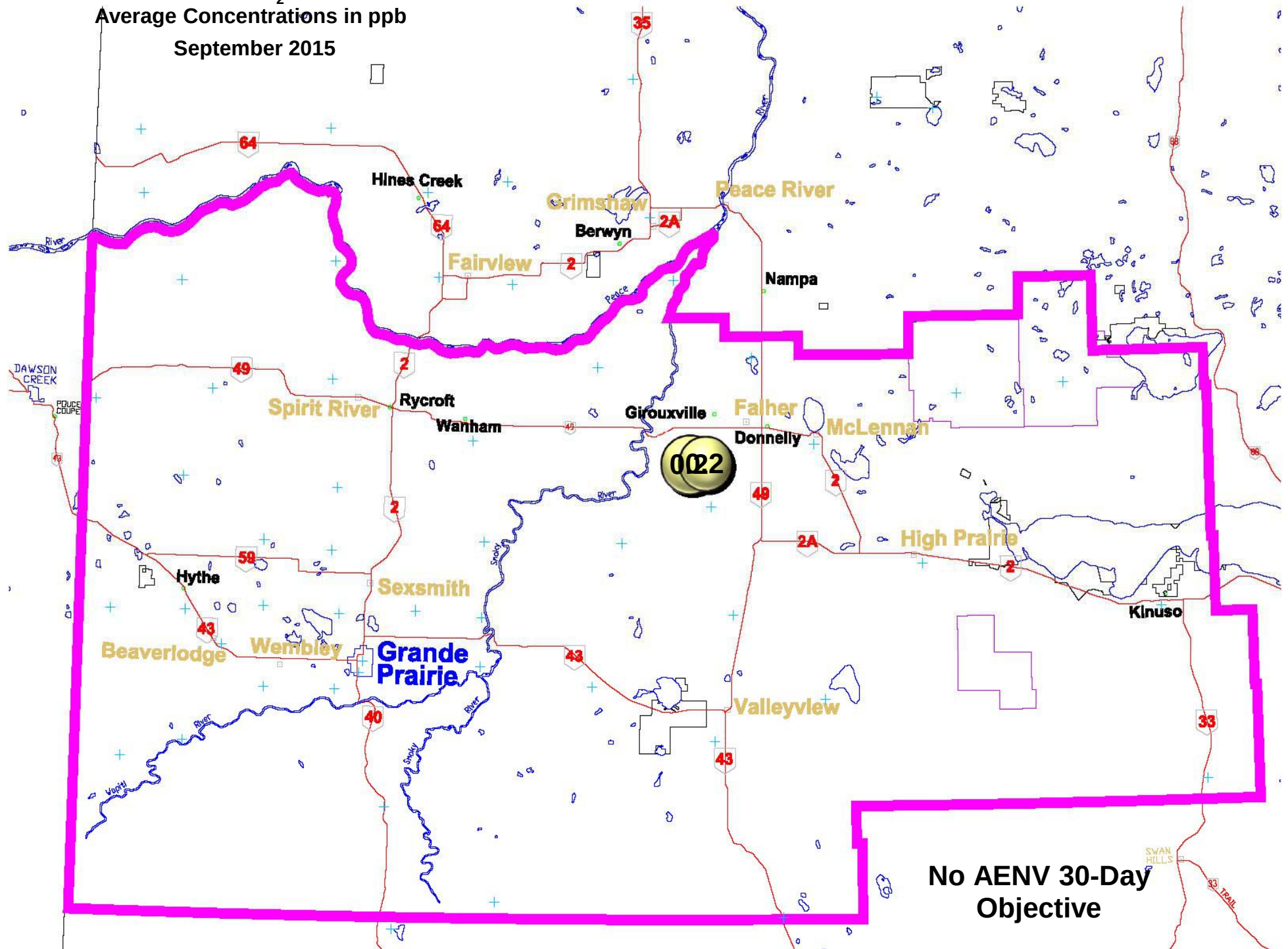
September 2015



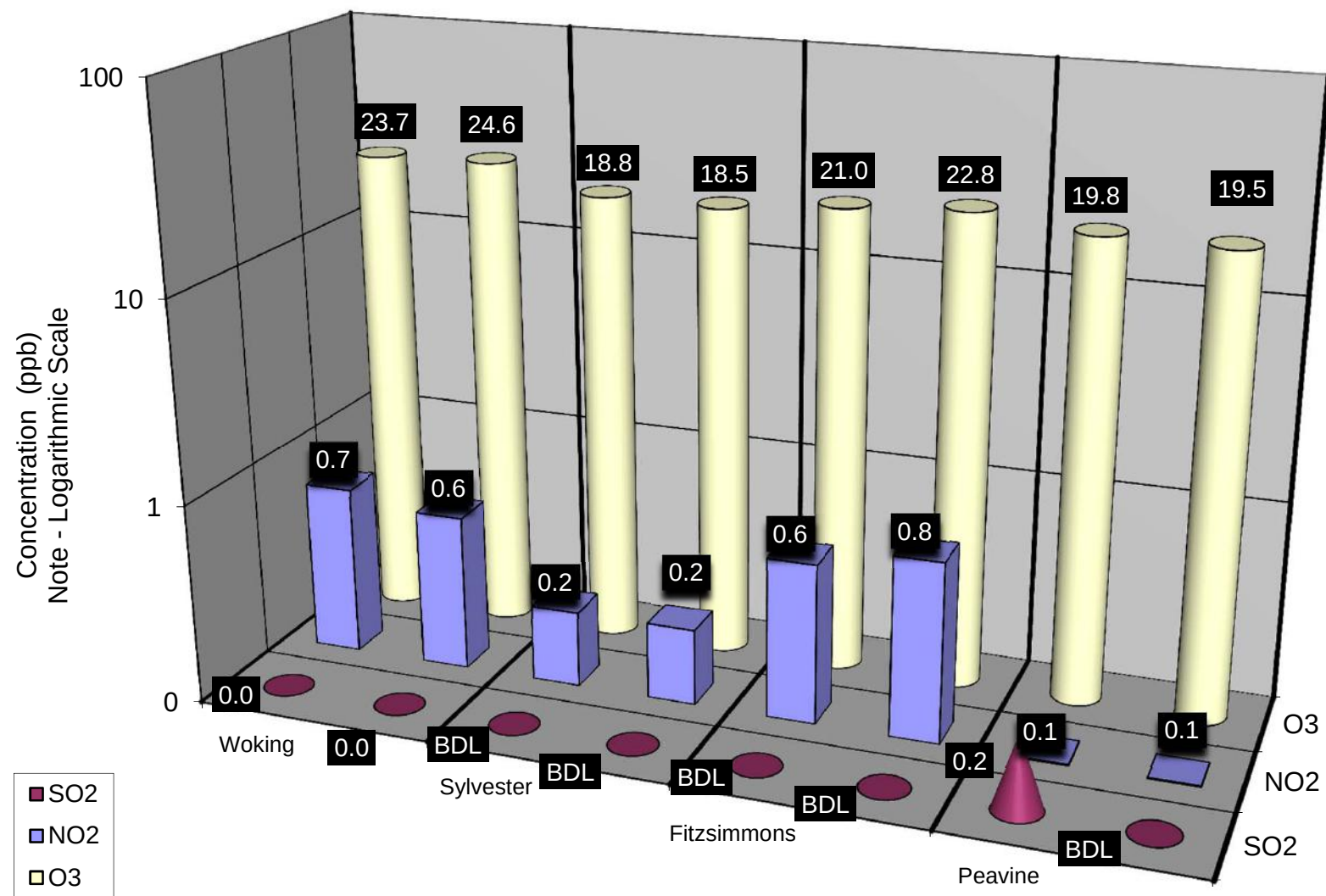
Alberta Ambient Air Quality Objective - Annual NO₂ Objective is 24 ppb



PAZA Passive H₂S Stations
Average Concentrations in ppb
September 2015



No AENV 30-Day
Objective



Duplicate Summary Chart

September 2015 Calibration Reports

PAZA - Henry Pirker Station with the following calibrations:

SO₂, NO, NO₂, NO_x, O₃, CO, THC, TRS

PAZA – Evergreen Park Station with the following calibrations:

SO₂, TRS

PAZA – Smoky Heights Station with the following calibrations:

SO₂, TRS

PAZA – Beaverlodge Station with the following calibrations:

SO₂, NO, NO₂, NO_x, O₃

PAZA – Valleyview Station with the following calibrations:

SO₂ & H₂S

PAZA – Falher Station with the following calibrations:

SO₂ & H₂S

PAZA – Clairmont Station with the following calibrations:

SO₂, NO, NO₂, NO_x, O₃, THC, TRS

Calibration Report

Parameter SO2

Air Monitoring Network PAZA



Station Information

Calibration Date	September 21, 2015	Previous Calibration	August 4, 2015
Station Number	1	Station Location	Henry Pirker
Reason:	☐ Routine	☐ Install	☒ Removal
			Other:
Start Time (MST)	10:45	End Time (MST)	12:55
Barometric Pressure	721.000 mm	Station Temperature	21.0 Deg C
Calibrator	EnviroNics	Serial Number	6586
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	0.995173	Calculated slope	1.000971
Calculated intercept	2.233995	Calculated intercept	1.097835
Analyzer make	TEI 43C	Analyzer serial #	610816292(AMU 1702)

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	9.8		9.8	
Coefficient	0.746		0.746	
Pressure	643.5	mm Hg	644.1	mm Hg
Flow	0.476	lpm	0.477	lpm
Lamp intensity	43962	Hz	44808	Hz

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.0	0.2	N/A
4995	39.93	394.9	394.1	1.0021
4995	19.97	198.3	196.3	1.0101
4995	9.97	99.2	96.8	1.0249
4995	0.00	0.0	0.2	As Found Zero
4995	39.93	394.9	394.1	As Found Span
Average Correction Factor				1.0124

Calculated value of As Found Response: 394.3 ppb Percent Change of As Found: 0.2%

	before calibration		after calibration	
Auto zero	0.0	ppb	0.1	ppb
Auto span	325.7	ppb	325.3	ppb

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter SO2

Air Monitoring Network PAZA



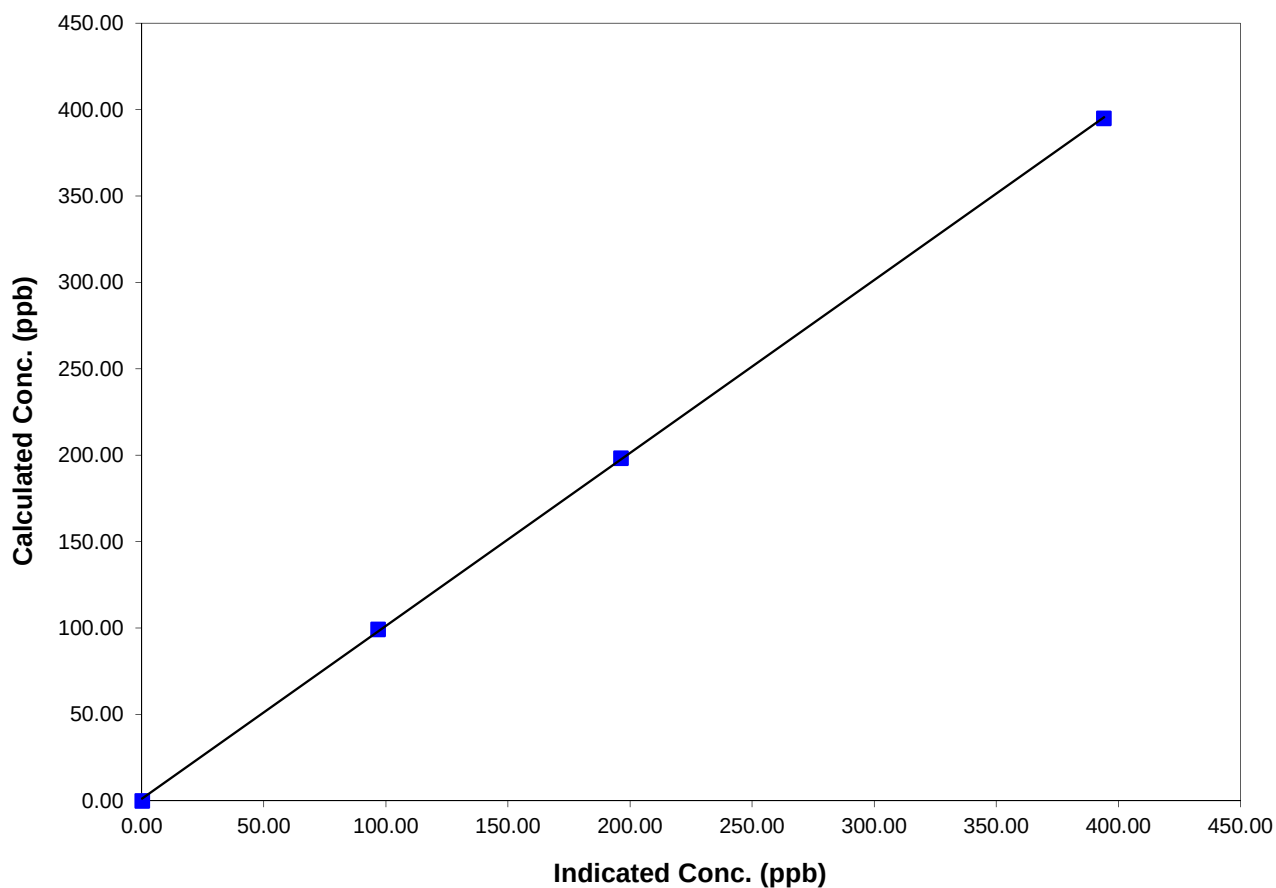
Station Information

Calibration Date	September 21, 2015	Previous Calibration	August 4, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	10:45	End Time (MST)	12:55
Analyzer make/model	TEI 43C	Analyzer serial #	610816292(AMU 1702)

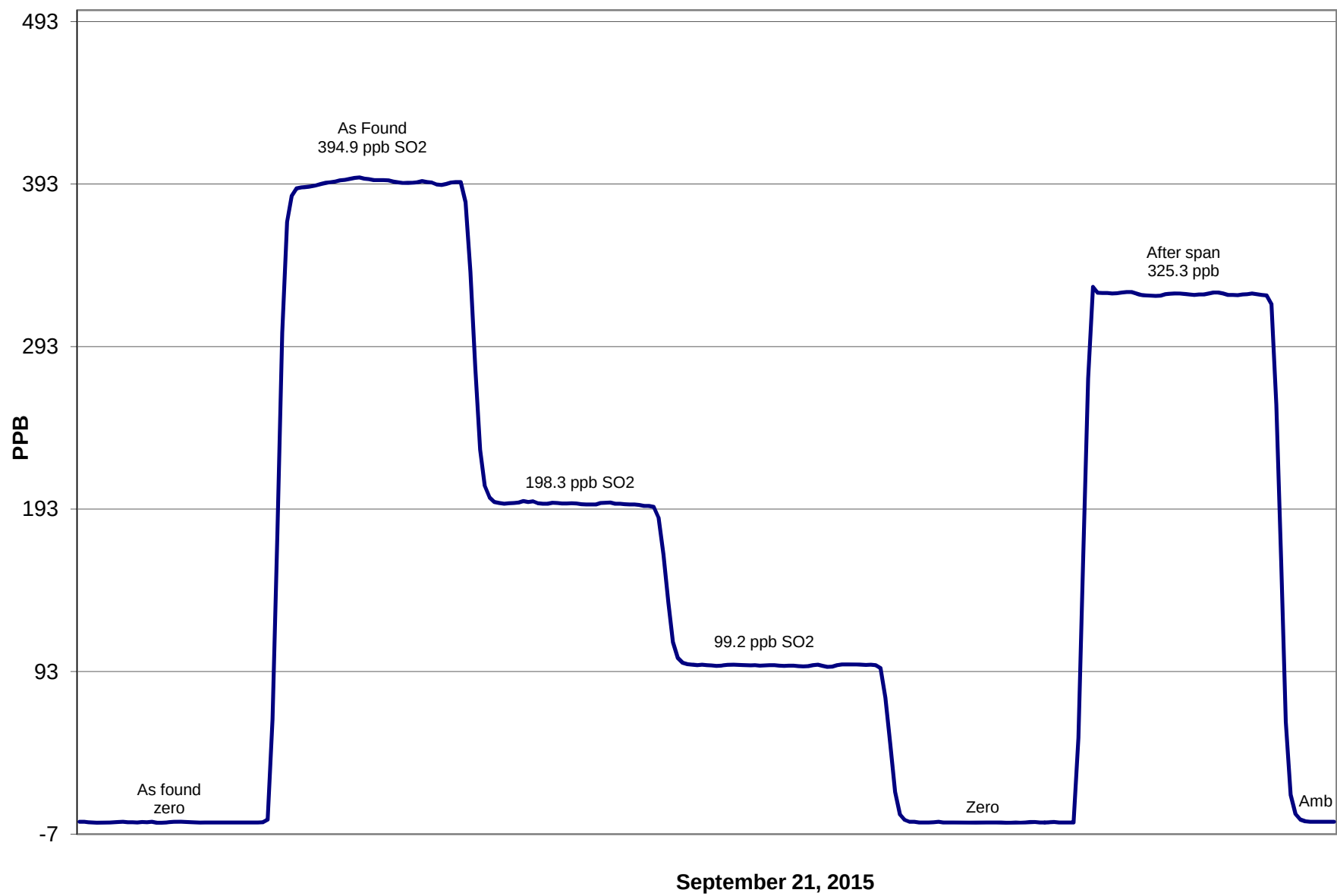
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A	Correlation Coefficient	0.999953
394.9	394.1	1.0021		
198.3	196.3	1.0101		
99.2	96.8	1.0249	Slope	1.000971
			Intercept	1.097835

SO2 Calibration Curve



SO2 Calibration



Calibration Report

Parameter SO2

Air Monitoring Network PAZA



Station Information

Calibration Date	September 22, 2015	Previous Calibration	August 4, 2015
Station Number	1	Station Location	Henry Pirker
Reason:	☐ Routine	☒ Install	☐ Removal
		☐ Other:	
Start Time (MST)	9:30	End Time (MST)	13:15 PM
Barometric Pressure	721.000 mm	Station Temperature	21.0 Deg C
Calibrator	EnviroNics	Serial Number	6586
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		Calculated slope	0.997271
Calculated intercept		Calculated intercept	-0.544839
Analyzer make	TEI 43I-TLE	Analyzer serial #	1507864682 (AMU 2006)

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	1.40		1.4	
Coefficient	0.997		0.997	
Pressure	674.0	mm Hg	671.0	mm Hg
Flow	0.379	lpm	0.442	lpm
Lamp intensity	82	Hz	82	Hz

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.0	0.3	N/A
4995	39.93	394.9	396.1	0.9971
4995	19.97	198.3	200.5	0.9890
4995	9.97	99.2	99.6	0.9956
4995	0.00	0.0		As Found Zero
4995	39.93	394.9		As Found Span
Average Correction Factor				0.9939

Calculated value of As Found Response: FALSE ppb Percent Change of As Found: NA

	before calibration		after calibration	
Auto zero		ppb	0.3	ppb
Auto span		ppb	273.1	ppb

Notes: New sample pump installed
PMT adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter SO2

Air Monitoring Network PAZA



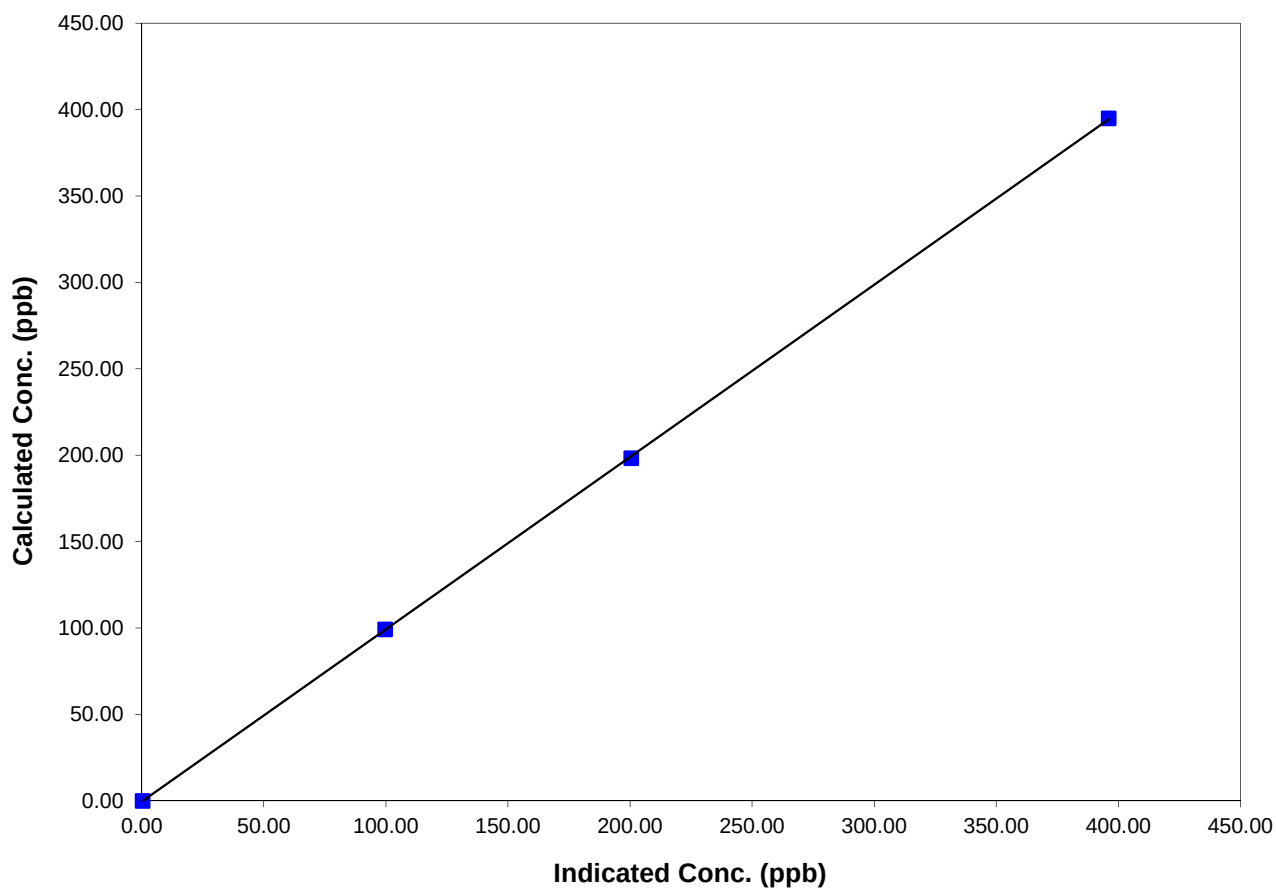
Station Information

Calibration Date	September 22, 2015	Previous Calibration	August 4, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:30	End Time (MST)	13:15 PM
Analyzer make/model	TEI 43I-TLE	Analyzer serial #	1507864682 (AMU 2006)

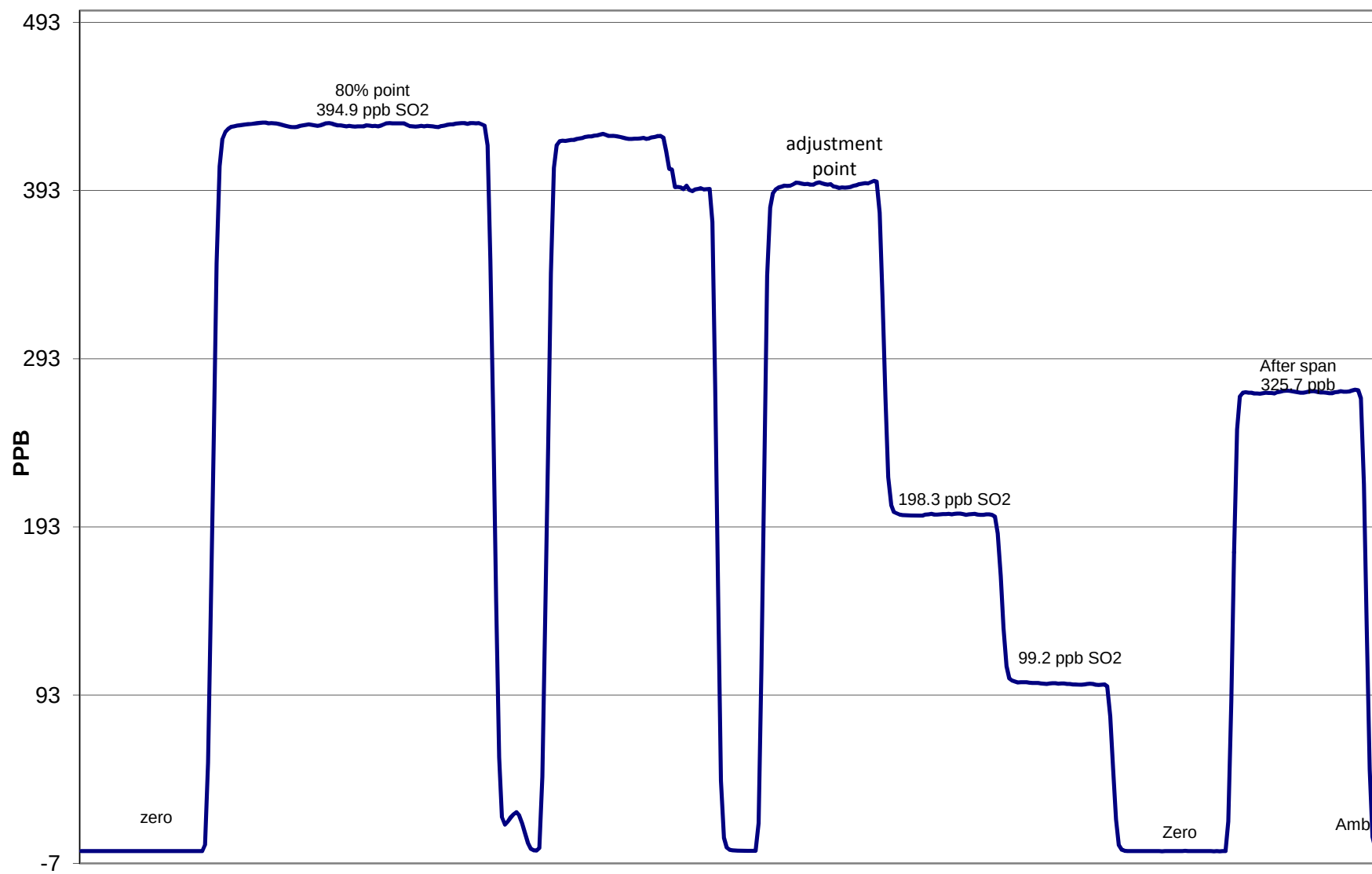
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	N/A	Correlation Coefficient	0.999981
394.9	396.1	0.9971		
198.3	200.5	0.9890		
99.2	99.6	0.9956	Slope	0.997271
			Intercept	-0.544839

SO2 Calibration Curve



SO2 Calibration



September 22, 2015

Calibration Report

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



Station Information

Calibration Date	September 22, 2015	Previous Calibration	August 4, 2015
Station Number	1	Station Location	Henry Pirker
Reason:	Routine	Installation	Removal
Other:			
Start Time (MST)	9:35	End Time (MST)	14:45:00 PM
Barometric Pressure	721.000 mm	Station Temperature	21.0 Deg C
Calibrator	EnviroNics	Serial Number	6586
NO Cal Gas Conc	50.9 ppm	Cal Gas Expiry Date	March 10, 2017
NOx Cal Gas Conc	51.2 ppm	Cal Gas Serial #	LL119493

DACS Information

DACS make	CR3000	DACS serial No.	5408
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Parameter		NO2	NOx	NO
Before	Data Slope	1.004281	0.998209	0.992539
	Data Offset	0.093729	2.151097	2.352894
After	Data Slope	0.995043	0.999200	0.993747
	Data Offset	0.054861	-0.298742	-0.146813
Channel #		8	6	7
Voltage Range		0 - 5 VDC	0 - 5 VDC	0 - 5 VDC

Analyzer Information

Analyzer make/model	42i	Analyzer serial #	906535087
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Test Point	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
NO offset	5.3	mV	5.3	mV
NOx bkgnd	5.4	mV	5.4	mV
NO coefficient	0.904		0.904	
NOx coefficient	1.000		1.000	
NO2 conv temp	322.9	Deg C	322.4	Deg C
Cooler Temp	-3.0	Deg C	-2.7	Deg C
PMT Volt	-844.0	mV	-844.3	mV
R Cell Press	166.7	in Hg	167.1	in Hg
Sample Flow	0.700	LPM	0.696	LPM

Notes: No adjustment made
Nox and SO2 cal done at the same time using same gas cylinder-caused longer Nox trace due to SO2 analyzer mainantce

Calibration Report

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



Station Information

Calibration Date: September 22, 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	0.0	N/A	N/A
1	4995	39.92	405.9	403.6	2.4	406.5	406.4	0.3	0.9986	0.9930
2	4995	19.96	203.8	202.6	1.2	204.2	203.6	0.3	0.9980	0.9951
3	4995	9.93	101.6	101.0	0.6	102.2	101.9	0.4	0.9936	0.9908
AFZ	4995	0.00	0.0	0.0	0.0	0.1	0.2	0.0	0.0000	0.0000
AFS	4995	39.92	405.9	403.6	0.8	406.5	406.4	0.3	0.9986	0.9930
Average Correction Factor									0.9967	0.9929

As Found Concentrations: NO_x= 407.8 NO= 405.5 As Found Percent Change NO_x= 0.5% NO= 0.5%

GPT Calibration Data

Dilution Flow 4995 ccm Source Gas Flow 39.93 ccm

O3 Setpoint (ppb)	Indicated 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	0.0	N/A	N/A	N/A	N/A
NO point	407.0	407.0	0.0	407.3	407.0	0.1	0.9993	1.0000	N/A	N/A
300	407.0	78.8	328.3	409.2	78.8	330.0	0.9947	1.0000	0.9948	100.5%
200	407.0	187.1	219.9	408.7	187.1	220.8	0.9959	1.0000	0.9961	100.4%
100	407.0	301.0	106.0	408.4	301.0	106.5	0.9966	1.0000	0.9955	100.5%
Average Correction Factor							0.9957	1.0000	0.9955	100.5%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	0.0	0.0	0.2	ppb	0.6	0.4	0.3	ppb
Auto span	340.7	336.9	3.4	ppb	353.4	349.7	3.2	ppb

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter NO₂

Air Monitoring Network PAZA



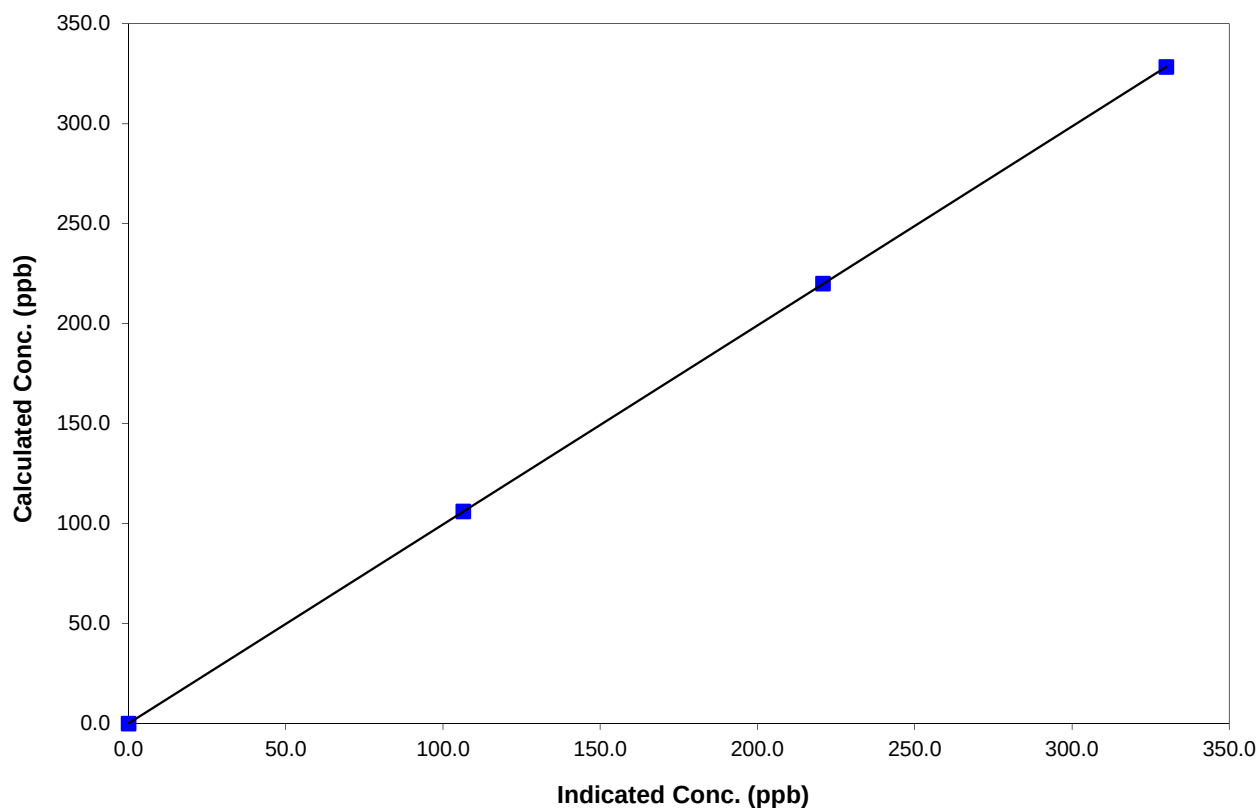
Station Information

Calibration Date	September 22, 2015	Previous Calibration	August 4, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:35	End Time (MST)	14:45:00 PM
Analyzer make	42i	Analyzer serial #	906535087

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A	Correlation Coefficient	0.999999
328.3	330.0	0.9948		
219.9	220.8	0.9961		
106.0	106.5	0.9955	Slope	0.995043
			Intercept	0.054861

NO₂ Calibration Curve



Calibration Summary

Parameter NO_x

Air Monitoring Network PAZA



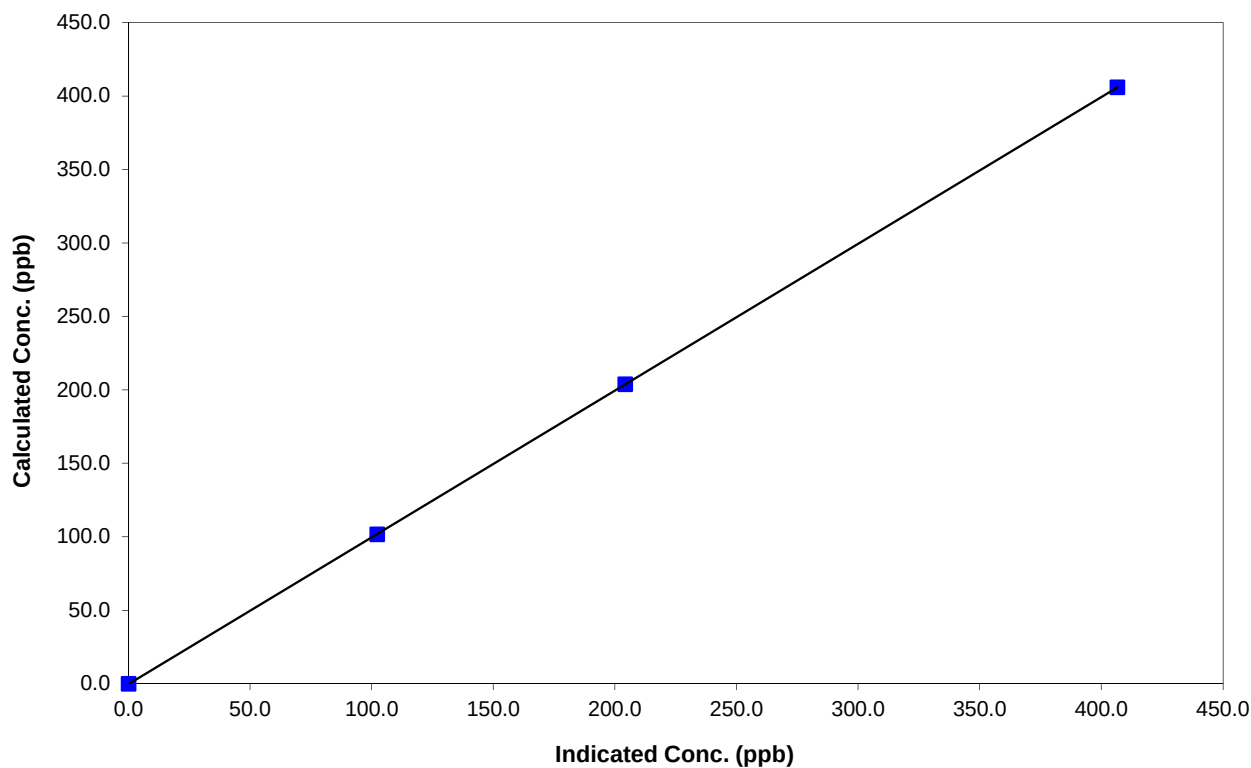
Station Information

Calibration Date	September 22, 2015	Previous Calibration	August 4, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:35	End Time (MST)	14:45:00 PM
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	0.999999
405.9	406.5	0.9986		
203.8	204.2	0.9980		
101.6	102.2	0.9936	Slope	0.999200
			Intercept	-0.298742

NO_x Calibration Curve



Calibration Summary

Parameter NO

Air Monitoring Network PAZA



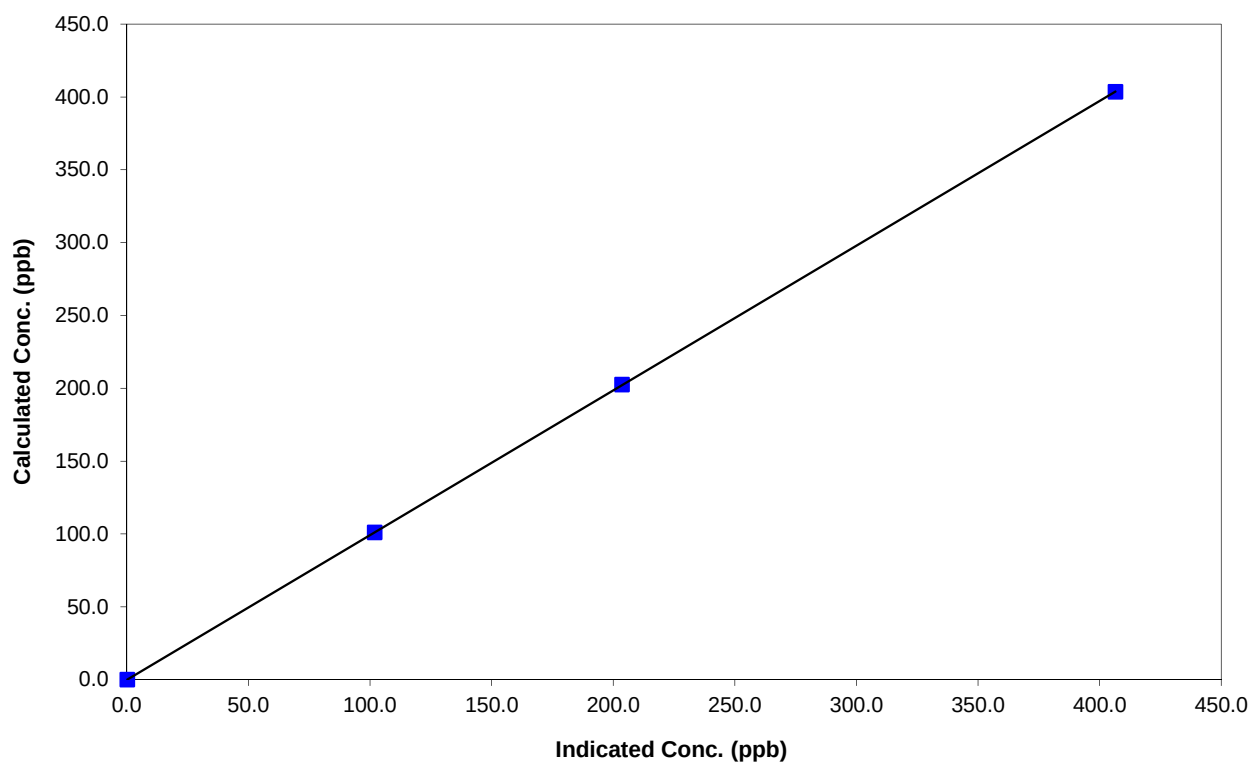
Station Information

Calibration Date	September 22, 2015	Previous Calibration	August 4, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:35	End Time (MST)	14:45:00 PM
Analyzer make	42i	Analyzer serial #	906535087

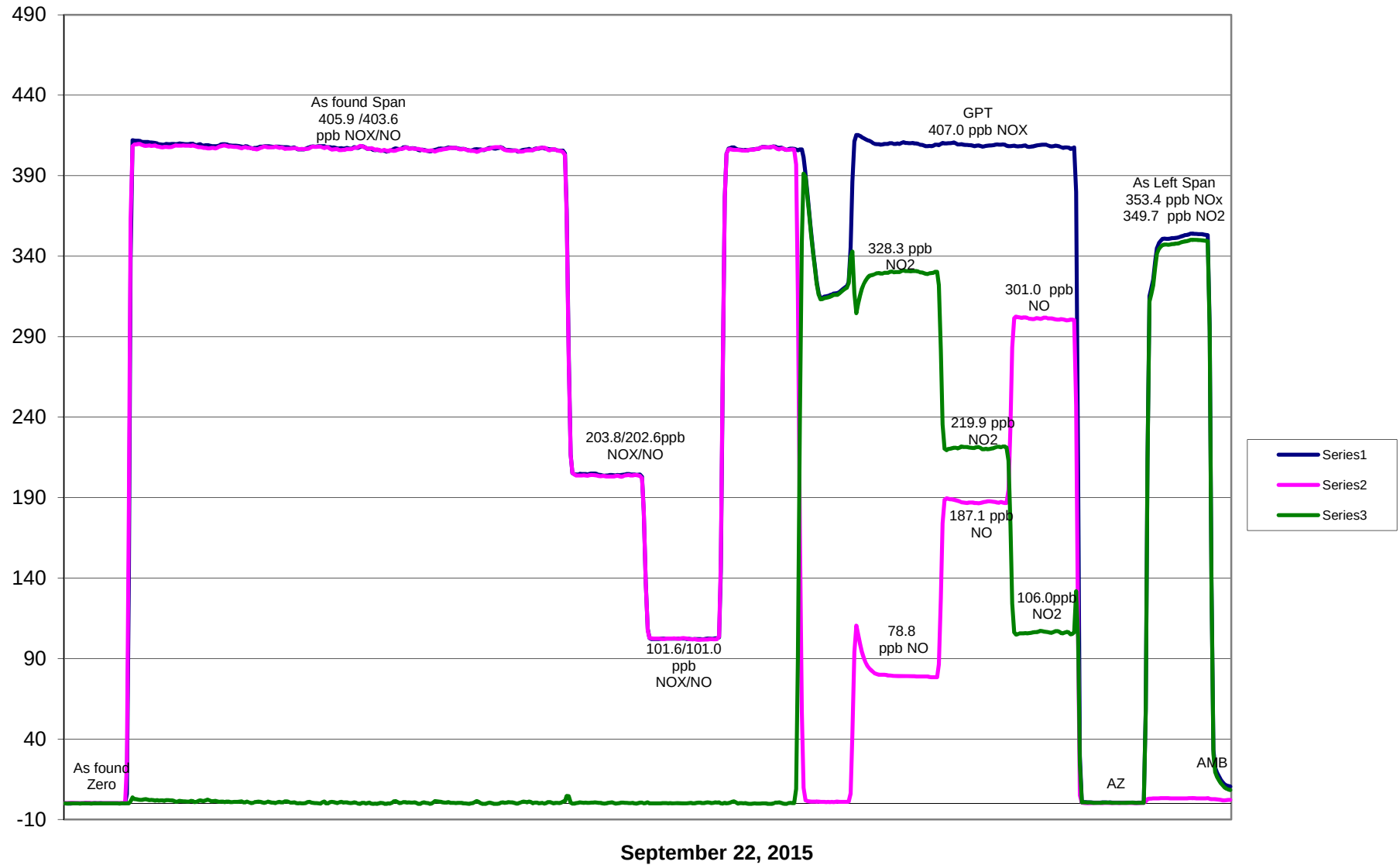
Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A	Correlation Coefficient	0.999997
403.6	406.4	0.9930		
202.6	203.6	0.9951		
101.0	101.9	0.9908	Slope	0.993747
			Intercept	-0.146813

NO Calibration Curve



NO_x Calibration



Calibration Report



Parameter 03

Air Monitoring Network PAZA

Station Information

Calibration Date	September 22, 2015	Previous Calibration	August 4, 2015
Station Number	1	Station Location	Henry Pirker
Reason:	Routine	Install	Removal
		Other:	

Start Time (MST)	14:10:00 PM	End Time (MST)	16:05:00 PM
Barometric Pressure	721.000 mm	Station Temperature	21.0 Deg C
Calibrator	EnviroNics	Serial Number	6586
Cal Gas Concentration	NA	Cal Gas Expiry Date	NA

DACS make	CR3000	DACS serial No.	5237
DACS voltage range	0 - 5 volt	DACS channel #	9
	Before		After
Calculated slope	0.998354	Calculated slope	1.006811
Calculated intercept	-0.061610	Calculated intercept	-0.548550

Analyzer make	Teco 49I	Analyzer serial #	1507964699 (AMU:2015)
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	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
offset	-1.90	ppb	-1.80	ppb
slope	1.002		1.002	
Lamp temp	53.6	mV	53.7	mV
Lamp Intensity A/B	97786/102909	mV	97772/102896	mV
Pressure	694	mm Hg	698.2	mm Hg
Flow A	0.733	ccm	0.735	ccm
Flow B	0.734	ccm	0.737	ccm

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
5035	0.0	0.0	0.6	N/A
5035	0.3	328.3	327.0	1.0041
5035	0.2	219.9	218.3	1.0074
5035	0.1	106.0	106.1	0.9988
5035	0.0	0.0	0.6	As found zero
5035	0.3	328.3	327.0	As found span
Average Correction Factor				1.0034

Calculated value of As Found Response: 325.8 ppm Percent Change of As Found: -0.8%

	before calibration		after calibration	
Auto zero	0.7	ppb	0.4	ppb
Auto span	354.1	ppb	353.2	ppb

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter 03

Air Monitoring Network PAZA



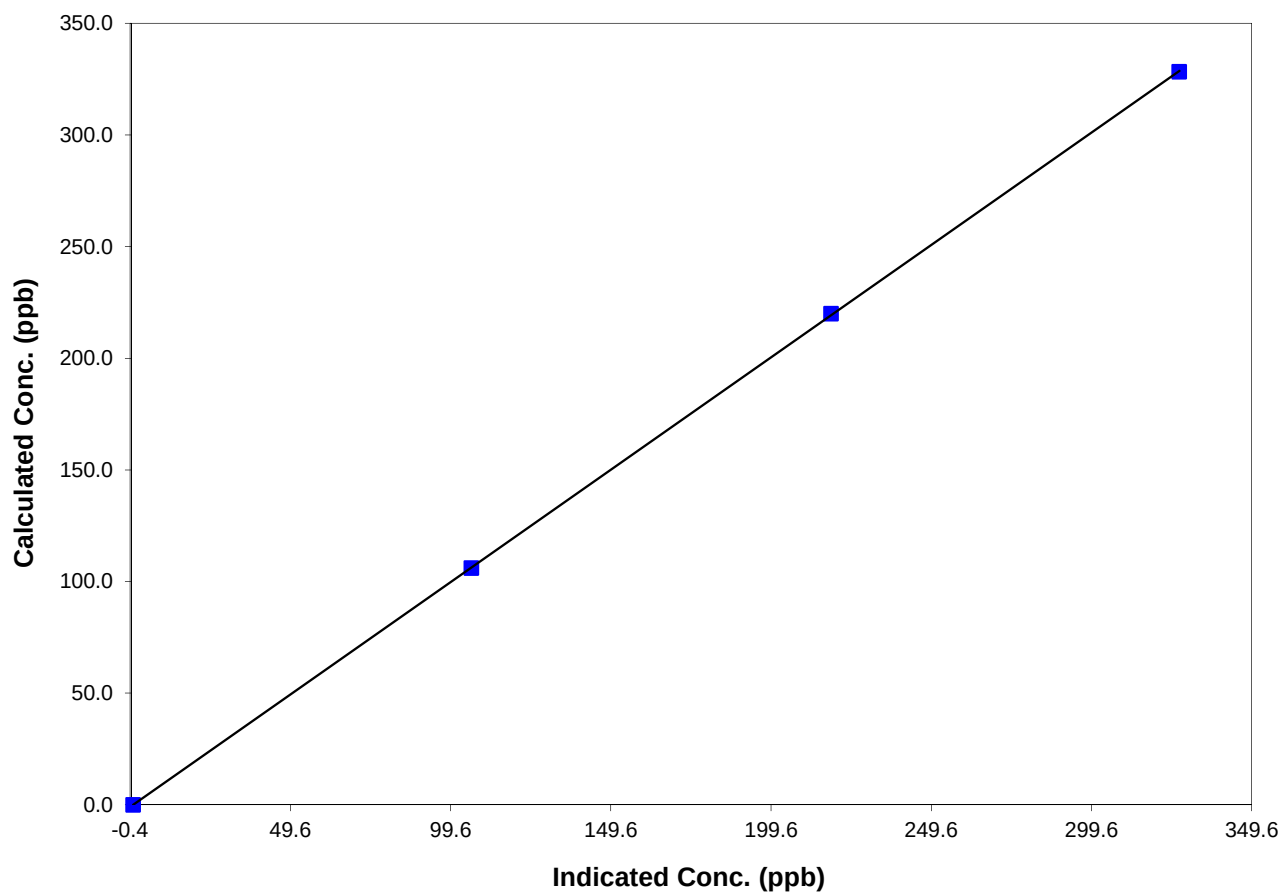
Station Information

Calibration Date	September 22, 2015	Previous Calibration	August 4, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	14:10:00 PM	End Time (MST)	16:05:00 PM
Analyzer make/model	Teco 49I	Analyzer serial #	1507964699 (AMU:2015)

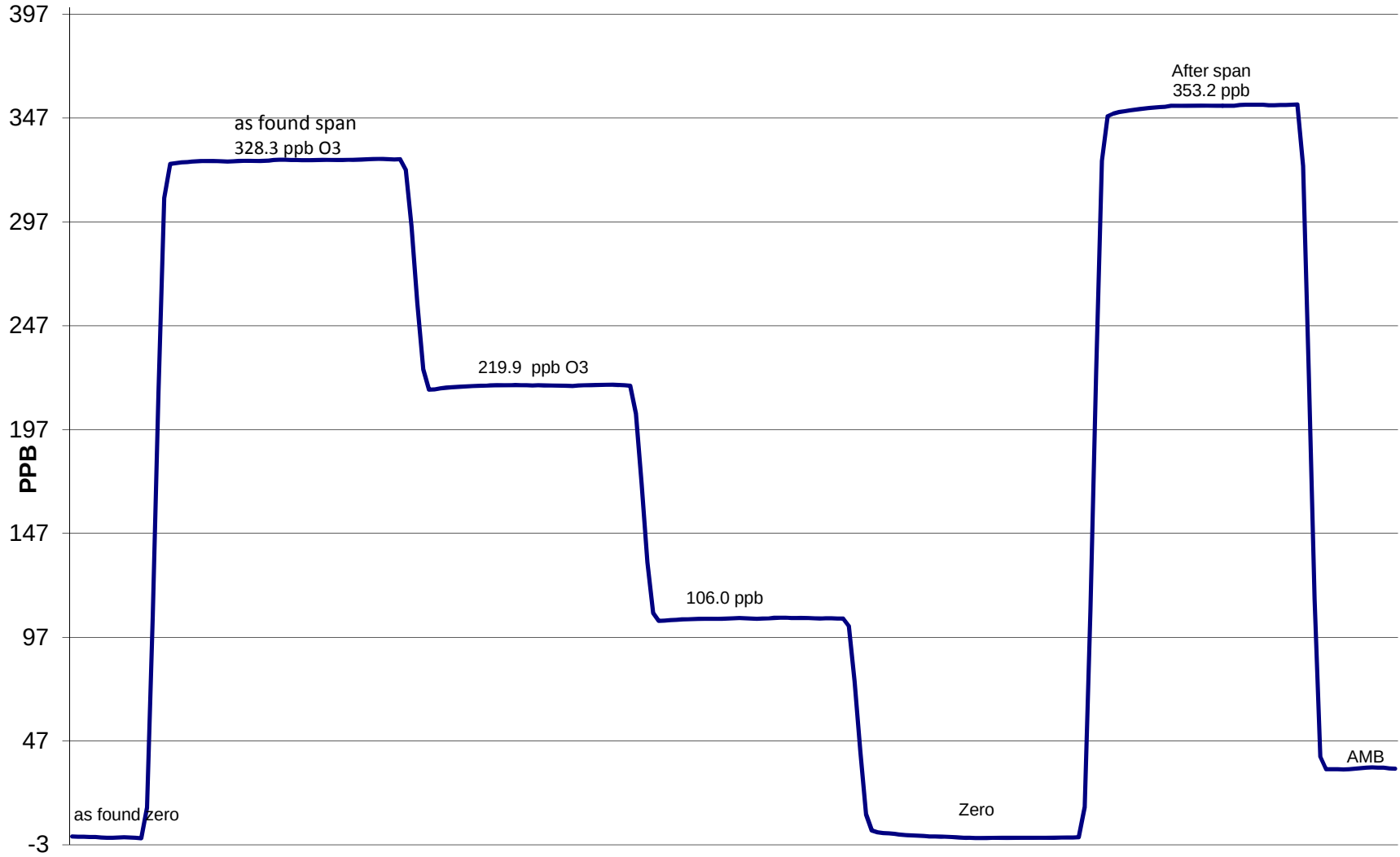
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.6	NA	Correlation Coefficient	0.999989
328.3	327.0	1.0041		
219.9	218.3	1.0074		
106.0	106.1	0.9988	Slope	1.006811
			Intercept	-0.548550

O3 Calibration Curve



O3 Calibration



September 22, 2015

Calibration Report



Parameter CO

Air Monitoring Network PAZA

Station Information

Calibration Date	September 23, 2015	Previous Calibration	August 5, 2015
Station Number	1	Station Location	Henry Pirker
Reason:	Routine	☐ Install	☐ Removal
		☐ Other:	
Start Time (MST)	14:20:00 PM	End Time (MST)	17:05:00 PM
Barometric Pressure	726.0 mm/hg	Station Temperature	21.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	6586
Cal Gas Conc	2898 ppm	Cal Gas Expiry Date	04/02/2013
		Cal Gas Cylinder #	LL83909
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 5 volt	DACS channel #	9
	Before		After
Calculated slope	1.002178	Calculated slope	1.010238
Calculated intercept	-0.075774	Calculated intercept	-0.156808
Analyzer make	Model 48I-TLE	Analyzer serial #	1408761378

	before		after	
Concentration range	0 - 50	ppm	0 - 50	ppm
CO zero setting	2.497		2.932	
CO span setting	1.001		1.001	
Sample pressure	696.8	mm Hg	692	mm Hg
Sample Flow	0.453	LPM	0.450	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	39.69	1.0083
4995	34.96	20.14	20.16	0.9993
4995	17.96	10.38	10.60	0.9793
4995	0.00	0.00	0.42	As Found Zero
4995	69.94	40.02	40.87	As Found Span
Average Correction Factor				0.9956

Calculated value of As Found Response: 40.465 ppm Percent Change of As Found: -1.1%

	before calibration		after calibration	
Auto zero	0.00	ppm	0.00	ppm
Auto span	19.62	ppm	19.65	ppm

Notes: Zero adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter CO

Air Monitoring Network PAZA



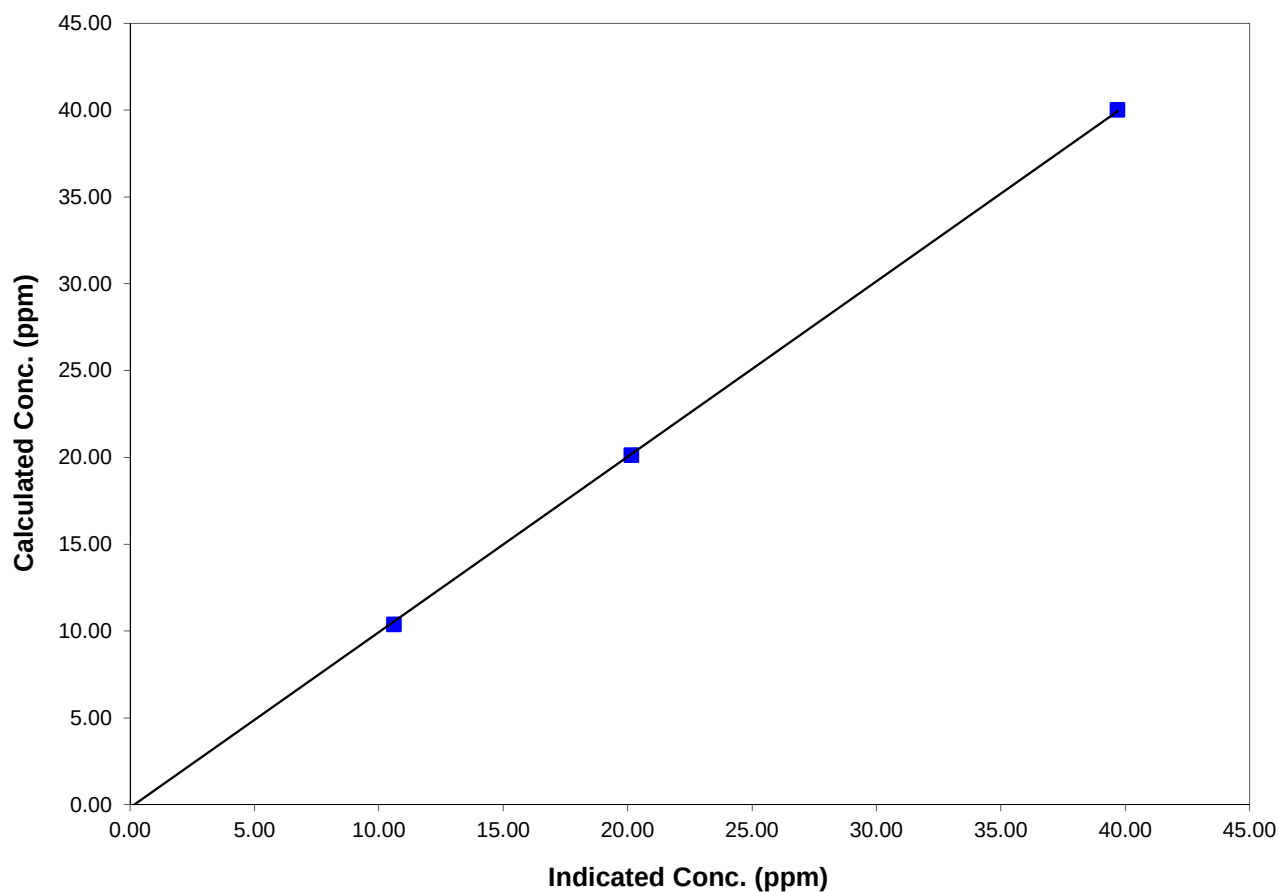
Station Information

Calibration Date	September 23, 2015	Previous Calibration	August 5, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	14:20:00 PM	End Time (MST)	17:05:00 PM
Analyzer make/model	Model 48I-TLE	Analyzer serial #	1408761378

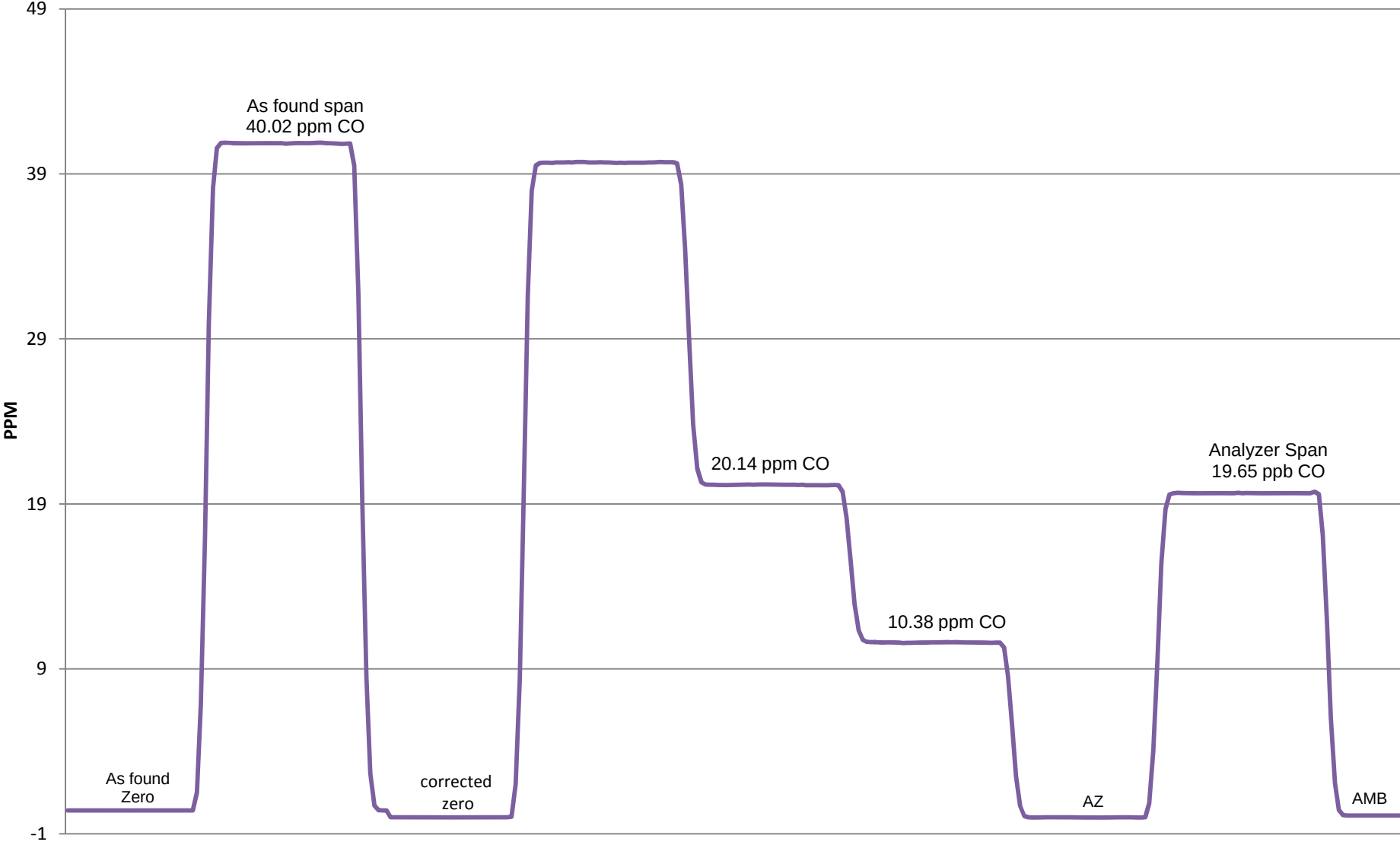
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.000	N/A		
40.017	39.690	1.0083	Correlation Coefficient	0.999926
20.142	20.156	0.9993		
10.383	10.603	0.9793	Slope	1.010238
			Intercept	-0.156808

CO Calibration Curve



CO Calibration



September 23, 2015

Calibration Report



Parameter CH4 / NMHC / THC

Air Monitoring Network PAZA

Station Information

Calibration Date	September 23, 2015	Previous Calibration	July 27, 2015
Station Number	1	Station Location	Henry Pirker
Reason:	Routine	Install	Removal
			Other:

Start Time (MST)	12:35	End Time (MST)	15:15:00 PM
Barometric Pressure	726.00 mm/hg	Station Temperature	21.0 Deg C
Calibrator	EnviroNics 6103	Serial Number	6586
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		6.01	E ⁻⁴
NMHC cal factor	1.93		2.23	E ⁻⁴
Rt	12.74	Sec	12.74	Sec
Pk Index	23.22		23.22	

CH4 Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
1996	0.00	0.00	0.02	N/A
1996	68.96	12.89	13.06	0.9873
1996	40.96	7.76	7.83	0.9918
1996	15.99	3.07	3.09	0.9928
1996	0.00	0.00	0.02	As Found Zero
1996	68.93	12.89	12.63	As Found Span
Average Correction Factor				0.9906

Calculated value of As Found Response: 12.896 ppm Percent Change of As Found: -0.1%

	Before		After
Calculated slope	1.019446	Calculated slope	0.988653
Calculated intercept	0.041041	Calculated intercept	0.000096

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.03	ppm	0.03	ppm
Auto span	8.39	ppm	8.70	ppm

NMHC Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
1996	0.00	0.00	0.02	N/A
1996	68.96	19.01	19.20	0.9902
1996	40.96	11.45	11.78	0.9714
1996	15.99	4.52	4.77	0.9480
1996	0.00	0.00	0.02	As Found Zero
1996	68.93	19.00	18.19	As Found Span
Average Correction Factor				0.9699

Calculated value of As Found Response: 18.246 ppm Percent Change of As Found: 4.0%

	Before		After
Calculated slope	1.008145	Calculated slope	0.992011
Calculated intercept	-0.077555	Calculated intercept	-0.126671

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.02	ppm	0.02	ppm
Auto span	11.83	ppm	12.02	ppm

THC Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
1996	0.00	0.00	0.03	N/A
1996	68.96	31.90	32.24	0.9896
1996	40.96	19.21	19.59	0.9805
1996	15.99	7.59	7.84	0.9679
1996	0.00	0.00	0.03	As Found Zero
1996	68.93	31.89	30.80	As Found Span
Average Correction Factor				0.9793

Calculated value of As Found Response: 31.147 ppm Percent Change of As Found: 2.3%

	Before		After
Calculated slope	1.013324	Calculated slope	0.991021
Calculated intercept	-0.029979	Calculated intercept	-0.116969

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.02	ppm	0.02	ppm
Auto span	20.22	ppm	20.71	ppm

Notes: Span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter CH4

Air Monitoring Network PAZA



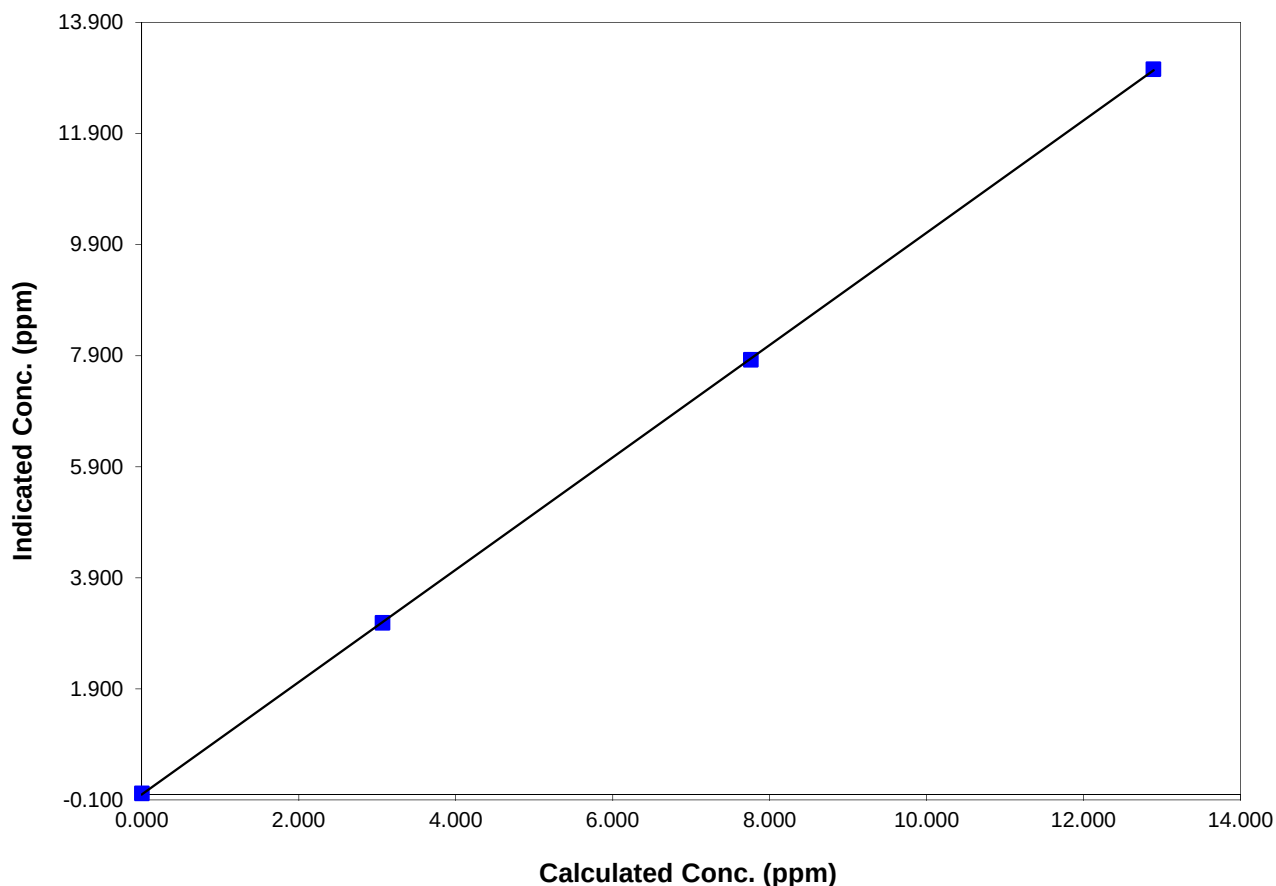
Station Information

Calibration Date	September 23, 2015	Previous Calibration	July 27, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	12:35	End Time (MST)	15:15:00 PM
Analyzer make/model	TEI 55I	Analyzer serial #	1134650658

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.020	N/A	Correlation Coefficient	0.999985
12.891	13.056	0.9873		
7.762	7.826	0.9918		
3.068	3.090	0.9928	Slope	0.988653
			Intercept	0.000096

CH4 Calibration Data



Calibration Summary

Parameter NMHC

Air Monitoring Network PAZA



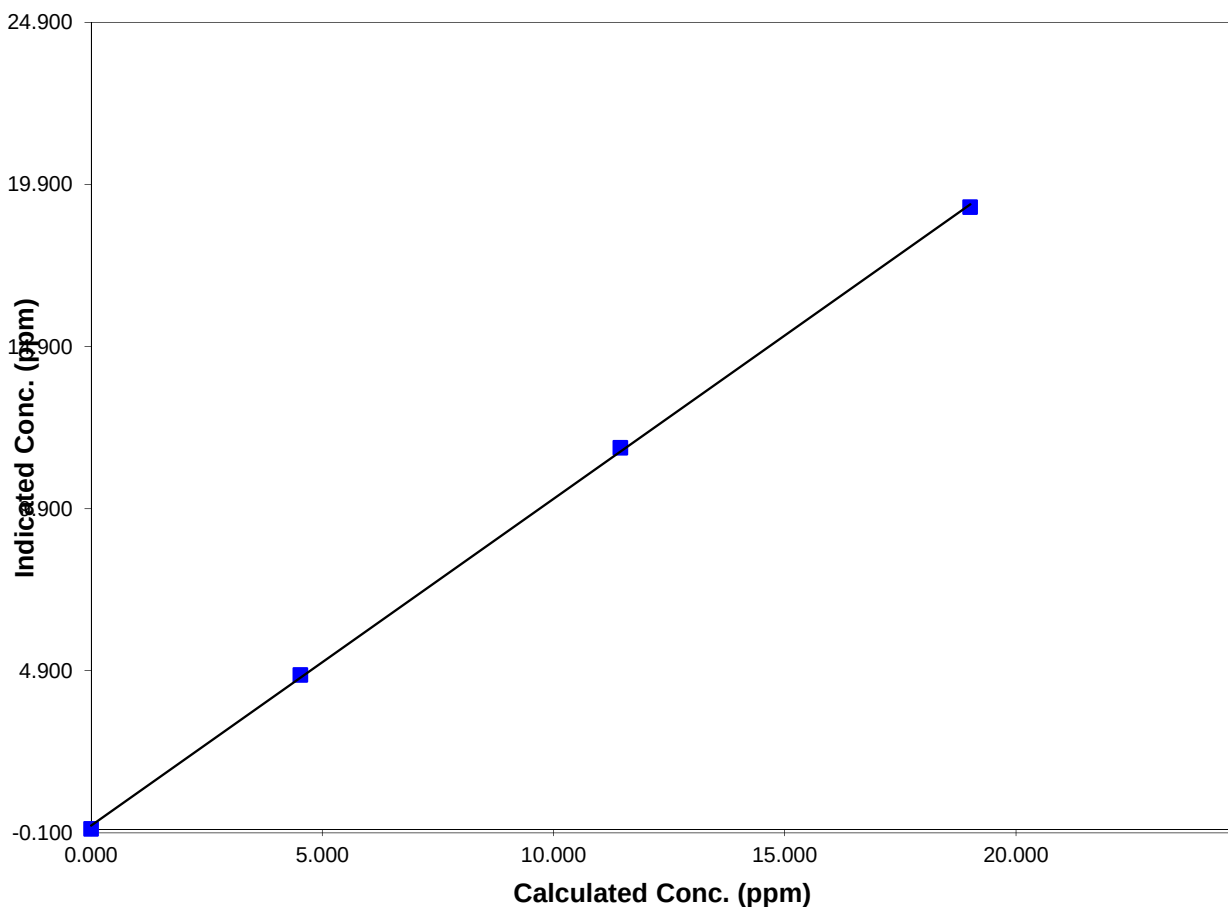
Station Information

Calibration Date	September 23, 2015	Previous Calibration	July 27, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	12:35	End Time (MST)	15:15:00 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	0.019	N/A	Correlation Coefficient	0.999804
19.010	19.198	0.9902		
11.447	11.784	0.9714		
4.524	4.772	0.9480	Slope	0.992011
			Intercept	-0.126671

NMHC Calibration Data



Calibration Summary

Parameter THC

Air Monitoring Network PAZA



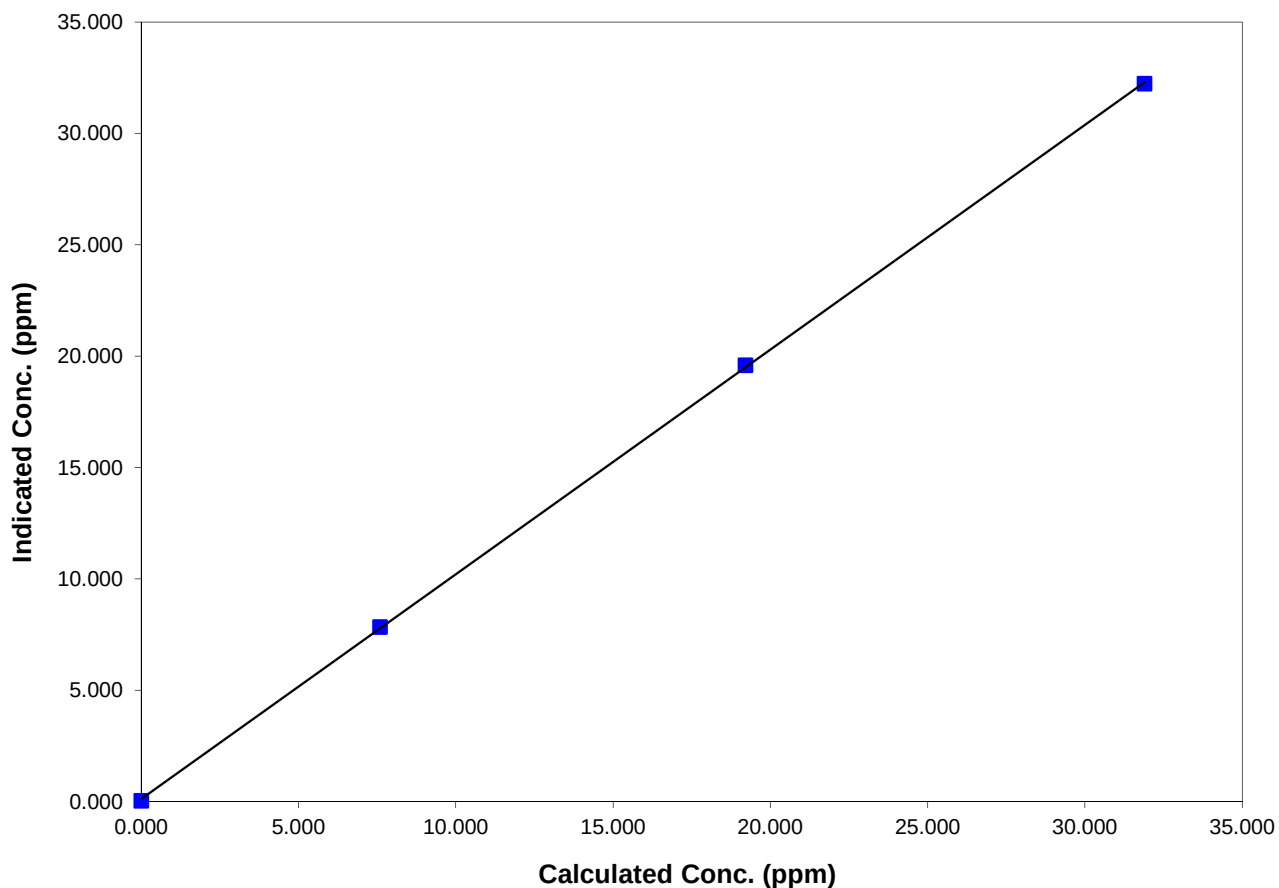
Station Information

Calibration Date	September 23, 2015	Previous Calibration	July 27, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	12:35	End Time (MST)	15:15:00 PM
Analyzer make/model	TEI 55I	Analyzer serial #	1134650658

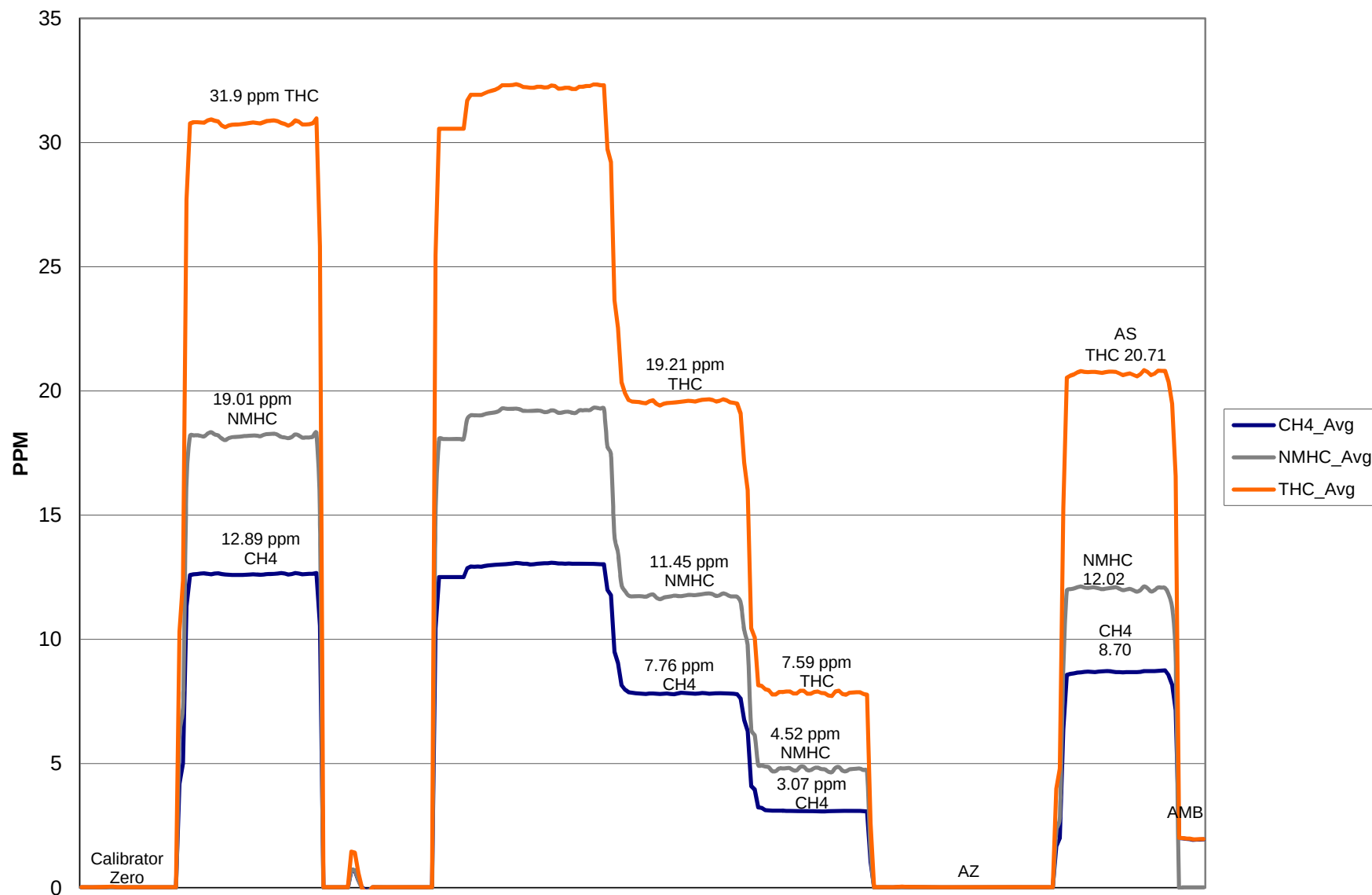
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.033	N/A	Correlation Coefficient	0.999959
31.901	32.237	0.9896		
19.209	19.591	0.9805		
7.592	7.844	0.9679	Slope	0.991021
			Intercept	-0.116969

THC Calibration Data



THC/CH₄/NMHC Calibration



Calibration Report

Parameter TR5

Air Monitoring Network PAZA



Station Information

Calibration Date	September 23, 2015	Previous Calibration	August 4, 2015
Station Number	1	Station Location	Henry Pirker
Reason:	☒ Routine	☐ Install	☐ Removal
		☐ Other:	
Start Time (MST)	9:20	End Time (MST)	13:15:00 PM
Barometric Pressure	726.00 mm/Hg	Station Temperature	21.0 Deg C
Calibrator	EnviroNics 6103	Serial Number	6586
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	0.986504
Calculated intercept	1.064174	Calculated intercept	0.056275
Analyzer make	TEI 45C	Analyzer serial #	630718528

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Coefficient	0.955		0.935	
Background	18.7		18.3	
Pressure	658.4	mm Hg	662.1	mm Hg
Flow	0.443	ccm	0.444	ccm
Lamp Voltage	898	v	897	v

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.00	0.15	N/A
4995	39.93	81.84	82.99	0.9861
4995	19.95	41.05	41.45	0.9905
6995	9.95	14.66	14.62	1.0029
4995	0.00	0.00	0.13	As Found Zero
4995	39.93	81.84	81.87	As Found Span
Average Correction Factor				0.9932

Calculated value of As Found Response: 81.8 ppb Percent Change of As Found: 0.0%

	before calibration		after calibration	
Auto zero	0.03	ppb	0.18	ppb
Auto span	33.74	ppb	33.35	ppb

Notes: Span adjustment made
 Scrubber material replaced
 Skipped on the scrubber check cause new scrubber been installed.

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter TRS

Air Monitoring Network PAZA



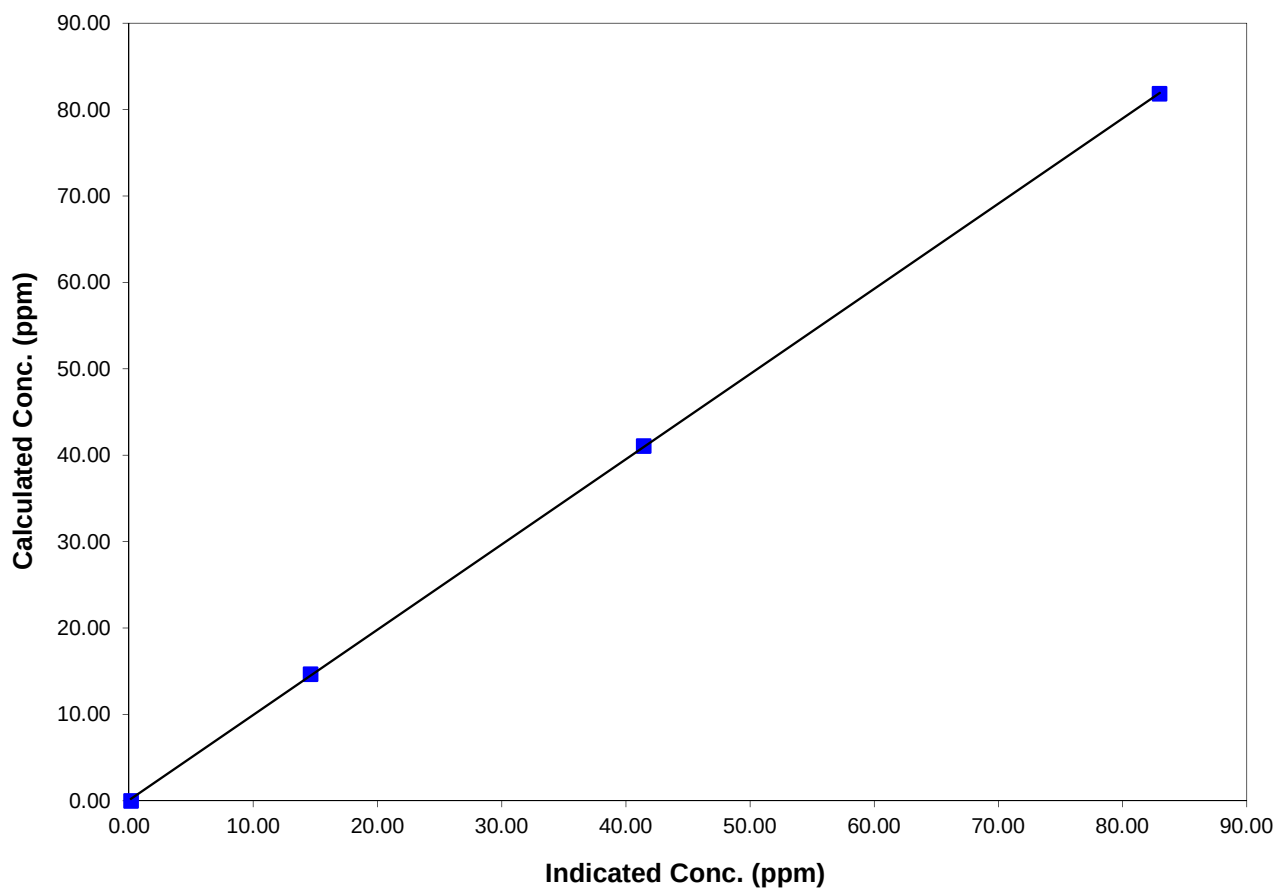
Station Information

Calibration Date	September 23, 2015	Previous Calibration	August 4, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:20	End Time (MST)	13:15:00 PM
Analyzer make/model	TEI 45C	Analyzer serial #	630718528

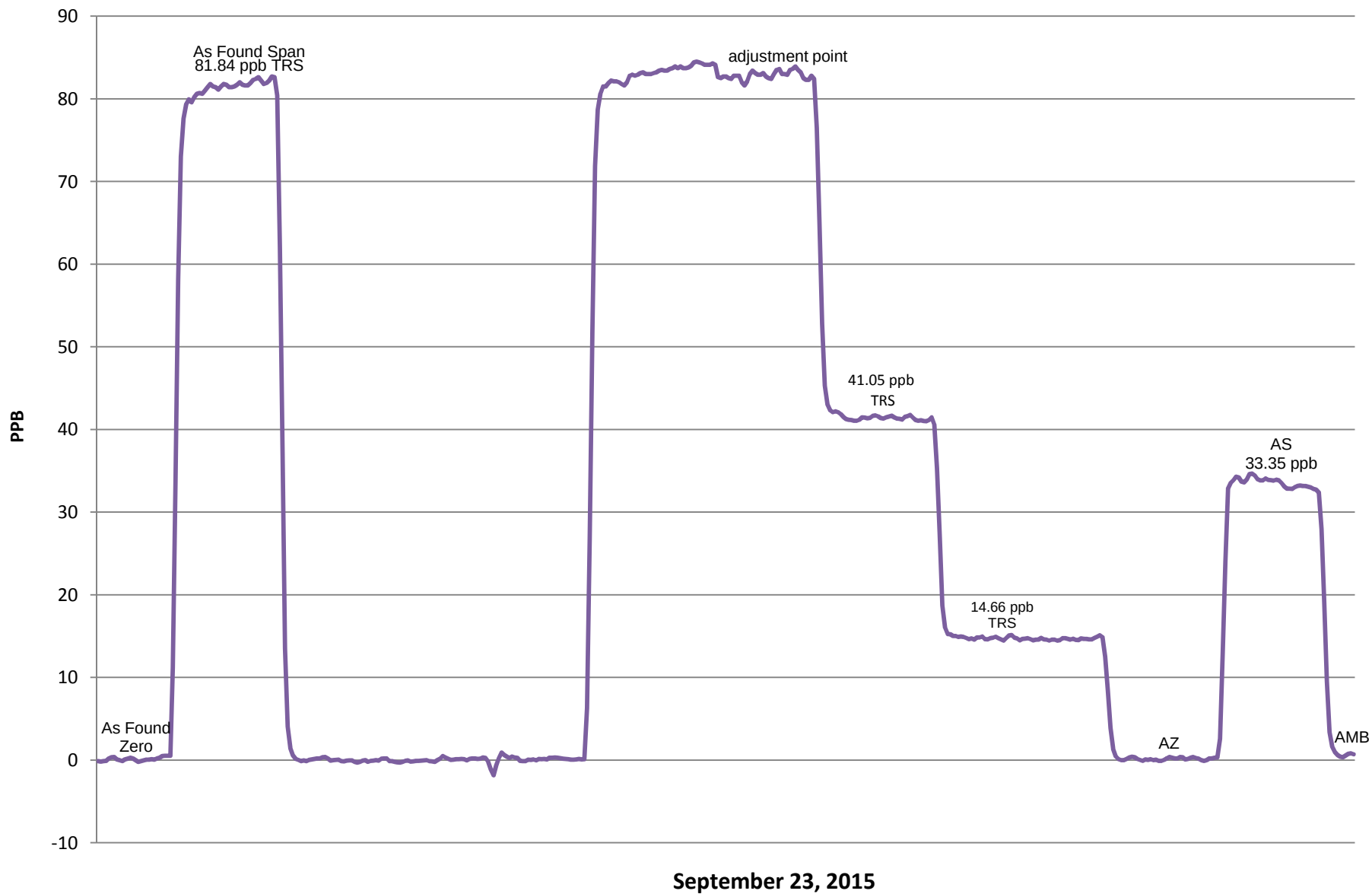
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.153	N/A	Correlation Coefficient	0.999975
81.844	82.994	0.9861		
41.054	41.447	0.9905		
14.659	14.616	1.0029	Slope	0.986504
			Intercept	0.056275

TRS Calibration Curve



TRS Calibration



Calibration Report



Parameter SO₂

Air Monitoring Network PAZA

Station Information

Calibration Date	September 15 2015	Previous Calibration	August 7 2015
Station Number	2	Station Location	Evergreen Park
Reason:	Routine	☐ Install	☐ Removal
		☐ Other:	
Start Time (MST)	11:20	End Time (MST)	13:50:00 PM
Barometric Pressure	0.920 ATM	Station Temperature	22.0 Deg C
Calibrator	EnviroNics	Serial Number	6586
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	0.991882	Calculated slope	1.013392
Calculated intercept	1.699403	Calculated intercept	0.386269
Analyzer make	Teco 43i	Analyzer serial #	701120008

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	11.3		11.3	
coefficient	1.195		1.195	
Lamp Voltage	826	volts	828	volts
Chamber Temp	45	Deg C	45.1	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	669.2	mm Hg	665.6	mm Hg
Sample Flow	0.452	ccm	0.449	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	389.7	1.0136
4995	19.97	198.3	194.9	1.0174
4995	9.95	99.0	96.8	1.0226
4995	0.0	0.0	0.2	As Found Zero
4995	39.93	394.9	389.7	As Found Span
Average Correction Factor				1.0178

Calculated value of As Found Response: 388.013 ppm Percent Change of As Found: 1.7%

	before calibration		after calibration	
Auto zero	0.1	ppm	0.2	ppm
Auto span	253.3	ppm	253.0	ppm

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter SO2

Air Monitoring Network PAZA



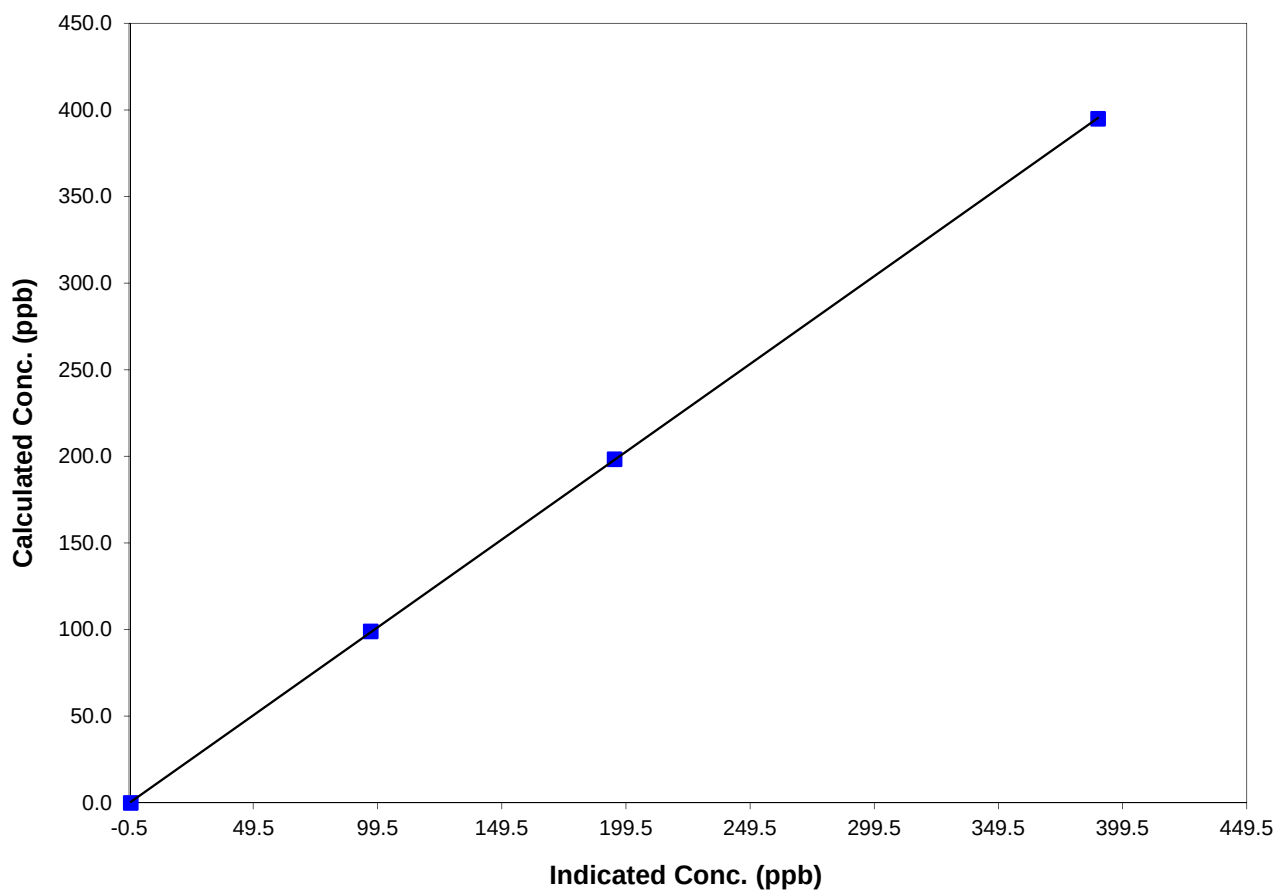
Station Information

Calibration Date	September 15 2015	Previous Calibration	August 7 2015
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	11:20	End Time (MST)	13:50:00 PM
Analyzer make/model	Teco 43i	Analyzer serial #	701120008

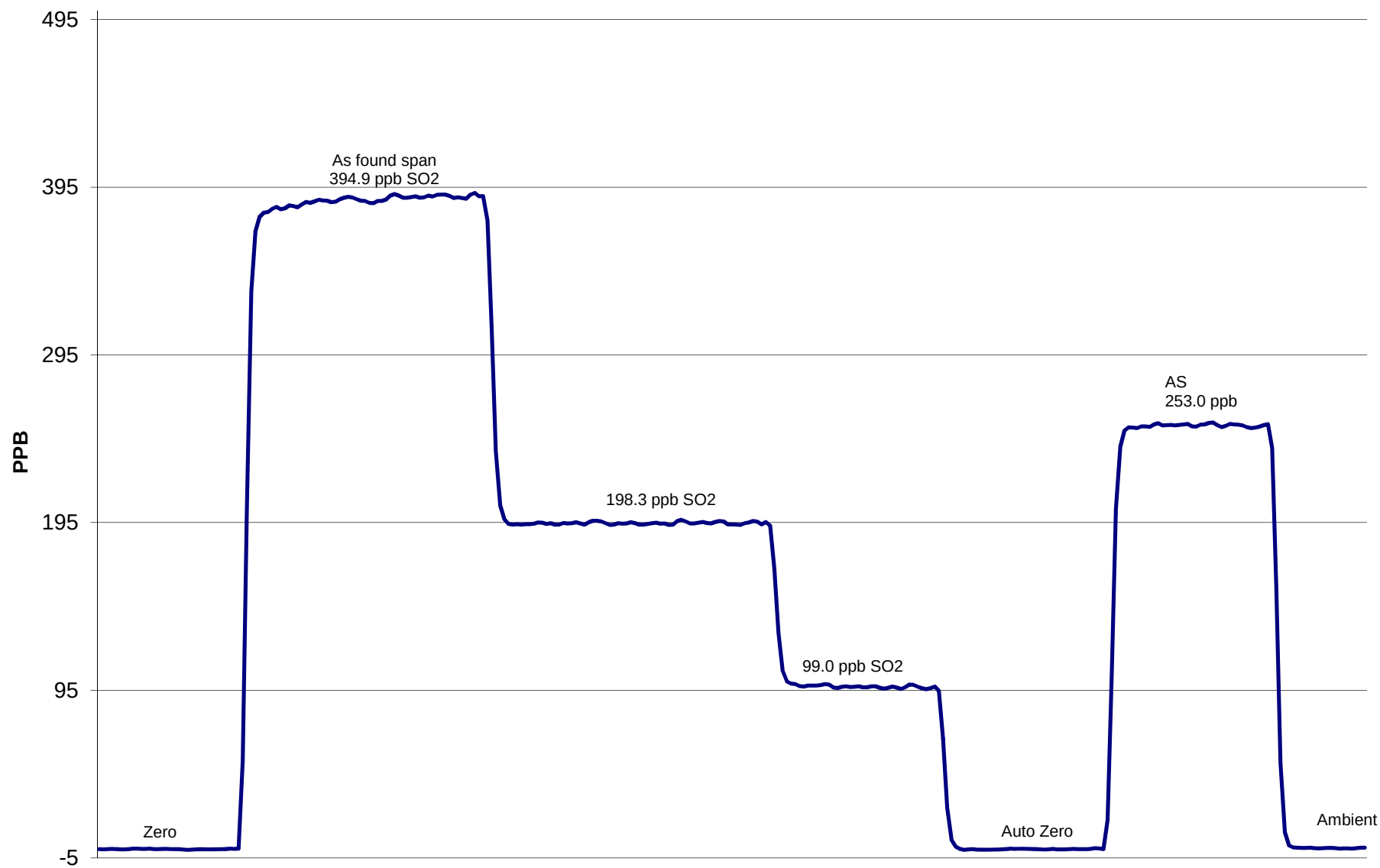
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A	Correlation Coefficient	0.999990
394.9	389.7	1.0136		
198.3	194.9	1.0174		
99.0	96.8	1.0226	Slope	1.013392
			Intercept	0.386269

SO2 Calibration Curve



SO2 Calibration



September 15 2015

Calibration Report



Parameter TRS

Air Monitoring Network PAZA

Station Information

Calibration Date	September 15 2015	Previous Calibration	August 7 2015
Station Number	2	Station Location	Evergreen Park
Reason:	Routine	Install	Removal
			Other:
Start Time (MST)	9:15	End Time (MST)	12:10
Barometric Pressure	0.920 ATM	Station Temperature	22.0 Deg C
Calibrator	EnviroNics	Serial Number	6586
Cal Gas Conc	10.32 ppm	Cal Gas Expiry Date	08/07/2016
Correction factor	0.031061	Cal Gas Cylinder #	LL110781
DACS make	CR3000	DACS serial No.	5236
DACS voltage range	0 - 5 volt	DACS channel #	5
	Before		After
Calculated slope	1.014627	Calculated slope	0.998662
Calculated intercept	-0.165585	Calculated intercept	0.227230

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

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	41.6	ppb	42	ppb
coefficient	0.947		0.947	
Lamp Voltage	1058	volts	1091	volts
Chamber Temp	44.2	Deg C	44.2	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	637.9	mm Hg	639.8	mm Hg
Sample Flow	0.585	ccm	0.585	ccm
Lamp Intensity	31,421	mv	30,889	mv

Calibration Data

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.00	-0.2	N/A
4995	39.93	81.84	81.8	1.0000
4995	19.97	41.10	40.6	1.0111
6995	9.97	14.69	14.6	1.0070
4995	9.97		0.0	Sox Test
4995	0.00	0.00	0.8	As Found Zero
4995	39.93	81.84	80.0	As Found Span
Average Correction Factor				1.0060

Calculated value of As Found Response: 80.23 ppm Percent Change of As Found: **2.0%**

	before calibration		after calibration	
Auto zero	0.4	ppm	0.2	ppm
Auto span	73.5	ppm	73.6	ppm

Notes: Zero canister carbon replaced
Sox scrubber material replaced
Zero adjustment performed

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter TRS

Air Monitoring Network PAZA



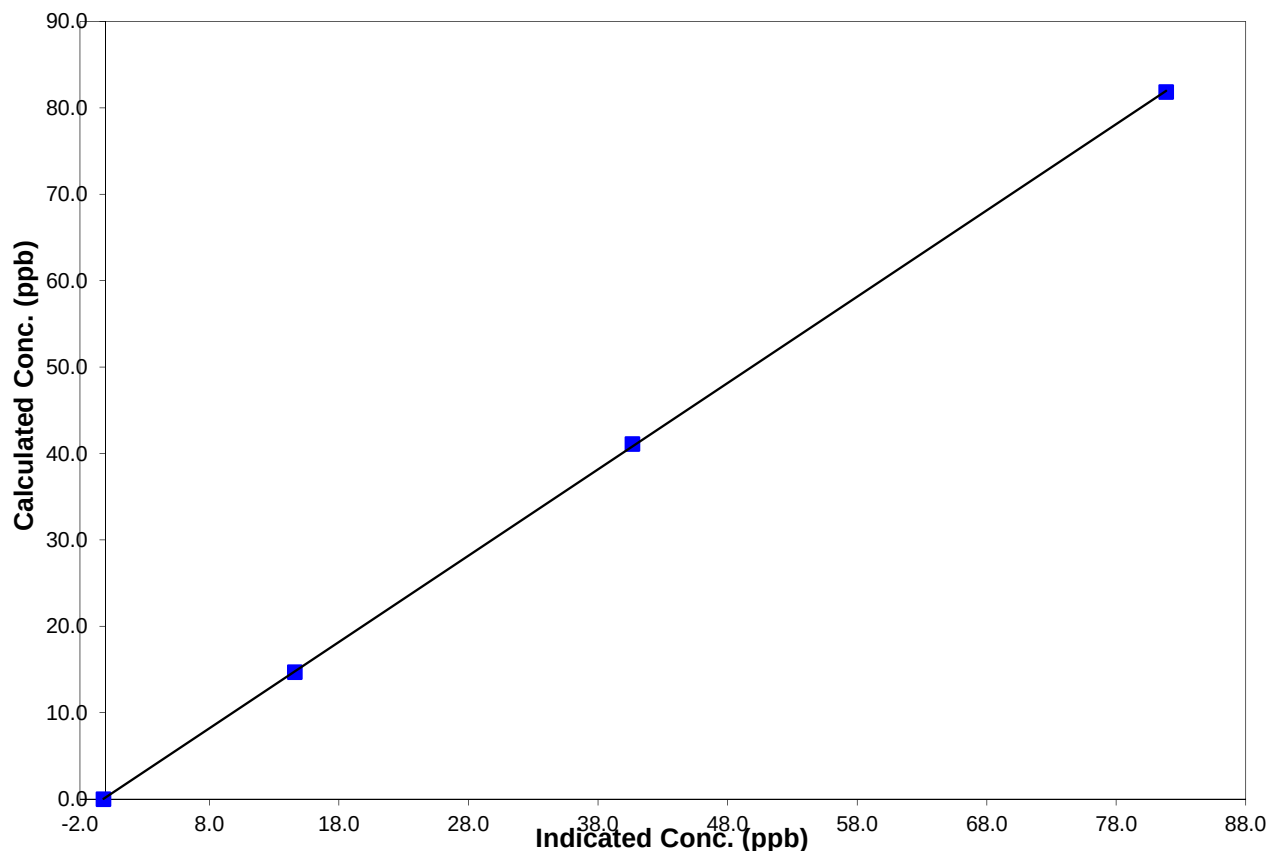
Station Information

Calibration Date	September 15 2015	Previous Calibration	August 7 2015
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	9:15	End Time (MST)	12:10
Analyzer make/model	TEI Model 43C	Analyzer serial #	31990000000491

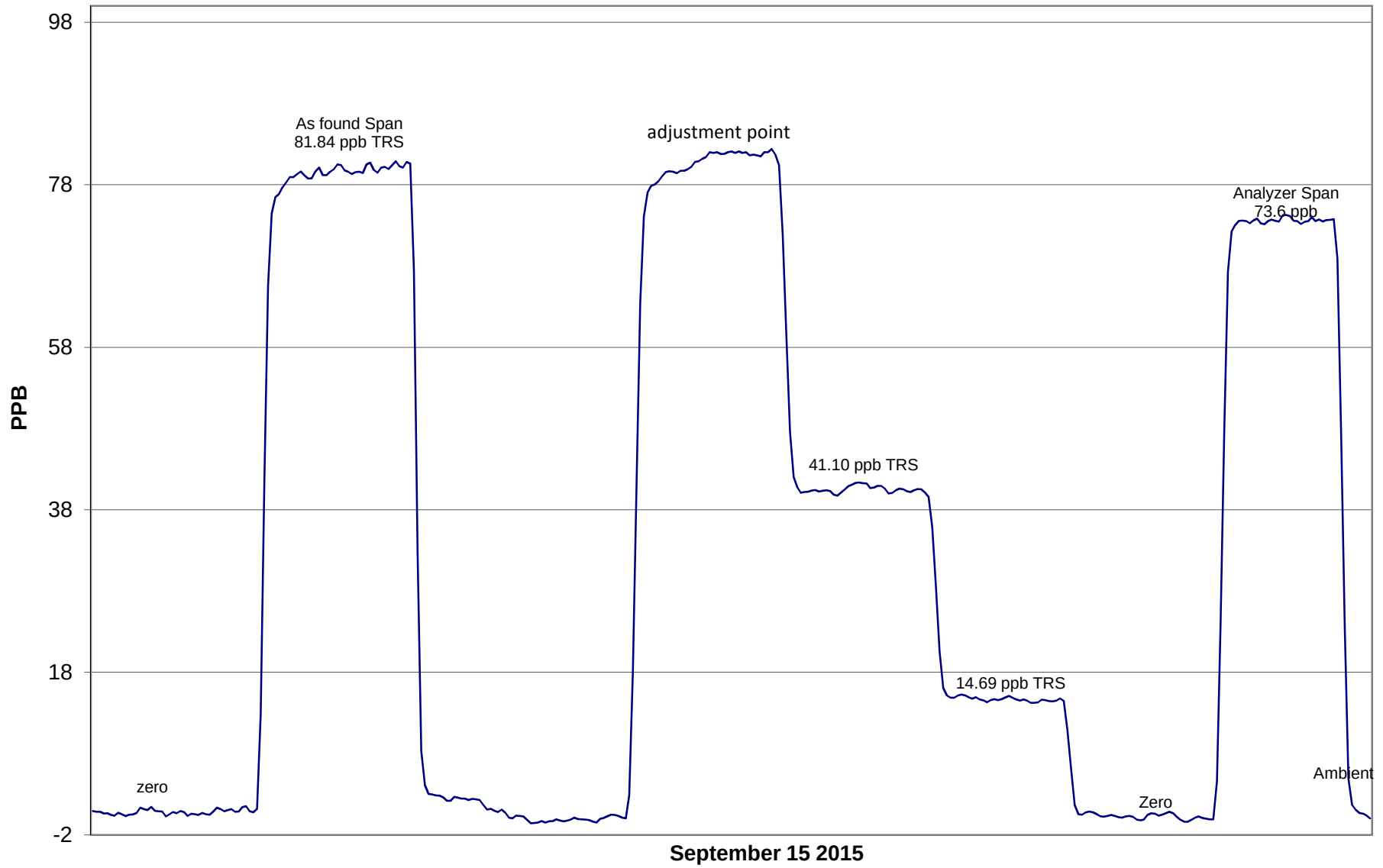
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.2	N/A	Correlation Coefficient	0.999973
81.8	81.8	1.0000		
41.1	40.6	1.0111		
14.7	14.6	1.0070	Slope	0.998662
			Intercept	0.227230

TRS Calibration Curve



TRS Calibration



Calibration Report

Parameter SO₂

Air Monitoring Network PAZA



Station Information

Calibration Date	September 10, 2015	Previous Calibration	August 10, 2015
Station Number	3	Station Location	Smokey Heights
Reason:	Routine	Install	Removal
		Other:	
Start Time (MST)	13:50:00 AM	End Time (MST)	15:55:00 PM
Barometric Pressure	0.927 ATM	Station Temperature	20.5 Deg C
Calibrator	EnviroNics	Serial Number	6586
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	0.994143	Calculated slope	1.003036
Calculated intercept	2.493260	Calculated intercept	0.033289
Analyzer make	Teco 43i	Analyzer serial #	701120009

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	11.8		11.7	
coefficient	0.921		0.921	
Lamp Voltage	930	volts	930	volts
Chamber Temp	45.1	Deg C	45	Deg C
Perm Gas Temp	45.01	Deg C	45	Deg C
Pressure	671.1	mm Hg	671.4	mm Hg
Sample Flow	0.450	lpm	0.450	lpm
Lamp Intensity	87	%	88	%

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.0	0.00	0.7	N/A
4995	39.93	394.94	394.2	1.0020
4995	19.97	198.31	197.1	1.0063
4995	9.97	99.20	98.3	1.0094
4995	0.0	0.00	0.7	As Found Zero
4995	39.93	394.94	394.2	As Found Span
Average Correction Factor				1.0059

Calculated value of As Found Response: 393.639 ppm Percent Change of As Found: 0.3%

	before calibration		after calibration	
Auto zero	0.6	ppb	0.7	ppb
Auto span	248.6	ppb	245.1	ppb

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter SO2

Air Monitoring Network PAZA



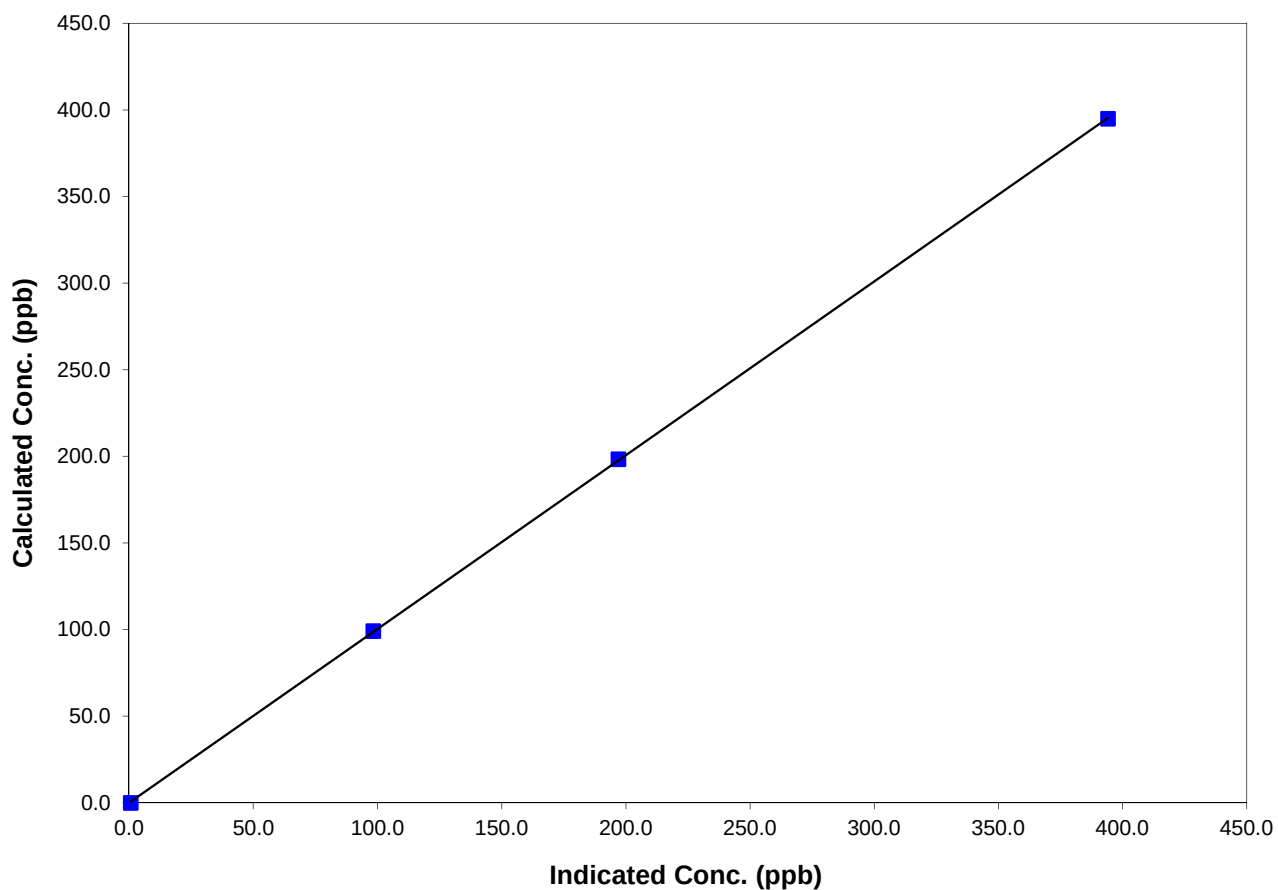
Station Information

Calibration Date	September 10, 2015	Previous Calibration	August 10, 2015
Station Number	3	Station Location	Smokey Heights
Start Time (MST)	13:50:00 AM	End Time (MST)	15:55:00 PM
Analyzer make/model	Teco 43i	Analyzer serial #	701120009

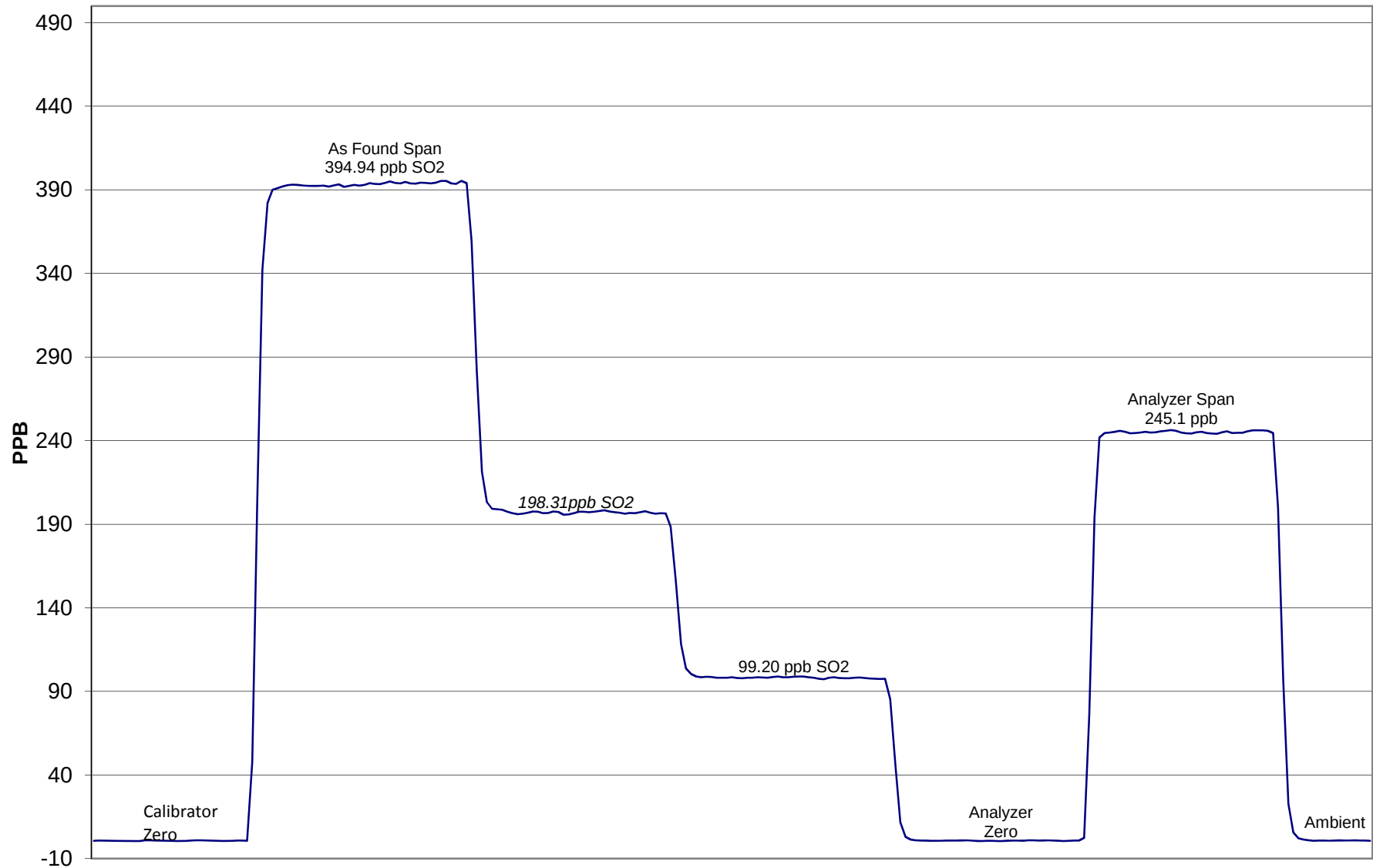
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.7	N/A	Correlation Coefficient	0.999983
394.9	394.2	1.0020		
198.3	197.1	1.0063		
99.2	98.3	1.0094	Slope	1.003036
			Intercept	0.033289

SO2 Calibration Curve



Smokey Heights SO₂ Calibration



September 10, 2015

Calibration Report



Parameter TRS

Air Monitoring Network PAZA

Station Information

Calibration Date	September 11, 2015	Previous Calibration	August 10, 2015
Station Number	3	Station Location	Smokey Heights
Reason:	Routine	Install	Removal
			Other:
Start Time (MST)	8:36	End Time (MST)	16:13:00 PM
Barometric Pressure	0.927 ATM	Station Temperature	20.5 Deg C
Calibrator	Envionics	Serial Number	6586
Cal Gas Conc	10.32 ppm	Cal Gas Expiry Date	08/07/2016
Correction factor	0.031458	Cal Gas Cylinder #	BLM00586
DACS make	CR3000	DACS serial No.	5238
DACS voltage range	0 - 5 volt	DACS channel #	5
	Before		After
Calculated slope	0.982188	Calculated slope	0.995818
Calculated intercept	0.550698	Calculated intercept	-0.220003

Analyzer make TEI Model 43C Analyzer serial # 0436610005

	before		after	
Concentration range	100	ppb	100	ppb
Background	22.8	ppb	23.9	ppb
coefficient	1.003		1.012	
Lamp Voltage	855	volts	851	volts
Chamber Temp	43.8	Deg C	44.1	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	630.1	mm Hg	607.5	mm Hg
Sample Flow	0.639	lpm	0.627	lpm
Lamp Intensity	34,576	mv	34,562	mv

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4998	0.0	0.00	0.4	N/A
4998	39.96	81.86	82.5	0.9925
4998	19.97	41.07	41.4	0.9914
6998	9.97	14.68	14.8	0.9945
4998	9.97			Sox test
4998	0.0	0.00	0.0	As Found Zero
4998	39.96	81.86	81.0	As Found Span
Average Correction Factor				0.9928

Calculated value of As Found Response: 80.11 ppm Percent Change of As Found: 2.1%

	before calibration		after calibration	
Auto zero	0.4	ppm	0.4	ppm
Auto span	30.8	ppm	31.5	ppm

Notes: Zero adjustment made
 Scrubber material & glass tube in the oxidizer replaced
 Scrubber materila tube washed

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter TRS

Air Monitoring Network PAZA



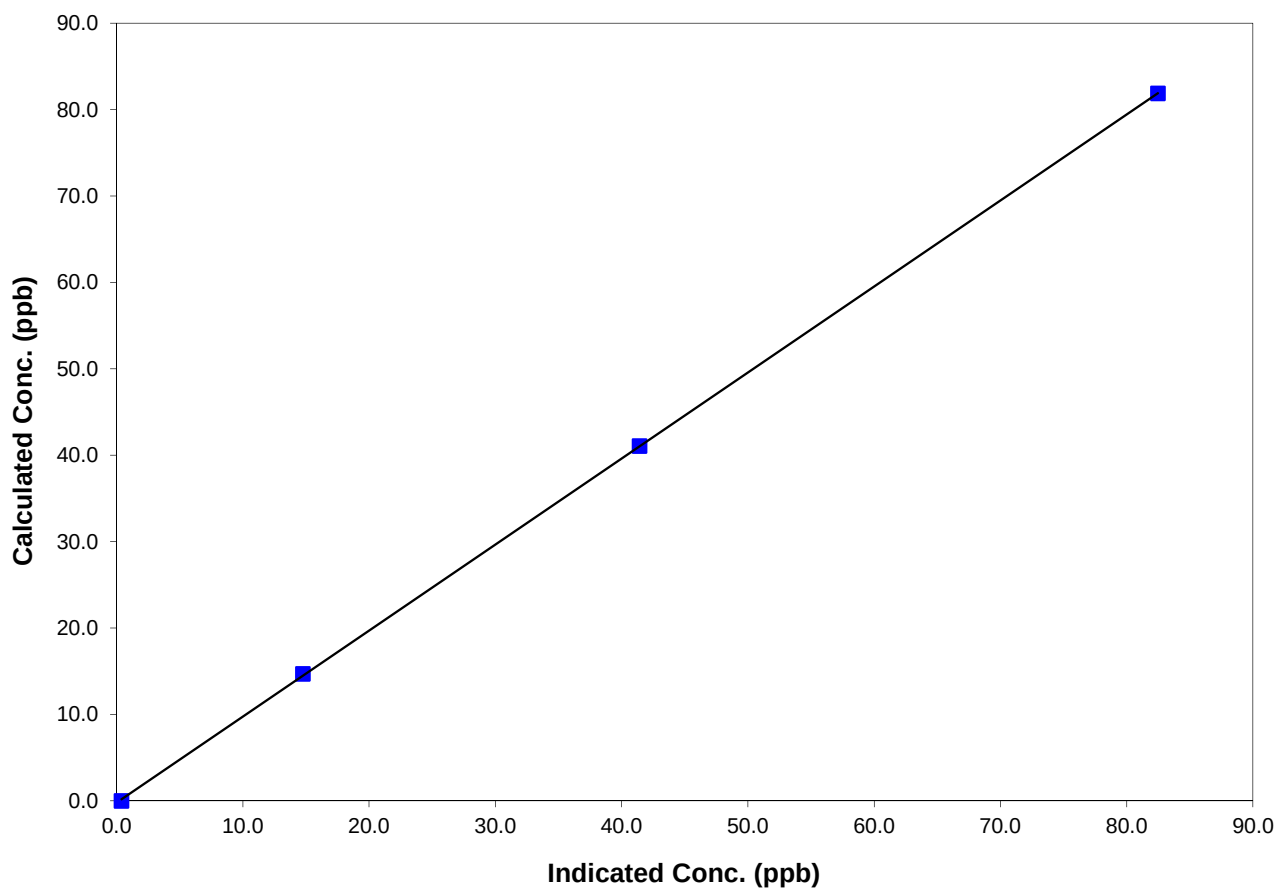
Station Information

Calibration Date	September 11, 2015	Previous Calibration	August 10, 2015
Station Number	3	Station Location	Smokey Heights
Start Time (MST)	8:36	End Time (MST)	16:13:00 PM
Analyzer make/model	TEI Model 43C	Analyzer serial #	0436610005

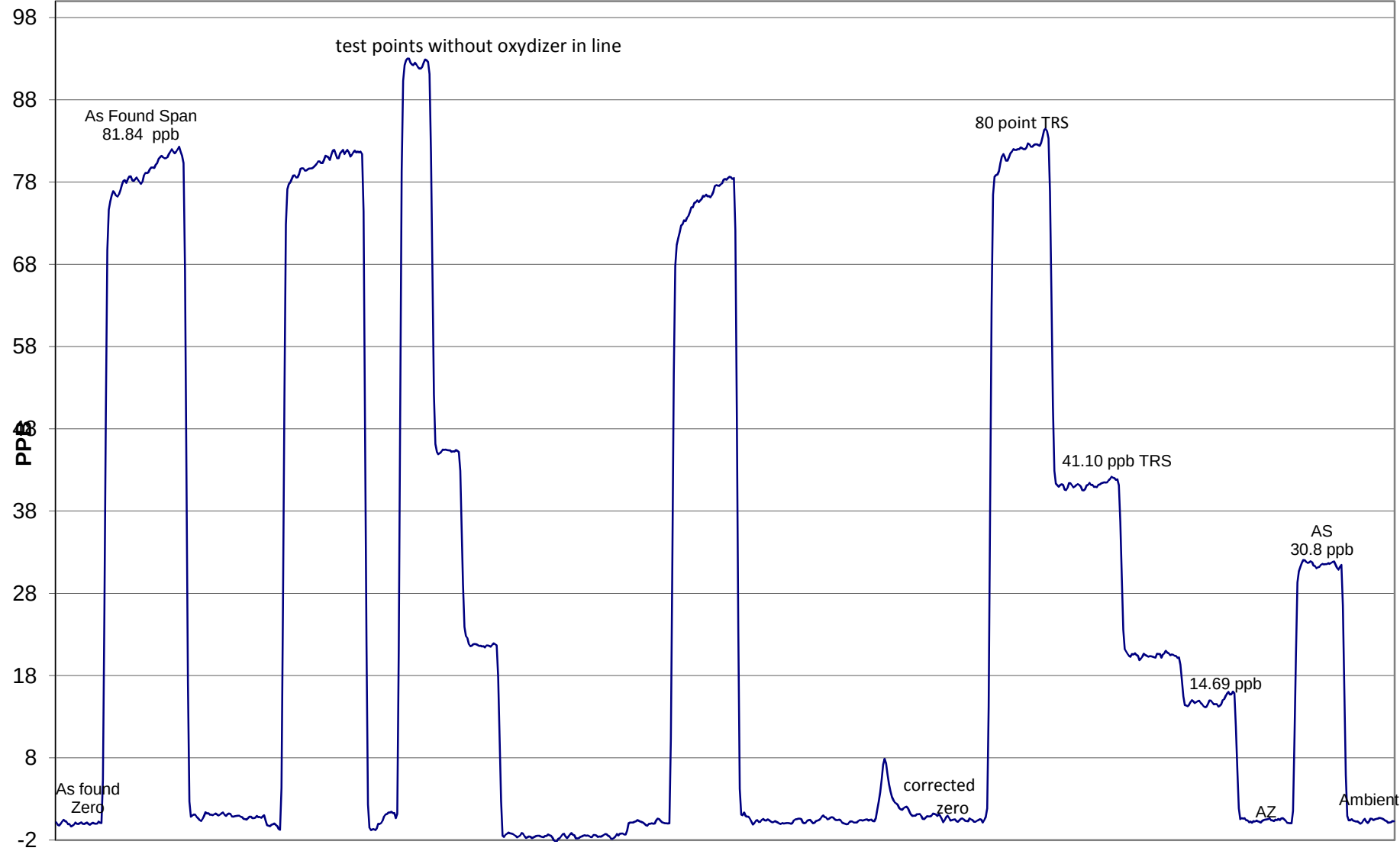
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.4	N/A	Correlation Coefficient	0.999980
81.9	82.5	0.9925		
41.1	41.4	0.9914		
14.7	14.8	0.9945	Slope	0.995818
			Intercept	-0.220003

TRS Calibration Curve



Smokey Heights TRS Calibration



September 11, 2015

Calibration Report

Parameter SO2

Air Monitoring Network PAZA



Station Information

Calibration Date	September 9, 2015	Previous Calibration	August 6, 2015
Station Number	4	Station Location	Beaverlodge
Reason:	Routine	Install	Removal
		Other:	
Start Time (MST)	14:30:00 PM	End Time (MST)	16:50:00 PM
Barometric Pressure	0.928 atm	Station Temperature	20.0 Deg C
Calibrator	EnviroNics	Serial Number	6586
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	0.989043	Calculated slope	0.992287
Calculated intercept	0.200775	Calculated intercept	-0.196357
Analyzer make	TEI Model 43i-TLE	Analyzer serial #	713021137

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	2.64		2.73	
Coefficient	1.005		1.047	
PMT	-768.5	V	-768.5	V
UV Lamp Voltage	1084	V	1083	V
Chamber Temp	45.2	Deg C	45.04	Deg C
Pressure	663.1	mm Hg	663.2	mm Hg
Sample Flow	0.461	LPM	0.461	LPM
Lamp Intensity	95	%	96	%

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4994	0.00	0.0	0.1	N/A
4994	39.92	85.6	86.4	0.9908
4994	19.96	43.0	43.6	0.9864
4994	9.96	21.5	22.0	0.9767
4994	0.00	0.0	0.1	As found zero
4994	39.92	85.6	82.4	As found span
Average Correction Factor				0.9846

Calculated value of As Found Response: 81.674 ppm Percent Change of As Found: 4.6%

	before calibration		after calibration	
Auto zero	0.3	ppb	-0.2	ppb
Auto span	59.2	ppb	61.5	ppb

Notes: Span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter SO2

Air Monitoring Network PAZA



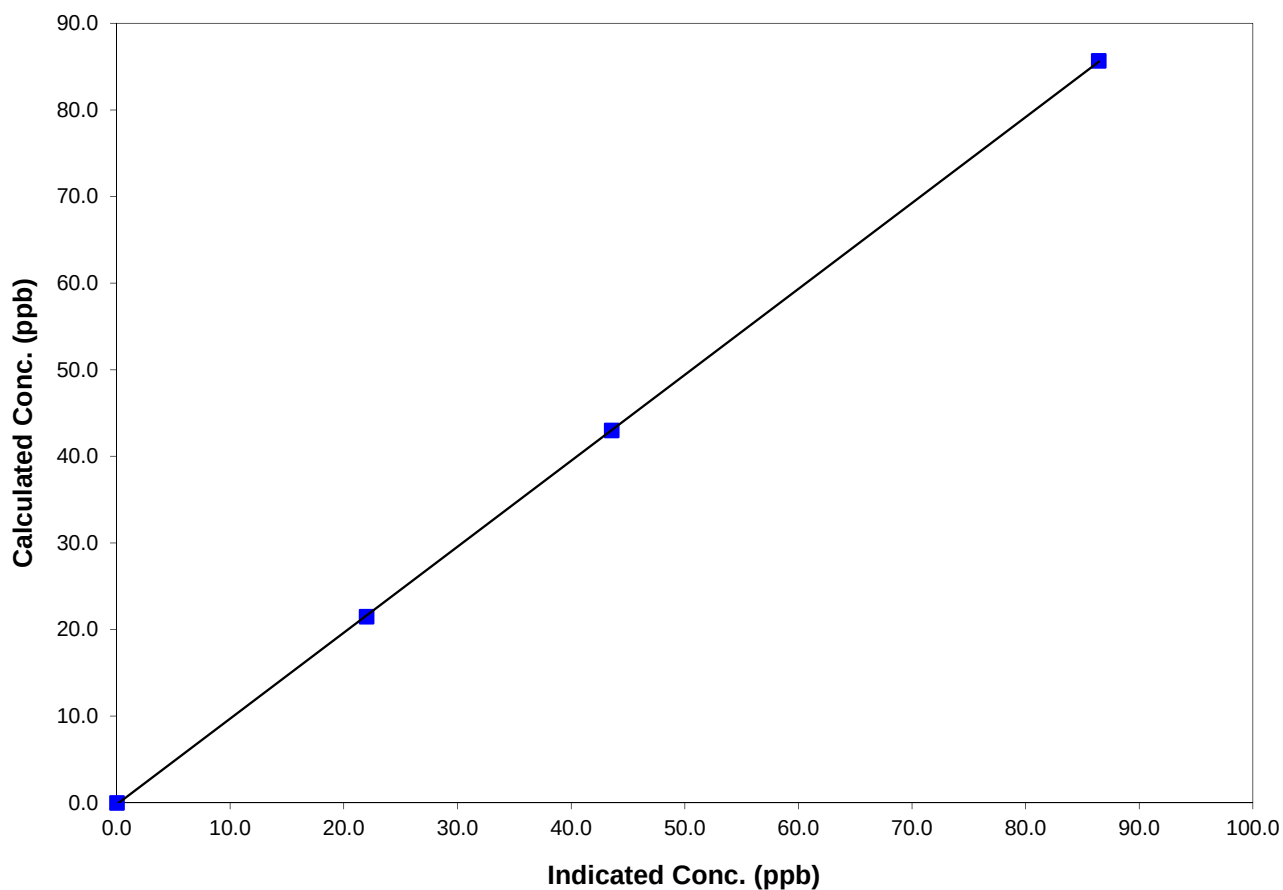
Station Information

Calibration Date	September 9, 2015	Previous Calibration	August 6, 2015
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	14:30:00 PM	End Time (MST)	16:50:00 PM
Analyzer make/model	TEI Model 43i-TLE	Analyzer serial #	713021137

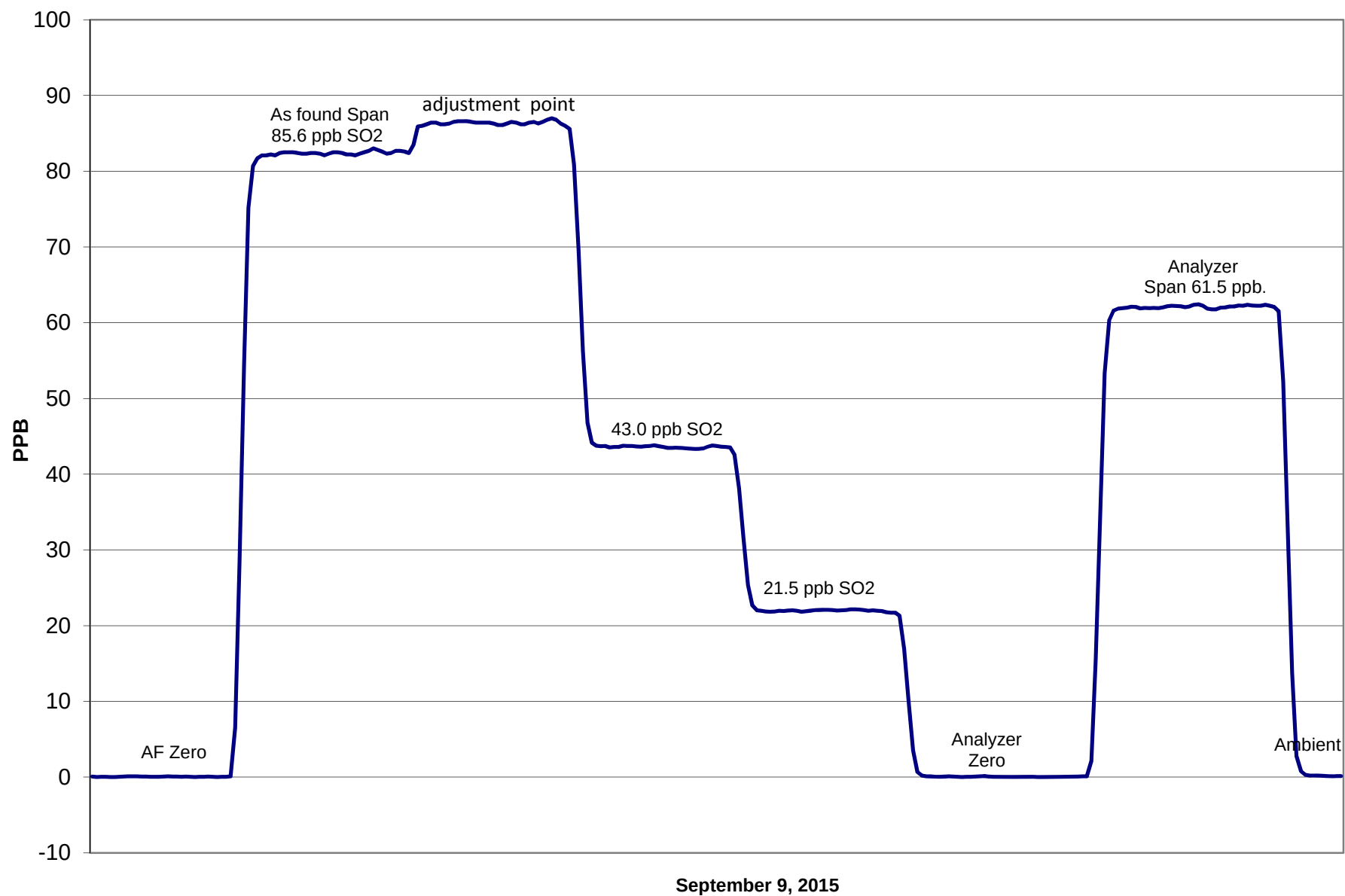
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A	Correlation Coefficient	0.999988
85.6	86.4	0.9908		
43.0	43.6	0.9864		
21.5	22.0	0.9767	Slope	0.992287
			Intercept	-0.196357

SO2 Calibration Curve



SO2 Calibration



Calibration Report

Parameter

NO_x-NO-NO₂

Air Monitoring Network

PAZA



Station Information

Calibration Date	August 6 2015	Previous Calibration	September 9 2015
Station Number	4	Station Location	Beaverlodge
Reason:	Routine	Installation	Removal
Start Time (MST)	9:00	End Time (MST)	14:30:00 PM
Barometric Pressure	0.928 Atm	Station Temperature	20.0 Deg C
Calibrator	EnviroNics	Serial Number	6586
NO Cal Gas Conc	50.9 ppm	Cal Gas Expiry Date	March 10, 2017
NOx Cal Gas Conc	51.2 ppm	Cal Gas Serial #	LL119493

DACS Information

DACS make	CR3000	DACS serial No.	5237
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Parameter		NO2	NOx	NO
Before	Data Slope	0.995528	1.001164	1.001356
	Data Offset	-0.699384	0.871716	1.569757
After	Data Slope	0.995416	1.000781	1.000640
	Data Offset	-1.097095	-0.088392	0.168432
Channel #		8	6	7
Voltage Range		0 - 5 VDC	0 - 5 VDC	0 - 5 VDC

Analyzer Information

Analyzer make/model	TEI 42i	Analyzer serial #	906535068
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Test Point	before		after	
Concentration range	0-500	ppb	0-500	ppb
NO offset	2.6	mV	2.6	mV
NOx bkgnd	3.1	mV	3.1	mV
NO coefficient	1.099		1.108	
NOx coefficient	1.004		1.005	
NO2 conv temp	322.6	Deg C	322.3	Deg C
PMT Temp	-2.9	Deg C	-2.9	Deg C
PMT Volt	-730.0	mV	-730.0	mV
R Cell Press	185.8	in Hg	186.3	in Hg
Sample Flow	0.731	LPM	0.731	LPM

Notes: NO adjustments made

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	0.4	0.0	0.2	N/A	N/A
1	4995	39.92	405.9	403.6	2.4	405.9	403.4	1.7	1.0002	1.0005
2	4995	19.96	203.8	202.6	1.2	203.6	201.9	0.8	1.0010	1.0036
3	4995	9.93	101.6	101.0	0.6	101.2	100.8	0.3	1.0033	1.0023
AFZ	4995	0.00	0.0	0.0	0.0	0.4	0.0	0.2	0.0000	0.0000
AFS	4995	39.92	405.9	403.6	0.8	405.9	403.4	1.7	1.0002	1.0005
Average Correction Factor									1.0015	1.0021

As Found Concentrations: NO_x= 406.8 NO= 405.4 As Found Percent Change NO_x= 0.2% NO= 0.5%

GPT Calibration Data

Dilution Flow 4995 ccm Source Gas Flow 39.93 ccm

O3 Setpoint (ppb)	Indicated NOx high point (ppb)	Indicated NO drop conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor	NO2 Correction factor	Converter Efficiency
0	0.0	0.0	0.0	0.4	0.0	0.2	N/A	N/A	N/A	N/A
NO point	401.1	401.1	0.0	403.5	401.1	1.6	0.9941	1.0000	N/A	N/A
300	401.1	88.7	312.4	403.9	88.7	314.5	0.9930	1.0000	0.9935	100.7%
200	401.1	191.2	209.9	404.2	191.2	212.1	0.9922	1.0000	0.9897	101.0%
100	401.1	301.3	99.8	404.5	301.3	102.6	0.9916	1.0000	0.9722	102.9%
Average Correction Factor							0.9923	1.0000	0.9851	101.5%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	0.4	0.2	0.1	ppb	0.1	0.0	0.0	ppb
Auto span	273.8	269.9	3.0	ppb	265.1	261.5	2.7	ppb

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter NO₂

Air Monitoring Network PAZA



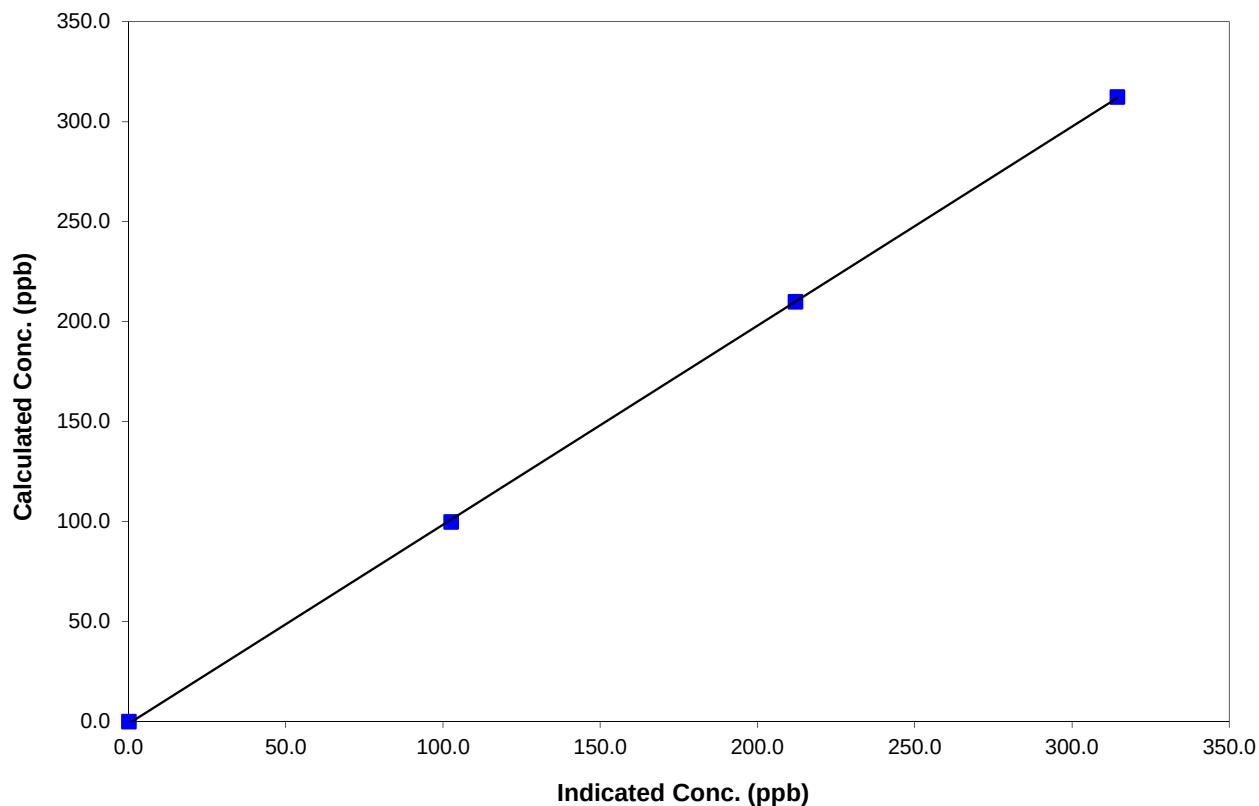
Station Information

Calibration Date	August 6 2015	Previous Calibration	September 9 2015
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	9:00	End Time (MST)	14:30:00 PM
Analyzer make	TEI 42i	Analyzer serial #	906535068

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A	Correlation Coefficient	0.999950
312.4	314.5	0.9935		
209.9	212.1	0.9897		
99.8	102.6	0.9722	Slope	0.995416
			Intercept	-1.097095

NO₂ Calibration Curve



Calibration Summary

Parameter NO_x

Air Monitoring Network PAZA



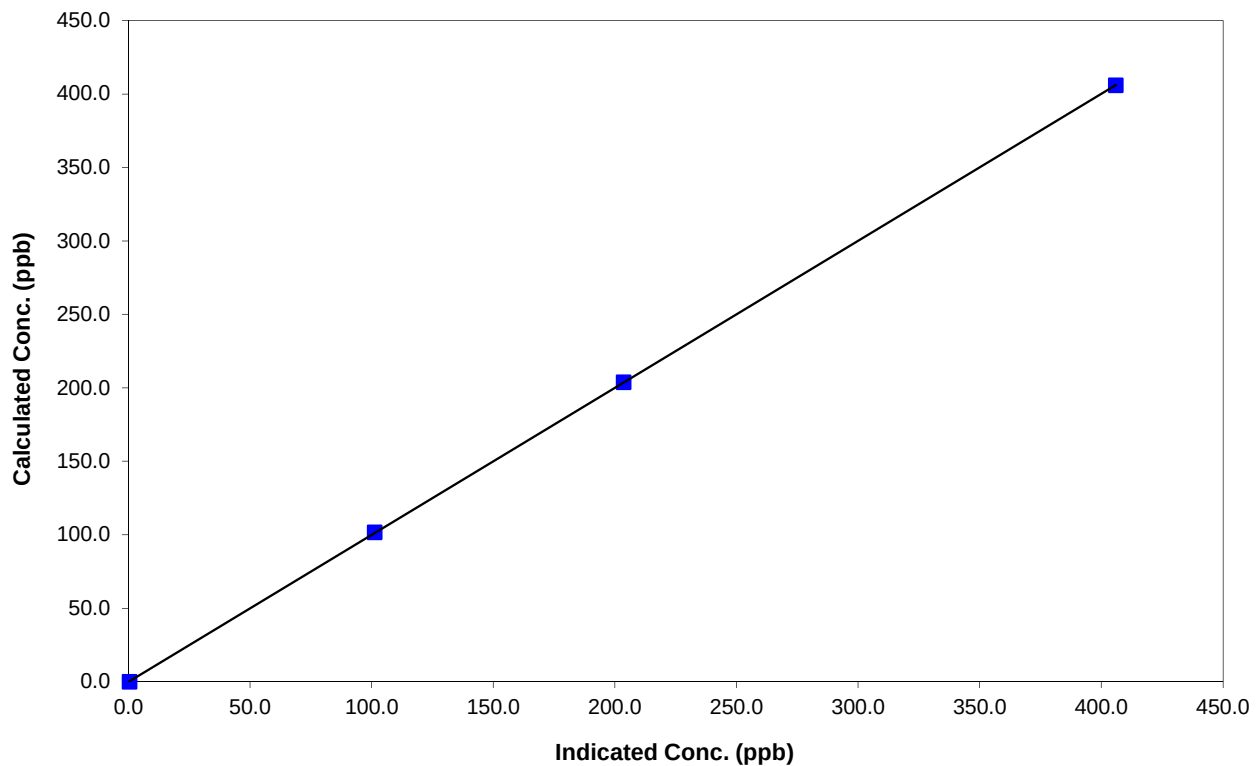
Station Information

Calibration Date	August 6 2015	Previous Calibration	September 9 2015
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	9:00	End Time (MST)	14:30:00 PM
Analyzer make	TEI 42i	Analyzer serial #	906535068

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.4	N/A	Correlation Coefficient	0.999997
405.9	405.9	1.0002		
203.8	203.6	1.0010		
101.6	101.2	1.0033	Slope	1.000781
			Intercept	-0.088392

NO_x Calibration Curve



Calibration Summary

Parameter NO

Air Monitoring Network PAZA



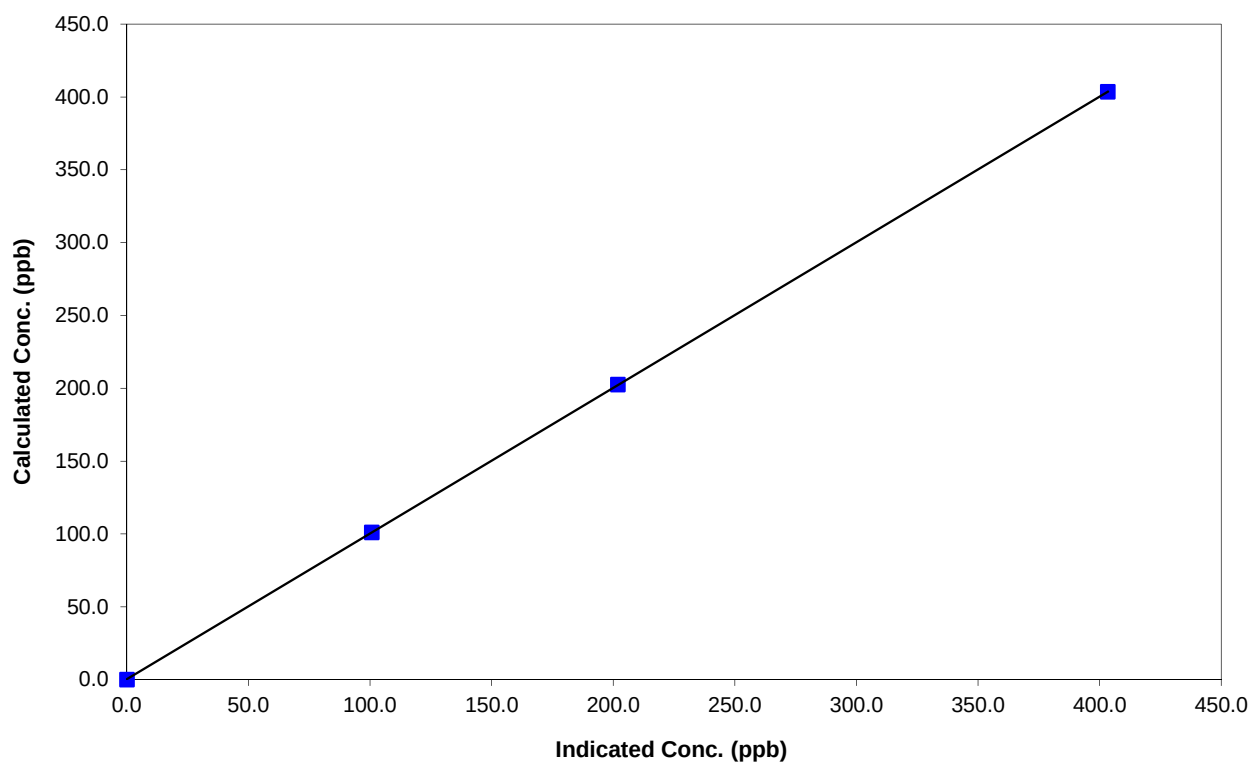
Station Information

Calibration Date	August 6 2015	Previous Calibration	September 9 2015
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	9:00	End Time (MST)	14:30:00 PM
Analyzer make	TEI 42i	Analyzer serial #	906535068

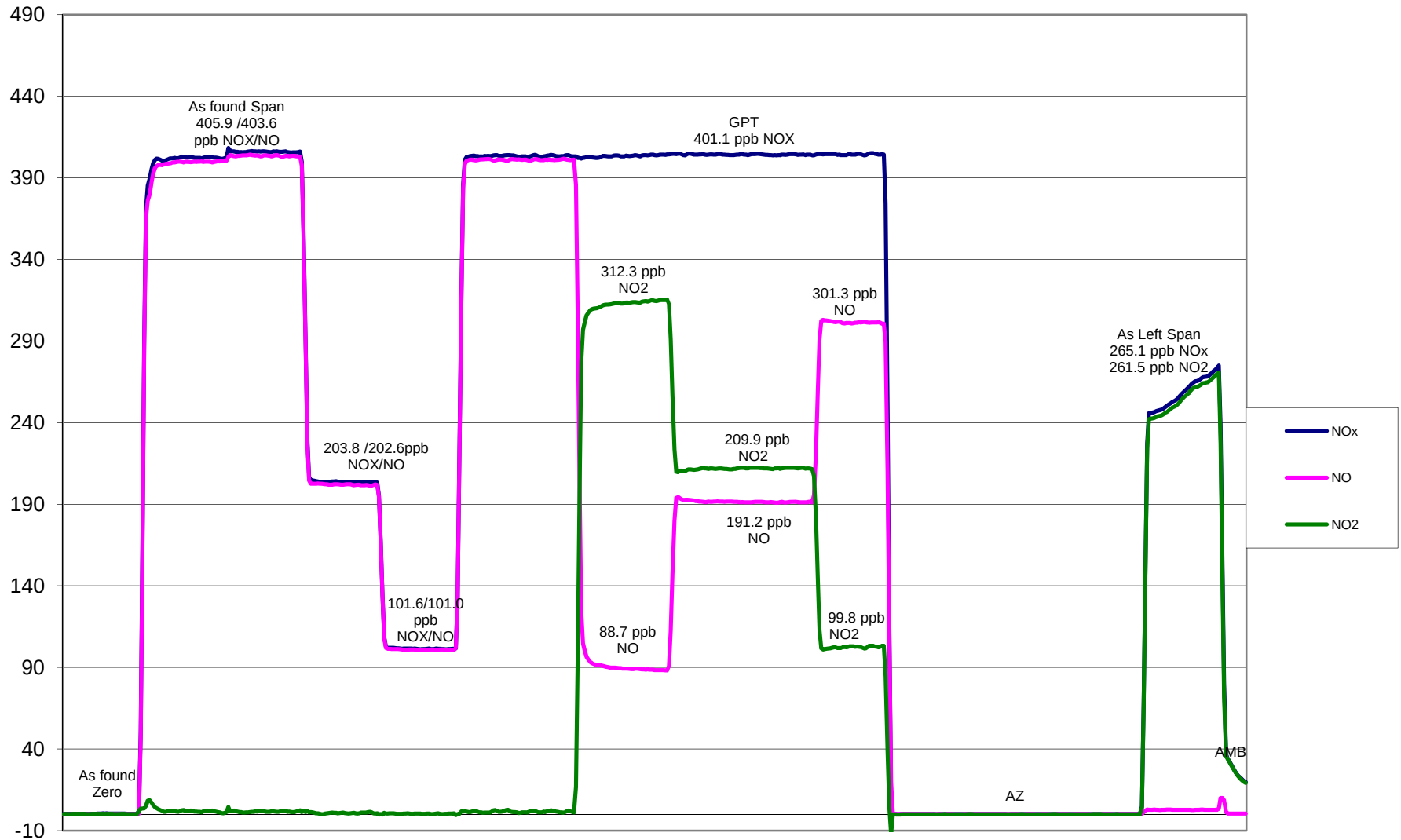
Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A	Correlation Coefficient	0.999997
403.6	403.4	1.0005		
202.6	201.9	1.0036		
101.0	100.8	1.0023	Slope	1.000640
			Intercept	0.168432

NO Calibration Curve



NO_x Calibration



August 6 2015

Calibration Report



Parameter 03

Air Monitoring Network PAZA

Station Information

Calibration Date	September 9, 2014	Previous Calibration	August 6, 2014
Station Number	4	Station Location	Beaverlodge
Reason:	Routine	Install	Removal
		Other:	

Start Time (MST)	12:45	End Time (MST)	15:15:00 PM
Barometric Pressure	0.928 atm	Station Temperature	20.0 Deg C
Calibrator	EnviroNics	Serial Number	6586
Cal Gas Concentration	NA	Cal Gas Expiry Date	NA

DACS make	CR3000	DACS serial No.	5237
DACS voltage range	0 - 5 volt	DACS channel #	9
	Before		After
Calculated slope	0.995362	Calculated slope	1.012865
Calculated intercept	0.514075	Calculated intercept	-0.269359

Analyzer make	Teco 49i	Analyzer serial #	1136451236,AMU 1879
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	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	56442/61281	mV	56307/61879	mV
Pressure	681.7	mm Hg	682.2	mm Hg
Flow A	0.785	LPM	0.784	LPM
Flow B	0.746	LPM	0.745	LPM

Calibration Data

Dilution air flow rate (cc/min)	Calibrator Setting	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
5035	0.00	0.0	0.2	N/A
5035	0.30	312.3	308.9	1.0111
5035	0.20	209.2	206.2	1.0145
5035	0.10	99.8	99.2	1.0056
5035	0.00	0.0	0.2	As found zero
5035	0.30	312.3	308.9	As found span
Average Correction Factor				1.0104

Calculated value of As Found Response: 307.8 ppm Percent Change of As Found: -1.4%

	before calibration		after calibration	
Auto zero	0.1	ppb	0.1	ppb
Auto span	264.5	ppb	262.7	ppb

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter O3

Air Monitoring Network PAZA



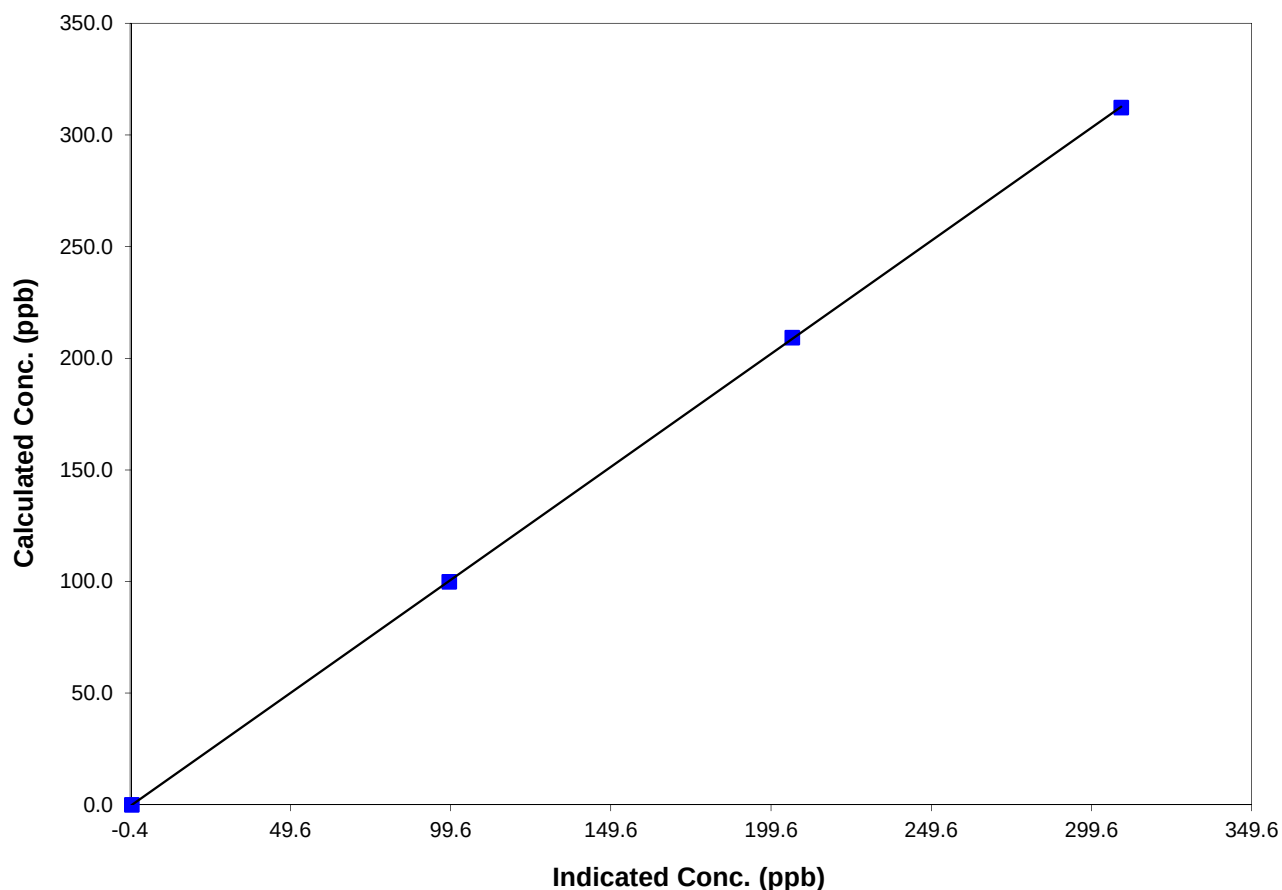
Station Information

Calibration Date	September 9, 2014	Previous Calibration	August 6, 2014
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	12:45	End Time (MST)	15:15:00 PM
Analyzer make/model	Teco 49i	Analyzer serial #	1136451236,AMU 1879

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	NA	Correlation Coefficient	0.999988
312.3	308.9	1.0111		
209.2	206.2	1.0145		
99.8	99.2	1.0056	Slope	1.012865
			Intercept	-0.269359

O3 Calibration Curve



O3 Calibration



September 9, 2014

Calibration Report

Parameter SO2

Air Monitoring Network PAZA



Station Information

Calibration Date	Septemeber 18 2015	Previous Calibration	August 11 2015
Station Number	6	Station Location	Valleyview
Reason:	Routine	Install	Removal
Start Time (MST)	11:35	End Time (MST)	13:55:00 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
	Before		After
DACS Scale High	500	DACS slope	500
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.995832	Calculated slope	0.994725
Calculated intercept	2.590787	Calculated intercept	-0.013511
Analyzer make	TEI 43C	Analyzer serial #	609716239

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Background	15.6		15.6	
Coefficient	1.012		1.012	
UV Lamp Voltage	730	LPM	730	LPM
Chamber Temp	42.8	V	43	V
Perm Gas Temp	45	C	45	C
Pressure	668.6	in Hg	668.9	in Hg
Sample Flow	0.485	LPM	0.484	LPM
Lamp Intensity	47716]	Hz	47760	Hz

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.0	0.5	N/A
4995	39.93	394.9	397.5	0.9936
4995	19.97	198.3	198.6	0.9987
4995	9.95	99.0	99.4	0.9960
4995	0.00	0.0	0.5	As found zero
4995	39.93	394.9	397.5	As found span
Average Correction Factor				0.9961

Calculated value of As Found Response: 397.9 ppm Percent Change of As Found: -0.7%

	before calibration		after calibration	
Auto zero	0.1	ppm	0.5	ppm
Auto span	276.3	ppm	285.7	ppm

Notes: No adjustment made
Vent fiter on the back of the analyzer replaced

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter SO2

Air Monitoring Network PAZA



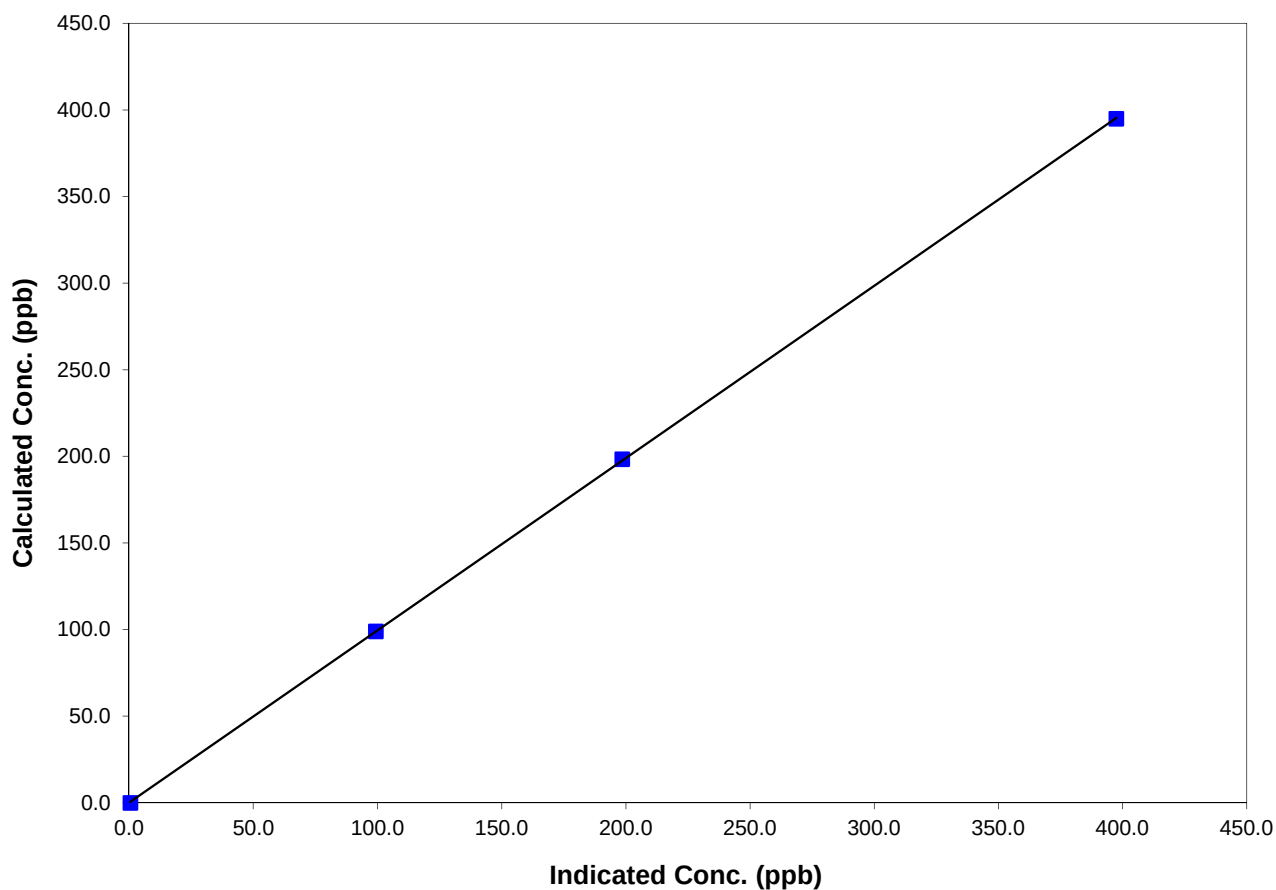
Station Information

Calibration Date	Septemeber 18 2015	Previous Calibration	August 11 2015
Station Number	6	Station Location	Valleyview
Start Time (MST)	11:35	End Time (MST)	13:55:00 PM
Analyzer make/model	TEI 43C	Analyzer serial #	609716239

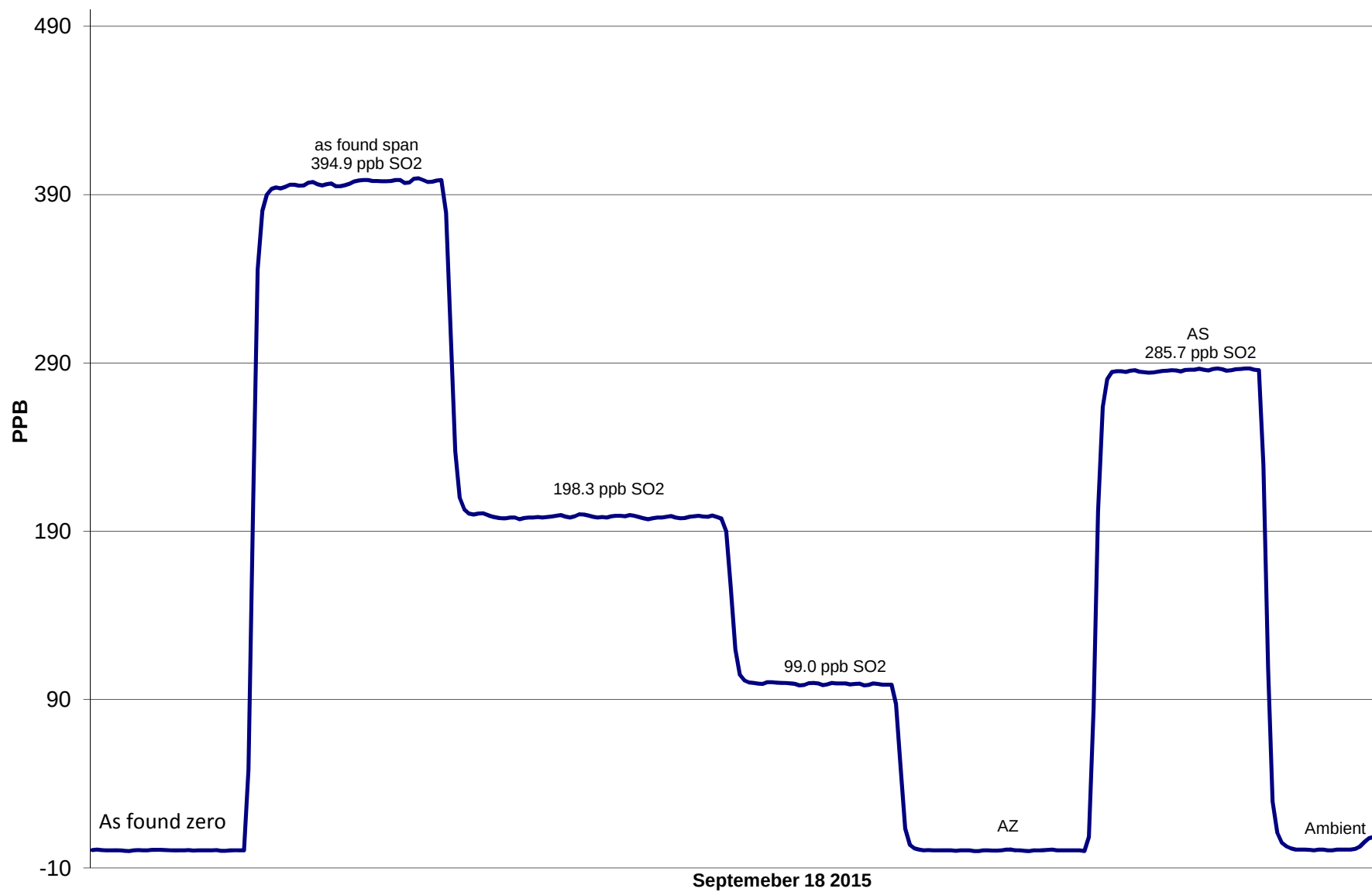
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.5	N/A	Correlation Coefficient	0.999987
394.9	397.5	0.9936		
198.3	198.6	0.9987		
99.0	99.4	0.9960	Slope	0.994725
			Intercept	-0.013511

SO2 Calibration Curve



SO2 Calibration



Calibration Report



Parameter H2S
Air Monitoring Network

PAZA

Station Information

Calibration Date	Septemeber 11 2015	Previous Calibration	August 11 2015
Station Number	6	Station Location	Valleyview
Reason:	Routine	Install	Removal
		Other:	
Start Time (MST)	9:31	End Time (MST)	12:25
Barometric Pressure	0.929 atm	Station Temperature	22.5 Deg C
Calibrator	EnviroNics	Serial Number	6586
Cal Gas Concentration	10.32 ppm	Cal Gas Expiry Date	July 03 2016
Gas Cert Reference	LL110781		
DACS make	CR3000	DACS serial No.	5409
DACS voltage range	0 - 5 volt	DACS channel #	9
	<u>Before</u>		<u>After</u>
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.996593	Calculated slope	1.002039
Calculated intercept	0.150639	Calculated intercept	-0.277156

Analyzer make TEI Model 43i - APSCB Analyzer serial # 701120010

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Back Ground	7.4	ppb	7.4	ppb
Coefficient	0.871		0.871	
Lamp Voltage	790	v	790	v
Chamber Temp	44.9	c	45	c
Perm Oven Temp	45	c	45	c
Pressure	551.00	mm Hg	551.00	mm Hg
Sample Flow	0.378	ccm	0.378	lpm
Lamp Intensity	91	%	91	%

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.0	0.2	N/A
4997	39.91	81.8	81.8	0.9997
4997	19.94	41.0	41.4	0.9907
6995	9.97	14.7	14.9	0.9866
4997	9.97		2.8	Sox Test
4997	0.00	0.0	0.2	As found zero
4997	39.93	81.8	81.8	As found span
Average Correction Factor				0.9923

Calculated value of As Found Response: 81.44 ppm Percent Change of As Found: 0.4%

	before calibration		after calibration	
Auto zero	0.3	ppm	0.6	ppm
Auto span	65.5	ppm	67.4	ppm

Notes: No adjustment made
Sox scrubber material replaced

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter H2S

Air Monitoring Network PAZA



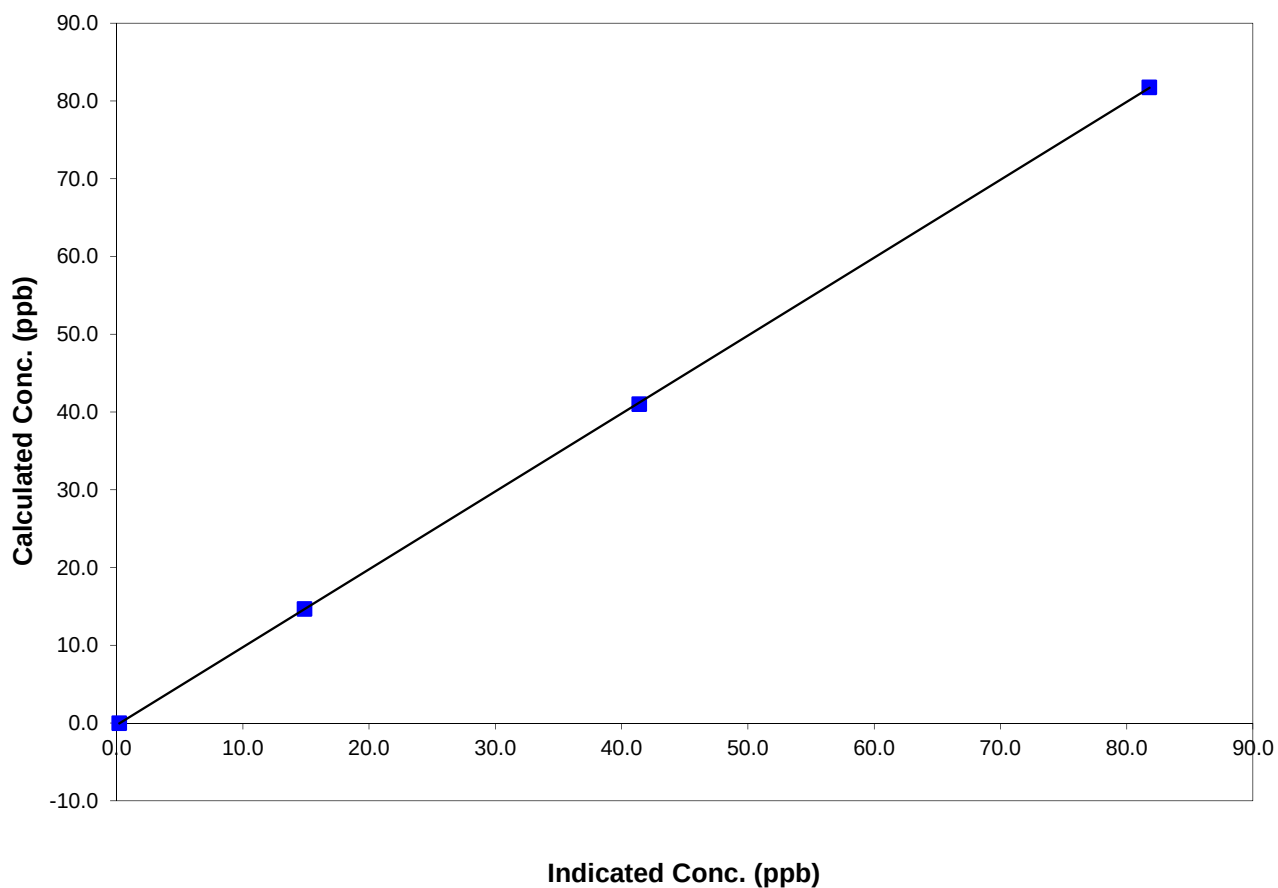
Station Information

Calibration Date	Septemeber 11 2015	Previous Calibration	August 11 2015
Station Number	6	Station Location	Valleyview
Start Time (MST)	9:31	End Time (MST)	12:25
Analyzer make/model	TEI Model 43i - APSCB	Analyzer serial #	701120010

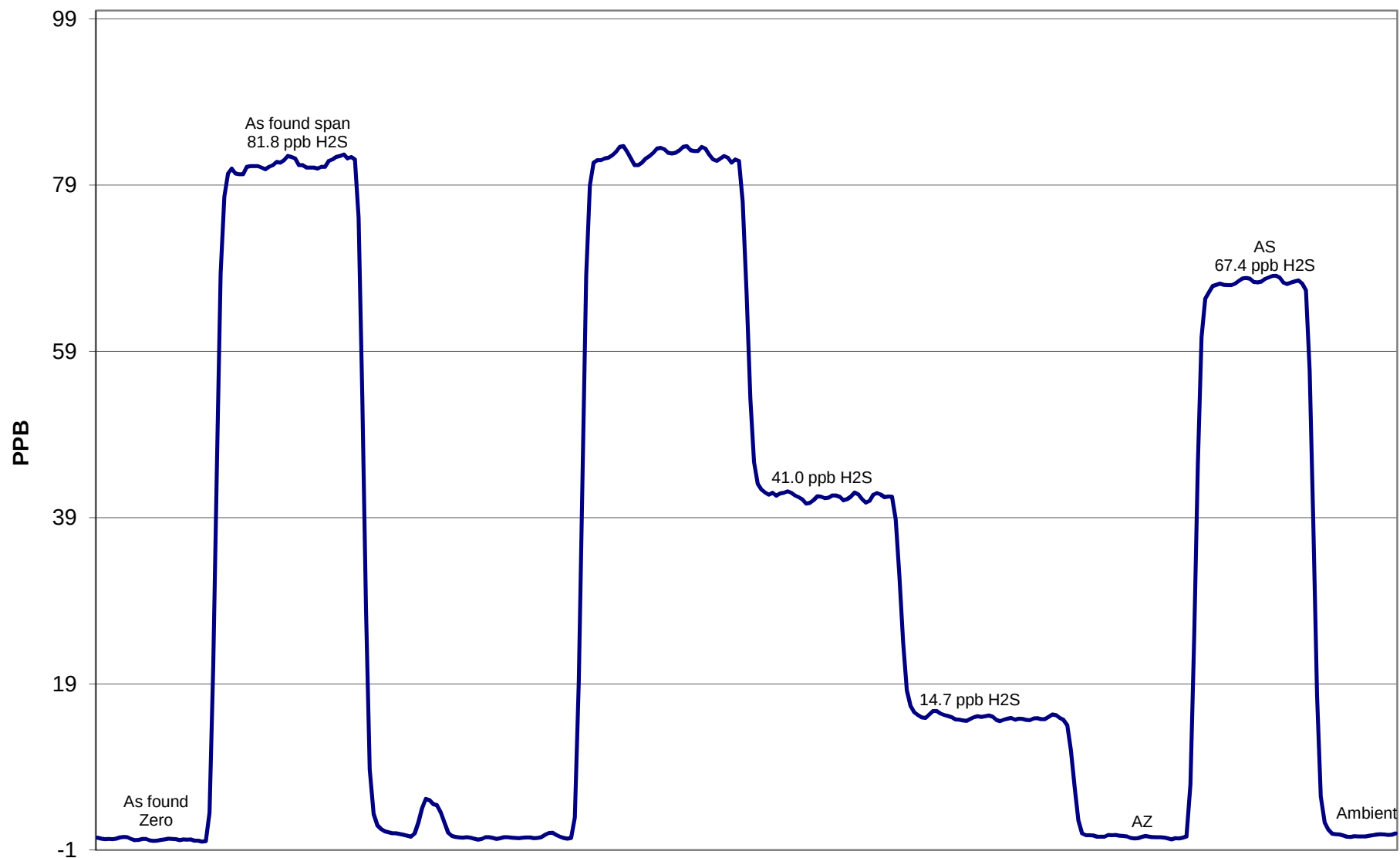
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A	Correlation Coefficient	0.999987
81.8	81.8	0.9997		
41.0	41.4	0.9907		
14.7	14.9	0.9866	Slope	1.002039
			Intercept	-0.277156

H2S Calibration Curve



H2S Calibration



Septemeber 11 2015

Calibration Report

Parameter SO₂

Air Monitoring Network PAZA



Station Information

Calibration Date	September 17, 2015	Previous Calibration	August 13, 2015
Station Number	1	Station Location	Falher
Reason:	Routine	Install	Removal
		Other:	
Start Time (MST)	12:05	End Time (MST)	14:10:00 PM
Barometric Pressure	0.921 mm	Station Temperature	21.5 Deg C
Calibrator	EnviroNics	Serial Number	6586
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	1.002904	Calculated slope	1.000774
Calculated intercept	2.160736	Calculated intercept	0.094115
Analyzer make	Teco 43i	Analyzer serial #	1207452008

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	6.5		6.5	
coefficient	0.887		0.887	
Lamp Voltage	842	volts	835	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	675.8	mm Hg	676.2	mm Hg
Sample Flow	0.405	ccm	0.405	ccm
Lamp Intensity	97	%	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	0.5	N/A
4995	39.93	394.9	394.8	1.0004
4995	19.96	198.2	197.9	1.0017
4995	9.97	99.2	98.2	1.0098
4995	0.0	0.0	0.5	As Found Zero
4995	39.93	394.9	394.8	As Found Span
Average Correction Factor				1.0040

Calculated value of As Found Response: 397.543 ppm Percent Change of As Found: **-0.7%**

	before calibration		after calibration	
Auto zero	0.2	ppm	0.4	ppm
Auto span	340.5	ppm	348.4	ppm

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter SO2

Air Monitoring Network PAZA



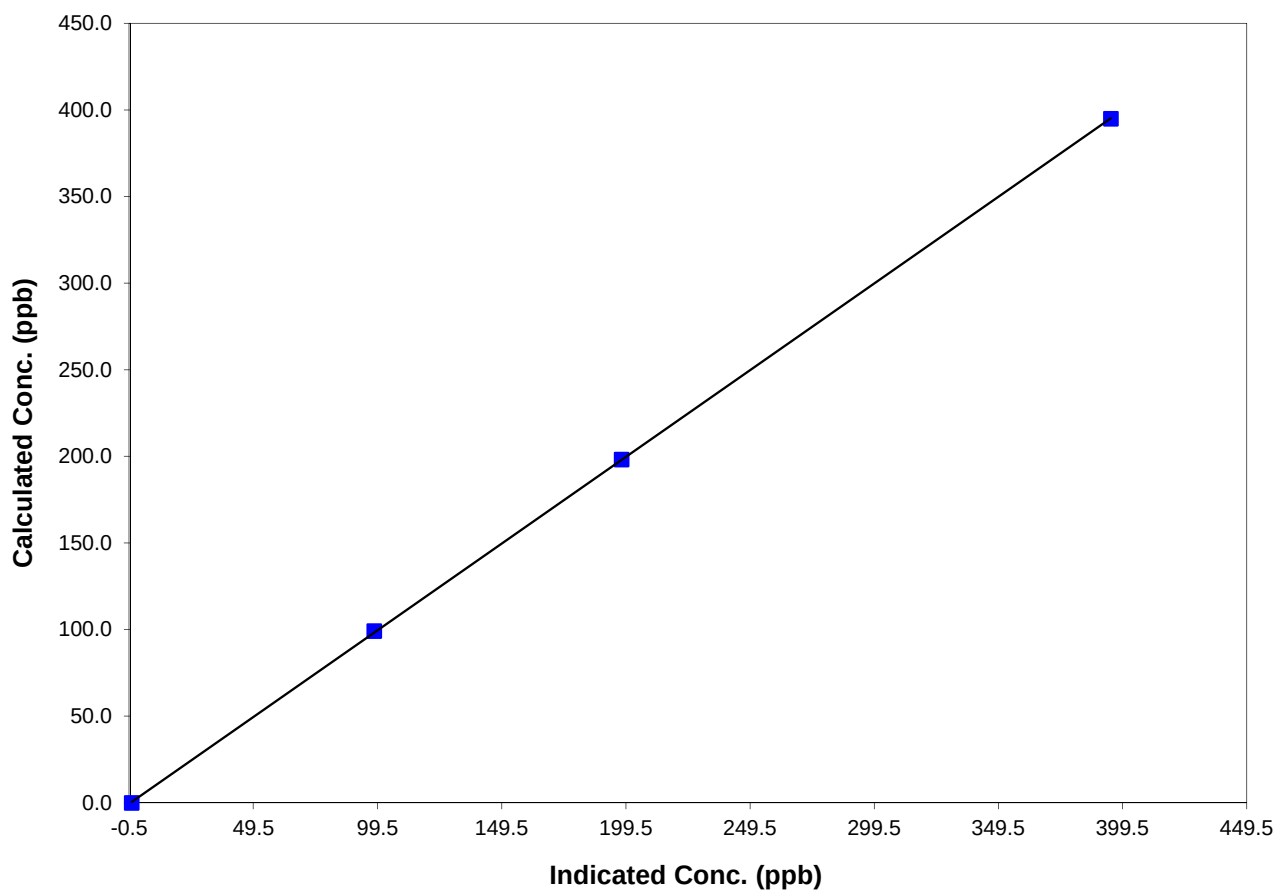
Station Information

Calibration Date	September 17, 2015	Previous Calibration	August 13, 2015
Station Number	1	Station Location	Falher
Start Time (MST)	12:05	End Time (MST)	14:10:00 PM
Analyzer make/model	Teco 43i	Analyzer serial #	1207452008

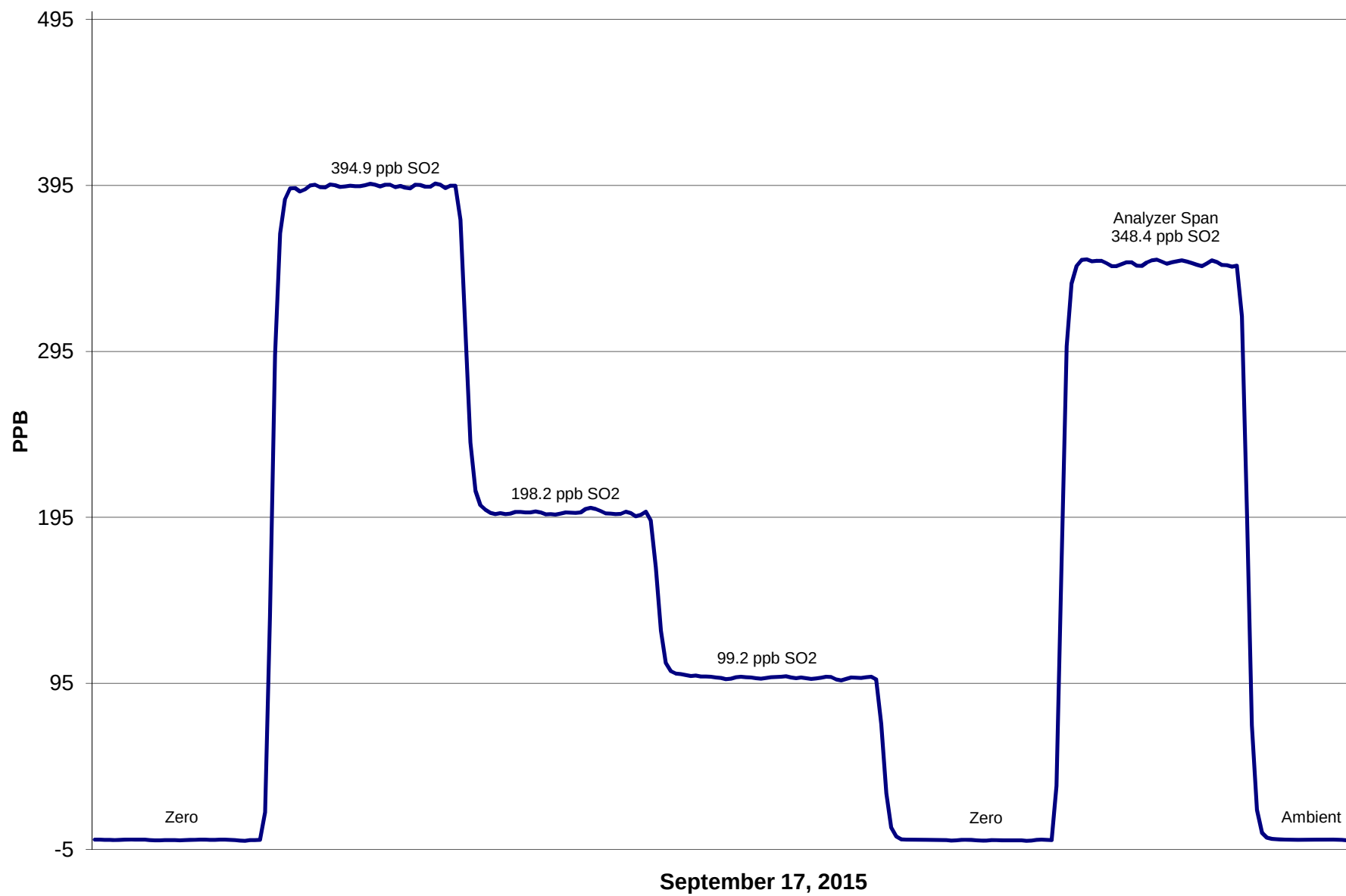
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.5	N/A	Correlation Coefficient	0.999987
394.9	394.8	1.0004		
198.2	197.9	1.0017		
99.2	98.2	1.0098	Slope	1.000774
			Intercept	0.094115

SO2 Calibration Curve



SO2 Calibration



Calibration Report



Parameter H2S

Air Monitoring Network PAZA

Station Information

Calibration Date	Septemeber 17, 2015	Previous Calibration	August 13, 2015
Station Number	1	Station Location	Falher
Reason:	Routine	Install	Removal
Start Time (MST)	10:00	End Time (MST)	13:40:00 PM
Barometric Pressure	0.926 mm	Station Temperature	20.5 Deg C
Calibrator	Envionics	Serial Number	6586
Cal Gas Conc	10.32 ppm	Cal Gas Expiry Date	08/07/2016
Correction factor	0.031424	Cal Gas Cylinder #	LL110781
DACS make	CR1000	DACS serial No.	3980
DACS voltage range	0 - 5 volt	DACS channel #	5
	<u>Before</u>		<u>After</u>
Calculated slope	0.994916	Calculated slope	0.997175
Calculated intercept	0.210284	Calculated intercept	-0.416593
Analyzer make	Thermo 450i	Analyzer serial #	1207452006

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	15.3	ppb	15.3	ppb
coefficient	1.117		1.109	
Lamp Voltage	798	volts	798	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	521	mm Hg	518.3	mm Hg
Sample Flow	0.882	lpm	0.875	lpm
Lamp Intensity	90	mv	90	mv

Calibration Data

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.00	0.4	N/A
4995	39.93	81.84	82.6	0.9914
4995	19.96	41.07	41.5	0.9904
6994	9.97	14.69	15.2	0.9657
4995	0.00	0.00	0.4	As Found Zero
4995	39.93	81.84	83.2	As Found Span
Average Correction Factor				0.9825

Calculated value of As Found Response: 82.51 ppm Percent Change of As Found: **-0.8%**

	before calibration		after calibration	
Auto zero	0.3	ppm	0.0	ppm
Auto span	54.4	ppm	54.8	ppm

Notes: Span adjustment made
Attempted to replace scrubber material, which caused the spikes couldn't open the canister.
Will come back next time with the new canister

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter H2S

Air Monitoring Network PAZA



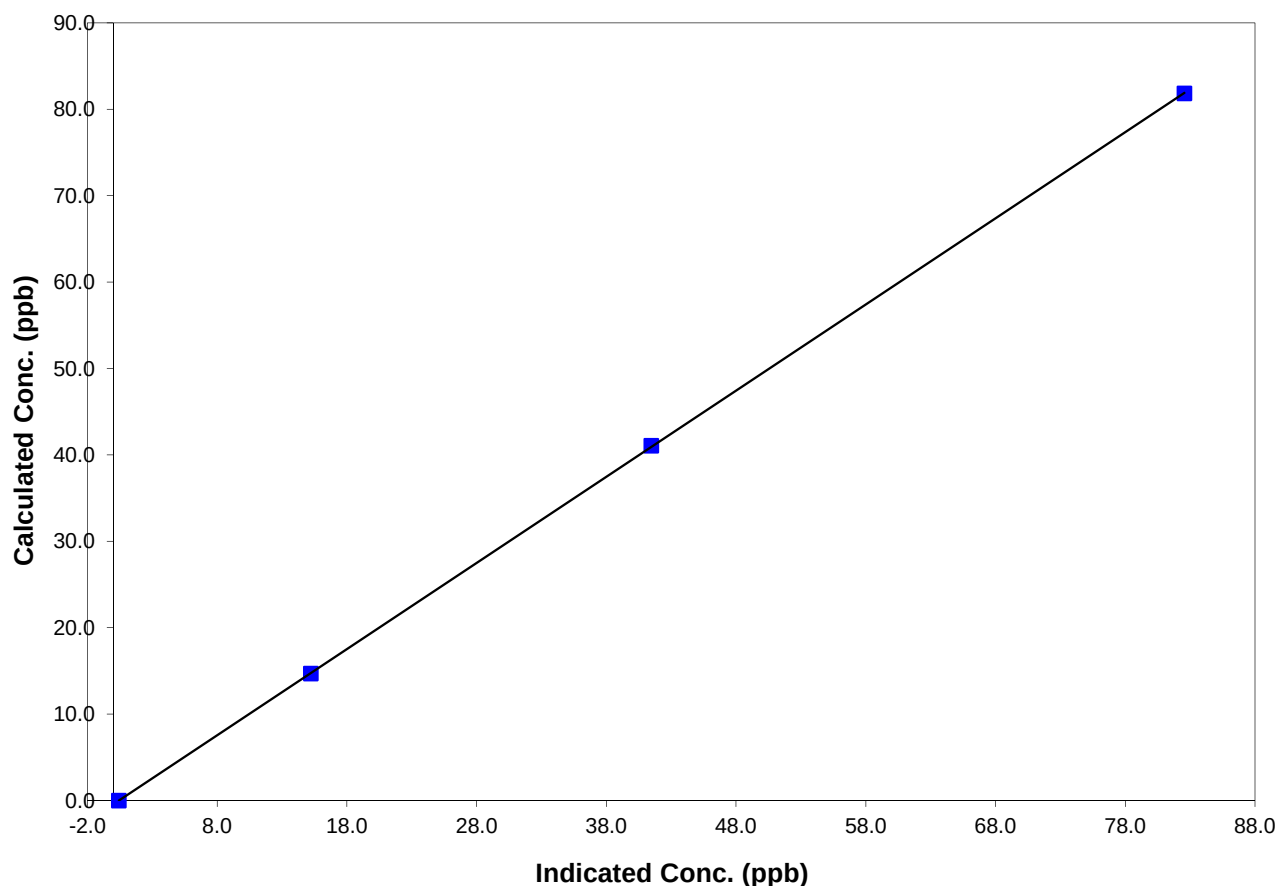
Station Information

Calibration Date	Septemeber 17, 2015	Previous Calibration	August 13, 2015
Station Number	1	Station Location	Falher
Start Time (MST)	10:00	End Time (MST)	13:40:00 PM
Analyzer make/model	Thermo 450i	Analyzer serial #	1207452006

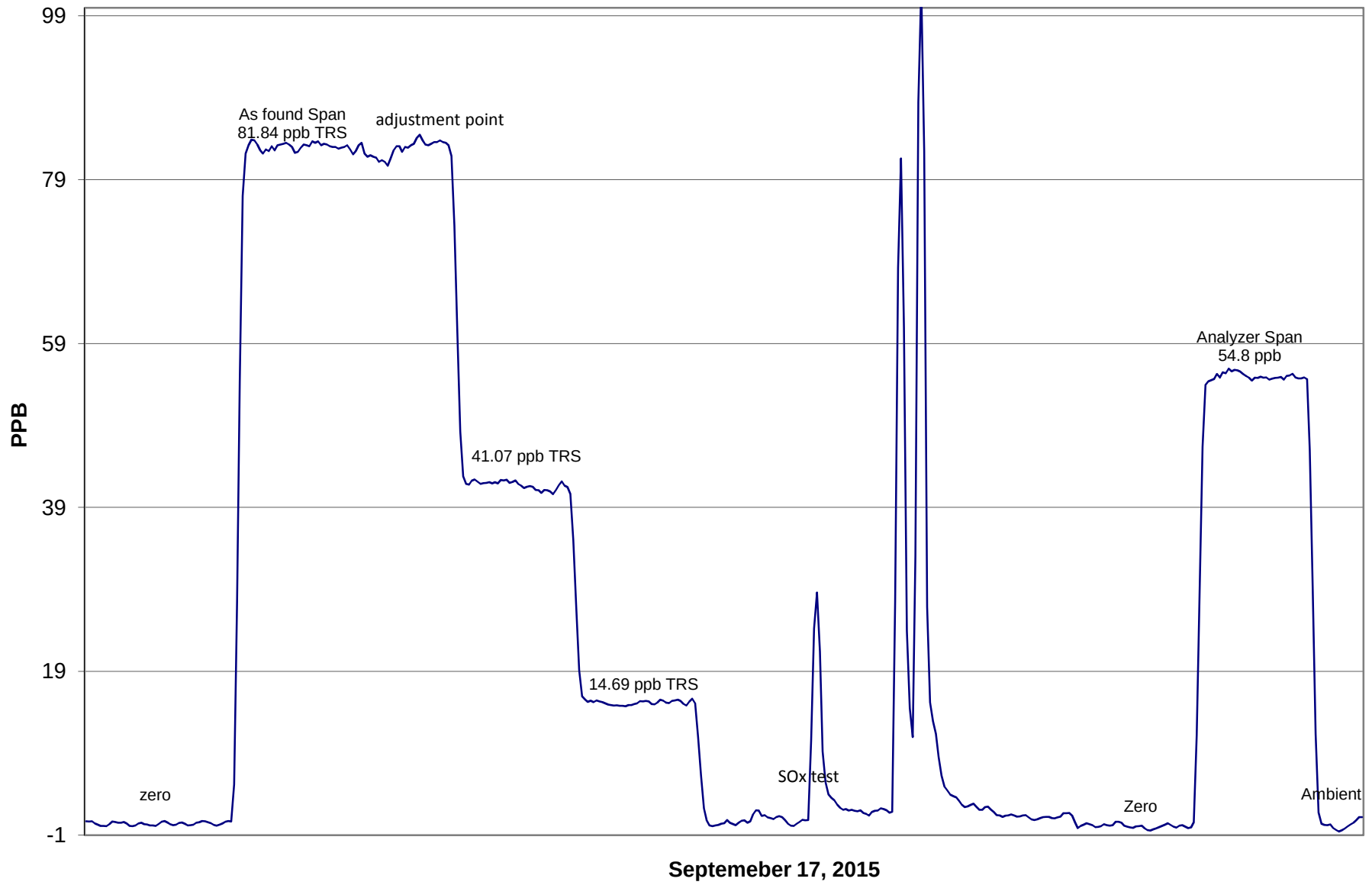
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.4	N/A	Correlation Coefficient	0.999993
81.8	82.6	0.9914		
41.1	41.5	0.9904		
14.7	15.2	0.9657	Slope	0.997175
			Intercept	-0.416593

TRS Calibration Curve



H2S Calibration



Calibration Report



AIR QUALITY MONITORING

Parameter SO2

Air Monitoring Network PAZA

Station Information

Calibration Date	September 24, 2015	Previous Calibration	August 21, 2015
Station Number	10	Station Location	Clairmont
Reason:	Routine	Install	Removal
Other:			
Start Time (MST)	11:20	End Time (MST)	13:55:00 AM
Barometric Pressure	0.925 Atm	Station Temperature	20.5 Deg C
Calibrator	EnviroNics 6103	Serial Number	6586
Cal Gas Concentration	49.8 ppm	Cal Gas Expiry Date	10/03/2017
Gas Cert Reference	LL119493		
DACS make	CR3000	DACS serial No.	5407
DACS voltage range	0 - 5 Volt	DACS channel #	2
	Before		After
DACS Scale High	500	DACS slope	500
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.996117	Calculated slope	1.007524
Calculated intercept	1.950524	Calculated intercept	0.150831
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	882	V	882	V
Chamber Temp	44.5	C	44.5	C
Perm Gas Temp	45	C	45	C
Pressure	669.5	mm Hg	669.8	mm Hg
Sample Flow	0.465	LPM	0.465	LPM
Lamp Intesity	30482	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	0.4	N/A
4995	39.93	394.9	392.1	1.0074
4995	19.97	198.3	196.6	1.0085
4995	9.97	99.2	97.6	1.0167
4995	0.00	0.0	0.4	As found zero
4995	39.93	394.9	392.1	As found span
Average Correction Factor				1.0109

Calculated value of As Found Response: 392.051 ppm Percent Change of As Found: 0.7%

	before calibration		after calibration	
Auto zero	0.3	ppm	0.3	ppm
Auto span	233.0	ppm	235.4	ppm

Notes: No adjustment made

Because NOx and SO2 calibration was performing at a same time using the same gas, had to drop SO2 back to zero along with the NOx for NOx analyzer maintenance.

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter SO2

Air Monitoring Network PAZA



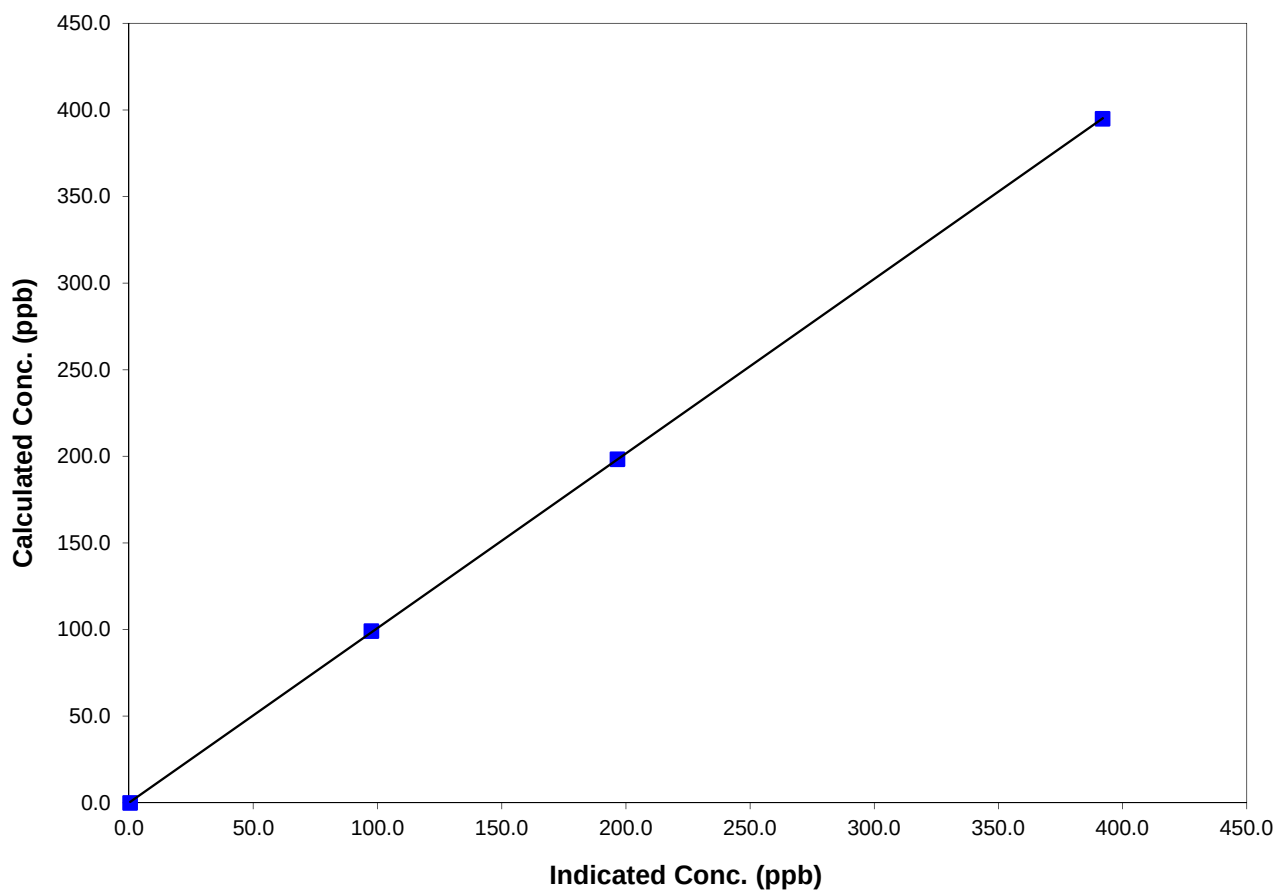
Station Information

Calibration Date	September 24, 2015	Previous Calibration	August 21, 2015
Station Number	10	Station Location	Clairmont
Start Time (MST)	11:20	End Time (MST)	13:55:00 AM
Analyzer make/model	TEI 43C	Analyzer serial #	436610005

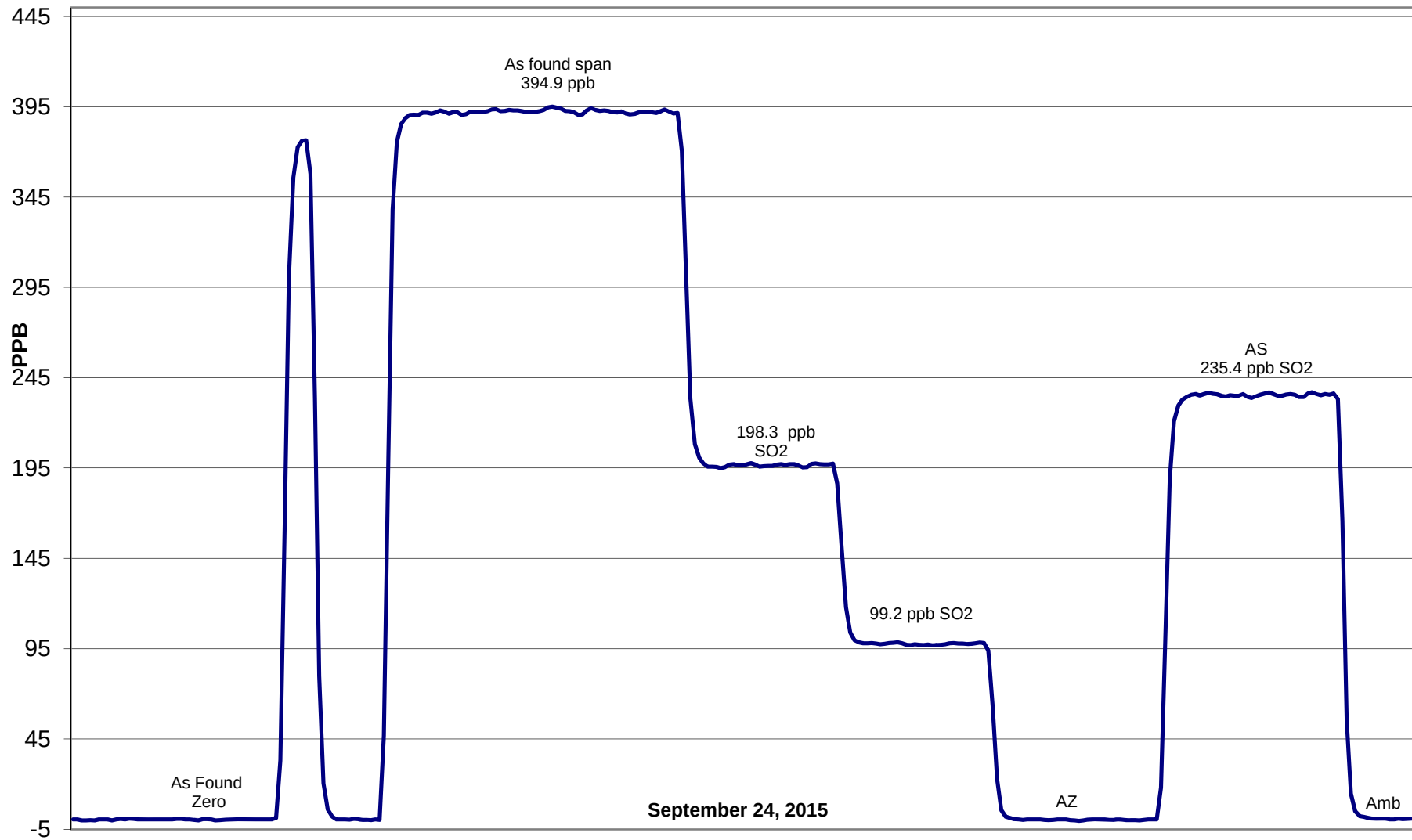
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.4	N/A	Correlation Coefficient	0.999989
394.9	392.1	1.0074		
198.3	196.6	1.0085		
99.2	97.6	1.0167	Slope	1.007524
			Intercept	0.150831

SO2 Calibration Curve



SO2 Calibration



Parameter

Air Monitoring Network

NO_x-NO-NO₂

PAZA



Station Information

Calibration Date	September 24, 2015			Previous Calibration	August 21, 2015	
Station Number	10			Station Location	Clairmont	
Reason:	☒ Routine	☐ Installation	☐ Removal	Other:		
Start Time (MST)	8:58			End Time (MST)	15:15:00 PM	
Barometric Pressure	0.925		Atm	Station Temperature	20.5	Deg C
Calibrator	EnviroNics			Serial Number	6586	
NO Cal Gas Conc	50.9		ppm	Cal Gas Expiry Date	March 10, 2017	
NOx Cal Gas Conc	51.2		ppm	Cal Gas Serial #	LL119493	

DACS Information

DACS make	CR3000	DACS serial No.	5407	
	Parameter	NO2	NOx	NO
Before	Data Slope	1.006558	0.998778	0.995516
	Data Offset	0.352482	1.401329	1.383123
After	Data Slope	0.998682	1.003966	1.001985
	Data Offset	-0.394468	-0.784736	-0.806850
Channel #		8	6	7
Voltage Range		0 - 5 VDC	0 - 5 VDC	0 - 5 VDC

Analyzer Information

Analyzer make/model	TEI 42i	Analyzer serial #	0701120011	
Test Point	before		after	
Concentration range	0-500	ppb	0-500	ppb
NO offset	7.3	mV	7.3	mV
NOx bkgnd	7.5	mV	7.5	mV
NO coefficient	1.336		1.336	
NOx coefficient	0.999		0.999	
NO2 conv temp	325.5	Deg C	325.0	Deg C
PMT Temp	-2.8	Deg C	-2.8	Deg C
PMT Volt	-846.2	mV	-852.9	mV
R Cell Press	236.4	in Hg	229.6	in Hg
Sample Flow	0.601	LPM	0.615	LPM

Notes:	PMT adjustment made
	Orifice on the main flow cleaned

Calibration Report

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



Station Information

Calibration Date: September 24, 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	0.3	0.1	0.3	N/A	N/A
1	4995	39.92	405.9	403.6	2.4	404.8	403.2	0.0	1.0027	1.0009
2	4995	19.96	203.8	202.6	1.2	204.1	203.3	0.0	0.9984	0.9965
3	4995	9.93	101.6	101.0	0.6	102.4	102.4	0.2	0.9921	0.9867
AFZ	4995	0.00	0.0	0.0	0.0	0.3	0.1	0.3	0.0000	0.0000
AFS	4995	39.92	405.9	403.6	0.8	380.4	380.3	-1.9	1.0673	1.0611
Average Correction Factor									0.9978	0.9947

As Found Concentrations: NO_x= 381.0 NO= 379.9 As Found Percent Change NO_x= -6.1% NO= -5.9%

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	0.3	0.1	0.3	N/A	N/A	N/A	N/A
NO point	403.8	403.8	0.0	405.3	403.8	-0.5	0.9963	1.0000	N/A	N/A
300	403.8	77.9	325.9	405.4	77.9	326.1	0.9960	1.0000	0.9994	100.1%
200	403.8	186.5	217.2	407.7	186.5	219.1	0.9905	1.0000	0.9916	100.8%
100	403.8	298.6	105.2	405.9	298.6	105.3	0.9948	1.0000	0.9991	100.1%
Average Correction Factor							0.9938	1.0000	0.9967	100.3%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	0.1	0.1	0.1	ppb	0.3	0.1	0.4	ppb
Auto span	156.9	155.0	1.3	ppb	151.6	149.4	1.5	ppb

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter NO₂

Air Monitoring Network PAZA



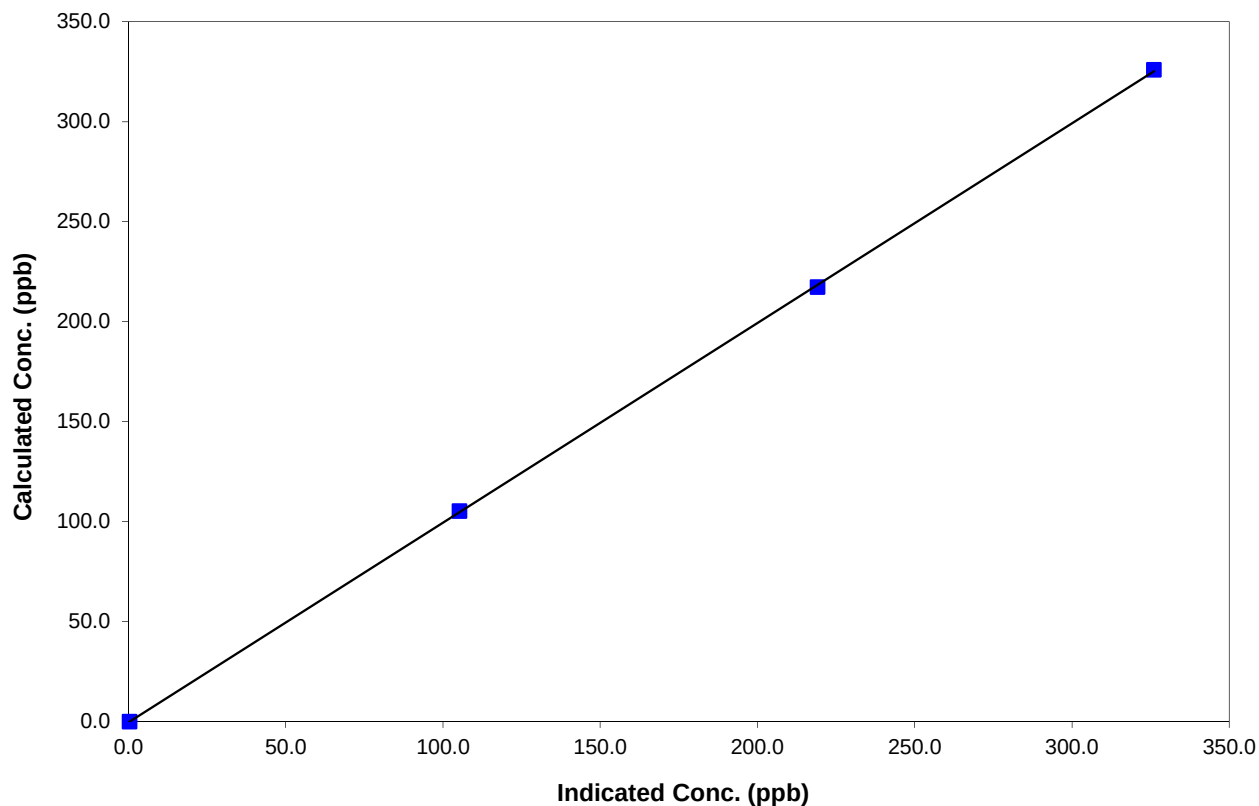
Station Information

Calibration Date	September 24, 2015	Previous Calibration	August 21, 2015
Station Number	10	Station Location	Clairmont
Start Time (MST)	8:58	End Time (MST)	15:15:00 PM
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	0.999967
325.9	326.1	0.9994		
217.2	219.1	0.9916		
105.2	105.3	0.9991	Slope	0.998682
			Intercept	-0.394468

NO₂ Calibration Curve



Calibration Summary

Parameter NO_x

Air Monitoring Network PAZA



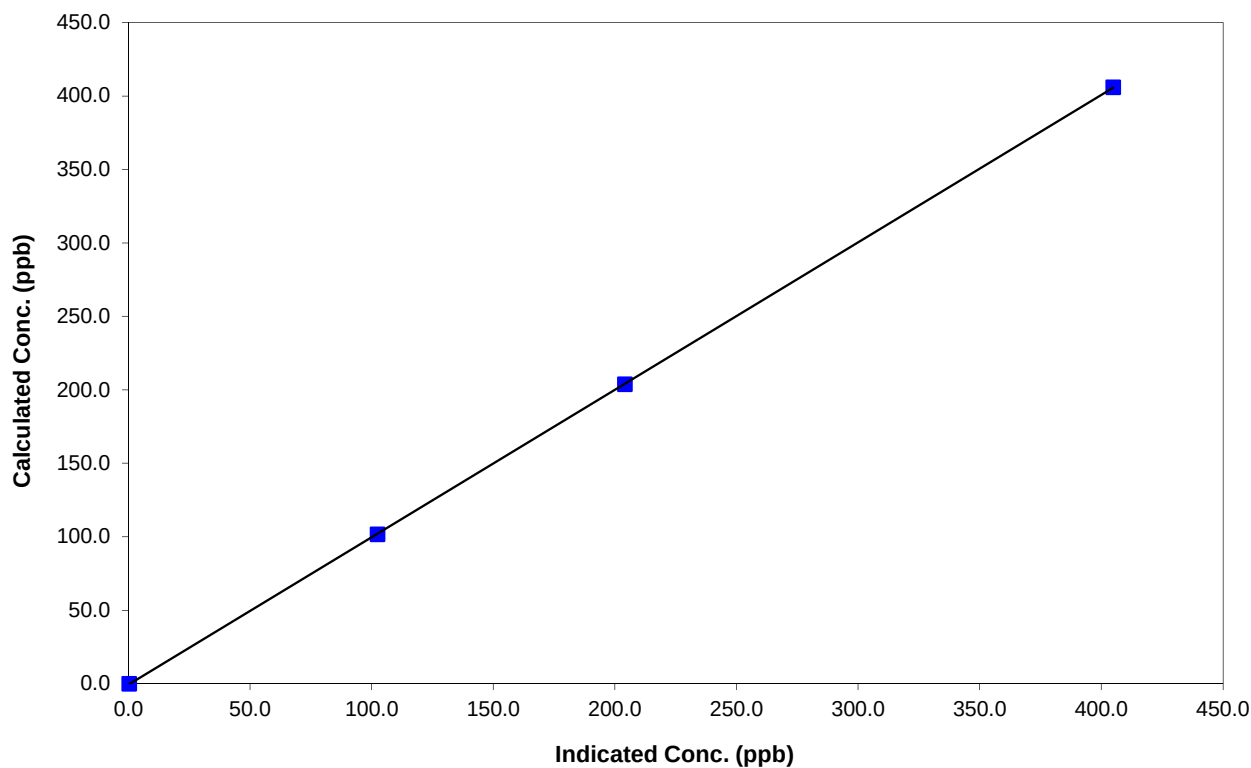
Station Information

Calibration Date	September 24, 2015	Previous Calibration	August 21, 2015
Station Number	10	Station Location	Clairmont
Start Time (MST)	8:58	End Time (MST)	15:15:00 PM
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	0.999993
405.9	404.8	1.0027		
203.8	204.1	0.9984		
101.6	102.4	0.9921	Slope	1.003966
			Intercept	-0.784736

NO_x Calibration Curve



Calibration Summary

Parameter NO

Air Monitoring Network PAZA



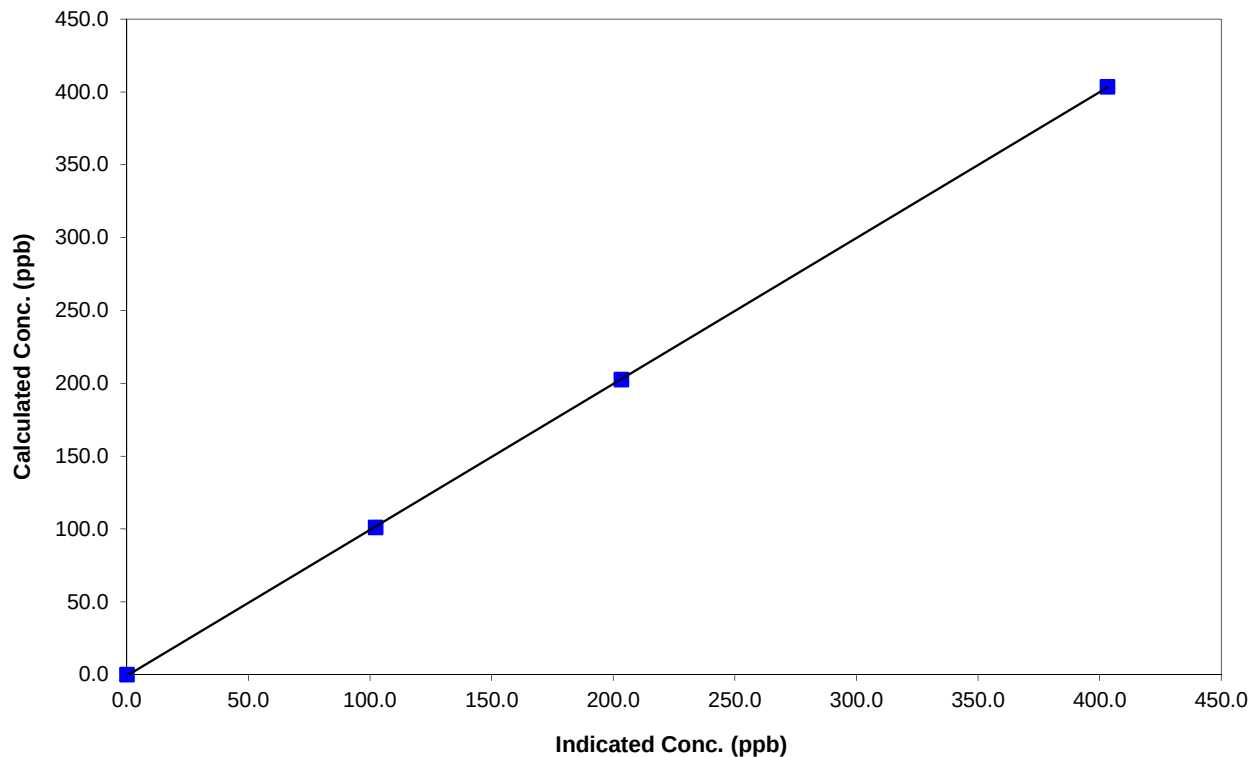
Station Information

Calibration Date	September 24, 2015	Previous Calibration	August 21, 2015
Station Number	10	Station Location	Clairmont
Start Time (MST)	8:58	End Time (MST)	15:15:00 PM
Analyzer make	TEI 42i	Analyzer serial #	0701120011

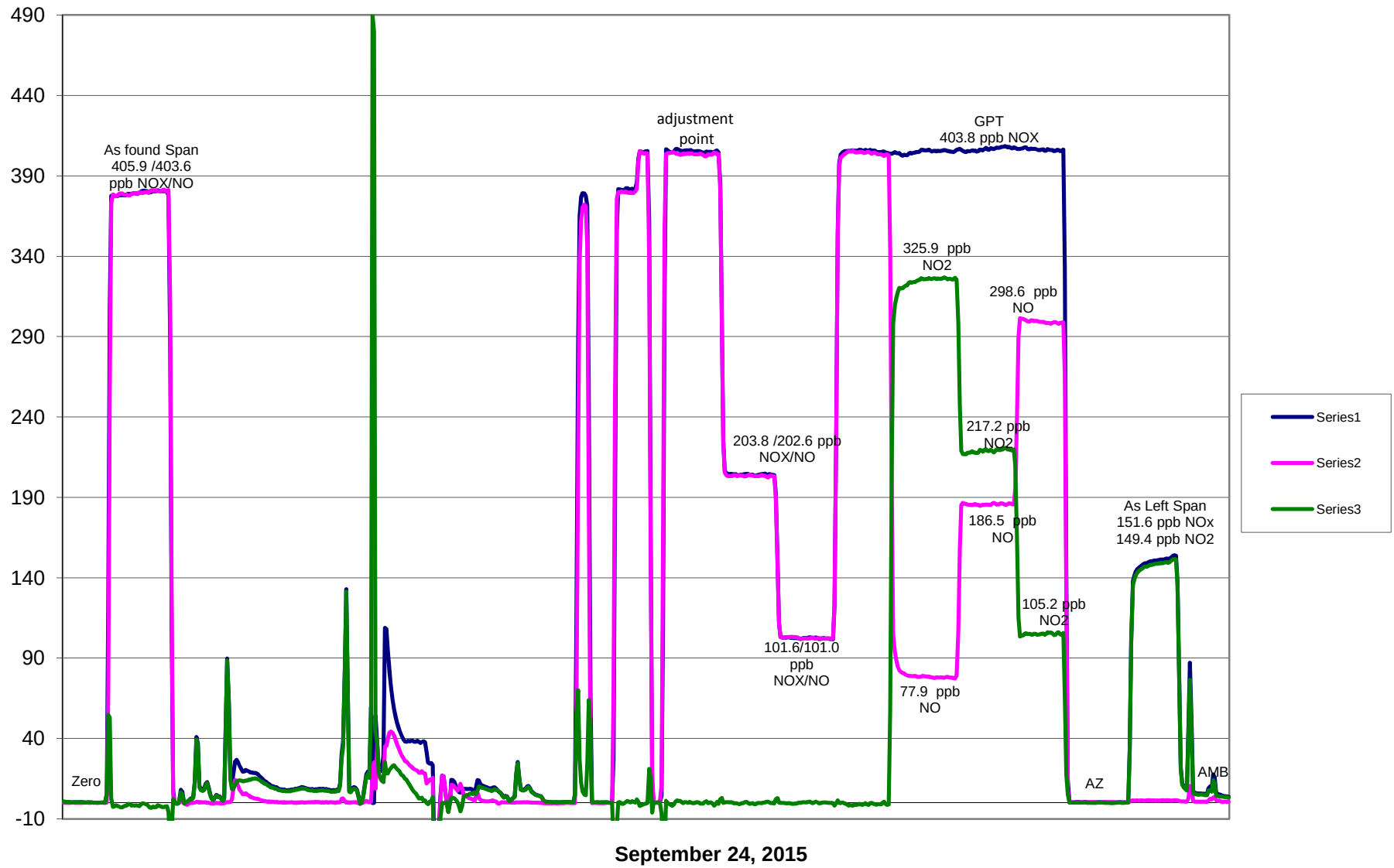
Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A	Correlation Coefficient	0.999985
403.6	403.2	1.0009		
202.6	203.3	0.9965		
101.0	102.4	0.9867	Slope	1.001985
			Intercept	-0.806850

NO Calibration Curve



NO_x Calibration



Calibration Report



Parameter 03

Air Monitoring Network PAZA

Station Information

Calibration Date	September 24 2015	Previous Calibration	August 21 2015
Station Number	10	Station Location	Clairmont
Reason:	Routine	Install	Removal
		Other:	
Start Time (MST)	14:15:00 AM	End Time (MST)	16:10:00 PM
Barometric Pressure	0.925 atm	Station Temperature	20.5 Deg C
Calibrator	EnviroNics 6103	Serial Number	6586
DACS make	CR3000	DACS serial No.	5407
DACS voltage range	0 - 5 Volts	DACS channel #	6
	Before		After
Calculated slope	0.991411	Calculated slope	0.999831
Calculated intercept	1.028868	Calculated intercept	0.286455
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	69983	Hz	69345	Hz
Cell B intensity	69753	Hz	69154	Hz
Pressure	665.00	in Hg	665.30	in Hg
CellA Flow	0.701	ccm	0.701	ccm
Cell B Flow	0.692	cmm	0.693	cmm

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
5035	0.00	0.0	0.1	N/A
5035	0.30	325.9	325.9	1.0000
5035	0.20	217.2	216.8	1.0017
5035	0.10	105.2	104.4	1.0073
5035	0.00	0.0	0.1	As found zero
5035	0.30	325.9	325.9	As found span
Average Correction Factor				1.0030

Calculated value of As Found Response: 324.0 ppm Percent Change of As Found: -0.6%

	before calibration		after calibration	
Auto zero	0.0	ppb	0.0	ppb
Auto span	391.0	ppb	390.7	ppb

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter 03

Air Monitoring Network PAZA



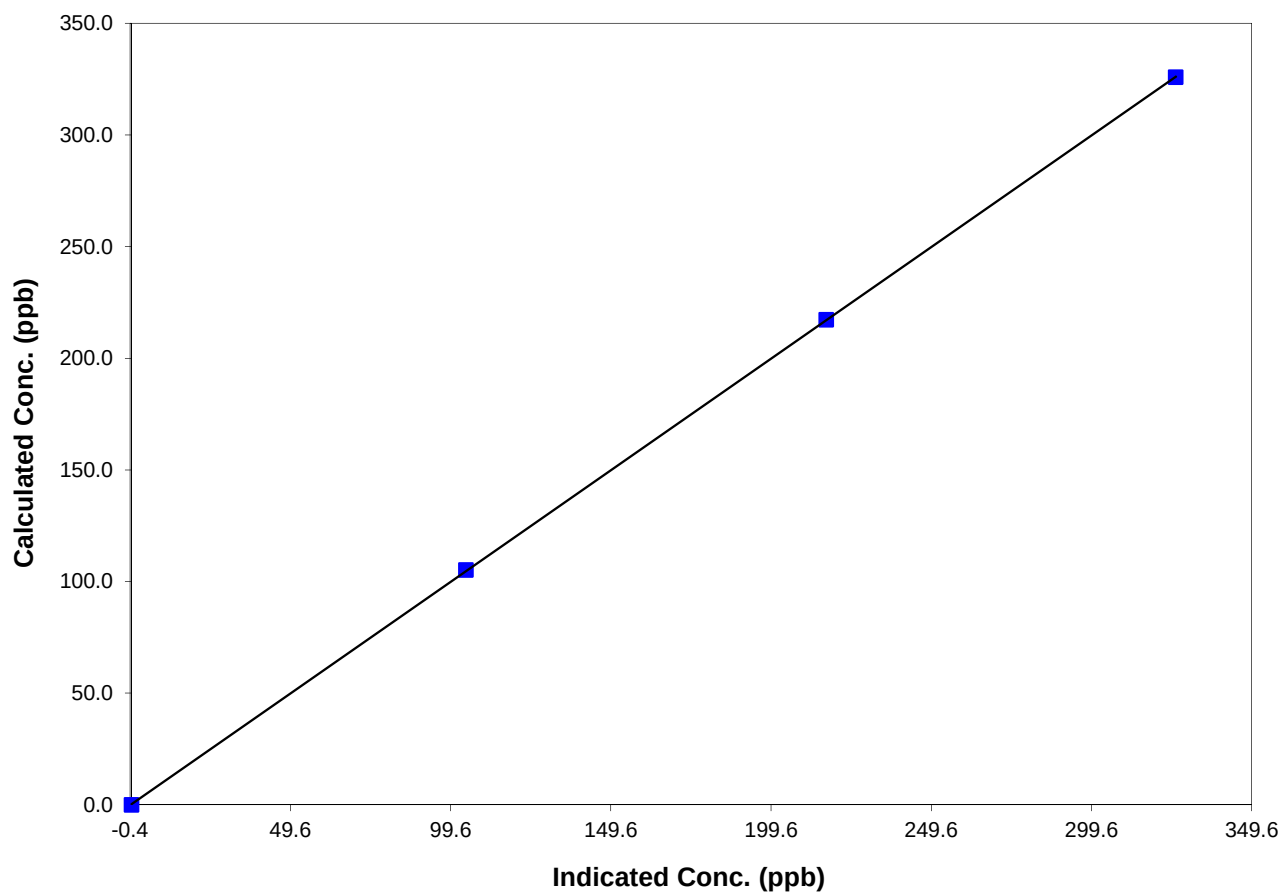
Station Information

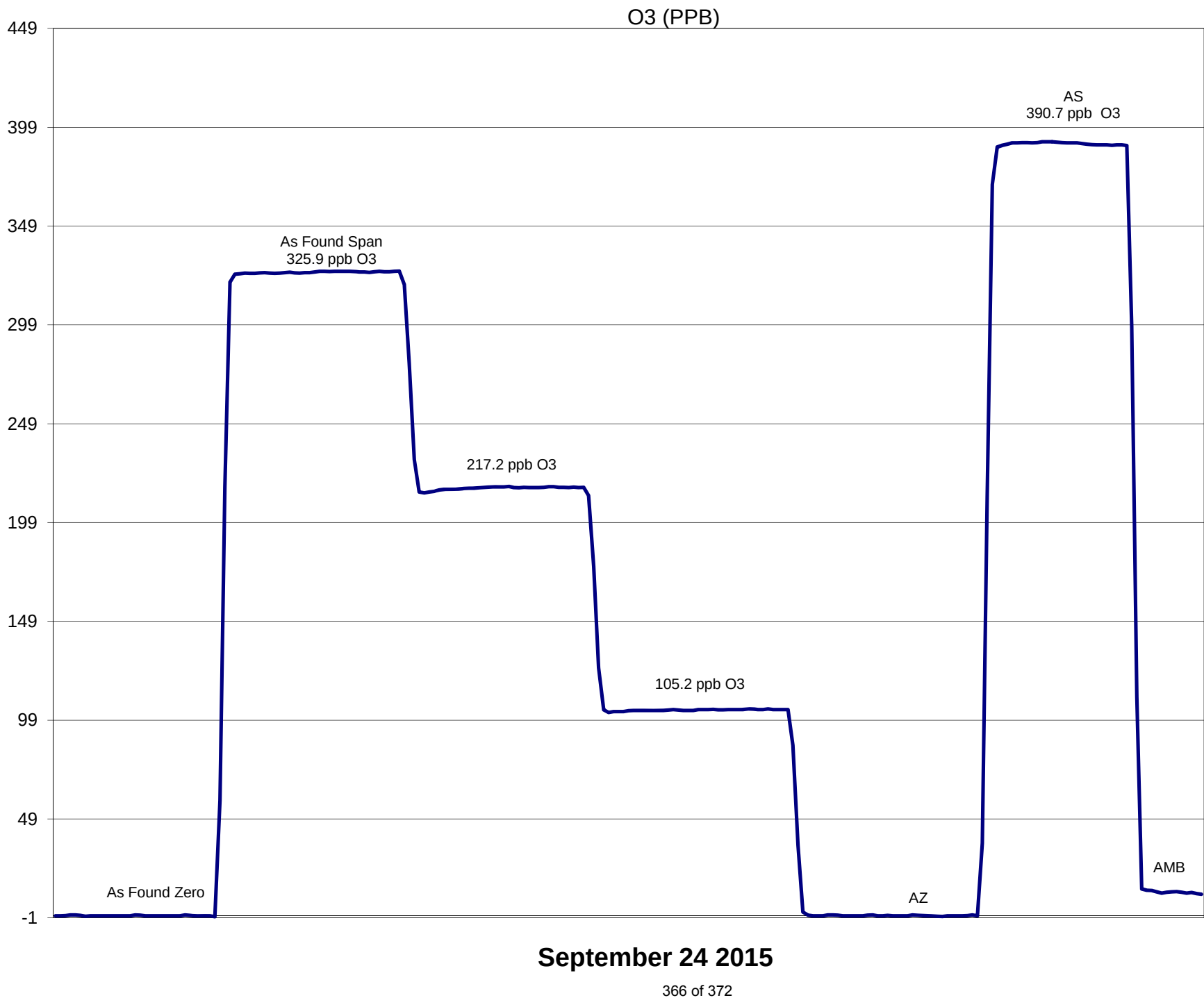
Calibration Date	September 24 2015	Previous Calibration	August 21 2015
Station Number	10	Station Location	Clairmont
Start Time (MST)	14:15:00 AM	End Time (MST)	16:10:00 PM
Analyzer make/model	TEI Model 49C	Analyzer serial #	49C-0609716240

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	NA	Correlation Coefficient	0.999992
325.9	325.9	1.0000		
217.2	216.8	1.0017		
105.2	104.4	1.0073	Slope	0.999831
			Intercept	0.286455

O3 Calibration Curve





Calibration Report



Parameter THC
Air Monitoring Network PAZA

Station Information

Calibration Date	September 25, 2015	Previous Calibration	August 21, 2015
Station Number	10	Station Location	Clairmont
Reason:	☒ Routine	☐ Install	☐ Removal
		☐ Other:	
Start Time (MST)	10:50	End Time (MST)	12:50
Barometric Pressure	0.925 ATM	Station Temperature	21.0 Deg C
Calibrator	EnviroNics 6103	Serial Number	6586
Cal Gas Concentration	404 ppm CH4/ 201 ppm C3H8	Cal Gas Expiry Date	28/03/2014
Cal Gas CH4 equiv	956.75 ppm	Cal Gas Cylinder #	LL34989
DACS make	CR3000	DACS serial No.	5407
DACS voltage range	0 - 1 volt	DACS channel #	12
	Before		After
Calculated slope	0.998033	Calculated slope	1.016650
Calculated intercept	0.146914	Calculated intercept	0.131883
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	2251	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	-0.02	N/A
2996	69.89	21.81	21.37	1.0205
2996	29.96	9.47	9.10	1.0415
2996	9.97	3.17	2.92	1.0858
2996	0.00	0.00	-0.02	As Found Zero
2996	69.93	21.82	21.37	As Found Span
Average Correction Factor				1.0493

Calculated value of As Found Response: 21.494 ppm Percent Change of As Found: 1.5%

	before calibration		after calibration	
Auto zero	0.02	ppm	-0.01	ppm
Auto span	22.18	ppm	22.09	ppm

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter THC

Air Monitoring Network PAZA



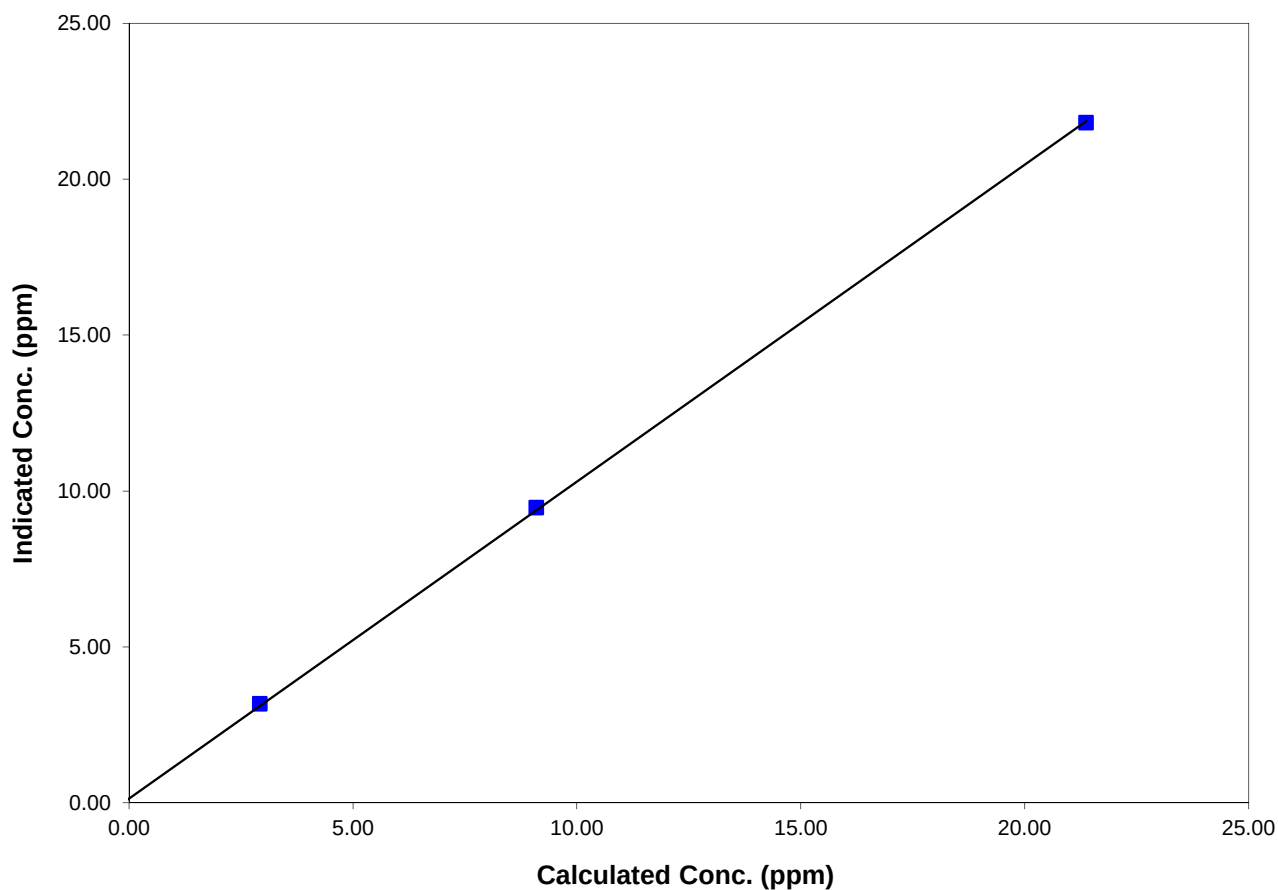
Station Information

Calibration Date	September 25, 2015	Previous Calibration	August 21, 2015
Station Number	10	Station Location	Clairmont
Start Time (MST)	10:50	End Time (MST)	12:50
Analyzer make/model	TEI Model 51C-LT	Analyzer serial #	51CLT-79009-390

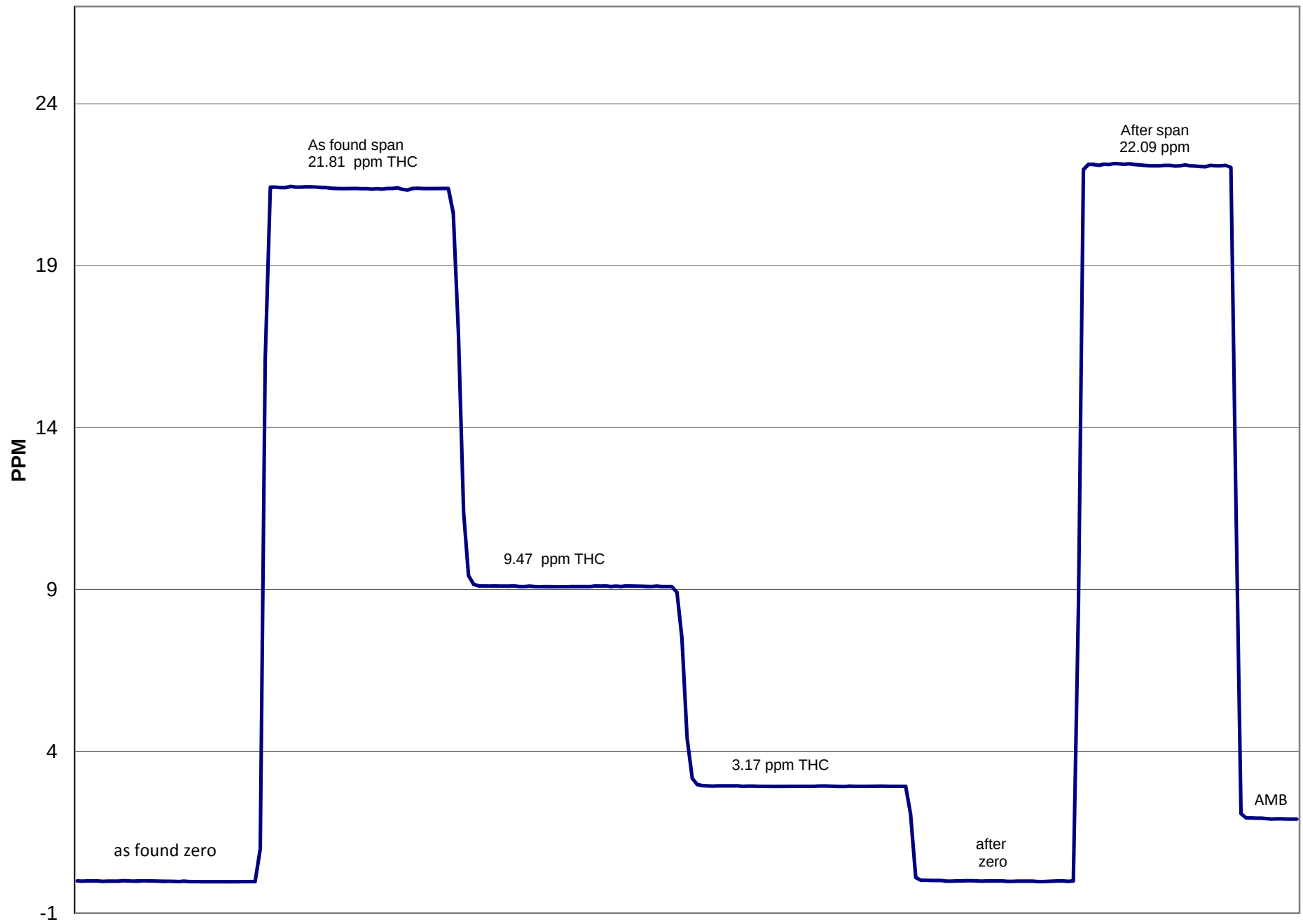
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	-0.017	N/A		
21.81	21.37	1.0205	Correlation Coefficient	0.999894
9.47	9.10	1.0415		
3.17	2.92	1.0858	Slope	1.016650
			Intercept	0.131883

THC Calibration Curve



THC Calibration



Calibration Report

Parameter **TRS**
Air Monitoring Network

PAZA



Station Information

Calibration Date	September 25, 2015	Previous Calibration	August 20, 2015
Station Name	PAZA Rover	Station Location	Clairmont
Reason:	Routine	☐ Install	☐ Removal
		☐ Other:	
Start Time (MST)	8:40 AM	End Time (MST)	11:50
Barometric Pressure	0.925 Atm	Station Temperature	20.5 Deg C
Calibrator	EnviroNics	Serial Number	6586
Cal Gas Concentration	10.32 ppm	Cal Gas Expiry Date	July/08/2016
Gas Cert Reference	LL110781		
DACS make	CR3000	DACS serial No.	5407
DACS voltage range	0 - 5 Volt	DACS channel #	1
	<u>Before</u>		<u>After</u>
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	1.002072	Calculated slope	1.005077
Calculated intercept	0.166675	Calculated intercept	-0.317008
Analyzer make	TEI 43C	Analyzer serial #	609716238

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	25.3	ppb	25.3	ppb
Coefficient	0.942		0.942	
Lamp Voltage	791	V	791	V
Chamber Temp	43.7	C	43.8	C
Perm gas Temp	45	C	45	C
Pressure	656.3	mmHg	657.1	mmHg
Sample Flow	0.449	lpm	0.447	lpm
Lamp Intensity	43815	Hz	43491	Hz

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.0	0.0	0.3	N/A
4995	39.93	81.8	81.8	1.0011
4995	19.97	41.1	41.2	0.9978
6995	9.97	14.7	15.0	0.9820
4995	9.97		0.5	Sox Test
4995	0.00	0.0	0.3	As found zero
4995	39.93	81.8	81.8	As found span
Average Correction Factor				0.9937

Calculated value of As Found Response: 81.78 ppm Percent Change of As Found: 0.1%

	before calibration		after calibration	
Auto zero	0.3	ppm	0.3	ppm
Auto span	57.1	ppm	57.5	ppm

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter TRS

Air Monitoring Network PAZA



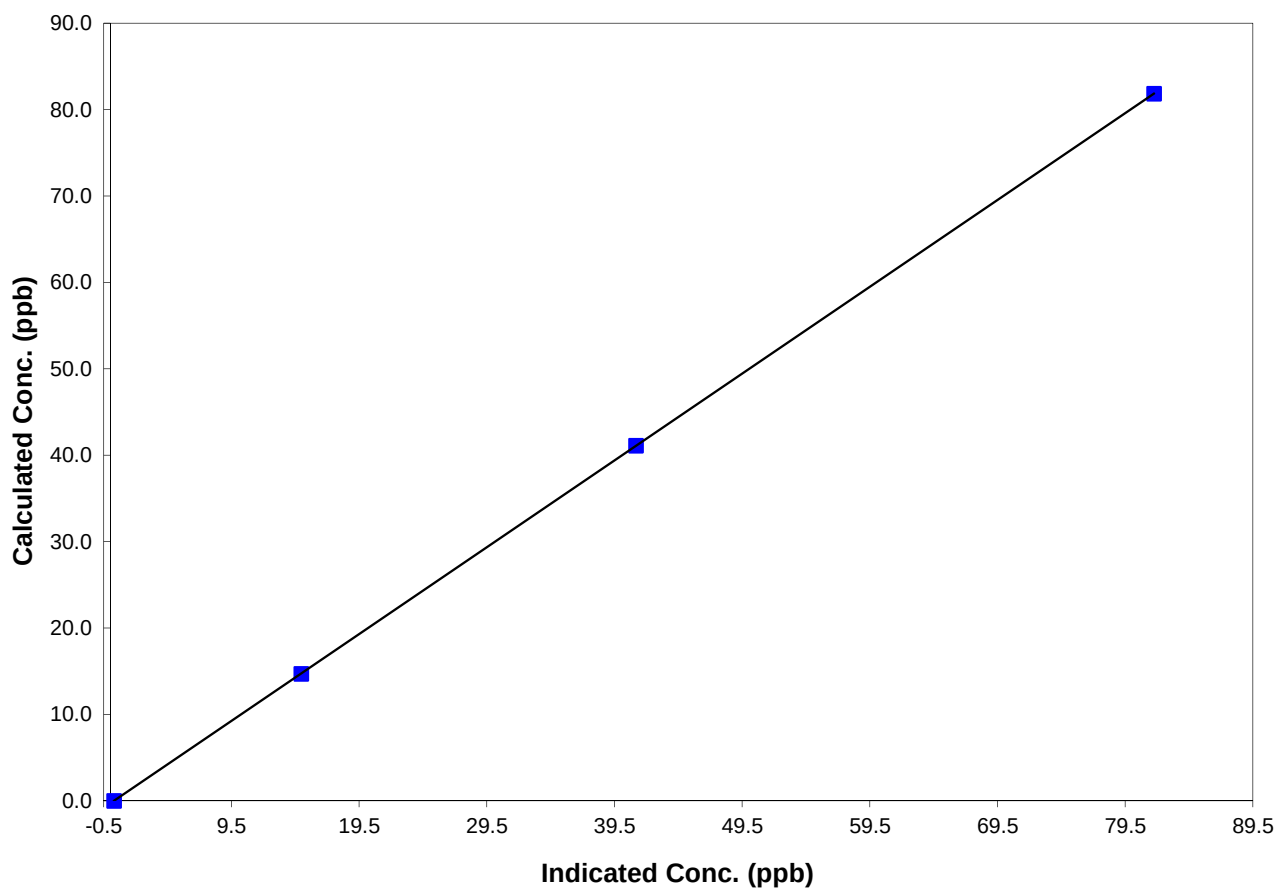
Station Information

Calibration Date	September 25, 2015	Previous Calibration	August 20, 2015
Station Number	PAZA Rover	Station Location	Clairmont
Start Time (MST)	8:40	End Time (MST)	11:50
Analyzer make/model	TEI 43C	Analyzer serial #	609716238

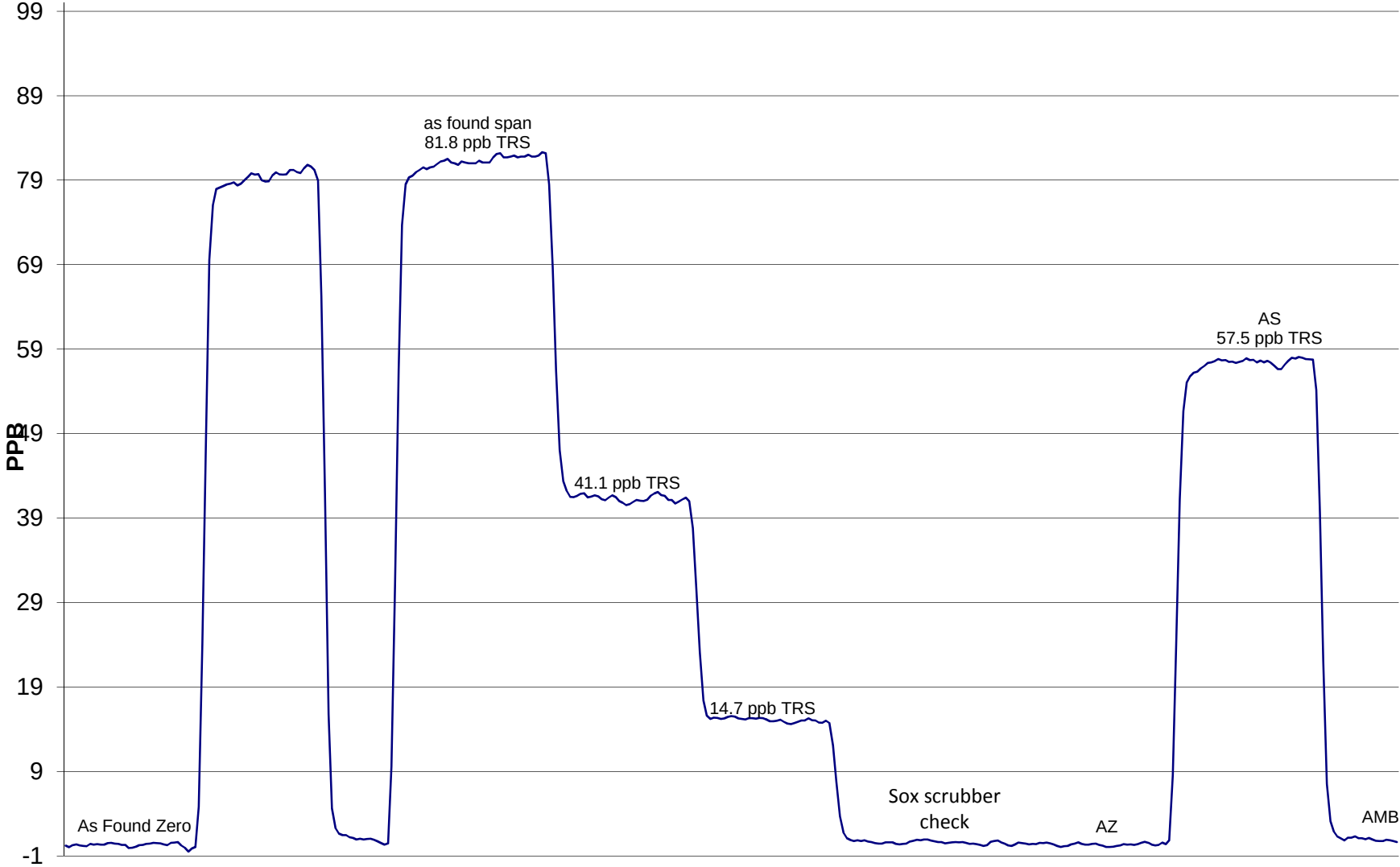
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	N/A	Correlation Coefficient	1.000000
81.8	81.8	1.0011		
41.1	41.2	0.9978		
14.7	15.0	0.9820	Slope	1.005077
			Intercept	-0.317008

TRS Calibration Curve



TRS Calibration



September 25, 2015