



Peace Airshed Zone Association

Ambient Air Monitoring Network Summary

**Continuous Ambient Air Quality Monitoring Program
Monthly Report
March 2013**

Operations and Reporting



April 23rd, 2013

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

RE: Peace Airshed Zone Association (PAZA) – March 2013 Ambient Air Report

Enclosed is the PAZA Ambient Monitoring Network Report for the month of **March 2013**.

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
Barrick Energy Inc.	Sturgeon/Valleyview	02-02-069-22-W5	1633-02-00
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

Company	Facility	LSD	EPEA Approval Number
Canfor Forest Products	Gold Creek	13-26-067-05-W6	00010446-02-00
	Teepee Creek	SE-2-074-04-W6	00001635-02-00
	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
Encana Corporation	West Culp	05-34-078-25-W6	00136284-00-00
	Cecil	08-15-084-08-W6	00010032-02-00
	Sexsmith	04-08-075-07-W6	00010002-01-00
Enerplus Resources	Pouce Coupe	SW-06-069-21-W5	1464-02-03
Grande Prairie Generation Inc.	Northern Prairie Power Project	04-19-073-08-W6	00238762-00-00
Long Run Exploration	Eaglesham	01-25-076-01-W6	00241532-00-00
	Kakut	14-12-075-03-W6	00248469-00-00
	Donnelly	06-01-077-21-W5	00000087-02-00
	Puskwaskau	03-26-074-01-W6	00017524-01-00
Longview Oil Corp.	Sunset House	06-22-070-20-W5	138884-01-00
Penn West Petroleum Ltd.	Tangent	13-29-080-23-W5	00001746-02-00

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-Sunset House.

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

Henry Pirker Station:

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

Evergreen Park Station:

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

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 March.

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 March.

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 March.

Sunset House Station:

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

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 March.

Passive Monitoring - 46 Stations throughout the PAZA zone:

There were five duplicate sites sampled in the month of March: Steeprock Creek, Wanham, Crooked Creek, Peavine, and Girouxville 3. The passive sample analyses were performed by MAXXAM Analytics Inc.

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

- Monthly average concentrations for SO₂ passives ranged from 0.1 ppb to 0.6 ppb, with a mean of 0.3 ppb.
- Monthly average concentrations for NO₂ passives ranged from 0.1 ppb to 4.1 ppb, with a mean of 0.7 ppb.
- Monthly average concentrations for O₃ passives ranged from 35.9 ppb to 51.5 ppb, with a mean of 42.7 ppb.
- Monthly average concentrations for H₂S were between 0.1 And 0.2 pbb.

If you have any questions or concerns, please contact Shelly Pruden, PAZA Program Manager at 780.833.4343 or 780.882.4071.

On Behalf of the
Peace Airshed Zone Association



Shelly Pruden
Executive Director

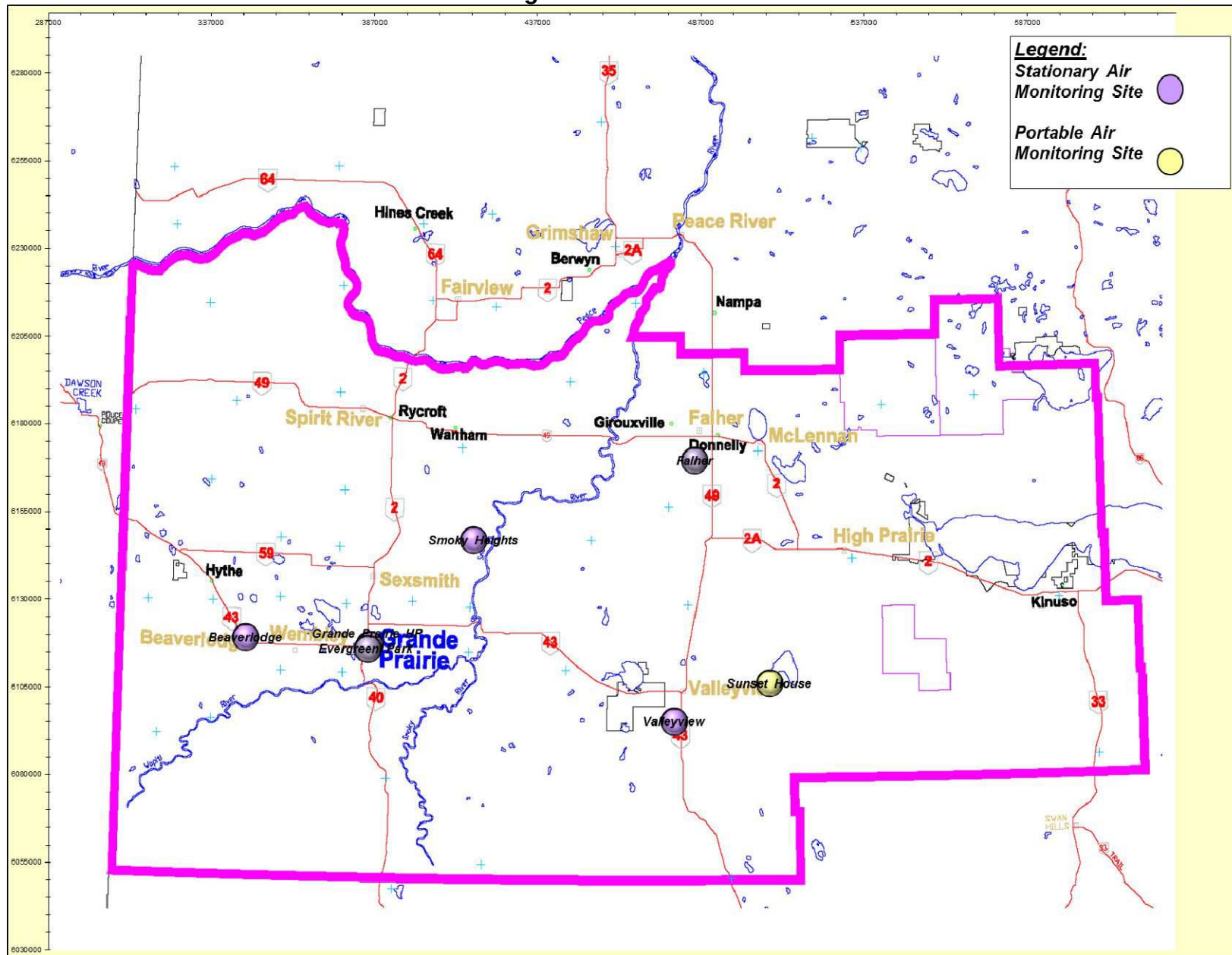


Patrick Andersen, B.Sc.
FOCUS AQM Data Specialist



Jeff Cooper, C.Tech.
AQM Operations Manager

Location of PAZA Continuous Monitoring Stations



PAZA Monthly Continuous Data Summary

Mar-2013 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	0.4	0	0	2.3	Mar-07 20:00	1.2	Mar-20	100%
SO ₂ (ppb)	172	48	Evergreen Park	0.3	0	0	1.5	Mar-03 13:00	0.7	Mar-20	100%
SO ₂ (ppb)	172	48	Smoky Heights	0.7	0	0	10.1	Mar-05 18:00	1.8	Mar-28	100%
SO ₂ (ppb)	172	48	Beaverlodge	0.5	0	0	4.5	Mar-16 19:00	1.3	Mar-20	100%
SO ₂ (ppb)	172	48	Valleyview	0.7	0	0	18.9	Mar-25 14:00	2.0	Mar-10	100%
SO ₂ (ppb)	172	48	Sunset House	0.5	0	0	5.9	Mar-23 10:00	1.5	Mar-05	100%
SO ₂ (ppb)	172	48	Falher	0.4	0	0	6.8	Mar-05 14:00	1.3	Mar-26	100%
NO (ppb)			Henry Pirker	4.2	0	0	87.9	Mar-19 11:00	13.2	Mar-19	100%
NO ₂ (ppb)	159	106	Henry Pirker	14.0	0	0	55.2	Mar-29 22:00	23.8	Mar-25	100%
NO _x (ppb)			Henry Pirker	18.3	0	0	134.3	Mar-19 11:00	34.3	Mar-19	100%
NO (ppb)			Beaverlodge	0.9	0	0	19.8	Mar-18 10:00	2.9	Mar-18	100%
NO ₂ (ppb)	159	106	Beaverlodge	4.4	0	0	25.2	Mar-28 06:00	7.7	Mar-25	100%
NO _x (ppb)			Beaverlodge	5.3	0	0	36.4	Mar-06 09:00	10.4	Mar-18	100%
NO (ppb)			Sunset House	0.2	0	0	4.1	Mar-16 12:00	0.6	Mar-16	100%
NO ₂ (ppb)	159	106	Sunset House	1.4	0	0	6.1	Mar-26 08:00	2.9	Mar-26	100%
NO _x (ppb)			Sunset House	1.6	0	0	7.0	Mar-26 09:00	3.3	Mar-26	100%
O ₃ (ppb)	82		Henry Pirker	29.6	0	-	60.9	Mar-29 18:00	41.9	Mar-31	90%
O ₃ (ppb) - 8-hr			Henry Pirker		0				53.7	Mar-29	
O ₃ (ppb)	82		Beaverlodge	42.0	0	-	62.0	Mar-25 16:00	57.4	Mar-29	98%
O ₃ (ppb) - 8-hr			Beaverlodge		0				59.8	Mar-29	
O ₃ (ppb)	82		Sunset House	44.9	0	-	66.8	Mar-29 19:00	60.4	Mar-30	100%
O ₃ (ppb) - 8-hr			Sunset House		0				65.0	Mar-29	
CO (ppm)	13		Henry Pirker	0.23	0	-	0.7	Mar-29 22:00	0.3	Mar-28	100%
CO (ppm) - 8-hr	5		Henry Pirker		0				0.5	Mar-09	

PAZA Monthly Continuous Data Summary – continued

Mar-2013Peace Airshed Zone Association							Maximum Recorded Values				
							1-hr		24-hr / 8-hr		
THC (ppm)			Henry Pirker	2.1	-	-	2.8	Mar-12 02:00	2.3	Mar-08	100%
CH4 (ppm)			Henry Pirker	2.0	-	-	2.8	Mar-12 02:00	2.3	Mar-08	100%
NMHC (ppm)			Henry Pirker	0.00	-	-	0.3	Mar-24 14:00	0.0	Mar-08	100%
TRS (ppb)			Henry Pirker	0.3	-	-	0.9	Mar-28 09:00	0.5	Mar-30	100%
TRS (ppb)			Evergreen Park	0.3	-	-	1.3	Mar-26 07:00	0.5	Mar-26	100%
TRS (ppb)			Smoky Heights	0.0	-	-	0.7	Mar-02 18:00	0.1	Mar-08	100%
TRS (ppb)			Sunset House	0.2	-	-	0.5	Mar-20 10:00	0.3	Mar-16	100%
H ₂ S (ppb)	10	3	Valleyview	0.1	0	0	4.2	Mar-10 11:00	0.5	Mar-11	100%
H ₂ S (ppb)	10	3	Falher	0.1	0	0	1.2	Mar-16 14:00	0.4	Mar-02	100%
PM2.5 (µg/m3)	80	30	Henry Pirker	6.9	0	0	46.7	Mar-09 00:00	18.0	Mar-08	100%
PM2.5 (µg/m3)	80	30	Evergreen Park	3.7	0	0	27.6	Mar-23 07:00	8.6	Mar-08	99%
PM2.5 (µg/m3)	80	30	Smoky Heights	4.2	0	0	55.5	Mar-06 00:00	8.3	Mar-29	100%
PM2.5 (µg/m3)	80	30	Beaverlodge	6.8	0	0	22.6	Mar-06 10:00	11.8	Mar-08	100%
PM2.5 (µg/m3)	80	30	Sunset House	2.2	0	0	13.2	Mar-12 18:00	6.9	Mar-06	100%
RH (%)			Henry Pirker	60.8	-	-	83.9	Mar-20 21:00	77.4	Mar-05	100%
RH (%)			Evergreen Park	64.9	-	-	92.1	Mar-20 21:00	81.8	Mar-06	100%
RH (%)			Beaverlodge	69.9	-	-	99.9	Mar-20 20:00	91.0	Mar-18	98%
RH (%)			Valleyview	61.7	-	-	94.8	Mar-03 01:00	79.8	Mar-06	100%
SR (W/m ²)			Henry Pirker	131.9	-	-	619.3	Mar-31 13:00	194.9	Mar-31	100%
Temp (°C)			Henry Pirker	-5.8	-	-	11.8	Mar-28 15:00	2.9	Mar-31	100%
Temp (°C)			Evergreen Park	-5.6	-	-	10.9	Mar-30 17:00	3.3	Mar-31	100%
Temp (°C)			Smoky Heights	-6.5	-	-	8.7	Mar-29 14:00	3.4	Mar-31	100%
Temp (°C)			Beaverlodge	-4.7	-	-	10.0	Mar-27 17:00	4.3	Mar-30	98%
Temp (°C)			Valleyview	-4.6	-	-	11.4	Mar-26 18:00	4.3	Mar-31	100%
Temp (°C)			Sunset House	-4.4	-	-	10.7	Mar-28 15:00	3.8	Mar-27	100%
Temp (°C)			Falher	-8.5	-	-	6.0	Mar-28 15:00	1.2	Mar-10	100%

PAZA Monthly Continuous Data Summary – continued

Mar-2013 Peace Airshed Zone Association							Maximum Recorded Values				
							1-hr		24-hr / 8-hr		
WSPD s (km/hr)			Henry Pirker	7.5	-	-	38.0	Mar-10 10:00	24.8	Mar-10	100%
WSPD s (km/hr)			Evergreen Park	10.3	-	-	68.0	Mar-10 10:00	40.3	Mar-10	100%
WSPD s (km/hr)			Smoky Heights	14.3	-	-	42.0	Mar-10 16:00	29.4	Mar-10	100%
WSPD s (km/hr)			Beaverlodge	9.0	-	-	50.0	Mar-10 11:00	37.1	Mar-10	100%
WSPD s (km/hr)			Valleyview	5.2	-	-	30.0	Mar-10 12:00	16.7	Mar-10	100%
WSPD s (km/hr)			Sunset House	10.8	-	-	34.0	Mar-19 22:00	19.1	Mar-10	100%
WSPD s (km/hr)			Falher	16.8	-	-	46.0	Mar-10 17:00	37.8	Mar-10	100%
WSPD v (km/hr)			Henry Pirker	2.7	-	-	37.0	Mar-10 10:00	24.3	Mar-10	100%
WSPD v (km/hr)			Evergreen Park	3.8	-	-	67.0	Mar-10 10:00	39.5	Mar-10	100%
WSPD v (km/hr)			Smoky Heights	5.4	-	-	42.0	Mar-10 16:00	29.1	Mar-10	100%
WSPD v (km/hr)			Beaverlodge	2.2	-	-	50.0	Mar-10 11:00	36.7	Mar-10	100%
WSPD v (km/hr)			Valleyview	2.2	-	-	29.0	Mar-10 12:00	15.8	Mar-10	100%
WSPD v (km/hr)			Sunset House	1.5	-	-	34.0	Mar-19 22:00	17.7	Mar-10	100%
WSPD v (km/hr)			Falher	2.2	-	-	46.0	Mar-10 17:00	36.8	Mar-10	100%
WDIR			Henry Pirker	NNW	-	-	-	-	-	-	100%
WDIR			Evergreen Park	NNW	-	-	-	-	-	-	100%
WDIR			Smoky Heights	NW	-	-	-	-	-	-	100%
WDIR			Beaverlodge	NNW	-	-	-	-	-	-	100%
WDIR			Valleyview	NNW	-	-	-	-	-	-	100%
WDIR			Sunset House	SSE	-	-	-	-	-	-	100%
WDIR			Falher	N	-	-	-	-	-	-	100%

Continuous Network Equipment Summary

PAZA – Henry Pirker Station

General Station Issues

Routine monthly calibrations were performed on March 12th (SO₂, NO_x), March 18th (O₃) and March 19th (CO, TRS).

Parameter	Make	Model	Notes
SO ₂	TEI	43C	No operational issues observed.
NOx/NO/NO ₂	TEI	42C	No operational issues observed.
O ₃	TEI	49C	Reference solenoid replaced on March 12 th , again on March 13 th . Analyzer replaced on March 15 th and calibrated March 18 th .
CO	TEI	48C	Sample pump seized on March 24 th , replaced March 25 th .
THC/CH ₄ /NMHC	TEI	55I	Span cylinder replaced on March 8 th and single point done.
TRS	TEI	45C/43C	No operational issues observed.
PM _{2.5}	Sharp	5030	No operational issues observed.
RH	Met One	083D	No operational issues observed.
ET	Met One	083D	No operational issues observed.
SR	Met One	096-1	No operational issues observed.
WS / WD	Met One	010C/020C	No operational issues observed.

PAZA – Evergreen Park Station

General Station Issues

Routine monthly calibration performed on March 21st (SO₂, TRS, PM_{2.5}).

Parameter	Make	Model	Notes
SO ₂	TEI	43i	No operational issues observed.
TRS	TEI	43C	No operational issues observed.
PM _{2.5}	R&P	1400AB	Analyzer instability resulted in seven (7) hours invalidated.
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 March 26th (SO₂ and TRS).

Parameter	Make	Model	Notes
SO ₂	TEI	43C	No operational issues observed.
TRS	TEI	43C	No operational issues observed.
PM _{2.5}	R&P	1400AB	Two hours were invalidated due to negative swings.
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 March 14th (SO₂, NO_x, O₃).

Parameter	Make	Model	Notes
SO ₂	TEI	43CTL	No operational issues observed.
NO _x /NO/NO ₂	TEI	42C	Brief analyzer failure caused loss of 1 hour of data.
O ₃	TEI	49C	Analyzer removed on March 14 th and replaced same day. Replacement analyzer had a loose connection, failing to collect valid data until repaired on March 15 th .
PM _{2.5}	R&P	1400AB	No operational issues observed.
ET	n/a	n/a	Loose electrical connection caused loss of data on March 7 th and 8 th and March 18 th and 19 th .
RH	n/a	n/a	Loose electrical connection caused loss of data on March 7 th and 8 th and March 18 th and 19 th .
WS / WD	Blue Sky	857	No operational issues observed.

PAZA – Valleyview Station

General Station Issues

Routine monthly calibrations were performed on March 28th (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 – Portable-Sunset House Station

General Station Issues

Routine monthly calibrations were performed on March 27th (SO₂, O₃, NO_x, TRS).

Parameter	Make	Model	Notes
SO ₂	TEI	43i	No operational issues observed.
O ₃	TEI	49C	No operational issues observed.
TRS	TEI	39C	No operational issues observed.
PM _{2.5}	R&P	1400AB	No operational issues observed.
ET	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 March 28th (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
Henry Pirker Station
Monthly Summary Tables, Graphs and
Roses

Hourly Averages

Sulphur Dioxide (SO₂) - ppb

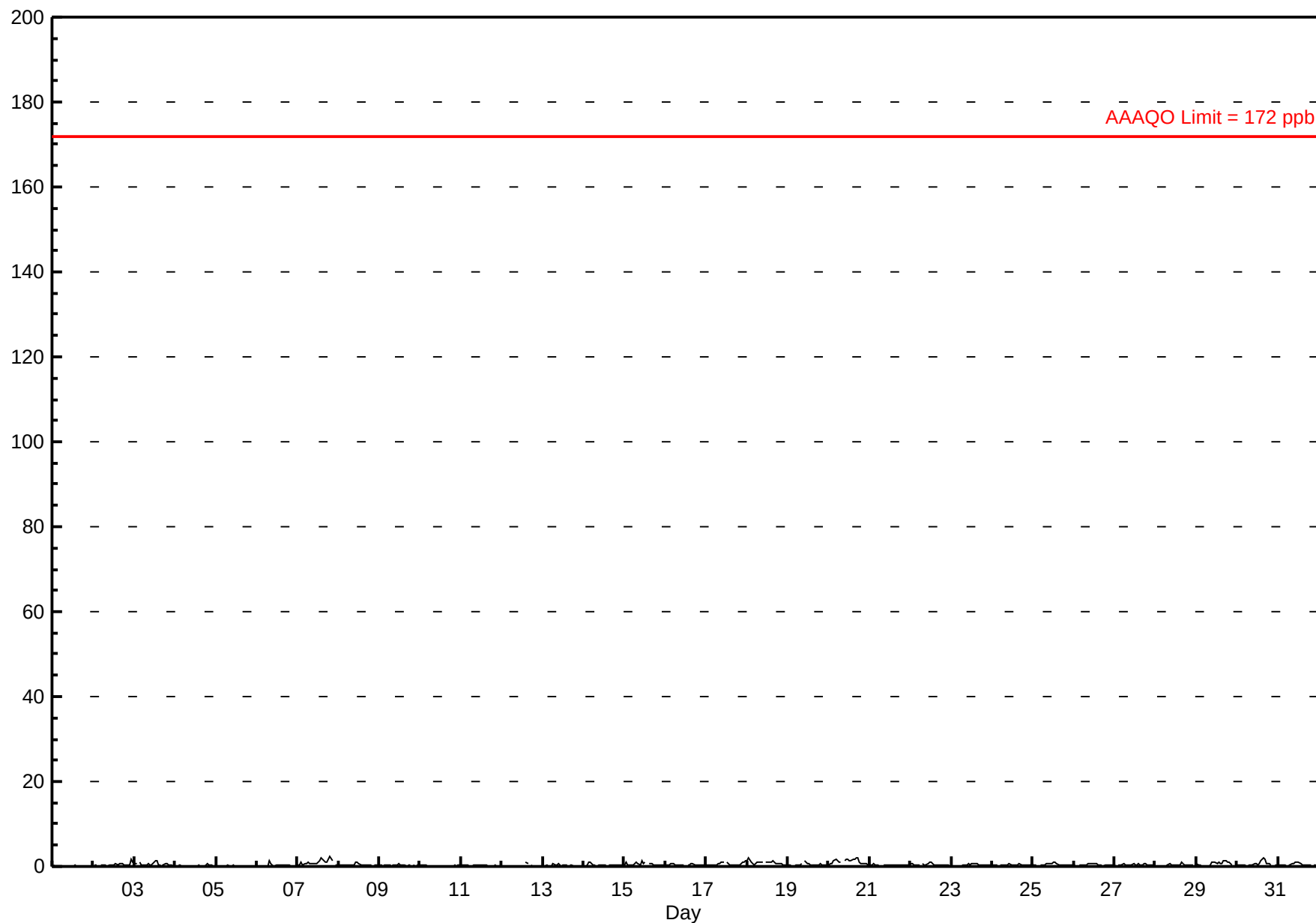
Henry Pirker - March 2013

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0																				Hours in Service: 744						
Maximum Value: 2.3 ppb on Mar 7 20:00																				Maximum Daily Average: 1.2 ppb on Mar 20		Hours of Data: 706				
Minimum Value: 0 ppb on Mar 1 06:00																				Minimum Daily Average: 0.0 ppb on Mar 5		Hours of Missing Data: 38				
Maximum Diurnal Average: 0.6 ppb at hour 13																				Minimum Diurnal Average: 0.3 ppb at hour 22		Hours of Calibration: 38				
Monthly Average: 0.42 ppb																				Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.2 Median = 0.3 Q ₃ = 0.5 P ₉₀ = 0.9 P ₉₉ = 1.8		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-Mar	0	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-Mar	0	0	0	A	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	2	1	0.5	1.8
3-Mar	1	1	A	1	0	0	0	0	1	0	0	1	1	1	0	0	0	0	1	1	1	0	0	0	0.5	1.4
4-Mar	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.2	0.7
5-Mar	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
6-Mar	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.3	1.4
7-Mar	0	0	1	0	1	1	1	1	1	1	1	1	1	1	2	1	1	1	2	2	1	A	0	0	1.0	2.3
8-Mar	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	A	0	0	0	0.4	1.1
9-Mar	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	A	0	0	0	0	0.3	0.5
10-Mar	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
11-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.2	0.4
12-Mar	0	0	0	0	0	0	0	0	0	C	C	C	C	C	1	1	A	0	0	0	0	0	0	0	0.1	0.9
13-Mar	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.2	0.7
14-Mar	0	0	0	1	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.3	1.0
15-Mar	0	1	0	0	0	0	1	1	1	1	1	1	1	A	1	1	1	0	0	0	0	0	0	0	0.6	1.2
16-Mar	0	0	0	1	1	1	0	0	0	0	0	0	A	0	0	1	1	0	0	0	0	0	0	0	0.4	0.7
17-Mar	0	0	0	0	0	0	0	1	1	1	1	1	A	1	1	0	0	0	0	0	0	1	1	1	0.6	1.2
18-Mar	1	2	1	1	0	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0	0	0	0.9	2.0
19-Mar	0	0	0	0	0	0	0	0	1	A	1	1	1	0	0	0	0	0	0	1	0	0	0	0	0.4	1.2
20-Mar	0	1	1	1	2	1	1	1	A	2	2	2	1	1	2	2	2	2	1	1	1	1	1	0	1.2	2.0
21-Mar	0	0	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5
22-Mar	1	1	0	0	0	0	A	1	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.5	0.9
23-Mar	0	0	0	0	0	A	0	0	0	0	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0.3	0.8
24-Mar	0	0	0	0	A	0	0	0	0	0	1	0	0	0	1	0	1	0	0	0	0	1	0	1	0.4	0.6
25-Mar	0	0	0	A	0	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0.4	0.9
26-Mar	0	0	A	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.4	0.7
27-Mar	0	A	0	0	0	1	0	1	0	0	0	1	0	0	1	0	0	1	1	0	0	0	0	0	0.4	0.8
28-Mar	A	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	A	0.3	0.9
29-Mar	1	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0	A	0	0.6	1.4
30-Mar	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1	2	2	1	1	1	0	A	0	0	0.6	1.9
31-Mar	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	A	0	0	0	0.4	1.0
0.3 0.4 0.3 0.3 0.3 0.3 0.3 0.4 0.4 0.5 0.6 0.6 0.6 0.6 0.6 0.6 0.5 0.5 0.5 0.4 0.4 0.3 0.3 0.3 0.3																								Diurnal Average		
1.2 2.0 1.0 1.4 1.8 1.4 1.2 1.4 1.1 1.5 1.7 1.7 1.5 1.4 2.1 1.9 1.9 2.0 1.8 2.3 1.2 1.1 1.8 1.2																								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

Henry Pirker - March 2013



Hourly Maximums

Sulphur Dioxide (SO₂) - ppb

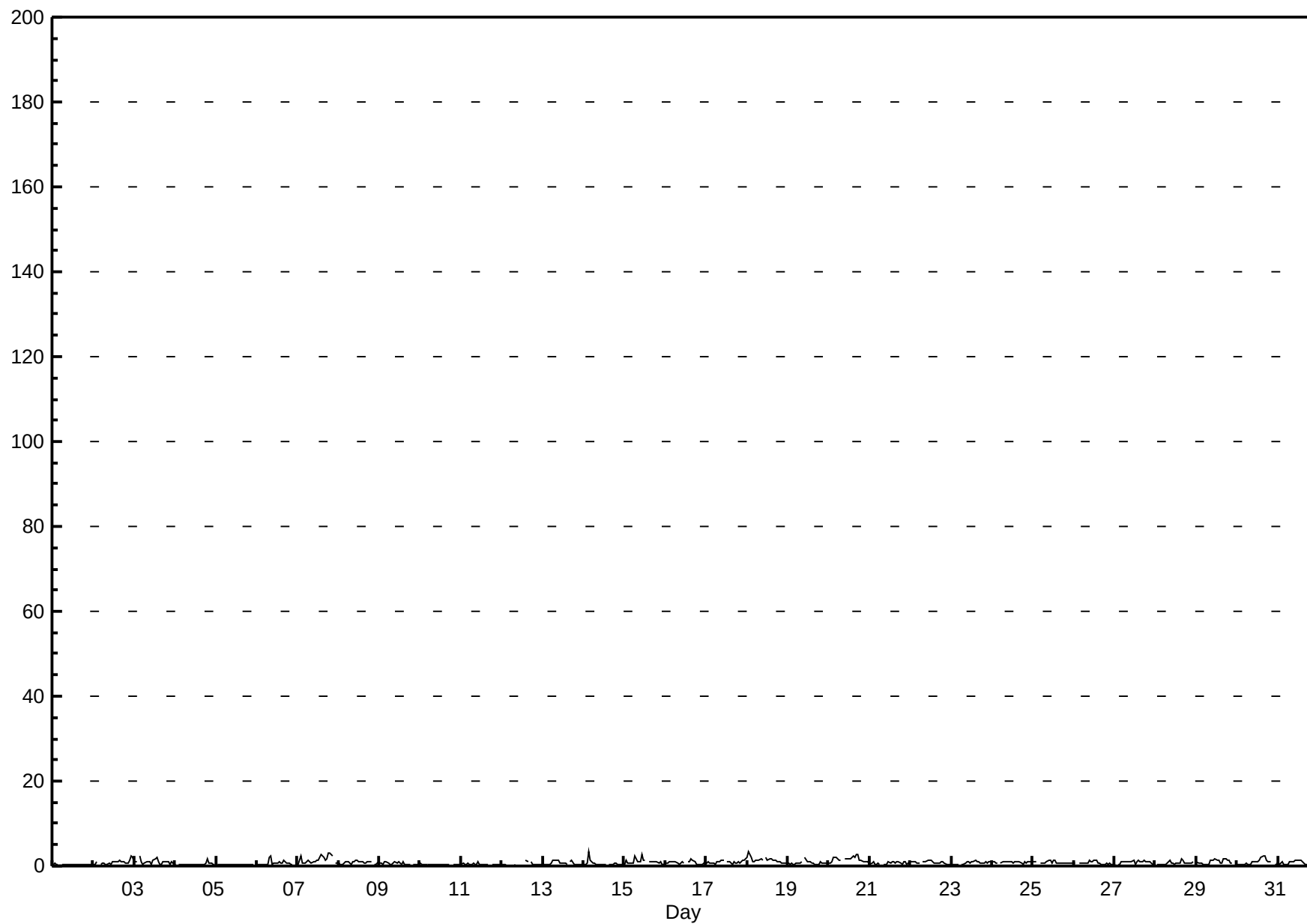
Henry Pirker - March 2013

Maximum Value: 3.4 ppb on Mar 18 02:00																				Maximum Daily Average: 1.6 ppb on Mar 20										Hours in Service: 744	
Minimum Value: 0 ppb on Mar 12 07:00																				Minimum Daily Average: 0.3 ppb on Mar 5										Hours of Data: 706	
Maximum Diurnal Average: 1.0 ppb at hour 15																				Minimum Diurnal Average: 0.6 ppb at hour 6										Hours of Missing Data: 38	
Monthly Average: 0.78 ppb																				Percentiles: P ₁ = 0.2 P ₁₀ = 0.3 Q ₁ = 0.4 Median = 0.7 Q ₃ = 0.9 P ₉₀ = 1.4 P ₉₉ = 2.9										Hours of Calibration: 38	
																				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-Mar	0	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.3	0.5					
2-Mar	0	0	1	A	0	1	1	0	0	1	0	1	1	1	1	1	1	1	1	1	1	1	2	2	0.9	2.4					
3-Mar	1	1	A	2	1	0	1	1	1	1	0	1	2	2	1	0	0	1	1	1	1	0	1	0	0.9	2.4					
4-Mar	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	1	1	0	0	0.5	1.7					
5-Mar	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.3	0.4					
6-Mar	0	0	0	0	0	0	0	2	2	0	1	1	1	1	1	1	1	1	1	1	0	0	A	0	0.7	2.3					
7-Mar	0	1	2	1	1	1	1	1	1	1	1	1	1	2	3	2	1	2	3	3	2	A	1	1	1.5	3.1					
8-Mar	1	0	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	A	0	0	1	0.8	1.4					
9-Mar	1	1	0	1	1	1	0	0	1	1	1	1	1	0	1	0	0	0	0	A	0	0	0	0	0.6	0.9					
10-Mar	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.4	0.5					
11-Mar	0	1	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0.5	0.9					
12-Mar	0	0	0	0	0	0	0	0	0	C	C	C	C	C	1	1	A	1	0	0	0	0	0	0	0.4	1.4					
13-Mar	0	0	0	0	0	1	1	1	1	1	1	1	1	1	0	A	1	1	0	0	0	0	0	0	0.6	1.3					
14-Mar	0	0	1	3	1	1	1	0	0	0	0	0	0	0	A	0	0	0	1	1	0	0	0	0	0.6	3.3					
15-Mar	0	1	1	1	1	1	2	2	1	1	3	1	1	A	1	1	1	1	1	1	1	1	0	0	1.1	2.9					
16-Mar	1	1	1	1	1	1	1	1	0	1	1	1	A	1	1	2	1	1	1	0	0	0	0	1	0.8	1.6					
17-Mar	1	1	1	1	1	0	1	1	1	1	1	1	A	1	1	0	1	1	1	1	1	1	1	2	0.9	1.6					
18-Mar	2	3	2	1	1	1	1	1	2	1	A	2	1	1	2	1	1	1	1	1	1	1	1	1	1.4	3.4					
19-Mar	1	0	1	0	0	1	1	1	1	A	2	1	1	1	1	1	0	0	0	1	1	1	1	1	0.7	2.0					
20-Mar	1	1	1	2	2	2	1	1	A	2	2	2	2	2	2	2	3	3	1	1	1	1	1	1	1.6	2.9					
21-Mar	0	1	1	0	0	1	0	A	0	0	0	1	1	1	1	1	1	1	1	0	1	1	0	1	0.7	0.9					
22-Mar	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0.8	1.4					
23-Mar	0	0	0	0	0	A	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.3					
24-Mar	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0.8	0.9					
25-Mar	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.3					
26-Mar	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	0	1	0	0	0.7	1.3					
27-Mar	1	A	0	0	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0	0	0.8	1.4					
28-Mar	A	0	0	0	0	0	0	1	1	1	1	0	1	1	1	2	1	1	1	1	1	1	1	A	0.7	1.7					
29-Mar	1	1	1	1	0	0	0	0	1	1	1	2	1	1	1	1	2	2	1	1	1	1	A	0	1.0	1.8					
30-Mar	0	0	0	0	0	1	0	0	0	1	1	1	1	1	2	2	2	1	1	1	1	A	0	0	0.9	2.4					
31-Mar	1	0	1	0	0	0	0	1	1	1	1	1	1	1	1	1	0	0	0	0	A	0	0	0	0.8	1.5					
0.6 0.7 0.7 0.7 0.6 0.6 0.7 0.7 0.8 0.9 1.0 1.0 0.9 1.0 1.0 0.9 0.9 0.9 0.7 0.8 0.7 0.6 0.6 0.6																									Diurnal Average						
2.1 3.4 2.3 3.3 2.0 1.8 2.3 2.1 2.3 1.9 2.9 1.9 1.9 1.9 2.9 2.4 2.9 2.9 2.9 3.1 2.4 1.4 2.4 2.2																									Diurnal Maximum						
C - Calibration																									A - Automated Daily Zero Span						

Hourly Maximums

Sulphur Dioxide (SO₂) - ppb

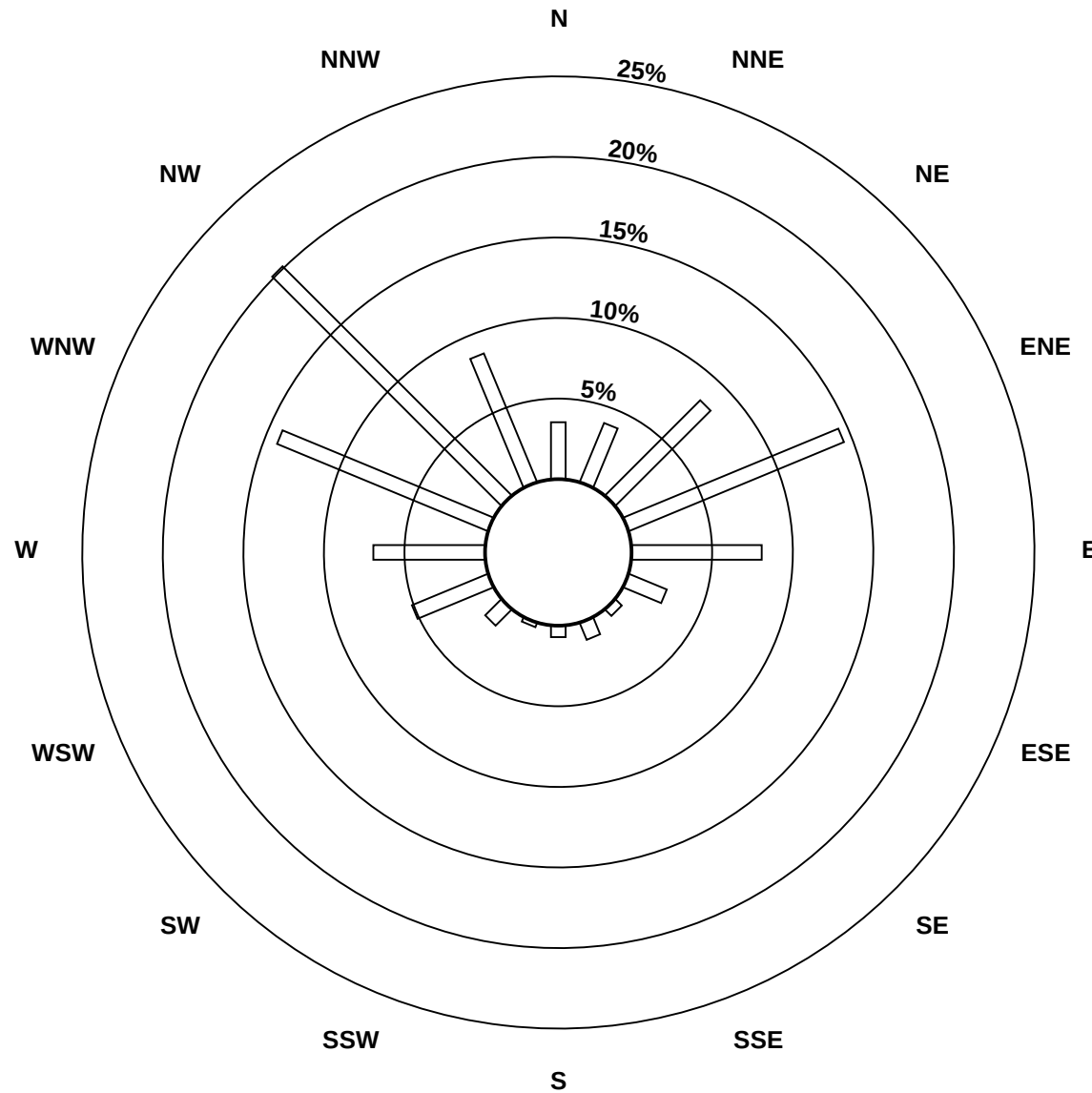
Henry Pirker - March 2013



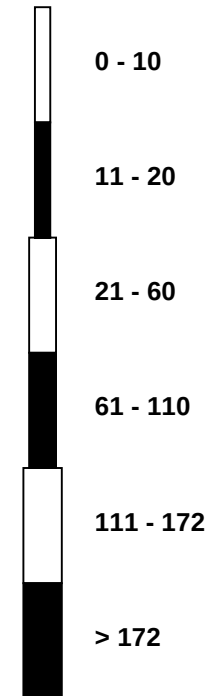
Pollutant Rose

Sulphur Dioxide (SO₂) - ppb

Henry Pirker - March 2013

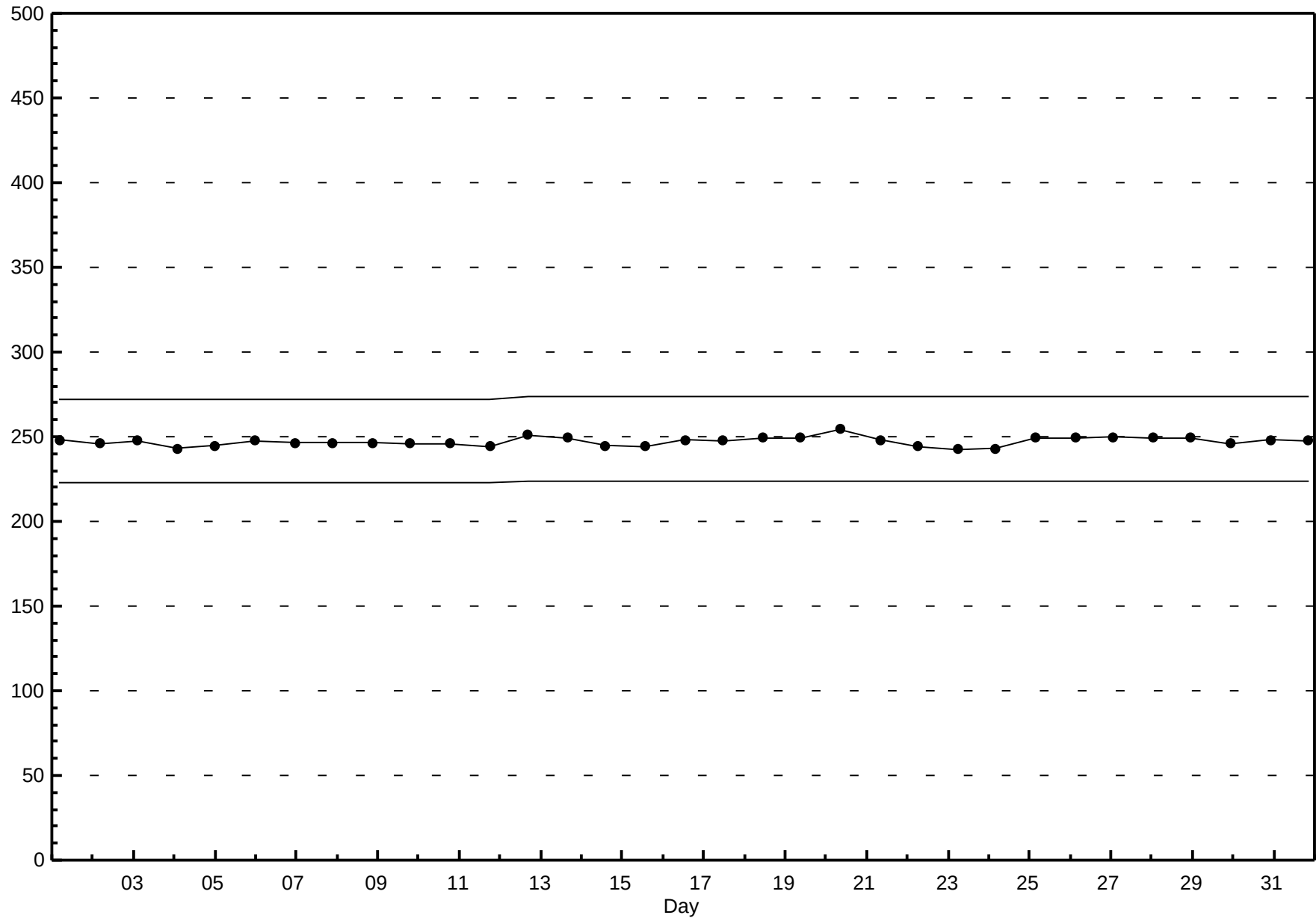


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Henry Pirker - March 2013



Hourly Averages

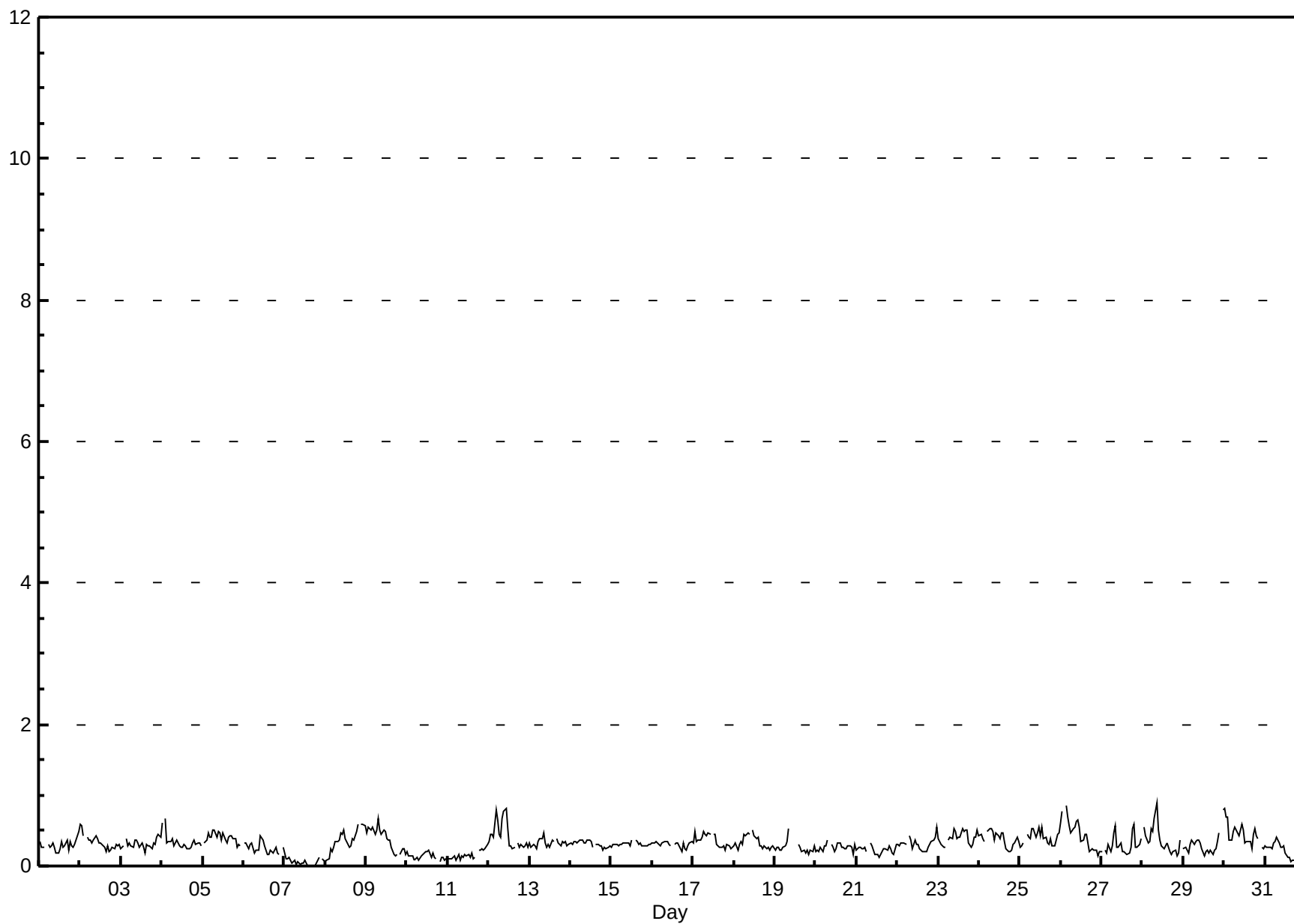
Total Reduced Sulphur (TRS) - ppb

Henry Pirker - March 2013

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0																				Hours in Service: 744						
Maximum Value: 0.9 ppb on Mar 28 09:00																				Maximum Daily Average: 0.5 ppb on Mar 30		Hours of Data: 707				
Minimum Value: 0 ppb on Mar 7 15:00																				Minimum Daily Average: 0.1 ppb on Mar 7		Hours of Missing Data: 37				
Maximum Diurnal Average: 0.4 ppb at hour 9																				Minimum Diurnal Average: 0.2 ppb at hour 18		Hours of Calibration: 37				
Monthly Average: 0.31 ppb																				Percentiles: P ₁ = 0.0 P ₁₀ = 0.2 Q ₁ = 0.2 Median = 0.3 Q ₃ = 0.4 P ₉₀ = 0.5 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-Mar	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
2-Mar	1	1		A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
3-Mar	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
4-Mar	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
5-Mar	A	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.4	0.5
6-Mar	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
7-Mar	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
8-Mar	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	A	1	1	0.4	0.6
9-Mar	0	1	1	1	1	0	1	1	1	0	1	0	0	0	0	0	0	0	0	1	A	0	0	0	0.4	0.7
10-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.1	0.2
11-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.2	0.3
12-Mar	0	0	0	0	1	1	0	0	1	1	1	1	0	0	0	0	A	0	0	0	0	0	0	0	0.4	0.8
13-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.3	0.5
14-Mar	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
15-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.3	0.4
16-Mar	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
17-Mar	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5
18-Mar	0	0	0	0	0	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
19-Mar	0	0	0	0	0	0	0	0	1	A	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0.3	0.5
20-Mar	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
21-Mar	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
22-Mar	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.3	0.5
23-Mar	0	0	0	0	0	A	0	0	0	1	0	0	0	0	1	0	1	1	0	0	0	0	0	1	0.4	0.5
24-Mar	0	0	0	0	A	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5
25-Mar	0	0	0	A	0	0	0	1	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0.4	0.5
26-Mar	1	1	A	1	1	1	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.9
27-Mar	0	A	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0.3	0.6
28-Mar	A	1	0	0	0	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.4	0.9
29-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	0.3	0.8
30-Mar	1	1	1	0	0	0	1	1	0	0	1	1	0	0	0	0	0	0	1	0	0	A	0	0	0.5	0.8
31-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	0.4
0.3 0.3 0.3 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 0.2 0.3 0.3 0.3 0.3 0.3																								Diurnal Average		
0.8 0.8 0.7 0.9 0.8 0.7 0.6 0.7 0.9 0.8 0.8 0.6 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.6 0.4 0.6 0.6 0.8																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb																										

Hourly Averages

Total Reduced Sulphur (TRS) - ppb
Henry Pirker - March 2013



Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

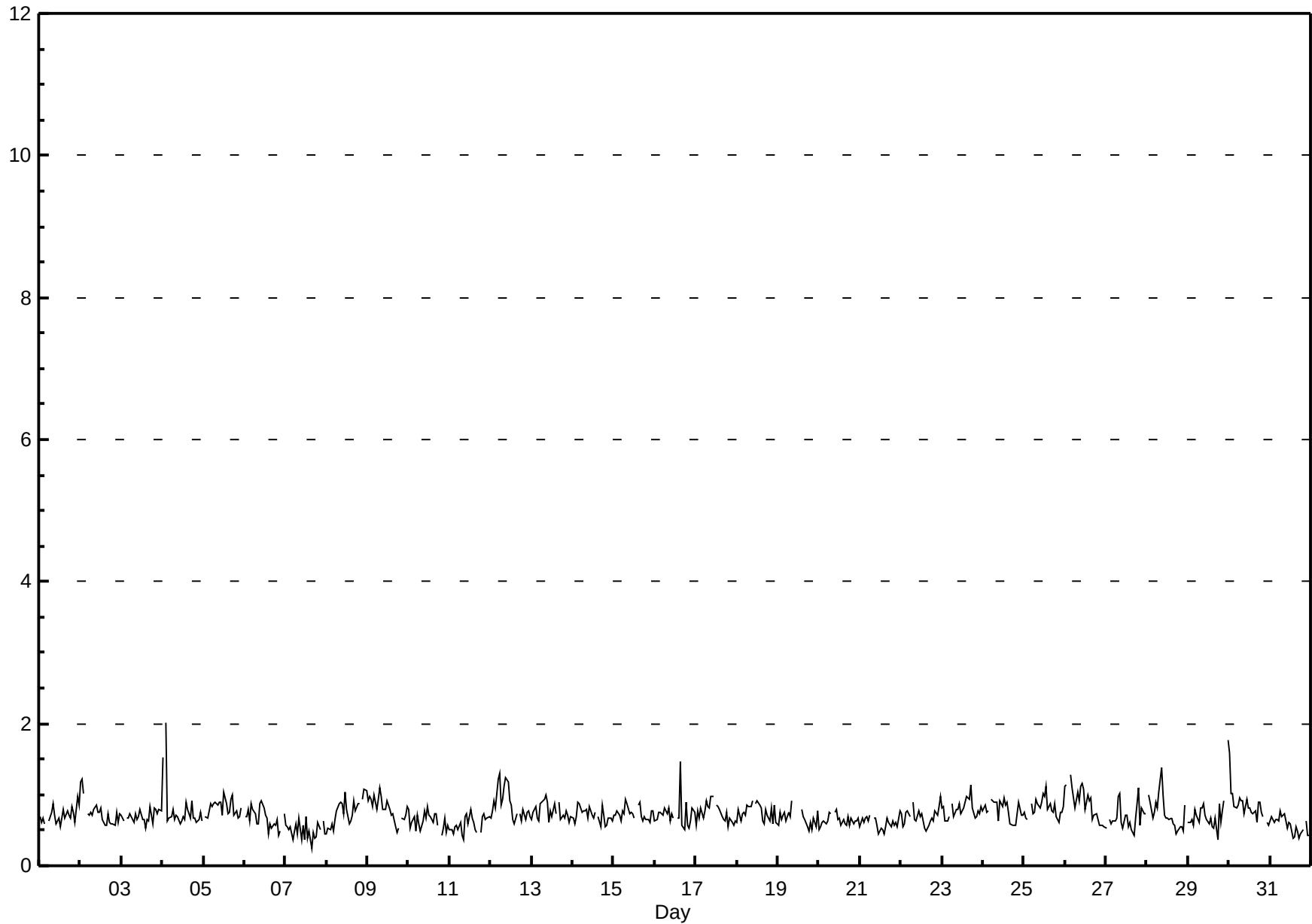
Henry Pirker - March 2013

Maximum Value: 2.0 ppb on Mar 4 03:00																				Maximum Daily Average: 0.9 ppb on Mar 26										Hours in Service: 744									
Minimum Value: 0 ppb on Mar 7 16:00																				Minimum Daily Average: 0.5 ppb on Mar 7										Hours of Data: 707									
Maximum Diurnal Average: 0.8 ppb at hour 9																				Minimum Diurnal Average: 0.6 ppb at hour 21										Hours of Missing Data: 37									
Monthly Average: 0.72 ppb																				Percentiles: P ₁ = 0.4 P ₁₀ = 0.5 Q ₁ = 0.6 Median = 0.7 Q ₃ = 0.8 P ₉₀ = 0.9 P ₉₉ = 1.3										Hours of Calibration: 37									
																				Percent Operational Time: 100.0																			
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24															
1-Mar	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0													
2-Mar	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.2													
3-Mar	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.8													
4-Mar	2	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	2.0													
5-Mar	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.8	1.0													
6-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0	0	A	1	0.7	0.9													
7-Mar	1	1	0	1	0	0	1	0	1	0	1	0	1	0	0	0	0	0	0	1	1	A	1	0	0.5	0.7													
8-Mar	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.8	1.1													
9-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	A	1	1	1	1	1	0.8	1.1													
10-Mar	1	1	1	1	0	1	1	0	1	1	1	1	1	1	1	1	1	1	A	0	1	1	0	1	0.6	0.8													
11-Mar	1	1	0	1	1	1	1	0	0	1	1	1	1	1	1	1	0	A	0	1	1	1	1	1	0.6	0.8													
12-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.9	1.3													
13-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0.8	1.0													
14-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.7	0.9													
15-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.7	0.9													
16-Mar	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.7	1.5													
17-Mar	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0													
18-Mar	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.8	0.9													
19-Mar	1	1	1	1	1	1	1	1	1	A	C	C	C	C	1	1	1	1	0	1	1	1	1	1	0.7	0.9													
20-Mar	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.8													
21-Mar	1	1	1	1	1	1	1	A	1	1	1	0	1	1	0	1	1	1	1	1	1	1	1	1	0.6	0.8													
22-Mar	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0.7	1.0													
23-Mar	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1													
24-Mar	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	0.9													
25-Mar	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1													
26-Mar	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	1.3													
27-Mar	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0.7	1.1													
28-Mar	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	0	1	A	0.7	1.4													
29-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	A	2	0.7	1.8													
30-Mar	2	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	1.6													
31-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	0	0	0	1	A	1	0	0	0.6	0.8													
0.7 0.7 0.7 0.7 0.7 0.7 0.8 0.8 0.8 0.8 0.8 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.6 0.7 0.7 0.8																									Diurnal Average														
1.6 1.2 2.0 1.3 1.2 1.3 0.9 1.1 1.4 1.2 1.2 1.1 1.0 1.1 1.0 1.5 0.9 1.1 0.9 1.1 0.8 0.9 1.1 1.8																									Diurnal Maximum														
C - Calibration																									A - Automated Daily Zero Span														

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

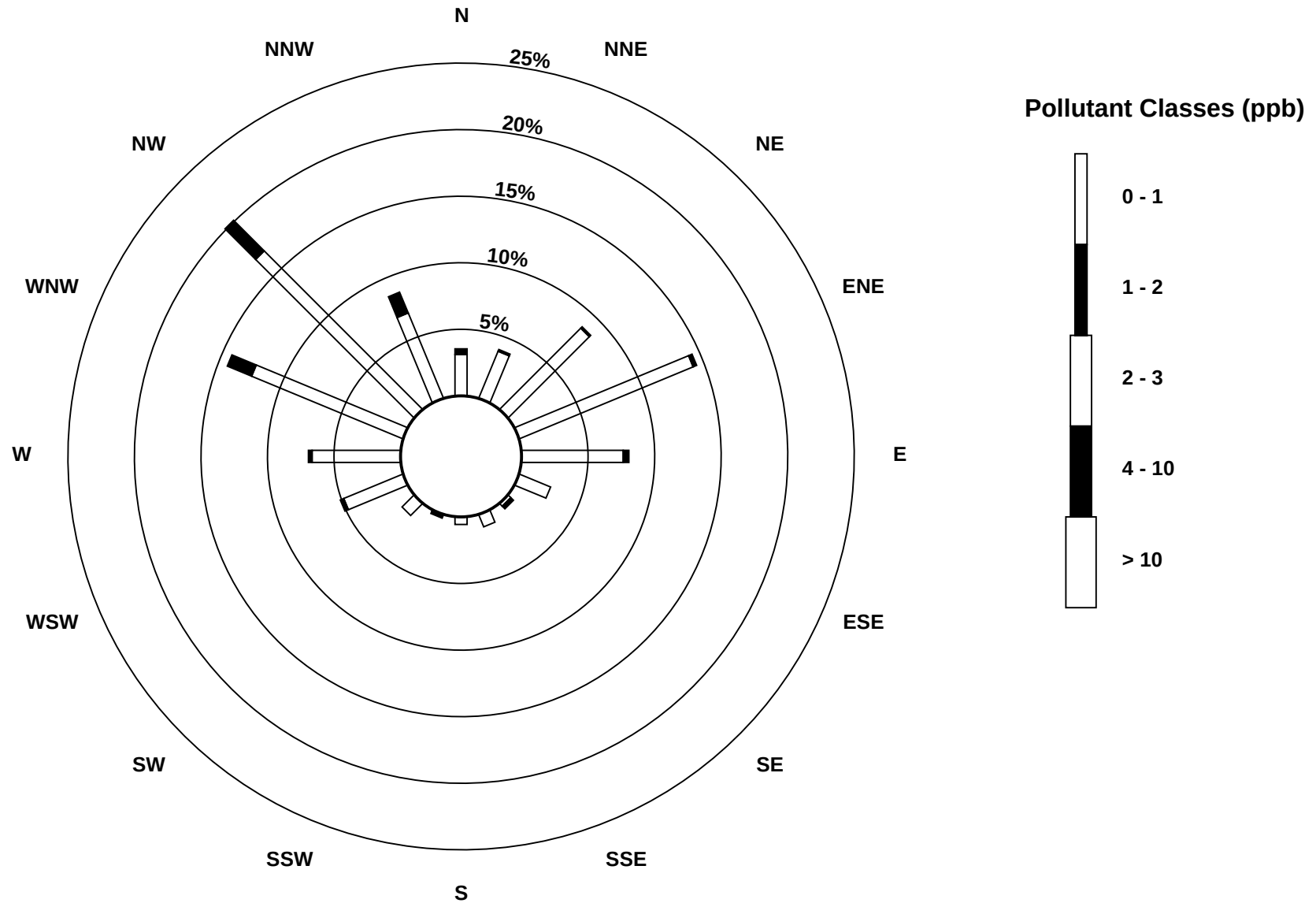
Henry Pirker - March 2013



Pollutant Rose

Total Reduced Sulphur (TRS) - ppb

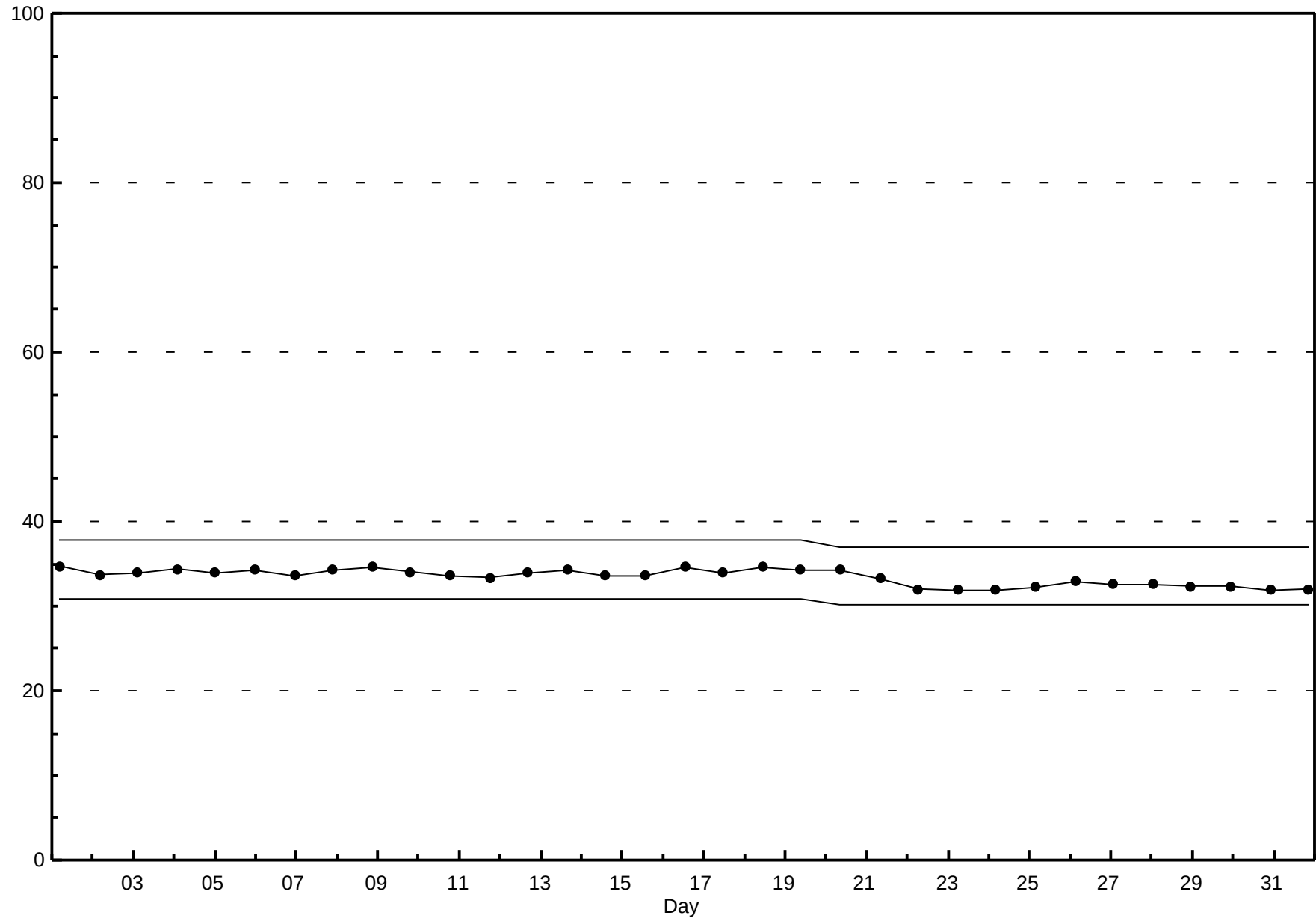
Henry Pirker - March 2013



Span Responses

Total Reduced Sulphur (TRS)

Henry Pirker - March 2013



Hourly Averages

Nitrogen Dioxide (NO₂) - ppb

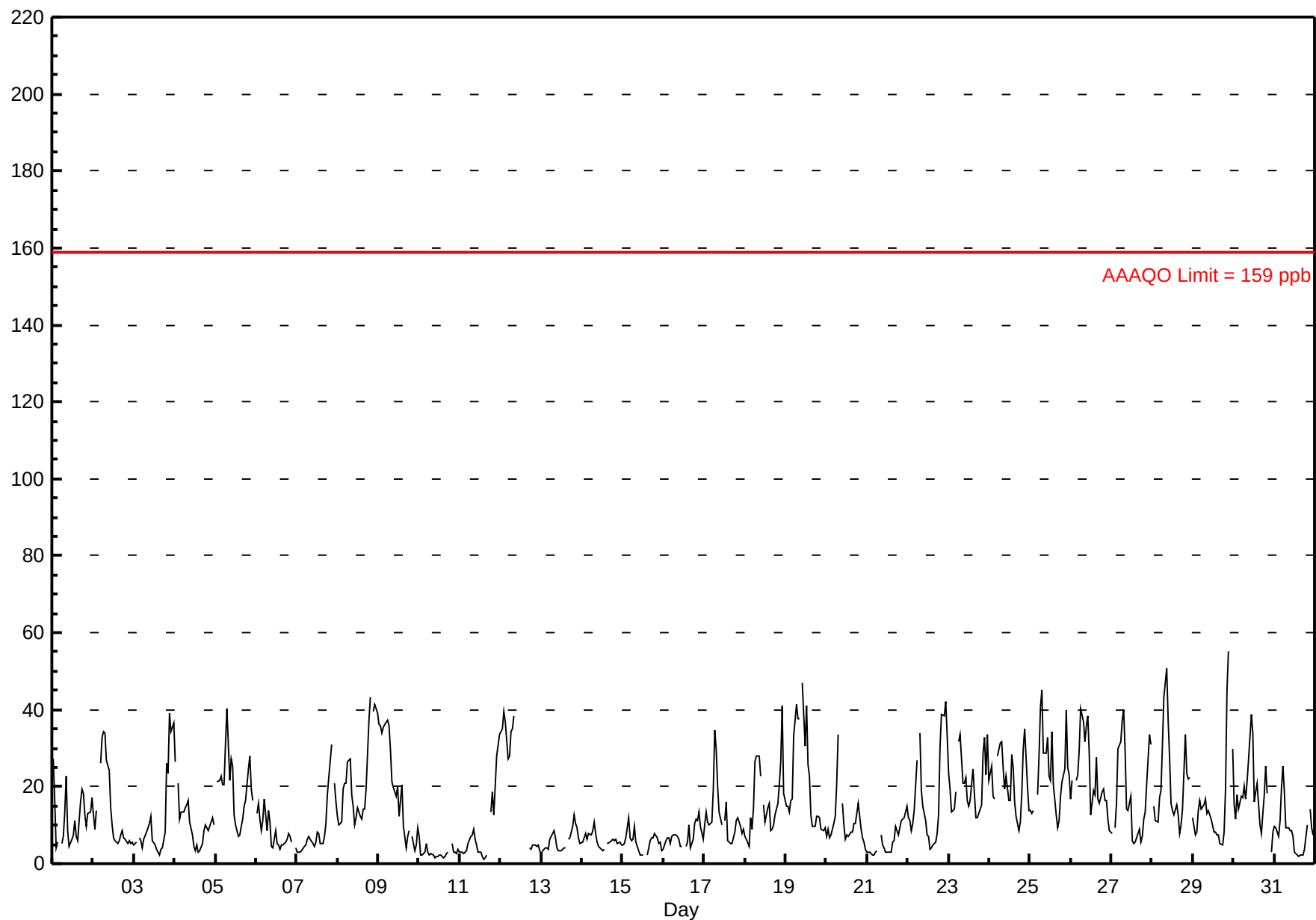
Henry Pirker - March 2013

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 55.2 ppb on Mar 29 22:00 Maximum Daily Average: 23.8 ppb on Mar 25																					Hours in Service: 744 Hours of Data: 704 Hours of Missing Data: 40 Hours of Calibration: 40 Percent Operational Time: 100.0						
Minimum Value: 1 ppb on Mar 11 15:00 Maximum Diurnal Average: 23.5 ppb at hour 8 Monthly Average: 14.00 ppb										Minimum Daily Average: 2.8 ppb on Mar 10 Minimum Diurnal Average: 7.6 ppb at hour 17 Percentiles: P ₁ = 1.8 P ₁₀ = 3.5 Q ₁ = 6.0 Median = 10.9 Q ₃ = 19.3 P ₉₀ = 31.4 P ₉₉ = 43.1																	
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-Mar	27	17	4	5	A	5	7	13	23	9	4	7	7	11	7	6	16	19	18	13	10	13	13	17	11.9	27.2	
2-Mar	13	9	14	A	26	33	34	34	27	24	15	10	7	6	5	6	7	9	7	6	5	6	5	6	13.6	34.1	
3-Mar	5	6	A	7	6	4	6	8	9	10	12	6	5	4	3	2	4	4	8	26	23	39	34	36	11.7	39.1	
4-Mar	27	A	21	12	13	13	15	15	16	11	7	5	3	5	3	3	5	9	10	9	9	11	12	10	10.6	26.5	
5-Mar	A	21	22	23	21	20	31	40	22	27	25	13	10	7	7	10	11	15	16	25	28	19	17	A	19.6	40.3	
6-Mar	13	16	11	8	11	17	9	14	11	5	4	8	5	5	4	5	5	5	7	8	7	6	A	4	8.2	16.8	
7-Mar	3	3	3	3	4	5	6	7	6	5	5	6	8	8	5	5	7	10	18	22	31	A	21	16	9.1	31.0	
8-Mar	12	10	11	19	21	21	27	27	18	15	10	12	14	12	12	14	14	20	37	43	A	39	41	39	21.3	43.1	
9-Mar	36	36	34	35	36	37	36	30	21	20	18	20	12	16	20	10	4	7	9	A	7	3	5	9	20.1	37.3	
10-Mar	7	2	2	3	5	3	2	3	2	2	2	2	2	2	2	2	2	3	A	5	3	3	2	4	2.8	7.0	
11-Mar	3	3	3	3	3	5	7	8	9	6	5	3	3	2	1	1	2	A	13	19	13	20	28	33	8.4	33.4	
12-Mar	34	35	39	37	27	28	34	35	39	C	C	C	C	C	C	C	C	C	4	4	5	5	4	5	3	--	39.4
13-Mar	2	3	4	4	4	6	7	8	7	4	4	3	3	4	4	A	6	7	10	13	10	9	7	5	5.9	12.7	
14-Mar	5	7	8	6	8	7	8	11	8	6	4	4	3	4	A	5	6	6	6	6	6	5	6	5	6.1	10.9	
15-Mar	5	5	7	12	7	6	6	10	6	3	2	2	2	A	2	4	6	7	7	8	7	5	6	3	5.5	12.0	
16-Mar	4	6	7	7	5	7	7	7	7	6	4	5	A	4	6	10	4	6	10	11	11	13	10	6	7.2	13.3	
17-Mar	10	14	11	10	11	20	35	30	20	13	10	A	11	16	6	5	5	7	8	11	12	10	8	9	12.7	34.7	
18-Mar	7	6	5	12	9	14	26	28	28	23	A	15	11	15	16	9	9	10	13	16	20	26	41	18	16.4	40.9	
19-Mar	15	15	13	17	17	33	41	38	38	A	47	31	41	26	23	13	10	10	12	12	12	9	9	9	21.3	46.8	
20-Mar	7	9	7	8	11	12	21	33	A	16	10	6	7	7	8	8	11	10	13	16	9	7	6	4	10.6	33.4	
21-Mar	3	3	3	2	2	3	3	A	7	5	4	3	3	3	3	6	6	10	8	9	11	12	12	15	5.9	15.0	
22-Mar	12	11	9	11	14	27	A	34	19	15	11	8	7	4	4	5	5	8	13	30	39	38	42	33	17.3	42.0	
23-Mar	23	20	13	14	19	A	32	34	21	21	22	17	15	16	25	18	12	12	13	15	29	33	23	34	20.8	33.7	
24-Mar	22	25	17	17	A	28	31	32	25	19	23	16	16	28	25	16	12	9	11	18	30	35	20	14	21.3	35.1	
25-Mar	14	13	14	A	18	28	41	45	29	29	33	23	22	34	21	13	9	11	17	21	25	40	25	23	23.8	45.2	
26-Mar	17	22	A	22	23	29	40	37	32	36	38	29	13	19	18	27	17	16	19	19	16	17	12	9	22.8	40.4	
27-Mar	8	A	9	16	30	32	37	40	30	14	14	17	6	5	6	7	9	6	7	12	14	20	34	31	17.4	39.8	
28-Mar	A	15	11	11	17	19	31	43	51	37	28	16	14	13	15	13	8	10	14	34	24	22	22	A	21.2	50.7	
29-Mar	12	8	8	14	16	14	15	17	13	14	13	11	8	8	7	8	5	5	8	19	45	55	A	30	15.4	55.2	
30-Mar	15	12	18	14	18	17	20	17	21	27	39	34	16	19	21	10	8	13	18	26	18	A	3	8	17.9	38.8	
31-Mar	10	9	7	11	20	25	19	9	9	9	8	7	3	2	2	2	2	2	4	10	A	14	9	7	8.8	25.4	
12.8 12.4 11.5 12.5 14.5 17.3 21.2 23.5 19.1 14.8 14.5 11.6 9.6 10.6 9.7 8.4 7.6 9.0 11.9 16.3 16.5 18.4 16.4 15.2																								Diurnal Average			
36.3 36.0 39.4 37.1 36.0 37.3 41.5 45.2 50.7 37.4 46.8 33.8 40.9 34.5 25.0 27.5 17.0 19.5 37.4 43.1 44.9 55.2 42.0 39.2																								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

Henry Pirker - March 2013



Hourly Maximums

Nitrogen Dioxide (NO₂) - ppb

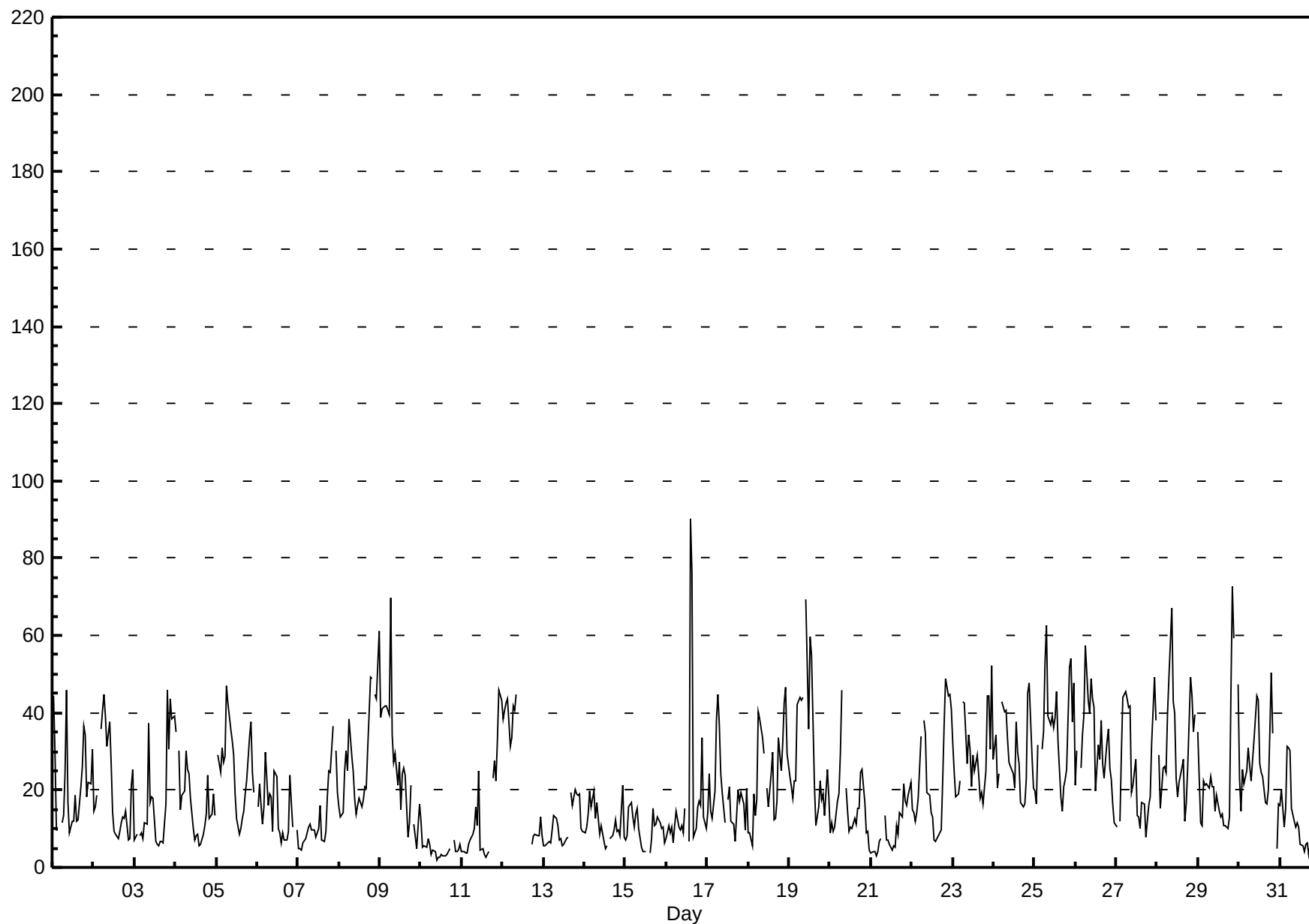
Henry Pirker - March 2013

Maximum Value: 90.2 ppb on Mar 16 15:00																				Maximum Daily Average: 35.2 ppb on Mar 25					Hours in Service: 744	
Minimum Value: 2 ppb on Mar 10 10:00																				Minimum Daily Average: 4.7 ppb on Mar 10					Hours of Data: 704	
Maximum Diurnal Average: 30.3 ppb at hour 7																				Minimum Diurnal Average: 12.2 ppb at hour 17					Hours of Missing Data: 40	
Monthly Average: 20.82 ppb																				Percentiles: P ₁ = 3.3 P ₁₀ = 6.3 Q ₁ = 10.0 Median = 17.3 Q ₃ = 29.2 P ₉₀ = 41.7 P ₉₉ = 60.0					Hours of Calibration: 40	
																									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-Mar	44	30	10	10	A	12	13	24	46	17	9	12	12	19	12	12	21	26	37	34	18	22	22	30	21.4	45.7
2-Mar	15	16	19	A	36	41	45	39	31	38	27	14	9	9	8	9	11	13	13	14	7	8	21	25	20.3	44.6
3-Mar	7	9	A	8	9	8	12	11	37	17	18	18	7	6	6	7	7	6	17	46	30	44	38	39	17.6	45.8
4-Mar	35	A	30	15	19	20	30	25	24	18	10	7	8	9	6	6	9	11	14	24	13	14	19	14	16.4	35.1
5-Mar	A	29	25	31	27	29	47	43	36	33	29	19	13	9	10	13	15	19	22	34	38	25	19	A	25.5	47.0
6-Mar	16	22	16	11	16	30	16	19	18	9	25	24	10	9	6	9	7	7	9	24	17	10	A	10	14.7	29.7
7-Mar	5	5	5	6	8	9	11	11	10	10	8	9	10	16	7	7	9	18	25	25	37	A	30	20	13.0	36.6
8-Mar	16	13	14	25	30	25	38	29	25	18	14	16	18	15	18	21	21	31	49	49	A	45	44	61	27.5	61.3
9-Mar	39	41	41	42	42	39	70	34	27	30	21	27	15	24	26	24	8	12	21	A	11	5	11	17	27.2	69.7
10-Mar	12	5	6	5	8	6	4	4	4	2	2	3	3	3	3	3	4	5	A	7	4	4	4	6	4.7	12.0
11-Mar	4	4	4	4	6	7	9	10	16	11	25	5	5	3	3	3	4	A	23	27	22	33	46	43	13.8	45.7
12-Mar	39	41	43	44	31	33	42	40	45	C	C	C	C	C	C	C	C	6	8	9	8	8	13	8	--	44.7
13-Mar	6	5	6	7	6	10	13	13	11	7	7	6	6	7	8	A	19	16	20	19	19	19	10	10	10.9	20.1
14-Mar	9	10	14	20	16	20	13	17	13	8	11	7	5	6	A	7	8	10	12	9	10	8	21	8	11.3	21.2
15-Mar	7	8	16	17	13	10	14	15	10	5	4	4	4	A	4	7	15	11	11	13	11	10	11	6	9.9	16.7
16-Mar	8	11	9	11	7	11	15	11	10	11	9	15	A	7	90	76	8	10	16	17	16	34	13	10	18.3	90.2
17-Mar	14	24	14	13	20	38	45	37	24	20	11	A	18	21	12	11	7	13	20	17	19	17	10	20	19.4	44.7
18-Mar	9	9	6	19	14	17	40	38	34	29	A	21	16	24	30	12	13	17	34	25	32	43	46	29	24.2	46.4
19-Mar	23	21	18	22	22	42	44	43	44	A	69	36	60	55	38	21	11	16	22	18	19	13	25	18	30.5	69.3
20-Mar	9	11	9	10	17	19	30	46	A	20	15	9	10	10	13	11	15	15	25	25	17	9	9	5	15.7	45.8
21-Mar	4	4	4	3	4	7	8	A	13	7	7	6	5	6	5	11	9	14	13	21	17	16	19	22	9.7	22.1
22-Mar	15	14	12	14	18	34	A	38	35	19	18	14	13	7	7	8	9	10	22	37	49	45	45	41	22.7	48.7
23-Mar	32	25	18	19	22	A	43	42	27	34	31	21	29	25	29	24	18	19	16	25	44	44	31	52	29.2	52.4
24-Mar	28	34	20	24	A	43	40	41	33	27	26	24	20	38	30	27	17	16	16	23	45	48	29	20	29.1	47.6
25-Mar	20	16	32	A	31	35	53	63	39	37	39	36	39	45	33	18	14	21	23	25	52	54	38	48	35.2	62.6
26-Mar	21	30	A	26	34	39	58	43	40	49	44	41	20	32	28	38	27	23	32	36	26	23	16	11	32.1	57.6
27-Mar	10	A	12	29	44	45	43	42	42	20	21	28	13	13	10	17	17	8	12	16	18	32	49	38	25.2	49.3
28-Mar	A	29	15	26	26	25	39	49	67	43	40	23	18	22	26	28	12	16	26	49	44	35	40	A	31.7	67.2
29-Mar	35	11	11	22	21	22	21	23	21	21	14	18	14	13	14	11	11	10	13	45	73	59	A	47	24.0	72.8
30-Mar	23	14	25	22	25	31	27	22	27	33	44	43	27	25	23	17	16	20	35	50	35	A	5	16	26.4	50.5
31-Mar	16	20	10	15	31	31	30	15	12	10	11	10	6	5	4	6	6	3	6	18	A	25	14	10	13.8	31.2
17.9 17.7 16.0 17.9 20.7 24.5 30.3 29.7 27.3 20.8 21.1 17.8 14.9 16.6 17.4 16.1 12.2 14.1 20.4 26.0 25.9 25.8 24.1 23.6																								Diurnal Average		
44.4 41.1 42.6 43.8 43.9 45.4 69.7 62.6 67.2 48.8 69.3 43.3 59.6 54.8 90.2 76.3 26.8 30.6 49.1 50.5 72.8 59.4 49.3 61.3																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										

Hourly Maximums

Nitrogen Dioxide (NO₂) - ppb

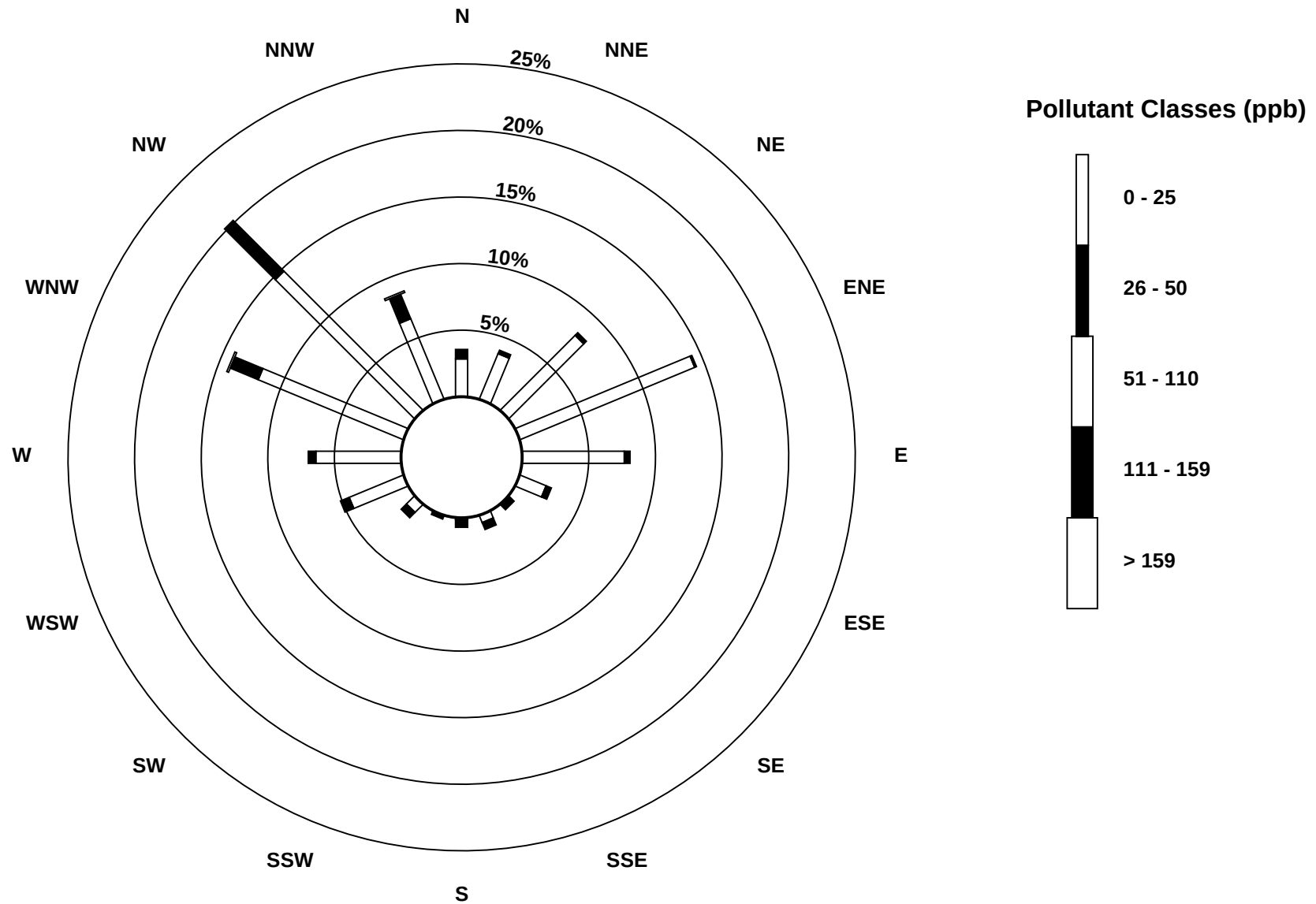
Henry Pirker - March 2013



Pollutant Rose

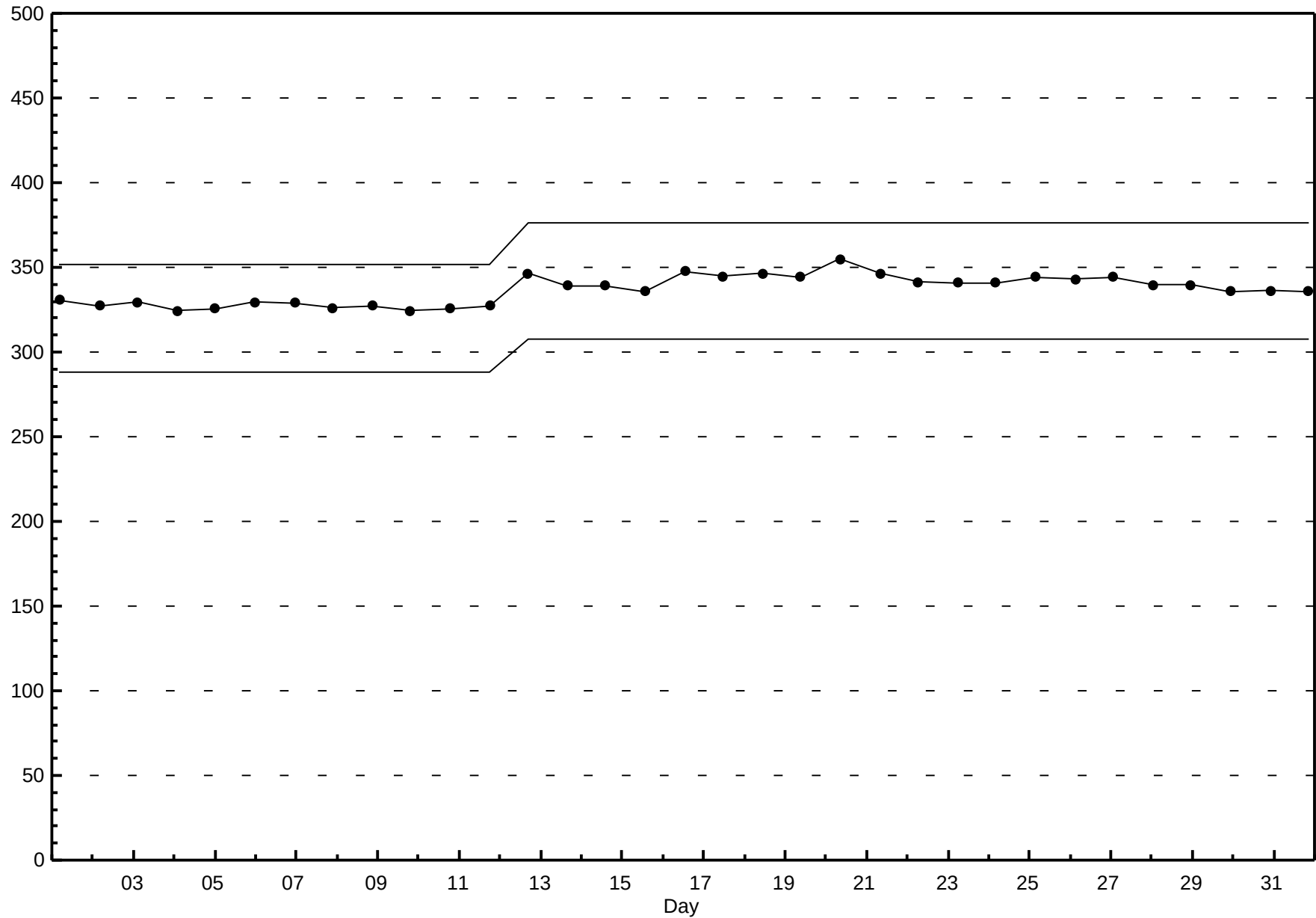
Nitrogen Dioxide (NO₂) - ppb

Henry Pirker - March 2013



Span Responses

Nitrogen Dioxide (NO₂)
Henry Pirker - March 2013



Hourly Averages

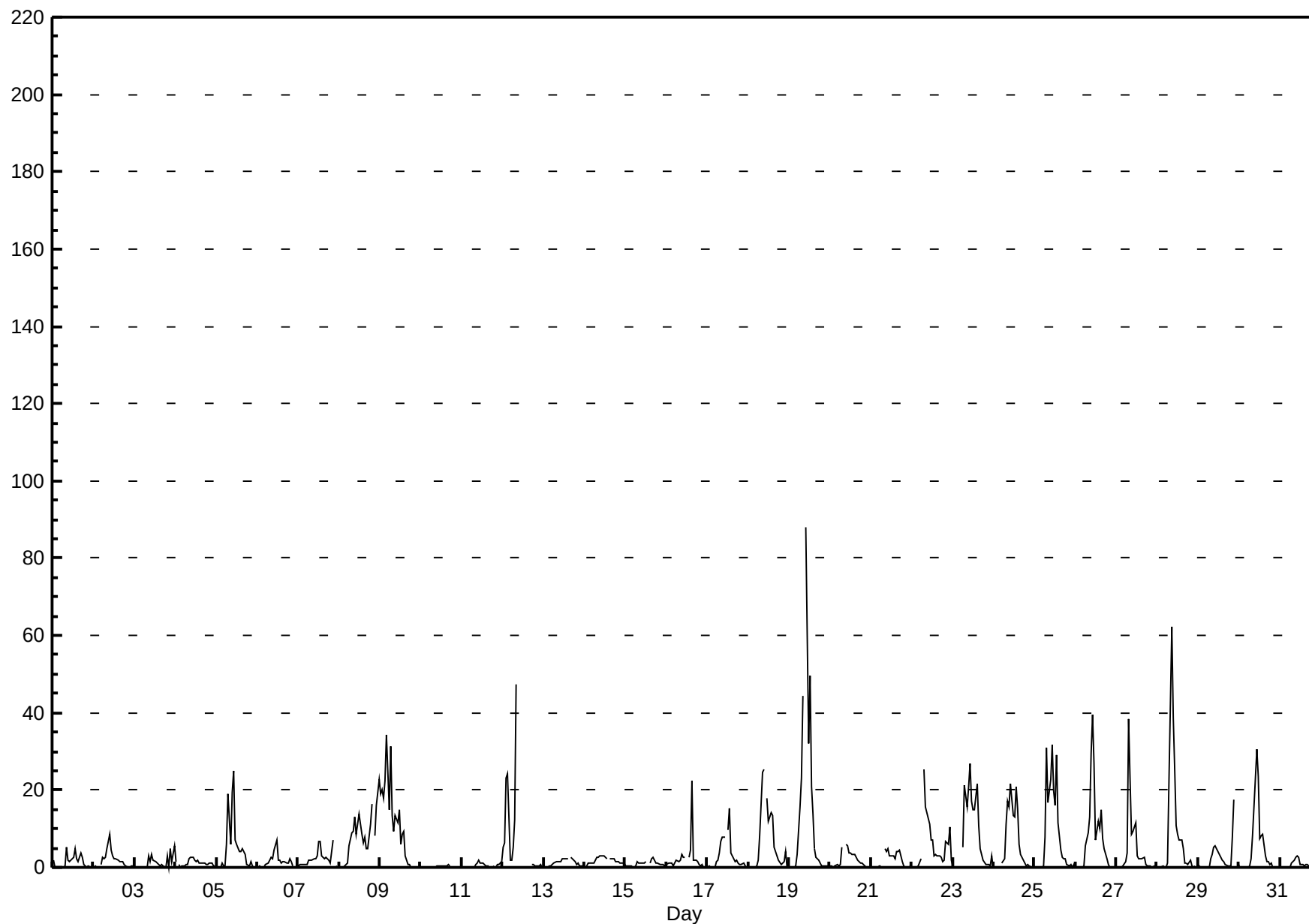
Nitrogen Oxide (NO) - ppb

Henry Pirker - March 2013

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 87.9 ppb on Mar 19 11:00 Maximum Daily Average: 13.2 ppb on Mar 19																				Hours in Service: 744 Hours of Data: 704 Hours of Missing Data: 40 Hours of Calibration: 40 Percent Operational Time: 100.0						
Minimum Value: 0 ppb on Mar 1 06:00 Maximum Diurnal Average: 13.3 ppb at hour 11 Monthly Average: 4.24 ppb										Minimum Daily Average: 0.2 ppb on Mar 10 Minimum Diurnal Average: 1.1 ppb at hour 1 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.2 Median = 1.3 Q ₃ = 3.8 P ₉₀ = 13.2 P ₉₉ = 38.4																
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-Mar	2	0	0	0	A	0	0	0	5	2	1	2	3	5	2	1	4	3	1	0	0	0	0	0	1.4	5.2
2-Mar	0	0	0	A	1	3	2	3	5	9	4	3	2	2	2	1	1	1	1	0	0	0	0	0	1.8	8.6
3-Mar	0	0	A	0	0	0	0	0	3	2	3	2	1	1	1	1	1	0	0	3	0	5	2	6	1.3	5.5
4-Mar	1	A	1	0	0	0	1	1	2	3	3	2	2	2	1	1	1	1	1	1	1	1	0	0	1.1	2.6
5-Mar	A	0	0	1	0	0	6	19	6	19	25	7	6	4	4	5	4	3	1	0	2	0	0	A	5.2	24.8
6-Mar	0	0	0	0	0	1	1	2	3	2	4	7	2	2	1	2	2	1	1	2	1	0	A	1	1.6	7.1
7-Mar	0	1	1	1	1	1	2	2	2	2	2	3	7	7	3	2	3	2	2	1	7	A	1	0	2.2	7.1
8-Mar	0	0	0	0	1	1	5	9	9	13	8	11	14	9	7	8	5	5	11	16	A	8	16	23	7.8	22.8
9-Mar	19	20	18	22	34	15	31	13	9	13	12	15	6	8	9	3	1	1	0	A	0	0	0	0	10.9	34.1
10-Mar	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	1	0	A	0	0	0	0	0	0.2	0.6
11-Mar	0	0	0	0	0	0	0	0	1	1	2	1	1	1	0	0	0	A	0	0	0	1	1	1	0.5	2.0
12-Mar	5	7	23	24	2	2	5	12	47	C	C	C	C	C	C	C	C	1	1	0	1	0	1	0	--	47.2
13-Mar	0	0	0	0	0	1	1	1	2	1	1	2	2	2	2	A	2	2	1	1	1	0	0	0	1.2	2.5
14-Mar	0	0	1	1	1	1	2	3	3	3	3	3	3	2	A	2	2	2	2	2	1	1	1	1	1.8	3.2
15-Mar	0	0	0	0	0	0	1	1	1	1	1	1	1	A	1	2	3	2	1	1	1	1	1	0	1.0	2.5
16-Mar	1	1	1	1	0	1	2	1	2	3	3	3	A	3	4	22	2	2	1	1	0	1	0	0	2.4	22.2
17-Mar	0	1	0	0	0	1	2	4	7	8	8	A	10	15	4	2	2	2	1	1	1	1	0	0	3.0	15.3
18-Mar	0	0	0	0	0	0	2	8	25	25	A	18	12	14	13	5	4	3	2	1	1	2	4	0	6.1	25.4
19-Mar	0	0	0	0	0	3	16	23	44	A	88	32	50	21	14	5	3	2	1	0	0	0	0	0	13.2	87.9
20-Mar	0	0	0	0	1	0	1	5	A	6	5	4	4	3	4	3	2	1	1	1	0	0	0	0	1.8	5.9
21-Mar	0	0	0	0	0	0	0	A	5	4	5	3	3	3	2	4	4	4	1	0	0	0	0	0	1.8	4.8
22-Mar	0	0	0	0	0	2	A	25	16	14	11	7	7	3	3	3	3	3	2	2	7	6	11	2	5.5	25.5
23-Mar	0	0	0	0	0	A	5	21	16	21	27	17	15	15	22	11	5	4	2	1	1	1	0	3	8.1	27.0
24-Mar	0	0	0	0	A	1	2	11	17	16	21	13	13	21	15	6	3	2	1	1	1	0	0	0	6.3	21.4
25-Mar	0	0	0	A	0	0	8	31	17	23	32	20	16	29	12	4	3	2	2	1	0	1	0	1	8.7	31.5
26-Mar	0	0	A	0	0	0	6	9	13	30	40	27	7	12	10	15	7	5	2	1	0	0	0	0	8.0	39.6
27-Mar	0	A	0	0	0	1	4	38	23	8	9	12	3	2	2	2	3	1	0	0	0	0	0	0	4.8	38.4
28-Mar	A	0	0	0	0	0	1	22	62	39	25	11	9	7	7	5	1	1	1	2	0	0	0	A	8.8	62.2
29-Mar	1	0	0	0	0	0	0	2	3	5	5	5	3	3	2	2	1	0	0	0	8	18	A	1	2.6	17.6
30-Mar	0	0	0	0	0	0	0	2	8	16	31	24	7	8	9	3	1	1	1	1	0	A	0	0	4.9	30.6
31-Mar	0	0	0	0	0	0	0	1	2	3	3	3	1	1	0	1	1	0	0	0	A	0	0	0	0.7	3.0
1.1 1.1 1.6 1.8 1.5 1.2 3.5 9.1 11.9 10.1 13.3 8.9 7.2 7.1 5.5 4.2 2.4 2.0 1.4 1.4 1.2 1.6 1.4 1.4 19.1 20.1 23.0 24.4 34.1 15.1 31.2 38.4 62.2 38.8 87.9 32.0 49.5 29.0 21.7 22.2 7.5 5.0 11.2 16.3 7.7 17.6 15.9 22.8																								Diurnal Average	Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										

Hourly Averages

Nitrogen Oxide (NO) - ppb
Henry Pirker - March 2013



Hourly Maximums

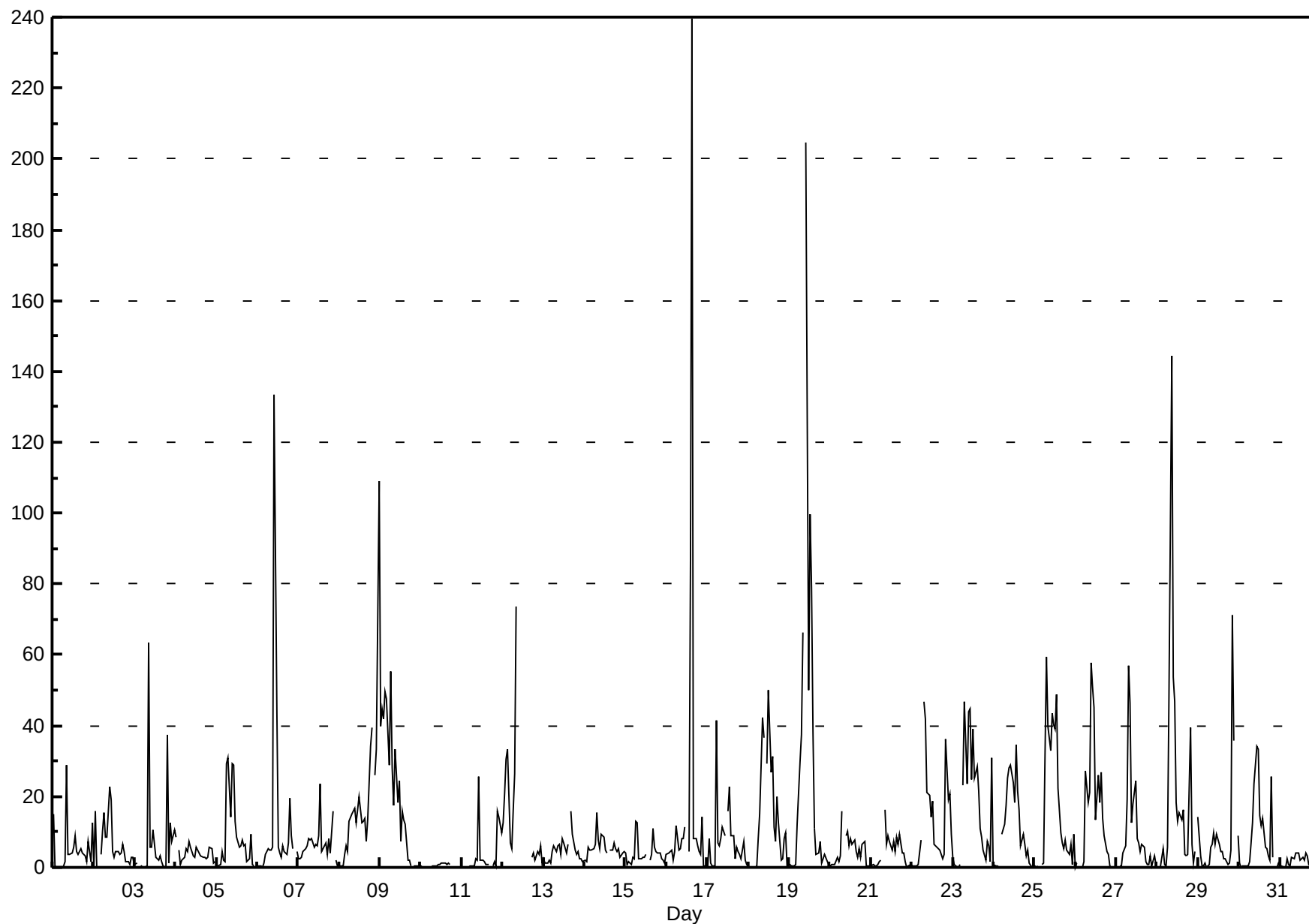
Nitrogen Oxide (NO) - ppb

Henry Pirker - March 2013

Maximum Value: 239.7 ppb on Mar 16 16:00																				Maximum Daily Average: 28.5 ppb on Mar 19					Hours in Service: 744		
Minimum Value: 0 ppb on Mar 3 06:00																				Minimum Daily Average: 0.5 ppb on Mar 10					Hours of Data: 704		
Maximum Diurnal Average: 28.0 ppb at hour 11																				Minimum Diurnal Average: 3.5 ppb at hour 3					Hours of Missing Data: 40		
Monthly Average: 10.51 ppb																				Percentiles: P ₁ = 0.1 P ₁₀ = 0.5 Q ₁ = 1.2 Median = 4.5 Q ₃ = 10.9 P ₉₀ = 29.0 P ₉₉ = 79.5					Hours of Calibration: 40		
																									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-Mar	15	1	0	0	A	0	1	2	29	4	4	4	5	9	4	4	5	4	3	3	1	7	2	13	5.2	29.0	
2-Mar	0	16	0	A	4	10	15	8	8	23	19	4	3	4	4	4	4	6	4	2	1	1	3	3	6.5	22.7	
3-Mar	1	1	A	0	0	0	0	0	63	6	6	10	3	2	2	3	2	1	0	37	1	13	7	10	7.4	63.5	
4-Mar	9	A	5	1	2	3	5	4	7	6	3	3	6	5	4	3	3	3	2	3	6	5	1	1	4.0	8.7	
5-Mar	A	0	1	4	2	1	29	31	14	29	29	13	9	6	6	8	6	6	2	2	9	1	0	A	9.6	31.0	
6-Mar	0	1	0	0	1	4	5	5	5	6	133	43	6	4	3	6	4	4	7	19	9	5	A	4	12.0	133.3	
7-Mar	2	2	3	4	5	6	8	8	8	6	7	6	9	24	4	6	7	4	8	4	16	A	2	1	6.5	23.6	
8-Mar	0	0	1	4	6	4	13	15	16	17	12	16	20	12	13	14	7	13	34	40	A	26	34	109	18.6	109.0	
9-Mar	40	45	42	50	48	29	55	28	18	33	18	24	7	16	13	12	2	2	1	A	0	0	1	0	21.1	55.3	
10-Mar	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	A	0	0	0	0	0	0.5	1.1	
11-Mar	0	0	0	0	0	0	0	1	2	2	26	2	2	1	1	1	1	A	1	1	0	16	14	10	3.6	25.8	
12-Mar	13	21	31	34	7	5	16	27	74	C	C	C	C	C	C	C	C	C	3	4	2	4	4	6	1	--	73.5
13-Mar	2	1	1	2	1	5	6	4	6	7	4	8	7	4	6	A	16	9	5	4	5	2	2	2	4.8	15.9	
14-Mar	2	1	6	5	5	5	6	15	8	5	9	8	5	4	A	5	5	7	5	4	5	3	4	4	5.6	15.3	
15-Mar	4	1	1	1	3	3	13	13	2	2	3	3	3	A	2	4	11	6	4	4	4	2	2	1	4.0	13.0	
16-Mar	4	4	5	5	2	5	12	5	5	8	8	11	A	4	87	240	8	8	6	5	3	14	0	1	19.5	239.7	
17-Mar	1	8	1	0	1	41	7	6	8	11	9	A	16	23	9	9	2	6	4	4	2	7	2	1	7.8	41.4	
18-Mar	1	0	0	0	0	1	8	15	42	37	A	29	50	27	31	12	7	20	13	2	2	8	10	1	13.7	50.1	
19-Mar	1	0	0	1	1	12	30	37	66	A	205	50	100	79	38	11	3	4	7	1	2	4	2	1	28.5	204.5	
20-Mar	1	1	1	1	3	2	3	16	A	9	10	6	8	6	8	4	3	5	3	6	7	1	0	1	4.6	16.0	
21-Mar	0	1	0	1	1	1	2	A	16	6	9	7	5	7	4	8	7	9	4	4	1	0	1	1	4.3	16.3	
22-Mar	0	1	1	1	1	8	A	47	42	21	20	14	19	7	6	6	5	4	2	4	36	19	21	9	12.7	46.9	
23-Mar	3	1	1	0	1	A	23	47	24	44	45	25	39	25	28	22	11	8	5	2	7	6	2	31	17.3	46.7	
24-Mar	1	1	0	0	A	9	12	18	25	28	29	24	18	35	21	16	6	9	7	3	5	1	0	0	11.7	34.5	
25-Mar	0	0	0	A	1	1	31	59	40	33	44	40	39	49	22	10	7	5	8	5	4	6	1	10	18.1	59.4	
26-Mar	0	1	A	0	0	1	27	18	21	58	51	45	13	26	18	27	14	9	4	4	1	0	0	0	14.7	57.9	
27-Mar	0	A	1	1	4	6	19	57	46	13	18	25	8	7	4	6	6	1	1	1	3	0	3	1	10.1	56.9	
28-Mar	A	0	0	5	1	0	6	47	144	54	47	18	13	15	13	16	4	3	3	39	6	1	4	A	20.2	144.5	
29-Mar	14	3	0	0	1	0	1	6	6	10	6	9	6	5	4	3	2	1	1	5	71	36	A	9	8.8	71.4	
30-Mar	1	0	0	0	1	1	1	7	13	24	34	33	15	12	14	6	5	3	2	26	3	A	0	1	8.8	34.3	
31-Mar	1	1	0	0	2	1	1	3	3	4	4	4	2	3	2	4	3	1	1	1	A	3	1	1	1.9	4.2	
4.0 3.8 3.5 4.1 3.6 5.5 12.0 18.3 25.5 17.4 28.0 16.9 15.1 14.6 13.0 16.2 5.6 5.5 5.1 7.9 7.5 6.6 4.3 7.8																									Diurnal Average		
40.1 44.6 42.0 49.6 47.6 41.4 55.3 59.4 144.5 57.9 204.5 49.9 99.5 78.9 86.5 239.7 15.9 19.8 34.4 39.6 71.4 35.7 33.6 109.0																									Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																											

Hourly Maximums

Nitrogen Oxide (NO) - ppb
Henry Pirker - March 2013



Hourly Averages

Oxides of Nitrogen (NO_x) - ppb

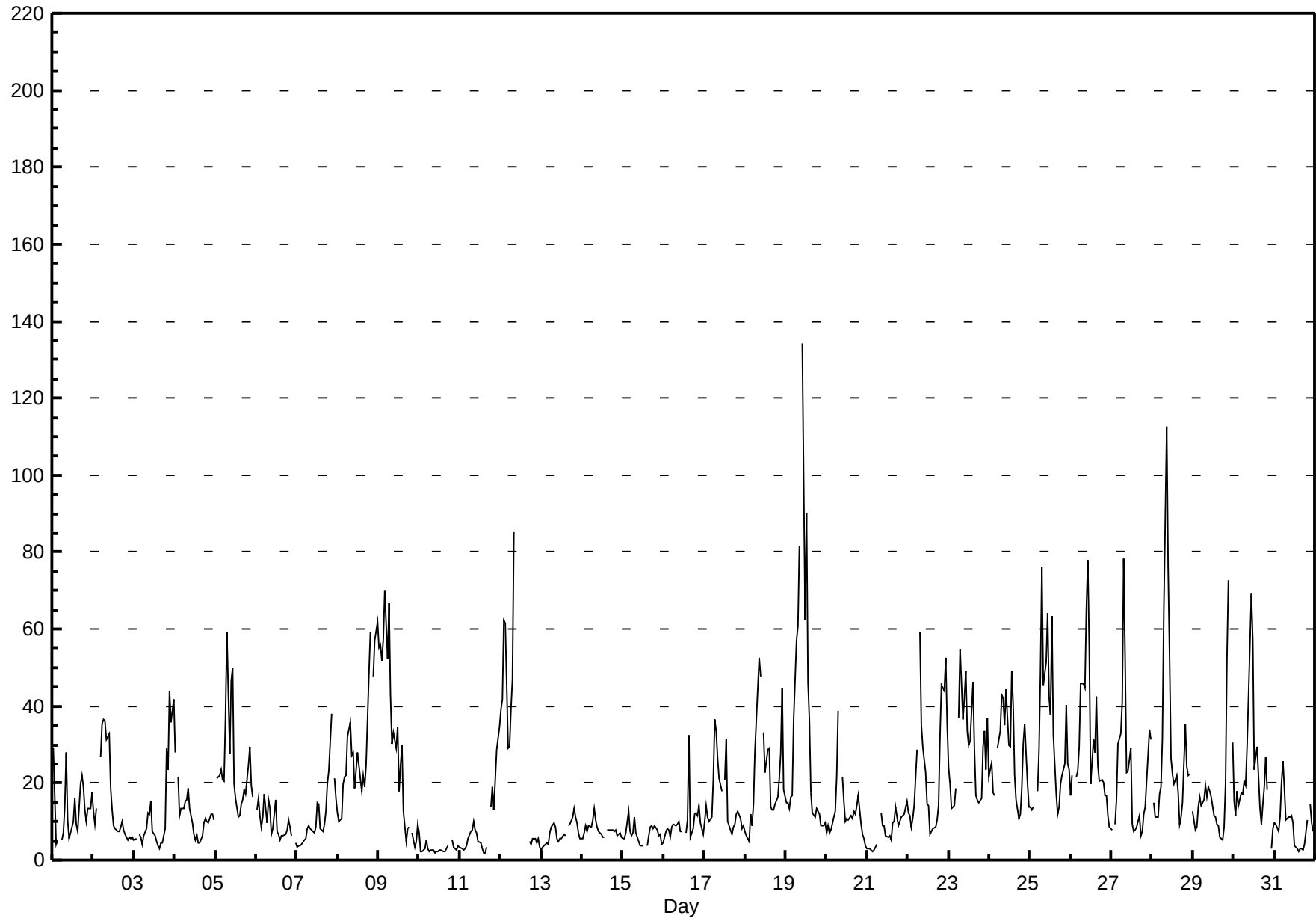
Henry Pirker - March 2013

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 134.3 ppb on Mar 19 11:00 Maximum Daily Average: 34.3 ppb on Mar 19																								Hours in Service: 744 Hours of Data: 704 Hours of Missing Data: 40 Hours of Calibration: 40 Percent Operational Time: 100.0		
Minimum Value: 2 ppb on Mar 11 15:00 Minimum Daily Average: 3.1 ppb on Mar 10 Maximum Diurnal Average: 32.6 ppb at hour 8 Minimum Diurnal Average: 10.1 ppb at hour 17 Monthly Average: 18.26 ppb Percentiles: P ₁ = 2.3 P ₁₀ = 4.6 Q ₁ = 7.5 Median = 12.3 Q ₃ = 23.0 P ₉₀ = 41.5 P ₉₉ = 77.6																										
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-Mar	29	17	4	5	A	5	7	14	28	10	6	9	10	16	9	7	20	22	19	13	10	13	13	18	13.3	28.9
2-Mar	13	9	14	A	27	36	36	36	31	33	19	13	9	8	7	7	9	10	8	7	5	6	6	6	15.4	36.4
3-Mar	5	6	A	7	6	4	6	8	12	12	15	8	6	5	4	3	4	4	8	29	23	44	36	42	13.0	43.8
4-Mar	28	A	22	12	13	14	15	16	19	13	10	7	5	7	4	5	6	10	11	10	10	12	12	10	11.7	27.8
5-Mar	A	21	22	24	21	21	37	59	28	46	50	20	16	11	12	15	15	18	17	25	29	19	17	A	24.7	59.2
6-Mar	13	16	11	8	11	17	10	16	13	7	8	16	7	7	5	6	6	7	8	10	9	6	A	5	9.7	17.3
7-Mar	3	4	4	4	5	6	8	9	8	7	7	8	15	15	8	7	9	13	20	23	38	A	21	16	11.3	37.9
8-Mar	12	10	11	20	22	22	32	36	27	28	19	23	28	21	18	22	19	25	48	59	A	48	57	62	29.1	61.8
9-Mar	55	56	52	57	70	52	67	43	30	33	29	35	18	25	30	13	5	8	9	A	7	3	5	9	30.9	70.0
10-Mar	7	2	2	3	5	3	2	3	2	2	2	2	3	3	2	2	3	4	A	5	3	3	3	4	3.1	7.0
11-Mar	3	3	3	3	4	5	7	8	10	8	7	5	4	3	2	2	3	A	14	19	13	21	29	35	9.2	34.8
12-Mar	39	42	62	61	29	30	39	47	85	C	C	C	C	C	C	C	C	5	4	5	6	5	6	3	--	85.5
13-Mar	3	3	4	4	4	7	8	10	8	6	5	6	6	7	6	A	9	9	11	14	11	10	7	6	7.1	13.6
14-Mar	6	7	9	8	9	9	11	14	10	9	8	7	6	6	A	8	8	8	8	8	8	6	7	6	7.9	13.6
15-Mar	5	6	7	13	7	6	7	11	7	5	4	4	4	A	4	6	9	9	8	9	8	6	7	4	6.8	12.5
16-Mar	5	7	8	8	6	9	9	9	9	10	7	7	A	7	10	32	6	8	12	12	11	14	10	7	9.8	32.5
17-Mar	10	14	11	10	11	21	37	33	27	21	18	A	21	31	10	8	7	8	9	12	13	11	8	9	15.7	36.6
18-Mar	7	6	5	12	9	15	28	36	53	48	A	33	23	29	29	14	13	13	15	16	21	28	45	18	22.5	52.7
19-Mar	15	15	13	16	17	36	57	61	82	A	134	62	90	46	36	17	12	11	14	13	12	9	9	10	34.3	134.3
20-Mar	7	9	7	8	11	13	21	39	A	22	15	10	11	10	12	11	13	12	14	17	9	7	6	4	12.5	38.6
21-Mar	3	3	3	2	3	3	4	A	12	9	9	6	6	6	5	10	10	14	9	10	11	12	12	15	7.7	15.4
22-Mar	12	11	9	11	14	29	A	59	35	29	23	15	14	7	7	8	8	10	14	32	46	44	52	35	22.8	59.3
23-Mar	24	20	13	14	19	A	37	55	36	42	49	34	30	31	46	29	17	16	15	16	29	34	24	37	28.9	54.8
24-Mar	22	26	18	17	A	29	34	43	42	35	44	30	29	49	40	22	16	11	12	19	30	35	20	14	27.7	49.3
25-Mar	14	13	14	A	18	28	48	76	46	51	64	42	38	63	32	17	12	14	20	22	25	40	25	24	32.5	76.1
26-Mar	17	22	A	22	23	30	46	46	45	65	78	56	20	31	28	42	24	20	21	20	17	17	12	9	30.8	77.8
27-Mar	8	A	9	16	30	33	41	78	53	23	23	29	9	7	8	9	12	6	8	12	14	21	34	31	22.3	78.1
28-Mar	A	15	11	11	17	19	32	65	113	76	53	26	22	20	22	18	9	11	15	36	24	22	22	A	30.0	112.7
29-Mar	13	8	8	14	16	14	16	19	16	19	18	16	11	11	9	9	6	5	9	20	52	73	A	31	18.0	72.7
30-Mar	15	12	18	14	18	17	21	19	30	42	69	57	24	27	29	13	9	14	19	27	18	A	3	8	22.8	69.3
31-Mar	10	9	7	11	20	26	19	10	11	11	11	10	4	3	2	3	3	3	4	10	A	14	10	7	9.5	25.6
13.9 13.5 13.1 14.3 16.1 18.6 24.8 32.6 31.0 24.9 27.8 20.5 16.9 17.7 15.2 12.6 10.1 10.9 13.4 17.6 17.7 20.1 17.8 16.7 55.3 55.9 62.3 61.4 70.0 52.2 66.8 78.1 112.7 76.1 134.3 62.3 90.1 63.4 46.4 42.4 24.4 24.5 48.4 59.3 52.5 72.7 57.1 61.8																								Diurnal Average	Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										

Hourly Averages

Oxides of Nitrogen (NO_x) - ppb

Henry Pirker - March 2013



Hourly Maximums

Oxides of Nitrogen (NO_x) - ppb

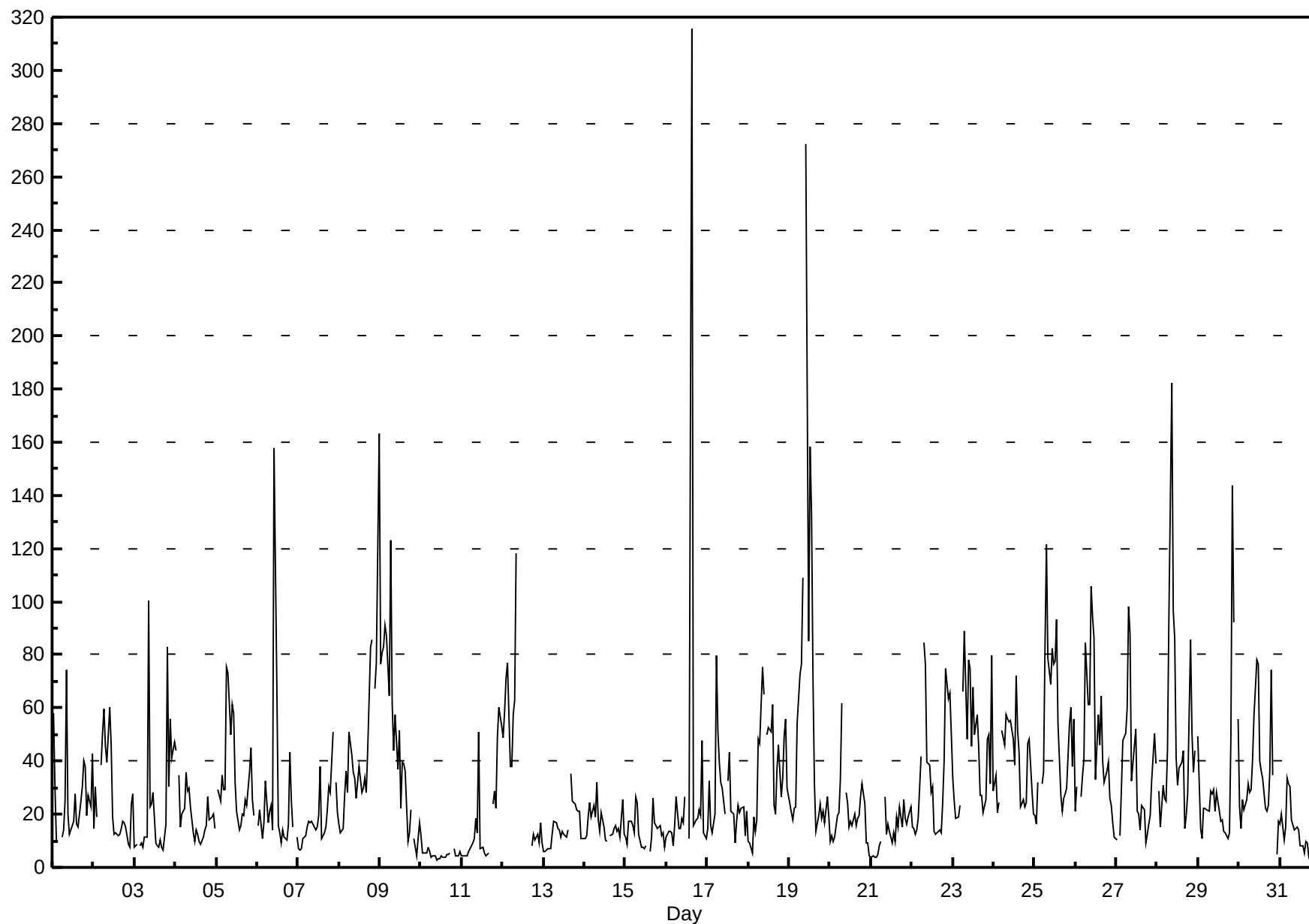
Henry Pirker - March 2013

Maximum Value: 315.8 ppb on Mar 16 16:00																					Maximum Daily Average: 57.9 ppb on Mar 19				Hours in Service: 744	
Minimum Value: 3 ppb on Mar 10 10:00																					Minimum Daily Average: 5.1 ppb on Mar 10				Hours of Data: 704	
Maximum Diurnal Average: 51.0 ppb at hour 9																					Minimum Diurnal Average: 17.5 ppb at hour 17				Hours of Missing Data: 40	
Monthly Average: 30.72 ppb																					Percentiles: P ₁ = 4.0 P ₁₀ = 8.2 Q ₁ = 13.3 Median = 21.4 Q ₃ = 38.6 P ₉₀ = 64.3 P ₉₉ = 157.7				Hours of Calibration: 40	
																					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-Mar	58	30	10	10	A	12	14	25	74	20	13	16	18	27	16	15	25	30	40	38	20	27	23	43	26.3	74.4
2-Mar	15	30	19	A	38	51	59	46	39	60	46	19	12	13	12	13	14	17	15	9	8	24	28	26.2	60.2	
3-Mar	7	9	A	8	9	7	12	11	101	23	24	28	9	8	8	10	7	6	16	83	31	56	41	47	24.4	100.6
4-Mar	44	A	35	15	20	22	36	29	30	23	13	10	14	12	10	9	11	14	16	27	18	19	20	15	20.0	43.7
5-Mar	A	29	25	35	29	29	76	73	50	61	58	32	21	14	16	20	20	25	23	36	45	25	19	A	34.7	75.6
6-Mar	15	22	16	11	17	33	17	21	23	14	158	67	15	13	9	14	11	10	16	43	26	15	A	11	26.0	157.9
7-Mar	7	6	7	11	12	15	17	17	17	15	14	15	19	38	11	13	15	22	31	28	51	A	32	20	18.9	51.1
8-Mar	16	13	14	27	36	28	51	42	36	33	26	32	38	28	30	34	28	44	83	86	A	67	77	163	44.9	163.1
9-Mar	77	81	83	91	87	65	123	62	44	58	37	51	22	40	39	36	10	13	21	A	11	5	11	17	47.1	123.3
10-Mar	12	5	6	5	8	6	4	4	4	3	3	4	4	4	4	5	5	6	A	7	4	4	4	6	5.1	12.0
11-Mar	4	4	4	4	6	7	9	11	18	13	51	7	7	5	4	5	5	A	24	29	22	49	60	53	17.5	60.0
12-Mar	49	58	71	77	38	38	58	63	118	C	C	C	C	C	C	C	C	8	12	10	13	9	17	9	--	118.0
13-Mar	6	6	7	7	7	13	17	17	15	14	11	14	12	12	14	A	35	25	24	21	21	21	11	11	14.8	35.2
14-Mar	11	12	19	25	19	23	19	32	18	14	20	15	10	10	A	12	12	14	16	14	15	11	26	12	16.5	32.0
15-Mar	12	9	17	18	16	13	27	24	12	7	7	7	8	A	6	11	26	17	16	15	16	12	13	8	13.7	26.7
16-Mar	11	13	13	13	8	16	27	14	15	18	17	27	A	11	177	316	16	18	18	22	20	48	13	11	37.4	315.8
17-Mar	14	32	16	13	20	80	51	40	32	30	20	A	32	43	21	20	9	17	23	21	22	23	12	21	26.7	79.8
18-Mar	10	9	6	19	14	18	48	47	76	65	A	50	53	51	61	23	20	37	46	26	34	49	56	30	36.8	75.6
19-Mar	24	21	18	22	23	54	73	76	109	A	272	85	158	133	71	32	14	20	24	19	21	17	27	19	57.9	272.3
20-Mar	10	12	10	11	20	20	33	62	A	28	24	15	18	16	20	16	18	20	27	31	24	9	9	5	19.9	61.8
21-Mar	4	5	4	4	5	8	10	A	26	13	16	13	9	13	10	19	15	23	15	26	19	16	19	23	13.6	26.3
22-Mar	15	15	13	14	19	42	A	85	76	39	39	28	30	14	13	13	14	13	25	40	75	64	65	50	34.8	84.8
23-Mar	34	25	18	19	23	A	66	89	49	78	75	46	68	50	57	45	27	27	21	25	48	50	31	79	45.8	88.9
24-Mar	29	35	20	24	A	52	46	57	56	55	55	48	39	72	51	43	23	25	23	25	47	48	29	20	40.1	72.3
25-Mar	20	16	32	A	31	36	83	122	79	69	82	77	78	93	54	27	21	26	28	30	54	60	38	56	52.6	121.6
26-Mar	21	30	A	26	34	41	84	61	61	106	95	86	33	57	46	64	40	32	36	40	26	23	17	11	46.7	106.0
27-Mar	10	A	12	29	48	50	60	98	88	33	39	52	21	20	14	23	22	9	12	16	20	32	50	39	34.7	98.3
28-Mar	A	29	15	31	26	25	45	96	182	97	86	41	31	37	39	44	15	19	28	86	51	36	44	A	50.1	182.1
29-Mar	50	14	11	22	22	22	21	29	28	29	21	28	21	17	18	13	13	11	13	50	144	92	A	56	32.4	143.5
30-Mar	23	14	25	22	25	31	28	29	40	57	78	77	40	36	34	22	21	23	36	74	35	A	5	17	34.6	78.1
31-Mar	16	20	10	15	34	32	30	18	14	14	15	14	8	8	6	10	9	4	6	18	A	27	15	9	15.5	33.7
21.5 20.9 19.2 21.7 23.9 29.6 41.5 46.7 51.0 37.5 48.8 34.7 29.3 30.9 30.0 32.0 17.5 19.2 24.6 33.4 32.4 31.8 27.9 30.7																									Diurnal Average	
76.7 80.6 83.2 91.1 87.4 79.8 123.3 121.6 182.1 106.0 272.3 86.3 158.2 132.9 176.5 315.8 40.4 43.8 83.2 85.8 143.5 92.1 76.9 163.1																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										

Hourly Maximums

Oxides of Nitrogen (NO_x) - ppb

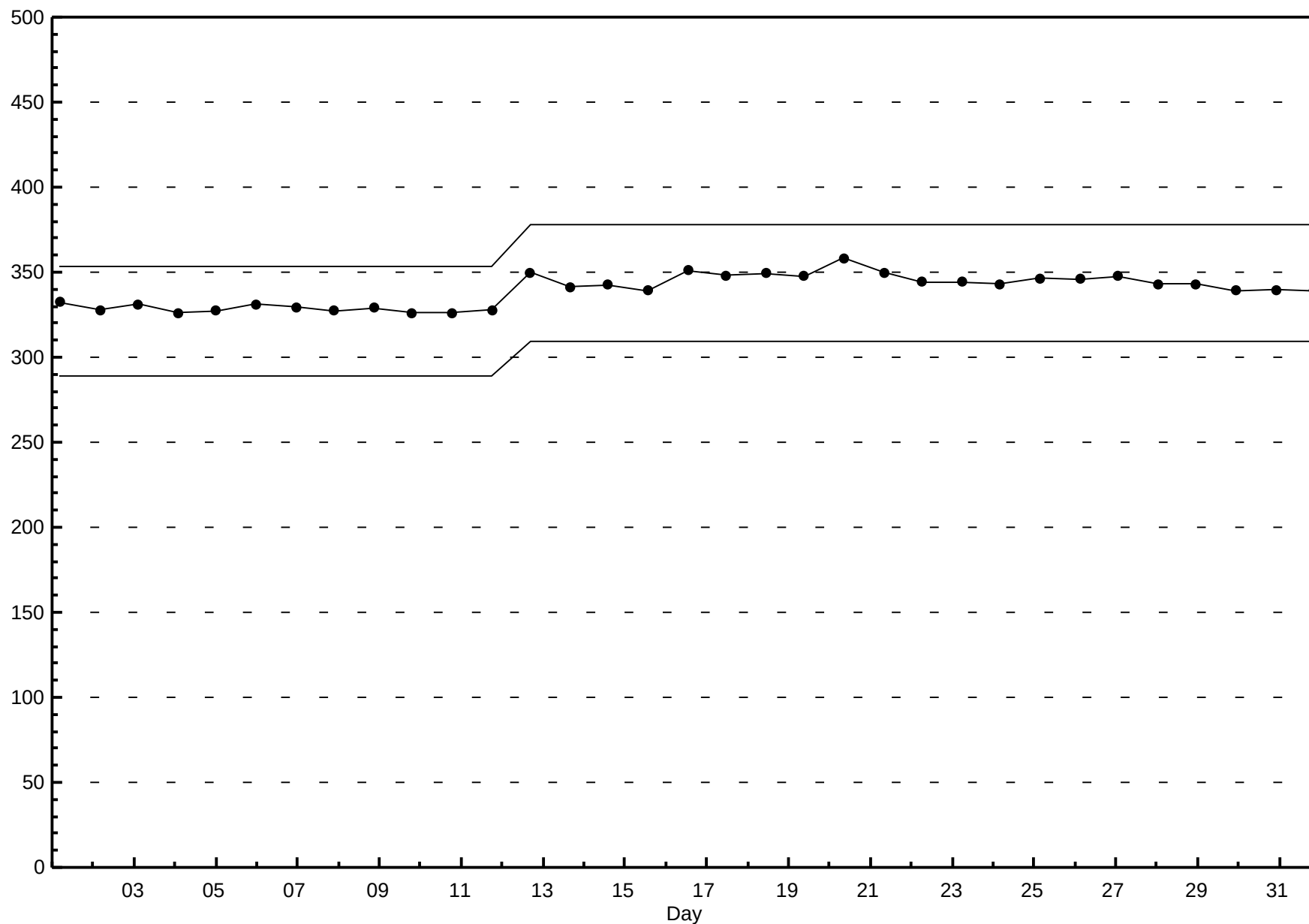
Henry Pirker - March 2013



Span Responses

Oxides of Nitrogen (NO_x)

Henry Pirker - March 2013



Hourly Averages

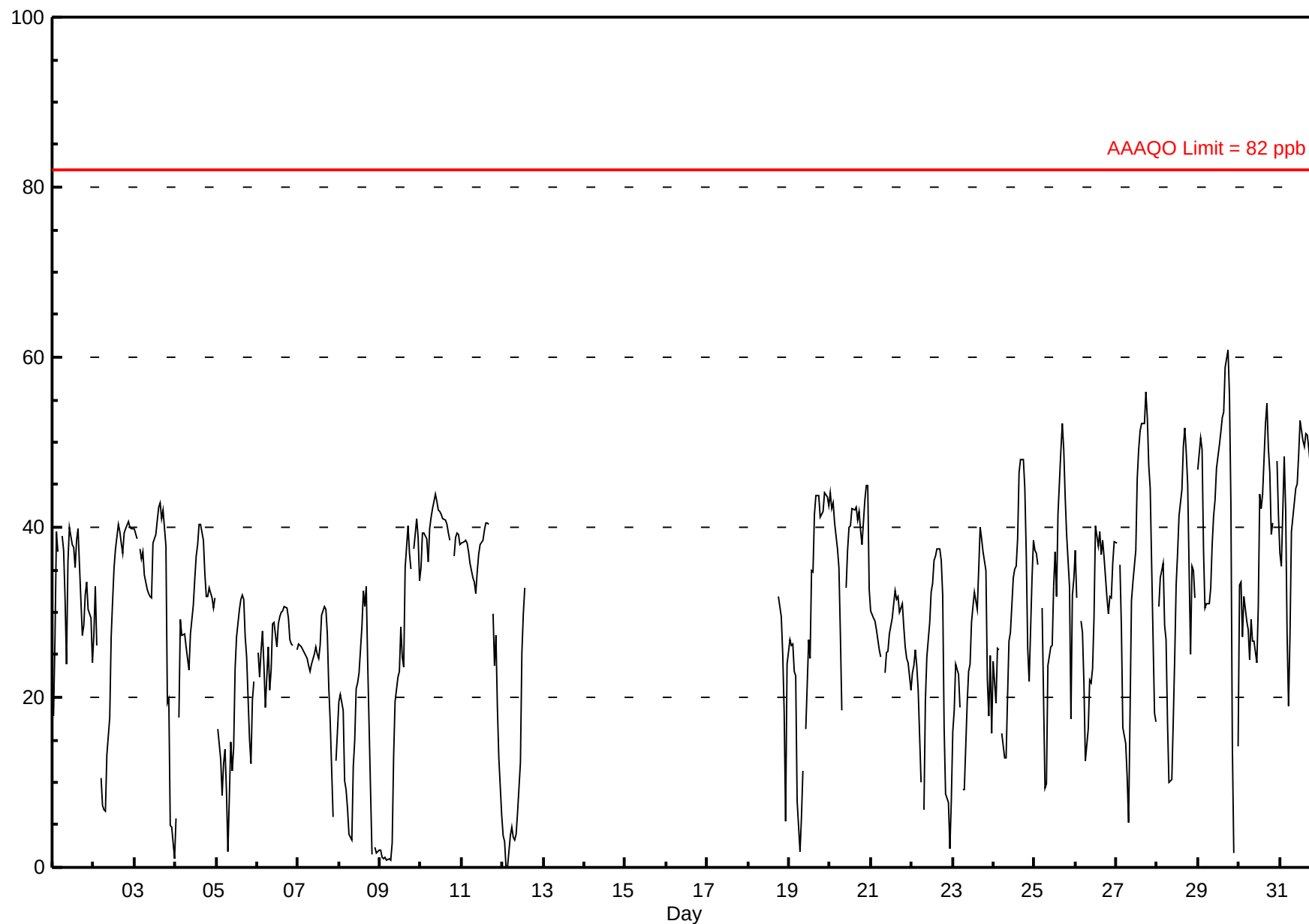
Ozone (O₃) - ppb

Henry Pirker - March 2013

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 60.9 ppb on Mar 29 18:00 Maximum Daily Average: 41.9 ppb on Mar 31																				Hours in Service: 675 Hours of Data: 570 Hours of Missing Data: 105 Hours of Calibration: 37 Percent Operational Time: 89.9						
Minimum Value: 0 ppb on Mar 12 03:00 Maximum Diurnal Average: 41.5 ppb at hour 17 Monthly Average: 29.58 ppb										Minimum Daily Average: 15.2 ppb on Mar 8 Minimum Diurnal Average: 17.6 ppb at hour 8 Percentiles: P ₁ = 1.0 P ₁₀ = 10.3 Q ₁ = 23.1 Median = 30.9 Q ₃ = 38.6 P ₉₀ = 43.6 P ₉₉ = 53.4																
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Mar	18	27	39	37	A	39	37	32	24	36	40	38	38	35	38	40	31	27	29	32	33	30	29	24	32.8	40.0
2-Mar	27	33	26	A	10	7	7	7	13	18	27	31	35	38	40	39	38	37	39	40	41	40	40	40	29.3	40.7
3-Mar	40	39	A	37	36	37	34	33	32	32	38	39	41	42	43	41	42	38	19	20	5	5	1	31.6	42.9	
4-Mar	6	A	18	29	27	27	26	25	23	27	31	34	37	38	40	40	38	35	32	32	33	32	30	32	30.1	40.3
5-Mar	A	16	13	9	12	14	9	2	15	11	14	23	27	30	32	32	31	27	25	15	12	20	22	A	18.7	32.1
6-Mar	25	22	25	28	24	19	26	21	23	29	29	26	29	30	30	30	31	30	29	27	26	26	A	26	26.5	30.7
7-Mar	26	26	26	26	25	25	24	23	24	25	26	25	25	26	30	31	30	27	21	17	6	A	13	16	23.5	30.6
8-Mar	20	20	18	10	9	7	4	3	12	15	21	22	23	28	33	31	33	24	9	2	A	2	2	2	15.2	33.1
9-Mar	2	1	1	1	1	1	1	3	13	20	22	23	28	25	23	35	40	37	35	A	37	41	39	34	20.2	41.0
10-Mar	35	39	39	39	36	40	41	42	44	43	42	42	41	41	40	39	39	A	37	39	39	39	38	38	39.8	43.8
11-Mar	38	38	38	38	37	36	34	34	32	35	37	38	39	40	40	41	40	A	30	24	27	19	13	6	32.7	40.5
12-Mar	4	3	0	0	4	5	4	3	4	6	12	25	30	33	C	C	C	C	N	N	N	N	N	N	--	32.9
13-Mar	N	N	N	N	N	N	N	N	N	M	M	M	M	M	N	N	N	N	N	N	N	N	N	N	--	--
14-Mar	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
15-Mar	N	N	N	N	N	N	N	N	N	N	N	N	N	M	M	A	NS	NS	NS	NS	NS	NS	NS	NS	--	--
16-Mar	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
17-Mar	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
18-Mar	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
19-Mar	27	26	26	23	23	8	2	6	11	A	16	27	25	35	35	42	44	44	41	42	42	44	44	43	29.3	44.1
20-Mar	44	42	43	41	37	35	28	18	A	33	37	40	40	42	42	42	41	42	40	38	43	45	45	33	38.8	45.0
21-Mar	30	29	29	28	27	26	25	A	23	25	25	27	29	31	32	32	32	30	31	28	26	25	24	21	27.6	32.5
22-Mar	23	24	26	24	21	10	A	7	20	25	29	32	33	36	37	37	38	36	32	16	9	8	2	8	23.1	37.5
23-Mar	16	19	24	23	19	A	9	9	19	23	24	29	31	32	30	35	40	39	37	35	22	18	25	16	24.9	40.0
24-Mar	24	19	26	26	A	16	13	13	20	27	28	34	35	36	39	46	48	48	45	37	26	22	34	39	30.4	48.0
25-Mar	37	37	36	A	31	20	9	10	24	26	26	33	37	32	41	49	52	49	44	39	33	18	32	34	32.5	52.3
26-Mar	37	32	A	29	28	22	12	16	22	22	23	29	40	38	40	37	38	36	32	30	32	32	36	38	30.5	40.2
27-Mar	38	A	36	28	16	15	11	5	18	31	34	37	46	49	51	52	52	56	53	47	45	36	18	17	34.4	56.0
28-Mar	A	31	34	36	29	27	17	10	10	17	25	33	37	41	44	49	52	49	45	25	35	35	32	A	32.4	51.7
29-Mar	47	51	49	37	30	31	31	33	38	41	43	47	50	51	53	54	59	61	56	43	14	2	A	14	40.6	60.9
30-Mar	33	34	27	32	29	28	24	29	27	27	24	31	44	42	44	52	55	49	46	39	40	A	48	41	36.8	54.6
31-Mar	37	35	48	42	27	19	27	39	43	45	45	49	52	50	49	51	51	49	47	40	A	35	39	41	41.9	52.5
27.6 28.0 28.2 27.0 23.4 21.3 19.0 17.6 22.2 26.6 28.5 32.6 35.6 36.8 38.7 40.9 41.5 39.7 36.1 30.5 29.0 25.6 26.7 25.5 46.8 50.5 49.2 42.0 37.4 39.8 41.1 42.3 43.8 44.5 45.0 48.5 52.5 51.2 52.9 53.6 58.8 60.9 55.6 47.3 44.5 45.0 47.9 42.6																								Diurnal Average	Diurnal Maximum	
C - Calibration M - Maintenance N - Not Valid NS - Not in service 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 - March 2013



Hourly Maximums

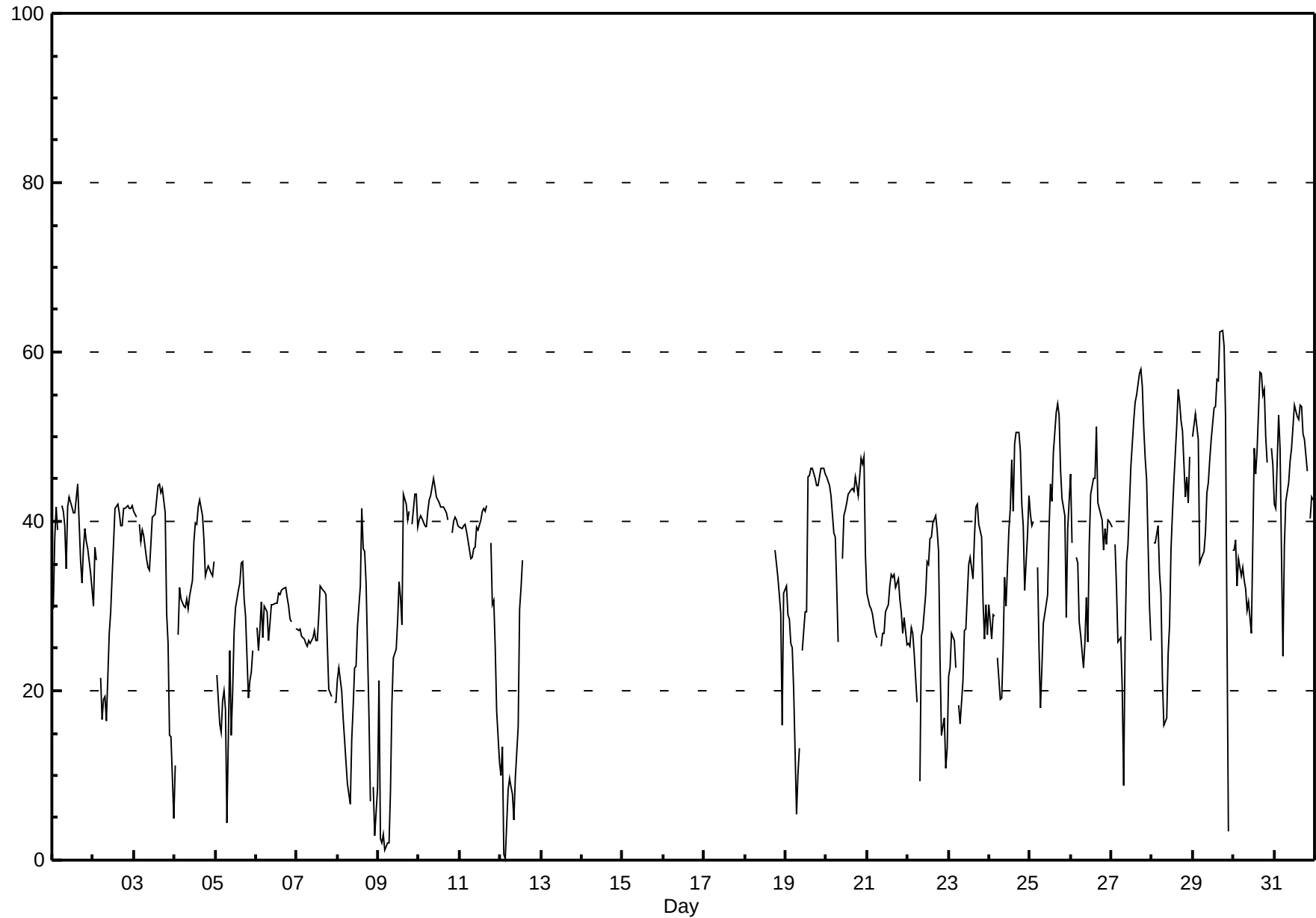
Ozone (O₃) - ppb

Henry Pirker - March 2013

Maximum Value: 62.5 ppb on Mar 29 18:00																				Maximum Daily Average: 46.1 ppb on Mar 29					Hours in Service: 675		
Minimum Value: 0 ppb on Mar 12 04:00																				Minimum Daily Average: 19.6 ppb on Mar 8					Hours of Data: 570		
Maximum Diurnal Average: 44.5 ppb at hour 16																				Minimum Diurnal Average: 22.8 ppb at hour 8					Hours of Missing Data: 105		
Monthly Average: 33.82 ppb																				Percentiles: P ₁ = 2.4 P ₁₀ = 18.1 Q ₁ = 26.7 Median = 35.2 Q ₃ = 41.7 P ₉₀ = 47.3 P ₉₉ = 57.5					Hours of Calibration: 37		
																				Percent Operational Time: 89.9							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
1-Mar	30	38	42	39	A	42	41	39	34	42	43	42	41	41	43	44	35	33	37	39	38	37	34	32	38.5	44.5	
2-Mar	30	37	35	A	22	17	19	19	16	27	29	34	37	41	42	41	40	39	41	42	42	42	42	42	33.7	42.0	
3-Mar	41	41	A	40	38	39	38	36	35	34	37	41	41	43	44	44	43	44	41	29	26	15	15	5	35.1	44.3	
4-Mar	11	A	27	32	31	30	30	31	30	31	33	38	40	40	42	43	41	38	34	34	35	34	33	35	33.5	42.6	
5-Mar	A	22	16	15	19	20	18	4	25	15	20	27	30	32	33	35	35	31	29	19	21	22	25	A	23.3	35.2	
6-Mar	27	25	27	31	26	30	29	26	28	30	30	30	30	32	31	32	32	32	31	30	28	28	A	27	29.3	32.2	
7-Mar	27	27	27	26	26	26	25	26	26	26	27	26	26	29	32	32	32	31	25	20	19	A	19	19	26.1	32.3	
8-Mar	21	23	20	17	14	12	9	7	14	18	23	23	28	32	42	37	36	33	17	7	A	9	3	8	19.6	41.5	
9-Mar	21	3	2	3	1	2	2	8	19	24	25	28	33	31	28	43	42	40	41	A	40	43	43	39	24.4	43.2	
10-Mar	40	41	40	39	39	41	43	43	45	44	43	43	42	42	42	41	41	40	A	39	40	40	40	40	41.2	45.1	
11-Mar	39	39	39	40	39	38	36	36	37	37	39	39	40	41	42	41	42	A	37	30	31	25	18	12	35.5	41.8	
12-Mar	10	13	1	0	8	10	9	8	5	10	16	30	32	35	C	C	C	C	N	N	N	N	N	N	--	35.4	
13-Mar	N	N	N	N	N	N	N	N	N	M	M	M	M	M	N	N	N	N	N	N	N	N	N	N	--	--	
14-Mar	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--	
15-Mar	N	N	N	N	N	N	N	N	N	N	N	N	M	M	A	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
16-Mar	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
17-Mar	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
18-Mar	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	A	NS	NS	NS	NS	NS	C	C	C	37	33	31	29	16	32	36.7
19-Mar	32	29	29	26	25	20	5	10	13	A	25	29	29	45	45	46	46	45	44	44	45	46	46	46	33.6	46.2	
20-Mar	45	45	44	43	39	38	32	26	A	36	41	41	42	43	44	44	44	45	44	43	47	47	48	36	41.6	47.7	
21-Mar	32	30	30	29	28	27	26	A	25	27	27	29	30	32	34	33	34	32	33	31	29	27	29	25	29.5	33.8	
22-Mar	26	25	27	27	24	19	A	9	26	27	31	35	35	38	38	40	41	39	36	24	15	17	11	13	27.1	40.6	
23-Mar	22	23	27	26	23	A	18	16	21	27	27	31	35	36	33	38	42	42	40	38	30	26	30	27	29.5	42.0	
24-Mar	30	26	29	29	A	24	19	19	25	33	30	39	42	47	41	49	51	51	48	42	40	32	39	43	36.0	50.6	
25-Mar	41	40	40	A	35	25	18	23	28	30	31	39	44	42	48	53	54	52	46	43	41	29	39	42	38.4	54.0	
26-Mar	46	38	A	36	35	28	27	23	26	31	26	37	43	45	45	51	42	41	40	37	39	37	40	40	37.1	51.3	
27-Mar	39	A	37	32	26	26	20	9	26	35	37	46	49	52	54	55	57	58	56	51	47	45	30	26	39.8	57.9	
28-Mar	A	37	37	39	34	31	21	16	17	24	28	37	41	45	51	56	54	52	51	43	45	42	48	A	38.6	55.6	
29-Mar	50	53	51	50	35	36	37	39	43	45	47	50	53	54	57	57	62	63	61	52	27	3	A	37	46.1	62.5	
30-Mar	37	38	32	36	34	35	33	32	30	31	27	37	49	46	48	58	57	55	56	50	47	A	49	47	41.7	57.6	
31-Mar	42	42	53	49	36	24	37	42	45	47	49	51	54	52	52	54	54	50	50	46	A	40	43	43	45.8	53.8	
32.2 31.8 31.0 30.5 27.6 26.6 24.7 22.8 26.6 30.5 31.6 36.1 38.7 40.7 42.1 44.5 44.0 42.9 40.6 36.1 34.9 31.1 32.1 31.1																								Diurnal Average			
50.1 52.6 52.6 49.6 39.3 41.9 42.6 43.1 45.1 47.1 48.6 51.1 53.8 53.6 56.9 57.6 62.3 62.5 60.6 52.4 47.4 46.7 48.6 46.6																								Diurnal Maximum			
C - Calibration M - Maintenance N - Not Valid NS - Not in service A - Automated Daily Zero Span																											

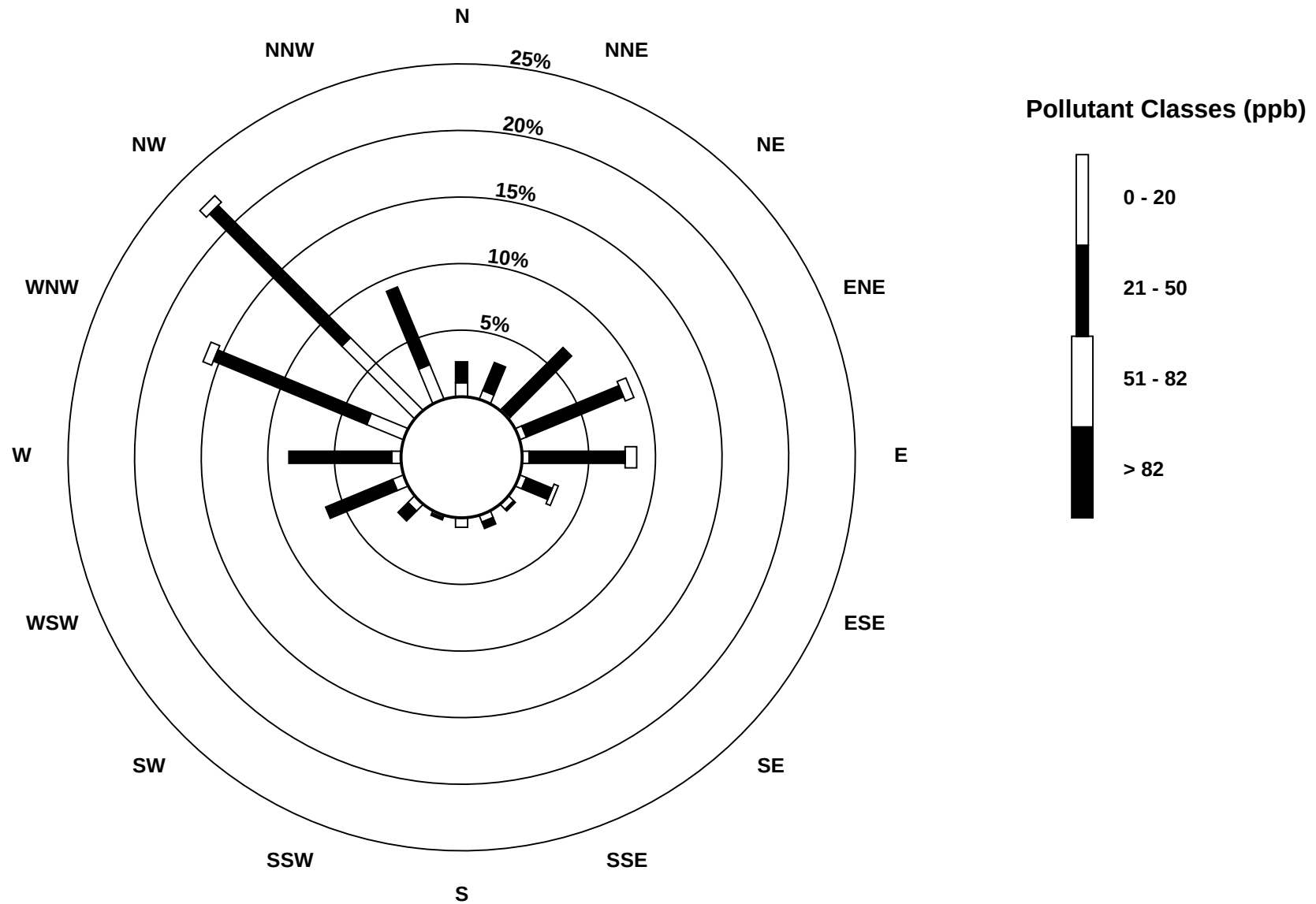
Hourly Maximums

Ozone (O₃) - ppb
Henry Pirker - March 2013



Pollutant Rose

Ozone (O₃) - ppb
Henry Pirker - March 2013



Eight Hour Running Averages

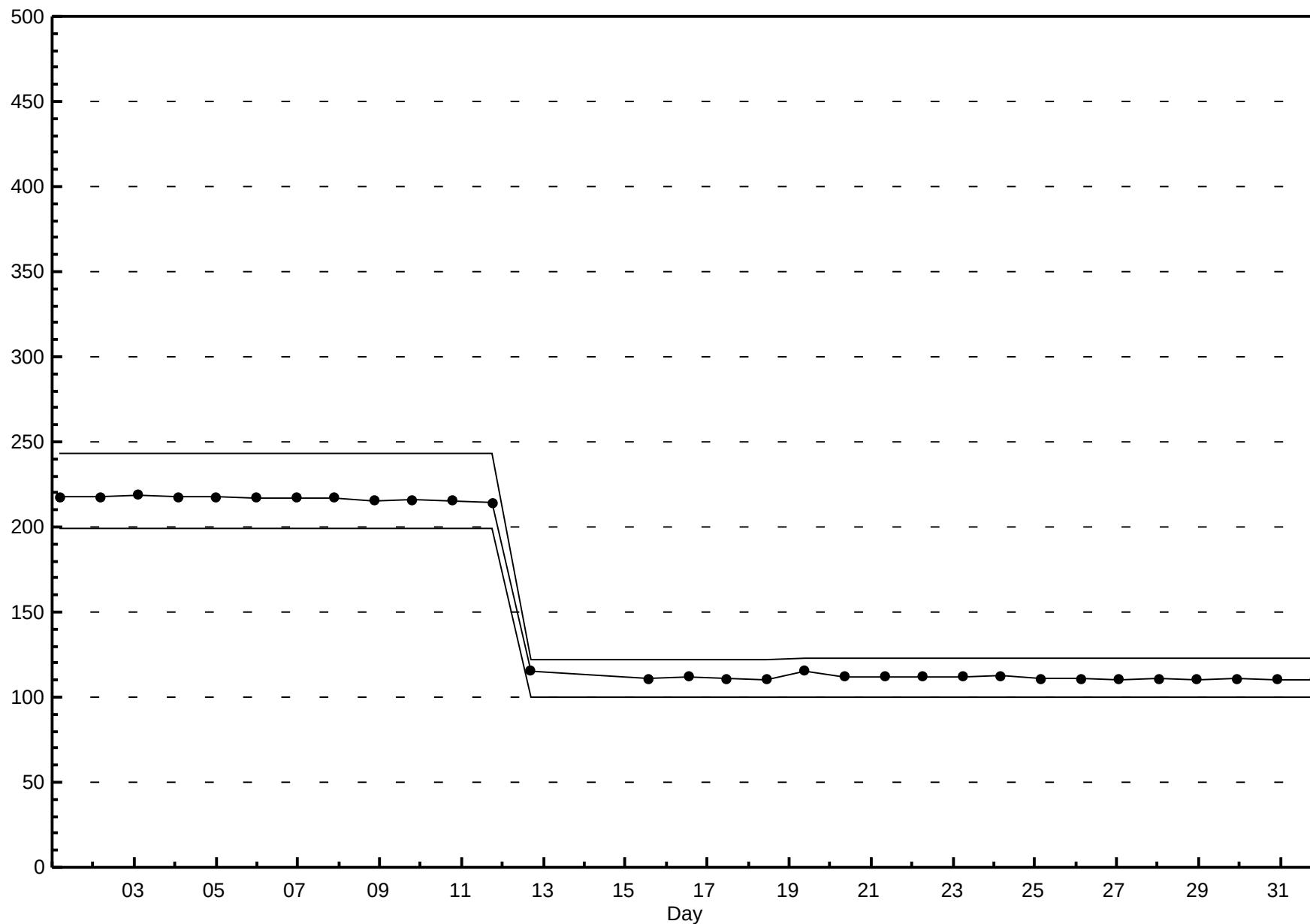
Ozone (O₃) - ppb

Henry Pirker - March 2013

Maximum Value: 53.7 ppb on Mar 29 19:00																					Hours in Service: 675					
Minimum Value: 1.3 ppb on Mar 9 07:00																					Hours of Data: 593					
Percentiles: P ₁ = 2.7 P ₁₀ = 15.1 Q ₁ = 22.3 Median = 29.6 Q ₃ = 37.5 P ₉₀ = 41.2 P ₉₉ = 49.6																					Hours of Missing Data: 82					
																					Hours of Calibration: 14					
																					Percent Operational Time: 89.9					
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-Mar	18	17	17	18	19	24	29	33	34	35	35	35	35	35	35	36	37	36	35	34	33	33	32	30	37.0	
2-Mar	29	30	29	29	26	23	19	17	15	13	13	15	18	22	26	30	33	36	37	38	39	39	39	39	39	39.3
3-Mar	40	40	40	39	39	38	38	37	36	35	34	34	35	35	36	37	38	40	41	38	36	31	27	21	40.5	
4-Mar	17	13	10	12	13	16	19	23	25	25	27	28	29	30	32	34	36	37	37	36	36	35	34	33	36.7	
5-Mar	32	30	27	23	21	18	15	11	11	11	11	13	14	16	19	23	25	27	28	27	26	24	23	22	32.1	
6-Mar	21	20	20	22	24	24	24	24	24	24	25	24	25	26	27	28	29	29	29	29	29	29	29	28	29.4	
7-Mar	27	27	26	26	26	26	25	25	25	25	25	25	24	25	25	26	27	27	27	26	24	23	21	19	27.5	
8-Mar	17	16	16	15	15	14	13	11	11	10	10	12	13	16	20	23	26	27	25	23	23	19	15	11	26.8	
9-Mar	6	3	2	2	2	1	1	1	3	5	8	10	14	17	20	24	27	29	31	32	33	36	38	38	37.8	
10-Mar	37	37	38	38	38	38	38	39	40	40	41	41	42	42	42	42	41	41	40	40	39	39	39	39	42.1	
11-Mar	38	38	38	39	38	38	37	37	36	35	35	35	35	36	37	38	39	39	38	36	35	32	28	23	39.2	
12-Mar	17	16	12	9	6	4	3	3	3	3	5	8	11	15	16	18	N	N	N	N	N	N	N	N	18.4	
13-Mar	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	19.1
14-Mar	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--
15-Mar	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--
16-Mar	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--
17-Mar	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--
18-Mar	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--
19-Mar	23	23	23	22	22	20	20	18	16	14	13	13	14	17	22	27	32	33	36	38	40	42	43	43	42.8	
20-Mar	43	43	43	43	42	41	39	36	35	34	33	33	33	34	36	40	40	41	41	41	41	42	42	41	42.9	
21-Mar	39	38	37	35	33	31	28	28	27	26	26	25	26	27	28	28	29	30	31	31	30	29	28	27	39.4	
22-Mar	26	25	24	24	23	21	21	19	19	19	19	20	22	26	27	31	33	35	35	33	30	27	22	19	35.2	
23-Mar	16	14	13	13	15	16	17	17	17	18	18	19	21	22	25	28	31	32	34	35	34	32	31	29	34.9	
24-Mar	27	24	23	22	22	22	20	19	19	20	20	21	23	26	29	33	37	39	41	42	40	39	38	37	41.6	
25-Mar	36	34	33	33	34	33	30	26	24	22	21	22	23	25	29	34	37	40	42	43	42	41	39	38	43.0	
26-Mar	36	34	32	31	30	30	28	25	23	22	22	22	23	25	29	31	33	35	36	36	35	35	34	34	36.3	
27-Mar	34	34	34	34	32	30	26	21	18	20	20	21	25	29	34	40	44	47	50	51	51	49	45	40	50.9	
28-Mar	39	35	32	31	29	27	27	26	24	23	21	21	22	24	27	32	37	41	44	43	43	42	40	39	43.8	
29-Mar	38	39	39	41	40	40	39	39	38	36	36	37	39	42	44	47	50	52	54	53	49	43	41	35	53.7	
30-Mar	32	28	24	22	24	28	28	30	29	28	27	27	29	31	33	36	40	43	45	46	46	47	47	46	47.2	
31-Mar	43	41	41	42	40	37	35	34	35	36	36	37	40	44	47	48	49	50	50	49	48	46	45	43	49.9	
43.1 42.6 42.9 42.7 42.2 41.1 39.5 38.9 40.0 40.5 40.8 41.2 41.9 43.8 46.6 48.0 49.7 52.1 53.7 53.2 50.7 49.0 47.2 45.6																										
Diurnal Maximums																										
N - Not Valid																										

Span Responses

Ozone (O₃)
Henry Pirker - March 2013



Hourly Averages

Carbon Monoxide (CO) - ppm

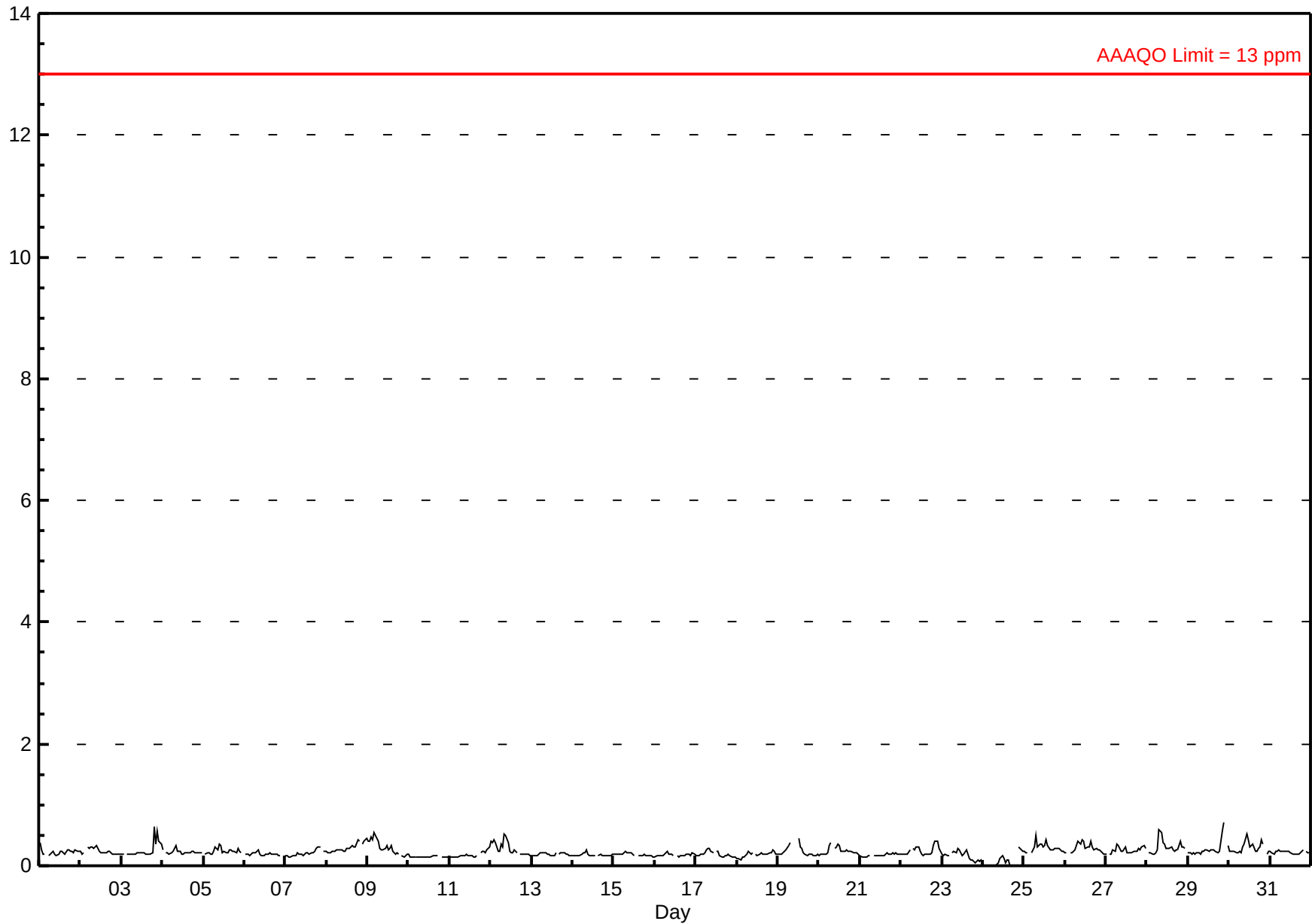
Henry Pirker - March 2013

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 0.71 ppm on Mar 29 22:00 Maximum Daily Average: 0.31 ppm on Mar 28																								Hours in Service: 744		
Minimum Value: 0.0 ppm on Mar 24 01:00 Minimum Daily Average: 0.08 ppm on Mar 24 Maximum Diurnal Average: 0.27 ppm at hour 8 Minimum Diurnal Average: 0.19 ppm at hour 2 Monthly Average: 0.226 ppm Percentiles: P ₁ = 0.00 P ₁₀ = 0.15 Q ₁ = 0.18 Median = 0.21 Q ₃ = 0.25 P ₉₀ = 0.32 P ₉₉ = 0.53																								Hours of Data: 704		
																								Hours of Missing Data: 40		
																								Hours of Calibration: 36		
																								Percent Operational Time: 99.5		
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-Mar	0.4	0.3	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	0.3	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.23	0.38
2-Mar	0.2	0.2	0.2	A	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.24	0.33
3-Mar	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	0.6	0.4	0.6	0.4	0.3	0.25	0.64
4-Mar	0.3	A	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	0.2	0.2	0.2	0.22	0.33
5-Mar	A	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.2	A	0.24	0.35
6-Mar	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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.19	0.26
7-Mar	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	0.2	0.2	0.3	0.3	A	0.2	0.2	0.2	0.20	0.31
8-Mar	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	A	0.3	0.4	0.4	0.29	0.44
9-Mar	0.4	0.4	0.5	0.4	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.30	0.54
10-Mar	0.2	0.2	0.2	0.1	0.2	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	A	0.2	0.2	0.1	0.1	0.1	0.15	0.18
11-Mar	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	A	A	0.2	0.2	0.2	0.2	0.3	0.3	0.18	0.32
12-Mar	0.4	0.4	0.4	0.4	0.2	0.2	0.4	0.3	0.5	0.5	0.4	0.2	0.2	0.2	0.3	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.29	0.52
13-Mar	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19	0.22
14-Mar	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	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18	0.27
15-Mar	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18	0.23
16-Mar	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.17	0.23
17-Mar	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	A	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.19	0.29
18-Mar	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.18	0.25
19-Mar	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	C	C	C	C	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.23	0.44
20-Mar	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	A	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.24	0.38
21-Mar	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.17	0.22
22-Mar	0.2	0.2	0.2	0.2	0.2	0.3	A	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	0.4	0.4	0.3	0.2	0.24	0.41
23-Mar	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.17	0.29
24-Mar	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.1	0.1	0.1	0.0	M	M	M	M	0.3	0.3	0.2	0.08	0.31
25-Mar	0.2	0.2	0.2	A	0.2	0.3	0.3	0.5	0.3	0.4	0.4	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.29	0.50
26-Mar	0.2	0.2	A	0.2	0.2	0.2	0.3	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.29	0.43
27-Mar	0.2	A	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.26	0.35
28-Mar	A	0.2	0.2	0.2	0.2	0.2	0.3	0.6	0.6	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.4	0.3	0.3	0.3	A	0.31	0.59
29-Mar	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.4	0.6	0.7	A	0.3	0.28	0.71
30-Mar	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.5	0.4	0.3	0.3	0.4	0.2	0.2	0.3	0.3	0.4	0.3	A	0.2	0.2	0.29	0.52
31-Mar	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	A	0.2	0.2	0.2	0.22	0.26
0.21 0.19 0.20 0.20 0.21 0.21 0.23 0.27 0.26 0.25 0.25 0.23 0.22 0.22 0.23 0.21 0.20 0.21 0.23 0.26 0.24 0.25 0.22 0.22																								Diurnal Average		
0.41 0.41 0.48 0.44 0.54 0.44 0.41 0.59 0.56 0.50 0.52 0.42 0.44 0.42 0.35 0.41 0.31 0.31 0.43 0.64 0.57 0.71 0.41 0.44																								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 - March 2013



Hourly Maximums

Carbon Monoxide (CO) - ppm

Henry Pirker - March 2013

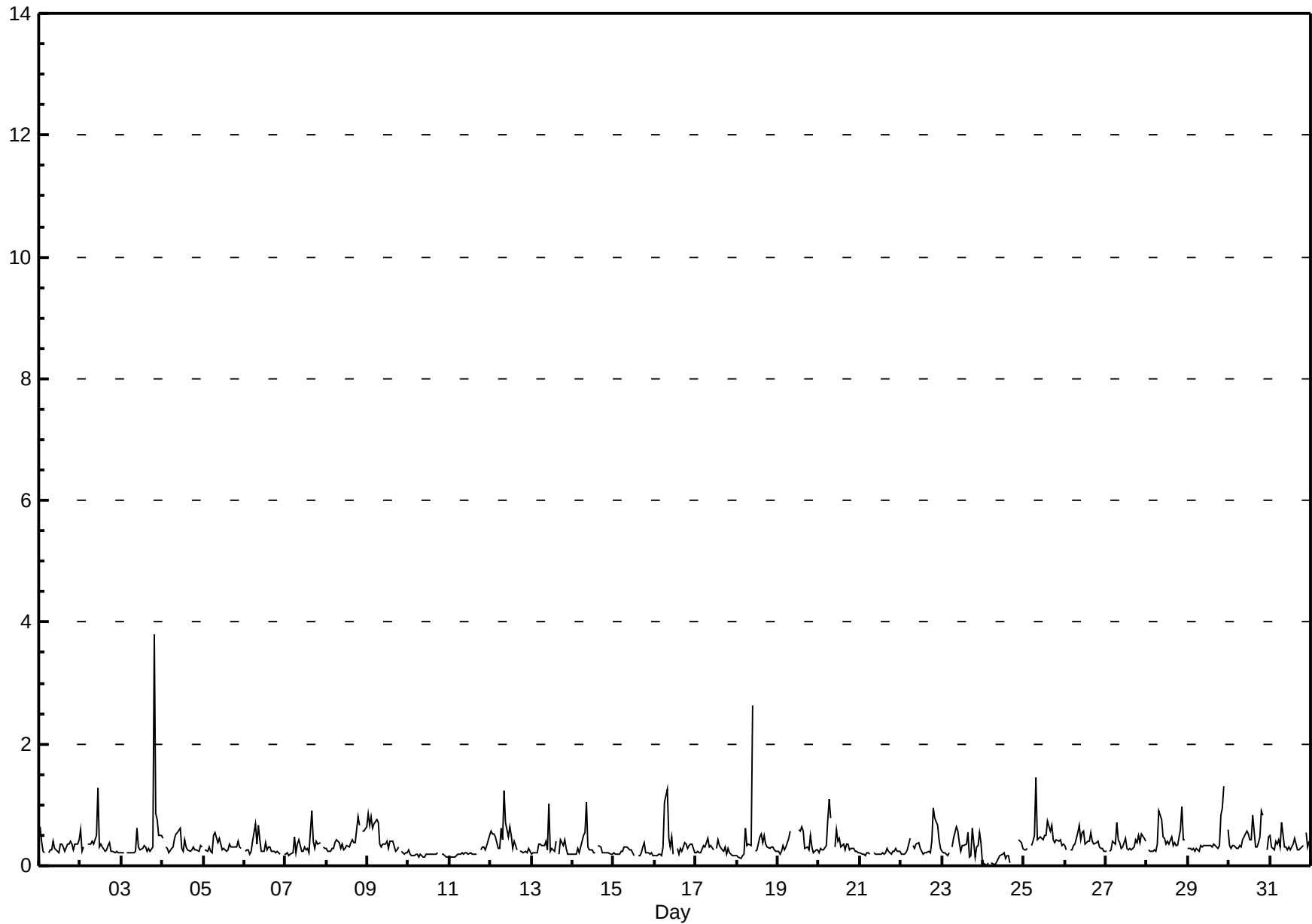
Maximum Value: 3.79 ppm on Mar 3 20:00																					Maximum Daily Average: 0.49 ppm on Mar 3					Hours in Service: 744	
Minimum Value: 0.0 ppm on Mar 24 03:00																					Minimum Daily Average: 0.13 ppm on Mar 24					Hours of Data: 704	
Maximum Diurnal Average: 0.51 ppm at hour 20																					Minimum Diurnal Average: 0.25 ppm at hour 2					Hours of Missing Data: 40	
Monthly Average: 0.345 ppm																					Percentiles: P ₁ = 0.04 P ₁₀ = 0.19 Q ₁ = 0.22 Median = 0.29 Q ₃ = 0.40 P ₉₀ = 0.55 P ₉₉ = 1.21					Hours of Calibration: 36	
																					Percent Operational Time: 99.5						
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-Mar	0.7	0.4	0.2	0.2	A	0.2	0.3	0.3	0.4	0.3	0.3	0.2	0.4	0.4	0.3	0.2	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.4	0.32	0.65	
2-Mar	0.6	0.2	0.3	A	0.3	0.3	0.4	0.4	0.3	0.5	1.3	0.3	0.4	0.3	0.2	0.3	0.3	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.36	1.29	
3-Mar	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.6	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.3	3.8	0.9	0.7	0.5	0.5	0.49	3.79	
4-Mar	0.4	A	0.3	0.3	0.2	0.3	0.3	0.4	0.5	0.5	0.6	0.3	0.2	0.4	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.33	0.62	
5-Mar	A	0.3	0.2	0.3	0.2	0.2	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	A	0.32	0.55	
6-Mar	0.2	0.3	0.3	0.2	0.2	0.4	0.7	0.4	0.7	0.4	0.2	0.2	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.30	0.68	
7-Mar	0.2	0.2	0.2	0.2	0.2	0.5	0.2	0.4	0.4	0.2	0.2	0.3	0.3	0.3	0.2	0.9	0.4	0.3	0.4	0.3	0.4	A	0.3	0.3	0.32	0.91	
8-Mar	0.3	0.2	0.2	0.3	0.3	0.4	0.4	0.4	0.3	0.4	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.8	0.7	A	0.6	0.6	0.7	0.40	0.81	
9-Mar	0.9	0.7	0.8	0.6	0.7	0.8	0.7	0.4	0.3	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.2	0.3	0.3	A	0.2	0.2	0.2	0.2	0.44	0.86	
10-Mar	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.18	0.25	
11-Mar	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.3	0.3	0.3	0.3	0.3	0.5	0.22	0.50	
12-Mar	0.6	0.5	0.5	0.5	0.3	0.3	0.6	0.4	1.2	0.7	0.5	0.6	0.5	0.3	0.4	0.2	A	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.43	1.23	
13-Mar	0.2	0.2	0.2	0.2	0.4	0.3	0.3	0.3	0.4	0.3	1.0	0.2	0.3	0.2	0.4	A	0.2	0.4	0.3	0.4	0.3	0.2	0.2	0.2	0.32	1.01	
14-Mar	0.2	0.2	0.2	0.3	0.2	0.4	0.5	0.5	1.0	0.3	0.3	0.3	0.2	0.2	A	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.30	1.04	
15-Mar	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	A	0.2	0.2	0.2	0.3	0.4	0.2	0.2	0.2	0.2	0.2	0.23	0.38	
16-Mar	0.2	0.2	0.2	0.2	0.2	0.3	1.1	1.3	0.4	0.3	0.5	0.2	A	0.3	0.2	0.3	0.2	0.4	0.4	0.3	0.3	0.4	0.3	0.2	0.36	1.26	
17-Mar	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.3	0.3	0.3	A	0.3	0.4	0.3	0.3	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.27	0.45	
18-Mar	0.2	0.2	0.1	0.2	0.2	0.6	0.3	0.4	0.3	2.6	A	0.2	0.3	0.5	0.5	0.4	0.5	0.4	0.3	0.3	0.3	0.3	0.3	0.2	0.41	2.64	
19-Mar	0.2	0.2	0.2	0.3	0.3	0.3	0.5	0.6	C	C	C	C	0.6	0.6	0.6	0.6	0.3	0.3	0.3	0.5	0.3	0.2	0.3	0.3	0.37	0.63	
20-Mar	0.2	0.3	0.3	0.3	0.3	0.8	1.1	0.8	A	0.3	0.6	0.4	0.4	0.3	0.4	0.3	0.3	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.39	1.10	
21-Mar	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.22	0.29	
22-Mar	0.2	0.2	0.2	0.2	0.3	0.4	A	0.3	0.3	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.4	1.0	0.8	0.7	0.4	0.3	0.35	0.96	
23-Mar	0.2	0.2	0.2	0.2	0.2	A	0.3	0.5	0.6	0.6	0.4	0.2	0.3	0.3	0.4	0.5	0.1	0.2	0.6	0.1	0.3	0.3	0.5	0.4	0.34	0.64	
24-Mar	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.1	M	M	M	M	0.4	0.4	0.3	0.13	0.42	
25-Mar	0.3	0.3	0.3	A	0.3	0.4	0.5	1.5	0.4	0.5	0.5	0.4	0.5	0.5	0.7	0.6	0.7	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.47	1.46	
26-Mar	0.3	0.3	A	0.3	0.3	0.3	0.4	0.5	0.7	0.4	0.5	0.6	0.4	0.4	0.4	0.6	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.39	0.66	
27-Mar	0.2	A	0.2	0.3	0.4	0.3	0.7	0.4	0.4	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.5	0.4	0.5	0.5	0.4	0.37	0.71	
28-Mar	A	0.3	0.2	0.2	0.3	0.2	0.3	0.9	0.8	0.5	0.4	0.4	0.4	0.4	0.5	0.3	0.4	0.3	0.3	0.6	1.0	0.4	0.4	A	0.44	0.98	
29-Mar	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.8	0.9	1.3	A	0.6	0.41	1.30	
30-Mar	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.6	0.5	0.4	0.4	0.8	0.3	0.3	0.4	0.5	0.9	0.8	A	0.3	0.5	0.44	0.91	
31-Mar	0.5	0.3	0.3	0.4	0.3	0.4	0.3	0.7	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.3	A	0.5	0.3	0.4	0.36	0.72	

C - CalibrationM - MaintenanceA - Automated Daily Zero Span

Hourly Maximums

Carbon Monoxide (CO) - ppm

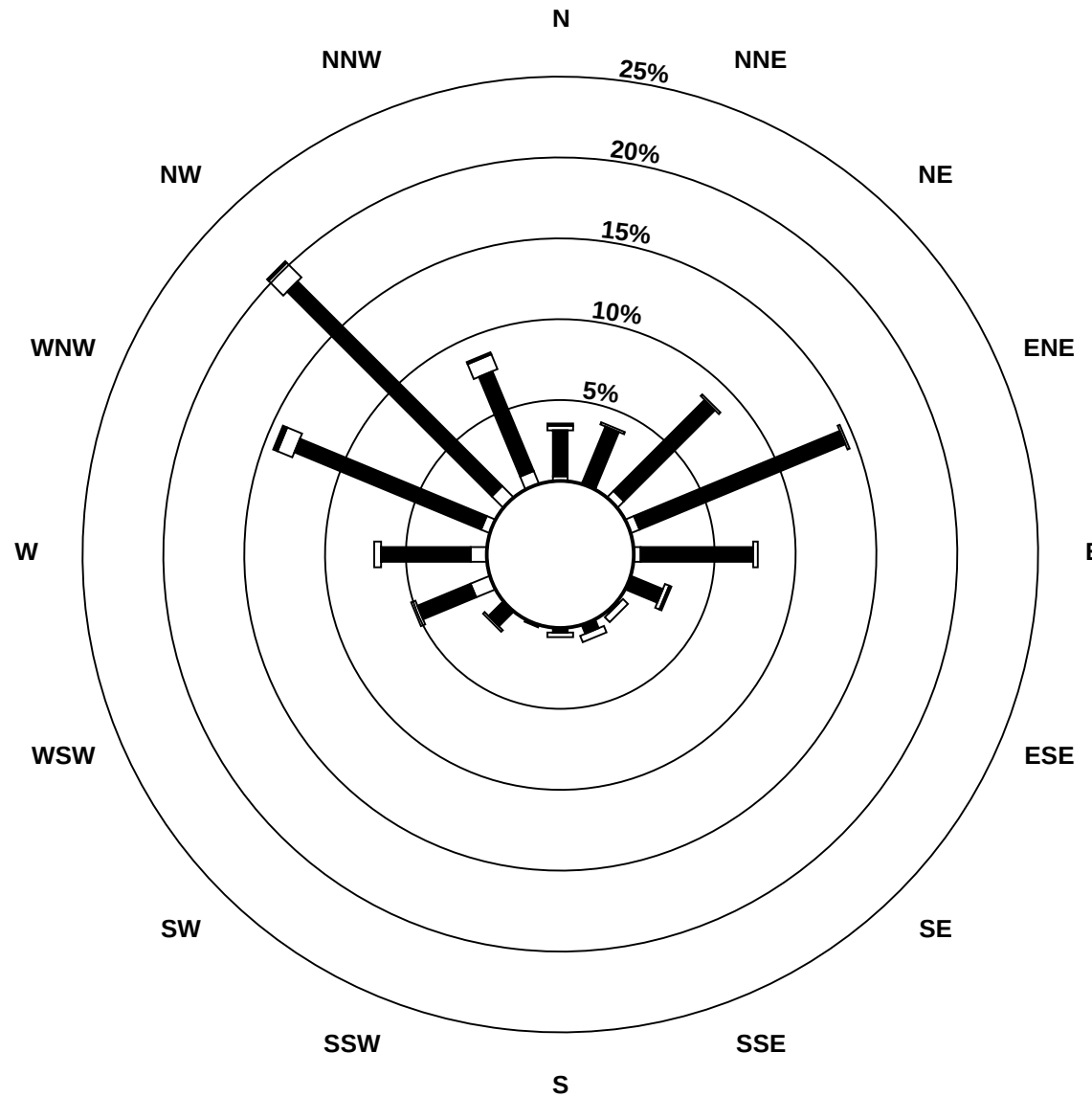
Henry Pirker - March 2013



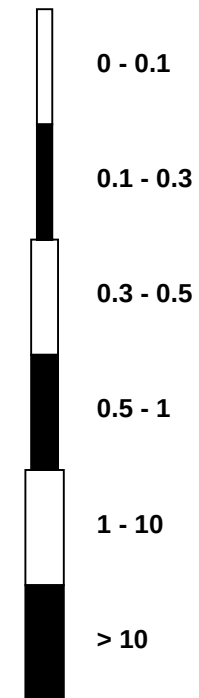
Pollutant Rose

Carbon Monoxide (CO) - ppm

Henry Pirker - March 2013



Pollutant Classes (ppm)



Eight Hour Running Averages

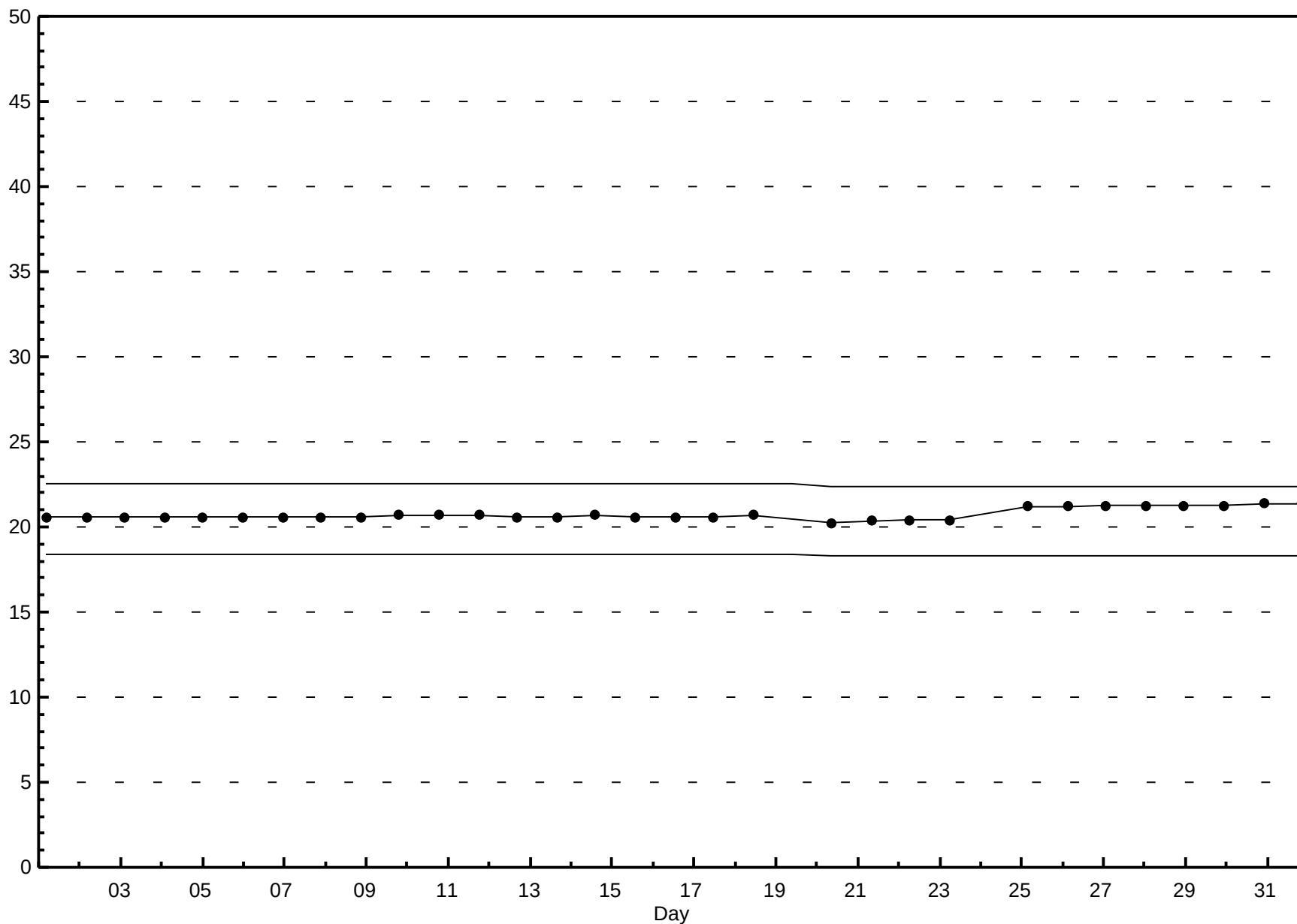
Carbon Monoxide (CO) - ppm

Henry Pirker - March 2013

Number of Exceedences (AAAQO): 8-hr: 0 Maximum Value: 0.45 ppm on Mar 9 06:00																				Hours in Service: 744 Hours of Data: 730 Hours of Missing Data: 14 Hours of Calibration: 7 Percent Operational Time: 99.1					
Minimum Value: 0.00 ppm on Mar 24 08:00																									
Percentiles: P ₁ = 0.03 P ₁₀ = 0.16 Q ₁ = 0.18 Median = 0.21 Q ₃ = 0.26 P ₉₀ = 0.32 P ₉₉ = 0.41																									
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-Mar	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.41
2-Mar	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.30
3-Mar	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.36
4-Mar	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.40
5-Mar	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.27
6-Mar	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.23
7-Mar	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.26
8-Mar	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.38
9-Mar	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.45
10-Mar	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18
11-Mar	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.24
12-Mar	0.3	0.3	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	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.37
13-Mar	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20
14-Mar	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	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-Mar	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21
16-Mar	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19
17-Mar	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.25
18-Mar	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21
19-Mar	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	N	N	N	N	N	N	N	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.27
20-Mar	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.31
21-Mar	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21
22-Mar	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.28
23-Mar	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.28
24-Mar	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	N	N	N	N	N	0.09
25-Mar	N	N	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.36
26-Mar	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.36
27-Mar	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.28
28-Mar	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	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	0.39
29-Mar	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.3	0.3	0.4	0.4	0.4	0.39
30-Mar	0.4	0.4	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.39
31-Mar	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.29
0.41 0.41 0.42 0.42 0.43 0.45 0.45 0.43 0.41 0.39 0.37 0.36 0.37 0.38 0.39 0.36 0.35 0.34 0.32 0.33 0.34 0.36 0.38 0.39																									
Diurnal Maximums																									
N - Not Valid																									
Alberta Ambient Air Quality Objectives (AAAQO): 8-hr 5 ppm																									

Span Responses

Carbon Monoxide (CO)
Henry Pirker - March 2013



Hourly Averages

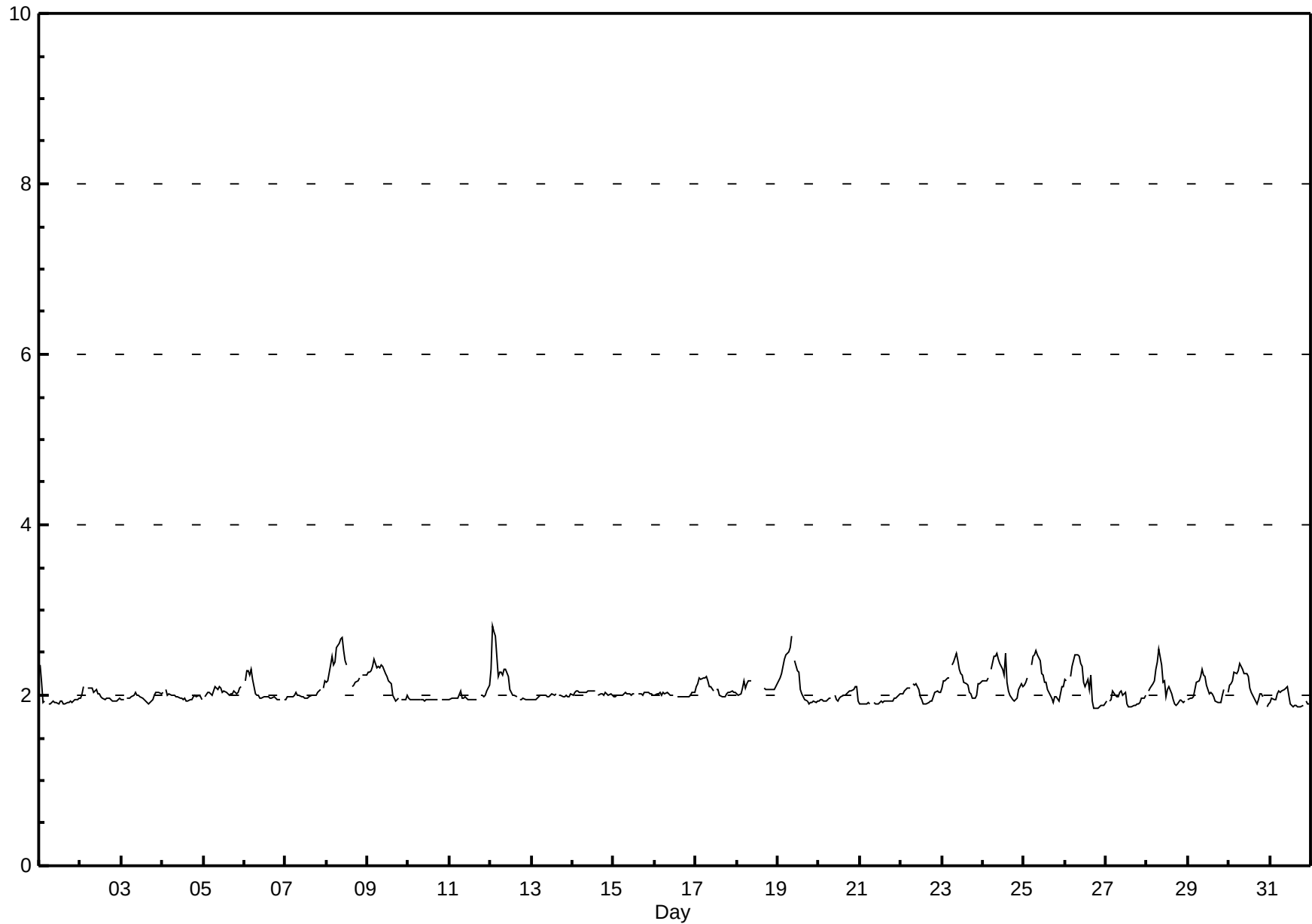
Total Hydrocarbons (THC) - ppm

Henry Pirker - March 2013

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 2.81 ppm on Mar 12 02:00 Maximum Daily Average: 2.34 ppm on Mar 8																								Hours in Service: 744 Hours of Data: 703 Hours of Missing Data: 41 Hours of Calibration: 37 Percent Operational Time: 99.5			
Minimum Value: 1.8 ppm on Mar 26 18:00 Maximum Diurnal Average: 2.18 ppm at hour 9 Monthly Average: 2.056 ppm												Minimum Daily Average: 1.92 ppm on Mar 21 Minimum Diurnal Average: 1.96 ppm at hour 18 Percentiles: P ₁ = 1.87 P ₁₀ = 1.92 Q ₁ = 1.95 Median = 2.01 Q ₃ = 2.10 P ₉₀ = 2.29 P ₉₉ = 2.59															
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Mar	2.4	2.1	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	2.0	1.9	2.0	1.95	2.35	
2-Mar	2.0	2.0	2.1	A	2.1	2.1	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.00	2.10
3-Mar	1.9	1.9	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	1.98	2.04	
4-Mar	2.0	A	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.98	2.06	
5-Mar	A	2.0	2.0	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	2.0	2.0	2.0	2.0	2.1	2.1	A	2.04	2.10	
6-Mar	2.2	2.3	2.3	2.2	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	1.9	1.9	A	1.9	2.05	2.30	
7-Mar	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	A	2.1	2.2	2.01	2.18	
8-Mar	2.1	2.2	2.4	2.5	2.4	2.4	2.6	2.6	2.7	2.7	2.5	2.4	2.4	M	M	2.1	2.1	2.1	2.2	2.2	A	2.2	2.2	2.2	2.34	2.68	
9-Mar	2.3	2.3	2.3	2.3	2.4	2.3	2.3	2.3	2.4	2.3	2.2	2.2	2.2	2.2	2.1	2.0	1.9	1.9	2.0	A	2.0	1.9	1.9	2.0	2.17	2.42	
10-Mar	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	2.0	1.95	1.97	
11-Mar	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	A	2.0	2.0	2.0	2.0	2.0	2.1	1.98	2.12	
12-Mar	2.3	2.8	2.8	2.7	2.2	2.3	2.3	2.2	2.3	2.3	2.2	2.1	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.18	2.81	
13-Mar	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.99	2.02	
14-Mar	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.03	2.05	
15-Mar	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.01	2.04	
16-Mar	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.01	2.04	
17-Mar	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	A	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.08	2.22	
18-Mar	2.0	2.0	2.0	2.1	2.2	2.1	2.1	2.2	2.2	M	M	C	C	C	C	C	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	--	2.17	
19-Mar	2.2	2.2	2.3	2.3	2.4	2.5	2.5	2.6	2.7	A	2.4	2.3	2.3	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.18	2.70	
20-Mar	1.9	1.9	2.0	1.9	1.9	1.9	2.0	2.0	A	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	1.9	1.99	2.10	
21-Mar	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	1.92	2.01	
22-Mar	2.0	2.0	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.01	2.14	
23-Mar	2.1	2.2	2.2	2.2	2.2	A	2.4	2.4	2.5	2.4	2.3	2.3	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.18	2.49	
24-Mar	2.2	2.2	2.2	2.2	A	2.3	2.5	2.5	2.5	2.4	2.4	2.3	2.2	2.5	2.1	2.0	2.0	1.9	1.9	1.9	2.0	2.1	2.1	2.1	2.20	2.49	
25-Mar	2.1	2.2	2.2	A	2.4	2.4	2.5	2.5	2.5	2.4	2.2	2.2	2.2	2.1	2.1	2.0	2.0	1.9	2.0	2.0	1.9	2.0	2.1	2.1	2.18	2.52	
26-Mar	2.2	2.2	A	2.2	2.3	2.4	2.5	2.5	2.5	2.4	2.3	2.1	2.1	2.2	2.1	2.2	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.9	2.14	2.48	
27-Mar	1.9	A	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.95	2.04	
28-Mar	A	2.0	2.1	2.1	2.2	2.3	2.4	2.5	2.4	2.2	2.2	2.0	2.1	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.09	2.53	
29-Mar	2.0	2.0	2.0	2.0	2.1	2.2	2.2	2.2	2.3	2.2	2.2	2.1	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.1	A	2.0	2.05	2.31	
30-Mar	2.1	2.1	2.2	2.3	2.3	2.3	2.4	2.3	2.3	2.3	2.3	2.2	2.1	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.0	A	1.9	1.9	2.12	2.37	
31-Mar	1.9	2.0	2.0	1.9	2.0	2.1	2.0	2.0	2.1	2.1	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.95	2.10	
2.06 2.09 2.09 2.10 2.12 2.12 2.16 2.17 2.18 2.13 2.11 2.07 2.04 2.03 1.99 1.98 1.96 1.96 1.97 1.98 1.98 2.01 2.01 2.01																								Diurnal Average			
2.35 2.81 2.75 2.70 2.43 2.48 2.56 2.62 2.70 2.68 2.53 2.41 2.36 2.49 2.15 2.24 2.12 2.15 2.17 2.21 2.07 2.23 2.24 2.23																								Diurnal Maximum			
C - Calibration M - Maintenance A - Automated Daily Zero Span																											

Hourly Averages

Total Hydrocarbons (THC) - ppm
Henry Pirker - March 2013



Hourly Maximums

Total Hydrocarbons (THC) - ppm

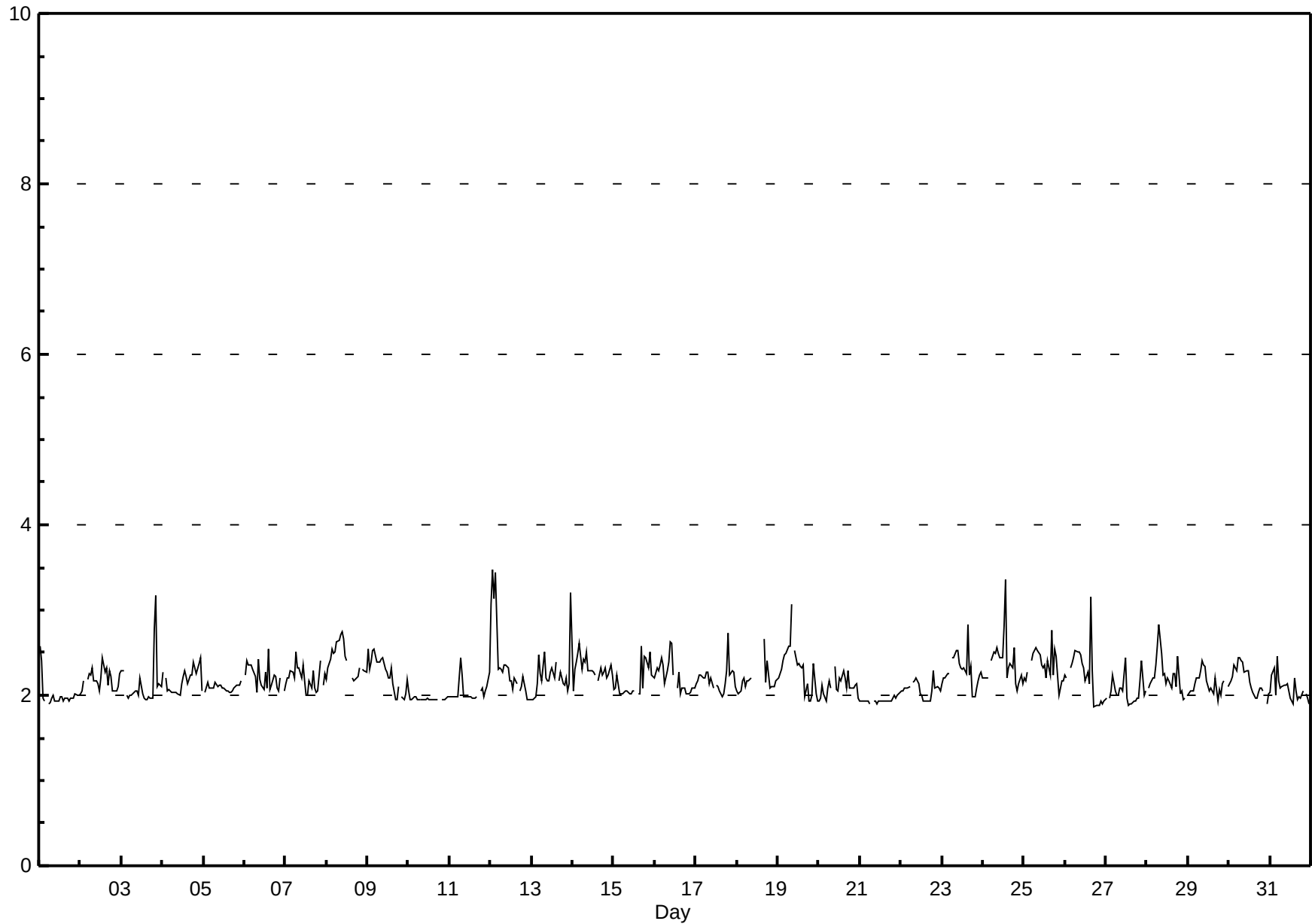
Henry Pirker - March 2013

Maximum Value: 3.48 ppm on Mar 12 02:00																					Maximum Daily Average: 2.41 ppm on Mar 8					Hours in Service: 744	
Minimum Value: 1.9 ppm on Mar 26 18:00																					Minimum Daily Average: 1.94 ppm on Mar 21					Hours of Data: 703	
Maximum Diurnal Average: 2.29 ppm at hour 9																					Minimum Diurnal Average: 2.10 ppm at hour 18					Hours of Missing Data: 41	
Monthly Average: 2.183 ppm																					Percentiles: P ₁ = 1.90 P ₁₀ = 1.96 Q ₁ = 2.02 Median = 2.14 Q ₃ = 2.29 P ₉₀ = 2.45 P ₉₉ = 3.12					Hours of Calibration: 37	
																										Percent Operational Time: 99.5	
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-Mar	2.6	2.4	2.0	1.9	A	1.9	1.9	2.0	2.0	1.9	1.9	1.9	2.0	2.0	1.9	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.01	2.58	
2-Mar	2.0	2.1	2.2	A	2.2	2.3	2.2	2.3	2.2	2.2	2.1	2.1	2.2	2.4	2.3	2.3	2.1	2.3	2.2	2.1	2.1	2.1	2.1	2.3	2.18	2.43	
3-Mar	2.3	2.3	A	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.2	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.8	3.2	2.1	2.1	2.1	2.13	3.17	
4-Mar	2.3	A	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.3	2.2	2.1	2.2	2.2	2.4	2.3	2.3	2.4	2.4	2.0	2.18	2.44	
5-Mar	A	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.2	A	2.09	2.18	
6-Mar	2.2	2.4	2.4	2.3	2.4	2.3	2.2	2.0	2.4	2.2	2.1	2.1	2.3	2.1	2.5	2.1	2.1	2.2	2.2	2.1	2.1	2.2	A	2.1	2.22	2.54	
7-Mar	2.1	2.2	2.2	2.3	2.3	2.2	2.5	2.3	2.3	2.2	2.4	2.2	2.0	2.0	2.2	2.1	2.3	2.1	2.0	2.1	2.4	A	2.1	2.3	2.21	2.50	
8-Mar	2.2	2.3	2.4	2.5	2.5	2.5	2.6	2.6	2.7	2.7	2.7	2.5	2.4	M	M	2.2	2.2	2.2	2.2	2.3	A	2.3	2.3	2.3	2.41	2.74	
9-Mar	2.5	2.3	2.4	2.5	2.5	2.4	2.4	2.4	2.4	2.4	2.3	2.3	2.2	2.2	2.3	2.1	2.0	2.0	2.1	A	2.0	2.0	2.0	2.2	2.26	2.55	
10-Mar	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	1.96	2.05	
11-Mar	2.0	2.0	2.0	2.0	2.0	2.0	2.4	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.1	2.1	2.0	2.0	2.1	2.3	2.04	2.45	
12-Mar	3.1	3.5	3.1	3.4	2.3	2.3	2.3	2.3	2.4	2.4	2.3	2.2	2.2	2.1	2.2	2.1	A	2.0	2.1	2.2	2.0	2.0	2.0	2.0	2.37	3.48	
13-Mar	2.0	2.0	2.0	2.1	2.5	2.3	2.2	2.5	2.2	2.2	2.2	2.3	2.3	2.2	2.4	A	2.2	2.3	2.1	2.1	2.2	2.0	2.1	3.2	2.24	3.20	
14-Mar	2.0	2.3	2.4	2.5	2.6	2.3	2.4	2.4	2.5	2.3	2.3	2.3	2.3	2.2	A	2.2	2.3	2.2	2.3	2.3	2.2	2.2	2.4	2.2	2.31	2.61	
15-Mar	2.1	2.1	2.2	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.6	2.1	2.5	2.4	2.3	2.5	2.2	2.2	2.16	2.57	
16-Mar	2.2	2.3	2.3	2.4	2.4	2.4	2.1	2.3	2.4	2.6	2.6	2.2	A	2.1	2.3	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.22	2.63	
17-Mar	2.1	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.1	2.2	2.1	A	2.1	2.1	2.1	2.0	2.0	2.1	2.3	2.7	2.2	2.3	2.3	2.1	2.19	2.73	
18-Mar	2.0	2.0	2.0	2.2	2.2	2.1	2.2	2.2	2.2	M	M	C	C	C	C	C	2.7	2.2	2.4	2.1	2.1	2.1	2.1	2.2	--	2.66	
19-Mar	2.2	2.2	2.3	2.4	2.5	2.5	2.6	2.6	3.1	A	2.5	2.4	2.4	2.3	2.3	2.3	2.0	2.1	1.9	1.9	2.0	2.4	2.0	1.9	2.30	3.07	
20-Mar	1.9	2.0	2.1	2.0	1.9	2.1	2.2	2.1	A	2.3	2.1	2.0	2.2	2.2	2.3	2.2	2.1	2.3	2.1	2.1	2.1	2.1	2.1	2.0	2.11	2.34	
21-Mar	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	1.94	2.03	
22-Mar	2.1	2.1	2.1	2.1	2.1	2.1	A	2.2	2.2	2.2	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.1	2.3	2.1	2.1	2.1	2.1	2.06	2.29	
23-Mar	2.1	2.2	2.2	2.3	2.3	A	2.4	2.4	2.5	2.5	2.4	2.3	2.3	2.3	2.3	2.8	2.2	2.3	2.0	2.0	2.1	2.2	2.2	2.3	2.29	2.83	
24-Mar	2.2	2.2	2.2	2.2	A	2.4	2.5	2.5	2.6	2.5	2.4	2.4	2.8	3.4	2.2	2.3	2.4	2.3	2.6	2.1	2.1	2.1	2.2	2.1	2.38	3.36	
25-Mar	2.2	2.2	2.3	A	2.4	2.5	2.5	2.6	2.5	2.5	2.3	2.3	2.3	2.2	2.4	2.2	2.8	2.2	2.5	2.5	2.0	2.1	2.2	2.2	2.34	2.77	
26-Mar	2.2	2.2	A	2.3	2.4	2.4	2.5	2.5	2.5	2.5	2.4	2.3	2.2	2.3	2.1	3.2	2.3	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.24	3.15	
27-Mar	2.0	A	2.0	2.1	2.2	2.1	2.0	2.0	2.1	2.1	2.1	2.4	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.2	2.4	2.0	2.1	2.04	2.44	
28-Mar	A	2.1	2.1	2.2	2.2	2.3	2.6	2.8	2.5	2.2	2.3	2.1	2.2	2.2	2.1	2.3	2.2	2.1	2.5	2.0	2.1	2.0	2.0	A	2.23	2.82	
29-Mar	2.0	2.1	2.1	2.1	2.1	2.2	2.2	2.3	2.4	2.3	2.3	2.2	2.1	2.1	2.1	2.0	2.2	1.9	2.1	2.0	2.1	2.2	A	2.1	2.14	2.41	
30-Mar	2.1	2.2	2.2	2.3	2.3	2.4	2.4	2.4	2.4	2.3	2.3	2.3	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.1	A	1.9	2.0	2.18	2.44	
31-Mar	2.0	2.2	2.3	2.0	2.5	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.0	1.9	2.2	2.0	2.0	2.0	2.0	2.1	A	2.0	2.0	1.9	2.08	2.46	

Hourly Maximums

Total Hydrocarbons (THC) - ppm

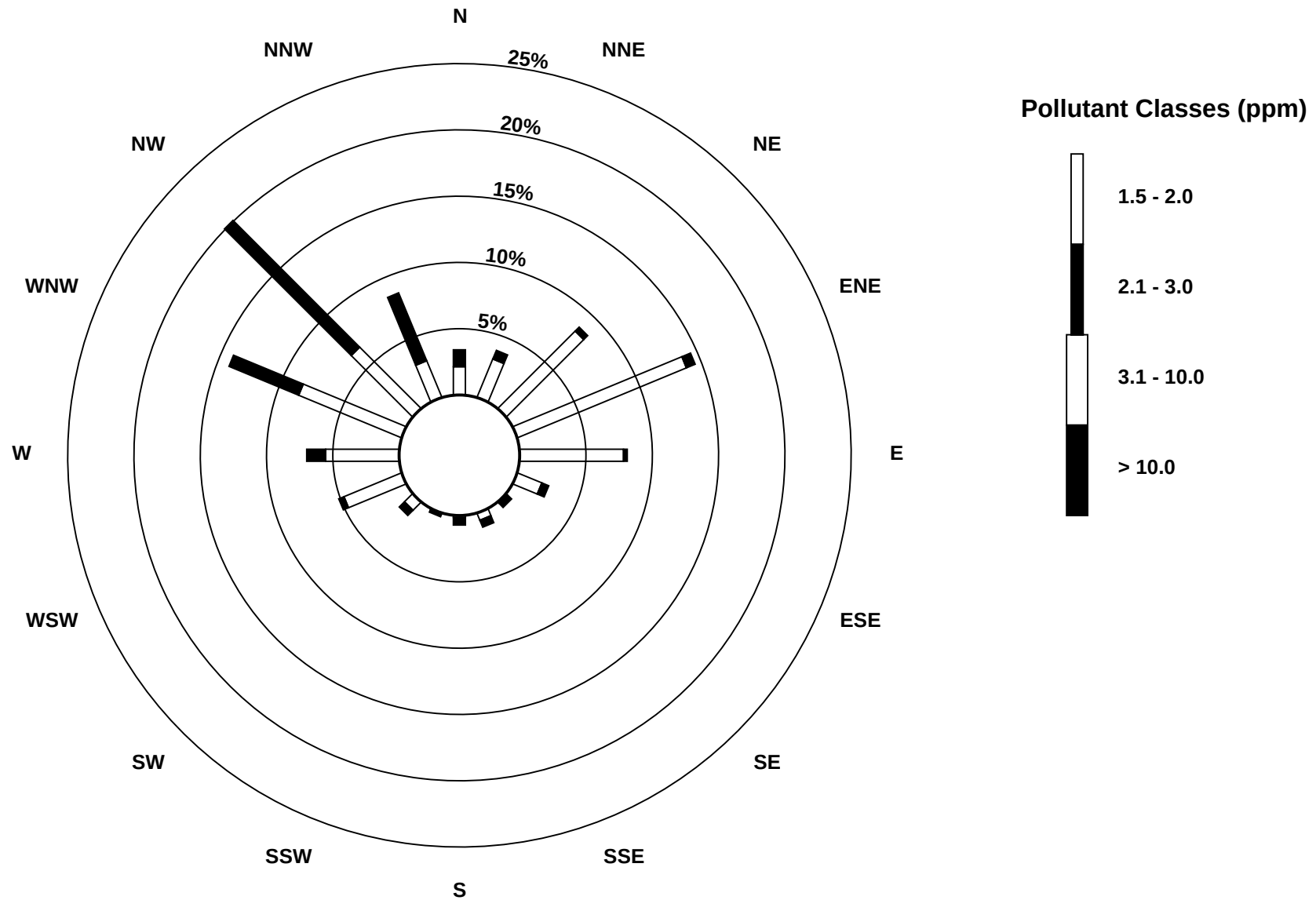
Henry Pirker - March 2013



Pollutant Rose

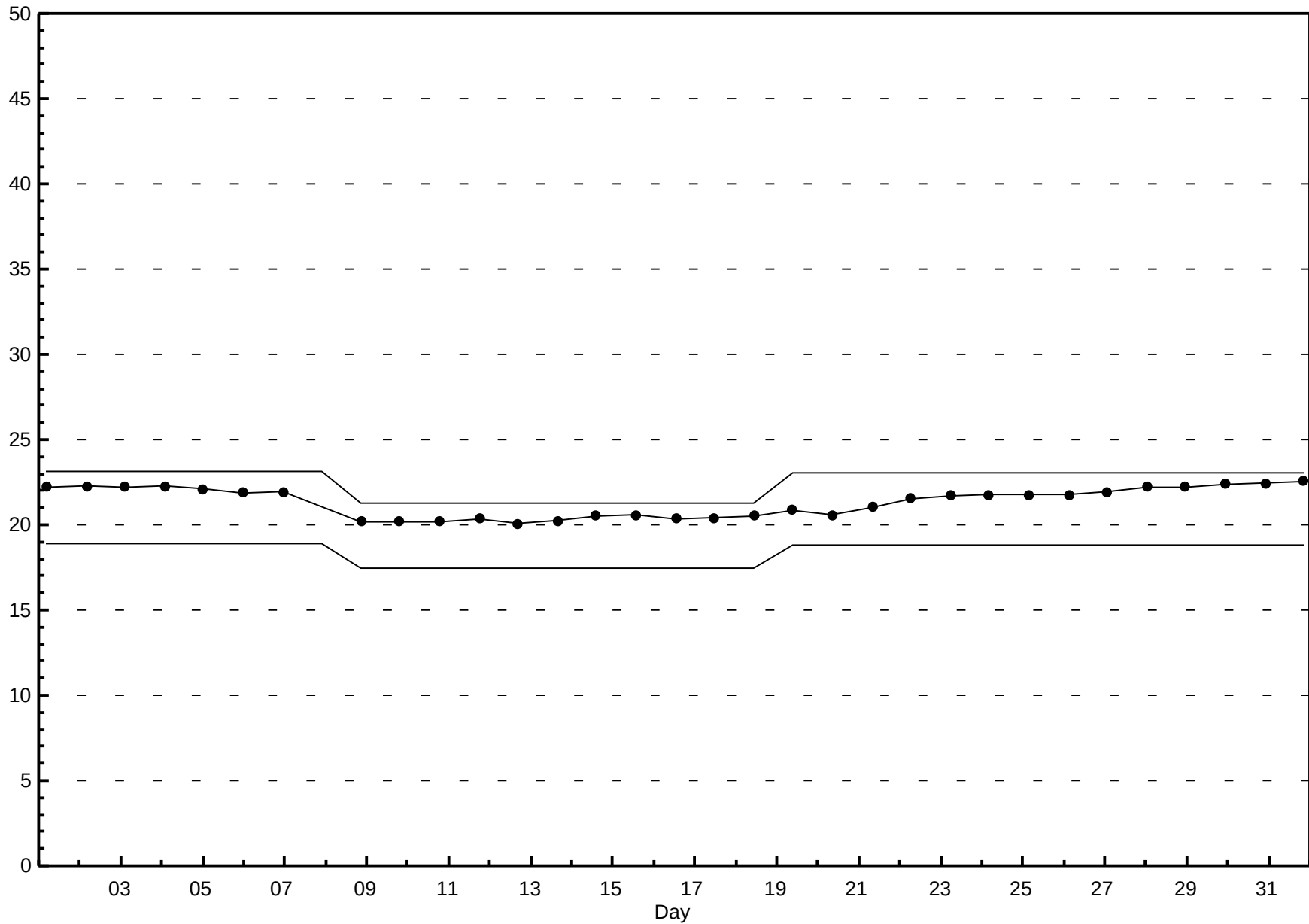
Total Hydrocarbons (THC) - ppm

Henry Pirker - March 2013



Span Responses

Total Hydrocarbons (THC)
Henry Pirker - March 2013



Hourly Averages

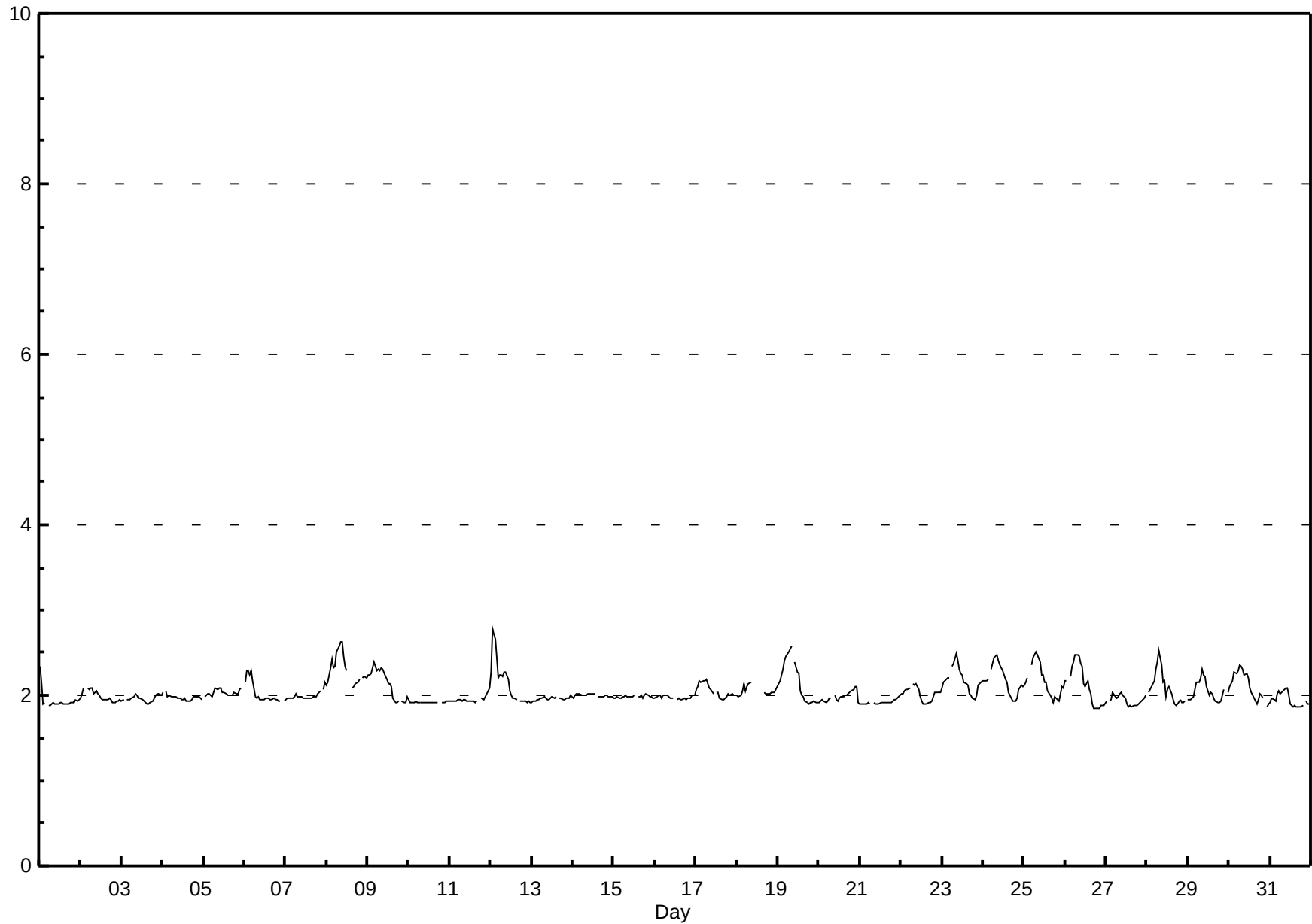
Methane (CH₄) - ppm

Henry Pirker - March 2013

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 2.78 ppm on Mar 12 02:00 Maximum Daily Average: 2.30 ppm on Mar 8																								Hours in Service: 744 Hours of Data: 703 Hours of Missing Data: 41 Hours of Calibration: 37 Percent Operational Time: 99.5		
Minimum Value: 1.8 ppm on Mar 26 18:00 Maximum Diurnal Average: 2.16 ppm at hour 9 Monthly Average: 2.040 ppm												Minimum Daily Average: 1.92 ppm on Mar 10 Minimum Diurnal Average: 1.95 ppm at hour 18 Percentiles: P ₁ = 1.86 P ₁₀ = 1.91 Q ₁ = 1.94 Median = 1.99 Q ₃ = 2.09 P ₉₀ = 2.27 P ₉₉ = 2.57														
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Mar	2.3	2.1	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.94	2.34
2-Mar	2.0	2.0	2.1	A	2.1	2.1	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.99	2.08
3-Mar	1.9	1.9	A	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	1.96	2.02
4-Mar	2.0	A	2.0	2.0	2.0	2.0	2.0	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	1.97	2.05
5-Mar	A	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	A	2.03	2.09
6-Mar	2.2	2.3	2.3	2.2	2.3	2.2	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	A	1.9	2.03	2.29
7-Mar	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.1	2.2	1.99	2.15
8-Mar	2.1	2.1	2.3	2.4	2.3	2.3	2.5	2.6	2.6	2.6	2.5	2.3	2.3	M	M	2.1	2.1	2.1	2.1	2.2	A	2.2	2.2	2.2	2.30	2.63
9-Mar	2.2	2.2	2.3	2.3	2.4	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.1	2.1	2.1	2.0	1.9	1.9	1.9	A	1.9	1.9	1.9	2.0	2.14	2.39
10-Mar	1.9	1.9	1.9	1.9	1.9	1.9	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	1.92	1.94
11-Mar	1.9	1.9	1.9	1.9	1.9	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	2.0	2.0	2.1	1.95	2.09
12-Mar	2.3	2.8	2.7	2.7	2.2	2.2	2.2	2.2	2.3	2.3	2.2	2.0	2.0	2.0	2.0	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.15	2.78
13-Mar	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.96	2.00
14-Mar	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.00	2.03
15-Mar	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.98	2.01
16-Mar	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.98	2.01
17-Mar	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.0	A	2.0	2.0	2.0	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.05	2.19
18-Mar	2.0	2.0	2.0	2.1	2.1	2.0	2.1	2.1	2.1	2.1	M	M	C	C	C	C	C	2.0	2.0	2.0	2.0	2.0	2.0	2.1	--	2.15
19-Mar	2.1	2.2	2.2	2.3	2.4	2.5	2.5	2.5	2.6	A	2.4	2.3	2.3	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.16	2.58
20-Mar	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	A	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	1.9	1.98	2.10
21-Mar	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	1.92	2.01
22-Mar	2.0	2.0	2.0	2.1	2.1	2.1	A	2.1	2.1	2.1	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.01	2.14
23-Mar	2.1	2.2	2.2	2.2	2.2	A	2.3	2.4	2.5	2.4	2.3	2.3	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.17	2.49
24-Mar	2.2	2.2	2.2	2.2	A	2.3	2.4	2.5	2.5	2.4	2.4	2.3	2.2	2.2	2.1	2.0	2.0	1.9	1.9	1.9	2.0	2.1	2.1	2.1	2.18	2.48
25-Mar	2.1	2.1	2.2	A	2.4	2.4	2.5	2.5	2.5	2.4	2.2	2.2	2.1	2.1	2.0	2.0	2.0	1.9	2.0	2.0	1.9	2.0	2.1	2.1	2.17	2.52
26-Mar	2.2	2.2	A	2.2	2.3	2.4	2.5	2.5	2.5	2.4	2.3	2.1	2.2	2.1	2.0	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.9	2.12	2.47	
27-Mar	1.9	A	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.94	2.04	
28-Mar	A	2.0	2.1	2.1	2.2	2.3	2.4	2.5	2.4	2.2	2.2	2.0	2.1	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.08	2.53
29-Mar	1.9	2.0	2.0	2.0	2.1	2.2	2.2	2.2	2.3	2.2	2.2	2.1	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.1	A	2.0	2.05	2.31
30-Mar	2.1	2.1	2.2	2.3	2.2	2.3	2.4	2.3	2.3	2.2	2.3	2.2	2.1	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.0	A	1.9	1.9	2.11	2.36
31-Mar	1.9	2.0	2.0	1.9	2.0	2.1	2.0	2.0	2.1	2.1	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.95	2.09
																								Diurnal Average		
																								Diurnal Maximum		
C - Calibration M - Maintenance A - Automated Daily Zero Span																										

Hourly Averages

Methane (CH₄) - ppm
Henry Pirker - March 2013



Hourly Maximums

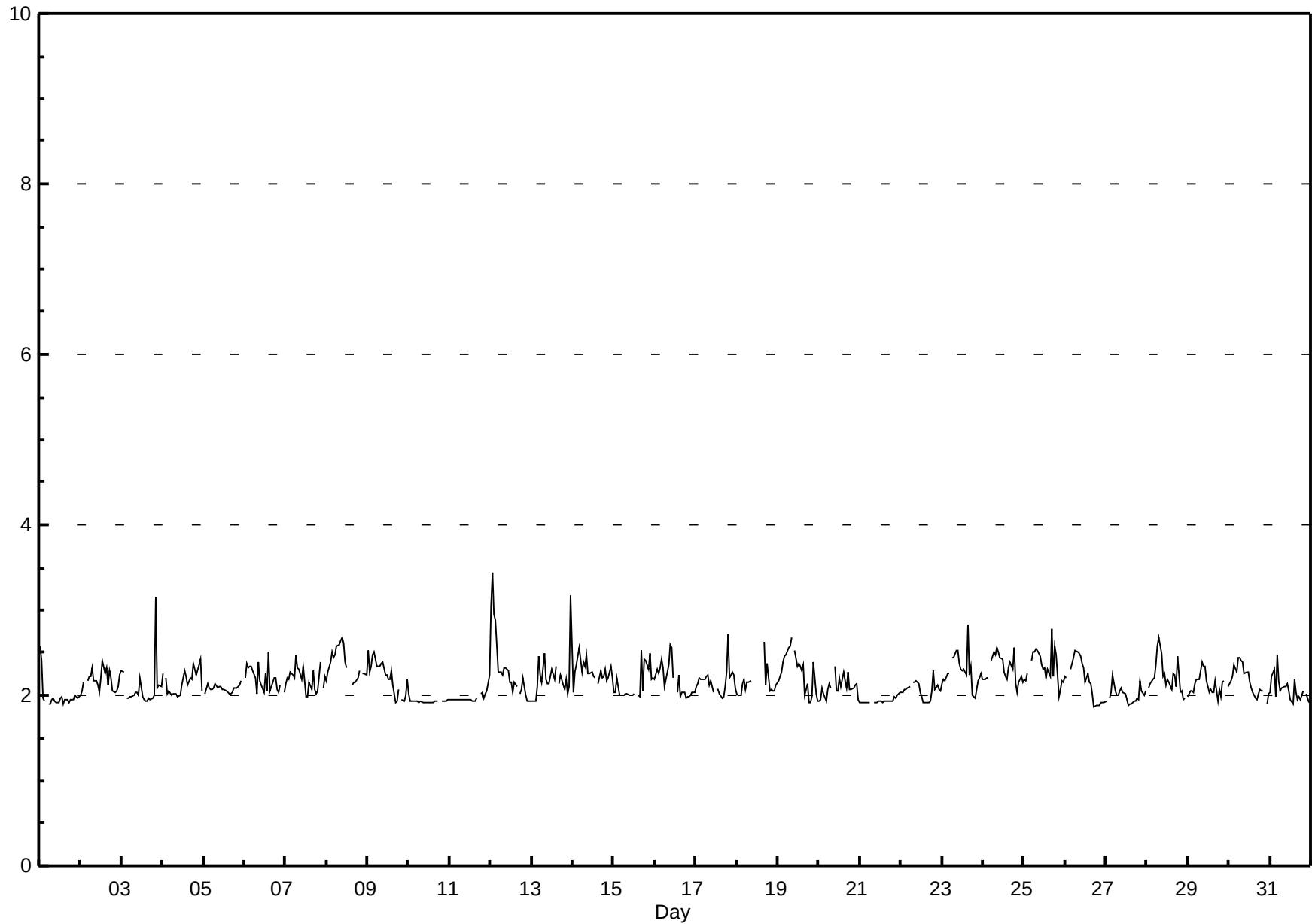
Methane (CH₄) - ppm

Henry Pirker - March 2013

Maximum Value: 3.44 ppm on Mar 12 02:00																								Maximum Daily Average: 2.37 ppm on Mar 8										Hours in Service: 744	
Minimum Value: 1.9 ppm on Mar 26 18:00																								Minimum Daily Average: 1.93 ppm on Mar 21										Hours of Data: 703	
Maximum Diurnal Average: 2.26 ppm at hour 9																								Minimum Diurnal Average: 2.08 ppm at hour 18										Hours of Missing Data: 41	
Monthly Average: 2.155 ppm																								Percentiles: P ₁ = 1.89 P ₁₀ = 1.94 Q ₁ = 2.00 Median = 2.12 Q ₃ = 2.27 P ₉₀ = 2.42 P ₉₉ = 2.81										Hours of Calibration: 37	
																								Percent Operational Time: 99.5											
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-Mar	2.6	2.4	2.0	1.9	A	1.9	1.9	1.9	2.0	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.99	2.57									
2-Mar	2.0	2.0	2.2	A	2.2	2.2	2.2	2.3	2.2	2.2	2.1	2.0	2.2	2.4	2.3	2.3	2.1	2.3	2.2	2.0	2.0	2.1	2.1	2.2	2.17	2.40									
3-Mar	2.3	2.3	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.0	1.9	1.9	1.9	2.0	1.9	2.0	2.0	3.2	2.1	2.1	2.1	2.08	3.15									
4-Mar	2.2	A	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.3	2.2	2.1	2.2	2.2	2.4	2.3	2.2	2.4	2.4	2.1	2.16	2.42									
5-Mar	A	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.2	A	2.08	2.17									
6-Mar	2.2	2.4	2.3	2.3	2.3	2.3	2.2	2.0	2.4	2.2	2.1	2.0	2.3	2.1	2.5	2.1	2.1	2.2	2.2	2.1	2.0	2.1	A	2.0	2.20	2.52									
7-Mar	2.1	2.2	2.2	2.3	2.2	2.2	2.5	2.3	2.3	2.2	2.3	2.2	2.0	2.0	2.2	2.1	2.3	2.1	2.0	2.1	2.4	A	2.1	2.2	2.19	2.48									
8-Mar	2.2	2.3	2.4	2.5	2.4	2.5	2.6	2.6	2.6	2.7	2.6	2.4	2.3	M	M	2.1	2.2	2.2	2.2	2.3	A	2.3	2.3	2.2	2.37	2.68									
9-Mar	2.5	2.3	2.3	2.5	2.5	2.3	2.3	2.3	2.4	2.4	2.2	2.2	2.2	2.2	2.3	2.1	1.9	1.9	2.1	A	2.0	1.9	2.0	2.2	2.22	2.52									
10-Mar	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	2.0	1.94	2.03									
11-Mar	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	A	2.0	2.0	2.0	2.1	2.2	1.98	2.24										
12-Mar	3.0	3.4	2.9	2.9	2.3	2.3	2.3	2.2	2.3	2.3	2.3	2.1	2.2	2.0	2.2	2.1	A	2.0	2.1	2.2	2.0	1.9	1.9	1.9	2.30	3.44									
13-Mar	1.9	1.9	1.9	2.1	2.5	2.2	2.1	2.5	2.2	2.1	2.1	2.2	2.3	2.2	2.3	A	2.1	2.2	2.1	2.1	2.2	2.0	2.1	3.2	2.21	3.16									
14-Mar	2.0	2.3	2.4	2.5	2.6	2.3	2.4	2.3	2.5	2.3	2.3	2.3	2.2	2.2	A	2.1	2.3	2.2	2.2	2.3	2.2	2.2	2.3	2.2	2.28	2.56									
15-Mar	2.0	2.0	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.5	2.1	2.4	2.4	2.3	2.5	2.2	2.2	2.12	2.53									
16-Mar	2.2	2.3	2.3	2.3	2.4	2.3	2.1	2.3	2.4	2.6	2.6	2.2	A	2.0	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.18	2.59									
17-Mar	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.2	2.0	A	2.1	2.1	2.0	2.0	2.0	2.1	2.3	2.7	2.2	2.3	2.2	2.1	2.16	2.71									
18-Mar	2.0	2.0	2.0	2.1	2.2	2.1	2.1	2.1	2.2	M	M	C	C	C	C	C	2.6	2.1	2.4	2.0	2.1	2.1	2.1	2.1	--	2.63									
19-Mar	2.2	2.2	2.3	2.4	2.5	2.5	2.6	2.6	2.7	A	2.5	2.3	2.4	2.3	2.3	2.4	2.0	2.1	1.9	1.9	2.0	2.4	2.0	1.9	2.27	2.67									
20-Mar	1.9	2.0	2.1	2.0	1.9	2.1	2.1	2.1	A	2.3	2.1	2.1	2.2	2.1	2.3	2.2	2.1	2.3	2.1	2.1	2.1	2.1	2.1	2.0	2.10	2.34									
21-Mar	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	1.93	2.03									
22-Mar	2.0	2.0	2.1	2.1	2.1	2.1	A	2.1	2.1	2.2	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.1	2.3	2.1	2.1	2.1	2.1	2.06	2.29									
23-Mar	2.1	2.2	2.2	2.3	2.2	A	2.4	2.4	2.5	2.5	2.4	2.3	2.3	2.3	2.2	2.8	2.2	2.3	2.0	2.0	2.1	2.2	2.2	2.2	2.28	2.83									
24-Mar	2.2	2.2	2.2	2.2	A	2.4	2.5	2.5	2.6	2.5	2.4	2.4	2.3	2.2	2.2	2.3	2.4	2.3	2.6	2.1	2.0	2.1	2.2	2.1	2.31	2.57									
25-Mar	2.2	2.2	2.2	A	2.4	2.5	2.5	2.5	2.5	2.5	2.4	2.3	2.3	2.2	2.3	2.2	2.8	2.2	2.6	2.5	2.0	2.1	2.2	2.2	2.33	2.78									
26-Mar	2.2	2.2	A	2.3	2.4	2.4	2.5	2.5	2.5	2.5	2.4	2.3	2.2	2.2	2.1	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.18	2.53									
27-Mar	1.9	A	2.0	2.0	2.2	2.1	2.0	2.0	2.1	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.2	2.1	2.0	2.1	2.00	2.23									
28-Mar	A	2.1	2.1	2.2	2.2	2.4	2.6	2.7	2.5	2.2	2.2	2.1	2.2	2.2	2.1	2.2	2.2	2.1	2.5	2.0	2.0	2.0	2.0	A	2.22	2.67									
29-Mar	2.0	2.1	2.1	2.0	2.1	2.2	2.2	2.3	2.4	2.3	2.3	2.2	2.0	2.1	2.0	2.0	2.2	1.9	2.1	2.0	2.1	2.2	A	2.1	2.13	2.38									
30-Mar	2.1	2.2	2.2	2.4	2.3	2.4	2.4	2.4	2.4	2.3	2.3	2.3	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.1	A	1.9	2.0	2.17	2.44									
31-Mar	2.0	2.2	2.3	2.0	2.5	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.0	1.9	2.2	2.0	1.9	2.0	2.0	2.1	A	2.0	2.0	1.9	2.07	2.47									
2.15 2.18 2.18 2.18 2.22 2.20 2.23 2.25 2.26 2.22 2.19 2.15 2.12 2.09 2.12 2.10 2.13 2.08 2.14 2.11 2.11 2.10 2.09 2.12																								Diurnal Average											
3.04 3.44 2.95 2.88 2.56 2.51 2.58 2.67 2.67 2.68 2.61 2.43 2.37 2.40 2.52 2.83 2.78 2.34 2.57 2.71 3.15 2.48 2.42 3.16																								Diurnal Maximum											
C - Calibration M - Maintenance A - Automated Daily Zero Span																																			

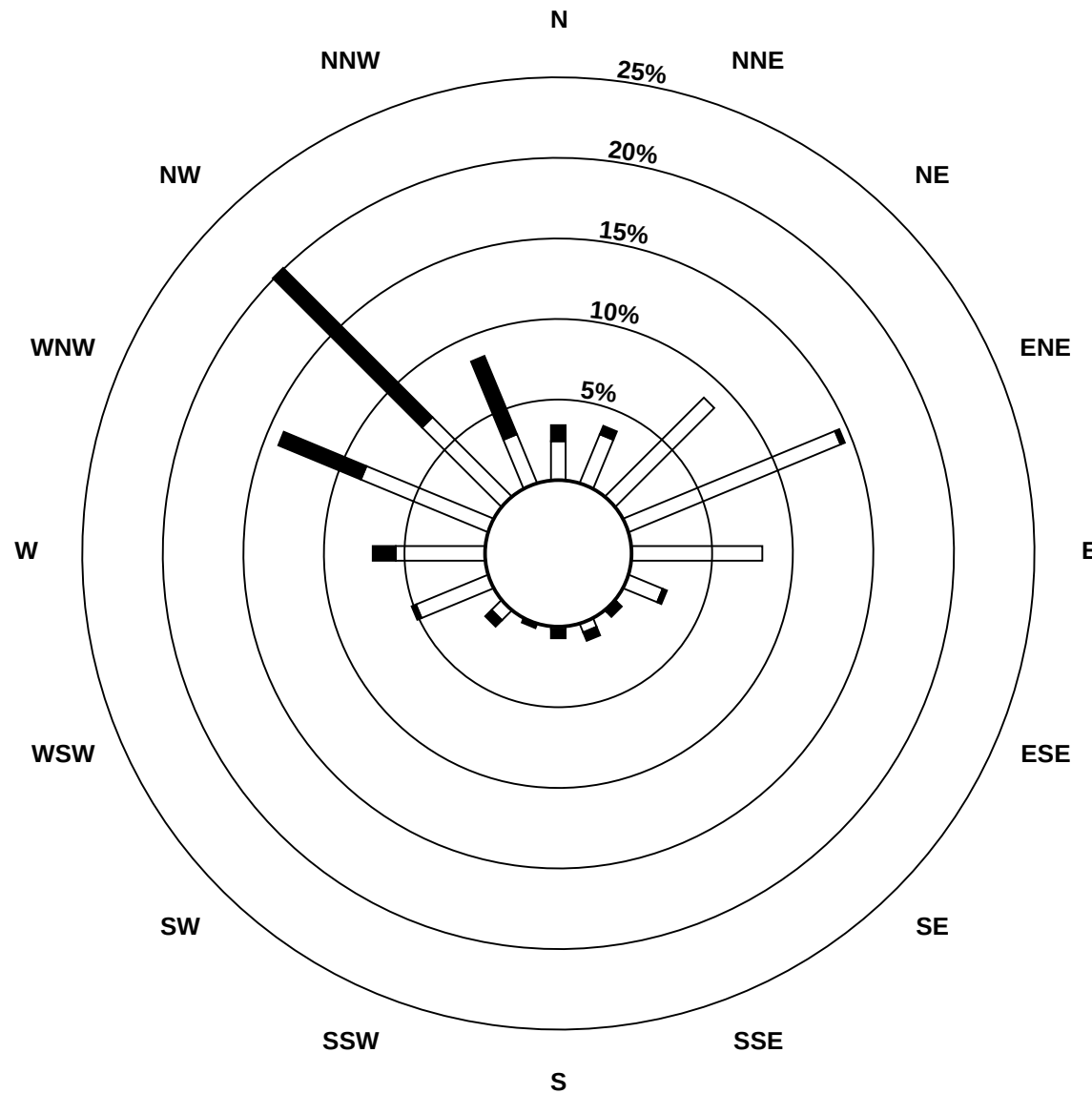
Hourly Maximums

Methane (CH₄) - ppm
Henry Pirker - March 2013

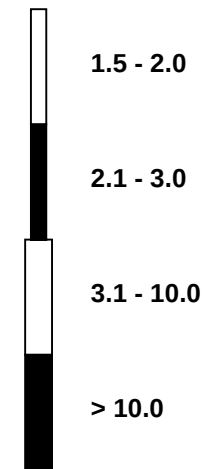


Pollutant Rose

Methane (CH₄) - ppm
Henry Pirker - March 2013

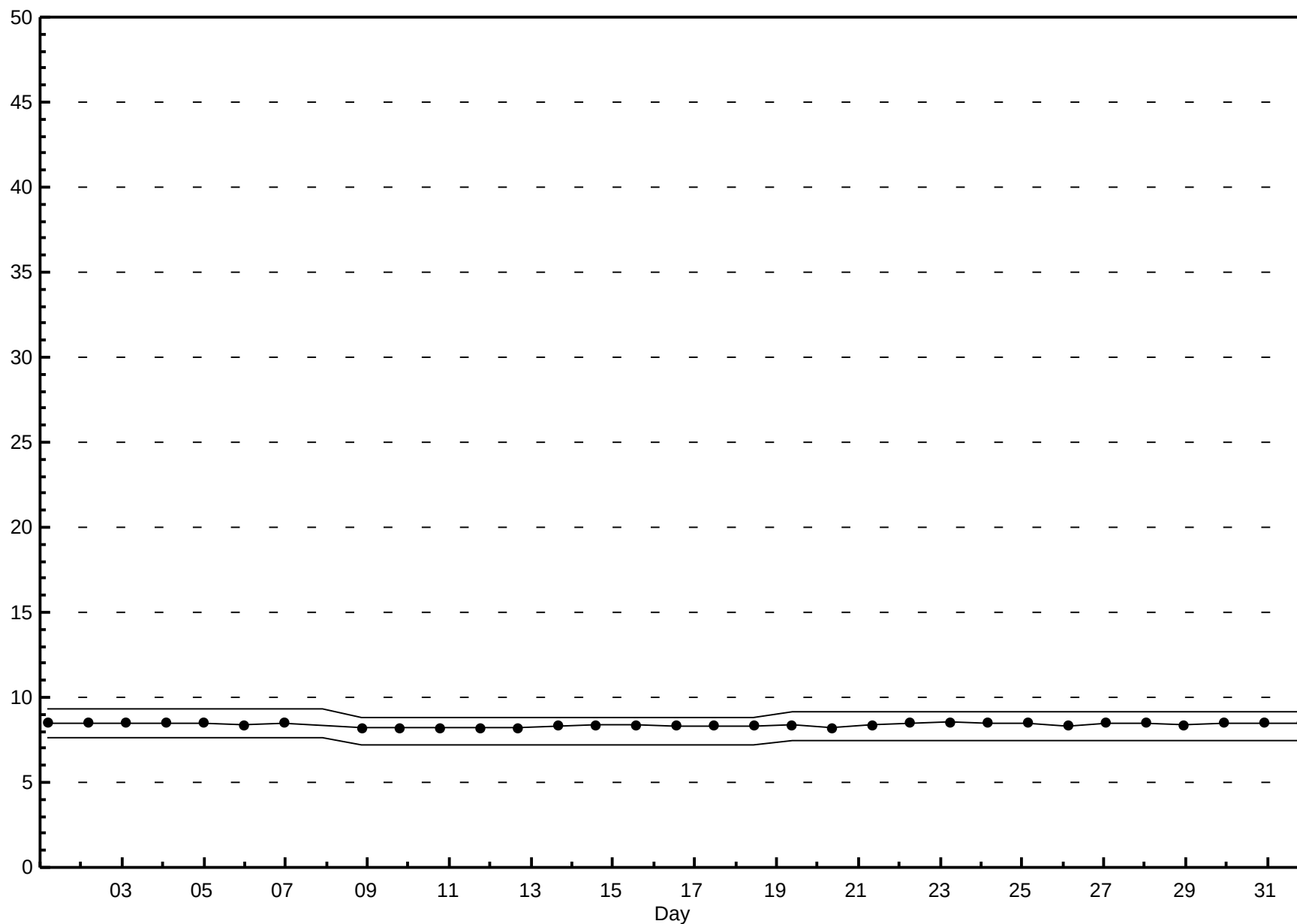


Pollutant Classes (ppm)



Span Responses

Methane (CH₄)
Henry Pirker - March 2013

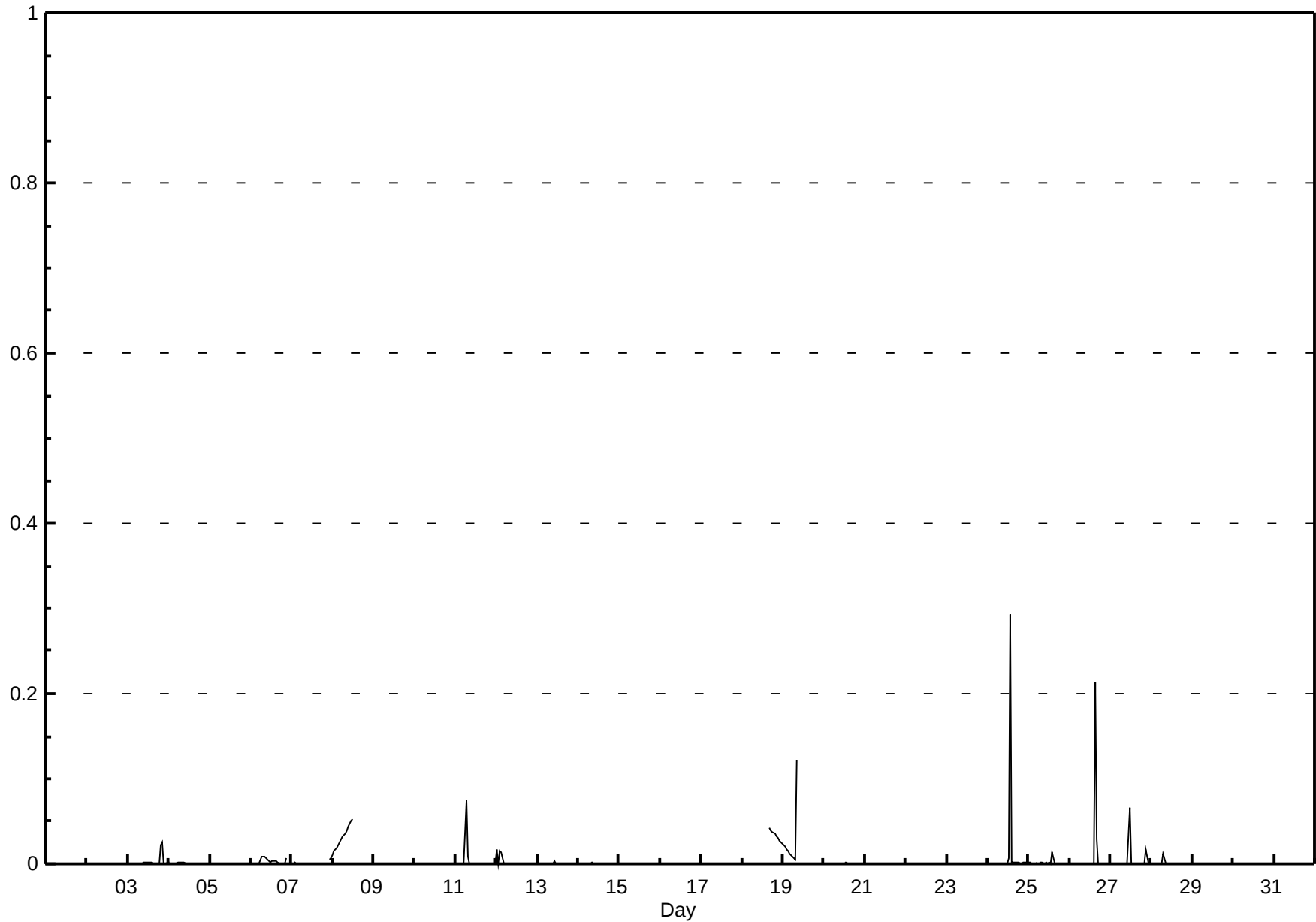


Hourly Averages

Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - March 2013

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 0.29 ppm on Mar 24 14:00 Maximum Daily Average: 0.02 ppm on Mar 8																								Hours in Service: 744 Hours of Data: 703 Hours of Missing Data: 41 Hours of Calibration: 37 Percent Operational Time: 99.5		
Minimum Value: 0.0 ppm on Mar 1 03:00 Maximum Diurnal Average: 0.01 ppm at hour 14 Monthly Average: 0.003 ppm												Minimum Daily Average: 0.00 ppm on Mar 9 Minimum Diurnal Average: 0.00 ppm at hour 15 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 = 0.05														
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Mar	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
2-Mar	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
3-Mar	0.0	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	0.03
4-Mar	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
5-Mar	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
6-Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.01
7-Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.01
8-Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	M	M	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.02	0.05
9-Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
10-Mar	0.0	0.0	0.0	0.0	0.0	0.0	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
11-Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.08
12-Mar	0.0	0.0	0.0	0.0	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	0.02
13-Mar	0.0	0.0	0.0	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
14-Mar	0.0	0.0	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
15-Mar	0.0	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
16-Mar	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
17-Mar	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
18-Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	M	M	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	--	0.04
19-Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.12
20-Mar	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
21-Mar	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
22-Mar	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
23-Mar	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
24-Mar	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.29
25-Mar	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	0.01
26-Mar	0.0	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	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.21
27-Mar	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.07
28-Mar	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	0.01
29-Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
30-Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
31-Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.01 0.00 0.00 0.00 0.00 0.01 0.00 0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00																								Diurnal Average		
0.02 0.02 0.02 0.02 0.03 0.03 0.08 0.04 0.12 0.04 0.05 0.07 0.05 0.29 0.01 0.21 0.04 0.04 0.04 0.03 0.03 0.03 0.03 0.02																								Diurnal Maximum		
C - Calibration M - Maintenance A - Automated Daily Zero Span																										

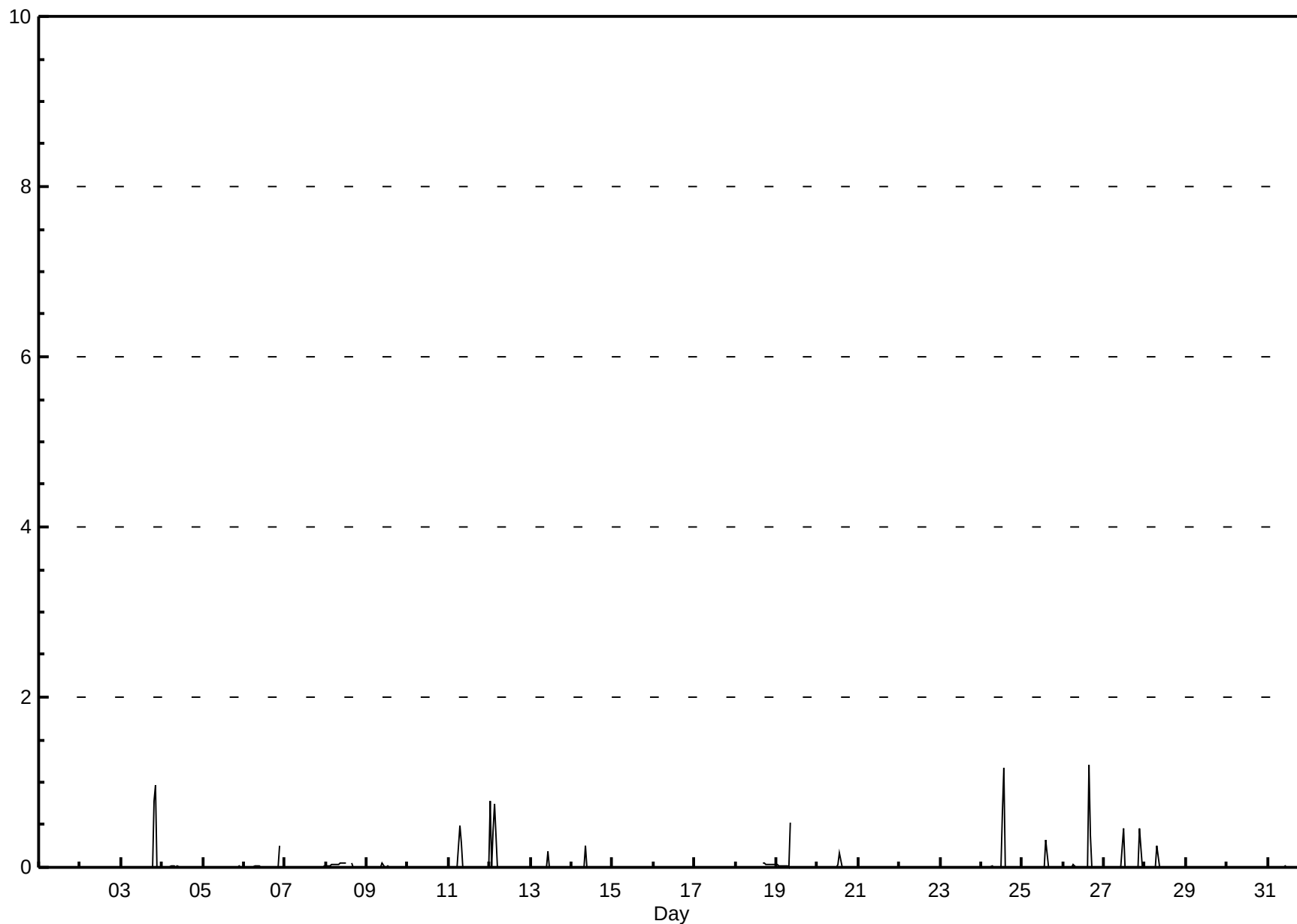


Hourly Maximums

Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - March 2013

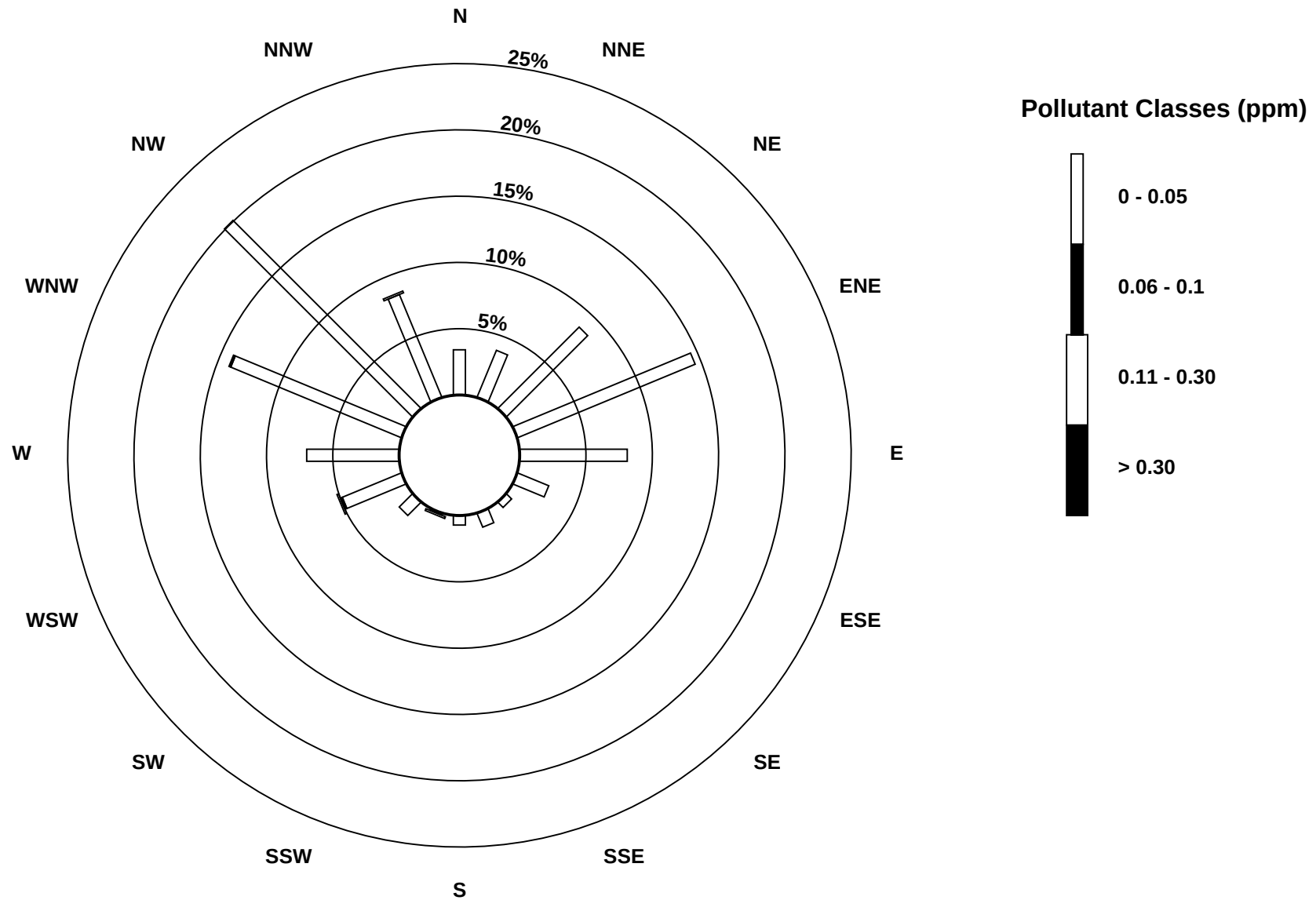
Maximum Value: 1.20 ppm on Mar 26 16:00																					Maximum Daily Average: 0.09 ppm on Mar 12				Hours in Service: 744	
Minimum Value: 0.0 ppm on Mar 3 17:00																					Minimum Daily Average: 0.00 ppm on Mar 16				Hours of Data: 703	
Maximum Diurnal Average: 0.05 ppm at hour 14																					Minimum Diurnal Average: 0.00 ppm at hour 18				Hours of Missing Data: 41	
Monthly Average: 0.020 ppm																					Percentiles: P ₁ = 0.00 P ₁₀ = 0.00 Q ₁ = 0.00 Median = 0.00 Q ₃ = 0.00 P ₉₀ = 0.01 P ₉₉ = 0.60				Hours of Calibration: 37	
																					Percent Operational Time: 99.5					
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-Mar	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
2-Mar	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
3-Mar	0.0	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	0.8	1.0	0.0	0.0	0.0	0.08	0.97
4-Mar	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	0.01
5-Mar	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	0.02
6-Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	A	0.0	0.02	0.25
7-Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.01
8-Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	M	M	0.1	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.03	0.06
9-Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.01	0.05
10-Mar	0.0	0.0	0.0	0.0	0.0	0.0	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
11-Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.3	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	0.04	0.49
12-Mar	0.8	0.0	0.4	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.09	0.78
13-Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.18
14-Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	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	0.01	0.25
15-Mar	0.0	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
16-Mar	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
17-Mar	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
18-Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	M	M	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	--	0.05
19-Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	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	0.03	0.52
20-Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.18
21-Mar	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
22-Mar	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
23-Mar	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
24-Mar	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.08	1.17
25-Mar	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	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.02	0.33
26-Mar	0.0	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	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.07	1.20
27-Mar	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.04	0.46
28-Mar	A	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.01	0.25
29-Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
30-Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
31-Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.01
																									Diurnal Average	
																									Diurnal Maximum	
C - Calibration																										
M - Maintenance																										
A - Automated Daily Zero Span																										

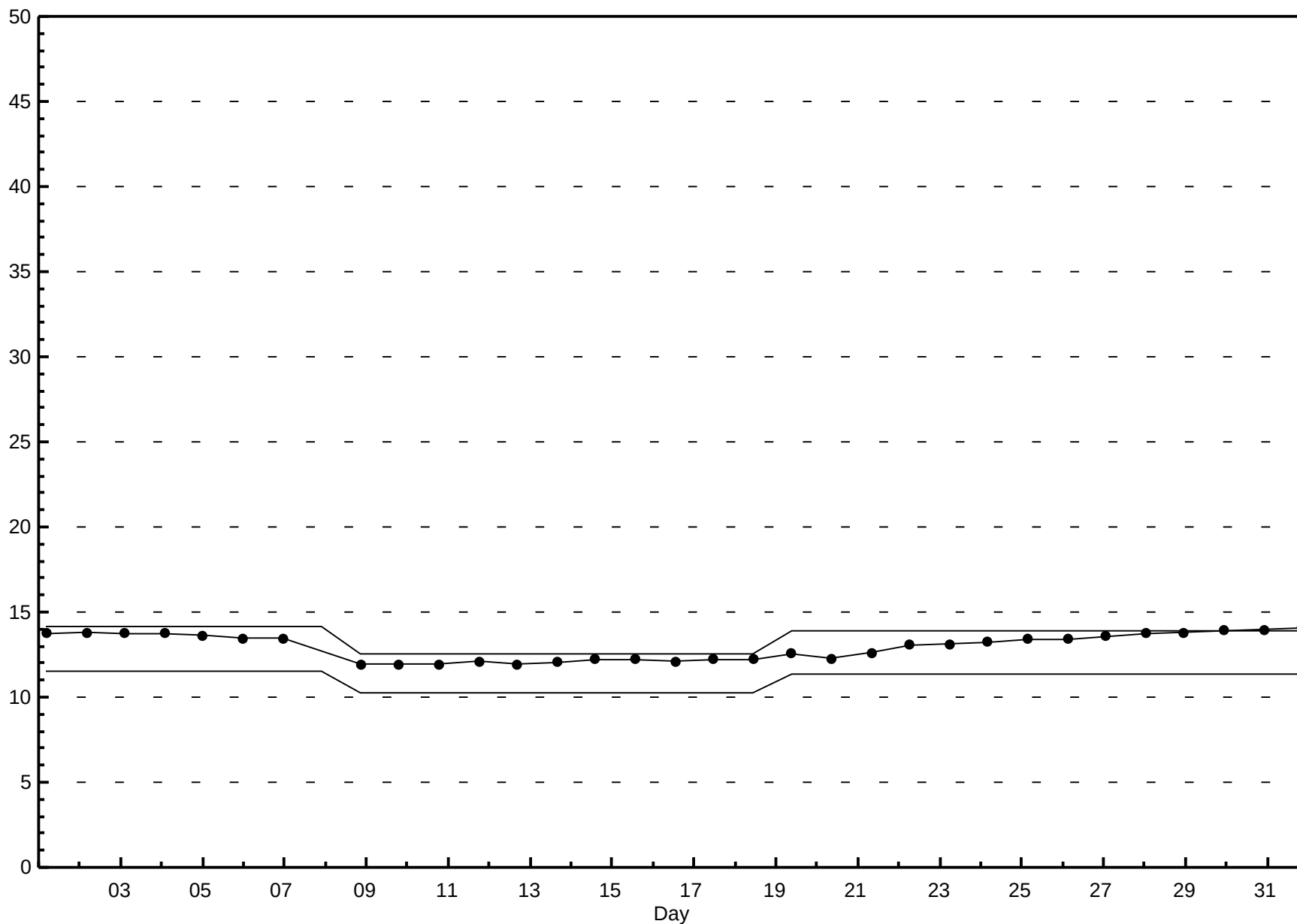


Pollutant Rose

Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - March 2013



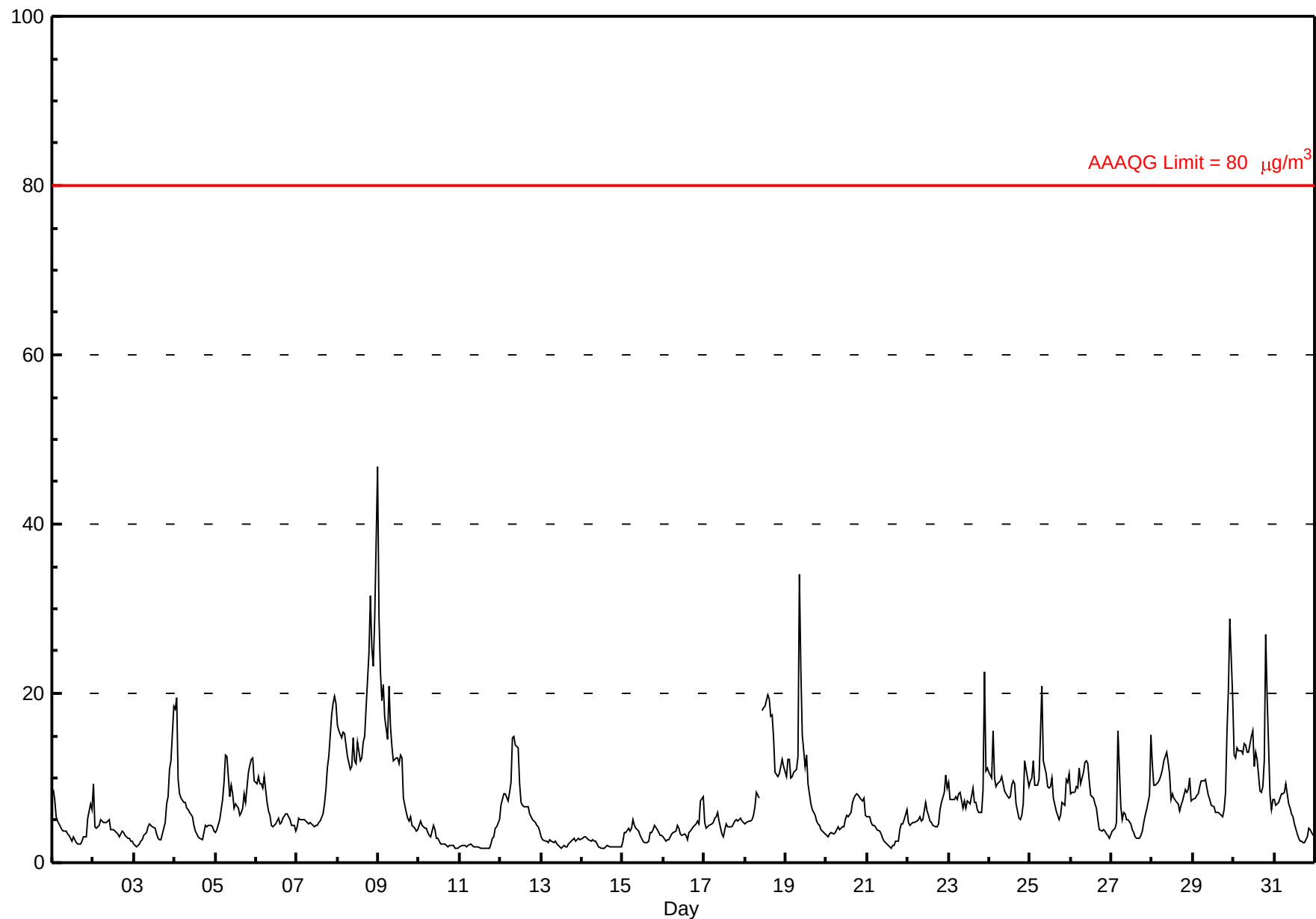


Hourly Averages

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

Henry Pirker - March 2013

Number of Exceedences: 1-hr: 0 24-hr: 0 Maximum Value: 46.7 µg/m³ on Mar 9 00:00																								Maximum Daily Average: 18.0 µg/m³ on Mar 8				Hours in Service: 744 Hours of Data: 743 Hours of Missing Data: 1 Hours of Calibration: 0 Percent Operational Time: 99.9			
Minimum Value: 2 µg/m³ on Mar 11 16:00 Maximum Diurnal Average: 8.6 µg/m³ at hour 24 Monthly Average: 6.91 µg/m³												Minimum Daily Average: 2.2 µg/m³ on Mar 14 Minimum Diurnal Average: 5.3 µg/m³ at hour 17 Percentiles: P ₁ = 1.7 P ₁₀ = 2.5 Q ₁ = 3.6 Median = 5.2 Q ₃ = 8.9 P ₉₀ = 12.7 P ₉₉ = 25.1																			
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-Mar	9	7	5	5	5	4	4	4	4	3	3	2	3	3	2	2	2	3	3	3	3	5	7	6	4.1	8.6					
2-Mar	9	4	4	4	5	5	5	5	5	5	4	4	4	4	3	3	3	4	4	3	3	3	2	2	4.1	9.3					
3-Mar	2	2	2	2	3	3	3	4	4	5	4	4	4	3	3	3	3	3	5	7	8	11	12	19	4.9	18.6					
4-Mar	18	19	10	8	8	7	7	6	6	6	5	4	4	3	3	3	3	4	4	4	4	4	4	4	6.3	19.4					
5-Mar	4	4	5	6	8	9	13	12	8	9	8	6	7	7	6	6	6	8	7	11	11	12	12	10	8.2	12.7					
6-Mar	9	10	9	9	9	10	7	6	6	4	4	5	5	5	5	5	5	6	6	5	5	4	4	4	6.2	10.2					
7-Mar	4	5	5	5	5	5	5	5	5	4	4	4	4	5	5	6	7	9	11	13	17	19	20	19	8.0	19.7					
8-Mar	16	16	15	15	15	14	12	11	11	15	12	12	14	12	12	14	15	18	25	32	25	23	29	47	18.0	46.7					
9-Mar	29	22	19	21	17	15	21	16	14	12	12	12	12	13	12	8	6	5	5	5	4	4	4	4	12.2	29.0					
10-Mar	4	5	4	4	4	4	3	3	4	4	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2.9	4.8					
11-Mar	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	4	4	5	2.3	5.1					
12-Mar	7	7	8	8	7	8	9	15	15	14	14	9	7	7	7	7	7	6	5	5	5	4	4	4	7.9	14.9					
13-Mar	3	3	3	2	2	3	3	2	3	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	2.4	3.1					
14-Mar	3	3	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.2	3.1					
15-Mar	3	3	4	4	4	4	5	4	4	4	3	3	2	2	2	3	4	4	4	4	4	4	3	3	3.5	5.1					
16-Mar	3	2	3	3	3	3	3	4	4	4	3	3	3	3	3	3	4	4	4	5	5	5	7	8	3.9	7.8					
17-Mar	5	4	4	4	5	5	5	5	5	6	5	3	3	4	5	4	4	5	5	5	5	5	5	5	4.6	5.9					
18-Mar	5	5	5	5	5	6	7	8	8	N	18	18	19	20	19	17	17	15	11	10	10	11	12	11	11.4	19.8					
19-Mar	10	12	12	10	10	11	11	13	34	23	15	11	13	9	8	7	6	6	5	5	4	4	4	3	10.3	34.0					
20-Mar	3	3	3	4	3	3	4	4	4	4	4	5	6	5	6	7	8	8	8	8	7	7	8	6	5.4	8.2					
21-Mar	5	5	5	4	4	4	4	4	3	3	3	2	2	2	2	2	2	3	3	4	5	5	5	6	3.6	6.3					
22-Mar	5	4	5	5	5	5	5	5	5	5	7	6	6	5	5	4	4	4	4	6	7	8	10	9	5.6	10.4					
23-Mar	9	7	7	8	8	8	8	8	7	7	6	7	7	7	9	7	7	6	6	6	9	23	11	11	8.3	22.6					
24-Mar	11	10	16	10	9	9	10	10	9	8	8	8	8	9	10	9	7	5	5	6	7	12	10	9	9.0	15.6					
25-Mar	10	10	12	9	9	10	15	21	12	11	9	9	9	10	8	6	6	5	6	7	7	10	10	11	9.5	20.9					
26-Mar	8	8	8	9	9	11	9	11	12	12	12	10	8	8	7	6	5	4	4	4	4	3	3	3	7.4	12.0					
27-Mar	4	4	4	5	16	7	5	6	6	5	5	5	4	4	3	3	3	3	4	5	6	6	8	15	5.5	15.6					
28-Mar	11	9	9	10	10	10	11	12	13	12	10	7	8	8	7	7	6	7	7	9	8	9	10	7	9.1	13.0					
29-Mar	7	8	8	8	9	10	10	10	9	8	7	7	7	6	6	6	6	5	6	8	15	20	29	19	9.8	28.8					
30-Mar	13	12	14	13	13	13	14	14	13	13	15	16	11	13	12	9	8	9	12	27	19	8	6	7	12.7	26.9					
31-Mar	7	7	7	8	8	8	8	9	7	7	6	5	5	3	3	3	3	2	2	3	4	4	4	3	5.3	9.4					
7.7 7.3 7.1 6.9 7.2 7.0 7.5 7.8 7.9 7.3 7.0 6.4 6.2 6.1 5.8 5.4 5.3 5.4 5.8 7.1 7.2 7.9 8.2 8.6																									Diurnal Average						
29.0 22.5 19.1 21.0 17.1 14.7 20.9 20.9 34.0 22.9 17.9 18.4 18.5 19.8 19.3 17.3 17.5 18.3 24.8 31.5 25.3 23.2 28.8 46.7																									Diurnal Maximum						
N - Not Valid																															
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 µg/m³ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 µg/m³																															

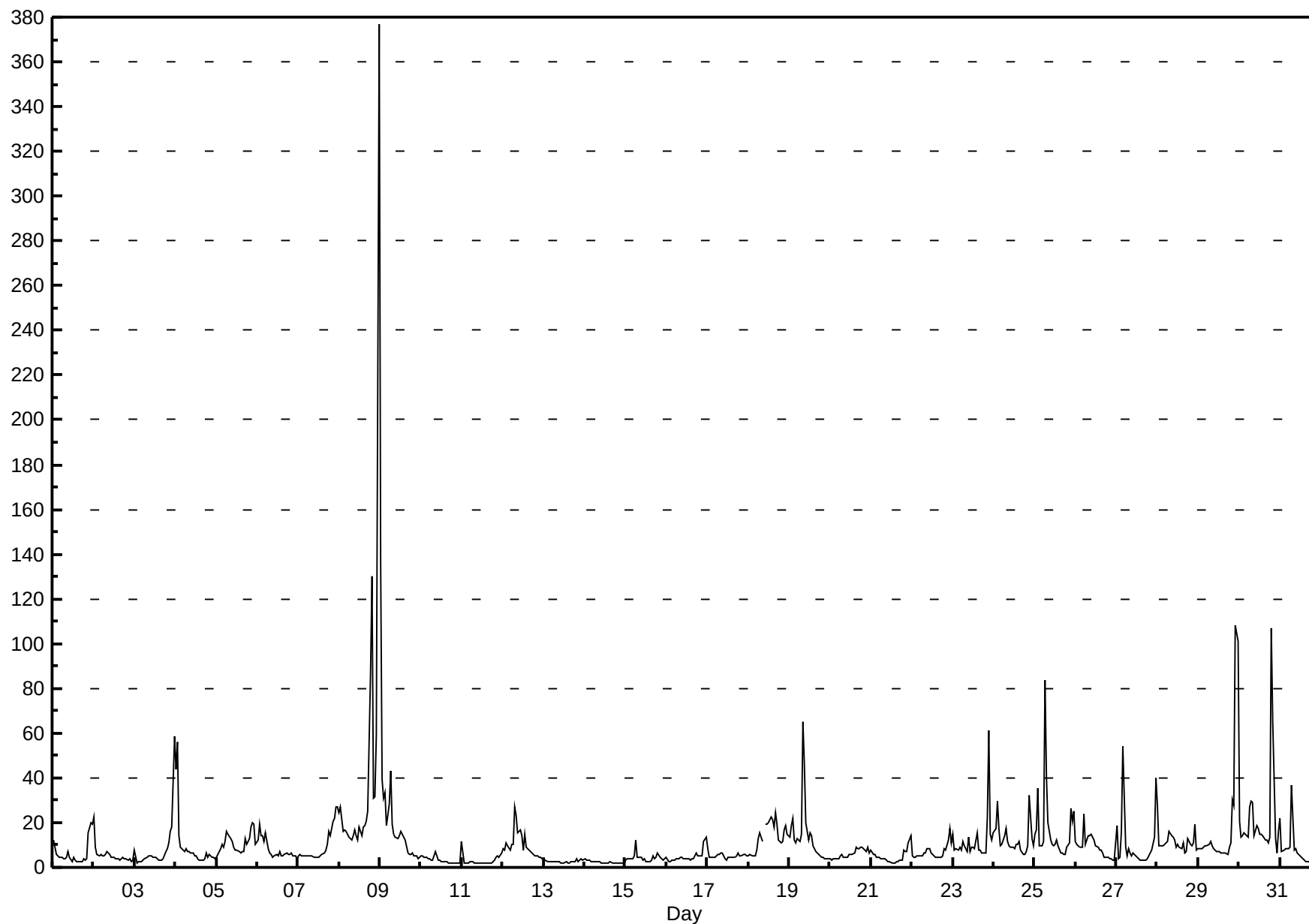


Hourly Maximums

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

Henry Pirker - March 2013

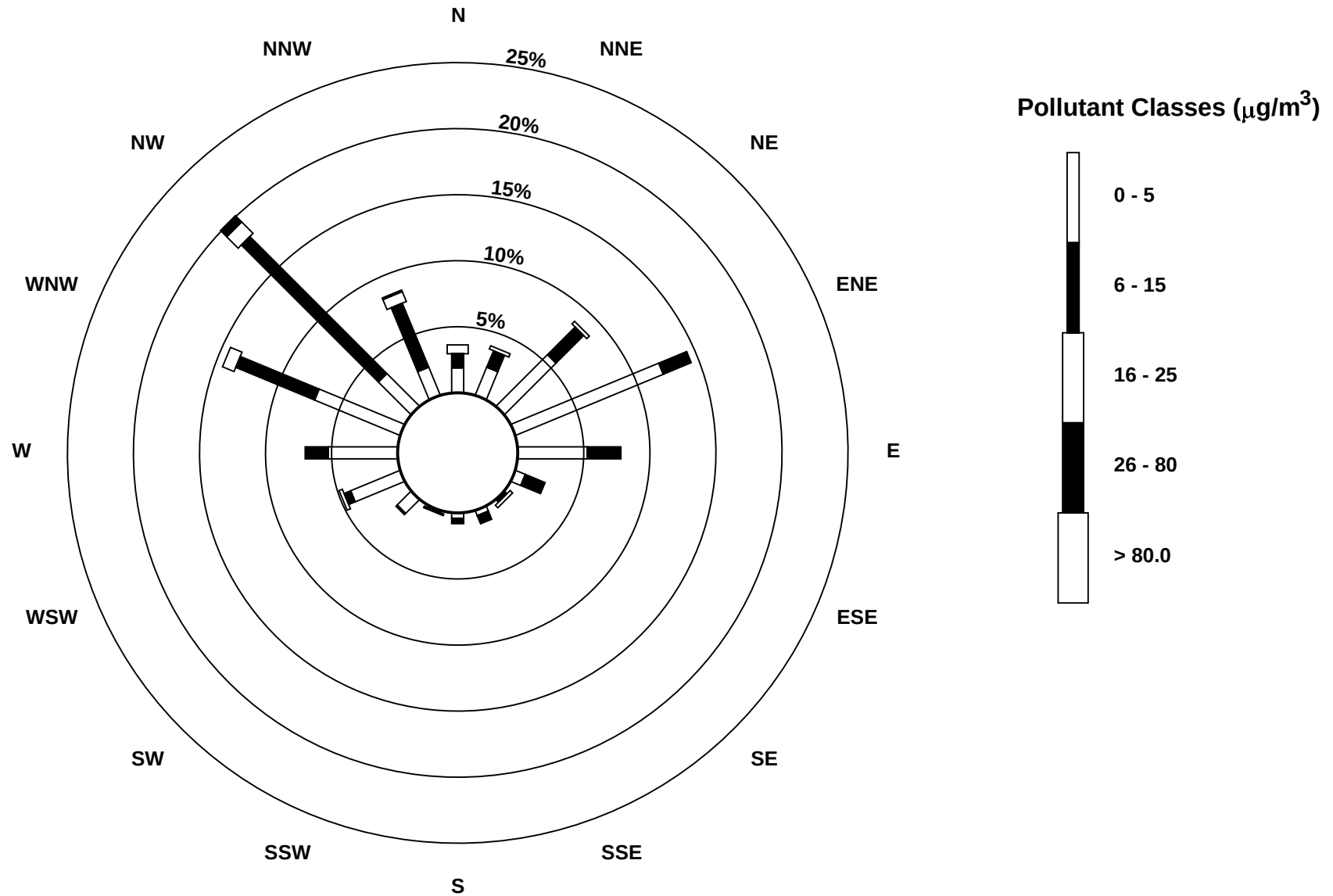
Maximum Value: 376.7 µg/m ³ on Mar 9 00:00																					Maximum Daily Average: 42.9 µg/m ³ on Mar 8					Hours in Service: 744	
Minimum Value: 2 µg/m ³ on Mar 11 16:00																					Minimum Daily Average: 2.4 µg/m ³ on Mar 14					Hours of Data: 743	
Maximum Diurnal Average: 26.3 µg/m ³ at hour 24																					Minimum Diurnal Average: 6.3 µg/m ³ at hour 17					Hours of Missing Data: 1	
Monthly Average: 10.46 µg/m ³																					Percentiles: P ₁ = 1.9 P ₁₀ = 2.7 Q ₁ = 4.1 Median = 6.3 Q ₃ = 11.6 P ₉₀ = 18.3 P ₉₉ = 75.2					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-Mar	12	9	6	5	5	4	4	4	4	7	5	3	4	3	3	2	3	3	4	3	4	15	20	19	6.3	19.8	
2-Mar	22	9	6	5	6	5	5	6	7	6	4	4	4	4	4	3	4	4	4	4	3	4	3	3	5.4	22.3	
3-Mar	7	2	2	2	3	3	4	5	5	5	5	4	5	4	3	3	3	4	7	8	11	16	18	59	7.9	58.6	
4-Mar	44	56	14	9	8	7	8	7	7	6	6	5	5	4	3	3	3	4	6	4	6	5	5	4	9.6	55.9	
5-Mar	5	6	9	10	9	12	16	15	13	11	9	8	8	7	6	7	7	13	10	13	18	20	19	10	10.9	19.8	
6-Mar	12	19	14	14	12	15	8	7	6	5	5	6	5	7	5	5	6	7	6	6	6	5	5	4	7.9	19.1	
7-Mar	5	6	5	5	5	5	5	5	5	5	5	5	5	5	6	7	8	11	16	14	21	22	27	27	9.5	27.2	
8-Mar	24	27	16	17	16	15	13	12	14	17	14	12	18	14	18	19	21	25	88	130	31	31	59	377	42.9	376.7	
9-Mar	136	39	31	33	19	28	43	19	15	13	13	14	16	15	13	12	6	6	6	6	5	5	4	4	21.0	135.9	
10-Mar	5	5	5	4	4	4	3	3	7	5	3	3	3	2	2	2	2	2	2	2	2	2	2	2	3.3	7.1	
11-Mar	11	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	5	5	5	6	3.0	11.4	
12-Mar	8	8	11	10	8	11	10	27	23	15	17	14	8	15	9	8	7	6	6	5	5	5	5	4	10.2	27.0	
13-Mar	4	3	3	3	3	3	3	2	3	3	2	2	2	2	2	2	3	3	3	4	3	3	4	3	2.7	3.7	
14-Mar	4	3	3	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.4	3.9	
15-Mar	3	4	4	4	4	5	12	5	5	5	3	4	3	3	3	3	5	4	4	6	5	4	3	4	4.4	12.0	
16-Mar	4	3	3	3	3	3	4	4	5	5	4	4	4	4	3	4	4	6	5	5	5	5	11	13	4.8	13.5	
17-Mar	9	4	5	5	5	5	6	6	7	6	4	3	5	5	4	5	5	5	7	5	5	6	6	5	5.2	8.6	
18-Mar	5	6	5	5	5	8	13	16	12	N	19	20	20	23	22	18	24	19	12	11	11	17	19	15	14.1	24.4	
19-Mar	14	19	22	12	11	13	12	15	65	46	20	12	16	14	9	8	7	6	5	5	5	4	4	4	14.5	64.8	
20-Mar	4	3	4	4	4	4	5	6	5	5	5	6	6	6	7	9	8	8	9	9	8	7	9	6	6.0	9.1	
21-Mar	8	6	6	5	5	4	4	4	4	3	3	2	2	2	2	2	2	3	3	7	7	7	11	14	4.9	14.1	
22-Mar	5	5	5	5	5	5	5	6	6	9	8	7	6	5	5	5	4	5	5	8	8	12	17	11	6.8	17.3	
23-Mar	15	8	8	8	9	8	11	9	7	14	7	9	9	8	16	8	8	7	6	6	22	61	15	12	12.2	61.2	
24-Mar	15	18	30	17	9	10	14	17	12	10	9	9	8	10	10	12	8	6	6	7	10	32	13	10	12.6	31.9	
25-Mar	15	17	35	10	10	12	84	41	20	12	11	10	11	12	10	6	6	6	6	9	11	26	20	25	17.6	83.5	
26-Mar	12	11	9	9	9	24	10	14	14	15	13	12	10	9	7	7	6	4	4	5	4	4	3	3	9.2	24.1	
27-Mar	18	4	4	16	54	9	5	8	6	5	6	5	4	4	3	3	3	3	4	5	6	8	14	40	10.0	53.8	
28-Mar	28	10	10	10	10	11	12	16	14	14	12	9	10	9	9	11	7	7	13	10	10	11	20	8	11.6	27.7	
29-Mar	9	8	9	9	10	10	10	12	10	8	8	7	7	7	6	6	7	6	9	11	30	28	108	101	18.2	108.3	
30-Mar	21	13	14	16	14	14	27	30	29	14	18	18	15	15	14	13	12	11	14	107	66	13	7	16	22.0	106.6	
31-Mar	22	7	7	8	9	8	9	37	8	8	6	6	5	4	3	3	3	2	3	3	5	4	4	4	7.4	37.0	
16.3 11.0 9.9 8.7 9.0 8.8 12.0 11.7 11.0 9.4 8.0 7.3 7.3 7.2 6.8 6.4 6.3 6.5 9.0 13.8 10.9 12.5 14.9 26.3																									Diurnal Average		
135.9 55.9 35.2 33.4 53.8 28.3 83.5 40.6 64.8 46.4 20.2 19.6 19.8 22.5 21.6 18.6 24.4 25.3 87.8 130.2 65.9 61.2 108.3 376.7																									Diurnal Maximum		
N - Not Valid																											



Pollutant Rose

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

Henry Pirker - March 2013



Hourly Averages

External Temperature (ET) - °C

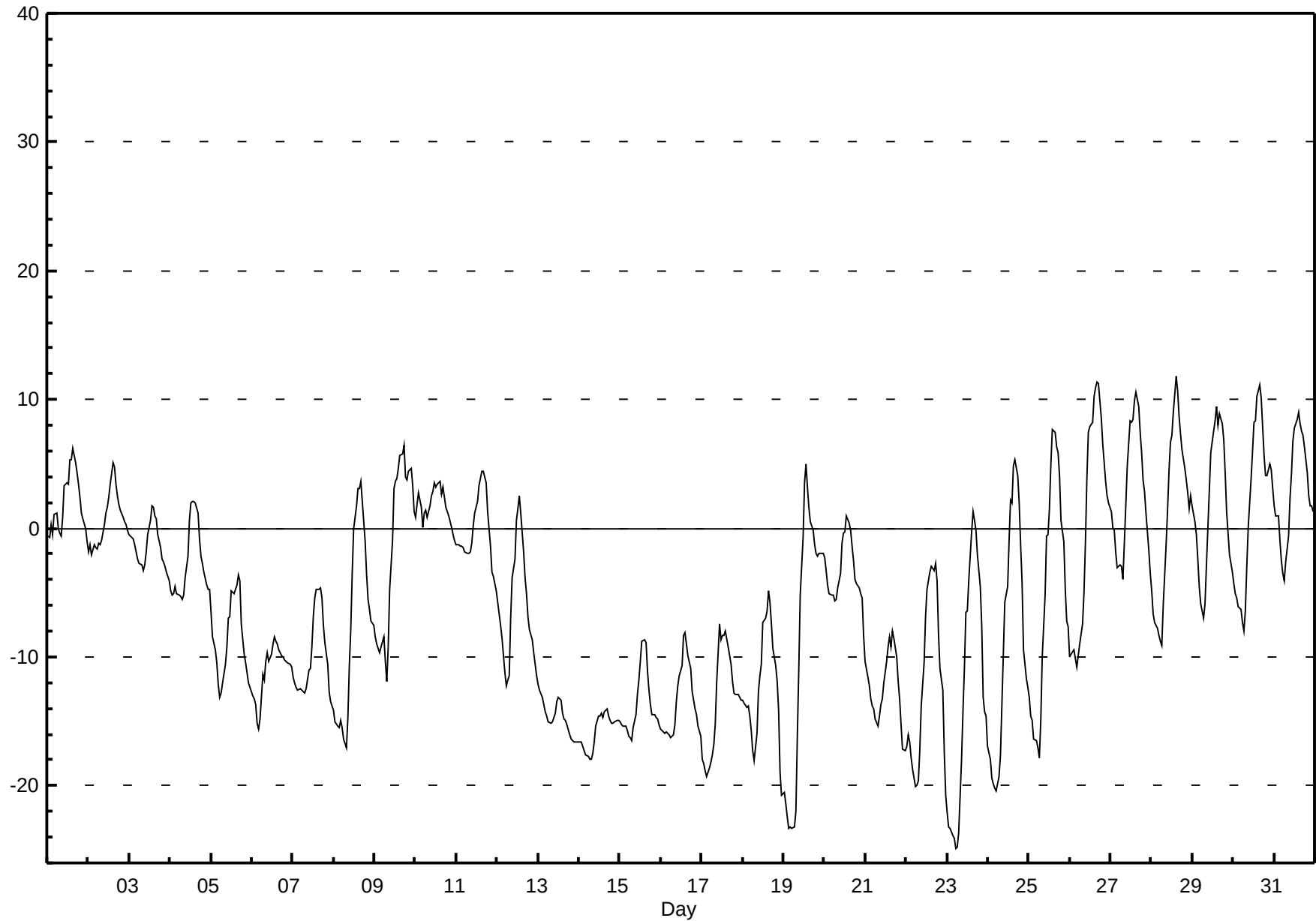
Henry Pirker - March 2013

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 11.8 °C on Mar 28 15:00 Maximum Daily Average: 2.9 °C on Mar 31																								Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0		
Minimum Value: -25 °C on Mar 23 06:00 Minimum Daily Average: -15.8 °C on Mar 14 Maximum Diurnal Average: 0.4 °C at hour 15 Minimum Diurnal Average: -11.3 °C at hour 7 Monthly Average: -5.83 °C Percentiles: P ₁ = -23.3 P ₁₀ = -16.1 Q ₁ = -12.8 Median = -5.2 Q ₃ = 0.9 P ₉₀ = 4.4 P ₉₉ = 10.5																										
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-Mar	-1	-1	0	0	1	1	0	0	-1	1	3	3	3	5	5	6	5	4	3	2	1	1	0	-1	1.8	6.2
2-Mar	-2	-1	-2	-1	-2	-2	-1	-1	-1	0	1	2	2	3	5	5	3	3	2	1	1	1	0	0	0.7	5.1
3-Mar	0	-1	-1	-1	-2	-2	-3	-3	-3	-3	-2	-1	1	2	2	1	1	0	-2	-2	-3	-3	-3	-4	-1.4	1.7
4-Mar	-5	-5	-5	-5	-5	-5	-5	-6	-5	-4	-2	1	2	2	2	2	1	-1	-2	-3	-3	-4	-5	-5	-2.7	2.1
5-Mar	-7	-8	-9	-10	-12	-13	-13	-12	-11	-9	-7	-7	-5	-5	-5	-4	-4	-4	-7	-10	-10	-11	-12	-12	-8.7	-3.6
6-Mar	-13	-13	-14	-15	-16	-15	-11	-12	-10	-10	-10	-10	-9	-8	-9	-9	-9	-10	-10	-10	-10	-10	-11	-11	-11.1	-8.4
7-Mar	-12	-12	-12	-13	-13	-13	-13	-13	-12	-11	-11	-9	-7	-5	-5	-5	-5	-5	-8	-9	-11	-13	-13	-14	-10.1	-4.6
8-Mar	-14	-15	-15	-16	-15	-16	-16	-17	-15	-11	-8	-3	0	2	3	3	4	2	-1	-4	-5	-6	-7	-8	-7.4	3.6
9-Mar	-8	-9	-9	-10	-9	-8	-10	-12	-9	-5	-1	3	4	4	5	6	6	6	4	4	4	5	3	1	-1.5	6.4
10-Mar	1	2	3	2	0	1	1	1	2	3	3	3	3	3	4	3	3	2	2	1	0	0	-1	-1	1.7	3.7
11-Mar	-1	-1	-1	-1	-2	-2	-2	-2	-2	-1	0	1	2	3	4	4	4	4	1	0	-1	-3	-4	-5	-0.2	4.4
12-Mar	-6	-7	-8	-9	-11	-12	-12	-12	-7	-4	-2	1	1	2	1	-2	-4	-5	-7	-8	-9	-10	-11	-11	-6.2	2.5
13-Mar	-12	-13	-13	-14	-14	-15	-15	-15	-15	-15	-14	-13	-13	-13	-14	-15	-15	-15	-16	-16	-16	-17	-17	-17	-14.7	-12.2
14-Mar	-17	-17	-17	-17	-18	-18	-18	-18	-17	-17	-15	-15	-15	-14	-15	-14	-14	-15	-15	-15	-15	-15	-15	-15	-15.8	-14.1
15-Mar	-15	-15	-15	-15	-16	-16	-16	-16	-15	-14	-13	-12	-10	-9	-9	-9	-11	-13	-14	-14	-15	-15	-15	-15	-13.7	-8.6
16-Mar	-16	-16	-16	-16	-16	-16	-16	-16	-15	-13	-12	-11	-11	-8	-8	-9	-10	-11	-13	-13	-14	-15	-15	-16	-13.4	-8.1
17-Mar	-18	-18	-19	-19	-19	-18	-18	-17	-15	-12	-7	-9	-8	-8	-8	-9	-10	-11	-12	-13	-13	-13	-13	-13	-13.3	-7.4
18-Mar	-13	-14	-14	-14	-15	-16	-17	-18	-16	-13	-11	-11	-7	-7	-6	-5	-6	-7	-9	-11	-12	-14	-19	-21	-12.3	-4.8
19-Mar	-21	-21	-22	-23	-23	-23	-23	-22	-16	-11	-5	-1	4	5	3	2	1	0	-1	-2	-2	-2	-2	-2	-8.8	5.0
20-Mar	-2	-3	-4	-5	-5	-5	-6	-6	-5	-4	-1	0	0	1	0	0	-1	-3	-4	-4	-5	-5	-5	-8	-3.4	0.9
21-Mar	-10	-12	-12	-13	-14	-14	-15	-15	-15	-14	-13	-12	-10	-9	-8	-9	-8	-9	-10	-12	-13	-15	-17	-17	-12.4	-8.0
22-Mar	-17	-16	-17	-18	-19	-20	-20	-20	-17	-14	-10	-7	-5	-4	-3	-3	-3	-3	-4	-8	-11	-13	-17	-21	-12.1	-2.7
23-Mar	-22	-23	-23	-24	-24	-25	-25	-24	-18	-14	-11	-7	-6	-4	0	1	1	0	-2	-5	-8	-13	-14	-15	-12.7	1.3
24-Mar	-17	-18	-19	-20	-20	-20	-19	-18	-14	-10	-6	-4	-1	2	2	5	5	4	2	-1	-4	-9	-12	-12	-8.5	5.3
25-Mar	-13	-15	-15	-16	-17	-17	-18	-15	-10	-5	-1	-1	2	5	8	7	6	6	4	1	-1	-5	-7	-8	-5.2	7.6
26-Mar	-10	-10	-9	-10	-11	-10	-9	-7	-5	-1	4	7	8	8	10	11	11	11	9	7	5	4	3	2	0.7	11.3
27-Mar	1	0	0	-2	-3	-3	-3	-4	-1	2	5	8	8	8	10	11	9	7	6	4	3	1	-2	-4	2.6	10.6
28-Mar	-5	-7	-7	-8	-8	-9	-9	-6	-1	1	4	7	7	9	12	11	9	7	6	5	4	3	2	3	1.2	11.8
29-Mar	2	1	0	-2	-5	-6	-7	-6	-3	0	3	6	8	8	9	8	9	8	7	4	1	0	-2	-3	1.6	9.4
30-Mar	-4	-5	-5	-6	-6	-7	-8	-6	-3	0	4	6	8	8	10	11	10	8	6	4	4	5	4	3	1.7	11.1
31-Mar	2	1	1	-1	-3	-4	-4	-3	-1	2	4	7	8	8	9	8	8	7	6	4	3	2	2	1	2.9	9.0
																									Diurnal Average	
																									Diurnal Maximum	

Hourly Averages

External Temperature (ET) - °C

Henry Pirker - March 2013



Hourly Averages

Relative Humidity (RH) - %

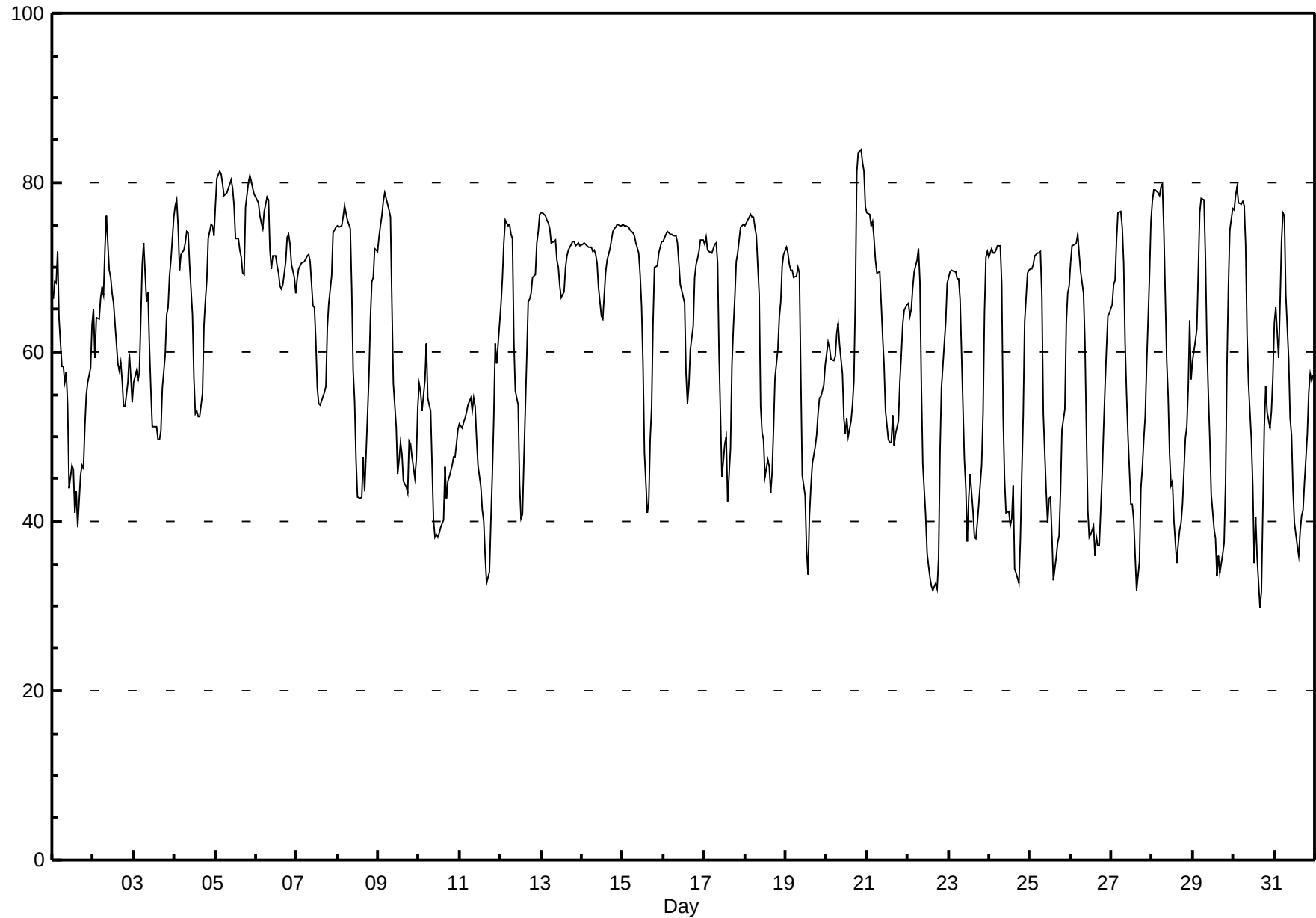
Henry Pirker - March 2013

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 83.9 % on Mar 20 21:00 Maximum Daily Average: 77.4 % on Mar 5																								Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0		
Minimum Value: 30 % on Mar 30 16:00 Maximum Diurnal Average: 71.6 % at hour 5 Monthly Average: 60.76 %												Minimum Daily Average: 47.4 % on Mar 10 Minimum Diurnal Average: 46.6 % at hour 15 Percentiles: P ₁ = 32.7 P ₁₀ = 40.7 Q ₁ = 50.1 Median = 64.0 Q ₃ = 72.3 P ₉₀ = 75.8 P ₉₉ = 80.9														
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-Mar	66	68	68	72	64	58	58	57	58	54	44	47	46	41	44	39	45	47	46	51	55	57	58	63	54.4	71.8
2-Mar	65	59	64	64	67	68	67	72	76	70	69	67	66	63	59	58	59	57	54	54	56	60	57	54	62.6	76.1
3-Mar	57	58	57	58	64	70	73	66	67	61	56	51	51	51	50	50	51	56	60	64	65	69	71	76	60.4	75.9
4-Mar	77	78	75	70	71	72	73	74	74	70	64	57	53	53	52	52	55	63	66	69	73	75	75	74	67.3	78.0
5-Mar	77	80	81	81	80	78	79	79	80	80	79	77	73	73	72	71	69	69	77	80	81	80	79	79	77.4	81.4
6-Mar	78	78	76	75	75	77	78	78	72	70	71	71	70	69	68	67	68	71	74	74	73	70	69	67	72.4	78.3
7-Mar	69	70	70	71	71	71	71	72	71	66	65	61	56	54	54	55	55	56	63	66	69	74	74	75	65.7	74.7
8-Mar	75	75	75	76	77	76	76	74	68	58	54	47	43	43	43	48	44	48	57	64	68	69	72	72	62.5	77.2
9-Mar	74	75	76	78	79	77	77	76	66	56	51	46	47	49	48	45	44	43	49	49	48	45	47	53	58.3	78.8
10-Mar	56	55	53	57	61	55	54	53	40	38	38	38	39	39	40	46	43	45	45	47	48	48	49	51	47.4	60.9
11-Mar	51	51	52	52	53	54	55	53	55	53	50	47	44	41	40	36	33	34	40	46	52	61	59	63	48.9	63.2
12-Mar	66	69	73	76	75	75	74	73	61	55	54	44	40	41	47	60	66	66	67	69	69	73	74	76	64.3	76.2
13-Mar	77	76	76	76	75	74	73	73	73	71	70	68	66	67	70	71	72	72	73	73	73	73	73	73	72.4	76.5
14-Mar	73	73	73	73	72	72	72	72	72	70	68	64	64	67	69	71	72	73	74	74	75	75	75	75	71.6	75.0
15-Mar	75	75	75	75	74	74	74	74	73	72	69	65	59	48	41	42	50	53	63	70	70	72	72	73	66.2	75.0
16-Mar	73	74	74	74	74	74	74	74	73	71	68	67	66	58	54	56	60	63	69	70	71	72	73	73	68.9	74.2
17-Mar	73	74	72	72	72	72	73	73	70	60	45	47	49	50	42	49	58	63	66	71	72	75	75	75	64.5	75.0
18-Mar	75	75	76	76	76	76	75	74	67	54	50	50	45	47	46	43	46	51	57	60	64	66	70	72	62.1	76.2
19-Mar	72	72	70	70	70	69	69	70	69	57	45	43	37	34	41	44	47	49	50	53	55	55	56	59	56.4	72.5
20-Mar	60	61	61	59	59	60	62	63	61	58	52	50	52	50	52	54	57	66	81	84	84	82	81	77	63.6	83.9
21-Mar	76	76	75	75	73	71	69	69	66	62	58	53	50	49	49	53	49	50	52	56	60	63	65	66	61.9	76.5
22-Mar	66	64	65	68	70	71	72	68	56	47	41	36	35	33	32	32	33	32	36	48	56	61	64	68	52.2	72.3
23-Mar	69	69	70	70	69	69	69	66	54	47	44	38	43	46	41	38	38	40	42	47	53	65	71	72	55.3	71.9
24-Mar	71	72	72	72	72	73	73	68	53	45	41	41	39	40	44	34	34	33	38	46	53	64	69	70	54.8	72.6
25-Mar	70	70	70	71	72	72	72	67	53	44	40	43	43	38	33	36	37	38	44	51	53	63	67	68	54.7	71.8
26-Mar	70	73	73	73	74	71	69	67	61	51	41	38	39	40	36	38	37	37	45	51	56	60	64	65	55.4	73.8
27-Mar	66	68	68	73	77	77	75	71	61	55	50	42	42	40	36	32	35	44	46	50	52	58	69	75	56.8	76.7
28-Mar	78	79	79	79	78	79	80	74	59	55	48	44	45	40	35	37	39	40	42	50	51	56	64	57	57.8	79.8
29-Mar	59	61	63	70	76	78	78	71	61	55	50	43	39	38	33	36	34	36	37	44	58	68	74	77	55.9	78.2
30-Mar	77	79	79	78	77	78	77	73	62	56	50	44	35	41	36	30	32	41	51	56	53	51	53	57	56.9	79.5
31-Mar	63	65	59	66	73	76	76	67	59	52	50	44	40	37	36	39	41	41	45	50	55	57	57	57	54.4	76.4
69.5 70.1 70.0 70.8 71.6 71.5 71.5 69.7 64.2 58.4 54.1 50.8 48.9 47.8 46.6 47.2 48.4 50.9 55.2 59.2 61.9 65.0 67.1 68.1																								Diurnal Average		
78.0 80.4 81.4 81.1 79.9 79.5 79.8 78.9 79.8 80.4 79.3 77.3 73.4 73.4 72.0 71.4 72.2 73.1 81.2 83.5 83.9 82.4 81.4 78.7																								Diurnal Maximum		

Hourly Averages

Relative Humidity (RH) - %

Henry Pirker - March 2013



Hourly Averages

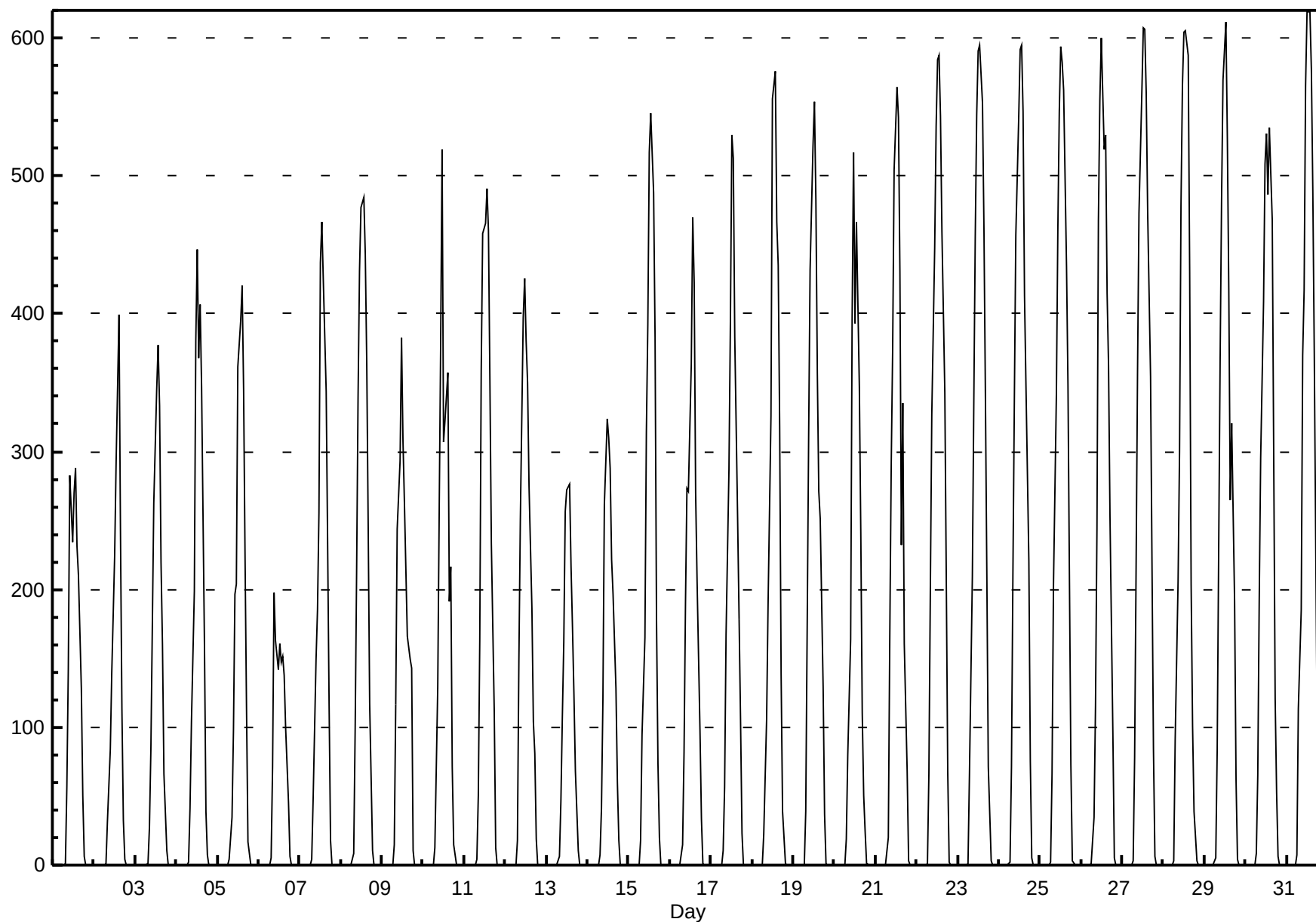
Solar Radiation (SR) - W/m²

Henry Pirker - March 2013

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 619.3 W/m ² on Mar 31 13:00 Maximum Daily Average: 194.9 W/m ² on Mar 31																								Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0		
Minimum Value: 0 W/m ² on Mar 1 01:00 Minimum Daily Average: 55.4 W/m ² on Mar 6 Maximum Diurnal Average: 457.3 W/m ² at hour 13 Minimum Diurnal Average: 0.0 W/m ² at hour 1 Monthly Average: 131.90 W/m ² Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 4.7 Q ₃ = 241.7 P ₉₀ = 456.9 P ₉₉ = 602.7																										
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-Mar	0	0	0	0	0	0	0	1	57	142	283	235	270	288	231	211	128	50	6	0	0	0	0	0	79.2	288.4
2-Mar	0	0	0	0	0	0	0	1	31	84	140	182	224	293	399	242	114	33	4	0	0	0	0	0	72.8	399.1
3-Mar	0	0	0	0	0	0	0	1	28	84	174	263	345	377	333	220	160	66	10	0	0	0	0	0	85.9	376.9
4-Mar	0	0	0	0	0	0	0	2	41	104	198	381	447	368	407	346	158	39	8	0	0	0	0	0	104.1	446.8
5-Mar	0	0	0	0	0	0	0	4	34	97	197	203	361	395	421	344	223	114	16	0	0	0	0	0	100.5	420.8
6-Mar	0	0	0	0	0	0	0	5	72	197	163	142	160	147	152	137	100	46	6	0	0	0	0	0	55.4	197.4
7-Mar	0	0	0	0	0	0	0	4	48	150	185	256	437	466	424	343	232	117	18	0	0	0	0	0	111.7	466.3
8-Mar	0	0	0	0	0	0	0	8	99	213	339	431	477	484	442	363	245	118	10	0	0	0	0	0	134.5	484.0
9-Mar	0	0	0	0	0	0	0	14	116	244	293	383	308	262	214	166	149	143	11	0	0	0	0	0	96.0	382.7
10-Mar	0	0	0	0	0	0	0	13	129	257	377	520	307	322	357	191	217	71	15	0	0	0	0	0	115.6	519.5
11-Mar	0	0	0	0	0	0	0	5	50	163	359	458	465	491	460	351	233	111	13	0	0	0	0	0	131.6	490.5
12-Mar	0	0	0	0	0	0	0	18	148	250	398	426	381	350	276	186	104	81	19	0	0	0	0	0	109.9	426.0
13-Mar	0	0	0	0	0	0	0	6	47	107	162	256	273	276	217	172	123	68	11	0	0	0	0	0	71.6	276.3
14-Mar	0	0	0	0	0	0	0	7	41	120	262	323	310	288	221	196	128	60	17	0	0	0	0	0	82.3	323.2
15-Mar	0	0	0	0	0	0	0	17	94	165	314	392	517	545	487	382	178	74	20	0	0	0	0	0	132.8	545.2
16-Mar	0	0	0	0	0	0	0	15	82	191	273	271	364	469	423	270	206	98	33	1	0	0	0	0	112.3	469.2
17-Mar	0	0	0	0	0	0	0	11	57	167	286	394	529	513	384	250	179	105	23	0	0	0	0	0	120.8	529.4
18-Mar	0	0	0	0	0	0	0	22	107	190	257	326	556	576	466	436	318	138	39	1	0	0	0	0	143.0	576.1
19-Mar	0	0	0	0	0	0	0	39	173	310	432	521	554	482	357	271	251	129	37	1	0	0	0	0	148.2	554.0
20-Mar	0	0	0	0	0	0	0	19	80	164	394	518	393	467	347	241	110	50	24	1	0	0	0	0	117.0	517.5
21-Mar	0	0	0	0	0	0	0	20	165	290	375	505	564	543	430	233	335	161	68	3	0	0	0	0	153.8	564.1
22-Mar	0	0	0	0	0	0	1	66	200	327	447	536	585	588	544	459	342	208	69	2	0	0	0	0	182.2	587.7
23-Mar	0	0	0	0	0	0	1	66	209	335	456	544	591	595	552	462	341	210	71	3	0	0	0	0	184.9	594.8
24-Mar	0	0	0	0	0	0	2	72	212	339	457	542	592	594	547	413	348	221	76	5	0	0	0	0	184.1	594.3
25-Mar	0	0	0	0	0	0	2	66	204	342	461	546	594	582	562	434	348	209	72	3	0	0	0	0	184.4	594.2
26-Mar	0	0	0	0	0	0	1	35	115	243	468	555	600	519	530	415	363	252	95	5	0	0	0	0	174.9	600.5
27-Mar	0	0	0	0	0	0	3	77	213	356	473	561	607	606	560	474	354	218	84	6	0	0	0	0	191.4	606.9
28-Mar	0	0	0	0	0	0	3	92	206	300	478	565	604	605	587	430	204	101	38	3	0	0	0	0	175.6	605.4
29-Mar	0	0	0	0	0	0	5	85	226	364	481	569	612	528	417	265	320	192	62	4	0	0	0	0	172.1	611.6
30-Mar	0	0	0	0	0	0	8	65	193	295	408	509	530	486	535	468	297	121	53	6	0	0	0	0	165.6	534.7
31-Mar	0	0	0	0	0	0	8	114	185	370	417	565	619	619	577	489	371	235	99	10	0	0	0	0	194.9	619.3
0.0 0.0 0.0 0.0 0.0 0.0 1.2 31.3 118.1 224.5 335.8 415.4 457.3 455.6 414.8 318.1 231.6 123.9 36.4 1.8 0.0 0.0 0.0 0.0																								Diurnal Average		
0.0 0.0 0.0 0.0 0.0 0.0 8.0 113.6 226.0 369.5 481.3 569.2 619.3 618.8 587.0 489.2 370.9 252.2 98.9 9.7 0.0 0.0 0.0 0.0																								Diurnal Maximum		

Hourly Averages

Solar Radiation (SR) - W/m²
Henry Pirker - March 2013



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Henry Pirker - March 2013

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	4	3	8	4	17	15	13	12	12	11	10	12	7	8	11	6	11	8	10	10	7	4	4	4	7.8	17.0
Dir	190	356	289	256	274	266	277	270	241	276	307	288	317	261	281	269	242	261	261	287	297	331	333	347	276.7	274.1
2 Spd	5	7	3	2	1	3	3	2	2	3	7	8	9	8	10	8	8	7	9	9	9	11	9	8	4.5	11.1
Dir	331	339	234	184	333	238	223	215	356	62	89	95	90	82	62	57	63	64	62	53	50	43	51	61	59.3	43.4
3 Spd	5	4	7	6	6	7	6	6	5	6	7	8	8	8	10	7	5	5	3	1	2	2	1	0	3.9	10.0
Dir	57	53	46	28	335	297	304	328	326	345	3	36	30	26	33	29	20	321	305	290	176	123	160	247	8.5	32.8
4 Spd	3	3	3	4	5	6	5	5	6	6	5	6	7	8	11	10	9	7	7	8	8	6	7	7	5.5	11.1
Dir	300	2	71	91	122	121	115	107	101	124	107	89	70	46	59	61	51	52	57	54	58	65	90	90	75.2	59.0
5 Spd	2	2	1	2	3	3	3	3	1	2	3	4	4	8	9	9	7	7	6	3	4	5	5	5	3.9	8.7
Dir	34	151	224	349	313	310	337	331	322	319	279	296	319	330	322	320	322	316	328	302	321	332	327	330	321.8	319.6
6 Spd	4	5	5	5	3	4	7	6	6	11	10	7	6	7	9	10	10	10	8	6	6	6	6	7	5.5	10.7
Dir	309	338	320	313	310	22	60	45	64	69	67	78	44	56	83	89	73	52	58	61	49	41	34	46	51.0	68.7
7 Spd	7	8	9	8	6	7	7	5	5	5	6	3	5	5	4	7	7	6	5	5	3	3	4	4	4.8	8.8
Dir	53	71	73	82	73	66	64	66	65	57	78	48	8	5	47	31	33	35	22	39	7	314	310	331	46.2	73.0
8 Spd	4	5	4	2	3	4	4	4	4	4	4	3	4	5	6	5	5	5	1	4	3	4	3	4	3.7	5.9
Dir	337	313	312	12	266	303	329	324	316	319	292	285	290	319	325	290	303	316	356	309	350	302	319	320	313.0	325.1
9 Spd	4	3	3	2	3	3	3	4	4	4	2	3	3	4	4	16	21	11	6	11	15	23	15	9	6.1	23.0
Dir	325	346	19	124	141	117	312	322	309	306	285	297	299	291	265	275	278	272	242	264	264	264	262	232	272.8	263.8
10 Spd	11	18	21	12	12	23	27	23	31	37	36	33	29	28	33	31	26	25	24	22	25	24	20	17	24.3	37.3
Dir	267	274	270	259	246	254	259	258	249	254	259	257	263	261	270	283	274	273	268	264	260	261	260	264	262.9	253.6
11 Spd	16	16	18	19	18	17	18	18	15	15	16	16	15	11	8	6	5	5	6	8	7	2	4	3	11.3	19.4
Dir	273	258	256	254	253	254	254	259	268	256	256	261	265	284	299	296	236	215	209	239	254	244	225	190	257.5	253.8
12 Spd	2	2	2	2	3	4	3	4	1	4	6	4	5	6	12	14	14	12	12	9	9	11	11	13	5.3	14.2
Dir	154	125	104	323	315	316	336	301	251	292	316	35	37	54	53	65	58	46	48	44	45	18	11	5	31.8	64.8
13 Spd	11	10	10	7	6	6	7	6	6	7	6	7	7	8	9	8	7	6	7	7	7	5	3	3	6.2	11.3
Dir	355	1	12	46	52	63	74	71	59	87	77	64	61	67	67	71	54	51	39	32	32	43	53	60	48.7	354.8
14 Spd	3	5	6	7	7	6	9	9	10	12	12	13	13	12	13	12	11	13	12	12	12	11	10	10	9.9	13.1
Dir	36	57	60	57	65	69	74	79	71	66	64	63	66	57	57	62	61	66	68	66	69	64	62	62	64.4	65.7
15 Spd	10	10	9	7	8	8	8	9	8	8	9	9	10	7	6	3	5	7	8	9	8	9	10	12	4.1	11.8
Dir	45	44	37	23	353	323	316	317	314	316	299	296	290	284	289	311	66	84	78	77	74	81	83	85	10.5	84.5
16 Spd	10	9	8	7	7	7	7	7	8	6	7	6	8	6	7	8	9	7	7	8	8	6	5	6	5.8	10.5
Dir	81	71	70	63	47	60	74	73	80	70	75	61	21	30	70	23	35	31	338	357	357	345	315	317	42.4	80.9
17 Spd	4	7	5	4	2	2	1	3	3	4	3	6	6	8	6	6	7	6	6	6	6	6	5	6	3.0	7.9
Dir	317	342	332	324	334	335	156	170	166	288	298	288	348	2	17	2	27	45	61	79	74	64	49	39	12.8	2.4
18 Spd	5	4	5	5	6	5	4	6	4	4	5	6	5	6	6	4	5	5	7	8	6	2	5	4	2.5	8.1
Dir	40	327	292	281	304	311	323	318	319	297	290	289	328	8	24	48	49	106	94	99	103	14	326	324	349.4	99.2
19 Spd	5	5	4	5	5	4	4	3	3	2	3	3	2	2	5	8	13	11	11	12	10	8	9	10	2.8	12.7
Dir	324	318	313	307	325	310	317	311	200	293	171	156	221	320	34	85	96	89	93	95	89	82	89	105	73.7	95.8
20 Spd	10	9	9	10	12	7	4	4	4	6	9	12	10	11	12	12	12	10	10	10	11	10	13	23	6.8	23.3
Dir	107	102	87	90	99	84	69	57	58	60	63	77	64	43	52	45	40	46	36	17	348	335	314	314	45.2	313.5
21 Spd	22	23	22	20	20	20	21	22	20	21	21	19	19	19	17	15	15	10	12	8	5	4	6	5	16.0	23.0
Dir	308	304	300	303	295	290	294	292	291	294	293	297	294	293	291	292	285	295	291	302	312	293	297	328	296.0	303.9
22 Spd	5	5	6	5	6	4	5	5	7	5	5	7	7	8	8	7	6	2	2	5	4	4	4	4	3.9	8.1
Dir	320	328	315	318	314	333	322	311	296	301	284	291	279	284	283	287	283	245	150	88	85	86	315	324	304.7	284.2

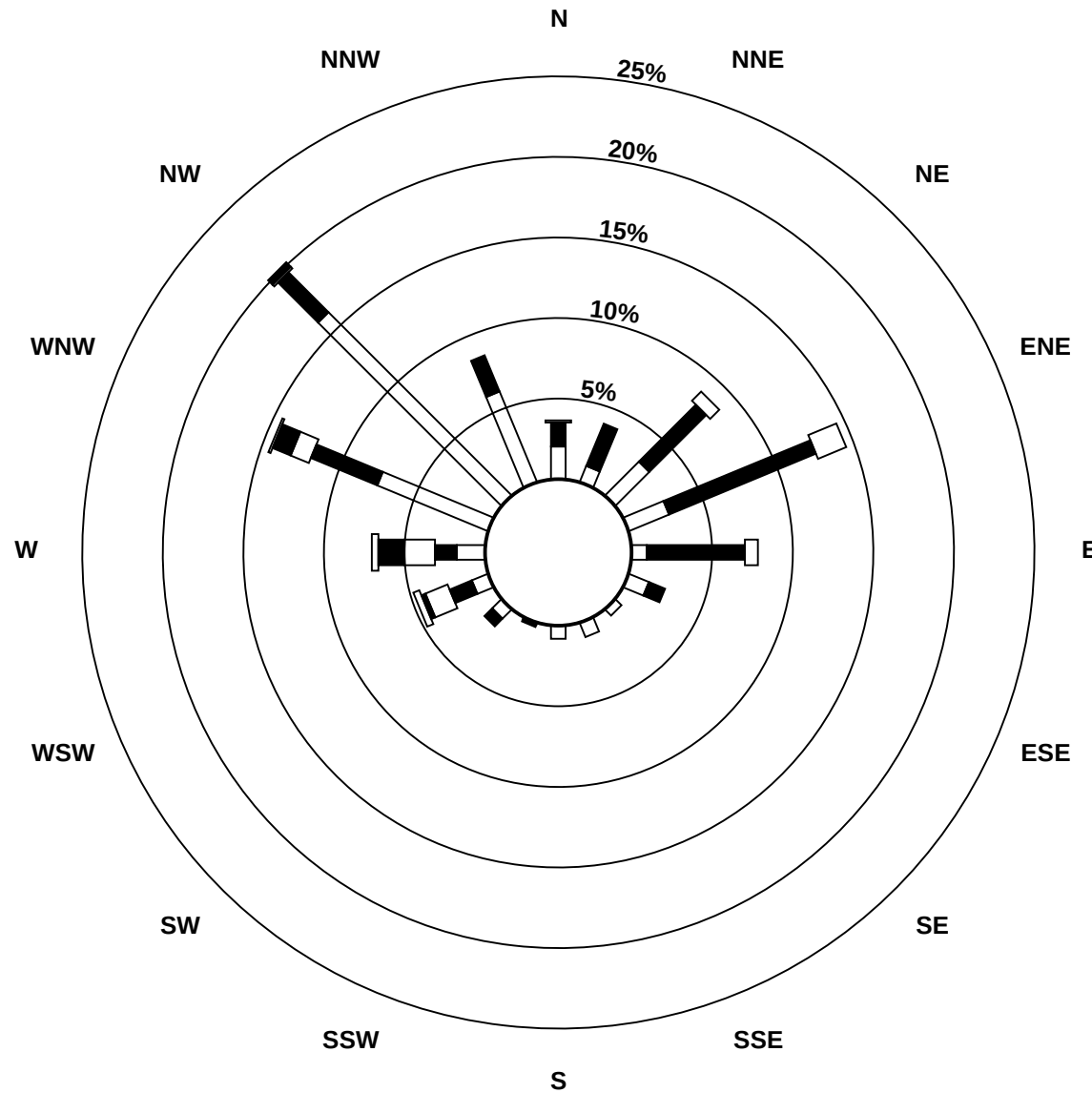
Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Henry Pirker - March 2013

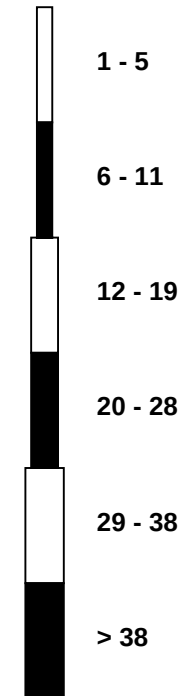
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
23 Spd	4	4	5	3	4	5	4	4	3	4	5	4	5	7	3	5	6	8	9	9	2	5	4	3	2.3	8.8	
Dir	314	325	314	326	325	308	321	301	296	315	293	289	315	314	1	78	78	80	92	99	139	318	359	309	346.4	99.3	
24 Spd	4	3	4	3	3	4	4	4	3	3	4	5	6	6	7	5	4	7	7	5	4	4	5	5	2.7	7.3	
Dir	344	336	321	304	315	290	322	335	302	276	287	300	304	333	337	48	60	85	85	87	46	317	331	330	341.8	337.5	
25 Spd	4	4	4	4	5	4	4	4	4	3	3	6	6	5	4	6	8	8	6	4	2	2	5	4	2.9	7.6	
Dir	323	319	321	315	319	316	312	330	308	308	295	316	348	7	48	69	82	78	62	63	39	316	308	317	351.9	78.0	
26 Spd	4	3	4	4	4	4	4	4	3	3	3	5	5	5	4	6	5	7	8	11	11	8	8	8	4.6	11.0	
Dir	325	342	293	324	285	309	294	345	328	293	294	287	318	305	293	257	268	246	249	260	250	248	232	236	274.6	259.6	
27 Spd	10	10	6	3	3	6	6	3	4	5	4	7	10	9	6	5	5	10	9	8	6	3	3	3	2.1	10.1	
Dir	232	236	242	274	239	287	291	317	307	318	295	286	300	299	297	296	57	96	96	93	85	109	301	335	290.7	96.2	
28 Spd	3	4	4	5	4	4	3	2	3	4	4	6	5	5	3	4	7	7	5	4	3	3	1	3	2.0	7.5	
Dir	327	305	328	313	321	301	271	351	283	278	273	243	323	310	312	28	83	82	80	48	23	351	41	61	339.7	83.3	
29 Spd	4	4	4	3	4	4	4	5	5	5	5	4	7	7	5	7	5	7	4	1	2	2	2	4	2.6	7.3	
Dir	45	63	65	325	322	322	309	305	318	311	308	293	308	313	307	325	71	119	107	147	323	346	313	309	331.6	313.1	
30 Spd	3	2	3	5	3	5	4	3	3	3	3	4	4	5	3	6	6	5	2	2	5	12	9	2	4.0	12.1	
Dir	330	314	279	339	341	305	337	312	289	279	286	295	297	296	344	293	303	295	248	344	297	288	301	272	302.4	288.0	
31 Spd	4	5	6	2	3	4	4	4	6	6	5	6	8	6	8	11	12	12	10	6	5	6	8	8	3.4	12.1	
Dir	316	328	33	294	329	354	324	318	332	330	305	329	319	2	67	78	81	92	102	86	79	80	96	98	41.5	92.2	
Spd	3.1	3.4	3.1	2.5	3.0	3.5	3.5	3.4	3.0	3.5	3.3	3.3	4.3	4.5	4.0	3.6	3.1	2.9	2.6	2.4	2.1	2.6	2.6	2.6	Diurnal Average		
Dir	333.4	331.7	324.3	325.7	310.1	300.5	305.0	307.8	297.4	302.1	302.0	304.7	324.7	332.5	353.0	1.2	23.4	45.5	51.5	36.5	11.2	341.8	336.7	348.5	Diurnal Maximum		
Spd	22.4	23.0	22.4	19.6	19.7	22.8	27.1	23.0	31.3	37.3	36.3	32.9	29.2	28.1	32.7	31.3	26.0	24.6	24.2	21.9	24.8	24.5	20.2	23.3	Diurnal Maximum		
Dir	308.3	303.9	300.2	302.5	294.8	254.4	259.0	257.6	249.0	253.6	259.3	257.2	263.4	261.5	269.8	282.6	274.2	272.9	268.5	263.7	260.2	261.5	260.4	313.5			
Maximum Speed Value: 37 km/h on Mar 10 10:00							Minimum Speed Value: 0 km/h on Mar 4 00:00													Hours in Service:					744		
Maximum Daily Speed Average: 24.3 km/h on Mar 10							Minimum Daily Speed Average: 2.0 km/h on Mar 8													Hours of Data:					744		
Maximum Diurnal Speed Average: 4.5 km/h at hour 14							Minimum Diurnal Speed Average: 2.1 km/h at hour 21													Hours of Missing Data:					0		
Monthly Average Velocity: 2.68 km/h 333.92 deg							Speed Percentiles: P ₁ = 1.4 P ₁₀ = 2.9 Q ₁ = 4.0 Median = 5.8 Q ₃ = 8.4 P ₉₀ = 12.2 P ₉₉ = 27.1													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	27		26		4		0		0		0		57														
NorthEast	33		98		21		0		0		0		152														
East	10		86		11		0		0		0		107														
SouthEast	12		5		0		0		0		0		17														
South	9		0		0		0		0		0		9														
SouthWest	11		14		2		0		0		0		27														
West	34		30		32		17		8		0		121														
NorthWest	164		77		2		11		0		0		254														
Total	300		336		72		28		8		0		744														

Wind Rose

Wind Speed (WS) (km/h)
Henry Pirker - March 2013



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Henry Pirker - March 2013

Maximum Speed: 38 km/h on Mar 10 10:00																				Maximum Daily Speed Average: 24.8 km/h on Mar 10										Hours in Service: 744	
Minimum Speed: 1 km/h on Mar 3 20:00																				Minimum Daily Speed Average: 4.2 km/h on Mar 8										Hours of Data: 744	
Maximum Diurnal Speed Average: 9.2 km/h at hour 17																				Minimum Diurnal Speed Average: 6.1 km/h at hour 4										Hours of Missing Data: 0	
Monthly Average Speed: 7.51 km/h																				Percentiles: P ₁ = 2.0 P ₁₀ = 3.5 Q ₁ = 4.3 Median = 6.1 Q ₃ = 8.6 P ₉₀ = 12.5 P ₉₉ = 27.5										Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
1-Mar	5	4	8	5	17	15	13	12	13	15	11	12	8	8	12	7	11	8	10	11	7	6	5	5	9.4	17.4					
2-Mar	6	7	5	4	3	3	3	5	3	4	7	8	10	8	10	8	8	8	9	9	10	11	9	8	6.9	11.4					
3-Mar	5	5	8	7	6	7	6	6	5	7	7	9	9	9	10	7	6	5	3	1	2	2	2	1	5.6	10.3					
4-Mar	3	3	3	4	5	6	5	5	6	6	6	6	8	8	11	10	9	7	7	8	8	6	7	7	6.6	11.4					
5-Mar	3	3	2	2	3	3	4	3	2	3	3	5	5	8	9	9	7	7	6	4	5	5	5	5	4.5	8.8					
6-Mar	5	6	5	5	4	6	7	6	6	11	10	7	7	8	9	10	10	10	8	7	6	6	7	8	7.2	11.1					
7-Mar	7	9	9	8	7	7	7	6	5	5	6	5	6	6	6	7	7	7	6	5	4	4	4	4	6.1	9.0					
8-Mar	4	5	4	2	4	4	4	4	4	4	5	3	4	5	6	6	5	6	3	4	4	4	3	4	4.2	6.3					
9-Mar	4	3	3	2	3	3	3	4	4	4	3	3	4	4	5	16	21	11	7	11	15	23	15	9	7.5	23.2					
10-Mar	12	19	22	12	12	23	27	23	32	38	37	33	29	28	33	32	26	25	24	22	25	25	20	17	24.8	37.7					
11-Mar	16	16	18	20	18	17	18	18	16	15	16	16	16	11	8	7	6	6	6	8	7	4	4	4	12.1	19.5					
12-Mar	2	2	2	3	4	4	4	4	2	4	6	6	6	7	12	14	14	12	12	9	10	11	11	13	7.3	14.4					
13-Mar	12	10	10	7	7	6	7	6	6	7	7	7	7	8	9	8	7	6	7	8	7	5	4	4	7.2	11.6					
14-Mar	4	5	6	7	7	7	9	9	10	12	12	13	13	13	13	12	12	13	12	12	12	11	11	10	10.2	13.3					
15-Mar	10	10	9	7	8	8	8	9	9	8	10	9	10	7	7	6	5	8	8	9	9	9	10	12	8.5	11.9					
16-Mar	11	9	8	7	7	7	8	7	8	6	7	6	8	7	7	8	9	8	7	9	8	6	5	6	7.5	10.6					
17-Mar	4	7	5	4	2	2	2	3	3	4	4	6	7	8	7	7	7	6	6	6	6	6	5	6	5.1	8.1					
18-Mar	5	5	5	5	6	5	4	6	4	4	5	6	5	7	7	5	5	5	7	8	6	5	5	4	5.3	8.2					
19-Mar	5	5	4	5	5	4	4	4	4	3	3	3	3	3	6	8	13	11	11	12	10	8	9	10	6.5	12.8					
20-Mar	10	9	9	11	12	7	4	4	5	6	10	13	10	11	12	12	12	10	10	10	11	10	13	23	10.1	23.4					
21-Mar	23	23	23	20	20	20	22	22	20	21	21	19	19	20	17	16	15	10	12	8	5	4	6	5	16.2	23.1					
22-Mar	5	5	6	6	6	4	5	5	7	6	5	7	7	8	8	7	6	3	3	5	4	4	5	4	5.5	8.3					
23-Mar	4	4	5	4	4	5	5	4	3	5	6	4	6	8	5	6	6	8	9	9	3	5	5	5	5.2	8.8					
24-Mar	4	4	4	3	3	4	4	4	4	3	4	5	6	6	8	5	4	7	7	5	4	4	5	6	4.7	7.7					
25-Mar	5	5	5	5	5	4	4	5	4	3	3	6	6	6	5	6	8	8	6	4	3	4	5	5	5.0	7.8					
26-Mar	4	3	5	5	4	4	4	4	3	3	3	5	5	5	4	6	6	7	8	11	11	8	8	8	5.6	11.2					
27-Mar	10	10	7	4	4	7	6	3	4	5	5	7	10	10	6	5	7	10	9	8	6	4	4	4	6.4	10.3					
28-Mar	3	4	4	6	4	4	4	2	3	5	4	6	6	5	5	6	8	7	6	4	4	4	4	5	4.7	7.7					
29-Mar	4	4	4	4	4	4	5	5	6	6	5	5	8	8	6	8	6	7	5	3	3	3	3	5	4.9	7.6					
30-Mar	4	3	4	5	4	5	4	3	3	3	3	4	4	5	5	6	6	7	4	3	5	12	9	4	4.8	12.2					
31-Mar	6	6	6	3	4	4	4	4	6	6	6	6	8	7	9	12	12	12	10	6	5	6	8	8	6.8	12.2					
6.6 6.9 7.0 6.1 6.5 6.8 6.9 6.6 6.8 7.4 7.7 8.1 8.4 8.5 8.9 9.1 9.2 8.6 8.0 7.7 7.2 7.3 7.0 7.0																									Diurnal Average						
22.5 23.1 22.6 19.8 19.8 22.9 27.2 23.1 31.6 37.7 36.6 33.1 29.4 28.3 32.9 31.5 26.3 24.9 24.4 22.0 24.9 24.6 20.3 23.4																									Diurnal Maximum						

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

Hourly Standard Deviations

Wind Direction (WD) - deg

Henry Pirker - March 2013

Maximum Value: 91.2 deg on Mar 2 05:00																			Hours in Service: 744						
Minimum Value: 3.7 deg on Mar 21 19:00																			Hours of Data: 744						
Percentiles: P ₁ = 5.0 P ₁₀ = 7.3 Q ₁ = 11.1 Median = 15.7 Q ₃ = 23.4 P ₉₀ = 39.8 P ₉₉ = 72.3																			Hours of Missing Data: 0						
																			Hours of Calibration: 0						
																			Percent Operational Time: 100.0						
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Mar	45	47	22	39	17	7	10	11	17	44	17	12	40	23	12	26	9	11	12	11	31	66	40	36	66.1
2-Mar	12	26	60	73	91	29	26	73	75	29	12	9	10	13	14	15	13	15	11	14	15	13	13	14	91.2
3-Mar	19	21	14	13	16	20	14	8	14	16	15	16	22	23	15	28	32	17	13	49	46	25	65	71	71.4
4-Mar	19	12	14	14	19	7	13	21	14	14	23	22	25	21	15	15	14	14	11	14	14	10	8	8	25.1
5-Mar	45	72	72	52	18	25	18	10	56	21	30	38	26	12	7	7	9	16	11	17	24	9	15	7	72.3
6-Mar	32	20	23	12	34	48	15	18	18	16	17	25	28	26	17	14	15	14	25	16	18	19	17	23	48.0
7-Mar	20	19	15	15	16	17	15	21	15	25	26	53	37	35	53	21	19	22	27	12	27	22	7	11	53.1
8-Mar	10	15	26	14	33	10	11	13	9	16	13	16	13	25	21	25	20	28	66	21	30	21	29	15	66.0
9-Mar	15	50	15	33	29	39	29	10	11	15	22	12	28	29	46	12	6	16	20	13	13	7	12	17	49.7
10-Mar	20	12	10	9	7	6	6	5	8	8	6	6	8	7	8	6	8	7	7	6	7	5	7	7	19.6
11-Mar	9	8	5	6	6	6	6	7	10	8	9	11	13	12	19	17	35	21	10	16	21	56	13	29	56.1
12-Mar	14	30	22	67	22	20	29	24	57	21	15	44	27	25	16	11	14	17	16	16	19	10	8	9	67.0
13-Mar	14	12	13	18	18	19	13	22	21	16	20	17	15	15	11	15	19	18	17	17	17	15	34	29	34.1
14-Mar	21	15	19	14	15	18	12	9	10	11	11	12	11	15	12	12	12	11	10	11	10	11	12	12	21.2
15-Mar	12	12	12	12	15	9	6	6	10	16	10	11	11	12	10	65	23	20	15	11	12	10	10	8	65.5
16-Mar	10	10	11	16	14	15	13	15	11	15	18	23	15	30	19	20	17	16	17	10	10	14	11	6	30.4
17-Mar	12	7	26	17	37	28	49	41	18	38	32	7	26	17	29	21	15	22	16	11	13	13	19	15	49.3
18-Mar	17	25	7	14	6	9	12	4	8	19	7	5	30	29	17	34	27	24	13	11	14	58	33	19	57.9
19-Mar	21	13	17	17	12	18	15	44	50	32	34	40	57	59	39	18	7	7	5	5	7	9	8	7	58.5
20-Mar	6	8	8	8	6	13	16	20	14	12	26	14	17	15	14	14	13	14	13	9	12	8	6	5	26.0
21-Mar	6	6	6	6	6	5	5	5	4	5	5	8	7	5	6	5	5	8	4	12	16	19	13	13	19.4
22-Mar	10	8	11	12	6	9	10	16	5	12	7	6	18	14	12	10	15	44	67	14	17	16	50	19	66.8
23-Mar	9	18	20	17	22	17	41	15	45	28	13	15	44	31	49	25	14	11	9	5	58	19	21	62	62.5
24-Mar	25	19	7	19	8	17	22	15	32	15	9	8	14	23	16	21	26	14	10	14	23	24	13	17	31.8
25-Mar	19	30	16	20	10	9	15	11	23	18	11	14	20	21	26	17	15	13	9	22	53	83	26	42	83.3
26-Mar	20	35	20	32	13	25	24	18	21	15	16	17	14	16	17	20	30	13	12	10	8	15	8	6	34.7
27-Mar	6	5	44	42	13	15	13	16	15	10	24	18	9	14	21	23	52	11	8	6	11	41	27	33	52.2
28-Mar	25	24	27	27	18	17	47	43	36	22	26	21	27	23	54	60	16	14	12	24	79	40	71	52	79.5
29-Mar	22	21	19	40	28	14	18	11	17	19	16	24	18	17	19	25	30	14	18	88	71	21	43	42	87.7
30-Mar	43	46	61	14	31	24	25	40	21	12	15	11	16	15	53	19	23	47	62	66	15	7	13	51	66.5
31-Mar	37	35	19	61	39	16	20	14	7	14	20	19	9	33	19	15	12	10	11	9	11	17	7	8	60.8
45.5 72.2 72.3 73.1 91.2 48.0 49.3 72.7 74.9 43.6 33.9 53.1 56.9 58.5 53.7 65.5 52.2 46.8 66.8 87.7 79.5 83.3 70.9 71.4																									

PAZA
Evergreen Park Station
Monthly Summary Tables, Graphs and
Roses

Hourly Averages

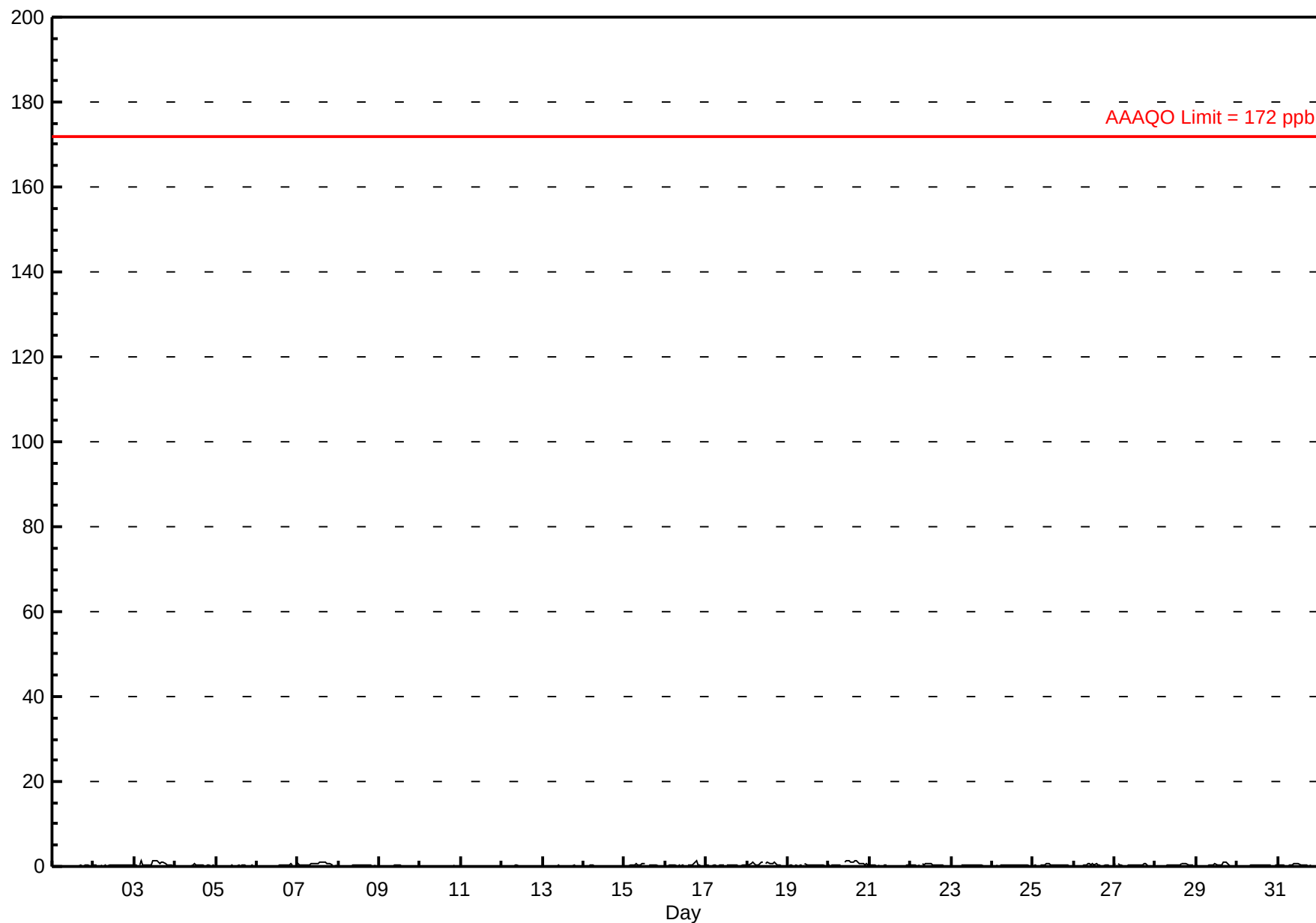
Sulphur Dioxide (SO₂) - ppb

Evergreen Park - March 2013

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 1.5 ppb on Mar 3 13:00 Maximum Daily Average: 0.7 ppb on Mar 20																				Hours in Service: 744 Hours of Data: 707 Hours of Missing Data: 37 Hours of Calibration: 37 Percent Operational Time: 100.0						
Minimum Value: 0 ppb on Mar 5 23:00 Maximum Diurnal Average: 0.4 ppb at hour 12 Monthly Average: 0.26 ppb																				Minimum Daily Average: 0.0 ppb on Mar 11 Minimum Diurnal Average: 0.2 ppb at hour 2 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 = 1.3						
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-Mar	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-Mar	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
3-Mar	0	0	A			1	0	0	0	0	0	1	2	1	1	1	1	1	1	0	0	0	0	0	0.6	1.5
4-Mar	0	A				0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.8
5-Mar	A					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.1	0.3
6-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	A	1	0.2	1.0
7-Mar	1	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0	A	0	0	0.6	1.2
8-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	0.4
9-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A					0.1	0.4
10-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A						0.1	0.2
11-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A							0.0	0.1
12-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A								0.1	0.3
13-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A									0.1	0.4
14-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A										0.1	0.3
15-Mar	0	0	0	0	0	0	0	1	0	0	1	1	1	A		0	0	0	0	0	0	0	0	0	0.3	0.8
16-Mar	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	1	1	0	0	0	0	0	0.3	1.3
17-Mar	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
18-Mar	0	0	1	1	1	0	0	0	1	1	A	1	1	1	1	1	1	1	1	0	0	0	0	0	0.6	1.0
19-Mar	0	0	0	0	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
20-Mar	0	0	0	0	0	0	0	0	A	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	0.7	1.4
21-Mar	0	0	0	0	0	0	0	A	0	0	0	C	C	C	C	0	0	0	0	0	0	0	0	0	0.2	0.5
22-Mar	0	0	0	0	0	0	A	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.4	0.8
23-Mar	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
24-Mar	0	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
25-Mar	0	0	0	A	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8
26-Mar	0	0	A	0	0	0	0	0	1	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0.3	0.8
27-Mar	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0.3	0.8
28-Mar	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	A	0.3	0.8
29-Mar	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	1	0	0	0	A	0	0.3	0.9
30-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.3	0.5
31-Mar	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	A	0	0	0	0.3	0.5
0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.3 0.4 0.3 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.3 0.2 0.2 0.2 0.2 0.2																								Diurnal Average		
0.8 0.5 0.6 1.0 1.2 0.5 0.4 0.6 0.9 0.9 1.2 1.4 1.5 1.4 1.2 1.3 1.2 1.2 1.3 0.7 0.6 0.4 0.6 1.0																								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 - March 2013



Hourly Maximums

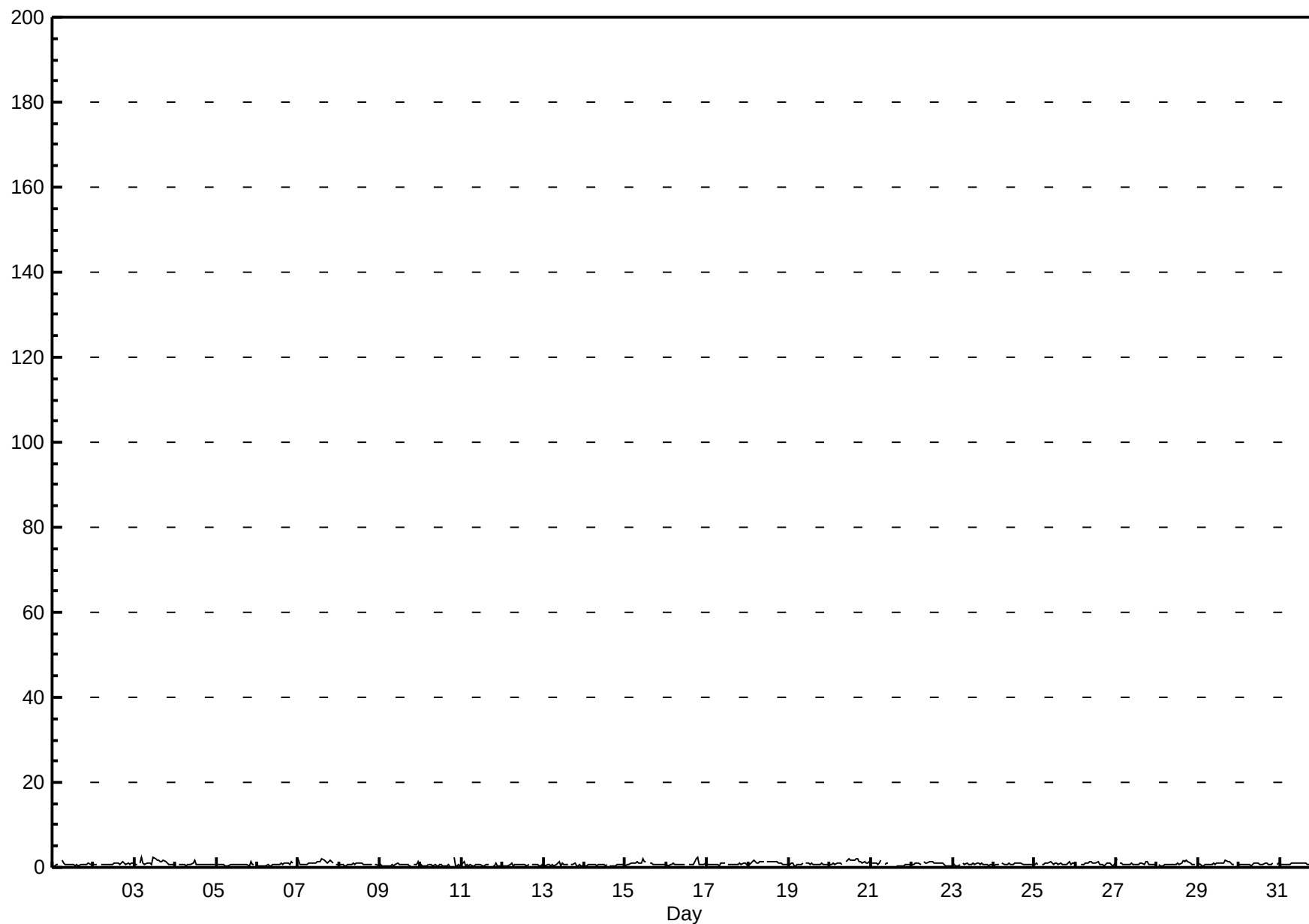
Sulphur Dioxide (SO₂) - ppb

Evergreen Park - March 2013

Maximum Value: 2.5 ppb on Mar 3 05:00																				Maximum Daily Average: 1.3 ppb on Mar 20										Hours in Service: 744									
Minimum Value: 0 ppb on Mar 21 16:00																				Minimum Daily Average: 0.6 ppb on Mar 12										Hours of Data: 707									
Maximum Diurnal Average: 1.0 ppb at hour 12																				Minimum Diurnal Average: 0.6 ppb at hour 22										Hours of Missing Data: 37									
Monthly Average: 0.79 ppb																				Percentiles: P ₁ = 0.4 P ₁₀ = 0.5 Q ₁ = 0.6 Median = 0.7 Q ₃ = 0.9 P ₉₀ = 1.2 P ₉₉ = 2.0										Hours of Calibration: 37									
																				Percent Operational Time: 100.0																			
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24															
1-Mar	0	0	1	1	A	2	1	1	1	1	1	1	1	0	1	0	1	1	1	1	1	1	1	1	0.7	1.5													
2-Mar	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.3													
3-Mar	1	1	A	1	2	1	1	1	1	1	1	2	2	2	2	1	1	2	1	1	1	1	1	1	1.2	2.5													
4-Mar	1	A	1	1	1	1	0	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.7													
5-Mar	A	1	1	1	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.6	1.3													
6-Mar	0	0	0	0	0	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	2	0.7	2.2													
7-Mar	2	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	1	1	1	2	1	A	1	1	1.1	1.9													
8-Mar	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0	0.7	0.9													
9-Mar	1	0	0	0	0	0	0	1	0	1	1	1	1	1	1	1	0	0	A	1	1	1	1	0	0.6	1.3													
10-Mar	1	0	0	0	1	1	1	0	1	0	0	1	1	0	0	0	1	0	A	2	0	0	1	1	0.6	2.5													
11-Mar	1	1	0	1	0	1	0	0	1	1	1	1	0	0	1	1	1	A	0	0	1	0	0	0	0.6	1.3													
12-Mar	0	0	0	0	1	1	0	1	1	1	1	1	1	0	1	A	1	1	1	1	0	0	1	1	0.6	0.9													
13-Mar	1	0	1	1	0	1	1	1	1	1	0	1	1	1	1	A	1	1	1	0	0	1	1	1	0.6	1.4													
14-Mar	0	0	1	1	1	1	1	0	1	1	1	1	0	1	A	0	0	0	0	1	1	1	1	1	0.6	0.8													
15-Mar	0	1	1	1	1	1	1	1	1	1	2	1	1	A	1	1	1	1	1	1	1	1	1	1	0.9	2.2													
16-Mar	1	0	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	2	2	1	1	1	1	1	0.8	2.4													
17-Mar	1	1	1	1	1	1	1	0	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0													
18-Mar	1	1	1	2	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.6													
19-Mar	1	1	1	0	0	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1													
20-Mar	1	1	1	1	1	1	1	1	A	1	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1.3	1.9													
21-Mar	1	1	1	1	1	1	2	A	1	1	1	C	C	C	C	0	0	0	0	0	1	1	1	1	0.7	1.6													
22-Mar	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	0	0.9	1.5													
23-Mar	0	1	0	0	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0.7	1.1													
24-Mar	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0													
25-Mar	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.5													
26-Mar	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0.8	1.4													
27-Mar	2	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0.8	2.0													
28-Mar	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	2	1	1	1	1	1	A	0.8	1.6													
29-Mar	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	A	0	0.9	1.8													
30-Mar	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.8	1.1													
31-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0	1	1	0.8	1.1													
0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.8 0.9 0.9 1.0 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.8 0.8 0.6 0.7 0.7																									Diurnal Average														
2.0 1.3 1.3 1.6 2.5 1.5 1.6 1.3 1.5 1.5 2.2 2.2 2.1 1.8 1.9 1.9 1.9 1.9 2.0 2.4 2.5 1.4 1.0 1.3 2.2																									Diurnal Maximum														
C - Calibration																									A - Automated Daily Zero Span														

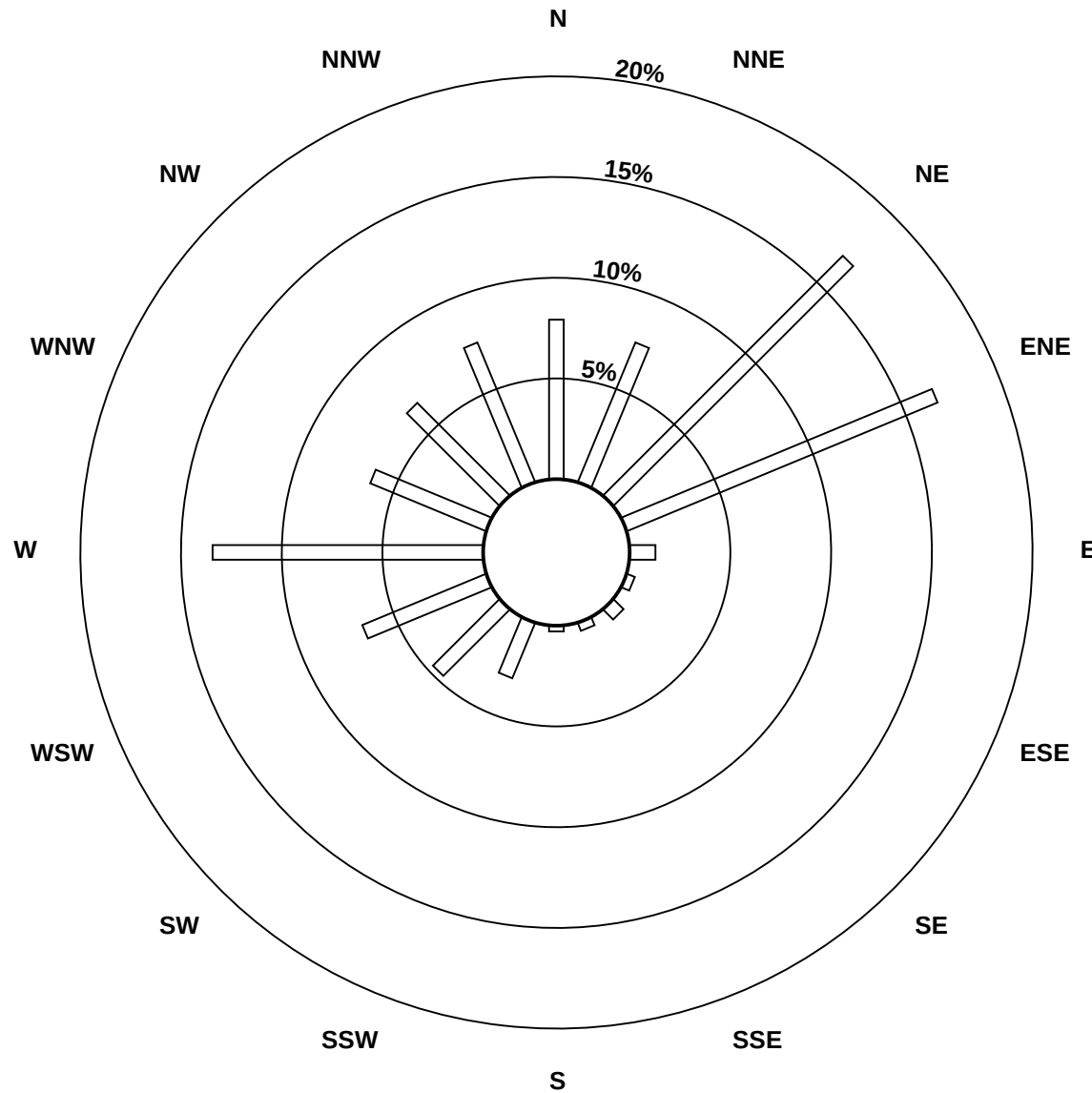
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Evergreen Park - March 2013

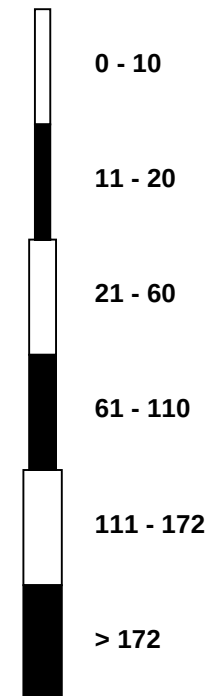


Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Evergreen Park - March 2013

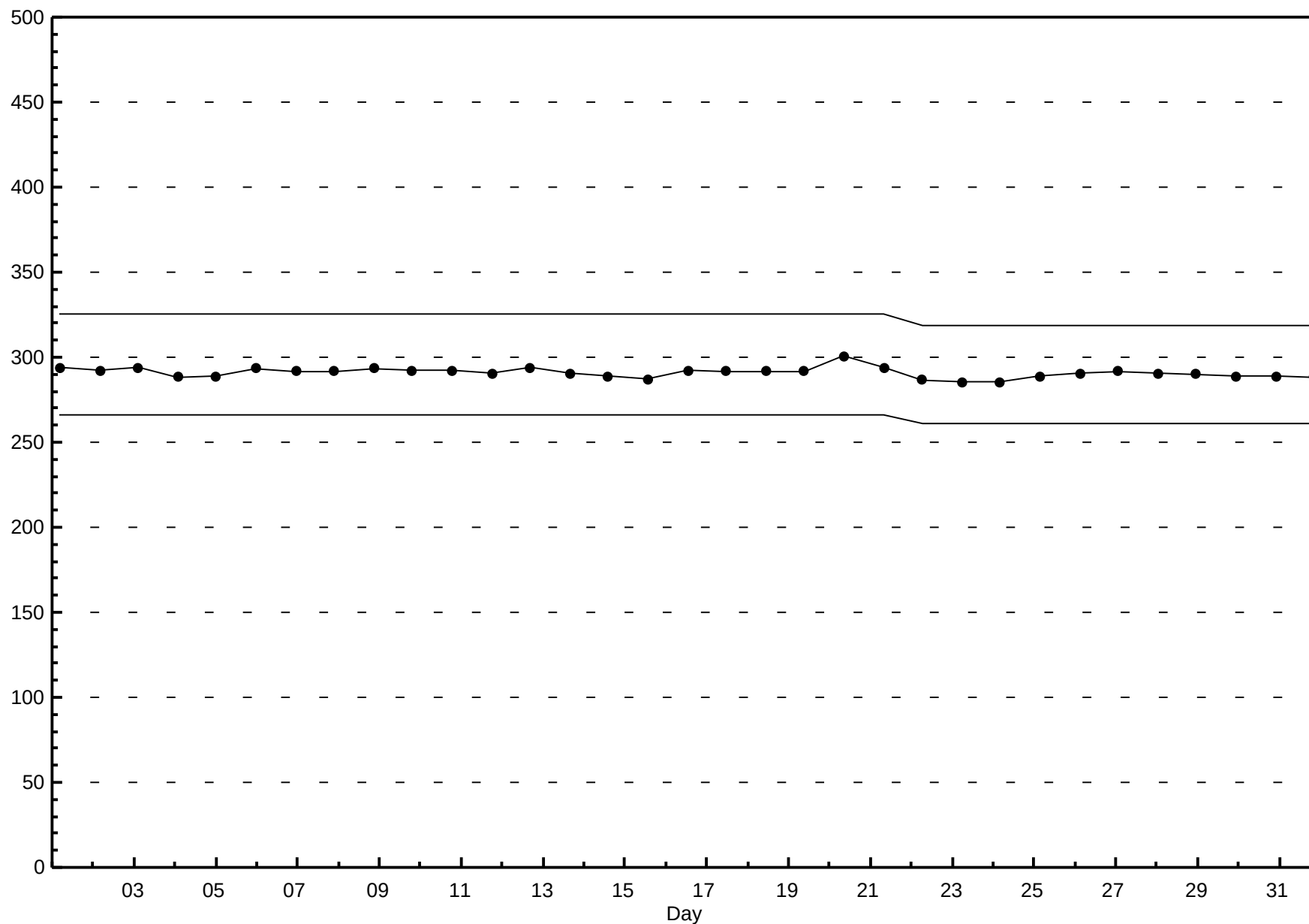


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Evergreen Park - March 2013



Hourly Averages

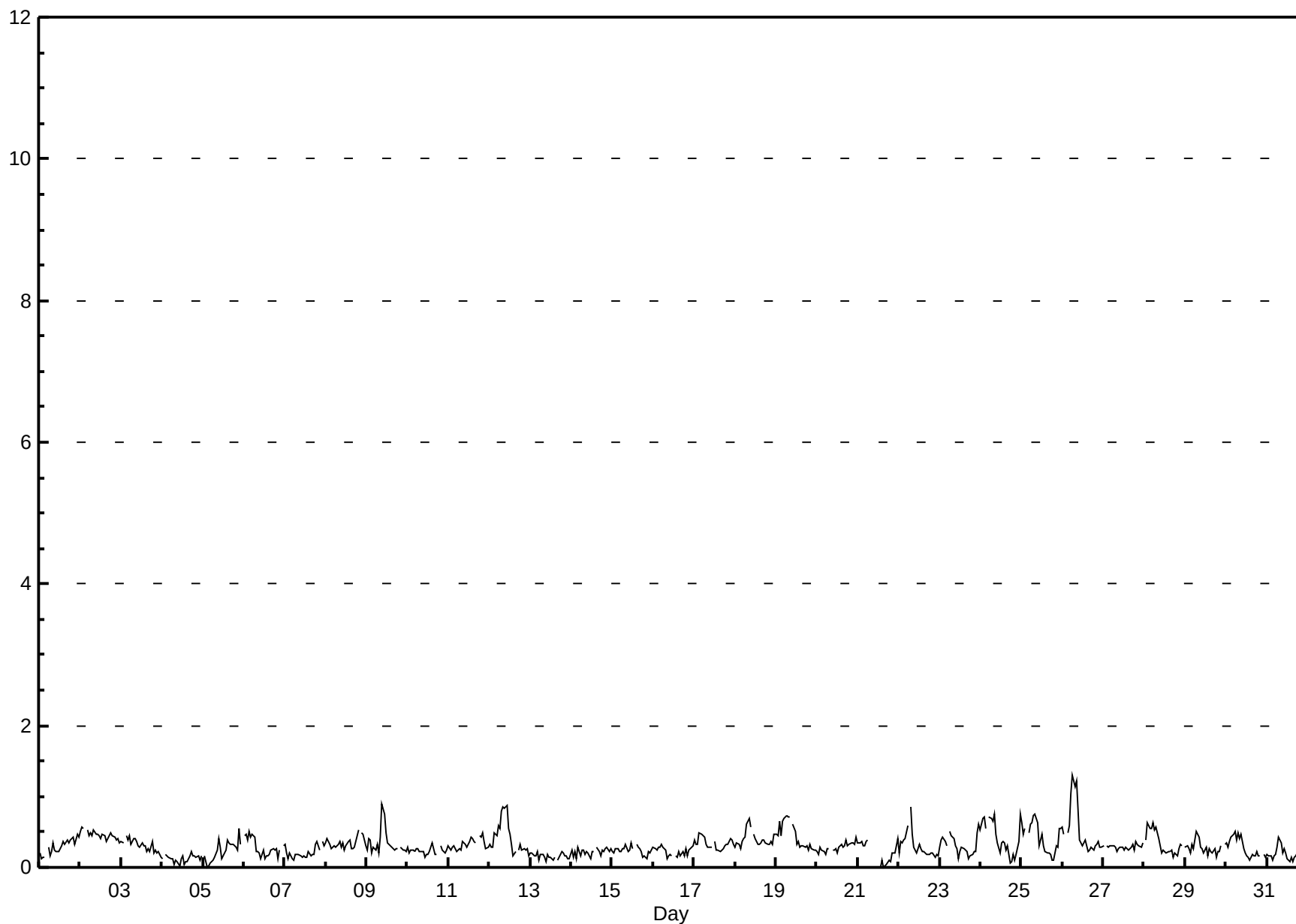
Total Reduced Sulphur (TRS) - ppb

Evergreen Park - March 2013

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 1.3 ppb on Mar 26 07:00 Maximum Daily Average: 0.5 ppb on Mar 26																				Hours in Service: 744 Hours of Data: 707 Hours of Missing Data: 37 Hours of Calibration: 37 Percent Operational Time: 100.0						
Minimum Value: 0 ppb on Mar 21 14:00 Maximum Diurnal Average: 0.4 ppb at hour 9 Monthly Average: 0.31 ppb										Minimum Daily Average: 0.1 ppb on Mar 4 Minimum Diurnal Average: 0.2 ppb at hour 18 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 = 0.8																
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Mar	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
2-Mar	1	1	1	A	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0.6
3-Mar	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
4-Mar	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
5-Mar	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	A	0.2	0.5
6-Mar	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.3	0.5
7-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.2	0.4
8-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	0	0	0	0.3	0.5
9-Mar	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0.3	0.9
10-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.2	0.3
11-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.3	0.5
12-Mar	0	0	0	0	0	1	1	1	1	1	1	1	0	0	0	0	A	0	0	0	0	0	0	0	0.4	0.9
13-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.2	0.2
14-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.2	0.3
15-Mar	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
16-Mar	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
17-Mar	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
18-Mar	0	0	0	0	0	0	0	1	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.7
19-Mar	0	0	1	0	1	1	1	1	1	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.7
20-Mar	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
21-Mar	0	0	0	0	0	0	0	A	0	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
22-Mar	0	0	0	0	0	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.9
23-Mar	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.3	0.6
24-Mar	1	1	1	1	A	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.4	0.8
25-Mar	1	0	1	A	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.4	0.8
26-Mar	1	0	A	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	1.3
27-Mar	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
28-Mar	A	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.3	0.6
29-Mar	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.3	0.5
30-Mar	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.3	0.5
31-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	0.4
0.3 0.3 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 0.2 0.2 0.2 0.3 0.3 0.3 0.3 0.3 0.3																								Diurnal Average		
0.6 0.7 0.7 0.6 0.6 1.0 1.3 1.1 1.2 0.9 0.9 0.5 0.5 0.5 0.5 0.4 0.4 0.4 0.5 0.5 0.5 0.5 0.6 0.8																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb																										

Hourly Averages

Total Reduced Sulphur (TRS) - ppb
Evergreen Park - March 2013



Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

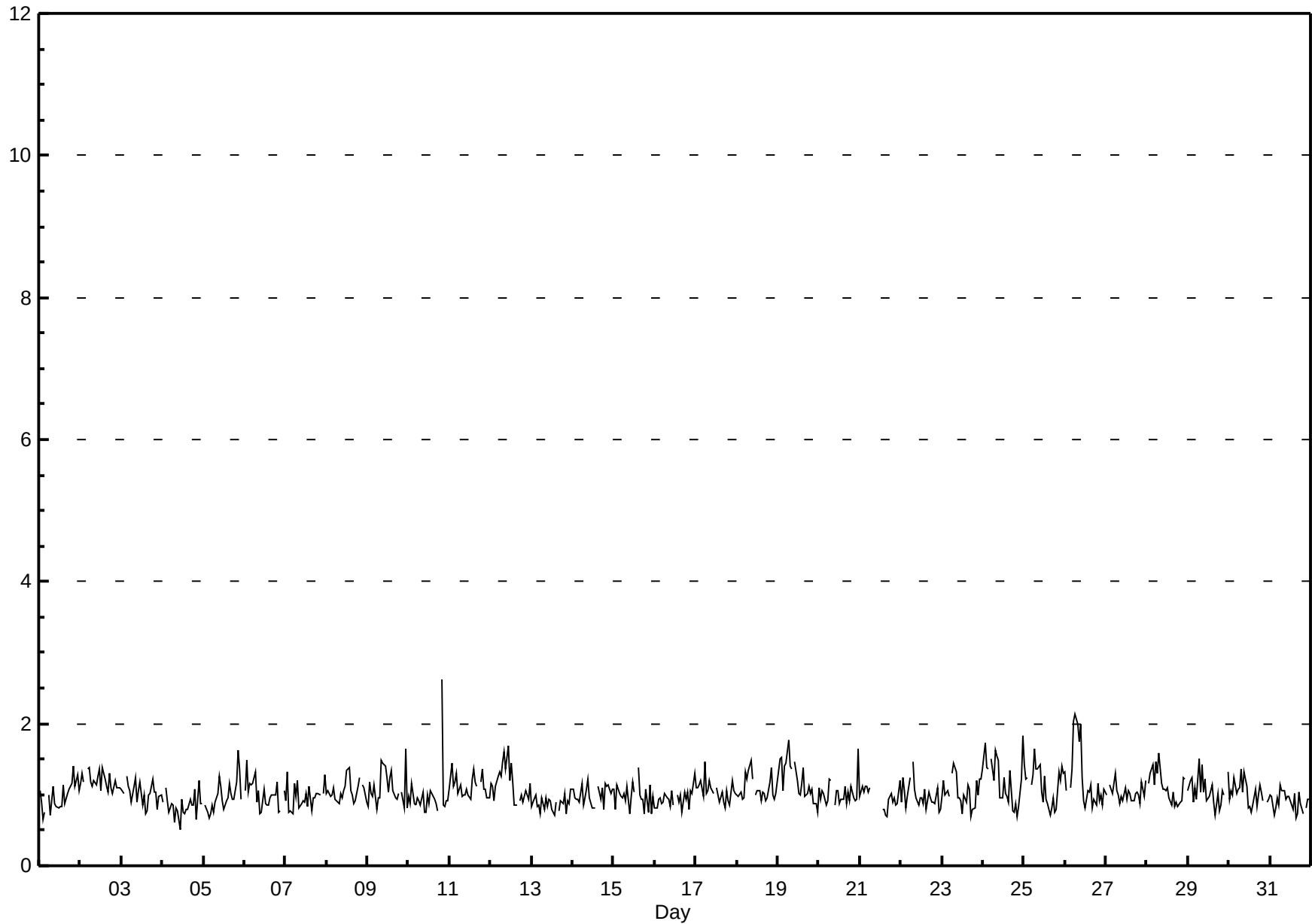
Evergreen Park - March 2013

Maximum Value: 2.6 ppb on Mar 10 20:00																				Maximum Daily Average: 1.2 ppb on Mar 26										Hours in Service: 744									
Minimum Value: 1 ppb on Mar 4 11:00																				Minimum Daily Average: 0.8 ppb on Mar 4										Hours of Data: 707									
Maximum Diurnal Average: 1.2 ppb at hour 9																				Minimum Diurnal Average: 0.9 ppb at hour 17										Hours of Missing Data: 37									
Monthly Average: 1.04 ppb																				Percentiles: P ₁ = 0.7 P ₁₀ = 0.8 Q ₁ = 0.9 Median = 1.0 Q ₃ = 1.1 P ₉₀ = 1.3 P ₉₉ = 1.7										Hours of Calibration: 37									
																				Percent Operational Time: 100.0																			
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24															
1-Mar	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.4													
2-Mar	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	1.4													
3-Mar	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.3													
4-Mar	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.2													
5-Mar	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	A	1.0	1.6													
6-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1.0	1.5													
7-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1.0	1.3													
8-Mar	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													
9-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	2	1	1	1.1	1.7													
10-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	3	1	1	1	1	1.0	2.6													
11-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1.1	1.4													
12-Mar	1	1	1	1	1	1	1	1	2	1	2	1	1	1	1	1	A	1	1	1	1	1	1	1	1.2	1.7													
13-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0.9	1.1													
14-Mar	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	1.2													
15-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1.0	1.4													
16-Mar	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													
17-Mar	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1.1	1.5													
18-Mar	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1.1	1.5													
19-Mar	1	2	2	1	1	1	2	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	1.8													
20-Mar	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1.0	1.7													
21-Mar	1	1	1	1	1	1	1	A	1	C	C	C	C	1	1	1	1	1	1	1	1	1	1	1	1.0	1.2													
22-Mar	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	1.5													
23-Mar	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.4													
24-Mar	1	2	1	1	A	2	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1.2	1.8													
25-Mar	1	1	1	A	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.6													
26-Mar	1	1	A	1	1	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	2.1													
27-Mar	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.3													
28-Mar	A	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1.1	1.6													
29-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.5													
30-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1.0	1.4													
31-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.9	1.1													
1.1 1.1 1.1 1.0 1.0 1.1 1.1 1.1 1.1 1.2 1.1 1.0 1.0 1.0 1.0 1.0 0.9 1.0 1.0 1.1 1.0 1.0 1.0 1.1																									Diurnal Average														
1.4 1.7 1.5 1.4 1.4 2.0 2.1 2.0 1.8 2.0 1.7 1.4 1.4 1.4 1.4 1.4 1.4 1.3 1.3 1.2 2.6 1.6 1.4 1.7 1.8																									Diurnal Maximum														
C - Calibration																									A - Automated Daily Zero Span														

Hourly Maximums

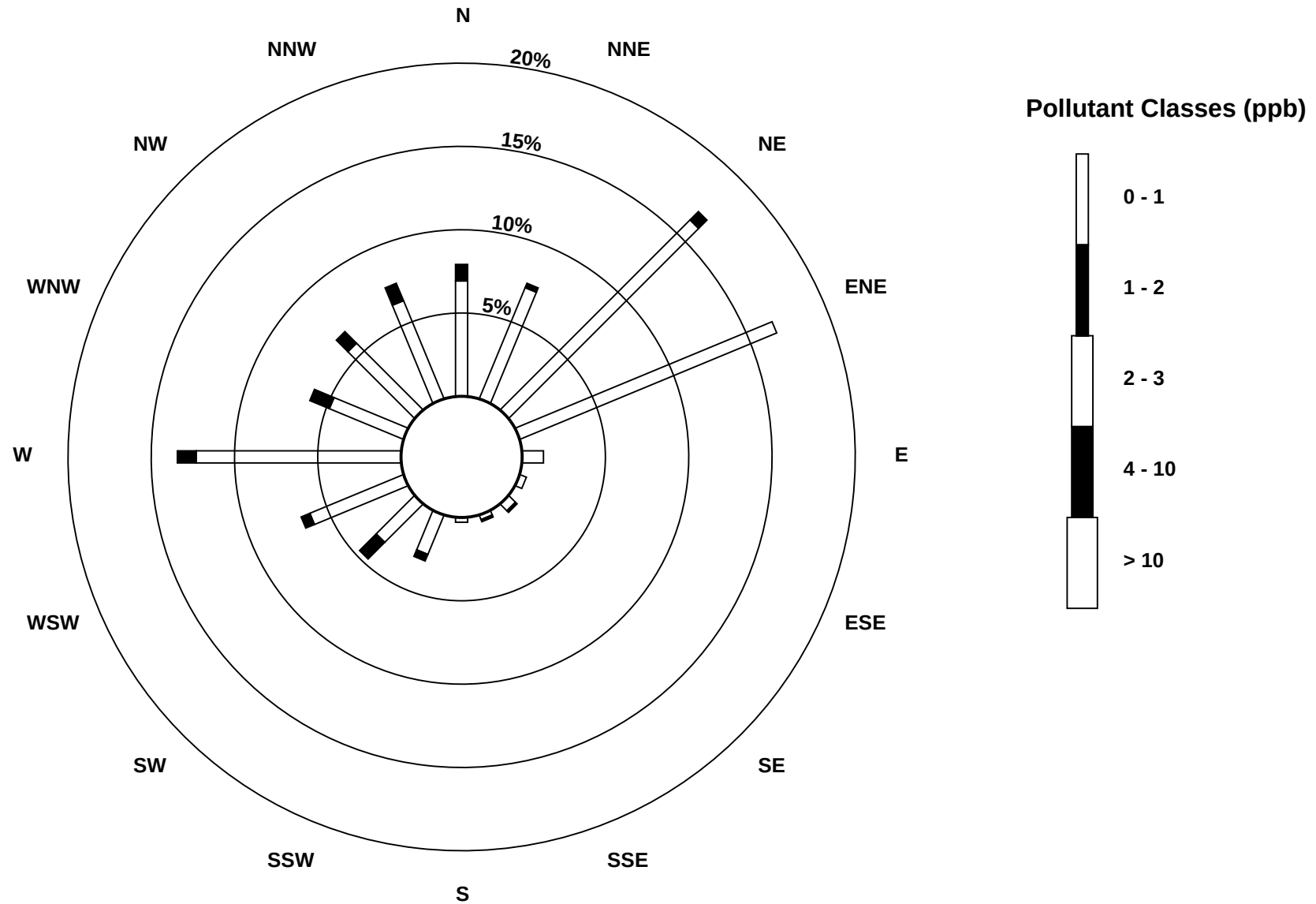
Total Reduced Sulphur (TRS) - ppb

Evergreen Park - March 2013



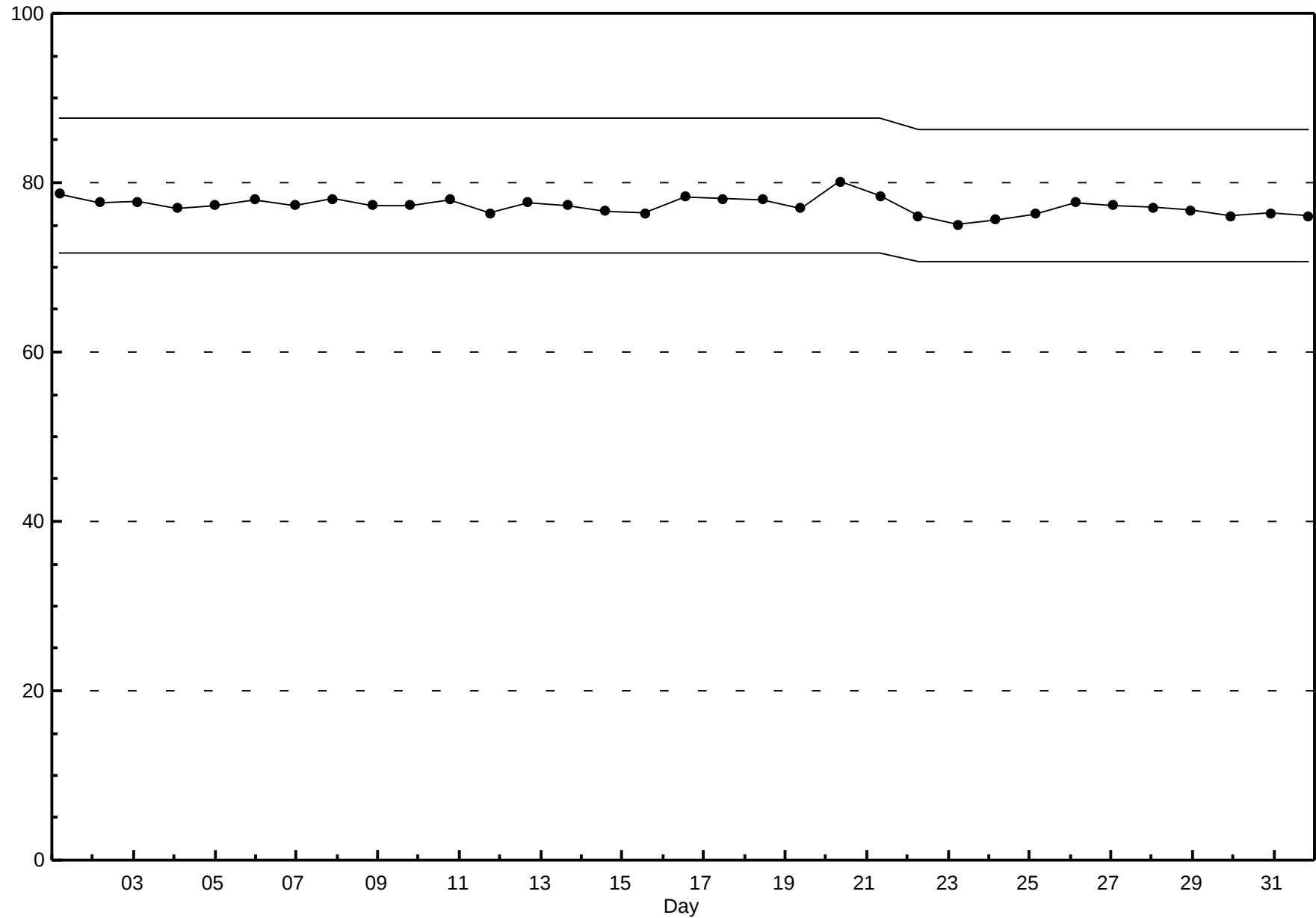
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb
Evergreen Park - March 2013



Span Responses

Total Reduced Sulphur (TRS)
Evergreen Park - March 2013

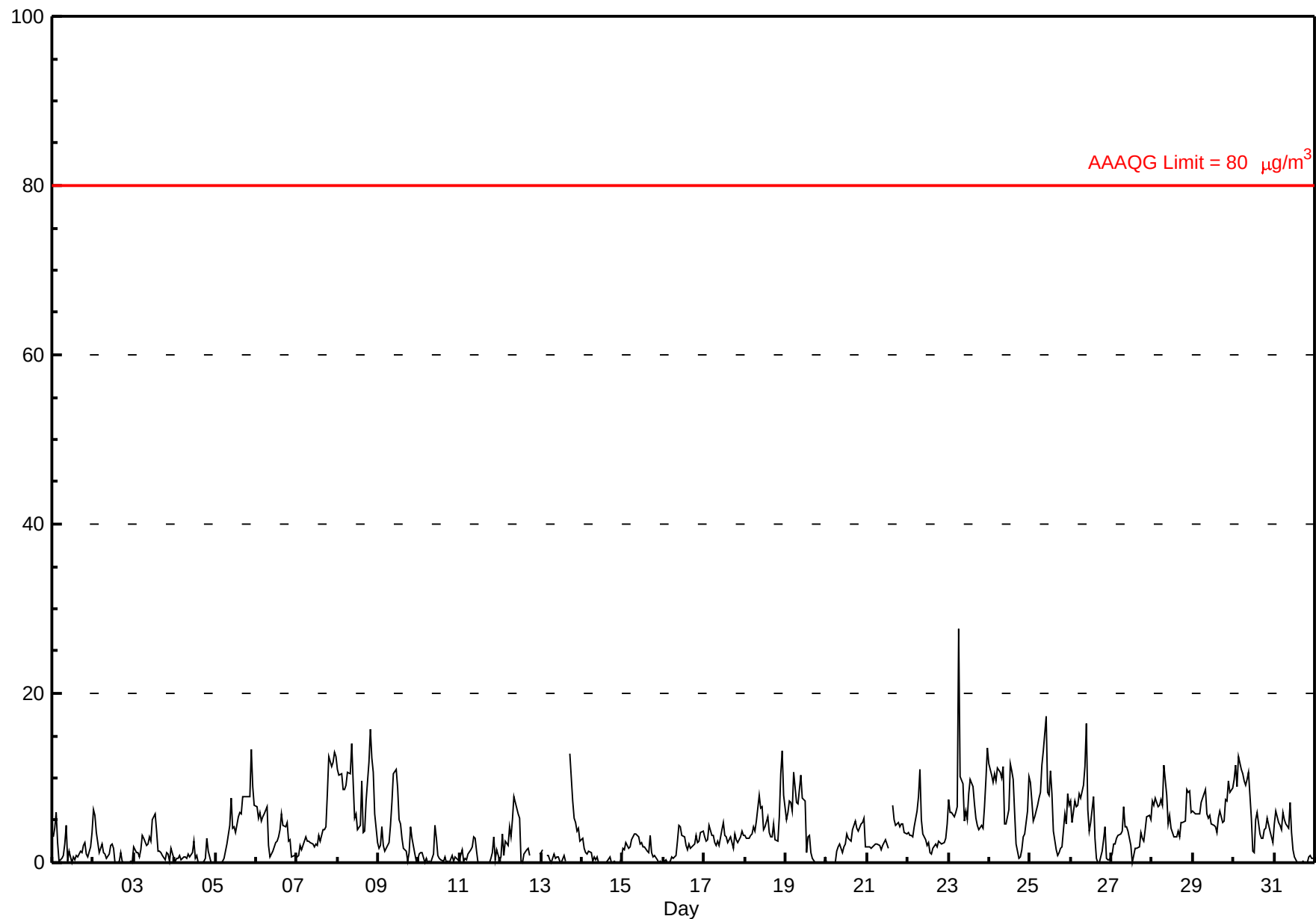


Hourly Averages

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

Evergreen Park - March 2013

Number of Exceedences: 1-hr: 0 24-hr: 0 Maximum Value: 27.6 µg/m³ on Mar 23 07:00 Minimum Value: 0 µg/m³ on Mar 1 12:00 Maximum Diurnal Average: 5.2 µg/m³ at hour 9 Monthly Average: 3.69 µg/m³																								Hours in Service: 744 Hours of Data: 734 Hours of Missing Data: 10 Hours of Calibration: 2 Percent Operational Time: 98.9		
Maximum Daily Average: 8.6 µg/m³ on Mar 8 Minimum Daily Average: 0.5 µg/m³ on Mar 14 Minimum Diurnal Average: 2.4 µg/m³ at hour 17 Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 1.0 Median = 2.9 Q ₃ = 5.4 P ₉₀ = 8.6 P ₉₉ = 13.3																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Mar	3	4	6	2	0	1	1	2	4	0	1	0	1	0	1	1	1	2	2	1	1	2	4	1.7	5.9	
2-Mar	6	6	4	1	2	2	1	1	1	1	2	2	2	0	0	1	0	0	0	0	0	0	0	1.3	6.2	
3-Mar	2	1	1	1	2	3	3	2	2	3	2	5	6	4	1	1	1	0	1	1	0	2	1	1.9	5.8	
4-Mar	0	0	1	1	0	1	1	0	1	1	1	3	0	1	0	0	0	0	3	1	0	0	0	0.7	2.8	
5-Mar	0	0	0	0	0	1	1	2	4	8	4	4	4	6	6	6	8	8	8	8	13	9	7	4.7	13.4	
6-Mar	7	5	6	5	6	6	7	2	1	1	1	2	2	3	4	6	4	4	5	3	3	1	1	3.5	6.7	
7-Mar	1	1	2	2	3	3	3	3	2	2	2	2	2	3	3	4	4	4	8	13	11	12	13	4.8	13.1	
8-Mar	11	10	10	9	9	9	11	11	14	10	5	6	4	4	10	3	4	7	12	16	12	11	6	2	8.6	15.7
9-Mar	2	2	4	2	1	2	2	4	7	11	9	5	5	3	2	1	0	1	4	3	1	0	0	3.5	11.0	
10-Mar	1	1	1	0	0	0	0	0	1	4	3	1	1	0	0	1	0	0	0	1	0	1	0	0.7	4.4	
11-Mar	0	2	0	0	0	1	1	2	3	3	1	0	0	0	0	0	0	0	1	3	0	2	0	0.9	3.1	
12-Mar	1	3	1	3	2	4	3	5	8	7	6	5	0	0	1	2	2	1	N	N	N	N	N	1	2.8	7.8
13-Mar	1	2	N	1	1	0	0	1	1	1	1	0	0	1	0	N	N	13	7	5	5	4	4	3	2.3	12.9
14-Mar	3	2	1	1	1	1	0	1	0	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0.5	2.9	
15-Mar	2	2	2	2	2	3	3	3	3	3	2	2	2	2	1	1	3	1	1	1	0	0	0	1.8	3.4	
16-Mar	0	0	0	0	0	1	1	1	2	4	4	3	3	2	2	2	2	2	2	3	2	3	4	4	2.0	4.3
17-Mar	3	2	3	4	3	3	2	2	3	2	4	5	3	3	2	3	2	2	3	3	2	3	4	3	2.9	4.8
18-Mar	3	3	3	3	3	4	4	5	8	6	7	4	4	5	4	3	3	5	3	3	5	10	13	8	5.0	13.3
19-Mar	5	6	7	7	6	11	7	7	9	10	8	7	1	3	3	1	1	0	0	0	0	0	0	4.2	10.7	
20-Mar	0	0	0	0	0	0	1	2	2	1	2	2	3	3	3	4	4	5	4	4	5	5	5	2	2.4	5.2
21-Mar	2	2	2	2	2	2	2	2	1	2	2	3	2	C	C	7	5	4	5	4	5	4	3	3	3.0	6.7
22-Mar	4	3	3	3	4	6	8	11	5	3	3	2	2	1	1	2	2	2	2	2	2	3	5	3.4	11.1	
23-Mar	7	6	6	5	6	7	28	10	9	5	6	5	8	10	9	7	5	4	4	4	4	7	10	13	7.8	27.6
24-Mar	12	10	9	10	10	11	11	10	11	5	5	6	12	11	10	6	2	1	1	2	3	3	6	10	7.3	11.8
25-Mar	9	7	5	5	7	8	8	12	13	17	8	8	11	8	4	2	1	1	2	2	6	5	8	7	6.8	17.2
26-Mar	7	5	7	7	7	8	8	9	11	17	6	4	5	8	3	0	0	0	1	3	4	0	0	5.0	16.5	
27-Mar	1	2	2	3	3	3	4	7	4	4	4	2	0	1	2	2	2	4	3	2	4	5	6	5	3.1	6.7
28-Mar	7	7	8	7	7	8	7	11	8	5	6	4	3	3	3	4	3	5	5	5	9	8	9	6	6.1	11.4
29-Mar	6	6	6	6	6	7	8	9	6	5	6	5	4	4	4	5	6	5	5	7	7	10	8	9	6.2	9.6
30-Mar	10	11	9	13	11	11	10	9	10	11	5	1	1	5	6	3	3	3	4	4	5	4	3	2	6.4	12.5
31-Mar	5	6	5	4	4	6	5	5	4	7	4	1	1	0	0	0	0	0	0	0	1	1	0	0	2.5	7.1
3.9 3.8 3.8 3.5 3.5 4.2 4.8 4.9 5.2 5.1 3.9 3.4 3.0 3.2 2.8 2.6 2.4 2.7 3.0 3.5 3.8 3.8 4.1 3.6																								Diurnal Average		
11.8 11.4 10.5 12.5 11.0 11.1 27.6 11.6 14.0 17.2 11.0 8.9 11.7 10.8 9.9 6.9 7.8 12.9 11.9 15.7 12.4 13.4 13.3 13.5																								Diurnal Maximum		
C - Calibration N - Not Valid																										
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 µg/m³ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 µg/m³																										



Hourly Maximums

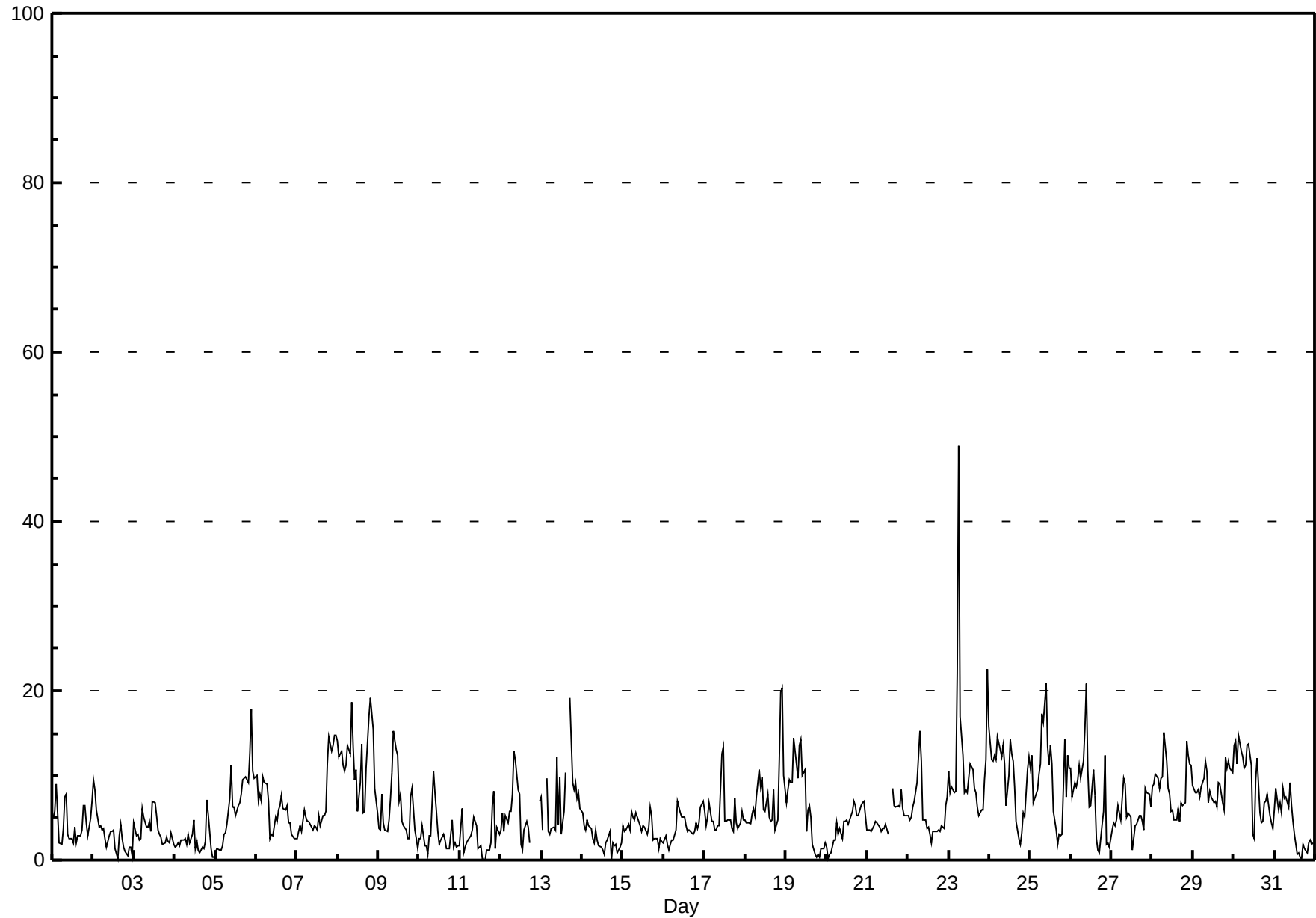
Particulate Matter 2.5 (PM_{2.5}) - µg/m³

Evergreen Park - March 2013

Maximum Value: 48.9 μg/m³ on Mar 23 07:00																								Maximum Daily Average: 11.8 μg/m³ on Mar 8						Hours in Service: 744	
Minimum Value: 0 μg/m³ on Mar 11 15:00																								Minimum Daily Average: 2.3 μg/m³ on Mar 4						Hours of Data: 734	
Maximum Diurnal Average: 8.5 μg/m³ at hour 9																								Minimum Diurnal Average: 4.2 μg/m³ at hour 17						Hours of Missing Data: 10	
Monthly Average: 6.10 μg/m³																								Percentiles: P ₁ = 0.3 P ₁₀ = 1.6 Q ₁ = 3.1 Median = 5.0 Q ₃ = 8.2 P ₉₀ = 11.9 P ₉₉ = 19.5						Hours of Calibration: 2	
																								Percent Operational Time: 98.9							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
1-Mar	5	6	9	6	2	2	4	7	8	3	3	3	2	4	2	3	3	3	6	6	4	3	5	7	4.4	8.9					
2-Mar	9	8	6	4	4	4	4	3	2	3	3	3	4	1	0	3	4	3	2	1	1	2	2	1	3.1	9.4					
3-Mar	4	3	3	2	3	6	5	4	4	5	3	7	7	5	4	3	3	2	2	3	2	2	3	2	3.6	7.0					
4-Mar	2	2	2	2	2	2	3	2	3	2	3	5	1	2	1	1	2	1	2	7	5	1	0	0	2.3	7.2					
5-Mar	1	1	1	1	2	3	3	4	7	11	6	6	5	6	7	8	9	10	10	9	13	18	10	10	6.8	17.9					
6-Mar	10	7	8	7	10	9	9	7	3	3	3	5	5	6	6	8	6	6	6	4	4	3	3	3	5.9	9.9					
7-Mar	3	3	4	3	6	5	5	5	4	4	4	4	4	5	4	5	5	6	11	15	13	14	15	15	6.7	14.8					
8-Mar	14	12	13	11	10	11	14	13	19	13	9	11	6	9	14	6	6	11	17	19	17	16	8	6	11.8	19.2					
9-Mar	4	4	8	4	4	3	5	7	10	15	13	12	7	8	5	4	4	3	3	7	8	4	3	1	6.1	15.3					
10-Mar	3	3	4	2	2	1	3	3	10	8	6	3	2	2	3	2	1	1	1	5	2	2	2	2	3.0	10.4					
11-Mar	2	6	1	2	2	2	3	4	5	5	4	1	2	0	0	0	1	1	2	7	8	1	4	3	2.7	8.2					
12-Mar	4	6	3	5	4	6	6	8	13	12	8	8	2	1	4	5	4	2	N	N	N	N	N	7	5.6	12.9					
13-Mar	7	4	N	10	3	3	4	4	4	12	4	10	3	6	10	N	N	19	9	8	9	7	8	6	7.2	19.2					
14-Mar	6	4	4	5	4	4	3	2	4	2	2	2	1	1	2	2	3	0	2	2	2	1	2	2	2.5	5.5					
15-Mar	4	3	4	4	4	6	5	5	6	5	4	3	4	4	3	4	6	5	2	3	3	1	3	2	3.8	6.3					
16-Mar	2	3	2	1	2	2	2	4	7	6	6	5	5	4	3	4	3	3	3	4	4	4	6	7	3.9	7.0					
17-Mar	6	4	5	7	5	5	4	4	4	13	13	5	5	5	5	5	4	3	7	4	4	4	6	5	5.3	13.4					
18-Mar	5	4	4	4	5	6	5	7	11	9	10	6	6	8	5	5	5	8	4	5	12	20	20	10	7.7	20.4					
19-Mar	7	8	9	9	9	14	11	10	14	14	10	11	3	6	6	5	2	1	0	1	0	1	1	2	6.5	14.5					
20-Mar	2	0	1	1	2	2	4	3	4	3	5	5	5	4	5	6	7	6	5	5	6	7	7	5	4.2	7.0					
21-Mar	4	4	3	4	4	5	4	4	3	4	4	4	3	C	C	8	7	6	7	6	8	6	5	5	4.9	8.4					
22-Mar	5	5	5	6	7	9	12	15	12	5	5	4	4	3	2	3	3	3	4	3	4	4	7	7	5.7	15.3					
23-Mar	10	8	9	8	8	22	49	17	12	8	8	8	10	11	11	8	8	6	5	6	6	9	12	23	11.8	48.9					
24-Mar	16	12	12	12	12	15	13	12	14	11	7	10	14	13	12	9	5	3	2	3	6	5	11	12	9.9	15.8					
25-Mar	11	12	7	7	8	10	11	17	16	21	13	11	14	11	6	4	2	3	3	3	14	7	12	11	9.8	20.9					
26-Mar	11	7	9	9	9	11	10	12	16	21	11	6	7	11	8	3	1	1	4	6	12	2	2	2	7.9	20.9					
27-Mar	4	4	4	5	6	5	7	10	9	5	6	5	1	3	4	4	5	5	5	4	8	8	8	6	5.4	9.7					
28-Mar	9	9	10	10	8	10	10	15	12	8	8	6	6	5	5	6	5	7	7	7	14	12	11	11	8.7	15.0					
29-Mar	9	8	8	8	7	9	10	12	10	7	8	7	7	7	6	9	9	7	6	12	11	12	11	10	8.8	12.1					
30-Mar	14	14	11	15	13	12	11	11	14	14	11	3	3	9	12	6	4	5	7	7	8	5	4	4	9.0	14.8					
31-Mar	6	8	6	7	6	8	7	7	6	9	7	5	3	1	1	0	0	2	1	1	2	2	2	2	4.2	9.2					
6.3 5.9 5.8 5.8 5.6 6.8 7.9 7.6 8.5 8.1 6.6 6.2 4.8 5.4 5.2 4.6 4.2 4.6 4.9 5.8 7.1 6.1 6.4 6.1																								Diurnal Average							
15.8 14.1 12.9 14.8 12.9 22.1 48.9 17.2 18.7 20.9 13.3 13.4 14.3 12.6 13.8 9.2 9.4 19.2 17.0 19.2 17.2 19.9 20.4 22.6																								Diurnal Maximum							
C - Calibration N - Not Valid																															

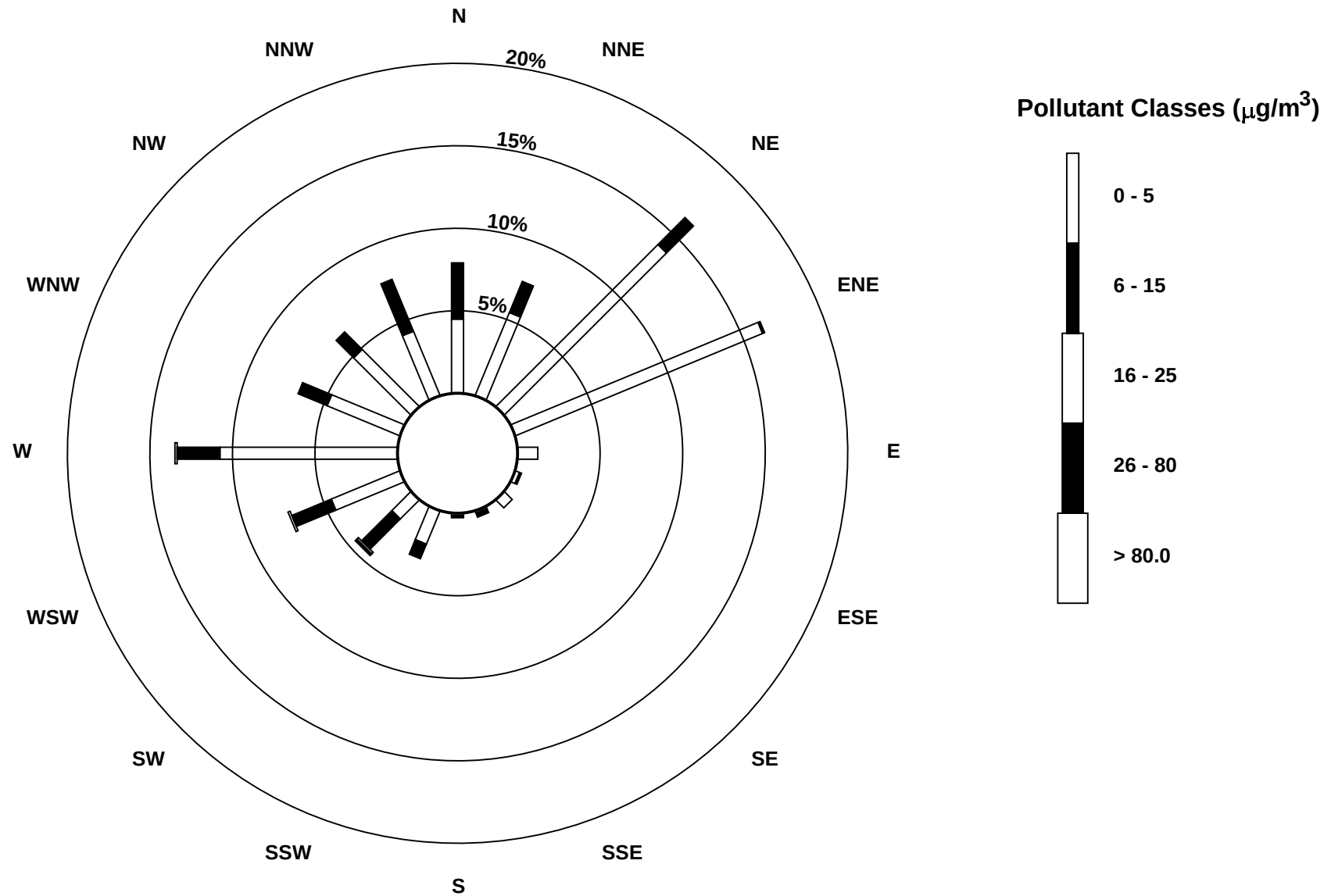
Hourly Maximums

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Evergreen Park - March 2013



Pollutant Rose

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Evergreen Park - March 2013



Hourly Averages

External Temperature (ET) - °C

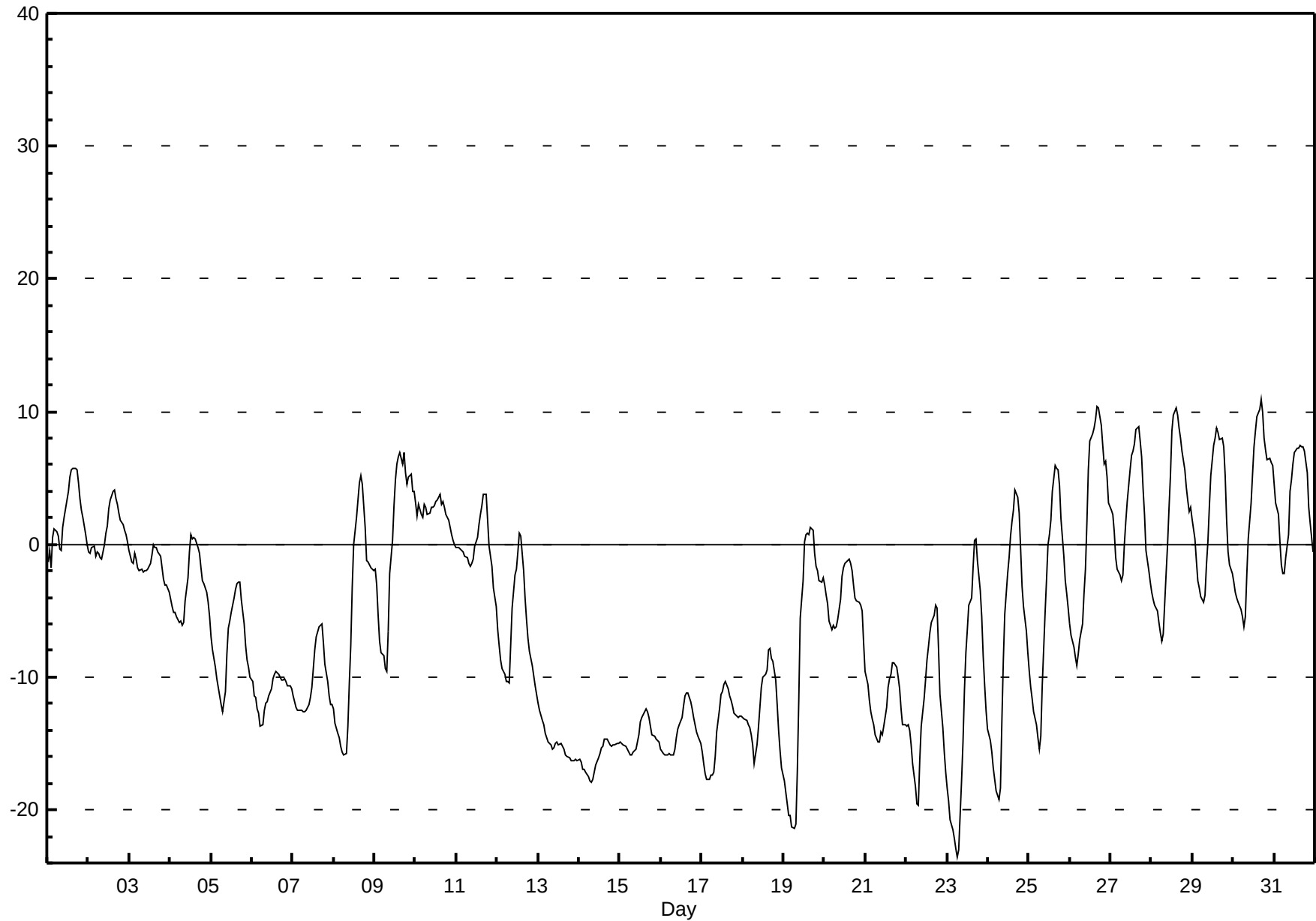
Evergreen Park - March 2013

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 10.9 °C on Mar 30 17:00 Maximum Daily Average: 3.3 °C on Mar 31																									Hours in Service: 744 Hours of Data: 744	
Minimum Value: -24 °C on Mar 23 07:00 Minimum Daily Average: -16.1 °C on Mar 14 Maximum Diurnal Average: -0.6 °C at hour 17 Minimum Diurnal Average: -10.5 °C at hour 7 Monthly Average: -5.56 °C Percentiles: P ₁ = -21.1 P ₁₀ = -15.7 Q ₁ = -12.6 Median = -5.1 Q ₃ = 0.5 P ₉₀ = 5.1 P ₉₉ = 9.6																									Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Mar	-1	-1	-2	0	1	1	1	0	0	1	2	3	4	5	6	6	6	6	5	3	3	2	1	0	2.1	5.8
2-Mar	-1	-1	0	0	-1	-1	-1	-1	-1	0	1	1	3	3	4	4	3	3	2	2	1	1	1	0	1.0	4.1
3-Mar	0	-1	-1	-1	-1	-2	-2	-2	-2	-2	-2	-2	-1	-1	0	0	0	-1	-1	-2	-3	-3	-3	-4	-1.5	0.0
4-Mar	-4	-5	-5	-5	-5	-6	-6	-6	-6	-4	-3	-1	1	0	1	0	0	-1	-2	-3	-3	-4	-4	-5	-3.1	0.7
5-Mar	-7	-8	-9	-10	-11	-11	-12	-13	-11	-8	-6	-6	-5	-4	-3	-3	-3	-3	-4	-6	-8	-9	-9	-10	-7.5	-2.8
6-Mar	-10	-11	-12	-12	-13	-14	-14	-12	-12	-12	-11	-11	-10	-10	-10	-10	-10	-10	-10	-10	-11	-11	-11	-11	-11.1	-9.6
7-Mar	-11	-12	-12	-13	-12	-13	-13	-13	-12	-12	-12	-11	-9	-8	-7	-6	-6	-6	-7	-9	-10	-11	-12	-12	-10.4	-6.0
8-Mar	-12	-13	-14	-15	-15	-16	-16	-16	-14	-10	-8	-3	0	2	3	5	5	5	1	-1	-1	-2	-2	-2	-5.8	5.2
9-Mar	-2	-3	-5	-7	-8	-8	-9	-10	-7	-2	0	3	5	6	7	7	6	7	5	5	5	4	4	4	0.3	6.9
10-Mar	3	2	3	2	2	3	3	2	2	3	3	3	3	3	4	3	3	3	2	2	1	1	0	0	2.4	3.7
11-Mar	0	0	0	0	-1	-1	-1	-1	-2	-1	-1	0	1	1	2	3	4	4	2	0	-1	-2	-3	-5	-0.2	3.8
12-Mar	-6	-8	-9	-9	-10	-10	-10	-10	-8	-5	-2	-2	-1	1	1	-2	-4	-6	-7	-8	-9	-10	-11	-11	-6.5	0.8
13-Mar	-12	-12	-13	-14	-14	-15	-15	-15	-15	-15	-15	-15	-15	-15	-15	-15	-16	-16	-16	-16	-16	-16	-16	-16	-15.0	-11.9
14-Mar	-16	-16	-17	-17	-17	-18	-18	-18	-18	-17	-17	-16	-16	-15	-15	-15	-15	-15	-15	-15	-15	-15	-15	-15	-16.1	-14.7
15-Mar	-15	-15	-15	-15	-15	-16	-16	-16	-16	-15	-15	-14	-13	-13	-13	-12	-13	-13	-14	-14	-14	-15	-15	-15	-14.5	-12.4
16-Mar	-15	-16	-16	-16	-16	-16	-16	-16	-15	-15	-14	-14	-13	-12	-11	-11	-11	-12	-12	-13	-14	-14	-15	-15	-14.1	-11.2
17-Mar	-16	-17	-17	-18	-18	-17	-17	-17	-16	-14	-12	-11	-11	-11	-10	-11	-11	-12	-12	-13	-13	-13	-13	-13	-13.9	-10.3
18-Mar	-13	-13	-13	-14	-14	-14	-15	-16	-15	-14	-12	-11	-10	-10	-8	-8	-9	-9	-10	-12	-14	-16	-17	-17	-12.3	-7.9
19-Mar	-18	-19	-20	-20	-20	-21	-21	-21	-17	-12	-6	-3	0	1	1	1	1	1	-1	-2	-2	-3	-3	-3	-8.6	1.3
20-Mar	-3	-4	-5	-6	-6	-6	-6	-6	-6	-4	-2	-2	-1	-1	-1	-1	-2	-3	-4	-4	-4	-5	-5	-7	-4.0	-1.1
21-Mar	-10	-11	-12	-13	-13	-14	-14	-15	-15	-14	-14	-14	-12	-11	-10	-10	-9	-9	-9	-10	-11	-12	-14	-14	-12.0	-8.9
22-Mar	-14	-14	-14	-15	-16	-18	-20	-20	-16	-14	-12	-10	-9	-8	-7	-6	-5	-5	-5	-8	-11	-14	-16	-17	-12.1	-4.6
23-Mar	-18	-19	-21	-22	-22	-23	-24	-23	-18	-15	-11	-8	-6	-5	-4	-2	0	0	-1	-3	-5	-8	-11	-13	-11.7	0.4
24-Mar	-14	-15	-16	-17	-18	-19	-19	-18	-13	-9	-5	-2	-1	1	2	3	4	4	2	0	-3	-5	-7	-8	-7.2	4.1
25-Mar	-10	-11	-12	-13	-14	-15	-15	-14	-11	-5	-3	0	1	2	4	6	6	6	4	2	-1	-3	-4	-5	-4.3	5.9
26-Mar	-6	-7	-8	-8	-9	-8	-7	-6	-4	-2	2	6	8	8	9	9	10	10	9	7	6	6	5	3	1.4	10.4
27-Mar	3	2	1	-1	-2	-2	-3	-2	0	2	3	6	7	7	8	9	9	8	7	4	2	0	-2	-3	2.5	8.9
28-Mar	-4	-4	-5	-5	-6	-7	-7	-7	-2	0	3	5	8	10	10	10	9	8	7	6	4	3	2	3	1.8	10.3
29-Mar	2	0	-1	-3	-3	-4	-4	-4	-2	0	3	5	7	8	9	8	8	8	7	5	2	-1	-2	-2	2.0	8.7
30-Mar	-3	-4	-4	-4	-5	-5	-6	-5	-2	0	3	5	7	9	10	10	11	10	8	7	6	6	6	6	2.8	10.9
31-Mar	4	3	2	0	-2	-2	-2	-1	1	4	5	6	7	7	7	7	7	7	7	5	3	2	1	-1	3.3	7.5
-7.4 -8.1 -8.7 -9.3 -9.8 -10.2 -10.5 -10.4 -8.8 -6.8 -5.1 -3.6 -2.4 -1.6 -1.0 -0.7 -0.6 -1.0 -1.9 -3.2 -4.3 -5.2 -6.0 -6.7 Diurnal Average																										
4.5 3.2 3.0 2.3 2.1 3.1 2.8 2.2 2.3 3.9 4.9 6.1 8.5 9.7 10.3 10.2 10.9 10.3 9.0 7.5 6.4 6.5 6.2 5.9 Diurnal Maximum																										

Hourly Averages

External Temperature (ET) - °C

Evergreen Park - March 2013



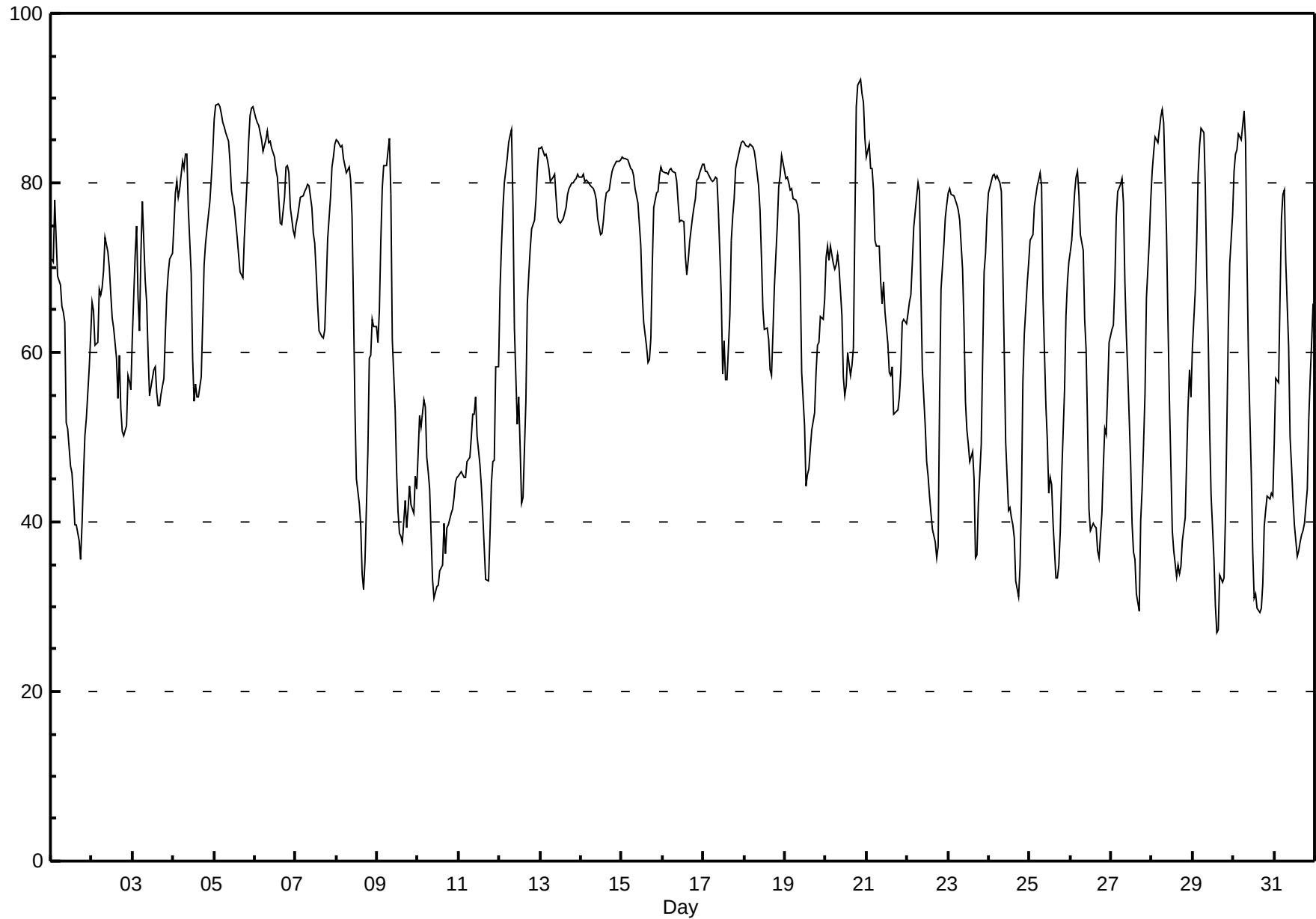
Hourly Averages

Relative Humidity (RH) - %
Evergreen Park - March 2013

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 92.1 % on Mar 20 21:00 Maximum Daily Average: 81.8 % on Mar 6																								Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0		
Minimum Value: 27 % on Mar 29 15:00 Maximum Diurnal Average: 77.7 % at hour 7 Monthly Average: 64.93 %												Minimum Daily Average: 41.6 % on Mar 10 Minimum Diurnal Average: 49.7 % at hour 16 Percentiles: P ₁ = 31.1 P ₁₀ = 39.6 Q ₁ = 51.4 Median = 69.0 Q ₃ = 79.7 P ₉₀ = 83.4 P ₉₉ = 89.0														
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-Mar	71	71	78	73	69	68	65	65	64	52	51	47	46	43	40	40	38	36	40	45	50	52	58	62	55.1	78.0
2-Mar	66	65	61	61	67	67	68	70	74	72	70	67	64	63	59	55	60	53	51	50	51	57	57	56	61.8	73.6
3-Mar	62	72	75	67	63	72	78	69	66	60	55	56	58	58	55	54	54	55	57	62	67	69	71	72	63.5	77.8
4-Mar	75	79	80	78	79	83	82	83	83	77	69	59	54	56	55	55	57	64	70	73	75	78	81	83	72.0	83.5
5-Mar	87	89	89	89	88	87	87	86	85	82	79	78	77	73	72	69	69	69	74	80	85	88	89	89	81.7	89.4
6-Mar	88	87	87	86	85	84	85	86	85	85	84	83	81	81	78	75	75	78	82	82	81	77	74	74	81.8	87.6
7-Mar	75	76	77	78	78	79	79	80	80	77	74	73	70	66	63	62	62	63	68	73	78	82	83	85	74.2	84.6
8-Mar	85	85	84	84	83	82	81	82	80	76	65	53	45	42	40	34	32	35	48	59	60	64	63	63	63.6	85.1
9-Mar	61	65	73	79	82	82	84	85	79	62	53	46	41	39	38	38	43	39	42	44	42	41	45	44	56.1	85.3
10-Mar	48	53	51	54	54	48	46	44	33	31	32	32	33	34	35	40	36	39	40	41	41	43	45	45	41.6	54.5
11-Mar	45	46	46	45	45	47	48	50	53	53	55	50	47	44	41	37	33	33	38	45	47	47	58	58	46.3	58.4
12-Mar	67	73	77	80	83	85	86	86	77	63	51	55	49	42	43	54	66	69	72	75	76	78	82	84	69.7	86.3
13-Mar	84	84	83	83	83	82	80	81	81	78	76	75	75	76	77	77	79	79	80	80	80	81	81	81	79.8	84.2
14-Mar	81	81	80	80	80	80	79	79	79	78	76	74	74	76	78	79	79	80	81	82	82	83	83	83	79.4	82.8
15-Mar	83	83	83	83	82	82	81	81	79	78	75	72	67	64	61	59	59	62	70	77	79	79	81	82	75.0	83.0
16-Mar	81	81	81	81	81	82	81	81	80	78	75	76	75	71	69	71	73	76	77	78	80	81	81	82	78.1	82.2
17-Mar	82	81	81	81	80	80	80	81	80	77	67	57	61	57	57	64	73	76	78	82	83	84	85	85	75.6	84.8
18-Mar	85	84	84	85	84	84	84	83	80	77	71	65	63	63	61	58	57	62	68	75	80	81	83	82	74.9	84.7
19-Mar	80	81	80	79	79	78	78	77	76	69	58	51	44	46	46	49	51	53	58	61	61	64	64	66	64.6	80.6
20-Mar	71	73	71	73	70	70	70	72	70	64	57	55	56	60	57	58	61	75	89	92	92	91	90	85	71.7	92.1
21-Mar	83	85	82	82	79	73	73	73	68	66	68	65	61	58	57	58	53	53	53	55	58	63	64	63	66.3	84.6
22-Mar	65	66	67	71	75	78	80	79	67	58	51	47	45	43	41	39	38	36	37	54	68	73	76	77	59.6	80.1
23-Mar	79	79	79	79	78	77	77	76	70	63	54	51	49	47	48	45	36	36	42	49	60	69	72	76	62.1	79.4
24-Mar	79	80	81	81	81	81	80	79	70	60	49	41	42	40	40	38	33	31	35	43	57	62	68	70	59.2	81.0
25-Mar	73	74	74	77	80	80	81	80	66	54	50	43	45	44	40	33	33	35	39	45	56	64	68	71	58.6	81.2
26-Mar	72	73	79	81	81	79	74	72	64	60	51	42	39	40	40	39	37	36	41	47	51	50	55	61	56.8	81.3
27-Mar	63	63	68	76	79	80	81	78	68	62	58	47	40	36	36	32	29	40	44	49	55	66	73	78	58.4	80.6
28-Mar	81	84	85	85	86	88	89	87	74	64	54	47	39	37	34	35	34	35	38	41	47	54	58	55	59.5	88.6
29-Mar	60	67	73	81	84	86	86	79	69	62	51	43	36	30	27	27	34	33	33	40	51	63	71	76	56.9	86.4
30-Mar	81	83	84	86	85	87	89	85	71	60	46	36	31	31	30	29	30	33	39	41	43	43	43	43	55.4	88.5
31-Mar	49	57	56	66	76	79	79	71	61	50	47	43	40	36	37	38	38	39	40	44	52	57	61	66	53.3	79.2
73.0 74.8 75.8 76.9 77.5 77.7 77.7 76.7 72.0 66.0 60.4 55.8 53.1 51.5 50.1 49.7 50.0 51.7 55.6 60.2 64.1 67.2 69.8 70.9																								Diurnal Average		
87.6 89.1 89.4 88.9 88.2 87.8 88.6 87.1 84.8 85.0 84.1 83.1 81.5 80.6 78.2 78.7 79.1 80.4 89.0 91.5 92.1 90.6 89.5 89.0																								Diurnal Maximum		

Hourly Averages

Relative Humidity (RH) - %
Evergreen Park - March 2013



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Evergreen Park - March 2013

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	1	5	2	9	25	9	13	8	10	28	15	16	16	16	18	14	21	13	10	9	13	3	2	2	10.0	28.3
Dir	109	201	213	239	241	292	266	276	260	252	341	322	270	280	274	270	257	254	257	274	254	284	43	59	267.6	251.8
2 Spd	2	8	5	2	1	3	2	5	2	5	8	10	8	13	17	16	13	13	14	14	12	8	10	10	6.3	17.2
Dir	326	220	203	210	203	224	197	205	139	72	59	56	55	55	63	67	61	59	61	59	53	50	61	73	65.0	63.0
3 Spd	7	8	6	6	6	10	11	7	8	9	11	18	15	15	15	13	9	7	1	1	0	2	1	1	6.6	17.5
Dir	64	50	55	47	349	313	339	358	348	13	40	50	45	34	39	38	34	38	89	210	137	65	208	200	29.4	49.5
4 Spd	2	1	4	2	1	3	2	4	3	4	5	3	10	17	20	19	16	13	7	6	9	8	5	2	6.6	20.3
Dir	61	49	55	115	155	56	68	60	54	130	87	127	56	55	54	63	63	58	45	44	52	61	71	90	61.7	54.2
5 Spd	2	0	1	1	1	2	1	0	1	1	4	9	9	9	10	11	11	8	6	2	2	4	4	5	3.6	11.4
Dir	39	227	39	15	227	204	26	268	27	332	301	338	357	15	34	36	37	37	43	37	348	329	311	337	11.4	36.6
6 Spd	3	3	2	2	2	2	4	13	15	17	13	7	9	11	12	14	16	18	15	10	7	11	9	10	8.7	17.5
Dir	276	353	309	320	321	27	25	49	53	58	52	51	19	52	55	61	54	53	52	49	44	46	53	44	47.4	52.9
7 Spd	10	12	10	7	7	8	8	6	6	9	7	11	10	11	10	12	11	8	6	5	2	1	3	1	6.4	12.3
Dir	57	68	69	69	79	71	71	88	60	44	55	356	358	354	41	23	32	28	33	27	1	274	225	280	42.0	22.8
8 Spd	2	2	3	2	3	4	3	4	4	7	6	3	5	7	8	9	11	8	5	4	3	4	6	7	3.1	11.4
Dir	339	233	209	213	214	218	214	214	226	253	282	349	298	335	14	346	331	312	14	227	305	257	309	286	295.4	331.3
9 Spd	6	3	0	1	0	2	1	1	0	1	3	6	4	10	11	16	17	9	6	6	19	32	18	20	7.3	32.0
Dir	293	1	20	61	200	37	43	276	17	321	301	272	279	273	270	281	278	274	236	256	261	261	263	260	270.2	261.0
10 Spd	14	13	17	7	22	41	46	49	59	67	61	60	57	50	51	40	44	38	41	38	41	38	32	30	39.5	67.4
Dir	264	276	274	281	249	259	257	258	255	252	265	264	262	263	274	281	275	274	268	266	265	265	267	266	264.4	252.2
11 Spd	30	28	28	30	30	28	30	27	20	25	27	26	22	17	12	7	4	3	2	7	7	4	3	2	16.5	30.1
Dir	266	266	263	264	260	267	265	267	280	271	269	270	274	313	313	325	241	291	193	229	242	218	218	183	268.6	260.4
12 Spd	3	1	2	1	2	1	2	1	2	2	5	10	10	12	22	25	26	26	24	22	20	20	17	15	10.1	26.2
Dir	219	125	52	251	33	314	43	309	50	226	338	359	12	39	56	60	53	59	53	33	43	41	35	31	42.7	58.6
13 Spd	13	11	15	13	12	9	8	6	9	10	9	11	14	14	14	14	13	10	9	10	7	5	3	3	10.0	15.5
Dir	32	44	44	47	53	58	57	64	57	56	56	57	70	62	51	55	51	55	43	39	46	43	37	101	52.2	44.2
14 Spd	2	6	10	7	9	9	10	11	15	18	22	21	21	19	21	17	21	20	15	14	14	14	14	13	14.3	22.0
Dir	70	75	58	58	58	69	63	65	72	69	59	60	57	67	61	61	56	60	60	61	63	64	62	61	62.1	58.7
15 Spd	11	11	9	9	10	10	13	9	13	16	15	14	10	10	9	9	8	10	9	11	10	11	10	11	8.2	16.2
Dir	50	42	38	34	26	351	335	319	330	337	325	337	350	331	357	11	17	55	58	66	72	73	77	70	15.8	336.6
16 Spd	10	11	10	10	9	6	6	7	9	7	9	10	11	11	13	12	12	15	11	10	9	8	3	5	8.4	15.3
Dir	63	61	62	59	50	56	68	63	71	58	33	17	5	8	359	6	28	39	33	34	32	37	319	294	35.2	39.3
17 Spd	6	4	4	2	3	1	2	3	5	6	10	5	12	13	13	12	12	11	10	7	6	7	7	7	3.6	13.3
Dir	288	321	338	290	249	248	61	199	206	211	226	295	5	1	15	16	28	41	56	68	64	60	55	49	17.4	1.3
18 Spd	6	5	2	5	3	4	3	2	3	4	6	6	9	13	12	9	7	5	6	4	3	2	1	3	3.4	13.0
Dir	24	29	324	237	283	297	306	303	319	332	252	317	353	8	4	31	29	31	71	66	48	8	281	267	356.7	8.0
19 Spd	3	0	2	1	2	1	1	1	2	3	3	3	6	7	9	11	11	9	9	8	9	6	7	6	3.3	11.3
Dir	224	278	213	254	291	345	48	157	358	26	349	277	271	11	32	66	83	71	69	77	73	54	70	80	55.5	66.0
20 Spd	5	6	6	8	8	4	3	2	4	10	11	17	17	21	21	19	18	14	15	13	9	13	15	30	10.1	29.5
Dir	44	73	69	70	69	61	7	16	30	53	66	50	51	49	57	53	51	48	38	33	16	347	326	326	36.9	326.2
21 Spd	26	21	23	24	19	22	23	23	26	24	30	25	21	23	22	19	20	19	16	11	10	8	8	6	18.8	30.1
Dir	315	312	305	306	299	283	286	299	297	302	275	272	284	309	280	281	298	331	326	312	337	323	318	301	298.9	275.2
22 Spd	4	6	8	5	1	1	1	2	10	10	12	13	16	14	11	12	11	6	3	2	1	2	1	1	5.0	15.7
Dir	289	314	311	310	323	19	354	292	327	315	304	258	256	269	291	340	260	236	35	55	32	39	355	14	294.4	255.5

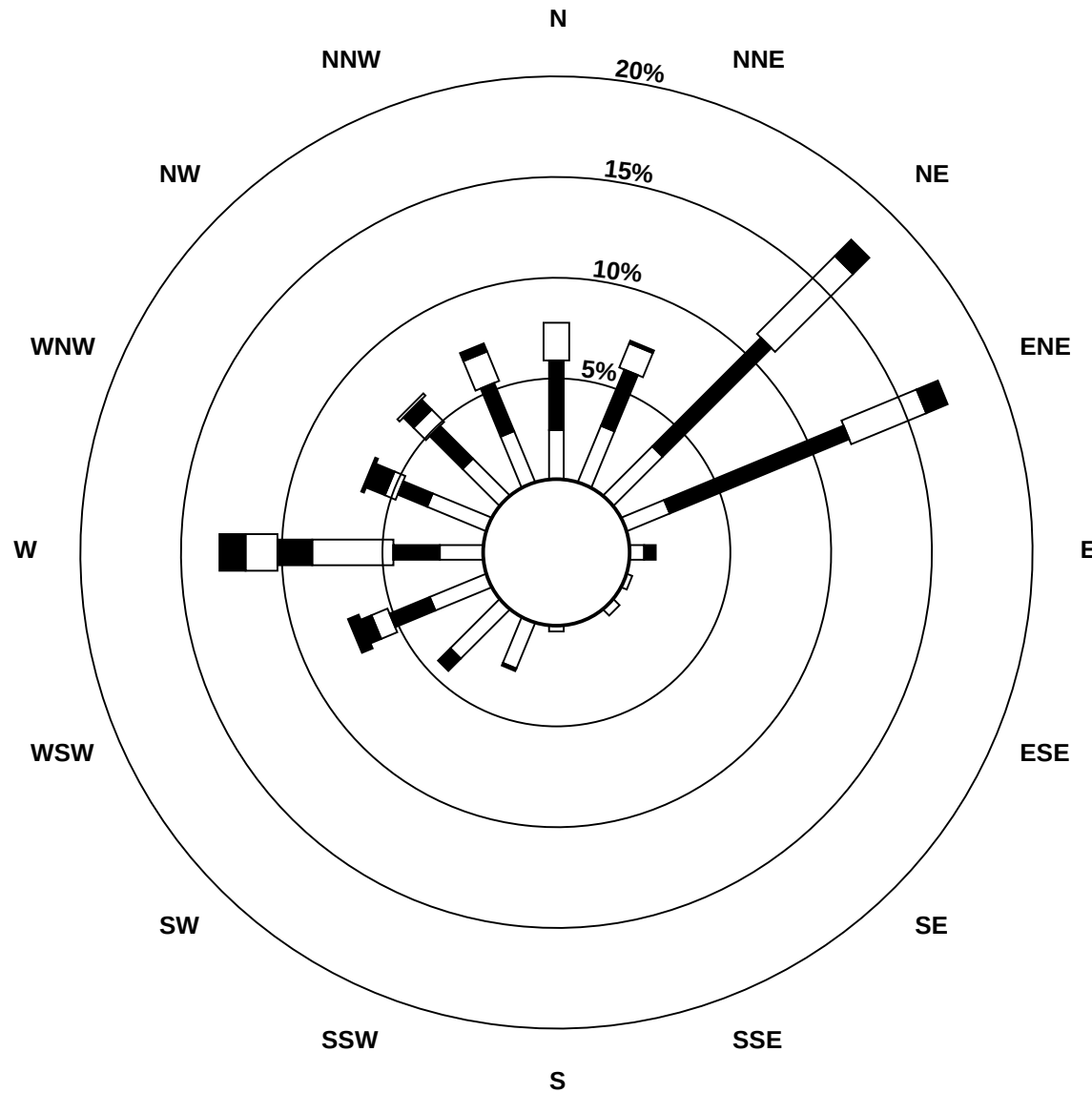
Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Evergreen Park - March 2013

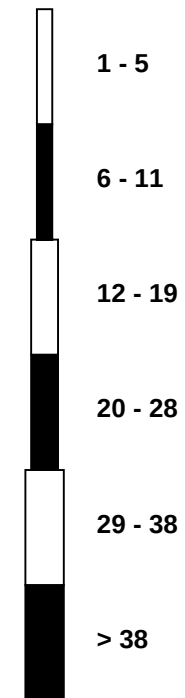
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	1	0	1	0	1	1	1	2	1	4	6	6	11	11	12	9	10	9	8	6	2	1	2	1	2.9	11.8
Dir	349	161	342	317	243	346	228	231	193	260	263	337	348	357	357	359	42	61	67	61	62	336	342	336	6.0	357.0
24 Spd	2	1	1	2	1	1	1	1	1	3	4	6	9	11	11	10	8	13	8	7	3	1	2	2	3.0	13.0
Dir	355	266	244	250	254	232	335	54	11	287	266	308	348	356	2	352	26	52	64	67	25	270	345	305	3.8	51.9
25 Spd	2	4	1	1	1	1	0	1	3	3	6	9	13	12	13	13	15	13	10	5	2	1	3	2	3.7	14.6
Dir	296	291	277	290	357	228	270	227	360	255	258	347	353	358	355	55	49	55	60	58	347	317	279	345	12.0	48.7
26 Spd	3	1	3	0	2	1	1	0	1	6	7	4	7	7	15	16	12	18	12	11	12	18	9	4	6.5	18.5
Dir	258	214	240	33	342	14	297	9	261	264	255	305	340	291	275	278	276	261	263	260	246	253	255	240	268.1	253.4
27 Spd	9	11	5	3	2	6	5	9	13	13	15	16	23	22	16	8	10	12	10	8	3	0	1	1	5.4	23.4
Dir	257	255	266	285	263	246	249	255	272	270	263	301	327	330	337	351	26	59	55	69	88	220	54	11	309.4	327.1
28 Spd	1	1	2	2	1	4	1	5	7	11	6	7	6	9	12	15	15	11	6	5	4	3	2	5	2.1	14.9
Dir	33	284	285	284	261	230	53	214	233	278	263	254	314	343	8	52	65	63	63	47	4	2	173	34	3.5	65.1
29 Spd	3	1	2	1	1	0	3	5	6	14	14	11	12	22	16	15	8	8	5	1	2	1	1	1	4.3	22.1
Dir	48	31	226	253	263	344	287	268	286	273	277	326	341	339	355	353	39	55	57	5	212	251	195	253	331.4	339.0
30 Spd	2	1	1	7	3	3	2	2	1	2	5	8	4	9	10	18	14	14	10	7	7	13	15	15	5.9	17.6
Dir	240	105	255	214	18	220	350	349	331	254	256	296	263	5	303	269	289	298	314	331	279	273	272	276	286.9	269.5
31 Spd	6	5	4	3	3	1	1	4	6	3	7	11	13	14	19	16	17	13	9	6	3	7	6	6	6.0	19.4
Dir	343	6	44	241	224	288	295	334	355	333	334	358	14	37	52	54	59	65	66	70	66	75	71	73	38.3	52.1
Spd	2.8	2.0	2.0	1.8	2.3	3.2	3.4	3.3	3.8	5.2	5.8	6.8	7.6	9.2	8.9	8.1	7.0	6.6	5.3	3.7	2.5	2.7	2.3	2.8	Diurnal Average	
Dir	326.4	334.1	330.1	308.6	287.7	287.2	293.5	285.7	300.9	289.2	299.4	321.1	334.4	350.6	0.6	11.1	16.4	28.5	32.5	24.4	353.3	333.9	335.6	335.9	Diurnal Maximum	
Spd	29.6	27.9	28.3	29.6	30.1	40.5	46.0	49.4	59.2	67.4	61.3	59.7	56.8	50.3	51.3	40.3	43.8	38.2	41.1	38.2	40.8	37.9	32.1	30.3	Diurnal Maximum	
Dir	265.8	265.8	263.1	263.8	260.4	258.8	256.9	257.7	255.0	252.2	265.5	264.2	262.3	263.4	273.6	281.3	274.6	274.2	267.5	265.7	264.7	264.8	267.3	266.5		
Maximum Speed Value: 67 km/h on Mar 10 10:00																								Hours in Service: 744		
Maximum Daily Speed Average: 39.5 km/h on Mar 10																								Hours of Data: 744		
Maximum Diurnal Speed Average: 9.2 km/h at hour 14																								Hours of Missing Data: 0		
Minimum Speed Value: 0 km/h on Mar 3 21:00																										
Minimum Daily Speed Average: 2.1 km/h on Mar 24																										
Minimum Diurnal Speed Average: 1.8 km/h at hour 4																										
Monthly Average Velocity: 3.79 km/h 340.07 deg																								Percent Operational Time: 100.0		
Speed Percentiles: P ₁ = 0.4 P ₁₀ = 1.3 Q ₁ = 3.0 Median = 7.9 Q ₃ = 12.7 P ₉₀ = 19.6 P ₉₉ = 49.4																										
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	44		38		25		1		0		0		108													
NorthEast	49		104		72		19		0		0		244													
East	9		33		6		0		0		0		48													
SouthEast	8		0		0		0		0		0		8													
South	11		0		0		0		0		0		11													
SouthWest	47		13		1		1		0		0		62													
West	54		34		34		17		12		16		167													
NorthWest	39		27		16		13		1		0		96													
Total	261		249		154		51		13		16		744													

Wind Rose

Wind Speed (WS) (km/h)
Evergreen Park - March 2013



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Evergreen Park - March 2013

Maximum Speed: 68 km/h on Mar 10 10:00																				Maximum Daily Speed Average: 40.3 km/h on Mar 10										Hours in Service: 744	
Minimum Speed: 1 km/h on Mar 3 21:00																				Minimum Daily Speed Average: 5.0 km/h on Mar 24										Hours of Data: 744	
Maximum Diurnal Speed Average: 16.2 km/h at hour 15																				Minimum Diurnal Speed Average: 6.4 km/h at hour 4										Hours of Missing Data: 0	
Monthly Average Speed: 10.28 km/h																				Percentiles: P ₁ = 1.5 P ₁₀ = 2.2 Q ₁ = 3.9 Median = 8.7 Q ₃ = 13.3 P ₉₀ = 20.2 P ₉₉ = 50.0										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-Mar	3	7	6	10	26	12	14	9	11	29	16	17	17	17	18	15	21	14	11	10	13	6	6	4	12.9	28.7					
2-Mar	4	9	6	4	2	3	2	6	8	5	9	10	9	14	18	17	14	14	14	14	12	8	11	11	9.3	17.7					
3-Mar	8	9	7	7	6	12	11	7	8	10	11	18	16	16	15	14	10	7	2	2	1	2	1	1	8.4	18.0					
4-Mar	2	2	5	3	2	3	3	4	4	4	6	7	12	18	21	19	16	13	7	6	9	8	5	3	7.7	20.7					
5-Mar	4	1	2	2	2	2	2	2	1	2	5	11	10	10	11	12	12	8	7	2	3	5	4	5	5.2	11.9					
6-Mar	5	3	3	3	5	2	5	13	15	17	13	9	10	11	13	15	17	18	15	11	8	12	9	10	10.1	17.9					
7-Mar	11	13	11	8	7	9	8	7	7	9	8	12	11	12	11	13	12	9	7	5	2	2	3	2	8.3	13.1					
8-Mar	2	2	3	3	3	4	3	4	4	8	7	4	7	10	9	10	12	9	6	4	4	5	6	7	5.7	12.1					
9-Mar	7	4	2	2	1	3	2	2	1	2	4	6	5	10	11	16	17	10	7	8	19	32	18	20	8.7	32.2					
10-Mar	14	13	18	8	22	41	46	50	60	68	62	60	57	51	52	41	44	39	41	39	41	38	32	30	40.3	67.9					
11-Mar	30	28	28	30	30	28	30	27	21	25	27	26	23	20	13	9	5	4	3	7	7	5	3	2	18.1	30.3					
12-Mar	3	3	3	2	2	2	3	3	2	4	6	10	11	14	22	25	26	27	24	22	20	20	17	16	12.0	26.8					
13-Mar	14	11	16	14	12	9	9	7	10	11	10	12	15	15	15	15	13	11	10	11	7	5	4	4	10.7	15.8					
14-Mar	2	6	11	7	10	9	11	11	15	18	23	22	22	20	22	18	21	20	15	14	14	15	14	14	14.8	22.6					
15-Mar	12	11	9	9	10	11	14	10	13	17	16	15	11	11	11	10	9	10	10	11	11	11	10	11	11.4	16.9					
16-Mar	11	11	10	10	9	6	6	8	10	9	11	11	12	12	13	13	13	16	11	10	9	8	4	6	9.9	15.6					
17-Mar	7	4	4	3	4	2	2	5	5	6	11	7	13	14	14	13	12	11	10	7	6	7	7	8	7.6	14.0					
18-Mar	6	6	3	5	4	4	4	3	4	6	6	8	11	14	13	10	8	6	7	4	4	2	2	3	6.0	13.9					
19-Mar	3	2	2	2	4	3	2	3	2	3	4	8	9	8	10	12	12	10	9	8	9	7	7	6	6.0	11.9					
20-Mar	5	7	7	8	8	5	3	2	5	10	12	18	18	22	22	19	18	15	15	13	10	13	15	30	12.5	30.3					
21-Mar	27	22	23	25	20	23	24	24	27	25	30	25	22	25	23	21	21	20	17	12	11	9	8	6	20.5	30.5					
22-Mar	5	6	8	5	2	2	2	4	10	11	13	14	16	15	12	13	12	6	4	2	2	3	2	2	7.1	16.1					
23-Mar	2	2	2	2	2	3	2	3	2	4	7	7	11	12	12	10	11	10	8	6	2	2	3	2	5.2	12.1					
24-Mar	2	1	2	3	2	2	2	2	2	4	4	7	9	11	11	10	9	13	8	7	3	2	2	3	5.0	13.2					
25-Mar	3	5	3	2	2	2	2	2	3	3	6	9	13	13	14	13	15	13	10	6	2	3	5	4	6.4	14.8					
26-Mar	4	2	3	3	3	2	2	2	2	6	7	6	8	9	16	16	13	18	12	11	12	19	9	4	7.8	18.6					
27-Mar	9	11	5	3	4	6	5	9	13	13	15	18	24	23	17	10	12	13	10	8	5	2	3	2	10.0	24.4					
28-Mar	1	2	3	3	2	4	3	5	8	11	6	7	9	12	13	16	15	11	6	5	4	4	3	10	6.8	15.7					
29-Mar	4	2	3	2	3	2	3	5	6	14	15	13	13	23	17	16	10	9	6	2	3	2	4	4	7.5	22.5					
30-Mar	2	3	4	7	4	3	2	2	2	3	6	9	5	9	13	18	16	15	11	8	7	13	15	15	8.1	17.9					
31-Mar	8	7	4	4	3	2	3	5	6	5	9	13	14	16	20	17	18	14	10	6	4	7	6	6	8.5	20.0					
7.1 7.0 6.9 6.4 7.0 7.1 7.4 7.9 9.3 11.7 12.4 13.6 14.3 15.6 16.2 15.3 15.0 13.3 10.7 9.1 8.6 8.9 7.8 8.1																								Diurnal Average							
29.8 28.1 28.5 29.8 30.3 40.8 46.2 49.7 59.6 67.9 61.8 60.3 57.3 50.9 51.8 41.0 44.4 38.7 41.4 38.5 41.0 38.1 32.3 30.5																								Diurnal Maximum							
All monthly, daily, and diurnal averages have been calculated using scalar methods																															

Hourly Standard Deviations

Wind Direction (WD) - deg
Evergreen Park - March 2013

Maximum Value: 97.7 deg on Mar 22 08:00																			Hours in Service: 744						
Minimum Value: 4.8 deg on Mar 19 22:00																			Hours of Data: 744						
																			Hours of Missing Data: 0						
Percentiles: P ₁ = 6.1 P ₁₀ = 11.0 Q ₁ = 15.2 Median = 22.1 Q ₃ = 45.1 P ₉₀ = 68.4 P ₉₉ = 93.6																			Hours of Calibration: 0						
																			Percent Operational Time: 100.0						
Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Mar	59	73	89	31	12	42	23	33	12	14	17	22	12	17	14	23	7	18	12	25	14	73	85	75	89.4
2-Mar	50	44	58	73	94	19	20	74	70	34	19	16	32	19	15	16	16	11	10	8	13	16	12	20	93.7
3-Mar	17	15	29	26	28	37	17	20	16	22	20	14	20	17	18	21	18	21	53	58	95	52	74	81	95.4
4-Mar	46	81	15	63	71	33	50	14	31	42	31	81	41	18	12	16	13	11	14	9	7	9	13	66	81.3
5-Mar	65	97	88	59	64	50	63	76	42	58	45	37	27	26	24	19	18	17	14	33	64	29	22	25	97.0
6-Mar	42	51	48	57	65	61	67	10	12	13	19	43	24	27	19	22	16	12	13	14	18	15	23	14	66.5
7-Mar	20	18	20	20	25	26	24	31	31	25	40	24	21	29	27	20	22	22	14	16	30	67	32	73	73.5
8-Mar	59	49	24	62	19	12	38	25	21	23	33	58	50	42	28	33	24	33	38	35	72	23	18	24	72.1
9-Mar	31	45	91	67	89	56	54	71	94	60	48	21	42	13	12	11	12	17	65	65	27	8	9	6	93.6
10-Mar	13	16	16	37	11	7	6	6	7	7	7	8	8	8	8	10	9	9	7	7	6	6	7	6	37.2
11-Mar	7	6	6	6	6	6	6	7	11	11	11	14	14	29	36	56	54	66	54	25	12	44	19	63	65.7
12-Mar	31	80	47	78	51	64	50	69	40	78	50	19	23	26	16	10	10	13	12	12	14	11	11	13	79.9
13-Mar	20	17	13	15	14	19	22	24	20	35	35	27	20	22	17	18	18	23	20	14	21	18	34	62	61.8
14-Mar	41	26	19	18	17	21	23	16	18	17	15	14	15	18	14	15	13	12	16	16	16	14	16	16	40.7
15-Mar	14	10	13	13	15	27	11	16	16	17	21	26	35	40	41	31	32	22	15	17	16	16	15	18	41.4
16-Mar	19	18	18	17	12	22	22	21	23	35	34	22	21	22	16	21	21	12	10	10	11	8	47	18	47.3
17-Mar	18	22	26	48	39	65	32	84	20	18	22	52	22	17	20	19	16	20	14	16	18	17	15	18	83.6
18-Mar	20	21	51	11	25	26	41	43	46	55	27	57	43	21	20	26	32	52	21	30	53	53	72	38	71.7
19-Mar	35	85	72	62	62	73	66	82	55	28	47	75	50	24	23	17	24	15	11	11	14	5	13	14	84.9
20-Mar	15	19	19	13	11	31	20	37	26	12	32	16	17	15	15	13	16	17	9	12	19	13	16	13	37.3
21-Mar	14	16	13	14	16	10	13	18	15	20	9	11	23	23	17	22	22	15	16	21	19	29	15	18	29.0
22-Mar	50	22	15	25	62	60	75	98	16	28	27	13	13	21	37	27	25	33	65	36	62	66	57	53	97.7
23-Mar	57	79	69	89	67	56	88	54	83	40	18	40	8	17	14	18	19	22	11	9	24	44	47	67	88.8
24-Mar	34	51	53	24	80	90	68	67	78	41	23	41	15	14	19	14	23	13	13	12	33	74	34	39	89.8
25-Mar	62	39	66	79	55	73	94	75	17	55	15	22	12	15	17	18	11	13	11	20	45	75	75	61	94.5
26-Mar	43	60	50	93	70	65	56	95	70	15	25	40	21	50	19	14	17	8	9	8	7	6	11	34	95.4
27-Mar	7	5	20	28	67	14	18	18	11	11	12	28	18	21	21	42	36	19	11	10	73	96	89	38	95.8
28-Mar	71	78	61	60	58	33	79	17	22	12	24	16	45	47	29	21	14	15	11	19	36	48	93	57	93.4
29-Mar	43	61	77	71	75	91	45	28	34	13	17	35	34	13	21	25	33	25	22	80	37	66	89	94	94.0
30-Mar	63	79	83	10	55	45	56	44	80	39	24	31	54	25	47	12	24	23	26	35	30	8	7	11	82.9
31-Mar	47	36	54	59	67	67	79	33	18	60	44	28	23	36	16	21	22	19	17	10	25	14	11	10	79.2
70.8 97.0 90.9 93.0 93.7 91.5 94.5 97.7 93.6 77.8 50.0 80.7 54.5 49.8 46.6 56.2 54.2 65.7 65.1 80.3 95.4 95.8 93.4 94.0																									

PAZA
Smoky Heights Station
Monthly Summary Tables, Graphs and
Roses

Hourly Averages

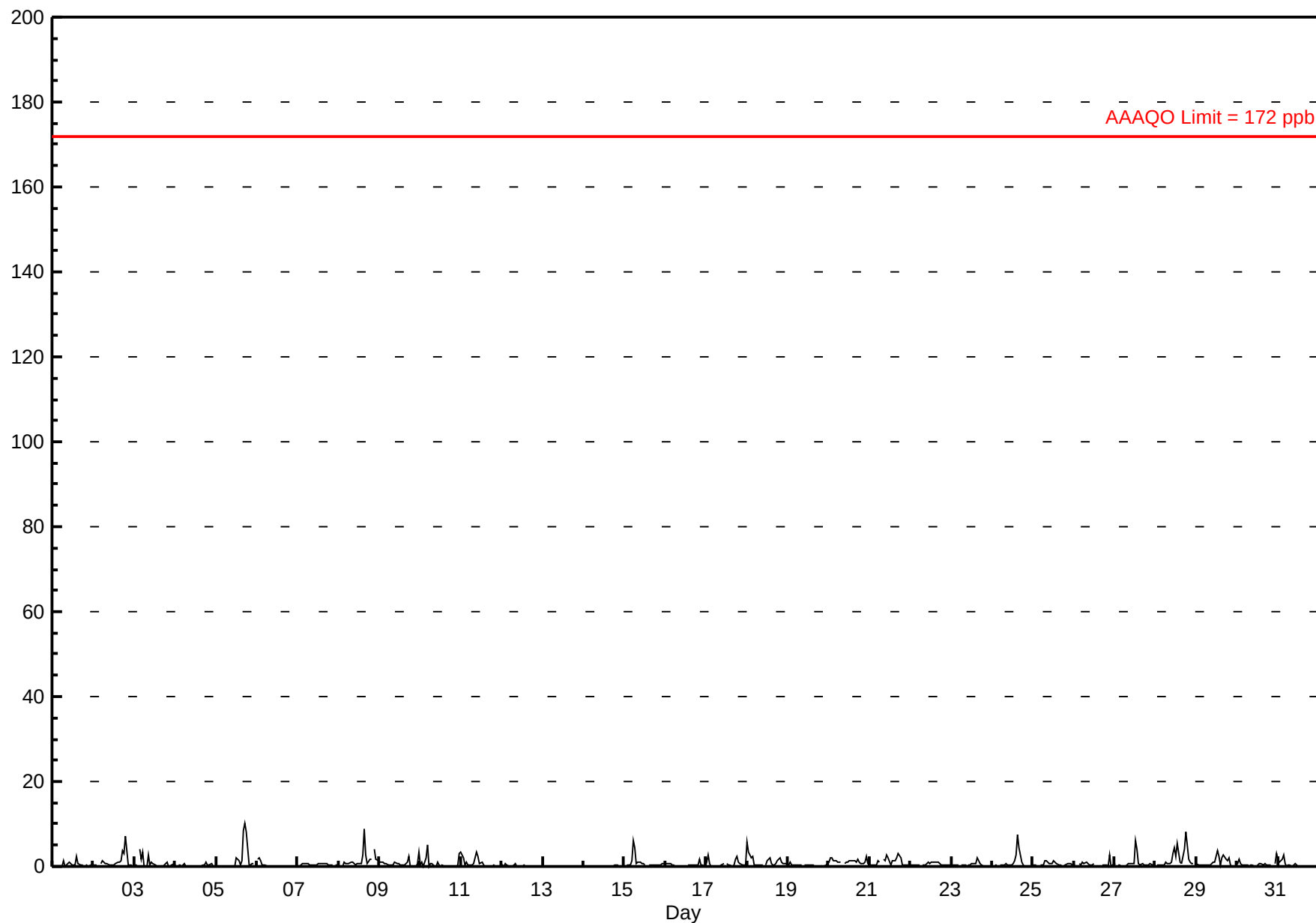
Sulphur Dioxide (SO₂) - ppb

Smoky Heights - March 2013

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 10.1 ppb on Mar 5 18:00 Maximum Daily Average: 1.8 ppb on Mar 28																			Hours in Service: 744 Hours of Data: 707 Hours of Missing Data: 37 Hours of Calibration: 37 Percent Operational Time: 100.0							
Minimum Value: 0 ppb on Mar 31 16:00 Minimum Daily Average: 0.0 ppb on Mar 13 Maximum Diurnal Average: 1.2 ppb at hour 18 Minimum Diurnal Average: 0.3 ppb at hour 21 Monthly Average: 0.72 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.4 Q ₃ = 0.8 P ₉₀ = 1.8 P ₉₉ = 7.0																										
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-Mar	0	0	0	0	A	0	1	0	0	1	1	0	0	0	2	1	0	0	0	0	0	0	0	0	0.4	2.4
2-Mar	0	0	0	A	1	1	1	1	1	0	0	0	0	1	1	1	1	4	3	7	0	0	0	0	1.1	7.2
3-Mar	0	0	A	4	2	3	0	0	3	0	1	1	0	0	0	0	0	0	1	1	0	0	0	1	0.8	4.0
4-Mar	0	A	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0.2	0.9
5-Mar	A	0	0	0	0	0	0	0	0	0	0	0	2	1	0	1	9	10	8	0	0	1	1	A	1.6	10.1
6-Mar	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.3	2.2
7-Mar	0	0	0	1	1	1	1	0	0	0	0	0	1	1	1	1	1	1	0	0	0	A	0	0	0.5	0.8
8-Mar	0	0	0	1	1	1	1	1	1	1	0	1	1	1	3	9	3	1	2	2	A	4	2	1	1.5	9.0
9-Mar	1	1	1	1	1	0	0	0	0	1	1	1	1	0	0	0	1	3	0	A	0	0	1	3	0.8	3.5
10-Mar	0	1	0	2	5	0	1	1	0	0	1	1	0	0	0	0	0	0	A	0	0	0	0	3	0.7	4.9
11-Mar	3	2	0	1	0	0	0	1	2	3	3	1	1	0	0	0	0	A	0	0	0	0	0	0	0.8	3.4
12-Mar	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.1	0.6
13-Mar	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
14-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.1	0.3
15-Mar	0	0	0	0	1	6	5	1	1	1	1	1	0	A	0	0	0	0	0	0	0	0	1	1	0.9	6.1
16-Mar	1	1	1	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	2	0	0	0	0.4	1.7
17-Mar	1	3	1	0	0	0	0	0	0	0	0	1	A	1	0	0	0	0	2	2	1	1	0	0	0.6	2.7
18-Mar	6	3	2	3	0	0	0	0	0	0	0	A	0	1	2	1	0	0	1	1	2	1	1	1	1.2	5.7
19-Mar	0	1	0	0	0	0	0	0	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.3	0.9
20-Mar	1	2	2	1	1	1	1	1	A	1	1	1	1	1	1	1	1	2	1	1	1	1	2	1	1.2	2.4
21-Mar	0	0	0	0	0	1	1	A	2	1	3	2	0	1	1	1	2	3	2	0	0	0	0	0	1.1	3.1
22-Mar	0	0	0	0	0	0	A	1	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0.6	1.2
23-Mar	0	0	0	0	0	A	0	0	0	0	0	0	1	1	1	2	2	1	0	0	0	0	0	0	0.4	2.1
24-Mar	0	0	0	0	A	0	0	0	1	0	0	0	1	1	3	7	4	1	0	0	0	0	0	0	1.0	7.5
25-Mar	0	0	0	A	0	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0	1	1	1	0	0.6	1.5
26-Mar	0	0	A	1	0	1	1	1	1	0	0	0	1	C	C	C	C	0	0	0	0	3	0	0	0.6	2.8
27-Mar	1	A	0	0	0	0	0	0	1	1	1	1	6	4	1	1	1	0	0	0	0	1	0	0	0.9	6.1
28-Mar	A	0	0	0	0	0	1	1	1	1	3	4	2	5	1	1	2	4	8	2	1	1	1	A	1.8	8.1
29-Mar	1	0	0	0	0	0	0	0	0	1	1	1	4	2	0	2	3	2	1	2	0	0	A	1	1.0	3.9
30-Mar	1	2	1	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0	A	1	3	0.6	2.9
31-Mar	2	1	2	3	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0.4	2.6
0.8 0.8 0.5 0.7 0.6 0.7 0.5 0.4 0.6 0.6 0.7 0.6 0.9 0.9 0.7 1.1 1.1 1.2 1.1 0.7 0.3 0.5 0.5 0.6																									Diurnal Average	
5.7 3.5 2.1 4.0 4.9 6.1 4.5 1.3 2.7 3.4 3.1 4.5 6.1 5.4 2.9 9.0 8.6 10.1 8.1 7.2 1.7 4.0 2.4 3.5																									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
Smoky Heights - March 2013



Hourly Maximums

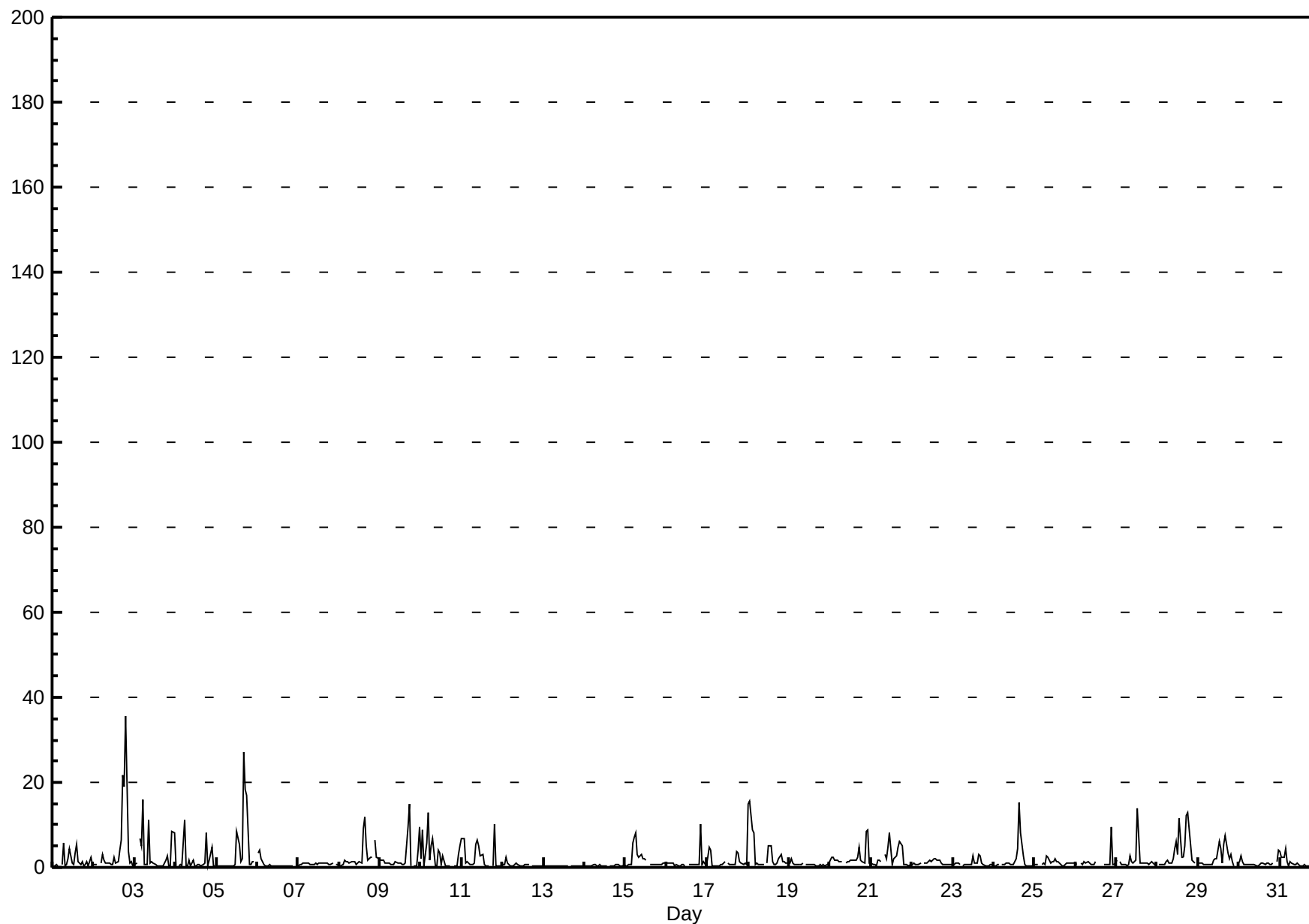
Sulphur Dioxide (SO₂) - ppb

Smoky Heights - March 2013

Maximum Value: 35.5 ppb on Mar 2 20:00																				Maximum Daily Average: 4.8 ppb on Mar 2										Hours in Service: 744									
Minimum Value: 0 ppb on Mar 13 18:00																				Minimum Daily Average: 0.3 ppb on Mar 13										Hours of Data: 707									
Maximum Diurnal Average: 3.4 ppb at hour 18																				Minimum Diurnal Average: 1.1 ppb at hour 8										Hours of Missing Data: 37									
Monthly Average: 1.84 ppb																				Percentiles: P ₁ = 0.2 P ₁₀ = 0.3 Q ₁ = 0.5 Median = 0.8 Q ₃ = 1.6 P ₉₀ = 4.7 P ₉₉ = 15.3										Hours of Calibration: 37									
																				Percent Operational Time: 100.0																			
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24															
1-Mar	0	1	1	0	A	1	6	0	1	2	4	1	1	3	6	1	1	1	0	1	1	0	2	1	1.5	5.8													
2-Mar	1	1	1	A	1	3	2	1	1	1	1	1	2	1	1	4	6	22	19	35	4	1	1	0	4.8	35.5													
3-Mar	1	1	A	7	5	16	1	1	11	1	1	1	1	0	0	0	0	0	2	3	0	0	8	8	3.0	15.9													
4-Mar	0	A	0	1	0	11	0	0	2	0	2	0	0	1	1	0	1	1	8	1	2	5	0	0	1.6	11.2													
5-Mar	A	0	0	0	0	0	0	0	0	0	0	1	9	5	1	2	27	18	17	1	1	1	1	A	4.0	27.1													
6-Mar	3	4	2	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.8	4.2													
7-Mar	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.9	1.2													
8-Mar	0	0	1	2	1	1	1	1	1	1	1	1	1	1	9	12	5	2	2	2	A	7	2	2	2.5	11.7													
9-Mar	2	2	2	1	1	1	1	1	1	2	1	1	1	1	1	1	10	15	0	A	0	0	4	10	2.4	15.1													
10-Mar	2	9	0	6	13	2	5	7	0	0	4	4	1	3	0	0	0	0	A	0	0	0	3	5	2.8	13.0													
11-Mar	7	7	1	1	1	1	1	1	5	6	5	3	3	1	0	0	0	A	0	10	0	0	0	0	2.4	10.2													
12-Mar	1	1	2	1	0	0	0	1	1	1	0	0	0	1	1	1	A	0	0	0	0	0	0	0	0.6	2.2													
13-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.3	0.4													
14-Mar	0	0	0	0	0	1	1	0	0	1	1	0	0	0	A	0	0	0	1	1	1	1	1	1	0.5	0.7													
15-Mar	0	0	1	1	6	7	8	3	3	3	2	2	2	A	1	1	1	1	1	1	1	1	1	1	1.9	8.2													
16-Mar	1	1	1	1	1	0	1	0	0	1	1	0	A	1	1	1	1	1	1	1	10	1	1	0	1.1	10.2													
17-Mar	3	5	4	0	0	0	0	0	1	1	1	A	1	1	1	1	1	1	4	3	1	1	1	1	1.3	4.8													
18-Mar	15	15	9	8	1	1	1	1	1	1	A	1	5	5	1	1	1	1	2	3	1	1	1	1	3.3	15.4													
19-Mar	1	2	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0	0	1	0	1	0	1	1	0.7	1.9													
20-Mar	2	2	2	2	2	1	1	1	A	1	1	1	2	2	2	2	2	5	2	1	1	9	9	1	2.3	8.7													
21-Mar	1	1	1	0	2	2	1	A	3	2	5	8	1	2	2	3	5	6	5	1	1	1	0	1	2.3	8.1													
22-Mar	1	1	1	1	1	1	A	1	1	1	2	1	2	2	2	2	2	1	1	1	1	1	1	1	1.1	2.1													
23-Mar	1	1	1	1	1	A	0	1	1	1	1	1	3	1	1	3	3	1	1	0	0	0	1	1	1.0	3.2													
24-Mar	0	0	1	1	A	1	1	1	1	1	1	1	1	2	4	15	8	3	1	0	0	0	0	1	1.9	15.4													
25-Mar	1	1	1	A	1	1	1	3	2	1	1	1	2	1	1	1	0	0	1	1	1	1	1	1	1.0	2.6													
26-Mar	1	1	A	1	1	1	1	1	1	1	1	1	1	C	C	C	C	1	1	1	1	10	1	1	1.3	9.7													
27-Mar	2	A	2	1	1	1	0	1	3	1	1	2	14	7	1	1	1	1	1	1	1	1	1	1	1.9	14.0													
28-Mar	A	1	1	1	1	1	2	1	1	2	4	6	3	12	2	3	5	12	13	6	2	1	1	A	3.6	12.8													
29-Mar	1	1	1	1	1	1	1	1	1	2	2	2	6	4	1	5	7	3	2	3	1	0	A	1	2.1	7.4													
30-Mar	1	3	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	A	1	4	1.0	4.1													
31-Mar	4	3	2	4	1	0	1	1	1	1	1	1	0	0	1	0	0	0	0	0	A	0	0	0	1.0	4.4													
1.8 2.2 1.4 1.6 1.5 1.9 1.3 1.1 1.5 1.2 1.6 1.5 2.2 2.1 1.5 2.1 3.1 3.4 2.9 2.6 1.2 1.5 1.6 1.5																									Diurnal Average														
15.0 15.4 9.0 8.2 13.0 15.9 8.2 6.9 11.1 6.3 5.0 8.1 14.0 11.5 9.0 15.4 27.1 21.5 19.0 35.5 10.2 9.7 8.7 9.5																									Diurnal Maximum														
C - Calibration																									A - Automated Daily Zero Span														

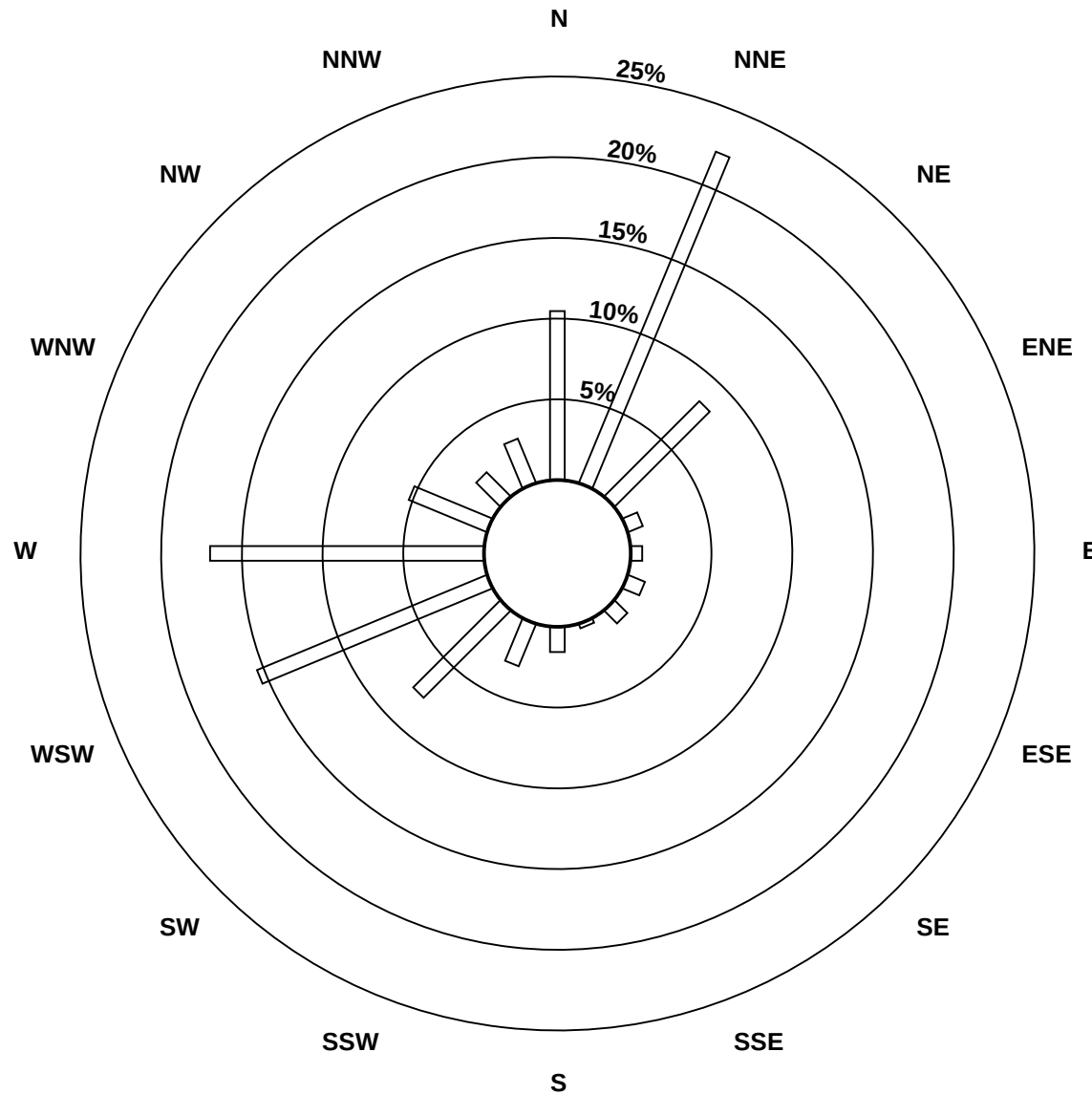
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Smoky Heights - March 2013

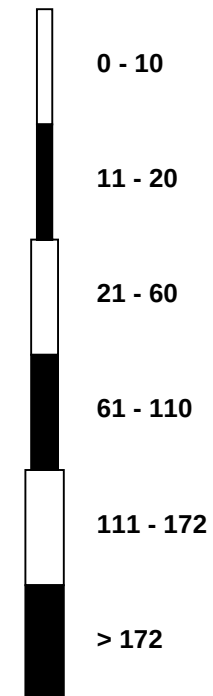


Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Smoky Heights - March 2013

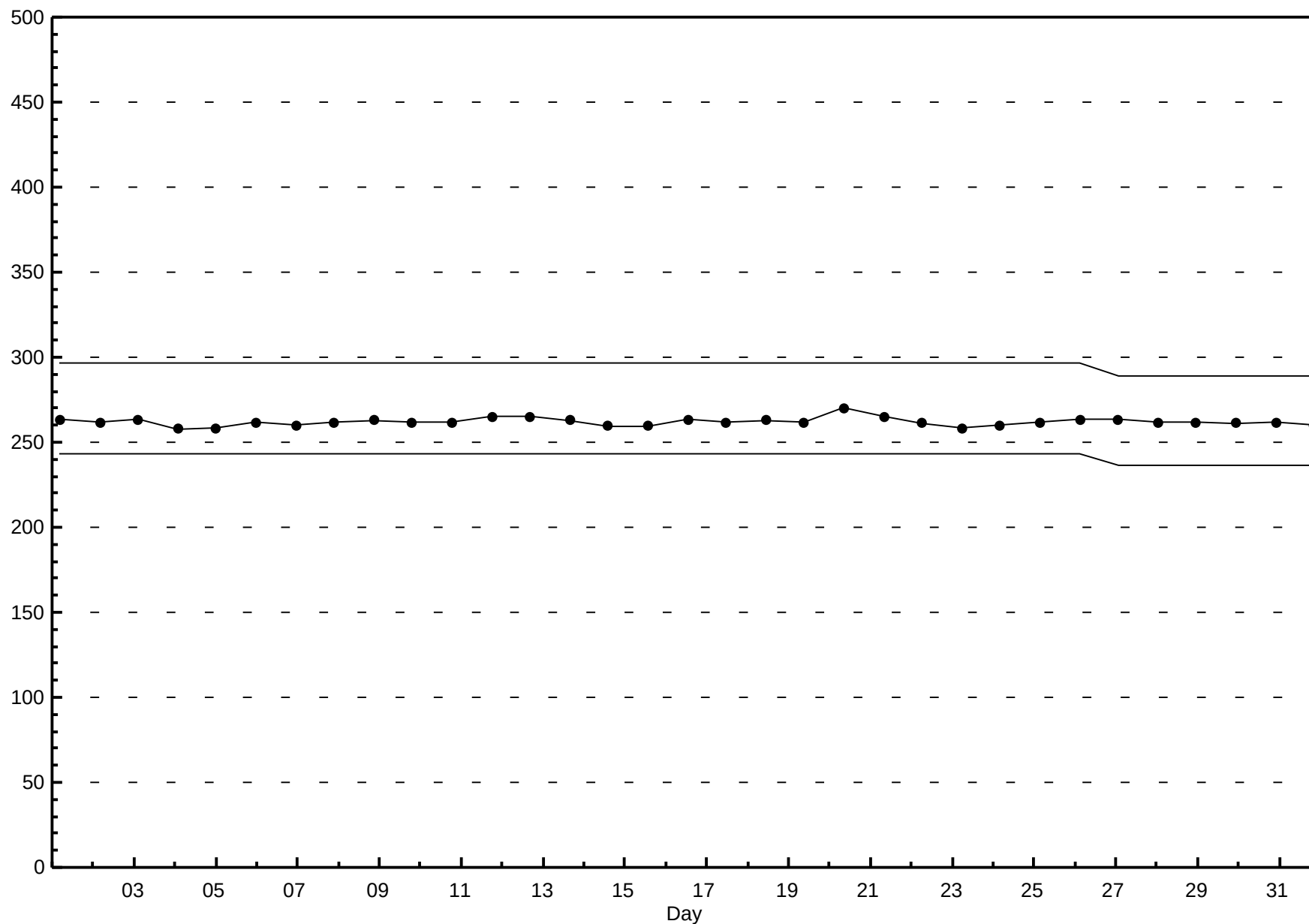


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Smoky Heights - March 2013



Hourly Averages

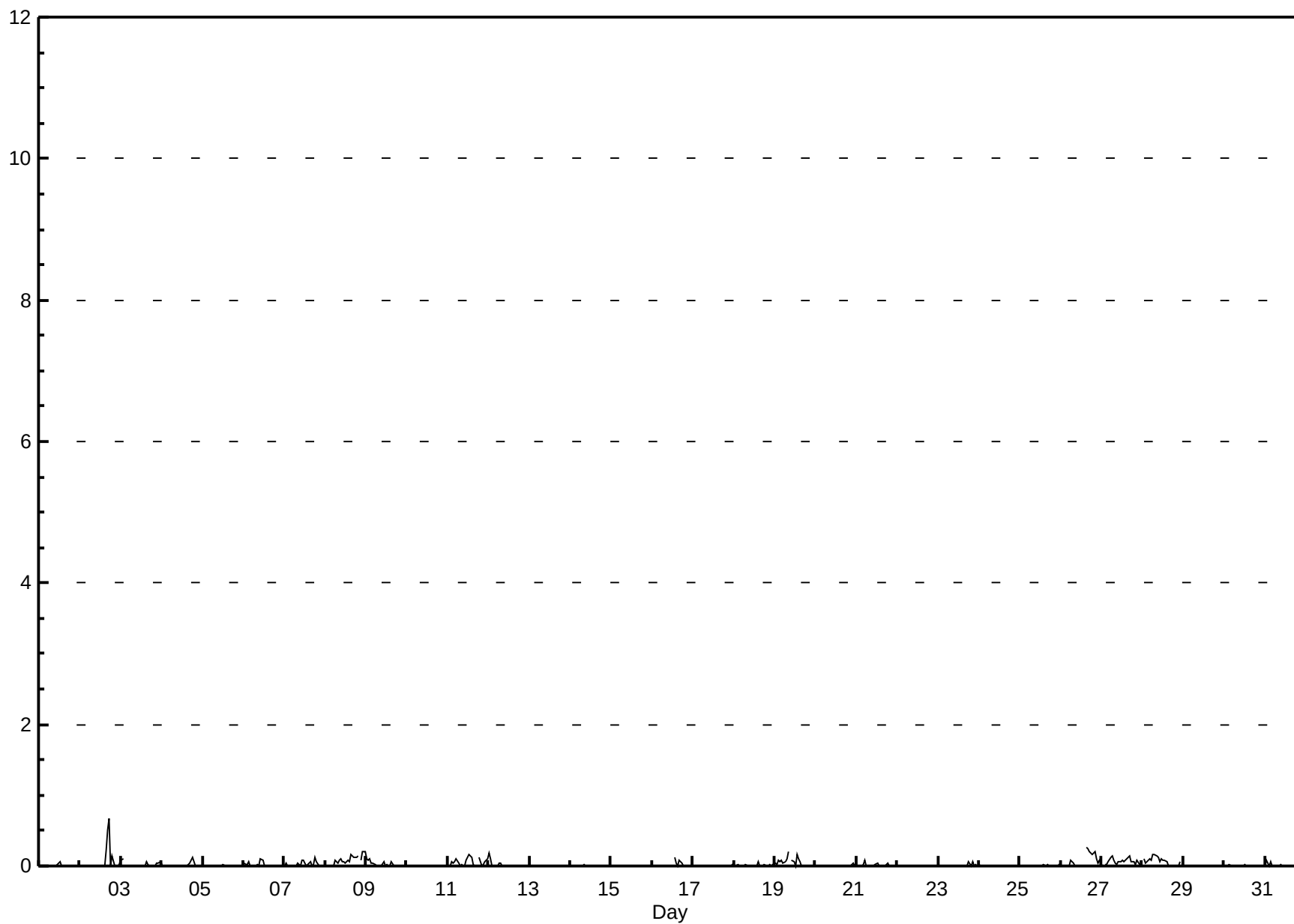
Total Reduced Sulphur (TRS) - ppb

Smoky Heights - March 2013

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0																			Hours in Service: 744							
Maximum Value: 0.7 ppb on Mar 2 18:00																			Maximum Daily Average: 0.1 ppb on Mar 8		Hours of Data: 705					
Minimum Value: 0 ppb on Mar 1 01:00																			Minimum Daily Average: 0.0 ppb on Mar 10		Hours of Missing Data: 39					
Maximum Diurnal Average: 0.0 ppb at hour 18																			Minimum Diurnal Average: 0.0 ppb at hour 21		Hours of Calibration: 39					
Monthly Average: 0.02 ppb																			Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.0 Q ₃ = 0.0 P ₉₀ = 0.1 P ₉₉ = 0.2		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-Mar	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-Mar	0	0		A	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0.1	0.7
3-Mar	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
4-Mar	0	A		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
5-Mar	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.0	0.0
6-Mar	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
7-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.0	0.1
8-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	0.2
9-Mar	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
10-Mar	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
11-Mar	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
12-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.0	0.2
13-Mar	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
14-Mar	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
15-Mar	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
16-Mar	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
17-Mar	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
18-Mar	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
19-Mar	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
20-Mar	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
21-Mar	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
22-Mar	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
23-Mar	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
24-Mar	0	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
25-Mar	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
26-Mar	0	0	A	0	0	0	0	0	0	C	C	C	C	C	C	0	0	0	0	0	0	0	0	0	--	0.3
27-Mar	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
28-Mar	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
29-Mar	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
30-Mar	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
31-Mar	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
0.0 0.0																									Diurnal Average	
0.2 0.1 0.1 0.1 0.1 0.1 0.2 0.2 0.2 0.1 0.1 0.1 0.2 0.2 0.1 0.3 0.5 0.7 0.2 0.2 0.2 0.1 0.2 0.2																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb																										

Hourly Averages

Total Reduced Sulphur (TRS) - ppb
Smoky Heights - March 2013



Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

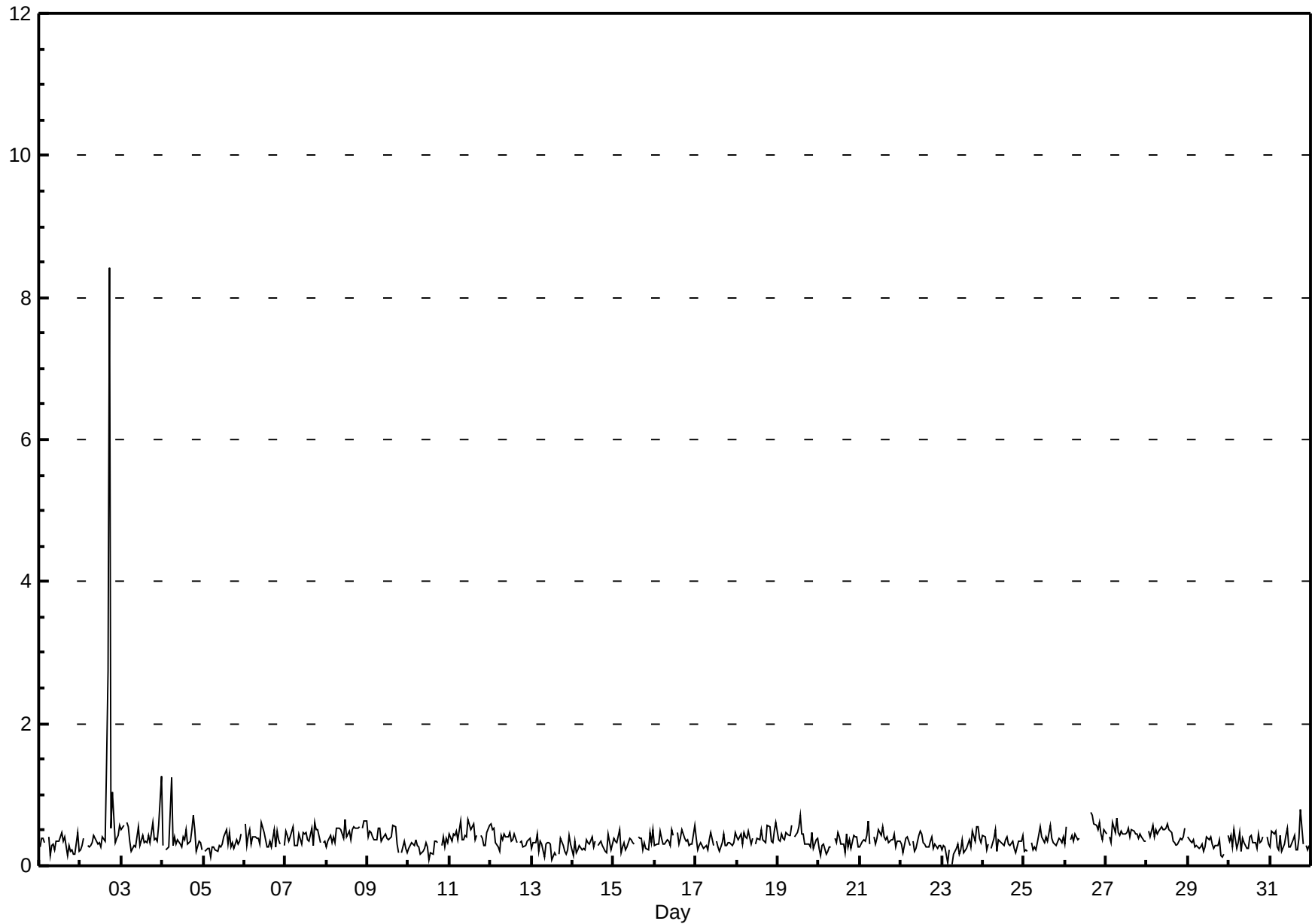
Smoky Heights - March 2013

Maximum Value: 8.4 ppb on Mar 2 18:00																			Maximum Daily Average: 0.9 ppb on Mar 2						Hours in Service: 744	
Minimum Value: 0 ppb on Mar 23 07:00																			Minimum Daily Average: 0.3 ppb on Mar 13						Hours of Data: 705	
Maximum Diurnal Average: 0.6 ppb at hour 18																			Minimum Diurnal Average: 0.3 ppb at hour 8						Hours of Missing Data: 39	
Monthly Average: 0.38 ppb																			Percentiles: P ₁ = 0.1 P ₁₀ = 0.2 Q ₁ = 0.3 Median = 0.4 Q ₃ = 0.4 P ₉₀ = 0.5 P ₉₉ = 0.7						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-Mar	0	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
2-Mar	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	3	8	1	1	0	0	0	0	0.9	8.4
3-Mar	1	1	A	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	1	0.4	1.3
4-Mar	0	A	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0	0	0	0.4	1.2
5-Mar	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	A	0.3	0.5
6-Mar	1	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	A	0	0.4	0.6
7-Mar	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1	0	A	0	0	0.4	0.6
8-Mar	0	0	0	0	0	0	1	1	1	0	0	1	0	0	0	1	1	1	1	1	A	1	1	1	0.5	0.6
9-Mar	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	1	0	0	A	0	0	0	0	0.4	0.6
10-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.3	0.4
11-Mar	0	0	0	0	0	0	1	0	0	0	0	1	1	1	1	0	0	A	0	0	0	0	0	1	0.4	0.6
12-Mar	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.4	0.6
13-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.3	0.4
14-Mar	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
15-Mar	0	0	0	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	0.3	0.5
16-Mar	0	0	0	0	0	0	0	0	0	0	1	0	A	0	0	0	1	0	0	0	0	0	0	1	0.4	0.6
17-Mar	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	0.5
18-Mar	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	0	0	0	1	1	0	0	1	0.4	0.6
19-Mar	0	0	0	0	0	0	0	0	1	A	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0.4	0.7
20-Mar	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
21-Mar	0	0	0	0	0	1	0	A	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.4	0.6
22-Mar	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
23-Mar	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0.3	0.6
24-Mar	0	0	0	0	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
25-Mar	0	0	0	A	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0.3	0.6
26-Mar	0	1	A	0	0	0	0	0	0	C	C	C	C	C	C	1	1	1	1	1	1	0	0	1	--	0.8
27-Mar	0	A	0	0	1	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0.5	0.7
28-Mar	A	0	0	1	0	1	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	1	A	0.4	0.6
29-Mar	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
30-Mar	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.3	0.5
31-Mar	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	A	0	0	0	0.4	0.8
0.3 0.4 0.3 0.4 0.3 0.4 0.3 0.3 0.3 0.3 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.6 0.4 0.4 0.3 0.3 0.4 0.4																								Diurnal Average		
0.6 0.6 0.5 0.6 0.6 1.2 0.7 0.5 0.6 0.6 0.6 0.6 0.6 0.6 0.7 0.6 1.5 2.7 8.4 0.8 1.0 0.6 0.6 0.6 1.3																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										

Hourly Maximums

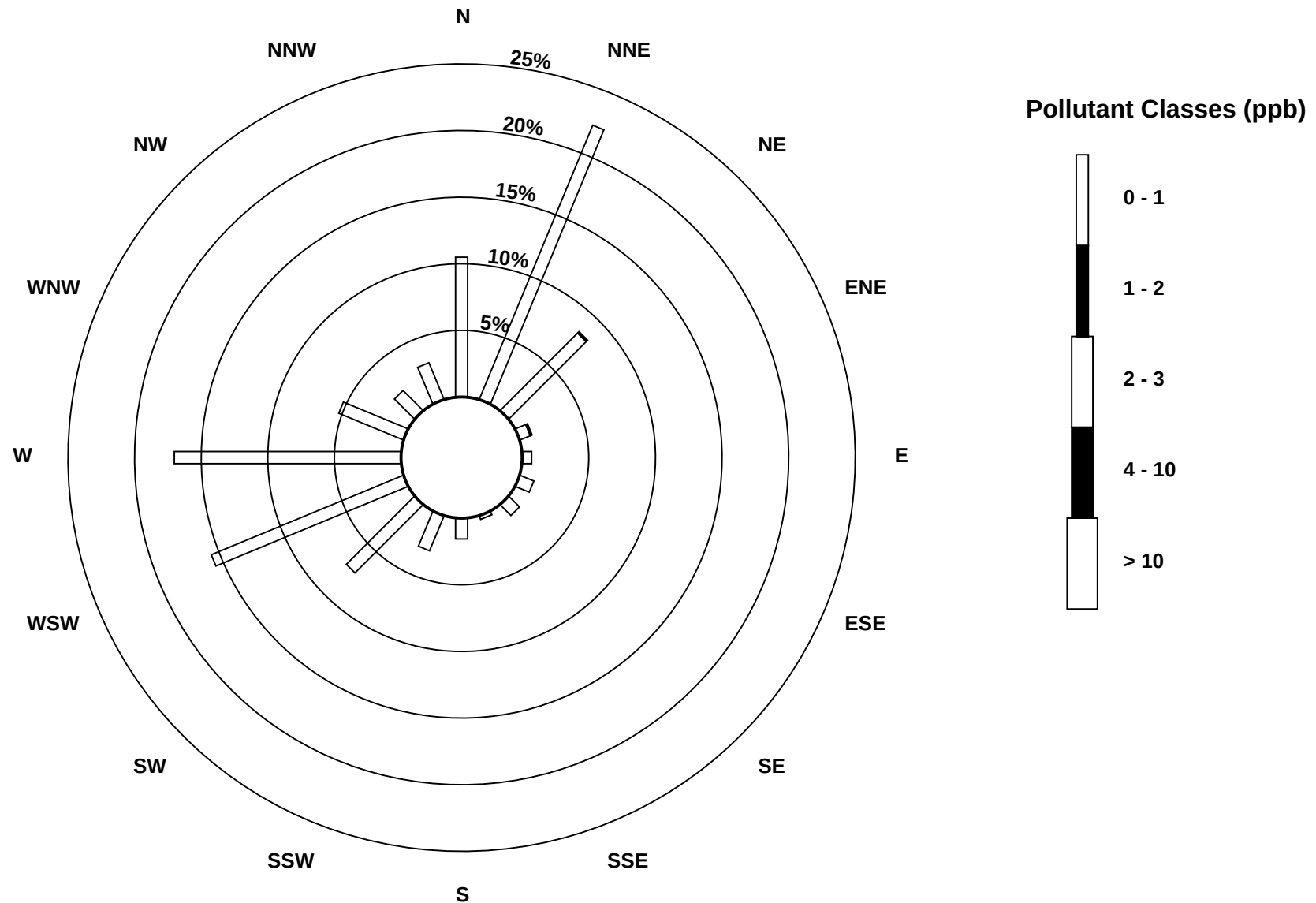
Total Reduced Sulphur (TRS) - ppb

Smoky Heights - March 2013



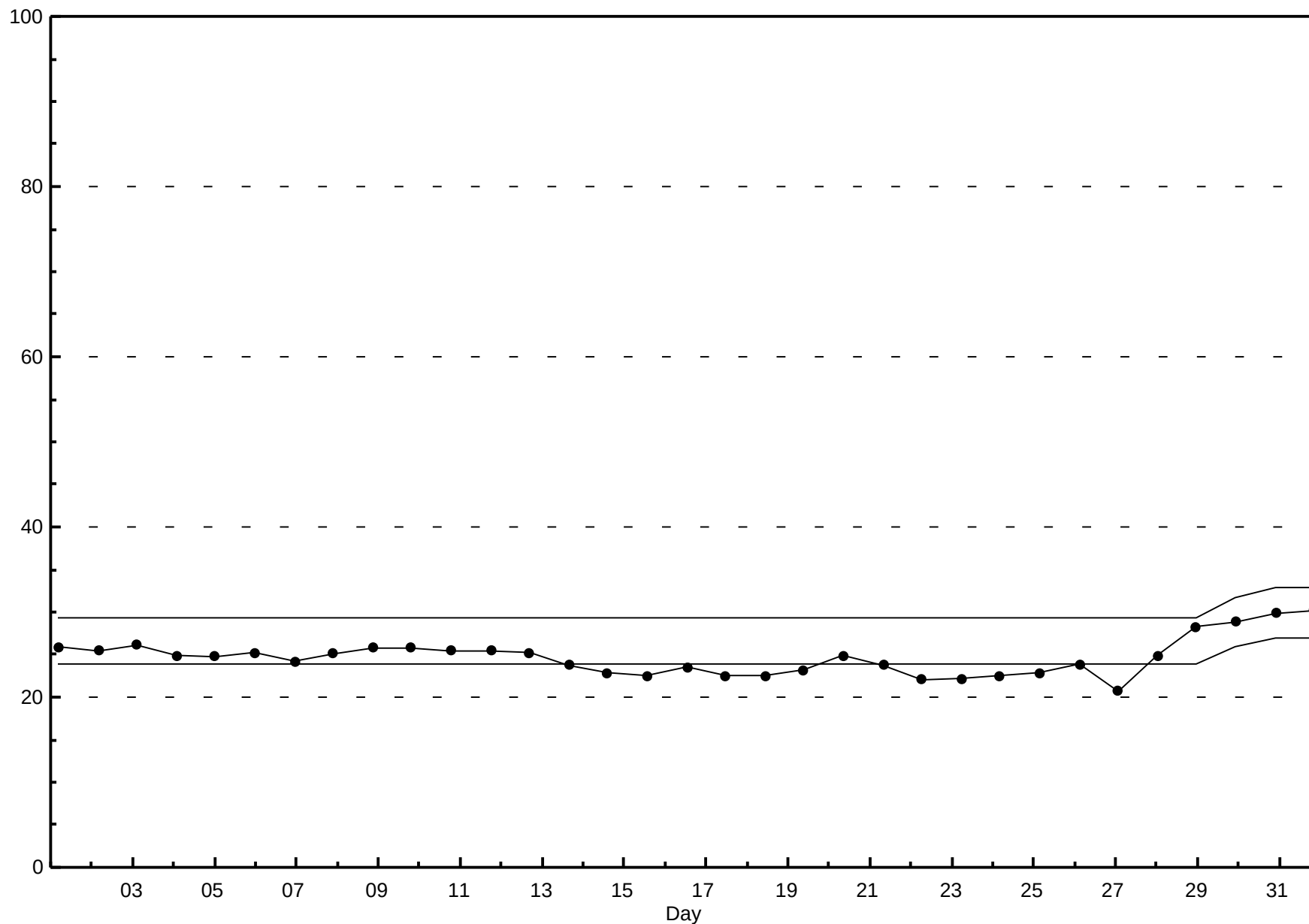
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb
Smoky Heights - March 2013



Span Responses

Total Reduced Sulphur (TRS)
Smoky Heights - March 2013

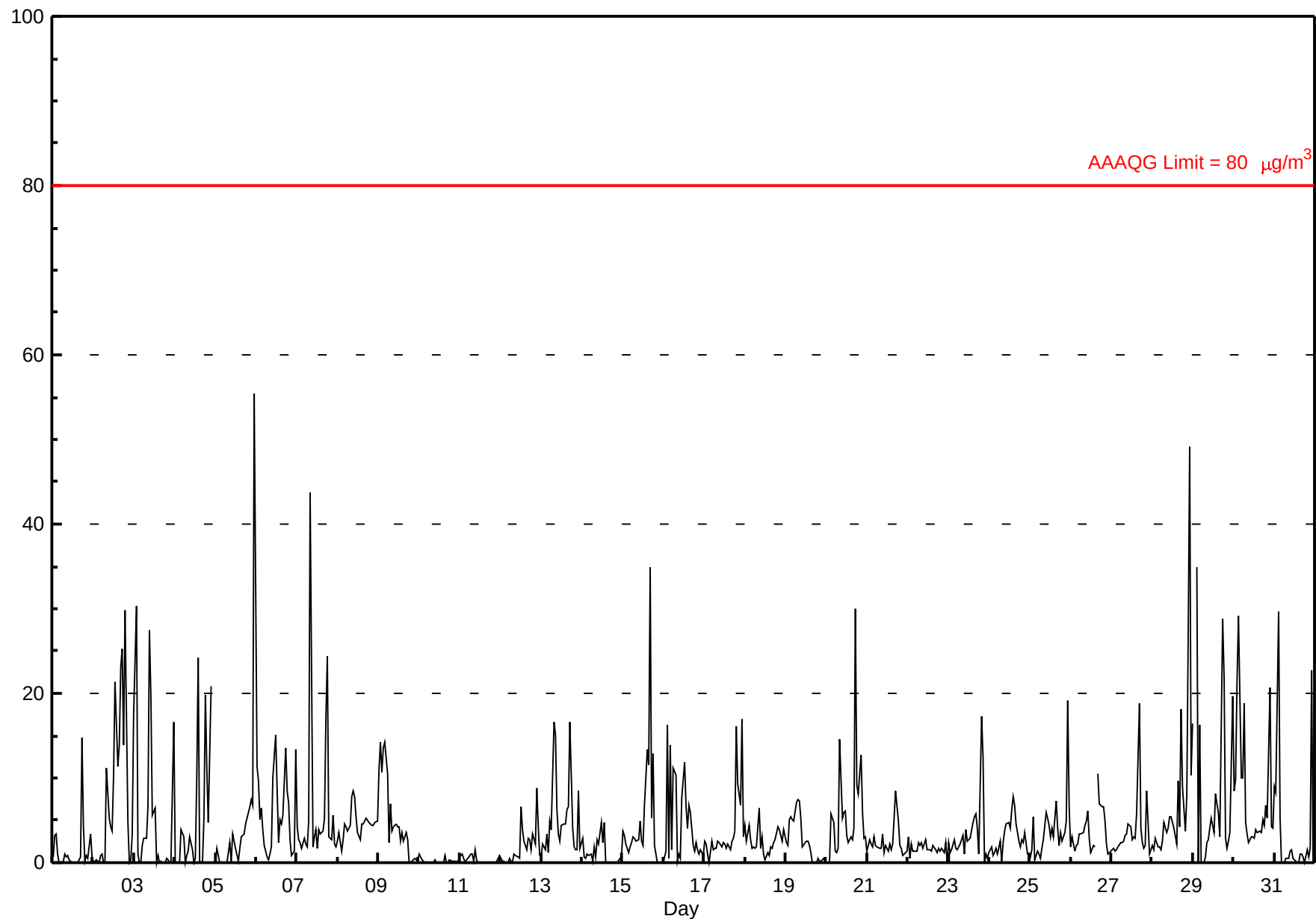


Hourly Averages

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

Smoky Heights - March 2013

Number of Exceedences: 1-hr: 0 24-hr: 0 Maximum Value: 55.5 µg/m³ on Mar 6 00:00 Maximum Daily Average: 8.3 µg/m³ on Mar 29																					Hours in Service: 744 Hours of Data: 741 Hours of Missing Data: 3 Hours of Calibration: 0 Percent Operational Time: 99.6					
Minimum Value: 0 µg/m³ on Mar 1 06:00 Maximum Diurnal Average: 7.5 µg/m³ at hour 18 Monthly Average: 4.15 µg/m³																					Minimum Daily Average: 0.2 µg/m³ on Mar 10 Minimum Diurnal Average: 2.2 µg/m³ at hour 6 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.9 Median = 2.4 Q ₃ = 4.7 P ₉₀ = 9.9 P ₉₉ = 29.6					
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-Mar	1	3	3	1	0	0	0	1	1	1	0	0	0	0	0	0	1	15	4	0	1	1	3	1	1.5	14.7
2-Mar	0	0	0	0	1	1	0	0	11	5	4	4	10	21	11	14	23	25	14	30	5	0	0	3	7.7	29.8
3-Mar	18	30	1	0	0	2	3	3	7	28	20	6	6	0	1	0	0	0	0	0	0	0	0	17	5.9	30.4
4-Mar	0	0	0	0	4	3	0	1	1	3	2	0	1	10	24	0	0	5	20	11	5	21	N	0	4.8	24.2
5-Mar	0	2	0	0	0	0	0	0	2	0	3	3	2	0	2	3	3	3	5	6	7	8	7	55	4.6	55.5
6-Mar	11	10	5	6	4	2	1	0	1	2	10	15	9	2	5	4	6	14	9	7	3	1	1	13	5.9	15.0
7-Mar	4	3	2	2	3	2	2	5	44	2	3	4	2	4	3	4	5	17	24	3	3	6	2	2	6.3	43.7
8-Mar	3	4	1	3	4	4	4	4	8	8	8	5	4	3	5	5	5	5	5	4	4	5	5	5	4.6	8.4
9-Mar	11	14	11	14	14	10	2	7	4	4	5	4	4	3	4	3	4	3	0	0	0	1	0	0	5.0	14.3
10-Mar	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0.2	1.0
11-Mar	1	1	0	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.3	1.5
12-Mar	0	0	0	0	0	1	0	0	1	1	1	1	7	4	3	1	3	3	2	3	2	9	4	1	1.9	8.7
13-Mar	1	2	2	3	1	5	4	17	15	6	3	2	4	5	5	6	7	17	4	2	2	2	8	2	5.2	16.6
14-Mar	3	1	0	1	1	1	0	2	1	3	2	5	2	5	0	0	0	0	0	0	0	0	1	1	1.1	4.7
15-Mar	4	3	2	1	2	2	3	3	2	3	5	3	2	7	13	12	35	5	13	2	0	0	0	0	5.1	34.8
16-Mar	0	1	16	1	14	2	11	10	0	1	0	8	12	7	4	7	6	2	1	2	2	1	1	1	4.6	16.3
17-Mar	2	2	1	0	2	1	2	2	3	2	2	2	2	2	2	1	2	3	4	16	9	7	17	3	3.8	16.9
18-Mar	4	2	4	3	2	2	2	2	6	2	3	1	0	1	1	2	2	2	3	4	4	3	3	4	2.6	6.5
19-Mar	2	2	5	5	5	5	7	7	7	5	2	2	3	3	2	1	0	0	0	1	0	0	1	0	2.8	7.4
20-Mar	0	0	0	6	5	1	1	2	15	5	6	6	3	2	3	3	4	30	9	8	13	6	3	3	5.6	30.0
21-Mar	1	3	2	2	3	2	2	2	2	3	1	2	1	2	2	2	5	8	5	2	2	1	1	1	2.4	8.4
22-Mar	3	0	2	1	1	1	2	2	2	2	3	2	1	2	1	2	1	1	2	1	2	1	2	0	1.7	3.0
23-Mar	2	1	2	3	2	2	2	2	3	1	4	3	3	3	5	5	6	4	1	17	12	0	1	0	3.5	17.3
24-Mar	1	2	1	1	2	1	3	0	2	4	5	5	4	6	8	7	5	3	2	3	2	4	1	1	2.9	7.8
25-Mar	1	1	5	0	1	1	1	2	3	6	5	4	3	4	3	7	4	2	4	3	4	5	19	7	3.9	19.1
26-Mar	2	3	1	2	2	3	3	4	4	5	6	3	1	2	2	M	11	7	7	7	5	2	1	1	3.7	10.5
27-Mar	2	2	1	1	2	2	2	3	3	3	4	4	3	3	3	6	19	4	2	2	2	8	1	1	3.5	18.8
28-Mar	2	2	3	2	2	2	2	5	4	4	5	5	5	4	2	10	4	18	9	4	8	27	49	10	7.8	49.1
29-Mar	16	N	35	0	16	0	0	1	2	3	4	5	4	8	7	6	3	29	22	3	2	3	3	20	8.3	34.9
30-Mar	8	10	21	29	10	10	19	5	3	2	3	3	3	4	4	4	4	5	4	7	5	21	4	4	8.0	29.1
31-Mar	9	8	30	5	0	0	0	1	1	1	2	0	0	0	0	1	1	1	0	2	1	2	23	0	3.6	29.6
3.7 3.8 5.2 3.0 3.4 2.2 2.6 2.9 5.1 3.8 3.9 3.5 3.3 3.7 4.0 3.9 5.4 7.5 5.6 4.8 3.3 4.6 5.4 5.1																									Diurnal Average	
17.6 30.4 34.9 29.1 16.3 10.4 18.9 16.6 43.7 27.5 19.8 15.0 11.8 21.3 24.2 13.8 34.8 30.0 24.4 29.8 12.7 27.3 49.1 55.5																									Diurnal Maximum	
M - Maintenance N - Not Valid																										
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 µg/m³ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 µg/m³																										

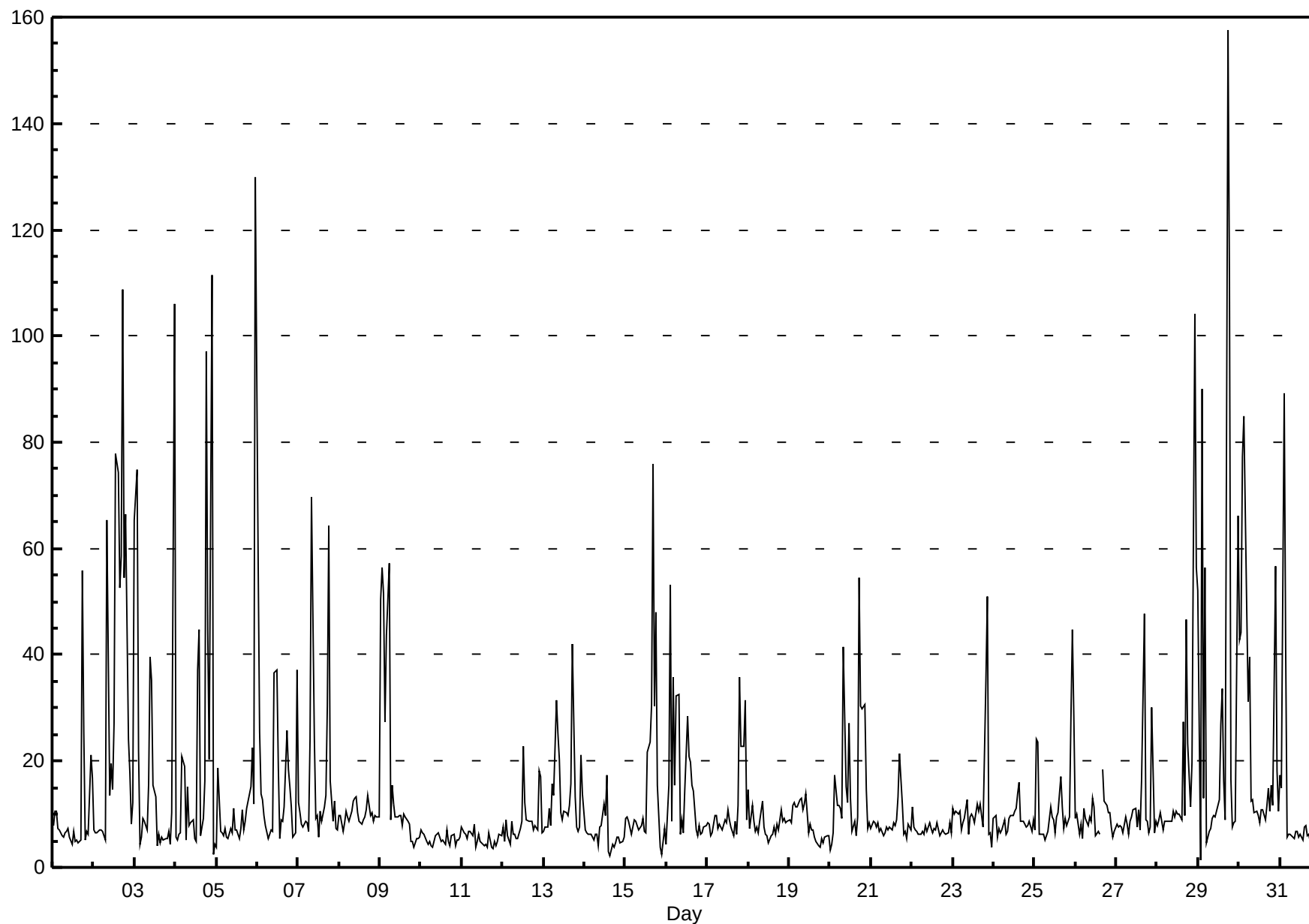


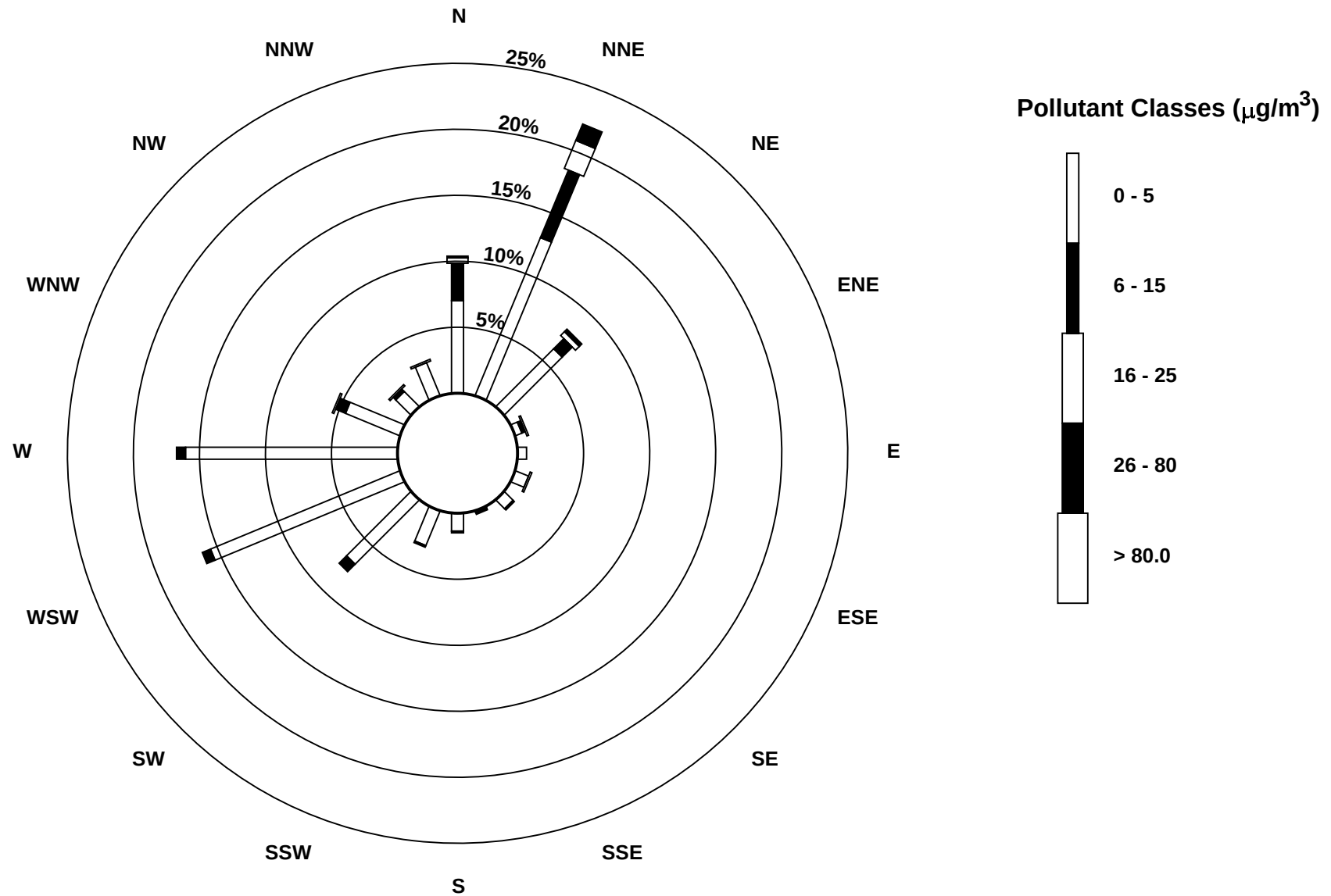
Hourly Maximums

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

Smoky Heights - March 2013

Maximum Value: 157.6 µg/m ³ on Mar 29 18:00																								Maximum Daily Average: 31.2 µg/m ³ on Mar 2								Hours in Service: 744	
Minimum Value: 1 µg/m ³ on Mar 29 02:00																								Minimum Daily Average: 5.4 µg/m ³ on Mar 10								Hours of Data: 743	
Maximum Diurnal Average: 24.1 µg/m ³ at hour 18																								Minimum Diurnal Average: 9.4 µg/m ³ at hour 7								Hours of Missing Data: 1	
Monthly Average: 14.09 µg/m ³																								Percentiles: P ₁ = 3.7 P ₁₀ = 5.4 Q ₁ = 6.5 Median = 8.6 Q ₃ = 12.1 P ₉₀ = 30.3 P ₉₉ = 102.2								Hours of Calibration: 0	
																																Percent Operational Time: 99.9	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum							
1-Mar	8	11	10	7	7	6	6	6	7	7	6	4	7	5	5	5	5	56	25	5	7	6	21	17	10.4	56.0							
2-Mar	7	7	7	7	7	7	6	5	65	14	20	15	27	78	74	53	59	109	54	66	24	18	8	12	31.2	108.7							
3-Mar	65	75	22	4	6	9	9	7	16	40	35	15	13	4	6	4	6	5	5	5	7	4	10	106	20.0	106.1							
4-Mar	6	5	6	7	21	19	5	15	8	8	9	5	5	37	45	6	9	16	97	45	20	111	2	4	21.4	111.4							
5-Mar	4	19	7	7	6	7	6	5	7	7	11	7	7	5	7	11	7	9	11	14	15	23	12	130	14.3	129.9							
6-Mar	57	25	14	13	10	8	5	6	7	7	37	37	19	6	9	9	12	26	18	15	11	6	6	37	16.7	57.5							
7-Mar	12	10	8	8	9	8	7	24	70	24	9	10	6	11	9	12	14	30	64	16	9	13	7	7	16.5	69.8							
8-Mar	10	10	7	8	11	10	9	11	13	13	13	10	9	8	9	10	11	14	10	10	9	10	10	10	10.0	13.5							
9-Mar	50	56	52	27	44	57	9	15	12	10	10	10	10	8	10	10	9	8	5	5	4	5	5	6	18.2	57.2							
10-Mar	7	7	6	5	4	5	4	4	6	6	6	6	5	5	4	7	5	4	6	6	4	5	5	6	5.4	7.1							
11-Mar	8	6	6	5	7	7	6	8	4	5	6	5	4	4	4	4	6	4	4	5	4	5	6	6	5.4	8.2							
12-Mar	8	5	9	6	4	9	6	6	5	5	7	9	23	12	9	9	9	9	7	8	7	18	17	7	8.9	22.8							
13-Mar	7	8	8	11	8	16	14	31	25	20	10	9	11	10	10	12	16	42	13	8	7	8	21	14	14.0	42.0							
14-Mar	7	7	6	6	6	5	6	6	4	8	8	12	10	17	3	2	4	4	5	6	6	5	5	6	6.4	17.4							
15-Mar	9	10	9	6	8	9	9	8	7	8	9	7	6	22	24	31	76	30	48	15	4	2	5	7	15.3	76.1							
16-Mar	4	15	53	9	36	15	32	32	6	9	7	14	29	21	20	15	14	7	6	8	6	7	8	8	15.9	53.2							
17-Mar	8	8	6	6	10	10	7	8	8	7	9	8	11	9	8	6	9	6	12	36	23	23	32	9	11.6	35.7							
18-Mar	15	7	12	9	7	8	6	9	13	8	6	6	5	6	6	8	6	8	7	11	9	9	8	9	8.2	14.7							
19-Mar	9	8	12	12	11	12	13	13	11	12	14	6	8	7	7	6	5	4	4	5	5	6	6	6	8.4	13.9							
20-Mar	3	4	6	17	12	12	11	9	42	15	12	27	13	7	9	6	10	55	30	30	31	15	7	8	16.3	54.5							
21-Mar	7	9	8	8	8	7	7	6	7	8	7	8	7	8	8	9	13	22	12	6	7	5	8	7	8.4	21.5							
22-Mar	12	8	7	7	6	6	7	6	8	7	8	7	7	7	7	8	6	7	7	7	6	6	8	7	7.2	11.5							
23-Mar	11	10	11	10	11	7	8	9	13	6	10	10	10	9	12	11	12	10	8	35	51	6	7	4	12.0	50.9							
24-Mar	9	10	6	7	6	7	9	6	7	9	10	10	11	11	14	16	9	9	8	8	8	9	7	9	8.9	15.9							
25-Mar	7	24	23	6	6	6	5	6	7	12	10	9	7	9	10	17	11	7	9	8	10	28	45	28	13.0	44.9							
26-Mar	9	10	6	8	5	11	9	8	10	9	13	11	6	7	6	M	19	12	12	10	10	8	6	7	9.2	18.6							
27-Mar	8	8	8	8	7	10	8	6	9	10	11	11	8	11	7	16	48	9	9	7	8	30	7	9	11.2	47.7							
28-Mar	8	9	10	7	9	9	9	9	9	11	9	11	10	10	9	27	10	47	23	12	20	63	104	56	20.8	104.1							
29-Mar	52	1	90	13	56	5	7	7	9	10	10	11	13	27	34	16	9	158	110	17	8	8	9	66	31.0	157.6							
30-Mar	43	44	77	85	48	31	40	13	13	10	11	10	8	11	11	9	12	15	11	15	12	57	18	11	25.5	84.9							
31-Mar	17	15	89	41	6	6	6	6	5	7	7	6	6	5	8	8	6	6	5	6	6	10	77	9	15.2	89.2							
15.7 14.5 19.4 12.3 12.9 11.0 9.4 10.1 13.9 10.6 11.3 10.5 10.2 12.8 13.0 12.0 14.3 24.1 20.8 14.5 11.5 17.0 16.1 20.2																								Diurnal Average									
65.3 74.8 89.9 84.9 56.4 57.2 39.6 32.5 69.8 39.7 36.6 37.2 28.6 77.9 74.3 52.6 76.1 157.6 109.5 66.5 50.9 111.4 104.1 129.9																								Diurnal Maximum									
M - Maintenance																																	





Hourly Averages

External Temperature (ET) - °C

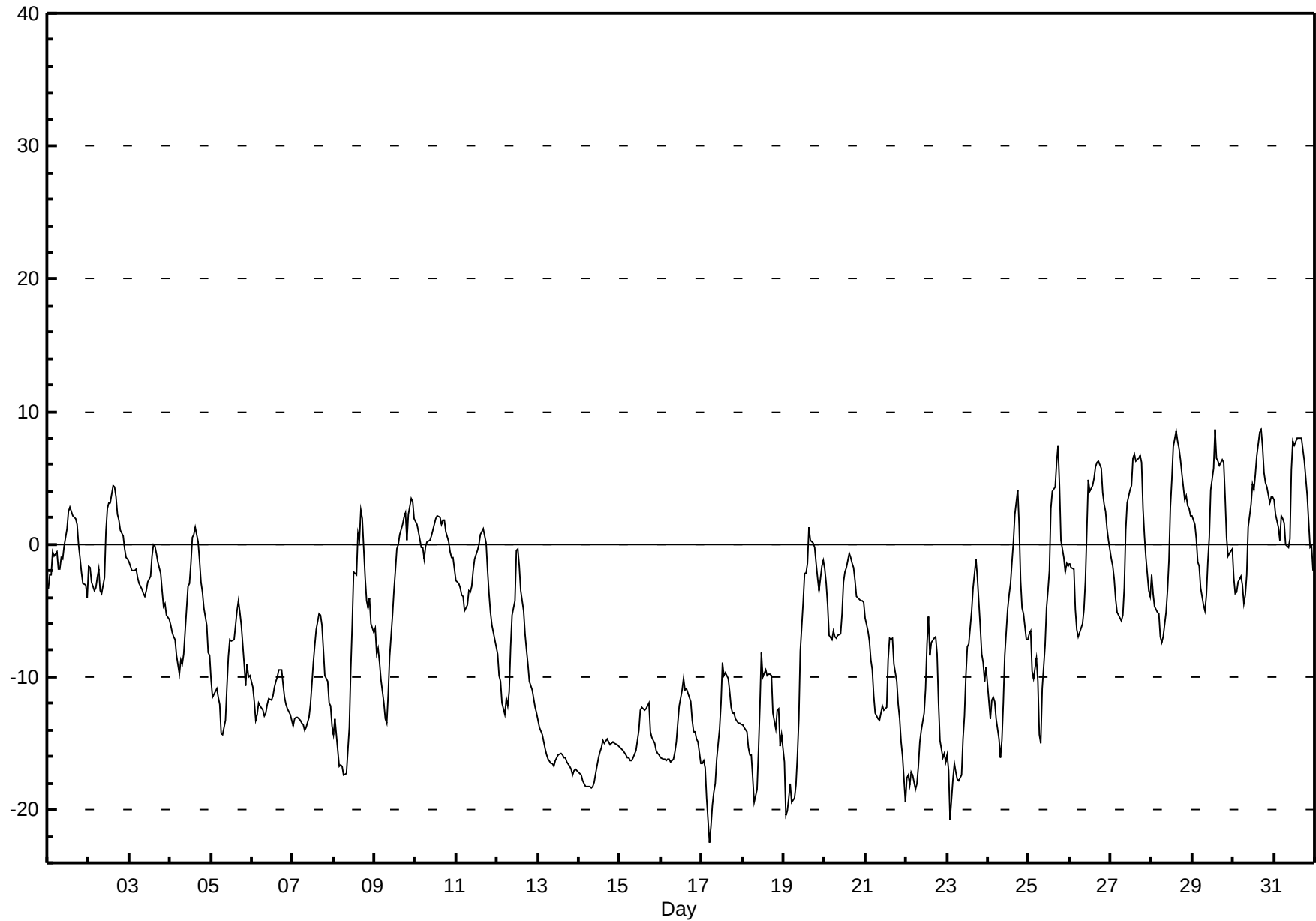
Smoky Heights - March 2013

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 8.7 °C on Mar 29 14:00 Maximum Daily Average: 3.4 °C on Mar 31																				Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0						
Minimum Value: -23 °C on Mar 17 05:00 Minimum Daily Average: -16.4 °C on Mar 14 Maximum Diurnal Average: -1.8 °C at hour 17 Minimum Diurnal Average: -11.0 °C at hour 8 Monthly Average: -6.54 °C Percentiles: P ₁ = -19.5 P ₁₀ = -16.2 Q ₁ = -12.9 Median = -6.2 Q ₃ = -1.0 P ₉₀ = 3.0 P ₉₉ = 8.0																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Mar	-3	-2	-2	-1	-1	-1	-2	-2	-1	-1	0	1	2	3	2	2	2	0	-1	-2	-3	-3	-4	-0.6	2.7	
2-Mar	-2	-2	-3	-4	-3	-2	-2	-3	-4	-3	1	3	3	3	4	4	4	2	2	1	1	0	-1	-1	-0.1	4.4
3-Mar	-1	-2	-2	-2	-2	-3	-3	-3	-4	-4	-3	-3	-2	-1	0	0	-1	-1	-2	-4	-5	-4	-5	-6	-2.6	-0.1
4-Mar	-6	-7	-7	-7	-8	-10	-9	-9	-8	-7	-3	-3	-1	0	1	1	0	-1	-3	-4	-5	-6	-8	-8	-4.9	1.3
5-Mar	-10	-12	-11	-11	-12	-12	-14	-14	-13	-11	-8	-7	-7	-7	-6	-5	-4	-5	-6	-9	-11	-9	-10	-10	-9.4	-4.3
6-Mar	-11	-12	-13	-13	-12	-12	-13	-13	-13	-12	-12	-12	-11	-11	-10	-10	-10	-9	-11	-12	-12	-12	-13	-13	-11.7	-9.4
7-Mar	-14	-13	-13	-13	-13	-13	-14	-14	-14	-13	-12	-11	-9	-8	-6	-5	-5	-6	-8	-10	-10	-12	-12	-14	-10.9	-5.3
8-Mar	-14	-13	-15	-17	-17	-17	-17	-17	-16	-14	-9	-6	-2	-2	1	0	3	2	-3	-4	-5	-4	-6	-7	-8.3	2.5
9-Mar	-6	-8	-8	-9	-10	-12	-13	-14	-11	-8	-5	-3	-2	0	0	1	2	2	2	0	2	3	3	2	-3.9	3.4
10-Mar	2	1	1	0	0	-1	0	0	0	1	1	1	2	2	2	2	2	2	1	0	-1	-1	-1	-2	0.6	2.1
11-Mar	-3	-3	-3	-4	-4	-5	-5	-3	-4	-3	-2	-1	-1	0	1	1	1	0	-2	-4	-5	-6	-7	-8	-2.9	1.1
12-Mar	-8	-10	-10	-12	-13	-12	-12	-11	-8	-5	-4	0	0	-2	-4	-5	-7	-8	-9	-10	-11	-12	-12	-13	-8.3	-0.3
13-Mar	-13	-14	-14	-15	-15	-16	-16	-17	-17	-17	-16	-16	-16	-16	-16	-16	-16	-16	-17	-17	-17	-17	-17	-17	-16.0	-13.3
14-Mar	-17	-17	-18	-18	-18	-18	-18	-18	-18	-18	-17	-16	-16	-15	-15	-15	-15	-15	-15	-15	-15	-15	-15	-15	-16.4	-14.7
15-Mar	-15	-15	-16	-16	-16	-16	-16	-16	-16	-16	-15	-14	-12	-12	-13	-12	-12	-12	-14	-15	-15	-15	-16	-16	-14.7	-11.9
16-Mar	-16	-16	-16	-16	-16	-16	-16	-16	-16	-15	-13	-12	-11	-10	-11	-11	-11	-12	-13	-14	-14	-15	-15	-17	-14.1	-10.1
17-Mar	-17	-16	-17	-19	-23	-21	-20	-19	-18	-16	-14	-12	-9	-10	-10	-10	-11	-12	-13	-13	-13	-14	-13	-14	-14.7	-8.9
18-Mar	-14	-14	-14	-15	-16	-16	-18	-19	-18	-16	-12	-8	-10	-9	-10	-10	-10	-10	-13	-14	-13	-12	-15	-14	-13.3	-8.1
19-Mar	-16	-20	-20	-19	-18	-19	-19	-18	-16	-13	-8	-4	-2	-2	-1	1	0	0	0	-1	-2	-3	-2	-1	-8.6	1.3
20-Mar	-2	-3	-5	-7	-7	-7	-7	-7	-7	-7	-5	-3	-2	-2	-1	-1	-1	-2	-3	-4	-4	-4	-4	-4	-4.1	-0.7
21-Mar	-6	-7	-7	-9	-9	-11	-13	-13	-13	-13	-12	-12	-12	-9	-7	-7	-7	-9	-10	-12	-13	-15	-16	-19	-10.9	-5.5
22-Mar	-18	-17	-18	-17	-17	-18	-18	-17	-15	-14	-13	-11	-8	-5	-8	-7	-7	-7	-8	-12	-15	-16	-16	-16	-13.3	-5.5
23-Mar	-16	-17	-21	-18	-16	-17	-18	-18	-17	-15	-13	-10	-8	-7	-5	-3	-2	-1	-3	-6	-8	-9	-10	-9	-11.2	-1.1
24-Mar	-11	-13	-12	-11	-12	-13	-15	-16	-15	-12	-8	-5	-4	-3	-1	0	2	4	1	-3	-5	-5	-7	-7	-7.1	4.1
25-Mar	-7	-7	-10	-10	-9	-10	-14	-15	-11	-8	-5	-3	-2	3	4	4	6	7	4	0	-1	-2	-1	-2	-3.6	7.4
26-Mar	-1	-2	-2	-5	-6	-7	-7	-6	-5	-3	1	5	4	4	5	6	6	6	6	4	3	3	1	0	0.4	6.2
27-Mar	-1	-2	-3	-4	-5	-6	-6	-5	-3	1	3	4	4	6	7	6	6	7	6	3	1	-1	-3	-4	0.5	6.8
28-Mar	-2	-4	-5	-5	-5	-7	-7	-7	-5	-4	-1	3	5	7	9	8	7	6	5	3	4	3	3	2	0.5	8.6
29-Mar	2	2	0	-1	-2	-3	-5	-5	-4	-1	0	4	6	9	6	6	6	6	6	4	1	-1	-1	0	1.5	8.7
30-Mar	-3	-4	-4	-3	-2	-3	-4	-4	-2	1	3	5	4	5	7	8	9	7	5	5	4	3	4	4	1.9	8.6
31-Mar	3	2	1	0	2	2	2	0	0	0	6	8	7	8	8	8	8	7	6	4	2	0	0	-2	3.4	8.0
																									Diurnal Average	
																									Diurnal Maximum	

Hourly Averages

External Temperature (ET) - °C

Smoky Heights - March 2013



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Smoky Heights - March 2013

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	8	13	18	29	25	27	22	22	26	23	21	25	25	23	19	10	11	6	8	11	14	11	5	5	16.0	28.5
Dir	231	229	261	241	241	245	257	262	260	262	259	268	269	253	239	239	212	161	211	256	263	285	299	278	252.3	241.3
2 Spd	11	13	9	9	11	15	9	7	4	3	1	5	5	6	11	23	27	21	30	24	22	27	29	27	7.8	29.9
Dir	287	272	263	201	260	289	284	194	145	225	339	93	237	328	21	43	51	57	59	48	26	20	22	22	21.6	59.1
3 Spd	27	21	12	15	27	26	24	15	16	17	20	15	15	13	15	24	24	21	11	9	10	16	17	13	15.0	26.9
Dir	17	26	0	359	357	359	12	14	5	15	20	21	19	28	19	26	14	355	331	296	262	274	288	42	3.8	357.2
4 Spd	12	13	15	13	17	19	19	17	20	18	16	22	21	19	23	28	26	25	25	24	25	22	20	21	17.4	27.7
Dir	18	276	269	300	13	54	4	21	24	24	40	24	26	26	23	30	27	10	34	26	21	18	347	334	15.1	29.9
5 Spd	21	11	4	8	8	18	18	10	10	10	18	21	25	23	22	23	23	24	19	24	10	13	9	22	12.8	24.6
Dir	292	333	279	240	234	218	223	239	252	251	263	267	272	270	266	260	264	270	277	282	324	7	14	18	273.6	271.7
6 Spd	20	16	16	18	27	30	26	35	30	24	25	29	30	32	31	32	30	30	23	26	25	24	29	30	26.1	35.1
Dir	26	23	55	40	25	26	24	25	28	32	23	13	21	26	28	31	28	24	13	9	7	9	7	11	22.4	25.5
7 Spd	23	28	26	24	22	27	24	21	14	15	18	16	12	14	22	16	8	14	16	19	21	20	21	18	18.6	28.0
Dir	13	24	27	30	25	31	29	26	21	33	30	14	24	20	25	360	1	18	14	356	11	10	14	336	18.5	24.1
8 Spd	13	19	22	26	20	25	16	23	23	14	9	17	17	24	9	4	5	3	11	13	13	15	17	15	14.0	25.7
Dir	271	228	223	242	237	237	244	230	227	228	203	256	219	237	238	226	35	36	272	267	276	274	267	275	243.7	242.3
9 Spd	6	5	7	6	5	4	4	8	8	10	9	10	12	16	19	8	8	13	17	14	24	29	29	25	10.6	29.5
Dir	310	354	10	17	8	287	280	249	230	215	226	266	250	247	252	260	251	240	239	254	246	245	249	258	253.6	249.4
10 Spd	24	29	27	17	14	19	25	32	36	33	36	37	38	41	39	42	33	31	31	26	23	21	22	24	29.1	42.4
Dir	256	251	261	245	249	234	260	249	250	251	251	258	259	256	261	262	266	261	261	260	253	259	255	251	255.8	261.6
11 Spd	23	19	13	11	12	14	16	17	19	19	21	24	25	23	21	16	10	10	15	13	14	12	15	20	16.3	25.0
Dir	261	264	267	265	271	266	272	258	251	253	250	248	252	245	245	244	251	256	238	227	204	238	256	264	252.3	252.5
12 Spd	10	14	24	26	25	18	15	17	18	19	18	11	25	30	34	34	29	40	40	38	35	30	32	30	11.9	40.2
Dir	247	220	262	265	258	264	205	189	240	225	233	320	34	21	21	29	23	29	30	25	19	9	359	353	352.2	28.7
13 Spd	27	31	33	30	29	27	26	14	11	10	7	8	9	9	10	9	10	11	9	7	8	8	8	9	14.7	32.9
Dir	2	12	12	14	9	33	29	15	23	20	22	19	28	21	25	27	4	11	6	356	351	343	7	32	15.0	11.7
14 Spd	8	8	11	12	26	24	12	11	14	15	16	15	19	20	21	24	21	22	21	19	19	18	17	14	16.7	26.5
Dir	28	32	28	27	33	34	37	37	34	34	36	34	36	40	47	55	55	53	55	51	54	50	50	45	42.5	33.2
15 Spd	12	10	10	11	11	11	13	12	11	11	9	11	8	10	11	10	7	5	9	8	10	11	13	14	9.5	13.8
Dir	32	19	10	8	355	356	347	342	348	354	19	38	42	16	23	23	23	8	23	32	49	49	53	58	19.7	58.1
16 Spd	11	12	13	12	13	14	12	14	14	13	12	12	11	9	12	12	12	12	9	10	14	12	13	11	11.1	14.2
Dir	51	41	33	35	28	38	34	36	46	43	40	27	18	4	1	10	16	15	5	351	343	342	344	334	19.2	37.7
17 Spd	11	9	8	8	11	21	19	7	12	16	20	16	9	19	16	13	19	21	13	16	10	5	8	9	5.6	21.0
Dir	339	340	328	319	279	288	278	166	129	174	171	121	244	265	274	293	269	264	309	15	23	22	17	5	286.0	263.6
18 Spd	9	9	5	1	6	5	2	8	14	14	10	5	5	10	19	18	21	21	21	15	6	9	9	8	8.2	20.7
Dir	5	356	21	294	268	326	293	272	235	260	236	142	280	269	289	291	290	285	266	206	249	260	253	255	273.2	265.9
19 Spd	9	9	10	10	7	7	7	8	6	6	12	13	9	7	5	2	8	8	10	10	12	11	11	18	3.5	17.7
Dir	239	225	226	207	187	201	218	220	240	223	187	188	191	266	258	352	112	80	80	60	43	32	111	132	175.8	131.8
20 Spd	12	11	6	7	8	7	8	9	11	13	18	16	18	24	26	26	25	23	18	19	17	20	18	24	13.8	26.1
Dir	131	108	111	27	30	35	27	32	24	29	29	28	34	43	40	46	51	47	65	36	6	2	348	337	34.7	39.9
21 Spd	18	14	10	14	12	11	13	9	10	8	10	13	14	3	5	6	6	10	11	9	14	18	11	8	7.3	18.2
Dir	335	321	278	276	280	229	249	256	249	239	248	245	245	16	85	102	8	11	4	314	283	273	273	234	279.7	334.6
22 Spd	6	10	11	8	13	9	10	10	9	8	6	7	4	4	14	12	10	7	8	8	5	5	8	11	8.2	14.3
Dir	272	274	268	293	292	303	295	293	280	249	256	265	263	236	261	261	277	287	269	267	277	272	249	266	273.2	261.2

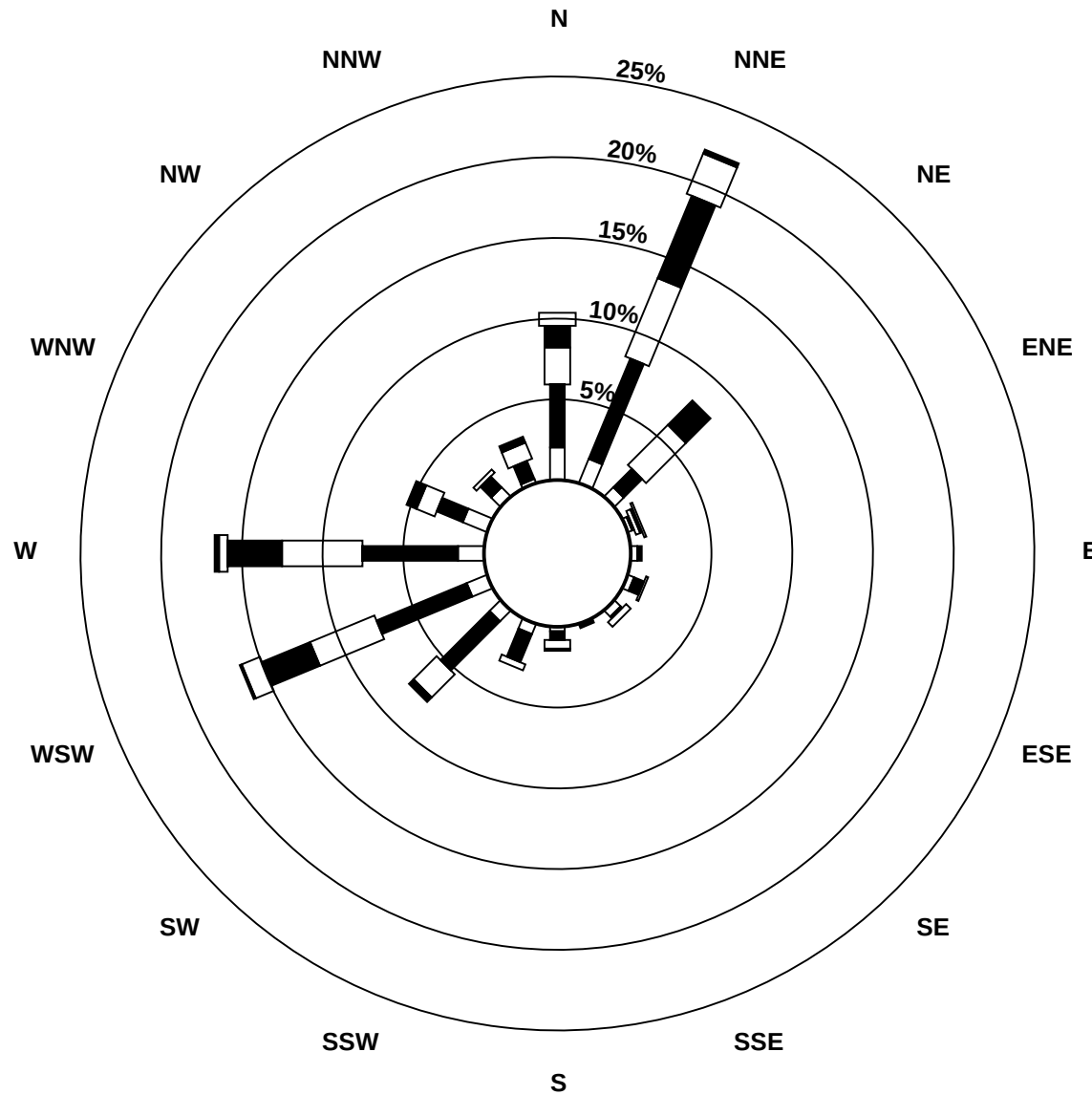
Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Smoky Heights - March 2013

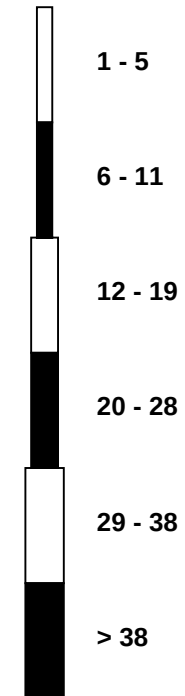
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
23 Spd	11	9	3	4	7	8	7	7	8	7	9	10	9	10	8	6	5	2	7	2	3	4	7	8	5.2	10.5	
Dir	272	266	213	236	252	252	235	219	183	197	243	239	253	269	275	280	297	62	143	104	44	210	238	234	242.4	272.1	
24 Spd	5	3	5	8	9	10	10	9	9	10	10	9	10	11	10	8	3	5	5	5	4	5	3	5	4.5	11.1	
Dir	242	116	245	248	231	221	212	203	204	235	236	252	259	268	283	281	311	114	133	35	22	20	7	273	243.9	268.2	
25 Spd	8	7	3	6	10	5	7	8	6	8	5	10	11	5	4	5	4	5	11	10	12	10	7	4	2.5	11.5	
Dir	252	247	243	245	232	208	193	219	217	181	217	265	268	278	302	300	56	62	25	30	19	7	9	285	276.8	19.2	
26 Spd	4	2	9	12	10	11	10	10	10	12	13	9	23	18	26	26	18	11	20	24	26	17	16	15	14.0	26.4	
Dir	225	187	210	221	221	214	214	226	235	217	221	223	238	250	247	244	253	259	252	261	263	263	260	256	242.9	247.3	
27 Spd	13	14	15	18	19	18	17	17	17	7	9	11	11	4	13	15	11	9	6	4	5	3	3	7	7.6	19.1	
Dir	251	245	256	260	266	266	259	254	259	239	242	266	257	318	6	13	22	17	356	355	1	1	293	261	278.2	266.2	
28 Spd	5	3	2	5	5	9	10	10	10	11	11	12	12	8	3	15	13	9	5	2	16	19	21	14	7	4.2	21.2
Dir	234	267	325	254	222	230	219	229	230	248	256	243	290	287	10	14	3	356	25	294	2	27	19	14	310.2	27.2	
29 Spd	12	10	7	6	7	6	5	5	9	10	11	6	4	5	15	14	13	8	4	1	6	7	11	6	4.3	15.0	
Dir	26	46	30	10	15	357	6	258	250	242	251	260	249	44	7	11	8	15	19	311	267	272	275	323	337.4	7.4	
30 Spd	3	2	4	9	10	10	8	7	6	2	1	2	7	6	3	2	2	2	1	4	3	1	7	7	2.6	10.1	
Dir	13	20	24	21	21	21	29	25	36	88	138	250	266	277	207	298	279	358	320	265	352	291	287	307	349.5	20.8	
31 Spd	12	9	5	2	5	6	11	12	10	8	1	6	9	8	9	8	7	10	9	5	5	5	5	4	4.2	12.4	
Dir	7	13	10	188	301	288	274	274	257	222	213	38	24	29	27	19	4	39	46	11	341	25	24	357	354.6	274.1	
Spd	6.3	4.8	4.9	5.3	6.2	5.3	5.4	4.6	4.9	4.2	4.2	5.0	5.9	6.3	7.5	7.4	7.0	7.0	5.6	6.6	7.4	7.7	7.6	7.4	Diurnal Average		
Dir	325.1	319.5	304.7	296.6	311.5	306.8	298.6	280.7	272.5	263.7	267.4	295.3	297.2	310.1	331.1	349.0	353.7	359.2	354.1	340.2	340.9	338.4	330.0	327.9	Diurnal Maximum		
Spd	26.9	30.7	32.9	29.6	29.3	29.6	26.1	35.1	36.2	33.2	36.1	36.6	38.3	40.8	39.3	42.4	33.2	40.2	39.7	37.5	34.6	30.4	31.7	30.0	Diurnal Maximum		
Dir	1.8	12.1	11.7	14.3	8.6	26.1	29.2	25.5	249.6	250.6	251.4	258.3	259.3	256.5	260.7	261.6	265.6	28.7	29.9	24.9	18.8	9.0	359.3	11.1			
Maximum Speed Value: 42 km/h on Mar 10 16:00																									Hours in Service: 744		
Maximum Daily Speed Average: 29.1 km/h on Mar 10																									Hours of Data: 744		
Maximum Diurnal Speed Average: 7.7 km/h at hour 22																									Hours of Missing Data: 0		
Minimum Speed Value: 1 km/h on Mar 30 22:00																											
Minimum Daily Speed Average: 2.5 km/h on Mar 30																											
Minimum Diurnal Speed Average: 4.2 km/h at hour 11																											
Monthly Average Velocity: 5.41 km/h 320.15 deg																									Percent Operational Time: 100.0		
Speed Percentiles: P ₁ = 1.6 P ₁₀ = 4.8 Q ₁ = 8.0 Median = 11.5 Q ₃ = 18.7 P ₉₀ = 25.5 P ₉₉ = 36.9																											
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	20	53	50	25	15	0	163																				
NorthEast	9	38	52	45	12	2	158																				
East	4	7	0	0	0	0	11																				
SouthEast	5	2	4	0	0	0	11																				
South	2	11	4	1	0	0	18																				
SouthWest	16	58	33	16	2	0	125																				
West	15	74	68	46	10	4	217																				
NorthWest	13	16	10	2	0	0	41																				
Total	84	259	221	135	39	6	744																				

Wind Rose

Wind Speed (WS) (km/h)
Smoky Heights - March 2013



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Smoky Heights - March 2013

Maximum Speed: 42 km/h on Mar 10 16:00																				Maximum Daily Speed Average: 29.4 km/h on Mar 10										Hours in Service: 744	
Minimum Speed: 2 km/h on Mar 30 11:00																				Minimum Daily Speed Average: 5.2 km/h on Mar 30										Hours of Data: 744	
Maximum Diurnal Speed Average: 16.9 km/h at hour 15																				Minimum Diurnal Speed Average: 12.5 km/h at hour 3										Hours of Missing Data: 0	
Monthly Average Speed: 14.29 km/h																				Percentiles: P ₁ = 2.7 P ₁₀ = 5.5 Q ₁ = 8.4 Median = 12.0 Q ₃ = 19.4 P ₉₀ = 25.5 P ₉₉ = 37.2										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-Mar	9	15	20	29	25	27	22	23	26	23	21	25	25	24	19	10	11	7	9	12	14	11	7	6	17.4	28.5					
2-Mar	11	13	9	9	11	15	14	7	8	7	4	8	13	9	11	23	28	21	30	25	22	27	29	27	15.9	30.0					
3-Mar	27	21	12	15	27	26	24	15	17	17	20	15	15	13	16	24	24	22	13	10	10	16	22	13	18.1	27.2					
4-Mar	14	13	15	15	18	20	20	20	22	19	19	22	21	19	24	28	26	25	25	24	26	23	21	22	20.8	28.0					
5-Mar	22	20	16	9	8	18	18	11	10	10	18	21	25	23	22	23	23	24	19	24	16	13	9	22	17.6	24.7					
6-Mar	20	17	18	18	27	30	26	35	30	24	25	30	30	32	31	32	30	30	23	26	25	24	30	30	26.8	35.2					
7-Mar	23	28	26	24	22	27	24	21	14	15	18	16	12	14	22	16	8	14	16	19	21	21	21	18	19.2	28.2					
8-Mar	13	19	22	26	20	25	16	23	23	14	9	18	18	25	13	4	5	4	11	13	13	15	17	15	16.0	26.0					
9-Mar	7	8	7	6	5	5	4	8	8	10	9	10	12	16	19	8	8	13	17	14	24	29	30	25	12.7	29.7					
10-Mar	24	29	27	18	15	19	25	32	36	33	36	37	38	41	39	42	33	31	31	27	23	21	23	24	29.4	42.4					
11-Mar	23	19	13	11	12	15	17	17	19	19	21	24	25	23	21	16	11	10	15	14	14	13	16	20	17.0	25.2					
12-Mar	11	15	24	26	25	19	16	19	19	20	19	18	25	31	35	34	30	40	40	38	35	31	32	30	26.3	40.4					
13-Mar	27	31	33	30	30	27	26	14	11	10	7	8	9	9	10	9	10	11	10	7	8	8	9	10	15.2	33.3					
14-Mar	8	8	11	12	27	24	12	11	14	15	16	16	19	20	22	24	21	22	21	19	19	18	17	14	17.0	26.5					
15-Mar	12	10	10	11	11	11	13	12	11	11	10	11	9	10	12	10	8	5	9	8	10	11	13	14	10.4	13.9					
16-Mar	11	12	13	12	13	14	12	14	14	13	12	12	11	10	13	12	12	12	9	10	14	12	13	11	12.1	14.3					
17-Mar	12	9	9	8	12	21	20	14	16	18	21	16	12	20	16	13	19	21	17	17	10	5	8	9	14.3	21.4					
18-Mar	9	9	5	4	7	6	3	11	14	14	12	6	6	10	20	19	21	21	18	16	9	9	8	8	11.6	21.4					
19-Mar	10	9	10	10	7	7	7	8	6	7	12	13	10	7	6	6	8	8	10	11	12	11	12	18	9.3	17.8					
20-Mar	13	11	7	7	8	7	8	9	11	13	19	16	18	25	26	26	26	23	19	19	17	20	18	24	16.3	26.3					
21-Mar	18	14	11	14	12	11	13	10	10	8	11	14	14	6	9	7	10	11	11	10	14	18	11	8	11.5	18.4					
22-Mar	9	11	12	8	13	9	10	10	9	8	6	8	5	5	14	12	10	7	8	8	5	5	8	11	8.8	14.4					
23-Mar	11	9	4	5	7	8	7	7	8	7	9	10	9	10	8	6	5	4	7	2	3	5	7	8	7.0	10.6					
24-Mar	6	3	6	8	9	10	10	9	9	10	10	9	10	11	10	8	4	5	5	5	4	5	3	6	7.4	11.2					
25-Mar	8	7	3	6	10	6	7	8	7	8	5	10	11	5	5	5	6	10	11	10	12	10	7	6	7.5	11.6					
26-Mar	4	4	10	12	10	12	10	10	10	13	14	10	23	18	26	26	18	12	20	24	27	18	16	15	15.0	26.7					
27-Mar	13	14	15	18	19	18	17	17	17	8	10	11	11	7	13	15	11	9	7	4	5	4	3	7	11.4	19.1					
28-Mar	5	3	2	5	6	10	11	10	11	11	12	12	10	6	15	13	9	6	6	17	21	22	15	7	10.1	21.9					
29-Mar	12	10	7	6	8	6	5	5	9	11	12	6	4	7	15	14	13	8	4	2	7	7	11	10	8.3	15.1					
30-Mar	3	4	5	9	10	10	8	7	6	3	2	3	7	6	5	2	2	3	4	4	4	4	7	8	5.2	10.1					
31-Mar	12	10	5	5	5	6	11	12	10	8	4	7	9	8	9	9	8	10	9	5	5	5	5	4	7.6	12.5					
13.2 13.0 12.5 12.8 14.1 15.1 14.2 13.8 14.0 13.1 13.7 14.2 14.9 15.1 16.9 16.1 14.7 14.4 14.8 14.4 14.7 14.2 14.5 14.5																									Diurnal Average						
27.4 31.1 33.3 29.9 29.7 29.7 26.3 35.2 36.4 33.2 36.1 36.7 38.3 40.9 39.4 42.4 33.4 40.4 39.9 37.8 34.8 30.7 32.2 30.2																									Diurnal Maximum						
All monthly, daily, and diurnal averages have been calculated using scalar methods																															

Hourly Standard Deviations

Wind Direction (WD) - deg
Smoky Heights - March 2013

Maximum Value: 96.6 deg on Mar 2 13:00																			Hours in Service: 744						
Minimum Value: 1.5 deg on Mar 21 22:00																			Hours of Data: 744						
																			Hours of Missing Data: 0						
Percentiles: P ₁ = 2.4 P ₁₀ = 4.3 Q ₁ = 6.1 Median = 8.8 Q ₃ = 17.0 P ₉₀ = 35.6 P ₉₉ = 77.3																			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-Mar	34	31	19	3	3	2	12	12	5	6	6	4	4	10	5	9	13	37	20	25	15	18	56	26	55.7
2-Mar	9	6	14	22	19	8	50	23	60	65	78	51	97	48	5	10	8	6	5	14	14	6	6	8	96.6
3-Mar	7	9	10	9	8	11	7	6	7	7	6	6	6	5	14	6	12	19	24	32	7	5	42	10	41.6
4-Mar	31	25	11	32	12	17	18	31	26	19	33	3	4	12	9	8	11	11	11	9	6	11	13	18	32.9
5-Mar	15	63	79	19	11	9	6	13	4	5	8	4	4	3	5	4	5	7	6	7	51	9	4	6	78.7
6-Mar	11	22	33	11	4	4	4	4	5	6	8	7	7	6	7	7	8	8	8	8	7	7	8	6	32.7
7-Mar	6	7	5	5	4	5	5	5	6	7	11	13	10	8	7	16	16	8	7	8	6	10	7	18	18.2
8-Mar	20	9	12	9	9	6	9	8	5	9	9	15	24	22	47	52	53	65	14	6	6	5	3	4	65.3
9-Mar	31	52	9	7	14	41	21	11	10	4	11	7	12	11	9	11	17	17	4	13	5	4	6	3	52.2
10-Mar	7	6	3	17	17	6	4	7	6	3	4	3	3	3	3	3	7	4	3	4	2	3	4	4	17.4
11-Mar	4	9	4	7	7	3	10	7	5	3	6	6	6	5	4	3	12	6	13	19	13	20	8	6	20.0
12-Mar	25	14	9	9	7	18	20	26	21	19	21	52	8	6	5	7	5	4	6	6	5	8	10	9	52.3
13-Mar	11	8	9	8	10	7	7	9	7	9	20	10	8	6	5	6	12	11	9	11	11	8	12	13	20.3
14-Mar	9	5	5	5	4	4	5	4	4	6	5	6	6	7	6	7	6	5	5	5	5	5	6	5	9.5
15-Mar	6	7	7	6	9	8	7	8	8	13	13	7	12	10	8	9	7	24	4	17	6	6	5	6	23.8
16-Mar	5	6	5	3	7	4	5	6	6	6	6	7	7	16	12	9	8	8	9	10	6	7	6	7	15.9
17-Mar	6	7	6	6	17	12	21	63	39	23	17	10	47	13	9	12	5	5	44	9	8	8	7	7	62.5
18-Mar	7	9	12	68	37	45	49	43	14	9	36	40	18	15	10	8	8	5	15	35	75	18	13	15	74.7
19-Mar	19	14	12	12	8	7	18	11	10	17	6	5	26	9	25	85	13	13	7	11	8	10	36	7	85.0
20-Mar	20	10	24	7	6	10	6	5	11	6	13	7	5	8	6	7	7	8	18	8	10	10	9	8	24.3
21-Mar	8	20	22	10	26	11	9	19	8	11	11	10	3	69	64	41	68	15	11	25	6	2	13	13	68.7
22-Mar	47	15	7	15	6	13	2	2	4	10	12	9	29	38	9	9	9	8	4	4	26	10	7	7	46.9
23-Mar	6	4	39	12	9	9	9	7	8	14	19	9	10	2	5	9	8	56	5	34	31	23	22	15	56.1
24-Mar	37	44	39	6	9	9	6	16	15	9	4	7	4	3	5	7	58	23	17	22	10	8	44	14	58.1
25-Mar	7	11	24	15	6	27	20	5	16	12	19	4	3	16	33	10	60	56	10	7	7	6	12	49	59.8
26-Mar	51	60	9	6	4	13	8	7	4	13	11	21	6	5	4	4	7	12	9	8	10	5	5	4	59.8
27-Mar	9	5	6	3	2	3	3	5	2	35	43	14	7	55	8	9	8	6	13	8	8	52	32	14	54.5
28-Mar	19	12	34	20	21	19	20	5	3	14	7	13	34	61	7	7	12	24	63	21	27	15	11	13	62.8
29-Mar	9	7	12	6	9	9	12	20	18	11	19	18	27	65	9	7	7	16	29	65	31	14	5	49	65.0
30-Mar	56	80	82	4	4	4	5	8	14	30	65	63	11	17	48	51	41	25	76	29	48	87	21	22	87.0
31-Mar	10	13	11	90	29	16	12	5	18	10	71	23	7	7	7	13	14	16	8	42	10	21	19	24	90.1
56.4 80.1 82.2 90.1 36.7 45.4 50.1 62.5 60.1 65.0 77.6 63.2 96.6 68.7 63.7 85.0 67.5 65.3 75.9 64.6 74.7 87.0 55.7 49.5																									

PAZA
Beaverlodge Station
Monthly Summary Tables, Graphs and
Roses

Hourly Averages

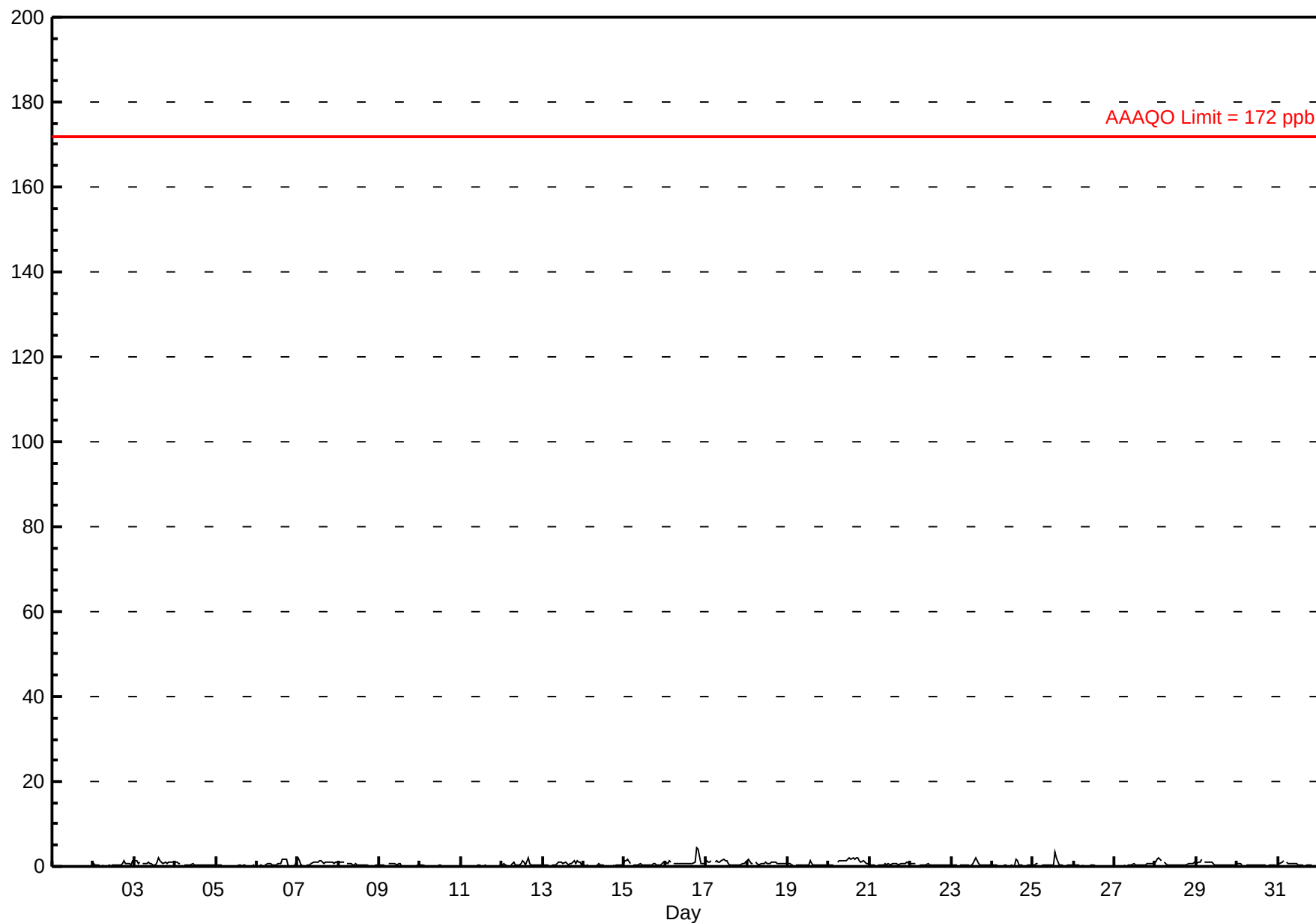
Sulphur Dioxide (SO₂) - ppb

Beaverlodge - March 2013

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 4.5 ppb on Mar 16 19:00 Maximum Daily Average: 1.3 ppb on Mar 20																				Hours in Service: 744 Hours of Data: 710 Hours of Missing Data: 34 Hours of Calibration: 34 Percent Operational Time: 100.0						
Minimum Value: 0 ppb on Mar 26 18:00 Maximum Diurnal Average: 0.7 ppb at hour 15 Monthly Average: 0.52 ppb										Minimum Daily Average: 0.1 ppb on Mar 1 Minimum Diurnal Average: 0.4 ppb at hour 23 Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.2 Median = 0.4 Q ₃ = 0.7 P ₉₀ = 1.1 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-Mar	0	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-Mar	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	1	0.4	1.4
3-Mar	1	1	1	1	A	1	1	1	1	1	1	0	0	1	2	1	1	1	1	1	1	1	1	1	0.9	1.9
4-Mar	1	1	1	1	A	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.9
5-Mar	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
6-Mar	0	0	0	0	A	0	1	1	1	0	0	0	1	1	1	2	2	2	0	0	0	0	0	2	0.6	1.8
7-Mar	2	1	0	0	A	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	2.1
8-Mar	1	1	1	1	A	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	1.1
9-Mar	0	0	0	0	A	1	1	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
10-Mar	0	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-Mar	0	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
12-Mar	0	1	1	0	A	0	1	1	0	0	0	1	1	1	0	2	1	0	0	0	0	0	0	0	0.5	2.1
13-Mar	0	0	0	0	A	0	0	0	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0	0.7	1.3
14-Mar	0	0	0	0	A	0	0	0	0	1	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0.2	0.6
15-Mar	1	1	2	1	A	0	0	0	0	1	0	0	0	0	0	0	1	1	1	0	0	0	1	1	0.6	1.5
16-Mar	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	5	4	3	1	1	1	1.1	4.5
17-Mar	1	1	1	1	A	1	1	1	1	1	2	1	1	1	0	0	0	0	0	0	0	1	1	1	0.9	1.6
18-Mar	1	2	1	1	A	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.6
19-Mar	1	1	0	0	A	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0.4	1.5
20-Mar	0	0	0	0	A	1	2	1	1	1	1	2	2	2	2	2	2	2	1	1	1	1	1	1	1.3	2.1
21-Mar	0	0	0	0	A	0	0	0	0	1	0	1	0	1	1	1	1	0	1	1	1	1	1	1	0.5	0.9
22-Mar	1	1	1	1	A	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.8
23-Mar	0	0	0	0	A	0	0	0	0	0	0	0	0	1	2	1	1	0	0	0	0	0	0	0	0.5	2.2
24-Mar	0	0	0	0	A	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0.3	1.7
25-Mar	0	0	1	1	A	0	0	0	0	0	0	0	0	3	2	0	0	0	0	0	0	0	0	0	0.6	3.3
26-Mar	0	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
27-Mar	0	0	0	0	A	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	1	1	0.3	0.9
28-Mar	1	2	2	1	A	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0.7	2.1
29-Mar	1	1	1	2	A	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	1.5
30-Mar	1	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
31-Mar	1	1	1	1	A	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.5	1.4
0.6 0.6 0.6 0.5 -- 0.5 0.4 0.4 0.5 0.5 0.5 0.5 0.5 0.6 0.7 0.6 0.5 0.5 0.6 0.5 0.5 0.4 0.4 0.5 Diurnal Average																										
2.1 1.8 2.1 1.5 -- 1.1 1.5 1.5 1.4 1.5 1.6 1.7 2.0 3.3 2.2 2.1 2.0 2.1 4.5 4.1 2.5 1.2 1.0 1.7 Diurnal Maximum																										
C - Calibration A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb																										

Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Beaverlodge - March 2013



Hourly Maximums

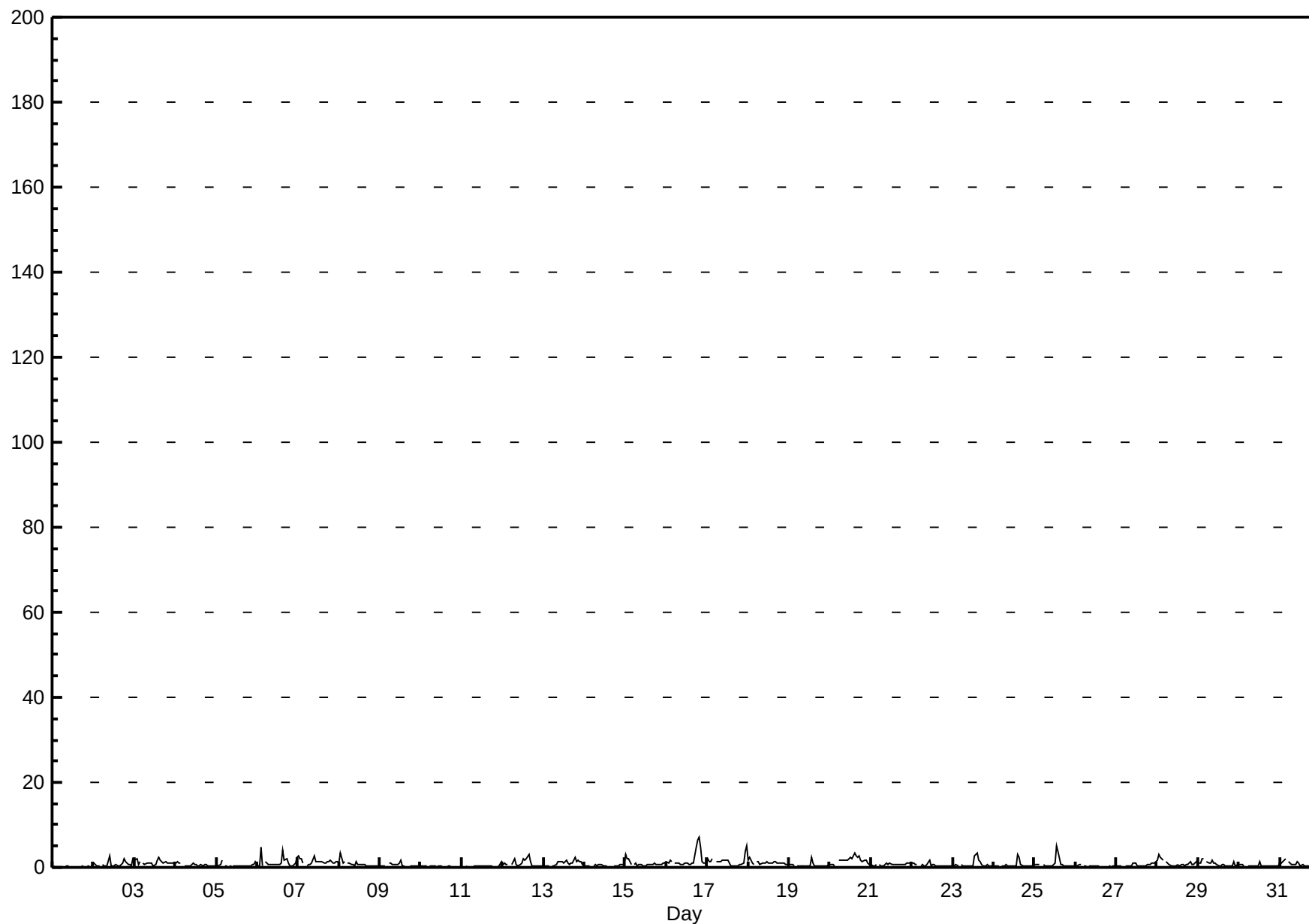
Sulphur Dioxide (SO₂) - ppb

Beaverlodge - March 2013

Maximum Value: 7.2 ppb on Mar 16 20:00																				Maximum Daily Average: 1.8 ppb on Mar 16										Hours in Service: 744	
Minimum Value: 0 ppb on Mar 26 18:00																				Minimum Daily Average: 0.2 ppb on Mar 1										Hours of Data: 710	
Maximum Diurnal Average: 1.0 ppb at hour 15																				Minimum Diurnal Average: 0.6 ppb at hour 8										Hours of Missing Data: 34	
Monthly Average: 0.80 ppb																				Percentiles: P ₁ = 0.1 P ₁₀ = 0.2 Q ₁ = 0.3 Median = 0.5 Q ₃ = 1.0 P ₉₀ = 1.6 P ₉₉ = 4.6										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-Mar	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	0.8					
2-Mar	1	1	0	0	A	1	0	0	0	3	0	0	0	1	0	0	1	1	2	1	1	1	0	2	0.8	2.6					
3-Mar	2	2	1	1	A	1	1	1	1	1	1	0	1	2	2	2	1	1	1	1	1	1	1	1	1.2	2.3					
4-Mar	1	1	1	1	A	0	0	0	0	0	1	1	1	0	0	1	0	1	1	0	0	0	0	0	0.6	1.2					
5-Mar	0	0	1	2	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0.4	1.7					
6-Mar	0	0	5	0	A	1	1	1	1	1	1	1	1	1	1	4	2	2	1	0	0	0	1	2	1.1	4.9					
7-Mar	3	2	2	1	A	0	1	1	1	3	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1.4	2.9					
8-Mar	1	3	1	1	A	1	1	1	1	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0.8	3.3					
9-Mar	0	0	0	0	A	1	1	1	1	1	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0.5	1.6					
10-Mar	0	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-Mar	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.3	1.3					
12-Mar	1	1	1	1	A	1	1	2	1	1	1	1	2	2	2	3	1	1	0	0	0	0	0	0	1.0	3.2					
13-Mar	0	0	0	0	A	0	0	1	1	2	1	1	1	2	1	1	1	1	3	1	2	1	1	1	1.0	2.5					
14-Mar	0	0	0	0	A	0	1	0	1	1	1	0	0	0	C	C	C	0	0	0	0	1	1	1	0.4	0.8					
15-Mar	3	2	2	1	A	1	1	0	1	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	0.9	3.0					
16-Mar	1	1	2	1	A	1	1	1	1	1	1	1	1	1	1	1	1	5	6	7	5	1	1	1	1.8	7.2					
17-Mar	2	1	1	2	A	1	2	1	1	2	2	2	2	1	0	0	0	0	0	1	1	1	4	5	1.4	5.0					
18-Mar	2	2	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	2.4					
19-Mar	1	1	1	1	A	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	1	0.6	2.5					
20-Mar	1	1	1	1	A	2	2	2	2	2	2	2	2	2	3	3	2	3	2	1	2	2	1	1	1.6	3.4					
21-Mar	1	0	0	1	A	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.1					
22-Mar	1	1	1	1	A	0	1	1	0	1	2	0	1	1	0	0	0	0	0	0	0	0	0	0	0.6	1.6					
23-Mar	0	0	1	0	A	1	0	0	0	0	0	0	0	3	3	2	1	1	0	0	1	0	0	0	0.8	3.2					
24-Mar	0	0	0	0	A	0	0	1	0	0	0	0	0	0	3	2	1	0	0	0	0	0	0	1	0.6	2.9					
25-Mar	1	1	1	1	A	1	0	0	0	0	0	1	1	5	4	1	1	0	0	0	0	0	0	0	0.8	5.1					
26-Mar	0	0	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7					
27-Mar	0	0	0	0	A	0	0	0	0	0	1	1	0	0	0	0	0	0	1	1	1	1	1	1	0.5	1.5					
28-Mar	2	3	2	2	A	1	1	1	0	0	0	0	1	0	1	1	0	1	1	1	1	1	1	1	1.0	3.0					
29-Mar	1	1	2	2	A	1	1	1	2	1	1	1	0	0	1	1	0	0	0	0	0	1	0	1	0.9	2.2					
30-Mar	1	1	1	0	A	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.4	1.2					
31-Mar	1	1	2	2	A	1	1	1	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0.8	2.0					
0.9 1.0 1.0 0.8 -- 0.7 0.7 0.6 0.7 0.8 0.8 0.7 0.8 1.0 1.0 0.9 0.7 0.8 0.8 0.8 0.7 0.6 0.7 0.9																									Diurnal Average						
3.0 3.3 4.9 2.1 -- 1.5 1.7 2.2 1.7 2.9 1.8 2.2 2.2 5.1 3.7 4.0 2.5 4.7 6.3 7.2 4.7 1.6 3.6 5.0																									Diurnal Maximum						
C - Calibration																									A - Automated Daily Zero Span						

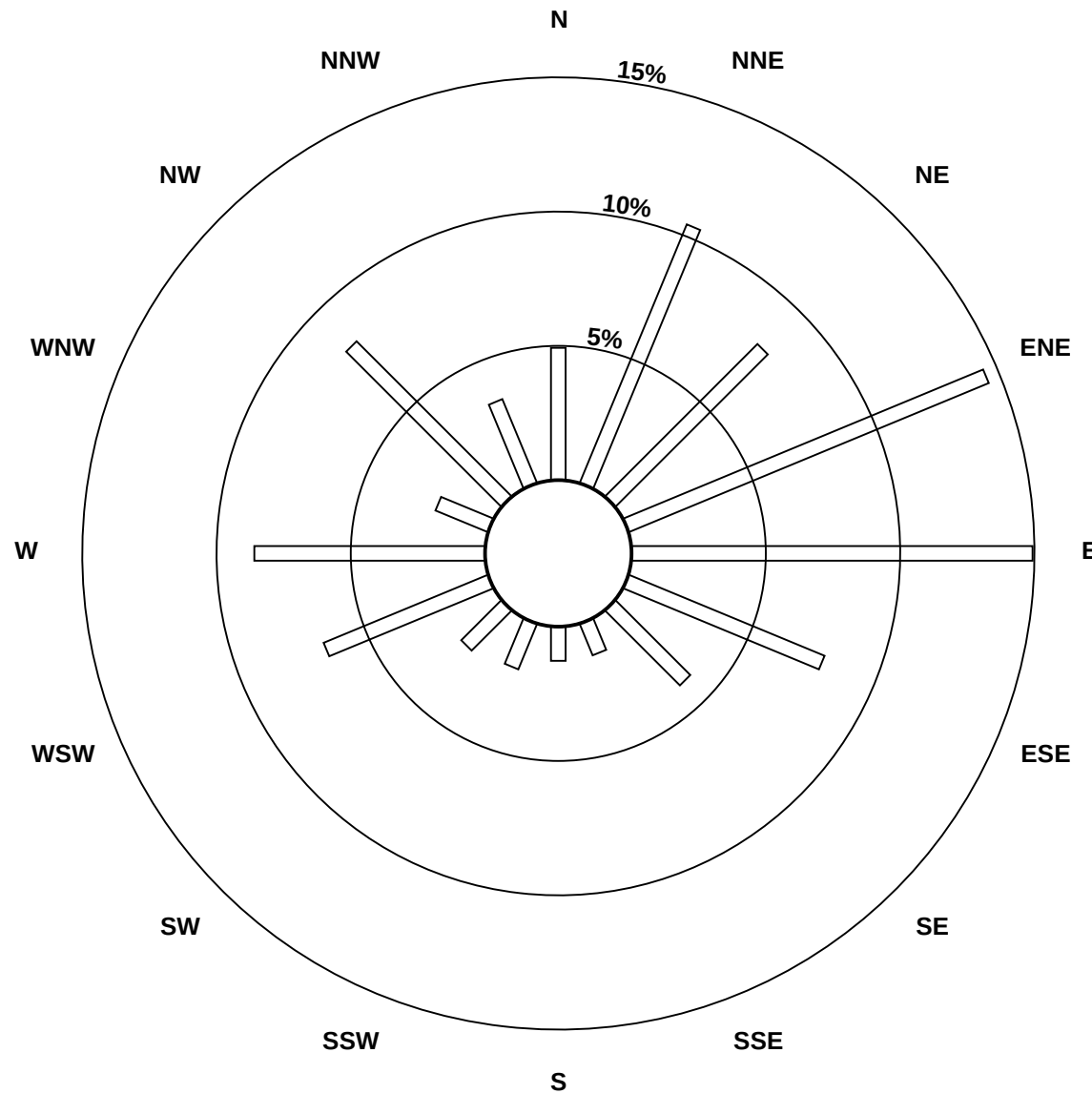
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Beaverlodge - March 2013

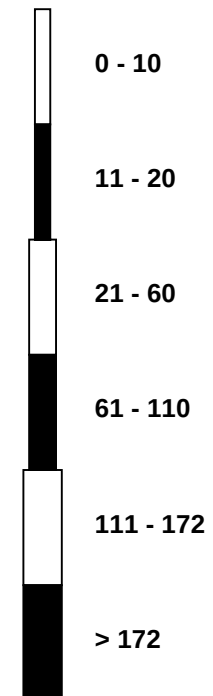


Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Beaverlodge - March 2013

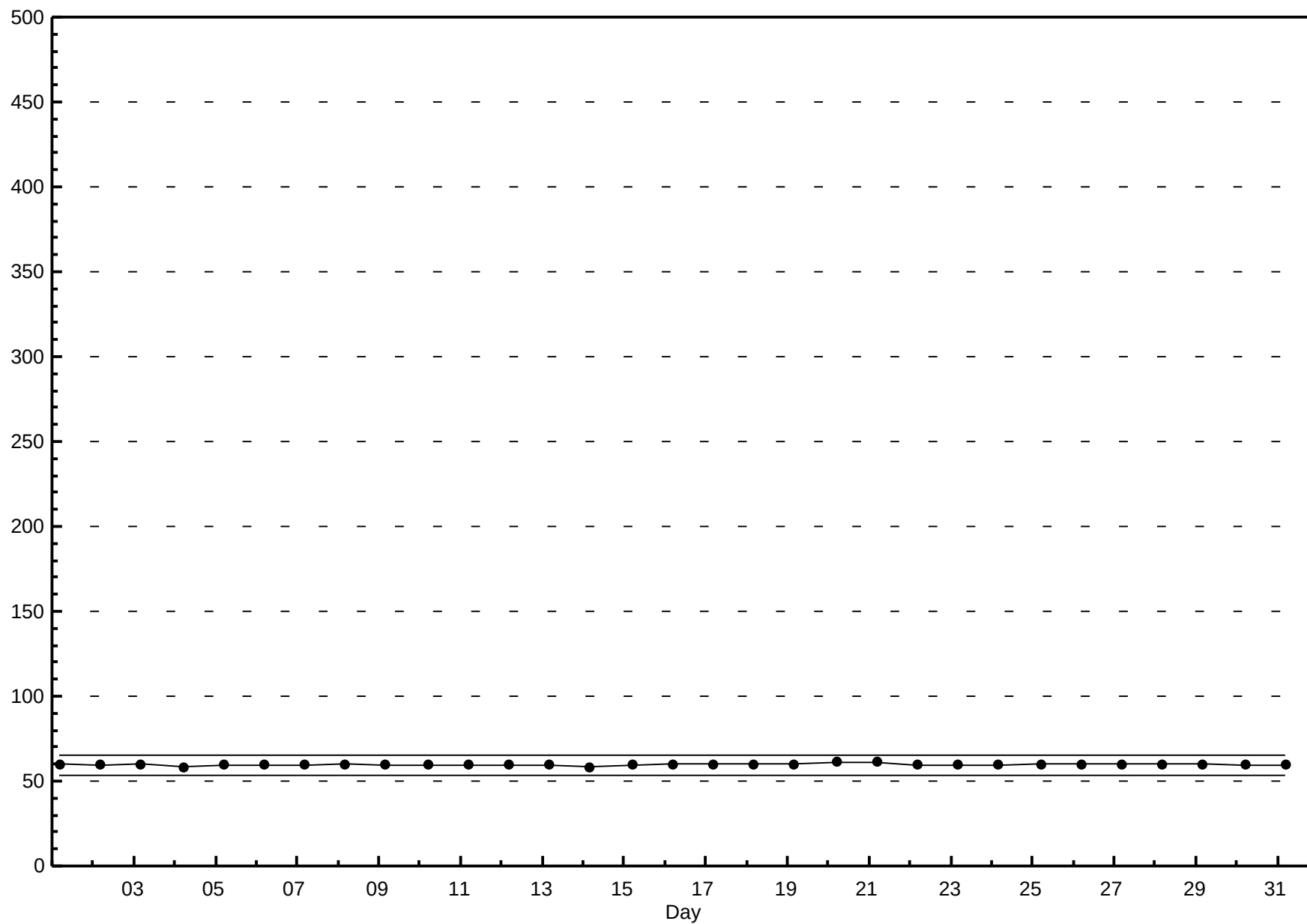


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Beaverlodge - March 2013



Hourly Averages

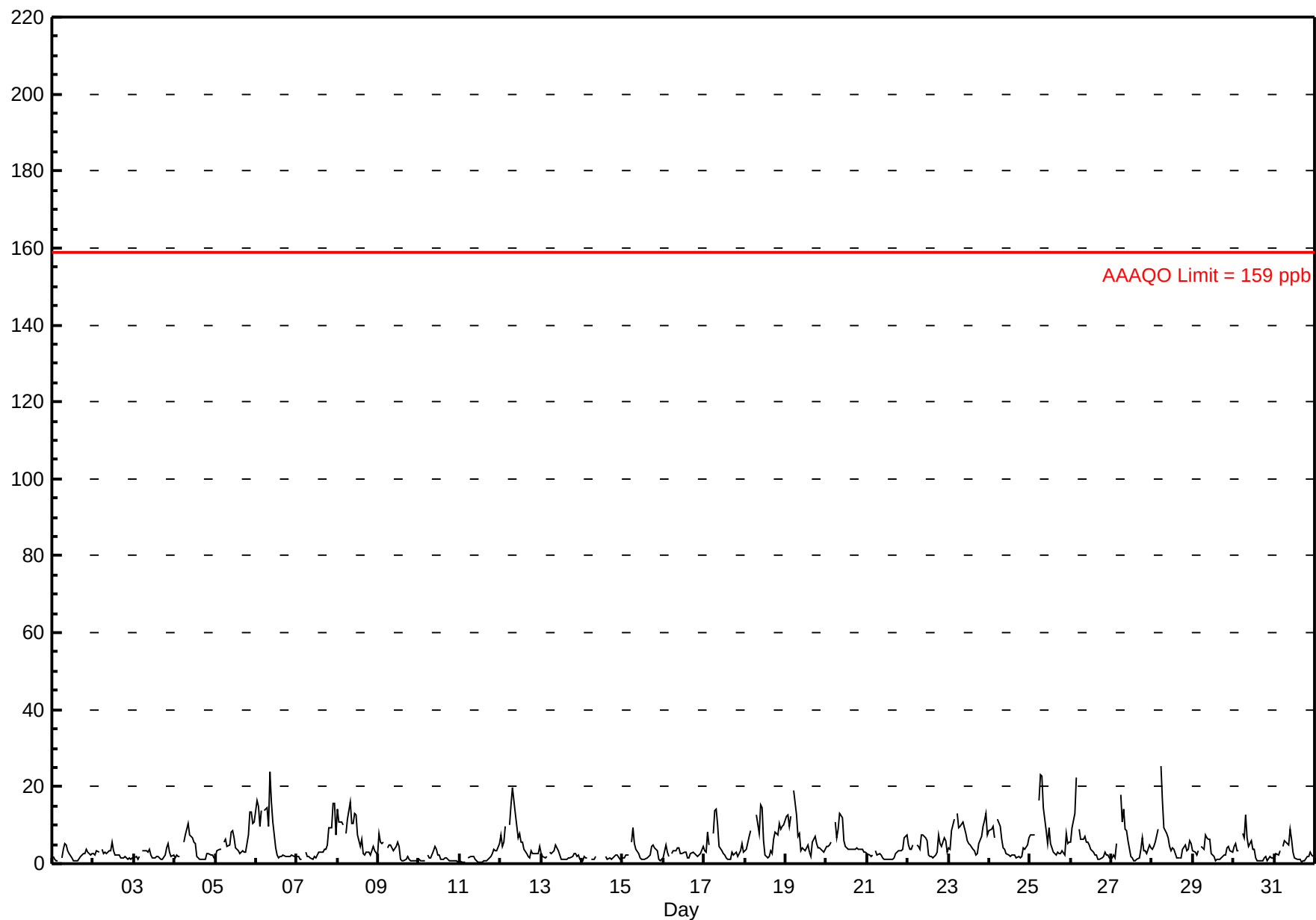
Nitrogen Dioxide (NO₂) - ppb

Beaverlodge - March 2013

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 25.2 ppb on Mar 28 06:00 Maximum Daily Average: 7.7 ppb on Mar 25																				Hours in Service: 744 Hours of Data: 707 Hours of Missing Data: 37 Hours of Calibration: 36 Percent Operational Time: 99.9						
Minimum Value: 0 ppb on Mar 11 14:00 Maximum Diurnal Average: 7.8 ppb at hour 6 Monthly Average: 4.37 ppb										Minimum Daily Average: 1.5 ppb on Mar 10 Minimum Diurnal Average: 1.8 ppb at hour 16 Percentiles: P ₁ = 0.5 P ₁₀ = 1.2 Q ₁ = 1.7 Median = 3.1 Q ₃ = 5.6 P ₉₀ = 9.5 P ₉₉ = 18.8																
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Mar	2	1	1	1	A	2	4	5	5	3	3	1	1	1	1	2	2	2	3	3	4	3	2	3	2.2	5.3
2-Mar	3	2	4	3	A	4	3	3	3	3	3	5	3	2	2	2	2	2	2	2	1	1	1	1	2.5	5.5
3-Mar	2	2	1	2	A	3	4	3	3	4	2	1	2	2	2	2	1	1	2	4	5	3	2	2	2.4	5.4
4-Mar	2	2	2	2	A	6	7	9	10	7	7	6	5	2	1	1	1	1	1	3	3	2	2	1	3.6	10.3
5-Mar	2	3	4	4	A	6	6	4	5	8	9	7	4	3	3	3	3	3	3	8	14	14	10	11	5.9	13.6
6-Mar	16	15	10	14	A	14	15	10	24	16	11	4	2	2	2	2	2	2	2	2	2	2	2	2	7.4	23.8
7-Mar	2	2	1	1	A	3	2	2	1	1	2	1	2	3	3	3	4	4	5	9	9	16	16	7	4.3	15.7
8-Mar	14	11	11	10	A	8	12	16	11	11	13	13	7	5	6	3	2	3	3	2	3	4	3	2	7.5	16.1
9-Mar	8	6	5	6	A	4	5	5	4	3	4	6	4	1	1	1	1	2	1	1	1	1	1	1	3.1	7.8
10-Mar	1	1	1	1	A	2	1	1	3	4	4	2	2	1	1	1	1	1	1	1	1	1	1	0	1.5	4.4
11-Mar	1	0	0	0	A	2	2	2	2	1	1	1	0	0	1	1	1	2	2	3	4	4	3	5	1.5	5.1
12-Mar	7	5	6	10	A	10	15	20	16	13	7	8	6	6	4	3	2	2	3	3	3	3	3	4	6.8	19.8
13-Mar	2	2	2	2	A	3	3	3	5	4	3	2	1	1	1	1	2	2	2	3	3	2	2	1	2.2	4.7
14-Mar	1	2	2	1	A	1	1	1	2	C	C	C	C	C	2	1	1	1	1	2	2	2	1	1	1.5	2.3
15-Mar	2	2	2	2	A	6	9	5	4	3	2	1	1	1	1	2	2	5	5	4	3	1	1	1	2.8	9.4
16-Mar	2	5	3	2	A	3	3	3	4	4	3	2	3	3	2	1	3	3	3	2	2	2	3	5	2.8	4.7
17-Mar	3	3	8	5	A	8	14	14	10	5	3	3	2	2	1	1	3	2	2	3	2	3	5	3	4.5	14.0
18-Mar	3	4	7	9	A	13	N	13	8	15	15	6	2	1	2	3	3	6	8	7	11	9	10	10	7.5	15.2
19-Mar	12	13	10	12	A	19	13	7	8	3	4	3	4	5	3	2	6	7	5	4	4	4	3	4	6.7	19.1
20-Mar	4	5	5	6	A	11	7	9	13	12	6	5	4	4	4	4	4	4	4	4	4	4	3	3	5.5	13.0
21-Mar	2	2	2	2	A	3	2	2	2	2	1	1	1	1	1	1	1	2	3	3	3	4	7	8	2.6	7.6
22-Mar	5	4	4	5	A	5	4	4	7	7	7	6	2	2	2	2	2	3	7	5	5	7	6	3	4.5	7.4
23-Mar	4	4	9	12	A	13	9	10	11	9	8	6	5	5	4	3	2	3	5	7	10	11	13	7	7.4	13.1
24-Mar	9	9	10	7	A	11	10	6	4	4	3	2	2	2	2	2	1	2	2	2	4	4	5	7	4.7	11.5
25-Mar	8	7	8	7	A	16	23	23	14	9	5	9	5	4	3	2	3	3	3	3	2	8	5	6	7.7	23.2
26-Mar	6	9	13	22	A	9	6	6	7	6	6	5	4	3	2	2	1	1	2	2	3	2	2	1	5.3	22.5
27-Mar	2	2	2	5	A	18	11	14	9	9	6	2	2	1	1	1	1	4	7	3	3	3	5	4	4.9	17.9
28-Mar	4	4	6	9	A	25	16	9	8	7	5	3	4	4	1	1	1	2	4	5	3	4	6	5	5.9	25.2
29-Mar	4	3	2	3	A	5	4	8	7	6	6	3	2	1	1	1	1	2	2	2	4	4	3	3	3.4	7.5
30-Mar	5	5	3	3	A	8	7	13	7	5	6	4	4	1	1	1	1	1	2	2	1	2	2	2	3.6	12.8
31-Mar	1	3	2	3	A	4	6	6	5	9	6	3	1	1	1	1	1	1	1	2	2	3	2	2	2.9	9.0
4.4 4.4 4.6 5.5 -- 7.8 7.5 7.6 7.1 6.4 5.3 4.1 3.0 2.3 2.0 1.8 2.0 2.5 3.1 3.4 3.8 4.2 4.2 3.8 Diurnal Average																										
16.4 15.1 13.0 22.5 -- 25.2 23.2 22.7 23.8 16.0 14.6 12.7 7.4 5.6 6.3 3.9 5.6 7.1 8.1 9.3 13.6 15.7 15.7 10.9 Diurnal Maximum																										
C - Calibration N - Not Valid 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 - March 2013



Hourly Maximums

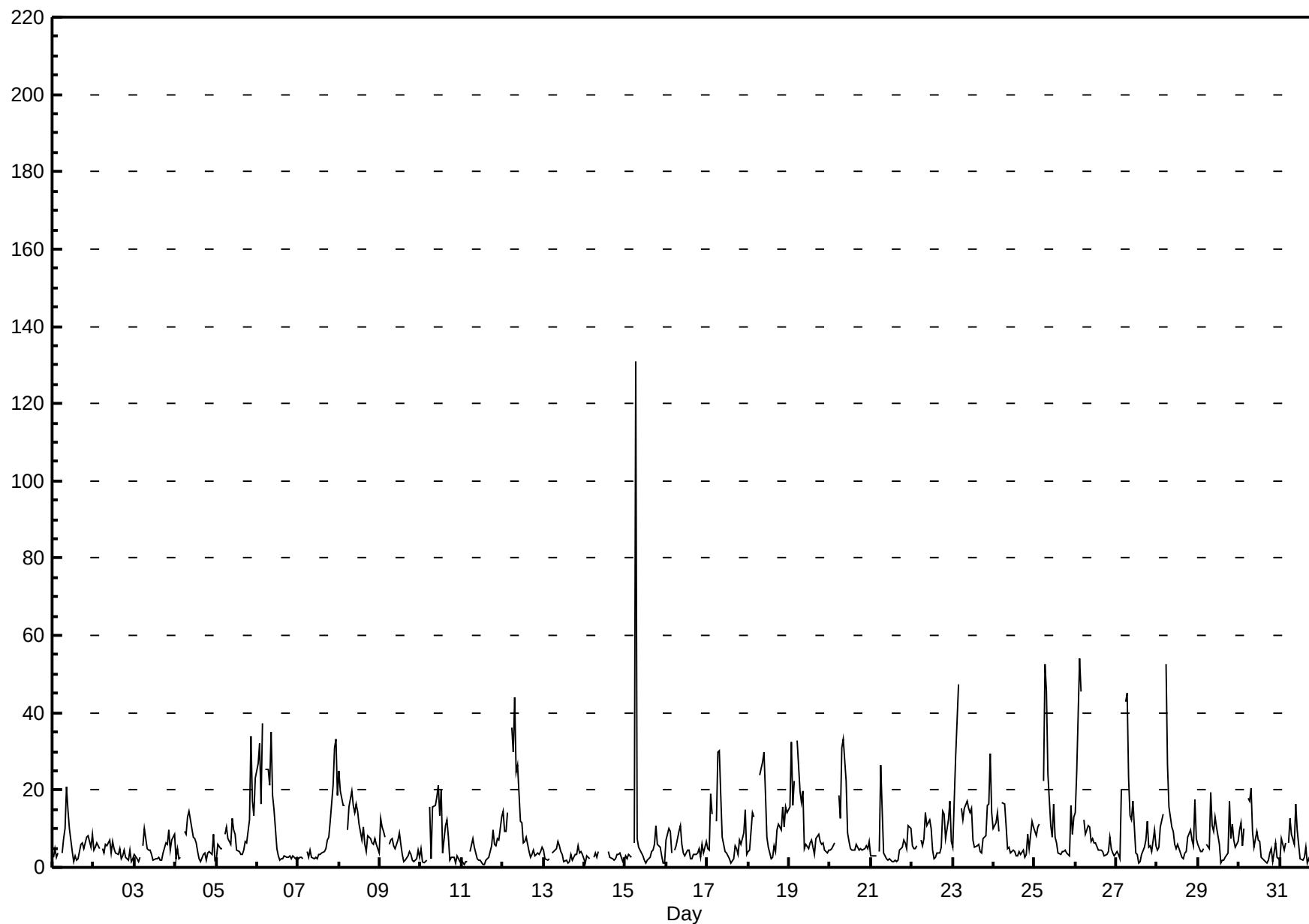
Nitrogen Dioxide (NO₂) - ppb

Beaverlodge - March 2013

Maximum Value: 130.9 ppb on Mar 15 07:00																								Maximum Daily Average: 14.2 ppb on Mar 23										Hours in Service: 744	
Minimum Value: 1 ppb on Mar 11 14:00																								Minimum Daily Average: 2.8 ppb on Mar 14										Hours of Data: 707	
Maximum Diurnal Average: 18.9 ppb at hour 7																								Minimum Diurnal Average: 3.4 ppb at hour 14										Hours of Missing Data: 37	
Monthly Average: 8.24 ppb																								Percentiles: P ₁ = 1.1 P ₁₀ = 2.1 Q ₁ = 3.3 Median = 5.2 Q ₃ = 10.0 P ₉₀ = 17.1 P ₉₉ = 45.1										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-Mar	3	5	3	4	A	4	7	10	21	15	10	4	1	3	2	2	6	6	5	6	8	8	5	9	6.4	21.0									
2-Mar	4	5	6	5	A	5	4	6	6	7	4	7	5	4	3	5	2	3	4	3	2	4	2	2	4.2	7.2									
3-Mar	3	2	1	3	A	6	10	5	4	4	3	2	2	2	3	2	2	4	6	6	10	4	7	8	4.4	10.2									
4-Mar	2	5	2	2	A	9	9	13	15	12	8	7	6	4	2	1	3	4	2	4	4	3	8	2	5.6	14.7									
5-Mar	2	6	5	5	A	9	10	8	6	13	10	9	4	4	3	3	5	7	6	12	34	17	14	23	9.3	33.9									
6-Mar	27	32	16	37	A	25	25	21	35	19	15	5	3	2	2	2	3	2	3	3	2	3	2	3	12.5	37.3									
7-Mar	2	3	2	2	A	4	3	5	3	2	3	2	3	3	4	4	5	7	8	12	21	31	33	19	7.9	33.1									
8-Mar	25	20	16	16	A	10	16	20	16	14	16	15	11	7	10	6	4	8	7	6	6	7	6	4	11.6	25.0									
9-Mar	13	10	9	8	A	6	7	8	6	5	7	9	6	4	1	2	3	4	3	2	1	2	4	3	5.3	12.7									
10-Mar	5	2	1	2	A	16	2	16	16	18	21	13	20	4	11	12	8	2	2	3	1	3	2	1	7.9	21.4									
11-Mar	2	1	1	1	A	4	7	5	4	2	2	2	1	1	2	2	3	6	10	6	6	7	7	13	4.1	13.0									
12-Mar	14	9	9	14	A	36	30	44	25	26	12	11	7	7	8	4	3	3	4	3	4	4	4	5	12.5	44.0									
13-Mar	4	2	2	2	A	4	4	5	7	6	4	3	2	2	1	2	3	2	3	3	5	4	4	3	3.4	6.9									
14-Mar	1	3	3	2	A	3	4	3	4	C	C	C	C	C	4	3	2	2	2	3	3	4	2	2	2.8	4.3									
15-Mar	3	2	3	2	A	6	131	7	5	4	3	2	1	2	3	4	4	6	11	6	5	3	1	1	9.5	130.9									
16-Mar	7	10	9	4	A	4	6	9	11	6	4	3	4	4	2	2	3	3	4	5	3	6	4	7	5.3	10.9									
17-Mar	5	5	19	14	A	12	30	30	19	8	4	4	3	2	1	2	6	5	3	7	6	9	15	3	9.2	30.1									
18-Mar	4	5	14	13	A	23	N	24	27	30	19	8	5	2	3	6	4	10	11	10	16	10	16	14	12.4	29.8									
19-Mar	16	33	16	22	A	33	20	17	20	5	6	5	6	7	5	3	8	9	7	6	6	4	4	5	11.4	32.9									
20-Mar	5	5	6	6	A	19	13	31	33	23	9	7	5	4	4	6	5	4	5	4	5	6	5	7	9.4	33.4									
21-Mar	3	3	3	3	A	4	27	4	3	2	2	2	1	2	2	2	2	5	5	7	6	5	11	10	4.9	26.6									
22-Mar	6	5	5	6	A	7	5	8	14	11	12	10	4	2	3	4	4	5	15	14	7	12	17	7	7.9	17.2									
23-Mar	5	17	29	47	A	15	12	15	17	15	14	15	7	5	6	6	4	4	7	8	16	16	29	14	14.2	47.3									
24-Mar	10	12	14	9	A	17	16	11	5	5	4	4	4	3	3	4	3	5	3	3	9	5	12	10	7.4	16.9									
25-Mar	9	8	10	11	A	22	53	45	24	11	8	16	8	6	4	4	4	4	5	4	3	16	9	13	12.9	52.6									
26-Mar	14	25	54	46	A	12	9	11	10	7	7	6	6	5	4	5	4	3	3	4	8	5	4	3	11.1	54.1									
27-Mar	4	4	2	20	A	43	45	23	13	12	17	4	3	1	1	3	5	7	12	5	6	4	10	5	10.9	45.2									
28-Mar	4	5	10	14	A	53	27	16	10	9	6	5	6	5	2	2	4	4	8	10	7	6	18	7	10.3	52.6									
29-Mar	6	4	4	5	A	6	5	19	11	9	13	10	6	1	2	2	2	4	17	8	11	7	5	7	7.1	19.4									
30-Mar	10	12	5	10	A	18	17	20	9	5	9	7	7	3	2	2	1	2	4	5	1	6	3	2	7.0	20.4									
31-Mar	2	8	4	6	A	6	13	9	6	16	10	6	2	2	3	5	1	2	1	6	4	6	5	2	5.5	16.3									
7.1 8.6 9.2 11.1 -- 14.2 18.9 15.1 13.1 10.7 8.7 6.8 5.1 3.4 3.5 3.6 3.8 4.5 6.0 6.0 7.3 7.4 8.6 6.9																								Diurnal Average											
26.7 32.5 54.1 47.3 -- 52.6 130.9 45.3 35.0 29.8 21.4 16.3 20.0 7.1 10.6 12.2 7.8 9.5 17.0 13.9 33.9 31.1 33.1 23.2																								Diurnal Maximum											
C - Calibration N - Not Valid A - Automated Daily Zero Span																																			

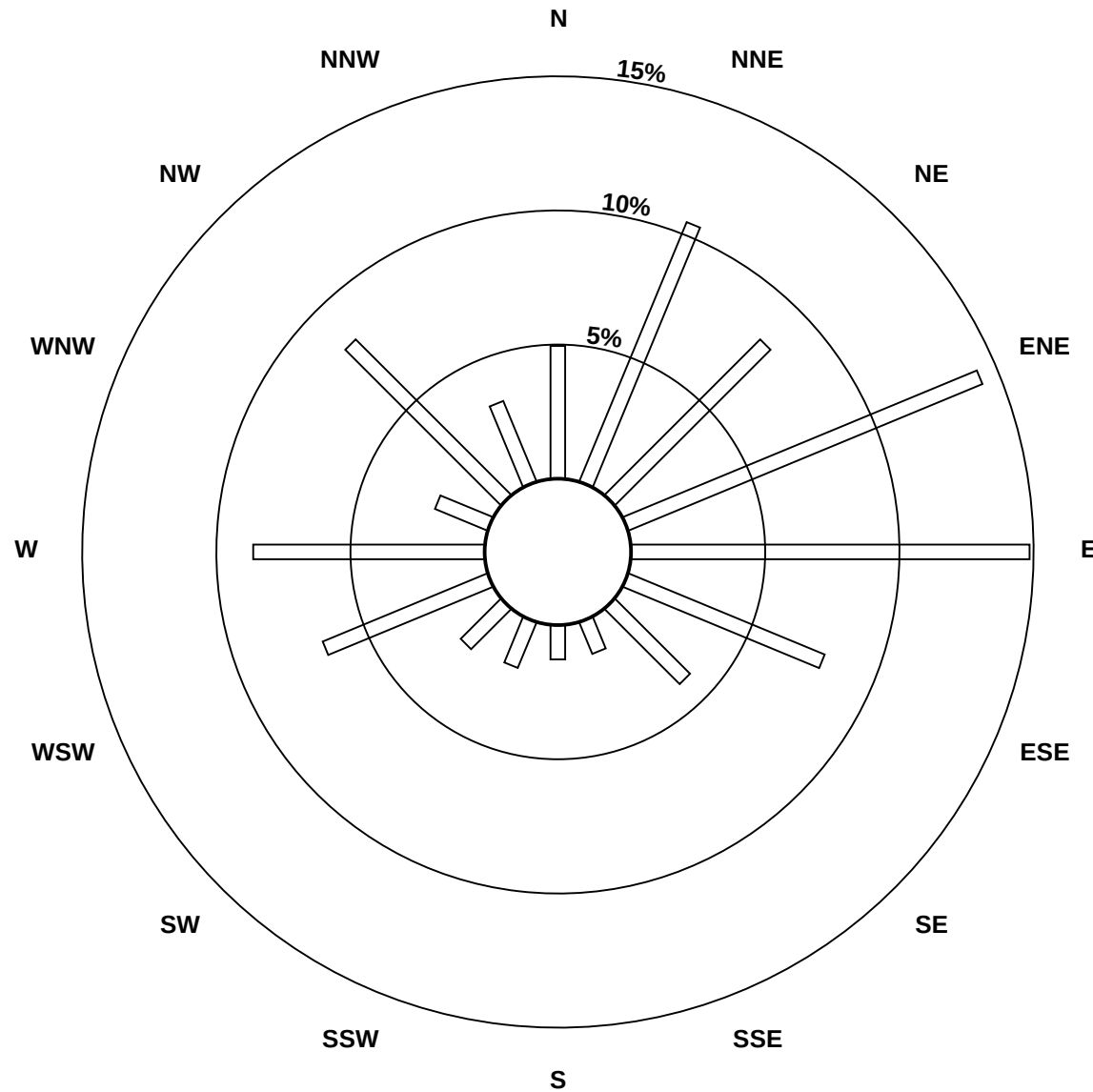
Hourly Maximums

Nitrogen Dioxide (NO₂) - ppb
Beaverlodge - March 2013

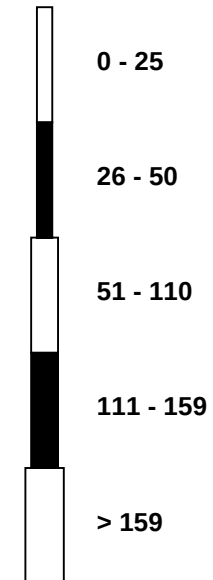


Pollutant Rose

Nitrogen Dioxide (NO₂) - ppb
Beaverlodge - March 2013

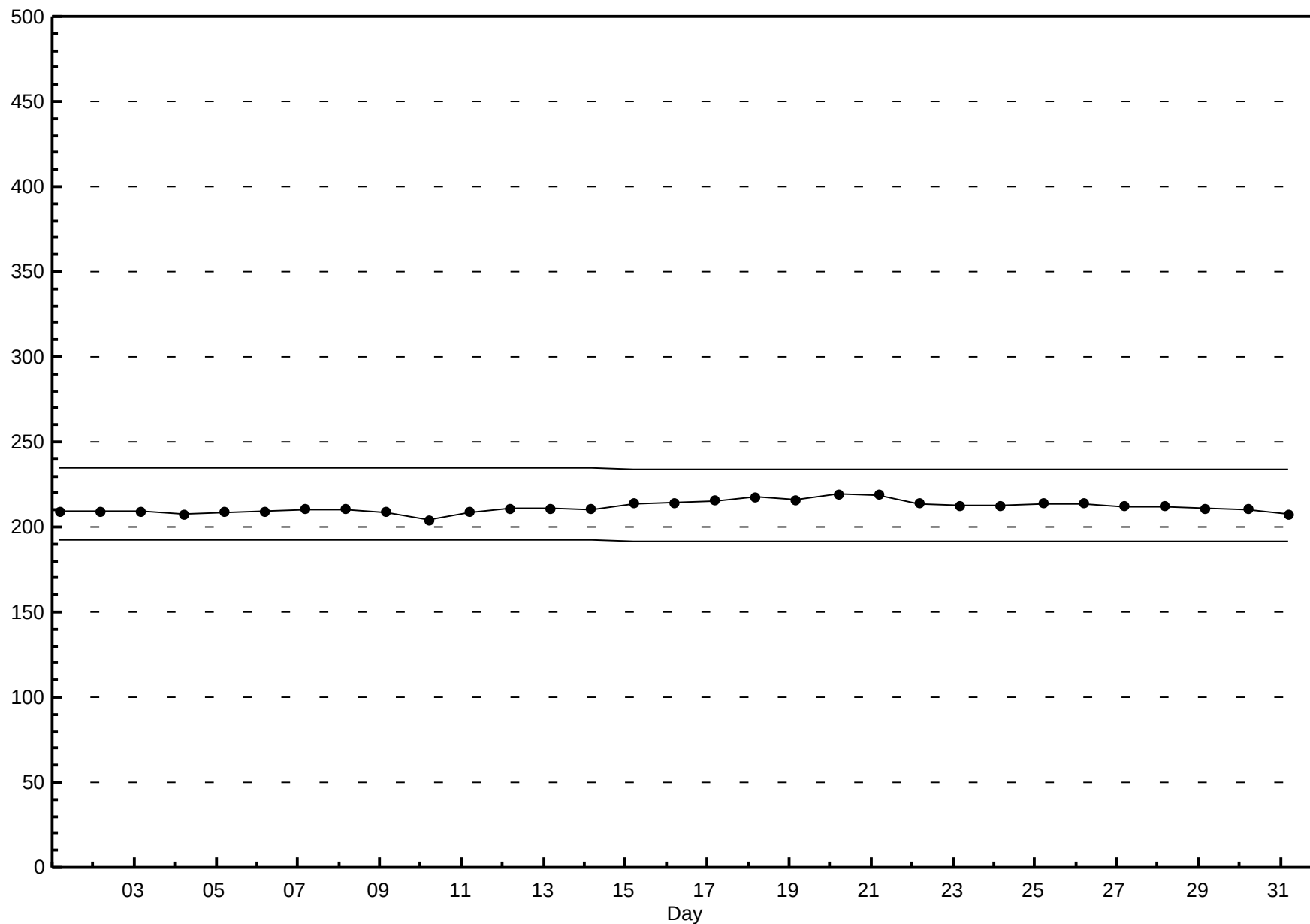


Pollutant Classes (ppb)



Span Responses

Nitrogen Dioxide (NO₂)
Beaverlodge - March 2013



Hourly Averages

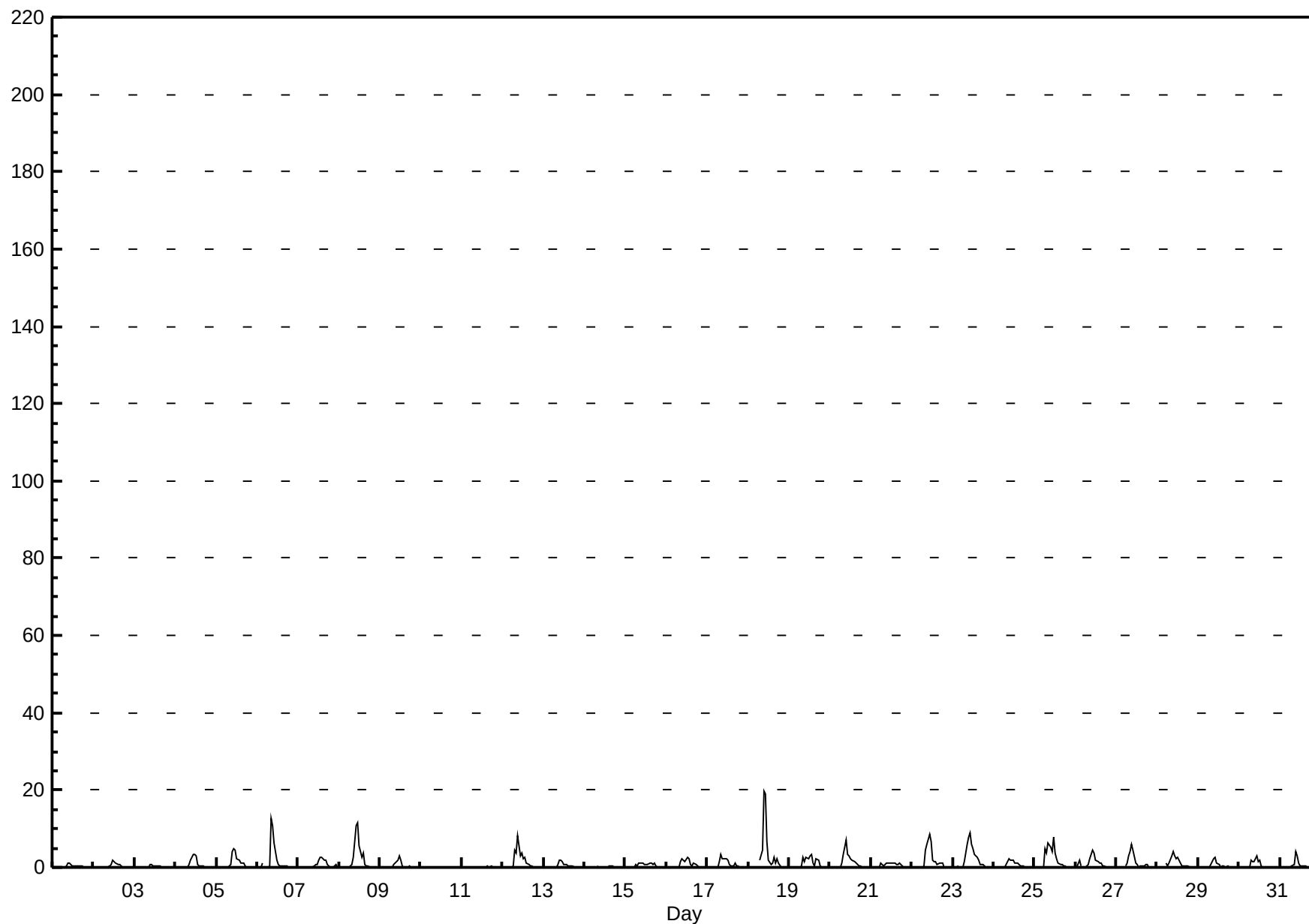
Nitrogen Oxide (NO) - ppb

Beaverlodge - March 2013

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 19.8 ppb on Mar 18 10:00 Maximum Daily Average: 2.9 ppb on Mar 18																				Hours in Service: 744 Hours of Data: 707 Hours of Missing Data: 37 Hours of Calibration: 36 Percent Operational Time: 99.9						
Minimum Value: 0 ppb on Mar 2 06:00 Maximum Diurnal Average: 3.8 ppb at hour 10 Monthly Average: 0.86 ppb										Minimum Daily Average: 0.0 ppb on Mar 10 Minimum Diurnal Average: 0.0 ppb at hour 24 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.9 P ₉₀ = 2.5 P ₉₉ = 7.8																
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Mar	0	0	0	0	A	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.1
2-Mar	0	0	0	0	A	0	0	0	0	1	1	2	1	1	1	1	0	0	0	0	0	0	0	0	0.3	2.0
3-Mar	0	0	0	0	A	0	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0.2	0.6
4-Mar	0	0	0	0	A	0	0	0	1	2	3	3	3	1	1	0	0	0	0	0	0	0	0	0	0.6	3.4
5-Mar	0	0	0	0	A	0	0	0	1	4	5	4	2	2	1	1	1	1	0	0	0	0	0	0	1.0	4.9
6-Mar	0	0	0	1	A	0	0	0	13	11	6	2	1	0	1	0	0	0	0	0	0	0	0	0	1.6	12.8
7-Mar	0	0	0	0	A	0	0	0	0	0	1	1	2	3	2	2	2	1	0	0	0	0	1	0	0.7	2.5
8-Mar	0	0	0	0	A	0	0	1	2	7	11	11	6	3	4	1	0	0	0	0	0	0	0	0	2.0	11.5
9-Mar	0	0	0	0	A	0	0	0	1	1	2	3	2	0	0	0	0	0	0	0	0	0	0	0	0.4	2.9
10-Mar	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
11-Mar	0	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-Mar	0	0	0	0	A	0	0	5	4	8	3	4	2	2	1	1	0	0	0	0	0	0	0	0	1.3	8.2
13-Mar	0	0	0	0	A	0	0	0	1	2	2	2	1	1	0	0	1	0	0	0	0	0	0	0	0.4	2.0
14-Mar	0	0	0	0	A	0	0	0	0	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0.1	0.5
15-Mar	0	0	0	0	A	0	1	0	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0.5	1.3
16-Mar	0	0	0	0	A	0	0	0	1	2	2	2	2	2	1	1	1	1	0	0	0	0	0	0	0.7	2.4
17-Mar	0	0	0	0	A	0	0	1	4	2	2	2	2	1	0	0	1	1	0	0	0	0	0	0	0.8	3.5
18-Mar	0	0	0	0	A	0	N	2	4	20	19	7	2	1	1	2	1	2	1	0	0	0	0	0	2.9	19.8
19-Mar	0	0	0	0	A	0	0	0	2	2	3	2	3	3	1	1	2	2	0	0	0	0	0	0	1.0	3.4
20-Mar	0	0	0	0	A	0	0	1	3	7	3	3	2	2	2	1	1	0	0	0	0	0	0	0	1.1	6.9
21-Mar	0	0	0	0	A	0	1	0	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0.6	1.3
22-Mar	0	0	0	0	A	0	0	0	5	6	8	7	2	1	1	1	1	1	1	0	0	0	0	0	1.5	8.4
23-Mar	0	0	0	1	A	0	0	1	6	8	9	6	5	3	2	2	1	1	1	0	0	0	0	0	2.0	8.8
24-Mar	0	0	0	0	A	0	0	1	1	2	2	2	1	1	1	1	0	0	0	0	0	0	0	0	0.6	2.2
25-Mar	0	0	0	0	A	0	5	4	6	5	4	8	4	2	1	1	1	0	0	0	0	0	0	0	1.8	7.9
26-Mar	0	0	2	0	A	0	0	1	2	3	4	4	2	1	1	1	0	0	0	0	0	0	0	0	1.0	4.4
27-Mar	0	0	0	0	A	0	1	3	4	6	4	1	1	0	0	0	0	1	1	0	0	0	0	0	1.0	5.9
28-Mar	0	0	0	0	A	1	0	1	3	4	3	2	3	2	0	0	0	0	0	0	0	0	0	0	0.9	4.2
29-Mar	0	0	0	0	A	0	0	1	2	2	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0.5	2.7
30-Mar	0	0	0	0	A	0	0	2	1	2	3	2	2	0	0	0	0	0	0	0	0	0	0	0	0.5	2.9
31-Mar	0	0	0	0	A	0	0	0	1	4	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0.5	4.2
0.0 0.0 0.1 0.1 -- 0.1 0.3 0.8 2.3 3.8 3.7 2.8 1.8 1.2 0.9 0.7 0.6 0.5 0.3 0.0 0.0 0.0 0.0 0.0																									Diurnal Average	
0.1 0.1 1.7 1.0 -- 1.0 4.9 4.6 12.8 19.8 19.1 11.5 5.7 3.4 3.7 2.5 2.1 2.3 1.2 0.1 0.1 0.4 0.6 0.1																									Diurnal Maximum	
C - Calibration N - Not Valid A - Automated Daily Zero Span																										

Hourly Averages

Nitrogen Oxide (NO) - ppb
Beaverlodge - March 2013



Hourly Maximums

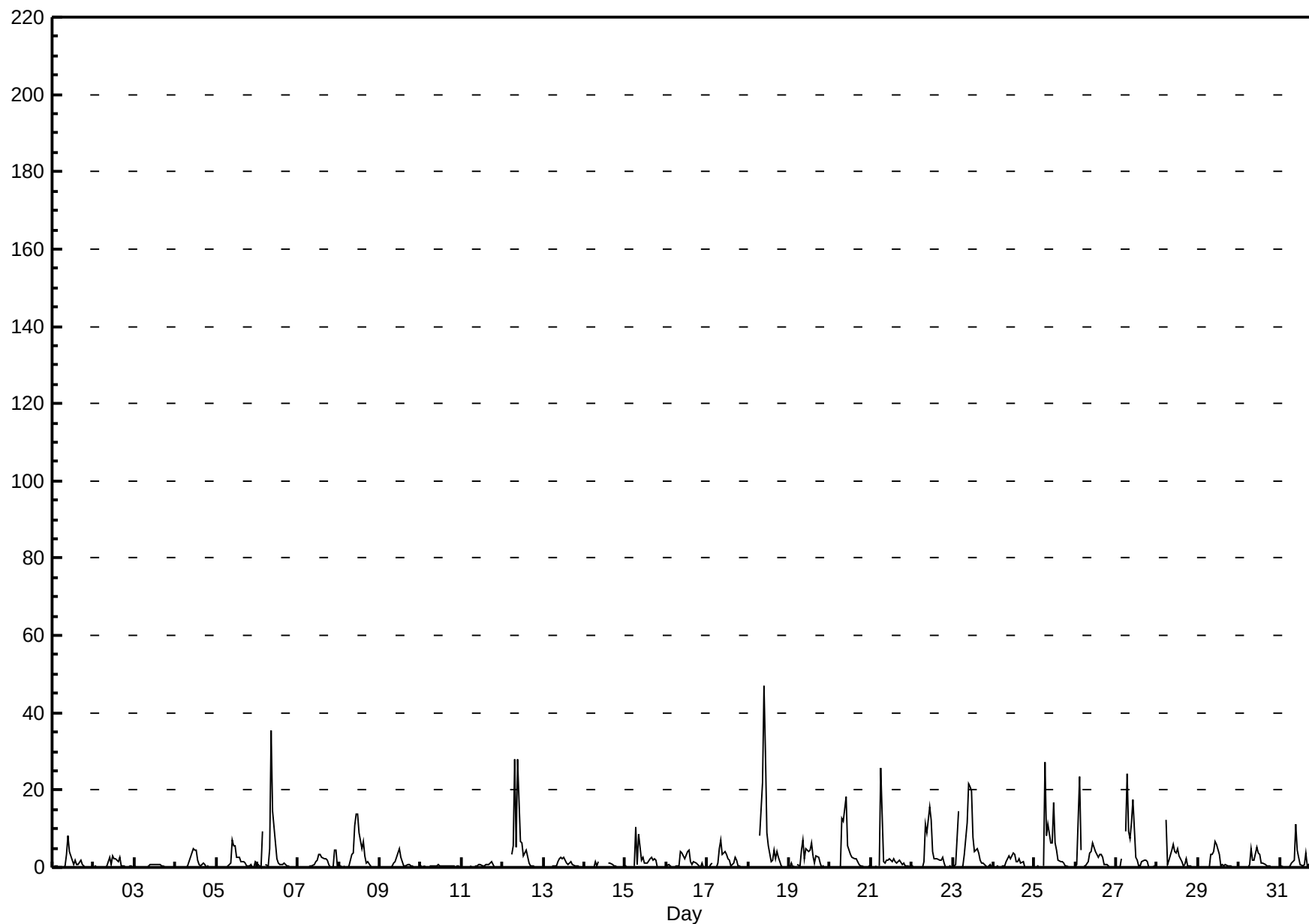
Nitrogen Oxide (NO) - ppb

Beaverlodge - March 2013

Maximum Value: 46.9 ppb on Mar 18 10:00																				Maximum Daily Average: 6.5 ppb on Mar 18					Hours in Service: 744	
Minimum Value: 0 ppb on Mar 14 20:00																				Minimum Daily Average: 0.3 ppb on Mar 3					Hours of Data: 707	
Maximum Diurnal Average: 7.9 ppb at hour 10																				Minimum Diurnal Average: 0.2 ppb at hour 21					Hours of Missing Data: 37	
Monthly Average: 2.11 ppb																				Percentiles: P ₁ = 0.1 P ₁₀ = 0.1 Q ₁ = 0.2 Median = 0.5 Q ₃ = 2.1 P ₉₀ = 4.8 P ₉₉ = 25.0					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-Mar	0	0	0	0	A	0	0	0	3	8	4	2	1	2	1	1	2	1	0	0	0	0	0	0	1.2	8.4
2-Mar	0	0	0	0	A	0	0	0	0	3	1	3	2	2	2	3	0	0	0	0	0	0	0	0	0.8	2.9
3-Mar	0	0	0	0	A	0	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0.3	0.8
4-Mar	0	0	0	0	A	0	0	0	1	3	5	5	4	2	1	0	1	1	0	0	0	0	0	0	1.1	4.8
5-Mar	0	0	0	0	A	0	0	1	1	7	6	6	3	2	1	1	1	1	0	0	1	0	0	2	1.5	7.0
6-Mar	1	0	0	9	A	1	0	5	35	15	10	2	1	1	1	1	1	0	0	0	0	0	0	0	3.7	35.5
7-Mar	0	0	0	0	A	0	0	0	0	1	1	2	3	3	3	2	2	2	1	0	0	5	4	0	1.3	4.5
8-Mar	0	0	0	0	A	0	0	3	4	11	14	14	9	5	7	3	1	1	0	0	0	0	0	0	3.2	13.9
9-Mar	0	0	0	0	A	0	0	0	1	1	4	5	3	1	1	1	1	1	0	0	0	0	0	0	0.9	5.0
10-Mar	0	0	0	0	A	0	0	0	0	0	1	0	1	1	1	0	0	0	1	0	0	0	0	0	0.3	0.8
11-Mar	0	0	0	0	A	0	0	0	0	1	1	1	0	0	1	1	1	1	1	0	0	0	0	0	0.4	1.4
12-Mar	0	0	0	0	A	3	5	28	5	28	7	6	3	4	5	1	1	0	0	0	0	0	0	0	4.3	27.9
13-Mar	0	0	0	0	A	0	0	0	1	2	3	2	3	1	1	1	2	1	0	0	0	0	0	0	0.8	2.8
14-Mar	0	0	0	0	A	0	2	0	2	C	C	C	C	C	1	1	1	0	0	0	0	0	0	0	0.4	1.6
15-Mar	0	0	0	0	A	0	11	1	9	2	2	1	1	1	2	3	2	2	2	0	0	0	0	0	1.8	10.5
16-Mar	0	1	0	0	A	0	0	0	4	4	3	2	4	4	1	1	1	1	1	1	0	1	0	0	1.3	4.5
17-Mar	0	0	1	1	A	0	1	5	7	4	4	4	2	2	1	1	3	2	0	0	0	0	0	0	1.6	7.1
18-Mar	0	0	0	0	A	3	N	8	22	47	30	9	6	2	2	5	2	4	3	0	0	0	0	0	6.5	46.9
19-Mar	0	1	0	0	A	1	0	4	7	2	5	4	5	6	3	1	3	2	1	0	0	0	0	0	2.1	7.2
20-Mar	0	0	0	0	A	0	0	13	12	18	6	5	3	3	2	2	1	1	1	0	0	0	0	0	2.9	18.4
21-Mar	0	0	0	0	A	1	26	1	1	2	2	2	1	2	2	1	1	2	1	1	1	0	0	0	2.1	25.8
22-Mar	0	0	0	0	A	0	0	2	11	9	16	12	4	2	2	2	2	2	2	1	0	0	0	0	3.0	15.6
23-Mar	0	0	1	14	A	0	0	3	12	22	21	20	8	4	5	4	2	1	1	0	0	0	1	0	5.2	21.6
24-Mar	0	0	0	0	A	0	0	1	2	3	2	4	3	2	1	2	1	1	0	0	0	0	0	0	1.1	3.6
25-Mar	0	0	0	0	A	0	27	8	11	6	7	17	6	4	2	1	1	1	0	0	0	0	0	0	4.1	27.4
26-Mar	0	1	23	4	A	0	0	1	4	4	6	5	4	3	3	3	3	1	1	0	0	0	0	0	3.0	23.5
27-Mar	0	0	0	2	A	9	24	9	7	12	18	2	2	0	1	1	2	2	1	0	0	0	0	0	4.1	24.3
28-Mar	0	0	0	0	A	12	1	2	4	6	4	4	5	3	1	1	1	2	0	0	0	0	0	0	2.1	12.4
29-Mar	0	0	0	0	A	0	0	3	3	4	7	6	3	0	1	1	1	1	1	1	0	0	0	0	1.4	6.9
30-Mar	0	0	0	0	A	0	1	5	2	2	5	4	3	1	1	1	0	0	0	0	0	0	0	0	1.2	5.1
31-Mar	0	0	0	0	A	0	0	1	2	11	5	3	1	0	1	4	0	1	0	0	0	0	0	0	1.3	11.0
0.2 0.2 0.9 1.1 -- 1.1 3.4 3.5 5.7 7.9 6.6 5.1 3.2 2.2 1.8 1.6 1.3 1.2 0.7 0.3 0.2 0.3 0.3 0.2																									Diurnal Average	
0.7 1.0 23.5 14.5 -- 12.4 27.4 27.9 35.5 46.9 29.7 19.6 9.0 6.4 6.8 4.5 3.1 4.0 2.6 1.3 0.6 4.5 4.4 1.5																									Diurnal Maximum	
C - Calibration N - Not Valid A - Automated Daily Zero Span																										

Hourly Maximums

Nitrogen Oxide (NO) - ppb
Beaverlodge - March 2013



Hourly Averages

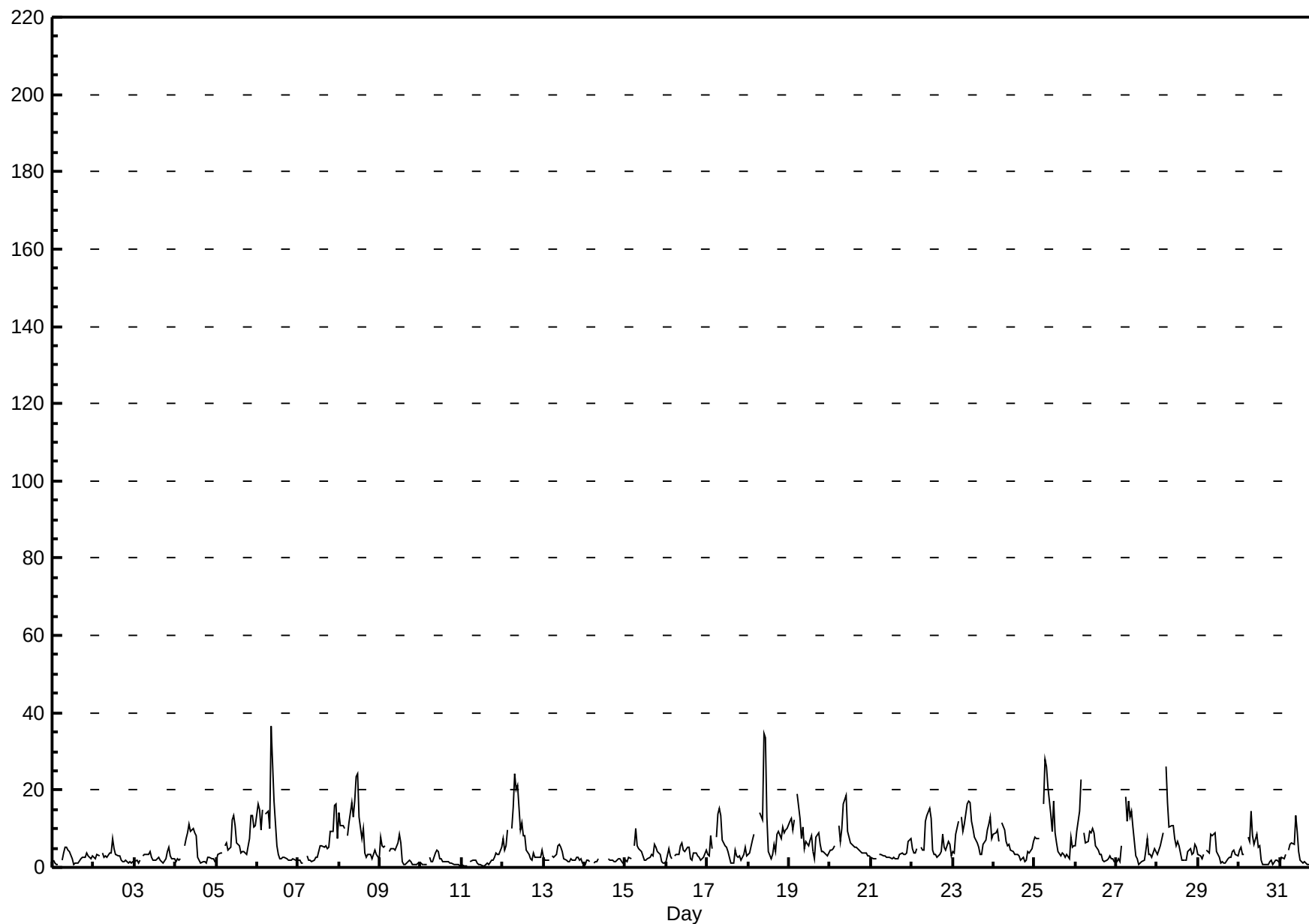
Oxides of Nitrogen (NO_x) - ppb

Beaverlodge - March 2013

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 36.4 ppb on Mar 6 09:00 Maximum Daily Average: 10.4 ppb on Mar 18																				Hours in Service: 744 Hours of Data: 707 Hours of Missing Data: 37 Hours of Calibration: 36 Percent Operational Time: 99.9						
Minimum Value: 0 ppb on Mar 11 03:00 Maximum Diurnal Average: 10.3 ppb at hour 10 Monthly Average: 5.25 ppb										Minimum Daily Average: 1.6 ppb on Mar 10 Minimum Diurnal Average: 2.6 ppb at hour 16 Percentiles: P ₁ = 0.6 P ₁₀ = 1.3 Q ₁ = 2.1 Median = 3.5 Q ₃ = 6.8 P ₉₀ = 11.5 P ₉₉ = 25.9																
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-Mar	2	1	1	1	A	2	4	5	5	4	4	2	1	1	1	1	2	3	3	3	4	3	2	3	2.5	5.3
2-Mar	3	2	4	3	A	4	3	3	3	4	4	7	5	4	3	3	2	2	2	2	1	1	1	1	2.8	7.5
3-Mar	2	2	1	2	A	3	3	3	3	4	3	2	2	2	3	2	1	1	2	4	5	3	2	2	2.5	5.4
4-Mar	2	2	2	2	A	6	7	9	11	9	10	9	8	3	2	1	1	1	1	3	3	2	2	1	4.3	11.1
5-Mar	2	3	4	4	A	6	6	4	5	12	13	11	6	6	4	4	4	4	3	8	14	14	10	11	6.9	13.6
6-Mar	16	15	10	15	A	14	15	10	36	27	17	6	3	2	2	2	3	2	2	2	2	2	2	2	9.0	36.4
7-Mar	2	2	1	1	A	3	2	2	2	2	3	2	4	5	6	5	5	5	5	9	9	16	16	7	5.0	16.2
8-Mar	14	11	11	10	A	8	12	17	13	17	24	24	13	7	10	4	3	3	3	2	3	4	3	2	9.5	24.1
9-Mar	8	6	5	5	A	4	5	5	5	5	6	9	6	2	1	1	1	2	1	1	1	1	1	1	3.5	8.7
10-Mar	1	1	1	1	A	2	1	1	4	5	4	2	2	1	1	2	2	1	1	1	1	1	1	0	1.6	4.5
11-Mar	1	0	0	0	A	2	2	2	2	1	1	1	1	0	1	1	1	2	2	3	4	4	3	5	1.6	5.2
12-Mar	8	5	6	10	A	10	16	24	20	21	10	12	8	8	5	3	2	2	4	3	3	3	3	4	8.1	24.3
13-Mar	3	2	2	2	A	3	3	3	6	6	5	4	2	2	1	2	2	2	2	3	3	2	2	1	2.6	6.0
14-Mar	1	2	2	1	A	1	1	1	2	C	C	C	C	C	2	2	2	1	2	2	2	2	1	1	1.6	2.4
15-Mar	2	2	2	2	A	6	10	6	5	4	3	2	2	2	3	3	3	6	5	4	3	1	1	1	3.4	10.1
16-Mar	2	5	3	2	A	3	3	3	5	6	5	4	5	5	2	2	4	4	3	3	2	2	3	5	3.5	6.2
17-Mar	3	3	8	5	A	8	14	15	13	7	6	5	4	2	1	1	4	3	3	3	2	4	5	3	5.3	15.4
18-Mar	3	4	7	9	A	13	N	14	12	35	34	13	4	2	3	6	4	9	9	7	11	9	10	10	10.4	34.8
19-Mar	12	13	10	12	A	19	13	7	10	5	7	6	7	8	4	2	8	9	6	4	4	4	3	4	7.7	19.1
20-Mar	4	5	5	6	A	11	7	10	16	19	9	8	6	6	5	5	5	4	4	4	4	4	3	3	6.6	18.8
21-Mar	3	2	2	2	A	3	3	3	3	3	3	3	2	2	2	2	2	4	4	3	3	4	7	8	3.2	7.6
22-Mar	5	4	4	5	A	5	4	4	12	13	15	13	4	3	3	3	3	4	9	5	5	7	6	3	6.1	15.3
23-Mar	4	4	9	12	A	13	9	11	16	17	17	12	10	8	6	5	3	3	6	7	10	11	13	7	9.4	17.2
24-Mar	9	9	10	7	A	11	10	7	5	6	4	4	3	3	3	3	2	2	2	2	4	4	5	7	5.3	11.5
25-Mar	8	7	8	7	A	16	28	26	21	14	9	17	9	6	4	3	4	3	3	3	2	8	5	6	9.5	28.0
26-Mar	6	9	15	23	A	9	6	7	9	9	10	9	6	5	3	3	2	1	2	2	3	2	2	1	6.3	22.7
27-Mar	2	2	2	5	A	18	12	17	13	14	10	3	2	1	1	2	2	4	8	3	3	3	5	4	5.9	18.2
28-Mar	4	4	6	9	A	26	17	10	11	11	8	6	7	5	2	2	2	2	4	5	3	4	6	5	6.8	26.0
29-Mar	4	3	2	3	A	5	4	8	8	8	9	4	3	1	1	1	1	2	2	2	4	4	3	3	3.9	9.1
30-Mar	5	5	3	3	A	8	7	15	8	6	9	5	6	2	1	1	1	1	2	2	1	2	2	2	4.1	14.5
31-Mar	1	3	2	3	A	4	6	6	6	13	9	4	2	1	1	1	1	1	1	2	2	3	2	2	3.4	13.2
4.4 4.4 4.7 5.6 -- 7.9 7.8 8.5 9.4 10.3 9.0 6.9 4.8 3.6 2.9 2.6 2.6 3.0 3.3 3.4 3.9 4.3 4.2 3.8 Diurnal Average																										
16.4 15.0 14.6 22.7 -- 26.0 28.0 26.2 36.4 34.8 33.6 24.1 13.1 8.2 10.1 6.0 7.7 8.9 9.2 9.3 13.6 16.0 16.2 10.9 Diurnal Maximum																										
C - Calibration N - Not Valid A - Automated Daily Zero Span																										

Hourly Averages

Oxides of Nitrogen (NO_x) - ppb
Beaverlodge - March 2013



Hourly Maximums

Oxides of Nitrogen (NO_x) - ppb

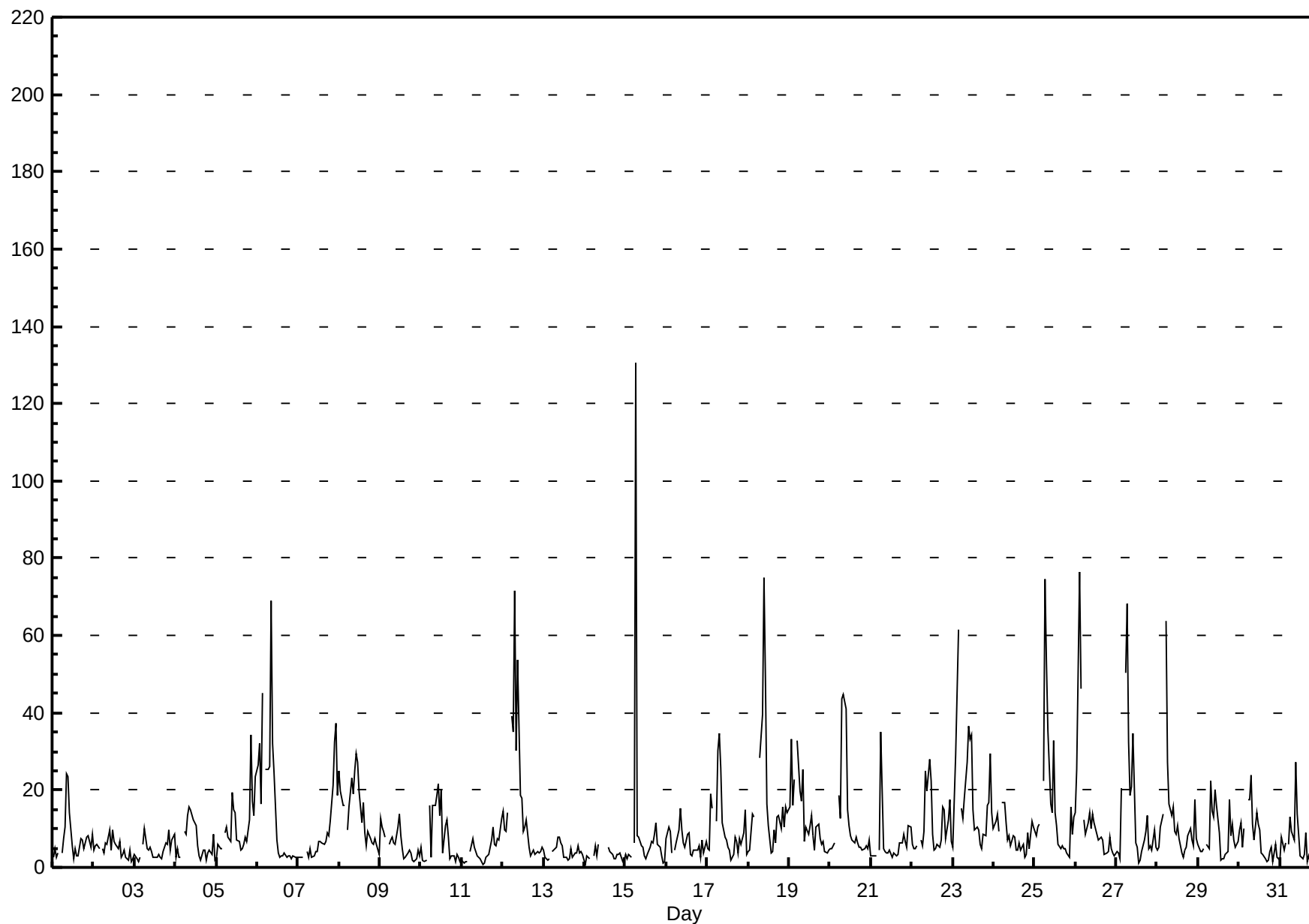
Beaverlodge - March 2013

Maximum Value: 130.6 ppb on Mar 15 07:00																				Maximum Daily Average: 19.1 ppb on Mar 23					Hours in Service: 744	
Minimum Value: 1 ppb on Mar 14 01:00																				Minimum Daily Average: 3.2 ppb on Mar 14					Hours of Data: 707	
Maximum Diurnal Average: 21.0 ppb at hour 7																				Minimum Diurnal Average: 5.0 ppb at hour 17					Hours of Missing Data: 37	
Monthly Average: 10.09 ppb																				Percentiles: P ₁ = 1.3 P ₁₀ = 2.5 Q ₁ = 3.8 Median = 6.3 Q ₃ = 11.6 P ₉₀ = 21.2 P ₉₉ = 67.8					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-Mar	3	5	3	4	A	4	8	10	24	24	14	6	2	5	3	3	8	7	5	6	8	8	5	9	7.5	24.3
2-Mar	4	5	6	5	A	5	4	6	6	10	4	10	7	6	5	7	3	3	5	3	2	4	2	2	4.9	9.6
3-Mar	4	2	1	3	A	6	10	5	5	5	4	2	3	3	3	2	2	4	6	6	10	4	7	9	4.6	10.2
4-Mar	2	5	2	3	A	9	9	13	16	15	12	12	11	6	3	2	4	4	2	4	4	3	8	2	6.6	15.7
5-Mar	2	6	5	5	A	9	10	8	7	20	15	14	7	7	5	5	6	8	7	12	34	17	13	24	10.6	34.2
6-Mar	27	32	16	45	A	25	25	26	69	32	25	7	4	3	3	3	4	3	3	3	2	3	2	3	15.9	68.9
7-Mar	2	3	3	3	A	4	3	5	3	3	4	4	7	7	6	6	7	9	8	12	21	32	37	19	9.0	37.3
8-Mar	25	20	16	16	A	10	16	23	19	25	30	27	20	12	17	9	5	9	7	6	6	8	6	4	14.6	29.5
9-Mar	13	11	9	8	A	6	7	8	6	6	10	14	8	5	2	2	4	5	4	2	1	2	4	3	6.1	13.8
10-Mar	5	2	1	2	A	16	2	16	16	19	22	13	20	4	11	12	8	2	3	3	1	3	2	1	8.1	21.7
11-Mar	2	1	1	1	A	4	8	5	4	3	3	2	1	1	2	3	3	7	10	6	6	7	7	13	4.4	12.9
12-Mar	14	10	9	14	A	39	35	72	30	54	19	18	9	10	12	5	3	4	5	3	4	4	4	5	16.6	71.7
13-Mar	4	3	2	2	A	4	5	5	8	8	6	6	3	2	2	2	5	3	4	4	6	4	4	3	4.1	7.8
14-Mar	1	3	3	2	A	3	5	3	6	C	C	C	C	C	5	4	3	2	2	3	3	4	2	2	3.2	5.8
15-Mar	3	2	3	3	A	6	131	8	8	6	5	3	2	3	5	7	6	8	12	6	5	3	1	1	10.4	130.6
16-Mar	7	10	9	4	A	4	6	10	15	10	7	5	8	9	4	3	5	4	4	6	3	7	4	7	6.5	15.1
17-Mar	5	5	19	15	A	12	30	35	26	12	8	7	5	4	2	3	8	7	4	8	6	9	15	3	10.7	34.6
18-Mar	4	5	14	13	A	25	N	28	40	75	49	16	11	4	4	10	6	13	14	10	16	10	16	14	18.0	75.1
19-Mar	16	33	16	23	A	33	20	17	25	7	11	9	11	13	8	5	10	11	8	6	7	4	4	5	13.1	33.3
20-Mar	5	5	6	6	A	19	13	44	45	41	15	11	8	7	6	8	6	5	5	5	5	5	5	7	12.2	44.9
21-Mar	3	3	3	3	A	4	35	5	4	4	4	4	3	4	3	3	3	6	6	8	7	5	11	10	6.2	35.2
22-Mar	6	5	5	6	A	7	6	9	25	20	28	22	8	4	5	6	5	7	16	15	7	12	17	7	10.8	27.8
23-Mar	5	17	29	62	A	15	13	18	27	37	33	34	15	10	11	10	6	5	9	8	16	17	30	14	19.1	61.5
24-Mar	10	12	14	9	A	17	17	11	7	8	6	8	8	5	4	6	5	6	3	3	9	5	12	10	8.4	16.9
25-Mar	9	8	10	11	A	22	75	53	35	17	14	33	14	11	6	5	5	5	5	4	3	16	9	13	16.6	74.7
26-Mar	14	25	77	46	A	12	9	12	14	10	14	12	10	7	8	8	7	3	4	4	8	5	4	3	13.7	76.6
27-Mar	4	4	2	21	A	50	68	32	19	21	35	6	5	1	2	4	7	9	13	5	6	4	10	5	14.5	68.2
28-Mar	4	5	10	14	A	64	27	16	13	15	9	9	11	7	4	2	5	5	8	10	7	5	18	7	12.1	63.8
29-Mar	6	4	4	5	A	6	5	22	14	13	20	16	9	2	2	2	3	4	17	8	11	7	5	7	8.4	22.4
30-Mar	10	12	5	10	A	18	18	24	11	7	14	11	10	4	3	2	2	2	4	5	1	6	3	2	8.0	23.7
31-Mar	2	8	4	7	A	6	13	9	7	27	14	9	3	2	3	9	1	3	1	7	4	6	5	2	6.6	27.1
7.2 8.7 10.0 11.9 -- 15.0 21.0 18.0 17.9 18.3 15.1 11.7 8.1 5.6 5.2 5.2 5.0 5.7 6.5 6.1 7.4 7.5 8.8 7.0																								Diurnal Average		
26.6 33.3 76.6 61.5 -- 63.8 130.6 71.7 68.9 75.1 48.8 34.3 20.2 13.5 17.0 12.3 10.4 13.2 17.5 15.0 34.2 32.5 37.3 23.5																								Diurnal Maximum		
C - Calibration N - Not Valid A - Automated Daily Zero Span																										

Hourly Maximums

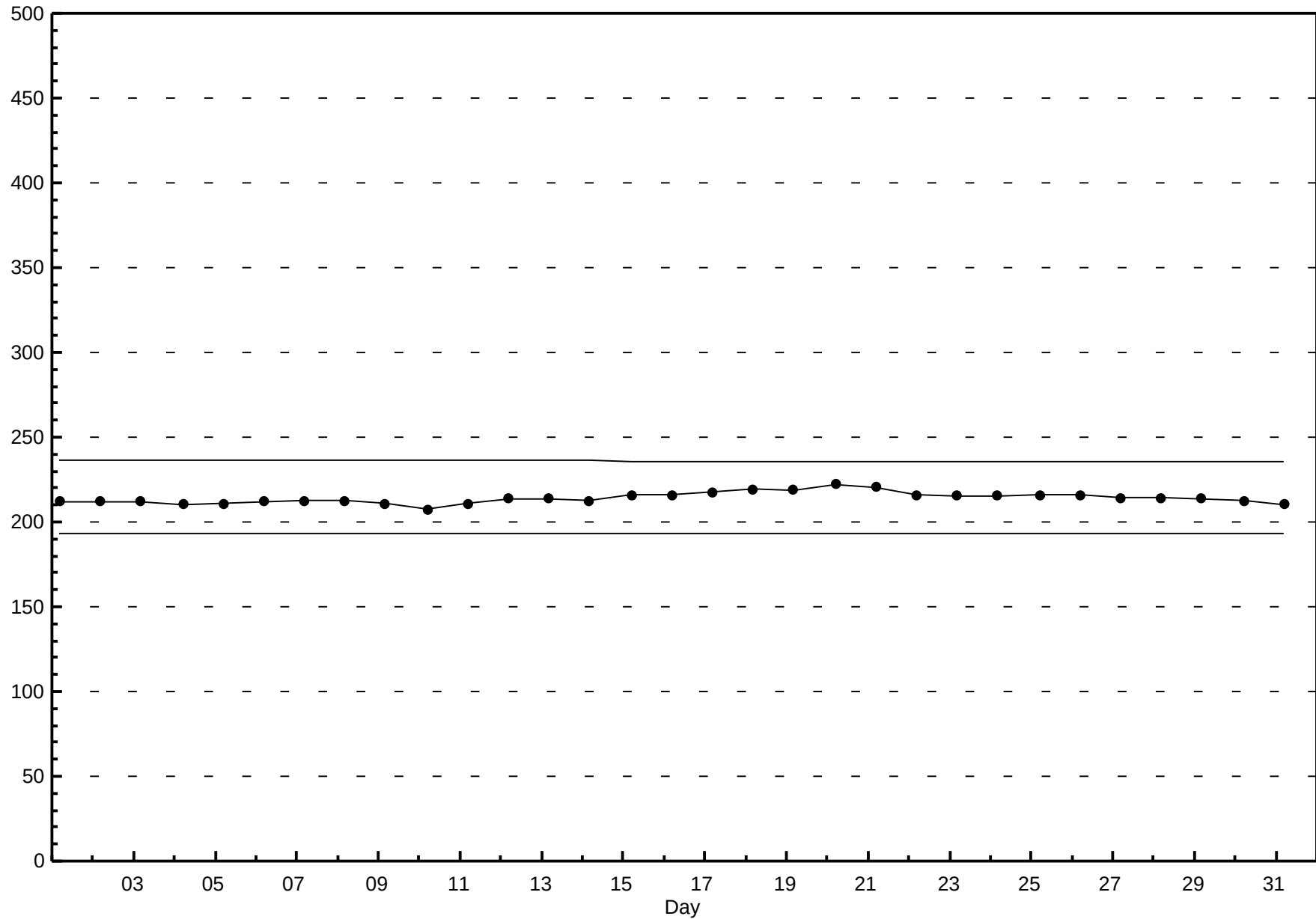
Oxides of Nitrogen (NO_x) - ppb

Beaverlodge - March 2013



Span Responses

Oxides of Nitrogen (NO_x)
Beaverlodge - March 2013



Hourly Averages

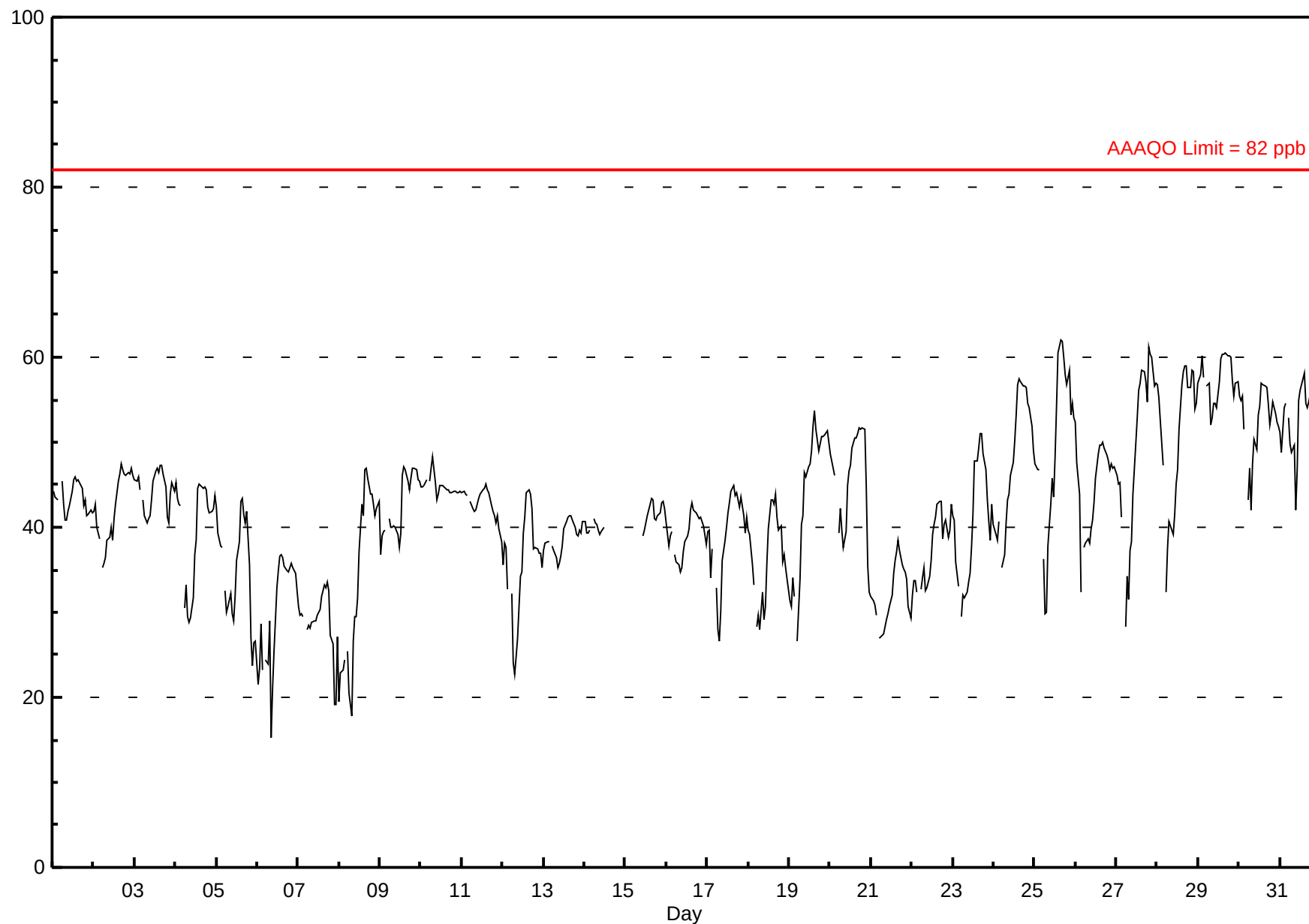
Ozone (O₃) - ppb

Beaverlodge - March 2013

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 62.0 ppb on Mar 25 16:00 Maximum Daily Average: 57.4 ppb on Mar 29																								Hours in Service: 744 Hours of Data: 692 Hours of Missing Data: 52 Hours of Calibration: 37 Percent Operational Time: 98.0		
Minimum Value: 15 ppb on Mar 6 09:00 Maximum Diurnal Average: 47.7 ppb at hour 16 Monthly Average: 42.02 ppb												Minimum Daily Average: 28.9 ppb on Mar 7 Minimum Diurnal Average: 35.7 ppb at hour 8 Percentiles: P ₁ = 20.9 P ₁₀ = 30.1 Q ₁ = 36.8 Median = 41.9 Q ₃ = 46.9 P ₉₀ = 54.6 P ₉₉ = 60.3														
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-Mar	44	43	43	43	A	45	43	41	41	42	43	44	46	46	45	46	45	45	43	43	41	42	42	42	43.3	45.9
2-Mar	42	43	40	39	A	35	36	36	38	39	40	38	41	43	45	46	47	47	46	46	46	46	47	46	42.4	47.4
3-Mar	46	45	46	44	A	43	41	40	41	41	43	45	47	47	46	47	47	46	45	41	40	44	45	44	44.2	47.3
4-Mar	45	43	43	43	A	30	33	29	29	29	32	37	38	45	45	45	45	45	44	42	42	42	42	44	39.7	45.3
5-Mar	42	39	38	38	A	33	30	31	32	30	29	32	36	38	43	43	42	40	42	36	27	24	26	27	34.7	43.4
6-Mar	22	23	29	23	A	24	24	29	15	21	25	33	35	37	37	36	35	35	35	35	36	35	35	33	30.1	36.7
7-Mar	31	30	30	30	A	28	28	28	29	29	29	30	30	30	32	33	33	34	33	27	26	19	19	27	28.9	33.5
8-Mar	20	23	23	24	A	25	20	18	27	29	29	32	37	43	41	47	47	46	44	44	43	41	42	43	34.3	47.0
9-Mar	37	39	39	40	A	41	40	40	40	40	39	38	39	46	47	47	45	44	46	47	47	47	46	45	42.6	47.2
10-Mar	45	45	45	46	A	45	47	48	45	43	44	45	45	45	45	44	44	44	44	44	44	44	44	44	44.8	48.3
11-Mar	44	44	44	44	A	43	42	42	42	43	43	44	44	45	45	44	44	43	42	41	41	41	40	38	42.8	45.1
12-Mar	36	38	38	33	A	32	24	23	25	27	34	35	39	41	44	44	44	42	37	38	37	37	37	35	35.7	44.3
13-Mar	37	38	38	38	A	38	37	36	35	36	37	38	40	41	41	41	41	41	40	39	39	40	39	41	38.8	41.4
14-Mar	41	39	39	40	A	41	40	40	40	39	40	40	C	C	C	C	C	C	C	N	N	N	N	N	--	41.1
15-Mar	N	N	N	N	N	N	N	N	N	N	39	40	41	41	43	43	43	41	41	41	42	43	43	42	--	43.3
16-Mar	41	38	39	39	A	37	36	36	35	35	37	38	39	40	42	43	42	42	41	41	41	41	40	38	39.1	43.0
17-Mar	39	40	34	37	A	33	28	27	30	36	39	40	42	43	44	45	44	44	43	42	44	41	39	41	38.9	44.9
18-Mar	40	39	36	33	A	28	30	28	32	29	31	36	40	43	43	43	44	41	40	40	36	37	35	34	36.4	43.9
19-Mar	31	31	34	32	A	27	34	40	41	46	46	47	48	49	52	54	52	49	50	51	51	51	51	50	44.2	53.8
20-Mar	49	48	47	46	A	39	42	40	38	40	45	47	47	49	50	50	51	52	52	52	52	44	35	32	45.5	51.8
21-Mar	32	31	31	30	A	27	27	28	28	29	30	31	32	35	36	37	38	37	36	35	35	34	31	29	32.1	38.5
22-Mar	32	34	34	32	A	33	34	35	33	33	34	36	39	40	41	43	43	43	39	40	41	39	40	43	37.4	43.1
23-Mar	41	41	36	33	A	29	32	32	32	34	35	38	41	48	48	49	51	51	49	47	43	41	38	43	40.5	50.9
24-Mar	40	39	38	41	A	35	37	40	43	44	46	48	50	53	57	58	57	57	57	56	55	54	52	49	48.1	57.5
25-Mar	47	47	47	47	A	36	30	30	38	43	46	44	48	54	61	62	62	60	58	57	58	53	55	53	49.4	62.0
26-Mar	52	48	44	32	A	38	38	39	38	40	41	43	46	49	50	50	50	49	48	48	47	47	47	47	44.8	52.4
27-Mar	46	45	45	41	A	28	34	32	37	38	44	50	53	56	57	58	58	57	55	61	60	60	57	57	49.2	61.2
28-Mar	57	55	52	47	A	32	38	41	40	39	42	45	47	51	57	58	59	59	56	56	58	58	54	55	50.3	58.9
29-Mar	57	58	60	58	A	57	57	52	53	55	55	54	57	60	60	60	60	60	60	60	57	55	57	57	57.4	60.5
30-Mar	56	55	55	51	A	43	47	42	47	50	49	53	54	57	57	57	56	54	52	53	55	53	52	52	52.3	56.9
31-Mar	51	49	54	55	A	53	50	49	50	42	47	55	56	57	58	55	54	55	56	54	53	51	51	51	52.3	58.1
41.4 41.0 40.7 39.3 -- 36.0 36.0 35.7 36.5 37.4 39.1 41.1 43.3 45.7 47.1 47.7 47.5 46.7 45.7 45.3 44.6 43.5 42.8 42.7																								Diurnal Average		
56.9 57.9 60.1 57.7 -- 56.6 56.9 52.1 52.8 54.6 54.5 54.9 57.2 59.8 60.5 62.0 61.9 60.2 60.1 61.2 60.3 60.1 56.9 57.1																								Diurnal Maximum		
C - Calibration N - Not Valid A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82 ppb 24-hr na																										

Hourly Averages

Ozone (O₃) - ppb
Beaverlodge - March 2013



Hourly Maximums

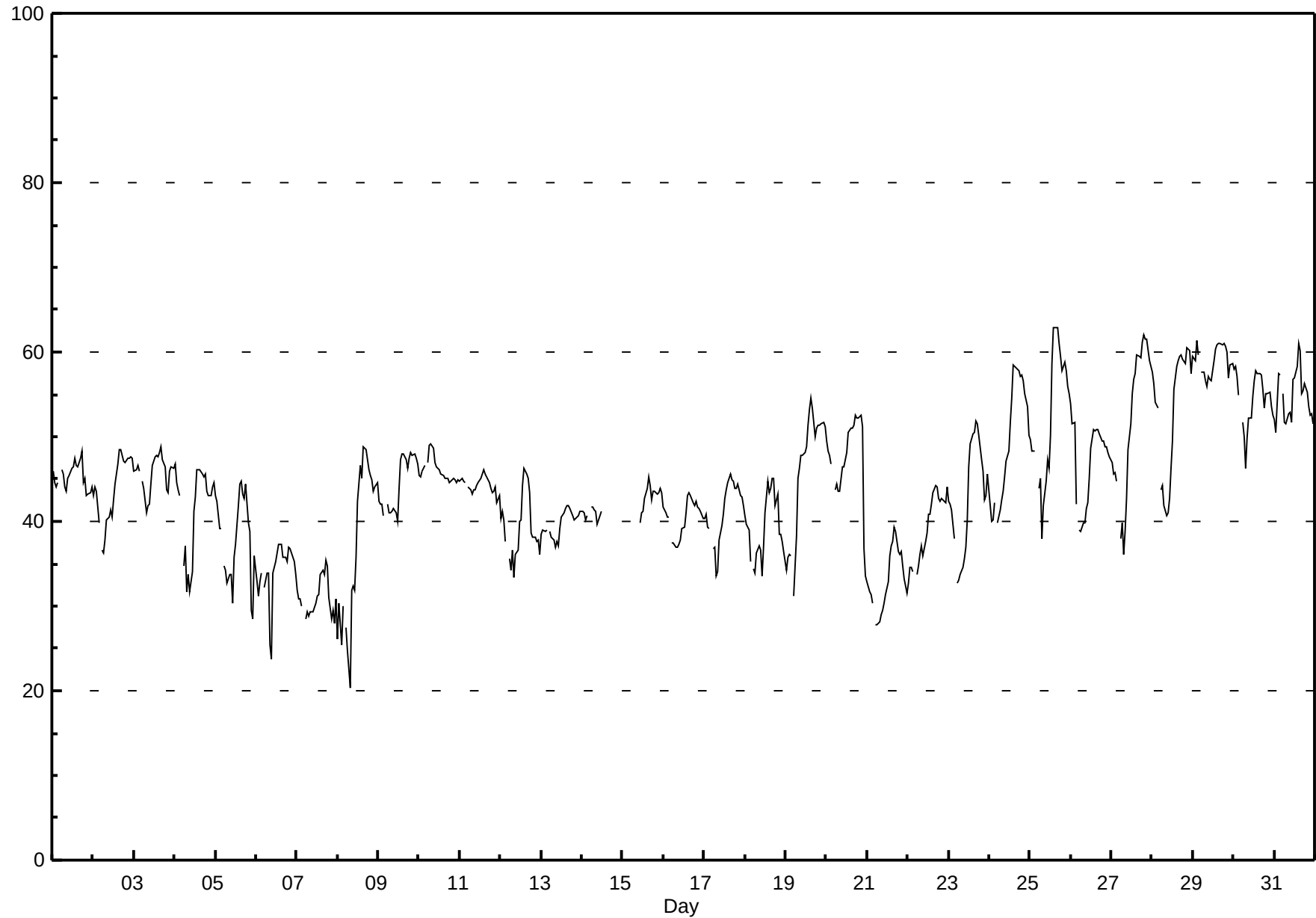
Ozone (O₃) - ppb

Beaverlodge - March 2013

Maximum Value: 62.8 ppb on Mar 25 15:00																				Maximum Daily Average: 59.0 ppb on Mar 29					Hours in Service: 744	
Minimum Value: 20 ppb on Mar 8 08:00																				Minimum Daily Average: 30.9 ppb on Mar 7					Hours of Data: 692	
Maximum Diurnal Average: 48.8 ppb at hour 16																				Minimum Diurnal Average: 38.9 ppb at hour 8					Hours of Missing Data: 52	
Monthly Average: 44.13 ppb																				Percentiles: P ₁ = 27.7 P ₁₀ = 33.8 Q ₁ = 38.9 Median = 43.8 Q ₃ = 48.4 P ₉₀ = 56.8 P ₉₉ = 61.2					Hours of Calibration: 37	
																									Percent Operational Time: 98.0	
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-Mar	46	45	44	45	A	46	46	44	44	45	45	46	46	47	47	47	47	48	45	45	43	43	43	44	45.3	48.3
2-Mar	43	44	44	40	A	37	36	38	40	41	41	41	43	44	47	48	48	48	47	47	47	47	48	47	43.8	48.4
3-Mar	46	46	47	46	A	45	44	41	42	42	44	47	48	48	48	48	49	47	46	44	43	46	46	46	45.6	48.8
4-Mar	47	45	44	43	A	35	37	32	34	32	34	41	43	46	46	46	46	45	46	44	43	43	44	45	41.6	46.7
5-Mar	43	42	39	39	A	35	34	33	34	34	30	36	37	42	44	45	43	43	44	40	39	29	29	36	37.8	44.7
6-Mar	33	31	33	34	A	32	34	34	25	24	34	35	36	37	37	37	36	36	35	37	37	36	35	34	34.1	37.3
7-Mar	32	31	31	30	A	29	29	29	29	29	30	30	31	31	34	34	34	35	35	31	28	29	28	31	30.9	35.5
8-Mar	26	30	26	30	A	27	25	20	32	32	36	42	47	45	49	49	49	46	46	45	44	44	45	45	37.6	48.8
9-Mar	42	42	42	41	A	42	41	41	41	42	41	40	44	47	48	48	47	46	47	48	48	48	47	47	44.4	48.1
10-Mar	45	45	46	47	A	47	49	49	49	47	47	46	46	46	45	45	45	45	45	45	45	45	45	45	46.0	49.1
11-Mar	45	45	45	45	A	44	44	43	44	44	44	45	45	46	46	46	45	45	44	43	44	44	42	43	44.3	46.1
12-Mar	40	41	40	38	A	36	34	37	33	36	37	40	40	44	46	46	45	43	39	38	38	38	38	36	39.3	46.3
13-Mar	38	39	39	39	A	39	38	38	37	38	37	39	41	41	42	42	42	42	41	40	40	40	41	41	39.7	41.9
14-Mar	41	41	40	41	A	42	42	41	41	40	40	41	C	C	C	C	C	C	C	N	N	N	N	N	--	41.6
15-Mar	N	N	N	N	N	N	N	N	N	N	40	41	41	43	44	45	44	43	44	44	43	43	44	43	--	45.3
16-Mar	42	41	41	41	A	37	37	37	37	37	38	39	39	41	43	43	43	42	42	42	42	41	41	40	40.3	43.4
17-Mar	40	41	39	39	A	37	37	34	34	38	39	41	43	44	45	46	45	45	44	44	44	43	43	42	41.1	45.5
18-Mar	41	40	39	35	A	34	34	36	37	37	34	37	41	45	43	44	45	45	42	43	38	38	38	36	39.2	45.1
19-Mar	34	36	36	36	A	31	38	45	46	48	48	48	49	51	53	55	53	50	51	51	51	51	52	51	46.3	54.6
20-Mar	49	48	48	47	A	44	44	44	44	46	46	47	48	51	51	51	51	53	52	52	53	51	37	34	47.4	52.6
21-Mar	33	32	31	30	A	28	28	28	29	29	30	31	33	36	37	38	39	39	36	36	36	35	33	32	33.1	39.2
22-Mar	33	35	34	34	A	34	35	36	37	36	38	39	41	41	42	43	44	44	43	42	43	42	42	44	39.2	44.3
23-Mar	42	42	41	38	A	33	33	34	35	36	37	40	47	49	50	50	52	51	50	47	46	42	43	46	42.8	51.9
24-Mar	44	40	40	42	A	40	41	43	44	45	47	48	52	55	58	58	58	58	57	57	57	55	54	50	49.7	58.5
25-Mar	50	48	48	48	A	44	45	38	42	45	47	46	50	59	63	63	63	61	60	58	59	58	56	55	52.4	62.8
26-Mar	54	52	52	42	A	39	39	40	40	41	42	45	49	51	51	51	51	50	50	49	49	49	48	48	47.0	54.0
27-Mar	47	46	46	45	A	38	40	36	39	43	48	51	55	57	57	60	60	59	61	62	62	62	59	58	51.7	62.0
28-Mar	58	56	54	53	A	44	44	42	41	41	43	46	49	56	58	59	60	60	59	59	60	60	60	57	53.0	60.4
29-Mar	59	59	61	60	A	58	58	57	56	57	57	57	59	60	61	61	61	61	61	61	60	57	59	59	59.0	61.3
30-Mar	58	58	57	55	A	52	50	46	50	52	52	55	57	58	57	58	57	56	53	55	55	55	53	53	54.5	58.2
31-Mar	52	50	57	57	A	55	52	51	53	53	52	57	57	58	61	60	55	55	56	55	54	52	53	52	54.7	61.0
43.5 43.0 42.8 41.9 -- 39.4 39.6 38.9 39.6 40.3 41.1 43.0 45.1 47.3 48.4 48.8 48.6 48.1 47.3 46.9 46.4 45.7 44.8 44.6																									Diurnal Average	
59.5 59.0 61.3 59.7 -- 57.6 57.6 56.7 56.0 57.1 56.7 56.9 59.0 60.4 62.8 62.8 62.8 61.1 61.2 62.0 61.5 61.6 60.2 58.6																									Diurnal Maximum	
C - Calibration N - Not Valid A - Automated Daily Zero Span																										

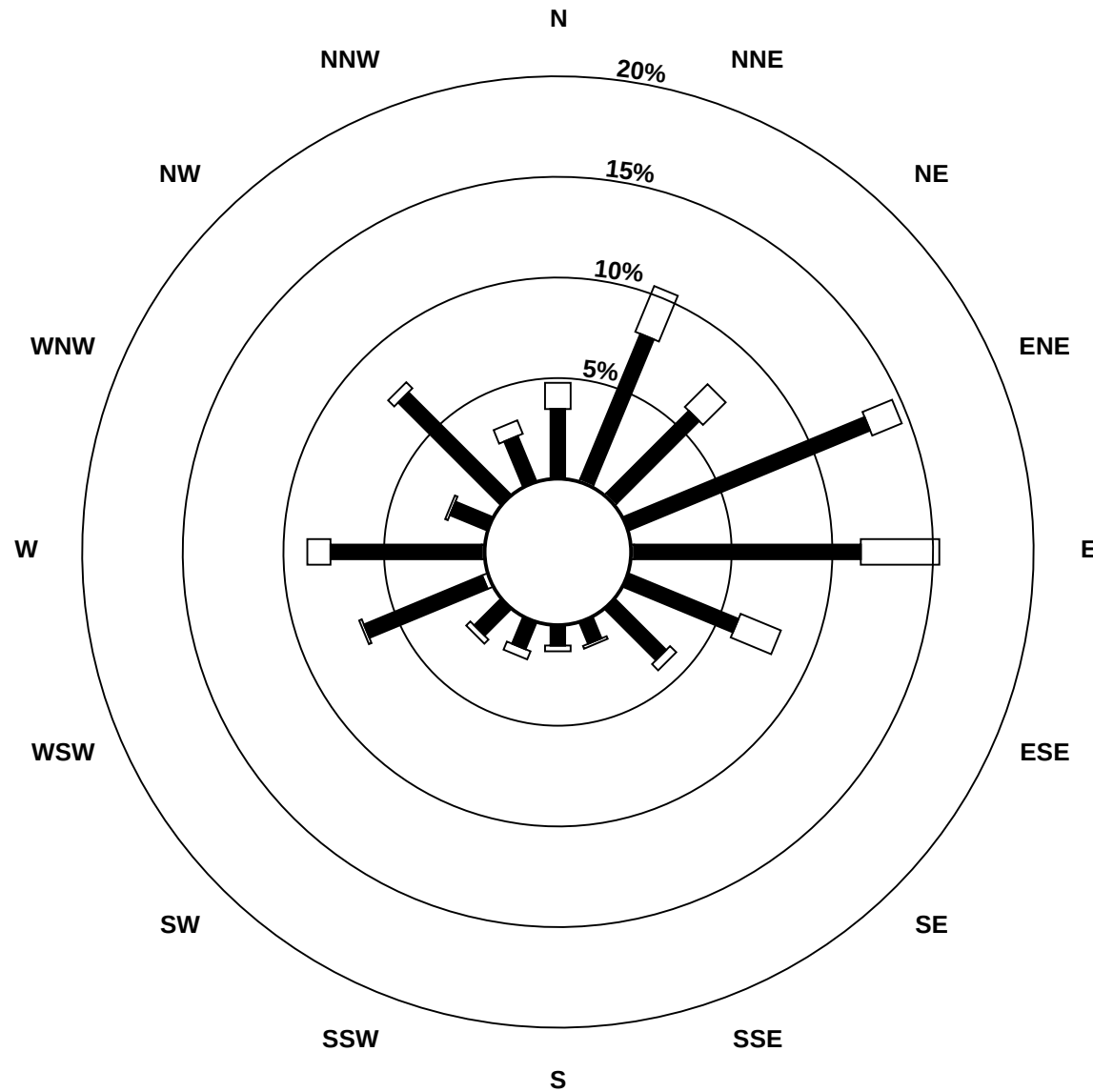
Hourly Maximums

Ozone (O₃) - ppb
Beaverlodge - March 2013

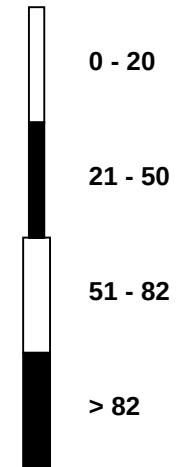


Pollutant Rose

Ozone (O₃) - ppb
Beaverlodge - March 2013



Pollutant Classes (ppb)



Eight Hour Running Averages

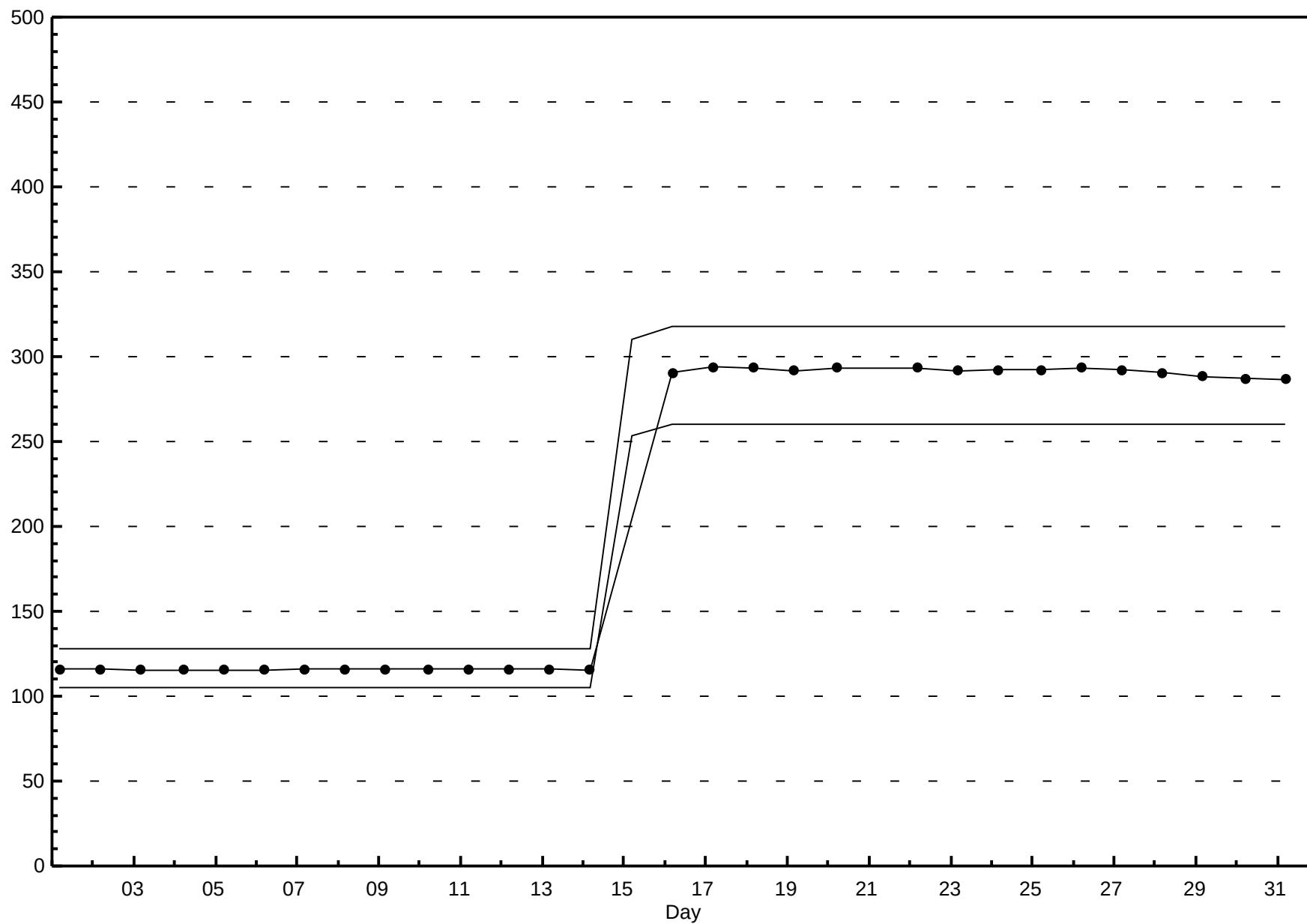
Ozone (O₃) - ppb

Beaverlodge - March 2013

Maximum Value: 59.8 ppb on Mar 29 21:00																								Hours in Service:	744
Minimum Value: 22.0 ppb on Mar 8 08:00																								Hours of Data:	719
Percentiles: P ₁ = 23.2 P ₁₀ = 31.7 Q ₁ = 37.0 Median = 41.4 Q ₃ = 45.9 P ₉₀ = 54.2 P ₉₉ = 58.8																								Hours of Missing Data:	25
																								Hours of Calibration:	12
																								Percent Operational Time:	98.3
Day	Hourly Period Ending At (MST)																								Daily Maximum
1-Mar	43	43	43	43	44	44	44	43	43	43	43	43	43	43	44	44	44	45	45	45	44	44	43	43	44.8
2-Mar	42	42	42	41	41	40	39	39	38	38	38	38	38	39	40	41	42	43	44	45	46	46	47	47	46.5
3-Mar	46	46	46	46	46	45	45	44	43	43	42	42	43	43	44	45	46	46	46	46	45	45	45	44	46.3
4-Mar	44	44	43	43	44	42	40	38	36	34	32	31	32	34	36	37	39	41	43	44	44	44	43	43	44.0
5-Mar	43	42	41	41	41	39	38	36	34	33	32	31	32	32	34	35	37	38	40	40	39	37	35	33	42.9
6-Mar	30	28	27	25	25	25	25	25	24	24	23	25	26	27	29	30	32	34	35	36	36	36	35	35	35.7
7-Mar	34	34	33	32	32	31	30	29	29	29	29	29	29	29	30	30	31	31	32	31	31	30	28	27	34.2
8-Mar	26	24	23	23	22	23	23	22	23	24	25	26	27	29	32	36	38	40	42	44	44	44	44	44	44.3
9-Mar	42	42	41	41	40	40	40	39	40	40	40	40	40	40	41	42	43	43	44	45	46	46	46	46	46.3
10-Mar	46	46	46	46	45	45	45	46	46	46	46	45	45	45	45	45	44	45	45	44	44	44	44	44	45.9
11-Mar	44	44	44	44	44	44	44	43	43	43	43	43	43	43	44	44	44	44	44	44	43	43	42	41	44.1
12-Mar	40	40	39	38	38	36	34	32	30	29	28	29	30	31	34	36	39	40	41	41	41	40	40	38	41.2
13-Mar	38	37	37	37	37	37	37	38	37	37	37	37	37	37	38	39	39	40	40	41	40	40	40	40	40.5
14-Mar	40	40	40	40	40	40	40	40	40	40	40	40	40	40	N	N	N	N	N	N	N	N	N	N	40.2
15-Mar	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	41	41	41	42	42	42	42	42	42	42.2
16-Mar	42	41	41	41	41	40	39	38	37	37	36	36	37	37	38	39	40	40	41	41	42	42	41	41	41.7
17-Mar	40	40	39	39	38	37	36	34	33	32	33	33	34	36	38	40	42	43	43	43	44	43	43	42	43.6
18-Mar	42	41	40	39	38	37	35	33	32	31	30	31	32	34	35	37	39	40	41	42	41	40	39	38	41.8
19-Mar	37	35	35	34	33	32	32	33	34	36	38	40	41	44	46	48	49	49	50	50	51	51	51	51	51.1
20-Mar	50	50	50	49	49	47	46	44	43	42	41	41	42	43	44	46	47	49	50	50	51	50	48	46	51.0
21-Mar	44	41	39	36	34	31	30	29	29	29	28	29	29	30	31	32	34	35	35	36	36	36	35	34	43.8
22-Mar	34	33	33	33	32	32	33	33	33	33	33	34	35	36	36	37	39	40	41	41	41	41	41	41	41.3
23-Mar	41	40	40	39	39	38	36	35	34	33	32	33	34	36	38	41	43	45	47	48	48	47	46	45	48.2
24-Mar	44	42	41	40	40	39	39	39	39	40	41	42	43	45	48	50	52	53	54	56	56	56	56	55	56.3
25-Mar	53	52	51	50	49	46	43	41	39	39	38	38	39	42	45	49	52	55	56	58	59	59	58	57	59.0
26-Mar	56	54	52	49	48	46	44	41	39	38	38	39	40	42	43	44	46	47	48	49	49	49	48	48	55.8
27-Mar	48	47	47	46	46	43	41	39	38	37	36	38	40	43	46	49	52	54	56	57	58	58	58	58	58.4
28-Mar	58	58	57	56	55	51	48	46	44	41	40	39	40	43	45	47	50	52	54	56	57	58	57	57	58.0
29-Mar	57	57	57	57	57	57	57	57	56	56	55	55	55	55	56	57	58	58	59	60	60	59	59	58	59.8
30-Mar	58	57	57	56	55	54	52	50	49	48	47	47	48	50	51	53	54	55	55	55	55	55	54	54	57.8
31-Mar	53	52	52	53	52	52	52	51	51	50	49	49	50	51	52	52	53	55	56	56	55	54	54	53	55.7
Diurnal Maximums																									
N - Not Valid																									

Span Responses

Ozone (O₃)
Beaverlodge - March 2013



Hourly Averages

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

Beaverlodge - March 2013

Number of Exceedences: 1-hr: 0 24-hr: 0 Maximum Value: 22.6 µg/m³ on Mar 6 10:00 Maximum Daily Average: 11.8 µg/m³ on Mar 8																				Hours in Service: 744 Hours of Data: 743 Hours of Missing Data: 1 Hours of Calibration: 0 Percent Operational Time: 99.9						
Minimum Value: 0 µg/m³ on Mar 3 02:00 Maximum Diurnal Average: 7.6 µg/m³ at hour 22 Monthly Average: 6.78 µg/m³										Minimum Daily Average: 3.1 µg/m³ on Mar 13 Minimum Diurnal Average: 6.1 µg/m³ at hour 18 Percentiles: P ₁ = 1.6 P ₁₀ = 3.3 Q ₁ = 4.6 Median = 6.4 Q ₃ = 8.2 P ₉₀ = 10.8 P ₉₉ = 17.7																
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Mar	7	5	3	3	4	4	5	4	4	6	5	7	4	2	6	5	4	5	3	4	3	5	6	2	4.4	6.8
2-Mar	2	2	3	2	5	4	5	7	7	7	9	8	8	5	2	7	6	6	7	6	6	5	6	7	5.5	9.1
3-Mar	5	0	2	5	5	5	5	8	6	5	5	8	9	9	8	8	5	4	6	7	8	7	7	7	5.8	9.3
4-Mar	7	7	7	7	6	9	11	11	13	12	12	14	16	13	6	6	5	5	4	5	4	5	6	6	8.2	16.2
5-Mar	6	6	7	7	8	10	10	8	6	6	7	9	11	13	9	10	11	10	9	9	9	11	14	14	9.2	14.1
6-Mar	14	14	15	14	17	17	15	15	17	23	17	13	10	8	7	6	7	5	6	7	8	9	8	8	11.7	22.6
7-Mar	7	4	5	5	6	7	6	7	8	8	7	7	8	9	8	11	13	13	12	13	14	16	17	17	9.5	17.1
8-Mar	18	18	18	19	20	20	16	16	14	10	8	12	11	8	8	10	7	9	10	6	6	6	7	6	11.8	20.0
9-Mar	7	9	9	8	8	6	8	6	7	8	7	9	9	6	5	5	6	6	5	7	8	5	5	5	6.8	9.4
10-Mar	5	6	8	6	5	3	3	5	4	7	1	3	2	3	6	1	4	4	4	3	4	4	4	3	4.1	7.6
11-Mar	5	3	4	3	3	3	3	4	4	4	2	3	3	2	2	4	5	4	6	6	5	4	4	3	3.6	5.8
12-Mar	3	4	4	4	3	4	4	4	7	6	8	6	7	8	8	6	5	5	6	5	3	5	5	6	5.2	8.2
13-Mar	3	3	4	4	3	4	1	2	5	5	4	5	4	2	3	2	2	3	3	2	3	2	4	4	3.1	5.4
14-Mar	4	3	3	2	2	2	2	2	3	4	2	1	2	2	4	5	2	4	M	4	4	21	3	3	3.7	20.8
15-Mar	3	2	1	2	4	3	3	3	5	7	5	6	6	6	5	5	5	5	6	4	4	5	5	5	4.4	6.7
16-Mar	4	4	3	3	4	3	4	5	3	5	4	8	8	8	7	7	7	7	7	6	5	5	5	6	5.3	8.0
17-Mar	6	4	6	5	4	6	6	5	7	7	6	6	5	8	5	8	5	6	7	5	5	6	7	6	6.0	8.1
18-Mar	5	5	7	7	5	7	7	7	5	7	15	13	7	3	4	8	7	5	7	9	8	9	11	9	7.3	15.3
19-Mar	10	8	7	7	7	5	7	8	5	4	5	8	7	8	6	6	6	7	9	7	8	7	6	8	6.9	9.9
20-Mar	10	9	10	2	5	7	7	8	8	9	9	7	9	10	10	12	12	12	13	13	13	13	8	6	9.2	13.1
21-Mar	4	4	5	5	4	3	2	3	5	3	3	4	3	3	5	5	4	4	4	5	4	3	2	4	3.8	5.4
22-Mar	4	5	5	4	5	4	4	4	4	5	5	7	5	3	5	4	5	4	4	5	5	5	4	3	4.5	7.4
23-Mar	4	5	6	7	8	9	8	9	10	8	8	7	7	12	11	7	6	5	6	7	11	13	10	6	7.9	12.9
24-Mar	8	10	10	10	9	7	5	6	5	4	4	4	4	6	6	7	7	5	4	4	5	6	7	9	6.4	10.4
25-Mar	9	9	10	9	10	11	8	8	6	7	6	5	7	5	7	7	7	7	6	7	6	7	10	8	7.6	10.8
26-Mar	8	7	7	8	7	6	7	5	7	6	5	7	7	7	7	7	6	4	5	6	7	6	5	5	6.5	8.5
27-Mar	7	7	6	6	6	7	7	7	7	8	8	7	6	6	6	6	6	7	7	9	10	9	9	9	7.1	9.7
28-Mar	8	13	11	12	15	15	13	12	8	8	7	7	8	8	8	10	10	9	9	12	11	10	11	11	10.2	15.4
29-Mar	9	10	9	9	8	9	9	10	11	11	12	10	10	8	8	9	9	9	9	9	8	7	8	8	9.0	11.5
30-Mar	8	9	9	7	8	9	10	8	8	8	11	11	12	8	7	7	8	7	7	8	7	8	7	7	8.3	12.2
31-Mar	6	6	6	6	8	8	9	8	6	7	8	9	6	7	7	8	7	7	6	6	7	7	6	5	7.0	9.0
6.7 6.5 6.7 6.3 6.9 7.0 6.8 6.9 7.0 7.2 6.9 7.2 7.2 6.7 6.4 6.7 6.4 6.1 6.6 6.5 6.8 7.6 6.9 6.7 18.0 18.4 17.6 19.2 20.0 19.6 16.2 15.5 16.9 22.6 17.5 14.5 16.2 13.0 10.8 12.3 13.3 12.7 12.9 13.2 14.4 20.8 16.9 17.1																								Diurnal Average	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																										

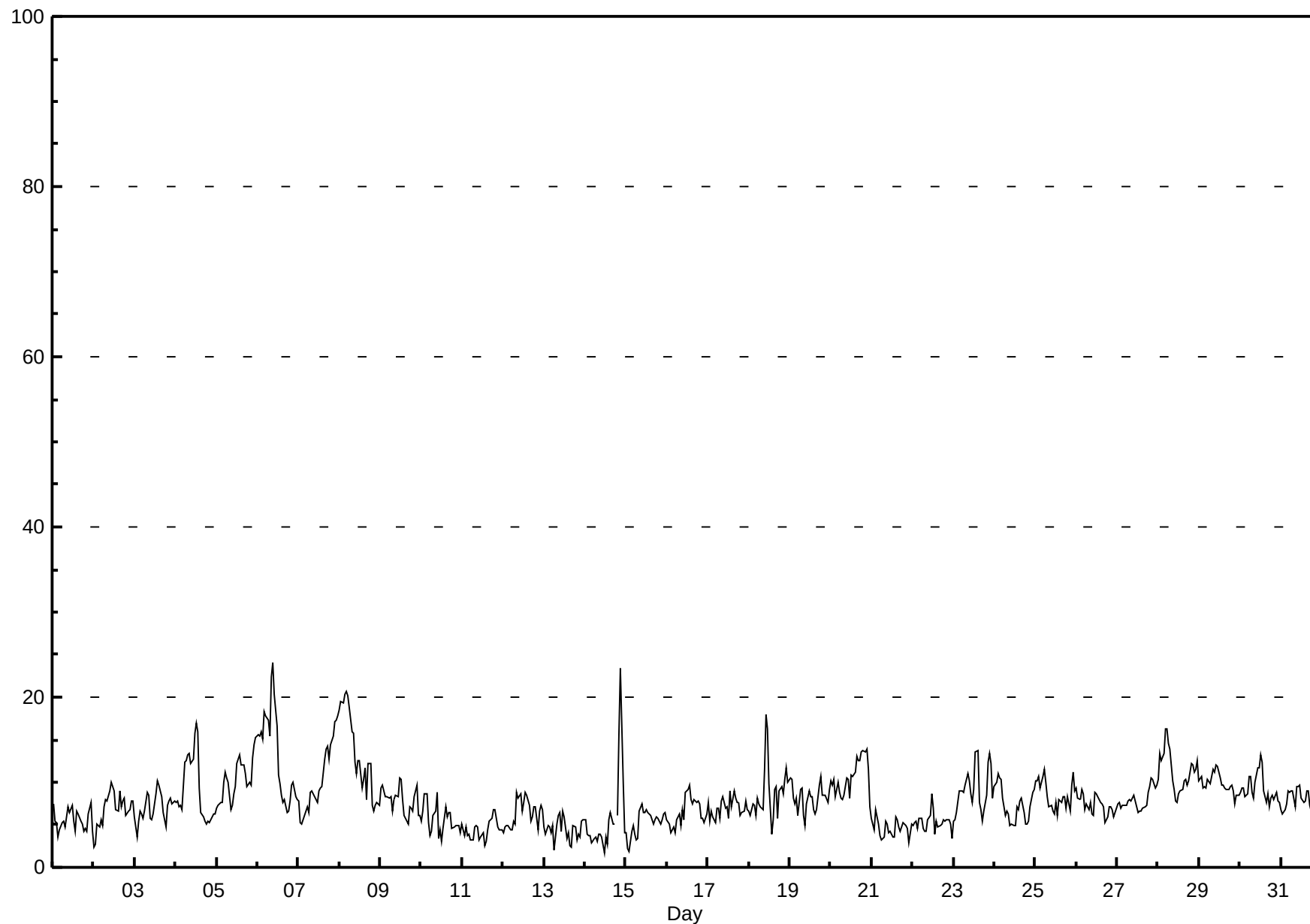


Hourly Maximums

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

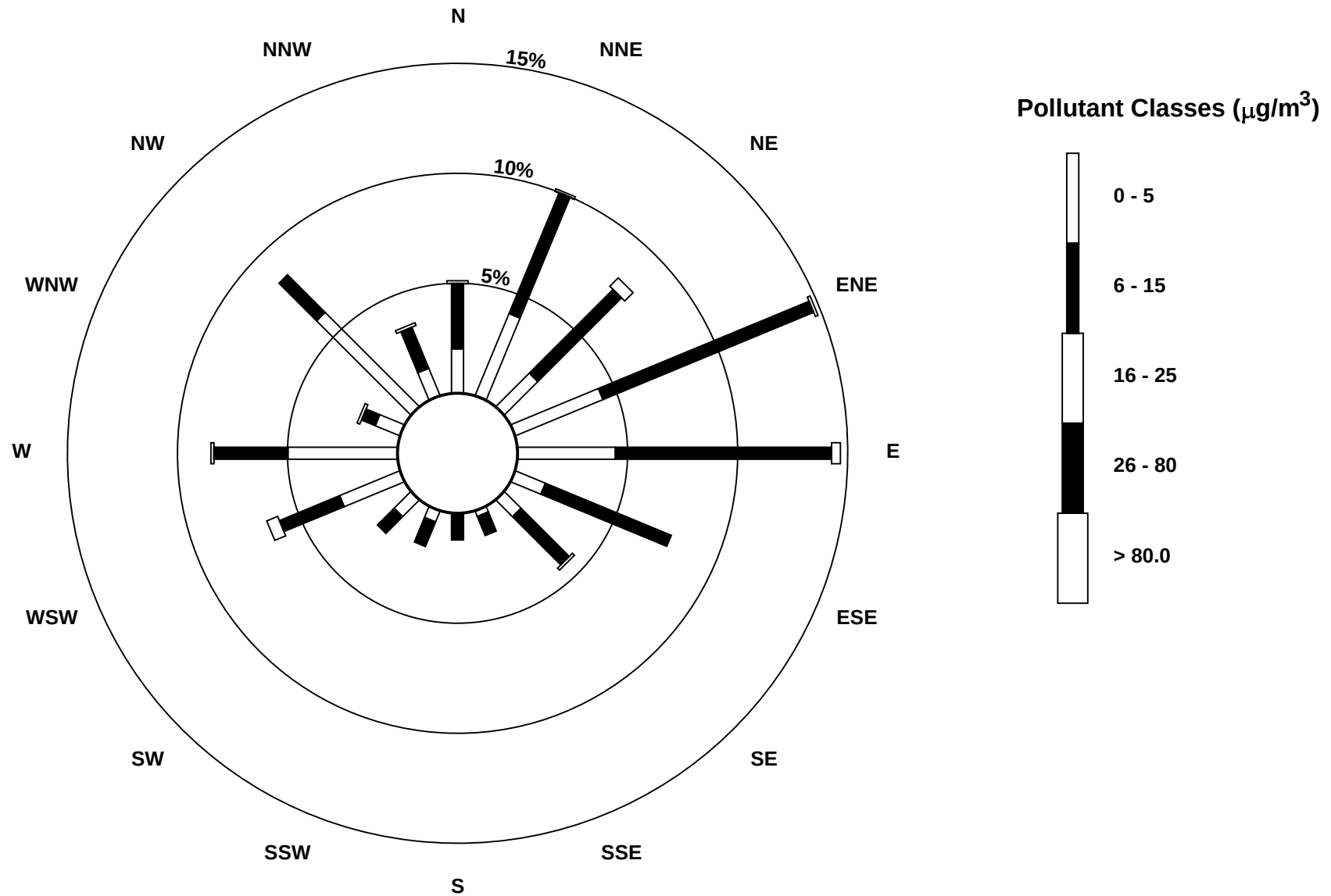
Beaverlodge - March 2013

Maximum Value: 24.1 μg/m ³ on Mar 6 10:00																				Maximum Daily Average: 13.2 μg/m ³ on Mar 8					Hours in Service: 744	
Minimum Value: 2 μg/m ³ on Mar 14 12:00																				Minimum Daily Average: 4.5 μg/m ³ on Mar 11					Hours of Data: 743	
Maximum Diurnal Average: 8.7 μg/m ³ at hour 22																				Minimum Diurnal Average: 7.4 μg/m ³ at hour 18					Hours of Missing Data: 1	
Monthly Average: 7.92 μg/m ³																				Percentiles: P ₁ = 2.6 P ₁₀ = 4.4 Q ₁ = 5.6 Median = 7.5 Q ₃ = 9.3 P ₉₀ = 12.2 P ₉₉ = 20.2					Hours of Calibration: 0	
																									Percent Operational Time: 99.9	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Mar	8	5	5	4	4	5	5	5	6	7	6	7	5	4	7	6	5	5	4	5	4	6	8	4	5.5	7.6
2-Mar	2	3	5	5	6	5	7	8	8	9	10	10	9	7	7	9	7	8	8	6	7	7	8	8	6.9	10.1
3-Mar	6	4	5	7	6	6	7	9	8	6	6	6	9	10	10	9	8	6	5	7	8	8	8	8	7.1	10.2
4-Mar	8	8	7	7	7	12	13	13	13	12	13	16	17	16	9	6	6	5	5	5	5	6	6	6	9.3	16.9
5-Mar	7	7	8	8	10	11	11	10	7	7	9	10	12	13	12	12	12	11	10	10	10	13	14	15	10.3	15.3
6-Mar	16	15	16	15	18	18	17	15	22	24	20	17	11	10	9	8	8	6	7	8	10	10	8	8	13.1	24.1
7-Mar	8	5	5	6	7	7	6	9	9	8	8	8	9	9	9	13	14	14	13	14	15	17	17	18	10.4	17.8
8-Mar	19	20	19	20	21	20	19	16	16	12	11	13	13	9	10	12	8	12	12	7	7	7	8	7	13.2	20.7
9-Mar	9	10	9	8	8	8	8	7	8	8	8	10	10	8	6	6	5	7	7	7	8	10	6	6	7.9	10.5
10-Mar	5	7	9	9	5	4	4	6	7	9	3	4	3	5	7	6	6	6	5	5	5	5	5	4	5.6	8.8
11-Mar	5	4	5	4	4	3	3	5	5	5	3	4	4	3	3	4	6	6	7	7	6	5	4	4	4.5	6.8
12-Mar	4	5	5	5	4	4	5	5	9	8	9	7	8	9	9	7	5	6	7	7	4	7	7	7	6.4	8.8
13-Mar	5	4	5	5	4	5	2	5	6	6	4	7	6	3	4	3	2	5	5	3	4	4	5	6	4.5	6.6
14-Mar	6	4	4	4	3	3	4	3	4	4	4	2	4	3	6	6	5	5	M	6	16	23	10	4	5.7	23.4
15-Mar	4	2	2	4	5	4	3	3	7	8	6	6	7	6	6	6	5	6	6	6	5	6	6	6	5.2	7.5
16-Mar	6	5	4	4	5	4	6	6	5	7	6	9	9	10	8	7	8	8	8	8	6	6	5	6	6.4	9.6
17-Mar	8	5	7	6	5	7	7	6	8	8	7	7	6	9	7	9	8	8	8	6	6	7	8	7	7.0	8.9
18-Mar	7	6	7	7	6	8	8	7	7	11	18	16	10	4	6	9	10	6	9	10	9	10	12	10	8.8	18.1
19-Mar	11	10	8	8	8	6	9	9	6	5	8	9	8	8	7	6	7	10	11	9	8	9	8	9	8.1	10.8
20-Mar	10	10	10	8	10	9	8	8	9	11	10	8	11	11	11	13	13	12	13	14	14	14	12	7	10.6	13.9
21-Mar	6	4	7	6	5	4	3	4	5	5	4	4	4	4	6	6	5	4	5	5	5	5	3	5	4.7	6.8
22-Mar	5	5	5	5	6	6	5	4	4	6	6	9	7	4	5	5	5	5	6	6	6	6	5	3	5.3	8.6
23-Mar	5	6	7	9	9	9	9	10	11	10	9	8	9	14	14	8	7	5	7	9	12	13	12	8	9.1	13.7
24-Mar	10	10	11	10	10	8	6	7	6	5	5	5	5	7	7	8	8	6	5	5	5	7	9	9	7.3	11.0
25-Mar	10	10	11	9	11	11	10	8	7	7	7	6	8	6	8	8	8	8	7	8	7	10	11	9	8.6	11.5
26-Mar	9	8	8	9	9	7	8	7	8	6	6	9	9	8	8	7	7	5	6	7	7	7	6	6	7.3	9.3
27-Mar	7	8	7	7	7	7	8	8	8	8	9	7	7	7	7	7	7	7	9	10	11	10	9	10	8.0	10.5
28-Mar	10	13	13	13	16	16	15	14	10	9	8	8	9	9	9	10	10	10	10	12	12	11	12	13	11.3	16.4
29-Mar	10	11	9	10	9	10	10	11	11	11	12	12	11	10	10	9	9	9	10	10	9	8	8	8	9.9	12.0
30-Mar	9	9	9	8	9	11	11	9	8	10	12	12	13	12	9	8	9	7	8	9	8	9	8	8	9.3	13.2
31-Mar	7	6	7	7	9	9	9	9	7	9	10	10	8	8	8	9	9	7	7	8	8	8	8	7	8.1	9.7
7.7 7.4 7.7 7.6 8.0 8.0 7.9 7.9 8.2 8.5 8.2 8.5 8.3 7.9 7.8 7.8 7.5 7.4 7.6 7.6 7.9 8.7 8.2 7.7																								Diurnal Average		
18.5 19.5 19.4 20.3 20.7 20.3 18.8 15.9 22.4 24.1 20.3 16.5 16.9 16.0 13.7 13.1 14.0 14.3 13.5 14.4 15.6 23.4 17.3 17.8																								Diurnal Maximum		
M - Maintenance																										



Pollutant Rose

Particulate Matter 2.5 (PM_{2.5}) - µg/m³
Beaverlodge - March 2013



Hourly Averages

External Temperature (ET) - °C

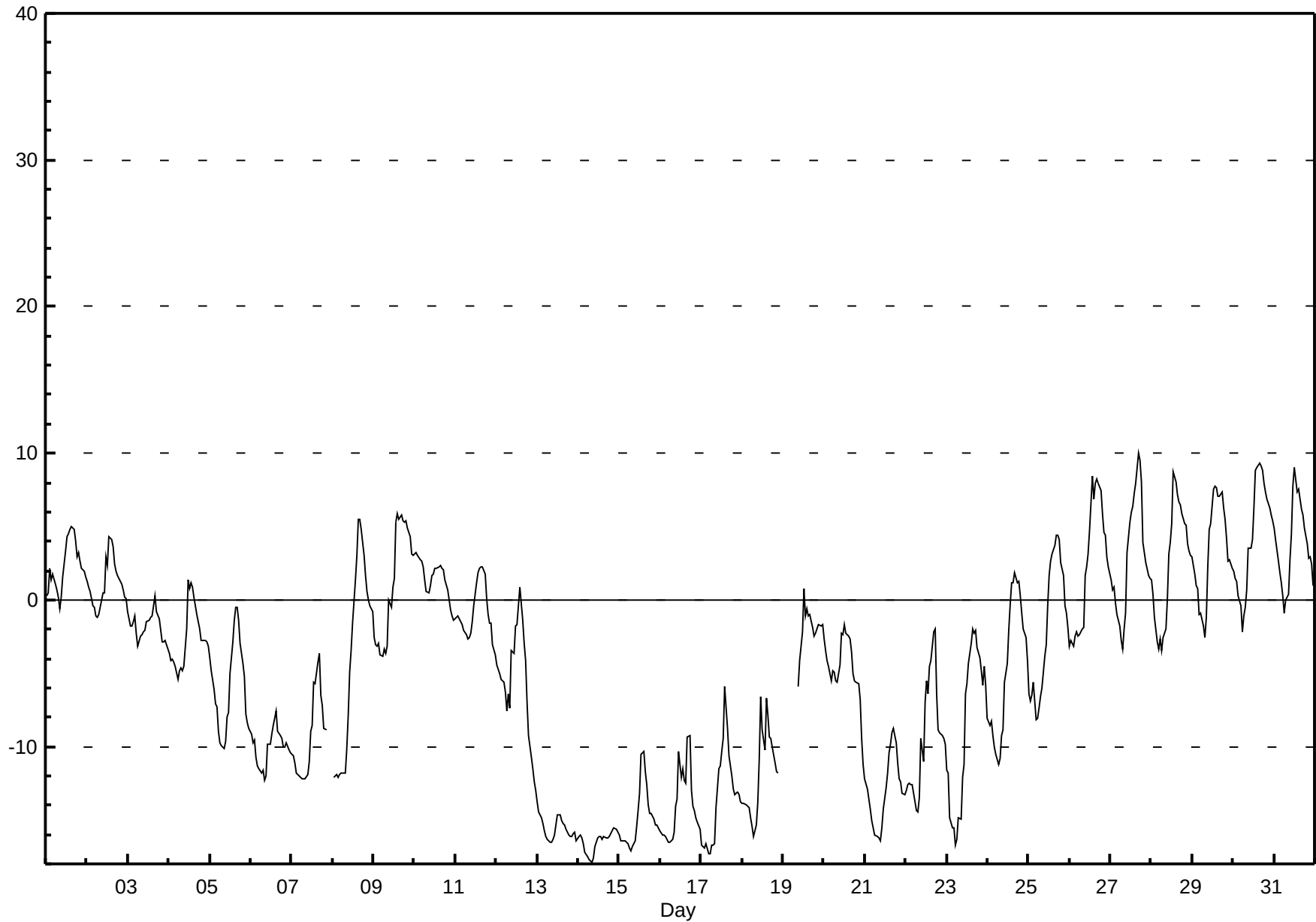
Beaverlodge - March 2013

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 10.0 °C on Mar 27 17:00 Maximum Daily Average: 4.3 °C on Mar 30																								Hours in Service: 744 Hours of Data: 729 Hours of Missing Data: 15 Hours of Calibration: 0 Percent Operational Time: 98.0		
Minimum Value: -18 °C on Mar 14 09:00 Minimum Daily Average: -16.5 °C on Mar 14 Maximum Diurnal Average: -0.9 °C at hour 15 Minimum Diurnal Average: -8.3 °C at hour 7 Monthly Average: -4.69 °C Percentiles: P ₁ = -17.2 P ₁₀ = -15.6 Q ₁ = -11.2 Median = -3.1 Q ₃ = 1.1 P ₉₀ = 4.5 P ₉₉ = 8.8																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Mar	0	1	2	1	2	1	1	0	-1	0	2	3	4	4	5	5	5	4	3	3	3	2	2	2	2.3	5.0
2-Mar	1	1	1	0	0	-1	-1	-1	-1	0	0	3	2	4	4	4	2	2	2	1	1	1	0	0	1.1	4.3
3-Mar	-1	-2	-2	-1	-1	-2	-3	-2	-2	-2	-2	-1	-1	-1	-1	0	0	-1	-1	-2	-3	-3	-3	-3	-1.8	0.3
4-Mar	-4	-4	-4	-4	-5	-5	-5	-5	-5	-5	-2	1	1	1	1	0	-1	-1	-2	-3	-3	-3	-3	-3	-2.6	1.4
5-Mar	-4	-5	-6	-7	-7	-9	-10	-10	-10	-10	-8	-8	-5	-3	-1	-1	-1	-1	-3	-4	-5	-8	-8	-9	-5.9	-0.5
6-Mar	-9	-10	-10	-11	-11	-11	-12	-12	-12	-12	-10	-10	-9	-9	-8	-8	-9	-9	-9	-10	-10	-10	-10	-10	-10.0	-7.5
7-Mar	-11	-11	-11	-12	-12	-12	-12	-12	-12	-12	-11	-9	-9	-6	-6	-4	-4	-6	-7	-9	-9	N	N	N	-9.3	-3.7
8-Mar	N	-12	-12	-12	-12	-12	-12	-12	-10	-8	-5	-3	-2	1	3	5	6	5	3	2	1	0	0	-1	-3.8	5.5
9-Mar	-3	-3	-3	-3	-4	-4	-3	-4	-3	0	0	1	1	5	6	6	6	5	5	5	5	4	3	3	1.1	5.8
10-Mar	3	3	3	3	3	2	1	1	0	1	2	2	2	2	2	2	2	2	1	1	0	-1	-1	-1	1.5	3.3
11-Mar	-1	-1	-1	-2	-2	-2	-2	-3	-3	-2	-1	0	1	2	2	2	2	2	0	-1	-2	-2	-3	-4	-0.8	2.3
12-Mar	-4	-5	-5	-5	-6	-6	-8	-6	-7	-3	-4	-2	-2	0	1	-1	-3	-4	-7	-9	-11	-12	-12	-13	-5.6	0.9
13-Mar	-14	-14	-15	-15	-16	-16	-16	-17	-16	-16	-16	-15	-15	-15	-15	-15	-15	-16	-16	-16	-16	-16	-16	-16	-15.6	-13.8
14-Mar	-16	-16	-16	-17	-17	-17	-18	-18	-18	-18	-17	-16	-16	-16	-16	-16	-16	-16	-16	-16	-16	-16	-16	-16	-16.5	-15.6
15-Mar	-16	-16	-16	-16	-17	-17	-17	-17	-17	-16	-15	-14	-13	-11	-10	-12	-13	-14	-15	-15	-15	-15	-15	-16	-14.9	-10.3
16-Mar	-16	-16	-16	-16	-16	-17	-17	-16	-16	-14	-14	-10	-12	-11	-12	-13	-9	-9	-13	-14	-14	-15	-15	-16	-14.1	-9.2
17-Mar	-17	-17	-17	-17	-17	-17	-17	-17	-17	-14	-12	-11	-10	-9	-6	-9	-11	-11	-12	-13	-13	-13	-13	-14	-13.5	-5.9
18-Mar	-14	-14	-14	-14	-14	-15	-15	-16	-15	-14	-11	-7	-9	-10	-7	-8	-9	-9	-10	-11	-12	-12	N	N	-11.8	-6.6
19-Mar	N	N	N	N	N	N	N	N	N	-6	-4	-2	1	-1	-1	-1	-1	-2	-2	-2	-2	-2	-2	-2	--	0.7
20-Mar	-3	-3	-4	-5	-6	-5	-5	-6	-6	-4	-2	-2	-2	-2	-3	-3	-4	-5	-6	-6	-6	-7	-9	-11	-4.7	-1.7
21-Mar	-12	-13	-14	-14	-15	-16	-16	-16	-16	-16	-16	-14	-13	-12	-10	-10	-9	-9	-10	-11	-12	-12	-13	-13	-13.0	-8.7
22-Mar	-13	-13	-13	-13	-13	-14	-14	-14	-14	-9	-11	-7	-5	-6	-5	-4	-2	-2	-6	-9	-9	-9	-9	-10	-9.4	-1.9
23-Mar	-12	-12	-15	-16	-16	-17	-16	-15	-15	-12	-11	-6	-6	-4	-3	-2	-2	-2	-3	-4	-5	-6	-5	-6	-8.7	-1.9
24-Mar	-8	-9	-8	-9	-10	-11	-11	-11	-9	-9	-6	-4	-2	0	1	1	2	1	1	0	-1	-2	-3	-4	-4.6	1.8
25-Mar	-6	-7	-6	-6	-8	-8	-7	-7	-6	-4	-3	0	2	3	3	4	4	4	4	3	2	0	-1	-2	-1.8	4.4
26-Mar	-3	-3	-3	-2	-2	-3	-2	-2	-2	2	2	3	5	8	7	8	8	8	7	6	5	4	3	2	2.3	8.4
27-Mar	1	1	1	0	-1	-2	-3	-3	-2	-1	3	5	6	6	7	8	10	10	8	4	3	3	2	1	2.8	10.0
28-Mar	1	0	-1	-3	-3	-3	-3	-3	-2	0	3	4	5	9	8	7	7	6	6	5	5	4	3	3	2.5	8.7
29-Mar	3	2	1	1	-1	-1	-2	-3	-1	2	5	5	8	8	8	7	7	7	6	5	4	3	3	2	3.3	7.8
30-Mar	2	1	1	0	0	-2	-1	0	1	4	4	4	6	9	9	9	9	9	8	7	7	6	6	5	4.3	9.3
31-Mar	5	4	3	2	1	0	-1	0	0	3	4	8	9	7	8	7	6	6	5	4	3	3	2	1	3.8	9.0
																									Diurnal Average	
																									Diurnal Maximum	
N - Not Valid																										

Hourly Averages

External Temperature (ET) - °C

Beaverlodge - March 2013



Hourly Averages

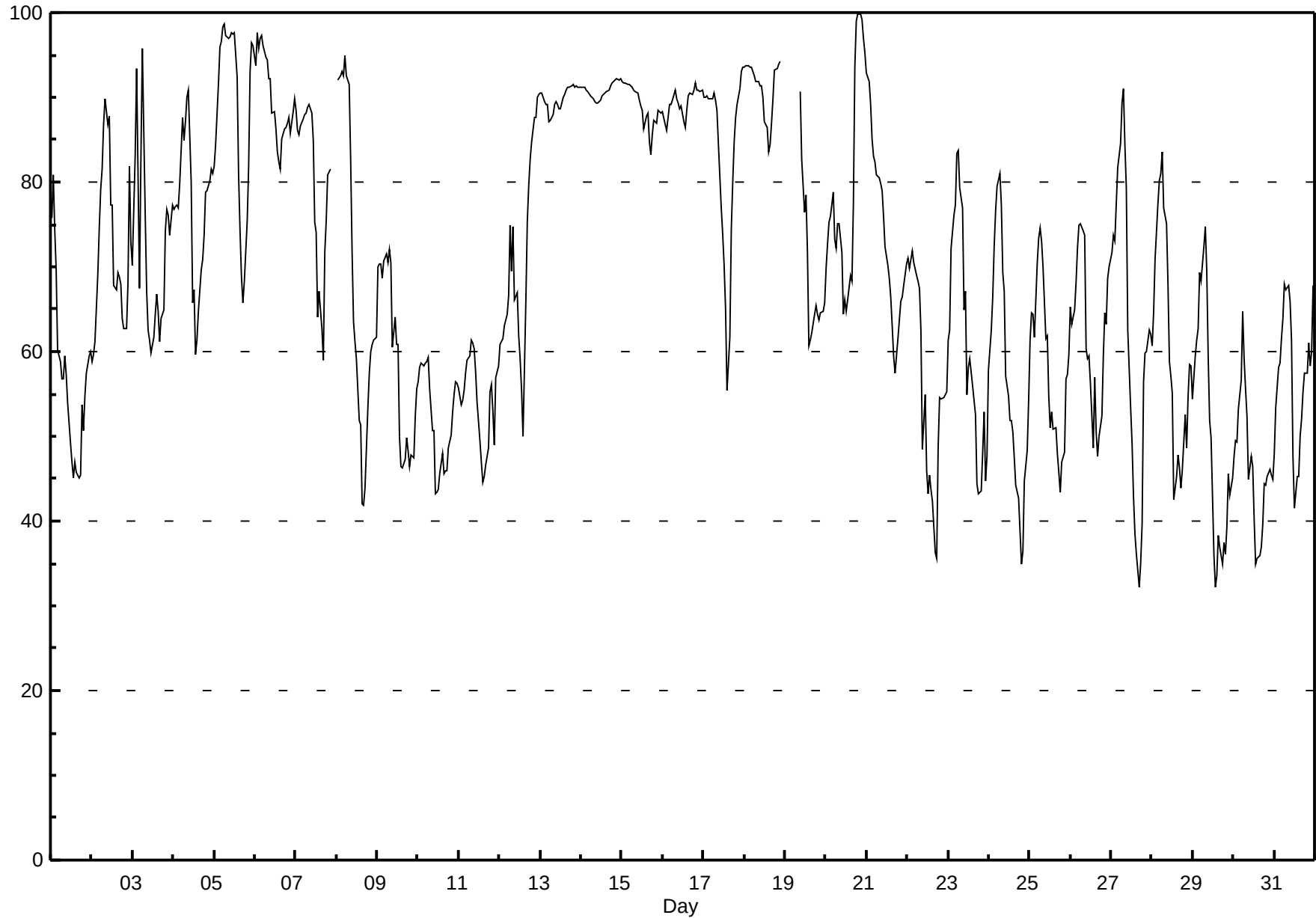
Relative Humidity (RH) - %

Beaverlodge - March 2013

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 99.9 % on Mar 20 20:00 Maximum Daily Average: 91.0 % on Mar 18																								Hours in Service: 744 Hours of Data: 729 Hours of Missing Data: 15 Hours of Calibration: 0 Percent Operational Time: 98.0		
Minimum Value: 32 % on Mar 29 14:00 Maximum Diurnal Average: 80.2 % at hour 7 Monthly Average: 69.85 %												Minimum Daily Average: 46.7 % on Mar 30 Minimum Diurnal Average: 60.0 % at hour 16 Percentiles: P ₁ = 35.6 P ₁₀ = 46.1 Q ₁ = 56.5 Median = 68.9 Q ₃ = 87.6 P ₉₀ = 91.4 P ₉₉ = 97.1														
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-Mar	76	81	74	70	60	59	57	57	59	57	54	49	47	45	47	46	45	45	54	51	55	57	59	60	56.8	80.8
2-Mar	59	60	61	69	75	79	81	87	90	87	88	77	77	68	67	69	69	68	64	63	63	68	82	73	72.6	89.9
3-Mar	70	83	93	81	67	83	96	76	67	63	61	60	62	64	67	65	61	64	65	74	77	76	74	77	71.9	95.7
4-Mar	77	77	77	77	80	88	85	87	90	91	80	66	67	60	61	65	70	71	74	79	79	80	82	81	76.8	90.8
5-Mar	82	84	92	96	97	98	99	97	97	97	98	97	98	92	81	74	69	66	68	75	82	93	96	96	88.5	98.6
6-Mar	94	98	96	97	97	96	95	94	92	92	88	88	86	83	82	82	85	86	87	87	88	86	88	90	89.9	97.7
7-Mar	88	86	86	87	87	88	88	89	89	88	85	75	74	64	67	63	59	72	75	81	82	N	N	N	79.7	89.1
8-Mar	N	92	93	93	92	95	92	92	83	72	64	61	59	52	51	42	42	44	53	57	60	61	61	62	68.4	94.9
9-Mar	70	70	70	69	71	71	71	72	71	61	64	61	61	50	46	46	47	50	48	46	48	48	52	56	59.1	72.0
10-Mar	56	58	59	58	59	59	59	56	51	51	43	43	44	46	48	46	46	46	49	50	53	55	56	56	51.9	59.3
11-Mar	56	54	54	55	57	59	59	61	61	60	58	54	49	47	45	45	47	49	55	56	53	49	57	58	54.2	61.4
12-Mar	61	61	62	63	64	67	75	69	75	66	67	62	59	55	50	66	75	80	83	85	88	88	90	90	70.9	90.4
13-Mar	91	90	90	89	89	87	87	88	89	89	89	89	89	90	90	91	91	91	91	92	91	91	91	91	89.9	91.5
14-Mar	91	91	91	91	91	90	90	90	89	89	89	90	90	90	91	91	91	91	92	92	92	92	92	92	90.8	92.2
15-Mar	92	92	92	92	91	91	91	91	91	90	90	89	88	86	88	88	85	83	86	87	87	88	88	88	88.9	91.9
16-Mar	88	87	86	88	89	89	90	91	90	89	89	89	87	87	88	90	91	90	91	92	91	91	91	91	89.3	91.7
17-Mar	90	90	90	90	90	90	91	90	88	85	77	74	70	65	55	62	74	80	85	88	89	91	93	94	82.9	93.6
18-Mar	94	94	94	94	93	93	93	92	92	91	91	90	87	86	84	84	87	90	93	93	94	94	N	N	91.0	94.2
19-Mar	N	N	N	N	N	N	N	N	N	91	83	76	78	72	61	61	62	64	65	64	64	65	65	66	--	90.6
20-Mar	70	73	75	76	79	73	72	75	75	72	64	66	65	66	69	68	77	94	99	100	100	99	97	95	79.1	99.9
21-Mar	93	92	89	85	83	82	81	81	80	79	76	72	70	69	66	63	59	57	62	64	66	67	68	70	73.9	92.8
22-Mar	71	70	71	72	70	69	68	67	63	48	55	46	43	45	44	42	36	36	49	55	54	55	55	55	55.8	71.9
23-Mar	61	63	72	76	77	83	84	79	77	65	67	55	58	59	56	54	53	44	43	44	48	53	45	48	61.0	83.8
24-Mar	58	62	66	72	77	79	81	77	69	67	57	55	52	52	51	47	44	43	39	35	36	45	48	54	57.0	80.9
25-Mar	61	65	64	62	71	73	75	73	70	61	62	55	51	53	51	51	48	46	43	47	48	57	57	60	58.5	74.5
26-Mar	65	63	65	68	72	75	75	74	74	60	59	60	56	49	57	51	48	50	52	60	65	63	69	70	62.5	75.1
27-Mar	72	74	73	77	82	85	89	91	84	79	63	53	49	43	39	36	32	35	40	57	60	60	63	62	62.4	91.0
28-Mar	61	65	71	77	80	81	83	77	75	68	59	57	55	43	45	48	46	44	46	53	49	55	58	58	60.6	83.5
29-Mar	54	59	61	63	69	68	72	75	69	59	52	50	36	32	34	38	37	35	37	36	39	46	43	45	50.5	74.8
30-Mar	48	49	49	53	57	65	59	56	52	45	48	46	40	35	36	36	37	40	44	44	45	46	45	45	46.7	64.8
31-Mar	48	53	58	59	61	64	68	67	68	66	61	48	42	45	45	50	52	55	58	57	61	58	60	68	57.2	68.0
72.3 74.5 75.8 76.6 77.6 79.4 80.2 79.0 77.3 73.5 70.3 66.2 64.2 61.1 60.0 60.0 60.2 61.6 64.2 66.5 67.9 69.2 69.9 70.8																								Diurnal Average		
93.8 97.7 95.7 96.9 97.4 98.4 98.6 97.3 96.9 97.2 97.6 97.5 97.6 92.3 90.5 90.9 91.2 93.6 98.9 99.9 99.9 99.1 97.0 96.1																								Diurnal Maximum		
N - Not Valid																										

Hourly Averages

Relative Humidity (RH) - %
Beaverlodge - March 2013



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Beaverlodge - March 2013

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	11	14	25	20	27	20	13	9	4	6	13	13	22	20	16	13	13	13	7	10	11	11	9	8	12.4	27.3
Dir	224	237	253	260	259	266	282	281	317	265	227	256	269	262	261	256	240	249	271	283	286	286	315	11	263	259
2 Spd	8	9	2	6	6	1	4	2	3	2	4	3	6	5	10	10	14	14	17	17	18	17	16	16	7.0	17.9
Dir	16	19	21	222	233	111	83	111	65	78	75	119	118	61	88	74	77	72	68	49	52	56	35	26	59	52
3 Spd	13	14	11	11	9	6	7	8	9	10	13	12	12	11	13	9	5	7	3	1	4	5	3	3	7.5	13.6
Dir	30	41	19	17	9	339	282	334	336	352	1	7	7	10	30	31	20	33	45	107	38	44	44	46	13	41
4 Spd	3	5	6	6	3	4	3	3	4	4	2	1	2	7	11	13	13	13	10	11	7	5	1	5	4.4	13.4
Dir	96	72	71	74	137	144	136	129	125	207	145	205	243	105	84	61	53	54	37	33	29	15	233	113	72	61
5 Spd	4	3	0	3	1	2	3	2	3	5	0	4	2	2	2	2	2	5	5	1	1	2	2	2	1.5	5.4
Dir	93	151	240	58	34	146	121	70	34	273	37	57	109	100	89	73	63	67	42	309	173	213	56	31	74	67
6 Spd	1	1	1	1	2	3	5	0	7	6	2	4	6	8	6	7	13	11	12	9	4	2	6	8	3.4	13.1
Dir	192	72	5	281	342	43	122	25	265	285	47	323	10	12	33	46	37	40	91	92	92	331	20	22	36	37
7 Spd	7	5	9	9	7	9	5	6	8	7	6	2	4	2	4	4	2	6	3	2	2	3	4	3	3.1	9.1
Dir	27	59	80	111	107	34	98	125	111	117	128	130	123	137	80	92	42	20	36	121	201	237	254	255	92	80
8 Spd	1	2	3	3	2	2	2	5	4	4	4	4	5	4	5	4	10	11	15	16	14	11	9	5	2.3	15.7
Dir	15	353	79	83	130	78	86	49	58	71	73	72	68	62	52	11	292	295	271	265	271	272	269	262	304	265
9 Spd	2	3	4	4	3	3	4	3	3	2	3	3	2	18	29	28	11	9	19	27	35	29	14	13	8.0	35.5
Dir	48	72	57	82	92	71	64	97	79	135	89	84	74	238	246	264	257	224	251	257	257	261	260	282	254	257
10 Spd	27	35	31	34	42	42	40	38	42	42	50	49	49	44	40	44	45	38	34	33	28	23	19	19	36.7	49.9
Dir	272	262	262	260	257	261	262	257	240	246	261	265	266	265	270	265	264	269	265	262	258	258	256	255	261	261
11 Spd	21	24	24	22	19	18	17	15	12	12	14	12	8	9	12	15	16	12	13	12	7	7	1	0	12.8	24.2
Dir	263	267	265	266	263	260	265	265	271	262	256	248	229	214	212	220	237	250	253	268	269	260	91	127	255	267
12 Spd	3	3	4	3	3	4	2	3	3	1	1	5	13	10	9	18	21	15	18	20	19	19	17	18	7.6	20.9
Dir	92	73	80	107	66	62	18	307	29	119	88	16	10	25	46	28	25	2	330	321	321	324	329	326	357	25
13 Spd	17	17	17	16	17	14	12	12	9	9	9	8	9	11	11	11	10	10	8	7	5	5	2	4	8.0	17.3
Dir	320	317	319	320	315	314	325	332	335	332	331	350	13	22	31	29	33	35	34	61	72	81	93	113	349	317
14 Spd	3	4	2	5	9	8	8	8	12	15	17	15	18	17	18	15	16	14	12	9	8	9	8	12	10.3	17.7
Dir	90	100	126	117	98	80	73	69	70	68	82	69	68	71	67	61	41	46	53	52	50	46	24	31	64	68
15 Spd	10	10	8	9	9	10	10	10	10	11	9	9	6	4	4	5	5	8	11	11	11	10	12	13	3.7	12.9
Dir	350	349	337	328	333	324	317	311	309	311	310	316	321	19	276	217	133	132	124	101	82	77	81	76	360	76
16 Spd	14	14	10	7	8	7	5	4	1	2	3	1	4	4	7	9	2	1	8	10	10	8	6	5	4.5	14.2
Dir	71	64	66	54	30	32	37	59	357	263	248	248	239	220	17	17	106	166	9	16	20	27	1	335	33	64
17 Spd	5	5	8	9	3	2	1	2	3	2	2	4	5	5	1	4	4	4	3	3	8	5	4	10	3.3	9.6
Dir	7	10	0	15	354	64	77	198	59	68	73	71	70	95	89	66	55	85	83	63	95	65	9	23	48	23
18 Spd	8	6	7	6	7	8	8	5	5	1	2	3	4	7	4	6	7	9	8	8	3	3	2	1	1.5	8.7
Dir	12	316	302	311	323	334	338	2	18	265	154	144	116	74	92	118	107	132	117	118	174	129	188	101	56	132
19 Spd	4	3	3	3	5	5	5	3	1	3	3	2	5	8	8	15	19	18	18	17	19	18	14	10	8.2	19.1
Dir	63	92	70	73	51	49	67	70	29	195	156	111	133	127	114	106	107	96	93	95	98	100	97	101	98	107
20 Spd	9	9	3	3	3	7	7	6	3	4	4	3	4	8	15	14	14	14	14	11	13	18	24	26	6.0	25.7
Dir	88	81	110	130	97	73	116	112	256	338	298	85	169	20	21	17	28	21	15	360	349	323	314	314	7	314
21 Spd	23	20	16	17	16	17	19	20	19	24	20	14	13	15	14	15	14	11	7	10	12	8	10	9	14.4	24.1
Dir	315	319	317	320	313	311	310	310	308	305	304	311	321	305	316	314	322	319	353	26	19	0	338	312	319	305
22 Spd	11	9	6	7	9	10	10	10	4	1	3	3	1	4	4	4	3	2	4	6	6	6	5	6	2.2	10.9
Dir	319	323	317	305	309	319	318	318	303	28	265	111	108	223	100	95	141	133	114	87	80	73	75	72	346	319

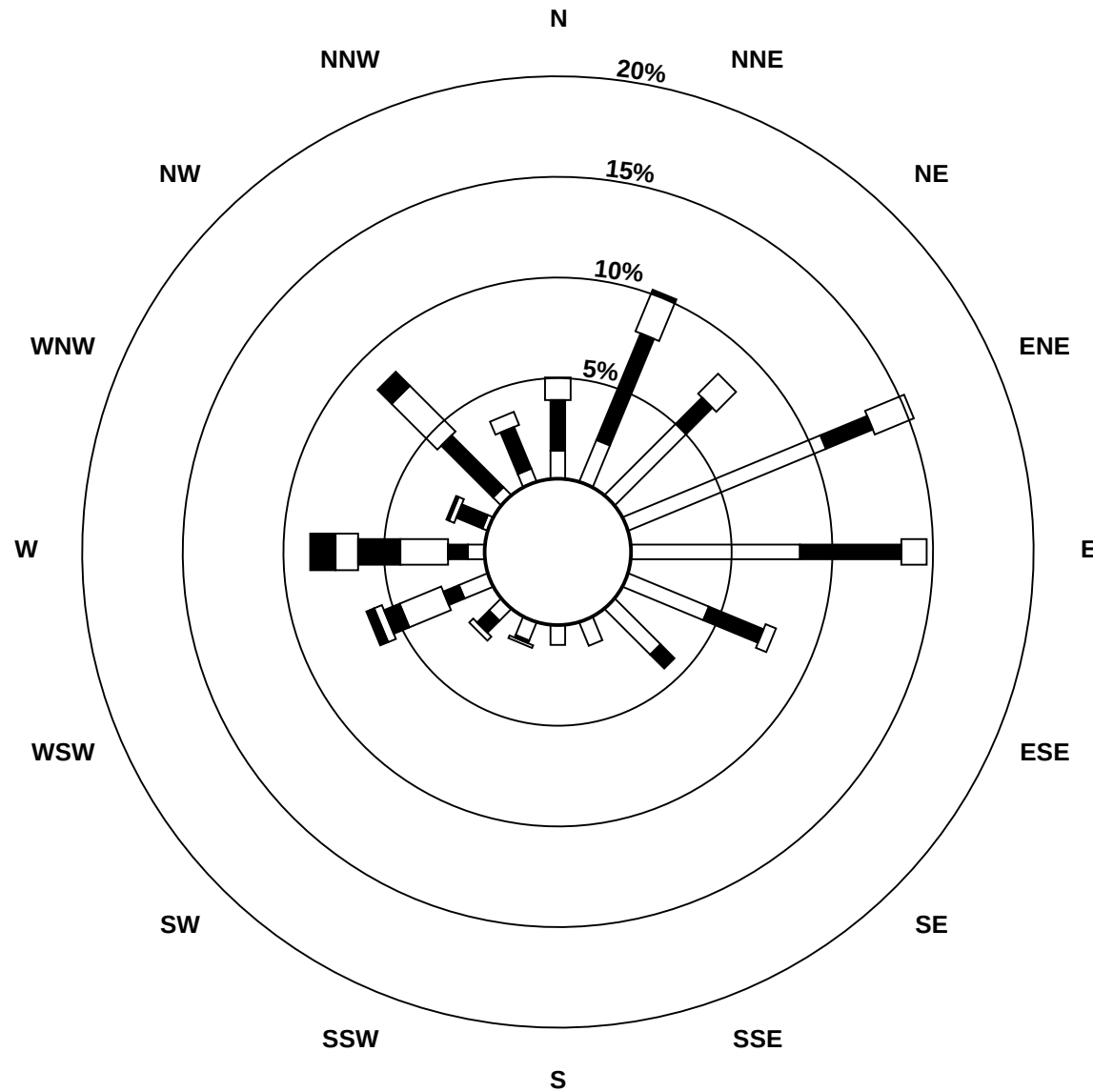
Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Beaverlodge - March 2013

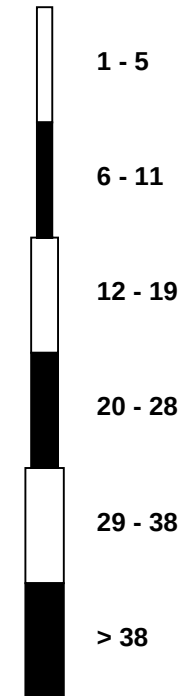
Day		Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd		1	1	1	4	1	1	3	2	3	2	4	2	5	6	8	10	14	10	11	6	3	2	7	3	3.9	13.5
Dir		93	257	115	58	132	179	60	87	92	159	97	95	74	80	107	100	104	96	96	85	255	21	58	90	93	104
24 Spd		2	2	1	3	2	1	1	2	2	5	4	5	5	7	8	11	9	11	8	8	6	2	1	1	3.8	11.3
Dir		171	86	188	218	68	99	156	115	117	85	90	67	71	102	104	112	94	110	79	77	84	190	209	305	98	110
25 Spd		0	0	2	4	1	3	4	3	3	3	4	4	4	7	10	12	11	9	8	9	7	6	5	1	4.0	11.8
Dir		253	324	37	45	64	74	55	67	78	133	74	112	91	97	121	109	106	97	76	84	94	296	23	221	89	109
26 Spd		2	2	2	2	1	3	3	3	4	2	4	5	4	4	12	11	22	20	21	14	10	8	5	9	4.2	22.0
Dir		80	86	91	71	144	84	85	101	86	108	106	64	42	242	238	235	254	260	264	256	250	244	235	244	247	254
27 Spd		6	4	7	1	4	4	2	6	4	5	8	9	12	13	10	8	4	5	7	8	9	7	7	5	2.8	12.8
Dir		237	244	258	87	59	66	92	45	58	46	315	344	353	350	358	25	36	165	133	87	79	87	116	114	37	350
28 Spd		5	3	3	1	4	3	4	4	5	4	3	4	3	9	14	12	13	10	5	6	7	8	3	4	4.7	13.9
Dir		104	176	92	182	50	76	67	102	64	77	87	73	83	355	29	26	17	29	52	71	10	32	14	52	44	29
29 Spd		3	4	4	3	3	2	0	1	2	2	3	7	9	13	10	10	9	5	8	6	3	4	3	6	3.6	12.5
Dir		105	143	131	192	69	82	213	230	52	89	63	343	345	353	1	18	18	32	26	32	58	56	56	43	27	353
30 Spd		2	4	4	3	2	1	4	3	1	1	3	5	2	19	27	26	29	26	17	15	15	15	9	8	7.2	28.8
Dir		56	54	45	9	7	206	64	71	113	138	81	75	68	263	257	260	261	267	266	266	263	271	305	315	271	261
31 Spd		9	12	14	6	4	5	4	4	7	1	2	1	1	4	4	9	11	8	8	9	8	9	9	11	4.9	14.2
Dir		321	338	29	343	324	330	40	39	32	351	59	99	74	70	53	85	79	82	82	74	83	68	80	93	50	29
Spd		3.0	3.0	2.8	2.7	3.1	3.0	2.2	2.1	1.7	2.0	1.8	2.0	2.2	2.3	1.9	2.2	2.3	1.9	2.1	2.1	2.1	2.7	3.0	3.1	Diurnal Average	
Dir		336	328	320	310	302	315	319	319	328	291	296	333	341	329	350	7	7	13	12	4	345	335	350	359	Diurnal Maximum	
Spd		26.8	35.5	31.1	33.6	41.7	41.6	39.9	38.4	42.1	42.4	49.9	48.5	48.9	44.4	40.4	44.0	44.8	38.1	33.9	33.2	35.5	29.0	24.5	25.7	Diurnal Maximum	
Dir		272	262	262	260	257	261	262	257	240	246	261	265	266	265	270	265	264	269	265	262	257	261	314	314		
Maximum Speed Value: 50 km/h on Mar 10 11:00																								Hours in Service: 744			
Maximum Daily Speed Average: 36.7 km/h on Mar 10																								Hours of Data: 744			
Maximum Diurnal Speed Average: 3.1 km/h at hour 5																								Hours of Missing Data: 0			
Minimum Speed Value: 0 km/h on Mar 29 07:00																								Percent Operational Time: 100.0			
Minimum Daily Speed Average: 1.5 km/h on Mar 5																											
Minimum Diurnal Speed Average: 1.7 km/h at hour 9																											
Monthly Average Velocity: 2.20 km/h 334.8 deg																											
Speed Percentiles: P ₁ = 0.5 P ₁₀ = 1.9 Q ₁ = 3.2 Median = 6.5 Q ₃ = 11.2 P ₉₀ = 17.7 P ₉₉ = 40.9																											
All monthly, daily, and diurnal averages have been calculated using vector methods																											
Frequency Distribution																											
Direction		Speed Range (km/h)						Total																			
		0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38																				
North		22	44	17	0	0	0	83																			
NorthEast		73	44	27	1	0	0	145																			
East		115	64	26	2	0	0	207																			
SouthEast		42	19	1	0	0	0	62																			
South		18	0	0	0	0	0	18																			
SouthWest		20	8	10	0	1	2	41																			
West		15	14	30	23	9	12	103																			
NorthWest		11	38	27	9	0	0	85																			
Total		316	231	138	35	10	14	744																			

Wind Rose

Wind Speed (WS) (km/h)
Beaverlodge - March 2013



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Beaverlodge - March 2013

Maximum Speed: 50 km/h on Mar 10 11:00																				Maximum Daily Speed Average: 37.1 km/h on Mar 10										Hours in Service: 744	
Minimum Speed: 1 km/h on Mar 29 07:00																				Minimum Daily Speed Average: 3.2 km/h on Mar 5										Hours of Data: 744	
Maximum Diurnal Speed Average: 12.5 km/h at hour 17																				Minimum Diurnal Speed Average: 6.9 km/h at hour 9										Hours of Missing Data: 0	
Monthly Average Speed: 9.01 km/h																				Percentiles: P ₁ = 1.5 P ₁₀ = 2.6 Q ₁ = 3.8 Median = 6.8 Q ₃ = 11.5 P ₉₀ = 17.8 P ₉₉ = 41.1										Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
1-Mar	11	15	25	20	28	20	13	9	6	10	14	13	23	20	16	13	14	13	7	10	11	11	10	8	14.1	27.5					
2-Mar	8	9	8	6	6	3	4	4	4	3	4	3	6	5	10	11	14	14	17	17	18	17	16	16	9.2	18.0					
3-Mar	13	14	11	11	10	8	8	8	9	11	13	12	13	11	13	9	6	7	3	3	4	5	3	3	8.7	13.7					
4-Mar	3	5	6	6	4	5	3	3	5	4	3	2	3	7	12	14	13	13	10	11	7	5	3	6	6.4	13.5					
5-Mar	4	3	1	3	3	3	4	4	4	5	3	5	2	2	2	2	3	6	5	2	3	3	2	3	3.2	5.6					
6-Mar	2	1	2	3	3	5	5	2	7	6	3	6	6	8	7	7	13	11	12	9	5	3	7	9	5.9	13.2					
7-Mar	7	5	10	9	7	9	6	6	8	7	6	3	4	3	5	4	2	6	4	2	2	3	4	3	5.3	9.5					
8-Mar	2	4	3	4	2	2	3	5	4	4	4	4	5	5	6	6	11	12	15	16	14	11	9	5	6.5	15.7					
9-Mar	2	3	4	4	3	4	4	3	3	2	3	4	5	18	29	29	12	9	19	27	36	29	14	13	11.6	35.5					
10-Mar	27	36	31	34	42	42	40	39	42	43	50	49	49	45	41	44	45	38	34	33	28	23	19	19	37.1	50.1					
11-Mar	21	24	24	22	19	18	17	15	12	12	15	13	8	10	12	15	16	13	13	13	7	7	3	3	13.8	24.3					
12-Mar	4	4	5	3	3	4	5	5	3	2	3	6	13	10	10	18	21	15	18	20	19	19	17	18	10.2	20.9					
13-Mar	17	17	17	16	17	14	12	12	9	9	9	9	9	11	11	11	10	10	8	7	6	5	3	4	10.5	17.4					
14-Mar	3	4	2	5	9	8	8	8	12	15	17	15	18	17	18	15	16	14	12	9	8	9	8	12	11.0	17.8					
15-Mar	10	10	9	9	9	10	10	10	10	11	10	9	7	4	5	5	5	8	11	12	11	10	12	13	9.1	13.0					
16-Mar	14	14	10	8	8	7	5	4	3	3	3	1	4	4	7	9	3	2	8	10	10	8	6	5	6.6	14.3					
17-Mar	5	5	9	9	4	3	2	3	4	3	2	4	5	5	1	4	5	4	3	4	8	5	5	10	4.6	9.6					
18-Mar	8	7	7	6	7	8	8	6	5	4	2	3	5	7	4	6	7	9	8	8	4	3	3	2	5.6	8.9					
19-Mar	4	3	4	5	5	5	5	4	4	4	3	3	5	8	8	15	19	18	18	18	19	18	14	10	9.2	19.2					
20-Mar	9	9	4	3	3	7	8	6	3	5	5	9	6	11	15	14	14	14	14	11	13	18	25	26	10.5	25.8					
21-Mar	23	20	17	17	16	17	19	21	19	24	20	14	13	15	14	15	14	12	8	10	12	9	10	9	15.4	24.2					
22-Mar	11	9	6	7	9	10	10	10	5	2	5	3	4	4	4	4	3	3	4	6	6	6	5	6	5.9	10.9					
23-Mar	2	2	2	4	3	2	3	2	4	3	5	3	5	6	8	10	14	10	11	6	4	5	7	3	5.1	13.5					
24-Mar	2	2	2	4	3	2	2	2	3	5	4	5	5	7	8	11	9	12	8	8	6	2	3	2	5.0	11.6					
25-Mar	1	2	2	4	2	3	5	3	3	3	4	4	5	7	10	12	11	9	8	9	7	7	5	2	5.4	11.8					
26-Mar	2	2	3	3	3	3	3	3	4	3	4	6	4	5	13	11	22	20	22	14	10	8	5	9	7.6	22.0					
27-Mar	6	4	7	5	4	4	3	6	4	5	8	9	12	13	10	8	4	5	7	8	9	7	7	5	6.8	12.9					
28-Mar	5	3	3	2	5	3	4	5	5	4	4	5	5	10	15	12	13	10	6	6	8	9	5	5	6.3	14.9					
29-Mar	4	4	4	4	3	3	1	2	3	2	3	8	10	13	10	10	10	5	9	6	3	4	3	6	5.3	12.6					
30-Mar	3	4	5	5	3	3	4	4	2	2	3	5	3	20	27	26	29	26	17	15	15	15	9	8	10.4	28.9					
31-Mar	9	13	15	6	4	6	5	4	7	2	2	2	2	4	5	9	11	8	8	9	8	9	10	11	7.0	14.6					
7.8 8.3 8.3 7.9 7.9 7.8 7.4 6.9 6.9 7.0 7.5 7.5 8.5 10.2 11.5 12.2 12.5 11.4 11.3 11.0 10.3 9.5 8.2 8.2																								Diurnal Average							
26.9 35.6 31.2 33.8 41.8 41.7 40.0 38.6 42.1 42.6 50.1 48.7 49.2 44.6 40.8 44.2 45.0 38.2 34.0 33.3 35.5 29.1 24.5 25.8																								Diurnal Maximum							
All monthly, daily, and diurnal averages have been calculated using scalar methods																															

Hourly Standard Deviations

Wind Direction (WD) - deg

Beaverlodge - March 2013

Maximum Value: 93.6 deg on Mar 19 09:00																			Hours in Service: 744						
Minimum Value: 1.9 deg on Mar 19 21:00																			Hours of Data: 744						
																			Hours of Missing Data: 0						
Percentiles: P ₁ = 2.7 P ₁₀ = 4.6 Q ₁ = 6.4 Median = 12.9 Q ₃ = 32.3 P ₉₀ = 55.8 P ₉₉ = 87.0																			Hours of Calibration: 0						
																			Percent Operational Time: 100.0						
Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Mar	8	20	7	4	7	8	10	15	43	67	12	17	6	5	7	9	11	10	25	15	6	21	30	13	66.8
2-Mar	7	6	82	9	6	68	11	49	29	63	17	22	10	22	13	5	6	4	5	5	5	6	4	6	82.4
3-Mar	5	8	18	10	8	36	33	8	11	8	6	10	11	11	10	11	10	5	69	52	6	7	12	14	68.9
4-Mar	23	8	6	5	45	40	26	31	20	25	41	88	67	40	17	8	6	4	12	6	8	24	93	54	93.5
5-Mar	18	28	85	9	84	38	22	65	26	18	84	13	25	25	19	11	20	19	10	70	69	71	44	63	85.2
6-Mar	77	35	74	80	56	64	46	93	43	11	54	41	25	14	32	30	5	14	8	15	29	37	6	7	92.7
7-Mar	8	32	19	15	14	5	41	10	8	11	14	41	10	44	22	36	40	5	52	45	41	23	29	46	51.8
8-Mar	46	57	35	16	22	31	40	6	10	12	11	19	16	19	32	44	19	14	4	3	4	3	6	29	57.3
9-Mar	37	31	12	12	15	14	12	18	18	34	24	25	60	4	6	6	26	8	17	7	4	4	6	8	60.1
10-Mar	5	4	4	6	4	4	4	6	3	5	6	5	6	6	8	5	5	5	4	3	3	2	2	3	8.2
11-Mar	4	3	3	3	4	3	7	3	7	5	6	11	13	13	16	16	4	10	7	9	17	18	74	90	89.9
12-Mar	34	23	29	27	26	39	88	54	34	65	93	87	3	15	38	5	5	15	7	5	7	8	6	5	92.6
13-Mar	6	4	5	6	6	5	8	8	10	13	11	22	7	7	5	6	9	5	6	22	17	10	26	11	25.6
14-Mar	21	10	32	11	6	10	4	5	4	5	8	13	6	6	5	12	6	7	9	14	15	20	9	13	31.9
15-Mar	11	6	6	5	7	5	6	6	5	8	9	13	24	39	32	19	15	7	4	16	6	7	5	6	38.5
16-Mar	5	5	9	26	9	9	13	21	64	73	42	81	17	15	35	4	39	68	4	8	4	3	11	31	81.1
17-Mar	17	20	24	6	47	61	76	36	35	30	18	6	9	7	30	17	22	13	24	43	15	46	50	5	75.6
18-Mar	11	14	4	7	5	6	8	19	28	66	55	12	28	9	11	19	12	11	13	9	32	36	41	73	73.4
19-Mar	15	23	41	51	12	18	24	43	94	39	50	37	10	6	12	2	4	4	3	4	2	2	5	12	93.6
20-Mar	11	8	41	42	58	16	22	42	28	36	46	74	50	49	6	3	6	3	4	7	9	9	4	4	73.7
21-Mar	4	5	6	8	6	5	5	5	5	4	5	10	7	10	8	7	6	10	27	6	4	15	9	8	27.2
22-Mar	5	4	9	7	6	3	3	4	73	70	69	29	74	29	10	20	13	42	7	9	6	7	11	11	74.4
23-Mar	53	51	68	56	62	69	32	46	52	31	25	50	19	7	9	4	4	6	7	23	56	85	13	37	84.6
24-Mar	40	39	61	32	51	61	65	39	38	8	10	6	7	12	5	7	14	15	4	6	35	48	70	81	81.1
25-Mar	87	76	58	6	62	19	6	15	28	16	12	17	16	7	7	4	5	8	8	9	24	69	35	78	87.2
26-Mar	33	29	51	46	72	29	24	26	12	40	14	11	33	49	10	9	4	5	11	14	5	20	29	7	71.6
27-Mar	28	50	13	85	38	25	36	14	12	14	22	13	7	6	20	7	32	12	28	13	6	9	7	16	84.9
28-Mar	20	23	36	74	7	32	10	36	22	19	41	24	55	34	22	6	6	6	28	19	23	18	71	35	73.5
29-Mar	41	16	14	34	49	68	89	70	41	40	24	34	24	6	17	9	10	13	5	6	73	31	45	9	89.0
30-Mar	27	9	21	76	69	83	31	32	45	33	18	16	54	43	4	4	4	6	8	5	2	6	11	10	83.1
31-Mar	8	8	14	26	29	39	45	20	5	65	8	47	80	10	21	10	6	8	4	5	10	5	12	6	80.3
87.2 76.4 85.2 84.9 84.1 83.1 89.0 92.7 93.6 73.0 92.6 87.7 80.3 49.5 38.3 44.4 40.1 68.1 68.9 69.8 72.7 84.6 93.5 89.9																									

PAZA
Valleyview Station
Monthly Summary Tables, Graphs and
Roses

Hourly Averages

Sulphur Dioxide (SO₂) - ppb

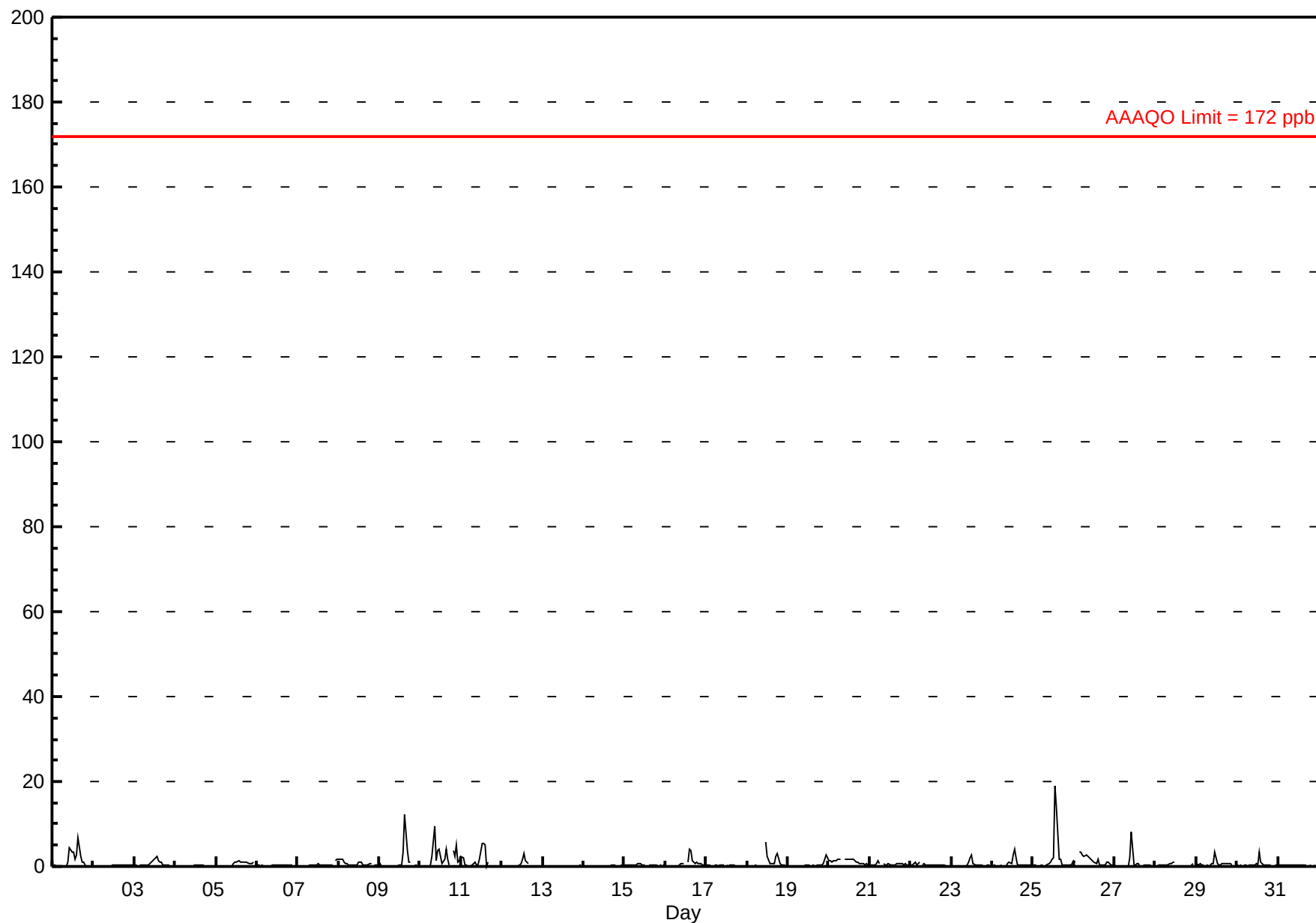
Valleyview - March 2013

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0																				Hours in Service: 744						
Maximum Value: 18.9 ppb on Mar 25 14:00																				Maximum Daily Average: 2.0 ppb on Mar 10		Hours of Data: 707				
Minimum Value: 0 ppb on Mar 2 00:00																				Minimum Daily Average: 0.1 ppb on Mar 13		Hours of Missing Data: 37				
Maximum Diurnal Average: 1.8 ppb at hour 14																				Minimum Diurnal Average: 0.3 ppb at hour 7		Hours of Calibration: 37				
Monthly Average: 0.65 ppb																				Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.3 Q ₃ = 0.6 P ₉₀ = 1.6 P ₉₉ = 5.2		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-Mar	0	0	0	0	A	0	0	0	0	1	4	3	4	2	3	7	2	1	1	0	0	0	0	0	1.3	6.6
2-Mar	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
3-Mar	0	0	A	0	0	0	0	0	0	1	1	1	2	2	1	1	1	0	0	0	0	0	0	0	0.6	2.4
4-Mar	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	0.5
5-Mar	A	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.6	1.3
6-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.2	0.4
7-Mar	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	A	1	2	0.4	1.7
8-Mar	2	2	2	1	1	1	0	0	0	0	0	0	1	1	0	0	0	0	1	1	A	0	0	0	0.7	1.9
9-Mar	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3	12	4	1	1	A	0	0	0	0	1.1	12.2
10-Mar	0	0	0	0	0	0	0	2	10	1	4	4	2	1	2	4	2	1	A	4	2	5	1	1	2.0	9.6
11-Mar	2	2	0	0	0	0	0	1	1	0	0	2	5	5	5	0	1	A	0	0	0	0	0	0	1.2	5.5
12-Mar	0	0	0	0	0	0	0	0	0	0	0	1	2	3	1	1	A	0	0	0	0	0	0	0	0.3	3.0
13-Mar	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
14-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.1	0.4
15-Mar	0	0	0	0	0	0	0	0	1	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.3	0.6
16-Mar	0	0	0	0	0	0	0	0	0	1	1	1	A	1	4	4	1	1	1	1	1	1	0	0	0.8	4.2
17-Mar	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
18-Mar	0	0	0	0	0	0	0	0	0	0	A	6	2	1	1	1	1	2	3	1	0	0	0	0	0.8	5.7
19-Mar	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	3	2	0.4	2.6
20-Mar	1	1	1	1	1	2	2	2	A	2	2	2	2	2	2	1	1	1	1	1	1	0	1	0	1.3	1.8
21-Mar	0	0	0	0	1	1	1	A	1	0	0	1	0	0	0	0	1	1	1	1	0	1	0	0	0.5	1.2
22-Mar	0	0	1	1	0	1	A	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.9
23-Mar	0	0	0	0	0	A	0	0	0	0	1	2	3	1	0	0	0	0	0	0	0	0	0	0	0.4	2.7
24-Mar	0	0	0	0	A	0	0	0	0	1	1	1	3	4	2	0	0	0	0	0	0	0	0	0	0.6	4.1
25-Mar	0	0	0	A	0	0	0	0	0	1	1	2	2	19	14	2	2	0	0	0	0	0	1	2.0	18.9	
26-Mar	1	1	A	3	3	3	2	3	2	2	2	1	1	1	2	0	0	0	0	1	1	1	0	0	1.4	3.3
27-Mar	0	A	0	0	0	0	0	0	0	2	8	0	0	1	1	0	0	0	0	0	0	0	0	0	0.6	8.2
28-Mar	A	0	0	0	0	0	0	0	1	1	1	1	C	C	C	C	0	0	0	0	0	0	1	A	0.4	1.0
29-Mar	1	0	1	0	0	0	0	0	0	1	1	3	1	0	0	1	1	1	1	1	1	0	A	0	0.6	3.4
30-Mar	0	0	0	0	0	0	0	0	0	0	0	1	0	3	1	0	0	0	0	0	0	A	0	0	0.4	3.5
31-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.3	0.4
0.4 0.4 0.3 0.3 0.3 0.3 0.3 0.4 0.6 0.6 1.0 1.2 1.2 1.8 1.6 1.4 0.7 0.5 0.5 0.5 0.4 0.4 0.4 0.3																								Diurnal Average		
2.4 1.9 1.6 3.3 3.3 2.8 2.3 2.6 9.6 2.1 8.2 5.7 5.5 18.9 13.9 12.2 3.8 2.4 2.9 3.8 2.3 4.9 2.6 2.1																								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 - March 2013



Hourly Maximums

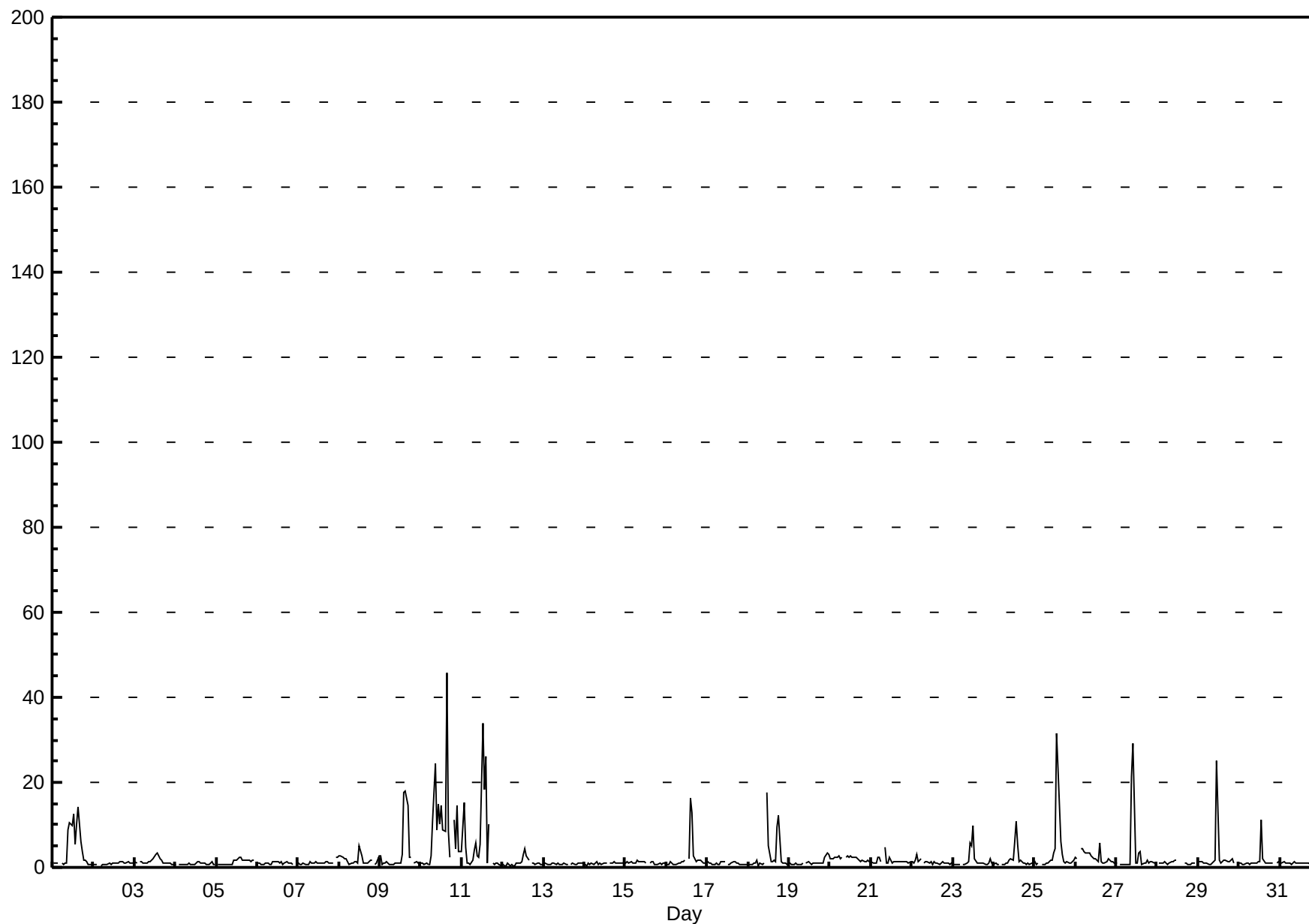
Sulphur Dioxide (SO₂) - ppb

Valleyview - March 2013

Maximum Value: 45.7 ppb on Mar 10 16:00																				Maximum Daily Average: 8.9 ppb on Mar 10					Hours in Service: 744		
Minimum Value: 0 ppb on Mar 2 05:00																				Minimum Daily Average: 0.8 ppb on Mar 13					Hours of Data: 707		
Maximum Diurnal Average: 5.0 ppb at hour 15																				Minimum Diurnal Average: 1.0 ppb at hour 7					Hours of Missing Data: 37		
Monthly Average: 2.15 ppb																				Percentiles: P ₁ = 0.5 P ₁₀ = 0.7 Q ₁ = 0.9 Median = 1.1 Q ₃ = 1.5 P ₉₀ = 3.3 P ₉₉ = 24.0					Hours of Calibration: 37		
																				Percent Operational Time: 100.0							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
1-Mar	1	1	1	1	A	1	1	1	1	9	10	10	13	5	10	14	6	4	2	2	1	1	1	1	4.2	14.2	
2-Mar	1	1	1	A	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.3	
3-Mar	1	1	A	1	1	1	1	1	1	1	2	2	3	3	3	2	2	1	1	1	1	1	1	1	1.5	3.2	
4-Mar	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.5	
5-Mar	A	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	1	2	2	A	1.3	2.2
6-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1.0	1.4	
7-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	2	2	1.2	2.5	
8-Mar	3	3	2	2	2	1	1	1	1	1	1	1	5	3	1	1	1	1	2	2	A	1	1	3	1.7	5.1	
9-Mar	3	1	1	1	1	1	1	1	1	1	1	1	1	3	17	18	15	3	2	A	1	1	1	1	3.2	17.8	
10-Mar	1	1	1	1	1	1	3	11	24	9	15	10	14	9	9	46	9	2	A	11	5	15	4	4	8.9	45.7	
11-Mar	4	15	5	1	1	1	2	4	6	3	2	6	34	18	26	1	10	A	1	1	1	1	1	0	6.2	33.9	
12-Mar	1	0	0	1	0	1	1	1	1	1	1	1	3	5	3	2	A	1	1	1	1	1	1	1	1.2	4.5	
13-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0.8	1.2	
14-Mar	1	0	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.9	1.4	
15-Mar	1	1	1	1	1	1	1	2	2	1	1	1	1	A	1	1	2	1	1	1	1	1	1	1	1.1	1.5	
16-Mar	1	1	1	1	1	1	1	1	1	1	1	2	A	2	16	13	3	1	2	2	2	1	1	1	2.4	16.2	
17-Mar	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1.0	1.5	
18-Mar	1	1	1	1	1	2	0	1	1	1	1	A	18	5	1	1	2	1	10	12	1	1	1	1	2.8	17.6	
19-Mar	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	2	3	3	1.2	3.4	
20-Mar	2	2	2	2	2	3	2	2	A	2	3	2	3	2	2	2	2	2	1	2	1	1	2	1	2.0	2.7	
21-Mar	1	1	1	1	2	2	2	A	5	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1.6	4.7	
22-Mar	1	1	2	3	1	2	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	2.9	
23-Mar	1	1	1	1	1	A	1	1	1	1	6	5	10	2	1	1	1	1	1	1	1	1	2	1	1.8	9.9	
24-Mar	1	1	1	1	A	1	1	1	1	2	2	2	6	11	5	1	2	1	1	1	1	1	1	1	1.9	11.0	
25-Mar	1	1	1	A	1	1	1	1	1	2	2	3	4	31	23	6	3	1	1	1	1	1	1	2	4.0	31.4	
26-Mar	2	2	A	4	4	4	3	3	3	3	2	2	1	6	1	1	1	1	1	2	2	1	1	1	2.4	5.7	
27-Mar	1	A	1	1	1	1	1	1	1	21	29	1	1	3	4	1	1	1	2	1	1	1	1	1	3.3	29.0	
28-Mar	A	1	1	1	1	1	1	1	1	1	2	2	C	C	C	C	1	1	1	1	1	1	1	A	1.1	1.7	
29-Mar	1	1	1	1	1	1	1	1	1	1	2	25	2	1	1	2	2	1	1	2	2	1	A	1	2.3	25.0	
30-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	11	2	1	1	1	1	1	1	A	1	1	1.5	11.3	
31-Mar	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	1.3	
1.3 1.5 1.1 1.2 1.1 1.1 1.0 1.4 2.2 2.5 3.2 3.6 4.2 4.4 5.0 4.4 2.5 1.6 1.5 1.5 1.2 1.6 1.3 1.2																									Diurnal Average		
3.7 15.2 4.7 4.2 4.4 3.9 3.4 10.8 24.4 21.3 29.0 25.0 33.9 31.4 26.2 45.7 14.6 9.5 12.2 11.3 4.6 14.6 3.9 3.7																									Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																											

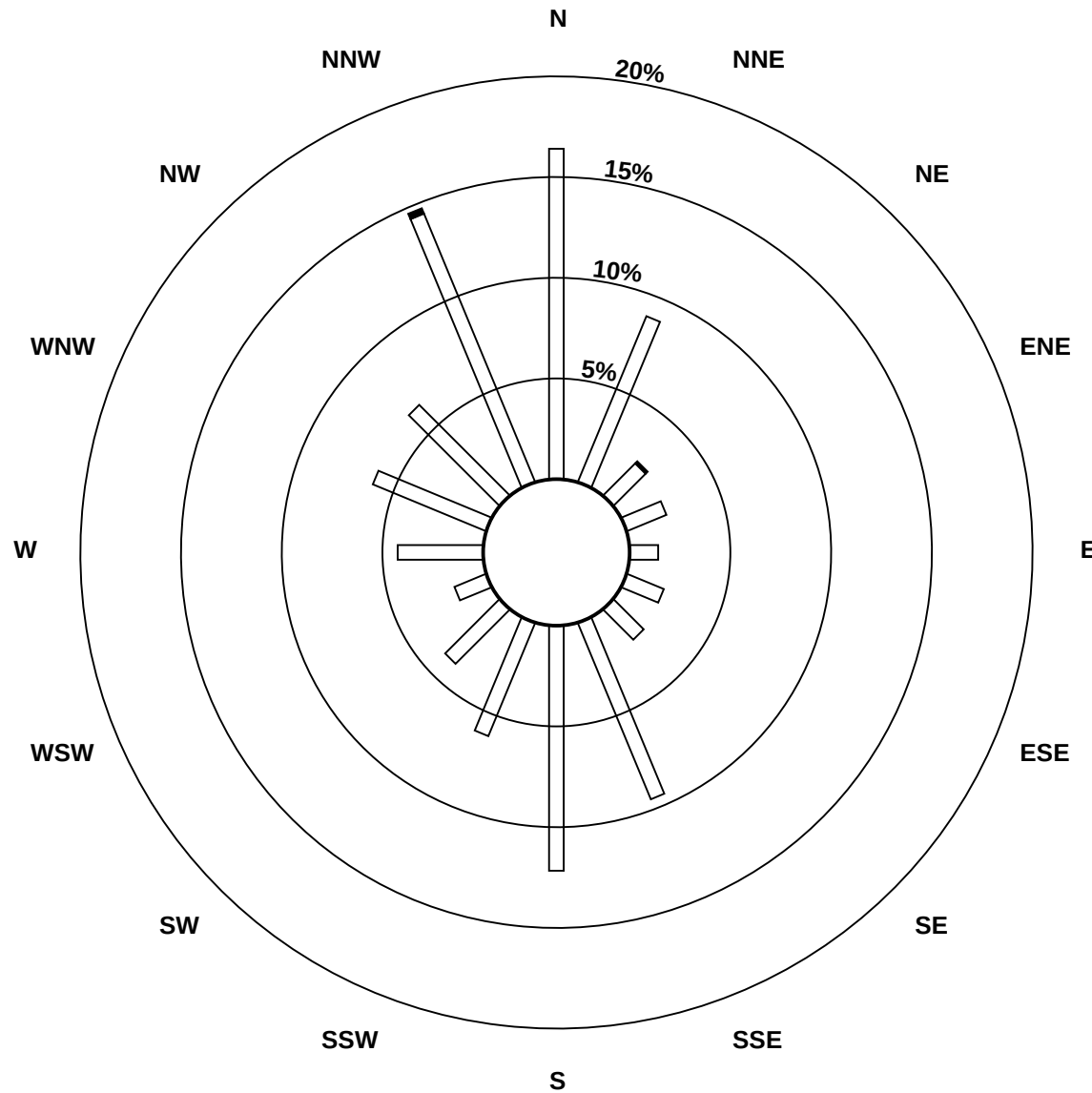
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Valleyview - March 2013

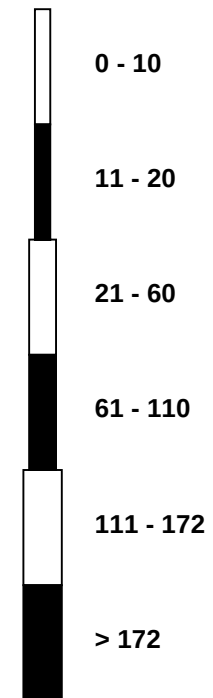


Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Valleyview - March 2013

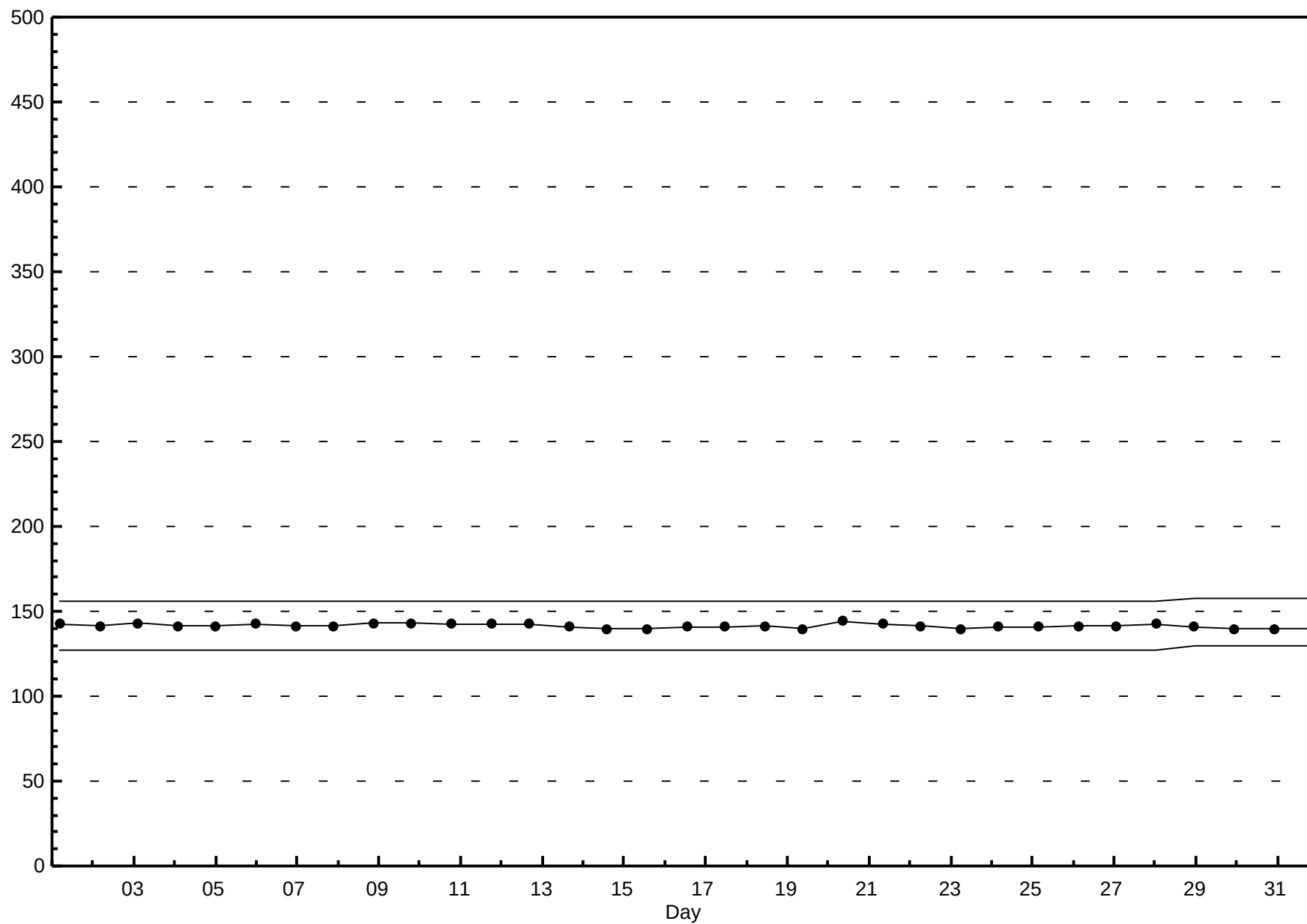


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Valleyview - March 2013



Hourly Averages

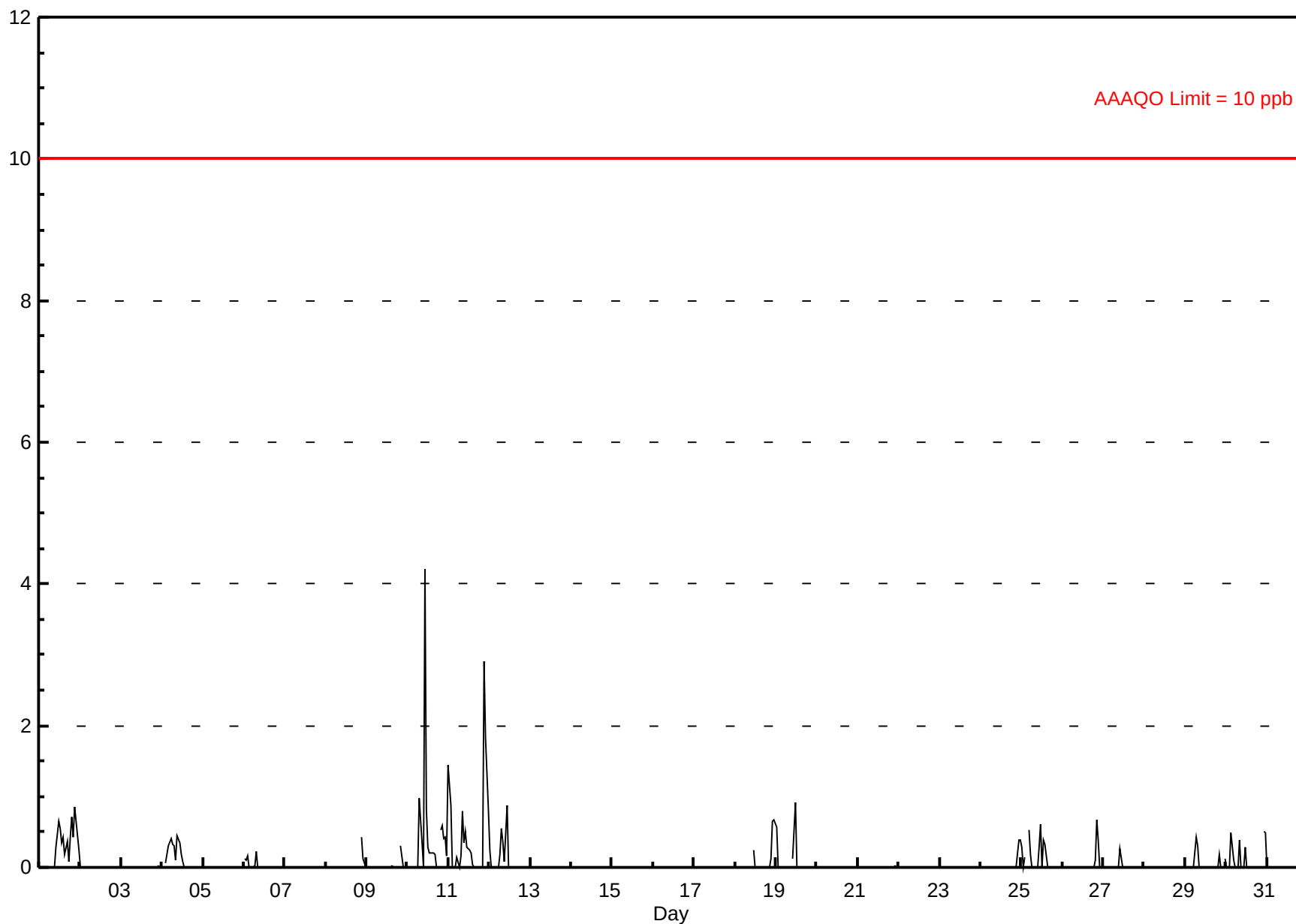
Hydrogen Sulphide (H₂S) - ppb

Valleyview - March 2013

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0																					Hours in Service: 744					
Maximum Value: 4.2 ppb on Mar 10 11:00																					Maximum Daily Average: 0.5 ppb on Mar 11		Hours of Data: 707			
Minimum Value: 0 ppb on Mar 1 01:00																					Minimum Daily Average: 0.0 ppb on Mar 2		Hours of Missing Data: 37			
Maximum Diurnal Average: 0.2 ppb at hour 11																					Minimum Diurnal Average: 0.0 ppb at hour 18		Hours of Calibration: 37			
Monthly Average: 0.06 ppb																					Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.0 Q ₃ = 0.0 P ₉₀ = 0.2 P ₉₉ = 0.9		Percent Operational Time: 100.0			
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Mar	0	0	0		A	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0	1	0	0	0.3	0.9
2-Mar	0	0		A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
3-Mar	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
4-Mar		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
5-Mar	A		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
6-Mar		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.0	0.2
7-Mar		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
8-Mar		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		A	0	0	0	0.0	0.4
9-Mar		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		A		0	0	0	0.0	0.3
10-Mar		0	0	0	0	0	0	1	0	0	4	1	0	0	0	0	0		A		1	1	0	0	0.4	4.2
11-Mar	1	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	A		0	0	3	2	1	0.5	2.9
12-Mar	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	A		0	0	0	0	0	0	0.1	0.9
13-Mar	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
14-Mar	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
15-Mar	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
16-Mar	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
17-Mar	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
18-Mar	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	1	0.1	0.7
19-Mar	1	0	0	0	0	0	0	0	0	A	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.9
20-Mar	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
21-Mar	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
22-Mar	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
23-Mar	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
24-Mar	0	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	0.4
25-Mar	0	0	0	A	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.6
26-Mar	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.1	0.7
27-Mar		A		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.3
28-Mar	A		0	0	0	0	0	0	0	0	C	C	C	C	0	0	0	0	0	0	0	0	0	A	0.0	0.0
29-Mar		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	0.4
30-Mar		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		A	1	0	0.1	0.5
31-Mar		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		A	0	0	0	0.0	0.2
																									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 - March 2013



Hourly Maximums

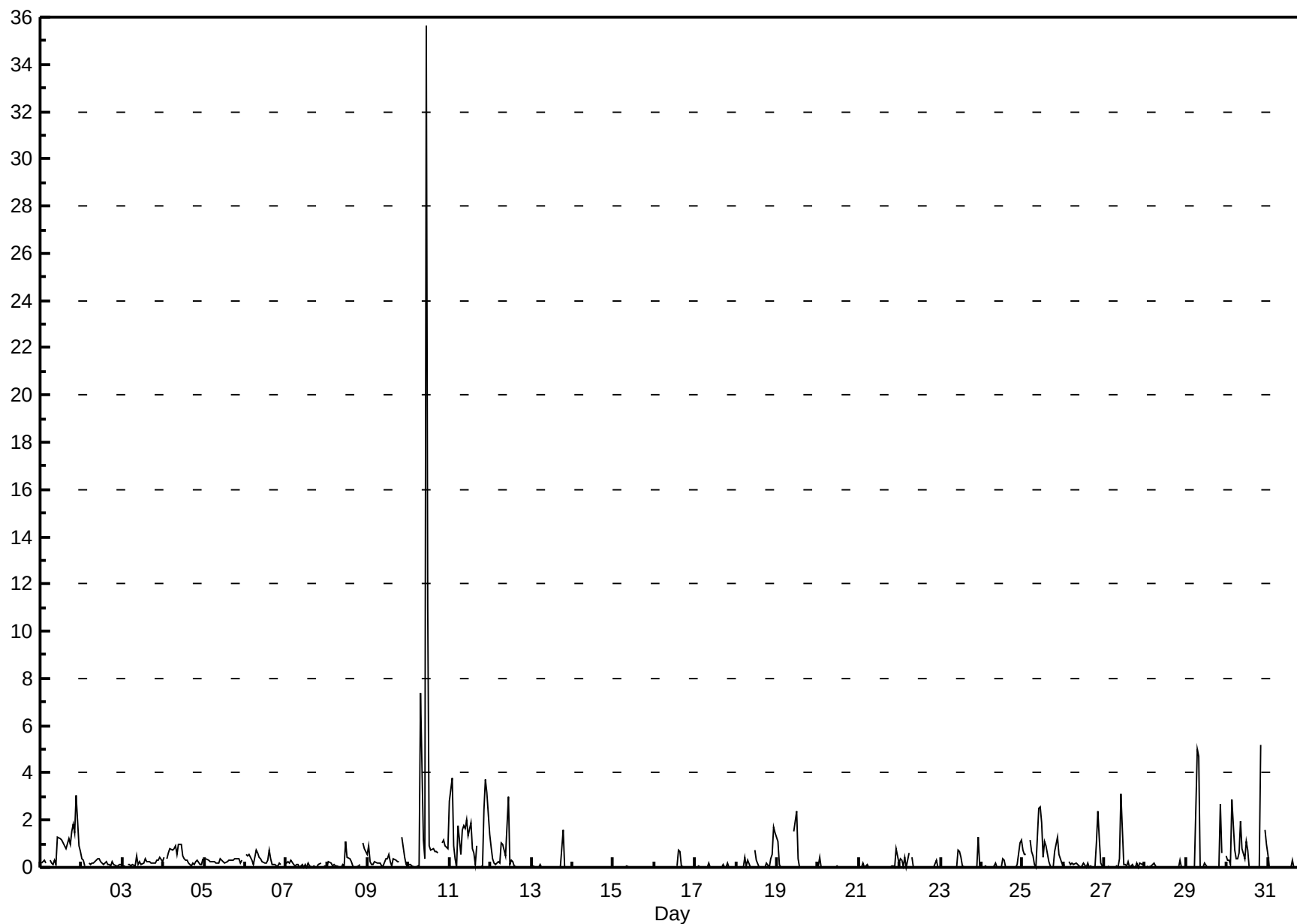
Hydrogen Sulphide (H₂S) - ppb

Valleyview - March 2013

Maximum Value: 35.7 ppb on Mar 10 11:00																				Maximum Daily Average: 2.8 ppb on Mar 10					Hours in Service: 744				
Minimum Value: 0 ppb on Mar 7 13:00																				Minimum Daily Average: 0.0 ppb on Mar 14					Hours of Data: 707				
Maximum Diurnal Average: 1.8 ppb at hour 11																				Minimum Diurnal Average: 0.1 ppb at hour 18					Hours of Missing Data: 37				
Monthly Average: 0.38 ppb																				Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.3 P ₉₀ = 0.9 P ₉₉ = 3.2					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-Mar	0	0	0	0	A	0	0	0	0	0	1	1	1	1	1	1	1	1	1	2	1	3	1	1	0.9	3.0			
2-Mar	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			
3-Mar	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5			
4-Mar	0	A	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.0			
5-Mar	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.3	0.4			
6-Mar	1	1	1	0	0	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	A	0	0.3	0.7			
7-Mar	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			
8-Mar	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	A	1	1	1	0.3	1.1			
9-Mar	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	A	1	0	0	0	0.3	1.3			
10-Mar	0	0	0	0	0	0	0	7	1	0	36	11	1	1	1	1	1	1	A	1	1	1	1	1	2.8	35.7			
11-Mar	3	4	1	0	0	2	1	2	2	2	2	1	2	1	1	0	1	A	0	0	2	4	3	1	1.5	3.8			
12-Mar	1	0	0	0	0	0	1	1	1	0	3	0	0	0	0	0	A	0	0	0	0	0	0	0	0.4	3.0			
13-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	2	0	0	0	0	0	0.1	1.6			
14-Mar	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			
15-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.0	0.1			
16-Mar	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	1	0	0	0	0	0	0	0	0	0.1	0.7			
17-Mar	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			
18-Mar	0	0	0	0	0	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	1	2	1	0.3	1.7			
19-Mar	1	0	0	0	0	0	0	0	0	A	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0.2	2.4			
20-Mar	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	0.4			
21-Mar	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.1	0.8			
22-Mar	0	0	0	0	0	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.6			
23-Mar	0	0	0	0	0	A	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0.1	1.3			
24-Mar	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.1	1.1			
25-Mar	1	1	1	A	1	1	0	0	0	3	3	2	0	1	1	0	0	0	0	1	1	1	0	0	0.7	2.6			
26-Mar	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	1	0	0	0.3	2.4			
27-Mar	0	A	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	3.1			
28-Mar	A	0	0	0	0	0	0	0	0	0	C	C	C	C	0	0	0	0	0	0	0	0	0	A	0.0	0.3			
29-Mar	0	0	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	0	3	1	A	0	0.6	5.0			
30-Mar	0	0	0	3	1	0	0	1	2	1	0	1	1	0	0	0	0	0	0	0	5	A	2	1	0.8	5.2			
31-Mar	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	1	1	0.2	1.4			
																										Diurnal Average	Diurnal Maximum		
																										0.3	2.8		
																										0.3	3.8		
																										0.2	0.9		
																										0.2	0.5		
																										0.4	1.0		
																										0.3	0.4		
																										0.3	0.7		
																										0.1	0.3		
																										0.3	1.1		
																										0.3	1.3		
																										2.8	35.7		
																										1.5	3.8		
																										0.4	3.0		
																										0.1	1.6		
																										0.0	0.0		
																										0.0	0.1		
																										0.1	0.7		
																										0.0	0.2		
																										0.3	1.7		
																										0.2	2.4		
																										0.0	0.4		
																										0.1	0.8		
																										0.1	0.6		
																										0.1	1.3		
																										0.1	1.1		
																										0.7	2.6		
																										0.3	2.4		
																										0.2	3.1		
																										0.0	0.3		
																										0.6	5.0		
																										0.8	5.2		
																										0.2	1.4		
																										0.3	2.8		
																										0.3	3.8		
																										0.2	0.9		
																										0.2	0.5		
																										0.4	1.0		
																										0.3	0.4		
																										0.3	0.7		
																										0.1	0.3		
																										0.3	1.1		
																										0.3	1.3		
																										2.8	35.7		
																										1.5	3.8		
																										0.4	3.0		
																										0.1	1.6		
																										0.0	0.0		
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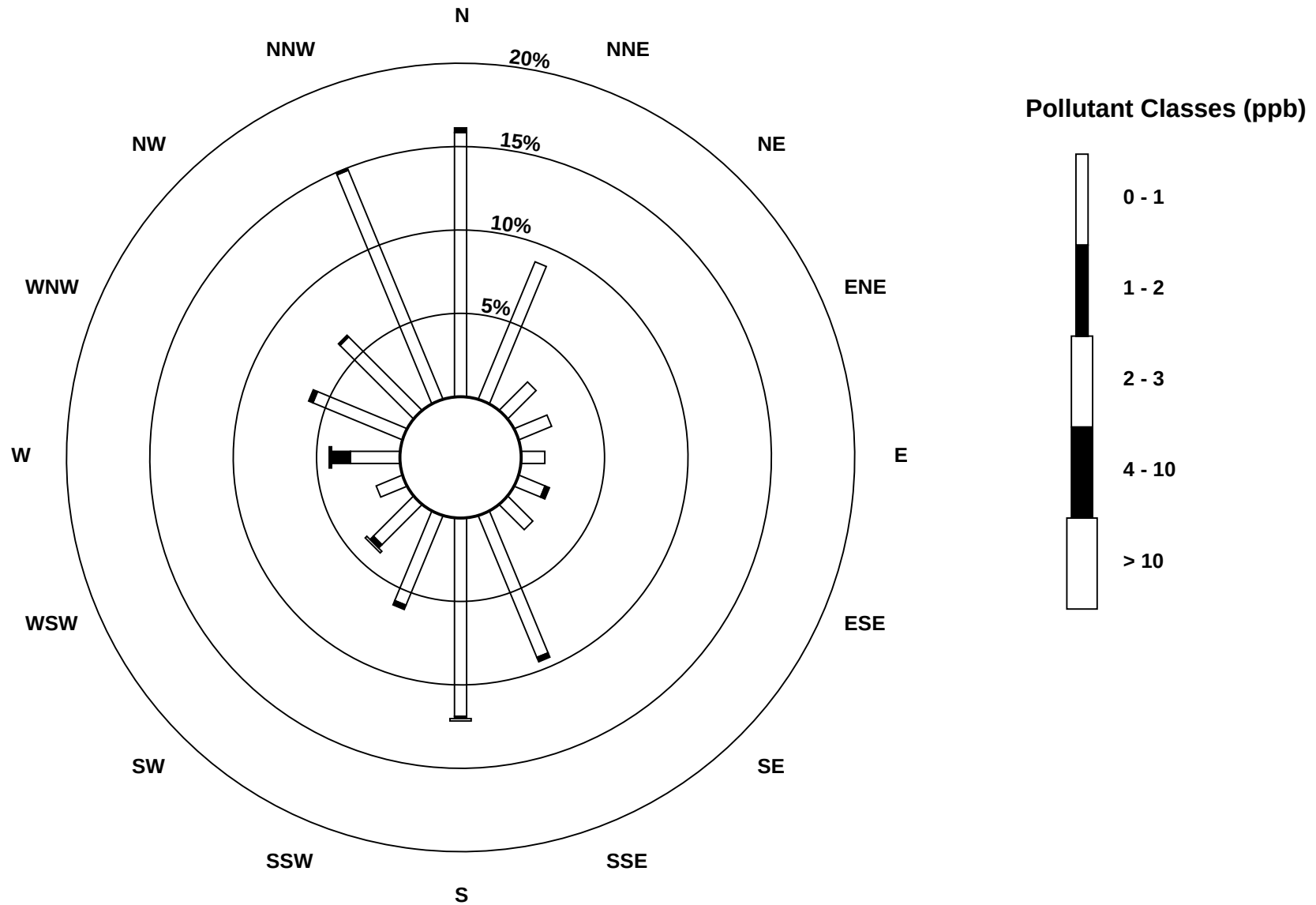
Hourly Maximums

Hydrogen Sulphide (H₂S) - ppb
Valleyview - March 2013



Pollutant Rose

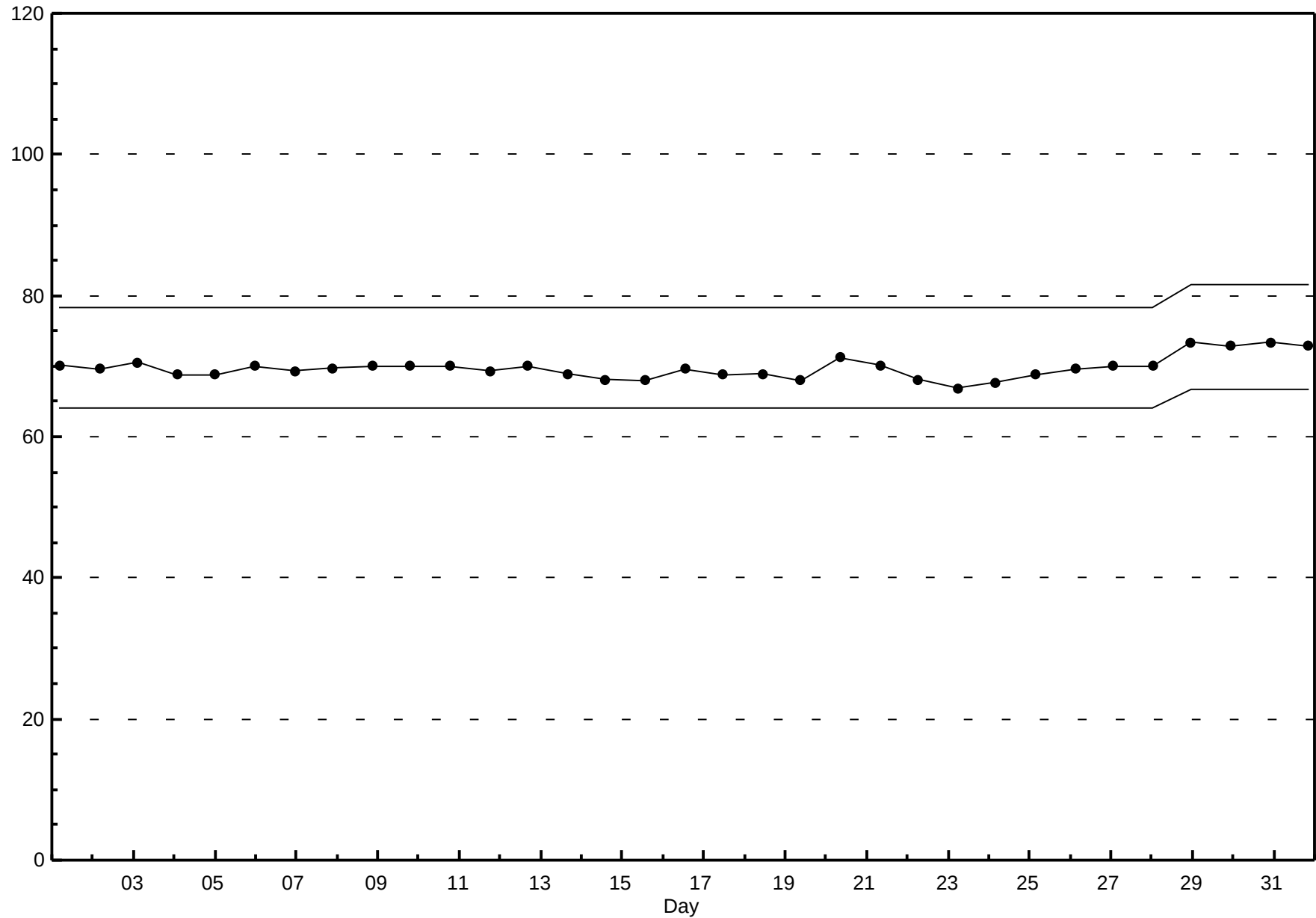
Hydrogen Sulphide (H₂S) - ppb
Valleyview - March 2013



Span Responses

Hydrogen Sulphide (H₂S)

Valleyview - March 2013



Hourly Averages

External Temperature (ET) - °C

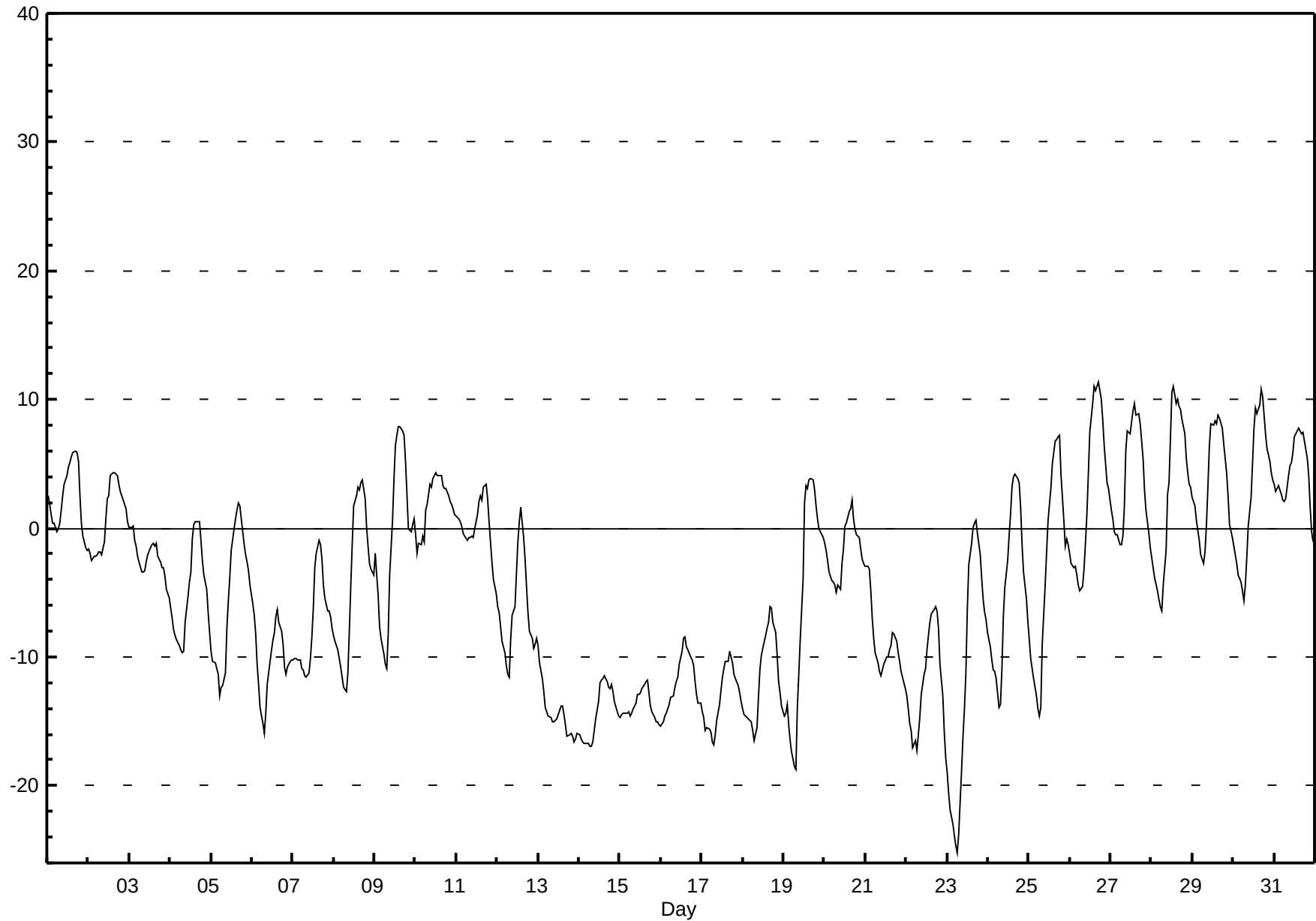
Valleyview - March 2013

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 11.4 °C on Mar 26 18:00 Maximum Daily Average: 4.3 °C on Mar 31																								Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0		
Minimum Value: -25 °C on Mar 23 07:00 Minimum Daily Average: -14.4 °C on Mar 13 Maximum Diurnal Average: 0.4 °C at hour 17 Minimum Diurnal Average: -9.7 °C at hour 7 Monthly Average: -4.62 °C Percentiles: P ₁ = -19.0 P ₁₀ = -14.6 Q ₁ = -11.1 Median = -3.6 Q ₃ = 1.4 P ₉₀ = 5.2 P ₉₉ = 10.5																										
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-Mar	3	2	1	0	0	0	0	0	1	2	3	4	5	5	6	6	6	6	5	2	0	-1	-2	-2	2.3	6.0
2-Mar	-2	-2	-3	-2	-2	-2	-2	-2	-2	-1	1	2	3	4	4	4	4	4	3	3	2	2	2	1	0.8	4.3
3-Mar	0	0	0	-1	-1	-2	-3	-3	-3	-3	-3	-2	-2	-1	-1	-1	-1	-2	-3	-3	-3	-4	-5	-5	-2.2	0.2
4-Mar	-6	-7	-8	-8	-9	-9	-9	-10	-10	-7	-5	-4	-3	-1	0	1	1	1	-1	-2	-4	-5	-7	-8	-5.1	0.6
5-Mar	-10	-10	-10	-11	-11	-13	-12	-12	-11	-8	-6	-4	-2	0	1	1	2	2	1	-1	-2	-3	-3	-4	-5.3	2.0
6-Mar	-6	-7	-8	-11	-12	-14	-15	-16	-14	-12	-11	-9	-9	-8	-7	-6	-7	-8	-9	-11	-11	-11	-10	-10	-10.1	-5.9
7-Mar	-10	-10	-10	-10	-10	-11	-11	-11	-12	-11	-10	-8	-6	-3	-2	-1	-1	-2	-4	-5	-6	-6	-7	-8	-7.4	-0.9
8-Mar	-8	-9	-9	-10	-11	-12	-12	-13	-11	-8	-5	-1	2	3	3	3	4	4	2	0	-1	-3	-3	-4	-4.2	3.8
9-Mar	-2	-4	-5	-8	-9	-10	-11	-11	-8	-4	1	4	6	7	8	8	8	7	5	3	0	0	0	1	-0.5	7.9
10-Mar	0	-2	-1	-1	-1	-1	1	2	3	3	4	4	4	4	4	4	3	3	3	3	2	2	2	1	1.9	4.3
11-Mar	1	1	0	0	0	-1	-1	-1	-1	-1	-1	0	1	2	3	2	3	3	2	1	-1	-3	-4	-5	0.1	3.4
12-Mar	-6	-7	-8	-9	-10	-11	-11	-12	-9	-7	-6	-3	-1	1	2	-1	-2	-5	-7	-8	-9	-9	-9	-9	-6.4	1.6
13-Mar	-9	-10	-12	-13	-14	-14	-15	-15	-15	-15	-15	-15	-14	-14	-14	-14	-15	-16	-16	-16	-16	-17	-16	-16	-14.4	-9.1
14-Mar	-16	-16	-17	-17	-17	-17	-17	-17	-17	-16	-15	-13	-12	-12	-12	-11	-12	-12	-12	-12	-13	-13	-14	-15	-14.4	-11.5
15-Mar	-15	-14	-14	-14	-14	-14	-15	-14	-14	-14	-13	-13	-13	-12	-12	-12	-12	-13	-14	-14	-15	-15	-15	-15	-13.8	-11.8
16-Mar	-15	-15	-15	-14	-14	-14	-13	-13	-12	-12	-12	-11	-10	-9	-8	-9	-9	-10	-10	-11	-12	-13	-14	-14	-12.0	-8.4
17-Mar	-14	-15	-16	-16	-16	-16	-17	-17	-16	-15	-14	-13	-12	-11	-10	-10	-10	-10	-10	-11	-12	-12	-13	-13	-13.2	-9.5
18-Mar	-14	-15	-15	-15	-15	-15	-16	-16	-15	-13	-11	-10	-9	-8	-8	-7	-6	-6	-7	-8	-10	-12	-13	-14	-11.6	-6.0
19-Mar	-15	-14	-14	-15	-16	-17	-19	-19	-14	-11	-9	-4	2	3	3	4	4	4	3	2	1	0	0	-1	-6.0	3.9
20-Mar	-1	-2	-3	-3	-4	-4	-4	-5	-4	-5	-3	-2	0	0	1	2	2	1	0	-1	-1	-2	-2	-3	-1.7	2.2
21-Mar	-3	-3	-3	-5	-7	-9	-10	-10	-11	-11	-11	-11	-10	-10	-9	-9	-8	-8	-9	-10	-10	-11	-12	-12	-8.9	-3.0
22-Mar	-13	-14	-15	-16	-17	-16	-17	-16	-15	-13	-11	-11	-9	-8	-7	-7	-6	-6	-6	-8	-11	-13	-16	-18	-12.1	-6.1
23-Mar	-19	-21	-22	-23	-24	-25	-25	-24	-19	-16	-14	-11	-6	-3	-1	0	0	1	0	-2	-4	-6	-7	-7	-11.5	0.7
24-Mar	-8	-9	-10	-11	-11	-12	-14	-14	-11	-7	-5	-2	-1	1	3	4	4	4	4	2	-1	-3	-5	-7	-4.6	4.2
25-Mar	-9	-10	-11	-12	-13	-14	-15	-14	-9	-5	-2	1	2	3	5	7	7	7	7	4	1	-1	-1	-1	-3.0	7.2
26-Mar	-2	-3	-3	-3	-4	-4	-5	-4	-3	-1	1	4	7	10	11	11	11	11	10	8	6	5	4	3	2.9	11.4
27-Mar	1	1	0	-1	-1	-1	-1	-1	2	6	8	7	8	9	10	9	9	8	7	5	3	1	0	-1	3.7	9.6
28-Mar	-2	-3	-4	-5	-5	-6	-6	-4	-2	3	4	7	11	11	10	10	9	9	8	7	5	4	3	3	2.8	11.0
29-Mar	2	2	1	0	-1	-2	-3	-2	0	3	6	8	8	8	8	9	9	8	7	5	4	2	0	-1	3.4	8.8
30-Mar	-1	-2	-3	-4	-4	-5	-6	-4	-2	0	2	5	8	9	9	10	11	10	9	7	6	5	4	4	2.9	10.8
31-Mar	3	3	3	3	3	2	2	2	4	5	5	6	7	8	8	8	7	7	7	5	4	2	0	-1	4.3	7.7
																									Diurnal Average	
																									Diurnal Maximum	

Hourly Averages

External Temperature (ET) - °C

Valleyview - March 2013



Hourly Averages

Relative Humidity (RH) - %

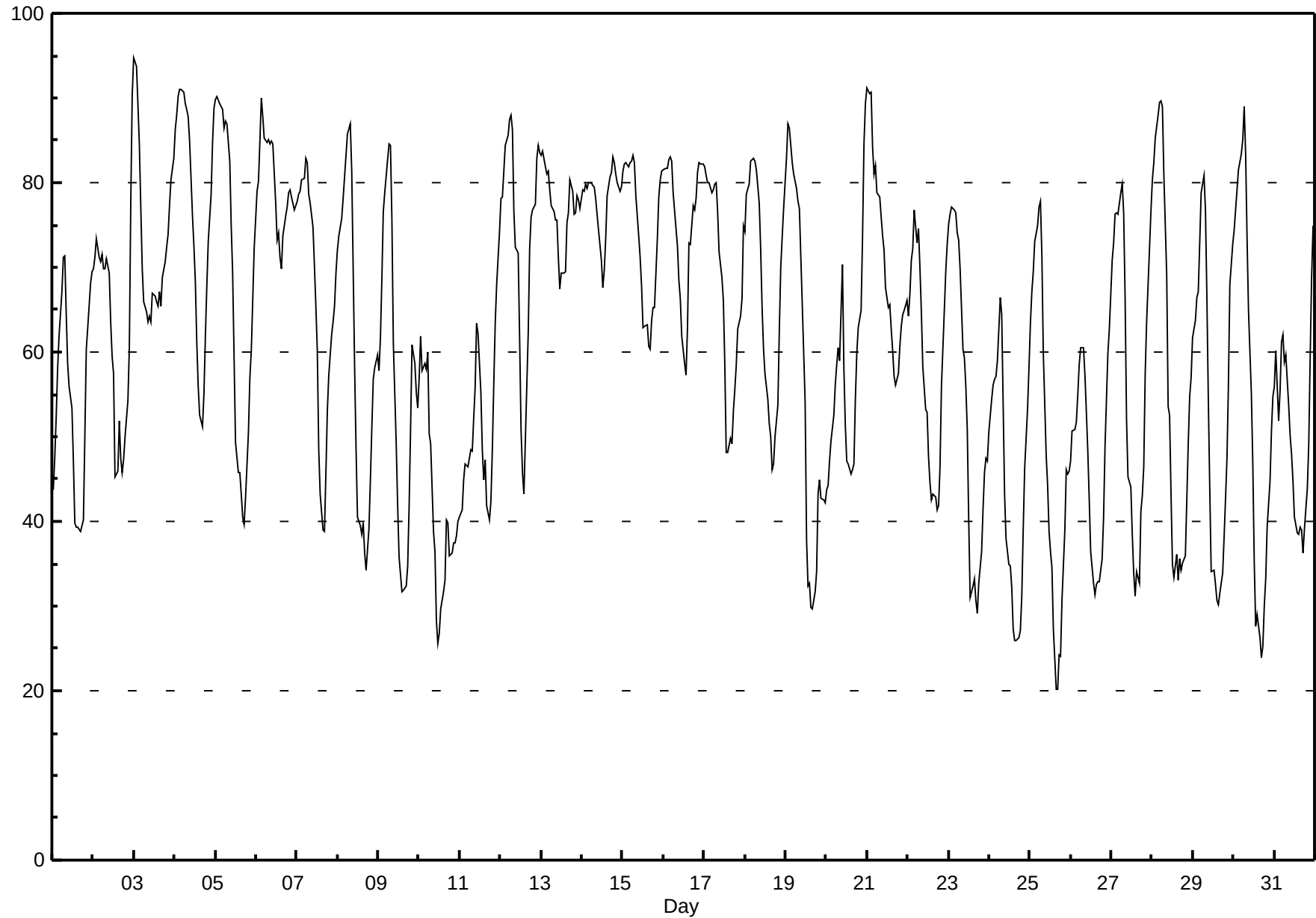
Valleyview - March 2013

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0																			Hours in Service: 744							
Maximum Value: 94.8 % on Mar 3 01:00 Maximum Daily Average: 79.8 % on Mar 6																			Hours of Data: 744							
Minimum Value: 20 % on Mar 25 16:00 Minimum Daily Average: 42.0 % on Mar 10																			Hours of Missing Data: 0							
Maximum Diurnal Average: 76.0 % at hour 7 Minimum Diurnal Average: 44.9 % at hour 15																			Hours of Calibration: 0							
Monthly Average: 61.65 % Percentiles: P ₁ = 25.9 P ₁₀ = 36.1 Q ₁ = 46.7 Median = 63.4 Q ₃ = 77.1 P ₉₀ = 82.8 P ₉₉ = 90.6																			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-Mar	44	47	52	58	62	67	71	71	65	59	56	53	47	40	39	39	39	39	40	50	60	63	68	70	54.2	71.3
2-Mar	70	71	73	71	71	72	70	70	71	69	64	60	57	45	46	52	47	46	47	50	54	61	78	90	62.7	90.3
3-Mar	95	94	89	84	77	70	66	65	63	64	64	67	67	66	65	67	65	69	71	72	74	77	80	83	73.1	94.8
4-Mar	86	88	90	91	91	91	89	89	88	85	76	72	68	61	56	53	51	55	62	68	73	79	85	89	76.5	91.1
5-Mar	90	90	89	89	89	86	87	87	83	75	69	59	49	46	46	43	41	40	43	51	57	60	66	72	67.0	90.1
6-Mar	79	80	85	90	88	85	85	85	85	85	85	78	73	74	71	70	74	76	77	79	79	78	77	77	79.8	90.0
7-Mar	78	79	79	80	81	83	82	79	78	75	70	65	60	48	43	39	39	46	53	57	62	64	65	69	65.6	82.9
8-Mar	72	74	76	78	81	83	86	87	81	70	58	49	41	40	39	40	36	34	39	45	51	57	58	60	59.7	86.9
9-Mar	58	62	69	77	79	83	85	84	76	61	49	42	36	34	32	32	32	35	42	51	61	59	55	53	56.0	84.6
10-Mar	57	62	58	59	58	60	50	49	39	36	28	26	27	30	32	33	40	40	36	36	37	37	38	40	42.0	61.8
11-Mar	41	41	45	47	47	46	48	48	52	56	63	62	55	48	45	47	42	40	42	49	56	63	68	74	51.2	74.2
12-Mar	78	78	81	84	86	87	88	86	77	72	72	62	51	46	43	56	62	72	76	77	77	83	84	84	73.5	88.0
13-Mar	83	84	82	81	81	79	77	77	76	76	71	67	69	69	69	75	76	80	79	76	76	78	78	77	76.6	83.8
14-Mar	79	79	80	79	80	80	80	79	78	76	74	71	68	70	73	78	81	81	83	82	81	80	79	79	78.0	83.1
15-Mar	81	82	82	82	82	83	83	82	78	74	71	68	63	63	63	61	60	64	65	65	73	78	80	81	73.6	83.2
16-Mar	81	82	82	83	83	83	79	75	73	68	66	62	59	57	63	73	73	77	77	78	81	82	82	82	75.0	83.0
17-Mar	82	81	80	80	79	79	80	80	77	72	69	66	59	48	48	50	49	53	56	58	63	64	66	75	67.2	81.8
18-Mar	74	79	80	83	83	83	83	81	78	72	65	60	57	54	51	50	46	47	50	54	63	70	74	77	67.2	82.9
19-Mar	83	87	86	84	82	81	79	78	77	71	66	54	38	32	33	30	30	32	34	43	45	43	43	42	57.2	86.9
20-Mar	44	44	47	49	52	56	59	60	59	70	58	51	47	47	46	46	47	54	60	63	65	74	85	89	57.2	89.3
21-Mar	91	90	91	84	81	82	79	78	76	74	72	68	65	66	63	60	57	56	57	61	63	64	65	66	71.2	91.2
22-Mar	64	67	71	72	77	73	75	70	65	58	53	53	48	45	43	43	43	41	42	46	56	65	70	73	58.8	76.7
23-Mar	75	76	77	77	76	74	73	70	60	59	56	51	40	31	32	33	31	29	33	36	42	46	47	47	53.0	77.0
24-Mar	50	54	56	57	57	59	66	64	54	43	38	35	35	32	27	26	26	26	27	31	39	46	53	58	44.3	66.4
25-Mar	63	67	69	73	75	77	78	71	60	48	44	39	36	35	27	20	20	24	24	31	39	46	46	46	48.3	77.8
26-Mar	47	51	51	52	55	58	61	60	57	53	48	43	36	33	31	33	33	33	36	41	49	54	60	63	47.4	62.7
27-Mar	71	73	76	77	76	79	80	76	66	52	45	44	38	34	31	34	33	41	43	46	57	64	72	77	57.8	79.8
28-Mar	80	82	85	88	90	90	89	81	69	54	52	43	35	33	36	33	36	34	35	36	43	49	55	57	57.7	89.6
29-Mar	62	64	66	67	73	79	81	77	66	54	44	34	34	33	31	30	32	34	38	43	47	56	68	73	53.6	80.9
30-Mar	74	77	79	82	83	85	89	83	73	65	55	47	35	28	29	26	24	25	30	33	39	45	51	55	54.7	89.0
31-Mar	56	60	52	56	61	62	59	60	54	50	48	45	40	39	39	39	39	36	39	44	49	59	69	75	51.2	74.9
70.6 72.4 73.5 74.6 75.3 76.0 76.0 74.3 69.4 64.4 59.7 54.7 49.5 46.0 44.9 45.5 45.3 47.1 49.5 53.3 58.5 62.8 66.6 69.5																									Diurnal Average	
94.8 93.7 90.6 91.0 91.1 90.7 89.3 88.6 87.8 84.9 84.5 77.6 73.2 74.2 73.5 78.4 80.6 81.2 83.1 82.4 81.2 82.9 84.7 90.3																									Diurnal Maximum	

Hourly Averages

Relative Humidity (RH) - %

Valleyview - March 2013



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Valleyview - March 2013

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	4	3	3	3	3	2	4	5	10	9	6	6	12	16	14	9	4	1	1	1	1	1	0	1	4.0	15.7
Dir	177	189	197	200	184	181	236	231	244	257	279	273	277	280	273	260	263	76	221	102	142	212	204	165	253	280
2 Spd	2	1	2	2	1	1	2	3	2	1	1	2	5	4	5	6	7	5	5	3	2	1	4	1	1.2	6.9
Dir	191	205	185	191	162	197	185	34	342	214	175	349	340	48	14	3	11	20	28	14	354	155	161	97	22	11
3 Spd	5	3	4	4	4	6	7	11	11	9	8	10	11	10	12	12	11	9	4	4	1	1	1	0	6.3	12.5
Dir	33	346	39	8	334	338	342	343	347	352	353	350	359	352	5	359	359	343	334	346	340	215	202	110	353	5
4 Spd	1	1	1	1	0	0	0	0	1	2	3	4	8	5	6	7	9	6	5	4	3	1	1	1	2.5	9.3
Dir	190	202	335	16	12	289	24	260	355	354	359	343	340	321	327	331	346	27	22	359	356	359	200	187	347	346
5 Spd	1	1	2	2	1	1	2	1	0	1	6	7	7	7	7	7	6	6	3	0	4	5	2	1	3.2	7.4
Dir	208	207	217	207	182	162	172	192	289	167	172	165	173	173	160	159	167	162	164	165	167	170	177	171	170	173
6 Spd	1	2	0	1	0	2	2	2	3	4	8	10	16	17	16	15	19	16	14	11	7	4	2	1	6.8	18.6
Dir	168	169	84	343	286	353	355	335	346	346	344	345	346	346	348	348	345	351	4	351	349	351	34	172	349	345
7 Spd	1	2	1	1	0	2	3	4	3	6	5	7	7	4	7	5	7	0	6	3	1	6	11	10	0.4	10.8
Dir	150	162	135	119	341	346	358	357	345	342	342	345	349	171	171	181	170	85	6	339	234	169	170	171	170	170
8 Spd	8	9	8	6	3	3	3	3	4	5	4	2	2	5	9	14	9	5	2	2	1	1	1	2	1.2	13.8
Dir	175	176	174	174	184	187	192	192	182	166	159	159	167	353	334	339	324	317	326	300	318	175	187	239	219	339
9 Spd	3	2	1	1	1	1	0	1	3	3	2	3	3	3	2	2	2	2	4	1	2	3	3	2	1.1	4.0
Dir	335	112	185	161	187	186	149	191	192	169	165	182	198	223	228	41	63	347	326	193	199	194	188	190	191	326
10 Spd	2	3	2	3	3	3	7	12	26	26	27	29	27	24	24	24	22	19	18	18	18	19	19	16	15.8	29.2
Dir	196	189	217	205	226	214	242	273	271	257	269	275	281	285	283	281	285	292	286	280	277	276	281	283	275	275
11 Spd	18	15	16	11	6	5	6	10	11	14	17	13	13	11	10	6	6	2	1	1	1	1	1	0	7.7	17.7
Dir	279	285	290	292	293	288	290	287	281	286	284	285	280	277	277	315	301	355	59	114	176	217	186	164	286	279
12 Spd	1	1	1	0	2	1	2	1	0	1	3	3	3	5	8	16	13	14	15	14	14	14	15	19	6.4	18.5
Dir	223	226	241	91	356	175	313	106	185	14	354	349	341	342	342	3	11	5	13	20	12	2	350	347	1	347
13 Spd	21	19	22	18	14	13	10	8	9	8	8	8	8	8	10	11	11	11	9	7	5	3	1	5	10.1	22.3
Dir	345	342	342	347	358	357	357	1	5	15	12	14	13	13	6	20	16	8	12	11	14	343	325	357	359	342
14 Spd	5	8	6	4	4	4	5	6	6	6	7	7	8	10	10	8	9	7	4	6	8	8	6	6	5.0	10.4
Dir	9	13	19	19	4	13	14	19	25	28	35	45	49	42	42	36	37	37	64	124	135	131	133	133	47	42
15 Spd	4	1	1	1	1	1	3	3	6	8	9	12	12	10	7	7	8	6	8	5	5	5	4	5	4.3	12.2
Dir	128	105	93	73	26	350	339	319	314	313	313	333	345	348	7	10	6	63	42	44	39	27	28	16	2	345
16 Spd	6	5	5	5	4	3	5	5	5	9	10	10	8	4	3	6	9	10	7	9	11	10	8	7	2.3	11.0
Dir	29	22	23	24	45	77	130	151	154	164	172	168	175	185	301	335	353	13	20	11	5	2	358	5	34	5
17 Spd	4	5	4	3	2	2	2	1	1	2	2	3	4	4	5	7	3	4	2	4	2	3	4	5	3.0	6.7
Dir	345	316	309	304	302	343	331	204	297	351	345	16	349	3	345	345	10	22	359	354	355	1	8	4	347	345
18 Spd	7	8	6	4	4	2	1	1	2	2	2	1	4	4	4	4	2	3	2	0	0	0	1	0	1.9	7.7
Dir	5	6	340	325	324	316	158	196	173	233	290	20	13	0	28	28	0	345	8	84	148	346	326	172	354	6
19 Spd	1	3	2	1	1	1	0	1	1	1	3	3	2	2	3	2	3	4	6	8	11	12	11	8	2.4	11.7
Dir	235	203	215	210	216	212	204	168	216	7	347	349	119	102	18	15	118	151	149	141	155	159	160	168	153	159
20 Spd	6	5	2	2	3	5	5	5	6	6	5	6	5	9	6	8	8	10	8	5	4	5	6	5	1.7	10.3
Dir	163	164	154	152	145	155	164	172	175	164	153	139	159	131	94	59	27	8	360	14	3	338	324	327	104	8
21 Spd	3	4	7	13	12	9	10	10	10	11	9	9	9	11	12	11	10	11	8	4	3	5	3	2	7.9	13.0
Dir	318	290	290	296	284	283	292	294	306	310	305	296	305	343	329	314	305	305	309	304	317	304	302	296	304	296
22 Spd	6	1	1	2	1	7	2	4	5	6	7	10	8	8	8	8	7	5	3	1	1	1	1	1	3.6	9.7
Dir	279	202	238	285	118	262	251	286	288	301	318	349	325	313	306	308	306	311	332	352	332	203	166	188	305	349

Hourly Averages

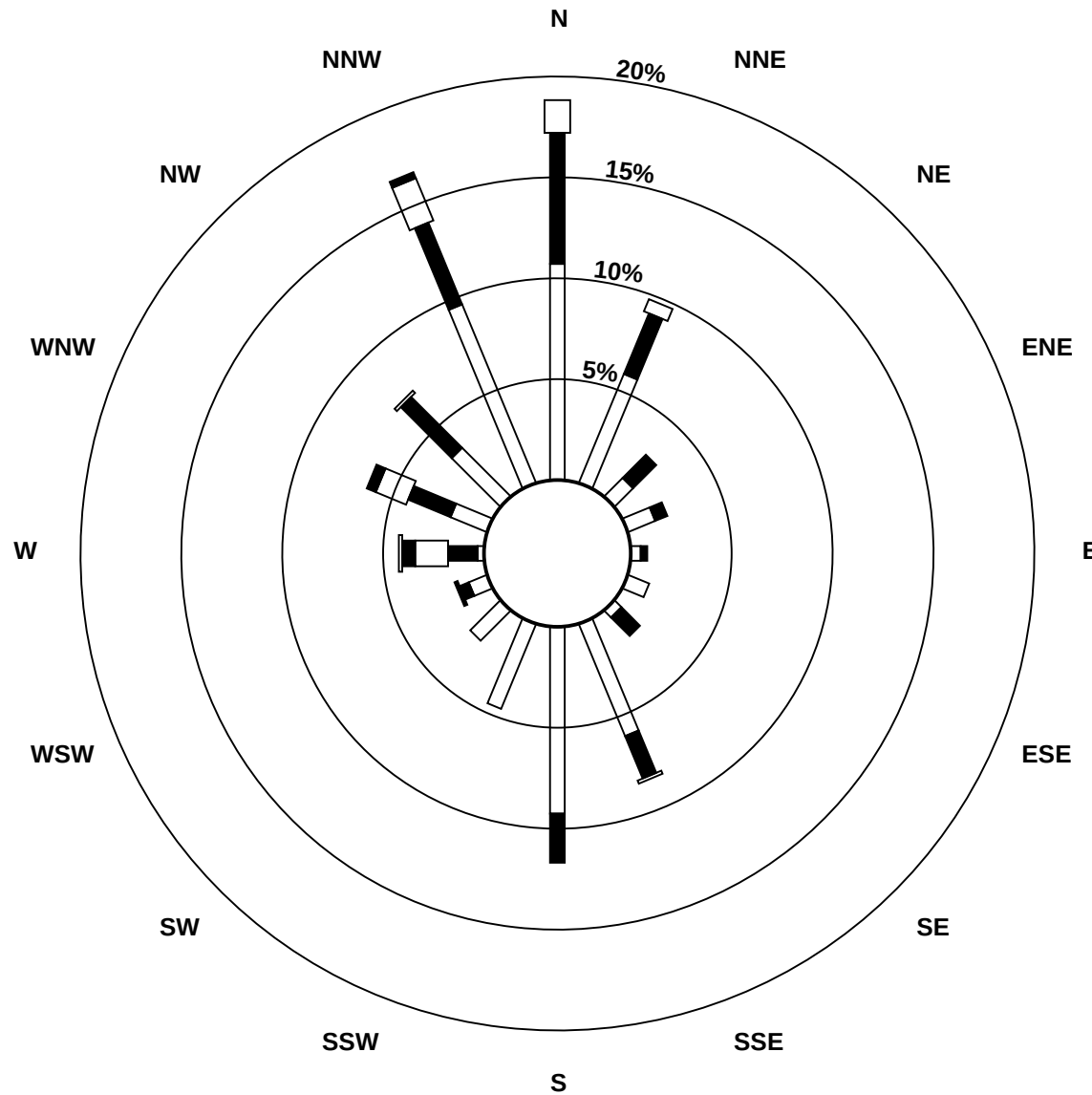
Wind Speed (km/h)
Wind Direction (deg)
Valleyview - March 2013

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	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	1	0	0	1	1	1	1	1	1	4	5	3	4	5	4	6	5	5	2	3	2	2	2	1.2	5.6
Dir	206	176	148	204	167	177	187	168	154	344	347	347	352	345	355	2	68	67	1	357	6	176	256	186	6	68
24 Spd	1	1	2	2	4	3	1	1	2	3	3	3	4	4	3	3	3	3	1	1	2	1	1	0	0.2	4.2
Dir	220	186	179	186	181	185	222	228	196	167	216	258	344	346	22	36	11	62	76	86	329	335	202	167	208	181
25 Spd	1	1	0	1	0	0	1	1	1	0	1	3	5	5	4	3	4	5	2	2	1	1	2	2	1.1	5.2
Dir	343	4	258	195	156	181	182	162	225	206	284	336	339	336	340	349	349	5	8	349	352	306	152	165	342	336
26 Spd	4	1	4	6	4	4	4	3	5	4	3	2	2	1	2	5	3	1	1	1	1	1	2	1	1.7	6.1
Dir	165	166	178	174	182	180	182	189	174	179	191	196	161	112	1	27	18	76	83	217	225	165	194	186	173	174
27 Spd	2	2	2	2	2	2	2	4	4	3	7	9	7	9	8	11	9	6	7	4	3	1	1	0	2.2	11.0
Dir	187	205	204	186	188	189	194	188	185	239	281	330	312	296	300	340	350	359	49	23	334	268	185	139	311	340
28 Spd	1	0	0	0	0	0	1	2	3	1	3	3	2	7	12	10	9	7	5	1	2	4	5	2	2.5	11.9
Dir	205	278	207	159	198	279	187	202	189	164	349	352	346	330	346	331	11	23	9	336	1	360	5	320	349	346
29 Spd	2	2	6	1	0	0	0	1	2	3	3	8	11	12	13	9	9	7	6	2	1	0	1	1	3.0	13.3
Dir	4	4	353	341	174	188	289	167	172	162	200	300	316	325	335	337	14	7	342	314	241	119	49	203	334	335
30 Spd	1	1	1	2	1	1	0	1	1	1	1	2	1	2	4	4	2	3	6	3	1	1	1	1	1.1	6.0
Dir	182	167	121	345	0	283	15	190	223	12	338	333	338	351	12	8	29	8	1	18	269	356	211	50	0	1
31 Spd	1	4	3	2	0	2	3	0	0	4	7	7	3	4	5	7	5	6	6	2	1	1	1	0	2.6	7.2
Dir	11	358	359	346	319	327	317	131	351	344	351	355	354	346	19	5	29	82	70	70	359	330	349	183	9	5
Spd	1.0	1.0	1.4	1.2	0.7	0.9	1.0	1.3	2.1	2.2	3.0	3.7	4.2	4.5	5.3	5.8	5.2	4.5	4.0	2.4	1.5	0.8	0.6	0.6	Diurnal Average	
Dir	312	316	315	307	293	287	286	283	276	285	301	320	322	327	336	344	352	2	4	1	349	320	285	309	Diurnal Maximum	
Spd	21.3	19.4	22.3	18.0	13.8	13.0	10.1	12.1	26.2	26.2	27.1	29.2	26.5	24.3	24.1	24.5	22.0	19.3	18.0	18.3	17.9	19.4	19.0	18.5	Diurnal Maximum	
Dir	345	342	342	347	358	357	292	273	271	257	269	275	281	285	283	281	285	292	286	280	277	276	281	347		
Maximum Speed Value: 29 km/h on Mar 10 12:00																								Hours in Service: 744		
Maximum Daily Speed Average: 15.8 km/h on Mar 10																								Hours of Data: 744		
Maximum Diurnal Speed Average: 5.8 km/h at hour 16																								Hours of Missing Data: 0		
Minimum Speed Value: 0 km/h on Mar 12 09:00																								Percent Operational Time: 100.0		
Minimum Daily Speed Average: 0.2 km/h on Mar 30																										
Minimum Diurnal Speed Average: 0.6 km/h at hour 23																										
Monthly Average Velocity: 2.21 km/h 329.1 deg																										
Speed Percentiles: P ₁ = 0.2 P ₁₀ = 0.7 Q ₁ = 1.4 Median = 3.6 Q ₃ = 7.0 P ₉₀ = 10.8 P ₉₉ = 24.0																										
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	136	77	30	3	0	0	246																			
NorthEast	25	23	0	0	0	0	48																			
East	21	4	0	0	0	0	25																			
SouthEast	26	12	1	0	0	0	39																			
South	142	28	1	0	0	0	171																			
SouthWest	54	3	0	0	0	0	57																			
West	21	14	19	11	1	0	66																			
NorthWest	46	39	7	0	0	0	92																			
Total	471	200	58	14	1	0	744																			

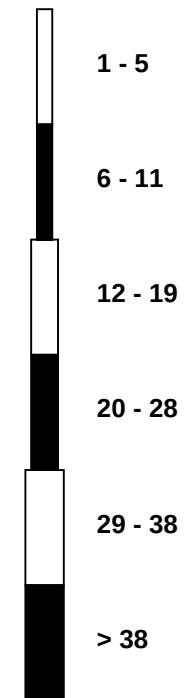
Wind Rose

Wind Speed (WS) (km/h)

Valleyview - March 2013



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Valleyview - March 2013

Maximum Speed: 30 km/h on Mar 10 12:00																			Maximum Daily Speed Average: 16.7 km/h on Mar 10										Hours in Service: 744	
Minimum Speed: 1 km/h on Mar 4 08:00																			Minimum Daily Speed Average: 2.2 km/h on Mar 30										Hours of Data: 744	
Maximum Diurnal Speed Average: 8.4 km/h at hour 15																			Minimum Diurnal Speed Average: 3.0 km/h at hour 5										Hours of Missing Data: 0	
Monthly Average Speed: 5.22 km/h																			Percentiles: P ₁ = 0.6 P ₁₀ = 1.1 Q ₁ = 1.8 Median = 3.9 Q ₃ = 7.2 P ₉₀ = 11.1 P ₉₉ = 24.5										Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24						
1-Mar	4	3	3	3	3	3	4	5	10	9	6	6	12	16	14	9	5	1	1	2	2	2	1	1	5.2	15.8				
2-Mar	2	1	2	2	2	1	2	3	2	1	1	3	5	5	6	6	7	5	5	3	2	2	4	2	3.1	7.2				
3-Mar	5	4	4	5	4	6	7	11	11	9	8	10	11	11	13	12	11	9	4	4	1	1	1	1	6.8	12.6				
4-Mar	1	1	2	1	1	1	1	1	1	2	3	5	8	5	6	7	9	7	5	4	3	2	1	1	3.1	9.4				
5-Mar	1	1	2	2	1	1	2	1	1	1	6	7	7	8	7	7	6	6	3	1	4	5	2	1	3.4	7.6				
6-Mar	1	2	1	2	1	2	2	2	3	4	8	10	17	17	16	15	19	16	14	11	7	4	3	1	7.4	18.7				
7-Mar	1	2	1	1	1	2	3	4	3	6	5	7	7	6	7	5	7	5	6	3	2	6	11	10	4.7	10.9				
8-Mar	8	9	8	6	3	3	3	3	4	5	4	3	4	5	10	14	9	5	3	2	2	1	1	3	4.9	13.9				
9-Mar	5	2	2	2	1	1	1	1	3	3	2	3	4	3	2	2	2	2	4	2	2	3	3	2	2.4	5.2				
10-Mar	3	3	2	3	4	3	8	13	26	27	28	30	27	25	25	25	22	20	18	18	18	20	19	16	16.7	29.6				
11-Mar	18	15	16	11	7	5	7	10	11	14	18	13	13	12	10	6	7	2	1	1	1	1	1	1	8.4	17.8				
12-Mar	1	1	1	1	2	1	2	1	1	1	3	3	3	5	8	16	13	14	15	15	14	14	15	19	7.1	18.6				
13-Mar	21	19	22	18	14	13	10	9	10	8	9	8	8	8	10	11	11	11	9	7	5	3	2	5	10.5	22.4				
14-Mar	5	8	6	5	4	4	5	6	6	6	7	8	8	10	11	8	9	7	4	6	8	8	7	6	6.8	10.6				
15-Mar	4	2	1	2	1	1	3	3	6	8	9	12	12	10	7	7	8	7	8	6	5	5	4	5	5.8	12.3				
16-Mar	6	5	5	5	4	4	5	6	5	9	10	10	8	5	5	6	9	10	8	9	11	10	8	7	7.1	11.1				
17-Mar	4	5	4	3	2	2	3	1	1	2	2	3	4	5	5	7	4	4	2	4	2	3	4	5	3.5	6.8				
18-Mar	7	8	6	4	4	2	1	1	2	3	3	3	4	4	5	4	2	3	2	1	1	1	1	1	3.0	7.8				
19-Mar	1	3	2	1	1	1	1	1	1	2	4	3	3	4	4	2	3	4	6	8	11	12	11	8	3.9	11.8				
20-Mar	6	5	2	2	3	5	5	5	6	6	5	6	6	9	7	8	10	10	8	6	5	6	6	5	5.9	10.4				
21-Mar	3	4	7	13	12	10	10	10	11	12	9	10	9	11	12	11	10	11	8	4	3	5	4	2	8.4	13.2				
22-Mar	6	2	3	4	2	7	3	4	5	6	7	10	8	9	9	8	7	5	3	1	1	1	1	1	4.7	9.7				
23-Mar	1	1	1	1	1	1	1	1	1	2	4	5	3	4	5	4	6	5	5	3	3	2	2	2	2.6	5.7				
24-Mar	1	1	2	2	4	3	1	1	2	4	3	4	4	4	3	3	3	3	2	2	2	2	1	1	2.4	4.3				
25-Mar	1	1	1	1	1	1	1	1	1	2	2	3	5	5	4	3	5	5	2	3	2	2	2	2	2.3	5.3				
26-Mar	4	1	4	6	4	4	4	3	5	4	3	2	3	3	3	5	3	2	2	1	2	2	2	1	3.1	6.2				
27-Mar	2	2	2	2	2	2	2	4	4	4	8	9	7	9	9	11	9	7	7	4	3	1	1	1	4.7	11.2				
28-Mar	1	1	1	1	1	1	1	3	3	2	3	3	2	7	12	10	9	7	5	2	3	4	5	3	3.7	12.0				
29-Mar	3	3	6	2	1	1	1	1	3	3	3	9	11	12	13	9	9	7	6	2	1	2	1	1	4.6	13.4				
30-Mar	1	1	1	2	1	1	2	1	1	1	2	2	2	3	5	4	2	3	7	3	1	2	1	1	2.2	6.9				
31-Mar	1	4	3	2	1	2	3	1	2	4	7	7	3	4	6	8	6	6	6	2	1	1	1	1	3.5	7.5				
4.1 3.8 3.9 3.7 3.0 3.1 3.3 3.8 4.9 5.5 6.2 7.0 7.4 7.9 8.4 8.2 7.9 6.8 5.8 4.5 4.2 4.3 4.1 3.7																									Diurnal Average					
21.4 19.5 22.4 18.2 13.9 13.2 10.3 12.6 26.5 26.6 27.9 29.6 27.0 24.6 24.6 24.7 22.5 19.8 18.3 18.4 18.1 19.6 19.3 18.6																									Diurnal Maximum					
All monthly, daily, and diurnal averages have been calculated using scalar methods																														

Hourly Standard Deviations

Wind Direction (WD) - deg

Valleyview - March 2013

Maximum Value: 95.8 deg on Mar 4 05:00																			Hours in Service: 744						
Minimum Value: 3.3 deg on Mar 3 08:00																			Hours of Data: 744						
																			Hours of Missing Data: 0						
Percentiles: P ₁ = 4.6 P ₁₀ = 7.6 Q ₁ = 10.3 Median = 17.4 Q ₃ = 40.1 P ₉₀ = 66.2 P ₉₉ = 84.8																			Hours of Calibration: 0						
																			Percent Operational Time: 100.0						
Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Mar	7	19	11	15	7	65	21	10	6	9	27	19	15	9	10	10	33	48	44	93	81	59	83	72	93.2
2-Mar	27	48	18	19	22	41	11	34	51	50	20	75	6	35	36	9	16	9	10	29	43	86	15	50	86.3
3-Mar	9	51	57	62	21	15	7	3	5	6	6	7	7	14	9	12	14	9	9	13	55	14	19	71	70.8
4-Mar	49	11	74	49	96	65	84	39	83	38	22	5	4	8	5	8	11	12	10	13	25	62	37	21	95.8
5-Mar	15	9	9	12	75	59	6	30	78	57	11	11	11	12	13	11	13	11	8	92	9	7	26	24	92.2
6-Mar	80	8	82	33	64	59	72	23	35	15	5	10	6	7	5	7	5	7	6	5	7	17	72	14	82.4
7-Mar	20	12	20	36	92	24	15	16	18	6	7	6	12	76	14	15	10	87	18	48	69	7	6	6	91.9
8-Mar	7	7	8	8	8	5	5	8	8	8	13	62	61	15	16	6	9	22	42	59	95	30	27	40	95.1
9-Mar	64	31	50	55	21	31	64	36	8	13	15	44	31	30	58	12	33	52	15	31	20	9	10	34	64.4
10-Mar	30	22	17	12	26	28	27	31	9	10	14	8	10	10	12	8	12	12	10	8	7	8	9	7	30.8
11-Mar	8	7	8	10	11	10	11	8	11	10	8	11	15	14	21	15	17	39	24	25	56	32	23	80	80.2
12-Mar	56	29	39	86	60	60	58	58	95	79	10	8	13	8	12	9	9	8	11	9	14	7	6	5	94.7
13-Mar	5	6	7	7	8	10	8	14	12	13	12	12	13	15	11	14	13	9	9	10	22	26	50	20	50.3
14-Mar	28	8	8	14	11	12	9	7	11	12	13	20	18	13	10	15	13	10	37	18	12	8	11	9	37.4
15-Mar	10	24	22	32	27	20	7	13	17	13	12	14	7	15	20	23	21	26	11	10	10	14	12	9	32.3
16-Mar	12	8	10	14	21	40	9	12	17	12	10	10	11	22	65	13	13	12	13	10	6	7	6	7	65.2
17-Mar	21	12	12	40	36	30	36	50	61	26	26	23	15	34	22	7	28	22	34	8	12	10	7	9	60.9
18-Mar	8	11	5	8	9	14	25	16	15	70	70	77	36	29	31	19	32	10	44	83	82	73	51	73	83.2
19-Mar	54	11	14	21	33	50	47	22	53	31	9	19	50	70	31	61	29	13	10	11	9	7	10	8	70.4
20-Mar	10	12	20	14	47	12	12	10	11	15	16	19	22	13	29	11	31	8	8	30	57	12	9	9	57.1
21-Mar	17	10	11	10	13	16	12	14	14	9	12	15	14	8	13	10	12	10	9	10	12	9	33	35	34.8
22-Mar	15	70	72	80	51	22	54	14	12	14	19	7	21	16	18	15	14	12	25	28	63	32	42	36	80.4
23-Mar	27	41	49	33	43	24	37	51	59	75	11	5	7	6	22	30	12	20	20	34	30	50	22	29	75.2
24-Mar	37	48	12	12	5	8	24	15	14	15	35	42	22	11	31	17	28	27	41	39	42	66	70	54	70.5
25-Mar	56	39	88	66	66	67	56	46	63	86	69	32	14	8	8	11	11	9	29	78	67	81	34	9	88.2
26-Mar	14	65	46	7	14	9	8	19	10	13	19	32	75	84	43	23	25	70	61	43	55	78	45	73	84.3
27-Mar	23	25	13	8	9	4	4	4	6	43	16	12	14	16	21	9	20	18	10	19	16	50	30	68	67.6
28-Mar	59	77	53	75	77	69	32	12	11	61	39	24	46	16	8	21	9	9	11	51	71	17	61	62	77.5
29-Mar	46	34	19	79	73	84	84	46	13	15	28	40	9	11	9	11	19	10	8	13	31	79	52	30	84.2
30-Mar	25	31	40	42	30	57	79	46	67	65	65	40	87	73	22	29	35	21	30	71	53	71	50	57	86.9
31-Mar	32	19	61	44	88	41	25	83	84	16	7	8	23	36	21	17	41	17	20	52	29	66	77	79	87.9
80.2 77.5 88.2 85.8 95.8 84.2 84.2 83.2 94.7 86.5 69.7 77.5 86.9 84.3 65.2 60.9 41.3 87.4 60.7 93.2 95.1 86.3 83.1 80.2																									

PAZA

Portable – Sunset House Station

Monthly Summary Tables, Graphs and Roses

Hourly Averages

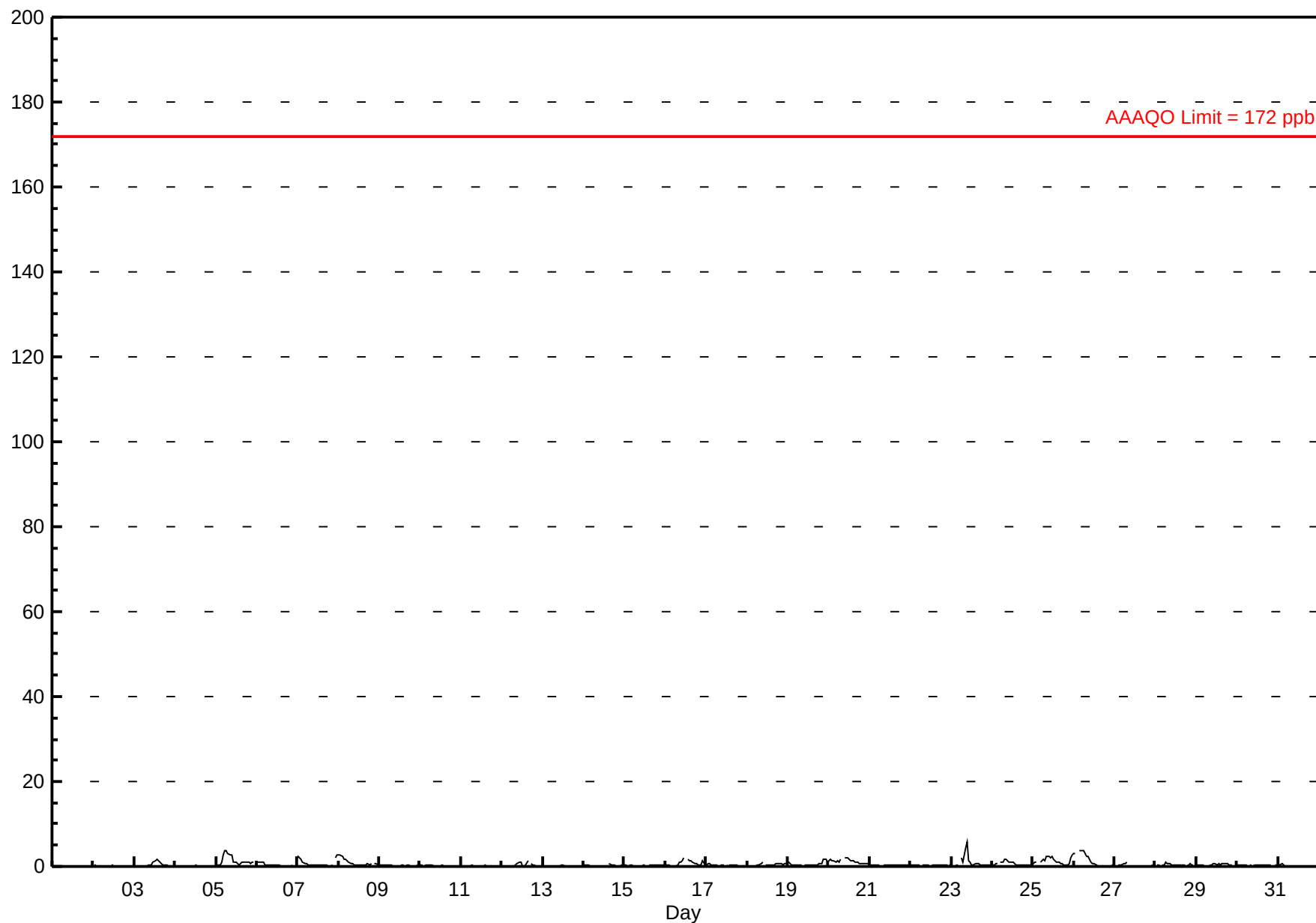
Sulphur Dioxide (SO₂) - ppb

Sunset House - March 2013

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 5.9 ppb on Mar 23 10:00 Maximum Daily Average: 1.5 ppb on Mar 5																				Hours in Service: 744 Hours of Data: 707 Hours of Missing Data: 37 Hours of Calibration: 37 Percent Operational Time: 100.0						
Minimum Value: 0 ppb on Mar 1 01:00 Maximum Diurnal Average: 0.8 ppb at hour 10 Monthly Average: 0.48 ppb										Minimum Daily Average: 0.0 ppb on Mar 1 Minimum Diurnal Average: 0.3 ppb at hour 21 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.3 Q ₃ = 0.5 P ₉₀ = 1.2 P ₉₉ = 3.6																
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-Mar	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-Mar	0	0		A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
3-Mar	0	0	A	0	0	0	0	0	0	0	0	1	1	2	1	1	1	0	0	0	0	0	0	0	0.4	1.7
4-Mar	0	A		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
5-Mar	A		0	1	1	3	4	4	3	3	3	1	1	1	0	1	1	1	1	1	1	1	1	A	1.5	3.8
6-Mar	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	2	0.5	1.8
7-Mar	2	2	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	2	3	0.8	2.6
8-Mar	3	3	2	2	2	1	1	1	1	0	0	0	0	0	0	0	0	1	0	1	A	1	1	0	0.9	2.8
9-Mar	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	A				0	0.2	0.5
10-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		A					0	0.1	0.3
11-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A						0	0.1	0.2
12-Mar	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	1	A	1	0	0	0	0	0	0	0.3	1.4
13-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A		0	0	0	0	0	0	0	0.1	0.3
14-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A		1	0	0	0	0	0	0	0	0.2	0.5
15-Mar	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	0.4
16-Mar	0	0	0	0	0	0	0	0	1	1	1	2	A	2	2	1	1	1	1	0	0	1	1	0	0.7	2.1
17-Mar	0	1	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
18-Mar	0	0	0	0	0	0	0	0	1	1	0	A	0	0	0	0	0	1	1	1	1	0	1	1	0.4	0.9
19-Mar	1	1	0	0	0	0	0	0	0	A		0	0	0	0	0	0	0	1	1	1	2	2	1	0.5	1.7
20-Mar	1	2	1	1	1	1	1	2	A	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1.2	2.1
21-Mar	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
22-Mar	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
23-Mar	0	0	0	0	0	A	2	1	4	6	1	1	0	0	1	1	1	0	0	0	0	0	0	0	1.0	5.9
24-Mar	0	0	1	1	A	1	1	2	2	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.7	1.6
25-Mar	1	1	1	A	1	1	2	1	2	2	2	2	2	1	1	1	1	1	0	0	0	1	2	3	1.3	2.6
26-Mar	3	3	A	4	4	4	4	2	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1.3	3.9
27-Mar	0	A	0	0	0	1	1	1	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.1
28-Mar	A	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	A	0	0.4	1.1
29-Mar	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	1	1	1	1	0	0	0	A	0	0.4	0.8
30-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.3	0.5
31-Mar	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	0.5
0.6 0.6 0.5 0.5 0.6 0.6 0.7 0.6 0.7 0.8 0.6 0.6 0.4 0.4 0.4 0.4 0.3 0.3 0.3 0.3 0.3 0.3 0.4 0.5																								Diurnal Average		
3.0 3.0 2.2 3.9 3.8 3.8 3.8 3.1 4.4 5.9 2.2 2.3 1.8 1.7 1.5 1.4 1.1 1.0 1.2 1.1 0.8 1.6 2.1 2.6																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb																										

Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Sunset House - March 2013



Hourly Maximums

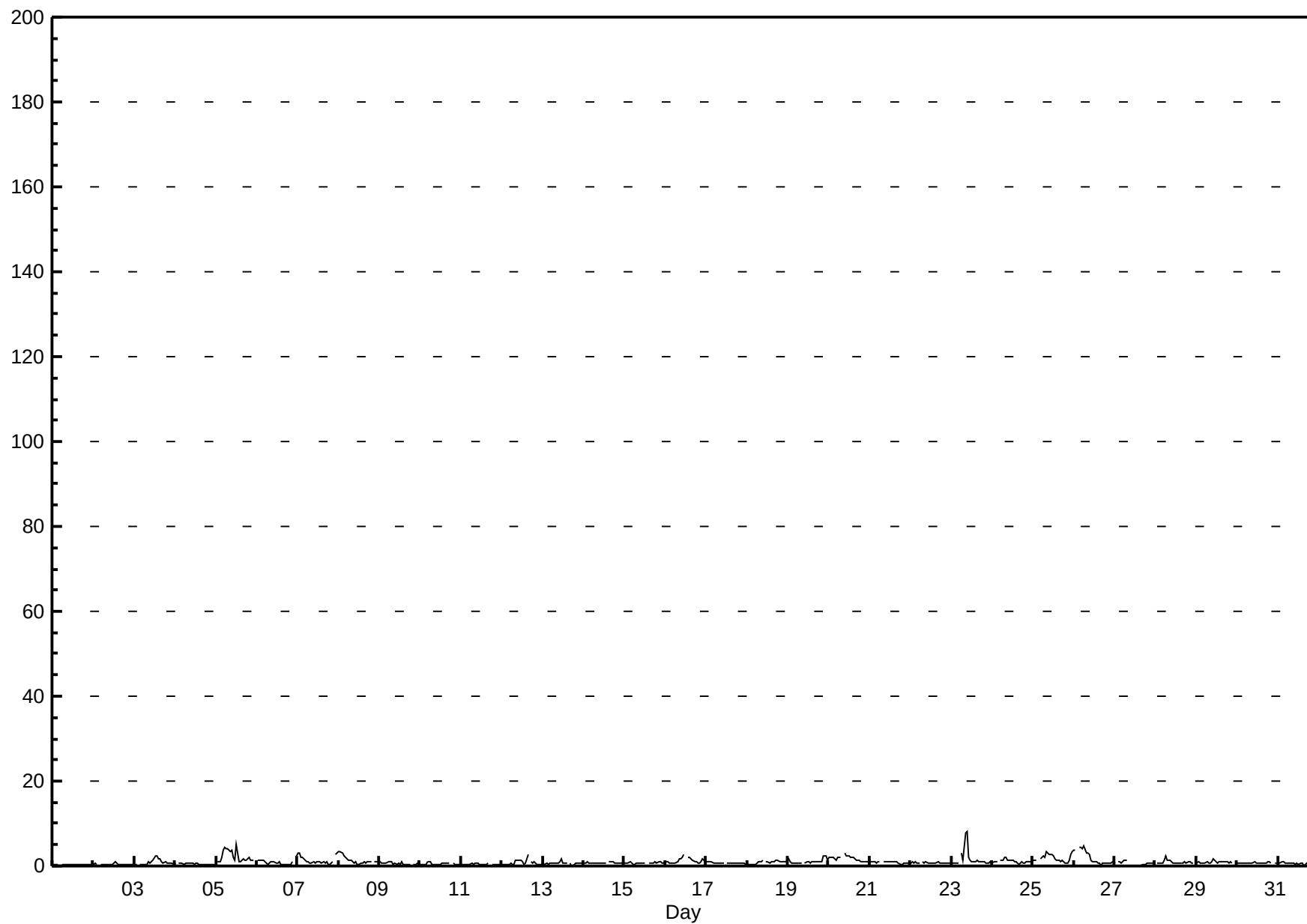
Sulphur Dioxide (SO₂) - ppb

Sunset House - March 2013

Maximum Value: 8.0 ppb on Mar 23 10:00																				Maximum Daily Average: 2.3 ppb on Mar 5										Hours in Service: 744									
Minimum Value: 0 ppb on Mar 27 13:00																				Minimum Daily Average: 0.4 ppb on Mar 1										Hours of Data: 707									
Maximum Diurnal Average: 1.4 ppb at hour 10																				Minimum Diurnal Average: 0.7 ppb at hour 21										Hours of Missing Data: 37									
Monthly Average: 0.96 ppb																				Percentiles: P ₁ = 0.2 P ₁₀ = 0.4 Q ₁ = 0.5 Median = 0.7 Q ₃ = 1.0 P ₉₀ = 1.9 P ₉₉ = 4.2										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-Mar	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5													
2-Mar	0	1	0	A	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0.5	0.9													
3-Mar	0	0	A	0	0	0	1	1	1	1	1	2	3	3	2	2	1	1	1	1	1	1	1	0	0.9	2.5													
4-Mar	1	A	1	1	1	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.5	0.5													
5-Mar	A	1	1	2	4	4	4	4	3	4	2	1	5	1	1	2	2	2	2	2	2	2	2	A	2.3	5.0													
6-Mar	2	2	1	1	1	1	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	1	A	2	0.9	2.4													
7-Mar	3	3	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	A	3	3	1.3	3.1													
8-Mar	3	3	3	2	2	2	1	1	1	1	0	0	1	1	1	1	1	1	1	1	A	1	1	1	1.4	3.4													
9-Mar	1	1	1	1	1	1	1	1	0	1	0	1	0	1	0	0	0	0	0	A	0	0	1	1	0.7	1.0													
10-Mar	0	0	0	0	1	1	1	0	1	0	0	1	1	1	1	1	1	1	A	1	1	0	0	0	0.6	1.0													
11-Mar	0	0	0	0	0	0	1	0	1	1	1	0	0	0	0	0	1	A	0	0	0	0	0	0	0.4	0.8													
12-Mar	0	0	0	0	0	1	0	0	1	1	1	1	1	0	1	3	A	1	1	1	0	0	0	0	0.8	2.6													
13-Mar	0	1	1	1	1	1	1	1	1	1	1	2	1	1	1	A	1	0	0	1	1	1	1	1	0.6	1.5													
14-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.7	1.2													
15-Mar	1	1	1	1	1	0	0	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.6	1.0													
16-Mar	1	1	1	1	1	1	1	1	2	2	2	3	A	2	2	2	2	1	1	1	1	1	2	1	1.2	2.7													
17-Mar	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.7	1.1													
18-Mar	1	0	0	0	0	0	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.4													
19-Mar	2	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	3	3	2	1.1	2.5													
20-Mar	2	2	2	2	1	2	2	2	A	3	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1.7	2.9													
21-Mar	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0.8	1.0													
22-Mar	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.1													
23-Mar	1	1	1	1	1	A	3	2	8	8	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1.7	8.0													
24-Mar	1	1	1	1	A	2	2	2	2	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1.1	2.0													
25-Mar	1	1	1	A	2	2	2	2	3	3	3	3	2	2	1	1	1	1	1	1	1	1	3	3	1.9	3.4													
26-Mar	4	4	A	4	4	4	5	3	3	3	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1.9	4.7													
27-Mar	1	A	1	1	1	1	1	2	C	C	C	C	0	0	0	0	0	0	0	1	1	1	1	1	0.7	1.5													
28-Mar	A	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.9	2.5													
29-Mar	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	A	1	0.9	1.6													
30-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.7	1.2													
31-Mar	1	1	1	1	1	1	1	1	1	1	0	1	0	1	1	0	0	1	0	0	A	1	1	1	0.6	1.2													
1.0 1.1 0.9 1.0 1.0 1.1 1.2 1.1 1.3 1.4 1.1 1.1 1.0 0.9 0.8 0.9 0.8 0.8 0.7 0.7 0.7 0.8 0.9 0.9																									Diurnal Average														
3.7 3.6 2.9 4.3 4.3 4.5 4.7 4.0 7.8 8.0 2.9 2.9 5.0 2.5 2.0 2.6 1.7 1.5 1.5 2.0 1.5 2.5 2.8 3.3																									Diurnal Maximum														
C - Calibration																									A - Automated Daily Zero Span														

Hourly Maximums

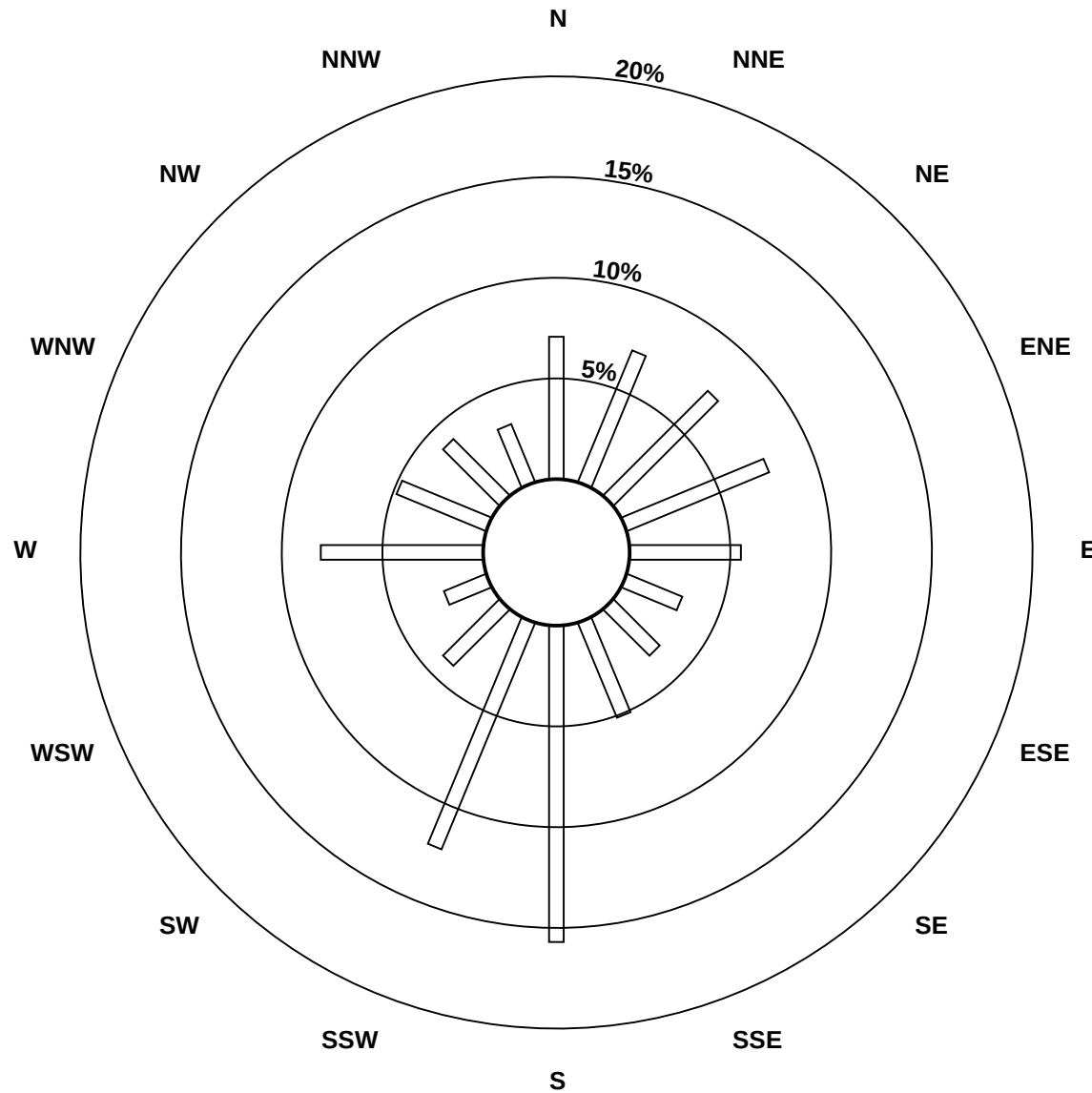
Sulphur Dioxide (SO₂) - ppb
Sunset House - March 2013



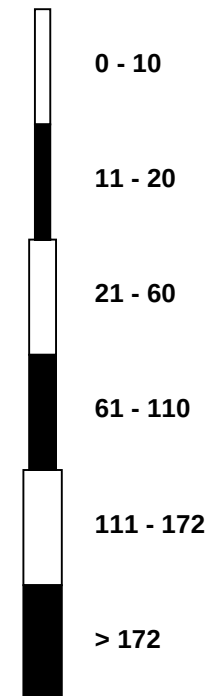
Pollutant Rose

Sulphur Dioxide (SO₂) - ppb

Sunset House - March 2013

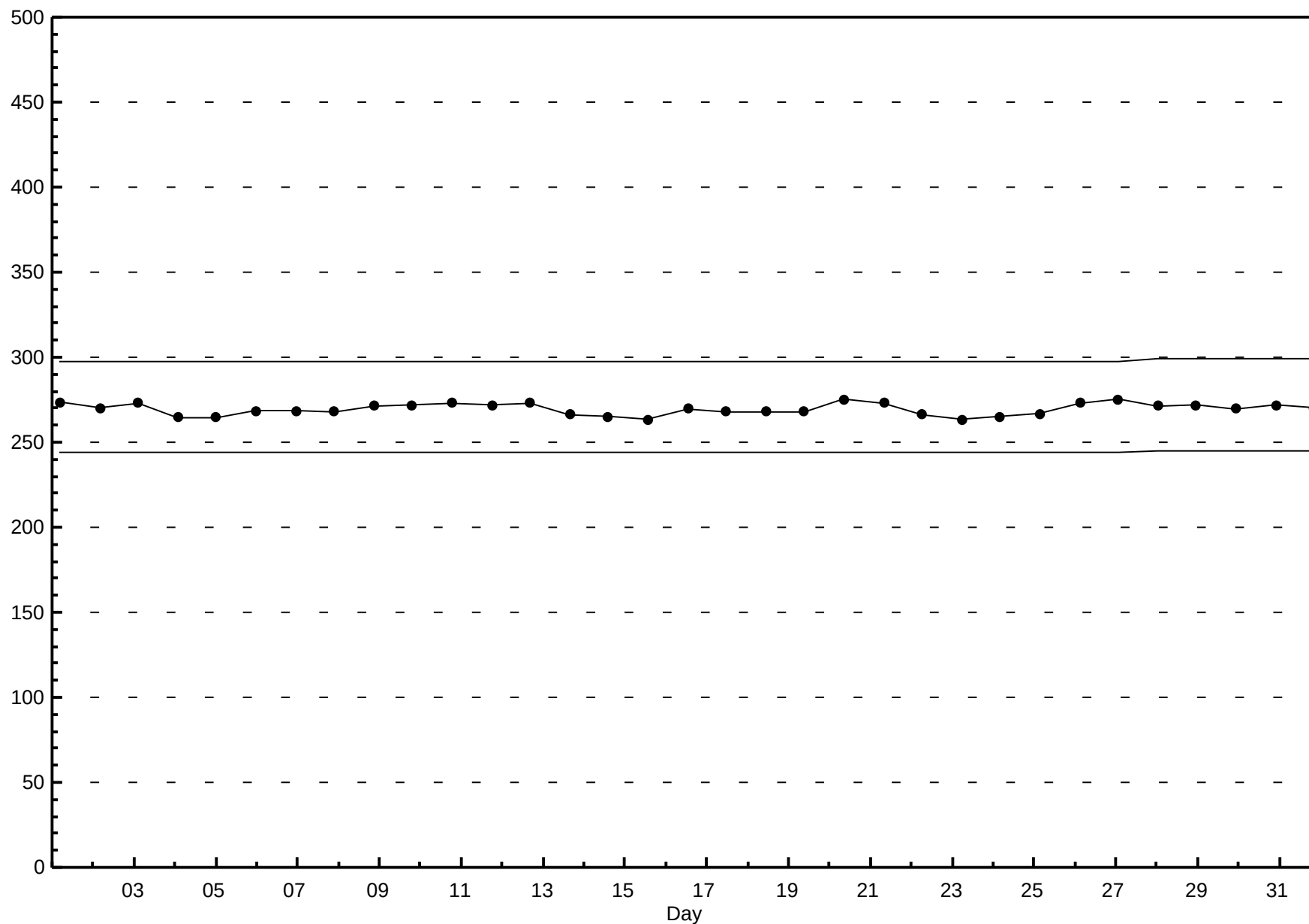


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Sunset House - March 2013



Hourly Averages

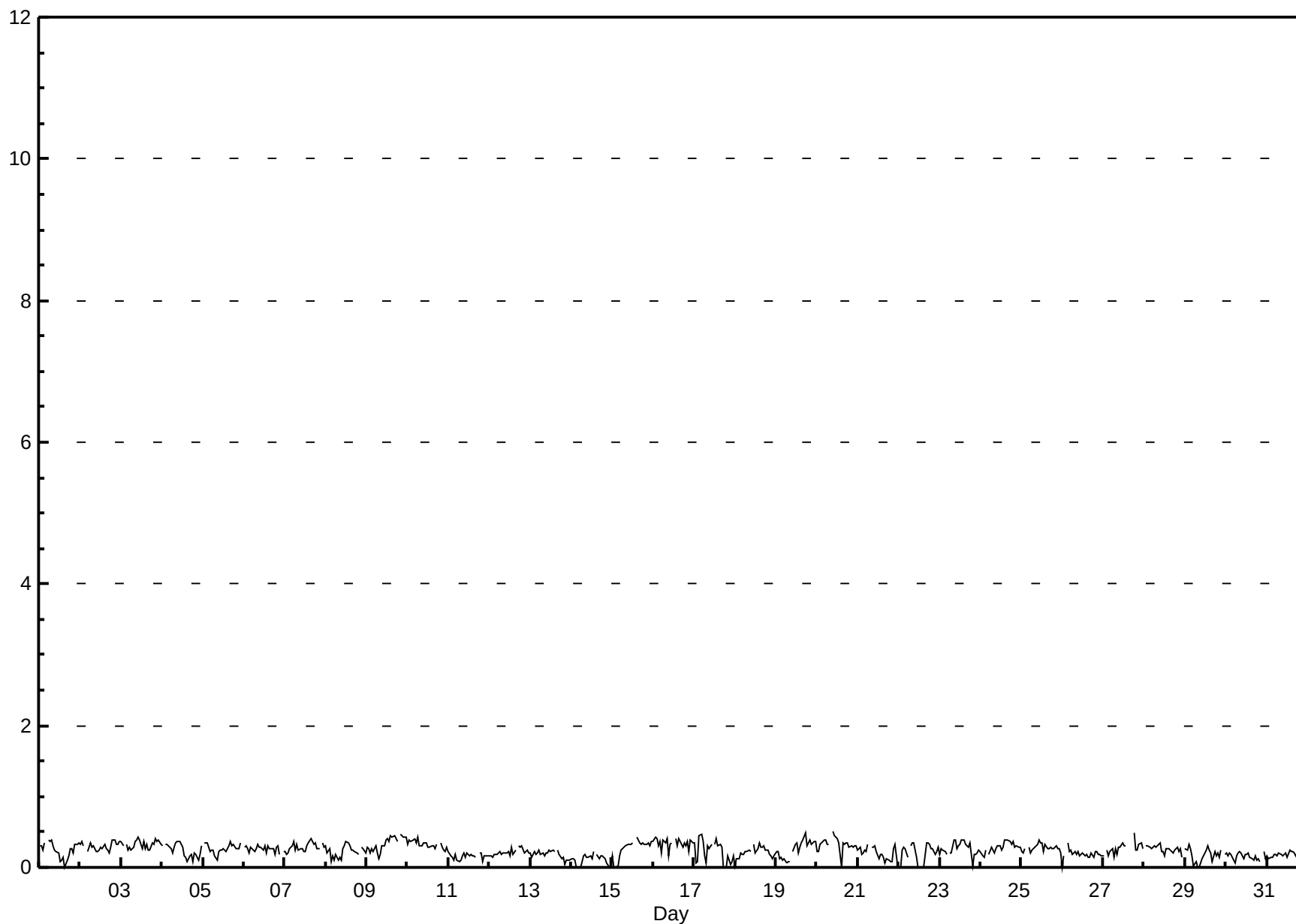
Total Reduced Sulphur (TRS) - ppb

Sunset House - March 2013

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0																				Hours in Service: 744						
Maximum Value: 0.5 ppb on Mar 20 10:00																				Maximum Daily Average: 0.3 ppb on Mar 16		Hours of Data: 707				
Minimum Value: 0 ppb on Mar 14 04:00																				Minimum Daily Average: 0.1 ppb on Mar 14		Hours of Missing Data: 37				
Maximum Diurnal Average: 0.3 ppb at hour 12																				Minimum Diurnal Average: 0.2 ppb at hour 2		Hours of Calibration: 37				
Monthly Average: 0.24 ppb																				Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.2 Median = 0.2 Q ₃ = 0.3 P ₉₀ = 0.4 P ₉₉ = 0.5		Percent Operational Time: 100.0				
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Mar	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
2-Mar	0	0		A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
3-Mar	0		A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
4-Mar	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
5-Mar	A		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.3	0.4
6-Mar	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	0.3
7-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.3	0.4
8-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	0.4
9-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.3	0.5
10-Mar	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	0.4
11-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A		0	0	0	0	0	0.2	0.2
12-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A		0	0	0	0	0	0	0.2	0.3
13-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A		0	0	0	0	0	0	0	0.2	0.3
14-Mar	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
15-Mar	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
16-Mar	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
17-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
18-Mar	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
19-Mar	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
20-Mar	0	0	0	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
21-Mar	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
22-Mar	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
23-Mar	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
24-Mar	0	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
25-Mar	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
26-Mar	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
27-Mar	0	A	0	0	0	0	0	0	0	0	0	0	0	0	C	C	C	C	0	0	0	0	0	0	0.3	0.5
28-Mar	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.3	0.4
29-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.2	0.3
30-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.2	0.2
31-Mar	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	0.3
0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.3 0.3 0.3 0.2 0.3 0.3 0.3 0.3 0.3 0.2 0.2 0.2 0.2 0.3 0.2																									Diurnal Average	
0.4 0.4 0.4 0.5 0.5 0.4 0.4 0.4 0.4 0.4 0.5 0.4 0.4 0.4 0.5 0.4 0.5 0.5 0.5 0.5 0.4 0.5 0.4 0.4 0.4																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb																										

Hourly Averages

Total Reduced Sulphur (TRS) - ppb
Sunset House - March 2013



Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

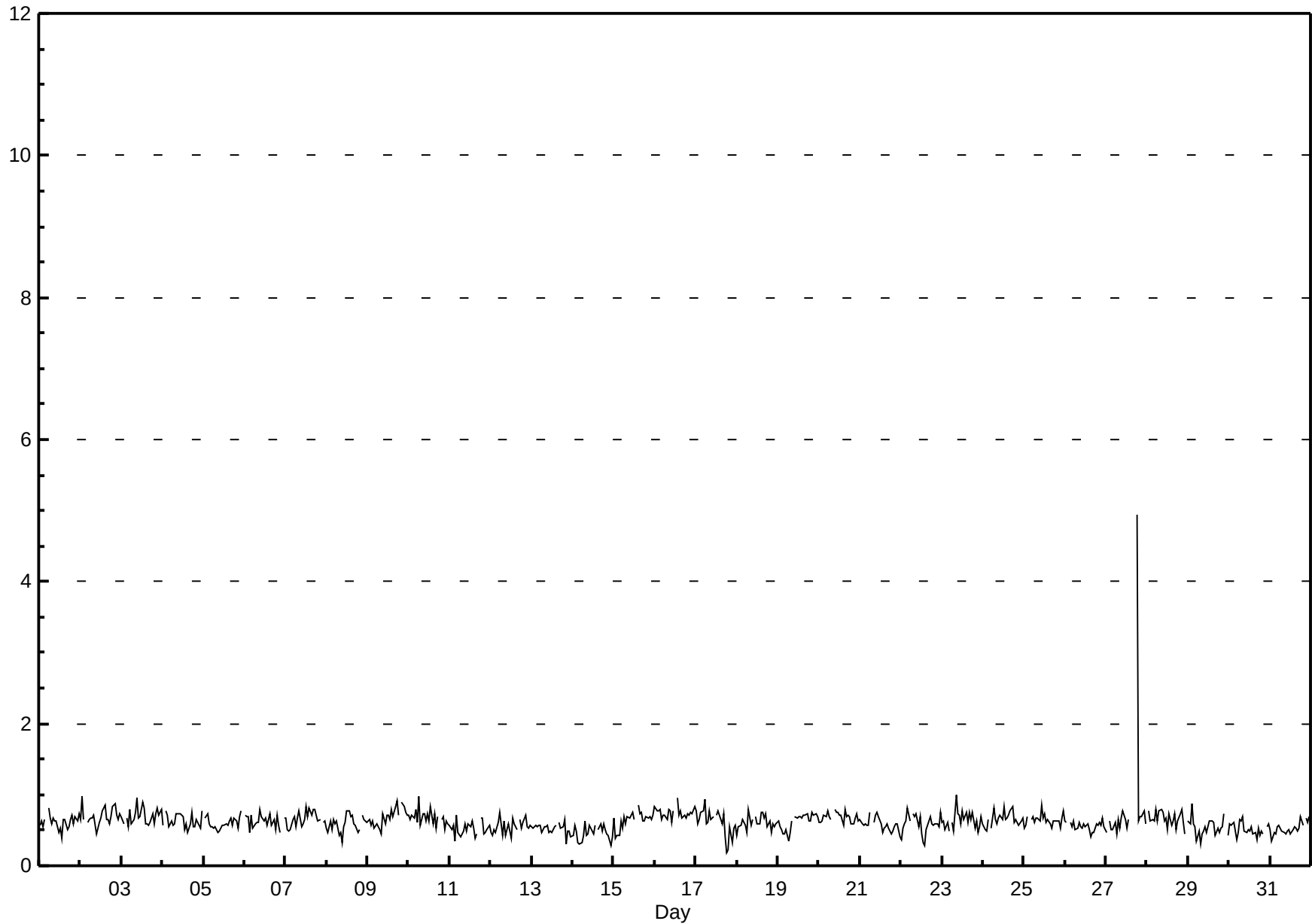
Sunset House - March 2013

Maximum Value: 4.9 ppb on Mar 27 19:00																			Maximum Daily Average: 0.8 ppb on Mar 27										Hours in Service: 744	
Minimum Value: 0 ppb on Mar 17 19:00																			Minimum Daily Average: 0.5 ppb on Mar 14										Hours of Data: 707	
Maximum Diurnal Average: 0.7 ppb at hour 19																			Minimum Diurnal Average: 0.6 ppb at hour 4										Hours of Missing Data: 37	
Monthly Average: 0.62 ppb																			Percentiles: P ₁ = 0.3 P ₁₀ = 0.5 Q ₁ = 0.5 Median = 0.6 Q ₃ = 0.7 P ₉₀ = 0.8 P ₉₉ = 0.9										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-Mar	1	1	1	1	A	1	1	1	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	0.6	0.8				
2-Mar	1	1	1	A	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0				
3-Mar	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0				
4-Mar	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0.6	0.8				
5-Mar	A	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.6	0.8				
6-Mar	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	A	1	0.6	0.8				
7-Mar	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.7	0.8				
8-Mar	1	0	1	1	1	1	1	0	0	0	1	1	1	1	1	1	1	1	0	1	A	1	1	1	0.6	0.8				
9-Mar	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.7	0.9				
10-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0	1	1	0.7	1.0				
11-Mar	1	1	1	0	1	0	0	0	0	1	0	1	1	1	1	0	0	A	1	1	0	0	1	1	0.5	0.7				
12-Mar	0	0	1	0	1	1	1	0	1	0	1	0	0	1	1	1	A	1	1	1	1	1	1	1	0.5	0.7				
13-Mar	1	1	1	1	1	1	0	1	1	1	0	0	0	1	1	A	1	1	1	1	0	0	0	0	0.5	0.6				
14-Mar	0	1	0	0	0	0	0	1	0	0	1	0	0	1	A	1	1	0	1	0	0	0	0	0	0.5	0.6				
15-Mar	1	0	0	0	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.6	0.9				
16-Mar	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0				
17-Mar	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0	0	1	0	1	1	0.6	0.9				
18-Mar	0	1	1	1	1	1	0	1	1	1	A	1	1	1	1	1	1	1	1	1	0	1	1	1	0.6	0.8				
19-Mar	1	1	1	0	0	1	0	0	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.8				
20-Mar	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	0.8				
21-Mar	1	1	1	1	1	1	1	A	1	1	1	1	1	0	1	1	1	1	0	0	1	1	1	0	0.6	0.8				
22-Mar	0	1	1	1	1	1	A	1	1	1	1	1	0	0	0	1	1	1	1	1	1	1	1	1	0.6	0.8				
23-Mar	1	1	1	1	0	A	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0.6	1.0				
24-Mar	1	1	0	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.8				
25-Mar	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.9				
26-Mar	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	1	1	1	1	1	0.6	0.7				
27-Mar	0	A	1	1	1	1	0	1	1	1	1	1	1	1	C	C	C	C	5	1	1	1	1	1	0.8	4.9				
28-Mar	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	A	0.7	0.8				
29-Mar	1	1	1	1	1	0	0	0	0	0	1	0	1	1	1	1	0	1	0	1	1	1	A	0	0.5	0.9				
30-Mar	1	1	1	1	0	0	1	1	1	0	0	1	0	1	0	0	0	0	1	0	0	A	1	1	0.5	0.7				
31-Mar	1	0	0	0	1	1	1	0	0	0	0	1	0	1	1	1	0	1	1	1	A	1	1	1	0.5	0.7				
																								Diurnal Average						
																								Diurnal Maximum						
C - Calibration																								A - Automated Daily Zero Span						

Hourly Maximums

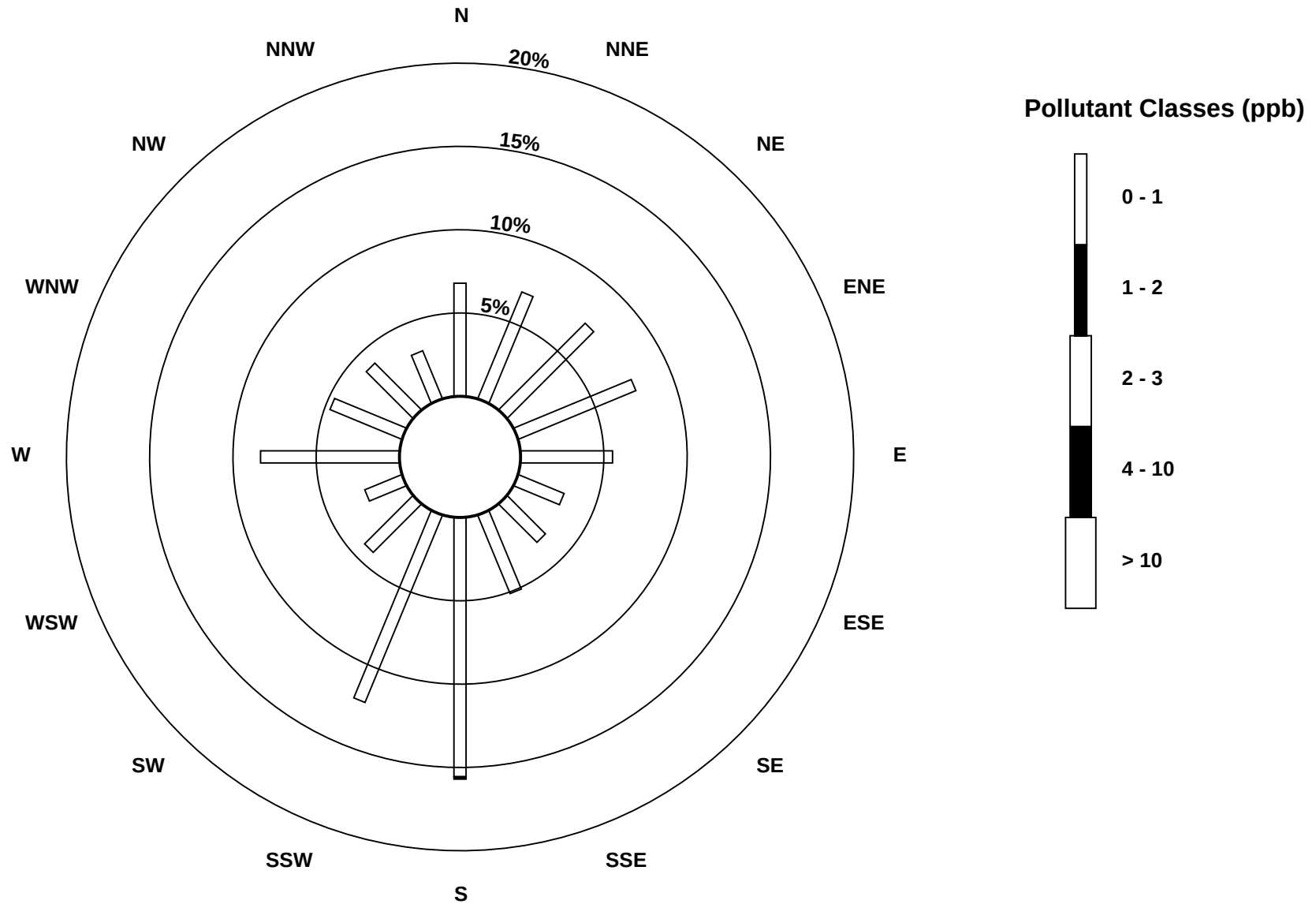
Total Reduced Sulphur (TRS) - ppb

Sunset House - March 2013



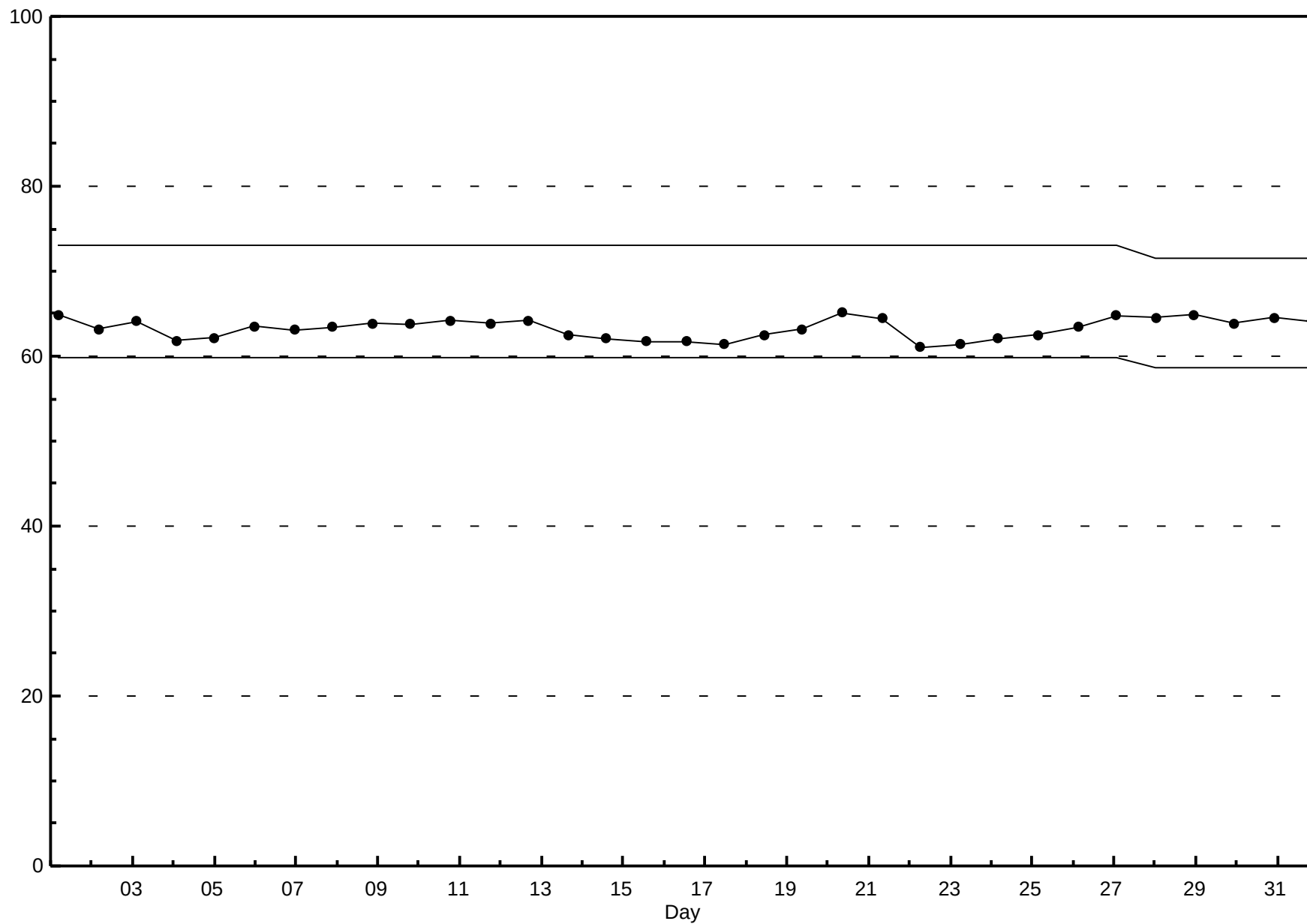
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb
Sunset House - March 2013



Span Responses

Total Reduced Sulphur (TRS)
Sunset House - March 2013



Hourly Averages

Nitrogen Dioxide (NO₂) - ppb

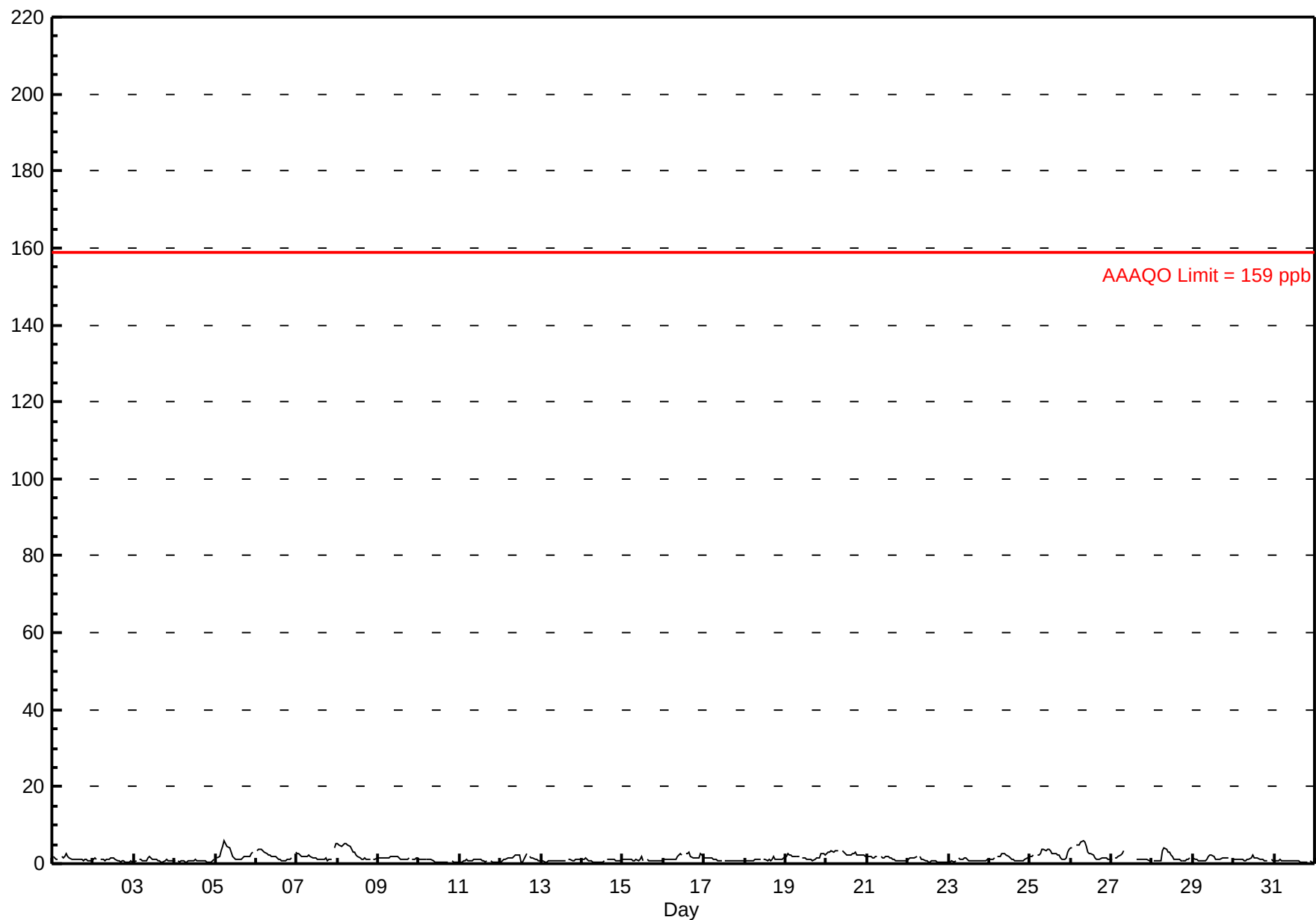
Sunset House - March 2013

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0																				Hours in Service: 744						
Maximum Value: 6.1 ppb on Mar 26 08:00																				Maximum Daily Average: 2.9 ppb on Mar 26		Hours of Data: 704				
Minimum Value: 0 ppb on Mar 12 00:00																				Minimum Daily Average: 0.7 ppb on Mar 4		Hours of Missing Data: 40				
Maximum Diurnal Average: 1.9 ppb at hour 8																				Minimum Diurnal Average: 1.0 ppb at hour 20		Hours of Calibration: 40				
Monthly Average: 1.43 ppb																				Percentiles: P ₁ = 0.4 P ₁₀ = 0.6 Q ₁ = 0.8 Median = 1.1 Q ₃ = 1.7 P ₉₀ = 2.7 P ₉₉ = 5.1		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-Mar	2	2	1	1	A	2	2	2	3	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1.3	2.6
2-Mar	1	2	1	A	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.7
3-Mar	0	1	A	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.8
4-Mar	1	A	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0.7	1.0
5-Mar	A	1	2	3	5	6	5	4	4	3	2	2	1	1	1	1	2	2	2	2	2	2	3	A	2.6	6.0
6-Mar	4	4	4	4	3	3	3	2	2	2	2	2	1	1	1	1	1	1	1	1	1	2	A	3	2.1	3.7
7-Mar	3	3	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	A	4	5	1.9	5.1
8-Mar	5	5	5	5	5	5	5	5	4	3	3	2	2	1	1	1	1	1	1	1	A	1	1	1	2.9	5.3
9-Mar	1	2	2	2	1	2	2	2	2	2	2	2	1	1	1	1	1	1	1	A	1	1	1	1	1.5	2.0
10-Mar	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	A	1	1	1	0	0	0.7	1.3
11-Mar	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	A	1	0	0	0	0	0	0.7	1.3
12-Mar	1	1	1	1	1	2	2	2	2	2	2	2	1	0	1	3	A	2	1	1	1	1	1	1	1.3	2.7
13-Mar	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0.8	1.3
14-Mar	1	1	1	1	1	1	1	0	0	1	0	0	1	1	A	1	1	1	1	1	1	1	1	1	0.8	1.4
15-Mar	1	1	1	1	1	1	1	1	1	1	1	2	1	A	1	1	1	1	1	1	1	1	1	1	1.0	1.7
16-Mar	1	1	1	1	1	1	1	1	2	2	3	2	A	3	3	3	2	1	1	1	1	2	3	2	1.7	2.9
17-Mar	2	2	2	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.9	1.6
18-Mar	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	2	1	1	1	1	1	1	1.0	1.7
19-Mar	2	3	2	2	2	2	2	2	2	A	2	1	1	1	1	1	1	1	1	1	1	3	2	2	1.7	2.6
20-Mar	3	3	3	3	3	3	3	3	A	3	3	3	2	2	2	2	3	3	2	2	2	2	2	2	2.7	3.4
21-Mar	2	2	2	2	1	2	2	A	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1.4	2.0
22-Mar	1	1	1	1	1	2	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0.9	1.8
23-Mar	0	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	1.4
24-Mar	1	1	1	1	A	2	2	2	3	2	2	2	2	1	1	1	1	1	1	1	1	1	2	2	1.5	2.5
25-Mar	2	2	2	A	2	2	3	4	4	4	4	4	3	3	3	3	2	2	2	1	1	1	3	4	2.5	3.8
26-Mar	4	4	A	5	5	5	6	6	6	4	3	3	3	2	1	1	1	1	2	1	1	1	1	1	2.9	6.1
27-Mar	1	A	2	2	2	2	3	3	C	C	C	C	C	C	C	1	1	1	1	1	1	1	1	1	--	3.3
28-Mar	A	1	1	1	1	1	3	4	4	3	3	2	2	1	1	1	1	1	1	1	1	1	1	A	1.6	4.1
29-Mar	1	1	1	1	1	1	1	1	1	2	2	2	2	1	1	1	1	1	2	1	1	1	A	1	1.3	2.3
30-Mar	1	1	1	1	1	1	1	1	1	1	1	2	2	2	1	1	1	1	1	1	1	A	1	1	1.1	2.1
31-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	A	1	1	0	0.7	1.0
1.5 1.6 1.5 1.6 1.7 1.8 1.9 1.9 1.8 1.8 1.7 1.6 1.3 1.2 1.1 1.1 1.0 1.1 1.0 1.0 1.0 1.0 1.0 1.0																									Diurnal Average	
5.2 4.9 4.6 5.0 5.1 6.0 5.6 6.1 5.7 4.5 3.7 3.8 3.4 2.8 2.7 2.9 2.7 2.9 2.3 2.3 2.3 2.3 2.6 4.2 5.1																									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

Sunset House - March 2013



Hourly Maximums

Nitrogen Dioxide (NO₂) - ppb

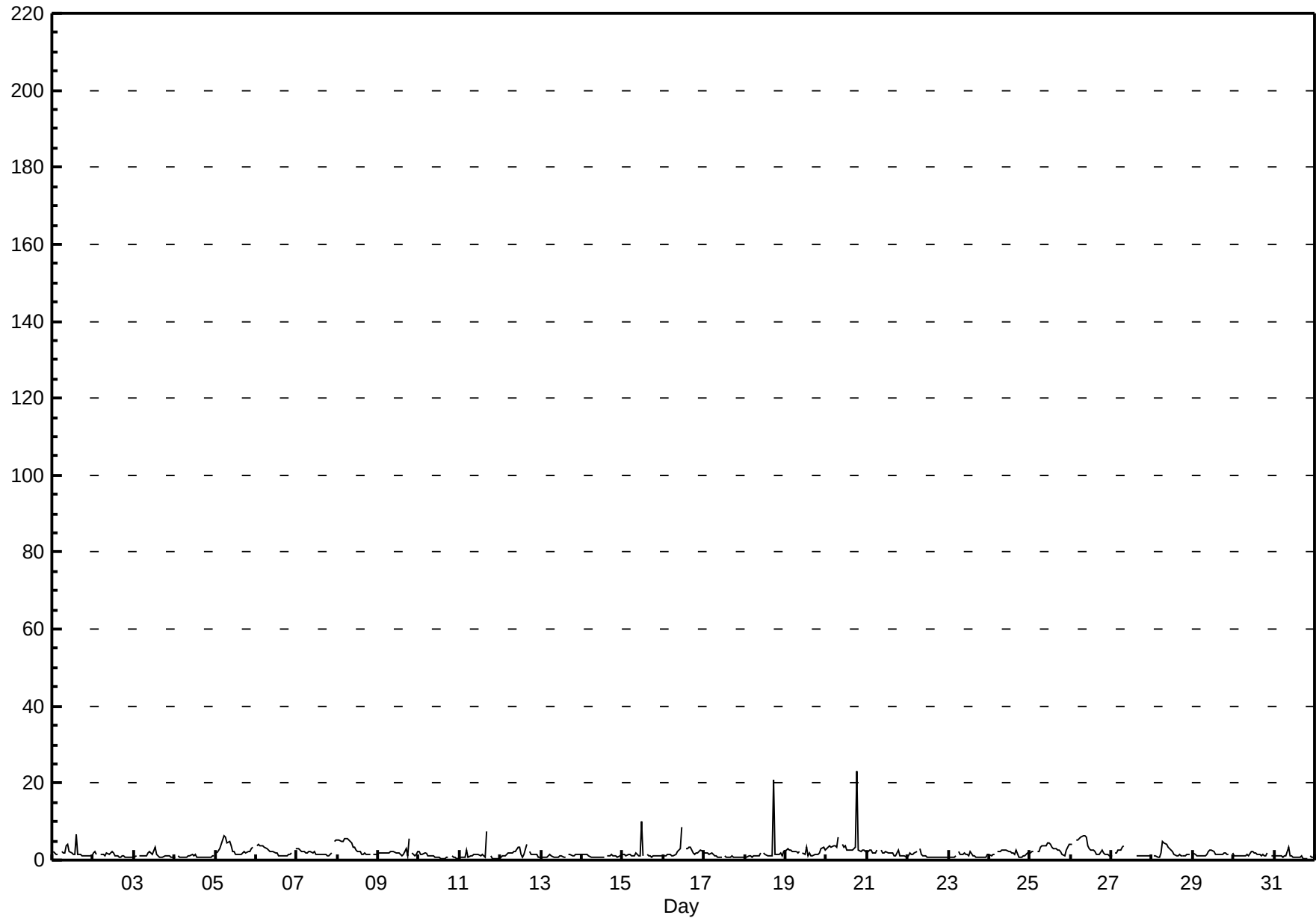
Sunset House - March 2013

Maximum Value: 23.0 ppb on Mar 20 19:00																				Maximum Daily Average: 4.1 ppb on Mar 20					Hours in Service: 744	
Minimum Value: 0 ppb on Mar 11 23:00																				Minimum Daily Average: 0.9 ppb on Mar 4					Hours of Data: 704	
Maximum Diurnal Average: 2.5 ppb at hour 12																				Minimum Diurnal Average: 1.2 ppb at hour 20					Hours of Missing Data: 40	
Monthly Average: 1.86 ppb																				Percentiles: P ₁ = 0.5 P ₁₀ = 0.8 Q ₁ = 1.0 Median = 1.4 Q ₃ = 2.1 P ₉₀ = 3.3 P ₉₉ = 6.3					Hours of Calibration: 40	
																				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-Mar	2	2	1	2	A	2	2	2	4	4	2	2	2	1	7	1	2	1	1	1	1	1	1	1	2.0	6.6
2-Mar	2	2	1	A	2	1	1	1	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1.3	2.2
3-Mar	1	1	A	1	1	1	1	1	2	2	2	1	3	1	1	1	1	1	1	1	1	1	1	1	1.3	3.2
4-Mar	1	A	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	0.9	1.6
5-Mar	A	2	3	4	5	6	6	5	5	4	2	2	1	1	1	1	2	2	2	2	2	3	3	A	3.0	6.4
6-Mar	4	4	4	4	4	3	3	3	2	2	2	2	2	1	1	1	1	1	1	2	1	2	A	3	2.3	4.0
7-Mar	3	3	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	2	1	1	2	A	5	5	2.1	5.3
8-Mar	5	5	5	5	6	6	6	5	4	3	3	3	2	2	2	2	2	1	1	1	A	2	1	2	3.2	5.7
9-Mar	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	3	1	6	A	2	1	2	2	2.0	5.7
10-Mar	2	2	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1.0	2.2
11-Mar	1	1	1	1	3	1	1	1	2	2	2	2	1	1	1	1	8	A	1	1	1	1	0	1	1.3	7.5
12-Mar	1	1	1	1	2	2	2	2	2	2	3	4	2	1	2	4	A	2	2	2	1	1	1	1	1.8	4.1
13-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	2	1	1	1	1	1	1	1.1	1.6
14-Mar	1	1	2	2	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1.0	1.6
15-Mar	1	1	1	1	1	1	1	1	2	1	1	10	1	A	1	1	1	1	1	1	1	1	1	1	1.6	10.2
16-Mar	1	1	1	1	1	1	1	1	2	3	3	8	A	3	3	3	3	2	2	2	2	2	3	2	2.3	8.5
17-Mar	2	2	2	2	2	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1.1	2.0
18-Mar	1	1	1	1	1	1	1	1	1	2	A	2	1	1	1	1	1	21	1	1	1	2	1	2	2.1	20.7
19-Mar	3	3	3	3	2	2	2	2	2	A	2	2	3	1	2	1	1	1	1	2	2	3	3	2	2.1	3.3
20-Mar	3	3	4	4	4	4	3	6	A	4	3	4	3	2	3	3	3	3	23	2	2	3	2	2	4.1	23.0
21-Mar	2	3	2	2	2	2	3	A	2	2	2	2	2	2	2	2	1	1	2	1	1	1	1	1	1.8	2.6
22-Mar	1	2	1	2	2	2	A	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	3.0
23-Mar	1	1	1	1	1	A	2	2	2	2	2	1	1	2	1	1	1	1	1	1	1	1	1	1	1.1	2.3
24-Mar	1	1	1	2	A	2	2	3	3	3	3	2	2	2	2	1	3	1	1	1	1	1	2	2	1.8	2.8
25-Mar	2	2	2	A	2	2	3	4	4	4	5	4	4	3	3	3	3	2	2	1	1	3	4	4	3.0	4.6
26-Mar	4	4	A	5	5	5	6	6	6	6	4	3	3	3	2	1	1	1	3	2	2	2	1	1	3.4	6.4
27-Mar	1	A	2	2	2	2	3	4	C	C	C	C	C	C	C	1	1	1	1	1	1	1	1	1	--	3.7
28-Mar	A	1	1	1	1	2	5	4	4	4	3	3	2	1	1	1	1	1	1	1	1	1	2	A	2.0	4.8
29-Mar	2	1	1	1	1	1	1	1	1	2	3	3	2	1	1	1	2	2	2	2	2	2	A	2	1.6	2.7
30-Mar	1	1	1	1	1	1	1	1	2	1	2	2	2	2	2	2	1	1	1	1	2	A	1	1	1.4	2.3
31-Mar	1	1	1	1	1	1	1	1	3	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1.0	3.2
1.8 1.9 1.8 1.9 2.1 2.1 2.2 2.3 2.3 2.2 2.1 2.5 1.8 1.5 1.6 1.4 1.7 2.0 2.2 1.2 1.3 1.4 1.5 1.6																									Diurnal Average	
5.4 5.2 4.8 5.3 5.5 6.4 6.0 6.4 6.2 5.9 4.6 10.2 4.1 3.2 6.6 4.1 7.5 20.7 23.0 2.5 2.4 3.1 4.8 5.3																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										

Hourly Maximums

Nitrogen Dioxide (NO₂) - ppb

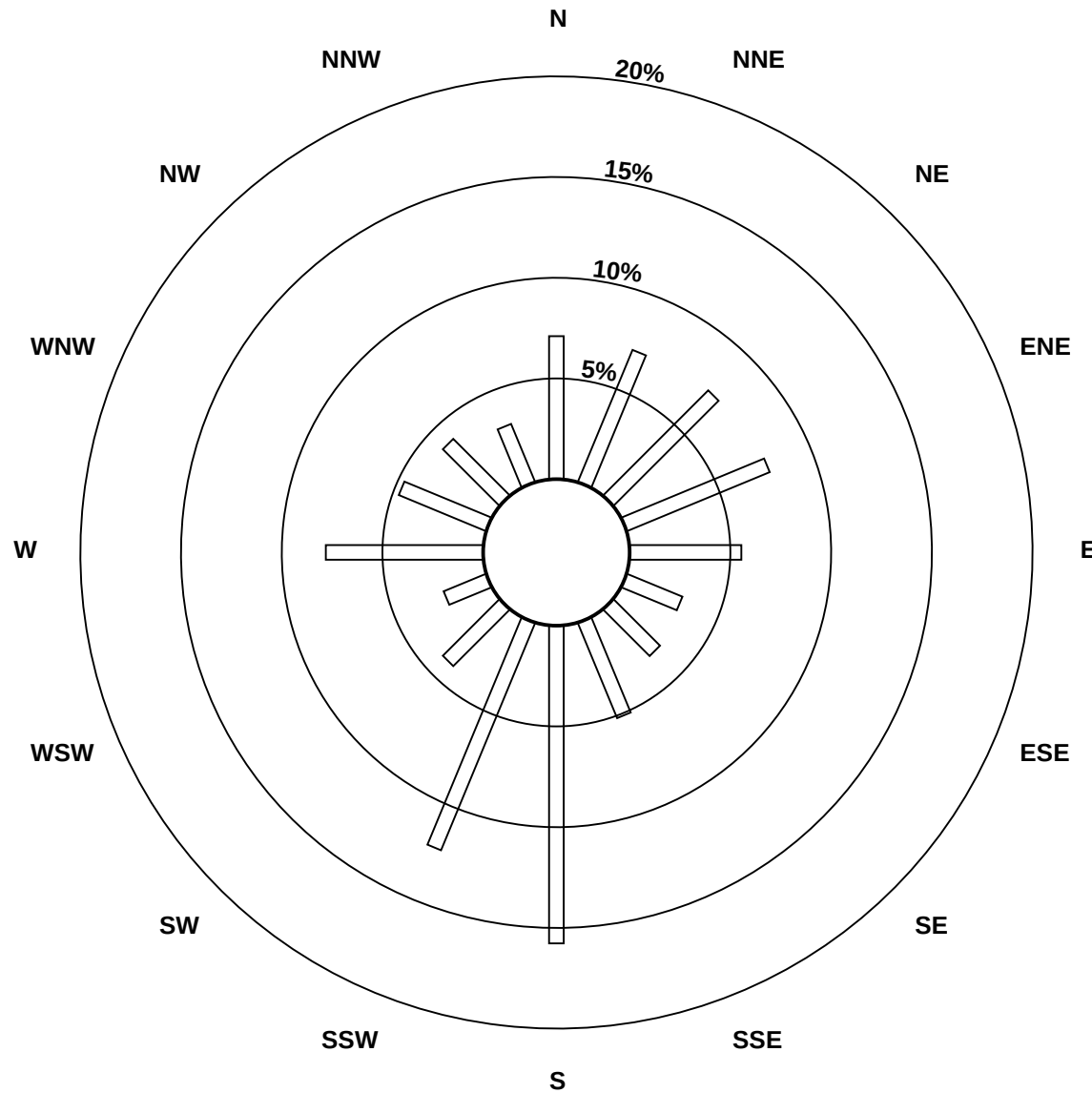
Sunset House - March 2013



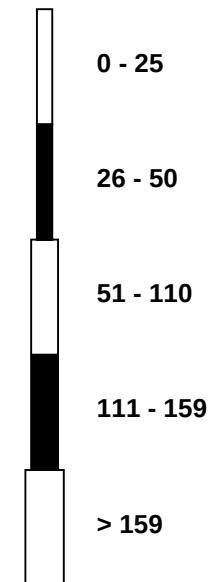
Pollutant Rose

Nitrogen Dioxide (NO₂) - ppb

Sunset House - March 2013

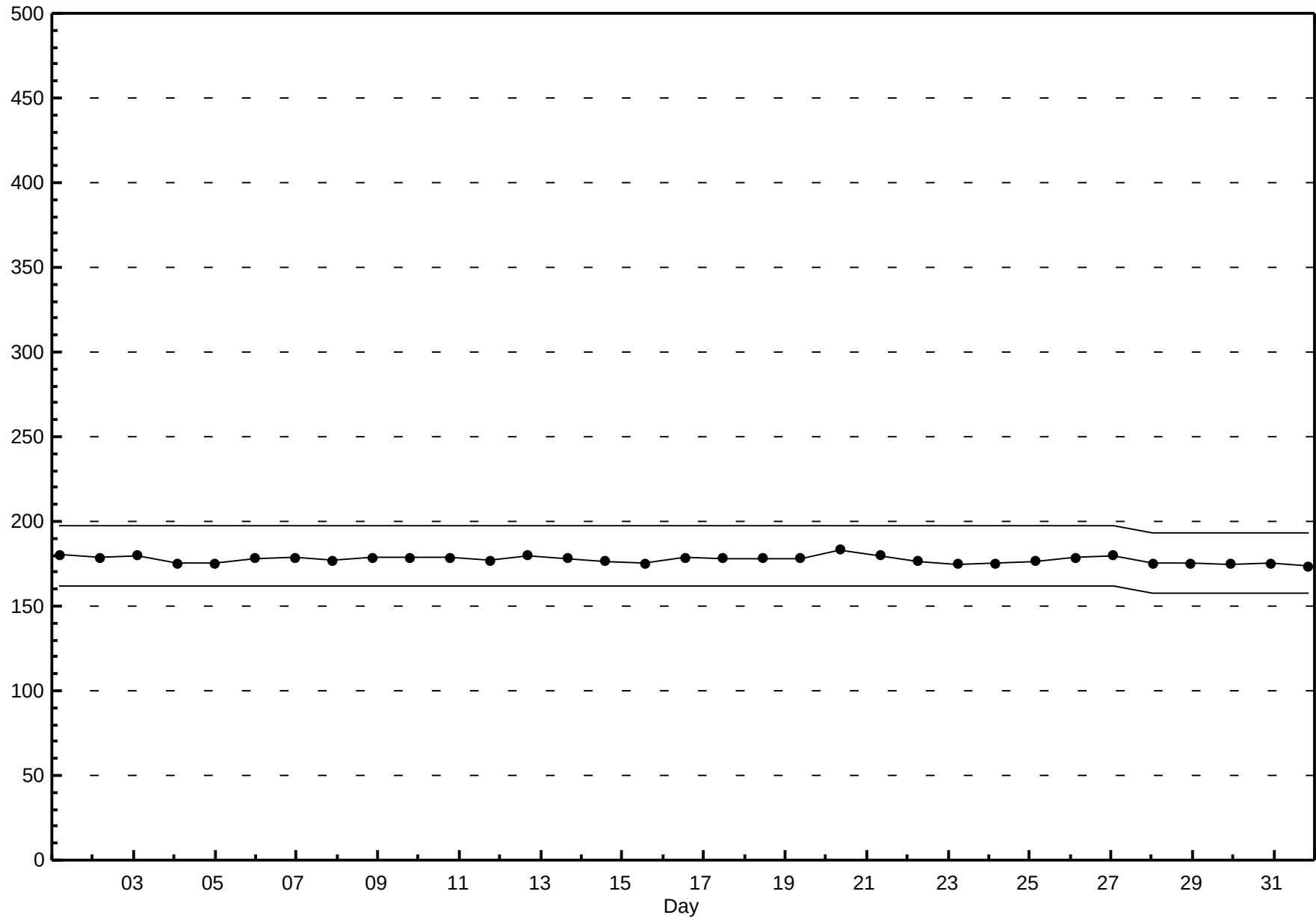


Pollutant Classes (ppb)



Span Responses

Nitrogen Dioxide (NO₂)
Sunset House - March 2013



Hourly Averages

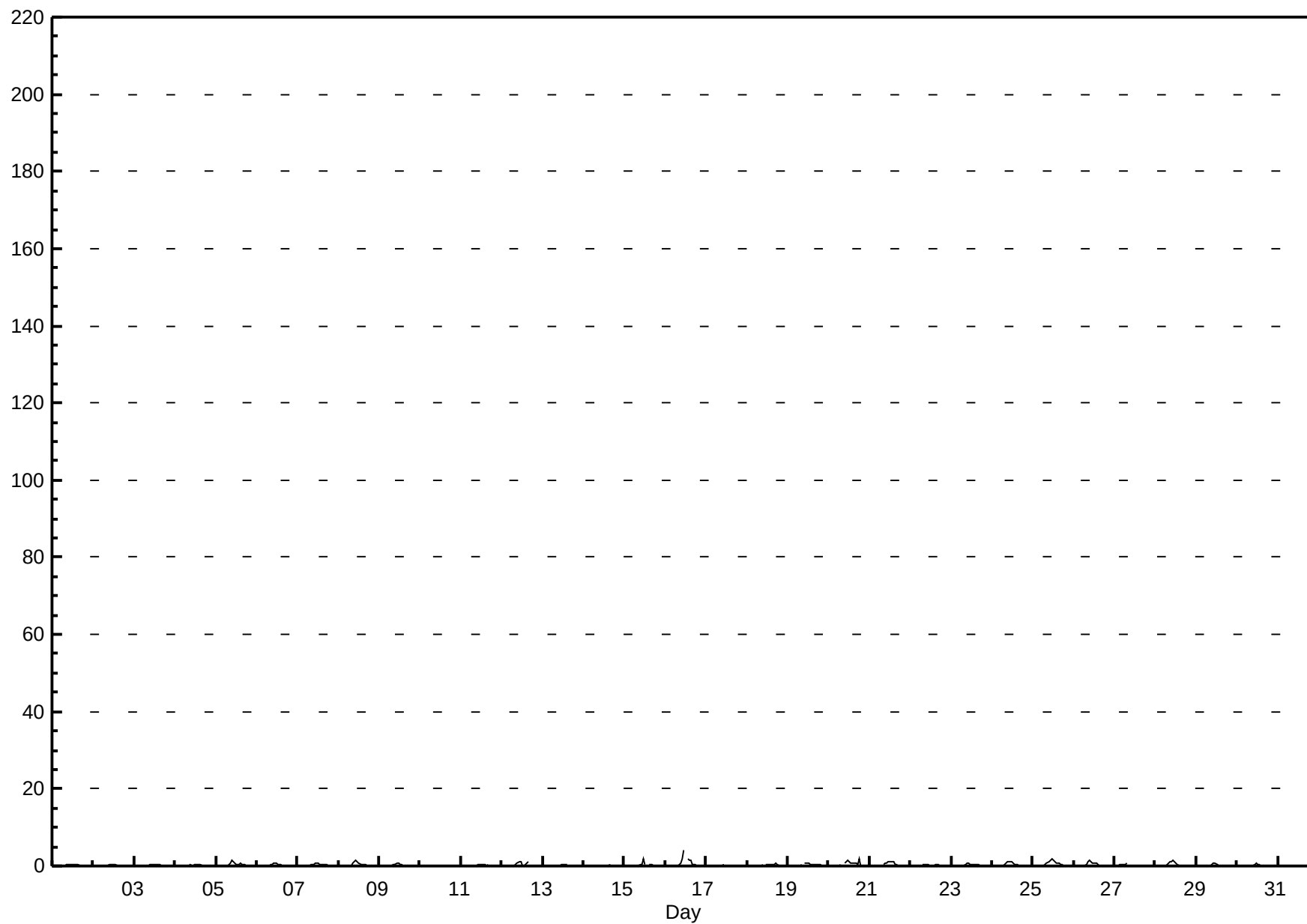
Nitrogen Oxide (NO) - ppb

Sunset House - March 2013

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 4.1 ppb on Mar 16 12:00 Maximum Daily Average: 0.6 ppb on Mar 16																				Hours in Service: 744 Hours of Data: 704 Hours of Missing Data: 40 Hours of Calibration: 40 Percent Operational Time: 100.0						
Minimum Value: 0 ppb on Mar 1 03:00 Minimum Daily Average: 0.0 ppb on Mar 10 Maximum Diurnal Average: 0.8 ppb at hour 12 Minimum Diurnal Average: 0.0 ppb at hour 1 Monthly Average: 0.20 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.0 Q ₃ = 0.2 P ₉₀ = 0.6 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-Mar	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
2-Mar	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
3-Mar	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
4-Mar	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
5-Mar	A	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	A	0.3	1.4
6-Mar	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	A	0	0.2	0.9
7-Mar	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	A	0	0	0.2	0.8
8-Mar	0	0	0	0	0	0	0	0	1	1	2	1	1	1	0	0	0	0	0	0	A	0	0	0	0.3	1.5
9-Mar	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	A	0	0	0	0	0.1	0.7
10-Mar	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
11-Mar	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
12-Mar	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	1	A	0	0	0	0	0	0	0	0.2	1.3
13-Mar	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
14-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.0	0.2
15-Mar	0	0	0	0	0	0	0	0	0	0	0	2	0	A	0	0	0	0	0	0	0	0	0	0	0.2	1.7
16-Mar	0	0	0	0	0	0	0	0	0	1	2	4	A	2	2	1	1	0	0	0	0	0	0	0	0.6	4.1
17-Mar	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
18-Mar	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	1	0	0	0	0	0	0.2	0.7
19-Mar	0	0	0	0	0	0	0	0	1	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
20-Mar	0	0	0	0	0	0	0	0	A	1	1	1	1	1	1	1	1	0	2	0	0	0	0	0	0.5	1.9
21-Mar	0	0	0	0	0	0	0	A	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0.3	1.2
22-Mar	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
23-Mar	0	0	0	0	0	A	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.8
24-Mar	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	1.2
25-Mar	0	0	0	A	0	0	0	0	1	1	1	2	1	1	1	1	0	0	0	0	0	0	0	0	0.5	1.7
26-Mar	0	0	A	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.3	1.3
27-Mar	0	A	0	0	0	0	0	1	C	C	C	C	C	C	C	0	0	0	0	0	0	0	0	0	--	0.8
28-Mar	A	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	A	0.3	1.4
29-Mar	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	A	0	0.1	0.6
30-Mar	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.6
31-Mar	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
0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.1 0.3 0.5 0.7 0.8 0.5 0.4 0.3 0.3 0.2 0.1 0.1 0.0 0.0 0.0 0.0 0.0 0.0																								Diurnal Average		
0.1 0.1 0.1 0.2 0.2 0.3 0.4 0.8 1.3 1.4 1.7 4.1 1.4 1.8 1.5 1.3 0.7 0.7 1.9 0.2 0.2 0.2 0.1 0.1																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										

Hourly Averages

Nitrogen Oxide (NO) - ppb
Sunset House - March 2013



Hourly Maximums

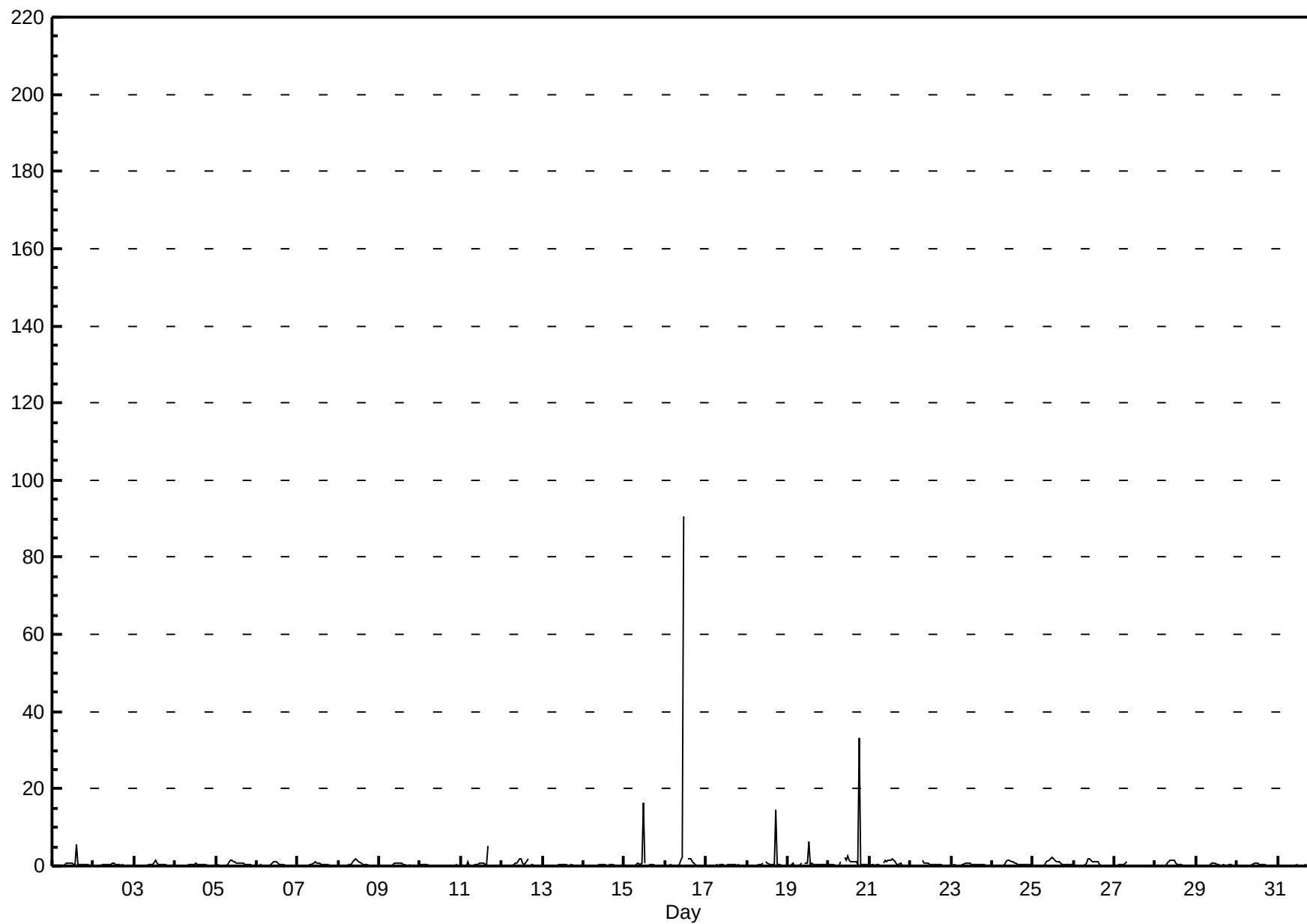
Nitrogen Oxide (NO) - ppb

Sunset House - March 2013

Maximum Value: 90.7 ppb on Mar 16 12:00																				Maximum Daily Average: 4.5 ppb on Mar 16					Hours in Service: 744	
Minimum Value: 0 ppb on Mar 9 04:00																				Minimum Daily Average: 0.2 ppb on Mar 14					Hours of Data: 704	
Maximum Diurnal Average: 4.6 ppb at hour 12																				Minimum Diurnal Average: 0.1 ppb at hour 1					Hours of Missing Data: 40	
Monthly Average: 0.60 ppb																				Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.1 Median = 0.2 Q ₃ = 0.4 P ₉₀ = 1.0 P ₉₉ = 4.8					Hours of Calibration: 40	
																				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-Mar	0	0	0	0	A	0	0	0	1	1	1	1	0	0	5	0	0	0	0	0	0	0	0	0	0.5	5.5
2-Mar	0	0	0	A	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
3-Mar	0	0	A	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0.3	1.4
4-Mar	0	A	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
5-Mar	A	0	0	0	0	0	0	0	1	2	1	1	1	1	1	1	1	0	0	0	0	0	0	A	0.5	1.6
6-Mar	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	A	0	0.3	1.2
7-Mar	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	0	0	0	0	A	0	0	0.4	1.2
8-Mar	0	0	0	0	0	0	0	0	1	2	2	2	1	1	1	0	0	0	0	0	A	0	0	0	0.5	1.7
9-Mar	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	A	0	0	0	0	0.3	0.9
10-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.2	0.4
11-Mar	0	0	0	0	1	0	0	0	0	0	0	1	1	1	0	0	5	A	0	0	0	0	0	0	0.5	5.0
12-Mar	0	0	0	0	0	0	0	0	1	1	2	2	1	0	1	2	A	0	0	0	0	0	0	0	0.4	1.9
13-Mar	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	A	0	0	0	0	0	0	0	0	0.2	0.5
14-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.2	0.3
15-Mar	0	0	0	0	0	0	0	0	1	0	1	16	1	A	0	0	0	0	0	0	0	0	0	0	1.0	16.3
16-Mar	0	0	0	0	0	0	0	0	0	1	2	91	A	2	2	2	1	0	0	0	0	0	0	0	4.5	90.7
17-Mar	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
18-Mar	0	0	0	0	0	0	0	0	0	1	A	1	1	0	0	0	0	15	0	0	0	0	0	0	0.9	14.6
19-Mar	0	0	0	1	0	0	0	0	1	A	1	1	6	1	1	0	0	0	0	0	0	0	0	0	0.7	6.5
20-Mar	0	0	0	0	0	0	0	1	A	2	1	3	1	1	1	1	1	1	33	0	0	0	0	0	2.2	33.0
21-Mar	0	0	0	0	0	1	0	A	1	1	1	1	2	2	1	1	0	0	1	0	0	0	0	0	0.6	1.7
22-Mar	0	0	0	0	0	0	A	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.4
23-Mar	0	0	0	0	0	A	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.9
24-Mar	0	0	0	0	A	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0.5	1.3
25-Mar	0	0	0	A	0	0	0	1	1	1	2	2	2	1	1	1	1	0	0	0	0	0	0	0	0.7	2.1
26-Mar	0	0	A	0	0	0	0	1	2	2	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0.6	2.0
27-Mar	0	A	0	0	0	0	1	1	C	C	C	C	C	C	C	0	0	0	0	0	0	0	0	0	--	1.1
28-Mar	A	0	0	0	0	0	0	1	1	1	2	1	1	0	0	0	0	0	0	0	0	0	0	A	0.5	1.5
29-Mar	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	A	0	0.3	0.9
30-Mar	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	A	0	0	0.2	0.8
31-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	A	0	0	0	0.2	0.5
0.1 0.1 0.1 0.2 0.2 0.1 0.2 0.4 0.6 0.8 1.0 4.6 1.0 0.6 0.8 0.5 0.5 0.7 1.3 0.2 0.1 0.1 0.1 0.2																								Diurnal Average		
0.4 0.3 0.3 0.6 1.1 0.5 0.6 1.4 2.0 2.2 2.1 90.7 6.5 2.0 5.5 1.9 5.0 14.6 33.0 0.3 0.3 0.3 0.3 0.4																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										

Hourly Maximums

Nitrogen Oxide (NO) - ppb
Sunset House - March 2013



Hourly Averages

Oxides of Nitrogen (NO_x) - ppb

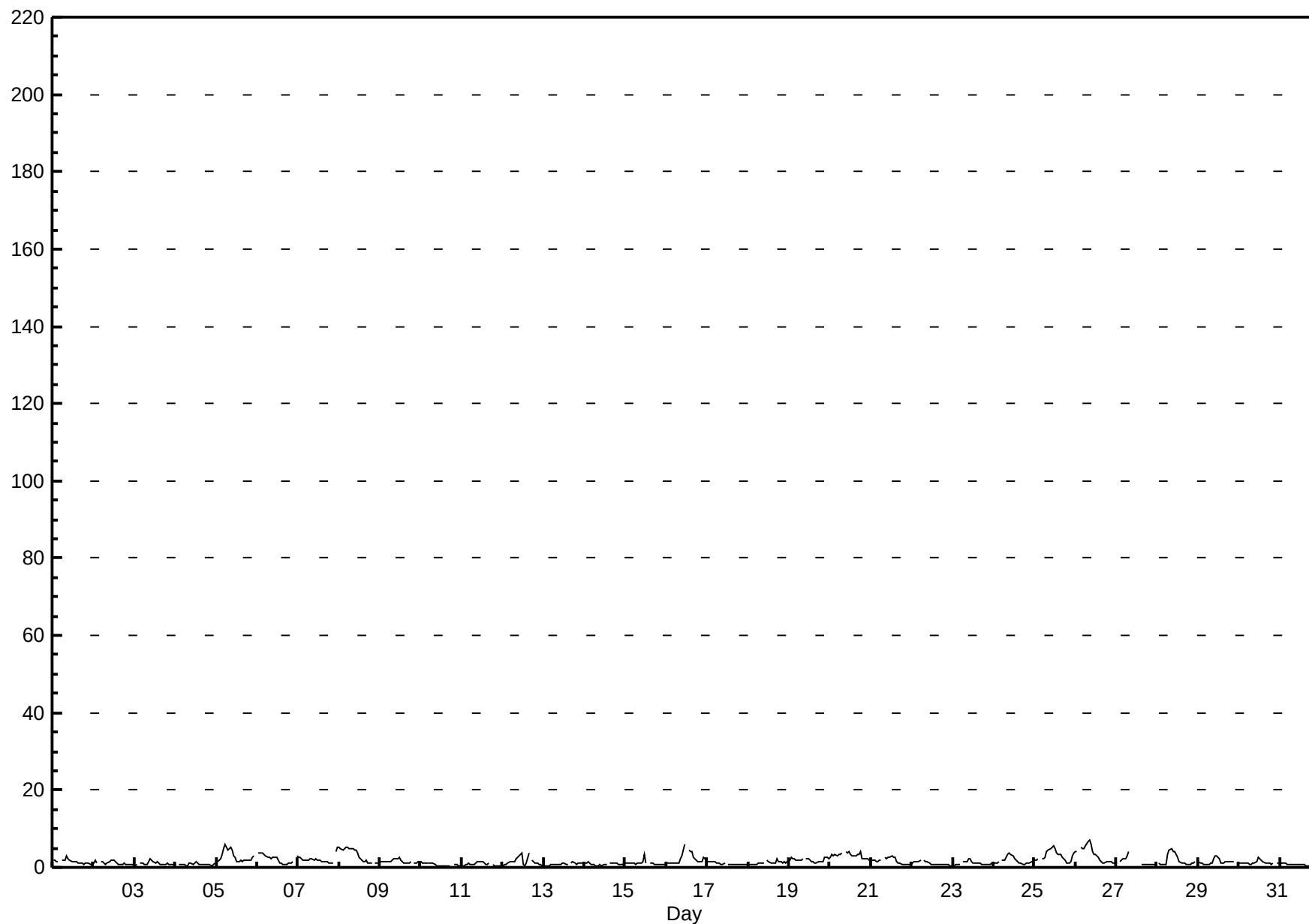
Sunset House - March 2013

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0																				Hours in Service: 744							
Maximum Value: 7.0 ppb on Mar 26 09:00																				Maximum Daily Average: 3.3 ppb on Mar 26		Hours of Data: 704					
Minimum Value: 0 ppb on Mar 12 00:00																				Minimum Daily Average: 0.7 ppb on Mar 31		Hours of Missing Data: 40					
Maximum Diurnal Average: 2.4 ppb at hour 12																				Minimum Diurnal Average: 1.1 ppb at hour 20		Hours of Calibration: 40					
Monthly Average: 1.63 ppb																				Percentiles: P ₁ = 0.4 P ₁₀ = 0.6 Q ₁ = 0.9 Median = 1.2 Q ₃ = 2.0 P ₉₀ = 3.4 P ₉₉ = 5.5		Percent Operational Time: 100.0					
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Mar	2	2	1	1	A	2	2	2	3	2	2	2	1	1	2	1	1	1	1	1	1	1	1	1	1.5	2.8	
2-Mar	1	2	1	A	1	1	1	1	1	1	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1.1	2.0	
3-Mar	0	1	A	1	1	1	1	1	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	2.1	
4-Mar	1	A	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.3	
5-Mar	A	2	2	3	5	6	5	4	5	4	3	2	2	2	2	2	2	2	2	2	2	2	3	A	2.9	6.0	
6-Mar	4	4	4	4	3	3	3	2	2	2	3	3	2	1	1	1	1	1	1	1	1	2	A	3	2.2	3.7	
7-Mar	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	A	4	5	2.1	5.1	
8-Mar	5	5	5	5	5	5	5	5	5	4	4	4	3	2	2	1	2	1	1	1	A	1	1	1	3.2	5.2	
9-Mar	1	2	2	2	1	2	1	2	2	2	2	2	2	2	1	1	1	1	1	A	1	1	1	2	1.6	2.4	
10-Mar	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	A	1	1	1	0	0	0.7	1.3	
11-Mar	0	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	A	1	0	0	0	0	0	0.8	1.6	
12-Mar	1	1	1	1	1	2	2	2	2	3	3	4	1	0	1	4	A	2	1	1	1	1	1	1	1.5	3.8	
13-Mar	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0.8	1.3	
14-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.9	1.4	
15-Mar	1	1	1	1	1	1	1	1	1	1	1	3	1	A	1	1	1	1	1	1	1	1	1	1	1.2	3.4	
16-Mar	1	1	1	1	1	1	1	1	2	3	4	6	A	4	4	4	2	2	2	1	1	2	2	2	2.2	6.1	
17-Mar	2	2	2	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.9	1.6	
18-Mar	1	1	1	1	1	1	1	1	1	1	1	A	2	1	1	1	1	1	2	1	1	1	1	1	1.2	2.4	
19-Mar	2	3	2	2	2	2	2	2	2	A	2	2	2	2	1	1	1	1	2	2	2	3	3	2	1.9	2.8	
20-Mar	3	3	3	3	3	3	3	4	A	4	4	4	3	3	3	3	3	3	4	2	2	2	2	2	3.2	4.1	
21-Mar	2	2	2	2	2	2	2	A	2	2	2	3	3	3	3	2	1	1	1	1	1	1	1	1	1.7	2.9	
22-Mar	1	2	1	1	2	2	A	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1.0	2.0	
23-Mar	0	1	1	1	1	A	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	2.2	
24-Mar	1	1	1	1	A	2	2	3	3	4	3	3	2	2	1	1	1	1	1	1	1	1	2	2	1.8	3.6	
25-Mar	2	2	2	A	2	2	2	4	5	5	5	6	5	4	3	3	3	2	2	1	1	1	3	4	3.0	5.5	
26-Mar	4	4	A	5	5	5	6	7	7	6	4	4	3	3	2	1	1	1	2	1	1	1	1	1	3.3	7.0	
27-Mar	1	A	2	2	2	2	3	4	C	C	C	C	C	C	C	1	1	1	1	1	1	1	1	1	--	4.1	
28-Mar	A	1	1	1	1	1	3	5	5	4	4	3	3	1	1	1	1	1	1	1	1	1	A	A	1.9	4.7	
29-Mar	1	1	1	1	1	1	1	1	1	2	3	3	2	1	1	1	1	1	2	2	1	1	A	1	1.4	3.0	
30-Mar	1	1	1	1	1	1	1	1	1	1	2	3	2	2	1	1	1	1	1	1	1	A	1	1	1.2	2.6	
31-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	A	1	1	1	0.7	1.0	
		1.6	1.7	1.5	1.7	1.8	1.8	1.9	2.1	2.2	2.3	2.4	2.4	1.8	1.6	1.5	1.4	1.2	1.2	1.2	1.1	1.1	1.1	1.3	1.3	Diurnal Average	
		5.2	4.8	4.6	5.1	5.1	6.0	5.6	6.6	7.0	5.9	5.1	6.1	4.8	4.3	4.2	4.2	3.4	3.3	4.1	2.4	2.4	2.8	4.2	5.1	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

Hourly Averages

Oxides of Nitrogen (NO_x) - ppb

Sunset House - March 2013



Hourly Maximums

Oxides of Nitrogen (NO_x) - ppb

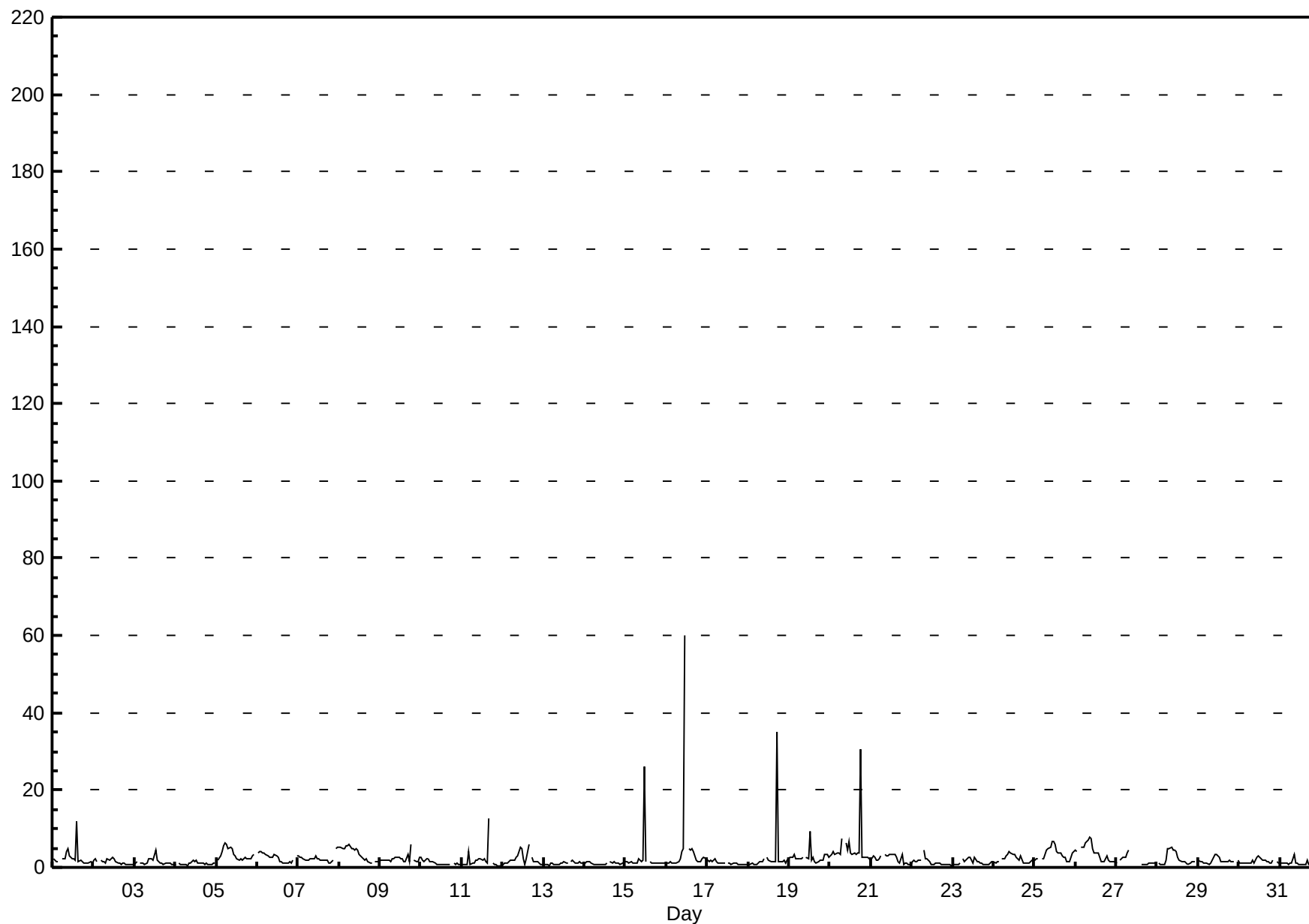
Sunset House - March 2013

Maximum Value: 60.1 ppb on Mar 16 12:00																				Maximum Daily Average: 5.0 ppb on Mar 20					Hours in Service: 744	
Minimum Value: 0 ppb on Mar 13 04:00																				Minimum Daily Average: 1.0 ppb on Mar 4					Hours of Data: 704	
Maximum Diurnal Average: 5.6 ppb at hour 12																				Minimum Diurnal Average: 1.2 ppb at hour 20					Hours of Missing Data: 40	
Monthly Average: 2.23 ppb																				Percentiles: P ₁ = 0.6 P ₁₀ = 0.8 Q ₁ = 1.0 Median = 1.6 Q ₃ = 2.5 P ₉₀ = 3.9 P ₉₉ = 8.1					Hours of Calibration: 40	
																				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-Mar	2	2	2	2	A	2	2	2	4	5	3	2	2	2	12	2	2	1	1	1	1	1	1	1	2.4	11.8
2-Mar	2	2	2	A	2	2	1	1	2	2	3	2	2	2	1	1	1	1	1	1	1	1	1	1	1.5	2.7
3-Mar	1	1	A	1	1	1	1	1	2	2	2	2	5	2	1	1	1	1	1	1	1	1	1	1	1.4	4.6
4-Mar	1	A	1	1	1	1	1	1	1	1	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1.0	2.0
5-Mar	A	2	3	4	5	6	6	5	5	5	3	3	2	2	2	2	2	2	2	2	2	3	3	A	3.4	6.5
6-Mar	4	4	4	4	4	3	3	3	2	3	3	3	2	1	1	1	1	1	1	2	1	2	A	3	2.5	4.1
7-Mar	3	3	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2	2	1	1	2	A	5	5	2.4	5.3
8-Mar	5	5	5	5	5	5	6	5	5	5	5	4	3	3	2	2	2	2	1	1	A	1	1	1	3.5	6.2
9-Mar	2	2	2	2	2	2	2	2	2	3	3	3	2	2	1	2	3	1	6	A	2	1	2	3	2.2	5.8
10-Mar	3	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1.1	2.5
11-Mar	1	1	1	1	4	1	1	1	2	2	2	2	2	2	1	1	13	A	1	1	1	0	0	0	1.8	12.7
12-Mar	1	1	1	1	2	2	2	2	3	3	5	5	2	1	2	6	A	2	2	2	1	1	1	1	2.1	5.9
13-Mar	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	A	1	2	1	1	1	1	1	1	1.1	1.7
14-Mar	1	1	2	2	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1.1	1.6
15-Mar	1	1	1	1	1	1	1	1	2	2	2	26	1	A	2	1	1	1	1	1	1	1	1	1	2.4	26.0
16-Mar	1	1	1	1	1	1	1	2	2	4	5	60	A	5	4	5	4	2	2	2	2	2	3	2	5.0	60.1
17-Mar	2	2	2	2	2	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1.2	2.2
18-Mar	1	1	1	1	1	1	1	1	1	1	2	A	3	2	1	2	1	1	35	2	2	1	2	1	2.9	35.2
19-Mar	3	3	3	3	2	2	2	2	3	A	3	2	9	2	3	1	1	2	2	2	2	3	3	3	2.6	9.4
20-Mar	3	4	4	3	4	4	3	7	A	6	5	7	4	3	4	3	4	4	31	3	2	3	3	2	5.0	30.8
21-Mar	2	3	3	2	2	2	3	A	3	3	3	3	3	4	3	3	1	1	3	1	1	1	1	1	2.3	3.5
22-Mar	1	2	1	1	2	2	A	4	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.3	4.5
23-Mar	1	1	1	1	1	A	2	2	2	2	2	2	1	3	1	1	1	1	1	1	1	1	1	1	1.4	2.6
24-Mar	1	1	1	2	A	2	2	3	4	4	4	3	3	3	2	2	3	1	1	1	1	1	2	2	2.2	3.9
25-Mar	2	2	2	A	2	2	3	4	5	5	7	7	6	4	4	4	3	3	2	1	1	3	4	4	3.5	6.6
26-Mar	4	4	A	5	5	5	6	7	8	8	5	4	4	4	2	2	2	1	3	2	2	2	1	1	3.8	7.8
27-Mar	1	A	2	2	3	3	4	5	C	C	C	C	C	C	C	1	1	1	1	1	1	1	1	1	--	4.5
28-Mar	A	1	1	1	1	2	5	5	5	5	4	4	3	2	2	1	1	1	1	1	1	1	1	A	2.3	5.3
29-Mar	2	1	1	1	1	1	1	1	2	3	4	4	2	1	1	1	2	2	2	2	2	2	A	2	1.7	3.5
30-Mar	1	1	1	1	1	1	1	1	2	1	3	3	2	2	2	2	1	1	1	1	2	A	1	1	1.5	3.0
31-Mar	1	1	1	1	1	1	1	1	3	1	1	1	1	1	1	1	2	1	1	1	A	1	1	1	1.1	3.4
1.8 1.9 1.8 1.9 2.1 2.1 2.3 2.5 2.7 2.9 2.9 5.6 2.6 2.0 2.2 1.8 2.1 2.6 2.5 1.2 1.3 1.4 1.6 1.6																									Diurnal Average	
5.3 5.2 4.7 5.3 5.5 6.5 6.3 7.4 7.8 7.6 6.5 60.1 9.4 5.0 11.8 5.9 12.7 35.2 30.8 2.6 2.4 3.2 4.9 5.3																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										

Hourly Maximums

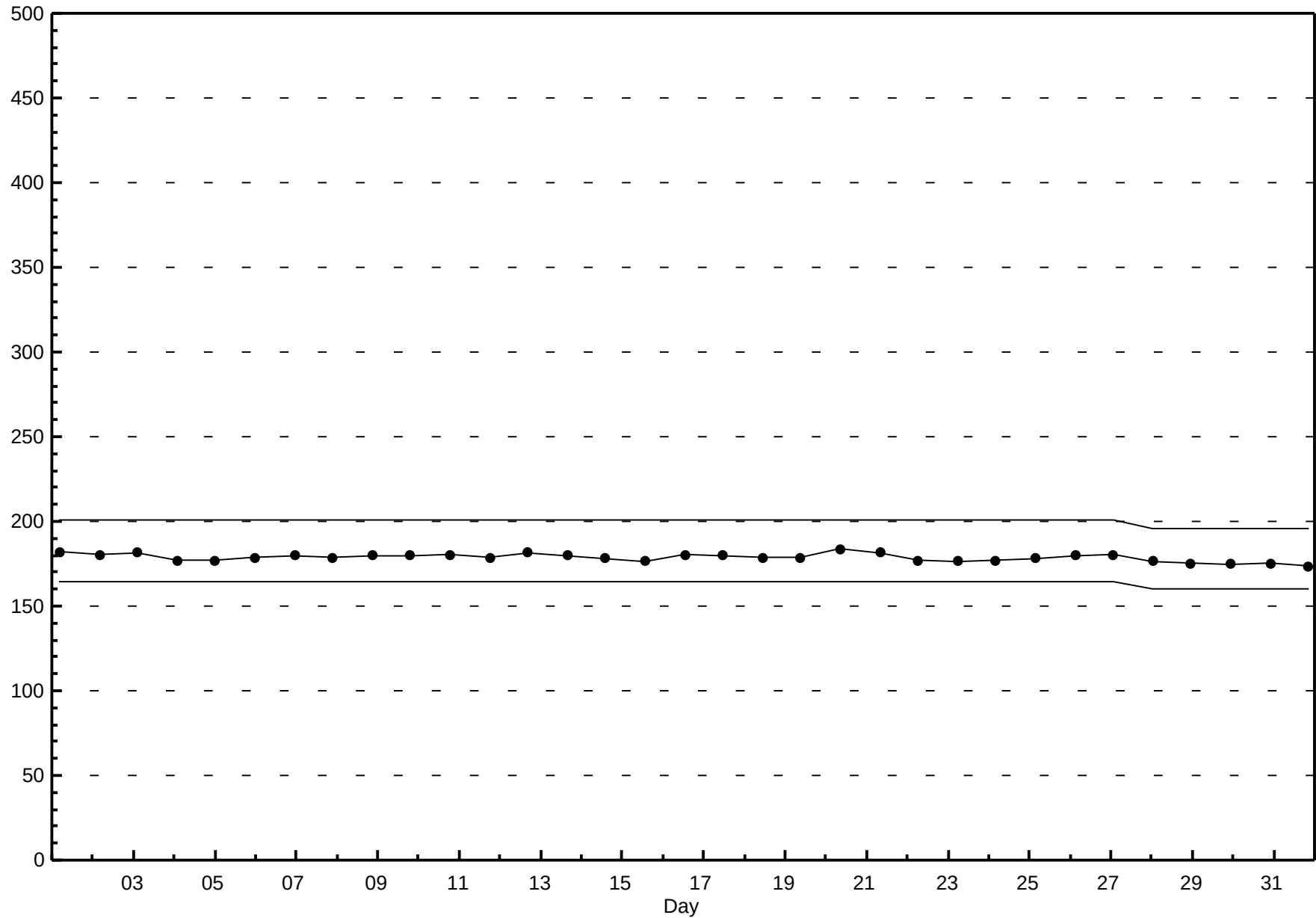
Oxides of Nitrogen (NO_x) - ppb

Sunset House - March 2013



Span Responses

Oxides of Nitrogen (NO_x)
Sunset House - March 2013



Hourly Averages

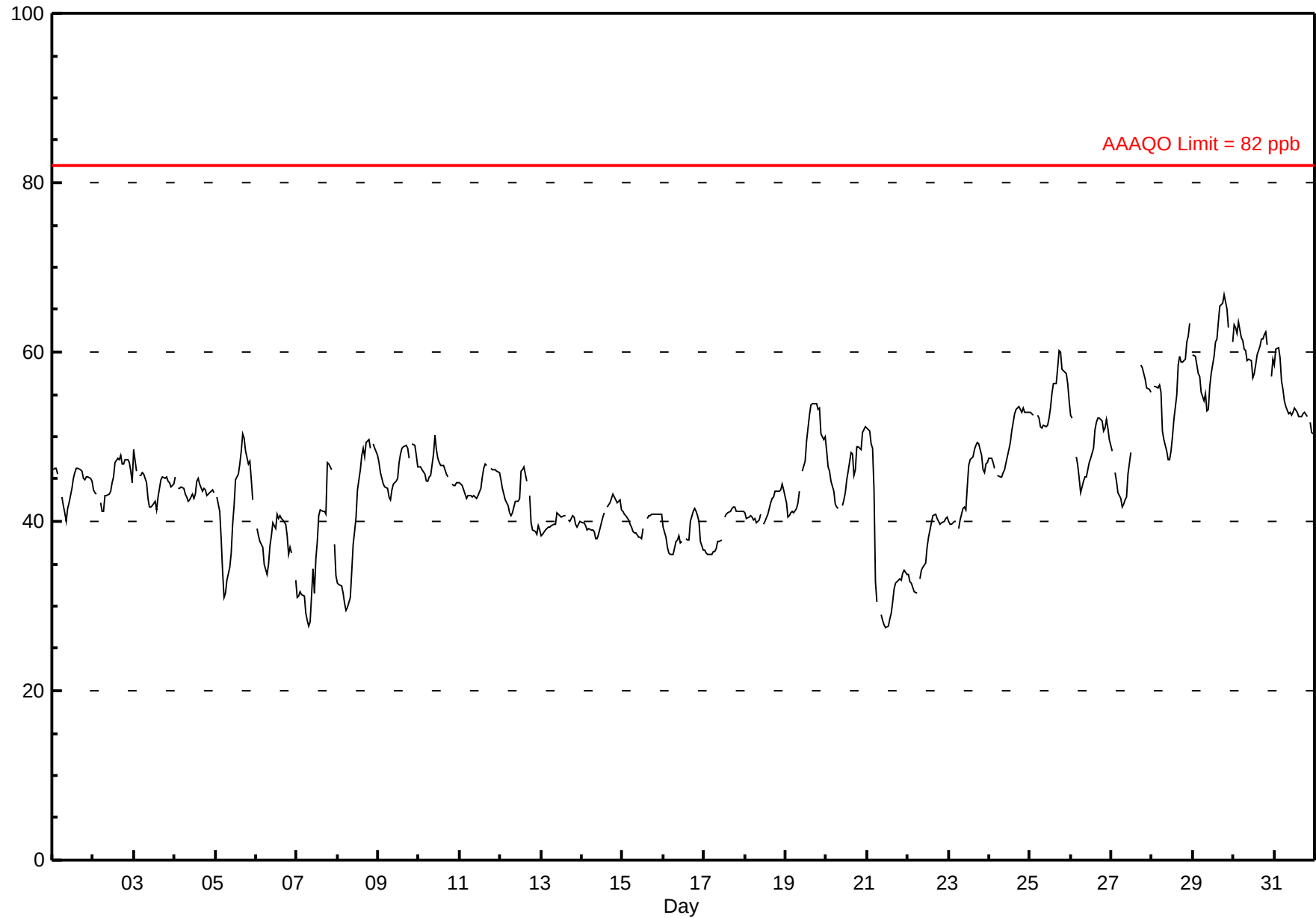
Ozone (O₃) - ppb

Sunset House - March 2013

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 66.8 ppb on Mar 29 19:00 Maximum Daily Average: 60.4 ppb on Mar 30																					Hours in Service: 744 Hours of Data: 706 Hours of Missing Data: 38 Hours of Calibration: 38 Percent Operational Time: 100.0					
Minimum Value: 28 ppb on Mar 21 12:00 Maximum Diurnal Average: 47.9 ppb at hour 19 Monthly Average: 44.87 ppb										Minimum Daily Average: 34.8 ppb on Mar 21 Minimum Diurnal Average: 41.7 ppb at hour 7 Percentiles: P ₁ = 28.3 P ₁₀ = 36.3 Q ₁ = 40.3 Median = 43.9 Q ₃ = 48.7 P ₉₀ = 55.7 P ₉₉ = 63.5																
Day	Hourly Period Ending At (MST)																				Daily Average	Daily Maximum				
1-Mar	46	46	46	46	A	43	42	41	40	41	42	44	45	46	46	46	46	45	45	45	45	44.5	46.3			
2-Mar	44	43	43	A	42	41	41	43	43	43	44	45	45	47	47	47	48	47	47	47	47	46	45	44.9	47.7	
3-Mar	49	46	A	45	45	46	46	45	43	42	42	42	42	41	43	44	45	45	45	45	45	44	44	44.3	48.5	
4-Mar	45	A	44	44	44	44	43	43	42	43	43	43	43	45	45	44	44	44	44	43	43	44	44	43	43.7	45.2
5-Mar	A	43	41	38	34	31	32	33	35	36	40	42	45	46	47	48	50	50	48	47	47	45	43	A	41.8	50.3
6-Mar	39	38	38	37	37	35	34	35	37	38	40	39	41	40	41	40	40	40	38	36	37	36	A	33	37.8	40.8
7-Mar	31	31	32	31	31	29	28	28	28	34	32	36	38	41	41	41	41	41	47	47	46	A	37	34	35.9	47.0
8-Mar	33	33	32	31	30	30	30	31	34	37	39	41	44	46	48	49	48	49	50	49	A	49	48	48	40.3	49.7
9-Mar	47	46	45	44	44	44	43	42	44	44	45	45	47	48	49	49	49	49	47	A	49	49	48	46	46.2	49.2
10-Mar	46	46	46	46	45	45	45	45	48	50	49	47	47	47	47	46	46	45	A	44	44	44	44	45	46.0	50.2
11-Mar	45	44	44	43	43	43	43	43	43	43	43	43	44	45	46	47	47	A	46	46	46	46	46	46	44.5	46.7
12-Mar	45	44	43	43	42	41	41	41	42	42	42	43	46	46	46	45	A	43	40	39	39	38	40	39	42.2	46.5
13-Mar	38	39	39	39	39	39	39	40	40	41	41	41	41	41	41	A	40	40	41	41	40	39	40	40	39.9	40.9
14-Mar	40	40	39	39	39	39	39	39	38	38	38	40	41	41	A	42	42	43	43	43	43	42	43	41	40.5	43.2
15-Mar	41	41	41	40	40	39	39	39	39	38	38	38	39	A	40	41	41	41	41	41	41	41	41	41	40.0	41.1
16-Mar	39	38	37	36	36	36	36	38	38	38	38	38	A	38	38	38	40	41	41	41	41	40	38	37	38.3	41.4
17-Mar	37	36	36	36	36	36	36	37	38	38	38	38	A	40	41	41	41	41	42	42	41	41	41	41	39.0	41.7
18-Mar	41	40	41	41	41	40	40	40	40	41	A	40	40	41	42	42	43	43	43	44	44	44	44	44	41.6	44.4
19-Mar	42	41	41	41	41	41	41	42	44	A	46	47	49	51	53	54	54	54	54	53	53	50	50	50	47.5	53.9
20-Mar	48	46	46	45	44	42	42	41	A	42	43	43	45	46	48	48	45	46	49	49	48	50	51	51	46.0	51.2
21-Mar	51	51	49	49	44	33	31	A	29	28	28	28	28	29	29	30	32	33	33	33	33	34	34	34	34.8	51.0
22-Mar	34	33	33	32	32	32	A	33	34	35	35	37	38	39	40	41	41	40	40	40	40	40	40	40	36.9	40.9
23-Mar	40	40	40	40	40	A	39	40	41	42	41	44	47	47	48	48	49	49	49	48	46	46	47	47	44.3	49.3
24-Mar	47	47	47	46	A	45	45	45	46	46	47	48	49	51	52	53	53	54	53	53	53	53	53	53	49.6	53.5
25-Mar	53	53	53	A	52	52	51	51	51	51	51	52	53	55	56	56	58	60	60	58	58	58	56	54	54.5	60.2
26-Mar	53	52	A	48	47	45	43	45	45	45	46	47	47	49	51	52	52	52	52	51	51	52	51	50	48.9	52.6
27-Mar	48	A	46	45	43	43	42	42	43	43	46	48	C	C	C	C	C	58	58	58	57	56	56	55	49.2	58.5
28-Mar	A	56	56	56	56	55	51	50	48	47	47	48	50	52	55	58	60	59	59	59	61	62	63	A	54.9	63.4
29-Mar	60	60	58	57	57	55	54	55	53	53	56	58	59	61	62	63	65	66	67	66	65	63	A	61	59.8	66.8
30-Mar	63	63	62	64	62	61	60	60	59	59	59	57	57	58	60	61	61	61	62	62	61	A	57	59	60.4	63.5
31-Mar	58	60	61	59	57	56	54	54	53	53	53	53	53	53	52	52	52	53	53	52	A	52	51	50	54.1	60.6
44.9 44.7 44.0 43.5 42.8 42.1 41.7 42.0 41.9 42.5 43.0 43.8 45.0 45.9 46.6 47.1 47.4 47.8 47.9 47.4 47.0 46.6 46.2 45.4																							Diurnal Average			
63.2 62.8 62.2 63.5 61.7 61.3 60.3 60.1 59.0 59.2 59.0 57.5 59.5 61.2 61.5 63.5 65.4 65.7 66.8 65.9 65.1 62.9 63.4 61.2																							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
Sunset House - March 2013



Hourly Maximums

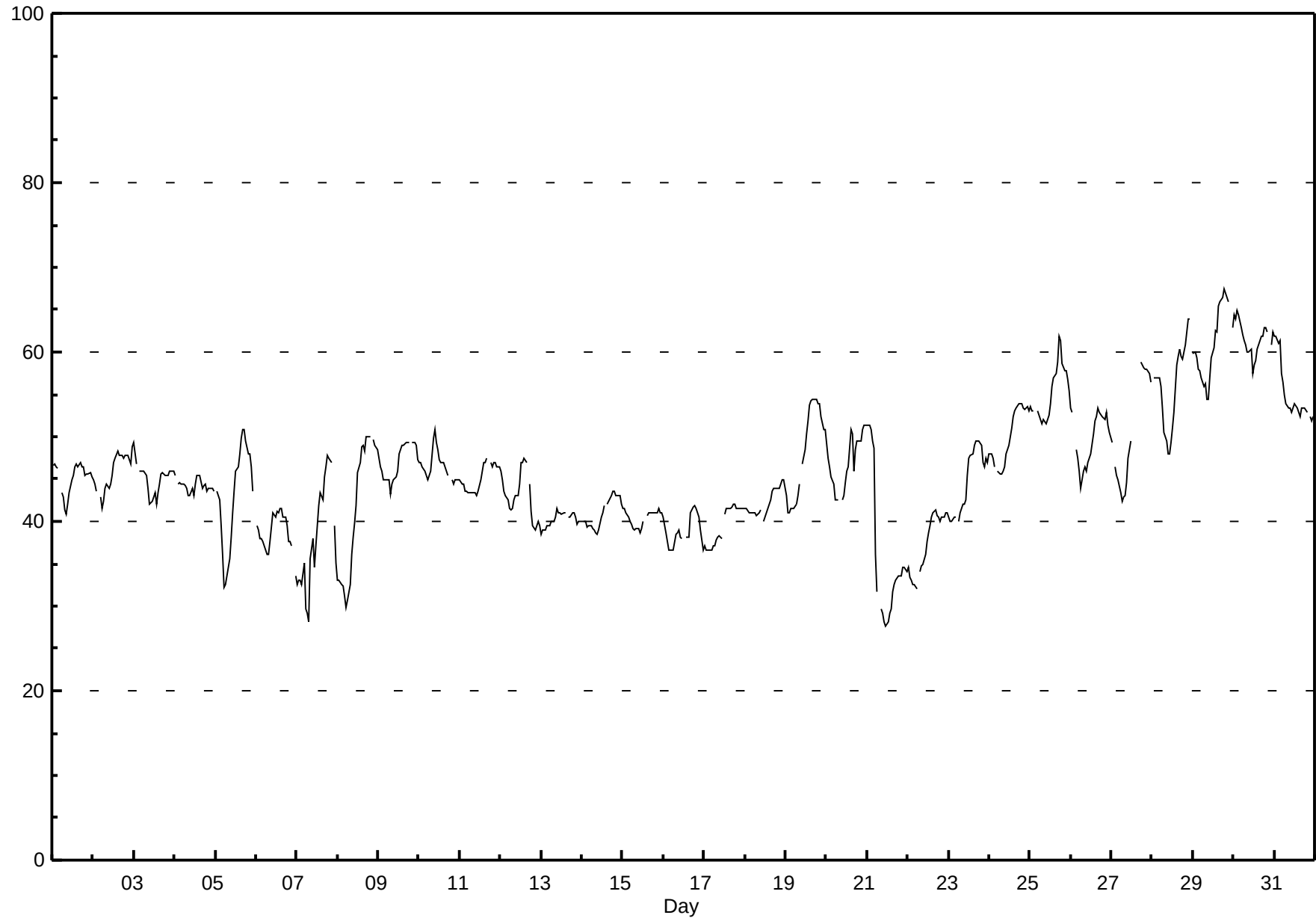
Ozone (O₃) - ppb

Sunset House - March 2013

Maximum Value: 67.4 ppb on Mar 29 19:00																					Maximum Daily Average: 61.6 ppb on Mar 30				Hours in Service: 744	
Minimum Value: 28 ppb on Mar 21 12:00																					Minimum Daily Average: 35.8 ppb on Mar 21				Hours of Data: 706	
Maximum Diurnal Average: 48.6 ppb at hour 18																					Minimum Diurnal Average: 42.6 ppb at hour 7				Hours of Missing Data: 38	
Monthly Average: 45.67 ppb																					Percentiles: P ₁ = 29.6 P ₁₀ = 37.5 Q ₁ = 41.0 Median = 44.9 Q ₃ = 49.4 P ₉₀ = 57.0 P ₉₉ = 65.1				Hours of Calibration: 38	
																					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-Mar	47	47	46	46	A	43	43	41	41	42	43	45	45	46	47	46	47	46	46	45	46	46	46	45	45.1	46.9
2-Mar	45	44	44	A	43	41	42	44	44	44	44	45	47	47	48	48	48	48	47	48	48	47	47	49	45.8	48.9
3-Mar	49	47	A	46	46	46	46	45	44	42	42	43	42	43	44	46	46	46	45	45	45	46	46	46	45.0	49.3
4-Mar	45	A	44	44	44	44	44	44	43	43	44	43	44	45	45	45	44	44	44	43	44	44	44	44	44.2	45.5
5-Mar	A	43	43	40	36	32	33	34	36	38	41	43	46	46	48	50	51	51	49	48	48	46	44	A	43.0	50.9
6-Mar	40	39	38	38	38	37	36	36	38	39	41	41	41	41	42	42	41	41	40	38	38	37	A	34	38.8	41.5
7-Mar	33	33	33	33	35	30	29	28	36	38	35	37	40	42	43	42	45	46	48	47	47	A	40	35	38.0	47.8
8-Mar	33	33	33	32	31	30	31	33	36	38	40	42	46	47	49	49	48	50	50	50	A	50	49	48	41.2	49.9
9-Mar	48	46	46	45	45	45	45	43	44	45	45	46	48	48	49	49	49	49	49	A	49	49	49	47	47.0	49.4
10-Mar	47	47	46	46	45	45	45	46	50	51	49	48	47	47	47	46	46	45	A	45	44	45	45	45	46.5	50.9
11-Mar	45	44	44	44	43	43	43	43	43	43	43	43	45	46	47	47	47	A	47	46	47	47	46	46	45.1	47.4
12-Mar	46	45	43	43	42	42	41	42	42	43	43	44	47	47	47	47	A	44	41	40	39	40	40	40	43.0	47.4
13-Mar	39	39	39	40	40	40	40	40	41	42	41	41	41	41	41	A	41	41	41	41	41	40	40	40	40.3	41.5
14-Mar	40	40	40	39	40	40	39	39	39	39	39	41	41	42	A	42	43	43	44	44	43	43	43	42	41.0	43.5
15-Mar	42	42	41	41	40	40	39	39	39	39	39	40	A	41	41	41	41	41	41	41	41	42	41	41	40.4	41.6
16-Mar	41	39	38	37	37	37	37	38	39	39	38	38	A	38	38	38	41	42	42	42	41	41	39	37	38.8	41.8
17-Mar	37	37	37	37	37	37	37	38	38	38	38	A	41	42	42	42	42	42	42	42	42	42	42	42	39.5	42.0
18-Mar	42	42	41	41	41	41	41	41	41	41	A	40	41	42	42	42	43	44	44	44	44	44	45	45	42.2	45.0
19-Mar	43	41	41	42	42	42	42	43	44	A	47	48	50	52	54	54	54	54	54	54	54	52	51	51	48.2	54.4
20-Mar	49	47	46	45	44	43	43	43	A	43	43	44	46	46	51	50	46	48	49	49	49	51	51	51	47.0	51.4
21-Mar	51	51	51	49	49	36	32	A	30	29	28	28	28	29	30	32	33	33	34	34	34	35	35	34	35.8	51.4
22-Mar	35	33	33	33	33	32	A	34	35	35	36	38	39	40	40	41	41	41	41	40	41	41	41	41	37.4	41.4
23-Mar	41	40	40	41	41	A	40	41	42	42	43	46	47	48	48	49	49	49	49	49	47	46	47	47	44.9	49.5
24-Mar	48	48	47	46	A	46	46	46	46	46	48	49	50	51	52	53	53	54	54	54	53	53	53	53	50.1	53.9
25-Mar	53	53	53	A	53	53	52	51	52	51	52	52	54	56	57	57	59	62	61	59	58	58	57	55	55.2	61.8
26-Mar	53	53	A	48	47	46	44	46	46	46	47	47	48	50	52	52	53	53	52	52	52	53	51	51	49.8	53.4
27-Mar	49	A	46	45	45	43	42	43	43	45	48	50	C	C	C	C	C	59	59	58	58	58	57	56	50.3	58.9
28-Mar	A	57	57	57	57	56	53	50	49	48	48	49	51	53	58	59	60	59	59	61	62	64	64	A	56.1	63.9
29-Mar	60	60	59	58	58	57	56	56	54	54	57	59	61	63	62	65	66	66	67	67	66	66	A	63	61.0	67.4
30-Mar	64	64	65	64	63	62	61	61	60	60	60	57	58	59	60	61	62	62	63	63	62	A	61	62	61.6	64.9
31-Mar	62	62	61	61	57	56	55	54	53	53	53	53	54	53	53	52	53	53	53	53	A	52	52	52	55.0	61.9
45.7 45.4 44.7 44.2 43.8 42.8 42.6 42.7 43.0 43.3 43.8 44.7 45.8 46.5 47.5 47.9 48.1 48.6 48.6 48.0 47.7 47.5 47.1 46.3																								Diurnal Average		
64.4 63.9 64.9 64.4 62.9 62.1 61.4 60.9 59.9 59.9 60.4 59.2 60.6 62.6 62.4 65.4 65.9 66.4 67.4 66.9 66.4 65.9 63.9 62.9																								Diurnal Maximum		
C - Calibration																								A - Automated Daily Zero Span		

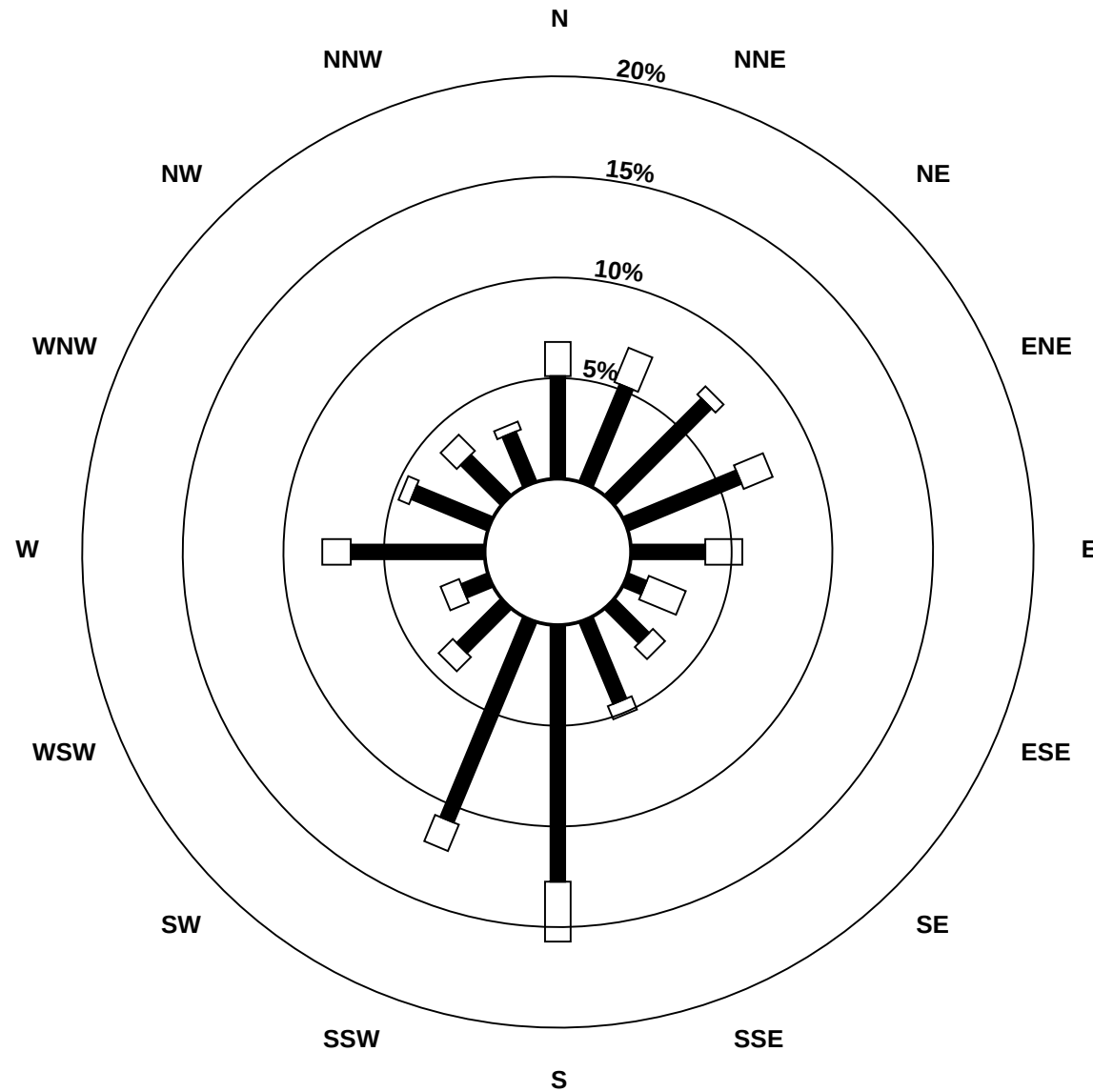
Hourly Maximums

Ozone (O₃) - ppb
Sunset House - March 2013

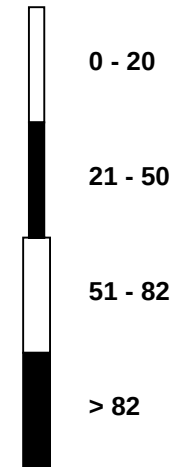


Pollutant Rose

Ozone (O₃) - ppb
Sunset House - March 2013



Pollutant Classes (ppb)



Eight Hour Running Averages

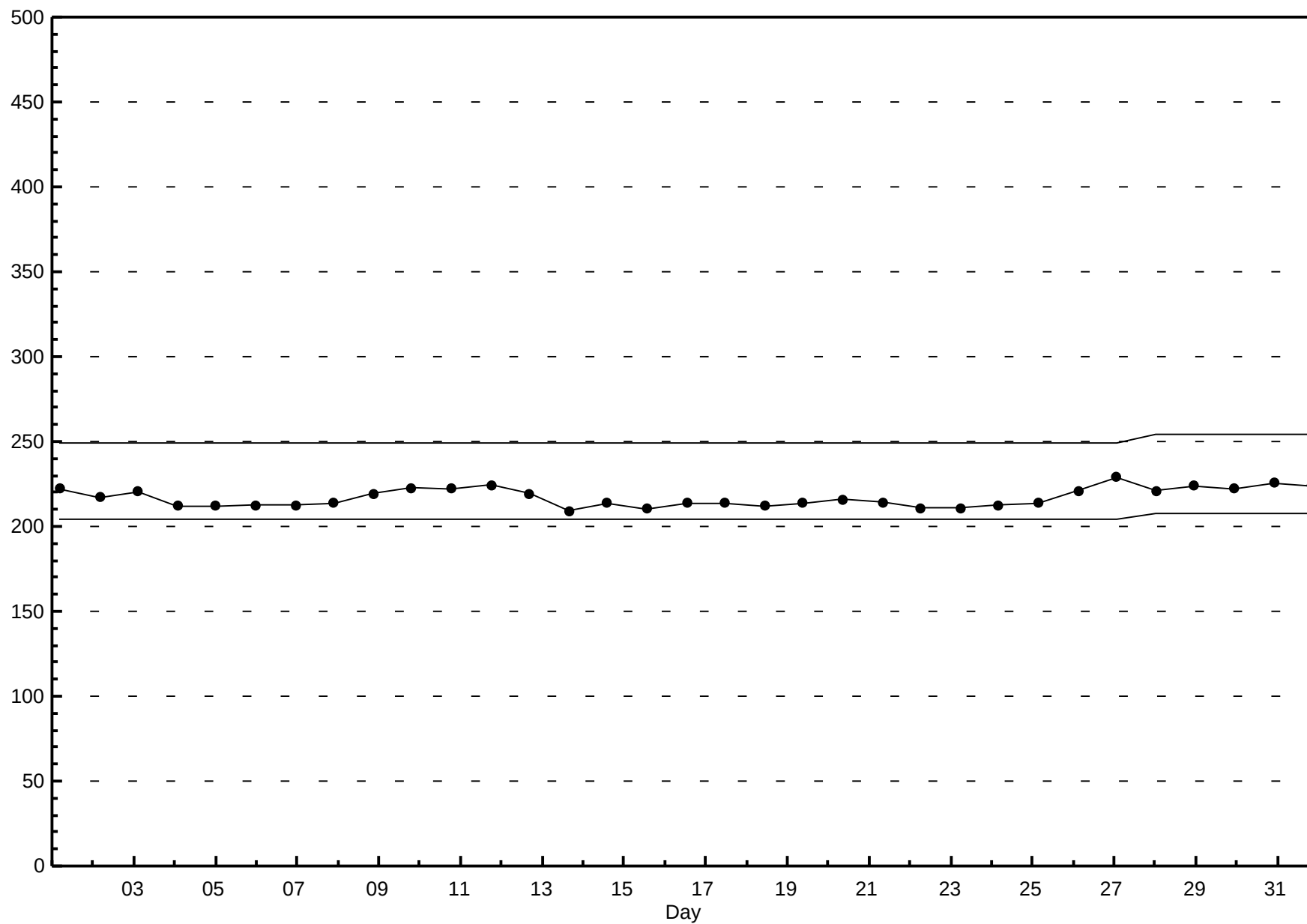
Ozone (O₃) - ppb

Sunset House - March 2013

Maximum Value: 65.0 ppb on Mar 29 23:00																								Hours in Service: 744	
Minimum Value: 28.3 ppb on Mar 21 15:00																								Hours of Data: 736	
Percentiles: P ₁ = 30.2 P ₁₀ = 36.9 Q ₁ = 40.0 Median = 43.9 Q ₃ = 48.1 P ₉₀ = 55.7 P ₉₉ = 63.4																								Hours of Missing Data: 8	
																								Hours of Calibration: 8	
																								Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Mar	49	48	48	47	47	46	45	44	43	43	42	42	42	43	43	44	45	45	46	46	46	46	45	45	48.5
2-Mar	45	45	44	44	44	43	43	43	42	42	42	43	43	44	45	45	46	46	47	47	47	47	47	47	47.2
3-Mar	47	47	47	46	46	46	46	46	45	44	44	44	43	43	42	42	43	43	43	44	44	45	45	45	46.8
4-Mar	45	45	45	44	44	44	44	44	43	43	43	43	43	43	43	44	44	44	44	44	44	44	44	44	44.8
5-Mar	43	43	43	42	41	39	37	36	36	35	35	35	37	38	40	42	44	46	47	48	48	48	47	47	47.9
6-Mar	46	44	42	41	40	38	37	37	36	36	37	37	37	38	39	40	40	40	40	40	39	39	38	37	45.5
7-Mar	36	35	34	33	32	31	31	30	30	30	30	31	32	33	35	36	38	39	41	42	43	43	43	42	43.5
8-Mar	41	39	37	35	33	32	32	31	31	32	33	34	36	38	40	42	44	45	47	48	48	49	49	49	48.8
9-Mar	49	48	47	47	46	46	45	44	44	44	44	44	44	45	46	46	47	47	48	48	49	49	49	48	48.7
10-Mar	48	48	47	47	47	46	46	46	46	46	47	47	47	47	47	48	47	47	46	46	46	45	45	45	47.8
11-Mar	45	44	44	44	44	44	44	43	43	43	43	43	43	43	44	44	45	45	45	46	46	46	46	46	46.3
12-Mar	46	46	45	45	44	44	43	42	42	42	42	42	42	43	44	44	44	45	44	44	43	41	41	40	45.9
13-Mar	40	39	39	39	39	39	39	39	39	40	40	40	40	40	40	41	41	41	40	40	40	40	40	40	40.7
14-Mar	40	40	40	40	40	39	39	39	39	39	39	39	39	39	39	40	40	41	42	42	42	42	42	42	42.5
15-Mar	42	42	42	41	41	41	40	40	40	39	39	39	39	39	39	39	39	40	40	41	41	41	41	41	42.3
16-Mar	41	40	40	39	39	38	37	37	37	37	37	37	37	38	38	38	38	39	39	40	40	40	40	40	40.7
17-Mar	39	39	38	37	37	36	36	36	36	37	37	37	38	38	39	40	40	41	41	41	41	41	41	41	41.3
18-Mar	41	41	41	41	41	41	41	40	40	40	40	40	40	40	40	41	41	41	42	42	43	43	43	44	43.5
19-Mar	43	43	43	42	42	42	41	41	41	42	42	43	44	46	47	49	51	51	52	53	53	53	53	52	53.2
20-Mar	52	51	50	49	47	46	45	44	44	43	43	42	43	43	44	45	45	46	46	47	47	48	48	49	51.6
21-Mar	49	50	50	50	49	47	45	44	41	37	34	31	29	28	28	29	29	29	30	31	32	32	33	33	50.1
22-Mar	33	33	33	33	33	33	33	33	33	33	33	34	35	36	36	37	38	39	39	40	40	40	40	40	40.2
23-Mar	40	40	40	40	40	40	40	40	40	40	41	41	42	43	44	45	46	47	48	48	48	48	48	48	48.1
24-Mar	47	47	47	47	47	47	47	46	46	46	46	46	47	47	48	49	50	51	52	52	53	53	53	53	53.1
25-Mar	53	53	53	53	53	53	52	52	52	52	52	52	52	52	53	53	54	55	56	57	58	58	58	58	58.0
26-Mar	57	56	55	54	52	51	49	47	46	45	46	45	46	46	47	48	49	50	50	51	51	52	52	51	57.1
27-Mar	51	51	50	49	48	47	45	44	43	43	44	44	44	44	N	N	N	N	N	N	N	N	57	57	57.1
28-Mar	57	56	56	56	56	56	55	54	53	52	51	50	50	49	50	51	52	54	55	56	58	59	60	60	60.4
29-Mar	60	61	60	60	60	59	57	57	56	55	55	55	55	56	57	58	60	61	63	64	64	65	65	65	65.0
30-Mar	64	64	63	63	63	62	62	62	61	61	61	60	59	59	59	59	59	59	60	60	61	61	61	61	64.4
31-Mar	60	60	60	59	59	58	58	57	57	56	55	54	53	53	53	53	53	53	53	53	53	52	52	52	60.2
64.4 64.0 63.3 63.0 62.5 62.3 62.0 61.9 61.4 60.9 60.5 59.7 59.2 58.8 58.7 58.8 59.7 61.3 62.6 63.7 64.4 64.6 65.0 64.7																									Diurnal Maximums
N - Not Valid																									

Span Responses

Ozone (O₃)
Sunset House - March 2013



Hourly Averages

PM2.5 (PM_{2.5}) - µg/m³

Sunset House - March 2013

Number of Exceedences: 1-hr: 0 24-hr: 0 Maximum Value: 13.2 µg/m ³ on Mar 12 18:00 Maximum Daily Average: 6.9 µg/m ³ on Mar 6																								Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0		
Minimum Value: 0 µg/m ³ on Mar 1 12:00 Maximum Diurnal Average: 2.8 µg/m ³ at hour 1 Monthly Average: 2.24 µg/m ³ Minimum Daily Average: 0.6 µg/m ³ on Mar 2 Minimum Diurnal Average: 1.1 µg/m ³ at hour 14 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.6 Median = 1.8 Q ₃ = 3.1 P ₉₀ = 4.8 P ₉₉ = 10.4																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Mar	2	2	2	3	3	2	2	2	3	0	0	0	0	0	0	1	0	0	1	0	1	0	1	0	1.0	2.9
2-Mar	2	6	1	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	2	0.6	6.2
3-Mar	3	0	1	1	1	1	1	2	3	4	3	2	3	3	3	3	3	5	6	5	3	2	0	2.5	6.0	
4-Mar	1	0	0	1	1	1	0	2	2	1	0	0	0	0	1	0	0	0	1	1	1	1	0	1	0.7	2.0
5-Mar	2	2	2	1	2	2	1	1	1	2	1	0	0	0	0	0	7	8	7	7	9	10	11	11	3.6	11.4
6-Mar	11	11	10	11	11	10	9	11	11	9	7	7	8	6	4	4	4	2	2	2	0	3	4	5	6.9	11.3
7-Mar	4	4	4	3	4	3	2	4	4	5	3	3	2	2	3	2	3	4	2	3	3	3	5	5	3.3	4.9
8-Mar	6	6	6	6	7	7	7	6	4	5	3	2	1	1	2	3	3	4	4	4	4	4	4	4	4.2	6.8
9-Mar	4	5	5	4	4	4	4	3	1	2	1	2	2	3	1	2	1	2	4	0	2	2	2	3	2.6	4.7
10-Mar	1	2	2	1	3	1	0	0	0	0	0	0	0	0	0	1	3	0	0	0	0	1	0	0	0.7	2.6
11-Mar	1	1	6	4	2	2	0	0	0	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0.9	5.9
12-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	11	13	5	5	0	1	0	2	1.8	13.2
13-Mar	2	2	1	1	1	1	0	1	1	0	0	0	0	0	0	1	2	2	2	3	1	2	2	2	1.2	2.6
14-Mar	1	2	1	1	1	1	1	2	2	3	3	2	0	0	0	1	1	1	0	0	0	0	0	1	0.9	2.8
15-Mar	1	2	2	1	1	1	2	2	2	3	3	2	2	1	0	1	1	1	1	2	2	1	0	0	1.4	3.1
16-Mar	0	0	1	1	1	1	0	0	1	1	2	3	2	2	2	4	3	2	2	3	3	2	2	3	1.7	4.2
17-Mar	3	1	3	3	2	3	0	2	3	3	1	0	0	0	0	0	2	2	3	4	1	2	2	2	1.8	3.5
18-Mar	3	2	3	3	2	3	3	3	4	3	2	1	1	0	1	2	2	2	4	5	3	2	3	5	2.5	5.1
19-Mar	4	3	2	2	2	2	1	2	0	1	0	0	0	0	0	0	0	2	2	1	1	0	0	0	1.0	4.2
20-Mar	1	0	1	2	2	4	3	3	2	2	2	3	3	3	5	5	4	6	6	6	7	6	7	8	3.7	8.5
21-Mar	9	8	7	5	4	2	2	2	2	2	1	1	1	1	1	2	2	2	2	2	1	2	1	2	2.7	8.9
22-Mar	1	2	2	1	2	5	2	3	0	0	1	0	0	0	0	0	1	1	2	3	2	1	1	1	1.3	4.6
23-Mar	1	0	1	1	1	1	2	1	0	1	0	0	0	0	0	0	2	1	1	1	1	1	1	3	0.8	2.8
24-Mar	1	2	1	2	2	2	2	2	1	1	0	0	0	0	0	0	0	0	2	0	2	2	2	2	1.1	2.4
25-Mar	2	2	3	3	4	3	4	3	3	3	4	4	2	1	0	2	0	5	4	3	2	3	5	5	2.9	5.1
26-Mar	5	4	5	6	6	7	7	4	4	3	2	2	2	1	3	1	3	3	3	3	3	2	2	3	3.4	6.9
27-Mar	2	3	2	2	2	2	2	2	2	3	2	1	0	0	1	3	3	2	3	3	3	1	2	0	1.9	3.0
28-Mar	0	2	0	1	0	1	2	2	2	3	2	2	1	2	3	3	4	4	3	7	5	5	5	3	2.5	6.8
29-Mar	3	2	4	3	4	3	5	3	4	4	4	4	5	5	5	5	4	5	5	6	5	7	3	4	4.2	7.5
30-Mar	3	4	5	2	4	3	1	2	2	3	3	2	2	3	3	1	3	5	5	4	7	6	6	3	3.5	6.8
31-Mar	9	4	5	5	5	4	4	3	1	2	2	1	0	0	0	0	0	1	0	1	1	1	1	0	2.1	8.5
2.8 2.7 2.8 2.6 2.7 2.7 2.3 2.3 2.1 2.3 1.9 1.4 1.2 1.1 1.3 1.7 2.3 2.6 2.6 2.7 2.5 2.4 2.5 2.6																								Diurnal Average		
10.6 11.0 10.4 10.6 11.3 10.4 9.1 10.5 10.9 9.3 7.3 7.5 8.2 6.1 5.1 5.3 11.4 13.2 7.4 7.1 9.1 9.7 11.4 10.6																								Diurnal Maximum		
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 µg/m ³ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 µg/m ³																										

Hourly Averages

PM2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Sunset House - March 2013



Hourly Maximums

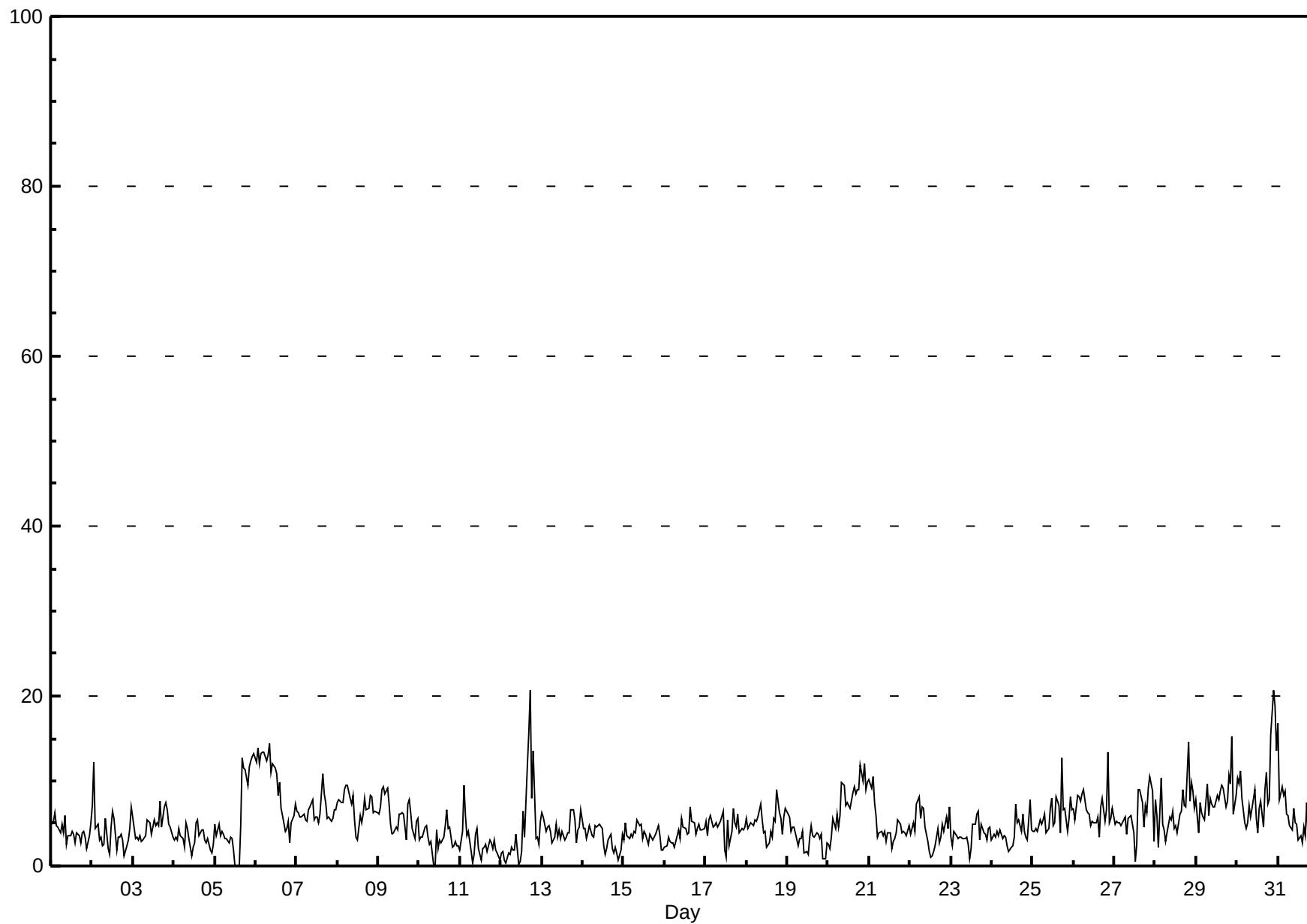
PM2.5 (PM_{2.5}) - µg/m³

Sunset House - March 2013

Maximum Value: 20.7 μg/m ³ on Mar 12 18:00																								Maximum Daily Average: 9.5 μg/m ³ on Mar 6										Hours in Service: 744	
Minimum Value: 0 μg/m ³ on Mar 5 13:00																								Minimum Daily Average: 2.8 μg/m ³ on Mar 11										Hours of Data: 744	
Maximum Diurnal Average: 6.2 μg/m ³ at hour 18																								Minimum Diurnal Average: 3.8 μg/m ³ at hour 13										Hours of Missing Data: 0	
Monthly Average: 5.22 μg/m ³																								Percentiles: P ₁ = 0.4 P ₁₀ = 2.3 Q ₁ = 3.4 Median = 4.6 Q ₃ = 6.5 P ₉₀ = 8.9 P ₉₉ = 15.2										Hours of Calibration: 0	
																								Percent Operational Time: 100.0											
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum									
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24											
1-Mar	5	5	6	5	5	4	5	4	6	2	4	4	4	4	3	4	4	3	4	4	3	2	4	5	4.0	6.2									
2-Mar	7	12	4	5	3	3	2	3	6	2	1	5	6	6	2	3	3	4	3	1	2	3	4	7	4.1	12.3									
3-Mar	6	3	3	3	4	3	3	4	5	5	5	4	5	5	5	5	8	5	7	7	7	5	5	3	4.7	7.6									
4-Mar	3	3	3	4	4	3	2	5	4	3	1	2	3	5	5	4	4	4	3	3	3	2	2	3	3.3	5.4									
5-Mar	5	4	5	4	4	4	3	3	3	3	3	2	0	0	0	5	13	11	11	10	12	12	13	13	5.9	13.2									
6-Mar	12	14	12	13	13	13	12	13	14	11	12	12	11	8	10	7	6	4	4	5	3	5	6	7	9.5	14.4									
7-Mar	6	6	6	6	6	5	5	7	7	8	5	6	6	5	6	11	8	8	6	6	5	6	7	7	6.3	10.8									
8-Mar	7	8	8	8	9	10	9	8	7	8	5	3	6	5	6	8	7	7	8	8	6	6	6	6	7.0	9.5									
9-Mar	6	7	9	9	8	9	7	5	4	4	5	4	6	6	6	6	3	7	8	6	4	3	5	6	6.0	9.3									
10-Mar	3	3	3	5	5	3	3	3	0	0	4	2	3	3	3	5	7	4	5	2	2	3	2	2	3.2	6.7									
11-Mar	2	4	9	6	4	4	2	0	1	4	4	2	1	2	2	3	2	3	3	2	3	2	2	1	2.8	9.5									
12-Mar	1	2	1	0	2	1	2	2	2	4	0	0	2	6	3	12	16	21	8	14	3	3	3	5	4.7	20.7									
13-Mar	6	6	4	5	5	4	3	3	5	3	4	3	4	3	3	4	4	7	7	5	3	4	5	7	4.4	6.6									
14-Mar	4	4	3	4	5	4	3	5	5	5	5	4	2	1	2	3	4	2	2	2	2	1	2	4	3.2	4.9									
15-Mar	3	5	4	3	4	3	4	4	5	5	5	3	4	4	3	4	3	3	3	4	5	4	2	2	3.7	5.5									
16-Mar	2	2	3	3	3	3	2	4	4	3	6	5	4	4	4	7	5	5	4	4	5	4	4	4	4.0	6.9									
17-Mar	5	4	5	6	5	5	5	5	5	5	6	2	1	5	2	4	7	5	5	6	4	4	4	5	4.6	6.8									
18-Mar	6	4	5	5	5	5	5	6	7	5	4	4	2	3	4	3	6	5	9	6	6	4	6	7	5.1	9.0									
19-Mar	6	6	4	5	5	4	2	3	3	4	1	2	1	3	5	4	3	4	4	3	4	1	1	3	3.4	6.1									
20-Mar	3	2	3	6	4	6	5	6	10	10	7	8	7	7	9	9	9	9	9	12	10	12	9	10	7.5	12.1									
21-Mar	10	9	10	7	6	3	4	4	3	4	3	4	4	2	3	3	4	5	5	4	4	4	3	5	4.8	10.4									
22-Mar	4	4	5	4	7	8	6	7	7	5	3	2	1	1	2	2	4	3	3	5	4	6	4	7	4.3	8.1									
23-Mar	3	2	4	3	3	3	3	3	3	3	3	1	2	5	5	6	6	3	5	4	4	3	4	5	3.7	6.4									
24-Mar	3	4	3	4	4	4	3	4	3	2	2	2	2	3	7	5	5	4	6	4	3	3	8	4	4.0	7.9									
25-Mar	4	4	4	4	5	5	5	6	4	4	7	8	5	5	8	7	4	13	7	7	4	6	8	7	5.9	12.8									
26-Mar	7	5	8	8	8	9	9	7	6	6	5	5	5	5	6	3	7	8	5	7	13	5	6	7	6.6	13.4									
27-Mar	5	5	5	5	5	5	6	4	6	6	6	4	1	3	9	9	7	5	7	6	9	10	9	3	5.8	10.4									
28-Mar	8	6	2	10	5	4	3	4	6	5	7	4	5	4	6	6	9	7	7	15	8	10	9	7	6.5	14.6									
29-Mar	8	4	8	6	6	5	10	6	8	7	7	7	8	8	9	9	9	7	8	11	10	15	6	8	7.9	15.3									
30-Mar	10	10	11	8	5	4	5	7	6	7	9	6	4	7	8	5	9	11	7	8	15	21	19	14	8.9	20.6									
31-Mar	17	8	9	8	9	6	6	5	4	7	5	5	3	4	3	5	4	7	3	5	4	4	8	3	5.9	16.7									
5.8 5.4 5.6 5.6 5.2 5.0 4.7 4.8 5.2 4.9 4.7 4.0 3.8 4.3 4.8 5.4 6.2 6.2 5.6 6.0 5.6 5.6 5.6 5.6																								Diurnal Average											
16.7 14.0 12.0 13.2 13.4 13.4 12.4 13.0 14.4 11.0 12.0 11.6 10.8 8.3 9.8 11.9 15.8 20.7 11.4 14.6 15.3 20.6 18.8 13.6																								Diurnal Maximum											

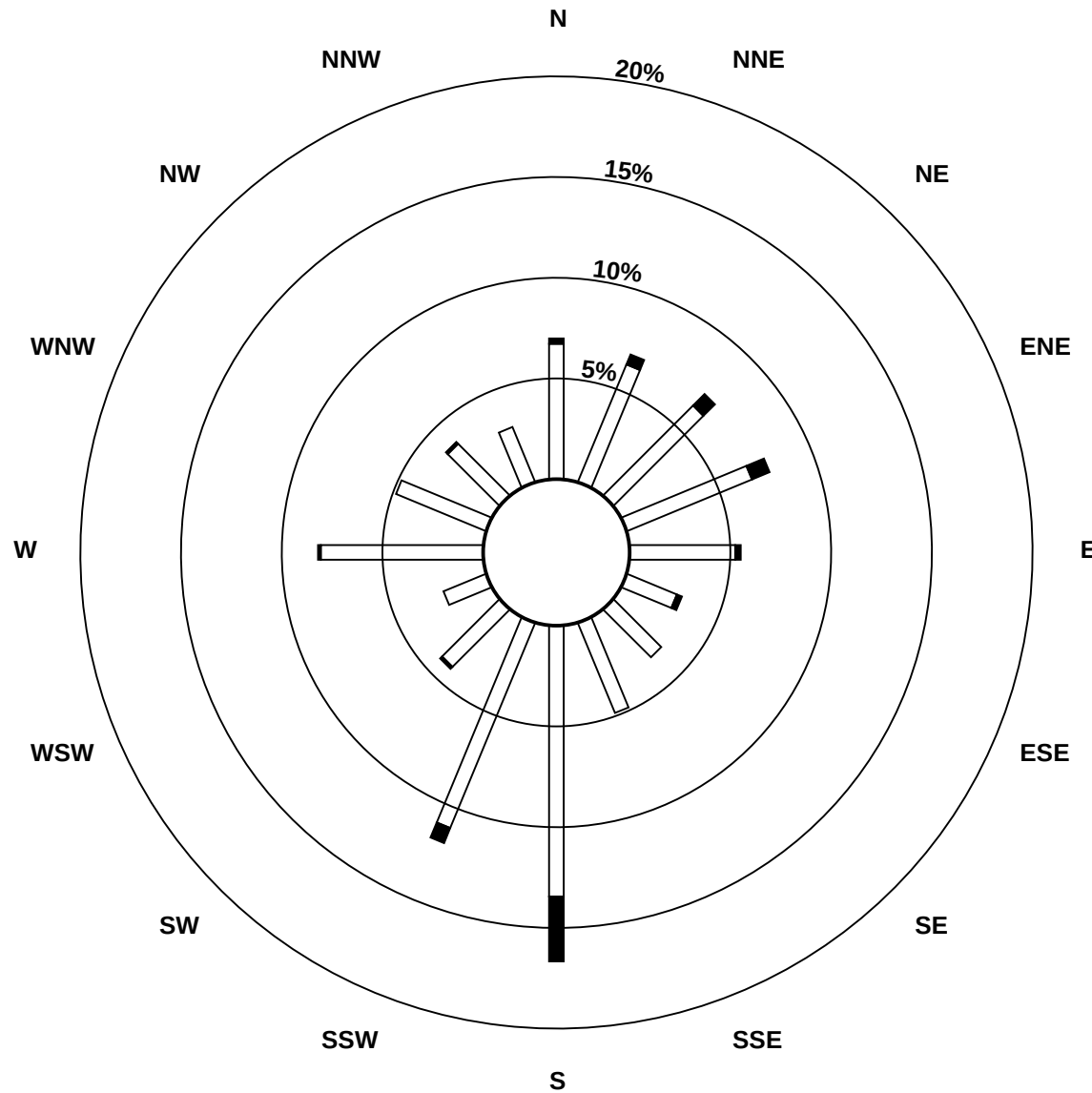
Hourly Maximums

PM_{2.5} (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Sunset House - March 2013

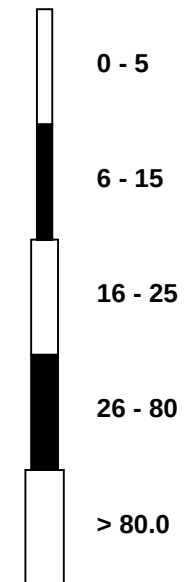


Pollutant Rose

PM_{2.5} (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Sunset House - March 2013



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



Hourly Averages

External Temperature (ET) - °C

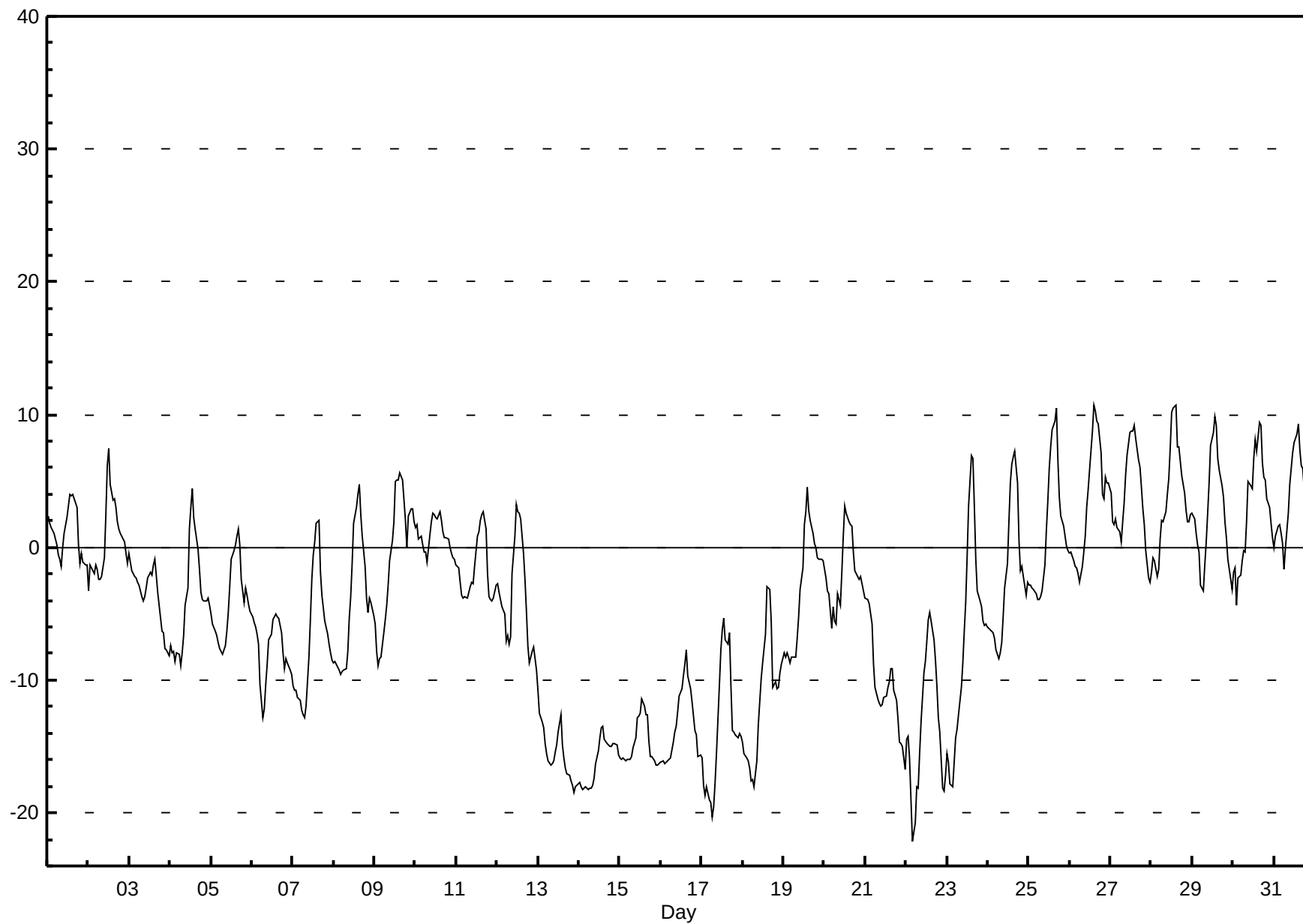
Sunset House - March 2013

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 10.7 °C on Mar 28 15:00 Maximum Daily Average: 3.8 °C on Mar 27																								Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0		
Minimum Value: -22 °C on Mar 22 05:00 Minimum Daily Average: -16.1 °C on Mar 14 Maximum Diurnal Average: 1.0 °C at hour 15 Minimum Diurnal Average: -8.1 °C at hour 7 Monthly Average: -4.37 °C Percentiles: P ₁ = -18.7 P ₁₀ = -15.7 Q ₁ = -9.3 Median = -3.3 Q ₃ = 1.3 P ₉₀ = 4.7 P ₉₉ = 9.5																										
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-Mar	2	2	2	1	1	0	-1	-1	-1	0	1	2	3	4	4	4	3	3	0	-1	0	-1	-1	-1	1.0	4.0
2-Mar	-3	-1	-2	-2	-1	-2	-2	-2	-2	-1	2	6	7	5	4	4	3	2	1	1	1	0	0	-1	0.7	7.5
3-Mar	0	-2	-2	-2	-2	-3	-3	-4	-4	-4	-3	-2	-2	-2	-1	-1	-2	-3	-5	-6	-6	-8	-8	-8	-3.5	-0.4
4-Mar	-7	-8	-8	-9	-8	-8	-9	-8	-7	-4	-3	1	3	4	2	1	0	-2	-3	-4	-4	-4	-4	-4	-3.8	4.4
5-Mar	-5	-6	-6	-7	-7	-8	-8	-8	-7	-6	-5	-3	-1	0	0	1	1	0	-2	-4	-3	-4	-4	-5	-4.0	1.4
6-Mar	-5	-6	-6	-7	-7	-10	-13	-12	-10	-9	-7	-7	-5	-5	-5	-5	-5	-6	-8	-9	-8	-9	-9	-10	-7.7	-5.0
7-Mar	-10	-11	-11	-11	-11	-12	-13	-13	-12	-8	-5	-2	-1	0	2	2	-2	-4	-5	-6	-7	-7	-8	-9	-6.8	2.1
8-Mar	-9	-9	-9	-9	-10	-9	-9	-9	-8	-5	-4	-1	2	3	4	5	2	1	-1	-4	-5	-4	-4	-5	-4.1	4.7
9-Mar	-6	-8	-9	-8	-8	-6	-5	-4	-3	-1	0	2	5	5	5	6	5	4	2	0	2	3	3	2	-0.6	5.6
10-Mar	1	2	1	1	0	0	0	-1	1	2	3	2	2	2	3	2	1	1	1	1	0	0	-1	-1	0.9	2.7
11-Mar	-1	-2	-3	-4	-4	-4	-4	-3	-3	-3	-3	-1	1	1	2	2	3	1	-2	-4	-4	-4	-4	-3	-1.8	2.7
12-Mar	-3	-3	-4	-4	-5	-7	-7	-7	-7	-2	1	3	3	3	2	0	-2	-5	-7	-9	-8	-8	-8	-9	-3.9	3.3
13-Mar	-11	-13	-13	-14	-15	-16	-16	-16	-16	-16	-15	-15	-14	-13	-15	-16	-17	-17	-17	-18	-18	-18	-18	-18	-15.6	-10.8
14-Mar	-18	-18	-18	-18	-18	-18	-18	-18	-18	-17	-16	-15	-14	-14	-13	-14	-15	-15	-15	-15	-15	-15	-15	-16	-16.1	-13.5
15-Mar	-16	-16	-16	-16	-16	-16	-16	-16	-15	-14	-13	-13	-13	-11	-12	-13	-13	-15	-16	-16	-16	-16	-16	-16	-14.8	-11.4
16-Mar	-16	-16	-16	-16	-16	-16	-16	-15	-14	-13	-12	-11	-11	-10	-9	-8	-10	-11	-12	-13	-14	-14	-16	-16	-13.3	-7.8
17-Mar	-16	-18	-19	-18	-19	-19	-20	-20	-18	-15	-10	-8	-6	-5	-7	-7	-6	-10	-14	-14	-14	-14	-14	-14	-13.6	-5.3
18-Mar	-15	-16	-16	-16	-17	-18	-17	-18	-16	-13	-12	-10	-9	-7	-3	-3	-3	-6	-11	-10	-11	-11	-9	-9	-11.4	-2.9
19-Mar	-8	-8	-8	-8	-9	-8	-8	-8	-7	-5	-3	-1	2	3	5	3	2	1	0	0	-1	-1	-1	-1	-3.0	4.5
20-Mar	-2	-2	-3	-3	-6	-4	-6	-6	-3	-4	-2	1	3	3	2	2	2	0	-2	-2	-2	-2	-3	-3	-1.9	3.2
21-Mar	-4	-4	-4	-5	-6	-9	-11	-11	-12	-12	-12	-11	-11	-11	-10	-9	-9	-11	-12	-13	-15	-15	-15	-17	-10.3	-3.8
22-Mar	-14	-14	-16	-19	-22	-21	-18	-18	-16	-13	-9	-9	-7	-5	-5	-6	-7	-8	-10	-13	-14	-18	-18	-17	-13.3	-4.9
23-Mar	-16	-16	-18	-18	-16	-14	-14	-13	-11	-9	-6	-4	-1	3	7	7	3	-1	-3	-4	-4	-6	-6	-6	-6.9	6.9
24-Mar	-6	-6	-6	-6	-7	-8	-8	-8	-7	-5	-3	-1	2	5	6	7	7	5	1	-2	-1	-2	-4	-3	-2.2	7.2
25-Mar	-3	-3	-3	-3	-4	-4	-4	-4	-3	-1	1	3	6	8	9	10	10	7	4	2	2	1	0	0	1.3	10.5
26-Mar	0	0	-1	-1	-2	-2	-3	-1	0	1	3	4	6	9	11	10	9	9	7	4	4	5	5	5	3.4	10.7
27-Mar	4	2	2	2	2	1	0	2	3	5	7	9	9	9	9	8	7	6	5	3	2	0	-2	-3	3.8	9.2
28-Mar	-2	-1	-1	-2	-2	1	2	2	3	4	5	8	10	10	11	8	8	7	5	4	3	2	2	2	3.7	10.7
29-Mar	3	2	1	0	0	-3	-3	-1	0	3	5	8	9	10	9	7	6	5	4	2	1	-1	-2	-3	2.5	9.9
30-Mar	-2	-2	-4	-2	-2	-1	0	0	2	5	5	4	7	8	7	9	9	6	5	5	4	3	2	1	2.9	9.4
31-Mar	0	1	2	2	1	0	-2	0	3	5	6	7	8	8	9	7	6	6	4	3	1	0	-1	-1	3.2	9.3
																									Diurnal Average	
																									Diurnal Maximum	

Hourly Averages

External Temperature (ET) - °C

Sunset House - March 2013



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Sunset House - March 2013

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	17	15	13	11	10	9	7	10	4	7	9	10	8	8	8	9	5	6	5	6	7	5	3	3	6.6	17.3
Dir	194	190	193	197	211	221	223	227	251	300	278	277	268	264	263	262	247	202	190	199	200	196	201	143	224.1	193.5
2 Spd	4	6	5	6	7	6	3	4	5	4	4	4	4	10	14	14	14	15	14	14	13	11	6	5	4.3	14.5
Dir	143	184	179	187	192	180	156	152	151	186	207	293	337	13	29	36	56	70	80	87	88	93	91	102	90.0	70.1
3 Spd	5	8	10	9	12	13	15	15	18	18	17	17	18	19	17	15	14	11	7	6	3	4	3	3	10.6	18.8
Dir	150	30	50	64	61	67	67	58	61	65	62	37	39	37	40	35	33	33	3	3	100	124	99	80	50.7	36.8
4 Spd	4	2	3	4	5	6	7	8	10	12	8	4	5	6	10	14	15	12	11	11	9	9	11	14	2.7	15.1
Dir	143	142	177	178	174	165	176	199	185	189	199	272	287	314	0	24	52	56	62	79	85	116	175	183	129.3	51.9
5 Spd	15	17	17	17	17	19	18	18	17	17	15	10	8	11	14	13	8	6	6	9	17	20	20	19	14.4	19.9
Dir	183	186	184	186	186	182	185	184	187	192	192	198	202	197	192	194	225	213	187	178	175	174	176	176	186.4	176.3
6 Spd	19	18	14	14	9	4	7	9	12	18	13	16	17	23	23	23	23	22	21	19	24	21	17	16	11.3	23.7
Dir	178	179	183	185	190	76	55	54	50	61	67	47	40	32	28	31	34	35	45	49	65	68	77	82	61.3	65.1
7 Spd	14	4	7	6	6	7	6	5	3	3	5	4	8	8	6	5	8	6	11	11	17	22	23	23	3.2	23.3
Dir	64	77	84	85	48	39	31	35	60	223	306	322	20	21	14	19	22	47	164	164	167	174	179	179	119.6	178.6
8 Spd	25	23	22	21	20	18	14	16	15	13	12	9	8	9	8	7	10	9	5	3	4	4	5	1	8.2	25.1
Dir	178	183	184	186	185	188	192	193	192	201	207	220	270	277	275	331	10	32	71	131	187	189	219	163	195.6	178.4
9 Spd	3	2	4	5	8	12	13	14	14	14	14	12	9	10	9	6	2	3	4	11	13	14	12	10	7.8	14.2
Dir	166	138	153	156	175	186	188	187	186	192	197	196	230	262	275	295	241	188	210	189	196	206	211	232	202.1	187.1
10 Spd	10	10	9	10	11	10	10	11	22	23	25	31	30	26	25	27	28	25	21	23	18	15	16	16	17.7	31.1
Dir	265	265	231	262	222	207	212	231	269	267	279	285	286	281	280	288	289	287	286	288	286	279	279	281	275.0	284.6
11 Spd	17	16	19	13	6	10	10	11	12	15	11	11	9	10	12	12	10	7	2	7	7	8	11	13	7.3	19.1
Dir	292	294	306	298	280	314	303	290	284	284	276	274	268	272	274	277	277	270	247	138	132	136	157	159	276.7	305.6
12 Spd	15	18	17	14	13	11	7	6	4	2	4	5	9	12	15	19	18	19	20	18	21	23	25	18	5.8	24.7
Dir	174	176	176	178	173	168	162	176	175	210	263	290	8	10	18	12	30	31	30	43	57	50	54	44	60.9	53.7
13 Spd	17	16	16	14	11	8	8	8	9	9	9	7	7	8	11	12	11	11	12	12	9	8	10	7	10.0	16.6
Dir	25	10	23	358	340	333	331	339	336	328	315	340	349	356	357	359	1	359	8	3	6	2	0	357	356.3	24.5
14 Spd	5	9	11	10	9	8	8	8	13	18	19	20	19	20	21	23	23	19	17	13	9	6	13	12	12.5	23.5
Dir	12	6	35	50	49	53	55	64	66	72	77	78	72	70	68	71	70	67	74	68	79	111	138	156	70.7	69.7
15 Spd	9	1	3	4	4	4	4	0	6	10	10	12	13	13	13	10	11	10	6	6	6	10	11	12	5.4	13.1
Dir	144	65	62	75	52	21	25	348	292	309	315	316	345	350	5	1	359	8	5	21	39	58	65	83	11.1	349.8
16 Spd	14	16	17	16	8	7	6	11	14	16	17	16	16	10	7	5	10	12	11	10	11	10	10	10	5.2	17.0
Dir	85	86	82	80	70	52	94	161	159	158	172	173	185	197	227	313	32	43	42	40	29	24	7	360	95.4	172.5
17 Spd	5	4	3	2	1	2	2	0	1	2	2	4	1	5	7	5	4	7	6	7	9	9	10	10	2.4	9.9
Dir	339	350	23	26	253	343	164	238	357	299	286	293	235	313	302	311	13	17	53	67	81	80	84	79	30.2	79.3
18 Spd	9	11	11	8	5	3	2	3	4	6	7	5	8	8	5	5	3	2	4	7	7	9	11	17	1.0	16.6
Dir	72	50	55	51	49	44	55	201	203	231	228	270	275	290	340	325	327	319	186	197	168	163	176	178	170.1	177.6
19 Spd	20	15	14	13	12	11	12	13	11	11	9	10	7	7	4	4	7	12	15	25	32	34	33	29	13.4	33.8
Dir	177	193	197	199	200	201	197	195	199	199	206	196	223	219	238	131	131	134	131	148	153	154	152	156	172.0	154.2
20 Spd	17	8	2	6	3	7	2	6	5	5	1	7	6	8	11	9	16	17	14	10	6	12	11	8	2.4	16.8
Dir	164	139	158	159	176	175	185	175	180	182	209	304	350	5	345	339	55	64	52	58	112	180	185	182	116.5	164.2
21 Spd	6	6	7	13	12	10	9	9	10	10	9	9	10	10	9	7	8	11	11	7	1	2	3	4	5.6	13.3
Dir	202	213	278	303	299	271	268	273	277	272	270	273	273	278	276	324	353	7	19	24	77	282	179	189	289.3	303.0
22 Spd	6	6	4	4	5	5	4	6	4	5	6	10	10	9	9	10	10	9	6	4	6	7	6	7	1.7	10.2
Dir	201	209	215	202	195	198	231	257	246	273	301	310	315	318	320	330	4	9	31	103	135	130	132	142	287.9	3.7

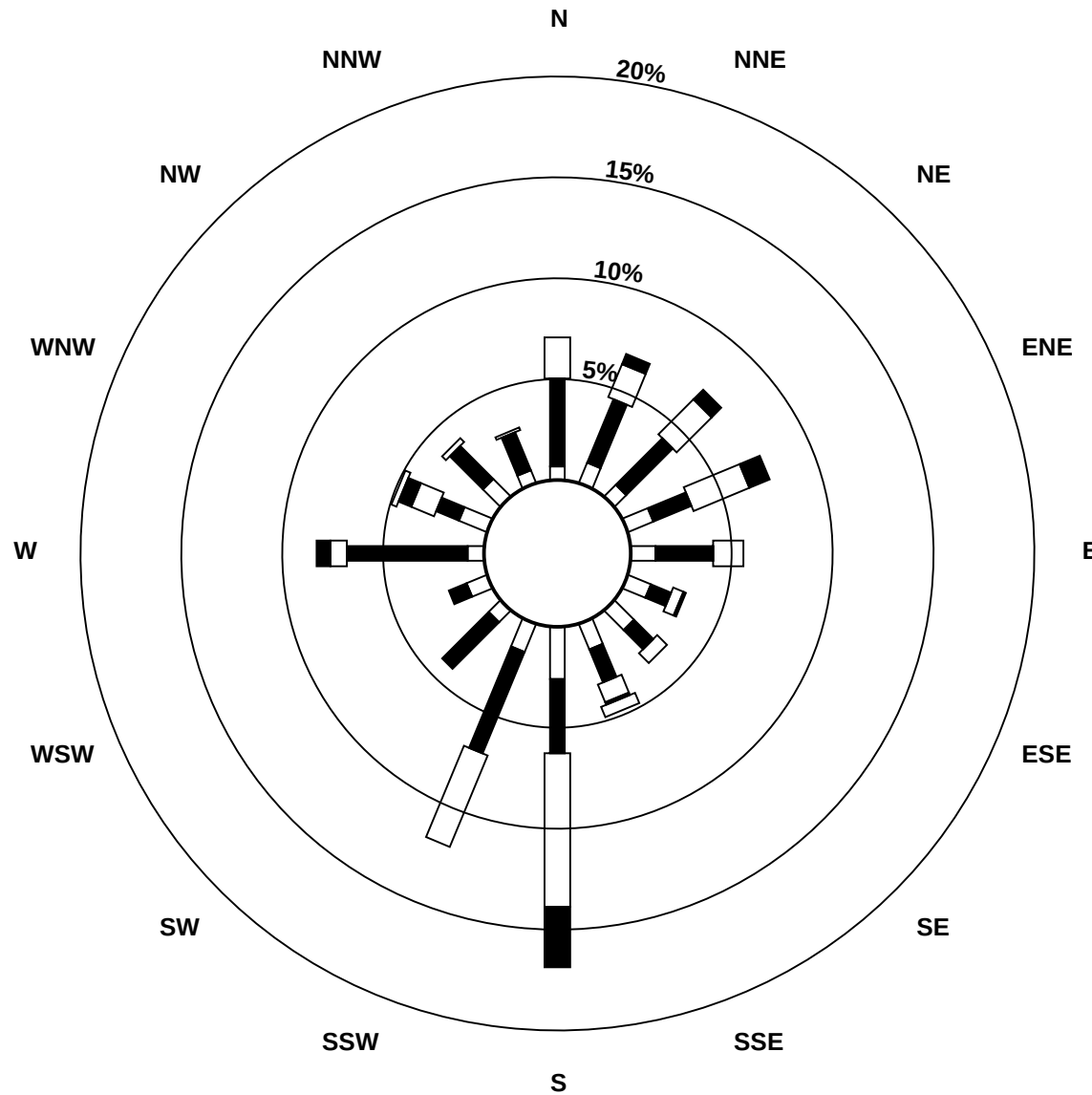
Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Sunset House - March 2013

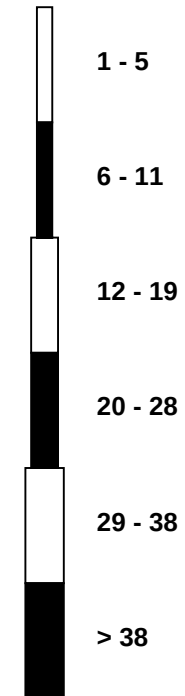
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	7	8	9	11	10	12	13	13	12	16	11	10	6	3	3	4	6	7	9	10	15	16	15	18	6.5	17.8
Dir	159	177	187	179	179	183	182	181	186	190	199	190	251	284	7	9	19	37	55	88	108	120	146	165	162.0	165.4
24 Spd	21	20	20	19	21	21	20	20	18	14	11	10	8	4	3	2	3	1	3	6	13	11	10	14	10.4	21.1
Dir	171	174	173	175	177	182	183	183	188	195	204	203	222	235	249	284	314	31	34	102	110	117	158	173	176.9	170.7
25 Spd	16	17	16	16	15	15	17	16	17	10	7	7	6	6	6	6	3	7	12	11	16	15	19	21	8.7	21.3
Dir	175	175	177	178	179	182	182	192	194	203	236	238	243	237	251	317	319	27	82	93	107	132	173	170	175.4	170.2
26 Spd	19	21	19	18	20	19	20	17	14	16	14	14	11	9	8	11	8	10	4	6	6	8	8	5	11.1	20.6
Dir	177	176	185	186	181	192	184	183	199	190	194	196	198	205	273	280	274	281	254	184	186	197	189	217	197.0	175.6
27 Spd	6	8	8	8	9	9	9	9	9	7	10	8	11	12	12	13	16	13	10	9	7	4	4	4	2.4	15.8
Dir	213	189	194	206	206	203	197	216	231	249	281	273	273	277	290	360	4	18	44	69	104	134	122	115	252.8	4.3
28 Spd	5	4	8	3	10	12	15	15	16	13	12	9	7	10	9	15	13	13	9	9	10	10	9	14	1.7	15.7
Dir	127	171	166	122	173	183	182	192	193	203	198	205	236	276	320	7	7	13	15	33	65	61	59	68	148.8	192.8
29 Spd	17	21	14	10	5	4	1	8	9	13	10	9	10	10	11	14	14	12	7	2	3	2	4	4	2.1	20.6
Dir	91	107	73	85	112	67	169	228	214	203	217	268	285	327	348	6	13	7	11	2	112	102	112	80	52.2	106.7
30 Spd	4	5	6	6	7	10	9	9	3	4	9	13	9	7	7	4	6	11	10	6	4	2	3	2	1.9	12.7
Dir	96	156	90	87	89	100	116	121	264	297	212	195	218	268	271	281	19	33	43	72	66	93	69	84	106.2	194.7
31 Spd	2	9	8	9	10	8	1	1	4	6	7	8	8	7	7	11	13	12	11	8	6	5	5	7	5.3	12.7
Dir	81	16	12	346	355	351	27	211	282	309	309	311	318	352	359	3	6	23	47	69	80	66	101	84	9.0	5.7
Spd	6.4	5.2	4.4	4.1	4.8	4.6	5.0	5.8	5.2	4.9	4.7	4.1	4.1	4.7	5.5	6.9	7.4	7.0	5.7	4.7	5.9	6.0	6.0	6.1	Diurnal Average	
Dir	161.7	167.5	162.7	170.6	179.2	180.2	179.6	190.8	202.2	212.3	228.0	255.5	287.4	313.4	329.7	351.0	12.8	26.2	48.0	80.7	110.2	126.4	143.5	148.0	Diurnal Maximum	
Spd	25.1	23.1	22.3	21.1	20.7	20.8	20.4	20.2	21.6	23.0	25.3	31.1	29.5	25.6	24.9	27.1	28.3	25.3	21.4	25.2	31.6	33.8	33.4	28.6	Diurnal Maximum	
Dir	178.4	182.5	184.3	185.7	177.4	182.3	182.8	182.8	268.9	266.7	278.9	284.6	285.9	281.2	280.0	288.4	288.9	286.8	44.8	148.0	153.5	154.2	152.3	155.6		
Maximum Speed Value: 34 km/h on Mar 19 22:00																								Hours in Service: 744		
Maximum Daily Speed Average: 17.7 km/h on Mar 10																								Hours of Data: 744		
Maximum Diurnal Speed Average: 7.4 km/h at hour 17																								Hours of Missing Data: 0		
Minimum Speed Value: 0 km/h on Mar 15 08:00																								Percent Operational Time: 100.0		
Minimum Daily Speed Average: 1.0 km/h on Mar 17																										
Minimum Diurnal Speed Average: 4.1 km/h at hour 13																										
Monthly Average Velocity: 1.50 km/h 161.11 deg																										
Speed Percentiles: P ₁ = 0.8 P ₁₀ = 3.7 Q ₁ = 6.1 Median = 9.6 Q ₃ = 13.8 P ₉₀ = 18.3 P ₉₉ = 28.0																										
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	10	51	25	1	0	0	87																			
NorthEast	15	43	42	13	0	0	113																			
East	19	31	23	8	0	0	81																			
SouthEast	16	17	9	1	4	0	47																			
South	26	57	100	23	0	0	206																			
SouthWest	17	45	6	0	0	0	68																			
West	15	53	12	9	3	0	92																			
NorthWest	12	32	5	1	0	0	50																			
Total	130	329	222	56	7	0	744																			

Wind Rose

Wind Speed (WS) (km/h)
Sunset House - March 2013



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Sunset House - March 2013

Maximum Speed: 34 km/h on Mar 19 22:00																				Maximum Daily Speed Average: 19.1 km/h on Mar 10										Hours in Service: 744	
Minimum Speed: 1 km/h on Mar 31 08:00																				Minimum Daily Speed Average: 5.1 km/h on Mar 17										Hours of Data: 744	
Maximum Diurnal Speed Average: 11.7 km/h at hour 1																				Minimum Diurnal Speed Average: 9.5 km/h at hour 7										Hours of Missing Data: 0	
Monthly Average Speed: 10.75 km/h																				Percentiles: P ₁ = 2.2 P ₁₀ = 4.3 Q ₁ = 6.5 Median = 9.7 Q ₃ = 14.0 P ₉₀ = 18.6 P ₉₉ = 28.5										Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
1-Mar	17	15	13	11	10	9	8	10	8	8	9	10	8	8	9	9	6	6	5	6	7	5	3	4	8.5	17.3					
2-Mar	4	6	6	6	8	6	3	4	5	4	5	4	4	10	14	14	14	15	14	14	13	11	6	6	8.2	14.7					
3-Mar	8	8	10	10	12	13	15	16	18	18	18	18	18	19	17	15	14	11	7	6	4	4	3	3	11.9	18.9					
4-Mar	4	3	3	4	5	6	7	8	10	12	9	5	5	7	11	15	16	13	11	11	10	10	11	14	8.6	15.5					
5-Mar	15	17	17	17	18	19	18	18	18	17	16	10	9	12	15	13	9	6	6	9	17	20	20	19	14.7	20.0					
6-Mar	19	18	14	14	9	6	7	9	12	18	14	17	18	23	23	23	23	22	21	19	24	22	17	17	17.1	23.8					
7-Mar	15	5	7	6	7	7	6	5	6	6	5	6	8	8	6	6	9	8	12	11	17	22	23	23	9.8	23.3					
8-Mar	25	23	22	21	20	18	15	16	15	14	12	10	9	9	8	9	10	9	5	3	4	4	5	2	12.0	25.2					
9-Mar	3	2	4	6	8	12	13	14	14	14	14	13	9	11	9	6	4	3	5	11	13	14	12	10	9.2	14.2					
10-Mar	10	11	9	11	11	10	10	11	22	23	26	31	30	26	25	27	29	26	21	23	18	15	16	16	19.1	31.4					
11-Mar	17	16	19	13	7	10	10	11	12	15	11	11	9	10	12	12	10	7	4	7	7	8	11	13	11.0	19.3					
12-Mar	15	18	17	14	13	11	7	6	4	3	5	5	9	13	15	20	18	19	21	19	21	23	25	18	14.1	24.7					
13-Mar	17	17	17	14	11	8	9	9	9	9	9	8	7	8	11	12	12	11	12	12	9	8	10	7	10.7	16.9					
14-Mar	5	9	11	11	9	8	8	8	13	18	19	20	19	20	21	23	24	19	17	13	9	7	13	12	14.0	23.5					
15-Mar	9	4	4	4	4	4	4	2	6	10	10	13	13	13	13	11	11	10	6	6	6	10	11	12	8.3	13.4					
16-Mar	14	16	17	16	9	7	6	11	14	17	17	17	17	10	8	6	10	12	11	10	11	10	10	11	12.0	17.4					
17-Mar	5	5	3	3	2	2	3	2	2	3	3	4	3	6	7	5	4	7	7	7	9	10	10	10	5.1	10.0					
18-Mar	9	11	11	8	5	3	3	3	4	6	7	6	8	9	5	6	5	3	5	7	7	9	11	17	7.0	16.7					
19-Mar	20	15	14	13	12	12	12	13	11	12	9	10	7	7	6	4	7	12	15	25	32	34	34	29	15.2	33.9					
20-Mar	17	9	6	8	5	9	5	7	6	8	5	7	7	8	13	10	16	17	14	11	6	12	11	8	9.4	17.1					
21-Mar	6	6	8	13	13	10	9	9	10	10	9	9	11	10	9	8	9	11	11	7	2	2	3	4	8.3	13.3					
22-Mar	6	6	5	4	5	5	5	6	5	5	7	10	10	10	10	10	10	9	6	5	6	7	6	7	6.7	10.4					
23-Mar	7	8	9	11	10	12	13	13	12	16	11	11	7	5	4	4	7	8	9	11	15	16	15	18	10.4	17.9					
24-Mar	21	21	20	19	21	21	20	20	18	14	11	11	8	5	5	5	4	2	4	6	13	11	10	14	12.7	21.2					
25-Mar	16	17	17	16	15	15	17	16	17	11	7	7	6	6	6	7	4	7	12	12	16	16	19	21	12.6	21.3					
26-Mar	19	21	19	18	20	19	20	17	14	16	14	14	12	10	10	11	9	10	5	6	6	8	8	5	12.9	20.7					
27-Mar	7	8	8	8	9	10	9	9	9	7	10	8	11	12	12	13	16	13	10	9	7	4	4	4	9.0	15.9					
28-Mar	5	6	8	5	10	12	15	15	16	13	12	9	8	10	12	15	13	13	9	10	10	10	9	15	10.8	15.8					
29-Mar	18	21	14	11	7	4	4	8	9	13	10	9	11	10	11	14	14	12	7	3	3	3	4	4	9.4	20.7					
30-Mar	5	5	6	6	7	10	9	9	4	5	9	13	9	7	7	5	7	11	10	6	4	3	3	3	6.8	12.8					
31-Mar	3	9	9	9	10	8	2	1	4	6	7	8	8	9	7	11	13	12	11	8	6	5	5	7	7.5	13.0					
11.7 11.4 11.2 10.7 10.0 9.9 9.5 9.9 10.6 11.3 10.7 10.7 10.3 10.6 10.9 11.3 11.5 11.1 10.1 10.1 10.7 11.1 11.3 11.4																									Diurnal Average						
25.2 23.2 22.4 21.2 20.7 20.8 20.4 20.3 21.9 23.4 25.7 31.4 29.7 25.8 25.2 27.3 28.6 25.6 21.5 25.3 31.8 33.9 33.5 28.8																									Diurnal Maximum						
All monthly, daily, and diurnal averages have been calculated using scalar methods																															

Hourly Standard Deviations

Wind Direction (WD) - deg

Sunset House - March 2013

Maximum Value: 88.1 deg on Mar 20 11:00																			Hours in Service: 744						
Minimum Value: 3.0 deg on Mar 6 04:00																			Hours of Data: 744						
																			Hours of Missing Data: 0						
Percentiles: P ₁ = 3.6 P ₁₀ = 4.9 Q ₁ = 7.2 Median = 10.9 Q ₃ = 17.7 P ₉₀ = 35.3 P ₉₉ = 85.1																			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-Mar	4	5	6	9	10	11	13	10	62	33	11	11	13	17	13	14	29	8	11	17	10	15	37	43	61.5
2-Mar	24	10	18	13	6	12	16	7	28	21	32	15	16	13	6	7	9	8	8	4	4	7	11	34	34.0
3-Mar	66	36	8	6	7	4	5	7	6	6	12	13	8	8	9	12	7	9	12	13	39	12	19	18	66.5
4-Mar	4	57	8	7	10	6	7	7	5	7	21	17	13	24	14	17	13	8	9	8	14	18	11	4	56.6
5-Mar	5	5	5	6	4	5	4	4	5	6	8	12	16	17	12	16	18	13	12	5	5	5	4	4	18.1
6-Mar	5	4	4	3	16	58	17	5	4	7	20	19	18	5	5	5	5	5	5	6	7	6	6	12	58.4
7-Mar	11	53	13	11	39	12	13	39	66	75	48	47	17	17	20	27	33	42	10	7	8	7	5	5	75.3
8-Mar	5	5	4	4	5	10	19	4	5	9	11	12	20	10	11	37	7	12	23	13	18	14	13	81	80.9
9-Mar	14	26	23	30	19	5	4	4	5	9	9	9	20	18	9	11	65	17	25	5	5	7	8	13	64.6
10-Mar	18	17	13	21	17	10	9	16	9	10	10	8	7	7	9	7	9	8	7	7	7	8	8	7	21.4
11-Mar	7	7	9	8	20	13	9	8	9	8	9	10	11	10	12	11	9	16	76	6	16	10	4	4	75.8
12-Mar	6	5	6	5	4	4	8	10	19	65	17	8	11	11	13	11	10	6	6	8	5	5	4	9	65.2
13-Mar	10	7	10	11	10	10	13	12	12	18	16	21	22	12	9	6	8	12	9	7	10	8	7	14	22.1
14-Mar	17	10	8	6	7	8	8	7	8	10	8	8	10	11	9	8	5	4	5	5	13	19	13	11	19.1
15-Mar	12	85	29	17	11	5	6	86	11	6	12	12	10	12	11	14	9	11	7	16	13	6	7	7	85.7
16-Mar	11	9	6	7	20	19	21	14	10	11	12	13	14	17	22	31	18	8	7	7	7	8	5	8	31.1
17-Mar	16	31	44	48	71	87	54	87	77	64	68	9	85	41	11	46	47	22	12	5	9	7	8	6	87.3
18-Mar	8	13	4	9	6	15	35	27	20	11	14	32	13	21	35	27	45	70	34	5	11	12	6	6	69.7
19-Mar	7	10	8	11	8	9	8	6	9	11	12	16	21	28	52	35	25	17	9	5	5	5	5	6	51.7
20-Mar	11	25	77	60	68	55	87	37	33	52	88	10	30	17	31	26	17	11	6	28	17	14	12	9	88.1
21-Mar	14	13	30	6	16	10	11	9	8	10	11	11	9	10	10	29	22	8	7	7	75	72	26	8	75.3
22-Mar	7	9	14	12	10	12	41	24	30	13	10	9	10	12	13	17	11	7	14	31	12	9	12	4	41.3
23-Mar	9	8	7	3	4	4	4	4	6	7	15	18	19	53	37	22	16	19	11	13	5	4	17	5	52.5
24-Mar	5	4	4	5	4	5	4	4	4	9	10	14	19	54	71	75	25	46	37	9	7	4	24	5	75.2
25-Mar	4	5	4	4	4	4	4	8	5	18	9	13	20	20	25	28	44	44	10	10	5	22	5	5	44.0
26-Mar	5	4	7	6	4	5	4	4	10	5	9	8	13	15	31	11	10	17	38	10	12	8	8	14	37.9
27-Mar	17	6	10	15	12	14	12	12	13	25	10	9	9	9	11	15	7	13	15	7	7	28	25	17	28.0
28-Mar	12	43	9	58	14	12	5	7	7	9	10	19	20	12	39	5	8	6	8	16	4	11	13	19	57.7
29-Mar	20	6	18	20	65	30	80	12	8	9	14	19	17	15	13	8	8	5	12	86	29	24	20	20	85.9
30-Mar	28	16	19	11	13	14	7	5	40	26	26	10	17	19	14	32	48	9	7	19	47	29	25	45	47.7
31-Mar	32	11	11	8	5	12	84	67	15	21	14	12	17	33	22	9	14	13	16	16	11	14	8	17	84.5
66.5 84.5 77.5 60.0 71.1 87.3 87.2 87.0 77.1 75.3 88.1 46.5 85.4 53.6 70.6 75.2 64.6 69.7 75.8 85.9 75.3 71.6 37.3 80.9																									

PAZA
Falher Station
Monthly Summary Tables, Graphs and
Roses

Hourly Averages

Sulphur Dioxide (SO₂) - ppb

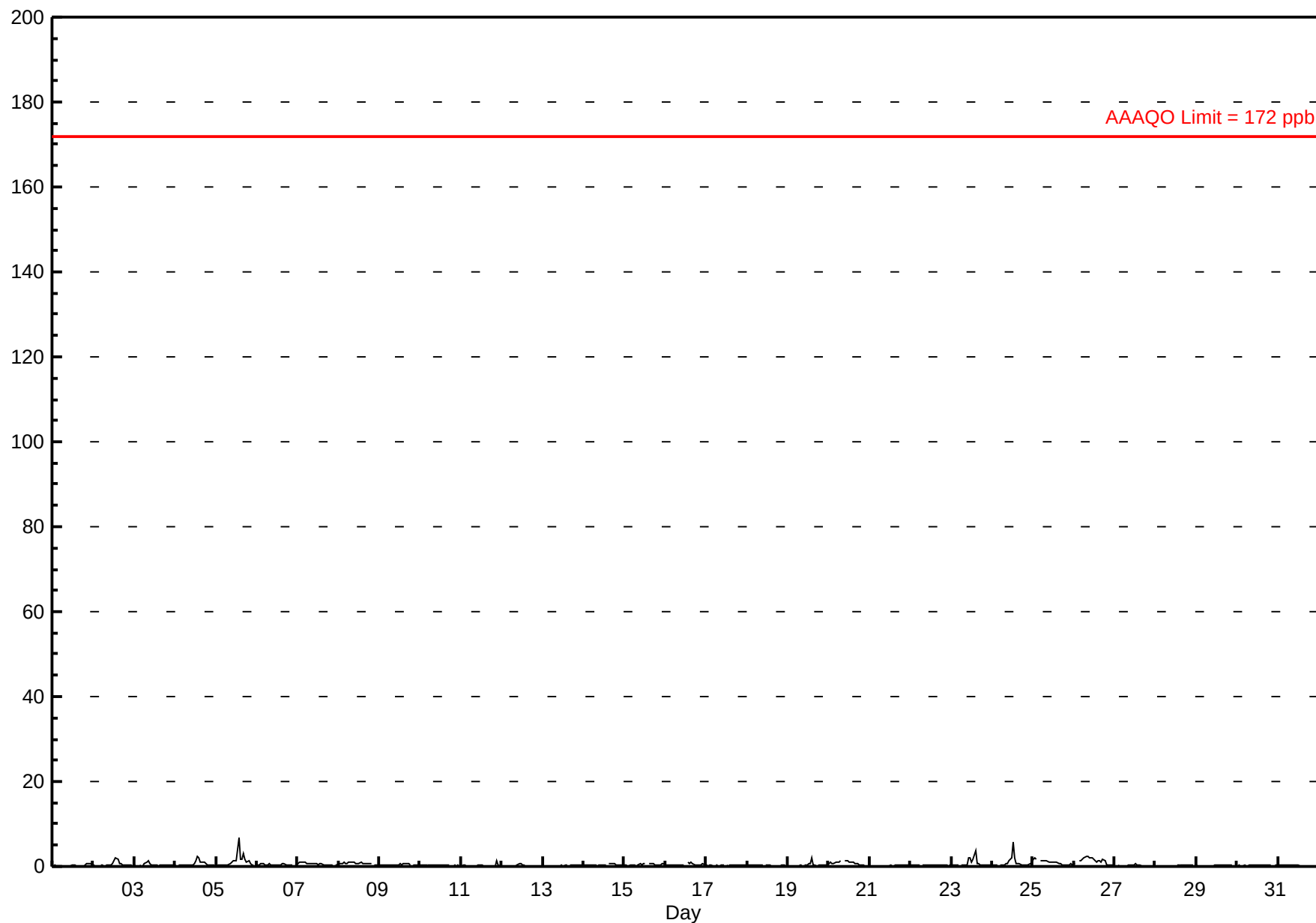
Falher - March 2013

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 6.8 ppb on Mar 5 14:00 Maximum Daily Average: 1.3 ppb on Mar 26																				Hours in Service: 744 Hours of Data: 708 Hours of Missing Data: 36 Hours of Calibration: 36 Percent Operational Time: 100.0						
Minimum Value: 0 ppb on Mar 1 03:00 Maximum Diurnal Average: 0.8 ppb at hour 14 Monthly Average: 0.44 ppb										Minimum Daily Average: 0.1 ppb on Mar 12 Minimum Diurnal Average: 0.3 ppb at hour 24 Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.2 Median = 0.3 Q ₃ = 0.5 P ₉₀ = 0.9 P ₉₉ = 2.4																
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-Mar	0	0	0		A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0.2	0.8
2-Mar	0	0		A	0	0	0	0	0	0	0	1	1	2	2	1	1	0	0	0	0	0	0	0	0.5	2.0
3-Mar	0	0	A	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.2
4-Mar	0	A	0	0	0	0	0	0	0	0	0	1	1	2	2	1	1	1	1	0	0	0	0	0	0.6	2.4
5-Mar	A	0	0	0	0	0	0	0	1	1	1	1	2	7	2	2	3	2	1	1	1	0	0	A	1.2	6.8
6-Mar	0	0	1	1	1	0	0	1	0	0	0	0	0	0	0	1	1	0	0	0	0	0	A	1	0.4	0.7
7-Mar	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	0	0	0	A	0	0	0.6	0.9
8-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0	0	0	0.7	1.0
9-Mar	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1	1	0	A	1	0	0	0	0.4	0.6
10-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.3	0.4
11-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	0	0	0.2	1.4
12-Mar	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	A	0	0	0	0	0	0	0	0.1	0.7
13-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.2	0.3
14-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	1	1	1	0	0	0	0	0	0.3	0.7
15-Mar	0	0	0	0	0	0	0	0	0	1	0	1	1	A	1	1	1	1	0	0	0	0	1	1	0.4	0.8
16-Mar	0	0	0	0	0	0	0	0	0	0	0	0	A	1	1	1	1	0	0	0	0	0	1	0	0.4	1.0
17-Mar	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
18-Mar	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
19-Mar	0	0	0	0	0	0	0	0	0	A	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0.3	2.1
20-Mar	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0.8	1.3
21-Mar	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
22-Mar	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
23-Mar	0	0	0	0	0	A	0	0	0	0	2	2	1	2	4	1	1	0	0	0	0	0	0	0	0.7	3.7
24-Mar	0	0	0		A	0	0	0	1	1	1	2	6	2	1	1	1	0	0	0	0	0	1	1	0.9	5.6
25-Mar	2	2	2	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	1	0	1.0	2.0
26-Mar	1	1	A	1	2	2	2	2	2	2	2	2	2	1	1	1	1	2	1	0	0	0	0	0	1.3	2.4
27-Mar	0	A	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.2	0.5
28-Mar	A	0	0	0	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0	0	0	A	0.2	0.5
29-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.2	0.4
30-Mar	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
31-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	0.4
0.3 0.3 0.3 0.3 0.3 0.3 0.4 0.4 0.4 0.5 0.6 0.6 0.7 0.8 0.7 0.5 0.5 0.5 0.4 0.3 0.3 0.3 0.3 0.3																									Diurnal Average	
1.7 2.0 1.7 1.3 1.5 1.8 2.1 2.4 2.4 2.1 2.1 2.0 5.6 6.8 3.7 1.5 3.1 1.6 1.3 1.3 0.7 1.4 0.8 1.0																									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 - March 2013



Hourly Maximums

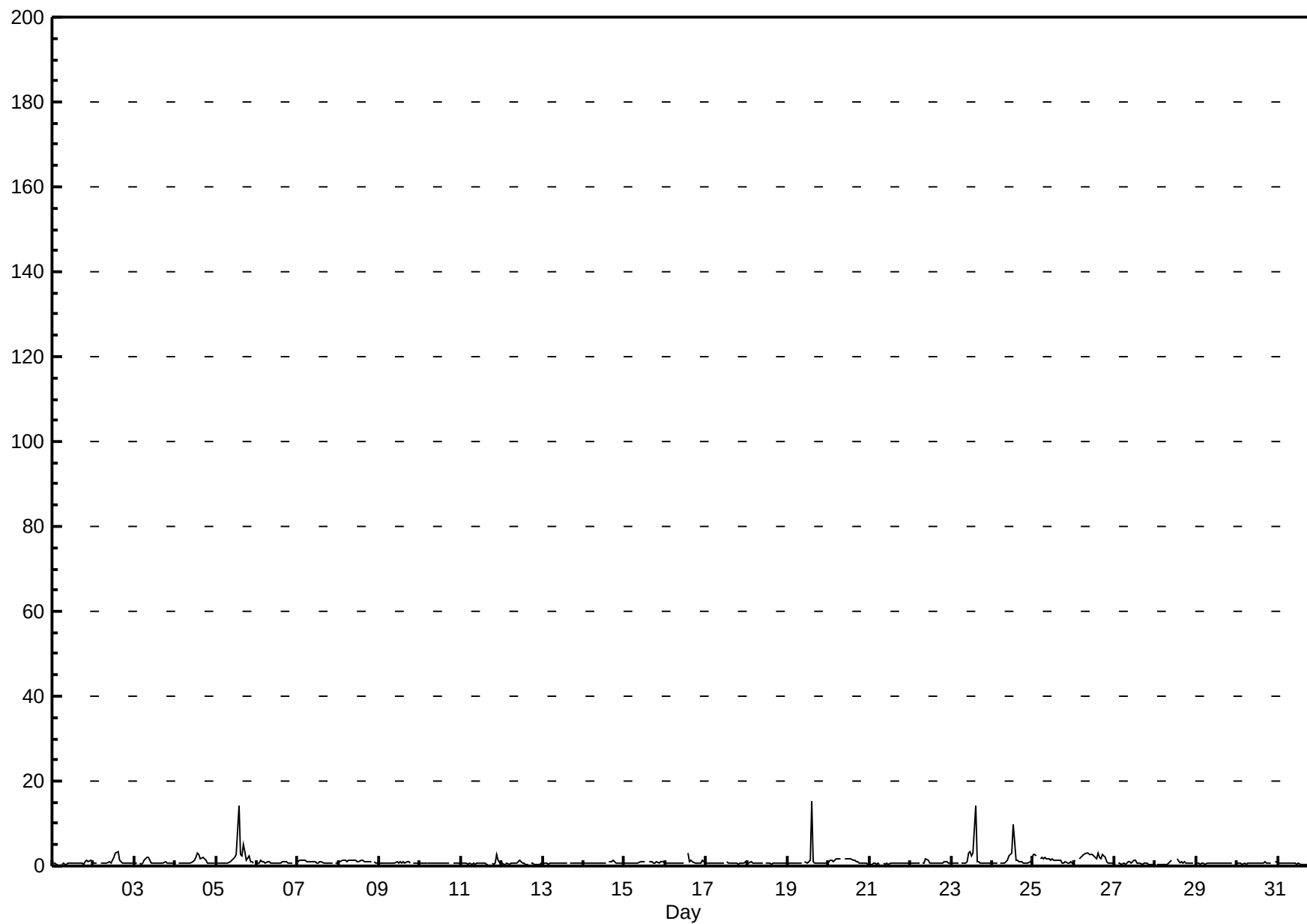
Sulphur Dioxide (SO₂) - ppb

Falher - March 2013

Maximum Value: 15.3 ppb on Mar 19 15:00																				Maximum Daily Average: 2.2 ppb on Mar 5					Hours in Service: 744	
Minimum Value: 0 ppb on Mar 28 00:00																				Minimum Daily Average: 0.5 ppb on Mar 21					Hours of Data: 708	
Maximum Diurnal Average: 2.0 ppb at hour 15																				Minimum Diurnal Average: 0.7 ppb at hour 21					Hours of Missing Data: 36	
Monthly Average: 0.97 ppb																				Percentiles: P ₁ = 0.4 P ₁₀ = 0.5 Q ₁ = 0.6 Median = 0.7 Q ₃ = 0.9 P ₉₀ = 1.5 P ₉₉ = 2.6					Hours of Calibration: 36	
																				Percent Operational Time: 100.0						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Mar	1	1	0	0	A	0	1	1	0	1	1	1	1	1	1	1	1	1	0	1	2	1	1	1	0.7	1.5
2-Mar	1	1	1	A	1	1	1	1	1	1	1	1	2	3	3	1	1	1	1	1	1	1	1	1	1.1	3.2
3-Mar	1	1	A	1	0	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.9
4-Mar	1	A	1	1	1	1	1	1	1	1	1	1	2	3	3	2	2	2	1	1	1	1	1	1	1.2	3.2
5-Mar	A	1	1	1	1	1	1	1	1	1	2	2	3	14	3	2	5	3	1	2	1	1	1	A	2.2	14.4
6-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.9	1.2
7-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1.0	1.4
8-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1.1	1.4
9-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.8	1.1
10-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.7	0.8
11-Mar	1	1	1	1	1	1	0	1	0	1	1	1	1	1	1	0	0	A	1	0	1	3	1	0	0.7	2.7
12-Mar	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0	0	A	1	1	0	0	0	0	1	0.6	1.3
13-Mar	0	1	1	0	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0.6	0.8
14-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.7	1.2
15-Mar	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	1.2
16-Mar	1	1	1	1	1	1	1	1	1	1	1	1	A	3	1	2	1	1	1	1	1	1	1	1	0.9	3.1
17-Mar	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0	1	1	1	1	0.7	0.9
18-Mar	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0	1	1	1	1	1	1	1	1	1	0.7	0.9
19-Mar	1	1	1	1	1	1	1	1	1	A	1	1	1	1	15	1	1	1	1	1	1	1	1	1	1.3	15.3
20-Mar	1	1	1	1	2	2	2	2	A	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1.2	1.9
21-Mar	0	0	1	1	0	1	0	A	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0.5	0.7
22-Mar	1	1	1	1	1	1	A	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.7
23-Mar	1	1	1	1	1	A	1	1	1	1	3	3	3	3	14	1	1	1	1	1	1	1	1	1	1.7	14.1
24-Mar	1	1	1	1	A	1	1	1	1	1	2	3	10	6	1	1	1	1	1	1	1	1	2	1	1.7	9.9
25-Mar	3	3	2	A	2	2	2	2	2	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1.5	2.6
26-Mar	1	1	A	2	2	2	3	3	3	3	3	3	2	2	3	2	2	3	2	1	1	1	1	1	1.9	3.0
27-Mar	1	A	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0.6	1.2
28-Mar	A	0	0	0	0	0	0	0	1	1	C	C	C	2	1	1	1	1	1	1	1	1	1	A	0.7	1.8
29-Mar	1	1	0	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.7
30-Mar	1	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.7	1.0
31-Mar	1	1	1	1	1	1	1	1	1	1	1	0	1	0	0	0	0	0	0	0	A	1	0	0	0.6	0.8
0.8 0.8 0.8 0.7 0.8 0.8 0.8 0.9 0.9 1.0 1.1 1.2 1.4 1.8 2.0 1.0 1.0 0.9 0.8 0.8 0.7 0.8 0.8 0.7																									Diurnal Average	
2.6 2.6 2.4 1.8 2.2 2.4 2.6 2.9 3.0 2.7 3.1 3.5 9.9 14.4 15.3 2.3 5.1 3.4 2.1 2.3 1.5 2.7 1.5 1.7																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										

Hourly Maximums

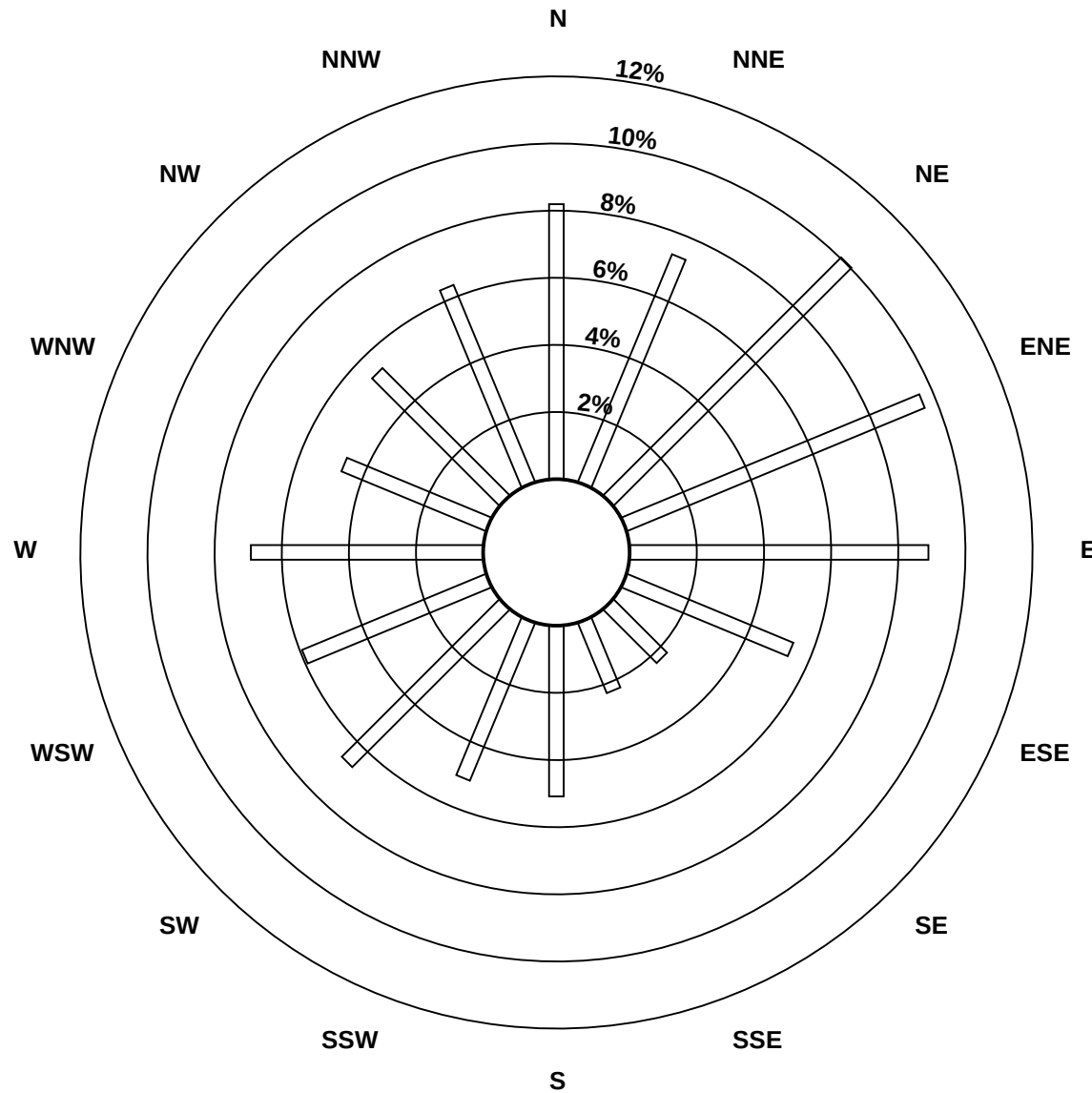
Sulphur Dioxide (SO₂) - ppb
Falher - March 2013



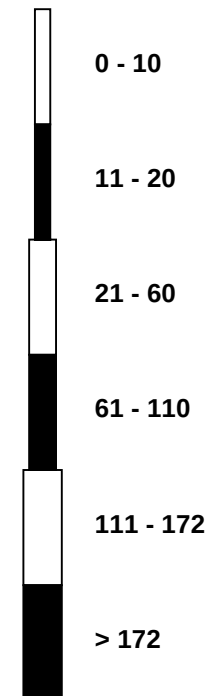
Pollutant Rose

Sulphur Dioxide (SO₂) - ppb

Falher - March 2013



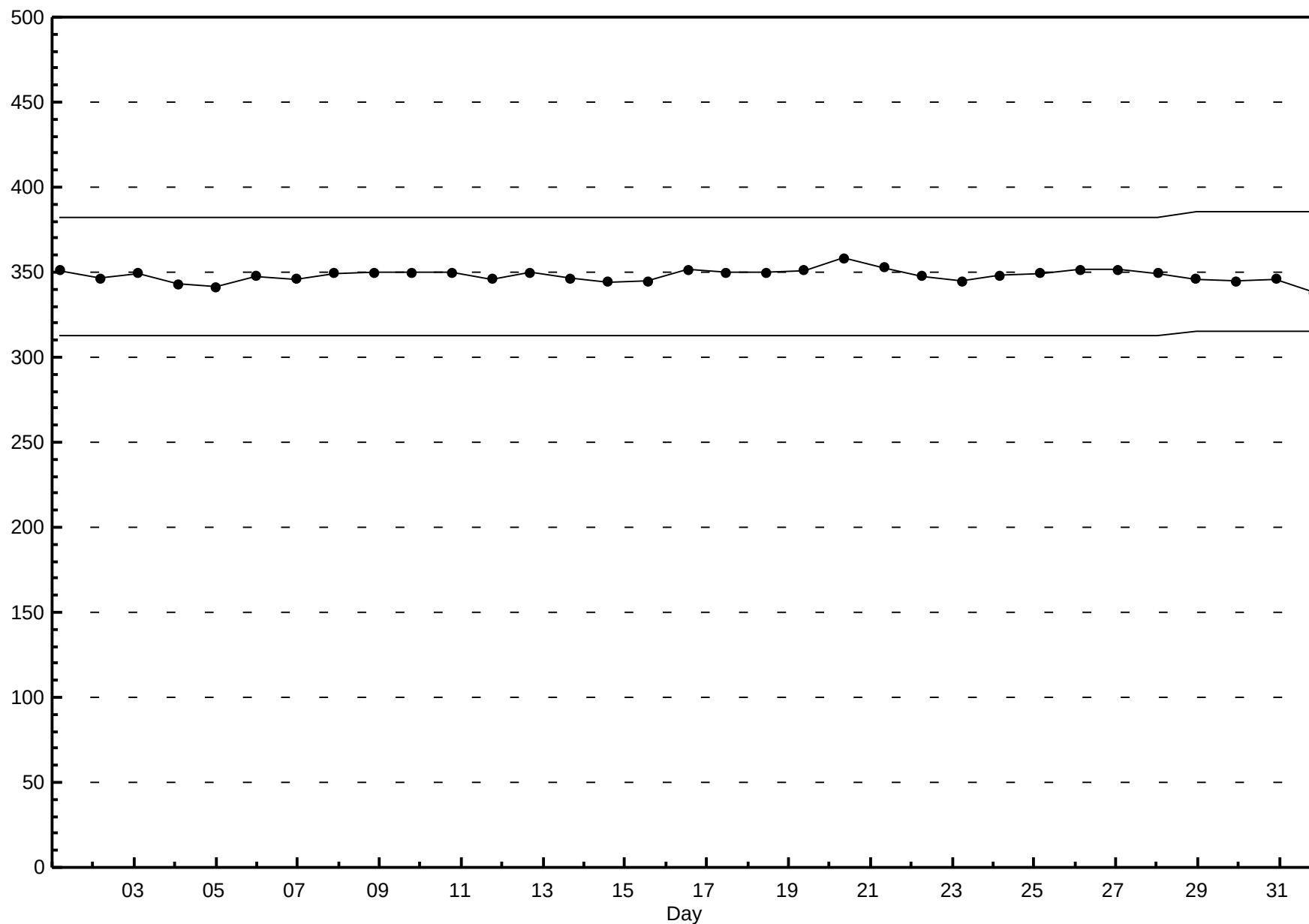
Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)

Falher - March 2013



Hourly Averages

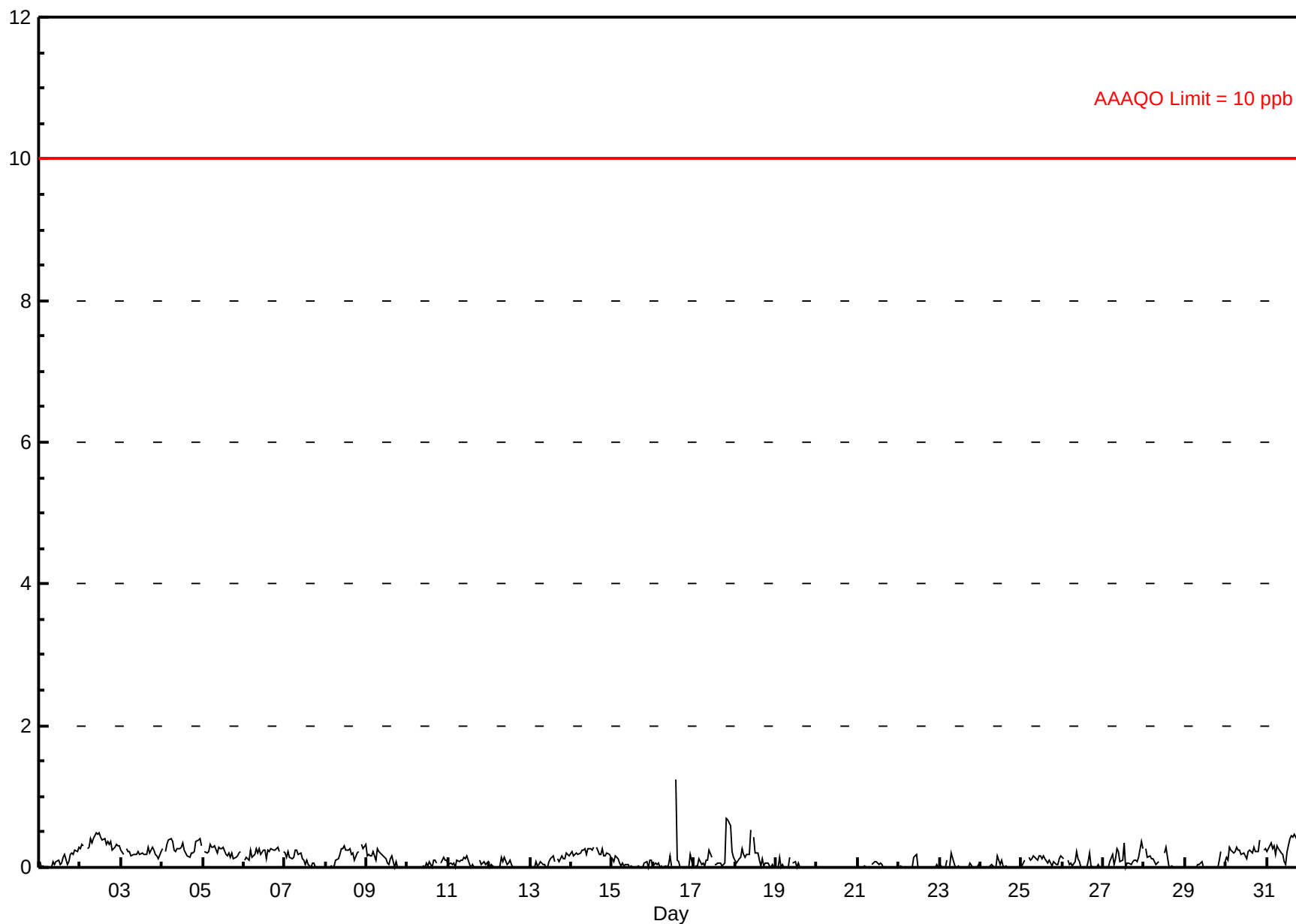
Hydrogen Sulphide (H₂S) - ppb

Falher - March 2013

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0																				Hours in Service: 744							
Maximum Value: 1.2 ppb on Mar 16 14:00																				Maximum Daily Average: 0.4 ppb on Mar 2		Hours of Data: 708					
Minimum Value: 0 ppb on Mar 1 02:00																				Minimum Daily Average: 0.0 ppb on Mar 20		Hours of Missing Data: 36					
Maximum Diurnal Average: 0.2 ppb at hour 14																				Minimum Diurnal Average: 0.1 ppb at hour 1		Hours of Calibration: 36					
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		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-Mar	0	0	0		A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3	
2-Mar	0	0		A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5	
3-Mar	0		A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3	
4-Mar		A		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4	
5-Mar	A		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.2	0.3	
6-Mar		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		A	0	0.2	0.3
7-Mar		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
8-Mar		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
9-Mar		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		A				0	0	0.1	0.3
10-Mar		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		A					0	0	0.0	0.1
11-Mar		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		A						0	0	0.1	0.2
12-Mar		0	0	0	0	0	0	0	0	0	0	0	0	0	0		A							0	0	0.0	0.1
13-Mar		0	0	0	0	0	0	0	0	0	0	0	0	0		A								0	0	0.1	0.2
14-Mar		0	0	0	0	0	0	0	0	0	0	0	0		A									0	0	0.2	0.3
15-Mar		0	0	0	0	0	0	0	0	0	0	0		A										0	0	0.0	0.2
16-Mar		0	0	0	0	0	0	0	0	0	0		A	1	0	0	0	0	0	0	0	0	0	0	0	0.1	1.2
17-Mar		0	0	0	0	0	0	0	0	0		A	0	0	0	0	0	0	0	0	1	1	1	0	0	0.2	0.7
18-Mar		0	0	0	0	0	0	0	0	1		A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
19-Mar		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
20-Mar		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
21-Mar		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
22-Mar		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
23-Mar		0	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
24-Mar		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
25-Mar		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-Mar		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
27-Mar			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
28-Mar		A		0	0	0	0	0	0		C	C	C	0	0	0	0	0	0	0	0	0	0		A	0.1	0.3
29-Mar		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
30-Mar		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		A		0	0	0.2	0.4
31-Mar		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		A		0	0	0	0.3	0.5
0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.2 0.1 0.1 0.1 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1																								Diurnal Average			
0.3 0.3 0.3 0.3 0.4 0.4 0.4 0.3 0.4 0.5 0.5 0.5 0.4 1.2 0.4 0.4 0.5 0.4 0.4 0.7 0.7 0.6 0.4 0.3																								Diurnal Maximum			
C - Calibration A - Automated Daily Zero Span																											
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb																											

Hourly Averages

Hydrogen Sulphide (H₂S) - ppb
Falher - March 2013



Hourly Maximums

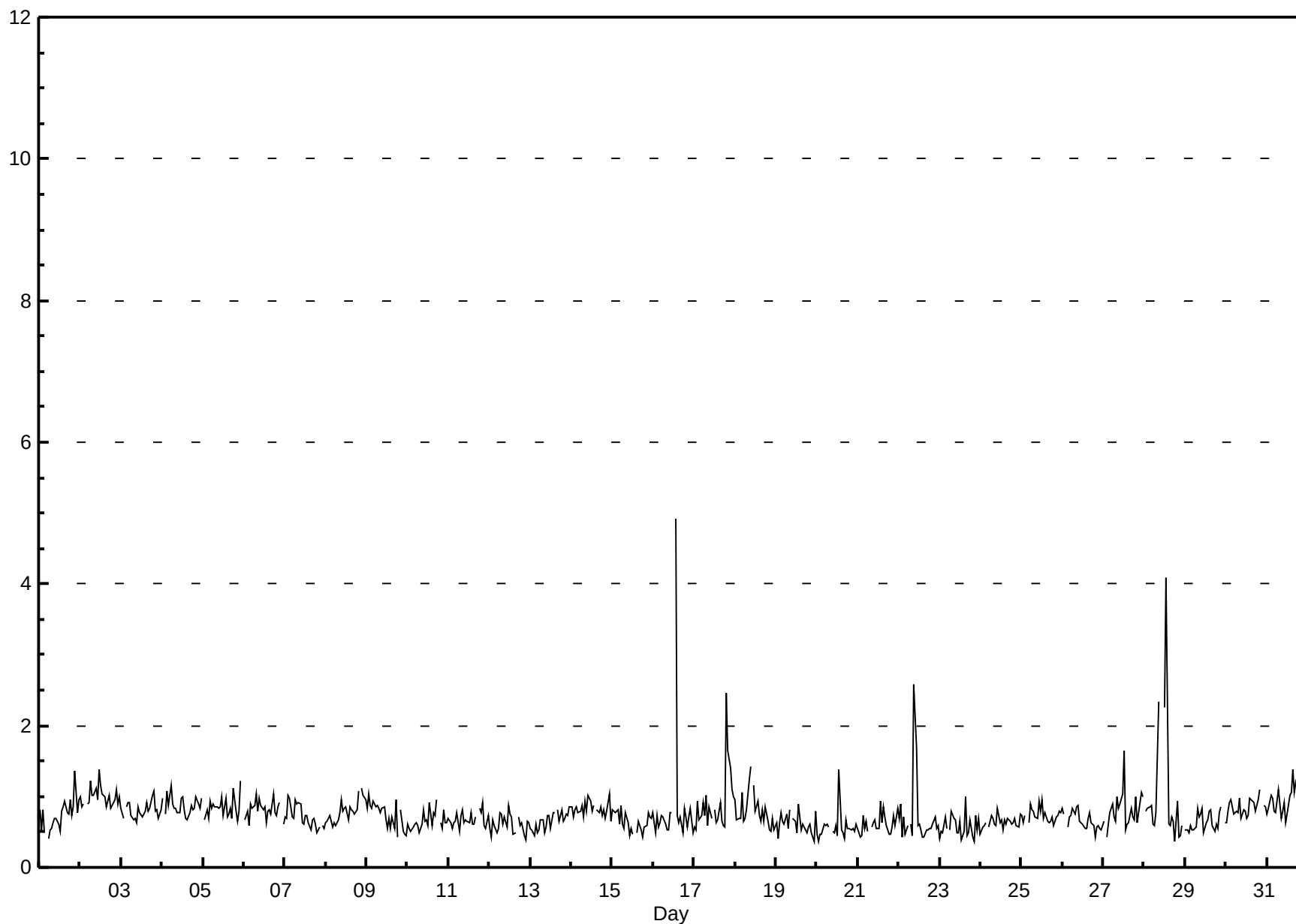
Hydrogen Sulphide (H₂S) - ppb

Falher - March 2013

Maximum Value: 4.9 ppb on Mar 16 14:00																				Maximum Daily Average: 1.0 ppb on Mar 28										Hours in Service: 744	
Minimum Value: 0 ppb on Mar 20 02:00																				Minimum Daily Average: 0.6 ppb on Mar 20										Hours of Data: 708	
Maximum Diurnal Average: 1.0 ppb at hour 14																				Minimum Diurnal Average: 0.6 ppb at hour 2										Hours of Missing Data: 36	
Monthly Average: 0.75 ppb																				Percentiles: P ₁ = 0.4 P ₁₀ = 0.5 Q ₁ = 0.6 Median = 0.7 Q ₃ = 0.8 P ₉₀ = 1.0 P ₉₉ = 1.4										Hours of Calibration: 36	
																				Percent Operational Time: 100.0											
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
1-Mar	1	1	1	0	A	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.4					
2-Mar	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.4					
3-Mar	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1					
4-Mar	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.2					
5-Mar	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.8	1.2					
6-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.8	1.0					
7-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	A	1	1	0.7	1.0					
8-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.8	1.1					
9-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	A	1	1	0	0	0.7	1.0					
10-Mar	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.7	1.0					
11-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0.7	0.9					
12-Mar	1	0	1	1	0	1	1	1	1	1	1	1	1	1	0	0	A	1	1	1	0	0	1	1	0.6	0.9					
13-Mar	1	1	0	1	0	1	1	1	0	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0.7	0.9					
14-Mar	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					
15-Mar	1	1	1	1	1	1	1	1	1	1	0	1	0	A	0	1	1	1	0	1	1	1	1	1	0.6	0.9					
16-Mar	1	0	1	1	1	1	1	1	1	1	1	1	A	5	1	1	1	0	1	1	1	1	1	0	0.8	4.9					
17-Mar	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	2	2	1	1	1	0.9	2.5					
18-Mar	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	1.4					
19-Mar	1	0	1	1	1	1	1	1	1	A	1	1	0	1	1	1	1	1	0	1	1	0	0	1	0.6	0.9					
20-Mar	0	0	0	0	1	1	1	1	A	1	0	1	0	1	1	0	0	1	1	1	1	1	1	1	0.6	1.4					
21-Mar	1	0	0	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	0.6	0.9					
22-Mar	1	1	0	1	0	1	A	1	0	3	2	1	1	1	0	0	1	1	1	1	1	1	1	1	0.7	2.6					
23-Mar	0	1	0	1	1	A	1	1	1	1	0	0	1	0	1	1	0	0	1	0	0	1	1	1	0.6	1.0					
24-Mar	0	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	0.8					
25-Mar	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0					
26-Mar	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0.7	0.9					
27-Mar	1	A	0	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	0.8	1.6					
28-Mar	A	1	1	1	1	1	1	1	2	C	C	C	2	4	1	1	1	1	0	1	0	0	1	A	1.0	4.1					
29-Mar	1	1	0	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	A	1	0.6	0.9					
30-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.8	1.1					
31-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.9	1.4					
0.7 0.6 0.7 0.7 0.7 0.7 0.7 0.8 0.8 0.8 0.8 0.8 0.8 1.0 0.7 0.7 0.7 0.7 0.7 0.8 0.7 0.8 0.7 0.7																									Diurnal Average						
1.0 1.0 1.0 1.1 1.1 1.2 1.2 1.1 2.3 2.6 1.7 1.4 2.3 4.9 1.1 1.4 1.1 1.2 1.1 2.5 1.6 1.4 1.2 1.0																									Diurnal Maximum						
C - Calibration																									A - Automated Daily Zero Span						

Hourly Maximums

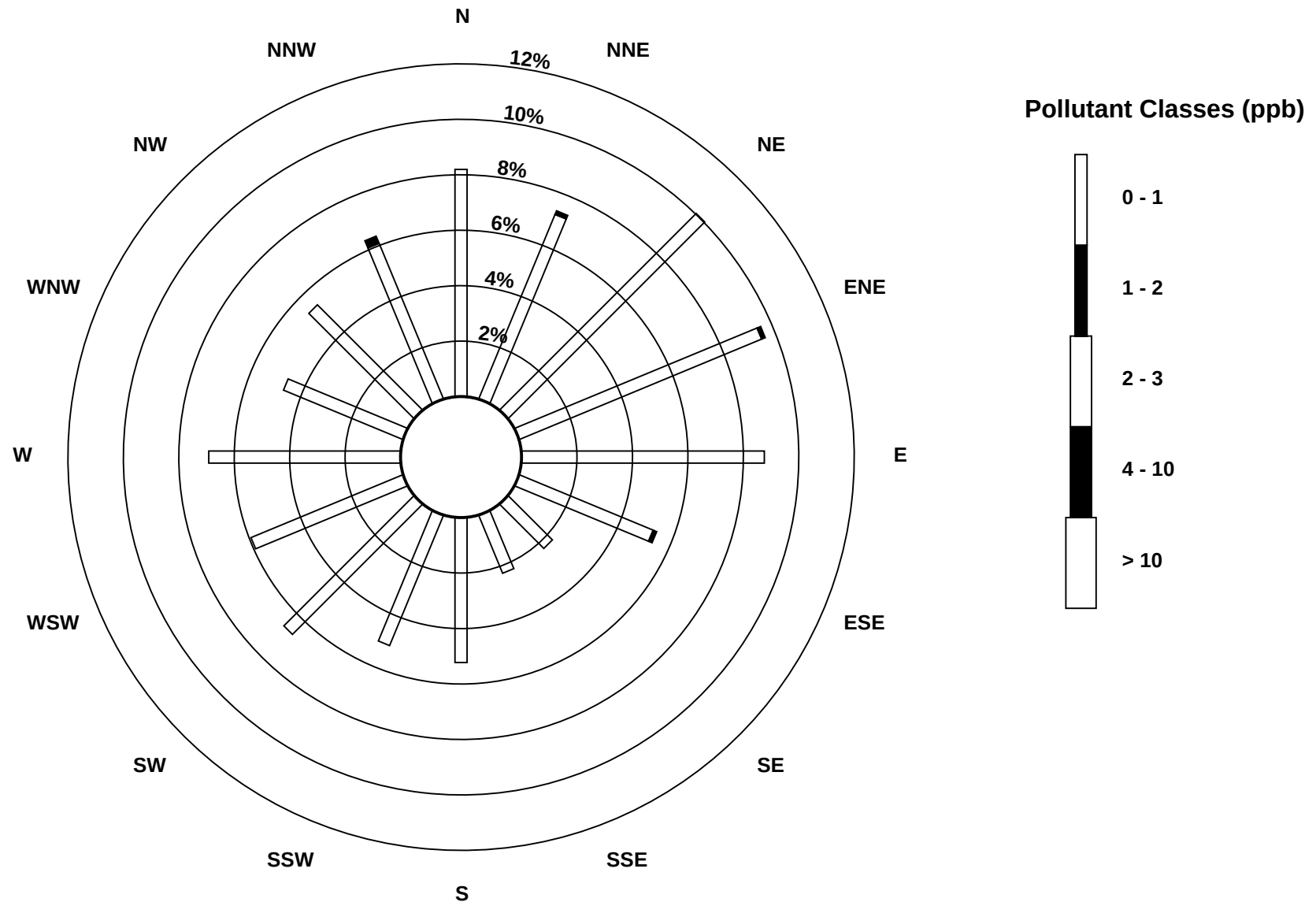
Hydrogen Sulphide (H₂S) - ppb
Falher - March 2013



Pollutant Rose

Hydrogen Sulphide (H₂S) - ppb

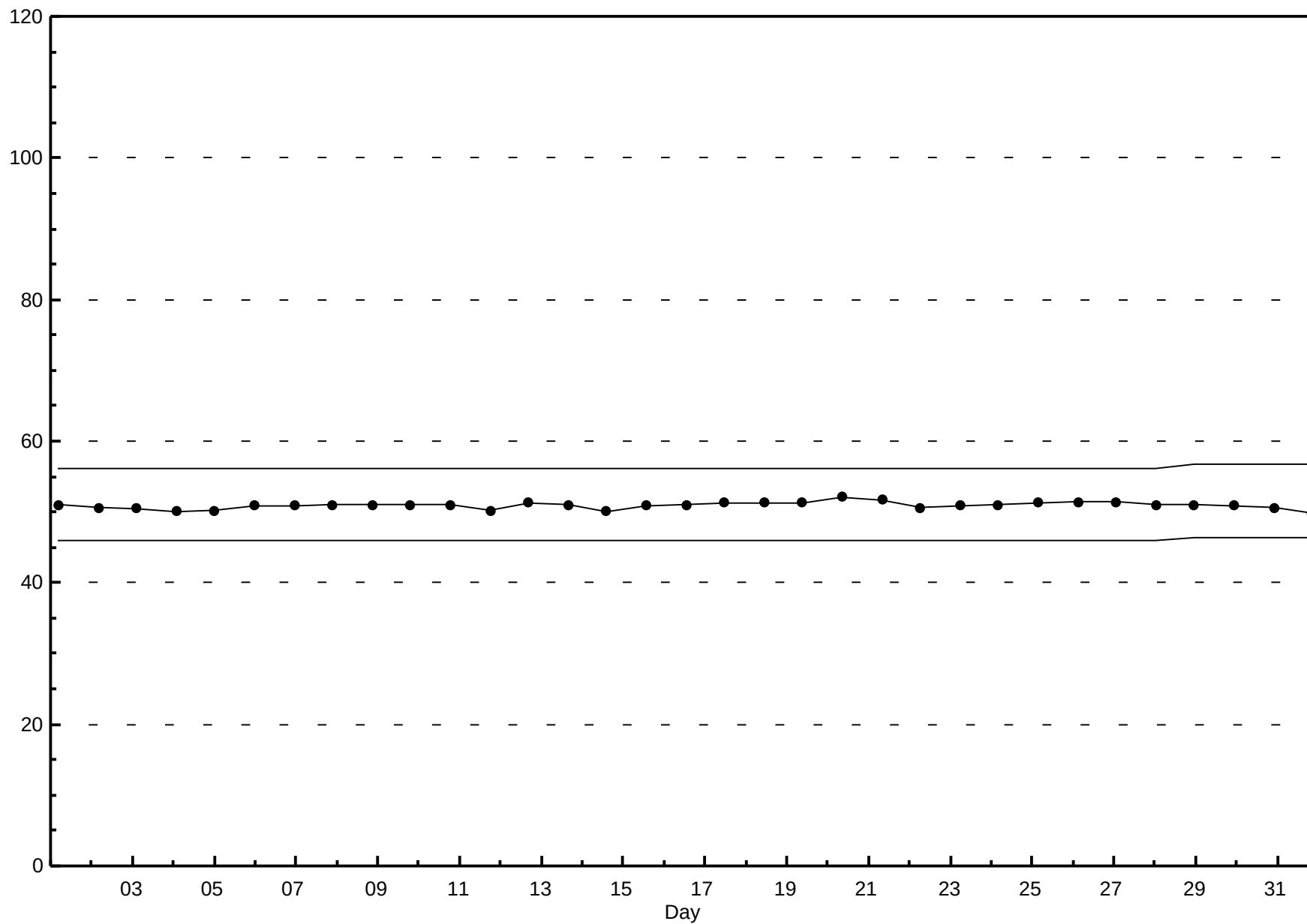
Falher - March 2013



Span Responses

Hydrogen Sulphide (H₂S)

Falher - March 2013



Hourly Averages

External Temperature (ET) - °C

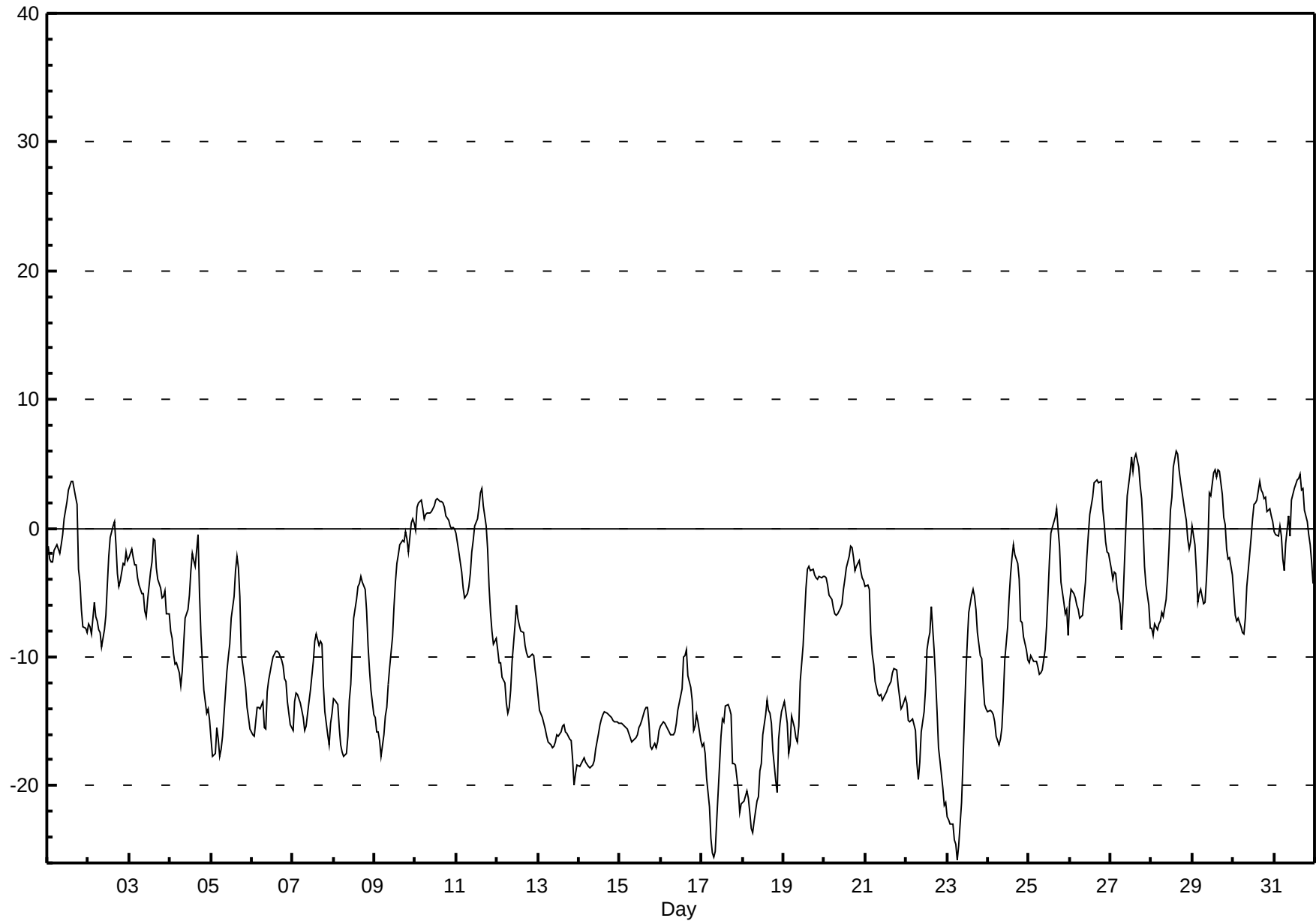
Falher - March 2013

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 6.0 °C on Mar 28 15:00 Maximum Daily Average: 1.2 °C on Mar 10																				Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0						
Minimum Value: -26 °C on Mar 23 07:00 Maximum Diurnal Average: -3.5 °C at hour 16 Monthly Average: -8.46 °C										Minimum Daily Average: -18.9 °C on Mar 17 Minimum Diurnal Average: -12.4 °C at hour 7 Percentiles: P ₁ = -24.1 P ₁₀ = -17.1 Q ₁ = -14.7 Median = -8.2 Q ₃ = -2.6 P ₉₀ = 1.4 P ₉₉ = 4.7																
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Mar	-1	-2	-3	-3	-2	-1	-2	-2	-1	-1	1	2	3	3	4	4	2	2	-3	-4	-6	-8	-8	-8	-1.4	3.7
2-Mar	-7	-8	-8	-6	-7	-7	-8	-8	-9	-8	-7	-4	-2	-1	0	0	-1	-3	-4	-4	-3	-3	-2	-2	-4.7	0.5
3-Mar	-2	-2	-2	-3	-3	-4	-4	-5	-5	-6	-7	-6	-3	-3	-1	-1	-3	-4	-5	-5	-5	-5	-7	-7	-4.1	-0.8
4-Mar	-8	-9	-10	-11	-10	-11	-12	-11	-9	-7	-6	-5	-3	-2	-3	-3	-1	-5	-8	-10	-13	-14	-14	-15	-8.3	-0.5
5-Mar	-16	-18	-17	-15	-16	-18	-17	-16	-13	-11	-10	-9	-7	-5	-3	-2	-3	-5	-10	-11	-12	-14	-15	-16	-11.7	-2.1
6-Mar	-16	-16	-15	-14	-14	-14	-13	-16	-16	-13	-12	-11	-10	-10	-10	-10	-10	-10	-11	-12	-12	-14	-15	-15	-12.7	-9.5
7-Mar	-16	-13	-13	-13	-14	-14	-15	-16	-15	-13	-13	-11	-10	-9	-8	-9	-9	-9	-12	-14	-16	-17	-15	-14	-12.9	-8.2
8-Mar	-13	-13	-14	-15	-17	-17	-18	-18	-16	-13	-12	-9	-7	-6	-4	-4	-4	-4	-5	-6	-9	-11	-13	-14	-11.0	-3.7
9-Mar	-15	-16	-16	-17	-18	-16	-15	-14	-12	-11	-8	-6	-4	-3	-2	-1	-1	-1	0	-1	-2	0	1	0	-7.3	0.8
10-Mar	0	2	2	2	2	1	1	1	1	1	2	2	2	2	2	2	2	2	1	1	0	0	0	0	1.2	2.3
11-Mar	0	-2	-3	-3	-5	-5	-5	-5	-3	-2	-1	0	1	2	3	3	2	0	-2	-5	-7	-8	-9	-9	-2.6	3.0
12-Mar	-9	-10	-10	-12	-12	-14	-14	-14	-13	-10	-8	-6	-7	-8	-8	-8	-9	-10	-10	-10	-10	-10	-11	-12	-10.2	-6.0
13-Mar	-13	-14	-15	-15	-16	-16	-17	-17	-17	-17	-17	-16	-16	-16	-15	-15	-16	-16	-16	-16	-18	-20	-19	-18	-16.3	-13.1
14-Mar	-19	-18	-18	-18	-18	-18	-19	-19	-18	-18	-17	-16	-15	-15	-14	-14	-14	-14	-15	-15	-15	-15	-15	-15	-16.4	-14.3
15-Mar	-15	-15	-15	-15	-16	-16	-16	-17	-17	-16	-16	-15	-15	-15	-14	-14	-14	-15	-17	-17	-17	-17	-17	-16	-15.7	-13.9
16-Mar	-15	-15	-15	-15	-16	-16	-16	-16	-16	-15	-14	-14	-12	-10	-10	-9	-11	-12	-13	-16	-15	-14	-15	-16	-14.1	-9.5
17-Mar	-17	-17	-18	-19	-22	-24	-25	-26	-25	-23	-18	-16	-15	-15	-14	-14	-14	-15	-18	-18	-18	-20	-22	-21	-18.9	-13.7
18-Mar	-21	-21	-20	-21	-22	-23	-24	-23	-21	-21	-19	-18	-16	-14	-13	-14	-14	-15	-17	-20	-21	-16	-15	-14	-18.6	-13.4
19-Mar	-14	-14	-15	-18	-17	-15	-15	-16	-17	-15	-12	-9	-7	-5	-3	-3	-3	-3	-4	-4	-4	-4	-4	-4	-9.3	-3.0
20-Mar	-4	-4	-4	-5	-6	-6	-7	-7	-7	-6	-6	-5	-4	-3	-2	-1	-1	-2	-3	-3	-3	-3	-4	-4	-4.2	-1.3
21-Mar	-4	-4	-5	-8	-10	-11	-12	-13	-13	-13	-13	-13	-13	-12	-12	-12	-11	-11	-11	-12	-13	-14	-14	-13	-11.2	-4.4
22-Mar	-14	-15	-15	-15	-15	-16	-18	-19	-18	-16	-14	-12	-9	-9	-8	-6	-10	-12	-14	-17	-18	-20	-22	-21	-14.7	-6.1
23-Mar	-22	-23	-23	-23	-24	-25	-26	-25	-21	-18	-15	-11	-9	-7	-5	-5	-5	-6	-8	-10	-10	-12	-14	-14	-15.0	-4.7
24-Mar	-14	-14	-14	-14	-15	-16	-17	-16	-15	-13	-10	-8	-5	-4	-2	-1	-2	-3	-4	-7	-7	-8	-9	-10	-9.7	-1.3
25-Mar	-10	-10	-10	-10	-10	-11	-11	-11	-11	-9	-8	-5	-2	0	0	1	2	0	-1	-4	-6	-7	-6	-8	-6.3	1.6
26-Mar	-6	-5	-5	-5	-6	-6	-7	-7	-5	-4	-2	0	1	2	3	4	4	3	4	1	0	-1	-2	-2	-1.7	3.7
27-Mar	-3	-4	-3	-4	-5	-6	-8	-6	-3	0	3	4	6	4	5	6	5	3	2	0	-3	-4	-6	-8	-1.0	5.7
28-Mar	-8	-8	-7	-8	-7	-7	-7	-7	-5	-4	-2	1	2	5	6	6	5	4	3	1	1	-1	-2	-1	-1.7	6.0
29-Mar	0	-1	-3	-6	-5	-5	-6	-6	-4	-1	3	3	4	5	4	5	4	3	1	0	-2	-2	-2	-4	-0.7	4.6
30-Mar	-5	-7	-7	-7	-8	-8	-8	-7	-5	-3	-1	1	2	2	2	4	3	3	2	2	1	2	1	0	-1.7	3.7
31-Mar	0	0	-1	0	-1	-2	-3	-1	1	-1	2	3	3	4	4	4	3	3	1	0	0	-1	-3	-4	0.5	4.2
-10.0 -10.2 -10.4 -10.8 -11.4 -11.9 -12.4 -12.3 -11.3 -10.0 -8.3 -6.8 -5.5 -4.5 -3.8 -3.5 -4.1 -5.0 -6.4 -7.6 -8.4 -9.1 -9.5 -9.9 Diurnal Average 0.2 1.6 2.0 2.2 1.6 0.7 1.1 1.1 1.2 1.2 2.7 4.3 5.5 4.8 6.0 5.8 4.7 3.6 3.6 2.4 1.3 1.5 0.9 0.5 Diurnal Maximum																										

Hourly Averages

External Temperature (ET) - °C

Falher - March 2013



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Falher - March 2013

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	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	13	21	20	21	25	22	23	24	26	23	23	26	28	27	20	13	5	9	12	11	13	15	10	12	11.3	27.6
Dir	110	147	160	176	195	214	216	207	212	222	227	232	233	240	241	244	10	204	60	56	61	89	91	139	200	233
2 Spd	11	11	11	19	10	9	8	8	8	9	13	13	14	10	10	9	9	11	13	16	22	20	23	21	6.5	22.7
Dir	151	142	133	151	149	157	119	97	80	56	87	80	87	111	90	351	349	354	349	341	346	357	41	46	63	41
3 Spd	20	25	23	22	24	21	19	11	16	19	20	18	17	16	14	17	21	16	15	15	16	13	7	6	11.2	24.5
Dir	38	35	28	29	16	358	30	3	314	310	307	312	308	321	312	286	271	271	260	252	249	266	338	297	327	35
4 Spd	9	6	6	10	13	12	7	10	13	9	8	8	8	7	9	9	7	10	8	7	7	9	11	11	7.2	13.5
Dir	269	294	274	325	353	37	7	17	50	45	8	35	41	20	340	341	321	331	317	346	2	353	14	30	360	50
5 Spd	6	5	4	3	4	4	4	4	4	5	5	7	13	13	10	7	10	9	10	12	13	13	13	11	5.3	13.1
Dir	344	282	264	359	355	25	35	47	81	97	94	92	80	86	96	68	65	12	323	337	355	359	20	15	31	80
6 Spd	13	11	13	20	22	24	22	16	11	11	11	13	16	19	20	22	22	26	27	20	20	16	16	14	16.2	26.8
Dir	18	20	283	290	281	280	287	276	311	315	291	281	272	263	283	285	281	286	285	296	332	310	288	282	292	285
7 Spd	10	10	14	17	16	13	12	12	9	10	18	16	15	11	11	13	10	9	6	6	6	11	19	18	8.5	18.7
Dir	261	296	340	352	337	336	317	321	335	32	42	59	73	74	7	317	336	338	261	238	279	6	20	21	354	20
8 Spd	20	19	20	20	18	16	14	11	10	8	11	10	9	9	9	12	11	10	7	3	5	9	9	11	7.1	20.3
Dir	23	19	22	19	23	45	48	40	60	100	124	108	94	94	101	114	172	181	193	113	45	10	349	314	52	19
9 Spd	13	11	13	9	14	16	20	21	23	21	16	14	12	11	12	14	16	15	19	20	23	31	25	21	4.5	31.1
Dir	302	279	295	309	6	10	6	18	35	56	70	90	96	101	105	101	92	112	153	167	176	186	196	207	101	186
10 Spd	22	34	37	38	31	32	36	40	40	45	44	42	41	42	43	45	46	41	38	35	30	31	36	34	36.8	46.2
Dir	209	227	222	216	212	204	207	213	224	227	226	228	228	233	236	237	234	231	229	234	243	249	254	248	228	234
11 Spd	24	15	14	10	3	7	13	13	13	20	22	26	26	24	24	18	19	14	13	9	18	15	17	13	8.4	26.3
Dir	246	306	317	314	290	188	171	159	174	228	231	236	233	234	244	250	238	226	213	122	72	66	78	110	226	233
12 Spd	15	17	17	12	13	15	13	14	16	7	11	16	29	33	33	33	34	30	30	29	29	27	22	25	11.7	34.0
Dir	95	80	114	92	56	37	32	48	100	55	351	327	306	296	295	293	279	271	269	285	290	306	303	283	308	279
13 Spd	27	28	26	27	25	21	20	20	21	20	18	18	18	18	17	16	22	21	19	17	15	12	12	16	18.7	27.8
Dir	278	277	267	261	257	245	237	235	244	255	254	255	264	263	256	240	226	228	221	225	221	213	221	243	248	277
14 Spd	15	12	10	12	16	16	16	17	17	18	19	21	24	23	25	26	25	24	23	25	28	30	28	26	18.1	30.0
Dir	259	269	278	276	273	277	287	314	327	336	5	2	1	357	354	348	338	328	332	337	339	340	347	350	332	340
15 Spd	22	22	18	15	13	14	16	14	16	20	19	20	20	18	15	14	13	12	5	3	5	4	11	13	10.5	21.9
Dir	349	352	338	321	304	268	268	268	244	249	230	223	228	239	240	250	247	261	244	199	259	217	295	310	270	349
16 Spd	17	21	22	24	24	22	25	25	27	26	25	23	18	13	8	7	17	16	15	13	17	21	22	19	11.6	26.5
Dir	328	344	347	348	336	334	341	347	352	4	20	36	48	68	91	304	288	276	255	225	227	245	248	250	331	352
17 Spd	15	13	15	14	14	12	12	9	4	5	7	5	6	9	9	9	10	8	9	9	8	10	11	11	1.7	14.6
Dir	231	216	215	216	227	186	170	143	241	353	8	103	104	88	70	10	355	350	322	345	334	14	310	315	272	231
18 Spd	8	2	5	4	3	4	8	10	6	3	5	10	9	10	10	13	13	14	14	16	17	17	18	21	6.5	20.5
Dir	332	20	133	78	175	192	117	168	167	105	153	66	53	63	50	78	59	40	21	15	355	0	15	14	41	14
19 Spd	24	26	27	23	22	14	9	9	12	15	14	14	14	17	18	19	19	23	29	34	31	31	33	31	18.5	33.8
Dir	10	4	4	2	12	44	49	34	43	60	64	81	89	101	93	84	81	76	65	61	58	64	63	64	54	61
20 Spd	35	35	32	38	41	40	41	37	33	30	32	25	25	24	24	20	23	21	15	15	14	13	14	14	24.7	41.0
Dir	66	67	62	61	55	56	55	51	44	57	54	66	69	78	64	47	54	42	14	351	0	25	354	318	52	55
21 Spd	16	17	14	29	30	27	27	28	28	28	29	29	28	27	25	25	23	21	21	16	15	16	13	8	20.2	30.2
Dir	301	296	264	209	208	204	193	187	189	194	190	187	192	194	195	194	195	191	191	180	165	176	175	192	197	208
22 Spd	12	15	17	16	18	19	17	16	16	17	14	14	14	15	12	9	10	14	17	14	13	12	15	16	6.0	19.2
Dir	186	178	178	185	190	188	178	162	183	196	196	200	210	212	211	241	95	60	41	39	20	15	16	5	176	188

Hourly Averages

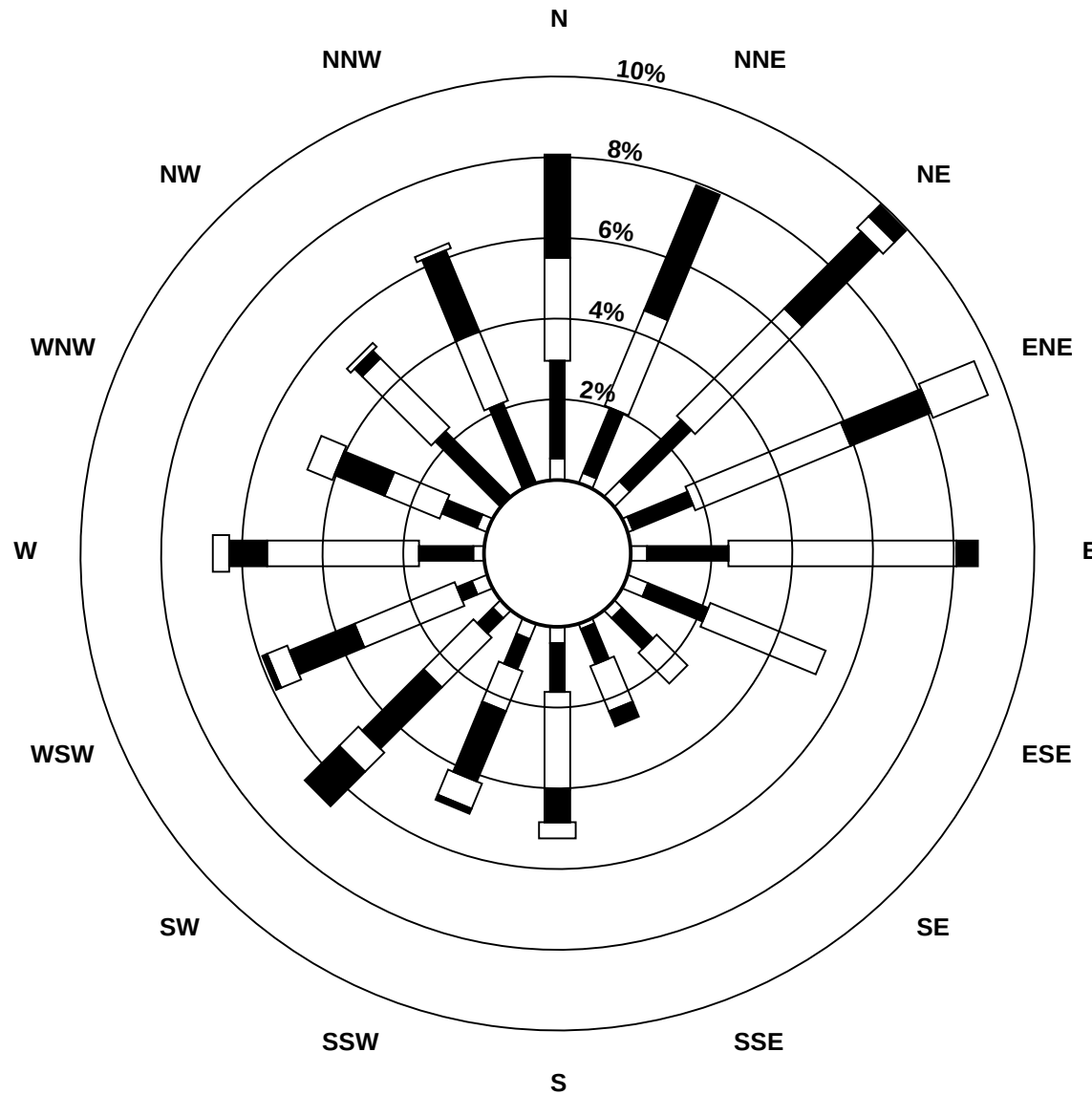
Wind Speed (km/h)
Wind Direction (deg)
Falher - March 2013

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	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	14	12	12	13	12	11	11	13	16	16	15	13	14	14	17	15	15	17	19	21	22	21	22	24	12.3	24.2
Dir	7	6	358	348	335	335	339	351	14	35	60	74	78	88	90	95	103	97	80	45	33	28	24	21	39	21
24 Spd	24	23	22	22	23	24	24	22	20	17	15	14	15	14	14	14	16	15	14	17	20	21	21	19	16.1	24.3
Dir	16	15	15	11	11	9	5	14	36	64	83	83	90	87	91	88	88	92	73	67	53	50	42	43	45	9
25 Spd	20	22	23	23	25	26	26	26	25	23	20	17	11	9	12	14	12	16	9	18	18	19	18	18	16.6	25.9
Dir	40	36	30	28	28	26	28	36	51	67	78	87	119	129	101	92	103	90	106	75	65	56	59	64	58	26
26 Spd	24	24	25	26	25	23	18	15	17	17	16	18	16	14	12	13	13	14	14	18	17	16	10	12	15.1	26.3
Dir	58	64	63	60	60	64	68	71	78	81	110	125	125	110	109	112	117	108	113	131	119	121	134	174	92	60
27 Spd	12	14	18	16	9	11	12	12	10	11	16	17	14	14	12	10	2	6	8	6	5	7	10	12	4.0	18.1
Dir	167	155	163	181	175	135	142	177	204	228	251	255	275	311	301	302	35	149	42	179	187	67	72	35	196	163
28 Spd	13	16	16	20	18	19	23	19	16	16	14	12	11	10	20	17	8	13	11	8	9	9	14	16	5.7	23.4
Dir	28	64	50	61	49	46	54	73	80	100	133	144	173	235	254	258	330	348	351	218	260	321	8	17	46	54
29 Spd	20	14	6	15	18	18	14	13	12	8	1	3	8	9	14	14	10	1	14	10	11	9	7	3	3.6	19.8
Dir	29	76	63	347	38	48	83	108	107	104	183	138	268	268	262	260	315	228	155	181	49	21	57	104	54	29
30 Spd	2	8	10	13	12	15	14	17	21	21	21	20	24	21	16	10	13	13	7	1	11	10	8	10	10.3	24.5
Dir	248	318	53	45	41	53	46	50	69	85	77	88	91	100	106	115	117	139	118	209	34	82	126	311	78	91
31 Spd	13	14	17	19	16	10	7	10	6	9	6	8	8	8	9	9	12	12	12	13	11	11	9	10	0.9	19.1
Dir	273	259	265	268	260	211	259	333	292	186	216	201	182	163	137	72	106	79	85	58	31	26	41	55	249	268
Spd	5.3	4.9	3.9	4.1	4.6	3.2	2.9	2.8	2.6	1.8	1.5	2.3	1.9	1.9	1.6	2.9	1.5	1.1	1.2	1.7	4.7	5.5	6.2	5.7	Diurnal Average	
Dir	356	4	356	349	351	12	27	37	49	69	103	136	165	196	240	280	278	286	297	351	2	8	10	354	Diurnal Maximum	
Spd	34.7	34.8	36.7	38.2	40.9	40.4	41.0	40.0	40.2	45.0	44.3	42.2	40.9	42.1	43.3	45.5	46.2	40.5	38.2	35.0	30.8	31.1	36.0	34.1	Diurnal Maximum	
Dir	66	67	222	216	55	56	55	213	224	227	226	228	228	233	236	237	234	231	229	234	58	186	254	248		
Maximum Speed Value: 46 km/h on Mar 10 17:00								Minimum Speed Value: 1 km/h on Mar 30 20:00												Hours in Service:				744		
Maximum Daily Speed Average: 36.8 km/h on Mar 10								Minimum Daily Speed Average: 0.9 km/h on Mar 5												Hours of Data:				744		
Maximum Diurnal Speed Average: 6.2 km/h at hour 23								Minimum Diurnal Speed Average: 1.1 km/h at hour 18												Hours of Missing Data:				0		
Monthly Average Velocity: 2.16 km/h 2.2 deg								Speed Percentiles: P ₁ = 2.9 P ₁₀ = 7.7 Q ₁ = 10.8 Median = 15.0 Q ₃ = 20.8 P ₉₀ = 26.2 P ₉₉ = 42.0												Percent Operational Time:				100.0		
All monthly, daily, and diurnal averages have been calculated using vector methods																										
Frequency Distribution																										
Speed Range (km/h)																										
Direction	0 to 5	5 to 11	11 to 19	19 to 28	28 to 38			> 38																		Total
North	3	31	43	42	2			0																		121
NorthEast	4	26	50	44	14			3																		141
East	7	24	71	13	0			0																		115
SouthEast	4	19	18	2	0			0																		43
South	4	15	26	15	6			0																		66
SouthWest	4	9	25	31	9			13																		91
West	4	13	44	23	8			0																		92
NorthWest	0	26	34	11	4			0																		75
Total	30	163	311	181	43			16																		744

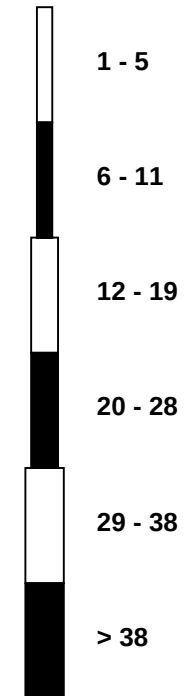
Wind Rose

Wind Speed (WS) (km/h)

Falher - March 2013



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Falher - March 2013

Maximum Speed: 46 km/h on Mar 10 17:00																				Maximum Daily Speed Average: 37.8 km/h on Mar 10					Hours in Service: 744	
Minimum Speed: 4 km/h on Mar 5 06:00																				Minimum Daily Speed Average: 8.2 km/h on Mar 5					Hours of Data: 744	
Maximum Diurnal Speed Average: 18.6 km/h at hour 4																				Minimum Diurnal Speed Average: 15.7 km/h at hour 20					Hours of Missing Data: 0	
Monthly Average Speed: 16.81 km/h																				Percentiles: P ₁ = 4.7 P ₁₀ = 8.9 Q ₁ = 11.3 Median = 15.2 Q ₃ = 20.9 P ₉₀ = 26.2 P ₉₉ = 42.1					Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Mar	14	21	20	21	26	22	23	24	26	23	24	26	28	27	21	14	9	10	13	11	13	16	11	13	19.0	27.6
2-Mar	11	11	11	19	11	9	9	9	10	9	13	13	14	10	10	9	9	11	13	16	22	20	23	21	13.1	22.8
3-Mar	20	25	23	22	24	21	19	12	17	19	20	18	17	16	15	17	22	17	15	15	16	14	9	7	17.5	24.6
4-Mar	10	6	7	10	13	12	10	10	14	10	9	9	8	8	10	10	8	10	9	8	9	10	11	11	9.7	13.6
5-Mar	7	6	5	4	4	4	4	4	4	5	5	7	13	13	10	8	10	10	11	12	14	13	13	12	8.2	13.7
6-Mar	14	12	16	20	22	24	22	16	12	11	11	13	16	19	20	22	22	26	27	21	20	17	16	14	18.0	26.9
7-Mar	10	11	15	17	16	13	12	12	10	10	18	16	15	11	11	14	10	10	8	7	8	11	19	19	12.6	18.7
8-Mar	20	19	20	20	18	16	15	11	10	10	11	10	9	9	9	12	13	11	8	9	8	9	10	11	12.4	20.3
9-Mar	13	11	13	10	15	16	20	21	23	21	16	14	12	11	12	15	16	15	20	20	24	31	25	21	17.3	31.2
10-Mar	23	34	37	38	31	32	36	40	40	45	44	42	41	42	43	46	46	41	38	35	30	31	36	34	37.8	46.2
11-Mar	24	17	14	10	7	8	13	13	13	20	22	26	26	24	24	19	19	15	13	12	18	15	17	15	16.9	26.3
12-Mar	15	17	17	13	13	15	13	14	16	12	11	16	29	33	33	33	34	31	30	29	29	28	23	25	22.0	34.1
13-Mar	27	28	26	27	25	21	20	20	21	20	18	18	18	18	17	16	22	21	19	17	15	12	12	16	19.8	27.9
14-Mar	15	12	10	12	16	17	16	17	17	18	19	21	25	23	25	26	26	24	23	25	28	30	28	26	20.8	30.1
15-Mar	22	22	18	15	14	14	16	15	16	20	20	20	20	18	15	14	13	12	7	5	5	6	11	13	14.7	22.0
16-Mar	17	21	23	24	24	22	25	25	27	26	26	23	18	13	9	9	17	16	15	13	17	21	22	20	19.6	26.6
17-Mar	15	14	15	14	14	13	12	9	6	7	7	7	7	9	9	10	10	8	9	10	8	10	11	11	10.2	15.1
18-Mar	8	6	5	6	6	7	9	10	7	6	6	10	9	11	11	13	14	14	17	17	18	18	21	21	10.9	20.6
19-Mar	24	26	27	23	22	15	9	9	12	15	14	14	14	17	18	19	19	23	29	34	31	31	33	31	21.2	33.9
20-Mar	35	35	32	38	41	40	41	37	33	30	32	26	26	25	24	20	23	21	16	15	16	13	14	14	26.9	41.1
21-Mar	16	17	17	29	30	27	27	28	28	28	29	29	28	27	25	25	23	21	21	17	15	16	13	8	22.7	30.3
22-Mar	12	15	17	16	18	19	18	16	16	17	14	14	14	15	12	9	10	14	17	15	13	12	15	16	14.8	19.2
23-Mar	14	12	12	13	12	11	11	13	17	16	15	13	14	14	18	15	15	17	19	21	22	21	22	24	15.9	24.3
24-Mar	24	23	22	22	23	24	24	22	20	18	16	14	15	14	14	14	16	15	15	17	20	21	21	19	18.9	24.3
25-Mar	20	22	23	23	25	26	26	26	25	23	20	17	13	9	13	14	12	17	9	18	18	19	18	19	18.9	25.9
26-Mar	24	24	25	26	25	23	19	15	17	17	16	18	16	14	12	13	13	14	14	18	18	16	11	12	17.6	26.4
27-Mar	12	15	18	16	9	11	12	12	10	12	16	17	14	14	12	11	7	6	9	10	6	8	11	12	11.7	18.4
28-Mar	13	18	16	21	18	19	23	19	16	16	15	13	11	12	20	17	13	13	11	10	10	10	14	16	15.2	23.4
29-Mar	20	15	7	15	18	18	14	13	12	8	5	6	8	9	15	14	11	9	14	11	11	9	7	6	11.5	19.9
30-Mar	6	9	10	13	12	15	14	17	21	21	21	20	24	21	16	10	13	13	8	6	11	11	8	10	13.9	24.5
31-Mar	13	14	17	19	17	11	10	10	8	10	7	8	9	8	10	9	12	13	13	13	11	11	10	11	11.4	19.2
16.8 17.3 17.4 18.6 18.3 17.7 17.4 16.8 17.0 16.9 16.8 16.7 17.2 16.7 16.5 16.0 16.4 16.0 15.7 15.7 16.2 16.5 16.5 16.3																								Diurnal Average		
34.7 34.8 36.7 38.2 40.9 40.5 41.1 40.1 40.5 45.0 44.4 42.2 41.0 42.2 43.4 45.5 46.2 40.6 38.2 35.1 30.8 31.3 36.2 34.2																								Diurnal Maximum		
All monthly, daily, and diurnal averages have been calculated using scalar methods																										

Hourly Standard Deviations

Wind Direction (WD) - deg

Falher - March 2013

Maximum Value: 94.0 deg on Mar 30 20:00																		Hours in Service: 744							
Minimum Value: 1.1 deg on Mar 8 03:00																		Hours of Data: 744							
Percentiles: P ₁ = 1.4 P ₁₀ = 2.6 Q ₁ = 4.1 Median = 7.2 Q ₃ = 13.5 P ₉₀ = 26.9 P ₉₉ = 75.5																		Hours of Missing Data: 0							
																		Hours of Calibration: 0							
																		Percent Operational Time: 100.0							
Day	Hourly Period Ending At (MST)																								Daily Maximum
1-Mar	23	3	7	8	9	4	4	3	5	2	6	2	3	3	6	14	55	30	27	13	17	19	26	17	55.2
2-Mar	33	11	12	2	17	11	22	35	36	25	7	9	11	11	17	8	11	4	5	3	3	11	7	4	35.9
3-Mar	3	3	4	7	2	13	14	24	16	3	3	4	5	5	9	9	7	9	5	4	6	12	35	47	46.8
4-Mar	28	34	21	16	9	8	44	15	9	30	32	30	28	25	22	8	29	4	22	17	37	23	13	10	44.0
5-Mar	43	24	52	45	17	4	3	9	10	8	10	4	7	3	8	26	10	16	14	7	19	10	14	9	51.6
6-Mar	9	15	43	7	3	3	4	7	15	15	5	10	15	6	5	4	4	3	2	16	4	8	4	7	42.6
7-Mar	12	20	18	4	4	9	15	7	19	15	5	4	5	18	12	8	14	16	37	19	46	10	3	3	46.2
8-Mar	2	2	1	2	7	6	13	12	13	31	12	10	7	4	8	6	31	28	31	77	52	23	17	9	76.6
9-Mar	8	14	4	15	9	12	7	7	6	5	6	12	11	8	9	6	4	8	18	8	7	5	2	8	18.0
10-Mar	19	2	2	3	5	2	3	3	6	2	3	3	3	3	3	2	2	3	2	3	5	10	6	3	18.6
11-Mar	4	24	5	4	69	35	4	5	21	7	3	5	1	3	3	6	2	11	9	37	8	6	5	27	69.2
12-Mar	10	6	10	8	14	13	7	8	12	51	13	15	8	4	4	4	4	5	4	7	2	13	12	5	50.8
13-Mar	3	3	5	5	4	4	4	3	4	4	4	6	5	5	5	12	3	4	5	5	7	9	8	10	12.0
14-Mar	3	8	4	13	7	6	5	7	5	7	8	7	7	3	3	5	6	4	4	2	3	3	3	3	12.9
15-Mar	6	5	5	5	14	4	3	8	5	6	12	6	7	5	8	6	4	6	50	55	25	49	15	5	54.6
16-Mar	9	3	2	4	5	2	4	2	4	5	9	4	5	7	33	42	5	5	9	6	7	3	2	5	42.4
17-Mar	14	9	6	7	5	26	9	11	47	60	21	45	23	11	8	26	11	12	13	9	12	22	22	4	59.8
18-Mar	17	87	33	53	60	62	34	18	43	54	31	7	10	12	27	5	7	6	9	9	6	10	7	5	86.8
19-Mar	3	7	4	5	8	13	7	17	12	9	5	11	6	4	5	2	5	5	2	2	2	3	2	2	17.5
20-Mar	1	1	2	2	2	2	2	5	7	5	4	9	11	7	8	4	5	6	22	7	23	14	11	11	23.1
21-Mar	4	5	34	5	3	4	4	2	2	3	3	2	4	3	3	2	4	4	3	8	2	3	11	15	34.0
22-Mar	8	4	3	4	3	3	9	9	5	3	3	4	6	5	10	8	25	8	7	12	15	4	7	5	25.1
23-Mar	6	8	9	5	4	4	4	11	6	6	8	4	3	7	5	4	2	4	9	5	1	3	3	1	11.1
24-Mar	3	1	1	2	1	2	2	6	7	8	6	3	4	2	2	2	1	3	8	4	3	3	6	2	8.0
25-Mar	4	3	2	2	1	2	2	5	4	4	8	4	31	20	11	5	8	4	13	6	3	6	11	14	31.4
26-Mar	6	3	4	3	4	2	6	5	4	6	9	3	5	9	3	4	8	13	15	5	18	8	22	8	22.1
27-Mar	7	21	12	8	21	12	8	9	9	17	3	2	13	12	12	26	78	29	24	57	35	24	27	22	77.7
28-Mar	12	28	15	10	10	6	4	6	9	7	8	4	9	25	2	8	57	9	14	37	27	26	13	5	56.8
29-Mar	6	22	34	15	5	10	11	10	11	20	89	69	10	14	10	10	30	81	11	42	14	15	17	59	88.6
30-Mar	80	40	13	4	7	6	5	5	6	2	2	2	2	7	6	15	6	15	21	94	17	29	27	15	94.0
31-Mar	12	12	7	7	7	18	47	9	34	12	29	18	21	10	22	15	11	15	20	12	8	8	18	20	47.1
79.6 86.8 51.6 53.4 69.2 62.3 47.1 35.3 47.4 59.8 88.6 69.0 31.4 25.2 32.5 42.4 77.7 80.6 49.9 94.0 52.2 49.2 34.7 59.0																									

PAZA

Monthly Passive Data Summary

PAZA Passive Results for March 2013

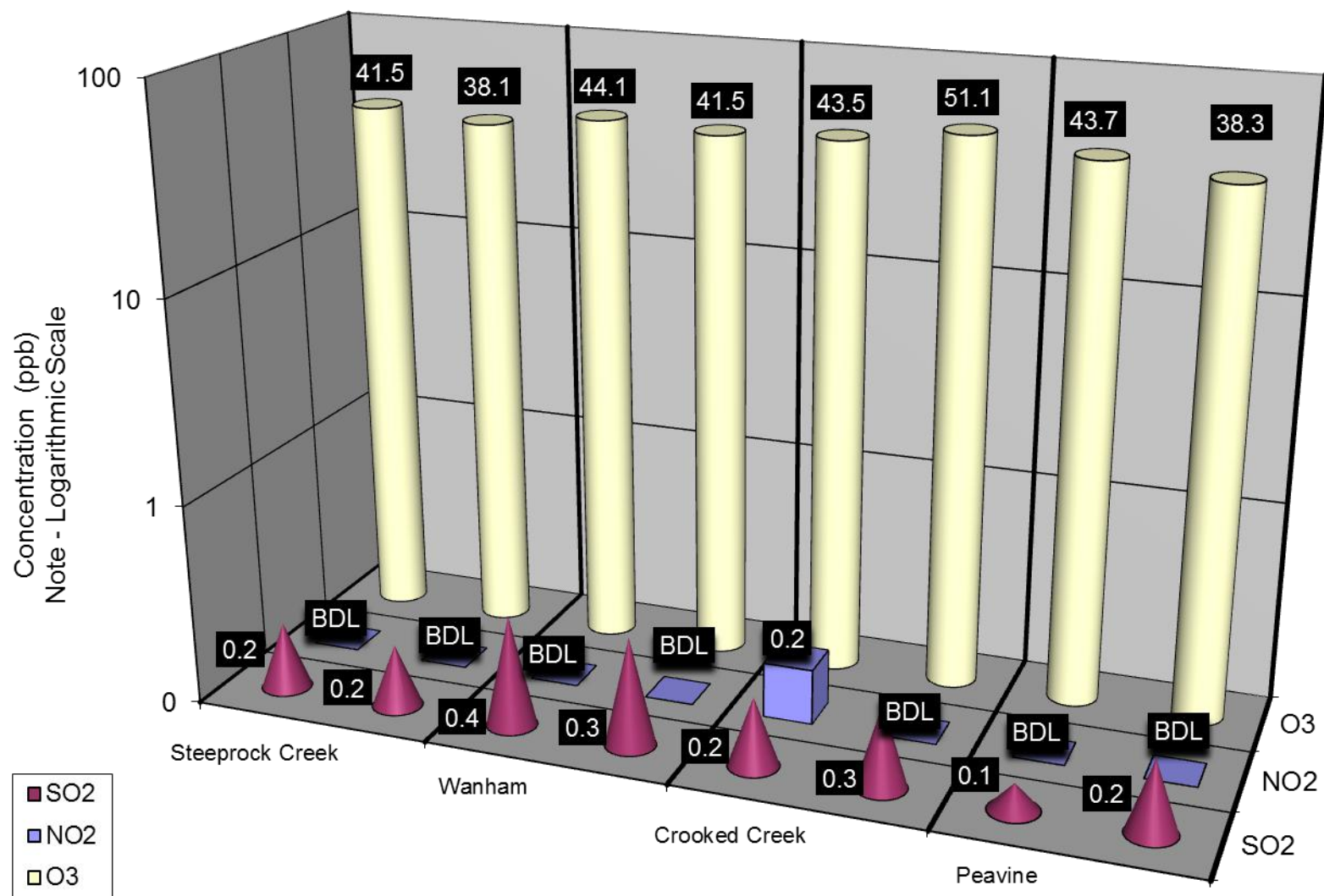
Station Number	Station Name	SO2 ppb	O3 ppb	NO2 ppb	H2S ppb	Site Legal
Duplicates						
7a	Steepprock Creek	0.2	41.5	BDL		
7b	Steepprock Creek	0.2	38.1	BDL		
19a	Wanham	0.4	44.1	BDL		
19b	Wanham	0.3	41.5	BDL		
37a	Crooked Creek	0.2	43.5	0.2		
37b	Crooked Creek	0.3	51.1	BDL		
44a	Peavine	0.1	43.7	BDL		
44b	Peavine	0.2	38.3	BDL		
63a	Girouxville 3				0.2	
63b	Girouxville 3				0.4	
1	Silver Valley	0.4	41.4	BDL		08-27-081-11 W6M
2	Bay Tree	0.4	37.4	BDL		13-16-078-13 W6M
3	Fourth Creek	0.3	46.3	BDL		04-13-082-07 W6M
4	Gordondale	0.4	48.8	0.1		04-34-078-10 W6M
5	Boone Creek	0.3	39.0	BDL		16-36-074-11 W6M
7	Steepprock Creek	0.2	39.8	BDL		09-35-072-13 W6M
9	Spirit River	0.2	40.0	0.5		08-12-079-07 W6M
10	Woking	0.3	51.5	0.1		01-13-076-07 W6M
11	Webber Creek	0.4	43.2	0.2		09-36-074-09 W6M
12	Hythe	0.3	44.1	0.2		14-36-072-11 W6M
14	Sylvester	BDL	35.9	BDL		08-06-069-12 W6M
16	Beaverlodge	0.4	43.4	0.9		15-36-071-10 W6M
17	Poplar	0.6	42.1	0.4		13-06-073-08 W6M
18	Saddle Hills	0.4	42.4	0.1		04-25-074-07 W6M
19	Wanham	0.4	42.8	BDL		16-22-077-03 W6M
20	Shaftesbury	0.5	43.5	2.1		04-03-082-23 W5M
21	Eaglesham	0.4	45.4	BDL		16-21-079-25 W5M
23	Bear Lake	0.5	47.1	0.3		15-31-072-06 W6M
24	Wembley	0.4	44.4	BDL		12-31-070-08 W6M
25	Pinto Creek	0.2	45.3	0.1		04-24-069-11 W6M
26	Flyingshot	0.2	39.8	0.6		15-36-070-07 W6M
27	Grande Prairie I	0.4	38.8	4.1		08-15-071-06 W6M

PAZA Passive Results for March 2013 (Continued)

28	Clairmont Lake	0.4	47.4	0.2	09-06-073-04 W6M
29	Smoky Heights	0.5	49.1	0.3	04-06-075-02 W6M
30	Fitzsimmons	0.2	40.8	0.3	15-36-072-03 W6M
32	Gold Creek	0.2	36.2	0.5	06-33-067-05 W6M
33	Wapiti	0.2	43.5	0.4	02-25-071-03 W6M
34	Puskwaskau	0.2	43.8	BDL	15-35-074-25 W5M
35	Jean Cote	0.4	45.2	BDL	12-35-079-21 W5M
36	Guy	0.4	42.5	BDL	03-04-076-22 W5M
37	Crooked Creek	0.2	47.3	0.2	16-01-071-26 W5M
38	Karr Creek	BDL	40.3	BDL	10-16-065-02 W6M
39	Clouston Creek	0.4	41.4	BDL	12-01-073-22 W5M
40	McLennan	0.3	44.6	BDL	03-29-077-19 W5M
41	Valleyview	0.5	47.8	0.2	09-30-069-22 W5M
42	Sunset House	0.4	42.6	BDL	05-32-070-19 W5M
43	High Prairie	0.3	49.0	0.1	16-13-074-17 W5M
44	Peavine	0.2	41.0	BDL	03-05-079-15 W5M
45	Gift Lake	0.1	38.4	BDL	0.1 10-07-079-12 W5M
46	Little Smoky	0.4	38.0	1.1	12-01-065-21 W5M
47	Kinuso	0.2	37.6	BDL	12-10-073-10 W5M
48	Deer Mountain	0.3	40.7	BDL	15-22-068-09 W5M
49	Grande Prairie HP	0.4	41.3	4.1	17-26-071-06 W6M
62	East Prairie	0.2	39.2	BDL	13-02-072-15 W5M
63	Girouxville 3			0.2	14-02-077-23 W5M
64	Girouxville 4			0.1	4-08-077-22 W5M

*BDL = Below Detection Level

*N/S - No sample



Duplicate Summary Chart

Passive Summary for March 2013

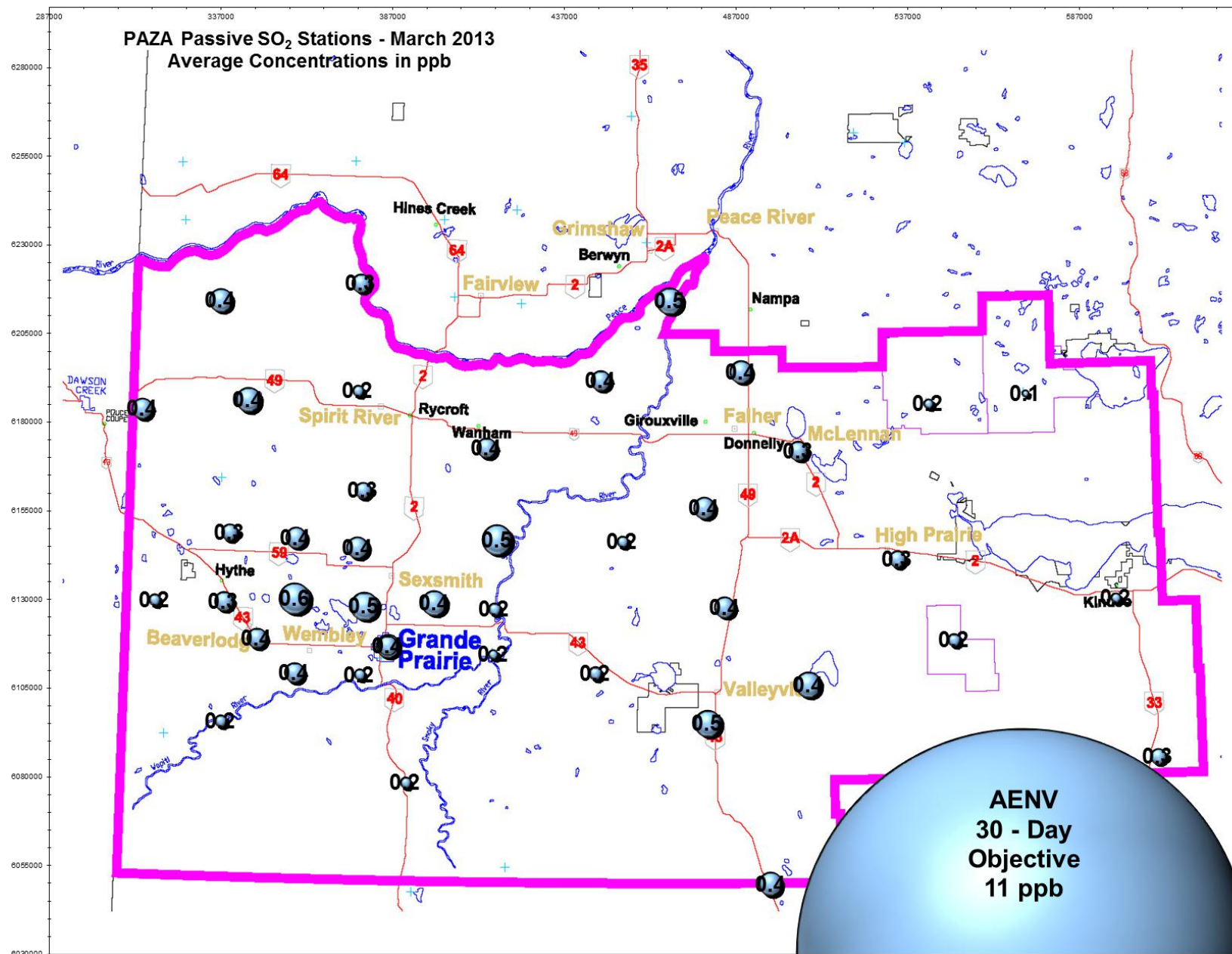
Stats	Sulphur Dioxide SO ₂	Ozone O ₃	Nitrogen Dioxide NO ₂	Hydrogen Sulphide H ₂ S
	ppb	ppb	ppb	ppb
Passive Summary for March 2013 (PAZA Zone)				
Mean	0.3	42.7	0.7	0.1
Standard Deviation	0.1	3.7	1.1	0.1
Minimum	0.1	35.9	0.1	0.1
Minimum At	Gift Lake (#45)	Sylvester (#14)	Pinto Creek (#25)	Gift Lake (#45)
Maximum	0.6	51.5	4.1	0.2
Maximum At	Poplar (#17)	Woking (#10)	Grande Prairie I (#27)	Girouxville 3 (#63a)

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

	SO ₂	O ₃	NO ₂
PAZA Beaverlodge station	0.5	42.0	4.4
PAZA Beaverlodge passive	0.4	43.4	0.9

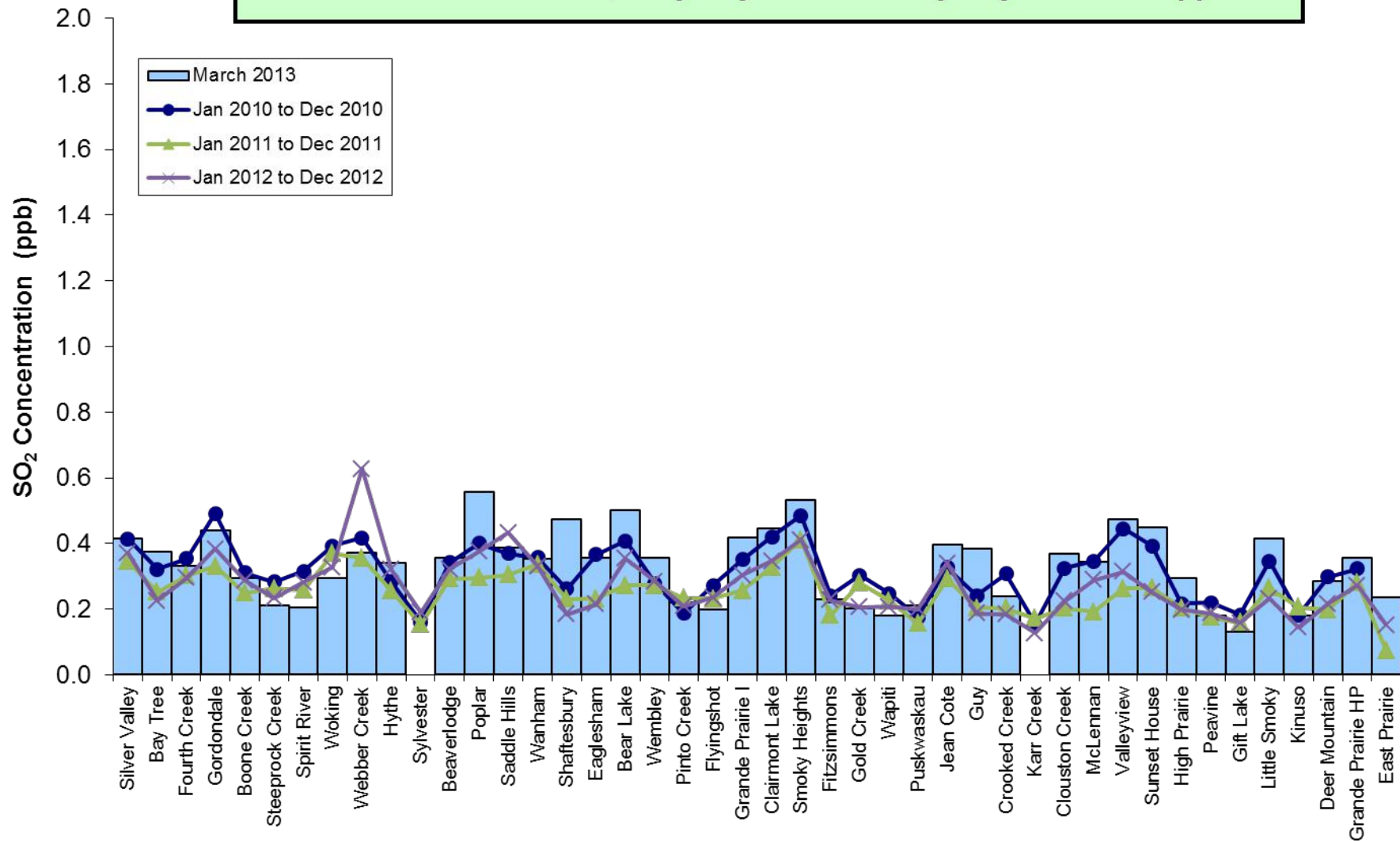
Comparison between Continuous and Passive monitoring at Henry Pirker (passive #49 Grande Prairie HP)

	SO ₂	O ₃	NO ₂
PAZA Henry Pirker station	0.4	29.6	14.0
PAZA Grande Prairie passive	0.4	41.3	4.1

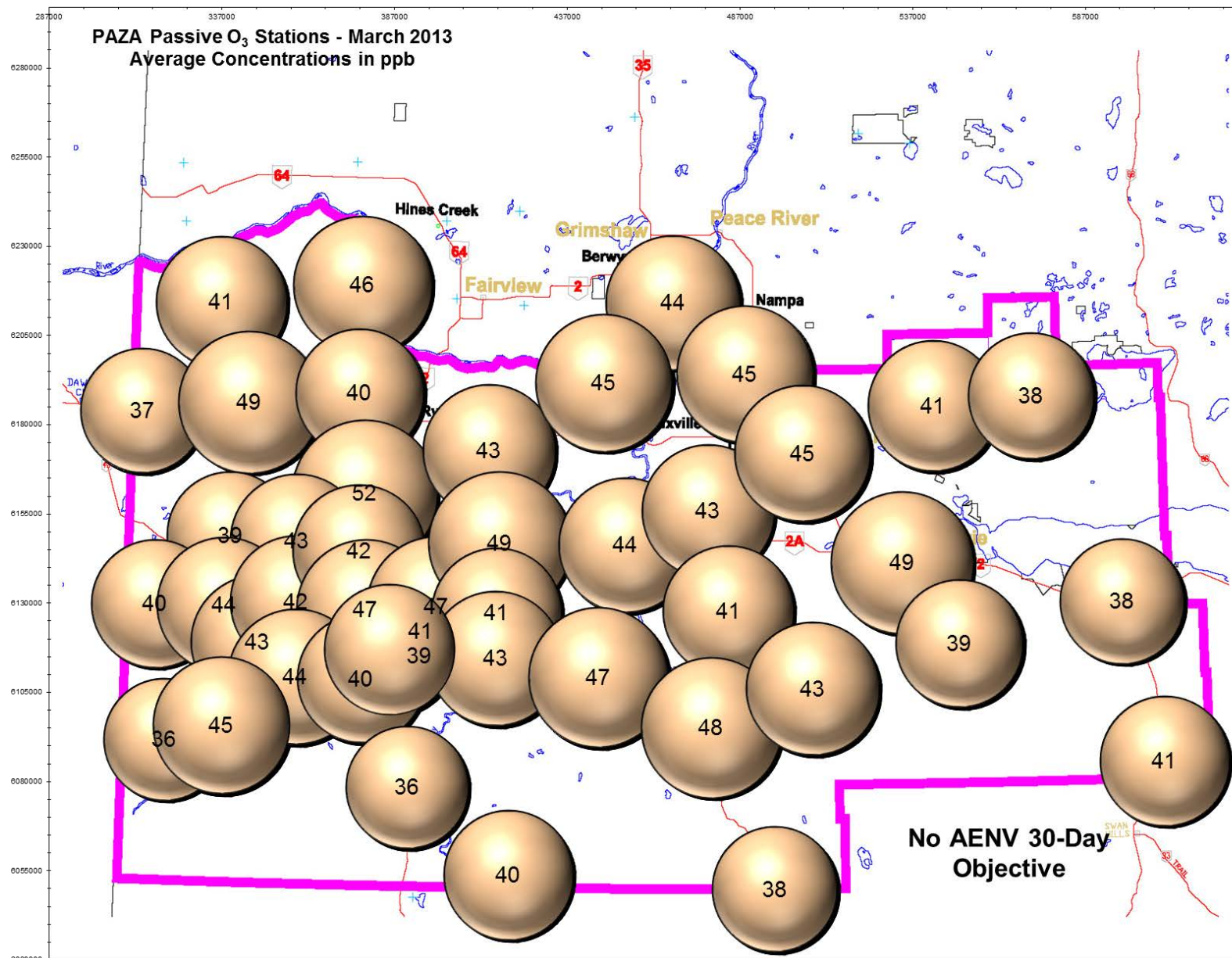


SO₂ Bubble Chart

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

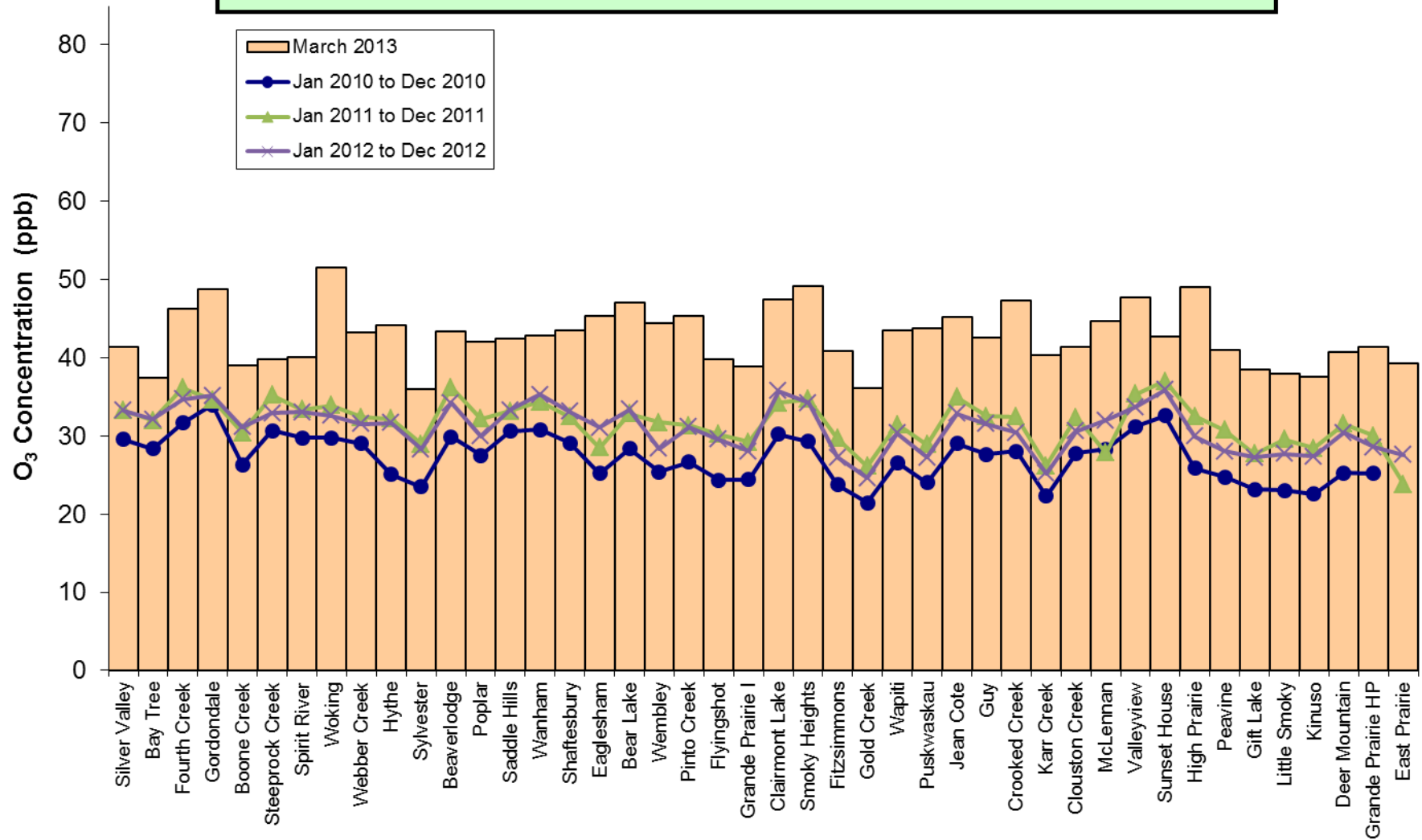


SO₂ Summary Chart

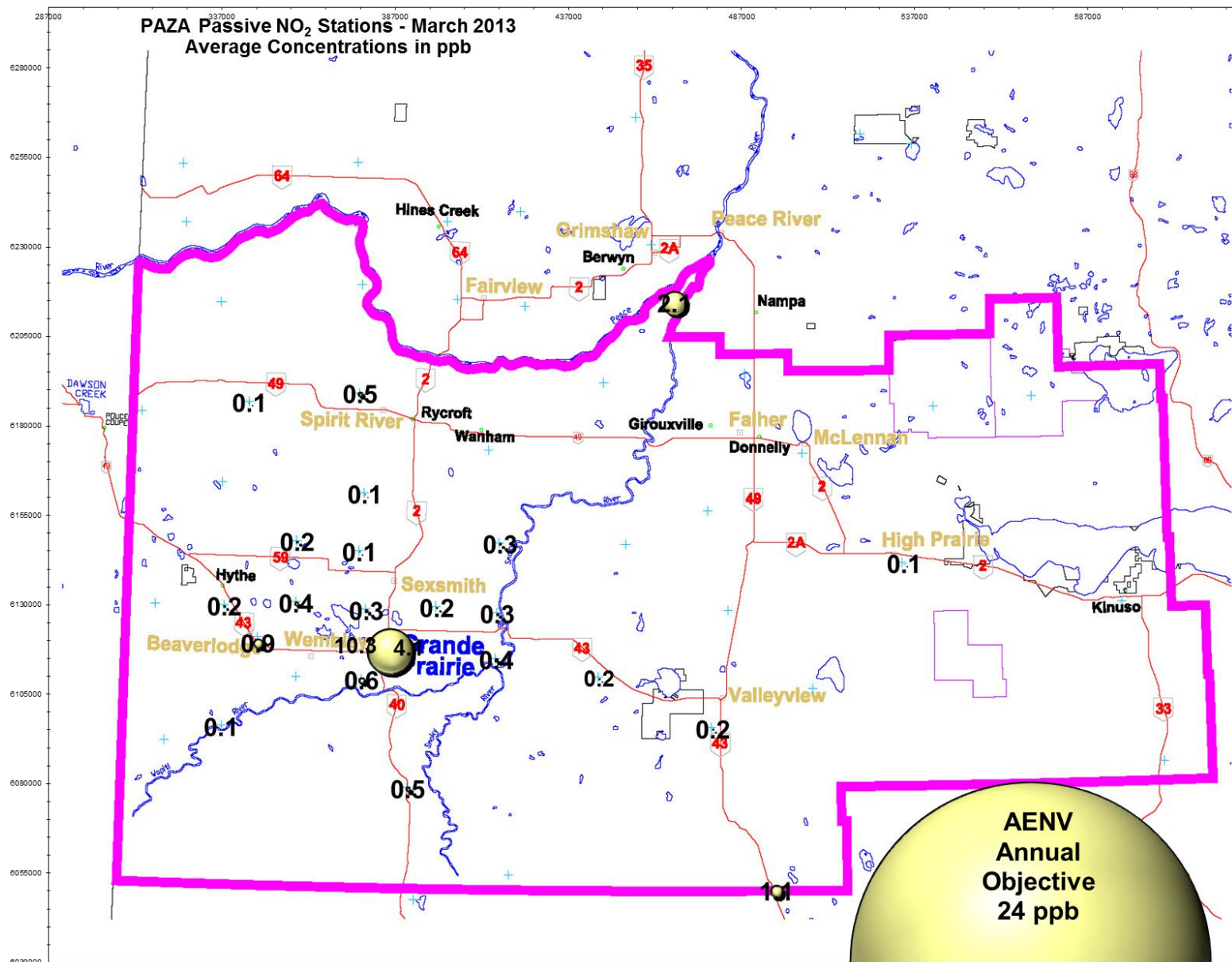


O₃ Bubble Chart

Alberta Ambient Air Quality Objective - No Annual O₃ Objective

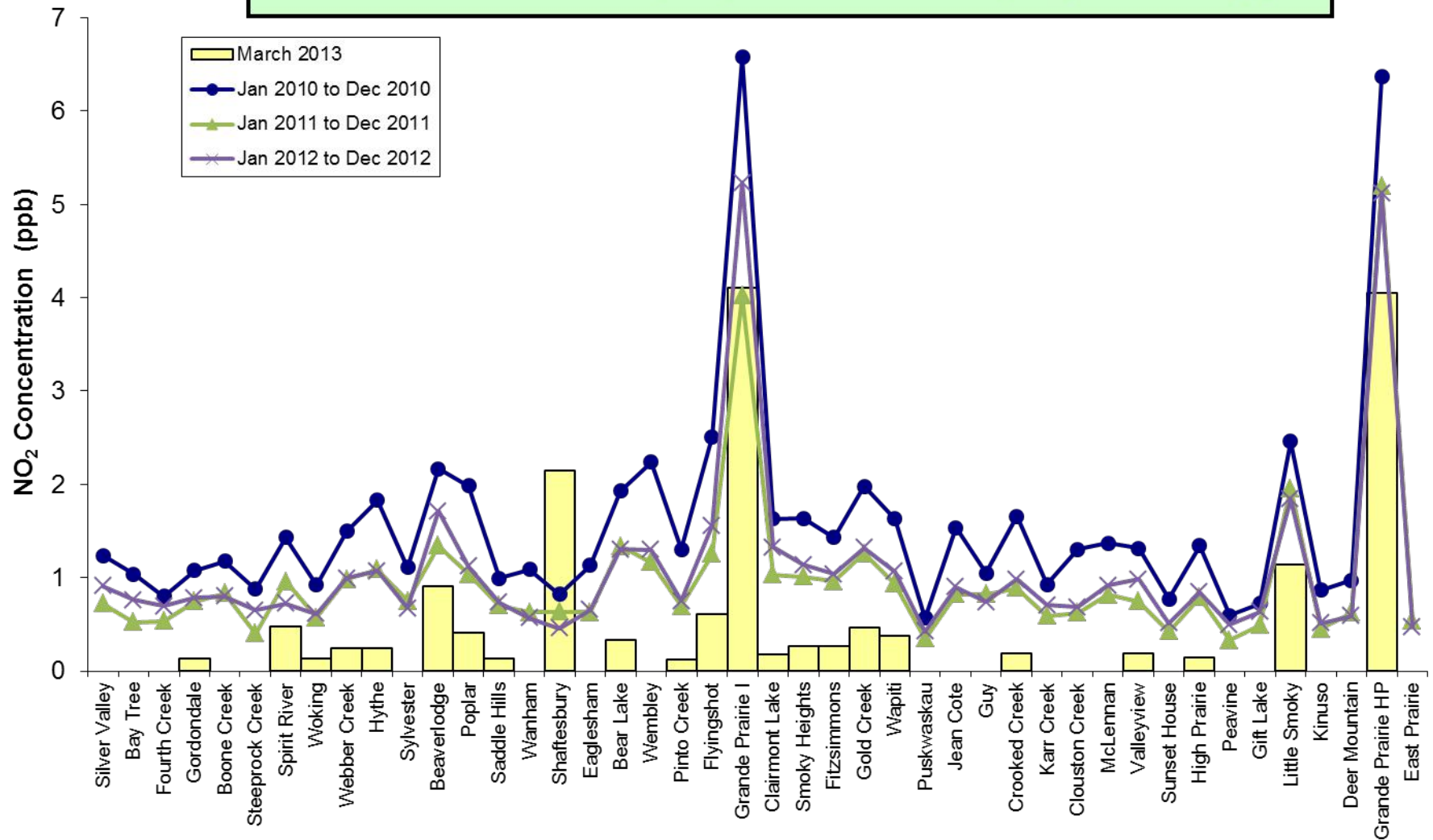


O₃ Summary Chart



NO₂ Bubble Chart

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



NO₂ Summary Chart

March 2013 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, PM_{2.5}

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 – Sunset House Station with the following calibrations:

SO₂, NO, NO₂, NO_x, O₃, TRS

PAZA – Falher Station with the following calibrations:

SO₂ & H₂S

Calibration Report

Parameter SO2

Air Monitoring Network PAZA



Station Information

Calibration Date	March 12, 2013	Previous Calibration	February 14, 2013
Station Number	1	Station Location	Henry Pirker
Reason:	Routine	Install	Removal
Start Time (MST)	9:05	End Time (MST)	13:49
Barometric Pressure	na ATM	Station Temperature	20.5 Deg C
Calibrator	EnviroNics 6100	Serial Number	3016
Cal Gas Conc	50.8 ppm	Cal Gas Cert Date	March 12, 2014
		Cal Gas Cylinder #	LL107272
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 1 volt	DACS channel #	10
	Before		After
Calculated slope	0.999787	Calculated slope	0.996863
Calculated intercept	1.835736	Calculated intercept	2.591806
Analyzer make	TEI 43C	Analyzer serial #	610816292

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	8.9		9.0	
Coefficient	0.785		0.790	
Pressure	642.8	mm Hg	642.6	mm Hg
Flow	0.493	lpm	0.493	lpm
Lamp Voltage	44399	Hz	44408	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)
4990	0.00	0.0	0.3	N/A
4990	39.92	403.2	403.6	0.9989
4990	19.98	202.6	198.1	1.0226
4990	9.98	101.4	96.9	1.0460
4990	0.00	0.0	0.4	As Found Zero
4990	39.94	403.4	398.0	As Found Span
Average Correction Factor				1.0225

Calculated value of As Found Response: 399.3 ppb Percent Change of As Found: 1.0%

	before calibration		after calibration	
Auto zero	0.1	ppb	0.1	ppb
Auto span	247.2	ppb	248.5	ppb

Notes: Slight span adjustment made

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter SO2

Air Monitoring Network PAZA



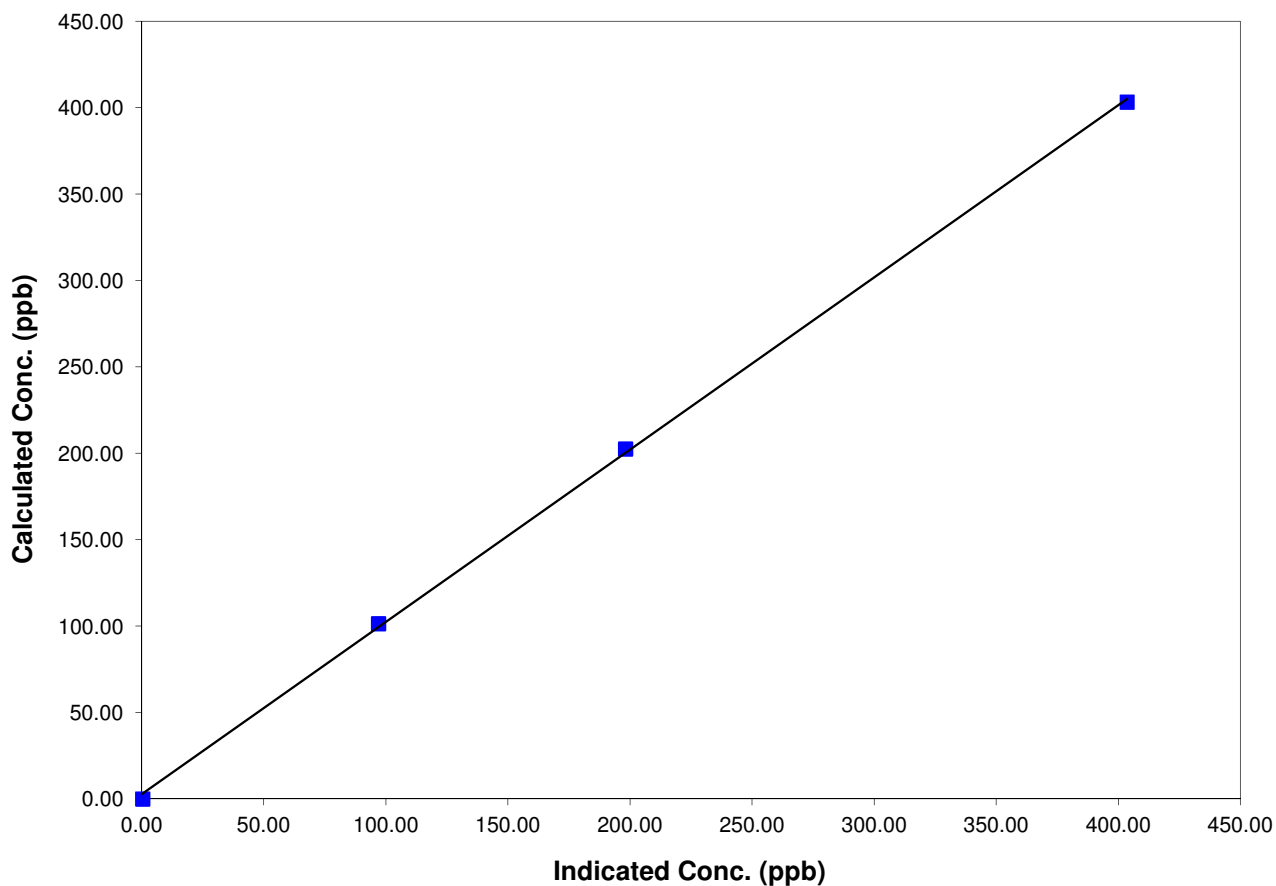
Station Information

Calibration Date	March 12, 2013	Previous Calibration	February 14, 2013
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:05	End Time (MST)	13:49
Analyzer make/model	TEI 43C	Analyzer serial #	610816292

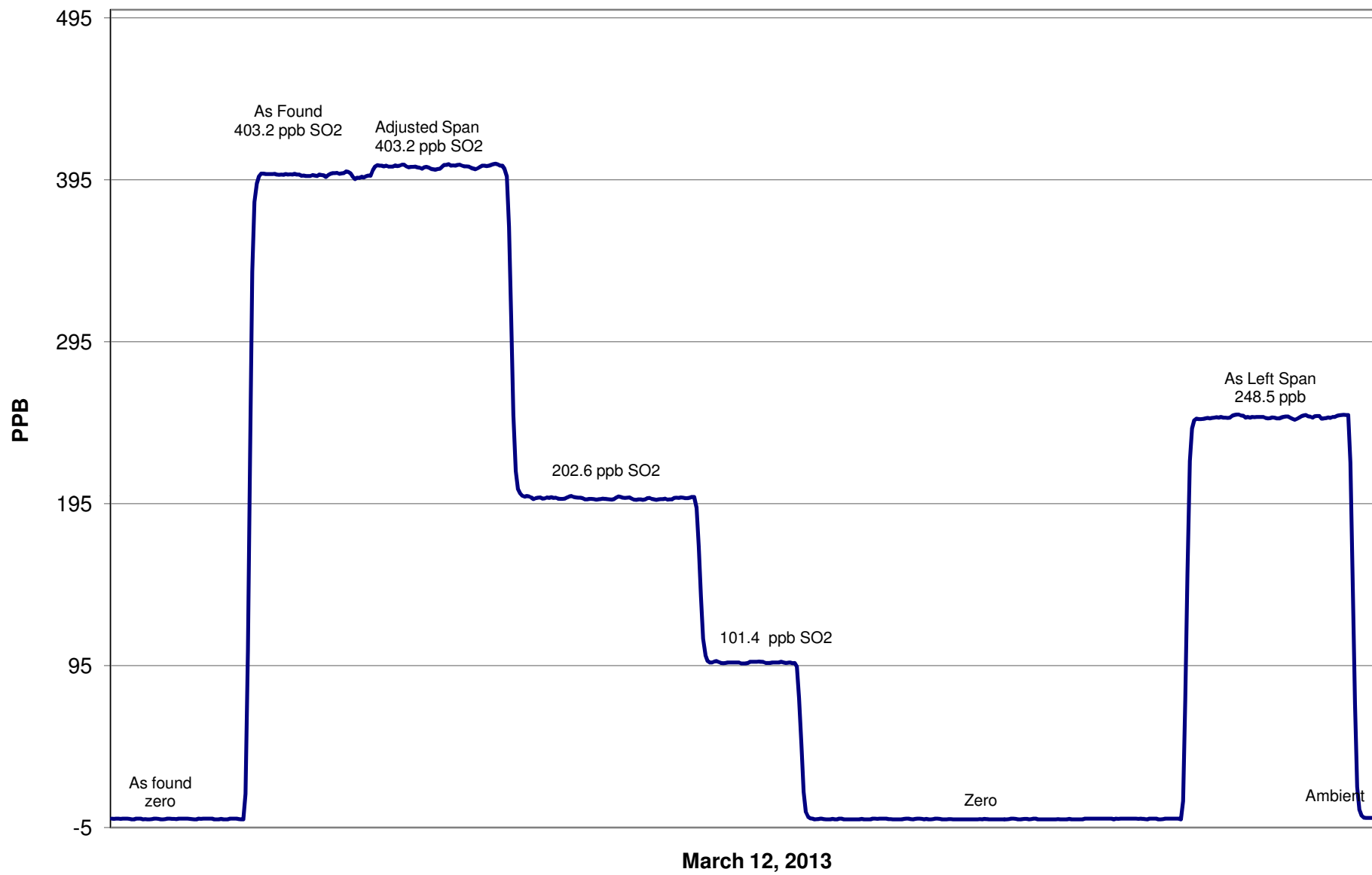
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	N/A		
403.2	403.6	0.9989	Correlation Coefficient	0.999745
202.6	198.1	1.0226		
101.4	96.9	1.0460	Slope	0.996863
			Intercept	2.591806

SO2 Calibration Curve



SO2 Calibration



Calibration Report

Parameter

NO_x-NO-NO₂

Air Monitoring Network

PAZA



Station Information

Calibration Date	March 12, 2013	Previous Calibration	February 14, 2013
Station Number	1	Station Location	Henry Pirker
Reason:	Routine	Installation	Removal
Start Time (MST)	9:20	End Time (MST)	15:11
Barometric Pressure	na	Station Temperature	20.5 Deg C
Calibrator	EnviroNics 6100	Serial Number	3016
NO Cal Gas Conc	51.2 ppm	Cal Gas Expiry Date	March 12, 2014
NO _x Cal Gas Conc	51.2 ppm	Cal Gas Serial #	LL107272

DACS Information

DACS make	CR3000	DACS serial No.	5408
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	Parameter	NO ₂	NO _x	NO
Before	Data Slope	1.003329	0.999007	1.000434
	Data Offset	0.277220	1.444484	1.274344
After	Data Slope	0.998860	0.997462	0.998946
	Data Offset	-0.186971	1.872004	1.943860
	Channel #	8	6	7
	Voltage Range	0 - 5 VDC	0 - 5 VDC	0 - 5 VDC

Analyzer Information

Analyzer make/model	TEI 42C	Analyzer serial #	508011073
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Test Point	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
NO offset	12.5	mV	13.1	mV
NO _x bkgnd	12.9	mV	13.6	mV
NO coefficient	1.065		1.116	
NO _x coefficient	1.001		1.001	
NO ₂ conv temp	319.0	Deg C	319.0	Deg C
PMT Temp	-2.4	Deg C	-2.4	Deg C
PMT Volt	-768.0	mV	-768.0	mV
R Cell Press	175.4	in Hg	174.3	in Hg

Calibration Report

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



Calibration Date: March 12, 2013 Station Location: Henry Pirker

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NO _x conc (ppb)	Calculated NO conc (ppb)	Calculated NO ₂ conc (ppb)	Indicated NO _x conc (ppb)	Indicated NO conc (ppb)	Indicated NO ₂ conc (ppb)	NO _x Correction factor	NO Correction factor
zero	4990	0.00	0.0	0.0	0.0	0.1	0.0	0.0	N/A	N/A
1	4990	39.92	406.3	406.3	0.0	406.5	405.8	0.6	0.9997	1.0015
2	4990	19.98	204.2	204.2	0.0	201.9	201.6	0.3	1.0116	1.0131
3	4990	9.98	102.2	102.2	0.0	98.7	98.4	0.1	1.0358	1.0383
AFZ	4990	0.00	0.0	0.0	0.0	0.1	0.0	0.0	0.0000	0.0000
AFS	4990	39.94	406.6	406.6	0.0	387.7	387.5	0.2	1.0486	1.0493
Average Correction Factor									1.0157	1.0176

As Found Concentrations: NO_x= 389.1 NO= 388.8 As Found Percent Change NO_x= -4.3% NO= -4.4%

Dilution Flow		4990	ccm	Source Gas Flow		39.94	ccm			
O ₃ Setpoint (ppb)	Indicated NO high point (ppb)	Indicated NO drop conc (ppb)	Calculated NO ₂ conc (ppb)	Indicated NO _x conc (ppb)	Indicated NO conc (ppb)	Indicated NO ₂ conc (ppb)	NO _x Correction factor	NO Correction factor	NO ₂ Correction factor	Converter Efficiency
0	0.0	0.0	0.0	0.1	0.0	0.0	N/A	N/A	N/A	N/A
NO point	406.3	406.3	0.0	406.4	406.3	0.0	0.9999	1.0000	N/A	N/A
300	406.3	102.7	303.6	406.4	102.7	303.8	0.9998	1.0000	0.9992	100.1%
200	406.3	199.3	207.0	407.0	199.3	207.8	0.9983	1.0000	0.9965	100.3%
100	406.3	296.3	110.0	406.8	296.3	110.5	0.9988	1.0000	0.9953	100.5%
Average Correction Factor							0.9990	1.0000	0.9970	100.3%

	Previous calibration				Current calibration			
Parameter	NO _x	NO ₂	NO		NO _x	NO ₂	NO	
Auto zero	0.0	-0.3	0.0	ppb	-0.4	-0.4	0.0	ppb
Auto span	328.3	326.9	1.6	ppb	343.7	342.1	1.9	ppb

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter NO₂

Air Monitoring Network PAZA



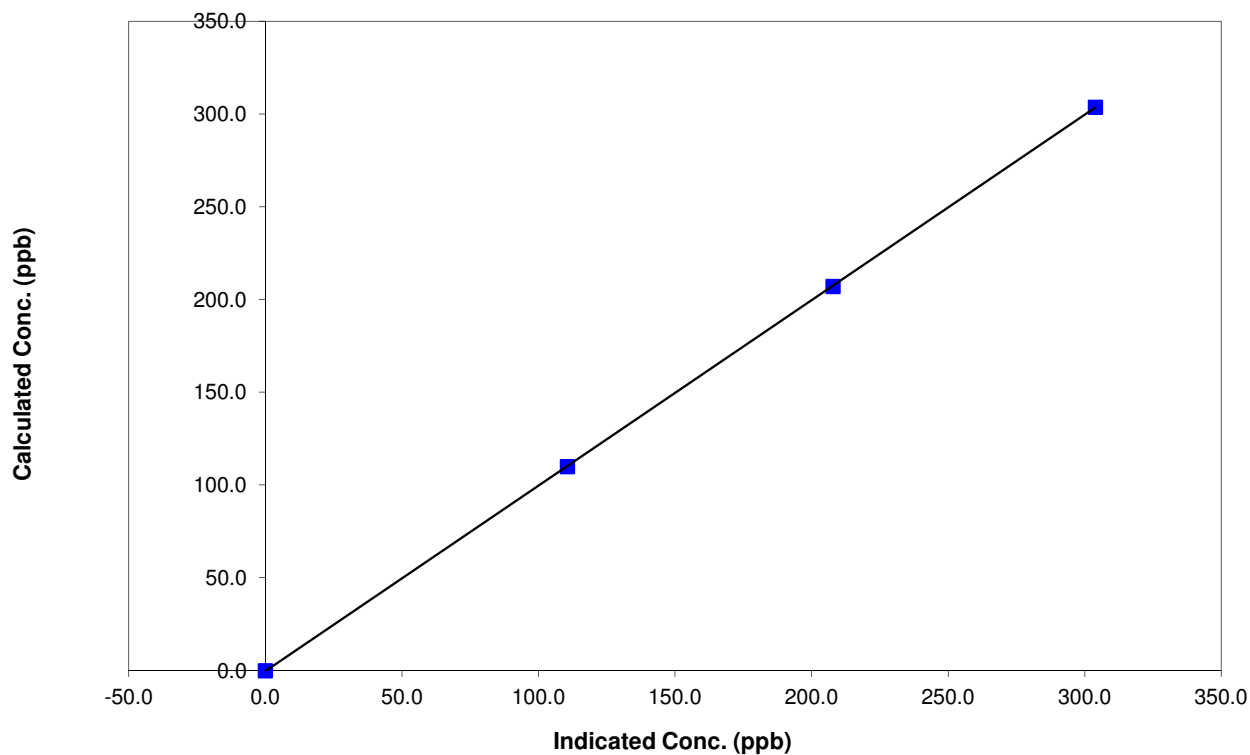
Station Information

Calibration Date	March 12, 2013	Previous Calibration	February 14, 2013
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:20	End Time (MST)	15:11
Analyzer make	TEI 42C	Analyzer serial #	508011073

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
303.6	303.8	0.9992		
207.0	207.8	0.9965		
110.0	110.5	0.9953	Slope	0.998860
			Intercept	-0.186971

NO₂ Calibration Curve



Calibration Summary

Parameter NO_x

Air Monitoring Network PAZA



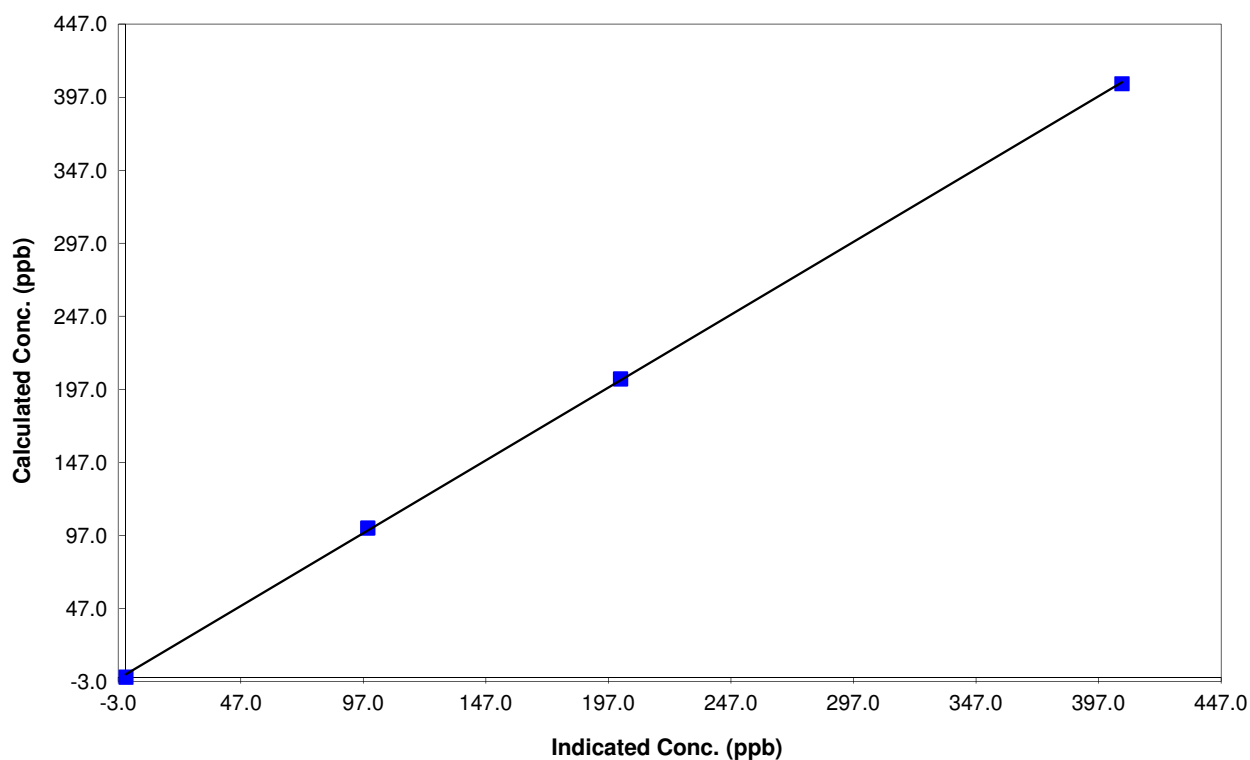
Station Information

Calibration Date	March 12, 2013	Previous Calibration	February 14, 2013
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:20	End Time (MST)	15:11
Analyzer make	TEI 42C	Analyzer serial #	508011073

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A	Correlation Coefficient	0.999897
406.3	406.5	0.9997		
204.2	201.9	1.0116		
102.2	98.7	1.0358	Slope	0.997462
			Intercept	1.872004

NO_x Calibration Curve



Calibration Summary

Parameter NO

Air Monitoring Network PAZA



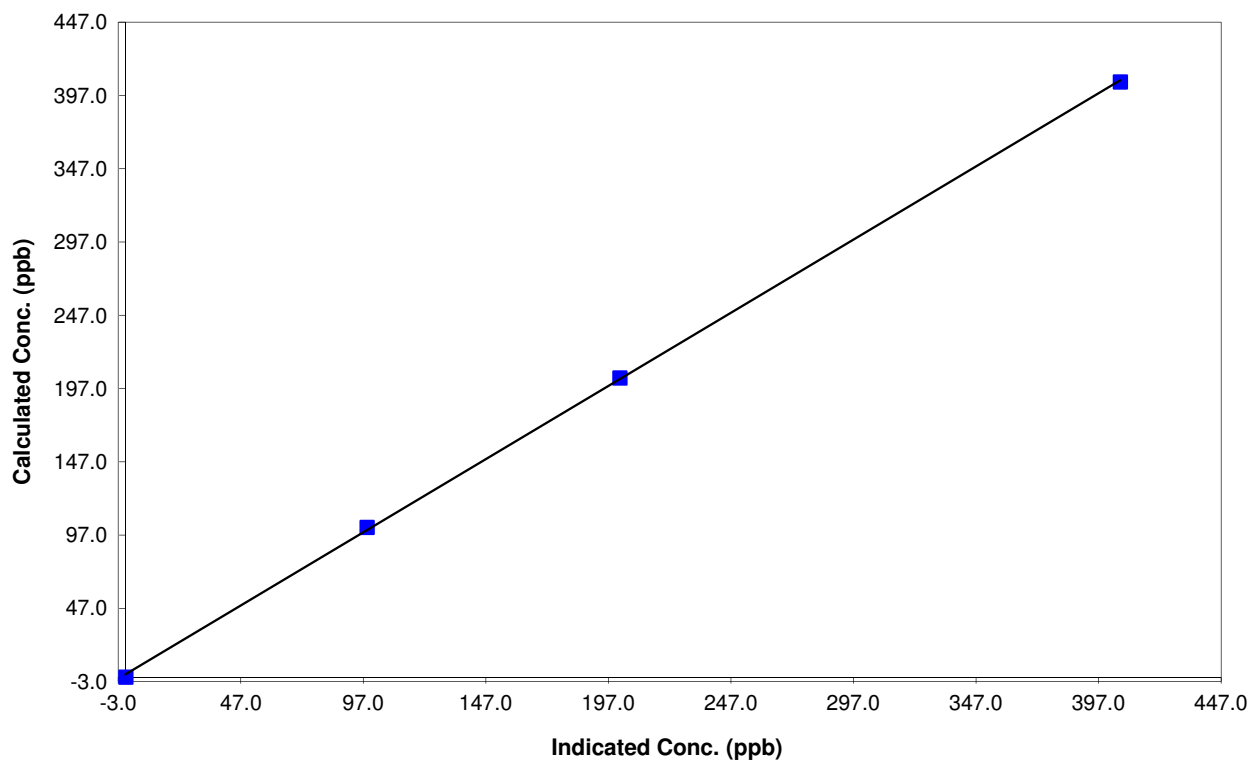
Station Information

Calibration Date	March 12, 2013	Previous Calibration	February 14, 2013
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:20	End Time (MST)	15:11
Analyzer make	TEI 42C	Analyzer serial #	508011073

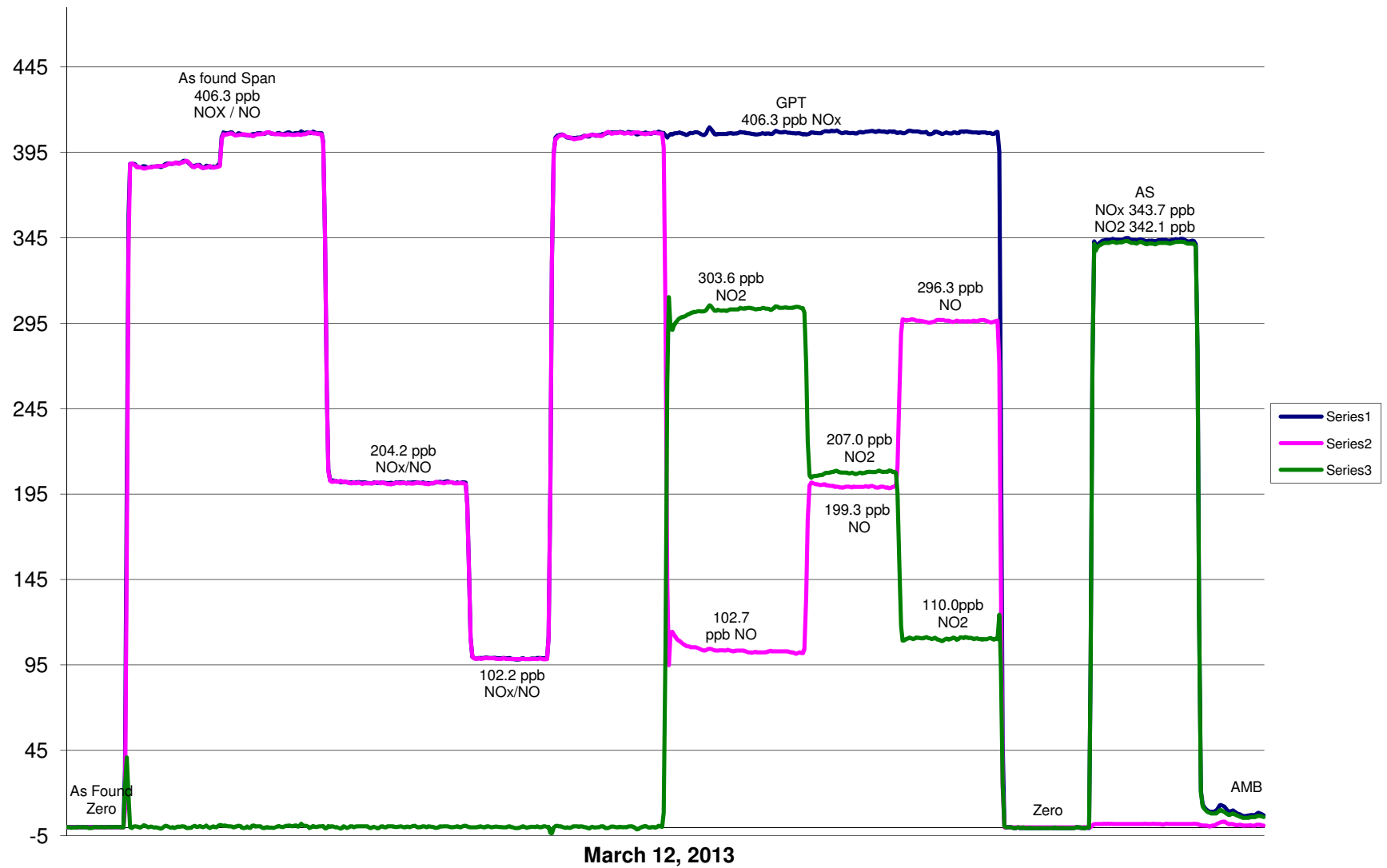
Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A	Correlation Coefficient	0.999900
406.3	405.8	1.0015		
204.2	201.6	1.0131		
102.2	98.4	1.0383	Slope	0.998946
			Intercept	1.943860

NO Calibration Curve



PAZA NO_x Calibration



Calibration Report



Parameter 03

Air Monitoring Network PAZA

Station Information

Calibration Date	March 18, 2013	Previous Calibration	March 14, 2013
Station Number	1	Station Location	Henry Pirker
Reason:	Routine	Install	Removal
		Other:	

Start Time (MST)	14:44	End Time (MST)	17:58
Barometric Pressure	0.923 atm	Station Temperature	23.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	2844
Cal Gas Concentration	NA	Cal Gas Expiry Date	NA

DACS make	CR3000	DACS serial No.	5237
DACS voltage range	0 - 5 volt	DACS channel #	9
	Before		After
Calculated slope	0.999827	Calculated slope	1.000808
Calculated intercept	0.399696	Calculated intercept	0.198235

Analyzer make	Teco 49C	Analyzer serial #	49C-76443-383
---------------	----------	-------------------	---------------

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
offset	-0.60	ppb	-0.60	ppb
slope	0.988		0.988	
Lamp temp	56.4	mV	56.4	mV
Lamp Intensity A/B	51008/54793	mV	51008/54793	mV
Pressure	697.8	mm Hg	697.8	mm Hg
Flow A	0.772	ccm	0.766	ccm
Flow B	0.718	ccm	0.711	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	0.7	N/A
5035	0.3	300.6	301.2	0.9979
5035	0.2	205.1	203.6	1.0075
5035	0.1	108.2	107.1	1.0102
5035	0.0	0.0	0.8	As found zero
5035	0.3	300.6	315.9	As found span
Average Correction Factor				1.0052

Calculated value of As Found Response: 315.4 ppm Percent Change of As Found: 4.9%

	before calibration		after calibration	
Auto zero	0.4	ppb	0.1	ppb
Auto span	110.0	ppb	111.4	ppb

Notes: Slight adjust. Analyzer was pulled from BL & installed @ HP. This is first cal since being relocated.
Used last cal at BL for my before values.

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter 03

Air Monitoring Network PAZA



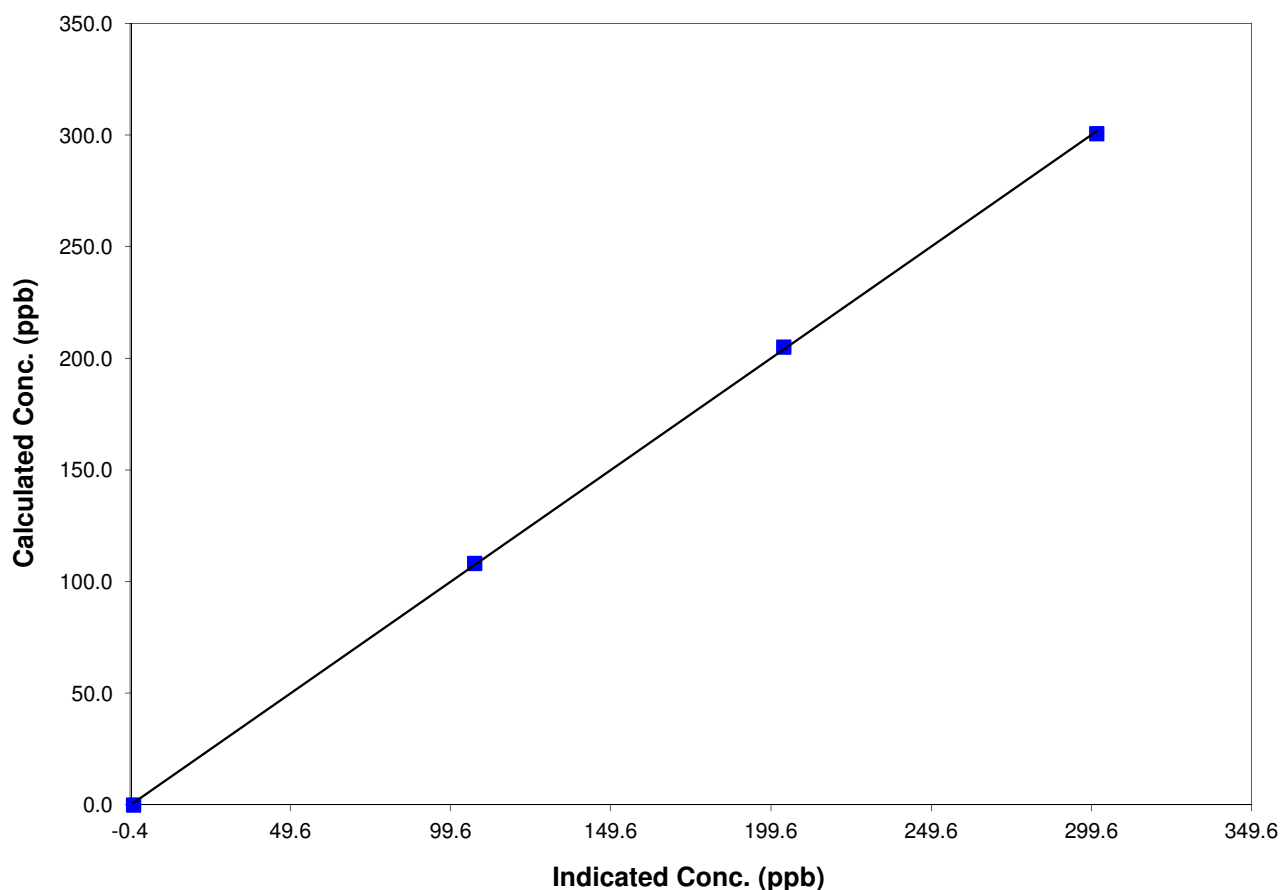
Station Information

Calibration Date	March 18, 2013	Previous Calibration	March 14, 2013
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	14:44	End Time (MST)	17:58
Analyzer make/model	Teco 49C	Analyzer serial #	49C-76443-383

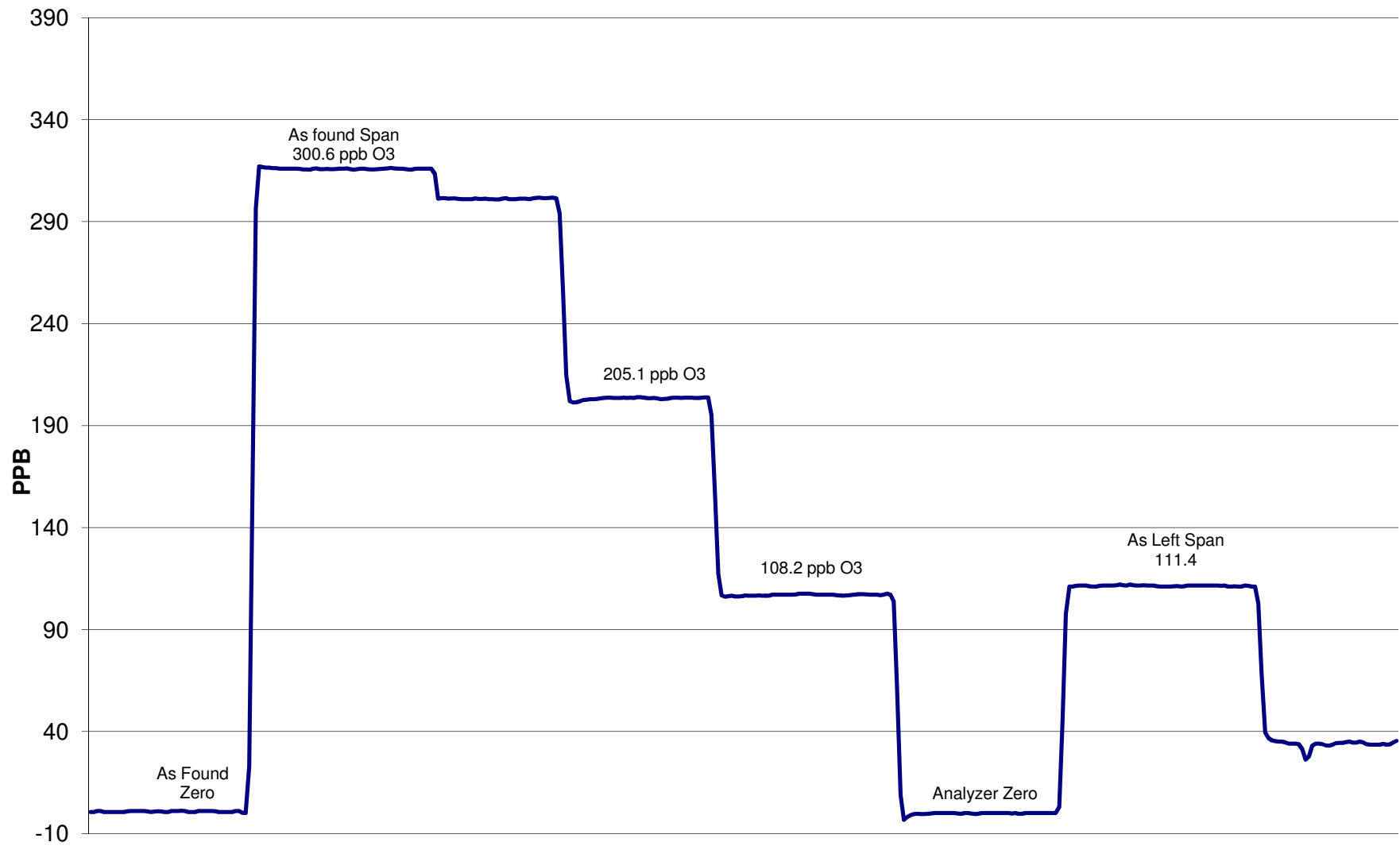
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.7	NA		
300.6	301.2	0.9979	Correlation Coefficient	0.999920
205.1	203.6	1.0075		
108.2	107.1	1.0102	Slope	1.000808
			Intercept	0.198235

O3 Calibration Curve



O3 Calibration



March 18, 2013

Calibration Report

Parameter CO

Air Monitoring Network PAZA



Station Information

Calibration Date	March 19, 2013	Previous Calibration	February 13, 2013
Station Number	1	Station Location	Henry Pirker
Reason:	☒ Routine	☐ Install	☐ Removal
		☐ Other:	
Start Time (MST)	8:07	End Time (MST)	11:40
Barometric Pressure	0.922 ATM	Station Temperature	21.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3016
Cal Gas Conc	2898 ppm	Cal Gas Expiry Date	04/02/2013
		Cal Gas Cylinder #	LL83909
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 1 volt	DACS channel #	9
	Before		After
Calculated slope	0.993801	Calculated slope	1.017836
Calculated intercept	-0.691025	Calculated intercept	-0.305350
Analyzer make	TEI Model 48C	Analyzer serial #	508011062

	before		after	
Concentration range	0 - 50	ppm	0 - 50	ppm
CO span setting	1.110		1.11	
CO zero setting	4.673		4.673	
Sample pressure	686.9	mm Hg	686.8	mm Hg
Sample Flow	1.128	LPM	1.127	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	0.36	N/A
4995	69.94	40.02	39.63	1.0098
4995	34.96	20.14	20.10	1.0019
4995	17.96	10.38	10.41	0.9970
4995	0.00	0.00	0.36	As Found Zero
4995	69.94	40.02	39.63	As Found Span
Average Correction Factor				1.0029

Calculated value of As Found Response: 38.339 ppm Percent Change of As Found: 4.2%

	before calibration		after calibration	
Auto zero	0.03	ppm	0.03	ppm
Auto span	19.96	ppm	20.35	ppm

Notes: Datalogger reads 0.35 ppm high.
Slight zero adjustment made.

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter CO

Air Monitoring Network PAZA



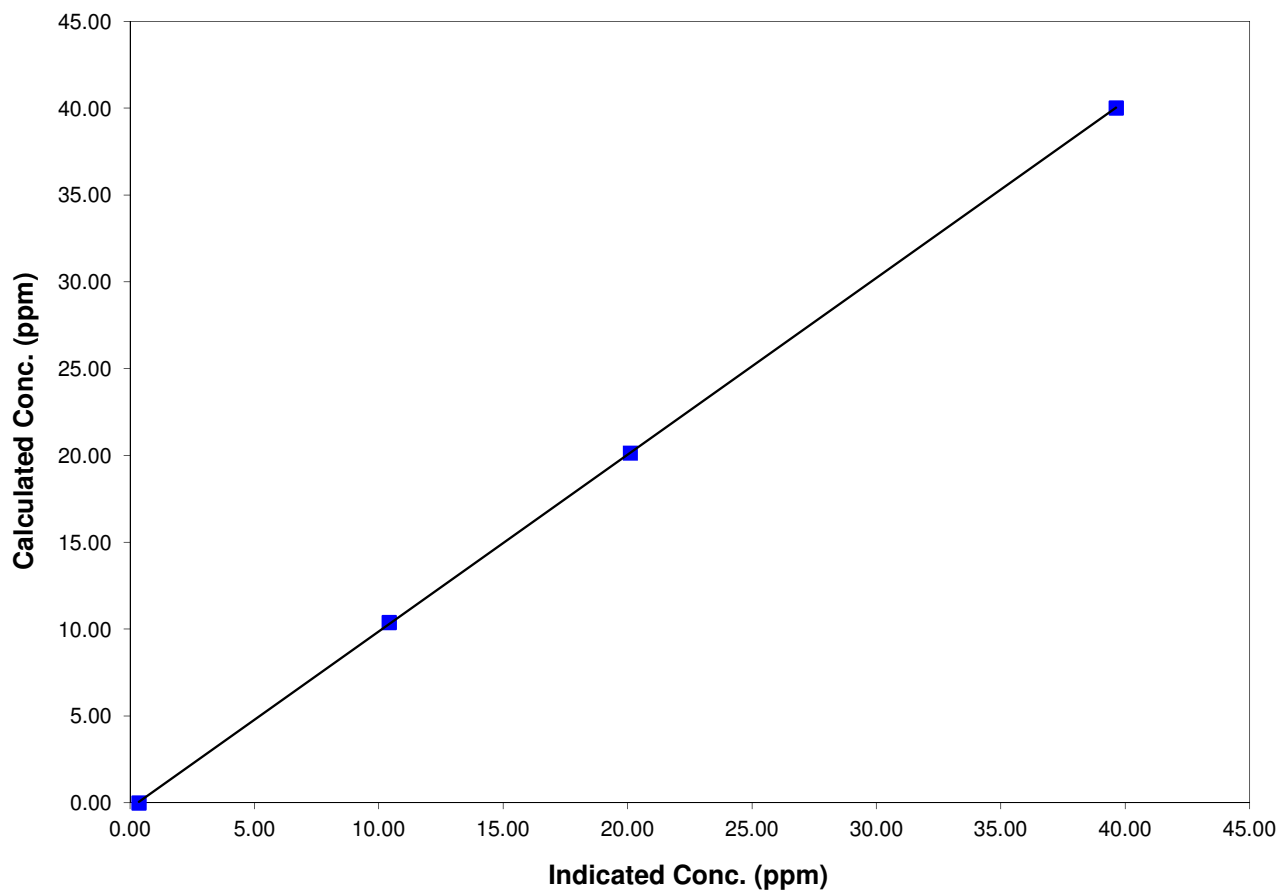
Station Information

Calibration Date	March 19, 2013	Previous Calibration	February 13, 2013
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	8:07	End Time (MST)	11:40
Analyzer make/model	TEI Model 48C	Analyzer serial #	508011062

Calibration Data

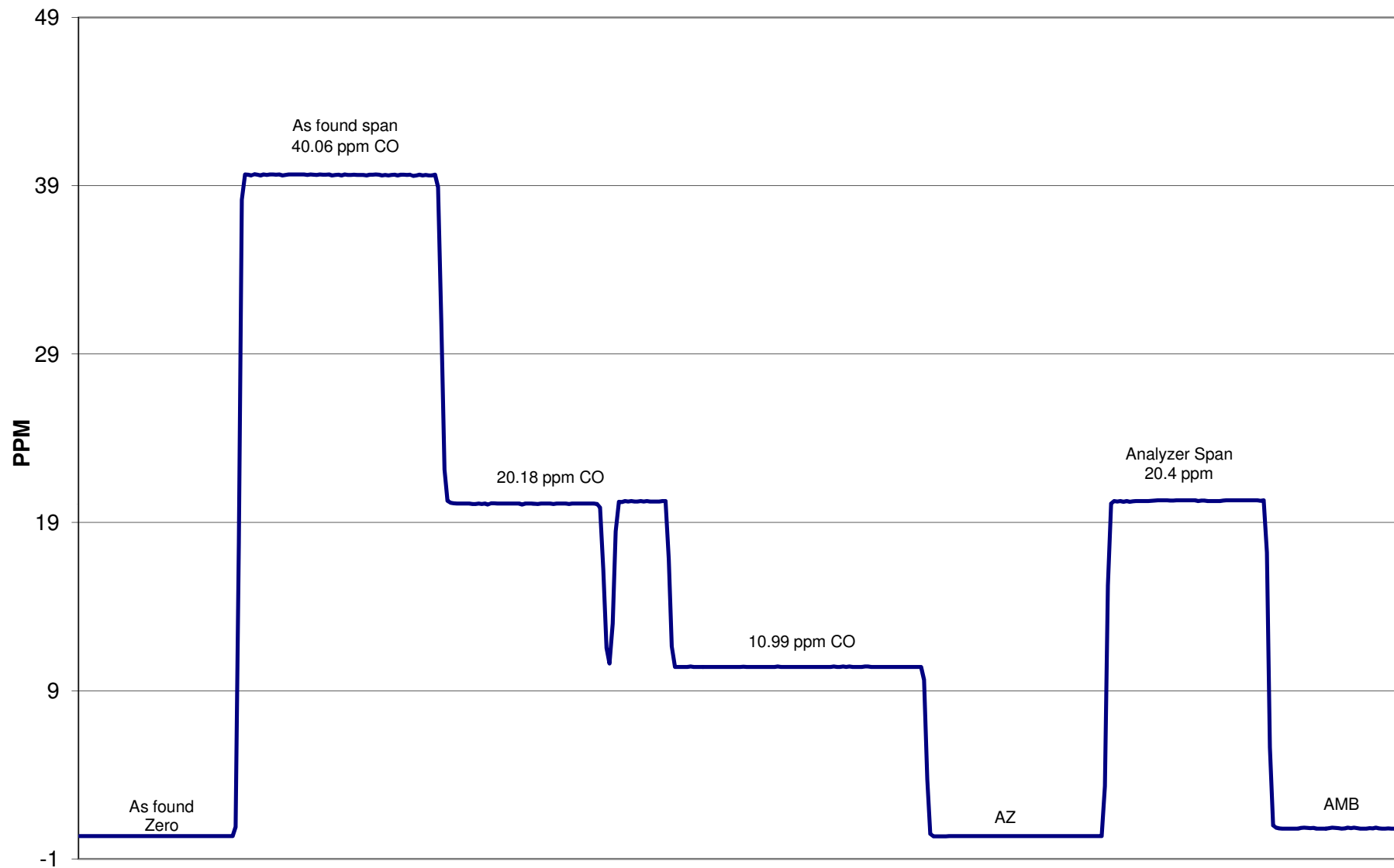
Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.357	N/A	Correlation Coefficient	0.999987
40.017	39.631	1.0098		
20.142	20.104	1.0019		
10.383	10.414	0.9970	Slope	1.017836
			Intercept	-0.305350

CO Calibration Curve



11.15 ppm CO

CO Calibration



March 19, 2013

Calibration Report

Parameter CH4 / NMHC / THC

Air Monitoring Network PAZA



Station Information

Calibration Date	March 8, 2013	Previous Calibration	February 24, 2013
Station Number	1	Station Location	Henry Pirker
Reason:	☐ Routine	☐ Install	☐ Removal
		☒ Other:	Single point after span cylinder changed
Start Time (MST)	12:50	End Time (MST)	15:05
Barometric Pressure	NA inches Hg	Station Temperature	27.9 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
Cal Gas CH4 Conc	404 ppm CH4	Cal Gas Expiry Date	March 28, 2014
Cal Gas C3H8 Conc	201x2.75= 552.75 ppm CH4	Cal Gas Cylinder #	LL34989
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 5 volt	DACS channel #	THC se13, NMCH se12, CH4 se11

Analyzer make TEI 551 Analyzer serial # NA

	before		after	
Concentration range	0-20 (CH4, NMHC); 0-40 (THC)	ppm	0-20 (CH4, NMHC); 0-40 (THC)	ppm
Air pressure	23.8	PSI	23.7	PSI
Fuel pressure	34.8	PSI	34.8	PSI
Carrier pressure	29.3	PSI	29.4	PSI
CH4 cal factor	3.70		3.70	
NMHC cal factor	9.63		9.63	
Rt	12.20	Sec	12.20	Sec
Pk Index	16.00		16.00	

CH4 Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
2005	0.00	0.00	0.04	N/A
2000	64.60	12.64	12.31	1.0269
2005	0.00	0.00	0.04	As Found Zero
2005	64.60	12.61	12.31	As Found Span
Average Correction Factor				1.0269

Calculated value of As Found Response: 12.270 ppm Percent Change of As Found: 2.7%

	Before		After
Calculated slope	0.996870	Calculated slope	1.030027
Calculated intercept	0.035866	Calculated intercept	-0.038237

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.05	ppm	0.07	ppm
Auto span	8.39	ppm	7.98	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)
2005	0.00	0.00	0.06	N/A
2005	64.60	17.25	16.53	1.0435
2005	0.00	0.00	0.06	As Found Zero
2005	64.60	17.25	16.53	As Found Span
Average Correction Factor				1.0435

Calculated value of As Found Response: 16.447 ppm Percent Change of As Found: 4.7%

	Before		After
Calculated slope	0.997378	Calculated slope	1.047099
Calculated intercept	0.012932	Calculated intercept	-0.058970

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.06	ppm	0.05	ppm
Auto span	11.66	ppm	11.40	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)
2005	0.00	0.00	0.11	N/A
2005	64.60	29.86	28.82	1.0364
2005	0.00	0.00	0.11	As Found Zero
2005	64.60	29.86	28.82	As Found Span
Average Correction Factor				1.0364

Calculated value of As Found Response: 28.698 ppm Percent Change of As Found: 3.9%

	Before		After
Calculated slope	0.998327	Calculated slope	1.040334
Calculated intercept	0.039843	Calculated intercept	-0.114361

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.00	ppm	0.01	ppm
Auto span	21.69	ppm	19.36	ppm

Notes: Single point cal following a changed span cylinder.

Calibration Performed By: Stephanie Tandy

Calibration Summary

Parameter CH4

Air Monitoring Network PAZA



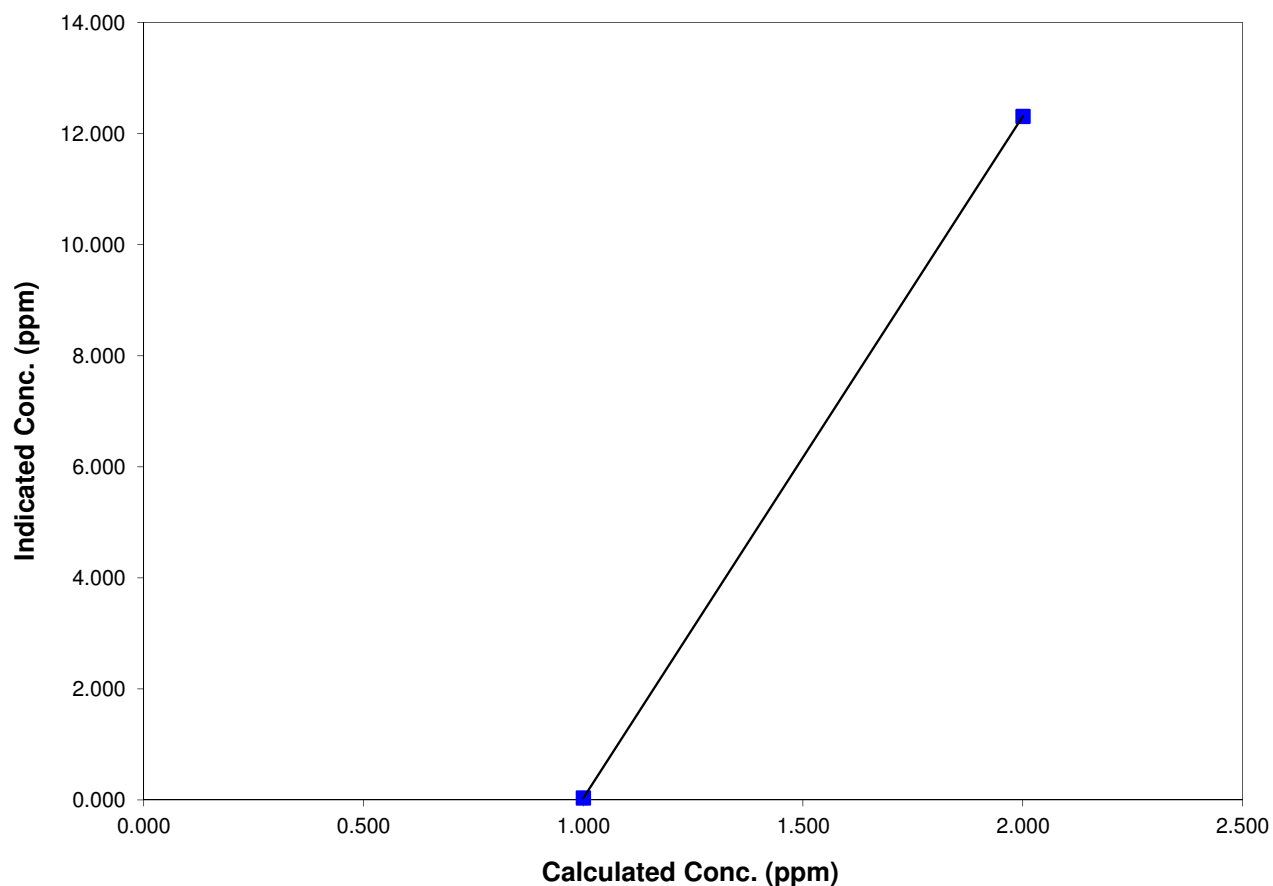
Station Information

Calibration Date	March 8, 2013	Previous Calibration	February 24, 2013
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	12:50	End Time (MST)	15:05
Analyzer make/model	TEI 55I	Analyzer serial #	NA

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.037	N/A		
12.641	12.310	1.0269	Correlation Coefficient	1.000000
			Slope	1.030027
			Intercept	-0.038237

CH4 Calibration Data



Calibration Summary

Parameter NMHC

Air Monitoring Network PAZA



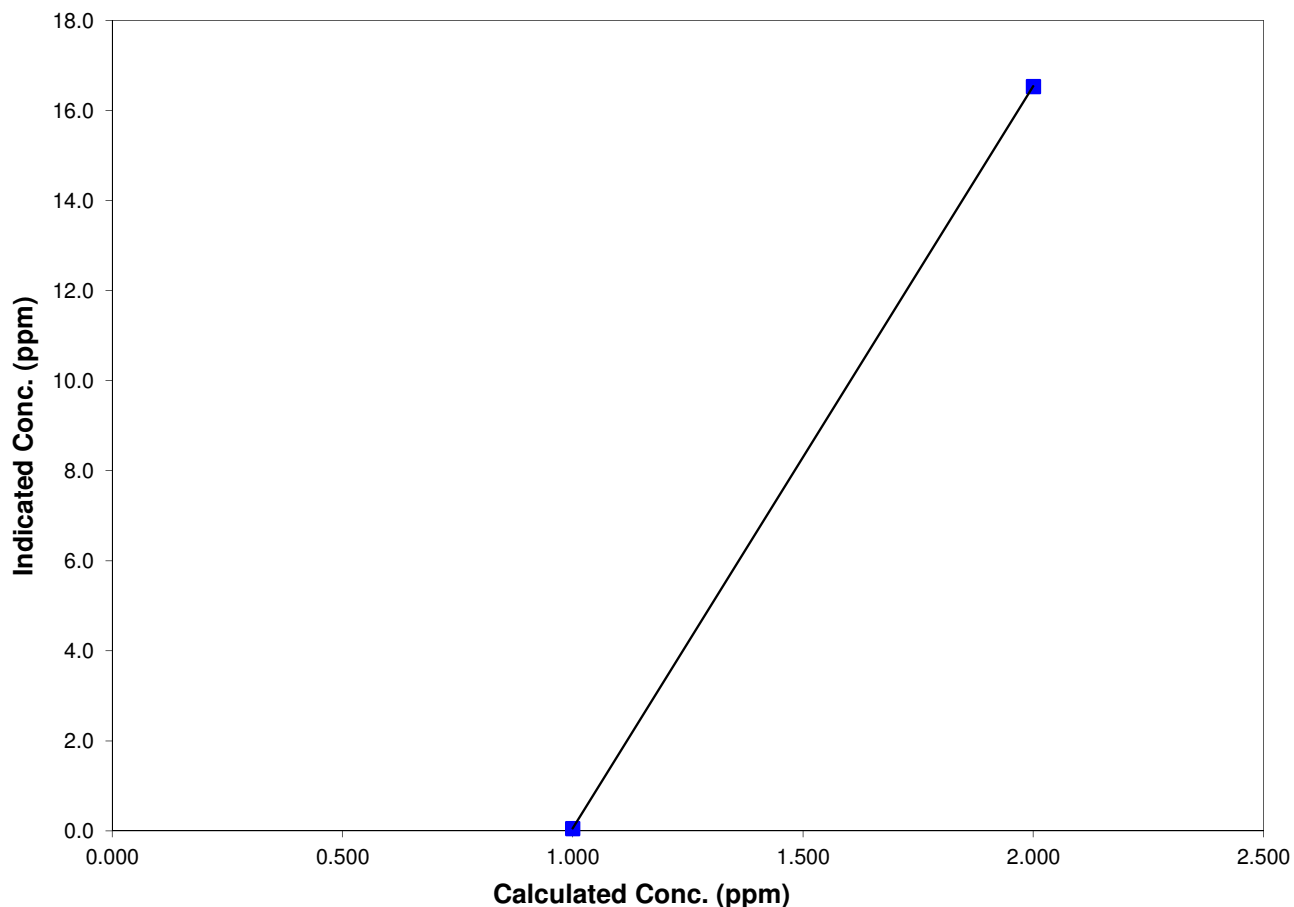
Station Information

Calibration Date	March 8, 2013	Previous Calibration	February 24, 2013
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	12:50	End Time (MST)	15:05
Analyzer make/model	TEI 55I	Analyzer serial #	NA
changed			

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.056	N/A		
17.253	16.534	1.0435	Correlation Coefficient	1.000000
			Slope	1.047099
			Intercept	-0.058970

NMHC Calibration Data



Calibration Summary

Parameter THC

Air Monitoring Network PAZA



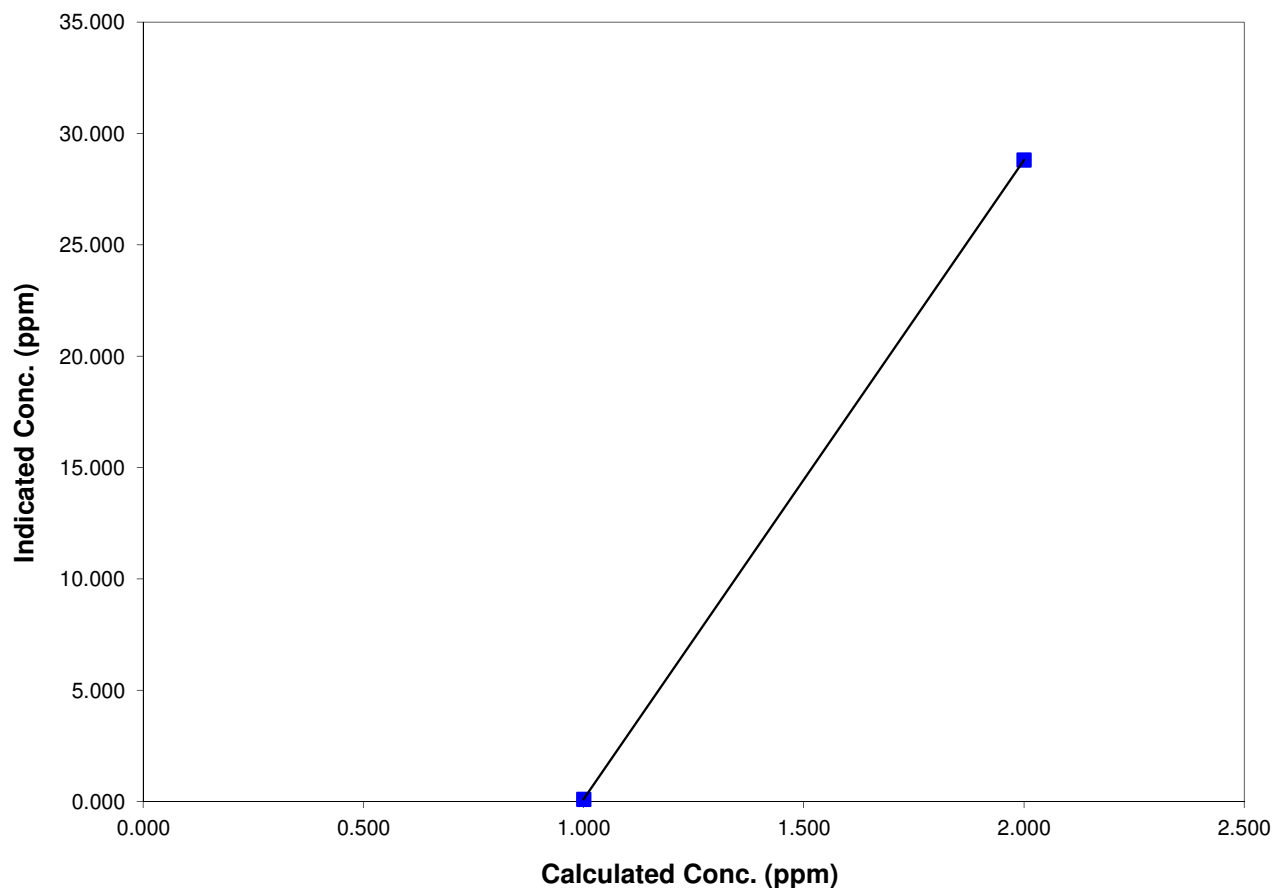
Station Information

Calibration Date	March 8, 2013	Previous Calibration	February 24, 2013
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	12:50	End Time (MST)	15:05
Analyzer make/model	TEI 55I	Analyzer serial #	NA
changed			

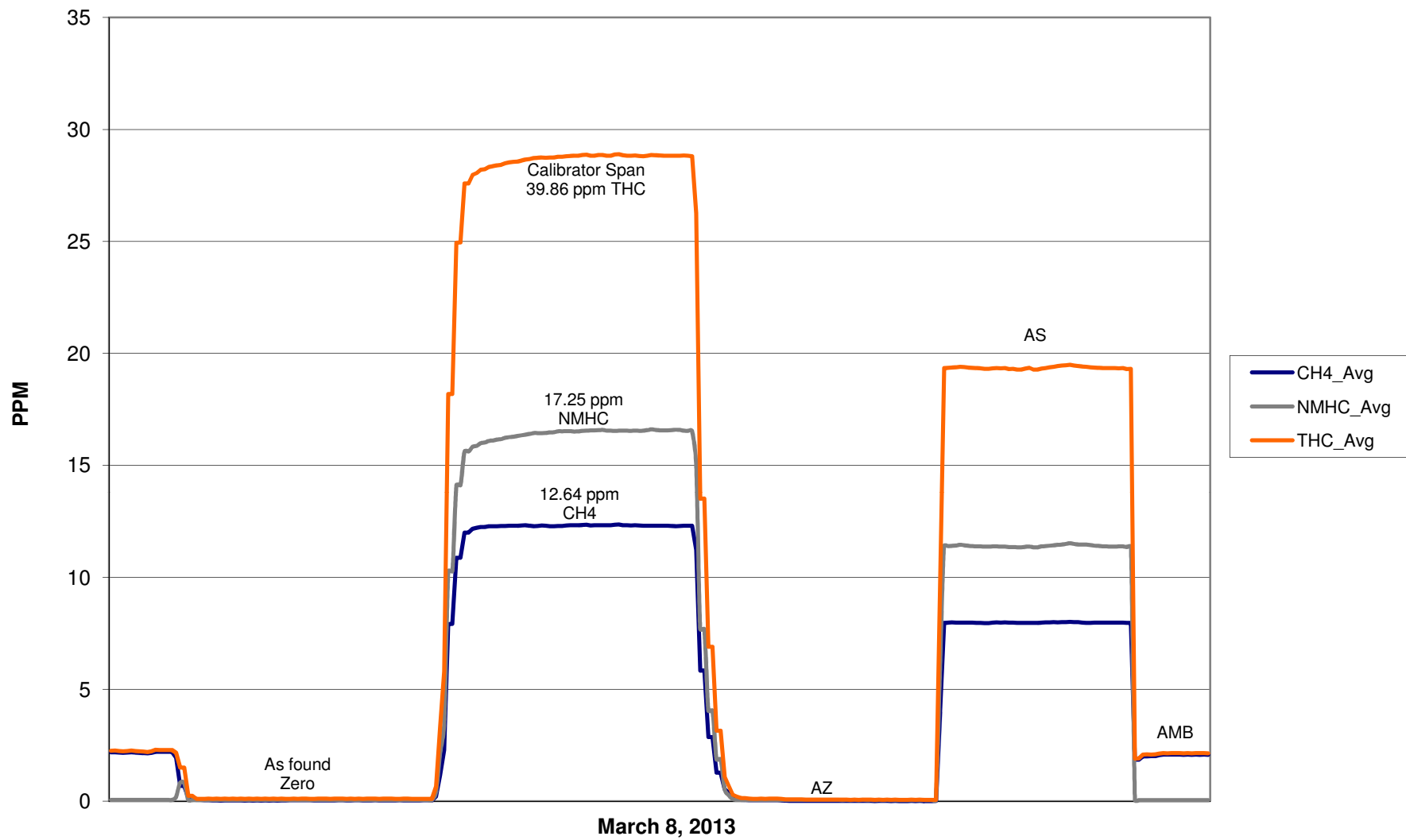
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.110	N/A		
29.864	28.816	1.0364	Correlation Coefficient	1.000000
			Slope	1.040334
			Intercept	-0.114361

THC Calibration Data



PAMU 2 - THC/CH₄/NMHC Calibration



Calibration Report

Parameter CH4 / NMHC / THC

Air Monitoring Network

PAZA



Station Information

Calibration Date	March 18, 2013	Previous Calibration	February 24, 2013
Station Number	1	Station Location	Henry Pirker
Reason:	☐ Routine	☒ Install	☐ Removal
			☐ Other:

Start Time (MST)	11:40	End Time (MST)	16:01
Barometric Pressure	inches Hg	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3016
Cal Gas CH4 Conc	404 ppm CH4	Cal Gas Expiry Date	28/03/2014
Cal Gas C3H8 Conc	201x2.75= 552.75 ppm CH4	Cal Gas Cylinder #	LL28503
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 # _____

	before		after	
Concentration range	0-20 (CH4, NMHC); 0-40 (THC)	ppm	0-20 (CH4, NMHC); 0-40 (THC)	ppm
Air pressure	32.9	PSI	32.9	PSI
Fuel pressure	36.3	PSI	36.3	PSI
Carrier pressure	26	PSI	26	PSI
CH4 cal factor	3.70		3.70	
NMHC cal factor	9.63		9.63	
Rt	12.20	Sec	12.20	Sec
Pk Index	16.00		16.00	

CH4 Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
2000	0.00	0.00	0.02	N/A
2000	64.93	12.70	12.72	0.9986
2000	39.93	7.91	7.79	1.0148
2000	14.95	3.00	2.91	1.0311
			0.02	As Found Zero
			12.72	As Found Span
Average Correction Factor				1.0148

Calculated value of As Found Response: 12.697 ppm Percent Change of As Found: NA

	Before		After
Calculated slope	0.996870	Calculated slope	0.999481
Calculated intercept	0.035866	Calculated intercept	0.044920

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	N/A	ppm	0.08	ppm
Auto span	N/A	ppm	20.95	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)
2000	0.00	0.00	0.06	N/A
2000	64.93	17.38	17.54	0.9908
2000	39.93	10.82	10.84	0.9979
2000	14.95	4.10	4.07	1.0075
			0.06	As Found Zero
			17.54	As Found Span
Average Correction Factor				0.9987

Calculated value of As Found Response: 17.451 ppm Percent Change of As Found: NA

	<u>Before</u>		<u>After</u>
Calculated slope	0.997378	Calculated slope	0.993024
Calculated intercept	0.012932	Calculated intercept	0.003489

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.06	ppm	0.06	ppm
Auto span	11.66	ppm	12.65	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)
2000	0.00	0.00	0.09	N/A
2000	64.93	30.08	30.24	0.9949
2000	39.93	18.73	18.63	1.0054
2000	14.95	7.10	6.98	1.0164
			0.09	As Found Zero
			30.24	As Found Span
Average Correction Factor				1.0056

Calculated value of As Found Response: 30.138 ppm Percent Change of As Found: NA

	<u>Before</u>		<u>After</u>
Calculated slope	0.998327	Calculated slope	0.997002
Calculated intercept	0.039843	Calculated intercept	0.034537

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.02	ppm	0.02	ppm
Auto span	8.09	ppm	8.32	ppm

Notes:

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter CH4

Air Monitoring Network PAZA



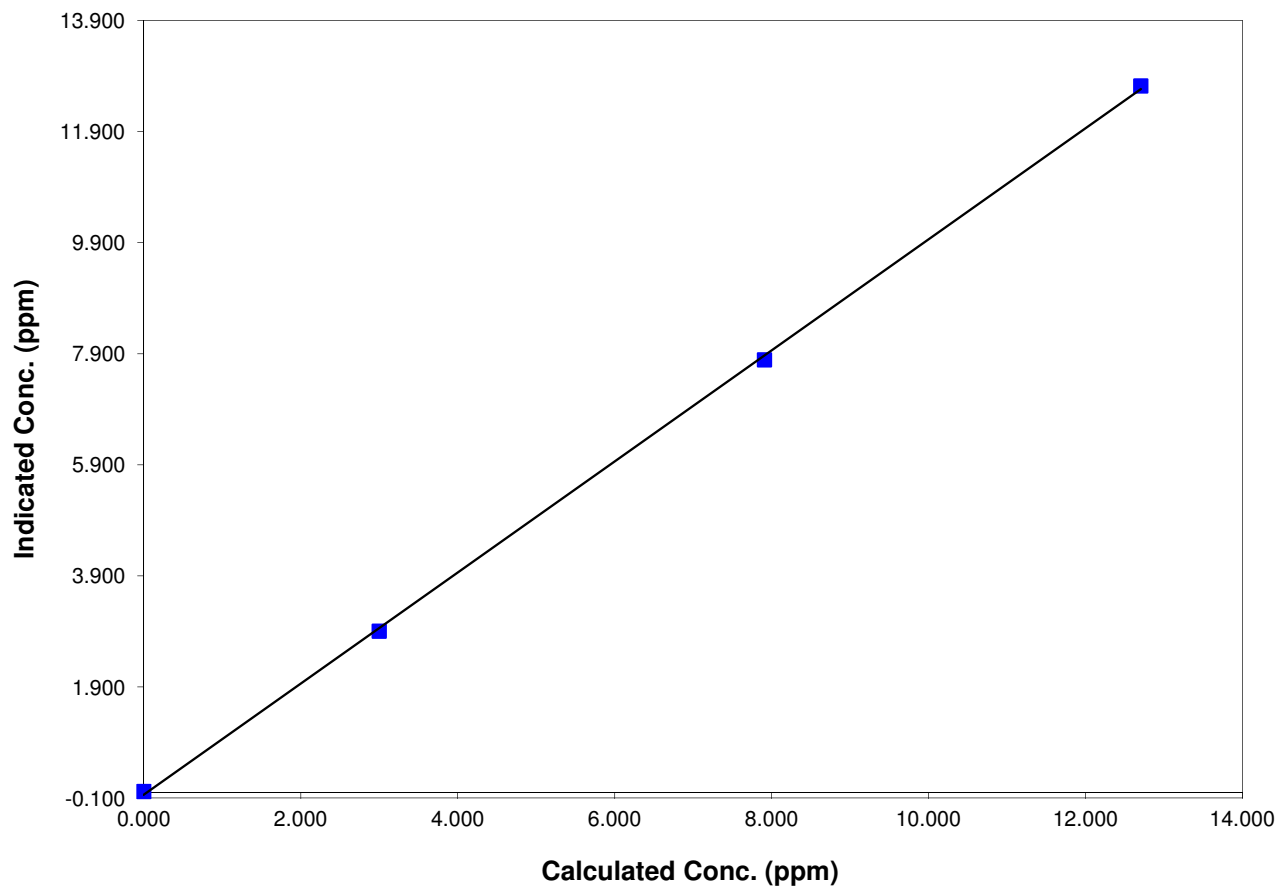
Station Information

Calibration Date	March 18, 2013	Previous Calibration	February 24, 2013
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	11:40	End Time (MST)	16:01
Analyzer make/model	TEI 55I	Analyzer serial #	0

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.020	N/A	Correlation Coefficient	0.999837
12.703	12.722	0.9986		
7.908	7.792	1.0148		
2.997	2.907	1.0311	Slope	0.999481
			Intercept	0.044920

CH4 Calibration Data



Calibration Summary

Parameter NMHC

Air Monitoring Network PAZA



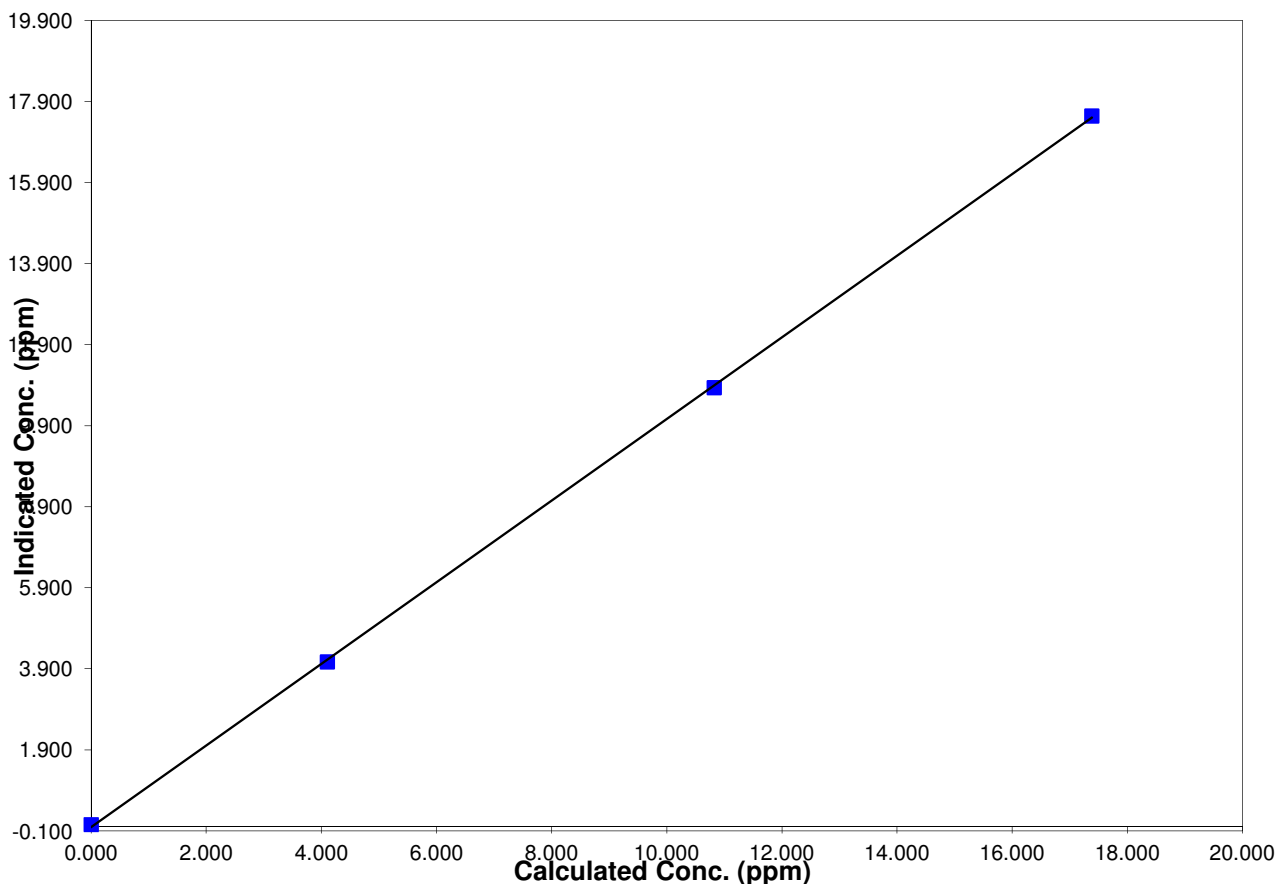
Station Information

Calibration Date	March 18, 2013	Previous Calibration	February 24, 2013
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	11:40	End Time (MST)	16:01
Analyzer make/model	TEI 55I	Analyzer serial #	0

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.059	N/A	Correlation Coefficient	0.999936
17.381	17.543	0.9908		
10.820	10.843	0.9979		
4.101	4.070	1.0075	Slope	0.993024
			Intercept	0.003489

NMHC Calibration Data



Calibration Summary

Parameter THC

Air Monitoring Network PAZA



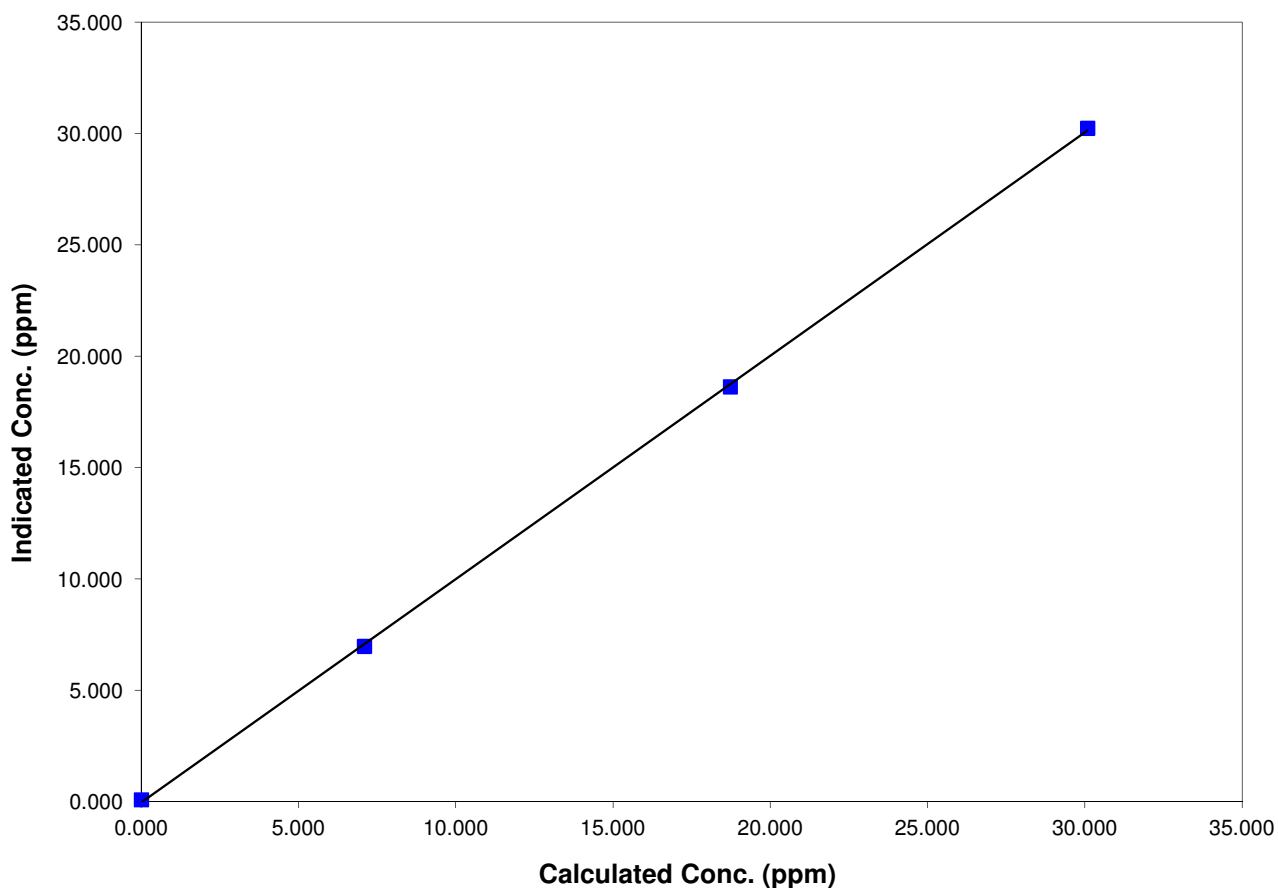
Station Information

Calibration Date	March 18, 2013	Previous Calibration	February 24, 2013
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	11:40	End Time (MST)	16:01
Analyzer make/model	TEI 55I	Analyzer serial #	0

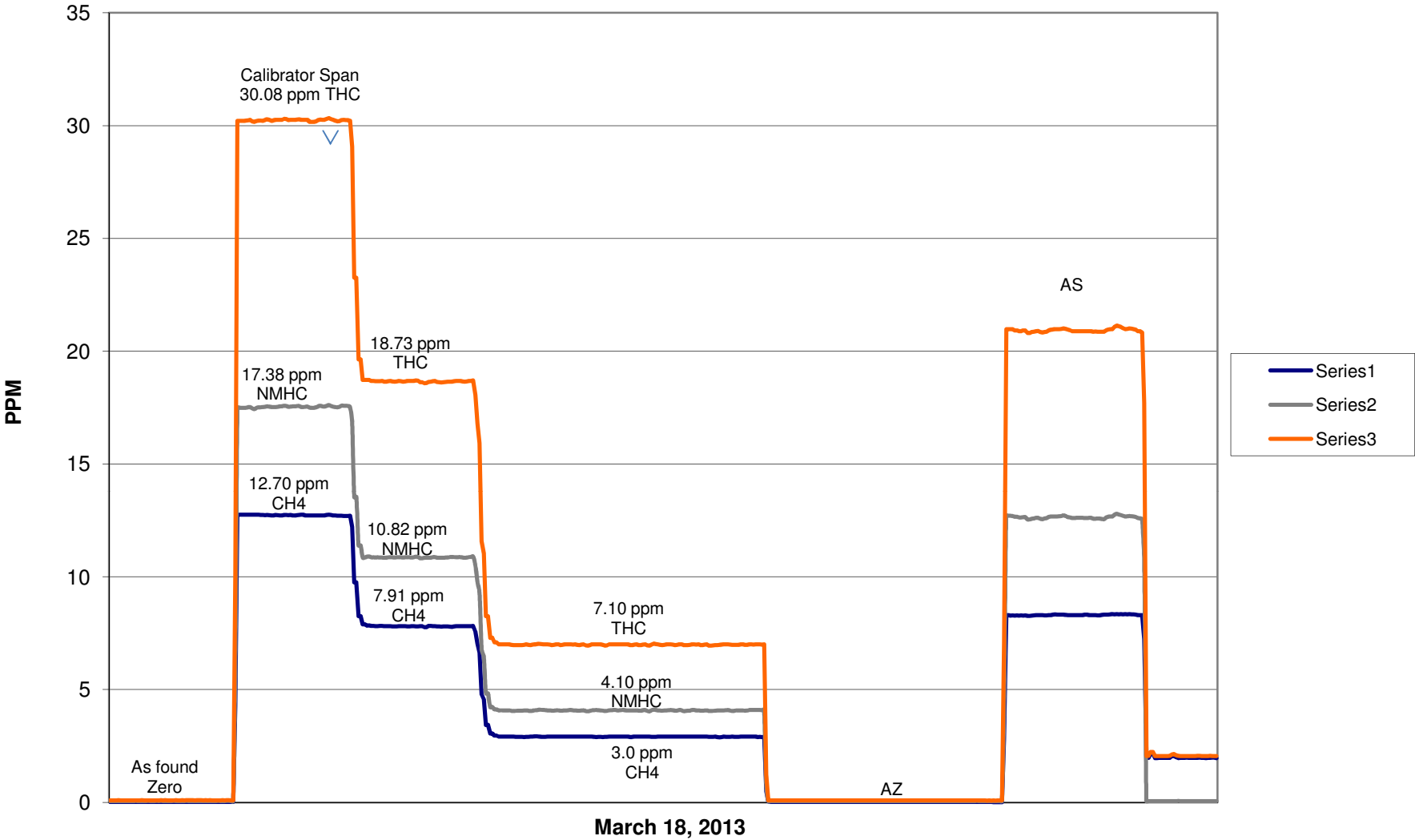
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.091	N/A	Correlation Coefficient	0.999904
30.084	30.238	0.9949		
18.728	18.627	1.0054		
7.099	6.984	1.0164	Slope	0.997002
			Intercept	0.034537

THC Calibration Data



THC/CH₄/NMHC Calibration



Calibration Report

Parameter TRS

Air Monitoring Network PAZA



Station Information

Calibration Date	March 19,2013	Previous Calibration	February 13,2013
Station Number	1	Station Location	Henry Pirker
Reason:	Routine	Install	Removal
		Other:	
Start Time (MST)	10:55	End Time (MST)	14:01
Barometric Pressure	0.922 ATM	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
Cal Gas Conc	10.1 ppb	Cal Gas Expiry Date	05/11/2013
		Cal Gas Cylinder #	LL160692
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 1 volt	DACS channel #	9
	Before		After
Calculated slope	1.000311	Calculated slope	0.956484
Calculated intercept	-0.128344	Calculated intercept	-0.131775
Analyzer make	TEI 45C	Analyzer serial #	630718528

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Coefficient	1.132		1.132	
Background	11.4		11.4	
Pressure	663.1	mm Hg	666.0	mm Hg
Flow	0.456	ccm	0.457	ccm
Lamp Voltage	827	V	827	V

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)		Correction factor (Cc/lc)
4995	0.00	0.00	0.31	N/A
4995	39.93	80.10	83.99	0.9537
4995	19.95	40.18	41.95	0.9578
8995	8.94	10.03	10.54	0.9511
4995	0.00	0.00	0.31	As Found Zero
4995	39.93	80.10	83.99	As Found Span
Average Correction Factor				0.9542

Calculated value of As Found Response: 83.6 ppb Percent Change of As Found: -4.3%

	before calibration		after calibration	
Auto zero	-0.29	ppb	0.12	ppb
Auto span	33.10	ppb	33.57	ppb

Notes: Sox scrubber checked with 403 ppb SO2. No adjustment made.

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter TRS

Air Monitoring Network PAZA



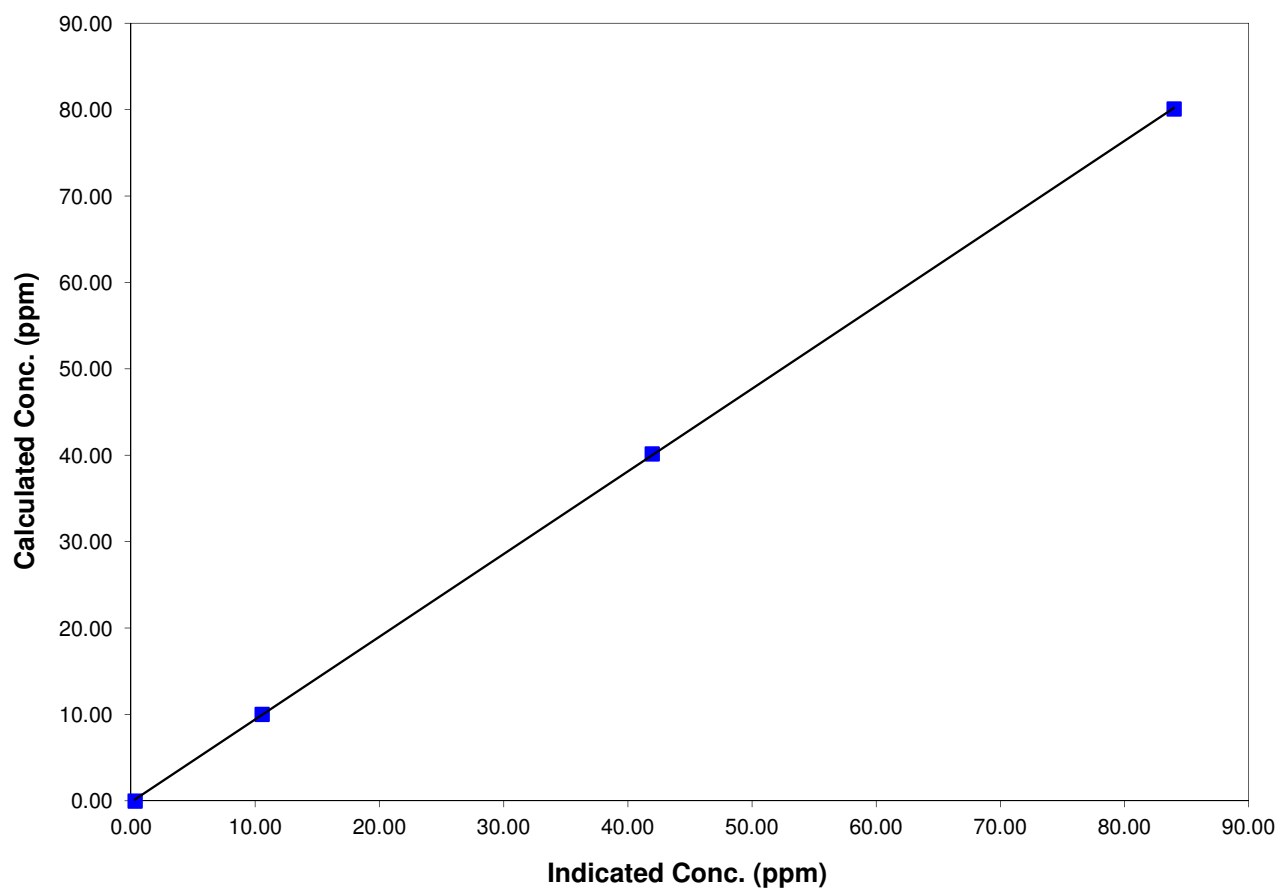
Station Information

Calibration Date	March 19,2013	Previous Calibration	February 13,2013
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	10:55	End Time (MST)	14:01
Analyzer make/model	TEI 45C	Analyzer serial #	630718528

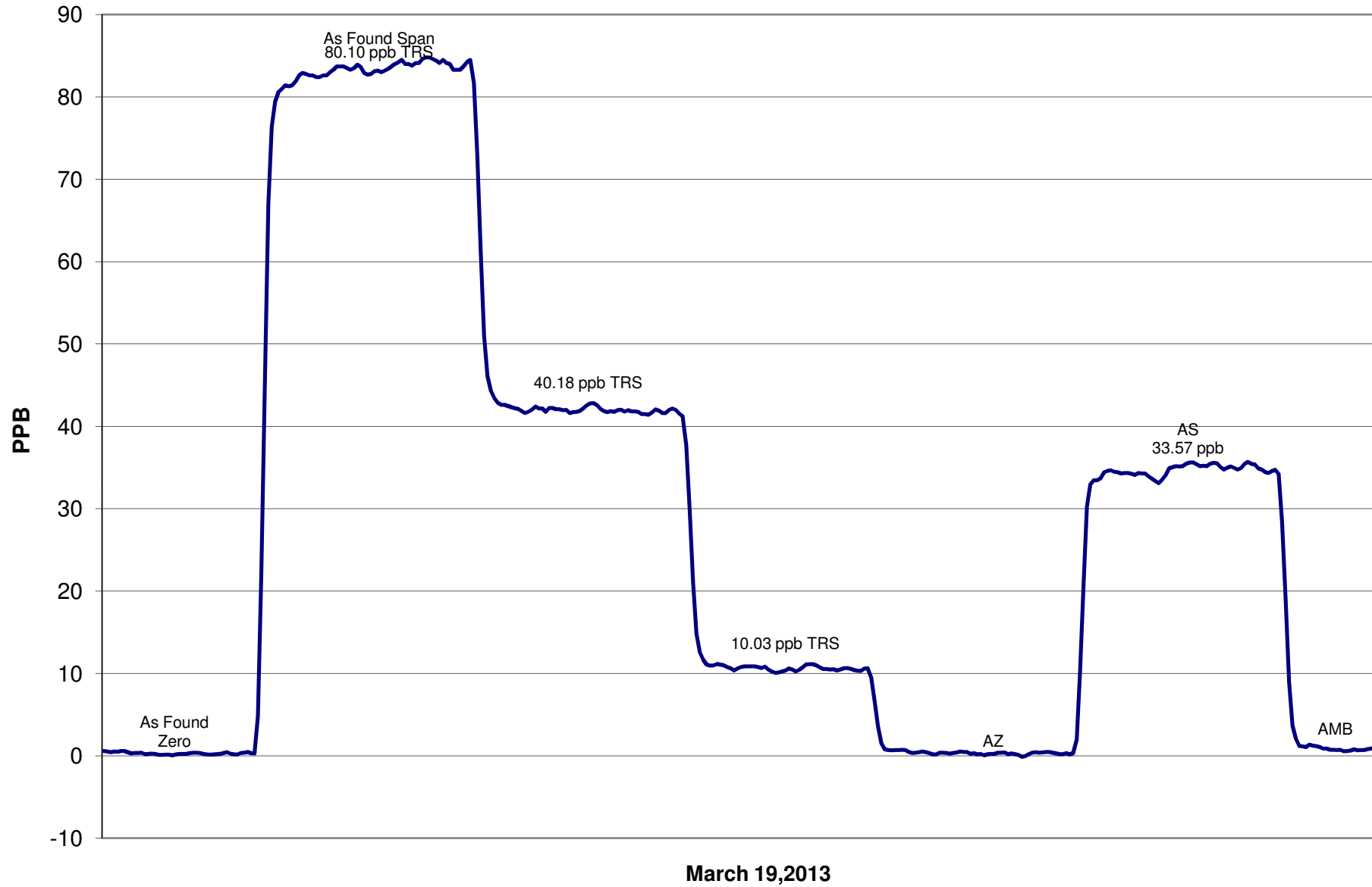
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.306	N/A		
80.099	83.988	0.9537	Correlation Coefficient	0.999980
40.179	41.948	0.9578		
10.028	10.543	0.9511	Slope	0.956484
			Intercept	-0.131775

TRS Calibration Curve



TRS Calibration



Calibration Report



Parameter SO₂

Air Monitoring Network PAZA

Station Information

Calibration Date	March 21, 2013	Previous Calibration	February 21, 2013
Station Number	2	Station Location	Evergreen Park
Reason:	Routine	Install	Removal
		Other:	
Start Time (MST)	11:13	End Time (MST)	14:28
Barometric Pressure	0.921 ATM	Station Temperature	20.0 Deg C
Calibrator	EnviroNics	Serial Number	3474
Cal Gas Concentration	50.8 ppm	Cal Gas Expiry Date	12/03/2014
Correction factor	0.031307	Cal Gas Cylinder #	LL107272
DACS make	CR3000	DACS serial No.	5236
DACS voltage range	0 - 5 volt	DACS channel #	6
	<u>Before</u>		<u>After</u>
Calculated slope	1.003095	Calculated slope	1.000014
Calculated intercept	1.899308	Calculated intercept	0.948270
Analyzer make	Teco 43i	Analyzer serial #	701120008

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	11.5		11.5	
coefficient	1.228		1.228	
Lamp Voltage	830	volts	830	volts
Chamber Temp	45.2	Deg C	45.2	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	668.3	mm Hg	668.5	mm Hg
Sample Flow	0.449	ccm	0.448	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	0.4	N/A
4995	39.93	402.9	402.6	1.0006
4995	19.97	202.3	200.5	1.0090
4995	9.97	101.2	99.0	1.0221
4995	0.0	0.0	0.4	As Found Zero
4995	39.93	402.9	402.6	As Found Span
Average Correction Factor				1.0106

Calculated value of As Found Response: 405.376 ppm Percent Change of As Found: -0.6%

	before calibration		after calibration	
Auto zero	0.0	ppm	0.4	ppm
Auto span	287.4	ppm	289.7	ppm

Notes: No adjust.

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter SO2

Air Monitoring Network PAZA



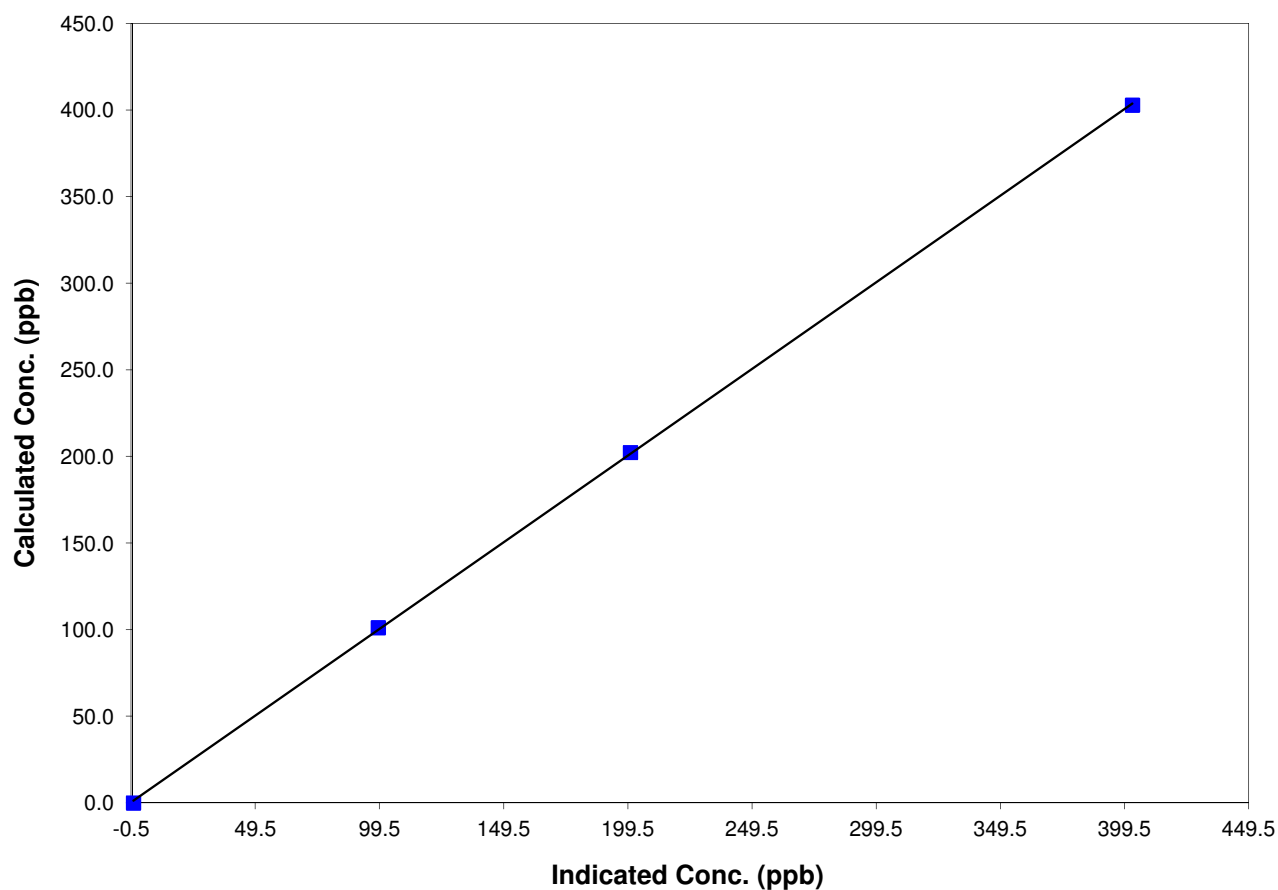
Station Information

Calibration Date	March 21, 2013	Previous Calibration	February 21, 2013
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	11:13	End Time (MST)	14:28
Analyzer make/model	Teco 43i	Analyzer serial #	701120008

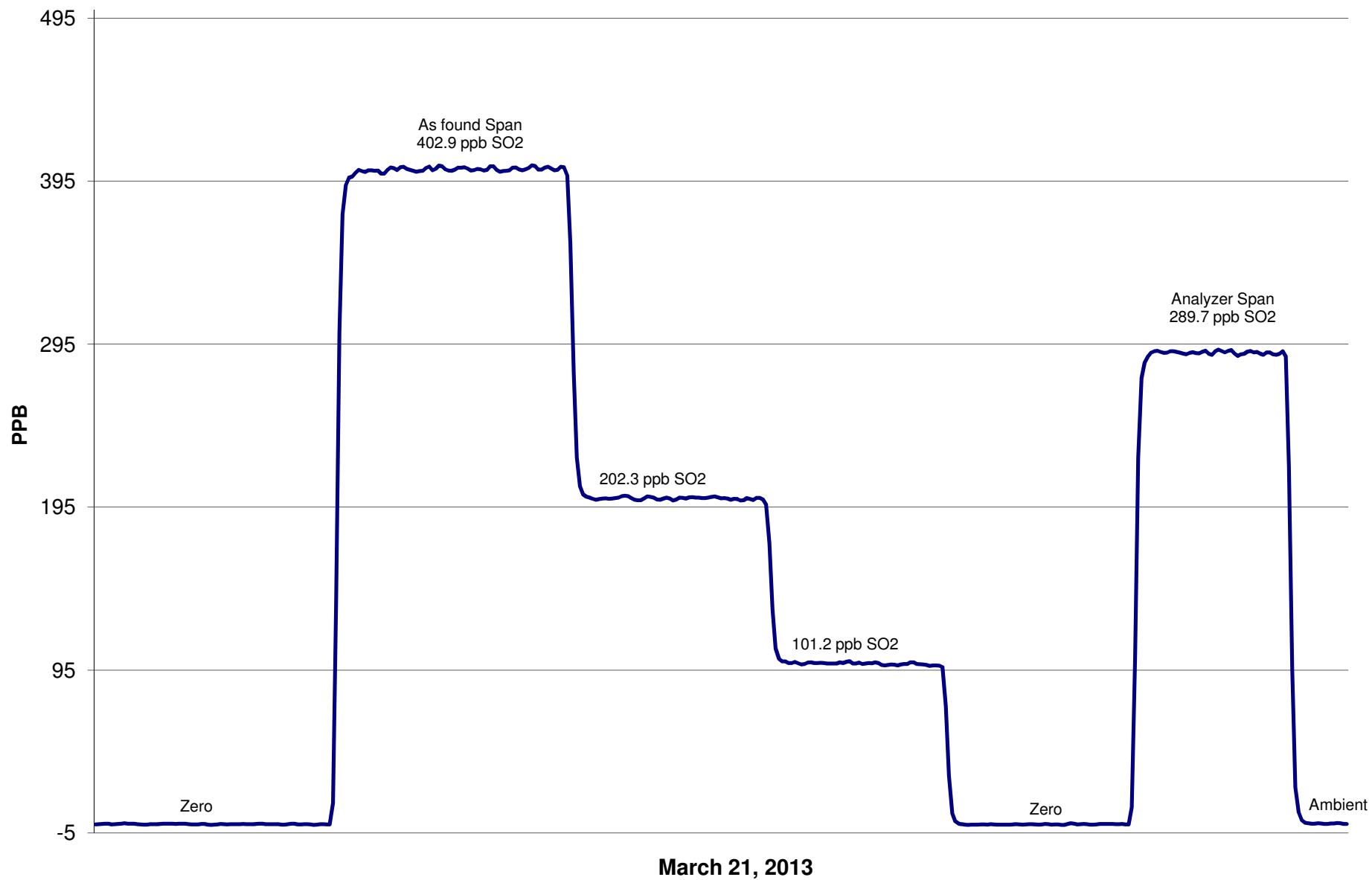
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.4	N/A		
402.9	402.6	1.0006	Correlation Coefficient	0.999948
202.3	200.5	1.0090		
101.2	99.0	1.0221	Slope	1.000014
			Intercept	0.948270

SO2 Calibration Curve



SO2 Calibration



Calibration Report



Parameter TRS

Air Monitoring Network PAZA

Station Information

Calibration Date	March 21, 2013	Previous Calibration	February 21, 2013
Station Number	2	Station Location	Evergreen Park
Reason:	☒ Routine	☐ Install	☐ Removal
			☐ Other:
Start Time (MST)	9:31	End Time (MST)	13:11
Barometric Pressure	0.921 ATM	Station Temperature	20.0 Deg C
Calibrator	EnviroNics	Serial Number	3474
Cal Gas Conc	10.1 ppm	Cal Gas Expiry Date	11/05/2013
Correction factor	0.031307	Cal Gas Cylinder #	LL160692
DACS make	CR3000	DACS serial No.	5236
DACS voltage range	0 - 5 volt	DACS channel #	5
	<u>Before</u>		<u>After</u>
Calculated slope	0.992236	Calculated slope	0.989054
Calculated intercept	-0.255062	Calculated intercept	0.265915
Analyzer make	TEI Model 43C	Analyzer serial #	3.199E+13

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	36.4	ppb	36.5	ppb
coefficient	1.058		1.058	
Lamp Voltage	1028	volts	1028	volts
Chamber Temp	44.1	Deg C	44.1	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	636.9	mm Hg	637.1	mm Hg
Sample Flow	0.627	ccm	0.628	ccm
Lamp Intensity	31,857	mv	31,666	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	80.10	80.8	0.9917
4995	19.96	40.20	40.3	0.9985
8995	8.97	10.06	9.9	1.0131
4995	0.00	0.00	-0.2	As Found Zero
4995	39.95	80.14	80.8	As Found Span
Average Correction Factor				1.0011

Calculated value of As Found Response: 80.12 ppm Percent Change of As Found: 0.0%

	before calibration		after calibration	
Auto zero	0.3	ppm	0.1	ppm
Auto span	81.6	ppm	78.5	ppm

Notes: Slight zero adjust.

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter TRS

Air Monitoring Network PAZA



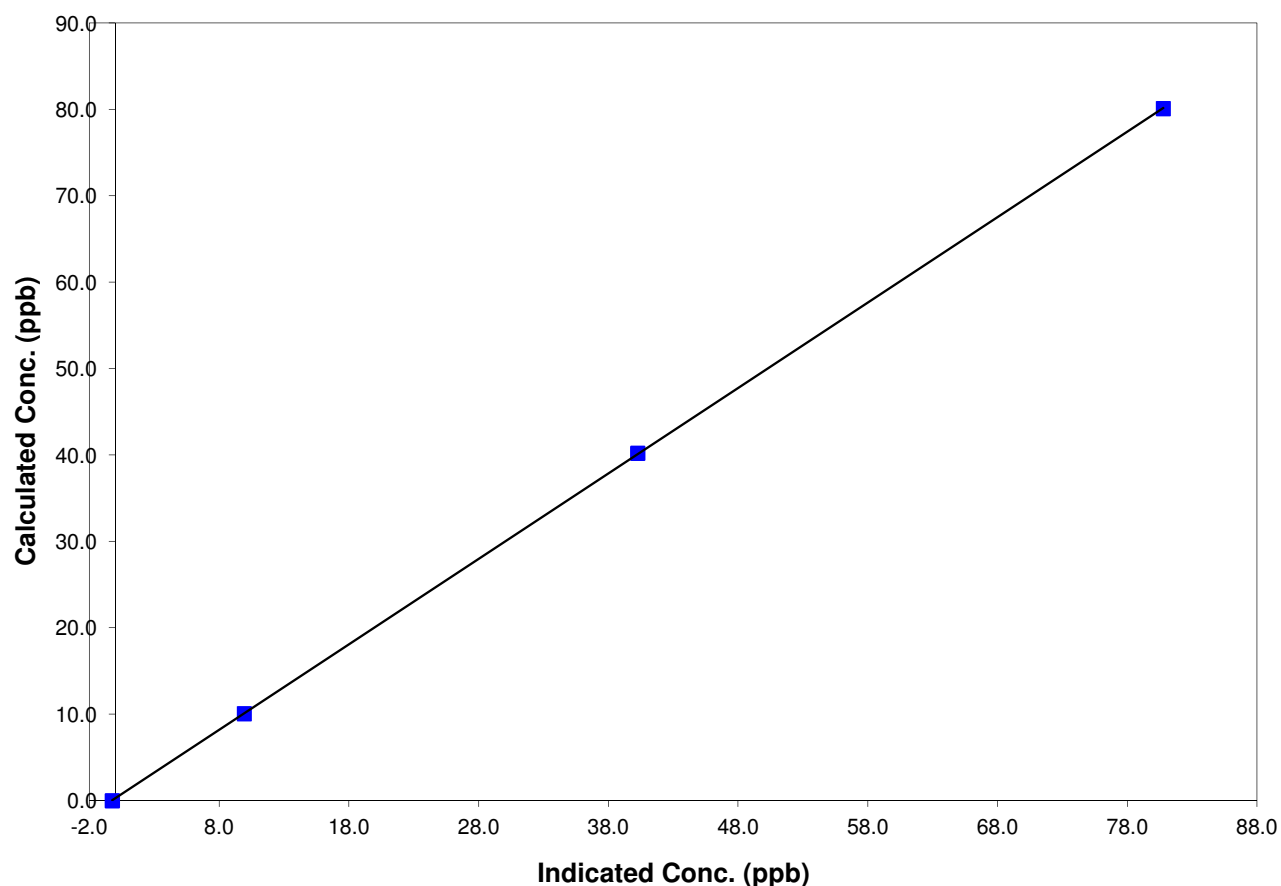
Station Information

Calibration Date	March 21, 2013	Previous Calibration	February 21, 2013
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	9:31	End Time (MST)	13:11
Analyzer make/model	TEI Model 43C	Analyzer serial #	31990000000491

Calibration Data

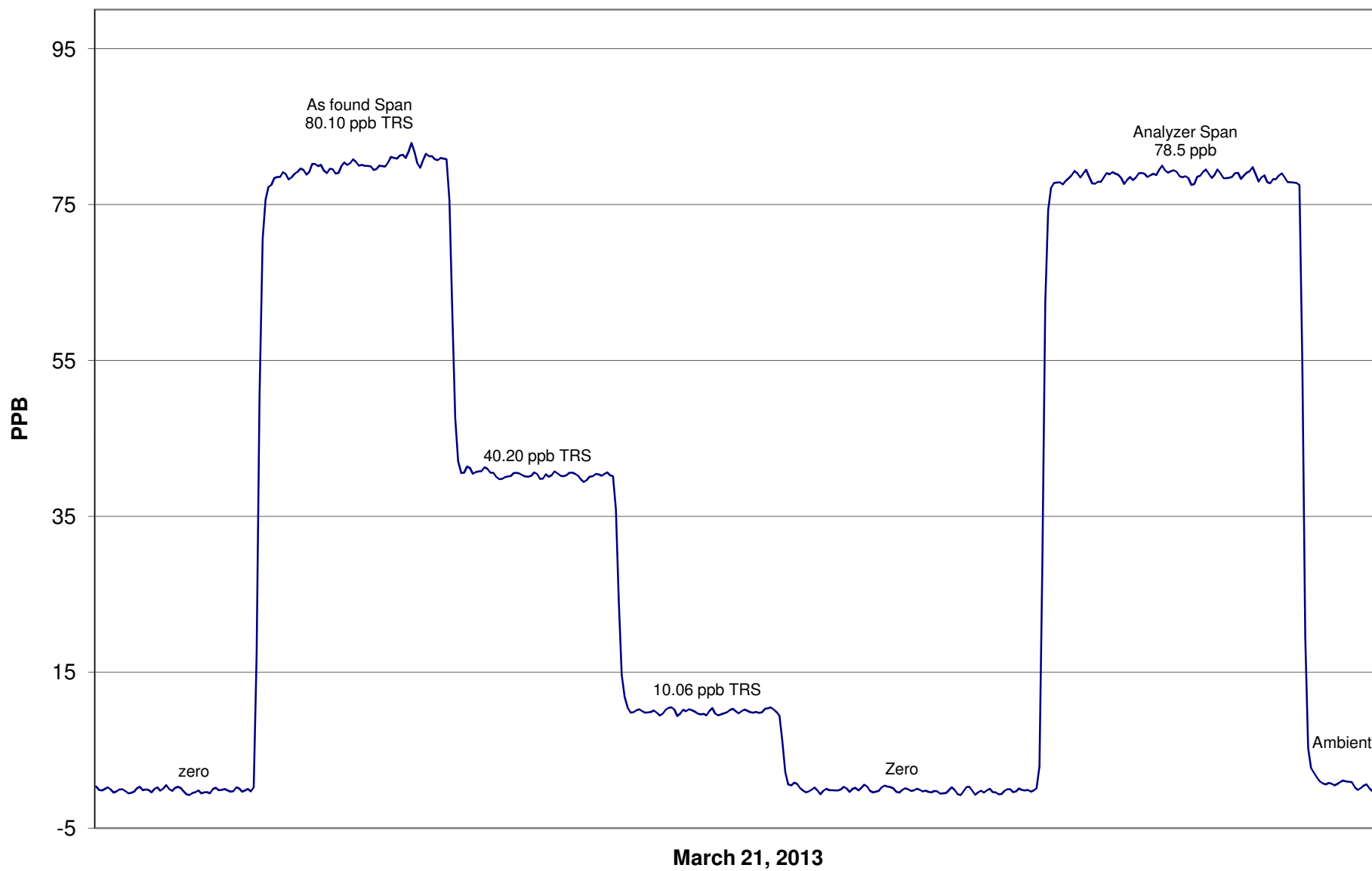
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.2	N/A	Correlation Coefficient	0.999995
80.1	80.8	0.9917		
40.2	40.3	0.9985		
10.1	9.9	1.0131	Slope	0.989054
			Intercept	0.265915

TRS Calibration Curve



As found Span
80.10 ppb TRS

TRS Calibration



AB TEOM PM2.5 Calibration



STATION: Evergreen Park
 LOCATION: PAZA - Grande Prairie

OPERATOR: Grover Christiansen
 DATE: 21/03/2013

MONITOR INFO / PARAMETER VALUES:

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

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

RECENT CALIBRATION AND AUDIT HISTORY

Previous Audit	24/12/2012
Previous Calibration	NA

PUMP CAPACITY CHECK *	PASS
-----------------------	------

* capacity test or pump on timed test utilized to verify pump integrity
 "FAIL" indicates that pump requires service.

LEAK CHECK	Indicated Flow (lpm)	
	Main	Auxiliary
PUMP ON	0.050	0.275
PUMP OFF	0.000	0.000
NET	0.050	0.275
LIMITS	<0.15	<0.60

	Ambient Temp. (^o C)	Ambient Pres. (atm)	Ko *	Bypass flow (lpm)	Sample flow (lpm)
SET POINT (S)	na	na	16147	13.67	3.000
INDICATED (I)	-9.5	0.921	16147	13.66	2.999
MEASURED (AF)	-10.1	0.920	16147	13.66	3.005
MEASURED (M)	-10.1	0.920	16265	13.66	3.000
DIFFERENCE (M-I)	-0.6	-0.001	0.7%	-0.07	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: 0.11014 Serial #: CVK 2123

COMMENTS: Pass.

Replaced sample filter. Filter loaded @ 24%.

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

Calibration Report



Parameter SO₂

Air Monitoring Network PAZA

Station Information

Calibration Date	March 26, 2013	Previous Calibration	February 22, 2013
Station Number	3	Station Location	Smokey Heights
Reason:	☒ Routine	☐ Install	☐ Removal
		☐ Other:	
Start Time (MST)	13:30:00 PM	End Time (MST)	16:28
Barometric Pressure	0.923 ATM	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
Cal Gas Concentration	50.8 ppm	Cal Gas Cert Date	12/03/2014
Correction factor	0.031375	Cal Gas Cylinder #	LL107272
DACS make	CR3000	DACS serial No.	5238
DACS voltage range	0 - 5 volt	DACS channel #	6
	<u>Before</u>		<u>After</u>
Calculated slope	0.999795	Calculated slope	0.994440
Calculated intercept	2.096017	Calculated intercept	2.073072
Analyzer make	Teco 43i	Analyzer serial #	701120009

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	11.5		11.5	
coefficient	0.985		0.985	
Lamp Voltage	924	volts	924	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	668.1	mm Hg	668.7	mm Hg
Sample Flow	0.446	ccm	0.446	ccm
Lamp Intensity	89	%	89	%

Calibration Data

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.0	0.00	0.3	N/A
4995	39.93	402.87	404.2	0.9966
4995	19.97	202.29	200.0	1.0112
4995	9.97	101.19	97.4	1.0391
4995	0.0	0.00	0.3	As Found Zero
4995	39.93	402.87	404.2	As Found Span
Average Correction Factor				1.0156

Calculated value of As Found Response: 405.939 ppm Percent Change of As Found: -0.8%

	before calibration		after calibration	
Auto zero	0.4	ppb	0.6	ppb
Auto span	304.5	ppb	262.4	ppb

Notes: No adjust.

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter SO2

Air Monitoring Network PAZA



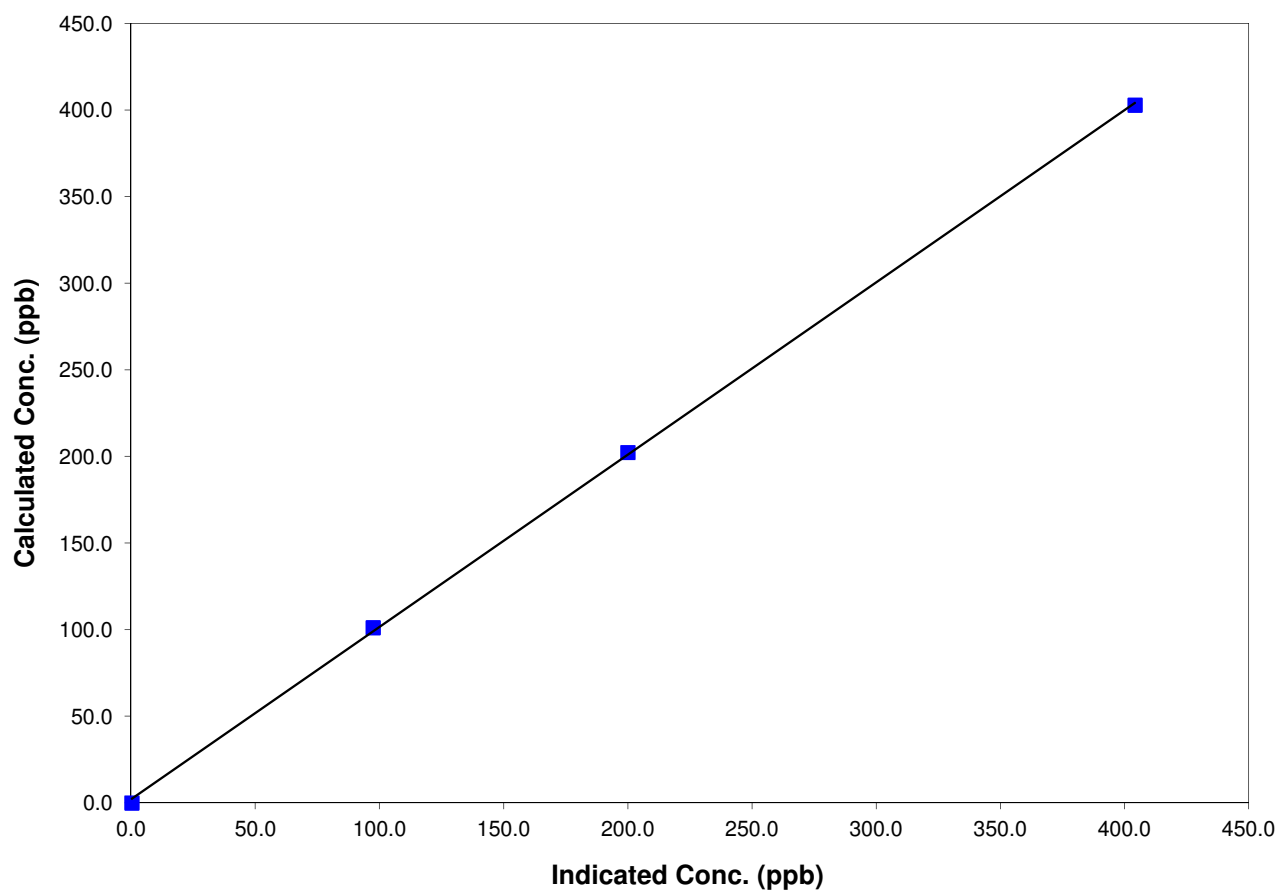
Station Information

Calibration Date	March 26, 2013	Previous Calibration	February 22, 2013
Station Number	3	Station Location	Smokey Heights
Start Time (MST)	13:30:00 PM	End Time (MST)	16:28
Analyzer make/model	Teco 43i	Analyzer serial #	701120009

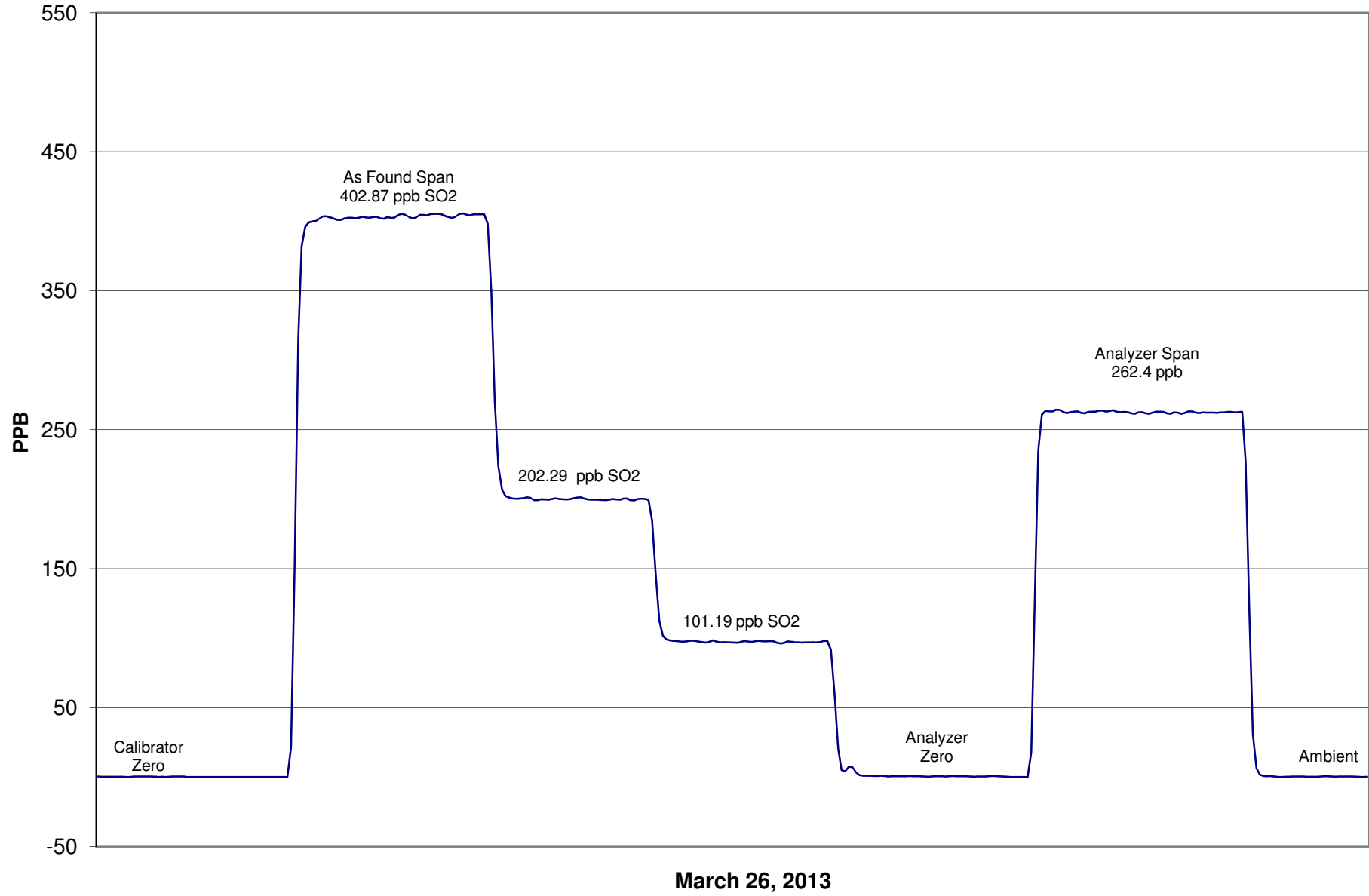
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	N/A	Correlation Coefficient	0.999844
402.9	404.2	0.9966		
202.3	200.0	1.0112		
101.2	97.4	1.0391	Slope	0.994440
			Intercept	2.073072

SO2 Calibration Curve



Smokey Heights SO₂ Calibration



Calibration Report



Parameter TRS

Air Monitoring Network PAZA

Station Information

Calibration Date	March 26, 2013	Previous Calibration	February 22, 2013
Station Number	3	Station Location	Smokey Heights
Reason:	☐ Routine	☐ Install	☐ Removal
			☒ Other: Maintenance
Start Time (MST)	9:50	End Time (MST)	11:03
Barometric Pressure	0.923 ATM	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
Cal Gas Conc	10.1 ppm	Cal Gas Expiry Date	11/05/2013
Correction factor	0.031375	Cal Gas Cylinder #	LL160692
DACS make	CR3000	DACS serial No.	5238
DACS voltage range	0 - 5 volt	DACS channel #	5
	<u>Before</u>		<u>After</u>
Calculated slope	1.003031	Calculated slope	0.982827
Calculated intercept	0.294300	Calculated intercept	1.161088
Analyzer make	TEI Model 43C	Analyzer serial #	0436610005

	before		after	
Concentration range	100	ppb	100	ppb
Background	18.9	ppb	19.3	ppb
coefficient	0.935		1.019	
Lamp Voltage	822	volts	822	volts
Chamber Temp	43.5	Deg C	43.5	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	585.7	mm Hg	604.3	mm Hg
Sample Flow	0.628	ccm	0.645	ccm
Lamp Intensity	35,025	mv	35,126	mv

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.0	0.00	-0.1	N/A
4995	39.94	80.12	81.0	0.9890
4995	19.97	40.22	38.4	1.0469
8995	8.96	10.05	8.7	1.1609
4995	0.0	0.00	-0.1	As Found Zero
4995	39.94	80.12	73.3	As Found Span
Average Correction Factor				1.0656

Calculated value of As Found Response: 73.94 ppm Percent Change of As Found: **7.7%**

	before calibration		after calibration	
Auto zero	0.0	ppm	1.3	ppm
Auto span	52.9	ppm	NQA	ppm

Notes: Replace Daily Span perm tube.
Slight adjust of 7 ppb, run adjustment point. Shut down & replace Quartz tube.

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter TRS

Air Monitoring Network PAZA



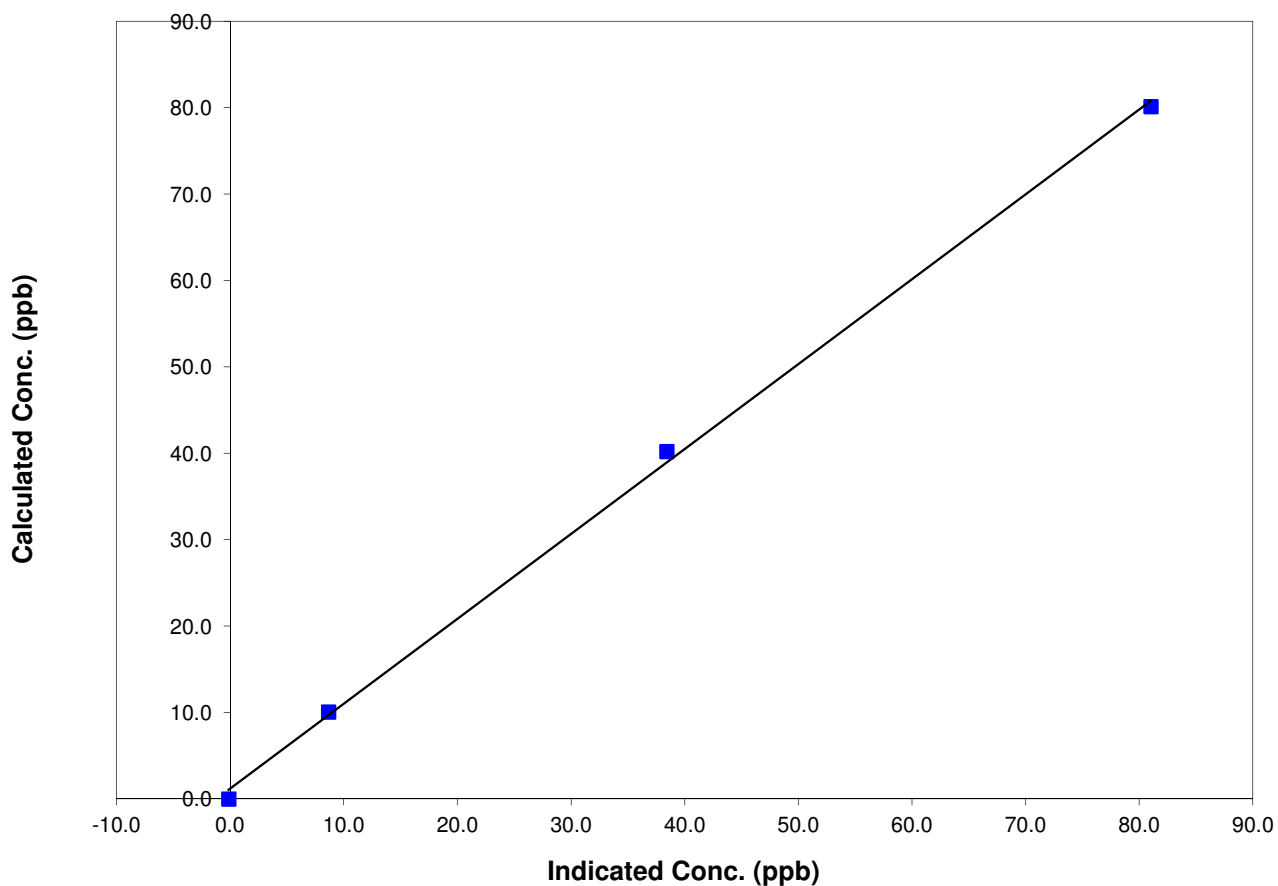
Station Information

Calibration Date	March 26, 2013	Previous Calibration	February 22, 2013
Station Number	3	Station Location	Smokey Heights
Start Time (MST)	9:50	End Time (MST)	11:03
Analyzer make/model	TEI Model 43C	Analyzer serial #	0436610005

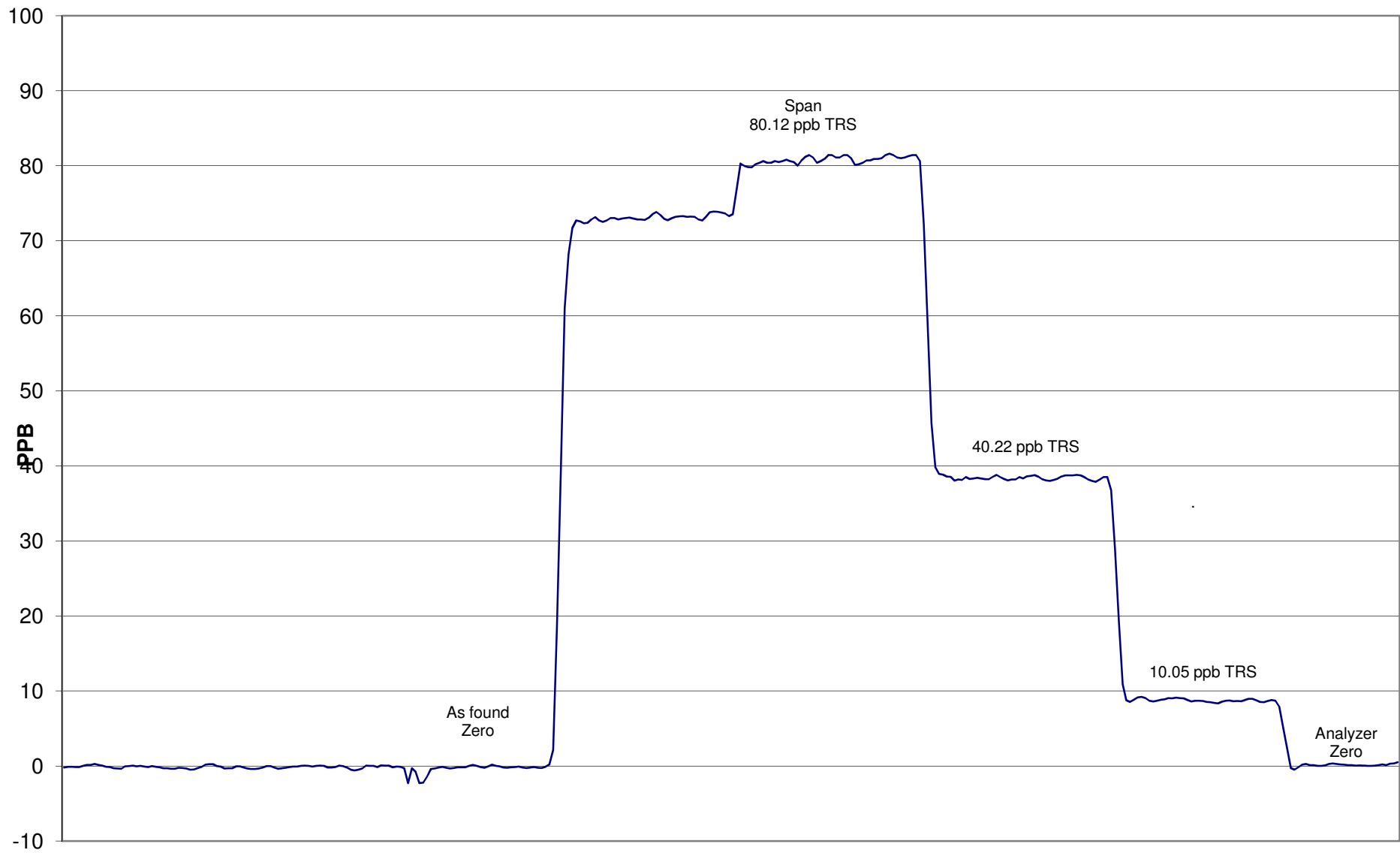
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	N/A	Correlation Coefficient	0.999146
80.1	81.0	0.9890		
40.2	38.4	1.0469		
10.1	8.7	1.1609	Slope	0.982827
			Intercept	1.161088

TRS Calibration Curve



Smokey Heights TRS Calibration



March 26, 2013

Calibration Report



Parameter TRS

Air Monitoring Network PAZA

Station Information

Calibration Date	March 26, 2013	Previous Calibration	February 22, 2013
Station Number	3	Station Location	Smokey Heights
Reason:	☐ Routine	☐ Install	☐ Removal
			☒ Other: Maintenance
Start Time (MST)	11:56	End Time (MST)	15:00
Barometric Pressure	0.923 ATM	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
Cal Gas Conc	10.1 ppm	Cal Gas Expiry Date	11/05/2013
Correction factor	0.031375	Cal Gas Cylinder #	LL160692
DACS make	CR3000	DACS serial No.	5238
DACS voltage range	0 - 5 volt	DACS channel #	5
	<u>Before</u>		<u>After</u>
Calculated slope	1.003031	Calculated slope	0.996933
Calculated intercept	0.294300	Calculated intercept	0.483680
Analyzer make	TEI Model 43C	Analyzer serial #	0436610005

	before		after	
Concentration range	100	ppb	100	ppb
Background	19.3	ppb	19.6	ppb
coefficient	1.019		0.964	
Lamp Voltage	822	volts	822	volts
Chamber Temp	43.5	Deg C	43.5	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	604.3	mm Hg	580.5	mm Hg
Sample Flow	0.645	ccm	0.628	ccm
Lamp Intensity	35,126	mv	35,440	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	0.5	N/A
4995	39.94	80.12	80.5	0.9954
4995	19.97	40.22	38.7	1.0399
8995	8.96	10.05	9.1	1.0998
4995	0.0	0.00	0.5	As Found Zero
4995	39.94	80.12	80.5	As Found Span
Average Correction Factor				1.0450

Calculated value of As Found Response: 80.49 ppm Percent Change of As Found: **-0.5%**

	before calibration		after calibration	
Auto zero	0.0	ppm	0.6	ppm
Auto span	52.9	ppm	18.4	ppm

Notes: After quartz tube install. New perm tube supplied by Focus is low @ 18 ppb.

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter TRS

Air Monitoring Network PAZA



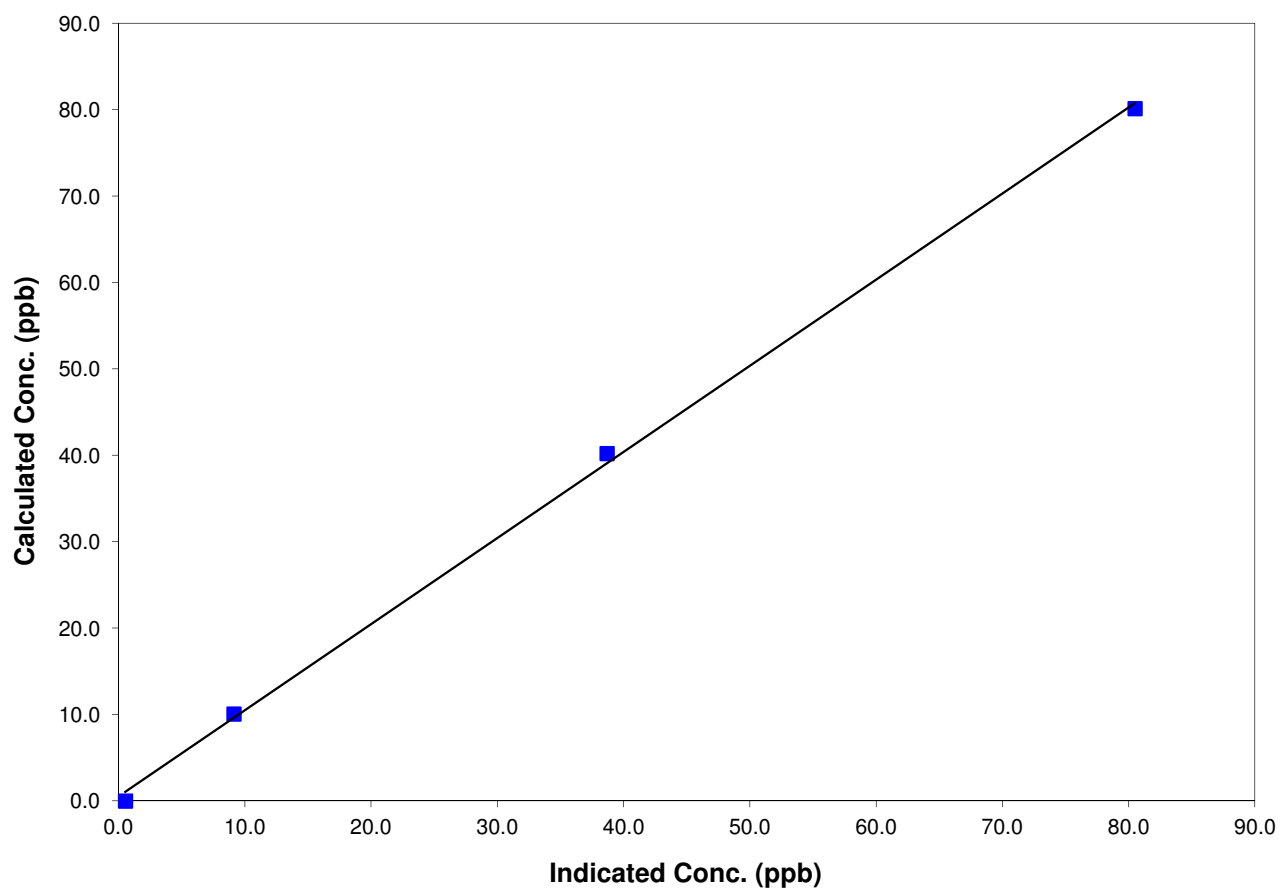
Station Information

Calibration Date	March 26, 2013	Previous Calibration	February 22, 2013
Station Number	3	Station Location	Smokey Heights
Start Time (MST)	11:56	End Time (MST)	15:00
Analyzer make/model	TEI Model 43C	Analyzer serial #	0436610005

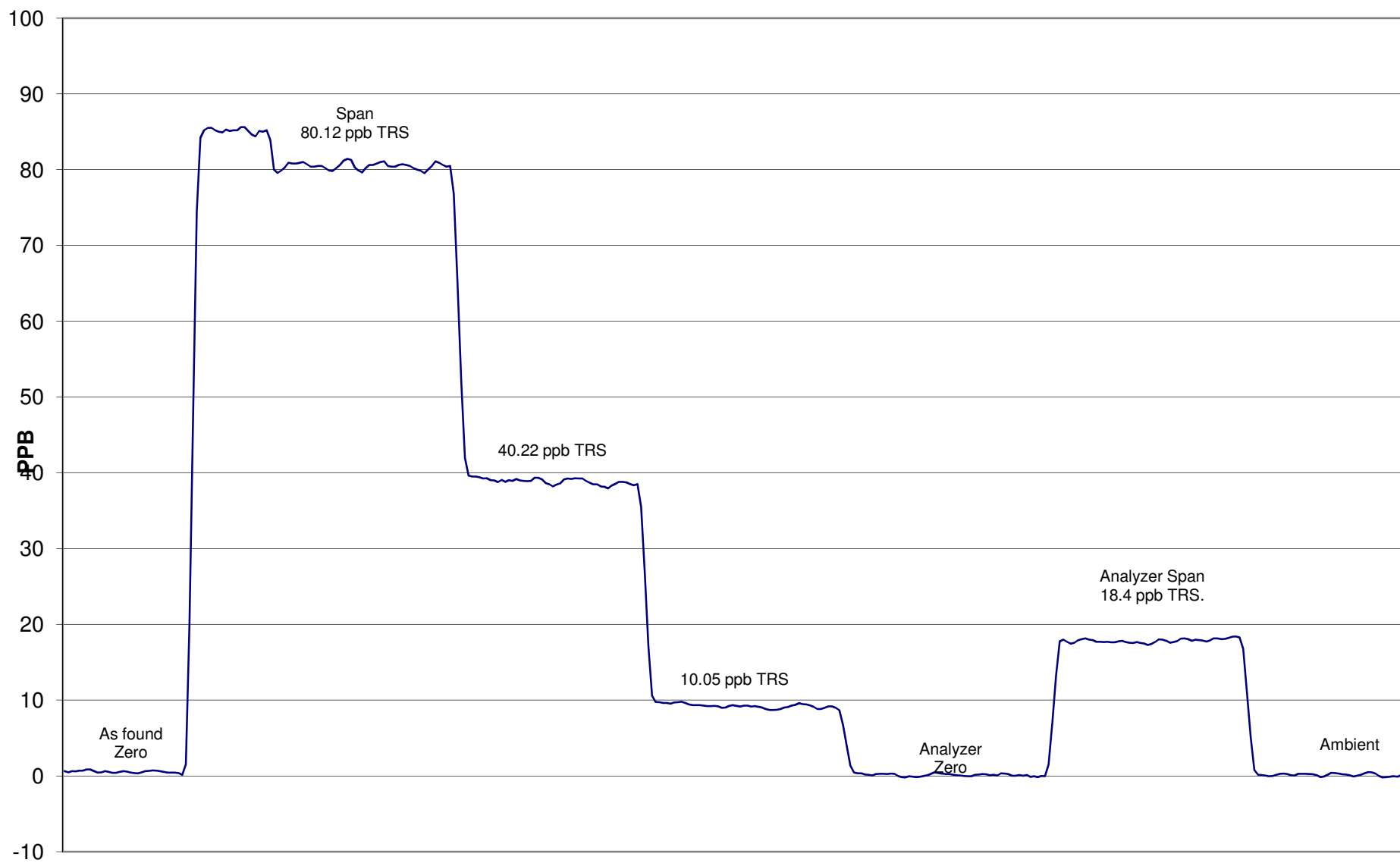
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.5	N/A	Correlation Coefficient	0.999225
80.1	80.5	0.9954		
40.2	38.7	1.0399	Slope	0.996933
10.1	9.1	1.0998		
			Intercept	0.483680

TRS Calibration Curve



Smokey Heights TRS Calibration



March 26, 2013

Calibration Report

Parameter SO2
Air Monitoring Network PAZA



Station Information

Calibration Date	March 14, 2013	Previous Calibration	February 17, 2013
Station Number	4	Station Location	Beaverlodge
Reason:	Routine	Install	Removal
Start Time (MST)	14:10	End Time (MST)	17:28
Barometric Pressure	0.923 atm	Station Temperature	23.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
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	1.004489	Calculated slope	1.016954
Calculated intercept	-0.075879	Calculated intercept	-0.146711
Analyzer make	TEI Model 43i-TLE	Analyzer serial #	713021137

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	2.38		2.4	
Coefficient	1.071		1.071	
PMT	-767.6	V	-767.6	V
UV Lamp Voltage	1059	V	1063	V
Chamber Temp	45.2	Deg C	45.2	Deg C
Pressure	666.1	mm Hg	666.4	mm Hg
Sample Flow	0.488	LPM	0.485	LPM
Lamp Intesity	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)
4995	0.00	0.0	0.4	N/A
4995	39.93	85.7	84.5	1.0138
4995	19.97	43.0	42.3	1.0168
4995	9.97	21.5	21.1	1.0191
4995	0.00	0.0	0.4	As found zero
4995	39.93	85.7	84.5	As found span
Average Correction Factor				1.0166

Calculated value of As Found Response: 84.428 ppm Percent Change of As Found: 1.4%

	before calibration		after calibration	
Auto zero	0.3	ppb	0.2	ppb
Auto span	58.5	ppb	59.5	ppb

Notes: No adjustments made.

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter SO2

Air Monitoring Network PAZA



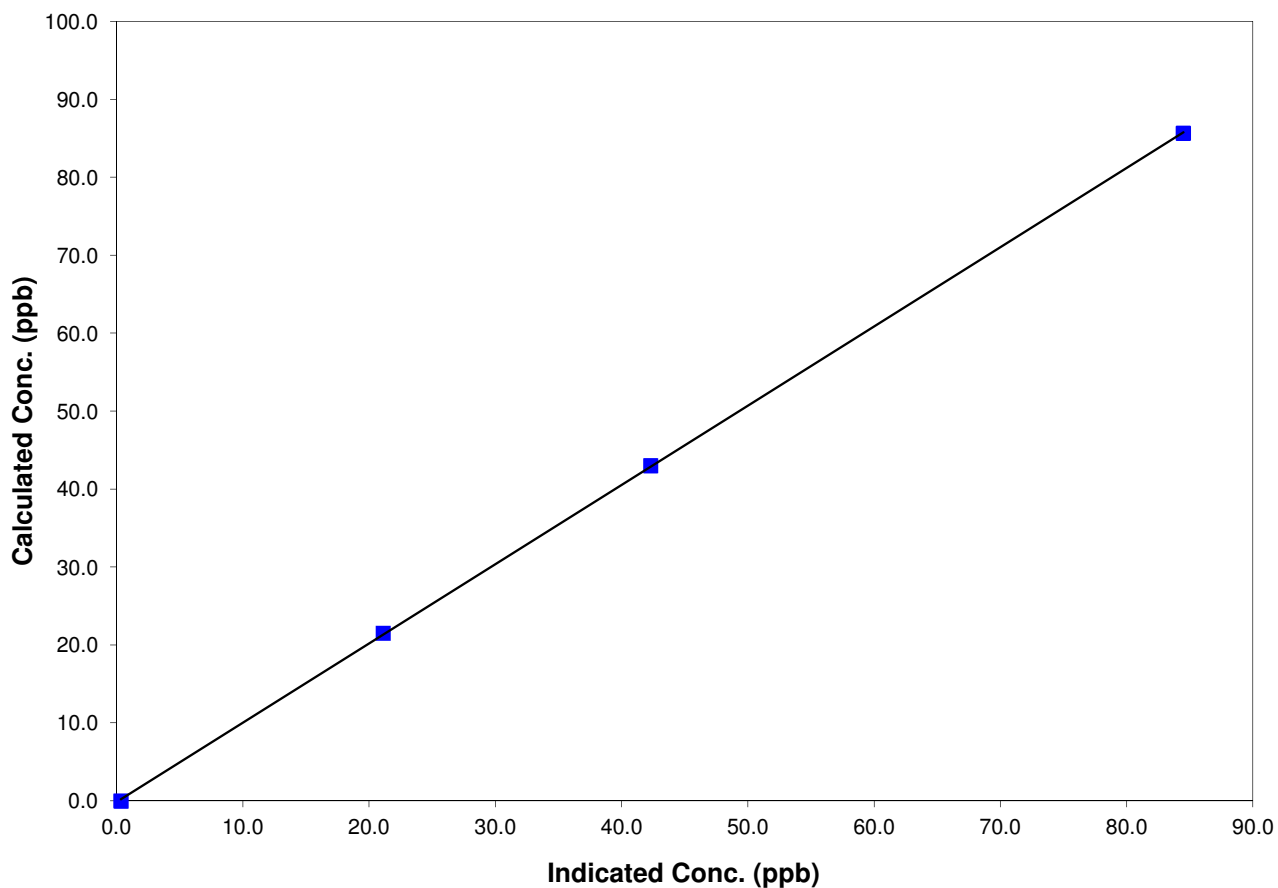
Station Information

Calibration Date	March 14, 2013	Previous Calibration	February 17, 2013
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	14:10	End Time (MST)	17:28
Analyzer make/model	TEI Model 43i-TLE	Analyzer serial #	713021137

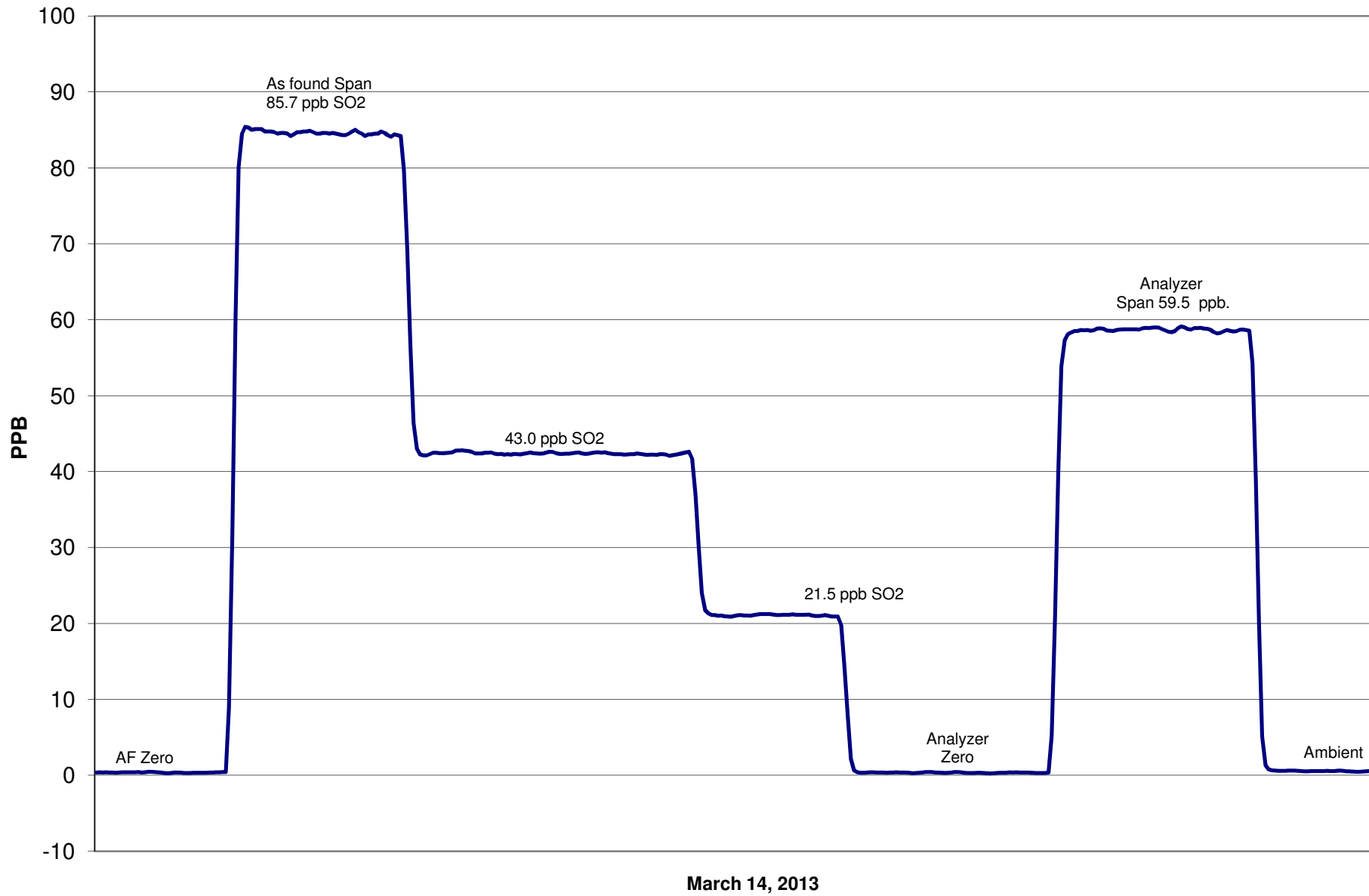
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.4	N/A		
85.7	84.5	1.0138	Correlation Coefficient	0.999971
43.0	42.3	1.0168		
21.5	21.1	1.0191	Slope	1.016954
			Intercept	-0.146711

SO2 Calibration Curve



SO2 Calibration



Calibration Report

Parameter

NO_x-NO-NO₂

Air Monitoring Network

PAZA



Station Information

Calibration Date	March 14, 2013	Previous Calibration	February 17, 2013
Station Number	4	Station Location	Beaverlodge
Reason:	Routine	Installation	Removal
Other:			
Start Time (MST)	9:40	End Time (MST)	14:01
Barometric Pressure	0.923	Atm	Station Temperature
Calibrator	EnviroNics	Serial Number	2844
NO Cal Gas Conc	51.2	ppm	Cal Gas Expiry Date
NOx Cal Gas Conc	51.2	ppm	Cal Gas Serial #
			March 12, 2014
			LL107272

DACS Information

DACS make	CR3000	DACS serial No.	5237
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Parameter		NO2	NOx	NO
Before	Data Slope	0.997749	0.995289	0.998173
	Data Offset	0.183612	1.827336	2.075134
After	Data Slope	0.999310	0.995949	0.998359
	Data Offset	0.037678	1.407715	1.613611
Channel #		8	6	7
Voltage Range		0 - 5 VDC	0 - 5 VDC	0 - 5 VDC

Analyzer Information

Analyzer make/model	TEI 42i	Analyzer serial #	906535068
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Test Point	before		after	
Concentration range	0-500	ppb	0-500	ppb
NO offset	2.1	mV	2.1	mV
NOx bkgnd	2.4	mV	2.4	mV
NO coefficient	1.446		1.452	
NOx coefficient	1.001		1.001	
NO2 conv temp	326.0	Deg C	326.0	Deg C
PMT Temp	-2.8	Deg C	-2.8	Deg C
PMT Volt	-671.9	mV	-671.9	mV
R Cell Press	175.3	in Hg	174.7	in Hg
Sample Flow	0.788	ccm	0.789	ccm

Notes: Slight adjustment 80%.

Calibration Report

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



Station Information

Calibration Date: March 14, 2013 Station Location: Beaverlodge

Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor
zero	4995	0.00	0.0	0.0	0.0	-0.1	-0.1	-0.1	N/A	N/A
1	4995	39.94	406.1	406.1	0.0	407.0	406.0	0.2	0.9980	1.0004
2	4995	19.97	203.9	203.9	0.0	202.9	201.8	0.3	1.0050	1.0105
3	4995	9.97	102.0	102.0	0.0	99.5	99.1	0.3	1.0249	1.0294
AFZ	4995	0.00	0.0	0.0	0.0	-0.1	-0.1	-0.1	0.0000	0.0000
AFS	4995	39.94	406.1	406.1	0.8	405.0	404.1	0.3	1.0029	1.0051
Average Correction Factor									1.0093	1.0135

As Found Concentrations: NO_x= 406.9 NO= 406.3 As Found Percent Change NO_x= 0.2% NO= 0.0%

GPT Calibration Data

Dilution Flow 4995 ccm Source Gas Flow 39.94 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	-0.1	-0.1	0.0	-0.1	-0.1	-0.1	N/A	N/A	N/A	N/A
NO point	404.9	404.9	0.0	405.4	404.9	-0.1	0.9986	1.0000	N/A	N/A
300	404.9	104.3	300.6	405.8	104.3	300.9	0.9978	1.0000	0.9991	100.1%
200	404.9	199.8	205.1	405.6	199.8	204.9	0.9983	1.0000	1.0008	99.9%
100	404.9	296.7	108.2	405.7	296.7	108.4	0.9979	1.0000	0.9977	100.2%
Average Correction Factor							0.9980	1.0000	0.9992	100.1%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	0.0	-0.1	0.0	ppb	0.0	-0.1	-0.1	ppb
Auto span	205.5	203.2	1.6	ppb	214.3	212.6	1.0	ppb

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter NO₂

Air Monitoring Network PAZA



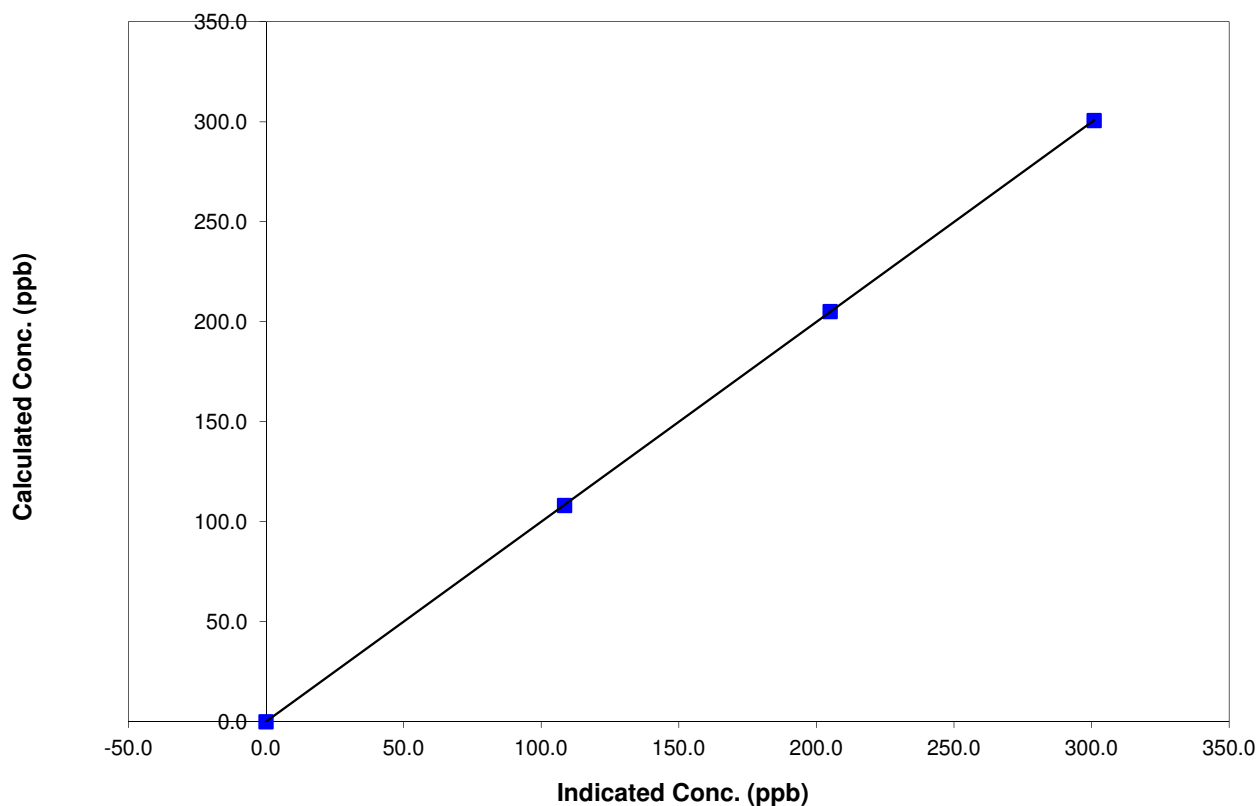
Station Information

Calibration Date	March 14, 2013	Previous Calibration	February 17, 2013
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	9:40	End Time (MST)	14:01
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	0.999997
300.6	300.9	0.9991		
205.1	204.9	1.0008		
108.2	108.4	0.9977	Slope	0.999310
			Intercept	0.037678

NO₂ Calibration Curve



Calibration Summary

Parameter NO_x

Air Monitoring Network PAZA



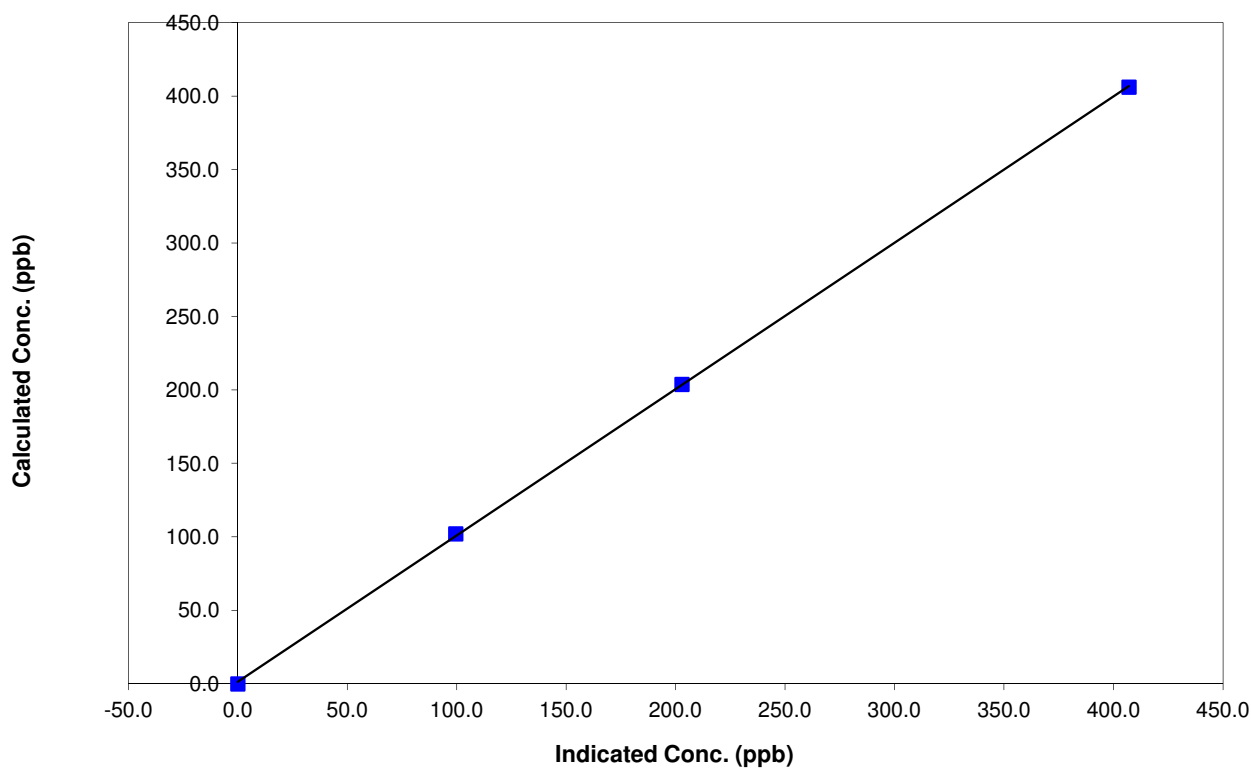
Station Information

Calibration Date	March 14, 2013	Previous Calibration	February 17, 2013
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	9:40	End Time (MST)	14:01
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	0.999950
406.1	407.0	0.9980		
203.9	202.9	1.0050		
102.0	99.5	1.0249	Slope	0.995949
			Intercept	1.407715

NO_x Calibration Curve



Calibration Summary

Parameter NO

Air Monitoring Network PAZA



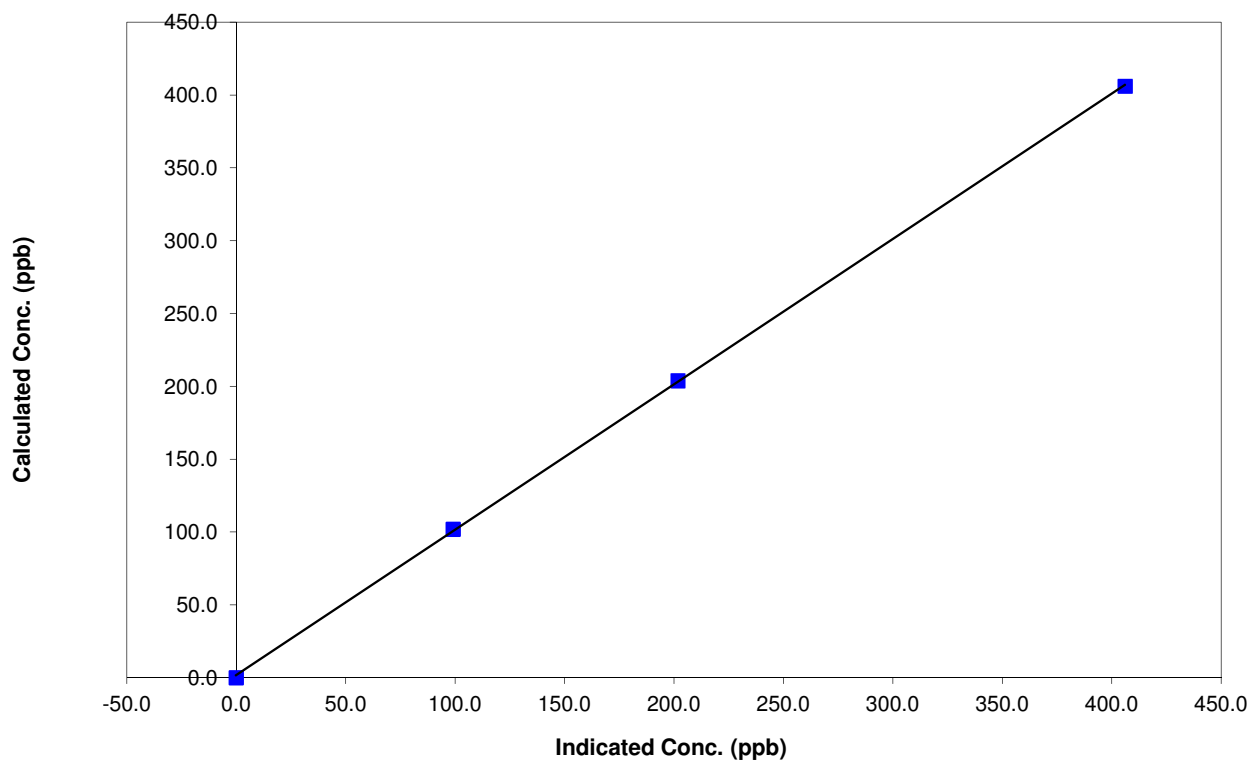
Station Information

Calibration Date	March 14, 2013	Previous Calibration	February 17, 2013
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	9:40	End Time (MST)	14:01
Analyzer make	TEI 42i	Analyzer serial #	906535068

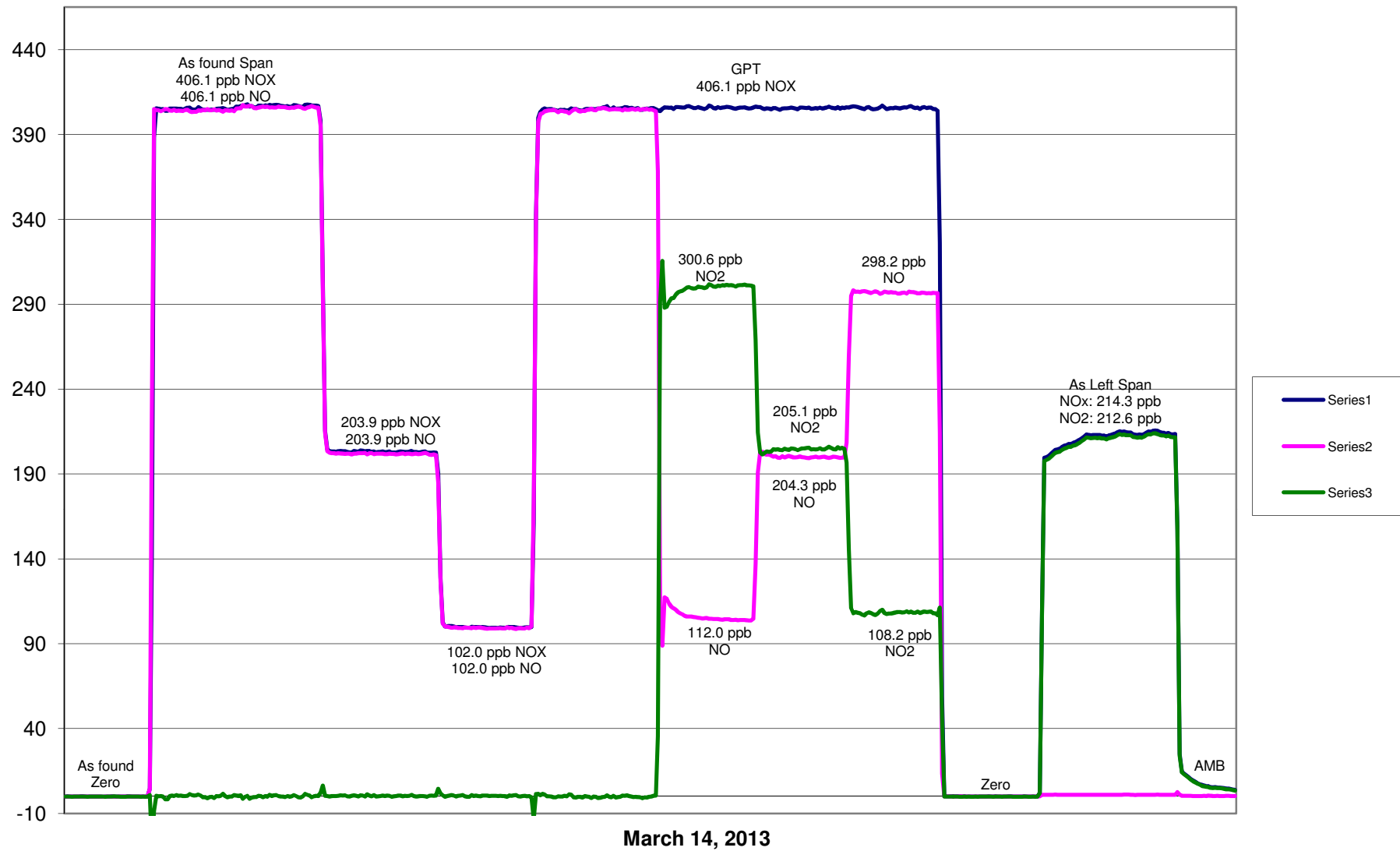
Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	N/A	Correlation Coefficient	0.999936
406.1	406.0	1.0004		
203.9	201.8	1.0105		
102.0	99.1	1.0294	Slope	0.998359
			Intercept	1.613611

NO Calibration Curve



PAZA Beaverlodge NO_x Calibration



Calibration Report



Parameter 03

Air Monitoring Network PAZA

Station Information

Calibration Date	March 14, 2013	Previous Calibration	February 17, 2013
Station Number	4	Station Location	Beaverlodge
Reason:	Routine	Install	Removal
		Other:	

Start Time (MST)	12:48	End Time (MST)	14:32
Barometric Pressure	0.923 atm	Station Temperature	23.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	2844
Cal Gas Concentration	NA	Cal Gas Expiry Date	NA

DACS make	CR3000	DACS serial No.	5237
DACS voltage range	0 - 5 volt	DACS channel #	9
	Before		After
Calculated slope	0.984377	Calculated slope	0.999827
Calculated intercept	0.638713	Calculated intercept	0.399696

Analyzer make	Teco 49C	Analyzer serial #	49C-76443-383
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	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
offset	-1.60	ppb	-1.60	ppb
slope	1.036		1.036	
Lamp temp	56.4	mV	56.4	mV
Lamp Intensity A/B	51008/54793	mV	51008/54793	mV
Pressure	658	mm Hg	658	mm Hg
Flow A	0.749	ccm	0.749	ccm
Flow B	0.706	ccm	0.706	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	300.6	301.2	0.9979
5035	0.2	205.1	203.6	1.0074
5035	0.1	108.2	107.2	1.0091
5035	0.0	0.0	0.3	As found zero
5035	0.3	300.6	301.2	As found span
Average Correction Factor				1.0048

Calculated value of As Found Response: 296.8 ppm Percent Change of As Found: -1.3%

	before calibration		after calibration	
Auto zero	0.4	ppb	0.8	ppb
Auto span	110.0	ppb	#DIV/0!	ppb

Notes: No adjust

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter 03

Air Monitoring Network PAZA



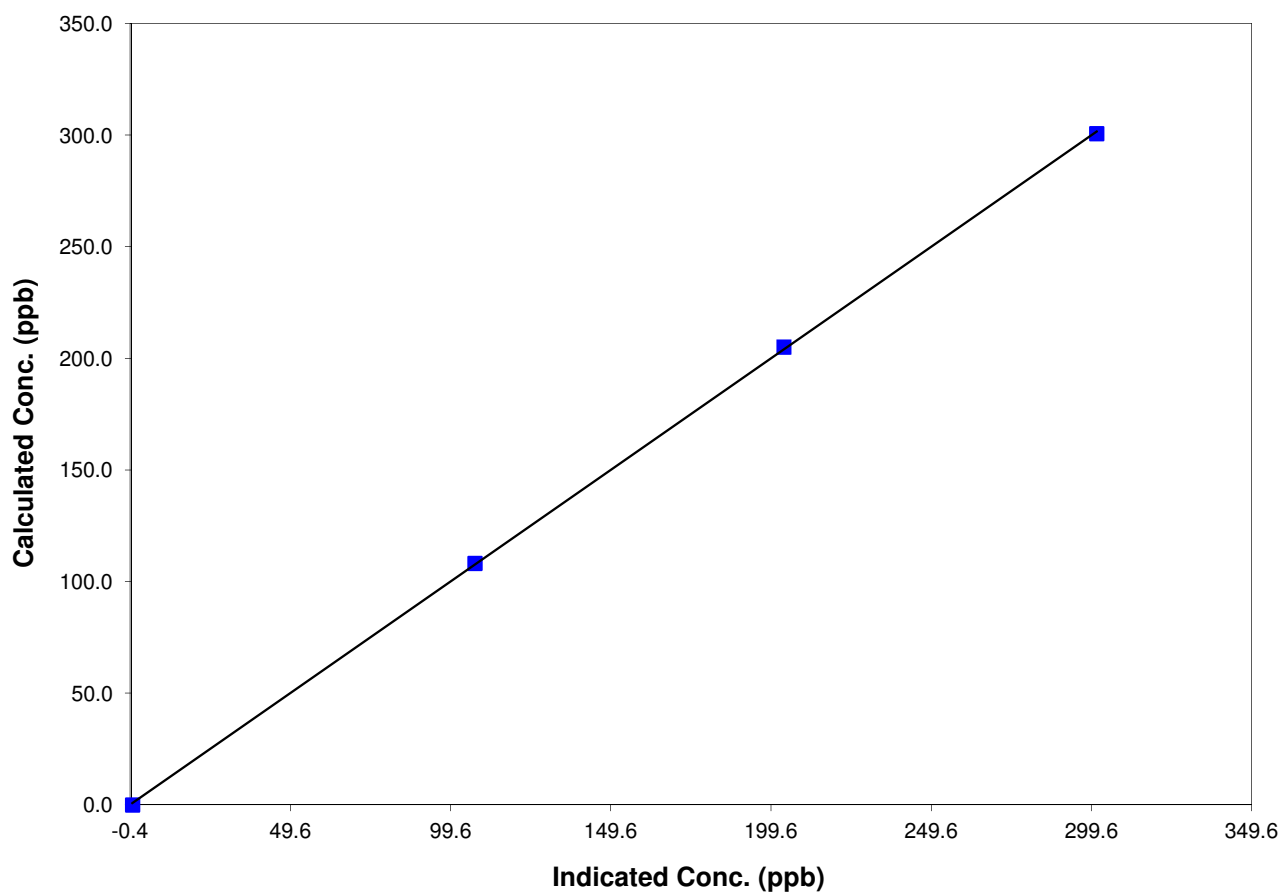
Station Information

Calibration Date	March 14, 2013	Previous Calibration	February 17, 2013
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	12:48	End Time (MST)	14:32
Analyzer make/model	Teco 49C	Analyzer serial #	49C-76443-383

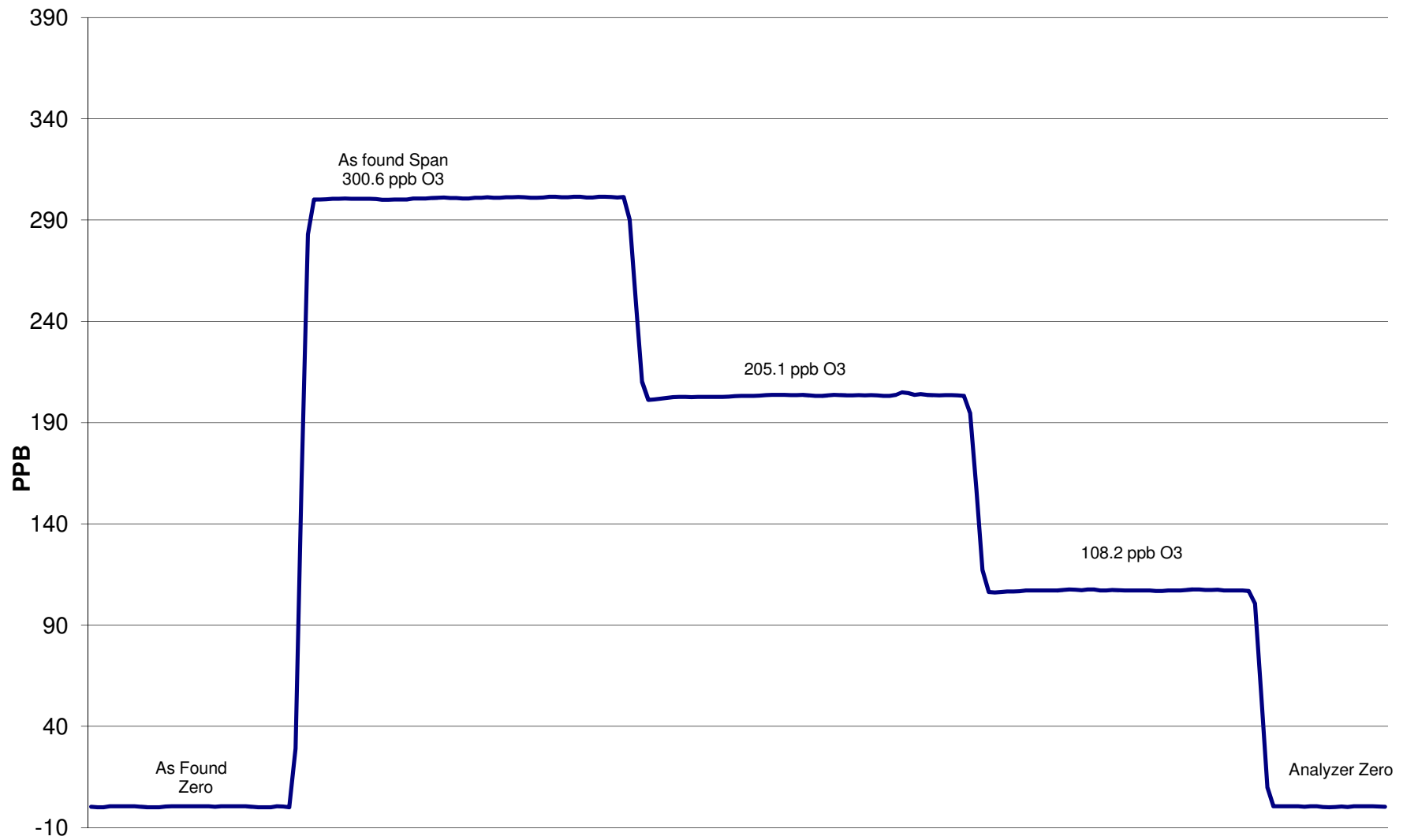
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.4	NA	Correlation Coefficient	0.999936
300.6	301.2	0.9979		
205.1	203.6	1.0074		
108.2	107.2	1.0091	Slope	0.999827
			Intercept	0.399696

O3 Calibration Curve



O3 Calibration



March 14, 2013

Calibration Report



Parameter 03

Air Monitoring Network PAZA

Station Information

Calibration Date	March 14, 2013	Previous Calibration	February 17, 2013
Station Number	4	Station Location	Beaverlodge
Reason:	Routine	Install	Removal
		Other:	

Start Time (MST)	16:10:00 PM	End Time (MST)	18:56
Barometric Pressure	0.923 atm	Station Temperature	23.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	2844
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	N/A	Calculated slope	1.000582
Calculated intercept	N/A	Calculated intercept	-0.097599

Analyzer make	Teco 49i	Analyzer serial #	1136451236
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	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
offset	0.20	ppb	0.20	ppb
slope	1.064		1.064	
Lamp temp	53.9	mV	54	mV
Lamp Intensity A/B	105631/111166	mV	105631/110895	mV
Pressure	688.7	mm Hg	688.1	mm Hg
Flow A	0.75	ccm	0.751	ccm
Flow B	0.749	ccm	0.750	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	0.5	N/A
5035	0.3	300.6	301.2	0.9980
5035	0.2	205.1	204.2	1.0044
5035	0.1	108.2	108.0	1.0015
5035	0.0	0.0	0.5	As found zero
5035	0.3	300.6	289.7	As found span
Average Correction Factor				1.0013

Calculated value of As Found Response: NA ppm Percent Change of As Found: NA

	before calibration		after calibration	
Auto zero	0.4	ppb	0.1	ppb
Auto span	110.0	ppb	281.8	ppb

Notes: Install & Run set up cal 49i.

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter 03

Air Monitoring Network PAZA



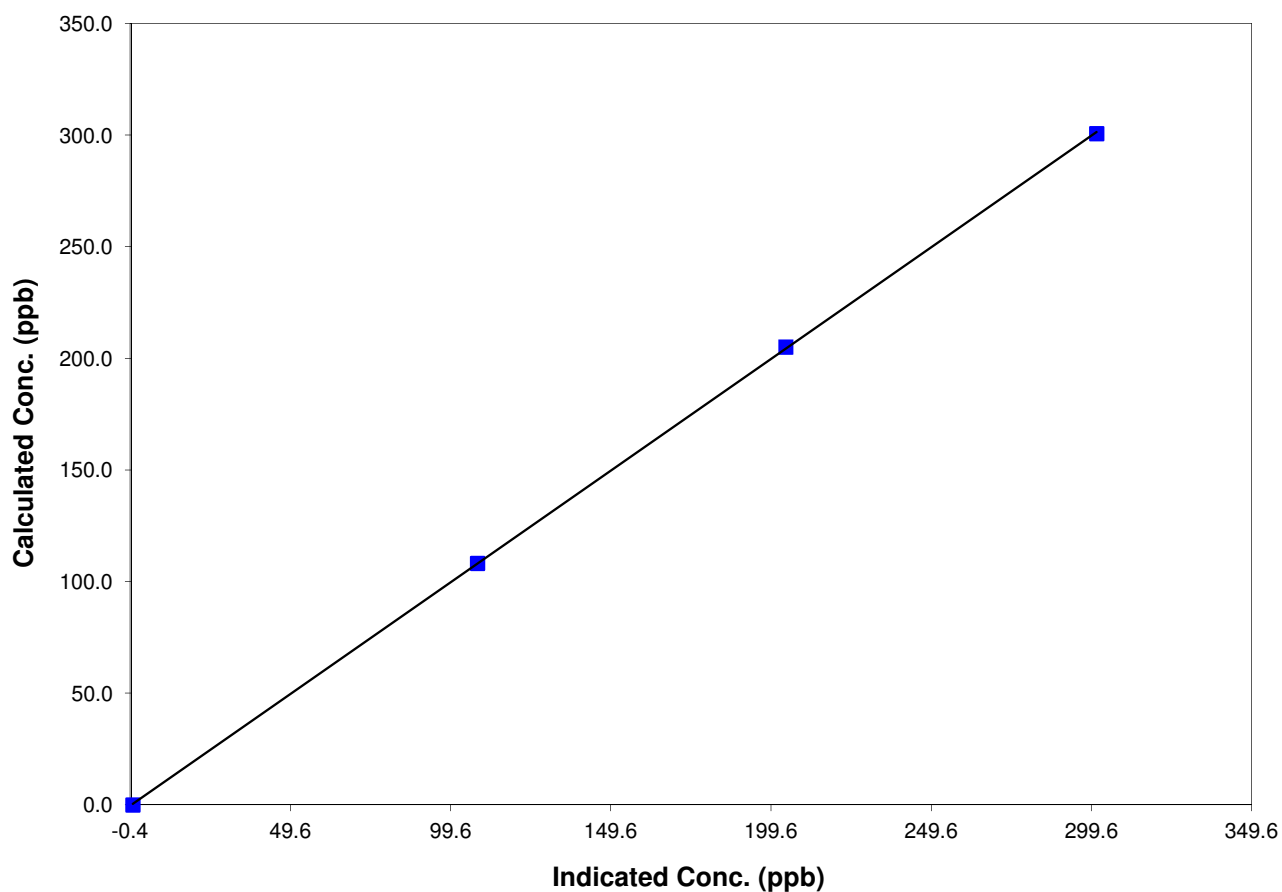
Station Information

Calibration Date	March 14, 2013	Previous Calibration	February 17, 2013
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	16:10:00 PM	End Time (MST)	18:56
Analyzer make/model	Teco 49i	Analyzer serial #	1136451236

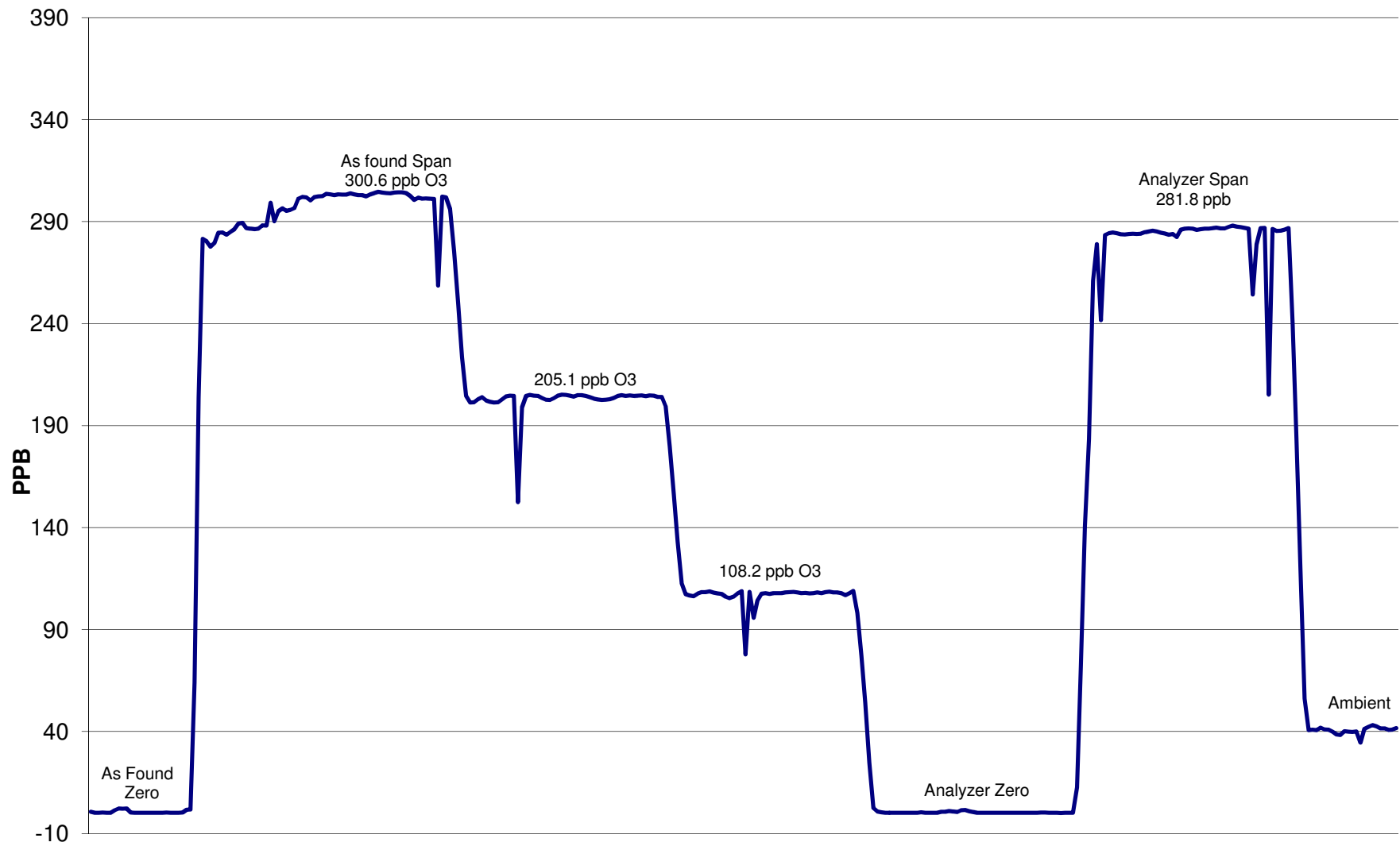
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.5	NA	Correlation Coefficient	0.999972
300.6	301.2	0.9980		
205.1	204.2	1.0044		
108.2	108.0	1.0015	Slope	1.000582
			Intercept	-0.097599

O3 Calibration Curve



O3 Calibration



March 14, 2013

Calibration Report

Parameter SO2

Air Monitoring Network PAZA



Station Information

Calibration Date	March 28, 2013	Previous Calibration	February 25, 2013
Station Number	6	Station Location	Valleyview
Reason:	Routine	Install	Removal
Start Time (MST)	12:35	End Time (MST)	15:35
Barometric Pressure	702.00 mmHg	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
Cal Gas Concentration	50.49 ppm	Cal Gas Exp Date	November 29, 2013
Gas Cylinder Num.	LL158082		
DACS make	CR3000	DACS serial No.	5409
DACS voltage range	0 - 5 volt	DACS channel #	4
	Before		After
DACS Scale High	500	DACS slope	500
DACS Scale Low	0	DACS intercept	0
Calculated slope	1.001309	Calculated slope	0.996013
Calculated intercept	0.897617	Calculated intercept	-0.285035
Analyzer make	TEI 45C	Analyzer serial #	45C-57531-313

	before		after	
Concentration range	0 - 1000	ppb	0 - 1000	ppb
Background	35.9		35.9	
Coefficient	0.882		0.882	
UV Lamp Voltage	982	LPM	981	LPM
Chamber Temp	43.9	V	28.3	V
Perm Gas Temp	32.3	C	44.3	C
Pressure	603.1	in Hg	598.6	in Hg
Sample Flow	0.556	LPM	0.555	LPM
Lamp Intensity	48432	Hz	48100	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	0.8	N/A
4995	40.00	401.1	403.1	0.9950
4995	20.00	201.4	202.6	0.9937
4995	10.00	100.9	100.8	1.0012
4995	0.00	0.0	0.8	As found zero
4995	40.00	401.1	403.1	As found span
Average Correction Factor				0.9967

Calculated value of As Found Response: 403.7 ppm Percent Change of As Found: -0.7%

	before calibration		after calibration	
Auto zero	0.0	ppm	0.0	ppm
Auto span	141.4	ppm	143.6	ppm

Notes: _____

Calibration Performed By: Stephanie Tandy

Calibration Summary

Parameter SO2

Air Monitoring Network PAZA



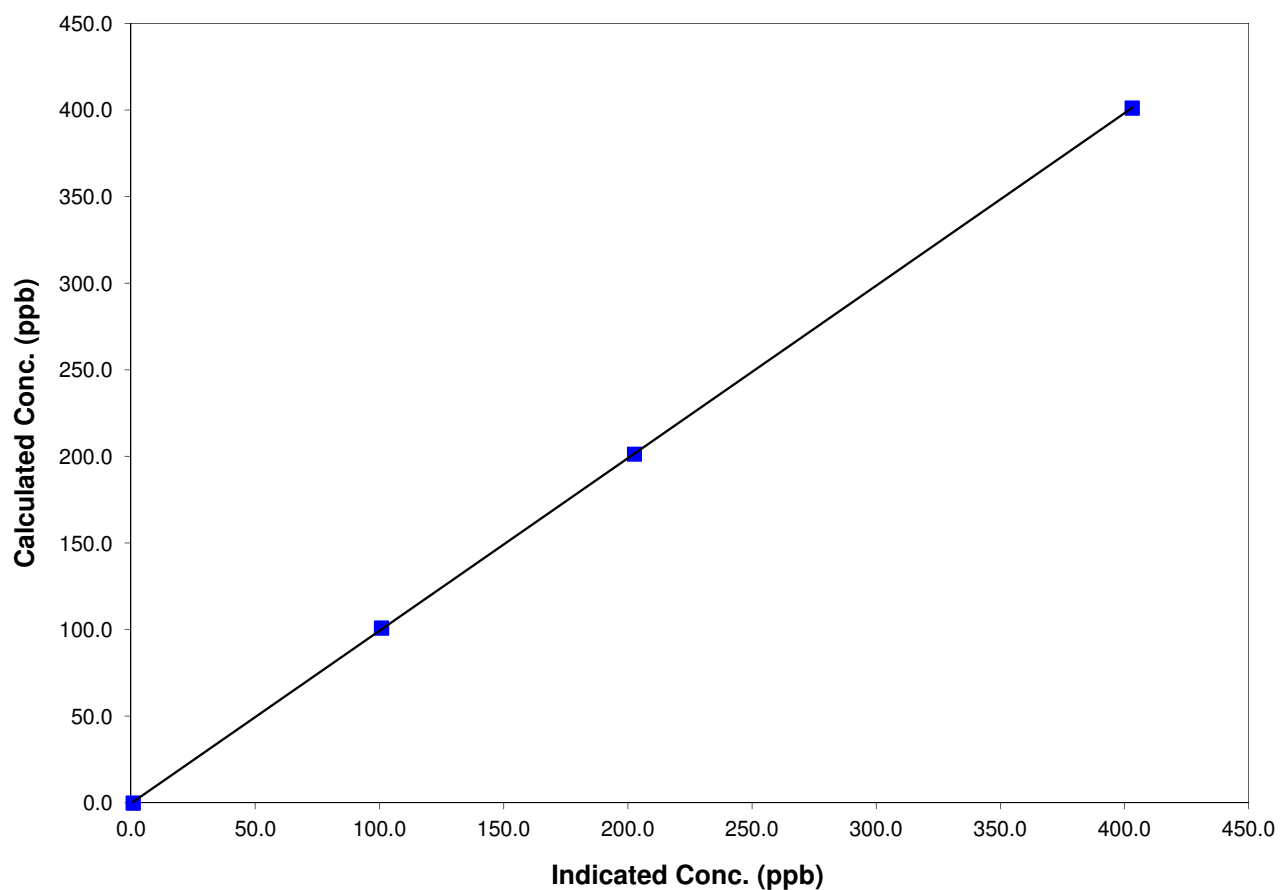
Station Information

Calibration Date	March 28, 2013	Previous Calibration	February 25, 2013
Station Number	6	Station Location	Valleyview
Start Time (MST)	12:35	End Time (MST)	15:35
Analyzer make/model	TEI 45C	Analyzer serial #	45C-57531-313

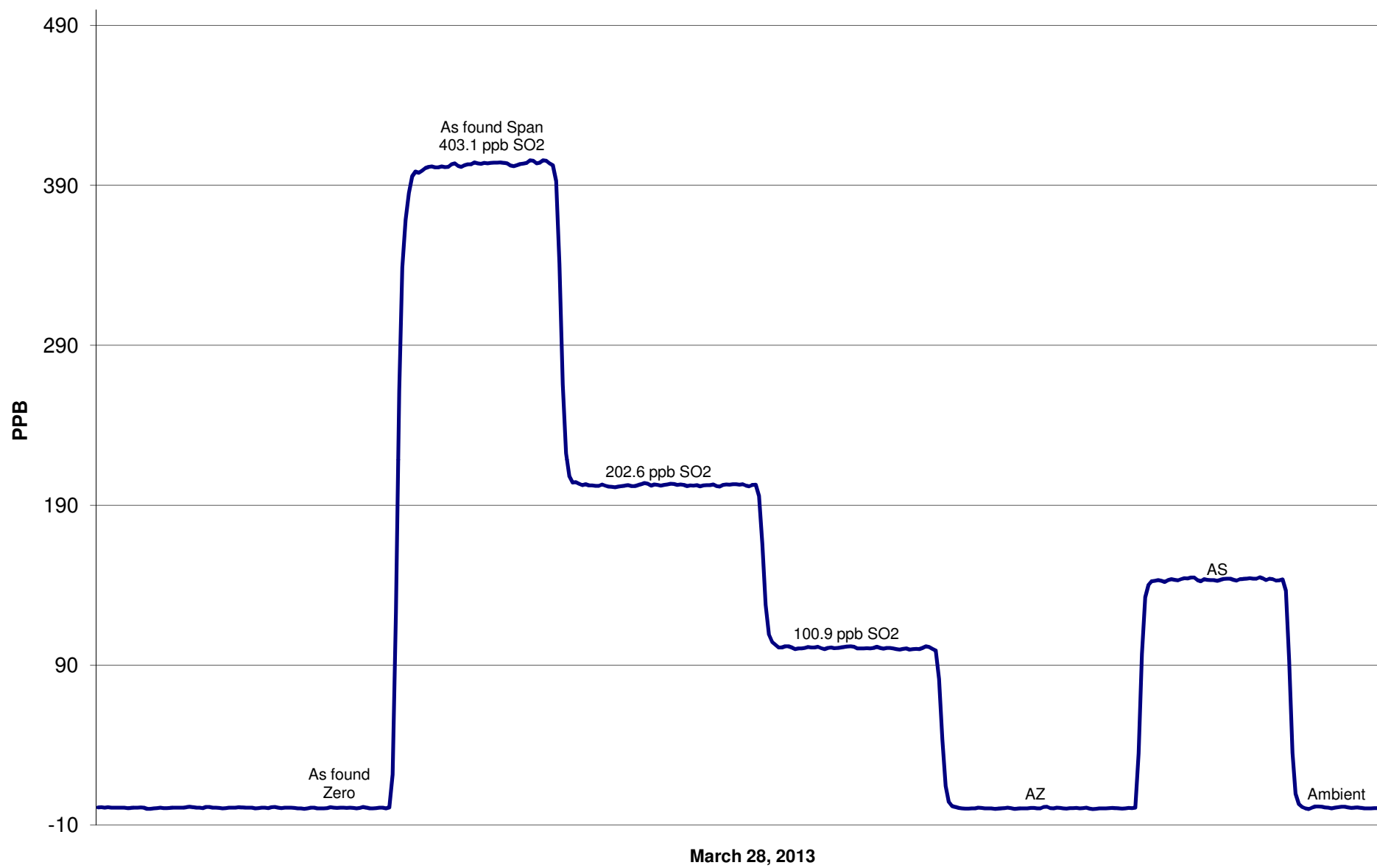
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.8	N/A	Correlation Coefficient	0.999989
401.1	403.1	0.9950		
201.4	202.6	0.9937		
100.9	100.8	1.0012	Slope	0.996013
			Intercept	-0.285035

SO2 Calibration Curve



SO2 Calibration



Calibration Report

Parameter H2S
Air Monitoring Network PAZA



Station Information

Calibration Date	March 28, 2013	Previous Calibration	February 25, 2013
Station Number	6	Station Location	Valleyview
Reason:	Routine	Install	Removal
		Other:	
Start Time (MST)	9:50	End Time (MST)	14:00
Barometric Pressure	702.00 mm	Station Temperature	21.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
Cal Gas Concentration	9.97 ppm	Cal Gas Expiry Date	03/07/2013
Gas Cert Reference	BLM000121		
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	0.968209	Calculated slope	1.023682
Calculated intercept	0.215544	Calculated intercept	-0.203199
Analyzer make	TEI Model 43i - APSCB	Analyzer serial #	701120010

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Back Ground	7.8	ppb	7.8	ppb
Coefficient	1.040		1.040	
Lamp Voltage	790	V	789	V
Chamber Temp	45.1	c	45.2	c
Perm Oven Temp	44.33	c	44.35	c
Pressure	607.30	mm Hg	610.00	mm Hg
Sample Flow	0.412	ccm	0.414	ccm
Lamp Intensity	91.0	%	91.0	%

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)
5995	0.00	0.0	0.4	N/A
5995	50.00	82.5	80.8	1.0204
5995	25.00	41.4	40.6	1.0191
5995	12.00	19.9	19.4	1.0241
5995	12.00	100.9	1.0	SOx Scrubber Test
5995	0.00	0.0	0.4	As found zero
5995	50.00	82.5	80.8	As found span
Average Correction Factor				1.0212

Calculated value of As Found Response: 78.11 ppm Percent Change of As Found: 5.3%

	before calibration		after calibration	
Auto zero	0.7	ppm	0.3	ppm
Auto span	71.2	ppm	74.1	ppm

Notes: _____

Calibration Performed By: Stephanie Tandy

Calibration Summary

Parameter H2S

Air Monitoring Network PAZA



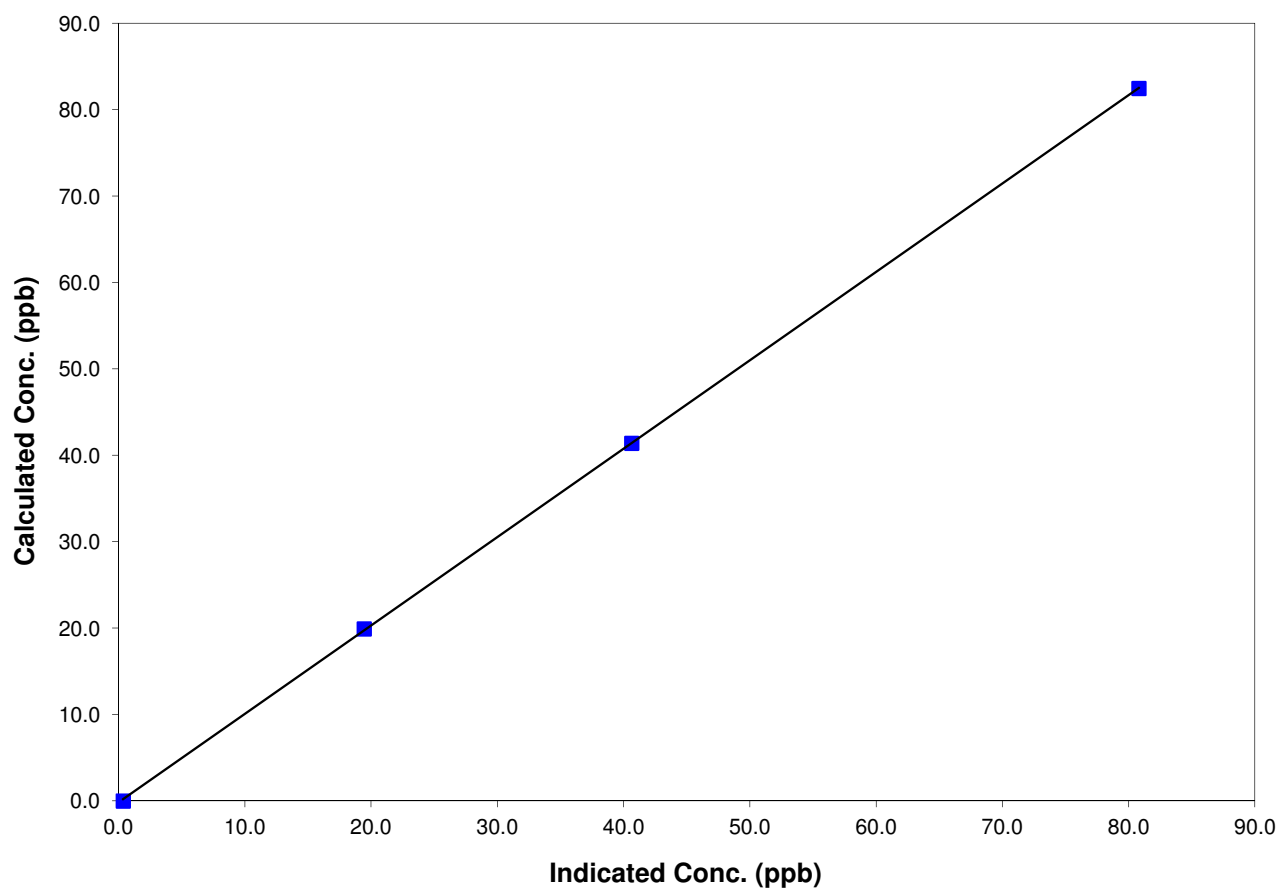
Station Information

Calibration Date	March 28, 2013	Previous Calibration	February 25, 2013
Station Number	6	Station Location	Valleyview
Start Time (MST)	9:50	End Time (MST)	14:00
Analyzer make/model	TEI Model 43i - APSCB	Analyzer serial #	701120010

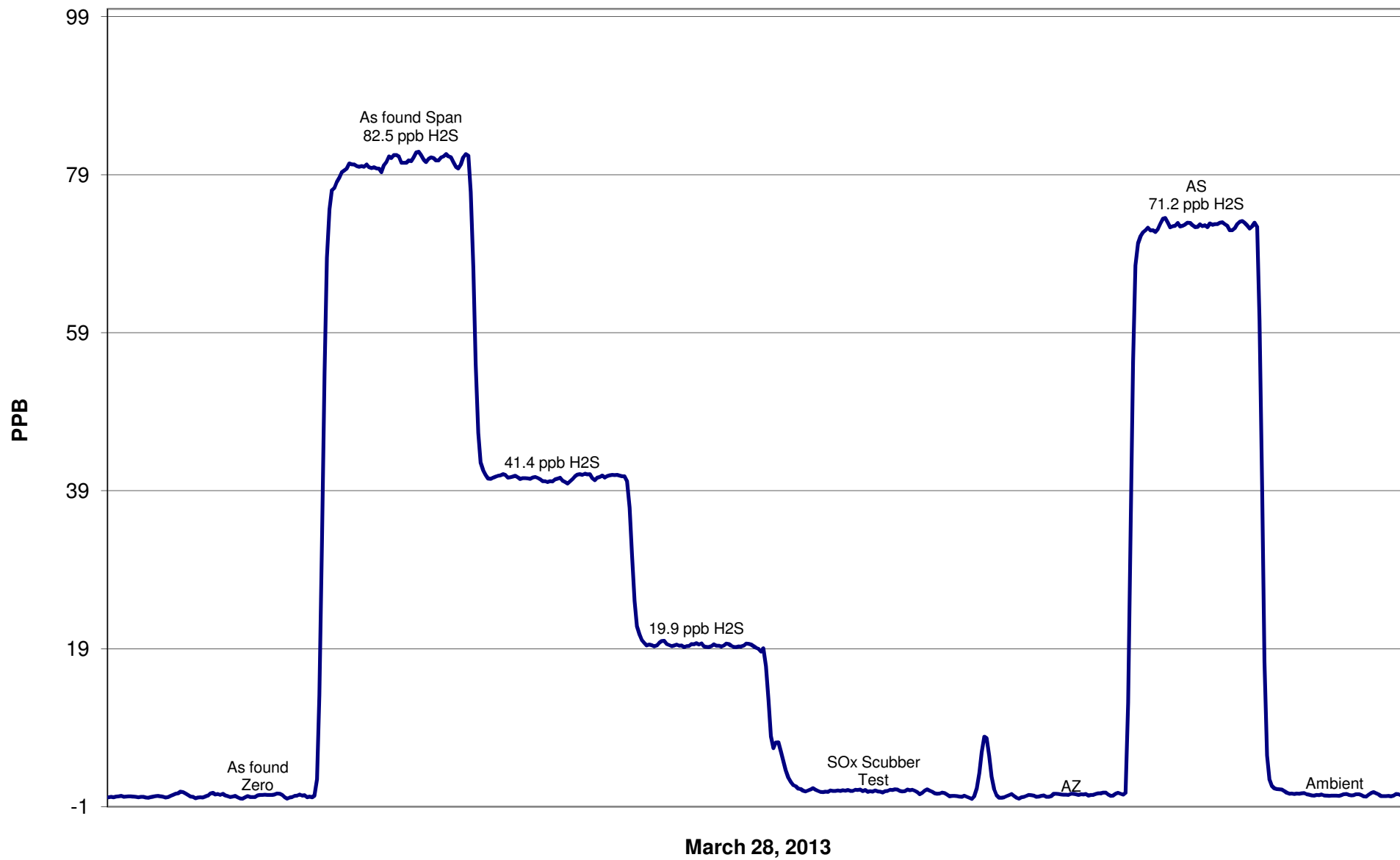
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.4	N/A		
82.5	80.8	1.0204	Correlation Coefficient	0.999979
41.4	40.6	1.0191		
19.9	19.4	1.0241	Slope	1.023682
			Intercept	-0.203199

H2S Calibration Curve



H2S Calibration



Calibration Report

Parameter SO2

Air Monitoring Network PAZA



Station Information

Calibration Date	March 27, 2013	Previous Calibration	February 26, 2013
Station Number	9	Station Location	Sunset House
Reason:	Routine	Install	Removal
Start Time (MST)	8:00	End Time (MST)	11:40
Barometric Pressure	0.91 Atm	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
Cal Gas Concentration	50.49 ppm	Cal Gas Expiry Date	29/11/2013
Gas Cert Reference	LL58082		
DACS make	CR3000	DACS serial No.	5407
DACS voltage range	0 - 5 Volt	DACS channel #	2
	Before		After
DACS Scale High	500	DACS slope	500
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.997875	Calculated slope	1.001088
Calculated intercept	2.236173	Calculated intercept	0.679933
Analyzer make	TEI 43C	Analyzer serial #	609716238

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Background	18.3		18.3	
Coefficient	0.991		0.991	
UV Lamp Voltage	839	V	844	V
Chamber Temp	44.9	C	44.6	C
Perm Gas Temp	45	C	45	C
Pressure	663.5	mm Hg	661.3	mm Hg
Sample Flow	0.482	LPM	0.482	LPM
Lamp Intesity	37284	Hz	37000	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)
4998	0.00	0.0	0.2	N/A
4998	39.93	400.2	399.4	1.0019
4998	20.08	202.0	200.9	1.0056
4998	10.03	101.1	99.4	1.0176
4998	0.00	0.0	0.2	As found zero
4998	39.93	400.2	399.4	As found span
Average Correction Factor				1.0084

Calculated value of As Found Response: 400.648 ppm Percent Change of As Found: -0.1%

	before calibration		after calibration	
Auto zero	0.3	ppm	0.3	ppm
Auto span	270.8	ppm	271.9	ppm

Notes: No adjustments made.

Data pulled directly from data logger. Not MDS.

Calibration Performed By: Stephanie Tandy

Calibration Summary

Parameter SO2

Air Monitoring Network PAZA



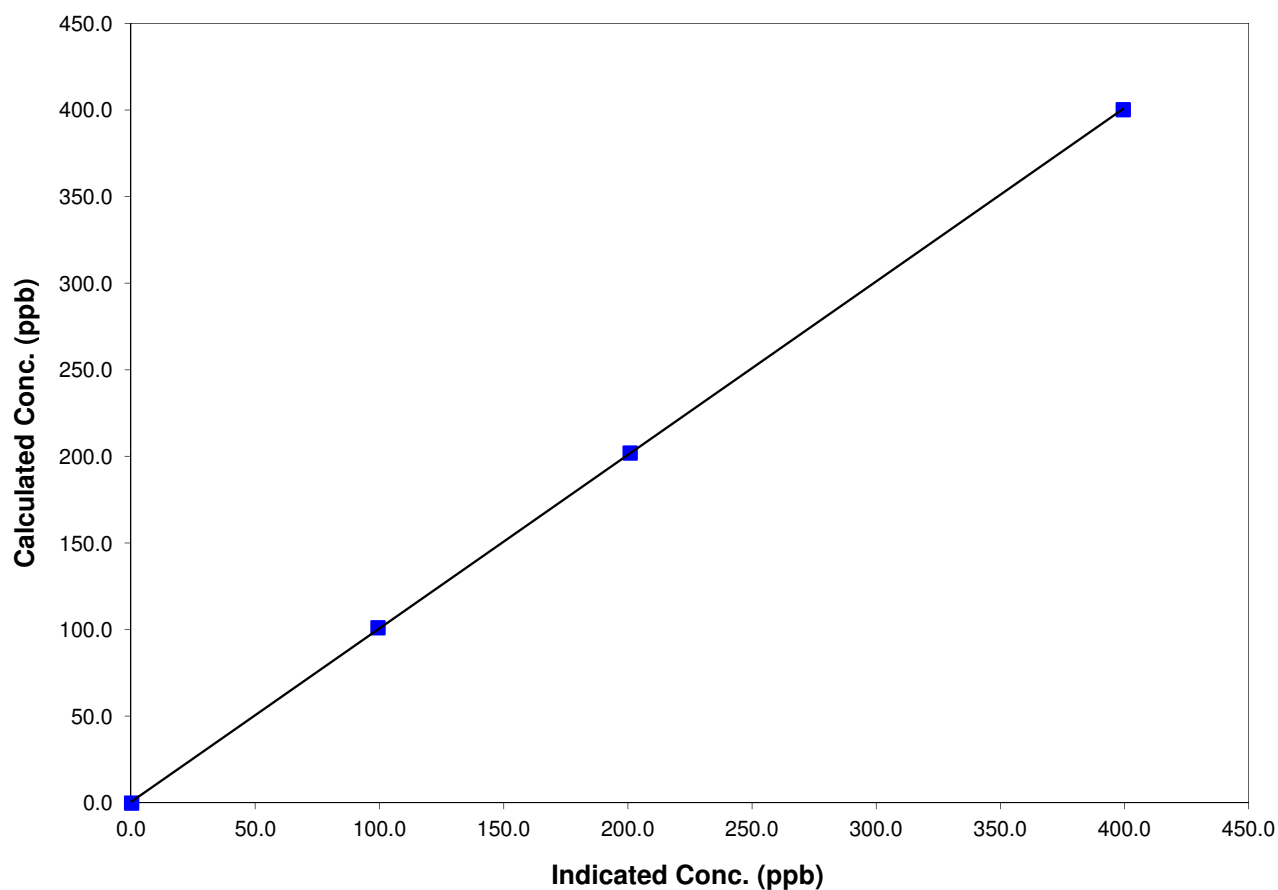
Station Information

Calibration Date	March 27, 2013	Previous Calibration	February 26, 2013
Station Number	9	Station Location	Sunset House
Start Time (MST)	8:00	End Time (MST)	11:40
Analyzer make/model	TEI 43C	Analyzer serial #	609716238

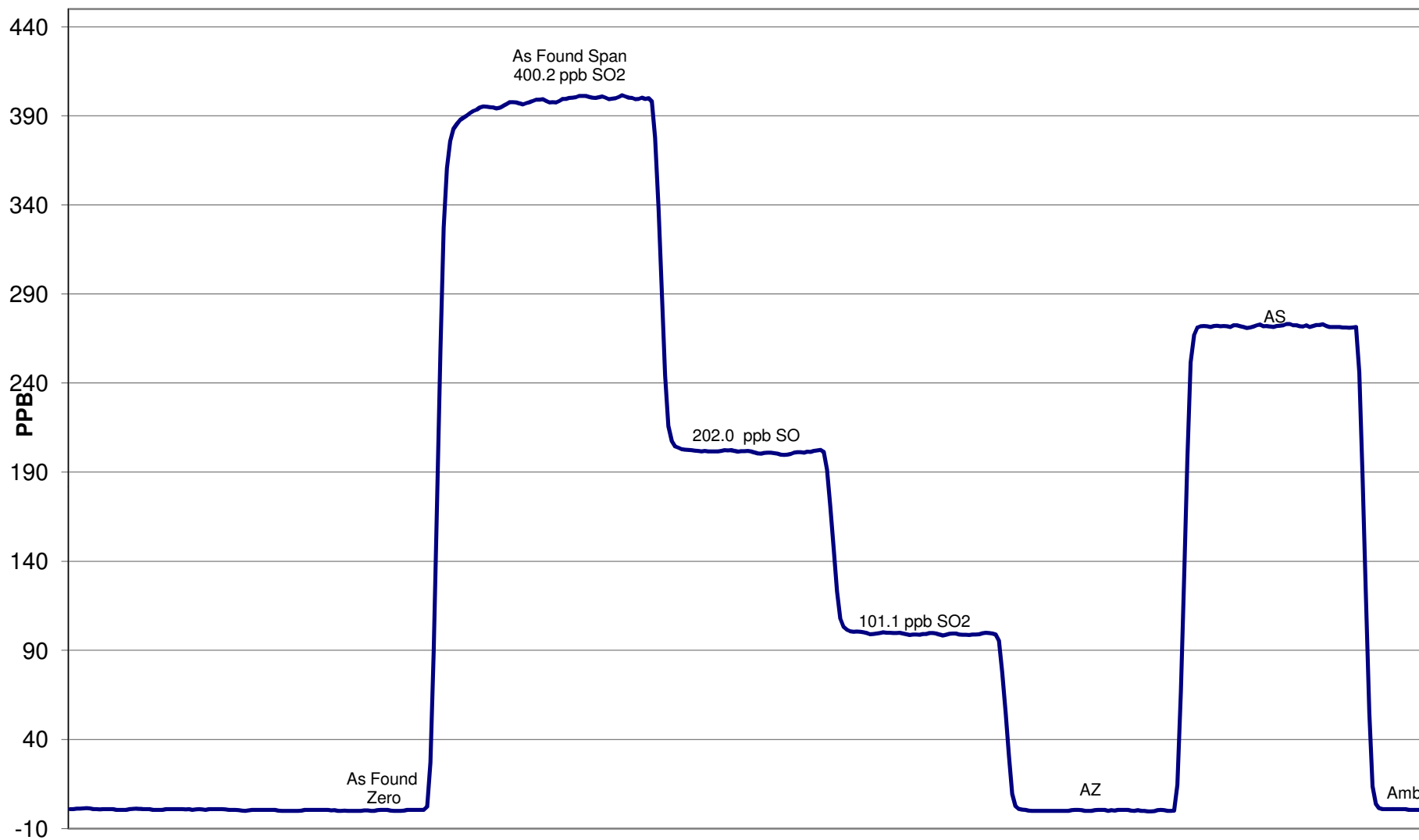
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A	Correlation Coefficient	0.999979
400.2	399.4	1.0019		
202.0	200.9	1.0056		
101.1	99.4	1.0176	Slope	1.001088
			Intercept	0.679933

SO2 Calibration Curve



SO2 Calibration



March 27, 2013

Calibration Report

Parameter

NO_x-NO-NO₂

Air Monitoring Network

PAZA



Station Information

Calibration Date	March 27, 2013	Previous Calibration	February 26, 2013		
Station Number	9	Station Location	Sunset House		
Reason:	Routine	Install	Removal		
Other:					
Start Time (MST)	8:10	End Time (MST)	13:45		
Barometric Pressure	0.910	Atm	Station Temperature	20.0	Deg C
Calibrator	EnviroNics	Serial Number	3474		
NO Cal Gas Conc	51.23	ppm	Cal Gas Expiry Date	November 29, 2013	
NOx Cal Gas Conc	51.23	ppm	Cal Gas Serial #	LL58082	

DACS Information

DACS make	CR3000	DACS serial No.	5407	
Parameter		NO2	NOx	NO
Before	Data Slope	1.005703	0.994631	0.998893
	Data Offset	0.233219	1.021412	0.792131
After	Data Slope	1.000956	0.990224	0.994285
	Data Offset	-0.136355	-0.540245	-0.710246
Channel #		5	3	4
Voltage Range		0 - 5 VDC	0 - 5 VDC	0 - 5 VDC

Analyzer Information

Analyzer make/model	TEI 42i	Analyzer serial #	0701120011	
Test Point	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
NO offset	4.8	mV	4.8	mV
NOx bkgnd	5.0	mV	5.0	mV
NO coefficient	1.093		1.093	
NOx coefficient	0.997		0.997	
NO2 conv temp	325.0	Deg C	325.0	Deg C
PMT Temp	-2.8	Deg C	-2.8	Deg C
PMT Volt	-805.2	mV	-805.5	mV
R Cell Press	175.7	in Hg	174.4	in Hg
Sample Flow	0.794	ccm	0.779	ccm

No adjustments made.

NOTES:

Calibration Report

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



Station Information

Calibration Date: March 27, 2013 Station Location: Sunset House

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	4998	0.00	0.0	0.0	0.0	0.8	0.9	0.2	N/A	N/A
1	4998	39.93	406.0	406.0	0.0	410.6	409.0	-0.1	0.9890	0.9927
2	4998	20.08	205.0	205.0	0.0	208.0	207.2	0.0	0.9857	0.9894
3	4998	10.03	102.6	102.6	0.0	103.5	103.5	0.2	0.9910	0.9913
AFZ	4998	0.00	0.0	0.0	0.0	0.8	0.9	0.2	0.0000	0.0000
AFS	4998	39.93	406.0	406.0	0.0	410.6	409.0	-0.1	0.9890	0.9927
Average Correction Factor									0.9886	0.9911

As Found Concentrations: NO_x= 410.8 NO= 409.0 As Found Percent Change NO_x= 1.2% NO= 0.7%

GPT Calibration Data

Dilution Flow 4998 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	0.9	0.9	0.0	0.8	0.9	0.2	N/A	N/A	N/A	N/A
NO point	409.7	409.7	0.0	411.3	409.7	-0.4	0.9961	1.0000	N/A	N/A
300	409.7	102.1	307.6	411.2	102.1	307.5	0.9964	1.0000	1.0002	100.0%
200	409.7	232.2	177.5	411.7	232.2	177.3	0.9951	1.0000	1.0013	99.9%
100	409.7	327.7	82.0	411.6	327.7	82.2	0.9955	1.0000	0.9982	100.2%
Average Correction Factor							0.9957	1.0000	0.9999	100.0%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	0.8	0.1	0.9	ppb	0.7	0.1	0.9	ppb
Auto span	182.4	179.4	2.1	ppb	178.0	175.3	1.9	ppb

Calibration Performed By: Stephanie Tandy

Calibration Summary

Parameter NO₂

Air Monitoring Network PAZA



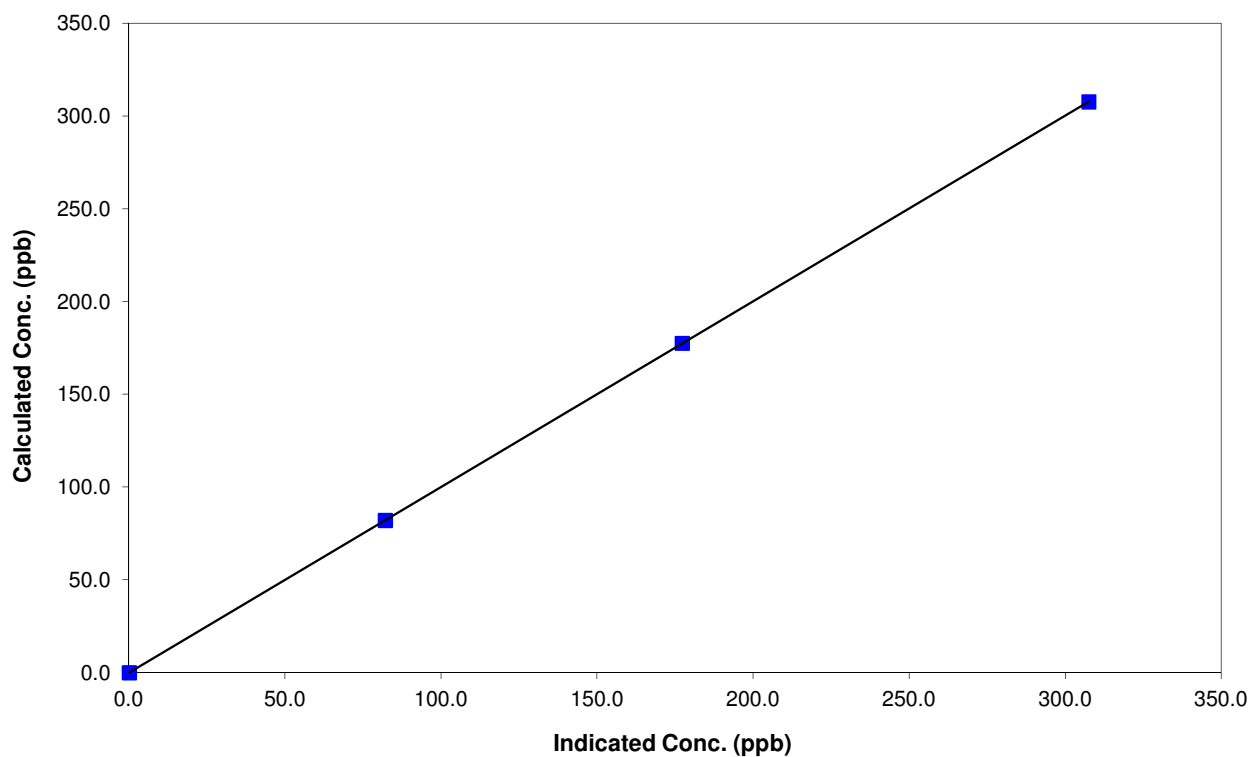
Station Information

Calibration Date	March 27, 2013	Previous Calibration	February 26, 2013
Station Number	9	Station Location	Sunset House
Start Time (MST)	8:10	End Time (MST)	13:45
Analyzer make	TEI 42i	Analyzer serial #	0701120011

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A	Correlation Coefficient	0.999999
307.6	307.5	1.0002		
177.5	177.3	1.0013	Slope	1.000956
82.0	82.2	0.9982		
			Intercept	-0.136355

NO₂ Calibration Curve



Calibration Summary

Parameter NO_x

Air Monitoring Network PAZA



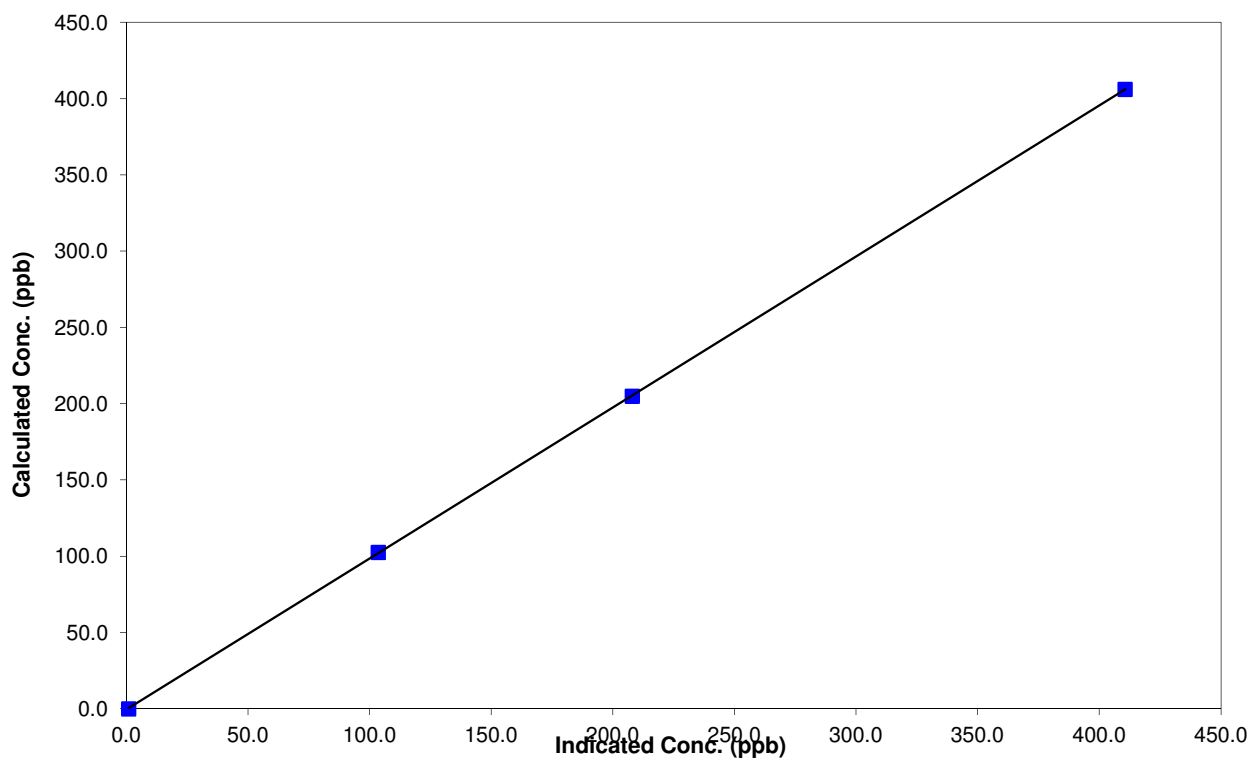
Station Information

Calibration Date	March 27, 2013	Previous Calibration	February 26, 2013
Station Number	9	Station Location	Sunset House
Start Time (MST)	8:10	End Time (MST)	13:45
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	0.8	N/A	Correlation Coefficient	0.999993
406.0	410.6	0.9890		
205.0	208.0	0.9857		
102.6	103.5	0.9910	Slope	0.990224
			Intercept	-0.540245

NO_x Calibration Curve



Calibration Summary

Parameter NO

Air Monitoring Network PAZA



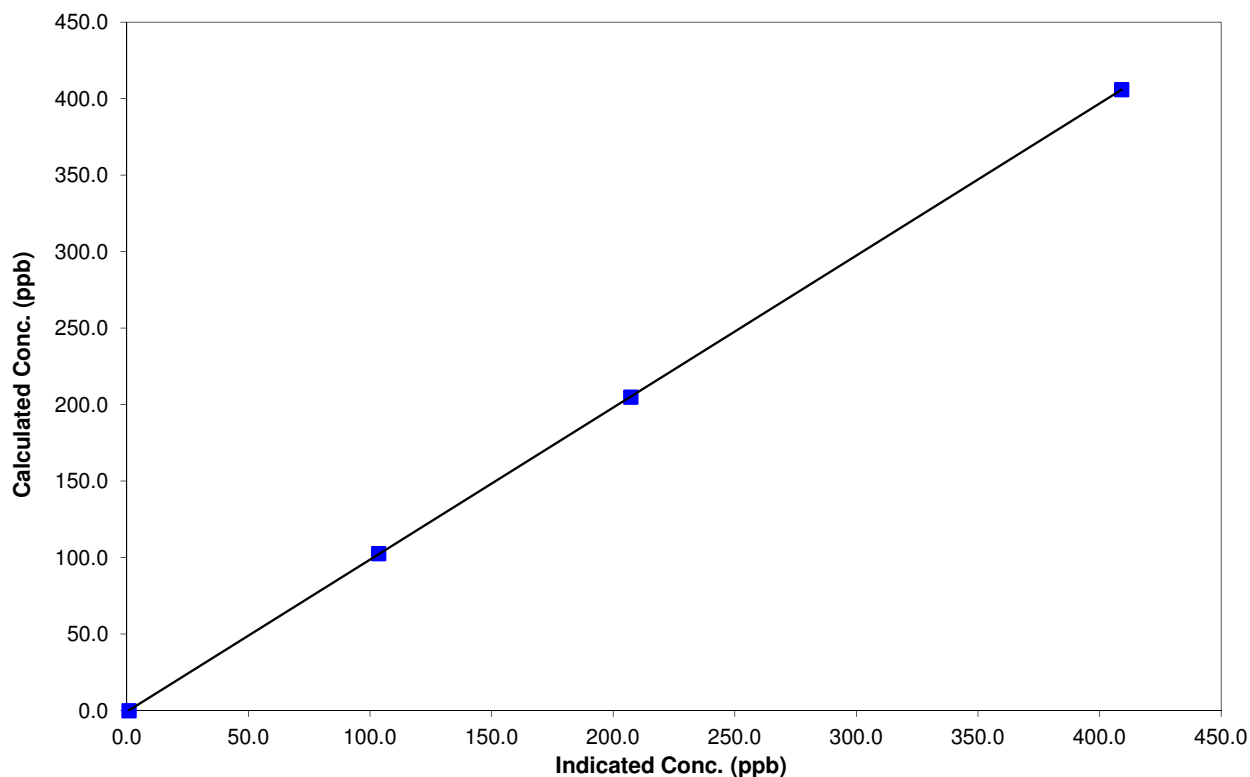
Station Information

Calibration Date	March 27, 2013	Previous Calibration	February 26, 2013
Station Number	9	Station Location	Sunset House
Start Time (MST)	8:10	End Time (MST)	13:45
Analyzer make	TEI 42i	Analyzer serial #	0701120011

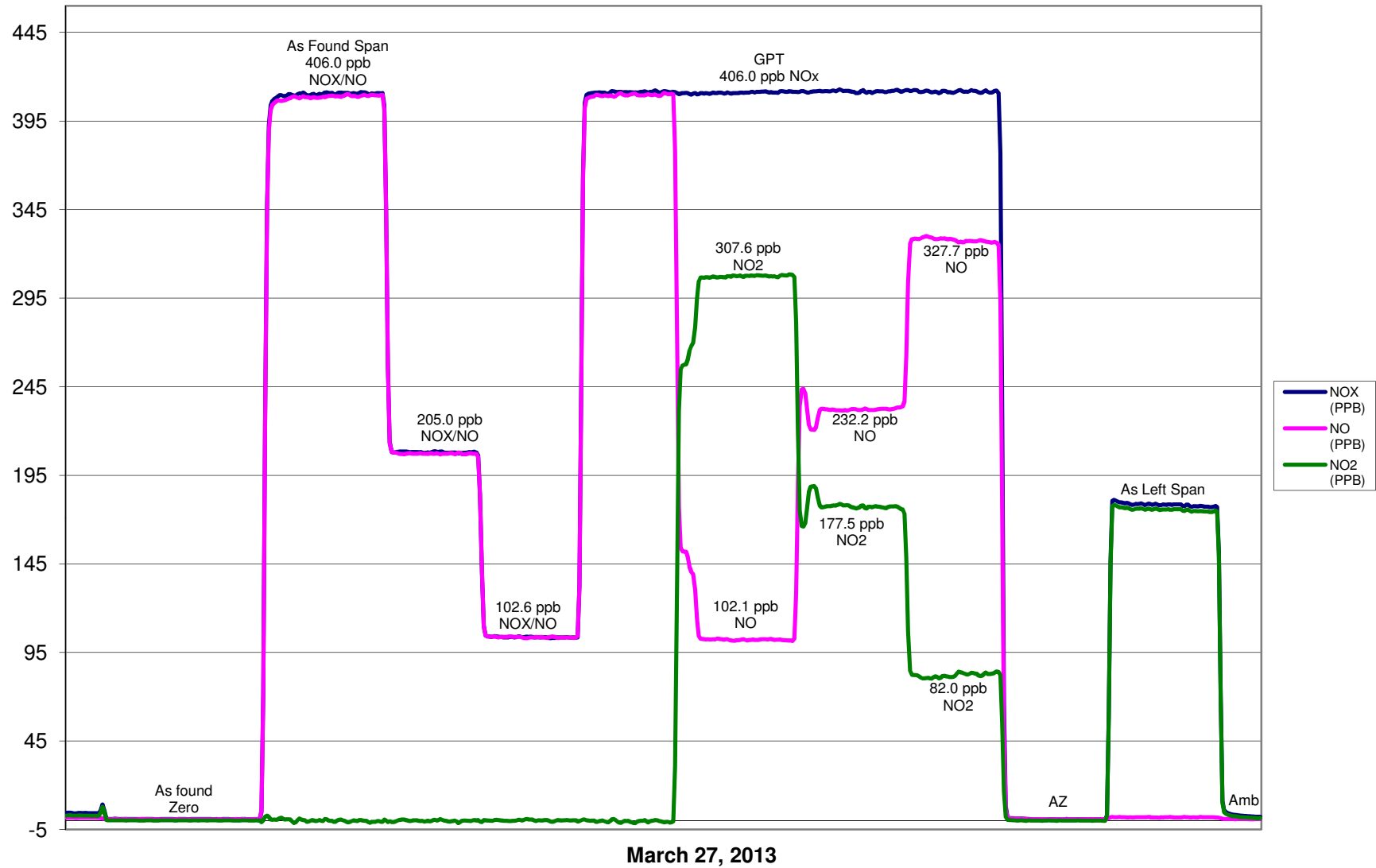
Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.9	N/A	Correlation Coefficient	0.999997
406.0	409.0	0.9927		
205.0	207.2	0.9894		
102.6	103.5	0.9913	Slope	0.994285
			Intercept	-0.710246

NO Calibration Curve



PASZA Sunset House NO_x Calibration



Calibration Report



Parameter 03

Air Monitoring Network PAZA

Station Information

Calibration Date	March 27, 2013	Previous Calibration	February 26, 2013
Station Number	9	Station Location	Sunset House
Reason:	Routine	☐ Install	☐ Removal remove ☐ Other:

Start Time (MST)	12:30	End Time (MST)	15:45
Barometric Pressure	0.916 atm	Station Temperature	15.7 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474

DACS make	CR3000	DACS serial No.	5407
DACS voltage range	0 - 5 Volts	DACS channel #	6
	Before		After
Calculated slope	0.990708	Calculated slope	1.000818
Calculated intercept	0.509952	Calculated intercept	0.208100

Analyzer make	TEI Model 49C	Analyzer serial #	49C-0609716240
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	before		after	
Concentration range	0-500	ppb	0-500	ppb
Offset	0.3	ppb	0.3	ppb
Span	1.035		1.035	
Cell A intensity	84375	Hz	82680	Hz
Cell B intensity	78698	Hz	78260	Hz
Pressure	682.70	in Hg	681.70	in Hg
CellA Flow	0.917	ccm	0.905	ccm
Cell B Flow	0.739	cmm	0.734	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)
5040	0.00	0.0	-0.1	N/A
5040	0.34	307.6	307.3	1.0011
5040	0.23	177.5	176.9	1.0032
5040	0.14	82.0	81.7	1.0036
5040	0.00	0.0	-0.1	As found zero
5040	0.30	294.3	307.3	As found span
Average Correction Factor				1.0026

Calculated value of As Found Response: 305.0 ppm Percent Change of As Found: 3.6%

	before calibration		after calibration	
Auto zero	0.6	ppb	0.3	ppb
Auto span	226.5	ppb	231.1	ppb

Notes: No adjustment made.

Calibration Performed By: Stephanie Tandy

Calibration Summary

Parameter 03

Air Monitoring Network PAZA



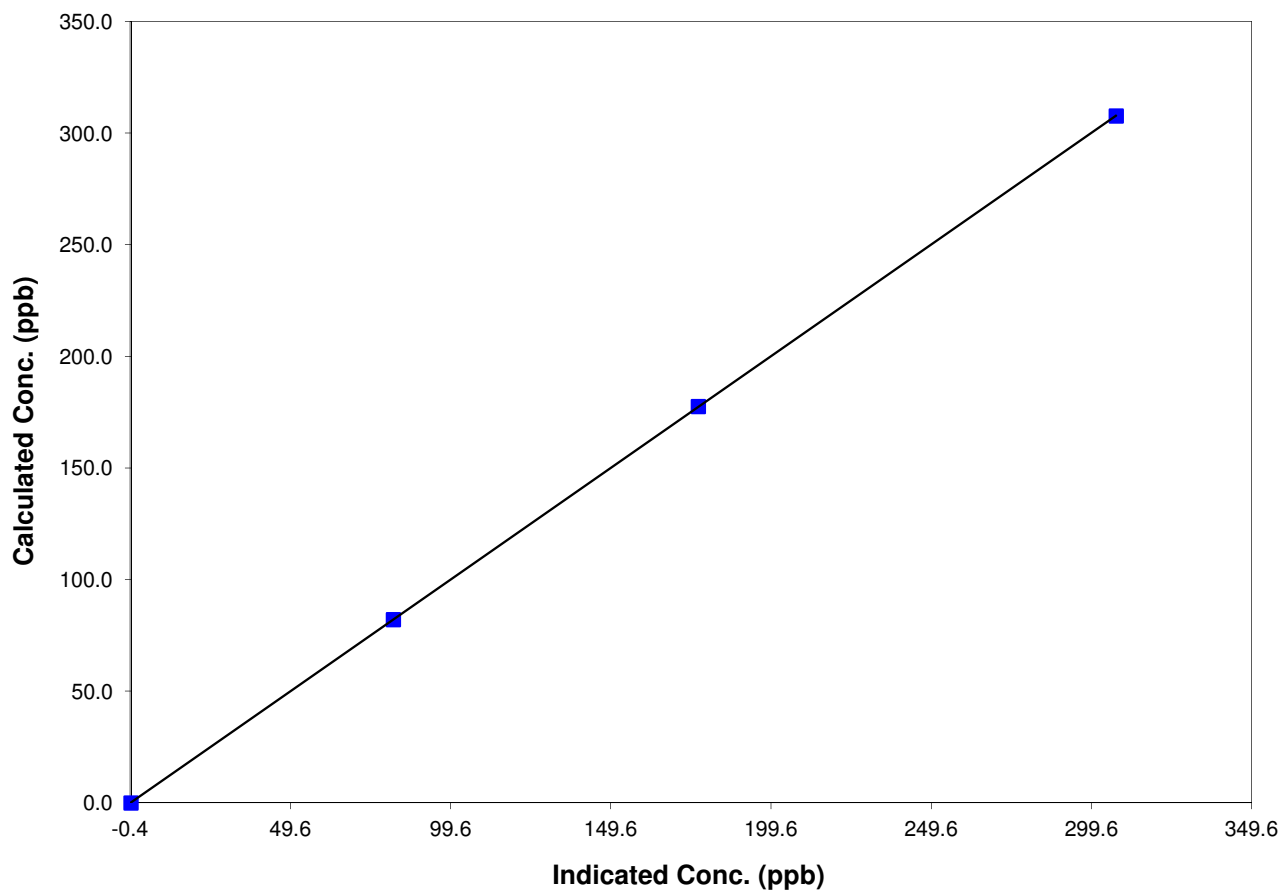
Station Information

Calibration Date	March 27, 2013	Previous Calibration	February 26, 2013
Station Number	9	Station Location	Sunset House
Start Time (MST)	12:30	End Time (MST)	15:45
Analyzer make/model	TEI Model 49C	Analyzer serial #	49C-0609716240

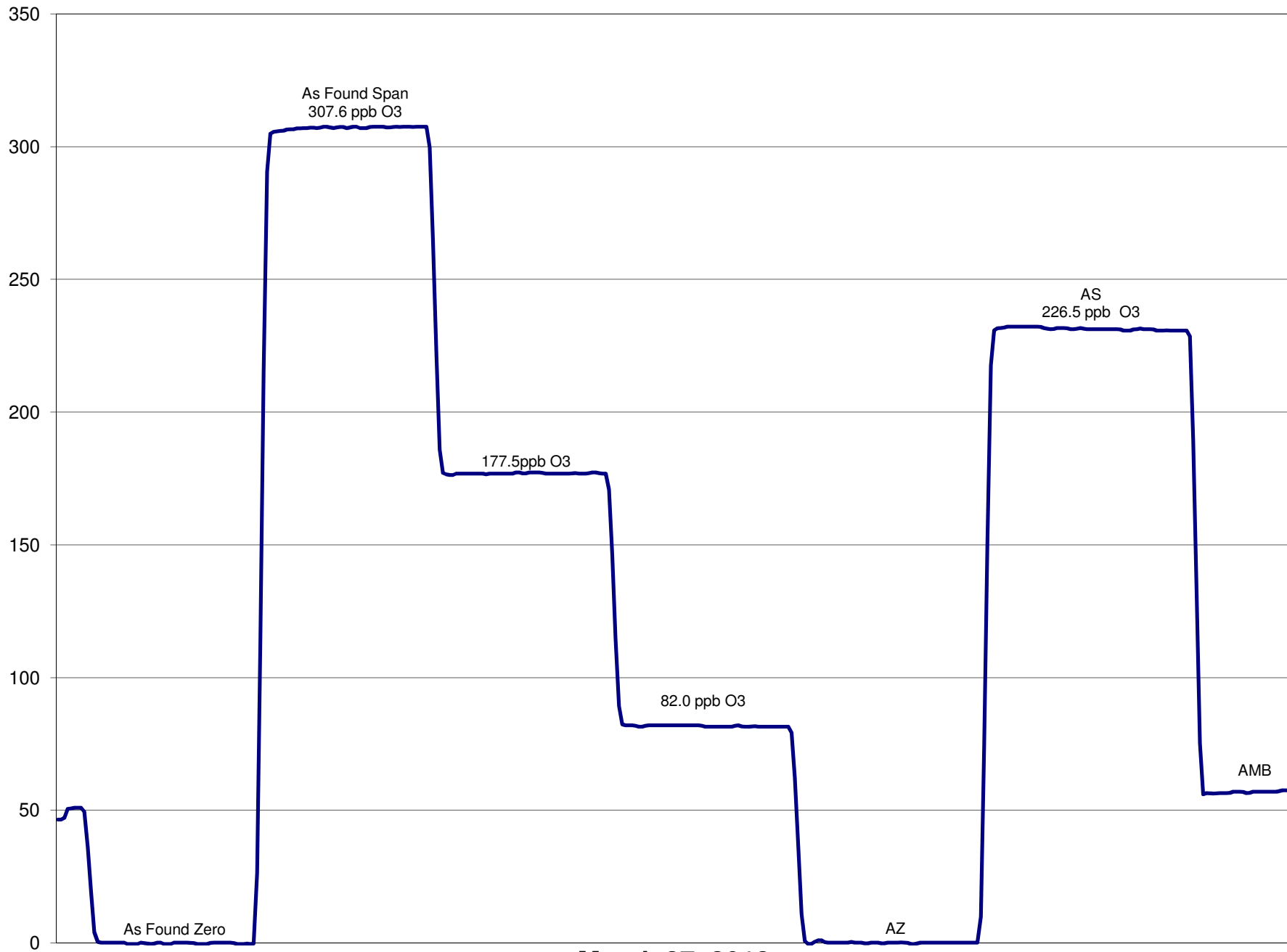
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	NA		
307.6	307.3	1.0011	Correlation Coefficient	0.999999
177.5	176.9	1.0032		
82.0	81.7	1.0036	Slope	1.000818
			Intercept	0.208100

O3 Calibration Curve



O3 (PPB)



March 27, 2013

Calibration Report



Parameter TRS

Air Monitoring Network PAZA

Station Information

Calibration Date	March 27, 2013	Previous Calibration	February 26, 2013
Station Name	PAZA Rover	Station Location	Sunset House
Reason:	Routine	Install	Removal
Start Time (MST)	2:30 PM	End Time (MST)	18:00
Barometric Pressure	0.9 Atm	Station Temperature	20.0 Deg C
Calibrator	Enviroics 6100	Serial Number	3474
Cal Gas Concentration	9.97 ppm	Cal Gas Expiry Date	July 3, 2013
Gas Cert Reference	BLM000121		
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	0.982520	Calculated slope	0.993996
Calculated intercept	0.128000	Calculated intercept	-0.080272
Analyzer make	TEI 43C	Analyzer serial #	609716238

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	15.5	ppb	15.5	ppb
Coefficient	1.399		1.399	
Lamp Voltage	845	V	847	V
Chamber Temp	43.8	C	43.9	C
Perm gas Temp	45.0	C	45	C
Pressure	650.2	mmHg	646.4	mmHg
Sample Flow	0.438	ccm	0.438	ccm
Lamp Intensity	38744.0	Hz	38500.0	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)
5995	0.0	0.0	0.3	N/A
5995	49.98	82.4	83.1	0.9921
5995	24.95	41.3	41.6	0.9922
5995	11.98	19.9	19.8	1.0062
5995	11.98	100.7	0.7	SOx Scrubber Test
5995	0.00	0.0	0.3	As found zero
5995	49.98	82.4	83.1	As found span
Average Correction Factor				0.9968

Calculated value of As Found Response: 81.44 ppm Percent Change of As Found: 1.2%

	before calibration		after calibration	
Auto zero	0.4	ppm	0.3	ppm
Auto span	66.4	ppm	65.1	ppm

Notes: No span adjust.

Calibration Performed By: Stephanie Tandy

Calibration Summary

Parameter TRS

Air Monitoring Network PAZA



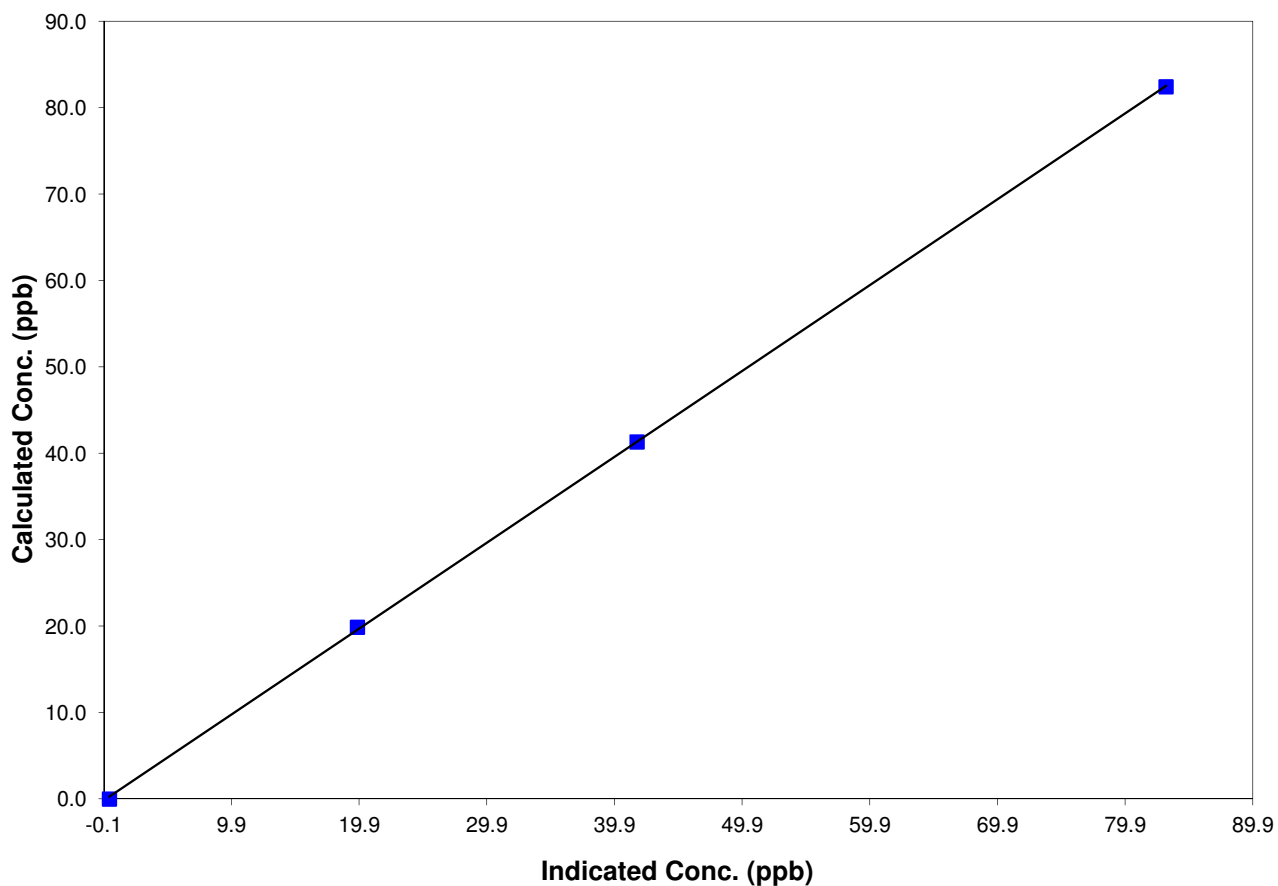
Station Information

Calibration Date	March 27, 2013	Previous Calibration	February 26, 2013
Station Number	PAZA Rover	Station Location	Sunset House
Start Time (MST)	14:30	End Time (MST)	18:00
Analyzer make/model	TEI 43C	Analyzer serial #	609716238

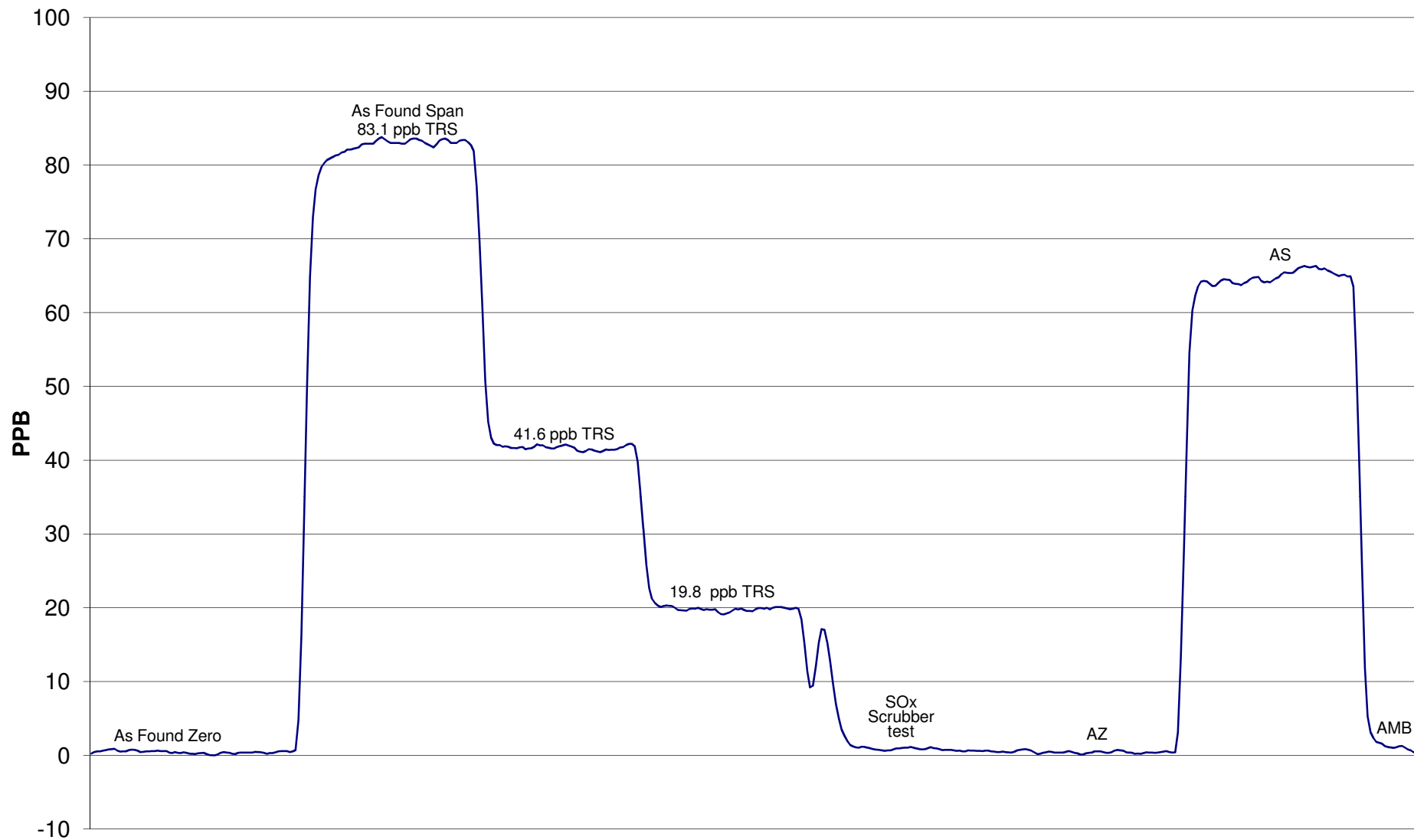
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	N/A		
82.4	83.1	0.9921	Correlation Coefficient	0.999954
41.3	41.6	0.9922		
19.9	19.8	1.0062	Slope	0.993996
			Intercept	-0.080272

TRS Calibration Curve



TRS Calibration



March 27, 2013

Calibration Report



Parameter SO₂

Air Monitoring Network PAZA

Station Information

Calibration Date	March 28, 2013	Previous Calibration	February 27, 2013
Station Number	1	Station Location	Falher
Reason:	☒ Routine	☐ Install	☐ Removal
		☐ Other:	
Start Time (MST)	9:50	End Time (MST)	13:18
Barometric Pressure	0.917 ATM	Station Temperature	20.0 Deg C
Calibrator	EnviroNics	Serial Number	3474
Cal Gas Concentration	50.8 ppm	Cal Gas Expiry Date	12/03/2014
Correction factor	0.031171	Cal Gas Cylinder #	LL107272
DACS make	CR1000	DACS serial No.	3980
DACS voltage range	0 - 5 volt	DACS channel #	6
	<u>Before</u>		<u>After</u>
Calculated slope	0.997348	Calculated slope	0.992838
Calculated intercept	0.399998	Calculated intercept	0.612947
Analyzer make	Teco 43i	Analyzer serial #	1207452008

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	7.1		7.1	
coefficient	0.932		0.932	
Lamp Voltage	855	volts	855	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	678.8	mm Hg	678.7	mm Hg
Sample Flow	0.424	ccm	0.424	ccm
Lamp Intensity	96	%	97	%

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.0	0.00	0.3	N/A
4995	39.93	402.9	405.8	0.9928
4995	19.98	202.4	202.3	1.0006
4995	9.84	99.9	99.4	1.0051
4995	0.0	0.0	0.3	As Found Zero
4995	39.93	402.9	405.8	As Found Span
Average Correction Factor				0.9995

Calculated value of As Found Response: 404.790 ppm Percent Change of As Found: **-0.5%**

	before calibration		after calibration	
Auto zero	0.5	ppm	0.1	ppm
Auto span	359.4	ppm	350.2	ppm

Notes: No span adjust.

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter SO2

Air Monitoring Network PAZA



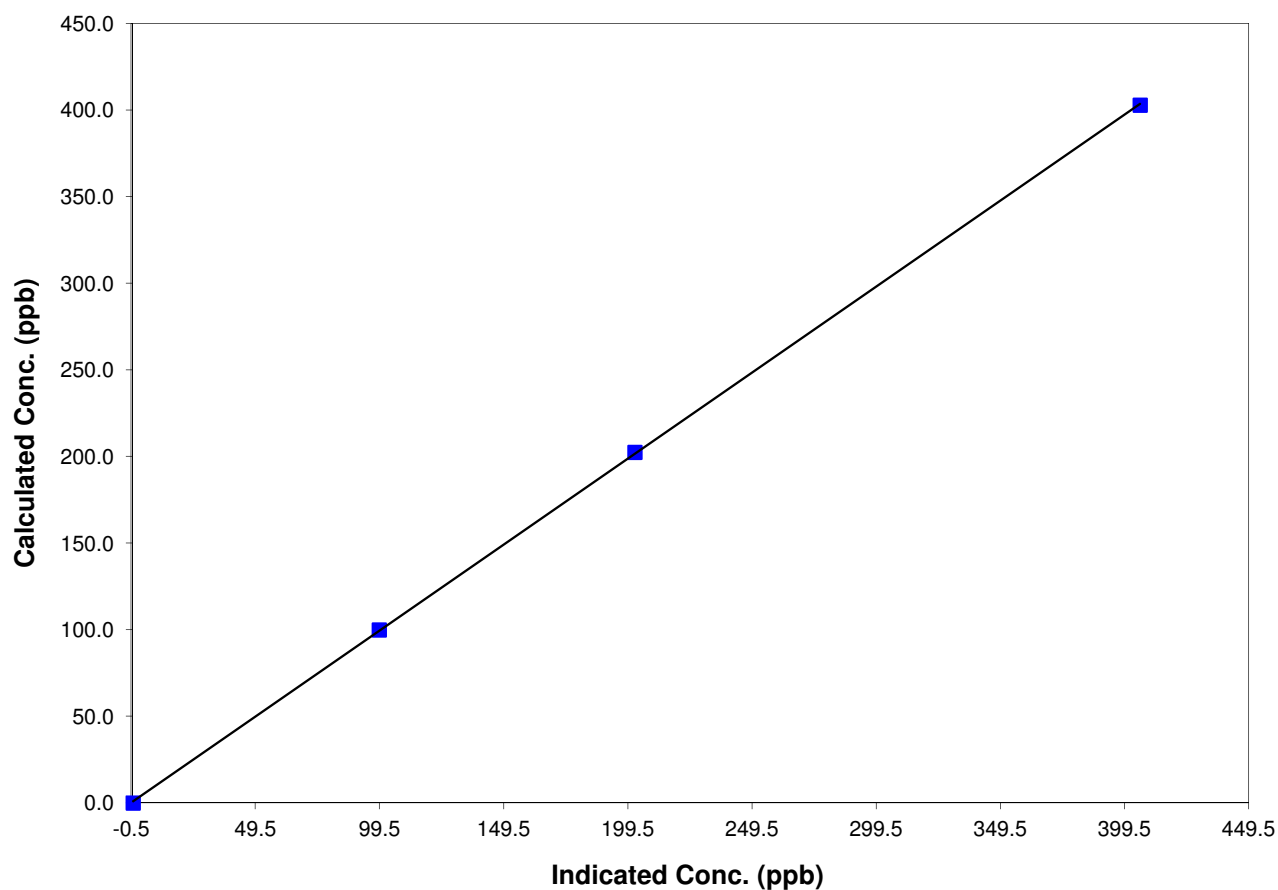
Station Information

Calibration Date	March 28, 2013	Previous Calibration	February 27, 2013
Station Number	1	Station Location	Falher
Start Time (MST)	9:50	End Time (MST)	13:18
Analyzer make/model	Teco 43i	Analyzer serial #	1207452008

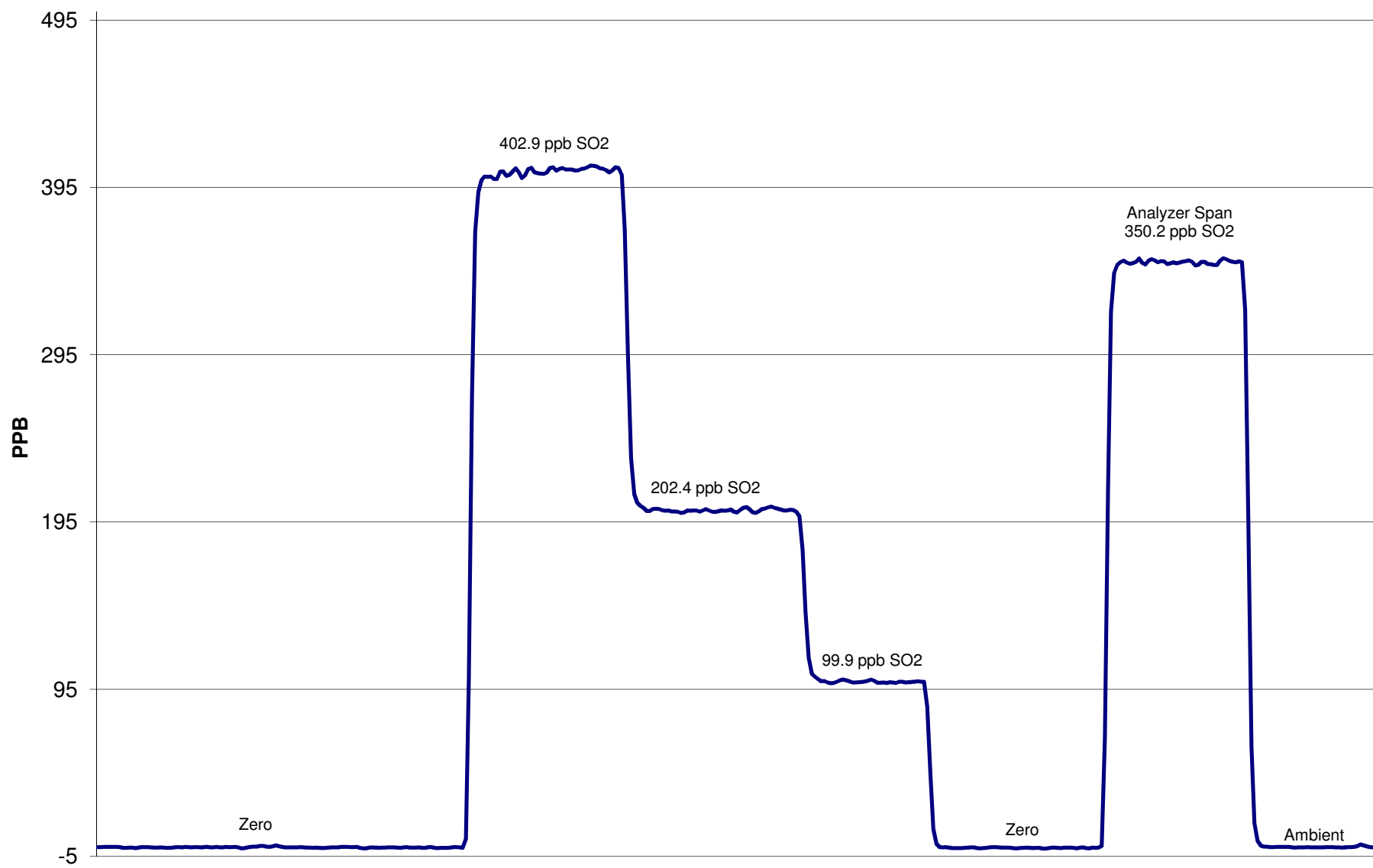
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	N/A	Correlation Coefficient	0.999972
402.9	405.8	0.9928		
202.4	202.3	1.0006		
99.9	99.4	1.0051	Slope	0.992838
			Intercept	0.612947

SO2 Calibration Curve



SO2 Calibration



March 28, 2013

Calibration Report



Parameter H2S

Air Monitoring Network PAZA

Station Information

Calibration Date	March 28, 2013	Previous Calibration	February 27, 2013
Station Number	1	Station Location	Falher
Reason:	☒ Routine	☐ Install	☐ Removal
		☐ Other:	
Start Time (MST)	8:46	End Time (MST)	11:33
Barometric Pressure	0.917 ATM	Station Temperature	20.0 Deg C
Calibrator	EnviroNics	Serial Number	3474
Cal Gas Conc	10.1 ppm	Cal Gas Expiry Date	05/11/2013
Correction factor	0.031171	Cal Gas Cylinder #	LL160692
DACS make	CR1000	DACS serial No.	3980
DACS voltage range	0 - 5 volt	DACS channel #	5
	<u>Before</u>		<u>After</u>
Calculated slope	0.996773	Calculated slope	0.990935
Calculated intercept	0.134828	Calculated intercept	0.279847
Analyzer make	Thermo 450i	Analyzer serial #	1207452006

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	12.6	ppb	12.6	ppb
coefficient	1.169		1.169	
Lamp Voltage	803	volts	803	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	568.8	mm Hg	569.1	mm Hg
Sample Flow	0.951	ccm	0.955	ccm
Lamp Intensity	91	mv	90	mv

Calibration Data

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.00	-0.2	N/A
4995	39.97	80.18	80.7	0.9939
4995	19.97	40.22	40.2	0.9996
8994	8.97	10.06	9.8	1.0220
4995	0.00	0.00	-0.2	As Found Zero
4995	39.95	80.14	80.7	As Found Span
Average Correction Factor				1.0052

Calculated value of As Found Response: 80.77 ppm Percent Change of As Found: **-0.8%**

	before calibration		after calibration	
Auto zero	0.0	ppm	0.4	ppm
Auto span	51.2	ppm	51.5	ppm

Notes: **No adjustment made.**

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter H2S

Air Monitoring Network PAZA



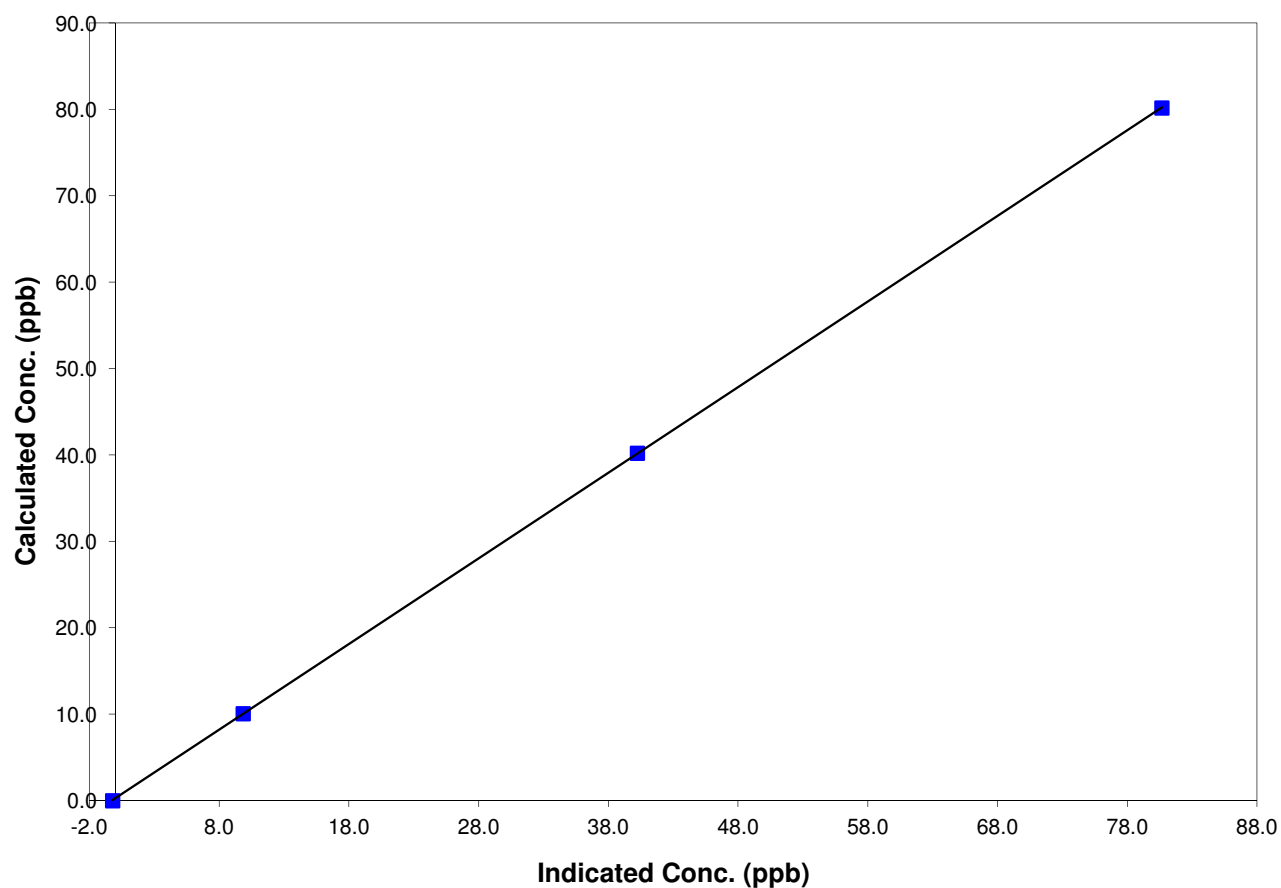
Station Information

Calibration Date	March 28, 2013	Previous Calibration	February 27, 2013
Station Number	1	Station Location	Falher
Start Time (MST)	8:46	End Time (MST)	11:33
Analyzer make/model	Thermo 450i	Analyzer serial #	1207452006

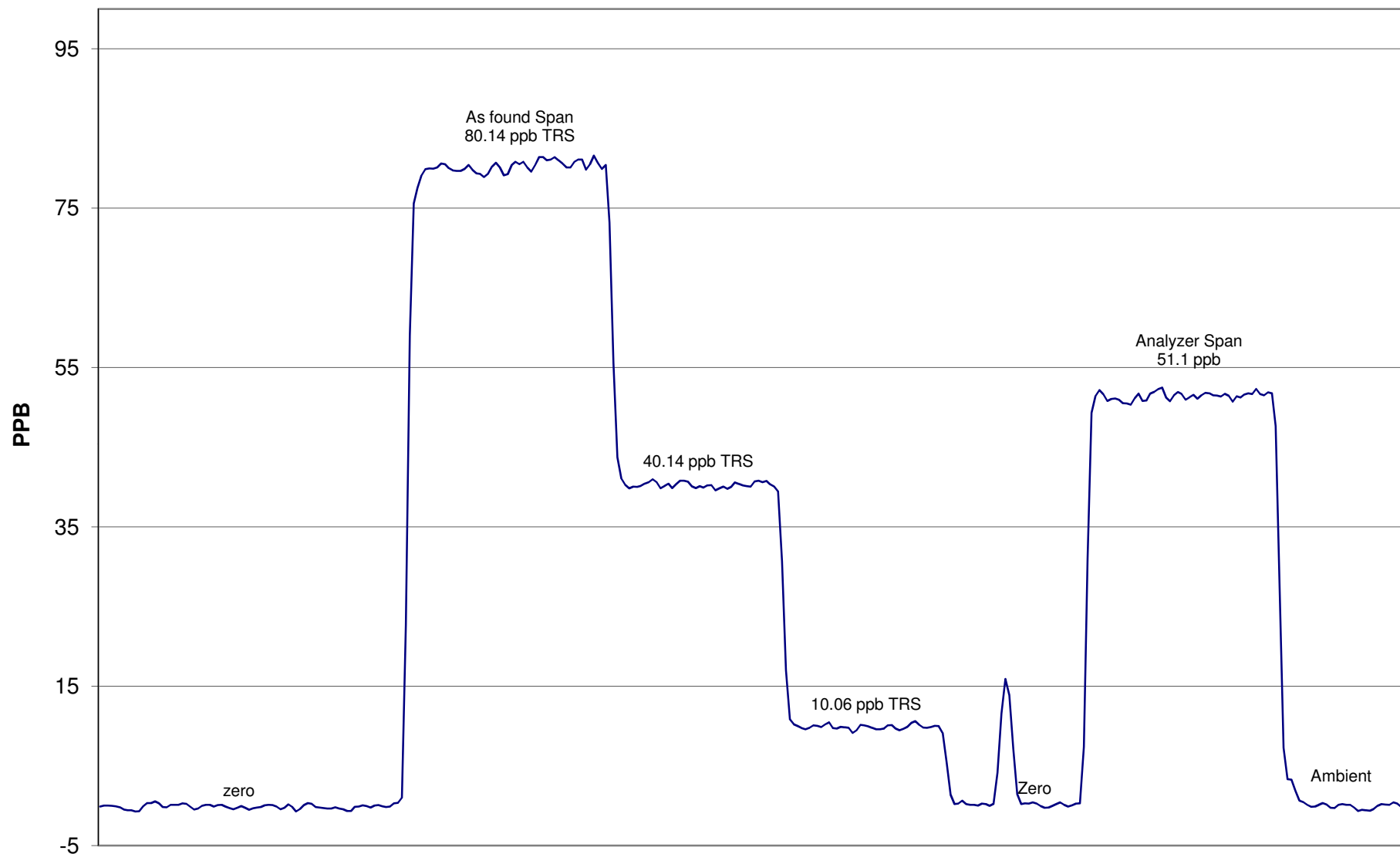
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.2	N/A	Correlation Coefficient	0.999997
80.2	80.7	0.9939		
40.2	40.2	0.9996		
10.1	9.8	1.0220	Slope	0.990935
			Intercept	0.279847

TRS Calibration Curve



H2S Calibration



March 28, 2013