



Peace Airshed Zone Association

Ambient Air Monitoring Network Summary

Continuous Ambient Air Quality Monitoring Program

Monthly Report

June 2015

July 31st, 2015

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

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

Enclosed is the PAZA Ambient Monitoring Network Report for the month of **June 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 **June** the following events were noted:

Henry Pirker Station:

- ♦ The measured ambient air quality was within the AAAQO for the Henry Pirker station with the exception of the PM_{2.5} analyzer, which recorded one (1) 1-hour exceedence of the guideline of 80 µg/m³;
 - o July 1 0000h 110.6 µg/m³ Alberta Environment Reference # 300208

This exceedence is believed to be due to wildfire activity that intensified through the end of June.

- ◆ All analyzers and sensors at the Henry Pirker station had an operational uptime greater than 90% for the month of June.

Evergreen Park Station:

- ◆ The measured ambient air quality was within the AAAQO for the Evergreen Park station with the exception of the PM_{2.5} analyzer, which recorded three (3) 1-hour exceedences of the guideline of 80 µg/m³;
 - o June 8 1100h 98.0 µg/m³ Alberta Environment Reference # 299330
 - o June 11 2000h 144.2 µg/m³ Alberta Environment Reference # 299531
 - o June 11 2100h 99.8 µg/m³ Alberta Environment Reference # 299531

These exceedences are believed to be due to local dust, paving and asphalt manufacturing activity.

- ◆ All analyzers and sensors at the Evergreen Park station had an operational uptime greater than 90% for the month of June.

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 June.

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 June.

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 June.

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 June.

Clairmont Station:

- ◆ The measured ambient air quality was within the AAAQO for the Clairmont station with the exception of the PM_{2.5} analyzer, which recorded one (1) 1-hour exceedence of the guideline of 80 µg/m³;
 - o June 12 0100h 89.5 µg/m³ Alberta Environment Reference # 299534

This exceedence is not clearly attributed and may be due to wildfire activity.

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

Passive Monitoring - 46 Stations throughout the PAZA zone:

There were five duplicate sites sampled in the month of June: Bay Tree, Grande Prairie I, Peavine, and Girouxville 4. The passive sample analyses were performed by MAXXAM Analytics Inc.

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

- Monthly average concentrations for SO₂ passives ranged from 0.1 ppb to 0.4 ppb, with a mean of 0.2 ppb.
- Monthly average concentrations for NO₂ passives ranged from 0.2 ppb to 7.3 ppb, with a mean of 1.3 ppb.
- Monthly average concentrations for O₃ passives ranged from 15.5 ppb to 56.2 ppb, with a mean of 32.4 ppb.
- Monthly average concentrations for H₂S passives ranged from 0.1 ppb to 0.2 ppb, with a mean of 0.1 ppb.

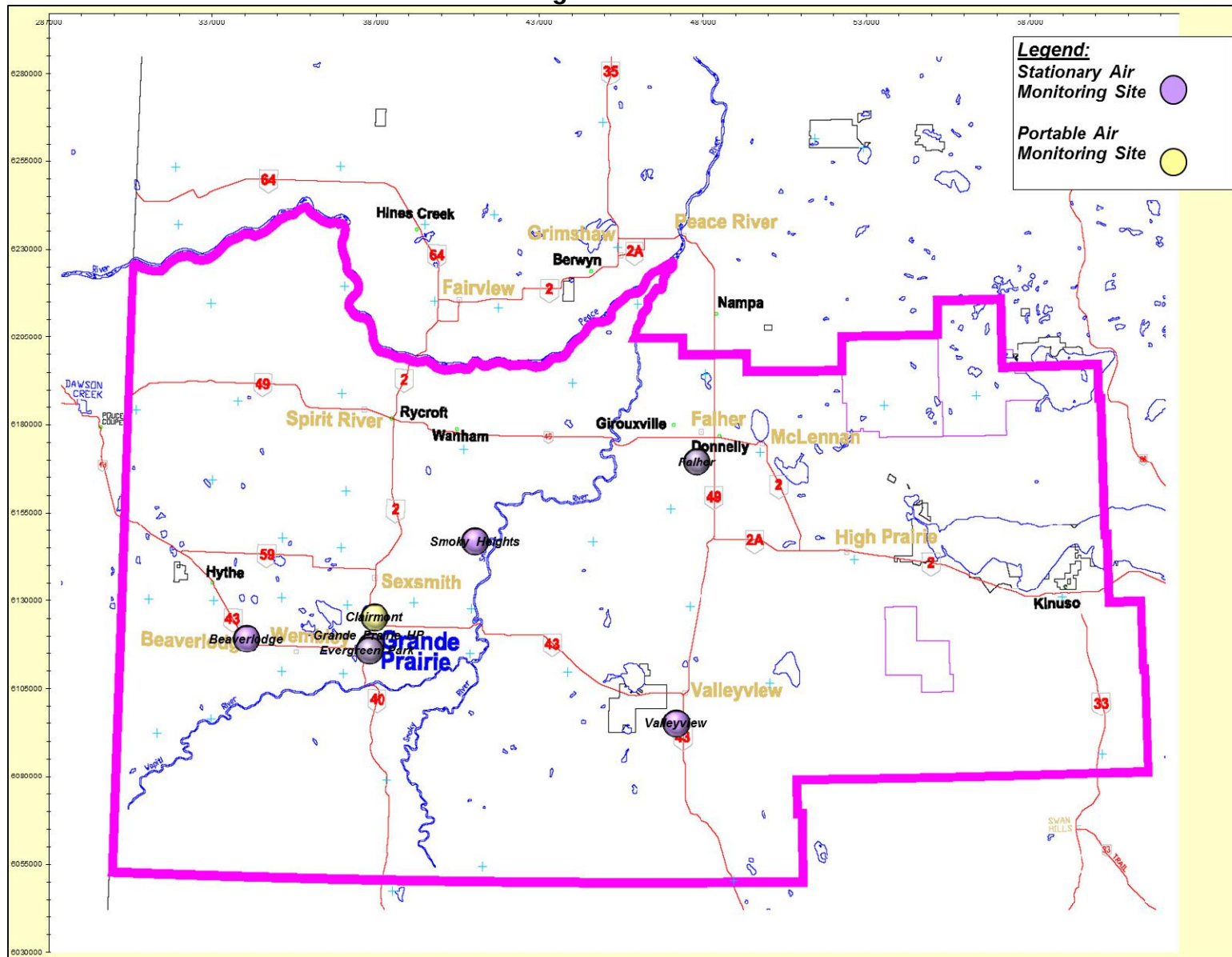
If you have any questions or concerns, please contact Patrick Andersen at 403.505.1041 or the PAZA office at 780.833.4343.

On Behalf of the
Peace Airshed Zone Association



Patrick Andersen, B.Sc.
Program Manager

Location of PAZA Continuous Monitoring Stations



PAZA Monthly Continuous Data Summary

Jun-2014 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	2.0	Jun-13 01:00	0.3	Jun-13	100%
SO ₂ (ppb)	172	48	Evergreen Park	0.1	0	0	1.3	Jun-30 19:00	0.3	Jun-02	100%
SO ₂ (ppb)	172	48	Smoky Heights	0.3	0	0	9.2	Jun-12 05:00	0.9	Jun-21	99%
SO ₂ (ppb)	172	48	Beaverlodge	0.2	0	0	3.9	Jun-17 06:00	0.6	Jun-16	100%
SO ₂ (ppb)	172	48	Valleyview	0.9	0	0	33.5	Jun-28 10:00	6.7	Jun-20	100%
SO ₂ (ppb)	172	48	Falher	0.1	0	0	0.7	Jun-10 04:00	0.4	Jun-17	100%
SO ₂ (ppb)	172	48	Clairmont	0.2	0	0	2.4	Jun-16 07:00	0.6	Jun-28	100%
NO (ppb)			Henry Pirker	0.6	0	0	19.4	Jul-01 00:00	1.9	Jun-23	100%
NO ₂ (ppb)	159	106	Henry Pirker	4.0	0	0	20.2	Jun-10 00:00	7.2	Jun-10	100%
NO _x (ppb)			Henry Pirker	4.7	0	0	32.8	Jun-29 07:00	8.4	Jun-10	100%
NO (ppb)			Beaverlodge	0.4	0	0	32.6	Jun-16 02:00	1.9	Jun-16	100%
NO ₂ (ppb)	159	106	Beaverlodge	1.9	0	0	15.4	Jun-29 09:00	4.5	Jun-29	100%
NO _x (ppb)			Beaverlodge	2.3	0	0	37.1	Jun-16 02:00	6.2	Jun-29	100%
NO (ppb)			Clairmont	0.8	0	0	11.1	Jun-23 10:00	1.8	Jun-09	100%
NO ₂ (ppb)	159	106	Clairmont	3.5	0	0	17.4	Jun-09 02:00	6.2	Jun-09	100%
NO _x (ppb)			Clairmont	4.4	0	0	24.5	Jun-25 08:00	8.1	Jun-09	100%
O ₃ (ppb)	82		Henry Pirker	28.6	0	-	52.6	Jun-27 13:00	41.0	Jun-06	100%
O ₃ (ppb) - 8-hr			Henry Pirker		0				48.7	Jun-10	
O ₃ (ppb)	82		Beaverlodge	29.6	0	-	58.5	Jun-03 17:00	43.6	Jun-06	100%
O ₃ (ppb) - 8-hr			Beaverlodge		0				49.2	Jun-03	
O ₃ (ppb)	82		Clairmont	29.4	0	-	58.1	Jun-27 14:00	40.6	Jun-06	100%
O ₃ (ppb) - 8-hr			Clairmont		0				52.0	Jun-03	
CO (ppm)	13		Henry Pirker	0.16	0	-	0.4	Jun-18 23:00	0.3	Jun-01	100%
CO (ppm) - 8-hr	5		Henry Pirker		0				0.3	Jun-01	

PAZA Monthly Continuous Data Summary – continued

Jun-2014Peace Airshed Zone Association							Maximum Recorded Values				
							1-hr		24-hr / 8-hr		
THC (ppm)			Henry Pirker	1.9	-	-	3.3	Jun-25 06:00	2.0	Jun-25	100%
CH ₄ (ppm)			Henry Pirker	1.9	-	-	3.3	Jun-25 06:00	2.0	Jun-25	100%
NMHC (ppm)			Henry Pirker	0.0	-	-	0.0	Jun-02 05:00	0.0	Jun-02	100%
THC (ppm)			Clairmont	2.02	-	-	7.5	Jun-09 16:00	2.4	Jun-09	100%
TRS (ppb)			Henry Pirker	0.1	-	-	2.0	Jul-01 00:00	0.6	Jun-02	99%
TRS (ppb)			Evergreen Park	0.3	-	-	1.8	Jun-10 06:00	0.5	Jun-10	100%
TRS (ppb)			Smoky Heights	0.1	-	-	7.2	Jun-10 05:00	0.8	Jun-10	99%
TRS (ppb)			Clairmont	0.4	-	-	2.9	Jun-16 04:00	0.8	Jun-27	100%
H ₂ S (ppb)	10	3	Valleyview	0.2	0	0	4.5	Jun-22 05:00	0.5	Jun-22	100%
H ₂ S (ppb)	10	3	Falher	0.3	0	0	4.1	Jun-10 01:00	0.8	Jun-17	100%
PM _{2.5} (µg/m3)	80	30	Henry Pirker	6.1	1	0	110.6	Jul-01 00:00	15.6	Jun-30	100%
PM _{2.5} (µg/m3)	80	30	Evergreen Park	6.2	3	0	144.2	Jun-11 20:00	26.4	Jun-11	100%
PM _{2.5} (µg/m3)	80	30	Smoky Heights	6.3	0	0	46.6	Jun-10 15:00	12.3	Jun-30	99%
PM _{2.5} (µg/m3)	80	30	Beaverlodge	5.8	0	0	39.7	Jun-14 12:00	12.6	Jun-03	100%
PM _{2.5} (µg/m3)	80	30	Clairmont	4.0	1	0	89.5	Jun-12 01:00	9.4	Jun-29	100%
RH (%)			Henry Pirker	58.6	-	-	91.3	Jun-23 07:00	81.1	Jun-20	100%
RH (%)			Evergreen Park	61.7	-	-	96.6	Jun-23 07:00	87.7	Jun-19	100%
RH (%)			Beaverlodge	62.9	-	-	100.0	Jun-23 08:00	90.3	Jun-20	100%
RH (%)			Valleyview	60.5	-	-	99.3	Jun-01 04:00	884.5	Jun-19	100%
SR (W/m ²)			Henry Pirker	234.4	-	-	860.7	Jun-25 14:00	320.5	Jun-26	100%
Temp (°C)			Henry Pirker	16.5	-	-	30.0	Jun-27 19:00	23.4	Jun-28	100%
Temp (°C)			Evergreen Park	15.9	-	-	29.2	Jun-27 20:00	22.6	Jun-28	100%
Temp (°C)			Smoky Heights	15.7	-	-	29.6	Jun-28 17:00	22.1	Jun-28	99%
Temp (°C)			Beaverlodge	15.3	-	-	28.0	Jun-27 18:00	22.3	Jun-28	100%
Temp (°C)			Valleyview	16.1	-	-	30.2	Jun-27 18:00	23.0	Jun-28	100%
Temp (°C)			Falher	16.1	-	-	29.4	Jun-29 15:00	22.2	Jun-28	100%
Temp (°C)			Clairmont	16.4	-	-	29.4	Jun-27 20:00	22.7	Jun-28	100%

PAZA Monthly Continuous Data Summary – continued

Jun-2014Peace Airshed Zone Association							Maximum Recorded Values				
							1-hr		24-hr / 8-hr		
WSPD s (km/hr)			Henry Pirker	7.7	-	-	29.0	Jun-11 18:00	17.4	Jun-11	100%
WSPD s (km/hr)			Evergreen Park	11.7	-	-	47.0	Jun-08 11:00	26.4	Jun-11	100%
WSPD s (km/hr)			Smoky Heights	11.9	-	-	38.0	Jun-26 10:00	25.5	Jun-11	100%
WSPD s (km/hr)			Beaverlodge	12.2	-	-	47.0	Jun-11 17:00	26.7	Jun-11	100%
WSPD s (km/hr)			Valleyview	4.6	-	-	22.0	Jun-08 13:00	8.8	Jun-08	100%
WSPD s (km/hr)			Falher	13.8	-	-	36.0	Jun-11 18:00	22.4	Jun-02	100%
WSPD s (km/hr)			Clairmont	8.6	-	-	27.0	Jun-11 18:00	15.8	Jun-11	100%
WSPD v (km/hr)			Henry Pirker	4.1	-	-	29.0	Jun-11 18:00	16.8	Jun-11	100%
WSPD v (km/hr)			Evergreen Park	6.9	-	-	46.0	Jun-08 11:00	25.3	Jun-11	100%
WSPD v (km/hr)			Smoky Heights	6.2	-	-	38.0	Jun-26 10:00	24.6	Jun-11	100%
WSPD v (km/hr)			Beaverlodge	5.5	-	-	47.0	Jun-11 17:00	26.0	Jun-11	100%
WSPD v (km/hr)			Valleyview	2.1	-	-	21.0	Jun-08 13:00	7.6	Jun-08	100%
WSPD v (km/hr)			Falher	4.6	-	-	36.0	Jun-11 18:00	21.6	Jun-02	100%
WSPD v (km/hr)			Clairmont	3.1	-	-	27.0	Jun-11 18:00	15.3	Jun-11	100%
WDIR			Henry Pirker	SW	-	-	-	-	-	-	100%
WDIR			Evergreen Park	W	-	-	-	-	-	-	100%
WDIR			Smoky Heights	SW	-	-	-	-	-	-	100%
WDIR			Beaverlodge	W	-	-	-	-	-	-	100%
WDIR			Valleyview	WNW	-	-	-	-	-	-	100%
WDIR			Falher	SW	-	-	-	-	-	-	100%
WDIR			Clairmont	SW	-	-	-	-	-	-	100%

Continuous Network Equipment Summary

PAZA – Henry Pirker Station

General Station Issues

Routine monthly calibrations were performed on June 1st (SO₂, NO_x, O₃), 2nd (CO, THC) and 11th (TRS). Intake manifold cleaned June 4th.

Parameter	Make	Model	Notes
SO ₂	TEI	43C	No operational issues observed.
NO _x /NO/NO ₂	TEI	42C/42i	No operational issues observed.
O ₃	TEI	49C	No operational issues observed.
CO	TEI	48C	No operational issues observed.
THC/CH ₄ /NMHC	TEI	55i	No operational issues observed.
TRS	TEI	45C/43C	Calibration started June 2 nd . Leak found and repaired, calibration postponed to June 11 th .
PM _{2.5}	Sharp	5030	One (1) exceedance of the 1-hour AAAQO recorded. AE Reference #300208.
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 June 3rd (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. Three (3) exceedances of the 1-hour AAAQO recorded. AE Reference #299330, 299531.
ET	Met One/Gill	083D	No operational issues observed.
RH	Met One/Gill		No operational issues observed.
WS / WD	Met One/ Gill		No operational issues observed.

PAZA – Smoky Heights Station

General Station Issues

Routine monthly calibration performed on June 5th (SO₂, TRS). Power outage on June 4th and datalogger failed to capture data for 3 hours on June 22nd.

Parameter	Make	Model	Notes
SO ₂	TEI	43C	No operational issues observed.
TRS	TEI	43C	No operational issues observed.
PM _{2.5}	Sharp	5030	No operational issues observed.
ET	Met One	083D	No operational issues observed.
WS / WD	Met One	010C/020C	No operational issues observed.

PAZA – Beaverlodge Station

General Station Issues

Routine monthly calibrations performed on June 8^h (SO₂, O₃, NO_x).

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	Manifold cleaned during calibration period.
ET	n/a	n/a	No operational issues observed.
RH	n/a	n/a	No operational issues observed.
WS / WD	Blue Sky	857	No operational issues observed.

PAZA – Valleyview Station

General Station Issues

Routine monthly calibrations were performed on June 9th (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 June 12th (SO₂ & H₂S).

Parameter	Make	Model	Notes
SO ₂	TEI	43i	No operational issues observed.
H ₂ S	Thermo	450i	No operational issues observed.
ET	Gill	RM Young 5103	No operational issues observed.
WS / WD	Gill	RM Young 5103	No operational issues observed.

PAZA – Portable-Clairmont

General Station Issues

Routine monthly calibrations were performed on June 15th (SO₂, NO_x, O₃) and 16th (TRS, THC, PM_{2.5}). Manifold cleaned during calibration period June 16th. HVAC unit troubleshooting June 26-27th.

Parameter	Make	Model	Notes
SO ₂	TEI	43i	No operational issues observed.
NO _x	TEI	42i	No operational issues observed.
O ₃	TEI	49C	No operational issues observed.
TRS	TEI	39C	No operational issues observed.
THC	TEI	51C	Span system failed June 16-21 st .
PM _{2.5}	Sharp	5030	One (1) exceedance of the 1-hour AAAQO observed. AE Reference #299534.
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

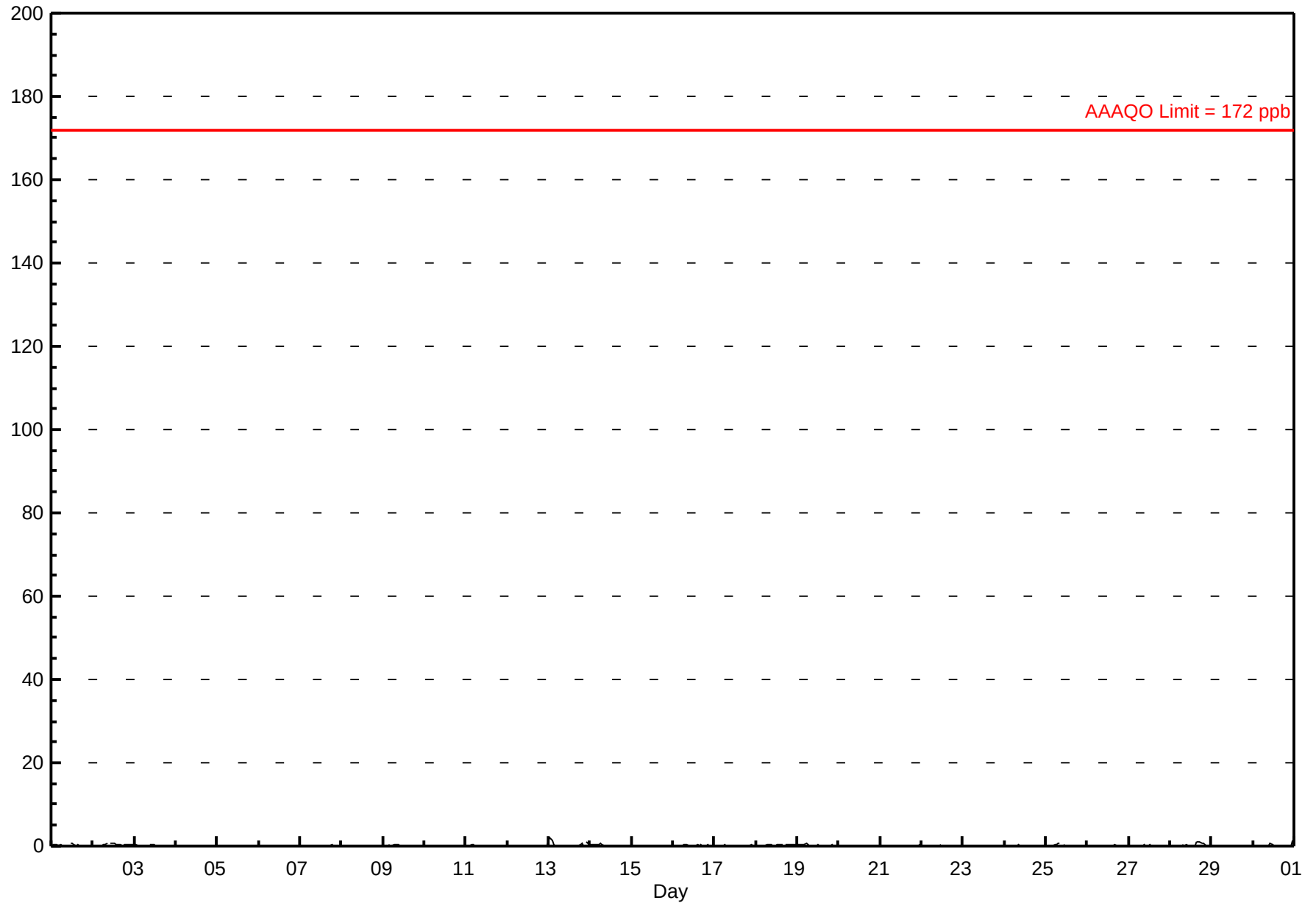
Henry Pirker - June 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 2.0 ppb on Jun 13 01:00 Maximum Daily Average: 0.3 ppb on Jun 13																								Hours in Service: 720 Hours of Data: 684 Hours of Missing Data: 36 Hours of Calibration: 34 Percent Operational Time: 99.7		
Minimum Value: 0 ppb on Jun 3 19:00 Minimum Daily Average: 0.0 ppb on Jun 23 Maximum Diurnal Average: 0.1 ppb at hour 9 Minimum Diurnal Average: 0.0 ppb at hour 15 Monthly Average: 0.09 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.0 Q ₃ = 0.1 P ₉₀ = 0.2 P ₉₉ = 1.0																										
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-Jun	0	0	0	0	0	0	0	C	C	C	C	1	1	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
2-Jun	0	0	0	0	0	0	0	0	1	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8
3-Jun	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
4-Jun	0	0	0	0	0	0	0	A	M	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
5-Jun	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
6-Jun	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-Jun	0	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-Jun	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
9-Jun	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
10-Jun	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
11-Jun	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.0	0.2
12-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.0	0.1
13-Jun	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	A	1	1	0.3	2.0
14-Jun	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	0.6
15-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.0	0.1
16-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.1	0.4
17-Jun	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-Jun	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-Jun	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.2	0.6
20-Jun	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-Jun	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
22-Jun	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	0.2
23-Jun	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
24-Jun	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	0.4
25-Jun	0	0	0	0	0	0	0	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.7
26-Jun	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-Jun	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-Jun	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0.2	1.1
29-Jun	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
30-Jun	0	0	0	0	A	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	1.3
0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1																								Diurnal Average		
2.0 1.6 1.3 0.3 0.3 0.6 0.6 0.7 0.7 0.3 0.8 0.8 0.7 0.4 0.3 1.1 1.0 1.0 0.6 0.6 0.2 0.4 1.0 1.3																								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

Henry Pirker - June 2015



Hourly Maximums

Sulphur Dioxide (SO₂) - ppb

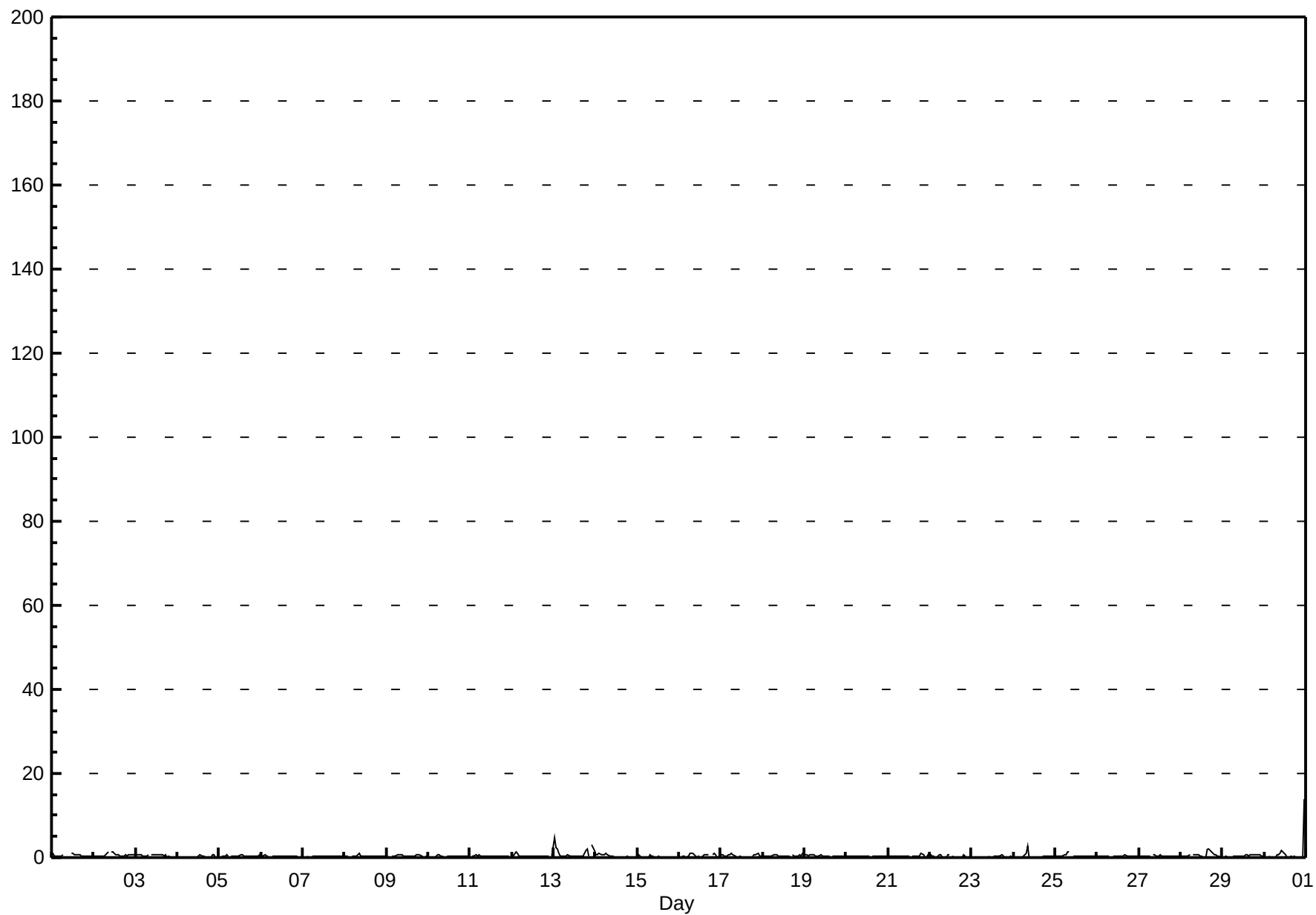
Henry Pirker - June 2015

Maximum Value: 14.0 ppb on Jul 1 00:00																			Maximum Daily Average: 1.0 ppb on Jun 13							Hours in Service: 720	
Minimum Value: 0 ppb on Jun 29 05:00																			Minimum Daily Average: 0.2 ppb on Jun 15							Hours of Data: 684	
Maximum Diurnal Average: 0.8 ppb at hour 24																			Minimum Diurnal Average: 0.3 ppb at hour 15							Hours of Missing Data: 36	
Monthly Average: 0.39 ppb																			Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.2 Median = 0.3 Q ₃ = 0.5 P ₉₀ = 0.7 P ₉₉ = 2.1							Hours of Calibration: 34	
																										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-Jun	1	0	0	0	0	1	1	C	C	C	C	1	1	1	1	1	1	0	0	0	0	0	0	0	0.5	1.1	
2-Jun	0	0	0	0	0	0	0	1	1	A	1	1	1	1	1	0	0	0	1	0	1	1	1	1	0.6	1.3	
3-Jun	1	1	1	1	0	0	0	1	A	1	1	1	1	1	1	1	0	1	0	0	0	0	0	0	0.4	0.6	
4-Jun	0	0	0	0	0	0	0	A	M	M	0	0	0	1	0	0	0	0	0	0	1	1	0	0	0.2	0.6	
5-Jun	0	0	0	0	1	0	A	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0.3	0.7	
6-Jun	0	0	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7	
7-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5	
8-Jun	0	0	0	A	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0.9	
9-Jun	0	0	A	0	0	0	1	1	1	1	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0.4	0.8	
10-Jun	0	A	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6	
11-Jun	A	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.4	0.8	
12-Jun	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.3	1.3	
13-Jun	5	2	2	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	2	0	A	3	2	1.0	4.7	
14-Jun	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.4	1.2	
15-Jun	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.2	0.6	
16-Jun	0	0	0	0	0	0	1	1	1	0	0	0	0	0	1	1	1	1	A	1	1	1	0	0	0.4	1.0	
17-Jun	1	1	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	A	0	1	1	1	0	0	0.4	1.1	
18-Jun	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	A	1	0	0	0	1	0	1	0.5	0.9	
19-Jun	1	1	0	1	1	1	0	0	0	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.4	0.8	
20-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.3	0.3	
21-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	1	1	0	0	1	0.3	1.2	
22-Jun	1	0	0	0	0	1	1	0	0	0	1	1	A	0	0	0	0	0	0	1	0	0	0	0	0.3	0.6	
23-Jun	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	1	1	0	0	0	0	0	0.2	0.5	
24-Jun	0	0	0	0	0	0	1	1	3	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	2.5	
25-Jun	0	0	0	0	1	1	1	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	1.3	
26-Jun	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0.4	0.8	
27-Jun	0	0	0	0	0	0	0	A	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7	
28-Jun	0	0	0	0	0	1	A	1	1	1	1	0	0	0	0	2	2	2	1	1	1	0	0	0	0.6	2.1	
29-Jun	0	0	0	0	0	A	0	0	0	0	1	1	1	1	1	0	1	1	1	1	1	1	0	0	0.4	0.5	
30-Jun	0	0	0	0	A	0	0	1	1	1	2	1	1	0	0	0	0	0	0	0	0	0	0	14	0.9	14.0	
																								Diurnal Average			
																								Diurnal Maximum			
C - Calibration																								M - Maintenance		A - Automated Daily Zero Span	

Hourly Maximums

Sulphur Dioxide (SO₂) - ppb

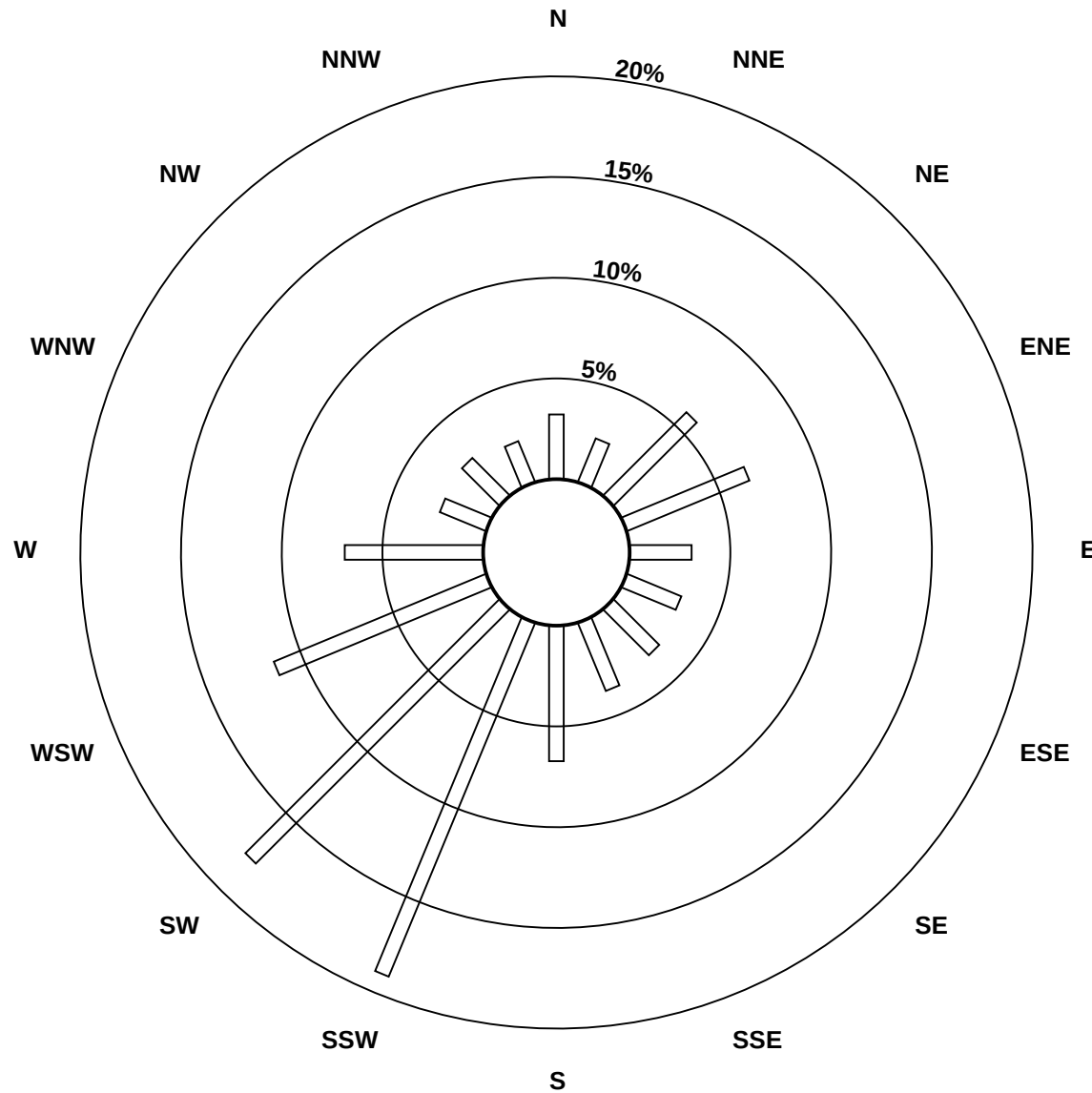
Henry Pirker - June 2015



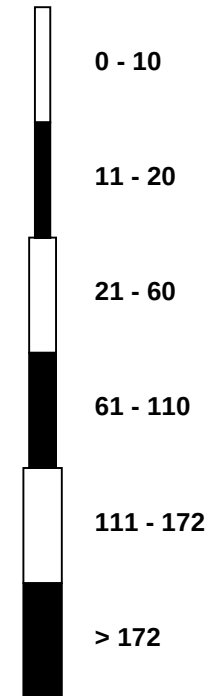
Pollutant Rose

Sulphur Dioxide (SO₂) - ppb

Henry Pirker - June 2015

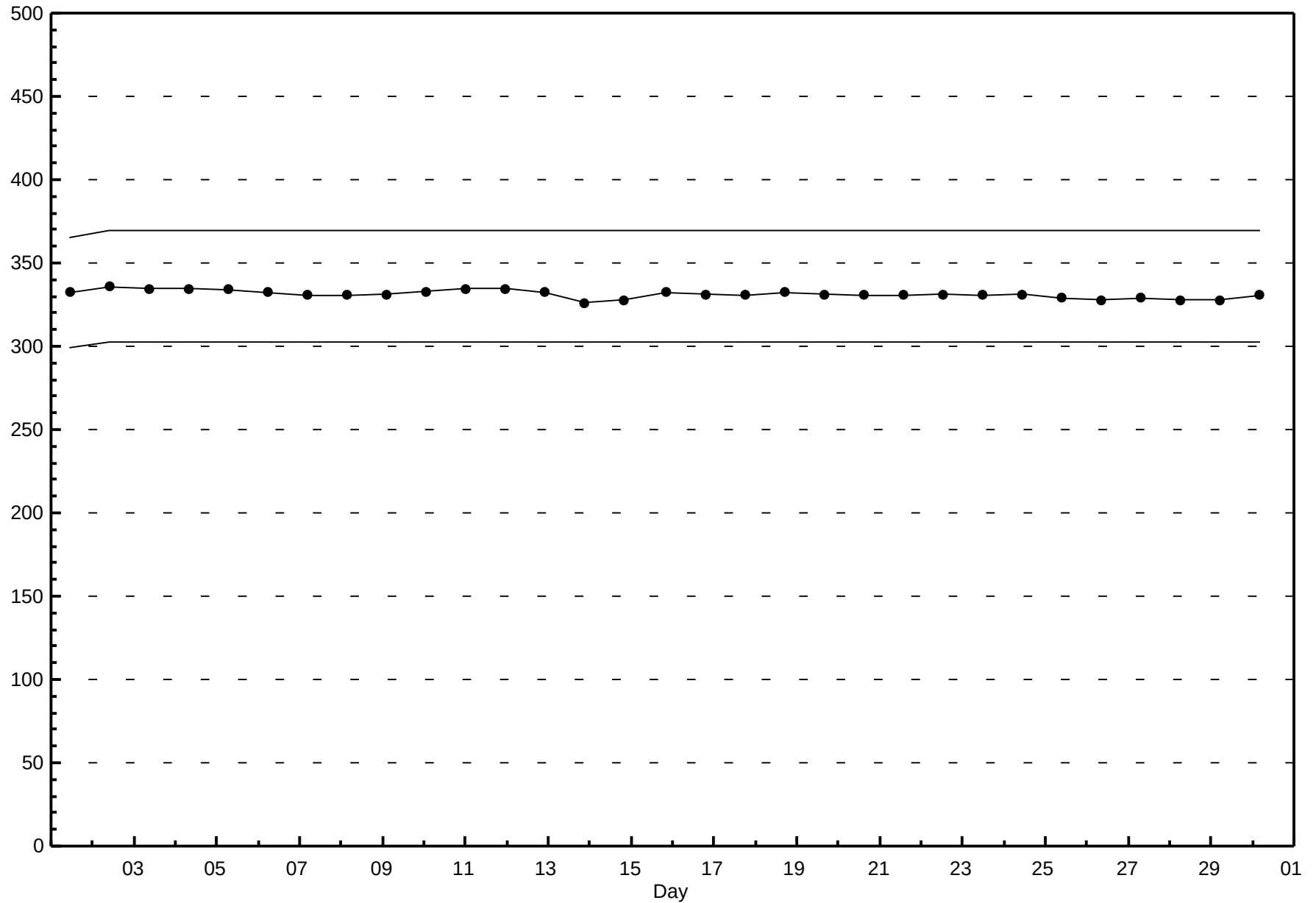


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Henry Pirker - June 2015

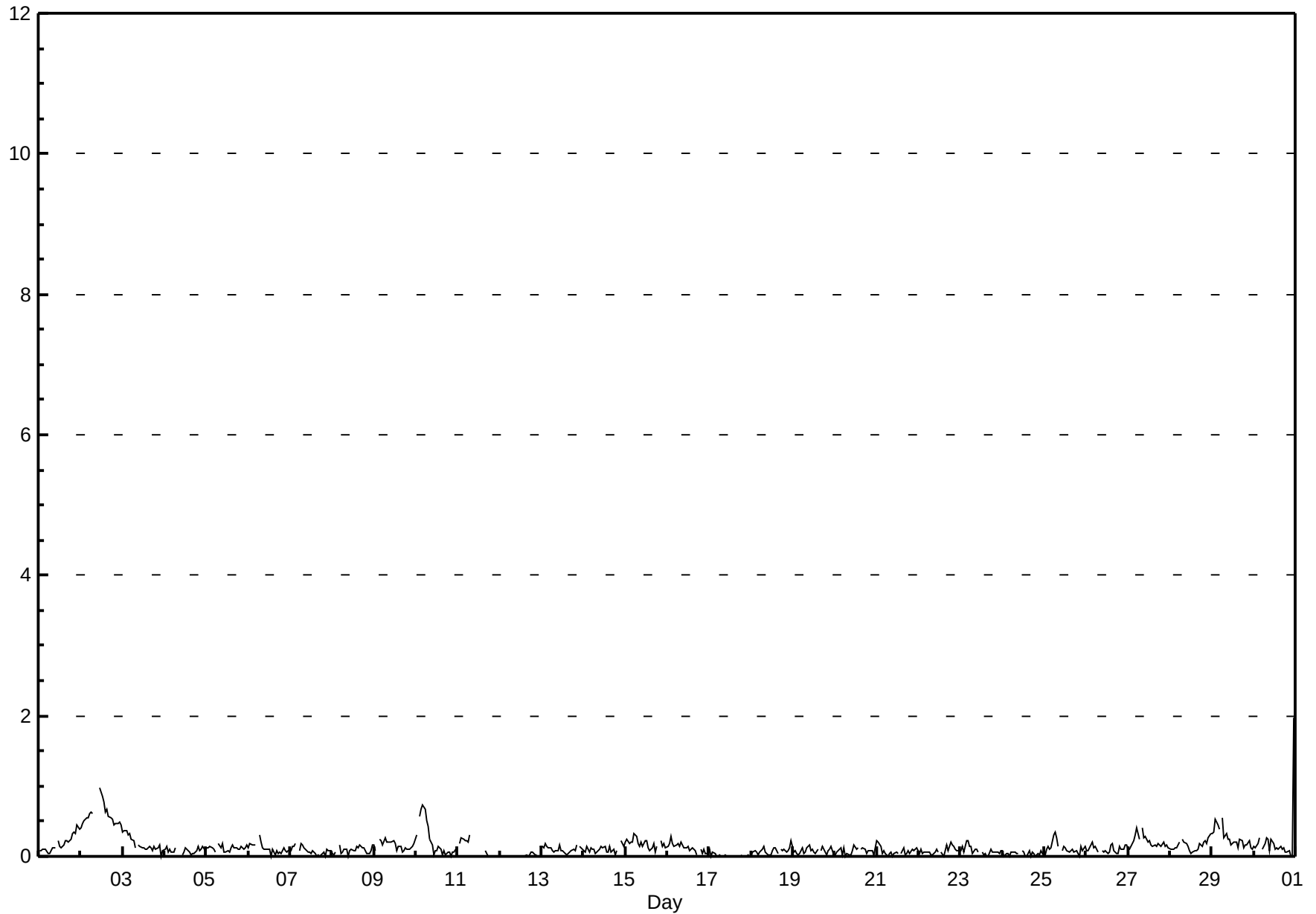


[illegible]

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - June 2015



Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

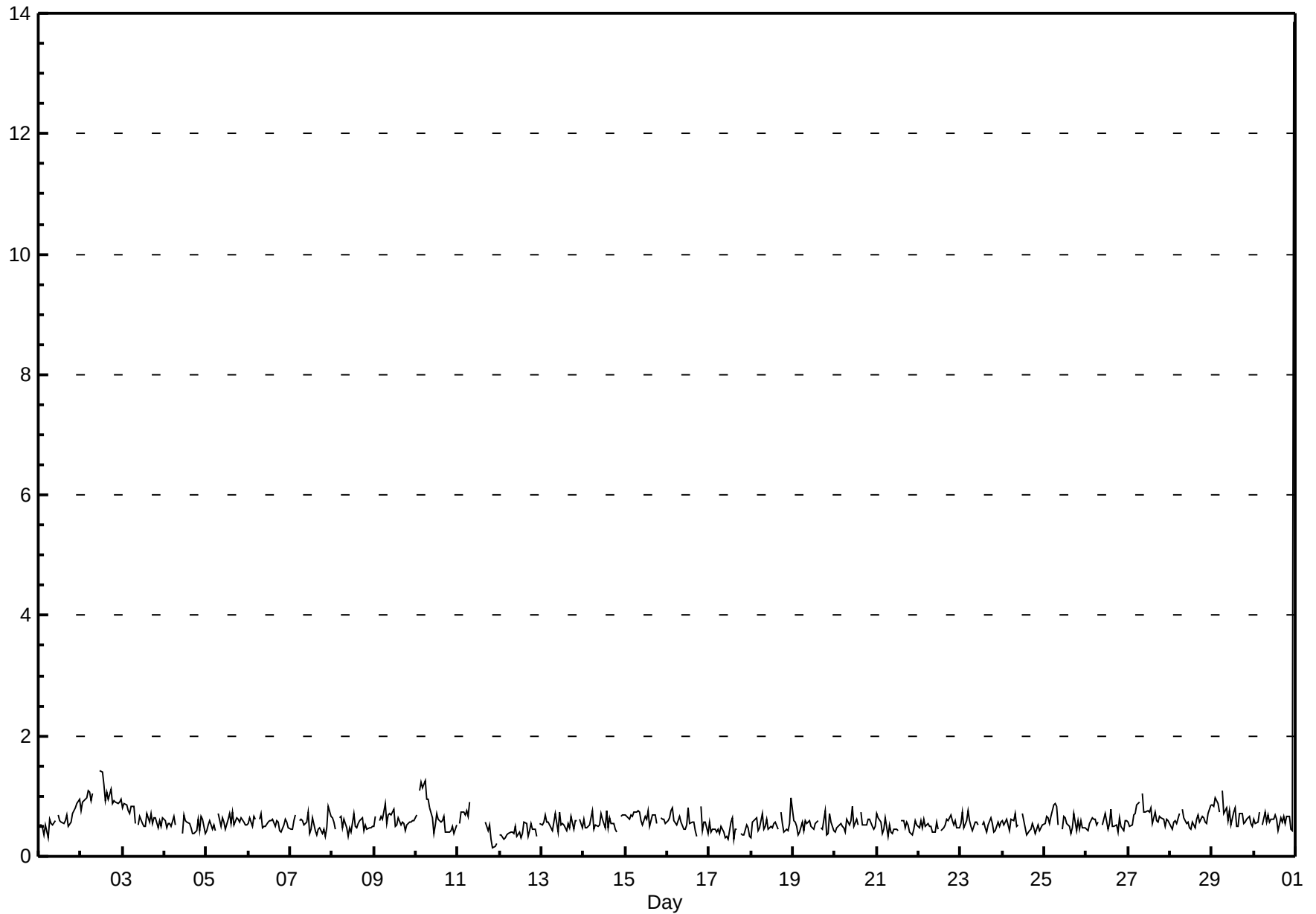
Henry Pirker - June 2015

Maximum Value: 13.9 ppb on Jul 1 00:00																				Maximum Daily Average: 1.2 ppb on Jun 30					Hours in Service: 720	
Minimum Value: 0 ppb on Jun 11 21:00																				Minimum Daily Average: 0.4 ppb on Jun 12					Hours of Data: 677	
Maximum Diurnal Average: 1.0 ppb at hour 24																				Minimum Diurnal Average: 0.5 ppb at hour 21					Hours of Missing Data: 43	
Monthly Average: 0.60 ppb																				Percentiles: P ₁ = 0.3 P ₁₀ = 0.4 Q ₁ = 0.5 Median = 0.6 Q ₃ = 0.6 P ₉₀ = 0.8 P ₉₉ = 1.1					Hours of Calibration: 38	
																				Percent Operational Time: 99.3						
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-Jun	1	1	0	0	1	0	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.9
2-Jun	1	1	1	1	1	1	1	1	M	M	M	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.4
3-Jun	1	1	1	1	1	1	1	1	A	1	1	1	0	0	1	1	1	1	1	1	0	1	0	1	0.6	0.9
4-Jun	1	0	1	1	1	1	1	A	M	M	0	1	1	1	1	0	0	0	0	1	0	1	1	0	0.5	0.7
5-Jun	0	1	1	0	1	0	A	1	0	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.7
6-Jun	1	1	1	1	1	A	1	1	0	1	0	1	1	1	1	1	1	1	0	0	1	1	1	0	0.6	0.7
7-Jun	0	0	1	1	A	1	1	1	1	1	1	0	0	1	0	0	0	0	0	0	0	0	1	1	0.5	0.8
8-Jun	1	1	0	A	1	1	0	1	0	0	0	0	1	0	0	1	1	1	0	1	0	0	0	0	0.5	0.7
9-Jun	0	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0.6	0.9
10-Jun	1	A	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0	0	0	0	1	0	1	0.7	1.2
11-Jun	A	1	1	1	1	1	1	1	C	C	C	C	C	C	C	C	1	0	1	0	0	0	0	A	--	0.9
12-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0	0	0	A	1	0.4	0.6
13-Jun	1	1	1	1	1	0	0	1	1	0	1	1	1	1	0	1	0	1	0	1	1	A	1	0	0.5	0.7
14-Jun	1	0	0	1	1	1	0	1	1	1	1	1	0	1	0	1	1	1	0	0	A	1	1	1	0.6	0.8
15-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	A	1	1	1	1	0.7	0.8
16-Jun	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	0	0	A	1	0	1	1	0	0.6	0.8
17-Jun	1	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	A	0	0	0	1	0	0	0.4	0.6
18-Jun	0	1	1	1	0	0	1	0	0	1	0	1	0	1	1	0	A	1	1	0	0	0	1	1	0.5	1.0
19-Jun	1	1	1	0	0	1	0	1	1	1	0	0	0	1	1	A	0	0	1	0	0	1	1	0	0.5	0.8
20-Jun	0	0	1	1	0	0	0	1	1	1	1	0	1	1	A	1	1	1	1	1	1	0	0	0	0.5	0.8
21-Jun	1	1	1	0	0	1	0	1	0	0	0	0	0	A	1	1	0	1	1	0	0	0	1	1	0.5	0.7
22-Jun	0	1	0	1	0	1	1	1	0	0	1	0	A	0	0	1	1	1	1	1	1	1	0	0	0.5	0.7
23-Jun	1	1	0	1	1	1	0	0	1	1	1	A	1	1	0	0	1	1	1	0	0	1	0	1	0.5	0.8
24-Jun	1	1	1	1	0	1	1	1	1	1	A	1	1	0	0	0	0	1	0	0	1	0	0	1	0.5	0.7
25-Jun	1	1	1	1	1	1	1	1	1	A	0	1	1	1	0	0	0	1	0	1	0	1	0	0	0.6	0.9
26-Jun	0	0	1	1	1	1	1	1	A	1	1	1	0	1	1	0	0	1	0	1	0	0	1	1	0.6	0.8
27-Jun	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0.7	1.0
28-Jun	1	0	1	1	1	1	A	1	1	1	1	0	0	1	0	1	1	1	1	1	1	1	1	1	0.6	0.9
29-Jun	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0.7	1.1
30-Jun	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0	0	14	1.2	13.9
0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.5 0.6 0.6 0.6 0.6 0.5 0.6 0.6 0.6 0.5 0.5 0.5 0.5 0.6 1.0																									Diurnal Average	
0.9 0.9 1.1 1.2 1.1 1.2 1.1 1.0 1.0 1.0 0.7 0.8 1.4 1.4 1.2 0.9 1.1 1.0 1.1 0.9 0.9 0.9 0.9 0.9 13.9																									Diurnal Maximum	
C - Calibration M - Maintenance A - Automated Daily Zero Span																										

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

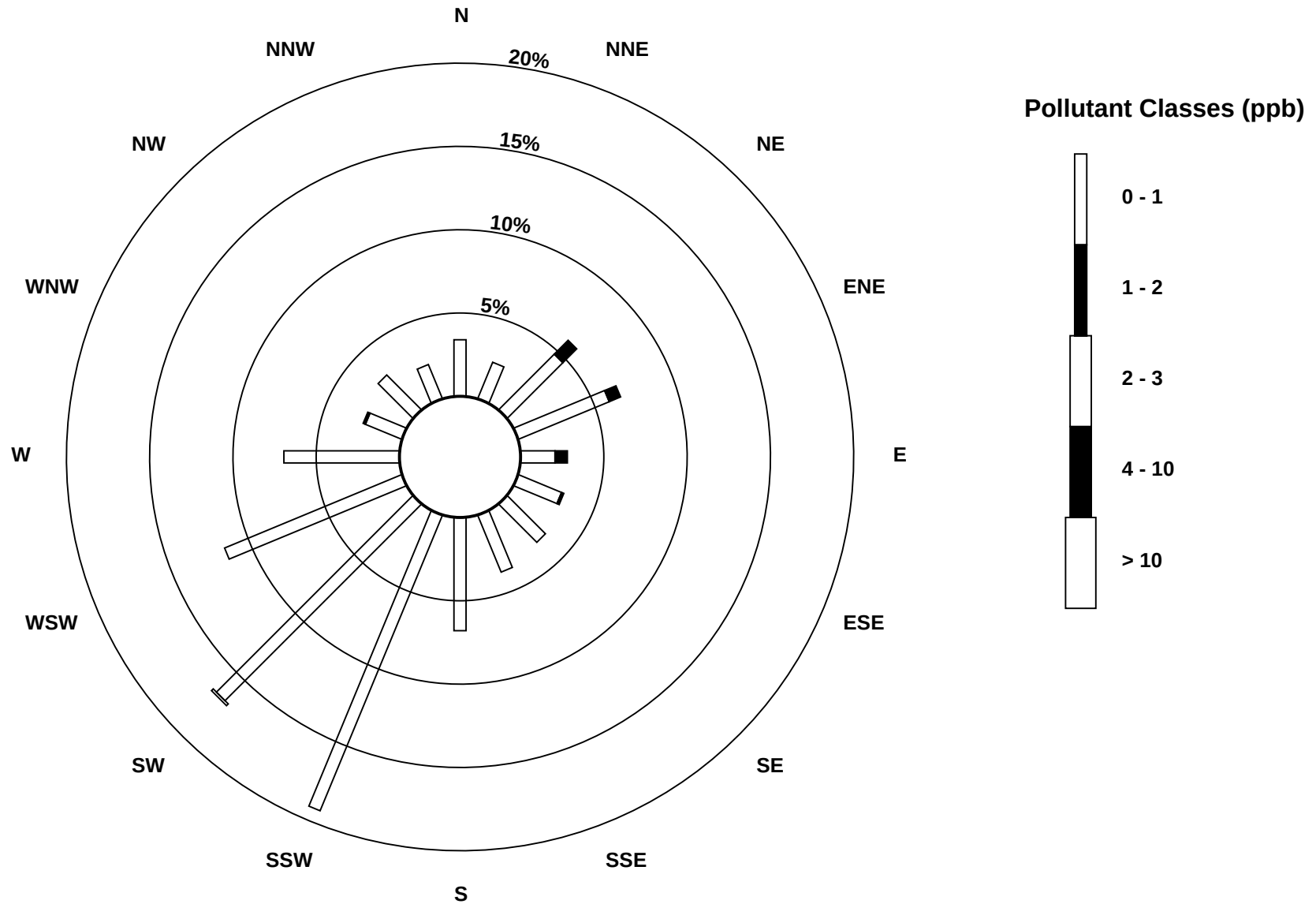
Henry Pirker - June 2015



Pollutant Rose

Total Reduced Sulphur (TRS) - ppb

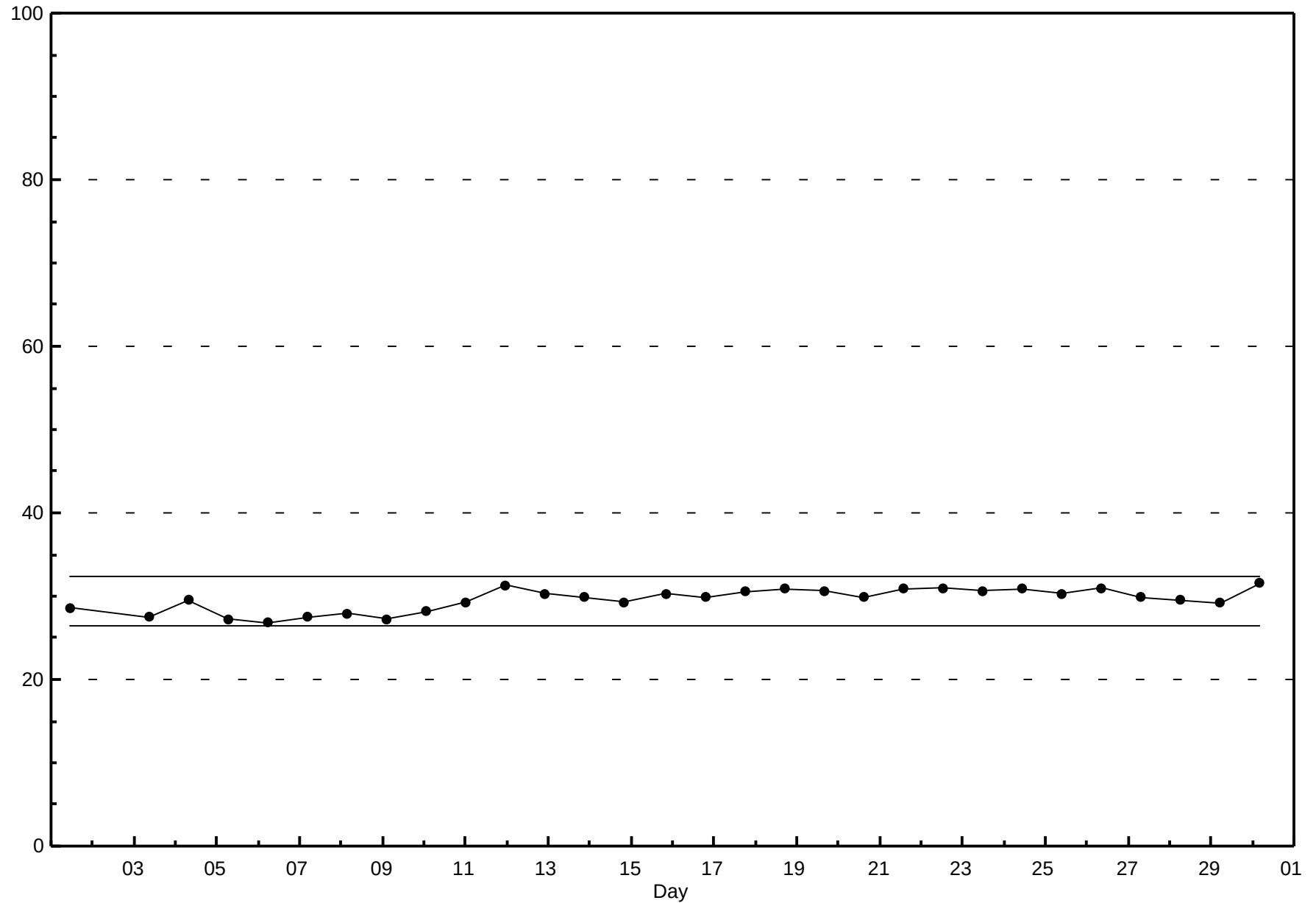
Henry Pirker - June 2015



Span Responses

Total Reduced Sulphur (TRS)

Henry Pirker - June 2015



Hourly Averages

Nitrogen Dioxide (NO₂) - ppb

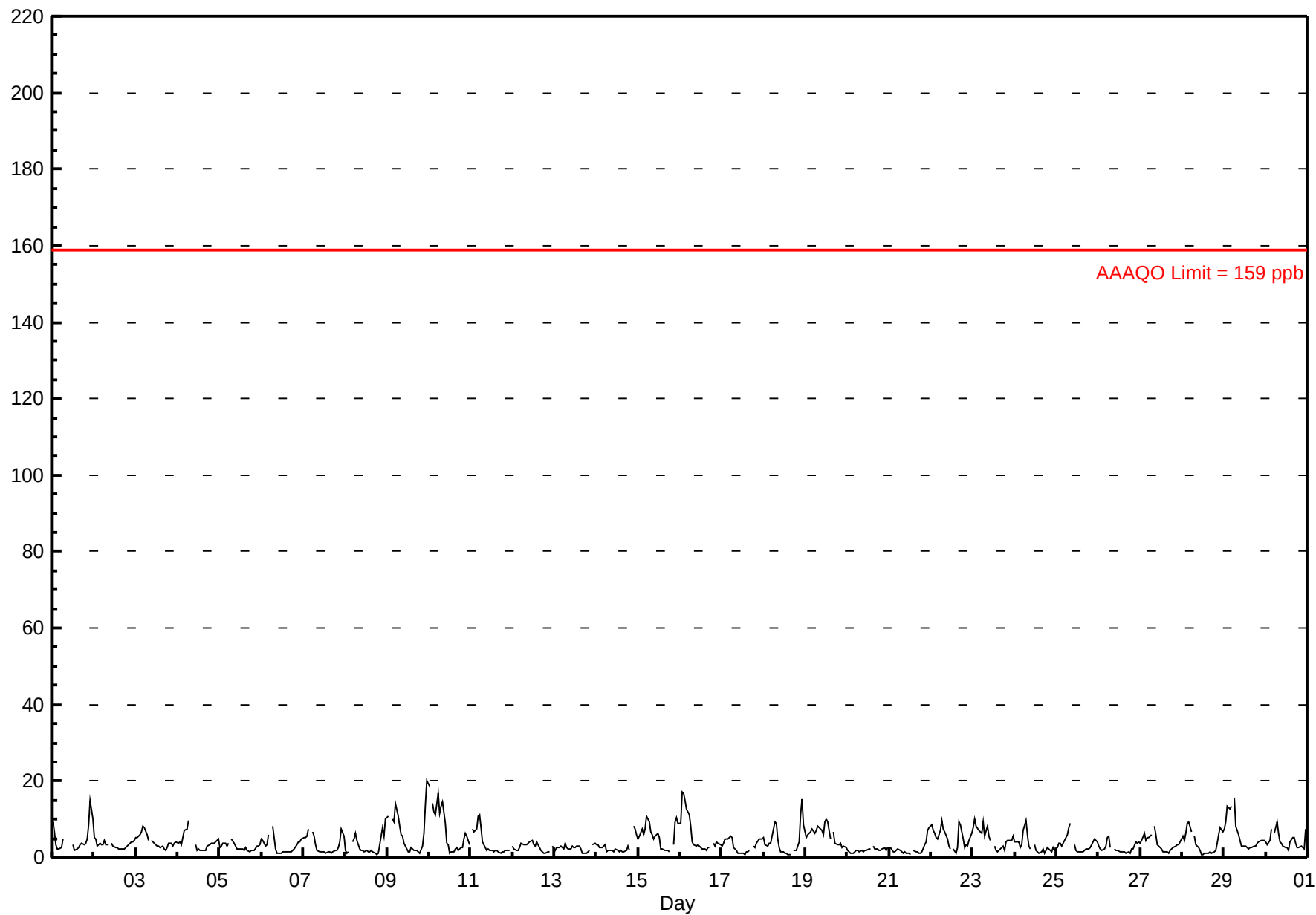
Henry Pirker - June 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 20.2 ppb on Jun 10 00:00 Maximum Daily Average: 7.2 ppb on Jun 10																								Hours in Service: 720 Hours of Data: 683 Hours of Missing Data: 37 Hours of Calibration: 35 Percent Operational Time: 99.7		
Minimum Value: 1 ppb on Jun 21 13:00 Minimum Daily Average: 1.9 ppb on Jun 20 Maximum Diurnal Average: 7.1 ppb at hour 7 Minimum Diurnal Average: 2.0 ppb at hour 16 Monthly Average: 4.01 ppb Percentiles: P ₁ = 1.0 P ₁₀ = 1.4 Q ₁ = 1.9 Median = 3.1 Q ₃ = 5.1 P ₉₀ = 8.1 P ₉₉ = 15.3																										
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-Jun	9	7	3	2	2	2	5	C	C	C	C	C	3	2	2	3	3	4	3	4	5	9	15	10	4.9	14.8
2-Jun	5	5	3	4	3	3	4	3	3	A	4	3	3	3	2	2	2	2	3	3	3	4	4	5	3.4	5.4
3-Jun	5	5	6	7	8	8	6	4	A	5	4	3	3	3	3	3	2	2	3	4	4	3	4	4	4.3	8.1
4-Jun	4	4	3	5	7	8	10	A	M	M	3	2	2	2	2	2	2	3	3	4	4	4	4	5	3.9	9.8
5-Jun	3	3	4	4	3	4	A	5	4	3	2	2	2	2	2	3	2	2	2	2	2	3	3	3	2.7	4.9
6-Jun	5	4	3	3	6	A	8	5	2	1	1	1	1	1	2	2	1	2	2	2	3	4	4	5	3.0	8.2
7-Jun	5	5	6	7	A	7	6	3	2	1	2	1	1	1	1	1	1	1	2	2	3	4	7	6	3.3	7.4
8-Jun	2	1	2	A	4	5	6	4	2	2	2	2	2	2	1	2	1	1	1	1	3	8	6	10	3.0	10.2
9-Jun	11	11	A	10	9	14	11	8	6	5	4	2	2	1	3	2	2	2	2	1	3	6	14	20	6.4	20.2
10-Jun	19	A	14	12	11	17	12	13	15	9	4	3	1	1	2	2	3	2	3	3	5	6	6	4	7.2	18.8
11-Jun	A	8	7	7	11	11	8	4	3	2	2	2	2	2	2	2	2	1	1	1	2	2	2	A	3.7	11.1
12-Jun	3	2	2	2	2	4	3	3	3	4	4	5	3	3	4	3	2	2	1	1	2	2	A	3	2.7	4.6
13-Jun	2	3	2	3	3	2	4	3	2	2	3	3	2	3	3	2	1	1	1	1	2	A	3	4	2.4	3.8
14-Jun	4	3	3	3	3	3	2	2	2	2	2	2	2	1	2	1	2	2	3	2	A	8	7	6	2.9	8.1
15-Jun	5	5	7	6	7	11	9	7	6	5	5	6	5	2	2	2	2	2	1	A	3	9	10	9	5.6	10.7
16-Jun	9	17	17	15	13	11	8	4	3	3	3	3	3	2	2	2	2	3	A	4	3	4	4	3	6.0	17.1
17-Jun	3	4	5	5	5	6	5	3	2	1	1	1	1	1	1	2	2	A	3	3	4	5	5	5	3.1	5.7
18-Jun	5	3	3	4	4	5	9	5	3	2	2	1	1	1	1	1	A	2	2	2	4	11	15	9	4.4	15.4
19-Jun	5	6	6	7	7	6	7	8	8	7	6	9	10	9	5	A	7	4	4	3	4	3	3	2	5.9	10.0
20-Jun	2	1	1	1	1	2	2	2	2	2	2	2	2	2	A	3	2	2	2	2	2	3	2	3	1.9	2.8
21-Jun	3	3	2	2	2	2	2	1	1	2	1	1	1	A	2	1	1	1	1	2	3	4	7	8	2.3	7.7
22-Jun	9	7	6	5	5	7	10	7	7	5	3	2	A	2	1	3	9	8	5	2	3	3	4	6	5.3	9.8
23-Jun	8	10	8	7	7	6	9	6	8	6	5	A	3	2	1	2	2	3	2	4	4	5	5	6	5.2	10.0
24-Jun	4	4	4	3	3	7	10	6	3	2	A	4	2	2	1	1	2	1	2	2	2	2	3	2	3.1	9.7
25-Jun	3	4	4	3	4	5	6	8	9	A	3	2	2	1	1	2	2	2	2	3	3	4	5	4	3.5	8.8
26-Jun	3	2	2	2	3	5	6	3	A	2	2	2	1	2	2	1	1	2	1	2	2	4	4	4	2.5	5.5
27-Jun	4	4	6	5	5	5	6	A	8	6	3	2	2	1	1	1	1	2	2	2	3	3	3	4	3.6	8.1
28-Jun	6	5	6	9	9	7	A	6	4	3	2	1	1	1	1	1	1	1	2	4	6	8	7	3.9	9.3	
29-Jun	7	9	13	13	14	A	15	8	6	4	3	3	3	2	2	2	3	3	3	4	4	5	5	4	5.9	15.5
30-Jun	4	3	5	7	A	6	9	6	4	4	3	3	3	2	4	5	5	4	3	3	3	3	2	7	4.3	9.4
5.3 5.2 5.3 5.6 5.8 6.4 7.1 5.3 4.6 3.4 2.8 2.6 2.4 2.1 2.0 2.0 2.4 2.3 2.2 2.4 3.2 4.7 5.6 5.7																								Diurnal Average		
18.8 17.1 16.8 14.8 13.5 16.7 15.5 13.4 14.6 8.9 6.0 9.3 10.0 9.2 4.9 5.2 9.4 8.4 4.8 4.1 4.7 11.3 15.4 20.2																								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

Henry Pirker - June 2015



Hourly Maximums

Nitrogen Dioxide (NO₂) - ppb

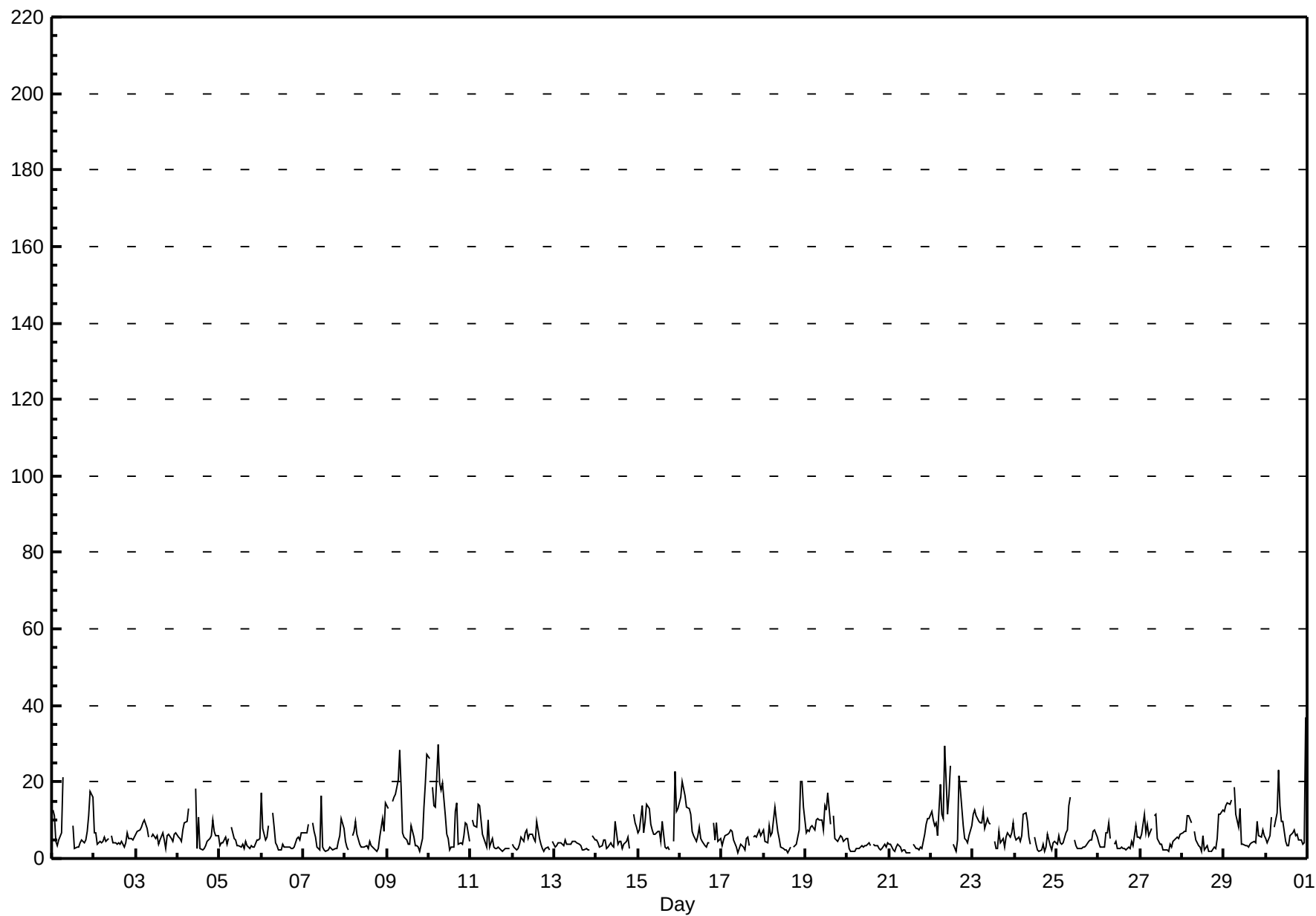
Henry Pirker - June 2015

Maximum Value: 37.0 ppb on Jul 1 00:00																				Maximum Daily Average: 11.2 ppb on Jun 9										Hours in Service: 720									
Minimum Value: 1 ppb on Jun 21 13:00																				Minimum Daily Average: 3.0 ppb on Jun 20										Hours of Data: 683									
Maximum Diurnal Average: 10.4 ppb at hour 7																				Minimum Diurnal Average: 3.6 ppb at hour 14										Hours of Missing Data: 37									
Monthly Average: 6.40 ppb																				Percentiles: P ₁ = 1.7 P ₁₀ = 2.5 Q ₁ = 3.2 Median = 5.0 Q ₃ = 7.6 P ₉₀ = 12.6 P ₉₉ = 23.5										Hours of Calibration: 35									
																				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-Jun	13	11	4	3	5	7	21	C	C	C	C	C	9	3	3	3	4	5	4	5	7	11	17	16	8.0	21.4													
2-Jun	7	7	4	5	4	5	6	5	5	A	6	4	4	4	4	4	3	4	7	5	5	5	6	6	4.8	6.7													
3-Jun	6	7	8	8	9	10	8	6	A	6	6	5	6	4	5	7	5	2	6	6	5	4	6	7	6.2	10.0													
4-Jun	6	5	4	7	9	10	13	A	M	M	18	2	11	3	2	3	3	4	5	6	10	7	6	6	6.7	18.3													
5-Jun	4	4	4	6	4	5	A	8	5	5	3	3	3	4	3	4	3	3	3	3	3	5	5	5	4.2	8.3													
6-Jun	17	8	5	6	9	A	12	8	4	3	2	2	4	3	3	3	3	3	3	3	5	6	5	7	5.3	17.3													
7-Jun	7	7	7	9	A	9	7	5	3	2	16	3	2	2	2	3	2	2	3	3	4	6	10	8	5.4	16.3													
8-Jun	4	3	2	A	6	7	10	6	4	3	3	3	3	3	4	3	3	2	2	3	6	10	7	15	4.9	14.7													
9-Jun	14	13	A	15	16	17	21	29	19	7	6	5	4	4	8	6	3	4	3	2	5	13	20	27	11.2	28.5													
10-Jun	26	A	19	14	13	30	20	18	20	11	6	5	2	3	3	12	15	4	4	4	6	9	9	5	11.2	29.9													
11-Jun	A	10	9	8	14	14	10	6	4	3	10	3	5	3	3	3	3	2	2	2	3	3	2	A	5.6	14.2													
12-Jun	4	3	2	3	4	5	5	7	7	5	6	6	5	5	10	5	4	3	2	3	3	2	A	4	4.4	9.9													
13-Jun	3	3	4	4	4	3	5	4	4	4	5	4	4	4	4	3	2	2	2	2	2	A	6	5	3.7	5.8													
14-Jun	5	4	3	3	5	5	2	3	4	3	3	10	4	4	5	3	4	4	6	3	A	11	9	8	4.8	11.5													
15-Jun	7	8	14	7	10	14	13	9	8	6	6	7	7	4	10	3	3	3	2	A	4	23	12	13	8.4	22.9													
16-Jun	16	20	18	16	13	13	12	7	6	4	6	8	5	4	3	3	4	4	A	9	5	9	4	5	8.6	20.2													
17-Jun	3	5	6	6	7	8	7	5	3	2	2	4	3	2	5	6	3	A	6	6	6	8	6	7	5.0	7.6													
18-Jun	7	4	4	9	6	7	13	10	7	5	3	3	2	2	2	3	A	3	3	4	8	20	20	14	6.9	20.1													
19-Jun	7	8	7	8	9	8	10	11	10	10	8	14	13	17	9	A	11	5	5	5	6	5	5	5	8.4	17.2													
20-Jun	5	2	2	2	2	3	3	3	3	3	4	3	4	3	A	4	3	3	3	2	3	4	3	4	3.0	5.1													
21-Jun	4	4	2	2	3	4	3	2	2	2	2	2	1	A	4	2	3	2	3	3	6	9	10	10	3.7	10.5													
22-Jun	12	10	9	9	6	19	11	10	29	11	17	24	A	4	2	5	22	18	9	5	5	4	6	9	11.2	29.4													
23-Jun	11	13	11	10	9	9	12	8	10	9	9	A	5	3	3	7	4	5	3	6	7	6	7	9	7.6	12.6													
24-Jun	6	5	6	4	6	12	12	10	5	4	A	6	4	2	2	2	4	2	3	6	3	2	4	5	4.9	12.0													
25-Jun	4	6	4	4	4	7	8	14	16	A	5	3	2	3	3	3	3	3	4	5	5	7	7	6	5.4	15.9													
26-Jun	4	3	3	3	7	7	9	5	A	4	5	2	3	3	3	3	2	3	2	4	3	8	6	6	4.3	9.2													
27-Jun	5	6	11	7	9	6	8	A	11	11	5	4	4	2	2	2	2	4	3	5	5	6	5	6	5.6	11.4													
28-Jun	7	7	7	11	11	9	A	7	5	3	3	2	6	2	4	2	2	2	3	3	5	12	12	13	5.9	12.6													
29-Jun	12	14	14	14	15	A	19	12	8	13	4	4	3	3	3	4	4	4	4	10	6	6	7	6	8.3	18.5													
30-Jun	5	4	6	11	A	8	12	23	14	10	10	4	4	3	6	7	8	6	6	5	5	4	4	37	8.7	37.0													
8.0 7.0 6.9 7.4 7.8 9.3 10.4 8.9 8.4 5.8 6.4 5.2 4.5 3.6 4.1 4.0 4.7 3.8 3.7 4.4 5.1 7.8 7.8 9.4																									Diurnal Average														
26.2 20.2 18.7 16.3 15.9 29.9 21.4 28.5 29.4 13.2 18.3 24.2 12.6 17.2 9.9 12.2 21.5 18.0 8.7 9.7 10.1 22.9 20.1 37.0																									Diurnal Maximum														
C - Calibration																									M - Maintenance					A - Automated Daily Zero Span									

Hourly Maximums

Nitrogen Dioxide (NO₂) - ppb

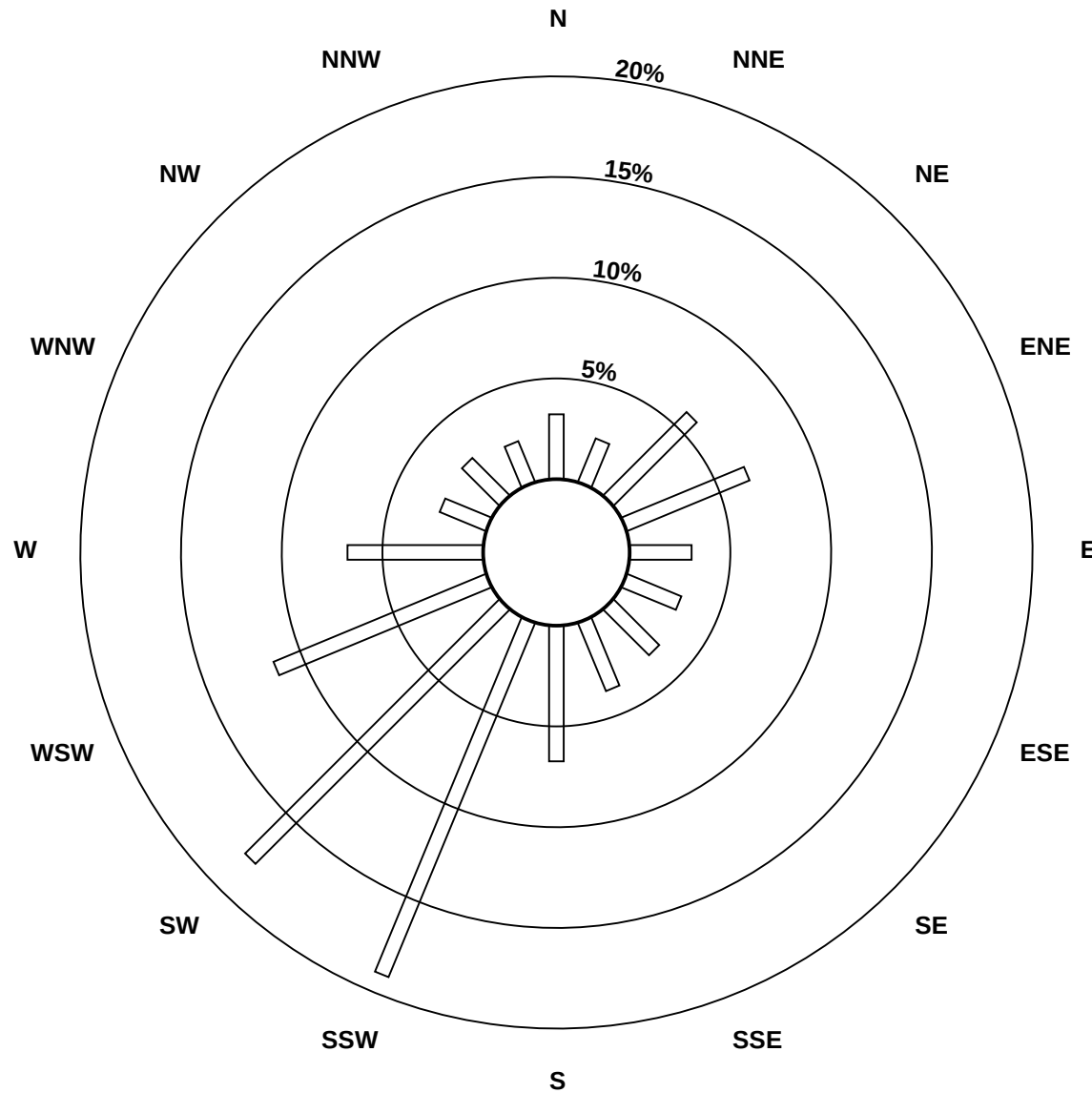
Henry Pirker - June 2015



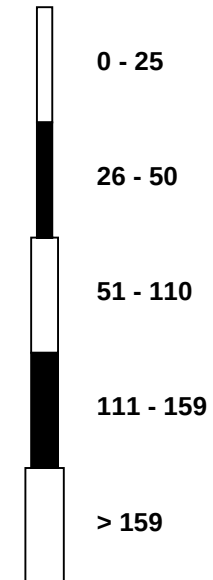
Pollutant Rose

Nitrogen Dioxide (NO₂) - ppb

Henry Pirker - June 2015

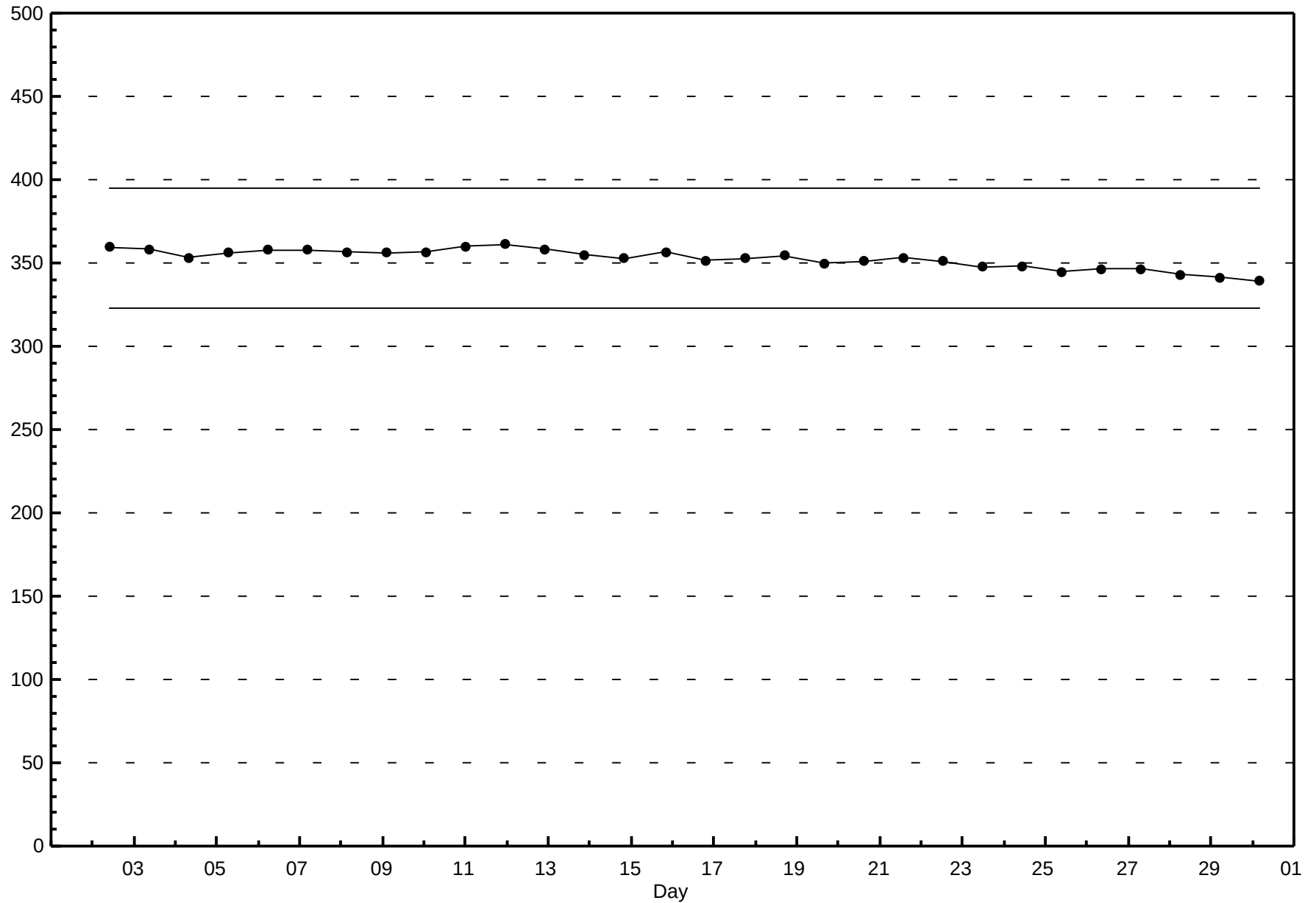


Pollutant Classes (ppb)



Span Responses

Nitrogen Dioxide (NO₂)
Henry Pirker - June 2015



Hourly Averages

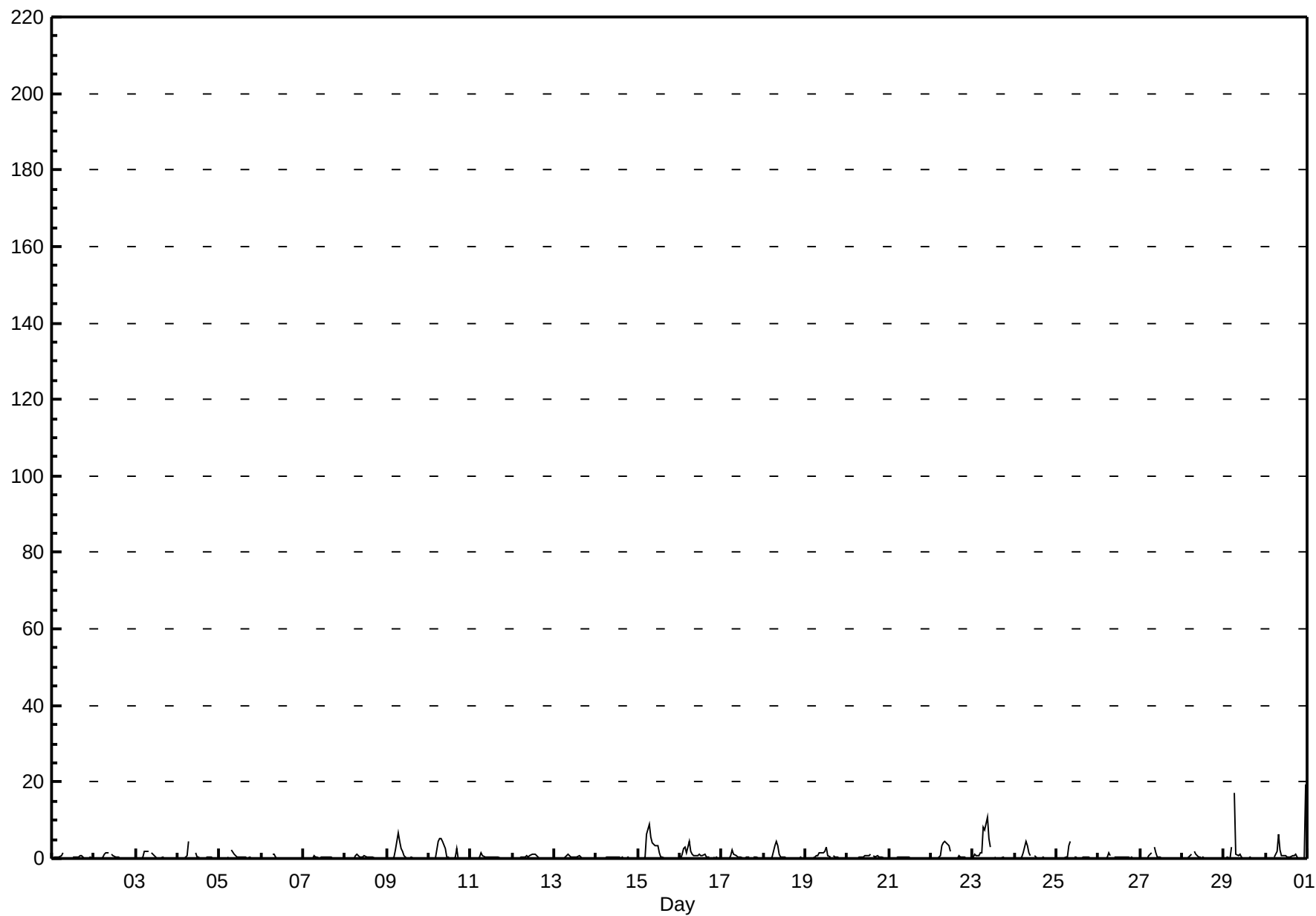
Nitrogen Oxide (NO) - ppb

Henry Pirker - June 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 19.4 ppb on Jul 1 00:00 Maximum Daily Average: 1.9 ppb on Jun 23																				Hours in Service: 720 Hours of Data: 683 Hours of Missing Data: 37 Hours of Calibration: 35 Percent Operational Time: 99.7						
Minimum Value: 0 ppb on Jun 2 01:00 Minimum Daily Average: 0.2 ppb on Jun 7 Maximum Diurnal Average: 2.9 ppb at hour 7 Minimum Diurnal Average: 0.0 ppb at hour 23 Monthly Average: 0.60 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.5 P ₉₀ = 1.4 P ₉₉ = 6.6																										
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-Jun	0	0	0	0	0	1	2	C	C	C	C	C	0	0	0	1	1	1	0	0	0	0	0	0	0.4	1.6
2-Jun	0	0	0	0	0	0	1	2	1	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.5
3-Jun	0	0	0	0	1	2	2	2	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	2.0
4-Jun	0	0	0	0	0	1	4	A	M	M	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	4.5
5-Jun	0	0	0	0	0	0	A	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	2.1
6-Jun	0	0	0	0	0	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.2
7-Jun	0	0	0	0	A	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
8-Jun	0	0	0	A	0	0	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.0
9-Jun	0	0	A	0	0	2	7	5	3	2	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0.9	6.8
10-Jun	0	A	0	0	0	5	5	5	5	3	1	0	0	0	0	0	3	0	0	0	0	0	0	0	1.2	5.4
11-Jun	A	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.3	1.3
12-Jun	0	0	0	0	0	0	0	0	1	0	1	1	1	1	1	0	0	0	0	0	0	0	A	0	0.3	1.1
13-Jun	0	0	0	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	0	0	A	0	0	0.2	1.0
14-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	A	0	0	0	0.2	0.5
15-Jun	0	0	0	0	0	6	9	6	4	4	3	3	1	0	0	0	0	0	0	A	0	0	0	0	1.7	9.0
16-Jun	0	1	3	3	2	4	2	1	1	1	1	1	1	1	1	1	1	0	A	0	0	0	0	0	1.1	4.3
17-Jun	0	0	0	0	0	1	2	1	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.4	2.1
18-Jun	0	0	0	0	0	0	3	4	3	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.6	4.3
19-Jun	0	0	0	0	0	0	1	1	1	1	1	2	3	1	0	A	1	0	0	0	0	0	0	0	0.6	3.0
20-Jun	0	0	0	0	0	0	0	0	0	1	1	1	1	1	A	1	1	1	0	0	0	0	0	0	0.3	1.1
21-Jun	0	0	0	0	0	0	0	1	1	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.2	0.5
22-Jun	0	0	0	0	0	1	3	4	4	4	3	2	A	0	0	0	1	1	0	0	0	0	0	0	1.0	4.4
23-Jun	0	1	1	1	2	2	8	8	11	5	3	A	0	0	0	0	0	0	0	0	0	0	0	0	1.9	10.9
24-Jun	0	0	0	0	0	1	4	3	1	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0.6	4.3
25-Jun	0	0	0	0	0	0	0	3	5	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	4.5
26-Jun	0	0	0	0	0	0	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.3
27-Jun	0	0	0	0	0	1	2	A	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	2.8
28-Jun	0	0	0	0	0	1	A	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.7
29-Jun	0	0	1	0	3	A	17	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.1	17.0
30-Jun	0	0	0	0	A	0	2	7	2	1	1	1	0	0	1	1	1	1	0	0	0	0	0	19	1.6	19.4
0.0 0.1 0.2 0.2 0.3 1.1 2.9 2.3 2.0 1.2 0.8 0.6 0.4 0.3 0.3 0.3 0.4 0.2 0.1 0.1 0.1 0.1 0.0 0.7																									Diurnal Average	
0.3 1.2 2.7 3.0 3.0 6.5 17.0 7.6 10.9 5.4 3.3 3.2 3.0 1.1 1.1 0.8 2.8 1.0 0.5 0.4 0.3 0.4 0.4 19.4																									Diurnal Maximum	
C - Calibration M - Maintenance A - Automated Daily Zero Span																										

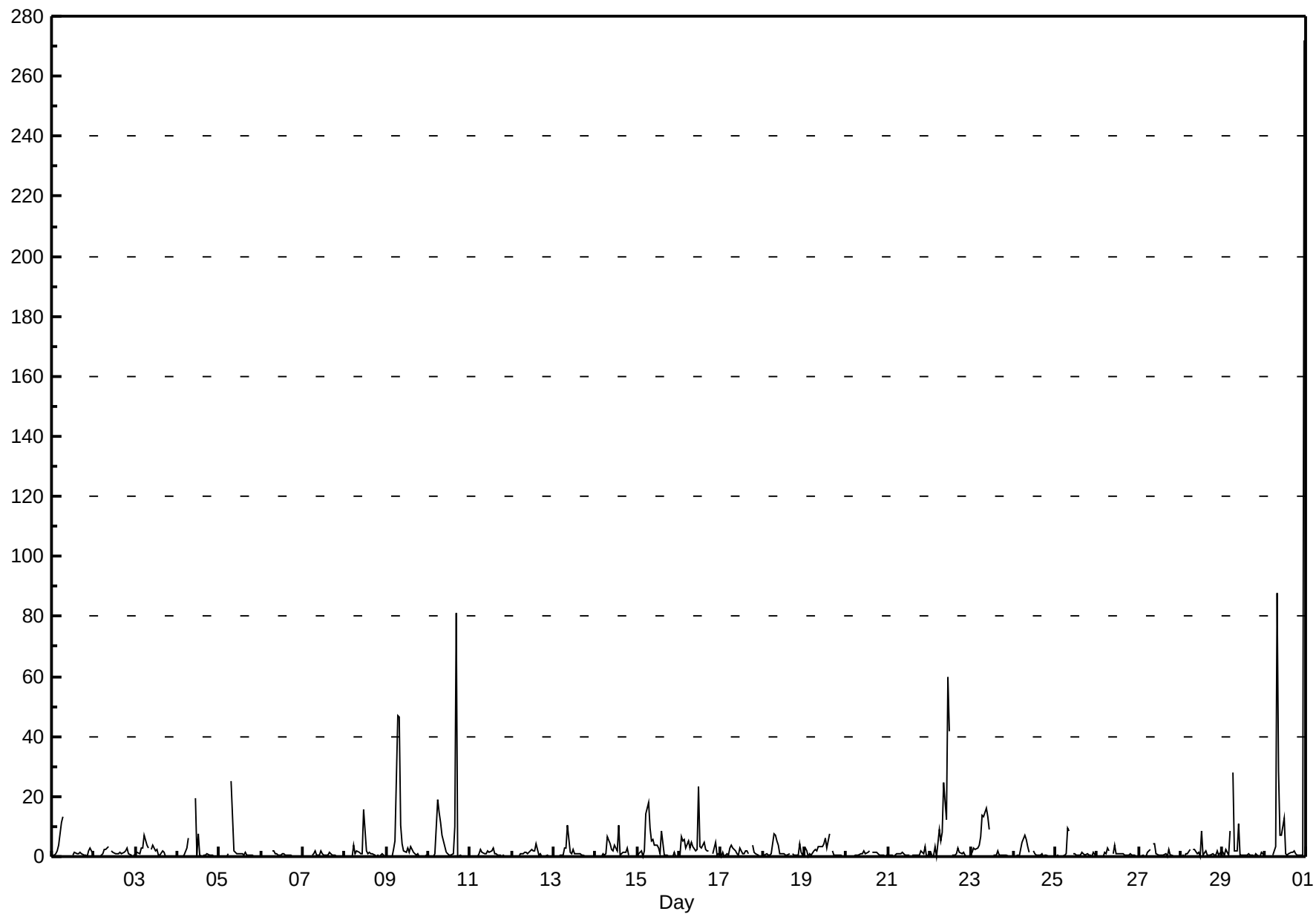
Hourly Averages

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



Hourly Maximums

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



Hourly Averages

Oxides of Nitrogen (NO_x) - ppb

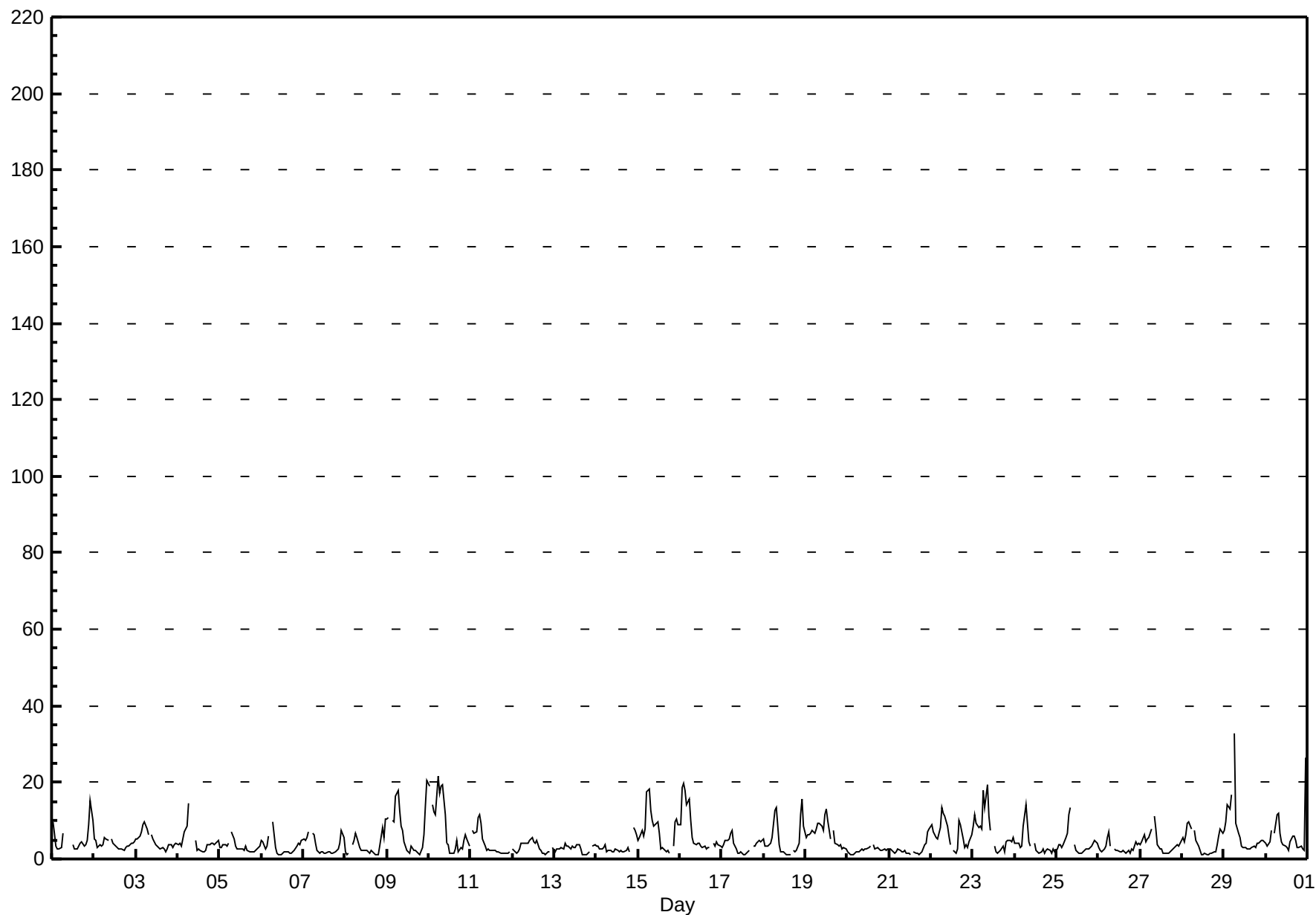
Henry Pirker - June 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 32.8 ppb on Jun 29 07:00 Maximum Daily Average: 8.4 ppb on Jun 10																				Hours in Service: 720 Hours of Data: 683 Hours of Missing Data: 37 Hours of Calibration: 35 Percent Operational Time: 99.7						
Minimum Value: 1 ppb on Jun 8 19:00 Maximum Diurnal Average: 10.1 ppb at hour 7 Monthly Average: 4.67 ppb										Minimum Daily Average: 2.3 ppb on Jun 20 Minimum Diurnal Average: 2.4 ppb at hour 19 Percentiles: P ₁ = 1.1 P ₁₀ = 1.6 Q ₁ = 2.2 Median = 3.4 Q ₃ = 5.6 P ₉₀ = 9.6 P ₉₉ = 19.4																
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-Jun	10	7	4	3	3	3	7	C	C	C	C	C	4	2	3	3	4	5	3	4	5	9	15	10	5.4	15.4
2-Jun	5	5	3	4	4	4	6	5	5	A	5	4	3	3	3	3	2	2	3	3	3	4	4	4	3.8	5.5
3-Jun	5	5	6	7	9	10	8	7	A	6	5	4	3	3	3	3	2	2	3	4	4	3	4	4	4.7	9.6
4-Jun	4	4	3	5	7	9	14	A	M	M	5	2	3	2	2	2	2	4	4	4	4	4	4	5	4.4	14.5
5-Jun	3	3	4	4	3	4	A	7	5	4	3	3	3	3	2	3	2	2	2	2	2	3	3	3	3.1	7.0
6-Jun	5	4	3	3	6	A	10	6	3	1	1	1	2	2	2	2	2	2	2	2	3	4	4	5	3.2	9.6
7-Jun	5	5	6	7	A	7	6	4	2	2	2	2	2	2	2	2	2	2	2	2	3	4	7	6	3.5	7.3
8-Jun	2	1	1	A	4	5	7	5	3	2	2	2	2	2	2	2	2	1	1	1	3	8	6	10	3.3	10.3
9-Jun	11	11	A	10	10	17	18	13	9	8	4	2	2	2	3	2	2	2	2	1	3	6	14	20	7.4	20.4
10-Jun	19	A	14	12	12	21	17	19	19	12	4	4	1	2	2	3	5	2	3	3	5	6	5	3	8.4	21.5
11-Jun	A	7	7	7	11	12	9	5	3	2	3	2	2	2	2	2	2	1	1	2	2	2	2	A	4.0	11.7
12-Jun	3	2	2	2	2	4	4	4	4	4	5	6	5	4	5	3	2	2	1	1	2	2	A	3	3.1	5.8
13-Jun	2	3	2	3	3	2	4	3	3	3	3	3	3	4	4	3	1	1	1	1	2	A	3	4	2.7	4.1
14-Jun	4	3	3	3	3	4	2	2	2	2	2	3	2	2	2	2	2	2	3	2	A	8	7	6	3.1	8.2
15-Jun	5	6	7	6	8	17	18	13	10	9	9	10	7	2	3	2	2	2	1	A	3	10	10	9	7.4	18.5
16-Jun	9	19	20	18	14	16	10	6	4	4	4	4	3	3	4	3	3	3	A	4	3	4	4	3	7.2	19.8
17-Jun	3	4	5	5	5	7	8	4	2	1	1	2	1	1	2	2	2	A	3	3	4	5	5	5	3.5	7.5
18-Jun	5	3	3	4	4	6	13	13	8	4	2	2	2	1	1	1	A	2	2	2	4	12	16	9	5.2	15.7
19-Jun	5	6	6	7	7	7	8	9	9	9	8	12	13	10	5	A	7	4	4	3	4	3	3	2	6.6	13.2
20-Jun	2	1	1	1	1	2	2	2	2	2	3	3	3	4	A	4	3	3	3	2	2	3	2	3	2.3	3.6
21-Jun	3	3	2	2	2	3	2	2	2	2	1	1	1	A	2	2	1	1	1	2	4	4	7	8	2.5	7.7
22-Jun	9	7	6	6	5	8	13	12	11	9	6	4	A	2	1	3	10	9	5	3	4	3	4	6	6.4	13.3
23-Jun	8	11	9	8	9	8	18	13	19	11	8	A	3	2	2	2	2	3	2	4	5	5	5	5	7.1	19.4
24-Jun	4	4	4	3	3	8	14	9	4	3	A	4	2	2	1	2	3	1	2	3	2	2	3	2	3.8	14.2
25-Jun	3	4	4	3	4	6	7	12	14	A	4	2	2	2	2	2	2	3	3	3	3	4	5	4	4.1	13.5
26-Jun	3	2	2	2	3	6	7	3	A	3	2	2	2	2	2	2	2	2	1	2	2	4	4	4	2.9	6.9
27-Jun	4	4	6	5	5	6	8	A	11	8	4	3	3	2	2	2	1	2	2	3	3	4	4	4	4.1	11.2
28-Jun	6	5	6	9	10	8	A	7	5	3	2	1	1	1	1	1	2	1	2	2	4	6	8	7	4.3	9.8
29-Jun	7	10	14	13	17	A	33	9	7	6	3	3	3	3	3	3	3	3	3	4	4	5	5	4	7.2	32.8
30-Jun	4	3	5	7	A	7	11	12	7	5	4	3	3	2	5	6	6	5	3	3	3	3	2	27	5.9	26.5
																									Diurnal Average	
																									Diurnal Maximum	
C - Calibration M - Maintenance A - Automated Daily Zero Span																										

Hourly Averages

Oxides of Nitrogen (NO_x) - ppb

Henry Pirker - June 2015



Hourly Maximums

Oxides of Nitrogen (NO_x) - ppb

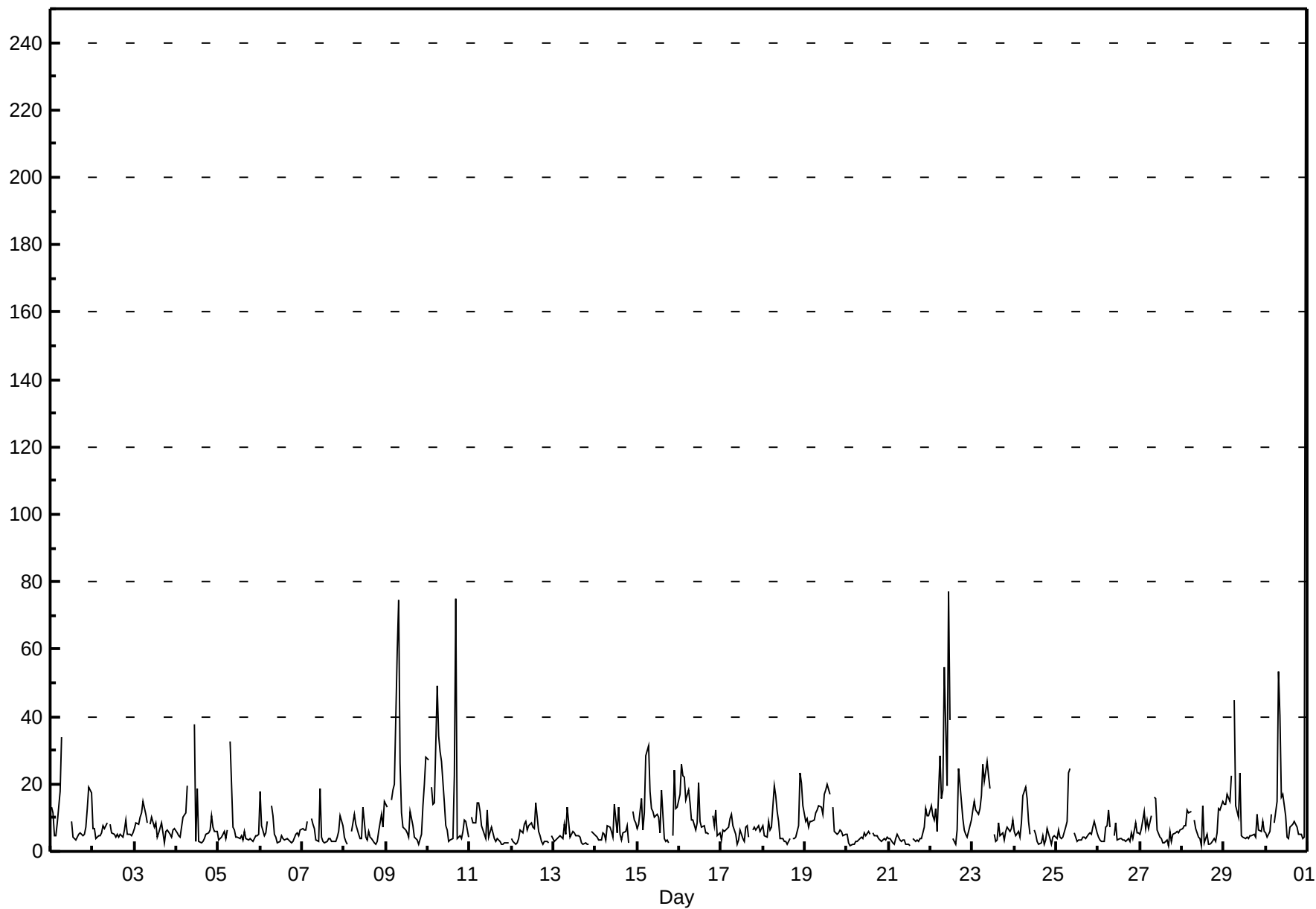
Henry Pirker - June 2015

Maximum Value: 250.0 ppb on Jul 1 00:00																				Maximum Daily Average: 21.9 ppb on Jun 30						Hours in Service: 720	
Minimum Value: 2 ppb on Jun 21 13:00																				Minimum Daily Average: 3.8 ppb on Jun 20						Hours of Data: 683	
Maximum Diurnal Average: 16.9 ppb at hour 24																				Minimum Diurnal Average: 4.3 ppb at hour 19						Hours of Missing Data: 37	
Monthly Average: 8.72 ppb																				Percentiles: P ₁ = 2.0 P ₁₀ = 2.9 Q ₁ = 4.0 Median = 5.7 Q ₃ = 9.4 P ₉₀ = 16.7 P ₉₉ = 53.0						Hours of Calibration: 35	
																				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-Jun	13	12	5	5	9	18	34	C	C	C	C	C	9	4	4	4	5	6	4	5	7	13	19	17	10.1	33.9	
2-Jun	7	7	4	5	5	6	8	7	9	A	8	5	4	5	4	5	4	6	9	5	5	5	6	6	5.8	9.4	
3-Jun	7	8	8	10	11	15	11	8	A	8	10	7	8	4	6	9	6	3	6	6	5	4	6	7	7.6	14.7	
4-Jun	6	5	4	7	10	12	19	A	M	M	38	3	18	3	3	3	4	5	6	7	11	7	6	6	8.7	37.8	
5-Jun	4	4	4	6	4	6	A	33	7	6	4	4	4	5	3	6	4	4	4	3	3	5	5	5	5.7	32.6	
6-Jun	18	8	5	6	9	A	14	10	5	4	3	3	5	4	3	4	3	3	3	3	5	6	5	6	5.8	17.7	
7-Jun	7	6	6	9	A	10	8	7	4	3	19	4	3	3	3	4	4	3	3	3	4	6	11	8	5.9	18.7	
8-Jun	4	3	2	A	6	9	11	8	5	4	4	13	4	3	6	4	4	3	2	3	6	11	7	15	6.0	14.9	
9-Jun	14	13	A	15	18	20	59	75	26	11	7	6	5	4	12	8	4	4	3	2	5	13	20	28	16.3	74.7	
10-Jun	27	A	19	14	14	49	34	29	27	14	8	6	3	4	4	23	75	4	5	4	6	9	9	4	17.0	75.0	
11-Jun	A	10	9	8	14	14	12	8	5	4	12	4	7	6	4	3	4	3	2	2	3	3	2	A	6.3	14.5	
12-Jun	4	3	2	3	4	6	6	8	9	6	8	8	7	7	15	6	5	3	2	3	3	2	A	5	5.3	14.5	
13-Jun	3	3	4	4	5	4	8	5	13	4	5	6	6	5	5	4	3	2	3	2	2	A	6	5	4.6	13.0	
14-Jun	5	4	3	3	5	5	3	8	7	6	4	14	6	13	5	3	6	6	8	3	A	12	9	9	6.4	13.8	
15-Jun	7	8	16	7	11	29	31	18	13	12	10	11	10	5	18	4	3	3	2	A	4	24	13	13	11.9	31.5	
16-Jun	17	26	23	22	15	18	15	9	9	6	8	20	9	7	8	6	6	5	A	11	7	12	4	5	11.7	25.7	
17-Jun	3	6	6	7	7	10	11	7	5	2	3	7	4	3	7	7	4	A	6	7	7	8	6	7	6.1	11.0	
18-Jun	8	5	4	9	6	7	19	17	12	9	4	4	3	3	2	4	A	4	4	4	8	24	21	14	8.4	23.5	
19-Jun	9	10	7	9	9	9	12	12	13	13	11	17	18	20	17	A	13	6	5	6	6	6	5	5	10.3	20.0	
20-Jun	5	3	2	2	2	3	3	3	4	4	5	4	6	5	A	5	5	5	4	3	3	4	3	4	3.8	5.7	
21-Jun	4	4	3	2	4	5	4	3	3	3	2	2	2	A	4	3	4	3	4	4	7	13	10	11	4.5	12.5	
22-Jun	13	11	10	13	6	29	16	18	54	19	77	39	A	4	2	6	24	20	10	6	5	4	6	9	17.5	77.1	
23-Jun	12	15	12	11	13	16	26	21	27	23	19	A	5	3	3	8	5	6	4	6	7	6	7	9	11.4	26.6	
24-Jun	6	5	6	4	8	17	19	16	9	5	A	7	5	3	2	3	5	2	3	7	4	2	4	5	6.3	19.2	
25-Jun	4	7	4	4	4	7	9	23	25	A	6	4	3	3	4	4	4	4	5	6	5	7	9	6	6.8	24.7	
26-Jun	4	3	3	3	7	8	12	7	A	4	8	3	4	4	4	3	3	4	3	5	4	9	6	6	5.1	12.2	
27-Jun	5	7	12	7	9	7	10	A	16	16	7	4	4	2	3	3	2	6	3	5	5	6	6	6	6.6	16.0	
28-Jun	7	8	7	12	12	12	A	9	7	4	4	2	14	3	5	2	2	2	4	3	5	13	12	15	7.1	15.0	
29-Jun	14	14	17	15	22	A	45	13	10	23	4	4	4	4	4	4	5	5	4	11	6	6	9	6	10.9	44.8	
30-Jun	5	4	6	11	A	9	15	53	40	16	17	11	4	4	7	8	9	8	7	5	5	4	4	250	21.9	250.0	
8.3 7.6 7.3 8.0 9.0 12.8 16.9 16.2 14.0 8.9 11.3 8.0 6.4 4.9 5.7 5.4 7.7 4.6 4.3 5.0 5.4 8.4 8.1 16.9																										Diurnal Average	
27.0 25.7 22.5 21.9 22.4 49.1 59.4 74.7 54.5 23.2 77.1 39.0 18.5 20.0 18.3 22.5 75.0 19.8 9.8 11.1 10.8 24.2 20.5 250.0																										Diurnal Maximum	
C - Calibration M - Maintenance A - Automated Daily Zero Span																											

Hourly Maximums

Oxides of Nitrogen (NO_x) - ppb

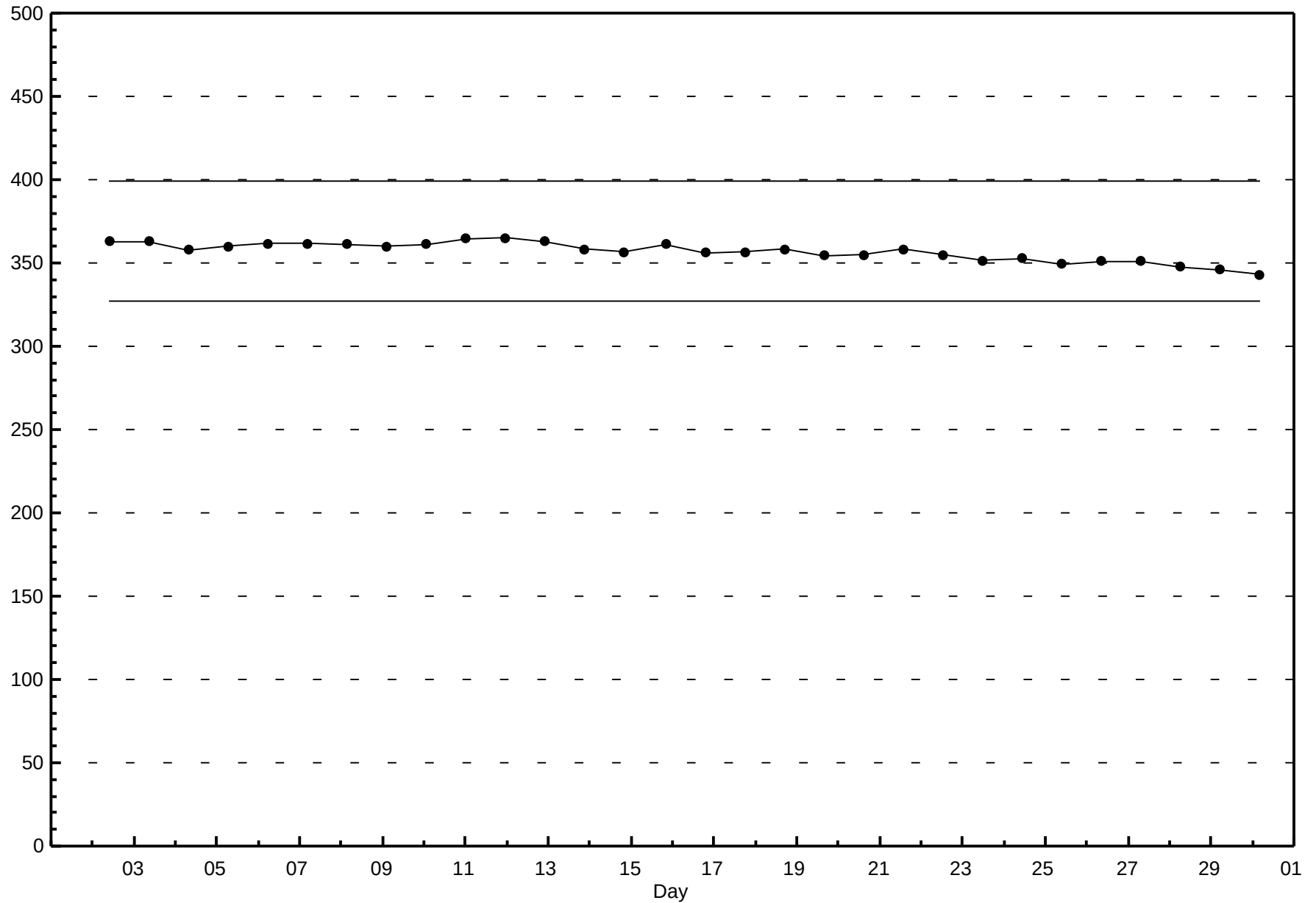
Henry Pirker - June 2015



Span Responses

Oxides of Nitrogen (NO_x)

Henry Pirker - June 2015



Hourly Averages

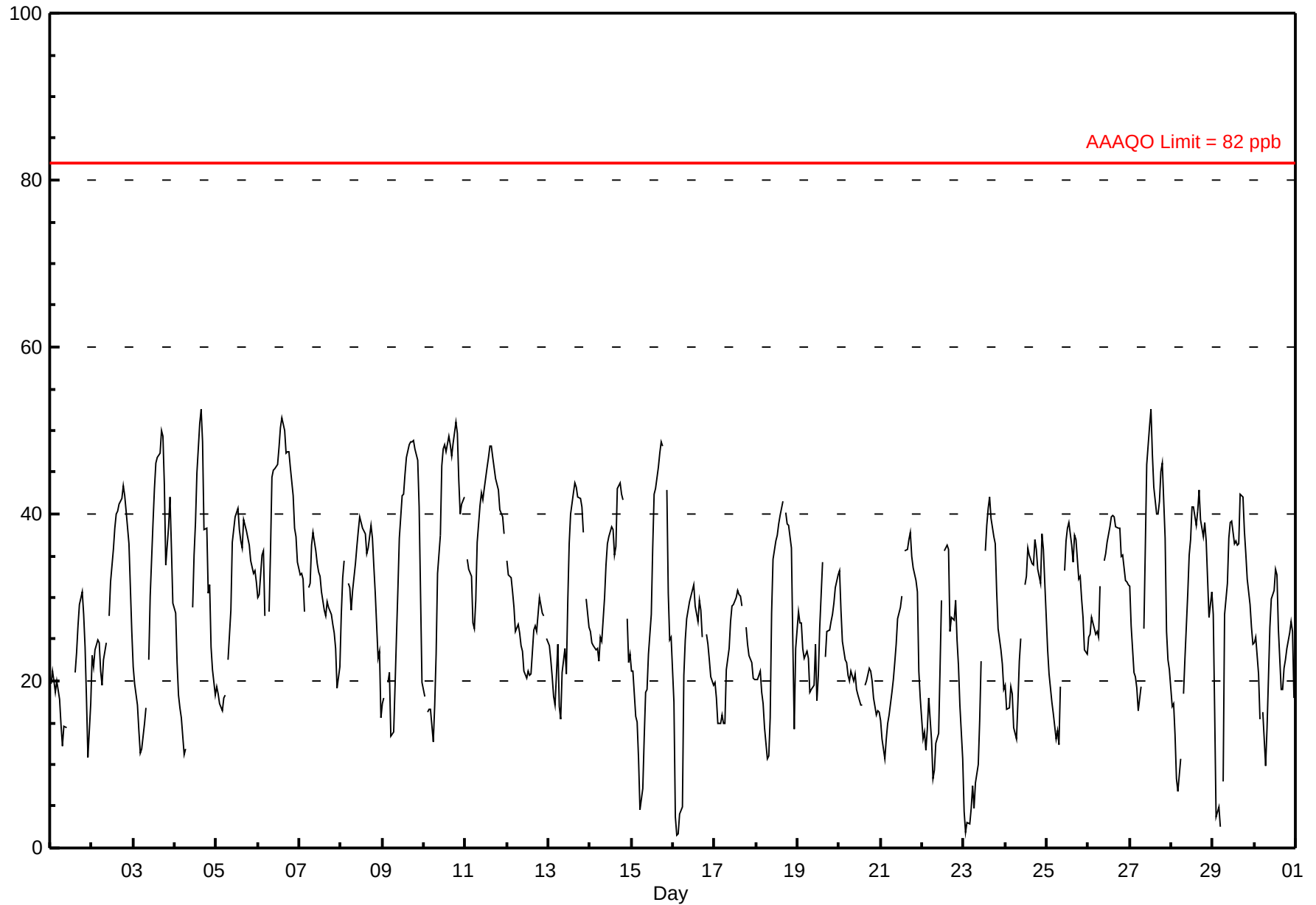
Ozone (O₃) - ppb

Henry Pirker - June 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 52.6 ppb on Jun 27 13:00 Maximum Daily Average: 41.0 ppb on Jun 6																								Hours in Service: 720 Hours of Data: 684 Hours of Missing Data: 36 Hours of Calibration: 34 Percent Operational Time: 99.7		
Minimum Value: 2 ppb on Jun 16 03:00 Minimum Daily Average: 20.1 ppb on Jun 1 Maximum Diurnal Average: 37.9 ppb at hour 15 Minimum Diurnal Average: 17.3 ppb at hour 6 Monthly Average: 28.55 ppb Percentiles: P ₁ = 3.7 P ₁₀ = 15.0 Q ₁ = 20.4 Median = 28.1 Q ₃ = 36.9 P ₉₀ = 42.8 P ₉₉ = 50.2																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Jun	20	21	20	19	20	18	15	12	15	14	A	C	C	C	21	23	27	29	31	28	24	18	11	17	20.1	30.6
2-Jun	23	22	24	25	25	21	20	23	25	A	28	32	36	38	40	40	41	42	43	42	40	37	31	26	31.4	43.4
3-Jun	22	20	17	14	11	12	15	17	A	23	30	39	43	46	47	47	50	49	44	34	38	42	36	29	31.5	49.9
4-Jun	28	22	18	17	16	11	12	A	M	M	29	35	39	45	51	53	49	38	38	30	32	24	21	18	29.8	52.6
5-Jun	19	18	17	16	18	18	A	23	28	37	38	40	41	38	37	36	39	38	37	36	34	33	33	32	30.8	40.7
6-Jun	30	30	35	36	28	A	28	36	44	45	45	46	48	50	51	50	47	47	47	46	42	38	37	34	41.0	51.5
7-Jun	33	33	32	28	A	31	32	36	38	36	34	33	33	31	28	28	29	29	28	27	26	24	19	22	30.0	37.9
8-Jun	28	32	34	A	32	31	28	31	34	36	38	40	38	38	38	35	36	39	37	34	31	23	24	16	32.7	39.6
9-Jun	17	18	A	20	21	13	14	19	25	31	37	42	42	45	47	48	49	49	49	48	46	41	30	20	33.6	48.8
10-Jun	18	A	16	17	17	13	17	23	33	37	46	48	48	48	49	48	47	49	51	50	44	40	41	42	36.6	51.1
11-Jun	A	34	33	32	27	26	30	37	41	43	42	43	46	47	48	48	47	44	43	43	41	40	38	A	39.6	48.1
12-Jun	34	33	32	31	29	26	27	26	24	24	21	20	21	21	21	26	27	26	28	30	28	28	A	25	26.4	34.4
13-Jun	24	22	21	18	17	24	17	15	21	24	21	30	36	40	43	44	43	42	42	41	38	A	30	26	29.5	43.7
14-Jun	26	25	24	24	24	22	25	25	30	34	36	37	38	38	35	36	43	44	42	42	A	27	22	23	31.5	43.7
15-Jun	21	21	16	15	11	5	7	13	19	19	23	28	36	42	43	46	47	49	48	A	43	30	25	25	27.5	48.7
16-Jun	17	4	2	2	4	5	21	25	27	29	30	31	32	29	27	30	28	25	A	26	24	23	20	19	20.9	31.5
17-Jun	20	18	15	15	16	15	15	21	24	27	29	29	30	31	30	30	29	A	27	24	23	22	20	20	23.1	30.8
18-Jun	20	20	21	19	17	14	11	11	16	28	35	37	37	39	40	42	A	40	39	39	36	25	14	24	27.1	41.5
19-Jun	28	27	27	24	23	24	23	19	19	20	24	18	21	26	34	A	23	26	26	27	28	29	31	33	25.2	34.3
20-Jun	33	28	25	23	22	21	20	21	20	21	19	18	17	17	A	20	20	22	21	20	18	16	16	16	20.6	33.2
21-Jun	15	13	11	13	15	16	19	20	22	24	28	29	30	A	36	36	37	38	35	34	32	31	21	18	24.8	37.8
22-Jun	13	14	12	14	18	13	8	9	13	14	22	30	A	36	36	36	26	28	27	30	25	22	17	11	20.5	36.3
23-Jun	4	2	3	3	5	7	5	8	10	15	22	A	36	39	41	42	39	37	36	31	26	24	22	19	20.7	42.1
24-Jun	20	17	17	19	18	14	13	17	22	25	A	31	32	36	35	34	34	37	36	33	32	38	36	32	27.3	37.7
25-Jun	24	21	19	17	16	13	14	12	19	A	33	37	38	39	36	34	38	37	32	33	30	28	24	23	26.8	39.0
26-Jun	25	26	28	26	26	26	25	31	A	34	35	37	38	40	40	40	39	38	38	35	35	32	32	32	32.9	39.8
27-Jun	31	27	21	21	19	17	19	A	26	36	46	51	53	47	43	40	40	41	45	46	37	26	23	21	33.7	52.6
28-Jun	17	17	14	8	7	11	A	18	23	30	35	37	41	41	39	40	43	39	37	39	37	32	28	31	28.8	42.9
29-Jun	28	16	4	5	3	A	8	28	32	37	39	39	36	37	36	36	42	42	38	35	32	29	26	24	28.5	42.4
30-Jun	25	25	21	15	A	16	10	14	20	27	30	31	33	33	26	19	19	21	23	24	26	27	26	18	23.0	33.5
22.9 21.6 19.9 18.5 17.9 17.3 17.7 21.1 24.8 28.5 32.0 34.5 36.5 37.7 37.9 37.5 37.2 37.4 36.9 34.6 32.7 29.2 26.1 24.0																								Diurnal Average		
34.4 34.5 35.1 35.6 31.7 31.2 31.7 36.6 44.4 45.3 45.9 50.6 52.6 50.3 51.5 52.6 49.9 49.3 51.1 49.6 46.4 42.0 41.2 42.0																								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
Henry Pirker - June 2015



Hourly Maximums

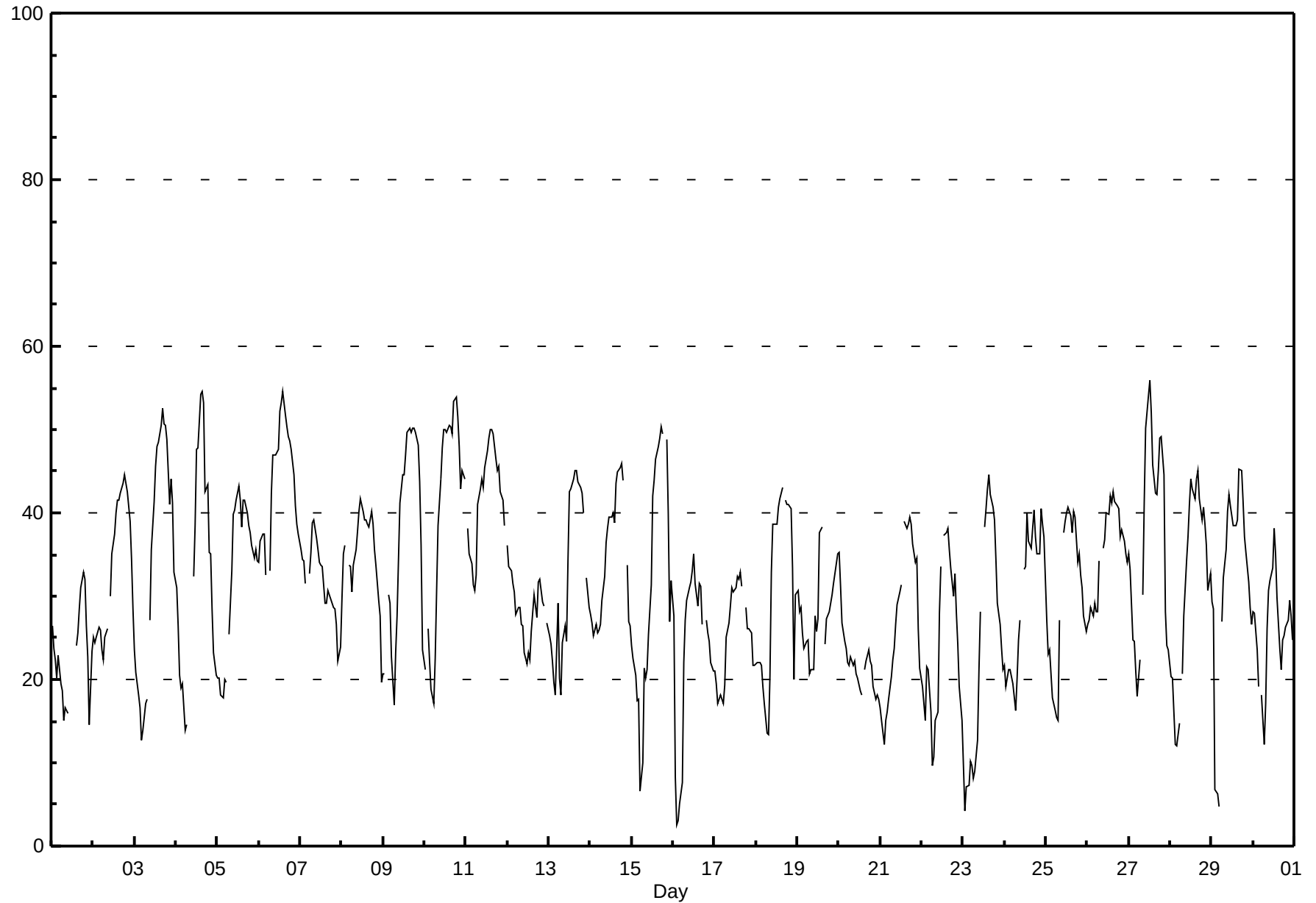
Ozone (O₃) - ppb

Henry Pirker - June 2015

Maximum Value: 56.0 ppb on Jun 27 13:00																								Hours in Service: 720		
Maximum Daily Average: 44.0 ppb on Jun 6																								Hours of Data: 684		
Minimum Value: 3 ppb on Jun 16 03:00																								Hours of Missing Data: 36		
Maximum Diurnal Average: 40.3 ppb at hour 15																								Hours of Calibration: 34		
Monthly Average: 31.37 ppb																								Percent Operational Time: 99.7		
Minimum Daily Average: 22.3 ppb on Jun 20																										
Minimum Diurnal Average: 20.1 ppb at hour 6																										
Percentiles: P ₁ = 6.4 P ₁₀ = 17.9 Q ₁ = 23.2 Median = 31.1 Q ₃ = 39.9 P ₉₀ = 45.2 P ₉₉ = 53.2																										
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-Jun	26	24	22	20	23	20	19	15	17	16	A	C	C	C	24	26	28	31	33	32	26	23	15	23	23.1	32.9
2-Jun	25	24	25	26	26	24	22	25	26	A	30	35	38	40	41	42	42	44	45	44	43	39	34	28	33.4	44.5
3-Jun	24	21	18	17	13	14	17	18	A	27	36	41	46	48	48	51	53	51	51	49	41	44	41	33	34.7	52.5
4-Jun	31	26	20	19	20	14	15	A	M	M	32	38	48	48	54	55	53	43	43	35	35	28	23	20	33.4	54.5
5-Jun	20	20	18	18	20	20	A	25	33	40	40	42	43	42	38	41	42	40	39	38	36	35	36	34	33.0	43.2
6-Jun	34	37	38	38	33	A	33	42	47	47	47	48	52	53	55	52	50	49	49	48	45	41	39	37	44.0	54.5
7-Jun	36	34	34	32	A	33	35	39	39	37	36	34	34	34	29	29	31	30	29	29	29	27	22	24	31.9	39.2
8-Jun	30	35	36	A	34	34	30	34	36	38	40	42	40	39	39	39	38	40	39	36	34	29	28	20	35.1	41.8
9-Jun	21	21	A	30	29	23	17	23	28	34	41	45	45	47	50	50	50	50	50	50	48	44	36	23	37.1	50.1
10-Jun	21	A	26	22	19	17	23	31	38	44	48	50	50	50	51	50	50	53	54	52	48	43	45	44	40.3	54.0
11-Jun	A	38	35	34	31	31	33	41	43	44	43	45	48	49	50	50	49	47	45	46	43	42	39	A	42.0	50.0
12-Jun	36	34	33	32	31	28	29	29	27	26	23	22	23	22	26	30	29	28	32	32	29	29	A	27	28.4	36.0
13-Jun	25	24	22	20	18	29	20	18	24	26	25	34	43	43	44	45	45	44	43	42	40	A	32	29	32.0	45.1
14-Jun	28	27	25	27	26	26	27	30	32	37	38	40	39	40	39	43	45	45	46	44	A	34	27	26	34.3	46.0
15-Jun	24	22	21	18	18	7	10	21	20	21	25	31	42	44	46	48	49	50	50	A	49	40	27	32	31.1	50.3
16-Jun	28	8	3	3	5	8	22	27	30	31	32	33	35	32	29	32	31	27	A	27	26	25	22	21	23.2	35.0
17-Jun	21	20	17	18	18	17	19	25	27	29	31	31	31	32	32	33	31	A	29	26	26	26	22	22	25.3	32.9
18-Jun	22	22	22	22	19	17	14	13	20	33	39	39	39	41	42	43	A	42	41	41	40	33	20	30	30.1	43.1
19-Jun	31	28	29	26	24	24	25	21	21	21	28	26	27	38	38	A	24	27	28	29	30	32	33	35	28.0	38.3
20-Jun	35	31	27	25	24	22	22	23	22	22	21	20	19	18	A	21	22	24	22	22	19	18	18	18	22.3	35.3
21-Jun	17	15	12	15	16	18	20	22	24	27	29	31	31	A	39	38	39	39	39	36	34	35	26	21	27.1	39.4
22-Jun	19	17	15	21	21	16	10	11	15	16	28	34	A	37	38	38	36	33	30	33	28	24	19	15	24.1	38.1
23-Jun	10	4	7	7	10	10	8	9	13	21	28	A	38	41	43	45	42	41	39	34	29	27	24	21	24.0	44.6
24-Jun	22	19	21	21	20	20	16	20	25	27	A	33	34	40	37	36	38	40	37	35	35	40	39	37	30.1	40.5
25-Jun	27	23	24	21	18	16	15	15	27	A	38	39	40	41	40	38	40	39	34	35	33	31	28	26	29.9	40.7
26-Jun	27	27	29	28	29	28	28	34	A	36	37	40	40	42	41	43	41	41	41	37	38	37	35	34	35.3	42.6
27-Jun	35	33	25	25	21	18	22	A	30	41	50	54	56	52	46	42	42	45	49	49	45	28	24	24	37.2	56.0
28-Jun	20	20	16	12	12	15	A	21	28	34	37	41	44	43	42	44	45	42	39	41	39	36	31	33	31.9	45.2
29-Jun	29	29	7	6	5	A	27	32	36	40	42	41	39	38	39	39	45	45	41	37	35	32	29	27	32.1	45.3
30-Jun	28	28	24	19	A	18	12	17	26	31	32	33	38	35	30	24	21	25	25	26	27	30	28	25	26.1	38.1
25.9 24.6 22.4 21.3 20.7 20.1 21.1 24.3 27.9 31.4 34.8 37.2 39.3 40.3 40.3 40.2 39.7 39.8 39.3 37.3 35.5 32.7 28.9 27.2																								Diurnal Average		
36.0 38.1 37.5 37.5 33.7 33.5 35.3 42.3 47.0 46.9 50.2 54.1 56.0 53.2 54.5 54.5 53.2 53.4 54.0 51.6 48.7 44.1 45.1 44.0																								Diurnal Maximum		
C - Calibration M - Maintenance A - Automated Daily Zero Span																										

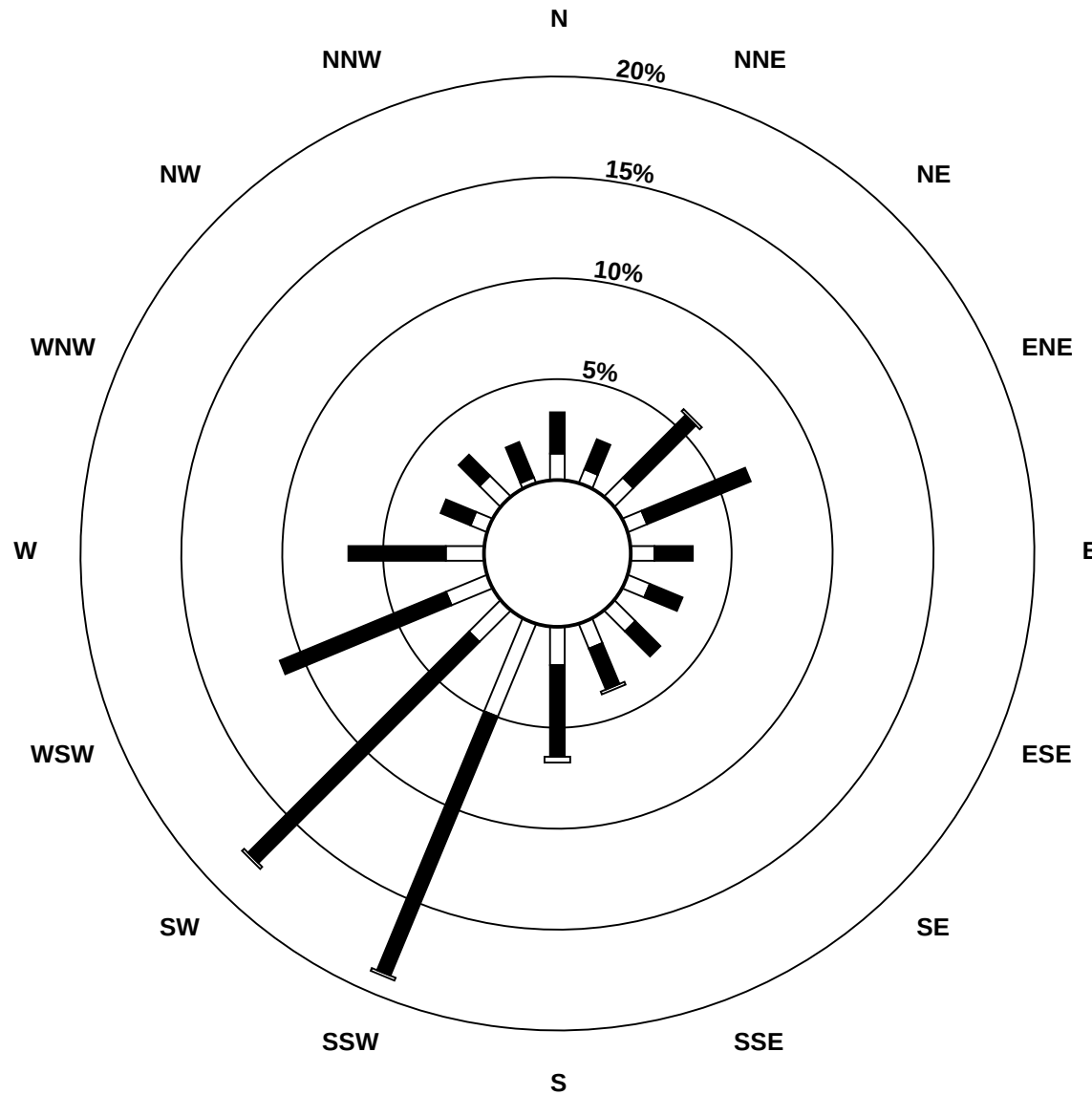
Hourly Maximums

Ozone (O₃) - ppb
Henry Pirker - June 2015

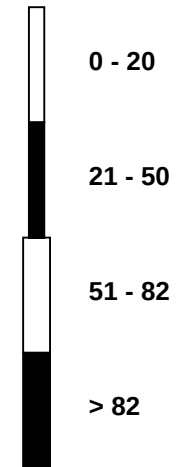


Pollutant Rose

Ozone (O₃) - ppb
Henry Pirker - June 2015



Pollutant Classes (ppb)



Eight Hour Running Averages

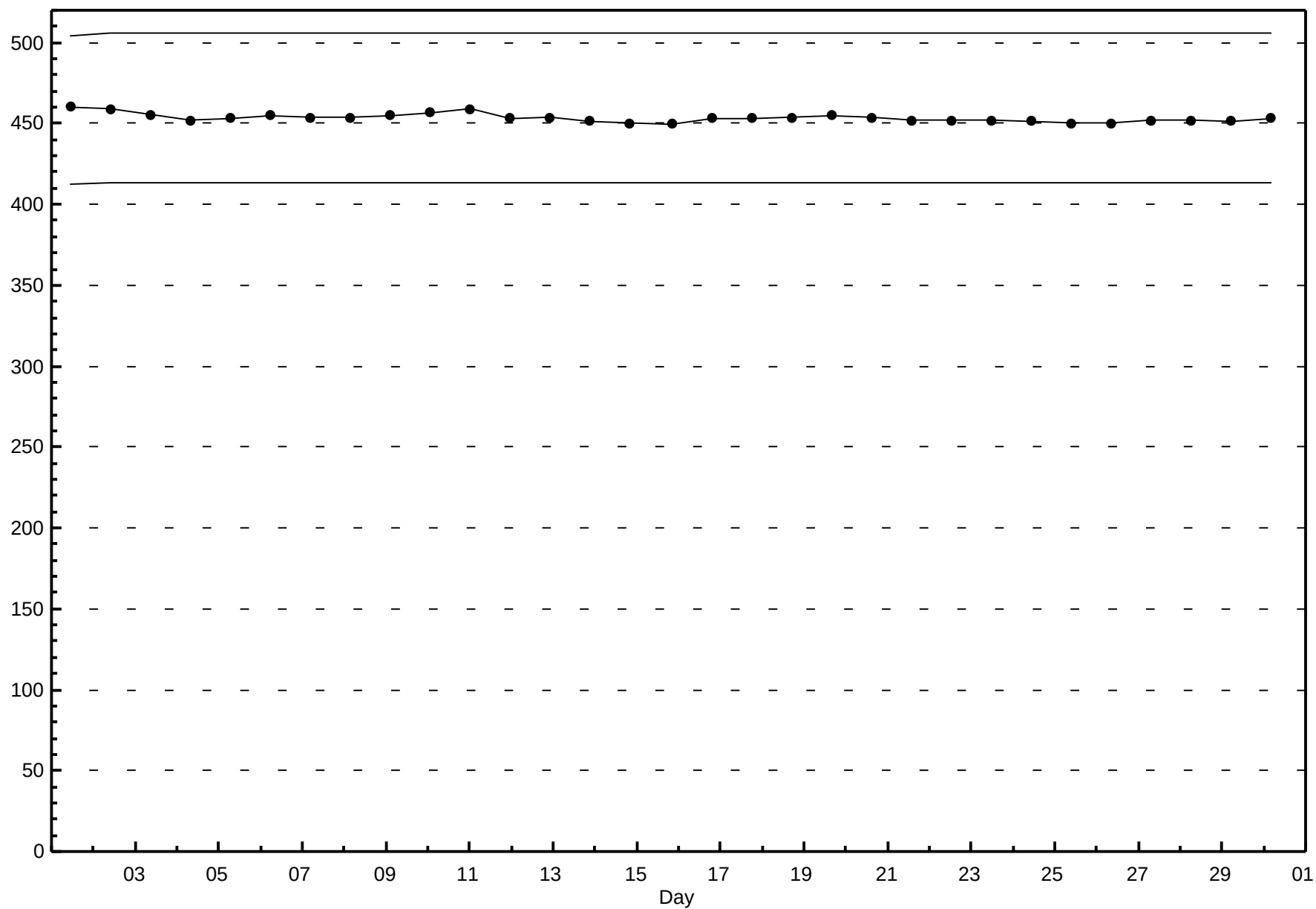
Ozone (O₃) - ppb

Henry Pirker - June 2015

Maximum Value: 48.7 ppb on Jun 10 20:00																								Hours in Service: 720	
Minimum Value: 4.6 ppb on Jun 23 08:00																								Hours of Data: 707	
																								Hours of Missing Data: 13	
Percentiles: P ₁ = 9.9 P ₁₀ = 17.2 Q ₁ = 21.7 Median = 28.1 Q ₃ = 35.4 P ₉₀ = 40.8 P ₉₉ = 47.8																								Hours of Calibration: 13	
																								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-Jun	33	31	28	25	24	22	20	18	17	17	16	16	N	N	N	N	N	N	N	26	26	25	24	23	33.0
2-Jun	23	22	21	20	20	21	22	23	23	23	24	25	26	29	32	34	36	37	39	40	41	41	40	38	41.0
3-Jun	35	33	29	26	22	19	17	16	15	16	17	21	25	30	35	39	41	44	46	45	44	44	43	40	45.6
4-Jun	38	34	31	29	26	22	19	18	16	N	N	N	N	N	N	42	43	42	43	43	42	39	36	31	43.4
5-Jun	28	25	23	21	19	18	18	19	20	23	25	29	32	35	35	37	38	38	38	38	37	36	36	35	38.4
6-Jun	34	33	33	33	32	32	31	32	34	36	37	39	42	43	46	48	48	48	48	48	48	46	44	42	48.5
7-Jun	41	39	37	35	34	33	32	32	33	33	34	34	34	34	34	33	31	31	30	29	28	27	26	25	40.7
8-Jun	25	26	26	26	27	28	30	31	32	32	33	34	35	35	37	37	37	38	38	37	36	34	32	30	37.7
9-Jun	27	25	23	21	20	18	17	18	19	21	23	25	28	32	36	40	43	45	46	47	48	47	45	41	47.5
10-Jun	38	36	31	27	23	19	17	17	19	22	25	29	33	38	42	45	46	48	48	49	48	47	46	45	48.7
11-Jun	45	43	41	38	36	34	32	31	33	34	35	36	38	41	43	45	45	46	46	46	45	44	43	42	45.8
12-Jun	40	39	37	35	34	32	30	30	28	27	26	25	24	23	22	22	23	23	24	25	26	27	28	27	40.4
13-Jun	27	27	25	24	22	22	21	20	19	20	20	21	24	26	29	32	35	37	40	41	42	42	40	37	41.7
14-Jun	35	32	30	27	25	25	25	24	25	26	28	29	31	33	34	36	37	39	39	40	40	38	37	35	40.0
15-Jun	32	28	25	21	20	17	15	14	13	13	14	16	19	23	28	32	36	39	42	44	45	44	41	38	45.4
16-Jun	34	28	21	18	14	10	10	10	11	14	18	22	25	28	29	29	30	29	29	28	27	26	25	24	34.0
17-Jun	23	21	21	19	18	17	17	17	17	19	20	22	24	26	28	29	29	30	29	29	28	27	25	24	29.8
18-Jun	22	22	21	21	20	19	18	17	16	17	19	21	24	27	30	34	37	38	39	39	39	37	33	31	39.3
19-Jun	31	29	27	26	24	24	25	24	23	22	22	21	21	21	23	23	24	25	25	26	27	28	27	28	30.6
20-Jun	29	30	29	29	28	27	26	24	22	22	21	20	20	19	19	19	19	19	19	20	20	19	19	19	29.5
21-Jun	18	17	16	15	14	14	15	15	16	18	20	22	23	25	27	29	31	33	34	35	35	35	33	31	35.2
22-Jun	28	25	22	19	18	15	14	13	13	13	14	16	15	19	23	26	28	30	31	31	30	29	26	23	31.2
23-Jun	20	17	14	11	8	7	5	5	5	7	9	10	15	19	24	29	33	37	39	38	36	35	32	29	38.6
24-Jun	27	24	22	20	19	18	17	17	17	18	19	20	22	25	29	31	33	34	34	35	35	35	35	35	34.9
25-Jun	33	31	29	27	25	22	20	17	17	16	18	21	24	28	31	34	36	37	36	36	35	33	32	30	36.5
26-Jun	29	28	27	26	26	25	26	27	27	28	29	31	32	34	37	38	38	38	39	38	38	37	36	35	38.7
27-Jun	34	33	31	29	27	25	23	22	21	23	26	31	35	40	43	43	44	45	45	44	42	40	37	35	45.1
28-Jun	32	29	25	20	17	15	14	13	14	16	19	23	28	32	33	36	38	39	40	40	39	38	37	36	39.9
29-Jun	34	31	27	23	18	16	13	13	14	17	22	26	31	32	36	37	38	39	38	38	37	36	35	34	38.6
30-Jun	32	29	27	25	24	22	20	18	17	18	19	21	23	25	27	27	27	27	26	25	24	23	23	23	31.5
45.2 43.2 40.7 38.2 35.8 33.9 32.2 32.2 33.9 36.0 37.5 38.9 41.8 42.9 45.8 47.6 47.9 48.2 48.5 48.7 48.2 47.2 46.2 45.4																									
Diurnal Maximums																									
N - Not Valid																									

Span Responses

Ozone (O₃)
Henry Pirker - June 2015



Hourly Averages

Carbon Monoxide (CO) - ppm

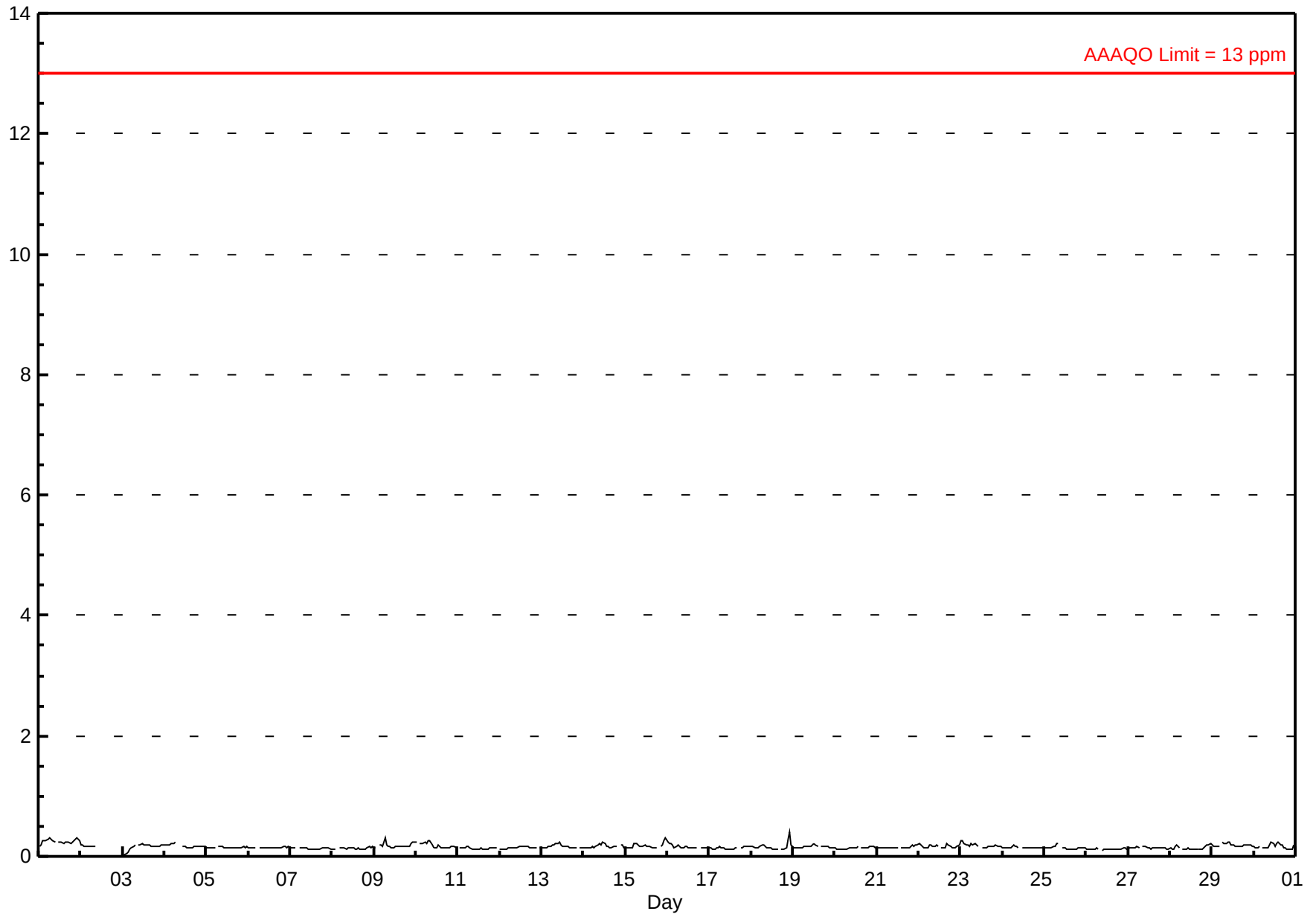
Henry Pirker - June 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 0.41 ppm on Jun 18 23:00 Maximum Daily Average: 0.25 ppm on Jun 1																								Hours in Service: 720		
Minimum Value: 0.0 ppm on Jun 2 15:00 Minimum Daily Average: 0.08 ppm on Jun 2 Maximum Diurnal Average: 0.18 ppm at hour 7 Minimum Diurnal Average: 0.14 ppm at hour 19 Monthly Average: 0.156 ppm Percentiles: P ₁ = 0.00 P ₁₀ = 0.13 Q ₁ = 0.14 Median = 0.15 Q ₃ = 0.17 P ₉₀ = 0.20 P ₉₉ = 0.29																								Hours of Data: 683		
																								Hours of Missing Data: 37		
																								Hours of Calibration: 35		
																								Percent Operational Time: 99.7		
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Jun	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.25	0.32
2-Jun	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.08	0.20
3-Jun	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.15	0.20
4-Jun	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	M	M	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.17	0.23
5-Jun	0.1	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	0.2	0.1	0.2	0.15	0.16
6-Jun	0.1	0.1	0.1	0.1	0.1	A	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.14	0.16
7-Jun	0.2	0.2	0.2	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.14	0.15
8-Jun	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.13	0.17
9-Jun	0.2	0.1	A	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18	0.31
10-Jun	0.2	A	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.1	0.18	0.27
11-Jun	A	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	0.1	A	0.14	0.16
12-Jun	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	A	0.1	0.15	0.16
13-Jun	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	A	0.2	0.1	0.17	0.23
14-Jun	0.1	0.1	0.2	0.2	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	A	0.2	0.2	0.2	0.17	0.25
15-Jun	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	0.1	0.2	0.1	A	0.2	0.2	0.3	0.3	0.18	0.31
16-Jun	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	0.2	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.16	0.24
17-Jun	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	A	0.1	0.1	0.2	0.2	0.2	0.2	0.14	0.17
18-Jun	0.2	0.2	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	A	0.1	0.1	0.1	0.2	0.3	0.4	0.2	0.16	0.41
19-Jun	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	A	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.16	0.20
20-Jun	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	A	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.14	0.16
21-Jun	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.14	0.19
22-Jun	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.17	0.21
23-Jun	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18	0.27
24-Jun	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	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	0.15	0.19
25-Jun	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.14	0.21
26-Jun	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	0.2	0.1	0.1	0.12	0.15
27-Jun	0.1	0.1	0.2	0.1	0.1	0.2	0.2	A	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.14	0.16
28-Jun	0.1	0.1	0.1	0.2	0.2	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.14	0.21
29-Jun	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19	0.24
30-Jun	0.2	0.1	0.1	0.2	A	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.17	0.24
																									Diurnal Average	
																									Diurnal Maximum	
C - Calibration M - Maintenance 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 - June 2015



Hourly Maximums

Carbon Monoxide (CO) - ppm

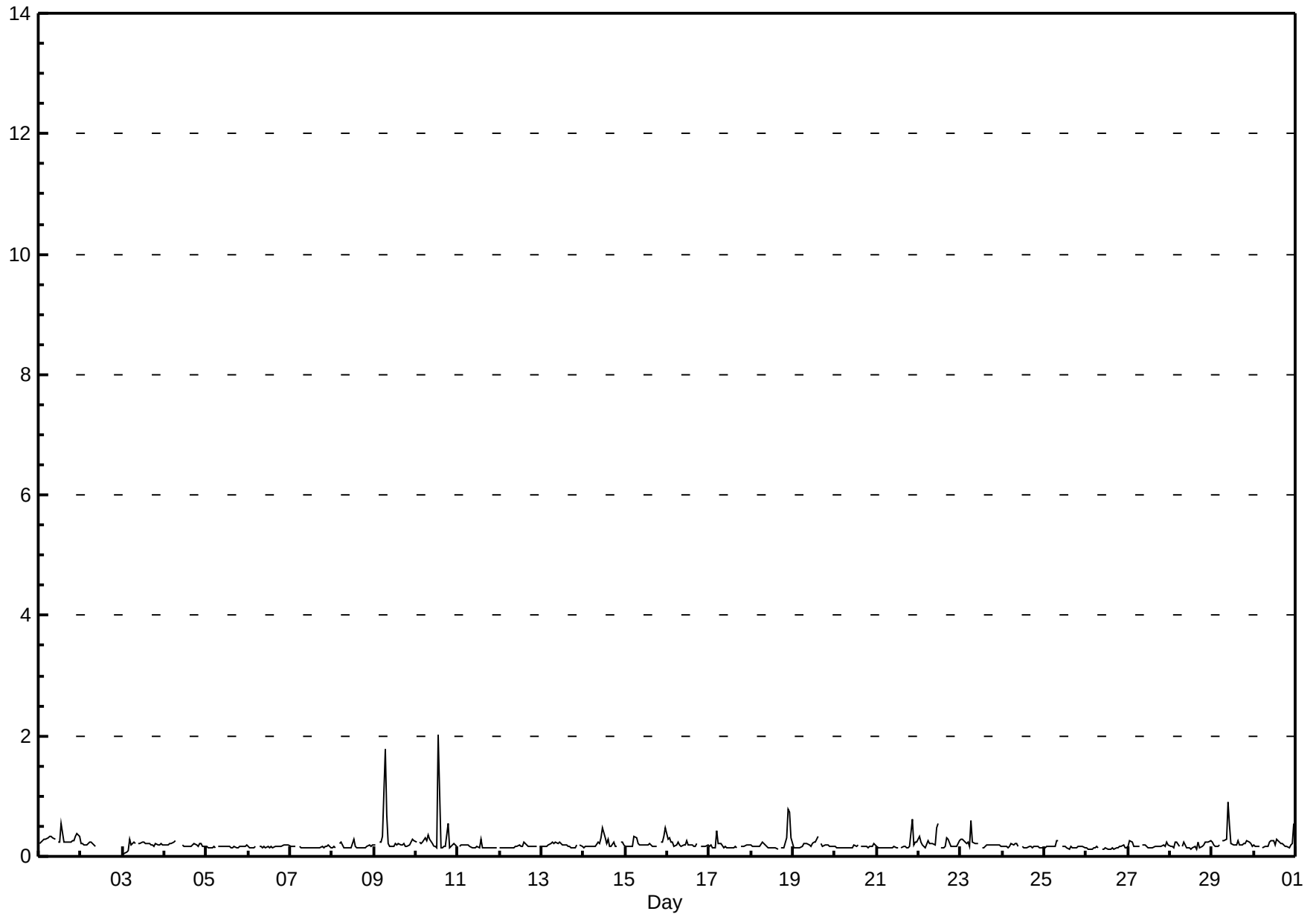
Henry Pirker - June 2015

Maximum Value: 2.01 ppm on Jun 10 14:00																					Maximum Daily Average: 0.30 ppm on Jun 10					Hours in Service: 720	
Minimum Value: 0.0 ppm on Jun 2 15:00																					Minimum Daily Average: 0.10 ppm on Jun 2					Hours of Data: 683	
Maximum Diurnal Average: 0.28 ppm at hour 7																					Minimum Diurnal Average: 0.16 ppm at hour 16					Hours of Missing Data: 37	
Monthly Average: 0.195 ppm																					Percentiles: P ₁ = 0.00 P ₁₀ = 0.14 Q ₁ = 0.15 Median = 0.17 Q ₃ = 0.21 P ₉₀ = 0.26 P ₉₉ = 0.58					Hours of Calibration: 35	
																										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-Jun	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	A	0.2	0.2	0.5	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.3	0.29	0.55	
2-Jun	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.10	0.23	
3-Jun	0.0	0.0	0.1	0.1	0.3	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18	0.29	
4-Jun	0.2	0.2	0.2	0.2	0.2	0.2	0.3	A	M	M	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19	0.25	
5-Jun	0.2	0.1	0.1	0.1	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.16	0.18	
6-Jun	0.2	0.1	0.1	0.1	0.2	A	0.2	0.2	0.2	0.2	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	0.16	0.20	
7-Jun	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.1	0.15	0.19	
8-Jun	0.1	0.2	0.1	A	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.3	0.2	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.17	0.28	
9-Jun	0.2	0.2	A	0.2	0.2	0.3	1.8	0.7	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.30	1.77	
10-Jun	0.2	A	0.2	0.2	0.2	0.3	0.3	0.4	0.3	0.2	0.2	0.2	0.1	2.0	0.2	0.2	0.2	0.2	0.2	0.6	0.1	0.2	0.2	0.2	0.30	2.01	
11-Jun	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.3	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	A	0.16	0.30	
12-Jun	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	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.16	0.23	
13-Jun	0.2	0.2	0.2	0.2	0.2	0.2	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	A	0.2	0.2	0.19	0.24	
14-Jun	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.5	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.21	0.48	
15-Jun	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.3	0.5	0.21	0.46	
16-Jun	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.20	0.32	
17-Jun	0.2	0.2	0.1	0.1	0.4	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	A	0.2	0.2	0.2	0.2	0.2	0.2	0.18	0.43	
18-Jun	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	A	0.1	0.1	0.1	0.3	0.8	0.7	0.3	0.23	0.78	
19-Jun	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19	0.33	
20-Jun	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	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.16	0.21	
21-Jun	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	A	0.1	0.2	0.2	0.1	0.1	0.2	0.6	0.2	0.2	0.2	0.18	0.61	
22-Jun	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.5	0.6	A	0.1	0.1	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.24	0.56	
23-Jun	0.3	0.3	0.3	0.2	0.2	0.2	0.6	0.2	0.2	0.2	0.2	A	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22	0.60	
24-Jun	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.17	0.21	
25-Jun	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	A	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.16	0.26	
26-Jun	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.14	0.19	
27-Jun	0.2	0.3	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18	0.27	
28-Jun	0.2	0.2	0.1	0.2	0.2	0.2	A	0.2	0.2	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	0.3	0.18	0.26	
29-Jun	0.2	0.2	0.2	0.2	0.2	A	0.3	0.3	0.3	0.9	0.5	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.26	0.89	
30-Jun	0.2	0.2	0.2	0.2	A	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.5	0.21	0.54	
0.18 0.18 0.17 0.17 0.20 0.20 0.28 0.22 0.20 0.21 0.20 0.20 0.18 0.25 0.17 0.16 0.17 0.17 0.17 0.16 0.20 0.21 0.21 0.21 0.21																									Diurnal Average		
0.32 0.32 0.26 0.27 0.43 0.34 1.77 0.69 0.31 0.89 0.52 0.56 0.32 2.01 0.33 0.25 0.30 0.29 0.56 0.27 0.61 0.78 0.73 0.54																									Diurnal Maximum		
C - Calibration M - Maintenance A - Automated Daily Zero Span																											

Hourly Maximums

Carbon Monoxide (CO) - ppm

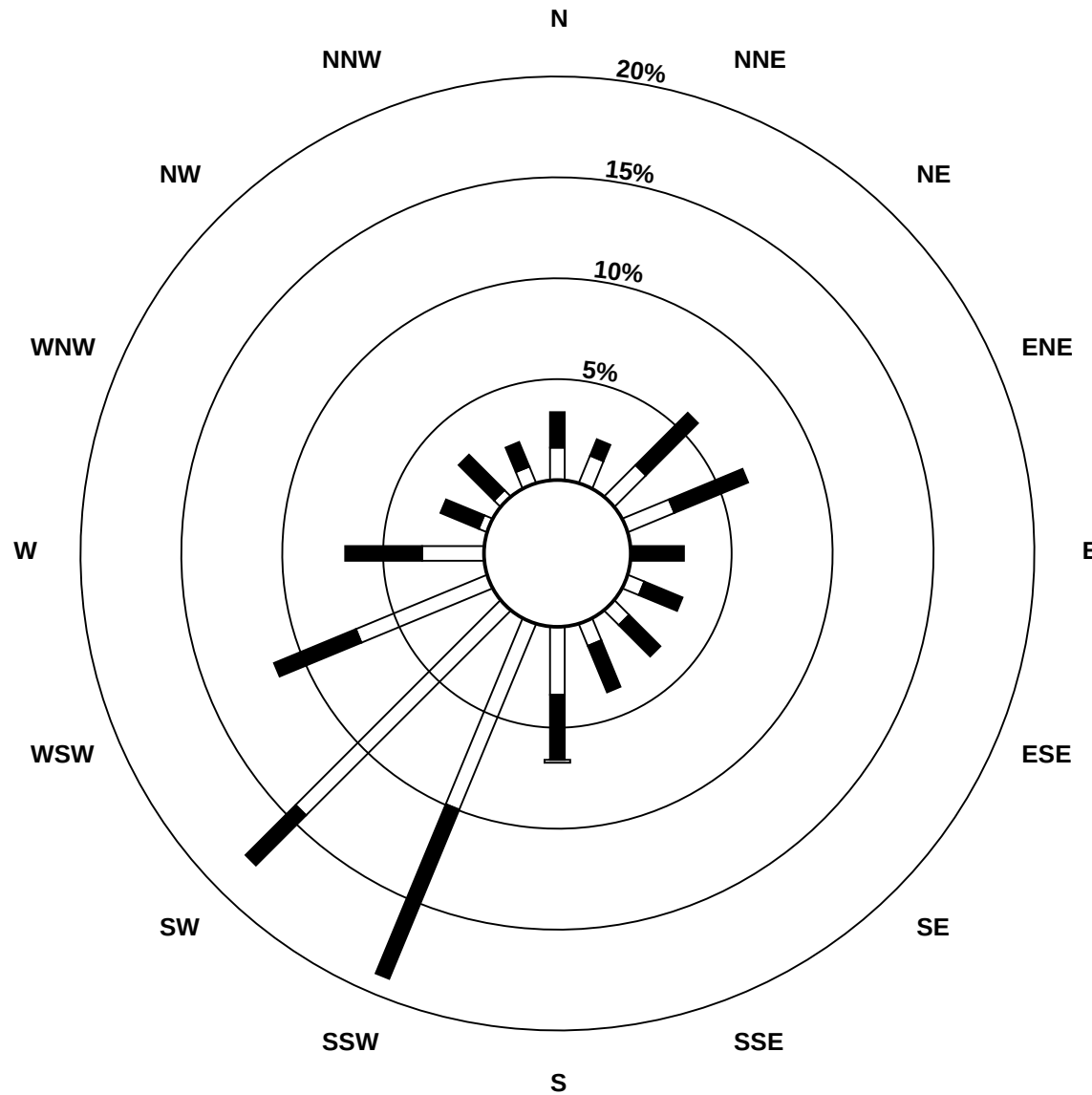
Henry Pirker - June 2015



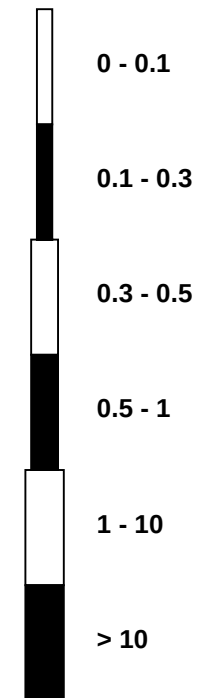
Pollutant Rose

Carbon Monoxide (CO) - ppm

Henry Pirker - June 2015



Pollutant Classes (ppm)



Eight Hour Running Averages

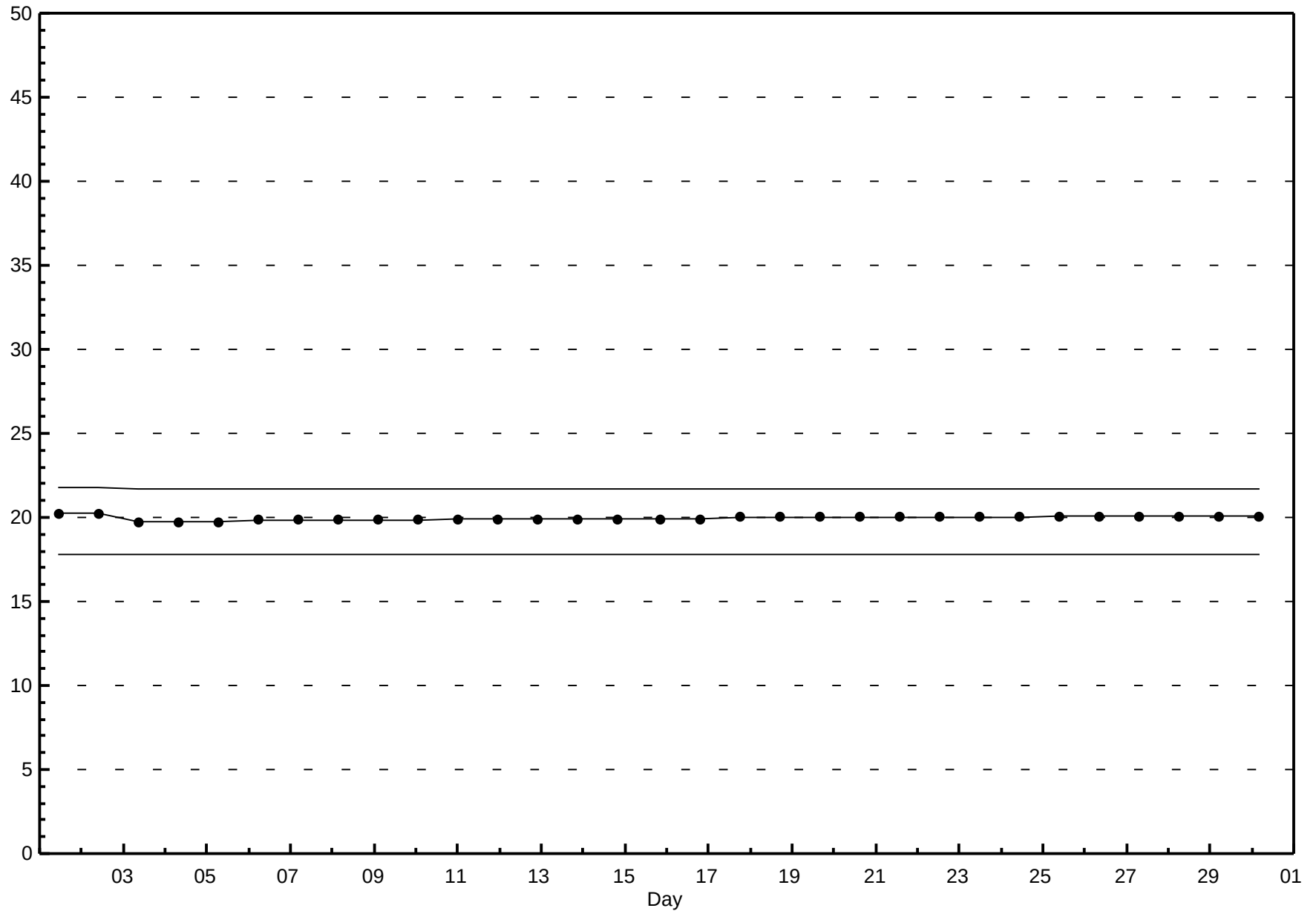
Carbon Monoxide (CO) - ppm

Henry Pirker - June 2015

Number of Exceedences (AAAQO): 8-hr: 0 Maximum Value: 0.27 ppm on Jun 1 11:00 Minimum Value: 0.00 ppm on Jun 2 20:00 Percentiles: P ₁ = 0.00 P ₁₀ = 0.13 Q ₁ = 0.14 Median = 0.15 Q ₃ = 0.17 P ₉₀ = 0.20 P ₉₉ = 0.25																									Hours in Service: 720 Hours of Data: 706 Hours of Missing Data: 14 Hours of Calibration: 14 Percent Operational Time: 100.0
Day	Hourly Period Ending At (MST)																								Daily Maximum
1-Jun	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.27
2-Jun	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	N	N	N	N	N	N	N	N	0.0	0.0	0.0	0.0	0.0	0.25
3-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20
4-Jun	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	N	N	N	N	N	N	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20
5-Jun	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.16
6-Jun	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.15
7-Jun	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.15
8-Jun	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.14
9-Jun	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20
10-Jun	0.2	0.2	0.2	0.2	0.2	0.2	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	0.23
11-Jun	0.2	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.15
12-Jun	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.16
13-Jun	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.20
14-Jun	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20
15-Jun	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20
16-Jun	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	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	0.23
17-Jun	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.15
18-Jun	0.2	0.2	0.2	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	0.2	0.2	0.2	0.20
19-Jun	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20
20-Jun	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	0.2	0.2	0.2	0.2	0.2	0.2	0.15
21-Jun	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	0.2	0.2	0.16
22-Jun	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18
23-Jun	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21
24-Jun	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.17
25-Jun	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.17
26-Jun	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.13
27-Jun	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	0.15
28-Jun	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.16
29-Jun	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22
30-Jun	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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.20
0.25 0.24 0.24 0.23 0.22 0.23 0.24 0.25 0.26 0.27 0.27 0.27 0.26 0.25 0.24 0.23 0.23 0.23 0.23 0.23 0.23 0.23 0.23 0.24 0.25 0.25 Diurnal Maximums																									
N - Not Valid Alberta Ambient Air Quality Objectives (AAAQO): 8-hr 5 ppm																									

Span Responses

Carbon Monoxide (CO)
Henry Pirker - June 2015



Hourly Averages

Total Hydrocarbons (THC) - ppm

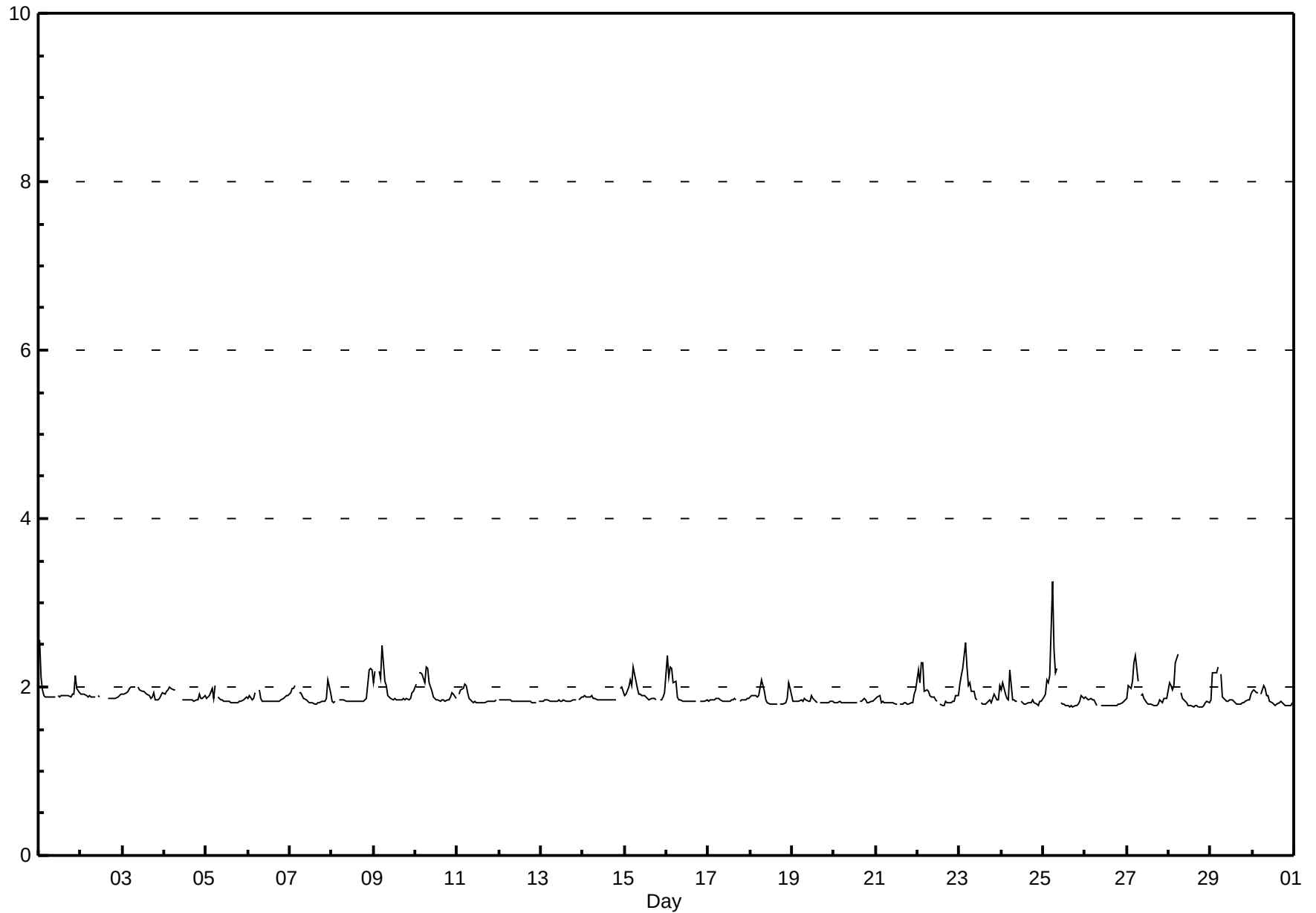
Henry Pirker - June 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 3.26 ppm on Jun 25 06:00 Maximum Daily Average: 1.97 ppm on Jun 25																								Hours in Service: 720 Hours of Data: 683 Hours of Missing Data: 37 Hours of Calibration: 35 Percent Operational Time: 99.7		
Minimum Value: 1.8 ppm on Jun 25 16:00 Maximum Diurnal Average: 2.04 ppm at hour 6 Monthly Average: 1.887 ppm												Minimum Daily Average: 1.81 ppm on Jun 26 Minimum Diurnal Average: 1.82 ppm at hour 15 Percentiles: P ₁ = 1.77 P ₁₀ = 1.80 Q ₁ = 1.82 Median = 1.85 Q ₃ = 1.90 P ₉₀ = 2.02 P ₉₉ = 2.36														
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-Jun	2.6	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1	2.0	1.9	1.95	2.57
2-Jun	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	C	C	C	C	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.89	1.92
3-Jun	1.9	1.9	1.9	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	1.8	1.9	1.9	1.9	1.9	1.93	2.00
4-Jun	1.9	1.9	2.0	2.0	2.0	2.0	2.0	A	M	M	1.9	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	1.89	2.00
5-Jun	1.9	1.9	1.9	2.0	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	1.9	1.9	1.86	2.01
6-Jun	1.9	1.9	1.9	1.9	1.9	A	2.0	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.86	1.96
7-Jun	1.9	2.0	2.0	2.0	A	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	2.1	1.9	1.88	2.08
8-Jun	1.8	1.8	1.8	A	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	2.2	2.2	2.2	1.88	2.21
9-Jun	2.1	2.2	A	2.2	2.1	2.5	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.9	1.9	1.8	1.9	1.9	1.9	1.96	2.49
10-Jun	2.0	A	2.2	2.2	2.1	2.0	2.2	2.2	2.1	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	1.9	1.9	1.96	2.23
11-Jun	A	1.9	2.0	2.0	2.0	2.0	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.87	2.03
12-Jun	1.8	1.9	1.8	1.8	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.84	1.86
13-Jun	1.8	1.8	1.8	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.9	1.9	1.84	1.89
14-Jun	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	2.0	2.0	2.0	1.88	2.00
15-Jun	1.9	1.9	2.0	2.1	2.0	2.2	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	A	1.8	1.9	1.9	1.9	1.93	2.23
16-Jun	2.4	2.1	2.2	2.2	2.0	2.1	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.93	2.37
17-Jun	1.8	1.9	1.8	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	A	1.8	1.8	1.8	1.8	1.9	1.9	1.85	1.87
18-Jun	1.9	1.9	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	A	1.8	1.8	1.8	1.8	1.9	2.1	2.0	1.88	2.09
19-Jun	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.8	1.8	1.9	1.9	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.83	1.90
20-Jun	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	A	1.8	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.82	1.86
21-Jun	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	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	2.0	1.83	1.96
22-Jun	2.2	2.1	2.3	2.3	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.92	2.29
23-Jun	2.0	2.1	2.2	2.5	2.2	2.0	2.0	2.0	2.0	1.9	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.9	1.9	1.8	2.0	1.96	2.52
24-Jun	2.0	2.0	1.9	1.9	1.8	2.2	1.9	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.86	2.20
25-Jun	1.9	1.9	2.1	2.0	2.1	3.3	2.4	2.2	2.2	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.97	3.26
26-Jun	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.81	1.88
27-Jun	1.9	2.0	2.0	2.1	2.3	2.4	2.1	A	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.91	2.37
28-Jun	2.0	2.0	2.0	2.0	2.3	2.4	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	1.8	1.89	2.39
29-Jun	1.8	2.2	2.2	2.2	2.2	A	2.2	1.9	1.9	1.8	1.8	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.91	2.23
30-Jun	1.9	2.0	1.9	1.9	A	1.9	2.0	2.0	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.86	2.02
1.95 1.95 1.97 1.99 1.98 2.04 1.96 1.91 1.88 1.86 1.84 1.84 1.83 1.83 1.82 1.82 1.83 1.83 1.83 1.83 1.84 1.87 1.90 1.90																								Diurnal Average		
2.57 2.19 2.29 2.52 2.29 3.26 2.44 2.21 2.22 1.99 1.97 1.95 1.95 1.94 1.92 1.90 1.90 1.90 1.90 1.93 1.92 1.92 2.21 2.21 2.20																								Diurnal Maximum		
C - Calibration				M - Maintenance				A - Automated Daily Zero Span																		

Hourly Averages

Total Hydrocarbons (THC) - ppm

Henry Pirker - June 2015



Hourly Maximums

Total Hydrocarbons (THC) - ppm

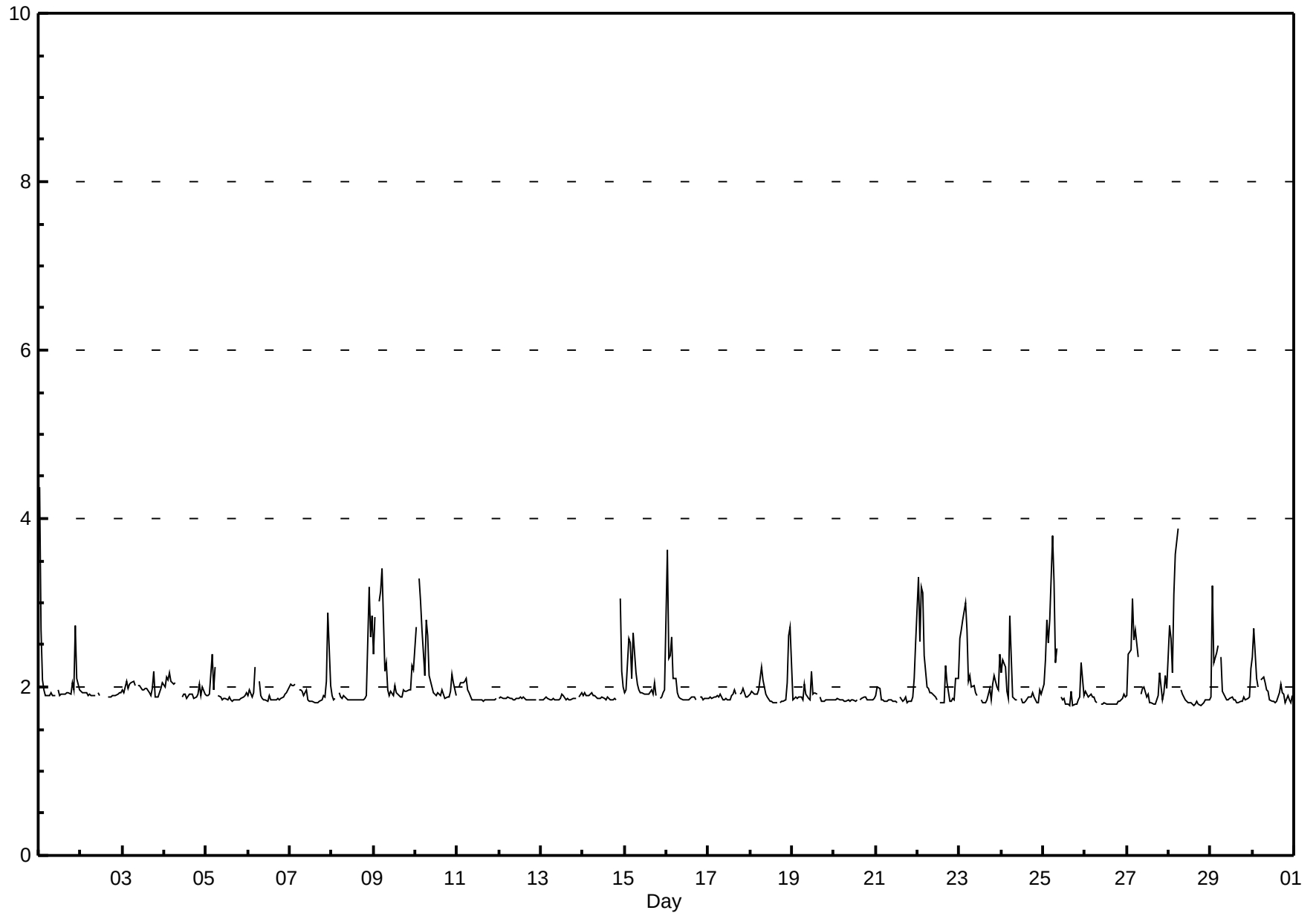
Henry Pirker - June 2015

Maximum Value: 4.38 ppm on Jun 1 01:00																				Maximum Daily Average: 2.21 ppm on Jun 9					Hours in Service: 720				
Minimum Value: 1.8 ppm on Jun 25 16:00																				Minimum Daily Average: 1.84 ppm on Jun 26					Hours of Data: 683				
Maximum Diurnal Average: 2.27 ppm at hour 4																				Minimum Diurnal Average: 1.86 ppm at hour 16					Hours of Missing Data: 37				
Monthly Average: 1.996 ppm																				Percentiles: P ₁ = 1.79 P ₁₀ = 1.83 Q ₁ = 1.85 Median = 1.89 Q ₃ = 1.97 P ₉₀ = 2.27 P ₉₉ = 3.27					Hours of Calibration: 35				
																				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-Jun	4.4	2.7	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	A	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.7	2.1	2.0	2.12	4.38			
2-Jun	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	C	C	C	C	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.91	1.95			
3-Jun	2.0	1.9	2.1	2.0	2.0	2.0	2.1	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	2.0	2.2	1.9	1.9	1.9	2.0	2.1	1.99	2.19			
4-Jun	2.0	2.1	2.1	2.2	2.1	2.0	2.1	A	M	M	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	1.9	1.97	2.16			
5-Jun	1.9	1.9	1.9	2.4	2.0	2.2	A	1.9	1.9	1.9	1.9	1.9	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.91	2.39			
6-Jun	1.9	2.0	1.9	1.9	2.2	A	2.1	1.9	1.9	1.8	1.8	1.8	1.9	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.90	2.24			
7-Jun	2.0	2.0	2.0	2.0	A	2.0	2.0	1.9	1.9	2.0	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	2.1	2.9	2.0	1.96	2.89			
8-Jun	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.9	1.9	1.9	1.9	1.8	1.8	1.9	1.9	1.9	1.9	3.2	2.6	2.8	2.00	3.18			
9-Jun	2.4	2.8	A	3.0	3.1	3.4	2.2	2.3	2.0	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	2.0	1.9	1.9	2.0	2.0	2.3	2.2	2.21	3.41			
10-Jun	2.7	A	3.3	3.0	2.7	2.1	2.8	2.6	2.1	2.0	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	2.2	2.1	1.9	2.20	3.29			
11-Jun	A	2.0	2.0	2.1	2.1	2.1	2.0	1.9	1.8	1.8	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.9	1.8	1.9	1.9	A	1.90	2.10			
12-Jun	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.86	1.89			
13-Jun	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.87	1.93			
14-Jun	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	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	3.0	2.2	2.0	1.95	3.05			
15-Jun	1.9	2.0	2.6	2.5	2.1	2.6	2.2	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.0	1.9	A	1.9	1.9	1.9	2.0	2.04	2.64			
16-Jun	3.6	2.3	2.4	2.6	2.1	2.1	1.9	1.9	1.9	1.9	1.8	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	2.04	3.63			
17-Jun	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.9	1.9	2.0	1.9	A	1.9	1.9	2.0	1.9	1.9	1.9	1.89	1.98			
18-Jun	1.9	1.9	1.9	1.9	1.9	2.0	2.2	2.1	2.0	1.9	1.9	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.9	2.1	2.6	2.7	1.98	2.71			
19-Jun	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.8	2.2	1.9	1.9	1.9	A	1.9	1.8	1.8	1.9	1.8	1.8	1.9	1.8	1.89	2.18			
20-Jun	1.8	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.9	1.9	1.9	1.9	1.8	1.8	1.9	1.9	1.9	1.85	1.89			
21-Jun	1.9	2.0	2.0	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.8	1.8	A	1.9	1.8	1.9	1.9	1.8	1.8	1.8	1.9	2.1	2.5	1.90	2.53			
22-Jun	3.3	2.5	3.2	3.1	2.4	2.0	2.0	1.9	1.9	1.9	1.9	1.8	A	1.8	1.8	1.8	2.2	2.0	1.8	1.8	1.9	1.9	2.1	2.1	2.14	3.30			
23-Jun	2.6	2.7	2.8	3.0	2.7	2.1	2.1	2.0	2.0	1.9	1.9	A	1.8	1.8	1.8	1.8	1.9	2.0	1.9	2.0	2.1	2.0	2.0	2.4	2.14	3.00			
24-Jun	2.2	2.3	2.2	1.9	1.9	2.8	1.9	1.9	1.9	1.8	A	1.9	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.8	1.8	2.0	1.9	1.96	2.85			
25-Jun	2.0	2.3	2.8	2.5	2.8	3.8	3.3	2.3	2.5	A	1.9	1.9	1.9	1.8	1.8	1.8	2.0	1.8	1.8	1.8	1.9	1.9	2.3	1.9	2.20	3.80			
26-Jun	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.84	1.95			
27-Jun	1.9	2.4	2.4	3.0	2.6	2.7	2.4	A	1.9	2.0	2.0	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.9	1.9	2.2	1.9	1.9	2.0	2.09	3.05			
28-Jun	2.7	2.6	2.2	3.1	3.6	3.9	A	2.0	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	2.14	3.89			
29-Jun	1.9	3.2	2.3	2.4	2.5	A	2.4	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	2.2	2.03	3.20			
30-Jun	2.4	2.7	2.1	2.0	A	2.1	2.1	2.1	2.0	1.9	1.8	1.8	1.8	1.8	1.8	1.9	2.0	1.9	1.9	1.8	1.9	1.8	1.8	1.9	1.98	2.70			
2.23 2.19 2.18 2.27 2.19 2.24 2.07 1.98 1.93 1.89 1.88 1.88 1.87 1.86 1.86 1.86 1.86 1.89 1.88 1.87 1.88 1.89 2.02 2.05 2.05																									Diurnal Average				
4.38 3.20 3.29 3.12 3.57 3.89 3.25 2.60 2.46 2.01 2.01 2.18 2.02 1.99 1.98 1.97 2.25 2.05 2.19 2.16 2.14 3.18 2.89 2.85																									Diurnal Maximum				
C - Calibration					M - Maintenance					A - Automated Daily Zero Span																			

Hourly Maximums

Total Hydrocarbons (THC) - ppm

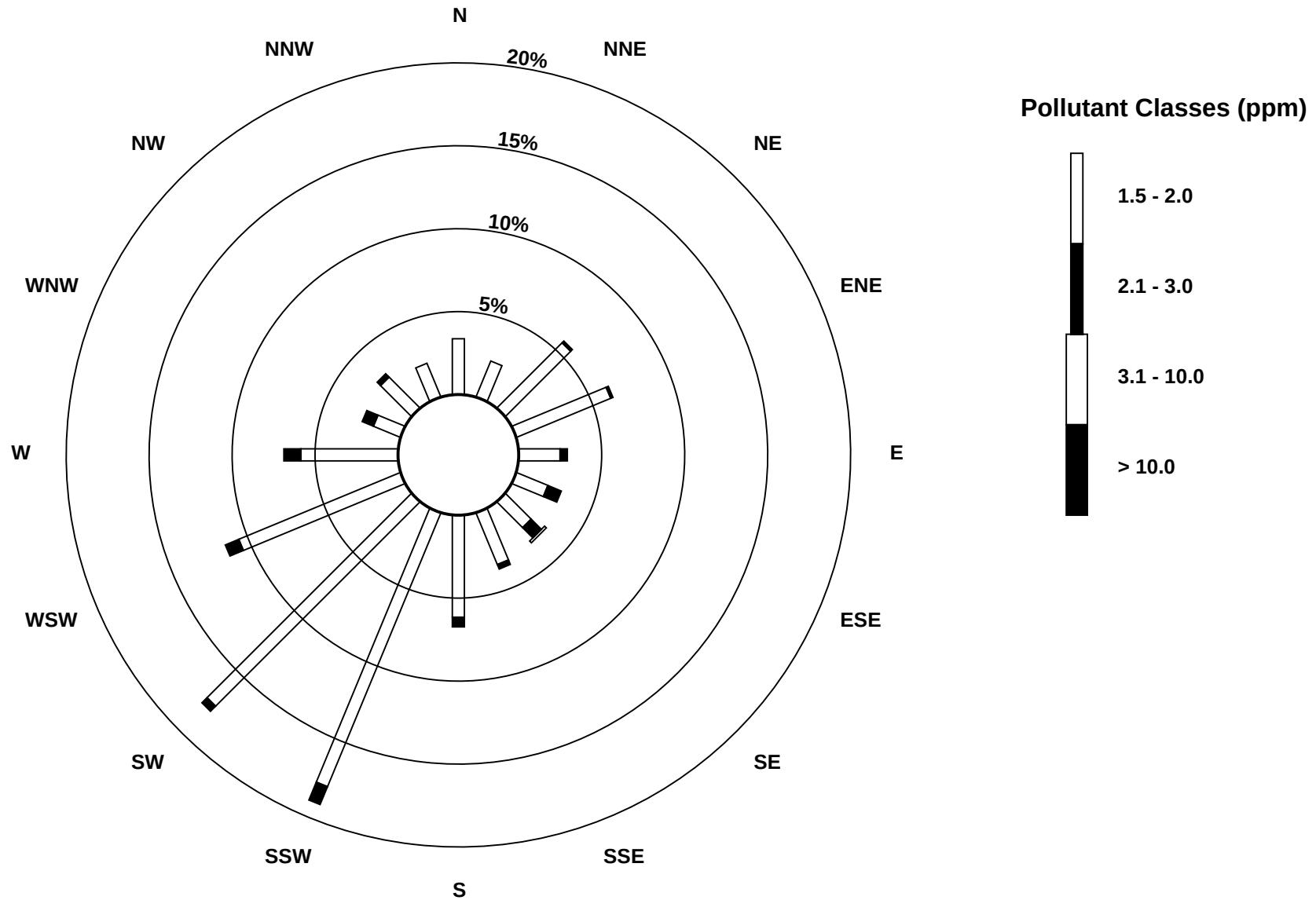
Henry Pirker - June 2015



Pollutant Rose

Total Hydrocarbons (THC) - ppm

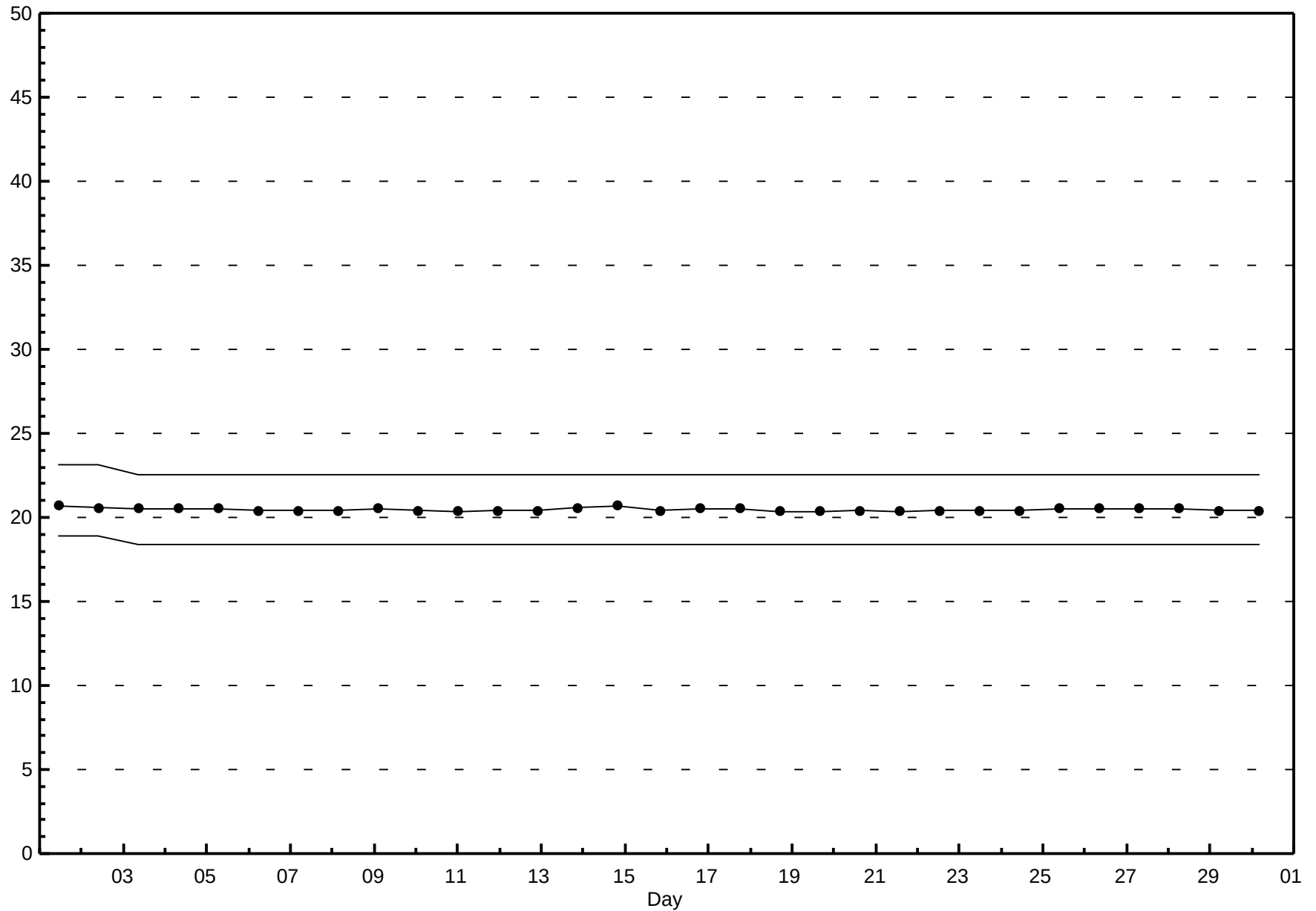
Henry Pirker - June 2015



Span Responses

Total Hydrocarbons (THC)

Henry Pirker - June 2015



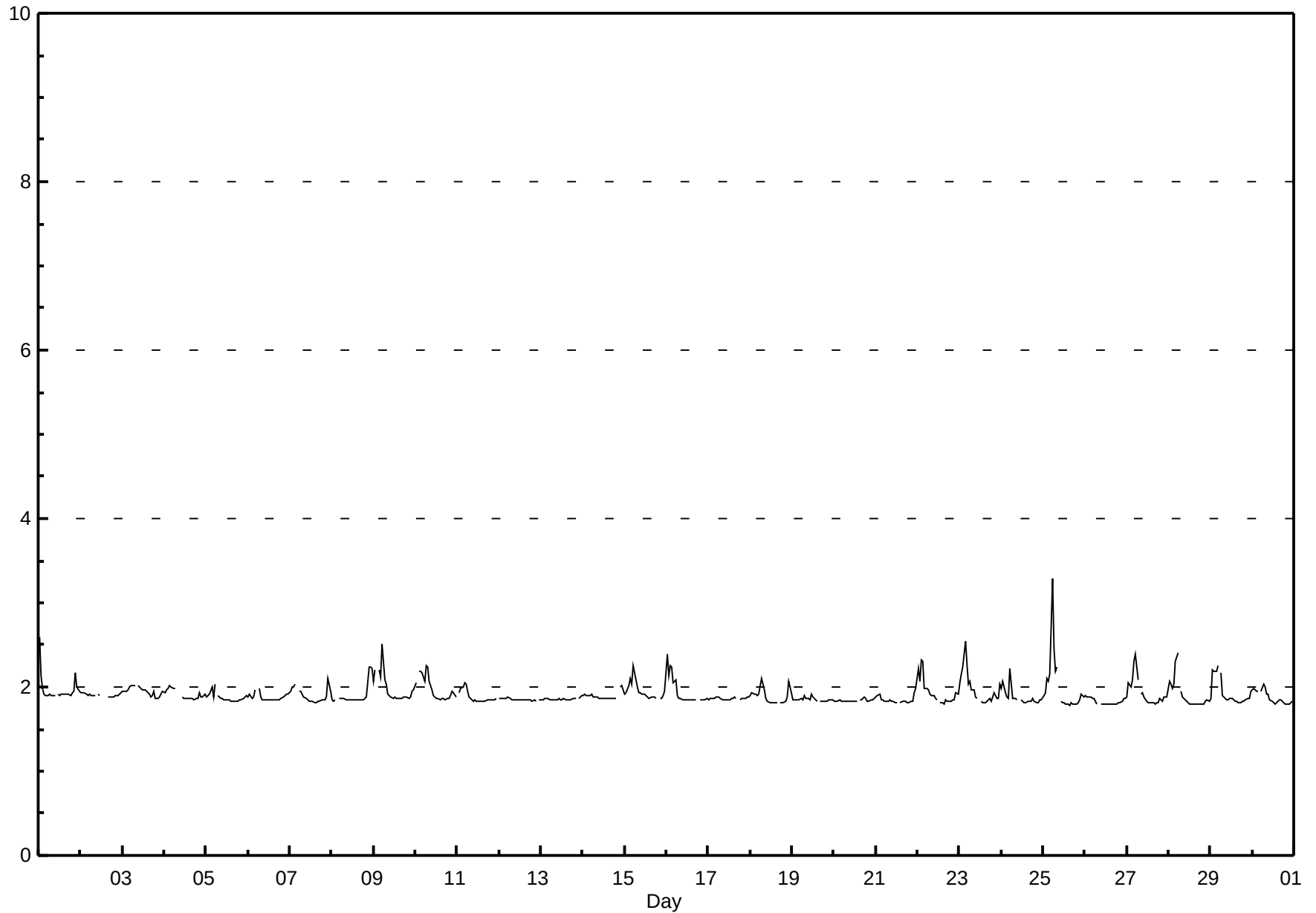
Hourly Averages

Methane (CH₄) - ppm
Henry Pirker - June 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 3.28 ppm on Jun 25 06:00 Maximum Daily Average: 1.99 ppm on Jun 25																								Hours in Service: 720 Hours of Data: 683 Hours of Missing Data: 37 Hours of Calibration: 35 Percent Operational Time: 99.7		
Minimum Value: 1.8 ppm on Jun 25 16:00 Minimum Daily Average: 1.83 ppm on Jun 26 Maximum Diurnal Average: 2.06 ppm at hour 6 Minimum Diurnal Average: 1.84 ppm at hour 15 Monthly Average: 1.906 ppm Percentiles: P ₁ = 1.79 P ₁₀ = 1.82 Q ₁ = 1.84 Median = 1.87 Q ₃ = 1.92 P ₉₀ = 2.04 P ₉₉ = 2.38																										
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-Jun	2.6	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	C	C	C	1.9	1.9	1.9	1.9	1.9	2.2	2.0	1.9	1.97	2.59
2-Jun	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	2.0	C	C	C	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.91	1.94
3-Jun	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.95	2.02
4-Jun	1.9	2.0	2.0	2.0	2.0	2.0	2.0	A	M	M	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.91	2.02
5-Jun	1.9	1.9	1.9	2.0	1.9	2.0	A	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.88	2.03
6-Jun	1.9	1.9	1.9	1.9	2.0	A	2.0	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.87	1.98
7-Jun	2.0	2.0	2.0	2.0	A	2.0	2.0	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	2.1	1.9	1.90	2.10
8-Jun	1.8	1.8	1.8	A	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.9	2.2	2.2	2.2	1.90	2.23
9-Jun	2.1	2.2	A	2.2	2.1	2.5	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	2.0	1.98	2.51
10-Jun	2.1	A	2.2	2.2	2.2	2.1	2.3	2.2	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	2.0	1.9	1.9	1.98	2.25
11-Jun	A	1.9	2.0	2.0	2.0	2.0	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	A	1.88	2.05
12-Jun	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.85	1.87
13-Jun	1.8	1.8	1.9	1.9	1.9	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.86	1.91
14-Jun	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.0	2.0	2.0	1.89	2.02
15-Jun	1.9	1.9	2.0	2.1	2.0	2.3	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.95	2.25
16-Jun	2.4	2.1	2.3	2.2	2.1	2.1	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.8	A	1.9	1.8	1.9	1.9	1.9	1.94	2.39
17-Jun	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.87	1.89
18-Jun	1.9	1.9	1.9	1.9	1.9	1.9	2.1	2.0	2.0	1.9	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.9	2.1	2.0	1.89	2.10
19-Jun	1.8	1.8	1.8	1.9	1.8	1.9	1.8	1.9	1.9	1.9	1.8	1.9	1.9	1.9	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.85	1.92
20-Jun	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	A	1.8	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.9	1.84	1.88
21-Jun	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	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	2.0	1.85	1.98
22-Jun	2.2	2.1	2.3	2.3	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.94	2.31
23-Jun	2.1	2.2	2.2	2.5	2.3	2.0	2.1	2.0	2.0	1.9	1.9	A	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.9	1.9	1.9	2.0	1.98	2.54
24-Jun	2.0	2.1	1.9	1.9	1.9	2.2	1.9	1.9	1.9	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.8	1.9	1.8	1.88	2.22
25-Jun	1.9	1.9	2.1	2.1	2.2	3.3	2.5	2.2	2.2	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.99	3.28
26-Jun	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.83	1.90
27-Jun	1.9	2.0	2.0	2.1	2.3	2.4	2.1	A	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.9	1.9	1.9	1.93	2.39
28-Jun	2.1	2.0	2.0	2.0	2.3	2.4	A	2.0	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.90	2.41
29-Jun	1.9	2.2	2.2	2.2	2.3	A	2.2	1.9	1.9	1.8	1.8	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.93	2.25
30-Jun	2.0	2.0	1.9	2.0	A	1.9	2.0	2.0	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.88	2.04
1.97 1.97 1.98 2.01 2.00 2.06 1.98 1.93 1.90 1.87 1.86 1.86 1.85 1.84 1.84 1.84 1.84 1.84 1.85 1.85 1.86 1.89 1.92 1.92																								Diurnal Average		
2.59 2.21 2.31 2.54 2.31 3.28 2.46 2.23 2.24 2.01 1.99 1.97 1.97 1.96 1.94 1.92 1.92 1.91 1.95 1.94 1.94 2.23 2.23 2.22																								Diurnal Maximum		
C - Calibration				M - Maintenance				A - Automated Daily Zero Span																		

Hourly Averages

Methane (CH₄) - ppm
Henry Pirker - June 2015



Hourly Maximums

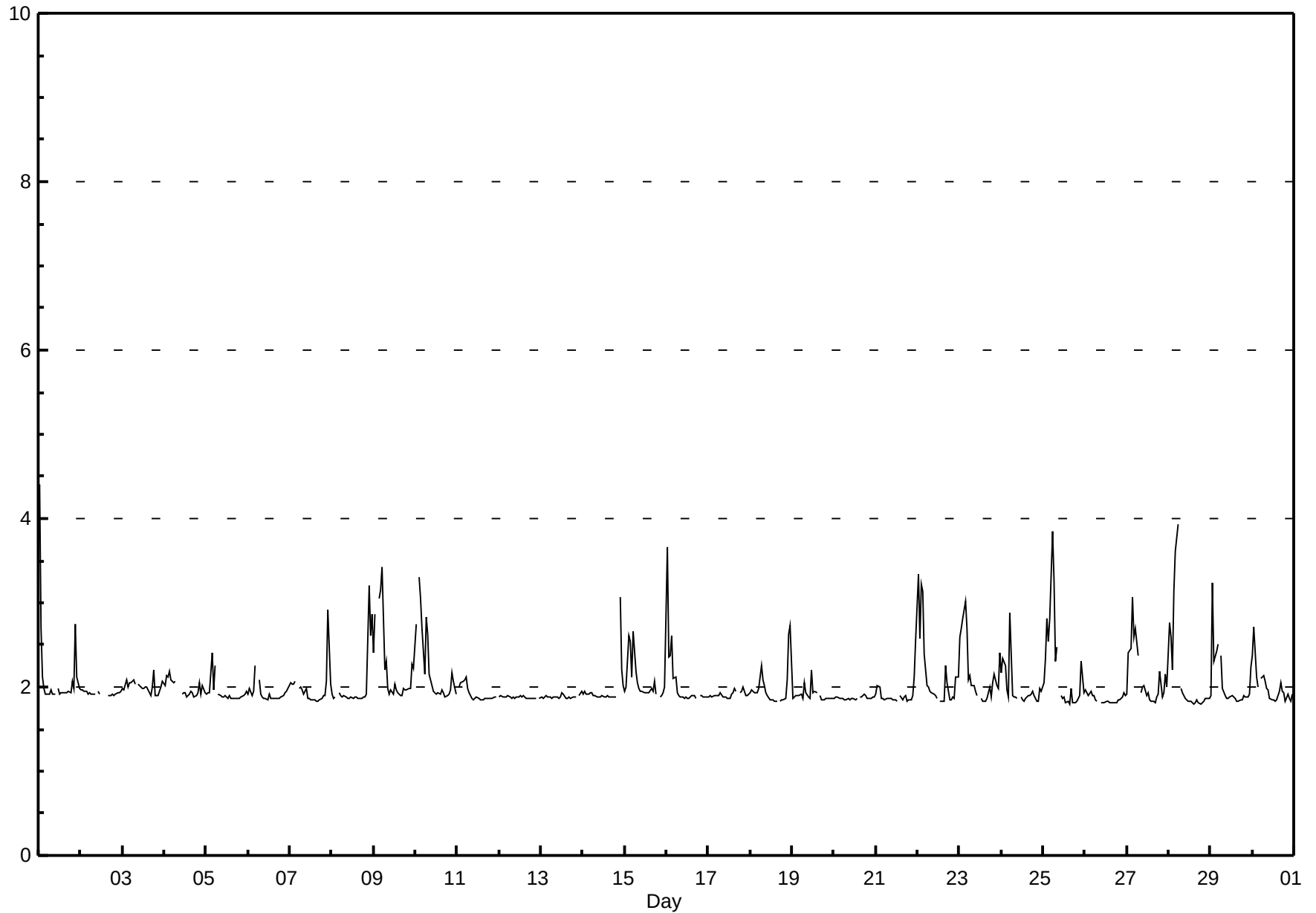
Methane (CH₄) - ppm

Henry Pirker - June 2015

Maximum Value: 4.41 ppm on Jun 1 01:00																				Maximum Daily Average: 2.23 ppm on Jun 9					Hours in Service: 720				
Minimum Value: 1.8 ppm on Jun 25 16:00																				Minimum Daily Average: 1.86 ppm on Jun 26					Hours of Data: 683				
Maximum Diurnal Average: 2.29 ppm at hour 4																				Minimum Diurnal Average: 1.88 ppm at hour 16					Hours of Missing Data: 37				
Monthly Average: 2.014 ppm																				Percentiles: P ₁ = 1.81 P ₁₀ = 1.84 Q ₁ = 1.87 Median = 1.91 Q ₃ = 1.99 P ₉₀ = 2.29 P ₉₉ = 3.30					Hours of Calibration: 35				
																									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-Jun	4.4	2.7	2.1	2.0	1.9	1.9	1.9	2.0	1.9	1.9	A	2.0	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.1	2.0	2.7	2.1	2.0	2.14	4.41			
2-Jun	2.0	2.0	1.9	2.0	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	C	C	C	C	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.93	1.96			
3-Jun	2.0	2.0	2.1	2.0	2.0	2.1	2.1	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	2.0	2.2	1.9	1.9	1.9	2.0	2.1	2.01	2.21			
4-Jun	2.0	2.1	2.1	2.2	2.1	2.0	2.1	A	M	M	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1	1.9	2.0	1.9	1.99	2.18			
5-Jun	1.9	1.9	1.9	2.4	2.0	2.2	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.93	2.41			
6-Jun	1.9	2.0	1.9	2.0	2.3	A	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.92	2.26			
7-Jun	2.1	2.0	2.0	2.1	A	2.0	2.0	2.0	1.9	2.0	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	2.1	2.9	2.0	1.98	2.91			
8-Jun	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	3.2	2.6	2.9	2.01	3.20			
9-Jun	2.4	2.9	A	3.0	3.2	3.4	2.2	2.3	2.0	1.9	2.0	1.9	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.3	2.2	2.2	2.23	3.43			
10-Jun	2.7	A	3.3	3.0	2.7	2.1	2.8	2.6	2.2	2.0	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	2.0	2.2	2.1	1.9	2.22	3.31			
11-Jun	A	2.0	2.1	2.1	2.1	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.92	2.12			
12-Jun	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	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	1.88	1.90			
13-Jun	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	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	1.95			
14-Jun	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	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	3.1	2.2	2.0	1.97	3.08			
15-Jun	1.9	2.0	2.6	2.5	2.1	2.7	2.2	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0	1.9	2.1	1.9	A	1.9	1.9	1.9	2.0	2.06	2.66			
16-Jun	3.7	2.4	2.4	2.6	2.1	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	2.06	3.66			
17-Jun	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	A	1.9	1.9	2.0	1.9	1.9	1.9	1.91	2.00			
18-Jun	1.9	2.0	1.9	1.9	1.9	2.0	2.3	2.1	2.0	1.9	1.9	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.9	2.1	2.6	2.7	1.99	2.72			
19-Jun	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	2.2	1.9	2.0	1.9	A	1.9	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.91	2.20			
20-Jun	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.9	1.9	1.9	1.9	1.8	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.87	1.91			
21-Jun	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	A	1.9	1.8	1.9	1.9	1.8	1.8	1.8	1.9	2.1	2.6	1.92	2.55			
22-Jun	3.3	2.6	3.2	3.1	2.4	2.0	2.0	1.9	1.9	1.9	1.9	1.9	A	1.8	1.8	1.8	2.3	2.1	1.9	1.9	1.9	1.9	2.1	2.1	2.16	3.33			
23-Jun	2.6	2.7	2.8	3.0	2.7	2.1	2.1	2.0	2.0	1.9	1.9	A	1.9	1.8	1.8	1.8	1.9	2.0	1.9	2.0	2.2	2.0	2.0	2.4	2.16	3.02			
24-Jun	2.2	2.3	2.3	2.0	1.9	2.9	1.9	1.9	1.9	1.9	A	1.9	1.8	1.8	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.8	1.8	2.0	1.9	1.98	2.88		
25-Jun	2.1	2.3	2.8	2.5	2.8	3.8	3.3	2.3	2.5	A	1.9	1.9	1.9	1.8	1.8	1.8	2.0	1.8	1.8	1.8	1.9	1.9	2.3	1.9	2.22	3.84			
26-Jun	2.0	1.9	1.9	1.9	1.9	1.9	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.86	1.97			
27-Jun	1.9	2.4	2.5	3.1	2.6	2.7	2.4	A	1.9	2.0	2.0	1.9	1.9	1.8	1.8	1.8	1.8	1.9	1.9	2.2	1.9	1.9	2.2	2.0	2.11	3.07			
28-Jun	2.8	2.6	2.2	3.1	3.6	3.9	A	2.0	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	2.16	3.93			
29-Jun	1.9	3.2	2.3	2.4	2.5	A	2.4	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	2.2	2.04	3.23			
30-Jun	2.4	2.7	2.1	2.0	A	2.1	2.1	2.1	2.0	2.0	1.9	1.8	1.8	1.8	1.8	2.0	2.1	1.9	1.9	1.8	1.9	1.9	1.8	1.9	2.00	2.72			
2.25 2.20 2.20 2.29 2.21 2.26 2.09 1.99 1.95 1.90 1.89 1.90 1.89 1.88 1.88 1.88 1.88 1.90 1.90 1.89 1.90 1.91 2.03 2.07 2.06																									Diurnal Average				
4.41 3.23 3.31 3.14 3.60 3.93 3.27 2.63 2.48 2.03 2.02 2.20 2.03 2.01 2.00 1.98 2.26 2.06 2.21 2.18 2.15 3.20 2.91 2.87																									Diurnal Maximum				
C - Calibration M - Maintenance A - Automated Daily Zero Span																													

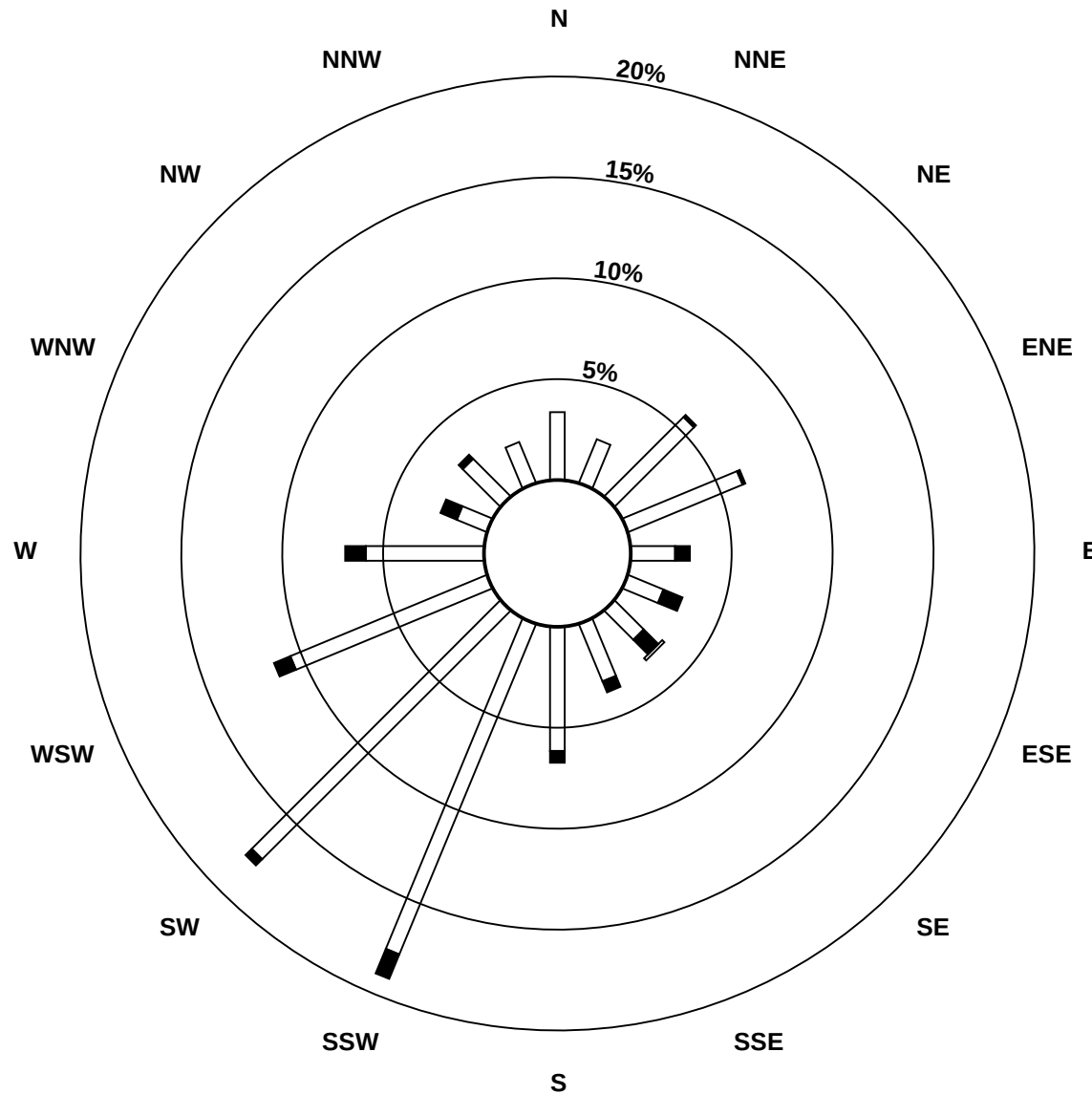
Hourly Maximums

Methane (CH₄) - ppm
Henry Pirker - June 2015

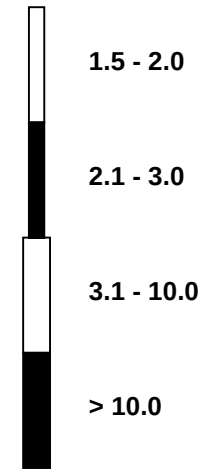


Pollutant Rose

Methane (CH₄) - ppm
Henry Pirker - June 2015

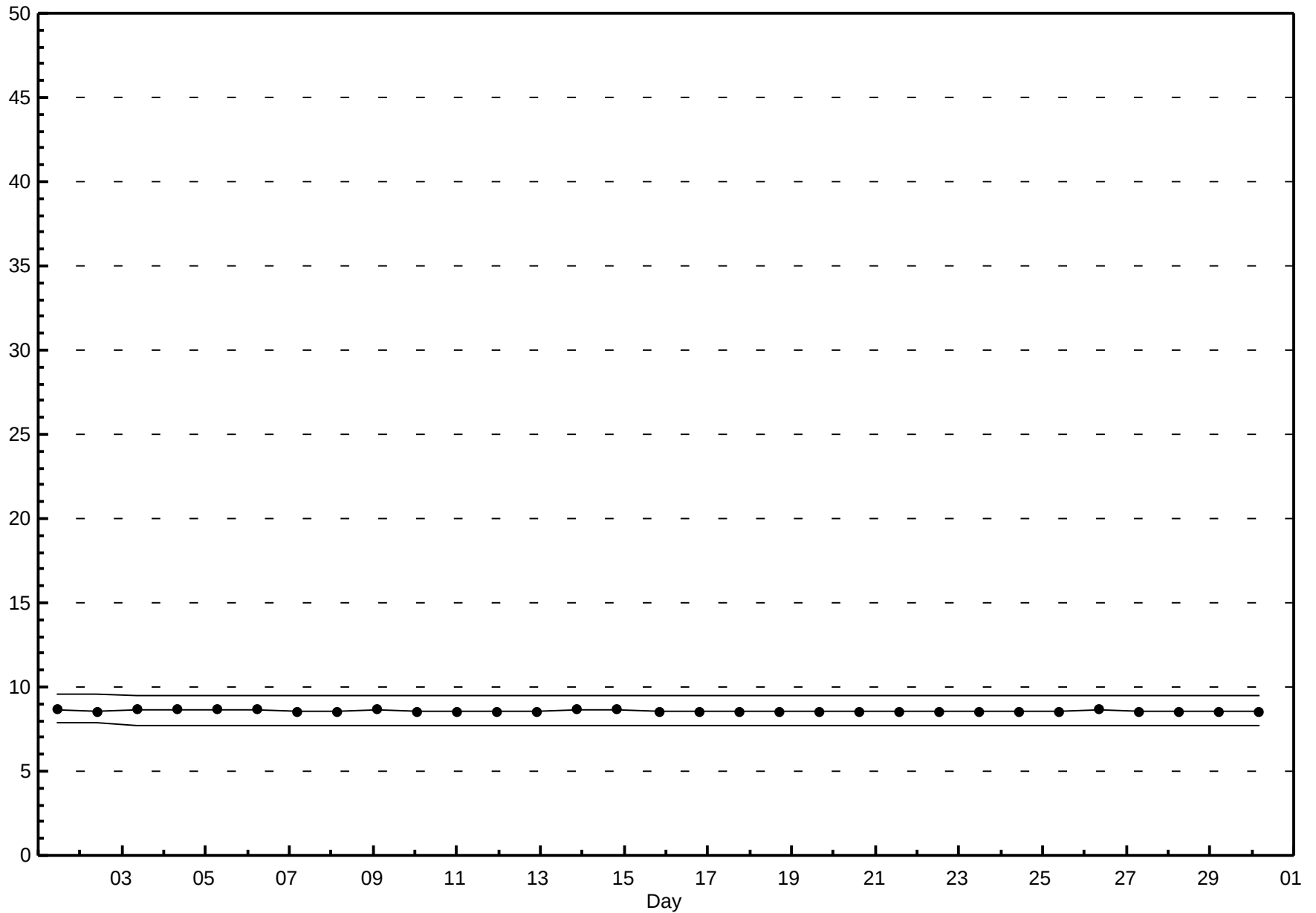


Pollutant Classes (ppm)



Span Responses

Methane (CH₄)
Henry Pirker - June 2015

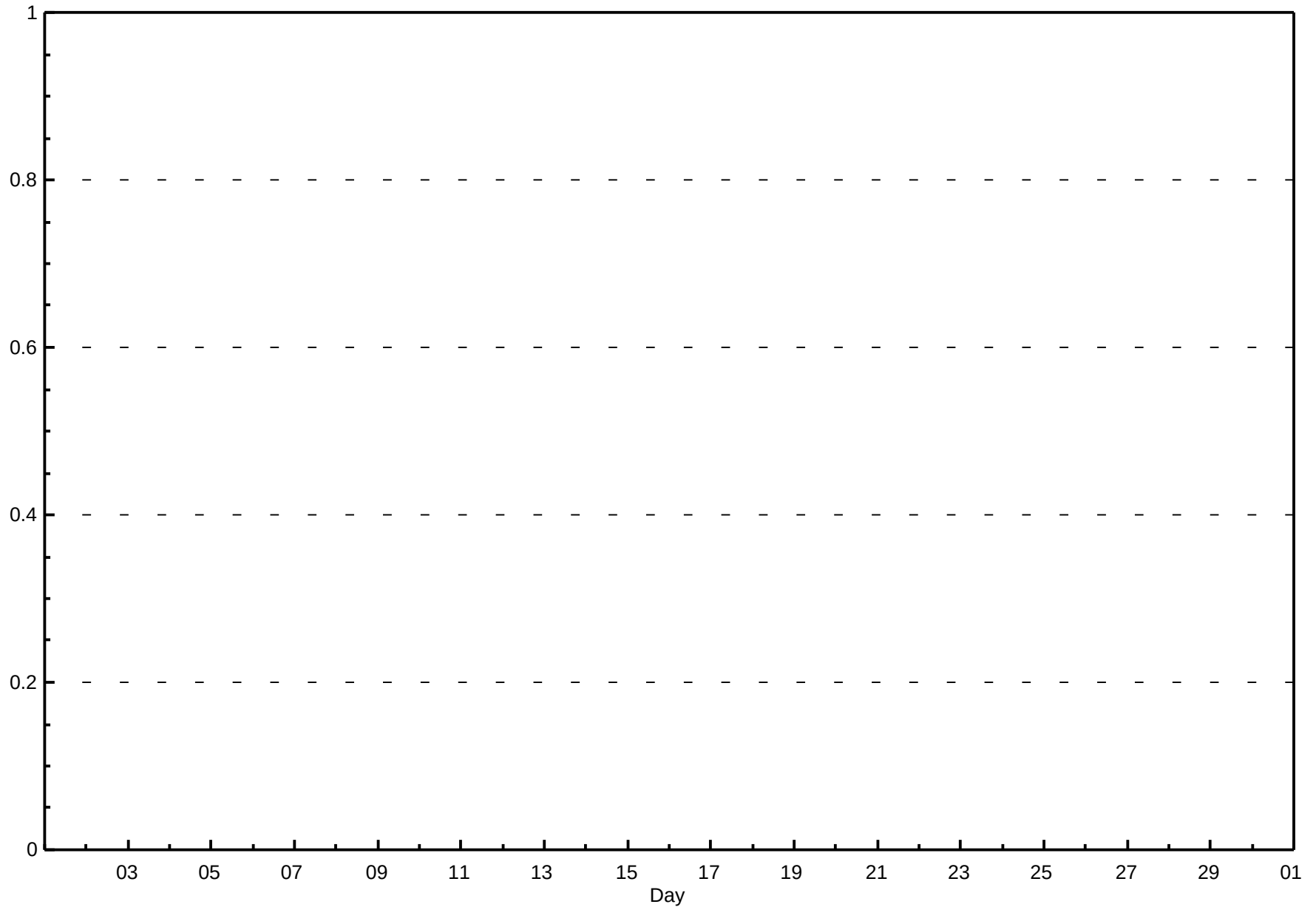


Hourly Averages

Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - June 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 0.00 ppm on Jun 2 05:00 Maximum Daily Average: 0.00 ppm on Jun 2																								Hours in Service: 720 Hours of Data: 683 Hours of Missing Data: 37 Hours of Calibration: 35 Percent Operational Time: 99.7		
Minimum Value: 0.0 ppm on Jun 1 01:00 Maximum Diurnal Average: 0.00 ppm at hour 7 Monthly Average: 0.000 ppm												Minimum Daily Average: 0.00 ppm on Jun 4 Minimum Diurnal Average: 0.00 ppm at hour 11 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-Jun	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-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
3-Jun	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-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	M	M	0.0	0.0	0.0	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-Jun	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-Jun	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-Jun	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-Jun	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-Jun	0.0	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-Jun	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-Jun	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-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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-Jun	0.0	0.0	0.0	0.0	0.0	0.0	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-Jun	0.0	0.0	0.0	0.0	0.0	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-Jun	0.0	0.0	0.0	0.0	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-Jun	0.0	0.0	0.0	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-Jun	0.0	0.0	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-Jun	0.0	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-Jun	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-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
24-Jun	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-Jun	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-Jun	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-Jun	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-Jun	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-Jun	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-Jun	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 M - Maintenance A - Automated Daily Zero Span																										

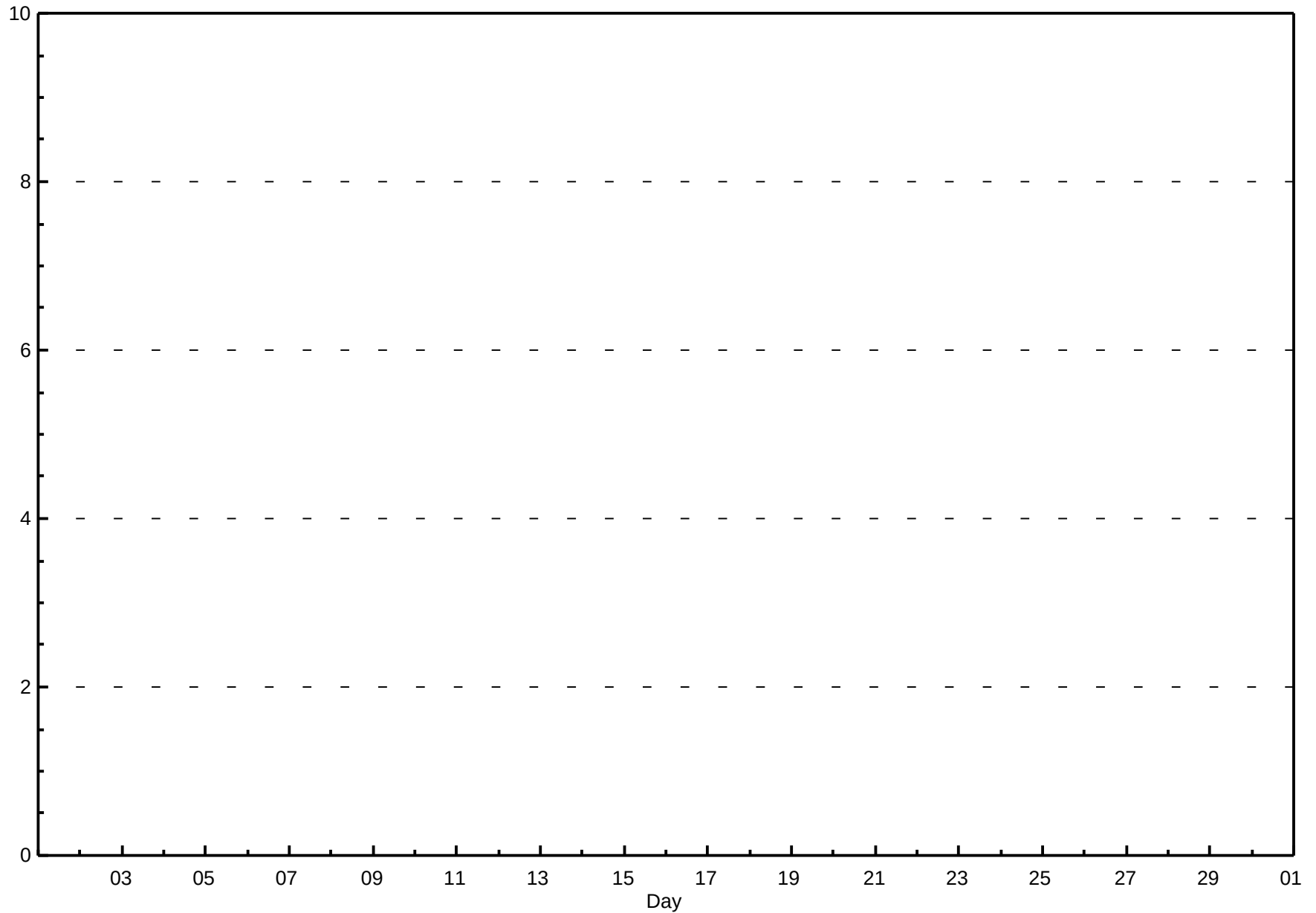


Hourly Maximums

Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - June 2015

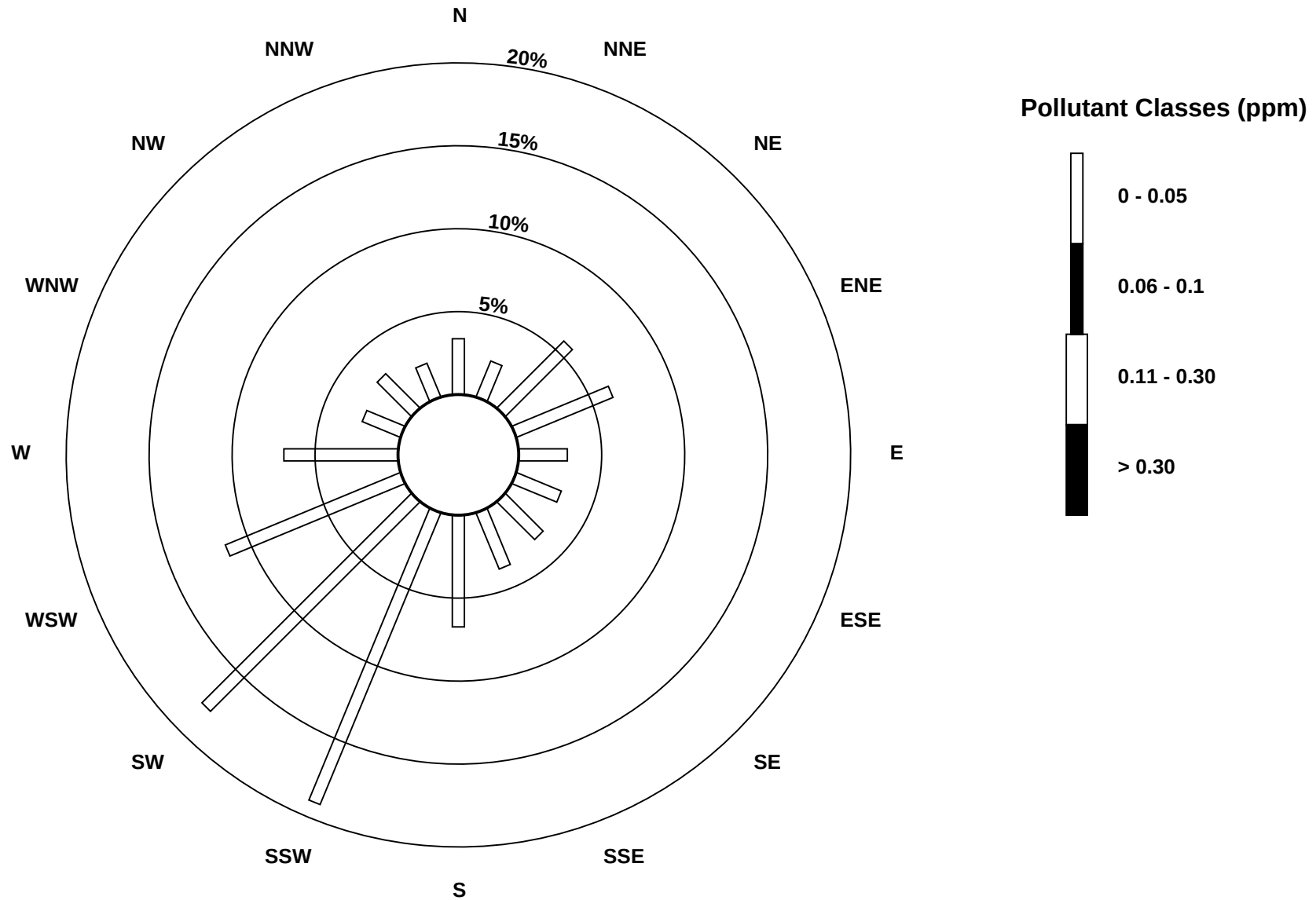
Maximum Value: 0.00 ppm on Jun 7 00:00																								Maximum Daily Average: 0.00 ppm on Jun 2										Hours in Service: 720	
Minimum Value: 0.0 ppm on Jun 7 17:00																								Minimum Daily Average: 0.00 ppm on Jun 9										Hours of Data: 683	
Maximum Diurnal Average: 0.00 ppm at hour 24																								Minimum Diurnal Average: 0.00 ppm at hour 17										Hours of Missing Data: 37	
Monthly Average: 0.001 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: 35	
																								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-Jun	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-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00									
3-Jun	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-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	M	M	0.0	0.0	0.0	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-Jun	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-Jun	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-Jun	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-Jun	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-Jun	0.0	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-Jun	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-Jun	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-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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-Jun	0.0	0.0	0.0	0.0	0.0	0.0	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-Jun	0.0	0.0	0.0	0.0	0.0	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-Jun	0.0	0.0	0.0	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									
19-Jun	0.0	0.0	0.0	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-Jun	0.0	0.0	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-Jun	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									
22-Jun	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-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00									
24-Jun	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-Jun	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-Jun	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-Jun	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-Jun	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-Jun	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-Jun	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 M - Maintenance A - Automated Daily Zero Span																																			

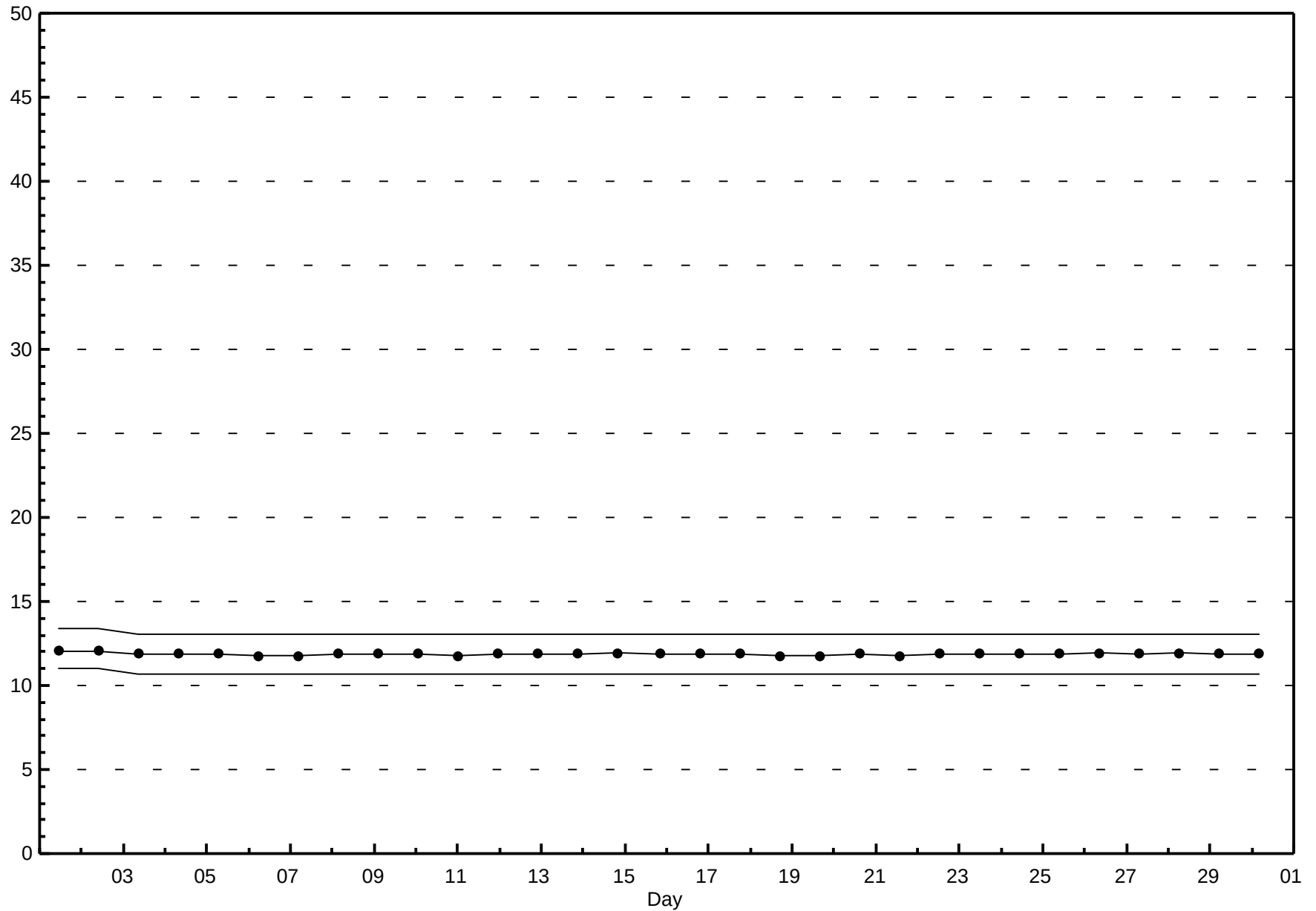


Pollutant Rose

Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - June 2015



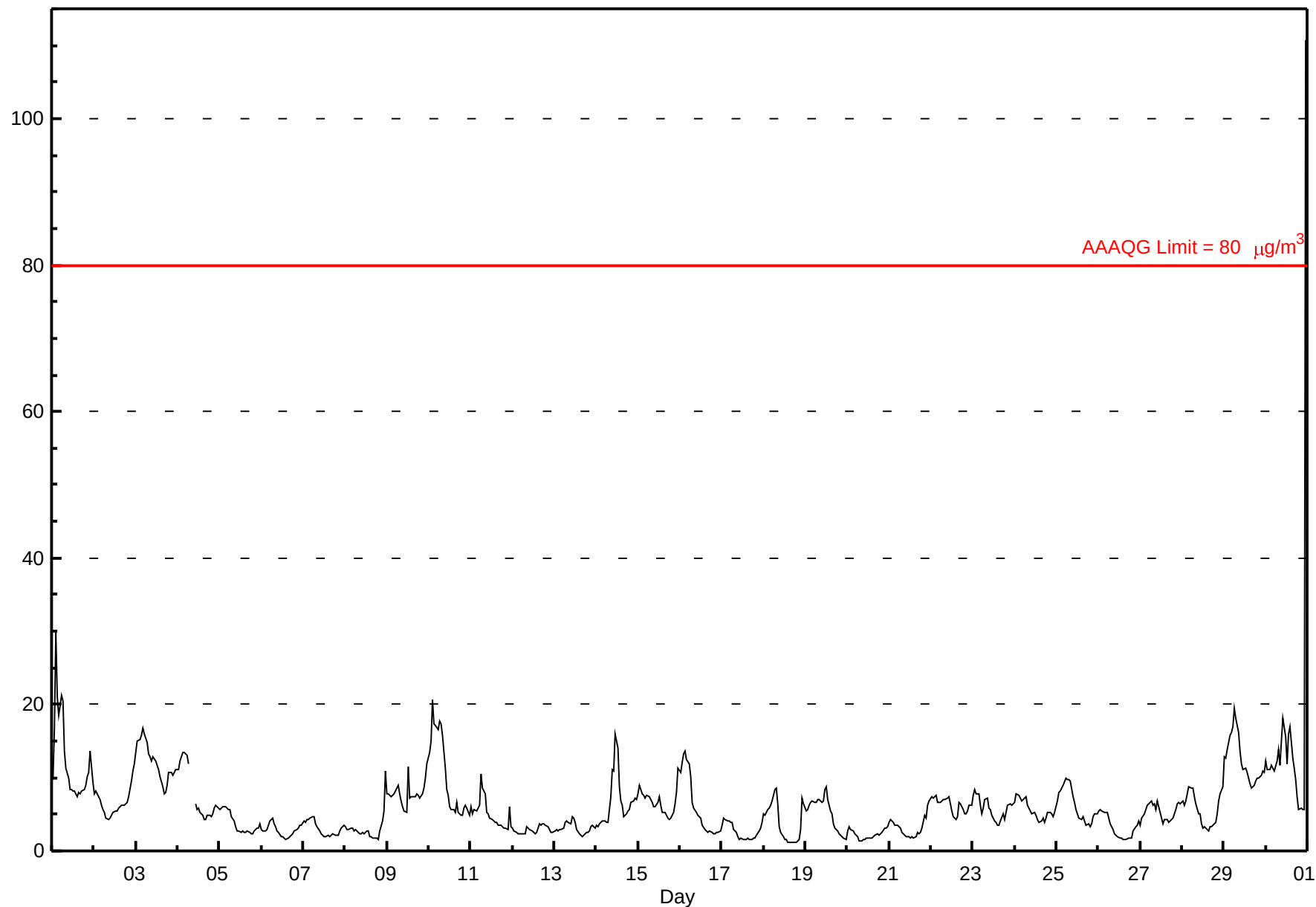


Hourly Averages

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

Henry Pirker - June 2015

Number of Exceedences: 1-hr: 1 24-hr: 0 Maximum Value: 110.6 µg/m³ on Jul 1 00:00 Maximum Daily Average: 15.6 µg/m³ on Jun 30																								Hours in Service: 720 Hours of Data: 717 Hours of Missing Data: 3 Hours of Calibration: 1 Percent Operational Time: 99.7		
Minimum Value: 1 µg/m³ on Jun 18 20:00 Maximum Diurnal Average: 9.8 µg/m³ at hour 24 Monthly Average: 6.11 µg/m³ Minimum Daily Average: 2.2 µg/m³ on Jun 20 Minimum Diurnal Average: 4.2 µg/m³ at hour 19 Percentiles: P ₁ = 1.4 P ₁₀ = 2.1 Q ₁ = 3.1 Median = 5.1 Q ₃ = 7.5 P ₉₀ = 11.3 P ₉₉ = 18.7																										
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-Jun	10	17	30	21	19	21	21	14	11	10	8	8	8	8	7	8	8	8	8	9	10	11	14	9	12.4	29.9
2-Jun	8	8	8	7	6	6	5	4	4	5	5	5	5	6	6	6	6	6	6	7	7	10	11	12	6.6	11.9
3-Jun	13	15	15	16	17	16	15	13	13	12	13	12	12	11	10	9	8	8	9	11	11	10	11	11	12.1	16.7
4-Jun	11	12	13	13	13	13	12	C	M	M	7	6	6	5	5	4	4	5	5	5	5	6	6	6	7.7	13.5
5-Jun	6	6	6	6	6	6	6	5	4	3	3	3	3	3	3	2	3	3	2	2	3	3	3	4	3.8	6.0
6-Jun	3	3	3	3	4	4	4	4	3	3	2	2	2	2	2	2	2	2	2	3	3	3	3	4	2.8	4.5
7-Jun	4	4	4	4	4	5	5	4	3	3	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3.0	4.6
8-Jun	3	3	3	3	3	3	3	3	2	2	3	2	3	3	2	2	2	2	2	2	3	4	5	11	3.0	10.8
9-Jun	8	8	7	8	8	8	9	8	7	6	5	5	11	7	7	7	8	8	7	8	9	10	12	7.9	12.0	
10-Jun	14	15	21	17	17	17	18	17	16	11	8	8	6	6	6	5	7	5	5	5	6	6	6	5	10.2	20.6
11-Jun	6	5	6	5	6	6	10	9	8	5	5	4	4	4	4	4	3	4	3	3	3	3	6	3	5.0	10.4
12-Jun	3	3	2	2	2	2	2	2	3	3	3	3	3	2	3	4	3	4	4	3	3	3	3	2	2.9	3.7
13-Jun	3	3	3	3	3	3	4	4	4	4	5	5	4	3	2	2	2	2	3	3	3	3	3	3	3.1	4.8
14-Jun	3	3	4	4	4	4	4	4	7	11	11	16	14	9	7	6	5	5	5	6	7	7	7	7	6.7	16.0
15-Jun	8	9	8	8	7	8	7	7	7	6	6	7	7	6	5	5	5	5	4	4	5	6	8	11	6.7	11.2
16-Jun	11	12	13	14	13	12	10	7	6	5	5	5	4	4	3	3	3	3	3	2	2	3	3	3	6.0	13.6
17-Jun	4	5	4	4	4	4	4	3	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	4	2.7	4.5
18-Jun	5	5	6	6	6	7	8	8	6	3	2	2	2	1	1	1	1	1	1	1	2	3	7	6	3.9	8.5
19-Jun	5	6	6	7	7	7	7	7	7	7	7	8	9	7	5	5	4	3	3	2	2	2	2	2	5.2	8.8
20-Jun	3	3	3	3	2	2	2	1	1	1	2	2	2	2	2	2	2	2	2	2	2	3	3	3	2.2	3.4
21-Jun	4	4	4	4	4	4	3	3	2	2	2	2	2	2	2	2	3	2	3	3	5	4	6	7	3.2	6.9
22-Jun	7	7	7	8	7	7	7	7	7	7	7	6	5	5	4	5	7	6	6	5	5	5	6	6	6.3	7.7
23-Jun	8	8	8	8	6	5	6	7	7	6	6	5	4	4	4	3	4	5	4	5	6	7	6	7	5.8	8.4
24-Jun	7	8	8	7	7	7	7	6	6	5	5	5	5	4	4	4	4	4	4	5	5	5	5	5	5.6	7.8
25-Jun	7	8	8	9	9	10	10	10	9	7	7	6	5	4	4	5	4	4	4	3	4	5	5	5	6.3	10.0
26-Jun	6	6	5	5	5	5	5	4	3	2	2	2	2	2	2	2	2	2	2	2	3	3	4	4	3.2	5.7
27-Jun	4	4	5	6	6	6	7	6	6	6	7	5	4	4	4	4	4	4	4	4	6	6	7	7	5.3	6.9
28-Jun	7	6	7	8	9	9	9	7	6	5	5	4	3	3	3	3	3	3	4	4	5	7	8	9	5.7	8.9
29-Jun	13	13	14	16	16	17	19	18	16	14	12	11	11	11	10	9	9	9	10	10	10	10	11	11	12.4	19.5
30-Jun	12	11	11	12	11	11	12	14	12	15	18	16	12	16	17	13	11	10	7	6	6	6	6	111	15.6	110.6
6.8 7.3 8.0 7.8 7.7 7.8 8.0 7.1 6.6 5.9 5.8 5.6 5.4 4.9 4.5 4.3 4.3 4.3 4.2 4.3 4.8 5.3 6.0 9.8																								Diurnal Average		
13.5 16.9 29.9 21.1 18.5 21.2 20.6 18.1 16.1 15.0 18.2 16.0 14.1 16.0 16.9 12.6 11.3 9.8 9.5 10.6 10.7 10.7 13.7 110.6																								Diurnal Maximum		
C - Calibration M - Maintenance																										
Alberta Ambient Air Quality Guideline (AAQG): 1-hr 80 µg/m³ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 µg/m³																										

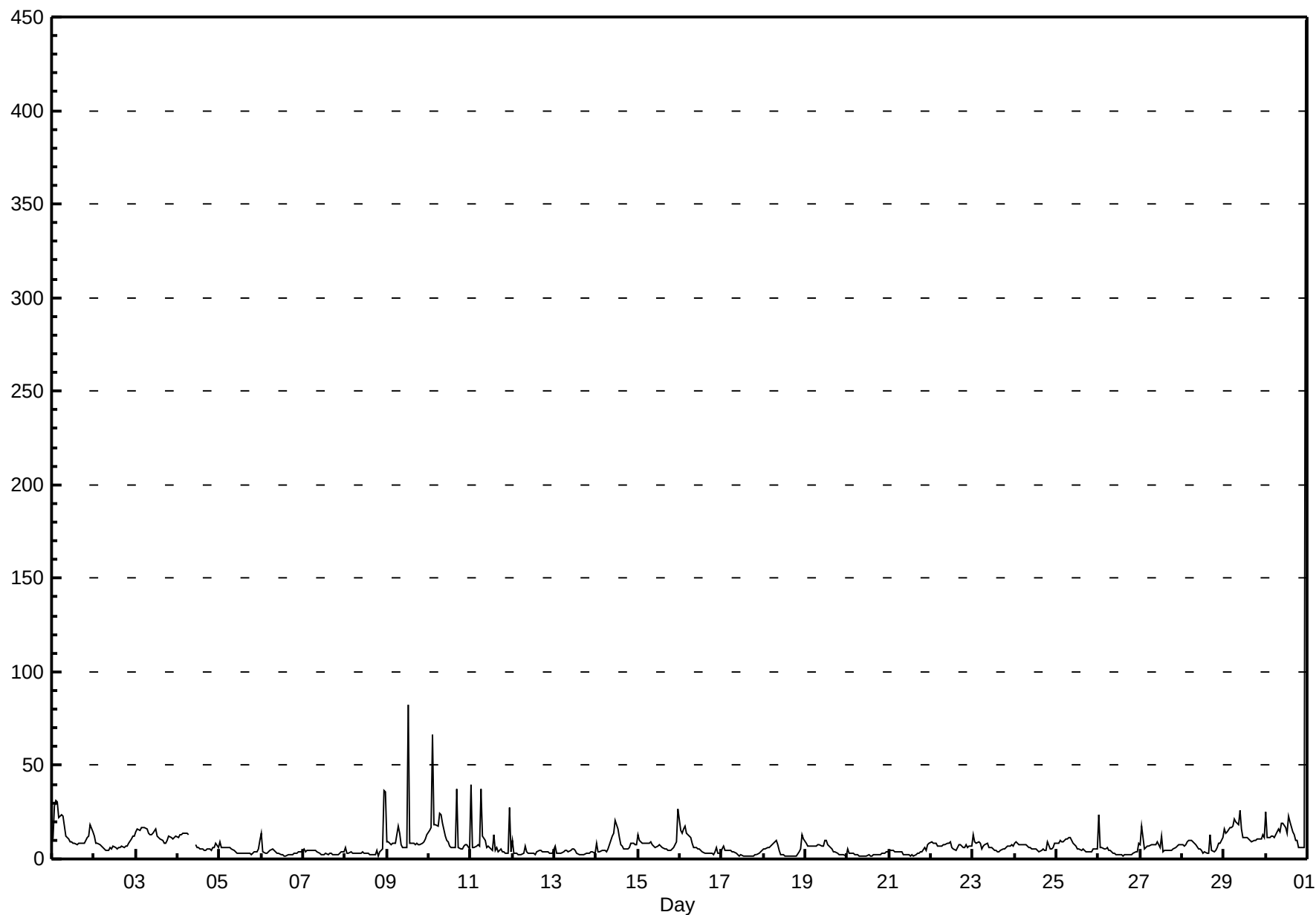


Hourly Maximums

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

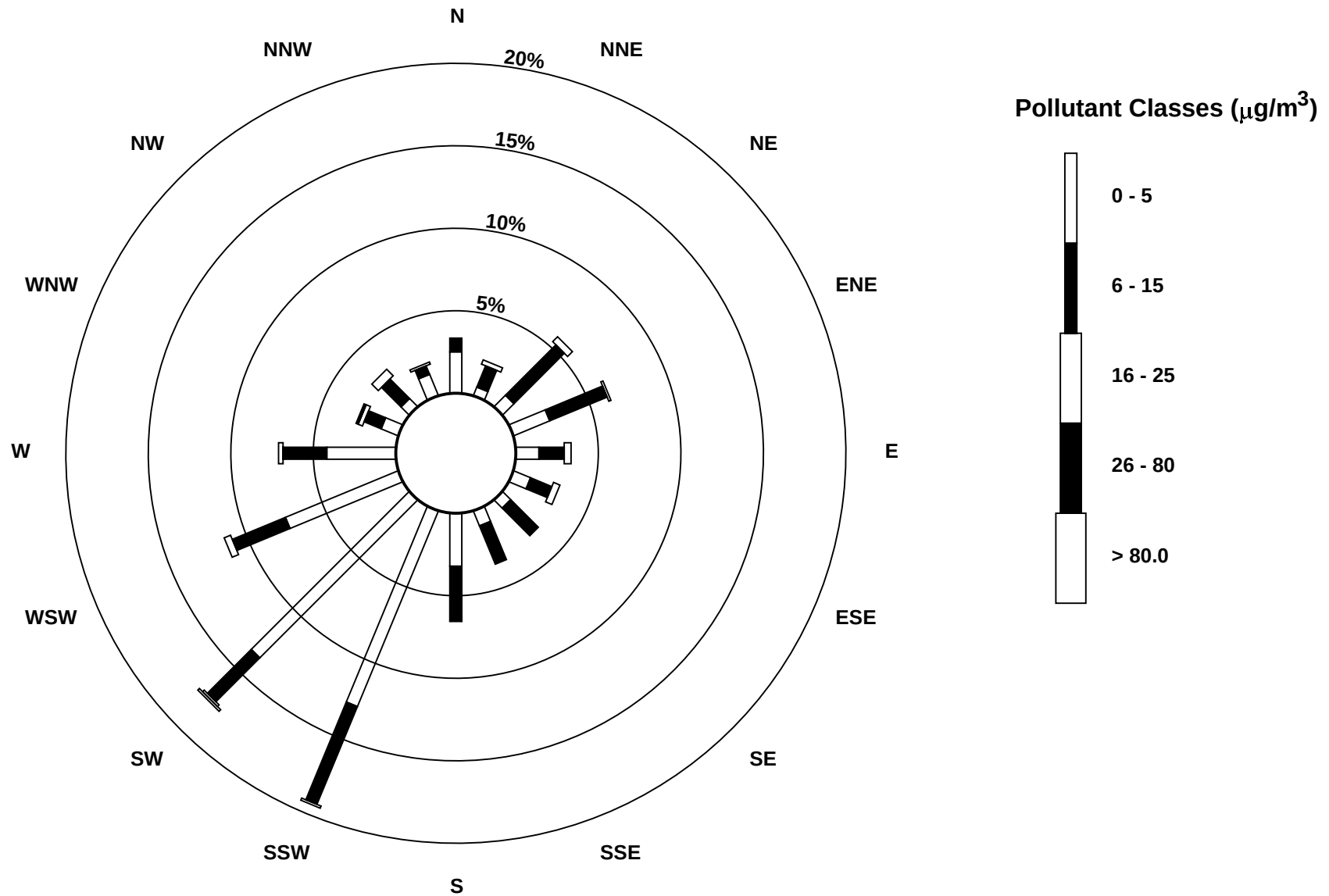
Henry Pirker - June 2015

Maximum Value: 448.5 μg/m³ on Jul 1 00:00																								Maximum Daily Average: 31.8 μg/m³ on Jun 30										Hours in Service: 720	
Minimum Value: 1 μg/m³ on Jun 18 17:00																								Minimum Daily Average: 2.6 μg/m³ on Jun 20										Hours of Data: 717	
Maximum Diurnal Average: 23.6 μg/m³ at hour 24																								Minimum Diurnal Average: 4.7 μg/m³ at hour 18										Hours of Missing Data: 3	
Monthly Average: 7.99 μg/m³																								Percentiles: P ₁ = 1.5 P ₁₀ = 2.5 Q ₁ = 3.6 Median = 5.9 Q ₃ = 8.7 P ₉₀ = 13.6 P ₉₉ = 36.3										Hours of Calibration: 1	
																								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-Jun	11	28	32	31	22	24	23	18	12	11	9	9	8	9	8	8	8	8	9	10	11	12	19	15	14.7	31.6									
2-Jun	12	9	8	7	7	6	6	5	4	6	5	7	6	6	6	6	7	6	7	7	8	11	12	12	7.3	12.3									
3-Jun	15	16	16	17	17	17	16	14	13	13	13	16	12	12	11	10	8	8	10	12	11	11	11	12	12.9	17.0									
4-Jun	12	13	13	14	14	14	13	C	M	M	8	6	6	6	5	5	5	5	5	5	6	6	8	6	8.3	14.0									
5-Jun	9	6	6	6	6	6	6	5	5	4	3	3	3	3	3	3	3	3	3	3	4	3	5	10	4.6	10.2									
6-Jun	14	4	3	3	4	5	5	4	4	3	3	2	2	2	2	2	2	2	3	3	3	3	4	4	3.6	13.8									
7-Jun	6	4	4	5	5	5	5	5	4	3	3	3	2	3	3	3	3	2	2	2	2	3	3	4	3.5	5.7									
8-Jun	6	3	3	3	3	3	3	3	3	3	4	3	3	3	2	2	2	2	4	2	4	5	37	36	6.0	36.8									
9-Jun	9	9	8	8	8	9	18	14	8	6	6	6	82	8	8	8	8	9	8	7	8	9	11	13	12.0	82.1									
10-Jun	15	17	66	18	18	18	24	23	19	13	10	9	7	6	6	6	38	6	5	5	6	8	8	5	14.8	66.3									
11-Jun	40	6	6	7	8	7	38	12	10	6	7	6	5	13	5	6	4	6	4	3	3	3	27	4	9.8	40.0									
12-Jun	10	3	3	2	3	3	3	6	4	3	3	3	3	3	3	5	4	4	4	4	4	3	3	3	3.7	9.9									
13-Jun	7	3	3	3	3	4	4	4	4	4	5	5	4	3	3	2	2	2	3	3	3	4	4	3	3.6	6.7									
14-Jun	8	3	4	4	4	4	4	6	10	12	14	20	16	12	8	7	5	5	6	6	8	8	8	8	7.9	20.3									
15-Jun	13	10	8	8	8	8	9	9	7	7	6	7	8	7	6	6	5	5	5	5	6	7	9	27	8.1	26.6									
16-Jun	15	13	16	18	13	12	11	8	6	6	5	5	5	4	3	3	3	3	3	3	4	6	3	3	7.2	17.6									
17-Jun	5	7	5	5	4	4	4	3	3	2	2	2	2	2	2	2	2	2	2	2	2	3	4	5	3.1	6.5									
18-Jun	6	5	6	6	7	7	9	10	8	5	3	2	2	2	1	1	1	1	1	1	4	5	13	11	4.9	13.0									
19-Jun	9	7	7	7	7	7	7	8	8	7	7	10	10	8	6	5	4	4	3	3	2	2	2	2	5.8	10.3									
20-Jun	5	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	4	2.6	5.3									
21-Jun	4	4	4	4	4	4	4	3	3	2	2	2	2	2	2	2	3	3	3	4	6	5	8	8	3.7	8.5									
22-Jun	9	8	8	9	7	7	7	7	8	8	9	9	6	5	5	6	8	8	6	6	7	6	7	7	7.2	9.2									
23-Jun	13	9	8	9	8	5	7	8	9	6	6	6	5	4	4	4	5	6	5	6	7	7	7	7	6.7	13.1									
24-Jun	8	9	8	8	8	7	8	7	6	6	5	6	5	5	4	5	5	4	5	9	6	5	6	9	6.4	9.4									
25-Jun	8	8	10	9	9	11	10	11	11	9	7	7	6	5	5	5	5	4	4	4	4	5	5	5	7.0	11.1									
26-Jun	23	6	6	6	6	6	5	4	3	3	3	2	2	2	2	2	2	2	2	2	3	4	4	8	4.5	23.3									
27-Jun	7	17	5	6	7	7	7	7	8	8	9	6	12	4	5	5	4	4	4	5	6	7	8	7	7.0	17.4									
28-Jun	7	7	7	9	10	10	9	8	7	6	6	4	3	4	3	3	13	5	4	4	6	8	8	11	6.8	13.3									
29-Jun	16	14	15	16	17	17	21	20	18	26	16	12	12	11	11	10	9	10	10	11	10	11	13	12	14.0	25.6									
30-Jun	25	12	12	12	12	12	15	16	15	19	19	17	14	23	20	14	13	10	10	6	6	6	6	449	31.8	448.5									
11.6 8.8 10.1 8.8 8.4 8.3 10.1 8.6 7.6 7.1 6.6 6.6 8.5 5.9 5.1 4.9 6.1 4.7 4.8 4.9 5.5 6.1 8.9 23.6																									Diurnal Average										
40.0 27.9 66.3 30.6 22.1 23.9 37.7 23.4 18.8 25.6 19.3 20.3 82.1 22.6 19.8 14.4 37.7 10.2 10.3 12.1 11.4 12.3 36.8 448.5																									Diurnal Maximum										
C - Calibration M - Maintenance																																			



Pollutant Rose

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Henry Pirker - June 2015



Hourly Averages

External Temperature (ET) - °C

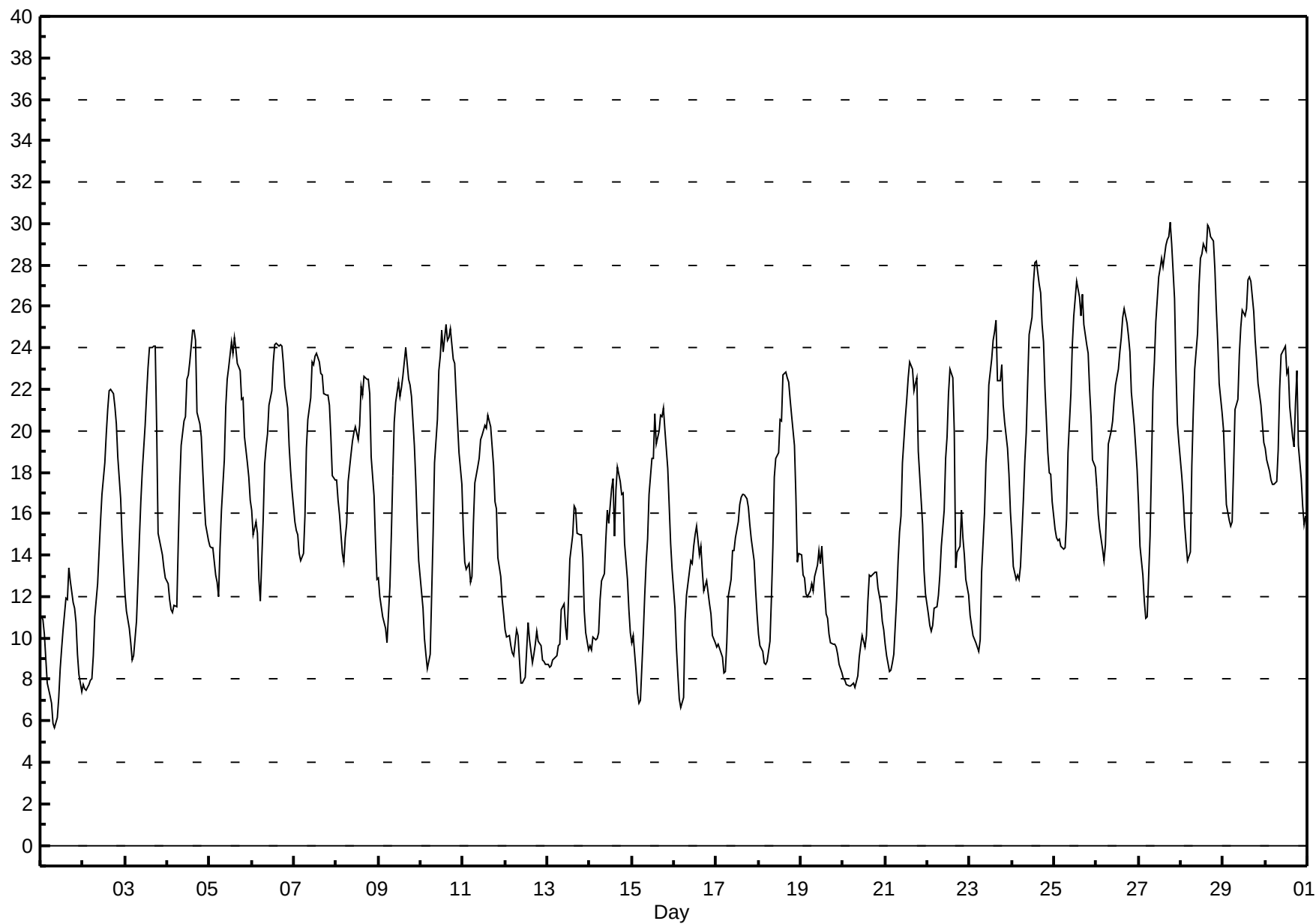
Henry Pirker - June 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 30.0 °C on Jun 27 19:00 Maximum Daily Average: 23.4 °C on Jun 28																								Hours in Service: 720 Hours of Data: 720 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0		
Minimum Value: 6 °C on Jun 1 09:00 Maximum Diurnal Average: 21.2 °C at hour 16 Monthly Average: 16.54 °C												Minimum Daily Average: 9.4 °C on Jun 1 Minimum Diurnal Average: 10.9 °C at hour 5 Percentiles: P ₁ = 7.0 P ₁₀ = 9.3 Q ₁ = 11.8 Median = 16.0 Q ₃ = 21.2 P ₉₀ = 24.1 P ₉₉ = 29.2														
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-Jun	11	11	10	9	8	7	7	6	6	6	7	9	9	10	12	12	13	13	12	11	11	9	8	7	9.4	13.4
2-Jun	8	8	7	8	8	8	9	11	13	14	16	17	18	20	21	22	22	22	21	20	19	17	15	13	14.8	22.0
3-Jun	12	11	10	10	9	9	11	13	15	17	18	20	22	23	24	24	24	24	20	15	14	14	13	13	16.1	24.1
4-Jun	13	12	11	11	12	12	15	17	19	20	21	22	23	23	25	25	24	21	20	20	18	17	15	15	18.0	24.9
5-Jun	14	14	14	13	13	12	14	16	19	21	22	23	24	24	25	24	23	23	22	22	20	18	18	17	19.0	24.5
6-Jun	16	15	16	15	13	12	16	18	19	20	21	22	23	24	24	24	24	24	23	22	21	19	18	17	19.5	24.2
7-Jun	16	15	15	14	14	14	16	19	21	22	23	23	24	24	23	23	23	22	22	22	21	20	18	18	19.5	23.7
8-Jun	18	17	16	14	14	15	16	18	19	20	20	20	20	20	22	22	23	22	22	22	19	17	15	13	18.4	22.6
9-Jun	13	12	11	11	11	10	13	15	18	20	21	22	22	22	23	24	23	23	22	22	19	18	15	14	17.6	24.0
10-Jun	12	11	10	9	9	9	12	15	18	21	23	24	25	24	25	24	25	25	23	23	22	20	19	17	18.6	25.1
11-Jun	15	14	13	14	13	13	16	17	18	19	20	20	20	20	21	20	20	18	17	16	14	13	12	11	16.4	20.7
12-Jun	10	10	10	10	9	9	10	10	9	8	8	8	9	11	10	9	9	10	10	10	10	9	9	9	9.4	10.7
13-Jun	9	9	9	9	9	9	10	10	11	12	11	10	12	14	15	16	16	15	15	15	14	11	10	9	11.6	16.4
14-Jun	10	9	10	10	10	10	12	13	13	15	16	16	17	18	15	17	18	18	17	17	15	13	11	10	13.7	18.2
15-Jun	10	10	8	7	7	7	10	12	14	15	17	19	19	21	19	20	21	21	21	20	18	16	15	13	15.0	21.1
16-Jun	11	10	8	7	7	7	11	12	13	14	14	14	15	15	14	14	13	12	13	12	12	11	10	10	11.6	15.4
17-Jun	10	10	10	9	8	8	10	12	13	14	14	15	16	16	17	17	17	17	16	16	15	14	12	11	13.2	17.0
18-Jun	10	10	9	9	9	9	10	12	14	18	19	19	21	20	23	23	23	22	22	21	19	17	14	14	16.0	22.8
19-Jun	14	13	13	12	12	12	13	12	13	14	14	14	14	13	11	11	10	10	10	10	10	9	9	8	11.7	14.4
20-Jun	8	8	8	8	8	8	8	8	8	9	10	10	10	10	12	13	13	13	13	13	12	12	11	10	10.1	13.2
21-Jun	10	9	8	8	9	9	12	14	15	16	18	21	22	23	23	23	22	22	23	19	17	15	13	12	16.0	23.3
22-Jun	11	11	10	11	11	12	12	13	14	16	19	20	22	23	23	20	13	14	14	16	15	14	13	12	15.0	23.0
23-Jun	11	11	10	10	10	9	10	13	16	18	20	22	23	24	25	25	22	22	23	21	20	19	18	16	17.5	25.3
24-Jun	15	13	13	13	13	13	17	19	20	22	25	25	27	28	28	27	27	25	24	22	19	18	18	17	20.3	28.2
25-Jun	15	15	15	15	14	14	14	16	19	22	24	26	26	27	26	26	27	25	24	24	22	21	19	18	20.6	27.2
26-Jun	17	16	15	14	14	14	17	19	20	20	21	22	23	24	25	25	26	25	25	24	22	20	19	18	20.3	25.9
27-Jun	16	14	13	12	11	11	15	18	22	23	25	27	28	28	28	29	29	29	30	29	26	23	20	19	22.0	30.0
28-Jun	18	17	15	15	14	14	18	21	23	25	27	28	29	29	29	30	30	29	29	28	26	24	22	21	23.4	29.9
29-Jun	20	18	16	16	15	16	18	21	22	24	25	26	26	26	27	27	27	26	24	23	22	21	20	19	21.9	27.4
30-Jun	19	19	18	18	17	17	18	19	22	24	24	24	23	23	21	20	19	21	23	19	18	16	15	16	19.7	24.1
	13.1	12.4	11.8	11.3	10.9	11.0	12.9	14.6	16.2	17.6	18.7	19.6	20.3	20.9	21.2	21.2	20.9	20.5	20.0	19.1	17.6	16.2	14.9	14.0	Diurnal Average	
	20.1	18.6	18.0	17.6	17.4	17.4	18.3	21.1	23.0	24.7	27.0	28.3	28.5	29.0	28.6	29.9	29.8	29.4	30.0	29.0	26.4	24.3	22.3	20.9	Diurnal Maximum	

Hourly Averages

External Temperature (ET) - °C

Henry Pirker - June 2015



Hourly Averages

Relative Humidity (RH) - %

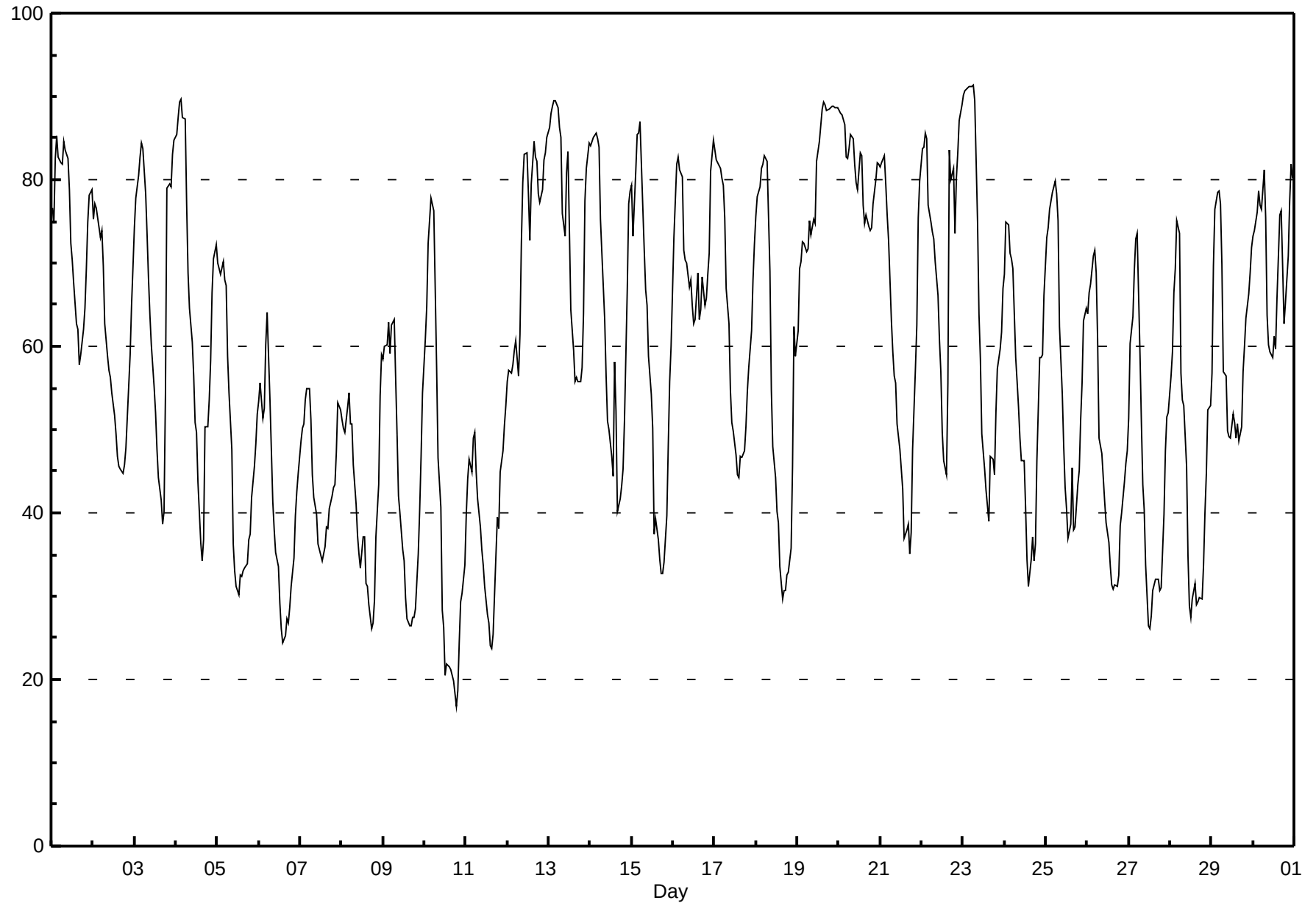
Henry Pirker - June 2015

Number of Exceedences (AAQO): 1-hr: 0 24-hr: 0 Maximum Value: 91.3 % on Jun 23 07:00 Maximum Daily Average: 81.1 % on Jun 20																								Hours in Service: 720 Hours of Data: 720 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0		
Minimum Value: 17 % on Jun 10 19:00 Maximum Diurnal Average: 74.6 % at hour 4 Monthly Average: 58.57 %												Minimum Daily Average: 39.0 % on Jun 11 Minimum Diurnal Average: 44.5 % at hour 15 Percentiles: P ₁ = 21.3 P ₁₀ = 32.7 Q ₁ = 43.7 Median = 58.6 Q ₃ = 75.2 P ₉₀ = 83.2 P ₉₉ = 89.7														
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-Jun	77	75	83	85	83	82	82	85	83	83	79	72	70	68	63	62	58	59	62	65	69	75	78	79	74.0	85.3
2-Jun	75	77	77	74	73	74	70	63	59	57	56	54	52	49	47	46	45	45	46	48	52	59	65	69	59.6	77.1
3-Jun	74	78	81	83	84	84	78	73	68	64	60	55	52	48	44	42	39	40	54	79	79	79	83	85	66.9	84.8
4-Jun	85	87	89	90	87	87	77	69	64	61	57	51	50	44	36	34	37	50	50	54	58	66	71	72	63.6	89.7
5-Jun	70	69	69	70	68	67	59	54	48	36	33	31	30	33	32	33	33	34	37	37	42	46	48	52	47.2	70.2
6-Jun	53	56	51	53	60	64	54	47	41	38	35	34	29	26	24	25	27	27	29	31	35	40	43	45	40.3	64.0
7-Jun	49	50	51	54	55	55	51	45	42	40	36	36	35	34	36	38	38	40	42	43	43	47	53	52	44.4	55.0
8-Jun	51	50	50	53	54	51	51	46	41	37	35	33	37	37	32	31	29	26	27	29	37	43	54	59	41.4	59.0
9-Jun	58	60	60	63	59	62	63	56	49	42	40	36	34	30	27	26	26	27	28	28	35	40	47	54	43.9	63.3
10-Jun	61	65	72	75	78	76	67	57	47	41	28	26	20	22	22	21	20	20	17	19	24	29	30	34	40.5	77.8
11-Jun	40	44	46	45	49	50	45	42	38	36	34	31	28	27	24	24	25	35	39	38	45	47	50	53	39.0	52.9
12-Jun	56	57	57	58	59	61	57	61	72	80	83	83	78	73	79	85	83	82	78	77	79	82	83	85	72.9	85.1
13-Jun	86	88	89	89	90	89	86	85	76	73	81	83	74	64	59	56	56	56	56	58	64	77	81	84	75.1	89.6
14-Jun	84	85	85	86	85	84	75	71	63	56	51	50	47	44	58	52	40	42	43	45	51	67	77	79	63.4	85.6
15-Jun	79	73	81	85	86	87	77	72	67	65	59	54	50	37	39	37	34	33	33	34	40	48	56	60	57.7	86.9
16-Jun	73	77	82	83	81	80	71	70	70	67	68	65	63	63	69	63	64	68	65	66	69	71	81	85	71.5	84.7
17-Jun	84	82	82	81	80	79	75	67	63	55	51	50	47	45	44	47	47	47	50	55	58	62	68	72	62.1	83.6
18-Jun	76	78	79	81	82	83	82	76	69	55	48	44	40	39	33	30	31	31	32	33	36	46	62	59	55.2	82.9
19-Jun	62	69	70	73	72	71	72	75	73	75	75	82	83	85	88	89	89	88	88	89	89	89	89	89	80.2	89.3
20-Jun	88	88	88	87	83	82	84	85	85	82	80	79	83	83	77	75	76	74	74	74	77	80	82	82	81.1	88.3
21-Jun	82	82	83	79	76	73	63	59	56	56	51	48	45	43	37	38	39	35	38	48	57	63	75	80	58.5	82.9
22-Jun	84	84	86	85	77	75	74	73	70	66	61	57	50	46	45	56	84	80	81	74	80	83	87	89	72.7	89.0
23-Jun	90	91	91	91	91	91	91	89	75	64	59	50	45	43	41	39	47	46	45	52	57	60	62	67	65.7	91.3
24-Jun	69	75	74	71	70	69	59	56	53	49	46	46	41	34	31	34	37	34	36	46	59	59	59	66	53.1	75.0
25-Jun	73	74	76	77	79	80	78	75	62	54	48	43	40	37	39	45	38	38	43	45	51	56	63	64	57.5	79.8
26-Jun	64	66	67	71	72	69	61	49	47	44	41	39	36	34	31	31	31	31	33	38	40	44	46	48	47.2	71.5
27-Jun	51	60	63	69	73	74	59	51	43	40	34	26	26	28	31	32	32	32	31	31	40	48	52	52	44.9	73.5
28-Jun	57	59	66	69	75	74	57	54	53	46	35	29	28	30	31	29	29	30	30	34	40	45	52	53	45.9	75.0
29-Jun	57	70	76	78	79	77	70	57	56	50	49	49	52	51	49	51	49	50	57	60	63	66	69	72	60.7	78.7
30-Jun	73	74	76	79	77	76	81	75	64	60	59	59	61	60	66	76	76	70	63	65	71	77	82	80	70.9	81.9
69.4 71.5 73.4 74.6 74.6 74.2 68.9 64.6 60.0 55.7 52.4 49.9 47.6 45.2 44.5 44.9 45.3 45.7 46.9 49.8 54.7 59.8 65.0 67.3																								Diurnal Average		
90.1 90.7 90.9 91.1 91.1 91.1 91.3 89.4 84.9 82.5 83.0 83.4 83.3 84.5 88.5 89.3 89.0 88.4 88.5 88.6 88.9 88.9 88.6 89.0																								Diurnal Maximum		

Hourly Averages

Relative Humidity (RH) - %

Henry Pirker - June 2015



Hourly Averages

Solar Radiation (SR) - W/m²

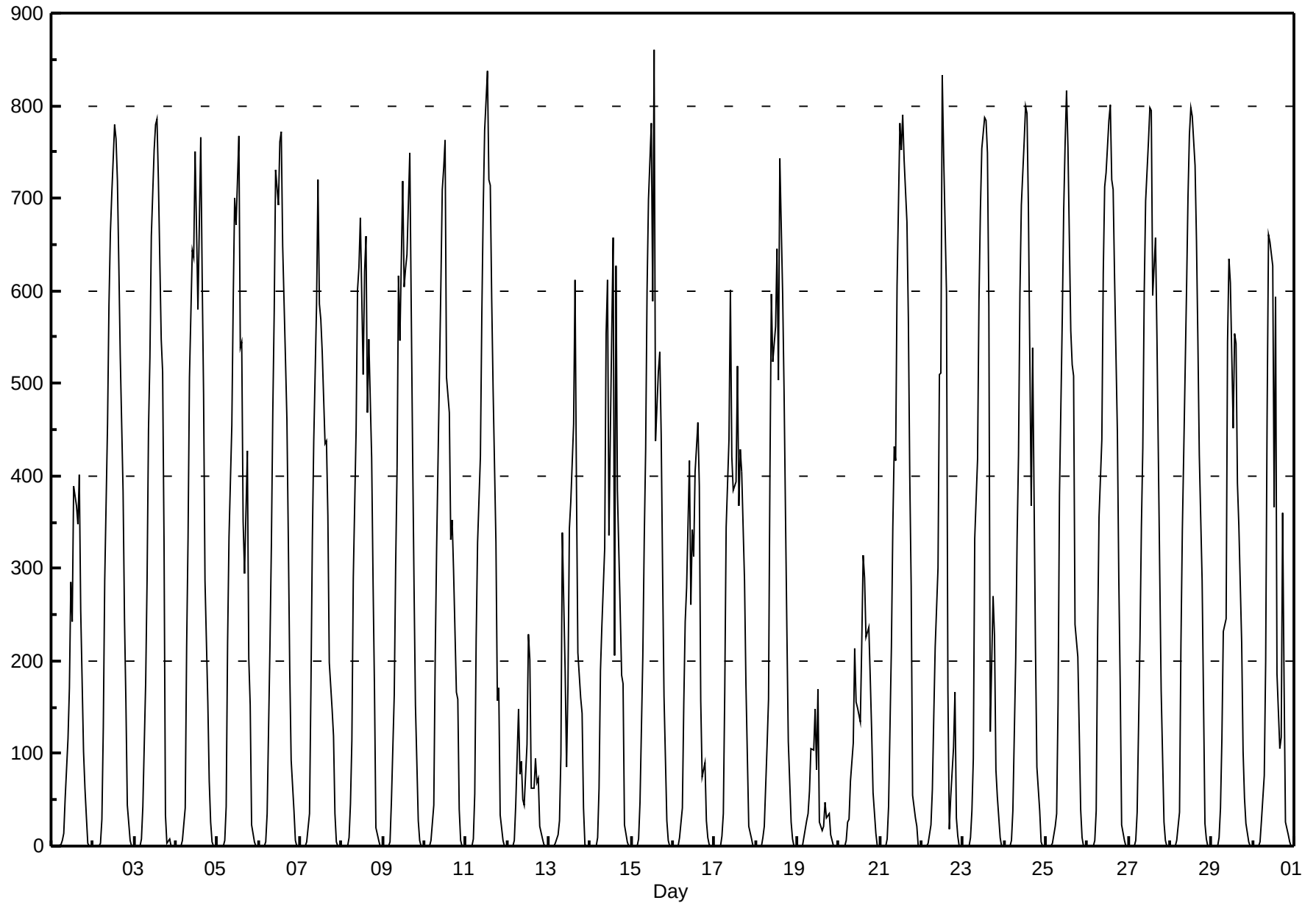
Henry Pirker - June 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 860.7 W/m ² on Jun 15 14:00 Maximum Daily Average: 320.5 W/m ² on Jun 26																								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 Jun 1 01:00 Maximum Diurnal Average: 599.9 W/m ² at hour 14 Monthly Average: 234.38 W/m ²																								Minimum Daily Average: 39.1 W/m ² on Jun 19 Minimum Diurnal Average: 0.0 W/m ² at hour 2 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.2 Median = 116.1 Q ₃ = 437.2 P ₉₀ = 660.6 P ₉₉ = 797.5		
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-Jun	0	0	0	0	0	2	6	13	52	117	172	285	242	389	368	347	402	254	102	63	32	4	0	0	118.8	401.6
2-Jun	0	0	0	0	3	28	128	287	457	584	662	704	779	764	718	627	530	384	246	156	45	6	0	0	296.2	779.4
3-Jun	0	0	0	0	7	42	178	288	450	528	660	752	780	786	720	548	512	327	34	4	8	1	0	0	276.0	785.9
4-Jun	0	0	0	0	6	41	215	333	506	644	636	751	666	580	765	614	488	287	156	70	26	4	0	0	282.8	765.1
5-Jun	0	0	0	0	5	43	219	334	455	592	699	672	767	539	545	351	294	427	202	152	23	5	0	0	263.5	766.8
6-Jun	0	0	0	0	4	36	217	326	468	577	731	693	761	772	649	524	460	331	190	93	39	7	0	0	286.6	772.4
7-Jun	0	0	0	0	5	35	170	329	437	586	721	586	570	535	435	438	358	199	148	119	35	5	0	0	238.0	720.6
8-Jun	0	0	0	0	10	45	115	289	450	601	626	679	510	621	659	468	548	420	286	169	19	6	0	0	271.8	679.1
9-Jun	0	0	0	0	5	49	164	304	408	616	546	718	605	624	639	750	586	425	282	153	28	6	0	0	287.8	749.6
10-Jun	0	0	0	0	7	45	205	322	416	605	709	733	762	506	469	331	353	298	166	159	39	6	0	0	255.4	762.1
11-Jun	0	0	0	0	7	56	224	328	420	574	689	773	838	720	714	590	493	329	156	170	34	6	0	0	296.8	837.7
12-Jun	0	0	0	0	5	44	148	79	92	51	44	110	228	202	62	63	94	69	73	21	7	1	0	0	58.0	228.1
13-Jun	0	0	0	0	3	12	27	99	339	189	86	174	343	373	456	612	391	209	161	143	41	2	0	0	152.4	612.0
14-Jun	0	0	0	0	9	63	189	238	322	554	612	336	555	658	206	628	384	253	184	175	22	5	0	0	224.7	658.0
15-Jun	0	0	0	0	7	47	206	331	429	601	699	781	589	861	438	513	534	444	296	161	28	7	0	0	290.5	860.7
16-Jun	0	0	0	0	9	41	154	242	280	417	261	342	312	405	458	389	158	74	90	28	9	1	0	0	152.9	458.0
17-Jun	0	0	0	0	10	35	167	345	440	601	422	385	394	519	368	429	404	287	176	98	21	7	0	0	212.8	600.8
18-Jun	0	0	0	0	8	21	110	158	402	596	523	561	646	503	743	597	492	359	231	113	26	8	0	0	254.1	743.1
19-Jun	0	0	0	0	9	28	35	59	105	104	149	82	169	26	18	21	47	31	35	13	6	1	0	0	39.1	168.8
20-Jun	0	0	0	0	6	25	29	70	111	214	155	150	134	217	315	289	225	236	183	125	57	14	0	0	106.5	314.9
21-Jun	0	0	0	0	8	43	215	344	432	417	606	781	752	791	742	675	571	399	281	56	31	21	0	0	298.5	790.5
22-Jun	0	0	0	0	3	23	62	141	216	301	509	511	832	745	598	170	19	54	107	167	30	10	0	0	187.4	832.4
23-Jun	0	0	0	0	9	37	95	332	418	589	686	753	787	784	748	582	123	269	227	83	53	10	0	0	274.5	786.9
24-Jun	0	0	0	0	7	38	202	332	423	597	693	761	800	792	690	367	538	379	216	85	38	4	0	0	290.1	799.7
25-Jun	0	0	0	0	3	21	35	154	380	572	688	760	817	755	557	520	507	239	204	124	40	9	0	0	266.0	816.8
26-Jun	0	0	0	0	6	37	226	355	440	619	712	727	784	800	720	709	615	447	290	174	23	7	0	0	320.5	800.5
27-Jun	0	0	0	0	6	37	222	345	430	599	697	762	798	795	595	658	550	423	294	167	26	7	0	0	308.8	797.6
28-Jun	0	0	0	0	6	36	219	341	427	604	702	769	798	788	735	655	546	422	287	155	25	7	0	0	313.5	798.4
29-Jun	0	0	0	0	9	41	116	232	246	545	635	609	452	553	544	392	346	220	103	52	24	4	0	0	213.4	634.7
30-Jun	0	0	0	0	5	28	77	200	462	661	653	626	366	593	186	105	117	360	180	25	13	5	0	0	194.2	661.2
	0.0	0.0	0.0	0.1	6.3	36.0	145.8	251.7	363.8	495.1	546.0	577.5	594.5	599.9	528.7	465.3	389.5	295.2	186.2	109.1	28.3	6.2	0.1	0.0	Diurnal Average	
	0.1	0.0	0.1	0.2	10.2	62.7	226.0	355.0	505.9	661.2	730.6	781.1	837.7	860.7	765.1	749.6	614.7	446.9	296.0	175.0	57.4	20.9	0.3	0.0	Diurnal Maximum	

Hourly Averages

Solar Radiation (SR) - W/m²

Henry Pirker - June 2015



Hourly Averages

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

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	3	8	13	11	9	8	6	4	6	4	5	3	4	6	4	2	1	2	2	3	2	2	1	3	3.3	13.3
Dir	272	291	295	311	321	307	318	1	317	319	289	277	239	244	237	220	207	107	84	164	240	326	18	45	298.8	295.3
2 Spd	6	5	6	7	10	10	10	12	12	12	11	9	9	9	8	8	9	9	10	11	11	10	9	7	8.8	12.5
Dir	52	70	51	58	56	54	65	73	86	84	82	92	89	73	70	45	46	53	51	52	56	68	57	48	64.8	83.6
3 Spd	6	6	5	3	3	4	6	5	3	4	4	3	3	3	3	6	6	2	9	15	16	12	4	2	1.4	16.0
Dir	45	48	34	19	13	34	48	71	38	59	48	41	62	119	53	55	76	95	188	189	226	226	199	172	100.8	225.5
4 Spd	2	2	3	2	3	2	3	3	2	2	3	4	5	4	4	4	7	14	9	8	9	8	5	6	4.4	13.9
Dir	176	140	134	152	155	132	200	212	204	175	165	212	207	218	179	188	181	186	193	192	141	165	182	184	179.8	185.7
5 Spd	6	5	7	5	6	5	10	12	11	15	14	16	17	20	21	20	22	26	22	16	9	7	10	9	12.2	25.9
Dir	176	201	216	256	250	263	210	197	195	202	201	208	207	219	218	225	237	231	225	202	180	183	210	206	214.4	230.6
6 Spd	8	7	11	7	4	3	6	12	23	21	18	16	15	17	20	21	19	16	18	16	10	7	11	8	12.6	22.8
Dir	202	213	226	219	180	192	208	227	235	244	250	242	240	234	233	226	219	223	213	209	206	195	213	210	225.1	235.0
7 Spd	4	5	6	5	5	5	7	10	12	16	16	22	22	24	23	25	23	19	11	7	10	5	5	7	11.8	24.6
Dir	187	201	198	184	191	198	213	212	219	230	228	230	230	225	233	232	231	226	201	186	209	230	209	194	220.8	232.4
8 Spd	11	13	10	6	8	12	10	16	21	25	27	27	20	22	19	20	21	16	13	9	5	4	1	1	13.7	27.3
Dir	238	246	215	225	235	213	205	222	223	218	218	217	230	245	241	226	237	240	241	244	247	291	271	212	229.5	217.6
9 Spd	2	2	4	4	4	3	3	2	1	2	3	3	7	3	7	3	6	6	3	1	7	3	1	1	1.7	7.1
Dir	168	180	248	226	244	258	253	270	255	207	252	273	303	275	320	297	324	303	310	229	97	101	88	84	277.1	319.6
10 Spd	1	1	1	3	2	2	3	2	2	3	3	4	6	6	4	5	7	8	12	7	5	4	10	9	3.8	12.1
Dir	84	81	83	99	93	103	124	121	197	190	197	154	173	163	242	196	190	224	203	195	205	198	213	210	189.5	202.8
11 Spd	6	5	5	4	3	4	11	18	21	24	20	23	23	23	24	26	25	29	23	23	21	17	14	15	16.8	29.1
Dir	193	215	228	197	201	225	201	219	227	222	229	224	224	224	218	217	231	240	227	218	211	215	208	213	221.0	239.5
12 Spd	13	13	17	16	14	14	19	17	18	18	15	12	12	14	6	12	11	11	15	17	16	16	14	12	13.2	19.0
Dir	209	206	205	208	209	207	221	235	236	219	213	198	190	182	247	270	264	254	254	252	241	230	232	229	224.6	220.7
13 Spd	9	8	5	4	6	8	7	7	8	6	5	8	2	1	2	5	6	6	7	8	6	3	5	4	3.4	9.3
Dir	232	230	218	278	290	300	321	355	356	0	360	48	159	179	228	234	251	265	265	259	250	317	270	271	281.9	231.8
14 Spd	6	5	6	5	4	3	7	5	7	8	8	8	9	12	7	1	6	6	2	8	3	2	1	4	3.5	12.2
Dir	268	269	279	277	268	250	275	297	325	325	327	327	333	311	337	329	26	58	28	80	111	193	209	273	315.7	311.1
15 Spd	4	4	0	0	1	1	3	3	2	5	2	4	1	2	2	3	3	4	3	2	2	3	2	2	0.8	4.9
Dir	309	16	61	309	265	205	196	203	169	205	217	228	211	170	96	111	153	134	205	262	62	81	58	51	174.7	205.2
16 Spd	0	2	1	2	3	1	4	5	7	8	8	7	8	7	10	8	7	6	6	7	5	4	4	4	4.7	10.2
Dir	162	299	272	277	289	274	61	7	351	336	334	342	346	2	4	359	11	9	358	1	5	17	353	334	352.7	3.9
17 Spd	3	3	4	4	5	4	3	6	8	7	6	5	5	5	4	6	9	8	10	8	7	6	7	6	4.3	10.0
Dir	353	343	352	355	353	359	43	51	70	73	70	71	63	109	119	131	116	98	114	116	109	97	91	86	81.1	113.6
18 Spd	4	5	6	4	2	2	3	3	6	10	9	11	10	9	10	11	9	8	7	3	3	1	0	3	3.3	11.2
Dir	62	49	62	62	69	122	197	193	212	226	238	225	224	248	256	252	262	271	261	249	282	309	187	37	243.0	225.5
19 Spd	4	4	5	4	5	5	6	4	3	3	6	3	1	6	5	3	13	13	12	9	10	13	8	7	2.3	13.4
Dir	18	17	16	9	12	23	40	116	355	19	360	151	247	200	280	272	208	203	214	235	218	222	216	220	230.0	221.5
20 Spd	7	6	7	8	11	8	9	10	10	13	10	9	11	11	10	9	10	11	10	10	8	9	3	5	8.8	12.8
Dir	226	204	186	200	213	204	198	191	203	211	210	210	211	210	211	201	198	204	205	211	209	229	252	248	208.1	210.7
21 Spd	5	5	7	8	10	9	9	10	12	10	8	6	6	6	6	9	12	6	7	12	4	1	1	1	5.8	11.9
Dir	222	209	181	188	208	226	216	228	231	223	226	213	221	203	207	171	165	179	240	294	342	321	244	275	215.5	230.6
22 Spd	1	1	0	2	4	7	4	4	7	7	7	7	6	5	3	6	3	2	4	6	5	4	2	1	3.5	7.5
Dir	238	252	208	218	202	215	213	202	199	203	237	260	266	267	247	257	261	197	254	246	204	194	176	56	229.0	260.5

Hourly Averages

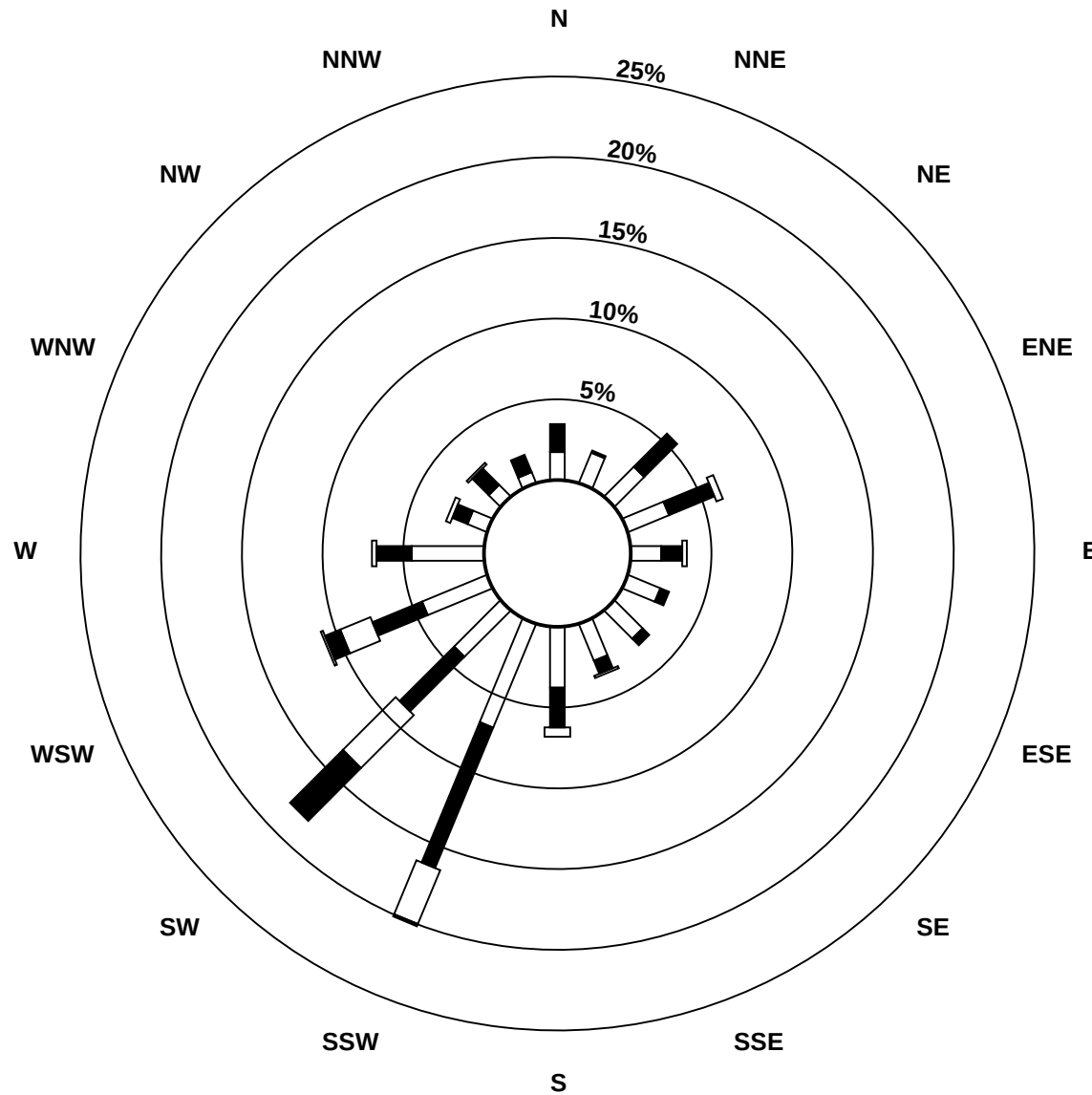
Wind Speed (km/h)
Wind Direction (deg)
Henry Pirker - June 2015

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
23 Spd	1	0	1	1	2	1	3	1	2	3	3	3	3	3	4	2	3	4	7	6	6	6	6	3	2.2	7.1	
Dir	86	78	141	121	190	246	205	229	153	182	141	207	227	264	270	309	245	168	179	161	156	163	165	155	183.2	178.9	
24 Spd	3	3	2	3	3	3	4	6	8	6	4	4	5	4	4	5	6	11	4	17	15	12	4	5	4.9	16.5	
Dir	173	153	182	241	249	223	214	200	206	199	238	278	245	256	196	209	171	130	145	226	203	201	196	186	203.2	226.1	
25 Spd	2	1	1	2	3	3	4	2	2	6	5	6	6	5	4	6	8	15	10	10	7	6	4	6	4.2	15.3	
Dir	159	49	116	125	130	126	124	121	142	193	208	207	210	210	203	286	206	225	223	222	224	212	226	199	206.4	224.9	
26 Spd	6	5	7	5	4	9	13	17	18	22	20	20	20	19	17	17	16	18	15	10	9	8	7	8	12.5	21.6	
Dir	199	189	198	205	217	204	218	233	243	241	240	233	239	236	230	234	239	233	246	243	257	245	218	236	232.9	241.0	
27 Spd	5	1	3	3	2	4	4	4	1	2	3	1	2	4	5	5	6	3	1	5	7	5	2	3	1.2	7.2	
Dir	241	236	107	125	125	117	170	224	217	134	146	160	39	66	59	62	74	72	161	188	230	251	268	232	154.5	229.9	
28 Spd	2	2	0	1	0	2	4	4	5	7	5	4	4	5	7	1	2	2	3	5	5	3	2	2	1.2	7.0	
Dir	147	249	305	19	289	198	196	220	264	261	258	248	279	270	286	337	343	342	43	55	64	49	33	34	282.0	261.0	
29 Spd	2	1	2	1	2	1	1	5	5	8	9	9	8	10	10	10	12	12	9	8	7	5	4	3	5.4	12.4	
Dir	18	264	297	252	274	290	34	59	51	54	62	59	59	66	67	63	70	74	69	57	54	62	45	105	61.2	74.0	
30 Spd	2	1	3	4	5	6	4	6	8	11	13	13	10	11	8	6	5	6	7	12	8	7	5	5	5.8	13.4	
Dir	144	184	188	226	226	240	260	268	252	264	264	256	242	253	226	191	138	145	181	232	192	225	226	219	231.1	264.3	
Spd	2.2	1.8	2.2	1.9	2.1	2.3	3.1	3.8	4.8	5.8	5.3	5.7	5.6	5.9	5.2	5.3	5.2	5.7	5.7	5.6	4.4	3.7	2.9	2.9	Diurnal Average		
Dir	211.9	222.9	217.7	222.0	230.0	224.0	210.9	217.9	230.1	225.8	232.3	226.6	229.2	227.6	234.7	226.9	219.9	216.6	216.8	217.4	205.2	209.7	209.6	210.0	Diurnal Maximum		
Spd	13.0	13.4	16.7	16.2	14.1	13.8	19.0	18.0	22.8	25.0	27.3	27.2	23.1	23.6	23.8	26.3	25.2	29.1	23.0	23.3	20.9	17.1	14.2	15.5			
Dir	209.0	206.5	204.6	208.0	209.0	207.4	220.7	218.7	235.0	218.0	217.6	217.3	224.0	224.7	218.4	216.6	231.4	239.5	226.6	218.1	211.1	215.0	208.0	213.1			
Maximum Speed Value: 29 km/h on Jun 11 18:00								Minimum Speed Value: 0 km/h on Jun 18 23:00												Hours in Service: 720							
Maximum Daily Speed Average: 16.8 km/h on Jun 11								Minimum Daily Speed Average: 0.8 km/h on Jun 15												Hours of Data: 720							
Maximum Diurnal Speed Average: 5.9 km/h at hour 14								Minimum Diurnal Speed Average: 1.8 km/h at hour 2												Hours of Missing Data: 0							
Monthly Average Velocity: 4.08 km/h 221.62 deg								Speed Percentiles: P ₁ = 0.5 P ₁₀ = 1.9 Q ₁ = 3.4 Median = 5.8 Q ₃ = 9.6 P ₉₀ = 15.8 P ₉₉ = 24.9												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	25		17		0		0		0		0		42														
NorthEast	31		40		1		0		0		0		72														
East	24		21		5		0		0		0		50														
SouthEast	37		7		1		0		0		0		45														
South	55		52		12		0		0		0		119														
SouthWest	63		89		64		41		1		0		258														
West	53		33		9		0		0		0		95														
NorthWest	17		18		4		0		0		0		39														
Total	305		277		96		41		1		0		720														

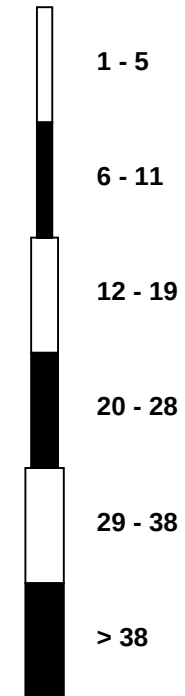
Wind Rose

Wind Speed (WS) (km/h)

Henry Pirker - June 2015



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Henry Pirker - June 2015

Maximum Speed: 29 km/h on Jun 11 18:00																				Maximum Daily Speed Average: 17.4 km/h on Jun 11										Hours in Service: 720	
Minimum Speed: 0 km/h on Jun 18 23:00																				Minimum Daily Speed Average: 3.1 km/h on Jun 15										Hours of Data: 720	
Maximum Diurnal Speed Average: 10.6 km/h at hour 18																				Minimum Diurnal Speed Average: 4.6 km/h at hour 2										Hours of Missing Data: 0	
Monthly Average Speed: 7.71 km/h																				Percentiles: P ₁ = 0.6 P ₁₀ = 2.2 Q ₁ = 3.8 Median = 6.1 Q ₃ = 9.9 P ₉₀ = 16.2 P ₉₉ = 24.9										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-Jun	3	8	13	11	10	8	6	4	6	4	5	4	4	6	4	2	3	3	3	3	2	3	1	3	5.0	13.4					
2-Jun	6	6	6	7	10	10	11	12	12	13	12	9	10	10	9	8	9	9	11	11	11	10	9	7	9.5	12.9					
3-Jun	6	6	5	4	3	4	6	5	3	5	5	4	5	5	5	6	8	4	10	16	16	12	4	3	6.2	16.4					
4-Jun	2	2	3	2	3	2	3	3	3	3	4	5	6	5	5	5	8	14	10	8	9	8	5	6	5.1	14.1					
5-Jun	6	5	7	6	6	5	10	12	11	15	14	17	17	20	22	20	22	26	22	16	9	7	10	9	13.2	26.4					
6-Jun	8	7	11	7	4	3	6	12	23	21	19	17	16	18	20	21	19	17	19	16	10	7	11	8	13.4	22.9					
7-Jun	4	5	6	5	5	5	7	10	12	16	17	23	22	24	24	25	24	19	12	7	10	5	5	7	12.4	24.9					
8-Jun	12	13	10	7	8	12	10	16	22	25	28	28	21	23	19	21	21	17	13	9	5	4	2	1	14.5	27.6					
9-Jun	2	3	4	4	4	3	4	3	2	3	4	5	8	5	8	6	7	6	4	2	7	4	2	2	4.2	8.0					
10-Jun	2	1	1	3	2	2	3	2	2	3	4	5	7	8	5	6	9	9	12	7	6	4	10	9	5.2	12.3					
11-Jun	6	6	5	4	3	4	11	18	21	24	21	23	24	24	24	27	26	29	23	24	21	17	14	16	17.4	29.4					
12-Jun	13	14	17	16	14	14	19	17	18	18	16	12	12	14	11	12	12	11	15	17	16	16	14	12	14.6	19.2					
13-Jun	9	8	5	4	6	8	7	7	8	6	6	9	3	2	3	5	6	6	7	8	6	5	5	4	6.1	9.4					
14-Jun	6	5	6	5	4	3	7	5	8	8	8	9	10	13	9	4	6	7	3	8	4	2	1	4	6.0	12.5					
15-Jun	5	4	0	0	1	1	3	3	3	5	3	4	3	4	4	4	4	5	4	3	3	3	2	2	3.1	5.2					
16-Jun	1	2	2	2	3	2	5	5	7	9	9	8	8	8	11	9	8	6	7	7	5	4	4	5	5.6	10.6					
17-Jun	3	3	4	4	5	4	3	7	8	7	7	5	6	7	6	7	9	8	10	8	7	6	7	6	6.2	10.3					
18-Jun	5	5	6	4	2	2	3	4	6	11	10	12	10	10	11	11	9	8	7	3	3	1	0	3	6.1	11.7					
19-Jun	4	5	5	4	5	5	6	5	3	3	6	6	2	7	6	5	13	13	12	9	10	14	8	8	6.8	13.6					
20-Jun	8	7	8	8	11	8	9	10	10	13	10	10	11	11	10	9	11	11	10	10	9	9	3	5	9.2	13.0					
21-Jun	5	5	7	9	10	9	9	10	12	10	8	7	7	6	7	10	12	8	7	13	5	2	1	2	7.5	12.5					
22-Jun	1	1	1	2	4	7	4	4	7	7	7	8	7	5	4	9	5	3	4	6	5	4	2	1	4.5	9.3					
23-Jun	1	1	1	1	2	2	3	1	2	3	3	4	4	3	5	3	4	5	7	6	6	6	6	3	3.4	7.4					
24-Jun	3	3	2	4	4	3	4	6	8	7	5	4	5	5	5	6	8	12	5	17	16	12	4	6	6.3	17.3					
25-Jun	3	1	1	2	3	3	4	2	2	7	6	7	7	6	7	6	9	16	10	10	7	6	5	6	5.7	15.6					
26-Jun	6	5	7	5	5	9	13	17	18	22	20	20	20	19	18	17	16	19	15	10	9	8	8	8	13.1	21.9					
27-Jun	6	1	3	3	2	4	4	4	2	3	4	2	4	5	6	6	6	3	2	6	8	5	2	4	3.9	7.7					
28-Jun	3	3	1	2	0	2	4	4	6	7	5	4	5	5	7	3	4	3	4	5	5	3	2	2	3.7	7.4					
29-Jun	2	1	2	1	2	1	1	5	6	8	9	9	8	10	10	10	12	13	10	8	7	5	4	4	6.2	12.5					
30-Jun	3	2	3	4	5	6	4	6	8	11	14	13	10	11	9	6	5	6	8	13	9	9	5	5	7.3	13.6					
4.8 4.6 5.0 4.8 4.9 5.1 6.3 7.4 8.6 10.0 9.6 9.7 9.3 10.0 9.8 9.7 10.5 10.6 9.5 9.5 8.2 6.6 5.2 5.3																									Diurnal Average						
13.1 13.6 16.8 16.3 14.2 13.9 19.2 18.4 22.9 25.4 27.6 27.6 23.6 24.0 24.4 27.0 26.3 29.4 23.3 23.6 21.2 17.2 14.3 15.6																									Diurnal Maximum						
All monthly, daily, and diurnal averages have been calculated using scalar methods																															

Hourly Standard Deviations

Wind Direction (WD) - deg

Henry Pirker - June 2015

Maximum Value: 99.1 deg on Jun 14 16:00																			Hours in Service: 720						
Minimum Value: 6.3 deg on Jun 12 23:00																			Hours of Data: 720						
Percentiles: P ₁ = 6.9 P ₁₀ = 9.5 Q ₁ = 11.9 Median = 17.3 Q ₃ = 30.3 P ₉₀ = 51.0 P ₉₉ = 85.4																			Hours of Missing Data: 0						
																			Hours of Calibration: 0						
																			Percent Operational Time: 100.0						
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jun	58	10	7	11	12	9	21	23	10	17	22	42	18	14	43	48	82	45	38	31	39	21	15	9	82.4
2-Jun	14	21	10	7	8	9	10	9	13	15	22	23	23	23	33	23	20	19	14	10	7	9	10	8	32.7
3-Jun	10	14	10	21	16	13	12	17	45	33	34	53	65	53	55	34	45	68	37	18	14	12	33	25	68.4
4-Jun	13	21	17	18	13	15	32	26	39	43	35	47	35	53	40	55	30	10	14	14	13	11	15	11	55.0
5-Jun	9	22	10	30	15	30	13	9	12	13	14	15	17	13	12	12	11	12	10	14	13	11	12	13	30.3
6-Jun	10	16	8	16	16	19	16	14	7	13	14	13	14	16	13	11	16	18	9	9	10	9	8	10	18.7
7-Jun	15	13	11	11	8	12	13	13	16	15	15	12	10	10	9	9	8	11	13	16	11	18	30	12	29.9
8-Jun	10	9	13	36	16	7	9	11	10	11	9	10	15	18	12	13	13	14	13	12	9	13	36	45	45.0
9-Jun	31	25	19	29	20	20	17	27	79	56	46	57	44	70	33	68	38	46	77	54	11	15	17	20	79.1
10-Jun	26	31	29	27	17	16	22	40	42	30	43	50	38	41	41	45	32	30	12	14	23	25	11	8	49.6
11-Jun	8	20	16	15	20	24	10	13	12	13	12	13	12	15	12	13	16	7	10	10	9	7	8	7	23.9
12-Jun	8	9	8	7	8	8	10	11	8	8	14	12	14	13	58	10	12	8	8	9	7	7	6	7	57.8
13-Jun	8	10	18	29	6	10	16	17	19	22	23	20	44	79	56	36	24	19	12	11	9	49	11	12	78.5
14-Jun	8	9	10	9	14	18	10	29	15	15	20	20	21	14	48	99	26	27	37	13	24	58	46	11	99.1
15-Jun	29	17	49	76	56	51	15	18	39	19	47	31	76	76	77	58	49	53	61	56	56	14	9	22	76.5
16-Jun	71	44	30	22	24	67	33	25	23	22	22	21	22	22	16	25	25	21	16	19	19	22	17	16	71.4
17-Jun	16	16	15	17	16	17	24	19	20	20	25	34	42	46	48	32	20	21	16	14	14	12	8	10	48.2
18-Jun	12	10	11	16	19	22	21	16	22	17	17	19	23	19	18	21	19	15	12	15	23	29	79	19	78.9
19-Jun	21	17	17	16	17	17	13	31	33	21	19	79	46	48	34	55	10	11	13	15	20	12	14	15	78.9
20-Jun	22	27	11	12	8	12	11	11	12	11	13	14	12	11	13	15	15	10	13	10	12	10	9	10	26.9
21-Jun	27	27	14	11	10	11	9	13	10	16	17	25	27	27	36	30	15	34	18	25	24	90	50	28	90.4
22-Jun	68	29	47	32	17	12	19	16	13	12	25	16	22	35	66	58	81	42	37	11	25	17	28	61	80.9
23-Jun	24	41	58	56	34	49	17	59	45	39	43	41	54	51	38	67	40	26	15	14	17	9	8	11	67.4
24-Jun	24	23	67	32	21	21	18	14	12	17	27	25	25	53	36	38	46	14	24	21	11	11	29	26	66.5
25-Jun	36	60	89	10	13	11	10	17	37	20	30	27	34	37	53	34	38	13	16	15	21	17	37	11	88.9
26-Jun	13	9	15	20	38	11	8	8	8	9	8	10	10	11	13	14	13	10	8	9	10	8	27	10	38.2
27-Jun	23	68	24	25	14	10	24	23	61	46	27	86	70	56	33	29	27	43	75	28	22	7	58	21	85.7
28-Jun	47	55	74	52	73	22	14	21	16	11	21	43	37	31	23	88	70	73	54	30	11	11	15	21	88.0
29-Jun	21	86	22	40	30	26	86	13	20	20	16	17	19	15	15	16	12	9	11	11	8	11	14	33	86.4
30-Jun	35	51	25	15	15	12	12	12	13	12	10	11	13	12	16	21	20	23	15	23	23	40	31	29	51.1
	71.4	86.4	88.9	76.3	73.5	66.8	85.5	59.2	79.1	55.6	47.0	85.7	76.1	78.5	76.5	99.1	82.4	72.7	76.9	55.6	55.9	90.4	78.9	61.4	

PAZA

Evergreen Park Station

Monthly Summary Tables, Graphs and
Roses

Hourly Averages

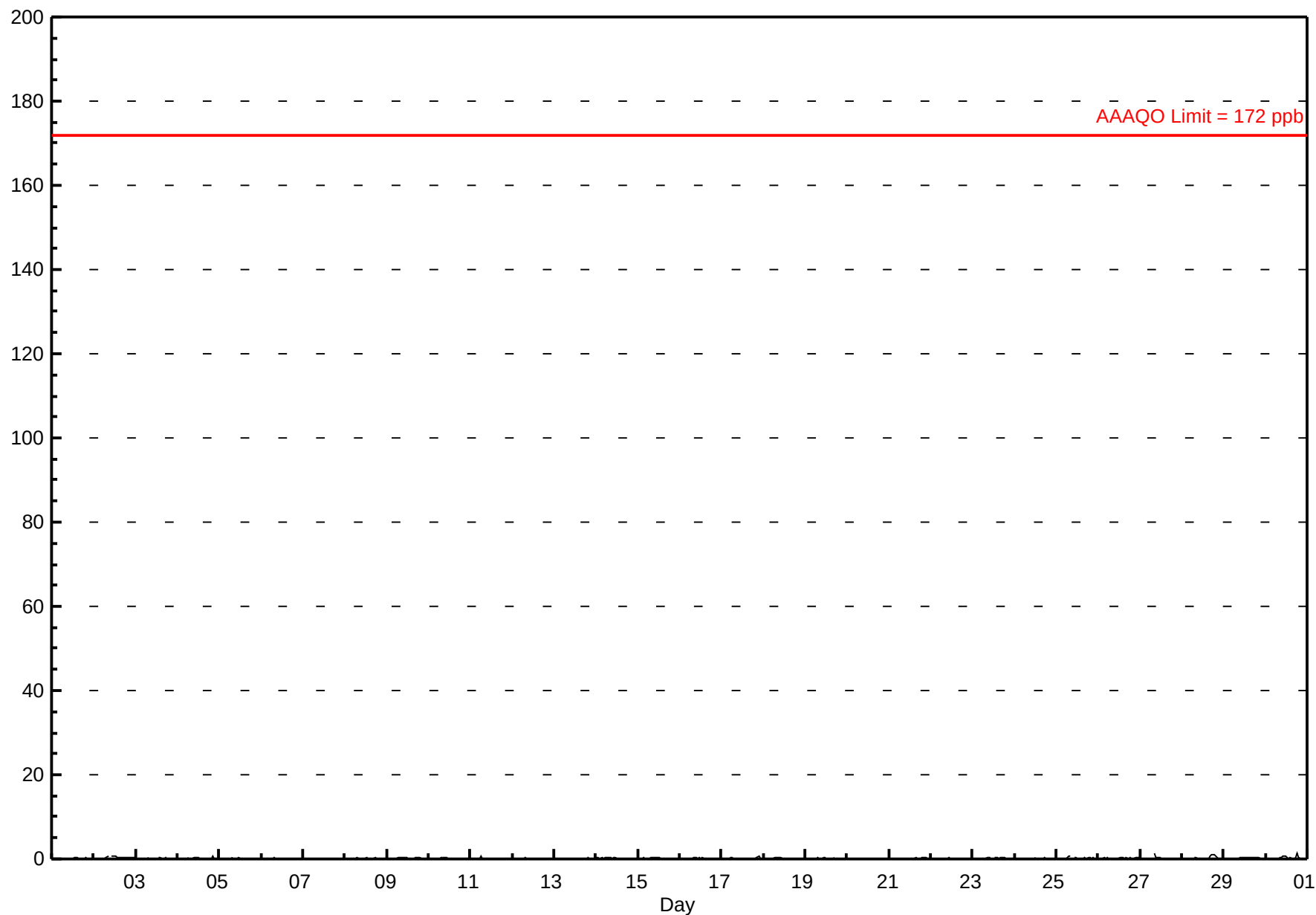
Sulphur Dioxide (SO₂) - ppb

Evergreen Park - June 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0																				Hours in Service: 720						
Maximum Value: 1.3 ppb on Jun 30 19:00																				Maximum Daily Average: 0.3 ppb on Jun 2		Hours of Data: 685				
Minimum Value: 0 ppb on Jun 1 01:00																				Minimum Daily Average: 0.0 ppb on Jun 20		Hours of Missing Data: 35				
Maximum Diurnal Average: 0.2 ppb at hour 9																				Minimum Diurnal Average: 0.1 ppb at hour 5		Hours of Calibration: 35				
Monthly Average: 0.13 ppb																				Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 0.3 P ₉₉ = 0.8		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-Jun	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
2-Jun	0	0	0	0	0	0	0	0	1	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8
3-Jun	0	0	0	0	0	0	0	0	A	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
4-Jun	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.2	0.6
5-Jun	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
6-Jun	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
7-Jun	0	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
8-Jun	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-Jun	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-Jun	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-Jun	A	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.1	0.6
12-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.0	0.3
13-Jun	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-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	0.5
15-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.2	0.4
16-Jun	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-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	0	0	0.1	0.6
18-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.1	0.4
19-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.1	0.2
20-Jun	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-Jun	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
22-Jun	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
23-Jun	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
24-Jun	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
25-Jun	0	0	0	0	0	0	0	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
26-Jun	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
27-Jun	0	0	0	0	0	0	0	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.2
28-Jun	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0.2	1.1
29-Jun	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-Jun	0	0	0	0	A	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0.2	1.3
0.1																									Diurnal Average	
0.2																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb																										

Hourly Averages

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



Hourly Maximums

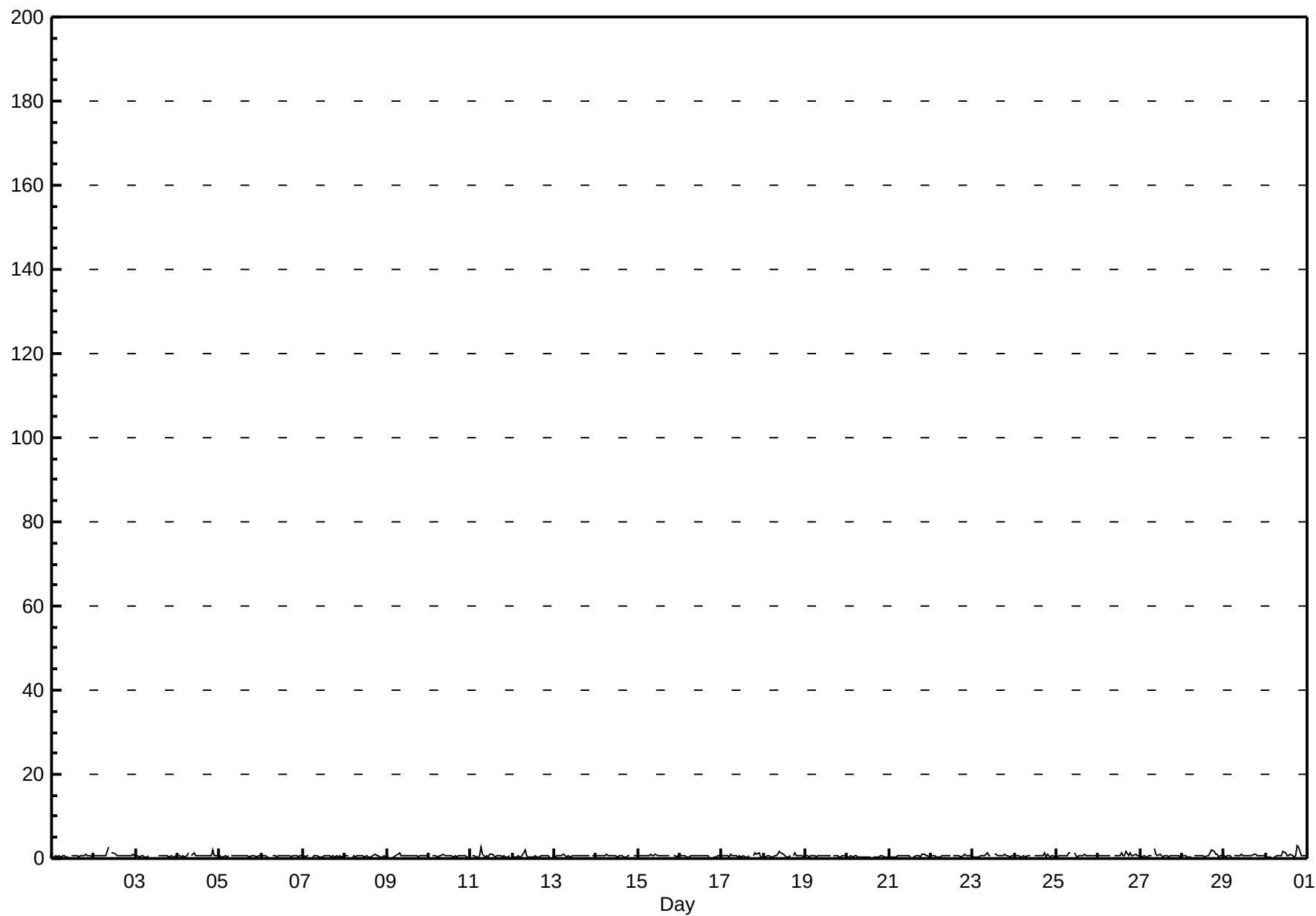
Sulphur Dioxide (SO₂) - ppb

Evergreen Park - June 2015

Maximum Value: 2.9 ppb on Jun 30 19:00																				Maximum Daily Average: 0.9 ppb on Jun 30										Hours in Service: 720	
Minimum Value: 0 ppb on Jun 20 18:00																				Minimum Daily Average: 0.4 ppb on Jun 20										Hours of Data: 685	
Maximum Diurnal Average: 0.8 ppb at hour 9																				Minimum Diurnal Average: 0.5 ppb at hour 5										Hours of Missing Data: 35	
Monthly Average: 0.65 ppb																				Percentiles: P ₁ = 0.4 P ₁₀ = 0.4 Q ₁ = 0.5 Median = 0.6 Q ₃ = 0.7 P ₉₀ = 0.8 P ₉₉ = 2.0										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-Jun	0	0	1	0	1	0	1	1	0	A	1	1	1	1	0	1	1	1	1	1	1	1	0	0.6	0.9						
2-Jun	1	1	1	1	1	1	1	1	3	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	2.7						
3-Jun	1	1	0	1	1	0	0	1	A	C	C	C	C	1	1	1	1	1	1	0	1	1	0	0.6	0.8						
4-Jun	1	1	0	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	0.7	2.0						
5-Jun	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	1	0.6	0.8						
6-Jun	0	1	1	0	1	A	1	1	1	0	1	1	1	1	1	1	1	0	1	1	1	0	1	0.6	0.8						
7-Jun	1	0	1	1	A	0	1	1	1	0	0	0	1	1	1	1	0	1	0	1	0	1	0	0.5	0.8						
8-Jun	1	1	1	A	0	1	0	1	1	1	1	0	1	0	0	0	1	1	1	1	0	0	1	0.6	1.0						
9-Jun	0	1	A	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0.6	1.2						
10-Jun	1	A	1	1	1	0	1	1	1	1	1	1	1	1	0	1	0	1	1	1	1	1	0	0.6	1.0						
11-Jun	A	1	1	0	1	1	3	1	0	1	0	1	1	1	0	1	1	1	0	1	0	0	1	A	0.7	2.8					
12-Jun	1	0	0	1	0	0	1	2	1	0	0	0	0	1	0	0	1	1	1	1	1	0	A	1	0.6	2.1					
13-Jun	0	1	1	1	1	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.6	1.0					
14-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	A	1	1	1	0.6	1.0					
15-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0	1	0.7	1.0					
16-Jun	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	0	A	0	0	0	1	1	0.6	0.8					
17-Jun	1	1	1	1	0	1	1	1	1	0	1	0	1	0	0	0	1	A	1	1	1	1	0	0	0.7	1.4					
18-Jun	0	0	1	1	0	1	1	1	1	2	1	1	1	0	0	1	A	1	1	1	1	1	1	1	0.7	1.5					
19-Jun	1	1	0	1	1	1	0	1	1	1	1	1	1	1	1	A	1	1	1	0	1	1	1	1	0.6	0.8					
20-Jun	0	0	1	0	1	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	1	1	0	0	0.4	0.7					
21-Jun	0	0	1	0	0	1	1	1	1	1	1	1	0	A	0	1	1	1	0	1	1	1	1	0	0.6	1.1					
22-Jun	1	1	1	0	0	0	1	1	1	1	1	1	A	1	1	1	1	0	1	1	1	1	1	1	0.6	0.9					
23-Jun	0	0	0	0	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0	1	1	0.7	1.4					
24-Jun	1	1	1	0	0	1	0	1	1	1	A	1	1	1	1	1	1	1	0	1	0	1	1	0	0.6	1.2					
25-Jun	0	1	1	1	1	1	1	1	1	A	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0.7	1.4					
26-Jun	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	0.7	1.7					
27-Jun	1	0	1	0	0	1	1	A	2	1	1	1	1	0	1	1	0	1	1	1	1	1	0	0	0.7	2.5					
28-Jun	1	1	1	0	0	0	A	1	1	1	1	1	1	1	1	1	1	2	2	1	1	0	1	1	0.8	1.9					
29-Jun	1	0	1	1	0	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.1					
30-Jun	1	0	0	0	A	0	1	1	1	1	2	1	1	1	1	1	0	1	3	3	1	1	1	1	0.9	2.9					
																								Diurnal Average							
																								Diurnal Maximum							
C - Calibration																								A - Automated Daily Zero Span							

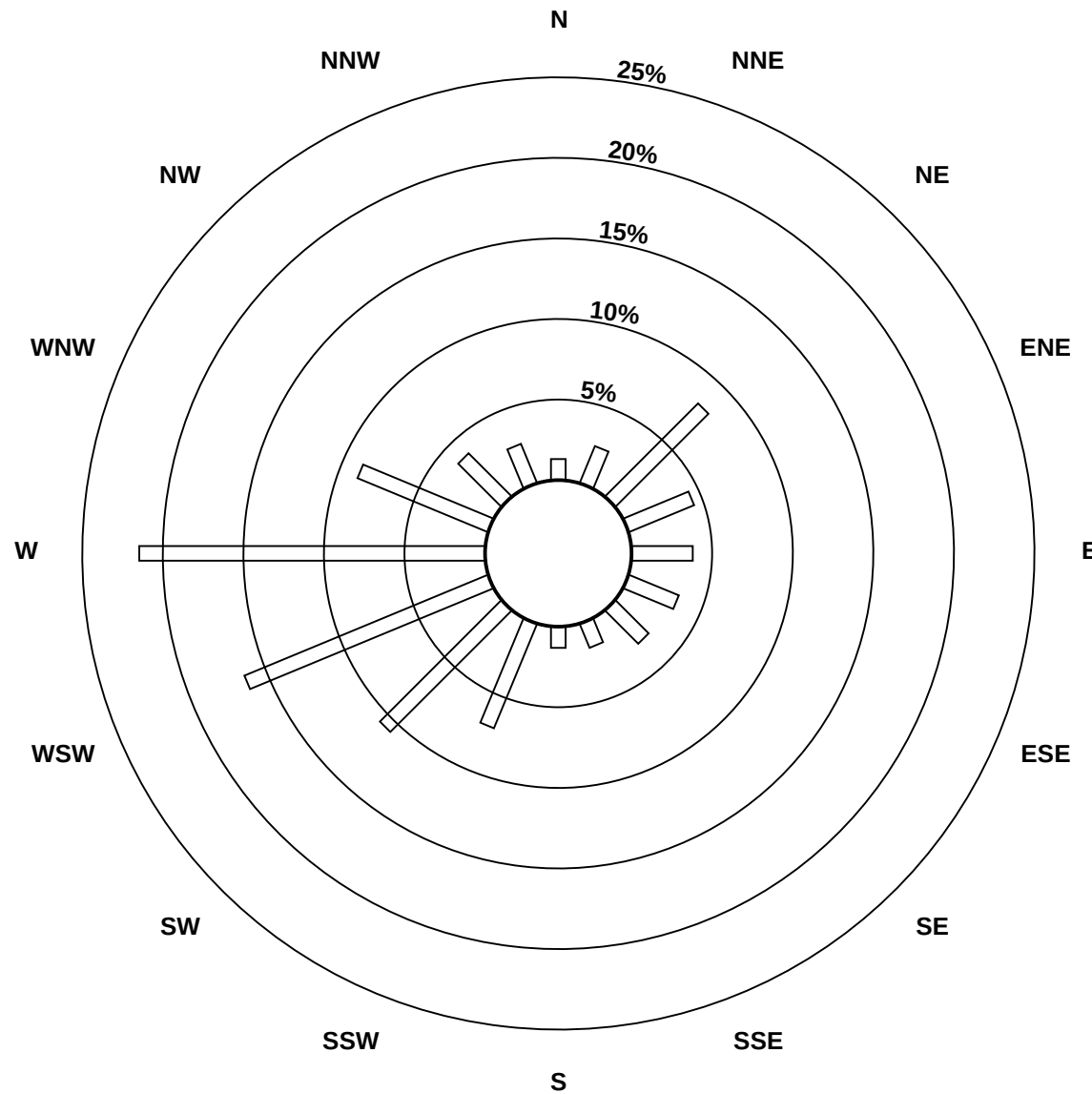
Hourly Maximums

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

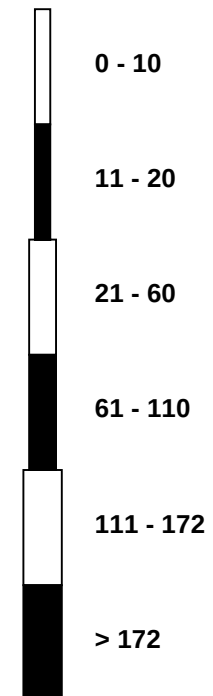


Pollutant Rose

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

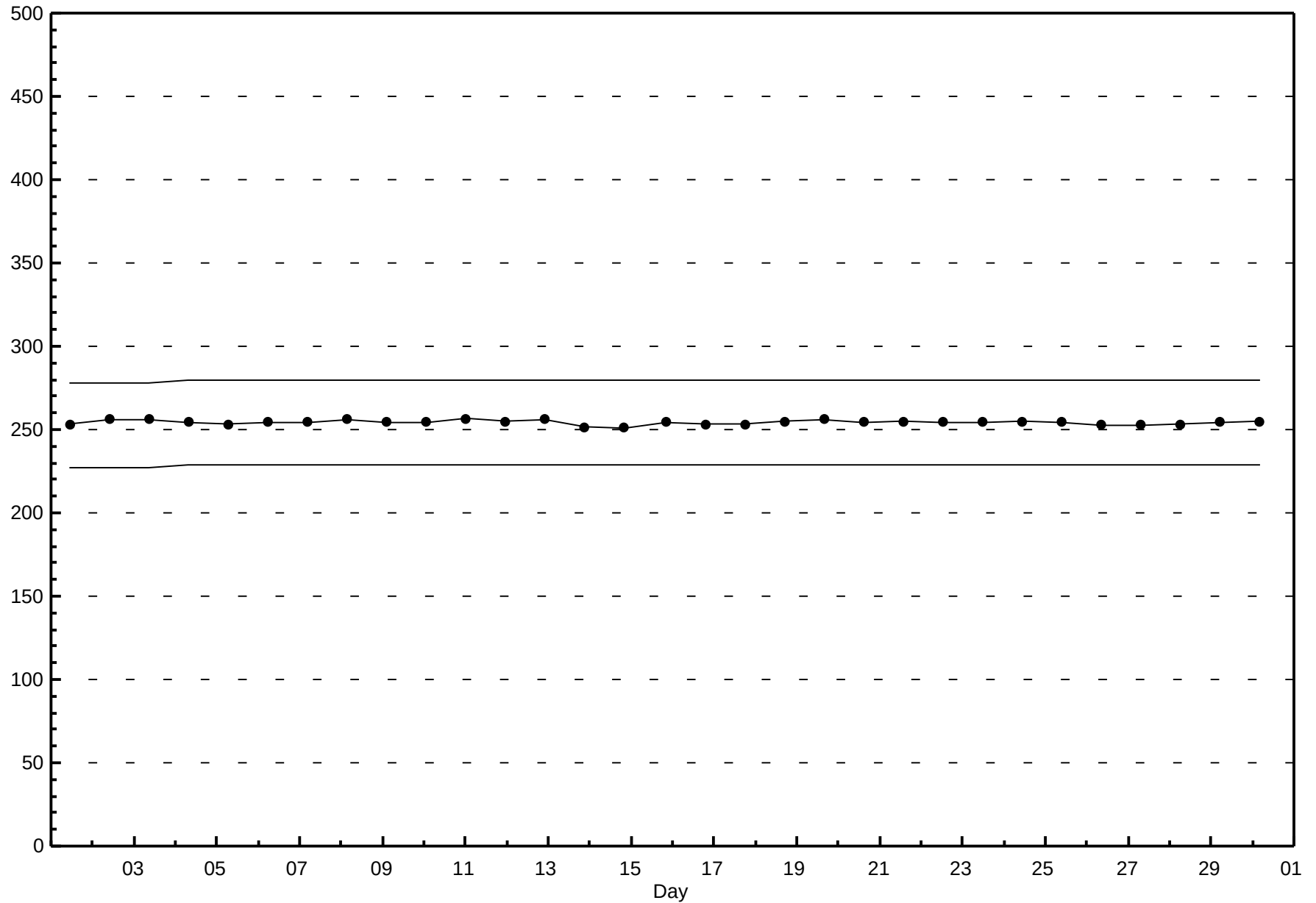


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Evergreen Park - June 2015



Hourly Averages

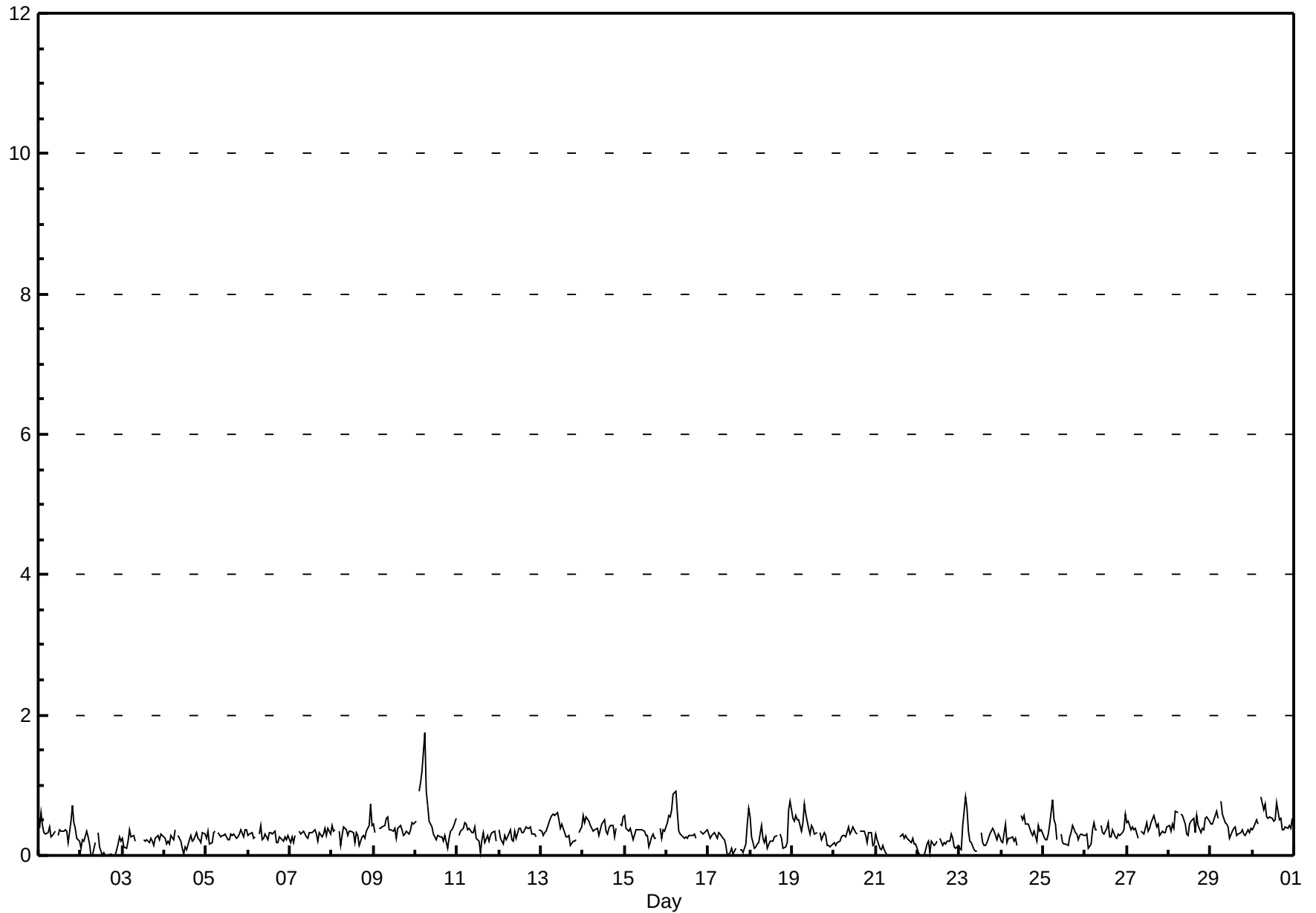
Total Reduced Sulphur (TRS) - ppb

Evergreen Park - June 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 1.8 ppb on Jun 10 06:00 Maximum Daily Average: 0.5 ppb on Jun 10																								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 Jun 2 07:00 Maximum Diurnal Average: 0.4 ppb at hour 6 Monthly Average: 0.32 ppb												Minimum Daily Average: 0.1 ppb on Jun 2 Minimum Diurnal Average: 0.3 ppb at hour 19 Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.2 Median = 0.3 Q ₃ = 0.4 P ₉₀ = 0.5 P ₉₉ = 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-Jun	0	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	1	0	0	0	0	0.4	0.7
2-Jun	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
3-Jun	0	0	0	0	0	0	0	0	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
4-Jun	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
5-Jun	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
6-Jun	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
7-Jun	0	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-Jun	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.3	0.7
9-Jun	0	0	A	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5
10-Jun	0	A	1	1	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.5	1.8
11-Jun	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.3	0.5
12-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.3	0.4
13-Jun	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0.4	0.6
14-Jun	1	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	A	0	0	1	0.4	0.6
15-Jun	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.3	0.6
16-Jun	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.4	0.9
17-Jun	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	0.7
18-Jun	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	1	1	0.3	0.8
19-Jun	1	0	1	1	0	0	0	1	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.4	0.7
20-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.3	0.4
21-Jun	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
22-Jun	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-Jun	0	0	0	1	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8
24-Jun	0	0	0	0	0	0	0	0	0	0	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0.3	0.6
25-Jun	0	0	0	0	0	1	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8
26-Jun	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	0.6
27-Jun	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0.4	0.6
28-Jun	0	0	0	0	1	1	A	1	1	0	0	0	0	0	1	0	1	0	0	0	0	1	1	0	0.5	0.6
29-Jun	0	0	1	1	1	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.8
30-Jun	0	0	1	0	A	1	1	1	1	1	1	1	0	1	1	1	1	0	0	0	0	0	0	1	0.5	0.8
0.3 0.3 0.3 0.4 0.4 0.4 0.4 0.4 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.4																								Diurnal Average		
0.6 0.6 0.9 1.0 1.2 1.8 0.9 0.7 0.6 0.6 0.5 0.6 0.5 0.6 0.8 0.6 0.6 0.4 0.5 0.7 0.5 0.5 0.7 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

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



Hourly Maximums

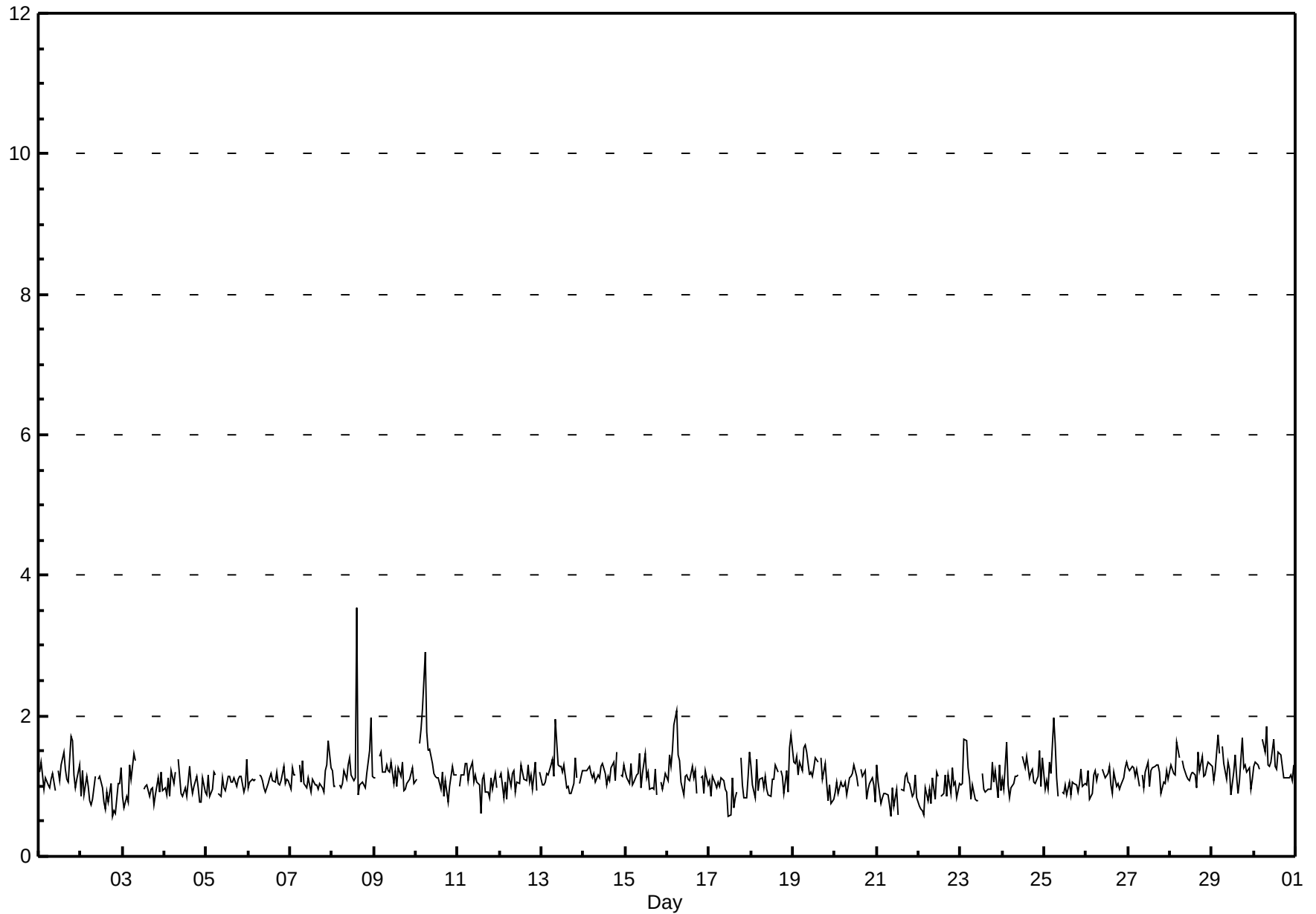
Total Reduced Sulphur (TRS) - ppb

Evergreen Park - June 2015

Maximum Value: 3.5 ppb on Jun 8 15:00																			Maximum Daily Average: 1.3 ppb on Jun 10										Hours in Service: 720	
Minimum Value: 1 ppb on Jun 17 12:00																			Minimum Daily Average: 0.9 ppb on Jun 2										Hours of Data: 686	
Maximum Diurnal Average: 1.3 ppb at hour 6																			Minimum Diurnal Average: 1.1 ppb at hour 16										Hours of Missing Data: 34	
Monthly Average: 1.12 ppb																			Percentiles: P ₁ = 0.6 P ₁₀ = 0.9 Q ₁ = 1.0 Median = 1.1 Q ₃ = 1.2 P ₉₀ = 1.4 P ₉₉ = 1.9										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-Jun	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	2	2	1	1	1	1	1.2	1.7				
2-Jun	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.3				
3-Jun	1	1	1	1	1	1	1	1	C	C	C	C	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.5				
4-Jun	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.4				
5-Jun	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.4				
6-Jun	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.3				
7-Jun	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1.1	1.6				
8-Jun	1	1	1	A	1	1	1	1	1	1	1	1	1	1	4	1	1	1	1	1	1	2	2	1	1.3	3.5				
9-Jun	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	1.5				
10-Jun	1	A	2	2	2	3	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.3	2.9				
11-Jun	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1.1	1.3				
12-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1.1	1.3				
13-Jun	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1.2	2.0				
14-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1.2	1.5				
15-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1.1	1.5				
16-Jun	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1.2	2.1				
17-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1.0	1.5				
18-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	2	2	1.1	1.7				
19-Jun	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1.2	1.6				
20-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1.0	1.3				
21-Jun	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.9	1.3				
22-Jun	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.9	1.3				
23-Jun	1	1	2	2	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.7				
24-Jun	1	1	2	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	2	1	1	1.2	1.6				
25-Jun	1	1	1	1	1	2	2	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	2.0				
26-Jun	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.4				
27-Jun	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	1.3				
28-Jun	1	1	1	1	2	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	1.6				
29-Jun	1	1	1	2	1	A	2	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1.2	1.7				
30-Jun	1	1	1	1	A	2	1	2	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1.3	1.8				
1.1		1.1	1.1	1.2	1.2	1.3	1.2	1.2	1.2	1.1	1.1	1.1	1.1	1.1	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.2	1.2	Diurnal Average					
1.3		1.5	1.7	1.8	2.1	2.9	1.8	1.8	2.0	1.3	1.4	1.7	1.3	1.4	3.5	1.4	1.5	1.7	1.7	1.7	1.3	1.5	2.0	1.7	Diurnal Maximum					
C - Calibration		A - Automated Daily Zero Span																												

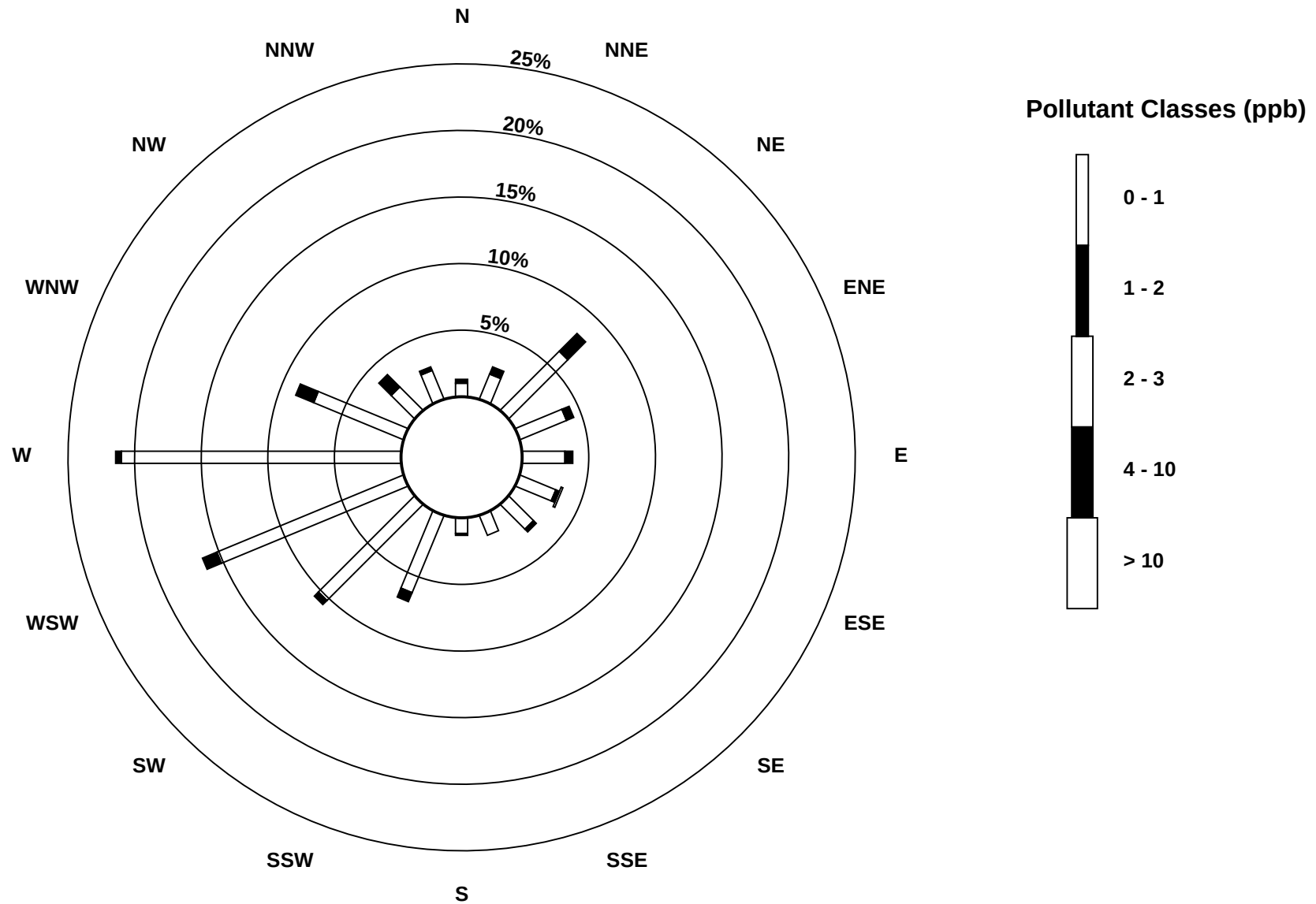
Hourly Maximums

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



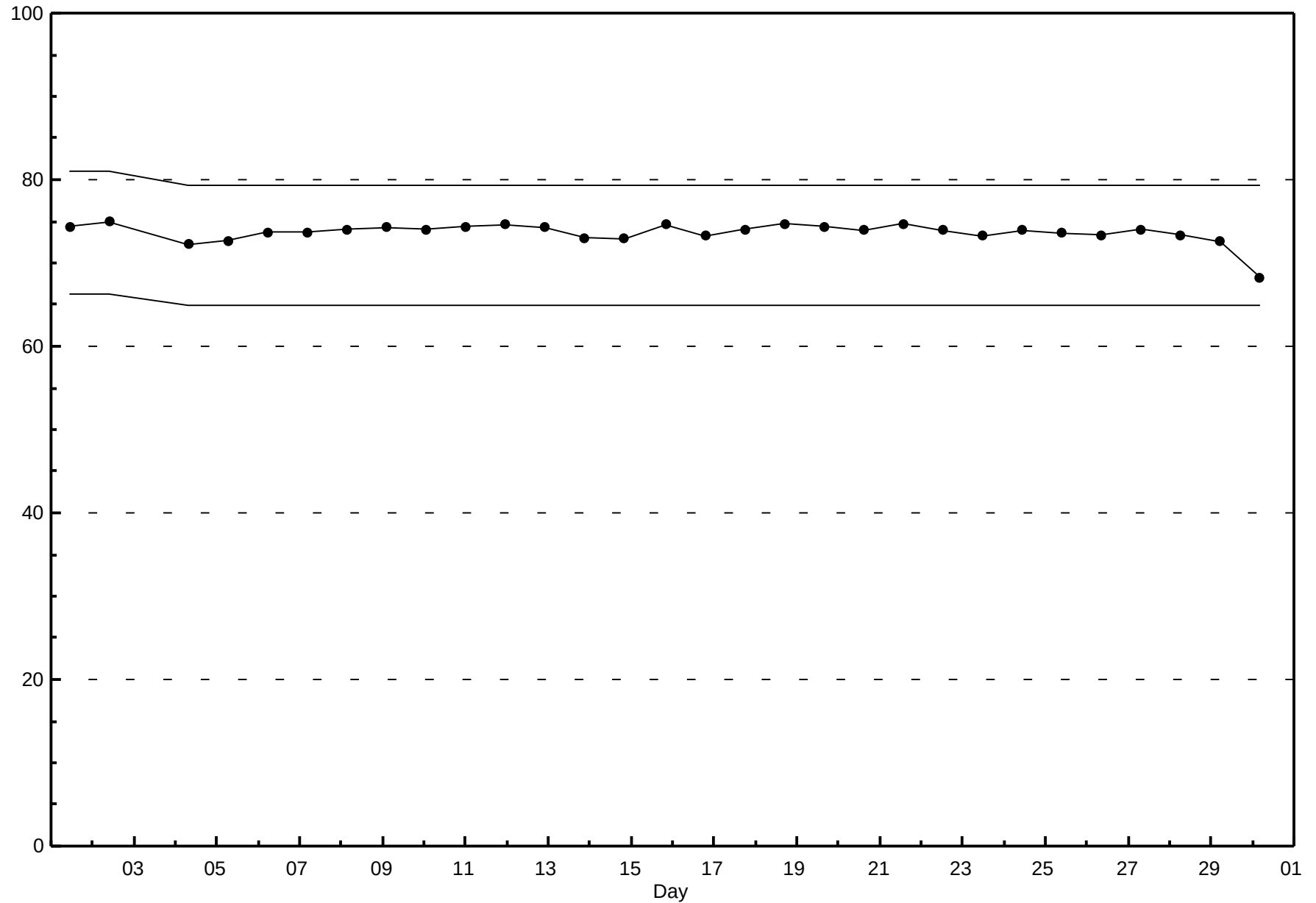
Pollutant Rose

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



Span Responses

Total Reduced Sulphur (TRS)
Evergreen Park - June 2015

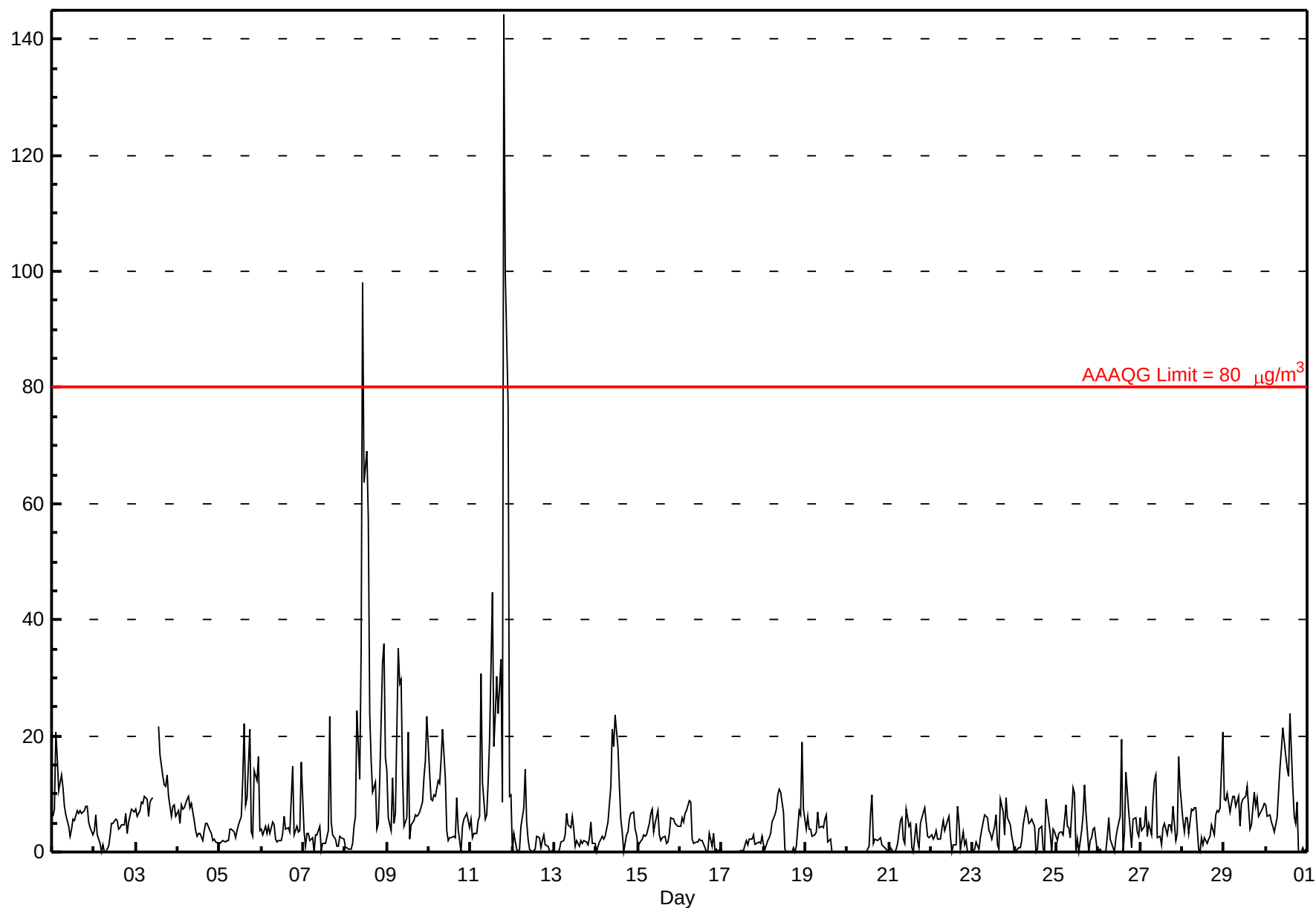


Hourly Averages

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

Evergreen Park - June 2015

Number of Exceedences: 1-hr: 3 24-hr: 0 Maximum Value: 144.2 µg/m³ on Jun 11 20:00 Minimum Value: 0 µg/m³ on Jun 2 05:00 Maximum Diurnal Average: 8.8 µg/m³ at hour 20 Monthly Average: 6.16 µg/m³																								Hours in Service: 720 Hours of Data: 718 Hours of Missing Data: 2 Hours of Calibration: 2 Percent Operational Time: 100.0		
Maximum Daily Average: 26.4 µg/m³ on Jun 11 Minimum Daily Average: 0.9 µg/m³ on Jun 17 Minimum Diurnal Average: 3.2 µg/m³ at hour 2 Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 1.8 Median = 3.9 Q ₃ = 7.1 P ₉₀ = 12.2 P ₉₉ = 53.3																										
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-Jun	6	7	21	16	11	13	11	8	6	5	3	4	6	5	7	7	7	7	8	8	5	4	3	7.7	20.7	
2-Jun	4	6	3	1	0	1	0	0	1	3	5	5	6	6	4	4	5	5	7	3	5	7	7	7	3.9	7.4
3-Jun	7	6	7	9	8	10	9	6	8	9	9	C	C	22	17	13	11	11	13	10	6	8	8	6	9.8	21.6
4-Jun	7	5	8	7	8	9	10	8	8	5	4	3	3	3	2	4	5	5	4	3	2	2	2	1	4.9	9.5
5-Jun	1	2	2	2	2	2	4	4	3	2	4	5	6	13	22	8	9	21	3	3	14	12	16	4	6.9	22.0
6-Jun	4	3	4	3	4	3	5	5	2	2	2	2	3	6	4	4	3	9	15	3	4	3	4	16	4.8	15.5
7-Jun	4	1	3	3	2	3	0	3	3	4	0	2	2	2	4	23	5	3	2	1	1	3	2	2	3.2	23.3
8-Jun	1	1	1	0	1	4	6	24	12	35	98	64	69	57	24	16	10	12	4	5	12	33	36	16	22.6	98.0
9-Jun	14	6	4	13	5	7	35	29	30	14	4	6	21	2	5	5	6	6	6	7	9	13	16	23	11.9	35.1
10-Jun	13	9	9	10	9	12	12	16	21	13	4	2	2	2	3	2	9	4	0	4	6	6	7	4	7.5	21.1
11-Jun	6	2	3	3	5	6	31	12	6	6	12	19	45	18	23	30	24	33	9	144	100	77	9	10	26.4	144.2
12-Jun	0	3	1	0	0	4	8	14	5	2	0	0	0	1	3	2	1	2	3	1	1	0	0	0	2.2	14.2
13-Jun	0	0	0	1	2	2	3	7	5	4	6	4	1	2	1	2	2	2	2	1	2	5	1	1	2.3	6.7
14-Jun	0	1	2	3	2	3	4	5	11	21	18	24	18	11	6	3	0	3	3	6	7	7	4	3	6.8	23.6
15-Jun	1	1	2	3	3	3	5	7	7	3	5	7	3	2	3	3	1	2	3	6	6	5	5	5	3.7	7.3
16-Jun	4	6	5	7	7	9	9	2	1	2	2	2	2	2	1	0	0	3	1	3	0	0	0	1	2.9	8.9
17-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	1	2	2	3	1	1	2	2	3	0.9	2.9
18-Jun	1	1	2	2	3	5	6	7	10	11	10	7	1	0	0	0	0	1	0	1	7	6	19	7	4.5	18.9
19-Jun	4	6	4	4	3	3	3	7	4	4	4	6	6	2	2	0	0	0	0	0	0	0	0	0	2.6	6.9
20-Jun	0	0	0	0	0	0	0	0	0	0	0	0	1	6	10	1	2	2	2	3	1	1	1	0	1.3	9.9
21-Jun	0	1	0	0	1	2	5	6	2	1	7	4	5	1	0	5	2	1	5	6	7	5	3	3	3.0	7.5
22-Jun	3	2	3	4	2	2	4	5	4	5	6	3	0	1	1	8	5	0	3	1	2	0	0	0	2.7	8.0
23-Jun	0	0	2	0	2	4	5	6	6	4	3	2	4	6	1	1	9	7	3	9	6	5	3	2	3.8	9.5
24-Jun	0	0	1	1	2	5	8	7	5	5	6	5	0	0	4	4	1	0	9	7	3	0	4	4	3.3	9.1
25-Jun	2	3	4	3	3	8	4	4	2	11	10	0	2	0	4	7	12	7	0	2	3	4	4	0	4.1	11.6
26-Jun	0	0	0	0	0	3	6	2	1	0	2	4	6	19	0	3	14	7	4	1	6	6	3	3	3.8	19.3
27-Jun	6	4	5	8	3	5	3	9	12	13	3	3	1	4	5	3	5	5	4	8	2	3	17	11	5.8	16.5
28-Jun	5	3	6	6	3	7	7	8	8	1	0	2	1	3	2	2	3	5	3	7	7	7	8	21	5.1	20.6
29-Jun	9	9	10	7	8	9	10	8	10	4	8	9	10	11	8	4	5	10	8	9	6	7	7	8	8.1	11.2
30-Jun	8	6	6	5	4	3	6	10	14	18	21	17	14	13	24	11	6	5	9	0	0	1	0	0	8.5	23.8
3.7 3.2 3.9 4.0 3.5 4.9 7.3 7.6 7.0 7.0 8.6 7.2 8.2 7.4 6.3 5.9 5.5 6.0 4.5 8.8 7.8 7.8 6.4 5.4																								Diurnal Average		
14.0 9.0 20.7 16.2 10.5 13.3 35.1 29.0 29.8 35.0 98.0 63.7 69.0 57.5 23.8 30.2 23.8 33.1 14.9 144.2 99.8 77.0 35.8 23.3																								Diurnal Maximum		
C - Calibration																										
Alberta Ambient Air Quality Guideline (AAQG): 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

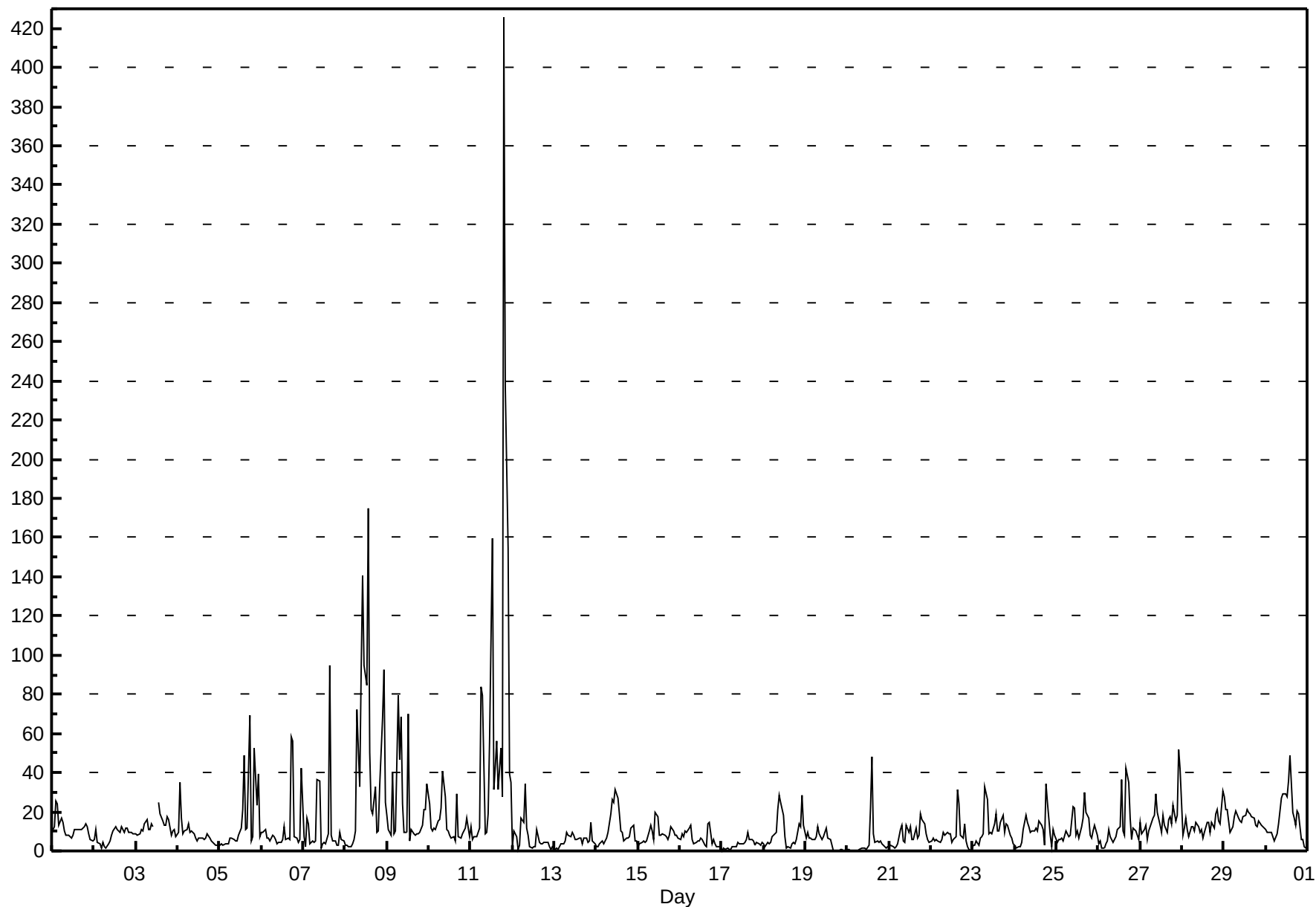
Evergreen Park - June 2015

Maximum Value: 425.5 μg/m ³ on Jun 11 20:00																								Maximum Daily Average: 66.8 μg/m ³ on Jun 11								Hours in Service: 720	
Minimum Value: 0 μg/m ³ on Jun 19 17:00																								Minimum Daily Average: 3.3 μg/m ³ on Jun 17								Hours of Data: 718	
Maximum Diurnal Average: 24.0 μg/m ³ at hour 20																								Minimum Diurnal Average: 5.8 μg/m ³ at hour 5								Hours of Missing Data: 2	
Monthly Average: 13.79 μg/m ³																								Percentiles: P ₁ = 0.0 P ₁₀ = 2.4 Q ₁ = 4.8 Median = 8.7 Q ₃ = 13.6 P ₉₀ = 25.8 P ₉₉ = 64.0								Hours of Calibration: 2	
																								Percent Operational Time: 100.0									
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24									
1-Jun	11	12	25	24	13	17	15	10	8	8	7	6	8	11	11	11	11	11	12	14	13	9	6	5	11.5	25.3							
2-Jun	6	11	4	3	2	4	2	1	4	5	8	10	12	11	10	10	13	10	12	11	9	9	9	9	7.7	12.6							
3-Jun	8	8	9	11	10	14	16	11	11	14	13	C	C	25	19	16	13	13	17	16	8	10	11	7	12.7	25.0							
4-Jun	9	35	16	8	10	11	14	9	10	9	7	5	6	6	6	6	7	9	7	5	4	4	3	3	8.7	34.8							
5-Jun	3	4	3	3	4	4	6	7	6	5	5	8	11	21	49	11	12	69	5	7	52	24	39	7	15.2	69.4							
6-Jun	9	9	11	6	7	5	8	7	6	4	4	4	6	13	6	6	6	58	56	7	7	5	6	42	12.3	58.5							
7-Jun	8	2	17	14	4	5	5	5	36	36	2	4	5	4	8	95	8	5	5	3	3	9	6	5	12.2	94.8							
8-Jun	3	3	2	2	4	6	10	72	33	92	141	95	85	175	50	21	19	33	10	10	34	68	93	25	45.2	174.8							
9-Jun	18	11	8	40	8	10	80	47	69	24	9	9	70	5	11	9	8	9	9	9	13	21	21	35	23.1	79.7							
10-Jun	24	11	10	11	11	16	16	22	41	28	11	10	8	6	7	5	29	7	7	8	10	11	17	7	14.0	40.7							
11-Jun	13	6	7	7	10	11	84	79	9	9	19	56	160	32	43	56	32	53	27	426	238	155	39	35	66.8	425.5							
12-Jun	2	10	7	1	3	16	15	34	12	8	2	2	2	2	11	5	4	4	5	4	5	2	1	2	6.5	34.3							
13-Jun	0	2	1	2	4	4	5	10	8	7	9	8	6	6	6	6	4	7	7	4	5	14	5	3	5.5	14.3							
14-Jun	2	2	3	5	4	5	7	9	19	26	25	31	27	19	10	9	5	7	7	7	11	13	5	5	11.0	31.4							
15-Jun	2	3	4	5	5	5	10	13	10	6	20	17	8	8	9	8	7	6	8	13	10	8	8	7	8.3	19.9							
16-Jun	6	9	7	10	9	11	13	6	4	4	5	5	6	6	3	2	14	15	4	6	4	2	2	2	6.5	14.5							
17-Jun	0	1	1	1	1	1	3	2	2	4	4	4	4	4	6	9	6	6	5	3	4	4	3	4	3.3	9.5							
18-Jun	4	2	4	4	5	7	8	10	21	28	25	18	7	2	2	1	3	4	4	6	14	12	29	13	9.7	28.7							
19-Jun	7	9	7	7	6	6	7	13	9	6	7	9	11	7	6	3	0	0	0	0	0	1	0	0	5.0	12.6							
20-Jun	0	1	0	0	0	0	0	0	2	1	1	1	3	22	48	9	4	5	4	5	3	2	2	2	4.8	48.2							
21-Jun	2	3	2	1	2	4	11	13	5	4	13	10	12	6	6	12	7	8	19	16	14	9	6	4	7.8	18.7							
22-Jun	5	7	5	6	5	4	6	9	8	10	9	8	5	6	7	31	24	8	7	14	5	2	1	0	8.0	31.4							
23-Jun	3	3	5	3	7	7	8	33	26	8	9	9	14	19	10	10	15	18	9	14	13	8	7	4	10.9	32.6							
24-Jun	3	2	2	2	4	11	18	15	12	10	10	10	12	10	15	13	11	3	35	25	8	2	11	8	10.5	34.6							
25-Jun	4	6	6	7	5	10	9	7	8	23	22	8	10	6	12	17	30	20	17	8	7	10	13	8	11.4	29.6							
26-Jun	4	5	2	1	3	5	11	7	4	6	7	11	13	36	10	8	42	35	17	6	11	10	8	6	11.2	42.4							
27-Jun	15	9	11	13	6	10	15	17	18	29	19	13	10	18	13	10	16	17	14	23	15	18	51	42	17.6	51.4							
28-Jun	8	11	17	11	7	12	12	10	14	13	9	11	7	10	15	15	10	15	12	19	21	16	14	31	13.3	30.7							
29-Jun	28	21	21	10	11	12	18	20	17	15	15	17	18	21	19	19	18	17	13	12	15	13	12	12	16.5	27.8							
30-Jun	11	9	10	9	7	5	8	14	20	27	29	29	28	36	49	20	17	13	20	19	6	6	2	2	16.5	49.2							
7.3 7.5 7.6 7.6 5.8 8.0 14.7 17.0 15.0 15.6 15.6 14.8 19.7 18.4 16.0 15.1 13.0 16.1 12.3 24.0 18.7 15.9 14.3 11.2																								Diurnal Average									
27.8 34.8 25.3 39.9 12.9 16.7 83.8 79.2 68.7 91.9 140.9 95.1 159.6 174.8 50.4 94.8 42.4 69.4 55.8 425.5 237.6 154.6 92.6 42.1																								Diurnal Maximum									
C - Calibration																																	

Hourly Maximums

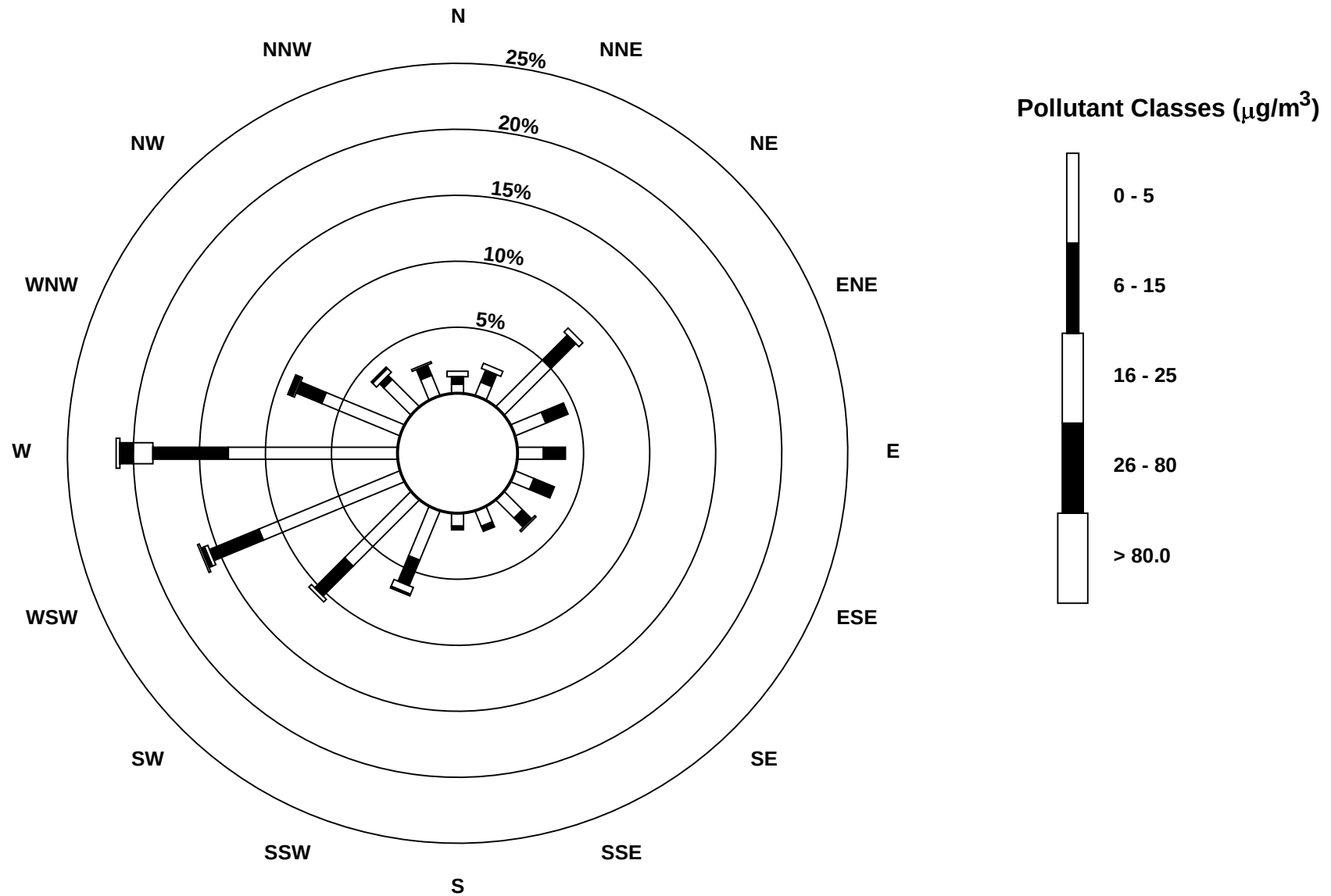
Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$

Evergreen Park - June 2015



Pollutant Rose

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



Hourly Averages

External Temperature (ET) - °C

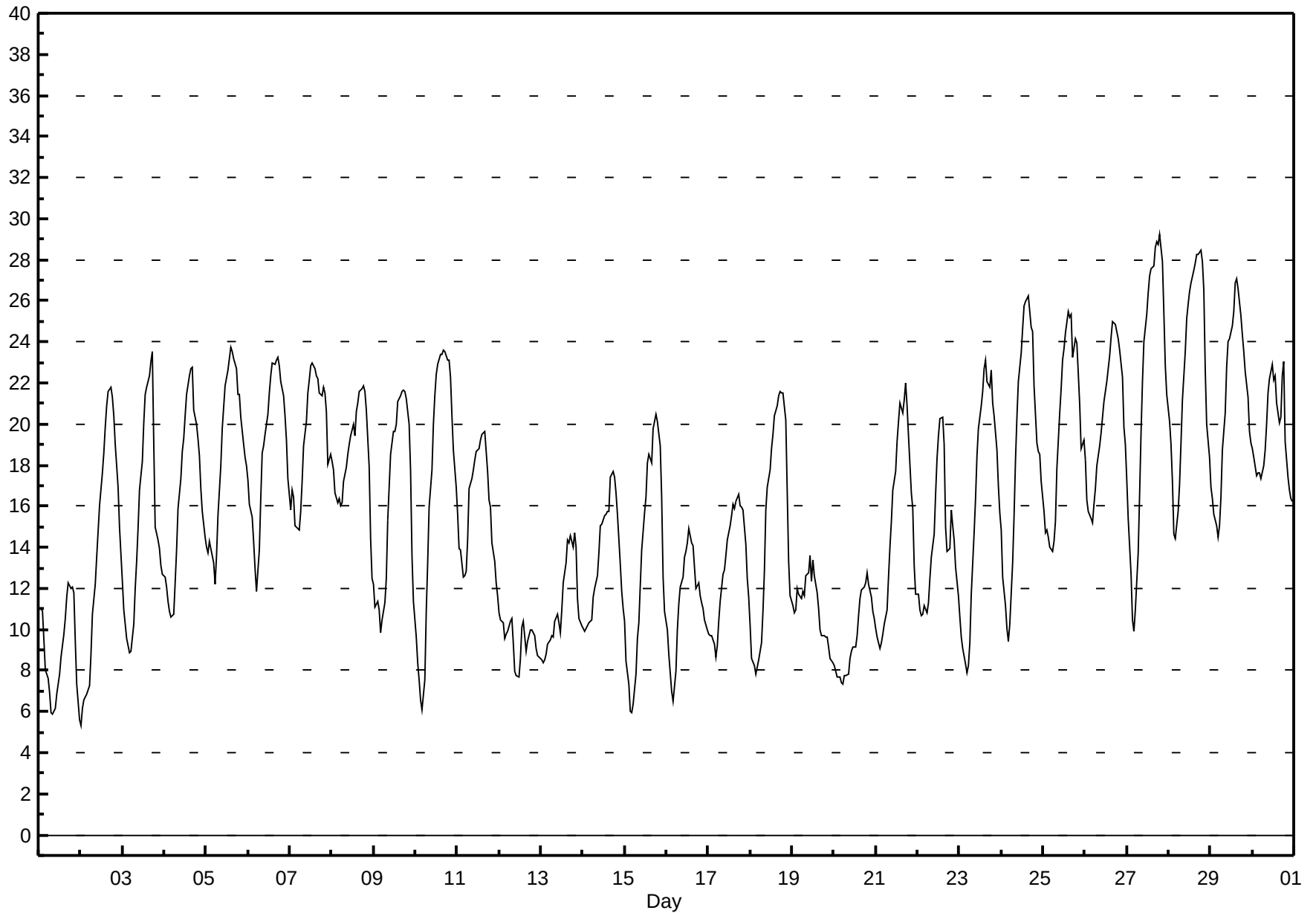
Evergreen Park - June 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 29.2 °C on Jun 27 20:00 Maximum Daily Average: 22.6 °C on Jun 28																								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 Jun 2 01:00 Maximum Diurnal Average: 20.2 °C at hour 17 Monthly Average: 15.93 °C												Minimum Daily Average: 9.0 °C on Jun 1 Minimum Diurnal Average: 10.7 °C at hour 5 Percentiles: P ₁ = 6.1 P ₁₀ = 9.1 Q ₁ = 11.1 Median = 15.7 Q ₃ = 20.4 P ₉₀ = 23.1 P ₉₉ = 28.2														
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-Jun	11	11	11	9	8	8	7	6	6	6	7	7	8	9	10	11	12	12	12	12	12	9	7	6	9.0	12.3
2-Jun	5	6	7	7	7	7	9	11	12	14	15	16	18	19	20	21	22	22	21	20	19	17	15	14	14.3	21.8
3-Jun	12	11	10	9	9	9	10	12	13	15	17	18	20	21	22	22	23	24	19	15	14	14	13	13	15.2	23.5
4-Jun	13	12	11	11	11	11	12	14	16	17	19	19	20	21	22	23	23	21	20	19	18	17	16	14	16.7	22.8
5-Jun	14	14	14	14	13	12	14	16	18	20	21	22	23	23	24	24	23	23	21	21	20	19	18	18	18.7	23.8
6-Jun	17	16	15	14	13	12	14	16	19	19	20	20	22	22	23	23	23	23	23	22	21	20	19	17	19.0	23.2
7-Jun	16	17	16	15	15	15	16	17	19	20	22	22	23	23	23	22	22	22	21	22	22	21	18	18	19.4	22.9
8-Jun	18	18	17	16	16	16	16	17	18	18	19	19	20	19	21	21	22	22	22	22	21	18	14	12	18.4	21.9
9-Jun	12	11	11	11	10	10	11	12	15	17	19	20	20	20	21	21	22	22	22	21	20	18	14	11	16.3	21.7
10-Jun	10	8	8	7	6	8	11	13	16	18	20	21	22	23	23	23	24	24	23	23	22	20	19	17	17.0	23.6
11-Jun	16	14	14	13	13	13	14	17	17	18	18	19	19	19	20	20	20	18	16	16	14	13	12	12	16.0	19.6
12-Jun	11	10	10	10	10	10	10	11	9	8	8	8	9	10	10	9	9	10	10	10	10	9	9	9	9.5	10.8
13-Jun	9	8	9	9	9	9	10	10	10	11	10	10	11	12	13	14	14	15	14	15	14	12	11	10	11.2	14.7
14-Jun	10	10	10	10	10	10	12	12	13	14	15	15	16	16	16	16	17	18	17	17	16	13	12	11	13.5	17.7
15-Jun	10	8	7	6	6	6	8	10	10	12	14	16	16	18	19	18	20	20	20	20	19	16	13	11	13.5	20.5
16-Jun	10	9	8	7	6	8	10	11	12	13	14	14	14	15	14	14	13	12	12	12	11	11	10	10	11.3	14.9
17-Jun	10	10	10	9	9	9	10	11	13	13	14	14	15	16	16	16	16	17	16	16	16	14	12	12	13.0	16.6
18-Jun	10	9	8	8	8	9	9	11	13	16	17	18	19	19	20	21	21	22	21	22	20	17	13	12	15.1	21.6
19-Jun	11	11	11	12	12	12	12	12	13	13	14	12	13	13	12	11	10	10	10	10	10	9	9	8	11.1	13.6
20-Jun	8	8	8	8	7	7	8	8	8	9	9	9	9	10	11	12	12	12	12	13	12	12	11	11	9.6	12.8
21-Jun	10	10	9	9	10	10	11	13	14	15	17	18	19	20	21	21	21	22	21	19	17	16	13	12	15.3	22.0
22-Jun	12	11	11	11	11	11	11	12	14	15	17	18	19	20	20	19	15	14	14	16	15	14	13	12	14.4	20.3
23-Jun	11	10	9	8	8	8	9	12	15	16	18	20	21	22	23	23	22	22	23	21	20	19	17	16	16.3	23.1
24-Jun	15	13	11	10	9	10	13	16	18	20	22	23	25	26	26	26	25	25	25	22	19	19	19	17	18.9	26.2
25-Jun	16	15	15	15	14	14	14	15	18	21	22	23	24	24	25	25	25	23	24	24	23	21	19	19	19.9	25.5
26-Jun	18	16	16	15	15	16	17	18	19	20	20	21	22	23	23	24	25	25	24	24	24	22	20	19	20.3	25.0
27-Jun	17	15	13	10	10	11	14	17	20	22	24	25	26	27	28	28	29	29	29	29	28	25	23	21	21.7	29.2
28-Jun	20	19	17	15	14	16	17	19	21	24	25	26	26	27	27	28	28	28	28	28	27	23	20	18	22.6	28.5
29-Jun	17	16	16	15	15	15	16	19	21	23	24	24	25	25	27	27	27	25	24	24	23	21	20	19	21.1	27.1
30-Jun	19	18	17	18	18	17	18	19	20	22	22	23	22	22	21	20	20	22	23	19	17	17	16	16	19.5	23.0
12.9 12.1 11.6 11.0 10.7 11.0 12.1 13.5 14.9 16.2 17.3 18.1 18.8 19.5 20.0 20.1 20.2 20.0 19.7 19.1 18.1 16.5 14.8 13.8																								Diurnal Average		
20.2 19.0 17.5 17.6 17.6 17.4 17.9 19.1 21.2 23.5 25.1 25.8 26.4 27.2 27.5 27.8 28.6 28.9 28.7 29.2 27.9 25.4 22.9 21.5																								Diurnal Maximum		

Hourly Averages

External Temperature (ET) - °C

Evergreen Park - June 2015



Hourly Averages

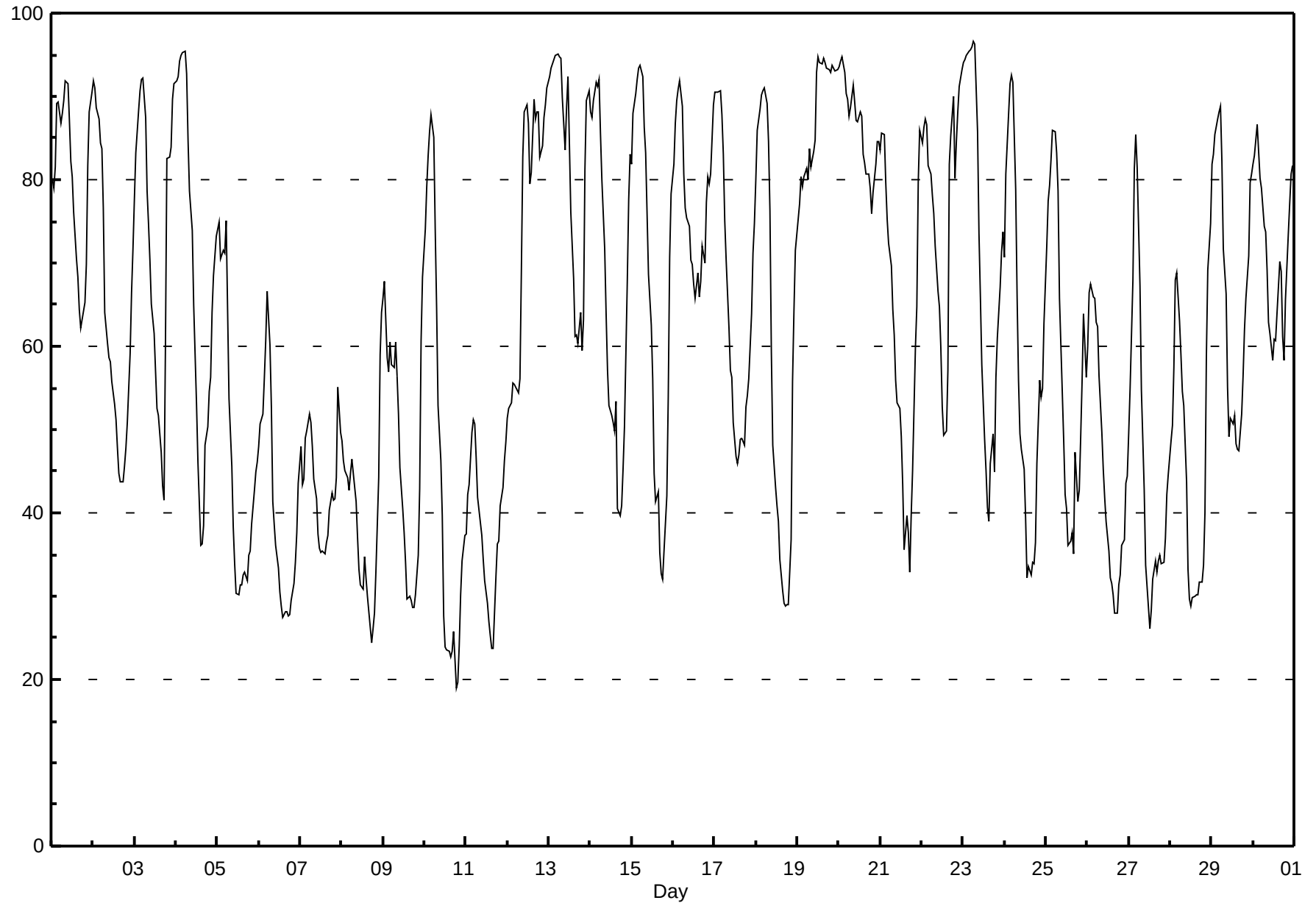
Relative Humidity (RH) - %

Evergreen Park - June 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 96.6 % on Jun 23 07:00 Maximum Daily Average: 87.7 % on Jun 19																								Hours in Service: 720 Hours of Data: 720 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0		
Minimum Value: 19 % on Jun 10 19:00 Maximum Diurnal Average: 79.3 % at hour 5 Monthly Average: 61.69 %												Minimum Daily Average: 38.2 % on Jun 11 Minimum Diurnal Average: 46.0 % at hour 15 Percentiles: P ₁ = 23.7 P ₁₀ = 32.5 Q ₁ = 43.4 Median = 61.0 Q ₃ = 81.8 P ₉₀ = 90.5 P ₉₉ = 95.1														
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jun	80	79	82	89	89	87	88	90	92	91	87	82	80	76	71	68	64	62	64	65	70	82	88	90	79.9	91.8
2-Jun	92	91	89	87	84	84	77	64	60	59	58	56	53	51	48	45	44	44	46	48	51	59	66	72	63.6	91.8
3-Jun	78	83	88	91	92	92	87	79	75	70	65	62	57	53	52	47	43	41	60	83	83	84	90	92	72.7	92.3
4-Jun	92	92	94	95	95	95	93	85	79	74	65	59	53	46	36	36	38	48	50	55	56	64	68	73	68.5	95.4
5-Jun	74	75	70	72	71	75	64	54	46	38	34	30	30	31	31	33	33	32	35	35	39	43	45	46	47.4	75.1
6-Jun	48	51	52	56	61	67	60	53	41	39	36	33	31	29	27	28	28	28	28	29	31	34	38	44	40.5	66.6
7-Jun	48	43	44	49	50	52	51	48	44	42	37	36	35	35	35	36	37	40	42	42	42	44	55	50	43.3	55.1
8-Jun	49	46	45	44	43	45	46	45	41	37	33	31	31	35	32	30	28	24	26	28	33	44	59	64	39.2	64.1
9-Jun	66	68	59	57	61	58	57	60	56	52	45	41	38	34	30	30	29	29	29	30	35	43	61	68	47.3	68.2
10-Jun	74	79	83	86	88	85	74	65	53	46	40	28	24	24	23	23	23	26	19	20	24	30	34	37	46.1	87.7
11-Jun	37	42	43	50	51	51	47	42	39	37	34	32	29	27	25	24	24	32	36	37	41	43	46	48	38.2	51.2
12-Jun	51	53	53	56	55	55	54	56	69	83	88	89	87	80	81	90	87	88	88	83	84	87	89	91	74.9	91.0
13-Jun	92	93	94	94	95	95	95	95	90	84	89	92	84	76	68	61	61	60	64	59	63	81	90	91	82.0	95.1
14-Jun	88	87	89	92	91	92	86	80	72	64	57	53	52	51	50	53	41	40	41	45	50	68	78	83	66.7	92.1
15-Jun	82	88	90	92	93	94	92	86	83	76	69	63	56	45	41	43	35	33	32	35	42	54	71	78	65.6	93.8
16-Jun	82	87	90	91	92	89	81	77	75	74	70	70	68	66	69	66	68	72	70	77	80	79	81	89	77.6	91.8
17-Jun	91	91	91	91	88	83	75	70	62	57	56	51	47	46	47	49	49	48	53	54	56	64	71	75	65.1	90.7
18-Jun	80	86	88	90	91	91	89	85	76	59	48	43	41	39	34	31	29	29	29	29	37	56	64	72	59.0	90.9
19-Jun	75	77	80	79	80	81	80	84	82	83	85	93	95	94	94	95	94	93	93	93	94	93	93	93	87.7	94.7
20-Jun	94	94	95	93	90	90	88	89	91	89	87	87	88	88	83	82	81	81	79	76	79	82	85	85	86.4	94.8
21-Jun	84	86	85	80	75	72	70	64	61	56	53	52	49	43	36	40	38	33	40	45	60	65	80	86	60.5	85.9
22-Jun	84	86	87	87	82	81	78	76	72	67	65	60	53	49	50	57	82	85	90	80	85	88	91	93	76.1	93.1
23-Jun	94	94	95	95	96	96	97	96	86	74	66	58	49	45	41	39	46	49	45	56	61	67	71	74	70.4	96.6
24-Jun	71	81	88	91	92	92	79	66	56	49	48	45	39	32	34	32	34	34	36	46	56	54	55	63	57.2	92.5
25-Jun	72	78	79	82	86	86	83	79	66	54	49	42	41	36	37	38	35	47	41	43	49	56	64	56	58.3	86.0
26-Jun	60	66	68	66	66	63	62	56	50	45	42	39	35	32	31	30	28	28	31	33	36	37	44	44	45.6	67.5
27-Jun	50	55	68	81	85	82	67	55	49	43	34	29	26	28	32	34	33	34	35	34	34	37	42	45	46.3	85.4
28-Jun	49	51	57	68	69	63	59	55	53	44	33	30	29	30	30	30	30	32	32	34	40	59	69	75	46.6	74.7
29-Jun	82	83	85	87	88	89	82	72	66	55	49	51	51	52	48	48	47	52	56	62	66	71	80	81	66.8	88.8
30-Jun	82	83	87	83	80	79	74	74	69	63	61	58	61	61	64	70	69	61	58	66	73	77	81	82	71.5	86.6
	73.3	75.6	77.3	79.2	79.3	78.7	74.5	69.9	65.1	60.2	56.1	53.1	50.3	47.8	46.0	46.2	46.0	46.9	48.3	50.7	55.0	61.5	68.2	71.3	Diurnal Average	
	94.0	94.4	94.9	95.4	95.7	96.0	96.6	96.3	91.8	91.5	88.6	92.9	94.7	94.1	93.9	94.6	94.0	93.3	93.2	92.9	93.7	93.4	93.0	93.3	Diurnal Maximum	

Hourly Averages

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



Hourly Averages

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

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	3	8	20	13	11	8	6	9	4	6	2	5	8	8	6	2	4	3	3	5	2	1	1	1	3.3	20.1
Dir	300	335	351	11	31	10	67	54	47	35	1	294	264	277	298	338	223	241	178	245	328	41	49	46	349.0	350.7
2 Spd	2	2	4	4	6	5	8	14	16	15	13	12	11	11	11	10	10	11	10	11	12	10	7	7	8.7	16.3
Dir	74	146	62	75	82	71	105	120	133	143	133	131	131	138	119	138	111	97	84	102	106	108	84	86	114.1	133.5
3 Spd	4	3	2	4	3	2	4	4	6	5	5	7	4	6	9	10	8	3	17	27	21	12	9	3	1.5	26.6
Dir	80	71	51	58	59	62	73	109	356	357	343	348	20	47	43	67	55	104	248	238	274	271	222	194	309.3	237.9
4 Spd	6	4	5	4	4	3	3	5	6	6	8	8	8	7	9	13	17	28	16	8	17	13	7	4	8.1	27.6
Dir	215	206	205	205	212	202	213	225	247	217	220	266	265	272	255	260	262	247	246	233	216	227	228	215	238.2	246.8
5 Spd	4	3	9	11	4	2	9	19	23	22	25	28	28	34	36	32	33	36	28	28	16	14	15	19	19.4	35.9
Dir	204	216	245	234	274	334	253	253	245	245	247	257	253	272	269	259	257	275	264	246	234	232	245	252	255.0	274.9
6 Spd	16	13	11	5	5	5	11	15	26	26	25	26	27	30	30	32	31	27	30	27	22	17	11	4	19.1	32.2
Dir	250	239	245	218	203	205	238	258	283	274	278	269	263	260	259	256	255	249	256	257	257	250	251	223	257.5	255.6
7 Spd	1	10	9	6	8	7	9	18	23	23	25	29	26	29	35	33	32	23	15	14	17	6	1	14	16.9	34.7
Dir	196	252	235	223	233	225	247	258	264	262	261	268	267	263	268	274	270	263	253	253	251	256	274	250	260.2	267.8
8 Spd	15	17	17	17	24	20	18	16	31	45	46	42	39	29	24	38	31	27	17	15	5	1	1	4	22.0	46.5
Dir	270	289	285	285	261	253	260	271	261	259	266	262	264	288	291	262	273	273	289	274	280	311	208	209	269.4	265.9
9 Spd	1	1	2	5	4	7	11	7	4	4	3	9	4	7	6	8	9	8	5	4	5	1	1	0	2.5	11.3
Dir	219	207	280	299	261	301	278	282	295	260	298	340	351	341	11	32	46	22	42	98	138	151	211	332	335.3	277.7
10 Spd	1	0	0	0	0	0	1	2	4	6	7	9	13	11	8	7	10	14	18	11	8	5	6	4	5.7	18.3
Dir	70	13	85	49	62	114	252	200	250	258	233	268	266	235	244	226	231	221	248	238	220	222	249	248	240.2	247.6
11 Spd	6	4	3	3	3	8	20	24	30	30	32	34	35	32	37	43	38	39	37	36	37	30	29	28	25.3	42.9
Dir	228	218	224	204	249	243	256	266	273	271	273	272	273	275	266	260	268	277	259	262	258	258	257	256	264.2	259.9
12 Spd	22	25	21	24	27	28	28	26	24	24	22	21	20	19	11	12	11	11	11	17	19	21	21	20	19.3	28.4
Dir	256	256	253	252	261	263	269	276	282	265	255	244	235	240	273	328	286	300	261	296	278	265	269	267	265.1	268.6
13 Spd	15	15	11	7	7	12	8	10	11	8	6	8	4	1	2	6	12	13	9	11	9	3	4	5	4.9	15.5
Dir	274	266	272	276	327	347	24	44	45	50	52	91	202	294	323	278	318	322	313	306	298	311	234	303	317.8	274.0
14 Spd	8	8	7	4	4	6	8	9	9	9	10	13	14	12	13	13	12	10	7	6	2	6	6	5	4.7	13.8
Dir	301	302	306	294	244	260	305	343	27	16	16	38	33	27	17	346	80	77	70	108	159	265	262	285	3.2	32.7
15 Spd	1	1	1	2	3	5	6	8	9	8	5	4	3	5	3	6	3	6	2	4	3	0	0	0	1.9	8.9
Dir	307	116	215	215	225	206	241	271	257	270	272	290	33	229	344	34	296	222	264	70	94	144	17	65	263.7	256.7
16 Spd	0	0	0	1	1	0	3	6	9	13	13	15	12	11	18	16	15	12	10	4	3	2	7	6	7.2	17.9
Dir	69	4	93	222	13	237	123	44	43	26	38	34	44	45	47	49	46	50	48	79	60	48	41	31	44.3	47.4
17 Spd	4	3	2	4	6	4	6	7	9	7	4	7	9	7	11	10	8	7	11	11	8	3	6	4	4.6	11.3
Dir	45	43	49	51	46	62	62	86	91	119	104	168	148	126	199	187	153	138	166	158	166	136	153	132	133.8	165.9
18 Spd	4	3	2	1	1	3	6	7	11	19	19	21	20	13	11	17	14	10	11	9	2	0	0	2	7.0	20.9
Dir	82	71	81	67	76	227	244	237	257	273	272	263	279	290	313	305	297	297	314	320	323	228	143	49	285.3	263.4
19 Spd	1	1	3	1	1	1	3	3	4	4	5	8	6	11	7	11	26	22	17	16	14	21	16	12	6.7	25.9
Dir	41	74	63	63	169	135	126	211	43	43	55	233	287	268	339	286	262	256	271	291	272	258	259	271	270.5	262.2
20 Spd	10	12	14	15	13	12	18	17	18	18	19	19	19	17	20	17	19	15	18	15	13	12	9	10	14.9	20.0
Dir	277	219	229	243	238	228	250	245	238	248	256	254	256	259	258	247	257	247	258	258	256	269	280	289	251.7	258.4
21 Spd	11	9	10	12	12	9	11	15	17	18	15	11	9	12	14	22	22	11	10	13	6	1	0	1	9.6	22.1
Dir	285	257	227	247	262	285	274	278	271	269	276	295	282	276	288	231	222	256	301	346	38	214	269	276	268.8	231.3
22 Spd	4	2	4	4	8	10	9	9	15	16	11	11	12	8	10	5	6	11	3	9	10	4	1	1	6.3	16.1
Dir	236	230	213	269	272	276	274	272	266	260	293	289	303	288	349	307	21	232	306	309	242	217	198	80	277.6	260.5

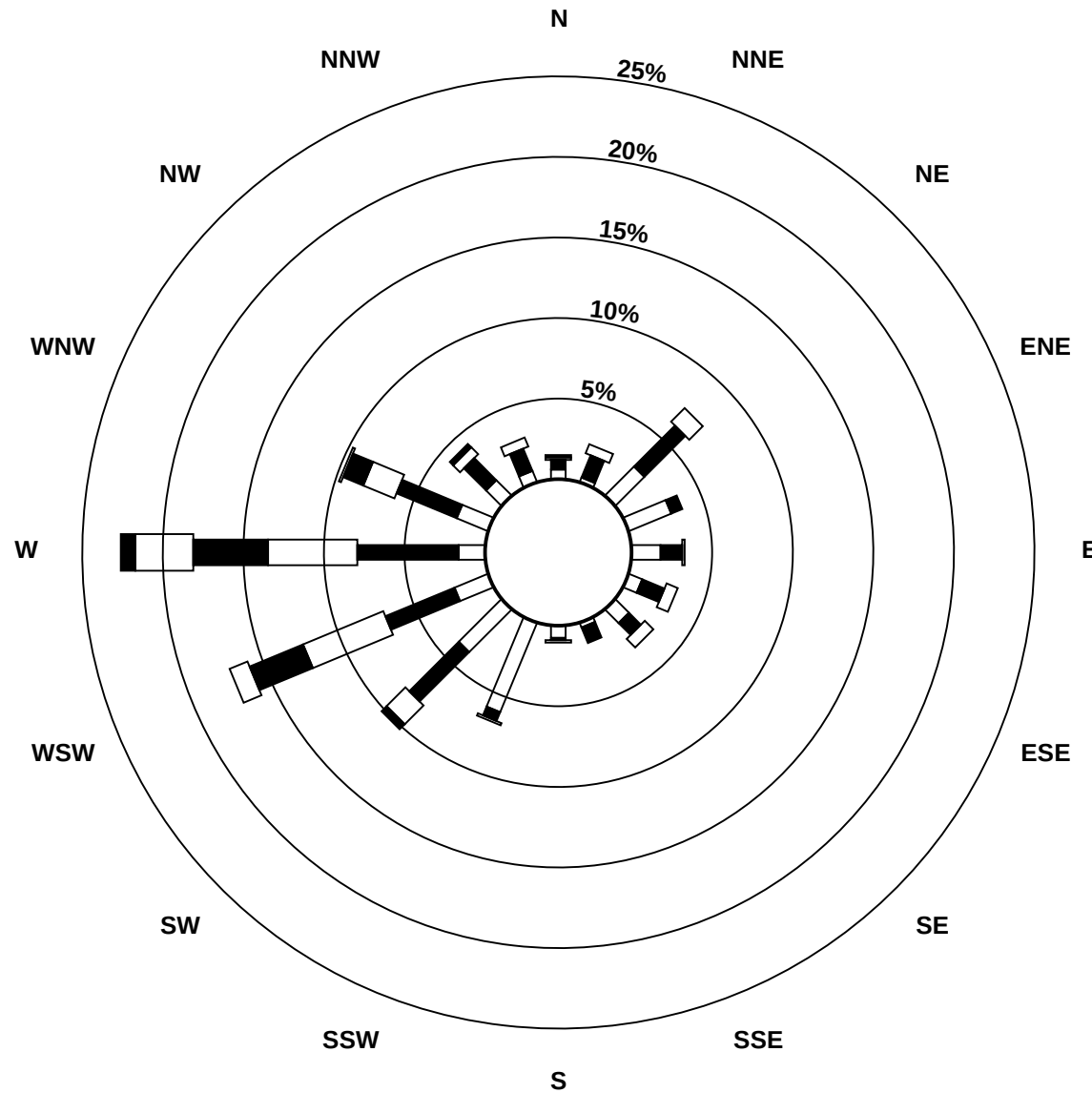
Hourly Averages

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

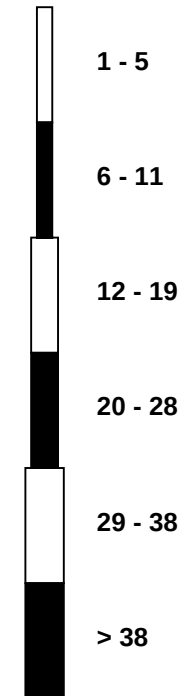
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum								
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24										
23 Spd	0	0	1	0	2	0	8	3	4	3	3	5	9	10	3	6	8	5	10	6	7	8	7	1	3.8	10.4								
Dir	219	56	202	88	217	359	259	255	198	257	198	249	276	269	296	333	263	241	220	204	216	218	213	199	243.0	268.7								
24 Spd	2	1	1	1	1	3	5	8	10	13	11	10	8	4	5	10	19	16	4	25	28	18	5	10	7.4	27.9								
Dir	204	149	193	183	205	211	228	252	256	261	261	294	320	312	293	235	194	174	191	265	253	259	217	221	245.2	253.4								
25 Spd	3	2	1	0	2	3	3	4	5	9	13	16	11	8	7	13	19	13	14	13	9	3	4	11	6.8	18.9								
Dir	131	5	225	219	201	196	179	202	209	251	263	267	282	264	264	268	264	225	260	259	266	250	205	246	252.8	264.5								
26 Spd	5	2	5	9	7	14	13	17	23	26	25	27	27	31	27	26	26	23	15	17	8	11	9	9	16.1	31.0								
Dir	239	200	217	230	241	254	274	278	286	298	281	282	284	269	272	277	272	285	289	285	281	260	253	256	274.7	269.5								
27 Spd	7	4	2	4	1	3	6	5	2	4	5	2	2	3	9	10	9	8	6	3	10	7	4	8	0.8	10.4								
Dir	246	208	180	211	206	203	212	280	234	200	167	176	135	95	54	42	54	47	37	218	263	287	221	260	232.0	41.5								
28 Spd	7	6	4	1	3	5	11	11	8	10	7	8	7	10	10	5	7	7	5	4	3	1	0	0	2.9	11.4								
Dir	227	259	217	84	252	243	264	290	287	322	337	283	281	309	352	59	26	43	78	93	104	44	245	193	305.2	290.3								
29 Spd	1	1	1	0	1	0	1	4	4	7	10	10	9	12	11	13	15	12	11	5	3	2	2	3	5.2	14.9								
Dir	41	224	41	210	45	35	63	103	65	88	124	127	113	118	110	113	123	128	120	87	81	95	41	204	112.5	123.4								
30 Spd	2	0	1	4	4	10	11	9	11	17	21	23	18	21	18	15	7	12	13	20	17	14	4	7	9.8	22.9								
Dir	49	166	53	279	311	305	302	305	270	312	321	308	288	294	280	281	225	221	222	264	241	245	287	274	280.8	308.3								
Spd	3.7	3.8	3.5	3.5	3.7	4.3	5.9	6.4	8.0	9.5	9.2	10.3	9.9	9.7	8.6	9.2	9.2	8.6	8.1	8.9	8.1	6.7	4.8	5.1	Diurnal Average									
Dir	258.3	256.1	258.3	256.7	260.2	261.9	261.7	268.4	270.2	271.7	271.9	272.8	271.9	273.6	284.6	271.9	262.4	259.3	261.0	262.6	251.9	251.9	248.3	254.7	Diurnal Maximum									
Spd	22.1	25.4	20.9	23.7	27.1	28.2	28.4	26.2	30.6	45.1	46.5	41.8	38.6	34.2	36.5	42.9	38.3	38.5	36.7	35.7	36.9	29.8	29.1	27.8	Diurnal Maximum									
Dir	256.1	256.0	253.3	251.7	260.8	263.2	268.6	275.7	260.9	259.1	265.9	262.4	264.3	272.3	266.3	259.9	267.8	277.2	258.8	261.6	257.8	257.7	256.8	255.9										
Maximum Speed Value: 46 km/h on Jun 8 11:00																				Minimum Speed Value: 0 km/h on Jun 18 23:00										Hours in Service:				720
Maximum Daily Speed Average: 25.3 km/h on Jun 11																				Minimum Daily Speed Average: 0.8 km/h on Jun 15										Hours of Data:				720
Maximum Diurnal Speed Average: 10.3 km/h at hour 12																				Minimum Diurnal Speed Average: 3.5 km/h at hour 4										Hours of Missing Data:				0
Monthly Average Velocity: 6.94 km/h 265.24 deg										Speed Percentiles: P ₁ = 0.3 P ₁₀ = 1.5 Q ₁ = 4.0 Median = 8.5 Q ₃ = 14.6 P ₉₀ = 24.4 P ₉₉ = 38.2										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	12		15		5		1		0		0		33																					
NorthEast	39		33		13		0		0		0		85																					
East	31		17		4		0		0		0		52																					
SouthEast	15		13		10		0		0		0		38																					
South	26		6		2		1		0		0		35																					
SouthWest	61		53		25		11		0		0		150																					
West	24		61		80		54		36		8		263																					
NorthWest	21		28		11		4		0		0		64																					
Total	229		226		150		71		36		8		720																					

Wind Rose

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



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Evergreen Park - June 2015

Maximum Speed: 47 km/h on Jun 8 11:00																				Maximum Daily Speed Average: 26.4 km/h on Jun 11										Hours in Service: 720	
Minimum Speed: 0 km/h on Jun 10 00:00																				Minimum Daily Speed Average: 5.3 km/h on Jun 15										Hours of Data: 720	
Maximum Diurnal Speed Average: 17.4 km/h at hour 17																				Minimum Diurnal Speed Average: 5.9 km/h at hour 1										Hours of Missing Data: 0	
Monthly Average Speed: 11.70 km/h																				Percentiles: P ₁ = 0.7 P ₁₀ = 2.3 Q ₁ = 5.0 Median = 9.7 Q ₃ = 15.6 P ₉₀ = 25.5 P ₉₉ = 39.6										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-Jun	4	9	21	14	12	9	7	9	4	6	4	6	9	9	8	6	6	6	4	6	3	1	1	1	6.9	20.6					
2-Jun	2	4	4	5	6	6	8	15	17	16	15	15	14	15	13	13	12	12	11	11	13	10	7	8	10.5	17.1					
3-Jun	4	3	3	4	3	3	4	5	7	7	8	11	8	9	10	11	10	6	20	28	22	14	10	4	8.9	27.9					
4-Jun	6	5	5	4	4	3	3	6	7	7	9	10	10	10	11	14	18	28	17	10	17	13	7	4	9.5	28.2					
5-Jun	4	4	9	11	5	2	10	19	23	23	26	29	29	36	37	32	34	37	29	28	16	15	15	19	20.5	37.3					
6-Jun	16	13	11	6	5	5	12	16	27	27	26	27	28	31	31	33	32	28	30	27	23	17	11	4	20.2	32.9					
7-Jun	2	10	9	6	8	8	10	19	24	24	27	30	27	30	35	34	33	24	15	15	17	8	2	14	17.9	35.4					
8-Jun	16	18	18	19	24	21	18	17	31	46	47	42	40	31	26	39	33	28	18	16	5	2	2	4	23.4	47.1					
9-Jun	1	1	5	5	4	8	12	8	7	7	8	12	9	10	9	11	12	11	9	7	5	1	1	0	6.8	12.2					
10-Jun	1	1	1	1	0	0	3	4	5	8	9	11	16	14	11	9	11	15	19	11	9	5	6	4	7.3	18.7					
11-Jun	6	5	4	4	4	9	20	24	31	31	33	35	36	34	38	44	40	40	37	36	37	30	29	28	26.4	43.8					
12-Jun	22	26	21	24	27	28	29	27	25	25	22	21	21	20	17	12	12	12	12	18	19	21	21	21	21.0	28.8					
13-Jun	16	15	12	7	8	12	9	10	11	8	6	10	6	4	6	10	13	14	10	11	10	8	5	6	9.3	15.9					
14-Jun	8	8	8	5	5	7	9	9	10	11	12	13	15	13	15	15	15	11	8	7	2	7	6	5	9.4	15.4					
15-Jun	2	2	1	2	3	5	7	8	9	9	7	9	6	7	9	7	8	8	5	4	3	0	1	1	5.3	9.4					
16-Jun	2	2	2	1	1	2	4	8	10	14	14	16	13	13	19	17	15	13	11	5	3	3	7	6	8.4	18.9					
17-Jun	4	3	2	4	6	4	7	9	10	9	7	9	12	10	12	11	9	9	12	12	9	4	6	4	7.6	12.4					
18-Jun	4	3	2	1	1	3	6	7	12	20	20	23	22	16	16	19	17	12	12	10	2	1	1	2	9.7	22.5					
19-Jun	2	2	3	1	2	3	5	6	4	4	6	10	7	14	9	15	26	23	17	17	16	22	16	13	10.1	26.3					
20-Jun	10	12	15	16	13	12	18	18	18	18	19	19	19	17	20	17	20	15	19	16	13	12	10	10	15.7	20.4					
21-Jun	11	9	10	13	12	10	11	15	18	19	16	13	11	14	15	25	22	13	11	16	6	2	1	2	12.3	25.3					
22-Jun	5	2	4	5	9	11	9	9	15	16	13	13	14	12	11	10	8	13	5	9	11	4	2	1	8.8	16.4					
23-Jun	1	1	2	1	3	2	9	4	4	6	5	7	11	12	9	9	10	7	10	6	7	8	7	2	5.9	12.5					
24-Jun	3	2	2	1	2	3	5	8	10	14	12	12	10	8	8	11	20	17	5	25	28	18	6	10	10.0	28.3					
25-Jun	4	3	2	1	2	4	4	5	6	10	14	17	14	11	9	14	20	15	15	13	10	4	4	11	8.9	19.7					
26-Jun	5	3	5	9	8	14	13	18	24	28	26	29	29	32	28	27	27	24	16	17	9	12	11	10	17.7	32.2					
27-Jun	7	5	4	5	2	4	6	5	3	5	7	7	7	8	10	11	10	9	7	5	10	8	4	8	6.5	11.3					
28-Jun	7	7	5	2	5	6	11	12	9	11	8	9	11	12	11	9	8	8	6	5	3	2	1	1	7.1	12.3					
29-Jun	1	1	1	0	1	1	2	5	5	9	12	11	10	13	12	14	16	12	11	6	3	3	2	3	6.4	15.7					
30-Jun	2	2	1	5	5	10	11	10	12	19	22	24	19	23	19	15	8	13	14	21	18	16	5	7	12.5	24.2					
5.9 6.0 6.4 6.1 6.3 7.1 9.4 11.1 13.3 15.3 15.4 16.7 16.0 16.2 16.3 17.3 17.4 16.1 13.8 13.9 11.7 9.0 6.9 7.1																									Diurnal Average						
22.3 25.6 21.1 24.0 27.3 28.4 28.8 26.8 31.4 45.8 47.1 42.5 39.7 35.9 37.5 43.8 39.9 39.9 37.1 36.3 37.3 30.1 29.3 28.1																									Diurnal Maximum						
All monthly, daily, and diurnal averages have been calculated using scalar methods																															

Hourly Standard Deviations

Wind Direction (WD) - deg

Evergreen Park - June 2015

Maximum Value: 95.3 deg on Jun 23 06:00																								Hours in Service: 720	
Minimum Value: 4.4 deg on Jun 23 22:00																								Hours of Data: 720	
																								Hours of Missing Data: 0	
Percentiles: P ₁ = 7.6 P ₁₀ = 11.5 Q ₁ = 16.1 Median = 24.9 Q ₃ = 47.7 P ₉₀ = 71.5 P ₉₉ = 91.7																								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-Jun	70	32	15	22	16	26	28	19	25	26	67	50	30	40	58	82	59	80	60	42	67	82	91	46	91.0
2-Jun	47	57	18	20	22	19	20	20	18	24	30	34	42	41	41	50	46	26	32	21	17	16	17	16	57.0
3-Jun	27	21	25	25	20	23	35	53	51	60	67	61	85	56	37	35	46	84	42	19	16	27	29	50	85.1
4-Jun	14	20	6	10	13	16	31	35	40	42	39	41	44	68	47	34	21	11	21	38	16	7	11	13	68.3
5-Jun	10	22	8	12	35	33	27	9	10	14	15	13	14	18	16	9	9	12	10	11	11	10	14	8	34.6
6-Jun	11	9	10	11	10	17	21	14	16	14	21	20	16	12	15	12	13	11	8	8	8	9	10	16	20.9
7-Jun	60	9	18	8	7	10	18	9	14	17	19	15	17	16	12	14	14	13	16	25	8	45	84	16	84.1
8-Jun	14	15	14	23	12	13	15	17	12	10	9	10	14	20	24	16	19	17	24	19	36	63	58	22	63.1
9-Jun	61	88	59	30	40	31	16	32	67	68	80	50	88	76	56	49	48	53	55	58	17	62	57	60	88.4
10-Jun	88	68	82	74	72	68	90	53	48	49	48	50	38	49	59	33	27	17	12	16	19	41	27	42	90.3
11-Jun	23	22	70	24	27	21	9	13	13	14	15	16	15	16	14	12	16	15	8	10	8	8	7	8	69.8
12-Jun	8	7	9	9	7	8	9	13	14	16	12	11	11	13	51	18	22	21	15	14	14	9	12	11	51.1
13-Jun	13	13	15	16	24	13	16	18	22	23	32	33	53	86	92	55	22	23	14	17	15	62	37	33	92.0
14-Jun	14	13	21	49	35	20	25	22	22	29	41	24	26	26	31	34	40	36	33	34	52	23	16	25	52.1
15-Jun	77	91	73	76	52	20	20	19	19	31	55	79	72	65	76	31	82	54	84	30	24	94	77	80	93.8
16-Jun	95	83	89	78	84	88	53	36	31	20	24	21	32	31	24	25	22	23	22	31	36	17	12	16	94.8
17-Jun	16	20	21	17	15	33	27	37	39	43	59	45	48	45	40	25	40	45	20	24	18	21	21	23	58.8
18-Jun	15	17	33	60	58	37	17	24	19	21	19	23	25	36	55	28	32	35	26	20	55	93	87	72	93.5
19-Jun	70	92	18	77	92	74	49	77	30	20	50	58	33	38	60	51	11	8	15	20	26	22	12	17	92.4
20-Jun	23	8	10	12	14	10	9	11	11	12	13	12	11	15	12	15	14	15	14	12	12	14	17	15	22.8
21-Jun	17	17	12	9	11	20	15	18	16	15	23	32	37	31	34	39	18	31	31	41	23	61	84	51	83.7
22-Jun	18	80	31	29	17	18	23	20	12	11	33	33	28	58	25	65	44	62	60	22	19	27	76	74	80.5
23-Jun	91	86	83	86	50	95	20	52	40	61	72	66	38	35	81	58	40	67	23	14	9	4	10	58	95.3
24-Jun	72	73	87	90	83	29	19	14	21	17	27	30	50	80	59	32	20	20	51	11	10	10	41	14	89.7
25-Jun	39	64	89	87	55	55	18	22	37	39	29	26	42	61	50	33	17	34	21	15	21	53	24	15	88.7
26-Jun	31	50	38	12	28	11	17	16	17	21	20	22	21	15	18	19	16	17	21	14	17	25	35	13	50.0
27-Jun	13	53	65	47	53	40	21	34	60	39	54	89	91	79	34	28	29	26	22	86	19	29	52	13	91.4
28-Jun	13	34	62	67	73	29	14	18	31	32	46	44	54	43	32	66	46	40	39	25	28	25	85	89	89.0
29-Jun	66	42	24	77	72	75	26	37	46	49	31	31	33	28	24	22	23	19	18	29	31	40	43	72	77.0
30-Jun	47	86	79	55	39	17	14	20	20	28	20	20	26	25	23	18	22	22	16	19	20	26	52	18	85.6
	94.8	92.4	89.5	89.7	91.9	95.3	90.3	76.9	67.0	68.2	80.4	89.5	91.4	86.4	92.0	82.5	82.0	83.9	84.2	86.0	67.1	93.8	91.0	89.0	

PAZA
Smoky Heights Station
Monthly Summary Tables, Graphs and
Roses

Hourly Averages

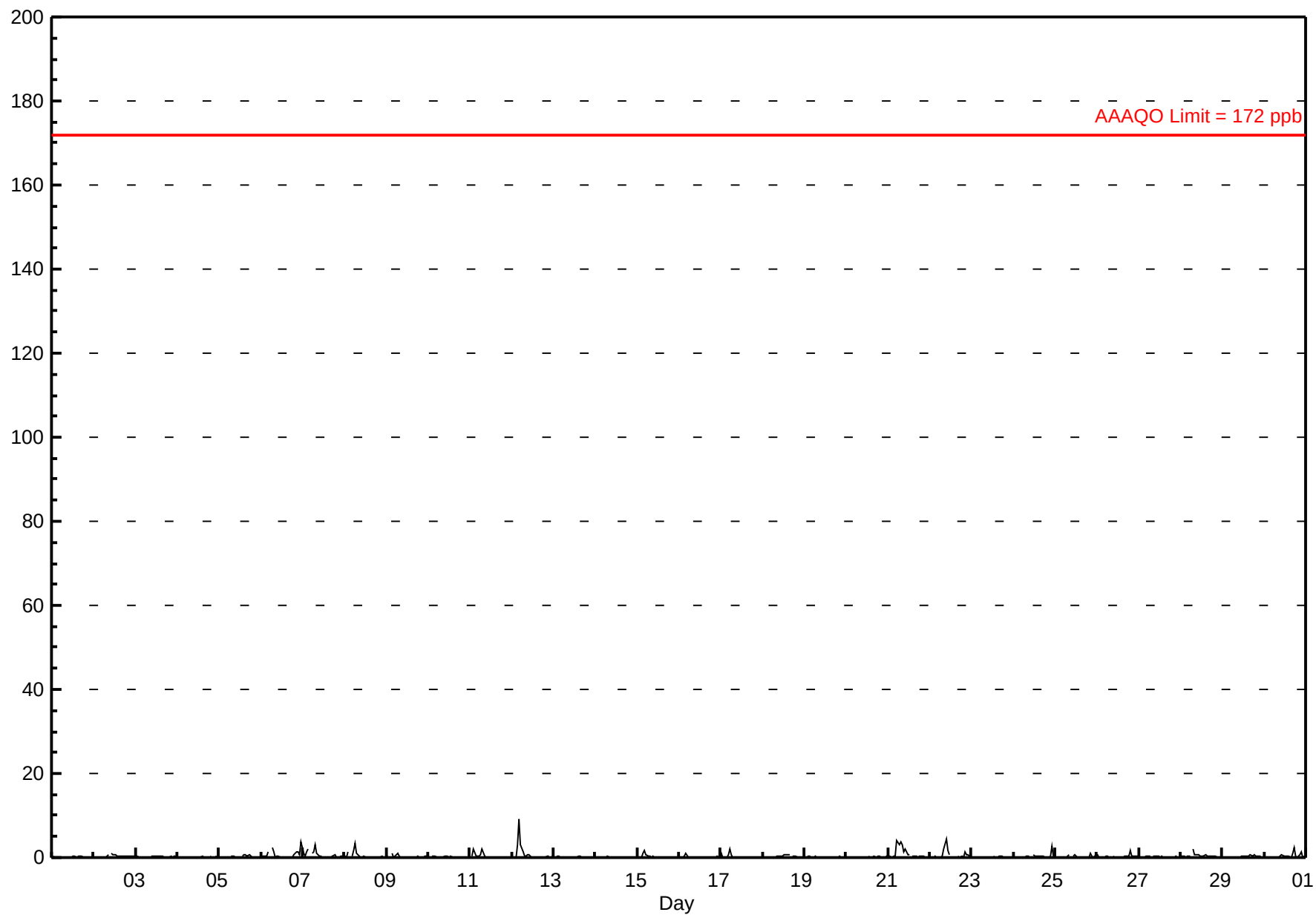
Sulphur Dioxide (SO₂) - ppb

Smoky Heights - June 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 9.2 ppb on Jun 12 05:00 Maximum Daily Average: 0.9 ppb on Jun 21																								Hours in Service: 720 Hours of Data: 681 Hours of Missing Data: 39 Hours of Calibration: 34 Percent Operational Time: 99.3		
Minimum Value: 0 ppb on Jun 1 06:00 Minimum Daily Average: 0.1 ppb on Jun 14 Maximum Diurnal Average: 0.6 ppb at hour 5 Minimum Diurnal Average: 0.1 ppb at hour 2 Monthly Average: 0.30 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 = 3.1																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jun	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
2-Jun	0	0	0	0	0	0	0	0	1	A	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.3	0.9
3-Jun	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
4-Jun	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	P	P	0	0	0.1	0.4
5-Jun	0	0	0	0	0	0	A	0	0	0	C	C	C	0	1	1	0	1	0	0	0	0	0	0	0.2	0.7
6-Jun	0	0	0	0	1	A	2	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	4	0.7	3.6
7-Jun	1	0	1	2	A	1	1	3	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.6	3.2
8-Jun	0	0	1	A	0	2	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	3.5
9-Jun	0	0	A	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.1
10-Jun	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-Jun	A	0	2	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.3	2.1
12-Jun	0	0	0	3	9	3	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0.9	9.2
13-Jun	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-Jun	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-Jun	0	0	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.2	1.8
16-Jun	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.1	0.9
17-Jun	1	0	0	0	1	2	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.2	2.1
18-Jun	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	A	0	0	0	0	0	0	0	0.3	0.8
19-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.1	0.3
20-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.1	0.2
21-Jun	0	0	0	0	0	4	3	4	3	1	2	1	1	A	0	0	0	0	0	0	0	0	0	0	0.9	4.2
22-Jun	0	0	0	0	0	0	0	0	2	5	2	1	A	D	D	D	0	0	0	0	1	1	1	0	0.7	4.6
23-Jun	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
24-Jun	0	0	0	0	0	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	3	0	0.3	2.6
25-Jun	0	0	0	0	0	0	0	0	1	A	0	1	0	0	0	0	0	0	0	0	1	0	0	1	0.2	1.0
26-Jun	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0.3	1.7
27-Jun	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-Jun	0	0	0	0	0	0	A	2	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0.4	1.9
29-Jun	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0.2	0.7
30-Jun	0	0	0	0	A	0	0	0	0	0	1	0	0	0	0	0	1	2	0	0	1	1	0	0	0.4	2.3
																								Diurnal Average		
																								Diurnal Maximum		
C - Calibration P - Power Failure D - DAS 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
Smoky Heights - June 2015



Hourly Maximums

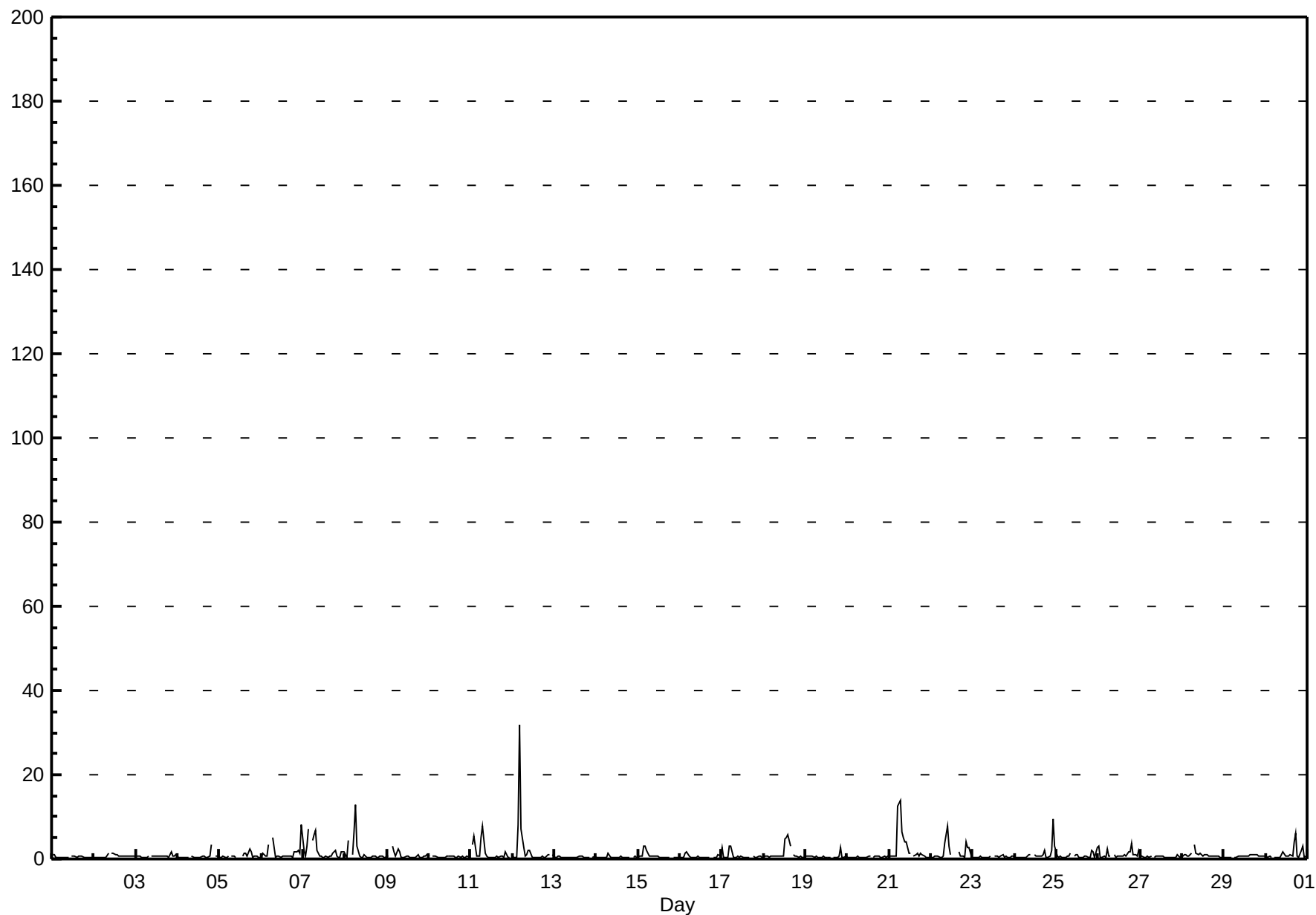
Sulphur Dioxide (SO₂) - ppb

Smoky Heights - June 2015

Maximum Value: 31.7 ppb on Jun 12 05:00																				Maximum Daily Average: 2.8 ppb on Jun 12																				Hours in Service: 720	
Minimum Value: 0 ppb on Jun 13 23:00																				Minimum Daily Average: 0.5 ppb on Jun 14																				Hours of Data: 681	
Maximum Diurnal Average: 2.1 ppb at hour 7																				Minimum Diurnal Average: 0.6 ppb at hour 2																				Hours of Missing Data: 39	
Monthly Average: 1.02 ppb																				Percentiles: P ₁ = 0.3 P ₁₀ = 0.4 Q ₁ = 0.4 Median = 0.5 Q ₃ = 0.8 P ₉₀ = 1.9 P ₉₉ = 8.2																				Hours of Calibration: 34	
																																								Percent Operational Time: 99.3	
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-Jun	1	1	0	0	0	0	0	0	0	0	A	1	1	1	0	1	1	1	0	0	0	0	0	0	0.5	0.9															
2-Jun	0	0	0	0	0	0	0	0	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.4															
3-Jun	1	1	1	0	0	0	0	1	A	1	1	1	1	1	1	1	1	1	1	0	2	1	1	1	0.7	1.8															
4-Jun	0	0	0	0	0	0	0	A	1	0	0	0	0	1	1	1	0	1	1	3	P	P	1	1	0.6	3.4															
5-Jun	0	1	1	0	0	1	A	1	1	1	C	C	C	1	1	1	1	2	2	0	1	1	0	0	0.8	2.4															
6-Jun	1	1	1	1	3	A	5	3	0	1	1	0	1	1	1	1	1	1	0	2	2	2	1	8	1.6	8.2															
7-Jun	2	1	3	7	A	4	6	7	2	1	1	0	0	1	0	1	1	1	2	1	0	0	2	2	1.9	7.0															
8-Jun	1	0	4	A	1	7	13	3	1	0	0	1	0	0	0	0	1	1	0	0	1	1	1	0	1.6	12.8															
9-Jun	1	1	A	3	2	1	2	2	1	0	0	1	1	0	0	0	0	1	1	0	0	1	1	1	0.8	3.1															
10-Jun	1	A	1	1	1	0	0	0	0	1	1	1	1	1	1	0	0	1	0	1	0	0	1	0	0.5	0.8															
11-Jun	A	3	5	1	1	1	5	8	1	1	0	0	0	0	0	1	0	1	1	0	2	0	0	A	1.5	7.8															
12-Jun	1	0	1	8	32	7	3	1	1	2	2	0	0	0	0	0	0	1	0	0	1	1	A	1	2.8	31.7															
13-Jun	0	0	1	1	1	0	0	0	0	0	1	0	0	0	1	1	1	0	0	0	0	A	0	1	0.5	0.8															
14-Jun	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	0	0	1	0	0	A	0	1	0	0.5	1.3															
15-Jun	0	1	1	3	3	2	1	1	1	1	1	1	0	0	0	0	0	0	0	A	0	0	0	0	0.8	3.1															
16-Jun	0	0	0	1	2	1	0	0	0	0	1	0	0	0	0	0	0	0	A	0	0	0	1	1	0.5	1.8															
17-Jun	3	1	0	0	3	3	2	0	0	1	0	1	0	0	0	0	0	A	1	0	0	1	1	0	0.8	3.1															
18-Jun	0	1	1	0	1	1	1	1	1	1	1	5	5	6	3	A	1	1	1	1	0	1	0	0	1.3	5.8															
19-Jun	1	1	1	1	1	0	1	0	1	0	1	0	0	0	A	0	0	0	1	3	0	0	1	1	0.6	2.7															
20-Jun	0	0	0	0	0	0	1	0	0	0	0	0	1	1	A	0	1	1	1	1	0	1	0	1	0.5	0.7															
21-Jun	1	1	1	1	1	12	14	7	5	4	4	1	1	A	1	1	1	1	1	1	1	0	0	1	2.6	13.8															
22-Jun	0	0	1	1	1	0	0	1	4	8	3	1	A	D	D	D	2	1	1	0	4	3	3	0	1.7	7.8															
23-Jun	0	0	0	0	1	0	0	0	0	0	1	A	1	1	1	1	1	1	0	1	0	0	1	1	0.5	1.0															
24-Jun	0	0	1	0	0	0	0	1	1	1	A	1	1	1	1	1	1	2	0	0	1	2	10	3	1.3	9.6															
25-Jun	1	0	1	1	0	0	1	1	1	A	1	1	1	0	1	0	1	1	0	0	2	2	0	3	0.8	2.7															
26-Jun	3	0	0	1	0	2	1	1	A	1	0	1	1	1	1	1	1	2	2	4	1	1	1	2	1.1	3.6															
27-Jun	1	1	0	1	1	0	1	A	0	1	1	1	1	1	0	0	0	0	0	0	0	1	1	0	0.6	1.1															
28-Jun	1	1	1	1	1	1	A	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0.9	3.3															
29-Jun	0	0	0	0	0	A	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	1.1															
30-Jun	1	1	1	0	A	0	0	0	0	0	1	2	1	1	1	1	4	6	1	0	2	3	0	1	1.2	6.0															
																								Diurnal Average																	
																								Diurnal Maximum																	
C - Calibration P - Power Failure D - DAS Failure A - Automated Daily Zero Span																																									

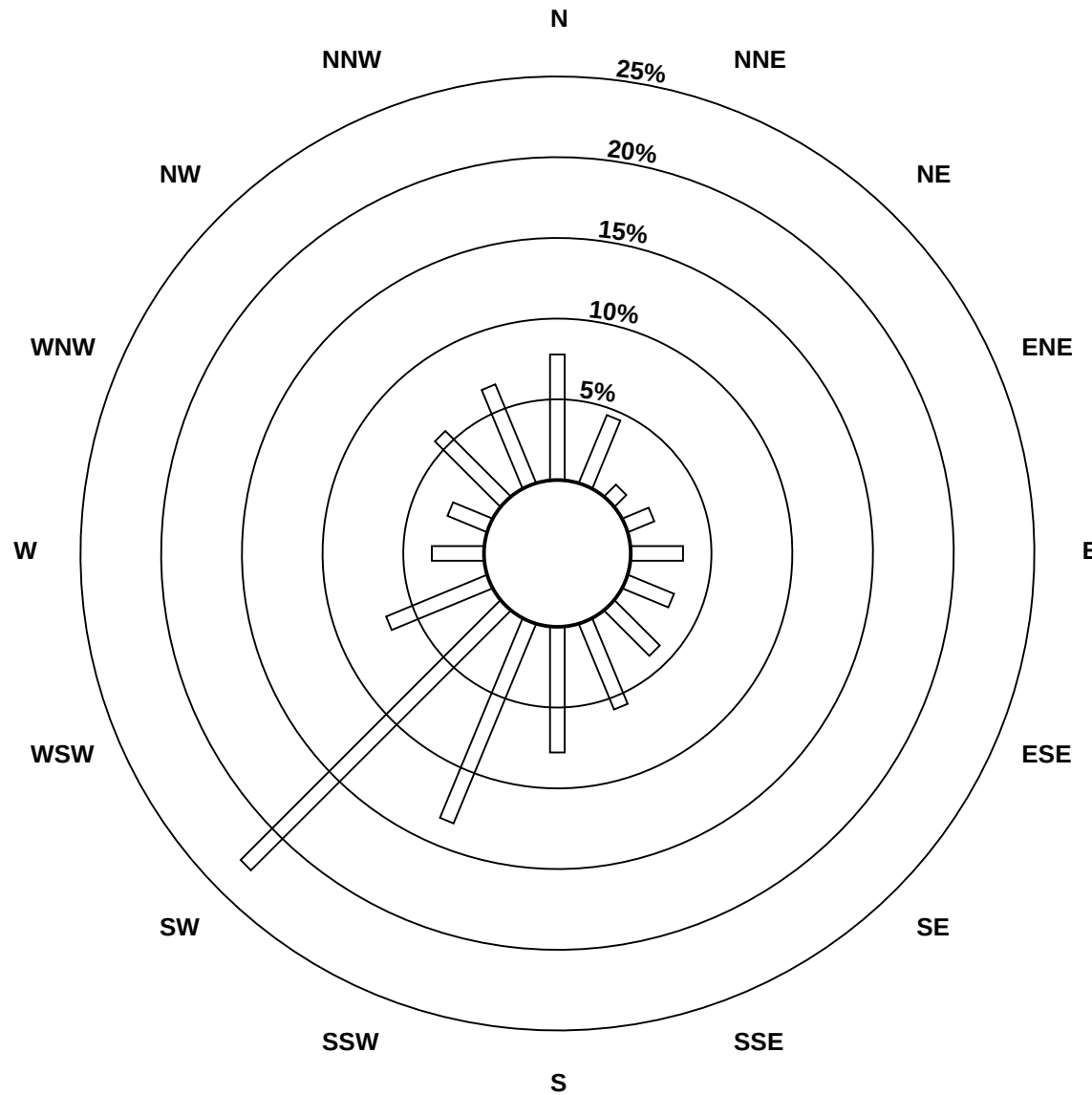
Hourly Maximums

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

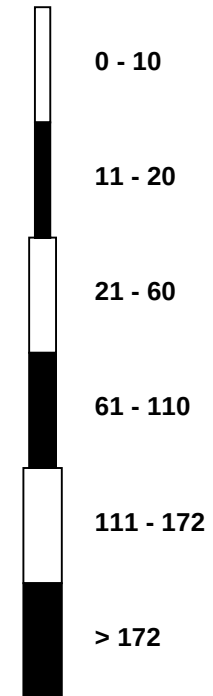


Pollutant Rose

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

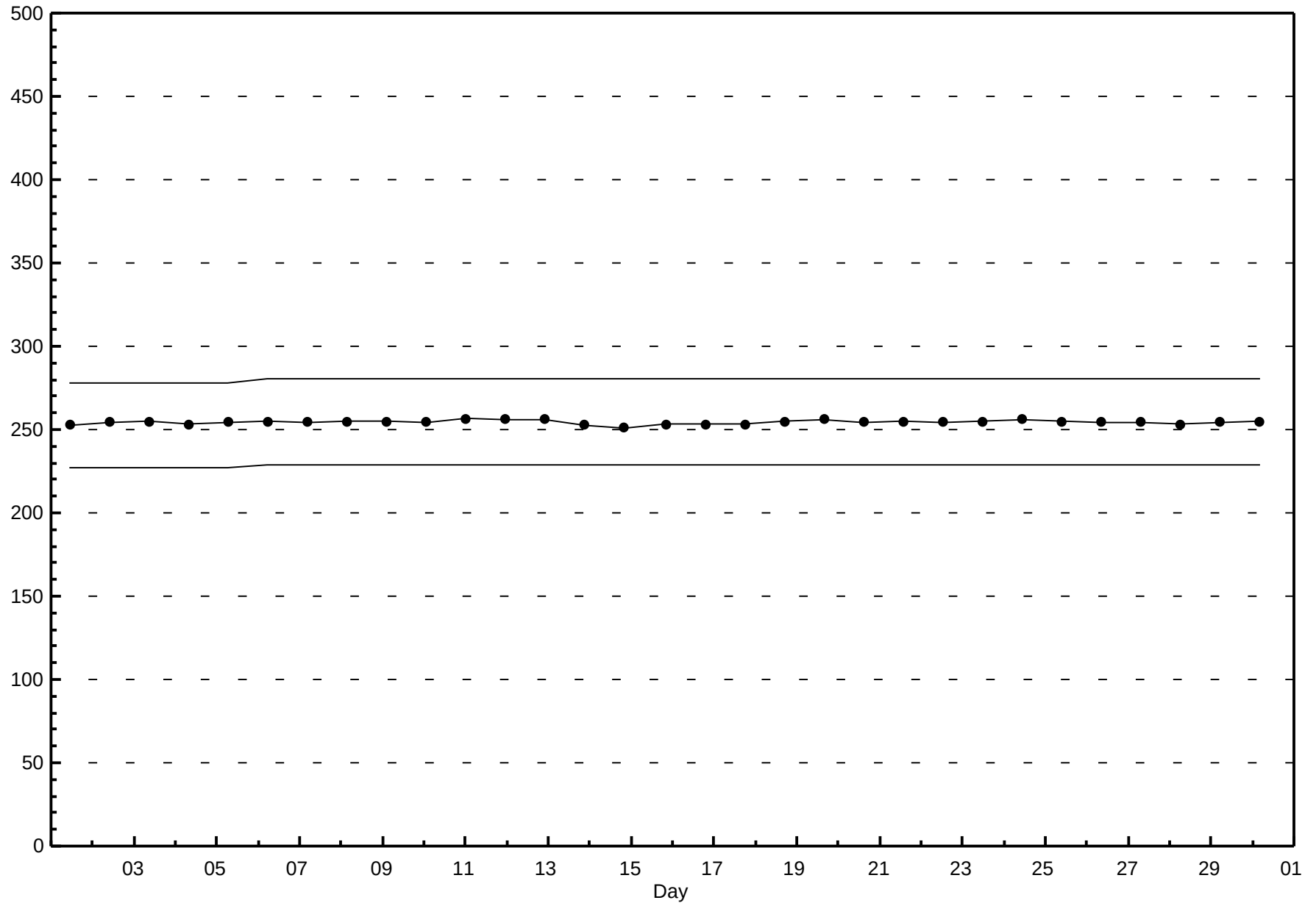


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Smoky Heights - June 2015



Hourly Averages

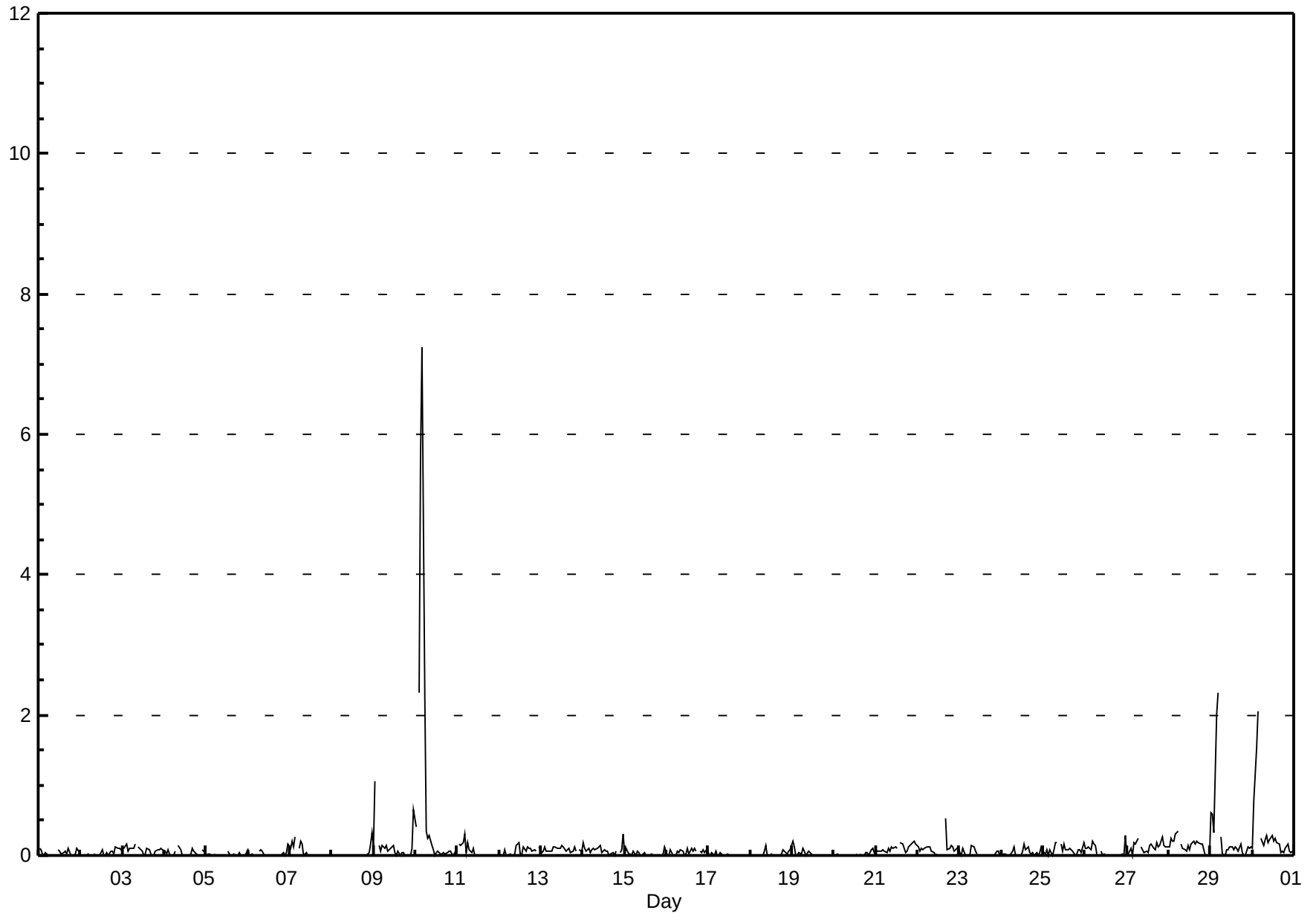
Total Reduced Sulphur (TRS) - ppb

Smoky Heights - June 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 7.2 ppb on Jun 10 05:00 Maximum Daily Average: 0.8 ppb on Jun 10																				Hours in Service: 720 Hours of Data: 680 Hours of Missing Data: 40 Hours of Calibration: 35 Percent Operational Time: 99.3						
Minimum Value: 0 ppb on Jun 1 04:00 Maximum Diurnal Average: 0.4 ppb at hour 5 Monthly Average: 0.10 ppb										Minimum Daily Average: 0.0 ppb on Jun 17 Minimum Diurnal Average: 0.0 ppb at hour 19 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 = 2.0																
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-Jun	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-Jun	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-Jun	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
4-Jun	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	P	P	0	0	0.0	0.1
5-Jun	0	0	0	0	0	0	A	0	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
6-Jun	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
7-Jun	0	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-Jun	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.3
9-Jun	0	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	1.1
10-Jun	0	A	2	6	7	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.8	7.2
11-Jun	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.1	0.3
12-Jun	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-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.1
14-Jun	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-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.0	0.1
16-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.0	0.1
17-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.0	0.1
18-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	A	0	0	0	0	0	0	0	0.0	0.1
19-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.0	0.2
20-Jun	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-Jun	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
22-Jun	0	0	0	0	0	0	0	0	0	0	0	A	D	D	D	1	0	0	0	0	0	0	0	0	0.1	0.5
23-Jun	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-Jun	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
25-Jun	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-Jun	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-Jun	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-Jun	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
29-Jun	1	1	0	2	2	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	2.3
30-Jun	0	1	2	2	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	2.1
0.1 0.1 0.2 0.4 0.4 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.0 0.0 0.1 0.0 0.1 0.0 0.0 0.0 0.1 0.0 0.1 0.1																									Diurnal Average	
0.6 1.1 2.3 5.7 7.2 2.2 0.3 0.2 0.3 0.2 0.2 0.3 0.2 0.2 0.2 0.2 0.5 0.2 0.2 0.2 0.3 0.2 0.2 0.6																									Diurnal Maximum	
C - Calibration P - Power Failure D - DAS Failure 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 - June 2015



Hourly Maximums

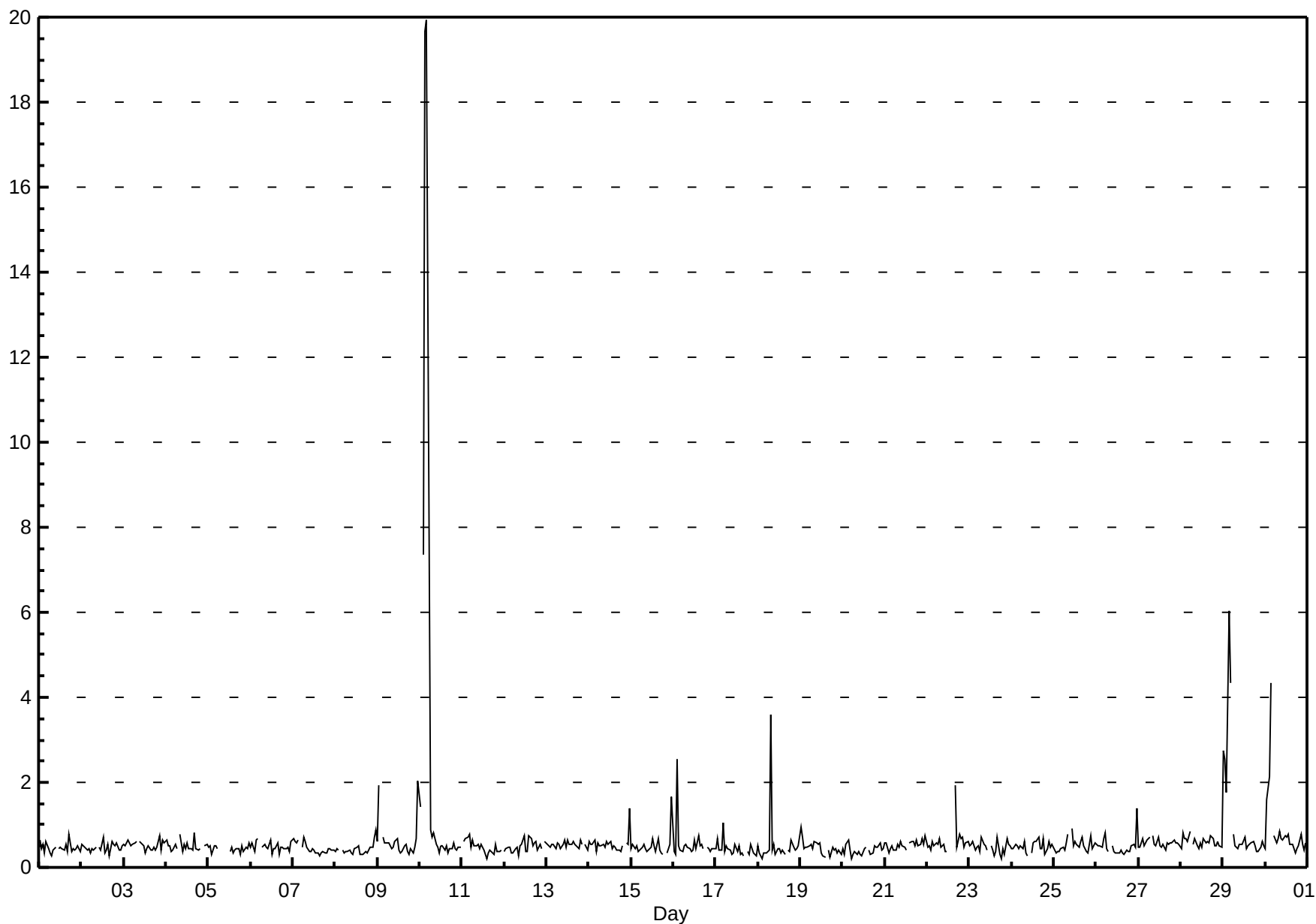
Total Reduced Sulphur (TRS) - ppb

Smoky Heights - June 2015

Maximum Value: 19.9 ppb on Jun 10 05:00																				Maximum Daily Average: 2.8 ppb on Jun 10					Hours in Service: 720	
Minimum Value: 0 ppb on Jun 23 19:00																				Minimum Daily Average: 0.4 ppb on Jun 20					Hours of Data: 680	
Maximum Diurnal Average: 1.5 ppb at hour 4																				Minimum Diurnal Average: 0.4 ppb at hour 19					Hours of Missing Data: 40	
Monthly Average: 0.62 ppb																				Percentiles: P ₁ = 0.3 P ₁₀ = 0.3 Q ₁ = 0.4 Median = 0.5 Q ₃ = 0.6 P ₉₀ = 0.7 P ₉₉ = 4.3					Hours of Calibration: 35	
																				Percent Operational Time: 99.3						
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-Jun	1	0	1	0	1	0	0	0	0	0	A	0	0	0	0	1	0	1	0	0	0	0	1	0	0.5	0.8
2-Jun	1	1	0	0	0	0	0	0	0	A	0	0	1	0	0	1	0	1	1	0	1	0	0	1	0.5	0.7
3-Jun	1	1	1	1	1	1	1	1	A	1	1	0	0	0	0	0	0	0	0	0	1	0	1	1	0.5	0.8
4-Jun	1	1	1	0	0	1	0	A	1	0	1	0	1	0	0	0	1	0	0	0	P	P	0	1	0.5	0.8
5-Jun	0	1	0	1	1	0	A	1	C	C	C	C	0	0	0	0	0	0	0	1	0	0	0	1	0.5	0.6
6-Jun	0	1	0	1	1	A	0	1	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0.5	0.7
7-Jun	1	1	1	1	A	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0.7
8-Jun	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.4	0.9
9-Jun	1	2	A	1	1	1	1	1	0	0	1	1	0	0	0	1	1	0	0	0	0	0	1	2	0.6	2.0
10-Jun	1	A	7	20	20	7	1	1	1	1	0	0	0	0	0	1	0	0	0	0	1	0	0	0	2.8	19.9
11-Jun	A	1	1	1	1	0	1	1	1	1	0	1	0	0	0	0	0	0	0	1	0	0	0	A	0.5	0.8
12-Jun	0	0	0	0	0	0	0	0	0	1	1	1	0	0	1	1	1	1	1	0	1	0	A	1	0.5	0.8
13-Jun	1	1	0	1	1	0	1	1	0	1	1	0	1	1	1	1	1	0	0	1	1	A	1	0	0.5	0.7
14-Jun	1	1	1	1	0	1	1	1	1	0	1	1	1	0	0	0	0	0	0	1	A	1	1	1	0.6	1.4
15-Jun	0	1	0	1	0	0	0	1	0	0	0	0	1	1	0	1	0	0	0	A	0	0	1	2	0.5	1.7
16-Jun	0	0	3	0	0	0	1	1	0	0	0	0	1	0	1	1	1	0	A	0	0	0	0	0	0.6	2.5
17-Jun	0	1	0	0	1	0	1	0	0	0	0	1	0	0	0	0	0	A	0	0	1	0	0	0	0.4	1.1
18-Jun	0	0	0	0	0	0	0	4	0	1	0	0	0	0	0	0	A	0	0	1	0	0	0	1	0.5	3.6
19-Jun	1	1	0	0	0	1	1	0	1	1	1	1	0	0	0	A	0	0	0	0	0	0	0	0	0.5	1.0
20-Jun	0	0	1	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	0	0	1	0	0	0.4	0.6
21-Jun	1	1	0	0	1	0	0	1	0	1	1	0	0	A	1	1	1	1	1	0	1	1	1	1	0.5	0.8
22-Jun	0	1	0	1	1	1	1	1	0	1	0	0	A	D	D	D	2	0	1	1	1	0	1	1	0.6	1.9
23-Jun	1	1	1	0	0	1	0	1	1	0	0	A	0	0	0	0	1	0	0	0	0	1	1	1	0.5	0.7
24-Jun	0	0	1	1	0	1	0	1	0	0	A	0	1	1	1	1	0	0	1	0	0	1	0	1	0.5	0.7
25-Jun	0	0	0	0	0	0	0	1	1	A	1	0	1	1	0	1	1	1	0	0	1	1	0	1	0.5	0.9
26-Jun	1	1	1	0	1	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0.5	1.4
27-Jun	0	0	1	0	1	1	1	A	1	1	1	1	1	0	1	0	1	1	1	1	1	1	1	1	0.6	0.7
28-Jun	0	1	1	1	1	1	A	1	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	0	0.6	0.9
29-Jun	3	3	2	6	4	A	1	0	0	1	1	1	1	0	0	1	1	1	0	0	0	0	1	0	1.2	6.0
30-Jun	0	2	2	4	A	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	1	1	0	1	0.9	4.3
0.6 0.7 0.9 1.5 1.3 0.7 0.5 0.6 0.5 0.5 0.5 0.5 0.5 0.5 0.4 0.5 0.5 0.5 0.5 0.4 0.5 0.5 0.5 0.7																									Diurnal Average	
2.7 2.5 7.4 19.7 19.9 7.4 0.9 3.6 0.8 0.7 0.9 0.8 0.7 0.8 0.8 0.7 1.9 0.8 0.8 0.7 0.8 0.7 2.0																									Diurnal Maximum	
C - Calibration P - Power Failure D - DAS Failure A - Automated Daily Zero Span																										

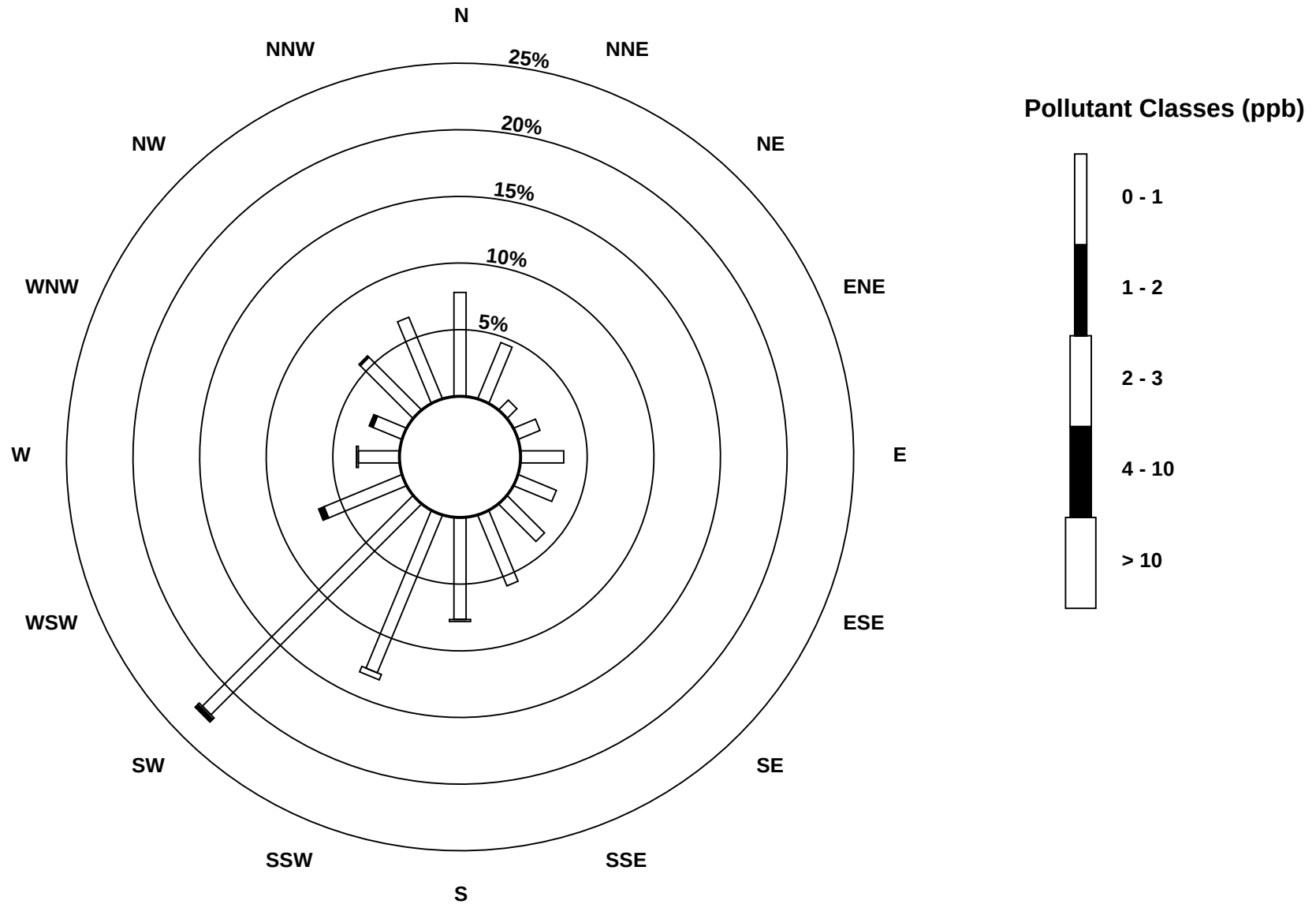
Hourly Maximums

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



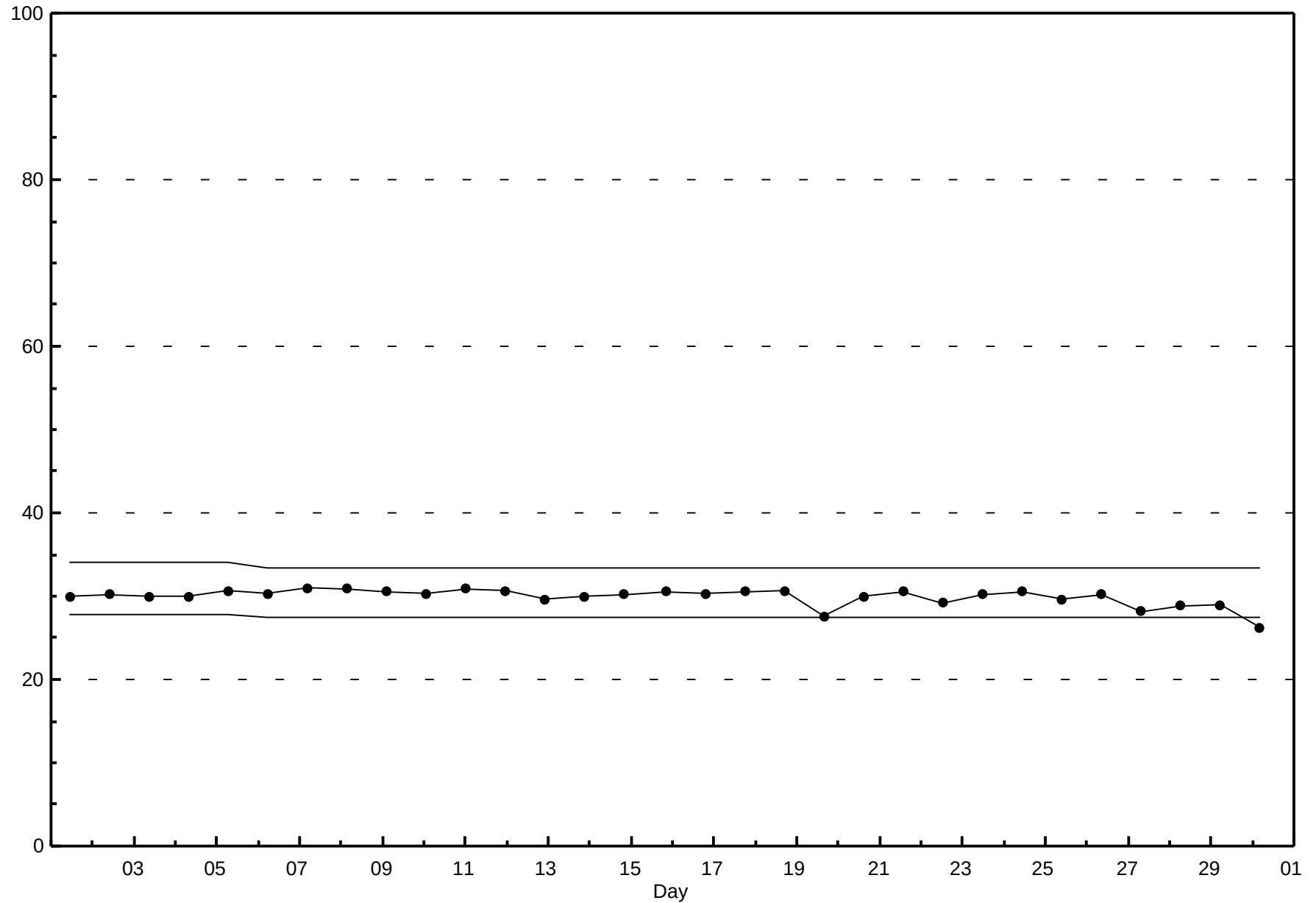
Pollutant Rose

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



Span Responses

Total Reduced Sulphur (TRS)
Smoky Heights - June 2015

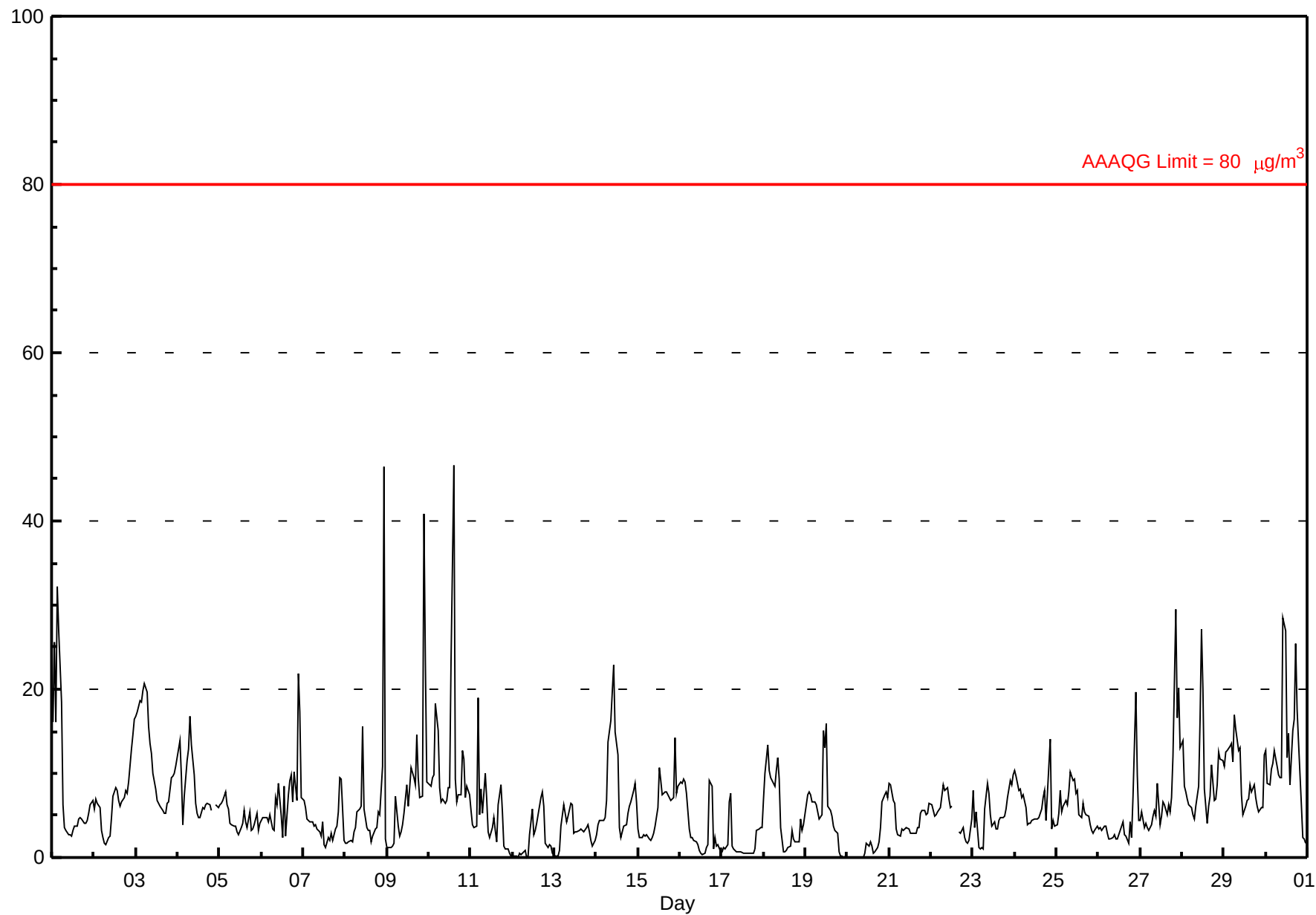


Hourly Averages

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

Smoky Heights - June 2015

Number of Exceedences: 1-hr: 0 24-hr: 0 Maximum Value: 46.6 µg/m³ on Jun 10 15:00 Maximum Daily Average: 12.3 µg/m³ on Jun 30																								Hours in Service: 720 Hours of Data: 715 Hours of Missing Data: 5 Hours of Calibration: 0 Percent Operational Time: 99.3		
Minimum Value: 0 µg/m³ on Jun 12 01:00 Maximum Diurnal Average: 8.5 µg/m³ at hour 22 Monthly Average: 6.32 µg/m³												Minimum Daily Average: 1.7 µg/m³ on Jun 17 Minimum Diurnal Average: 5.0 µg/m³ at hour 16 Percentiles: P ₁ = 0.0 P ₁₀ = 1.2 Q ₁ = 3.0 Median = 5.2 Q ₃ = 7.9 P ₉₀ = 12.7 P ₉₉ = 26.1														
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jun	16	26	16	32	27	18	6	4	3	3	3	3	4	4	5	5	5	4	4	4	4	5	6	7	8.8	32.2
2-Jun	6	7	6	6	3	2	2	1	2	3	5	7	8	8	7	6	7	7	8	8	9	13	15	16	6.8	16.5
3-Jun	17	17	19	18	20	21	20	16	14	12	10	8	7	6	6	6	5	5	6	7	10	10	10	11	11.7	20.7
4-Jun	13	14	10	4	7	12	13	17	13	10	7	5	5	5	6	6	6	6	6	6	P	P	6	6	8.3	16.8
5-Jun	6	6	7	8	6	6	4	4	4	4	3	3	4	4	6	4	4	6	3	3	4	5	3	4	4.6	7.8
6-Jun	4	5	5	5	4	5	3	3	7	6	9	5	2	8	2	8	9	10	7	10	7	22	17	7	7.2	21.9
7-Jun	7	6	5	4	4	4	4	4	3	3	3	4	2	1	2	2	3	2	3	4	5	9	9	2	4.0	9.5
8-Jun	2	2	2	2	2	3	4	5	6	6	16	6	3	3	3	2	3	3	4	5	5	11	47	2	6.1	46.5
9-Jun	1	1	1	1	2	7	4	3	3	4	5	9	6	8	11	9	9	15	9	7	7	41	23	9	8.2	40.8
10-Jun	9	8	10	10	18	15	8	7	7	6	7	8	8	23	47	9	7	7	8	13	12	7	9	7	11.2	46.6
11-Jun	6	4	4	4	19	5	8	5	10	7	3	2	4	5	3	2	6	9	6	1	1	1	1	0	4.8	18.9
12-Jun	0	0	0	0	0	0	1	1	0	0	3	6	3	3	4	6	7	8	6	2	1	2	1	1	2.3	7.9
13-Jun	0	0	0	1	4	6	5	4	5	6	6	3	3	3	3	3	3	3	4	4	3	2	1	2	3.2	6.5
14-Jun	3	4	4	4	4	5	7	14	16	20	23	15	12	4	2	3	4	4	5	6	7	8	9	7	7.9	22.9
15-Jun	3	2	2	3	3	3	2	2	2	3	4	6	11	9	7	8	8	7	7	7	7	14	8	8	5.7	14.2
16-Jun	9	9	9	9	8	3	2	2	2	2	2	1	0	0	1	1	2	9	9	1	2	1	2	1	3.6	9.3
17-Jun	1	1	1	1	7	8	1	1	1	1	1	1	1	1	0	1	1	0	1	1	3	3	3	4	1.7	7.7
18-Jun	7	10	13	10	9	9	9	10	12	9	4	1	1	1	1	1	3	2	2	2	2	5	3	4	5.4	13.3
19-Jun	6	8	8	7	7	7	6	5	5	5	15	13	16	6	6	5	4	3	3	1	0	0	0	0	5.7	16.0
20-Jun	0	0	0	0	0	0	0	0	0	0	1	2	1	2	1	0	1	1	2	3	7	8	8	7	1.8	7.8
21-Jun	9	9	7	6	3	3	3	3	3	3	3	3	3	3	3	3	4	4	5	6	6	5	5	6	4.5	8.8
22-Jun	6	6	5	5	6	6	7	9	8	8	7	6	6	D	D	D	3	3	4	2	2	2	2	5	5.1	8.6
23-Jun	8	4	5	1	1	1	1	6	9	8	5	4	4	3	3	4	5	5	5	6	7	9	9	10	5.1	9.9
24-Jun	10	10	8	8	7	7	6	4	4	4	4	5	4	5	5	6	7	8	4	8	14	3	4	4	6.2	14.1
25-Jun	4	5	8	5	6	7	6	8	10	9	9	8	8	5	5	7	5	5	5	4	3	3	3	4	5.9	10.1
26-Jun	3	3	3	4	4	3	2	2	2	3	2	2	3	4	4	3	3	2	4	2	7	20	10	4	4.2	19.7
27-Jun	4	5	4	4	4	3	4	5	6	5	9	4	5	7	6	5	6	5	7	12	29	17	20	13	7.9	29.4
28-Jun	14	8	8	7	6	6	5	5	6	8	17	27	20	8	4	6	7	11	7	7	9	13	12	11	9.7	27.0
29-Jun	11	13	13	13	14	11	17	15	13	13	7	5	6	7	7	9	8	9	7	6	5	6	6	12	9.7	17.0
30-Jun	13	9	9	11	11	13	11	10	10	10	28	27	12	15	9	15	16	25	18	14	6	2	2	2	12.3	28.5
6.6 6.7 6.4 6.5 7.2 6.6 5.7 5.8 6.2 6.0 7.3 6.6 5.7 5.6 5.8 5.0 5.3 6.3 5.6 5.4 6.4 8.5 8.5 5.9																								Diurnal Average		
16.7 25.6 18.7 32.2 27.0 20.7 19.6 16.8 16.3 19.7 28.5 27.0 20.0 23.4 46.6 15.2 16.4 25.5 17.7 13.7 29.4 40.8 46.5 16.5																								Diurnal Maximum		
P - Power Failure D - DAS Failure Alberta Ambient Air Quality Guideline (AAQG): 1-hr 80 µg/m³ Alberta Ambient Air Quality Objective (AAQO): 24-hr 30 µg/m³																										

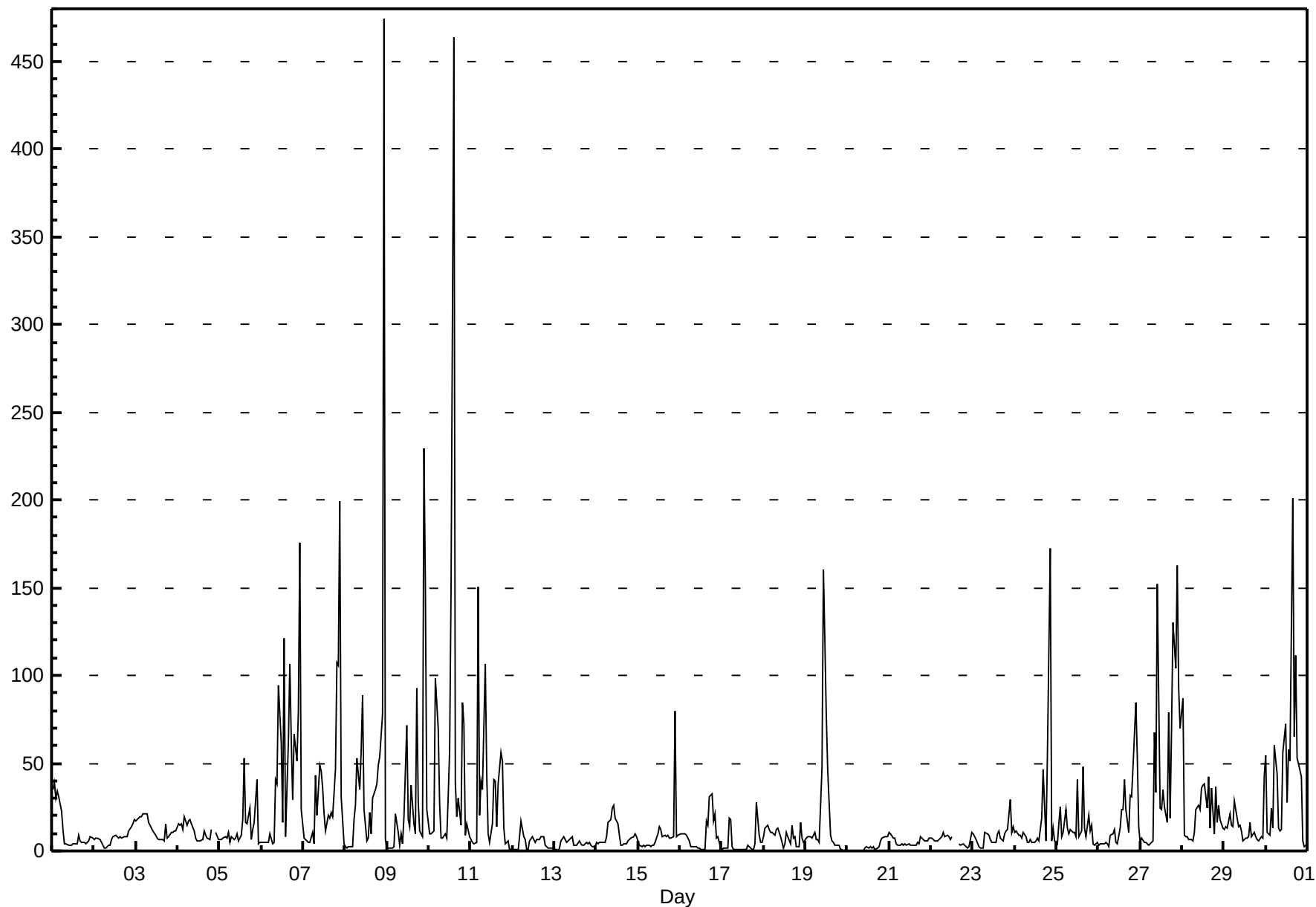


Hourly Maximums

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

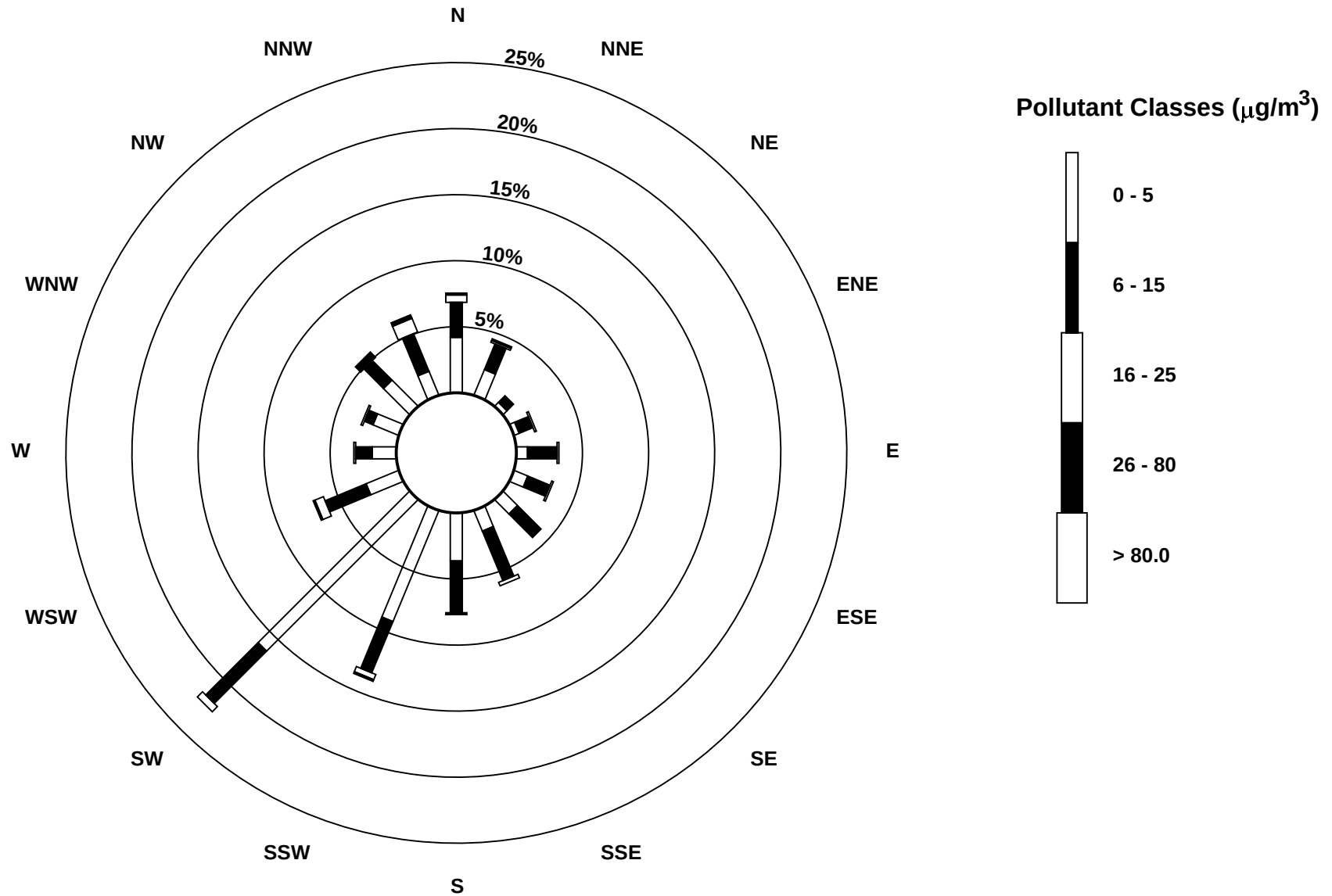
Smoky Heights - June 2015

Maximum Value: 474.4 µg/m³ on Jun 8 23:00																								Maximum Daily Average: 52.6 µg/m³ on Jun 10						Hours in Service: 720	
Minimum Value: 0 µg/m³ on Jun 12 01:00																								Minimum Daily Average: 2.3 µg/m³ on Jun 20						Hours of Data: 715	
Maximum Diurnal Average: 39.3 µg/m³ at hour 22																								Minimum Diurnal Average: 8.2 µg/m³ at hour 3						Hours of Missing Data: 5	
Monthly Average: 19.25 µg/m³																								Percentiles: P ₁ = 0.0 P ₁₀ = 2.2 Q ₁ = 4.6 Median = 8.3 Q ₃ = 17.6 P ₉₀ = 46.1 P ₉₉ = 169.7						Hours of Calibration: 0	
																								Percent Operational Time: 99.3							
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-Jun	35	39	30	34	31	23	12	4	4	3	3	3	4	4	4	9	5	5	5	4	5	6	8	7	12.0	39.3					
2-Jun	6	8	7	7	5	3	2	2	3	3	6	8	9	9	7	8	7	8	9	8	11	14	16	18	7.6	17.8					
3-Jun	17	18	20	19	21	21	21	16	15	13	12	9	8	7	7	7	6	15	7	8	11	10	11	11	12.9	21.2					
4-Jun	15	15	15	12	19	14	17	18	16	11	8	6	6	6	7	12	9	7	7	12	P	P	10	6	11.3	19.3					
5-Jun	7	7	8	8	7	10	5	9	7	8	10	6	9	18	53	17	16	24	7	12	16	41	4	5	12.9	53.0					
6-Jun	5	5	5	5	5	9	4	5	41	38	94	62	16	121	8	62	106	64	30	67	52	79	176	24	45.1	176.1					
7-Jun	7	7	6	5	5	10	4	43	20	49	46	36	21	11	20	19	22	19	46	108	106	199	31	4	35.2	199.1					
8-Jun	2	2	2	2	2	18	26	53	35	57	88	24	6	7	22	10	30	35	38	49	53	78	474	6	46.7	474.4					
9-Jun	1	2	1	1	2	21	10	3	10	4	19	71	18	14	38	15	10	93	28	11	9	230	152	24	32.8	229.6					
10-Jun	10	9	11	11	99	70	27	7	8	9	8	31	57	149	463	39	19	30	15	85	73	9	16	9	52.6	463.4					
11-Jun	6	5	4	5	151	20	40	35	107	45	10	5	16	40	40	14	39	56	51	13	4	6	1	0	29.7	150.9					
12-Jun	0	1	0	0	8	17	8	7	0	1	6	8	6	5	6	7	8	9	8	3	1	2	2	1	4.8	17.3					
13-Jun	0	0	0	1	6	8	6	5	6	7	8	4	3	3	5	4	3	3	5	4	5	3	2	2	4.0	8.3					
14-Jun	5	4	5	5	5	5	9	16	18	24	26	19	15	9	3	4	4	4	6	7	8	8	10	8	9.4	25.9					
15-Jun	6	3	3	3	3	3	3	3	3	3	5	10	14	12	8	9	8	9	8	7	8	79	9	9	9.4	79.4					
16-Jun	10	10	10	10	9	5	3	3	2	2	2	1	1	1	1	17	15	31	33	17	21	8	8	2	9.2	32.7					
17-Jun	1	1	1	2	19	18	2	1	1	1	1	1	1	1	1	3	2	1	1	4	28	9	5	5	4.5	27.8					
18-Jun	9	13	15	12	11	10	9	12	13	11	8	1	4	10	8	4	15	7	8	3	2	16	7	5	8.9	16.1					
19-Jun	7	8	9	8	7	11	7	6	5	47	160	120	78	46	9	6	5	4	3	3	0	0	0	0	22.9	160.0					
20-Jun	0	0	0	0	0	0	0	0	0	0	2	2	2	2	2	2	1	1	2	6	7	8	9	8	2.3	8.5					
21-Jun	10	10	7	7	4	3	3	4	4	4	4	4	3	3	4	3	5	4	9	7	6	6	6	7	5.3	10.3					
22-Jun	7	6	6	6	6	8	8	11	8	9	8	6	8	D	D	D	4	3	4	3	2	2	2	11	6.1	11.0					
23-Jun	10	9	7	2	2	2	2	11	10	9	7	5	5	5	10	11	7	5	10	11	12	30	11	14	8.6	29.6					
24-Jun	11	11	9	9	8	11	8	5	5	7	5	5	6	7	5	19	46	26	6	54	172	6	13	6	19.1	172.2					
25-Jun	4	16	25	9	11	23	13	10	12	10	10	9	41	8	11	48	13	8	21	11	15	4	4	5	14.2	48.1					
26-Jun	4	4	4	4	5	4	3	9	10	12	5	4	13	23	23	41	24	10	32	31	48	85	54	14	19.4	85.0					
27-Jun	5	8	5	5	4	4	5	6	67	34	152	24	23	35	25	16	79	19	69	130	104	163	93	70	47.7	162.5					
28-Jun	87	9	8	8	7	6	6	11	23	26	24	35	37	38	25	42	13	36	10	36	16	26	18	13	23.4	87.0					
29-Jun	12	14	13	21	14	14	28	24	14	15	11	6	7	8	8	17	8	10	8	7	6	8	8	43	13.5	43.2					
30-Jun	54	11	9	24	13	60	44	13	11	12	56	73	28	58	51	201	65	111	52	50	42	5	2	3	43.7	201.1					
11.8 8.4 8.2 8.2 16.2 14.4 11.1 11.7 16.0 15.8 26.7 19.9 15.5 22.8 30.2 22.9 19.8 22.0 17.9 25.8 29.1 39.3 38.7 11.4																								Diurnal Average							
87.0 39.3 30.0 34.2 150.9 69.6 43.7 53.0 106.7 56.7 160.0 120.2 77.6 149.2 463.4 201.1 106.2 111.1 69.1 130.2 172.2 229.6 474.4 70.3																								Diurnal Maximum							
P - Power Failure D - DAS Failure																															



Pollutant Rose

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



Hourly Averages

External Temperature (ET) - °C

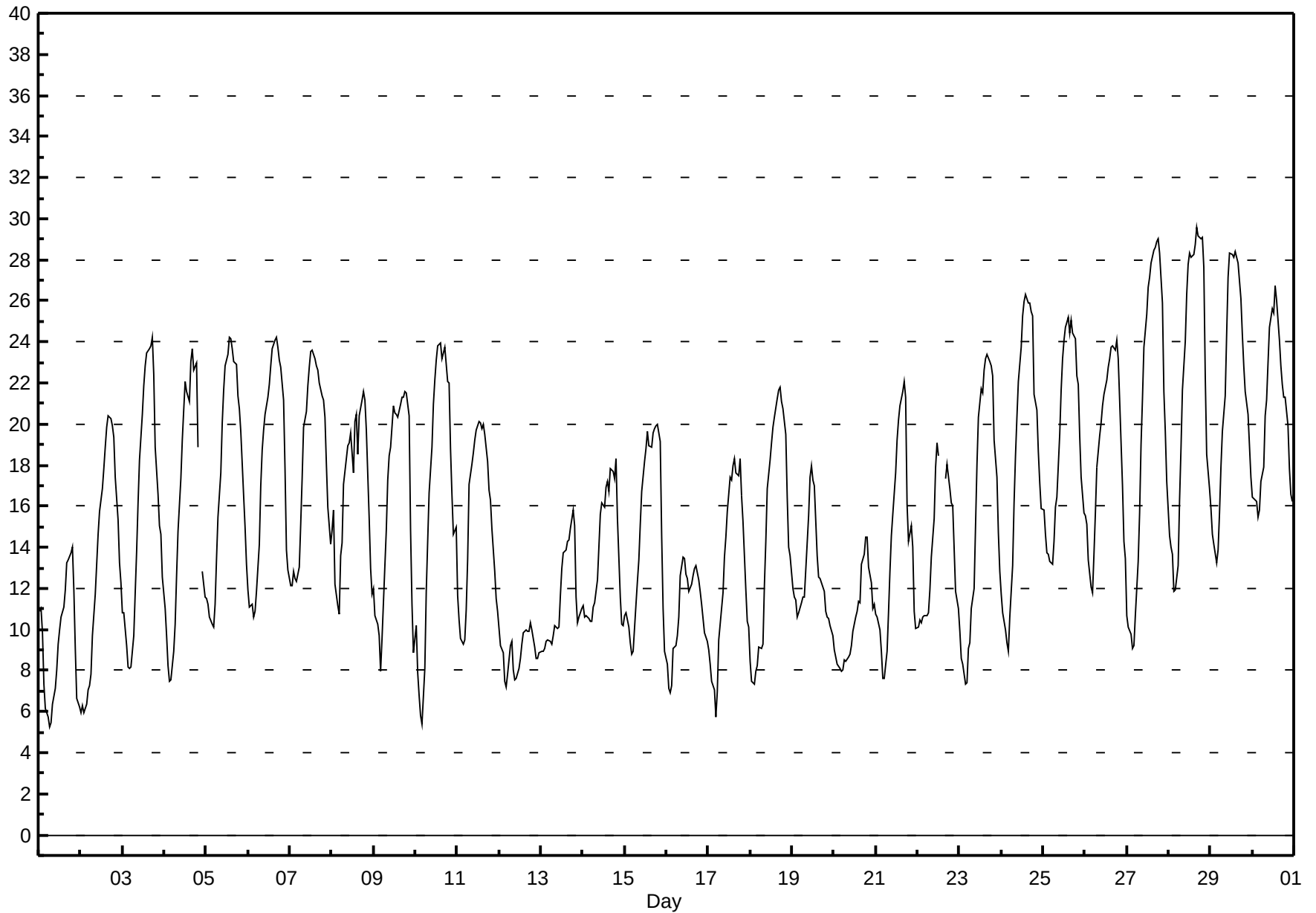
Smoky Heights - June 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 29.6 °C on Jun 28 17:00 Maximum Daily Average: 22.1 °C on Jun 28																								Hours in Service: 720 Hours of Data: 715 Hours of Missing Data: 5 Hours of Calibration: 0 Percent Operational Time: 99.3		
Minimum Value: 5 °C on Jun 1 07:00 Maximum Diurnal Average: 20.7 °C at hour 17 Monthly Average: 15.66 °C												Minimum Daily Average: 8.9 °C on Jun 12 Minimum Diurnal Average: 9.5 °C at hour 5 Percentiles: P ₁ = 5.9 P ₁₀ = 8.9 Q ₁ = 10.6 Median = 14.9 Q ₃ = 20.3 P ₉₀ = 23.6 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-Jun	11	11	10	7	6	6	5	5	6	7	8	9	10	11	11	12	13	13	14	14	12	9	7	6	9.3	14.0
2-Jun	6	6	6	6	7	7	8	10	12	13	15	16	17	18	19	20	20	20	19	17	15	13	12	13.5	20.4	
3-Jun	11	11	9	8	8	8	10	12	14	16	18	21	22	23	23	24	24	24	22	19	17	15	15	13	16.1	24.2
4-Jun	11	10	8	7	8	9	10	13	15	17	19	21	22	22	21	23	24	23	23	19	P	P	13	12	15.8	23.6
5-Jun	11	11	11	10	10	11	13	15	18	20	22	23	23	24	24	24	23	23	21	21	20	17	15	13	17.7	24.2
6-Jun	12	11	11	11	11	12	14	17	19	20	20	21	22	23	24	24	24	24	23	23	21	18	14	13	18.0	24.2
7-Jun	12	12	13	13	12	13	15	17	20	21	22	23	23	24	23	23	23	22	21	21	20	18	16	14	18.4	23.6
8-Jun	15	16	12	11	11	14	14	17	18	19	19	20	18	20	20	19	20	21	22	21	20	15	13	12	16.9	21.6
9-Jun	12	11	10	10	8	10	13	15	17	18	19	21	21	20	20	21	21	21	22	21	20	15	11	9	16.1	21.6
10-Jun	10	8	7	6	5	8	12	14	17	19	21	22	23	24	24	23	23	24	22	22	19	17	15	15	16.6	23.9
11-Jun	12	10	10	9	9	11	13	17	18	19	19	20	20	20	20	20	19	18	17	16	15	13	12	11	15.3	20.1
12-Jun	10	9	9	7	7	8	9	9	8	8	8	8	9	9	10	10	10	10	10	10	9	9	9	9	8.9	10.4
13-Jun	9	9	9	9	10	9	9	10	10	10	10	12	13	14	14	14	14	15	16	15	12	10	11	11	11.4	15.8
14-Jun	11	11	11	11	10	10	11	11	12	14	16	16	16	17	17	17	18	18	17	18	15	12	10	10	13.7	18.3
15-Jun	11	11	10	9	9	9	11	12	13	15	17	18	19	20	19	19	20	20	20	20	19	15	11	9	14.8	20.0
16-Jun	8	7	7	7	9	9	10	11	13	14	13	13	12	12	12	13	13	13	12	12	11	11	10	9	10.9	13.6
17-Jun	9	8	8	7	6	7	9	10	12	14	15	16	17	17	18	18	18	17	18	17	15	12	10	10	12.9	18.3
18-Jun	8	8	7	8	8	9	9	9	12	14	17	18	19	20	20	21	22	22	21	21	20	16	14	14	14.9	21.8
19-Jun	12	12	11	11	11	11	12	12	13	16	17	18	17	17	14	13	12	12	12	11	11	11	10	10	12.7	18.0
20-Jun	9	9	8	8	8	8	8	8	9	9	9	10	11	11	11	11	13	14	15	15	13	12	11	11	10.5	14.5
21-Jun	11	11	10	9	8	8	9	11	13	15	16	18	19	20	21	22	22	21	16	14	15	14	11	10	14.2	22.1
22-Jun	10	10	10	11	11	11	11	12	14	15	18	19	18	D	D	D	17	18	17	16	16	14	12	11	13.9	19.1
23-Jun	10	9	8	7	7	9	9	11	12	15	18	20	22	22	23	23	23	23	23	22	19	17	15	13	15.9	23.4
24-Jun	12	11	10	9	9	11	13	16	18	20	22	24	25	26	26	26	26	26	25	21	21	19	17	16	18.7	26.3
25-Jun	16	15	14	14	13	13	14	16	16	20	22	23	24	25	25	24	25	24	24	22	22	19	17	16	19.3	25.2
26-Jun	16	15	13	12	12	14	16	18	19	20	21	21	22	23	23	24	24	24	24	23	21	17	14	13	18.7	24.1
27-Jun	11	10	10	9	9	11	13	16	19	21	24	25	27	27	28	28	29	29	29	28	26	22	20	17	20.3	29.0
28-Jun	15	14	14	12	12	13	16	19	22	24	26	28	28	28	28	29	30	29	29	29	28	22	18	17	22.1	29.6
29-Jun	16	15	14	13	14	16	18	20	21	24	27	28	28	28	28	28	28	26	24	23	22	20	19	17	21.6	28.4
30-Jun	16	16	16	15	16	17	18	20	21	23	25	26	25	27	26	24	23	22	21	21	20	18	17	16	20.4	26.7
11.4 10.8 10.2 9.6 9.5 10.4 11.8 13.5 15.0 16.6 18.1 19.2 19.8 20.3 20.5 20.5 20.7 20.5 20.1 19.2 17.8 15.2 13.3 12.3																								Diurnal Average		
16.4 16.4 16.2 15.4 15.8 17.2 17.9 20.4 21.7 24.4 27.2 28.3 28.3 28.1 28.4 28.8 29.6 29.2 29.0 29.1 27.7 22.3 19.6 17.4																								Diurnal Maximum		
P - Power Failure D - DAS Failure																										

Hourly Averages

External Temperature (ET) - °C

Smoky Heights - June 2015



Hourly Averages

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

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	3	10	13	16	12	10	8	7	8	6	4	4	5	3	2	1	2	1	3	1	4	3	3	4	4.4	16.4
Dir	251	332	332	322	340	335	332	3	327	325	301	325	310	9	22	46	343	227	127	102	181	277	355	60	332.0	321.7
2 Spd	1	4	3	5	7	5	6	13	23	26	23	23	20	17	16	14	14	14	14	11	10	14	9	9	11.3	25.8
Dir	77	24	26	357	25	4	13	92	114	114	115	108	110	102	98	85	90	88	91	86	93	97	93	101	94.7	113.8
3 Spd	5	6	5	6	6	5	5	5	4	1	3	5	6	6	6	7	7	5	9	12	25	19	10	10	0.4	25.4
Dir	92	60	2	344	342	342	355	349	345	21	16	55	57	85	62	40	78	130	154	180	225	234	247	155	144.9	224.7
4 Spd	6	5	6	6	5	6	7	7	10	9	11	13	10	2	10	7	6	8	7	18	P	P	8	8	5.0	18.1
Dir	190	211	174	187	181	163	183	148	123	140	136	137	137	216	297	215	278	31	192	239	P	P	194	182	177.4	238.8
5 Spd	9	10	8	6	7	10	10	13	16	25	26	30	29	31	31	26	27	34	33	30	21	13	12	9	18.4	34.3
Dir	164	180	150	155	163	167	164	189	200	207	205	209	205	213	226	219	212	226	223	215	215	188	192	211	206.3	225.9
6 Spd	8	12	10	12	14	9	13	17	31	24	23	23	22	22	23	25	30	27	20	17	15	6	10	10	17.2	30.9
Dir	217	224	202	195	224	239	215	216	233	241	236	247	242	241	235	243	249	242	234	246	242	217	209	230	233.9	233.3
7 Spd	15	12	13	12	13	15	16	16	22	23	23	24	28	32	29	29	36	37	29	21	14	11	7	10	19.9	36.9
Dir	228	230	232	227	230	223	223	209	227	229	230	216	223	227	224	217	223	221	220	207	202	201	233	243	222.3	220.9
8 Spd	14	15	11	10	14	15	16	23	31	28	28	33	25	33	30	20	20	16	15	11	5	4	6	4	16.8	33.0
Dir	229	225	204	209	218	224	228	227	234	237	239	229	270	235	255	268	270	268	275	262	288	260	243	256	242.3	229.2
9 Spd	2	3	4	4	3	4	26	6	7	7	8	6	7	11	9	8	5	8	7	6	3	1	1	4	3.5	25.9
Dir	297	239	289	356	34	316	134	344	357	17	321	317	308	332	333	322	352	275	317	343	356	354	261	245	328.7	134.3
10 Spd	4	3	2	2	3	4	6	9	8	7	11	17	13	11	10	10	9	11	11	11	8	8	12	14	7.6	16.6
Dir	211	235	208	230	225	213	167	149	144	145	137	148	148	159	173	179	134	152	143	157	168	175	205	215	166.3	148.2
11 Spd	11	12	11	11	12	10	11	22	28	33	37	37	37	36	32	34	33	32	33	31	28	25	22	23	24.6	37.3
Dir	245	229	233	229	245	231	231	225	230	228	220	223	219	217	216	220	232	257	240	221	215	215	217	221	226.0	218.8
12 Spd	23	21	21	19	22	24	27	28	27	26	20	22	23	19	21	19	12	16	24	22	17	14	13	11	19.7	27.8
Dir	218	218	223	227	227	227	228	233	226	223	215	210	201	205	252	254	260	254	250	249	237	221	218	231	228.7	233.0
13 Spd	8	9	8	7	9	10	7	9	8	9	5	0	4	6	6	10	13	9	10	14	8	6	13	15	6.8	15.0
Dir	236	222	244	319	336	348	360	349	355	1	10	276	335	282	310	302	301	298	298	280	308	276	280	282	303.6	282.2
14 Spd	18	14	12	10	15	14	13	14	13	12	13	13	14	14	13	11	9	10	9	5	5	1	4	4	9.6	18.0
Dir	295	303	298	303	307	304	313	317	322	333	338	334	328	338	5	13	8	28	32	8	25	13	326	357	330.7	295.0
15 Spd	6	8	9	8	7	5	5	6	6	3	2	2	4	6	9	7	4	3	5	4	4	1	2	4	2.9	9.2
Dir	328	334	329	326	325	344	356	20	29	51	16	26	39	84	17	14	91	166	117	132	142	186	305	325	7.6	329.2
16 Spd	4	3	4	7	12	9	12	15	13	12	12	13	13	12	14	12	10	8	11	10	6	6	5	4	8.9	14.6
Dir	330	318	325	324	334	342	353	351	359	1	5	5	352	5	7	8	9	353	355	7	356	321	318	276	352.5	350.8
17 Spd	7	7	9	8	6	5	4	5	5	5	6	6	13	10	6	7	9	5	13	11	8	3	5	8	2.0	12.9
Dir	312	312	311	318	341	337	11	29	29	82	135	108	283	114	91	73	74	87	144	155	153	136	123	111	81.7	282.6
18 Spd	5	4	4	5	3	5	5	7	12	12	18	19	17	17	16	16	15	9	7	3	2	4	7	6	6.0	19.4
Dir	152	124	117	116	161	184	186	180	196	206	211	238	216	216	217	231	240	239	307	8	13	340	16	357	217.0	238.0
19 Spd	7	8	8	10	9	10	11	10	11	12	13	15	12	13	10	13	4	4	9	13	13	8	13	12	3.5	14.6
Dir	348	345	333	340	343	342	354	355	1	5	4	12	18	31	68	177	165	244	200	208	251	241	213	182	338.2	12.4
20 Spd	16	15	14	14	13	13	13	16	17	15	14	11	11	9	9	13	10	6	5	9	11	4	6	6	10.9	17.0
Dir	205	201	181	194	186	199	201	206	197	209	210	203	209	214	212	197	205	196	182	200	219	206	245	263	203.5	196.7
21 Spd	4	4	5	8	12	18	18	22	22	20	15	13	17	17	17	16	16	4	13	4	1	3	7	10	10.1	22.5
Dir	120	135	168	202	220	231	222	224	228	220	219	205	214	210	213	216	223	4	322	336	139	188	191	235	219.8	223.7
22 Spd	10	9	8	5	5	6	5	6	6	5	2	1	2	8	7	7	6	5	12	11	7	9	6	6	4.5	11.6
Dir	235	233	223	156	164	139	150	147	194	214	233	15	44	165	278	285	312	172	205	229	209	186	160	168	203.1	205.2

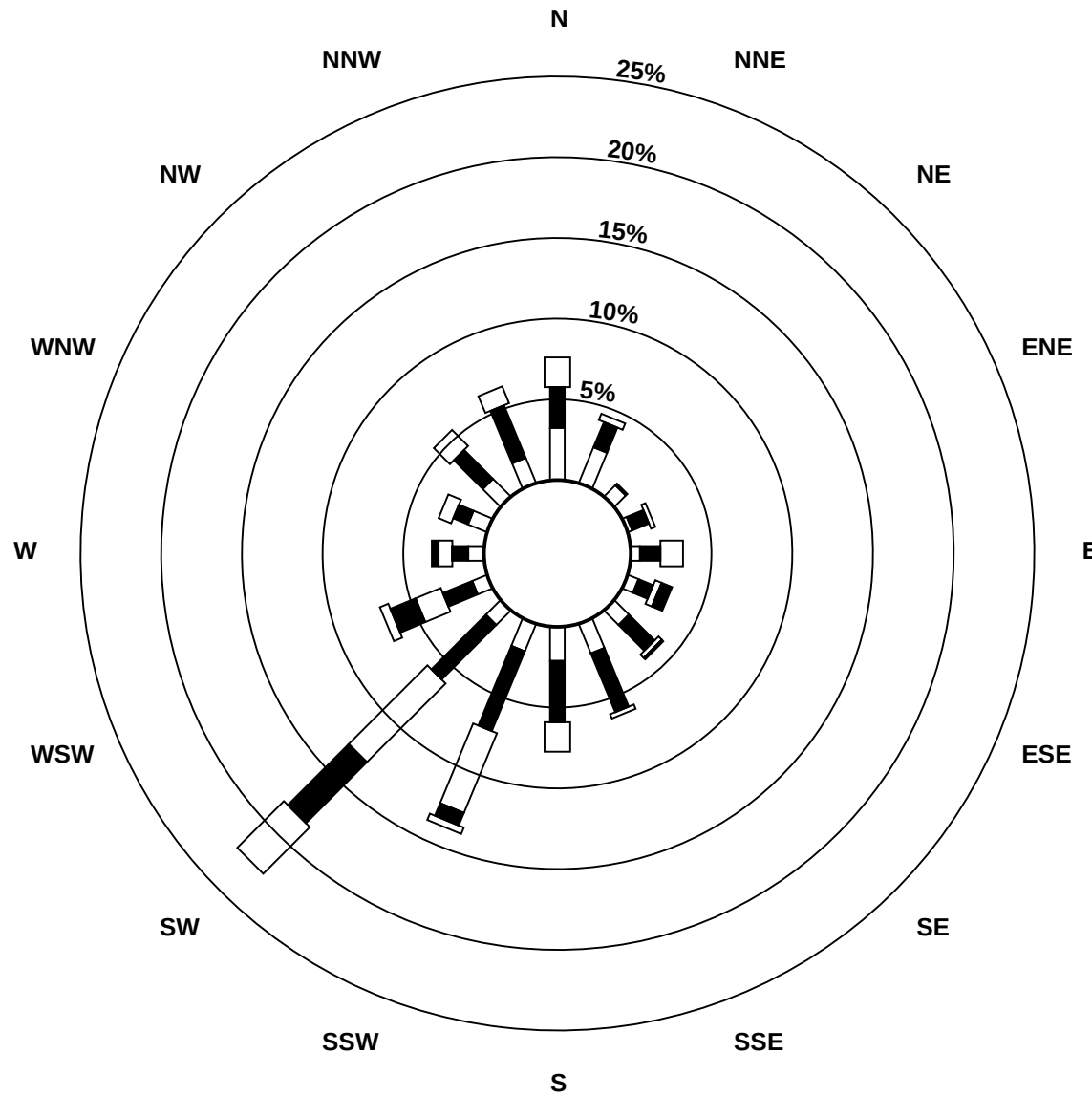
Hourly Averages

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

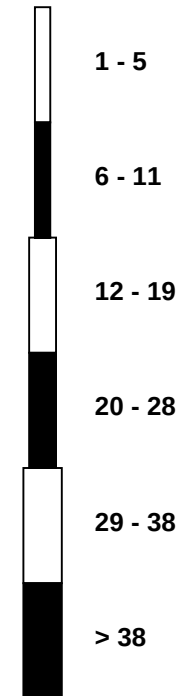
Day		Hourly Period Ending At (MST)																								Daily Average	Daily Maximum									
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24											
23 Spd		5	7	8	5	3	4	6	11	7	7	7	5	4	4	4	3	6	12	10	7	4	7	9	5.1	12.3										
	Dir	198	221	240	220	187	159	206	192	184	144	134	146	149	209	233	325	16	147	174	181	162	165	200	215	185.8	173.6									
24 Spd		8	6	8	8	8	8	8	11	12	14	14	11	10	8	3	11	8	13	16	9	24	25	17	12	10.2	24.6									
	Dir	184	175	181	187	176	165	155	181	188	203	208	206	196	193	269	252	220	235	178	205	232	227	226	170	203.5	227.0									
25 Spd		11	2	3	4	4	6	5	9	10	12	18	17	16	13	15	14	12	12	19	13	9	11	11	10	10.3	18.6									
	Dir	171	171	162	175	176	196	179	187	178	188	209	212	212	210	203	218	216	205	230	222	207	184	199	226	203.8	230.2									
26 Spd		14	16	12	13	12	17	17	24	31	38	35	36	37	31	28	27	26	19	18	16	12	8	9	11	20.9	38.1									
	Dir	223	212	218	219	215	212	224	220	219	220	221	226	223	227	222	219	226	226	230	224	233	233	229	255	223.0	219.8									
27 Spd		8	11	9	7	11	7	8	8	11	14	10	10	6	3	6	6	4	4	4	4	4	9	11	7	6.5	14.3									
	Dir	194	230	202	216	229	172	162	152	194	208	196	203	221	196	144	128	146	220	205	178	211	258	254	232	203.2	208.4									
28 Spd		9	9	11	12	13	12	5	6	3	2	0	2	2	7	9	5	5	6	5	4	2	3	3	3	3.7	12.9									
	Dir	216	222	233	234	238	240	213	203	258	310	344	26	298	200	210	262	352	353	345	359	350	327	358	306	249.1	238.4									
29 Spd		2	4	3	1	1	4	2	4	7	7	11	14	15	14	11	13	16	15	17	7	9	8	4	3	5.7	16.7									
	Dir	294	282	290	208	231	295	351	20	352	1	58	81	70	77	100	99	100	109	107	90	98	122	124	31	82.4	106.8									
30 Spd		1	4	3	3	3	6	4	1	6	4	13	17	15	9	23	16	9	11	13	10	20	18	14	10	6.1	22.9									
	Dir	199	241	262	178	158	143	148	114	115	54	315	309	306	260	240	263	229	210	204	183	214	210	176	190	227.8	240.2									
Spd		5.5	5.4	4.7	4.2	4.4	4.7	4.5	5.5	7.1	7.4	7.6	7.6	7.4	7.7	7.6	7.5	6.4	6.4	7.2	7.3	7.1	6.1	5.7	5.4	Diurnal Average										
Dir		223.5	231.5	234.5	238.8	242.6	235.5	214.5	217.5	219.3	219.4	218.0	216.0	225.1	215.8	229.9	231.4	232.1	229.7	219.3	217.9	217.9	213.6	217.7	219.4	Diurnal Maximum										
Spd		22.7	21.1	21.4	18.7	21.6	24.1	26.6	27.8	31.2	38.1	37.2	37.3	37.3	35.9	31.9	33.6	35.7	36.9	33.4	30.6	27.7	24.6	21.8	23.0	Diurnal Maximum										
Dir		218.5	218.5	223.0	226.8	227.3	226.7	228.1	233.0	219.4	219.8	220.2	223.3	218.8	217.3	216.2	219.7	222.8	220.9	223.3	221.4	214.8	214.6	217.3	221.4											
Maximum Speed Value: 38 km/h on Jun 26 10:00																								Minimum Speed Value: 0 km/h on Jun 28 11:00										Hours in Service:		720
Maximum Daily Speed Average: 24.6 km/h on Jun 11																								Minimum Daily Speed Average: 0.4 km/h on Jun 15										Hours of Data:		718
Maximum Diurnal Speed Average: 7.7 km/h at hour 14																								Minimum Diurnal Speed Average: 4.2 km/h at hour 4										Hours of Missing Data:		2
Monthly Average Velocity: 6.21 km/h 223.48 deg												Speed Percentiles: P ₁ = 1.1 P ₁₀ = 3.5 Q ₁ = 5.7 Median = 9.6 Q ₃ = 14.3 P ₉₀ = 23.0 P ₉₉ = 35.4												Percent Operational Time:		99.7										
All monthly, daily, and diurnal averages have been calculated using vector methods																																				
P - Power Failure																																				
Frequency Distribution																																				
Direction		Speed Range (km/h)						Total																												
		0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38																													
North		28	48	19	0	0	0	95																												
NorthEast		13	12	2	0	0	0	27																												
East		5	15	17	2	0	0	39																												
SouthEast		17	35	7	4	0	0	63																												
South		20	62	30	1	0	0	113																												
SouthWest		22	57	90	51	36	1	257																												
West		14	12	12	7	3	0	48																												
NorthWest		20	36	20	0	0	0	76																												
Total		139	277	197	65	39	1	718																												

Wind Rose

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



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Smoky Heights - June 2015

Maximum Speed: 38 km/h on Jun 26 10:00																				Maximum Daily Speed Average: 25.5 km/h on Jun 11										Hours in Service: 720	
Minimum Speed: 2 km/h on Jun 15 22:00																				Minimum Daily Speed Average: 6.0 km/h on Jun 15										Hours of Data: 718	
Maximum Diurnal Speed Average: 16.3 km/h at hour 13																				Minimum Diurnal Speed Average: 8.5 km/h at hour 1										Hours of Missing Data: 2	
Monthly Average Speed: 11.94 km/h																				Percentiles: P ₁ = 2.0 P ₁₀ = 4.3 Q ₁ = 6.3 Median = 10.2 Q ₃ = 14.5 P ₉₀ = 23.4 P ₉₉ = 36.9										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-Jun	4	11	14	17	13	10	8	7	8	6	5	6	6	4	4	2	4	4	4	2	5	3	3	4	6.5	16.6					
2-Jun	2	4	5	5	7	5	6	13	23	26	23	24	20	18	17	15	15	15	14	11	10	14	9	9	13.0	26.0					
3-Jun	5	6	5	6	6	5	5	6	5	3	6	6	7	7	8	8	9	6	10	16	26	19	12	10	8.4	25.8					
4-Jun	6	5	6	6	5	6	7	7	11	9	12	14	11	9	10	8	9	10	9	18	P	P	8	9	9.0	18.2					
5-Jun	9	10	8	6	7	10	10	13	17	25	27	30	30	32	31	26	27	35	34	30	21	13	12	9	19.7	34.5					
6-Jun	9	13	10	12	15	9	13	18	31	25	23	23	23	23	24	26	30	28	20	17	15	7	11	10	18.1	31.2					
7-Jun	15	12	13	12	13	15	16	16	22	24	23	25	28	32	29	30	36	37	29	21	14	11	7	11	20.5	37.2					
8-Jun	15	15	12	11	14	15	16	23	31	29	29	34	25	33	33	21	21	16	16	11	5	4	6	6	18.4	34.3					
9-Jun	3	4	6	5	3	5	34	7	7	8	9	8	9	12	10	9	8	10	8	6	3	2	2	5	7.5	34.1					
10-Jun	5	3	2	2	3	5	6	9	9	8	11	17	14	12	13	12	10	12	11	11	8	8	12	15	9.0	17.2					
11-Jun	11	12	11	13	12	10	11	22	29	33	38	38	38	37	32	34	35	33	34	31	28	25	22	23	25.5	38.0					
12-Jun	23	21	21	19	22	24	27	28	27	27	20	22	23	20	21	19	12	17	24	22	17	15	13	11	20.6	28.0					
13-Jun	8	9	8	7	9	11	13	10	8	9	6	3	4	7	7	10	13	9	11	15	10	6	14	15	9.3	15.1					
14-Jun	18	14	13	11	15	14	13	14	13	13	14	14	14	15	14	11	10	11	9	6	5	2	5	5	11.3	18.2					
15-Jun	6	8	9	8	7	5	5	6	6	4	5	4	6	9	10	8	6	7	6	5	4	2	3	4	6.0	10.3					
16-Jun	4	3	4	7	12	10	12	15	13	13	13	13	13	12	14	12	10	8	11	10	6	6	5	4	9.6	14.9					
17-Jun	7	7	9	8	6	5	5	5	6	6	7	8	38	15	8	9	9	7	14	11	8	4	5	9	8.9	38.1					
18-Jun	5	5	5	5	3	5	5	7	12	12	18	20	18	18	17	17	16	12	7	4	2	4	8	6	9.7	20.1					
19-Jun	7	8	9	10	9	10	11	11	11	13	13	15	12	14	11	14	5	4	9	14	14	9	13	13	10.8	15.0					
20-Jun	16	16	15	14	13	14	13	16	17	15	14	11	11	9	9	13	10	7	6	9	11	5	6	8	11.6	17.2					
21-Jun	4	5	5	8	12	18	19	23	22	20	16	13	18	18	18	17	16	7	14	5	3	3	8	10	12.5	22.6					
22-Jun	10	10	8	5	5	6	5	6	6	6	4	3	5	8	8	8	7	7	12	11	8	10	6	6	7.1	12.1					
23-Jun	6	7	8	6	3	4	7	12	7	8	7	7	7	5	6	6	5	7	13	10	7	4	7	10	7.0	12.6					
24-Jun	8	6	8	8	9	8	8	11	13	14	15	11	10	10	6	11	9	14	16	10	24	25	17	13	11.8	24.7					
25-Jun	11	5	6	5	4	6	6	9	10	12	18	18	16	14	16	15	13	12	19	13	9	11	11	11	11.2	18.7					
26-Jun	14	16	12	13	12	17	17	24	31	38	35	36	37	31	29	27	26	19	18	16	12	9	9	11	21.3	38.4					
27-Jun	9	11	10	7	14	8	8	8	11	14	10	11	7	7	7	7	6	5	5	6	5	9	11	8	8.6	14.5					
28-Jun	9	9	11	12	13	13	6	7	3	3	3	4	5	8	10	7	6	6	6	4	2	4	3	4	6.6	13.3					
29-Jun	3	4	3	2	2	4	2	5	7	7	11	15	16	14	12	13	16	15	17	7	9	8	4	4	8.4	16.7					
30-Jun	4	4	3	3	4	7	4	2	6	6	13	17	15	10	23	16	10	11	13	10	21	19	14	12	10.4	23.2					
8.5 8.8 8.6 8.5 9.1 9.4 10.7 12.0 14.1 14.5 15.0 15.7 16.3 15.4 15.3 14.4 13.6 13.0 13.9 12.2 10.7 8.9 8.9 9.1																									Diurnal Average						
22.8 21.1 21.5 18.7 21.7 24.1 34.1 28.0 31.3 38.4 37.6 37.7 38.1 36.6 33.2 34.1 36.0 37.2 33.8 30.8 27.9 24.7 21.8 23.1																									Diurnal Maximum						
P - Power Failure																															
All monthly, daily, and diurnal averages have been calculated using scalar methods																															

Hourly Standard Deviations

Wind Direction (WD) - deg

Smoky Heights - June 2015

Maximum Value: 98.5 deg on Jun 28 11:00																		Hours in Service: 720							
Minimum Value: 2.8 deg on Jun 12 05:00																		Hours of Data: 718							
																		Hours of Missing Data: 2							
Percentiles: P ₁ = 3.6 P ₁₀ = 6.4 Q ₁ = 9.0 Median = 14.3 Q ₃ = 23.0 P ₉₀ = 47.9 P ₉₉ = 86.3																		Hours of Calibration: 0							
																		Percent Operational Time: 99.7							
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jun	47	18	13	9	24	8	12	18	20	29	48	49	43	67	77	77	69	92	60	80	25	27	31	17	91.6
2-Jun	68	29	43	12	6	12	14	22	7	8	10	12	15	18	18	17	18	16	10	8	8	6	9	8	68.1
3-Jun	11	12	18	6	6	8	21	20	30	88	66	46	50	38	51	33	31	50	18	41	10	4	45	19	88.4
4-Jun	16	17	13	21	23	11	19	18	14	14	19	19	23	76	13	43	58	52	40	7	P	P	22	31	76.0
5-Jun	12	15	17	6	8	3	13	9	8	9	9	9	11	12	9	11	9	7	9	5	8	5	9	11	17.2
6-Jun	12	10	5	8	5	12	9	12	7	12	12	12	17	13	13	14	11	10	13	7	7	21	20	7	21.0
7-Jun	6	6	8	6	6	6	4	7	14	16	15	17	10	9	10	7	7	7	5	5	5	6	16	20	19.7
8-Jun	21	5	19	28	5	5	3	7	7	10	14	18	13	10	26	21	12	17	12	12	21	16	7	54	53.5
9-Jun	54	60	44	22	32	14	82	16	24	28	35	48	42	22	21	35	51	49	24	13	14	84	36	29	83.8
10-Jun	26	16	38	25	17	12	19	9	16	30	20	16	23	22	41	31	16	16	10	9	10	12	11	10	40.6
11-Jun	3	5	5	15	7	8	8	9	8	8	9	9	11	11	9	10	18	16	6	7	7	4	4	5	17.7
12-Jun	4	3	4	4	3	4	4	7	5	5	6	6	5	11	10	7	16	12	7	5	9	4	3	10	16.3
13-Jun	9	12	8	14	21	11	52	14	16	13	35	95	33	29	24	15	12	14	16	9	40	19	7	7	95.2
14-Jun	9	8	13	15	7	8	8	9	10	11	14	16	12	14	25	22	18	21	14	17	24	38	32	18	38.1
15-Jun	9	9	8	11	12	12	17	17	27	63	75	79	70	60	28	30	58	72	40	34	13	55	49	19	79.4
16-Jun	9	28	28	25	8	9	9	10	13	19	19	16	15	15	13	12	14	16	12	9	18	16	16	18	28.3
17-Jun	9	6	6	8	10	9	21	12	29	37	37	50	75	49	49	46	19	48	27	13	6	24	21	13	74.9
18-Jun	13	17	14	32	40	15	14	6	13	13	15	15	17	21	16	20	19	48	29	22	17	7	22	18	47.6
19-Jun	13	11	8	7	11	9	10	10	10	14	12	14	13	15	23	21	52	20	24	21	17	14	17	11	51.9
20-Jun	8	10	12	5	6	13	12	7	7	8	10	10	8	15	17	8	13	24	24	26	10	39	15	71	70.9
21-Jun	22	20	12	17	8	5	5	6	7	8	12	11	11	16	13	14	15	67	23	31	82	48	21	6	81.6
22-Jun	8	6	12	22	11	13	16	16	23	23	78	89	66	16	36	21	20	54	17	11	18	11	51	20	89.1
23-Jun	15	13	7	14	17	19	15	12	14	26	21	27	47	52	52	48	61	25	11	13	8	14	11	13	60.7
24-Jun	14	11	9	11	10	8	15	11	13	10	11	16	21	39	60	21	20	22	12	20	7	5	9	25	60.4
25-Jun	15	59	66	31	22	20	8	6	6	12	9	13	17	21	19	16	13	13	7	7	9	10	7	15	66.5
26-Jun	4	4	7	6	9	7	5	5	6	7	8	7	7	7	10	9	7	8	7	6	7	20	14	9	19.5
27-Jun	20	8	27	8	20	28	10	12	15	9	18	23	46	79	41	46	55	47	25	23	20	11	4	19	78.9
28-Jun	8	6	5	4	4	33	52	17	46	49	99	77	74	38	30	51	35	30	22	13	32	8	32	19	98.5
29-Jun	51	16	31	87	43	16	36	19	14	19	16	14	15	15	15	13	11	9	5	18	10	10	24	41	87.2
30-Jun	69	18	18	23	28	18	28	94	19	46	14	10	11	32	10	12	23	7	7	11	20	20	12	70	94.2
	69.1	60.3	66.5	87.2	43.3	33.1	82.0	94.2	45.6	88.4	98.5	95.2	74.9	78.9	77.4	77.4	69.2	91.6	59.9	80.0	81.6	83.8	50.8	70.9	
P - Power Failure																									

PAZA
Beaverlodge Station
Monthly Summary Tables, Graphs and
Roses

Hourly Averages

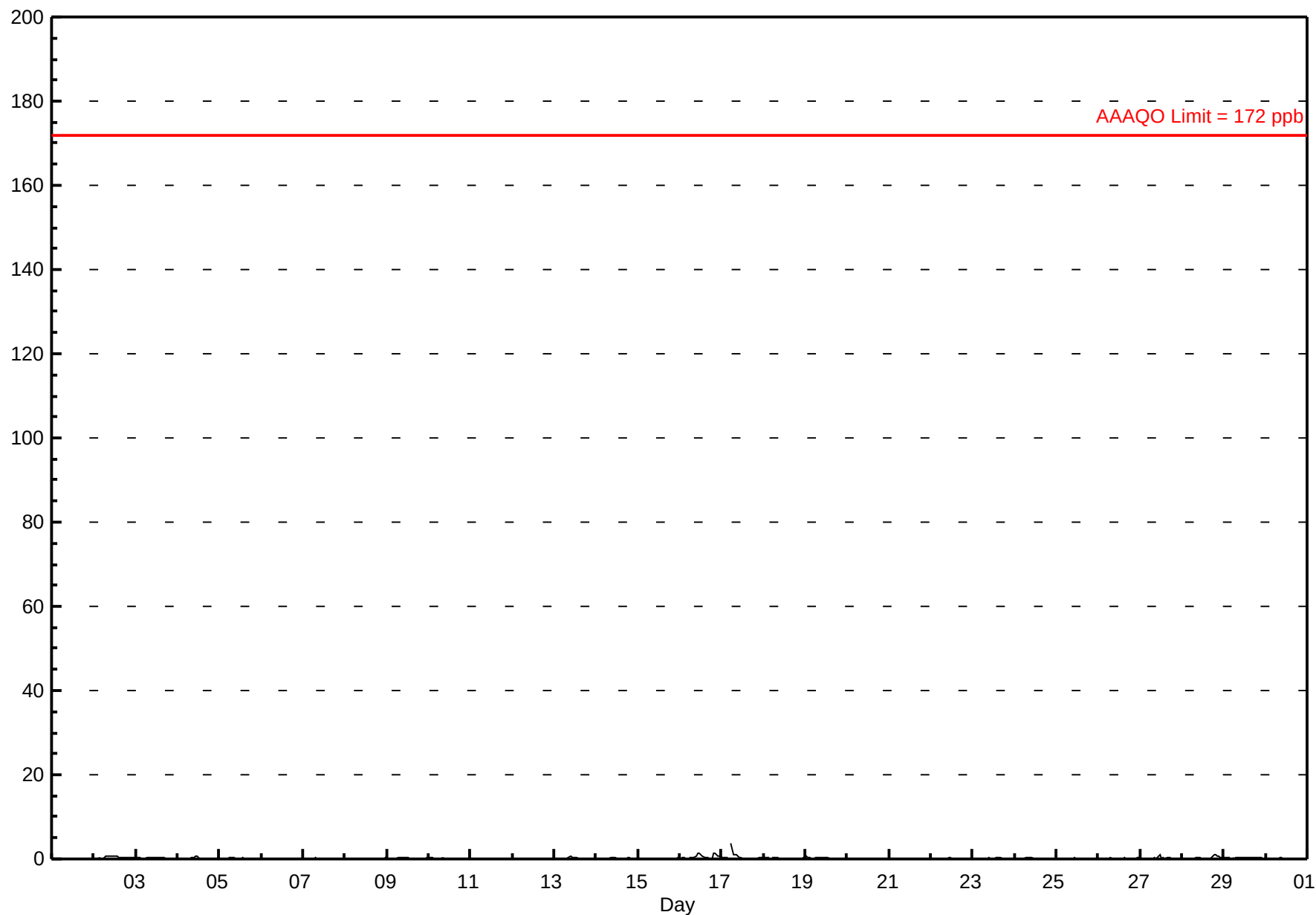
Sulphur Dioxide (SO₂) - ppb

Beaverlodge - June 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 3.9 ppb on Jun 17 06:00 Maximum Daily Average: 0.6 ppb on Jun 16																				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 Jun 6 06:00 Maximum Diurnal Average: 0.2 ppb at hour 11 Monthly Average: 0.16 ppb										Minimum Daily Average: 0.0 ppb on Jun 12 Minimum Diurnal Average: 0.1 ppb at hour 17 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 0.4 P ₉₉ = 1.1																
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jun	0	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-Jun	0	0	0	0	A	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.4	0.8
3-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
4-Jun	0	0	0	0	A	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.6
5-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
6-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
7-Jun	0	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-Jun	0	0	0	0	A	0	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
9-Jun	0	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
10-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
11-Jun	0	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
12-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
13-Jun	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
14-Jun	0	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
15-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
16-Jun	0	0	0	0	A	0	0	0	0	1	1	1	1	1	0	0	0	0	0	1	1	1	1	1	0.6	1.5
17-Jun	0	0	0	0	A	4	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	3.9
18-Jun	0	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
19-Jun	1	0	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
20-Jun	0	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
21-Jun	0	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
22-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
23-Jun	0	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
24-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
25-Jun	0	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
26-Jun	0	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
27-Jun	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	0.9
28-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0.3	1.1
29-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
30-Jun	0	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
0.1 0.1 0.1 0.1 -- 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1																									Diurnal Average	
0.6 0.4 0.5 0.4 -- 3.9 2.4 1.1 1.1 0.8 1.5 1.3 0.9 0.6 0.4 0.4 0.4 0.4 1.1 1.3 1.4 1.1 0.8 0.8																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb																										

Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Beaverlodge - June 2015



Hourly Maximums

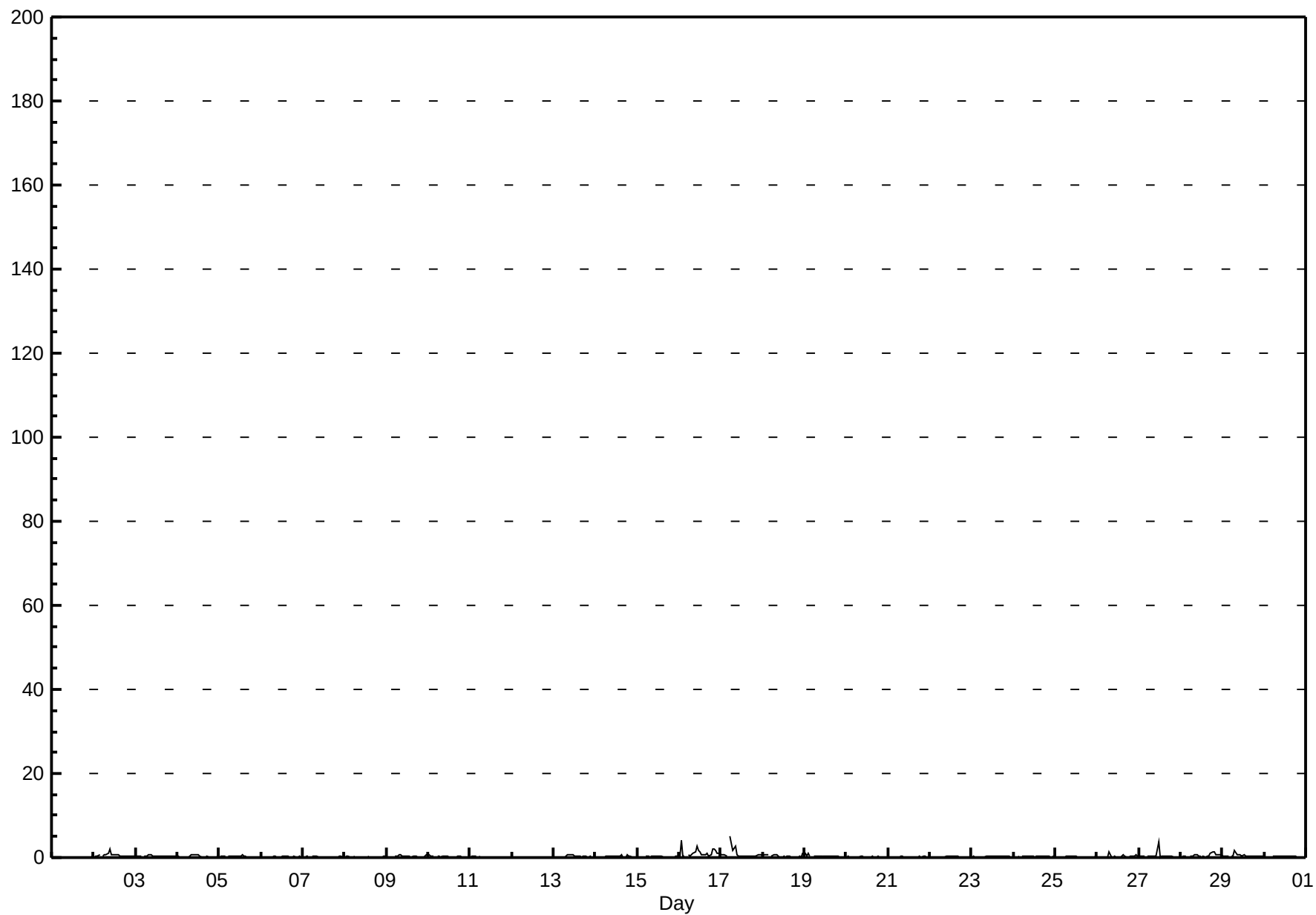
Sulphur Dioxide (SO₂) - ppb

Beaverlodge - June 2015

Maximum Value: 4.9 ppb on Jun 17 06:00																				Maximum Daily Average: 1.2 ppb on Jun 16										Hours in Service: 720	
Minimum Value: 0 ppb on Jun 21 03:00																				Minimum Daily Average: 0.1 ppb on Jun 12										Hours of Data: 687	
Maximum Diurnal Average: 0.5 ppb at hour 12																				Minimum Diurnal Average: 0.2 ppb at hour 18										Hours of Missing Data: 33	
Monthly Average: 0.30 ppb																				Percentiles: P ₁ = 0.1 P ₁₀ = 0.1 Q ₁ = 0.1 Median = 0.2 Q ₃ = 0.3 P ₉₀ = 0.6 P ₉₉ = 1.8										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-Jun	0	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					
2-Jun	0	0	0	1	A	0	1	1	1	2	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0.5	2.0					
3-Jun	0	0	0	0	A	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6					
4-Jun	0	0	0	0	A	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8					
5-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.2	0.6					
6-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3					
7-Jun	0	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					
8-Jun	0	0	0	0	A	0	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4					
9-Jun	0	0	0	0	A	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.3	0.7					
10-Jun	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5					
11-Jun	0	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-Jun	0	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-Jun	0	0	0	0	A	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7					
14-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0.3	0.7					
15-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4					
16-Jun	0	4	0	0	A	1	0	1	1	1	3	2	1	1	1	1	1	0	1	2	2	2	1	1	1.2	4.1					
17-Jun	1	1	1	0	A	5	3	2	3	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0.9	4.9					
18-Jun	0	1	1	1	A	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.3	0.9					
19-Jun	1	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.1					
20-Jun	0	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					
21-Jun	0	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					
22-Jun	0	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					
23-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4					
24-Jun	0	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					
25-Jun	0	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					
26-Jun	0	0	0	0	A	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0.3	1.4					
27-Jun	0	0	0	0	A	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0.4	3.7					
28-Jun	0	0	0	0	A	0	0	0	1	1	0	0	0	0	0	0	1	1	1	1	1	1	1	1	0.5	1.4					
29-Jun	0	0	0	0	A	0	0	2	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.5	1.8					
30-Jun	0	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 0.3 0.2 0.2 -- 0.4 0.3 0.4 0.5 0.4 0.4 0.5 0.3 0.3 0.3 0.3 0.2 0.2 0.3 0.3 0.3 0.3 0.2 0.3																									Diurnal Average						
1.1 4.1 0.9 0.7 -- 4.9 3.4 1.8 2.6 2.0 2.6 3.7 1.3 0.8 0.8 0.7 1.0 0.9 1.4 2.0 1.9 1.7 1.2 1.0																									Diurnal Maximum						
C - Calibration																									A - Automated Daily Zero Span						

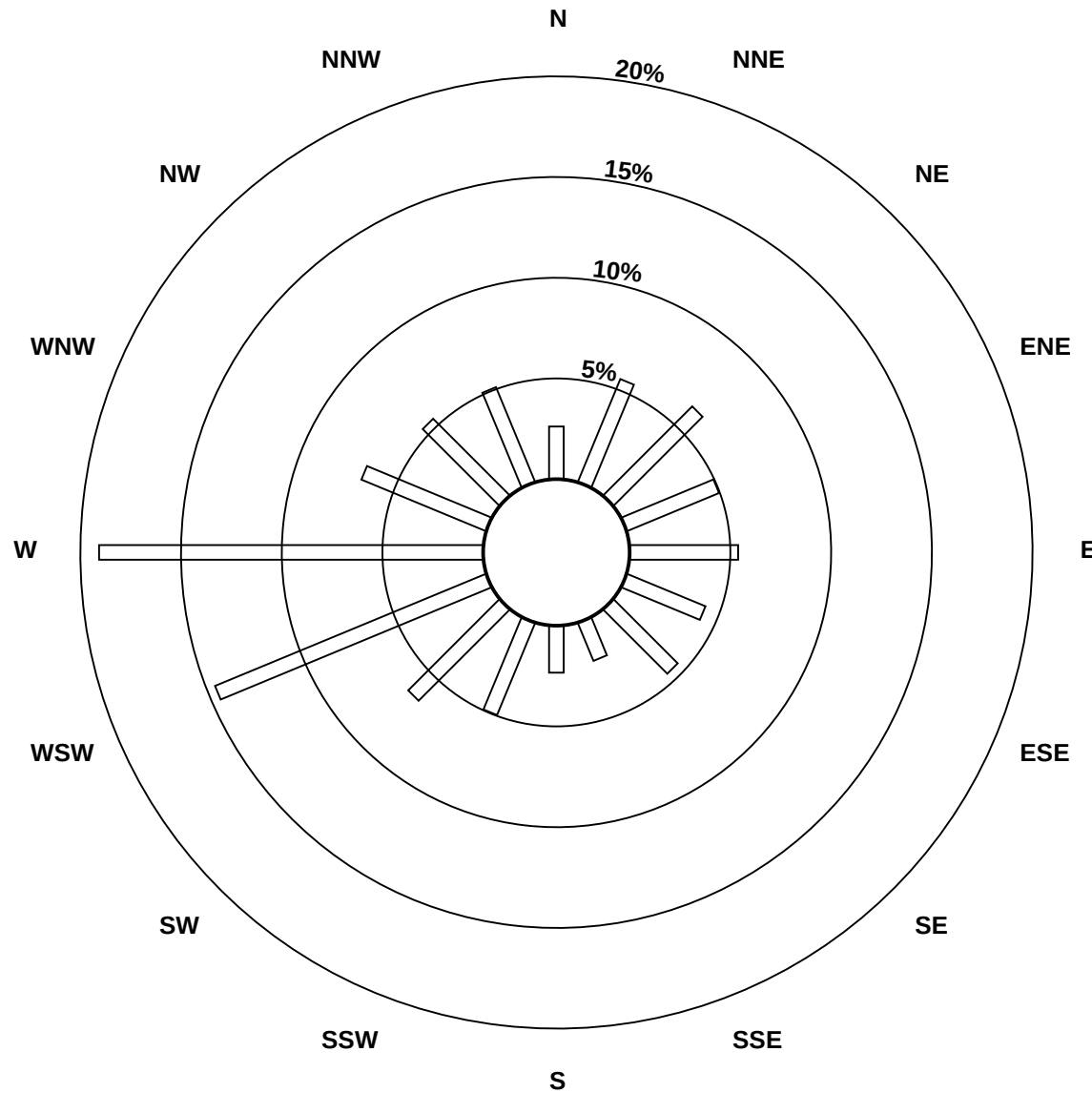
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Beaverlodge - June 2015

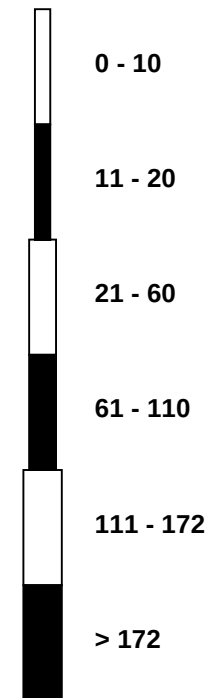


Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Beaverlodge - June 2015

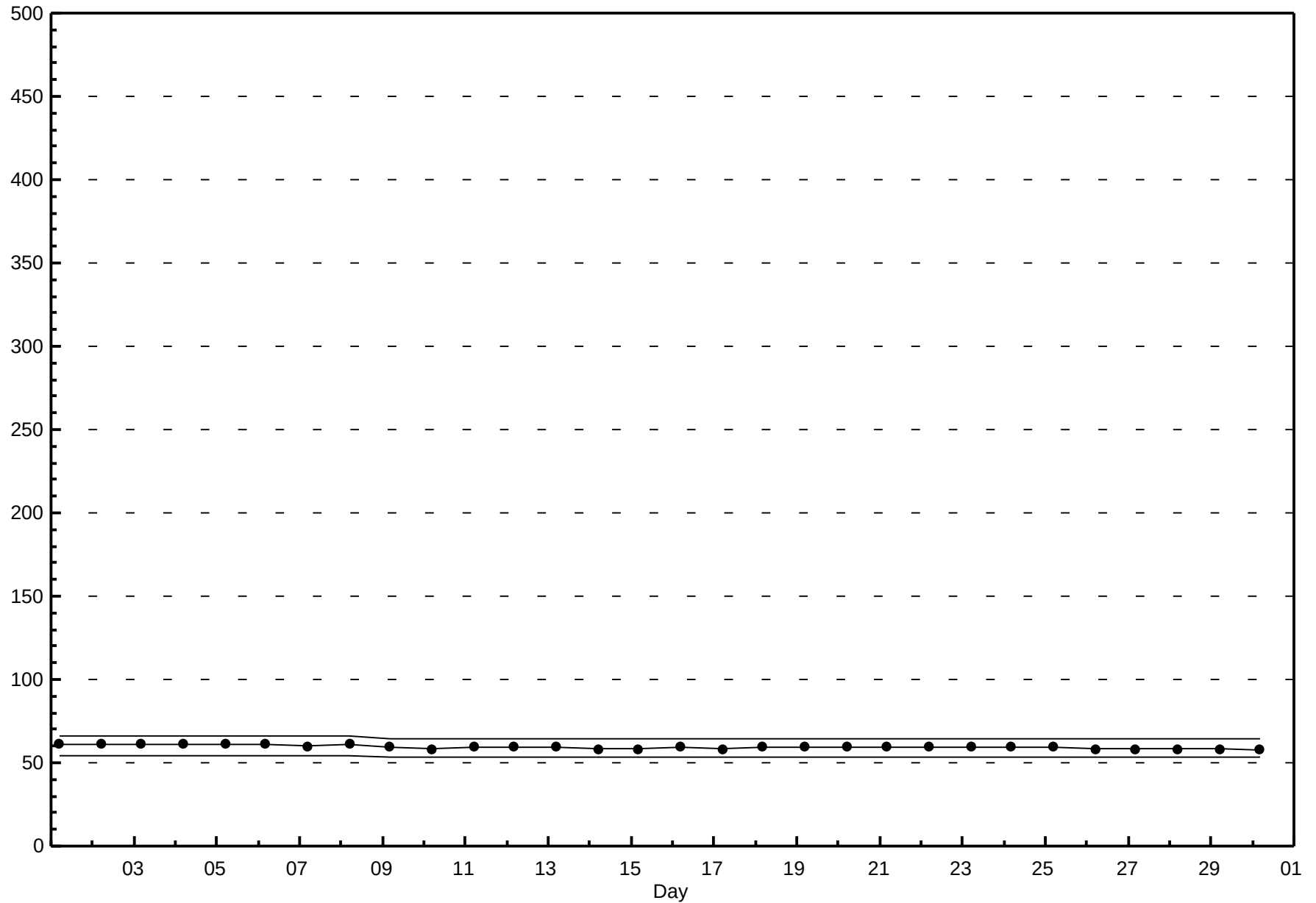


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Beaverlodge - June 2015



Hourly Averages

Nitrogen Dioxide (NO₂) - ppb

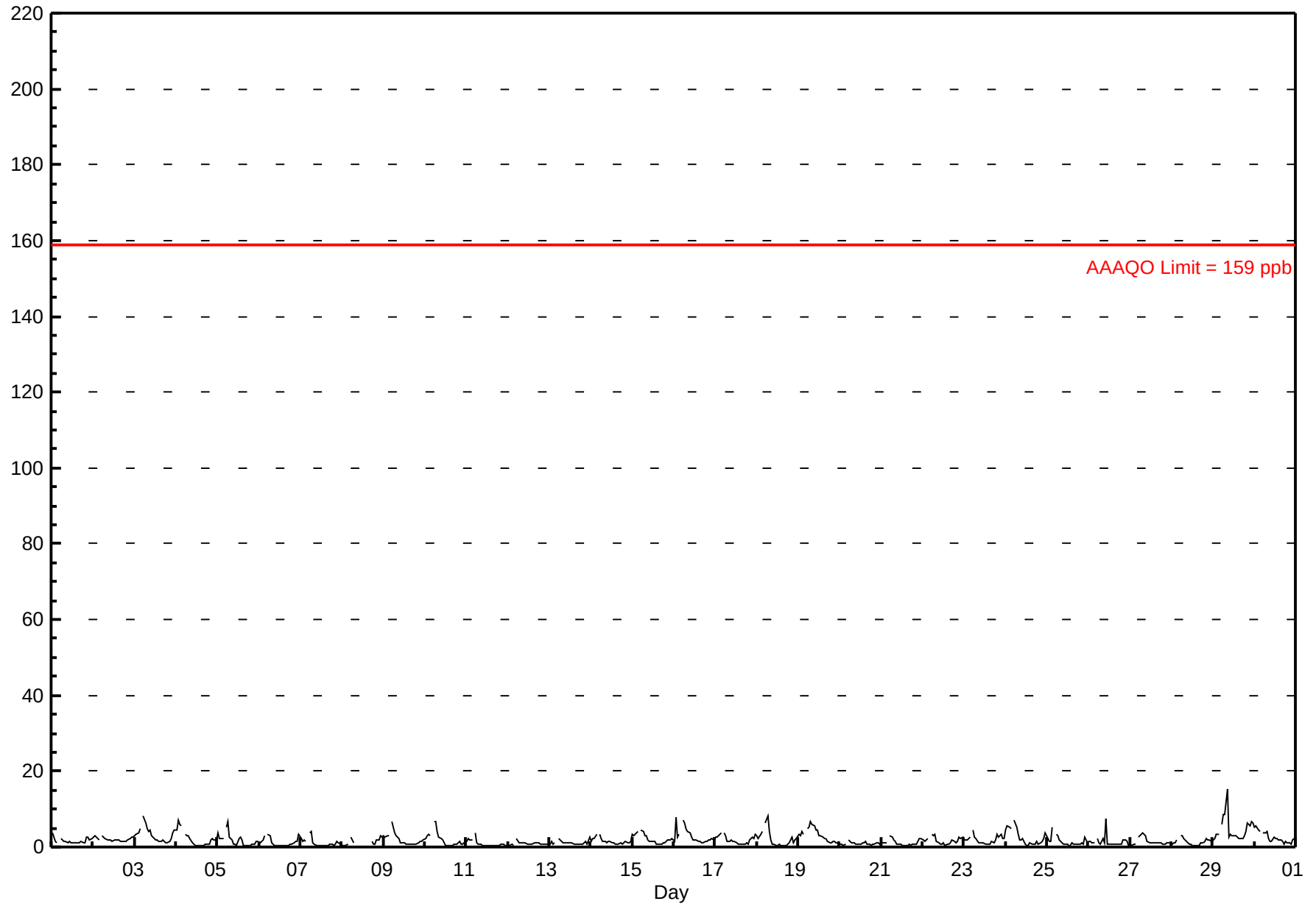
Beaverlodge - June 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 15.4 ppb on Jun 29 09:00 Maximum Daily Average: 4.5 ppb on Jun 29																				Hours in Service: 720 Hours of Data: 681 Hours of Missing Data: 39 Hours of Calibration: 39 Percent Operational Time: 100.0						
Minimum Value: 0 ppb on Jun 25 14:00 Maximum Diurnal Average: 4.1 ppb at hour 6 Monthly Average: 1.88 ppb										Minimum Daily Average: 0.9 ppb on Jun 12 Minimum Diurnal Average: 0.9 ppb at hour 16 Percentiles: P ₁ = 0.4 P ₁₀ = 0.5 Q ₁ = 0.8 Median = 1.4 Q ₃ = 2.4 P ₉₀ = 3.7 P ₉₉ = 7.3																
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-Jun	4	3	1	1	A	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	3	2	2	2	1.7	3.6
2-Jun	3	3	3	2	A	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	2.1	3.1
3-Jun	3	3	4	5	A	8	6	5	4	4	3	2	2	2	2	2	2	2	1	1	2	2	4	4	3.2	8.2
4-Jun	5	7	6	6	A	3	3	3	2	1	1	0	0	0	0	0	1	1	1	1	2	2	2	2	2.1	7.1
5-Jun	4	2	2	2	A	5	7	3	2	1	1	1	2	3	2	0	0	0	0	0	1	1	2	2	1.9	6.7
6-Jun	1	1	2	3	A	3	3	1	1	1	0	0	0	0	0	0	0	0	1	1	1	2	1	3	1.2	3.3
7-Jun	2	1	2	1	A	4	4	1	1	1	0	0	0	0	0	0	0	1	1	0	1	2	1	1	1.1	4.0
8-Jun	0	0	0	1	A	3	2	1	C	C	C	C	C	C	C	C	C	1	1	1	2	2	3	3	--	3.1
9-Jun	3	3	3	3	A	7	4	3	3	2	1	1	1	1	1	1	1	1	1	1	1	2	2	2	1.9	6.7
10-Jun	2	3	3	3	A	7	7	4	2	2	2	1	1	0	0	0	1	1	1	1	2	1	1	2	2.0	6.7
11-Jun	1	2	2	2	A	4	1	1	1	1	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0.9	3.9
12-Jun	0	0	1	0	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	2.2
13-Jun	1	2	1	1	A	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1.2	2.5
14-Jun	2	2	2	3	A	3	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1.5	3.4
15-Jun	3	3	4	4	A	5	4	3	3	2	2	1	1	2	1	1	1	1	1	1	2	2	2	2	2.2	4.5
16-Jun	2	8	3	3	A	7	7	5	4	4	3	2	2	2	1	1	1	1	1	1	2	2	2	2	2.9	7.7
17-Jun	2	2	3	4	A	4	3	2	1	2	1	2	1	1	1	1	1	1	1	1	2	3	2	3	1.9	3.9
18-Jun	3	2	3	4	A	6	8	4	2	1	1	1	1	1	0	0	0	0	1	1	3	1	2	2	2.1	8.2
19-Jun	3	3	4	3	A	5	5	7	6	6	4	5	3	3	2	2	2	1	1	1	2	1	1	1	3.2	6.7
20-Jun	1	1	1	1	A	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.8
21-Jun	1	1	1	1	A	3	3	2	1	1	1	1	1	0	0	1	1	0	1	1	1	1	2	2	1.2	3.0
22-Jun	2	2	2	2	A	3	3	3	2	1	1	1	1	1	1	1	1	2	1	1	2	3	2	3	1.7	3.2
23-Jun	2	2	2	2	A	5	3	2	1	1	1	1	1	1	1	1	1	1	2	3	3	3	2	2	1.9	4.6
24-Jun	5	6	5	5	A	7	5	3	2	2	2	1	0	0	1	1	1	1	1	1	1	1	2	4	2.5	7.2
25-Jun	2	2	1	5	A	3	3	2	2	1	1	1	1	0	1	1	1	1	1	1	1	1	3	1	1.5	5.4
26-Jun	1	1	1	1	A	2	1	1	2	1	7	1	1	1	1	1	1	1	1	1	2	2	2	1	1.4	7.4
27-Jun	1	1	1	1	A	3	3	4	3	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.5	3.7
28-Jun	1	1	1	2	A	3	3	2	2	1	1	1	1	0	1	0	1	1	1	2	2	2	2	1	1.3	3.2
29-Jun	2	2	3	3	A	6	8	8	15	3	3	3	3	3	3	2	2	2	3	4	6	6	7	6	4.5	15.4
30-Jun	5	5	5	4	A	4	4	4	2	2	2	2	2	2	2	2	1	1	1	1	1	1	2	2	2.5	5.4
2.2 2.5 2.4 2.7 -- 4.1 3.7 2.8 2.5 1.7 1.6 1.2 1.1 1.1 1.0 0.9 1.0 1.0 1.0 1.1 1.6 1.7 1.9 2.1																								Diurnal Average		
5.3 7.7 6.0 5.7 -- 8.2 8.5 8.4 15.4 5.7 7.4 4.6 3.1 3.1 2.6 2.2 2.2 2.1 2.8 4.1 6.2 5.7 6.5 6.2																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb 24-hr 106 ppb																										

Hourly Averages

Nitrogen Dioxide (NO₂) - ppb

Beaverlodge - June 2015



Hourly Maximums

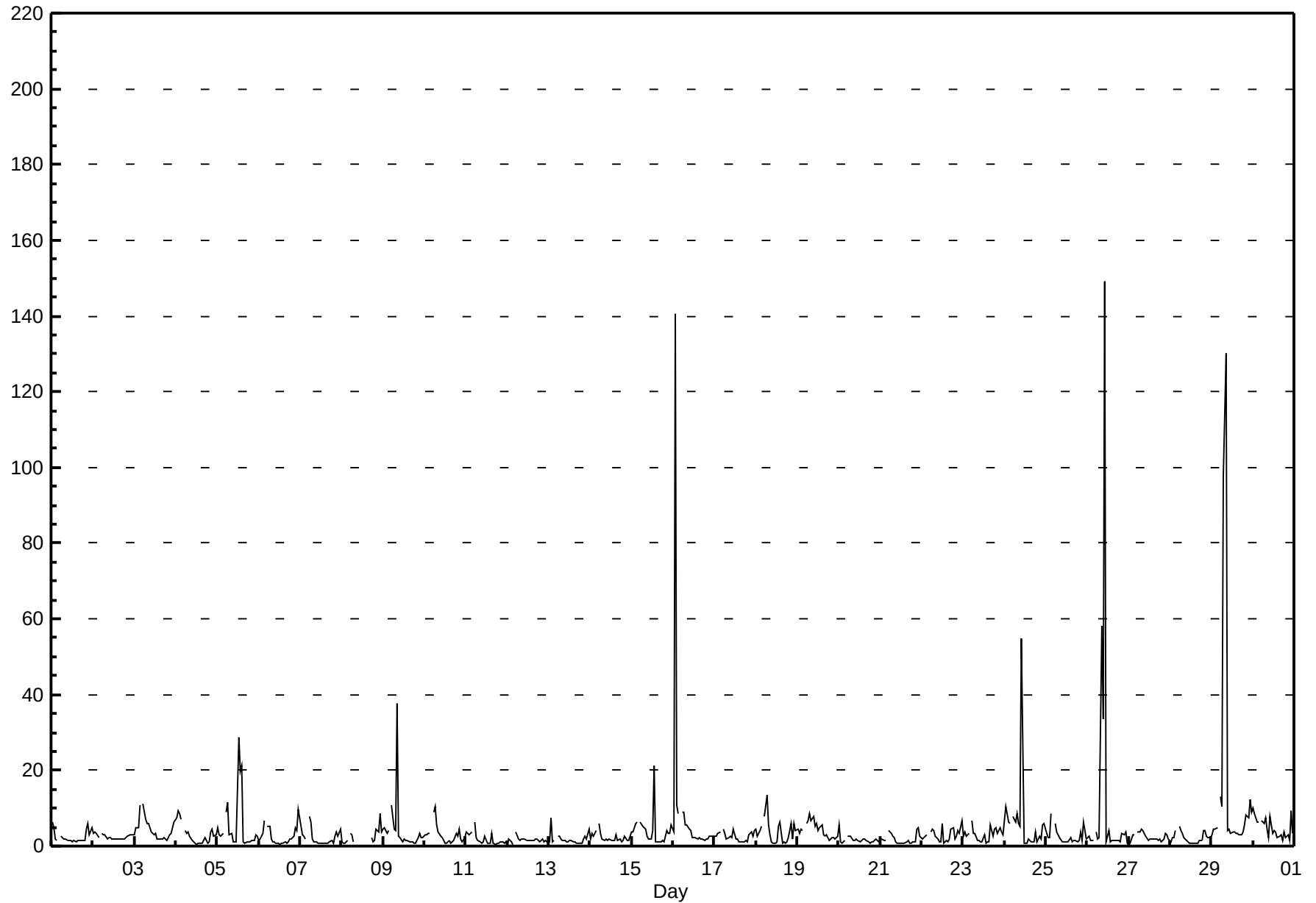
Nitrogen Dioxide (NO₂) - ppb

Beaverlodge - June 2015

Maximum Value: 149.2 ppb on Jun 26 11:00																				Maximum Daily Average: 15.1 ppb on Jun 29					Hours in Service: 720		
Minimum Value: 1 ppb on Jun 4 13:00																				Minimum Daily Average: 1.5 ppb on Jun 12					Hours of Data: 681		
Maximum Diurnal Average: 10.4 ppb at hour 9																				Minimum Diurnal Average: 1.6 ppb at hour 16					Hours of Missing Data: 39		
Monthly Average: 4.02 ppb																				Percentiles: P ₁ = 0.6 P ₁₀ = 0.9 Q ₁ = 1.4 Median = 2.3 Q ₃ = 3.9 P ₉₀ = 6.2 P ₉₉ = 32.1					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-Jun	6	5	2	1	A	3	2	2	2	1	2	2	1	2	1	2	1	2	1	2	5	6	3	5	2.5	6.3	
2-Jun	3	4	3	2	A	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	2.5	3.7	
3-Jun	3	5	5	11	A	11	7	6	6	5	4	3	3	2	2	2	2	2	2	2	3	3	5	6	4.3	11.1	
4-Jun	7	9	9	7	A	4	3	4	3	2	1	1	1	1	1	1	2	2	1	1	4	4	2	3	3.1	9.1	
5-Jun	5	3	3	3	A	9	12	3	3	1	1	1	29	20	21	1	1	1	1	1	1	2	3	3	5.6	28.6	
6-Jun	2	2	4	7	A	5	5	2	1	1	1	1	1	1	1	1	1	1	2	2	3	5	4	10	2.6	9.6	
7-Jun	5	3	3	2	A	8	6	2	1	1	1	1	1	1	1	1	1	1	2	1	3	4	3	4	2.3	7.7	
8-Jun	1	1	1	2	A	3	3	1	C	C	C	C	C	C	C	C	C	C	2	1	1	4	4	9	4	--	8.5
9-Jun	5	5	3	4	A	11	4	4	37	3	2	1	2	1	2	1	1	1	1	1	2	3	2	2	4.3	37.5	
10-Jun	3	3	3	3	A	9	10	6	4	2	2	1	1	1	1	1	1	2	3	3	5	2	1	2	3.0	10.3	
11-Jun	4	3	3	4	A	7	2	1	1	1	1	3	1	1	1	4	1	1	1	1	1	1	1	1	1.8	6.5	
12-Jun	1	2	1	1	A	4	2	1	2	2	2	1	1	1	2	1	2	2	1	1	2	1	1	1	1.5	3.9	
13-Jun	1	8	1	2	A	2	2	2	1	1	1	1	2	2	1	1	1	1	1	1	2	3	2	5	1.9	7.6	
14-Jun	2	3	3	4	A	6	3	2	1	2	2	2	2	1	1	3	2	2	1	1	3	2	2	3	2.2	5.9	
15-Jun	4	4	6	6	A	6	5	5	5	2	2	2	4	21	1	1	1	1	1	1	4	3	3	5	4.1	21.2	
16-Jun	4	140	11	9	A	9	9	6	6	4	4	2	2	2	2	2	2	2	2	2	2	3	3	2	9.9	140.5	
17-Jun	3	3	4	4	A	4	4	2	2	2	2	5	2	2	1	1	1	1	2	1	3	4	3	4	2.6	4.6	
18-Jun	5	3	4	5	A	8	13	6	3	1	1	1	1	5	6	1	1	1	1	2	6	2	6	4	3.7	13.3	
19-Jun	4	3	5	4	A	6	7	9	7	8	5	6	4	5	5	3	3	3	2	2	2	2	2	3	4.3	8.7	
20-Jun	5	1	1	2	A	3	3	3	2	1	2	1	1	1	2	2	1	1	1	1	1	2	1	1	1.7	5.5	
21-Jun	2	2	2	1	A	4	4	3	2	1	1	1	1	1	1	1	1	1	1	1	1	4	5	3	1.8	5.0	
22-Jun	2	2	3	3	A	4	4	4	3	2	1	1	6	1	1	1	2	4	5	2	3	4	3	7	3.0	6.8	
23-Jun	3	4	3	3	A	7	4	3	2	2	1	1	3	1	1	1	6	3	5	5	3	5	4	3	3.0	6.9	
24-Jun	7	11	6	6	A	8	6	9	6	5	55	1	1	1	2	1	1	1	4	1	3	2	6	6	6.4	54.8	
25-Jun	3	2	2	8	A	6	4	3	2	1	1	1	1	1	2	1	2	2	1	1	4	2	6	2	2.6	8.4	
26-Jun	2	3	2	1	A	4	2	2	58	34	149	1	4	1	1	2	1	1	2	1	3	3	4	1	12.3	149.2	
27-Jun	1	1	3	3	A	4	4	4	4	3	3	2	2	2	2	2	2	2	2	1	2	3	3	2	2.4	4.3	
28-Jun	1	2	2	4	A	5	4	3	2	1	1	1	1	1	1	1	1	2	2	4	4	3	2	2	2.2	5.2	
29-Jun	3	5	5	5	A	13	10	98	130	4	4	3	4	4	3	3	3	3	4	6	8	7	12	9	15.1	130.2	
30-Jun	10	9	6	6	A	7	6	8	4	2	8	3	4	4	2	3	3	2	4	2	3	1	9	4	4.8	10.0	
3.5 8.3 3.5 4.1 -- 6.1 5.2 6.8 10.4 3.5 9.0 1.8 2.9 3.0 2.4 1.6 1.6 1.6 1.9 1.8 3.1 3.1 3.8 3.6																									Diurnal Average		
10.0 140.5 10.6 10.7 -- 13.1 13.3 97.8 130.2 33.6 149.2 6.1 28.6 21.2 21.2 3.5 5.6 4.4 4.9 5.6 8.2 7.5 12.4 9.6																									Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																											

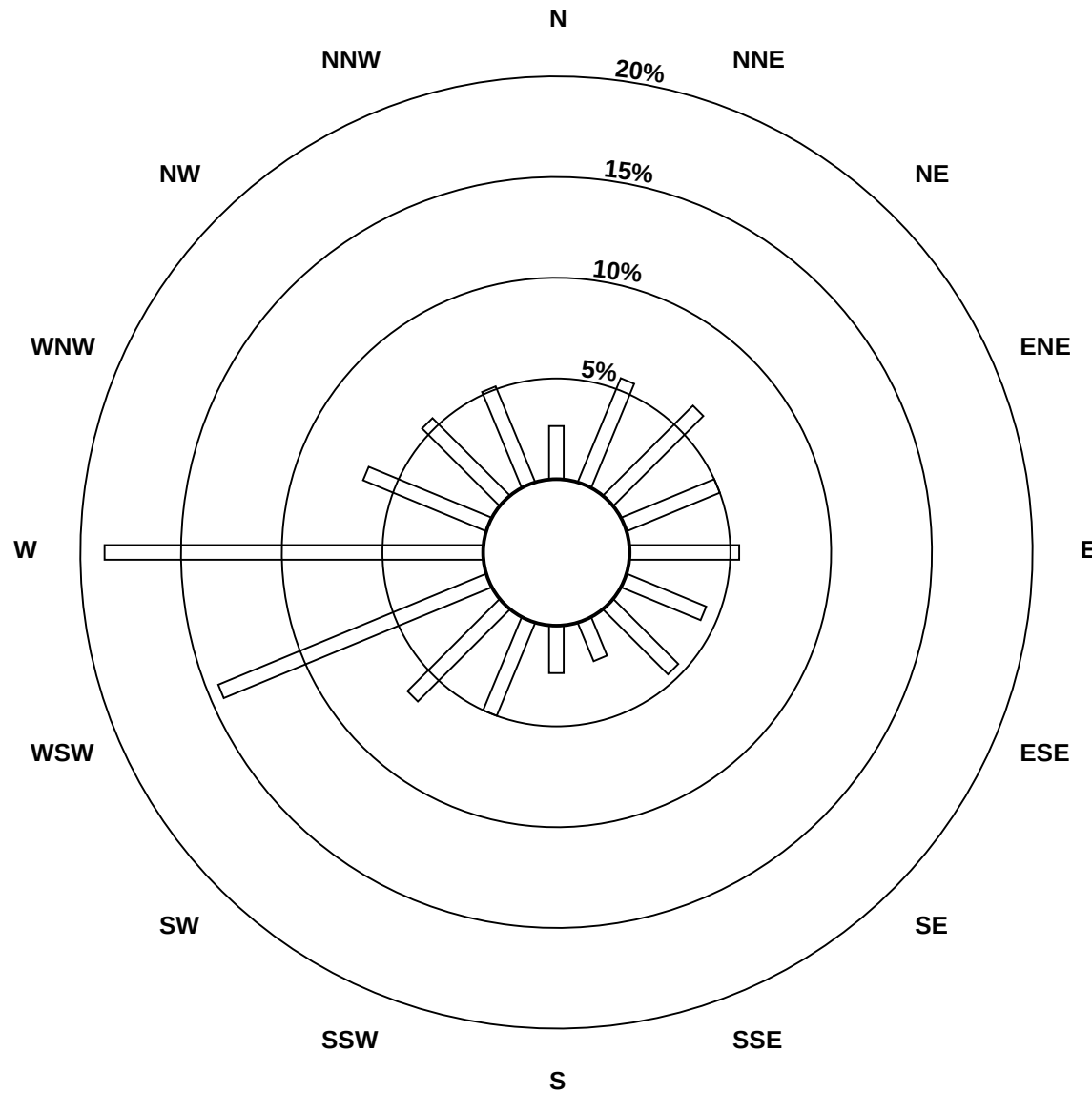
Hourly Maximums

Nitrogen Dioxide (NO₂) - ppb
Beaverlodge - June 2015

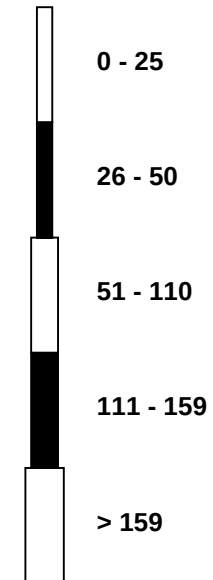


Pollutant Rose

Nitrogen Dioxide (NO₂) - ppb
Beaverlodge - June 2015

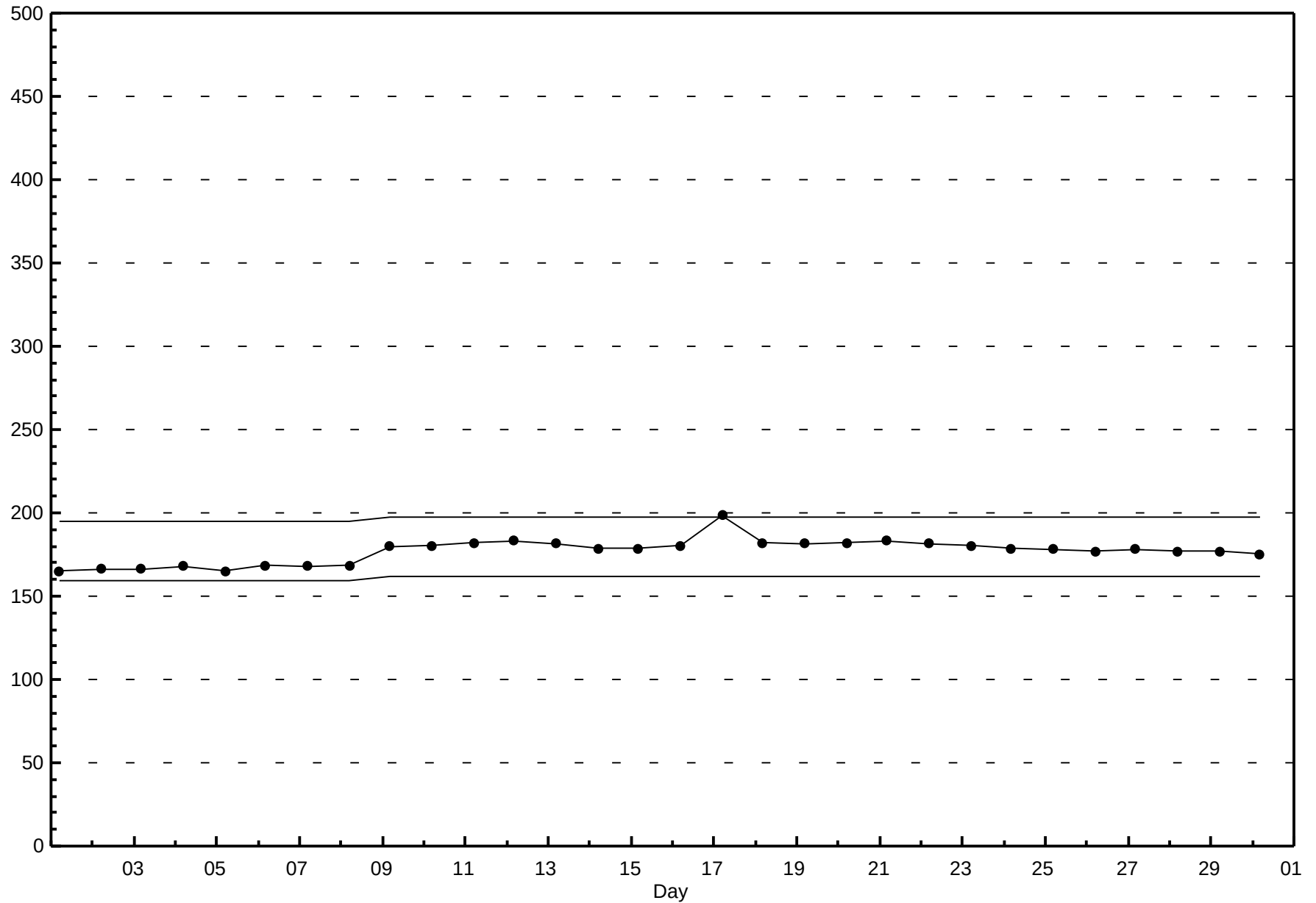


Pollutant Classes (ppb)



Span Responses

Nitrogen Dioxide (NO₂)
Beaverlodge - June 2015



Hourly Averages

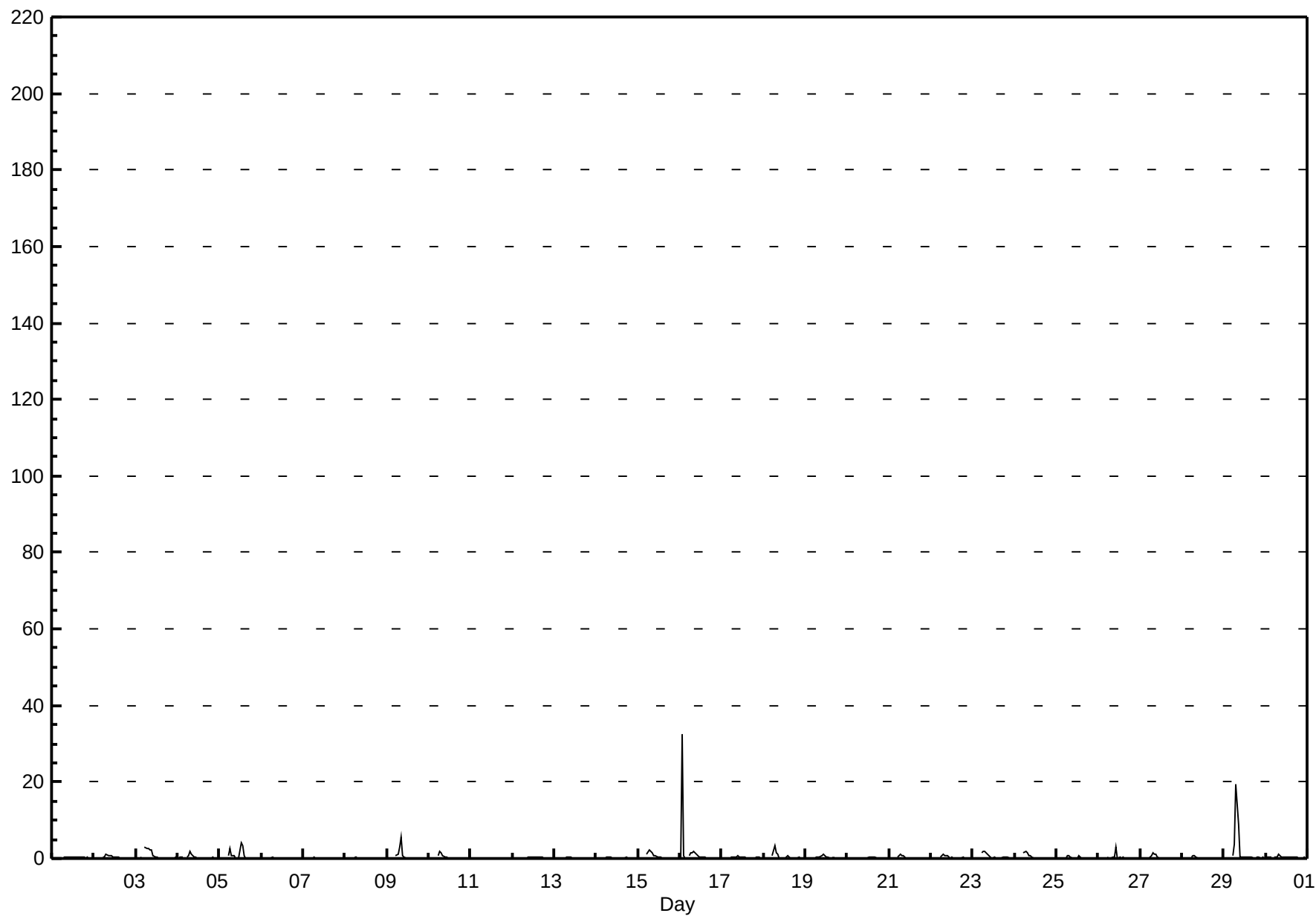
Nitrogen Oxide (NO) - ppb

Beaverlodge - June 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 32.6 ppb on Jun 16 02:00 Maximum Daily Average: 1.9 ppb on Jun 16																								Hours in Service: 720 Hours of Data: 681 Hours of Missing Data: 39 Hours of Calibration: 39 Percent Operational Time: 100.0		
Minimum Value: 0 ppb on Jun 8 18:00 Maximum Diurnal Average: 1.6 ppb at hour 8 Monthly Average: 0.36 ppb																								Minimum Daily Average: 0.0 ppb on Jun 11 Minimum Diurnal Average: 0.1 ppb at hour 24 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 0.7 P ₉₉ = 3.1		
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
2-Jun	0	0	0	0	A	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.9
3-Jun	0	0	0	0	A	3	3	3	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.7	3.2
4-Jun	0	0	0	0	A	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.8
5-Jun	0	0	0	0	A	1	3	1	1	0	0	0	4	3	1	0	0	0	0	0	0	0	0	0	0.6	4.1
6-Jun	0	0	0	0	A	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
7-Jun	0	0	0	0	A	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
8-Jun	0	0	0	0	A	0	0	0	C	C	C	C	C	C	C	C	C	0	0	0	0	0	0	0	--	0.3
9-Jun	0	0	0	0	A	1	1	3	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	5.6
10-Jun	0	0	0	0	A	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.8
11-Jun	0	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
12-Jun	0	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-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
14-Jun	0	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
15-Jun	0	0	0	0	A	1	2	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	2.3
16-Jun	0	33	1	0	A	1	2	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1.9	32.6
17-Jun	0	0	0	0	A	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
18-Jun	0	0	0	0	A	1	3	2	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.4	3.3
19-Jun	0	0	0	0	A	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.0
20-Jun	0	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
21-Jun	0	0	0	0	A	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.1
22-Jun	0	0	0	0	A	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.2
23-Jun	0	0	0	0	A	2	2	2	1	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.4	2.0
24-Jun	0	0	0	0	A	1	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	2.0
25-Jun	0	0	0	0	A	0	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.2	0.7
26-Jun	0	0	0	0	A	0	0	0	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	3.1
27-Jun	0	0	0	0	A	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.3
28-Jun	0	0	0	0	A	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.9
29-Jun	0	0	0	0	A	1	4	20	9	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1.6	19.5
30-Jun	0	0	0	0	A	0	1	1	1	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0.4	1.0
0.1 1.1 0.1 0.1 -- 0.5 1.0 1.6 1.1 0.5 0.4 0.2 0.3 0.3 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1																								Diurnal Average		
0.4 32.6 0.9 0.5 -- 3.2 3.9 19.5 8.8 2.2 3.1 0.6 4.1 3.2 0.9 0.6 0.5 0.3 0.3 0.5 0.3 0.2 0.3 0.2																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										

Hourly Averages

Nitrogen Oxide (NO) - ppb
Beaverlodge - June 2015



Hourly Maximums

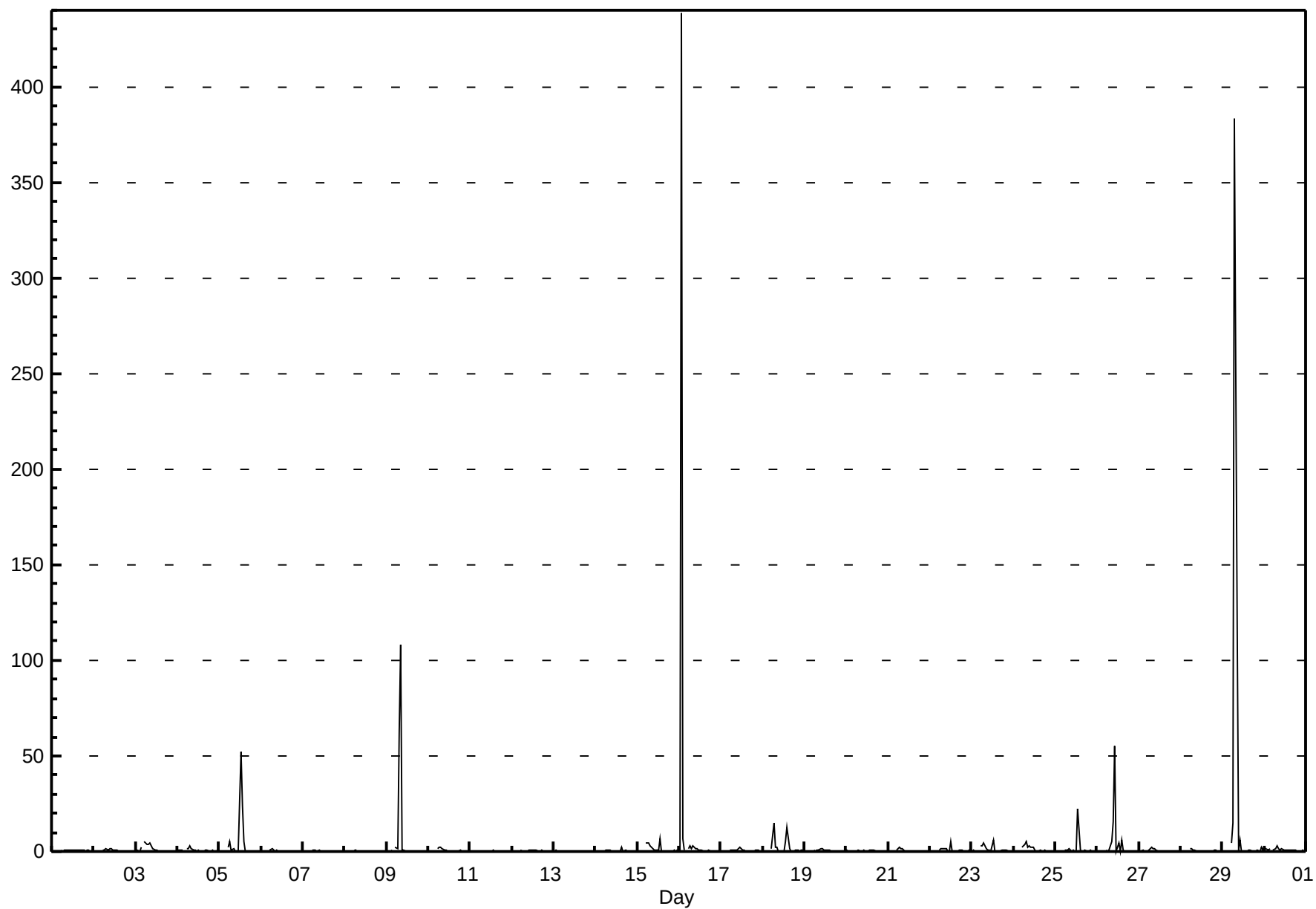
Nitrogen Oxide (NO) - ppb

Beaverlodge - June 2015

Maximum Value: 438.8 ppb on Jun 16 02:00																								Hours in Service: 720		
Maximum Daily Average: 23.2 ppb on Jun 29																								Hours of Data: 681		
Minimum Value: 0 ppb on Jun 8 18:00																								Hours of Missing Data: 39		
Maximum Diurnal Average: 16.4 ppb at hour 8																								Hours of Calibration: 39		
Monthly Average: 2.54 ppb																								Percent Operational Time: 100.0		
Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.2 Median = 0.3 Q ₃ = 0.6 P ₉₀ = 1.7 P ₉₉ = 51.7																										
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-Jun	0	0	0	0	A	0	0	0	0	0	1	1	0	1	0	1	0	0	0	0	0	1	0	1	0.4	1.1
2-Jun	0	0	0	0	A	0	1	1	1	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0.5	1.7
3-Jun	0	0	0	3	A	5	3	4	5	3	2	1	1	0	0	0	0	0	0	0	0	0	0	0	1.3	5.3
4-Jun	0	1	1	1	A	2	1	3	1	1	0	0	1	0	0	0	0	1	0	0	1	0	0	0	0.7	2.8
5-Jun	0	0	0	0	A	2	5	1	1	0	0	0	53	24	5	0	0	0	0	0	0	0	0	0	4.1	52.6
6-Jun	0	0	0	0	A	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.2
7-Jun	0	0	0	0	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.0
8-Jun	0	0	0	0	A	0	1	0	C	C	C	C	C	C	C	C	C	0	0	0	0	0	0	0	--	0.6
9-Jun	0	0	0	0	A	2	1	64	108	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	7.8	108.4
10-Jun	0	0	0	0	A	2	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	2.5
11-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
12-Jun	0	0	0	0	A	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0.3	0.8
13-Jun	0	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.9
14-Jun	0	0	0	0	A	0	1	1	0	0	0	0	0	0	0	2	0	1	0	0	0	0	0	0	0.4	2.5
15-Jun	0	0	0	0	A	4	4	3	2	1	1	1	1	7	0	0	0	0	0	0	0	0	0	1	1.2	6.8
16-Jun	0	439	7	1	A	1	3	2	3	1	1	1	1	1	0	0	0	1	0	0	0	0	0	0	20.1	438.8
17-Jun	0	0	0	0	A	0	1	0	1	1	1	2	0	1	0	0	0	0	0	0	0	0	0	0	0.5	2.3
18-Jun	0	0	0	0	A	1	15	2	2	0	0	0	0	6	12	1	0	0	0	0	0	1	0	1	2.0	14.6
19-Jun	0	0	0	0	A	0	0	1	1	1	2	1	1	0	1	0	0	0	0	0	0	0	0	0	0.4	1.6
20-Jun	1	0	0	0	A	0	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0.3	0.9
21-Jun	0	0	0	0	A	1	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	2.1
22-Jun	0	0	0	0	A	0	2	2	1	1	0	0	5	0	0	0	0	0	1	0	0	0	0	1	0.7	5.0
23-Jun	0	1	0	0	A	3	3	5	1	1	0	0	6	0	0	0	0	1	1	1	0	0	0	0	1.1	5.9
24-Jun	0	0	0	0	A	2	4	5	2	3	2	2	1	0	0	0	0	0	1	0	0	0	0	0	1.1	5.4
25-Jun	0	0	0	0	A	1	1	1	1	0	0	0	0	23	1	0	0	0	0	0	0	0	0	0	1.4	22.5
26-Jun	0	0	0	0	A	1	0	0	6	15	55	0	5	0	6	0	0	0	0	0	0	0	0	0	4.0	55.4
27-Jun	0	0	0	0	A	0	1	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	1.9
28-Jun	0	0	0	0	A	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.7
29-Jun	0	0	0	0	A	4	15	384	117	1	6	0	0	0	0	0	0	0	0	0	0	2	0	0	23.2	383.5
30-Jun	2	2	1	1	A	0	2	3	1	0	2	1	1	1	1	1	1	1	1	0	0	0	1	0	1.0	2.6
0.2 14.9 0.4 0.3 -- 1.3 2.4 16.4 9.1 1.4 2.8 0.5 2.7 2.3 1.1 0.4 0.3 0.3 0.3 0.2 0.3 0.2 0.3 0.3																								Diurnal Average		
2.4 438.8 6.7 2.6 -- 5.3 15.2 383.5 116.8 15.3 55.4 2.3 52.6 24.0 12.4 2.5 0.9 0.7 0.9 0.9 0.6 1.1 2.1 1.5																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										

Hourly Maximums

Nitrogen Oxide (NO) - ppb
Beaverlodge - June 2015



Hourly Averages

Oxides of Nitrogen (NO_x) - ppb

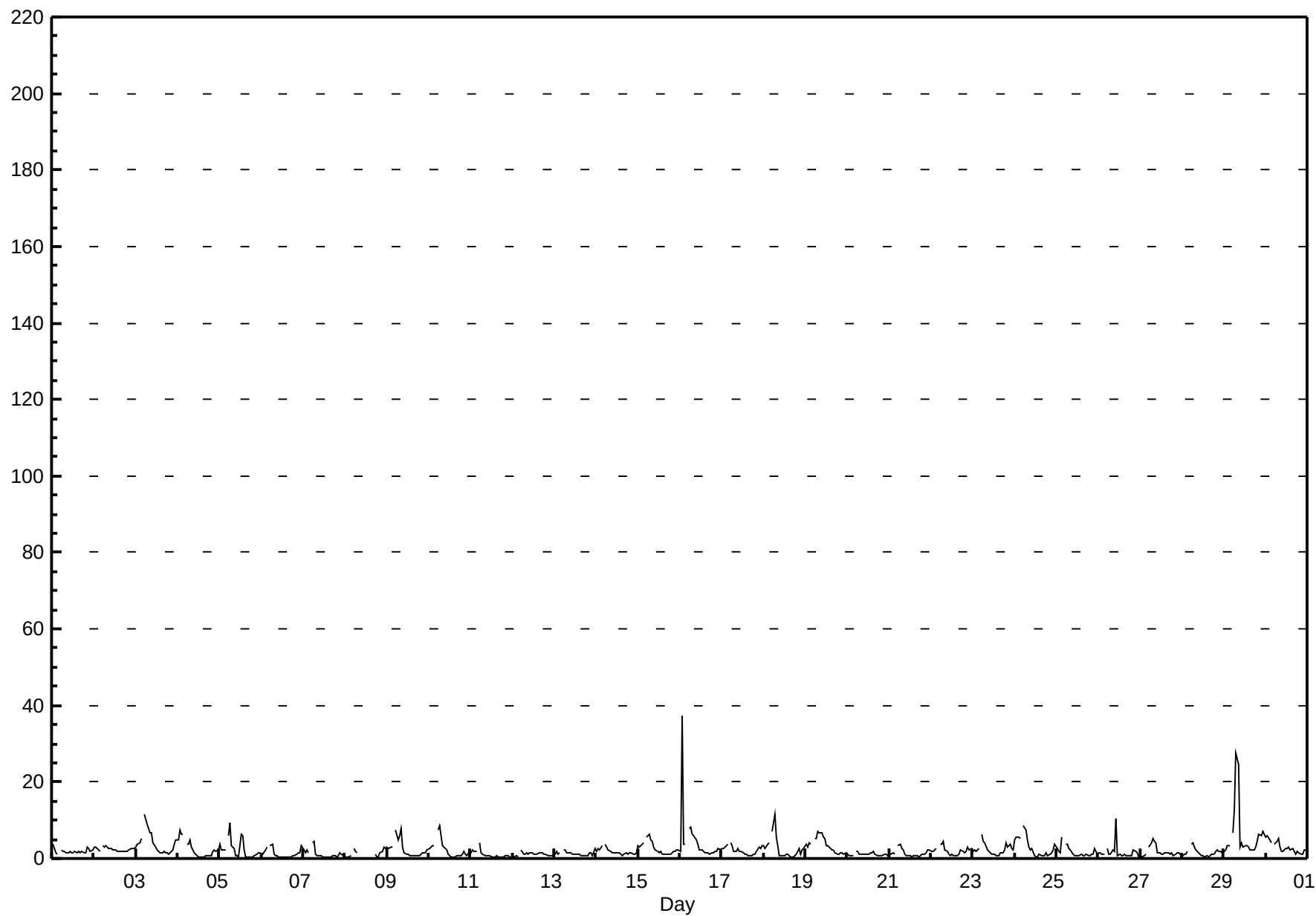
Beaverlodge - June 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 37.1 ppb on Jun 16 02:00 Maximum Daily Average: 6.2 ppb on Jun 29																				Hours in Service: 720 Hours of Data: 681 Hours of Missing Data: 39 Hours of Calibration: 39 Percent Operational Time: 100.0						
Minimum Value: 0 ppb on Jun 12 04:00 Maximum Diurnal Average: 4.8 ppb at hour 7 Monthly Average: 2.28 ppb										Minimum Daily Average: 1.0 ppb on Jun 11 Minimum Diurnal Average: 1.1 ppb at hour 16 Percentiles: P ₁ = 0.4 P ₁₀ = 0.6 Q ₁ = 0.9 Median = 1.6 Q ₃ = 2.7 P ₉₀ = 4.6 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-Jun	4	3	1	1	A	2	2	2	2	2	2	2	1	2	2	2	2	2	2	1	3	3	2	2	1.9	3.8
2-Jun	3	3	3	2	A	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	3	3	3	2.4	3.4
3-Jun	3	4	4	5	A	11	9	8	7	7	4	3	2	2	2	2	2	2	1	1	2	2	4	5	3.9	11.5
4-Jun	5	7	6	6	A	4	4	5	3	2	1	1	0	0	1	1	1	1	1	1	2	2	2	2	2.5	7.5
5-Jun	4	2	2	2	A	6	9	3	3	1	1	1	6	6	2	1	1	1	1	1	1	1	2	2	2.5	9.4
6-Jun	1	1	2	3	A	4	4	1	1	1	0	0	0	0	1	0	0	0	1	1	1	2	1	3	1.3	3.7
7-Jun	2	1	2	1	A	4	5	1	1	1	1	0	0	0	0	0	1	1	1	0	1	2	1	1	1.3	4.6
8-Jun	1	1	0	1	A	3	2	1	C	C	C	C	C	C	C	C	C	1	1	1	2	2	3	3	--	2.9
9-Jun	3	3	3	3	A	8	5	6	8	3	2	1	1	1	1	1	1	1	1	1	1	2	2	2	2.5	8.0
10-Jun	2	3	3	3	A	7	9	6	3	3	2	1	1	1	1	0	1	1	1	1	2	1	1	2	2.4	8.7
11-Jun	1	2	2	2	A	4	1	1	1	1	1	1	0	0	1	1	0	0	0	0	1	1	1	1	1.0	4.1
12-Jun	0	1	1	0	A	2	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1.1	2.4
13-Jun	1	2	1	1	A	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	3	1.3	2.6
14-Jun	2	2	2	4	A	4	3	2	2	1	1	2	1	1	1	1	1	1	1	1	1	1	1	2	1.7	3.6
15-Jun	3	3	4	4	A	6	6	5	5	3	2	2	2	2	1	1	1	1	1	1	2	2	2	2	2.7	6.4
16-Jun	2	37	4	4	A	8	8	6	6	5	4	2	2	2	2	2	1	1	2	2	2	2	3	2	4.6	37.1
17-Jun	3	3	3	4	A	4	3	2	2	3	2	2	1	1	1	1	1	1	1	1	2	3	3	4	2.1	4.2
18-Jun	3	2	4	4	A	7	12	6	3	1	1	1	1	1	1	0	0	1	1	3	1	2	3	3	2.5	11.6
19-Jun	4	3	4	4	A	5	5	7	7	7	5	5	3	3	3	2	2	2	1	1	2	1	1	1	3.5	7.2
20-Jun	1	1	1	1	A	2	2	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1.1	1.9
21-Jun	1	1	1	1	A	3	4	3	2	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	1.4	3.8
22-Jun	2	2	2	2	A	4	4	4	2	2	1	1	1	1	1	1	1	2	2	1	2	3	2	3	2.0	4.5
23-Jun	2	2	2	3	A	6	5	4	2	2	1	1	1	1	1	1	2	1	2	4	3	4	2	2	2.4	6.2
24-Jun	5	6	5	5	A	9	7	5	3	2	3	1	1	0	1	1	1	1	2	1	1	1	2	4	2.9	8.7
25-Jun	2	2	1	6	A	4	4	3	2	1	1	1	1	1	1	1	1	1	1	1	1	3	1	1	1.7	5.5
26-Jun	1	2	1	1	A	3	1	1	2	2	11	1	1	1	1	1	1	1	1	1	2	2	2	1	1.7	10.6
27-Jun	1	1	1	1	A	3	4	5	4	4	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1.8	5.1
28-Jun	1	1	1	2	A	4	4	3	2	1	1	1	1	1	1	0	1	1	1	2	2	2	2	2	1.5	4.0
29-Jun	2	2	3	3	A	7	13	28	24	3	4	3	3	3	3	2	2	2	3	4	6	6	7	6	6.2	27.6
30-Jun	6	6	5	4	A	4	4	5	3	2	2	3	3	3	2	2	2	1	2	1	1	1	2	2	2.9	5.8
																									Diurnal Average	
																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										

Hourly Averages

Oxides of Nitrogen (NO_x) - ppb

Beaverlodge - June 2015



Hourly Maximums

Oxides of Nitrogen (NO_x) - ppb

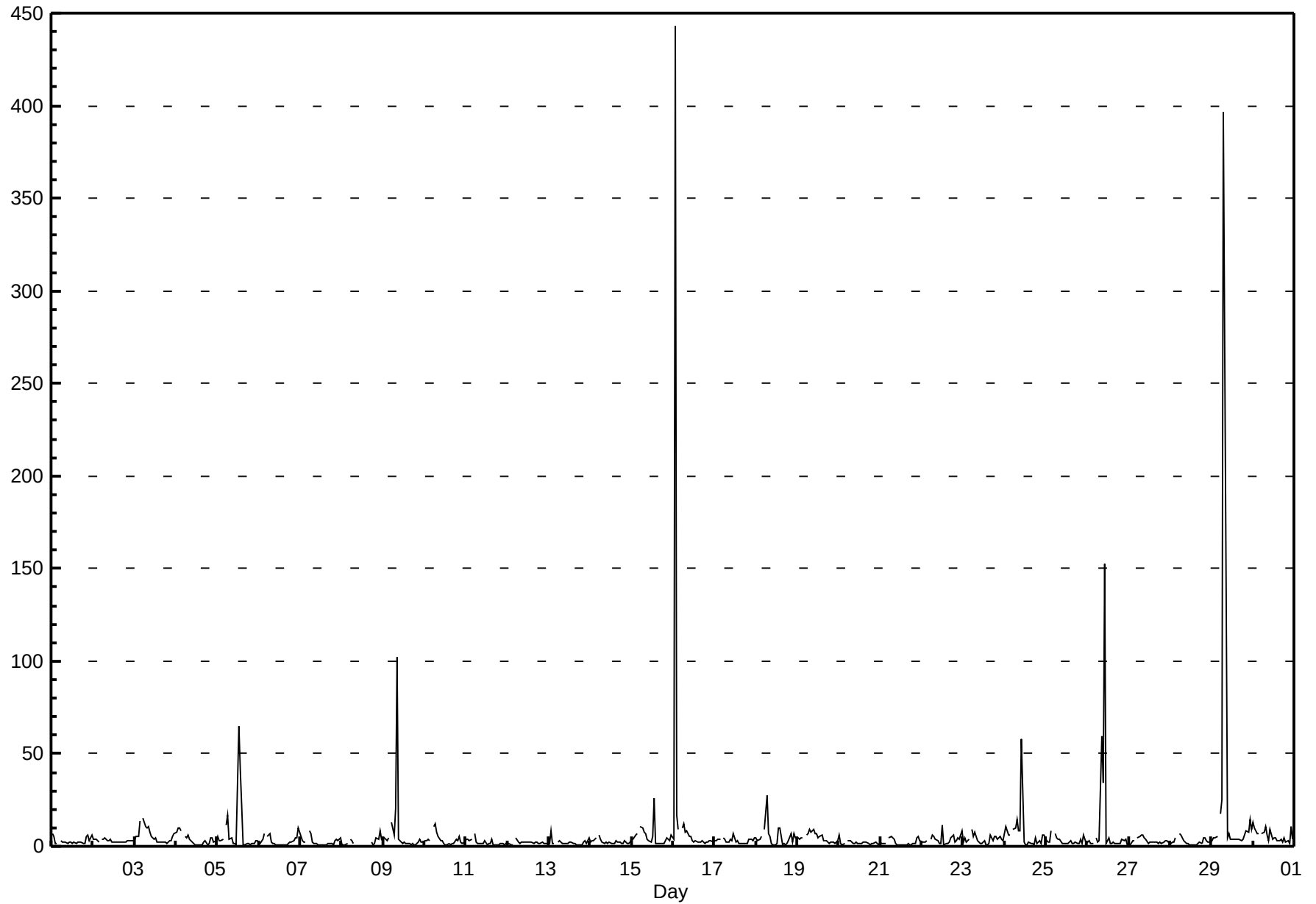
Beaverlodge - June 2015

Maximum Value: 443.1 ppb on Jun 16 02:00																				Maximum Daily Average: 29.8 ppb on Jun 29					Hours in Service: 720		
Minimum Value: 1 ppb on Jun 4 13:00																				Minimum Daily Average: 1.9 ppb on Jun 12					Hours of Data: 681		
Maximum Diurnal Average: 18.8 ppb at hour 8																				Minimum Diurnal Average: 1.8 ppb at hour 16					Hours of Missing Data: 39		
Monthly Average: 5.70 ppb																				Percentiles: P ₁ = 0.7 P ₁₀ = 1.1 Q ₁ = 1.6 Median = 2.7 Q ₃ = 4.5 P ₉₀ = 7.7 P ₉₉ = 57.6					Hours of Calibration: 39		
																				Percent Operational Time: 100.0							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
1-Jun	6	5	2	2	A	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	5	6	3	6	2.9	6.5	
2-Jun	4	4	4	3	A	4	4	4	3	3	4	2	2	2	2	2	2	2	2	3	3	3	3	3	3.0	4.5	
3-Jun	3	5	5	13	A	15	10	10	11	7	5	4	4	2	2	2	2	2	2	2	3	3	5	7	5.5	15.1	
4-Jun	8	10	10	8	A	6	5	6	4	2	1	1	1	1	1	1	2	3	1	1	4	5	2	3	3.7	9.8	
5-Jun	5	3	3	4	A	12	17	4	5	2	1	1	65	41	22	1	1	2	2	1	2	2	3	3	8.6	64.6	
6-Jun	2	2	3	7	A	5	7	2	1	2	1	1	1	1	1	1	1	1	2	2	3	5	4	10	2.8	9.9	
7-Jun	5	3	3	2	A	9	7	2	2	1	1	1	1	1	1	1	1	1	2	1	3	4	3	5	2.5	8.5	
8-Jun	1	1	1	2	A	4	3	2	C	C	C	C	C	C	C	C	C	C	2	1	5	3	8	4	--	8.5	
9-Jun	5	5	3	4	A	13	6	20	102	4	3	1	2	1	2	1	1	1	1	1	2	4	2	2	8.2	102.4	
10-Jun	3	3	4	3	A	11	13	8	5	3	3	2	1	1	2	1	1	2	4	3	5	2	1	2	3.6	12.6	
11-Jun	4	4	3	4	A	7	2	2	1	1	1	3	1	1	1	4	1	1	1	1	1	1	1	1	2.1	6.7	
12-Jun	1	2	1	1	A	4	2	2	2	2	3	2	2	2	2	2	2	2	2	1	2	1	2	1	1.9	4.4	
13-Jun	1	9	1	2	A	3	3	2	2	2	2	2	1	2	2	1	1	1	1	1	2	3	2	5	2.1	8.6	
14-Jun	2	3	3	4	A	6	4	3	2	2	2	2	2	2	2	3	2	2	1	2	3	2	2	3	2.5	6.3	
15-Jun	4	4	6	7	A	11	10	8	6	4	3	3	5	26	1	1	1	1	2	1	4	4	3	6	5.3	26.1	
16-Jun	4	443	17	9	A	10	12	7	8	5	5	3	3	3	2	2	2	3	2	2	2	3	3	3	24.1	443.1	
17-Jun	3	3	4	4	A	5	4	2	3	4	3	7	2	3	1	1	1	2	2	2	4	4	3	4	3.0	7.1	
18-Jun	5	3	4	5	A	9	28	7	5	1	1	1	1	10	10	1	1	1	2	3	7	2	7	4	5.1	27.5	
19-Jun	4	4	5	4	A	6	7	9	7	9	7	7	5	5	6	3	3	3	2	2	2	2	2	3	4.7	9.3	
20-Jun	6	1	1	2	A	3	3	3	2	2	2	2	2	2	2	3	2	1	1	1	1	2	1	1	2.0	6.4	
21-Jun	2	2	2	1	A	4	6	4	4	2	1	1	1	1	1	1	2	1	1	1	1	5	5	3	2.2	5.5	
22-Jun	2	2	3	3	A	4	6	5	4	3	1	1	11	1	2	1	2	5	6	2	3	4	4	8	3.7	11.3	
23-Jun	3	5	3	4	A	9	6	8	3	3	2	1	3	1	1	1	6	3	5	6	4	5	4	3	3.8	9.2	
24-Jun	7	11	6	6	A	9	10	14	8	9	58	2	1	1	2	2	1	1	4	1	3	2	6	6	7.4	58.1	
25-Jun	3	3	2	9	A	7	5	4	4	1	2	1	2	2	3	1	2	2	2	2	4	2	6	2	3.0	8.6	
26-Jun	2	3	2	1	A	4	2	3	59	34	153	1	4	2	2	2	2	2	2	1	4	3	4	1	12.7	152.7	
27-Jun	1	1	3	3	A	4	5	6	6	5	3	2	2	2	2	2	2	2	2	2	2	3	3	2	2.9	6.2	
28-Jun	1	2	3	5	A	7	6	5	3	2	1	1	1	1	1	1	1	2	2	4	5	3	2	2	2.6	6.7	
29-Jun	3	5	5	5	A	17	25	397	140	5	7	4	4	4	4	4	4	3	4	6	9	8	14	9	29.8	397.0	
30-Jun	13	10	7	7	A	7	7	10	6	3	9	4	5	5	3	3	4	2	5	3	3	2	11	4	5.7	12.6	
3.8 18.6 3.9 4.4 -- 7.3 7.5 18.8 14.2 4.3 9.9 2.2 4.7 4.3 2.8 1.8 1.9 1.9 2.2 2.0 3.4 3.3 4.0 3.9																										Diurnal Average	
12.6 443.1 17.0 13.4 -- 17.4 27.5 397.0 139.9 34.1 152.7 7.1 64.6 40.9 21.6 3.7 6.0 4.9 5.8 6.0 8.7 7.8 14.4 9.9																										Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																											

Hourly Maximums

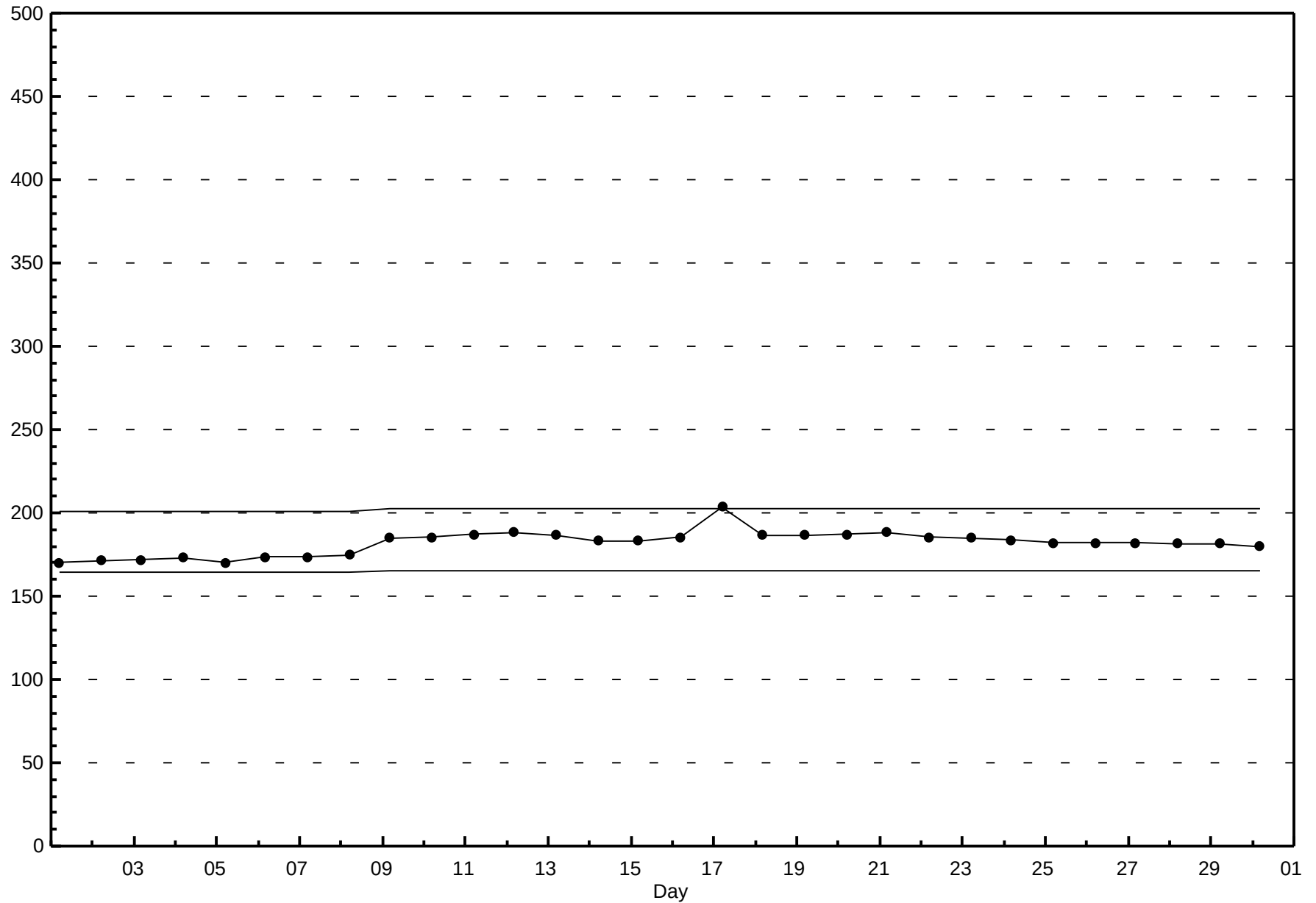
Oxides of Nitrogen (NO_x) - ppb

Beaverlodge - June 2015



Span Responses

Oxides of Nitrogen (NO_x)
Beaverlodge - June 2015



Hourly Averages

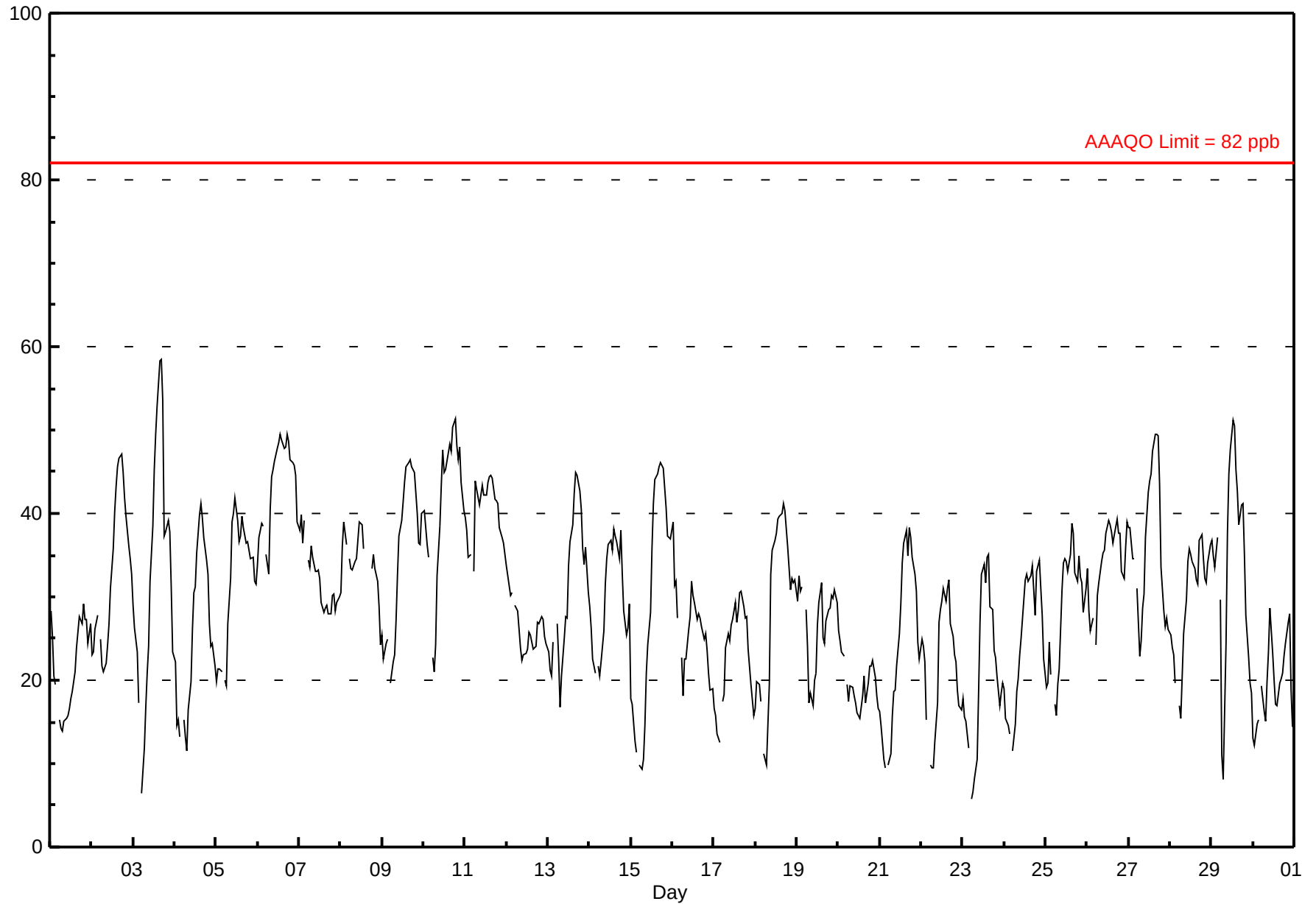
Ozone (O₃) - ppb

Beaverlodge - June 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 58.5 ppb on Jun 3 17:00 Maximum Daily Average: 43.6 ppb on Jun 6																								Hours in Service: 720 Hours of Data: 686 Hours of Missing Data: 34 Hours of Calibration: 34 Percent Operational Time: 100.0																								
Minimum Value: 6 ppb on Jun 23 06:00 Minimum Daily Average: 19.6 ppb on Jun 30 Maximum Diurnal Average: 37.0 ppb at hour 16 Minimum Diurnal Average: 19.6 ppb at hour 7 Monthly Average: 29.59 ppb Percentiles: P ₁ = 9.5 P ₁₀ = 16.5 Q ₁ = 22.2 Median = 29.4 Q ₃ = 36.8 P ₉₀ = 43.6 P ₉₉ = 50.2																																																
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-Jun	28	25	21	19	A	15	14	14	15	15	16	17	18	19	21	24	26	28	27	29	27	27	24	27	21.6	29.2																						
2-Jun	23	23	26	28	A	25	22	21	22	24	27	31	36	40	43	46	47	47	45	42	40	36	35	33	33.1	47.1																						
3-Jun	29	26	23	17	A	6	12	17	21	24	32	38	45	50	53	58	59	54	37	38	39	38	31	23	33.5	58.5																						
4-Jun	22	15	15	13	A	15	13	12	16	20	26	30	31	35	40	41	40	37	34	33	27	24	24	22	25.5	41.1																						
5-Jun	20	21	21	21	A	20	19	27	32	39	40	42	39	37	37	40	38	37	37	36	35	35	32	32	31.9	41.9																						
6-Jun	34	37	39	38	A	35	33	40	44	45	46	48	48	50	49	48	48	49	49	46	46	46	45	39	43.6	49.5																						
7-Jun	38	40	36	39	A	34	33	36	35	33	33	33	32	29	28	29	29	28	28	30	30	28	29	30	32.3	39.8																						
8-Jun	30	36	39	36	A	35	33	33	34	35	37	39	39	36	C	C	C	C	33	35	33	32	29	24	34.2	39.0																						
9-Jun	25	23	24	25	A	20	22	23	27	33	37	39	41	44	46	46	46	46	45	45	40	37	36	40	35.2	46.5																						
10-Jun	40	38	36	35	A	23	21	24	33	38	43	48	45	45	47	48	47	50	51	48	46	48	44	40	40.9	51.4																						
11-Jun	39	38	35	35	A	33	44	43	41	42	43	42	42	44	44	45	44	42	42	41	38	37	37	35	40.3	44.5																						
12-Jun	34	33	30	31	A	29	28	26	24	22	23	23	24	26	26	24	24	24	27	27	28	27	25	24	26.4	33.8																						
13-Jun	23	21	20	25	A	27	23	17	21	25	28	27	34	37	39	42	45	45	43	40	36	34	36	31	31.2	45.0																						
14-Jun	29	26	23	21	A	22	20	22	26	32	35	36	37	36	38	37	37	35	38	33	28	25	26	29	30.0	38.2																						
15-Jun	18	17	13	11	A	10	9	11	15	21	24	28	36	41	44	45	46	46	46	45	41	37	37	37	29.4	46.2																						
16-Jun	39	31	32	28	A	23	18	22	23	26	28	32	30	29	27	28	27	26	25	26	24	21	19	19	26.2	39.0																						
17-Jun	17	16	14	13	A	17	18	24	26	25	27	27	29	27	28	31	31	29	28	28	24	20	18	16	23.0	30.7																						
18-Jun	17	20	19	18	A	11	10	15	19	33	36	37	38	39	40	40	41	40	38	36	31	32	32	32	29.2	41.1																						
19-Jun	29	32	31	31	A	28	24	17	19	17	20	21	27	29	32	25	24	27	28	29	30	30	31	29	26.6	32.5																						
20-Jun	26	25	23	23	A	20	17	19	19	18	17	16	15	17	18	20	17	20	22	22	22	20	18	17	19.7	26.0																						
21-Jun	16	15	11	10	A	10	11	16	19	19	22	26	29	34	36	38	35	38	37	35	33	31	25	22	24.6	38.4																						
22-Jun	25	24	22	15	A	10	10	10	13	17	27	29	29	31	30	31	32	27	25	23	22	19	17	16	21.9	32.0																						
23-Jun	18	16	15	12	A	6	7	8	10	19	27	33	34	32	35	35	29	28	24	23	21	17	18	20	21.0	35.0																						
24-Jun	19	15	15	14	A	12	15	19	20	23	25	30	32	33	32	33	34	31	28	33	34	31	28	23	25.0	34.3																						
25-Jun	19	20	25	21	A	17	16	19	21	31	34	35	34	33	35	39	38	33	32	35	32	32	28	31	28.6	38.9																						
26-Jun	33	28	26	27	A	24	30	32	34	35	36	38	39	39	38	36	37	39	38	38	33	32	36	39	34.3	39.3																						
27-Jun	38	38	35	35	A	31	23	25	29	30	37	43	44	45	48	49	50	49	44	34	28	26	27	26	36.2	49.5																						
28-Jun	25	24	23	20	A	17	15	21	26	30	34	36	35	34	33	32	31	37	38	35	32	32	34	36	29.5	37.5																						
29-Jun	37	35	34	37	A	30	11	8	24	38	45	48	51	50	45	43	39	41	41	35	28	23	20	18	33.9	51.2																						
30-Jun	13	12	15	15	A	19	16	15	20	23	29	23	20	17	17	20	20	21	23	24	27	28	19	14	19.6	28.7																						
																								26.8	25.7	24.7	23.7	--	20.8	19.6	21.2	24.2	27.7	31.1	33.1	34.5	35.2	36.1	37.0	36.6	36.3	35.0	34.0	31.8	30.1	28.6	27.5	Diurnal Average
																								40.3	39.8	39.0	39.1	--	35.1	43.9	42.9	44.3	45.2	46.3	47.8	51.2	50.4	52.9	58.3	58.5	53.5	51.4	48.1	46.5	47.9	44.6	40.4	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
Beaverlodge - June 2015



Hourly Maximums

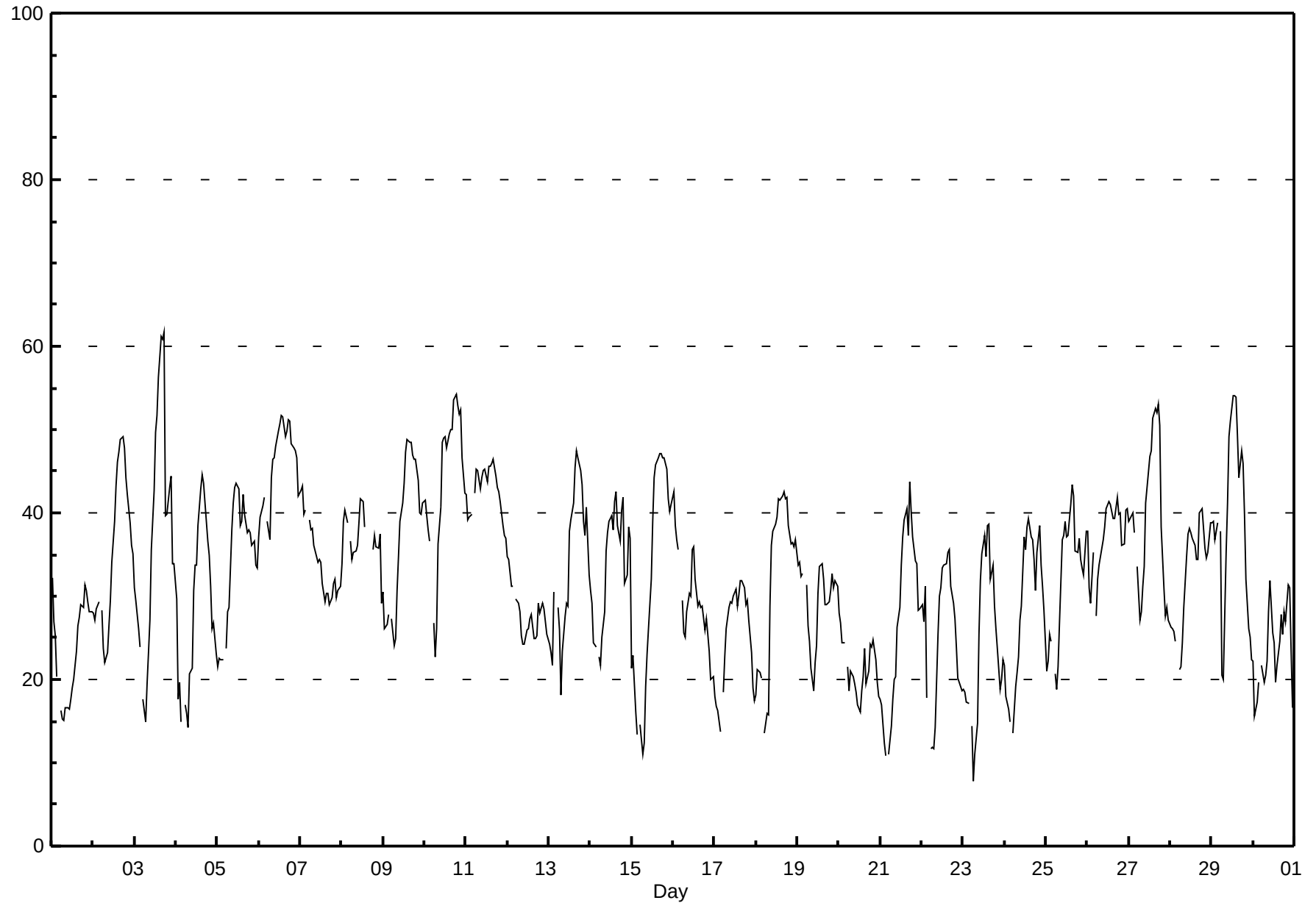
Ozone (O₃) - ppb

Beaverlodge - June 2015

Maximum Value: 61.7 ppb on Jun 3 18:00																				Maximum Daily Average: 46.0 ppb on Jun 6										Hours in Service: 720	
Minimum Value: 8 ppb on Jun 23 07:00																				Minimum Daily Average: 21.4 ppb on Jun 20										Hours of Data: 686	
Maximum Diurnal Average: 40.0 ppb at hour 16																				Minimum Diurnal Average: 23.0 ppb at hour 7										Hours of Missing Data: 34	
Monthly Average: 32.55 ppb																				Percentiles: P ₁ = 11.6 P ₁₀ = 19.0 Q ₁ = 25.2 Median = 32.4 Q ₃ = 39.5 P ₉₀ = 46.0 P ₉₉ = 54.0										Hours of Calibration: 34	
																				Percent Operational Time: 100.0											
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
1-Jun	32	27	25	20	A	16	15	15	17	17	16	18	19	20	23	26	28	29	29	31	31	29	28	28	23.5	32.3					
2-Jun	28	27	29	29	A	28	24	22	23	27	29	34	39	43	46	47	49	49	48	44	42	39	36	35	35.6	49.2					
3-Jun	31	29	26	24	A	18	15	19	23	27	36	43	50	52	56	61	61	62	40	40	43	44	34	34	37.7	61.7					
4-Jun	30	18	20	15	A	17	16	14	21	21	31	34	34	38	43	45	44	41	37	35	31	26	27	23	28.6	44.6					
5-Jun	22	23	22	22	A	24	28	29	38	41	43	43	43	38	39	42	40	38	38	38	36	37	34	33	34.4	43.5					
6-Jun	37	39	41	42	A	39	37	44	46	47	48	50	51	52	52	49	50	51	51	48	48	48	47	42	46.0	51.7					
7-Jun	43	43	40	40	A	39	38	38	36	35	34	34	34	32	29	30	30	29	30	32	32	30	31	31	34.4	43.2					
8-Jun	34	39	40	39	A	37	34	35	35	36	39	42	41	38	C	C	C	C	36	37	36	36	37	29	36.9	41.7					
9-Jun	31	26	27	28	A	27	24	25	31	35	39	41	44	47	49	49	48	47	47	46	44	40	40	41	38.0	48.9					
10-Jun	42	40	38	37	A	27	23	26	36	41	48	49	49	48	49	50	50	54	54	53	52	52	47	42	43.7	54.3					
11-Jun	42	39	39	40	A	42	45	45	43	44	45	45	44	46	46	46	46	44	43	43	41	38	37	37	42.7	46.5					
12-Jun	35	34	31	31	A	30	29	28	25	24	24	26	26	27	28	25	25	25	29	28	29	28	27	25	27.9	34.7					
13-Jun	24	23	22	30	A	29	26	18	23	28	29	29	38	39	41	45	48	47	45	43	39	37	41	32	33.8	47.5					
14-Jun	31	29	24	24	A	23	22	25	28	35	38	39	40	38	41	43	38	37	40	42	32	33	38	37	33.7	42.5					
15-Jun	21	23	16	13	A	15	11	12	19	23	26	32	39	44	46	47	47	47	47	47	45	42	40	41	32.3	47.2					
16-Jun	42	38	37	36	A	29	26	25	28	30	30	36	36	32	29	29	29	29	26	27	25	23	20	20	29.7	42.5					
17-Jun	18	17	16	14	A	18	23	26	29	29	29	30	31	29	30	32	32	31	29	29	27	23	19	17	25.2	31.9					
18-Jun	18	21	21	20	A	14	16	16	29	36	38	39	40	42	42	42	43	42	42	39	36	36	36	37	32.3	42.5					
19-Jun	34	34	32	33	A	31	27	25	21	19	22	24	30	34	34	32	29	29	29	31	33	31	32	31	29.4	34.1					
20-Jun	28	27	24	24	A	21	19	21	20	20	18	17	16	19	20	24	19	21	24	24	25	22	20	18	21.4	27.9					
21-Jun	18	17	12	11	A	11	14	18	20	20	26	29	34	37	39	41	37	44	40	37	34	34	28	29	27.4	43.8					
22-Jun	29	27	31	18	A	12	12	12	14	25	30	31	33	34	34	35	36	31	29	27	24	20	20	19	25.3	35.7					
23-Jun	19	18	17	17	A	14	8	11	15	25	32	35	37	35	39	39	32	34	29	26	24	19	20	22	24.6	38.6					
24-Jun	22	18	16	15	A	14	19	21	23	27	29	37	36	38	39	37	37	34	31	35	38	34	31	28	28.7	39.3					
25-Jun	21	22	25	25	A	21	19	21	27	37	37	39	37	37	41	43	42	35	35	37	34	33	33	38	32.2	43.3					
26-Jun	38	31	29	35	A	28	32	34	36	37	38	41	41	41	40	39	39	42	40	40	36	36	40	41	37.1	41.8					
27-Jun	39	39	40	38	A	34	27	28	31	34	41	45	47	47	51	53	52	53	51	38	31	28	29	27	39.2	53.0					
28-Jun	26	26	26	25	A	21	21	24	29	35	37	38	38	37	36	34	34	40	40	38	36	35	35	39	32.7	40.5					
29-Jun	39	39	37	39	A	38	21	20	35	41	49	51	54	54	54	49	44	47	46	40	32	26	25	22	39.3	54.1					
30-Jun	22	16	17	20	A	22	20	20	22	28	32	26	24	20	22	25	28	25	28	27	31	31	24	17	23.7	31.8					
29.8 28.4 27.4 26.8 -- 24.6 23.0 24.0 27.5 30.8 33.8 35.8 37.4 37.9 39.3 40.0 39.2 39.2 37.7 36.8 34.9 33.0 31.8 30.6																									Diurnal Average						
42.8 43.2 40.9 41.9 -- 42.3 45.2 45.1 46.4 46.6 49.1 51.1 54.0 54.1 56.3 61.2 60.8 61.7 54.3 53.0 51.8 52.4 46.6 42.4																									Diurnal Maximum						
C - Calibration																									A - Automated Daily Zero Span						

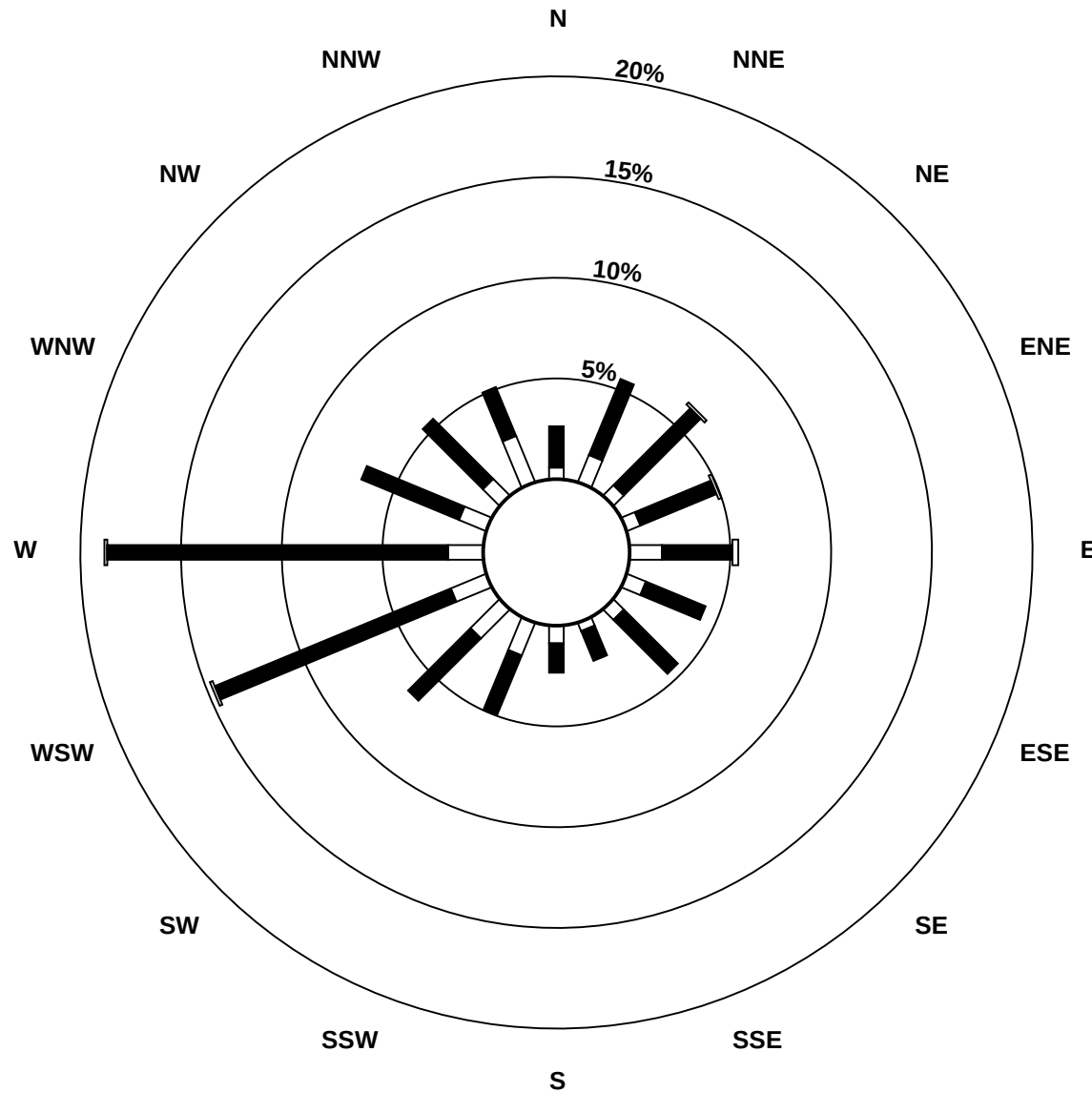
Hourly Maximums

Ozone (O₃) - ppb
Beaverlodge - June 2015

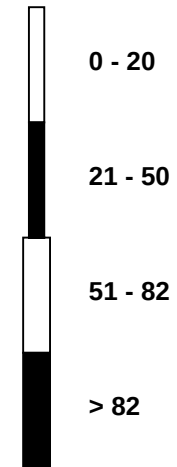


Pollutant Rose

Ozone (O₃) - ppb
Beaverlodge - June 2015



Pollutant Classes (ppb)



Eight Hour Running Averages

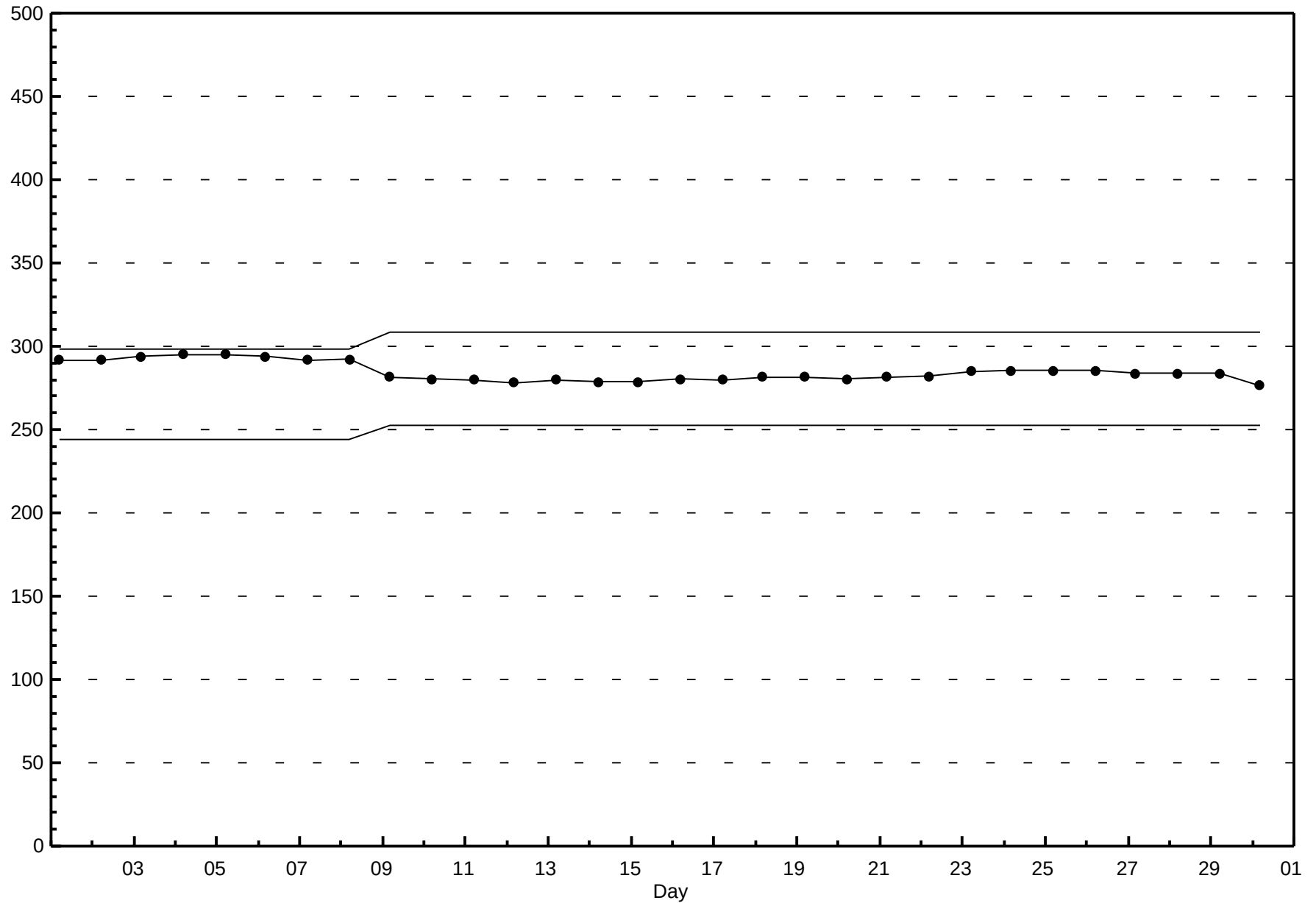
Ozone (O₃) - ppb

Beaverlodge - June 2015

Maximum Value: 49.2 ppb on Jun 3 19:00																								Hours in Service: 720	
Minimum Value: 10.5 ppb on Jun 23 09:00																								Hours of Data: 713	
																								Hours of Missing Data: 7	
Percentiles: P ₁ = 12.6 P ₁₀ = 17.7 Q ₁ = 23.1 Median = 28.8 Q ₃ = 35.5 P ₉₀ = 41.6 P ₉₉ = 48.4																								Hours of Calibration: 7	
																								Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jun	36	34	32	29	28	25	22	20	18	16	16	15	16	16	17	18	19	21	22	24	25	26	27	27	35.7
2-Jun	27	26	26	26	26	25	25	24	24	24	24	25	26	28	31	34	37	40	42	43	44	43	42	40	43.6
3-Jun	38	36	33	30	29	24	21	19	18	17	18	21	24	30	35	40	45	49	49	49	48	47	44	40	49.2
4-Jun	35	30	28	25	23	19	17	15	14	15	17	19	21	23	26	30	33	35	36	36	36	34	33	30	36.4
5-Jun	28	26	24	23	22	21	21	21	23	26	28	31	32	34	37	38	39	39	38	37	37	37	36	35	39.0
6-Jun	34	34	35	35	35	35	35	37	38	39	40	42	43	44	46	47	48	48	49	48	48	48	47	46	48.5
7-Jun	45	44	42	41	40	39	37	37	36	35	35	34	34	33	32	32	31	30	30	29	29	29	29	29	44.7
8-Jun	29	30	32	32	33	34	34	35	35	35	35	36	36	36	36	36	N	N	N	N	N	N	N	31	36.5
9-Jun	30	29	28	27	26	24	23	23	23	25	27	29	30	33	36	39	42	43	44	45	45	44	43	42	44.9
10-Jun	41	40	39	38	37	36	33	31	30	30	31	33	34	37	40	43	45	47	48	48	48	48	48	47	48.4
11-Jun	46	44	42	41	40	38	38	38	38	39	40	41	41	43	43	43	43	43	43	43	42	42	41	39	46.0
12-Jun	38	37	36	34	34	33	31	30	29	27	26	25	25	25	24	24	24	24	25	25	26	26	26	26	38.2
13-Jun	26	25	25	24	24	24	23	22	22	22	23	24	25	26	28	31	35	37	39	41	41	40	40	39	40.8
14-Jun	37	34	32	29	28	27	24	23	23	24	25	28	29	30	33	35	36	36	37	36	35	34	32	31	36.6
15-Jun	29	27	24	21	20	18	15	13	12	13	14	17	19	23	27	32	36	39	41	44	44	44	43	42	44.2
16-Jun	41	39	37	35	34	32	30	28	25	24	24	24	25	26	27	28	28	28	28	27	27	25	24	23	41.0
17-Jun	22	21	19	18	17	16	16	17	18	19	21	23	24	25	27	27	28	29	29	29	28	27	26	24	28.7
18-Jun	22	21	20	19	18	17	16	16	16	18	20	23	25	28	32	35	38	39	39	39	38	37	36	35	39.1
19-Jun	34	33	32	31	31	31	30	28	26	24	22	21	22	22	23	24	24	26	27	28	28	28	28	29	33.8
20-Jun	29	28	28	27	27	25	23	22	21	20	19	18	18	17	18	18	17	18	18	19	20	20	20	20	28.8
21-Jun	20	19	18	16	15	14	13	13	13	13	15	17	19	22	25	28	30	32	34	35	36	35	34	32	35.8
22-Jun	31	29	27	25	23	20	18	16	15	14	14	16	18	21	23	26	28	29	29	29	28	26	24	23	30.7
23-Jun	21	20	18	17	16	14	13	12	11	11	13	16	18	21	25	28	30	32	31	30	28	26	24	22	31.5
24-Jun	21	20	18	17	17	16	15	15	16	17	18	20	22	24	27	28	30	31	31	32	32	32	31	30	32.1
25-Jun	28	27	27	25	24	22	20	19	20	21	23	25	26	28	30	33	35	35	35	35	35	34	34	33	35.0
26-Jun	32	31	31	30	29	28	29	29	29	30	31	33	34	35	36	37	37	38	38	38	37	36	36	37	38.0
27-Jun	37	37	36	36	36	36	34	32	31	30	30	31	33	34	37	41	43	46	46	45	43	41	38	36	46.3
28-Jun	33	29	27	25	25	23	21	21	21	22	23	25	27	29	31	32	33	34	35	34	34	34	34	34	34.5
29-Jun	35	35	34	35	35	35	31	27	26	26	28	29	32	34	39	43	45	45	45	43	40	37	34	31	45.2
30-Jun	27	24	20	18	17	16	16	15	16	18	20	21	21	20	21	21	21	21	20	20	21	22	23	22	27.4
46.0 44.4 42.4 41.1 40.4 38.8 37.8 38.2 38.4 39.3 40.4 41.7 42.5 44.3 46.4 47.3 47.7 48.5 49.2 49.1 48.4 48.4 48.0 47.0																									
Diurnal Maximums																									
N - Not Valid																									

Span Responses

Ozone (O₃)
Beaverlodge - June 2015

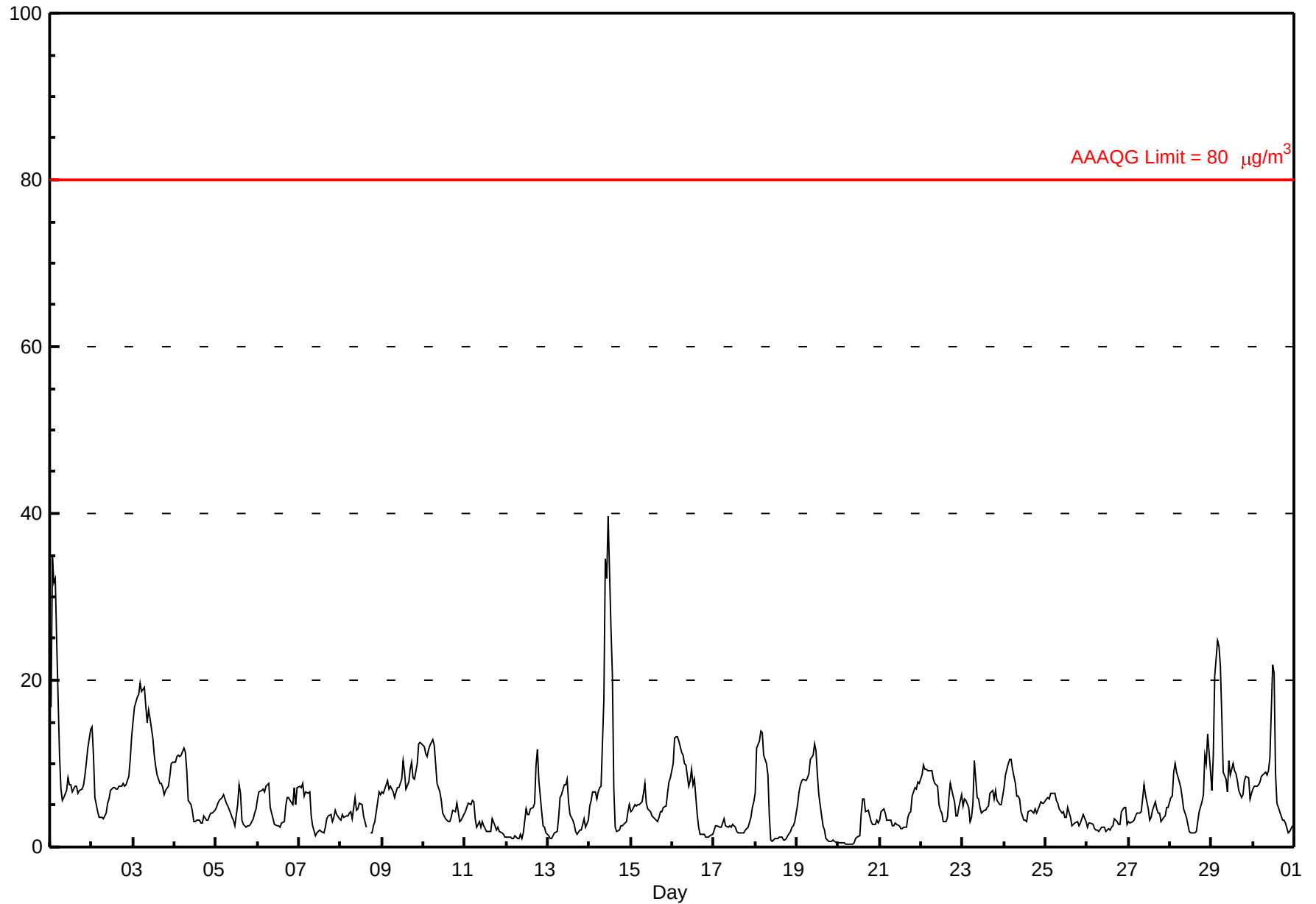


Hourly Averages

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

Beaverlodge - June 2015

Number of Exceedences: 1-hr: 0 24-hr: 0 Maximum Value: 39.7 µg/m³ on Jun 14 12:00 Maximum Daily Average: 12.6 µg/m³ on Jun 3																								Hours in Service: 720 Hours of Data: 719 Hours of Missing Data: 1 Hours of Calibration: 0 Percent Operational Time: 99.9		
Minimum Value: 0 µg/m³ on Jun 20 09:00 Maximum Diurnal Average: 8.3 µg/m³ at hour 4 Monthly Average: 5.82 µg/m³												Minimum Daily Average: 2.1 µg/m³ on Jun 20 Minimum Diurnal Average: 3.8 µg/m³ at hour 16 Percentiles: P ₁ = 0.5 P ₁₀ = 1.8 Q ₁ = 2.9 Median = 4.7 Q ₃ = 7.3 P ₉₀ = 10.6 P ₉₉ = 22.6														
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-Jun	17	35	32	32	24	11	7	6	6	7	8	7	7	7	7	7	6	7	7	7	9	10	12	14	12.2	34.8
2-Jun	14	11	6	4	4	4	3	3	4	5	6	7	7	7	7	7	7	7	8	7	7	8	11	13	7.0	14.4
3-Jun	15	17	18	18	20	19	19	17	15	16	15	13	11	10	9	8	8	7	6	7	7	8	10	10	12.6	19.6
4-Jun	10	11	11	11	11	12	11	9	6	5	4	3	3	3	3	3	3	4	3	3	4	4	4	4	6.1	11.9
5-Jun	5	5	6	6	6	6	5	5	4	3	3	2	5	7	6	3	3	2	3	2	3	3	4	5	4.3	7.4
6-Jun	6	7	7	7	7	7	8	5	4	3	3	3	2	2	3	3	5	6	6	6	5	7	5	7	5.1	7.6
7-Jun	7	7	8	6	7	6	7	4	3	1	2	2	2	2	2	2	3	4	4	3	4	4	4	3	4.0	7.6
8-Jun	3	4	4	4	4	4	4	3	6	4	5	5	5	4	3	2	M	2	2	2	3	5	7	6	4.0	6.7
9-Jun	7	6	7	8	7	7	7	6	7	7	7	8	10	9	7	8	9	10	8	8	10	12	12	12	8.4	12.5
10-Jun	12	11	11	12	12	13	12	10	8	7	6	4	4	3	3	3	4	4	4	5	4	3	3	4	6.7	12.9
11-Jun	4	5	5	5	6	5	3	2	3	2	3	3	2	2	2	2	3	3	2	2	2	2	1	1	2.9	5.6
12-Jun	1	1	1	1	1	1	1	1	2	1	2	5	4	4	5	5	5	10	12	8	4	3	2	2	3.4	11.8
13-Jun	1	1	1	1	2	2	4	6	6	8	7	8	5	4	3	3	2	2	2	2	3	3	2	3	3.4	8.1
14-Jun	5	6	7	7	6	7	7	7	18	35	32	40	26	21	7	2	2	2	3	3	3	3	4	5	10.6	39.7
15-Jun	4	4	5	5	5	5	5	6	8	5	5	4	4	4	3	3	4	4	4	5	5	6	8	8	5.0	8.3
16-Jun	10	13	13	13	13	11	11	10	10	7	8	9	8	8	4	2	1	1	1	1	1	1	1	1	6.7	13.2
17-Jun	2	2	3	2	2	3	3	2	2	3	2	3	2	2	2	2	2	2	2	2	2	4	5	5	2.6	5.4
18-Jun	6	12	13	14	14	11	10	9	4	1	1	1	1	1	1	1	1	1	1	1	2	2	3	3	4.7	14.0
19-Jun	5	7	8	8	8	8	8	9	10	11	12	11	9	6	4	2	2	1	1	1	1	1	1	1	5.6	12.4
20-Jun	0	0	1	0	0	0	0	0	0	0	1	1	1	4	6	6	4	4	4	3	3	3	3	3	2.1	5.8
21-Jun	3	4	5	4	3	3	3	3	3	3	3	2	2	2	2	2	4	4	4	6	7	7	8	8	4.0	7.7
22-Jun	9	10	9	9	9	9	9	8	8	7	5	4	4	3	3	3	6	8	6	6	4	4	5	6	6.4	9.9
23-Jun	5	6	6	5	3	4	5	10	6	6	5	4	4	4	5	5	7	7	6	7	6	5	5	6	5.4	10.3
24-Jun	7	9	10	11	10	9	8	6	6	6	4	3	3	3	4	4	4	4	5	4	5	5	5	5	5.9	10.5
25-Jun	6	6	6	6	6	6	6	5	5	4	4	4	4	5	4	3	3	3	3	2	3	3	4	3	4.3	6.5
26-Jun	2	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	4	5	5	3	2.7	4.8
27-Jun	3	3	3	3	4	4	4	4	6	7	6	5	3	4	4	5	5	4	4	3	3	4	5	5	4.2	7.5
28-Jun	6	6	9	10	9	8	7	6	5	4	3	2	2	2	2	2	3	4	5	6	11	10	14	9	6.0	13.5
29-Jun	7	11	21	25	24	22	16	9	8	7	10	9	10	9	9	8	7	6	6	8	8	8	6	6	10.8	24.7
30-Jun	7	7	7	7	8	9	9	9	9	9	11	22	21	9	5	4	4	3	3	3	2	2	2	3	7.3	21.9
6.4 7.7 8.1 8.3 7.9 7.3 6.9 6.1 6.0 6.3 6.2 6.5 5.8 5.1 4.2 3.8 4.1 4.3 4.2 4.2 4.5 4.9 5.3 5.5																								Diurnal Average		
16.8 34.8 31.6 32.2 24.5 21.7 19.1 16.9 17.8 34.7 32.3 39.7 26.3 20.7 8.7 8.0 9.4 10.2 11.8 8.1 11.0 12.4 13.5 14.0																								Diurnal Maximum		
M - Maintenance Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 µg/m³ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 µg/m³																										



Hourly Maximums

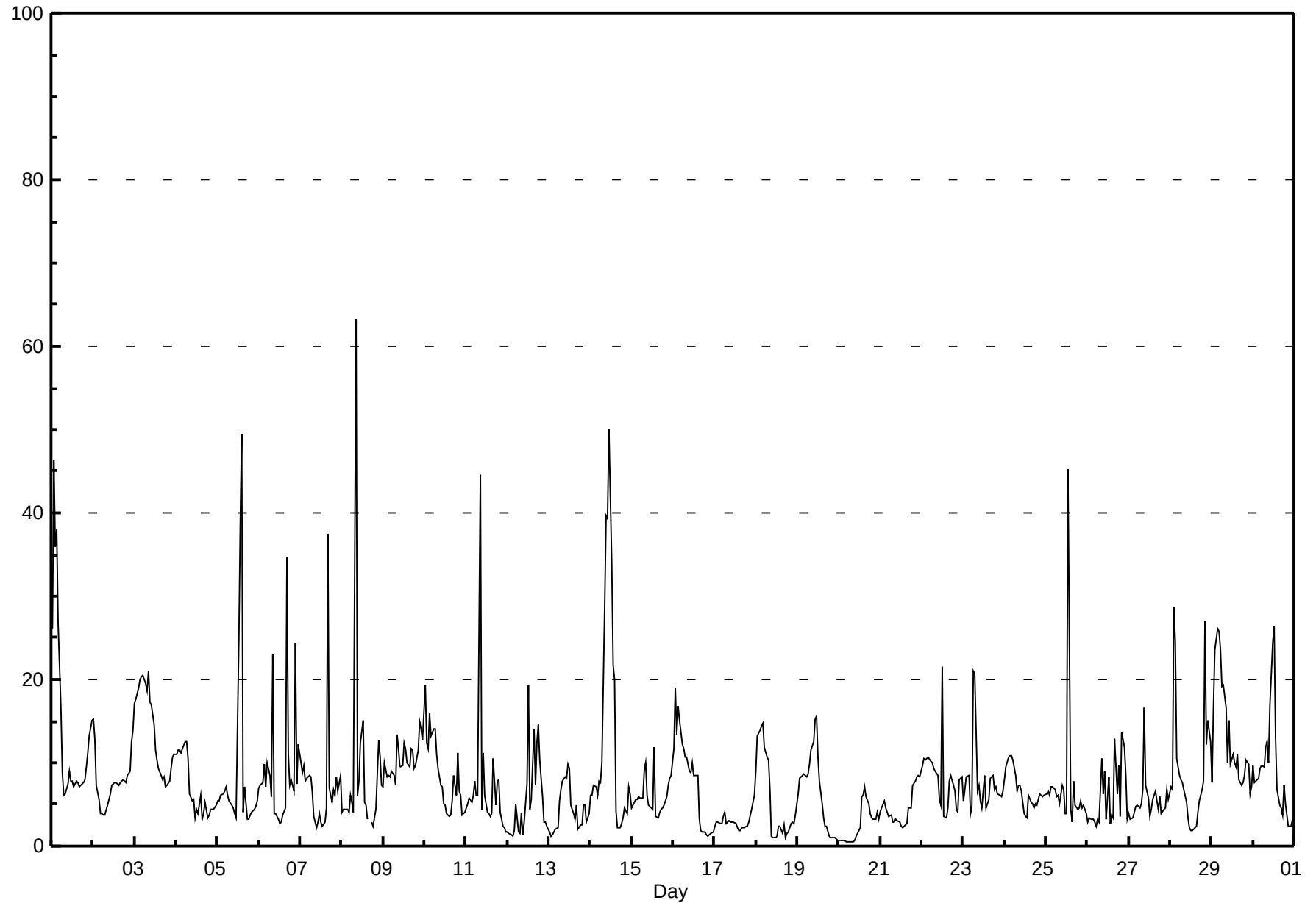
Particulate Matter 2.5 (PM_{2.5}) - µg/m³

Beaverlodge - June 2015

Maximum Value: 63.2 μg/m³ on Jun 8 09:00																				Maximum Daily Average: 14.3 μg/m³ on Jun 1										Hours in Service: 720	
Minimum Value: 0 μg/m³ on Jun 20 06:00																				Minimum Daily Average: 2.6 μg/m³ on Jun 20										Hours of Data: 719	
Maximum Diurnal Average: 12.3 μg/m³ at hour 9																				Minimum Diurnal Average: 5.1 μg/m³ at hour 16										Hours of Missing Data: 1	
Monthly Average: 7.87 μg/m³																				Percentiles: P ₁ = 0.7 P ₁₀ = 2.4 Q ₁ = 3.9 Median = 6.3 Q ₃ = 9.3 P ₉₀ = 14.1 P ₉₉ = 36.2										Hours of Calibration: 0	
																				Percent Operational Time: 99.9											
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
1-Jun	26	46	36	38	27	17	9	6	6	8	9	8	8	7	8	8	7	7	8	8	10	11	13	15	14.3	46.3					
2-Jun	15	13	7	6	4	4	4	4	5	6	6	7	8	8	8	7	8	8	8	8	9	9	12	14	7.7	15.2					
3-Jun	17	18	19	20	20	21	20	19	21	17	17	15	11	10	9	9	8	8	7	7	8	9	11	11	13.8	21.0					
4-Jun	11	12	11	11	12	12	12	11	6	5	6	3	4	4	6	3	4	5	3	4	4	4	4	5	6.9	12.5					
5-Jun	5	5	6	6	7	7	6	5	5	5	4	3	25	39	49	4	7	3	3	4	4	4	5	5	9.1	49.4					
6-Jun	7	7	8	10	7	10	9	6	23	4	4	3	3	3	4	5	35	11	7	8	7	24	8	12	9.3	34.7					
7-Jun	10	9	10	8	8	9	8	7	4	2	3	4	3	2	3	5	37	7	5	7	6	8	7	9	7.5	37.4					
8-Jun	4	4	4	4	4	6	5	4	63	6	8	12	15	5	5	3	M	3	2	3	4	13	11	7	8.6	63.2					
9-Jun	7	10	8	9	8	9	9	7	13	12	10	10	12	12	10	10	12	11	9	10	11	15	14	13	10.4	14.9					
10-Jun	19	12	12	16	13	14	14	11	9	7	7	5	5	4	4	4	5	8	6	11	7	6	4	4	8.7	19.3					
11-Jun	5	5	6	5	6	8	6	6	45	4	11	6	4	4	4	4	11	5	8	8	4	2	2	2	7.1	44.5					
12-Jun	2	1	1	1	2	5	2	1	4	1	3	8	19	4	6	14	7	12	15	10	6	3	3	2	5.6	19.3					
13-Jun	2	1	1	2	2	2	5	7	8	8	8	10	9	5	4	3	5	2	2	2	5	5	3	4	4.4	9.8					
14-Jun	6	6	7	7	6	8	8	10	29	40	39	50	34	22	20	4	2	2	3	3	5	4	7	6	13.7	49.9					
15-Jun	5	5	6	6	6	6	6	9	10	6	5	5	4	12	4	3	4	4	5	5	6	7	8	9	6.0	11.9					
16-Jun	12	19	13	17	15	12	12	11	11	9	9	10	9	9	9	3	2	2	2	1	1	1	1	2	7.9	19.0					
17-Jun	2	3	3	3	3	4	4	3	3	3	3	3	3	2	2	2	2	2	2	2	3	4	5	6	3.0	6.1					
18-Jun	9	13	14	14	15	12	11	10	7	1	1	1	1	2	2	1	2	1	1	2	3	3	3	4	5.6	14.7					
19-Jun	6	8	8	9	9	8	9	10	11	13	15	16	11	8	5	3	2	2	1	1	1	1	1	1	6.6	15.6					
20-Jun	1	1	1	1	1	0	0	0	0	1	1	1	2	6	6	7	6	5	4	3	3	3	4	3	2.6	7.1					
21-Jun	4	5	5	5	4	4	4	3	3	3	3	3	2	2	2	3	5	5	5	7	8	8	9	8	4.5	8.5					
22-Jun	10	10	10	10	11	10	10	9	9	9	6	5	21	4	3	5	8	9	7	7	4	4	8	8	8.2	21.5					
23-Jun	5	7	8	9	4	5	21	21	7	7	5	5	9	5	5	6	8	9	7	7	6	6	6	7	7.6	21.0					
24-Jun	8	10	11	11	11	10	9	7	7	7	7	4	4	3	6	5	5	5	5	5	6	6	6	6	6.8	10.8					
25-Jun	6	7	6	7	7	7	6	6	5	7	7	4	4	45	4	3	8	5	4	5	5	5	5	4	7.2	45.3					
26-Jun	3	3	3	3	3	2	3	3	10	6	9	3	8	3	4	3	13	6	10	4	14	12	9	3	5.9	13.7					
27-Jun	4	3	3	4	5	5	5	5	7	17	7	6	4	4	6	7	5	4	6	4	4	5	7	6	5.5	16.6					
28-Jun	7	7	29	25	10	9	8	8	7	5	3	2	2	2	2	2	4	5	7	8	27	12	15	12	9.1	28.6					
29-Jun	8	17	23	26	26	23	19	19	17	10	15	10	11	10	10	11	8	7	8	9	10	10	6	7	13.3	26.1					
30-Jun	10	8	8	8	9	10	10	12	12	10	17	24	26	13	7	5	5	4	7	5	2	2	2	3	9.2	26.4					
7.9 9.2 9.7 10.0 8.8 8.6 8.4 8.0 12.3 8.0 8.3 8.2 9.4 8.6 7.2 5.1 8.1 5.6 5.6 5.6 6.4 7.0 6.6 6.6																									Diurnal Average						
26.2 46.3 36.0 37.9 26.7 23.5 21.0 20.8 63.2 39.6 39.4 49.9 34.0 45.3 49.4 14.1 37.4 12.4 14.6 11.2 26.9 24.4 15.2 15.1																									Diurnal Maximum						
M - Maintenance																															

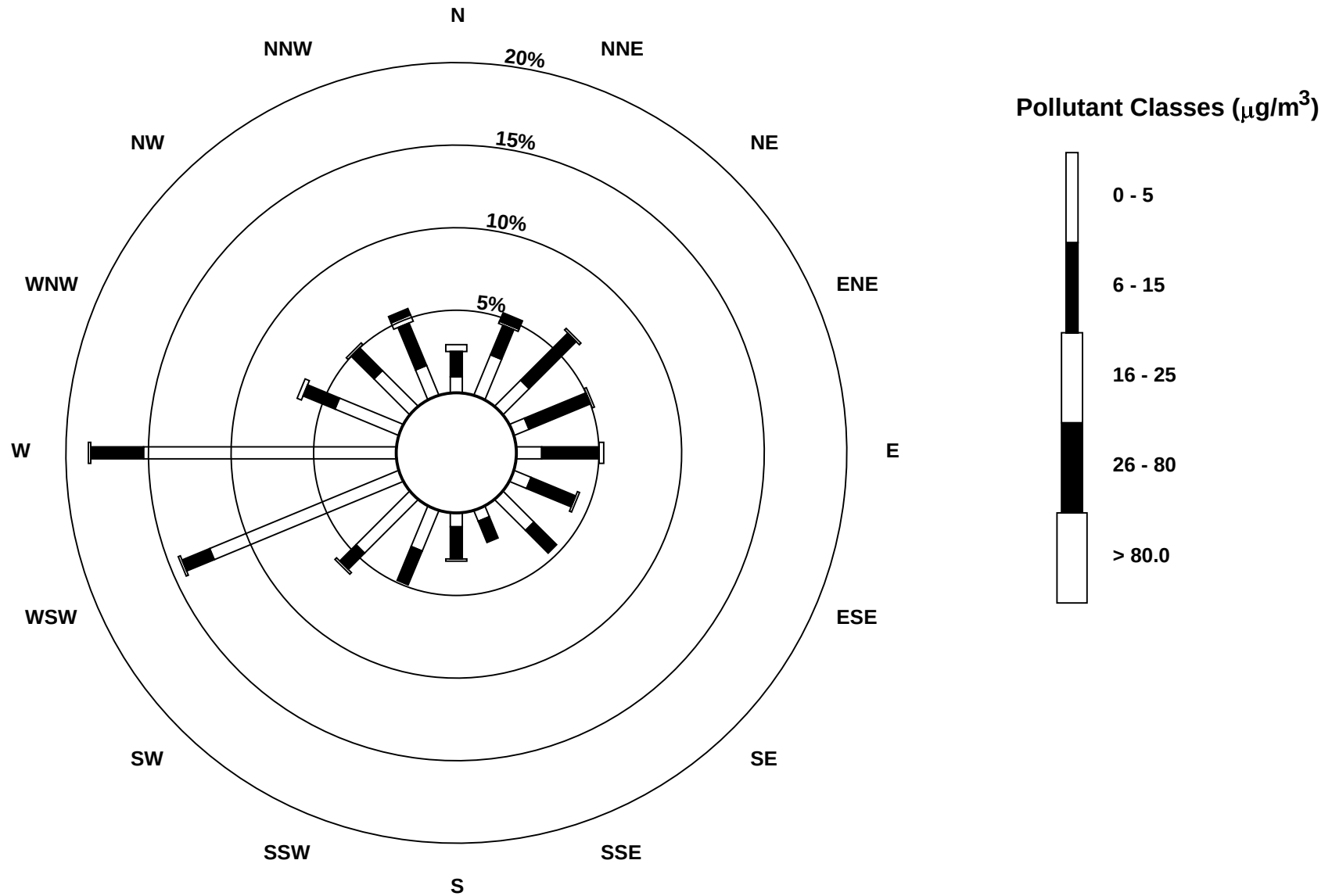
Hourly Maximums

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



Pollutant Rose

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



Hourly Averages

External Temperature (ET) - °C

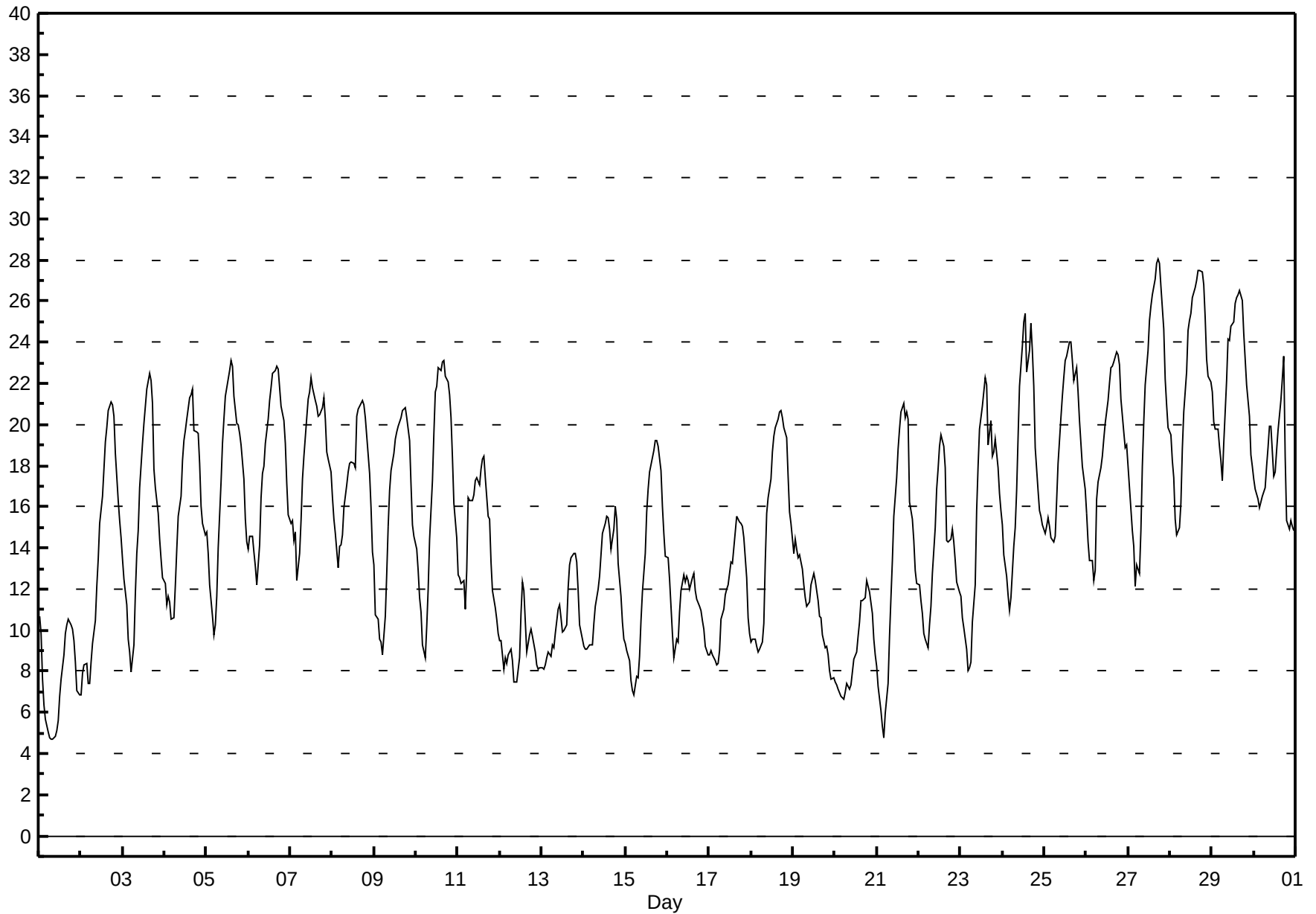
Beaverlodge - June 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 28.0 °C on Jun 27 18:00 Maximum Daily Average: 22.3 °C on Jun 28																								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 Jun 1 08:00 Maximum Diurnal Average: 19.3 °C at hour 16 Monthly Average: 15.27 °C												Minimum Daily Average: 7.5 °C on Jun 1 Minimum Diurnal Average: 10.5 °C at hour 5 Percentiles: P ₁ = 5.2 P ₁₀ = 8.7 Q ₁ = 10.8 Median = 15.0 Q ₃ = 19.6 P ₉₀ = 22.2 P ₉₉ = 26.9														
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-Jun	11	10	8	6	6	5	5	5	5	5	5	6	7	8	9	10	10	11	10	10	9	8	7	7	7.5	10.6
2-Jun	7	8	8	8	7	7	8	9	10	12	13	15	16	18	19	20	21	21	21	20	19	16	15	15	14.0	21.1
3-Jun	13	12	11	10	9	8	9	12	14	15	17	19	20	21	22	23	22	21	18	17	16	14	13	13	15.4	22.5
4-Jun	12	11	12	11	11	11	12	14	16	16	18	19	20	20	21	21	22	20	20	20	18	16	15	15	16.3	21.8
5-Jun	15	14	12	11	10	10	12	14	17	19	20	21	22	23	23	23	21	20	20	20	19	17	15	14	17.2	23.1
6-Jun	14	15	15	14	13	12	14	16	18	18	19	20	21	22	22	23	23	23	22	21	20	19	17	16	18.2	22.8
7-Jun	15	15	14	15	12	14	15	17	18	20	21	22	22	22	21	21	20	20	21	21	20	19	18	18	18.5	22.3
8-Jun	16	15	15	13	14	14	15	16	17	18	18	18	18	18	20	21	21	21	21	20	19	18	16	14	17.4	21.2
9-Jun	13	11	11	10	9	9	11	13	15	17	18	19	19	20	20	20	21	21	21	20	19	17	15	15	15.9	20.8
10-Jun	14	13	12	11	9	9	10	12	14	17	20	22	22	23	23	23	23	22	22	21	20	18	16	14	17.1	23.1
11-Jun	13	13	12	12	11	13	16	16	16	17	17	17	17	18	18	18	17	16	15	13	12	11	11	10	14.6	18.5
12-Jun	9	9	8	9	8	9	9	9	7	8	8	9	11	12	12	9	9	10	10	10	9	8	8	8	9.1	12.4
13-Jun	8	8	8	9	9	9	9	9	10	11	11	11	10	10	10	12	13	14	14	14	13	12	10	10	10.6	13.7
14-Jun	9	9	9	9	9	9	10	11	12	13	14	15	15	16	15	15	14	15	16	15	13	12	10	10	12.3	16.0
15-Jun	9	9	9	8	7	7	8	8	9	10	12	14	16	17	18	18	19	19	19	19	18	16	15	14	13.2	19.3
16-Jun	14	13	11	10	9	10	9	11	12	13	12	13	12	12	13	13	12	11	11	11	10	10	9	9	11.2	13.5
17-Jun	9	9	9	8	8	8	9	11	11	12	12	12	13	13	14	15	16	15	15	15	15	13	11	10	11.8	15.5
18-Jun	9	10	10	9	9	9	9	10	13	16	16	17	19	19	20	20	21	21	20	20	19	17	16	15	15.2	20.7
19-Jun	14	14	14	14	14	13	12	12	11	11	12	12	13	12	11	11	11	10	9	9	9	8	8	8	11.3	14.4
20-Jun	7	7	7	7	7	7	7	7	7	7	8	9	9	10	10	11	11	12	12	12	12	11	10	9	9.0	12.4
21-Jun	8	7	6	5	5	6	7	10	12	13	16	17	19	20	21	21	20	21	20	16	15	14	13	12	13.6	21.0
22-Jun	12	11	11	10	10	9	10	11	13	15	17	18	19	19	19	18	14	14	14	15	14	13	12	12	13.8	19.5
23-Jun	12	11	10	9	8	8	8	10	12	16	18	20	21	22	22	22	19	20	18	19	19	18	17	16	15.6	22.3
24-Jun	15	14	13	12	11	12	14	15	17	19	22	24	25	25	23	24	25	24	22	19	17	16	16	15	18.2	25.4
25-Jun	15	15	15	15	14	14	15	16	18	20	21	22	23	23	24	24	23	22	23	22	20	19	18	17	19.2	24.0
26-Jun	16	14	13	13	12	13	16	17	18	18	19	20	21	22	23	23	23	24	23	23	21	20	19	19	18.8	23.5
27-Jun	18	17	15	14	12	13	13	15	18	20	22	24	25	26	26	27	28	28	28	27	25	22	21	20	20.9	28.0
28-Jun	20	18	17	15	15	15	16	19	21	23	25	25	25	26	27	27	28	27	27	27	25	23	22	22	22.3	27.5
29-Jun	22	20	20	20	19	18	17	19	22	24	24	25	25	26	26	26	27	26	24	23	22	20	19	18	22.2	26.5
30-Jun	17	17	16	16	16	17	17	18	19	20	20	18	18	19	20	21	22	23	18	15	15	15	15	15	17.8	23.3
	12.9	12.3	11.7	11.1	10.5	10.6	11.5	12.7	14.1	15.4	16.5	17.4	18.1	18.7	19.1	19.3	19.2	19.0	18.6	17.8	16.8	15.4	14.2	13.5	Diurnal Average	
	21.6	20.1	19.8	19.8	19.0	18.2	17.3	19.1	22.2	24.2	24.6	25.1	25.4	26.1	26.7	27.1	27.8	28.0	27.8	26.8	25.2	23.2	22.3	22.1	Diurnal Maximum	

Hourly Averages

External Temperature (ET) - °C

Beaverlodge - June 2015



Hourly Averages

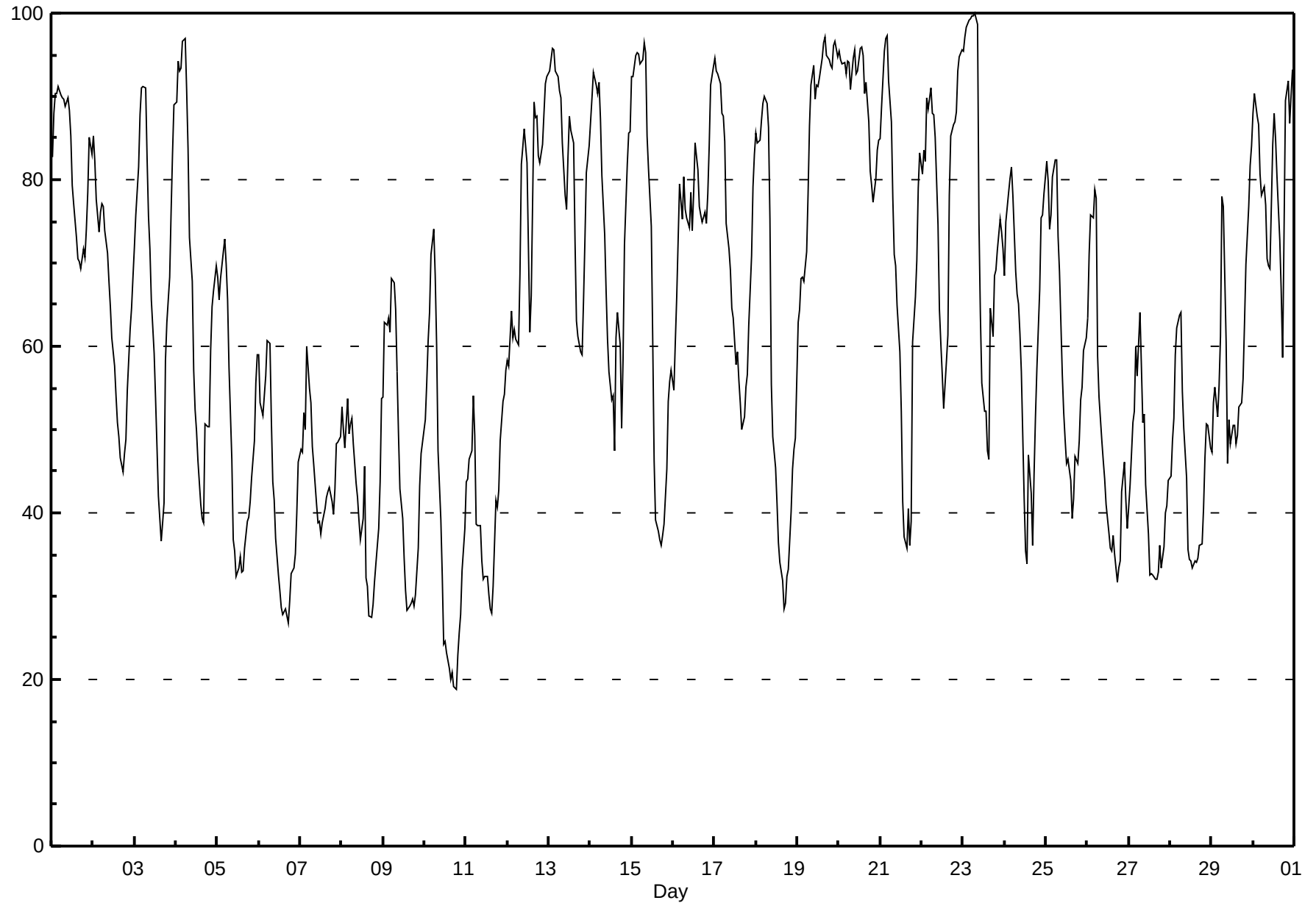
Relative Humidity (RH) - %

Beaverlodge - June 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0																								Hours in Service: 720							
Maximum Value: 100.0 % on Jun 23 08:00																								Maximum Daily Average: 90.3 % on Jun 20				Hours of Data: 720			
Minimum Value: 19 % on Jun 10 19:00																								Minimum Daily Average: 39.3 % on Jun 10				Hours of Missing Data: 0			
Maximum Diurnal Average: 77.4 % at hour 5																								Minimum Diurnal Average: 48.9 % at hour 16				Hours of Calibration: 0			
Monthly Average: 62.93 %																								Percentiles: P ₁ = 24.1 P ₁₀ = 34.6 Q ₁ = 45.8 Median = 61.6 Q ₃ = 82.1 P ₉₀ = 91.7 P ₉₉ = 98.1				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-Jun	83	88	90	90	91	90	90	90	89	90	88	85	79	77	73	70	70	69	72	71	74	79	85	83	82.0	91.2					
2-Jun	85	82	78	74	76	77	77	74	71	68	65	61	58	54	51	49	47	45	47	49	55	62	64	68	64.0	85.2					
3-Jun	72	76	82	88	91	91	91	83	76	72	66	59	54	48	42	37	39	41	58	63	68	76	83	89	68.5	91.2					
4-Jun	89	94	93	93	97	97	91	84	73	68	57	52	50	46	41	39	39	51	50	50	59	65	67	70	67.3	97.0					
5-Jun	68	66	68	71	73	70	66	57	46	37	35	32	33	35	33	33	36	39	40	41	44	49	56	59	49.5	72.9					
6-Jun	59	53	52	54	56	61	60	51	44	41	37	33	31	29	28	28	28	27	29	33	33	35	40	46	41.2	60.7					
7-Jun	48	47	52	50	60	55	53	48	46	41	39	39	37	39	40	42	43	43	41	40	43	48	49	49	45.5	59.9					
8-Jun	53	50	48	54	49	51	51	48	44	42	39	37	39	46	32	31	28	27	29	32	34	38	44	54	41.6	53.8					
9-Jun	54	63	63	63	62	68	68	64	57	50	43	39	35	31	28	29	29	30	29	30	36	43	47	49	46.2	68.2					
10-Jun	51	56	61	64	71	74	68	60	48	39	32	24	25	23	21	20	21	19	19	23	26	28	33	38	39.3	74.1					
11-Jun	44	44	46	47	54	49	39	38	39	34	32	32	32	30	28	28	31	42	41	43	49	53	54	57	41.2	57.2					
12-Jun	58	58	64	61	62	61	60	69	82	84	86	82	72	62	66	89	88	88	83	82	84	88	91	92	75.5	92.4					
13-Jun	93	94	96	96	93	92	91	90	84	78	76	83	88	86	84	73	63	61	59	59	66	73	81	84	80.9	95.7					
14-Jun	87	90	93	91	90	92	87	80	73	67	61	57	54	54	47	61	64	60	50	58	72	82	86	86	72.6	92.9					
15-Jun	92	92	95	95	95	94	94	96	95	85	81	74	61	46	39	38	37	36	37	39	45	53	56	57	68.1	96.4					
16-Jun	55	60	66	73	79	75	80	76	75	74	78	74	78	84	81	77	76	75	76	75	78	84	91	94	76.5	93.6					
17-Jun	95	93	93	92	88	88	85	75	72	69	65	63	58	59	56	53	50	52	55	57	63	71	79	83	71.3	94.6					
18-Jun	86	84	85	87	89	90	89	86	75	55	49	45	41	36	34	32	28	29	32	33	40	45	48	49	57.1	90.0					
19-Jun	63	64	68	68	68	71	78	86	91	94	90	91	91	92	95	96	97	95	94	94	93	96	97	95	86.2	97.2					
20-Jun	95	94	94	94	93	94	94	91	95	96	93	93	96	96	95	90	92	87	81	79	77	80	84	85	90.3	95.9					
21-Jun	85	89	95	97	97	92	87	78	71	70	65	59	52	41	37	36	41	36	39	61	66	70	79	83	67.7	97.3					
22-Jun	81	84	82	90	89	91	88	88	85	75	64	60	57	53	58	61	78	85	87	87	88	93	95	96	79.7	95.6					
23-Jun	95	97	98	99	99	100	100	100	99	75	64	56	52	52	47	46	65	61	69	69	71	75	74	72	76.4	100.0					
24-Jun	68	75	78	80	81	78	69	66	65	62	57	42	35	34	47	42	36	45	51	57	67	75	76	78	61.1	81.5					
25-Jun	82	80	74	76	80	82	82	73	69	57	52	49	46	46	44	39	42	47	46	49	54	55	59	61	60.2	82.4					
26-Jun	63	71	76	75	79	78	59	54	49	46	44	41	38	36	35	37	35	32	33	34	43	46	41	38	49.3	78.8					
27-Jun	41	43	51	52	60	56	64	58	51	52	43	37	33	33	33	32	32	33	36	33	36	40	41	44	43.1	64.1					
28-Jun	44	49	51	59	62	64	64	55	50	44	36	34	34	33	34	34	35	36	36	40	47	51	51	48	45.5	64.0					
29-Jun	47	53	55	52	55	61	78	77	60	46	51	48	51	50	48	49	53	53	56	63	70	77	82	84	59.2	84.2					
30-Jun	88	90	88	87	81	78	79	77	71	70	69	84	88	85	80	73	67	59	74	89	92	87	90	93	80.7	93.2					
70.8 72.7 74.5 75.7 77.4 77.3 76.1 72.4 68.1 62.6 58.6 55.6 53.2 51.3 49.3 48.9 49.5 50.1 51.7 54.4 59.1 63.9 67.4 69.4																								Diurnal Average							
95.4 97.1 98.3 99.1 99.3 99.6 99.7 100.0 98.6 95.6 92.8 93.1 95.7 95.9 94.9 96.5 97.2 94.9 94.4 93.7 93.4 96.2 96.7 95.6																								Diurnal Maximum							

Hourly Averages

Relative Humidity (RH) - %
Beaverlodge - June 2015



Hourly Averages

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

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	10	17	19	17	15	12	10	10	10	8	9	6	2	1	2	2	5	6	9	9	6	4	6	7	4.9	19.0
Dir	333	336	335	341	333	330	340	339	345	337	330	333	332	9	81	137	168	157	167	144	134	39	43	58	347	335
2 Spd	3	6	18	19	10	8	17	18	15	14	10	12	13	12	12	13	14	15	16	16	13	10	9	16	12.0	18.8
Dir	70	103	101	109	97	79	109	124	138	139	147	124	131	134	102	99	93	99	77	80	79	78	85	86	105	109
3 Spd	12	7	3	4	4	2	2	2	2	3	3	3	6	7	10	11	9	3	18	9	13	9	6	6	1.0	18.3
Dir	76	76	13	349	335	106	240	221	274	291	59	57	74	60	56	60	96	274	274	297	202	272	297	228	358	274
4 Spd	2	2	2	3	3	2	2	0	6	7	6	8	10	9	10	9	13	25	17	14	11	7	6	3	4.9	25.0
Dir	290	117	138	94	103	71	82	12	305	299	293	265	268	262	269	265	258	200	193	205	215	199	192	174	231	200
5 Spd	7	11	7	7	2	5	5	7	18	26	22	28	29	33	41	37	35	33	32	21	17	17	12	9	18.4	40.6
Dir	216	230	206	200	183	186	195	205	231	247	236	255	248	258	261	270	268	251	244	237	239	246	236	243	247	261
6 Spd	14	11	10	12	8	4	11	24	29	28	27	27	31	31	32	32	30	30	27	23	22	19	14	14	21.2	32.3
Dir	253	268	263	271	266	280	258	274	275	273	275	274	268	265	260	263	261	255	265	266	260	267	268	259	266	260
7 Spd	6	7	8	7	0	5	7	17	16	29	33	30	31	32	33	32	34	27	25	30	24	16	19	20	20.2	33.8
Dir	265	279	252	276	170	285	279	268	258	264	259	257	254	256	257	263	259	253	257	262	256	257	270	270	260	263
8 Spd	17	15	16	14	20	21	24	29	37	37	38	37	29	20	32	36	32	22	18	13	7	6	0	4	20.4	37.5
Dir	281	282	275	233	241	246	243	252	243	248	253	269	280	287	264	264	267	274	278	269	314	16	297	52	263	253
9 Spd	0	5	5	5	5	9	14	9	10	10	7	7	8	9	9	9	10	10	5	7	5	5	7	6	5.8	13.9
Dir	187	51	41	43	345	319	319	317	322	332	358	353	0	357	310	19	25	56	18	39	52	54	61	65	4	319
10 Spd	5	4	4	4	3	4	3	4	6	5	5	5	8	11	9	10	21	26	22	12	16	17	11	15	7.2	25.9
Dir	85	81	82	102	140	120	189	187	209	174	208	236	256	260	277	266	267	254	247	256	253	261	270	247	248	254
11 Spd	11	10	4	6	2	12	34	35	36	37	42	36	32	32	37	38	47	36	30	29	20	21	24	20	26.0	46.7
Dir	242	248	253	231	169	248	260	268	264	264	260	262	262	257	253	258	269	274	262	252	244	246	252	252	259	269
12 Spd	12	13	8	18	22	24	25	21	20	20	20	20	23	24	19	15	13	15	20	21	21	22	17	14	17.2	25.0
Dir	257	246	237	264	267	265	271	273	275	275	255	249	258	262	277	350	332	302	304	291	287	285	281	285	276	271
13 Spd	15	14	14	11	13	11	12	17	15	14	11	9	13	10	4	2	2	5	7	9	8	13	12	11	6.5	17.1
Dir	294	297	304	317	356	354	359	30	38	35	32	39	94	140	257	170	246	289	302	307	319	17	13	329	354	30
14 Spd	11	13	12	9	10	11	14	13	13	14	14	14	15	16	18	10	9	10	13	4	10	10	15	15	10.4	17.7
Dir	325	326	326	349	338	328	345	348	359	22	19	22	31	9	44	0	332	324	21	322	262	295	326	336	350	44
15 Spd	12	8	13	11	9	2	5	7	5	3	4	1	5	7	8	5	5	3	0	5	4	5	5	5	1.8	13.0
Dir	335	332	321	335	342	3	295	312	275	198	241	215	193	123	126	97	189	165	220	52	46	58	57	56	348	321
16 Spd	5	1	4	4	10	5	8	8	7	12	14	12	4	8	12	13	18	16	15	10	11	9	11	13	8.7	17.7
Dir	59	103	42	18	358	40	300	344	342	30	20	15	48	36	58	50	56	51	38	26	41	41	31	31	32	56
17 Spd	9	5	6	9	12	12	8	11	13	12	13	8	11	12	11	13	15	14	14	15	12	10	8	9	8.4	15.3
Dir	27	26	26	28	34	32	39	95	111	99	128	102	123	144	133	132	130	146	139	131	125	111	89	95	104	131
18 Spd	8	9	8	3	2	3	2	3	10	18	19	17	18	17	17	13	12	6	5	7	0	5	7	10	5.2	19.3
Dir	80	83	108	124	351	295	264	224	229	259	261	262	273	280	273	283	262	279	273	293	199	39	33	27	276	261
19 Spd	12	15	19	21	16	7	7	3	3	6	10	2	3	3	2	7	1	16	11	8	11	9	7	9	3.0	21.0
Dir	48	74	68	72	76	59	192	200	282	341	4	0	60	46	38	68	355	275	279	293	296	271	286	293	16	72
20 Spd	11	10	12	10	9	8	7	11	15	17	15	12	14	11	8	7	14	15	14	12	11	9	13	10	10.5	16.7
Dir	249	247	248	246	246	237	226	249	268	264	269	267	256	263	254	212	234	262	275	277	280	306	315	322	263	264
21 Spd	4	1	4	2	3	3	8	14	16	11	9	8	10	12	15	13	20	18	16	21	12	3	3	2	5.8	21.0
Dir	332	304	236	211	165	213	229	236	236	230	234	230	229	241	223	224	283	285	308	19	28	315	235	47	260	19
22 Spd	1	4	3	1	1	4	1	3	4	6	12	11	7	5	8	8	4	2	7	6	8	7	3	1	2.1	12.0
Dir	25	45	199	219	188	51	120	89	206	298	318	312	309	304	251	26	8	193	244	241	206	231	184	89	282	318

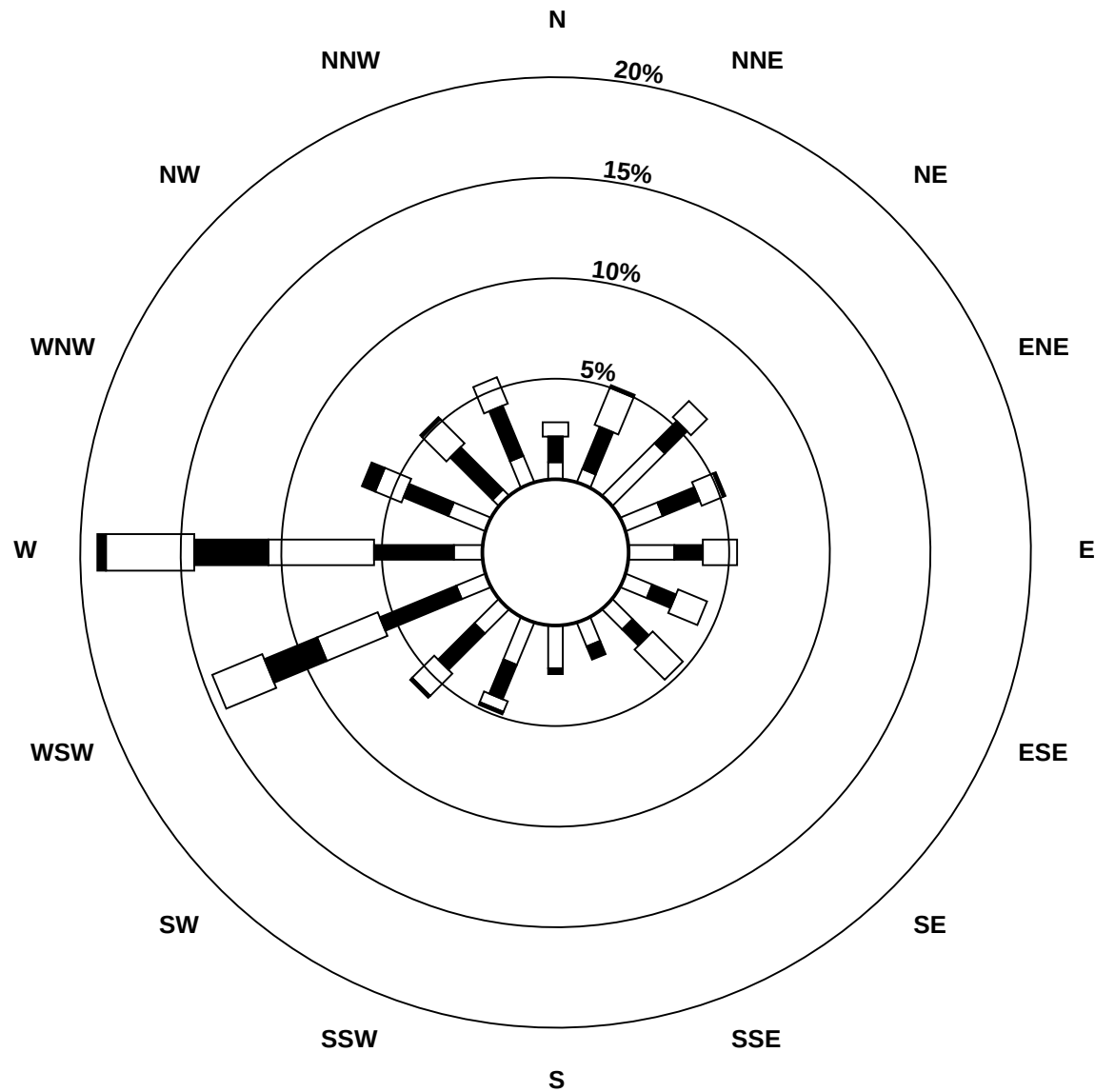
Hourly Averages

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

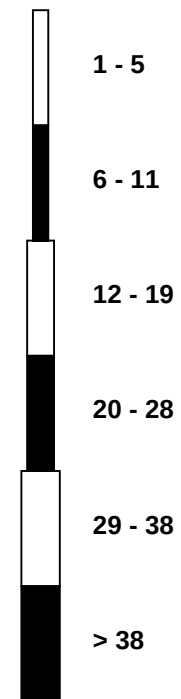
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	3	2	3	1	4	3	2	8	5	2	5	2	5	8	7	4	5	8	3	5	4	5	2	4	0.3	8.2
Dir	69	76	55	335	45	239	288	259	202	178	273	270	39	15	23	40	256	221	216	177	134	133	127	184	218	15
24 Spd	10	2	2	2	3	2	2	3	6	6	7	8	5	6	4	9	10	13	14	24	22	9	11	12	5.0	23.8
Dir	212	159	80	77	75	109	145	175	207	222	239	283	250	212	250	20	329	321	294	250	237	222	249	205	249	250
25 Spd	2	4	12	5	3	3	3	5	9	15	17	17	14	13	15	27	29	23	20	19	16	9	6	6	10.8	29.2
Dir	123	260	241	219	145	149	89	183	213	246	240	235	236	232	232	262	266	269	257	269	253	269	240	278	249	266
26 Spd	5	6	1	3	5	5	24	25	34	32	31	34	30	30	22	18	25	27	23	17	15	9	14	13	17.9	33.9
Dir	221	221	208	218	200	223	262	275	280	281	273	266	274	268	263	256	256	272	270	276	263	249	273	293	268	266
27 Spd	6	4	2	0	5	3	4	4	3	4	6	7	8	12	12	11	8	7	10	19	16	14	11	6	1.9	18.8
Dir	294	296	297	257	63	86	161	159	158	165	166	150	95	106	127	129	130	180	242	283	279	278	281	310	211	283
28 Spd	8	4	5	4	5	3	1	1	6	7	2	5	5	2	5	7	7	14	12	8	4	8	8	8	2.9	13.8
Dir	313	333	291	199	55	53	152	339	317	319	349	348	245	333	46	33	57	99	92	105	81	42	55	59	43	99
29 Spd	7	3	6	3	0	2	1	3	2	10	12	16	17	16	17	18	17	19	11	8	4	6	4	2	7.4	19.1
Dir	72	111	80	83	175	291	36	215	97	127	119	99	92	104	110	112	103	108	120	107	135	187	205	250	110	108
30 Spd	2	1	6	5	6	5	3	2	10	12	15	9	12	9	9	7	8	7	13	8	7	12	8	2	6.1	14.7
Dir	71	82	229	265	282	295	344	13	302	325	317	309	277	263	253	251	250	256	279	239	266	254	239	209	276	317
Spd	2.6	2.3	2.0	1.5	1.9	2.3	4.7	5.7	7.8	8.4	8.6	8.2	7.4	7.1	7.4	5.8	8.5	8.6	8.6	7.1	6.3	4.9	4.2	3.1	Diurnal Average	
Dir	304	302	301	305	334	298	271	269	265	270	269	270	263	262	258	270	268	259	265	266	258	272	284	297	Diurnal Maximum	
Spd	16.8	17.0	19.0	21.0	21.7	23.9	34.5	34.9	36.6	37.4	41.6	37.4	32.1	32.8	40.6	37.7	46.7	36.1	32.2	29.9	24.3	21.9	24.1	19.8	Diurnal Maximum	
Dir	281	336	335	72	267	265	260	268	243	264	260	269	262	258	261	258	269	274	244	257	262	285	252	270		
Maximum Speed Value: 47 km/h on Jun 11 17:00																								Hours in Service: 720		
Maximum Daily Speed Average: 26.0 km/h on Jun 11																								Hours of Data: 720		
Maximum Diurnal Speed Average: 8.6 km/h at hour 11																								Hours of Missing Data: 0		
Minimum Speed Value: 0 km/h on Jun 9 01:00																										
Minimum Daily Speed Average: 0.3 km/h on Jun 23																										
Minimum Diurnal Speed Average: 1.5 km/h at hour 4																										
Monthly Average Velocity: 5.46 km/h 270.6 deg																								Percent Operational Time: 100.0		
Speed Percentiles: P ₁ = 0.4 P ₁₀ = 2.5 Q ₁ = 5.0 Median = 9.5 Q ₃ = 15.0 P ₉₀ = 24.0 P ₉₉ = 37.3																										
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	15		22		17		1		0		0		55													
NorthEast	26		39		18		0		0		0		83													
East	29		21		28		2		0		0		80													
SouthEast	16		12		18		0		0		0		46													
South	33		12		2		1		0		0		48													
SouthWest	25		42		22		10		2		0		101													
West	23		43		59		43		49		3		220													
NorthWest	15		45		26		1		0		0		87													
Total	182		236		190		58		51		3		720													

Wind Rose

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



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Beaverlodge - June 2015

Maximum Speed: 47 km/h on Jun 11 17:00																				Maximum Daily Speed Average: 26.7 km/h on Jun 11										Hours in Service: 720	
Minimum Speed: 1 km/h on Jun 29 05:00																				Minimum Daily Speed Average: 5.2 km/h on Jun 23										Hours of Data: 720	
Maximum Diurnal Speed Average: 16.6 km/h at hour 18																				Minimum Diurnal Speed Average: 7.3 km/h at hour 6										Hours of Missing Data: 0	
Monthly Average Speed: 12.15 km/h																				Percentiles: P ₁ = 2.0 P ₁₀ = 3.7 Q ₁ = 6.1 Median = 10.2 Q ₃ = 15.4 P ₉₀ = 24.1 P ₉₉ = 37.8										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-Jun	10	18	19	18	15	12	10	10	10	9	7	3	3	3	4	6	7	9	9	6	5	6	7	9.0	19.3						
2-Jun	5	6	18	19	11	9	17	18	15	15	11	13	14	13	12	14	15	15	16	16	13	10	9	16	13.3	18.8					
3-Jun	12	7	5	7	5	2	2	3	4	5	6	5	8	9	11	12	10	11	19	10	13	10	7	7	7.8	18.9					
4-Jun	6	3	2	3	4	3	2	2	7	8	7	9	11	11	11	10	13	25	17	14	11	7	6	4	8.2	25.3					
5-Jun	7	11	7	7	3	6	6	8	18	26	23	28	30	33	41	37	36	34	33	22	18	17	12	9	19.7	41.0					
6-Jun	14	11	10	12	8	7	11	24	29	28	28	28	31	32	33	32	31	30	28	23	23	19	15	14	21.6	32.7					
7-Jun	8	8	8	7	5	6	8	17	16	30	33	31	32	32	33	33	34	28	25	30	24	16	19	20	20.9	34.0					
8-Jun	17	16	17	14	20	21	24	29	37	37	38	38	31	21	33	36	33	22	18	13	7	7	4	4	22.3	38.1					
9-Jun	2	5	5	5	6	10	14	9	10	11	9	9	10	12	11	11	12	11	8	8	6	6	7	7	8.4	14.0					
10-Jun	5	4	4	4	4	4	4	4	6	5	6	7	10	12	10	11	21	26	22	12	16	17	11	15	10.0	26.1					
11-Jun	11	10	5	6	2	12	35	35	36	38	42	37	32	33	37	38	47	37	31	30	21	21	24	20	26.7	47.2					
12-Jun	12	13	8	18	22	24	25	21	20	20	21	20	23	25	25	15	13	15	21	21	21	22	17	14	19.0	25.1					
13-Jun	15	14	14	11	13	11	13	17	16	14	11	9	14	11	5	4	5	6	8	9	8	14	13	11	11.1	17.2					
14-Jun	11	13	13	9	10	11	14	13	13	14	14	15	15	16	18	11	10	11	14	11	11	11	15	15	12.8	18.4					
15-Jun	12	9	13	11	9	4	6	7	6	4	6	4	7	8	9	7	7	5	4	5	4	5	6	6	6.9	13.1					
16-Jun	5	2	4	6	13	8	10	9	8	13	15	12	4	8	12	14	18	17	15	11	11	9	11	13	10.3	17.7					
17-Jun	9	5	6	9	12	12	8	12	13	12	14	8	12	12	12	14	16	15	14	15	12	10	9	9	11.3	15.8					
18-Jun	8	9	8	4	3	3	3	3	10	19	20	17	19	18	18	14	13	8	6	7	3	5	7	10	9.9	19.7					
19-Jun	13	15	19	21	16	10	8	4	4	6	11	5	4	5	3	7	3	16	12	8	11	10	7	9	9.4	21.0					
20-Jun	11	10	12	10	9	8	8	11	15	17	15	13	14	11	8	7	15	15	14	12	11	10	13	10	11.6	16.8					
21-Jun	4	3	4	4	3	3	8	14	16	11	9	9	10	12	15	14	21	19	17	21	12	6	3	3	10.0	21.3					
22-Jun	2	4	4	2	3	4	3	3	4	7	13	12	8	6	10	16	5	4	7	7	8	7	5	3	6.2	16.0					
23-Jun	3	3	4	3	4	4	7	10	6	3	6	4	5	10	9	4	5	8	4	5	4	5	4	5	5.2	10.2					
24-Jun	10	3	2	3	3	3	2	4	6	7	7	9	7	8	7	9	11	14	17	24	24	12	14	12	9.1	24.2					
25-Jun	3	5	12	5	4	4	3	5	9	16	17	17	14	14	15	27	29	23	20	19	16	9	7	7	12.6	29.3					
26-Jun	5	7	3	4	5	6	24	25	34	32	31	34	31	30	23	18	25	27	23	17	15	9	14	13	19.0	34.3					
27-Jun	7	5	4	4	5	3	4	4	3	5	7	8	9	13	13	12	9	8	11	19	16	14	11	8	8.4	18.8					
28-Jun	9	6	6	5	5	3	2	3	6	7	4	7	7	7	7	8	8	14	12	8	5	8	8	8	6.7	14.2					
29-Jun	7	4	6	3	1	3	2	3	4	11	13	17	17	17	18	18	17	19	12	8	6	7	4	3	9.0	19.4					
30-Jun	3	2	6	5	7	5	4	4	10	12	15	9	12	9	9	7	9	7	15	9	7	12	8	4	8.0	15.0					
8.2 7.6 8.3 8.0 7.6 7.3 9.6 11.1 13.0 14.7 15.3 14.6 14.8 15.1 15.8 15.5 16.6 16.6 15.7 14.1 12.1 10.6 9.8 9.5																									Diurnal Average						
17.0 17.5 19.3 21.0 21.8 23.9 34.6 35.0 36.7 37.9 42.3 38.1 32.5 33.2 41.0 38.2 47.2 36.6 32.6 30.0 24.4 22.0 24.1 20.0																									Diurnal Maximum						
All monthly, daily, and diurnal averages have been calculated using scalar methods																															

Hourly Standard Deviations

Wind Direction (WD) - deg

Beaverlodge - June 2015

Maximum Value: 96.5 deg on Jun 29 05:00																		Hours in Service: 720							
Minimum Value: 2.9 deg on Jun 8 06:00																		Hours of Data: 720							
Percentiles: P ₁ = 3.6 P ₁₀ = 6.1 Q ₁ = 8.8 Median = 15.2 Q ₃ = 33.9 P ₉₀ = 61.4 P ₉₉ = 90.0																		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-Jun	43	14	10	8	8	11	11	8	11	13	14	33	60	76	62	63	46	29	21	20	13	10	10	4	76.2
2-Jun	51	18	4	4	16	12	8	9	12	14	23	19	23	20	25	28	21	16	13	7	4	6	7	5	51.0
3-Jun	13	15	59	57	53	31	34	49	80	58	79	67	60	50	28	32	27	78	14	13	23	26	27	53	80.1
4-Jun	91	56	57	15	15	34	33	79	17	15	42	40	30	44	32	34	21	8	9	7	11	7	15	65	91.2
5-Jun	16	7	9	10	46	32	33	14	12	9	14	11	12	10	8	10	11	6	8	7	6	3	12	9	46.3
6-Jun	6	10	11	5	8	64	12	6	8	7	10	14	8	8	10	9	9	8	7	3	4	5	6	6	64.4
7-Jun	73	34	17	9	82	82	6	7	13	9	8	10	10	11	11	7	6	6	11	5	6	6	4	9	82.3
8-Jun	9	8	13	8	4	3	3	6	5	6	7	12	22	15	15	10	8	15	11	7	24	25	90	19	90.3
9-Jun	86	10	11	11	40	20	6	12	15	21	45	45	51	40	33	35	37	21	58	28	7	11	9	10	86.2
10-Jun	13	12	10	20	18	25	25	19	20	26	42	57	35	30	27	26	14	7	8	9	8	5	11	5	56.6
11-Jun	8	9	66	35	44	14	4	5	7	9	10	11	9	10	11	9	9	9	10	5	6	6	4	3	65.5
12-Jun	7	11	9	7	4	4	5	4	7	6	15	7	8	6	50	20	11	9	11	7	5	4	5	5	49.8
13-Jun	6	6	6	8	12	11	20	7	13	12	12	10	23	22	48	79	79	40	30	13	10	28	26	7	79.4
14-Jun	7	6	6	9	15	8	8	12	13	11	14	20	20	16	16	22	15	21	15	69	21	77	34	4	77.3
15-Jun	11	13	6	8	11	86	49	20	45	52	49	86	54	42	40	59	50	78	95	25	10	7	17	30	95.2
16-Jun	13	56	9	65	39	69	47	22	31	30	11	14	25	15	13	9	5	7	8	9	6	9	4	4	68.9
17-Jun	5	8	12	9	4	4	21	12	13	15	15	26	27	10	24	16	16	17	11	7	5	15	8	5	26.9
18-Jun	6	12	7	70	55	20	37	21	17	15	12	16	18	19	21	28	29	45	45	12	83	11	5	9	82.6
19-Jun	20	3	3	5	7	64	30	43	40	11	13	77	66	62	20	25	69	9	43	18	12	57	18	9	76.9
20-Jun	7	11	5	8	7	15	7	10	6	6	8	8	13	13	16	13	11	7	11	9	5	10	7	32	32.3
21-Jun	17	94	27	77	13	28	7	6	6	13	22	29	24	19	17	24	19	9	14	9	8	60	62	62	94.4
22-Jun	74	15	52	94	88	32	72	26	28	27	17	21	33	50	35	80	58	95	20	27	6	6	62	66	95.4
23-Jun	41	47	59	62	40	71	89	59	46	53	51	77	35	38	41	29	71	23	38	20	18	25	50	41	88.9
24-Jun	8	50	45	31	17	38	47	23	20	15	25	31	66	64	90	31	21	12	29	10	45	41	54	25	90.3
25-Jun	61	87	9	28	39	45	18	22	22	11	13	12	16	29	15	11	6	4	8	8	8	8	26	39	86.5
26-Jun	29	23	71	41	40	30	5	7	7	8	7	8	9	9	18	16	13	11	6	7	7	16	6	7	71.1
27-Jun	16	18	76	89	19	32	10	21	29	31	18	23	37	26	16	18	18	40	21	4	5	5	5	40	89.0
28-Jun	20	49	55	56	11	51	70	80	15	14	76	43	60	92	51	39	30	15	8	10	20	5	7	9	91.7
29-Jun	9	36	12	36	97	49	89	28	95	14	22	22	13	18	11	11	11	11	5	10	53	16	40	47	96.5
30-Jun	86	68	21	46	21	7	57	57	12	16	12	51	10	17	12	14	13	18	67	79	62	10	13	75	86.0
	91.2	94.4	76.3	94.2	96.5	86.3	88.9	79.6	94.7	57.8	78.7	86.3	66.2	91.7	90.3	79.8	78.5	95.4	95.2	78.6	82.6	77.3	90.3	75.3	

PAZA
Valleyview Station
Monthly Summary Tables, Graphs and
Roses

Hourly Averages

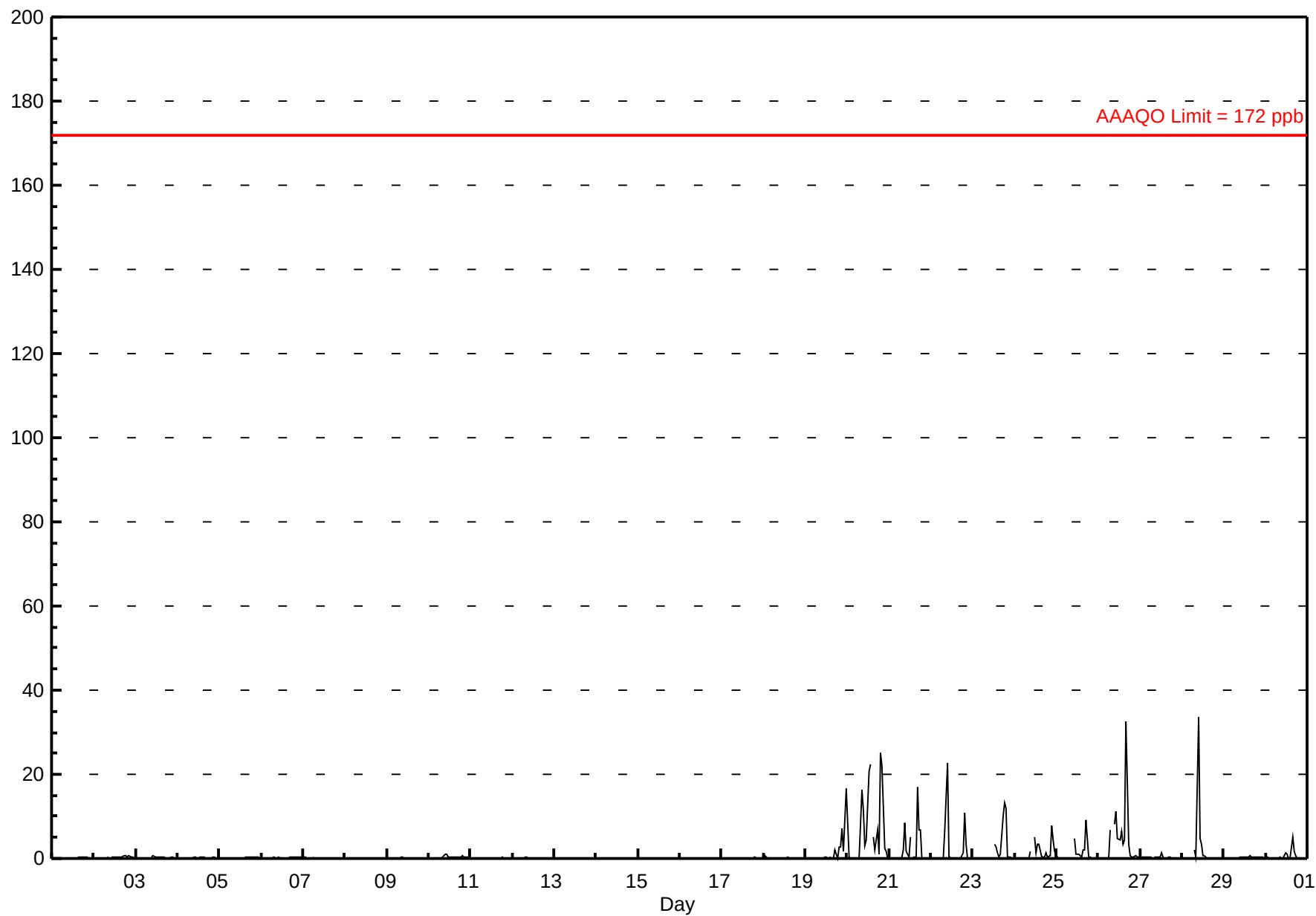
Sulphur Dioxide (SO₂) - ppb

Valleyview - June 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 33.5 ppb on Jun 28 10:00 Maximum Daily Average: 6.7 ppb on Jun 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 Jun 1 01:00 Maximum Diurnal Average: 3.2 ppb at hour 10 Monthly Average: 0.85 ppb										Minimum Daily Average: 0.0 ppb on Jun 13 Minimum Diurnal Average: 0.0 ppb at hour 5 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 1.2 P ₉₉ = 20.0																																						
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-Jun	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2																						
2-Jun	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0.3	0.7																						
3-Jun	0	0	0	0	0	0	0	0	A	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5																						
4-Jun	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-Jun	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-Jun	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3																						
7-Jun	0	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-Jun	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1																						
9-Jun	0	0	A	0	0	0	0	0	0	0	0	C	C	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2																						
10-Jun	0	A	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0.3	1.0																						
11-Jun	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-Jun	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-Jun	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																						
14-Jun	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-Jun	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	0.2																						
16-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.0	0.1																						
17-Jun	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-Jun	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.1	0.8																						
19-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	2	0	3	3	7	2	17	1.5	16.5																						
20-Jun	8	0	0	0	0	0	0	0	16	12	3	4	21	22	A	5	2	7	1	25	22	3	2	0	6.7	25.1																						
21-Jun	0	0	0	0	0	0	0	0	2	8	2	0	5	A	0	0	17	7	7	0	0	0	0	0	2.1	16.9																						
22-Jun	0	0	0	0	0	0	0	0	6	23	0	0	A	0	0	0	0	0	1	11	3	0	0	0	2.0	22.7																						
23-Jun	0	0	0	0	0	0	0	0	0	0	0	A	3	3	1	0	1	10	13	12	0	0	0	0	2.0	13.4																						
24-Jun	0	0	0	0	0	0	0	0	0	2	A	5	1	3	3	0	0	0	1	0	1	8	4	2	1.4	7.6																						
25-Jun	0	0	0	0	0	0	0	0	0	A	5	1	1	1	0	2	2	9	0	0	0	0	0	0	1.0	9.3																						
26-Jun	0	0	0	0	0	0	0	7	A	8	11	5	4	6	3	4	33	3	1	0	0	1	0	0	3.9	32.6																						
27-Jun	0	0	0	0	0	0	0	A	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.3	1.4																						
28-Jun	0	0	0	0	0	0	A	2	0	34	5	3	1	1	0	0	0	0	0	0	0	0	0	0	2.0	33.5																						
29-Jun	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0.2	0.6																						
30-Jun	0	0	0	0	A	0	0	0	0	0	0	1	1	0	0	5	2	1	0	0	0	0	0	0	0.5	5.0																						
																								0.4	0.1	0.1	0.1	0.0	0.0	0.1	0.4	1.0	3.2	1.0	0.8	1.5	1.4	0.4	0.7	2.1	1.5	1.0	1.9	1.1	0.7	0.3	0.7	Diurnal Average
																								8.5	0.8	0.3	0.2	0.2	0.2	0.3	6.7	16.3	33.5	11.1	5.1	20.5	22.2	3.5	5.1	32.6	10.2	13.4	25.1	22.1	7.6	4.3	16.5	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 - June 2015



Hourly Maximums

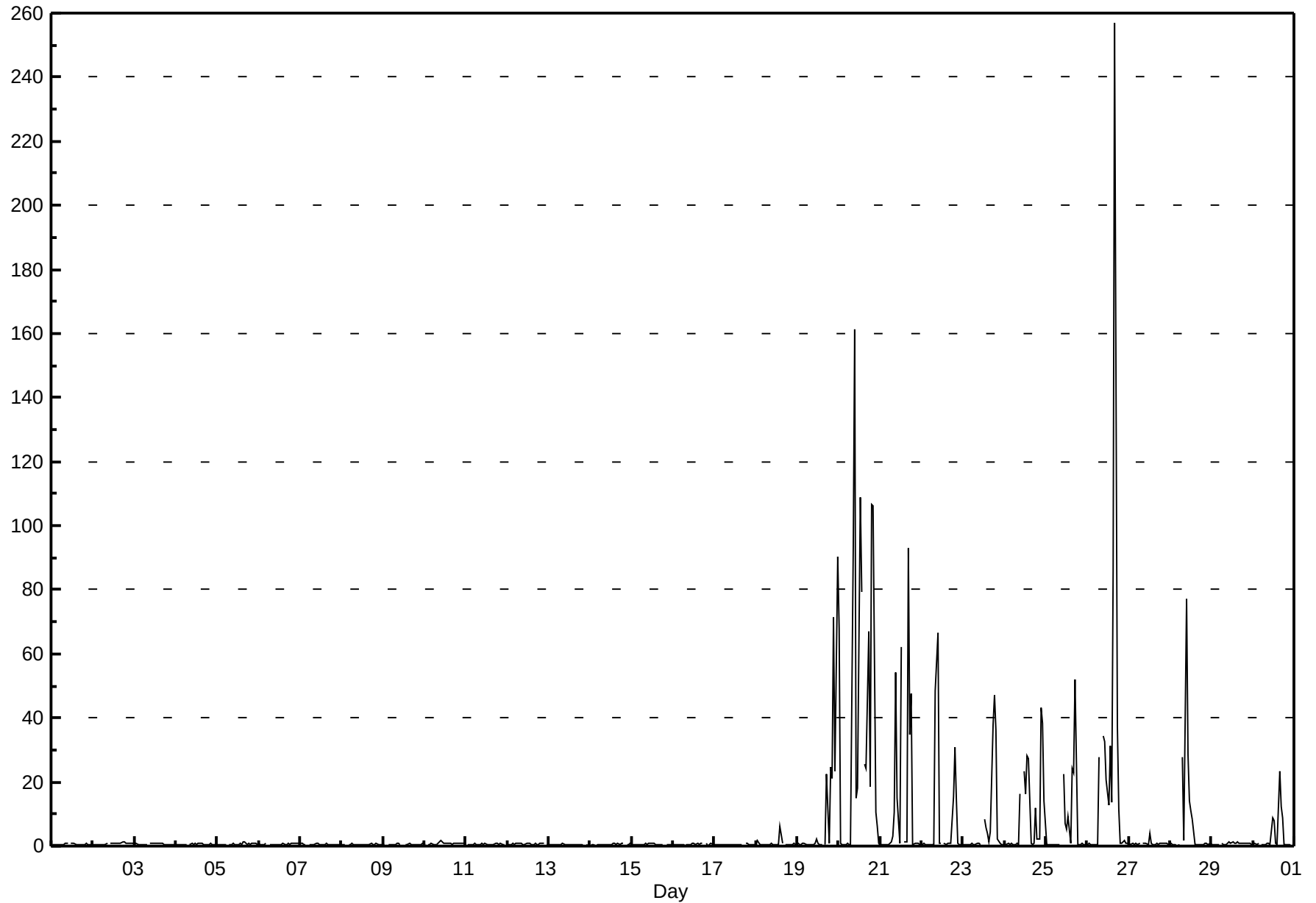
Sulphur Dioxide (SO₂) - ppb

Valleyview - June 2015

Maximum Value: 256.9 ppb on Jun 26 17:00																				Maximum Daily Average: 39.7 ppb on Jun 20					Hours in Service: 720	
Minimum Value: 0 ppb on Jun 28 05:00																				Minimum Daily Average: 0.4 ppb on Jun 13					Hours of Data: 687	
Maximum Diurnal Average: 15.2 ppb at hour 10																				Minimum Diurnal Average: 0.5 ppb at hour 3					Hours of Missing Data: 33	
Monthly Average: 4.87 ppb																				Percentiles: P ₁ = 0.2 P ₁₀ = 0.4 Q ₁ = 0.5 Median = 0.6 Q ₃ = 0.8 P ₉₀ = 8.8 P ₉₉ = 92.9					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-Jun	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.9
2-Jun	1	1	1	1	1	0	0	0	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.3
3-Jun	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	1.1
4-Jun	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0	0	1	0	1	1	0	0	0.6	1.0
5-Jun	0	1	0	0	0	0	A	0	0	1	0	0	0	1	0	1	1	1	1	1	1	1	1	1	0.7	1.5
6-Jun	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0
7-Jun	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
8-Jun	1	1	1	A	0	1	1	1	1	1	0	0	0	0	1	0	1	0	1	0	1	0	1	0	0.5	1.0
9-Jun	0	0	A	0	0	0	0	0	1	1	0	C	C	0	1	1	1	1	1	1	0	0	1	1	0.5	1.0
10-Jun	1	A	1	0	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.9
11-Jun	A	1	0	0	1	1	1	0	1	1	0	1	1	0	0	1	1	1	1	1	1	1	0	A	0.6	0.9
12-Jun	1	0	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	0	0	1	1	1	A	1	0.6	0.9
13-Jun	0	0	1	0	1	0	1	0	1	0	1	0	0	0	0	1	0	0	1	1	0	A	0	0	0.4	0.8
14-Jun	0	1	0	0	0	0	0	1	0	0	1	1	1	1	1	0	1	1	1	1	A	1	0	1	0.5	0.8
15-Jun	0	0	0	1	1	1	1	0	1	0	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.6	0.7
16-Jun	0	1	1	1	0	1	1	0	1	1	0	1	1	1	1	1	1	1	A	1	0	1	1	1	0.6	0.7
17-Jun	1	1	0	0	0	1	0	0	0	0	1	1	1	1	1	1	1	A	1	1	0	1	0	1	0.5	1.0
18-Jun	1	2	1	0	1	1	1	0	0	1	1	0	0	1	6	1	A	1	0	1	1	0	1	0	0.9	6.3
19-Jun	1	1	1	1	1	0	1	1	0	1	1	2	1	0	1	A	1	23	1	25	21	71	23	91	11.5	90.6
20-Jun	68	1	0	1	0	1	0	1	93	161	15	18	109	79	A	25	24	67	19	107	106	11	6	1	39.7	161.3
21-Jun	1	0	0	0	0	1	1	3	10	54	15	1	62	A	1	1	93	35	48	1	1	1	1	0	14.4	93.0
22-Jun	1	1	0	0	0	0	0	1	48	67	1	1	A	1	1	1	1	1	16	31	15	1	0	0	8.1	66.6
23-Jun	0	0	0	0	0	1	1	0	1	1	1	A	8	6	4	1	4	38	47	36	2	1	1	1	6.7	47.0
24-Jun	0	0	1	1	1	1	0	1	1	16	A	23	16	28	27	1	1	1	12	2	2	43	38	14	10.0	43.3
25-Jun	1	1	0	1	0	0	1	0	1	A	22	7	5	9	1	24	23	52	1	1	1	1	0	1	6.6	51.9
26-Jun	1	1	0	1	1	0	1	28	A	34	32	21	13	31	14	86	257	37	11	1	1	2	1	1	24.9	256.9
27-Jun	1	1	1	1	1	1	1	A	1	1	1	1	4	1	0	1	1	1	1	1	1	1	1	0	0.9	4.0
28-Jun	1	0	0	1	0	1	A	28	2	77	29	14	11	8	0	1	0	0	0	1	1	1	1	1	7.7	77.3
29-Jun	1	0	0	0	0	A	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.3
30-Jun	1	1	0	1	A	1	0	1	1	1	1	9	8	1	0	23	12	9	1	0	0	1	0	0	3.1	23.3
2.9 0.6 0.5 0.5 0.5 0.5 0.6 2.5 6.0 15.2 4.6 3.9 8.9 6.1 2.3 6.2 14.8 9.5 5.8 7.5 5.6 5.0 2.9 4.1																									Diurnal Average	
67.8 1.8 0.8 0.7 0.9 0.8 1.3 27.7 93.4 161.3 32.4 23.4 109.0 79.3 27.3 85.8 256.9 67.0 47.6 106.8 106.3 71.4 38.3 90.6																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										

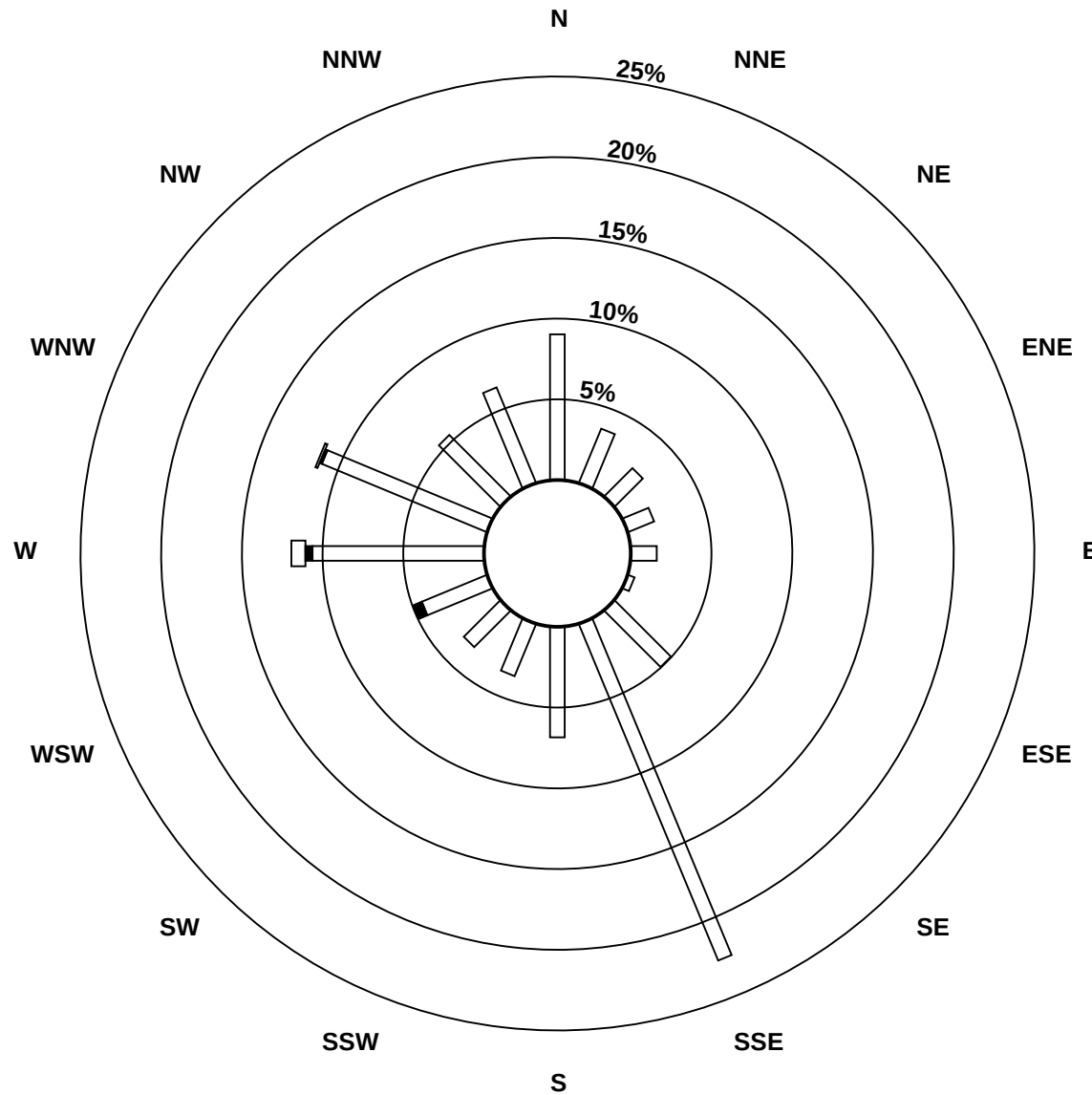
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Valleyview - June 2015

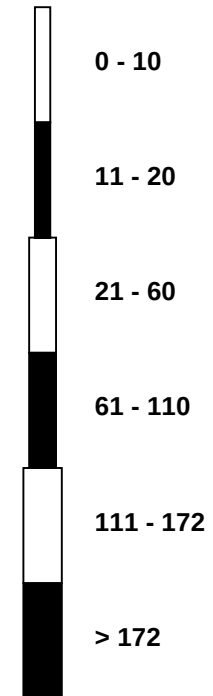


Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Valleyview - June 2015

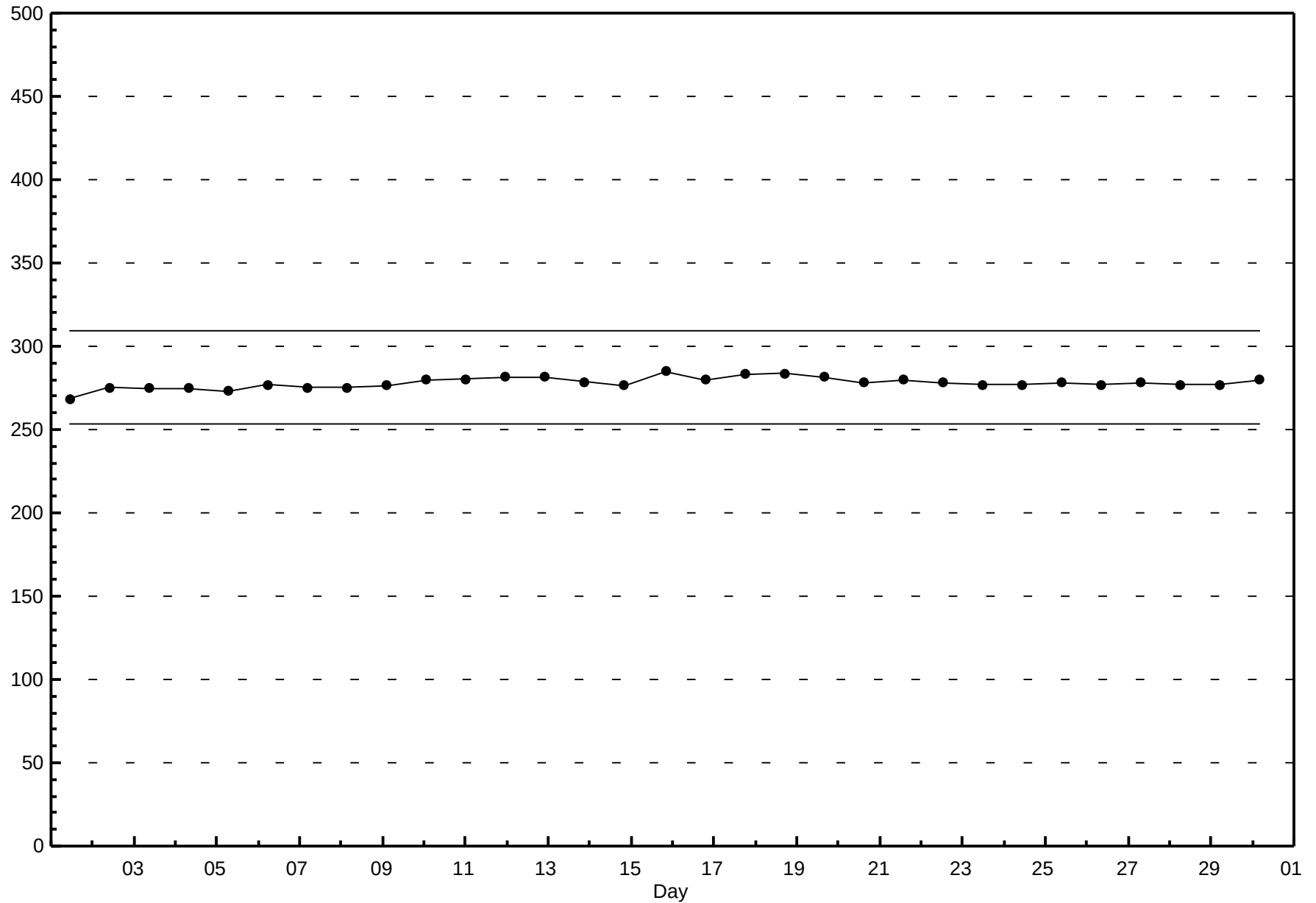


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Valleyview - June 2015



Hourly Averages

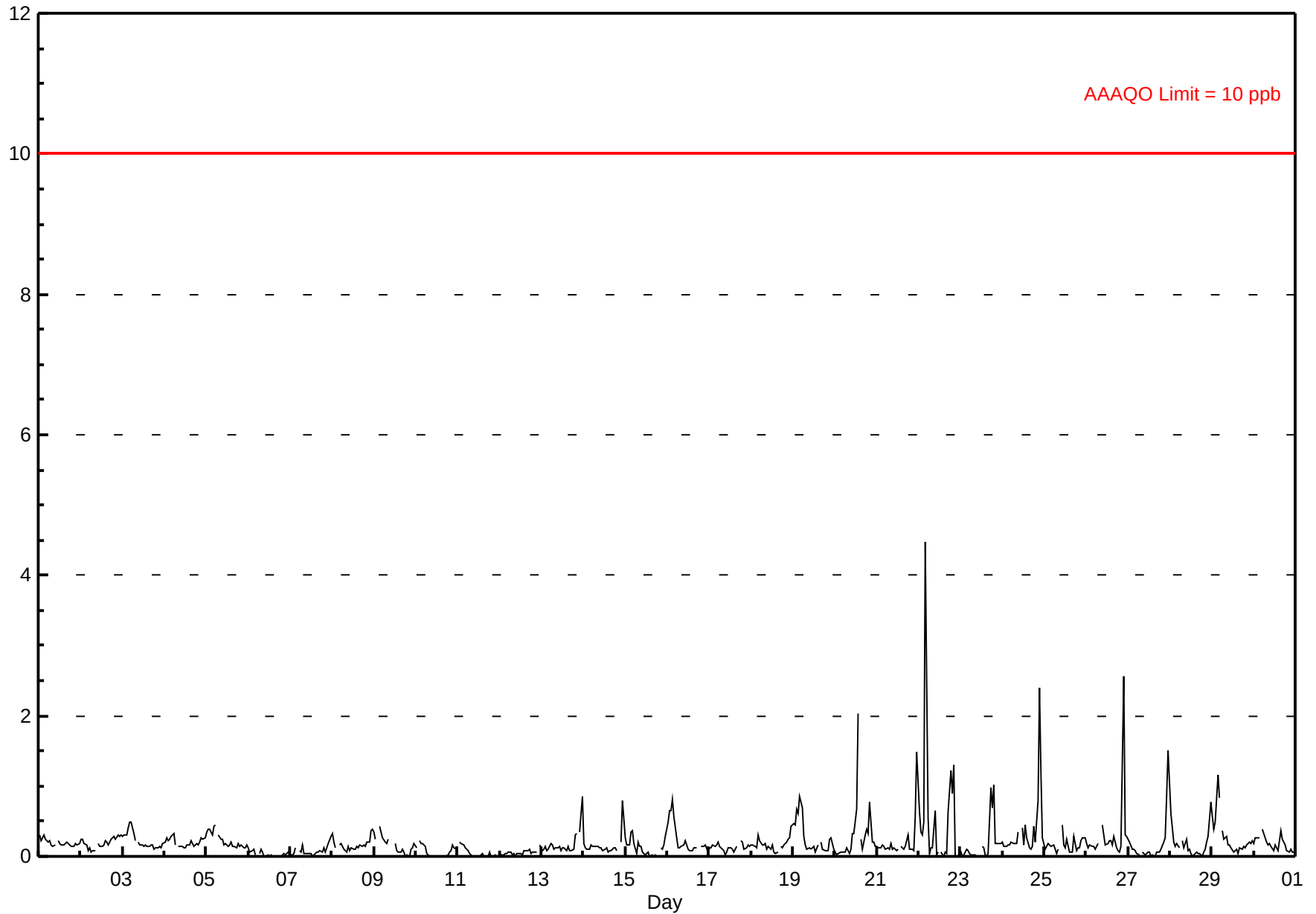
Hydrogen Sulphide (H₂S) - ppb

Valleyview - June 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0																				Hours in Service: 720						
Maximum Value: 4.5 ppb on Jun 22 05:00																				Maximum Daily Average: 0.5 ppb on Jun 22		Hours of Data: 686				
Minimum Value: 0 ppb on Jun 6 10:00																				Minimum Daily Average: 0.0 ppb on Jun 6		Hours of Missing Data: 34				
Maximum Diurnal Average: 0.4 ppb at hour 5																				Minimum Diurnal Average: 0.1 ppb at hour 15		Hours of Calibration: 34				
Monthly Average: 0.19 ppb																				Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 0.3 P ₉₉ = 1.2		Percent Operational Time: 100.0				
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jun	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
2-Jun	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
3-Jun	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-Jun	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
5-Jun	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
6-Jun	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-Jun	0	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-Jun	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-Jun	0	0	A	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
10-Jun	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-Jun	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.0	0.2
12-Jun	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-Jun	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	0.8
14-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	1	0.2	0.8
15-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.1	0.4
16-Jun	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.2	0.8
17-Jun	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-Jun	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-Jun	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.3	0.9
20-Jun	0	0	0	0	0	0	0	0	0	0	0	0	1	2	A	0	0	0	0	0	0	1	0	0	0.3	2.0
21-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	1	1	0.2	1.5
22-Jun	1	0	0	0	4	1	0	0	0	1	0	0	A	0	0	0	0	1	1	1	1	0	0	0	0.5	4.5
23-Jun	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	1	1	1	0	0	0	0	0.2	1.0
24-Jun	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	2	1	0	0.4	2.4
25-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
26-Jun	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0.3	2.6
27-Jun	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0.2	1.5
28-Jun	1	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	0.8
29-Jun	1	0	0	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.2
30-Jun	0	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
																									Diurnal Average	
																									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 - June 2015



Hourly Maximums

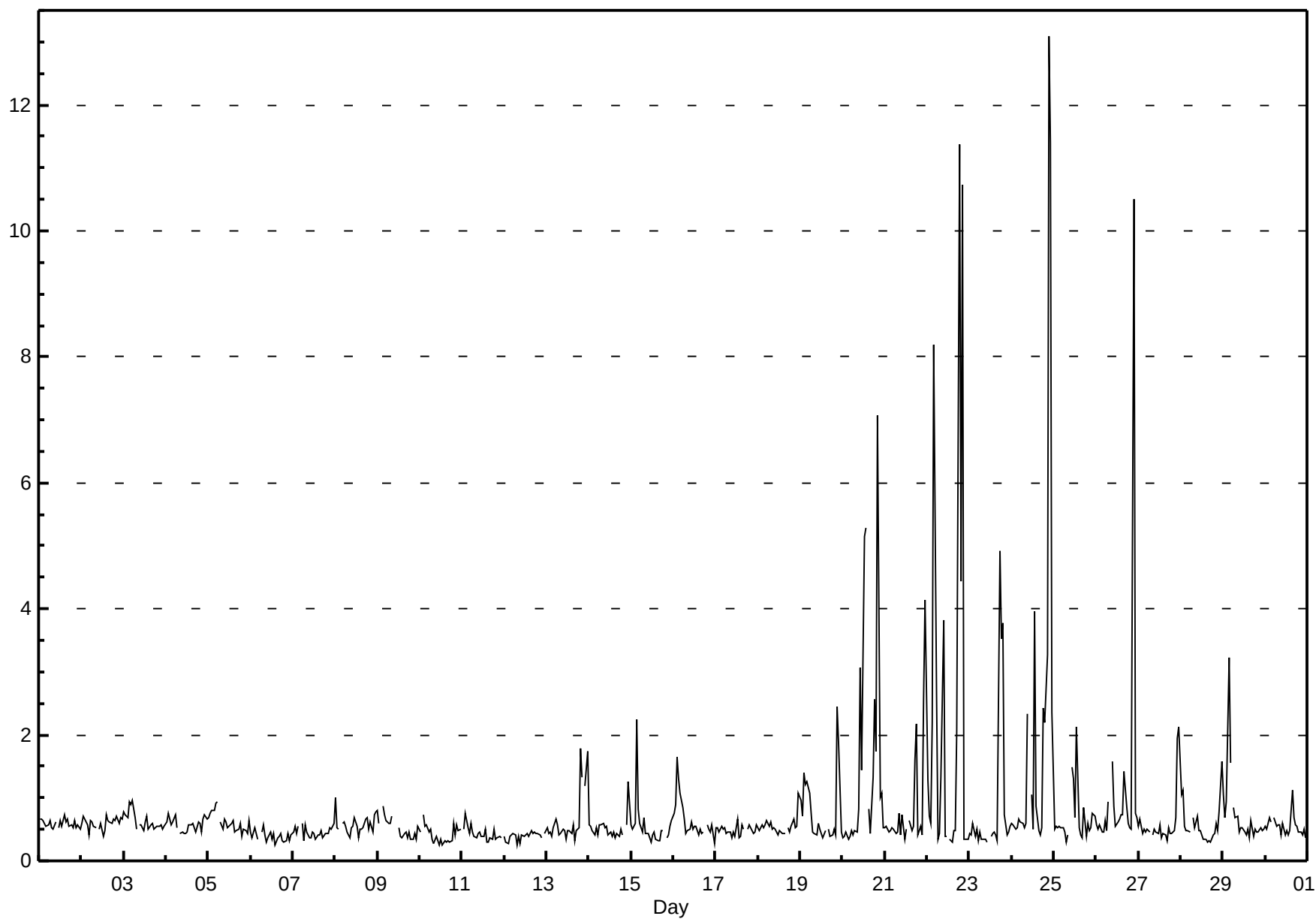
Hydrogen Sulphide (H₂S) - ppb

Valleyview - June 2015

Maximum Value: 13.1 ppb on Jun 24 22:00																				Maximum Daily Average: 2.3 ppb on Jun 22					Hours in Service: 720	
Minimum Value: 0 ppb on Jun 6 15:00																				Minimum Daily Average: 0.4 ppb on Jun 6					Hours of Data: 686	
Maximum Diurnal Average: 1.4 ppb at hour 22																				Minimum Diurnal Average: 0.5 ppb at hour 15					Hours of Missing Data: 34	
Monthly Average: 0.75 ppb																				Percentiles: P ₁ = 0.3 P ₁₀ = 0.4 Q ₁ = 0.4 Median = 0.5 Q ₃ = 0.6 P ₉₀ = 1.0 P ₉₉ = 6.7					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-Jun	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.7
2-Jun	1	1	1	1	0	1	1	1	1	A	1	1	0	0	1	1	1	1	1	1	1	1	1	1	0.6	0.7
3-Jun	1	1	1	1	1	1	1	1	A	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0.6	1.0
4-Jun	1	1	1	1	1	1	1	A	0	0	0	0	0	1	1	1	1	0	1	1	0	1	1	1	0.6	0.7
5-Jun	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0	0	0	0	1	0	1	0	0	1	0.6	0.9
6-Jun	0	0	1	0	0	A	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6
7-Jun	0	1	0	1	A	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0.5	0.6
8-Jun	1	1	1	A	1	1	1	0	0	1	1	1	0	0	0	0	1	1	1	1	1	0	1	1	0.6	1.0
9-Jun	1	1	A	1	1	1	1	1	1	C	C	C	1	0	0	0	0	0	0	0	0	0	0	1	0.5	0.9
10-Jun	0	A	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0.4	0.7
11-Jun	A	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	A	0.4	0.8
12-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.4	0.5
13-Jun	1	0	0	0	1	1	1	0	0	1	0	0	0	0	0	1	0	0	1	2	1	A	1	2	0.7	1.8
14-Jun	1	1	0	0	1	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	A	1	1	1	0.5	1.3
15-Jun	1	0	1	2	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	1	1	0.6	2.3
16-Jun	1	1	2	1	1	1	1	0	0	1	1	1	1	1	0	1	0	0	A	1	1	0	1	0	0.7	1.6
17-Jun	1	1	0	1	1	1	0	0	0	0	0	0	1	0	0	1	1	A	1	1	1	0	0	1	0.5	0.7
18-Jun	1	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0	A	1	0	1	1	1	1	1	0.5	1.1
19-Jun	1	1	1	1	1	1	1	0	0	0	1	0	0	0	0	A	0	0	0	1	0	2	2	0	0.8	2.5
20-Jun	0	0	0	0	0	0	0	0	0	1	3	1	5	5	A	1	0	1	3	2	7	1	1	1	1.6	7.1
21-Jun	1	1	0	0	1	0	0	0	1	0	1	0	1	A	1	0	1	2	2	0	1	0	3	4	0.9	4.1
22-Jun	1	1	1	2	8	3	0	0	1	4	0	0	A	0	0	0	0	2	11	4	11	0	0	0	2.3	11.4
23-Jun	0	0	1	0	1	0	0	0	0	0	0	A	0	0	0	0	0	5	4	4	1	0	0	1	0.9	4.9
24-Jun	1	1	0	1	1	1	1	1	1	2	A	1	0	4	1	0	0	1	2	2	3	13	11	2	2.2	13.1
25-Jun	1	1	1	1	1	1	0	0	0	A	1	1	1	2	1	0	0	1	0	1	0	1	1	1	0.7	2.1
26-Jun	1	0	1	0	0	1	0	1	A	2	1	1	1	1	1	1	1	1	1	1	0	10	1	1	1.1	10.5
27-Jun	1	1	0	1	0	1	0	A	0	0	0	0	1	0	0	0	0	1	0	0	0	1	2	2	0.6	2.1
28-Jun	1	1	1	0	0	0	A	1	1	1	0	0	0	0	0	0	0	0	0	0	1	0	1	2	0.6	1.6
29-Jun	1	1	1	3	2	A	1	1	1	0	1	1	0	0	0	0	1	0	1	0	0	1	0	0	0.7	3.2
30-Jun	1	1	1	1	A	1	1	1	1	0	1	0	0	0	0	1	1	1	1	0	0	0	0	0	0.5	1.1
0.7 0.6 0.6 0.8 0.9 0.7 0.5 0.5 0.5 0.7 0.6 0.5 0.7 0.8 0.5 0.5 0.5 0.8 1.2 0.9 1.2 1.4 1.1 0.9																								Diurnal Average		
1.3 1.1 1.6 3.2 8.2 2.6 0.8 0.9 1.3 3.8 3.1 1.4 5.1 5.3 0.9 1.1 1.4 4.9 11.4 4.4 10.7 13.1 11.4 4.1																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										

Hourly Maximums

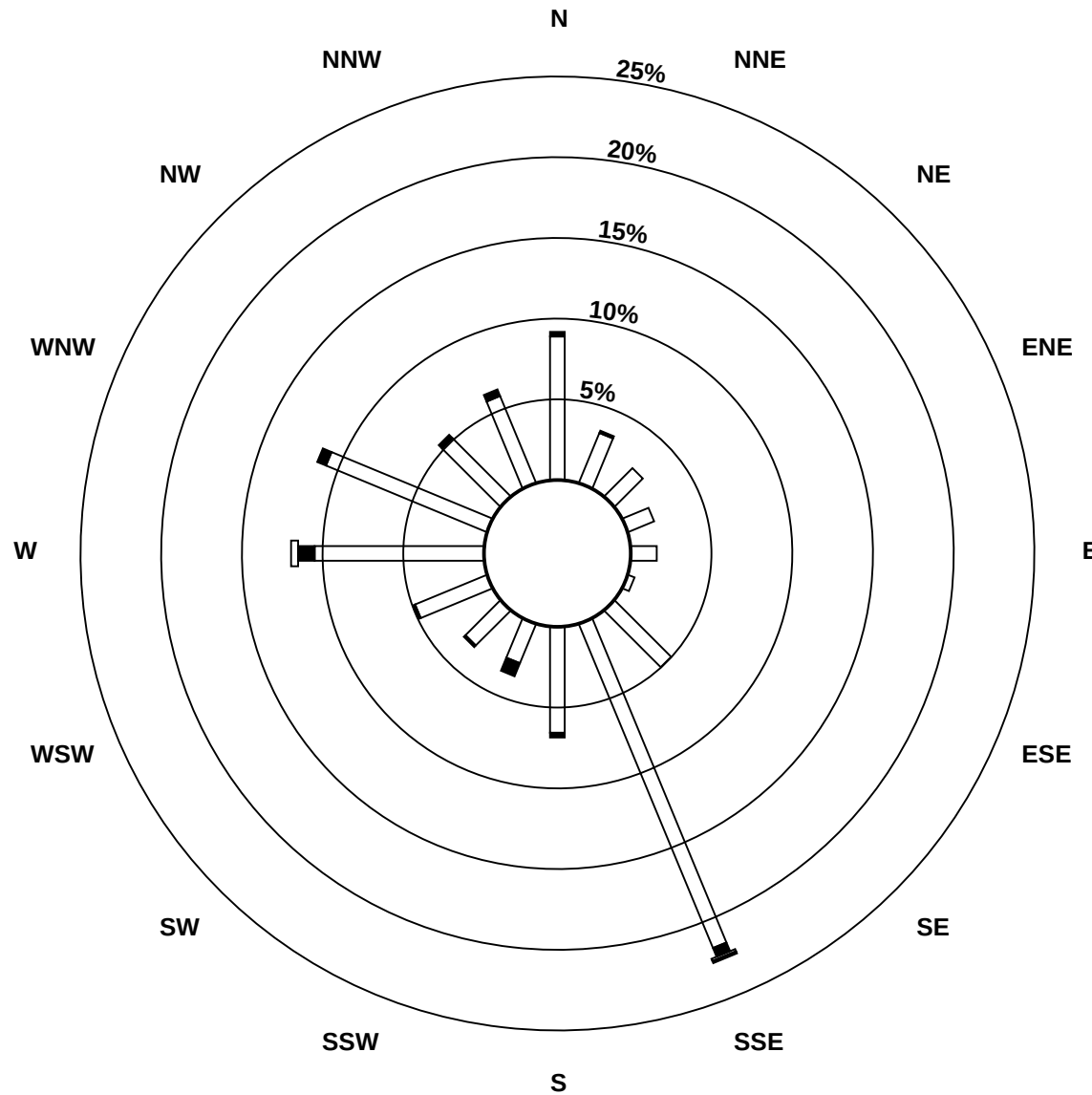
Hydrogen Sulphide (H₂S) - ppb
Valleyview - June 2015



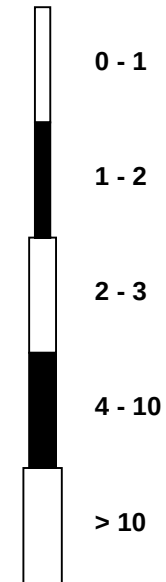
Pollutant Rose

Hydrogen Sulphide (H_2S) - ppb

Valleyview - June 2015

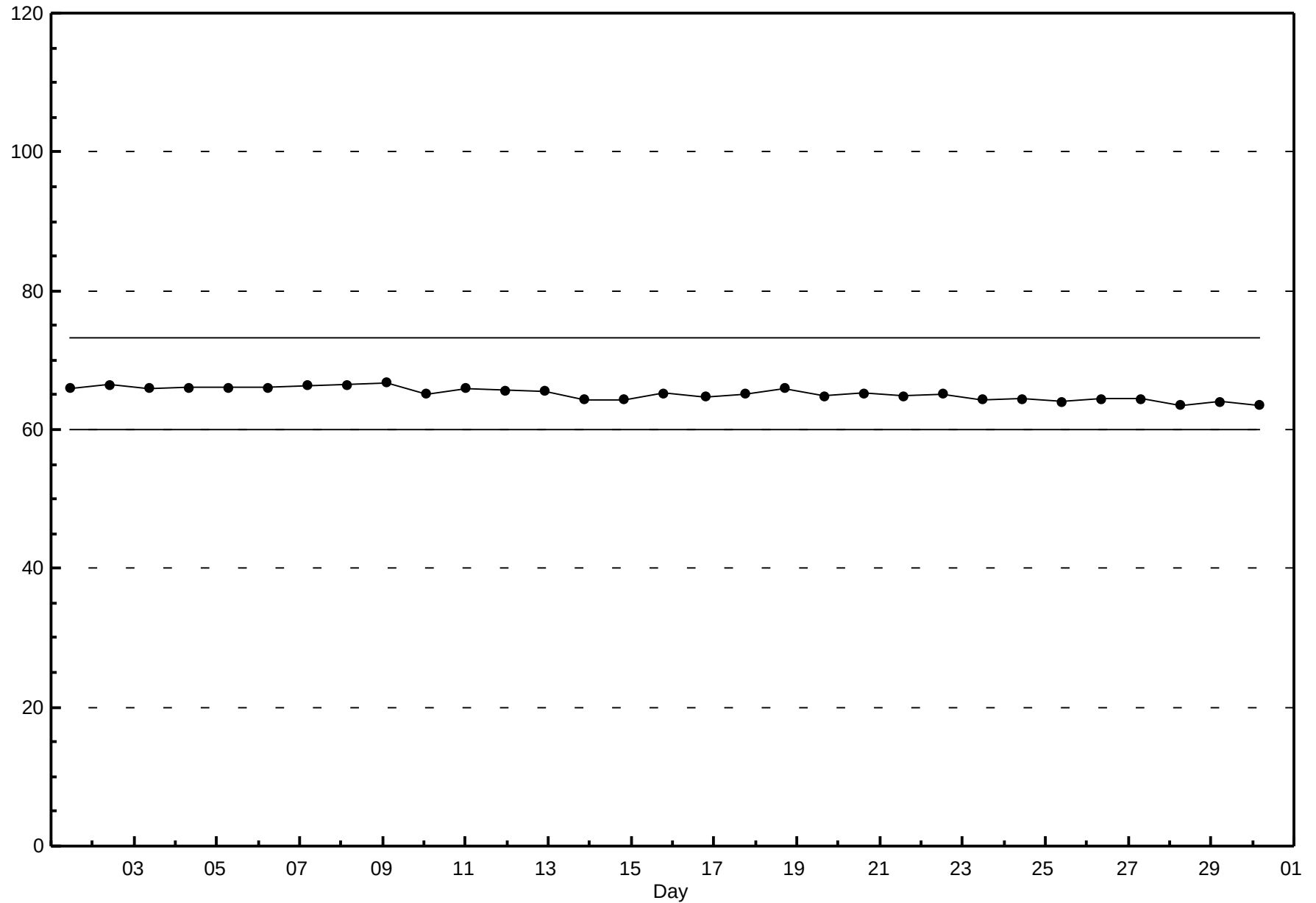


Pollutant Classes (ppb)



Span Responses

Hydrogen Sulphide (H_2S)
Valleyview - June 2015



Hourly Averages

External Temperature (ET) - °C

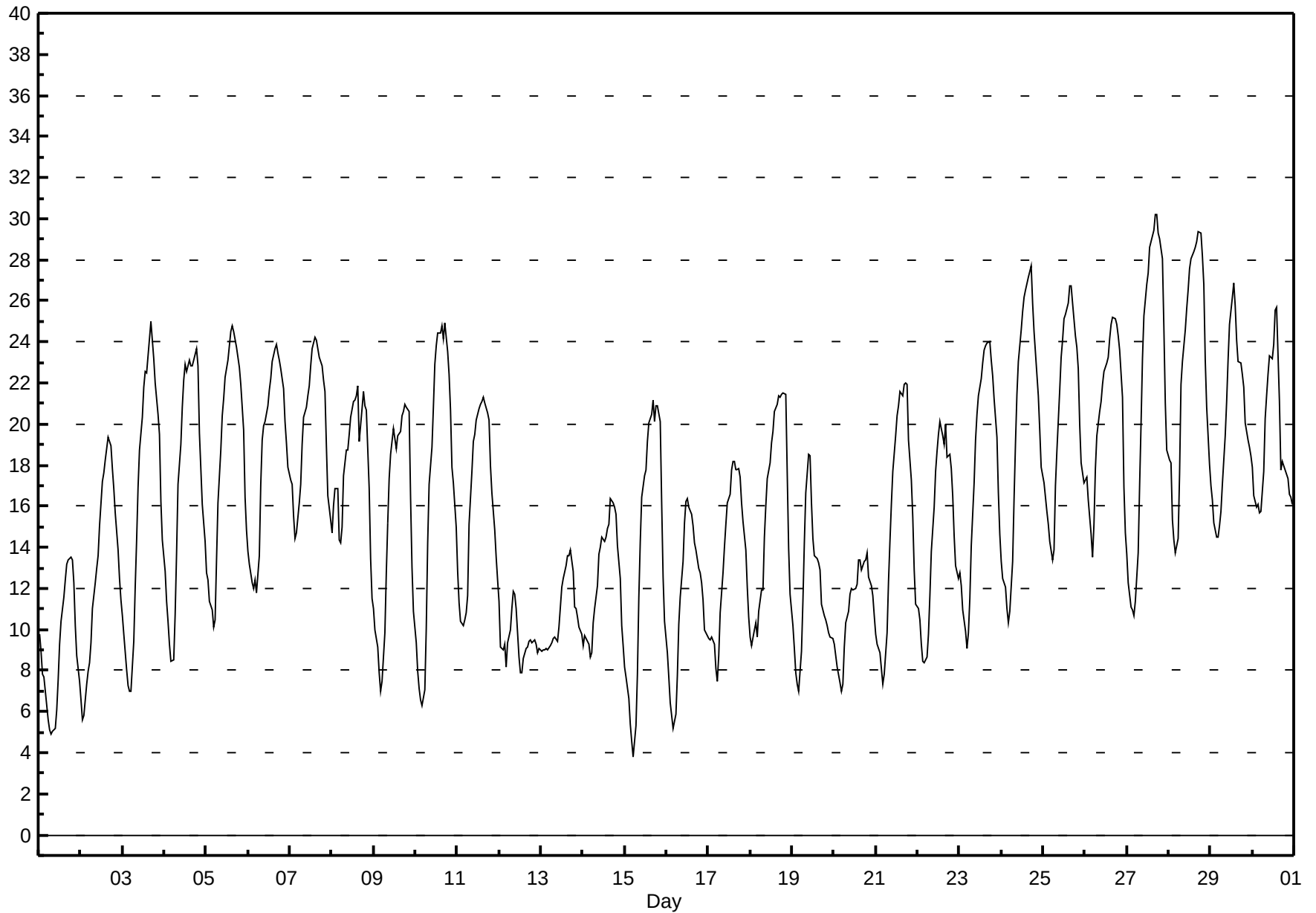
Valleyview - June 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 30.2 °C on Jun 27 18:00 Maximum Daily Average: 23.0 °C on Jun 28																								Hours in Service: 720 Hours of Data: 720 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0		
Minimum Value: 4 °C on Jun 15 06:00 Maximum Diurnal Average: 20.8 °C at hour 16 Monthly Average: 16.09 °C												Minimum Daily Average: 9.0 °C on Jun 1 Minimum Diurnal Average: 9.7 °C at hour 5 Percentiles: P ₁ = 5.2 P ₁₀ = 8.9 Q ₁ = 11.0 Median = 16.1 Q ₃ = 20.9 P ₉₀ = 23.8 P ₉₉ = 28.8														
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Jun	10	9	8	8	7	6	5	5	5	5	6	8	9	10	12	12	13	13	14	13	12	10	9	7	9.0	13.5
2-Jun	7	6	6	7	8	8	9	11	12	13	14	15	17	18	18	19	19	19	18	17	16	14	12	11	13.1	19.4
3-Jun	11	10	8	7	7	7	9	12	14	17	19	20	22	23	22	24	25	24	23	22	20	19	16	14	16.6	25.0
4-Jun	13	11	10	9	8	9	11	14	17	19	21	22	23	23	23	23	23	23	24	23	20	18	16	14	17.3	23.7
5-Jun	13	12	11	11	10	10	13	16	19	20	21	22	23	24	25	25	24	24	23	23	22	20	16	15	18.5	24.8
6-Jun	14	13	12	12	12	12	14	17	19	20	20	21	22	22	23	24	24	23	23	23	22	20	19	18	18.7	23.9
7-Jun	17	17	16	14	15	16	17	19	20	21	21	22	23	24	24	24	24	23	23	22	22	19	17	15	19.8	24.2
8-Jun	15	16	17	17	14	14	15	17	19	19	19	20	21	21	21	22	19	21	22	21	21	17	13	12	18.0	21.8
9-Jun	11	10	9	8	7	7	10	13	15	17	19	20	19	19	19	20	20	21	21	21	21	16	13	11	15.3	20.9
10-Jun	9	8	7	7	6	7	10	14	17	19	21	23	24	24	24	25	24	25	24	22	21	18	17	15	17.1	24.9
11-Jun	13	11	10	10	10	11	12	15	18	19	19	20	21	21	21	21	21	21	20	18	17	15	14	12	16.3	21.3
12-Jun	11	9	9	9	8	9	10	11	12	12	11	9	8	8	9	9	9	9	9	9	10	9	9	9	9.5	11.9
13-Jun	9	9	9	9	9	9	9	10	10	9	10	11	12	13	13	14	14	14	13	11	11	11	10	10	10.7	13.9
14-Jun	9	10	10	9	9	9	10	11	12	14	14	15	14	14	15	15	16	16	16	16	14	12	10	9	12.5	16.4
15-Jun	8	8	7	5	5	4	5	8	12	14	16	17	18	19	20	21	21	20	21	21	20	16	13	10	13.7	21.1
16-Jun	9	8	6	6	5	6	8	10	12	13	15	16	16	16	16	15	14	14	13	13	12	11	10	10	11.4	16.3
17-Jun	10	9	10	9	8	7	9	11	13	14	15	16	17	18	18	18	18	18	17	16	15	14	12	11	13.5	18.2
18-Jun	10	9	10	10	10	11	12	12	15	16	17	18	19	20	21	21	21	21	21	21	21	18	14	12	15.8	21.5
19-Jun	10	9	8	7	7	9	11	14	17	19	18	16	14	14	13	13	13	11	11	10	10	10	10	10	11.9	18.5
20-Jun	9	9	8	7	7	7	9	10	11	12	12	12	12	12	13	13	13	13	13	14	13	12	12	11	11.1	13.7
21-Jun	10	9	9	8	7	8	10	12	14	16	18	19	20	21	22	21	22	22	22	19	17	15	13	11	15.3	22.0
22-Jun	11	10	9	8	8	9	10	12	14	16	18	19	20	20	19	19	20	18	19	18	17	15	13	12	14.7	20.1
23-Jun	13	12	11	10	9	10	12	14	17	19	20	21	22	23	24	24	24	24	23	22	21	19	17	15	17.8	24.0
24-Jun	13	12	12	11	10	11	13	16	19	21	23	25	26	26	27	27	27	28	26	25	22	21	20	18	20.0	27.7
25-Jun	17	16	16	15	14	13	14	17	19	22	23	24	25	25	26	27	27	27	26	24	23	20	18	17	20.5	26.7
26-Jun	17	17	16	15	14	15	18	19	21	21	22	23	23	23	24	25	25	25	25	24	24	21	17	15	20.4	25.2
27-Jun	14	12	11	11	11	11	14	17	20	23	25	27	27	29	29	29	30	30	29	29	28	25	21	19	21.7	30.2
28-Jun	18	18	15	14	14	14	18	22	23	25	26	27	28	28	28	29	29	29	29	28	27	23	21	18	23.0	29.3
29-Jun	17	16	15	15	14	15	16	17	19	21	23	25	26	27	26	24	23	23	22	22	20	19	19	18	20.1	26.9
30-Jun	18	17	16	16	16	16	18	20	21	22	23	23	24	26	26	21	18	18	18	18	17	17	16	16	19.2	25.7
12.2 11.5 10.7 10.2 9.7 10.1 11.7 13.9 15.8 17.3 18.4 19.2 19.8 20.3 20.7 20.8 20.7 20.6 20.2 19.5 18.5 16.5 14.5 13.2																								Diurnal Average		
18.3 18.1 16.9 16.9 15.7 16.2 17.8 21.9 23.1 24.6 25.6 26.8 27.6 28.6 28.9 29.4 30.2 30.2 30.2 29.3 29.0 28.0 24.7 21.1 18.8																								Diurnal Maximum		

Hourly Averages

External Temperature (ET) - °C

Valleyview - June 2015



Hourly Averages

Relative Humidity (RH) - %

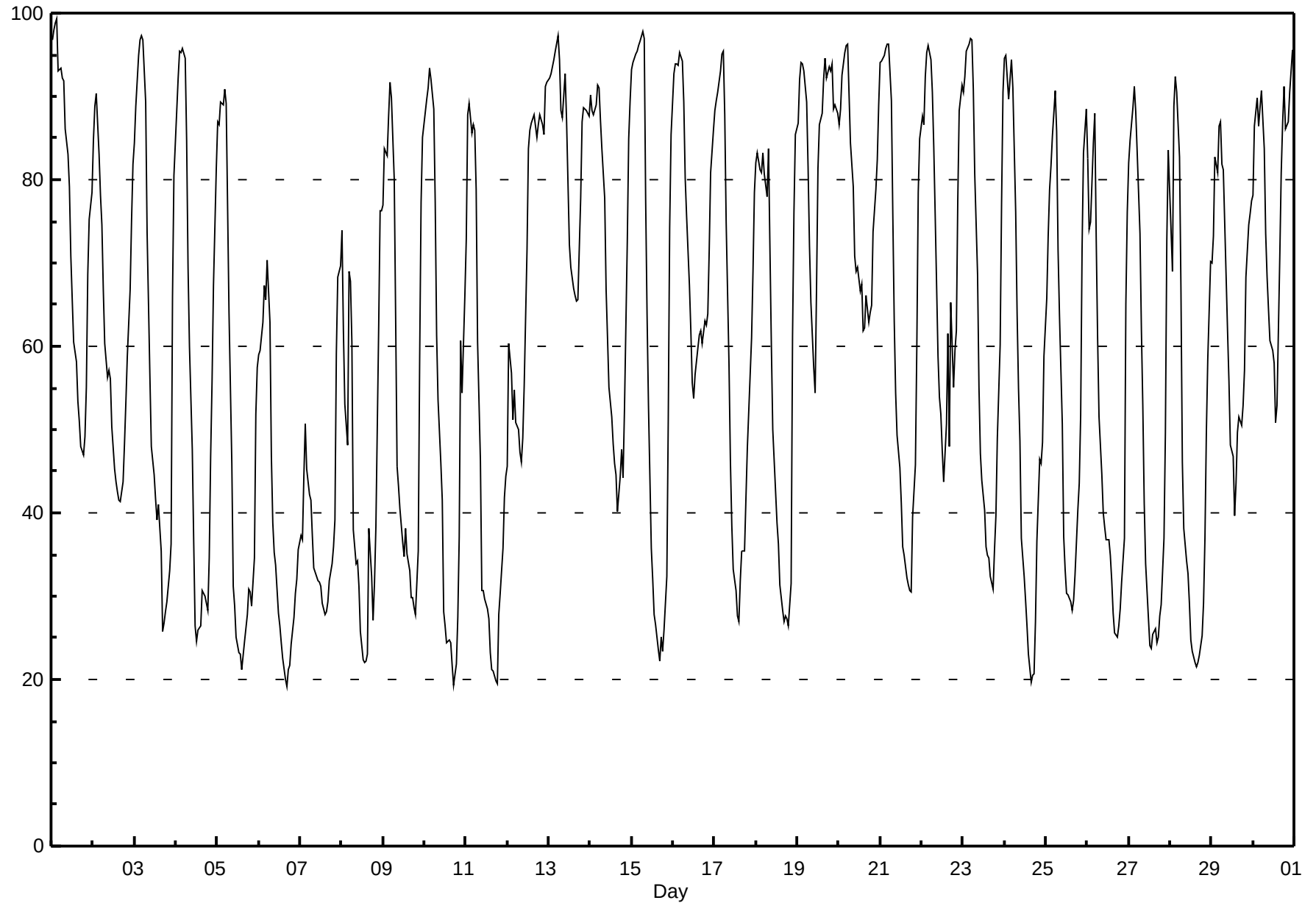
Valleyview - June 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0																								Hours in Service: 720			
Maximum Value: 99.3 % on Jun 1 04:00																								Maximum Daily Average: 84.5 % on Jun 19		Hours of Data: 720	
Minimum Value: 19 % on Jun 6 17:00																								Minimum Daily Average: 39.0 % on Jun 6		Hours of Missing Data: 0	
Maximum Diurnal Average: 87.2 % at hour 5																								Minimum Diurnal Average: 39.6 % at hour 15		Hours of Calibration: 0	
Monthly Average: 60.54 %																								Percentiles: P ₁ = 20.6 P ₁₀ = 27.4 Q ₁ = 36.7 Median = 61.2 Q ₃ = 85.4 P ₉₀ = 92.3 P ₉₉ = 96.8		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-Jun	97	98	99	99	93	93	92	92	86	83	79	71	66	61	58	53	51	48	47	49	55	69	75	78	74.7	99.3	
2-Jun	85	89	90	83	78	75	67	60	56	57	56	50	45	44	43	41	41	44	48	53	59	67	75	82	62.0	90.3	
3-Jun	84	89	95	97	97	97	89	74	65	56	48	45	42	39	41	35	26	27	28	29	33	36	66	81	59.1	97.2	
4-Jun	88	92	95	95	96	95	85	69	60	48	37	27	25	26	26	31	30	30	28	35	47	56	67	81	57.0	95.8	
5-Jun	87	87	89	89	91	89	77	64	46	31	29	25	23	23	21	23	25	28	31	31	29	35	52	57	49.2	90.9	
6-Jun	59	59	63	67	66	70	63	47	39	35	34	28	26	24	23	20	19	21	22	24	28	30	32	36	39.0	70.4	
7-Jun	37	37	44	51	45	42	41	37	33	32	32	32	31	29	28	28	29	32	34	36	39	59	68	70	39.5	69.7	
8-Jun	74	62	53	48	69	68	61	38	34	34	31	26	22	22	22	23	38	32	27	32	38	63	76	76	44.6	76.3	
9-Jun	77	84	83	88	92	90	80	63	46	43	40	36	35	38	35	33	30	30	29	28	35	59	77	85	55.6	91.6	
10-Jun	88	90	91	93	92	88	77	61	54	46	42	28	26	24	25	24	22	19	22	27	37	61	54	66	52.5	93.4	
11-Jun	73	88	89	86	87	86	79	61	46	31	31	30	29	27	23	21	21	20	19	28	30	36	42	44	46.9	89.2	
12-Jun	46	60	57	51	55	51	50	47	46	49	55	72	84	86	87	88	86	85	87	88	87	85	91	92	70.1	91.6	
13-Jun	92	93	94	94	95	97	94	88	88	93	87	80	72	70	67	66	65	66	78	87	89	88	88	88	88	84.1	97.2
14-Jun	90	88	88	89	91	91	87	84	78	67	61	55	51	48	46	45	40	44	48	44	52	73	85	89	68.1	91.4	
15-Jun	93	94	95	95	96	97	98	97	78	64	53	36	32	28	27	24	22	25	23	26	32	51	74	85	60.2	97.8	
16-Jun	93	94	94	94	95	94	89	80	76	67	62	56	54	57	60	61	62	60	63	63	64	71	81	86	74.0	95.2	
17-Jun	88	90	91	93	95	95	88	75	58	46	38	33	31	28	27	32	35	35	42	48	52	61	69	78	59.5	95.4	
18-Jun	82	83	81	81	83	81	78	84	72	60	50	43	39	36	31	28	27	28	27	27	32	61	76	85	57.3	85.4	
19-Jun	87	92	94	94	93	89	81	72	65	57	54	67	81	87	88	92	95	92	93	93	94	89	89	88	84.5	94.6	
20-Jun	87	88	93	95	96	96	90	84	79	71	69	69	67	68	62	62	66	63	64	65	74	79	82	89	77.4	96.2	
21-Jun	94	94	95	96	96	96	90	76	63	54	49	45	41	36	35	32	31	31	31	40	46	60	79	85	62.3	96.3	
22-Jun	88	87	92	95	96	94	91	84	76	59	54	52	48	44	51	62	48	65	55	59	62	78	88	91	71.6	96.1	
23-Jun	90	92	95	96	97	97	91	81	69	55	47	44	40	36	35	35	32	31	36	40	49	60	77	90	63.1	97.0	
24-Jun	94	95	90	92	94	91	76	64	55	49	37	32	30	26	23	20	21	21	27	37	46	46	48	59	53.0	94.9	
25-Jun	66	73	79	82	85	91	86	72	64	51	37	33	30	30	29	28	30	33	40	44	52	72	83	88	57.3	90.6	
26-Jun	83	74	75	84	88	73	61	52	45	40	38	37	37	35	32	28	26	25	26	29	32	37	65	76	49.8	87.9	
27-Jun	82	85	89	91	88	83	74	62	53	41	34	27	24	24	25	26	24	25	28	29	37	50	73	84	52.4	91.2	
28-Jun	74	69	89	92	91	83	67	46	38	34	33	29	25	23	22	22	22	23	25	29	37	50	58	70	48.0	92.4	
29-Jun	70	73	83	81	87	87	82	81	68	62	56	48	47	40	44	50	51	51	53	57	68	75	76	78	65.2	86.9	
30-Jun	78	86	90	86	89	91	84	74	68	64	61	59	58	51	53	71	81	87	91	86	87	90	93	96	78.1	95.7	
80.9 82.8 85.1 86.0 87.2 85.7 78.9 68.9 60.1 52.7 47.8 43.8 42.0 40.3 39.6 40.1 39.9 40.7 42.4 45.3 50.7 61.5 72.1 78.5																								Diurnal Average			
96.8 98.0 98.9 99.3 97.2 97.2 97.8 96.9 87.5 92.7 87.1 79.7 83.7 86.6 88.0 92.1 94.6 92.3 93.5 93.0 93.9 90.5 93.0 95.7																								Diurnal Maximum			

Hourly Averages

Relative Humidity (RH) - %

Valleyview - June 2015



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Valleyview - June 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	1	2	2	15	13	11	9	9	6	5	3	2	1	2	4	4	4	5	3	2	0	1	2	4.1	15.2
Dir	162	62	17	314	1	3	1	351	350	356	8	340	281	319	62	15	6	2	359	38	40	87	57	338	0	1
2 Spd	1	1	1	1	1	2	4	6	9	8	8	8	9	10	8	7	6	7	7	5	4	4	2	1	4.8	10.2
Dir	307	337	344	124	141	149	156	152	147	153	158	149	154	153	153	139	153	145	138	143	140	144	154	167	149	153
3 Spd	2	0	1	0	0	1	0	2	2	2	4	4	4	6	4	1	5	7	7	6	4	4	4	0	2.6	7.0
Dir	160	128	41	47	57	332	50	140	133	127	146	147	149	161	144	137	152	148	150	151	149	159	241	182	152	148
4 Spd	0	0	0	0	0	0	2	2	1	3	3	3	2	1	2	5	5	3	2	2	3	4	1	0	1.7	4.9
Dir	185	166	179	185	168	197	156	151	163	157	161	173	126	75	162	127	145	132	149	166	161	160	165	171	151	145
5 Spd	0	0	1	2	1	1	2	2	4	10	11	9	8	9	11	11	12	8	9	11	11	4	1	1	5.1	11.6
Dir	169	171	164	163	165	185	158	159	260	281	284	278	266	258	277	279	275	286	279	275	277	270	182	170	272	275
6 Spd	1	1	1	1	2	1	2	8	12	14	15	14	14	14	12	13	12	12	10	7	6	6	7	5	7.3	15.4
Dir	180	196	185	165	158	159	207	267	282	287	290	281	300	288	309	286	287	280	287	275	283	268	261	258	282	290
7 Spd	6	5	3	2	6	6	6	9	11	12	13	13	11	13	13	13	15	13	10	6	3	0	0	0	7.6	15.1
Dir	260	262	231	230	247	255	262	282	284	276	281	277	287	278	294	292	283	278	285	272	252	170	212	228	277	283
8 Spd	0	3	2	4	1	1	1	10	14	13	16	20	21	21	19	18	11	8	9	6	0	0	1	1	7.4	21.4
Dir	347	253	272	310	164	198	250	296	296	286	285	278	272	284	284	296	3	333	303	358	49	164	345	173	293	272
9 Spd	1	1	0	0	0	0	1	1	4	3	5	5	9	10	6	6	9	6	4	3	0	0	0	0	2.6	9.8
Dir	161	164	36	279	177	182	157	308	295	342	19	13	355	19	20	5	4	13	17	33	32	159	189	164	7	19
10 Spd	0	0	0	0	0	0	0	0	2	3	3	5	5	5	3	2	5	3	3	2	1	1	1	0	0.9	5.0
Dir	195	198	342	216	294	278	295	165	160	159	149	162	155	150	159	261	298	284	297	296	251	154	181	190	189	155
11 Spd	0	1	0	1	1	1	2	1	2	11	9	10	12	13	15	16	16	16	16	14	10	7	3	6	7.1	16.5
Dir	203	154	183	170	171	172	162	173	271	281	271	266	274	292	289	290	294	296	284	306	279	264	259	261	282	296
12 Spd	4	1	3	4	5	8	8	12	15	14	17	16	12	9	4	3	8	9	7	6	7	8	6	5	7.6	16.7
Dir	254	204	233	250	239	267	266	276	276	283	283	271	263	244	217	212	258	260	263	248	257	277	266	262	264	283
13 Spd	5	5	5	4	4	4	6	7	7	3	5	7	6	9	9	11	13	10	6	4	1	1	2	3	4.9	13.0
Dir	271	283	278	282	298	328	18	5	11	360	354	359	357	2	348	328	330	303	326	321	263	281	250	272	330	330
14 Spd	4	5	3	2	2	2	4	6	7	9	11	14	14	12	10	9	6	9	5	6	1	0	0	0	5.4	13.7
Dir	297	304	324	297	281	305	310	340	357	357	6	360	5	3	8	3	358	331	334	10	343	166	160	199	350	360
15 Spd	1	0	0	0	0	1	1	0	1	0	2	1	1	0	2	1	1	1	2	1	0	0	0	0	0.2	1.8
Dir	156	92	158	99	171	201	207	123	2	183	150	235	88	327	113	47	215	58	11	14	47	45	172	218	100	11
16 Spd	0	0	0	0	0	0	0	1	2	4	10	11	15	16	15	11	10	12	8	7	6	6	7	1	5.8	15.6
Dir	258	227	333	198	192	168	84	126	358	347	349	4	2	1	359	2	11	359	15	12	7	12	14	43	4	1
17 Spd	2	1	0	0	2	2	3	2	3	3	3	2	3	1	1	3	3	5	4	4	3	2	2	1	1.2	4.5
Dir	308	295	303	61	2	11	19	50	80	82	96	132	84	97	58	159	161	160	157	161	158	159	156	152	123	160
18 Spd	2	2	2	1	0	2	3	3	2	6	8	8	8	7	9	10	8	8	7	4	1	0	0	1	3.0	9.7
Dir	156	144	153	159	312	164	160	162	216	270	299	291	282	298	291	306	312	328	330	302	306	144	154	317	293	306
19 Spd	0	0	0	0	1	1	3	1	1	1	5	1	5	5	2	4	3	8	3	5	5	10	7	8	1.1	10.1
Dir	169	310	357	287	356	31	19	45	162	62	36	355	51	59	308	30	72	247	222	246	239	265	281	255	290	265
20 Spd	7	4	1	2	1	1	2	2	3	5	7	10	10	11	9	7	6	6	6	6	5	2	3	1	4.0	10.9
Dir	246	223	164	161	155	159	165	185	257	257	260	268	270	281	262	295	316	311	308	269	260	258	246	218	268	281
21 Spd	1	1	1	0	1	1	1	2	4	5	4	3	4	4	2	3	8	8	6	8	5	1	0	0	1.8	8.2
Dir	163	160	161	192	162	158	172	240	248	253	256	231	260	256	17	348	258	266	301	4	2	32	203	184	278	4
22 Spd	1	0	0	0	1	1	1	1	1	3	6	4	7	7	7	2	8	1	3	5	2	1	1	1	1.8	8.2
Dir	161	354	47	228	168	164	163	165	195	274	329	336	308	321	345	358	343	308	297	262	254	185	146	160	313	343

Hourly Averages

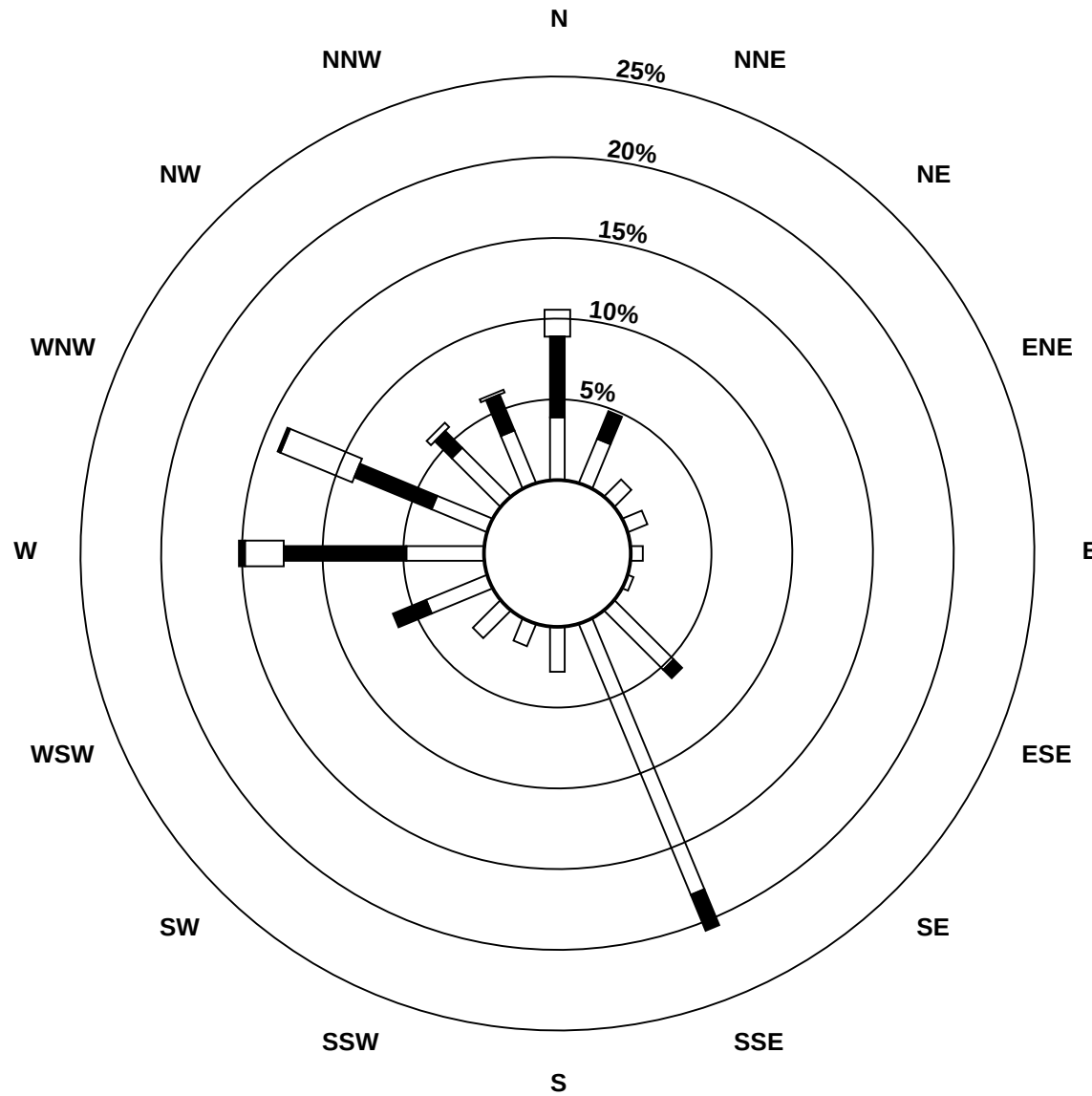
Wind Speed (km/h)
Wind Direction (deg)
Valleyview - June 2015

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
23 Spd	0	0	0	0	0	0	1	1	1	2	1	2	1	1	2	1	0	4	6	4	1	1	1	1	0.6	6.1			
Dir	165	171	164	339	189	334	197	153	158	154	185	137	1	159	348	36	313	288	266	262	236	213	172	156	237	266			
24 Spd	1	1	1	0	0	1	3	2	1	1	5	5	5	5	5	4	4	3	3	2	1	7	7	1	1.9	7.5			
Dir	162	161	164	174	163	181	160	161	163	176	256	282	270	294	305	319	316	328	312	290	207	274	293	157	279	274			
25 Spd	0	0	0	1	0	0	1	2	2	1	5	5	3	4	4	4	3	3	2	1	1	0	0	1	1.1	5.3			
Dir	145	153	88	165	164	175	159	156	159	210	283	319	261	297	338	267	253	271	192	183	219	164	166	165	259	283			
26 Spd	1	1	1	1	1	2	2	6	10	13	11	11	12	11	11	11	11	10	8	6	3	2	1	1	5.4	13.0			
Dir	159	169	164	152	158	210	219	260	282	289	284	292	289	279	293	290	294	291	297	299	313	278	173	147	284	289			
27 Spd	1	0	1	2	3	3	3	1	2	1	2	2	1	1	5	6	4	5	7	4	1	1	1	1	0.9	7.0			
Dir	165	199	170	162	160	158	159	157	146	139	139	138	6	102	11	19	53	9	1	2	26	312	170	160	58	1			
28 Spd	0	1	1	1	1	1	1	1	5	4	4	4	3	4	7	7	7	3	3	3	1	1	1	1	1.8	7.1			
Dir	210	192	158	158	157	150	142	313	323	266	267	324	326	327	338	345	343	0	7	18	360	344	333	330	332	338			
29 Spd	0	0	1	0	0	0	0	1	1	2	1	2	3	7	5	4	3	4	4	2	2	2	3	3	1.7	6.6			
Dir	316	332	172	329	167	208	267	13	357	356	62	143	147	145	144	147	141	145	155	141	143	148	150	152	143	145			
30 Spd	1	1	1	0	0	0	1	1	3	3	2	4	3	3	4	13	6	3	3	3	1	1	1	1	1.0	13.4			
Dir	339	3	149	133	318	156	348	151	166	162	190	272	319	14	352	288	250	231	156	164	215	177	153	227	258	288			
Spd	0.9	0.7	0.4	0.5	0.3	0.5	0.3	1.3	2.3	3.4	3.8	4.1	4.0	3.7	4.0	4.4	4.1	4.0	3.2	2.2	1.5	1.4	1.0	0.9	Diurnal Average				
Dir	238	246	240	239	274	281	240	283	288	284	293	290	296	301	313	311	309	298	300	301	268	256	257	234	Diurnal Maximum				
Spd	6.6	5.4	5.5	4.5	15.2	13.0	10.6	11.7	15.0	14.4	16.7	19.6	21.4	20.7	18.6	17.9	15.6	16.5	15.8	14.3	11.2	10.1	7.3	7.7	Diurnal Maximum				
Dir	246	283	278	310	1	3	1	276	276	287	283	278	272	284	284	296	294	296	284	306	277	265	261	255					
Maximum Speed Value: 21 km/h on Jun 8 13:00																		Minimum Speed Value: 0 km/h on Jun 3 05:00										Hours in Service: 720	
Maximum Daily Speed Average: 7.6 km/h on Jun 8																		Minimum Daily Speed Average: 0.2 km/h on Jun 15										Hours of Data: 720	
Maximum Diurnal Speed Average: 4.4 km/h at hour 16																		Minimum Diurnal Speed Average: 0.3 km/h at hour 7										Hours of Missing Data: 0	
Monthly Average Velocity: 2.08 km/h 292.0 deg																		Speed Percentiles: P ₁ = 0.1 P ₁₀ = 0.4 Q ₁ = 1.0 Median = 2.7 Q ₃ = 6.2 P ₉₀ = 10.7 P ₉₉ = 16.3										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	52		47		11		0		0		0		110																
NorthEast	32		2		0		0		0		0		34																
East	14		0		0		0		0		0		14																
SouthEast	82		18		0		0		0		0		100																
South	159		3		0		0		0		0		162																
SouthWest	40		5		0		0		0		0		45																
West	49		69		38		3		0		0		159																
NorthWest	59		26		11		0		0		0		96																
Total	487		170		60		3		0		0		720																

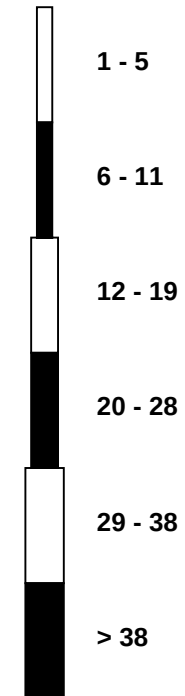
Wind Rose

Wind Speed (WS) (km/h)

Valleyview - June 2015



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Valleyview - June 2015

Maximum Speed: 22 km/h on Jun 8 13:00																				Maximum Daily Speed Average: 8.8 km/h on Jun 8										Hours in Service: 720	
Minimum Speed: 0 km/h on Jun 4 04:00																				Minimum Daily Speed Average: 1.4 km/h on Jun 15										Hours of Data: 720	
Maximum Diurnal Speed Average: 8.1 km/h at hour 14																				Minimum Diurnal Speed Average: 1.3 km/h at hour 3										Hours of Missing Data: 0	
Monthly Average Speed: 4.60 km/h																				Percentiles: P ₁ = 0.2 P ₁₀ = 0.6 Q ₁ = 1.2 Median = 3.3 Q ₃ = 6.6 P ₉₀ = 11.2 P ₉₉ = 17.0										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-Jun	1	1	2	2	16	13	11	9	9	7	6	5	4	3	3	5	5	5	5	3	2	0	1	2	5.0	15.6					
2-Jun	1	1	2	1	2	2	4	6	9	8	9	8	9	10	9	8	6	7	7	5	5	4	2	1	5.2	10.5					
3-Jun	2	1	1	0	0	1	0	2	2	3	4	4	5	6	4	3	6	7	7	6	4	4	4	1	3.2	7.1					
4-Jun	1	0	0	0	0	0	2	2	2	3	3	4	4	3	3	5	5	4	2	2	3	4	1	0	2.2	5.1					
5-Jun	0	0	1	2	1	1	2	2	5	11	11	10	8	10	12	11	12	9	9	11	11	4	1	1	6.0	12.3					
6-Jun	1	1	1	1	2	1	2	8	12	15	16	15	15	14	13	13	13	13	10	7	6	6	7	6	8.3	16.1					
7-Jun	6	5	3	3	6	6	6	9	11	13	14	13	11	13	14	14	16	14	10	6	3	0	0	0	8.2	15.5					
8-Jun	1	3	3	5	1	1	1	10	14	14	16	20	22	21	19	19	13	9	10	7	1	0	2	1	8.8	22.1					
9-Jun	1	1	1	1	1	0	1	2	4	4	6	6	10	11	7	6	10	7	5	3	0	0	0	0	3.6	10.5					
10-Jun	0	0	0	0	0	0	0	1	2	3	3	5	5	5	4	5	5	4	3	2	1	1	2	1	2.2	5.4					
11-Jun	2	1	1	1	1	1	2	2	4	12	10	11	13	14	15	16	16	17	16	15	10	8	3	6	8.2	17.3					
12-Jun	5	1	3	5	5	8	8	12	15	14	17	17	13	9	5	4	8	9	7	6	7	8	6	5	8.2	17.1					
13-Jun	6	6	6	4	4	4	6	7	7	4	6	8	7	9	10	12	13	11	6	6	2	2	2	3	6.2	13.3					
14-Jun	4	5	3	2	2	2	4	7	8	10	12	14	14	13	10	10	6	9	6	6	2	0	0	0	6.2	14.1					
15-Jun	1	1	0	0	0	1	1	1	1	2	2	3	2	3	3	2	2	3	3	1	0	0	0	0	1.4	2.9					
16-Jun	1	1	1	0	0	0	1	1	2	5	10	12	15	16	15	12	11	13	8	7	6	6	7	1	6.4	16.0					
17-Jun	2	1	0	1	2	2	3	3	4	4	4	3	5	3	3	4	3	5	5	4	3	2	2	1	2.8	4.7					
18-Jun	2	2	2	1	1	2	3	3	3	7	9	9	9	8	10	11	9	9	7	4	1	0	0	1	4.7	10.7					
19-Jun	1	0	1	1	1	1	3	1	1	2	5	5	6	6	4	5	3	9	4	5	6	11	8	8	4.1	11.1					
20-Jun	7	4	1	2	1	1	2	2	4	6	7	11	11	11	10	8	6	6	6	6	6	2	3	1	5.1	11.3					
21-Jun	1	1	1	0	1	1	1	2	4	5	5	4	4	5	5	5	8	9	7	9	6	1	1	1	3.6	8.9					
22-Jun	1	1	1	1	1	1	1	1	1	4	6	5	7	8	7	3	9	3	3	5	3	1	1	1	3.2	8.7					
23-Jun	0	0	0	0	0	0	1	1	2	2	2	3	2	3	3	2	2	5	6	4	1	1	1	1	1.8	6.3					
24-Jun	1	1	1	1	0	1	3	2	2	3	5	6	6	5	7	5	5	3	4	2	1	8	7	2	3.3	7.9					
25-Jun	1	1	0	1	0	0	1	2	2	2	6	6	4	5	5	5	4	4	3	1	1	0	0	1	2.3	5.9					
26-Jun	1	1	1	1	1	2	2	6	10	13	12	12	12	12	11	12	12	10	9	6	3	2	1	1	6.5	13.4					
27-Jun	1	0	1	2	3	3	3	2	2	2	2	2	3	2	6	7	4	6	7	4	1	1	1	1	2.7	7.1					
28-Jun	1	2	1	1	1	1	1	2	5	4	5	4	4	5	8	8	7	4	4	3	1	2	1	1	3.2	7.8					
29-Jun	1	0	1	0	0	0	0	2	1	2	2	2	3	7	5	4	3	4	4	2	2	2	3	3	2.3	6.7					
30-Jun	2	2	1	1	0	0	1	2	3	3	3	5	4	4	5	15	7	3	3	3	2	2	1	1	3.0	14.8					
1.7 1.5 1.3 1.3 1.8 2.0 2.6 3.6 5.0 6.1 7.3 7.7 8.0 8.1 7.8 7.9 7.7 7.3 6.2 5.2 3.3 2.8 2.4 1.7																									Diurnal Average						
6.9 5.5 5.6 4.9 15.6 13.2 10.8 12.1 15.3 14.8 17.1 20.2 22.1 21.5 19.2 19.1 16.2 17.3 16.2 14.8 11.4 11.1 8.0 7.9																									Diurnal Maximum						
All monthly, daily, and diurnal averages have been calculated using scalar methods																															

Hourly Standard Deviations

Wind Direction (WD) - deg

Valleyview - June 2015

Maximum Value: 98.7 deg on Jun 15 14:00																									Hours in Service: 720
Minimum Value: 4.4 deg on Jun 27 05:00																									Hours of Data: 720
Percentiles: P ₁ = 8.6 P ₁₀ = 12.9 Q ₁ = 16.8 Median = 28.6 Q ₃ = 50.9 P ₉₀ = 73.1 P ₉₉ = 92.7																									Hours of Missing Data: 0
																									Hours of Calibration: 0
																									Percent Operational Time: 100.0
Day	Hourly Period Ending At (MST)																								Daily Maximum
1-Jun	40	69	20	49	17	12	10	12	17	20	22	52	70	76	60	57	53	49	33	46	34	88	54	22	88.3
2-Jun	62	59	29	49	17	10	12	14	13	12	12	13	14	12	17	15	17	12	12	13	12	13	14	8	62.0
3-Jun	9	54	21	62	89	25	54	21	45	63	30	27	29	18	24	75	25	13	13	10	9	22	32	39	88.9
4-Jun	51	49	43	47	51	52	13	23	49	24	31	55	63	87	67	31	15	37	50	18	9	11	25	43	86.6
5-Jun	47	29	13	17	40	42	13	22	60	18	18	27	26	34	26	21	20	15	15	14	11	20	30	15	59.5
6-Jun	11	17	22	38	35	10	39	21	18	14	17	17	20	18	23	18	17	16	13	13	18	17	8	17	38.6
7-Jun	12	14	19	31	8	11	13	15	14	19	17	18	19	18	22	16	14	13	13	13	30	36	61	52	60.9
8-Jun	85	35	47	50	48	52	66	14	14	14	15	14	15	16	14	20	29	39	23	21	69	73	85	51	85.3
9-Jun	37	16	90	70	54	61	33	72	32	59	41	48	43	25	23	24	23	40	43	28	93	89	81	57	92.8
10-Jun	57	51	74	76	70	63	52	79	30	31	34	23	24	25	46	79	27	47	14	24	63	12	69	57	79.4
11-Jun	69	44	40	23	16	23	25	45	68	19	28	25	24	21	16	15	18	18	13	15	14	11	35	13	68.5
12-Jun	18	28	33	29	19	29	15	14	11	14	14	13	10	15	30	42	16	13	11	18	41	13	14	16	42.0
13-Jun	13	14	13	14	19	15	16	13	14	36	29	16	24	15	17	21	14	18	26	71	62	40	53	36	71.0
14-Jun	23	14	28	27	18	35	19	18	16	17	15	13	13	12	16	17	29	20	15	13	28	57	45	68	67.7
15-Jun	18	94	88	94	41	71	63	70	78	80	63	79	80	99	62	85	79	69	61	46	36	74	87	76	98.7
16-Jun	94	72	93	75	70	41	68	59	38	26	21	17	15	13	16	23	16	14	13	18	12	13	14	70	94.1
17-Jun	15	26	51	58	15	19	19	41	47	56	51	40	57	87	80	48	18	20	16	12	11	11	14	16	86.6
18-Jun	9	10	14	40	41	40	10	15	48	29	30	21	36	33	32	28	27	31	22	24	61	78	80	83	83.5
19-Jun	89	79	89	76	80	48	17	84	27	65	29	91	28	35	73	39	49	22	40	25	23	27	45	13	90.8
20-Jun	22	28	20	19	44	48	28	40	54	28	27	19	19	15	29	28	25	21	23	20	25	33	21	31	54.4
21-Jun	10	11	19	51	14	12	41	55	31	33	41	53	47	48	92	49	45	26	28	26	18	89	57	76	92.1
22-Jun	11	94	85	62	22	26	21	27	51	41	28	51	28	28	26	82	19	79	28	12	47	34	33	32	93.9
23-Jun	46	41	57	85	63	83	47	47	46	36	65	52	79	79	88	77	88	22	15	17	23	25	15	11	87.6
24-Jun	14	35	55	64	44	43	12	20	42	66	34	39	54	41	46	39	50	68	41	62	30	24	35	17	68.2
25-Jun	51	87	81	18	89	37	9	14	16	51	29	46	64	45	50	56	44	25	37	31	31	55	56	27	89.2
26-Jun	13	31	31	45	10	36	41	20	15	13	20	19	18	19	21	20	17	17	16	18	17	40	25	30	44.6
27-Jun	31	34	15	8	4	10	8	28	18	32	17	51	83	78	42	23	33	30	9	9	66	67	72	31	83.2
28-Jun	56	62	14	11	11	17	20	91	27	39	44	42	71	43	26	32	20	68	30	11	16	76	68	76	90.9
29-Jun	55	71	70	70	54	86	90	72	64	32	79	23	16	10	11	12	12	13	13	12	13	15	10	16	89.8
30-Jun	56	85	50	88	62	75	71	52	23	20	57	38	57	56	41	41	34	36	28	15	39	36	55	46	87.7
	94.1	93.9	92.7	93.6	89.2	85.9	89.8	90.9	78.0	80.3	78.8	90.8	83.2	98.7	92.1	85.1	87.6	78.7	61.5	71.0	92.8	88.8	87.2	83.5	

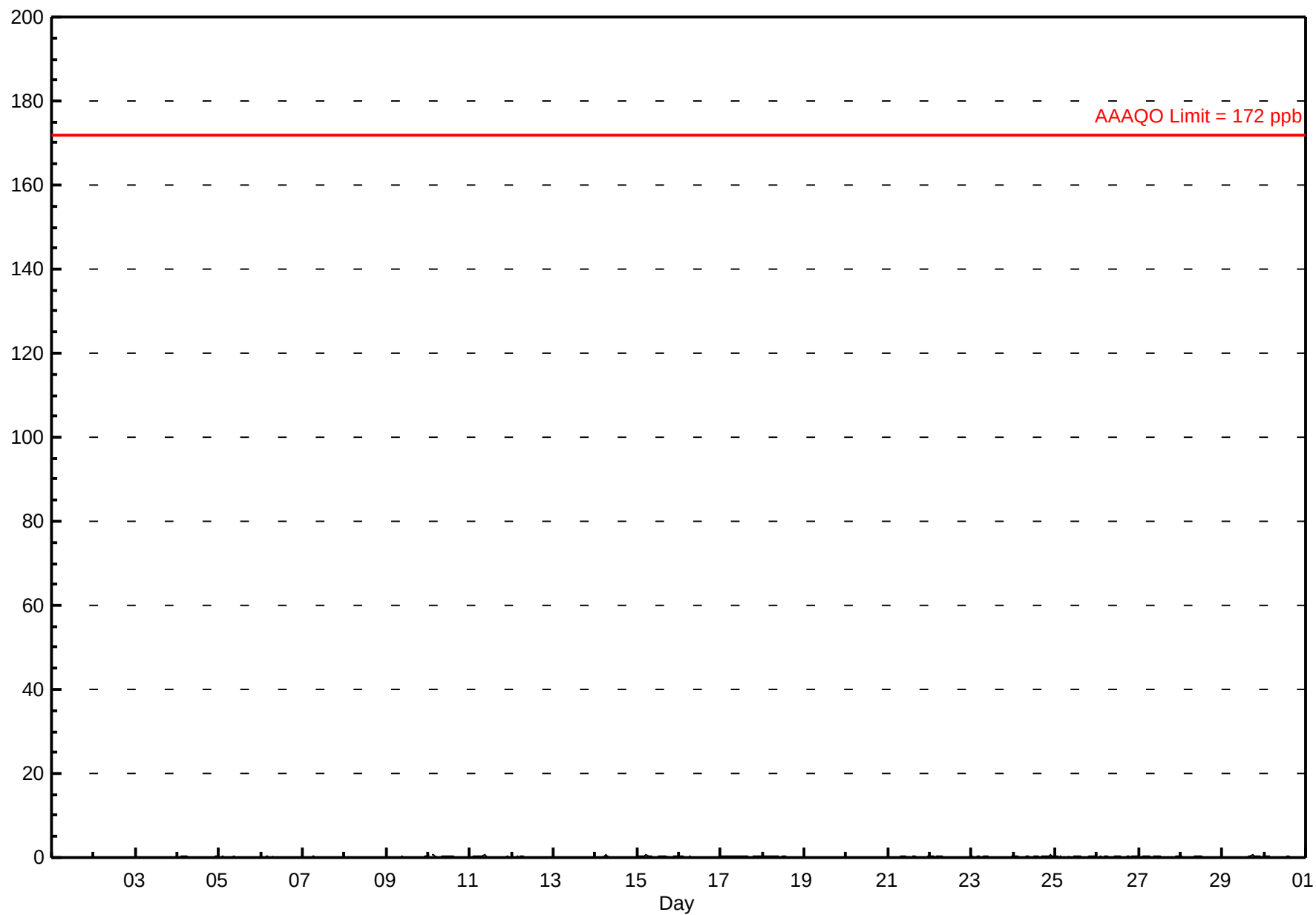
PAZA
Falher Station
Monthly Summary Tables, Graphs and
Roses

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 0.7 ppb on Jun 10 04:00 Maximum Daily Average: 0.4 ppb on Jun 17																								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 Jun 1 10:00 Minimum Daily Average: 0.0 ppb on Jun 13 Maximum Diurnal Average: 0.2 ppb at hour 1 Minimum Diurnal Average: 0.1 ppb at hour 18 Monthly Average: 0.12 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 0.3 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-Jun	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
2-Jun	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
3-Jun	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	0.1
4-Jun	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-Jun	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	0.2
6-Jun	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
7-Jun	0	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-Jun	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-Jun	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	0.5
10-Jun	1	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
11-Jun	A	0	0	0	0	0	0	0	1	0	0	0	C	C	C	C	0	0	0	0	0	0	0	A	0.2	0.5
12-Jun	0	0	0	0	0	0	0	0	0	0	0	C	C	C	C	0	0	0	0	0	0	0	A	0	0.1	0.2
13-Jun	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
14-Jun	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	0.5
15-Jun	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.2	0.6
16-Jun	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	0.5
17-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	0	0	0	0	0	0	0.4	0.5
18-Jun	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-Jun	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-Jun	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-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.1	0.3
22-Jun	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-Jun	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
24-Jun	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	0	0	0.2	0.7
25-Jun	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
26-Jun	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-Jun	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	0.5
28-Jun	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
29-Jun	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0.1	0.6
30-Jun	0	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
																								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

Falher - June 2015



Hourly Maximums

Sulphur Dioxide (SO₂) - ppb

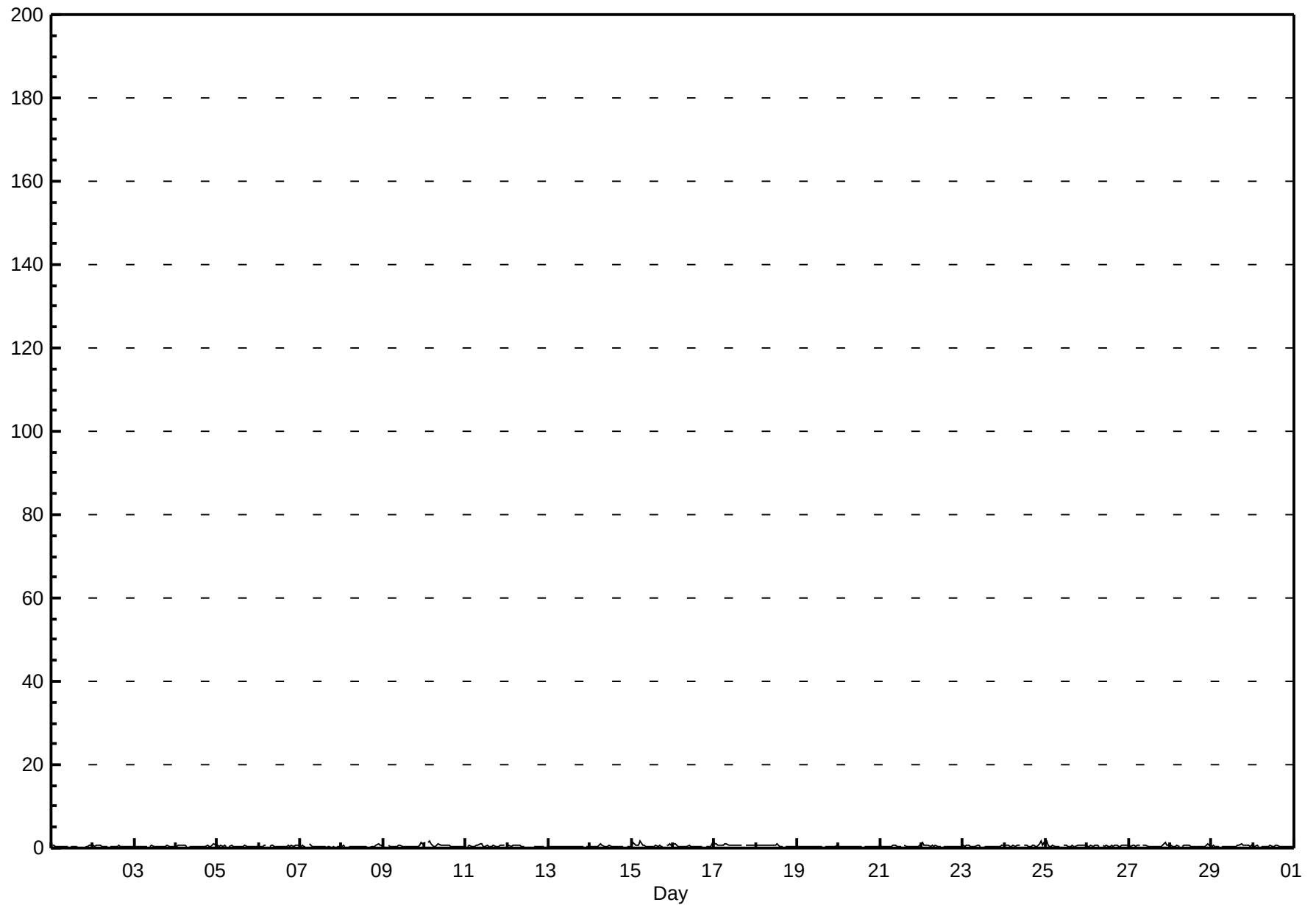
Falher - June 2015

Maximum Value: 1.8 ppb on Jun 24 22:00																				Maximum Daily Average: 0.8 ppb on Jun 17										Hours in Service: 720	
Minimum Value: 0 ppb on Jun 7 19:00																				Minimum Daily Average: 0.2 ppb on Jun 13										Hours of Data: 685	
Maximum Diurnal Average: 0.6 ppb at hour 24																				Minimum Diurnal Average: 0.4 ppb at hour 19										Hours of Missing Data: 35	
Monthly Average: 0.47 ppb																				Percentiles: P ₁ = 0.2 P ₁₀ = 0.3 Q ₁ = 0.3 Median = 0.4 Q ₃ = 0.6 P ₉₀ = 0.7 P ₉₉ = 1.4										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-Jun	1	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	1	0.4	0.6					
2-Jun	1	0	1	1	1	0	1	0	0	A	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0.4	0.6					
3-Jun	0	0	0	0	0	0	0	0	A	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0.4	0.7					
4-Jun	0	1	1	1	1	1	0	A	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	0.5	1.2					
5-Jun	1	0	1	0	1	0	A	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0.4	0.7					
6-Jun	0	0	0	1	1	A	0	1	1	0	0	0	0	0	0	0	0	1	0	1	0	1	1	1	0.4	0.6					
7-Jun	1	1	0	0	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.9					
8-Jun	0	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0.4	1.1					
9-Jun	0	0	A	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1	1	0.5	1.4					
10-Jun	1	A	2	2	1	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0.7	1.6					
11-Jun	A	0	1	0	0	0	1	1	1	1	0	0	1	0	0	0	1	0	0	0	1	1	1	A	0.5	1.1					
12-Jun	0	1	0	1	1	1	1	1	0	0	0	C	C	C	C	0	0	0	0	0	0	0	A	0	0.4	0.6					
13-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.2	0.3					
14-Jun	0	0	0	0	0	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	A	0	0	0	0.4	1.0					
15-Jun	0	1	1	1	1	2	1	1	0	0	0	0	0	0	1	0	1	0	0	A	1	1	1	1	0.6	1.5					
16-Jun	1	1	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	A	0	0	0	0	2	0.5	1.6					
17-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0.8	1.2					
18-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	A	0	0	0	0	0	0	0	0	0.5	0.9					
19-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	1	0.3	0.6					
20-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.3	0.5					
21-Jun	1	0	0	0	0	0	0	1	1	1	0	0	0	A	1	0	0	0	0	0	0	0	0	1	0.5	0.8					
22-Jun	1	1	1	1	1	0	1	0	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.5	1.2					
23-Jun	1	0	1	1	0	0	0	1	1	1	0	A	0	0	0	0	0	0	0	0	0	0	1	1	0.4	0.8					
24-Jun	1	1	1	0	0	1	0	1	1	1	A	1	1	1	0	0	1	1	0	0	1	2	1	1	0.6	1.8					
25-Jun	2	1	0	0	1	0	0	0	1	A	1	1	1	1	0	1	0	0	1	1	1	1	1	1	0.6	1.6					
26-Jun	0	0	1	0	1	1	1	0	A	1	0	1	0	0	1	0	1	1	0	1	1	1	1	1	0.5	0.8					
27-Jun	1	0	1	1	0	1	1	A	1	1	1	0	0	0	0	0	0	0	0	0	1	1	1	1	0.5	1.2					
28-Jun	1	0	0	1	1	0	A	0	1	1	1	1	0	0	0	0	0	0	0	0	0	1	1	0	0.5	0.8					
29-Jun	0	1	0	0	0	A	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	1	0.5	1.1					
30-Jun	0	0	1	0	A	0	0	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0.4	0.6					
0.6 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.6 0.5 0.6																								Diurnal Average							
1.6 1.2 1.5 1.6 0.9 1.5 1.0 0.9 1.1 0.9 0.8 0.7 0.9 0.8 0.6 0.8 0.7 1.1 0.8 0.7 1.0 1.8 1.4 1.6																								Diurnal Maximum							
C - Calibration A - Automated Daily Zero Span																															

Hourly Maximums

Sulphur Dioxide (SO₂) - ppb

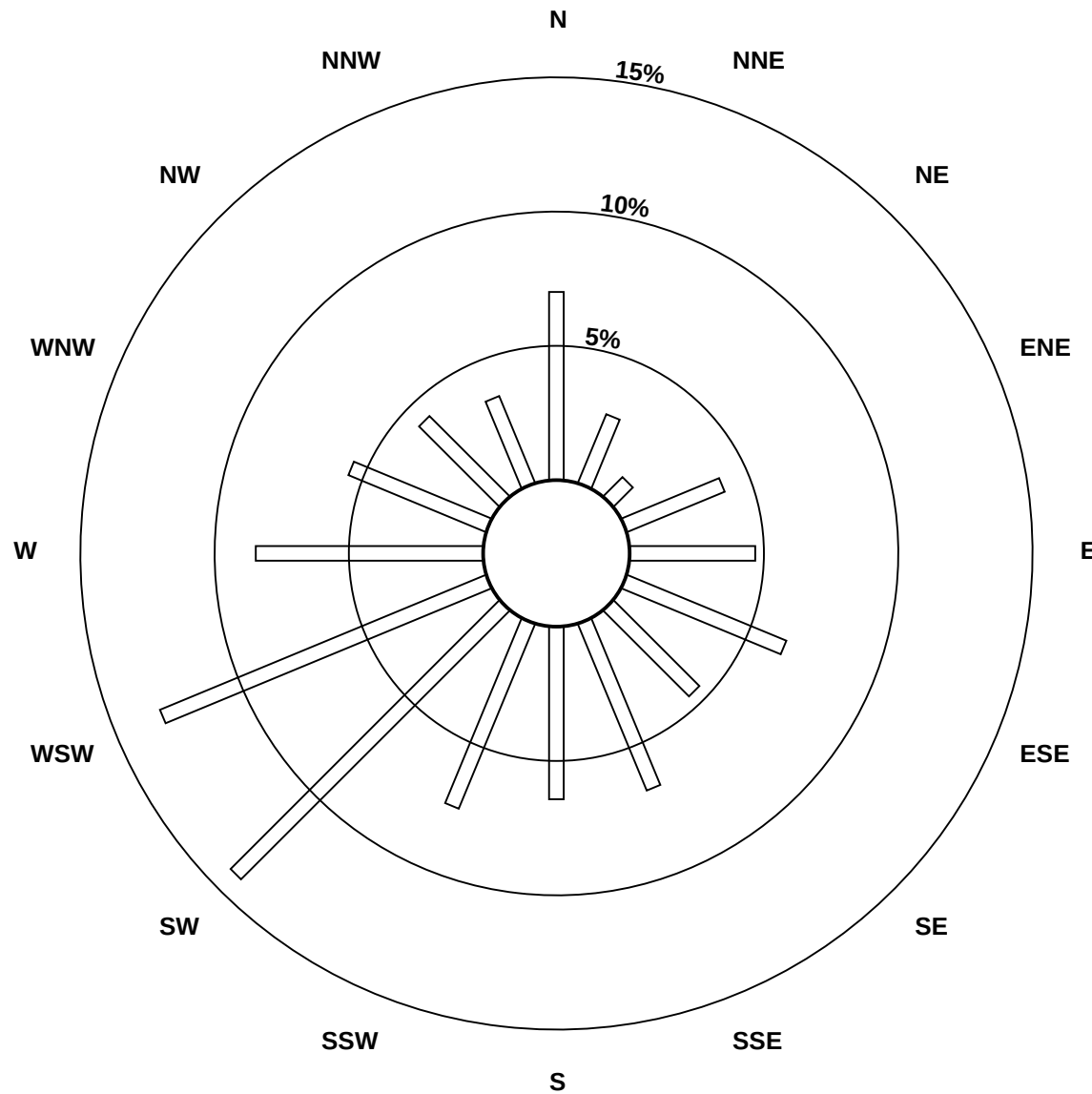
Falher - June 2015



Pollutant Rose

Sulphur Dioxide (SO₂) - ppb

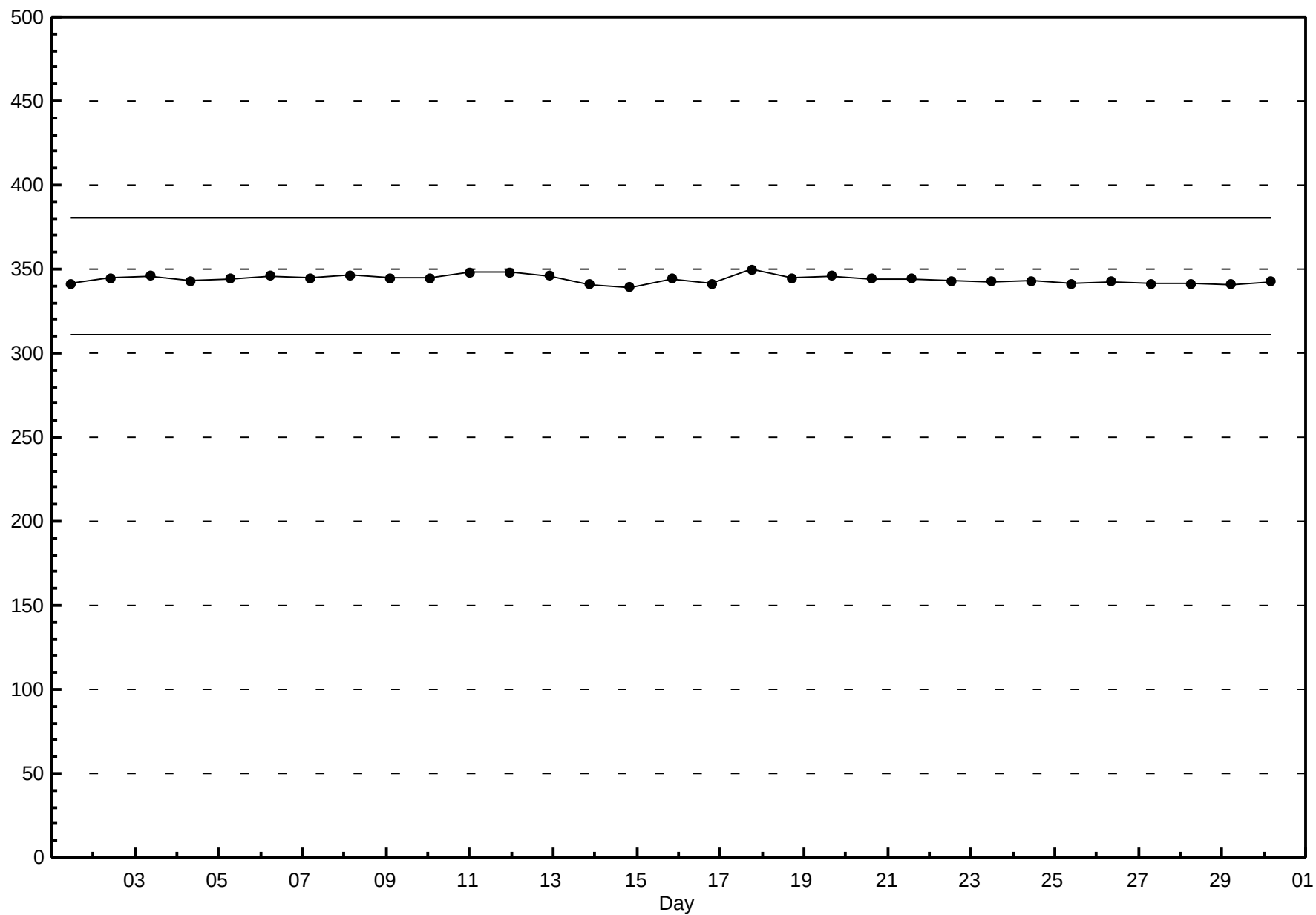
Falher - June 2015



Span Responses

Sulphur Dioxide (SO₂)

Falher - June 2015



Hourly Averages

Hydrogen Sulphide (H₂S) - ppb

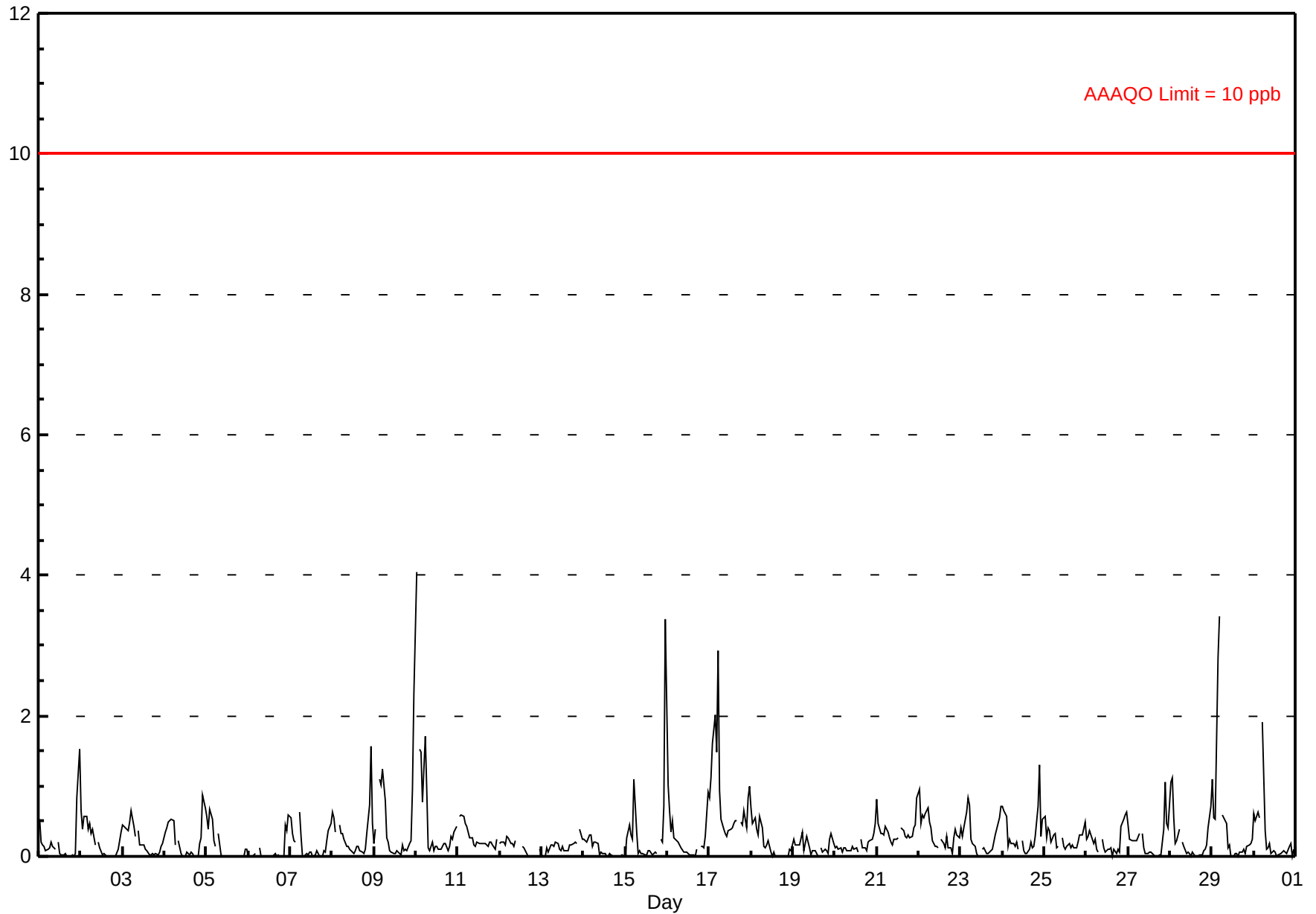
Falher - June 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0																				Hours in Service: 720							
Maximum Value: 4.1 ppb on Jun 10 01:00																				Maximum Daily Average: 0.8 ppb on Jun 17		Hours of Data: 686					
Minimum Value: 0 ppb on Jun 1 17:00																				Minimum Daily Average: 0.1 ppb on Jun 6		Hours of Missing Data: 34					
Maximum Diurnal Average: 0.6 ppb at hour 24																				Minimum Diurnal Average: 0.1 ppb at hour 18		Hours of Calibration: 34					
Monthly Average: 0.27 ppb																				Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.2 Q ₃ = 0.3 P ₉₀ = 0.6 P ₉₉ = 1.9		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-Jun	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	2	0.2	1.5	
2-Jun	1	0	1	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
3-Jun	0	0	0	0	0	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
4-Jun	0	0	0	1	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.2	0.9	
5-Jun	1	0	1	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.7
6-Jun	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	0.6	
7-Jun	1	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6	
8-Jun	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0.3	1.6	
9-Jun	0	0	A	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0.4	2.3	
10-Jun	4	A	2	1	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	4.1	
11-Jun	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.3	0.6	
12-Jun	0	0	0	0	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0	A	0	0	0.1	0.3	
13-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.4	
14-Jun	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-Jun	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	1	3	0.3	3.4	
16-Jun	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	1	0.2	1.0	
17-Jun	1	1	2	2	1	3	1	1	0	0	0	0	0	0	1	1	A	0	0	0	1	0	1	1	0.8	2.9	
18-Jun	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	A	A	0	0	0	0	0	0	0	0.2	0.7	
19-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.1	0.3	
20-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.2	0.5	
21-Jun	1	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	0.8	
22-Jun	1	0	1	1	1	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.3	1.0	
23-Jun	0	0	0	1	1	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	1	0.3	0.8	
24-Jun	1	1	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	1	0	1	0.3	1.3	
25-Jun	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6	
26-Jun	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0.2	0.6	
27-Jun	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.2	1.1	
28-Jun	1	1	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	1.1	
29-Jun	1	1	1	3	3	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	3.4	
30-Jun	1	1	1	1	A	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.9	
		0.6	0.4	0.5	0.5	0.6	0.3	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	0.3	0.4	0.6	Diurnal Average		
		4.1	1.1	1.6	2.8	3.4	2.9	1.0	0.5	0.4	0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.3	0.5	0.4	0.7	1.3	1.6	3.4	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb																											

Hourly Averages

Hydrogen Sulphide (H₂S) - ppb

Falher - June 2015



Hourly Maximums

Hydrogen Sulphide (H₂S) - ppb

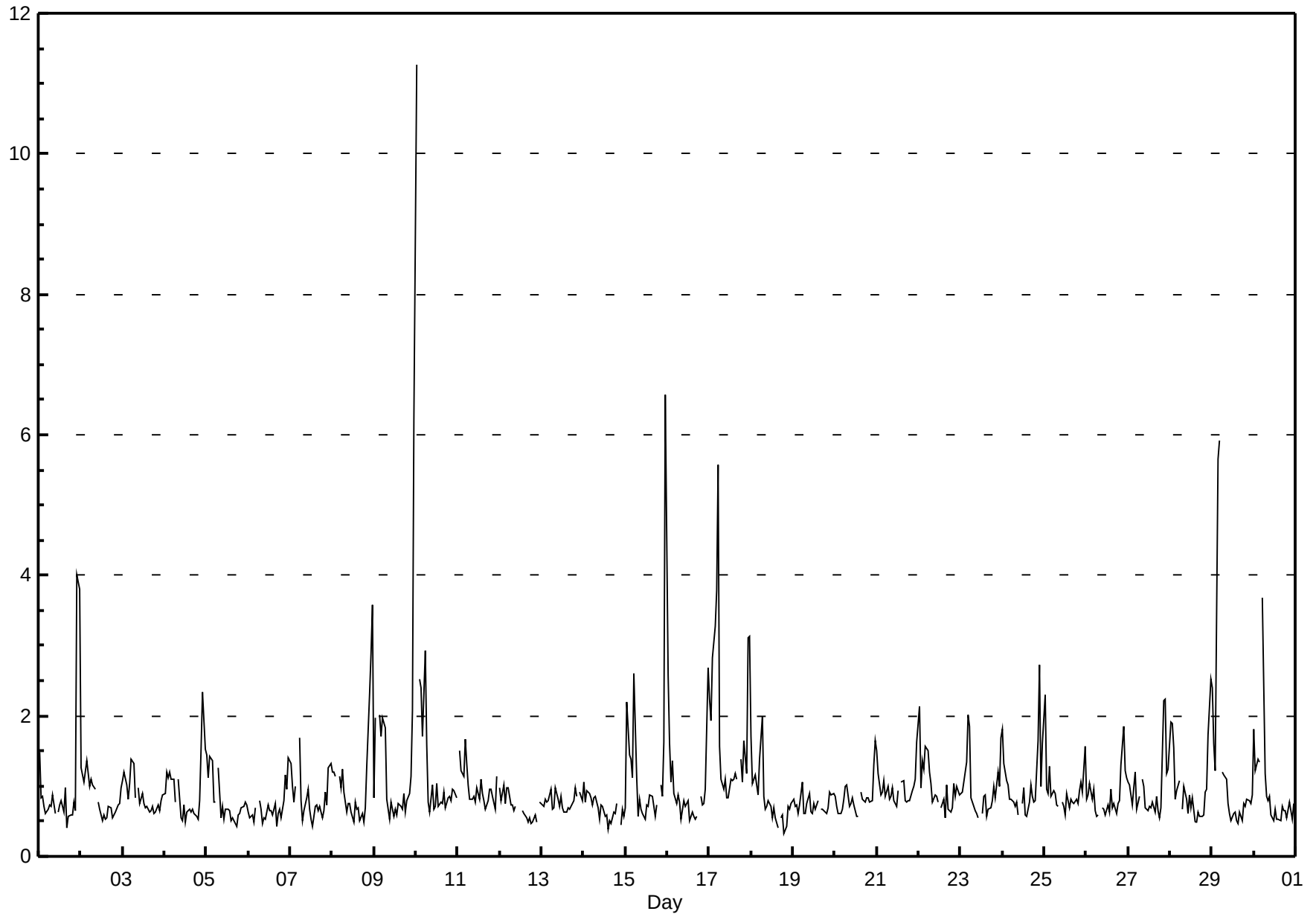
Falher - June 2015

Maximum Value: 11.3 ppb on Jun 10 01:00																				Maximum Daily Average: 1.9 ppb on Jun 17					Hours in Service: 720	
Minimum Value: 0 ppb on Jun 18 20:00																				Minimum Daily Average: 0.7 ppb on Jun 14					Hours of Data: 686	
Maximum Diurnal Average: 1.8 ppb at hour 24																				Minimum Diurnal Average: 0.7 ppb at hour 18					Hours of Missing Data: 34	
Monthly Average: 0.99 ppb																				Percentiles: P ₁ = 0.4 P ₁₀ = 0.6 Q ₁ = 0.7 Median = 0.8 Q ₃ = 1.0 P ₉₀ = 1.5 P ₉₉ = 3.5					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-Jun	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0	1	1	1	1	1	4	4	1.0	4.0
2-Jun	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.4
3-Jun	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.4
4-Jun	1	1	1	1	1	1	1	A	1	1	1	1	0	1	1	1	1	1	1	1	1	2	2	2	0.9	2.3
5-Jun	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0.8	1.4
6-Jun	1	1	1	0	1	A	1	1	0	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0.7	1.4
7-Jun	1	1	1	1	A	2	1	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0.8	1.7
8-Jun	1	1	1	A	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0	1	1	2	3	4	1.1	3.6
9-Jun	1	2	A	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	6	1.3	6.2
10-Jun	11	A	3	2	2	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.6	11.3
11-Jun	A	2	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1.0	1.7
12-Jun	1	1	1	1	1	1	1	1	1	1	C	C	C	1	1	1	0	1	0	0	1	0	A	1	0.7	1.0
13-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.8	1.0
14-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	1	1	1	A	0	1	1	0.7	1.1
15-Jun	1	2	1	1	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	2	7	1.3	6.6
16-Jun	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	3	1.0	2.7
17-Jun	2	2	3	3	4	6	2	1	1	1	1	1	1	1	1	1	1	A	1	1	2	1	3	3	1.9	5.6
18-Jun	2	1	1	1	1	1	2	1	1	1	1	1	1	1	1	0	A	1	1	0	0	1	1	1	0.8	2.0
19-Jun	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	1.1
20-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	2	0.8	1.7
21-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	2	1.0	1.6
22-Jun	2	1	1	1	2	2	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1.0	2.1
23-Jun	1	1	1	1	2	2	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	2	1.0	2.0
24-Jun	2	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	2	3	1	2	1.0	2.7
25-Jun	2	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	2	0.9	2.3
26-Jun	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	0.9	1.8
27-Jun	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1.0	2.2
28-Jun	2	2	2	1	1	1	A	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	2	3	1.0	2.5
29-Jun	2	2	1	6	6	A	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1.3	5.9
30-Jun	2	1	1	1	A	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	3.7
1.7 1.2 1.2 1.3 1.3 1.5 1.0 0.8 0.8 0.8 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.9 1.1 1.3 1.8																									Diurnal Average	
11.3 2.2 2.8 5.7 5.9 5.6 2.0 1.3 1.1 1.1 1.0 1.0 1.1 1.1 1.1 1.2 1.1 0.9 1.4 1.1 2.2 2.7 4.0 6.6																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										

Hourly Maximums

Hydrogen Sulphide (H₂S) - ppb

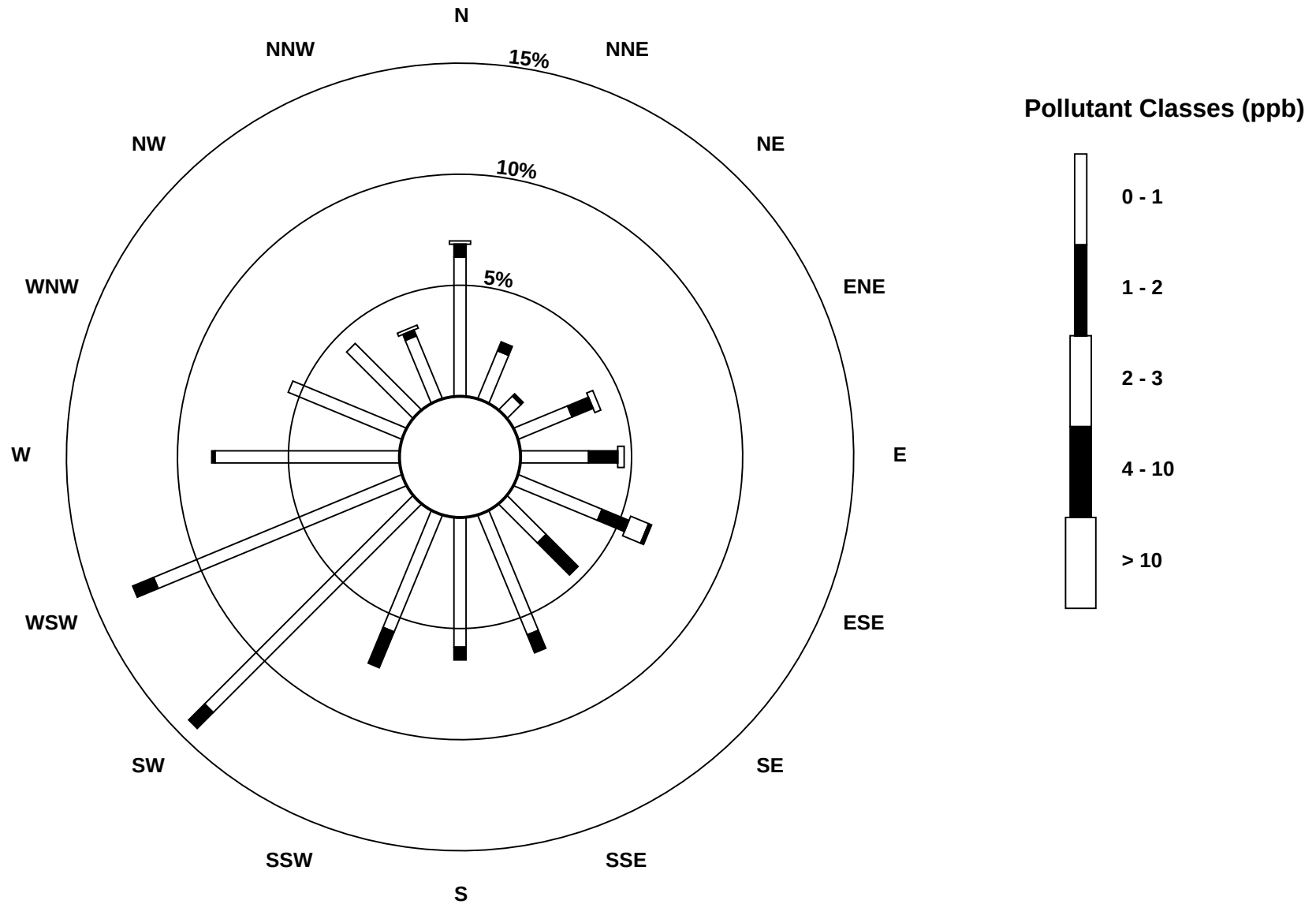
Falher - June 2015



Pollutant Rose

Hydrogen Sulphide (H₂S) - ppb

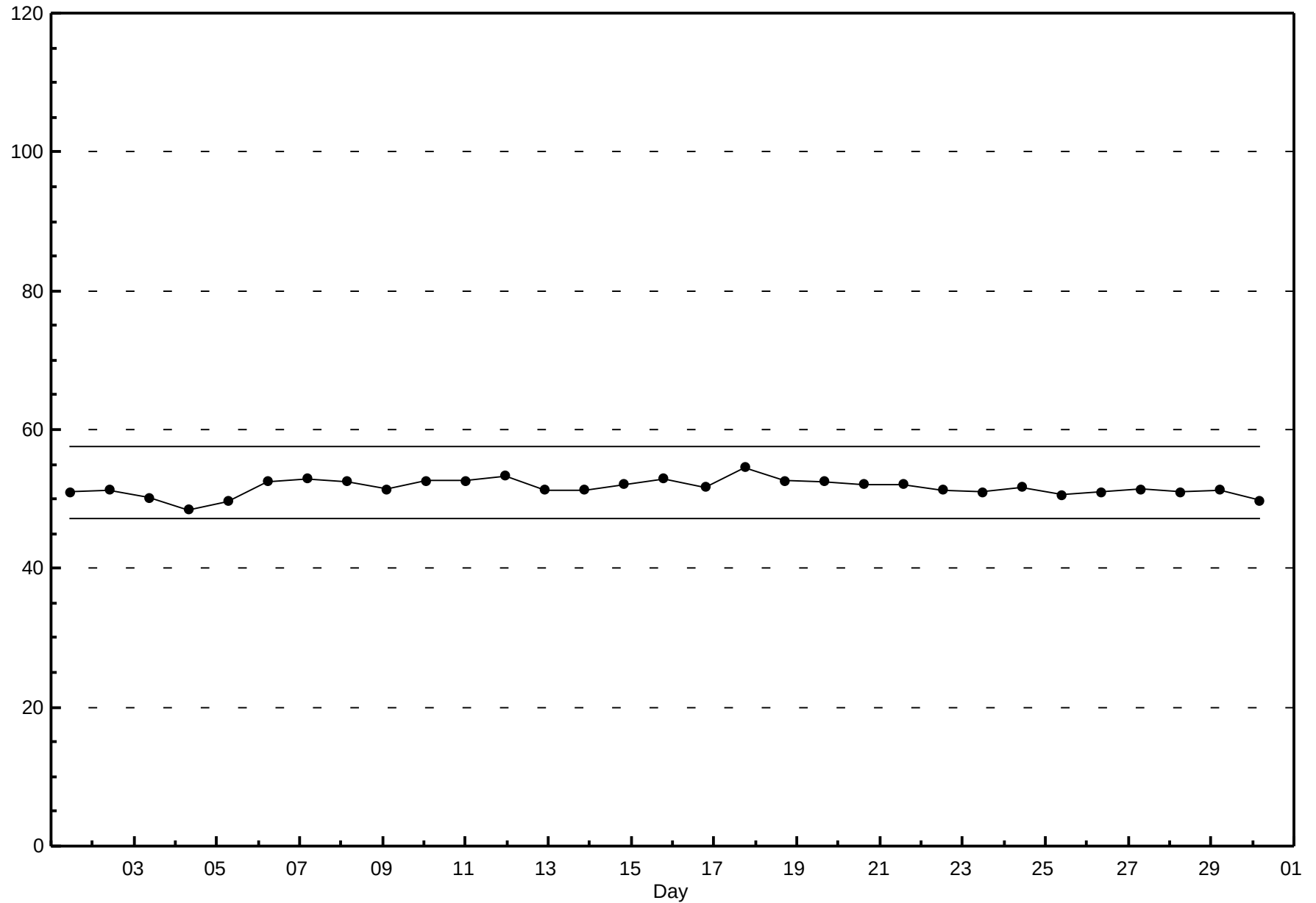
Falher - June 2015



Span Responses

Hydrogen Sulphide (H₂S)

Falher - June 2015



Hourly Averages

External Temperature (ET) - °C

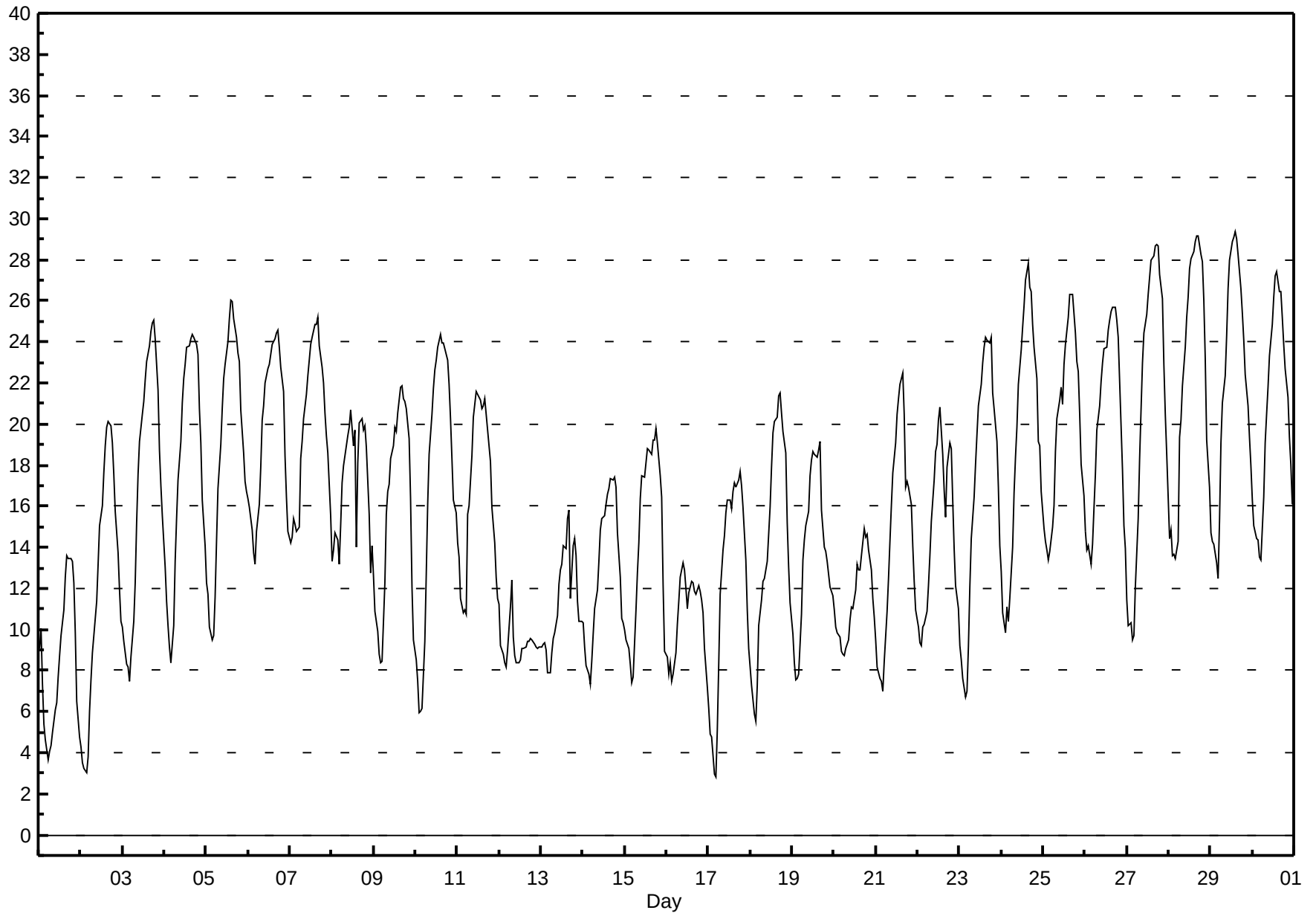
Falher - June 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 29.4 °C on Jun 29 15:00 Maximum Daily Average: 22.2 °C on Jun 28																								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 Jun 17 05:00 Maximum Diurnal Average: 21.4 °C at hour 17 Monthly Average: 16.10 °C												Minimum Daily Average: 8.5 °C on Jun 1 Minimum Diurnal Average: 9.3 °C at hour 5 Percentiles: P ₁ = 4.0 P ₁₀ = 8.5 Q ₁ = 11.1 Median = 15.7 Q ₃ = 20.8 P ₉₀ = 24.2 P ₉₉ = 28.9														
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-Jun	9	10	7	5	5	4	4	4	5	6	6	8	9	10	11	13	14	13	13	13	12	10	7	5	8.5	13.6
2-Jun	4	4	3	3	4	6	8	9	11	11	13	15	16	18	19	20	20	20	19	18	16	14	12	10	12.1	20.1
3-Jun	10	9	8	8	7	9	10	12	15	18	19	20	21	22	23	24	24	25	25	24	22	19	17	16	17.0	25.0
4-Jun	13	11	10	9	8	10	13	15	17	19	21	22	23	24	24	24	24	24	24	23	21	19	16	14	18.0	24.3
5-Jun	12	12	10	10	10	12	14	17	19	21	22	23	24	25	26	26	25	24	23	23	21	19	17	17	18.8	26.0
6-Jun	16	16	15	14	13	15	16	18	20	21	22	23	23	23	24	24	24	25	24	23	22	18	16	15	19.6	24.6
7-Jun	14	15	15	15	15	15	18	19	20	21	22	23	24	24	25	25	25	24	23	22	21	19	19	16	20.0	25.2
8-Jun	13	14	15	14	13	15	17	18	19	19	20	21	19	20	14	18	20	20	20	20	19	16	13	14	17.1	20.7
9-Jun	13	11	10	9	8	8	12	16	17	17	18	19	20	20	21	22	22	21	21	21	19	16	12	9	15.9	21.9
10-Jun	9	7	6	6	6	9	13	16	19	20	22	23	23	24	24	24	24	24	23	22	20	18	16	16	17.3	24.4
11-Jun	14	14	11	11	11	11	16	16	18	20	21	22	21	21	21	21	21	20	19	18	16	14	13	11	16.7	21.6
12-Jun	11	9	9	8	8	9	11	12	10	9	8	8	9	9	9	9	9	9	10	9	9	9	9	9	9.3	12.4
13-Jun	9	9	9	9	8	8	9	10	10	11	12	13	13	14	14	15	16	12	14	14	14	11	10	10	11.4	15.8
14-Jun	10	9	8	8	7	8	10	11	12	13	15	15	16	16	17	17	17	17	17	17	15	13	11	10	12.9	17.4
15-Jun	10	10	9	8	7	8	11	13	14	16	17	17	18	19	19	19	19	19	20	19	17	16	12	9	14.5	19.8
16-Jun	9	8	8	7	8	9	10	11	13	13	13	12	11	12	12	12	12	12	12	12	11	11	9	7	10.6	13.3
17-Jun	6	5	5	3	3	5	8	12	14	15	16	16	16	16	17	17	17	17	18	17	16	13	11	9	12.1	17.7
18-Jun	8	7	6	6	7	10	11	12	12	13	13	16	18	20	20	20	21	22	21	20	19	15	13	11	14.2	21.5
19-Jun	10	8	8	8	8	11	13	14	15	16	17	18	19	19	18	19	19	16	14	14	13	13	12	12	13.9	19.2
20-Jun	11	10	10	10	9	9	9	9	10	10	11	11	12	13	13	13	14	15	14	15	14	13	11	11	11.5	14.9
21-Jun	9	8	8	7	7	8	11	12	14	16	18	19	20	21	22	22	20	17	17	17	16	14	12	11	14.6	22.5
22-Jun	10	9	9	10	10	11	12	14	15	17	19	19	20	21	19	17	15	18	19	19	16	14	12	11	14.9	20.8
23-Jun	9	8	8	7	7	9	12	14	16	18	19	21	22	23	24	24	24	24	24	22	21	19	17	14	17.0	24.2
24-Jun	13	11	10	11	10	11	14	17	18	20	22	24	25	26	27	28	27	26	25	24	22	19	19	17	19.4	27.9
25-Jun	15	14	14	13	14	15	16	19	20	21	22	21	23	24	25	26	26	26	24	23	23	20	18	17	20.0	26.3
26-Jun	15	14	14	13	14	16	18	20	21	22	23	24	24	25	25	25	26	26	25	24	22	18	15	14	20.1	25.7
27-Jun	11	10	10	10	10	12	15	18	21	23	24	25	26	27	28	28	29	29	29	27	26	23	20	19	20.9	28.7
28-Jun	14	15	14	14	13	14	19	20	22	24	25	26	28	28	28	29	29	29	28	28	26	23	19	17	22.2	29.2
29-Jun	15	14	14	13	12	15	19	21	22	24	27	28	29	29	29	29	28	27	25	24	22	21	19	18	22.0	29.4
30-Jun	16	15	14	14	14	13	16	19	20	22	23	25	26	27	27	26	26	25	24	23	21	19	18	16	20.6	27.4
11.3 10.6 9.9 9.4 9.3 10.5 12.9 14.6 16.0 17.3 18.4 19.2 19.9 20.6 20.8 21.2 21.4 20.9 20.5 19.8 18.4 16.3 14.2 12.8																								Diurnal Average		
16.4 16.0 15.4 15.1 14.8 15.9 19.3 21.1 22.4 24.3 26.6 28.0 28.9 29.1 29.4 29.0 29.2 29.2 28.7 27.9 26.1 23.2 20.5 18.5																								Diurnal Maximum		

Hourly Averages

External Temperature (ET) - °C

Falher - June 2015



Hourly Averages

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

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	3	16	27	25	18	19	14	17	15	15	11	10	8	6	4	5	6	4	5	3	4	9	10	9	7.9	27.2
Dir	84	354	335	322	324	325	315	315	315	313	303	299	297	291	315	292	292	335	337	187	63	91	131	106	325	335
2 Spd	9	9	13	15	13	13	19	23	25	25	26	27	29	26	27	26	29	28	32	33	27	24	18	15	21.6	32.7
Dir	76	62	83	92	79	90	113	112	113	113	115	114	111	124	118	121	108	114	103	103	100	99	93	92	106	103
3 Spd	17	15	11	14	13	12	17	13	8	7	10	10	13	10	9	10	13	18	24	23	21	17	12	12	11.3	23.8
Dir	90	88	72	79	71	73	101	109	121	98	117	94	94	104	150	132	125	174	156	146	159	156	163	173	122	156
4 Spd	11	12	11	10	8	8	9	8	11	16	15	12	13	12	10	11	14	19	18	10	4	2	9	6	9.5	19.3
Dir	173	170	167	160	134	147	152	180	158	165	176	165	156	178	167	176	147	143	161	269	296	142	241	175	167	143
5 Spd	10	13	12	12	13	13	15	17	16	18	21	21	23	24	26	27	29	28	30	32	22	16	15	18	16.3	32.0
Dir	144	164	137	144	153	160	191	218	230	238	239	232	227	239	247	251	243	245	263	260	237	224	218	212	227	260
6 Spd	19	20	17	16	16	17	20	26	31	30	25	25	24	22	23	25	22	21	25	24	16	11	11	15	19.4	30.6
Dir	226	235	232	218	217	233	237	248	266	279	270	272	265	256	265	267	271	274	283	286	283	267	240	213	258	266
7 Spd	12	14	15	13	9	6	13	23	25	23	20	22	21	22	22	22	28	31	34	27	17	14	10	13	18.0	33.5
Dir	225	224	223	219	230	253	260	261	267	271	261	253	246	254	264	251	238	230	235	241	236	215	204	196	243	235
8 Spd	12	13	17	16	15	18	22	28	31	24	21	25	31	25	21	15	15	16	14	11	7	6	10	13	14.7	31.0
Dir	200	234	252	245	232	247	258	265	275	273	276	263	242	281	333	287	261	230	267	294	283	85	115	329	264	242
9 Spd	7	5	6	1	5	7	8	8	10	13	13	12	11	16	13	15	13	15	12	10	7	1	6	8	6.1	16.5
Dir	49	81	126	350	19	13	357	347	1	5	11	4	343	314	290	290	285	328	307	290	332	68	132	110	340	314
10 Spd	7	7	7	7	10	12	11	14	13	12	12	16	15	16	15	15	15	20	15	14	11	12	15	14	9.8	19.9
Dir	103	95	87	77	82	90	108	142	137	146	162	163	170	166	185	188	214	212	215	195	167	173	172	175	162	212
11 Spd	16	16	13	12	11	9	10	14	17	21	27	33	33	30	29	32	31	36	31	27	21	18	16	19	20.2	35.8
Dir	203	207	206	191	184	174	223	193	218	241	246	241	243	244	253	245	240	259	268	261	239	233	234	225	237	259
12 Spd	16	13	16	15	14	15	17	27	26	22	20	22	25	28	26	25	24	25	22	18	15	13	10	9	18.5	27.7
Dir	221	216	212	218	222	215	234	253	246	234	236	217	214	214	229	252	253	254	253	246	242	241	243	250	235	214
13 Spd	7	5	6	10	10	8	13	11	9	9	10	11	16	19	20	21	22	12	5	10	13	13	11	14	9.7	21.7
Dir	265	299	357	22	3	352	358	1	358	350	8	335	314	325	315	305	307	20	250	271	303	282	262	279	322	307
14 Spd	12	13	13	12	11	15	20	21	22	20	23	25	22	23	20	17	21	18	13	14	16	13	11	13	15.6	24.9
Dir	294	286	284	292	306	333	342	350	349	350	352	350	354	358	351	354	4	8	14	2	5	359	338	344	345	350
15 Spd	7	4	6	7	1	4	5	8	5	4	6	7	3	7	2	8	4	4	4	8	8	7	6	8	2.2	8.3
Dir	3	351	308	328	279	271	316	351	20	5	322	319	270	300	290	272	336	101	235	226	207	192	164	109	301	109
16 Spd	4	7	8	13	13	14	15	16	17	21	22	22	19	17	15	20	23	20	17	14	9	5	3	3	13.7	23.4
Dir	75	44	360	349	2	10	14	19	12	356	353	353	2	11	18	2	349	2	19	11	0	1	343	351	5	349
17 Spd	6	8	7	6	4	2	2	3	4	4	4	8	7	7	4	7	7	8	7	14	17	14	13	14	5.3	16.6
Dir	351	345	340	349	30	74	184	74	46	87	114	109	84	59	105	113	125	117	123	114	114	112	112	102	94	114
18 Spd	14	13	12	13	14	14	16	16	13	9	4	6	9	12	11	9	9	8	8	9	12	11	10	9	2.2	16.5
Dir	103	96	95	96	91	104	115	143	175	215	222	259	253	278	280	250	295	287	328	359	32	35	26	39	89	115
19 Spd	9	10	10	7	8	11	23	23	24	24	24	26	29	26	24	23	21	17	16	12	14	9	6	8	10.3	28.7
Dir	40	18	21	41	23	56	71	75	70	69	70	71	75	73	68	70	78	184	215	240	274	265	246	194	71	75
20 Spd	17	16	11	13	13	11	12	12	9	7	4	7	6	4	6	6	6	4	8	8	9	10	4	7	7.8	16.6
Dir	191	232	211	201	208	193	186	200	192	215	236	239	265	244	186	198	235	256	233	238	264	273	221	196	216	191
21 Spd	4	11	10	11	9	9	12	11	14	13	12	15	14	16	17	17	18	15	4	11	10	6	10	7	9.8	18.2
Dir	199	178	181	182	186	200	218	218	234	237	237	233	237	233	235	238	300	309	219	216	244	233	212	248	230	300
22 Spd	6	10	11	7	4	7	6	9	7	5	9	11	9	9	13	12	9	10	11	11	9	9	10	6	6.6	12.9
Dir	243	222	197	202	222	213	236	288	312	341	290	303	286	294	298	282	270	263	254	255	238	197	189	183	256	298



Hourly Averages

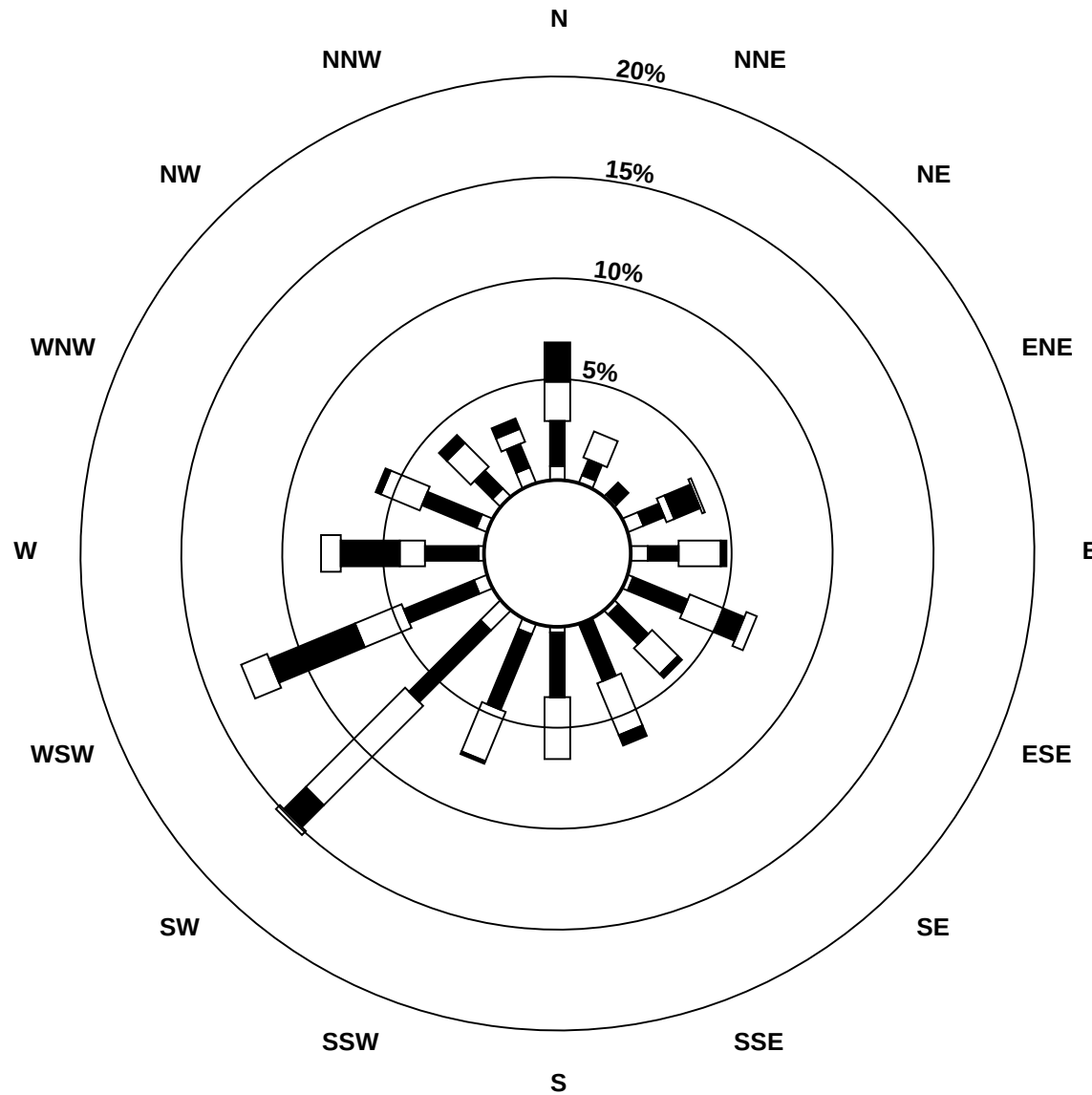
Wind Speed (km/h)
Wind Direction (deg)
Falher - June 2015

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	7	8	7	8	7	8	8	7	4	7	8	7	5	3	3	7	7	10	7	9	9	9	9	8	5.9	10.4	
Dir	172	167	156	138	119	142	170	203	198	181	188	224	200	203	227	241	204	229	247	219	219	209	197	150	192	229	
24 Spd	11	9	11	14	12	11	9	9	10	10	9	10	11	11	12	14	20	13	11	9	7	8	18	9	8.6	20.4	
Dir	165	137	144	155	144	148	168	201	215	227	234	245	224	229	252	283	222	225	219	219	233	246	239	256	212	222	
25 Spd	8	14	9	11	8	13	9	12	13	12	13	12	11	11	14	18	19	15	16	10	12	9	13	13	11.6	19.1	
Dir	232	199	199	186	182	187	167	203	218	217	227	217	218	223	219	231	238	241	226	224	241	231	206	194	216	238	
26 Spd	12	13	12	11	12	16	20	24	26	29	27	27	29	27	27	26	25	25	22	16	8	9	12	12	18.1	29.0	
Dir	187	189	200	192	216	216	227	239	240	249	250	245	239	243	244	247	253	264	270	279	264	232	220	207	239	239	
27 Spd	8	8	14	12	11	7	6	11	11	11	11	13	15	12	9	9	9	7	6	7	5	4	4	6	7.9	14.6	
Dir	183	168	180	163	165	165	174	209	224	240	242	240	231	235	233	210	214	208	224	215	232	254	247	225	211	231	
28 Spd	8	11	6	6	5	4	8	11	6	5	3	6	9	8	9	10	11	10	9	5	3	7	9	8	4.0	11.1	
Dir	182	209	206	209	236	230	276	289	316	317	328	323	302	261	258	266	290	298	318	317	128	158	152	121	261	289	
29 Spd	6	4	7	8	10	8	3	5	8	7	13	15	13	15	16	14	17	23	21	17	12	11	8	8	9.9	23.0	
Dir	98	77	76	65	117	83	85	87	115	95	104	104	107	126	143	154	157	166	160	156	143	131	112	108	127	166	
30 Spd	10	6	8	13	10	9	8	14	12	11	9	8	9	8	10	14	20	17	15	10	9	14	0	16	3.7	20.3	
Dir	137	155	124	130	117	110	131	162	174	186	234	254	272	295	312	311	267	267	259	243	211	137	22	26	210	267	
Spd	4.5	4.0	3.2	3.2	2.7	2.5	2.8	4.6	4.9	5.1	5.2	5.8	6.3	6.5	6.7	8.3	8.3	8.2	7.9	7.0	4.5	4.1	5.2	3.9	Diurnal Average		
Dir	177	192	192	175	163	170	199	231	244	255	254	252	241	251	255	254	252	243	242	243	235	198	196	187			
Spd	18.7	19.5	27.2	24.8	17.9	18.8	23.0	28.3	30.6	30.4	27.0	32.6	32.7	30.1	29.3	31.5	31.3	35.8	33.5	32.7	27.3	24.0	17.7	18.7	Diurnal Maximum		
Dir	226	235	335	322	324	325	71	265	266	279	246	241	243	244	253	245	240	259	235	103	100	99	93	225			
Maximum Speed Value: 36 km/h on Jun 11 18:00								Minimum Speed Value: 0 km/h on Jun 30 23:00												Hours in Service:				720			
Maximum Daily Speed Average: 21.6 km/h on Jun 2								Minimum Daily Speed Average: 2.2 km/h on Jun 15												Hours of Data:				720			
Maximum Diurnal Speed Average: 8.3 km/h at hour 17								Minimum Diurnal Speed Average: 2.5 km/h at hour 6												Hours of Missing Data:				0			
Monthly Average Velocity: 4.60 km/h 230.8 deg								Speed Percentiles: P ₁ = 2.2 P ₁₀ = 5.8 Q ₁ = 8.2 Median = 12.0 Q ₃ = 16.6 P ₉₀ = 24.3 P ₉₉ = 31.6												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	7		27		24		17		0		0		75														
NorthEast	3		10		4		0		0		0		17														
East	11		25		28		13		5		0		82														
SouthEast	3		33		26		11		0		0		73														
South	5		45		48		3		0		0		101														
SouthWest	12		64		80		32		10		0		198														
West	6		37		26		36		10		0		115														
NorthWest	9		21		22		7		0		0		59														
Total	56		262		258		119		25		0		720														

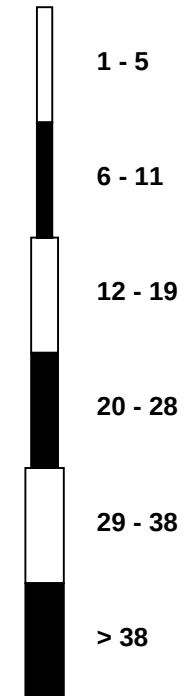
Wind Rose

Wind Speed (WS) (km/h)

Falher - June 2015



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Falher - June 2015

Maximum Speed: 36 km/h on Jun 11 18:00																				Maximum Daily Speed Average: 22.4 km/h on Jun 2										Hours in Service: 720	
Minimum Speed: 2 km/h on Jun 17 07:00																				Minimum Daily Speed Average: 6.5 km/h on Jun 15										Hours of Data: 720	
Maximum Diurnal Speed Average: 17.7 km/h at hour 17																				Minimum Diurnal Speed Average: 10.0 km/h at hour 1										Hours of Missing Data: 0	
Monthly Average Speed: 13.79 km/h																				Percentiles: P ₁ = 3.4 P ₁₀ = 6.5 Q ₁ = 8.7 Median = 12.3 Q ₃ = 17.2 P ₉₀ = 24.7 P ₉₉ = 32.4										Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
1-Jun	4	16	27	25	18	19	14	18	15	16	12	11	9	8	7	7	7	7	6	4	4	9	11	10	11.8	27.3					
2-Jun	9	9	13	15	13	14	19	23	25	26	26	27	29	27	28	27	29	28	33	33	27	24	18	15	22.4	32.8					
3-Jun	17	15	12	14	13	12	17	13	8	8	11	11	15	11	12	11	14	19	24	23	21	17	13	12	14.3	24.2					
4-Jun	11	12	11	10	8	9	10	8	12	16	16	14	14	14	12	12	16	20	18	12	5	2	10	10	11.7	19.8					
5-Jun	10	13	12	12	13	13	15	17	16	18	22	22	24	25	27	28	29	28	30	32	22	16	15	18	19.9	32.3					
6-Jun	19	20	17	16	16	17	20	26	31	31	25	25	25	23	24	26	22	22	25	24	16	11	11	16	21.1	30.9					
7-Jun	12	14	15	13	9	6	13	23	25	23	21	23	22	22	22	22	28	32	34	27	17	14	11	13	19.2	33.6					
8-Jun	12	14	17	16	15	19	22	28	31	25	21	26	32	34	24	15	16	17	18	12	8	7	11	15	18.8	34.0					
9-Jun	7	6	7	3	6	7	8	8	10	13	14	14	13	17	14	16	14	16	12	10	7	3	6	8	10.1	17.2					
10-Jun	7	8	7	8	10	12	11	14	13	12	13	16	17	17	16	16	16	20	15	14	11	12	15	14	13.1	20.2					
11-Jun	16	16	13	13	11	9	11	14	17	22	28	33	33	31	30	32	32	36	31	27	21	18	16	19	22.0	36.1					
12-Jun	16	13	16	15	14	15	17	27	26	22	20	22	25	28	27	25	24	25	22	18	15	13	10	9	19.4	27.9					
13-Jun	7	5	7	10	11	8	13	11	9	9	10	11	17	19	21	21	22	15	6	11	13	13	12	14	12.3	22.0					
14-Jun	13	13	13	12	11	15	20	21	22	21	24	25	23	23	21	17	21	19	13	14	17	13	11	13	17.2	25.2					
15-Jun	7	6	6	7	3	4	5	8	5	5	7	8	5	8	5	9	6	5	5	8	8	7	7	9	6.5	9.3					
16-Jun	4	7	9	13	13	14	15	17	17	22	22	22	20	18	16	20	24	21	17	15	9	5	3	3	14.4	23.7					
17-Jun	6	8	8	6	4	5	2	4	5	6	7	9	10	8	7	8	8	9	8	14	17	14	13	14	8.3	16.7					
18-Jun	14	13	12	14	14	14	17	16	13	9	4	8	10	13	12	11	11	11	8	9	12	11	10	9	11.5	16.6					
19-Jun	9	10	10	7	8	11	23	23	24	24	25	27	29	26	24	23	21	22	16	12	14	9	6	9	17.2	29.1					
20-Jun	17	16	12	13	13	11	12	12	9	7	5	8	7	5	7	6	6	5	8	9	9	10	5	7	9.1	16.9					
21-Jun	5	11	10	11	9	9	12	11	14	13	13	15	15	17	18	18	21	16	8	12	10	7	10	8	12.1	21.3					
22-Jun	7	10	11	7	4	7	6	9	7	6	9	12	10	10	13	12	9	10	11	11	9	9	10	6	9.0	13.2					
23-Jun	7	8	7	8	7	8	8	7	5	7	8	8	7	7	6	8	8	11	7	9	9	9	9	8	7.8	10.8					
24-Jun	11	9	11	14	12	11	9	9	10	10	9	11	12	11	13	15	21	14	11	9	7	8	18	9	11.5	20.6					
25-Jun	8	14	10	11	9	13	9	13	13	12	13	12	11	11	15	19	20	16	16	11	12	9	13	13	12.6	19.8					
26-Jun	12	13	13	11	12	16	20	24	26	29	27	27	29	27	27	26	26	25	22	16	8	9	12	12	19.7	29.4					
27-Jun	9	8	14	12	11	7	6	11	11	11	12	14	15	13	10	10	10	8	7	7	5	4	4	6	9.3	15.4					
28-Jun	8	11	6	6	7	4	8	11	7	5	5	7	9	10	11	12	11	11	9	5	4	7	9	9	8.0	11.7					
29-Jun	6	4	7	9	11	8	3	5	8	8	13	16	13	15	17	15	18	23	21	18	12	11	8	8	11.5	23.1					
30-Jun	10	7	8	13	10	9	8	14	12	11	10	10	10	9	11	14	21	17	15	10	9	15	16	17	12.0	20.6					
10.0 10.9 11.3 11.4 10.6 10.8 12.4 14.9 15.0 15.0 15.1 16.4 16.9 16.9 16.5 16.7 17.7 17.6 15.9 14.5 11.9 10.6 10.7 11.1																								Diurnal Average							
18.7 19.6 27.3 24.8 18.0 18.9 23.1 28.4 30.9 30.7 27.7 33.3 33.2 34.0 29.6 31.9 32.0 36.1 33.6 32.8 27.3 24.0 18.2 18.7																								Diurnal Maximum							
All monthly, daily, and diurnal averages have been calculated using scalar methods																															

Hourly Standard Deviations

Wind Direction (WD) - deg

Falher - June 2015

Maximum Value: 91.3 deg on Jun 9 04:00																			Hours in Service: 720						
Minimum Value: 1.3 deg on Jun 18 01:00																			Hours of Data: 720						
																			Hours of Missing Data: 0						
Percentiles: P ₁ = 2.2 P ₁₀ = 4.3 Q ₁ = 7.0 Median = 11.5 Q ₃ = 19.3 P ₉₀ = 34.4 P ₉₉ = 72.9																			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-Jun	24	38	7	4	7	5	8	7	9	19	21	21	31	52	60	48	49	58	54	48	56	8	8	13	59.9
2-Jun	7	10	11	7	3	16	7	3	5	5	8	9	8	15	10	13	12	12	5	3	3	2	3	4	16.5
3-Jun	3	4	4	2	3	9	8	9	19	31	29	36	25	40	41	29	27	13	11	12	2	2	26	11	41.4
4-Jun	11	4	4	8	7	7	11	13	20	14	14	28	26	46	40	28	32	13	11	35	34	82	28	56	82.5
5-Jun	12	13	11	5	5	5	11	6	9	11	11	15	13	17	15	12	9	10	6	8	10	3	8	2	16.8
6-Jun	5	3	3	11	7	4	4	7	8	8	11	11	16	14	15	17	9	14	9	4	5	9	10	7	16.7
7-Jun	9	3	4	5	7	19	10	6	10	11	17	14	16	17	11	12	10	5	5	5	4	7	7	8	19.0
8-Jun	8	14	11	5	6	6	5	6	7	9	12	13	11	43	29	16	17	16	37	13	24	37	12	44	43.8
9-Jun	20	29	33	91	22	16	14	13	15	15	15	27	37	17	28	20	26	19	19	16	7	66	14	16	91.3
10-Jun	16	8	12	7	5	5	9	9	12	17	22	20	22	28	21	19	22	10	9	8	16	10	4	3	27.6
11-Jun	7	2	4	9	7	16	16	14	12	11	13	12	9	12	7	9	11	8	7	10	4	3	6	3	16.5
12-Jun	4	4	5	3	4	4	9	9	6	3	12	5	6	5	21	4	5	3	4	3	3	3	4	4	20.8
13-Jun	11	23	16	9	6	17	6	14	14	16	21	14	10	8	11	10	9	54	16	26	5	12	6	4	53.8
14-Jun	28	5	5	5	5	12	3	5	6	9	12	9	13	9	11	15	13	15	14	10	4	7	6	8	28.4
15-Jun	22	43	6	11	75	17	11	17	33	51	46	34	65	35	82	30	61	41	65	12	9	3	21	23	81.8
16-Jun	22	13	22	8	12	10	10	16	18	13	9	8	11	11	16	9	8	10	8	8	5	8	26	19	25.5
17-Jun	9	9	4	6	25	64	31	38	39	51	77	43	44	30	69	44	32	28	46	10	4	2	4	1	76.5
18-Jun	1	5	2	2	2	5	5	13	11	14	27	43	28	18	28	34	31	41	19	13	13	4	16	6	42.9
19-Jun	11	7	5	10	14	6	4	7	6	8	11	10	9	7	6	6	8	43	6	11	5	7	7	38	42.7
20-Jun	12	18	25	9	5	5	7	6	10	12	30	25	31	44	35	15	22	45	12	16	9	6	43	14	45.0
21-Jun	16	6	7	6	12	6	3	8	8	11	12	13	16	16	17	19	34	11	57	21	10	21	8	11	57.2
22-Jun	13	4	8	7	25	9	17	14	15	25	22	20	32	27	12	11	17	12	10	8	8	13	4	26	31.9
23-Jun	22	20	20	16	12	14	13	12	39	17	23	34	67	84	88	40	35	17	30	7	4	7	9	20	87.7
24-Jun	6	8	6	2	4	5	8	10	12	15	18	20	23	22	25	19	7	10	6	7	9	15	17	6	25.2
25-Jun	18	16	25	6	11	9	12	15	9	11	11	7	13	20	15	18	16	16	6	9	6	12	3	9	24.8
26-Jun	8	11	10	9	4	5	4	4	5	7	8	10	9	10	9	9	11	8	10	5	16	6	8	7	16.0
27-Jun	14	6	5	4	5	10	13	6	9	16	17	18	18	21	31	19	30	21	20	8	13	12	10	15	31.0
28-Jun	13	9	12	40	56	44	8	13	23	38	57	45	23	43	37	32	23	22	12	27	47	11	18	24	57.3
29-Jun	13	21	19	13	13	14	25	16	8	16	18	14	15	13	14	15	12	5	7	10	7	13	7	9	24.6
30-Jun	10	14	15	7	8	10	12	11	13	13	33	35	32	48	28	13	12	4	7	7	22	11	90	22	89.9
	28.4	42.9	32.9	91.3	75.1	63.7	31.2	38.3	39.2	51.2	76.5	44.9	67.4	83.5	87.7	48.0	60.9	58.1	65.5	47.9	55.7	82.5	89.9	55.7	

PAZA

Portable – Clairmont Station
Monthly Summary Tables, Graphs and
Roses

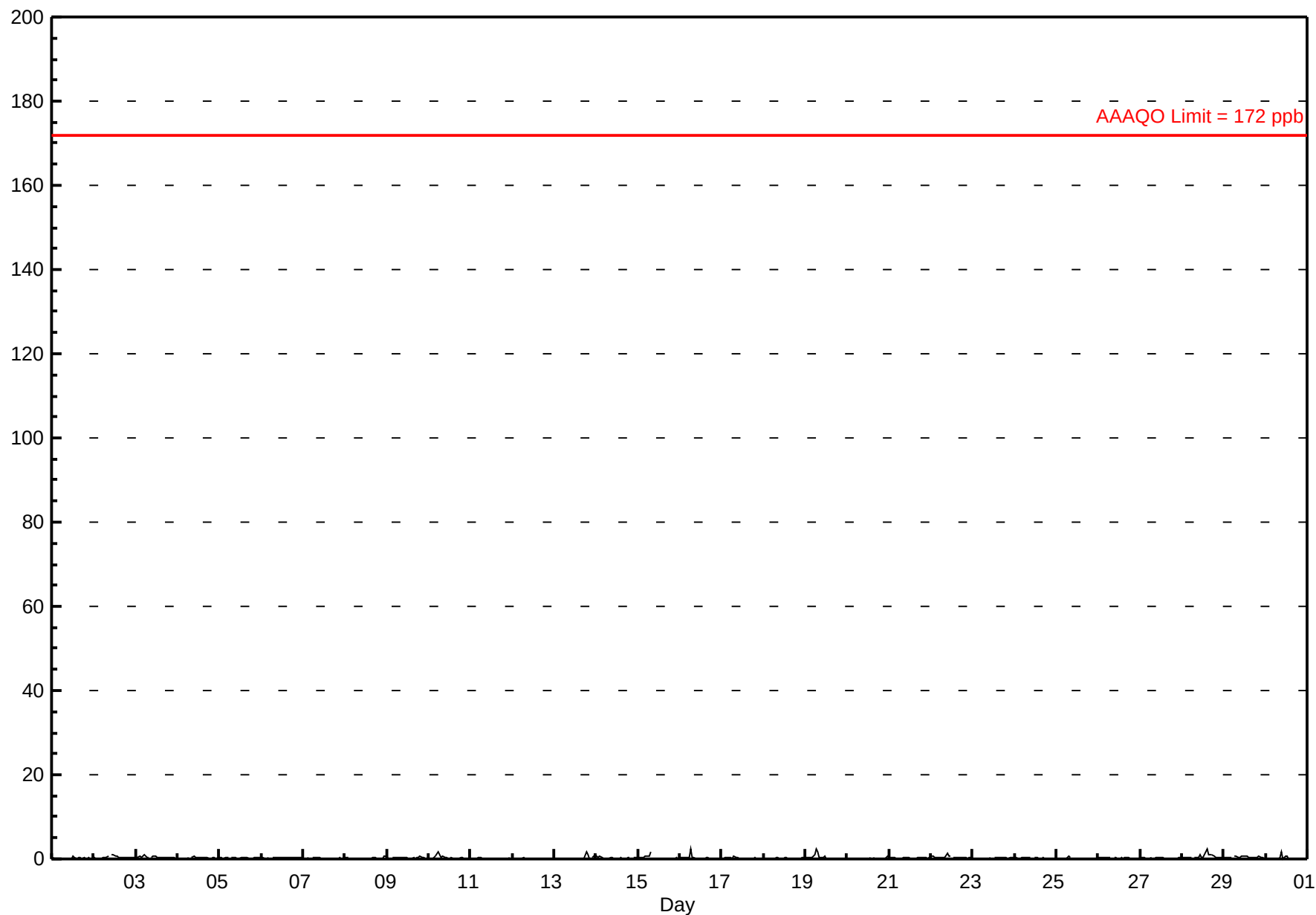
Hourly Averages

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

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 2.4 ppb on Jun 16 07:00 Maximum Daily Average: 0.6 ppb on Jun 28																					Hours in Service: 720 Hours of Data: 684 Hours of Missing Data: 36 Hours of Calibration: 35 Percent Operational Time: 99.9					
Minimum Value: 0 ppb on Jun 1 05:00 Maximum Diurnal Average: 0.4 ppb at hour 7 Monthly Average: 0.24 ppb										Minimum Daily Average: 0.1 ppb on Jun 12 Minimum Diurnal Average: 0.2 ppb at hour 22 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.2 Q ₃ = 0.3 P ₉₀ = 0.5 P ₉₉ = 1.5																
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-Jun	0	0	0	0	0	0	0	0	0	0	A	0	1	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
2-Jun	0	0	0	0	0	0	0	0	1	A	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.4	0.9
3-Jun	0	0	1	0	1	1	0	0	A	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.1
4-Jun	0	0	0	0	0	0	0	A	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
5-Jun	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
6-Jun	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
7-Jun	0	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
8-Jun	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.2	0.8
9-Jun	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.3	0.6
10-Jun	0	A	0	0	1	2	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.5
11-Jun	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-Jun	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-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	A	0	1	0.2	1.7
14-Jun	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	0.7
15-Jun	0	0	1	0	1	1	1	2	C	C	C	C	0	0	0	0	0	0	0	A	0	0	0	0	0.3	1.6
16-Jun	0	0	0	0	0	0	2	0	0	0	0	0	M	0	0	0	0	0	0	A	0	0	0	0	0.3	2.4
17-Jun	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	0.8
18-Jun	0	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
19-Jun	0	0	0	0	0	1	2	2	0	0	0	1	0	0	0	A	0	0	0	0	0	0	0	0	0.4	2.3
20-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	1	0.1	0.7
21-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.2	0.3
22-Jun	1	1	0	0	0	0	0	0	0	1	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0.4	1.4
23-Jun	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	1	0	0	0	0	0	0	0	0.2	0.5
24-Jun	0	0	0	0	0	0	0	0	0	0	A	0	1	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
25-Jun	0	0	0	0	0	0	0	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.6
26-Jun	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-Jun	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-Jun	0	0	0	0	0	0	A	0	0	0	1	0	0	1	2	1	1	1	1	0	0	0	0	0	0.6	2.3
29-Jun	0	0	0	0	0	A	1	1	0	0	1	1	1	1	0	0	0	0	0	1	1	0	0	0	0.4	0.7
30-Jun	0	0	0	0	A	0	0	0	0	2	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0.2	1.7
0.2 0.2 0.2 0.2 0.2 0.3 0.4 0.4 0.3 0.3 0.3 0.3 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2																								Diurnal Average		
0.7 0.6 0.6 0.5 0.7 1.5 2.4 1.6 0.7 1.7 0.9 0.9 0.8 1.1 2.3 1.1 1.0 0.9 1.7 1.2 0.5 0.4 0.7 0.9																								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 - June 2015



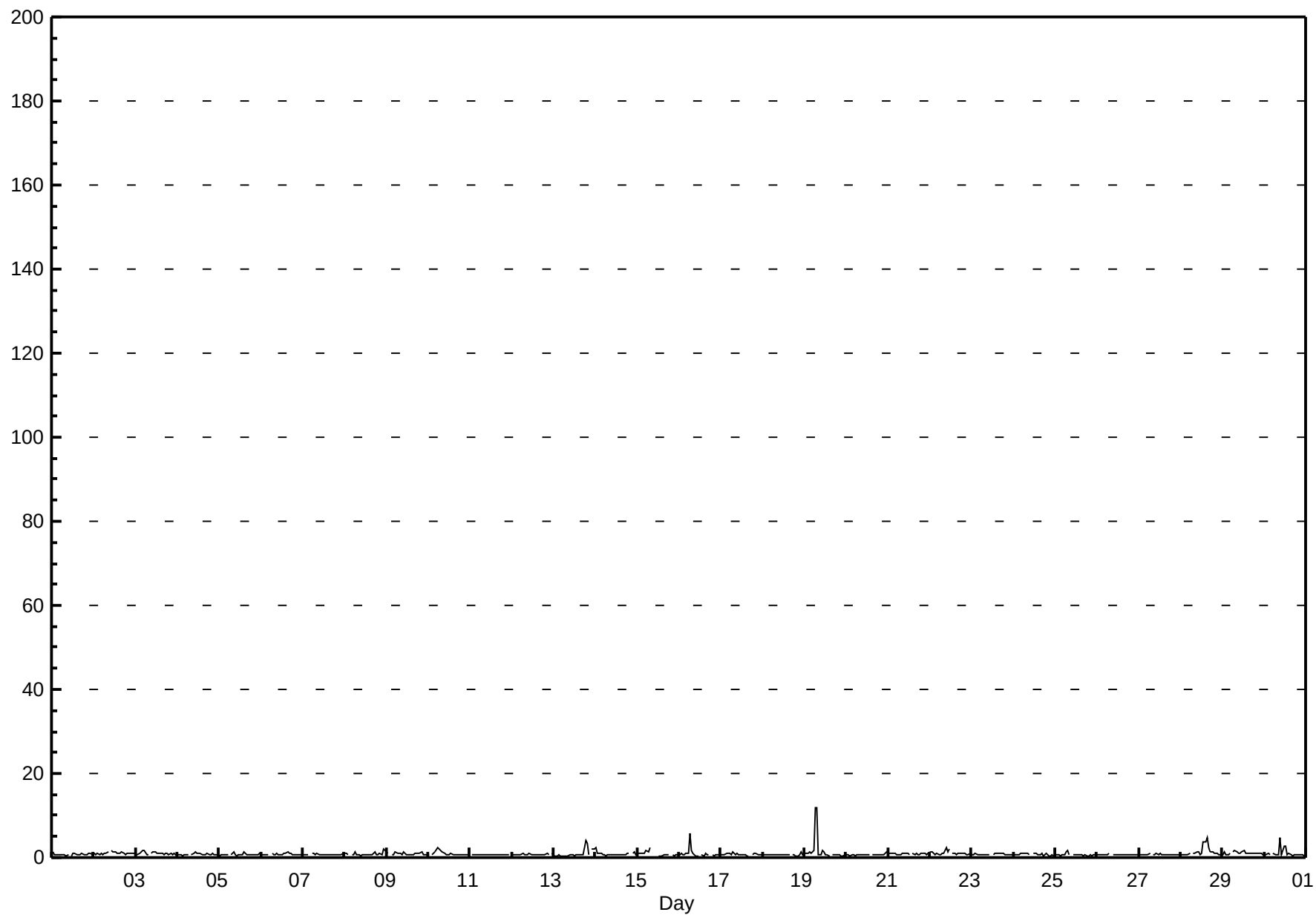
Hourly Maximums

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

Maximum Value: 12.0 ppb on Jun 19 08:00																				Maximum Daily Average: 1.8 ppb on Jun 19					Hours in Service: 720	
Minimum Value: 0 ppb on Jun 25 17:00																				Minimum Daily Average: 0.7 ppb on Jun 25					Hours of Data: 684	
Maximum Diurnal Average: 1.5 ppb at hour 7																				Minimum Diurnal Average: 0.7 ppb at hour 22					Hours of Missing Data: 36	
Monthly Average: 0.91 ppb																				Percentiles: P ₁ = 0.4 P ₁₀ = 0.6 Q ₁ = 0.7 Median = 0.8 Q ₃ = 0.9 P ₉₀ = 1.2 P ₉₉ = 3.6					Hours of Calibration: 35	
																				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-Jun	1	1	1	1	1	1	1	1	0	1	A	0	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.4
2-Jun	1	1	1	1	1	1	1	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.6
3-Jun	1	1	1	1	2	2	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.9
4-Jun	1	1	1	0	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.2
5-Jun	0	1	1	1	1	1	A	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.3
6-Jun	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.2
7-Jun	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	1.2
8-Jun	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	0.9	2.1
9-Jun	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.2
10-Jun	1	A	1	1	1	1	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	2.3
11-Jun	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	0.8
12-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.7	1.2
13-Jun	0	0	0	1	0	0	0	0	1	1	1	1	0	1	1	1	1	1	4	3	1	A	2	2	1.0	4.1
14-Jun	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.8	2.2
15-Jun	1	1	1	1	1	2	1	2	C	C	C	C	0	0	0	1	1	1	1	A	1	0	1	1	0.9	2.4
16-Jun	1	1	1	1	1	1	6	2	1	0	0	0	M	1	1	1	1	1	A	1	1	1	1	1	1.0	5.9
17-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	A	1	1	1	1	1	1	1	0.8	1.4
18-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0	0	1	1	1	0.7	1.2
19-Jun	1	1	1	1	1	2	12	12	1	1	2	1	1	1	0	A	1	1	1	1	0	0	1	1	1.8	12.0
20-Jun	1	1	0	1	1	0	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.8	1.4
21-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.8	1.0
22-Jun	1	1	1	1	1	1	1	1	1	3	1	2	A	1	1	1	1	1	1	1	1	1	1	1	1.1	2.5
23-Jun	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.2
24-Jun	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0	1	1	0	0	1	0	0.8	1.2
25-Jun	1	1	1	0	1	1	1	2	1	A	1	1	1	1	1	1	0	1	0	0	1	0	1	1	0.7	1.8
26-Jun	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	1.1
27-Jun	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-Jun	1	1	1	1	1	1	A	1	1	1	1	1	1	4	4	5	2	1	1	1	1	1	1	1	1.4	4.9
29-Jun	1	1	1	1	1	A	1	2	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1.1	1.7
30-Jun	1	1	1	1	A	1	1	1	1	5	1	3	3	1	1	1	0	1	1	1	1	1	1	1	1.0	4.9
																								Diurnal Average		
																								Diurnal Maximum		
C - Calibration				M - Maintenance				A - Automated Daily Zero Span																		

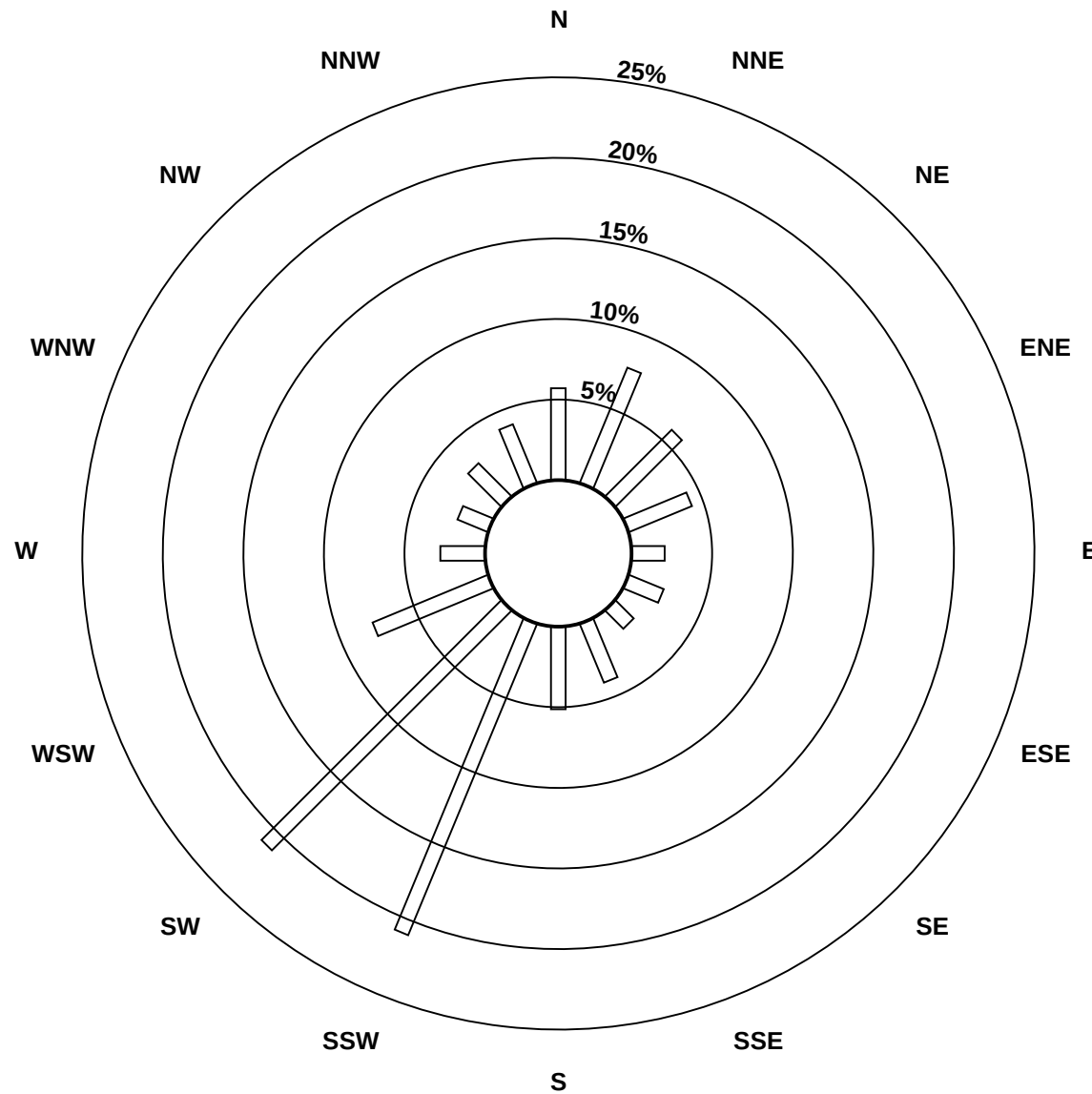
Hourly Maximums

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

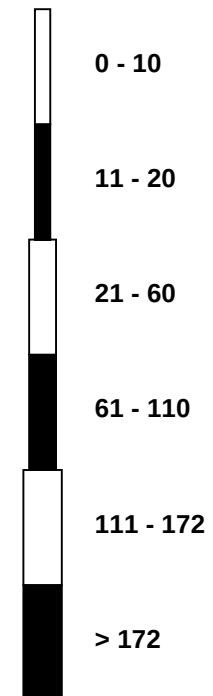


Pollutant Rose

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

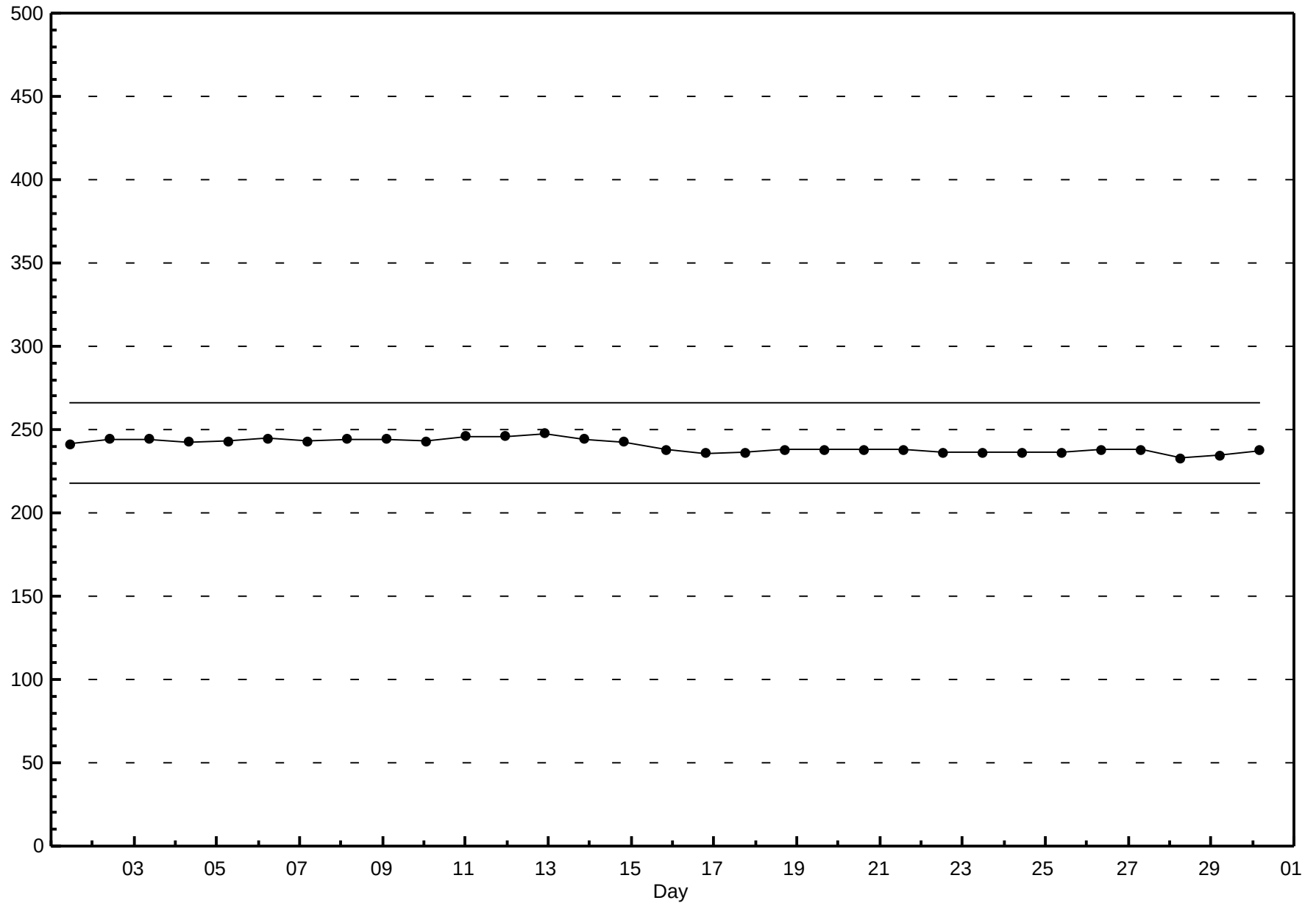


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Portable Clairmont - June 2015



Hourly Averages

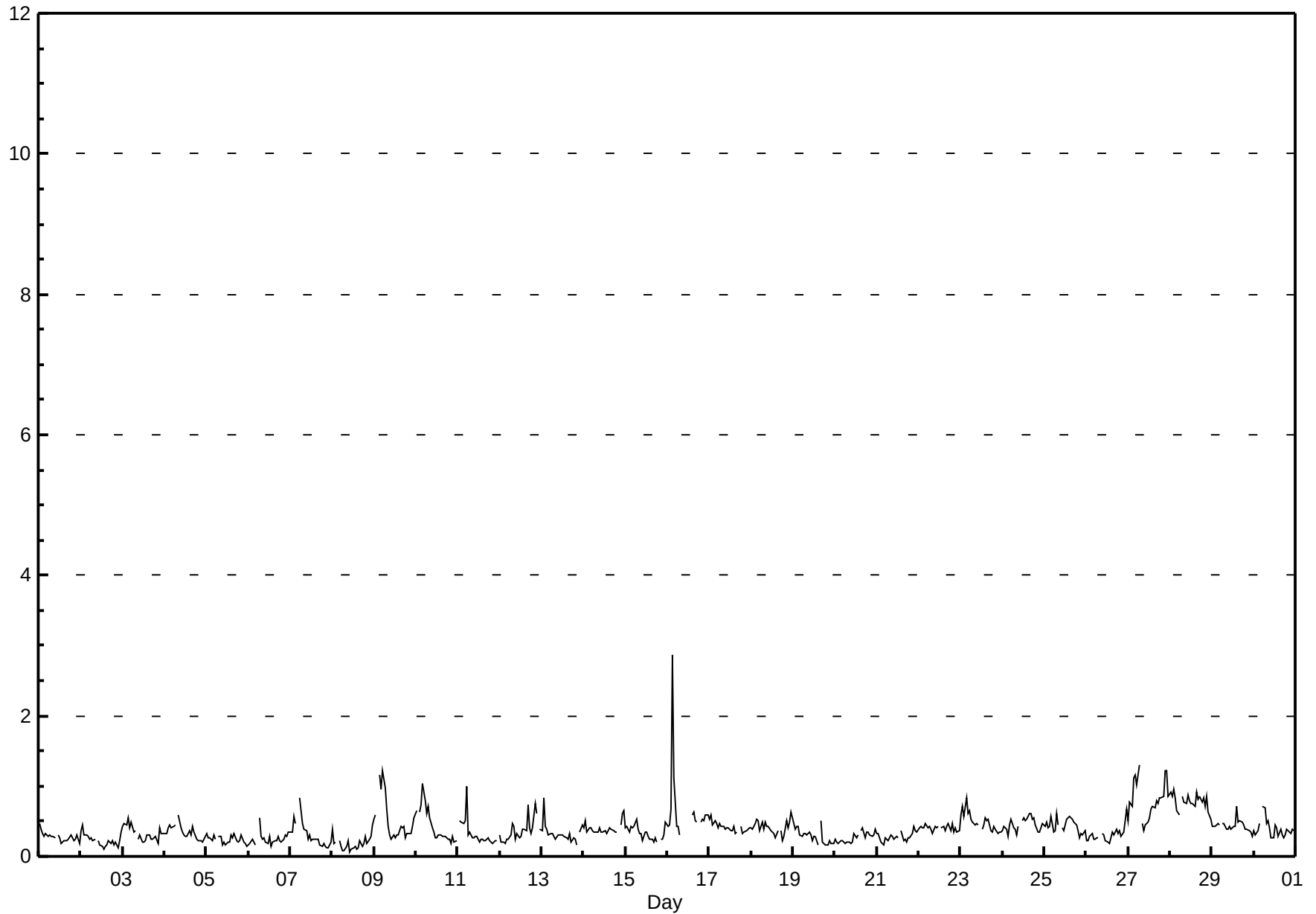
Total Reduced Sulphur (TRS) - ppb

Portable Clairmont - June 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 2.9 ppb on Jun 16 04:00 Maximum Daily Average: 0.8 ppb on Jun 27																				Hours in Service: 720 Hours of Data: 683 Hours of Missing Data: 37 Hours of Calibration: 37 Percent Operational Time: 100.0						
Minimum Value: 0 ppb on Jun 8 11:00 Maximum Diurnal Average: 0.6 ppb at hour 4 Monthly Average: 0.39 ppb										Minimum Daily Average: 0.2 ppb on Jun 8 Minimum Diurnal Average: 0.3 ppb at hour 12 Percentiles: P ₁ = 0.1 P ₁₀ = 0.2 Q ₁ = 0.3 Median = 0.3 Q ₃ = 0.4 P ₉₀ = 0.6 P ₉₉ = 1.1																
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jun	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
2-Jun	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-Jun	0	0	0	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
4-Jun	0	0	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
5-Jun	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
6-Jun	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
7-Jun	0	0	1	0	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8
8-Jun	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-Jun	1	1	A	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.5	1.2
10-Jun	1	A	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.0
11-Jun	A	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.3	1.0
12-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	A	0	0.4	0.7
13-Jun	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.3	0.8
14-Jun	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	1	0.4	0.6
15-Jun	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.3	0.5
16-Jun	0	0	1	3	1	0	0	0	C	C	C	C	C	C	1	1	1	0	A	0	1	1	1	1	--	2.9
17-Jun	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.4	0.6
18-Jun	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	0	0	1	0.4	0.6
19-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0.3	0.5
20-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.3	0.4
21-Jun	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
22-Jun	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5
23-Jun	1	1	1	1	1	1	1	0	0	0	0	A	0	0	1	1	1	0	0	0	0	0	0	0	0.5	0.8
24-Jun	0	0	0	0	0	1	0	0	0	0	A	1	1	1	1	1	1	1	1	0	0	0	0	0	0.5	0.6
25-Jun	0	0	0	0	1	0	0	1	0	A	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0.4	0.6
26-Jun	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.3	0.7
27-Jun	1	1	1	1	1	1	1	A	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.3
28-Jun	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0
29-Jun	0	0	0	0	0	A	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0.4	0.7
30-Jun	0	0	0	0	A	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.7
0.4 0.4 0.4 0.6 0.5 0.5 0.5 0.4 0.4 0.3 0.3 0.3 0.3 0.3 0.3 0.4 0.4 0.4 0.3 0.3 0.3 0.3 0.4 0.4 0.4																								Diurnal Average		
0.9 0.9 1.0 2.9 1.2 1.2 1.3 0.9 0.8 0.7 0.9 0.8 0.7 0.7 0.7 0.7 0.9 0.8 0.9 0.8 0.8 0.9 1.2 1.2 0.9																								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 - June 2015



Hourly Maximums

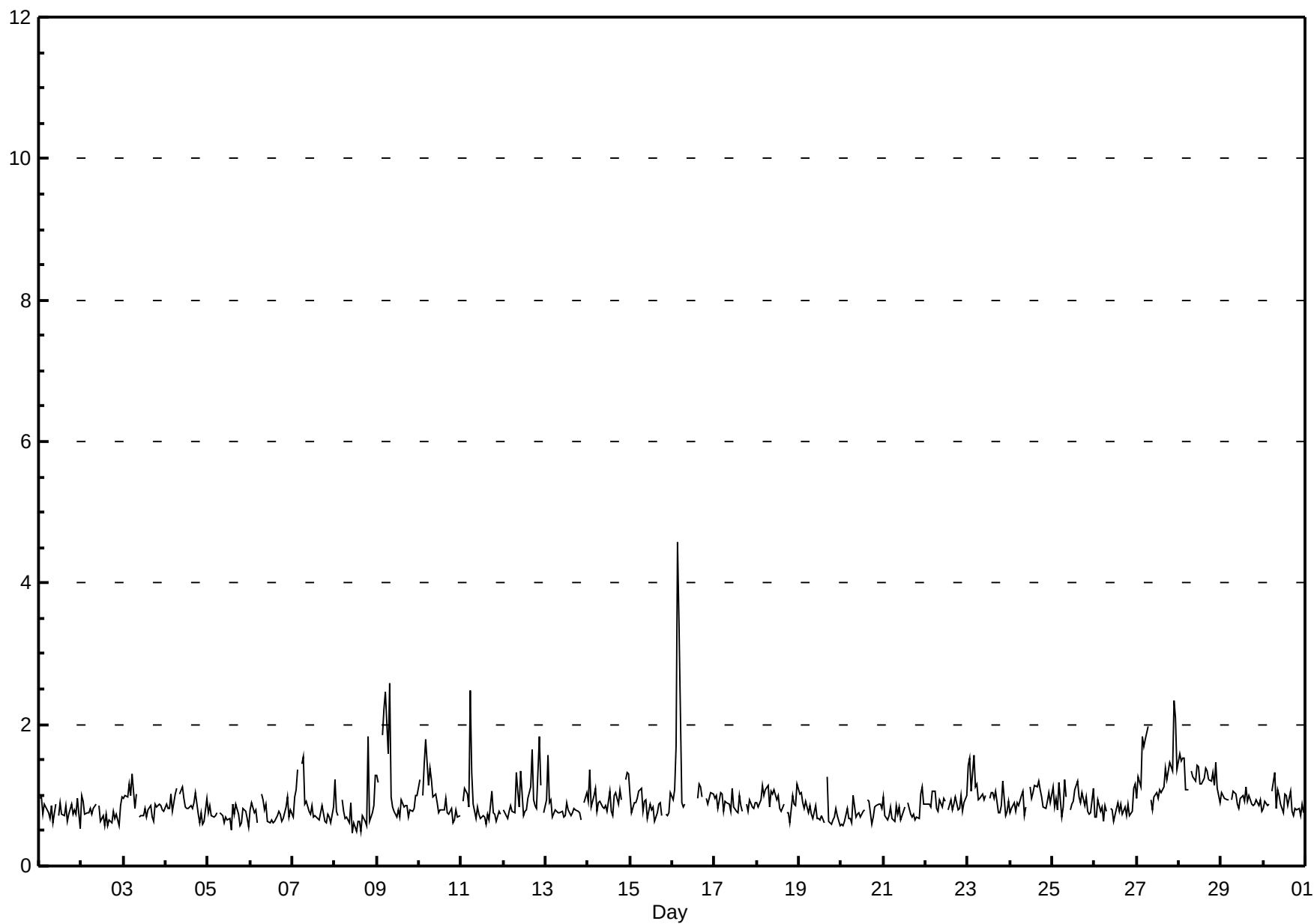
Total Reduced Sulphur (TRS) - ppb

Portable Clairmont - June 2015

Maximum Value: 4.6 ppb on Jun 16 04:00																				Maximum Daily Average: 1.4 ppb on Jun 27										Hours in Service: 720	
Minimum Value: 0 ppb on Jun 8 11:00																				Minimum Daily Average: 0.7 ppb on Jun 5										Hours of Data: 683	
Maximum Diurnal Average: 1.2 ppb at hour 4																				Minimum Diurnal Average: 0.8 ppb at hour 12										Hours of Missing Data: 37	
Monthly Average: 0.91 ppb																				Percentiles: P ₁ = 0.6 P ₁₀ = 0.7 Q ₁ = 0.7 Median = 0.9 Q ₃ = 1.0 P ₉₀ = 1.2 P ₉₉ = 2.2										Hours of Calibration: 37	
																				Percent Operational Time: 100.0											
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
1-Jun	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0					
2-Jun	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0					
3-Jun	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	1.3					
4-Jun	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.1					
5-Jun	1	1	1	1	1	1	A	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0.7	0.9					
6-Jun	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0					
7-Jun	1	1	1	1	A	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.6					
8-Jun	1	1	1	A	1	1	1	1	1	1	0	1	0	1	1	0	1	1	1	2	1	1	1	1	0.8	1.8					
9-Jun	1	1	A	2	2	2	2	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	2.6					
10-Jun	1	A	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.8					
11-Jun	A	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.9	2.5					
12-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	2	1	A	1	1.0	1.8					
13-Jun	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.8	1.6					
14-Jun	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	1.4					
15-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.9	1.1					
16-Jun	1	1	2	5	3	1	1	1	C	C	C	C	C	C	1	1	1	1	A	1	1	1	1	1	--	4.6					
17-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0.9	1.1					
18-Jun	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-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0.8	1.3					
20-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.8	1.0					
21-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.8	1.1					
22-Jun	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.9	1.1					
23-Jun	1	2	1	2	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.6					
24-Jun	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	1.2					
25-Jun	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.2					
26-Jun	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.2					
27-Jun	1	1	1	2	2	2	2	A	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1.4	2.3					
28-Jun	2	1	2	2	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.3	1.6					
29-Jun	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.1					
30-Jun	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	1.3					
1.0 1.0 0.9 1.2 1.1 1.1 1.0 1.0 0.9 0.9 0.8 0.8 0.8 0.8 0.9 0.9 0.9 0.8 0.8 0.8 0.9 0.9 0.9 0.9																									Diurnal Average						
1.6 1.6 1.7 4.6 3.5 2.5 2.0 2.6 1.3 1.2 1.4 1.4 1.1 1.2 1.2 1.4 1.6 1.2 1.3 1.8 1.8 2.3 2.1 1.4																									Diurnal Maximum						
C - Calibration																									A - Automated Daily Zero Span						

Hourly Maximums

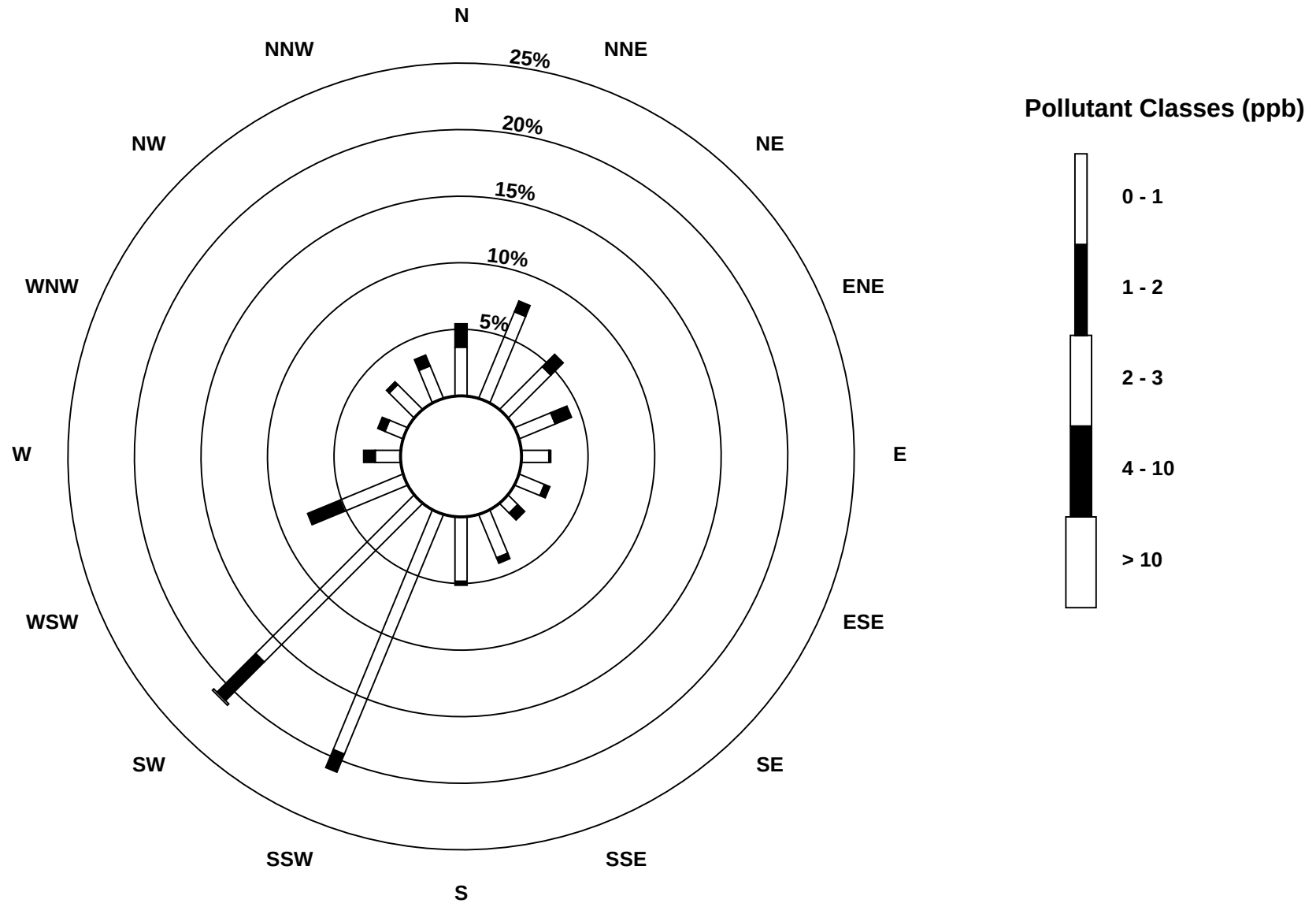
Total Reduced Sulphur (TRS) - ppb
Portable Clairmont - June 2015



Pollutant Rose

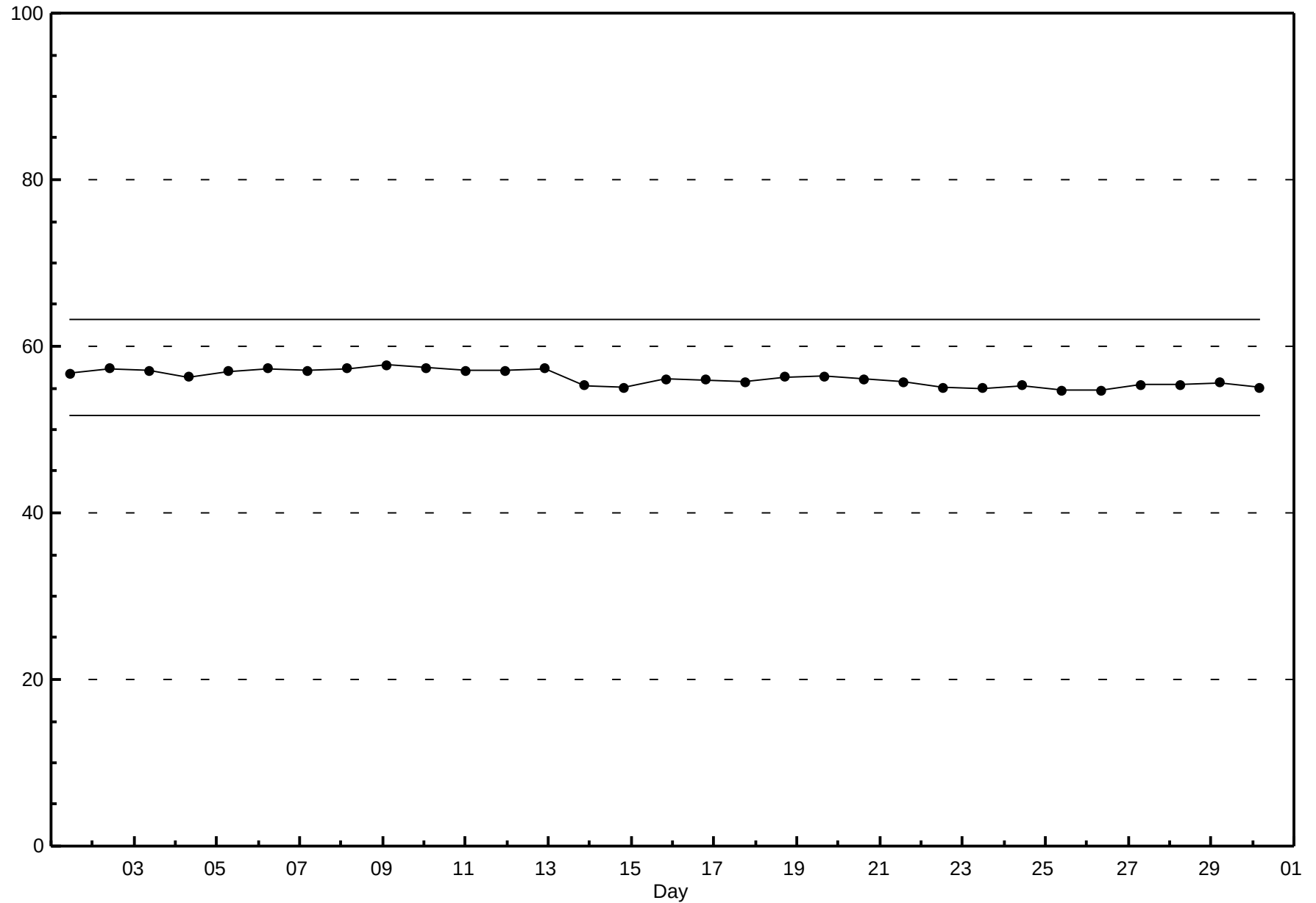
Total Reduced Sulphur (TRS) - ppb

Portable Clairmont - June 2015



Span Responses

Total Reduced Sulphur (TRS)
Portable Clairmont - June 2015



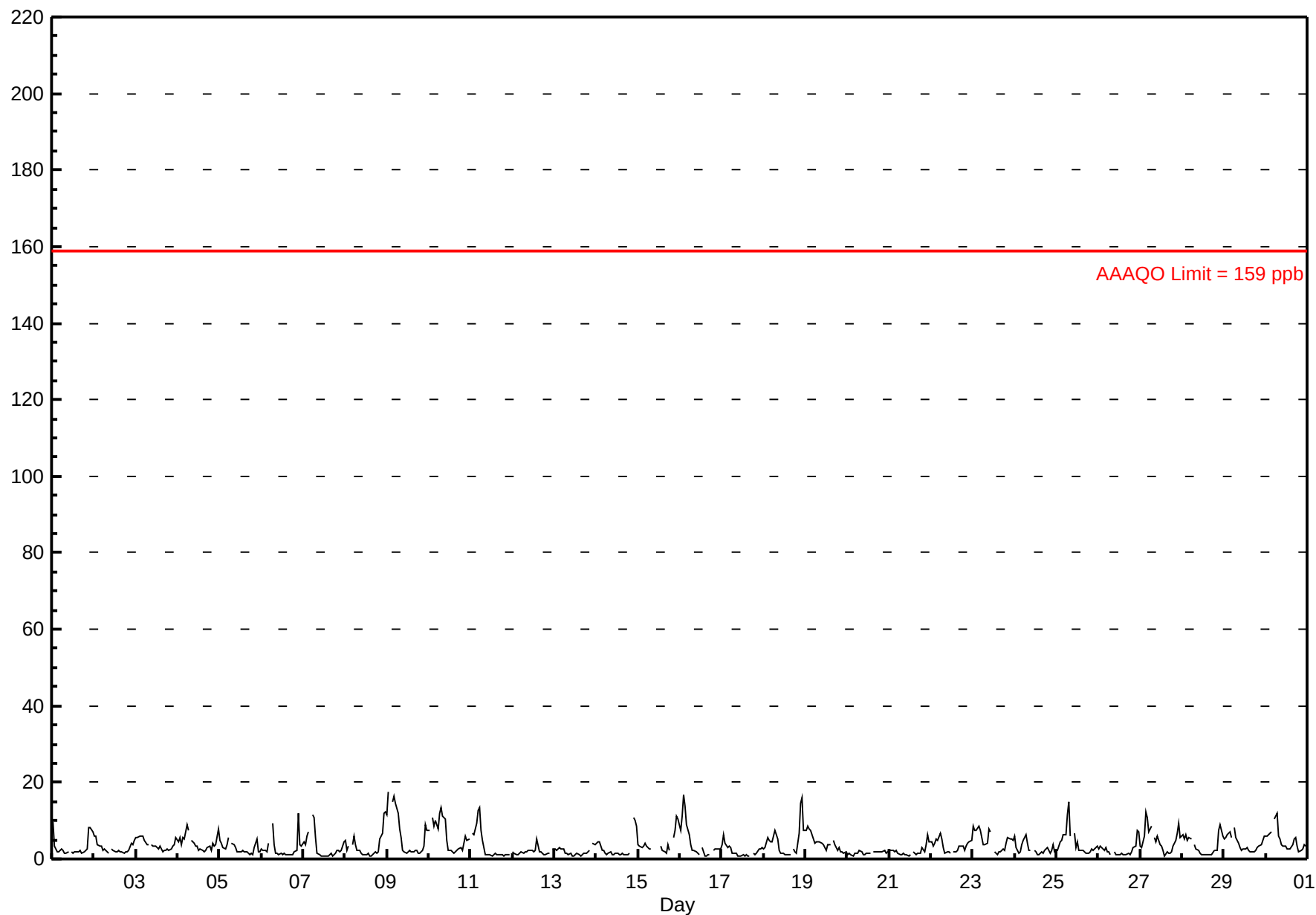
Hourly Averages

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

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 17.4 ppb on Jun 9 02:00 Maximum Daily Average: 6.2 ppb on Jun 9																				Hours in Service: 720 Hours of Data: 683 Hours of Missing Data: 37 Hours of Calibration: 36 Percent Operational Time: 99.9						
Minimum Value: 1 ppb on Jun 17 16:00 Minimum Daily Average: 1.6 ppb on Jun 20 Maximum Diurnal Average: 5.5 ppb at hour 7 Minimum Diurnal Average: 1.6 ppb at hour 16 Monthly Average: 3.54 ppb Percentiles: P ₁ = 0.8 P ₁₀ = 1.1 Q ₁ = 1.6 Median = 2.4 Q ₃ = 4.5 P ₉₀ = 7.4 P ₉₉ = 14.5																										
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-Jun	10	4	3	2	2	3	2	2	2	2	A	2	2	2	2	2	2	2	2	2	3	8	8	7	3.1	9.5
2-Jun	6	6	4	3	3	2	2	2	2	A	3	2	2	2	2	2	2	2	2	2	2	4	4	5	2.9	6.1
3-Jun	5	6	6	6	6	5	4	4	A	4	3	3	3	3	3	2	2	2	3	2	3	3	4	5	3.8	6.0
4-Jun	4	5	4	5	5	9	7	A	5	4	3	3	2	2	2	2	2	3	3	2	4	3	4	8	4.1	9.0
5-Jun	5	4	3	3	4	5	A	4	4	3	2	2	2	2	2	2	2	1	1	1	3	5	2	2	2.8	5.5
6-Jun	3	2	2	2	4	A	9	4	1	2	1	1	1	1	1	1	1	1	1	2	2	12	4	3	2.7	11.8
7-Jun	4	4	6	7	A	11	11	5	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	5	3.2	11.5
8-Jun	5	2	3	A	4	6	4	2	2	1	1	1	1	1	1	1	1	2	1	2	5	7	12	12	3.4	12.4
9-Jun	11	17	A	15	16	14	12	8	6	2	2	2	2	2	2	2	2	2	1	1	2	3	9	8	6.2	17.4
10-Jun	8	A	11	9	10	8	12	13	11	10	5	2	2	2	2	2	2	3	3	2	4	6	5	5	5.9	13.3
11-Jun	A	7	6	9	13	13	7	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	3.5	13.3
12-Jun	2	1	1	1	2	2	1	2	2	2	2	2	2	2	5	2	2	2	1	1	1	2	A	3	1.9	5.4
13-Jun	3	2	3	3	3	2	2	2	1	1	1	1	1	1	1	1	1	1	1	2	2	A	4	4	1.9	4.1
14-Jun	4	4	5	2	2	1	1	1	2	1	1	1	1	1	1	2	1	1	1	2	A	11	10	9	2.9	10.9
15-Jun	4	3	3	3	4	3	3	3	C	C	C	C	C	3	2	2	2	4	2	A	6	8	11	11	4.2	11.0
16-Jun	7	11	17	14	9	6	4	2	2	2	2	1	M	3	1	1	1	1	A	2	3	3	3	2	4.4	16.9
17-Jun	4	6	4	3	3	3	2	2	1	1	1	1	1	1	1	1	1	A	1	1	2	2	3	3	2.0	6.2
18-Jun	3	3	6	5	4	4	7	6	5	2	1	1	1	1	1	1	A	3	2	2	7	15	16	7	4.5	15.9
19-Jun	7	9	8	8	6	4	5	5	4	4	3	2	4	4	A	5	4	2	3	2	2	1	2		4.2	8.7
20-Jun	1	1	1	1	2	1	2	2	2	1	1	1	2	1	A	2	2	2	2	2	2	2	2	2	1.6	2.3
21-Jun	2	2	2	2	2	1	1	1	2	1	1	1	1	A	2	1	2	2	1	3	2	4	6	5	2.1	6.2
22-Jun	5	3	4	5	5	7	5	3	2	2	2	2	A	2	2	2	3	3	3	2	3	4	4	5	3.5	6.9
23-Jun	8	7	7	9	7	6	4	4	4	8	7	A	2	1	1	2	2	3	2	4	6	5	5	5	4.8	8.7
24-Jun	6	3	2	2	4	5	6	4	2	2	A	2	2	1	1	2	1	2	3	3	1	2	4	2	2.7	6.2
25-Jun	2	3	5	5	6	6	12	15	6	A	7	3	5	2	2	2	2	2	1	2	2	2	3	3	4.3	15.1
26-Jun	3	3	3	2	3	2	2	1	A	2	1	1	1	2	1	1	1	1	1	2	3	3	8	7	2.4	7.6
27-Jun	3	3	6	12	11	7	9	A	5	5	6	4	3	2	1	2	2	1	2	3	5	7	9	6	4.9	12.3
28-Jun	6	5	6	5	6	5	A	4	3	2	1	1	1	1	1	1	1	1	2	2	2	8	9	6	3.5	8.9
29-Jun	5	6	6	7	6	A	8	5	4	3	2	3	3	3	2	2	2	2	2	3	3	4	5	6	4.0	8.1
30-Jun	6	6	7	7	A	10	12	6	5	4	3	3	3	3	3	4	5	6	3	2	2	3	4	3	4.8	12.1
																								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 - June 2015



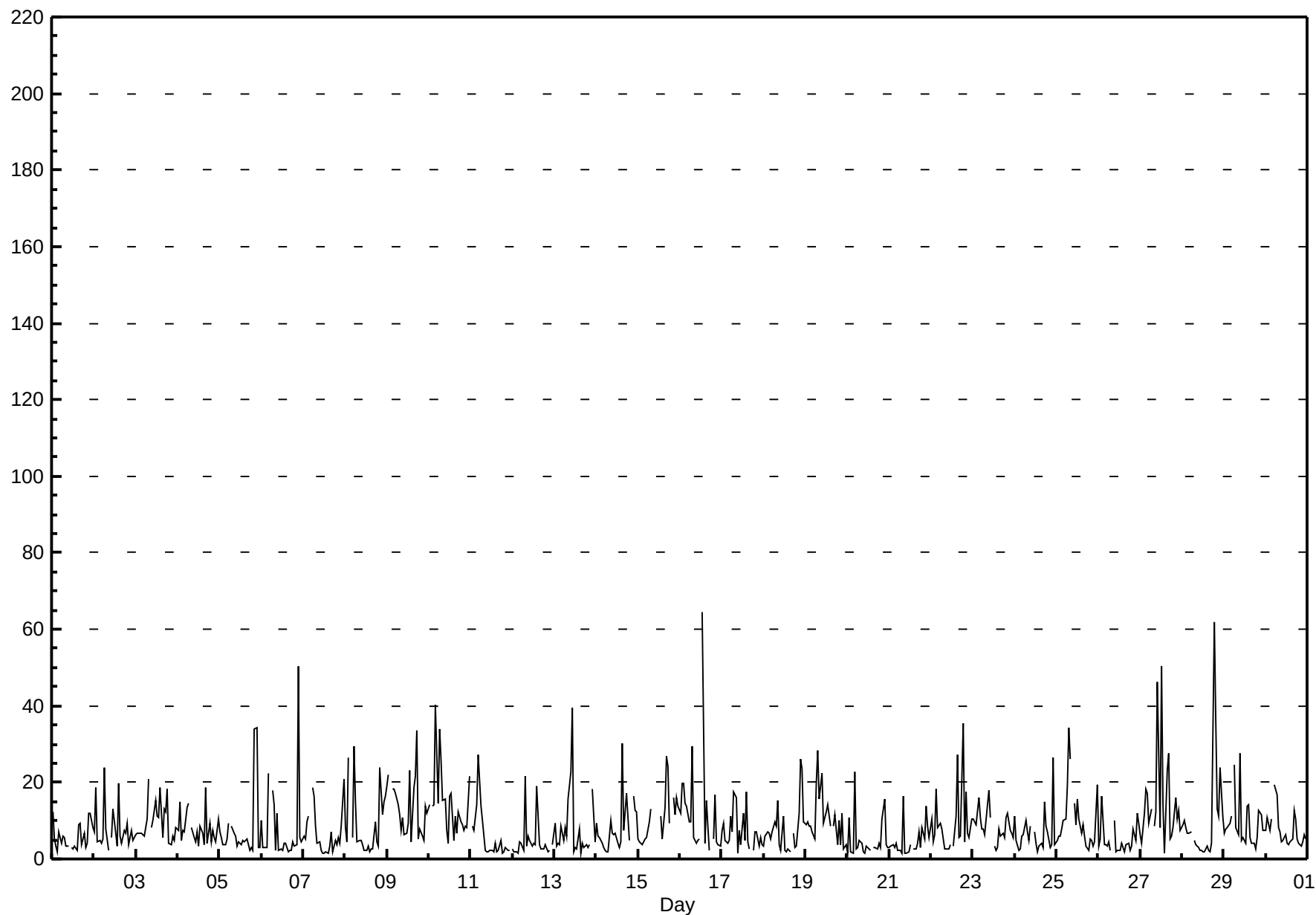
Hourly Maximums

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

Maximum Value: 64.4 ppb on Jun 16 14:00																					Maximum Daily Average: 14.7 ppb on Jun 27										Hours in Service: 720	
Minimum Value: 1 ppb on Jun 7 15:00																					Minimum Daily Average: 4.7 ppb on Jun 12										Hours of Data: 683	
Maximum Diurnal Average: 12.3 ppb at hour 7																					Minimum Diurnal Average: 5.5 ppb at hour 12										Hours of Missing Data: 37	
Monthly Average: 8.57 ppb																					Percentiles: P ₁ = 1.5 P ₁₀ = 2.3 Q ₁ = 3.6 Median = 6.0 Q ₃ = 10.9 P ₉₀ = 17.9 P ₉₉ = 39.1										Hours of Calibration: 36	
																					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-Jun	12	5	3	2	7	4	6	6	3	3	A	3	2	3	2	9	9	4	7	3	4	12	12	8	5.7	12.1						
2-Jun	7	18	4	5	4	5	24	8	2	A	5	13	7	3	20	6	4	7	7	9	4	7	5	6	7.9	24.0						
3-Jun	6	7	7	7	6	6	11	21	A	8	10	15	11	11	19	6	13	12	18	4	4	6	5	8	9.6	20.8						
4-Jun	7	15	5	7	7	13	15	A	8	6	4	7	4	9	7	4	19	4	9	4	7	6	5	11	7.9	18.6						
5-Jun	7	5	4	4	5	9	A	8	7	6	3	4	4	5	4	5	5	2	3	2	34	34	3	3	7.3	34.2						
6-Jun	10	3	3	3	22	A	18	14	2	12	2	3	2	4	4	2	2	2	4	3	4	50	6	5	7.9	50.3						
7-Jun	6	5	10	11	A	19	16	9	4	5	2	2	1	2	1	3	7	2	5	4	6	4	9	21	6.6	20.7						
8-Jun	8	4	26	A	6	29	15	5	5	5	4	2	2	3	2	2	3	10	4	3	24	11	15	16	9.0	29.3						
9-Jun	19	22	A	18	18	17	14	12	8	11	6	7	9	23	4	19	22	33	5	8	6	5	14	12	13.6	33.5						
10-Jun	14	A	14	14	40	15	34	26	15	16	8	4	17	17	5	11	7	12	10	9	7	9	8	22	14.5	40.3						
11-Jun	A	9	8	14	27	21	14	10	2	2	2	2	2	2	4	2	2	5	2	2	3	2	2	A	6.3	27.3						
12-Jun	3	2	2	2	4	4	2	22	3	6	5	3	4	4	19	4	3	3	3	4	2	2	A	4	4.7	21.6						
13-Jun	9	3	4	4	9	5	8	6	16	23	39	2	3	3	8	1	4	3	4	3	4	A	18	5	7.9	39.4						
14-Jun	9	6	6	4	3	2	2	2	10	7	6	7	4	3	4	30	8	17	11	5	A	16	13	12	8.1	30.0						
15-Jun	5	4	4	5	5	6	10	13	C	C	C	C	C	11	5	14	27	24	9	A	16	12	16	14	11.1	26.9						
16-Jun	12	20	20	15	14	10	10	30	5	4	5	5	M	64	4	15	9	2	A	5	17	4	4	3	12.6	64.4						
17-Jun	8	9	5	4	5	11	7	18	16	2	7	4	12	5	17	5	3	A	2	7	7	3	6	4	7.2	17.6						
18-Jun	3	6	7	7	5	7	10	9	15	4	2	11	2	2	3	2	A	7	3	3	12	26	24	10	7.8	26.1						
19-Jun	9	10	9	9	7	5	20	28	16	22	9	11	12	14	9	A	8	11	4	10	4	12	2	4	10.7	28.4						
20-Jun	2	11	2	1	23	3	3	5	4	2	2	3	3	2	A	3	3	2	4	3	11	16	4	3	4.9	22.9						
21-Jun	3	3	4	3	4	2	2	2	17	2	1	2	4	A	3	3	4	7	3	8	5	14	8	6	4.7	16.5						
22-Jun	10	4	6	18	8	10	8	5	3	3	3	4	A	3	11	27	6	6	35	4	18	7	5	10	9.3	35.4						
23-Jun	10	10	9	16	11	8	8	6	14	18	11	A	3	2	3	8	6	7	6	11	12	8	7	6	8.6	17.8						
24-Jun	11	5	2	3	6	6	10	7	5	9	A	7	4	2	3	4	3	15	8	7	3	4	27	4	6.7	26.5						
25-Jun	5	6	6	8	10	10	19	34	26	A	14	9	16	10	7	9	6	3	2	5	5	4	5	20	10.4	34.2						
26-Jun	3	5	17	4	4	3	4	2	A	10	2	2	2	4	3	2	4	4	2	3	8	5	12	9	5.0	16.6						
27-Jun	6	4	12	18	17	9	13	A	8	12	46	8	51	14	1	23	28	5	6	8	16	10	13	7	14.7	50.5						
28-Jun	9	10	8	7	7	7	A	5	4	3	2	2	2	2	3	2	2	4	62	36	13	11	24	11	10.3	62.0						
29-Jun	7	8	8	9	11	A	25	8	6	27	5	5	4	14	14	6	4	4	3	5	13	12	7	7	9.3	27.4						
30-Jun	7	11	7	10	A	19	17	8	7	5	5	6	4	4	4	5	13	10	5	4	4	4	6	5	7.5	19.2						
7.9 8.0 7.6 8.0 10.6 9.5 12.3 11.6 8.6 8.5 7.9 5.5 7.1 8.5 6.7 8.0 8.0 7.9 8.5 6.4 9.3 10.9 9.7 8.8																								Diurnal Average								
19.1 21.9 26.4 18.4 40.3 29.3 33.9 34.2 26.1 27.4 46.3 15.3 50.5 64.4 19.9 30.0 27.6 33.5 62.0 36.4 34.0 50.3 26.5 21.7																								Diurnal Maximum								
C - Calibration M - Maintenance A - Automated Daily Zero Span																																

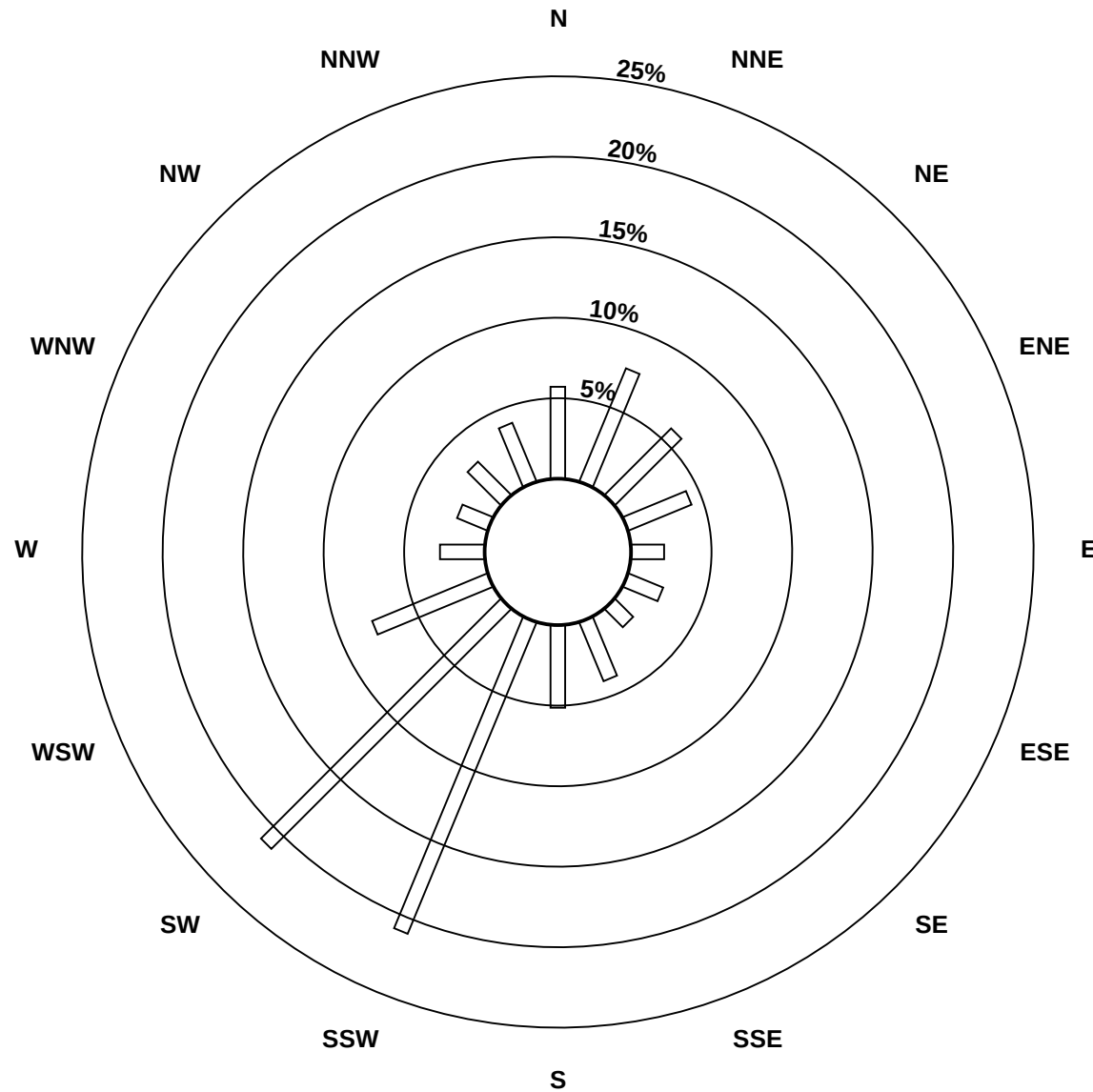
Hourly Maximums

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

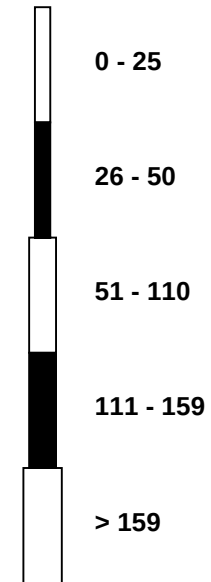


Pollutant Rose

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

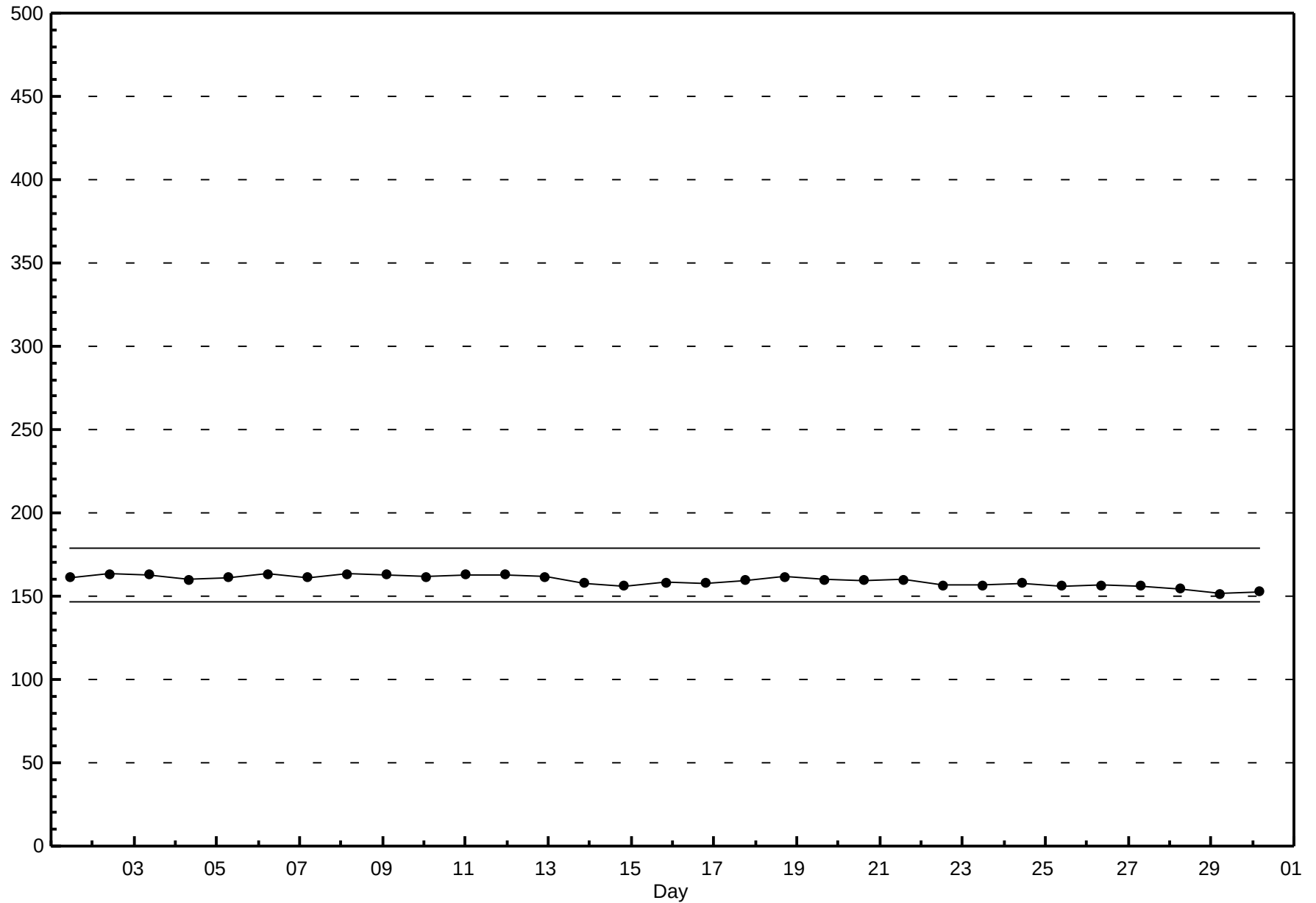


Pollutant Classes (ppb)



Span Responses

Nitrogen Dioxide (NO₂)
Portable Clairmont - June 2015



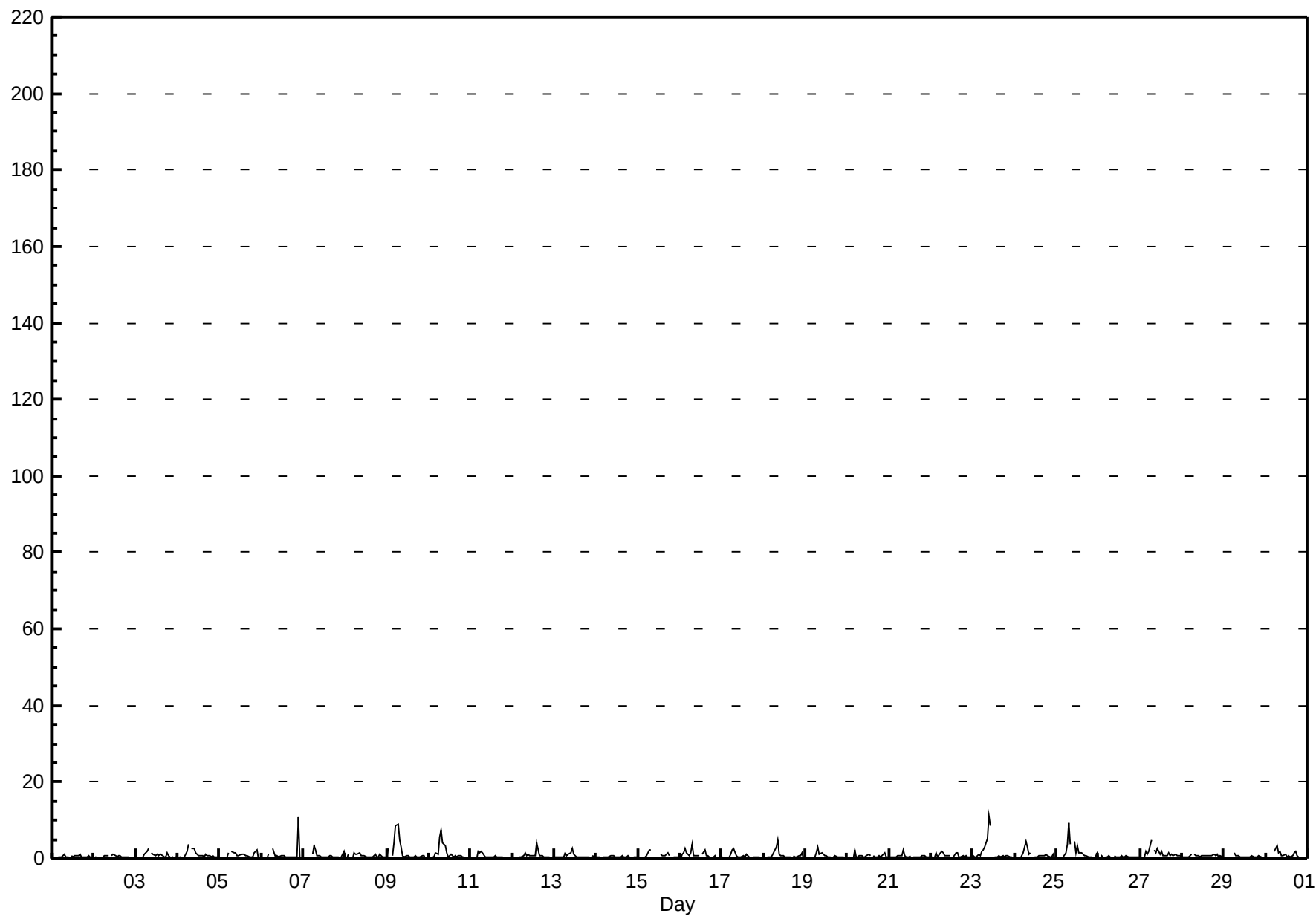
Hourly Averages

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

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 11.1 ppb on Jun 23 10:00 Maximum Daily Average: 1.8 ppb on Jun 9																								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 Jun 12 02:00 Minimum Daily Average: 0.4 ppb on Jun 29 Maximum Diurnal Average: 2.4 ppb at hour 7 Minimum Diurnal Average: 0.2 ppb at hour 1 Monthly Average: 0.83 ppb Percentiles: P ₁ = 0.1 P ₁₀ = 0.1 Q ₁ = 0.3 Median = 0.5 Q ₃ = 0.9 P ₉₀ = 1.6 P ₉₉ = 7.2																										
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-Jun	0	0	0	0	0	0	1	1	0	1	A	1	1	1	1	1	1	0	0	0	0	1	0	0	0.5	1.1
2-Jun	0	0	0	0	0	0	1	1	1	A	1	1	1	0	1	1	0	1	0	0	0	0	0	0	0.4	1.0
3-Jun	0	0	0	0	0	1	2	3	A	2	1	1	1	1	1	1	0	0	2	1	0	0	0	0	0.8	2.7
4-Jun	0	0	0	0	0	2	4	A	3	2	1	1	1	1	1	0	1	1	1	0	1	0	0	0	0.9	3.6
5-Jun	0	0	0	0	0	1	A	2	2	1	1	1	1	1	1	1	1	0	0	0	2	2	0	0	0.8	2.3
6-Jun	0	0	0	0	1	A	3	1	0	1	1	1	1	1	0	0	0	0	0	0	0	11	0	0	1.0	10.9
7-Jun	0	0	0	0	A	1	3	2	1	1	0	0	0	1	0	1	1	0	0	0	0	0	0	2	0.7	3.4
8-Jun	0	0	1	A	0	1	1	1	1	1	1	1	0	1	0	0	0	1	0	0	1	0	0	0	0.6	1.5
9-Jun	0	3	A	1	4	9	9	5	3	1	1	1	1	0	0	1	1	0	0	0	1	1	0	0	1.8	8.8
10-Jun	0	A	0	0	2	1	6	8	4	4	1	0	1	1	1	1	0	1	1	0	0	0	0	0	1.4	7.5
11-Jun	A	0	0	0	2	1	2	2	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	A	0.5	2.0
12-Jun	0	0	0	0	0	0	1	1	1	1	1	1	1	1	4	1	1	1	0	0	0	0	A	0	0.7	3.9
13-Jun	1	0	0	0	0	0	1	1	1	2	3	1	1	0	0	0	0	0	0	0	0	A	1	0	0.6	2.8
14-Jun	0	0	0	0	0	0	0	0	1	1	1	0	0	1	0	1	0	0	1	0	A	0	0	0	0.4	0.9
15-Jun	0	0	0	0	0	1	2	2	C	C	C	C	C	1	1	1	1	1	1	A	0	0	0	0	0.7	2.4
16-Jun	0	1	2	2	1	1	2	4	1	1	1	1	M	1	2	1	1	0	A	0	1	0	0	1	1.1	3.6
17-Jun	0	0	0	0	0	1	2	3	1	1	0	0	1	0	1	1	0	A	0	0	1	0	0	0	0.6	2.6
18-Jun	0	0	0	0	0	1	2	3	5	1	1	1	0	0	1	0	A	1	0	0	1	1	2	0	0.9	4.7
19-Jun	0	0	0	0	0	0	2	3	1	2	1	1	1	0	0	A	0	1	0	0	0	1	0	0	0.6	2.8
20-Jun	0	0	0	0	2	0	0	1	1	1	0	1	1	1	A	1	0	0	1	0	1	2	0	0	0.6	2.2
21-Jun	0	0	0	0	1	1	1	1	2	1	0	0	1	A	0	0	0	0	0	1	1	0	0	0	0.5	2.1
22-Jun	0	0	0	2	0	1	2	1	1	1	1	1	A	0	2	1	1	1	1	0	1	0	0	0	0.8	1.9
23-Jun	1	0	0	1	1	2	2	3	5	11	8	A	0	0	0	1	1	1	1	0	1	1	0	0	1.8	11.1
24-Jun	0	0	0	0	1	2	5	3	1	1	A	1	0	0	1	1	1	1	1	1	0	0	1	0	0.9	4.6
25-Jun	0	0	0	0	0	2	4	9	4	A	5	2	3	1	1	1	1	1	0	0	0	0	0	2	1.6	9.1
26-Jun	0	0	1	0	0	0	1	1	A	1	1	1	1	1	0	0	1	1	0	0	0	0	0	0	0.4	0.9
27-Jun	0	0	0	2	1	2	5	A	2	2	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1.3	4.9
28-Jun	1	0	0	0	0	1	A	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0	0.7	1.3
29-Jun	0	0	0	0	0	A	1	1	1	0	0	0	0	0	1	0	1	0	0	0	1	0	0	0	0.4	1.3
30-Jun	0	0	0	0	A	2	3	2	2	1	1	1	1	1	0	1	1	2	1	0	0	0	0	0	0.8	3.3
0.2 0.3 0.3 0.4 0.7 1.3 2.4 2.3 1.7 1.4 1.3 0.7 0.8 0.7 0.8 0.6 0.6 0.6 0.6 0.6 0.4 0.5 0.8 0.3 0.3																								Diurnal Average		
0.6 2.7 1.7 2.5 4.1 8.6 8.8 9.1 5.1 11.1 8.5 1.6 3.4 1.4 3.9 1.4 1.4 2.0 1.5 0.9 1.5 10.9 1.6 2.0																								Diurnal Maximum		
C - Calibration M - Maintenance A - Automated Daily Zero Span																										

Hourly Averages

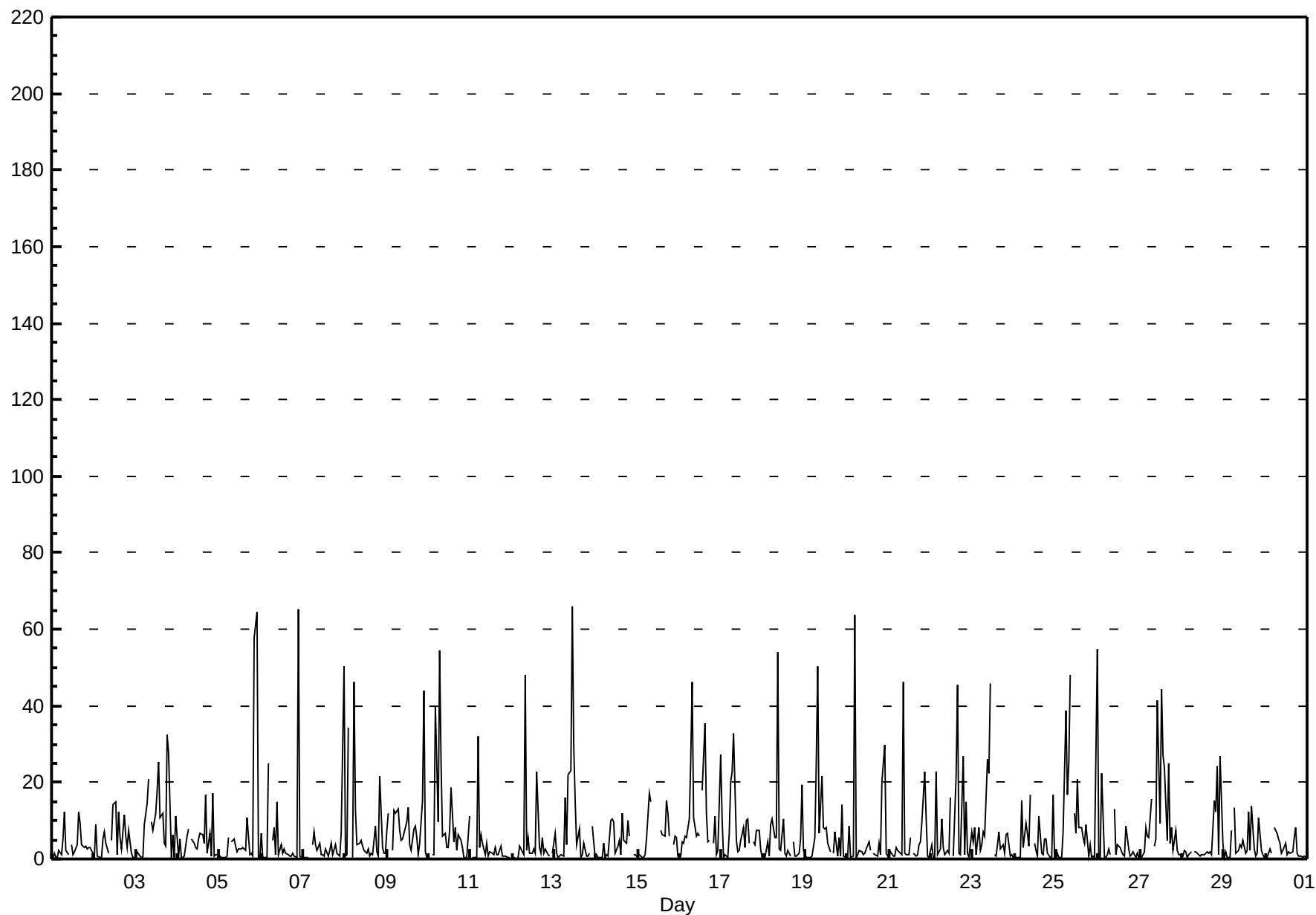
Nitrogen Oxide (NO) - ppb
Portable Clairmont - June 2015



Maximum Value: 66.0 ppb on Jun 13 11:00																				Maximum Daily Average: 11.9 ppb on Jun 25					Hours in Service: 720	
Minimum Value: 0 ppb on Jun 12 03:00																				Minimum Daily Average: 2.7 ppb on Jun 30					Hours of Data: 683	
Maximum Diurnal Average: 12.5 ppb at hour 8																				Minimum Diurnal Average: 1.8 ppb at hour 1					Hours of Missing Data: 37	
Monthly Average: 6.54 ppb																				Percentiles: P ₁ = 0.3 P ₁₀ = 0.4 Q ₁ = 1.0 Median = 2.7 Q ₃ = 7.0 P ₉₀ = 16.7 P ₉₉ = 54.2					Hours of Calibration: 36	
																				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-Jun	1	2	0	0	2	1	5	12	2	1	A	4	1	2	4	12	9	4	3	3	3	3	3	2	3.4	12.4
2-Jun	1	9	1	0	0	5	7	4	1	A	5	14	15	1	12	6	3	12	6	3	7	2	0	0	5.0	14.9
3-Jun	0	2	1	0	1	9	14	21	A	10	8	12	18	25	11	12	4	3	32	28	0	6	0	11	10.0	32.5
4-Jun	0	5	0	0	1	6	8	A	5	4	3	3	5	7	6	4	17	2	7	1	17	1	1	1	4.6	17.2
5-Jun	1	0	0	0	1	6	A	5	5	3	2	3	3	3	3	2	11	1	1	1	58	65	0	0	7.5	64.6
6-Jun	7	0	0	0	25	A	5	8	1	15	1	4	1	2	1	1	1	1	2	1	0	65	1	0	6.2	65.2
7-Jun	0	0	0	0	A	4	7	4	2	4	1	1	1	3	1	2	4	1	4	1	1	1	7	50	4.4	50.3
8-Jun	1	1	34	A	0	46	13	4	4	5	4	2	1	3	1	1	1	9	2	1	21	3	2	2	7.0	46.3
9-Jun	8	12	A	2	13	12	13	7	5	5	7	10	13	4	2	8	9	6	1	4	15	44	2	0	8.8	44.1
10-Jun	0	A	1	1	40	10	54	25	6	7	3	3	7	19	5	8	2	6	5	3	1	0	0	11	9.5	54.3
11-Jun	A	0	0	0	32	3	6	4	1	4	1	2	1	1	3	1	1	3	1	1	1	0	0	A	3.1	31.9
12-Jun	0	0	0	0	3	3	1	48	2	6	1	2	3	1	23	3	2	6	1	3	1	1	A	1	4.9	47.9
13-Jun	7	2	1	1	1	1	16	4	22	23	66	29	15	4	8	0	1	4	1	1	2	A	9	0	9.5	66.0
14-Jun	1	1	0	0	4	0	1	1	10	11	10	2	3	5	1	12	5	4	10	6	A	1	1	1	3.9	12.1
15-Jun	1	1	0	1	1	5	17	15	C	C	C	C	C	8	6	6	15	12	6	A	4	6	6	1	6.2	17.2
16-Jun	1	4	4	6	6	10	26	46	11	6	7	6	M	18	35	12	5	5	A	4	11	1	2	27	11.5	46.3
17-Jun	11	0	1	0	7	20	23	33	5	2	2	5	8	3	10	10	4	A	5	4	8	7	3	0	7.4	32.9
18-Jun	0	0	5	1	9	11	6	6	54	3	2	10	1	1	2	1	A	4	1	1	1	5	19	2	6.3	54.1
19-Jun	0	0	0	0	1	6	25	50	7	22	8	8	8	4	2	A	1	7	1	5	1	14	1	0	7.5	50.2
20-Jun	0	9	0	1	64	0	1	2	2	1	2	3	5	2	A	1	1	1	4	1	20	30	1	1	6.6	63.6
21-Jun	1	2	1	1	3	2	2	1	46	2	1	1	6	A	1	1	1	4	4	10	23	11	1	0	5.4	46.1
22-Jun	4	0	1	23	1	3	11	3	1	2	2	16	A	1	22	46	1	1	27	1	15	2	1	7	8.2	45.7
23-Jun	5	8	1	8	2	4	7	6	26	22	46	A	1	1	4	7	2	4	1	6	7	1	1	0	7.5	46.0
24-Jun	1	0	0	0	15	3	9	7	3	17	A	4	2	1	11	1	1	5	5	1	0	0	17	0	4.7	16.8
25-Jun	2	0	0	1	7	39	17	25	48	A	12	7	21	8	8	6	4	9	1	4	1	1	0	55	11.9	54.9
26-Jun	0	0	22	0	0	1	3	1	A	13	1	4	3	2	1	1	9	3	1	1	2	1	1	0	3.1	22.5
27-Jun	0	0	2	8	6	6	16	A	3	5	41	9	44	27	24	5	25	4	8	2	8	2	1	1	10.9	44.4
28-Jun	1	2	2	0	1	2	A	2	2	1	1	1	1	2	1	2	1	2	1	15	12	24	1	27	4.7	26.7
29-Jun	0	2	0	0	8	A	14	1	2	4	3	5	1	2	12	2	14	3	1	2	11	2	1	0	3.9	13.8
30-Jun	0	0	3	1	A	8	7	5	4	2	2	4	1	2	1	2	6	8	1	1	1	0	1	0	2.7	8.3
1.8 2.3 2.9 2.1 9.0 8.1 11.9 12.5 10.5 7.3 8.9 6.1 7.1 5.5 7.7 6.1 5.6 4.5 5.4 3.8 9.1 9.5 3.8 6.3																									Diurnal Average	
10.5 12.0 34.4 22.8 63.6 46.3 54.3 50.2 54.1 23.0 66.0 29.4 44.4 27.4 35.4 45.7 25.0 12.1 32.5 27.8 57.6 65.2 26.7 54.9																									Diurnal Maximum	
C - Calibration					M - Maintenance					A - Automated Daily Zero Span																

Hourly Maximums

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



Hourly Averages

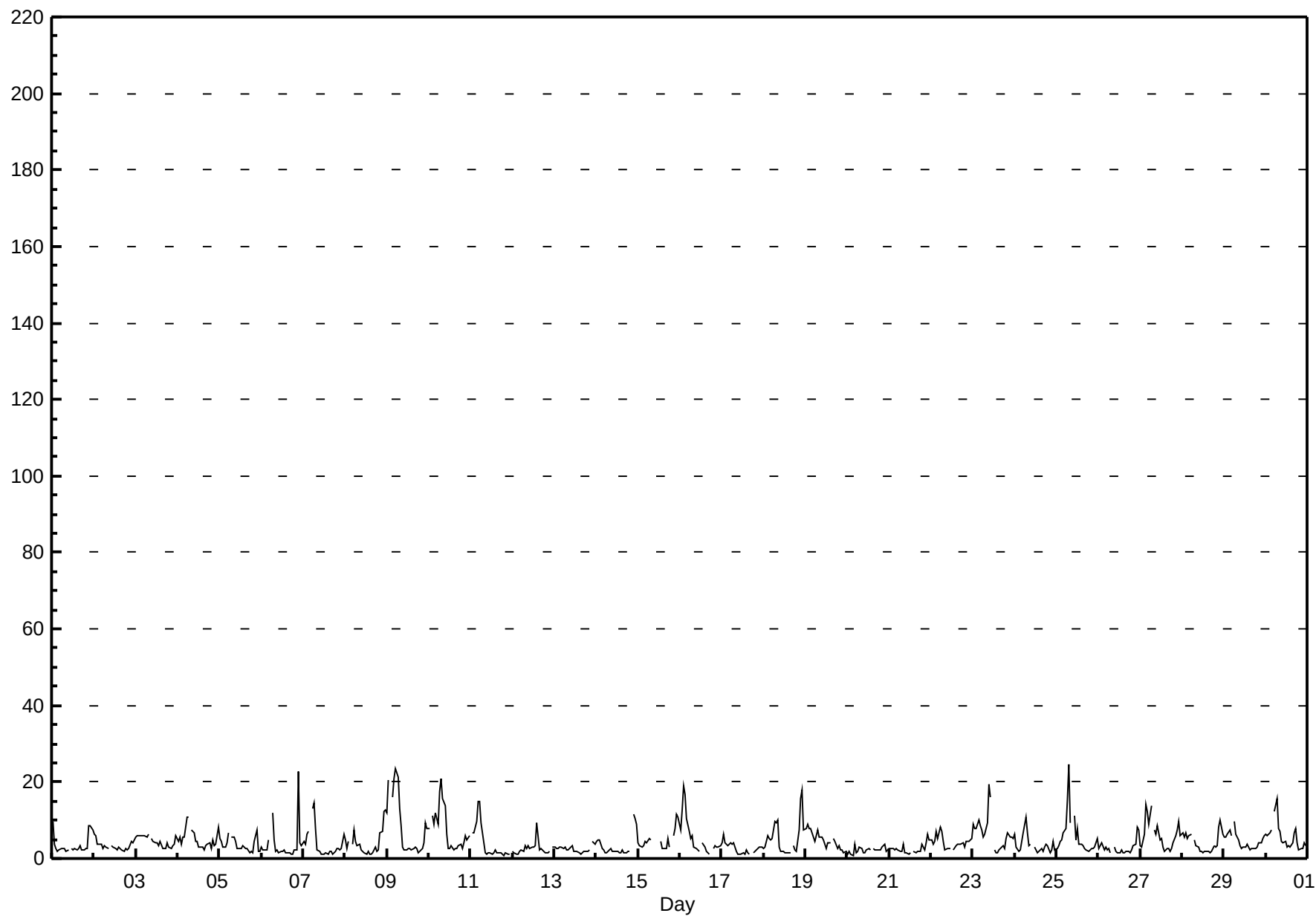
Oxides of Nitrogen (NO_x) - ppb

Portable Clairmont - June 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 24.5 ppb on Jun 25 08:00 Maximum Daily Average: 8.1 ppb on Jun 9																				Hours in Service: 720 Hours of Data: 683 Hours of Missing Data: 37 Hours of Calibration: 36 Percent Operational Time: 99.9						
Minimum Value: 1 ppb on Jun 20 04:00 Maximum Diurnal Average: 8.0 ppb at hour 7 Monthly Average: 4.36 ppb										Minimum Daily Average: 2.2 ppb on Jun 20 Minimum Diurnal Average: 2.2 ppb at hour 16 Percentiles: P ₁ = 1.1 P ₁₀ = 1.6 Q ₁ = 2.1 Median = 3.0 Q ₃ = 5.4 P ₉₀ = 8.5 P ₉₉ = 20.3																
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-Jun	10	4	3	2	2	3	3	3	2	2	A	3	2	3	2	3	3	2	2	3	3	9	9	7	3.6	9.8
2-Jun	6	6	4	4	4	3	3	3	2	A	3	3	3	2	3	3	2	2	2	2	3	4	4	5	3.3	6.3
3-Jun	6	6	6	6	6	6	5	6	A	5	4	4	4	3	5	3	2	3	4	3	3	4	4	6	4.5	6.5
4-Jun	4	6	4	6	5	11	11	A	7	7	5	4	3	3	3	2	3	4	4	3	5	4	4	8	5.0	11.0
5-Jun	5	4	3	3	4	7	A	6	5	4	3	2	3	4	3	3	2	2	2	2	4	7	2	2	3.5	7.5
6-Jun	3	2	2	2	5	A	12	5	2	2	2	2	2	2	1	1	1	1	1	2	2	23	4	3	3.7	22.8
7-Jun	5	4	6	7	A	13	15	8	2	2	1	1	1	1	1	2	2	1	2	3	3	2	3	6	3.9	14.5
8-Jun	5	2	5	A	4	8	5	4	4	2	2	2	1	2	1	1	2	3	2	2	7	7	12	13	4.1	12.8
9-Jun	12	20	A	16	21	23	21	13	9	3	2	2	3	3	2	2	3	3	2	2	3	4	9	8	8.1	23.4
10-Jun	8	A	11	9	12	9	18	21	16	14	6	3	3	3	2	3	3	3	4	3	4	6	5	6	7.4	21.0
11-Jun	A	7	7	10	15	15	9	7	1	1	1	1	1	1	2	1	2	2	1	1	1	1	1	A	4.1	14.9
12-Jun	2	1	1	1	2	2	2	3	2	4	3	3	3	3	9	2	3	2	2	1	2	2	A	3	2.6	9.4
13-Jun	3	3	3	3	3	3	3	2	2	3	3	2	2	2	1	1	1	2	2	2	2	A	5	4	2.5	4.6
14-Jun	4	5	5	2	2	2	2	2	3	2	2	2	2	2	2	2	1	2	2	2	A	11	10	9	3.3	11.4
15-Jun	4	3	3	3	4	4	5	5	C	C	C	C	C	4	3	2	2	5	3	A	6	8	12	11	4.9	11.6
16-Jun	8	13	19	17	10	7	5	6	3	3	2	2	M	4	3	2	2	1	A	2	3	3	3	3	5.5	19.0
17-Jun	4	6	4	3	4	4	4	4	2	1	1	1	2	1	2	1	1	A	2	2	2	3	3	3	2.6	6.5
18-Jun	3	3	6	5	5	5	10	9	10	3	2	2	1	2	2	1	A	3	2	2	7	16	18	8	5.4	17.9
19-Jun	8	9	8	8	7	5	6	7	6	6	5	4	3	4	4	A	5	5	3	4	2	2	2	2	4.9	8.9
20-Jun	1	2	1	1	4	2	2	3	3	2	1	2	3	2	A	3	2	2	2	2	3	4	2	2	2.2	3.8
21-Jun	2	3	3	2	3	2	2	2	4	1	1	1	2	A	2	2	2	2	2	4	2	4	6	5	2.5	6.4
22-Jun	5	4	4	7	5	8	7	4	2	3	2	2	A	2	3	4	4	4	4	3	4	5	5	5	4.2	8.4
23-Jun	9	8	8	10	8	7	6	6	9	19	16	A	2	2	2	2	2	3	3	5	7	6	6	5	6.6	19.2
24-Jun	6	3	2	2	4	7	11	7	3	4	A	3	2	2	2	3	2	3	4	4	2	2	5	2	3.6	10.8
25-Jun	2	3	5	5	7	8	15	24	10	A	11	5	8	4	4	3	2	2	2	2	3	2	3	5	5.9	24.5
26-Jun	3	3	4	2	3	2	3	2	A	3	2	1	2	2	2	2	2	2	2	2	4	4	8	7	2.8	8.0
27-Jun	3	3	6	14	12	9	14	A	8	6	9	5	5	3	2	2	3	2	3	4	6	7	10	6	6.2	14.2
28-Jun	7	6	7	5	6	7	A	5	3	3	2	2	2	2	2	2	2	2	3	3	3	8	10	6	4.2	9.9
29-Jun	5	6	6	7	6	A	10	6	5	3	3	3	3	4	3	2	2	2	3	3	4	4	5	6	4.4	9.5
30-Jun	6	6	7	7	A	12	16	8	7	4	4	4	3	3	3	4	7	8	4	2	3	3	4	3	5.6	15.6
																									Diurnal Average	
																									Diurnal Maximum	
C - Calibration M - Maintenance A - Automated Daily Zero Span																										

Hourly Averages

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



Hourly Maximums

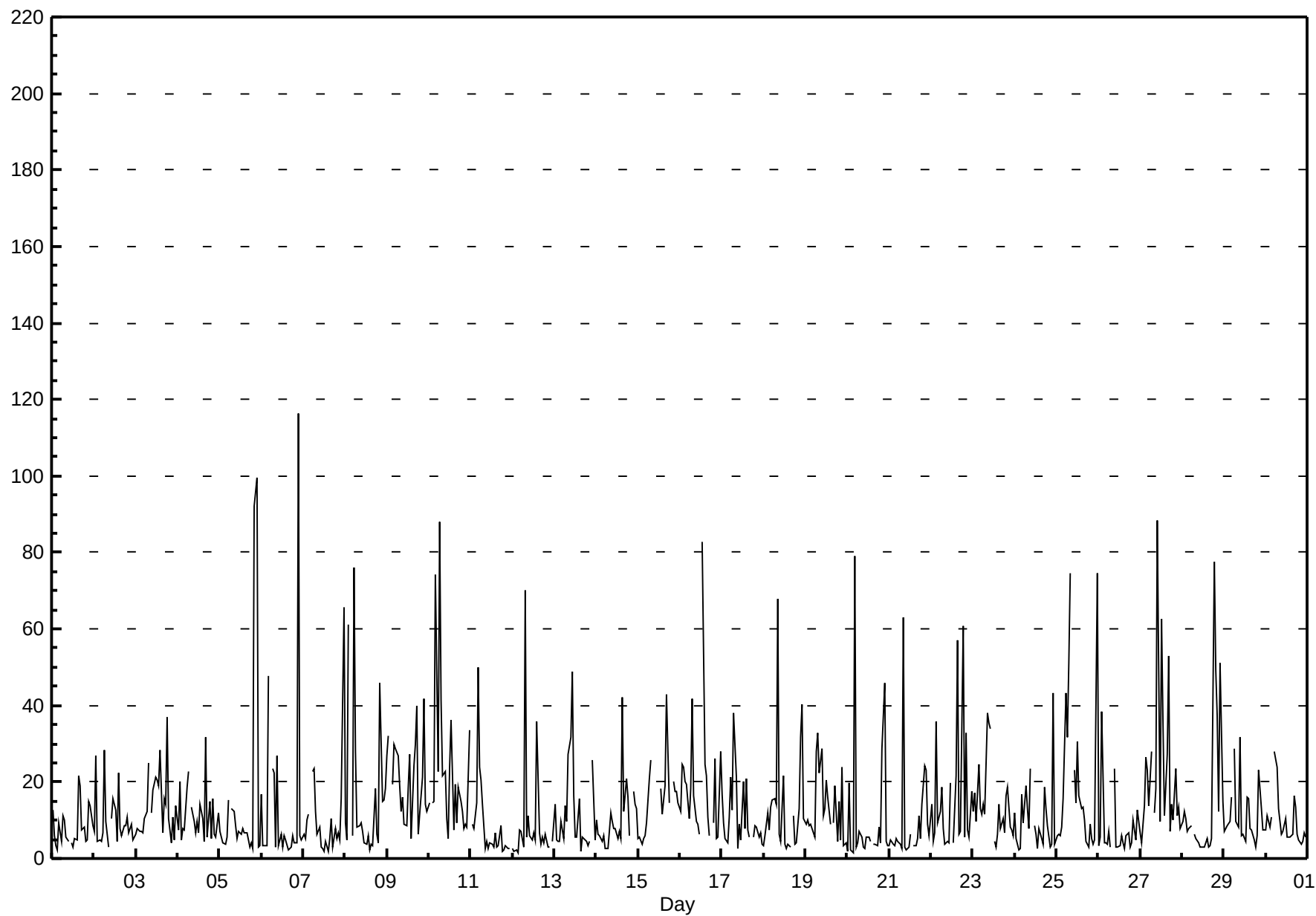
Oxides of Nitrogen (NO_x) - ppb

Portable Clairmont - June 2015

Maximum Value: 116.3 ppb on Jun 6 22:00																				Maximum Daily Average: 23.0 ppb on Jun 10					Hours in Service: 720	
Minimum Value: 2 ppb on Jun 12 04:00																				Minimum Daily Average: 7.5 ppb on Jun 26					Hours of Data: 683	
Maximum Diurnal Average: 20.6 ppb at hour 7																				Minimum Diurnal Average: 8.9 ppb at hour 12					Hours of Missing Data: 37	
Monthly Average: 13.43 ppb																				Percentiles: P ₁ = 1.8 P ₁₀ = 3.2 Q ₁ = 4.9 Median = 8.2 Q ₃ = 15.9 P ₉₀ = 28.1 P ₉₉ = 77.7					Hours of Calibration: 36	
																				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-Jun	13	6	4	2	9	5	11	10	6	4	A	4	3	5	5	22	19	7	8	4	5	15	14	9	8.2	21.6
2-Jun	7	27	4	5	4	7	28	10	3	A	11	16	13	4	23	8	6	9	8	11	7	9	5	6	10.0	28.3
3-Jun	6	8	7	7	7	10	12	25	A	12	18	21	21	19	28	7	15	14	37	11	4	11	5	14	13.9	37.0
4-Jun	8	20	5	8	8	19	23	A	13	10	7	10	7	14	11	4	32	6	15	5	15	6	5	12	11.4	31.6
5-Jun	7	6	4	4	6	15	A	13	12	9	5	7	6	8	7	7	7	3	4	3	92	99	3	3	14.4	99.4
6-Jun	17	3	4	3	48	A	23	22	3	27	3	6	3	6	5	2	3	3	6	4	4	116	6	5	14.0	116.3
7-Jun	6	5	10	12	A	23	23	12	6	8	3	2	2	5	2	5	10	3	8	5	7	5	16	66	10.6	65.7
8-Jun	9	5	61	A	6	76	28	8	8	9	7	4	4	6	2	4	3	18	6	4	46	15	15	18	15.8	76.1
9-Jun	27	32	A	19	30	29	27	19	12	16	9	9	19	27	5	24	30	40	6	11	21	42	14	12	20.9	41.9
10-Jun	15	A	15	15	74	23	88	41	22	23	10	5	24	36	7	19	9	19	15	12	8	9	8	33	23.0	87.9
11-Jun	A	9	8	15	50	24	20	14	3	5	3	4	4	3	7	3	3	8	2	2	3	2	2	A	8.8	50.0
12-Jun	3	2	2	2	8	7	3	70	5	11	6	5	7	5	36	7	4	5	4	7	3	3	A	5	9.0	69.9
13-Jun	14	5	5	5	10	5	14	10	27	32	49	16	5	6	16	2	5	5	5	3	4	A	26	5	11.9	48.9
14-Jun	10	6	6	4	6	2	3	3	12	10	8	8	5	7	5	42	12	21	16	6	A	18	14	13	10.3	42.0
15-Jun	5	6	4	5	6	9	21	26	C	C	C	C	C	18	12	19	43	28	14	A	20	18	18	14	15.9	42.9
16-Jun	12	24	24	20	19	11	18	42	16	10	9	7	M	83	25	22	11	6	A	9	26	5	6	28	19.7	82.7
17-Jun	17	9	5	4	11	21	12	38	21	3	9	5	20	8	21	7	6	A	6	9	8	6	7	4	11.1	38.1
18-Jun	4	6	12	7	13	15	16	14	68	6	4	22	4	3	4	3	A	11	4	4	13	32	40	10	13.7	67.7
19-Jun	9	10	9	9	8	5	28	33	23	29	11	13	20	16	9	A	9	19	4	15	5	24	3	4	13.7	32.7
20-Jun	2	20	2	2	79	3	4	7	6	3	2	6	6	4	A	4	4	3	8	4	29	46	4	3	10.9	78.9
21-Jun	3	5	4	3	5	4	4	3	63	3	2	3	6	A	3	3	5	11	5	14	24	23	9	6	9.3	62.9
22-Jun	14	5	7	36	9	12	19	8	4	4	4	20	A	4	22	57	6	7	61	5	33	7	6	18	16.0	60.7
23-Jun	12	17	10	25	13	11	14	12	38	35	34	A	4	3	7	14	8	10	7	16	19	8	7	6	14.4	38.2
24-Jun	12	5	2	3	17	9	19	13	8	23	A	8	6	3	8	5	4	19	13	9	3	4	43	4	10.4	43.1
25-Jun	6	6	6	8	16	43	32	51	74	A	23	15	31	16	13	14	10	5	3	9	5	4	5	75	20.4	74.6
26-Jun	3	6	38	4	4	4	7	3	A	24	3	3	3	6	4	3	6	7	3	4	10	5	13	10	7.5	38.3
27-Jun	7	4	14	27	23	14	28	A	12	18	88	10	63	35	11	27	53	7	14	10	24	11	13	8	22.7	88.2
28-Jun	10	12	10	7	8	9	A	6	5	4	3	3	3	3	5	3	3	5	78	49	37	12	51	15	14.9	77.7
29-Jun	7	8	9	10	16	A	29	10	8	32	6	6	5	16	16	8	7	5	3	6	23	13	8	8	11.1	31.9
30-Jun	7	11	8	11	A	28	24	13	10	6	7	10	6	6	6	6	16	13	6	5	4	5	7	6	9.6	27.9
																								Diurnal Average		
																								Diurnal Maximum		
C - Calibration				M - Maintenance				A - Automated Daily Zero Span																		

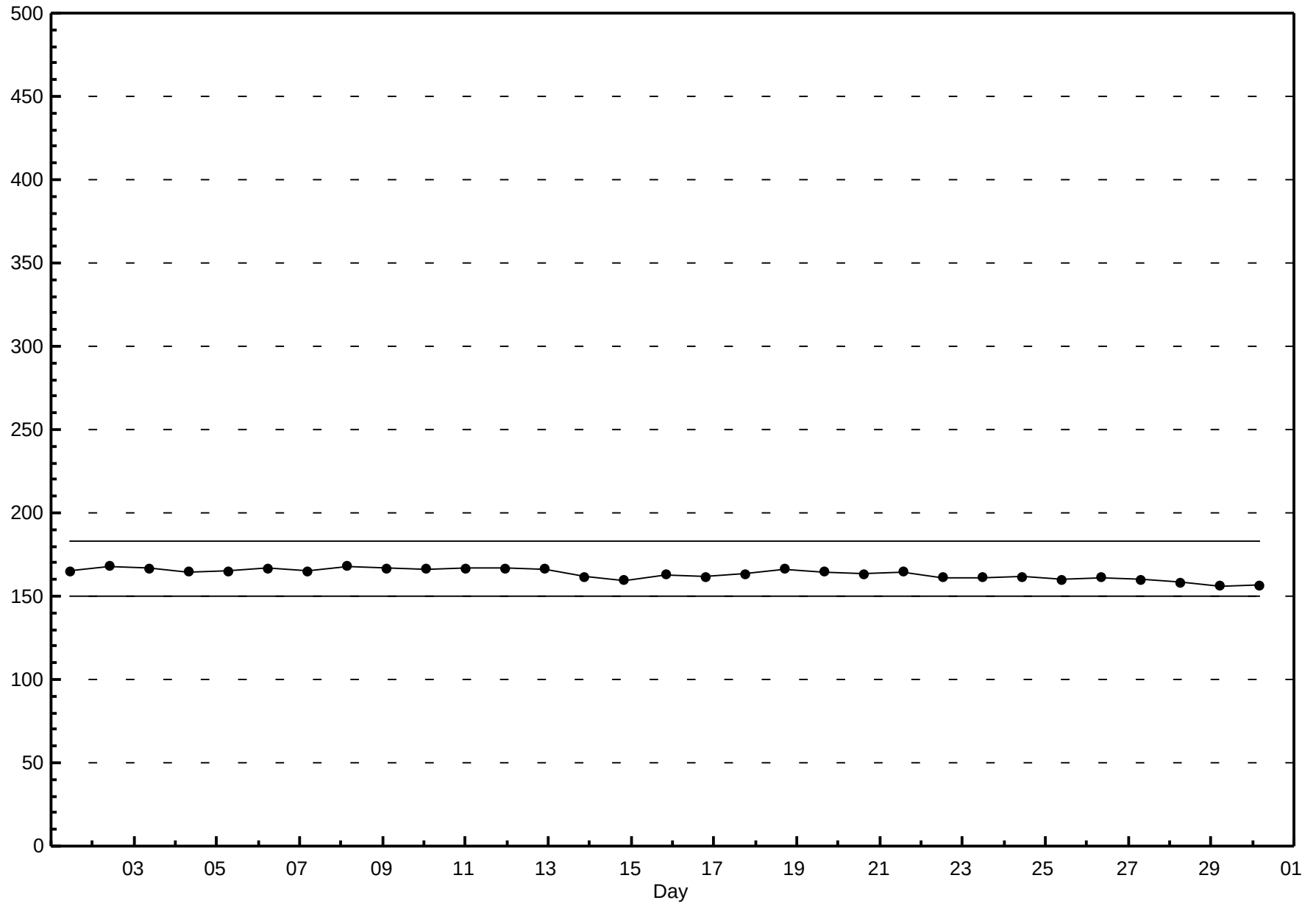
Hourly Maximums

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



Span Responses

Oxides of Nitrogen (NO_x)
Portable Clairmont - June 2015



Hourly Averages

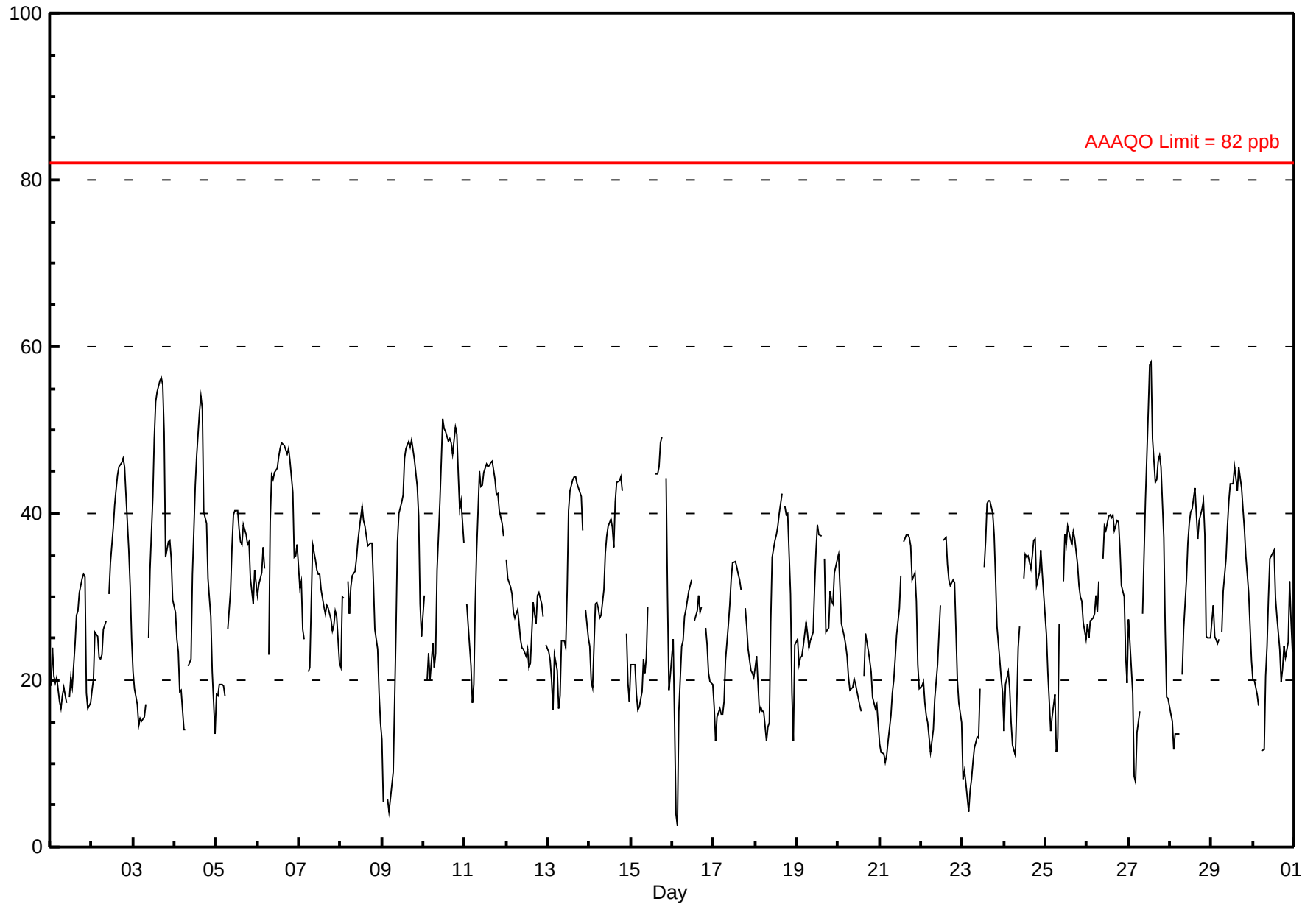
Ozone (O₃) - ppb

Portable Clairmont - June 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 58.1 ppb on Jun 27 14:00 Maximum Daily Average: 40.6 ppb on Jun 6																								Hours in Service: 720 Hours of Data: 685 Hours of Missing Data: 35 Hours of Calibration: 34 Percent Operational Time: 99.9		
Minimum Value: 3 ppb on Jun 16 04:00 Minimum Daily Average: 21.5 ppb on Jun 20 Maximum Diurnal Average: 39.4 ppb at hour 15 Minimum Diurnal Average: 18.5 ppb at hour 6 Monthly Average: 29.36 ppb Percentiles: P ₁ = 6.2 P ₁₀ = 16.2 Q ₁ = 20.8 Median = 28.8 Q ₃ = 37.3 P ₉₀ = 44.4 P ₉₉ = 53.9																										
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-Jun	19	24	21	20	20	17	17	18	19	17	A	18	20	19	24	28	28	30	32	33	32	19	17	17	22.2	32.6
2-Jun	19	20	26	25	23	22	23	26	27	A	30	34	38	41	43	44	46	46	47	46	42	36	31	25	33.0	46.6
3-Jun	21	19	17	15	15	15	16	17	A	25	33	42	49	53	55	56	56	55	50	35	37	37	35	30	34.0	56.3
4-Jun	28	25	23	19	19	14	14	A	22	23	33	38	43	47	52	54	53	40	39	32	30	28	21	14	30.8	54.1
5-Jun	18	18	19	20	19	18	A	26	31	36	40	40	40	38	37	36	39	38	36	37	32	29	33	32	31.0	40.4
6-Jun	30	32	33	36	33	A	23	39	44	44	45	45	47	48	48	48	48	47	48	46	42	35	35	36	40.6	48.4
7-Jun	31	32	26	25	A	21	21	29	36	34	33	33	33	31	29	28	29	29	27	26	27	28	28	22	28.6	36.3
8-Jun	22	30	30	A	32	28	31	33	33	34	37	38	41	39	38	37	36	36	36	32	26	24	18	15	31.6	40.9
9-Jun	13	5	A	6	4	6	9	17	26	37	40	41	42	47	48	49	48	49	48	46	43	40	29	25	31.2	48.7
10-Jun	30	A	20	23	20	24	21	23	33	41	46	51	50	50	49	49	48	47	50	49	45	40	42	37	38.7	51.4
11-Jun	A	29	27	22	17	20	29	36	45	43	43	45	46	46	46	46	46	44	42	42	40	39	37	A	37.8	46.2
12-Jun	34	32	31	30	28	27	28	27	25	24	24	23	24	21	22	29	28	27	30	30	29	28	A	24	27.3	34.4
13-Jun	23	22	20	16	23	21	17	18	25	25	24	31	40	43	44	44	44	44	43	42	38	A	29	25	30.5	44.5
14-Jun	24	20	19	29	29	29	27	28	31	35	37	38	39	38	36	41	44	44	44	43	A	26	20	17	32.2	44.5
15-Jun	22	22	22	18	16	17	19	23	21	23	29	C	C	C	45	45	46	48	49	A	44	30	19	21	28.8	49.2
16-Jun	25	15	4	3	16	24	25	28	28	31	31	32	M	27	28	30	28	29	A	26	24	21	20	20	23.4	32.0
17-Jun	17	13	16	17	16	16	17	22	27	29	32	34	34	34	33	32	31	A	29	26	24	21	21	20	24.3	34.2
18-Jun	22	23	16	17	16	16	13	14	15	27	35	37	38	39	40	42	A	41	40	40	30	18	13	24	26.7	42.4
19-Jun	25	22	23	23	24	27	26	24	25	26	31	35	39	38	37	A	35	26	26	31	30	29	33	34	29.0	38.6
20-Jun	35	31	27	25	24	23	20	19	19	20	20	19	17	16	A	20	26	24	22	21	18	17	17	15	21.5	35.1
21-Jun	12	11	11	10	11	13	16	18	20	23	25	29	32	A	37	37	37	37	36	32	33	30	22	19	24.0	37.5
22-Jun	19	20	17	16	15	11	13	14	18	22	26	29	A	37	37	34	32	31	32	32	26	20	17	15	23.2	37.1
23-Jun	8	9	8	4	7	8	10	12	13	13	19	A	34	37	41	42	41	40	37	32	26	22	20	19	21.9	41.6
24-Jun	14	20	21	19	15	12	11	17	24	26	A	32	35	35	35	33	35	37	37	31	33	36	33	30	27.0	36.9
25-Jun	25	21	17	14	16	18	11	13	27	A	32	37	36	39	37	36	38	37	34	31	30	30	27	25	27.4	38.5
26-Jun	27	25	27	27	28	30	28	32	A	35	39	38	40	40	40	40	38	39	39	36	31	30	23	20	32.6	39.9
27-Jun	27	25	18	9	8	14	16	A	28	35	41	52	58	58	49	44	44	46	47	46	37	26	18	18	33.2	58.1
28-Jun	16	15	12	14	14	13	A	21	26	32	36	39	40	40	43	40	37	39	40	42	37	25	25	25	29.2	43.0
29-Jun	27	29	25	24	25	A	26	31	35	38	41	44	44	46	44	43	46	43	40	38	35	30	26	22	34.9	45.6
30-Jun	20	20	18	17	A	11	12	21	24	30	35	35	36	30	28	24	20	21	24	23	24	32	27	23	24.1	35.7
22.6 21.7 20.5 18.7 19.1 18.5 19.3 23.0 26.7 29.6 33.5 36.1 38.3 38.4 39.4 39.1 38.8 38.4 38.1 35.4 32.7 28.4 25.3 23.0																								Diurnal Average		
35.1 32.3 32.9 36.0 33.4 30.2 31.2 38.9 45.1 44.1 46.3 52.2 57.8 58.1 54.6 55.9 56.3 55.4 50.4 49.5 44.8 40.5 41.5 36.5																								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 - June 2015



Hourly Maximums

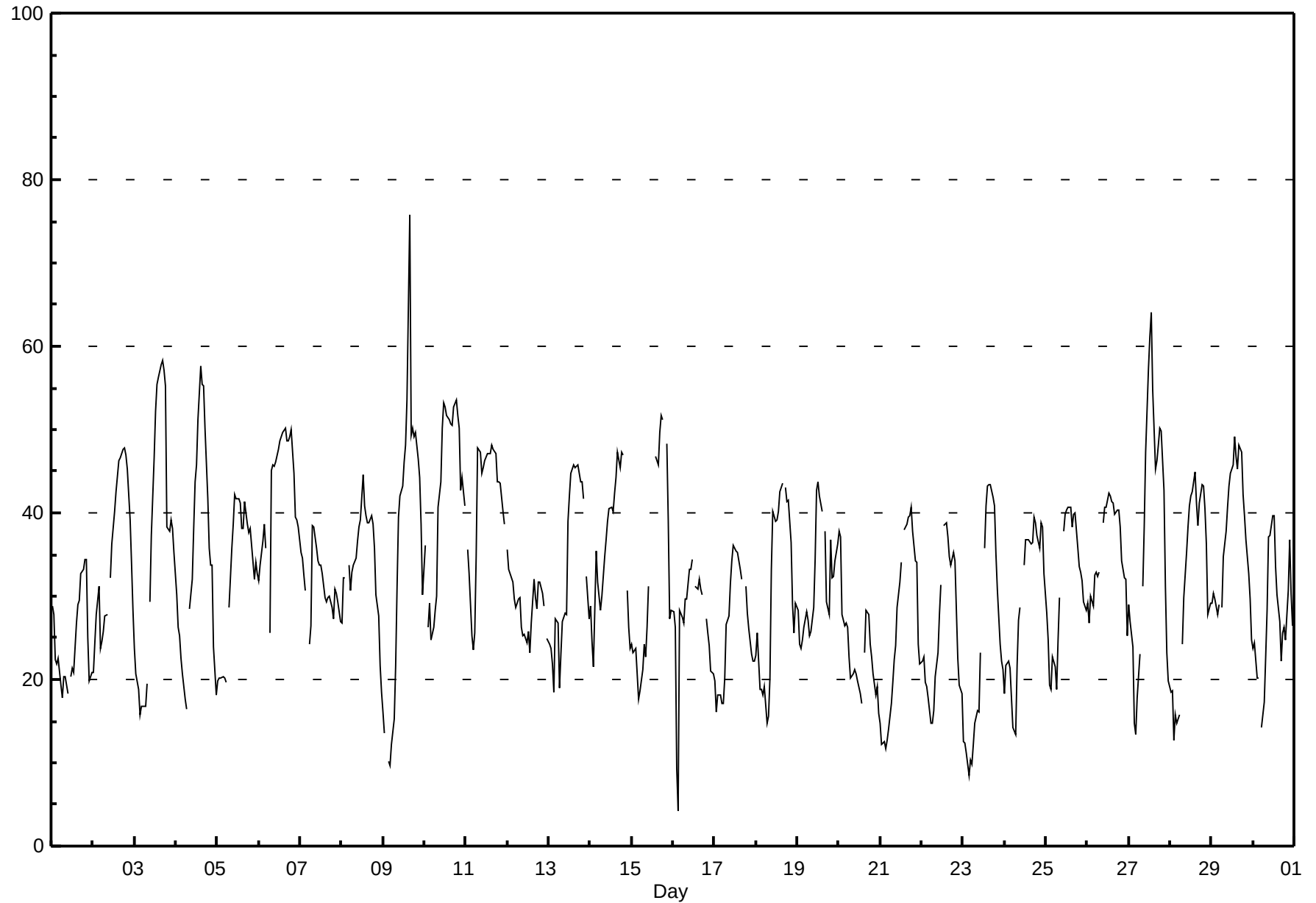
Ozone (O₃) - ppb

Portable Clairmont - June 2015

Maximum Value: 75.7 ppb on Jun 9 16:00																						Maximum Daily Average: 43.0 ppb on Jun 6						Hours in Service: 720	
Minimum Value: 4 ppb on Jun 16 04:00																						Minimum Daily Average: 23.6 ppb on Jun 20						Hours of Data: 685	
Maximum Diurnal Average: 42.0 ppb at hour 15																						Minimum Diurnal Average: 21.2 ppb at hour 6						Hours of Missing Data: 35	
Monthly Average: 32.31 ppb																						Percentiles: P ₁ = 11.0 P ₁₀ = 18.6 Q ₁ = 24.2 Median = 31.8 Q ₃ = 40.1 P ₉₀ = 46.7 P ₉₉ = 57.1						Hours of Calibration: 34	
																												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-Jun	29	28	22	22	22	19	18	20	20	18	A	20	21	21	27	29	29	33	33	34	34	25	20	21	24.7	34.5			
2-Jun	21	24	28	31	24	25	26	28	28	A	32	36	40	42	44	46	47	48	48	47	45	39	34	28	35.3	47.8			
3-Jun	24	21	19	16	17	17	17	20	A	29	37	47	52	55	56	58	58	57	55	38	38	39	38	35	36.6	58.2			
4-Jun	30	26	25	23	21	18	16	A	28	32	38	44	46	51	58	55	55	50	42	36	34	34	24	18	34.9	57.6			
5-Jun	20	20	20	20	20	20	A	29	36	39	42	42	42	41	38	38	41	39	38	38	36	32	34	33	32.9	42.2			
6-Jun	32	34	37	39	36	A	26	45	46	46	46	48	49	49	50	50	49	49	49	50	45	40	39	38	43.0	50.2			
7-Jun	35	35	33	31	A	24	26	38	38	36	34	34	34	33	30	29	30	30	29	27	31	30	29	27	31.4	38.4			
8-Jun	27	32	32	A	34	31	33	34	35	37	38	39	45	41	40	39	39	40	39	36	30	28	22	19	34.2	44.6			
9-Jun	16	14	A	10	10	12	15	22	31	39	42	43	46	48	54	76	49	50	49	50	47	44	39	30	36.3	75.7			
10-Jun	36	A	26	29	25	26	28	30	41	44	50	53	53	52	51	51	51	53	54	52	50	43	44	41	42.7	53.5			
11-Jun	A	36	33	25	24	26	35	48	47	45	45	46	47	47	47	48	48	47	44	44	44	40	39	A	41.0	48.2			
12-Jun	36	33	32	32	30	29	30	30	26	25	25	24	26	23	27	32	30	28	32	32	30	29	A	25	28.9	35.7			
13-Jun	24	24	22	19	27	27	19	23	27	28	28	39	42	45	46	45	46	46	44	44	42	A	32	27	33.2	45.8			
14-Jun	29	25	22	35	32	30	28	30	35	37	39	41	41	40	42	44	47	45	47	47	A	31	26	24	35.5	47.2			
15-Jun	24	23	24	21	18	19	21	24	23	26	31	C	C	C	47	46	50	52	51	A	48	39	27	28	32.1	51.7			
16-Jun	28	26	9	4	28	28	27	30	30	33	33	34	M	31	31	32	31	30	A	27	26	24	21	21	26.6	34.3			
17-Jun	20	16	18	18	17	17	20	27	28	31	34	36	35	35	34	33	32	A	31	28	26	23	22	22	26.3	36.1			
18-Jun	23	26	19	19	18	19	15	16	20	33	40	39	39	40	43	44	A	43	41	41	36	29	26	29	30.3	43.6			
19-Jun	28	24	24	25	26	28	27	25	26	29	34	43	44	42	40	A	38	29	28	37	32	32	34	36	31.8	43.7			
20-Jun	38	37	28	26	27	26	23	20	21	21	21	20	18	17	A	23	28	28	24	23	21	18	19	16	23.6	37.8			
21-Jun	15	12	13	12	13	14	17	20	22	24	29	32	34	A	38	39	40	40	41	38	34	34	24	22	26.3	40.6			
22-Jun	22	23	20	19	18	15	15	16	20	23	28	31	A	38	39	37	35	34	35	34	28	22	19	18	25.7	38.8			
23-Jun	12	12	11	8	10	10	12	15	16	16	23	A	36	41	43	43	43	42	41	35	31	24	22	21	24.8	43.3			
24-Jun	18	22	22	21	18	14	13	22	27	29	A	34	37	37	37	36	36	39	39	37	36	39	38	33	29.7	39.5			
25-Jun	28	25	19	19	23	22	19	25	30	A	38	40	40	41	41	38	40	40	36	33	33	32	29	28	31.2	40.7			
26-Jun	29	27	30	29	33	33	32	33	A	39	41	41	42	42	41	41	40	40	40	38	34	32	32	25	35.4	42.3			
27-Jun	29	27	24	15	13	18	23	A	31	38	47	57	61	64	55	45	46	48	50	50	43	31	23	20	37.4	64.1			
28-Jun	18	19	13	16	15	16	A	24	30	35	38	41	42	43	45	41	38	41	43	43	41	36	28	29	32.0	44.8			
29-Jun	29	30	30	28	29	A	29	35	38	41	43	45	46	49	47	45	48	47	42	40	37	33	30	25	37.6	49.2			
30-Jun	24	24	20	20	A	14	17	23	28	37	37	40	40	34	30	27	22	26	26	25	31	37	30	26	27.8	39.7			
25.7 25.0 23.2 21.8 22.3 21.2 22.4 26.7 29.6 32.5 36.3 38.8 40.6 40.8 42.0 41.8 40.9 41.2 40.4 38.1 35.9 32.4 29.2 26.4																									Diurnal Average				
37.8 37.1 36.7 38.7 35.8 32.8 34.7 47.7 47.2 45.7 50.2 57.2 61.2 64.1 57.6 75.7 58.2 57.1 55.2 51.7 50.2 44.2 44.3 40.8																									Diurnal Maximum				
C - Calibration M - Maintenance A - Automated Daily Zero Span																													

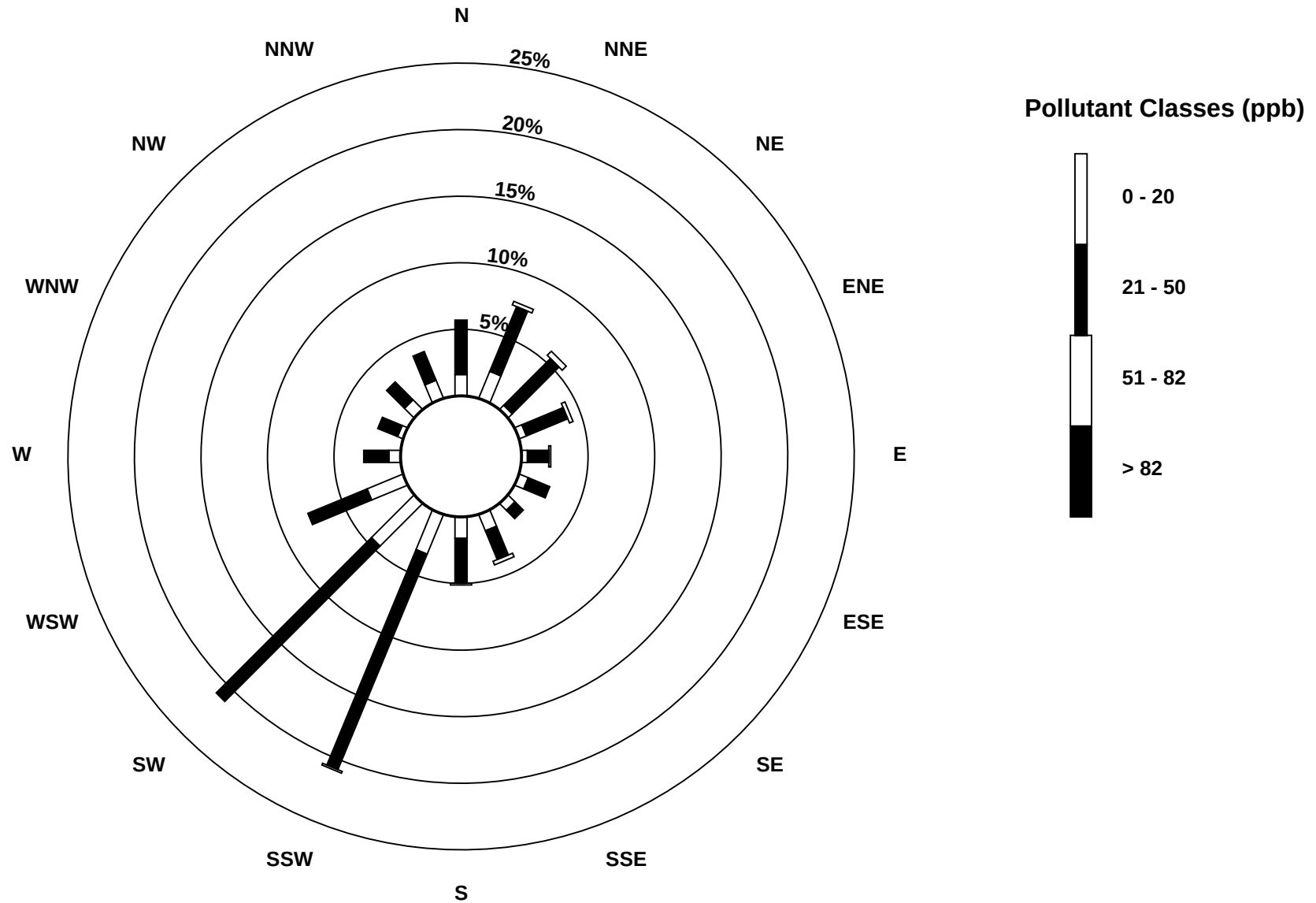
Hourly Maximums

Ozone (O₃) - ppb
Portable Clairmont - June 2015



Pollutant Rose

Ozone (O₃) - ppb
Portable Clairmont - June 2015



Eight Hour Running Averages

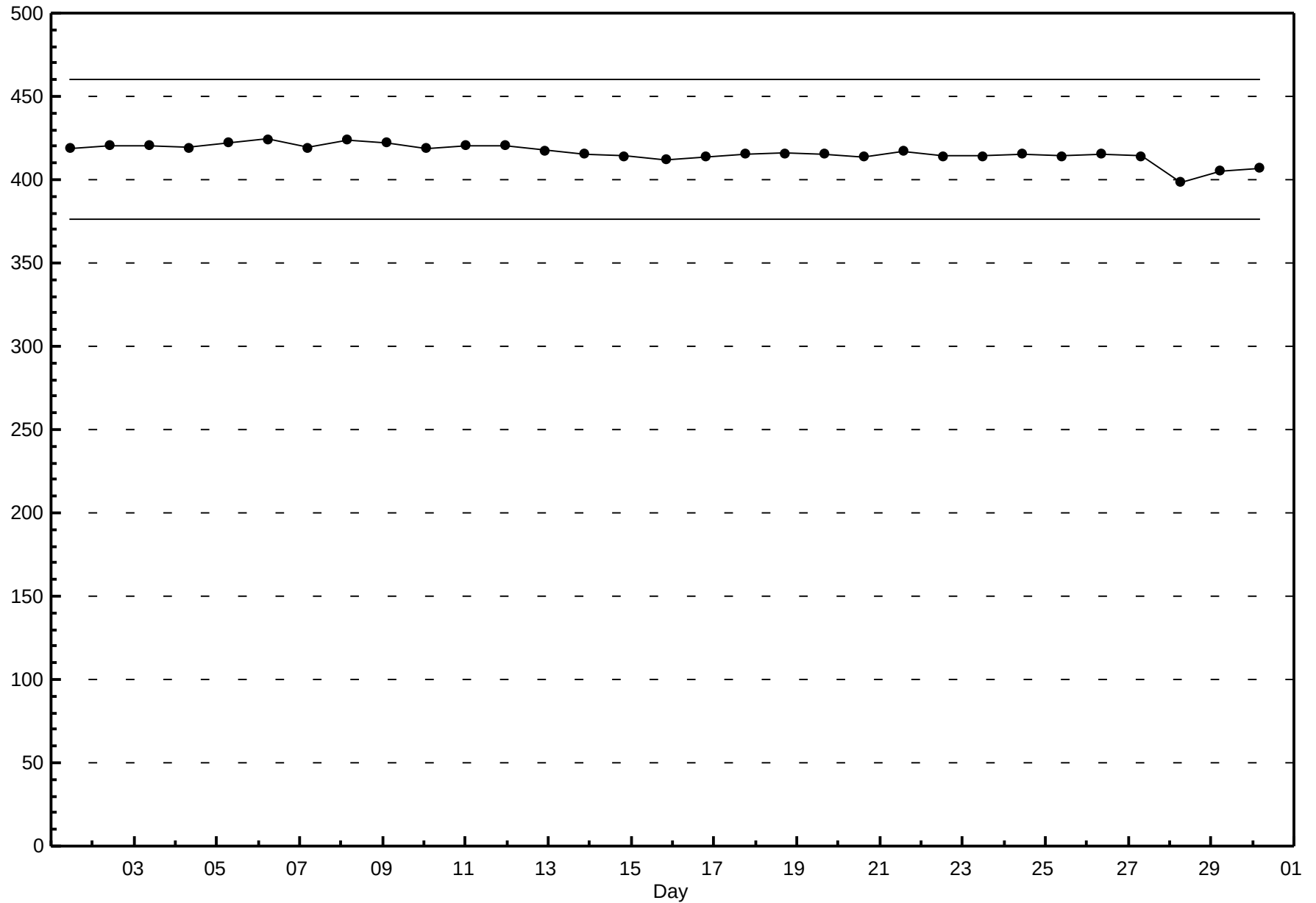
Ozone (O₃) - ppb

Portable Clairmont - June 2015

Maximum Value: 52.0 ppb on Jun 3 19:00																								Hours in Service: 720		
Minimum Value: 8.3 ppb on Jun 23 08:00																								Hours of Data: 713		
																								Hours of Missing Data: 7		
Percentiles: P ₁ = 9.3 P ₁₀ = 17.9 Q ₁ = 22.4 Median = 28.7 Q ₃ = 35.5 P ₉₀ = 42.2 P ₉₉ = 49.0																								Hours of Calibration: 7		
																								Percent Operational Time: 100.0		
Day	Hourly Period Ending At (MST)																								Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jun	33	30	27	25	23	22	20	20	19	19	18	18	18	18	19	21	22	24	25	27	28	28	27	26	32.6	
2-Jun	25	24	23	22	21	21	22	23	24	25	25	27	29	31	34	37	40	40	42	44	44	44	42	40	44.3	
3-Jun	37	33	30	26	22	20	18	17	16	17	19	23	28	34	39	45	46	50	52	51	50	48	45	42	52.0	
4-Jun	38	34	31	29	27	24	21	20	19	19	20	23	27	31	37	39	43	45	46	45	43	41	37	32	45.8	
5-Jun	28	25	23	21	20	18	18	20	22	24	27	30	33	36	36	37	38	38	38	38	36	35	35	34	38.4	
6-Jun	33	33	32	32	32	33	31	32	34	36	38	39	41	42	45	46	47	47	47	47	47	45	44	42	47.5	
7-Jun	40	38	35	33	31	29	28	27	27	28	29	30	30	31	32	32	31	30	30	29	28	28	28	27	40.1	
8-Jun	26	26	26	27	27	27	28	29	31	32	33	34	36	37	37	38	38	38	38	37	35	33	31	28	37.9	
9-Jun	25	21	19	15	12	10	8	9	11	15	18	23	27	32	37	41	44	45	46	47	47	46	44	41	47.1	
10-Jun	39	37	33	30	27	25	24	23	24	26	29	33	36	40	43	46	48	49	49	49	48	47	46	45	49.4	
11-Jun	44	42	38	34	30	27	26	26	28	30	32	35	38	42	44	45	45	45	45	45	44	43	42	42	45.3	
12-Jun	40	38	37	35	33	32	30	30	29	28	27	26	25	24	24	24	24	25	26	26	27	28	29	28	40.0	
13-Jun	27	27	25	23	22	22	21	20	20	21	21	23	25	28	31	34	37	39	42	43	43	43	41	38	43.0	
14-Jun	35	31	28	26	25	25	25	26	27	28	31	32	33	34	35	37	39	40	41	41	41	40	37	34	41.5	
15-Jun	31	28	24	21	20	19	19	20	20	20	21	21	22	N	N	N	N	N	N	N		46	44	40	37	46.2
16-Jun	34	29	22	20	16	16	16	17	18	20	23	27	28	29	29	30	30	29	29	28	28	27	25	24	33.8	
17-Jun	22	20	19	18	17	17	16	17	18	20	22	24	26	29	31	32	32	33	32	31	30	28	26	25	32.8	
18-Jun	23	23	22	20	19	19	18	17	16	17	19	22	24	27	30	34	37	39	39	40	39	36	32	29	39.9	
19-Jun	29	27	24	22	21	23	24	24	24	25	26	27	29	30	32	33	34	34	34	33	32	30	30	30	34.3	
20-Jun	30	31	31	31	30	29	28	26	24	22	21	20	20	19	19	19	20	20	21	21	21	21	21	20	31.2	
21-Jun	18	17	15	14	13	13	12	13	14	15	17	19	22	23	26	29	32	34	35	36	36	35	33	31	35.6	
22-Jun	28	26	24	22	20	17	16	16	15	16	17	18	19	23	26	29	31	32	33	34	33	30	28	26	33.5	
23-Jun	23	20	17	13	11	10	9	8	9	9	11	12	16	20	24	28	32	36	39	38	37	35	33	30	38.9	
24-Jun	26	24	22	20	19	17	16	16	17	18	18	20	23	26	29	32	33	35	35	35	34	35	34	34	34.9	
25-Jun	33	31	28	26	24	22	19	17	17	17	19	22	25	28	32	35	36	37	37	36	35	34	33	31	36.8	
26-Jun	30	29	28	27	27	27	28	28	30	31	33	34	36	37	39	38	39	39	39	39	38	37	34	32	39.1	
27-Jun	31	29	26	23	20	18	17	17	17	18	22	28	35	41	46	46	48	49	50	49	46	42	38	35	49.8	
28-Jun	32	28	23	19	16	15	14	15	16	19	22	26	30	34	35	37	38	39	40	40	40	38	36	34	40.2	
29-Jun	33	31	29	27	26	26	26	27	28	29	31	34	37	38	40	42	43	44	44	43	42	40	38	35	43.8	
30-Jun	32	29	26	24	22	19	17	17	18	19	21	24	25	28	30	30	30	28	27	26	24	24	24	24	32.0	
44.3 41.8 38.4 35.0 33.2 32.7 31.3 32.3 34.3 36.1 37.8 39.2 41.1 42.0 45.9 46.3 48.1 50.0 52.0 51.1 49.6 47.5 46.4 44.8																										
Diurnal Maximums																										
N - Not Valid																										

Span Responses

Ozone (O₃)
Portable Clairmont - June 2015



Hourly Averages

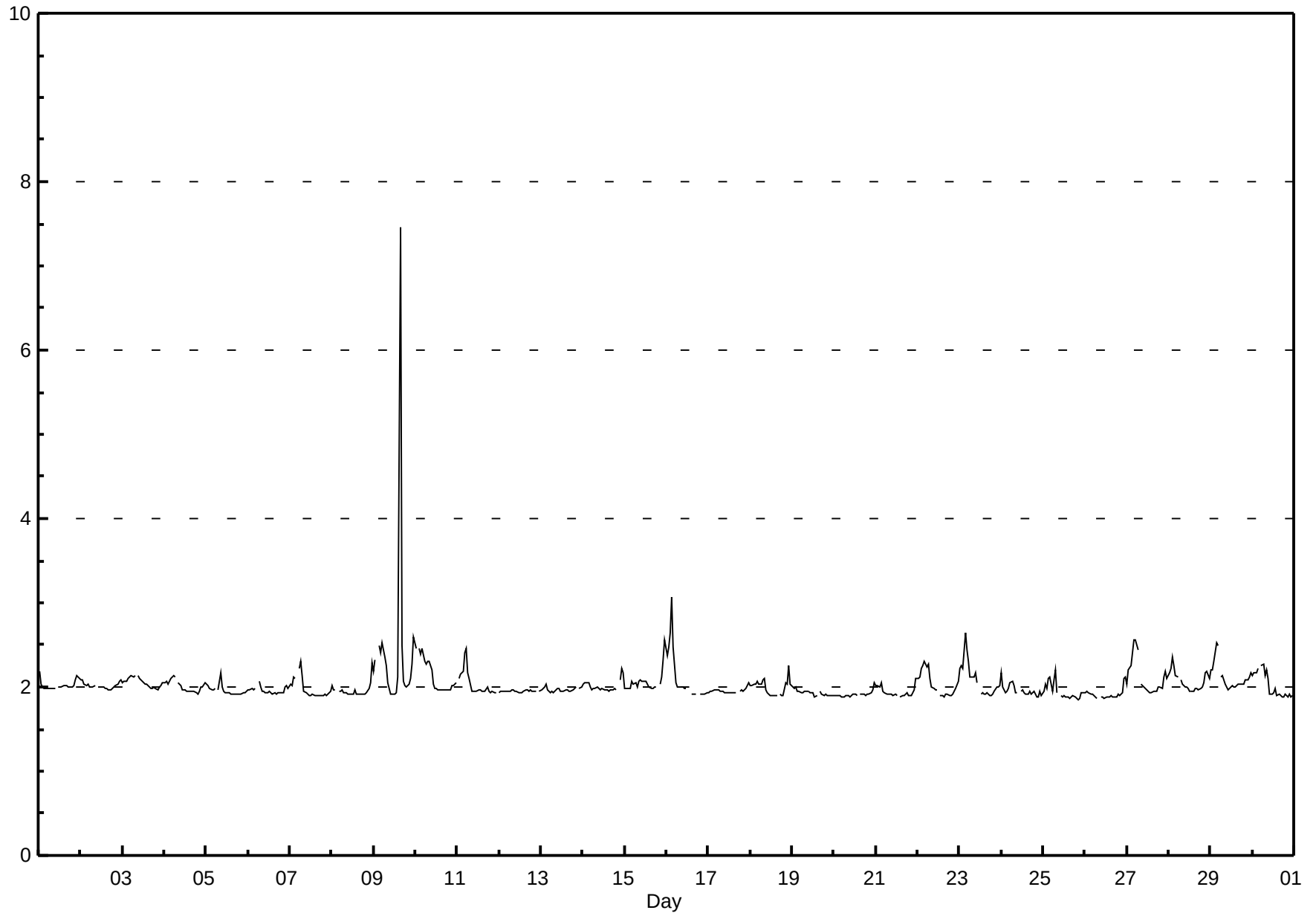
Total Hydrocarbons (THC) - ppm

Portable Clairmont - June 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 7.45 ppm on Jun 9 16:00 Maximum Daily Average: 2.41 ppm on Jun 9																					Hours in Service: 720 Hours of Data: 687 Hours of Missing Data: 33 Hours of Calibration: 33 Percent Operational Time: 100.0					
Minimum Value: 1.9 ppm on Jun 25 21:00 Maximum Diurnal Average: 2.16 ppm at hour 4 Monthly Average: 2.020 ppm										Minimum Daily Average: 1.91 ppm on Jun 20 Minimum Diurnal Average: 1.94 ppm at hour 15 Percentiles: P ₁ = 1.87 P ₁₀ = 1.90 Q ₁ = 1.93 Median = 1.97 Q ₃ = 2.04 P ₉₀ = 2.17 P ₉₉ = 2.56																
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-Jun	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.02	2.19
2-Jun	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.02	2.09
3-Jun	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.05	2.14
4-Jun	2.0	2.1	2.0	2.1	2.1	2.1	2.1	A	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.00	2.14
5-Jun	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	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	1.96	2.17
6-Jun	2.0	2.0	2.0	2.0	2.0	A	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	1.9	2.0	2.0	2.0	1.96	2.07
7-Jun	2.0	2.0	2.1	2.1	A	2.2	2.3	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.98	2.30
8-Jun	2.0	2.0	2.0	A	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.3	1.96	2.29
9-Jun	2.2	2.3	A	2.5	2.4	2.5	2.4	2.3	2.1	2.0	1.9	1.9	1.9	1.9	2.1	7.5	2.5	2.1	2.0	2.0	2.0	2.1	2.3	2.6	2.41	7.45
10-Jun	2.5	A	2.4	2.4	2.5	2.3	2.3	2.3	2.3	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	2.0	2.0	2.13	2.46
11-Jun	A	2.1	2.2	2.2	2.4	2.5	2.2	2.1	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	1.9	2.0	2.0	1.9	1.9	1.9	1.9	A	2.04	2.46
12-Jun	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	1.9	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	1.9	1.9	A	2.0	1.95	1.97
13-Jun	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	1.97	2.04
14-Jun	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.1	2.2	2.2	2.01	2.23
15-Jun	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.1	2.3	2.6	2.06	2.56
16-Jun	2.4	2.5	2.6	3.1	2.5	2.1	2.0	2.0	2.0	2.0	2.0	C	C	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	2.11	3.07
17-Jun	1.9	2.0	1.9	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.0	2.0	2.0	2.0	2.1	1.96	2.05	
18-Jun	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.1	2.1	2.0	1.9	1.9	1.9	1.9	1.9	A	A	1.9	1.9	1.9	2.1	2.0	2.3	2.0	2.00	2.25
19-Jun	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	A	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.93	2.01
20-Jun	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1	1.91	2.06
21-Jun	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	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1	1.94	2.10
22-Jun	2.1	2.1	2.2	2.2	2.3	2.2	2.3	2.1	2.0	2.0	2.0	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.03	2.30
23-Jun	2.2	2.2	2.2	2.6	2.4	2.3	2.1	2.1	2.1	2.2	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.09	2.65
24-Jun	2.2	2.0	1.9	1.9	2.0	2.1	2.1	2.0	1.9	1.9	A	1.9	2.0	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.96	2.16
25-Jun	1.9	2.0	2.0	2.1	2.1	2.0	2.1	2.2	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	1.95	2.20
26-Jun	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1	2.1	1.92	2.12
27-Jun	2.0	2.2	2.3	2.4	2.6	2.6	2.4	A	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.1	2.11	2.56
28-Jun	2.2	2.2	2.4	2.3	2.1	2.1	A	2.1	2.0	2.0	2.0	2.0	2.0	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.2	2.1	2.07	2.35
29-Jun	2.2	2.2	2.3	2.5	2.5	A	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.2	2.11	2.52
30-Jun	2.1	2.2	2.2	2.2	A	2.3	2.3	2.1	2.2	2.1	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.02	2.27
2.07 2.07 2.09 2.16 2.13 2.10 2.08 2.04 2.01 1.99 1.96 1.95 1.95 1.94 1.94 2.13 1.96 1.94 1.95 1.94 1.95 1.99 2.04 2.08																								Diurnal Average		
2.46 2.47 2.64 3.07 2.56 2.56 2.43 2.30 2.30 2.20 2.11 2.07 2.06 2.04 2.11 7.45 2.50 2.07 2.03 2.03 2.08 2.17 2.33 2.60																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										

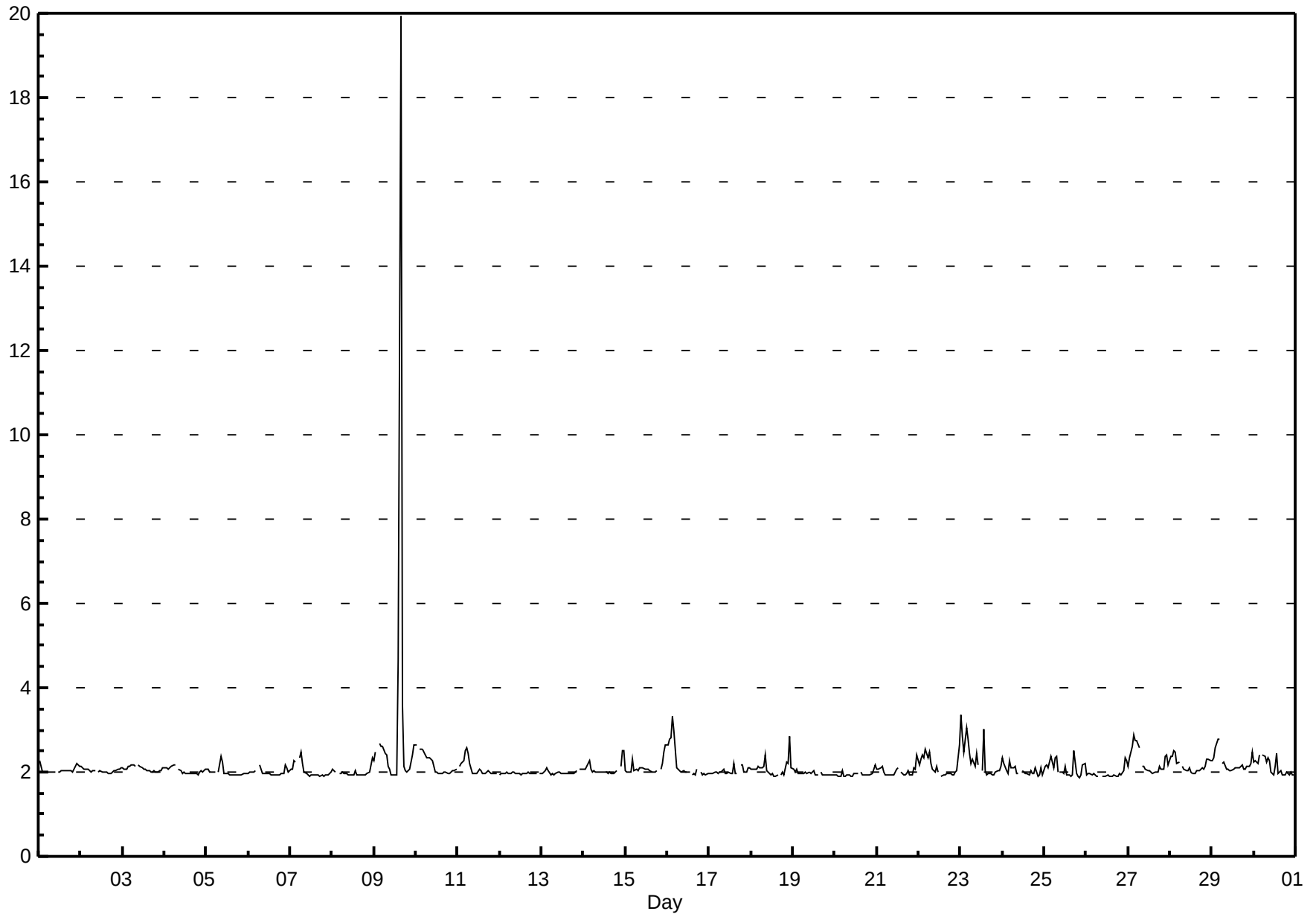
Hourly Averages

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



Hourly Maximums

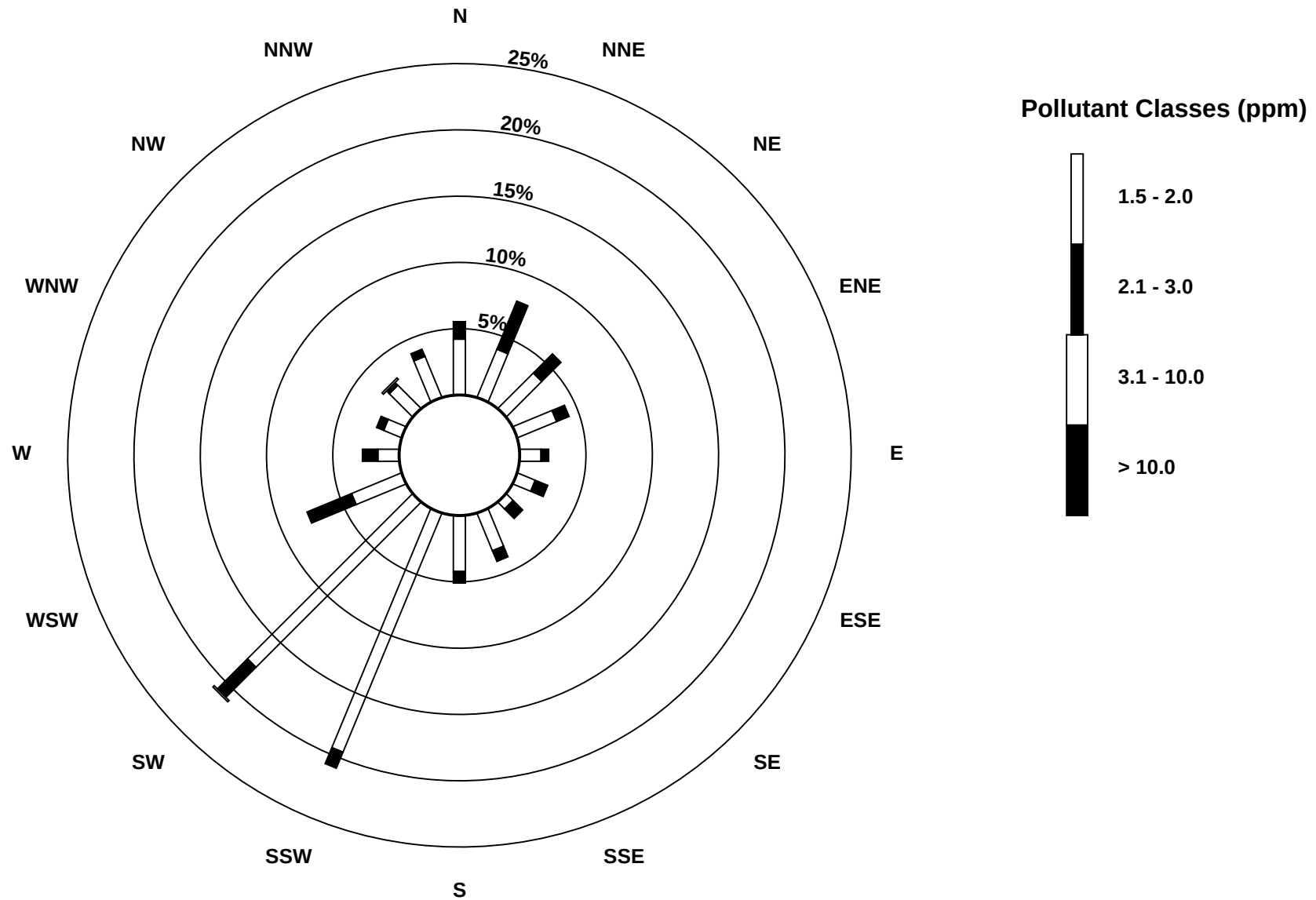
Total Hydrocarbons (THC) - ppm
Portable Clairmont - June 2015



Pollutant Rose

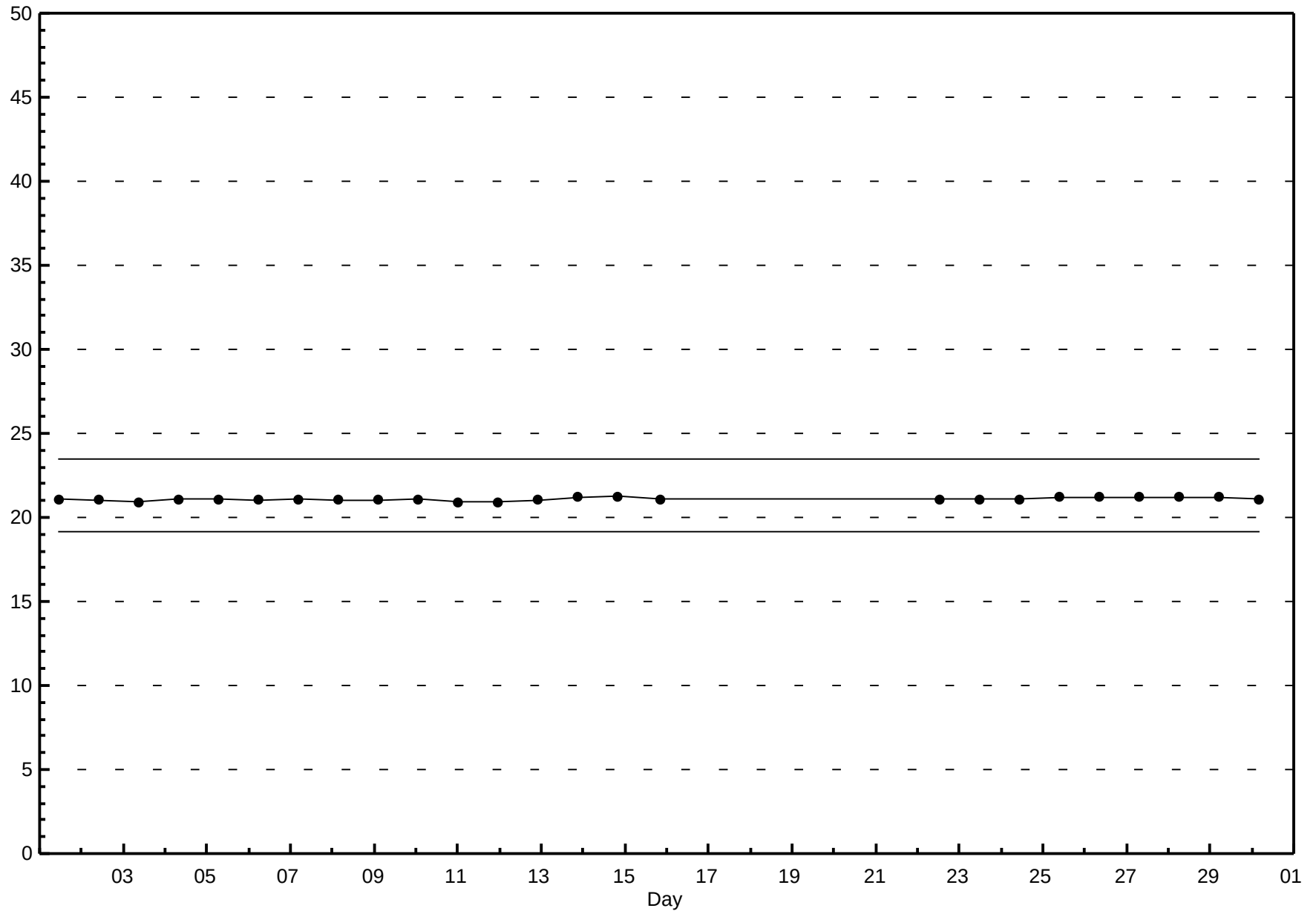
Total Hydrocarbons (THC) - ppm

Portable Clairmont - June 2015



Span Responses

Total Hydrocarbons (THC)
Portable Clairmont - June 2015



Hourly Averages

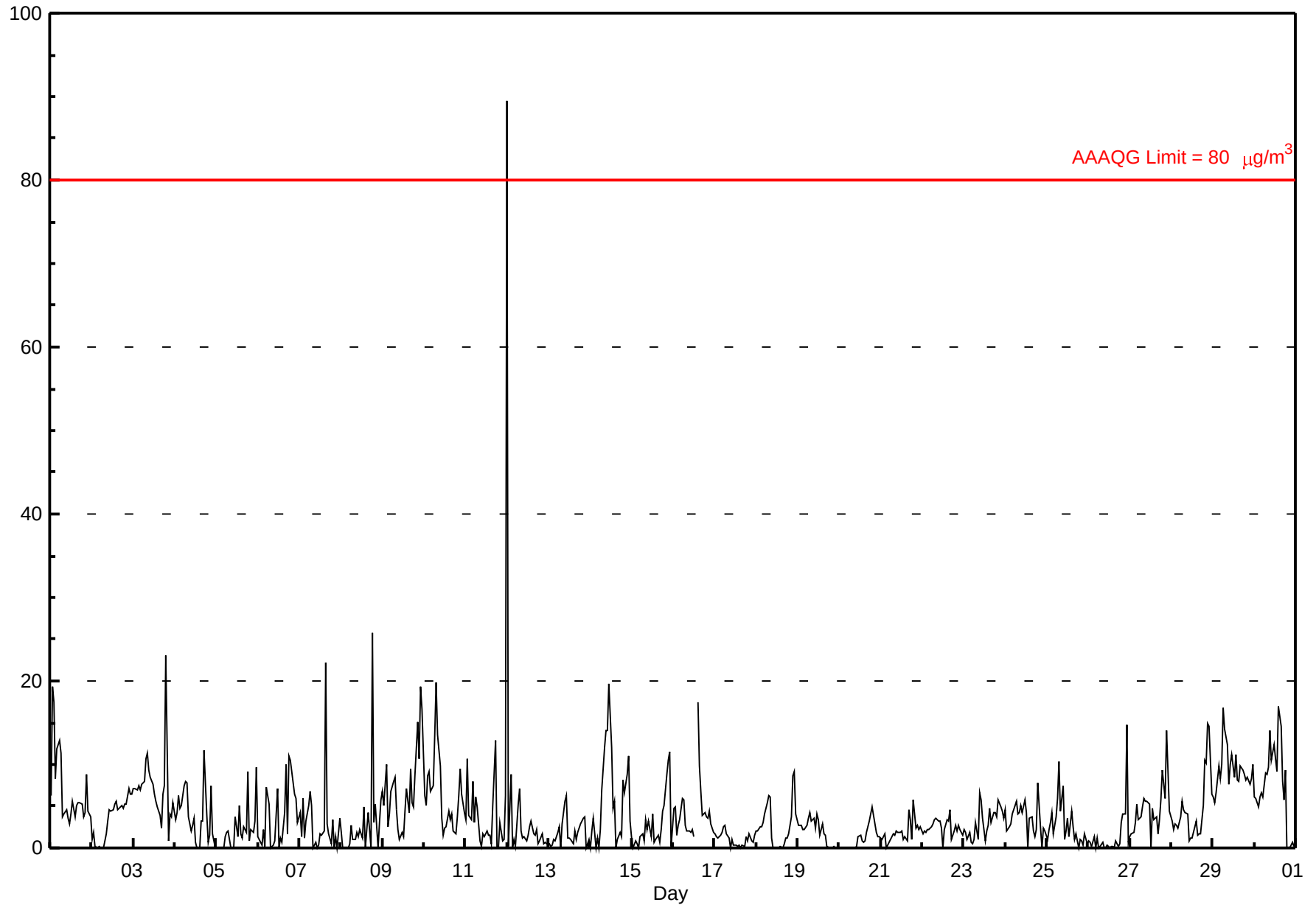
PM2.5 (PM_{2.5}) - µg/m³

Portable Clairmont - June 2015

Number of Exceedences: 1-hr: 1 24-hr: 0 Maximum Value: 89.5 µg/m³ on Jun 12 01:00 Maximum Daily Average: 9.4 µg/m³ on Jun 29																								Hours in Service: 720 Hours of Data: 719 Hours of Missing Data: 1 Hours of Calibration: 1 Percent Operational Time: 100.0			
Minimum Value: 0 µg/m³ on Jun 2 04:00 Maximum Diurnal Average: 5.8 µg/m³ at hour 1 Monthly Average: 3.95 µg/m³												Minimum Daily Average: 1.1 µg/m³ on Jun 17 Minimum Diurnal Average: 2.7 µg/m³ at hour 13 Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 1.1 Median = 2.7 Q ₃ = 5.4 P ₉₀ = 9.2 P ₉₉ = 19.2															
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-Jun	6	19	17	8	12	13	11	4	4	5	3	3	4	6	4	5	5	5	5	4	4	9	4	4	6.9	19.4	
2-Jun	1	2	0	0	0	0	0	0	2	3	5	4	5	5	6	5	5	5	5	5	5	7	7	6	3.4	7.1	
3-Jun	7	7	7	7	7	8	8	11	11	9	9	8	6	6	5	4	2	6	7	23	1	4	4	5	7.2	23.1	
4-Jun	3	4	6	5	5	7	8	8	4	2	3	3	1	0	0	3	3	12	4	1	2	7	2	0	3.9	11.7	
5-Jun	0	0	0	0	0	1	2	2	0	0	0	4	1	5	2	1	3	2	9	1	2	2	3	10	2.0	9.6	
6-Jun	1	1	0	2	0	7	5	0	0	0	1	7	0	1	1	4	10	2	11	10	8	7	6	3	3.7	11.0	
7-Jun	4	1	6	1	3	5	7	5	0	1	0	0	2	2	2	22	3	2	1	3	0	1	0	4	3.1	22.2	
8-Jun	2	0	0	0	0	1	3	1	1	2	1	2	1	5	0	2	4	0	26	3	5	0	3	6	2.8	25.7	
9-Jun	7	5	10	2	4	7	8	8	5	2	1	2	1	4	7	4	10	5	5	9	15	11	19	17	7.0	19.3	
10-Jun	6	5	9	9	7	8	13	20	14	10	4	2	2	3	4	3	4	2	2	4	6	9	6	4	6.5	19.8	
11-Jun	3	11	4	3	8	3	6	5	1	0	2	1	2	2	2	1	5	13	0	0	3	1	1	6	3.4	12.9	
12-Jun	90	0	9	0	1	0	5	7	2	1	1	1	2	3	3	2	2	2	1	1	2	0	1	1	5.6	89.5	
13-Jun	0	0	0	1	1	2	3	0	3	6	6	1	1	1	0	2	1	2	3	3	4	4	0	1	1.9	6.3	
14-Jun	0	2	3	0	1	0	2	7	12	14	14	20	12	5	6	0	1	2	1	8	7	9	11	3	5.9	19.6	
15-Jun	1	0	1	0	0	1	2	1	3	2	3	1	4	1	1	2	1	2	4	5	9	11	12	0	2.8	11.5	
16-Jun	5	5	1	3	3	6	6	3	2	2	2	2	1	C	18	10	7	4	4	4	4	4	3	2	4.4	17.5	
17-Jun	2	1	1	1	2	3	3	2	1	0	1	0	0	0	0	0	0	0	1	1	2	1	1	1	1.1	2.7	
18-Jun	2	2	2	3	3	4	5	6	6	1	0	0	0	0	0	0	0	1	1	2	4	9	9	4	2.7	9.2	
19-Jun	3	3	3	2	2	3	4	4	3	4	2	4	3	1	3	2	2	0	0	0	0	0	0	0	2.0	4.2	
20-Jun	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	2	3	4	5	4	2	1	1	1.2	4.9	
21-Jun	1	1	2	0	0	1	1	2	1	2	2	2	2	1	1	1	5	3	1	6	2	3	2	2	1.9	5.7	
22-Jun	2	2	2	2	2	3	3	3	4	3	3	2	0	2	3	3	5	1	2	3	2	3	2	2	2.4	4.5	
23-Jun	2	2	1	2	1	1	1	3	1	7	6	4	1	2	3	5	3	4	4	4	6	5	4	4	3.1	6.6	
24-Jun	5	2	2	3	4	5	6	4	4	5	4	6	4	0	3	4	2	1	2	8	2	0	2	2	3.4	7.7	
25-Jun	1	2	3	4	2	4	6	10	4	7	1	2	4	1	4	3	1	2	0	1	1	0	2	0	2.8	10.3	
26-Jun	1	1	0	1	0	1	0	0	1	0	0	0	0	0	0	0	1	0	1	3	4	4	15	1	1.4	14.7	
27-Jun	1	2	2	3	5	3	4	5	6	6	6	5	0	5	3	4	2	3	6	9	6	14	9	4	4.7	14.0	
28-Jun	3	2	3	3	2	4	6	5	4	4	1	1	1	2	3	1	2	2	5	11	10	15	15	6	4.6	14.9	
29-Jun	6	5	7	10	8	10	17	14	12	8	10	11	8	11	8	8	10	9	9	8	8	8	8	10	9.4	16.7	
30-Jun	6	6	5	6	7	6	9	9	10	14	10	12	11	9	17	15	8	6	9	0	0	0	1	0	7.3	16.9	
5.8 3.2 3.6 2.8 3.1 3.8 5.1 5.0 4.0 4.0 3.4 3.8 2.7 2.8 3.7 3.8 3.5 3.4 4.4 4.8 4.2 5.0 5.1 3.7																								Diurnal Average			
89.5 19.4 17.5 9.7 11.8 12.9 16.7 19.8 13.5 14.1 14.1 19.6 12.0 11.1 17.5 22.2 9.9 12.9 25.7 23.1 15.1 14.9 19.3 16.6																								Diurnal Maximum			
C - Calibration																											
Alberta Ambient Air Quality Guideline (AAQG): 1-hr 80 µg/m³ Alberta Ambient Air Quality Objective (AAQO): 24-hr 30 µg/m³																											

Hourly Averages

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



Hourly Maximums

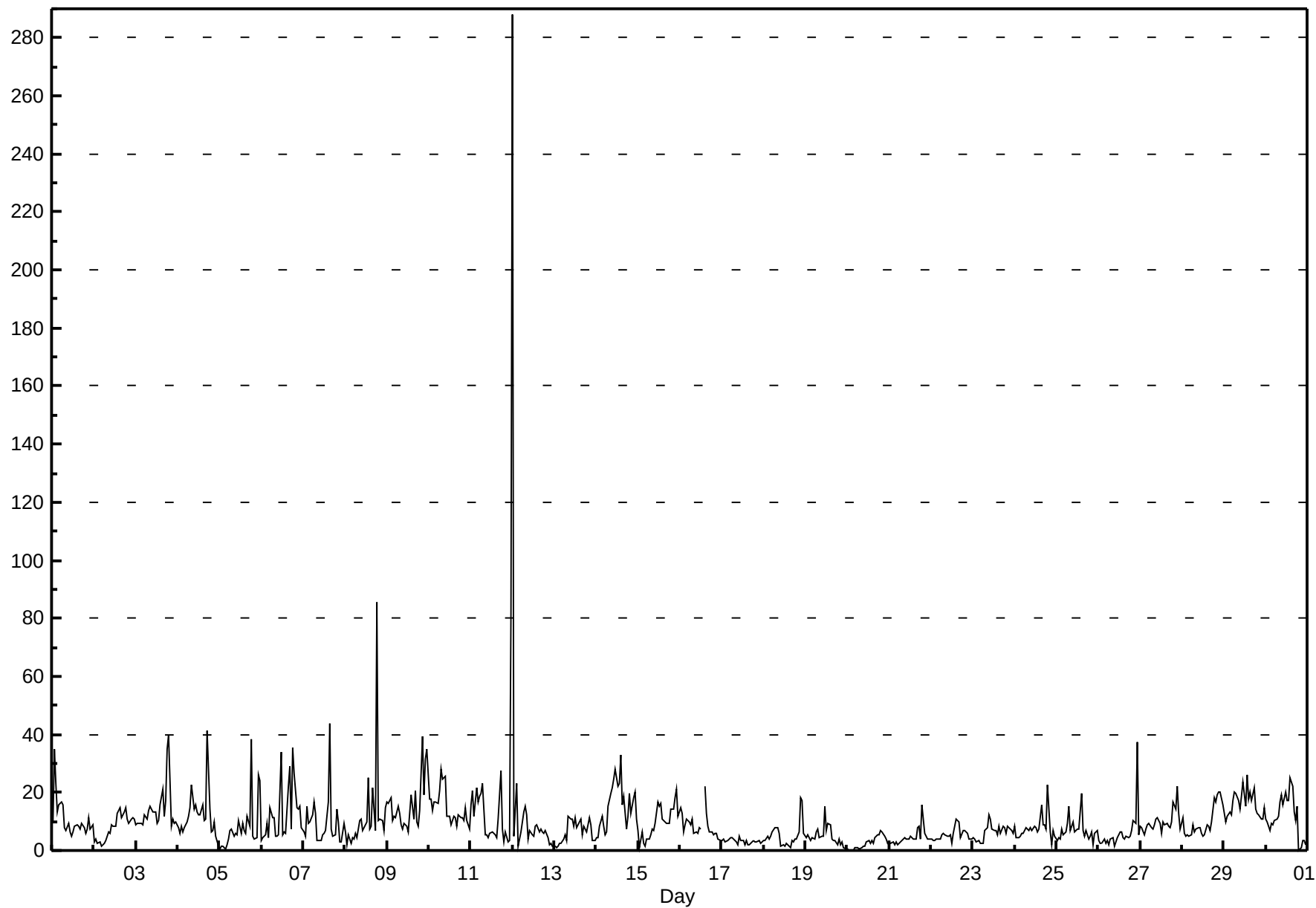
PM2.5 (PM_{2.5}) - µg/m³

Portable Clairmont - June 2015

Maximum Value: 288.1 μg/m ³ on Jun 12 01:00																				Maximum Daily Average: 18.8 μg/m ³ on Jun 12					Hours in Service: 720	
Minimum Value: 0 μg/m ³ on Jun 20 03:00																				Minimum Daily Average: 2.6 μg/m ³ on Jun 20					Hours of Data: 719	
Maximum Diurnal Average: 16.5 μg/m ³ at hour 1																				Minimum Diurnal Average: 6.6 μg/m ³ at hour 5					Hours of Missing Data: 1	
Monthly Average: 9.72 μg/m ³																				Percentiles: P ₁ = 0.5 P ₁₀ = 2.8 Q ₁ = 4.5 Median = 7.4 Q ₃ = 11.7 P ₉₀ = 18.1 P ₉₉ = 38.6					Hours of Calibration: 1	
																									Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jun	10	35	23	13	16	17	16	8	7	9	6	5	6	8	9	8	7	10	8	6	7	11	7	9	10.9	34.9
2-Jun	3	4	2	3	2	2	2	4	7	6	9	8	8	13	14	15	11	13	15	11	10	11	11	11	8.0	14.8
3-Jun	9	10	9	9	9	13	11	14	15	14	13	13	10	10	16	21	12	17	35	40	8	11	9	10	14.0	40.0
4-Jun	8	6	8	6	8	10	12	15	23	14	16	13	12	12	16	10	11	41	14	6	7	10	5	1	11.9	41.3
5-Jun	0	1	1	0	2	4	7	7	5	6	5	10	6	9	7	6	12	8	38	5	4	5	26	24	8.3	38.5
6-Jun	4	4	5	9	5	15	11	12	5	5	5	34	5	6	6	22	29	7	35	26	15	14	15	8	12.6	35.2
7-Jun	7	5	15	9	10	12	17	13	3	4	3	5	6	7	17	44	7	5	5	14	10	3	3	10	9.8	44.0
8-Jun	6	2	5	2	4	4	6	4	10	11	7	8	10	25	8	8	22	7	85	11	11	10	7	15	12.0	85.3
9-Jun	17	16	18	10	12	12	15	13	9	7	9	8	6	13	19	11	21	10	8	14	39	19	31	35	15.5	39.2
10-Jun	18	18	14	17	17	16	21	28	25	25	12	12	12	9	12	11	8	12	11	11	10	15	10	7	14.6	27.9
11-Jun	16	21	12	22	16	19	19	23	5	6	4	6	7	6	5	4	11	28	8	3	6	3	3	82	14.0	82.2
12-Jun	288	5	23	2	4	7	13	15	12	4	7	6	5	8	9	6	7	7	6	7	4	2	2	2	18.8	288.1
13-Jun	1	1	1	3	2	4	6	3	12	11	11	8	11	8	10	11	5	8	7	9	11	9	3	3	6.6	11.9
14-Jun	4	4	8	12	9	5	6	15	20	21	24	28	22	23	33	16	19	7	12	20	13	18	20	11	15.4	33.0
15-Jun	7	1	6	2	2	4	4	5	8	7	9	17	15	16	11	10	9	9	9	14	14	18	21	12	9.7	21.3
16-Jun	15	13	6	9	11	10	9	11	6	6	6	8	7	C	22	13	9	6	6	5	6	6	4	4	8.5	22.2
17-Jun	4	4	3	3	4	5	4	4	3	2	5	4	3	2	3	2	2	3	4	3	3	3	3	3	3.2	4.9
18-Jun	4	3	5	4	5	6	8	8	8	6	2	2	3	2	1	3	3	4	4	6	18	17	6	6	5.4	18.2
19-Jun	5	5	4	4	4	4	6	7	5	5	5	15	7	9	9	4	3	3	2	4	2	3	1	1	5.0	15.4
20-Jun	1	0	0	0	1	1	1	1	1	1	1	3	3	2	3	2	5	5	5	7	6	5	4	2	2.6	6.8
21-Jun	3	3	3	2	3	2	3	4	4	4	4	4	5	5	4	4	8	8	4	16	6	5	4	4	4.6	15.9
22-Jun	4	3	4	4	4	4	5	6	5	5	5	5	3	6	11	10	10	5	7	7	6	6	4	4	5.5	10.9
23-Jun	4	4	3	4	2	3	3	7	8	12	11	7	7	7	6	8	6	9	8	6	8	7	7	6	6.4	12.3
24-Jun	8	4	4	5	6	6	8	7	7	8	7	8	8	7	7	16	9	9	7	23	7	2	7	5	7.7	22.7
25-Jun	3	5	4	8	5	6	9	15	7	10	6	7	7	7	19	7	5	7	4	5	6	2	6	7	7.1	19.5
26-Jun	3	2	3	4	3	3	2	4	4	1	3	4	7	6	5	4	5	4	5	7	10	9	37	5	5.9	37.1
27-Jun	8	8	5	7	9	9	8	7	9	11	11	10	6	10	9	9	8	8	10	17	14	22	13	8	9.8	22.2
28-Jun	11	6	5	5	5	6	9	7	7	8	8	6	5	6	9	8	7	10	18	17	19	20	20	16	9.9	20.3
29-Jun	13	10	12	13	12	17	20	20	17	14	18	24	15	26	18	20	17	22	14	13	12	11	11	15	16.0	26.2
30-Jun	11	10	7	10	9	10	11	12	17	19	16	20	17	17	25	22	13	10	15	0	1	3	4	2	11.6	25.1
16.5 7.1 7.4 6.7 6.6 7.8 9.0 10.0 9.1 8.8 8.3 10.3 8.1 9.9 11.4 11.1 10.0 10.1 13.7 11.0 9.5 9.4 10.6 10.9																									Diurnal Average	
288.1 34.9 23.2 21.7 16.6 18.8 20.6 27.9 24.6 25.3 24.4 33.8 22.0 26.2 33.0 44.0 28.8 41.3 85.3 40.0 39.2 22.2 37.1 82.2																									Diurnal Maximum	
C - Calibration																										

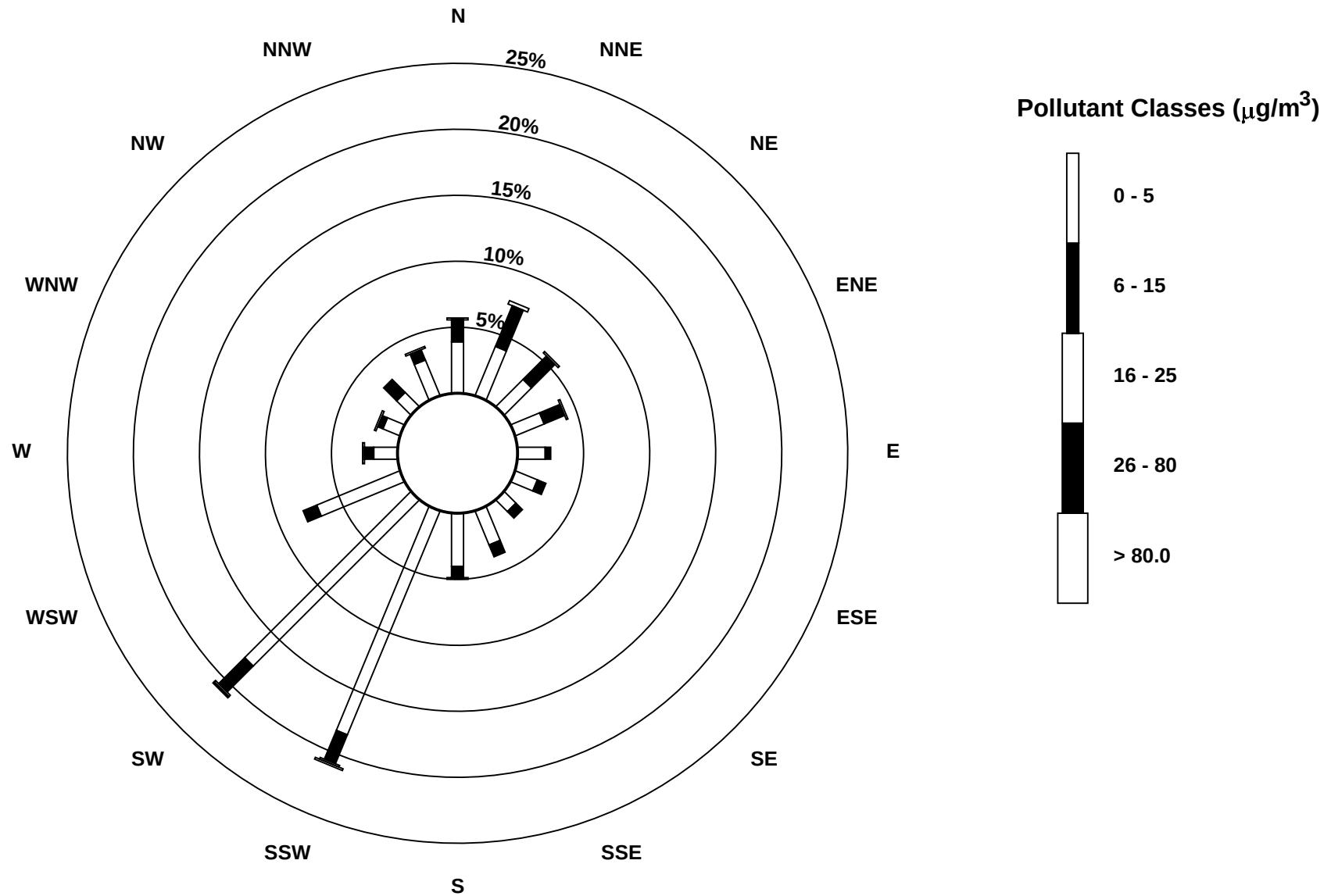
Hourly Maximums

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



Pollutant Rose

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



Hourly Averages

External Temperature (ET) - °C

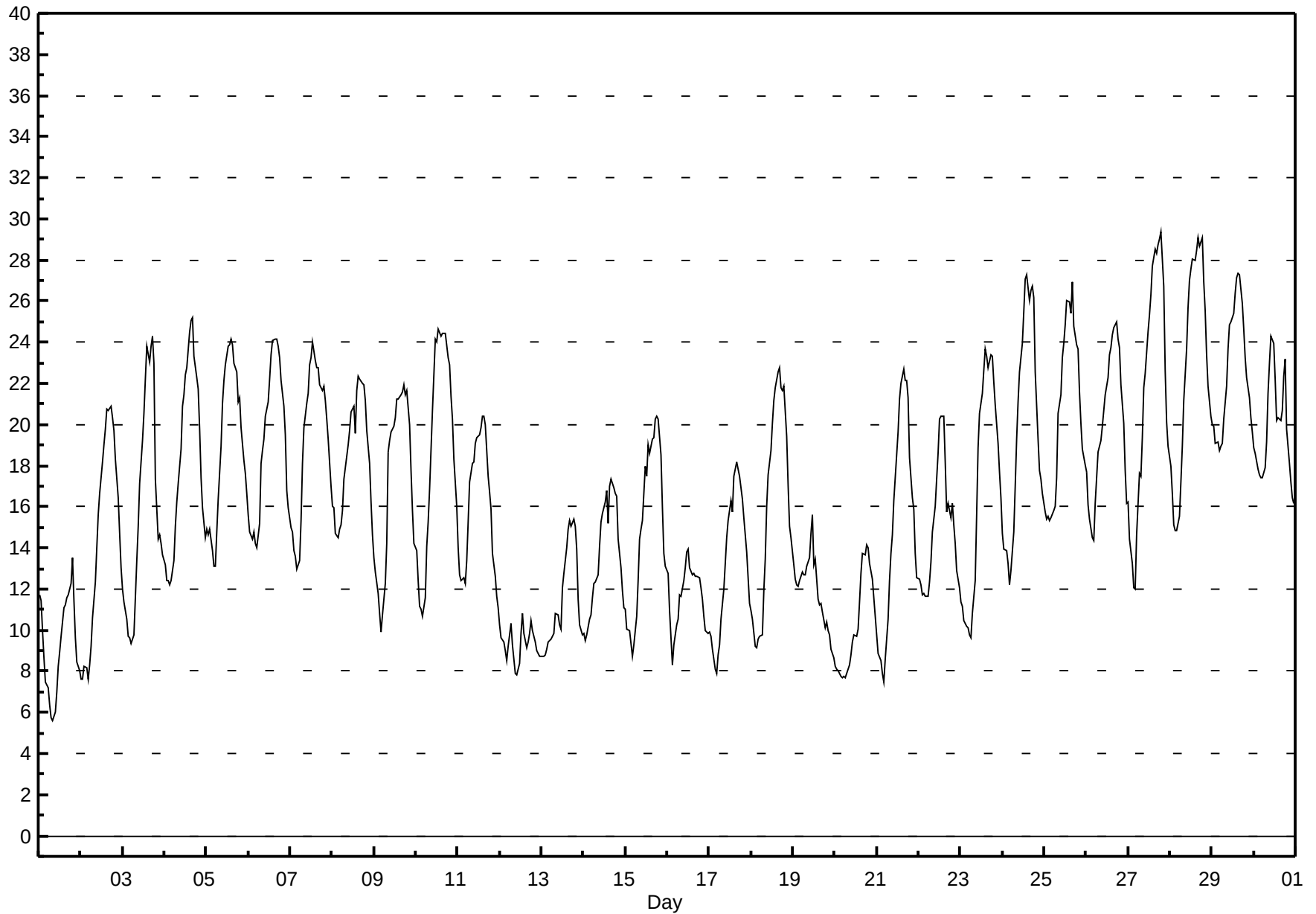
Portable Clairmont - June 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 29.4 °C on Jun 27 20:00 Maximum Daily Average: 22.7 °C on Jun 28																				Hours in Service: 720 Hours of Data: 720 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0						
Minimum Value: 6 °C on Jun 1 09:00 Maximum Diurnal Average: 20.8 °C at hour 17 Monthly Average: 16.44 °C										Minimum Daily Average: 9.3 °C on Jun 1 Minimum Diurnal Average: 11.5 °C at hour 5 Percentiles: P ₁ = 7.5 P ₁₀ = 9.5 Q ₁ = 12.1 Median = 16.0 Q ₃ = 20.7 P ₉₀ = 23.8 P ₉₉ = 28.5																
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Jun	12	11	10	9	7	7	6	6	6	6	7	8	9	10	11	11	12	12	12	14	11	10	8	8	9.3	13.5
2-Jun	8	8	8	8	8	8	9	11	12	14	16	17	18	19	20	21	21	21	20	20	18	16	15	13	14.5	20.9
3-Jun	12	11	11	10	10	9	10	12	13	15	17	19	21	22	24	23	24	24	23	17	14	15	14	14	16.0	24.3
4-Jun	13	12	12	12	12	13	15	16	17	19	21	21	22	23	25	25	25	23	22	22	20	17	16	15	18.4	25.2
5-Jun	15	15	15	14	13	13	15	16	19	21	22	23	24	24	24	24	23	23	21	21	20	18	18	17	19.0	24.1
6-Jun	16	15	14	15	14	14	15	18	19	19	20	21	22	23	24	24	24	24	23	22	21	20	17	16	19.2	24.2
7-Jun	15	15	14	14	13	13	15	18	20	21	22	23	23	24	23	23	23	22	22	22	21	20	19	17	19.2	24.0
8-Jun	16	16	15	14	15	15	16	17	18	19	20	21	21	20	22	22	22	22	22	21	20	18	16	15	18.4	22.4
9-Jun	14	13	12	11	10	11	12	14	19	19	20	20	21	21	21	21	22	22	21	22	20	18	16	14	17.2	21.9
10-Jun	14	12	11	11	11	12	14	15	17	21	22	24	24	25	24	24	24	24	23	23	21	20	18	16	18.9	24.6
11-Jun	14	13	12	13	12	13	15	17	18	18	19	19	20	20	20	20	20	18	17	16	14	13	12	11	16.0	20.4
12-Jun	10	10	9	9	9	9	10	9	9	8	8	8	10	11	10	9	9	10	10	10	9	9	9	9	9.3	10.8
13-Jun	9	9	9	9	9	10	10	10	11	11	10	10	12	13	14	15	15	15	15	15	14	11	10	10	11.5	15.4
14-Jun	10	10	10	11	11	12	12	12	13	14	15	16	16	17	15	17	17	17	17	16	14	13	12	11	13.6	17.3
15-Jun	11	10	10	9	9	9	11	12	14	15	15	18	18	19	19	19	19	20	20	20	19	16	14	13	15.0	20.4
16-Jun	13	11	10	8	9	10	11	12	12	12	13	14	14	13	13	13	13	13	13	12	12	11	10	10	11.6	14.0
17-Jun	10	10	9	8	8	9	9	11	12	13	15	15	16	16	17	18	18	17	17	16	15	14	13	11	13.2	18.2
18-Jun	11	11	9	9	10	10	10	12	13	16	18	19	20	21	22	23	23	22	22	22	19	17	15	15	16.1	22.8
19-Jun	13	12	12	12	12	13	13	13	13	14	15	16	13	13	11	11	11	11	10	10	10	9	9	9	12.0	15.6
20-Jun	8	8	8	8	8	8	8	8	8	9	9	10	10	10	11	13	14	14	14	14	13	13	12	11	10.3	14.2
21-Jun	10	9	9	8	7	9	11	12	14	15	16	19	20	21	22	23	22	22	21	18	16	16	14	13	15.2	22.7
22-Jun	13	12	12	12	12	12	12	13	15	16	17	19	20	20	20	18	16	16	15	16	15	14	13	12	15.0	20.4
23-Jun	11	11	10	10	10	10	10	11	12	16	19	21	22	23	24	23	23	23	23	22	21	19	18	16	17.0	23.7
24-Jun	15	14	14	13	12	13	15	17	19	21	23	24	26	27	27	26	26	27	26	23	19	18	17	17	19.9	27.3
25-Jun	16	15	16	15	15	16	16	17	21	21	23	24	25	26	26	25	27	25	24	24	22	20	19	18	20.7	26.9
26-Jun	18	16	15	14	14	16	17	19	19	20	21	21	22	23	24	24	25	25	24	24	22	20	18	16	20.0	25.0
27-Jun	16	14	13	12	12	15	18	17	19	22	23	24	25	26	28	29	28	29	29	29	27	23	20	19	21.6	29.4
28-Jun	18	17	15	15	15	16	17	19	21	24	26	27	28	28	28	28	29	29	29	27	26	23	22	20	22.7	29.1
29-Jun	20	20	19	19	19	19	19	20	22	24	25	25	25	26	27	27	27	26	25	23	22	21	20	20	22.6	27.3
30-Jun	19	19	18	18	17	17	18	19	21	23	24	24	22	20	20	20	21	22	23	20	18	17	16	16	19.8	24.3
13.2 12.6 12.0 11.7 11.5 12.0 13.0 14.2 15.6 16.8 18.0 19.0 19.6 20.2 20.6 20.7 20.8 20.6 20.2 19.4 17.8 16.3 15.0 14.0																								Diurnal Average	Diurnal Maximum	
20.0 19.9 19.1 19.1 18.7 19.0 19.1 20.2 21.8 23.7 25.7 27.0 27.6 28.1 28.0 28.6 29.1 28.7 29.1 29.4 26.7 23.4 21.9 20.4																										

Hourly Averages

External Temperature (ET) - °C

Portable Clairmont - June 2015



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Portable Clairmont - June 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	6	12	17	12	8	11	12	10	4	2	5	3	5	3	4	2	3	2	4	3	1	2	5	3.9	16.6
Dir	293	271	292	314	318	304	321	327	323	317	250	228	237	222	237	60	19	20	11	95	101	231	338	19	311.2	314.4
2 Spd	8	8	7	10	12	12	13	17	18	15	12	12	11	11	10	8	9	9	12	13	12	8	10	11	10.2	18.4
Dir	18	28	43	21	20	17	33	68	85	83	86	80	82	72	61	64	42	47	45	45	50	49	28	17	51.8	85.0
3 Spd	11	10	11	11	12	12	12	8	7	7	5	4	4	3	5	8	8	3	3	14	14	12	7	3	3.7	14.2
Dir	16	13	17	11	9	21	22	20	25	26	43	38	14	46	72	42	75	82	115	179	211	232	229	134	29.1	179.4
4 Spd	5	3	4	4	4	3	4	3	4	3	4	3	5	5	3	3	4	14	9	8	9	10	6	1	4.7	14.0
Dir	158	165	145	143	172	157	185	215	237	189	178	198	203	219	166	193	176	176	178	181	153	155	181	224	177.2	176.2
5 Spd	2	3	6	8	8	7	8	11	11	14	17	17	18	18	19	20	21	23	19	19	10	8	12	10	12.6	22.9
Dir	225	204	200	195	200	203	200	210	200	197	205	210	212	206	214	208	218	213	210	204	176	174	193	193	204.8	213.2
6 Spd	9	8	7	8	8	5	3	13	18	17	17	16	16	16	18	18	18	17	18	14	10	8	5	7	12.1	18.4
Dir	197	208	217	216	201	218	291	225	222	227	221	223	227	214	206	207	205	210	209	214	205	201	222	209	214.3	206.9
7 Spd	3	4	3	4	1	1	2	6	14	15	15	18	20	22	21	22	23	20	14	9	11	9	12	7	11.2	22.5
Dir	219	228	230	236	237	218	273	241	222	207	212	206	213	212	215	213	219	218	209	191	205	203	205	212	213.5	219.0
8 Spd	8	9	7	11	6	6	12	16	19	21	23	25	23	23	23	21	17	13	12	8	5	5	2	2	12.9	25.0
Dir	235	207	207	224	203	192	207	210	216	222	214	212	212	238	226	221	232	223	228	223	215	288	263	216	220.1	211.9
9 Spd	2	1	1	2	4	4	4	3	1	3	5	6	7	6	9	4	7	2	6	3	2	2	2	1	2.4	8.8
Dir	211	282	132	224	241	229	238	220	115	44	324	309	296	290	307	310	338	300	313	304	338	107	32	50	298.6	306.6
10 Spd	3	1	0	3	2	4	2	3	3	2	4	4	4	4	5	3	5	8	13	9	4	5	7	6	2.7	12.9
Dir	36	84	78	35	69	42	108	72	62	167	154	162	198	189	215	177	222	209	205	208	210	181	185	198	184.9	204.9
11 Spd	5	1	1	0	0	2	7	11	20	21	22	25	25	25	22	23	26	27	21	21	18	17	16	16	15.3	27.0
Dir	198	244	254	3	326	202	212	209	211	214	217	215	216	214	206	214	219	234	216	203	200	201	202	211	213.0	234.3
12 Spd	11	10	12	11	9	12	20	17	17	17	14	12	14	11	9	15	14	14	20	20	18	16	12	12	13.4	20.1
Dir	211	200	206	209	205	209	223	227	227	221	206	195	194	192	272	245	238	247	245	242	232	230	239	239	224.5	244.8
13 Spd	11	9	6	5	7	11	13	15	14	11	13	8	1	2	4	6	7	8	10	10	8	9	7	6	5.1	15.3
Dir	239	244	251	260	299	311	332	346	0	2	360	35	144	277	232	235	228	253	244	247	279	315	234	235	293.0	345.5
14 Spd	5	5	4	3	5	5	4	6	13	13	15	16	18	18	13	15	12	10	6	7	3	2	1	4	6.2	18.1
Dir	234	207	243	279	261	284	279	317	330	339	335	328	326	322	323	348	353	12	29	82	127	202	241	239	326.8	321.7
15 Spd	9	9	11	9	2	5	5	3	4	4	3	2	3	1	2	3	4	3	4	4	2	2	1	2	2.2	10.8
Dir	353	346	351	2	26	16	47	55	115	89	16	134	33	336	64	73	42	158	217	212	202	118	51	27	24.7	351.4
16 Spd	3	0	1	4	2	6	9	13	12	15	16	13	13	16	18	16	17	13	15	14	11	6	6	3	9.4	17.6
Dir	55	256	214	227	330	22	24	353	336	336	344	353	354	350	0	6	355	358	349	341	340	337	338	349	351.0	0.5
17 Spd	2	3	6	7	7	7	9	8	8	9	10	9	8	7	7	7	8	9	11	12	8	6	9	9	5.6	11.5
Dir	297	335	341	350	350	350	6	28	49	64	72	62	75	59	92	107	107	82	107	113	114	91	94	100	67.3	113.0
18 Spd	7	6	7	6	2	3	2	3	5	8	9	10	10	9	10	11	11	10	6	6	2	1	4	11	3.2	11.4
Dir	86	48	17	24	89	121	201	192	190	226	221	214	205	212	213	209	208	222	204	207	242	338	359	1	210.6	207.7
19 Spd	13	13	15	14	16	18	19	12	9	11	19	14	4	5	8	5	6	8	6	6	10	11	12	10	4.7	19.1
Dir	2	4	2	360	1	359	4	29	34	17	1	25	18	326	213	242	237	193	208	218	210	217	215	206	348.4	1.2
20 Spd	7	8	8	9	9	8	9	9	9	9	7	6	4	5	15	5	7	8	8	7	8	10	9	7	6.4	14.6
Dir	196	201	186	196	202	184	187	186	191	195	211	230	160	119	333	228	213	197	192	196	203	225	241	239	205.0	333.2
21 Spd	7	8	4	8	5	8	9	11	11	9	7	6	7	7	7	8	13	9	7	11	6	1	3	4	5.9	12.9
Dir	235	230	186	170	186	201	210	228	220	223	227	219	229	194	205	199	164	197	233	315	344	261	215	240	215.3	164.0
22 Spd	3	3	3	2	3	4	5	6	8	8	10	8	7	5	5	15	5	4	6	6	5	4	2	1	4.0	15.2
Dir	244	237	241	228	216	223	240	248	232	236	234	235	233	281	17	328	210	188	268	236	213	193	210	166	243.3	328.0

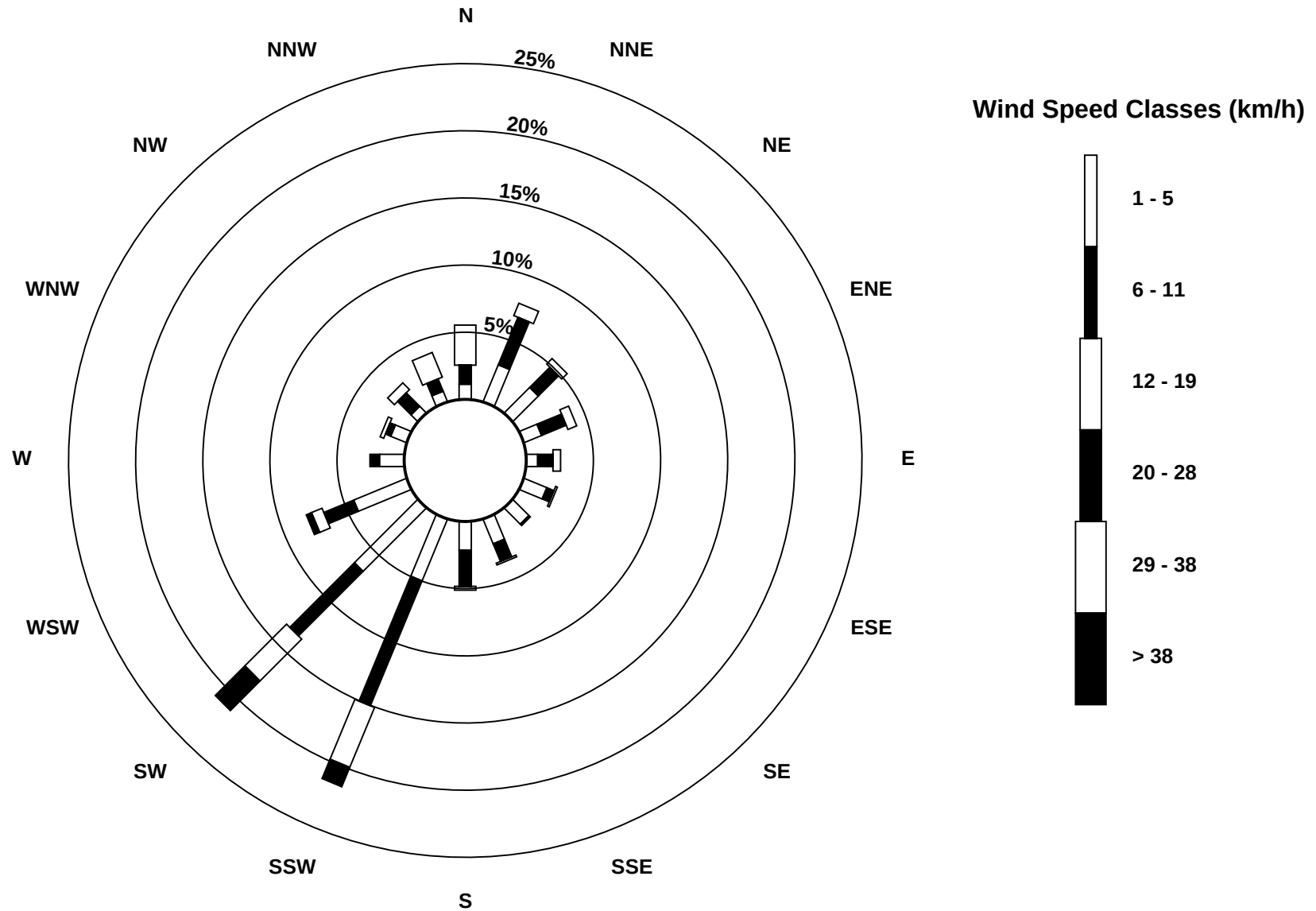
Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Portable Clairmont - June 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	2	0	1	2	2	3	1	2	2	1	2	5	4	4	3	5	6	9	7	7	6	7	2	2.5	8.5
Dir	116	124	345	231	190	185	229	240	72	36	118	111	227	230	225	16	126	165	171	160	158	158	159	161	166.6	171.0
24 Spd	1	3	4	5	4	4	3	5	5	3	4	4	3	5	4	6	6	8	9	15	14	8	4	4	4.9	15.1
Dir	223	211	200	208	218	224	224	205	195	209	210	230	243	205	218	222	238	160	127	217	213	221	237	213	209.5	217.4
25 Spd	1	2	2	1	2	3	2	3	5	6	9	9	7	4	6	3	8	14	10	10	7	7	6	7	5.1	14.0
Dir	155	128	197	350	153	165	126	146	171	176	204	223	225	208	216	261	193	224	224	217	209	209	220	191	205.6	223.9
26 Spd	8	7	7	5	5	10	13	18	20	21	24	22	20	17	18	15	13	15	15	8	7	6	3	3	12.1	24.3
Dir	186	172	185	209	207	209	212	219	221	222	222	218	215	216	226	231	231	221	224	226	207	212	237	271	217.7	221.7
27 Spd	6	4	2	3	0	1	2	5	3	2	5	6	6	5	6	8	5	3	2	4	7	5	2	2	0.4	8.0
Dir	253	228	148	125	2	57	130	198	243	39	32	45	13	15	61	76	43	26	5	212	207	221	274	258	54.6	76.4
28 Spd	3	3	2	3	6	7	7	9	9	8	6	4	4	5	5	5	5	3	3	10	6	3	2	2	2.5	9.7
Dir	231	227	240	238	212	225	228	233	234	233	229	224	209	234	313	281	224	39	51	23	50	9	9	351	245.7	23.1
29 Spd	3	3	2	2	1	2	7	8	10	11	12	12	11	11	11	12	12	14	12	8	7	6	5	4	7.3	13.9
Dir	46	42	25	32	20	354	15	19	15	29	50	50	49	66	62	64	63	79	71	44	45	58	21	38	48.4	78.6
30 Spd	5	6	6	3	3	1	4	7	10	11	15	12	12	11	8	6	5	6	6	12	5	4	3	6	4.1	15.1
Dir	86	25	22	18	61	278	269	255	254	269	284	255	226	229	223	217	148	147	166	231	246	240	216	204	239.7	283.7
Spd	1.3	1.2	1.1	1.4	1.2	1.3	1.8	2.7	3.6	3.6	3.9	4.1	4.9	4.7	4.2	3.9	4.5	5.3	5.1	5.2	4.3	3.8	3.2	2.4	Diurnal Average	
Dir	235.5	239.3	265.0	277.3	268.1	273.1	270.8	244.8	231.2	230.6	236.5	223.2	222.6	227.4	232.7	228.0	215.0	208.8	210.4	211.7	204.4	208.5	215.9	219.2	Diurnal Maximum	
Spd	12.6	13.1	15.4	16.6	16.0	18.1	19.6	17.7	20.4	21.3	24.3	25.0	25.3	24.5	23.1	23.2	25.7	27.0	20.6	21.4	18.2	16.5	15.5	15.8	Diurnal Maximum	
Dir	2.2	3.6	2.3	314.4	0.8	359.2	223.3	218.9	210.7	214.0	221.7	211.9	215.9	214.2	226.4	213.7	219.3	234.3	216.4	203.1	231.6	200.7	202.3	211.0		
Maximum Speed Value: 27 km/h on Jun 11 18:00								Minimum Speed Value: 0 km/h on Jun 10 03:00												Hours in Service: 720						
Maximum Daily Speed Average: 15.3 km/h on Jun 11								Minimum Daily Speed Average: 0.4 km/h on Jun 23												Hours of Data: 720						
Maximum Diurnal Speed Average: 5.3 km/h at hour 18								Minimum Diurnal Speed Average: 1.1 km/h at hour 3												Hours of Missing Data: 0						
Monthly Average Velocity: 3.14 km/h 225.37 deg								Speed Percentiles: P ₁ = 0.6 P ₁₀ = 2.3 Q ₁ = 3.9 Median = 7.1 Q ₃ = 11.3 P ₉₀ = 16.5 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		31		32		1		0		0		90													
NorthEast	31		35		12		0		0		0		78													
East	16		15		8		0		0		0		39													
SouthEast	27		6		1		0		0		0		34													
South	34		57		11		0		0		0		102													
SouthWest	87		105		70		37		0		0		299													
West	20		15		3		0		0		0		38													
NorthWest	12		13		15		0		0		0		40													
Total	253		277		152		38		0		0		720													

Wind Rose

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



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Portable Clairmont - June 2015

Maximum Speed: 27 km/h on Jun 11 18:00																				Maximum Daily Speed Average: 15.8 km/h on Jun 11										Hours in Service: 720	
Minimum Speed: 0 km/h on Jun 23 03:00																				Minimum Daily Speed Average: 4.2 km/h on Jun 23										Hours of Data: 720	
Maximum Diurnal Speed Average: 11.4 km/h at hour 11																				Minimum Diurnal Speed Average: 5.7 km/h at hour 2										Hours of Missing Data: 0	
Monthly Average Speed: 8.62 km/h																				Percentiles: P ₁ = 1.0 P ₁₀ = 2.7 Q ₁ = 4.4 Median = 7.4 Q ₃ = 11.5 P ₉₀ = 16.9 P ₉₉ = 24.2										Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
1-Jun	4	7	12	17	13	8	11	12	10	4	3	5	4	5	4	5	3	3	3	5	3	2	2	5	6.2	16.7					
2-Jun	8	8	7	10	12	12	13	17	19	15	13	12	12	11	11	9	9	10	12	13	12	8	10	11	11.4	18.5					
3-Jun	11	10	11	11	12	12	12	8	7	7	6	5	4	4	5	9	9	4	5	16	14	13	8	4	8.6	15.5					
4-Jun	5	3	4	4	4	3	4	4	4	4	5	5	6	7	4	5	6	14	9	9	9	10	6	2	5.7	14.3					
5-Jun	2	3	6	8	8	7	8	11	11	15	18	17	18	18	19	20	22	23	19	19	10	9	12	10	13.0	23.2					
6-Jun	9	8	7	8	8	6	3	13	18	18	17	17	17	17	18	19	19	17	18	14	10	8	5	7	12.6	18.7					
7-Jun	3	4	3	4	2	1	2	6	15	15	15	18	20	22	22	22	23	21	14	9	11	9	12	7	11.6	22.8					
8-Jun	8	9	8	11	7	6	12	16	20	21	24	26	23	23	23	21	19	14	12	9	5	5	2	3	13.6	25.5					
9-Jun	2	2	2	2	4	4	4	4	2	4	6	8	9	7	10	7	8	5	7	4	5	2	3	1	4.7	9.8					
10-Jun	3	2	0	3	2	4	3	3	4	3	5	6	6	6	7	4	5	9	13	9	5	5	7	7	5.0	13.0					
11-Jun	5	2	2	1	1	2	7	11	21	22	23	25	26	25	23	24	26	27	21	22	18	17	16	16	15.8	27.5					
12-Jun	12	10	13	11	10	12	20	18	17	17	15	12	14	11	10	15	14	14	20	20	18	17	13	12	14.4	20.2					
13-Jun	11	9	7	5	8	11	14	16	14	11	14	9	2	3	4	7	8	9	10	10	11	10	7	6	8.9	15.5					
14-Jun	5	5	4	4	5	6	4	6	14	14	16	17	18	19	14	16	13	11	6	8	3	2	1	5	9.0	19.1					
15-Jun	10	9	11	9	3	5	5	3	4	5	3	5	3	3	3	4	5	6	5	4	3	3	1	2	4.8	10.9					
16-Jun	3	2	2	4	3	7	9	13	13	15	17	14	14	17	18	16	17	13	15	14	11	6	6	3	10.4	18.0					
17-Jun	3	4	6	7	7	7	9	8	8	10	10	9	9	7	7	8	9	9	11	12	8	6	9	9	8.1	11.7					
18-Jun	7	7	7	6	3	3	2	4	5	8	10	10	10	10	11	12	12	10	7	6	3	1	4	11	7.0	11.9					
19-Jun	13	13	15	14	16	18	19	12	10	11	19	18	7	9	9	5	6	8	7	6	10	11	12	11	11.6	19.3					
20-Jun	7	8	8	9	9	8	9	9	9	9	7	6	9	13	15	9	7	9	9	7	8	10	9	8	8.8	14.8					
21-Jun	7	8	5	8	5	8	9	11	11	9	7	7	7	7	7	9	13	11	7	11	6	2	4	4	7.7	13.3					
22-Jun	3	3	3	2	4	4	5	6	9	8	10	8	7	6	6	16	6	5	7	7	5	4	2	1	5.7	15.8					
23-Jun	2	2	0	1	2	2	5	2	3	3	3	4	5	5	5	5	5	7	9	7	7	6	7	3	4.2	8.7					
24-Jun	1	3	5	5	4	4	3	5	5	4	4	5	4	6	5	7	6	9	9	15	15	8	4	4	5.9	15.4					
25-Jun	1	3	2	1	2	3	2	4	6	7	9	9	8	7	9	5	9	14	11	10	7	7	7	7	6.3	14.1					
26-Jun	9	8	7	5	5	10	13	18	20	21	25	22	20	17	18	15	13	15	15	8	7	7	4	3	12.7	24.5					
27-Jun	6	4	3	3	1	2	3	5	3	3	5	6	6	5	6	8	5	4	3	4	7	5	2	3	4.3	8.2					
28-Jun	3	3	2	3	6	7	7	9	9	8	6	5	4	7	6	6	6	5	4	10	6	3	2	2	5.4	9.9					
29-Jun	3	3	2	2	2	2	7	8	10	11	12	13	11	11	11	12	12	14	12	8	7	6	6	4	8.0	14.0					
30-Jun	5	6	6	4	3	2	4	7	10	11	15	12	12	11	8	7	6	6	6	14	5	5	4	6	7.3	15.4					
5.8 5.7 5.7 6.2 5.7 6.3 7.6 8.9 10.3 10.4 11.4 11.1 10.6 10.7 10.7 10.8 10.7 10.8 10.1 10.3 8.3 6.9 6.2 5.8																									Diurnal Average						
12.7 13.2 15.4 16.7 16.1 18.1 19.9 17.8 20.6 21.6 24.5 25.5 25.6 25.0 23.4 23.5 26.1 27.5 20.8 21.6 18.4 16.7 15.6 15.9																									Diurnal Maximum						
All monthly, daily, and diurnal averages have been calculated using scalar methods																															

Hourly Standard Deviations

Wind Direction (WD) - deg

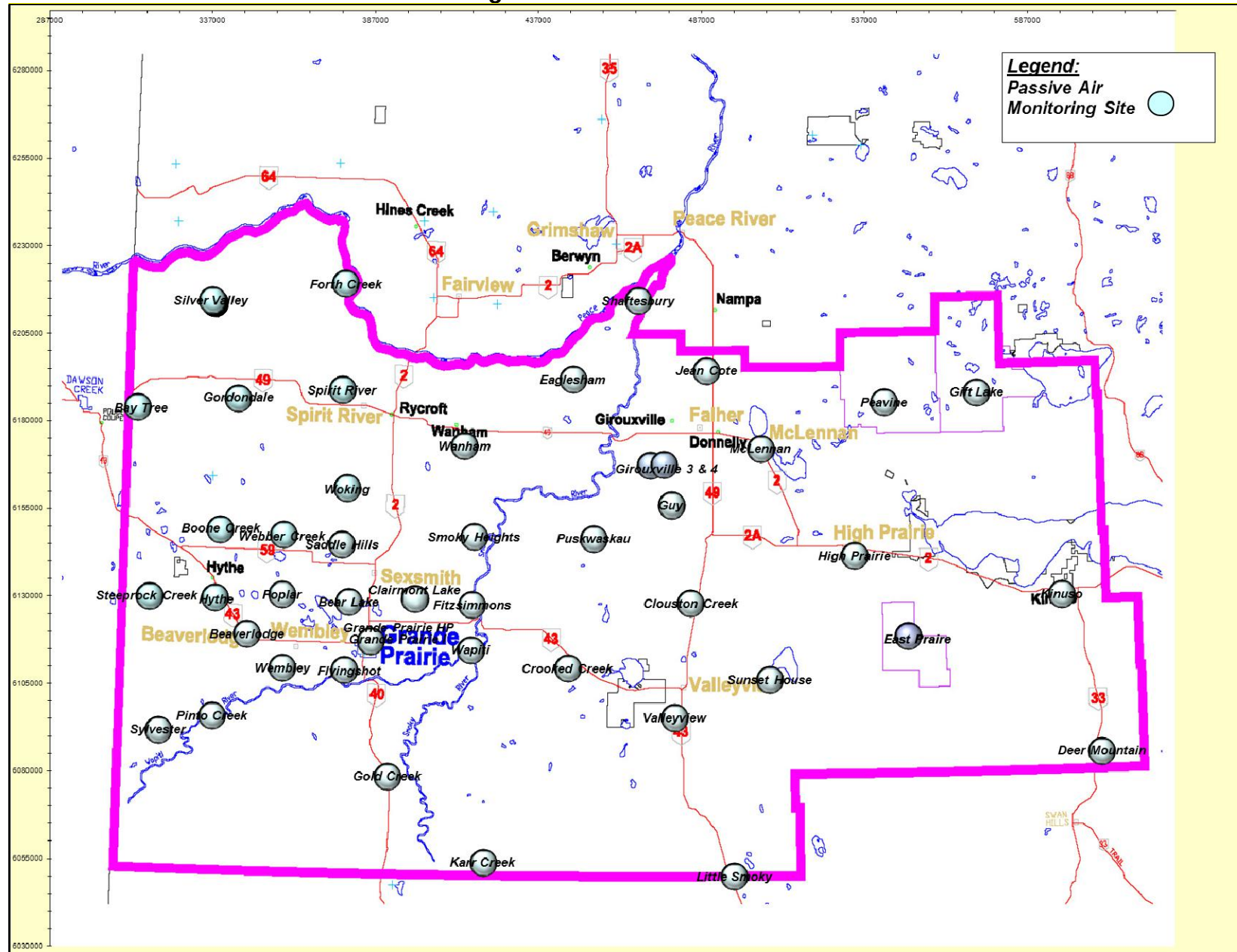
Portable Clairmont - June 2015

Maximum Value: 91.3 deg on Jun 15 18:00																			Hours in Service: 720						
Minimum Value: 3.4 deg on Jun 19 03:00																			Hours of Data: 720						
																			Hours of Missing Data: 0						
Percentiles: P ₁ = 4.7 P ₁₀ = 7.9 Q ₁ = 10.0 Median = 15.6 Q ₃ = 28.3 P ₉₀ = 50.4 P ₉₉ = 82.5																			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-Jun	20	30	15	6	19	11	16	11	11	29	54	23	35	23	56	30	49	44	60	35	33	50	23	5	59.7
2-Jun	6	23	14	14	4	9	11	13	7	9	13	15	14	16	21	15	18	16	10	7	6	10	10	6	23.4
3-Jun	6	7	5	6	4	7	5	10	13	15	26	37	41	50	38	29	24	50	54	23	11	12	23	14	54.2
4-Jun	16	20	15	12	13	12	20	29	21	40	56	55	33	50	86	61	54	13	15	12	13	7	16	32	86.3
5-Jun	28	19	8	10	8	12	13	13	10	13	10	12	14	10	10	8	11	8	8	8	13	10	9	9	27.6
6-Jun	8	8	10	9	8	33	38	9	8	10	12	13	12	16	12	11	10	11	9	7	10	9	10	8	38.0
7-Jun	30	28	16	26	51	39	39	17	10	12	12	12	12	9	11	9	8	7	8	11	11	8	8	8	51.4
8-Jun	17	14	19	12	17	13	6	7	9	10	10	12	10	15	9	11	28	22	14	15	18	10	17	70	70.4
9-Jun	44	65	73	29	16	21	26	51	65	60	50	41	38	46	36	67	34	67	34	54	61	25	32	34	72.8
10-Jun	10	38	66	25	18	9	75	66	51	62	40	48	45	55	63	62	28	21	8	9	19	13	9	23	74.9
11-Jun	19	55	42	77	77	47	27	17	9	10	10	10	9	11	9	9	10	11	9	9	8	9	7	8	77.0
12-Jun	6	9	5	6	6	6	9	9	9	9	15	10	8	10	29	12	13	8	7	8	7	6	7	7	28.7
13-Jun	8	17	20	12	10	8	14	9	10	10	12	28	80	57	44	26	20	17	11	9	38	31	14	11	79.9
14-Jun	20	18	28	35	20	30	26	29	10	15	12	15	12	19	25	25	25	23	24	17	16	19	63	33	63.3
15-Jun	37	7	8	7	69	16	17	27	23	27	42	72	51	79	67	56	43	91	36	26	49	24	25	14	91.3
16-Jun	19	88	64	9	61	25	11	15	16	12	19	17	11	13	13	9	9	13	9	8	7	12	6	16	87.7
17-Jun	23	17	11	6	7	9	10	11	13	17	15	20	21	29	27	28	31	17	16	10	10	9	9	5	30.5
18-Jun	12	22	9	9	32	21	23	20	22	20	18	17	20	22	21	20	14	12	14	13	30	25	30	8	31.8
19-Jun	5	4	3	4	4	4	7	12	12	8	7	42	47	81	31	17	26	13	16	35	12	10	9	10	81.0
20-Jun	10	14	10	9	12	10	11	9	11	11	13	23	73	84	11	58	18	16	11	12	9	6	10	9	84.4
21-Jun	12	13	20	10	14	8	8	8	12	12	16	21	26	26	22	21	16	36	26	30	14	70	16	18	69.6
22-Jun	16	17	13	22	17	12	12	10	11	12	12	16	19	44	51	19	32	16	30	31	15	18	20	50	51.2
23-Jun	11	20	80	68	33	33	39	78	39	66	83	66	38	36	51	62	23	18	13	10	9	8	6	85	84.5
24-Jun	50	24	21	14	11	9	18	18	21	41	33	42	50	35	44	27	16	26	15	13	13	13	20	24	50.4
25-Jun	77	41	40	69	65	14	29	30	19	20	19	15	23	54	48	61	29	8	8	9	8	8	18	11	77.4
26-Jun	11	8	13	12	19	13	10	6	7	8	8	9	8	9	11	10	10	8	7	7	15	18	36	20	36.2
27-Jun	17	9	50	16	58	60	31	23	30	88	15	16	21	17	23	14	23	26	47	26	11	14	23	23	88.3
28-Jun	22	27	13	38	14	11	9	8	9	12	22	35	38	36	40	38	23	53	44	13	9	19	16	38	53.1
29-Jun	26	18	55	14	38	34	7	7	6	14	9	16	10	9	12	8	7	6	6	9	10	16	18	34	55.1
30-Jun	25	16	9	41	25	67	20	12	11	18	11	13	10	10	11	20	26	21	14	29	32	27	23	15	66.6
77.4 87.7 80.1 76.8 77.0 66.6 74.9 77.8 64.6 88.3 83.3 72.3 79.9 84.4 86.3 66.6 53.5 91.3 59.7 54.1 60.5 69.6 63.3 84.5																									

PAZA

Monthly Passive Data Summary

Location of PAZA Passive Monitoring Stations



PAZA Passive Results for June 2015

Station Number	Station Name	SO2 ppb	O3 ppb	NO2 ppb	H2S ppb	Site Legal
Duplicates						
2a	Bay Tree	0.2	29.8	0.4		
2b	Bay Tree	0.2	31.1	0.4		
27a	Grande Prairie I	0.3	39.2	1.6		
27b	Grande Prairie I	0.2	32.7	BDL		
28a	Clairmont Lake	0.2	42.7	1.0		
28b	Clairmont Lake	0.2	30.6	1.2		
44a	Peavine	BDL	35.1	0.3		
44b	Peavine	BDL	26.0	BDL		
64a	Girouxville 4				0.2	
64b	Girouxville 4				0.2	
1	Silver Valley	0.2	56.2	N/S		08-27-081-11 W6M
2	Bay Tree	0.2	30.4	0.4		13-16-078-13 W6M
3	Fourth Creek	0.2	34.5	0.4		04-13-082-07 W6M
4	Gordondale	0.3	35.5	0.4		04-34-078-10 W6M
5	Boone Creek	0.1	30.5	0.8		16-36-074-11 W6M
7	Steeprock Creek	0.1	33.7	BDL		09-35-072-13 W6M
9	Spirit River	0.2	32.0	2.7		08-12-079-07 W6M
10	Woking	0.3	30.6	0.8		01-13-076-07 W6M
11	Webber Creek	0.1	32.6	1.5		09-36-074-09 W6M
12	Hythe	0.1	26.0	1.2		14-36-072-11 W6M
14	Sylvester	BDL	24.7	0.3		08-06-069-12 W6M
16	Beaverlodge	0.2	40.8	0.6		15-36-071-10 W6M
17	Poplar	0.2	36.6	1.6		13-06-073-08 W6M
18	Saddle Hills	0.2	31.0	0.5		04-25-074-07 W6M
19	Wanham	0.2	34.7	0.9		16-22-077-03 W6M
20	Shaftesbury	0.2	33.8	1.1		04-03-082-23 W5M
21	Eaglesham	0.1	31.9	1.5		16-21-079-25 W5M
23	Bear Lake	0.1	34.6	3.0		15-31-072-06 W6M
24	Wembley	0.2	30.3	1.5		12-31-070-08 W6M
25	Pinto Creek	BDL	30.6	0.3		04-24-069-11 W6M
26	Flyingshot	0.2	28.8	0.7		15-36-070-07 W6M
27	Grande Prairie I	0.2	35.9	1.6		08-15-071-06 W6M

PAZA Passive Results for June 2015 (Continued)

28	Clairmont Lake	0.2	36.6	1.1		09-06-073-04 W6M
29	Smoky Heights	0.4	41.3	1.0		04-06-075-02 W6M
30	Fitzsimmons	0.2	26.8	0.8		15-36-072-03 W6M
32	Gold Creek	0.2	25.9	0.9		06-33-067-05 W6M
33	Wapiti	0.2	31.5	0.8		02-25-071-03 W6M
34	Puskwaskau	0.1	24.5	0.2		15-35-074-25 W5M
35	Jean Cote	0.2	28.9	7.3		12-35-079-21 W5M
36	Guy	0.2	28.3	6.3		03-04-076-22 W5M
37	Crooked Creek	0.1	31.3	0.9		16-01-071-26 W5M
38	Karr Creek	BDL	31.9	0.4		10-16-065-02 W6M
39	Clouston Creek	BDL	34.1	1.4		12-01-073-22 W5M
40	McLennan	0.2	35.5	4.9		03-29-077-19 W5M
41	Valleyview	0.3	35.7	0.8		09-30-069-22 W5M
42	Sunset House	0.2	40.9	0.4		05-32-070-19 W5M
43	High Prairie	BDL	31.9	1.9		16-13-074-17 W5M
44	Peavine	BDL	30.6	0.3		03-05-079-15 W5M
45	Gift Lake	0.1	15.5	0.3	0.1	10-07-079-12 W5M
46	Little Smoky	0.2	36.5	0.8		12-01-065-21 W5M
47	Kinuso	0.1	30.7	0.4		12-10-073-10 W5M
48	Deer Mountain	0.1	30.3	0.3		15-22-068-09 W5M
49	Grande Prairie HP	BDL	35.3	1.3		17-26-071-06 W6M
50	East Prairie	0.2	25.9	BDL		13-02-072-15 W5M
63	Girouxville 3				N/S	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 June 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 June 2015 (PAZA Zone)				
Mean	0.2	32.4	1.3	0.1
Standard Deviation	0.1	6.0	1.5	0.1
Minimum	0.1	15.5	0.2	0.1
Minimum At	Gift Lake (#45)	Gift Lake (#45)	Puskwaskau (#34)	Gift Lake (#45)
Maximum	0.4	56.2	7.3	0.2
Maximum At	Smoky Heights (#29)	Silver Valley (#1)	Jean Cote (#35)	Girouxville 4 (#64)

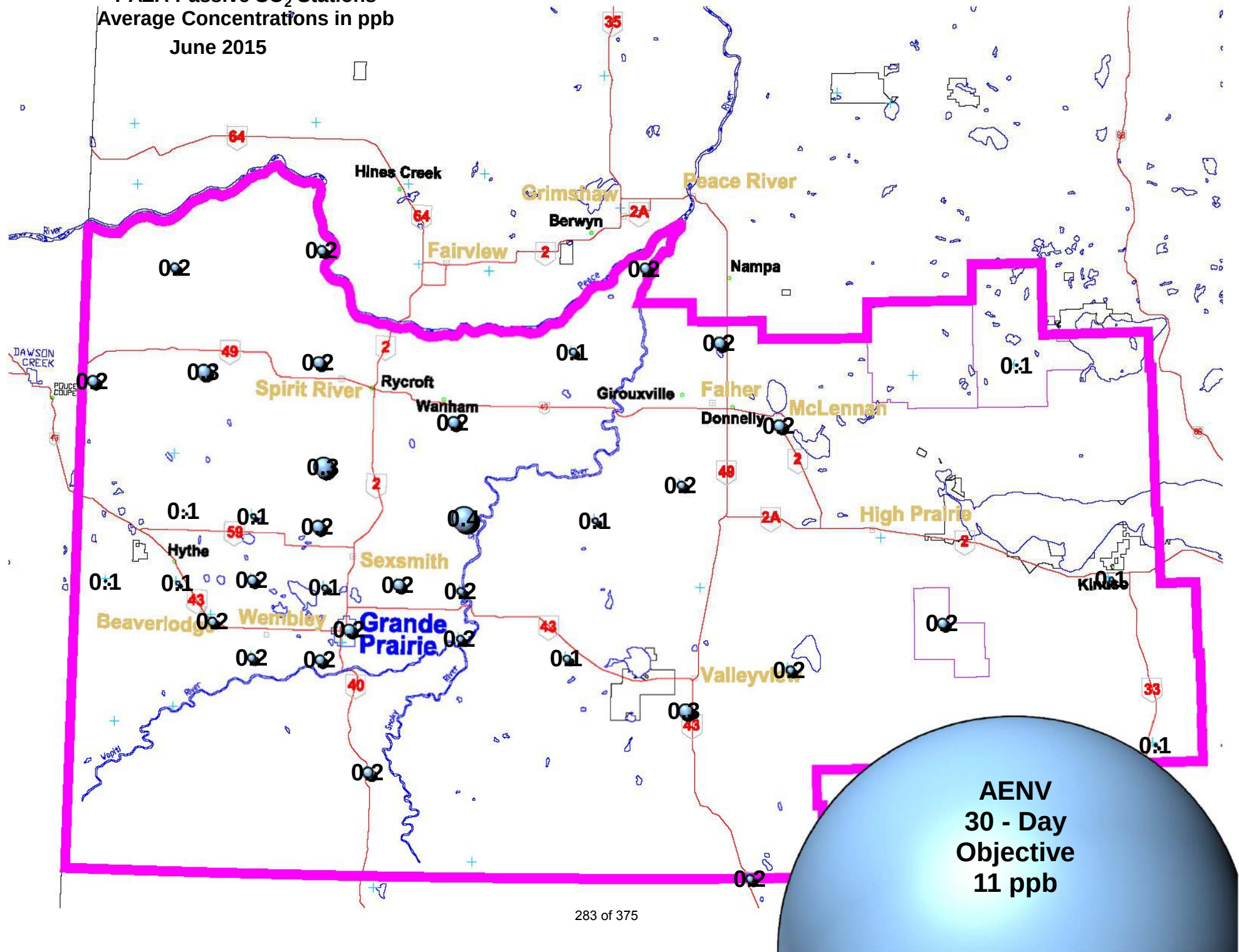
Comparison between Continuous and Passive monitoring at Beaverlodge (passive #16 Beaverlodge)

	SO ₂	O ₃	NO ₂
PAZA Beaverlodge station	0.2	29.6	1.9
PAZA Beaverlodge passive	0.2	40.8	0.6

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

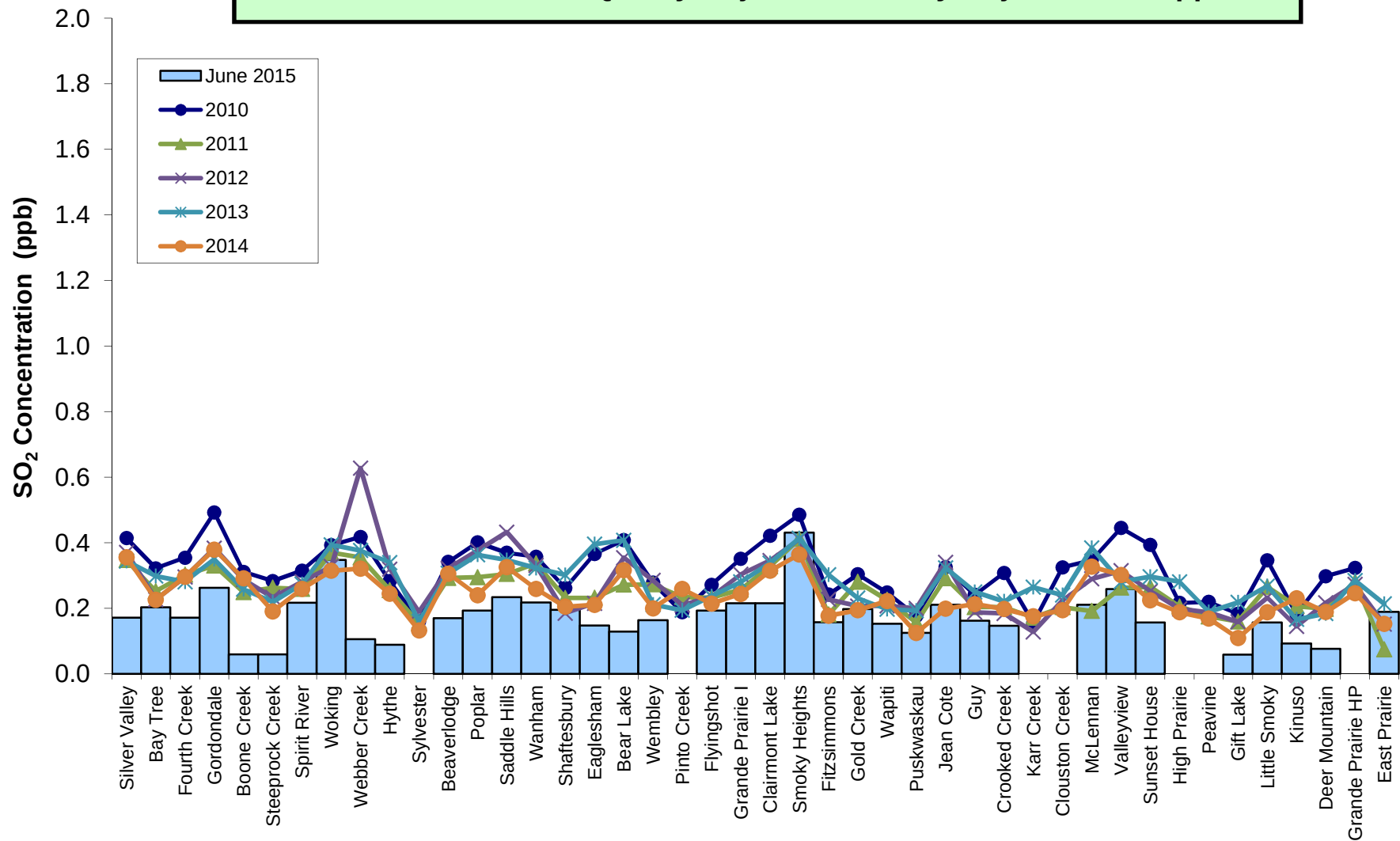
	SO ₂	O ₃	NO ₂
PAZA Henry Pirker station	0.1	28.6	4.0
PAZA Grande Prairie passive	BDL	35.3	1.3

PAZA Passive SO₂ Stations
Average Concentrations in ppb
June 2015

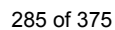


AENV
30 - Day
Objective
11 ppb

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

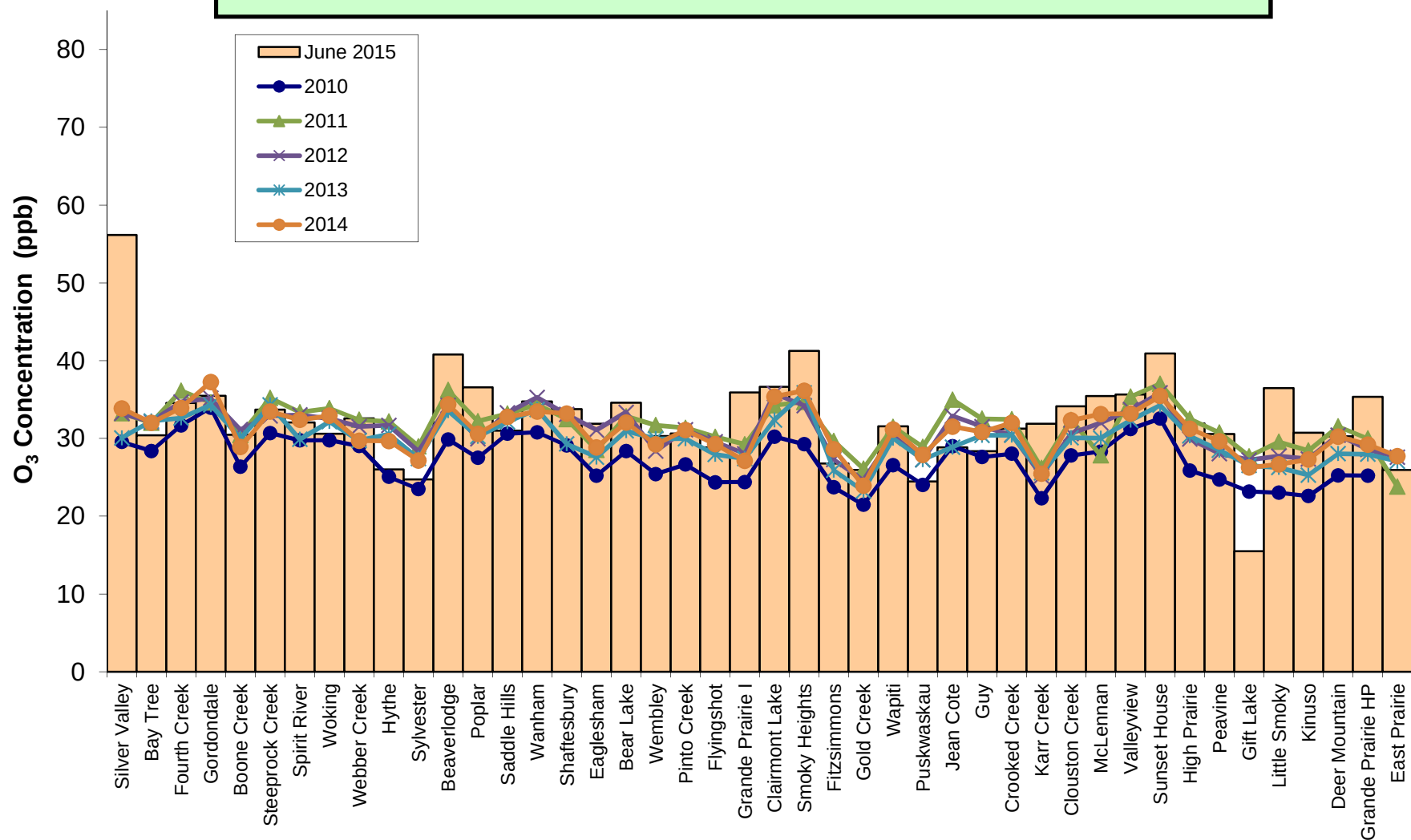


June 2015

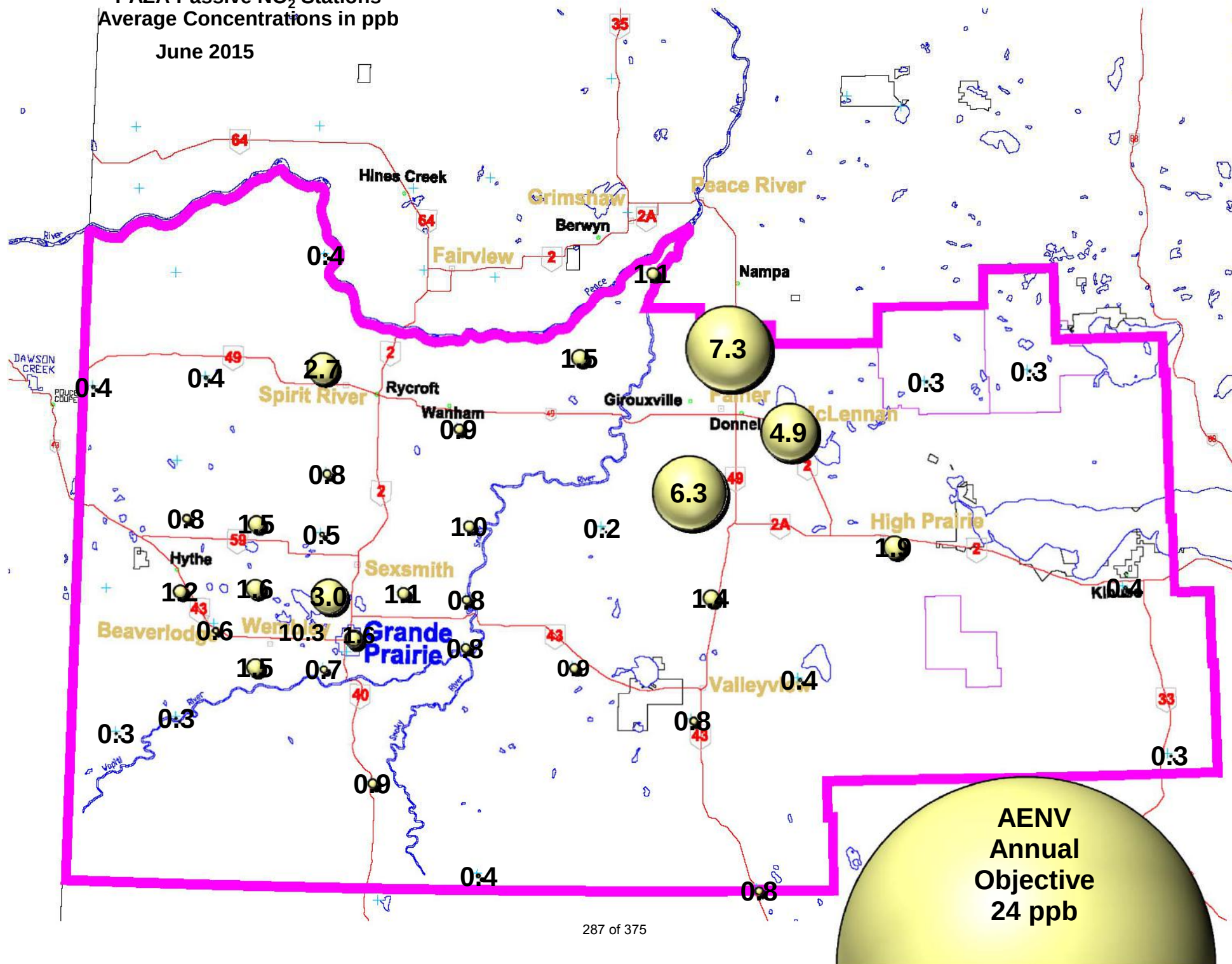


No AENV 30-Day Objective

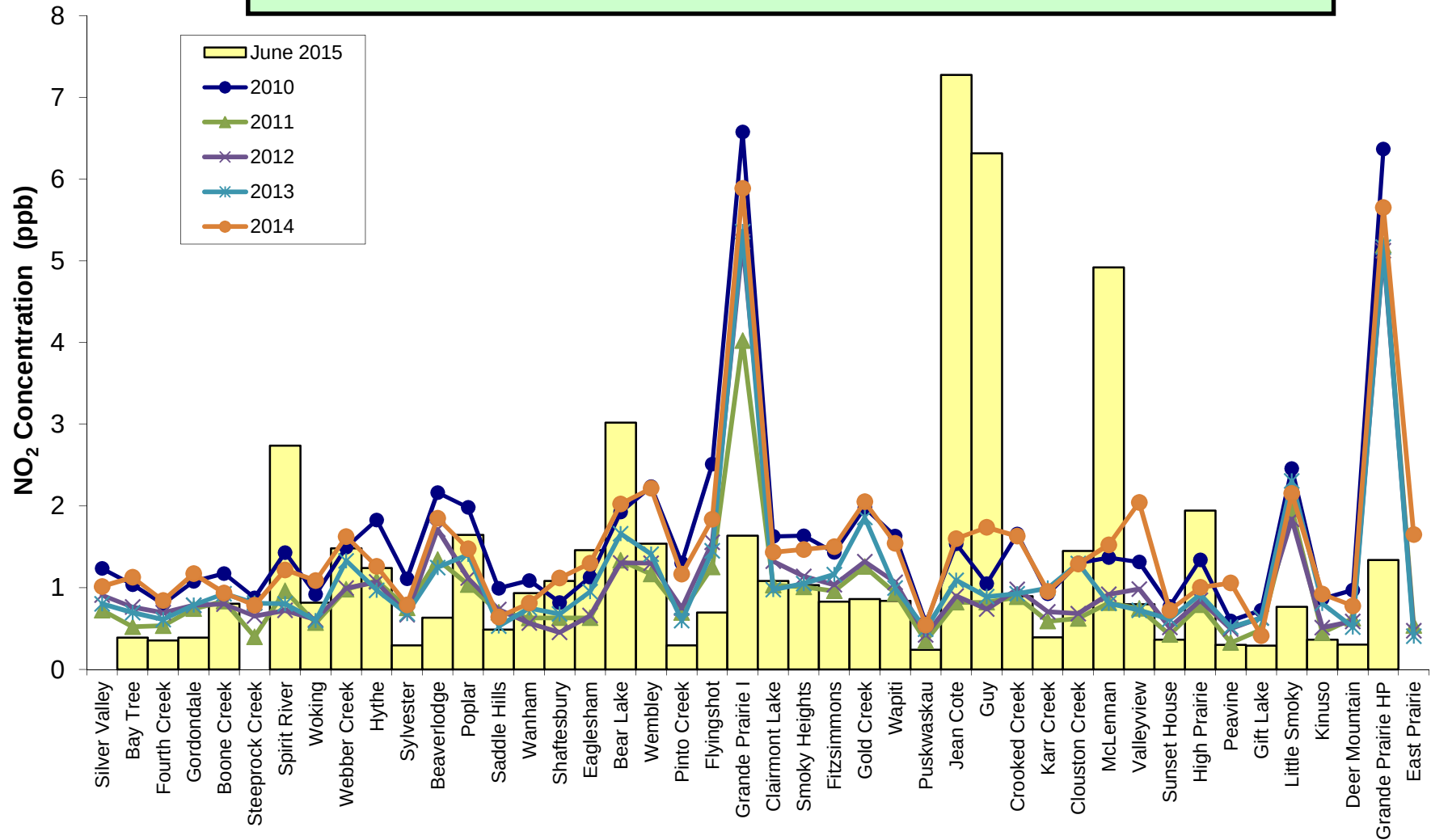
Alberta Ambient Air Quality Objective - No Annual O₃ Objective



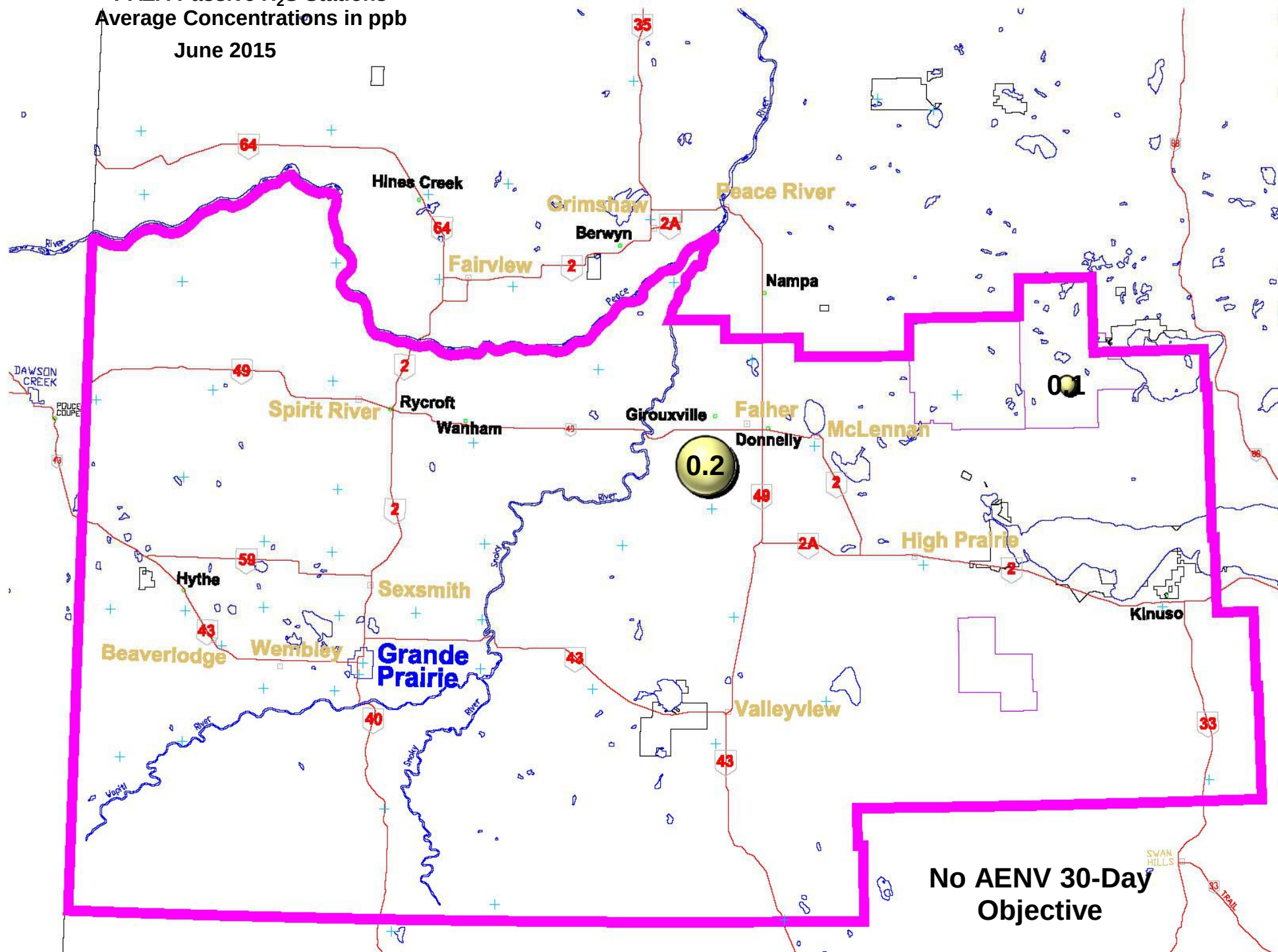
PAZA Passive NO₂ Stations
Average Concentrations in ppb
June 2015

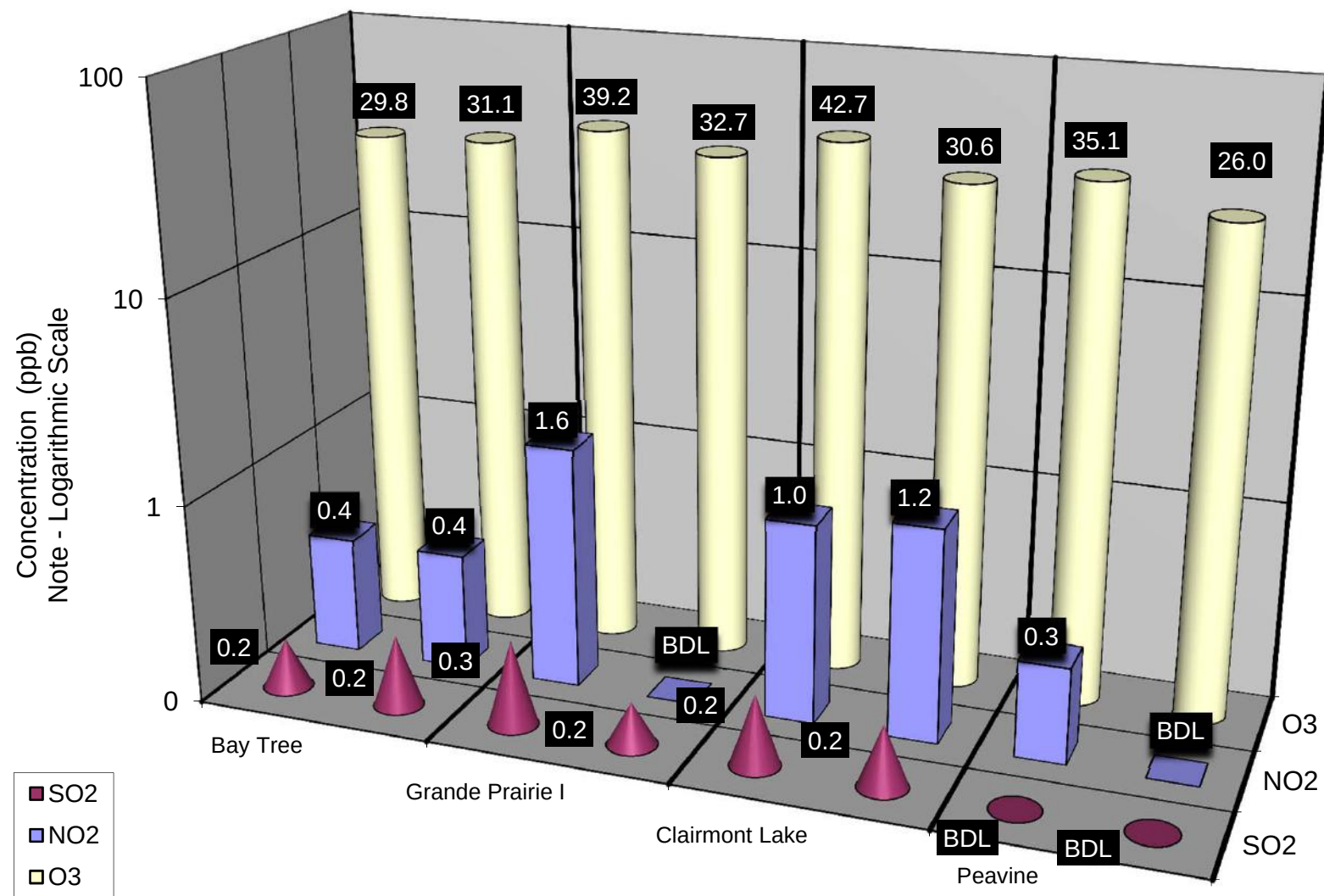


Alberta Ambient Air Quality Objective - Annual NO₂ Objective is 24 ppb



**PAZA Passive H₂S Stations
Average Concentrations in ppb
June 2015**





Duplicate Summary Chart

PAZA

ALBERTA ENVIRONMENT AND SUSTAINABLE RESOURCES INCIDENT REPORT

June 2015

Air Monitoring Directive Exceedence Report

**Alberta Environmental Monitoring, Evaluation and Reporting Agency
Energy & Environmental Response**

111 Twin Atria Building
4999 – 98th Avenue
Edmonton, Alberta T6B 2X3
erc.environment@gov.ab.ca
Phone: (780) 422-4505
Fax: (780) 427-1044

Reference Number:	299330	Reported To (AESRD Contact):	Cale
Date & Time Incident Reported to AESRD:	June 8 2015 11:42	Reported By:	Christopher Hendrickson
Reported on Behalf of:	PAZA	Approval Number (if applicable):	N/A
Location(s) of Incident:	Evergreen Park		
Start Date & Time of Incident:	June 8, 2015 10:00	End Date & Time of Incident:	June 8, 2015 11:00
Reason or Nature of Incident:			
PM2.5 hourly exceedance between 10:00 and 11:00 PM2.5 limit is 80 ug/m3. Hourly average was 98.0 ug/m3. Winds were WS 46.5 km/h WD 265.9 Deg			
Immediate Actions Taken:			
Confirmed validity of data and proceeded to call in the exceedance to AEMERA			
Investigation Details:			
Actions Taken to Prevent Reoccurrence (if any):			
N/A			
Additional Actions Required (if any):			
N/A			
Report Completed By:	Christopher Hendrickson	Date Report Submitted:	June 8 2015
7-Day Letter Due Date:	June 15 2015		

Air Monitoring Directive Exceedence Report

**Alberta Environmental Monitoring, Evaluation and Reporting Agency
Energy & Environmental Response**

111 Twin Atria Building
4999 – 98th Avenue
Edmonton, Alberta T6B 2X3
erc.environment@gov.ab.ca
Phone: (780) 422-4505
Fax: (780) 427-1044

Reference Number:	299531	Reported To (AESRD Contact):	Jessica
Date & Time Incident Reported to AESRD:	June 11 2015 22:00	Reported By:	Christopher Hendrickson
Reported on Behalf of:	PAZA	Approval Number (if applicable):	N/A
Location(s) of Incident:	Evergreen Park		
Start Date & Time of Incident:	June 11, 2015 19:00	End Date & Time of Incident:	June 11, 2015 21:00
Reason or Nature of Incident:			
PM2.5 hourly exceedance between 19:00 and 22:00 PM2.5 limit is 80 ug/m3. Hourly average was 19:00-20:00 144.2 ug/m3. Winds were WS 35.7 km/h WD 261.6 Deg 20:00-21:00 99.8 ug/m3. Winds were WS 36.9 km/h WD 257.8 Deg			
Immediate Actions Taken:			
Confirmed validity of data and proceeded to call in the exceedance to AEMERA			
Investigation Details:			
Actions Taken to Prevent Reoccurrence (if any):			
N/A			
Additional Actions Required (if any):			
N/A			
Report Completed By:	Christopher Hendrickson	Date Report Submitted:	June 11 2015
7-Day Letter Due Date:	June 18 2015		

Air Monitoring Directive Exceedence Report

**Alberta Environmental Monitoring, Evaluation and Reporting Agency
Energy & Environmental Response**

111 Twin Atria Building
4999 – 98th Avenue
Edmonton, Alberta T6B 2X3
erc.environment@gov.ab.ca
Phone: (780) 422-4505
Fax: (780) 427-1044

Reference Number:	299534	Reported To (AESRD Contact):	Jessica
Date & Time Incident Reported to AESRD:	June 12 2015 01:32	Reported By:	Christopher Hendrickson
Reported on Behalf of:	PAZA	Approval Number (if applicable):	N/A
Location(s) of Incident:	Clairmont		
Start Date & Time of Incident:	June 12, 2015 0:00	End Date & Time of Incident:	May 24, 2015 1:00
Reason or Nature of Incident:			
PM2.5 hourly exceedance between 0:00 and 1:00 PM2.5 limit is 80 ug/m3. Hourly average was 89.5 ug/m3. Winds were WS 11.5 km WD 210.5 Deg			
Immediate Actions Taken:			
Confirmed validity of data and proceeded to call in the exceedance to AEMERA			
Investigation Details:			
Actions Taken to Prevent Reoccurrence (if any):			
N/A			
Additional Actions Required (if any):			
N/A			
Report Completed By:	Christopher Hendrickson	Date Report Submitted:	June 12, 2015
7-Day Letter Due Date:	June 19, 2015		

Air Monitoring Directive Exceedence Report

Alberta Environmental Monitoring, Evaluation and Reporting Agency

Energy & Environmental Response

111 Twin Atria Building

4999 – 98th Avenue

Edmonton, Alberta T6B 2X3

erc.environment@gov.ab.ca

Phone: (780) 422-4505

Fax: (780) 427-1044

Reference Number:	300208	Reported To (AESRD Contact):	Raymon
Date & Time Incident Reported to AESRD:	June 30 2015 7:45	Reported By:	Christopher Hendrickson
Reported on Behalf of:	PAZA	Approval Number (if applicable):	N/A
Location(s) of Incident:	Henry Pirker		
Start Date & Time of Incident:	June 30, 2015 23:00	End Date & Time of Incident:	June 30, 2015 00:00
Reason or Nature of Incident:			
PM2.5 hourly exceedance between 23:00 and 00:00 PM2.5 limit is 80 ug/m3. Hourly average was 110.6 ug/m3. Winds were WS 5.1 km/h WD 219.2 Deg			
Immediate Actions Taken:			
Confirmed validity of data and proceeded to call in the exceedance to AEMERA			
Investigation Details:			
Fireworks in the Park			
Actions Taken to Prevent Reoccurrence (if any):			
N/A			
Additional Actions Required (if any):			
N/A			
Report Completed By:	Christopher Hendrickson	Date Report Submitted:	June 30 2015
7-Day Letter Due Date:	July 7 2015		

June 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, PM_{2.5}**

Calibration Report

Parameter SO2

Air Monitoring Network PAZA



Station Information

Calibration Date	June 1, 2015	Previous Calibration	May 1, 2015
Station Number	1	Station Location	Henry Pirker
Reason:	☒ Routine	☐ Install	☐ Removal
		☐ Other:	
Start Time (MST)	8:00	End Time (MST)	10:50
Barometric Pressure	724.000 mm	Station Temperature	21.0 Deg C
Calibrator	EnviroNics	Serial Number	3016
Cal Gas Conc	49.8 ppm	Cal Gas Cert Date	March 10, 2017
		Cal Gas Cylinder #	LL119493
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 1 volt	DACS channel #	10
	Before		After
Calculated slope	0.995784	Calculated slope	0.980225
Calculated intercept	1.896153	Calculated intercept	2.237036
Analyzer make	TEI 43C	Analyzer serial #	610816292

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	9.7		10.0	
Coefficient	0.764		0.764	
Pressure	644.8	mm Hg	645.8	mm Hg
Flow	0.477	lpm	0.478	lpm
Lamp intensity	44201	Hz	44817	Hz

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.0	0.0	N/A
4995	39.93	394.9	401.9	0.9826
4995	19.97	198.3	198.2	1.0004
4995	9.97	99.2	97.2	1.0210
4995	0.00	0.0	0.1	As Found Zero
4995	39.93	394.9	401.9	As Found Span
Average Correction Factor				1.0013

Calculated value of As Found Response: 402.0 ppb Percent Change of As Found: -1.8%

	before calibration		after calibration	
Auto zero	0.1	ppb	0.0	ppb
Auto span	330.5	ppb	329.7	ppb

Notes: Zero adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter SO2

Air Monitoring Network PAZA



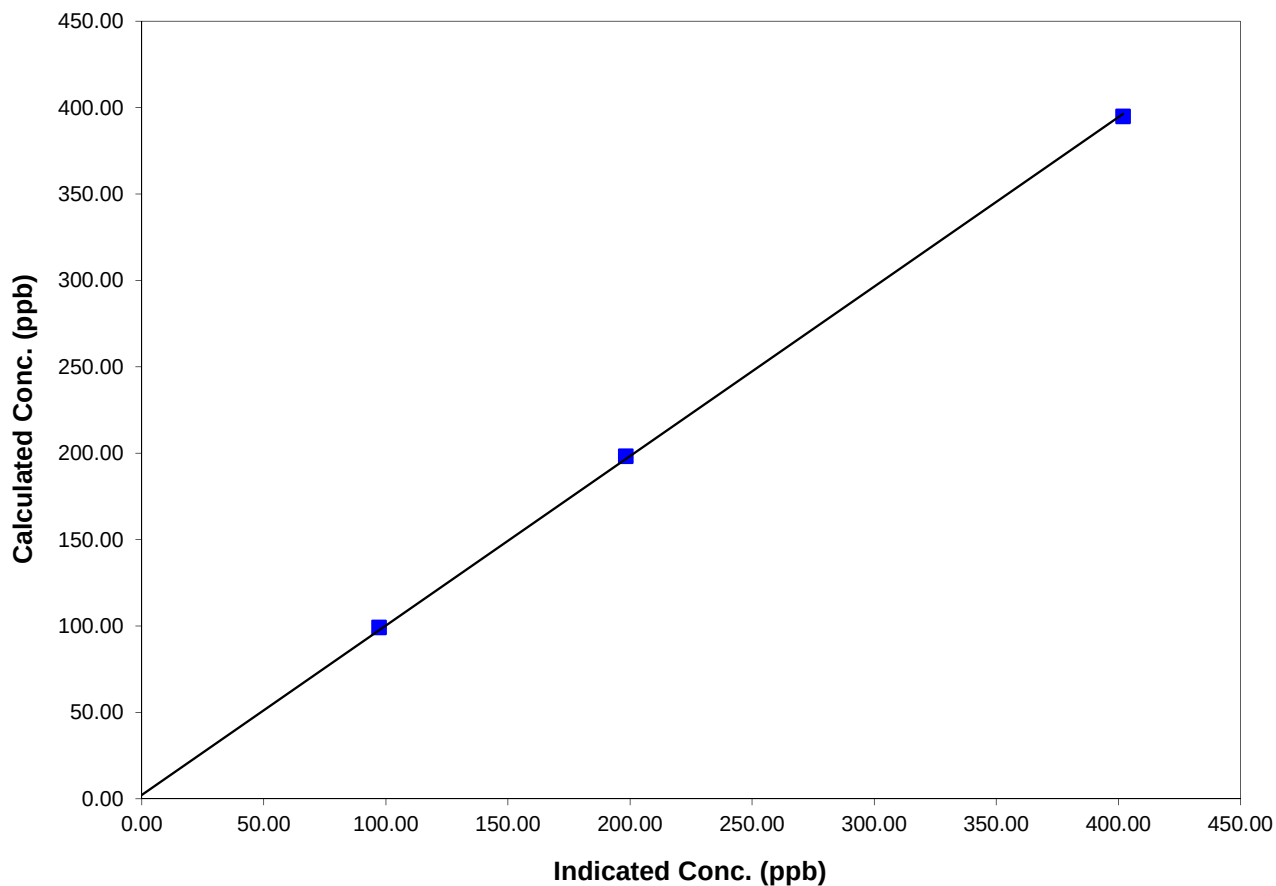
Station Information

Calibration Date	June 1, 2015	Previous Calibration	May 1, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	8:00	End Time (MST)	10:50
Analyzer make/model	TEI 43C	Analyzer serial #	610816292

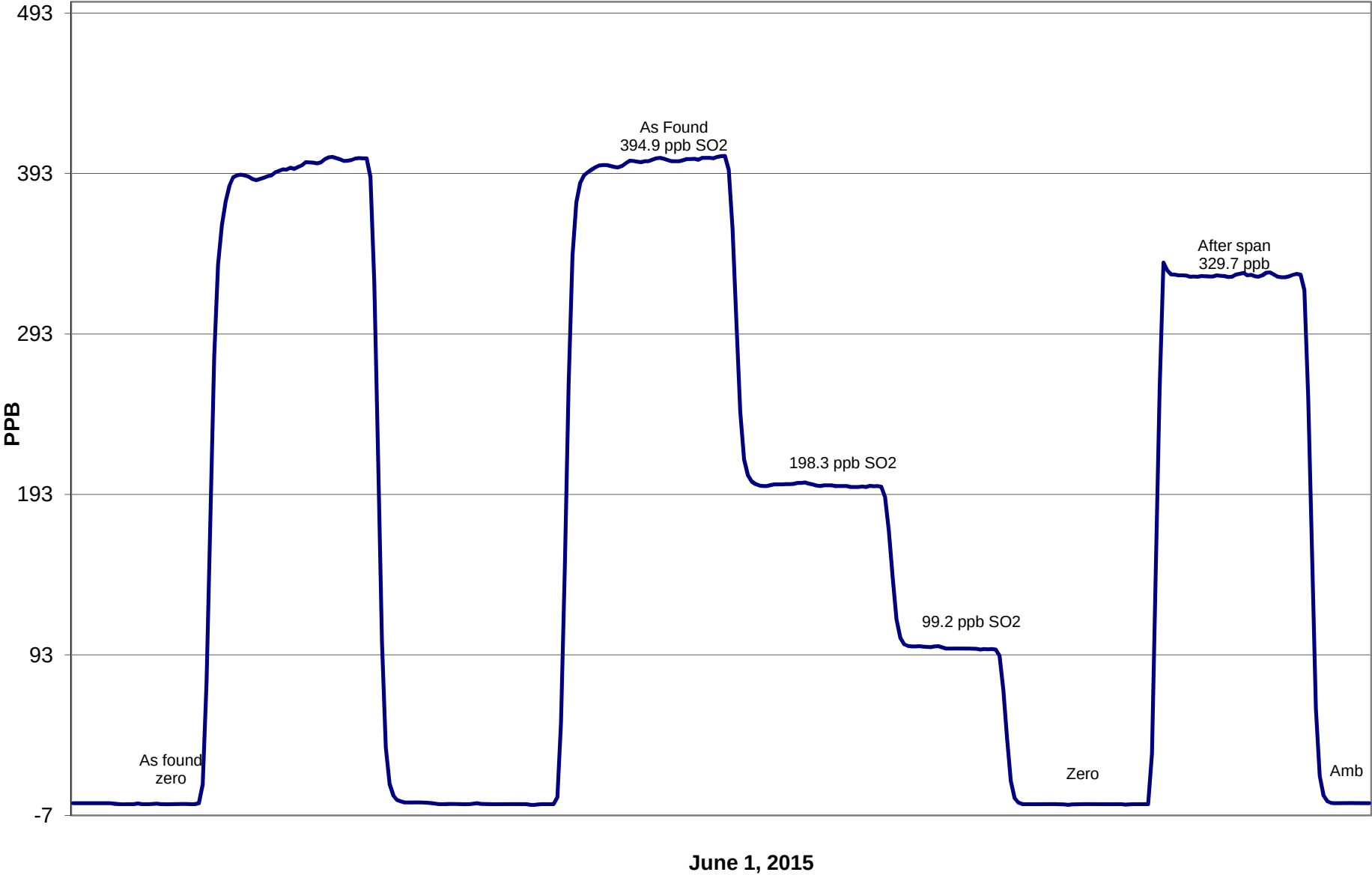
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A	Correlation Coefficient	0.999852
394.9	401.9	0.9826		
198.3	198.2	1.0004		
99.2	97.2	1.0210	Slope	0.980225
			Intercept	2.237036

SO2 Calibration Curve



SO2 Calibration



Calibration Report

Parameter
Air Monitoring Network

NO_x-NO-NO₂
PAZA



Station Information

Calibration Date	June 1, 2015	Previous Calibration	May 1, 2015
Station Number	1	Station Location	Henry Pirker
Reason:	Routine	Installation	Removal
Other:			
Start Time (MST)	8:00	End Time (MST)	12:17
Barometric Pressure	724.000 mm	Station Temperature	21.0 Deg C
Calibrator	EnviroNics	Serial Number	3016
NO Cal Gas Conc	50.9 ppm	Cal Gas Expiry Date	March 10, 2017
NOx Cal Gas Conc	51.2 ppm	Cal Gas Serial #	LL119493

DACS Information

DACS make	CR3000	DACS serial No.	5408	
Parameter		NO2	NOx	NO
Before	Data Slope	1.002707	0.988417	0.982597
	Data Offset	0.276040	1.203348	1.459081
After	Data Slope	1.006909	0.996183	0.991061
	Data Offset	-0.058697	1.838922	1.859251
Channel #		8	6	7
Voltage Range		0 - 5 VDC	0 - 5 VDC	0 - 5 VDC

Analyzer Information

Analyzer make/model	42i	Analyzer serial #	906535087	
Test Point	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
NO offset	4.9	mV	5.4	mV
NOx bkgnd	5.0	mV	5.5	mV
NO coefficient	0.937		0.922	
NOx coefficient	1.000		1.000	
NO2 conv temp	324.1	Deg C	324.1	Deg C
Cooler Temp	-2.8	Deg C	-2.8	Deg C
PMT Volt	-844.3	mV	-844.0	mV
R Cell Press	169.5	in Hg	169.5	in Hg
Sample Flow	0.721	LPM	0.720	LPM

Notes: Zero & span adjustment made.

Calibration Report

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

Station Information

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

Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor
zero	4995	0.00	0.0	0.0	0.0	0.0	0.2	0.0	N/A	N/A
1	4995	39.92	405.9	403.6	2.4	406.6	406.4	0.4	0.9985	0.9929
2	4995	19.96	203.8	202.6	1.2	201.7	201.2	0.2	1.0102	1.0070
3	4995	9.93	101.6	101.0	0.6	98.4	98.2	0.3	1.0325	1.0280
AFZ	4995	0.00	0.0	0.0	0.0	0.5	0.6	0.0	0.0000	0.0000
AFS	4995	39.92	405.9	403.6	0.8	413.0	412.6	0.7	0.9829	0.9782
Average Correction Factor									1.0137	1.0093

As Found Concentrations: NO_x= 408.9 NO= 406.3 As Found Percent Change NO_x= 0.7% NO= 0.7%

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	0.6	0.6	0.0	0.0	0.2	0.0	N/A	N/A	N/A	N/A
NO point	407.7	407.7	0.0	407.8	407.7	0.1	0.9997	1.0000	N/A	N/A
300	407.7	94.4	313.3	405.9	94.4	311.4	1.0044	1.0000	1.0061	99.4%
200	407.7	194.8	212.9	406.7	194.8	211.0	1.0025	1.0000	1.0087	99.1%
100	407.7	296.4	111.3	408.2	296.4	110.8	0.9988	1.0000	1.0041	99.6%
Average Correction Factor							1.0019	1.0000	1.0063	99.4%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	0.1	0.0	0.3	ppb	0.0	0.0	0.1	ppb
Auto span	368.9	365.5	2.9	ppb	357.8	354.5	2.7	ppb

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter NO₂

Air Monitoring Network PAZA



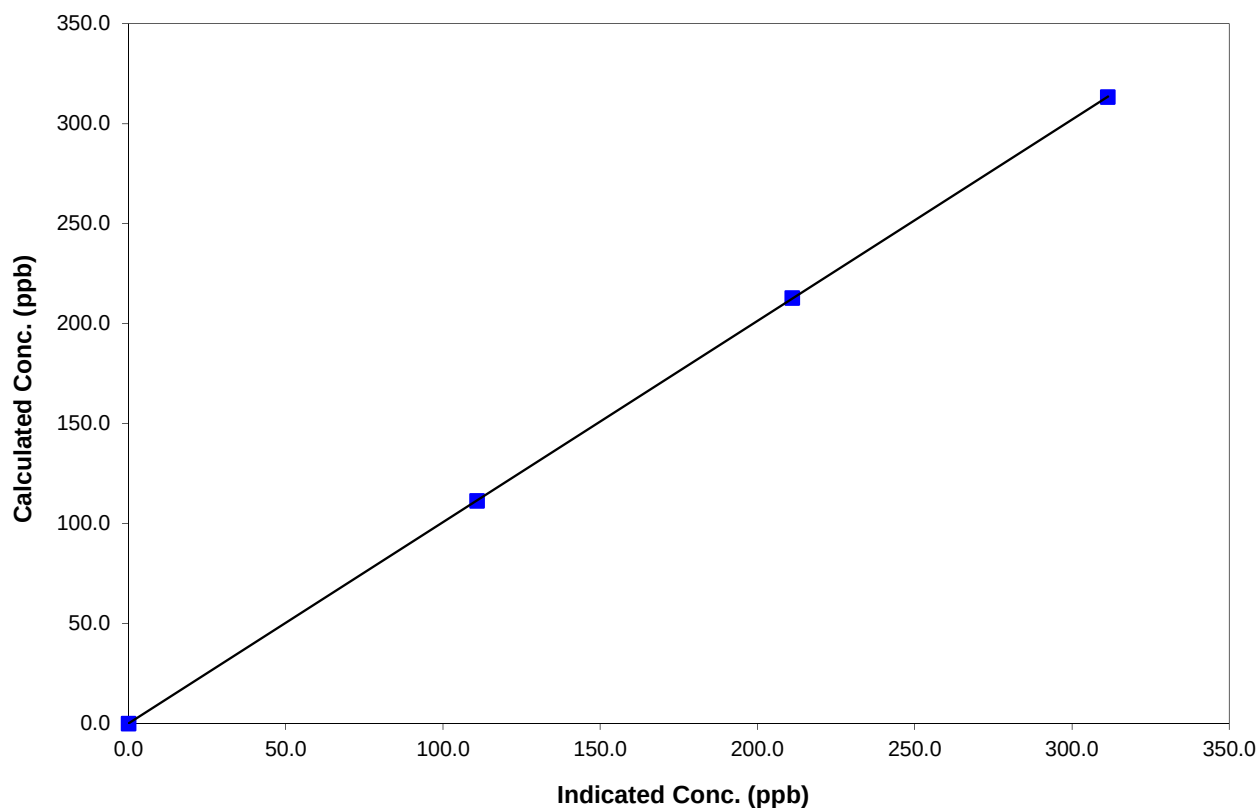
Station Information

Calibration Date	June 1, 2015	Previous Calibration	May 1, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	8:00	End Time (MST)	12:17
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	0.999995
313.3	311.4	1.0061		
212.9	211.0	1.0087		
111.3	110.8	1.0041	Slope	1.006909
			Intercept	-0.058697

NO₂ Calibration Curve



Calibration Summary

Parameter NO_x

Air Monitoring Network PAZA



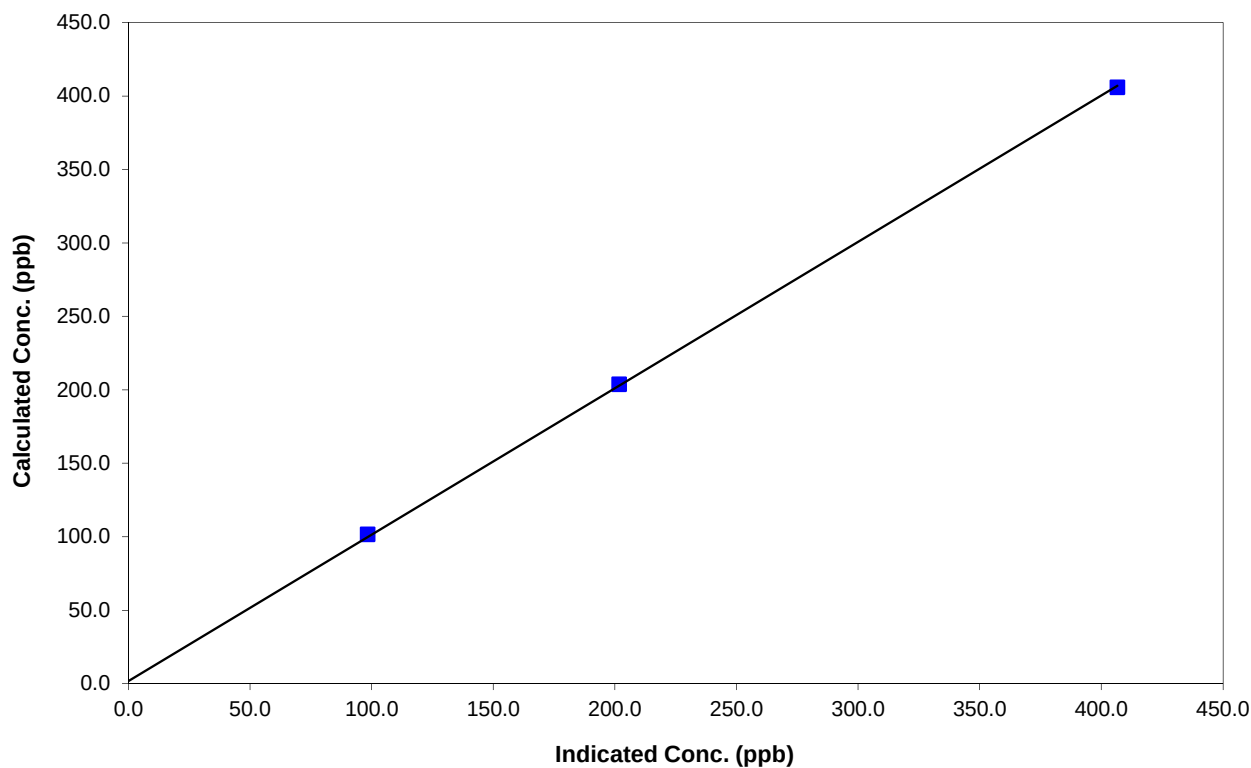
Station Information

Calibration Date	June 1, 2015	Previous Calibration	May 1, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	8:00	End Time (MST)	12:17
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	0.999910
405.9	406.6	0.9985		
203.8	201.7	1.0102		
101.6	98.4	1.0325	Slope	0.996183
			Intercept	1.838922

NO_x Calibration Curve



Calibration Summary

Parameter NO

Air Monitoring Network PAZA



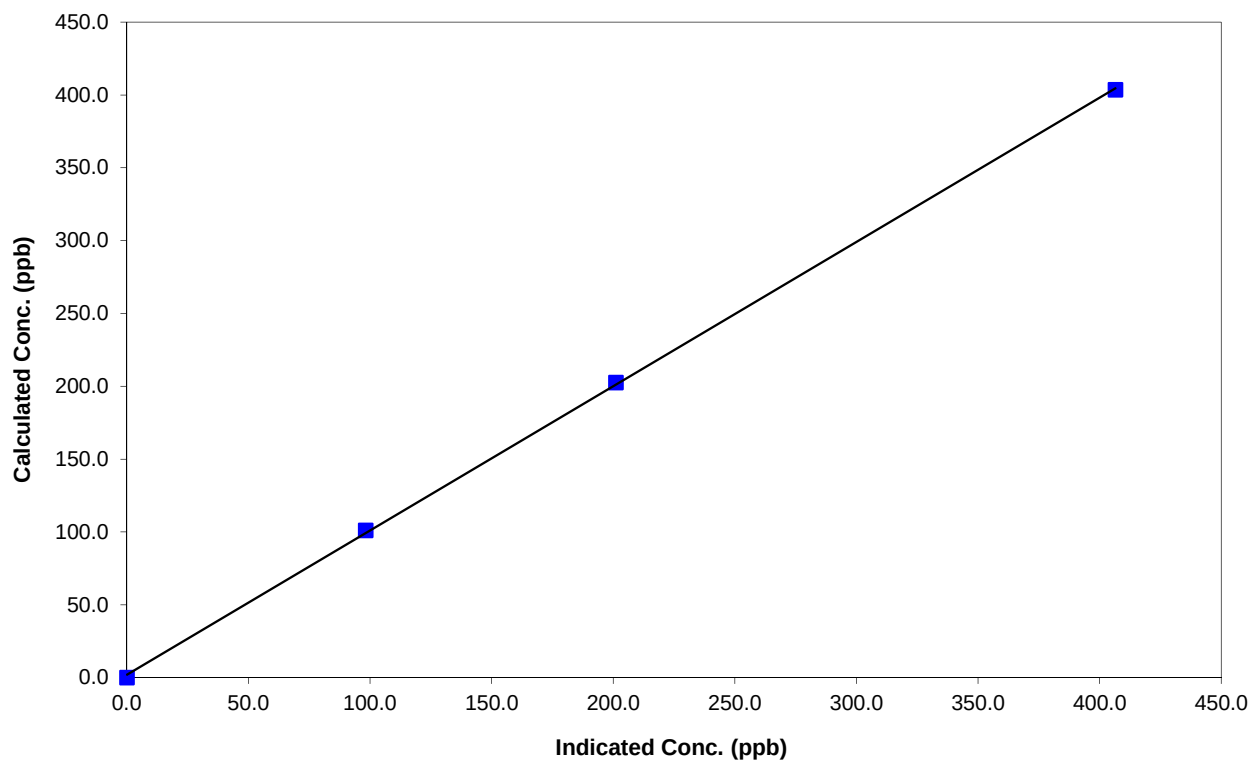
Station Information

Calibration Date	June 1, 2015	Previous Calibration	May 1, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	8:00	End Time (MST)	12:17
Analyzer make	42i	Analyzer serial #	906535087

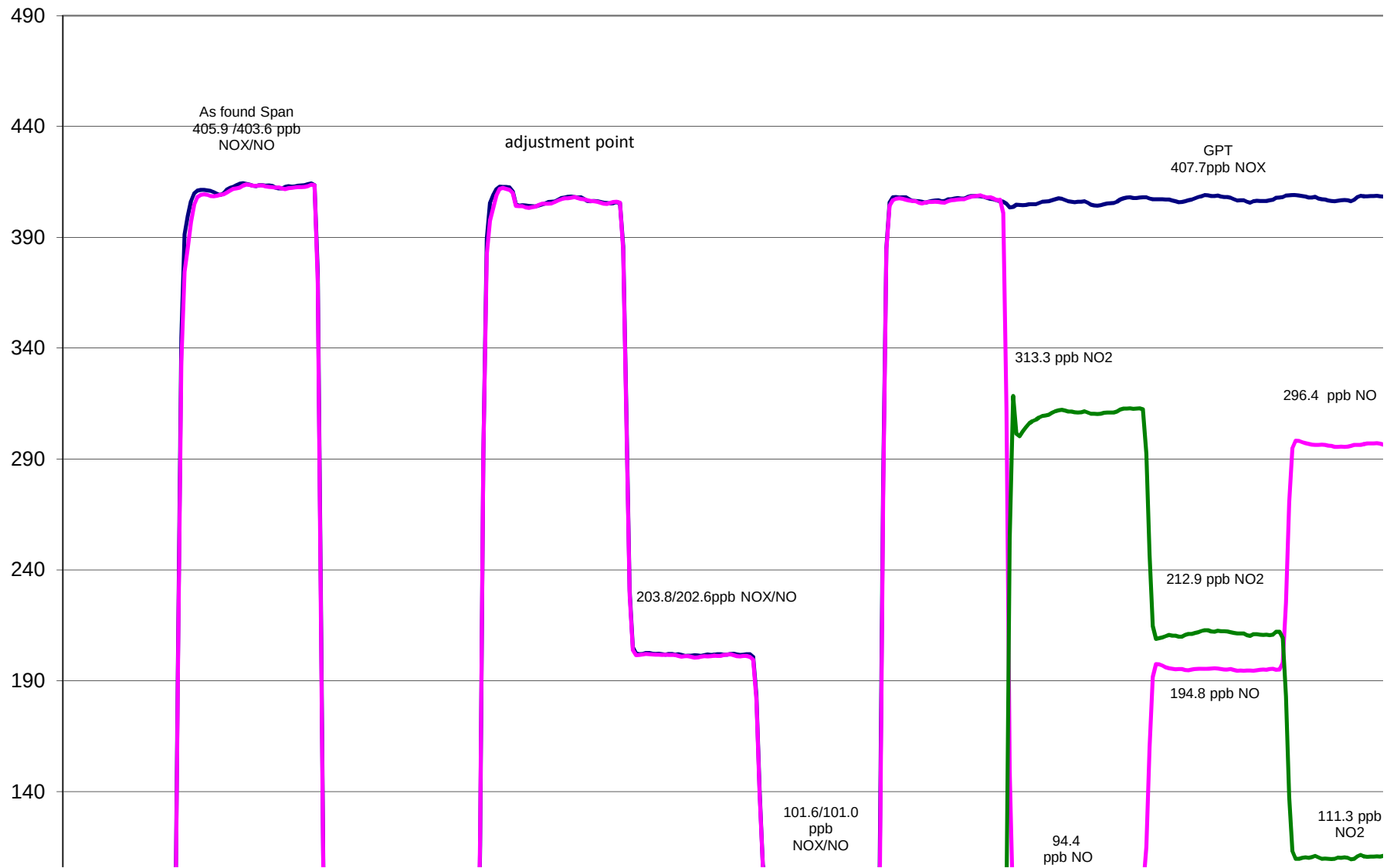
Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A	Correlation Coefficient	0.999885
403.6	406.4	0.9929		
202.6	201.2	1.0070		
101.0	98.2	1.0280	Slope	0.991061
			Intercept	1.859251

NO Calibration Curve



NO_x Calibration



Calibration Report



AIR QUALITY MONITORING

Parameter 03

Air Monitoring Network PAZA

Station Information

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

Start Time (MST)	11:15	End Time (MST)	14:00:00 AM
Barometric Pressure	724.000 mm	Station Temperature	21.0 Deg C
Calibrator	EnviroNics	Serial Number	3016
Cal Gas Concentration	NA	Cal Gas Expiry Date	NA

DACS make	CR3000	DACS serial No.	5237
DACS voltage range	0 - 5 volt	DACS channel #	9
	Before		After
Calculated slope	1.010401	Calculated slope	1.013080
Calculated intercept	0.485615	Calculated intercept	0.092714

Analyzer make	Teco 49C	Analyzer serial #	607415761
---------------	----------	-------------------	-----------

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
offset	-0.20	ppb	-0.20	ppb
slope	1.008		1.008	
Lamp temp	57	mV	57	mV
Lamp Intensity A/B	95373/88980	mV	95465/89129	mV
Pressure	679.1	mm Hg	683.9	mm Hg
Flow A	0.728	ccm	0.731	ccm
Flow B	0.703	ccm	0.704	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	0.4	N/A
5035	0.3	313.3	309.8	1.0114
5035	0.2	212.9	209.4	1.0167
5035	0.1	111.3	109.3	1.0179
5035	0.0	0.0	0.4	As found zero
5035	0.3	313.3	309.8	As found span
Average Correction Factor				1.0154

Calculated value of As Found Response: 313.1 ppm Percent Change of As Found: -0.1%

	before calibration		after calibration	
Auto zero	0.0	ppb	0.1	ppb
Auto span	461.2	ppb	460.4	ppb

Notes: No adjustment made

Calibrator kicked out on the as found span, which caused a spike on the trace

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter 03

Air Monitoring Network PAZA



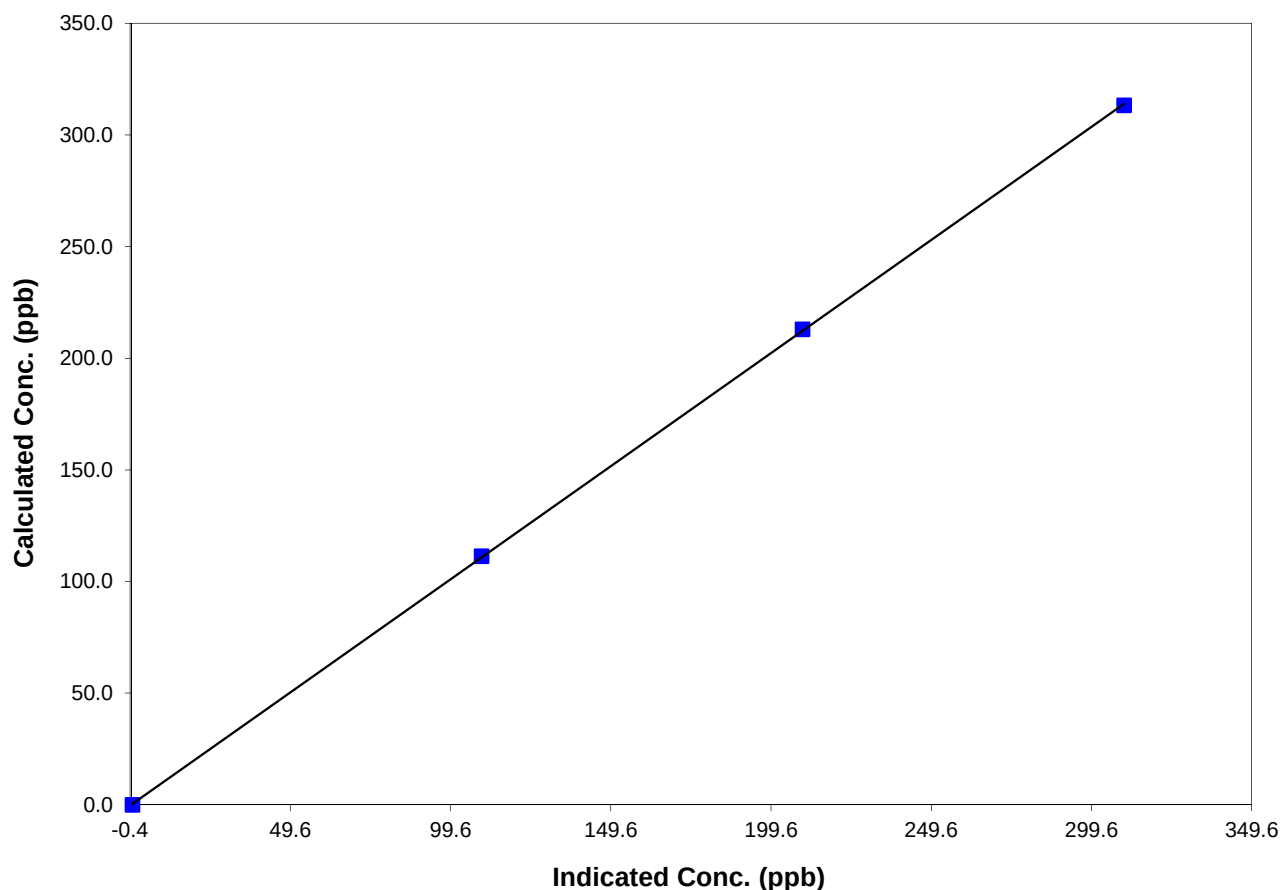
Station Information

Calibration Date	June 1, 2015	Previous Calibration	May 1, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	11:15	End Time (MST)	14:00:00 AM
Analyzer make/model	Teco 49C	Analyzer serial #	607415761

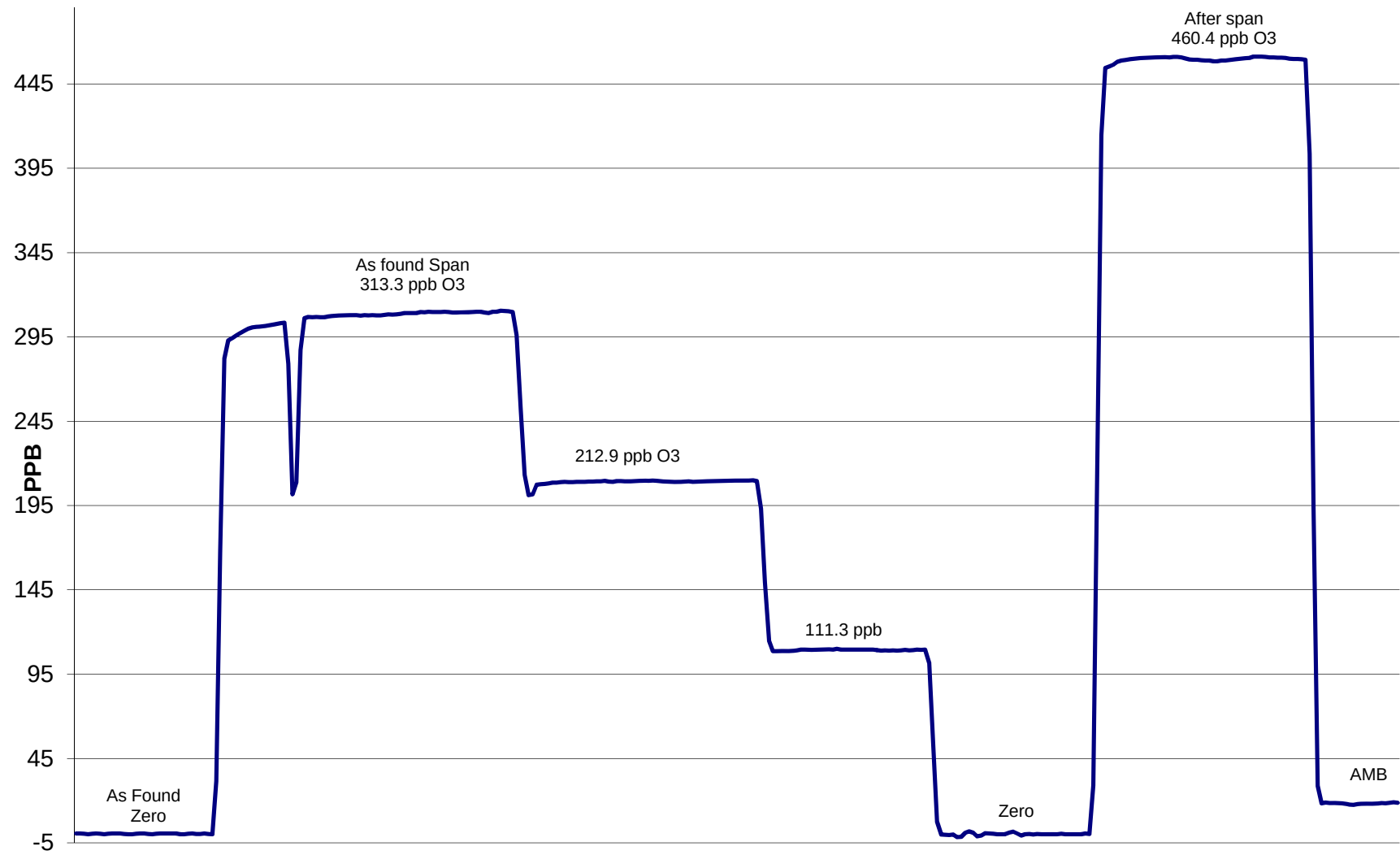
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.4	NA	Correlation Coefficient	0.999977
313.3	309.8	1.0114		
212.9	209.4	1.0167		
111.3	109.3	1.0179	Slope	1.013080
			Intercept	0.092714

O3 Calibration Curve



O3 Calibration



June 1, 2015

Calibration Report



Parameter CO

Air Monitoring Network PAZA

Station Information

Calibration Date	June 2, 2015	Previous Calibration	May 4, 2015
Station Number	1	Station Location	Henry Pirker
Reason:	Routine	Install	Removal
Start Time (MST)	11:10	End Time (MST)	13:15:00 PM
Barometric Pressure	726.0 mm/hg	Station Temperature	21.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3016
Cal Gas Conc	2898 ppm	Cal Gas Expiry Date	04/02/2013
DACS make	CR3000	Cal Gas Cylinder #	LL83909
DACS voltage range	0 - 5 volt	DACS serial No.	5408
	Before	DACS channel #	9
Calculated slope	1.009130		After
Calculated intercept	-0.058888	Calculated slope	0.998811
		Calculated intercept	0.068903
Analyzer make	Model 48I-TLE	Analyzer serial #	1408761378

	before		after	
Concentration range	0 - 50	ppm	0 - 50	ppm
CO zero setting	1.684		2.275	
CO span setting	1.001		1.021	
Sample pressure	697.4	mm Hg	695.6	mm Hg
Sample Flow	0.455	LPM	0.453	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	-0.06	N/A
4995	69.94	40.02	40.00	1.0004
4995	34.96	20.14	20.09	1.0025
4995	17.96	10.38	10.31	1.0067
4995	0.00	0.00	0.34	As Found Zero
4995	69.94	40.02	40.74	As Found Span
Average Correction Factor				1.0032

Calculated value of As Found Response: 40.716 ppm Percent Change of As Found: -1.7%

	before calibration		after calibration	
Auto zero	-0.03	ppm	-0.23	ppm
Auto span	19.72	ppm	19.68	ppm

Notes: Zero& span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter CO

Air Monitoring Network PAZA



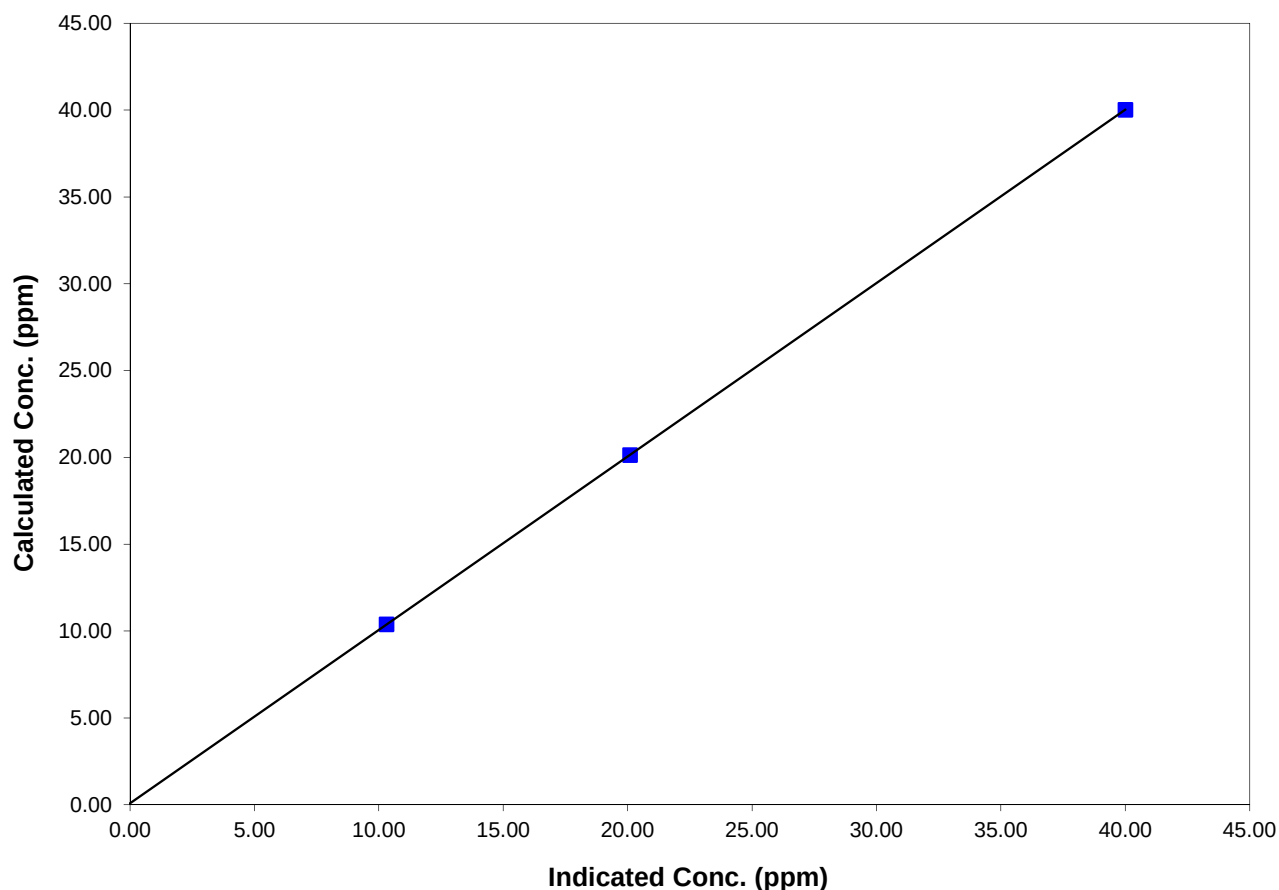
Station Information

Calibration Date	June 2, 2015	Previous Calibration	May 4, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	11:10	End Time (MST)	13:15:00 PM
Analyzer make/model	Model 48I-TLE	Analyzer serial #	1408761378

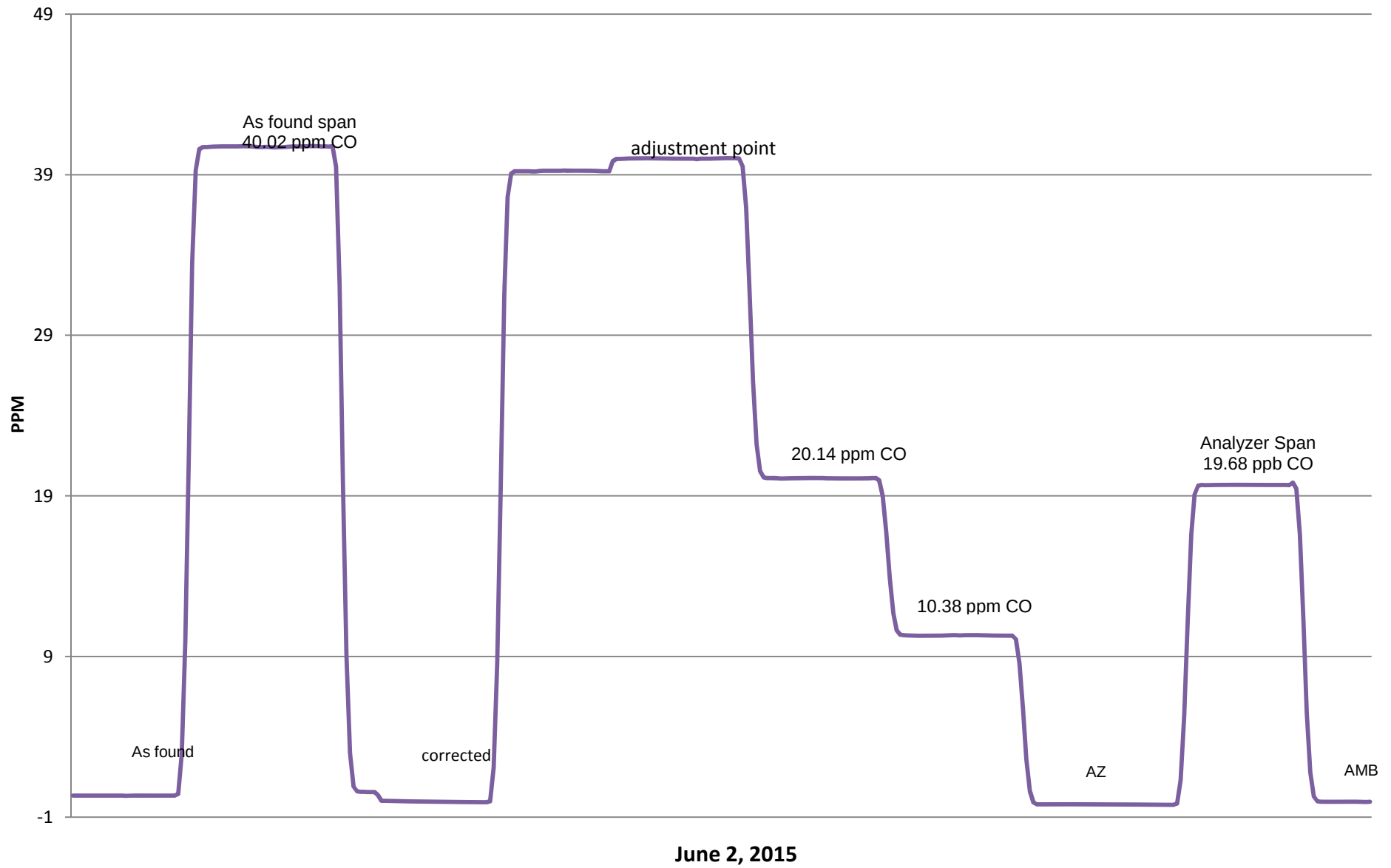
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	-0.057	N/A	Correlation Coefficient	1.000000
40.017	40.002	1.0004		
20.142	20.092	1.0025		
10.383	10.314	1.0067	Slope	0.998811
			Intercept	0.068903

CO Calibration Curve



CO Calibration



Calibration Report



Parameter CH4 / NMHC / THC

Air Monitoring Network PAZA

Station Information

Calibration Date	June 2, 2015	Previous Calibration	May 4, 2015
Station Number	1	Station Location	Henry Pirker
Reason:	☒ Routine	☐ Install	☐ Removal
			☐ Other:

Start Time (MST)	12:15	End Time (MST)	16:05:00 PM
Barometric Pressure	726.00 mm/hg	Station Temperature	21.0 Deg C
Calibrator	EnviroNics	Serial Number	3016
Cal Gas CH4 Conc	386 ppm CH4	Cal Gas Expiry Date	28/03/2014
Cal Gas C3H8 Conc	207 569.25 ppm CH4	Cal Gas Cylinder #	LL34318
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 5 volt	DACS channel #	SE 11,12,13

Analyzer make	TEI 55I	Analyzer serial #	1134650658
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	before		after	
Concentration range	0-20 (CH4, NMHC); 0-40 (THC)	ppm	0-20 (CH4, NMHC); 0-40 (THC)	ppm
Air pressure	27.8	PSI	27.8	PSI
Fuel pressure	42.1	PSI	42.1	PSI
Carrier pressure	30.3	PSI	30.3	PSI
CH4 cal factor	5.78		5.78	E ⁻⁴
NMHC cal factor	1.93		1.93	E ⁻⁴
Rt	12.74	Sec	12.74	Sec
Pk Index	23.22		23.22	

CH4 Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
1996	0.00	0.00	0.02	N/A
1996	68.96	12.89	12.71	1.0142
1996	40.96	7.76	7.58	1.0245
1996	15.99	3.07	2.96	1.0352
1996	0.00	0.00	0.02	As Found Zero
1996	68.93	12.89	12.72	As Found Span
Average Correction Factor				1.0246

Calculated value of As Found Response: 12.823 ppm Percent Change of As Found: 0.5%

	Before		After
Calculated slope	1.006968	Calculated slope	1.014982
Calculated intercept	0.030597	Calculated intercept	0.025678

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.03	ppm	0.03	ppm
Auto span	8.63	ppm	8.47	ppm

NMHC Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
1996	0.00	0.00	0.02	N/A
1996	68.96	19.01	18.99	1.0010
1996	40.96	11.45	11.55	0.9909
1996	15.99	4.52	4.66	0.9713
1996	0.00	0.00	0.02	As Found Zero
1996	68.93	19.00	18.99	As Found Span
Average Correction Factor				0.9877

Calculated value of As Found Response: 18.787 ppm Percent Change of As Found: 1.1%

	<u>Before</u>		<u>After</u>
Calculated slope	0.994307	Calculated slope	1.003029
Calculated intercept	-0.074852	Calculated intercept	-0.086591

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.02	ppm	0.02	ppm
Auto span	12.29	ppm	11.93	ppm

THC Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
1996	0.00	0.00	0.03	N/A
1996	68.96	31.90	31.68	1.0071
1996	40.96	19.21	19.11	1.0053
1996	15.99	7.59	7.61	0.9979
1996	0.00	0.00	0.03	As Found Zero
1996	68.93	31.89	31.69	As Found Span
Average Correction Factor				1.0034

Calculated value of As Found Response: 31.621 ppm Percent Change of As Found: 0.8%

	<u>Before</u>		<u>After</u>
Calculated slope	1.000042	Calculated slope	1.008490
Calculated intercept	-0.038359	Calculated intercept	-0.054327

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.02	ppm	0.02	ppm
Auto span	20.91	ppm	20.39	ppm

Notes: No adjustments made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter CH4

Air Monitoring Network PAZA



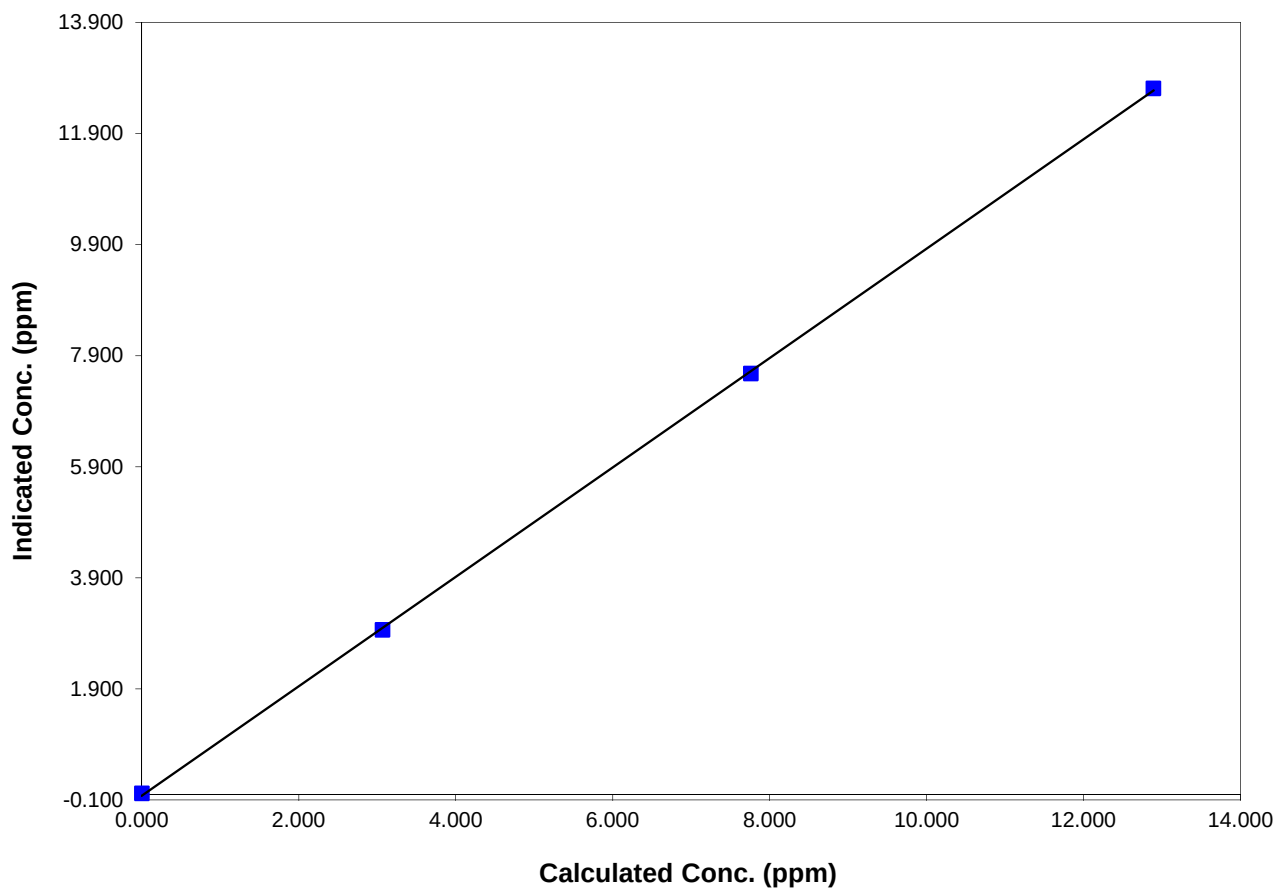
Station Information

Calibration Date	June 2, 2015	Previous Calibration	May 4, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	12:15	End Time (MST)	16:05:00 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	0.999931
12.891	12.710	1.0142		
7.762	7.576	1.0245		
3.068	2.963	1.0352	Slope	1.014982
			Intercept	0.025678

CH4 Calibration Data



Calibration Summary

Parameter NMHC

Air Monitoring Network PAZA



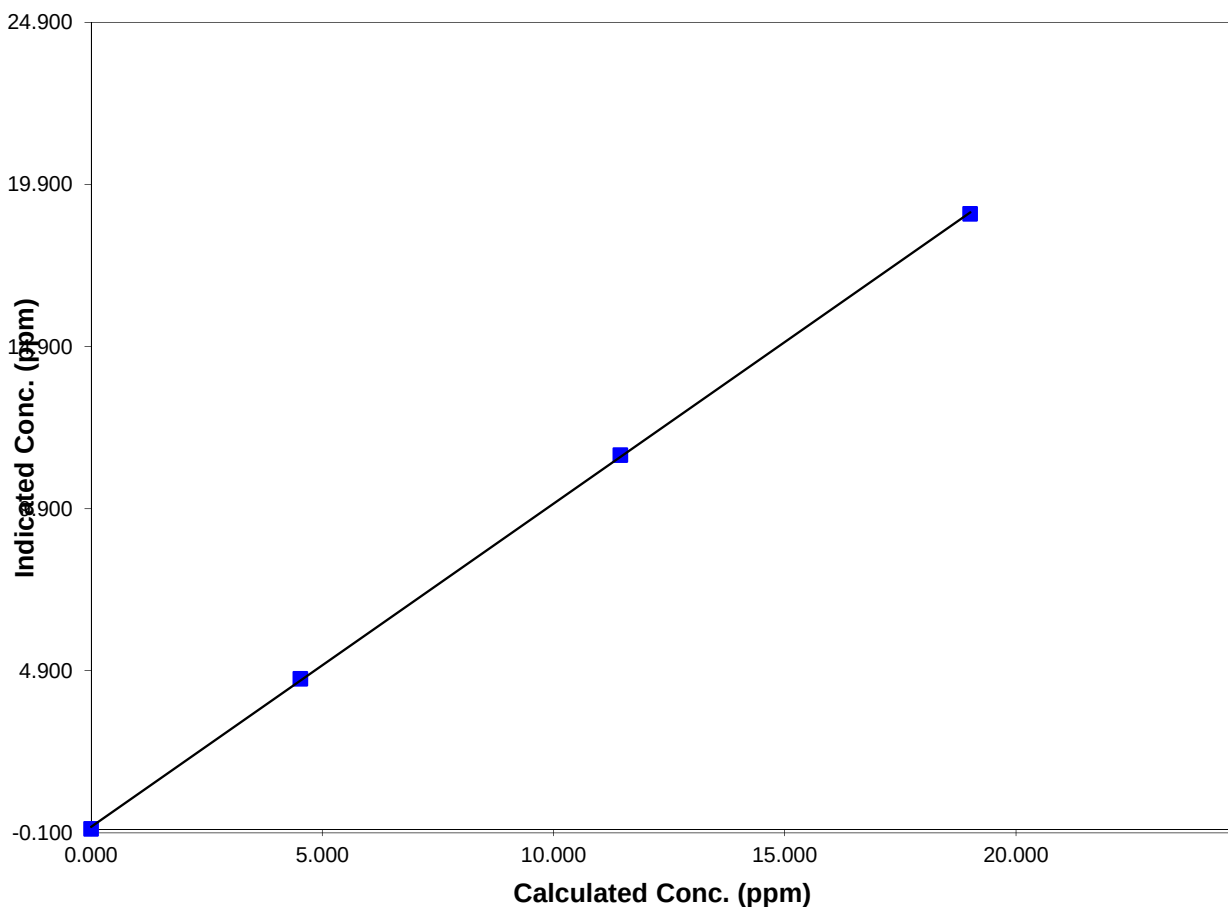
Station Information

Calibration Date	June 2, 2015	Previous Calibration	May 4, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	12:15	End Time (MST)	16:05:00 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	0.999935
19.010	18.992	1.0010		
11.447	11.552	0.9909		
4.524	4.658	0.9713	Slope	1.003029
			Intercept	-0.086591

NMHC Calibration Data



Calibration Summary

Parameter THC

Air Monitoring Network PAZA



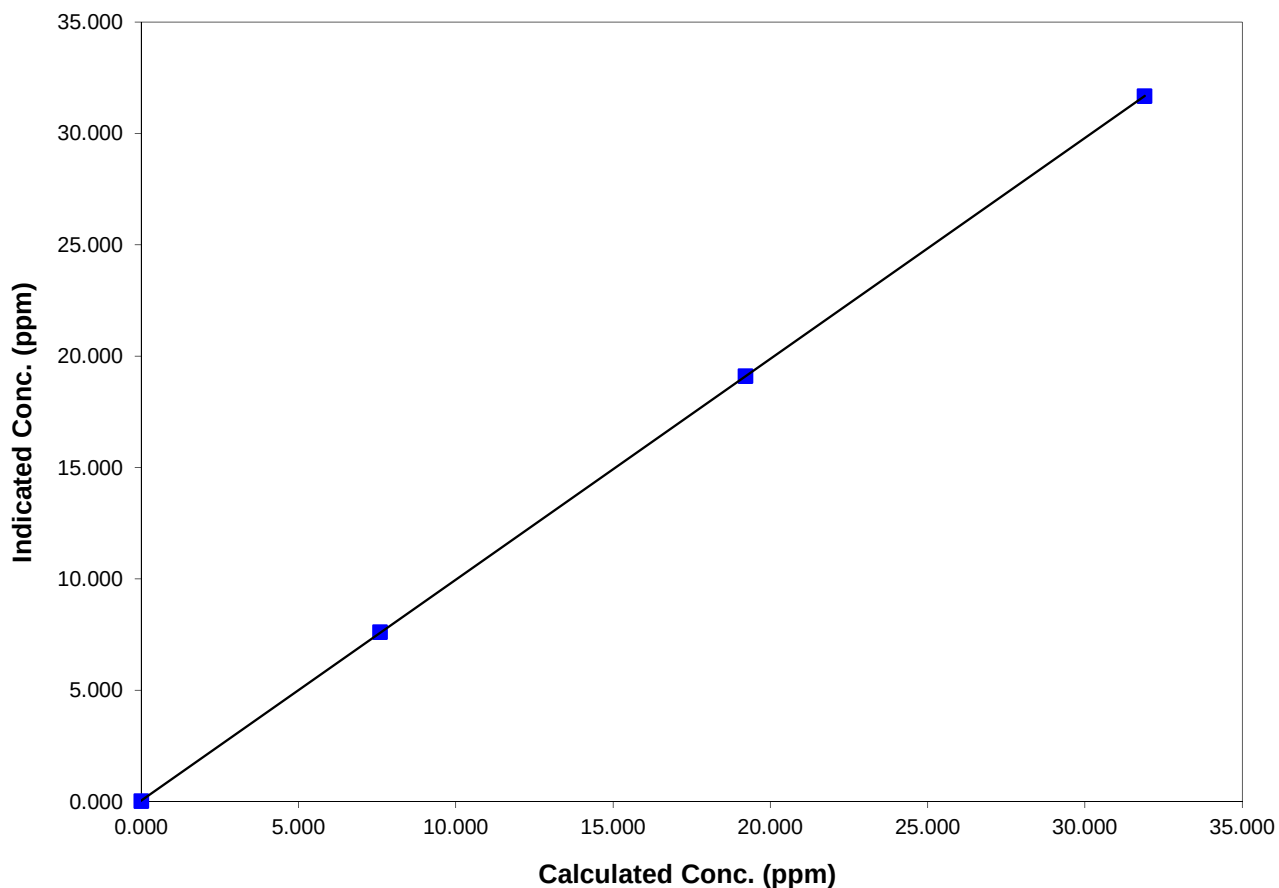
Station Information

Calibration Date	June 2, 2015	Previous Calibration	May 4, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	12:15	End Time (MST)	16:05:00 PM
Analyzer make/model	TEI 55I	Analyzer serial #	1134650658

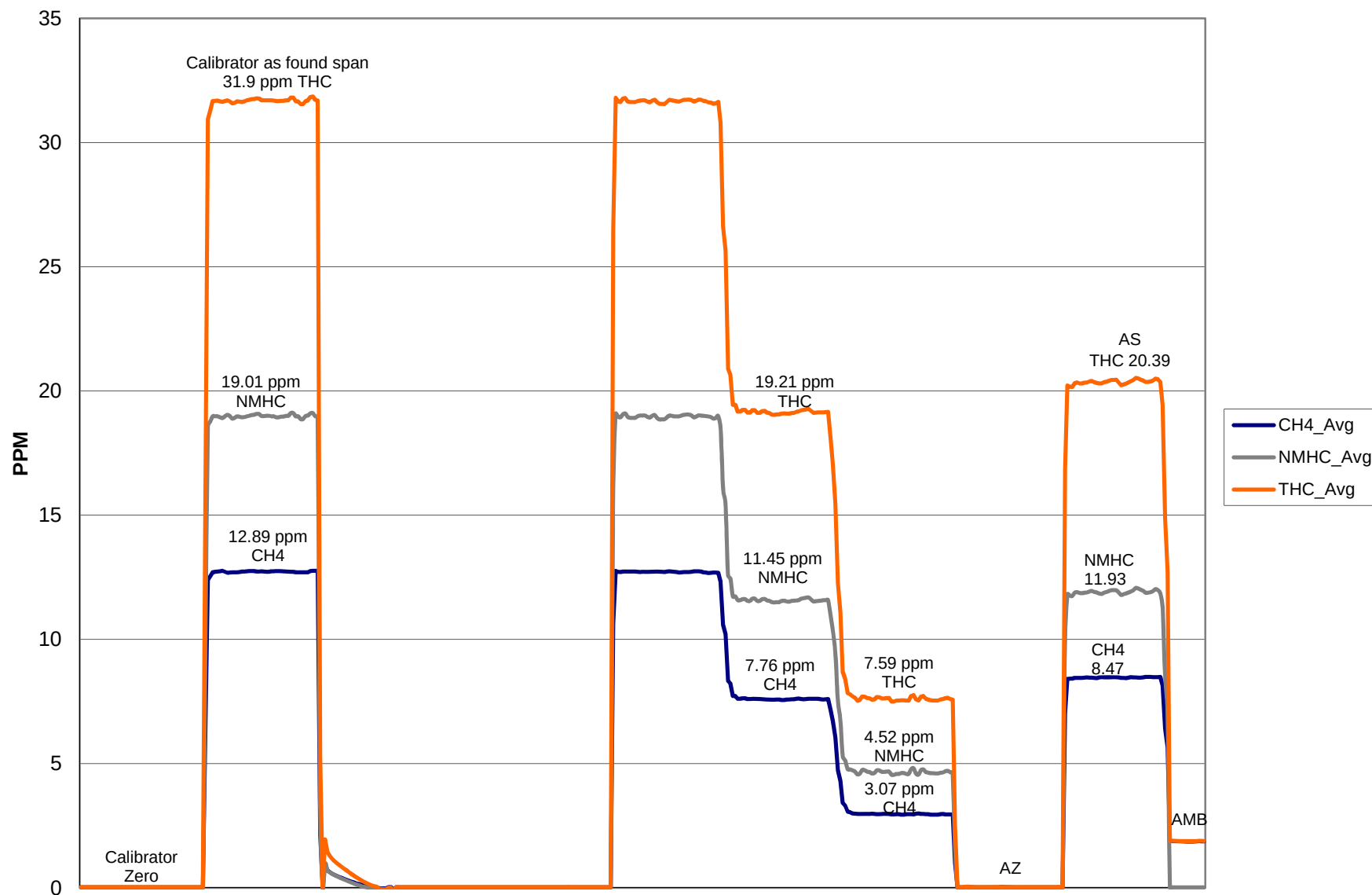
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.032	N/A	Correlation Coefficient	0.999998
31.901	31.676	1.0071		
19.209	19.107	1.0053		
7.592	7.607	0.9979	Slope	1.008490
			Intercept	-0.054327

THC Calibration Data



THC/CH₄/NMHC Calibration



Calibration Report

Parameter TRS

Air Monitoring Network PAZA



Station Information

Calibration Date	June 11, 2015	Previous Calibration	May 4, 2015
Station Number	1	Station Location	Henry Pirker
Reason:	Routine	Install	Removal
		Other:	

Start Time (MST)	8:05	End Time (MST)	15:40:00 PM
Barometric Pressure	726.00 mm/Hg	Station Temperature	21.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3016
Cal Gas Conc	10.32 ppb	Cal Gas Expiry Date	08/07/2016
		Cal Gas Cylinder #	LL110781
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 1 volt	DACS channel #	9
	Before		After
Calculated slope	1.002172	Calculated slope	0.966138
Calculated intercept	0.402652	Calculated intercept	0.811310

Analyzer make	TEI 45C	Analyzer serial #	630718528
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	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Coefficient	0.969		0.969	
Background	17.3		19.5	
Pressure	657.6	mm Hg	656.1	mm Hg
Flow	0.447	ccm	0.436	ccm
Lamp Voltage	886	v	896	v

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.00	-0.21	N/A
4995	39.93	81.84	84.19	0.9721
4995	19.95	41.05	41.17	0.9973
6995	9.95	14.66	13.87	1.0569
4995	0.00	0.00	0.18	As Found Zero
4995	39.93	81.84	78.32	As Found Span
Average Correction Factor				1.0088

Calculated value of As Found Response: 78.7 ppb Percent Change of As Found: 3.8%

	before calibration		after calibration	
Auto zero	0.10	ppb	-0.20	ppb
Auto span	33.72	ppb	34.44	ppb

Notes: Leak check performed-leak found(0.120 lpm)
 Checked all the lines & fittings-didn't find a leak-might be in the carbon kicker
 Took mirror block appart-took pictures of the warned mirrors, sent it to All Clark
 After the troubleshotting, did slight zero adjustment, run the calibration.

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter TRS

Air Monitoring Network PAZA



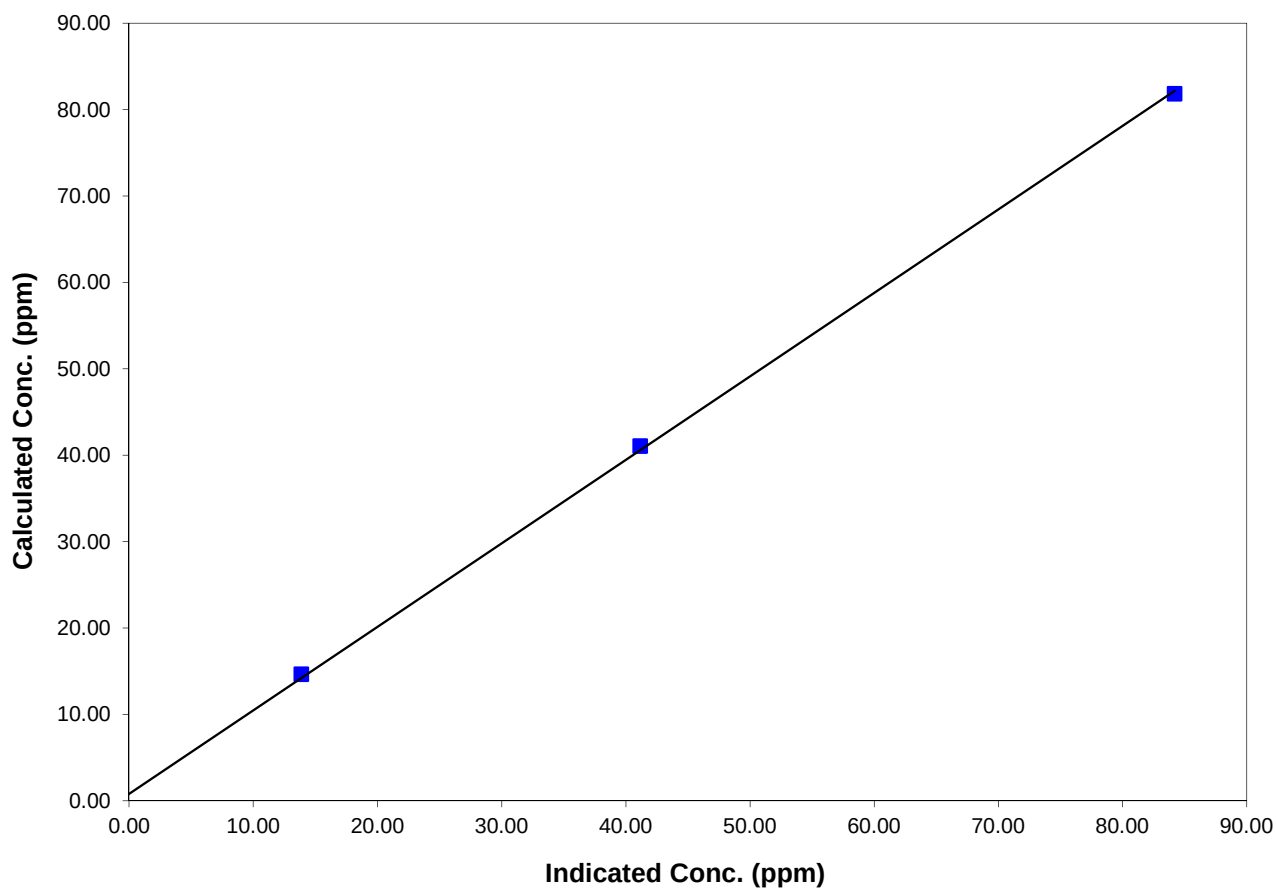
Station Information

Calibration Date	June 11, 2015	Previous Calibration	May 4, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	8:05	End Time (MST)	15:40:00 PM
Analyzer make/model	TEI 45C	Analyzer serial #	630718528

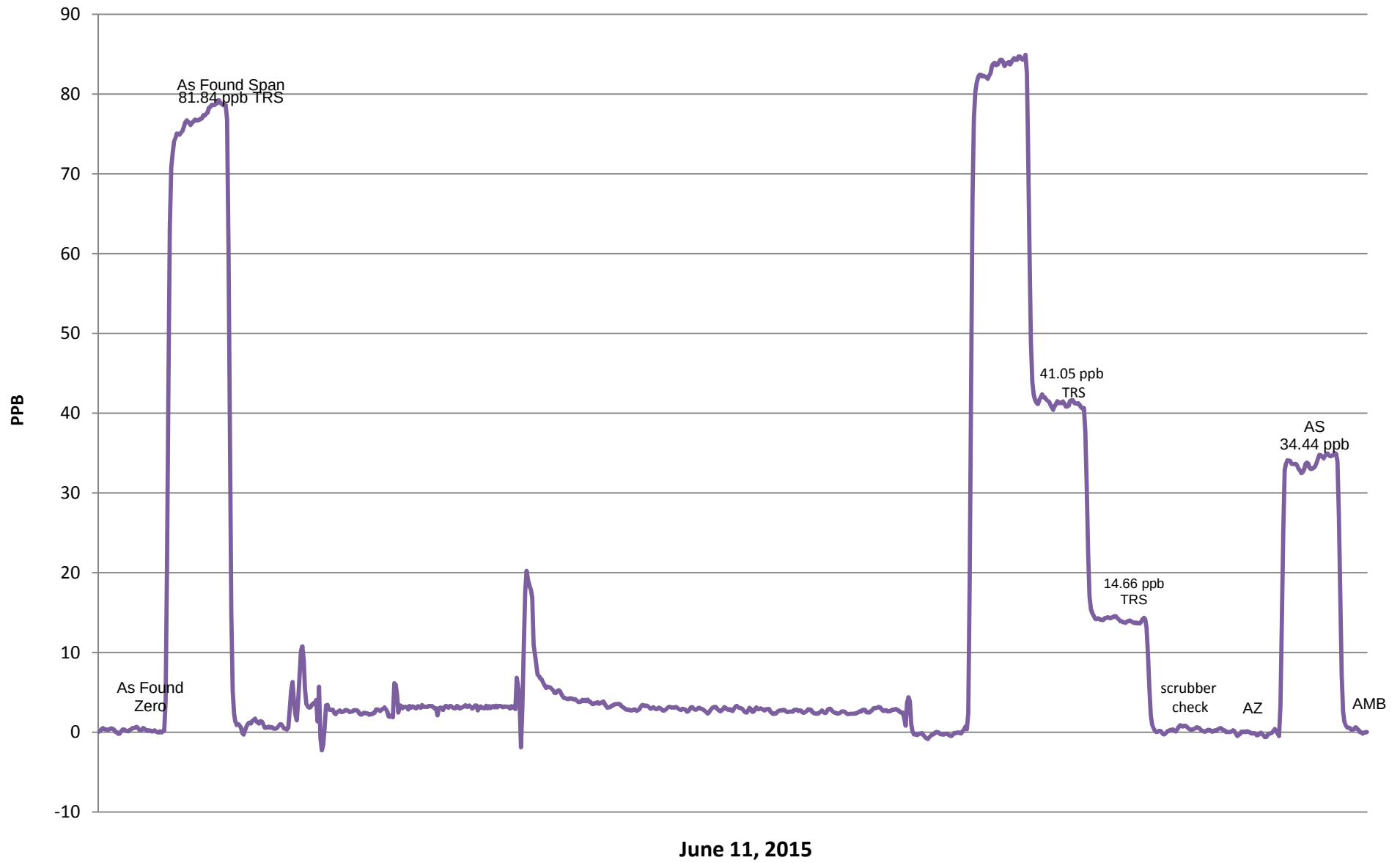
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	-0.205	N/A	Correlation Coefficient	0.999769
81.844	84.189	0.9721		
41.054	41.166	0.9973		
14.659	13.869	1.0569	Slope	0.966138
			Intercept	0.811310

TRS Calibration Curve



TRS Calibration



Calibration Report



Parameter SO₂

Air Monitoring Network PAZA

Station Information

Calibration Date	June 3 2015	Previous Calibration	May 12 2015
Station Number	2	Station Location	Evergreen Park
Reason:	Routine	Install	Removal
			Other:
Start Time (MST)	10:35	End Time (MST)	12:50
Barometric Pressure	0.920 ATM	Station Temperature	22.0 Deg C
Calibrator	EnviroNics	Serial Number	3016
Cal Gas Concentration	49.8 ppm	Cal Gas Expiry Date	25/02/2025
Correction factor	0.031061	Cal Gas Cylinder #	LL105159
DACS make	CR3000	DACS serial No.	5236
DACS voltage range	0 - 5 volt	DACS channel #	6
	Before		After
Calculated slope	0.993802	Calculated slope	0.984558
Calculated intercept	1.311612	Calculated intercept	1.229773
Analyzer make	Teco 43i	Analyzer serial #	701120008

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	11.4		11.4	
coefficient	1.217		1.217	
Lamp Voltage	829	volts	830	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	666.8	mm Hg	666.5	mm Hg
Sample Flow	0.451	ccm	0.451	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	400.6	0.9859
4995	19.97	198.3	199.6	0.9937
4995	9.95	99.0	97.7	1.0130
4995	0.0	0.0	0.2	As Found Zero
4995	39.93	394.9	400.6	As Found Span
Average Correction Factor				0.9976

Calculated value of As Found Response: 399.157 ppm Percent Change of As Found: -1.1%

	before calibration		after calibration	
Auto zero	0.4	ppm	0.0	ppm
Auto span	254.5	ppm	257.8	ppm

Notes: _____

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter SO2

Air Monitoring Network PAZA



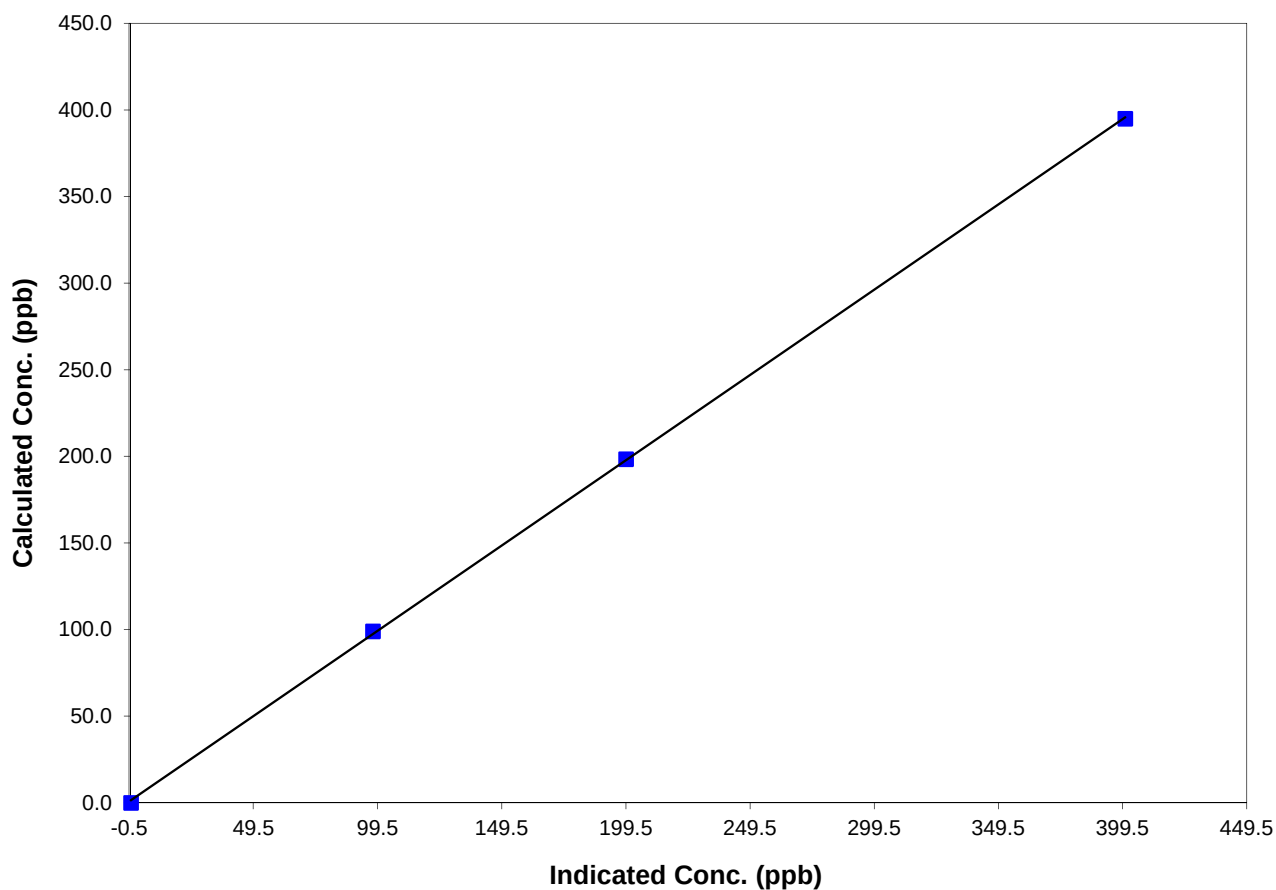
Station Information

Calibration Date	June 3 2015	Previous Calibration	May 12 2015
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	10:35	End Time (MST)	12:50
Analyzer make/model	Teco 43i	Analyzer serial #	701120008

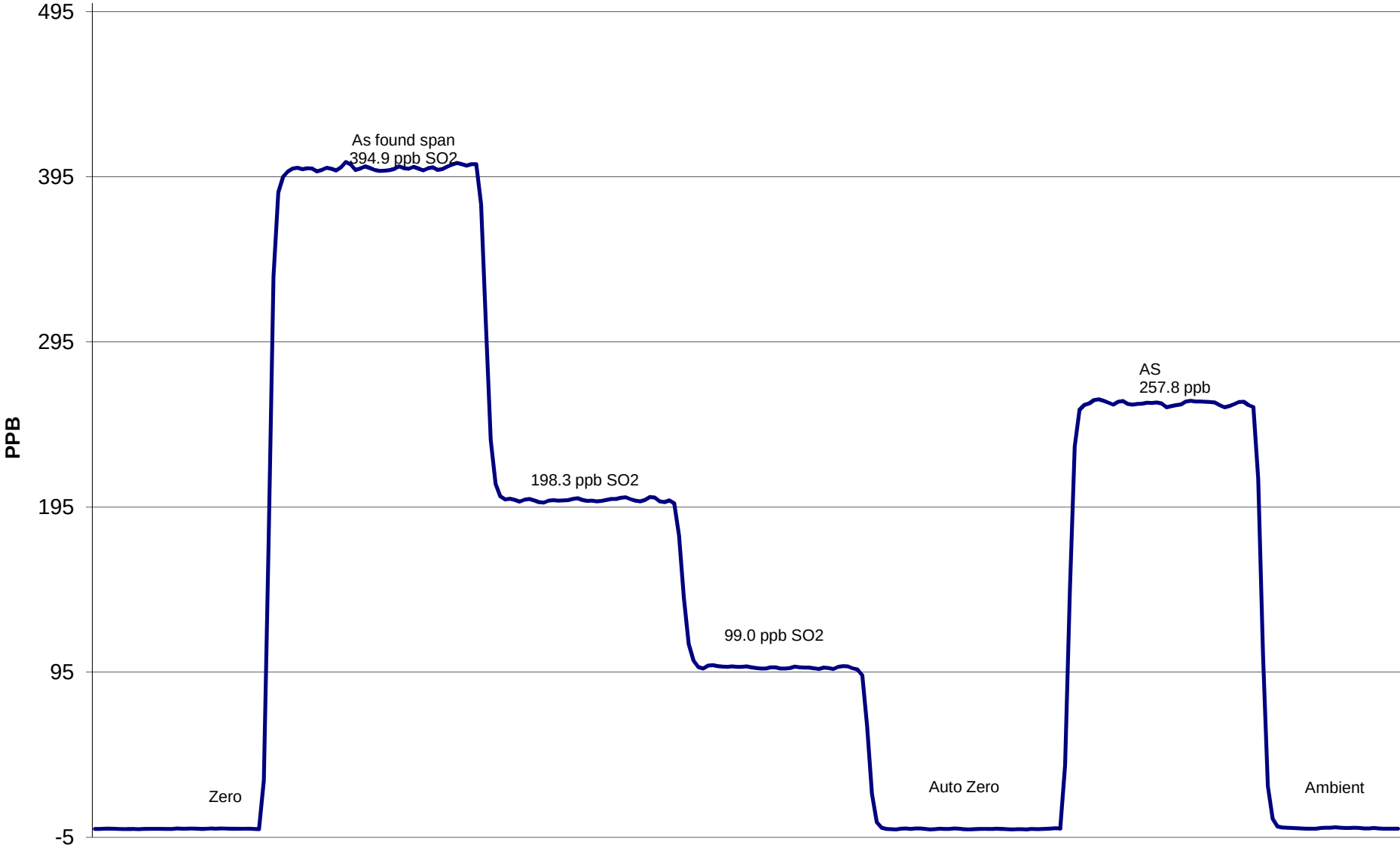
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A	Correlation Coefficient	0.999937
394.9	400.6	0.9859		
198.3	199.6	0.9937		
99.0	97.7	1.0130	Slope	0.984558
			Intercept	1.229773

SO2 Calibration Curve



SO2 Calibration



June 3 2015

Calibration Report



Parameter TRS

Air Monitoring Network PAZA

Station Information

Calibration Date	June 3 2015	Previous Calibration	May 12 2015
Station Number	2	Station Location	Evergreen Park
Reason:	Routine	Install	Removal
			Other:
Start Time (MST)	8:07	End Time (MST)	11:30
Barometric Pressure	0.920 ATM	Station Temperature	22.0 Deg C
Calibrator	Envionics	Serial Number	3016
Cal Gas Conc	10.32 ppm	Cal Gas Expiry Date	08/07/2016
Correction factor	0.031061	Cal Gas Cylinder #	LL110781
DACS make	CR3000	DACS serial No.	5236
DACS voltage range	0 - 5 volt	DACS channel #	5
	Before		After
Calculated slope	0.992298	Calculated slope	0.994603
Calculated intercept	-0.126920	Calculated intercept	-0.308623

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

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	41.5	ppb	40.9	ppb
coefficient	0.989		0.973	
Lamp Voltage	1050	volts	1050	volts
Chamber Temp	44.3	Deg C	44.2	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	639.2	mm Hg	637	mm Hg
Sample Flow	0.606	ccm	0.591	ccm
Lamp Intensity	31,311	mv	30,877	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	0.8	N/A
4995	39.93	81.84	82.8	0.9889
4995	19.97	41.10	41.5	0.9910
6995	9.97	14.69	14.6	1.0069
4995	9.97		1.3	Sox Test
4995	0.00	0.00	0.8	As Found Zero
4995	39.93	81.84	83.8	As Found Span
Average Correction Factor				0.9956

Calculated value of As Found Response: 82.21 ppm Percent Change of As Found: **-0.4%**

	before calibration		after calibration	
Auto zero	0.5	ppm	0.8	ppm
Auto span	74.1	ppm	73.6	ppm

Notes: Span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter TRS

Air Monitoring Network PAZA



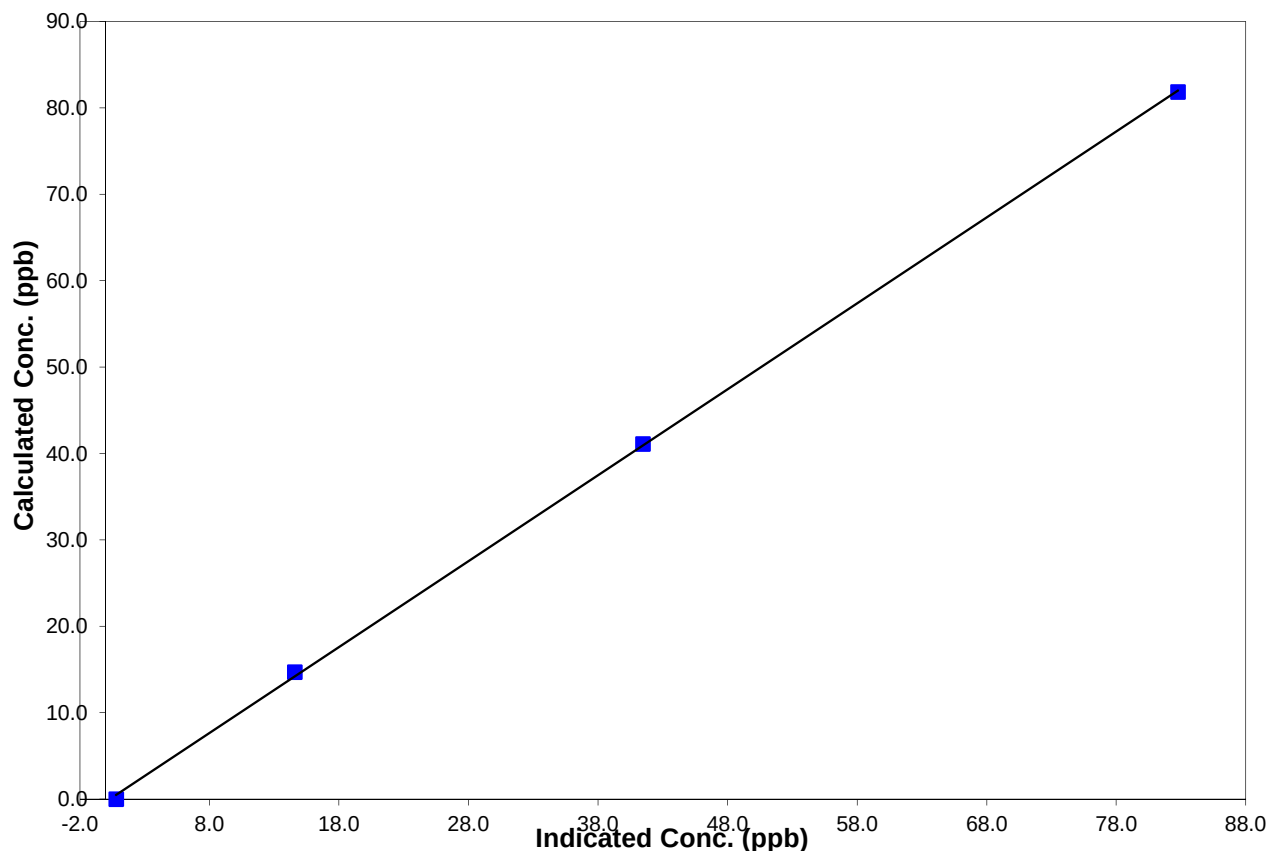
Station Information

Calibration Date	June 3 2015	Previous Calibration	May 12 2015
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	8:07	End Time (MST)	11:30
Analyzer make/model	TEI Model 43C	Analyzer serial #	31990000000491

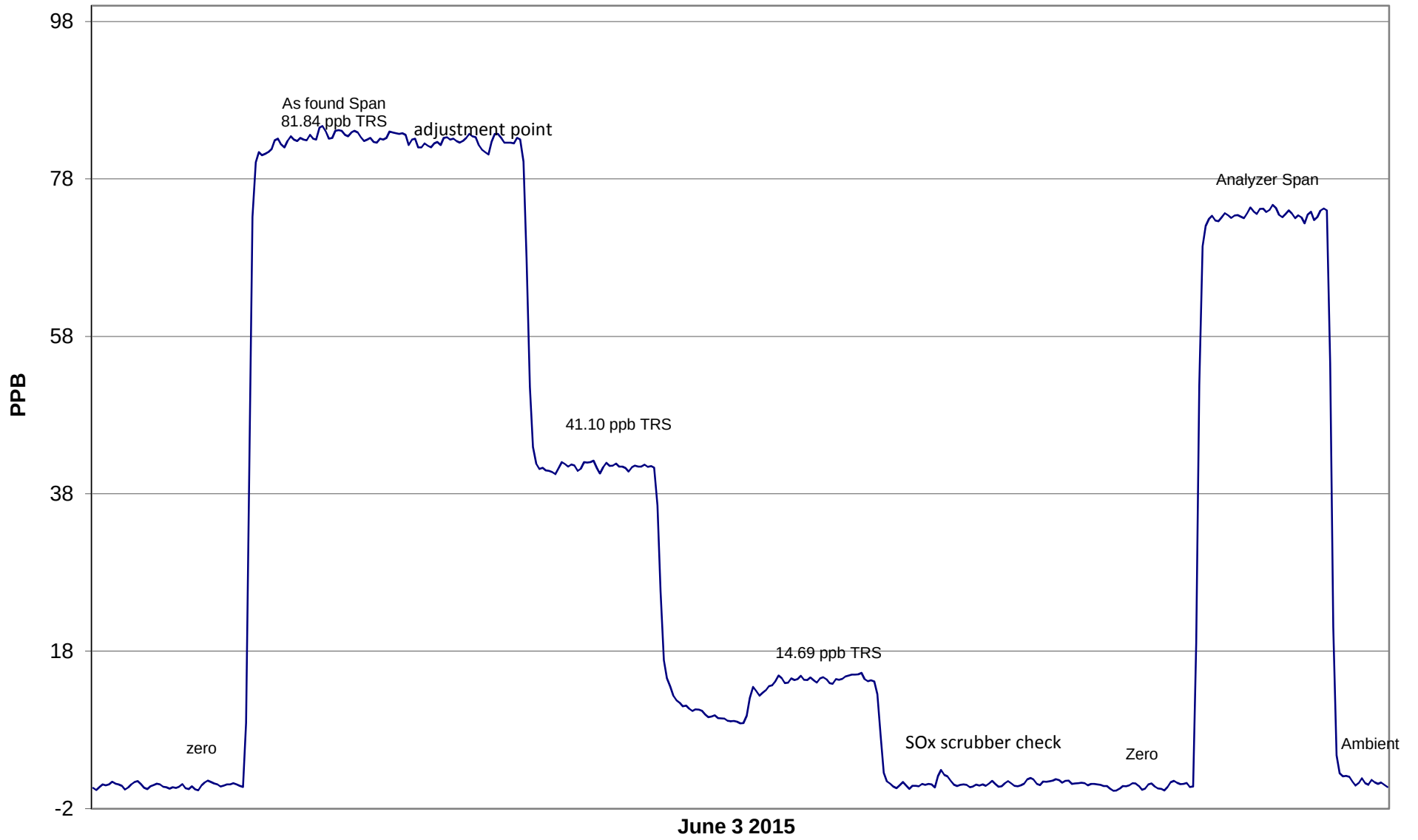
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.8	N/A	Correlation Coefficient	0.999864
81.8	82.8	0.9889		
41.1	41.5	0.9910		
14.7	14.6	1.0069	Slope	0.994603
			Intercept	-0.308623

TRS Calibration Curve



TRS Calibration



Calibration Report

Parameter SO2

Air Monitoring Network PAZA



Station Information

Calibration Date	June 8, 2015	Previous Calibration	May 11, 2015
Station Number	4	Station Location	Beaverlodge
Reason:	Routine	Install	Removal
Start Time (MST)	9:50	End Time (MST)	12:35
Barometric Pressure	0.925 atm	Station Temperature	20.0 Deg C
Calibrator	Envionics	Serial Number	3016
Cal Gas Concentration	10.8 ppm	Cal Gas Expiry Date	28/09/2012
Gas Cert Reference	FF14871		
DACS make	CR3000	DACS serial No.	5237
DACS voltage range	0 - 5 volt	DACS channel #	5
	Before		After
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.986410	Calculated slope	1.000042
Calculated intercept	0.105509	Calculated intercept	0.139644
Analyzer make	TEI Model 43i-TLE	Analyzer serial #	713021137

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	2.75		2.65	
Coefficient	1.038		1.005	
PMT	-767.8	V	-768.5	V
UV Lamp Voltage	1081	V	1083	V
Chamber Temp	45	Deg C	45.01	Deg C
Pressure	657.7	mm Hg	658.3	mm Hg
Sample Flow	0.52	LPM	0.52	LPM
Lamp Intensity	96	%	96	%

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4994	0.00	0.0	0.1	N/A
4994	39.92	85.6	85.6	1.0004
4994	19.96	43.0	42.7	1.0059
4994	9.96	21.5	21.1	1.0176
4994	0.00	0.0	0.1	As found zero
4994	39.92	85.6	88.9	As found span
Average Correction Factor				1.0080

Calculated value of As Found Response: 87.682 ppm Percent Change of As Found: -2.4%

	before calibration		after calibration	
Auto zero	0.2	ppb	0.2	ppb
Auto span	59.7	ppb	59.5	ppb

Notes: Span adjustment, run adjustment point

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter SO2

Air Monitoring Network PAZA



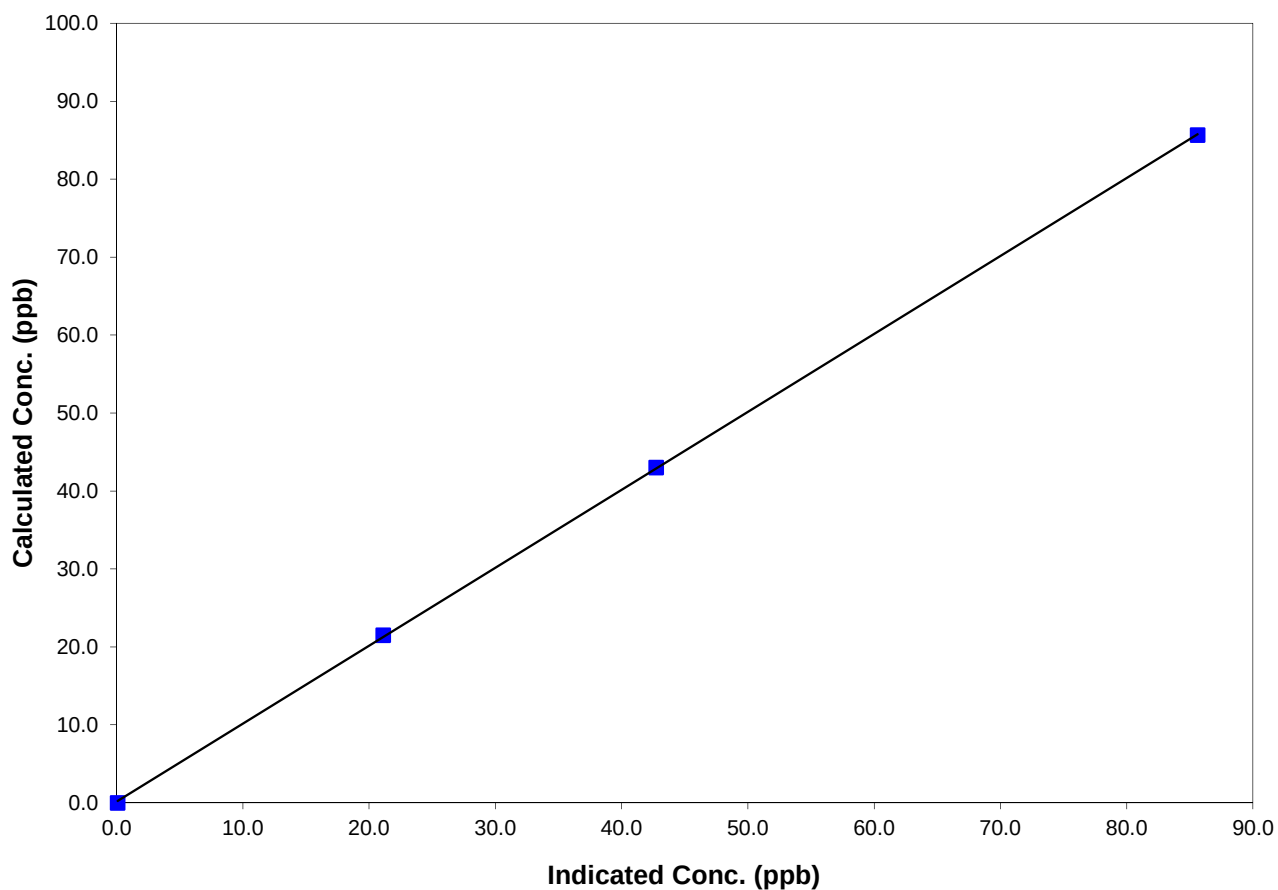
Station Information

Calibration Date	June 8, 2015	Previous Calibration	May 11, 2015
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	9:50	End Time (MST)	12:35
Analyzer make/model	TEI Model 43i-TLE	Analyzer serial #	713021137

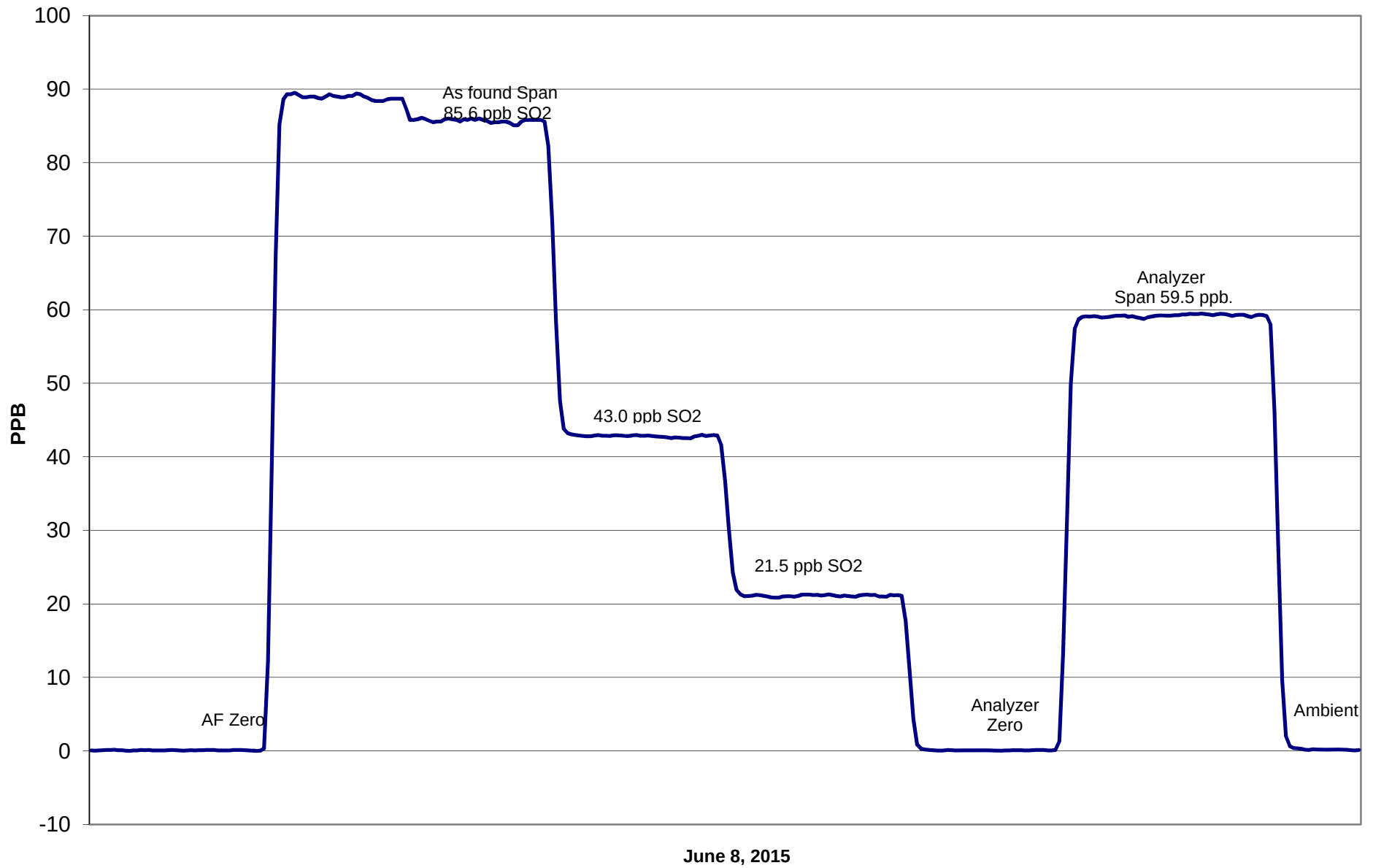
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A	Correlation Coefficient	0.999967
85.6	85.6	1.0004		
43.0	42.7	1.0059		
21.5	21.1	1.0176	Slope	1.000042
			Intercept	0.139644

SO2 Calibration Curve



SO2 Calibration



Parameter
Air Monitoring Network

NO_x-NO-NO₂

PAZA



Station Information

Calibration Date	June 8 2015		Previous Calibration	May 11 2015	
Station Number	4		Station Location	Beaverlodge	
Reason:	Routine	Installation	Removal	Other:	
Start Time (MST)	8:25		End Time (MST)	16:17:00 PM	
Barometric Pressure	0.925	Atm	Station Temperature	20.0	Deg C
Calibrator	EnviroNics		Serial Number	3016	
NO Cal Gas Conc	50.9	ppm	Cal Gas Expiry Date	March 10, 2017	
NOx Cal Gas Conc	51.2	ppm	Cal Gas Serial #	LL119493	

DACS Information

DACS make	CR3000	DACS serial No.	5237	
	Parameter	NO2	NOx	NO
Before	Data Slope	1.002433	0.996989	0.996177
	Data Offset	-1.259960	1.243979	1.431166
After	Data Slope	0.991804	1.002179	1.000337
	Data Offset	0.891188	0.696995	0.848422
Channel #		8	6	7
Voltage Range		0 - 5 VDC	0 - 5 VDC	0 - 5 VDC

Analyzer Information

Analyzer make/model	TEI 42i	Analyzer serial #	906535068	
Test Point	before		after	
Concentration range	0-500	ppb	0-500	ppb
NO offset	3.2	mV	3.3	mV
NOx bkgnd	3.5	mV	3.8	mV
NO coefficient	1.095		1.099	
NOx coefficient	1.004		1.004	
NO2 conv temp	325.3	Deg C	322.1	Deg C
PMT Temp	-2.9	Deg C	-2.9	Deg C
PMT Volt	-754.1	mV	-721.5	mV
R Cell Press	242.4	in Hg	180.4	in Hg
Sample Flow	0.439	LPM	0.698	LPM

Notes:	Sample pump replaced
	PMT adjustment preformed
	Span adjustment made

Calibration Report

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



Station Information

Calibration Date: June 8 2015 Station Location: Beaverlodge

Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor
zero	4995	0.00	0.0	0.0	0.0	0.0	-0.1	-0.1	N/A	N/A
1	4995	39.92	405.9	403.6	2.4	404.5	402.9	0.8	1.0037	1.0017
2	4995	19.96	203.8	202.6	1.2	203.0	201.5	0.6	1.0038	1.0052
3	4995	9.93	101.6	101.0	0.6	99.5	99.2	0.2	1.0208	1.0182
AFZ	4995	0.00	0.0	0.0	0.0	0.3	0.0	0.2	0.0000	0.0000
AFS	4995	39.92	405.9	403.6	0.8	366.3	364.1	1.5	1.1081	1.1085
Average Correction Factor									1.0094	1.0084

As Found Concentrations: NO_x= 366.2 NO= 364.2 As Found Percent Change NO_x= -9.8% NO= -9.8%

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	0.0	-0.1	-0.1	N/A	N/A	N/A	N/A
NO point	404.9	404.9	0.0	406.8	404.9	1.1	0.9952	1.0000	N/A	N/A
300	404.9	95.3	309.5	407.5	95.3	311.5	0.9935	1.0000	0.9937	100.6%
200	404.9	194.2	210.6	406.8	194.2	211.7	0.9952	1.0000	0.9949	100.5%
100	404.9	293.1	111.8	404.2	293.1	110.4	1.0016	1.0000	1.0120	98.8%
Average Correction Factor							0.9968	1.0000	1.0002	100.0%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	0.0	-0.2	0.1	ppb	-1.2	-0.3	-1.0	ppb
Auto span	186.6	184.9	1.1	ppb	183.5	183.0	0.1	ppb

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter NO₂

Air Monitoring Network PAZA



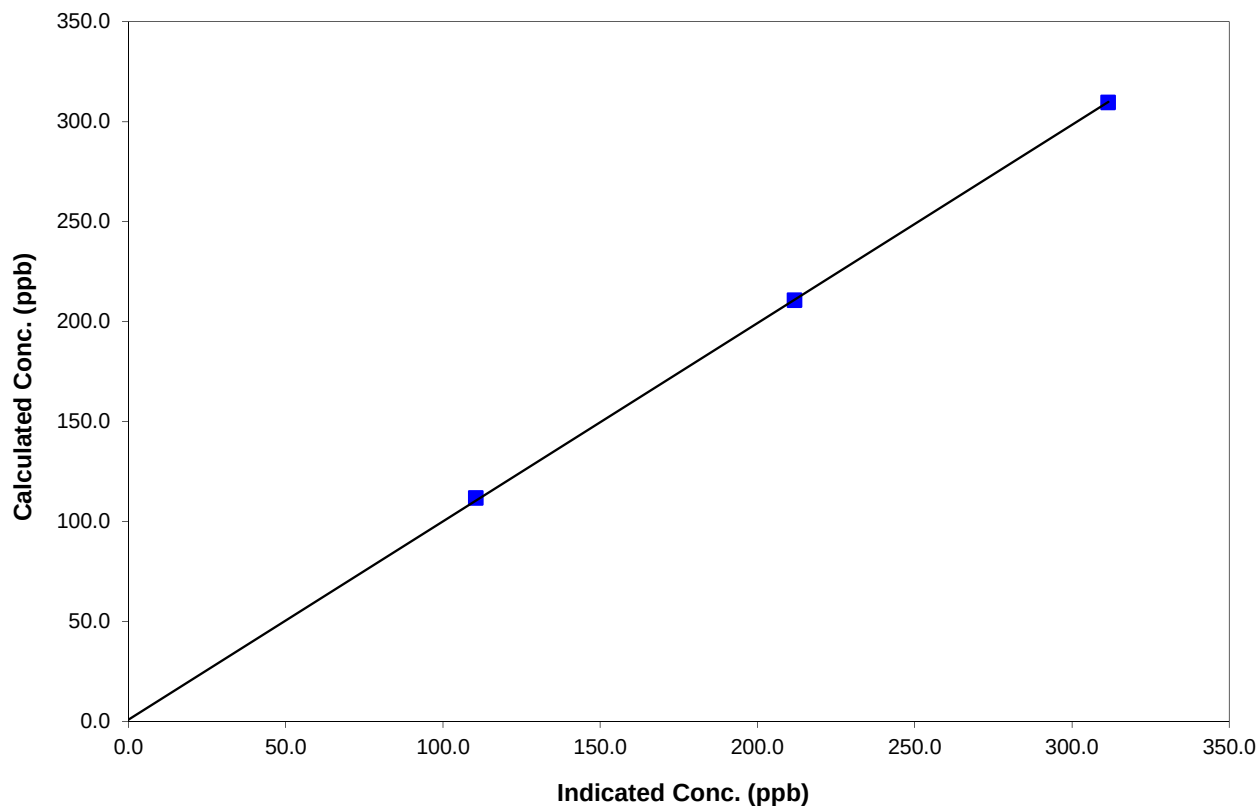
Station Information

Calibration Date	June 8 2015	Previous Calibration	May 11 2015
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	8:25	End Time (MST)	16:17:00 PM
Analyzer make	TEI 42i	Analyzer serial #	906535068

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	N/A	Correlation Coefficient	0.999952
309.5	311.5	0.9937		
210.6	211.7	0.9949		
111.8	110.4	1.0120	Slope	0.991804
			Intercept	0.891188

NO₂ Calibration Curve



Calibration Summary

Parameter NO_x

Air Monitoring Network PAZA



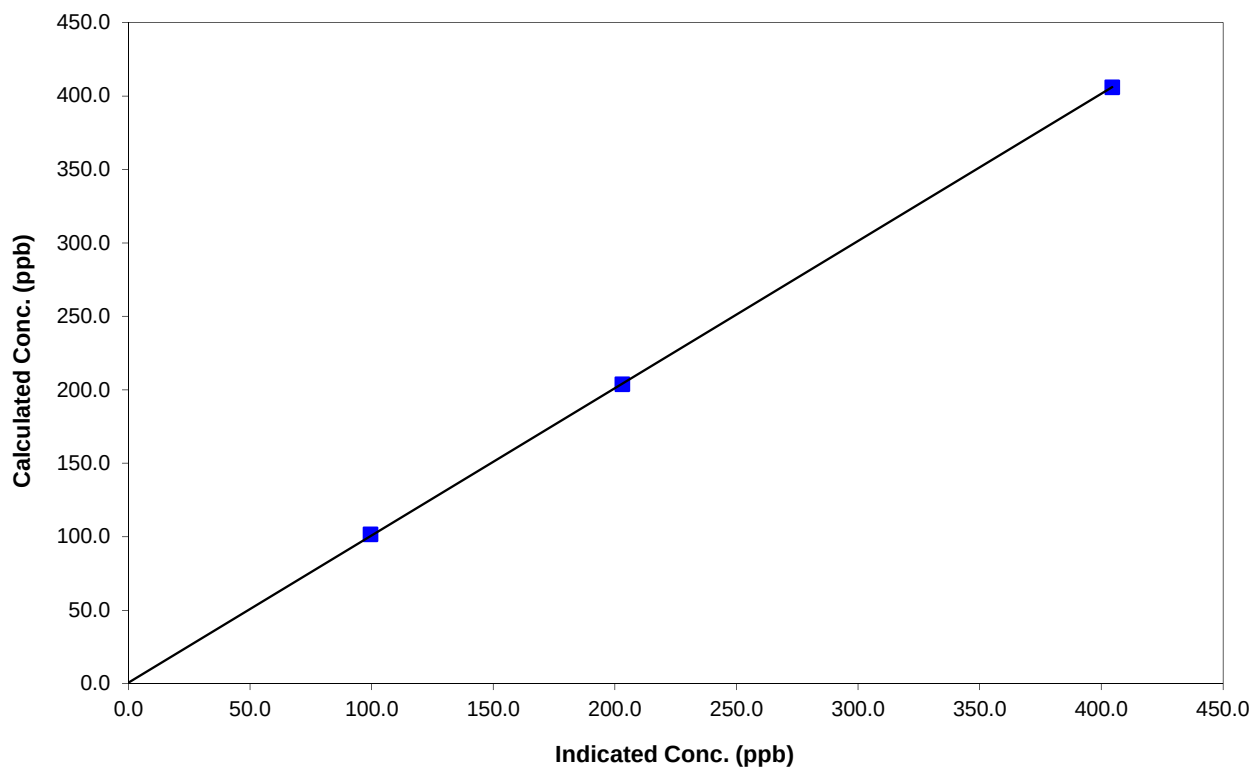
Station Information

Calibration Date	June 8 2015	Previous Calibration	May 11 2015
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	8:25	End Time (MST)	16:17:00 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	0.999978
405.9	404.5	1.0037		
203.8	203.0	1.0038		
101.6	99.5	1.0208	Slope	1.002179
			Intercept	0.696995

NO_x Calibration Curve



Calibration Summary

Parameter NO

Air Monitoring Network PAZA



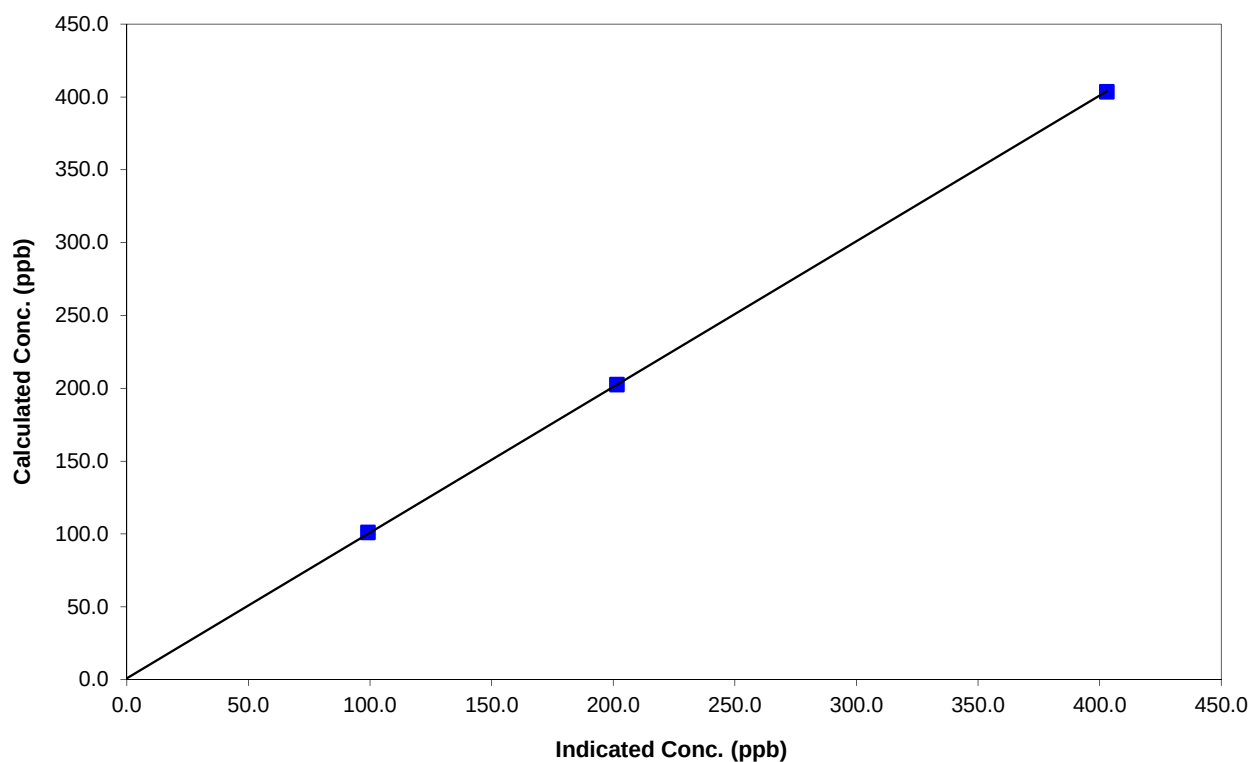
Station Information

Calibration Date	June 8 2015	Previous Calibration	May 11 2015
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	8:25	End Time (MST)	16:17:00 PM
Analyzer make	TEI 42i	Analyzer serial #	906535068

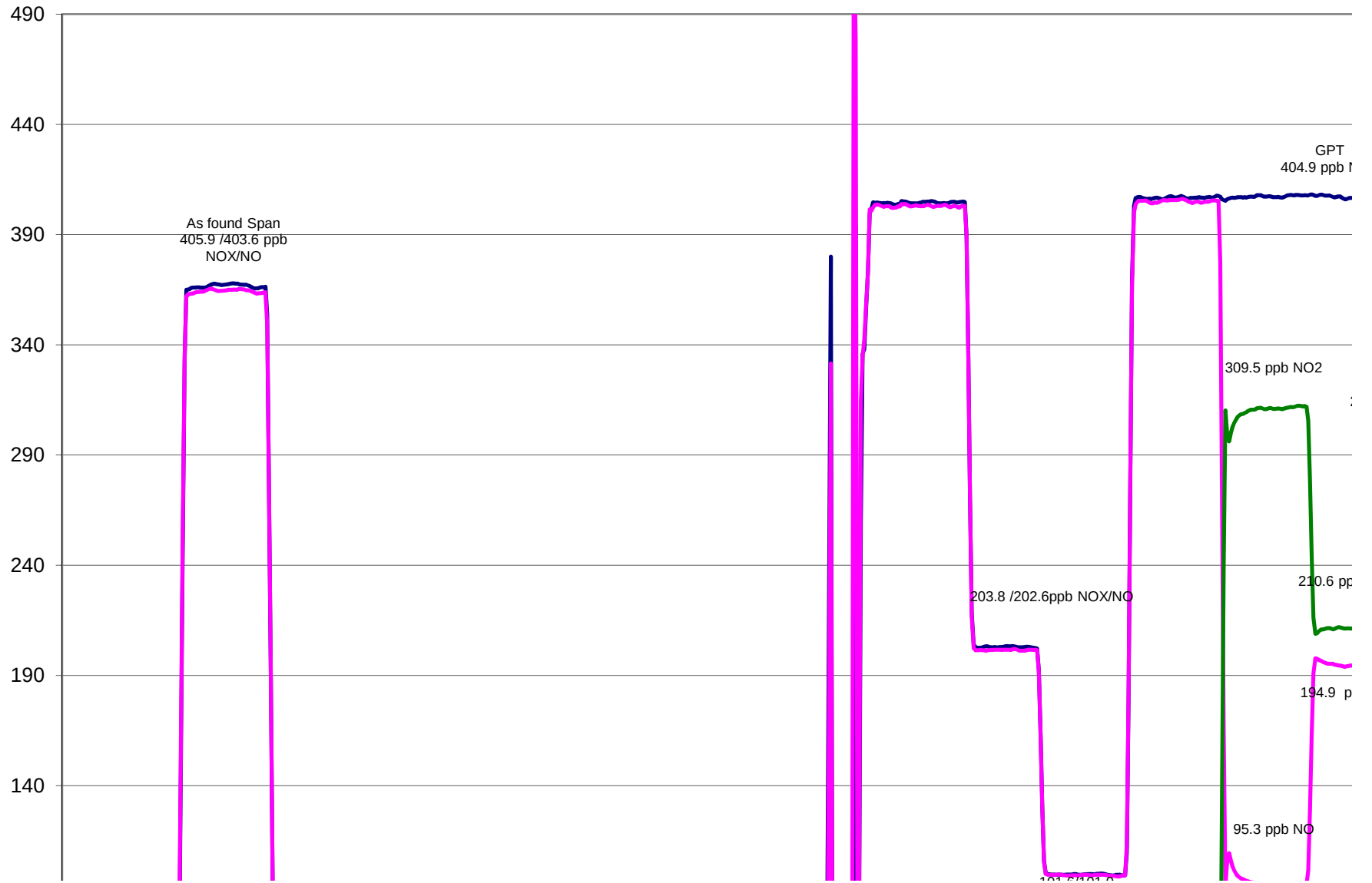
Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	N/A	Correlation Coefficient	0.999983
403.6	402.9	1.0017		
202.6	201.5	1.0052		
101.0	99.2	1.0182	Slope	1.000337
			Intercept	0.848422

NO Calibration Curve



NO_x Calibration



Calibration Report



Parameter 03

Air Monitoring Network PAZA

Station Information

Calibration Date	June 8, 2014	Previous Calibration	May 11, 2014
Station Number	4	Station Location	Beaverlodge
Reason:	Routine	Install	Removal
		Other:	

Start Time (MST)	11:50	End Time (MST)	17:30
Barometric Pressure	0.925 atm	Station Temperature	20.0 Deg C
Calibrator	Envionics	Serial Number	3016
Cal Gas Concentration	NA	Cal Gas Expiry Date	NA

DACS make	CR3000	DACS serial No.	5237
DACS voltage range	0 - 5 volt	DACS channel #	9
	Before		After
Calculated slope	1.000481	Calculated slope	0.987524
Calculated intercept	0.152382	Calculated intercept	1.231324

Analyzer make	Teco 49i	Analyzer serial #	1136451236,AMU 1879
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	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
offset	-0.30	ppb	-0.30	ppb
slope	1.070		1.039	
Lamp temp	53.8	mV	53.8	mV
Lamp Intensity A/B	60096/64625	mV	60043/64619	mV
Pressure	680.5	mm Hg	684.2	mm Hg
Flow A	0.775	LPM	0.776	LPM
Flow B	0.745	LPM	0.743	LPM

Calibration Data

Dilution air flow rate (cc/min)	Calibrator Setting	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
5035	0.00	0.0	0.2	N/A
5035	0.30	309.5	313.4	0.9876
5035	0.20	210.6	211.1	0.9977
5035	0.10	111.8	110.3	1.0139
5035	0.00	0.0	0.2	As found zero
5035	0.30	309.5	323.3	As found span
Average Correction Factor				0.9997

Calculated value of As Found Response: 323.5 ppm Percent Change of As Found: 4.5%

	before calibration		after calibration	
Auto zero	0.5	ppb	0.2	ppb
Auto span	274.4	ppb	279.0	ppb

Notes: Span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter 03

Air Monitoring Network PAZA



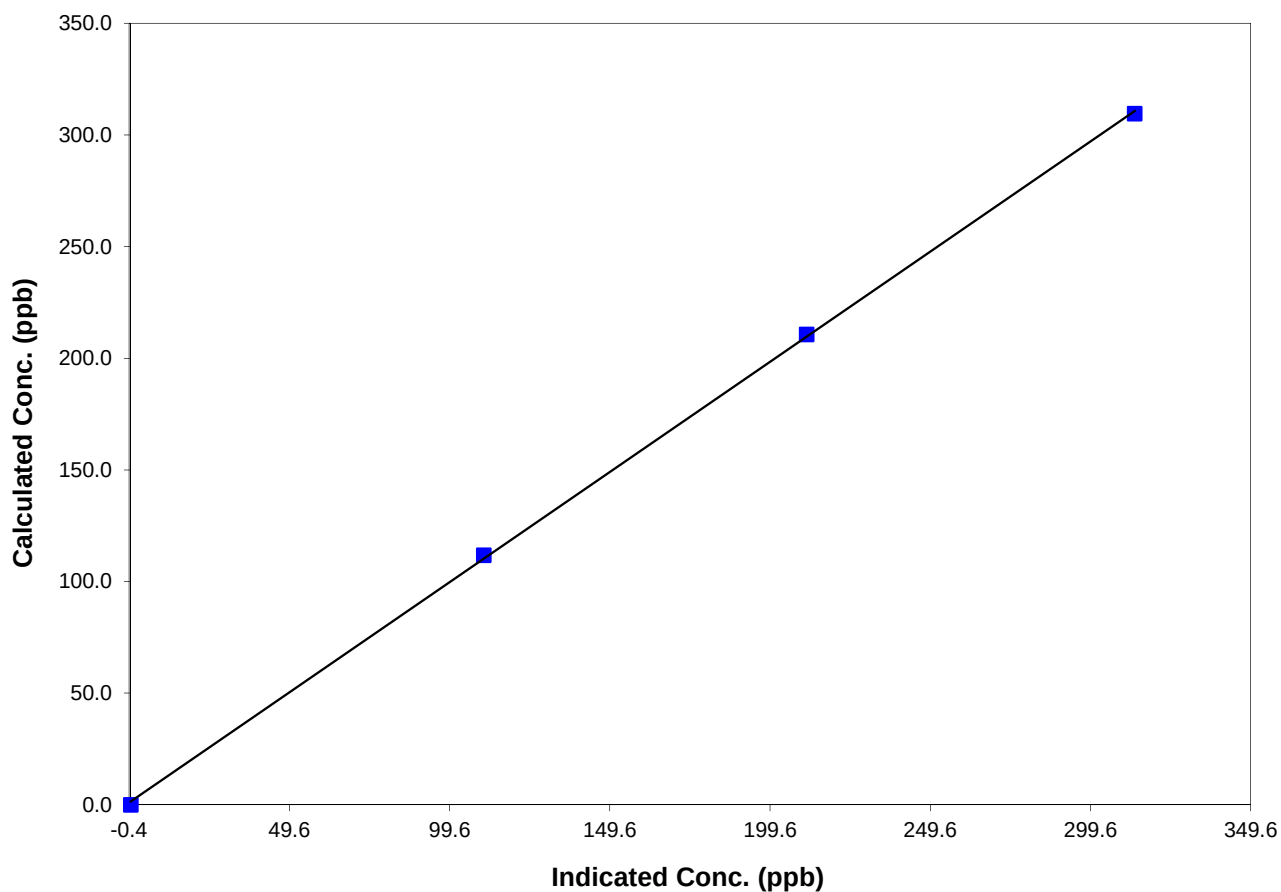
Station Information

Calibration Date	June 8, 2014	Previous Calibration	May 11, 2014
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	11:50	End Time (MST)	17:30
Analyzer make/model	Teco 49i	Analyzer serial #	1136451236,AMU 1879

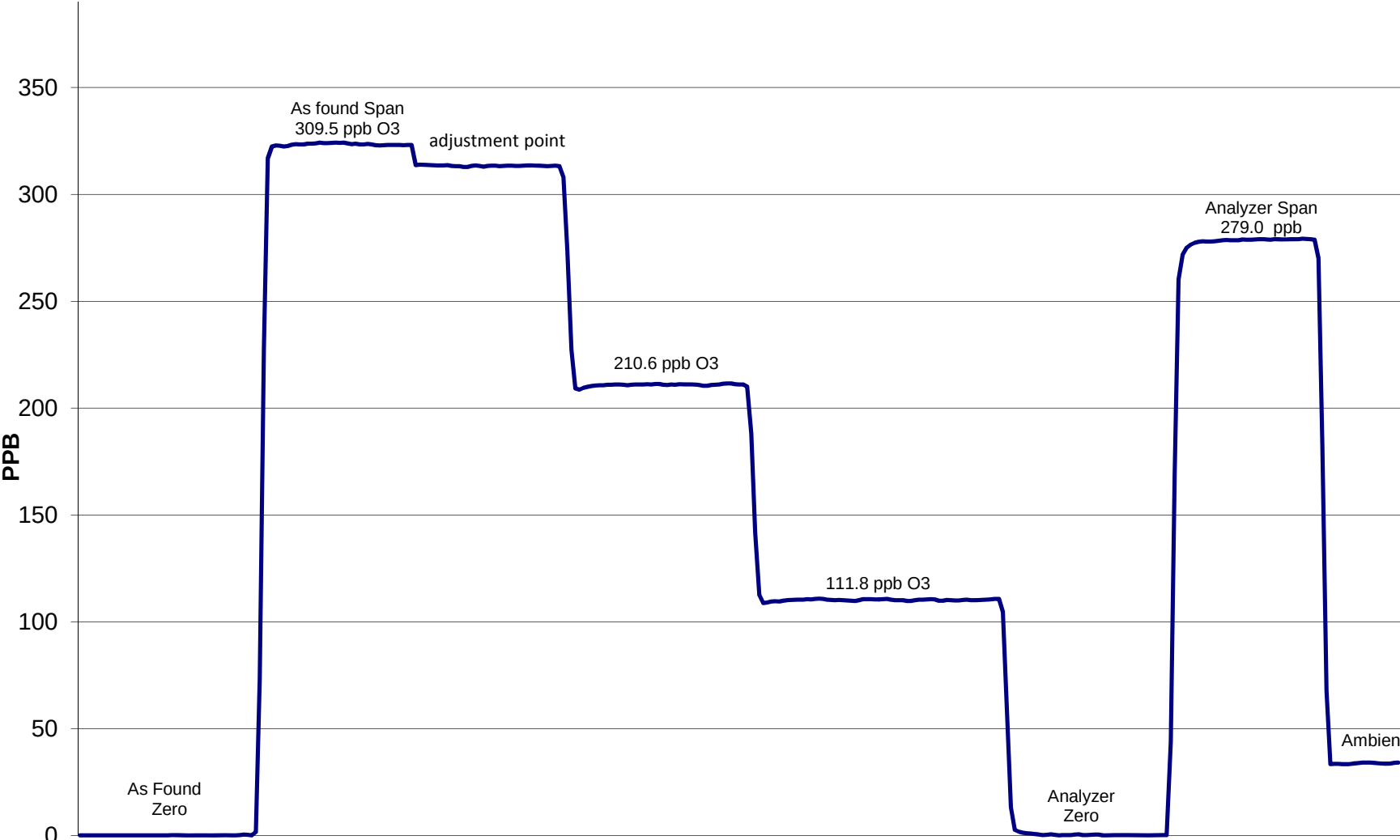
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	NA	Correlation Coefficient	0.999866
309.5	313.4	0.9876		
210.6	211.1	0.9977		
111.8	110.3	1.0139	Slope	0.987524
			Intercept	1.231324

O3 Calibration Curve



O3 Calibration



June 8, 2014

Calibration Report



Parameter SO₂

Air Monitoring Network PAZA

Station Information

Calibration Date	June 5, 2015	Previous Calibration	May 26, 2015
Station Number	3	Station Location	Smokey Heights
Reason:	☒ Routine	☐ Install	☐ Removal
			☐ Other:
Start Time (MST)	10:55	End Time (MST)	13:15:00 PM
Barometric Pressure	0.927 ATM	Station Temperature	20.5 Deg C
Calibrator	EnviroNics	Serial Number	3016
Cal Gas Concentration	49.8 ppm	Cal Gas Cert Date	20/01/2016
Correction factor	0.031458	Cal Gas Cylinder #	LL1105159
DACS make	CR3000	DACS serial No.	5238
DACS voltage range	0 - 5 volt	DACS channel #	6
	Before		After
Calculated slope	0.989004	Calculated slope	0.984181
Calculated intercept	1.801873	Calculated intercept	1.789537
Analyzer make	Teco 43i	Analyzer serial #	701120009

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	11.9		11.9	
coefficient	0.934		0.934	
Lamp Voltage	933	volts	936	volts
Chamber Temp	45.3	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	669.3	mm Hg	669	mm Hg
Sample Flow	0.448	lpm	0.477	lpm
Lamp Intensity	88	%	88	%

Calibration Data

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.0	0.00	0.5	N/A
4995	39.93	394.94	400.7	0.9856
4995	19.97	198.31	198.2	1.0006
4995	9.97	99.20	96.9	1.0236
4995	0.0	0.00	0.5	As Found Zero
4995	39.93	394.94	400.7	As Found Span
Average Correction Factor				1.0033

Calculated value of As Found Response: 397.605 ppm Percent Change of As Found: -0.7%

	before calibration		after calibration	
Auto zero	0.5	ppb	0.6	ppb
Auto span	250.5	ppb	253.7	ppb

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter SO2

Air Monitoring Network PAZA



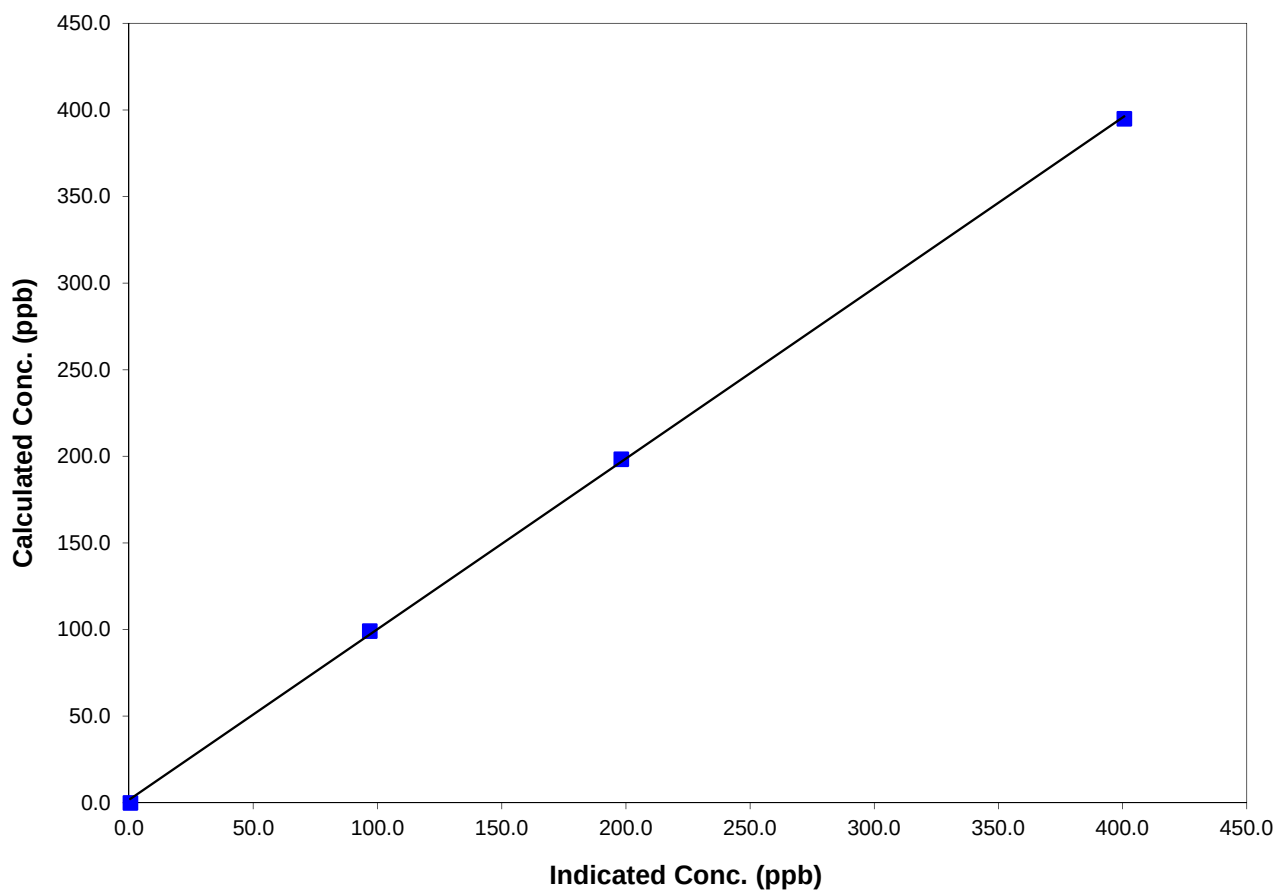
Station Information

Calibration Date	June 5, 2015	Previous Calibration	May 26, 2015
Station Number	3	Station Location	Smokey Heights
Start Time (MST)	10:55	End Time (MST)	13:15:00 PM
Analyzer make/model	Teco 43i	Analyzer serial #	701120009

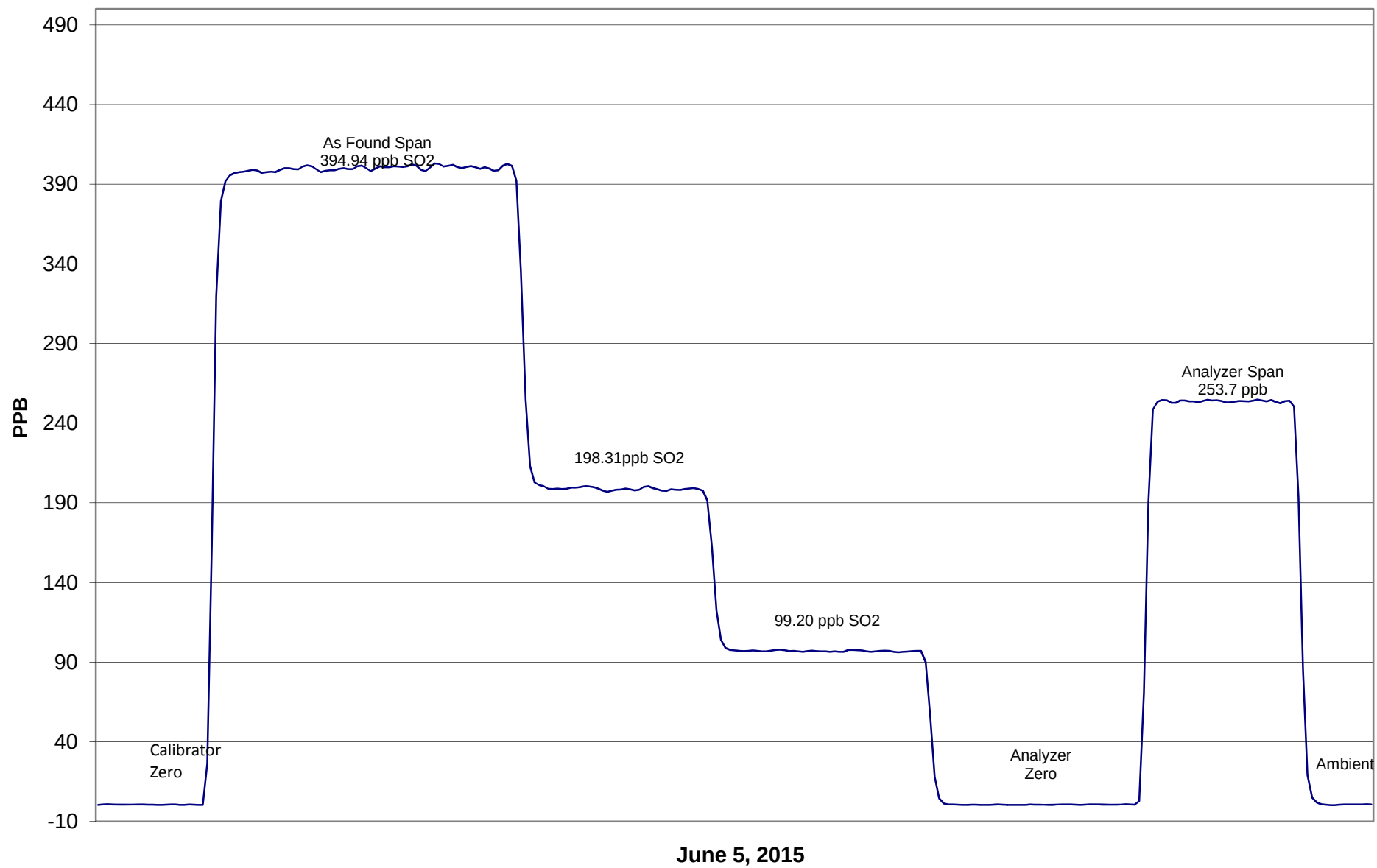
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.5	N/A	Correlation Coefficient	0.999848
394.9	400.7	0.9856		
198.3	198.2	1.0006		
99.2	96.9	1.0236	Slope	0.984181
			Intercept	1.789537

SO2 Calibration Curve



Smokey Heights SO₂ Calibration



Calibration Report



Parameter TRS

Air Monitoring Network PAZA

Station Information

Calibration Date	June 5, 2015	Previous Calibration	May 26, 2015
Station Number	3	Station Location	Smokey Heights
Reason:	Routine	Install	Removal
			Other:
Start Time (MST)	8:45	End Time (MST)	11:50
Barometric Pressure	0.927 ATM	Station Temperature	20.0 Deg C
Calibrator	EnviroNics	Serial Number	2844
Cal Gas Conc	10.32 ppm	Cal Gas Expiry Date	08/07/2016
Correction factor	0.031511	Cal Gas Cylinder #	BLM00586
DACS make	CR3000	DACS serial No.	5238
DACS voltage range	0 - 5 volt	DACS channel #	5
	Before		After
Calculated slope	0.996350	Calculated slope	0.999060
Calculated intercept	0.342455	Calculated intercept	0.308657

Analyzer make TEI Model 43C Analyzer serial # 0436610005

	before		after	
Concentration range	100	ppb	100	ppb
Background	20.3	ppb	20.7	ppb
coefficient	1.003		1.003	
Lamp Voltage	845	volts	847	volts
Chamber Temp	43.9	Deg C	43.9	Deg C
Perm Gas Temp	45	Deg C	45.01	Deg C
Pressure	608.2	mm Hg	587.5	mm Hg
Sample Flow	0.629	lpm	0.616	lpm
Lamp Intensity	34,449	mv	34,484	mv

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.0	0.00	0.3	N/A
4995	39.93	81.84	81.9	0.9996
4995	19.97	41.10	40.5	1.0153
6995	9.97	14.69	13.9	1.0605
4995	9.97		1.3	Sox test
4995	0.0	0.00	0.3	As Found Zero
4995	39.93	81.84	81.9	As Found Span
Average Correction Factor				1.0251

Calculated value of As Found Response: 81.60 ppm Percent Change of As Found: 0.3%

	before calibration		after calibration	
Auto zero	0.6	ppm	0.4	ppm
Auto span	32.3	ppm	32.6	ppm

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

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter TRS

Air Monitoring Network PAZA



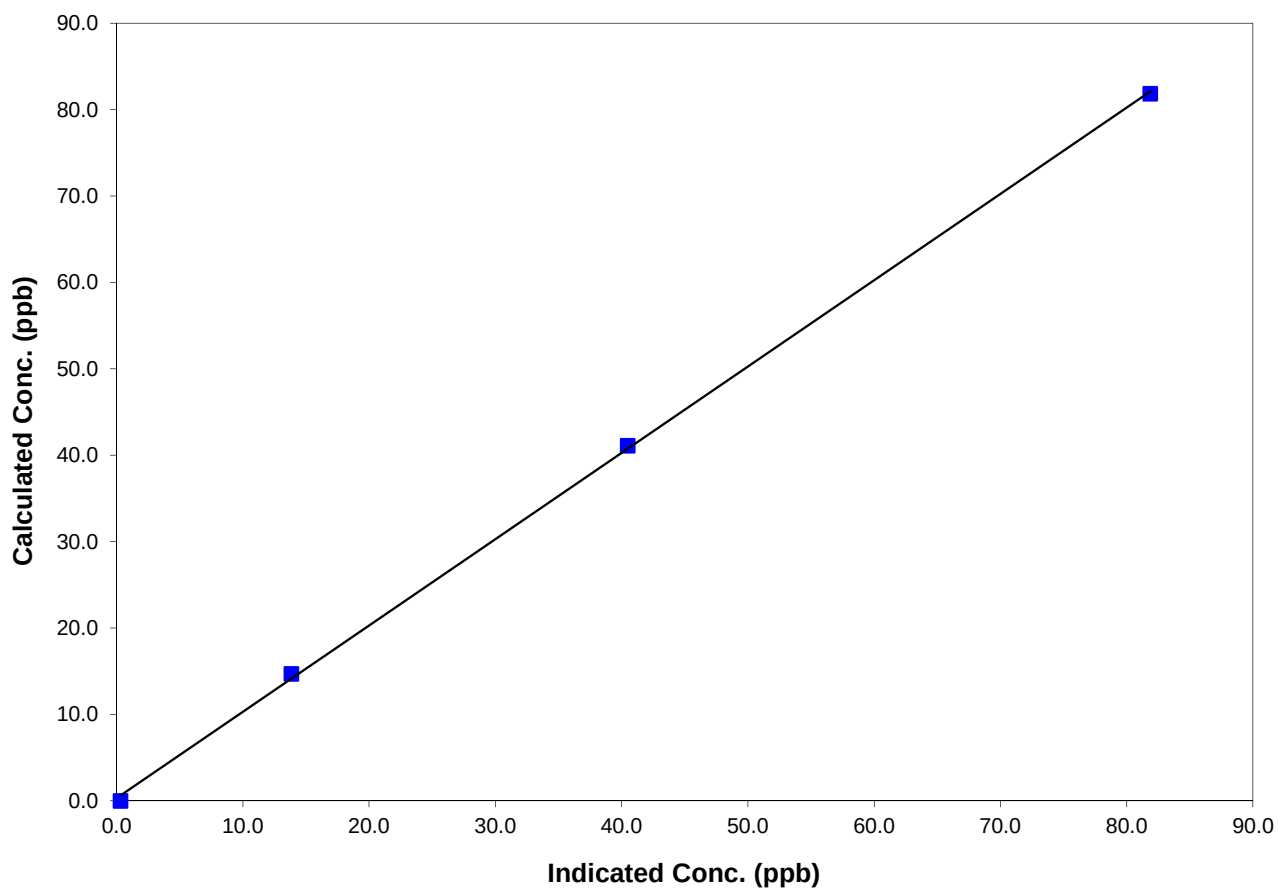
Station Information

Calibration Date	June 5, 2015	Previous Calibration	May 26, 2015
Station Number	3	Station Location	Smokey Heights
Start Time (MST)	8:45	End Time (MST)	11:50
Analyzer make/model	TEI Model 43C	Analyzer serial #	0436610005

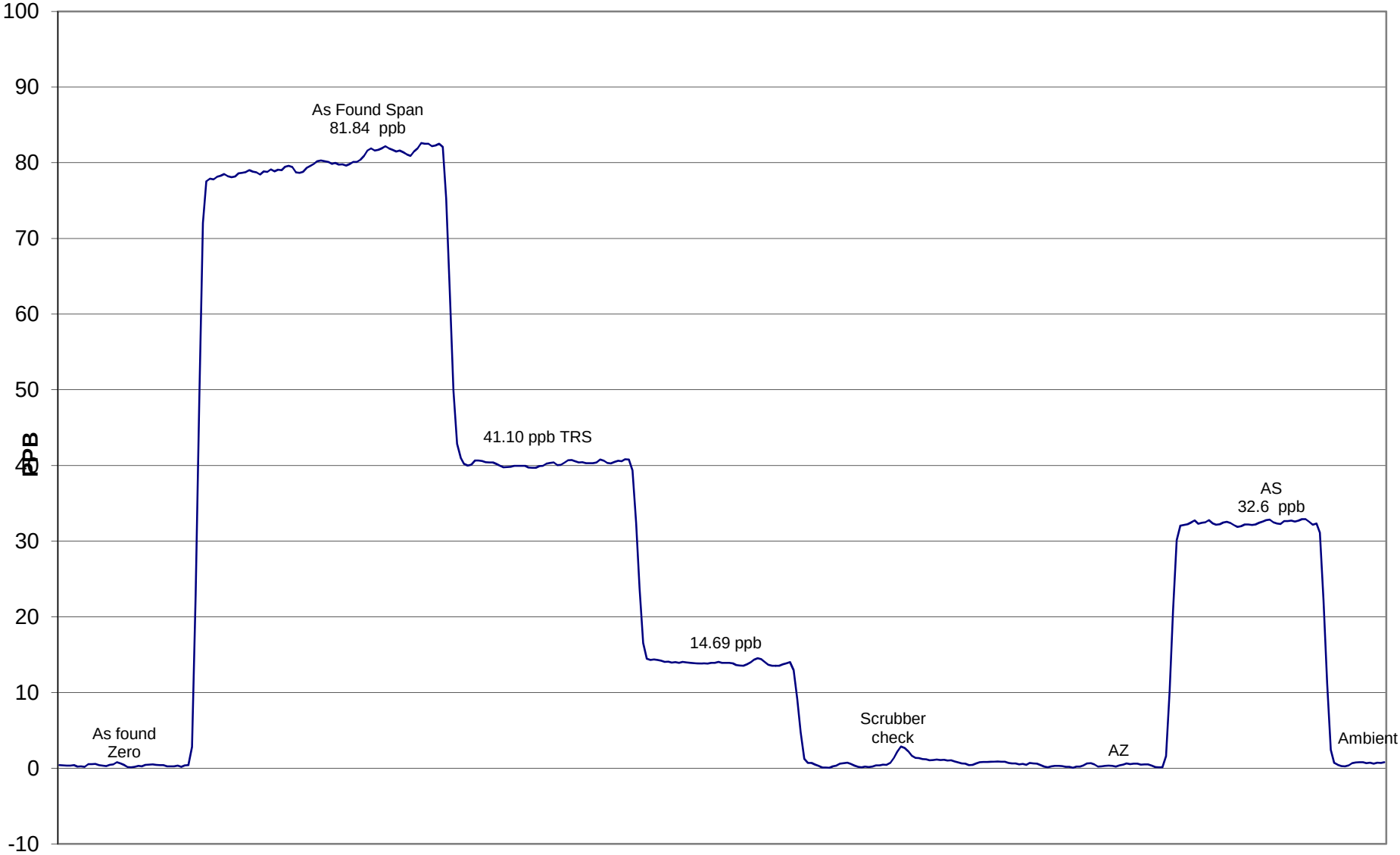
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	N/A	Correlation Coefficient	0.999773
81.8	81.9	0.9996		
41.1	40.5	1.0153		
14.7	13.9	1.0605	Slope	0.999060
			Intercept	0.308657

TRS Calibration Curve



Smokey Heights TRS Calibration



June 5, 2015

Calibration Report

Parameter SO2

Air Monitoring Network PAZA



Station Information

Calibration Date	June 9 2015	Previous Calibration	May 20 2015
Station Number	6	Station Location	Valleyview
Reason:	Routine	Install	Removal
Start Time (MST)	10:55	End Time (MST)	13:00:00 PM
Barometric Pressure	0.924 atm	Station Temperature	21.5 Deg C
Calibrator	Envionics	Serial Number	3016
Cal Gas Concentration	49.8 ppm	Cal Gas Exp Date	March 10, 2017
Gas Cylinder Num.	LL119493		
DACS make	CR3000	DACS serial No.	5409
DACS voltage range	0 - 5 volt	DACS channel #	4
	<u>Before</u>		<u>After</u>
DACS Scale High	500	DACS slope	500
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.988743	Calculated slope	0.995274
Calculated intercept	2.016515	Calculated intercept	1.674152
Analyzer make	TEI 43C	Analyzer serial #	609716239

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Background	15.6		15.6	
Coefficient	1.017		1.017	
UV Lamp Voltage	734	LPM	739	LPM
Chamber Temp	42.9	V	43	V
Perm Gas Temp	45	C	45	C
Pressure	672.4	in Hg	674.1	in Hg
Sample Flow	0.486	LPM	0.487	LPM
Lamp Intensity	47604	Hz	47721	Hz

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.0	-0.1	N/A
4995	39.93	394.9	396.0	0.9975
4995	19.97	198.3	196.7	1.0083
4995	9.95	99.0	96.3	1.0286
4995	0.00	0.0	-0.1	As found zero
4995	39.93	394.9	396.0	As found span
Average Correction Factor				1.0114

Calculated value of As Found Response: 393.6 ppm Percent Change of As Found: 0.3%

	before calibration		after calibration	
Auto zero	0.0	ppm	-0.1	ppm
Auto span	275.9	ppm	276.9	ppm

Notes: No adjustment

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter SO2

Air Monitoring Network PAZA



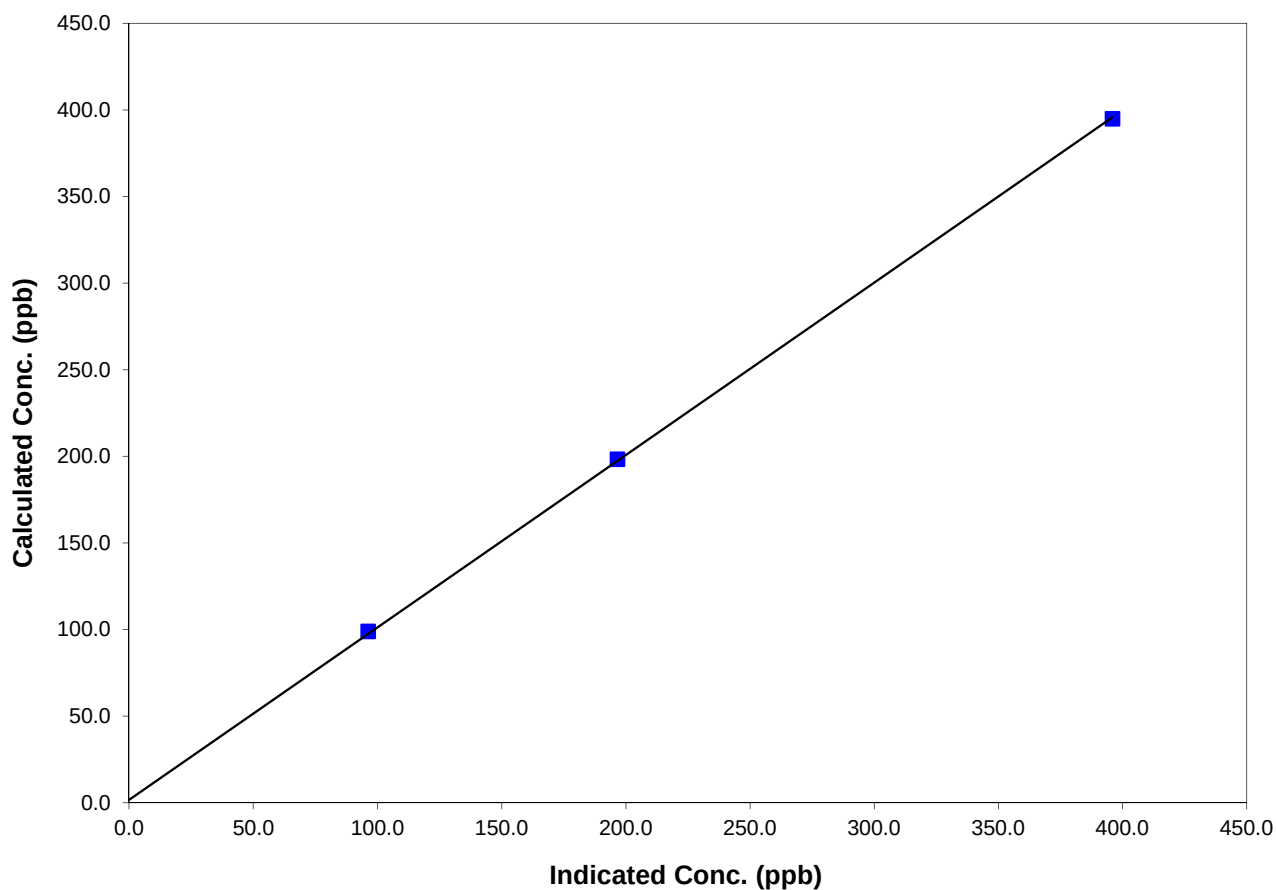
Station Information

Calibration Date	June 9 2015	Previous Calibration	May 20 2015
Station Number	6	Station Location	Valleyview
Start Time (MST)	10:55	End Time (MST)	13:00:00 PM
Analyzer make/model	TEI 43C	Analyzer serial #	609716239

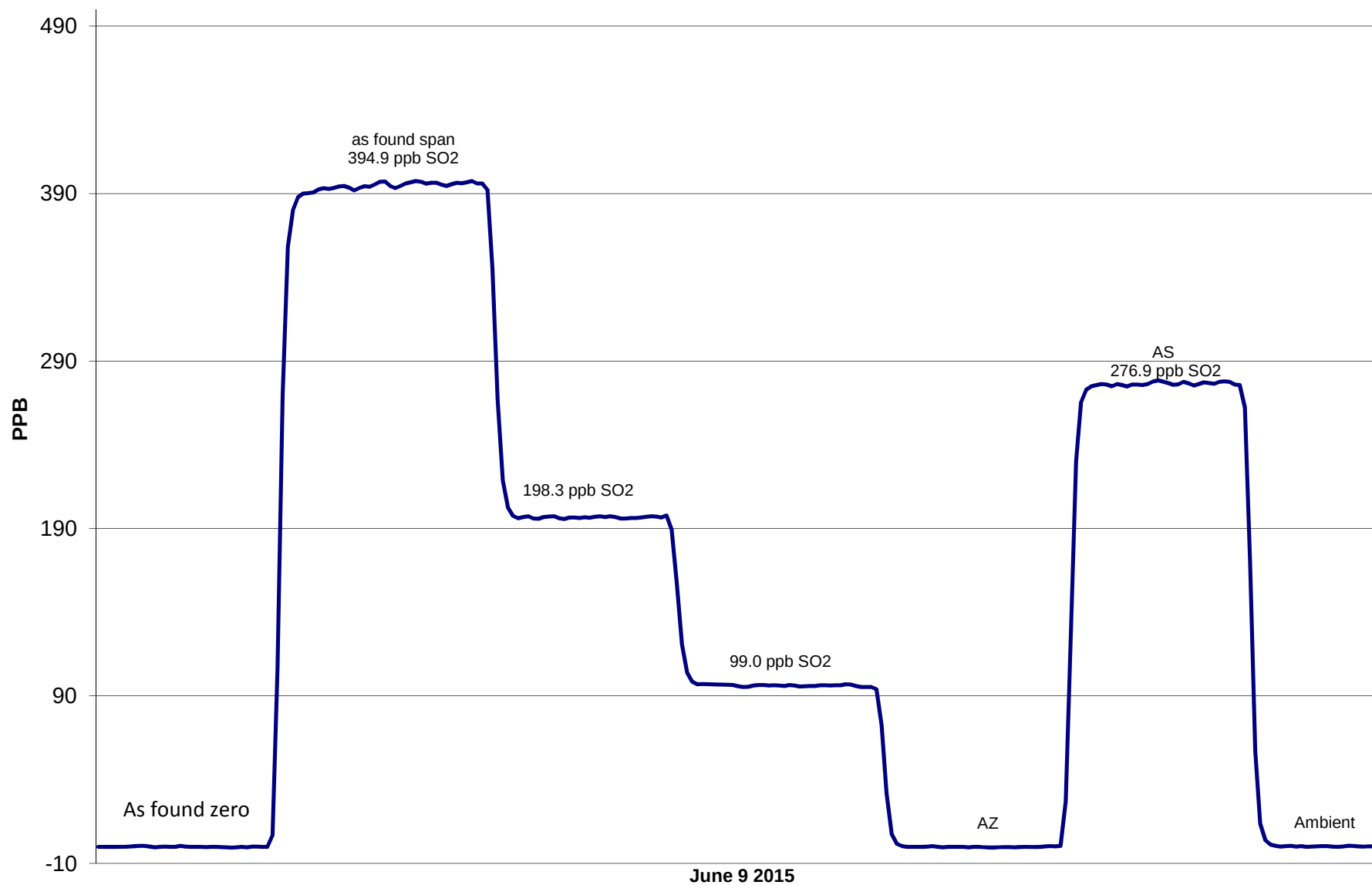
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	N/A	Correlation Coefficient	0.999926
394.9	396.0	0.9975		
198.3	196.7	1.0083		
99.0	96.3	1.0286	Slope	0.995274
			Intercept	1.674152

SO2 Calibration Curve



SO2 Calibration



Calibration Report



Parameter H2S

Air Monitoring Network PAZA

Station Information

Calibration Date	June 9 2015	Previous Calibration	May 20 2015
Station Number	6	Station Location	Valleyview
Reason:	Routine	Install	Removal
		Other:	

Start Time (MST)	9:00	End Time (MST)	12:00
Barometric Pressure	0.931 atm	Station Temperature	21.5 Deg C
Calibrator	EnviroNics	Serial Number	3016
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	0.988676	Calculated slope	1.001143
Calculated intercept	0.036474	Calculated intercept	-0.069714

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

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Back Ground	7.5	ppb	7.4	ppb
Coefficient	0.888		0.871	
Lamp Voltage	790	v	789	v
Chamber Temp	44.7	c	45	c
Perm Oven Temp	45	c	45	c
Pressure	562.50	mm Hg	562.50	mm Hg
Sample Flow	0.385	ccm	0.385	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	0.5	N/A
4997	39.91	81.8	81.9	0.9984
4997	19.94	41.0	40.9	1.0041
6995	9.97	14.7	14.4	1.0226
4997	9.97		2.8	Sox Test
4997	0.00	0.0	0.5	As found zero
4997	39.93	81.8	83.4	As found span
Average Correction Factor				1.0084

Calculated value of As Found Response: 82.02 ppm Percent Change of As Found: -0.3%

	before calibration		after calibration	
Auto zero	0.5	ppm	0.4	ppm
Auto span	66.1	ppm	65.4	ppm

Notes: Span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter H2S

Air Monitoring Network PAZA



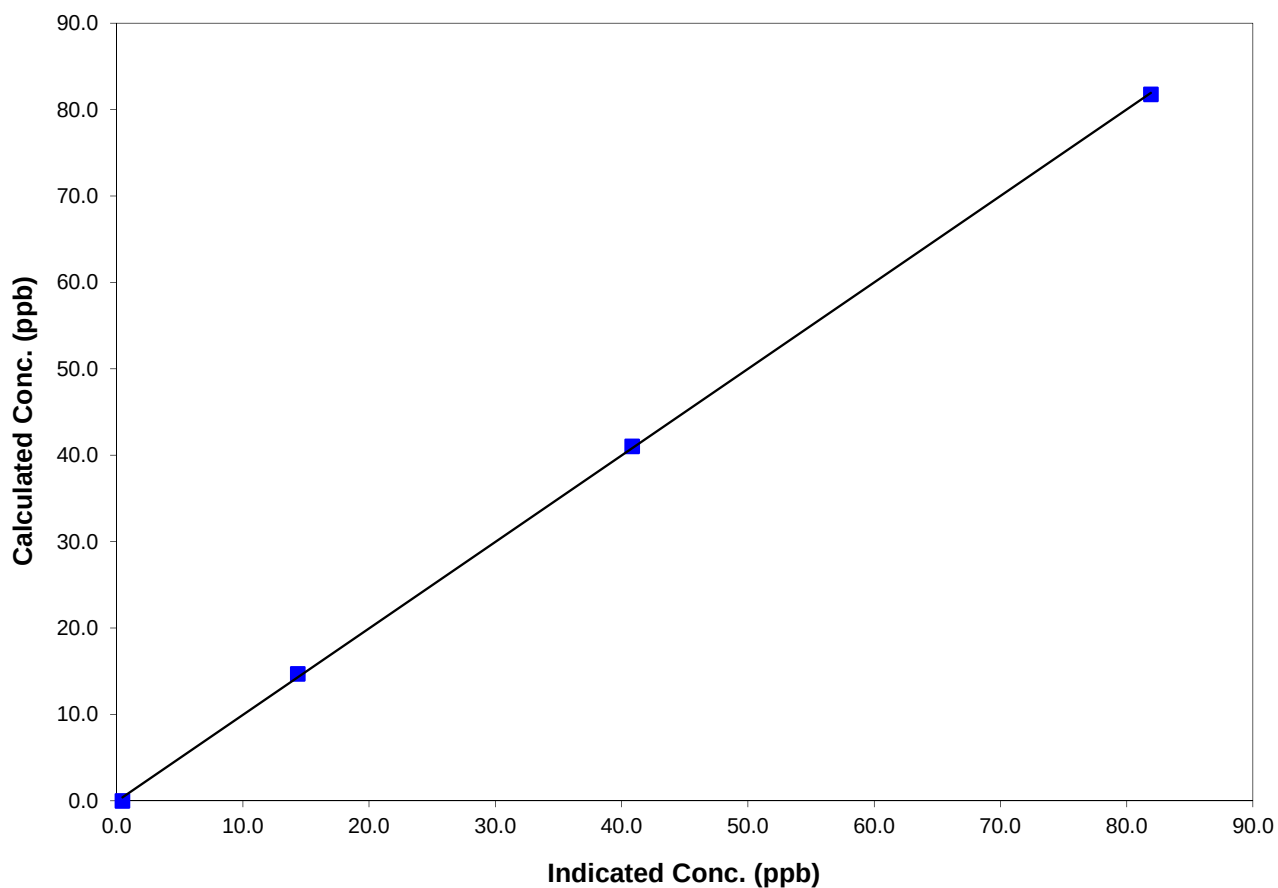
Station Information

Calibration Date	June 9 2015	Previous Calibration	May 20 2015
Station Number	6	Station Location	Valleyview
Start Time (MST)	9:00	End Time (MST)	12:00
Analyzer make/model	TEI Model 43i - APSCB	Analyzer serial #	701120010

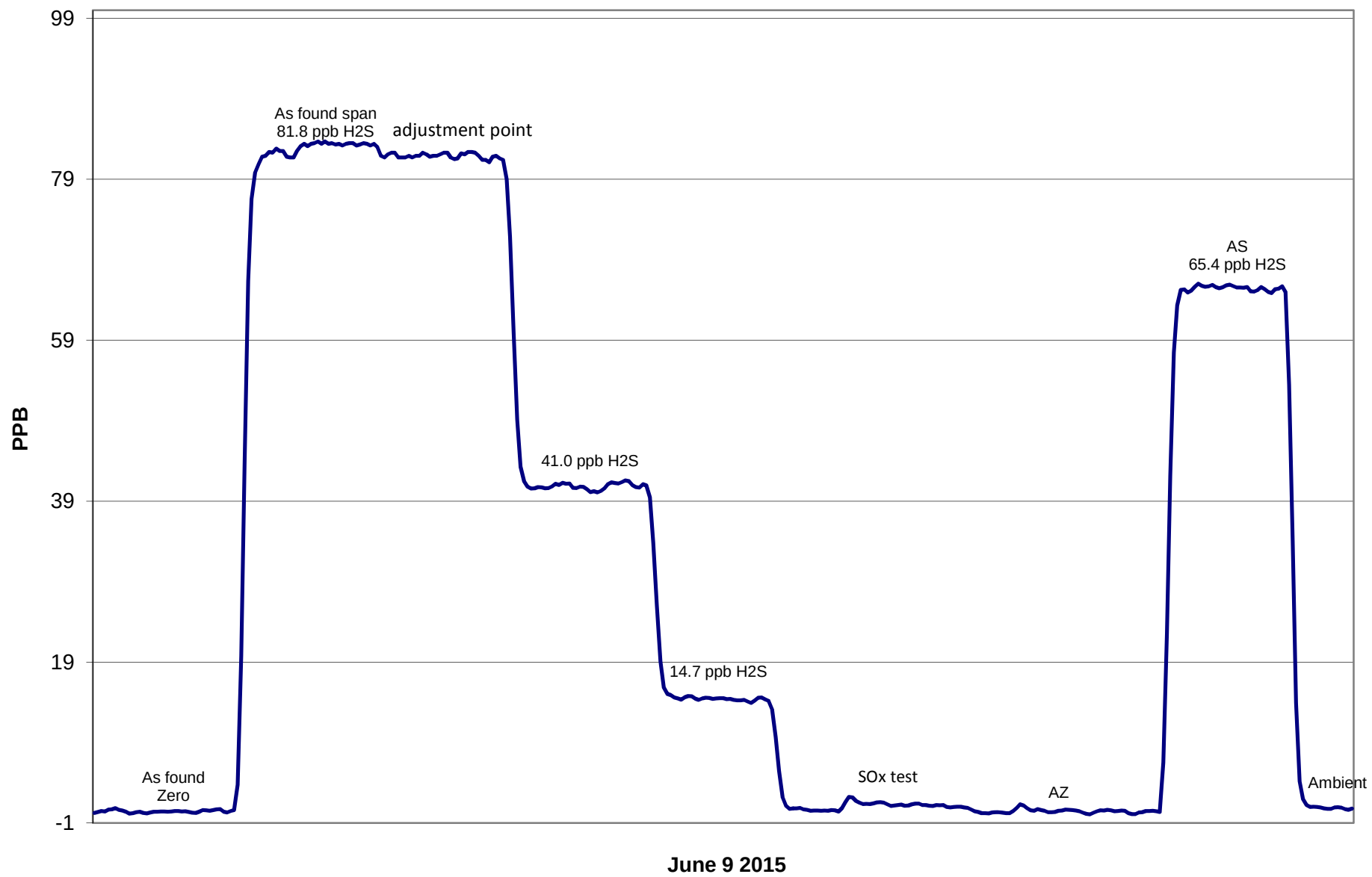
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.5	N/A	Correlation Coefficient	0.999904
81.8	81.9	0.9984		
41.0	40.9	1.0041		
14.7	14.4	1.0226	Slope	1.001143
			Intercept	-0.069714

H2S Calibration Curve



H2S Calibration



Calibration Report

Parameter SO₂

Air Monitoring Network PAZA



Station Information

Calibration Date	June 12, 2015	Previous Calibration	May 13, 2015
Station Number	1	Station Location	Falher
Reason:	Routine	Install	Removal
			Other:
Start Time (MST)	11:50	End Time (MST)	14:20:00 PM
Barometric Pressure	0.921 mm	Station Temperature	21.0 Deg C
Calibrator	EnviroNics	Serial Number	3474
Cal Gas Concentration	49.8 ppm	Cal Gas Expiry Date	10/03/2017
Correction factor	0.031201	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	0.990774	Calculated slope	0.994308
Calculated intercept	0.841227	Calculated intercept	0.914093
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	848	volts	850	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45.01	Deg C	45	Deg C
Pressure	674.9	mm Hg	676.7	mm Hg
Sample Flow	0.407	ccm	0.408	ccm
Lamp Intensity	96	%	96	%

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.0	0.00	0.5	N/A
4995	39.93	394.9	396.8	0.9952
4995	19.96	198.2	198.2	1.0002
4995	9.97	99.2	97.1	1.0217
4995	0.0	0.0	0.5	As Found Zero
4995	39.93	394.9	396.8	As Found Span
Average Correction Factor				1.0057

Calculated value of As Found Response: 393.488 ppm Percent Change of As Found: **0.4%**

	before calibration		after calibration	
Auto zero	0.7	ppm	0.6	ppm
Auto span	347.2	ppm	348.9	ppm

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter SO2

Air Monitoring Network PAZA



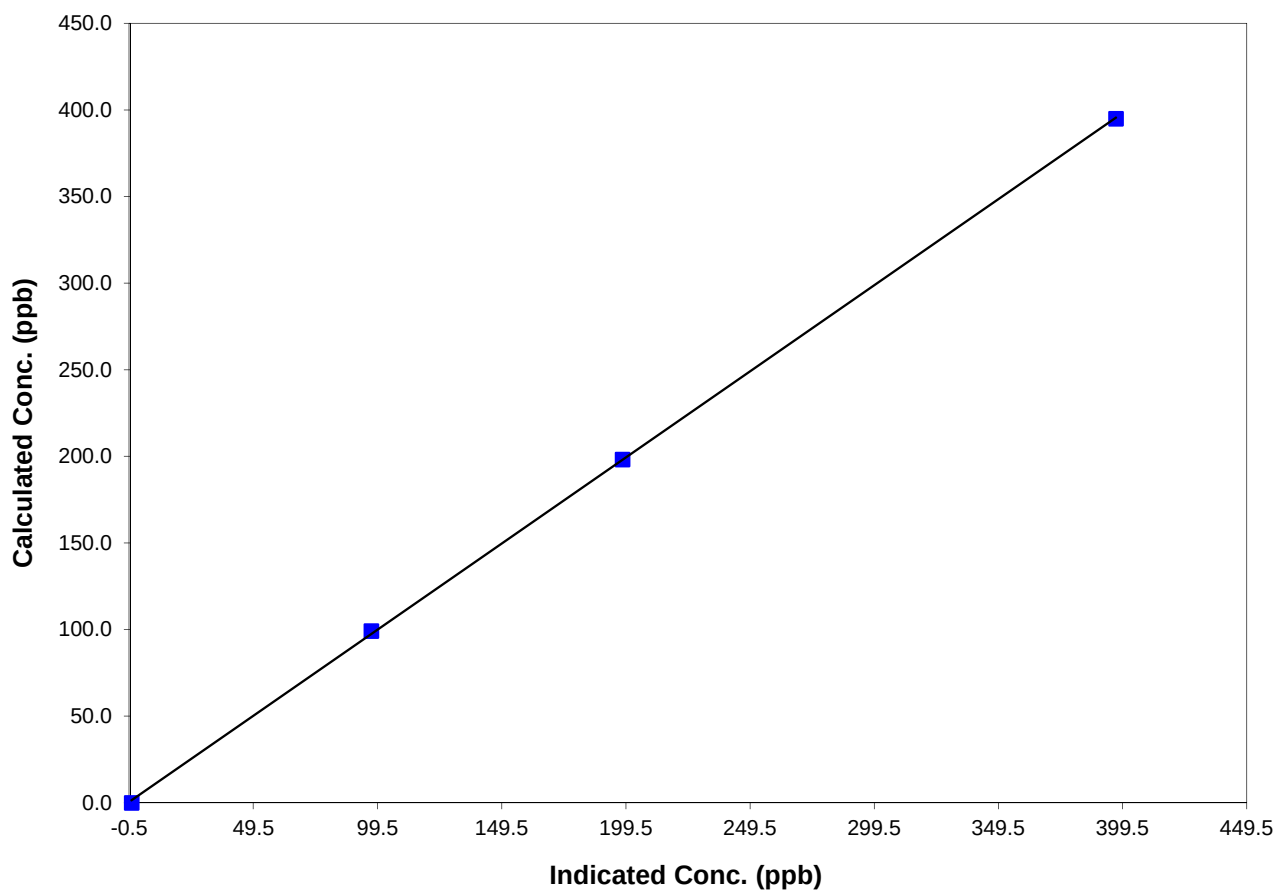
Station Information

Calibration Date	June 12, 2015	Previous Calibration	May 13, 2015
Station Number	1	Station Location	Falher
Start Time (MST)	11:50	End Time (MST)	14:20:00 PM
Analyzer make/model	Teco 43i	Analyzer serial #	1207452008

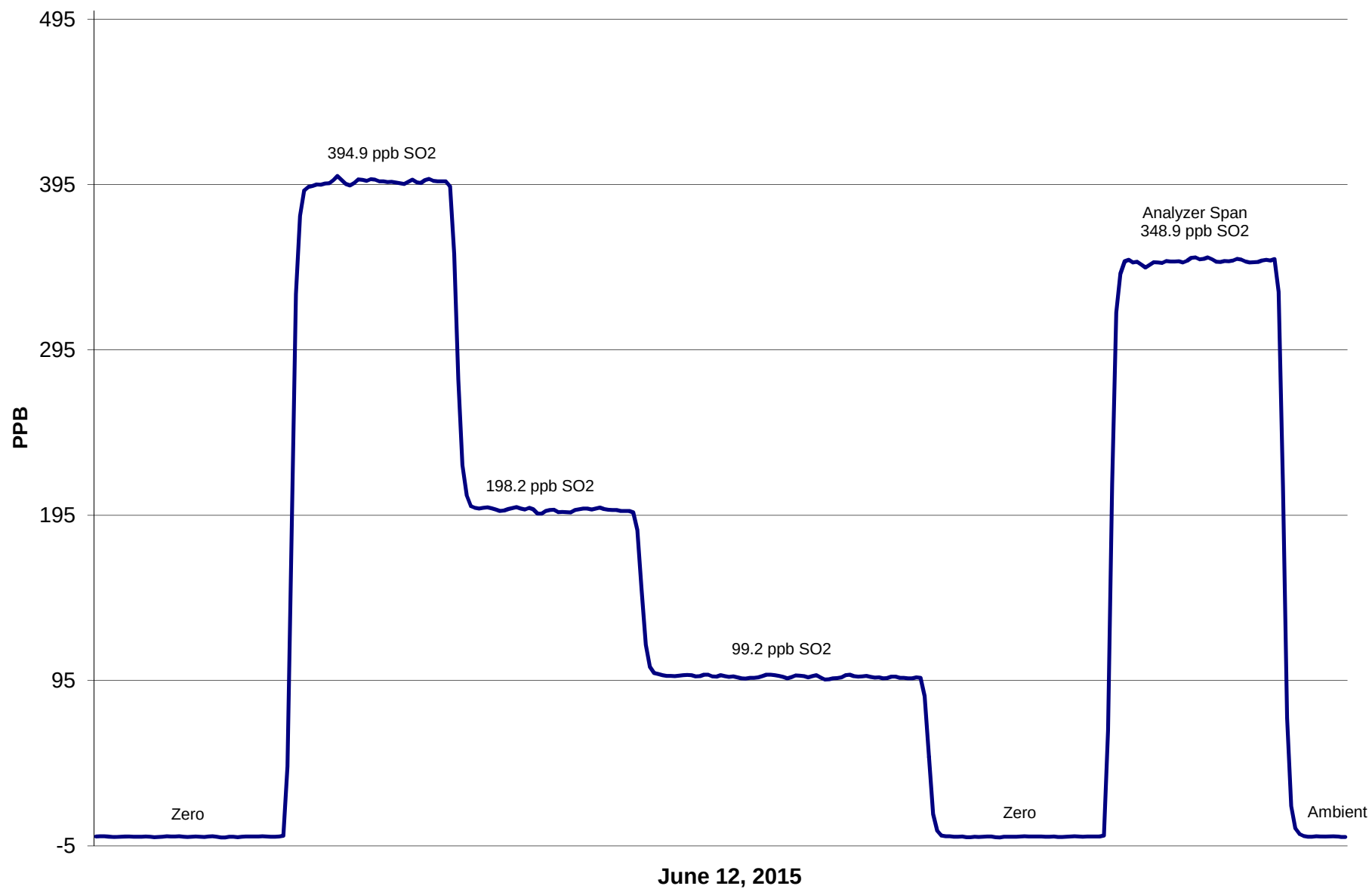
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.5	N/A	Correlation Coefficient	0.999935
394.9	396.8	0.9952		
198.2	198.2	1.0002		
99.2	97.1	1.0217	Slope	0.994308
			Intercept	0.914093

SO2 Calibration Curve



SO2 Calibration



Calibration Report



Parameter H2S

Air Monitoring Network PAZA

Station Information

Calibration Date	June 12, 2015	Previous Calibration	May 13, 2015
Station Number	1	Station Location	Falher
Reason:	Routine	Install	Removal
		Other:	
Start Time (MST)	10:10	End Time (MST)	12:55
Barometric Pressure	0.921 mm	Station Temperature	21.0 Deg C
Calibrator	EnviroNics	Serial Number	3016
Cal Gas Conc	10.32 ppm	Cal Gas Expiry Date	08/07/2016
Correction factor	0.031201	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	0.983296	Calculated slope	0.988195
Calculated intercept	-0.155594	Calculated intercept	-0.199209
Analyzer make	Thermo 450i	Analyzer serial #	1207452006

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	14.6	ppb	14.7	ppb
coefficient	1.117		1.117	
Lamp Voltage	801	volts	802	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	44.99	Deg C
Pressure	530.7	mm Hg	527.7	mm Hg
Sample Flow	0.911	lpm	0.905	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	0.2	N/A
4995	39.93	81.84	83.0	0.9857
4995	19.96	41.07	41.7	0.9842
6994	9.97	14.69	15.1	0.9731
4995	0.00	0.00	0.2	As Found Zero
4995	39.93	81.84	83.0	As Found Span
Average Correction Factor				0.9810

Calculated value of As Found Response: 81.30 ppm Percent Change of As Found: **0.7%**

	before calibration		after calibration	
Auto zero	0.6	ppm	0.4	ppm
Auto span	53.4	ppm	53.6	ppm

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter H2S

Air Monitoring Network PAZA



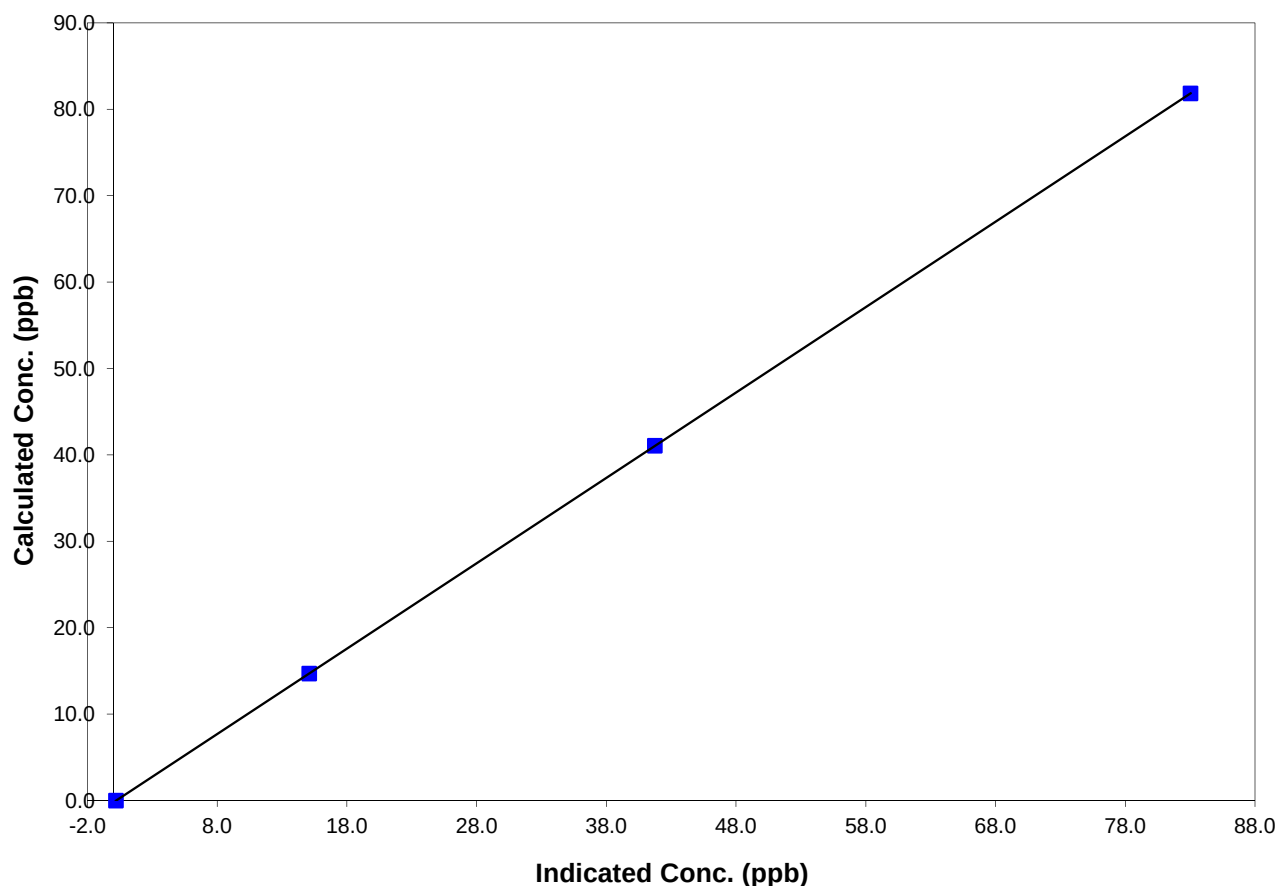
Station Information

Calibration Date	June 12, 2015	Previous Calibration	May 13, 2015
Station Number	1	Station Location	Falher
Start Time (MST)	10:10	End Time (MST)	12:55
Analyzer make/model	Thermo 450i	Analyzer serial #	1207452006

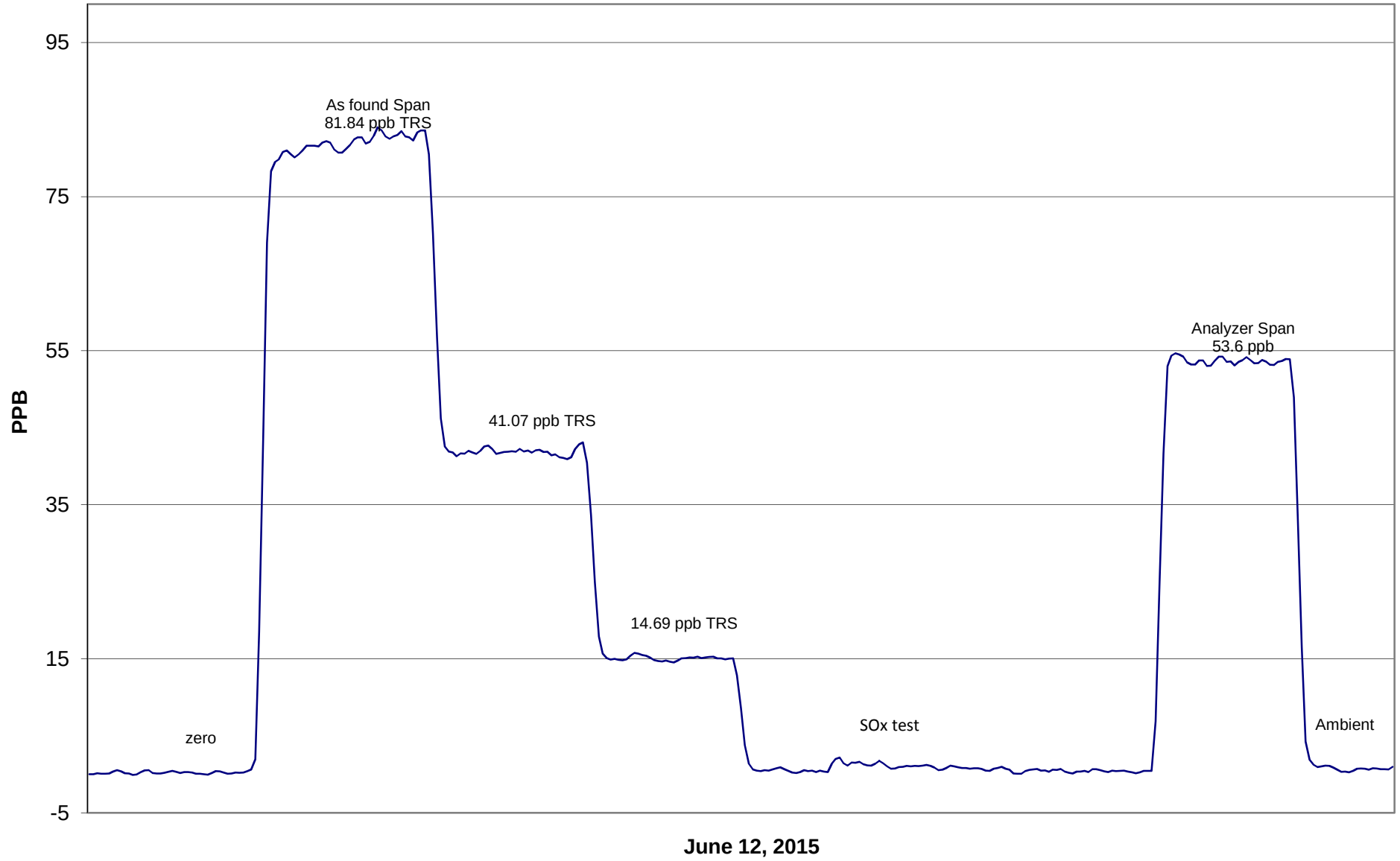
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A	Correlation Coefficient	1.000000
81.8	83.0	0.9857		
41.1	41.7	0.9842		
14.7	15.1	0.9731	Slope	0.988195
			Intercept	-0.199209

TRS Calibration Curve



H2S Calibration



Calibration Report



AIR QUALITY MONITORING

Parameter SO2

Air Monitoring Network PAZA

Station Information

Calibration Date	June 15, 2015	Previous Calibration	May 7, 2015
Station Number	10	Station Location	Clairmont
Reason:	Routine	Install	Removal
		Other:	

Start Time (MST)	8:20	End Time (MST)	11:25
Barometric Pressure	0.925 Atm	Station Temperature	21.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3016
Cal Gas Concentration	49.8 ppm	Cal Gas Expiry Date	10/03/2017
Gas Cert Reference	LL119493		
DACS make	CR3000	DACS serial No.	5407
DACS voltage range	0 - 5 Volt	DACS channel #	2
	<u>Before</u>		<u>After</u>
DACS Scale High	500	DACS slope	500
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.992929	Calculated slope	0.999094
Calculated intercept	1.773999	Calculated intercept	2.102536

Analyzer make	TEI 43C	Analyzer serial #	436610005
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	before		after	
Concentration range	0-500	ppb	0-500	ppb
Background	21.2		21.9	
Coefficient	1.042		1.018	
UV Lamp Voltage	879	V	877	V
Chamber Temp	44.5	C	44.5	C
Perm Gas Temp	45	C	45	C
Pressure	676.3	mm Hg	676.9	mm Hg
Sample Flow	0.465	LPM	0.467	LPM
Lamp Intesity	30545	Hz	30543	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	0.0	N/A
4995	39.93	394.9	394.2	1.0018
4995	19.97	198.3	195.3	1.0152
4995	9.97	99.2	95.1	1.0433
4995	0.00	0.0	1.3	As found zero
4995	39.93	394.9	405.0	As found span
Average Correction Factor				1.0201

Calculated value of As Found Response: 402.612 ppm Percent Change of As Found: -1.9%

	before calibration		after calibration	
Auto zero	0.3	ppm	0.3	ppm
Auto span	237.9	ppm	234.0	ppm

Notes: Span & zero adjustment made
Had to do span adjustment twice. Trace was keep rising after the first attempt

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter SO2

Air Monitoring Network PAZA



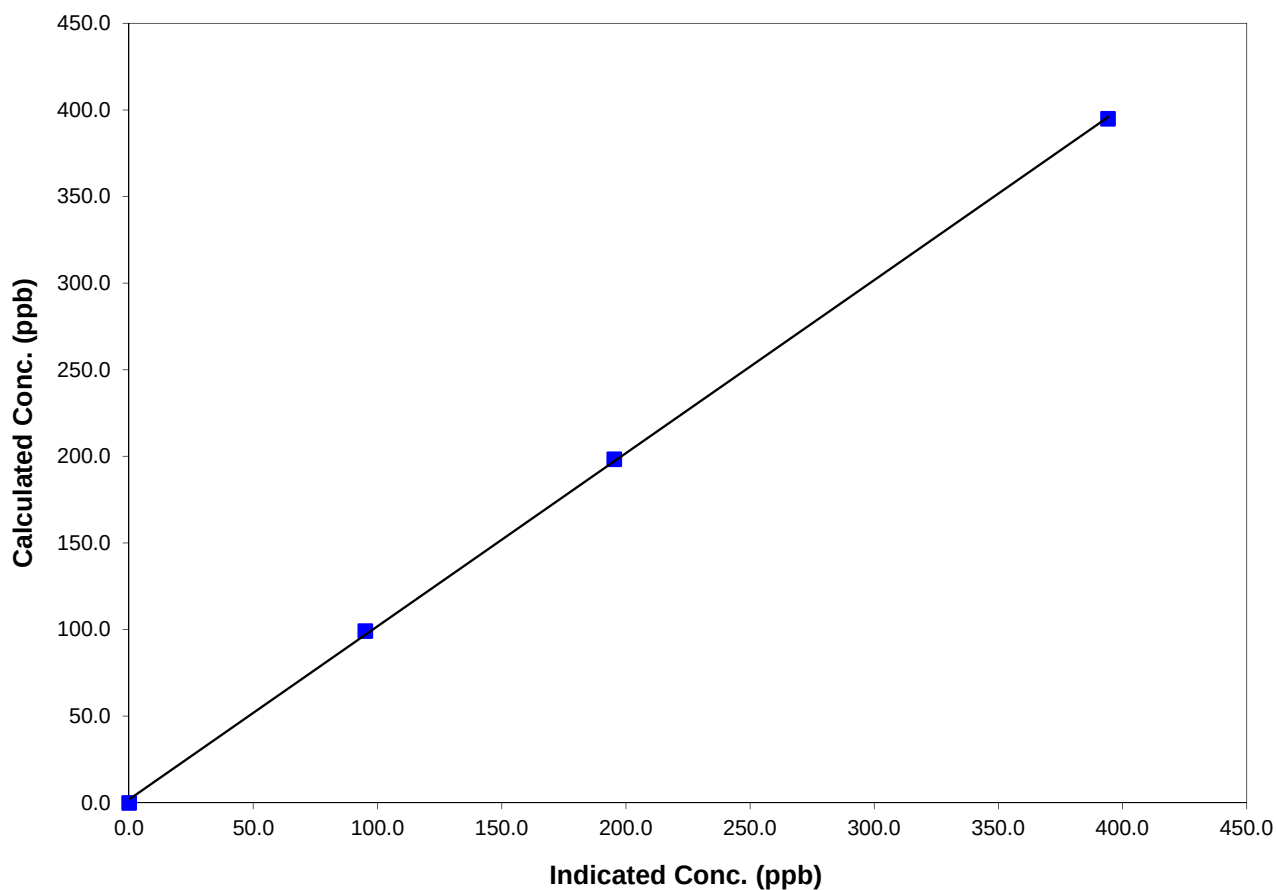
Station Information

Calibration Date	June 15, 2015	Previous Calibration	May 7, 2015
Station Number	10	Station Location	Clairmont
Start Time (MST)	8:20	End Time (MST)	11:25
Analyzer make/model	TEI 43C	Analyzer serial #	436610005

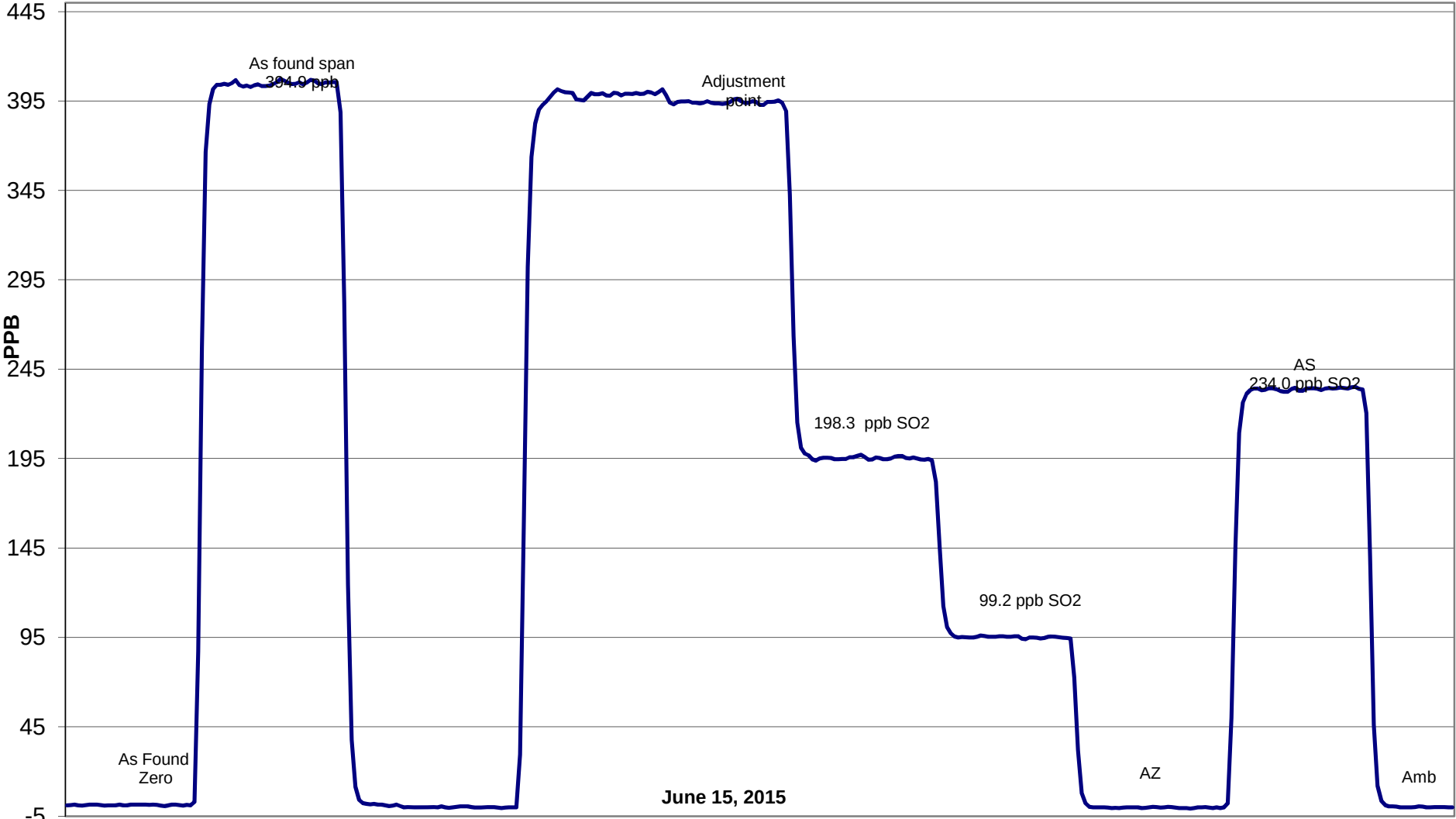
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A	Correlation Coefficient	0.999870
394.9	394.2	1.0018		
198.3	195.3	1.0152		
99.2	95.1	1.0433	Slope	0.999094
			Intercept	2.102536

SO2 Calibration Curve



SO2 Calibration



Calibration Report

Parameter

NO_x-NO-NO₂

Air Monitoring Network

PAZA



Station Information

Calibration Date	June 15, 2015	Previous Calibration	May 7, 2015
Station Number	10	Station Location	Clairmont
Reason:	Routine	Installation	Removal
Other:			
Start Time (MST)	9:05	End Time (MST)	12:40
Barometric Pressure	0.925	Atm	Station Temperature
Calibrator	EnviroNics	Serial Number	3016
NO Cal Gas Conc	50.9	ppm	Cal Gas Expiry Date
NOx Cal Gas Conc	51.2	ppm	Cal Gas Serial #
			LL119493

DACS Information

DACS make	CR3000	DACS serial No.	5407
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Parameter		NO2	NOx	NO
Before	Data Slope	0.999850	0.994455	0.992598
	Data Offset	0.689776	1.683004	1.336871
After	Data Slope	0.999791	0.995354	0.993426
	Data Offset	0.710493	1.873744	1.635423
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
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Test Point	before		after	
Concentration range	0-500	ppb	0-500	ppb
NO offset	7.1	mV	7.1	mV
NOx bkgnd	7.3	mV	7.3	mV
NO coefficient	1.264		1.264	
NOx coefficient	0.999		0.999	
NO2 conv temp	326.8	Deg C	325.7	Deg C
PMT Temp	-2.8	Deg C	-2.8	Deg C
PMT Volt	-845.5	mV	-845.5	mV
R Cell Press	220.1	in Hg	218.0	in Hg
Sample Flow	0.666	LPM	0.666	LPM

Notes:

No adjustment made

On the as found zero number a bit different on the analyzer as oppose to MDS.

Difference was around -0.5ppb

Calibration Report

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



Station Information

Calibration Date: June 15, 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	-0.5	-0.4	-0.6	N/A	N/A
1	4995	39.92	405.9	403.6	2.4	406.6	405.2	-0.9	0.9984	0.9959
2	4995	19.96	203.8	202.6	1.2	202.3	201.6	-0.6	1.0074	1.0051
3	4995	9.93	101.6	101.0	0.6	98.7	98.8	-0.6	1.0291	1.0218
AFZ	4995	0.00	0.0	0.0	0.0	-0.5	-0.4	-0.6	0.0000	0.0000
AFS	4995	39.92	405.9	403.6	0.8	406.6	406.2	-1.8	0.9984	0.9935
Average Correction Factor									1.0117	1.0076

As Found Concentrations: NO_x= 406.5 NO= 404.9 As Found Percent Change NO_x= 0.1% NO= 0.3%

GPT Calibration Data

Dilution Flow 4995 ccm Source Gas Flow 39.93 ccm

O3 Setpoint (ppb)	Indicated NOx high point (ppb)	Indicated NO drop conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor	NO2 Correction factor	Converter Efficiency
0	-0.4	-0.4	0.0	-0.5	-0.4	-0.6	N/A	N/A	N/A	N/A
NO point	406.7	406.7	0.0	408.5	406.7	-0.8	0.9957	1.0000	N/A	N/A
300	406.7	99.4	307.3	408.3	99.4	306.8	0.9962	1.0000	1.0016	99.8%
200	406.7	198.1	208.6	408.6	198.1	207.7	0.9954	1.0000	1.0040	99.6%
100	406.7	298.3	108.4	408.6	298.3	107.6	0.9955	1.0000	1.0075	99.3%
Average Correction Factor							0.9957	1.0000	1.0044	99.6%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	-0.6	-0.6	-0.4	ppb	-0.5	-0.5	-0.5	ppb
Auto span	167.3	165.6	0.6	ppb	163.3	161.4	0.6	ppb

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter NO₂

Air Monitoring Network PAZA



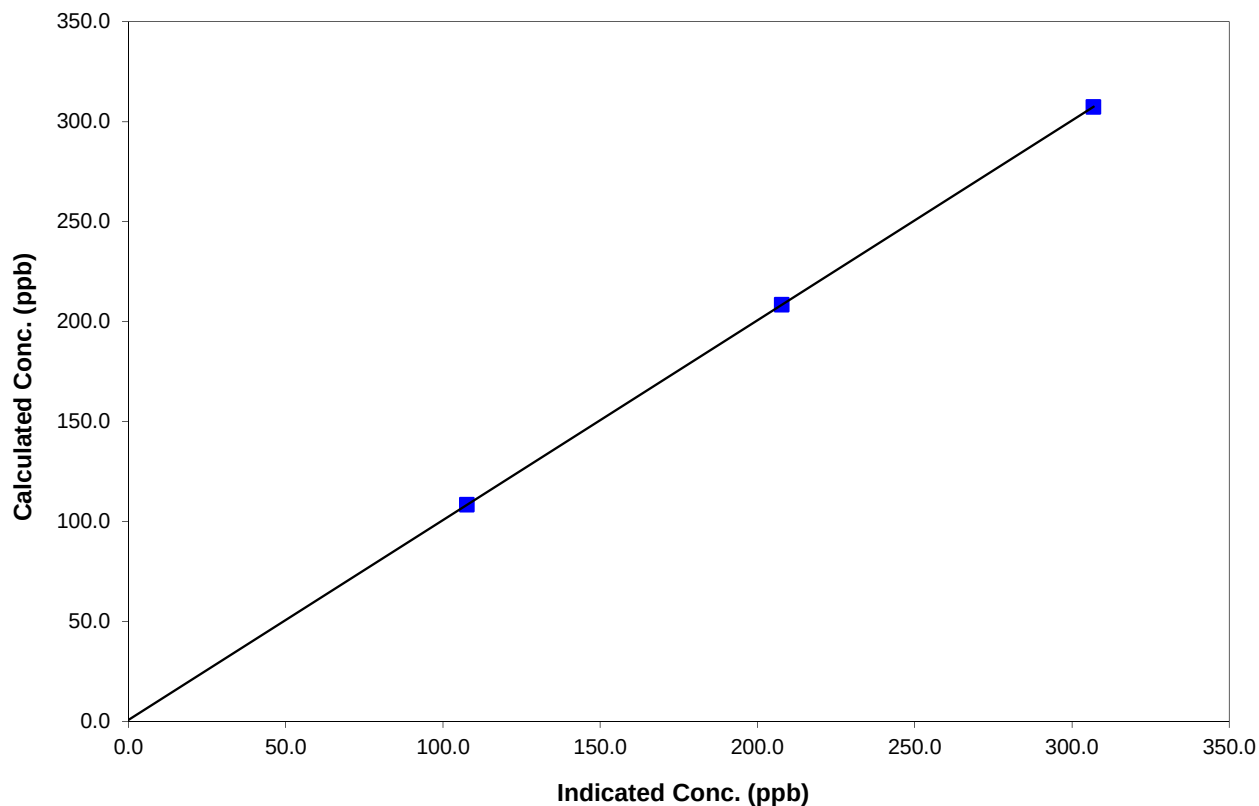
Station Information

Calibration Date	June 15, 2015	Previous Calibration	May 7, 2015
Station Number	10	Station Location	Clairmont
Start Time (MST)	9:05	End Time (MST)	12:40
Analyzer make	TEI 42i	Analyzer serial #	0701120011

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.6	N/A	Correlation Coefficient	0.999999
307.3	306.8	1.0016		
208.6	207.7	1.0040		
108.4	107.6	1.0075	Slope	0.999791
			Intercept	0.710493

NO₂ Calibration Curve



Calibration Summary

Parameter NO_x

Air Monitoring Network PAZA



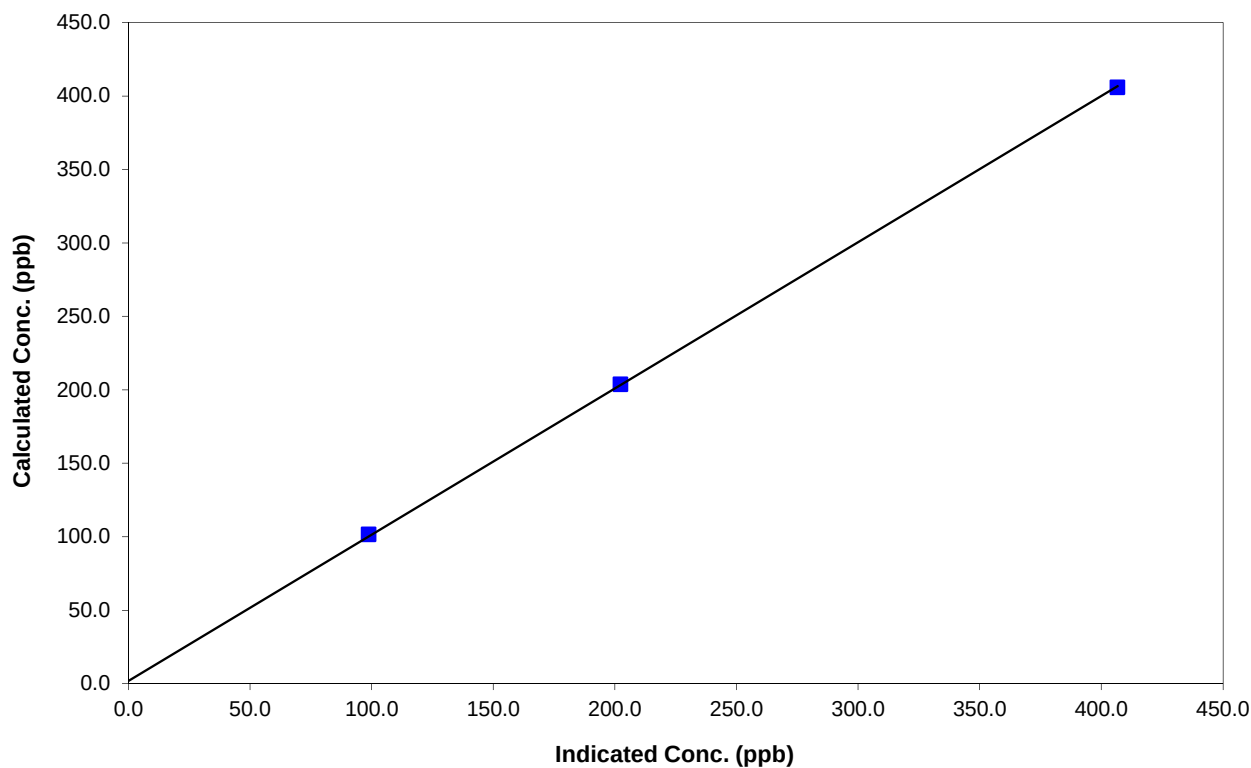
Station Information

Calibration Date	June 15, 2015	Previous Calibration	May 7, 2015
Station Number	10	Station Location	Clairmont
Start Time (MST)	9:05	End Time (MST)	12:40
Analyzer make	TEI 42i	Analyzer serial #	0701120011

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.5	N/A	Correlation Coefficient	0.999947
405.9	406.6	0.9984		
203.8	202.3	1.0074		
101.6	98.7	1.0291	Slope	0.995354
			Intercept	1.873744

NO_x Calibration Curve



Calibration Summary

Parameter NO

Air Monitoring Network PAZA



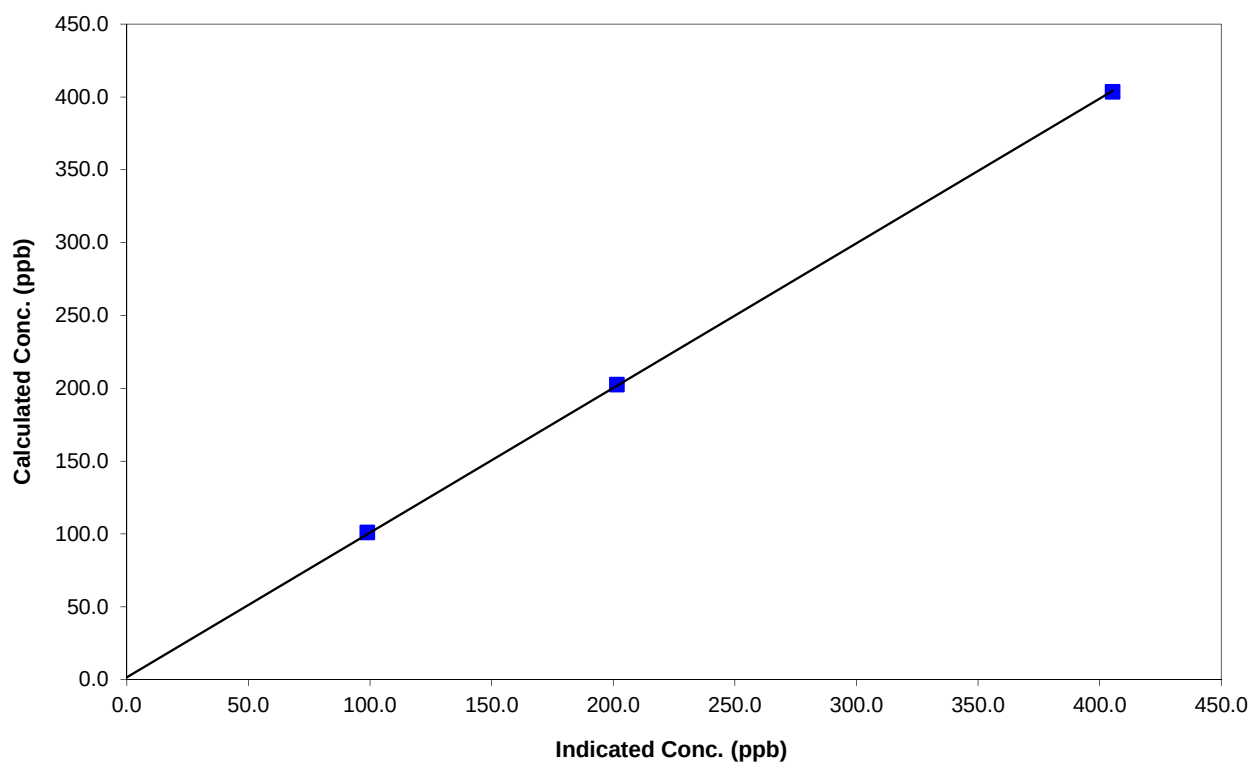
Station Information

Calibration Date	June 15, 2015	Previous Calibration	May 7, 2015
Station Number	10	Station Location	Clairmont
Start Time (MST)	9:05	End Time (MST)	12:40
Analyzer make	TEI 42i	Analyzer serial #	0701120011

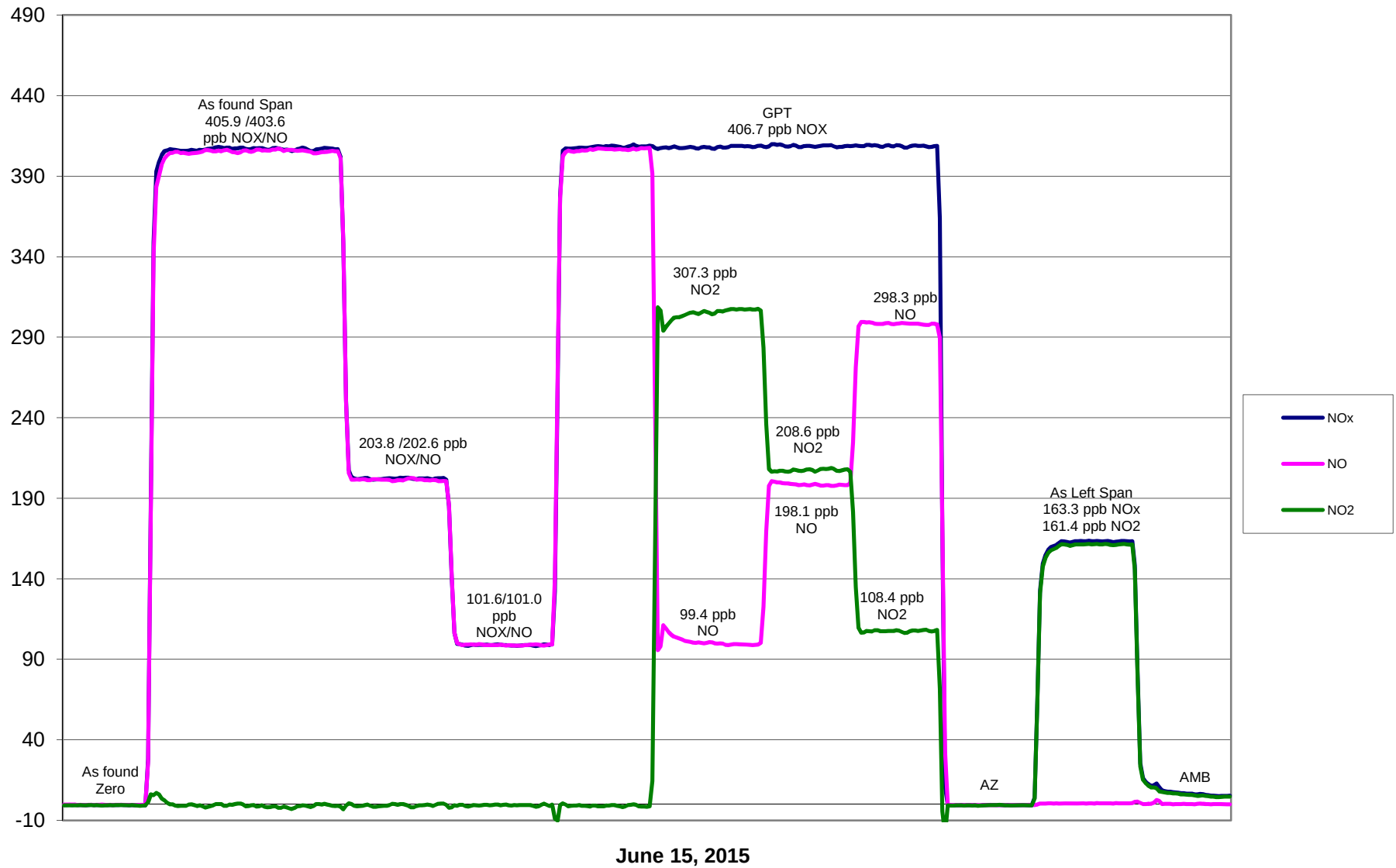
Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.4	N/A	Correlation Coefficient	0.999957
403.6	405.2	0.9959		
202.6	201.6	1.0051		
101.0	98.8	1.0218	Slope	0.993426
			Intercept	1.635423

NO Calibration Curve



NO_x Calibration



Calibration Report



Parameter 03
Air Monitoring Network PAZA

Station Information

Calibration Date	June 15 2015	Previous Calibration	May 7 2015
Station Number	10	Station Location	Clairmont
Reason:	☒ Routine	☐ Install	☐ Removal
		☐ Other:	
Start Time (MST)	11:40	End Time (MST)	13:35:00 PM
Barometric Pressure	0.925 atm	Station Temperature	21.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3016
DACS make	CR3000	DACS serial No.	5407
DACS voltage range	0 - 5 Volts	DACS channel #	6
	Before		After
Calculated slope	0.999230	Calculated slope	0.990003
Calculated intercept	0.167193	Calculated intercept	0.208984
Analyzer make	TEI Model 49C	Analyzer serial #	49C-0609716240

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Offset	0	ppb	0	ppb
Span	1.000		1.000	
Cell A intensity	75523	Hz	75138	Hz
Cell B intensity	73261	Hz	73381	Hz
Pressure	671.70	in Hg	671.20	in Hg
Cell A Flow	0.705	ccm	0.705	ccm
Cell B Flow	0.697	cmm	0.697	cmm

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
5035	0.00	0.0	0.2	N/A
5035	0.30	307.3	311.0	0.9881
5035	0.20	208.6	209.4	0.9963
5035	0.10	108.4	109.2	0.9928
5035	0.00	0.0	0.2	As found zero
5035	0.30	307.3	311.0	As found span
Average Correction Factor				0.9924

Calculated value of As Found Response: 310.7 ppm Percent Change of As Found: 1.1%

	before calibration		after calibration	
Auto zero	0.2	ppb	0.2	ppb
Auto span	417.3	ppb	416.3	ppb

Notes: No adjustments made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter O3

Air Monitoring Network PAZA



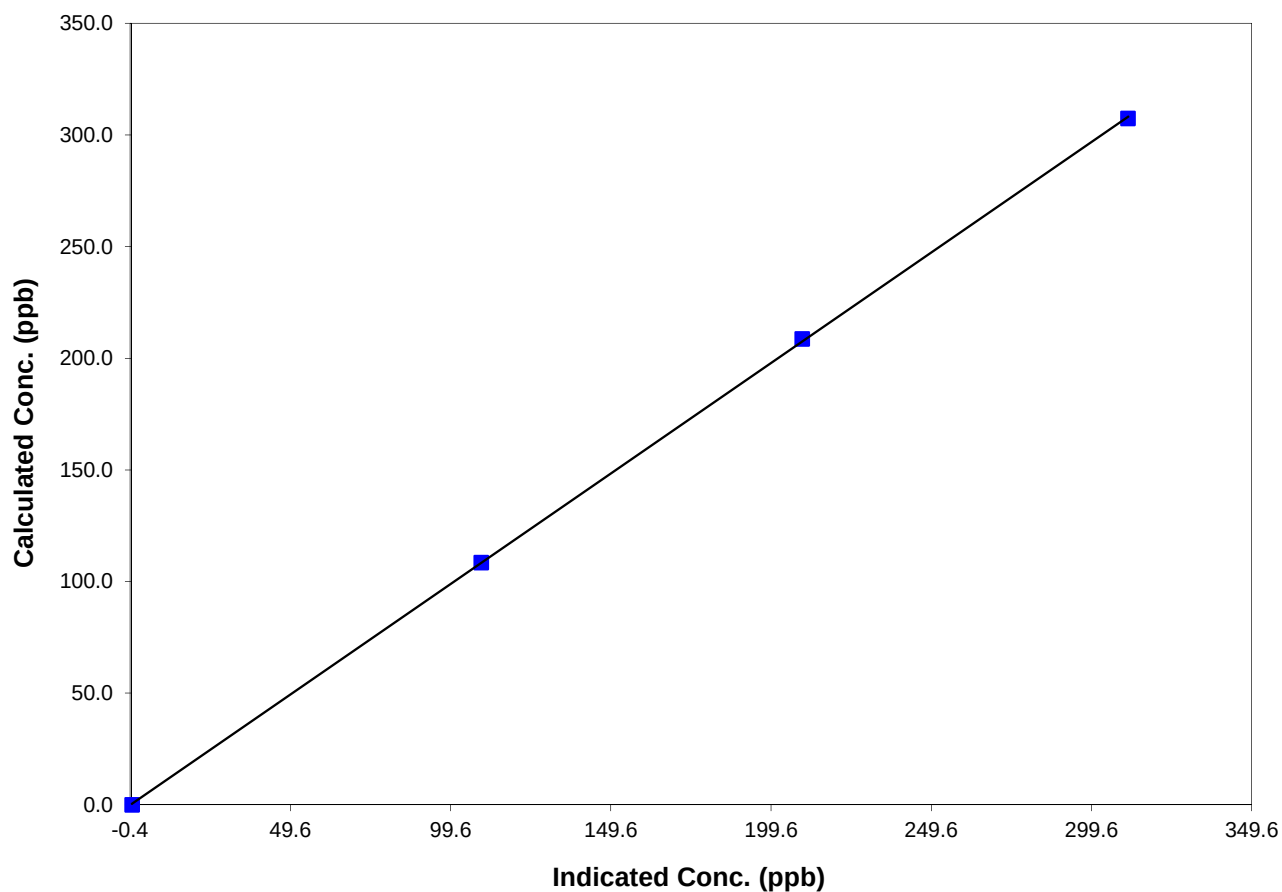
Station Information

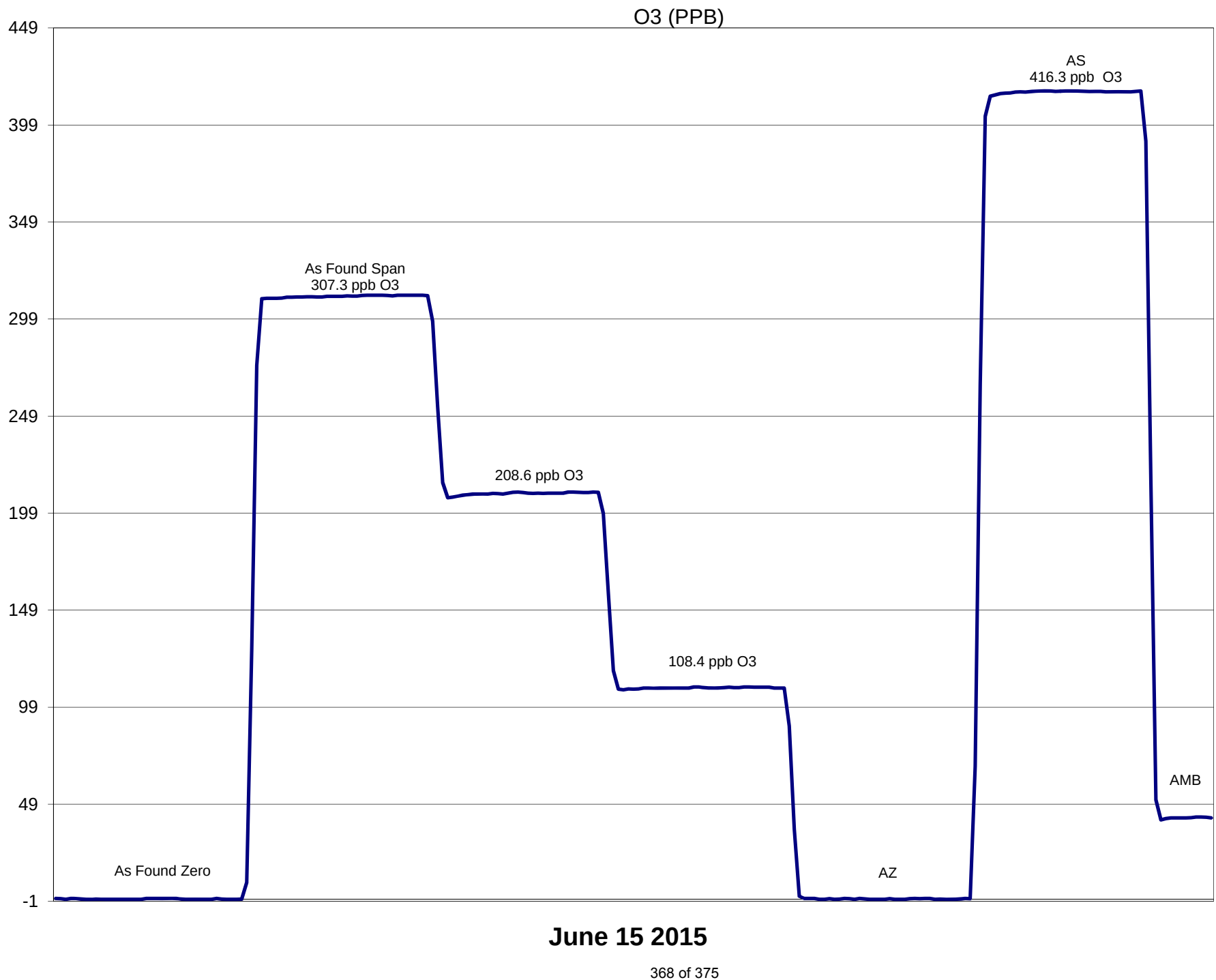
Calibration Date	June 15 2015	Previous Calibration	May 7 2015
Station Number	10	Station Location	Clairmont
Start Time (MST)	11:40	End Time (MST)	13:35:00 PM
Analyzer make/model	TEI Model 49C	Analyzer serial #	49C-0609716240

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	NA	Correlation Coefficient	0.999960
307.3	311.0	0.9881		
208.6	209.4	0.9963		
108.4	109.2	0.9928	Slope	0.990003
			Intercept	0.208984

O3 Calibration Curve





Calibration Report



Parameter THC

Air Monitoring Network PAZA

Station Information

Calibration Date	June 16, 2015	Previous Calibration	May 6, 2015
Station Number	10	Station Location	Clairmont
Reason:	Routine	Install	Removal
		Other:	
Start Time (MST)	11:55	End Time (MST)	14:05:00 PM
Barometric Pressure	0.925 ATM	Station Temperature	21.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3016
Cal Gas Concentration	404 ppm CH4/ 201 ppm C3H8	Cal Gas Expiry Date	28/03/2014
Cal Gas CH4 equiv	956.75 ppm	Cal Gas Cylinder #	LL34989
DACS make	CR3000	DACS serial No.	5407
DACS voltage range	0 - 1 volt	DACS channel #	12
	<u>Before</u>		<u>After</u>
Calculated slope	0.997203	Calculated slope	0.978315
Calculated intercept	0.093942	Calculated intercept	0.193894

Analyzer make TEI Model 51C-LT Analyzer serial # 51CLT-79009-390

	before		after	
Concentration range	0 - 25	ppm	0 - 25	ppm
THC sample pressure	6.50	psi	6.50	psi
THC zero counts	1510	capture	1510	capture
THC span counts	11040	capture	11040	capture
THC zero offset	2329	capture	2329	capture
THC span offset	2300	capture	2300	capture

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
2996	0.00	0.00	-0.03	N/A
2996	69.89	21.81	22.16	0.9842
2996	29.96	9.47	9.37	1.0113
2996	9.97	3.17	2.94	1.0811
2996	0.00	0.00	-0.03	As Found Zero
2996	69.93	21.82	22.16	As Found Span
Average Correction Factor				1.0255

Calculated value of As Found Response: 22.227 ppm Percent Change of As Found: -1.9%

	before calibration		after calibration	
Auto zero	0.00	ppm	-0.02	ppm
Auto span	21.66	ppm	21.57	ppm

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter THC

Air Monitoring Network PAZA



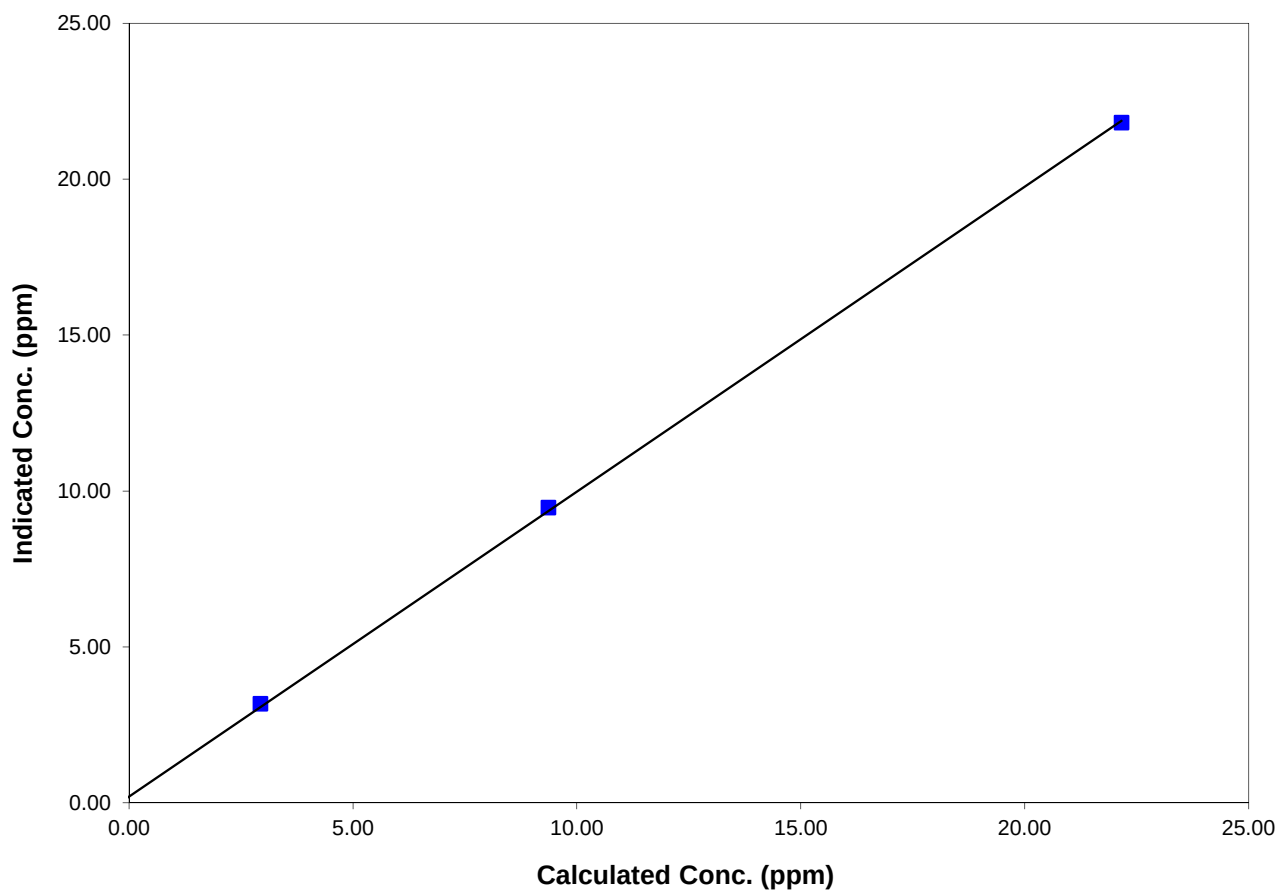
Station Information

Calibration Date	June 16, 2015	Previous Calibration	May 6, 2015
Station Number	10	Station Location	Clairmont
Start Time (MST)	11:55	End Time (MST)	14:05:00 PM
Analyzer make/model	TEI Model 51C-LT	Analyzer serial #	51CLT-79009-390

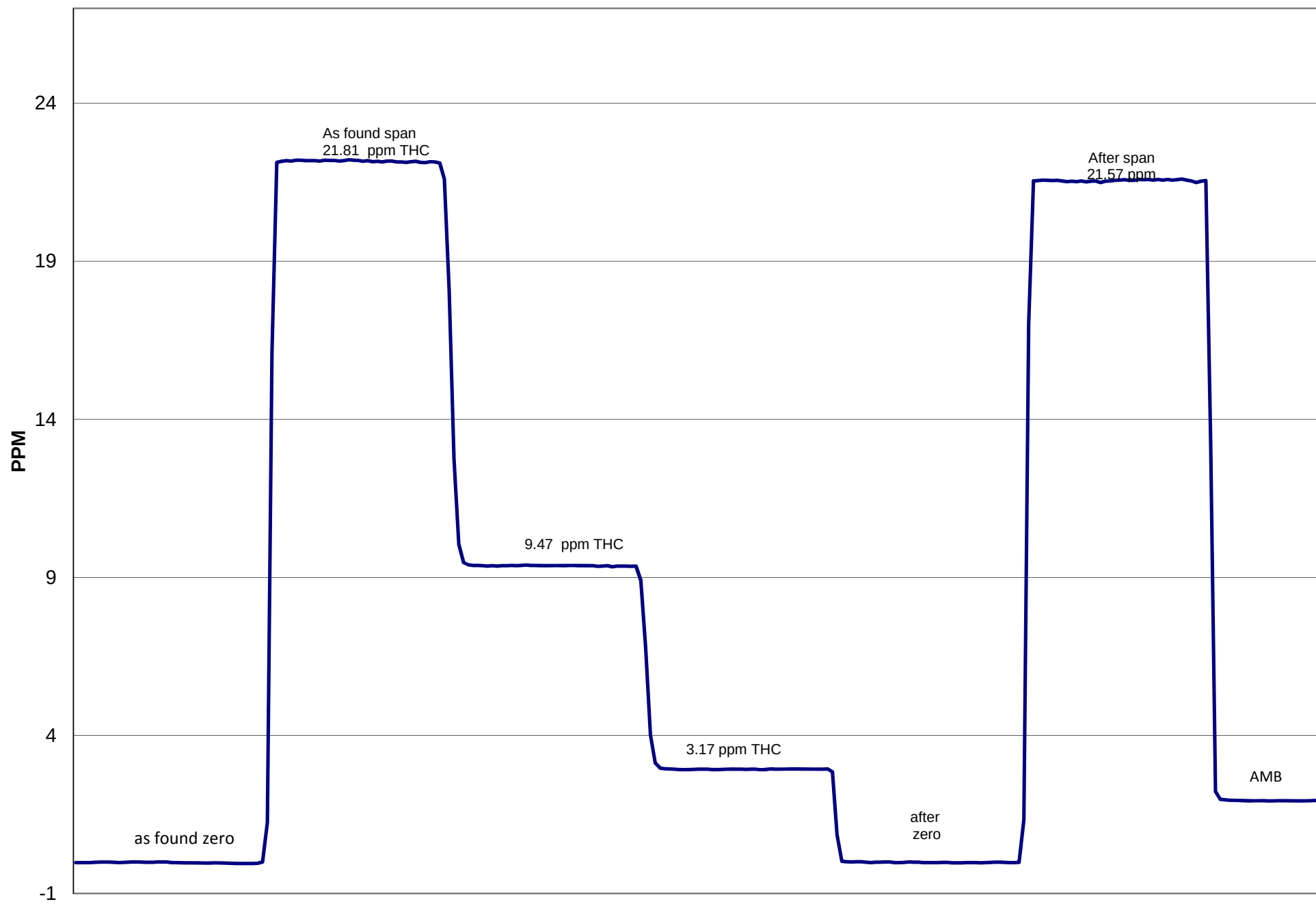
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	-0.035	N/A		
21.81	22.16	0.9842	Correlation Coefficient	0.999804
9.47	9.37	1.0113		
3.17	2.94	1.0811	Slope	0.978315
			Intercept	0.193894

THC Calibration Curve



THC Calibration



Calibration Report

Parameter **TRS**
Air Monitoring Network

PAZA



Station Information

Calibration Date	June 16, 2015	Previous Calibration	May 8, 2015
Station Name	PAZA Rover	Station Location	Clairmont
Reason:	Routine	Install	Removal
			Other: <u> </u>
Start Time (MST)	7:55 AM	End Time (MST)	13:05:00 PM
Barometric Pressure	0.935 Atm	Station Temperature	21.0 Deg C
Calibrator	Enviroics	Serial Number	3016
Cal Gas Concentration	10.32 ppm	Cal Gas Expiry Date	July/08/2016
Gas Cert Reference	LL110781		
DACS make	CR3000	DACS serial No.	5407
DACS voltage range	0 - 5 Volt	DACS channel #	1
	<u>Before</u>		<u>After</u>
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.991003	Calculated slope	0.990868
Calculated intercept	0.025299	Calculated intercept	0.548973
Analyzer make	TEI 43C	Analyzer serial #	609716238

	<u>before</u>		<u>after</u>	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	26.5	ppb	25.7	ppb
Coefficient	0.969		0.942	
Lamp Voltage	792	V	796	V
Chamber Temp	43.9	C	43.8	C
Perm gas Temp	45	C	45	C
Pressure	658.4	mmHg	660.8	mmHg
Sample Flow	0.459	lpm	0.449	lpm
Lamp Intensity	43801	Hz	43451	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	-0.5	N/A
4995	39.93	81.8	82.1	0.9971
4995	19.97	41.1	40.8	1.0062
6995	9.97	14.7	14.3	1.0294
4995	9.97		0.9	Sox Test
4995	0.00	0.0	-0.6	As found zero
4995	39.93	81.8	83.5	As found span
Average Correction Factor				1.0109

Calculated value of As Found Response: 83.34 ppm Percent Change of As Found: -1.8%

	<u>before calibration</u>		<u>after calibration</u>	
Auto zero	0.0	ppm	-0.3	ppm
Auto span	57.6	ppm	57.6	ppm

Notes: Span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter TRS

Air Monitoring Network PAZA



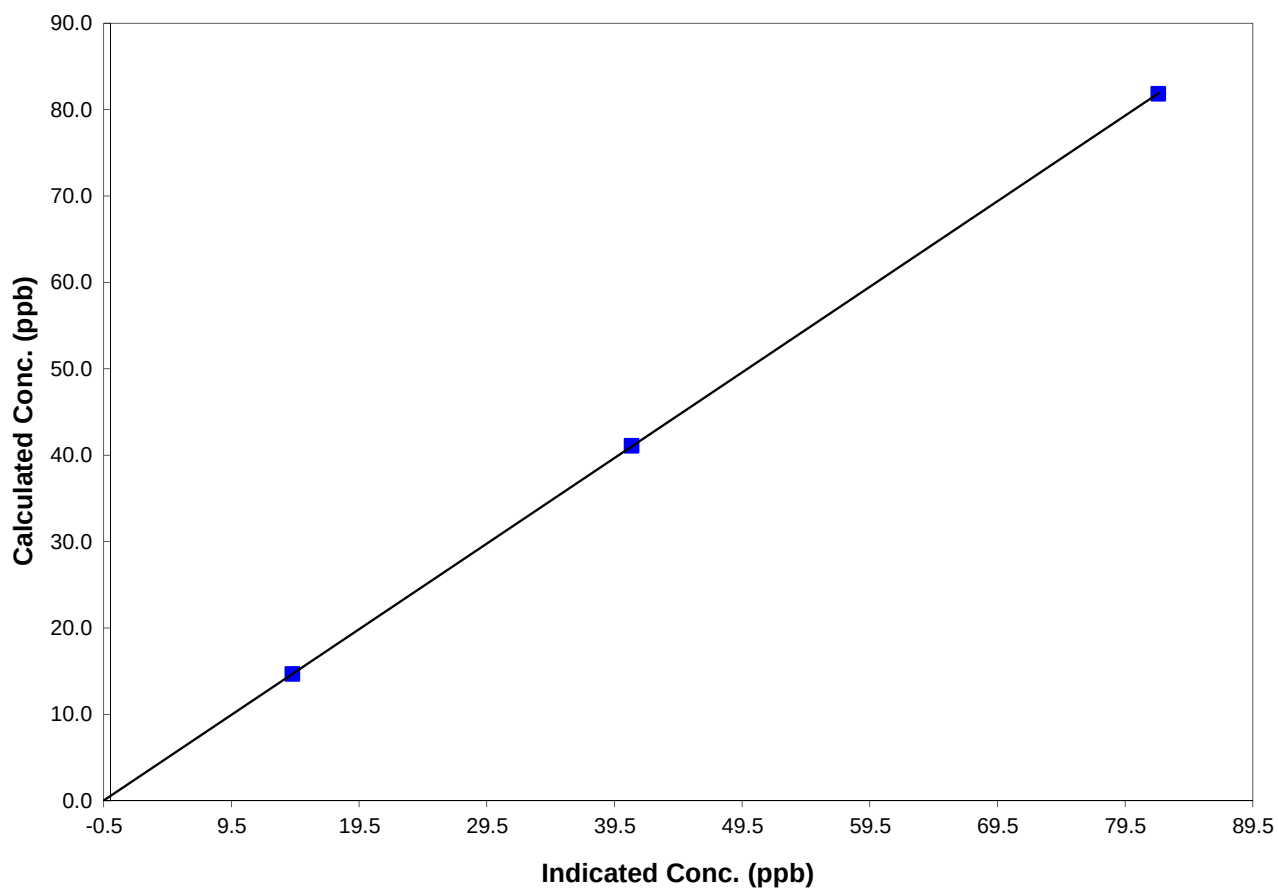
Station Information

Calibration Date	June 16, 2015	Previous Calibration	May 8, 2015
Station Number	PAZA Rover	Station Location	Clairmont
Start Time (MST)	7:55	End Time (MST)	13:05:00 PM
Analyzer make/model	TEI 43C	Analyzer serial #	609716238

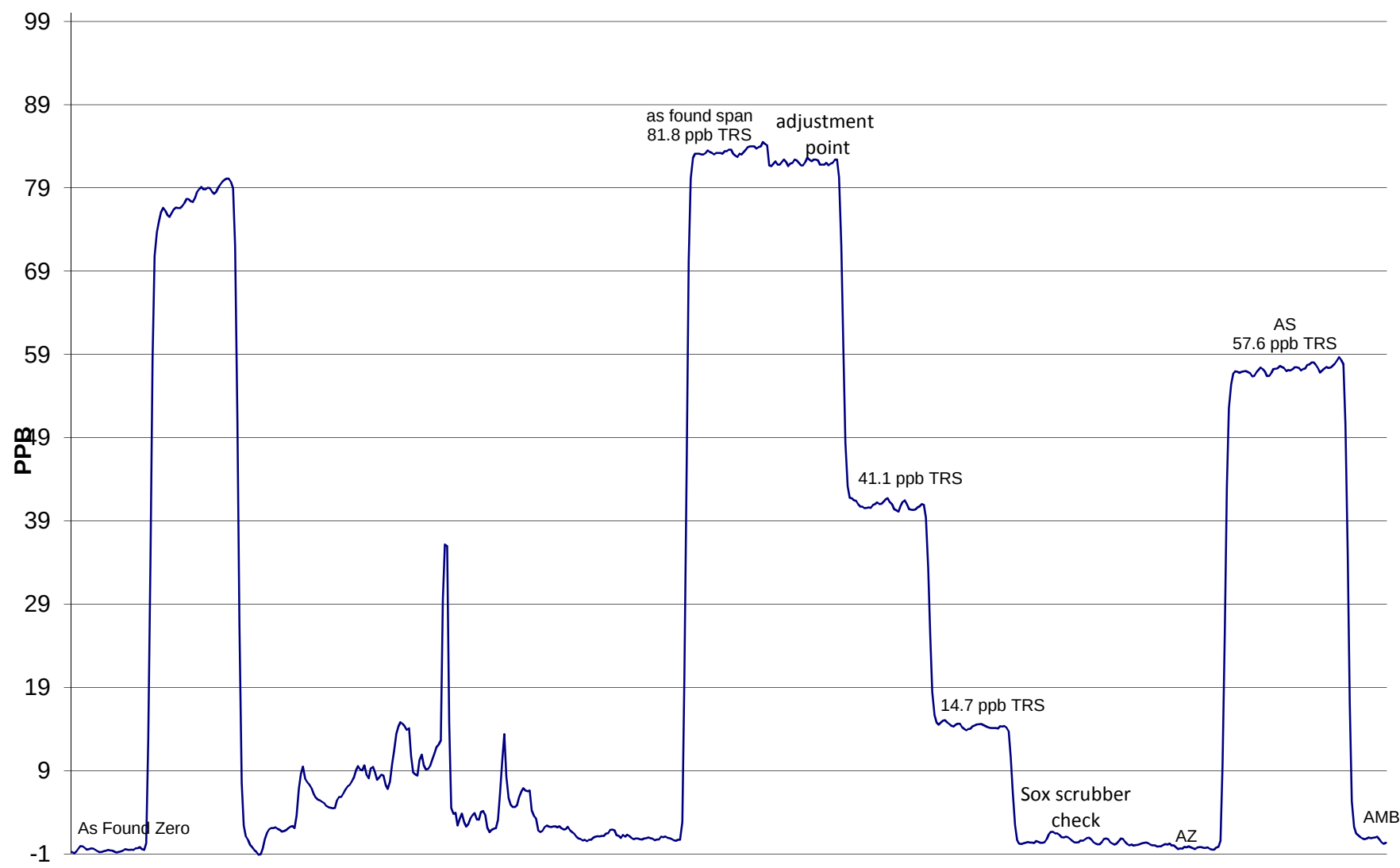
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.5	N/A	Correlation Coefficient	0.999998
81.8	82.1	0.9971		
41.1	40.8	1.0062		
14.7	14.3	1.0294	Slope	0.990868
			Intercept	0.548973

TRS Calibration Curve



TRS Calibration



June 16, 2015

AB TEOM PM2.5 Calibration



STATION: Rover-Clairmont
 LOCATION: PAZA - Grande Prairie

OPERATOR: Dmytro Dolotii
 DATE: 16-Jun-15

MONITOR INFO / PARAMETER VALUES:

Make/Model	TEOM AB
Configuration	PM2.5
Serial Number	21551
Site Number	10
Inlet Type	PM 10 / SCC
FAdj. Main Setting	1.000
FAdj. Aux. Setting	0.990
T-Case Indicated / Set Point	40/40
T-Air Indicated / Set Point	40/40
T-Cap Indicated / Set Point	40/40
Splitter Assembly Alignment (cm)	15.5

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

RECENT CALIBRATION AND AUDIT HISTORY

Previous Audit	
Previous Calibration	10-Apr-15

PUMP CAPACITY CHECK *	PASS
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* capacity test or pump on timed test utilized to verify pump integrity

"FAIL" indicates that pump requires service.

LEAK CHECK	Indicated Flow (lpm)	
	Main	Auxiliary
PUMP ON	0.035	0.035
PUMP OFF	0.000	0.000
NET	0.035	0.035
LIMITS	<0.15	<0.60

	Ambient Temp. (^o C)	Ambient Pres. (atm)	Ko *	Bypass flow (lpm)	Sample flow (lpm)
SET POINT (S)	na	na	12893	13.66	3.000
INDICATED (I)	16.6	0.906		13.66	3.000
MEASURED (AF)	16.8	0.908		13.71	3.003
MEASURED (M)	16.8	0.908	13124	13.71	3.003
DIFFERENCE (M-I)	0.2	0.002	1.8%	0.05	0.00
LIMITS	± 2^o C	± 0.005 atm	± 2.5 %	± 1.0 L/min	± 0.2 L/min

As Found Data
 Adjusted Data

Ko Audit Filter data Weight: 0.11251 Serial #: CVK 3316

COMMENTS: Pass

Full audit was performed.

Sample Head Inspection/Cleaning:

Large In Line Filter Inspection & Or Cleaning: