



Peace Airshed Zone Association

Ambient Air Monitoring Network Summary

**Continuous Ambient Air Quality Monitoring Program
Monthly Report
January 2012**

Operations and Reporting



March 7th, 2012

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

RE: Peace Airshed Zone Association (PAZA) – January 2012 Ambient Air Report

Enclosed is the PAZA Ambient Monitoring Network Report for the month of **January 2012**.

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	AENV Approval Number
Advantage Oil & Gas Ltd.	Glacier	05-02-076-13-W6	262479-00-00
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
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
Bonavista Energy Corporation	Rycroft	08-25-077-06-W6	11351-02-00
	Spirit River	08-34-077-06-W6	11096-02-00
Canadian Natural Resources Limited	Bonanza	11-25-081-11-W6	29-01-01
	Progress/Gordondale	01-01-077-10-W6	10036-02-00
	Gold Creek	13-26-067-05-W6	10446-02-00
	Teepee Creek	SE-2-074-04-W6	1635-02-02

Conocophillips Canada Energy Partnership	Wembley	06-19-073-08-W6	212-01-00
Devon Canada	Tangent	16-20-080-24-W5	11346-02-00
	NW Belloy (Dunvegan)	16-36-079-03-W6	9810-02-00
	Eaglesham (South)	02-14-077-25-W5	47669-01-00
	Puskwaskau	03-26-074-01-W6	17524-01-00
	North Normanville	03-36-079-23-W5	47455-01-00
	West Culp	05-34-078-25-W6	136284-00-00
	Cecil	08-15-084-08-W6	10032-02-00
EnCana Corporation	Hythe Brainard	11-18-074-12-W6	10910-02-02
	Sexsmith	04-08-075-07-W6	10002-01-00
Galleon Energy Inc.	Eaglesham	01-25-076-01-W6	241532-00-00
	Kakut	14-12-075-03-W6	248469-00-01
	Donnelly	06-01-077-21-W5	87-02-00
Grande Prairie Generation Inc.	Northern Prairie Power Project	04-19-073-08-W6	238762-00-02
Longview Oil Corp.	Sunset House	06-22-70-20-W5	138884-01-00
Penn West Petroleum Ltd.	Tangent	13-29-080-23-W5	1746-02-01
	Pouce Coupe	16-07-078-11-W6	614-01-00
Spectra Energy Midstream Corporation	Fourth Creek	16-11-082-09-W6	263-01-00
Suncor Energy Inc.	Progress	07-22-078-09-W6	11428-02-00
Taq North Ltd.	Valhalla	13-21-076-09-W6	17620-01-01
Weyerhaeuser Canada	Grande Prairie Pulp and Wood Plant	01-14-070-05-W6	113-02-00

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: Six (6) Stations including Henry Pirker (Grande Prairie), Evergreen Park, Smoky Heights, Beaverlodge, Valleyview, and Portable-Sunset House.

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

Henry Pirker Station:

- ◆ The measured ambient air quality was within the Alberta Ambient Air Quality Objectives (AAAQO) for the Henry Pirker station.
- ◆ The PM_{2.5} analyzer experienced extensive data loss due to negative values, returning an analyzer uptime of 70% in the month of January. **AE Reference #256501**
- ◆ All other analyzers and sensors at the Henry Pirker station had an operational uptime greater than 90% for the month of January.

Evergreen Park Station:

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

Smoky Heights Station:

- ◆ The measured ambient air quality was within the AAAQO for the Smoky Heights station.
- ◆ All analyzers / sensors at the Evergreen Park station had an operational uptime of 100% for the month of January.

Beaverlodge Station:

- ◆ The measured ambient air quality was within the AAAQO for the Beaverlodge station, except for PM_{2.5}, which has two (2) 1-hour exceedences of the AAAQO guideline:
 - o January 22 06:00 84.9 µg/m³ Alberta Environment Reference # 255278
 - o January 22 07:00 80.1 µg/m³ Alberta Environment Reference # 255278
- ◆ All compliance parameters at the Beaverlodge station had an operational uptime of 100% for the month of January.

Valleyview Station:

- ◆ The measured ambient air quality was within the AAAQO for the Valleyview station.
- ◆ All analyzers / sensors at the Valleyview station had an operational uptime of 100% for the month of January.

Sunset House Station:

- ◆ The measured ambient air quality was within the AAAQO for the Sunset House station.
- ◆ Station operation began December 21st, with data reporting commencing on January 6th.
- ◆ All analyzers / sensors at the Sunset House station had an operational uptime of 100% for the month of January.

Passive Monitoring - 46 Stations throughout the PAZA zone:

There were five duplicate sites sampled in the month of January: Silver Valley, Bay Tree, Jean Cote, Karr Creek, and Girouxville 4. In addition, H₂S sampling was added to the Gift Lake site. 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 0.7 ppb, with a mean of 0.3 ppb.
- Monthly average concentrations for NO₂ passives ranged from 0.8 ppb to 11.0 ppb, with a mean of 1.9 ppb.
- Monthly average concentrations for O₃ passives ranged from 23.3 ppb to 39.2 ppb, with a mean of 35.9 ppb.
- Monthly average concentrations for H₂S passives ranged from 0.1 to 0.2 ppb, with a mean of 0.2 ppb.

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
Program Manager

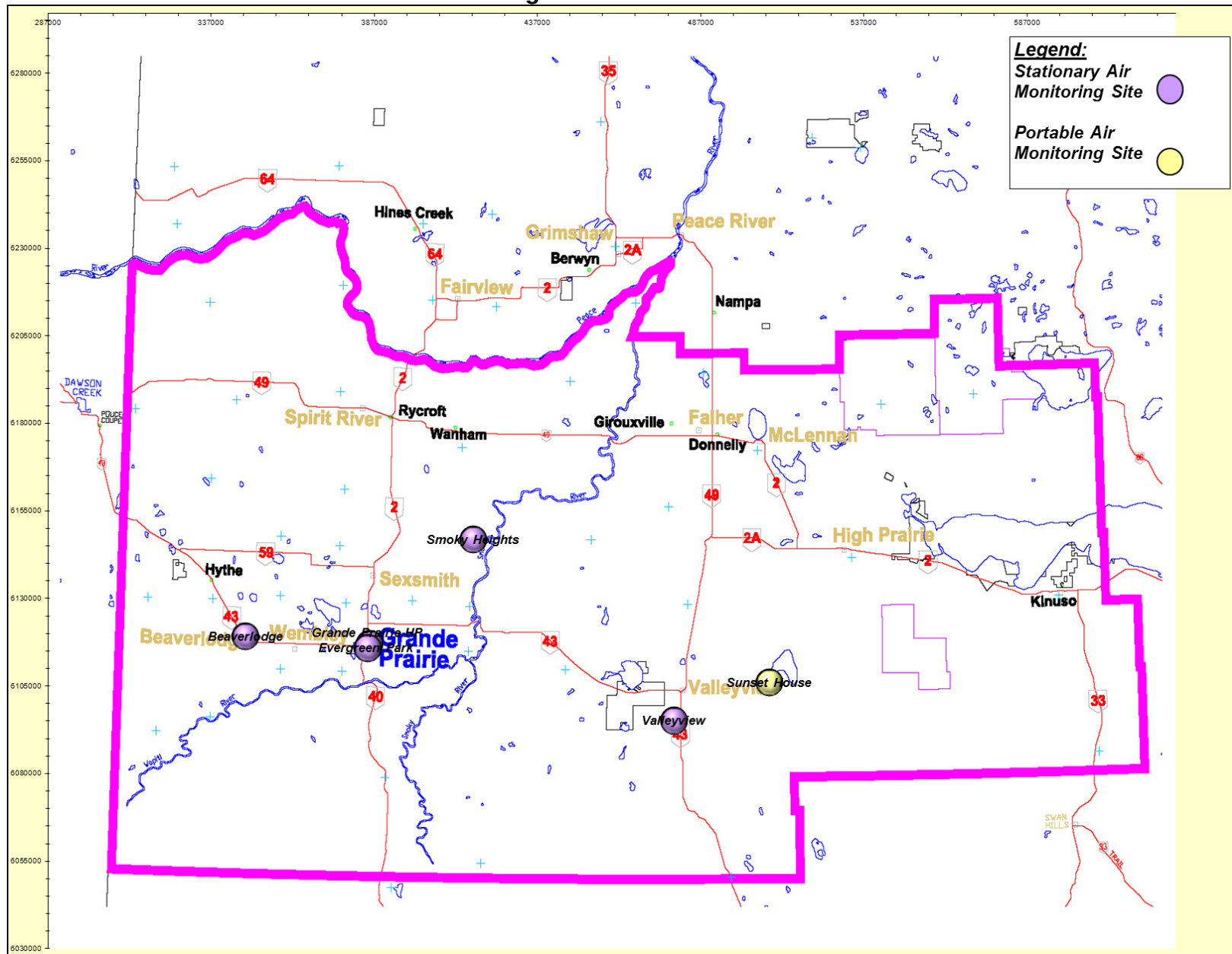


Patrick Andersen, B.Sc.
FOCUS AQM Data Specialist



Jeff Cooper, C.Tech.
AQM Operations Manager

Location of PAZA Continuous Monitoring Stations



PAZA Monthly Continuous Data Summary

Jan-2012Peace 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	0.3	0	0	2.7	Jan-22 09:00	1.1	Jan-22	100%
SO ₂ (ppb)	172	48	Evergreen Park	0.1	0	0	1.7	Jan-05 23:00	0.5	Jan-15	100%
SO ₂ (ppb)	172	48	Smoky Heights	0.5	0	0	10.7	Jan-12 01:00	1.7	Jan-12	100%
SO ₂ (ppb)	172	48	Beaverlodge	0.2	0	0	3.2	Jan-28 21:00	1.0	Jan-21	100%
SO ₂ (ppb)	172	48	Valleyview	0.9	0	0	13.4	Jan-26 22:00	3.9	Jan-05	100%
SO ₂ (ppb)	172	48	Sunset House	0.3	0	0	3.5	Jan-07 18:00	1.1	Jan-21	100%
NO (ppb)			Henry Pirker	10.3	0	0	166.3	Jan-26 09:00	45.3	Jan-22	100%
NO ₂ (ppb)	159	106	Henry Pirker	16.4	0	0	55.4	Jan-26 09:00	31.8	Jan-31	100%
NO _x (ppb)			Henry Pirker	26.7	0	0	222.3	Jan-26 09:00	74.3	Jan-22	100%
NO (ppb)			Beaverlodge	0.7	0	0	19.5	Jan-20 11:00	7.6	Jan-20	100%
NO ₂ (ppb)	159	106	Beaverlodge	4.9	0	0	30.5	Jan-20 19:00	20.5	Jan-20	100%
NO _x (ppb)			Beaverlodge	5.6	0	0	43.9	Jan-20 09:00	27.9	Jan-20	100%
O ₃ (ppb)	82		Henry Pirker	18.0	0	-	38.0	Jan-13 00:00	31.1	Jan-05	100%
O ₃ (ppb) - 8-hr			Henry Pirker		0				36.1	Jan-13	
O ₃ (ppb)	82		Beaverlodge	28.5	0	-	39.3	Jan-12 21:00	36.7	Jan-12	100%
O ₃ (ppb) - 8-hr			Beaverlodge		0				38.1	Jan-11	
O ₃ (ppb)	82		Sunset House	27.8	0	-	35.3	Jan-31 17:00	33.6	Jan-31	100%
O ₃ (ppb) - 8-hr			Sunset House		0				34.6	Jan-31	
CO (ppm)	13		Henry Pirker	0.27	0	-	1.9	Jan-26 09:00	0.5	Jan-22	100%
CO (ppm) - 8-hr	5		Henry Pirker		0				0.9	Jan-26	
THC (ppm)			Henry Pirker	2.22	-	-	4.1	Jan-31 04:00	2.7	Jan-22	100%
TRS (ppb)			Henry Pirker	0.4	-	-	1.6	Jan-24 05:00	0.7	Jan-24	100%
TRS (ppb)			Evergreen Park	0.6	-	-	1.5	Jan-12 17:00	0.9	Jan-22	100%
TRS (ppb)			Smoky Heights	0.3	-	-	0.9	Jan-20 10:00	0.5	Jan-20	100%
TRS (ppb)			Sunset House	0.3	-	-	0.7	Jan-21 01:00	0.4	Jan-21	100%
H ₂ S (ppb)	10	3	Valleyview	0.2	0	0	6.2	Jan-18 20:00	0.8	Jan-09	100%
PM2.5 (µg/m3)	80	30	Henry Pirker	4.1	0	0	38.2	Jan-13 15:00	9.9	Jan-14	70%
PM2.5 (µg/m3)	80	30	Evergreen Park	2.8	0	0	30.2	Jan-16 11:00	8.6	Jan-22	99%
PM2.5 (µg/m3)	80	30	Smoky Heights	2.4	0	0	43.2	Jan-22 19:00	10.4	Jan-22	100%
PM2.5 (µg/m3)	80	30	Beaverlodge	5.8	2	0	84.9	Jan-22 05:00	26.5	Jan-22	100%
PM2.5 (µg/m3)	80	30	Sunset House	1.4	0	0	23.0	Jan-06 21:00	6.8	Jan-07	100%

PAZA Monthly Continuous Data Summary – continued

Jan-2012 Peace Airshed Zone Association							Maximum Recorded Values				
							1-hr		24-hr / 8-hr		
RH (%)			Henry Pirker	64.9	-	-	89.6	Jan-29 06:00	84.7	Jan-28	100%
RH (%)			Evergreen Park	68.7	-	-	96.0	Jan-29 07:00	91.9	Jan-28	100%
RH (%)			Beaverlodge	73.8	-	-	100.0	Jan-28 19:00	95.2	Jan-28	100%
RH (%)			Valleyview	66.9	-	-	96.4	Jan-25 00:00	93.1	Jan-29	100%
SR (W/m ²)			Henry Pirker	30.1	-	-	295.4	Jan-31 13:00	55.1	Jan-31	100%
Temp (°C)			Henry Pirker	-8.1	-	-	8.3	Jan-09 13:00	3.6	Jan-08	100%
Temp (°C)			Evergreen Park	-7.9	-	-	9.5	Jan-04 15:00	4.9	Jan-08	100%
Temp (°C)			Smoky Heights	-8.8	-	-	6.9	Jan-09 14:00	3.9	Jan-08	100%
Temp (°C)			Beaverlodge	-8.1	-	-	6.3	Jan-08 13:00	4.9	Jan-08	88%
Temp (°C)			Valleyview	-7.8	-	-	9.8	Jan-09 14:00	4.3	Jan-08	100%
Temp (°C)			Sunset House	-6.5	-	-	8.5	Jan-09 15:00	6.1	Jan-04	100%
WSPD s (km/hr)			Henry Pirker	10.3	-	-	43.0	Jan-09 16:00	25.7	Jan-05	100%
WSPD s (km/hr)			Evergreen Park	7.6	-	-	73.0	Jan-17 10:00	21.3	Jan-05	100%
WSPD s (km/hr)			Smoky Heights	16.7	-	-	49.0	Jan-09 18:00	32.6	Jan-05	100%
WSPD s (km/hr)			Beaverlodge	12.9	-	-	54.0	Jan-09 15:00	29.1	Jan-05	100%
WSPD s (km/hr)			Valleyview	6.1	-	-	27.0	Jan-09 17:00	13.4	Jan-05	100%
WSPD s (km/hr)			Sunset House	13.9	-	-	39.0	Jan-01 21:00	22.6	Jan-01	100%
WSPD v (km/hr)			Henry Pirker	10.1	-	-	43.0	Jan-09 16:00	25.2	Jan-05	100%
WSPD v (km/hr)			Evergreen Park	5.1	-	-	60.0	Jan-17 17:00	20.9	Jan-05	100%
WSPD v (km/hr)			Smoky Heights	11.6	-	-	49.0	Jan-09 18:00	32.4	Jan-05	100%
WSPD v (km/hr)			Beaverlodge	7.3	-	-	54.0	Jan-09 15:00	28.8	Jan-05	100%
WSPD v (km/hr)			Valleyview	2.8	-	-	27.0	Jan-09 17:00	12.9	Jan-05	100%
WSPD v (km/hr)			Sunset House	8.5	-	-	39.0	Jan-01 21:00	22.2	Jan-01	100%
WDIR			Henry Pirker	W	-	-	-	-	-	-	100%
WDIR			Evergreen Park	W	-	-	-	-	-	-	100%
WDIR			Smoky Heights	WSW	-	-	-	-	-	-	100%
WDIR			Beaverlodge	WSW	-	-	-	-	-	-	100%
WDIR			Valleyview	WSW	-	-	-	-	-	-	100%
WDIR			Sunset House	SSW	-	-	-	-	-	-	100%

Continuous Network Equipment Summary

PAZA – Henry Pirker Station

General Station Issues

Routine monthly calibrations were performed on January 16th (TRS, CO & THC) and January 17th (SO₂, NO_x & O₃).

Parameter	Make	Model	Notes
SO ₂	TEI	43C	No operational issues observed.
NOx/NO/NO ₂	TEI	42C	No operational issues observed.
O ₃	TEI	49C	No operational issues observed.
CO	TEI	48C	No operational issues observed.
THC	TEI	51-CLT	No operational issues observed.
TRS	TEI	45C/43C	No operational issues observed.
PM _{2.5}	R&P	1400AB	Two hundred twenty-five (225) hours were flagged invalid due to negative readings. AE Reference #256501
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 January 26th (SO₂, TRS and 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	Three (3) hours were flagged invalid due to negative readings. Filter was found smoke-clogged on technician arrival on January 16 th ; clogged filter invalidated (7) hours of data on January 16 th .
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 calibrations were performed on January 27th (SO₂, TRS and PM_{2.5}).

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	Three (3) hours were flagged invalid due to negative readings.
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 January 18th (SO₂, NO_x, O₃). Maintenance was performed on the TEOM on January 18th.

Parameter	Make	Model	Notes
SO ₂	TEI	43CTL	No operational issues observed.
NO _x /NO/NO ₂	TEI	42C	No operational issues observed.
O ₃	TEI	49C	No operational issues observed.
PM _{2.5}	R&P	1400AB	One (1) hour was flagged invalid due to negative reading. There were two exceedences of the 1-hour AAAQO guideline: January 22: 05:00 85 µg/m ³ AE Reference # 255278 January 22: 06:00 80 µg/m ³ AE Reference # 255278
ET	n/a	n/a	Sensor malfunctioned from January 1 st through January 4 th .
RH	n/a	n/a	No operational issues observed.
WS / WD	Blue Sky	857	No operational issues observed.

PAZA – Valleyview Station

General Station Issues

Routine monthly calibrations were performed on January 7th (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

Installation calibrations were performed on December 21st (SO₂, O₃, TRS). Routine monthly calibrations were performed on January 6th (SO₂, O₃, TRS, PM_{2.5}) and mark the beginning of full operation and reporting.

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

Henry Pirker Station

Monthly Summary Tables, Graphs and
Roses

Hourly Averages

Sulphur Dioxide (SO₂) - ppb

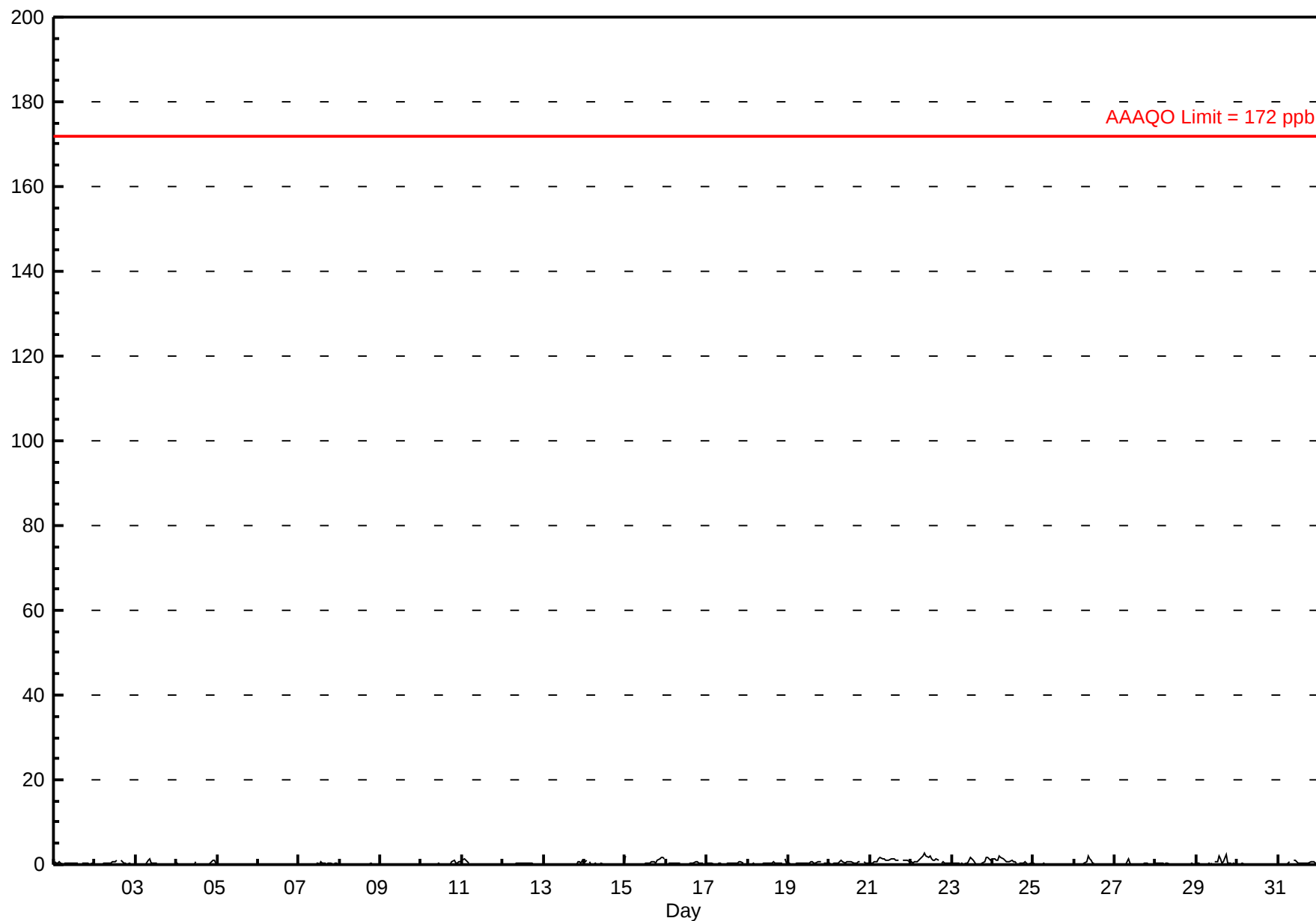
Henry Pirker - January 2012

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0		Maximum Value: 2.7 ppb on Jan 22 09:00		Maximum Daily Average: 1.1 ppb on Jan 22		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 Jan 3 05:00		Minimum Daily Average: 0.0 ppb on Jan 6		Minimum Diurnal Average: 0.2 ppb at hour 3		Monthly Average: 0.31 ppb		Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.4 P ₉₀ = 0.9 P ₉₉ = 2.0																			
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
1-Jan	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.4	0.6	
2-Jan	0	0	0	0	0	0	0	0	0	0	1	1	1	1	A	1	1	0	0	0	0	0	0	0	0.3	1.2	
3-Jan	0	0	0	0	0	0	0	1	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.2	1.3	
4-Jan	0	0	0	0	0	0	0	0	0	0	0	1	A	0	0	0	0	0	0	0	0	1	1	0	0.2	1.2	
5-Jan	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1	
6-Jan	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	
7-Jan	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	0	0	0	0	0	0	0	0	0	0.2	0.6	
8-Jan	0	0	0	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	
9-Jan	0	0	0	0	0	0	0	0	A	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2	
10-Jan	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	1	0.2	1.1	
11-Jan	1	1	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.3	
12-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3	
13-Jan	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0.1	1.0	
14-Jan	1	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.9	
15-Jan	2	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	2	2	1	0.6	2.1	
16-Jan	A	0	0	0	0	0	0	0	0	C	C	C	C	0	0	0	0	1	1	0	0	0	0	A	0.3	0.7	
17-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	A	0	0.2	0.7	
18-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	A	1	0	0.3	1.4	
19-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1	1	A	0	0	0	0.3	0.6	
20-Jan	0	0	0	0	0	0	1	1	1	0	1	1	1	1	0	0	0	1	1	A	1	0	0	0	0.5	0.9	
21-Jan	0	0	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1.0	1.5	
22-Jan	1	1	1	1	1	1	2	2	3	2	2	2	1	1	1	1	1	A	0	1	0	0	0	0	1.1	2.7	
23-Jan	0	0	0	0	0	0	0	0	0	0	1	2	1	1	0	0	A	0	0	1	2	2	1	1	0.6	1.6	
24-Jan	1	1	1	1	2	2	1	1	1	1	1	1	1	1	0	A	0	0	0	1	0	0	0	0	0.8	2.0	
25-Jan	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	0.3	
26-Jan	0	0	0	0	0	0	0	1	2	1	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0.3	1.9	
27-Jan	0	0	0	0	0	0	0	1	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.2	1.2	
28-Jan	0	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	
29-Jan	0	0	0	0	0	0	0	0	0	0	0	A	1	1	2	1	0	1	2	0	0	0	0	0	0.5	2.2	
30-Jan	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2	
31-Jan	0	0	0	0	0	0	0	1	A	1	1	1	0	0	0	0	0	0	0	1	1	1	0	0	0.4	1.0	
		0.3	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.3	0.4	0.4	0.3	0.4	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.3	Diurnal Average	
		2.1	1.3	1.0	1.2	2.0	1.5	1.8	2.0	2.7	2.0	1.8	2.0	1.3	2.1	1.4	1.3	1.2	2.2	0.8	1.1	1.6	1.7	1.8	1.3	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									
Alberta Ambient Air Quality Objectives (AAAQO):		1-hr 172 ppb		24-hr 48 ppb		30-day 11 ppb																					

Hourly Averages

Sulphur Dioxide (SO₂) - ppb

Henry Pirker - January 2012



Hourly Maximums

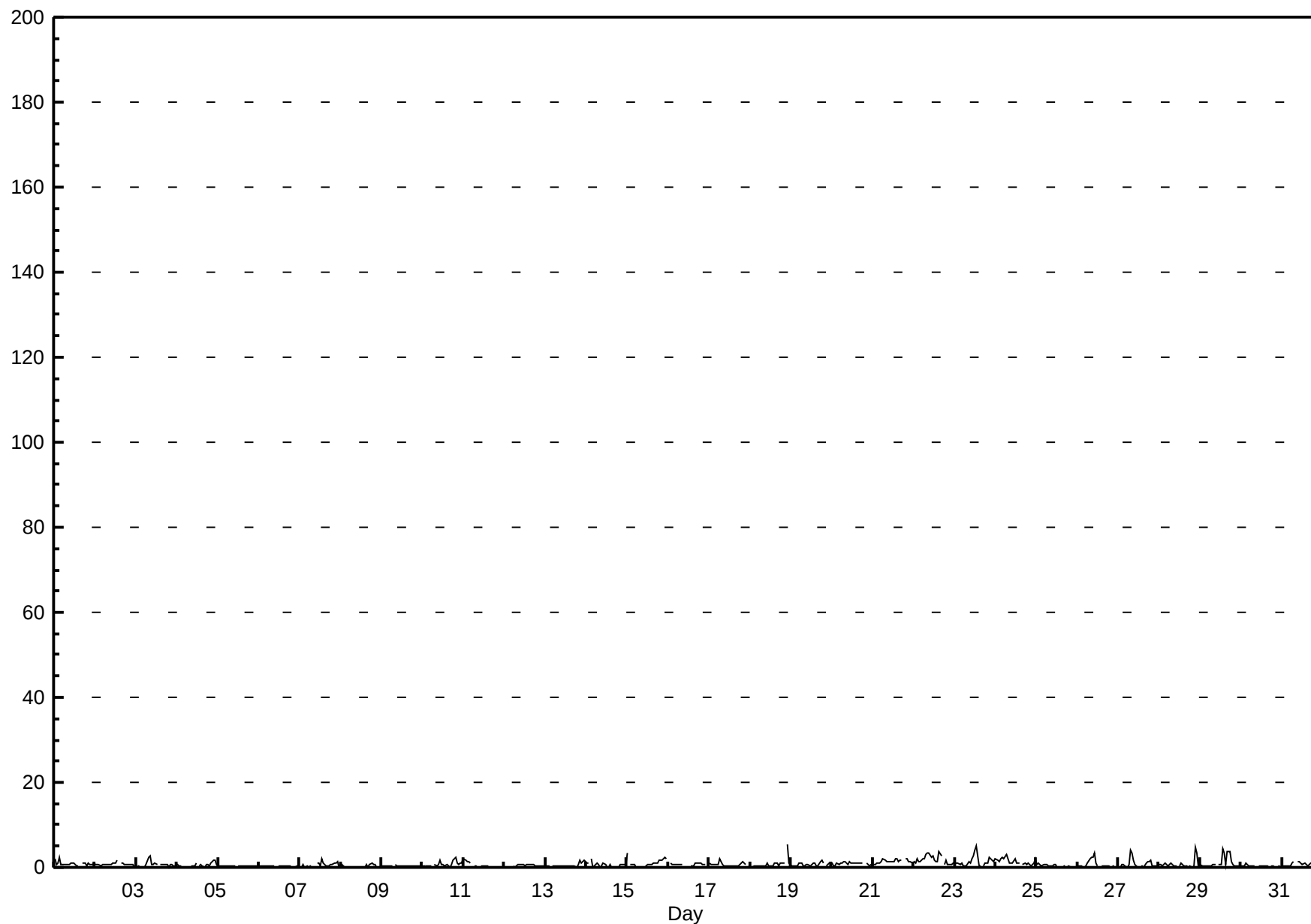
Sulphur Dioxide (SO₂) - ppb

Henry Pirker - January 2012

Maximum Value: 5.5 ppb on Jan 18 23:00		Maximum Daily Average: 1.9 ppb on Jan 22		Hours in Service: 744																							
Minimum Value: 0 ppb on Jan 7 08:00		Minimum Daily Average: 0.2 ppb on Jan 6		Hours of Data: 708																							
Maximum Diurnal Average: 1.0 ppb at hour 23		Minimum Diurnal Average: 0.5 ppb at hour 6		Hours of Missing Data: 36																							
Monthly Average: 0.74 ppb		Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.3 Median = 0.5 Q ₃ = 1.0 P ₉₀ = 1.5 P ₉₉ = 3.8		Hours of Calibration: 36																							
				Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
1-Jan	2	1	1	2	1	1	1	1	1	1	1	1	1	0	0	A	1	1	1	0	1	1	1	1	0.8	2.2	
2-Jan	1	1	1	0	1	1	1	1	1	1	1	1	1	2	A	1	1	1	1	1	1	1	1	0	0.7	1.6	
3-Jan	0	0	0	0	0	0	1	2	3	1	1	1	1	A	1	1	1	1	1	0	1	1	1	1	0.6	2.6	
4-Jan	1	1	0	0	0	0	0	0	0	0	0	1	A	0	1	0	0	1	1	0	1	2	2	1	0.5	1.6	
5-Jan	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	0.4	
6-Jan	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4	
7-Jan	0	0	1	0	1	0	0	0	0	0	A	1	1	0	2	1	0	1	1	1	1	1	1	0	0.6	2.0	
8-Jan	0	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	1	0	1	1	1	0	0	0	0.3	1.1	
9-Jan	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	0.7	
10-Jan	0	0	0	0	0	0	A	1	0	1	2	1	1	0	1	0	0	1	2	3	1	1	1	1	0.7	2.5	
11-Jan	2	2	1	1	1	A	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.5	1.9	
12-Jan	0	0	0	0	A	0	0	0	1	1	1	1	0	1	1	1	1	1	0	0	0	0	0	0	0.4	0.8	
13-Jan	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	1	1	2	0.5	1.6	
14-Jan	1	1	A	2	0	1	1	1	0	0	1	1	0	0	1	0	0	0	0	0	1	1	1	1	0.5	2.0	
15-Jan	3	A	1	1	1	0	0	0	0	0	0	0	1	1	1	1	1	1	1	2	2	2	2	2	0.9	3.4	
16-Jan	A	1	1	1	1	1	1	1	1	C	C	C	C	0	0	0	1	1	1	1	1	1	1	A	0.7	1.0	
17-Jan	1	1	1	1	1	1	2	1	1	1	0	0	1	0	0	0	0	0	1	1	1	1	A	0	0.7	1.9	
18-Jan	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	0	1	1	1	A	6	1	0.9	5.5	
19-Jan	0	0	0	0	0	1	0	0	0	1	1	0	1	1	1	0	0	1	2	1	A	0	1	1	0.8	1.6	
20-Jan	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0	1	0.9	1.5	
21-Jan	1	1	1	1	1	2	2	2	2	2	2	2	2	2	1	2	2	A	2	2	2	1	1	1	1.5	2.0	
22-Jan	1	1	2	1	1	2	2	3	3	3	2	3	2	1	1	4	3	A	1	2	1	1	1	1	1.9	3.8	
23-Jan	1	1	1	1	1	0	0	0	1	1	2	3	4	5	0	0	A	0	1	1	2	2	2	2	1.4	5.0	
24-Jan	2	2	2	2	3	2	3	2	1	1	1	2	1	1	1	A	1	1	1	1	1	0	1	2	1.4	3.0	
25-Jan	1	1	1	0	1	1	1	0	0	0	1	1	0	0	A	0	0	0	0	1	0	0	0	0	0.3	1.0	
26-Jan	0	0	0	0	0	0	1	2	2	2	4	1	0	A	0	0	0	0	0	0	0	0	0	0	0.7	3.5	
27-Jan	0	0	1	1	0	0	1	4	4	2	1	0	A	0	0	0	1	2	2	2	1	0	0	0	0.9	4.1	
28-Jan	1	1	0	1	1	0	1	1	0	0	0	0	A	0	1	0	0	0	0	0	0	5	3	0	0.8	4.9	
29-Jan	1	0	0	0	0	0	0	1	1	1	A	1	1	4	3	1	4	4	1	1	0	0	0	0	1.1	4.4	
30-Jan	0	0	0	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8	
31-Jan	0	0	0	0	0	0	1	1	A	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0.9	1.4	
0.7		0.6	0.6	0.7	0.5	0.5	0.7	0.9	0.9	0.7	0.9	0.8	0.7	0.9	0.7	0.6	0.7	0.7	0.7	0.8	0.7	0.8	1.0	0.7	Diurnal Average		
3.4		1.8	2.0	2.2	2.5	2.0	3.0	4.1	3.6	3.4	3.5	2.9	4.0	5.0	3.4	3.8	3.9	3.9	1.6	2.5	2.3	4.9	5.5	2.0	Diurnal Maximum		
C - Calibration		A - Automated Daily Zero Span																									

Hourly Maximums

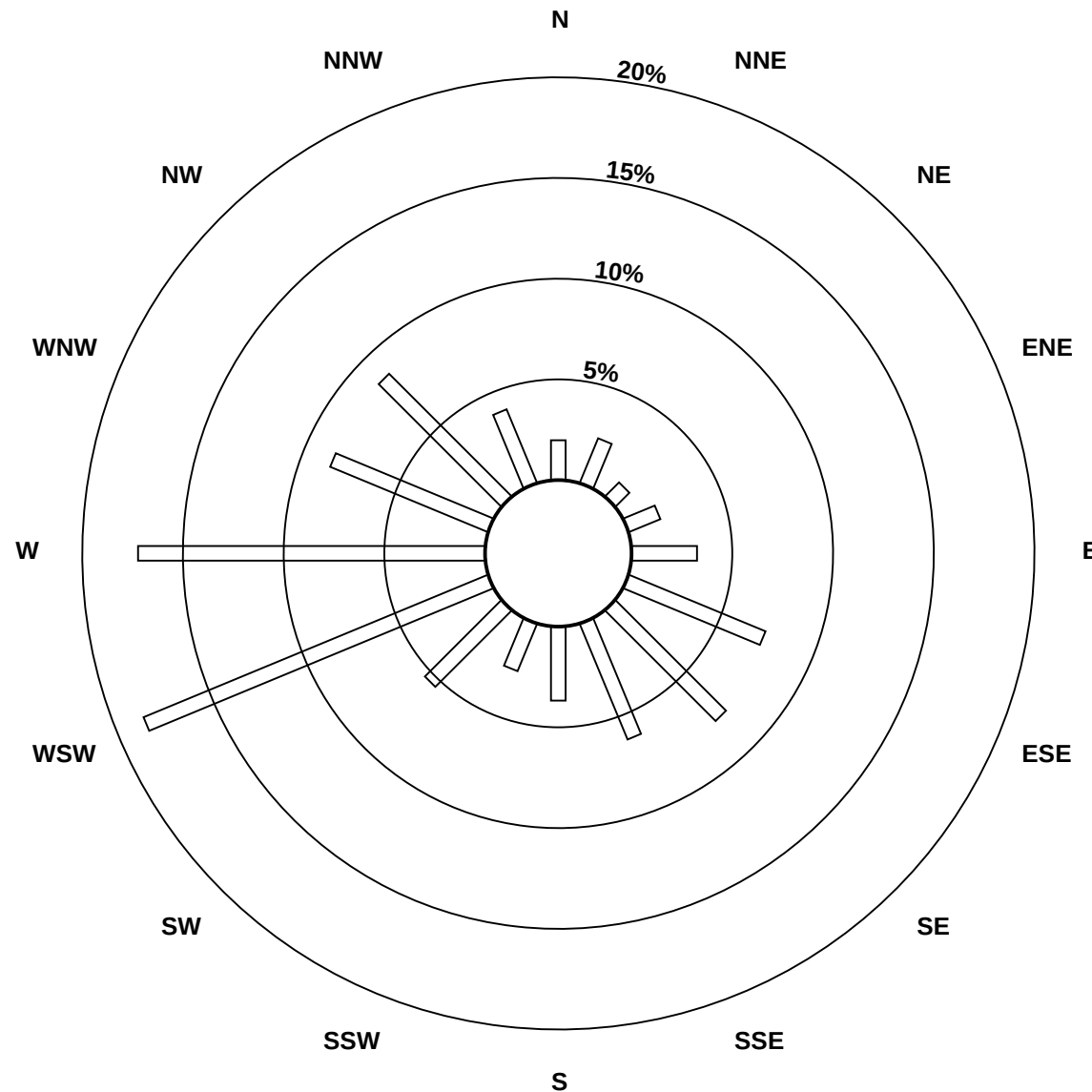
Sulphur Dioxide (SO₂) - ppb
Henry Pirker - January 2012



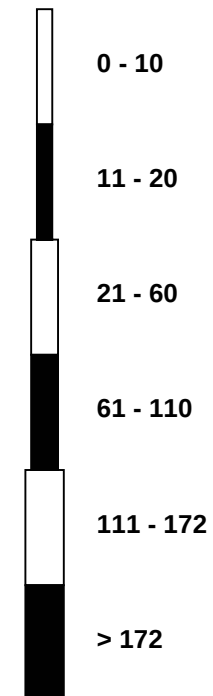
Pollutant Rose

Sulphur Dioxide (SO₂) - ppb

Henry Pirker - January 2012

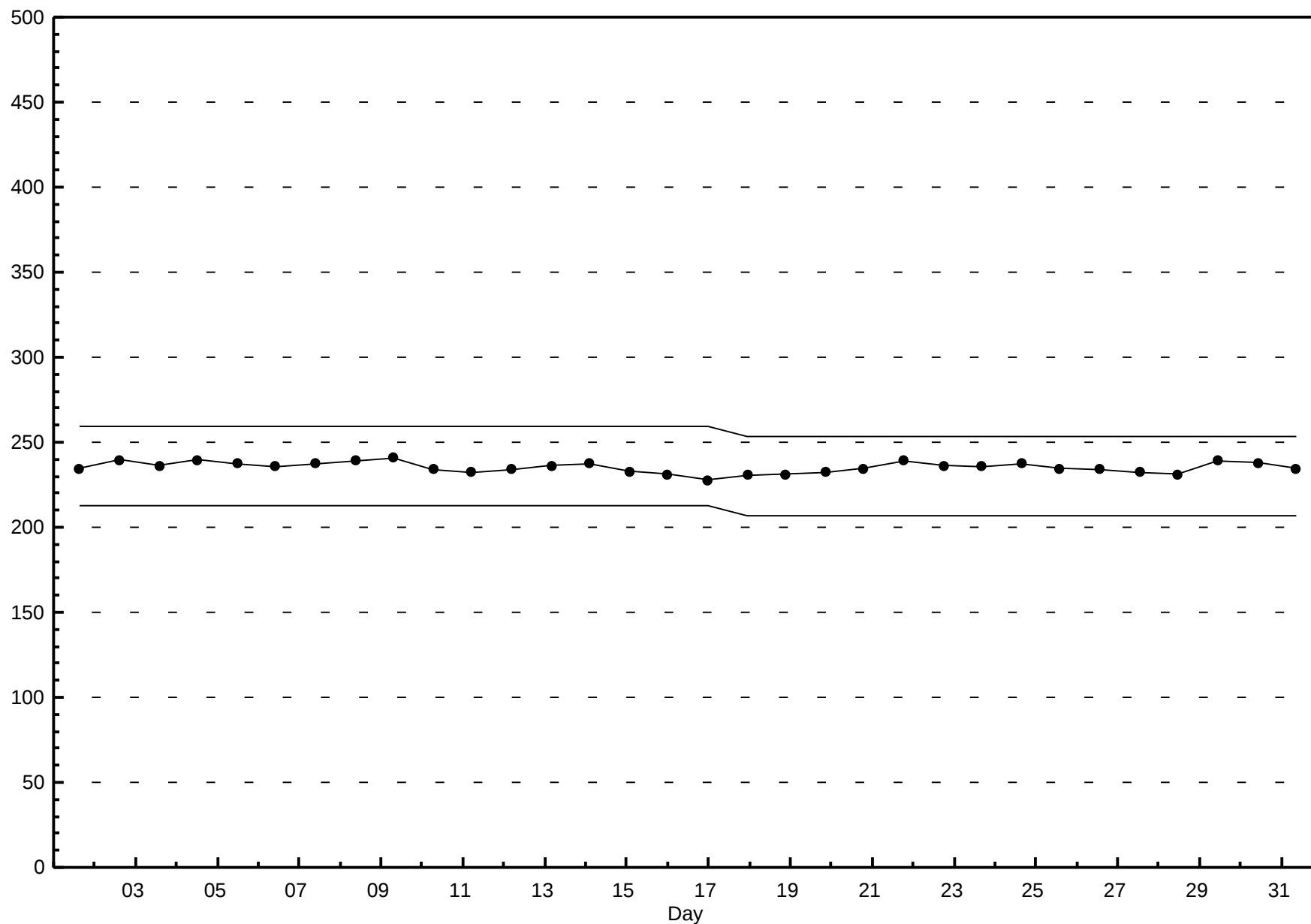


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Henry Pirker - January 2012



Hourly Averages

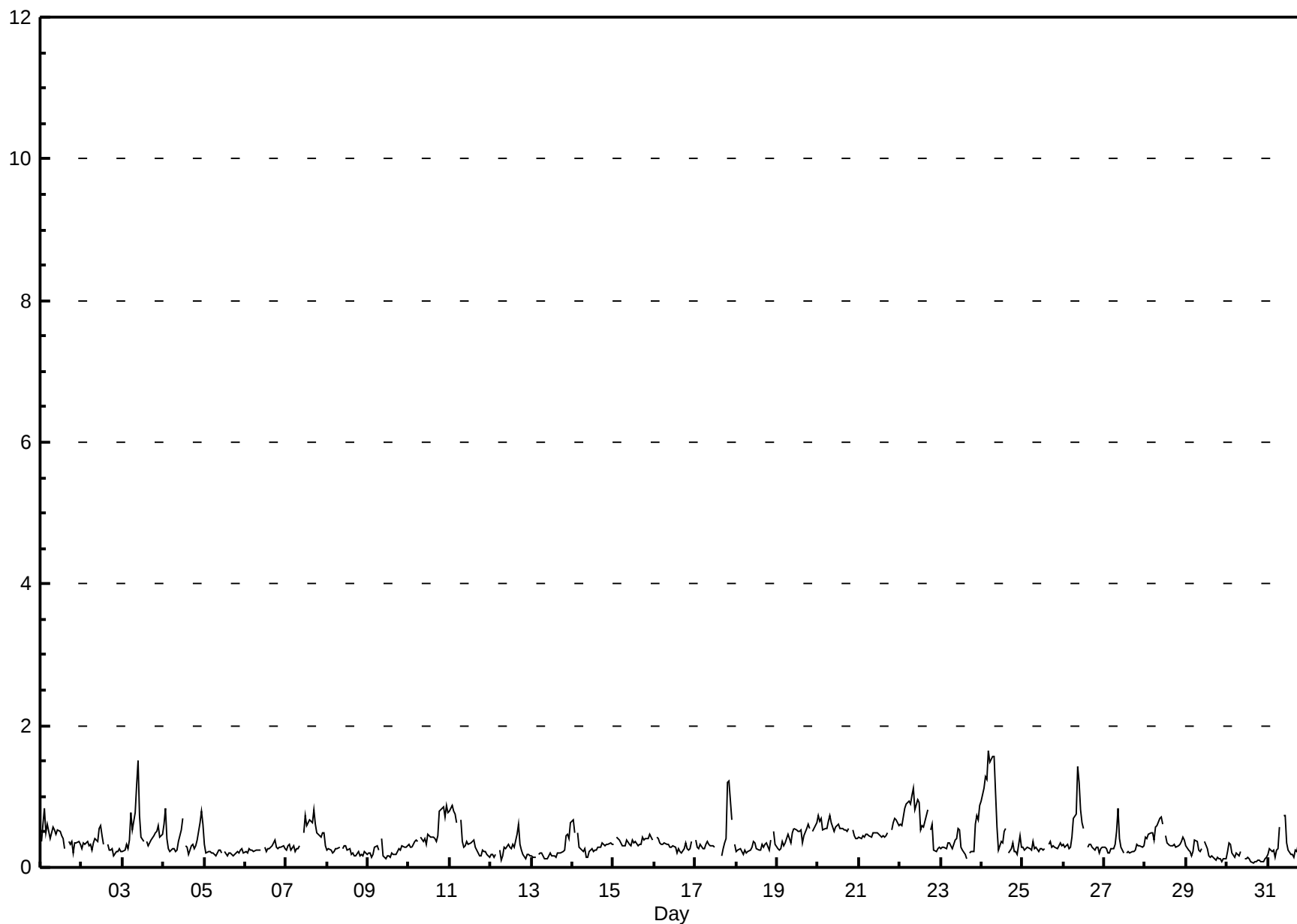
Total Reduced Sulphur (TRS) - ppb

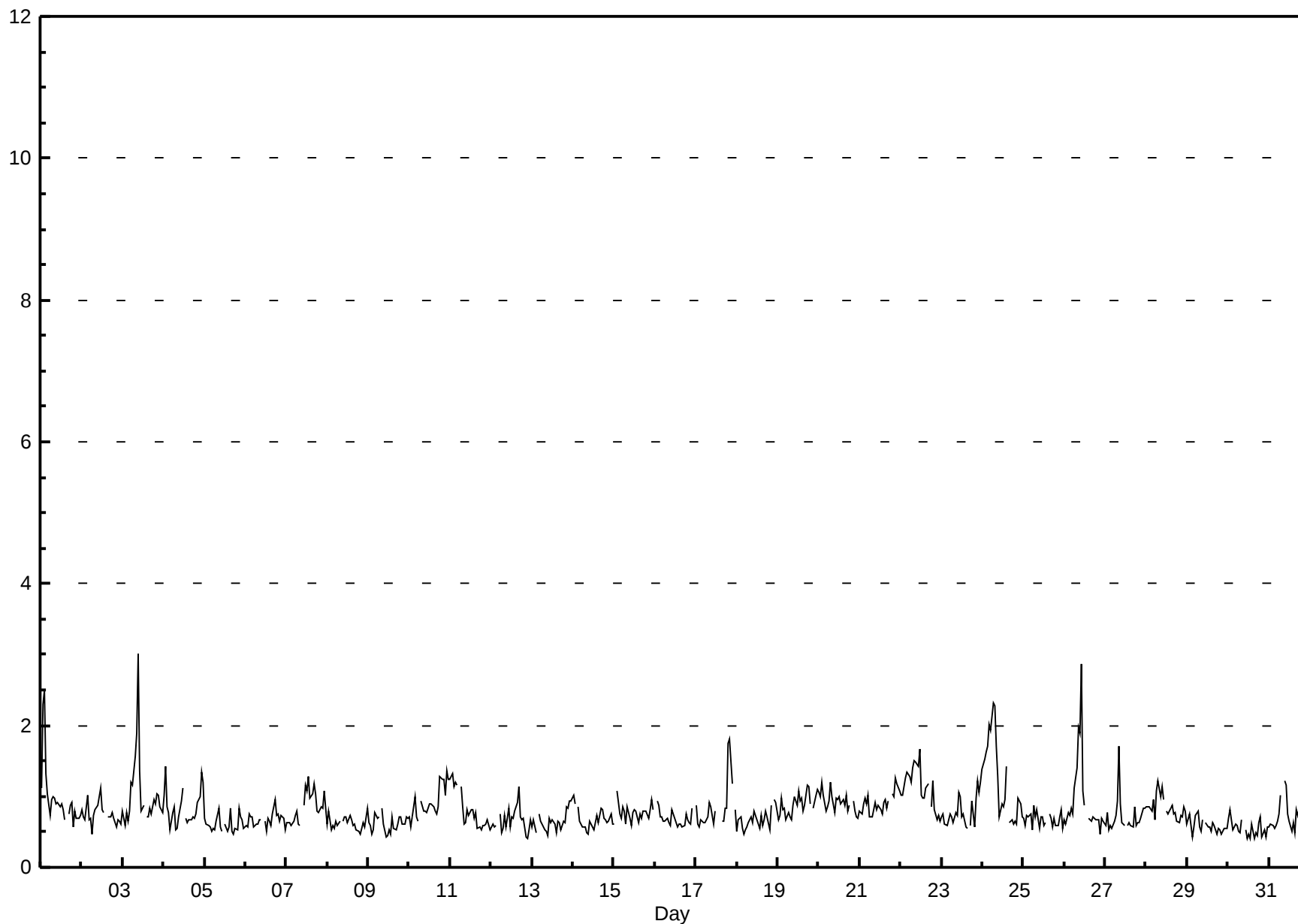
Henry Pirker - January 2012

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0		Maximum Value: 1.6 ppb on Jan 24 05:00		Maximum Daily Average: 0.7 ppb on Jan 24		Hours in Service: 744		Hours of Data: 709		Hours of Missing Data: 35		Hours of Calibration: 35		Percent Operational Time: 100.0												
Minimum Value: 0 ppb on Jan 30 16:00		Minimum Daily Average: 0.2 ppb on Jan 30		Minimum Diurnal Average: 0.3 ppb at hour 16		Monthly Average: 0.37 ppb		Percentiles: P ₁ = 0.1 P ₁₀ = 0.2 Q ₁ = 0.2 Median = 0.3 Q ₃ = 0.4 P ₉₀ = 0.6 P ₉₉ = 1.2																		
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Jan	0	1	1	0	1	0	0	1	1	0	1	1	0	0	0	A	0	0	0	0	0	0	0	0	0.4	0.8
2-Jan	0	0	0	0	0	0	0	0	0	0	1	1	0	0	A	0	0	0	0	0	0	0	0	0	0.3	0.6
3-Jan	0	0	0	0	0	1	1	1	1	2	1	0	0	A	0	0	0	0	0	0	1	1	0	0	0.5	1.5
4-Jan	1	1	0	0	0	0	0	0	0	0	1	1	A	0	0	0	0	0	0	0	0	1	1	1	0.4	0.8
5-Jan	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
6-Jan	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
7-Jan	0	0	0	0	0	0	0	0	0	0	A	0	1	1	1	1	1	1	0	0	0	0	0	0	0.4	0.8
8-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
9-Jan	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
10-Jan	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0.5	0.9
11-Jan	1	1	1	1	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.9
12-Jan	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0.2	0.6
13-Jan	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	0.6
14-Jan	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
15-Jan	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5
16-Jan	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
17-Jan	0	0	0	0	0	0	0	0	0	0	0	0	C	C	C	0	0	0	0	1	1	1	A	0	0.4	1.2
18-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	0	0.3	0.5
19-Jan	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0	1	1	1	A	1	1	1	0.4	0.6
20-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0	0	0	0.6	0.7
21-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	1	1	1	1	0.5	0.7
22-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0	0	0	0	0.7	1.1
23-Jan	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	A	0	0	0	1	1	1	1	0.4	0.9
24-Jan	1	1	1	1	2	1	2	2	1	1	0	0	0	1	1	A	0	0	0	0	0	0	0	0	0.7	1.6
25-Jan	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
26-Jan	0	0	0	0	0	0	1	1	1	1	1	1	1	A	0	0	0	0	0	0	0	0	0	0	0.5	1.4
27-Jan	0	0	0	0	0	0	0	1	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8
28-Jan	0	0	0	0	0	0	1	1	1	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.7
29-Jan	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
30-Jan	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
31-Jan	0	0	0	0	0	0	0	1	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
																								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

Total Reduced Sulphur (TRS) - ppb
Henry Pirker - January 2012

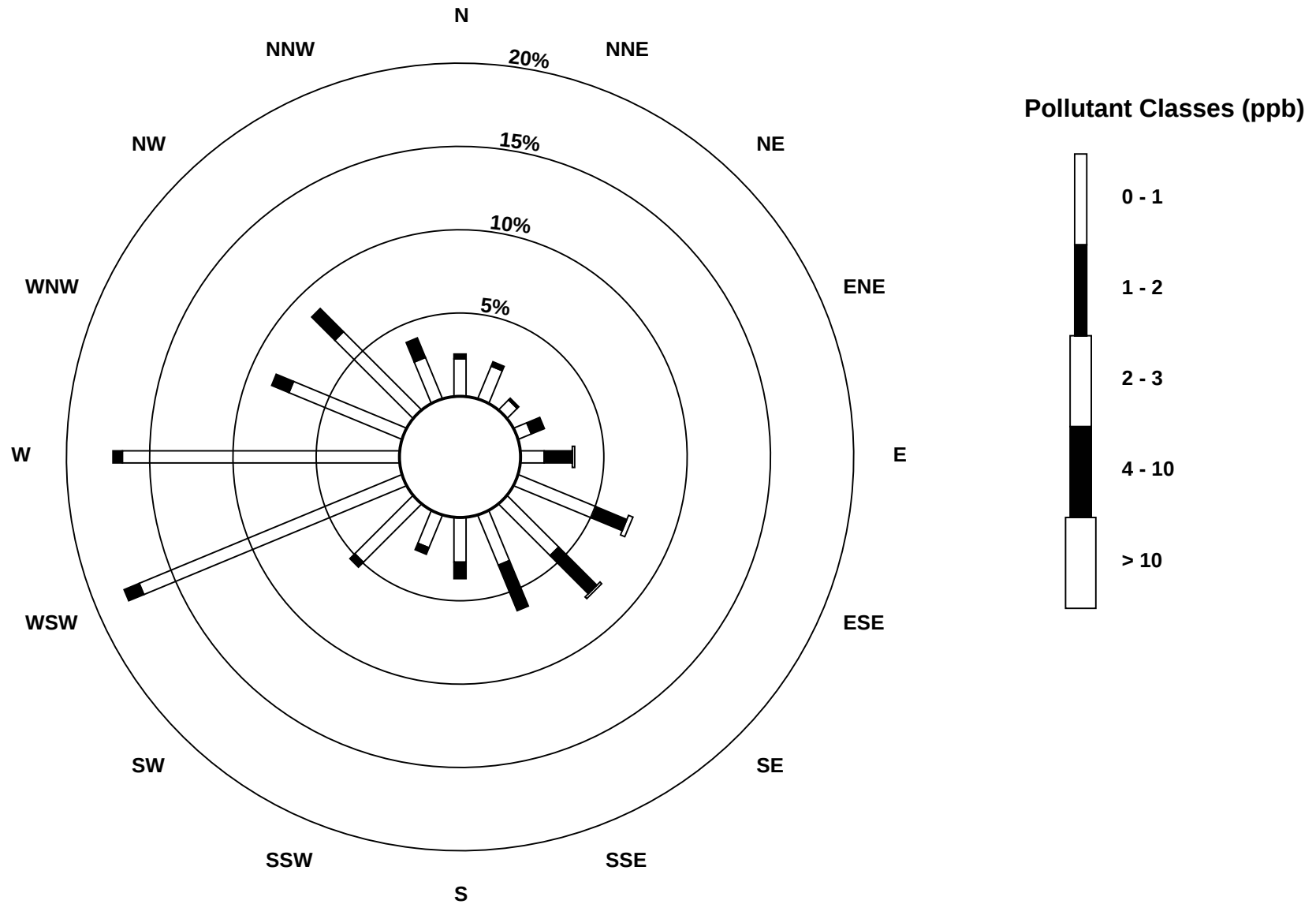




Pollutant Rose

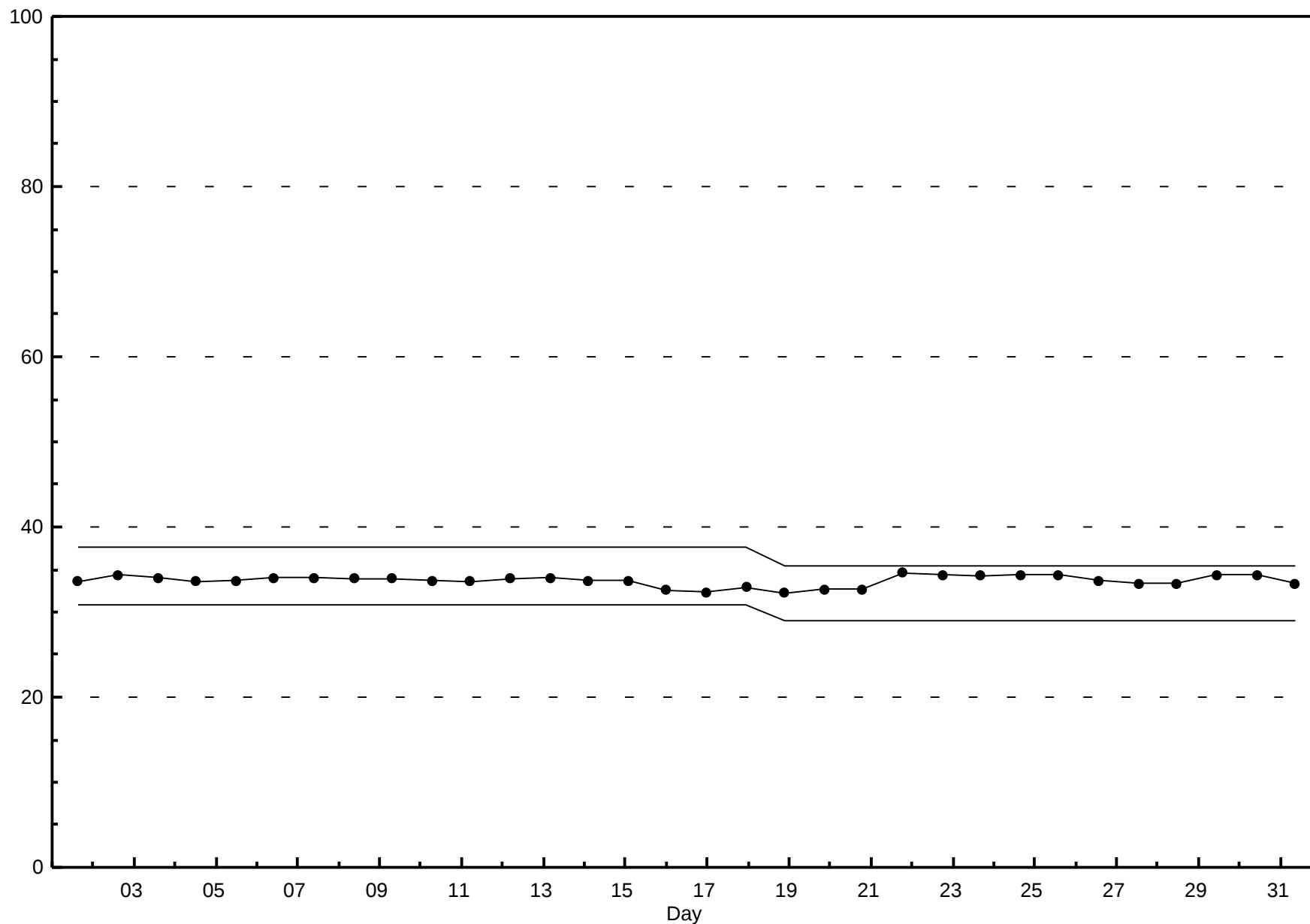
Total Reduced Sulphur (TRS) - ppb

Henry Pirker - January 2012



Span Responses

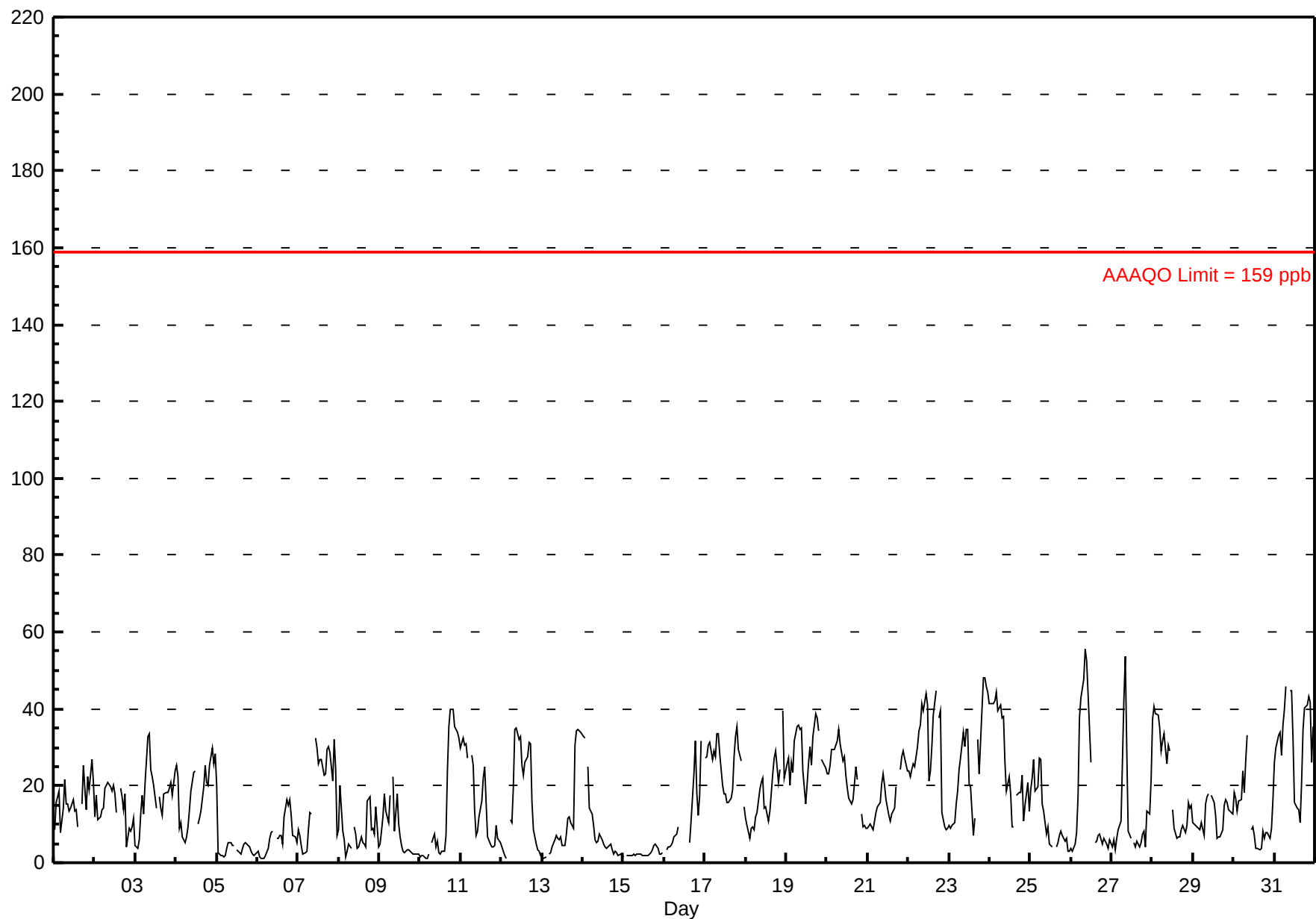
Total Reduced Sulphur (TRS)
Henry Pirker - January 2012



Hourly Averages

Nitrogen Dioxide (NO₂) - ppb

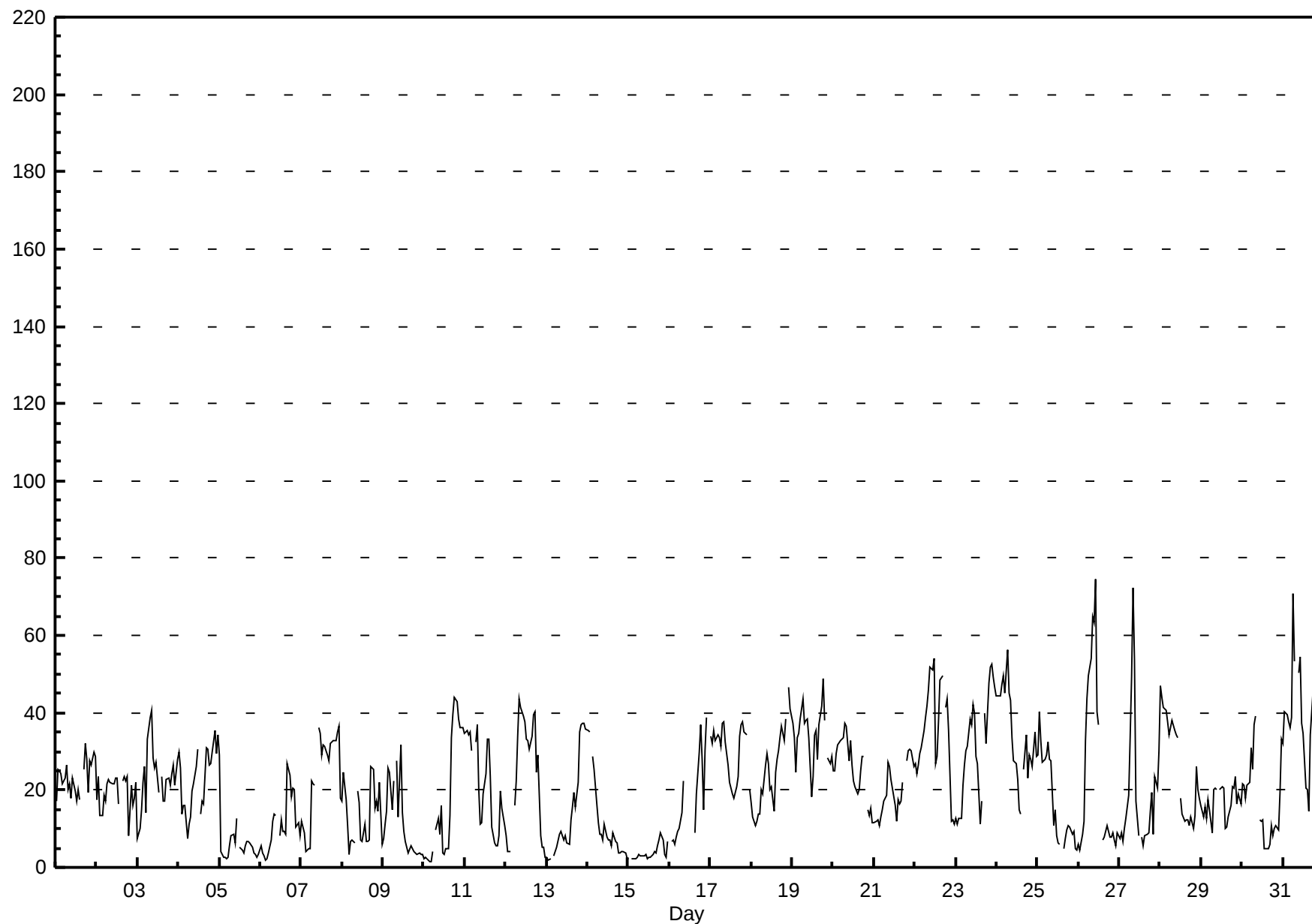
Henry Pirker - January 2012



Hourly Maximums

Nitrogen Dioxide (NO₂) - ppb

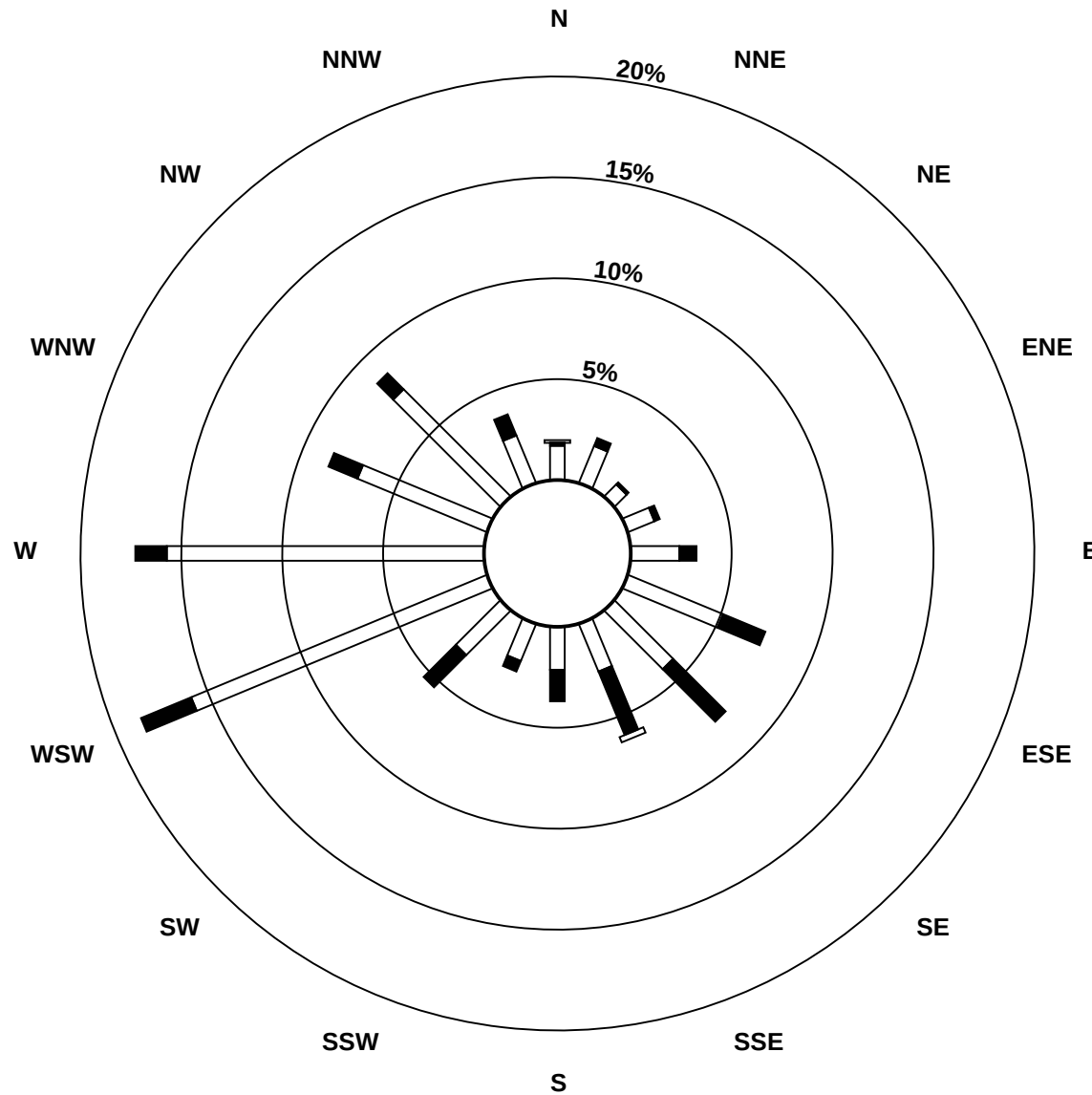
Henry Pirker - January 2012



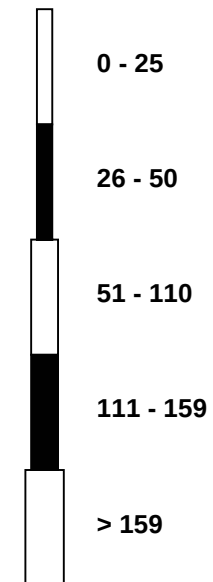
Pollutant Rose

Nitrogen Dioxide (NO₂) - ppb

Henry Pirker - January 2012

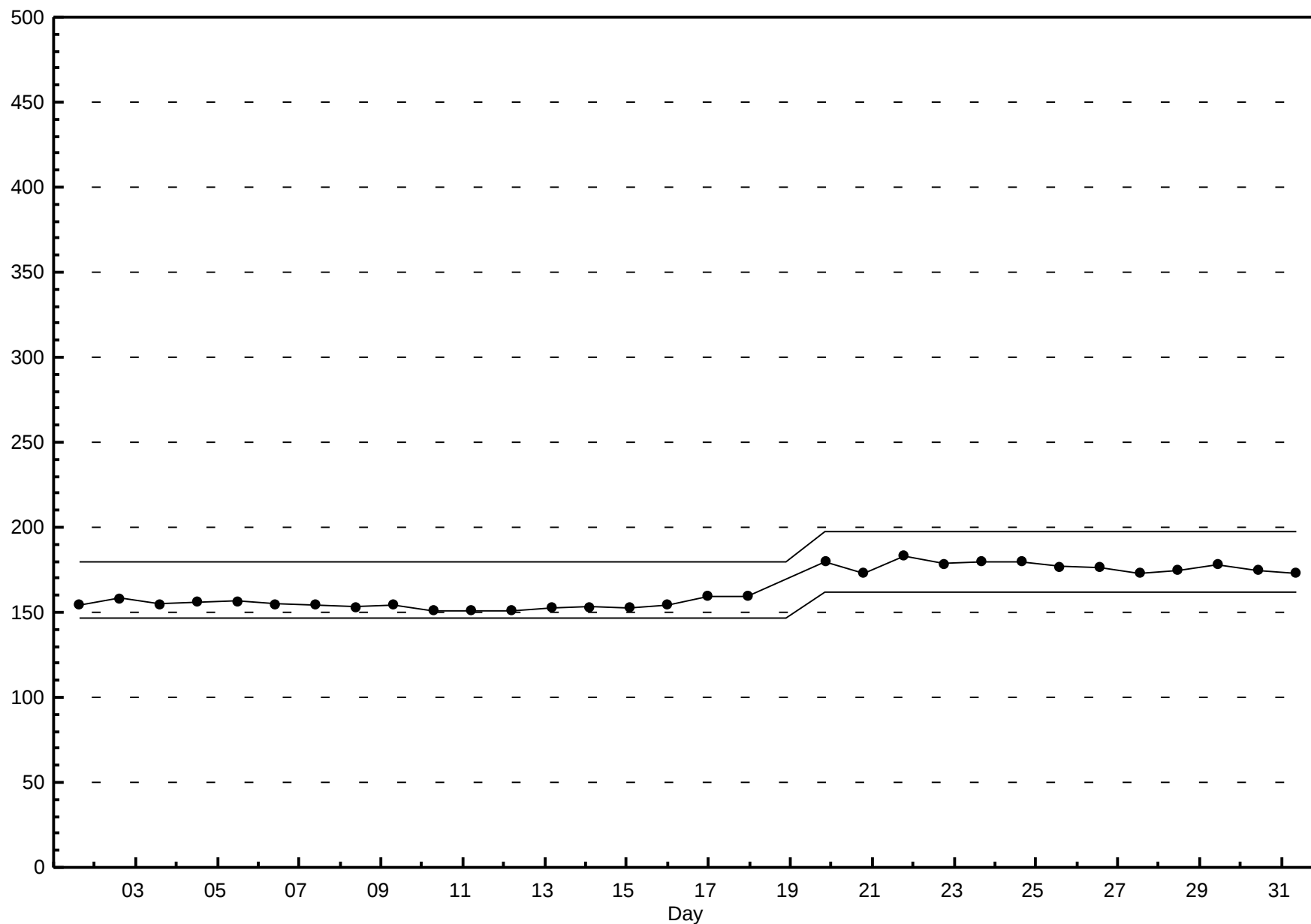


Pollutant Classes (ppb)



Span Responses

Nitrogen Dioxide (NO₂)
Henry Pirker - January 2012



Hourly Averages

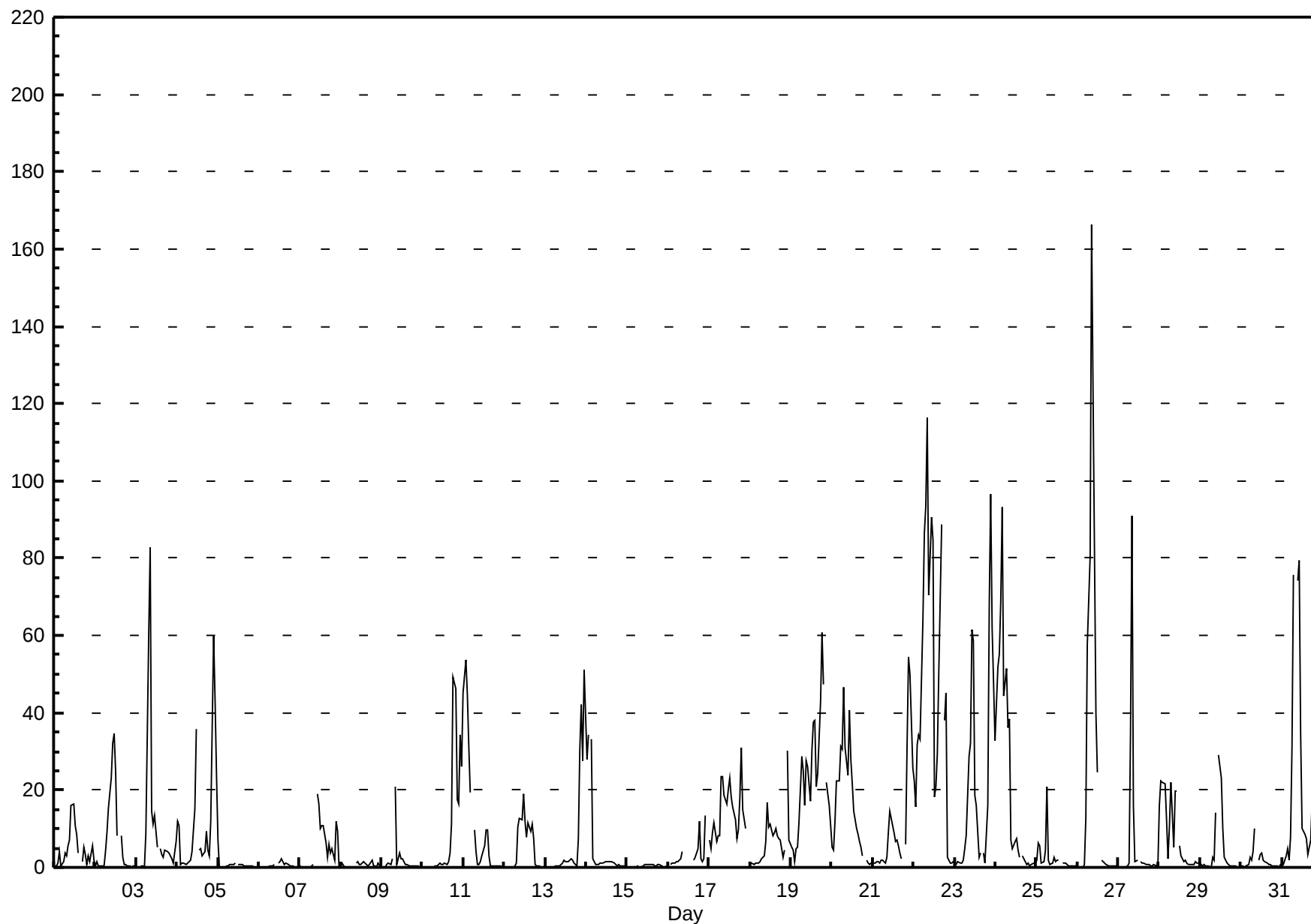
Nitrogen Oxide (NO) - ppb

Henry Pirker - January 2012

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 166.3 ppb on Jan 26 09:00 Maximum Daily Average: 45.3 ppb on Jan 22																								Hours in Service: 744 Hours of Data: 706 Hours of Missing Data: 38 Hours of Calibration: 38 Percent Operational Time: 100.0		
Minimum Value: 0 ppb on Jan 27 04:00 Minimum Daily Average: 0.4 ppb on Jan 15 Maximum Diurnal Average: 23.5 ppb at hour 9 Minimum Diurnal Average: 4.6 ppb at hour 18 Monthly Average: 10.25 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.5 Median = 1.7 Q ₃ = 10.7 P ₉₀ = 31.4 P ₉₉ = 89.9																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Jan	0	0	1	4	0	1	4	3	6	7	16	16	11	9	4	A	2	5	4	1	3	1	6	2	4.6	16.3
2-Jan	0	1	1	0	0	0	4	9	15	23	32	35	25	8	A	8	3	1	1	0	0	0	0	0	7.3	34.5
3-Jan	0	0	0	0	0	0	9	61	83	15	11	13	5	A	5	3	2	4	4	4	3	2	1	7	10.2	82.9
4-Jan	12	11	1	1	1	1	1	1	2	4	15	36	A	5	5	3	4	9	4	3	12	60	43	24	11.2	60.0
5-Jan	7	0	0	0	0	0	0	1	1	1	1	A	1	1	1	1	1	0	0	0	0	0	0	0	0.7	7.1
6-Jan	0	0	0	0	0	0	0	0	1	1	A	1	2	2	2	1	1	1	0	0	0	0	0	0	0.6	2.1
7-Jan	0	0	0	0	0	0	0	0	1	A	19	16	10	11	11	6	3	6	4	5	2	12	9	0	5.0	19.1
8-Jan	0	1	0	0	0	0	0	0	A	1	1	1	1	2	1	1	1	1	2	0	0	0	1	0	0.6	1.7
9-Jan	0	0	0	1	1	1	2	A	21	1	4	2	2	1	1	1	1	0	0	0	0	0	0	0	1.7	20.9
10-Jan	0	0	0	0	0	0	A	0	1	1	1	1	1	1	1	2	4	11	49	46	17	17	34	26	9.2	49.0
11-Jan	45	54	45	31	20	A	10	4	1	1	1	3	6	10	10	3	1	0	0	0	0	0	0	0	10.6	53.5
12-Jan	0	0	0	0	A	0	0	1	10	13	12	19	12	8	12	9	11	7	1	1	0	0	0	0	5.1	18.9
13-Jan	0	0	0	A	0	0	0	0	1	1	1	2	2	2	2	2	2	1	0	8	31	42	27	51	7.6	51.0
14-Jan	28	34	A	33	2	1	1	1	1	1	1	2	2	1	1	1	1	1	0	1	1	0	0	0	5.0	34.3
15-Jan	0	A	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	1	1	1	0	0	0	0	0.4	0.9
16-Jan	A	1	1	1	1	1	2	2	4	C	C	C	C	C	C	2	3	5	12	2	1	2	13	A	--	13.3
17-Jan	7	5	9	12	7	8	8	23	24	19	16	20	23	18	16	12	8	10	18	31	15	10	A	1	13.9	31.0
18-Jan	1	1	1	1	1	1	2	2	3	7	17	11	11	8	9	10	8	7	7	3	5	A	30	7	6.6	30.2
19-Jan	5	4	2	5	5	11	29	25	16	28	26	17	30	38	38	21	24	43	61	47	A	22	16	11	22.8	60.8
20-Jan	5	5	12	22	22	31	31	47	31	24	41	28	21	15	10	8	7	5	3	A	2	1	1	1	16.2	46.6
21-Jan	1	1	1	2	1	2	2	1	2	9	15	13	9	7	7	6	4	2	A	6	31	55	50	26	10.9	54.6
22-Jan	22	16	32	34	33	64	86	93	116	71	90	85	18	21	29	50	89	A	38	45	3	1	1	1	45.3	116.4
23-Jan	1	1	1	1	1	2	5	8	29	32	62	59	19	16	3	4	A	4	1	16	67	97	62	48	23.4	96.7
24-Jan	33	52	55	69	93	44	51	36	38	7	5	7	8	4	2	A	3	1	1	1	0	1	1	1	22.4	93.1
25-Jan	2	6	5	1	2	5	21	2	1	1	2	2	2	2	A	1	1	1	1	1	1	0	0	0	2.6	20.9
26-Jan	0	0	0	0	1	13	57	81	166	124	82	40	25	A	2	1	1	1	1	0	0	0	0	0	25.9	166.3
27-Jan	0	0	0	0	0	0	1	35	91	16	2	2	A	1	1	1	1	1	1	0	0	1	1	1	6.8	91.0
28-Jan	16	22	22	22	12	2	11	22	5	20	20	A	6	3	1	2	1	1	1	1	1	1	1	1	8.4	22.3
29-Jan	1	1	1	0	0	0	0	3	2	14	A	29	23	10	3	2	1	1	1	0	0	0	0	0	4.0	29.0
30-Jan	0	0	0	0	1	3	2	4	10	A	2	3	4	2	1	1	1	1	0	0	0	0	0	1	1.6	9.9
31-Jan	1	1	3	5	2	8	31	76	A	74	80	35	10	9	7	3	5	7	17	28	47	32	3	10	21.5	79.6
6.3 7.2 6.4 8.2 6.9 6.7 12.4 18.1 23.5 18.3 20.6 17.7 10.3 7.6 6.6 5.7 6.4 4.6 7.8 8.4 8.2 12.0 10.1 7.3 45.2 53.5 55.0 68.8 93.1 64.2 86.5 93.5 166.3 123.6 90.5 84.6 30.1 37.6 38.2 50.3 88.9 42.9 60.8 47.2 67.4 96.7 62.1 51.0																								Diurnal Average	Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										

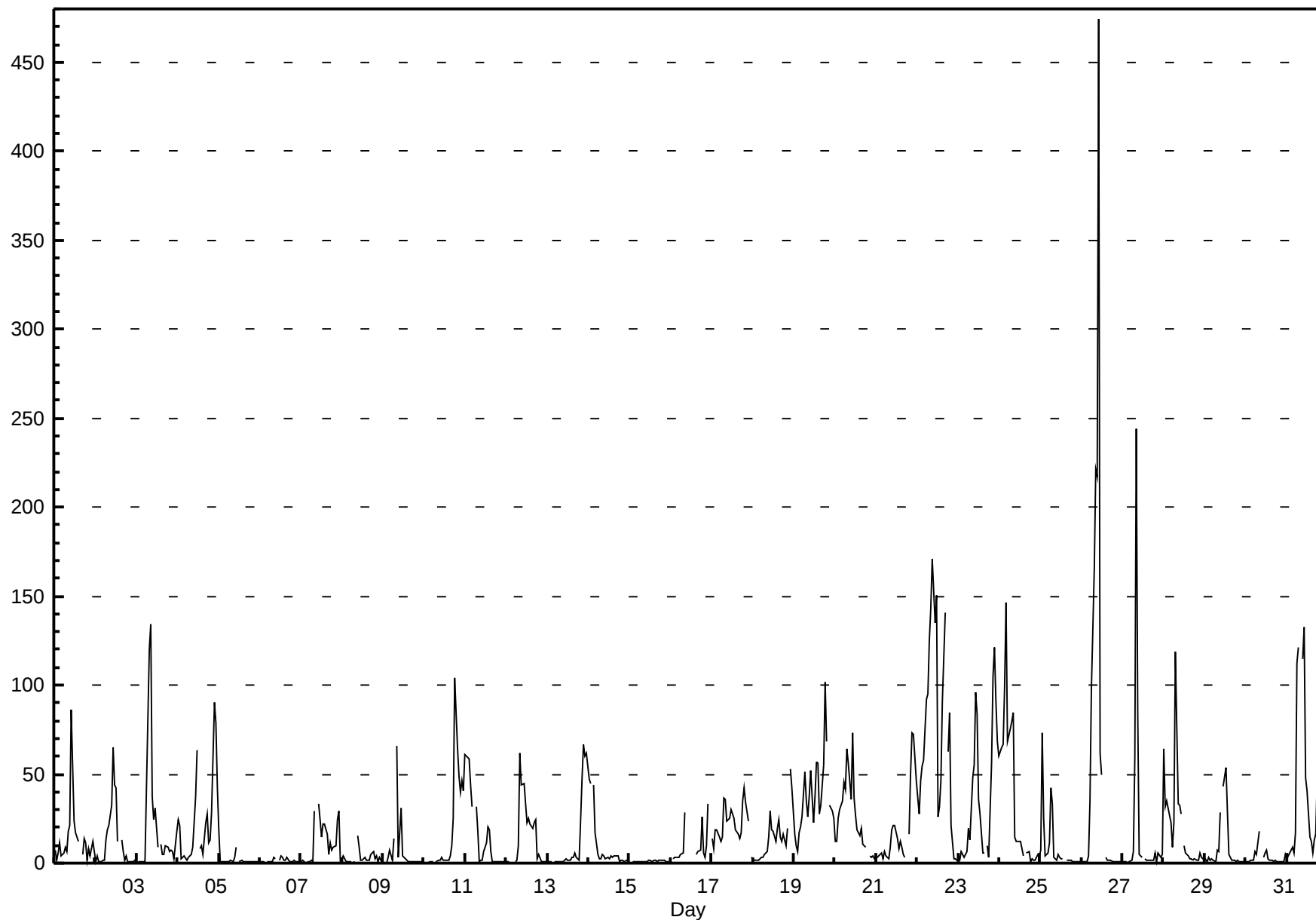
Hourly Averages

Nitrogen Oxide (NO) - ppb
Henry Pirker - January 2012



Hourly Maximums

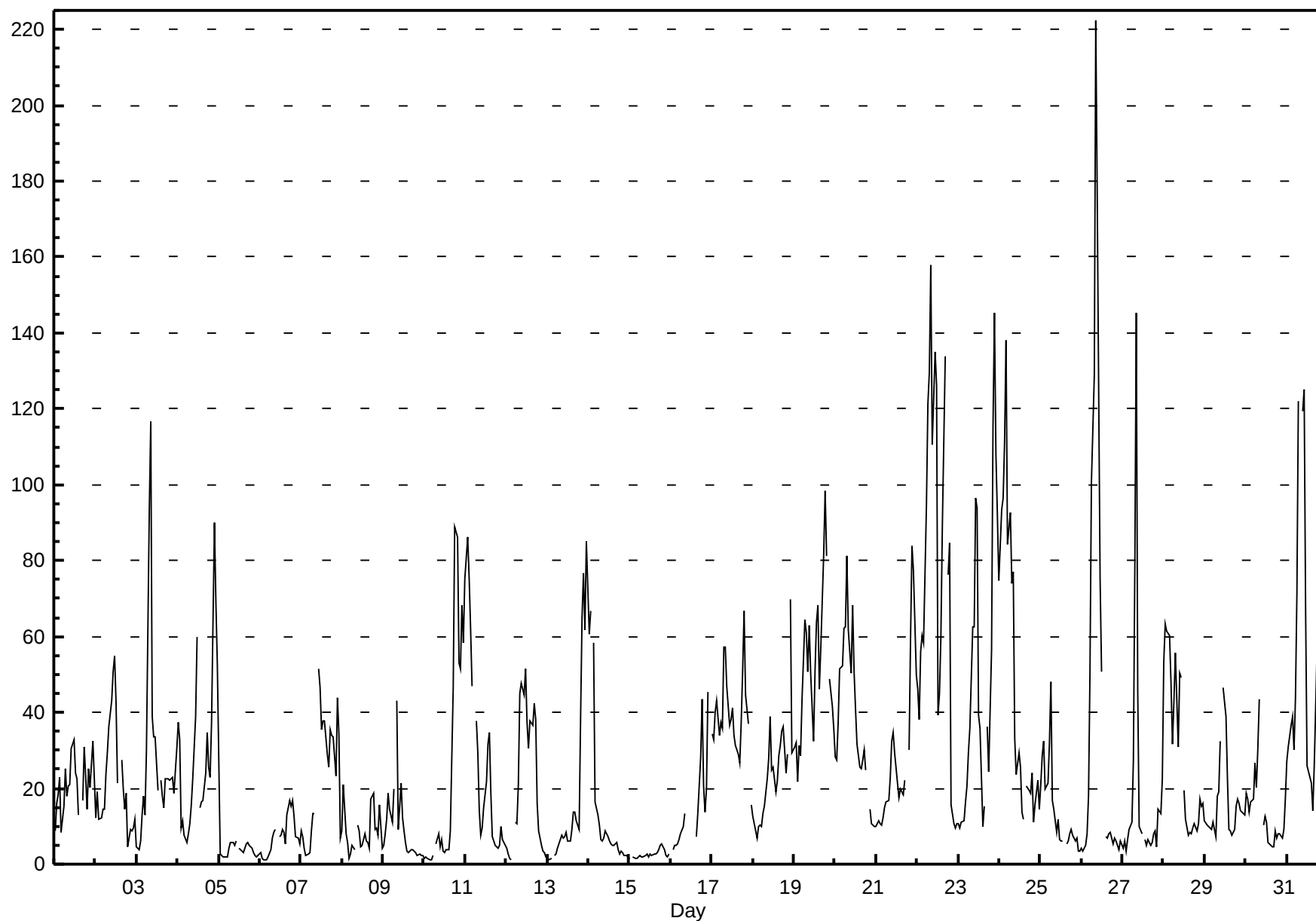
Nitrogen Oxide (NO) - ppb
Henry Pirker - January 2012



Hourly Averages

Oxides of Nitrogen (NO_x) - ppb

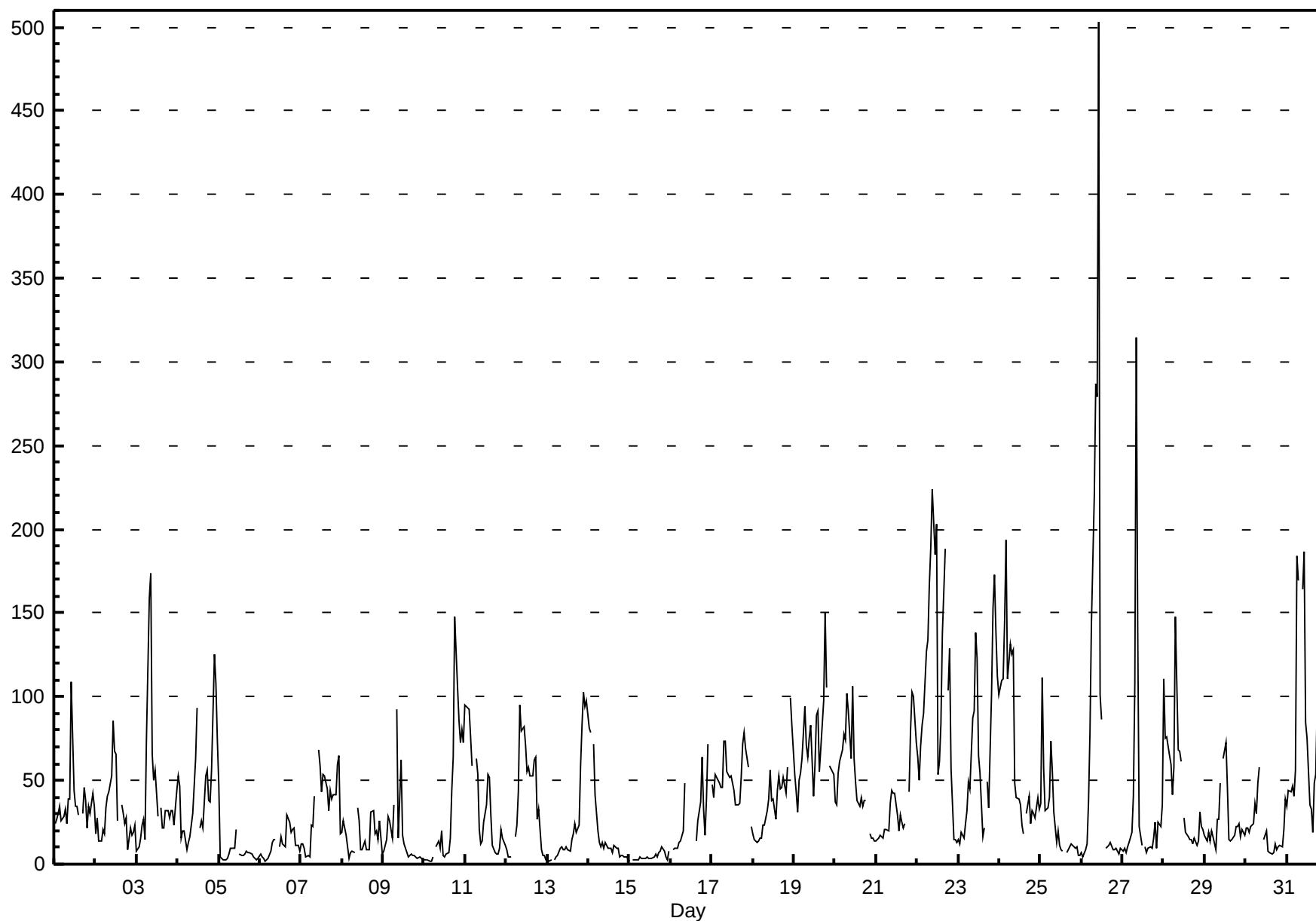
Henry Pirker - January 2012



Hourly Maximums

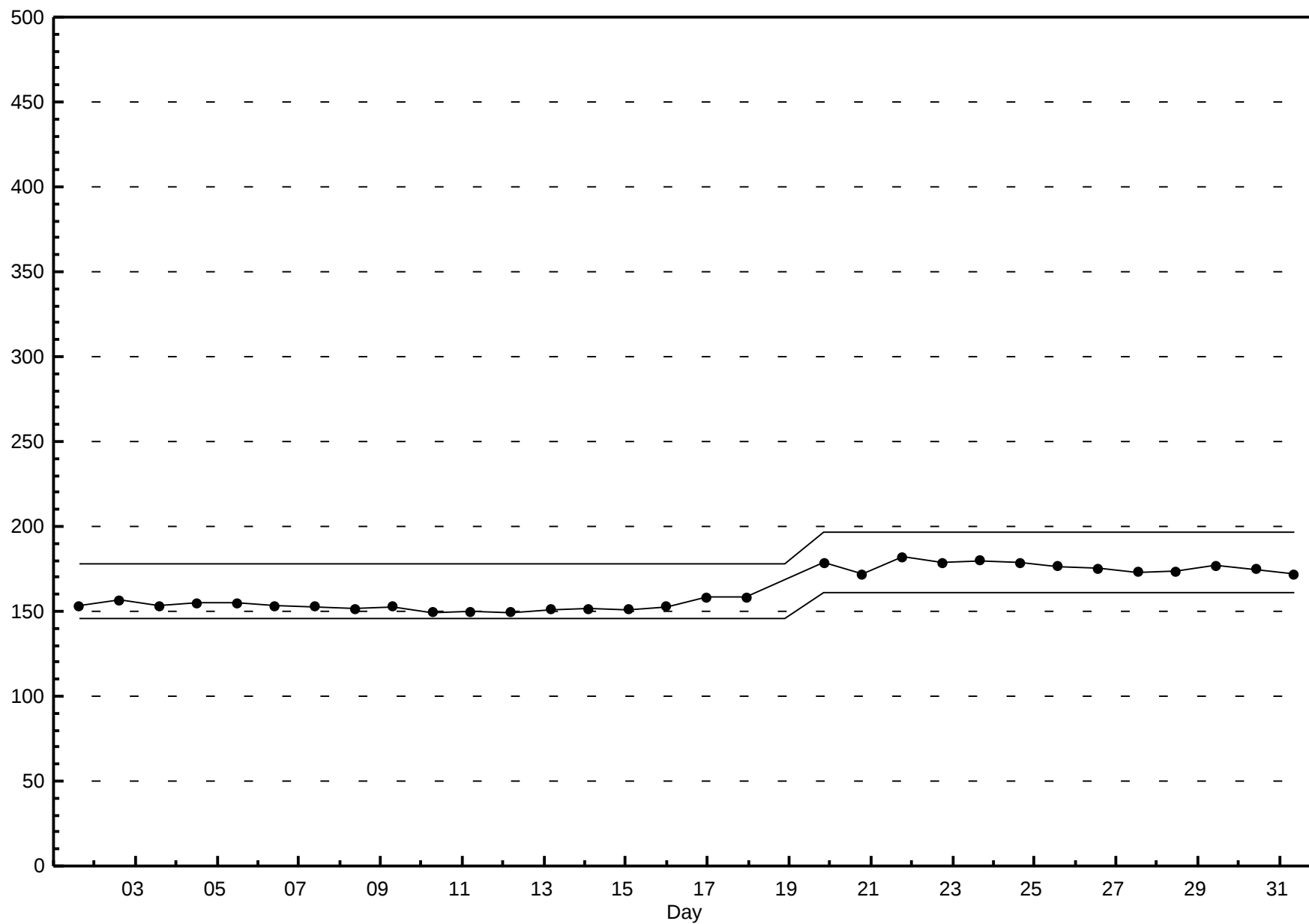
Oxides of Nitrogen (NO_x) - ppb

Henry Pirker - January 2012



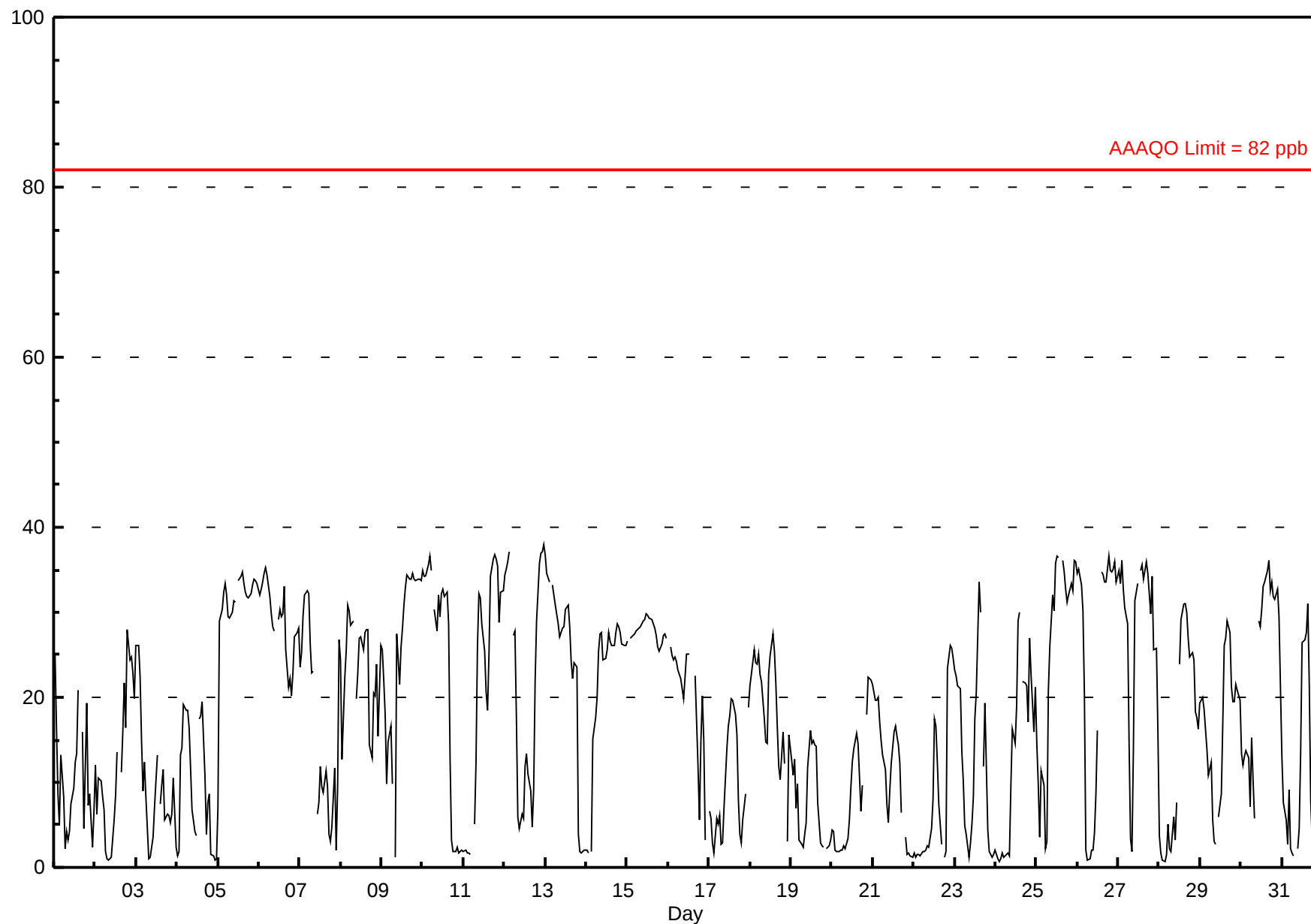
Span Responses

Oxides of Nitrogen (NO_x)
Henry Pirker - January 2012



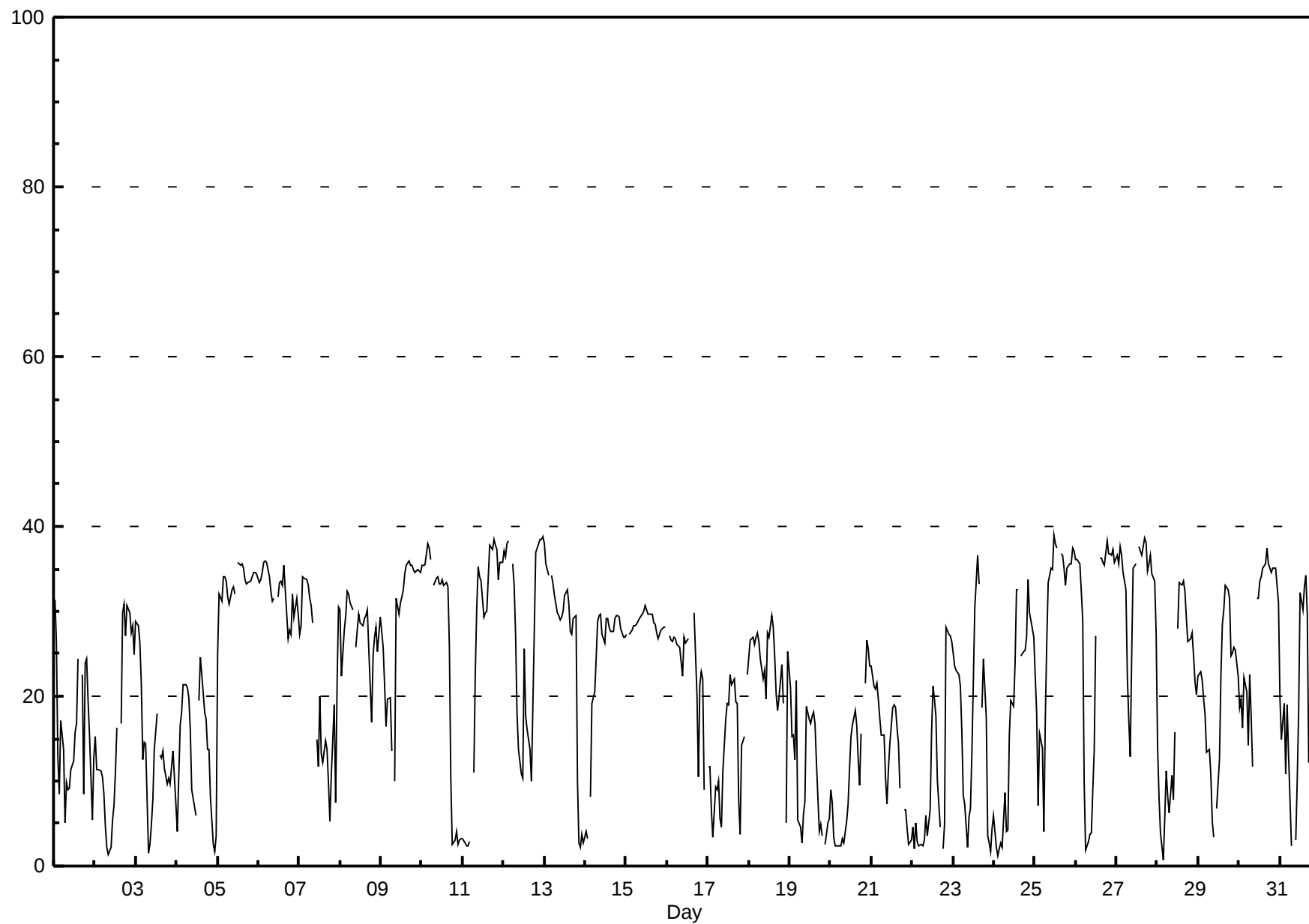
Hourly Averages

Ozone (O₃) - ppb
Henry Pirker - January 2012



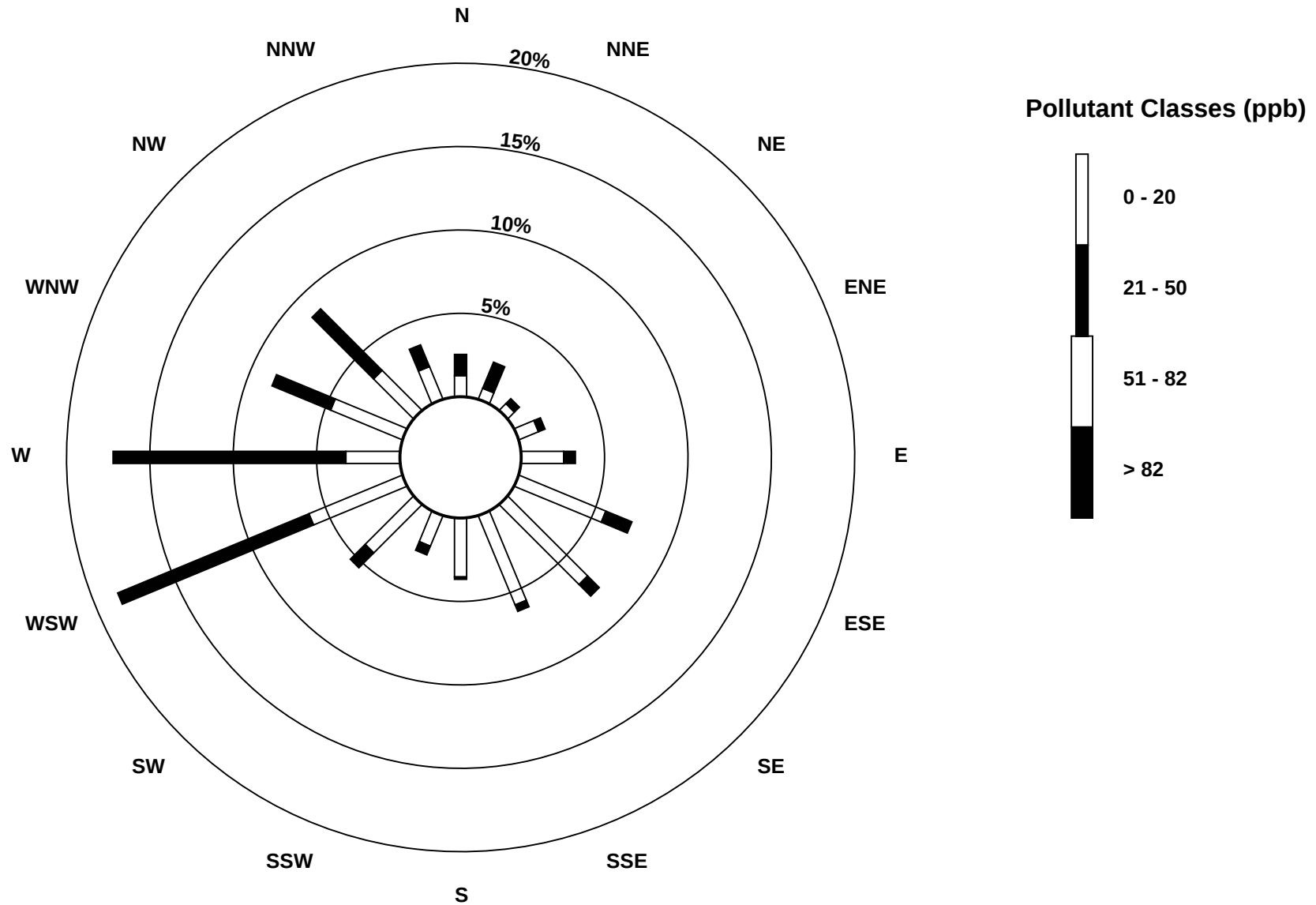
Hourly Maximums

Ozone (O₃) - ppb
Henry Pirker - January 2012



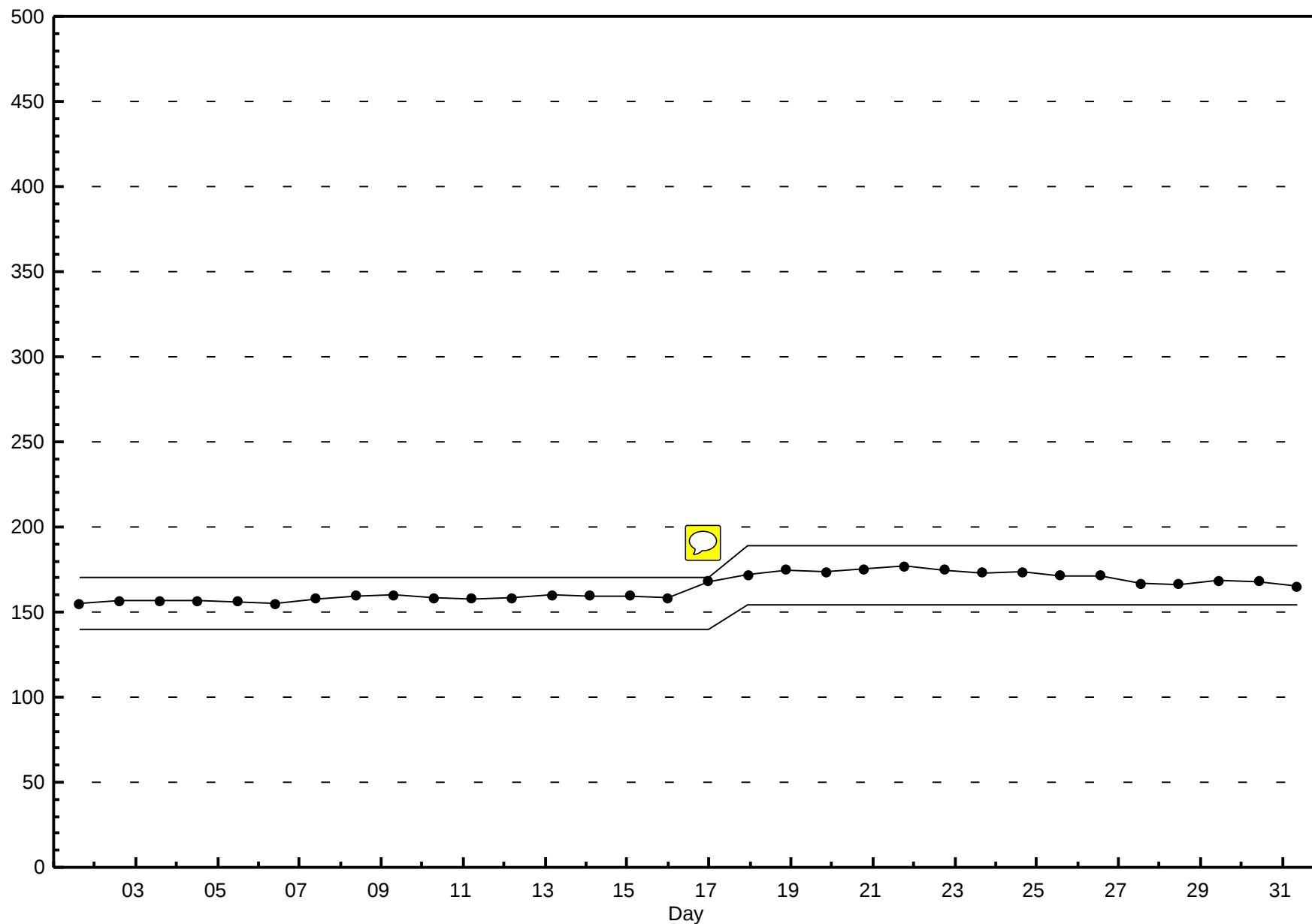
Pollutant Rose

Ozone (O₃) - ppb
Henry Pirker - January 2012



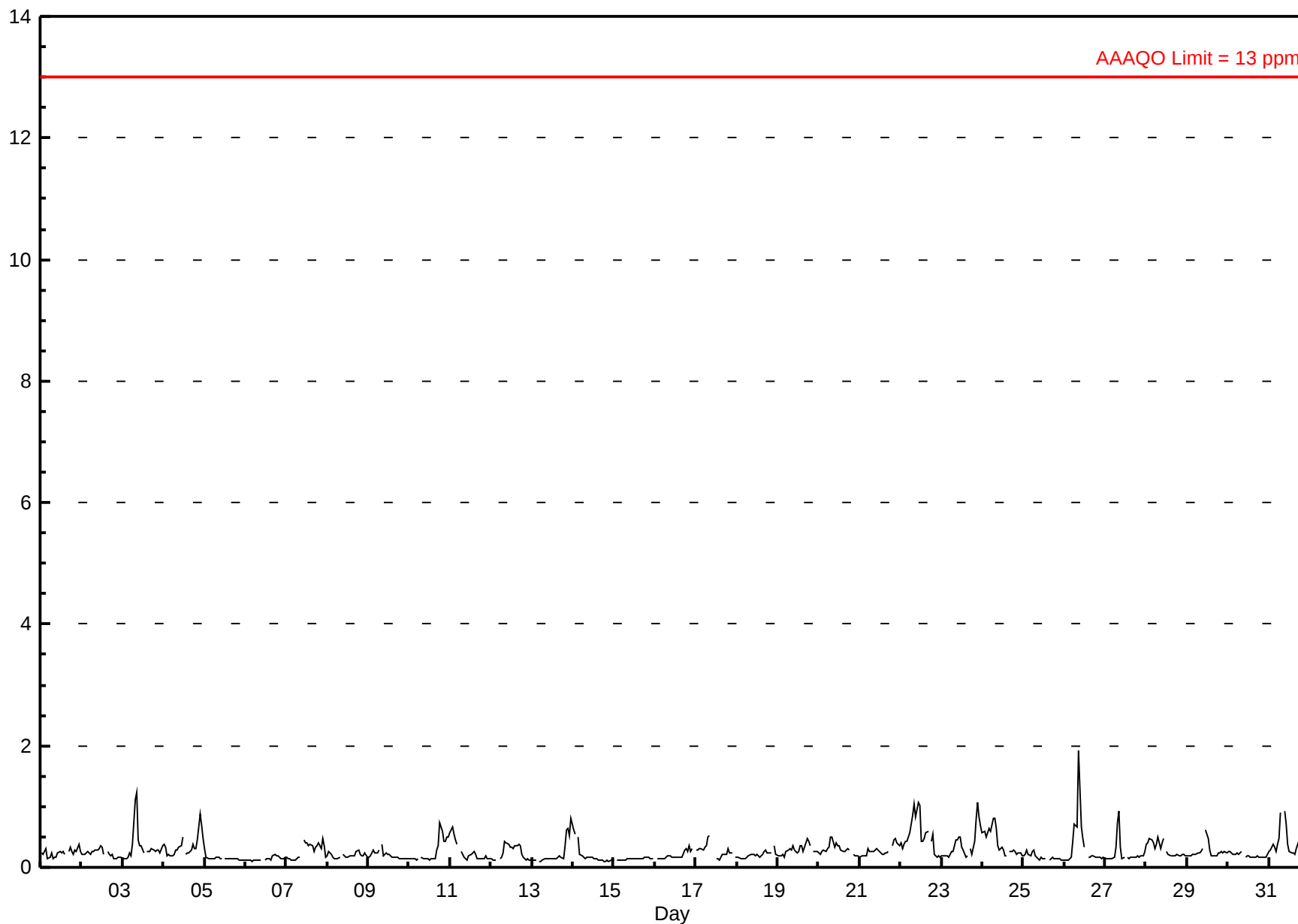
Span Responses

Ozone (O₃)
Henry Pirker - January 2012



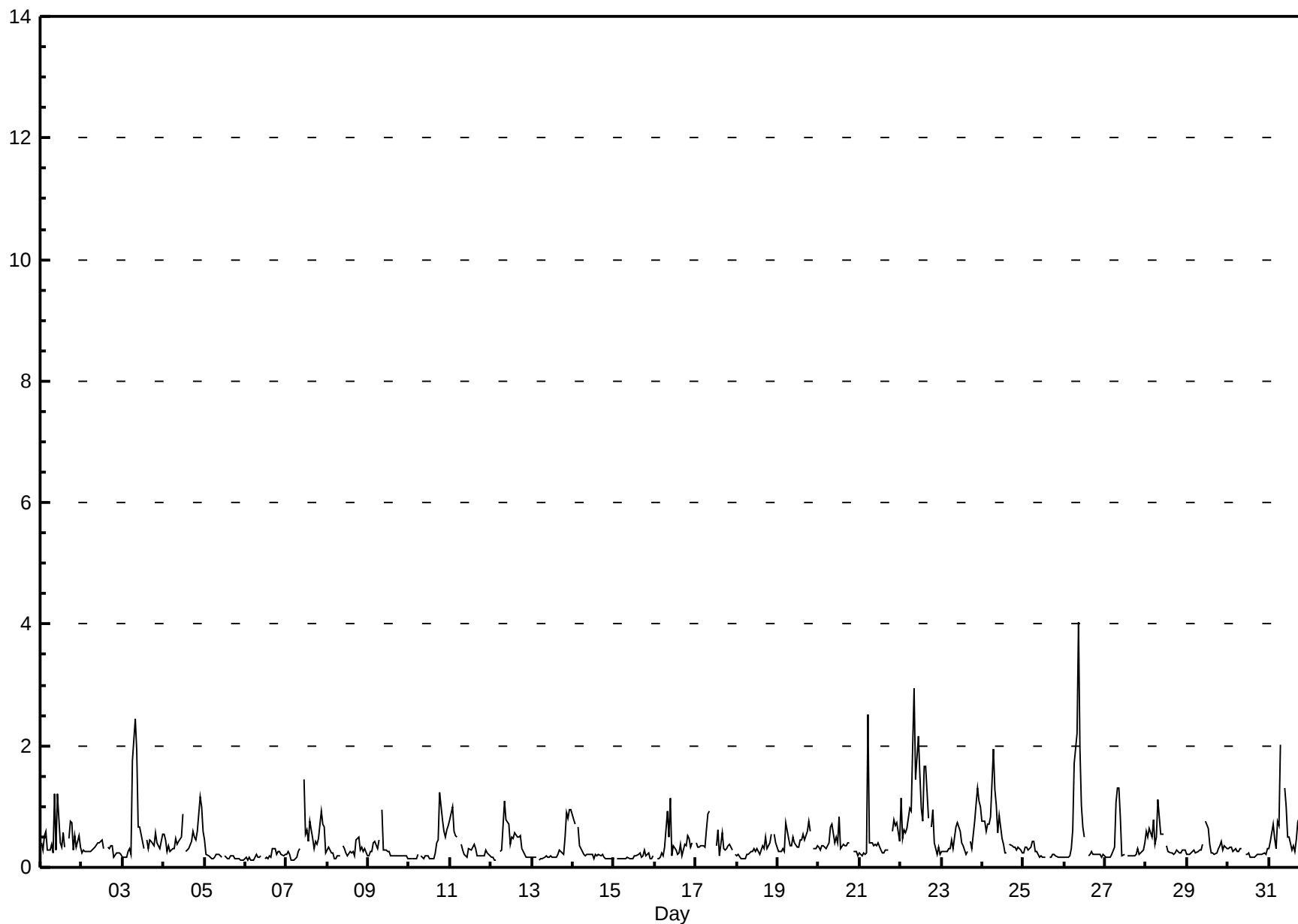
Hourly Averages

Carbon Monoxide (CO) - ppm
Henry Pirker - January 2012



Hourly Maximums

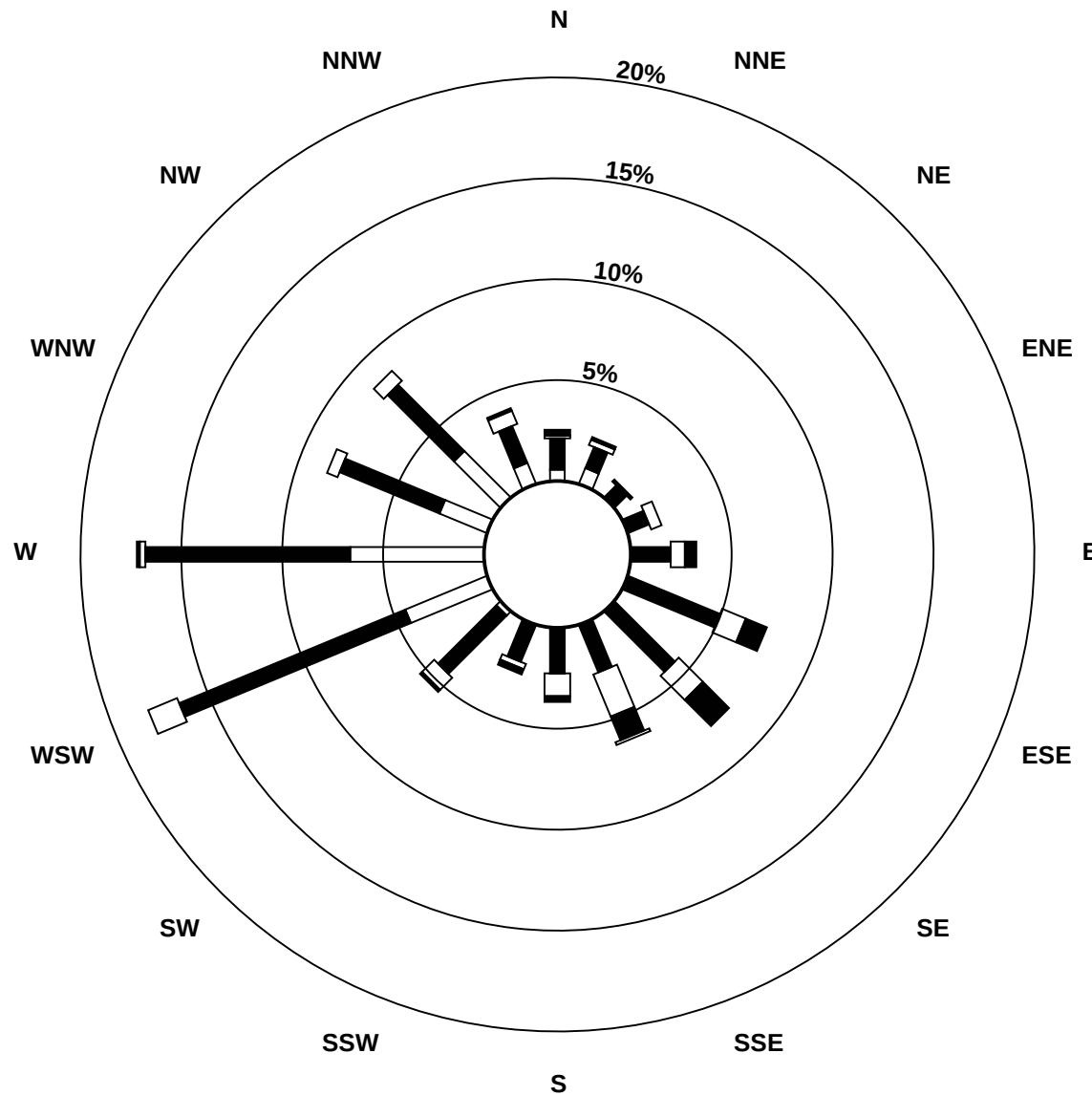
Carbon Monoxide (CO) - ppm
Henry Pirker - January 2012



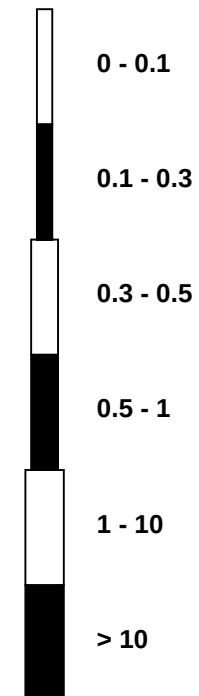
Pollutant Rose

Carbon Monoxide (CO) - ppm

Henry Pirker - January 2012

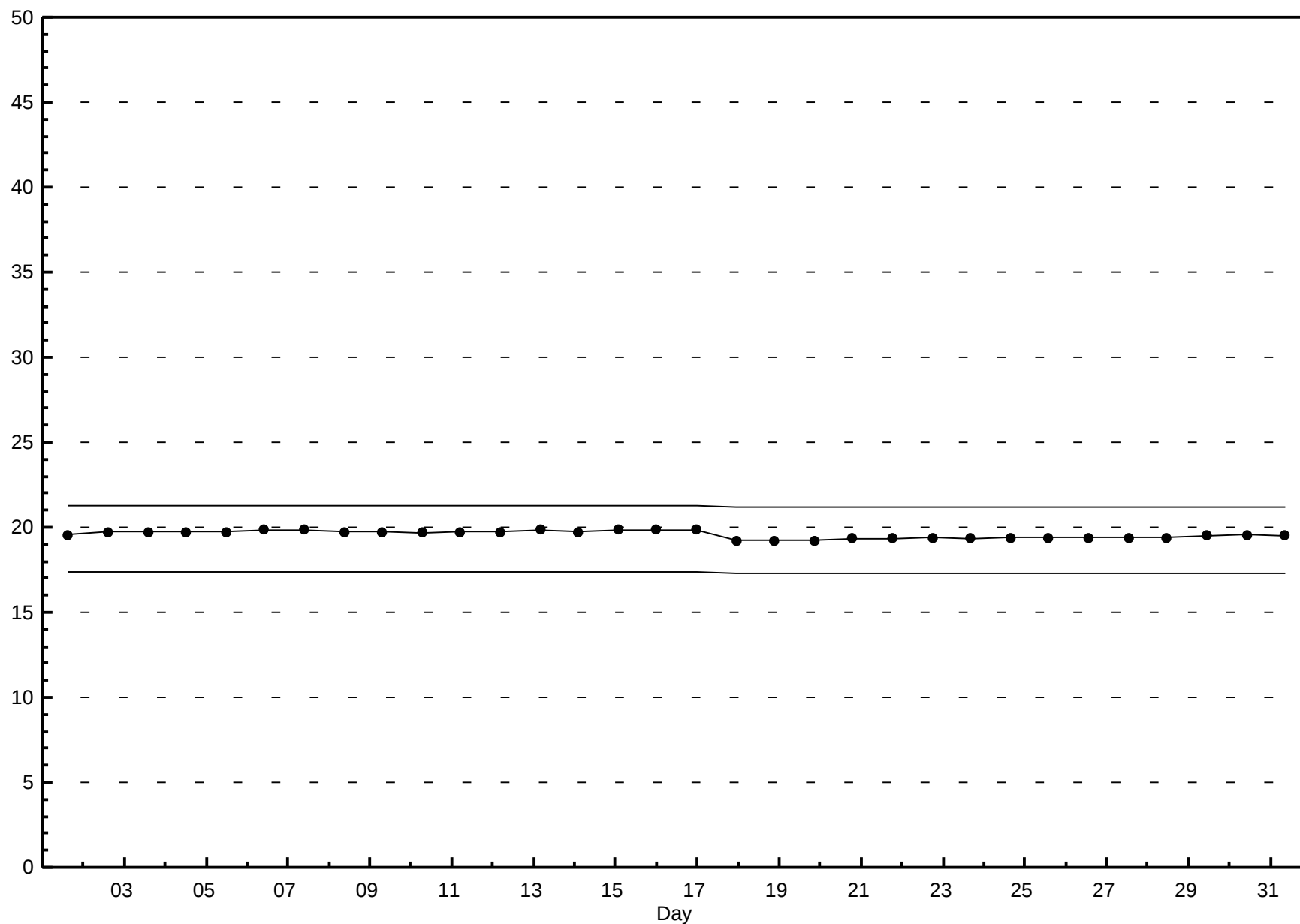


Pollutant Classes (ppm)



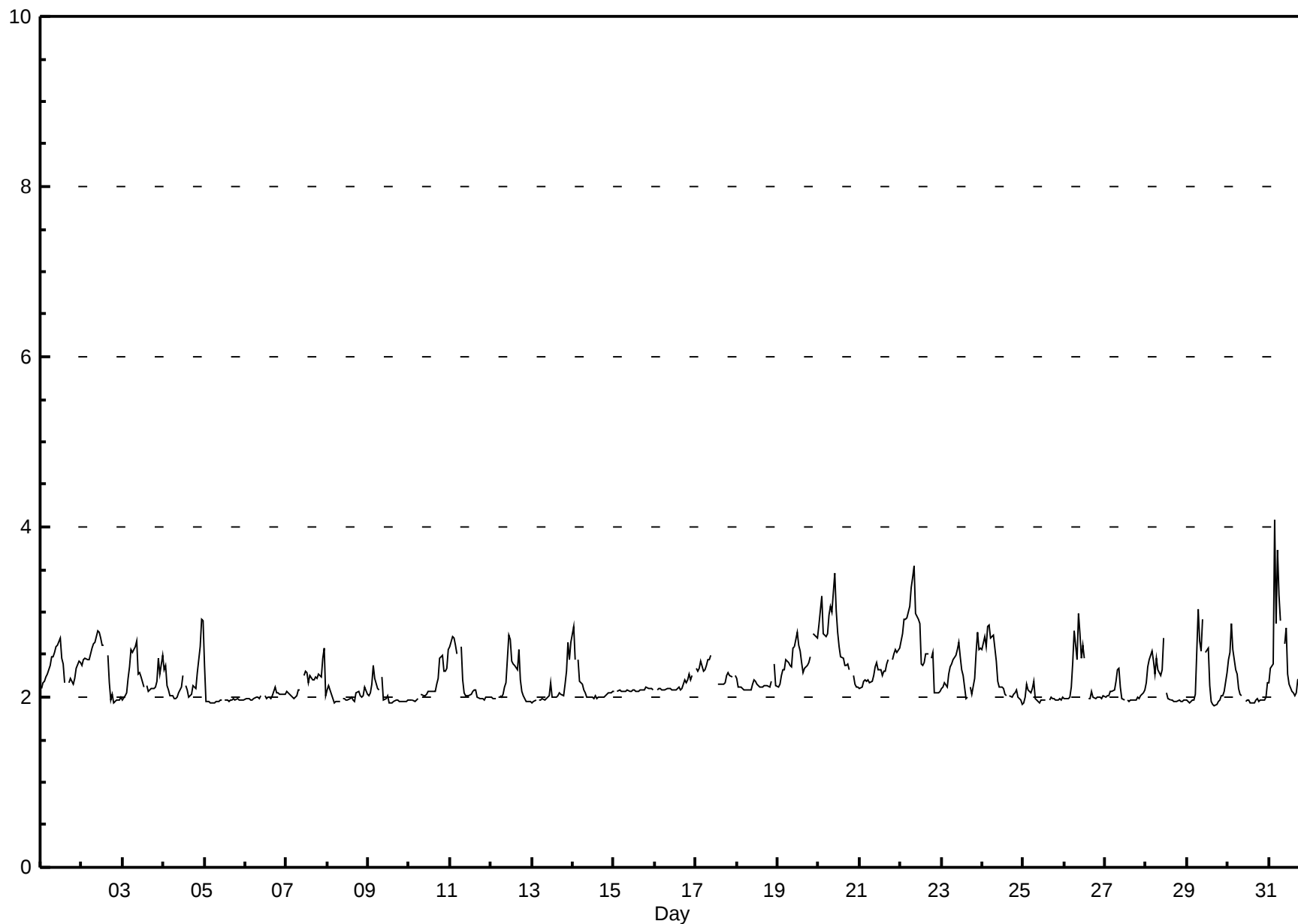
Span Responses

Carbon Monoxide (CO)
Henry Pirker - January 2012



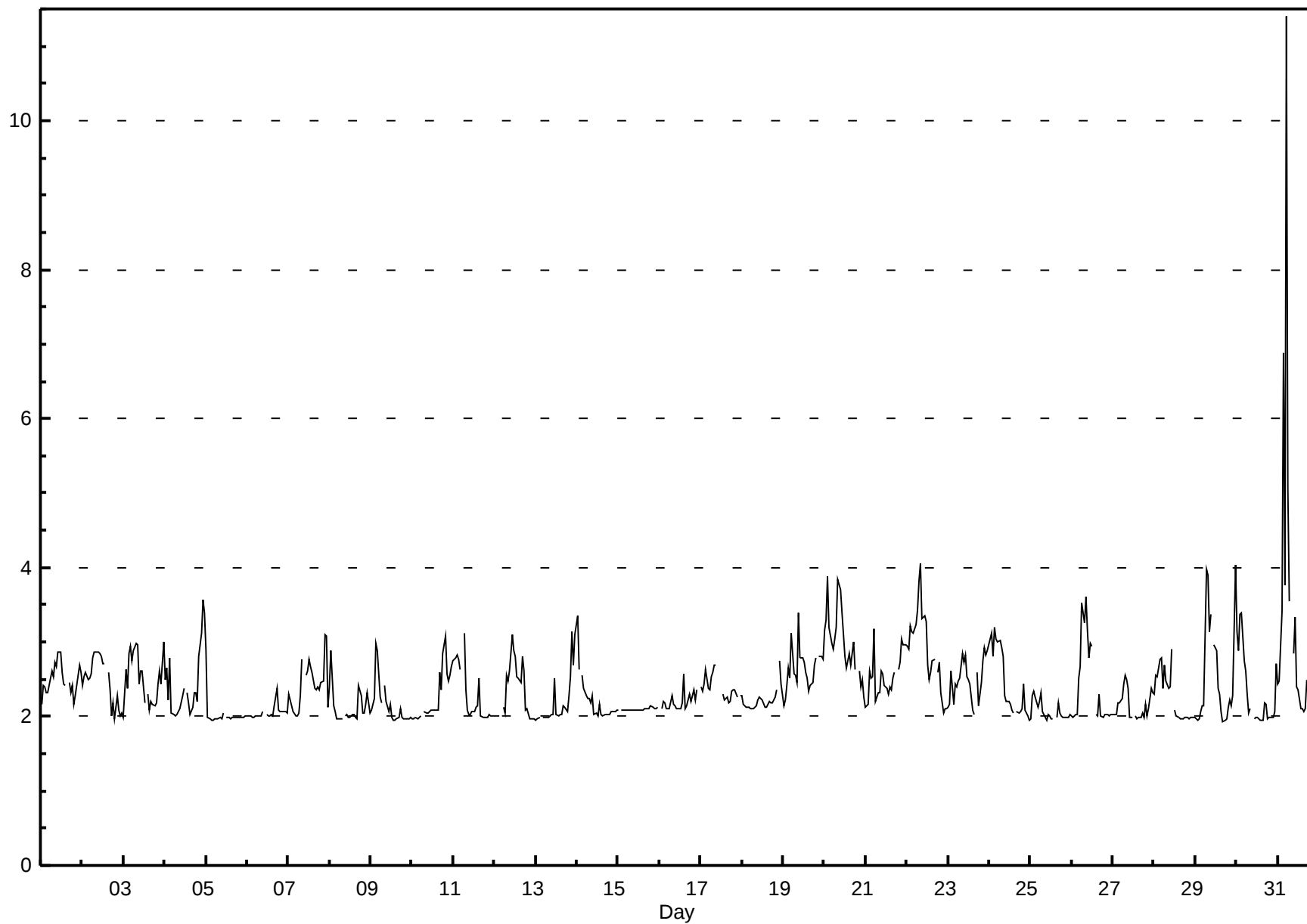
Hourly Averages

Total Hydrocarbons (THC) - ppm
Henry Pirker - January 2012



Hourly Maximums

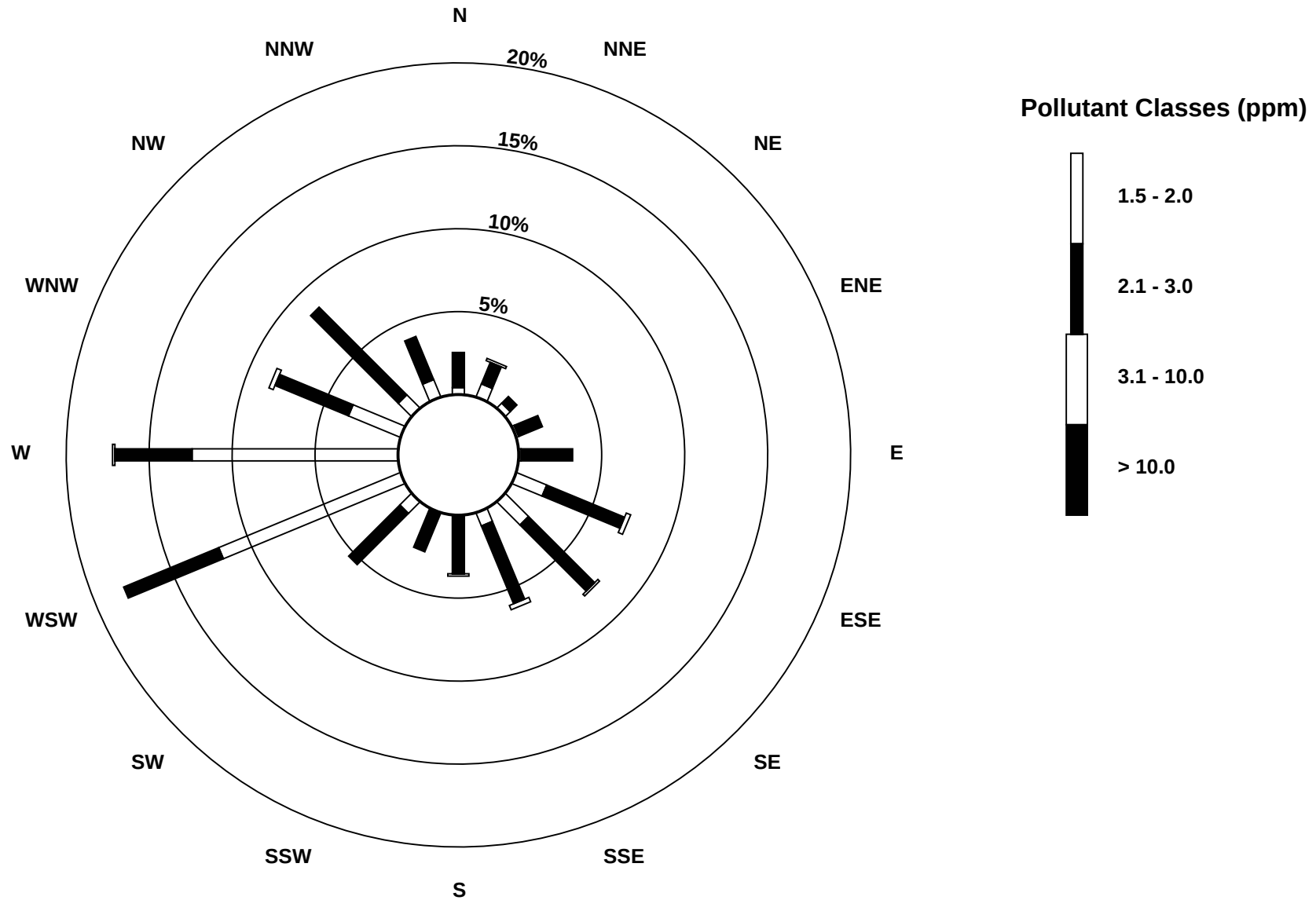
Total Hydrocarbons (THC) - ppm
Henry Pirker - January 2012



Pollutant Rose

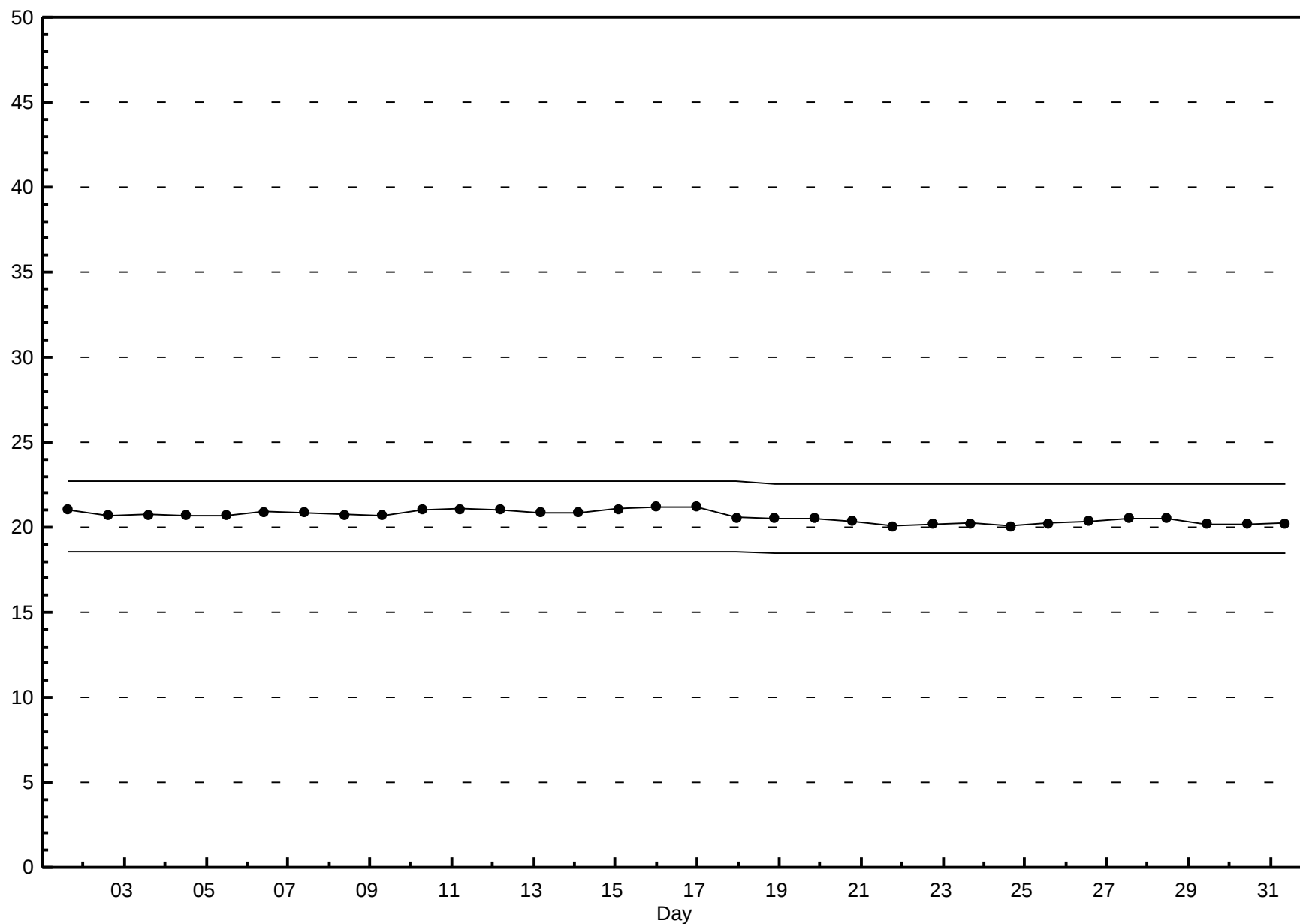
Total Hydrocarbons (THC) - ppm

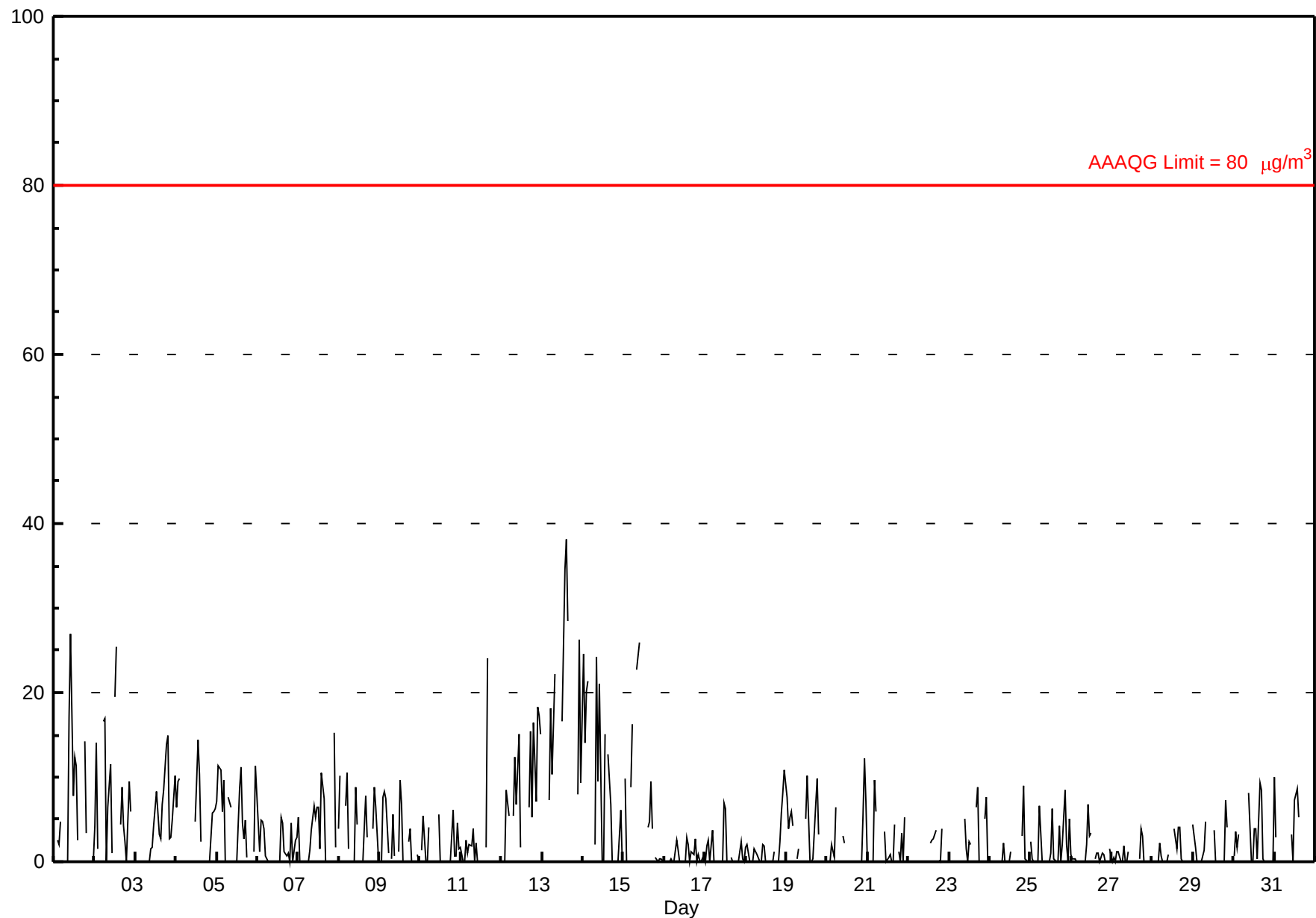
Henry Pirker - January 2012

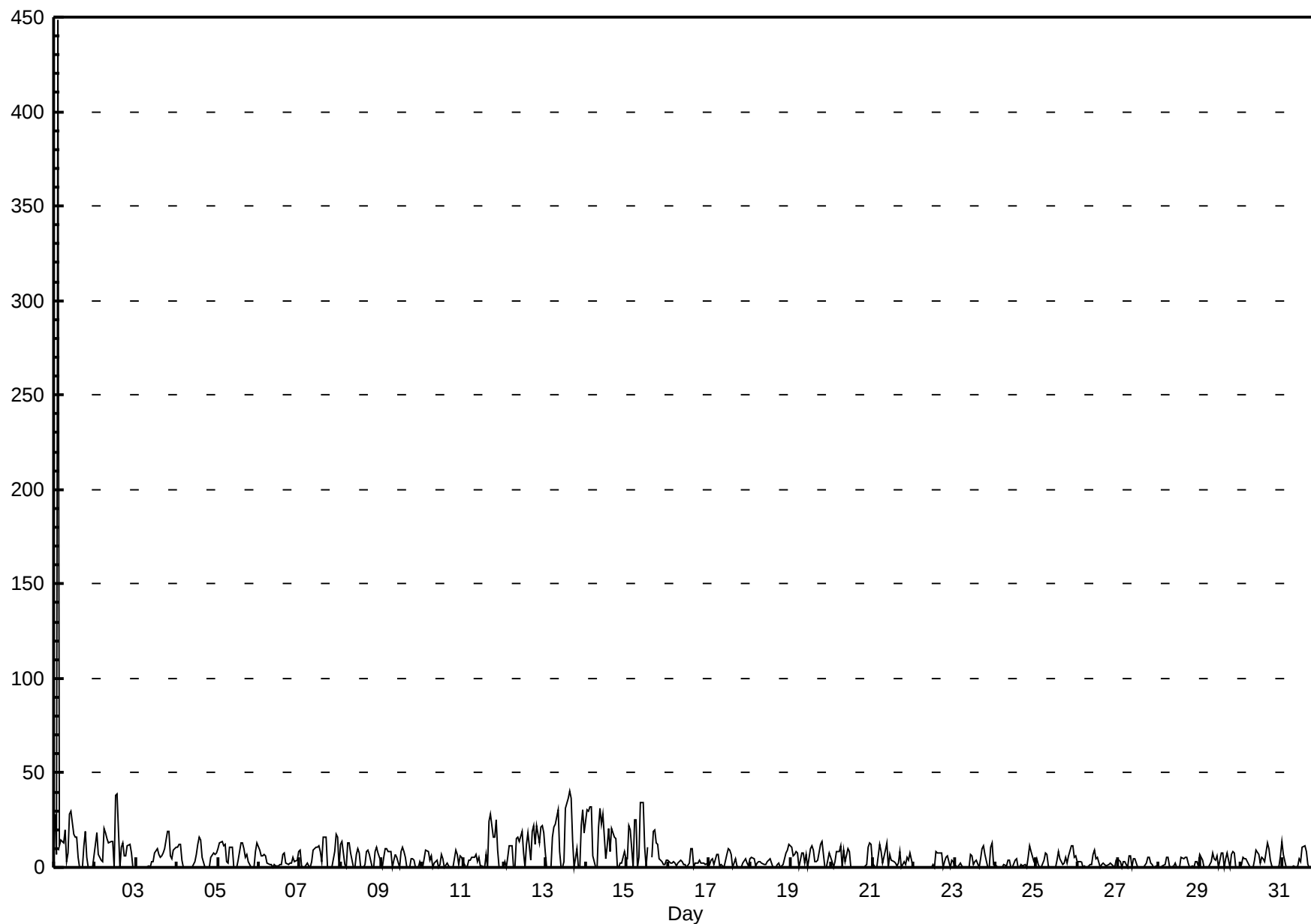


Span Responses

Total Hydrocarbons (THC)
Henry Pirker - January 2012



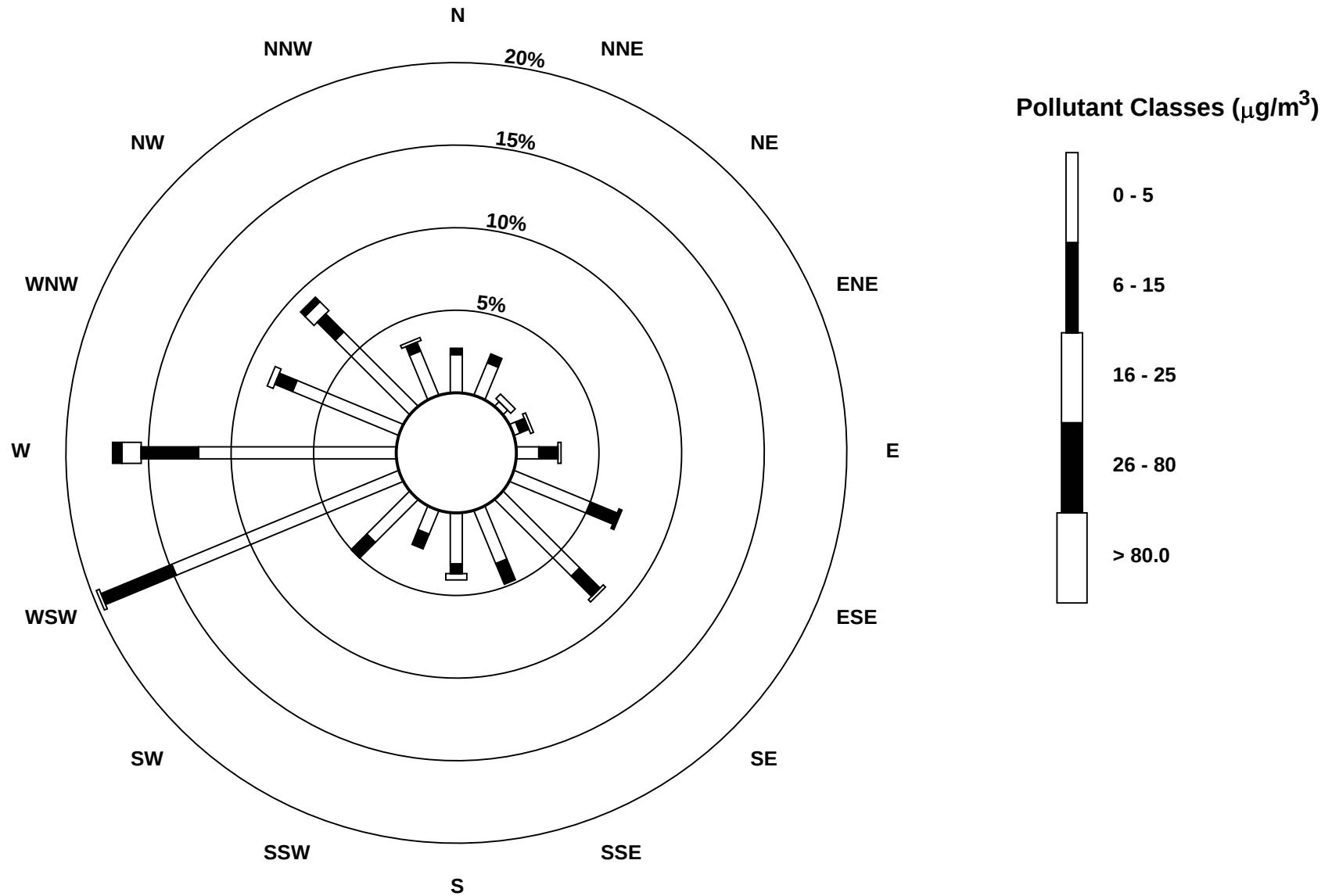




Pollutant Rose

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

Henry Pirker - January 2012



Hourly Averages

External Temperature (ET) - °C

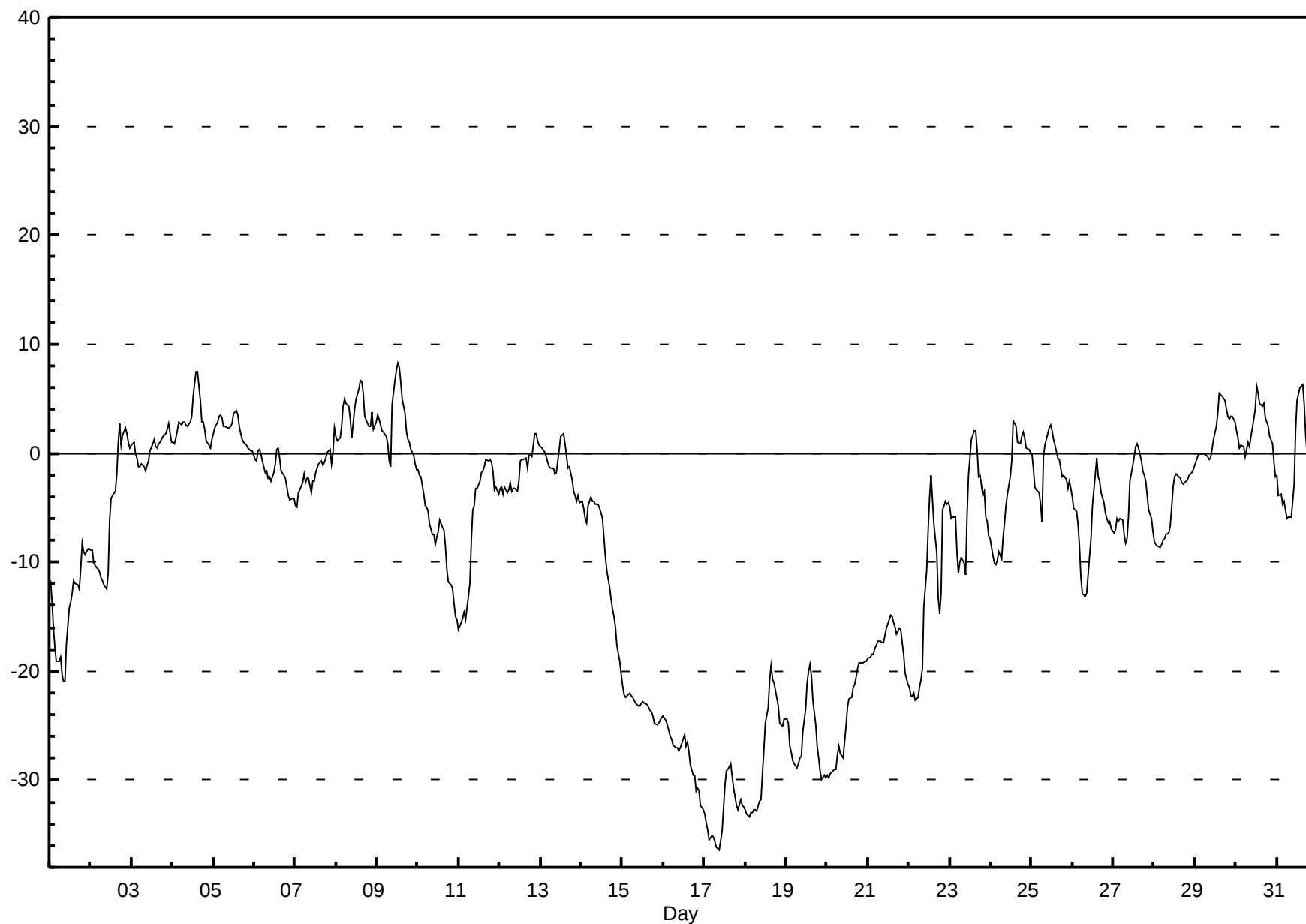
Henry Pirker - January 2012

Number of Exceedences (AAAQO):		1-hr: 0 24-hr: 0		Hours in Service: 744																						
Maximum Value: 8.3 °C on Jan 9 13:00		Maximum Daily Average: 3.6 °C on Jan 8		Hours of Data: 744																						
Minimum Value: -36 °C on Jan 17 10:00		Minimum Daily Average: -32.9 °C on Jan 17		Hours of Missing Data: 0																						
Maximum Diurnal Average: -4.8 °C at hour 15		Minimum Diurnal Average: -10.4 °C at hour 7		Hours of Calibration: 0																						
Monthly Average: -8.10 °C		Percentiles: P ₁ = -34.7 P ₁₀ = -26.7 Q ₁ = -16.0 Median = -3.9 Q ₃ = 0.4 P ₉₀ = 2.7 P ₉₉ = 6.6		Percent Operational Time: 100.0																						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Jan	-12	-14	-16	-18	-19	-19	-19	-20	-21	-21	-18	-14	-14	-13	-12	-12	-12	-12	-11	-8	-9	-9	-9	-9	-14.1	-8.2
2-Jan	-9	-9	-10	-10	-11	-11	-11	-12	-12	-12	-11	-6	-4	-4	-3	-2	1	3	1	2	2	2	1	0	-5.3	2.7
3-Jan	1	1	0	0	-1	-1	-1	-1	-2	-1	-1	0	1	1	1	1	1	2	2	2	2	2	3	1	0.4	2.7
4-Jan	1	1	1	2	3	3	3	3	3	2	3	3	5	6	7	7	5	3	3	2	1	1	0	1	2.9	7.5
5-Jan	2	2	3	3	4	3	3	2	2	2	2	3	4	4	4	3	2	1	1	1	0	0	0	0	2.1	4.0
6-Jan	-1	-1	0	0	0	-1	-2	-2	-2	-2	-3	-2	-1	0	0	0	-2	-2	-2	-3	-4	-4	-4	-4	-1.7	0.5
7-Jan	-5	-5	-4	-3	-3	-2	-3	-2	-2	-4	-3	-3	-2	-1	-1	-1	-1	-1	0	0	0	-1	0	2	-1.8	2.3
8-Jan	2	1	1	2	4	5	5	4	3	1	3	4	5	6	7	7	6	3	3	2	3	4	2	3	3.6	6.7
9-Jan	4	3	3	2	2	1	1	-1	-1	4	7	8	8	8	7	5	4	2	1	1	0	0	-1	-1	2.7	8.3
10-Jan	-2	-2	-2	-4	-5	-5	-5	-6	-8	-8	-8	-8	-7	-6	-7	-7	-8	-11	-12	-12	-12	-14	-15	-15	-7.9	-1.5
11-Jan	-16	-15	-15	-15	-15	-14	-12	-8	-5	-5	-3	-3	-3	-2	-2	-1	-1	-1	-1	-1	-2	-3	-3	-4	-6.2	-0.6
12-Jan	-3	-3	-4	-3	-4	-3	-3	-4	-3	-3	-4	-3	-1	-1	-1	0	-1	0	0	0	2	2	1	1	-1.6	1.8
13-Jan	1	0	0	0	-1	-1	-1	-1	-2	-2	-1	0	1	2	1	0	-1	-1	-2	-3	-4	-4	-4	-5	-1.2	1.8
14-Jan	-4	-5	-6	-6	-5	-4	-4	-4	-5	-5	-5	-6	-6	-8	-9	-11	-12	-13	-14	-15	-16	-18	-19	-20	-9.2	-4.1
15-Jan	-21	-22	-22	-22	-22	-22	-22	-23	-23	-23	-23	-23	-23	-23	-23	-23	-24	-24	-24	-25	-25	-25	-25	-24	-23.2	-21.3
16-Jan	-24	-24	-25	-25	-26	-26	-27	-27	-27	-27	-27	-27	-26	-27	-27	-27	-29	-30	-30	-31	-31	-31	-32	-33	-27.7	-24.1
17-Jan	-33	-34	-35	-36	-35	-35	-36	-36	-36	-36	-35	-33	-31	-29	-29	-29	-30	-31	-32	-32	-33	-32	-32	-32	-32.9	-28.5
18-Jan	-33	-33	-33	-33	-33	-33	-33	-33	-32	-32	-29	-27	-25	-23	-21	-19	-21	-21	-22	-23	-25	-25	-25	-24	-27.4	-19.5
19-Jan	-24	-25	-27	-27	-28	-29	-29	-28	-28	-28	-26	-23	-21	-20	-19	-20	-23	-25	-27	-28	-29	-30	-30	-30	-26.0	-19.3
20-Jan	-30	-30	-29	-29	-29	-29	-28	-27	-28	-28	-26	-25	-23	-23	-22	-21	-21	-21	-20	-19	-19	-19	-19	-19	-24.4	-19.1
21-Jan	-19	-19	-18	-18	-18	-18	-17	-17	-17	-17	-17	-16	-15	-15	-15	-16	-16	-17	-16	-16	-17	-18	-20	-21	-17.3	-14.9
22-Jan	-22	-22	-22	-22	-23	-22	-22	-21	-20	-14	-11	-7	-4	-2	-4	-6	-9	-13	-15	-13	-5	-4	-5	-5	-13.0	-2.1
23-Jan	-5	-6	-6	-6	-9	-11	-10	-10	-10	-11	-6	-2	-1	1	2	2	0	-2	-2	-4	-3	-6	-6	-8	-4.9	2.1
24-Jan	-8	-9	-10	-10	-10	-9	-10	-8	-6	-5	-4	-2	-1	3	3	2	1	1	2	2	1	0	0	0	-3.2	3.0
25-Jan	0	-1	-3	-3	-4	-5	-6	0	1	2	2	3	2	1	1	0	-1	-1	-2	-2	-2	-3	-3	-3	-1.2	2.5
26-Jan	-4	-5	-5	-7	-9	-11	-13	-13	-13	-11	-9	-8	-5	-2	0	-2	-3	-4	-5	-5	-6	-6	-6	-7	-6.6	-0.4
27-Jan	-7	-7	-6	-6	-6	-6	-7	-8	-8	-6	-3	-1	0	1	1	0	-1	-2	-2	-3	-4	-5	-6	-7	-4.1	0.8
28-Jan	-8	-8	-9	-9	-8	-8	-8	-7	-7	-7	-5	-3	-2	-2	-2	-3	-3	-3	-2	-2	-2	-2	-2	-1	-4.7	-1.5
29-Jan	-1	0	0	0	0	0	0	0	-1	-1	0	1	2	4	5	5	5	5	4	3	3	3	3	3	1.9	5.4
30-Jan	2	1	1	1	1	0	0	1	1	1	3	4	6	6	5	4	5	3	3	2	1	1	-1	-2	2.0	6.2
31-Jan	-2	-4	-4	-5	-4	-5	-6	-6	-6	-4	-3	2	5	6	6	6	4	2	0	-1	-3	-2	-1	-3	-1.1	6.2
																									Diurnal Average	
																									Diurnal Maximum	

Hourly Averages

External Temperature (ET) - °C

Henry Pirker - January 2012



Hourly Averages

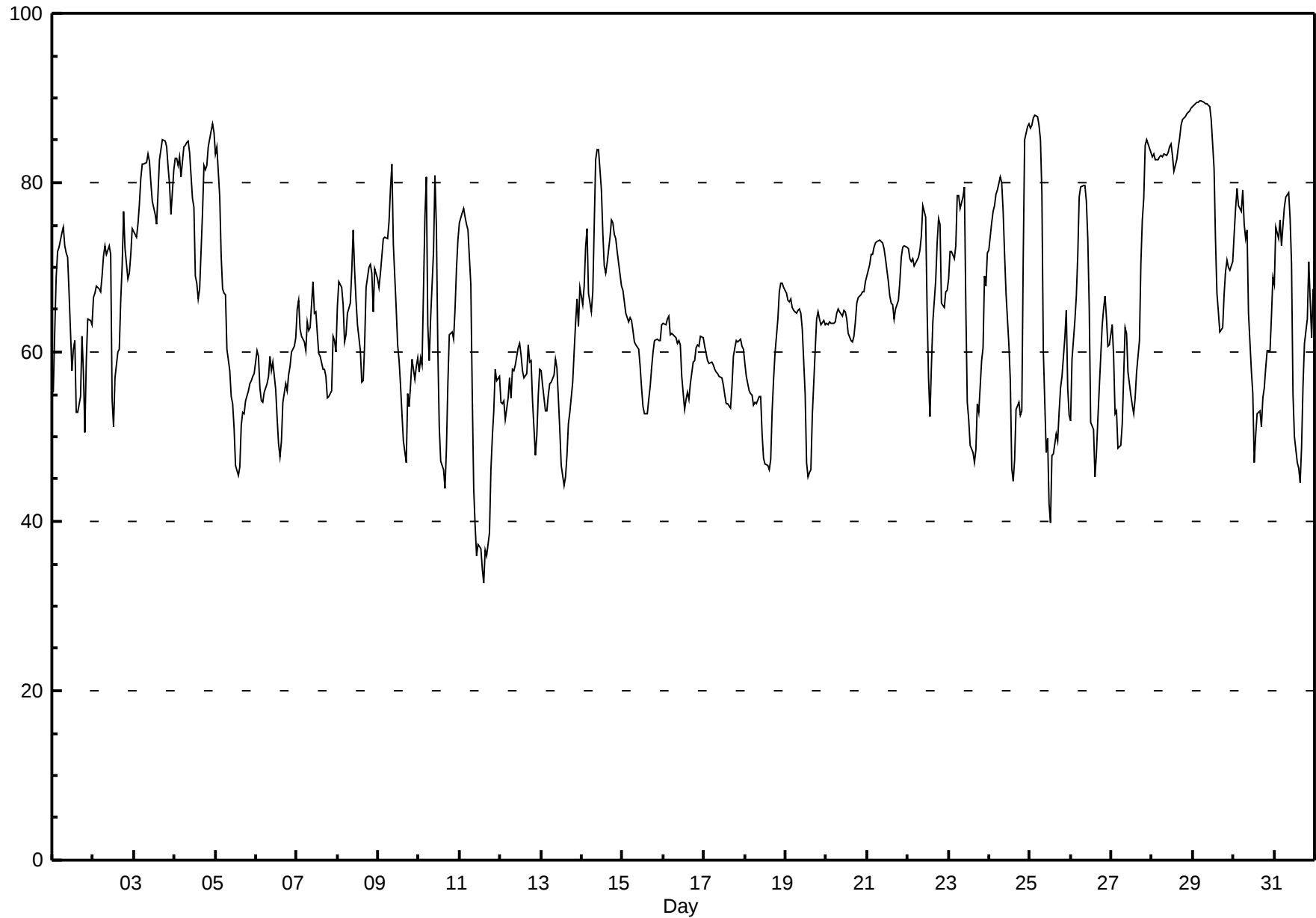
Relative Humidity (RH) - %

Henry Pirker - January 2012

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 89.6 % on Jan 29 06:00 Maximum Daily Average: 84.7 % on Jan 28																								Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0		
Minimum Value: 33 % on Jan 11 15:00 Maximum Diurnal Average: 69.5 % at hour 7 Monthly Average: 64.86 %												Minimum Daily Average: 52.9 % on Jan 11 Minimum Diurnal Average: 54.8 % at hour 15 Percentiles: P ₁ = 38.5 P ₁₀ = 51.5 Q ₁ = 56.6 Median = 63.7 Q ₃ = 72.6 P ₉₀ = 82.2 P ₉₉ = 89.3														
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Jan	55	62	69	72	72	74	75	73	72	71	67	58	60	61	53	53	55	62	58	51	59	64	64	63	63.4	74.7
2-Jan	66	67	68	67	67	69	71	73	71	73	71	54	51	57	60	60	66	70	77	72	69	69	72	75	67.3	76.6
3-Jan	74	74	75	77	80	82	82	82	83	83	80	78	76	75	79	83	84	85	85	84	82	80	76	81	80.1	85.1
4-Jan	83	83	82	83	81	84	84	85	85	84	78	77	69	68	66	67	76	82	82	82	84	86	87	86	80.2	87.0
5-Jan	83	84	78	71	68	67	67	60	58	55	54	51	47	45	46	51	53	53	54	55	56	57	57	57	59.5	84.2
6-Jan	60	59	56	54	54	55	56	57	60	58	59	56	52	49	48	49	54	56	55	57	58	60	61	62	56.1	61.7
7-Jan	65	66	63	62	61	60	64	63	63	68	65	65	62	60	59	58	58	57	55	55	55	62	61	60	61.1	68.3
8-Jan	65	68	68	66	61	62	65	66	69	74	70	66	63	60	56	57	61	68	70	70	69	65	70	69	65.8	74.4
9-Jan	68	69	71	73	74	73	75	79	82	73	65	61	59	56	53	49	47	55	54	56	59	57	58	59	63.6	82.2
10-Jan	58	59	59	76	81	63	59	64	72	81	75	60	51	47	46	44	49	56	62	62	61	65	70	73	62.2	80.9
11-Jan	75	76	77	76	75	74	68	55	44	40	36	37	37	34	33	37	36	39	46	50	53	58	57	57	52.9	76.9
12-Jan	54	54	54	52	55	57	55	58	58	58	60	61	60	58	57	57	61	59	59	54	48	50	55	58	56.3	61.0
13-Jan	58	56	53	53	55	56	56	57	59	58	55	51	47	44	45	48	52	53	56	60	63	66	63	68	55.5	67.6
14-Jan	66	68	72	74	67	65	67	75	83	84	84	79	74	70	69	71	73	76	75	74	73	72	69	68	72.8	83.9
15-Jan	67	66	65	64	64	64	63	61	61	60	58	56	54	53	53	54	56	58	60	61	61	61	61	63	60.2	67.3
16-Jan	63	63	64	64	62	62	62	62	61	61	61	57	53	54	55	54	56	59	59	61	61	61	62	62	60.0	64.2
17-Jan	61	60	59	59	59	58	58	58	57	57	57	56	55	54	54	53	56	59	60	61	61	61	61	60	58.1	61.5
18-Jan	59	57	55	55	55	54	54	54	55	55	50	47	47	47	46	47	53	57	60	64	67	68	68	68	55.9	68.1
19-Jan	67	66	66	66	65	65	65	65	65	65	63	55	47	45	46	46	53	60	64	65	64	63	64	63	60.5	67.0
20-Jan	63	63	64	63	63	63	64	65	65	64	65	65	64	62	61	61	62	64	66	66	67	67	67	68	64.4	68.2
21-Jan	69	70	72	72	72	73	73	73	73	73	72	71	68	67	66	66	64	65	66	68	71	72	73	72	70.1	73.1
22-Jan	72	71	71	71	70	71	71	72	74	77	76	65	57	52	58	64	68	73	76	75	66	65	67	67	68.8	77.3
23-Jan	69	72	72	71	72	78	79	77	78	80	65	54	52	49	48	47	49	54	53	59	60	69	68	72	64.4	79.5
24-Jan	72	75	77	77	79	79	81	80	77	72	67	61	57	46	45	47	53	54	52	53	71	85	87	87	68.1	86.9
25-Jan	86	87	88	88	88	87	85	79	60	48	50	42	40	48	48	50	49	53	56	57	62	65	56	53	63.5	88.0
26-Jan	52	59	64	67	71	78	79	80	80	78	73	65	52	51	45	48	52	56	63	65	67	64	61	61	63.8	79.7
27-Jan	63	60	53	53	49	49	51	57	63	62	58	55	54	53	55	58	61	70	76	78	84	85	84	84	63.1	85.0
28-Jan	83	83	83	83	83	83	83	83	83	84	84	85	83	81	83	84	85	87	87	88	88	88	89	89	84.7	88.7
29-Jan	89	89	90	90	90	90	90	89	89	89	89	88	82	73	67	65	62	63	67	69	71	70	70	71	79.2	89.6
30-Jan	74	77	79	77	77	79	75	73	74	65	58	55	47	50	53	53	51	55	56	58	60	60	64	69	64.2	79.4
31-Jan	68	75	73	76	73	75	77	78	79	76	70	55	50	47	46	45	49	56	61	64	71	66	62	67	64.9	78.9
68.0 69.0 68.9 69.4 69.1 69.4 69.5 69.5 69.5 68.5 65.6 60.8 57.1 55.4 54.8 55.7 58.2 61.7 63.5 64.4 65.9 67.2 67.1 68.1																								Diurnal Average		
89.0 89.4 89.5 89.5 89.6 89.6 89.6 89.4 89.3 89.2 88.9 87.5 83.2 81.3 82.7 84.1 85.2 86.8 87.4 87.8 88.1 88.4 88.6 88.7																								Diurnal Maximum		

Hourly Averages

Relative Humidity (RH) - %
Henry Pirker - January 2012



Hourly Averages

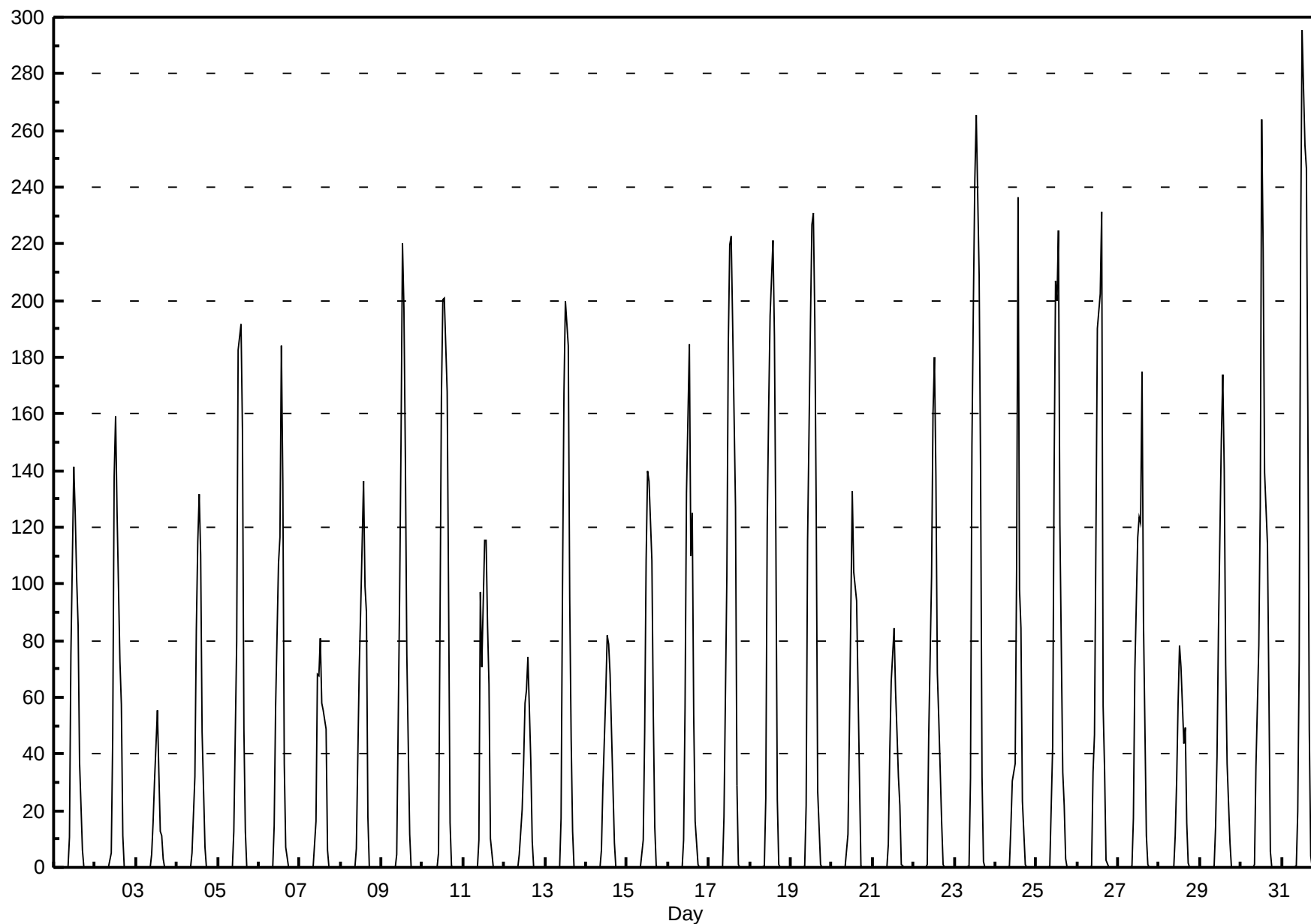
Solar Radiation (SR) - W/m²

Henry Pirker - January 2012

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 295.4 W/m ² on Jan 31 13:00 Maximum Daily Average: 55.1 W/m ² on Jan 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 Jan 1 01:00 Minimum Daily Average: 6.9 W/m ² on Jan 3 Maximum Diurnal Average: 155.3 W/m ² at hour 13 Minimum Diurnal Average: 0.0 W/m ² at hour 1 Monthly Average: 30.13 W/m ² Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.0 Q ₃ = 32.3 P ₉₀ = 122.6 P ₉₉ = 230.8																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Jan	0	0	0	0	0	0	0	0	0	11	75	142	125	102	85	37	6	0	0	0	0	0	0	0	24.3	141.6
2-Jan	0	0	0	0	0	0	0	0	0	5	46	138	159	125	73	58	11	0	0	0	0	0	0	0	25.6	159.0
3-Jan	0	0	0	0	0	0	0	0	0	5	16	30	56	34	13	11	3	0	0	0	0	0	0	0	6.9	55.5
4-Jan	0	0	0	0	0	0	0	0	0	5	32	84	115	132	110	48	7	0	0	0	0	0	0	0	22.2	131.6
5-Jan	0	0	0	0	0	0	0	0	0	13	46	80	183	192	154	49	13	0	0	0	0	0	0	0	30.4	191.7
6-Jan	0	0	0	0	0	0	0	0	0	15	57	107	117	184	136	36	7	0	0	0	0	0	0	0	27.5	184.1
7-Jan	0	0	0	0	0	0	0	0	0	16	68	68	81	58	55	49	6	0	0	0	0	0	0	0	16.7	80.6
8-Jan	0	0	0	0	0	0	0	0	0	7	39	70	91	136	99	90	18	0	0	0	0	0	0	0	22.9	136.0
9-Jan	0	0	0	0	0	0	0	0	0	5	95	151	220	197	144	75	12	0	0	0	0	0	0	0	37.5	220.0
10-Jan	0	0	0	0	0	0	0	0	0	5	84	166	200	201	168	94	16	0	0	0	0	0	0	0	38.9	201.0
11-Jan	0	0	0	0	0	0	0	0	0	10	97	70	115	116	85	65	10	0	0	0	0	0	0	0	23.7	115.7
12-Jan	0	0	0	0	0	0	0	0	0	5	20	36	58	63	74	38	9	0	0	0	0	0	0	0	12.7	74.5
13-Jan	0	0	0	0	0	0	0	0	0	17	99	167	200	184	95	46	12	0	0	0	0	0	0	0	34.2	200.0
14-Jan	0	0	0	0	0	0	0	0	0	6	28	61	82	79	68	48	9	0	0	0	0	0	0	0	15.9	81.9
15-Jan	0	0	0	0	0	0	0	0	0	10	48	108	140	136	108	53	14	1	0	0	0	0	0	0	25.7	139.8
16-Jan	0	0	0	0	0	0	0	0	0	10	56	132	185	110	125	54	16	1	0	0	0	0	0	0	28.7	184.5
17-Jan	0	0	0	0	0	0	0	0	0	18	103	184	220	223	192	127	29	1	0	0	0	0	0	0	45.7	222.8
18-Jan	0	0	0	0	0	0	0	0	0	25	121	162	195	221	187	115	24	1	0	0	0	0	0	0	43.8	221.2
19-Jan	0	0	0	0	0	0	0	0	0	22	115	193	227	231	193	125	27	1	0	0	0	0	0	0	47.2	230.8
20-Jan	0	0	0	0	0	0	0	0	0	12	48	91	133	104	94	63	31	1	0	0	0	0	0	0	24.0	132.8
21-Jan	0	0	0	0	0	0	0	0	0	8	41	66	84	63	48	32	22	1	0	0	0	0	0	0	15.2	84.4
22-Jan	0	0	0	0	0	0	0	0	1	46	103	160	180	138	69	52	16	1	0	0	0	0	0	0	31.9	179.8
23-Jan	0	0	0	0	0	0	0	0	0	32	149	199	242	265	209	140	32	2	0	0	0	0	0	0	52.9	265.4
24-Jan	0	0	0	0	0	0	0	0	0	14	30	37	106	236	98	85	23	1	0	0	0	0	0	0	26.3	236.4
25-Jan	0	0	0	0	0	0	0	0	1	43	139	207	200	225	121	34	22	3	0	0	0	0	0	0	41.4	224.5
26-Jan	0	0	0	0	0	0	0	0	1	34	47	115	190	202	231	57	34	2	0	0	0	0	0	0	38.1	231.2
27-Jan	0	0	0	0	0	0	0	0	0	18	69	116	124	122	175	86	11	1	0	0	0	0	0	0	30.1	175.1
28-Jan	0	0	0	0	0	0	0	0	0	11	31	58	78	71	44	49	16	1	0	0	0	0	0	0	15.0	78.2
29-Jan	0	0	0	0	0	0	0	0	0	14	39	84	151	174	140	72	37	9	0	0	0	0	0	0	30.0	173.7
30-Jan	0	0	0	0	0	0	0	0	1	36	78	127	264	218	140	114	62	6	0	0	0	0	0	0	43.5	263.7
31-Jan	0	0	0	0	0	0	0	0	1	20	73	219	295	255	247	161	49	4	0	0	0	0	0	0	55.1	295.4
0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.2 15.9 67.5 117.0 155.3 154.7 122.0 69.7 19.5 1.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 Diurnal Average																										
0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.0 45.6 148.9 219.2 295.4 265.4 246.7 160.8 62.2 8.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 Diurnal Maximum																										

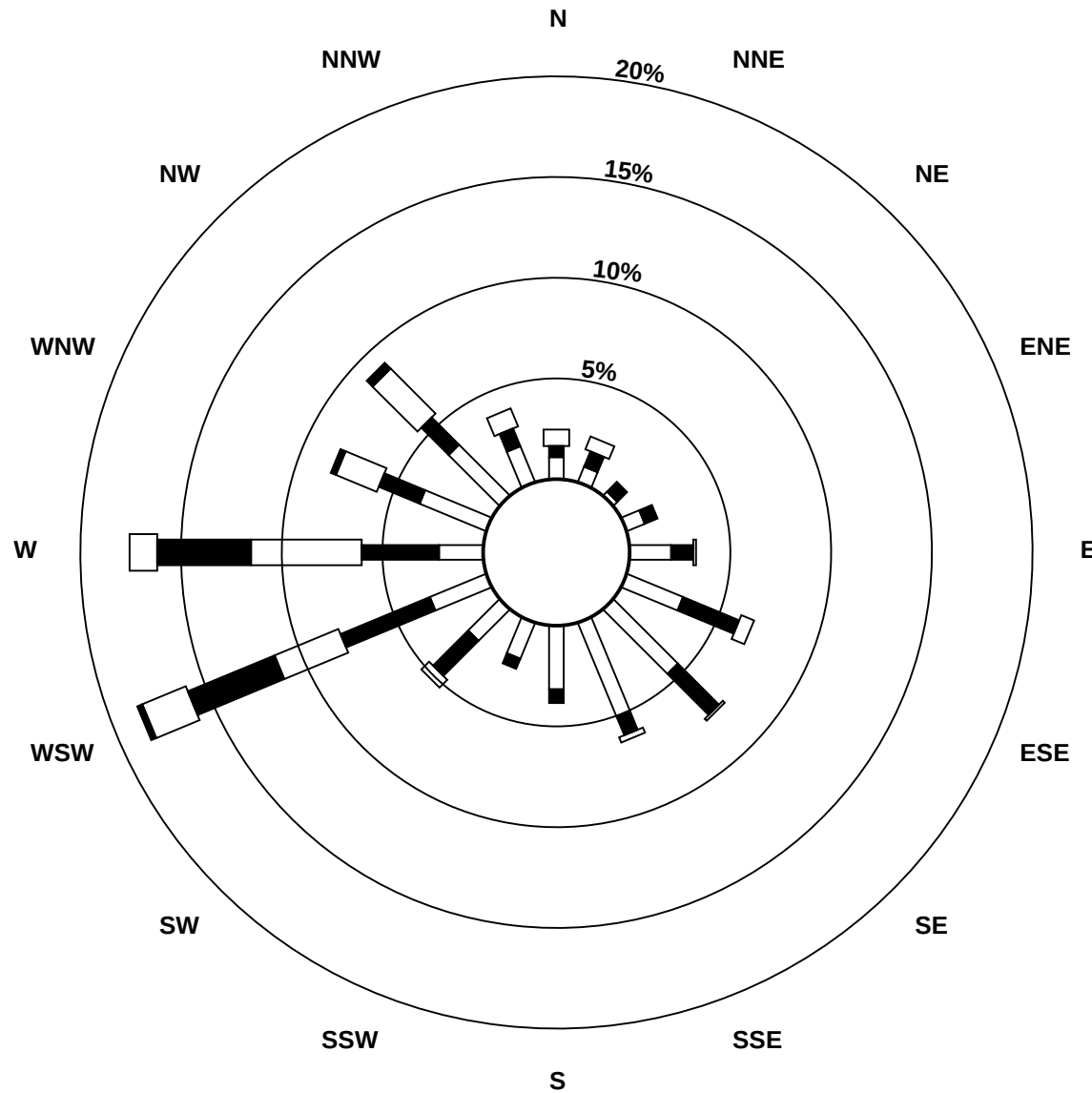
Hourly Averages

Solar Radiation (SR) - W/m²
Henry Pirker - January 2012

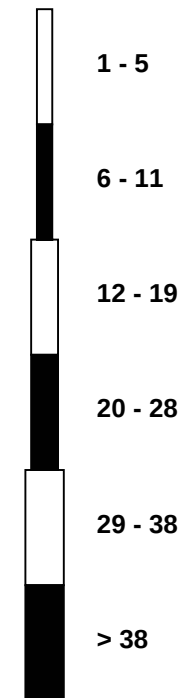


Wind Rose

Wind Speed (WS) (km/h)
Henry Pirker - January 2012



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Henry Pirker - January 2012

Maximum Speed: 43 km/h on Jan 9 16:00		Maximum Daily Speed Average: 25.7 km/h on Jan 5		Hours in Service: 744																							
Minimum Speed: 1 km/h on Jan 25 07:00		Minimum Daily Speed Average: 4.2 km/h on Jan 20		Hours of Data: 744																							
Maximum Diurnal Speed Average: 14.9 km/h at hour 16		Minimum Diurnal Speed Average: 8.0 km/h at hour 7		Hours of Missing Data: 0																							
Monthly Average Speed: 10.34 km/h		Percentiles: $P_1 = 1.0$ $P_{10} = 3.5$ $Q_1 = 4.4$ Median = 7.5 $Q_3 = 13.9$ $P_{90} = 22.2$ $P_{99} = 33.2$		Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
1-Jan	5	3	4	4	3	2	3	4	4	4	4	4	6	4	9	5	4	5	7	5	5	4	5	5	4.4	8.8	
2-Jan	4	5	5	5	3	3	3	4	4	4	5	3	6	6	6	7	10	12	7	13	12	9	9	7	6.3	13.5	
3-Jan	8	6	5	5	5	6	4	3	5	4	4	6	9	4	6	7	9	6	7	8	8	4	8	5	5.9	9.5	
4-Jan	4	5	5	8	11	11	12	10	8	7	5	3	7	15	13	13	8	5	7	4	4	4	6	6	7.5	14.5	
5-Jan	8	16	22	23	29	30	24	27	26	27	28	30	34	31	35	29	30	28	25	24	23	25	22	21	25.7	35.3	
6-Jan	17	17	25	25	25	19	16	17	17	19	11	16	20	16	14	22	14	10	9	7	6	7	6	5	14.9	24.7	
7-Jan	4	4	7	6	13	19	11	8	9	5	5	5	4	6	6	6	6	6	5	6	5	5	8	7	6.9	18.7	
8-Jan	4	6	9	10	14	14	12	12	12	7	9	14	14	12	19	22	21	8	8	7	9	8	8	11	11.2	21.7	
9-Jan	8	6	3	4	6	8	5	4	7	22	7	10	16	27	38	43	39	38	34	33	31	26	25	18	19.2	43.5	
10-Jan	21	21	22	26	20	16	13	14	13	18	13	19	19	12	13	8	3	4	4	4	4	4	4	4	12.5	25.9	
11-Jan	4	3	3	4	4	5	8	8	13	17	13	13	9	8	6	12	22	25	27	21	21	11	14	13	11.8	27.2	
12-Jan	14	14	11	12	10	6	9	6	4	4	5	5	5	5	5	5	5	9	10	15	25	22	24	28	10.7	27.8	
13-Jan	31	33	26	23	22	22	23	22	22	22	20	19	19	19	14	12	15	16	9	4	3	4	2	4	16.9	32.8	
14-Jan	4	3	2	2	5	6	7	8	9	9	12	15	17	17	20	20	17	17	17	17	15	19	20	20	12.4	20.3	
15-Jan	20	18	17	17	17	16	17	16	16	14	14	15	15	17	16	15	14	13	11	11	9	8	7	7	14.2	19.7	
16-Jan	13	14	10	9	12	13	10	10	12	9	11	12	10	10	9	9	7	8	7	8	8	6	4	4	9.4	14.0	
17-Jan	4	4	3	2	5	5	5	4	5	7	8	9	7	8	8	8	9	7	6	4	4	9	10	11	6.4	10.5	
18-Jan	14	14	17	13	12	14	12	14	11	7	5	9	10	13	10	9	11	10	9	6	4	3	5	8	10.0	17.1	
19-Jan	7	8	5	4	3	2	4	3	6	5	4	4	4	4	4	4	5	4	4	4	4	4	4	4	4.3	7.6	
20-Jan	4	3	2	2	3	2	3	2	5	4	4	5	4	4	6	5	5	4	4	5	5	6	7	7	4.2	6.9	
21-Jan	7	7	7	7	7	6	6	5	4	4	4	4	5	4	6	7	10	5	5	3	3	3	4	4	5.3	9.8	
22-Jan	4	4	3	5	3	4	4	3	4	5	4	4	5	3	3	3	2	5	4	5	12	12	12	12	5.2	12.4	
23-Jan	11	10	9	9	6	5	5	2	1	1	1	1	4	7	18	16	15	7	8	4	4	4	5	5	6.6	17.8	
24-Jan	3	4	4	4	5	4	1	5	6	9	11	11	11	14	15	13	10	11	11	8	9	8	6	9	8.0	15.5	
25-Jan	7	3	1	1	1	1	1	11	16	22	17	33	32	32	32	35	33	27	20	18	21	18	22	21	17.7	35.1	
26-Jan	15	17	13	7	4	2	4	4	5	5	5	5	6	24	30	29	28	26	30	21	22	22	24	16	15.0	30.4	
27-Jan	17	12	19	6	10	7	4	3	3	5	17	27	30	29	28	24	33	26	18	8	14	7	5	3	14.8	32.9	
28-Jan	4	3	2	3	4	3	4	4	3	4	5	7	7	9	10	11	12	10	9	10	10	8	7	7	6.5	11.6	
29-Jan	8	7	7	6	6	5	6	5	4	3	2	3	4	7	15	19	16	13	9	5	4	7	4	5	7.1	18.6	
30-Jan	5	5	6	7	7	6	10	8	7	14	18	15	17	22	27	32	28	20	21	17	16	13	8	7	14.0	31.7	
31-Jan	6	3	2	4	4	4	3	3	4	4	6	8	11	11	10	11	8	4	4	5	5	5	4	4	5.5	10.9	
9.2		8.9	8.8	8.5	8.9	8.7	8.0	8.1	8.5	9.4	8.9	10.7	11.8	12.9	14.5	14.9	14.5	12.5	11.5	10.1	10.5	9.4	9.7	9.3	Diurnal Average		
31.2		32.8	26.0	25.9	28.6	30.3	23.9	27.4	26.5	27.4	28.3	33.0	33.6	31.6	38.1	43.5	38.8	37.7	34.1	33.4	31.0	26.1	25.4	27.8	Diurnal Maximum		
All monthly, daily, and diurnal averages have been calculated using scalar methods																											

Hourly Standard Deviations

Wind Direction (WD) - deg

Henry Pirker - January 2012

Maximum Value: 97.3 deg on Jan 28 00:00																		Hours in Service: 744							
Minimum Value: 4.2 deg on Jan 13 09:00																		Hours of Data: 744							
Percentiles: P ₁ = 5.0 P ₁₀ = 6.2 Q ₁ = 8.0 Median = 14.0 Q ₃ = 27.5 P ₉₀ = 50.0 P ₉₉ = 85.2																		Hours of Missing Data: 0							
																		Hours of Calibration: 0							
																		Percent Operational Time: 100.0							
Day	Hourly Period Ending At (MST)																								Daily Maximum
1-Jan	42	42	74	32	31	61	41	21	20	25	32	28	21	51	41	57	62	36	54	21	32	51	61	46	73.8
2-Jan	65	27	27	25	55	58	65	34	23	39	29	40	23	16	17	15	14	21	52	12	23	17	17	13	65.3
3-Jan	26	40	57	83	29	8	34	25	22	19	18	21	10	55	25	11	10	8	13	9	22	65	8	39	83.1
4-Jan	31	30	18	15	8	6	7	6	11	12	21	67	33	16	10	8	59	77	80	37	64	19	9	25	80.3
5-Jan	34	16	10	8	5	8	7	5	8	7	6	7	10	7	6	8	5	5	6	6	7	6	6	7	34.3
6-Jan	4	6	7	5	5	6	7	6	10	9	20	8	10	11	12	13	32	12	10	16	19	20	41	18	41.0
7-Jan	20	51	44	37	30	6	15	18	16	34	16	20	37	15	15	13	14	13	11	13	71	49	20	45	70.6
8-Jan	72	46	23	18	9	13	9	10	8	18	21	13	10	11	10	7	7	28	63	40	12	19	17	16	71.8
9-Jan	11	19	39	55	20	10	46	75	64	19	17	25	13	9	8	6	6	7	7	5	6	5	6	6	74.8
10-Jan	6	6	7	27	12	10	10	6	8	13	10	5	5	7	7	14	43	10	24	28	33	23	18	12	42.9
11-Jan	21	14	61	23	12	31	13	16	11	14	8	6	10	13	14	12	6	7	7	8	5	7	7	4	60.5
12-Jan	6	5	10	10	21	67	24	31	45	71	9	18	24	46	55	24	32	10	23	6	10	6	10	6	70.9
13-Jan	7	5	7	7	6	6	5	7	4	5	6	6	7	8	8	7	6	7	10	74	61	25	36	15	73.5
14-Jan	22	16	60	19	13	21	16	18	14	14	13	13	11	13	10	12	9	12	7	9	16	7	5	6	59.5
15-Jan	5	5	6	6	7	6	7	6	6	6	7	8	8	7	7	7	6	5	9	7	10	8	7	19	18.8
16-Jan	11	9	17	17	14	11	12	11	11	13	17	10	12	13	15	9	9	5	19	6	6	10	29	20	29.2
17-Jan	14	19	19	33	11	13	13	23	11	12	10	11	12	11	11	10	13	15	8	19	25	9	10	7	32.8
18-Jan	8	8	6	12	15	15	15	10	12	30	12	17	20	9	10	13	7	7	19	17	33	59	30	14	59.5
19-Jan	8	11	8	19	24	45	19	19	11	29	15	17	16	16	27	11	11	20	15	22	10	16	21	35	44.7
20-Jan	18	13	41	23	25	50	19	88	11	7	27	18	33	28	21	34	29	35	41	23	17	21	35	21	87.7
21-Jan	17	17	16	14	14	17	13	28	17	23	22	17	37	58	40	16	8	13	16	65	39	86	18	42	85.8
22-Jan	46	41	74	84	76	33	26	70	56	45	61	41	28	49	27	73	76	18	76	66	6	7	7	7	84.4
23-Jan	7	7	8	8	64	19	53	28	77	14	42	11	12	15	12	7	6	22	33	93	26	42	12	36	93.1
24-Jan	69	72	71	25	17	22	42	18	8	8	11	9	12	7	7	11	6	16	8	20	24	13	23	11	72.1
25-Jan	31	66	42	13	18	55	32	10	9	8	12	7	6	7	9	6	6	5	7	8	9	7	6	7	65.9
26-Jan	11	7	10	21	16	88	28	81	11	16	15	27	47	7	6	7	6	5	8	6	7	7	6	7	88.0
27-Jan	7	18	11	28	10	56	43	49	79	59	8	7	7	7	7	7	9	11	8	23	27	48	66	97	97.3
28-Jan	71	43	47	21	23	21	40	31	47	14	7	8	13	12	10	7	6	7	7	6	11	8	9	9	70.5
29-Jan	6	15	17	40	11	9	8	7	19	14	61	23	86	19	8	9	8	9	7	40	42	8	34	10	86.4
30-Jan	28	11	12	17	15	19	9	12	11	10	5	7	8	8	7	6	8	10	10	5	9	11	29	32	31.6
31-Jan	28	21	47	43	47	50	80	87	71	33	30	12	13	8	15	9	18	35	61	43	14	64	27	32	87.2
71.8 72.1 74.3 84.4 76.0 88.0 79.8 87.7 79.2 70.9 61.5 67.0 86.4 57.5 55.2 73.5 76.0 77.2 80.3 93.1 70.6 85.8 65.7 97.3																									

PAZA
Evergreen Park Station
Monthly Summary Tables, Graphs and
Roses

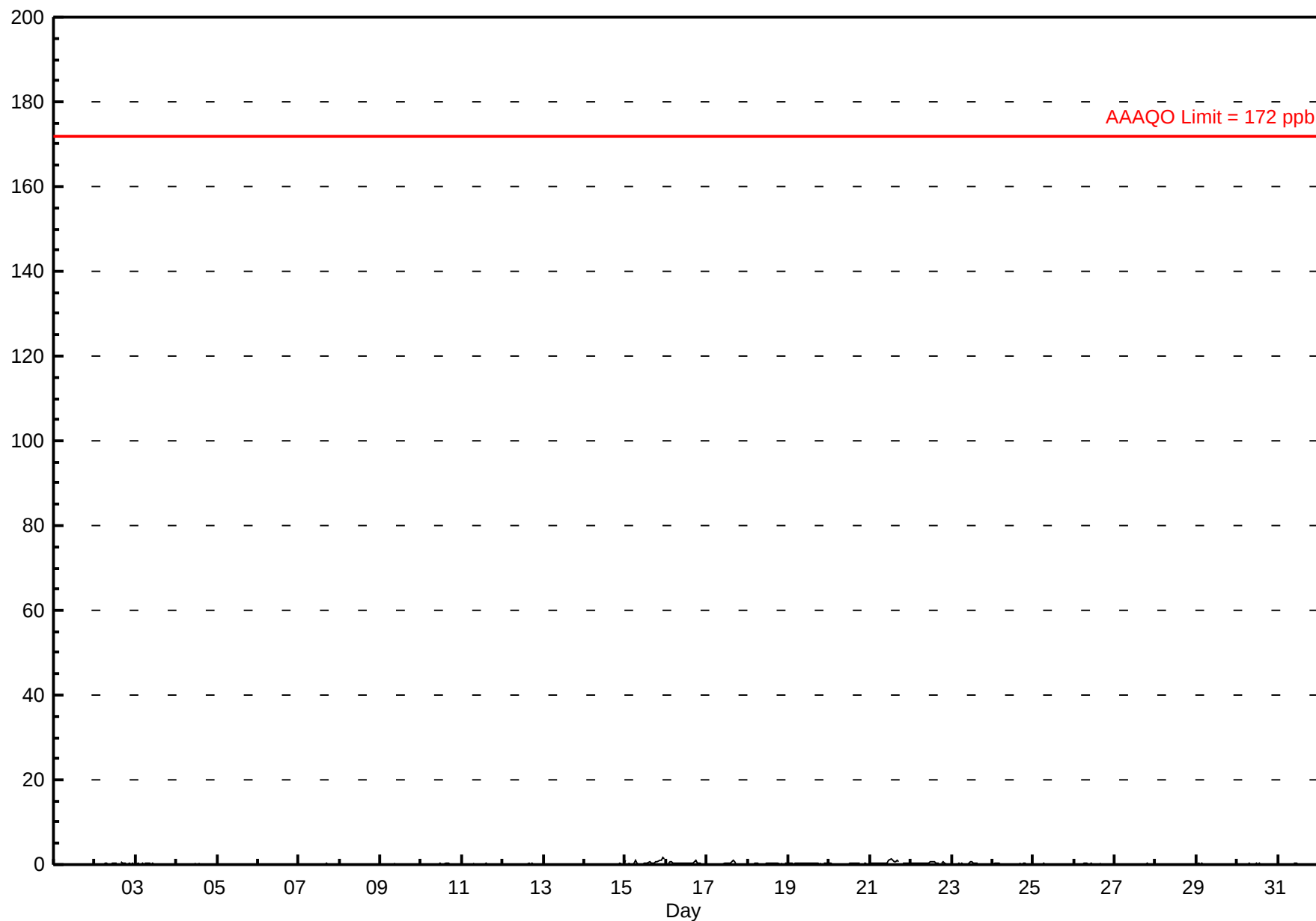
Hourly Averages

Sulphur Dioxide (SO₂) - ppb Evergreen Park - January 2012

Number of Exceedences (AAAQO):		1-hr: 0	24-hr: 0																							
Maximum Value: 1.7 ppb on Jan 15 23:00		Maximum Daily Average: 0.5 ppb on Jan 15																								
Minimum Value: 0 ppb on Jan 1 04:00		Minimum Daily Average: 0.0 ppb on Jan 5																								
Maximum Diurnal Average: 0.2 ppb at hour 16		Minimum Diurnal Average: 0.1 ppb at hour 6																								
Monthly Average: 0.14 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 = 1.0																								
Hours in Service:		744																								
Hours of Data:		710																								
Hours of Missing Data:		34																								
Hours of Calibration:		34																								
Percent Operational Time:		100.0																								
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
2-Jan	0	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	0.7
3-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
4-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
5-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
6-Jan	0	0	0	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
7-Jan	0	0	0	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
8-Jan	0	0	0	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
9-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.3
10-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
11-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
12-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
13-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
14-Jan	0	0	0	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
15-Jan	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	1.7
16-Jan	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.1
17-Jan	0	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	1.0
18-Jan	0	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
19-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
20-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
21-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	1.3
22-Jan	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.7
23-Jan	0	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	0.6
24-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
25-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
26-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
27-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
28-Jan	0	0	0	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
29-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
30-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
31-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
0.1 0.1 0.1 0.1 0.1 0.1 0.2 0.1 0.1 0.1 0.1 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.1 0.1 0.1 0.1 0.1 0.1																									Diurnal Average	
1.1 0.5 0.5 0.8 0.5 0.3 0.9 0.4 0.4 0.3 0.5 0.9 1.3 1.1 0.8 1.0 1.1 1.1 0.6 0.6 1.0 0.9 1.7 1.5																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb																										

Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Evergreen Park - January 2012



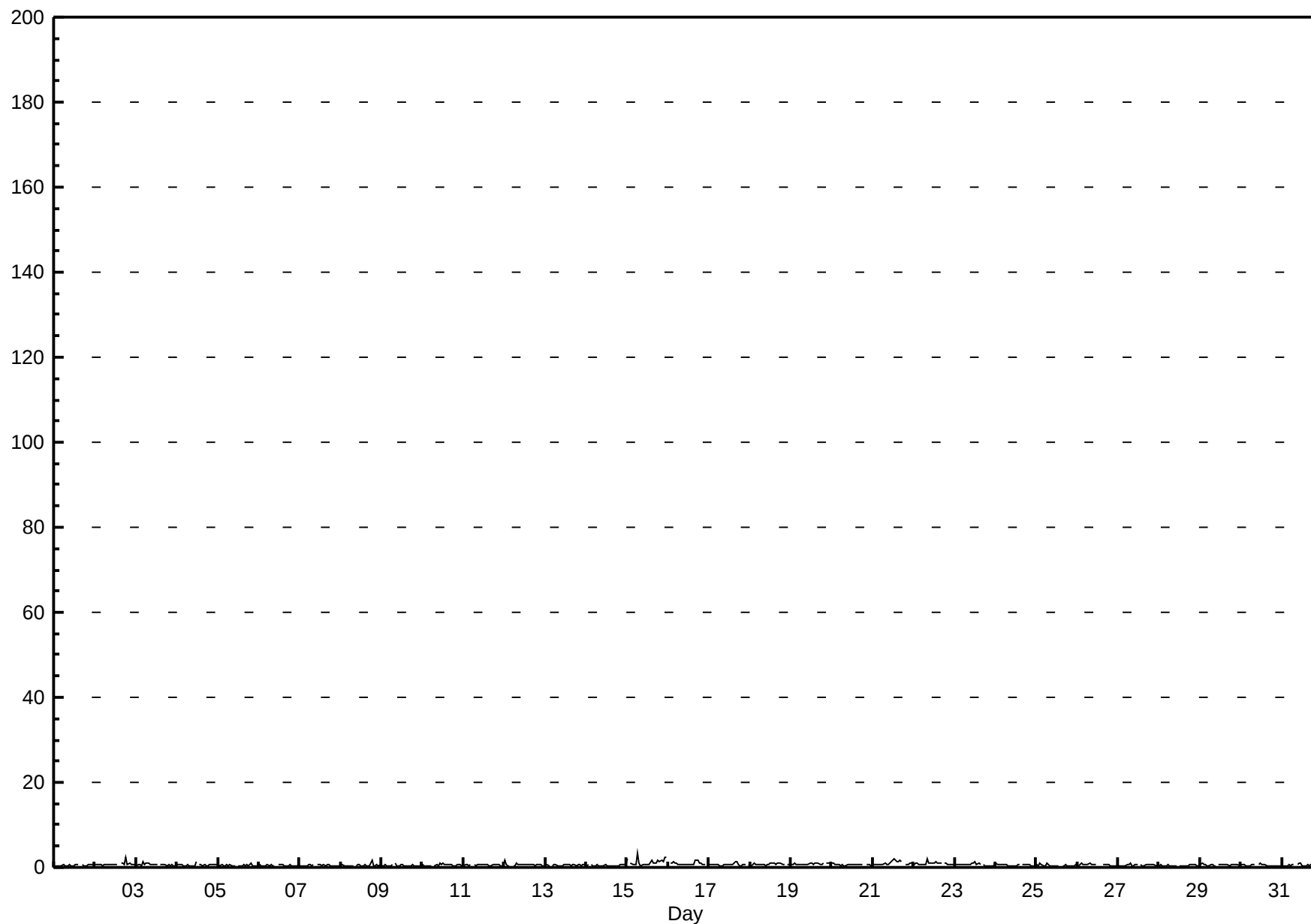
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb Evergreen Park - January 2012

Maximum Value: 3.5 ppb on Jan 15 07:00		Maximum Daily Average: 1.3 ppb on Jan 15		Hours in Service: 744																							
Minimum Value: 0 ppb on Jan 27 01:00		Minimum Daily Average: 0.5 ppb on Jan 9		Hours of Data: 710																							
Maximum Diurnal Average: 0.7 ppb at hour 12		Minimum Diurnal Average: 0.5 ppb at hour 4		Hours of Missing Data: 34																							
Monthly Average: 0.64 ppb		Percentiles: P ₁ = 0.3 P ₁₀ = 0.4 Q ₁ = 0.5 Median = 0.6 Q ₃ = 0.7 P ₉₀ = 0.9 P ₉₉ = 2.0		Hours of Calibration: 34																							
				Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
1-Jan	0	0	0	0	0	1	0	0	0	1	0	0	1	1	1	A	1	1	0	0	1	1	1	1	0.5	0.7	
2-Jan	1	1	1	1	0	1	1	1	1	1	1	1	1	1	A	1	1	1	2	1	1	1	1	1	0.8	2.3	
3-Jan	1	1	1	0	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0	1	0	1	1	0	0.7	1.4	
4-Jan	1	1	1	1	0	0	1	0	0	0	0	1	A	1	1	0	1	0	0	1	1	1	1	1	0.6	1.4	
5-Jan	1	0	1	0	0	1	0	1	0	0	0	A	0	0	0	1	0	1	0	1	0	1	0	0	0.5	1.0	
6-Jan	1	0	0	0	0	1	1	1	0	0	A	1	1	1	1	0	0	0	1	0	0	0	0	1	0.5	0.7	
7-Jan	0	0	0	0	1	1	1	0	1	A	1	1	1	0	1	0	1	1	0	0	0	0	0	0	0.5	0.8	
8-Jan	0	1	0	0	0	0	0	0	A	0	1	1	0	0	1	0	1	0	2	0	1	1	0	1	0.5	1.8	
9-Jan	0	0	1	0	0	0	1	A	1	0	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0.5	1.1	
10-Jan	1	0	0	0	0	0	A	0	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	0	0.6	0.9	
11-Jan	0	1	1	0	1	A	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	0	0	0.6	0.7	
12-Jan	2	1	0	0	A	0	0	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0.6	1.8	
13-Jan	0	1	0	A	0	1	1	0	0	0	0	1	1	1	1	0	1	1	0	1	1	0	1	1	0.5	0.8	
14-Jan	0	1	A	1	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	1	1	0.5	0.8	
15-Jan	2	A	1	1	1	1	4	1	0	1	1	1	1	1	2	1	1	1	2	1	2	1	2	2	1.3	3.5	
16-Jan	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	A	0.9	1.8	
17-Jan	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	0	1	1	A	1	0.7	1.5	
18-Jan	0	0	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.7	1.0	
19-Jan	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	
20-Jan	1	1	1	1	1	0	1	0	0	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0	0.7	0.9	
21-Jan	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	2	1	A	1	1	1	1	1	1.0	2.1	
22-Jan	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.9	2.0	
23-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0	0	0	0	0	0	0.7	1.3	
24-Jan	1	1	1	1	1	1	1	0	0	0	0	0	1	1	1	A	1	1	1	1	1	0	1	0	0.6	1.1	
25-Jan	1	0	1	1	0	0	1	1	0	0	0	1	0	0	A	0	0	1	0	0	0	0	0	1	0.5	1.0	
26-Jan	0	0	1	1	1	1	1	1	1	1	1	C	C	C	1	1	1	1	0	0	0	0	0	0	0.6	1.2	
27-Jan	0	0	0	0	0	1	1	1	0	0	1	A	1	0	0	0	1	1	1	1	1	0	0	0	0.5	0.9	
28-Jan	0	1	0	0	0	1	0	0	0	0	A	0	0	0	0	0	0	1	1	1	1	0	0	0	0.5	0.7	
29-Jan	1	1	1	1	1	1	1	1	0	0	A	1	1	1	1	1	1	1	1	1	1	1	0	0	0.6	0.9	
30-Jan	1	1	1	0	1	0	1	1	1	A	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0.5	1.0	
31-Jan	0	0	0	0	1	0	1	1	A	1	1	1	0	0	0	1	0	1	1	0	1	0	0	2	0.6	2.1	
0.6 0.6 0.6 0.5 0.6 0.6 0.7 0.6 0.6 0.6 0.6 0.7 0.7 0.7 0.7 0.7 0.7 0.6 0.7 0.6 0.6 0.6 0.6 0.7		Diurnal Average																									
2.2 1.1 1.2 1.3 1.4 0.9 3.5 1.1 2.0 0.9 1.0 1.4 2.1 1.5 1.8 1.5 1.7 1.8 2.3 1.2 1.7 1.3 2.3 2.4		Diurnal Maximum																									
C - Calibration		A - Automated Daily Zero Span																									

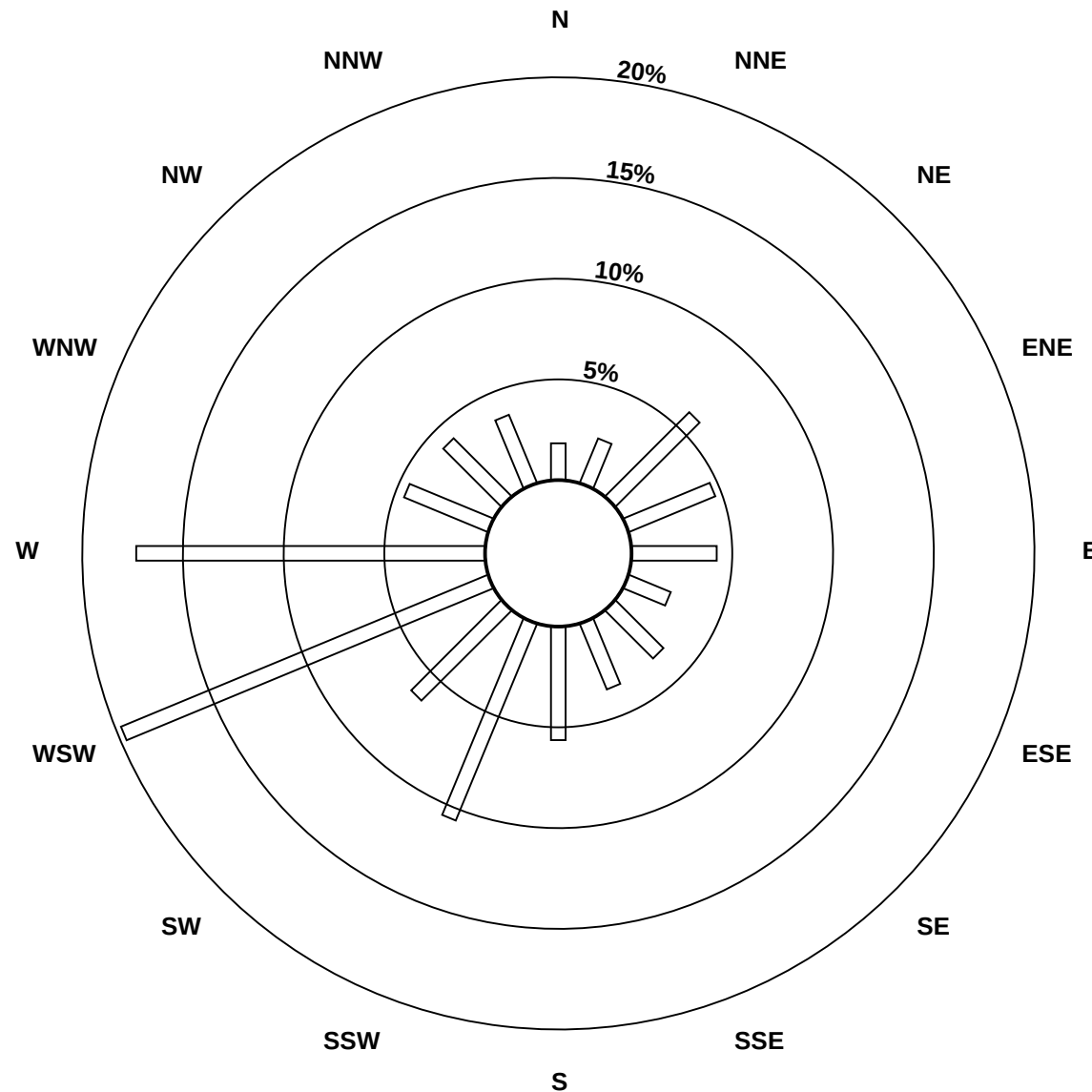
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Evergreen Park - January 2012

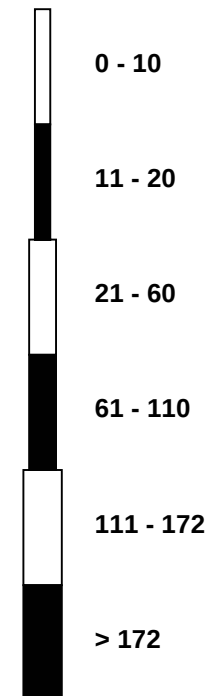


Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Evergreen Park - January 2012

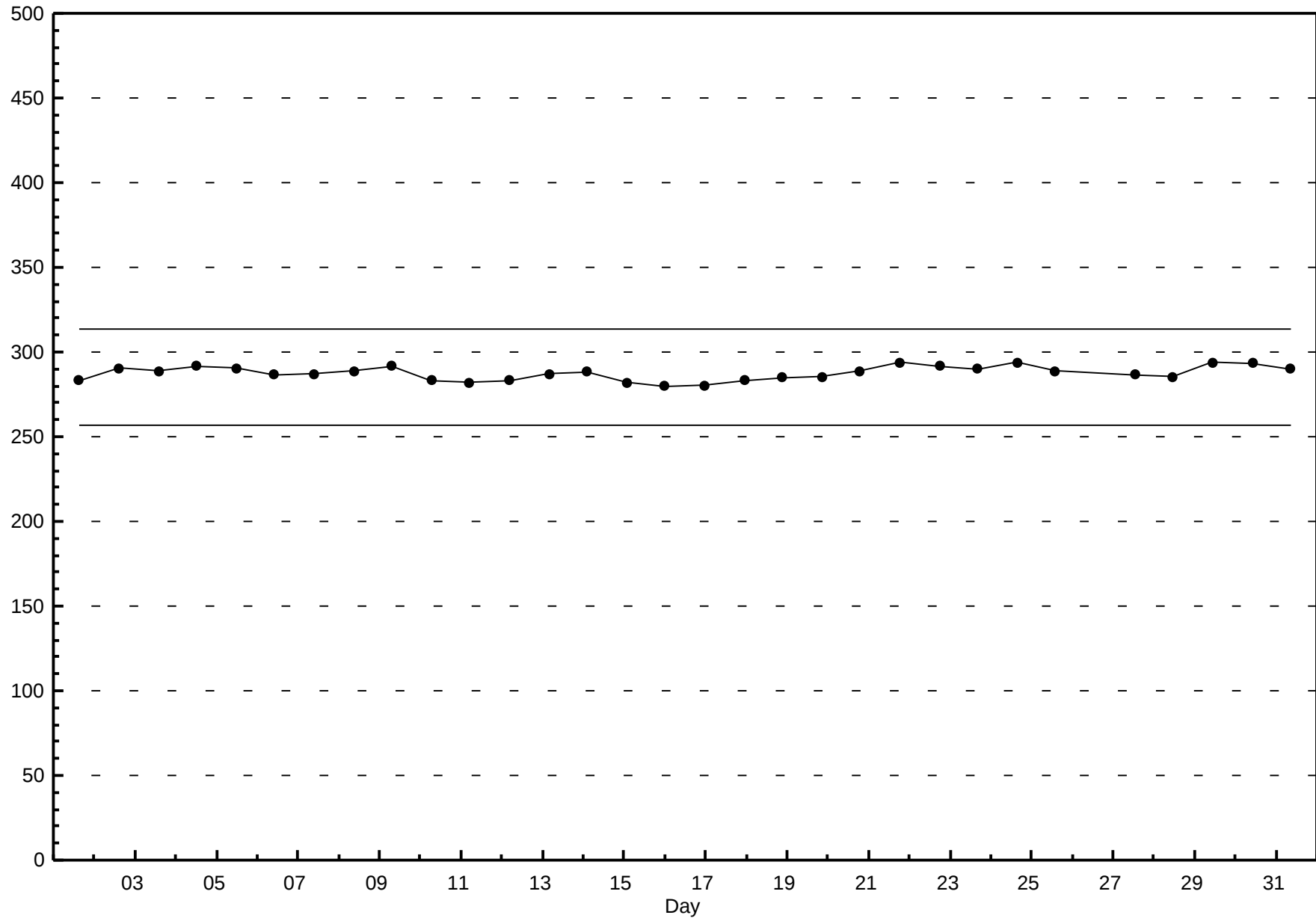


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Evergreen Park - January 2012



Hourly Averages

Total Reduced Sulphur (TRS) - ppb

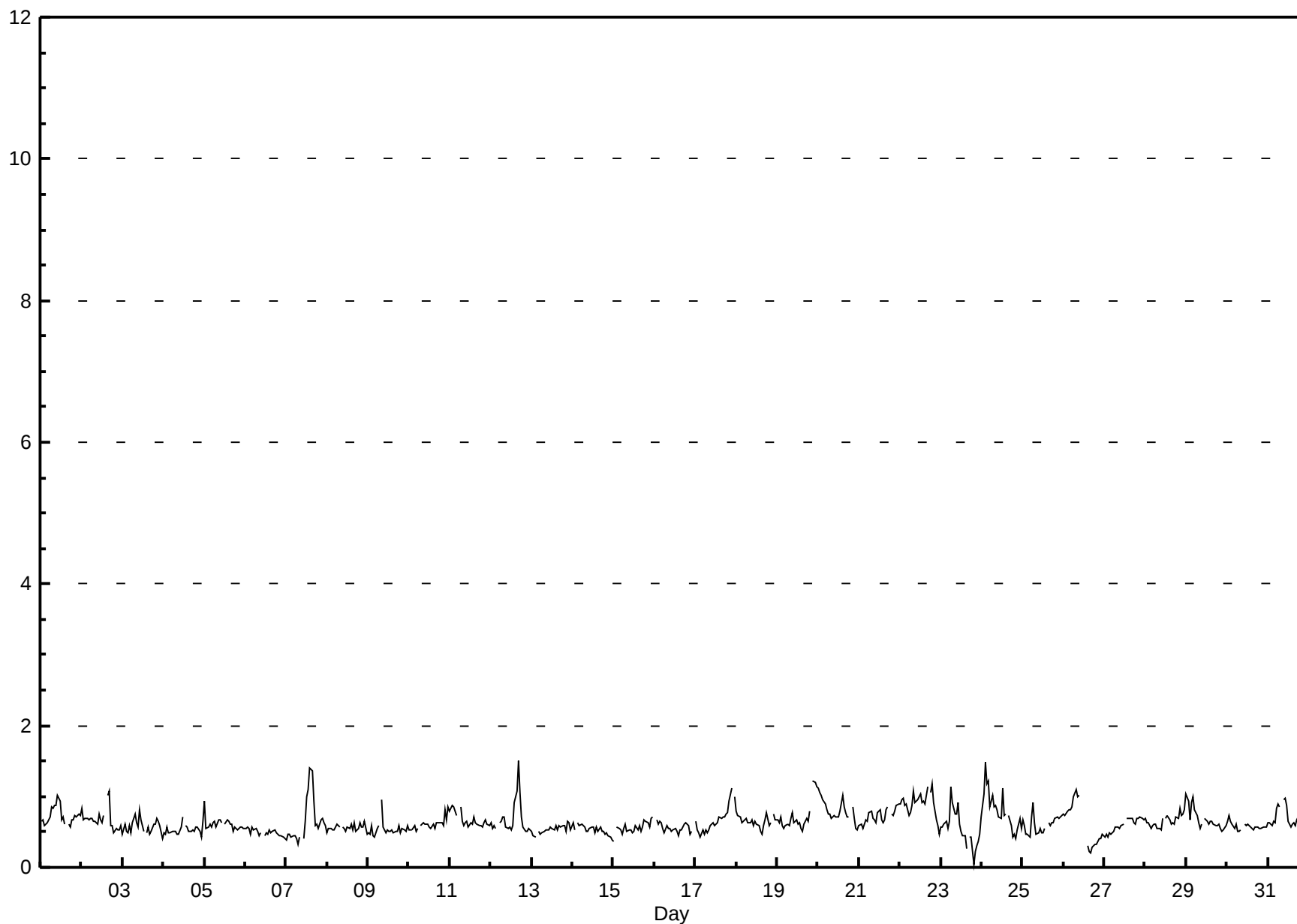
Evergreen Park - January 2012

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0		Maximum Value: 1.5 ppb on Jan 12 17:00		Maximum Daily Average: 0.9 ppb on Jan 22		Hours in Service: 744		Hours of Data: 709		Hours of Missing Data: 35		Hours of Calibration: 35		Percent Operational Time: 100.0												
Minimum Value: 0 ppb on Jan 23 20:00		Minimum Daily Average: 0.5 ppb on Jan 6		Minimum Diurnal Average: 0.6 ppb at hour 20		Maximum Diurnal Average: 0.7 ppb at hour 7		Monthly Average: 0.64 ppb		Percentiles: P ₁ = 0.3 P ₁₀ = 0.5 Q ₁ = 0.5 Median = 0.6 Q ₃ = 0.7 P ₉₀ = 0.9 P ₉₉ = 1.2																
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0.7	1.0
2-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0	1	1	1	1	0.7	1.1
3-Jan	0	1	0	0	1	0	1	1	1	1	1	1	1	A	0	1	0	1	1	1	1	1	1	0	0.6	0.8
4-Jan	0	0	1	0	0	1	1	1	0	0	1	1	A	1	1	1	1	1	1	1	1	1	0	1	0.5	0.7
5-Jan	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.9
6-Jan	1	1	1	0	1	1	1	1	0	0	A	0	0	0	1	0	1	1	0	0	0	0	0	0	0.5	0.6
7-Jan	0	0	0	0	0	0	0	0	0	A	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.4
8-Jan	0	1	1	1	1	1	1	1	A	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0.6	0.7
9-Jan	0	0	1	0	0	1	1	A	A	1	0	1	1	1	1	0	1	1	1	0	1	1	1	1	0.5	0.9
10-Jan	1	1	1	1	0	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.9
11-Jan	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
12-Jan	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0.7	1.5
13-Jan	0	0	0	A	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.5	0.7
14-Jan	1	1	A	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0	0	0	0	0	0.5	0.6
15-Jan	0	A	1	1	1	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.7
16-Jan	A	1	1	1	1	1	0	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0	1	A	0.6	0.7
17-Jan	1	1	0	0	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.7	1.1
18-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	A	1	1	0.6	0.8
19-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.7	1.2
20-Jan	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
21-Jan	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	0.9
22-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0	0	0.9	1.2
23-Jan	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	A	1	0	0	0	0	0	0	0	0.5	1.1
24-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0	0	0	0	1	1	1	0.8	1.5
25-Jan	1	1	0	0	0	1	1	1	0	0	1	0	0	1	A	1	1	1	1	1	1	1	1	1	0.6	0.9
26-Jan	1	1	1	1	1	1	1	1	1	1	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0.6	1.1
27-Jan	0	0	0	0	0	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.6	0.7
28-Jan	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.8
29-Jan	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0
30-Jan	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.7
31-Jan	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0
																								Diurnal Average	Diurnal Maximum	
																								0.7	1.1	
																								1.5	1.2	

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 - January 2012



Hourly Maximums

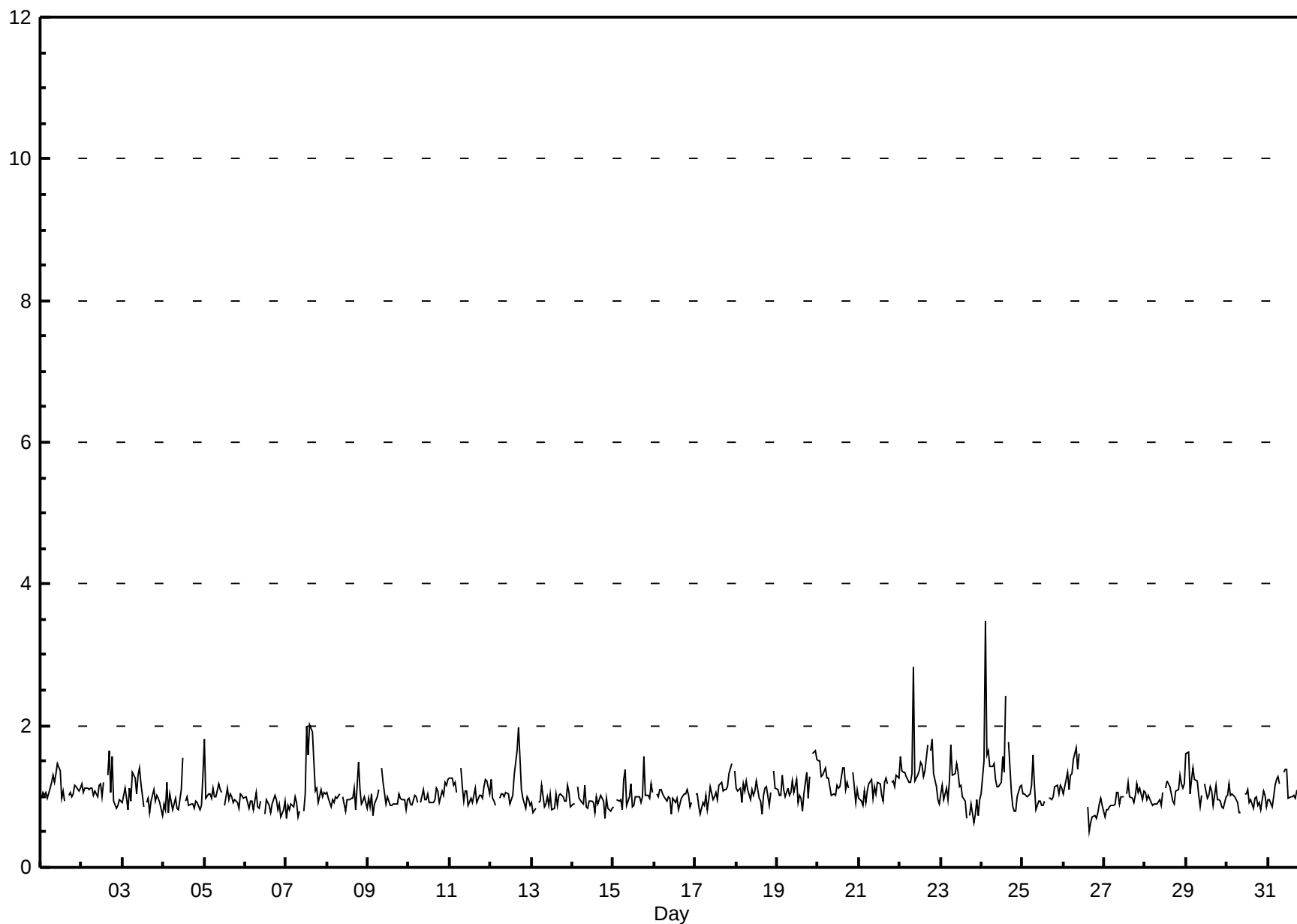
Total Reduced Sulphur (TRS) - ppb

Evergreen Park - January 2012

Maximum Value: 3.5 ppb on Jan 24 03:00		Maximum Daily Average: 1.4 ppb on Jan 22		Hours in Service: 744																							
Minimum Value: 1 ppb on Jan 26 16:00		Minimum Daily Average: 0.9 ppb on Jan 6		Hours of Data: 709																							
Maximum Diurnal Average: 1.2 ppb at hour 7		Minimum Diurnal Average: 1.0 ppb at hour 20		Hours of Missing Data: 35																							
Monthly Average: 1.06 ppb		Percentiles: $P_1 = 0.7$ $P_{10} = 0.8$ $Q_1 = 0.9$ Median = 1.0 $Q_3 = 1.1$ $P_{90} = 1.3$ $P_{99} = 2.0$		Hours of Calibration: 35																							
				Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
1-Jan	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	
2-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	2	1	1	1	1	1.1	1.7	
3-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.4	
4-Jan	1	1	1	1	1	1	1	1	1	1	1	2	A	1	1	1	1	1	1	1	1	1	1	1	1.0	1.5	
5-Jan	2	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.8	
6-Jan	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.1	
7-Jan	1	1	1	1	1	1	1	1	1	1	A	1	1	2	2	2	2	1	1	1	1	1	1	1	1.1	2.0	
8-Jan	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.5	
9-Jan	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.4	
10-Jan	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	1.2	
11-Jan	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.4	
12-Jan	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	2	2	2	1	1	1	1	1	1	1.1	2.0	
13-Jan	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	1.2	
14-Jan	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.2	
15-Jan	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1.0	1.6	
16-Jan	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1.0	1.1	
17-Jan	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	
18-Jan	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	1.4	
19-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	2	2	2	1.1	1.6	
20-Jan	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1.2	1.5	
21-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1.1	1.3	
22-Jan	2	1	1	1	1	1	1	1	3	1	1	1	1	1	1	2	A	2	2	2	1	1	1	1	1.4	2.8	
23-Jan	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1.1	1.7	
24-Jan	1	2	3	2	2	1	1	1	1	1	1	2	1	2	A	2	1	1	1	1	1	1	1	1	1.4	3.5	
25-Jan	1	1	1	1	1	1	2	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1.0	1.6	
26-Jan	1	1	1	1	1	1	2	2	1	2	C	C	C	C	1	1	1	1	1	1	1	1	1	1	1.1	1.7	
27-Jan	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	1.2	
28-Jan	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	1.3	
29-Jan	2	2	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.6	
30-Jan	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.2	
31-Jan	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1.1	2.1	
1.1		1.1	1.1	1.0	1.1	1.0	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.0	1.1	1.0	1.1	1.0	1.1	1.0	1.0	1.0	1.0	1.1	Diurnal Average		
1.8		1.6	3.5	1.6	1.6	1.4	1.7	1.7	2.8	1.6	1.5	1.5	2.0	1.6	2.4	1.9	2.0	1.5	1.7	1.8	1.3	1.6	1.6	2.1	Diurnal Maximum		
C - Calibration		A - Automated Daily Zero Span																									

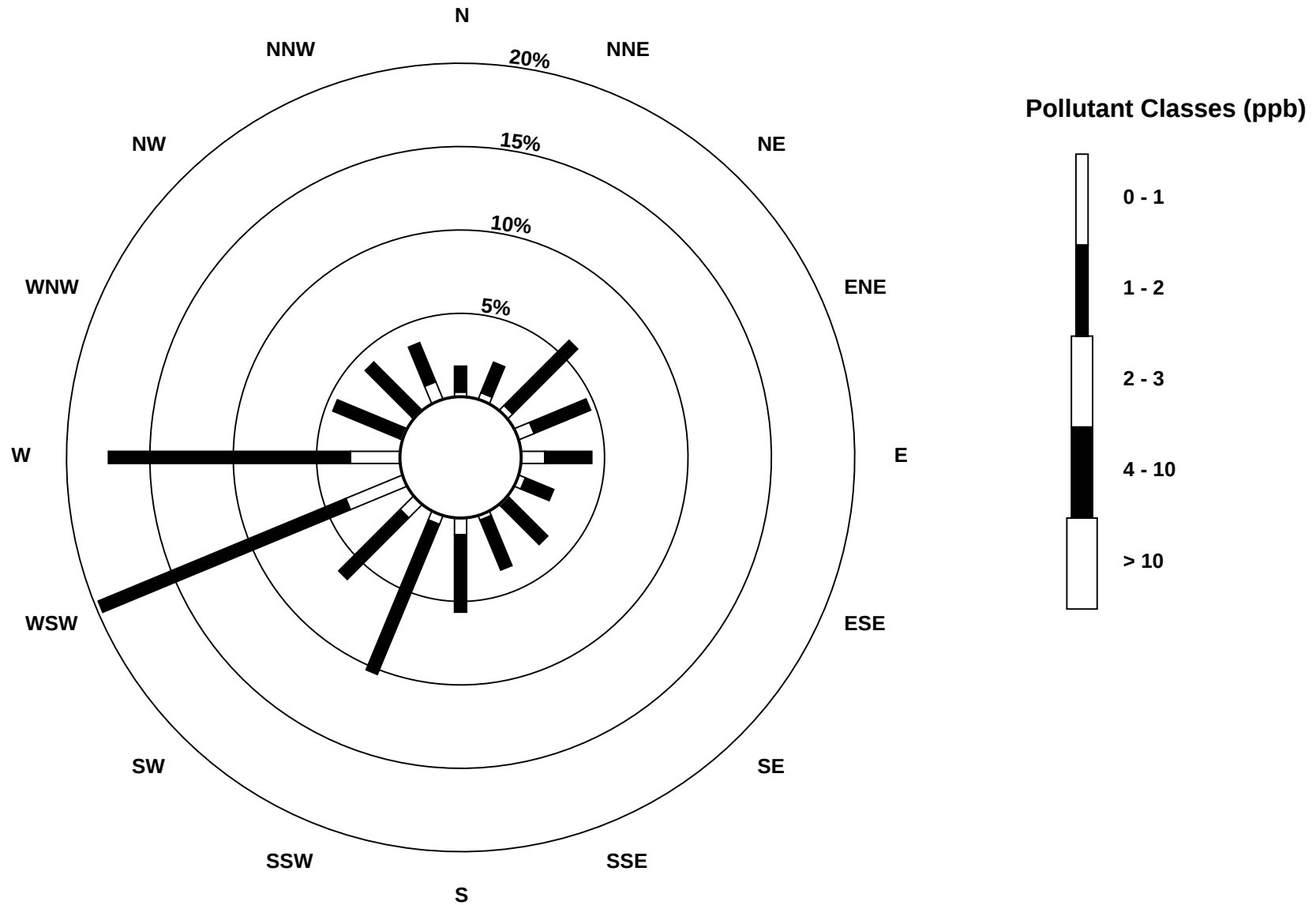
Hourly Maximums

Total Reduced Sulphur (TRS) - ppb
Evergreen Park - January 2012



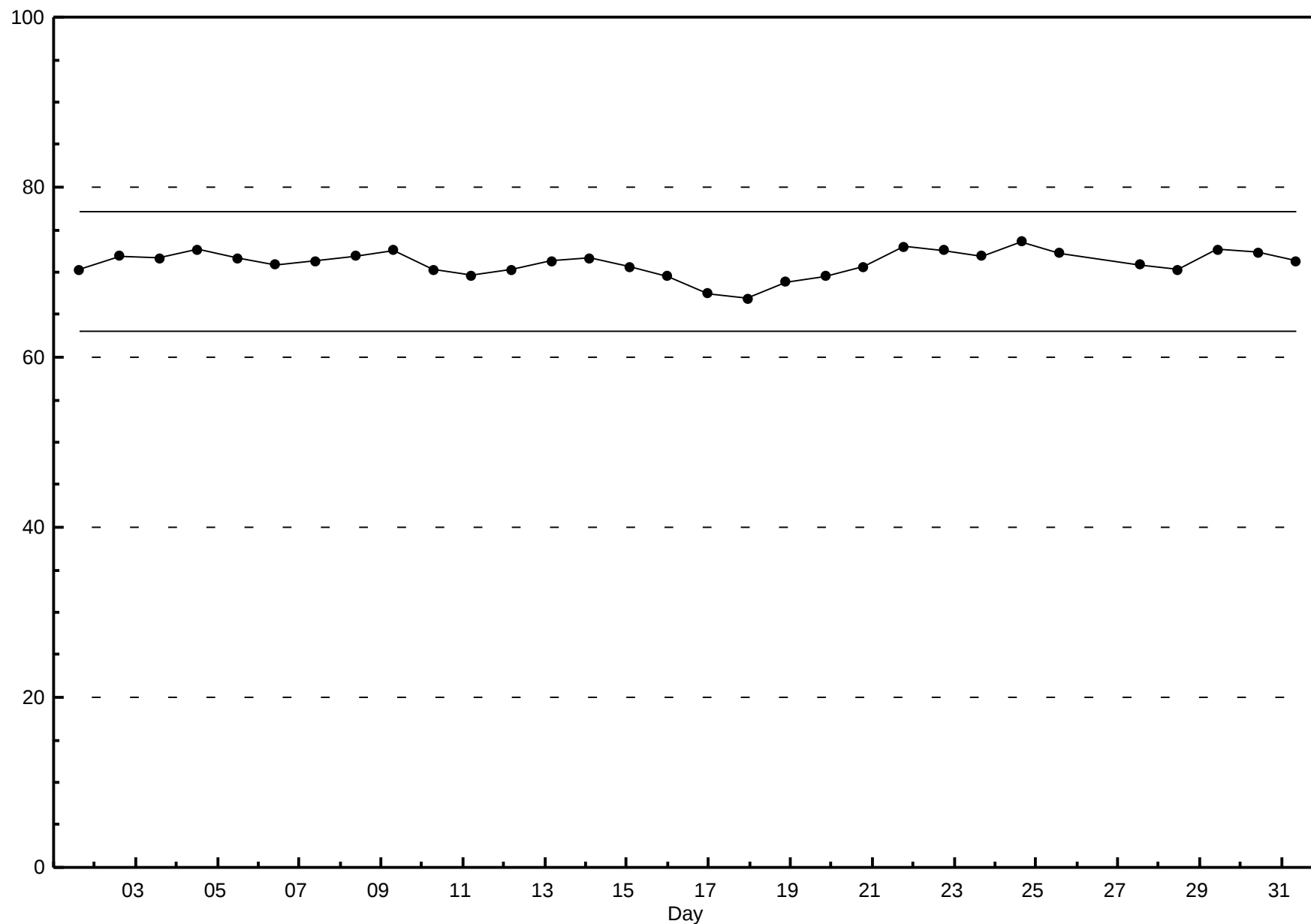
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb
Evergreen Park - January 2012



Span Responses

Total Reduced Sulphur (TRS)
Evergreen Park - January 2012

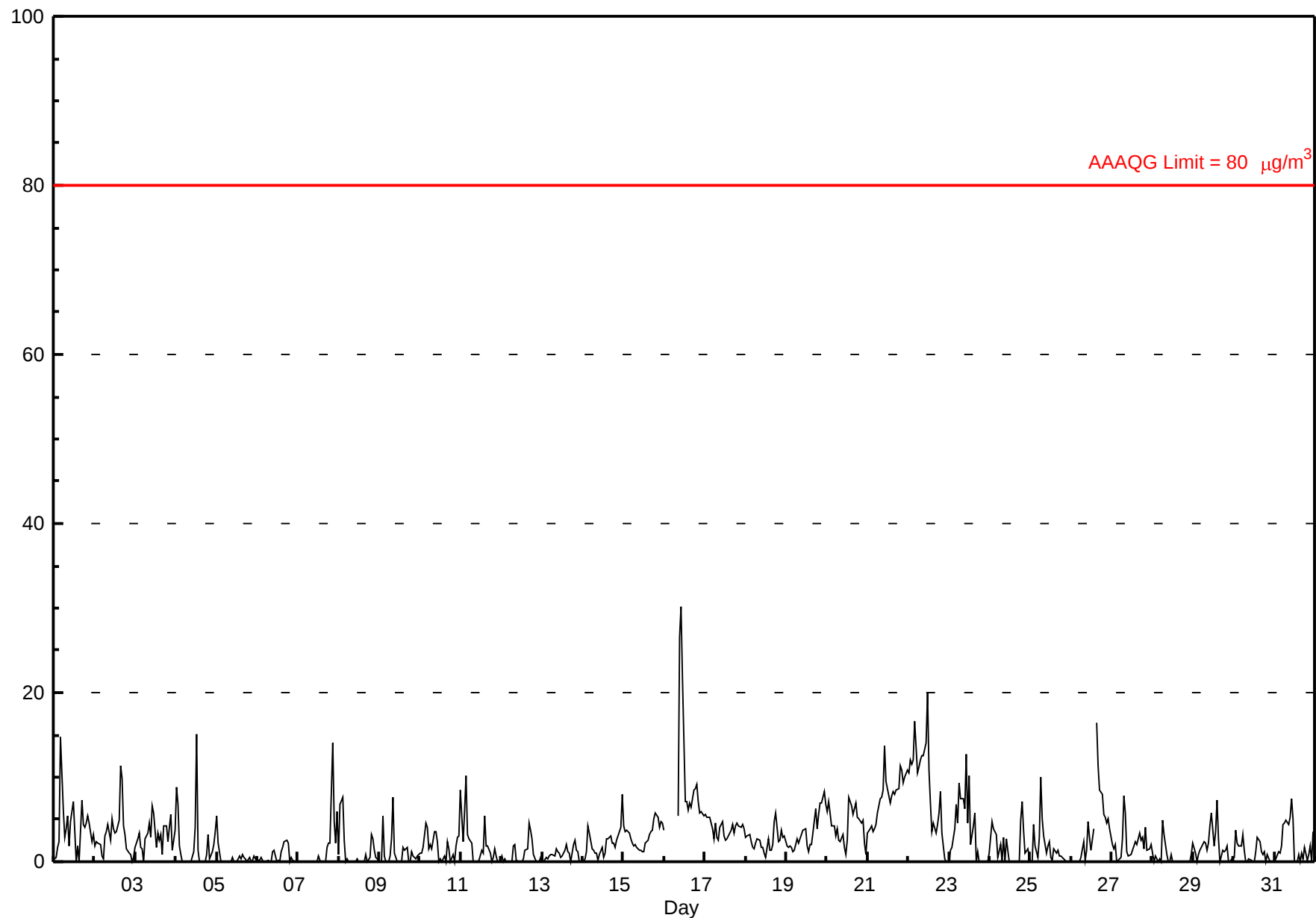


Hourly Averages

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

Evergreen Park - January 2012

Number of Exceedences: 1-hr: 0 24-hr: 0 Maximum Value: 30.2 µg/m ³ on Jan 16 11:00 Minimum Value: 0 µg/m ³ on Jan 1 14:00 Maximum Diurnal Average: 4.2 µg/m ³ at hour 11 Monthly Average: 2.76 µg/m ³																										
Maximum Daily Average: 8.6 µg/m ³ on Jan 22 Minimum Daily Average: 0.5 µg/m ³ on Jan 5 Minimum Diurnal Average: 1.9 µg/m ³ at hour 6 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.3 Median = 1.8 Q ₃ = 3.9 P ₉₀ = 6.9 P ₉₉ = 14.0																										
Hours in Service: 744 Hours of Data: 733 Hours of Missing Data: 11 Hours of Calibration: 1 Percent Operational Time: 98.7																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Jan	0	1	2	2	15	6	3	4	5	2	5	7	4	0	2	0	7	4	4	5	5	5	2	3	3.9	14.8
2-Jan	2	2	2	2	1	0	3	3	4	3	5	4	3	4	5	11	10	4	3	1	1	1	0	1	3.2	11.4
3-Jan	2	3	3	2	2	0	3	3	5	3	7	6	2	3	2	3	1	4	4	2	4	6	1	4	3.1	6.7
4-Jan	9	7	2	1	0	0	0	N	0	0	1	4	15	1	0	0	0	0	1	3	0	1	2	4	2.2	15.1
5-Jan	5	2	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	0	0	1	0	0.5	5.4
6-Jan	0	0	1	0	0	0	0	0	0	1	1	0	0	0	1	2	2	3	2	0	0	0	0	0	0.6	2.5
7-Jan	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	2	2	14	5	2	6	1.4	14.1
8-Jan	1	7	8	3	0	0	0	0	0	0	0	0	0	0	0	1	0	1	3	3	1	0	0	0	1.2	7.6
9-Jan	0	0	5	1	0	0	1	3	8	1	0	0	0	0	2	1	2	0	0	1	1	0	1	1	1.1	7.6
10-Jan	1	1	2	5	4	2	2	2	3	4	2	0	0	0	1	0	2	2	0	1	0	2	3	3	1.7	4.6
11-Jan	8	2	6	10	3	3	2	0	N	0	0	0	1	1	5	2	2	1	0	1	2	1	0	0	2.2	10.2
12-Jan	1	0	0	0	0	0	0	2	2	0	0	0	0	0	1	1	5	4	3	1	0	0	0	0	0.8	4.5
13-Jan	0	0	1	0	1	1	1	1	2	1	1	0	1	1	2	1	1	0	2	3	1	1	0	0	0.9	2.6
14-Jan	0	0	1	4	3	2	1	1	1	0	1	2	0	1	3	3	3	2	2	2	2	3	4	8	2.1	8.0
15-Jan	4	4	4	3	3	2	2	2	2	1	1	1	1	2	3	3	3	4	5	6	5	4	5	5	3.1	5.7
16-Jan	4	N	N	N	N	N	N	N	5	27	30	22	7	7	6	7	6	9	9	9	7	6	6	5	--	30.2
17-Jan	6	5	5	5	4	3	5	3	3	4	5	3	3	3	4	4	3	4	5	4	4	4	4	4	3.9	5.5
18-Jan	3	3	3	2	2	2	2	3	3	2	2	1	0	3	1	1	2	5	6	2	3	4	3	3	2.5	5.7
19-Jan	2	2	2	2	1	1	3	2	3	3	4	4	2	1	2	2	3	6	4	6	7	7	8	7	3.5	8.3
20-Jan	6	7	6	4	4	3	4	2	2	3	2	1	3	8	7	6	6	7	5	5	5	5	2	1	4.3	7.6
21-Jan	3	4	4	4	4	4	6	7	8	9	14	9	8	7	8	8	8	9	9	11	11	9	10	11	7.7	13.7
22-Jan	11	12	11	12	17	11	11	12	12	13	14	20	11	7	4	5	3	4	6	8	3	0	0	0	8.6	20.0
23-Jan	0	1	2	4	7	5	9	8	7	6	13	5	10	2	4	6	0	1	0	0	0	0	0	0	3.7	12.7
24-Jan	1	5	4	3	3	1	2	0	3	0	3	0	0	0	0	0	0	0	5	7	4	1	1	1	1.8	7.1
25-Jan	0	0	4	2	0	3	10	5	3	1	2	2	1	0	1	1	1	1	1	1	0	0	0	0	1.6	10.0
26-Jan	0	0	0	0	0	0	0	2	0	1	5	3	1	4	C	17	11	9	8	6	5	5	5	4	3.7	16.5
27-Jan	2	1	2	0	0	0	3	8	6	1	1	1	1	2	2	2	3	2	3	2	4	1	2	2	2.2	7.8
28-Jan	1	0	1	0	0	0	5	3	1	0	0	1	0	0	0	N	0	0	0	0	0	0	0	1	0.6	4.9
29-Jan	2	1	0	1	1	2	2	2	1	2	4	6	2	3	7	3	0	1	1	1	2	0	0	0	2.0	7.3
30-Jan	0	4	2	2	2	3	1	0	0	0	0	0	0	1	3	2	1	1	1	0	1	0	0	0	1.1	3.7
31-Jan	0	0	1	1	2	4	5	5	4	5	8	5	0	0	1	0	1	0	2	0	1	2	0	4	2.1	7.5
2.4 2.5 2.8 2.5 2.6 1.9 2.9 2.9 3.1 3.0 4.2 3.5 2.5 2.0 2.6 3.1 3.0 2.8 3.0 3.0 3.1 2.4 2.0 2.5 Diurnal Average 10.6 12.1 11.5 12.0 16.5 10.6 11.1 12.0 12.5 26.7 30.2 21.7 15.1 7.6 7.8 16.5 11.3 8.6 8.6 11.3 14.1 9.4 10.0 10.8 Diurnal Maximum																										
C - Calibration N - Not Valid Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 µg/m ³ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 µg/m ³																										

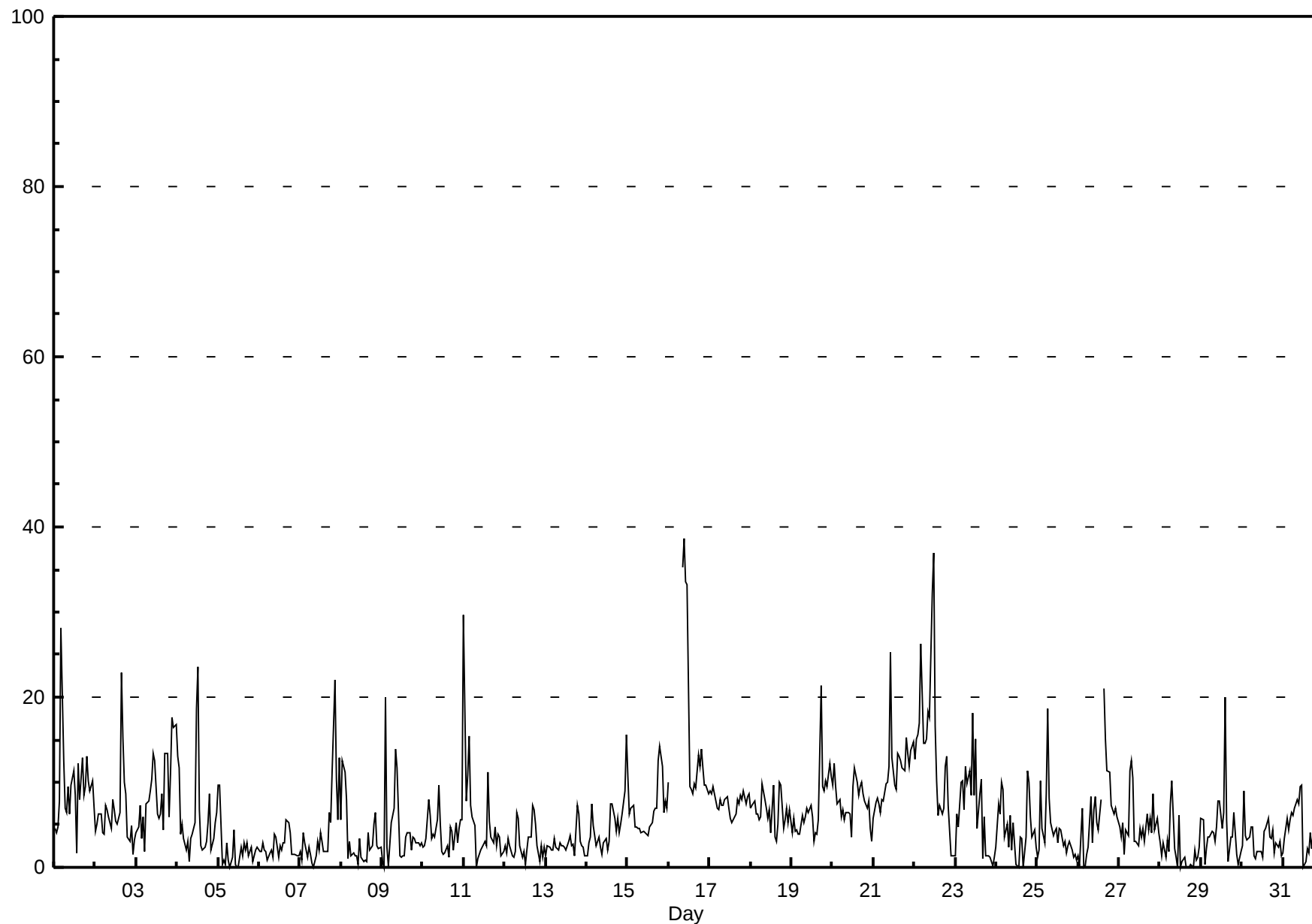


Hourly Maximums

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

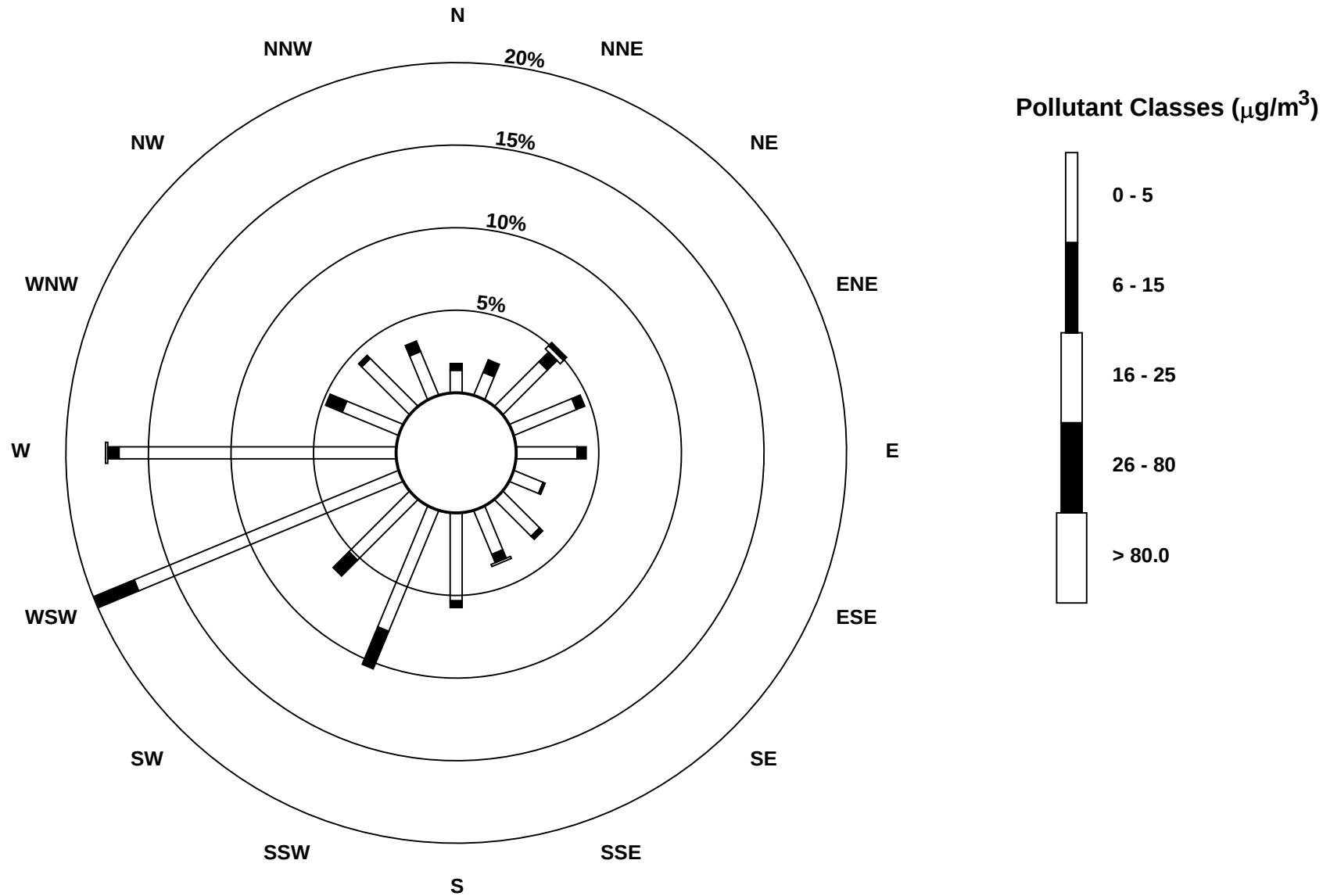
Evergreen Park - January 2012

Maximum Value: 38.7 μg/m ³ on Jan 16 10:00																								Maximum Daily Average: 13.6 μg/m ³ on Jan 22										Hours in Service: 744	
Minimum Value: 0 μg/m ³ on Jan 5 08:00																								Minimum Daily Average: 2.0 μg/m ³ on Jan 28										Hours of Data: 736	
Maximum Diurnal Average: 7.7 μg/m ³ at hour 11																								Minimum Diurnal Average: 4.4 μg/m ³ at hour 14										Hours of Missing Data: 8	
Monthly Average: 5.92 μg/m ³																								Percentiles: P ₁ = 0.0 P ₁₀ = 1.3 Q ₁ = 2.4 Median = 4.5 Q ₃ = 8.0 P ₉₀ = 11.6 P ₉₉ = 27.5										Hours of Calibration: 1	
																								Percent Operational Time: 99.1											
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum									
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24											
1-Jan	5	4	5	8	28	13	7	6	9	6	10	11	8	2	12	8	13	8	9	13	10	9	10	7	9.3	28.2									
2-Jan	4	5	6	6	4	4	7	7	6	5	8	7	6	5	7	23	15	10	9	4	3	5	2	3	6.6	22.8									
3-Jan	4	5	7	3	6	2	7	8	9	10	13	13	6	6	6	9	4	13	13	6	11	18	16	17	8.9	17.7									
4-Jan	13	12	4	5	3	2	3	1	3	4	5	19	24	7	3	2	2	3	5	9	2	3	5	7	6.1	23.6									
5-Jan	10	10	0	1	0	3	1	0	1	4	0	0	0	2	1	3	2	3	1	2	1	1	2	2	2.2	9.7									
6-Jan	2	2	3	2	2	1	2	2	1	4	4	1	3	2	3	3	6	5	4	2	2	2	1	1	2.4	5.5									
7-Jan	2	1	4	3	1	2	2	1	0	1	3	2	4	3	2	2	2	7	5	11	22	10	6	13	4.5	22.1									
8-Jan	6	13	11	8	1	3	1	2	1	1	0	3	1	1	1	4	2	3	5	7	3	2	2	3	3.4	12.6									
9-Jan	1	0	20	2	0	5	6	7	14	12	1	1	1	1	4	4	4	2	4	3	3	3	3	3	4.3	19.9									
10-Jan	2	3	3	8	6	3	4	4	6	10	5	2	2	2	3	1	5	4	2	5	3	5	6	6	4.0	9.7									
11-Jan	30	8	11	16	7	6	5	0	1	2	2	2	3	3	11	6	4	3	5	3	4	4	1	2	5.7	29.7									
12-Jan	3	2	3	3	1	1	2	6	6	3	1	2	0	2	4	4	7	7	5	3	1	3	1	2	2.9	7.2									
13-Jan	1	3	2	2	2	3	2	2	3	3	3	2	2	3	4	3	3	1	7	6	3	3	2	1	2.8	7.2									
14-Jan	1	3	3	7	5	3	3	4	2	2	3	3	2	3	7	7	6	4	6	4	5	6	9	16	4.8	15.5									
15-Jan	11	6	7	7	5	5	5	5	4	4	4	4	4	5	5	7	7	7	13	14	12	6	8	7	6.7	14.3									
16-Jan	10	N	N	N	N	N	N	N	35	39	34	33	9	9	9	10	9	13	12	14	12	10	10	9	--	38.7									
17-Jan	9	9	9	9	7	7	8	7	7	8	8	7	6	5	6	6	8	7	8	8	9	7	8	9	7.6	9.4									
18-Jan	7	7	8	6	6	6	6	10	8	7	6	7	4	10	4	3	5	10	10	5	6	7	5	7	6.6	9.9									
19-Jan	4	6	4	4	4	4	6	5	6	7	7	7	6	3	4	4	6	21	9	9	10	9	12	11	7.0	21.4									
20-Jan	10	12	9	7	8	6	7	6	6	6	6	4	9	12	10	8	9	10	9	8	7	8	5	3	7.7	12.2									
21-Jan	6	8	8	7	6	8	8	10	10	12	25	13	10	9	13	13	13	12	11	15	13	12	14	15	11.3	25.3									
22-Jan	13	15	16	17	26	15	15	15	18	18	32	37	17	10	6	7	6	7	12	13	7	1	1	1	13.6	36.9									
23-Jan	1	6	5	10	10	7	12	10	11	8	18	8	15	5	9	10	1	6	1	1	1	1	0	1	6.6	18.2									
24-Jan	2	7	6	10	9	4	5	2	6	2	5	0	0	0	4	3	0	4	11	10	6	4	4	2	4.5	11.4									
25-Jan	1	2	10	5	3	9	19	8	5	4	4	5	3	5	4	3	3	2	3	3	2	1	2	1	4.4	18.7									
26-Jan	1	0	7	0	0	2	2	8	3	7	8	5	4	8	C	21	15	11	11	7	7	6	7	6	6.4	21.1									
27-Jan	5	4	5	2	4	4	11	13	10	3	3	3	5	4	5	3	6	4	6	4	9	4	6	4	5.2	12.6									
28-Jan	3	1	3	1	3	2	7	10	2	1	0	6	0	1	1	0	0	0	0	0	2	1	1	2	2.0	10.2									
29-Jan	6	6	0	2	4	3	4	4	3	5	8	8	5	7	20	6	1	4	4	6	4	2	0	2	4.6	19.9									
30-Jan	3	9	4	3	4	5	5	1	1	2	2	2	1	4	5	6	4	3	4	2	3	2	3	1	3.2	8.9									
31-Jan	2	3	6	4	6	6	6	7	8	7	9	10	0	1	2	2	4	2	4	2	3	3	2	14	4.7	13.6									
5.7 5.6 6.4 5.7 5.8 4.7 5.9 5.7 6.7 6.7 7.7 7.3 5.2 4.4 5.7 6.0 5.6 6.3 6.7 6.4 6.0 5.1 5.0 5.7																								Diurnal Average											
29.7 15.1 19.9 17.0 28.2 14.6 18.7 15.1 35.3 38.7 33.6 36.9 23.6 11.7 19.9 22.8 15.3 21.4 13.3 15.3 22.1 17.7 16.4 16.7																								Diurnal Maximum											
C - Calibration N - Not Valid																																			



Pollutant Rose

Particulate Matter 2.5 (PM_{2.5}) - µg/m³
Evergreen Park - January 2012



Hourly Averages

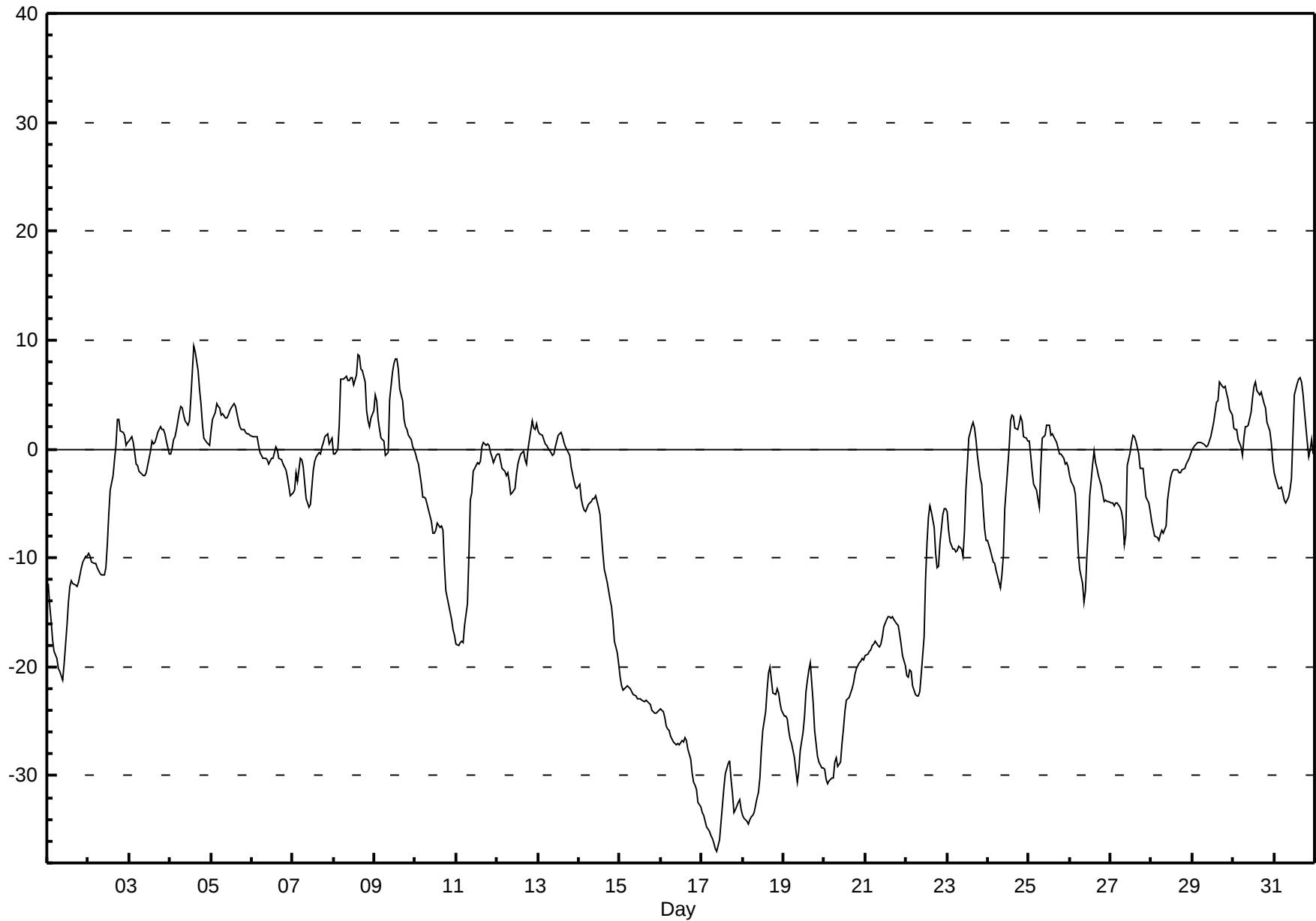
External Temperature (ET) - °C

Evergreen Park - January 2012

Number of Exceedences (AAAQO):		1-hr: 0 24-hr: 0		Hours in Service: 744																						
Maximum Value: 9.5 °C on Jan 4 15:00		Maximum Daily Average: 4.9 °C on Jan 8		Hours of Data: 744																						
Minimum Value: -37 °C on Jan 17 10:00		Minimum Daily Average: -33.3 °C on Jan 17		Hours of Missing Data: 0																						
Maximum Diurnal Average: -4.8 °C at hour 15		Minimum Diurnal Average: -10.3 °C at hour 9		Hours of Calibration: 0																						
Monthly Average: -7.87 °C		Percentiles: P ₁ = -34.7 P ₁₀ = -26.6 Q ₁ = -17.1 Median = -3.5 Q ₃ = 0.7 P ₉₀ = 3.1 P ₉₉ = 7.4		Percent Operational Time: 100.0																						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Jan	-12	-14	-16	-18	-19	-19	-20	-20	-21	-21	-20	-16	-14	-13	-12	-12	-12	-13	-12	-12	-11	-10	-10	-10	-14.9	-9.8
2-Jan	-10	-10	-10	-11	-10	-11	-11	-11	-12	-12	-11	-9	-6	-4	-2	-1	0	3	3	2	1	1	0	1	-5.4	2.7
3-Jan	1	1	1	0	-1	-1	-2	-2	-2	-2	-2	-1	0	1	0	1	1	2	2	2	2	1	1	0	-0.1	2.1
4-Jan	-1	0	1	1	2	3	4	4	3	3	2	3	5	7	9	9	7	6	4	2	1	1	0	0	3.2	9.5
5-Jan	2	3	3	4	4	4	3	3	3	3	3	4	4	4	4	3	3	2	2	2	1	1	1	1	2.8	4.2
6-Jan	1	1	1	1	0	0	-1	-1	-1	-1	-1	-1	-1	0	0	0	-1	-1	-1	-2	-2	-3	-4	-4	-0.8	1.1
7-Jan	-4	-4	-2	-3	-1	-1	-2	-3	-5	-5	-5	-4	-2	-1	-1	0	0	0	1	1	1	0	1	1	-1.5	1.4
8-Jan	0	0	0	2	6	6	6	7	6	6	7	7	6	7	9	8	7	7	6	4	3	2	3	4	4.9	8.6
9-Jan	5	4	3	2	1	1	-1	0	0	5	7	8	8	8	7	6	4	3	2	2	1	1	0	0	3.2	8.3
10-Jan	0	-1	-1	-3	-4	-4	-4	-5	-6	-7	-8	-8	-7	-7	-7	-7	-7	-11	-13	-14	-15	-16	-17	-17	-8.0	-0.4
11-Jan	-18	-18	-18	-18	-18	-16	-14	-10	-5	-4	-2	-2	-1	-1	-1	0	1	0	0	0	0	-1	-1	-1	-6.1	0.6
12-Jan	0	0	-1	-2	-2	-2	-2	-3	-4	-4	-4	-2	-1	-1	0	0	-1	-1	0	1	3	2	2	2	-1.0	2.6
13-Jan	2	1	1	1	1	0	0	0	-1	-1	0	1	1	2	1	1	0	0	-1	-2	-2	-3	-4	-4	-0.2	1.7
14-Jan	-3	-5	-5	-6	-6	-5	-5	-5	-5	-5	-4	-5	-6	-8	-10	-11	-12	-13	-14	-15	-16	-18	-19	-20	-9.1	-3.3
15-Jan	-21	-22	-22	-22	-22	-22	-22	-22	-22	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-24	-24	-24	-24	-24	-22.8	-21.0
16-Jan	-24	-24	-25	-25	-26	-26	-26	-27	-27	-27	-27	-27	-27	-27	-27	-27	-28	-28	-30	-31	-31	-31	-32	-33	-27.6	-23.9
17-Jan	-33	-34	-34	-35	-35	-36	-36	-36	-37	-37	-36	-34	-33	-31	-30	-29	-29	-30	-32	-33	-33	-32	-32	-33	-33.3	-28.7
18-Jan	-34	-34	-34	-34	-34	-34	-34	-33	-32	-32	-30	-28	-26	-24	-22	-21	-20	-21	-22	-22	-22	-22	-23	-24	-27.6	-20.0
19-Jan	-25	-25	-25	-26	-27	-27	-28	-30	-31	-30	-28	-26	-24	-22	-21	-20	-20	-23	-26	-27	-28	-29	-29	-29	-26.0	-19.6
20-Jan	-29	-30	-31	-31	-30	-30	-29	-28	-29	-29	-27	-26	-24	-23	-23	-22	-22	-21	-21	-20	-20	-20	-19	-19	-25.2	-19.3
21-Jan	-19	-19	-19	-18	-18	-18	-18	-18	-18	-18	-17	-16	-16	-15	-15	-16	-15	-16	-16	-16	-17	-18	-19	-20	-17.3	-15.4
22-Jan	-21	-21	-20	-20	-22	-23	-23	-23	-22	-21	-17	-12	-9	-6	-5	-6	-7	-10	-11	-11	-9	-6	-5	-5	-13.9	-5.2
23-Jan	-6	-7	-9	-9	-9	-9	-9	-9	-9	-10	-8	-4	-1	1	2	2	2	1	-1	-3	-3	-5	-7	-8	-5.0	2.4
24-Jan	-8	-9	-10	-10	-11	-11	-12	-13	-12	-10	-5	-2	0	3	3	3	2	2	2	3	3	1	1	1	-3.8	3.1
25-Jan	1	-1	-2	-3	-4	-5	-5	-2	1	1	2	2	2	1	1	1	1	0	0	0	-1	-1	-1	-2	-0.6	2.2
26-Jan	-2	-3	-3	-4	-6	-9	-11	-12	-14	-13	-10	-7	-4	-1	0	-1	-2	-2	-3	-4	-5	-5	-5	-5	-5.6	-0.2
27-Jan	-5	-5	-5	-5	-5	-5	-6	-7	-9	-8	-2	0	1	1	1	1	0	-2	-2	-2	-3	-4	-5	-6	-3.4	1.2
28-Jan	-7	-7	-8	-8	-8	-8	-7	-8	-7	-5	-4	-3	-2	-2	-2	-2	-2	-2	-2	-1	-1	-1	0	0	-4.1	-0.5
29-Jan	0	0	0	1	1	1	0	0	0	0	1	1	2	3	4	4	6	6	6	6	5	5	4	3	2.5	6.1
30-Jan	2	2	2	1	0	-1	1	2	2	2	3	5	6	6	5	5	5	5	4	4	2	2	1	-1	2.7	6.1
31-Jan	-2	-3	-4	-4	-4	-4	-5	-5	-4	-4	-3	1	5	6	6	7	6	5	4	1	-1	0	1	0	0.0	6.5
																									Diurnal Average	
																									Diurnal Maximum	

Hourly Averages

External Temperature (ET) - °C
Evergreen Park - January 2012



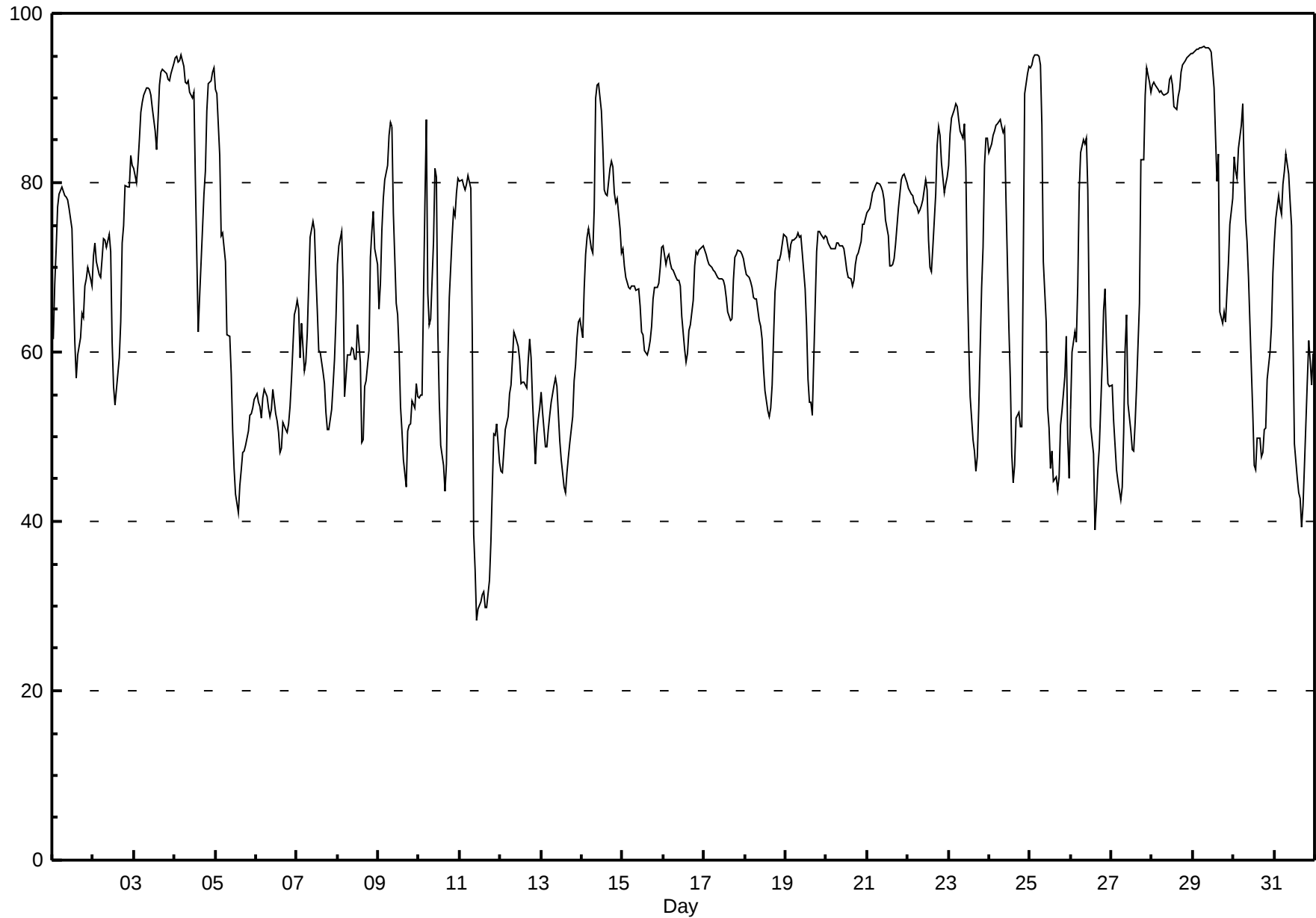
Hourly Averages

Relative Humidity (RH) - %
Evergreen Park - January 2012

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 96.0 % on Jan 29 07:00 Maximum Daily Average: 91.9 % on Jan 28																								Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0		
Minimum Value: 28 % on Jan 11 11:00 Maximum Diurnal Average: 74.7 % at hour 7 Monthly Average: 68.65 %												Minimum Daily Average: 50.8 % on Jan 11 Minimum Diurnal Average: 56.9 % at hour 15 Percentiles: P ₁ = 32.9 P ₁₀ = 49.0 Q ₁ = 56.3 Median = 69.6 Q ₃ = 79.4 P ₉₀ = 90.6 P ₉₉ = 95.8														
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Jan	61	68	72	77	79	80	79	79	78	78	77	75	68	61	57	60	62	65	64	68	69	70	69	68	70.0	79.6
2-Jan	71	73	71	69	69	71	73	73	72	74	72	61	56	54	57	59	64	73	75	80	79	79	83	82	70.5	83.3
3-Jan	82	80	82	85	88	90	90	91	91	91	90	89	86	84	87	92	93	93	93	93	92	92	93	94	89.3	94.0
4-Jan	95	95	94	94	95	94	92	92	92	91	90	91	80	71	62	67	74	79	81	88	92	92	93	94	87.0	95.0
5-Jan	91	91	83	74	74	72	71	62	62	57	51	46	43	41	44	46	48	48	49	51	52	53	53	54	59.1	91.1
6-Jan	55	54	54	52	55	56	55	53	52	53	56	53	52	50	48	49	52	51	51	52	54	57	64	65	53.8	65.0
7-Jan	66	65	59	63	58	59	62	68	74	75	74	69	65	60	60	58	56	53	51	51	53	56	59	64	61.6	75.4
8-Jan	70	73	74	68	55	57	60	60	61	60	59	59	63	59	49	50	56	57	60	71	74	77	72	70	63.1	76.6
9-Jan	65	68	74	78	80	82	86	87	87	76	66	64	60	54	51	47	44	51	51	52	54	53	56	55	64.3	87.1
10-Jan	55	55	55	78	87	67	63	64	73	82	81	63	54	49	47	44	47	59	66	74	77	76	79	80	65.5	87.4
11-Jan	80	80	80	79	80	81	79	62	38	34	28	30	31	31	32	30	30	33	38	44	50	50	52	47	50.8	80.8
12-Jan	46	46	48	51	52	55	56	59	62	62	61	59	56	56	57	56	59	61	59	54	47	50	52	53	55.0	62.4
13-Jan	55	53	49	49	51	53	54	56	57	56	53	50	47	44	43	46	48	49	52	57	59	62	64	64	52.9	63.9
14-Jan	62	68	72	73	75	72	72	77	90	92	92	89	84	79	79	79	82	83	82	79	78	78	75	72	78.3	91.6
15-Jan	72	70	69	68	67	68	68	68	67	67	65	62	62	60	60	60	61	63	66	68	68	68	70	72	66.3	72.3
16-Jan	73	70	71	72	70	70	70	69	68	69	68	64	60	59	60	63	63	66	70	72	72	72	72	73	68.1	72.6
17-Jan	72	72	71	70	70	70	69	69	69	69	69	68	68	66	65	64	64	68	71	72	72	72	71	71	69.2	72.0
18-Jan	70	69	69	68	68	66	66	66	64	63	61	58	55	53	52	53	56	62	67	71	71	72	73	74	64.5	73.9
19-Jan	74	72	71	73	73	73	74	74	74	74	72	68	63	57	54	54	53	66	72	74	74	74	73	74	69.1	74.3
20-Jan	74	73	73	72	72	72	73	73	73	72	72	71	70	69	69	68	69	70	71	72	73	75	75	76	71.9	75.8
21-Jan	76	77	78	79	79	80	80	80	79	79	78	76	74	70	70	70	71	73	77	79	80	81	81	80	76.9	81.1
22-Jan	79	79	79	78	78	77	76	77	77	78	80	79	73	70	70	72	79	84	87	86	82	79	80	81	78.3	86.6
23-Jan	82	86	88	89	89	89	87	86	85	87	82	69	61	55	50	48	46	48	53	68	72	82	85	85	73.8	89.3
24-Jan	84	85	86	86	87	87	87	87	86	86	78	63	57	48	45	47	52	53	51	51	70	90	93	94	73.0	93.7
25-Jan	94	94	95	95	95	95	94	87	71	64	53	51	46	48	45	45	44	45	51	53	57	62	50	45	65.8	95.1
26-Jan	53	60	62	61	68	79	84	85	85	85	79	64	51	48	39	42	46	49	58	65	67	61	56	56	62.7	85.3
27-Jan	56	52	49	46	45	43	44	50	60	64	54	51	49	48	52	56	66	83	83	83	90	94	92	91	62.5	93.5
28-Jan	92	92	91	91	91	91	90	90	91	91	92	93	91	89	89	90	91	93	94	94	95	95	95	95	91.9	95.2
29-Jan	95	96	96	96	96	96	96	96	96	96	96	95	91	86	80	83	65	63	65	63	67	70	75	78	84.9	96.0
30-Jan	83	81	80	84	87	89	81	76	73	69	58	53	47	46	50	50	48	48	51	51	57	60	63	69	64.7	89.2
31-Jan	73	76	78	77	76	80	81	83	81	78	75	62	49	45	43	43	39	42	47	57	61	59	56	60	63.4	83.4
72.8 73.2 73.3 74.1 74.5 74.6 74.7 74.2 73.8 73.3 70.4 65.9 61.7 58.4 56.9 57.7 58.9 62.3 64.8 67.4 69.6 71.3 71.8 72.1																								Diurnal Average		
95.3 95.5 95.7 95.8 95.9 96.0 96.0 96.0 95.9 95.9 95.8 95.4 91.4 89.1 88.6 91.5 93.1 93.4 94.0 94.5 94.7 95.0 95.1 95.2																								Diurnal Maximum		

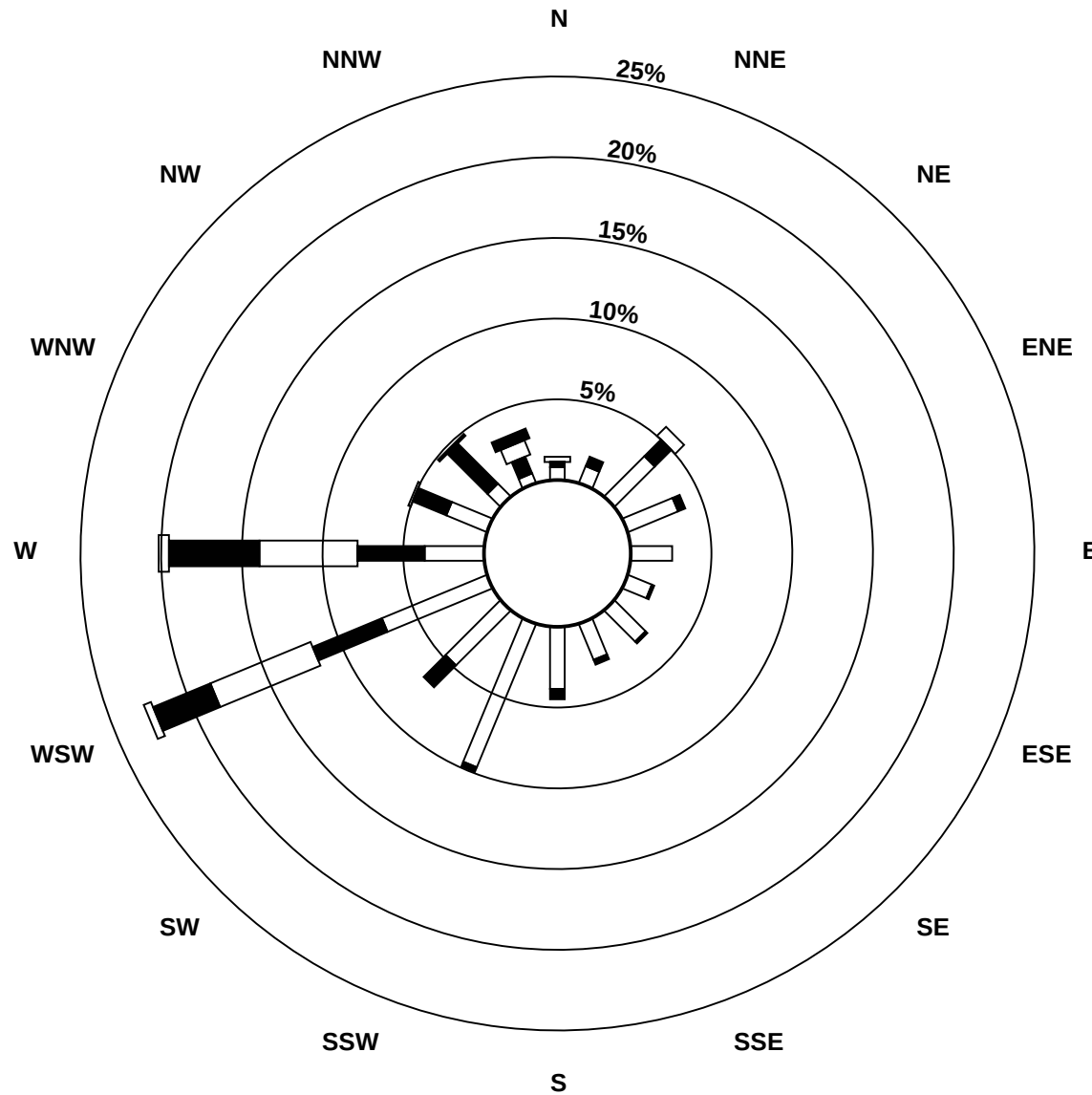
Hourly Averages

Relative Humidity (RH) - %
Evergreen Park - January 2012

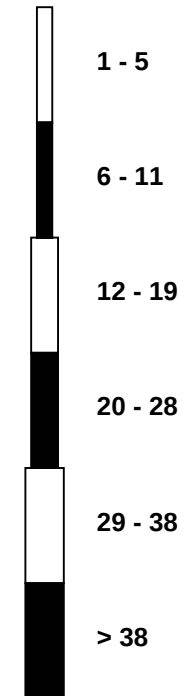


Wind Rose

Wind Speed (WS) (km/h)
Evergreen Park - January 2012



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Evergreen Park - January 2012

Maximum Speed: 73 km/h on Jan 17 10:00																				Maximum Daily Speed Average: 21.3 km/h on Jan 5										Hours in Service: 744	
Minimum Speed: 1 km/h on Jan 10 23:00																				Minimum Daily Speed Average: 2.0 km/h on Jan 20										Hours of Data: 744	
Maximum Diurnal Speed Average: 11.2 km/h at hour 16																				Minimum Diurnal Speed Average: 5.4 km/h at hour 5										Hours of Missing Data: 0	
Monthly Average Speed: 7.64 km/h																				Percentiles: P ₁ = 1.0 P ₁₀ = 1.4 Q ₁ = 2.1 Median = 4.1 Q ₃ = 10.5 P ₉₀ = 19.4 P ₉₉ = 27.7										Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
1-Jan	2	2	2	1	1	1	2	1	2	1	1	2	2	2	5	3	2	2	1	2	4	3	4	4	2.2	5.2					
2-Jan	3	5	5	4	2	2	2	3	4	3	5	4	5	4	3	4	3	8	5	6	5	4	3	4	4.0	7.8					
3-Jan	3	4	2	1	2	2	2	1	2	1	1	3	2	2	3	2	2	1	2	2	3	3	2	1	2.1	3.9					
4-Jan	2	2	2	3	2	5	5	3	2	2	1	1	3	8	17	14	9	3	3	2	2	2	2	2	4.0	16.9					
5-Jan	6	13	18	22	23	24	22	24	20	19	25	27	30	27	21	28	24	16	19	22	20	22	19	19	21.3	29.8					
6-Jan	16	16	16	15	11	7	4	8	17	17	9	13	14	11	10	10	6	5	8	9	7	2	1	2	9.8	16.5					
7-Jan	2	6	7	6	15	14	4	2	2	2	1	2	2	2	3	2	2	2	3	3	2	3	2	2	3.8	14.5					
8-Jan	3	2	2	6	6	4	9	16	17	15	14	10	7	12	21	22	12	11	7	3	3	1	5	9	9.0	21.7					
9-Jan	5	2	2	1	1	1	2	1	4	17	10	8	18	26	29	36	30	29	28	28	27	24	22	21	15.5	35.7					
10-Jan	20	20	18	19	10	12	7	7	8	9	8	11	12	10	13	6	2	1	1	2	1	1	1	1	8.4	20.3					
11-Jan	1	1	1	1	1	2	3	8	14	6	13	10	3	4	4	13	20	17	22	18	15	12	12	13	8.9	22.4					
12-Jan	12	14	7	6	4	7	4	2	2	2	3	3	3	3	3	2	3	5	6	7	15	12	17	25	6.8	24.8					
13-Jan	26	26	24	23	23	20	19	16	16	17	20	19	20	16	14	12	10	9	4	2	3	2	2	2	14.3	26.3					
14-Jan	2	2	1	2	3	2	4	6	7	8	9	12	13	14	14	13	12	9	13	13	10	14	18	15	8.9	18.4					
15-Jan	15	11	10	10	9	10	10	10	9	9	11	13	11	10	12	10	11	10	8	9	7	4	4	3	9.4	14.6					
16-Jan	6	7	8	7	7	7	6	6	5	4	6	8	6	5	4	5	4	2	2	3	3	2	2	2	4.9	8.2					
17-Jan	3	4	6	4	11	48	67	69	59	73	7	9	8	7	7	6	4	2	2	1	3	4	6	7	17.4	72.7					
18-Jan	8	7	7	5	6	6	5	5	7	6	7	8	8	12	10	9	7	4	3	4	4	4	2	2	6.1	12.0					
19-Jan	3	4	4	3	3	5	3	2	2	4	4	4	4	2	2	2	1	1	1	1	1	1	1	1	2.5	4.5					
20-Jan	2	2	2	1	1	1	3	2	3	1	2	2	2	2	4	3	3	2	1	1	1	2	2	3	2.0	4.1					
21-Jan	2	1	1	3	2	1	1	3	3	3	2	1	3	4	4	5	6	2	2	2	1	1	2	1	2.3	6.2					
22-Jan	2	2	3	3	1	1	2	3	2	4	3	3	4	4	2	2	1	2	1	2	4	4	3	4	2.6	4.4					
23-Jan	3	3	3	3	2	4	4	4	3	4	4	3	5	8	12	12	13	10	3	2	2	1	1	2	4.5	12.8					
24-Jan	2	2	4	1	2	2	1	2	1	2	2	4	6	7	7	6	5	5	6	6	6	3	2	2	3.6	7.3					
25-Jan	2	2	2	2	2	2	3	9	11	8	19	19	23	32	25	30	29	24	20	18	17	18	21	17	14.8	31.6					
26-Jan	16	16	12	7	1	2	2	1	1	2	3	5	8	20	26	25	24	22	23	19	15	18	17	15	12.6	26.3					
27-Jan	16	14	14	8	8	5	3	3	2	4	17	25	29	24	24	22	26	21	16	8	8	4	4	2	12.8	29.1					
28-Jan	3	2	2	1	1	1	2	2	2	3	4	4	5	6	4	5	5	6	4	4	4	3	2	1	3.3	6.3					
29-Jan	2	2	2	1	1	2	2	1	1	1	1	2	5	5	3	5	12	9	9	11	8	4	4	3	4.0	12.2					
30-Jan	2	4	3	2	2	2	9	9	10	8	9	18	25	22	15	24	24	21	17	13	6	7	3	2	10.7	25.2					
31-Jan	3	3	2	2	2	2	2	1	2	2	2	4	11	12	8	8	12	11	4	1	3	4	4	3	4.4	12.5					
6.2 6.5 6.1 5.5 5.4 6.7 6.9 7.4 7.8 8.3 7.2 8.2 9.5 10.4 10.6 11.2 10.5 8.8 7.9 7.2 6.8 6.1 6.1 6.2																									Diurnal Average						
25.8 26.3 23.9 23.2 23.2 47.8 67.0 69.5 58.8 72.7 24.9 27.0 29.8 31.6 28.7 35.7 29.8 28.6 28.1 28.1 26.7 24.5 21.9 24.8																									Diurnal Maximum						
All monthly, daily, and diurnal averages have been calculated using scalar methods																															

Hourly Standard Deviations

Wind Direction (WD) - deg
Evergreen Park - January 2012

Maximum Value: 97.7 deg on Jan 11 04:00																		Hours in Service: 744							
Minimum Value: 4.2 deg on Jan 6 20:00																		Hours of Data: 744							
Percentiles: P ₁ = 5.3 P ₁₀ = 6.8 Q ₁ = 10.7 Median = 20.6 Q ₃ = 54.8 P ₉₀ = 76.1 P ₉₉ = 92.9																		Hours of Missing Data: 0							
																		Hours of Calibration: 0							
																		Percent Operational Time: 100.0							
Day	Hourly Period Ending At (MST)																								Daily Maximum
1-Jan	49	69	84	58	74	78	66	76	87	82	70	75	50	40	81	77	65	82	93	81	22	24	69	49	93.1
2-Jan	41	14	21	41	59	91	43	22	20	32	12	19	33	25	34	38	38	17	27	12	28	62	84	14	90.5
3-Jan	88	71	84	65	51	62	53	40	75	71	95	49	30	87	68	24	53	56	52	66	53	82	54	55	94.6
4-Jan	34	77	82	48	48	14	12	27	63	75	71	86	41	21	7	6	16	76	80	65	68	84	61	65	85.7
5-Jan	54	14	10	5	6	6	6	6	7	7	6	7	7	9	8	7	6	7	7	9	6	6	7	6	54.1
6-Jan	6	6	6	9	10	15	40	25	9	6	10	10	12	9	11	8	13	13	5	4	6	49	58	52	58.4
7-Jan	46	34	54	79	6	6	94	32	79	92	69	39	57	56	27	29	18	23	37	20	78	74	45	52	93.8
8-Jan	61	62	83	27	15	79	16	10	5	7	8	16	20	6	7	6	23	11	50	60	45	65	57	15	82.7
9-Jan	59	46	75	72	66	73	80	90	80	19	9	11	9	8	9	7	8	9	7	6	7	6	6	7	90.1
10-Jan	6	6	7	12	17	15	17	15	13	29	23	16	15	15	11	21	41	59	77	67	92	92	42	79	92.1
11-Jan	68	70	56	98	43	66	53	20	7	63	10	9	79	25	16	10	7	8	8	6	7	10	11	9	97.7
12-Jan	9	10	30	14	36	6	48	67	85	60	50	44	29	41	50	33	26	12	50	11	8	11	9	6	84.8
13-Jan	7	6	7	7	5	6	6	6	5	5	5	7	7	8	7	13	13	12	16	74	19	68	48	56	73.5
14-Jan	69	44	46	14	32	68	11	10	11	11	11	11	11	11	11	11	13	20	12	15	26	12	9	10	69.0
15-Jan	11	13	11	14	15	13	17	12	14	15	15	12	16	23	15	15	17	10	12	10	12	17	13	32	32.1
16-Jan	19	15	15	12	13	12	12	12	13	14	16	14	24	21	33	19	14	18	14	21	18	36	61	18	60.6
17-Jan	15	10	11	18	26	26	33	40	30	50	12	12	12	13	19	13	35	64	21	63	10	17	10	11	64.3
18-Jan	8	9	11	17	12	20	34	23	15	28	14	14	17	10	11	11	10	15	19	24	12	23	36	62	62.3
19-Jan	16	13	23	15	7	5	9	47	38	12	16	18	23	35	39	21	41	85	74	39	86	58	83	77	86.0
20-Jan	41	11	30	60	50	13	15	72	14	43	45	48	78	64	30	36	30	78	70	80	48	44	38	22	79.9
21-Jan	32	41	76	23	47	88	58	13	12	19	19	44	46	48	20	12	12	57	28	33	66	81	59	88	87.9
22-Jan	60	62	64	77	96	79	90	71	90	83	64	55	9	17	29	25	28	41	55	55	17	12	16	19	96.0
23-Jan	18	21	17	31	75	32	15	14	36	58	20	70	11	15	7	7	6	6	45	39	41	66	85	85	84.7
24-Jan	88	69	89	75	82	48	72	55	74	35	43	18	12	12	13	19	20	23	8	10	12	52	52	48	89.2
25-Jan	49	59	75	77	80	98	67	5	8	12	7	8	9	6	10	8	7	8	7	8	7	9	7	7	97.6
26-Jan	7	6	7	9	75	92	87	73	77	66	38	16	27	8	7	7	9	7	8	7	11	6	6	7	91.7
27-Jan	7	11	9	8	17	23	51	65	60	81	6	6	7	7	7	6	10	13	8	43	33	31	42	75	81.3
28-Jan	75	78	94	54	70	78	81	35	56	10	13	16	19	17	25	16	15	17	16	15	24	21	28	36	94.2
29-Jan	22	36	48	47	59	40	44	38	27	20	66	33	19	69	14	23	8	5	7	5	13	31	9	17	69.2
30-Jan	56	13	17	64	61	92	47	6	6	7	16	7	7	8	9	7	7	7	7	5	43	23	71	87	92.4
31-Jan	61	66	93	43	82	59	75	84	48	73	41	52	10	11	14	18	12	8	16	79	25	7	14	40	93.3
88.5 77.7 94.2 97.7 96.0 97.6 93.8 90.1 90.4 92.2 94.6 85.7 78.5 86.8 80.6 77.2 65.4 85.2 93.1 81.3 91.6 92.1 84.7 87.6																									

PAZA
Smoky Heights Station
Monthly Summary Tables, Graphs and
Roses

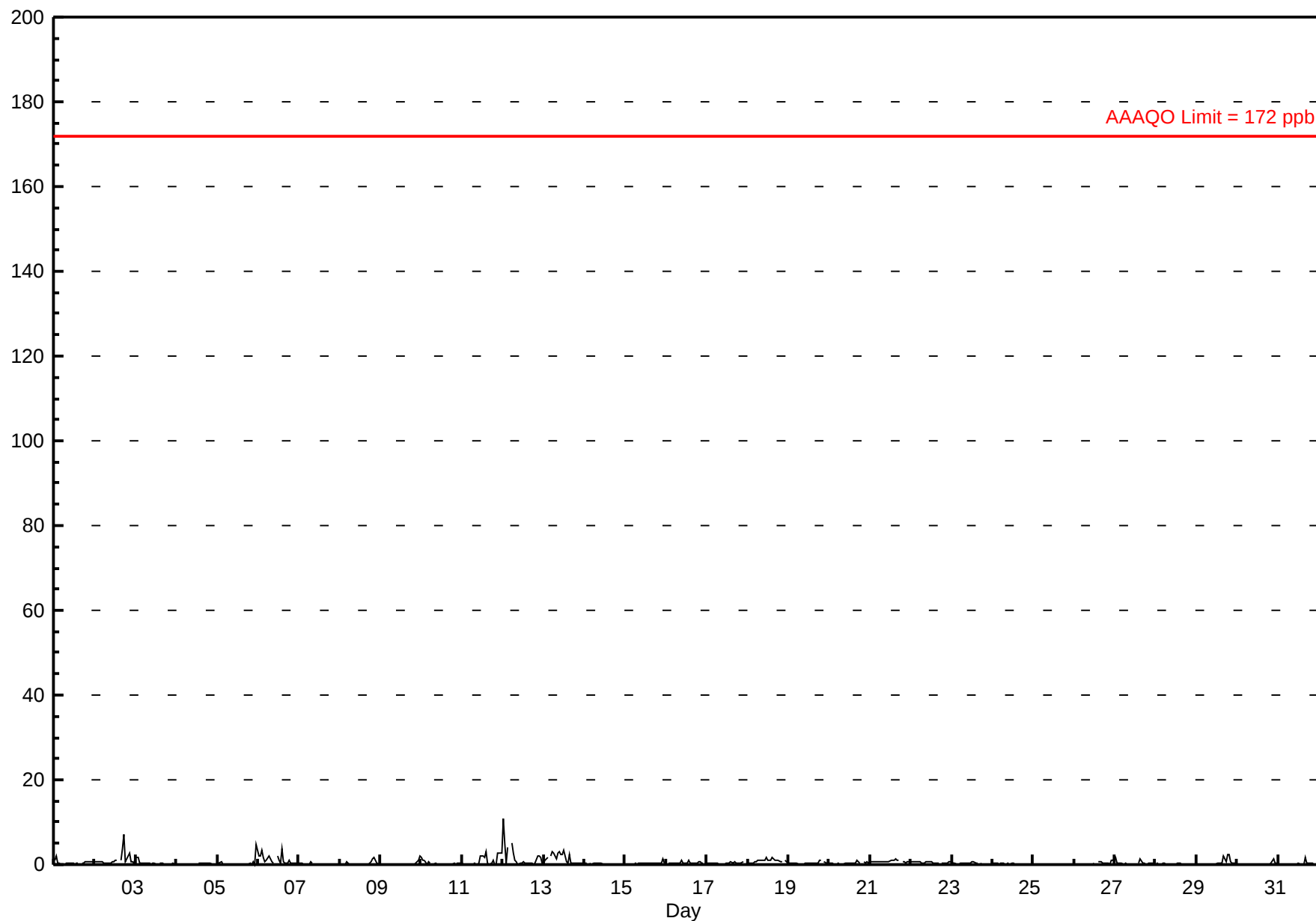
Hourly Averages

Sulphur Dioxide (SO₂) - ppb Smoky Heights - January 2012

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 10.7 ppb on Jan 12 01:00 Maximum Daily Average: 1.7 ppb on Jan 12																				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 Jan 25 22:00 Minimum Daily Average: 0.1 ppb on Jan 25 Maximum Diurnal Average: 0.8 ppb at hour 1 Minimum Diurnal Average: 0.3 ppb at hour 8 Monthly Average: 0.48 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.1 Median = 0.2 Q ₃ = 0.5 P ₉₀ = 1.1 P ₉₉ = 3.5																										
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-Jan	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	1	1	1	1	1	1	0.4	1.9
2-Jan	1	1	1	1	1	0	0	0	0	0	1	1	1	1	A	1	4	7	1	1	3	1	1	0	1.2	7.2
3-Jan	2	2	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.3	1.7
4-Jan	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
5-Jan	0	0	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	0	5	0.3	4.6
6-Jan	2	2	3	2	1	1	2	1	1	0	A	2	1	0	4	1	0	0	1	1	0	0	0	0	1.1	3.7
7-Jan	0	0	0	0	0	0	0	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
8-Jan	0	0	0	0	1	0	0	0	A	0	0	0	0	0	0	0	0	0	1	1	2	1	0	0	0.3	1.7
9-Jan	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0.2	2.0
10-Jan	2	1	1	0	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.8
11-Jan	0	0	0	0	0	A	0	0	0	0	0	2	2	2	3	0	0	1	1	0	0	3	3	3	0.9	2.9
12-Jan	11	5	0	4	A	5	3	1	1	0	0	0	1	0	0	0	0	0	0	0	2	2	2	0	1.7	10.7
13-Jan	0	1	2	A	2	3	3	1	3	3	2	2	3	1	0	2	0	0	0	0	0	0	0	0	1.4	3.5
14-Jan	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
15-Jan	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.3	1.2
16-Jan	A	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1	1	0	0	A	0.4	1.2
17-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	A	0	0.3	0.6
18-Jan	0	0	0	0	1	1	1	1	1	1	1	2	1	1	2	2	1	1	1	1	1	A	1	1	0.9	1.8
19-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	A	1	0	0	0.4	1.2
20-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	A	1	0	1	0	0.4	1.0
21-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0	1	1	0.8	1.2
22-Jan	1	1	1	1	1	1	0	0	0	1	1	1	1	0	0	0	0	A	0	0	0	0	1	1	0.5	0.8
23-Jan	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	A	0	0	0	0	0	0	0	0.3	0.7
24-Jan	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
25-Jan	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	0.1
26-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	1	1	0	0	0	0	0	1	1	0.3	1.0
27-Jan	2	0	0	0	0	0	0	0	0	0	0	C	C	C	0	1	0	0	0	0	0	0	0	0	0.3	1.6
28-Jan	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
29-Jan	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	2	1	2	2	1	0	0	0	0.5	2.2
30-Jan	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.2	1.2
31-Jan	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0.2	1.6
0.8 0.6 0.5 0.4 0.3 0.5 0.4 0.3 0.4 0.3 0.3 0.5 0.5 0.4 0.5 0.5 0.5 0.5 0.4 0.4 0.5 0.5 0.5 0.6																								Diurnal Average		
10.7 5.2 3.4 4.1 2.1 5.1 2.6 1.3 2.7 3.0 2.4 2.3 3.5 1.8 3.7 2.3 3.6 7.2 2.2 2.2 2.6 2.6 2.6 4.6																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb																										

Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Smoky Heights - January 2012



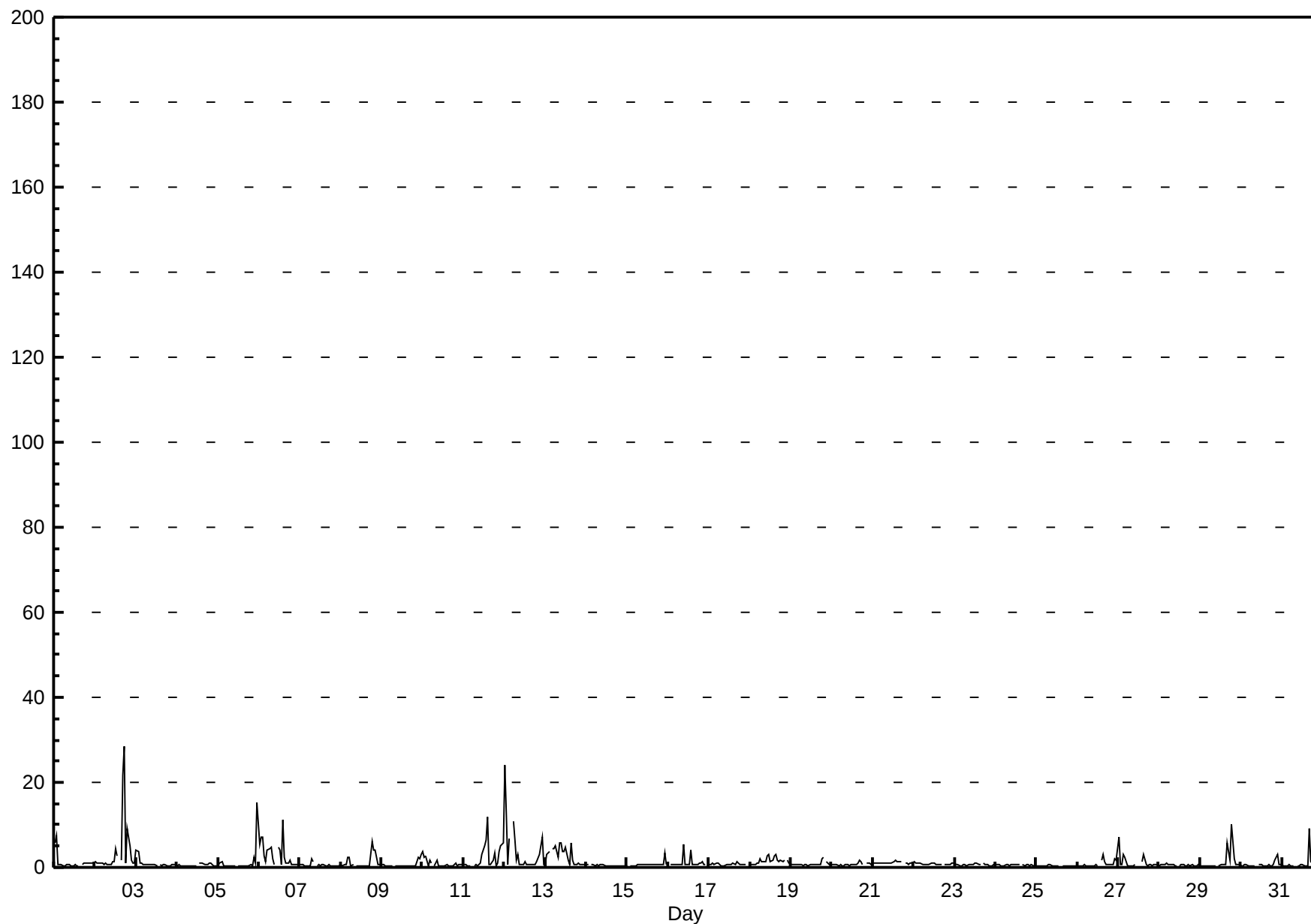
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb Smoky Heights - January 2012

Maximum Value: 28.4 ppb on Jan 2 18:00																				Maximum Daily Average: 3.9 ppb on Jan 12										Hours in Service: 744									
Minimum Value: 0 ppb on Jan 14 17:00																				Minimum Daily Average: 0.4 ppb on Jan 25										Hours of Data: 710									
Maximum Diurnal Average: 2.2 ppb at hour 1																				Minimum Diurnal Average: 0.8 ppb at hour 11										Hours of Missing Data: 34									
Monthly Average: 1.25 ppb																				Percentiles: P ₁ = 0.3 P ₁₀ = 0.4 Q ₁ = 0.5 Median = 0.6 Q ₃ = 1.0 P ₉₀ = 2.7 P ₉₉ = 10.5										Hours of Calibration: 34									
																				Percent Operational Time: 100.0																			
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24															
1-Jan	6	7	1	1	1	0	0	1	1	1	0	0	1	0	0	A	1	1	1	1	1	1	1	1	1.2	7.4													
2-Jan	1	1	1	1	1	1	1	1	1	1	1	1	4	3	A	2	22	28	1	9	5	2	1	1	3.9	28.4													
3-Jan	4	4	1	1	1	1	1	1	1	1	1	1	1	A	1	0	1	1	0	0	0	1	1	1	0.9	3.9													
4-Jan	0	1	0	0	0	0	0	0	0	0	0	0	A	1	1	1	1	1	1	1	1	1	1	0	0.6	1.1													
5-Jan	0	1	1	0	0	0	0	0	0	0	1	A	0	0	0	0	0	0	0	1	0	2	1	15	1.2	15.4													
6-Jan	6	7	7	3	1	4	4	5	2	1	A	5	4	1	11	2	1	1	2	1	1	1	1	1	3.0	11.1													
7-Jan	1	1	1	0	0	0	0	2	1	A	0	1	0	1	1	0	0	1	0	0	0	0	0	0	0.6	2.1													
8-Jan	1	0	1	1	2	2	0	1	A	0	0	0	0	0	0	0	0	0	6	4	4	2	1	1	1.3	6.0													
9-Jan	1	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	2	2	3	0.7	3.2														
10-Jan	4	3	3	0	2	1	A	1	2	0	0	0	0	0	1	0	0	0	0	1	0	1	1	1	0.9	3.6													
11-Jan	1	1	0	0	0	A	0	1	0	1	1	3	5	7	12	1	1	2	4	0	1	4	5	6	2.4	12.0													
12-Jan	24	13	1	7	A	11	6	2	3	1	1	1	1	1	1	1	1	1	1	1	3	5	7	1	3.9	24.1													
13-Jan	1	3	4	A	4	4	5	2	6	6	4	4	5	2	1	6	2	1	1	1	1	1	1	1	2.7	5.9													
14-Jan	1	1	A	1	1	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0.8													
15-Jan	0	A	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1	0.7	3.3													
16-Jan	A	1	1	1	1	1	1	1	1	5	1	1	1	4	1	1	1	1	1	1	1	1	1	A	1.1	5.5													
17-Jan	1	1	1	1	1	1	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.2													
18-Jan	1	1	1	1	1	1	2	1	1	2	3	3	1	2	3	3	2	1	2	1	2	A	2	1	1.6	3.2													
19-Jan	1	1	1	1	1	1	1	0	1	1	0	1	1	1	1	1	1	1	2	2	A	1	1	1	0.8	2.4													
20-Jan	1	1	1	1	0	1	0	0	1	1	0	1	1	1	1	1	2	1	1	A	1	1	1	1	0.8	1.6													
21-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	2	1	1	A	1	1	1	1	1	1.1	1.6													
22-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0.9	1.2													
23-Jan	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0	0	0	1	0.7	1.1													
24-Jan	1	1	1	0	0	0	1	1	0	1	1	1	1	1	1	A	1	1	1	1	0	1	0	0	0.5	0.7													
25-Jan	0	0	0	0	0	0	1	1	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.4	0.6													
26-Jan	0	0	0	0	1	0	0	0	0	0	0	1	0	A	2	3	1	1	1	1	1	1	2	2	0.8	2.9													
27-Jan	7	1	1	3	2	0	0	0	0	0	1	C	C	C	1	3	1	0	1	1	0	1	1	1	1.2	7.1													
28-Jan	0	1	1	1	1	1	1	1	1	0	0	A	0	1	1	0	0	1	0	1	0	0	0	1	0.5	1.0													
29-Jan	0	0	0	0	0	0	0	0	0	0	0	A	0	1	1	1	6	2	10	6	2	1	1	1	1.5	10.2													
30-Jan	0	0	1	1	0	0	0	0	0	A	1	1	1	0	0	0	1	0	0	1	2	3	1	1	0.7	2.9													
31-Jan	1	0	0	0	1	0	0	0	A	0	0	1	1	0	0	0	9	1	1	1	1	0	0	0	0.9	9.2													
2.2 1.7 1.1 1.0 0.9 1.2 1.1 0.8 1.0 0.9 0.8 1.0 1.2 1.1 1.5 1.1 1.9 1.7 1.3 1.3 1.1 1.2 1.2 1.4																									Diurnal Average														
24.1 12.8 7.3 6.8 4.4 11.0 6.3 4.8 5.9 5.9 3.9 4.9 5.2 6.5 12.0 5.8 21.8 28.4 10.2 9.2 5.2 5.0 7.3 15.4																									Diurnal Maximum														
C - Calibration																									A - Automated Daily Zero Span														

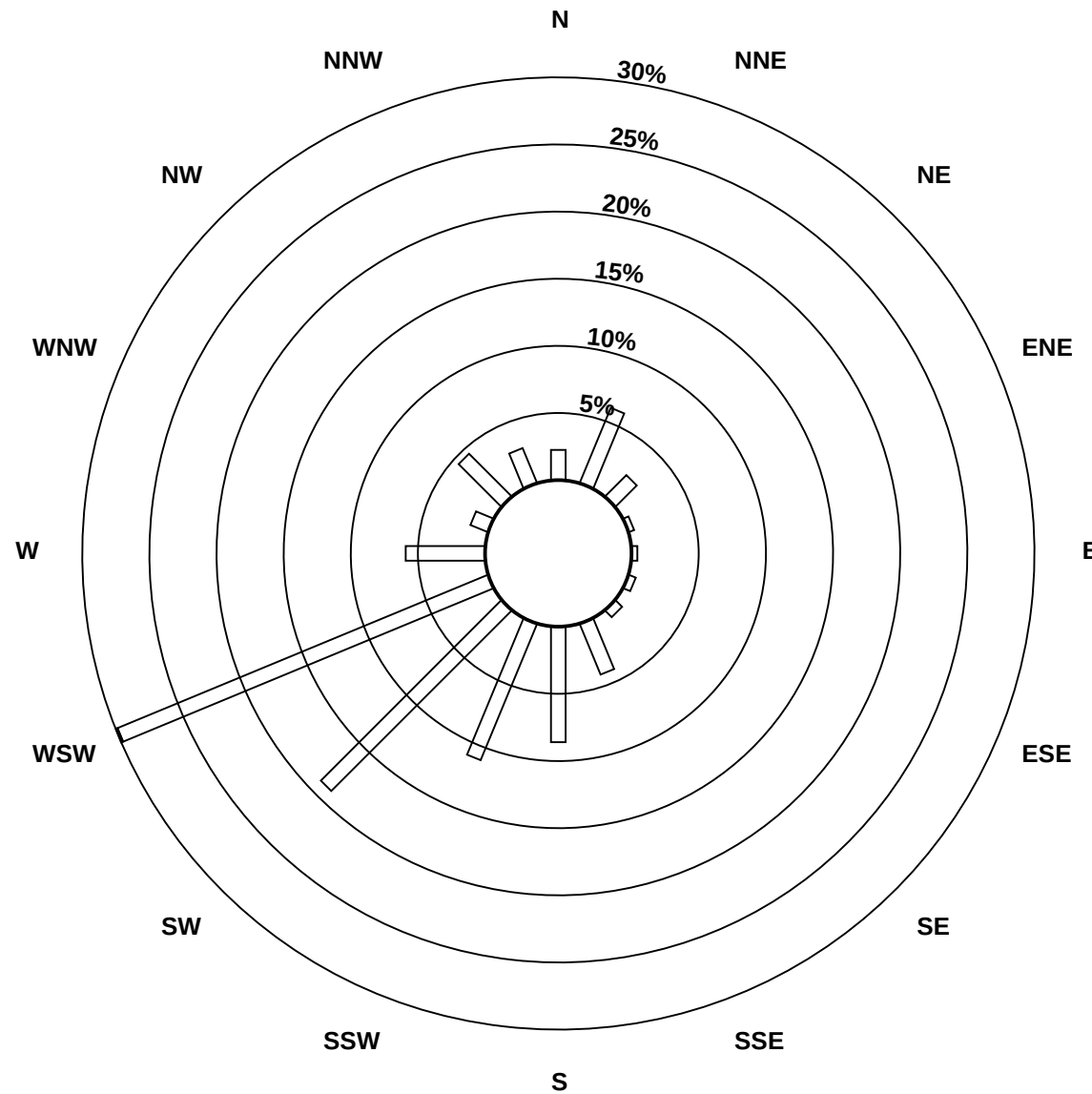
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Smoky Heights - January 2012

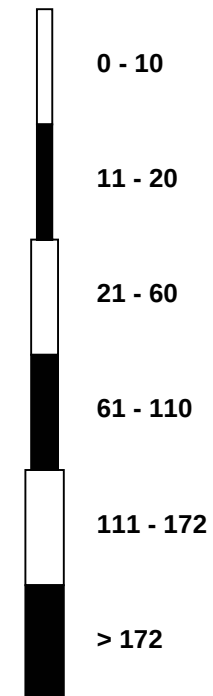


Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Smoky Heights - January 2012

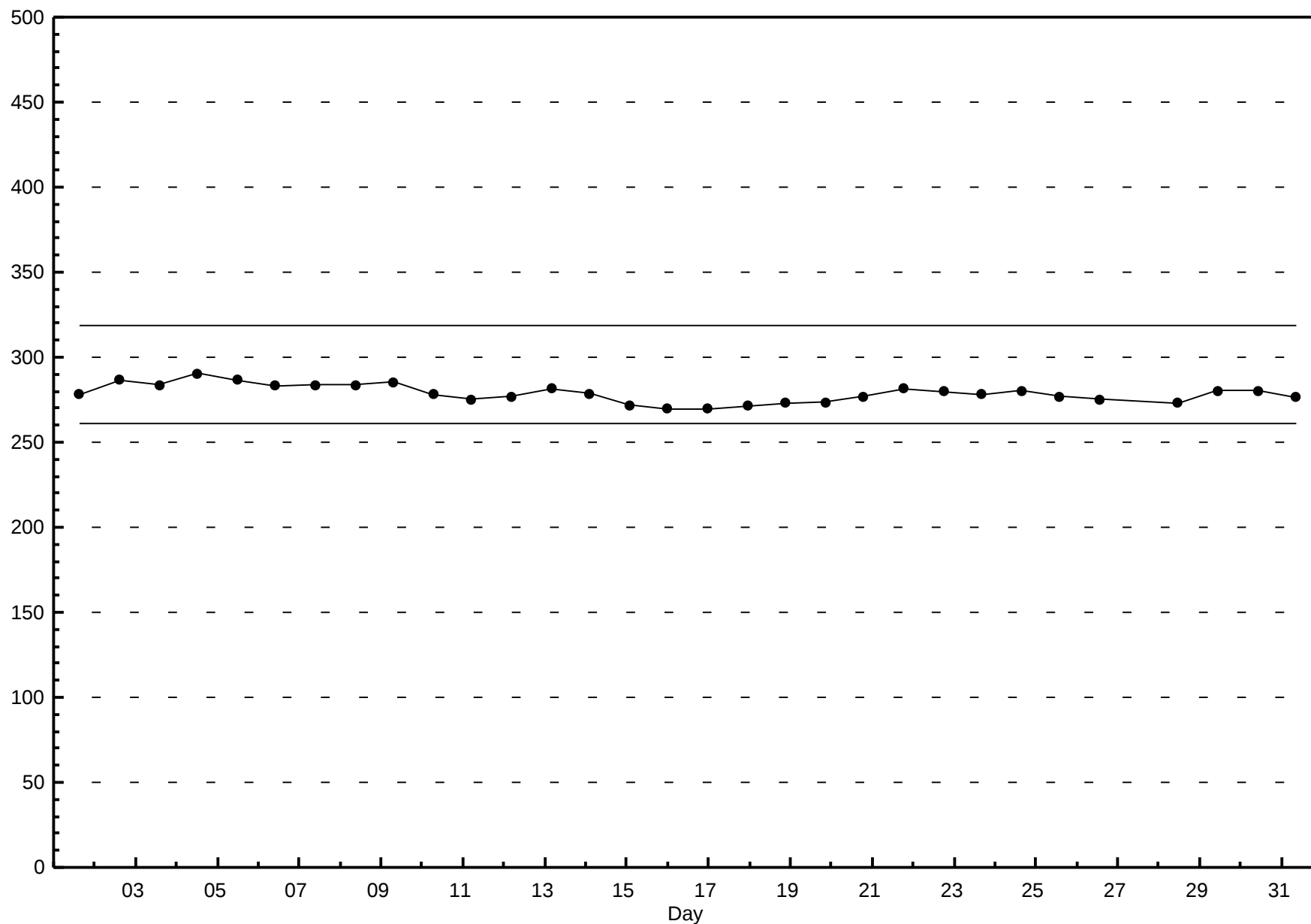


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Smoky Heights - January 2012



Hourly Averages

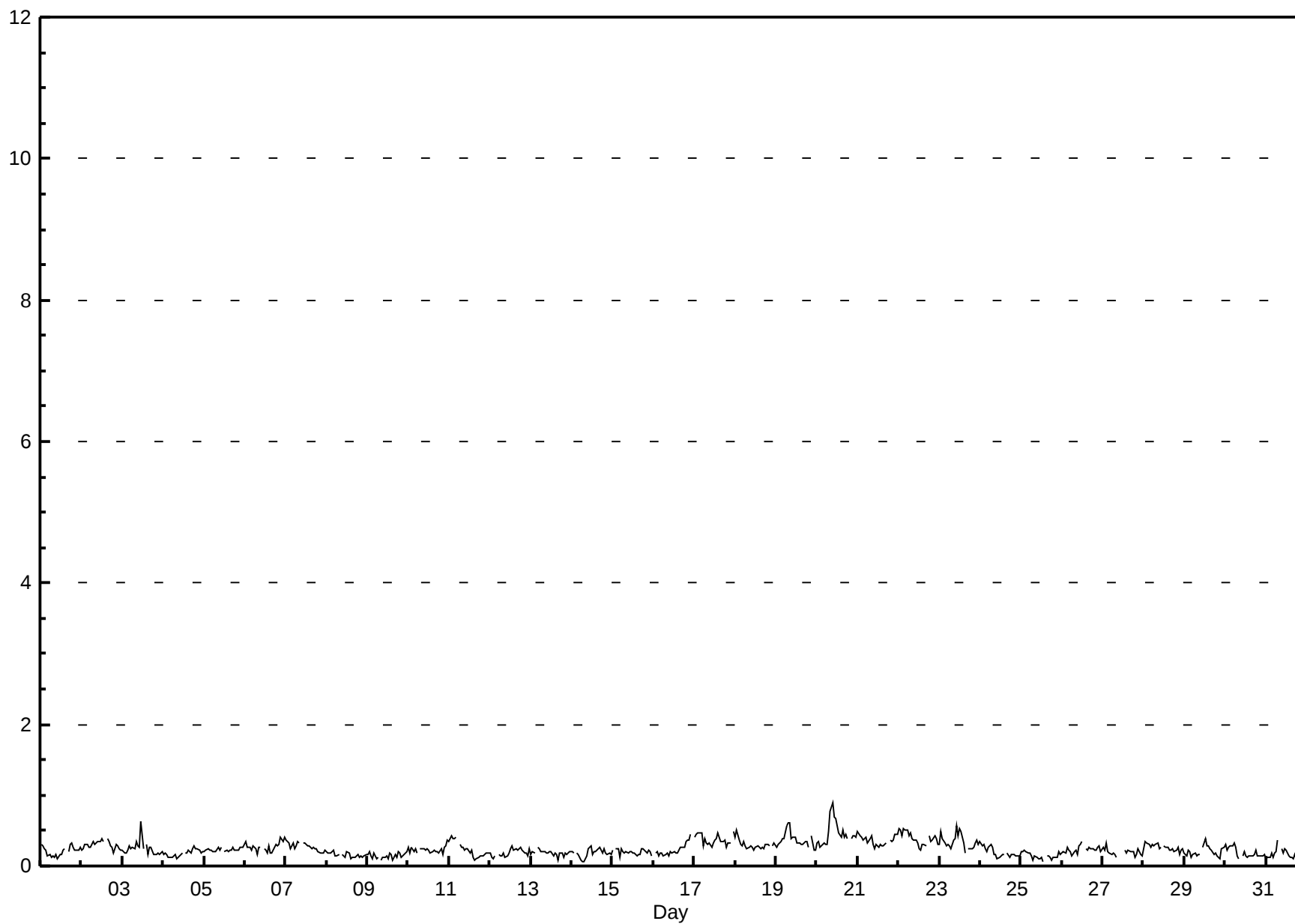
Total Reduced Sulphur (TRS) - ppb

Smoky Heights - January 2012

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0		Maximum Value: 0.9 ppb on Jan 20 10:00		Maximum Daily Average: 0.5 ppb on Jan 20		Hours in Service: 744		Hours of Data: 709		Hours of Missing Data: 35		Hours of Calibration: 35		Percent Operational Time: 100.0												
Minimum Value: 0 ppb on Jan 14 08:00		Minimum Daily Average: 0.1 ppb on Jan 25		Minimum Diurnal Average: 0.2 ppb at hour 20		Monthly Average: 0.25 ppb		Percentiles: P ₁ = 0.1 P ₁₀ = 0.1 Q ₁ = 0.2 Median = 0.2 Q ₃ = 0.3 P ₉₀ = 0.4 P ₉₉ = 0.6																		
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Jan	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
2-Jan	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
3-Jan	0	0	0	0	0	0	0	0	0	0	0	1	0	A	0	0	0	0	0	0	0	0	0	0	0.2	0.6
4-Jan	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
5-Jan	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
6-Jan	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
7-Jan	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
8-Jan	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.2
9-Jan	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
10-Jan	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
11-Jan	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
12-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
13-Jan	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	0.3
14-Jan	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
15-Jan	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.2
16-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.2	0.4
17-Jan	0	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	0.5
18-Jan	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.3	0.5
19-Jan	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.4	0.6
20-Jan	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0	1	0	0	0	A	0	0	0	0	0.5	0.9
21-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.4	0.5
22-Jan	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.4	0.5
23-Jan	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	A	0	0	0	0	0	0	0	0.3	0.6
24-Jan	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
25-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.1	0.2
26-Jan	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
27-Jan	0	0	0	0	0	0	0	0	0	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
28-Jan	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	0.4
29-Jan	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
30-Jan	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
31-Jan	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
																									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

Total Reduced Sulphur (TRS) - ppb
Smoky Heights - January 2012



Hourly Maximums

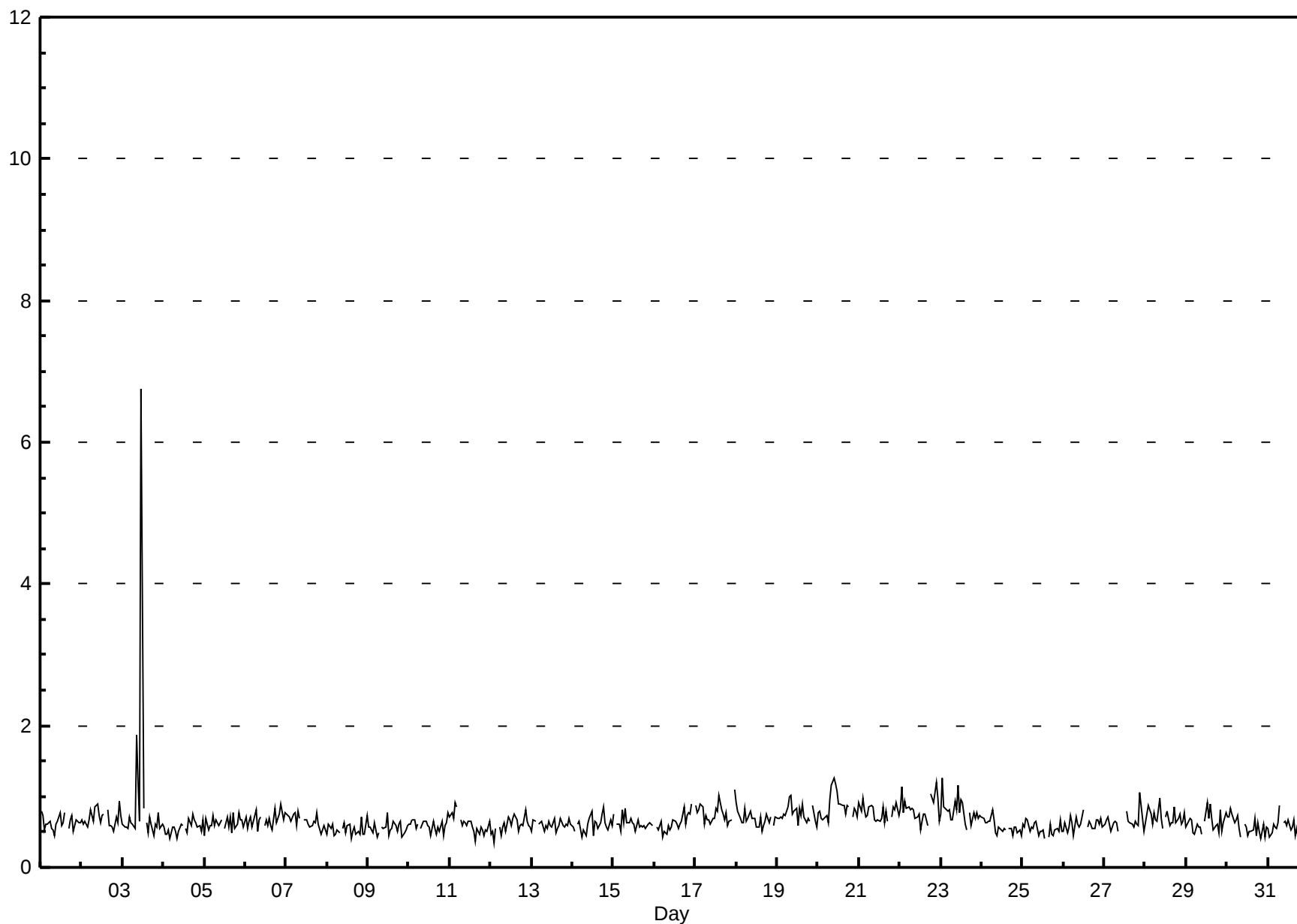
Total Reduced Sulphur (TRS) - ppb

Smoky Heights - January 2012

Maximum Value: 6.7 ppb on Jan 3 12:00																				Maximum Daily Average: 1.0 ppb on Jan 3					Hours in Service: 744				
Minimum Value: 0 ppb on Jan 12 03:00																				Minimum Daily Average: 0.5 ppb on Jan 8					Hours of Data: 709				
Maximum Diurnal Average: 0.9 ppb at hour 12																				Minimum Diurnal Average: 0.6 ppb at hour 17					Hours of Missing Data: 35				
Monthly Average: 0.66 ppb																				Percentiles: P ₁ = 0.4 P ₁₀ = 0.5 Q ₁ = 0.6 Median = 0.6 Q ₃ = 0.7 P ₉₀ = 0.8 P ₉₉ = 1.2					Hours of Calibration: 35				
																									Percent Operational Time: 100.0				
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
1-Jan	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0.6	0.8			
2-Jan	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			
3-Jan	1	1	1	1	1	1	1	1	2	1	1	7	1	A	1	0	1	1	0	1	1	1	1	1	1.0	6.7			
4-Jan	1	0	0	1	0	1	1	1	0	1	1	1	A	1	0	1	1	1	1	1	1	1	1	1	0.6	0.7			
5-Jan	0	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0	1	1	1	1	1	1	1	0.6	0.8			
6-Jan	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9			
7-Jan	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0.7	0.8			
8-Jan	0	1	1	1	0	0	1	0	A	1	1	0	1	1	0	1	1	0	1	0	1	0	0	1	0.5	0.7			
9-Jan	1	1	1	0	1	0	0	A	1	1	1	1	0	1	1	1	1	1	1	1	0	0	1	1	0.6	0.8			
10-Jan	1	1	1	1	1	1	A	1	1	1	1	1	1	0	1	1	0	1	1	1	0	1	1	1	0.6	0.8			
11-Jan	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0	0	1	0	1	1	0	1	0	1	0.6	0.9			
12-Jan	0	1	0	1	A	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.8			
13-Jan	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0.6	0.7			
14-Jan	1	1	A	1	1	0	1	0	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0.6	0.9			
15-Jan	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.8			
16-Jan	A	1	1	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.6	0.9			
17-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1			
18-Jan	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	0.9			
19-Jan	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	1.0			
20-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.9	1.3			
21-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.8	1.0			
22-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0.8	1.2			
23-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.8	1.3			
24-Jan	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	A	1	1	0	1	1	0	1	0	0.6	0.8			
25-Jan	1	1	1	1	1	1	1	1	1	0	1	1	1	0	A	0	1	0	0	1	1	1	1	1	0.5	0.7			
26-Jan	1	1	0	1	1	1	0	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.6	0.8			
27-Jan	1	1	1	1	1	1	1	1	0	C	C	C	C	1	1	1	1	1	1	1	1	1	1	1	0.6	1.0			
28-Jan	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0			
29-Jan	1	1	1	1	0	0	1	1	1	0	A	1	1	1	1	1	1	1	1	0	1	1	1	1	0.6	0.9			
30-Jan	1	1	1	1	1	1	1	1	0	A	1	1	0	1	1	1	1	0	1	1	0	1	0	1	0.6	0.8			
31-Jan	1	0	0	1	1	1	1	1	A	1	1	1	1	1	1	1	0	1	0	1	1	1	1	0	0.6	0.9			
0.7 0.7 0.7 0.7 0.6 0.6 0.6 0.7 0.7 0.7 0.7 0.9 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.7 0.7 0.6																									Diurnal Average				
0.9 1.3 1.0 0.9 0.9 0.8 0.9 1.0 1.9 1.3 1.2 6.7 1.0 0.9 1.0 0.9 0.8 0.9 1.0 1.0 0.9 1.2 1.0 1.1																									Diurnal Maximum				
C - Calibration																									A - Automated Daily Zero Span				

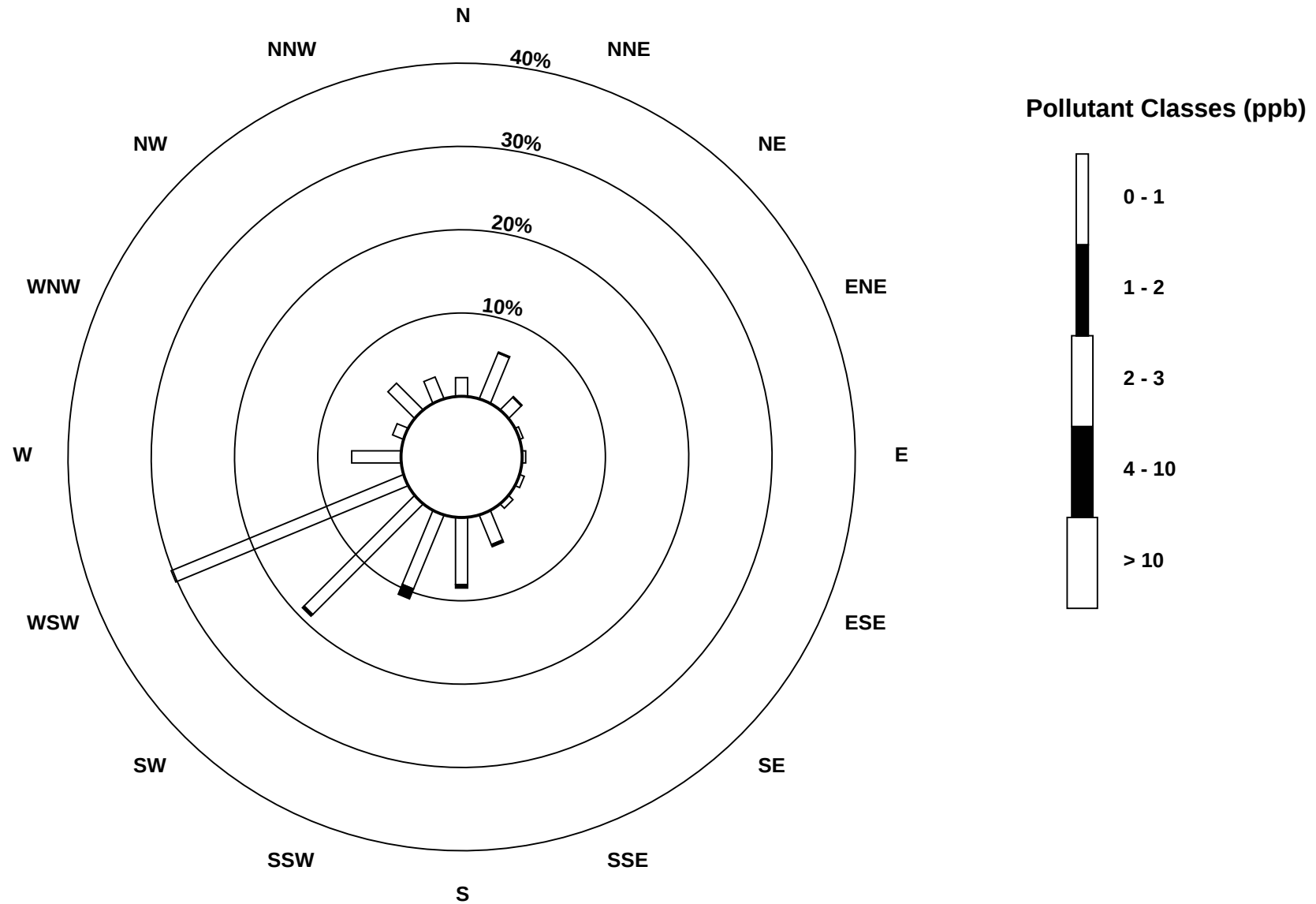
Hourly Maximums

Total Reduced Sulphur (TRS) - ppb
Smoky Heights - January 2012



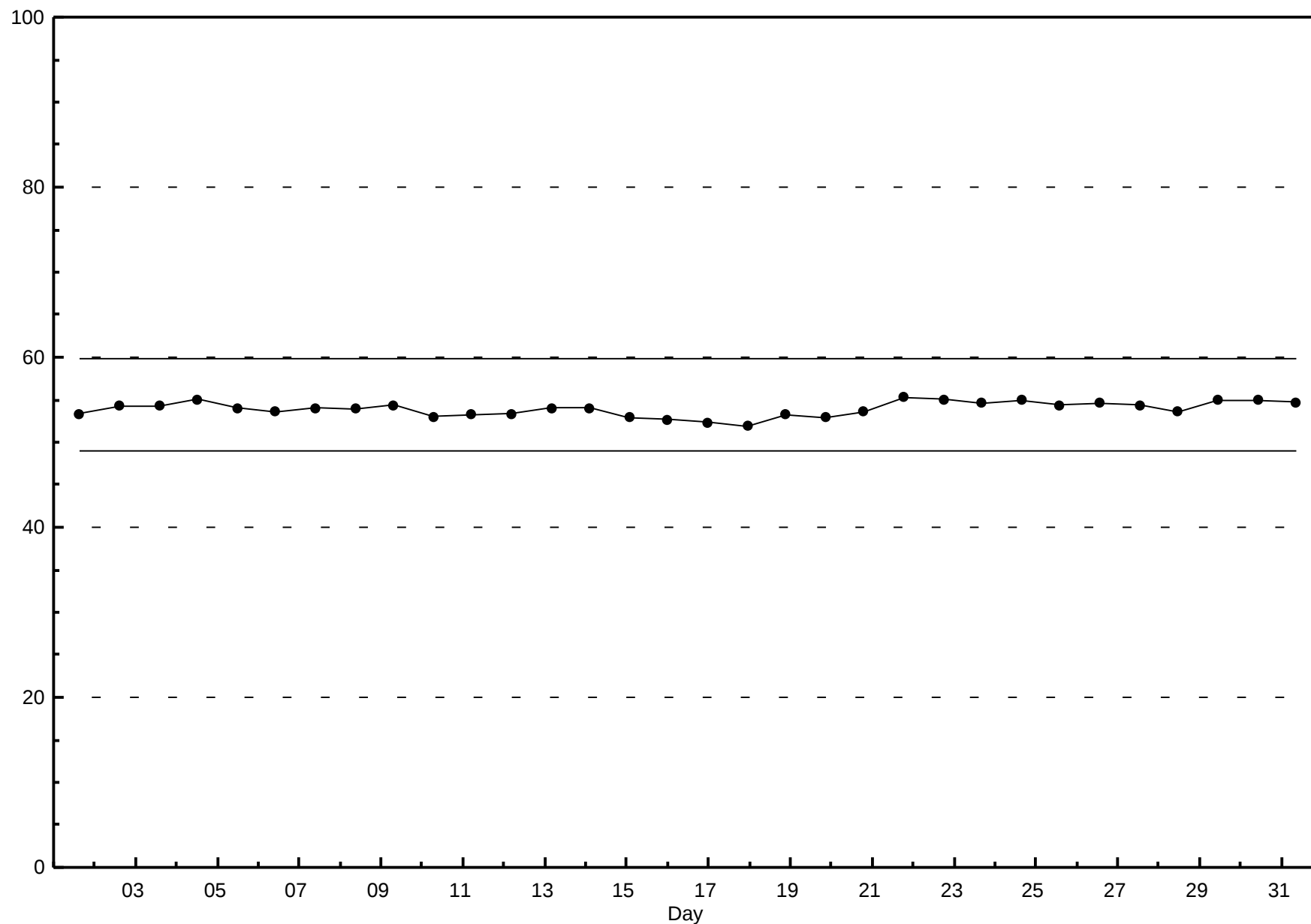
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb
Smoky Heights - January 2012



Span Responses

Total Reduced Sulphur (TRS)
Smoky Heights - January 2012

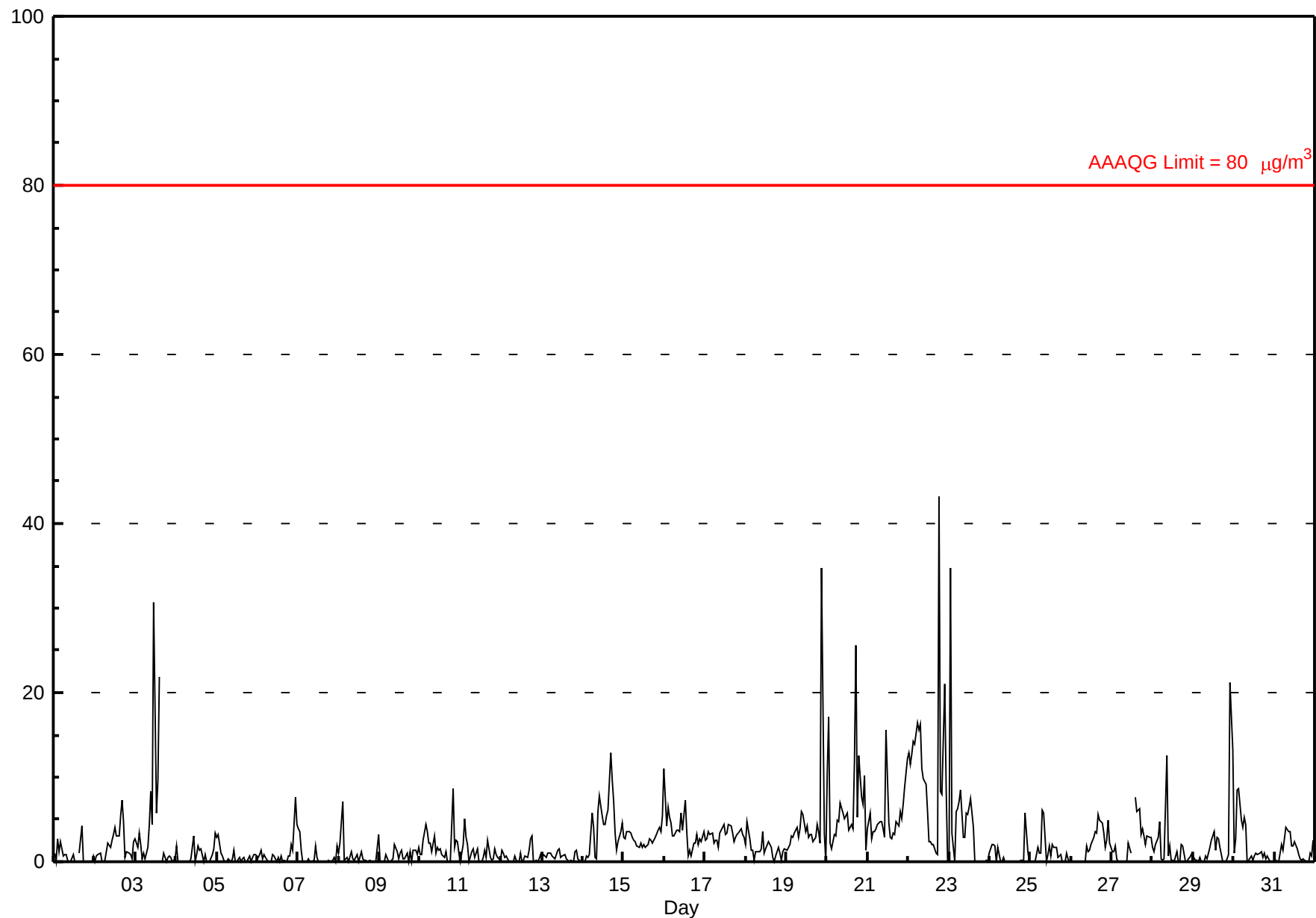


Hourly Averages

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

Smoky Heights - January 2012

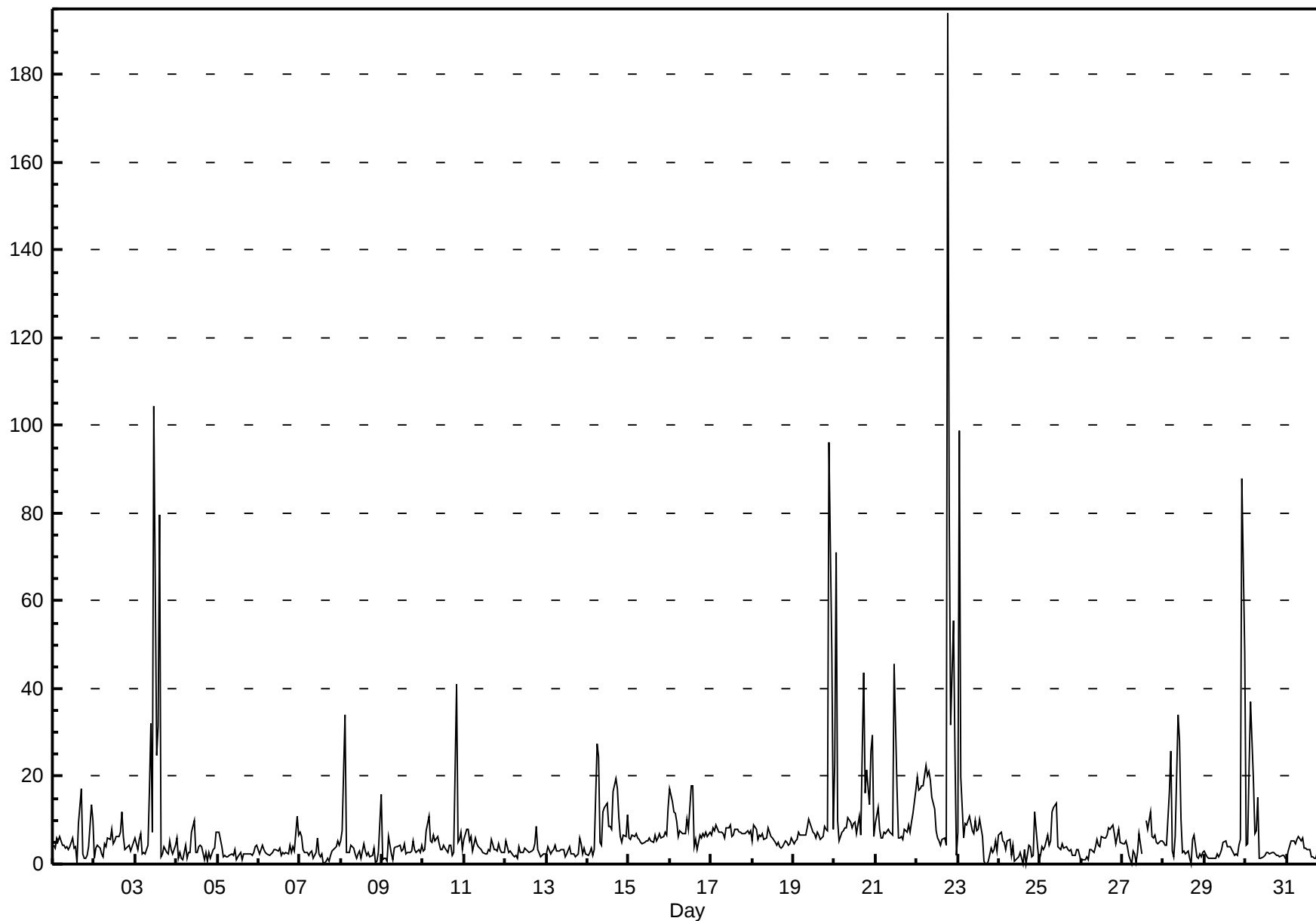
Number of Exceedences: 1-hr: 0 24-hr: 0 Maximum Value: 43.2 µg/m ³ on Jan 22 19:00 Minimum Value: 0 µg/m ³ on Jan 1 02:00 Maximum Diurnal Average: 3.6 µg/m ³ at hour 2 Monthly Average: 2.44 µg/m ³																										
Maximum Daily Average: 10.4 µg/m ³ on Jan 22 Minimum Daily Average: 0.6 µg/m ³ on Jan 5 Minimum Diurnal Average: 1.6 µg/m ³ at hour 21 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.2 Median = 1.2 Q ₃ = 3.2 P ₉₀ = 5.7 P ₉₉ = 20.6																										
Hours in Service: 744 Hours of Data: 739 Hours of Missing Data: 5 Hours of Calibration: 2 Percent Operational Time: 99.6																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Jan	1	0	3	1	2	1	1	1	0	0	0	1	0	0	N	1	4	0	0	0	0	0	0	1	0.7	4.3
2-Jan	0	1	1	1	0	0	0	1	2	2	3	3	4	3	3	5	7	5	1	1	1	1	0	2	2.0	7.2
3-Jan	3	2	3	2	0	1	0	2	4	8	4	31	6	10	22	N	0	1	0	0	1	1	0	0	4.4	30.6
4-Jan	2	0	0	0	0	0	0	0	0	0	3	0	1	2	1	1	0	1	0	0	0	1	2	3	0.7	3.3
5-Jan	3	3	1	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	1	1	1	0.6	3.3
6-Jan	1	1	1	0	1	0	0	0	0	1	1	0	1	0	1	0	0	0	1	1	2	1	8	4	1.0	7.6
7-Jan	4	4	1	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	1	0	2	0.6	3.8
8-Jan	1	2	7	0	0	1	0	1	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	3	0.8	7.0
9-Jan	0	0	0	0	1	0	0	0	0	2	1	0	1	1	0	0	1	0	1	0	1	1	1	2	0.6	2.0
10-Jan	1	1	2	4	4	2	2	1	3	1	2	1	2	1	0	1	0	0	0	9	2	2	2	1	1.9	8.6
11-Jan	0	2	5	3	2	0	1	2	1	1	1	0	0	1	1	1	3	0	0	0	1	1	1	0	1.1	5.1
12-Jan	1	1	1	1	0	0	0	0	1	0	0	1	0	0	1	0	1	3	3	0	0	0	0	1	0.6	3.1
13-Jan	0	1	0	1	1	1	1	0	1	1	2	0	1	1	0	0	0	0	1	1	0	0	0	0	0.6	1.5
14-Jan	0	0	1	0	1	6	4	0	0	6	8	5	4	4	5	6	13	10	7	3	1	2	4	5	4.1	12.9
15-Jan	3	3	4	4	3	3	2	2	2	2	2	2	2	2	2	3	3	2	3	3	4	4	4	5	2.8	5.4
16-Jan	11	4	6	5	5	3	3	4	4	4	6	4	7	3	1	1	1	2	2	3	2	3	2	3	3.7	11.1
17-Jan	3	3	4	3	3	2	3	3	2	3	4	4	3	3	4	4	3	2	3	3	3	4	3	3	3.2	4.4
18-Jan	2	5	3	1	1	0	1	1	1	2	4	1	1	2	2	2	1	0	1	2	1	0	1	2	1.5	4.7
19-Jan	1	2	2	3	3	3	4	3	4	6	6	4	4	3	3	3	2	3	4	4	2	35	3	0	4.5	34.7
20-Jan	10	17	2	1	3	3	5	5	7	6	5	5	6	4	4	4	12	26	5	13	8	7	10	1	7.1	25.6
21-Jan	4	6	3	4	4	4	4	5	5	4	3	16	5	3	3	3	3	5	4	6	5	7	9	12	5.2	15.6
22-Jan	13	12	13	14	14	16	16	16	11	10	9	6	2	2	2	2	1	1	43	8	8	21	9	0	10.4	43.2
23-Jan	0	35	3	0	6	6	7	8	3	3	6	6	6	7	4	0	0	0	0	0	0	0	0	0	4.2	34.8
24-Jan	1	2	2	2	0	2	0	0	0	0	0	0	0	0	N	0	0	0	0	0	0	6	1	0	0.7	5.7
25-Jan	0	0	0	0	2	1	1	6	6	0	1	2	1	2	2	2	1	1	1	0	0	1	0	0	1.1	6.1
26-Jan	0	0	0	0	0	0	0	0	0	2	1	1	2	3	4	3	6	5	5	3	2	3	5	2	1.9	5.6
27-Jan	1	1	2	0	0	0	0	0	0	0	2	1	C	C	8	6	6	3	4	3	2	3	3	3	2.2	7.5
28-Jan	2	1	2	3	5	0	0	0	13	1	2	0	0	0	1	0	0	2	2	0	0	0	0	1	1.5	12.6
29-Jan	1	0	0	0	0	0	0	1	0	1	2	2	4	1	3	3	2	0	0	0	0	1	21	13	2.3	21.2
30-Jan	1	3	8	9	5	4	5	4	0	0	1	0	1	1	1	1	1	1	1	0	1	0	0	0	2.0	8.7
31-Jan	0	0	0	1	2	1	3	4	4	4	2	2	2	1	1	0	0	0	0	0	0	1	1	3	1.3	4.0
2.2 3.6 2.6 2.1 2.2 2.0 2.1 2.3 2.4 2.2 2.7 3.3 2.2 2.1 2.8 1.8 2.3 2.3 2.9 2.1 1.6 3.5 2.9 2.4 Diurnal Average 12.9 34.8 12.7 14.2 14.0 16.4 15.6 16.2 12.6 9.8 9.2 30.6 7.3 9.7 21.9 6.1 12.9 25.6 43.2 12.6 7.9 34.7 21.2 13.3 Diurnal Maximum																										
C - Calibration N - Not Valid Alberta Ambient Air Quality Guideline (AAQG): 1-hr 80 µg/m ³ Alberta Ambient Air Quality Objective (AAQO): 24-hr 30 µg/m ³																										



Hourly Maximums

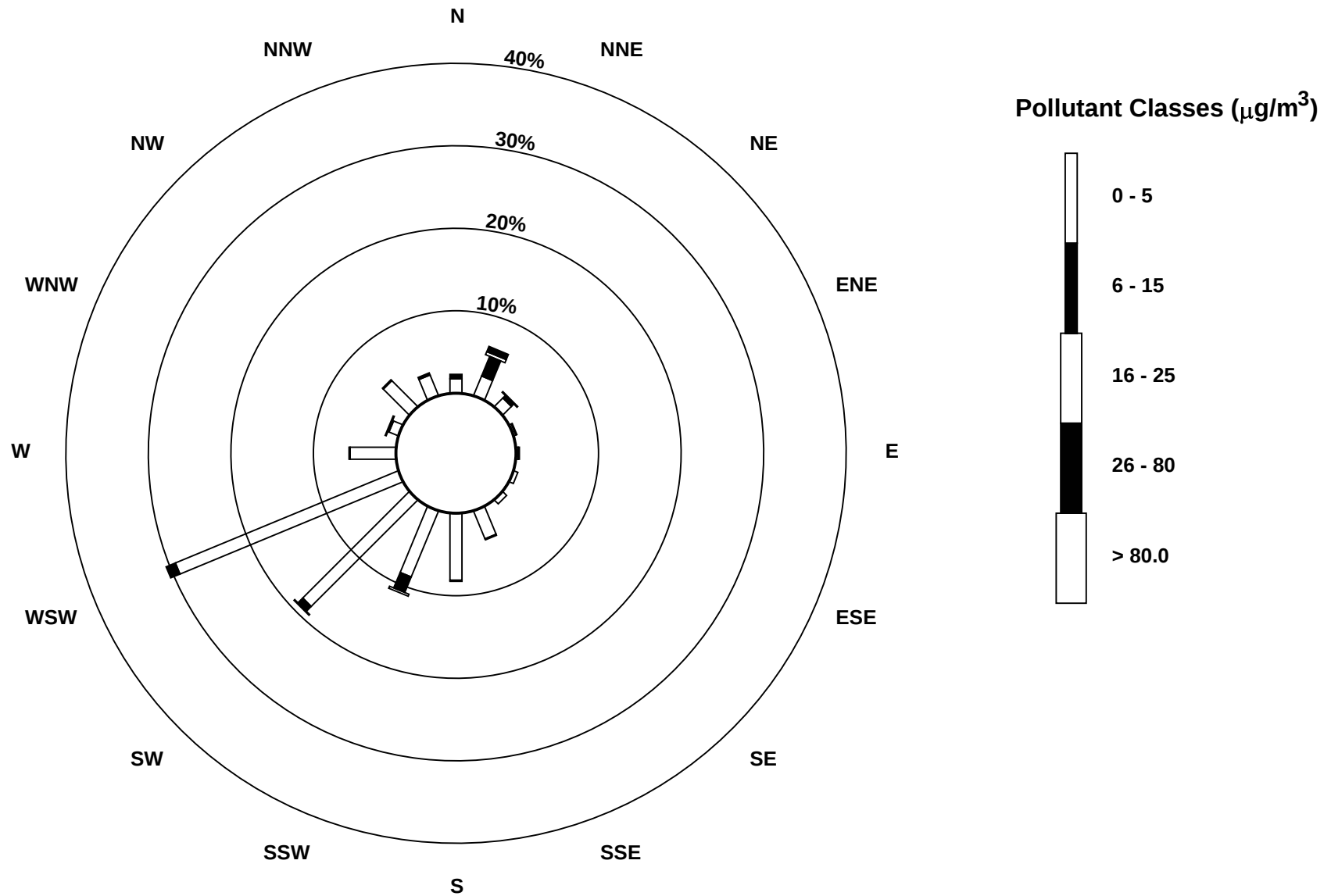
Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$

Smoky Heights - January 2012



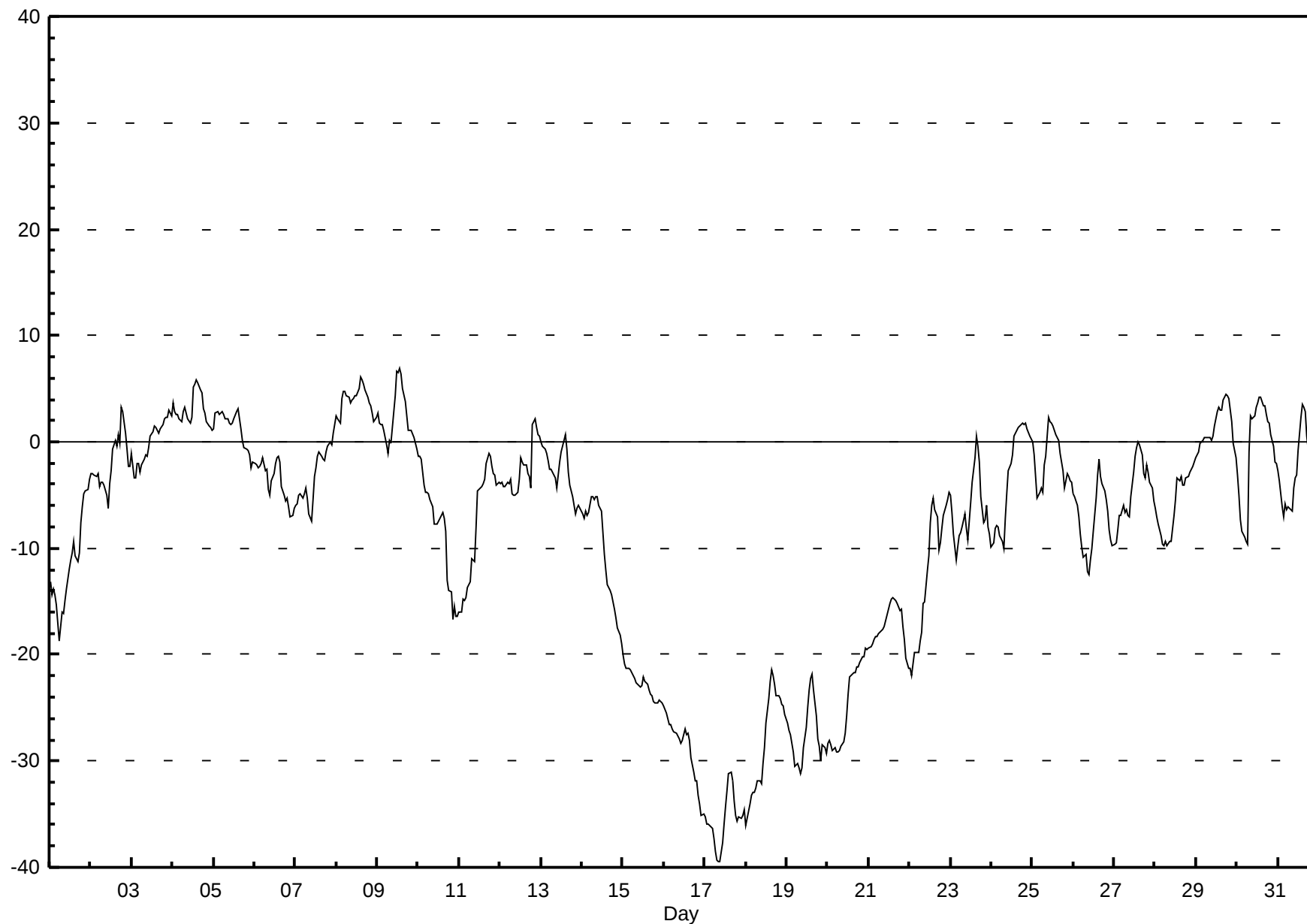
Pollutant Rose

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Smoky Heights - January 2012



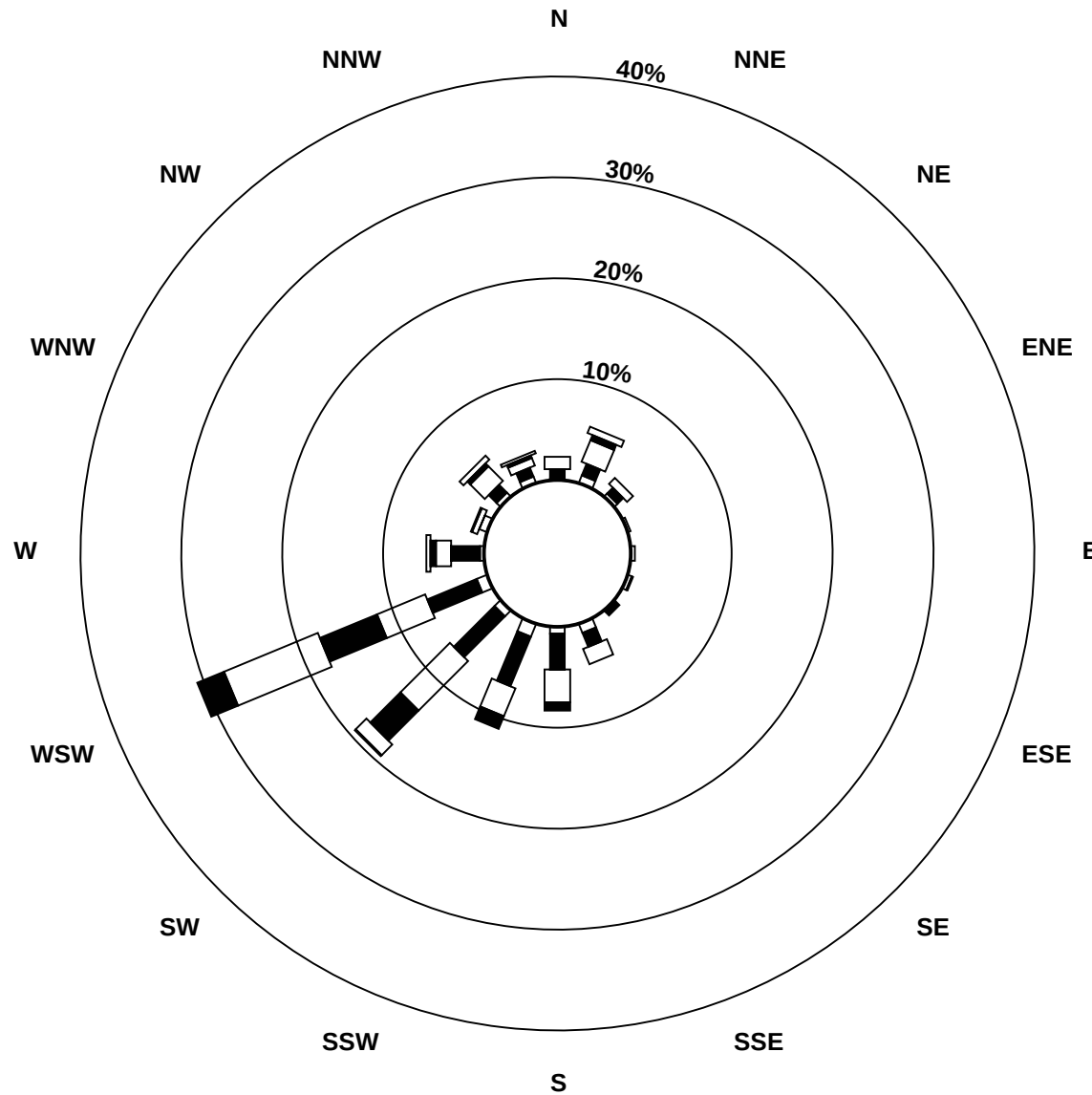
Hourly Averages

External Temperature (ET) - °C
Smoky Heights - January 2012

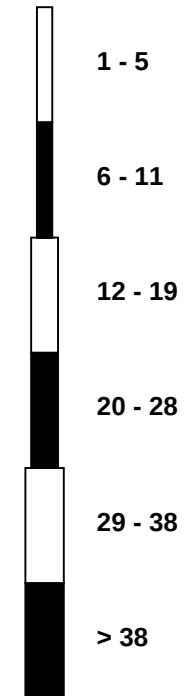


Wind Rose

Wind Speed (WS) (km/h)
Smoky Heights - January 2012



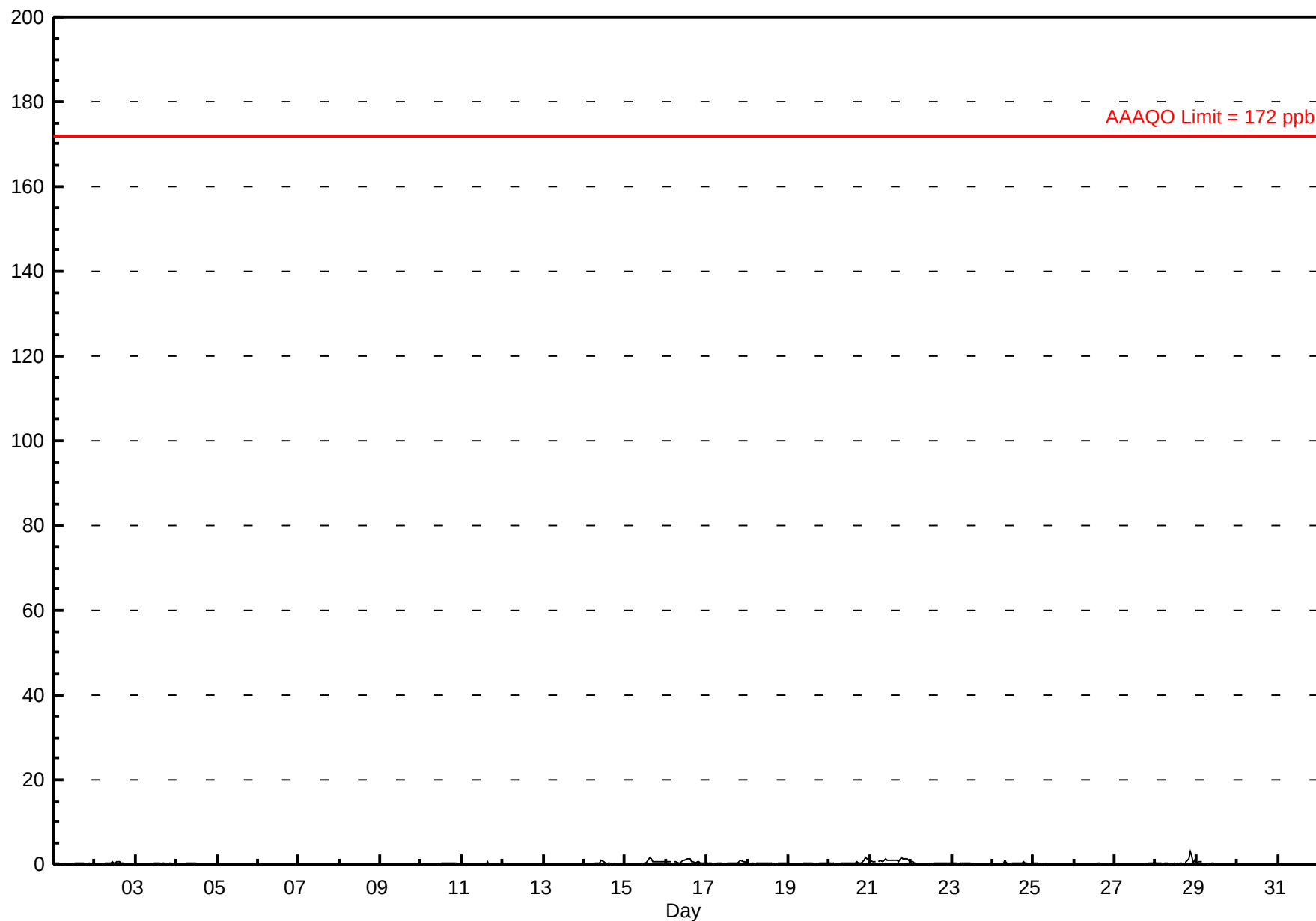
Wind Speed Classes (km/h)



PAZA
Beaverlodge Station
Monthly Summary Tables, Graphs and
Roses

Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Beaverlodge - January 2012



Hourly Maximums

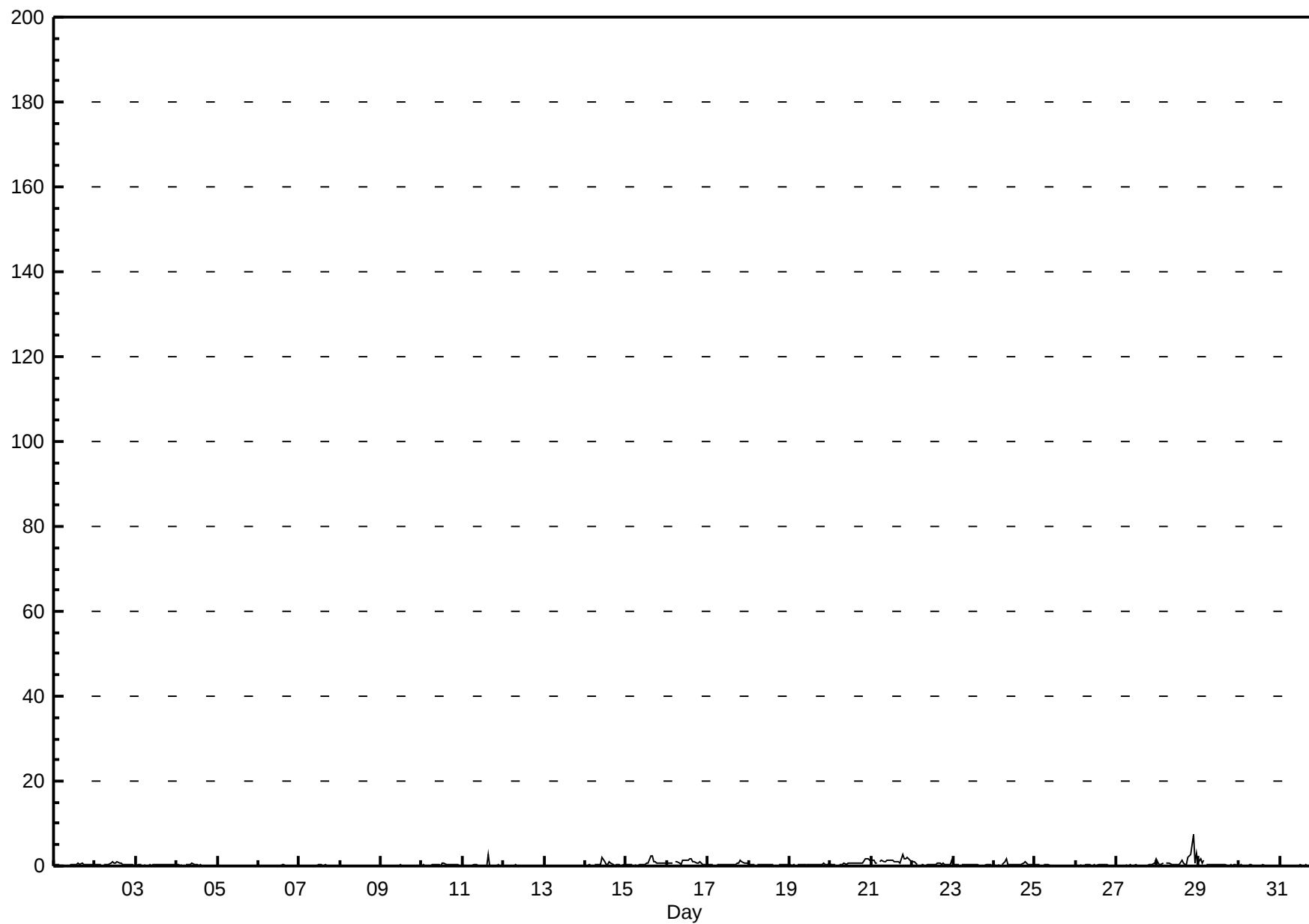
Sulphur Dioxide (SO₂) - ppb

Beaverlodge - January 2012

Maximum Value: 7.3 ppb on Jan 28 22:00																				Maximum Daily Average: 1.3 ppb on Jan 21										Hours in Service: 744									
Minimum Value: 0 ppb on Jan 26 02:00																				Minimum Daily Average: 0.1 ppb on Jan 8										Hours of Data: 710									
Maximum Diurnal Average: 0.6 ppb at hour 22																				Minimum Diurnal Average: 0.3 ppb at hour 9										Hours of Missing Data: 34									
Monthly Average: 0.36 ppb																				Percentiles: P ₁ = 0.1 P ₁₀ = 0.1 Q ₁ = 0.1 Median = 0.2 Q ₃ = 0.4 P ₉₀ = 0.8 P ₉₉ = 2.3										Hours of Calibration: 34									
																				Percent Operational Time: 100.0																			
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24															
1-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0.3	0.7													
2-Jan	0	0	0	0	A	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0.4	0.9													
3-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3													
4-Jan	0	0	0	0	A	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6													
5-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2													
6-Jan	0	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													
7-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2													
8-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1													
9-Jan	0	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													
10-Jan	0	0	0	0	A	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0.3	0.6													
11-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0.3	2.7													
12-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2													
13-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2													
14-Jan	0	0	0	0	A	0	0	0	0	0	2	1	0	0	1	1	0	0	0	0	0	0	0	0	0.4	1.9													
15-Jan	0	0	0	0	A	0	0	0	0	0	0	0	1	1	2	2	1	1	1	1	1	1	1	1	0.6	2.4													
16-Jan	1	1	1	1	A	1	1	1	0	1	1	1	1	2	2	1	1	1	1	1	1	0	0	0	0.9	1.8													
17-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0.5	1.2													
18-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	C	C	C	1	0	0	0	0	0	0.4	0.5													
19-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0.3	0.6													
20-Jan	0	0	0	1	A	0	0	0	1	0	1	1	1	1	1	1	1	1	1	1	2	2	2	1	0.7	1.8													
21-Jan	1	1	1	1	A	1	1	1	1	2	1	1	1	1	1	1	1	1	3	2	2	2	2	1	1.3	2.6													
22-Jan	1	1	1	0	A	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0	1	0.4	1.3													
23-Jan	0	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													
24-Jan	0	0	0	0	A	0	1	2	1	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0.4	1.7													
25-Jan	0	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													
26-Jan	0	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-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0.2	1.6													
28-Jan	1	0	0	1	A	1	1	1	0	0	0	0	0	0	1	1	0	0	2	3	5	7	1	3	1.2	7.3													
29-Jan	1	2	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.5													
30-Jan	0	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													
31-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3													
0.3 0.3 0.3 0.3 -- 0.3 0.3 0.3 0.3 0.3 0.4 0.3 0.3 0.3 0.5 0.5 0.3 0.3 0.4 0.4 0.5 0.6 0.4 0.4																									Diurnal Average														
1.3 1.5 0.8 1.5 -- 1.1 1.3 1.7 1.1 1.5 1.9 1.3 1.5 1.5 2.4 2.7 1.0 0.9 2.6 2.7 5.0 7.3 1.8 2.9																									Diurnal Maximum														
C - Calibration																									A - Automated Daily Zero Span														

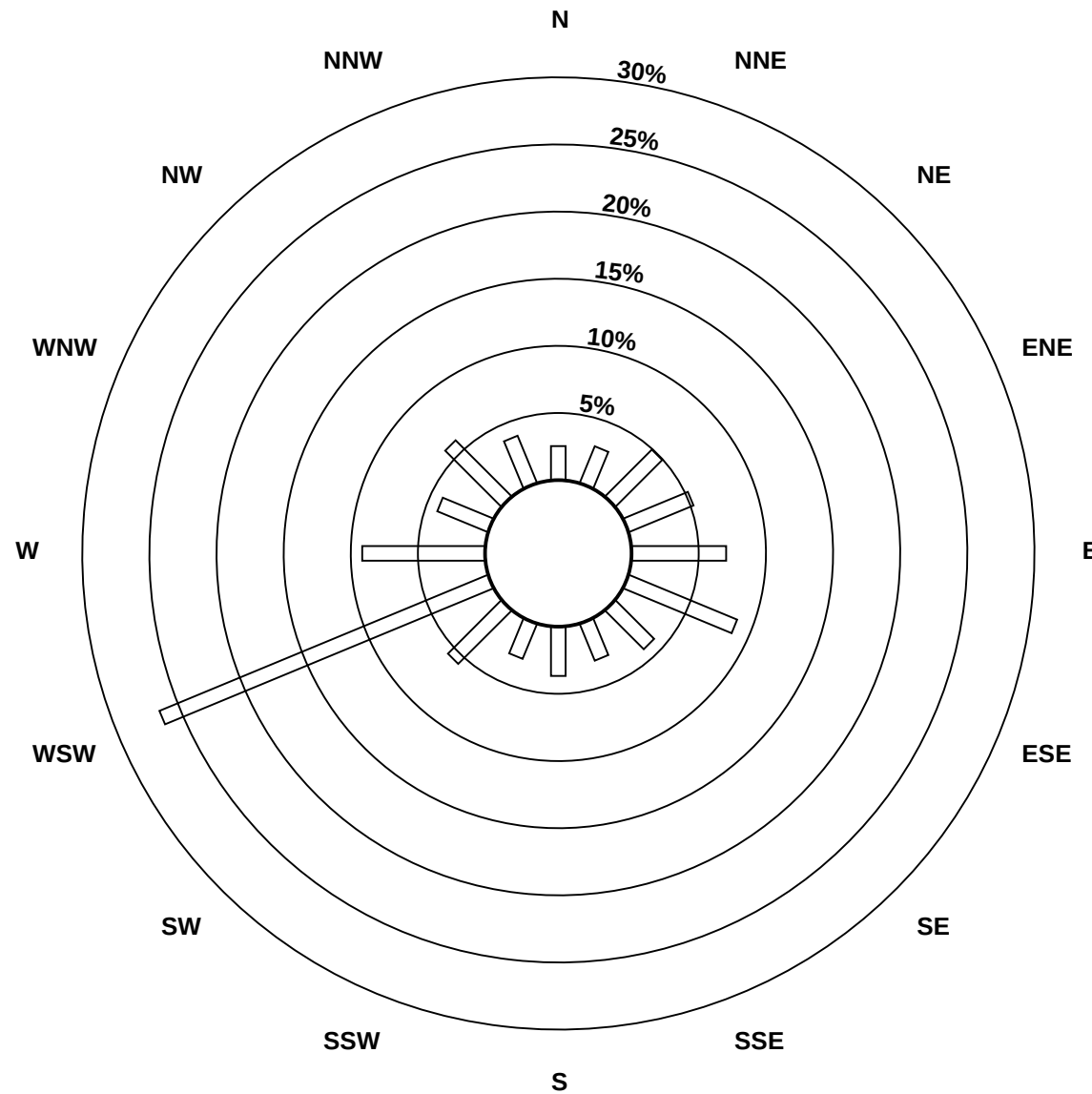
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Beaverlodge - January 2012

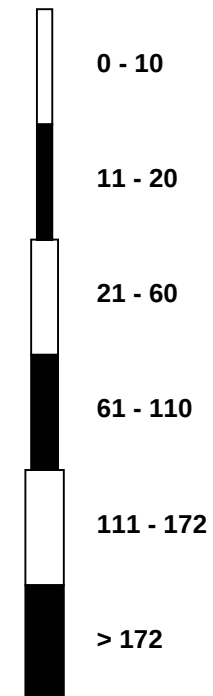


Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Beaverlodge - January 2012

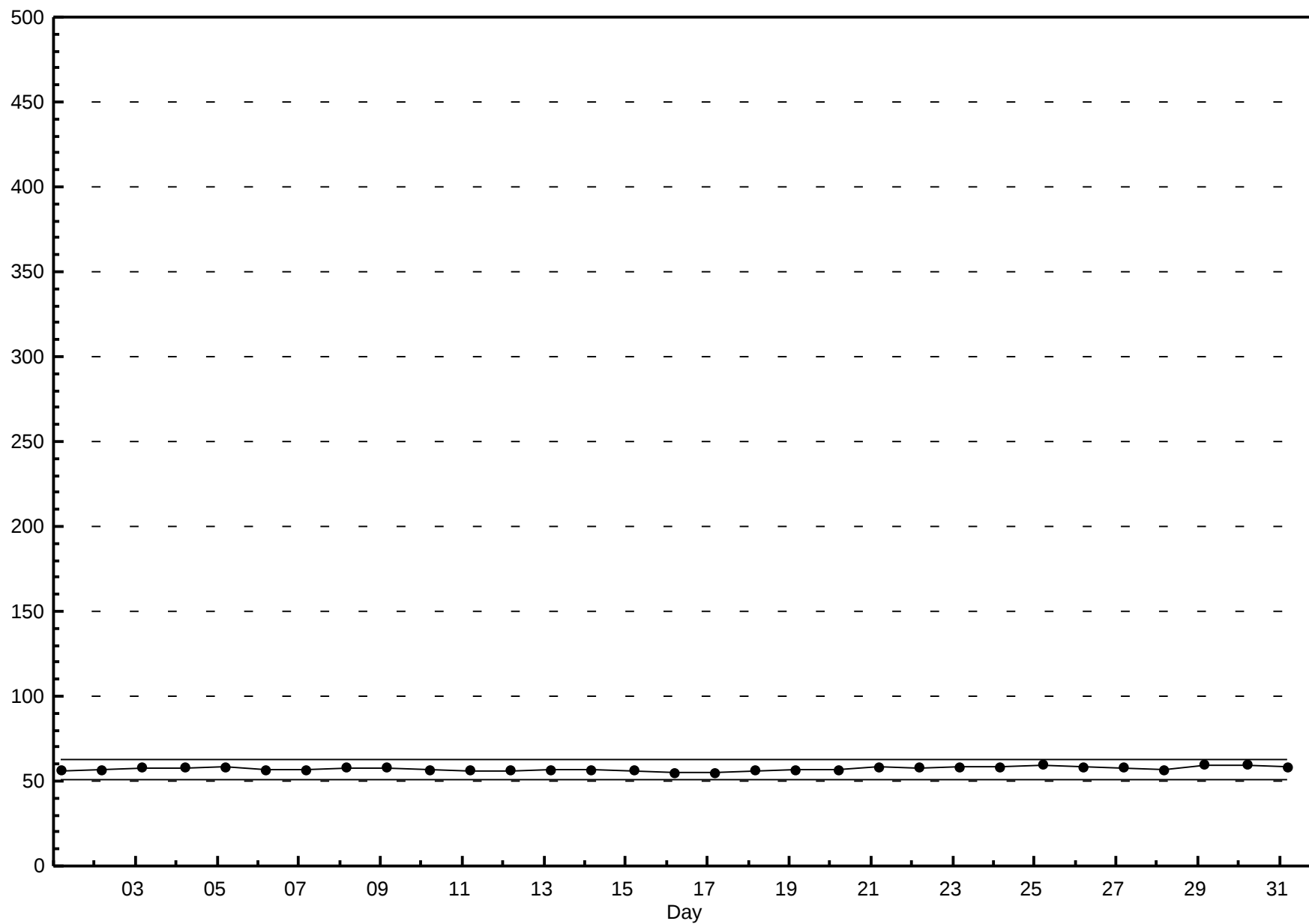


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Beaverlodge - January 2012



Hourly Averages

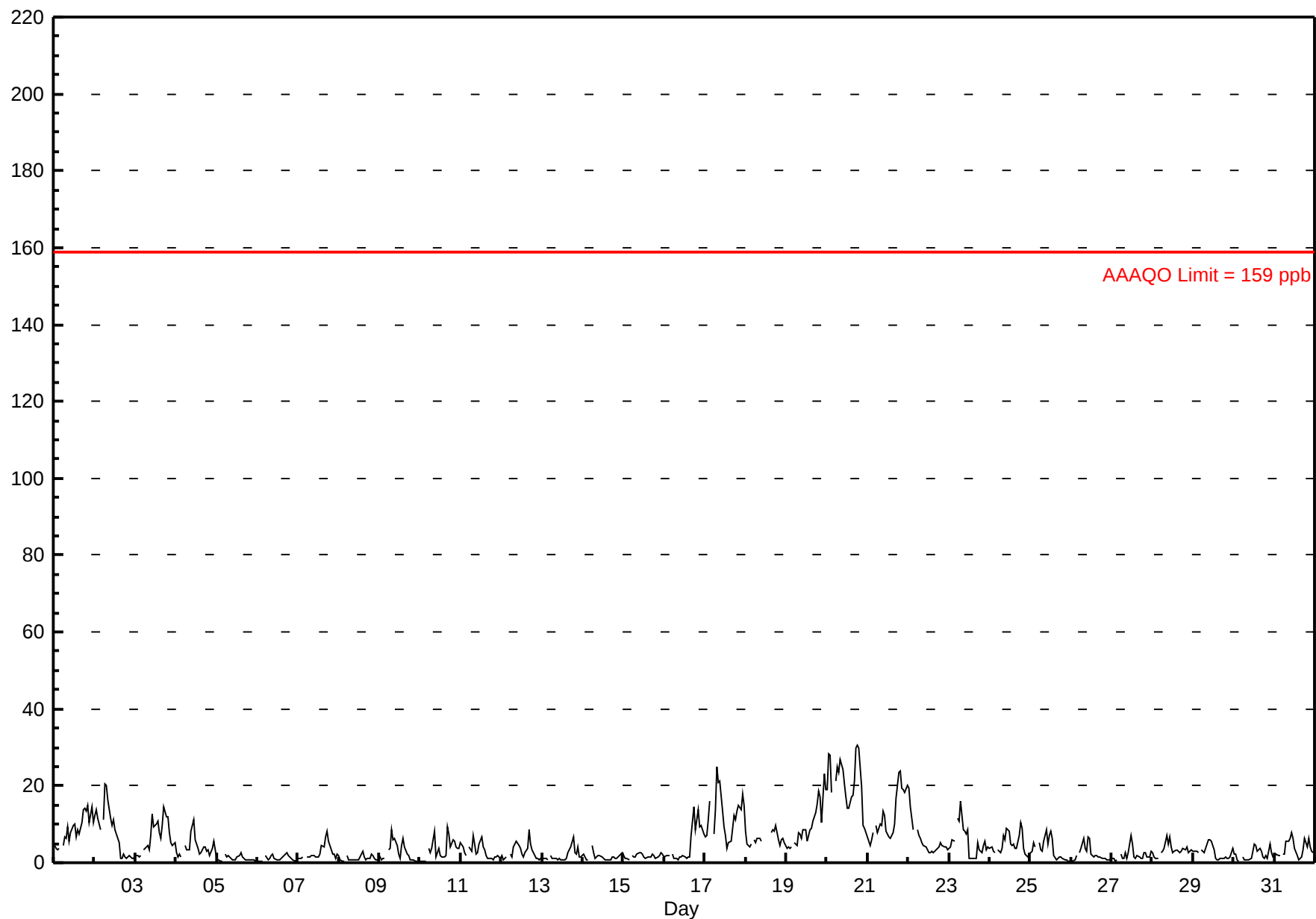
Nitrogen Dioxide (NO₂) - ppb

Beaverlodge - January 2012

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 30.5 ppb on Jan 20 19:00 Maximum Daily Average: 20.5 ppb on Jan 20																				Hours in Service: 744 Hours of Data: 708						
Minimum Value: 0 ppb on Jan 6 02:00 Minimum Daily Average: 1.1 ppb on Jan 5 Maximum Diurnal Average: 6.3 ppb at hour 18 Minimum Diurnal Average: 3.5 ppb at hour 4 Monthly Average: 4.87 ppb Percentiles: P ₁ = 0.4 P ₁₀ = 0.9 Q ₁ = 1.4 Median = 2.9 Q ₃ = 6.4 P ₉₀ = 11.3 P ₉₉ = 23.7																				Hours of Missing Data: 36 Hours of Calibration: 36 Percent Operational Time: 100.0						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Jan	5	4	3	4	A	5	7	6	9	6	8	10	10	7	9	7	11	14	14	13	15	10	15	10	8.7	15.0
2-Jan	12	14	12	9	A	11	21	20	16	12	10	11	9	7	5	1	1	2	2	1	2	2	1	1	7.9	20.6
3-Jan	2	2	1	2	A	3	4	5	3	7	13	9	10	11	8	6	10	14	12	12	8	5	5	5	6.8	14.4
4-Jan	3	2	2	1	A	4	3	3	3	8	11	6	5	4	2	3	4	4	3	3	2	4	5	3	3.9	11.2
5-Jan	1	1	0	1	A	2	2	2	1	1	1	1	1	2	3	1	1	1	1	1	1	1	1	1	1.1	2.6
6-Jan	0	0	0	1	A	2	1	1	2	2	1	1	1	1	2	2	3	2	1	1	1	1	1	1	1.2	2.8
7-Jan	1	1	1	1	A	2	1	1	2	2	2	1	1	2	4	4	7	8	5	4	2	2	1	2	2.6	8.2
8-Jan	2	1	0	0	A	2	1	1	1	1	1	1	1	2	3	1	1	1	1	2	2	1	1	1	1.2	3.1
9-Jan	2	1	1	1	A	3	4	9	6	6	4	2	1	5	6	4	2	2	1	1	1	1	0	0	2.8	8.5
10-Jan	0	0	0	1	A	4	3	4	8	2	2	4	2	2	2	2	9	8	4	6	6	4	4	4	3.4	9.4
11-Jan	5	4	3	2	A	4	3	7	5	2	3	5	7	4	3	2	1	1	1	1	1	1	2	1	3.0	7.2
12-Jan	2	1	1	2	A	2	2	4	5	6	4	4	2	1	3	4	9	5	3	2	1	1	1	1	2.8	8.6
13-Jan	1	1	1	1	A	2	1	1	1	1	1	1	1	1	1	3	3	4	7	3	2	4	2	2	1.9	6.6
14-Jan	2	2	1	1	A	5	3	1	1	2	2	2	1	1	1	1	1	1	1	1	1	2	2	3	1.6	4.5
15-Jan	2	1	1	1	A	2	2	2	2	3	3	2	1	1	2	2	2	2	2	1	1	2	3	2	1.7	2.7
16-Jan	2	2	2	2	A	2	1	1	1	2	1	2	1	1	2	1	7	15	9	11	14	9	10	8	4.5	14.5
17-Jan	7	7	11	16	A	7	14	25	21	21	13	9	7	4	5	6	9	12	11	13	15	14	18	15	12.2	24.9
18-Jan	8	5	4	5	A	6	5	6	6	6	C	C	C	C	C	8	9	8	10	6	5	6	6	5	6.3	9.7
19-Jan	4	4	4	4	A	5	4	8	7	6	9	8	6	7	9	9	11	13	15	19	17	10	23	19	9.6	23.3
20-Jan	19	28	28	18	A	21	25	24	27	24	20	17	14	14	17	17	21	30	31	30	20	10	9	8	20.5	30.5
21-Jan	7	4	6	8	A	10	8	10	10	14	12	8	7	6	7	8	10	17	24	24	19	19	18	20	11.9	24.0
22-Jan	19	15	11	9	A	8	7	6	5	4	4	3	3	2	3	3	3	4	4	5	5	4	4	4	5.9	19.3
23-Jan	4	4	6	6	A	11	11	16	8	8	7	9	1	1	1	1	1	5	3	2	4	5	3	4	5.4	16.0
24-Jan	4	4	3	3	A	3	3	4	7	6	9	8	5	4	5	4	4	7	10	9	4	2	2	2	4.8	10.4
25-Jan	2	3	5	4	A	5	4	3	5	8	5	7	8	6	2	1	1	1	2	1	1	1	0	0	3.4	8.5
26-Jan	0	0	1	2	A	3	4	6	4	3	7	6	2	1	2	2	2	1	1	1	1	1	1	1	2.3	6.9
27-Jan	1	1	0	1	A	2	1	1	3	1	2	7	5	1	1	2	1	1	1	3	3	1	1	3	2.0	7.0
28-Jan	3	2	1	1	A	3	3	4	7	5	7	4	3	3	4	3	3	3	4	3	4	3	3	4	3.3	7.2
29-Jan	3	3	3	3	A	3	3	4	5	6	6	6	3	1	1	1	1	1	1	1	1	1	2	4	2.7	6.1
30-Jan	2	2	1	0	A	1	1	1	1	1	1	3	5	5	3	4	3	2	1	2	1	5	3	2	2.1	4.7
31-Jan	1	2	2	2	A	2	2	6	6	6	8	6	4	2	1	1	2	3	6	4	6	4	3	3	3.6	7.7
4.0 3.9 3.8 3.5 -- 4.8 4.8 6.1 6.1 5.8 5.9 5.4 4.2 3.7 3.8 3.6 4.9 6.3 6.2 6.1 5.4 4.4 4.8 4.4 Diurnal Average																										
19.3 28.5 27.8 18.3 -- 21.2 24.9 24.9 27.0 24.2 20.5 17.2 14.1 14.2 17.3 17.4 21.1 29.8 30.5 29.8 19.6 18.8 23.3 20.2 Diurnal Maximum																										
C - Calibration A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb 24-hr 106 ppb																										

Hourly Averages

Nitrogen Dioxide (NO₂) - ppb
Beaverlodge - January 2012



Hourly Maximums

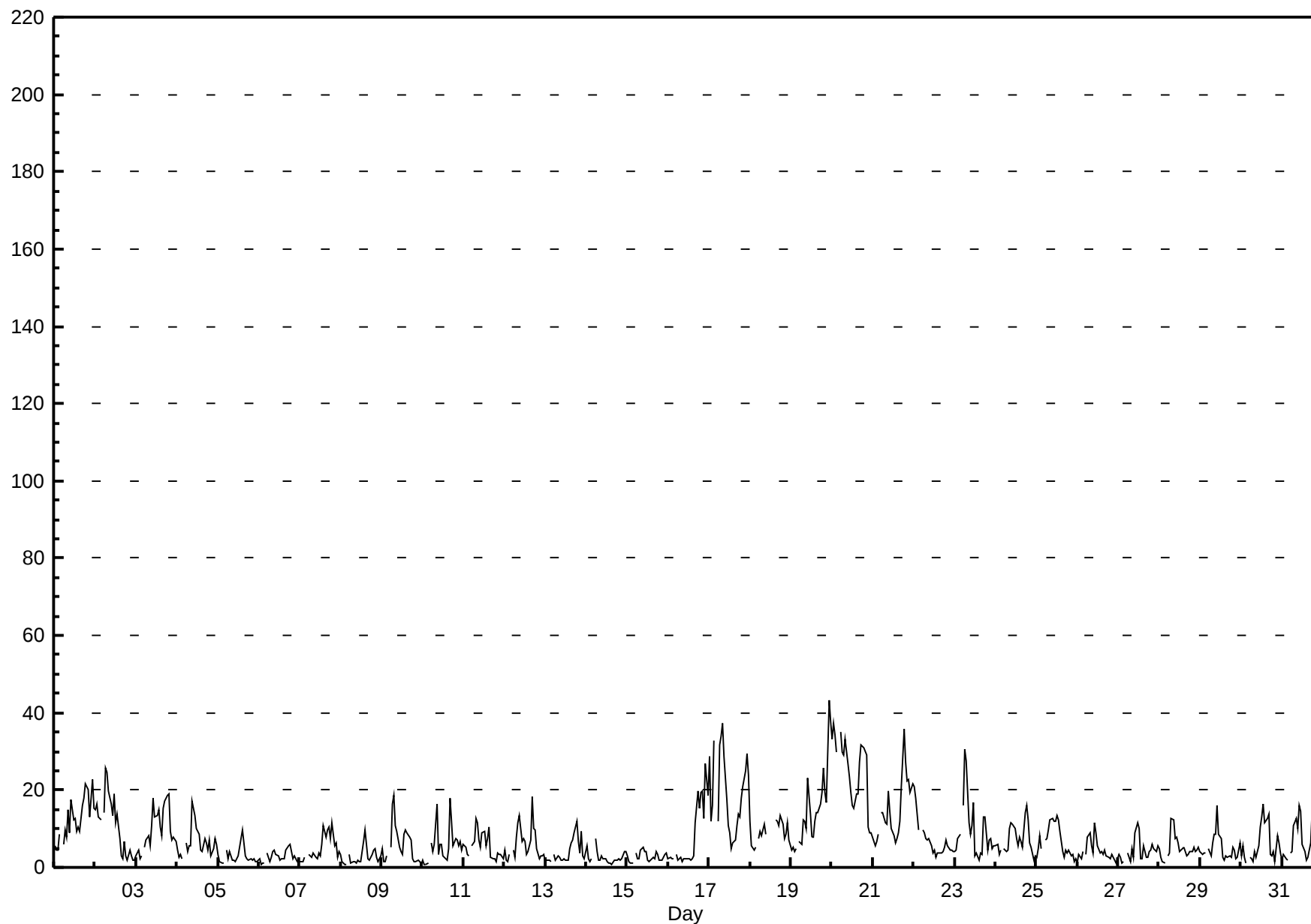
Nitrogen Dioxide (NO₂) - ppb

Beaverlodge - January 2012

Maximum Value: 43.2 ppb on Jan 19 23:00																				Maximum Daily Average: 25.2 ppb on Jan 20										Hours in Service: 744	
Minimum Value: 1 ppb on Jan 8 04:00																				Minimum Daily Average: 2.6 ppb on Jan 14										Hours of Data: 708	
Maximum Diurnal Average: 10.1 ppb at hour 9																				Minimum Diurnal Average: 4.9 ppb at hour 3										Hours of Missing Data: 36	
Monthly Average: 7.71 ppb																				Percentiles: P ₁ = 1.0 P ₁₀ = 1.9 Q ₁ = 2.8 Median = 5.2 Q ₃ = 10.2 P ₉₀ = 17.0 P ₉₉ = 34.0										Hours of Calibration: 36	
																				Percent Operational Time: 100.0											
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
1-Jan	6	4	4	9	A	6	10	8	15	9	18	12	13	9	11	9	16	18	22	21	20	13	23	15	12.6	22.8					
2-Jan	15	16	13	12	A	14	26	25	20	16	13	19	12	14	7	3	2	7	3	2	5	3	2	2	10.9	25.8					
3-Jan	3	5	2	3	A	5	7	8	6	11	18	13	13	15	11	8	15	17	19	19	9	7	8	7	10.0	19.1					
4-Jan	4	3	3	2	A	6	4	6	6	17	14	10	9	8	4	4	8	6	4	7	3	5	8	6	6.4	17.3					
5-Jan	3	1	1	1	A	4	2	4	2	2	2	2	3	7	10	6	3	2	2	2	2	2	2	1	3.0	9.7					
6-Jan	2	1	1	1	A	4	1	3	4	4	3	3	2	2	2	2	4	5	6	4	2	3	1	1	2.8	6.0					
7-Jan	2	1	1	2	A	4	3	3	4	3	2	4	3	6	11	8	10	10	8	12	5	6	3	4	5.0	11.7					
8-Jan	3	2	1	1	A	3	1	2	1	1	2	1	1	7	10	6	2	2	3	4	5	3	1	3	2.9	9.7					
9-Jan	5	1	2	3	A	5	16	19	11	9	5	4	3	9	10	9	8	7	2	2	1	2	1	1	5.9	18.7					
10-Jan	2	1	1	1	A	6	4	6	16	3	6	6	3	3	2	5	18	12	6	7	7	6	7	4	5.7	17.8					
11-Jan	6	5	3	3	A	6	7	13	12	7	5	9	9	5	8	10	3	2	2	1	4	3	3	2	5.6	12.7					
12-Jan	5	2	2	3	A	5	2	8	12	14	7	8	7	3	4	7	18	10	10	5	2	3	3	3	6.2	18.2					
13-Jan	1	2	2	1	A	3	2	3	2	2	2	2	2	2	5	6	7	9	12	7	4	9	3	2	4.0	12.1					
14-Jan	6	2	1	2	A	8	4	2	2	3	2	2	1	1	1	1	2	2	2	2	2	2	4	4	2.6	7.6					
15-Jan	3	2	1	1	A	4	2	2	5	5	4	4	2	2	2	2	2	4	3	2	2	3	3	4	2.8	5.3					
16-Jan	2	3	2	2	A	3	2	3	2	2	2	2	2	2	3	12	20	15	19	20	13	27	19	7.8	26.8						
17-Jan	29	12	16	33	A	12	32	34	37	29	17	11	9	5	6	7	11	14	13	18	21	25	30	24	19.3	37.4					
18-Jan	12	6	4	5	A	7	9	8	11	9	C	C	C	C	C	12	12	11	13	11	8	8	12	7	9.3	13.4					
19-Jan	4	5	4	5	A	7	6	12	12	10	23	14	8	8	12	14	14	16	19	26	20	17	43	38	14.7	43.2					
20-Jan	33	37	34	30	A	35	30	29	33	27	23	20	16	15	19	19	27	32	31	31	29	11	9	9	25.2	37.1					
21-Jan	8	6	7	9	A	14	14	12	11	20	15	10	8	6	8	9	12	21	36	27	22	23	20	22	14.7	35.9					
22-Jan	21	18	14	10	A	10	9	7	7	7	6	4	5	3	4	4	4	4	5	7	6	5	5	4	7.2	20.7					
23-Jan	4	5	7	8	A	16	31	27	12	9	11	17	3	4	2	4	3	13	13	5	7	8	5	6	9.5	30.5					
24-Jan	6	6	3	5	A	5	4	4	10	12	11	10	7	6	8	7	5	14	16	12	6	5	2	3	7.3	16.0					
25-Jan	3	5	8	5	A	7	8	10	12	13	12	12	13	12	9	4	3	4	4	5	3	3	2	2	6.9	13.5					
26-Jan	1	3	2	4	A	3	8	9	6	4	11	9	6	4	4	4	4	3	3	2	3	2	2	1	4.3	11.4					
27-Jan	3	3	1	2	A	4	3	2	5	3	9	11	10	2	2	6	3	3	4	5	6	5	4	6	4.3	11.4					
28-Jan	5	2	2	1	A	3	4	13	12	7	8	6	4	5	5	4	3	3	4	4	5	4	4	5	5.0	12.5					
29-Jan	4	3	4	4	A	5	3	6	9	9	16	8	7	2	2	3	2	3	3	5	4	2	2	6	5.0	16.2					
30-Jan	3	6	3	1	A	3	2	1	4	3	6	10	13	16	12	13	14	3	3	4	2	8	6	4	6.0	16.5					
31-Jan	2	3	2	2	A	4	4	11	13	10	16	15	6	4	2	3	5	6	15	8	8	8	4	3	6.7	15.9					
																									Diurnal Average						
																									Diurnal Maximum						
C - Calibration																									A - Automated Daily Zero Span						

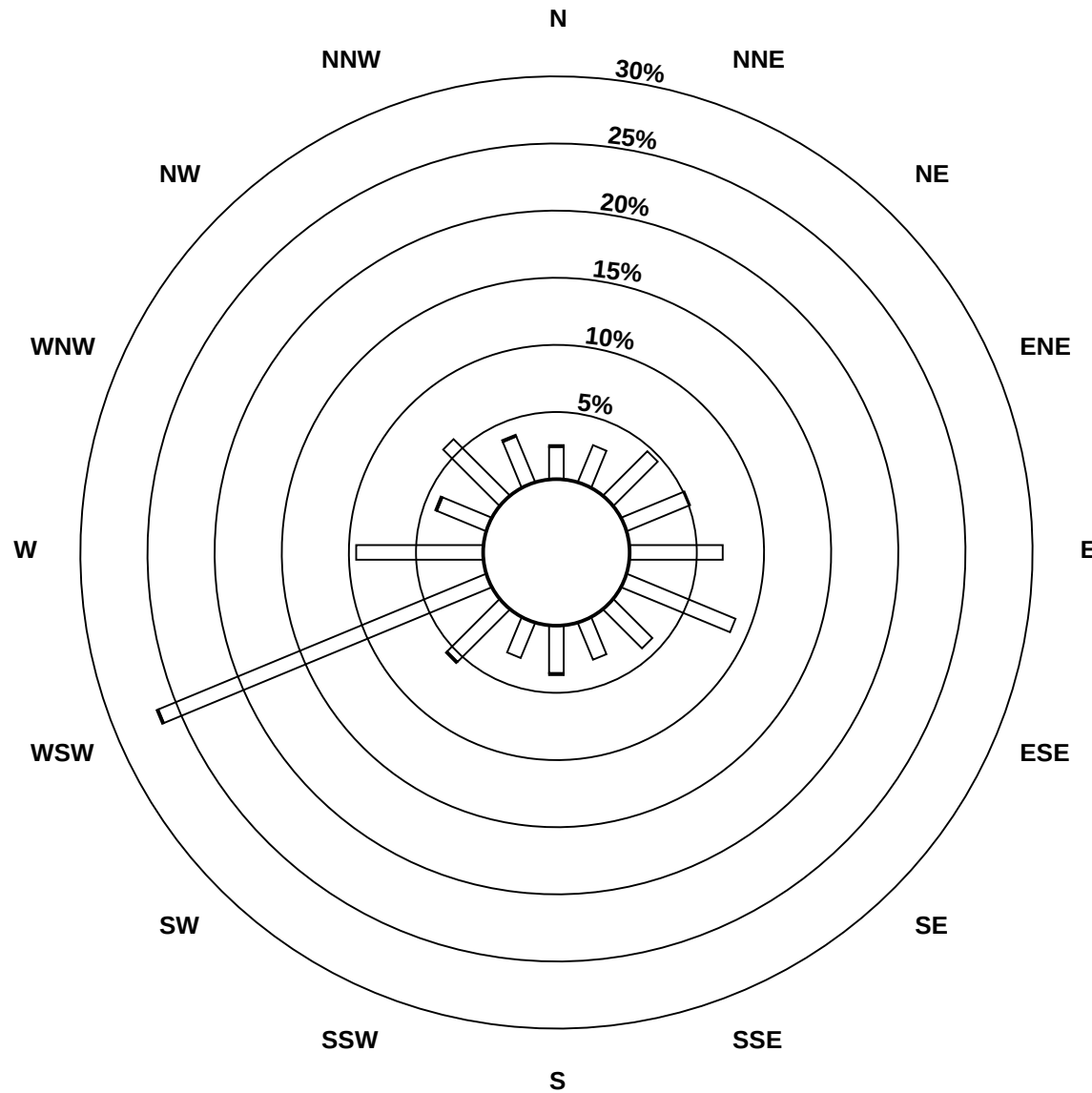
Hourly Maximums

Nitrogen Dioxide (NO₂) - ppb
Beaverlodge - January 2012

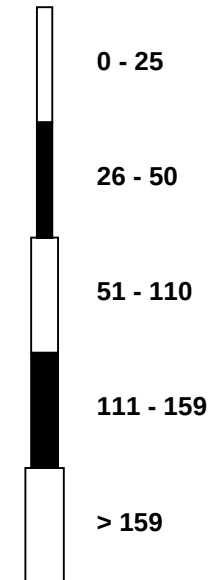


Pollutant Rose

Nitrogen Dioxide (NO₂) - ppb
Beaverlodge - January 2012

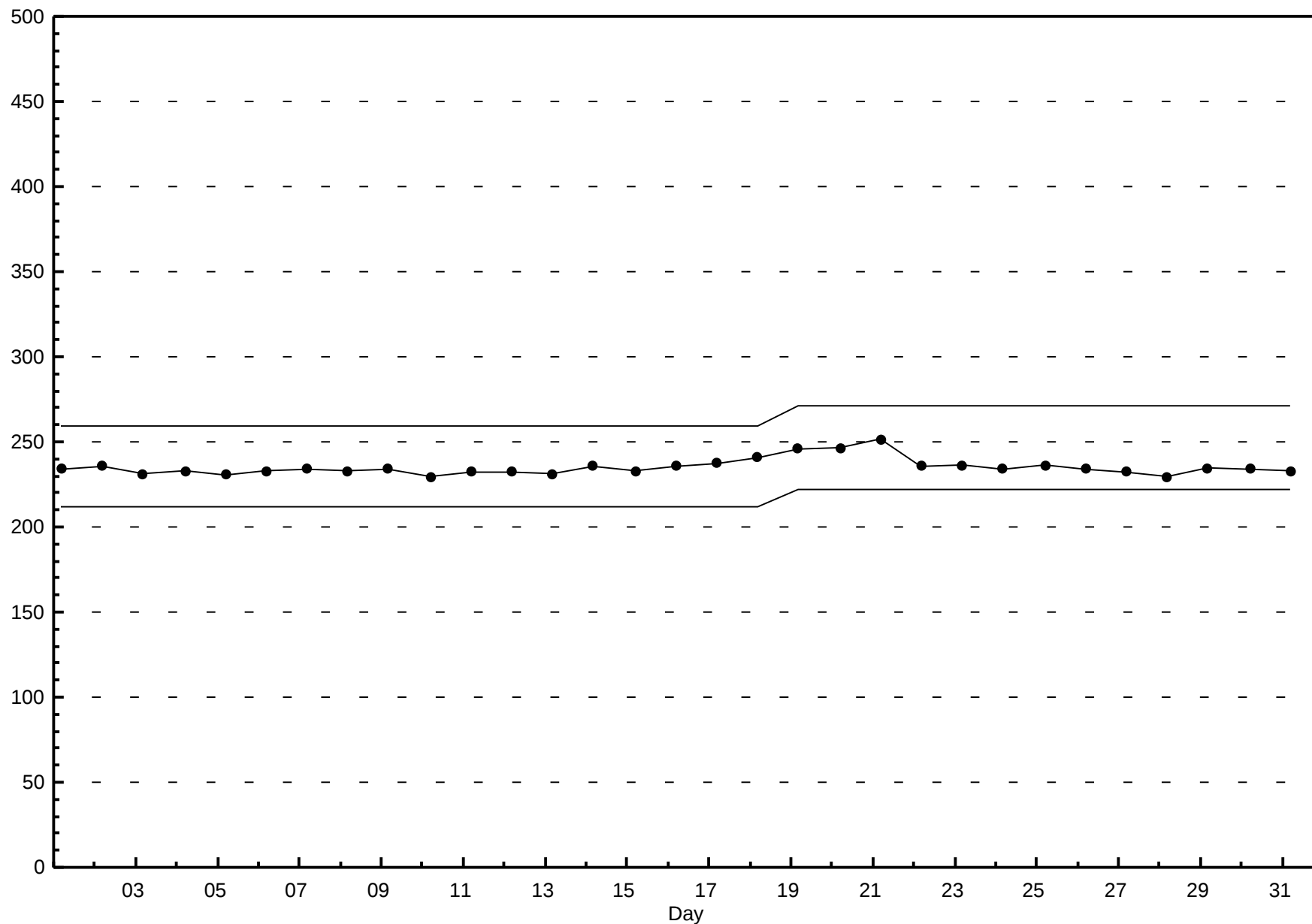


Pollutant Classes (ppb)



Span Responses

Nitrogen Dioxide (NO₂)
Beaverlodge - January 2012



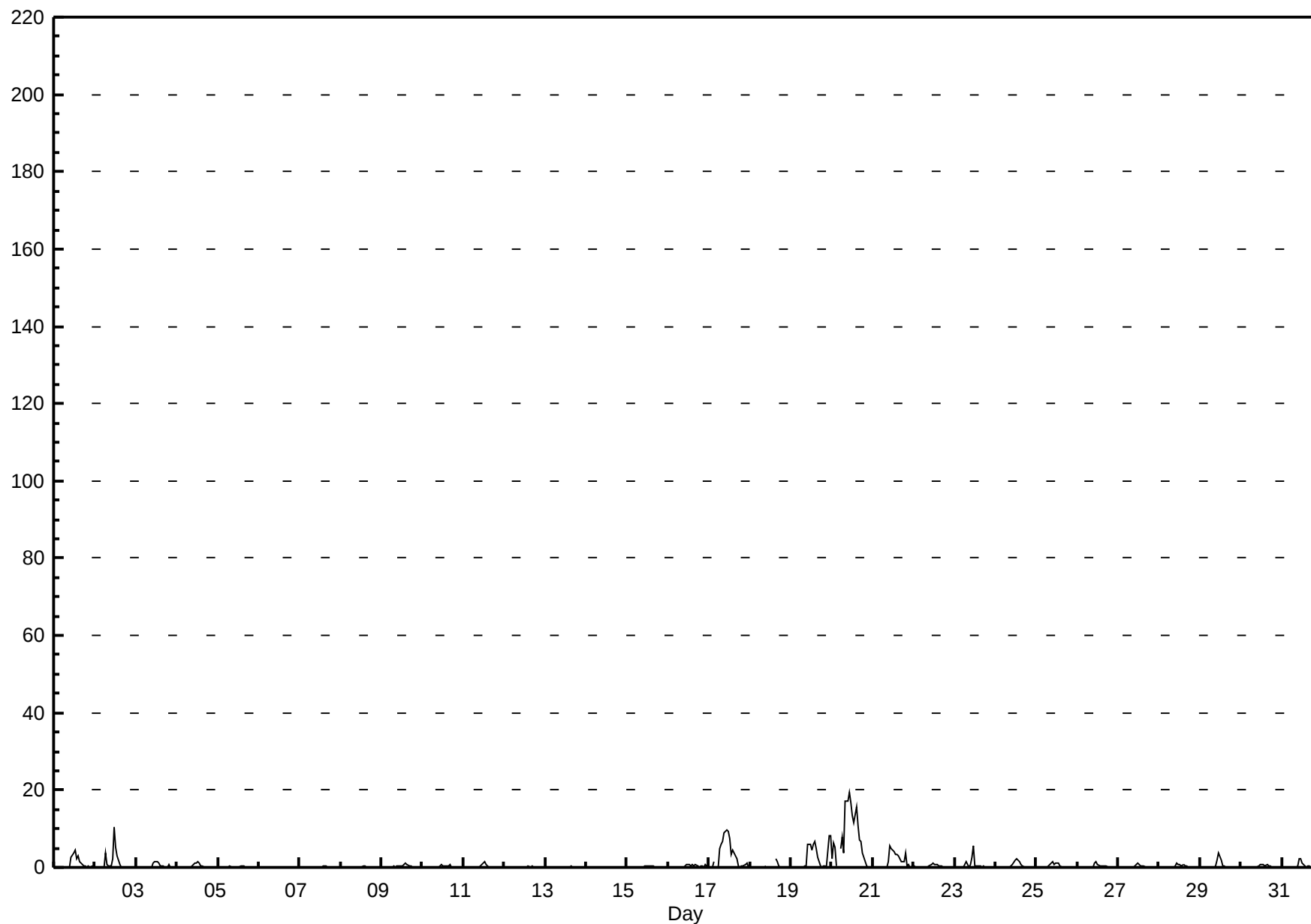
Hourly Averages

Nitrogen Oxide (NO) - ppb
Beaverlodge - January 2012

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 19.5 ppb on Jan 20 11:00 Maximum Daily Average: 7.6 ppb on Jan 20																								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 Jan 6 03:00 Maximum Diurnal Average: 2.6 ppb at hour 12 Monthly Average: 0.72 ppb												Minimum Daily Average: 0.0 ppb on Jan 7 Minimum Diurnal Average: 0.1 ppb at hour 22 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.3 P ₉₀ = 1.5 P ₉₉ = 10.7														
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jan	0	0	0	0	A	0	0	0	0	0	3	4	5	2	3	1	1	0	0	0	0	0	0	0	0.9	4.6
2-Jan	0	0	0	0	A	0	4	1	0	0	2	10	5	3	1	0	0	0	0	0	0	0	0	0	1.2	10.4
3-Jan	0	0	0	0	A	0	0	0	0	0	1	1	2	1	1	0	0	0	0	1	0	0	0	0	0.3	1.6
4-Jan	0	0	0	0	A	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.3	1.4
5-Jan	0	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
6-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
7-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.3
8-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
9-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0.2	1.1
10-Jan	0	0	0	0	A	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0.2	0.8
11-Jan	0	0	0	0	A	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0.2	1.5
12-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
13-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
14-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
15-Jan	0	0	0	0	A	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
16-Jan	0	0	0	0	A	0	0	0	0	0	0	1	1	1	1	0	1	1	0	0	0	0	1	0	0.3	0.9
17-Jan	0	0	0	2	A	0	5	6	7	9	10	9	8	3	4	3	2	0	0	0	0	1	1	0	3.1	9.7
18-Jan	0	0	0	0	A	0	0	0	0	1	C	C	C	C	C	2	1	0	0	0	0	0	0	0	0.3	2.3
19-Jan	0	0	0	0	A	0	0	0	0	1	6	6	4	6	7	5	2	0	0	0	0	0	8	8	2.4	8.3
20-Jan	2	6	5	1	A	5	8	4	17	17	20	17	13	12	16	11	7	7	4	3	1	0	0	0	7.6	19.5
21-Jan	0	0	0	0	A	0	0	0	0	2	5	5	4	3	3	3	2	2	2	4	0	1	0	0	1.6	5.4
22-Jan	0	0	0	0	A	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0.3	1.1
23-Jan	0	0	0	0	A	0	1	1	0	1	3	6	0	0	0	0	0	0	0	0	0	0	0	0	0.6	5.7
24-Jan	0	0	0	0	A	0	0	0	0	0	1	2	2	2	1	1	0	0	0	0	0	0	0	0	0.4	2.1
25-Jan	0	0	0	0	A	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.4	1.5
26-Jan	0	0	0	0	A	0	0	0	0	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0.2	1.5
27-Jan	0	0	0	0	A	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0.2	1.0
28-Jan	0	0	0	0	A	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0.2	1.0
29-Jan	0	0	0	0	A	0	0	0	0	0	2	4	2	0	0	0	0	0	0	0	0	0	0	0	0.4	3.6
30-Jan	0	0	0	0	A	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0.2	0.9
31-Jan	0	0	0	0	A	0	0	0	0	0	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0.3	2.4
0.1 0.2 0.2 0.1 -- 0.2 0.6 0.5 0.9 1.1 2.1 2.6 1.9 1.4 1.5 1.0 0.7 0.4 0.2 0.3 0.1 0.1 0.4 0.3 2.3 6.4 5.3 1.6 -- 4.7 7.7 6.0 17.2 17.0 19.5 16.7 13.4 11.7 15.8 10.7 7.1 6.8 3.7 3.9 0.5 0.7 8.3 8.3																								Diurnal Average	Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										

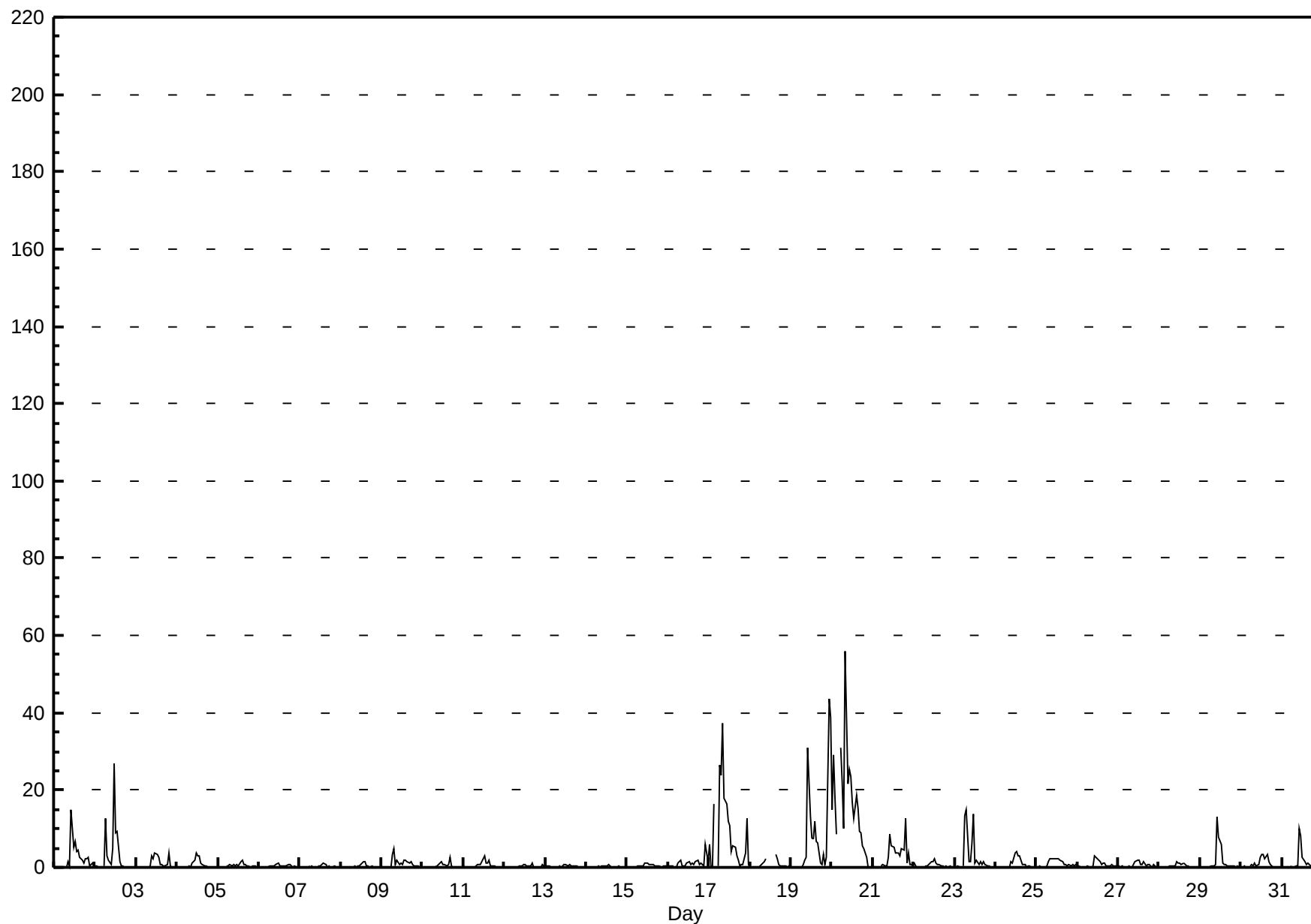
Hourly Averages

Nitrogen Oxide (NO) - ppb
Beaverlodge - January 2012



Hourly Maximums

Nitrogen Oxide (NO) - ppb
Beaverlodge - January 2012



Hourly Averages

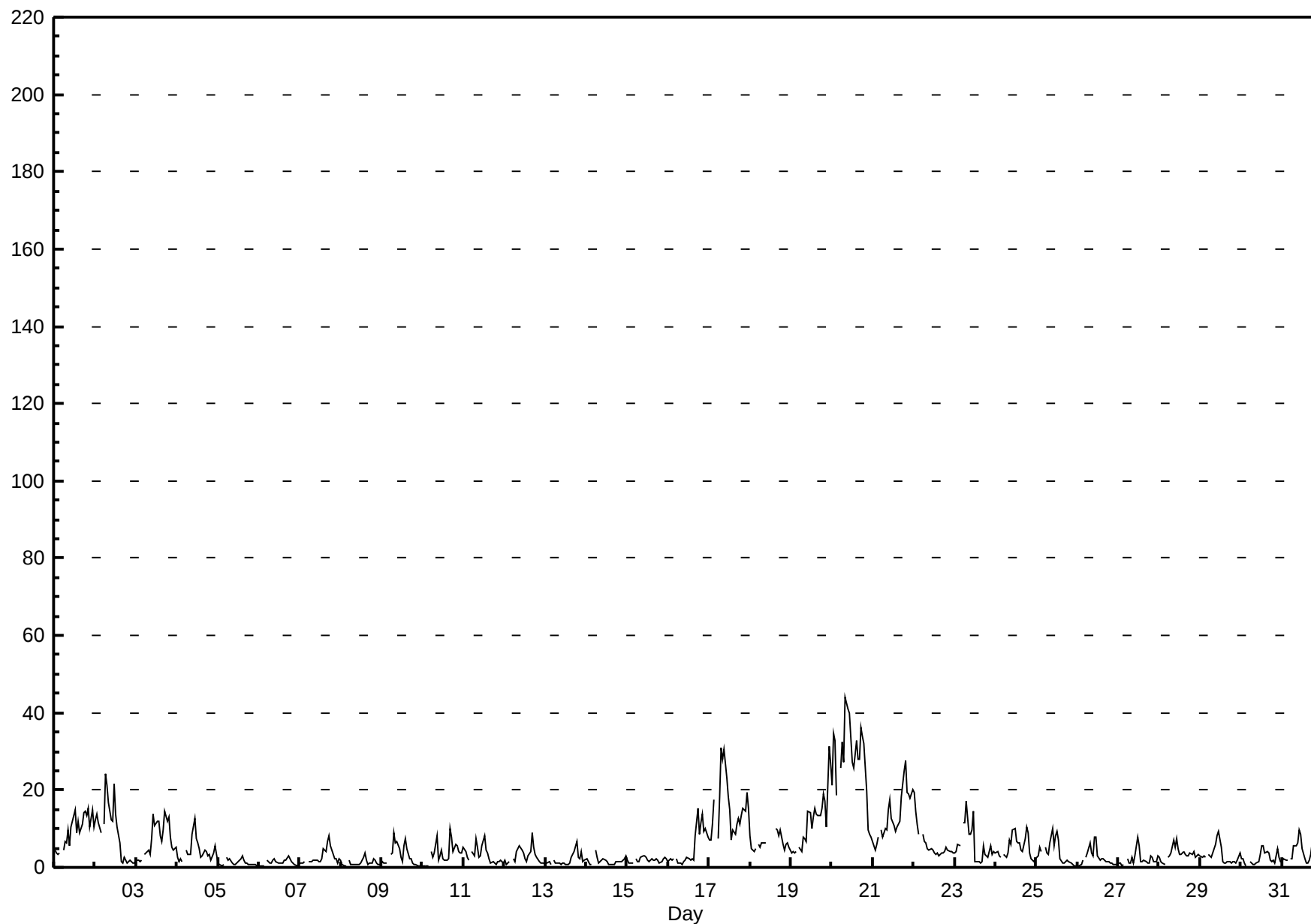
Oxides of Nitrogen (NO_x) - ppb

Beaverlodge - January 2012

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 43.9 ppb on Jan 20 09:00 Maximum Daily Average: 27.9 ppb on Jan 20																				Hours in Service: 744 Hours of Data: 708						
Minimum Value: 0 ppb on Jan 6 02:00 Minimum Daily Average: 1.2 ppb on Jan 6 Maximum Diurnal Average: 8.0 ppb at hour 12 Minimum Diurnal Average: 3.6 ppb at hour 4 Monthly Average: 5.58 ppb Percentiles: P ₁ = 0.5 P ₁₀ = 1.0 Q ₁ = 1.5 Median = 3.0 Q ₃ = 6.9 P ₉₀ = 13.4 P ₉₉ = 33.7																				Hours of Missing Data: 36 Hours of Calibration: 36 Percent Operational Time: 100.0						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Jan	5	4	3	4	A	5	7	6	10	6	11	13	15	9	12	9	11	14	14	14	15	10	15	11	9.6	15.3
2-Jan	12	14	12	9	A	11	24	21	17	12	12	22	14	10	6	1	1	2	2	1	2	2	1	1	9.1	24.3
3-Jan	2	2	1	2	A	3	4	5	3	7	14	11	12	12	8	7	10	15	12	13	8	5	5	5	7.2	14.5
4-Jan	3	2	2	1	A	5	3	4	3	9	12	7	6	5	3	3	4	4	3	3	2	4	6	3	4.2	12.5
5-Jan	1	1	1	1	A	2	2	2	1	1	1	1	2	2	3	2	1	1	1	1	1	1	1	1	1.2	3.0
6-Jan	0	0	0	0	A	2	1	1	2	2	1	1	1	1	2	2	3	2	1	1	1	1	1	1	1.2	2.9
7-Jan	1	1	1	1	A	2	1	1	2	2	2	2	1	2	5	4	7	8	5	4	2	2	1	2	2.7	8.2
8-Jan	2	1	0	0	A	2	1	1	1	1	1	1	1	2	4	2	1	1	1	2	2	1	1	1	1.2	3.6
9-Jan	2	1	1	1	A	3	4	9	6	7	5	3	1	6	8	5	2	2	1	1	1	1	0	0	3.0	8.9
10-Jan	0	0	0	1	A	4	3	4	8	2	3	4	2	2	2	2	10	8	4	6	6	4	4	4	3.6	10.1
11-Jan	5	4	3	2	A	4	3	7	5	3	3	5	8	5	4	2	1	1	1	1	1	1	2	1	3.2	8.1
12-Jan	2	1	1	2	A	2	2	4	5	6	5	4	2	2	3	4	9	5	3	3	1	1	1	1	2.9	8.9
13-Jan	1	1	1	1	A	2	1	1	1	1	1	1	1	1	3	3	4	7	3	2	4	2	2	2	2.0	6.7
14-Jan	2	2	1	1	A	5	3	1	1	2	2	2	1	1	1	1	1	2	2	1	1	2	2	3	1.7	4.5
15-Jan	2	1	1	1	A	2	2	2	2	3	3	3	2	2	2	2	2	2	2	1	1	2	3	2	1.9	3.1
16-Jan	2	2	2	2	A	2	1	1	1	2	2	2	2	2	2	2	8	15	9	11	14	9	10	8	4.9	15.1
17-Jan	7	7	11	18	A	7	18	31	28	31	23	18	15	7	10	9	11	13	11	13	15	15	19	15	15.4	30.9
18-Jan	8	5	4	5	A	6	5	6	6	6	C	C	C	C	C	10	10	8	10	6	5	6	6	5	6.6	9.9
19-Jan	4	4	4	4	A	5	4	8	7	7	14	14	10	13	15	14	13	13	15	19	17	10	31	27	11.9	31.3
20-Jan	21	35	33	19	A	26	32	27	44	41	40	34	27	26	33	28	28	36	34	32	20	10	9	8	27.9	43.9
21-Jan	7	4	6	8	A	10	8	10	10	15	17	13	11	10	10	11	12	18	25	28	19	19	18	20	13.4	27.7
22-Jan	19	15	11	9	A	8	7	6	5	5	5	4	4	3	4	3	4	4	4	5	5	4	4	4	6.1	19.3
23-Jan	4	4	6	6	A	11	12	17	8	9	10	14	2	2	1	1	1	5	4	2	4	5	3	4	5.9	17.3
24-Jan	4	4	3	3	A	3	3	4	7	6	10	10	7	6	6	4	4	7	10	9	4	2	2	2	5.2	10.4
25-Jan	2	3	5	4	A	5	4	3	6	10	5	8	9	7	2	1	1	2	2	1	1	1	1	1	3.7	9.9
26-Jan	0	1	1	2	A	3	4	6	4	3	8	8	3	2	2	2	2	2	1	1	1	1	1	1	2.5	7.9
27-Jan	1	1	0	1	A	2	1	1	3	1	3	8	5	2	1	2	2	1	1	3	3	1	1	3	2.1	7.9
28-Jan	3	2	1	1	A	3	3	4	7	5	8	5	3	3	4	3	3	3	4	3	4	3	3	4	3.5	7.6
29-Jan	3	3	3	3	A	3	3	4	5	6	8	9	5	2	1	1	1	1	1	1	1	1	2	4	3.1	9.2
30-Jan	2	2	1	1	A	1	1	1	1	1	1	3	6	5	4	4	4	2	1	2	1	5	3	2	2.3	5.5
31-Jan	1	2	2	2	A	2	2	5	6	7	10	9	5	2	1	1	2	3	6	4	6	4	3	3	3.8	9.7
4.1 4.1 3.9 3.6 -- 4.9 5.4 6.6 7.0 6.9 8.0 8.0 6.1 5.1 5.3 4.7 5.5 6.7 6.4 6.4 5.4 4.4 5.1 4.7 Diurnal Average																										
21.2 34.6 32.7 18.6 -- 25.6 32.3 30.9 43.9 41.0 39.8 33.7 27.3 25.7 33.0 27.9 28.0 36.3 33.8 32.0 19.9 19.2 31.3 27.0 Diurnal Maximum																										
C - Calibration A - Automated Daily Zero Span																										

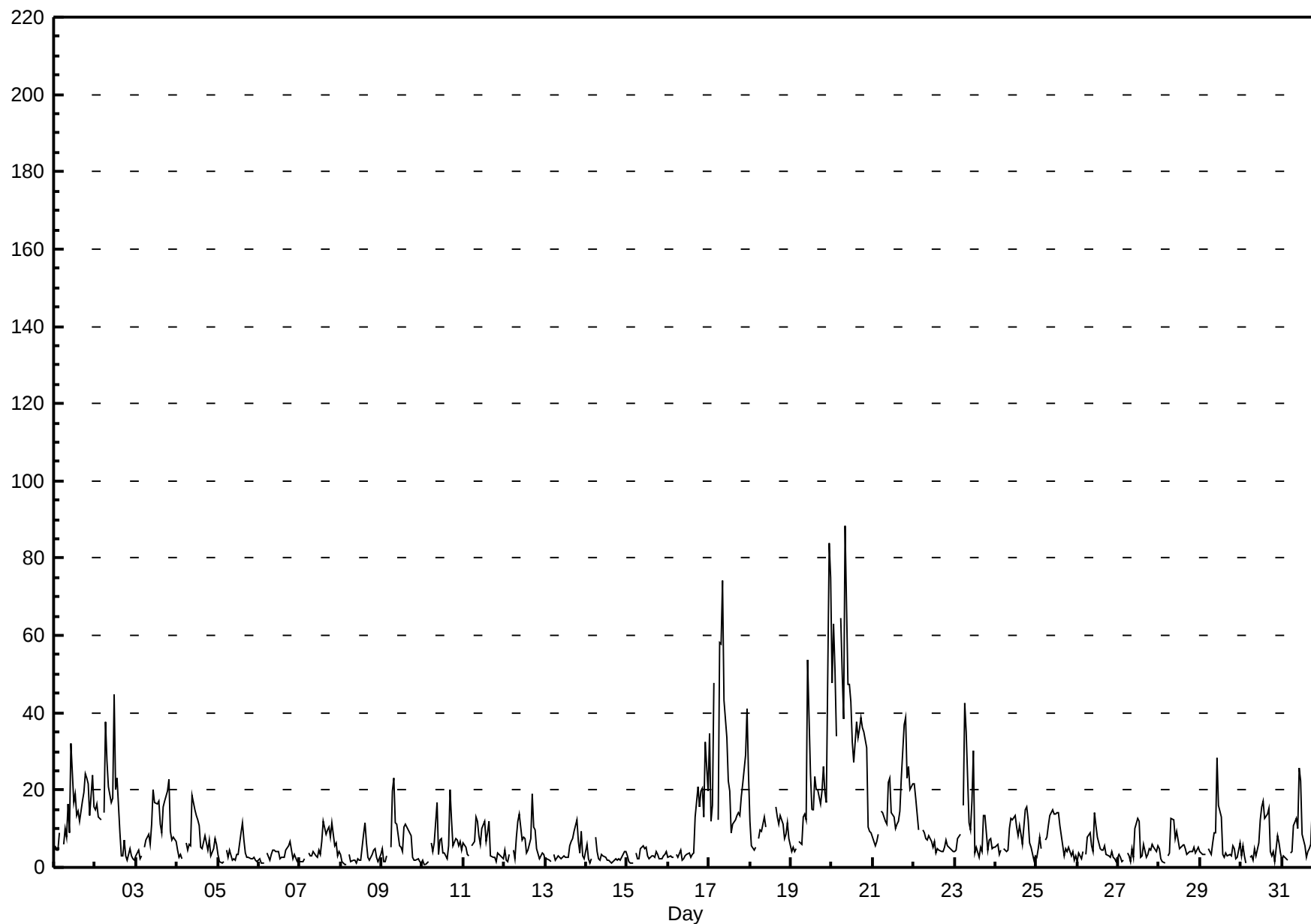
Hourly Averages

Oxides of Nitrogen (NO_x) - ppb
Beaverlodge - January 2012



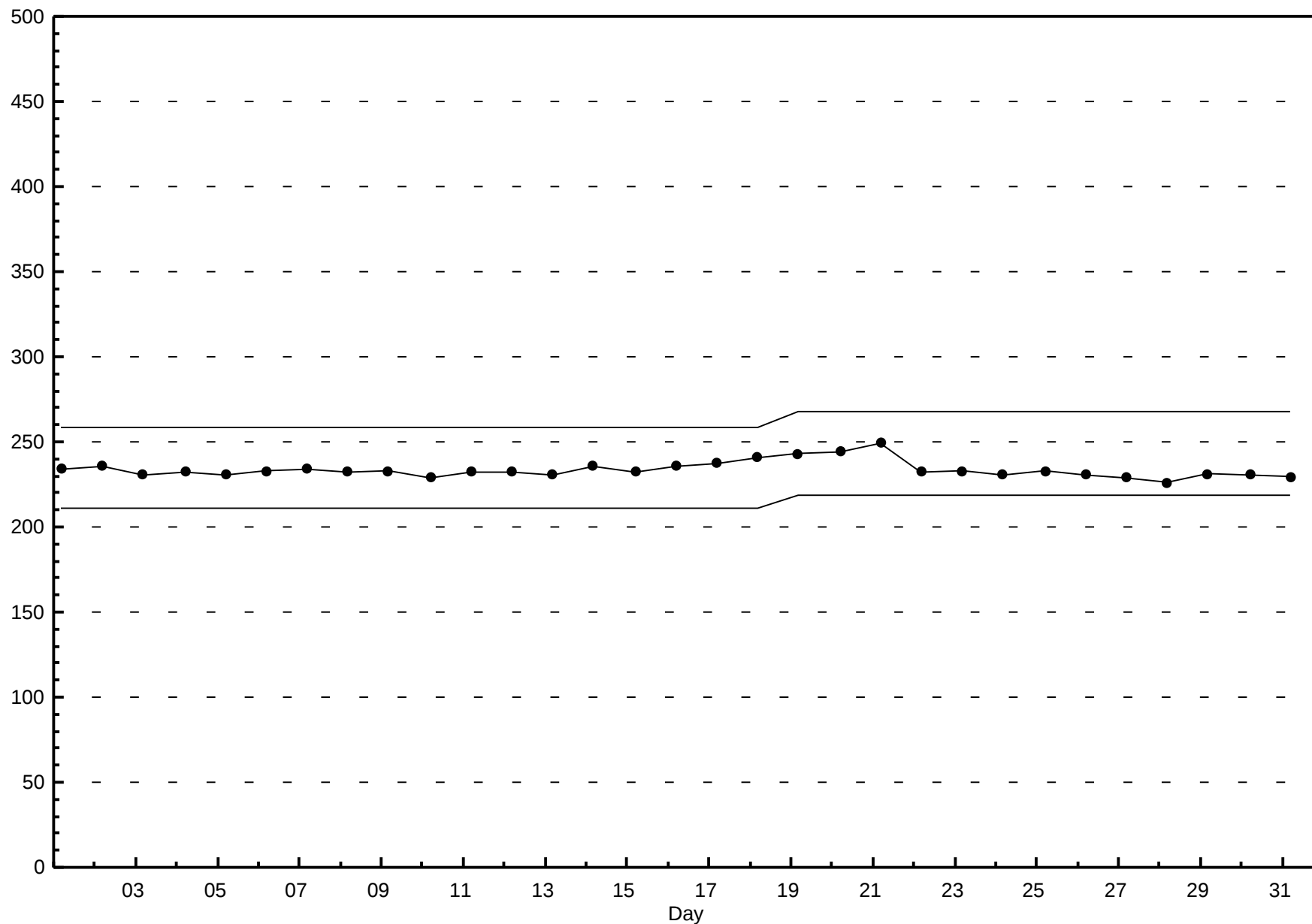
Hourly Maximums

Oxides of Nitrogen (NO_x) - ppb
Beaverlodge - January 2012



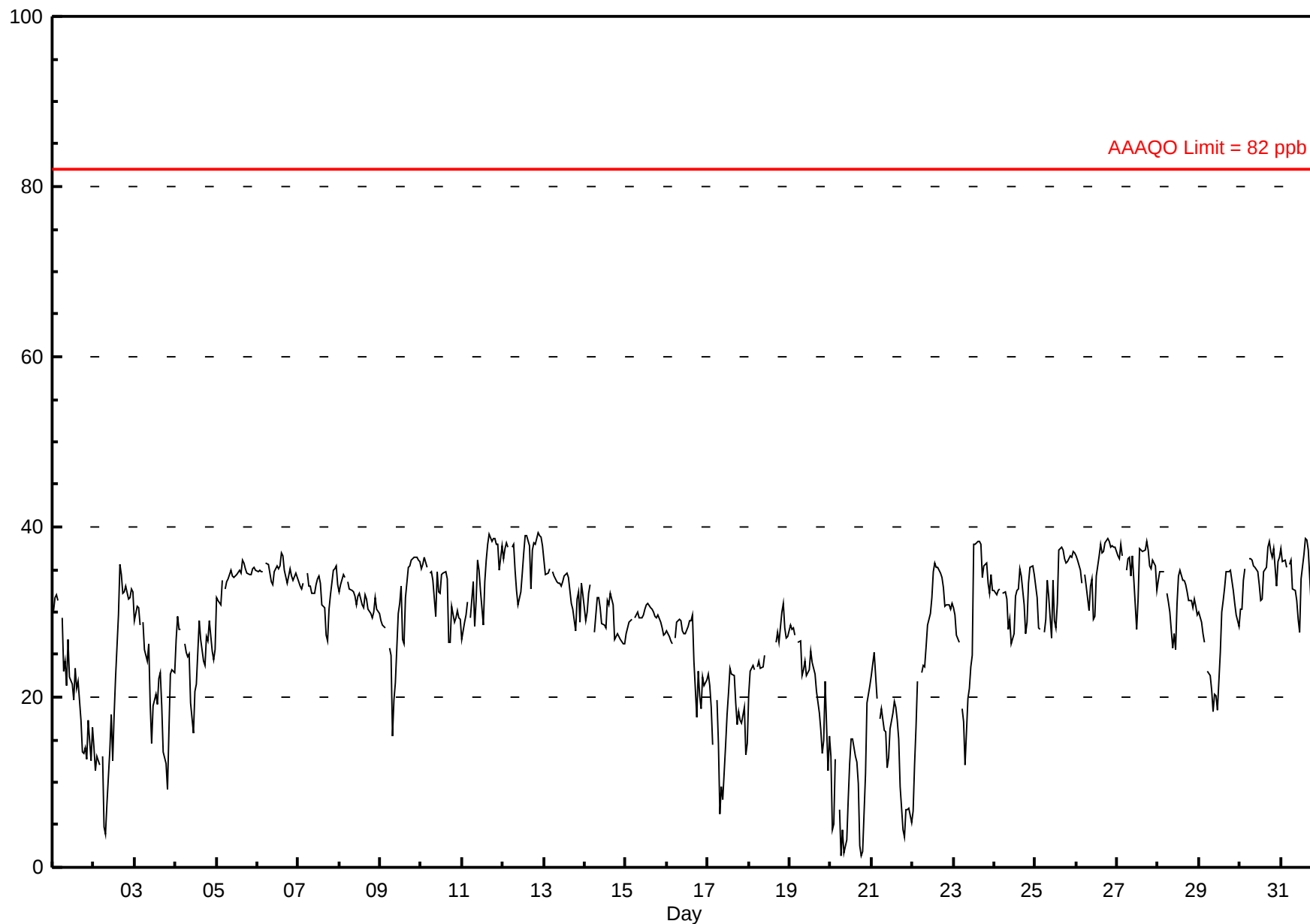
Span Responses

Oxides of Nitrogen (NO_x)
Beaverlodge - January 2012



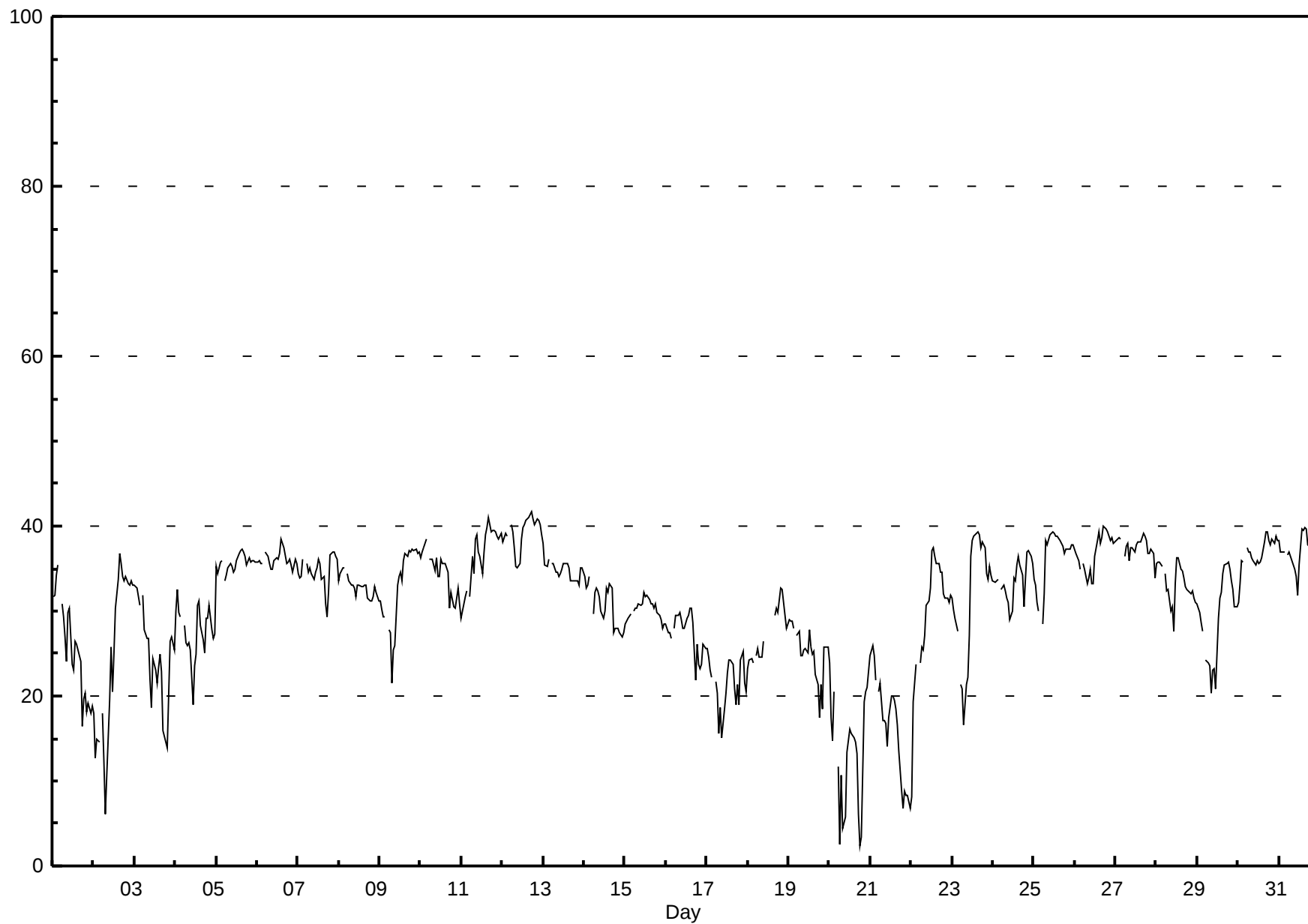
Hourly Averages

Ozone (O₃) - ppb
Beaverlodge - January 2012



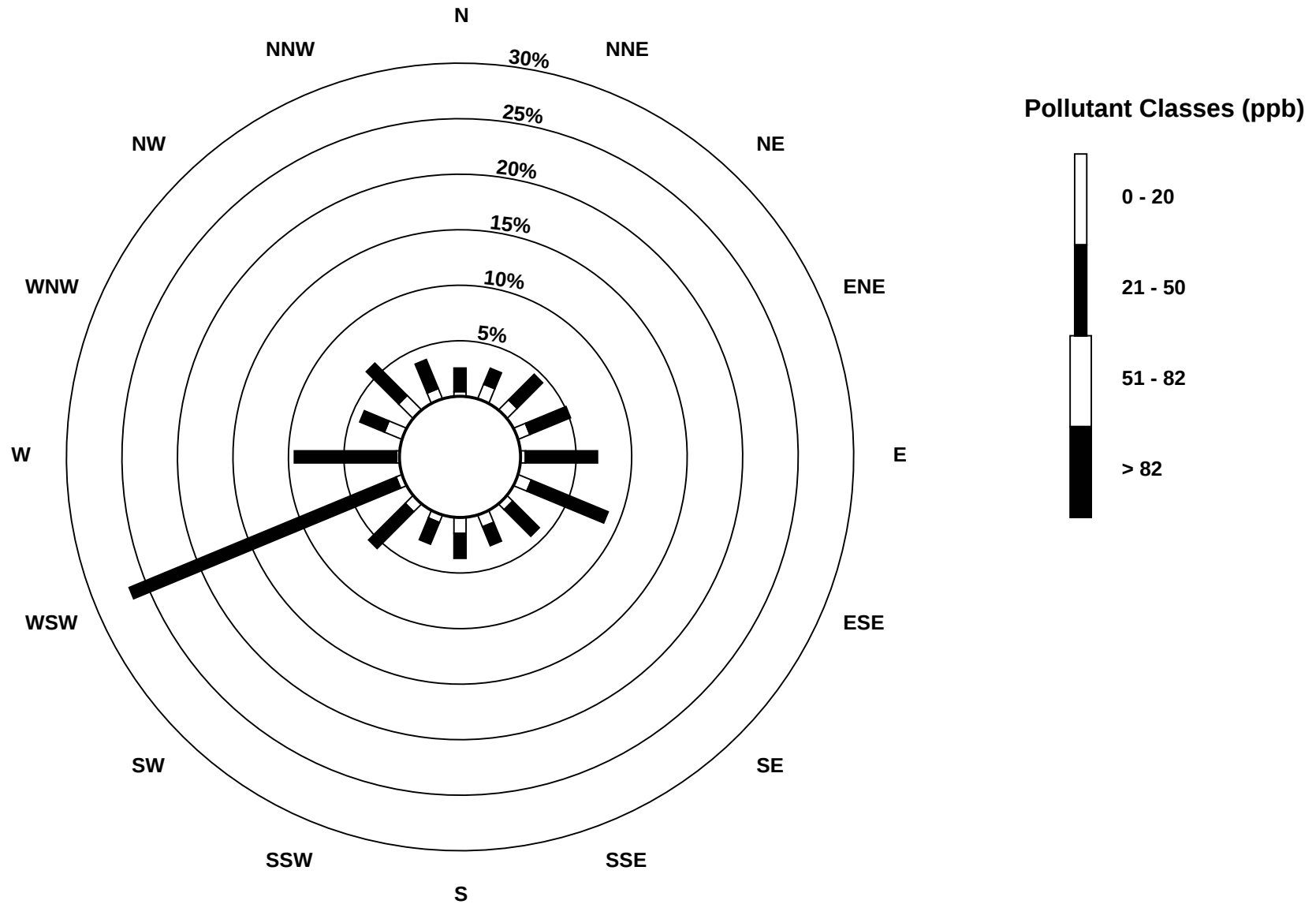
Hourly Maximums

Ozone (O₃) - ppb
Beaverlodge - January 2012



Pollutant Rose

Ozone (O₃) - ppb
Beaverlodge - January 2012



Eight Hour Running Averages

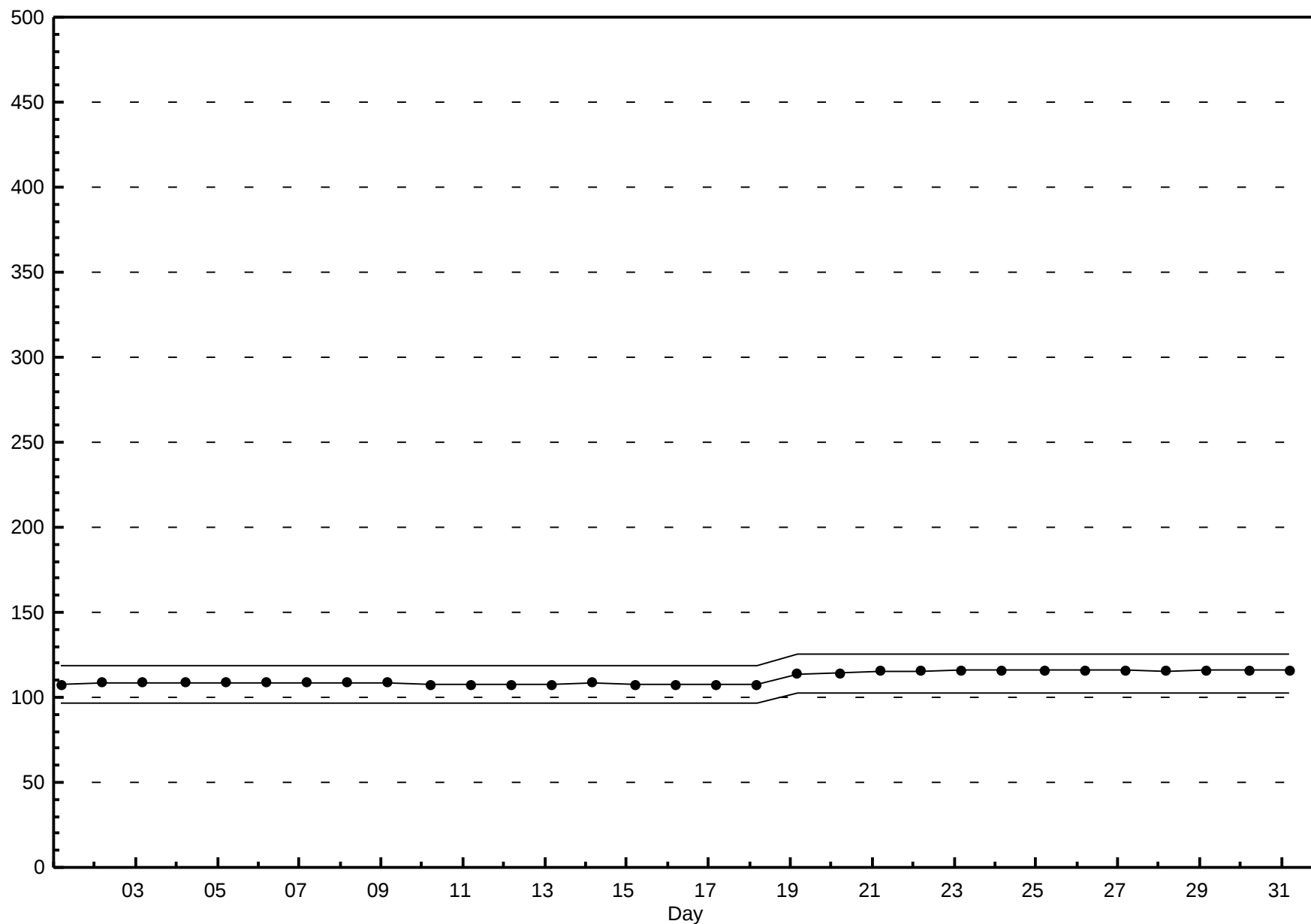
Ozone (O₃) - ppb

Beaverlodge - January 2012

Maximum Value: 38.1 ppb on Jan 11 22:00																								Hours in Service: 744	
Minimum Value: 5.0 ppb on Jan 20 10:00																								Hours of Data: 734	
																								Hours of Missing Data: 10	
Percentiles: P ₁ = 6.8 P ₁₀ = 16.8 Q ₁ = 24.6 Median = 30.8 Q ₃ = 34.0 P ₉₀ = 35.9 P ₉₉ = 37.8																								Hours of Calibration: 3	
																								Percent Operational Time: 99.1	
Day	Hourly Period Ending At (MST)																							Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		24
1-Jan	32	32	32	32	31	31	30	29	28	27	26	24	24	23	23	22	22	20	19	18	17	16	15	15	32.3
2-Jan	14	14	14	14	14	13	12	10	9	10	10	11	11	13	16	20	23	25	27	30	31	33	33	33	33.0
3-Jan	32	32	31	31	31	30	29	28	28	26	24	23	22	21	21	20	20	19	19	17	17	17	17	17	31.8
4-Jan	18	20	22	25	26	26	27	27	27	25	23	22	22	22	23	23	23	23	25	26	26	26	26	26	26.9
5-Jan	27	28	28	29	29	30	31	33	33	33	34	34	34	34	34	35	35	35	35	35	35	35	35	35	35.1
6-Jan	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	34	35.3
7-Jan	34	34	34	34	34	34	33	33	33	33	33	33	33	33	33	33	32	31	31	31	31	31	32	32	34.1
8-Jan	32	33	34	34	34	34	33	33	33	33	33	32	32	32	32	31	31	31	31	31	31	31	31	30	34.1
9-Jan	30	30	30	29	29	29	28	26	24	23	24	24	25	25	25	28	29	31	32	33	33	34	35	36	36.0
10-Jan	36	36	36	36	36	36	35	35	34	34	34	33	33	33	33	33	33	32	32	31	31	30	29	29	36.0
11-Jan	29	29	29	29	29	29	30	30	30	31	32	32	32	32	33	34	35	35	36	36	38	38	38	38	38.1
12-Jan	38	37	37	37	37	37	38	37	37	36	35	34	35	35	35	35	35	36	37	37	38	38	38	38	37.6
13-Jan	38	38	37	37	37	36	35	35	34	34	34	34	34	34	34	34	33	33	32	32	32	31	31	31	38.1
14-Jan	31	31	31	31	31	31	31	31	31	31	30	30	30	30	30	30	30	30	29	29	29	29	28	27	31.4
15-Jan	27	27	27	27	28	28	28	29	29	29	29	30	30	30	30	30	30	30	30	30	30	30	29	29	30.3
16-Jan	28	28	28	27	27	27	27	28	28	28	28	28	28	28	28	28	28	27	26	25	24	23	22	21	28.5
17-Jan	21	21	21	20	20	20	19	17	15	13	12	13	14	14	15	17	19	20	20	20	20	19	18	17	21.5
18-Jan	17	18	18	19	20	20	22	23	24	24	24	N	N	N	N	N	N	N	N	N	N	28	28	28	28.3
19-Jan	28	28	29	28	28	28	27	27	26	26	25	24	24	24	24	24	23	23	22	21	19	19	17	16	28.5
20-Jan	16	14	12	12	12	10	8	7	5	5	5	5	7	8	9	10	11	11	10	9	8	9	10	11	15.5
21-Jan	13	15	18	20	22	21	21	20	19	17	16	16	16	16	16	16	16	16	15	13	12	10	9	7	21.6
22-Jan	6	7	8	10	11	13	16	18	21	23	25	27	28	29	31	32	33	34	34	34	34	33	32	32	34.3
23-Jan	31	31	30	30	29	28	26	23	22	20	20	20	22	24	27	30	33	34	36	37	36	36	35	34	37.0
24-Jan	34	34	33	33	33	33	32	32	32	31	30	30	30	30	30	30	31	31	31	32	32	32	33	32	33.8
25-Jan	32	32	32	32	32	31	30	30	30	29	30	30	30	30	31	32	33	34	34	35	36	37	37	37	36.6
26-Jan	36	36	36	36	36	36	35	34	34	33	32	32	32	32	33	34	34	35	36	37	38	38	38	38	37.8
27-Jan	38	38	37	37	37	37	37	36	36	36	36	34	34	34	34	35	35	35	36	36	37	37	36	36	37.8
28-Jan	35	35	35	35	35	34	33	33	32	31	30	29	30	30	30	31	32	32	33	33	33	32	32	31	35.5
29-Jan	31	31	30	29	29	28	27	26	24	23	22	21	21	22	23	25	27	28	30	32	33	33	33	32	33.2
30-Jan	32	31	31	31	31	32	33	34	35	35	36	35	35	34	34	34	34	35	35	35	36	36	36	37	36.5
31-Jan	37	36	36	36	36	36	36	36	35	34	33	32	32	32	33	33	34	34	35	35	35	34	34	33	36.5
38.1 37.7 37.5 37.3 37.2 37.1 37.6 37.1 36.6 36.1 35.6 35.3 34.8 34.9 35.0 35.4 35.4 36.2 36.9 37.3 37.7 38.1 37.9 37.9																									
Diurnal Maximums																									
N - Not Valid																									

Span Responses

Ozone (O₃)
Beaverlodge - January 2012

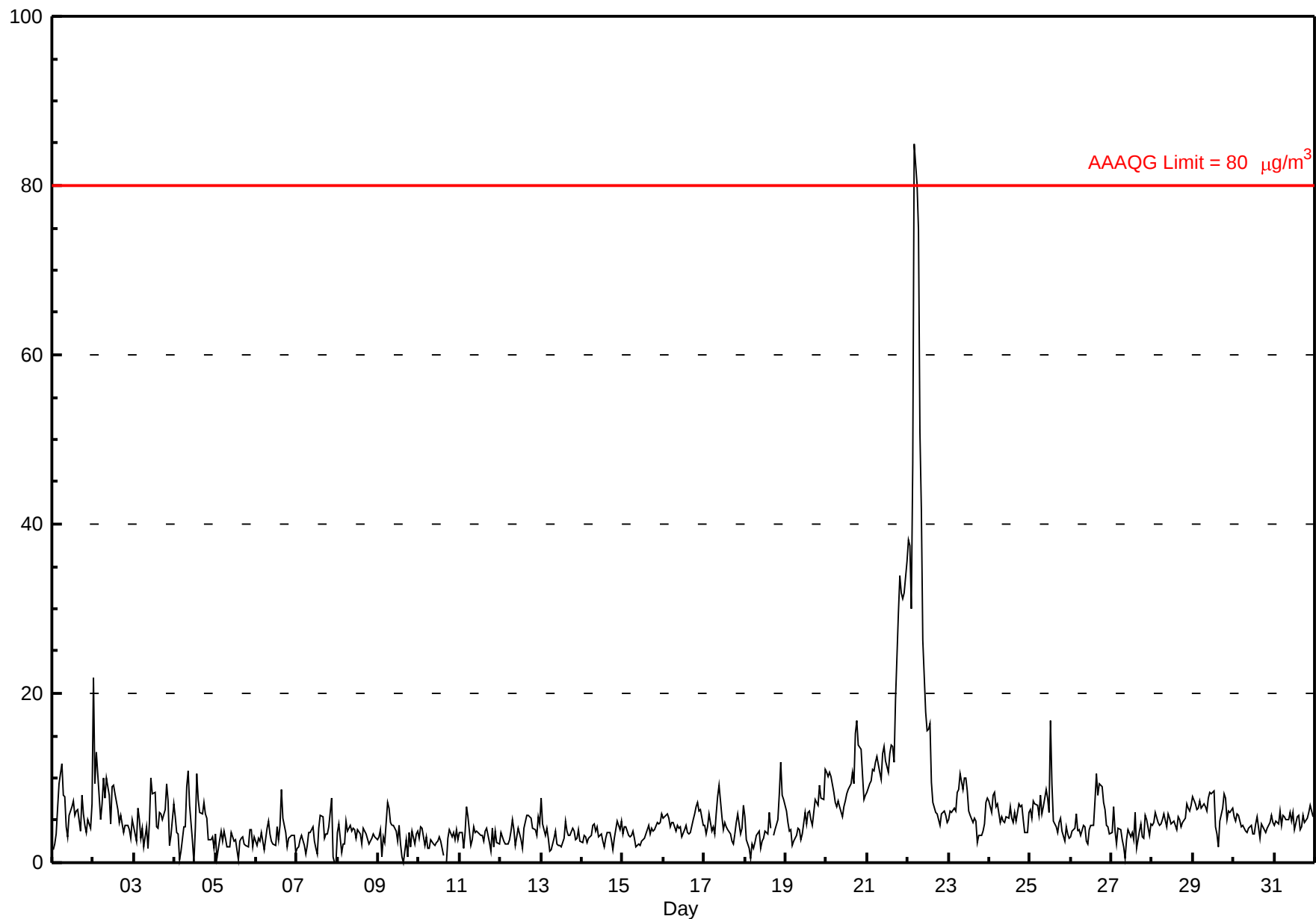


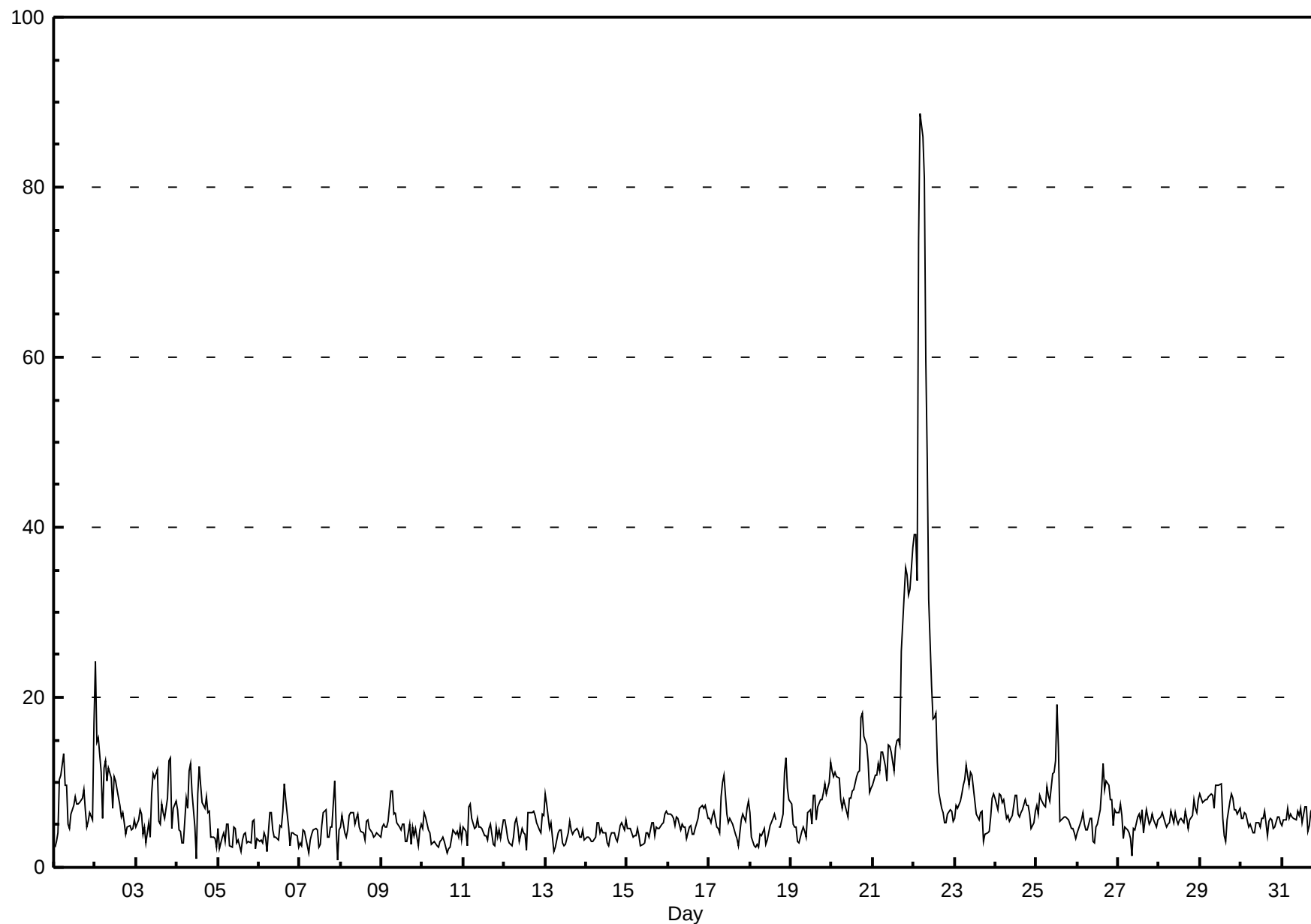
Hourly Averages

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

Beaverlodge - January 2012

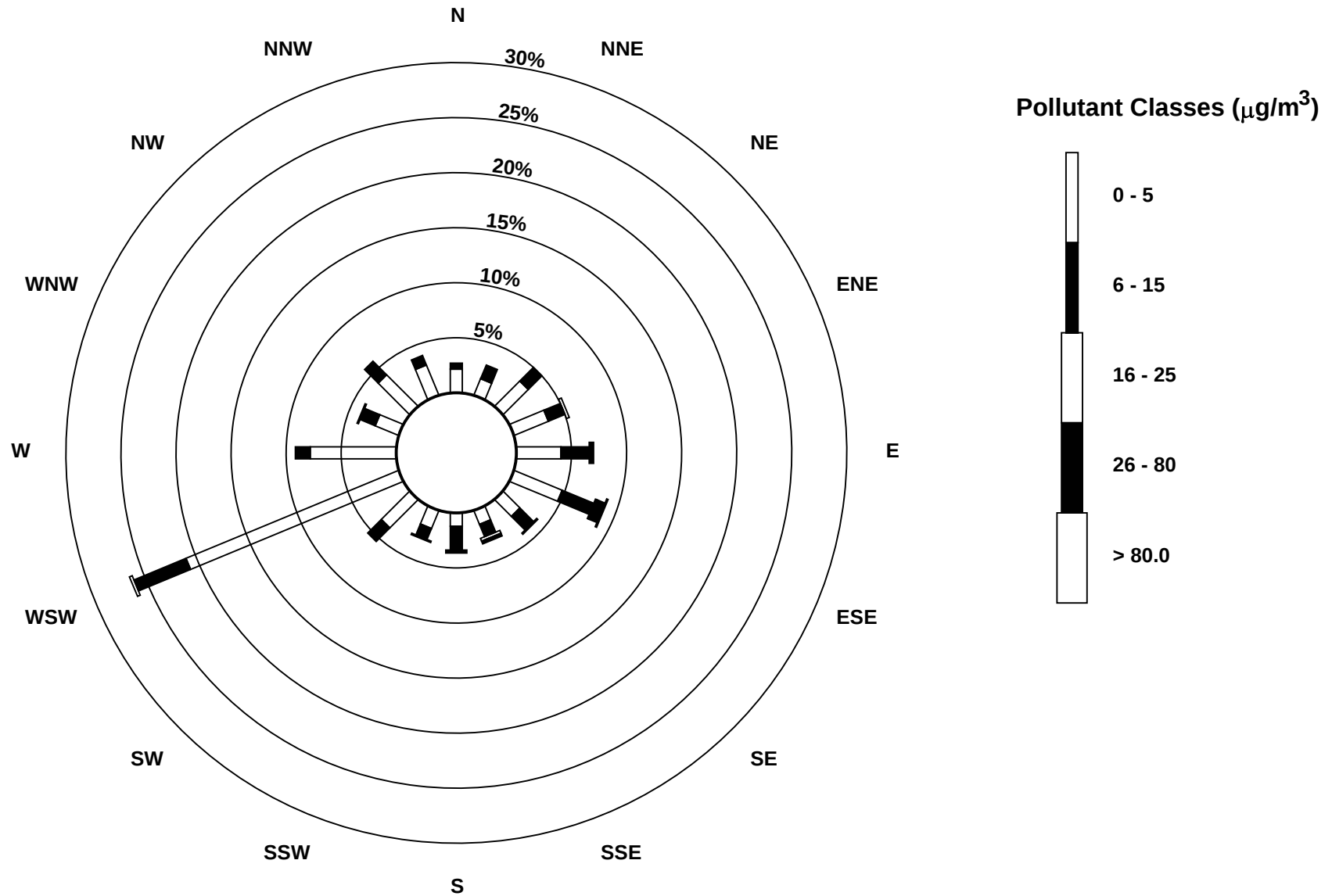
Number of Exceedences: 1-hr: 2 24-hr: 0 Maximum Value: 84.9 µg/m³ on Jan 22 05:00 Maximum Daily Average: 26.5 µg/m³ on Jan 22																					Hours in Service: 744 Hours of Data: 742 Hours of Missing Data: 2 Hours of Calibration: 0 Percent Operational Time: 99.7					
Minimum Value: 0 µg/m³ on Jan 4 12:00 Maximum Diurnal Average: 7.3 µg/m³ at hour 6 Monthly Average: 5.75 µg/m³										Minimum Daily Average: 2.6 µg/m³ on Jan 5 Minimum Diurnal Average: 4.7 µg/m³ at hour 17 Percentiles: P ₁ = 0.4 P ₁₀ = 2.2 Q ₁ = 3.2 Median = 4.3 Q ₃ = 6.1 P ₉₀ = 8.8 P ₉₉ = 34.8																
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-Jan	1	2	3	6	9	12	8	8	4	3	6	7	7	6	6	6	4	8	6	4	4	5	4	7	5.7	11.7
2-Jan	22	9	13	8	5	7	10	8	10	8	5	9	9	8	6	5	6	5	4	4	4	4	3	5	7.3	21.8
3-Jan	4	3	6	5	3	4	2	4	2	5	10	8	8	4	4	6	6	5	6	9	7	2	3	7	5.2	10.0
4-Jan	5	4	3	0	1	4	4	9	11	7	3	0	4	11	7	6	6	7	6	5	3	3	3	2	4.7	10.8
5-Jan	3	0	3	4	3	4	3	2	2	4	3	2	3	0	3	3	3	2	2	2	4	4	2	3	2.6	4.0
6-Jan	2	3	2	4	3	1	4	5	3	3	2	2	4	3	4	9	5	4	2	3	3	3	3	1	3.3	8.6
7-Jan	2	2	3	3	2	1	2	3	4	4	2	2	1	4	6	5	3	3	3	4	8	1	0	0	2.8	7.6
8-Jan	4	5	1	2	2	5	4	4	4	4	4	3	4	3	2	4	4	3	2	3	3	3	3	3	3.3	4.8
9-Jan	3	4	1	3	2	7	7	5	4	4	4	2	4	2	1	0	3	1	4	2	4	2	3	4	3.2	7.1
10-Jan	3	4	4	2	3	2	2	3	2	2	2	2	3	3	1	N	0	3	4	3	4	3	4	3	2.6	4.2
11-Jan	4	4	2	4	7	5	2	3	4	4	4	4	3	3	3	4	4	2	1	4	2	4	2	2	3.3	6.6
12-Jan	4	3	3	2	2	3	4	5	4	2	4	3	3	2	4	6	6	5	5	4	4	3	5	5	3.7	5.6
13-Jan	8	5	3	4	3	1	2	3	4	2	2	2	2	3	5	4	3	3	4	4	3	3	4	3	3.2	7.7
14-Jan	2	3	3	2	3	3	4	5	4	4	3	3	3	2	3	4	4	3	2	3	4	5	4	5	3.3	4.9
15-Jan	3	4	4	3	3	3	4	3	2	2	2	3	3	3	4	4	3	4	4	4	5	5	5	6	3.6	5.8
16-Jan	5	6	6	5	4	5	5	4	4	4	4	3	4	4	4	3	4	5	6	7	7	6	6	4	4.8	7.1
17-Jan	4	3	4	6	4	4	3	6	8	9	5	4	5	4	4	3	3	2	3	5	6	3	4	7	4.6	9.2
18-Jan	5	3	2	0	2	2	2	3	4	2	2	3	4	3	6	4	M	3	4	5	8	12	8	7	4.1	11.9
19-Jan	6	5	4	4	2	2	3	4	4	3	3	6	5	6	6	5	4	7	7	7	9	8	7	11	5.4	11.0
20-Jan	11	10	11	10	8	7	7	7	7	5	7	7	8	9	9	11	9	15	17	14	13	10	7	8	9.5	16.7
21-Jan	8	9	10	11	11	12	13	11	10	13	14	12	11	13	14	14	12	19	30	34	32	31	32	36	17.0	35.6
22-Jan	38	38	30	47	85	80	75	51	42	26	18	16	16	16	10	7	6	6	5	4	6	6	6	5	26.5	84.9
23-Jan	5	6	6	6	6	8	9	10	9	10	10	8	6	6	5	5	5	2	3	3	4	5	7	8	6.4	10.4
24-Jan	7	6	8	8	7	7	5	5	5	5	5	5	7	5	5	6	5	7	7	7	5	4	4	6	5.8	8.3
25-Jan	6	5	7	7	7	6	8	6	7	9	8	6	17	9	5	4	4	5	5	4	3	4	3	3	6.1	16.8
26-Jan	3	4	4	6	4	4	3	4	4	3	2	4	4	4	7	11	8	9	9	7	6	4	4	3	5.1	10.5
27-Jan	4	7	4	2	4	4	3	2	0	3	4	3	4	3	6	2	4	5	3	3	6	5	3	5	3.6	6.6
28-Jan	4	5	6	5	4	5	5	6	4	6	5	5	5	5	4	5	5	4	5	5	7	7	6	7	5.2	7.0
29-Jan	8	7	6	6	7	7	7	7	6	8	8	8	8	4	3	2	5	6	8	8	5	6	6	6	6.4	8.5
30-Jan	5	5	6	6	4	4	4	4	4	4	4	3	3	5	5	3	5	4	4	3	4	5	6	5	4.4	5.7
31-Jan	4	5	5	6	4	6	5	5	5	6	5	6	4	5	6	4	4	6	5	5	6	7	6	5	5.2	6.7
6.3 5.7 5.5 6.1 6.9 7.3 7.0 6.6 6.0 5.5 5.2 4.9 5.5 5.1 5.1 5.1 4.7 5.3 5.6 5.8 6.0 5.5 5.3 5.8																									Diurnal Average	
38.1 37.5 29.9 47.1 84.9 80.1 74.8 50.9 41.7 26.3 17.8 15.6 16.8 16.5 14.0 13.6 11.9 19.2 29.5 33.9 31.9 31.2 31.9 35.6																									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																										





Pollutant Rose

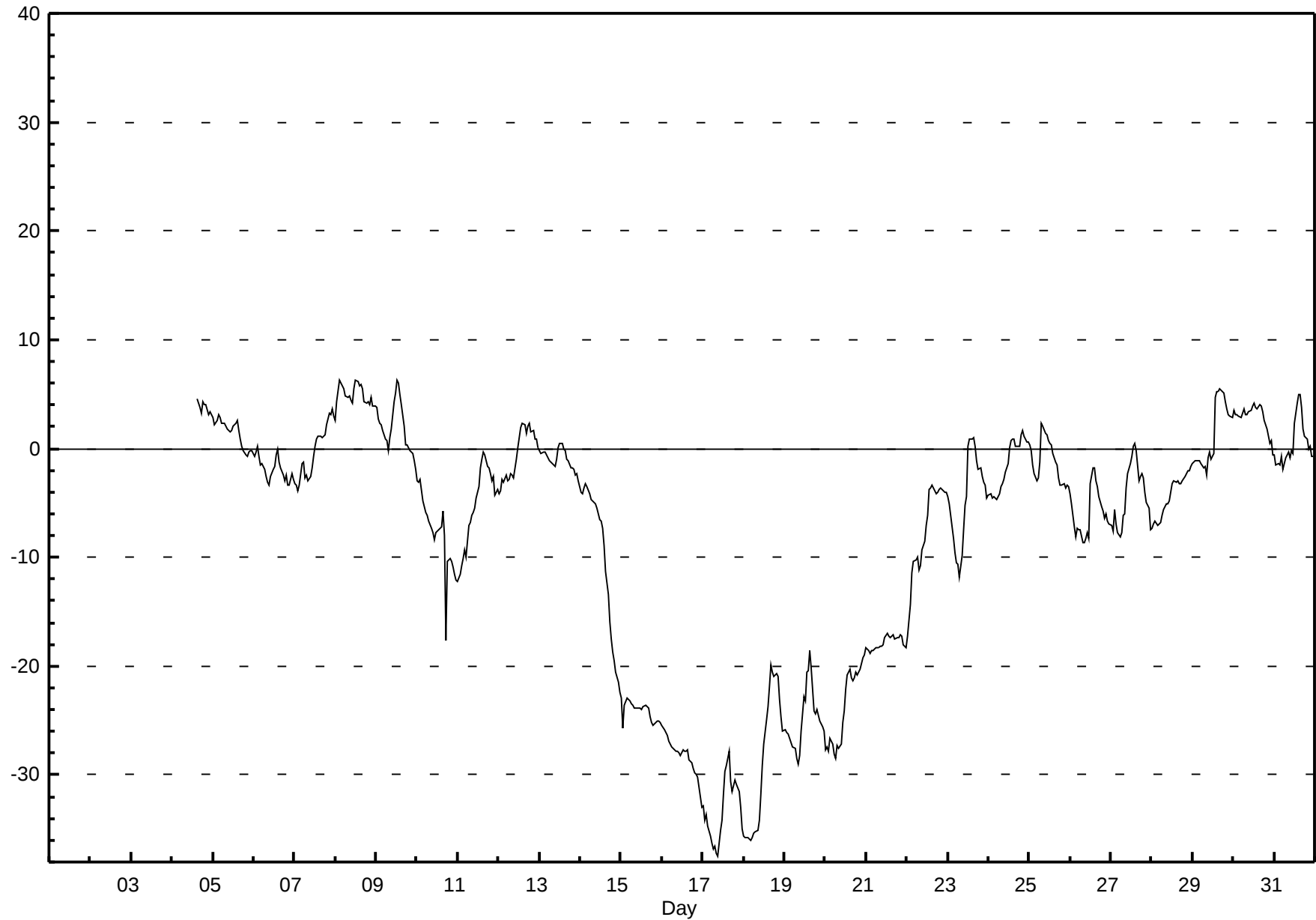
Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Beaverlodge - January 2012



Hourly Averages

External Temperature (ET) - °C

Beaverlodge - January 2012



Hourly Averages

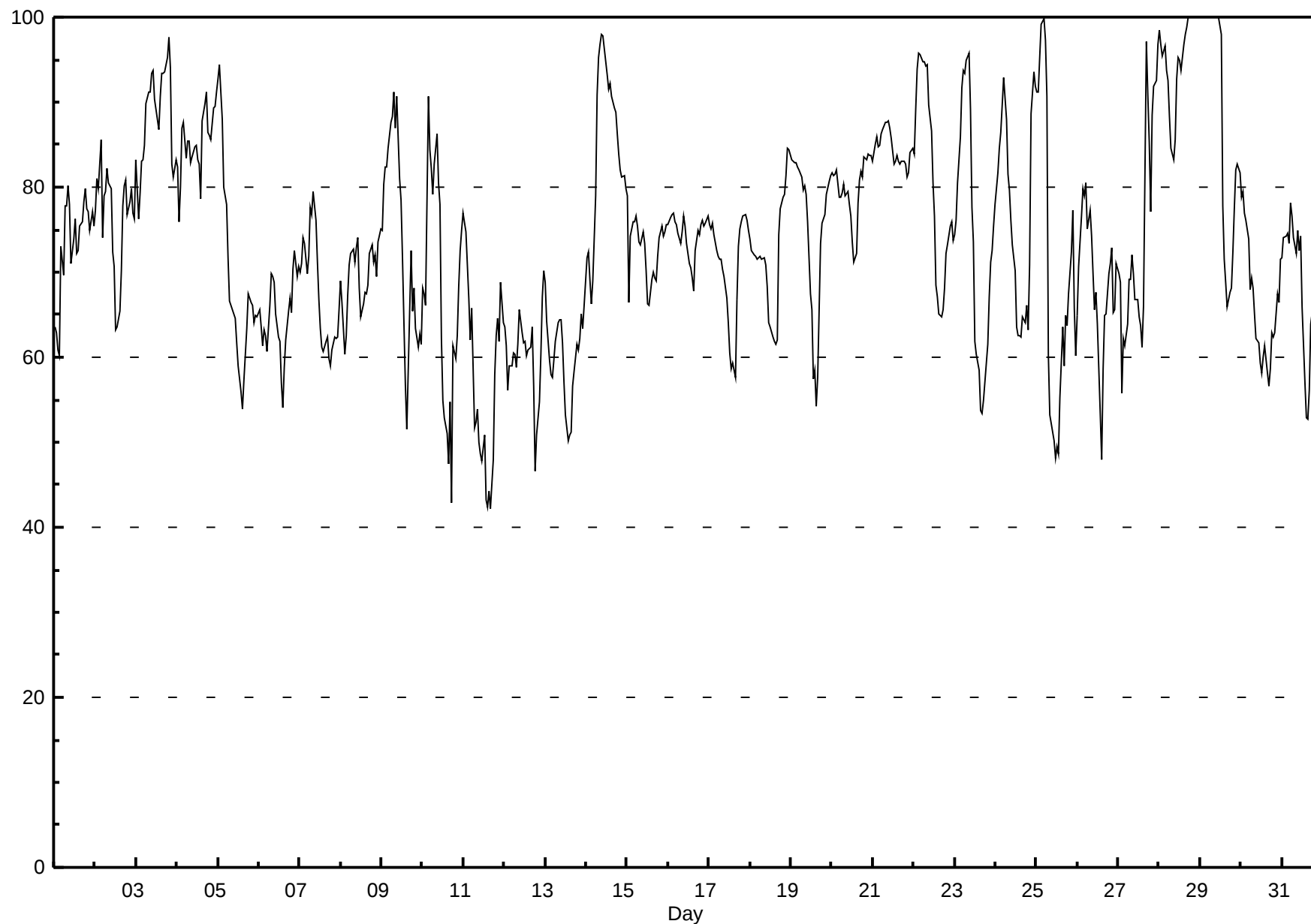
Relative Humidity (RH) - %

Beaverlodge - January 2012

Number of Exceedences (AAQO): 1-hr: 0 24-hr: 0 Maximum Value: 100.0 % on Jan 28 19:00 Maximum Daily Average: 95.2 % on Jan 28																								Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0			
Minimum Value: 42 % on Jan 11 17:00 Maximum Diurnal Average: 78.6 % at hour 7 Monthly Average: 73.82 %												Minimum Daily Average: 57.2 % on Jan 11 Minimum Diurnal Average: 64.7 % at hour 15 Percentiles: P ₁ = 47.8 P ₁₀ = 58.9 Q ₁ = 64.7 Median = 73.3 Q ₃ = 82.2 P ₉₀ = 91.4 P ₉₉ = 100.0															
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jan	64	63	61	60	73	70	78	78	80	78	71	74	76	72	73	75	76	78	80	77	77	75	77	75	73.4	80.2	
2-Jan	77	81	80	86	74	79	79	82	81	80	72	71	63	64	65	70	78	80	81	77	78	80	77	76	76.3	85.7	
3-Jan	83	76	79	83	83	85	90	91	91	93	94	90	88	87	91	93	93	93	95	98	94	83	81	83	88.3	97.6	
4-Jan	82	76	80	87	88	83	85	86	83	84	85	85	83	83	79	88	90	91	87	86	86	89	89	91	85.2	91.2	
5-Jan	93	94	88	80	79	78	72	67	66	65	65	62	59	56	54	57	60	63	67	66	66	64	65	65	68.8	94.4	
6-Jan	66	64	61	63	63	61	66	70	70	69	65	62	62	57	54	59	62	65	67	65	70	72	69	71	64.7	72.5	
7-Jan	70	71	74	73	70	72	78	77	80	76	71	67	63	61	61	62	62	60	59	61	62	62	62	66	67.5	79.5	
8-Jan	69	67	60	63	67	71	72	73	71	73	74	68	65	66	68	68	69	72	73	71	72	70	74	75	69.5	75.1	
9-Jan	75	80	82	82	85	88	88	91	87	91	81	78	72	64	57	51	66	73	65	68	63	61	63	62	73.9	91.1	
10-Jan	68	68	66	91	84	82	79	83	86	80	78	62	55	53	51	47	55	43	61	60	63	68	72	75	68.0	90.7	
11-Jan	77	75	71	67	62	66	52	52	54	50	49	48	51	43	42	44	42	48	58	63	65	62	69	64	57.2	76.9	
12-Jan	64	61	56	59	59	61	60	59	61	66	63	62	62	60	61	61	63	57	47	51	55	60	67	70	60.2	70.2	
13-Jan	69	64	60	58	58	60	62	64	64	64	62	57	53	50	51	51	57	58	62	61	62	65	63	66	60.0	68.9	
14-Jan	72	72	69	66	69	79	91	95	97	98	98	95	93	92	92	91	89	89	86	84	82	81	81	80	85.0	97.9	
15-Jan	79	66	74	76	76	77	75	73	73	75	73	70	66	66	69	70	69	69	72	74	75	74	75	76	72.7	78.9	
16-Jan	76	76	77	77	76	76	75	73	75	77	75	73	71	71	69	68	72	75	74	76	76	75	76	77	74.4	77.0	
17-Jan	76	75	76	74	73	72	72	72	70	69	67	64	60	59	59	58	67	73	75	76	77	77	76	75	70.4	76.8	
18-Jan	74	73	72	72	72	72	72	72	71	68	64	64	62	62	61	62	74	77	79	79	81	85	85	84	71.8	84.6	
19-Jan	83	83	83	83	82	82	81	80	80	79	76	68	66	57	58	54	58	73	76	76	77	79	81	81	74.9	83.2	
20-Jan	82	81	82	82	79	79	79	80	79	80	78	77	74	71	72	78	81	82	81	84	83	84	84	84	79.8	83.9	
21-Jan	83	85	86	85	85	86	87	88	88	88	87	86	83	83	84	83	83	83	83	83	81	82	84	85	84.5	87.8	
22-Jan	84	89	94	96	96	95	95	94	94	90	87	81	77	68	67	65	65	66	68	72	73	75	76	74	80.8	95.8	
23-Jan	74	76	81	86	92	94	93	95	96	89	78	74	62	60	58	54	53	55	57	62	67	71	73	75	73.9	95.7	
24-Jan	78	82	85	86	90	93	88	82	80	76	73	70	64	63	62	62	65	64	66	63	71	89	94	92	76.5	93.6	
25-Jan	91	91	95	99	100	97	91	60	53	51	50	48	49	49	55	63	59	65	64	67	72	77	66	60	69.8	99.9	
26-Jan	65	71	77	80	79	80	75	77	74	70	66	68	64	53	48	59	65	65	70	71	73	65	66	71	68.8	80.5	
27-Jan	70	69	56	62	61	64	69	69	72	70	67	67	65	64	61	66	97	91	85	77	88	92	93	97	73.8	97.2	
28-Jan	98	97	95	97	94	93	88	85	83	86	93	95	95	94	97	98	99	100	100	100	100	100	100	100	95.2	100.0	
29-Jan	100	100	100	100	100	100	100	100	100	100	100	100	98	78	71	69	66	68	68	72	78	82	83	82	88.1	100.0	
30-Jan	79	80	77	76	74	68	69	68	65	62	62	59	58	60	61	58	57	59	63	62	63	67	66	72	66.1	79.6	
31-Jan	72	74	74	75	73	78	77	74	72	75	73	74	66	57	53	53	56	64	65	63	69	69	73	73	68.8	78.1	
77.1 76.8 76.5 78.2 77.9 78.6 78.6 77.7 77.3 76.6 74.2 71.5 68.6 65.2 64.7 65.7 68.9 70.9 72.0 72.4 74.1 75.3 76.1 76.6																								Diurnal Average			
100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 98.0 93.8 96.7 98.0 98.8 99.9 100.0 100.0 100.0 100.0 100.0 100.0																								Diurnal Maximum			

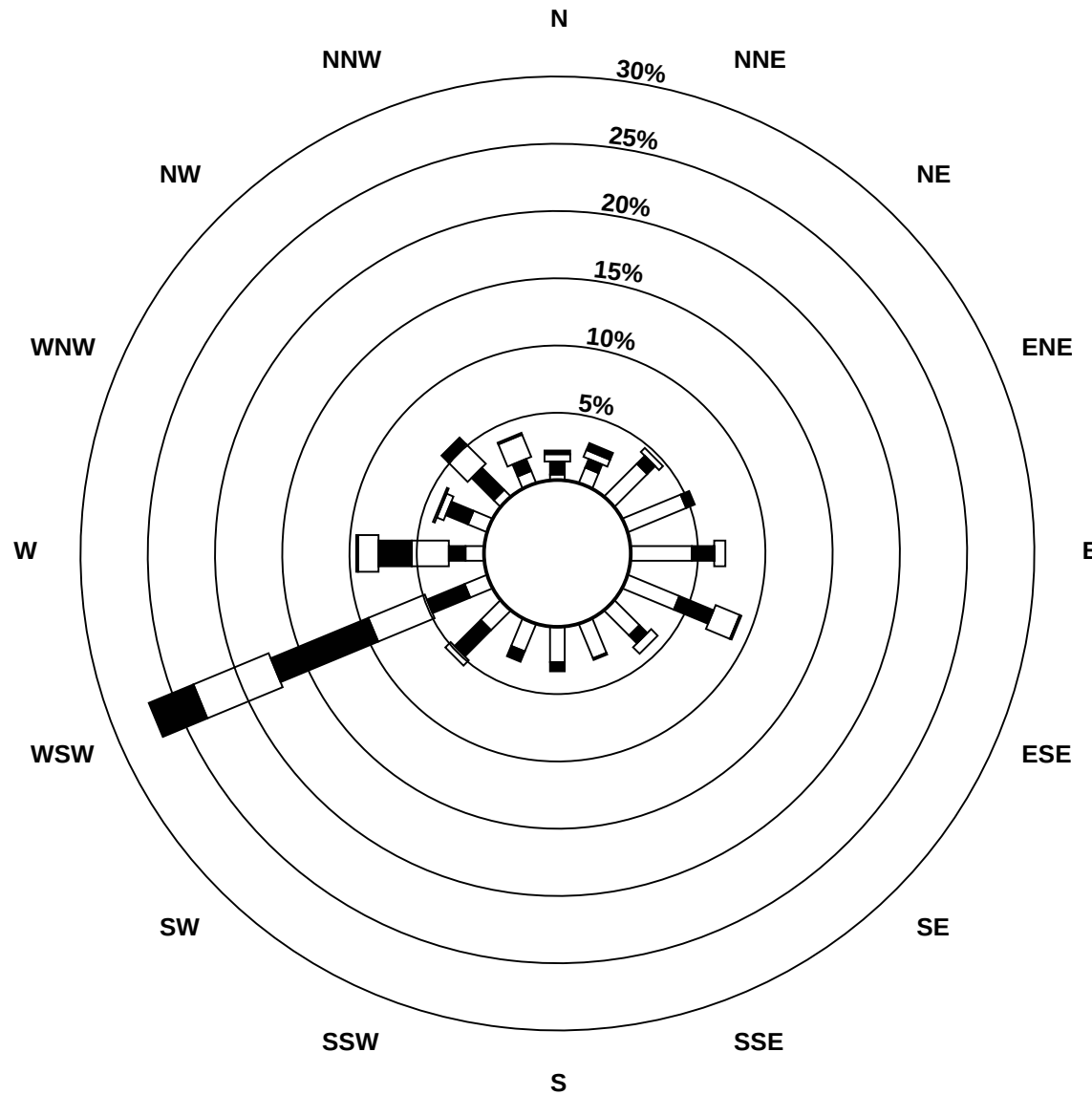
Hourly Averages

Relative Humidity (RH) - %
Beaverlodge - January 2012

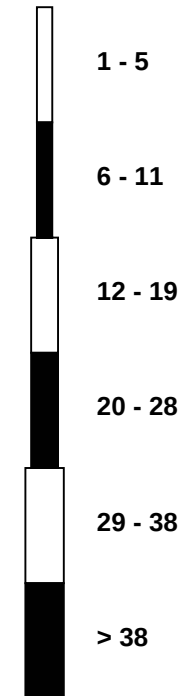


Wind Rose

Wind Speed (WS) (km/h)
Beaverlodge - January 2012



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Beaverlodge - January 2012

Maximum Speed: 54 km/h on Jan 9 15:00																				Maximum Daily Speed Average: 29.1 km/h on Jan 5										Hours in Service: 744	
Minimum Speed: 2 km/h on Jan 17 03:00																				Minimum Daily Speed Average: 3.2 km/h on Jan 17										Hours of Data: 744	
Maximum Diurnal Speed Average: 20.1 km/h at hour 15																				Minimum Diurnal Speed Average: 9.3 km/h at hour 1										Hours of Missing Data: 0	
Monthly Average Speed: 12.89 km/h																				Percentiles: P ₁ = 2.0 P ₁₀ = 3.1 Q ₁ = 4.4 Median = 8.6 Q ₃ = 18.5 P ₉₀ = 30.2 P ₉₉ = 46.5										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-Jan	2	3	6	5	4	3	3	3	4	5	3	5	7	9	10	8	6	4	9	8	8	7	8	12	6.0	12.3					
2-Jan	8	6	4	3	4	4	5	4	4	4	6	5	5	5	14	26	26	19	13	13	15	15	19	13	10.0	26.2					
3-Jan	12	14	8	6	7	5	4	5	5	5	6	7	6	7	14	12	9	5	4	5	5	7	5	5	7.0	14.2					
4-Jan	6	6	6	11	15	20	19	10	9	5	3	6	7	13	15	12	5	7	8	7	5	5	3	3	8.5	19.7					
5-Jan	12	13	22	30	32	35	38	38	34	27	29	33	40	40	46	39	30	28	26	22	20	24	25	18	29.1	46.4					
6-Jan	18	21	22	12	10	15	32	26	16	16	23	29	22	19	27	26	17	17	20	19	14	17	20	15	19.8	32.4					
7-Jan	11	11	5	11	24	21	9	16	14	10	8	11	16	11	10	6	4	2	2	9	12	10	11	7	10.4	24.2					
8-Jan	7	21	36	28	28	24	25	31	31	29	20	23	32	42	42	33	26	15	19	11	10	5	8	14	23.3	41.8					
9-Jan	6	3	3	3	5	5	6	6	8	7	3	18	30	51	54	48	45	37	36	36	33	32	30	28	22.2	54.4					
10-Jan	19	20	31	26	20	13	14	13	11	19	10	11	16	14	10	3	6	7	4	3	2	3	4	3	11.8	30.7					
11-Jan	3	2	2	2	6	3	7	6	19	20	12	8	4	4	12	19	24	20	21	20	17	17	7	11	11.1	24.4					
12-Jan	9	9	11	11	13	3	2	5	6	4	4	9	12	19	11	8	6	8	7	14	16	16	39	34	11.5	38.9					
13-Jan	35	36	38	34	31	28	25	22	28	24	20	19	26	22	21	9	9	11	13	14	8	7	2	3	20.2	37.8					
14-Jan	4	5	6	5	7	11	13	16	16	15	19	22	21	23	26	26	22	23	23	23	20	21	18	18	16.8	26.2					
15-Jan	14	13	14	14	15	11	13	16	14	11	11	13	16	16	15	13	12	12	13	11	10	11	10	12	12.8	16.4					
16-Jan	13	12	12	12	13	14	13	15	9	7	9	11	10	9	9	7	7	5	7	6	6	8	3	2	9.2	15.2					
17-Jan	3	2	2	2	2	3	2	3	2	2	2	2	3	2	4	2	4	4	4	6	7	7	4	4	3.2	7.2					
18-Jan	4	3	2	2	3	5	4	3	4	6	5	3	4	4	3	3	3	8	5	6	6	4	3	4	4.1	8.1					
19-Jan	4	5	4	5	4	4	4	3	4	3	3	2	3	2	3	2	3	3	2	3	5	4	3	4	3.4	5.4					
20-Jan	2	2	2	4	2	5	4	8	5	4	3	3	2	2	3	5	5	3	4	6	5	7	5	3	3.8	7.6					
21-Jan	2	7	10	10	7	4	4	3	3	2	4	3	4	5	7	8	9	7	6	5	3	3	3	3	5.1	10.1					
22-Jan	4	3	3	4	4	3	5	7	5	5	4	4	7	5	7	7	9	10	11	10	13	14	15	12	7.2	15.0					
23-Jan	10	8	5	6	5	7	3	6	5	4	6	10	34	30	32	25	24	13	8	5	3	4	5	5	10.9	34.4					
24-Jan	3	4	3	3	3	7	7	7	8	10	11	15	18	18	18	19	18	16	5	6	5	7	12	9	9.6	19.0					
25-Jan	6	5	5	3	5	5	14	38	48	52	44	54	52	50	38	31	31	24	22	21	27	26	26	31	27.4	53.5					
26-Jan	28	23	10	5	4	4	6	4	4	4	4	8	32	37	37	31	34	35	26	28	24	29	27	25	19.5	37.4					
27-Jan	15	11	25	12	6	6	7	5	4	27	41	48	45	36	38	44	34	34	24	14	10	9	8	6	21.1	47.9					
28-Jan	6	5	3	4	4	4	4	3	2	4	5	9	13	14	15	17	17	17	16	16	15	10	10	10	9.3	17.4					
29-Jan	10	8	9	9	5	4	3	3	4	4	6	6	9	21	23	29	33	26	23	16	13	9	6	6	11.8	32.6					
30-Jan	7	9	16	17	18	22	32	28	29	36	38	40	45	44	40	43	40	35	21	10	8	5	8	4	24.8	45.0					
31-Jan	4	4	5	4	6	4	4	7	9	7	6	6	10	22	24	25	24	12	3	4	5	4	4	3	8.6	25.3					
9.3 9.5 10.6 9.8 10.1 9.7 10.7 11.6 11.7 12.2 11.8 14.3 17.8 19.3 20.1 18.9 17.5 15.0 13.1 12.1 11.3 11.3 11.3 10.6																									Diurnal Average						
35.5 36.5 37.8 33.9 31.9 34.9 37.9 38.3 48.3 51.8 44.3 53.5 52.5 50.7 54.4 47.7 45.2 37.3 36.2 36.2 33.5 31.6 38.9 34.3																									Diurnal Maximum						
All monthly, daily, and diurnal averages have been calculated using scalar methods																															

Hourly Standard Deviations

Wind Direction (WD) - deg
Beaverlodge - January 2012

Maximum Value: 96.3 deg on Jan 2 13:00																		Hours in Service: 744							
Minimum Value: 2.2 deg on Jan 25 22:00																		Hours of Data: 744							
																		Hours of Missing Data: 0							
																		Hours of Calibration: 0							
Percentiles: P ₁ = 2.7 P ₁₀ = 3.9 Q ₁ = 5.8 Median = 12.4 Q ₃ = 38.0 P ₉₀ = 62.0 P ₉₉ = 86.4																		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-Jan	73	29	27	59	44	52	83	63	50	18	64	26	52	13	40	64	59	51	16	64	39	44	38	53	83.4
2-Jan	36	43	46	85	43	84	70	66	66	76	48	49	96	55	13	12	10	5	6	14	21	11	6	12	96.3
3-Jan	15	17	9	38	53	31	42	42	38	49	28	40	24	29	7	11	14	17	36	74	80	64	67	24	80.0
4-Jan	11	73	35	14	5	6	4	19	17	39	50	43	65	22	15	9	76	35	38	83	69	25	43	74	82.8
5-Jan	11	15	5	4	5	3	3	3	4	3	4	4	3	7	6	5	4	4	3	5	5	4	7	5	14.9
6-Jan	5	5	6	12	9	16	3	4	8	4	6	5	4	6	8	5	4	3	6	4	5	3	5	5	16.3
7-Jan	7	23	33	27	4	5	15	8	7	4	13	25	5	9	6	66	28	42	32	71	20	13	13	13	70.7
8-Jan	29	44	4	7	6	7	5	7	3	3	7	5	4	4	3	4	4	6	11	32	29	35	40	15	44.2
9-Jan	58	52	21	38	20	28	58	90	30	48	48	7	7	3	4	5	8	3	5	4	5	5	4	4	89.9
10-Jan	2	9	5	35	14	9	6	11	7	24	15	10	12	9	8	87	11	8	15	17	16	56	88	14	88.1
11-Jan	32	50	58	50	13	69	20	11	6	4	6	28	70	25	8	8	6	4	9	4	7	6	51	8	69.6
12-Jan	36	9	8	6	9	47	42	18	36	87	34	18	10	8	5	14	29	16	26	14	12	13	5	3	86.6
13-Jan	4	4	4	5	3	5	5	7	3	3	4	4	5	5	4	12	31	8	4	8	9	70	66	55	69.9
14-Jan	38	22	9	9	8	10	4	3	3	3	4	4	5	4	6	8	17	6	5	5	5	6	6	5	38.0
15-Jan	7	7	7	8	7	10	7	7	7	7	7	9	9	8	8	8	8	11	9	7	8	10	9	7	10.8
16-Jan	7	8	7	7	7	6	5	6	7	8	10	6	14	10	12	17	11	3	6	5	5	3	56	75	75.2
17-Jan	44	47	70	74	43	50	86	65	91	74	64	47	29	30	47	34	16	7	59	7	17	7	69	15	91.5
18-Jan	19	24	38	50	18	11	68	68	37	18	15	32	28	19	9	76	59	7	34	9	13	77	23	24	76.7
19-Jan	18	7	7	7	23	48	22	36	15	10	57	54	69	44	32	28	38	52	55	35	42	8	73	75	74.6
20-Jan	39	55	80	53	62	76	47	38	57	52	31	55	86	58	26	14	26	41	77	18	22	9	14	36	86.5
21-Jan	55	11	11	6	11	85	61	54	13	70	30	20	17	13	17	13	8	11	15	13	23	45	34	62	85.0
22-Jan	31	70	63	44	31	47	31	65	28	42	49	33	26	16	9	6	9	5	8	10	12	11	6	5	69.6
23-Jan	10	21	43	77	59	48	75	68	26	22	75	68	4	5	3	4	3	10	75	35	37	34	28	33	76.7
24-Jan	67	64	48	51	45	11	7	12	11	11	6	7	8	5	4	11	5	13	24	23	30	27	6	6	67.0
25-Jan	8	14	14	35	16	16	36	6	4	4	4	5	5	5	6	5	4	3	3	3	3	2	5	4	36.3
26-Jan	3	5	70	18	46	63	18	22	10	28	36	30	13	4	6	5	8	7	5	5	3	3	4	2	70.1
27-Jan	25	82	5	17	30	41	13	48	63	4	3	2	4	5	6	5	11	6	10	15	20	14	31	22	81.8
28-Jan	21	52	45	20	19	23	44	58	41	18	11	10	9	12	6	4	3	4	35	4	5	5	5	9	58.2
29-Jan	5	8	6	12	8	9	56	24	51	49	59	52	69	6	6	4	4	3	3	7	5	8	12	5	69.3
30-Jan	11	10	6	5	3	5	3	3	5	5	5	5	5	4	4	5	5	5	4	44	24	48	29	83	83.3
31-Jan	54	17	17	16	6	58	63	26	11	58	59	10	9	24	5	5	6	27	31	53	45	21	33	17	63.0
72.5 81.8 80.3 85.3 62.0 85.0 85.7 89.9 91.5 86.6 75.1 67.7 96.3 57.6 46.9 87.1 76.1 51.9 77.1 82.8 80.0 76.7 88.1 83.3																									

PAZA
Valleyview Station
Monthly Summary Tables, Graphs and
Roses

Hourly Averages

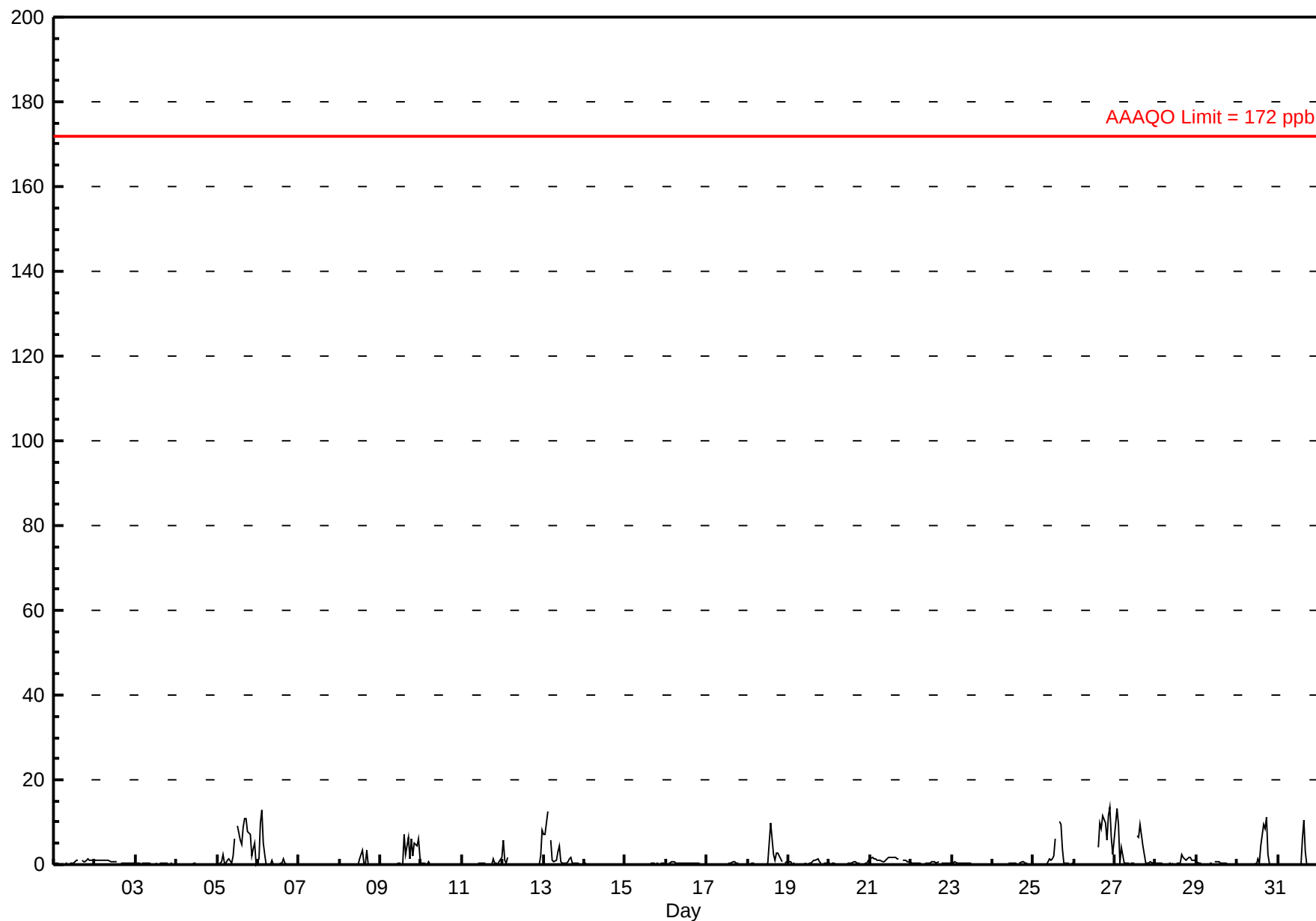
Sulphur Dioxide (SO₂) - ppb

Valleyview - January 2012

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 13.4 ppb on Jan 26 22:00 Maximum Daily Average: 3.9 ppb on Jan 5																					Hours in Service: 744 Hours of Data: 709 Hours of Missing Data: 35 Hours of Calibration: 35 Percent Operational Time: 100.0					
Minimum Value: 0 ppb on Jan 4 04:00 Maximum Diurnal Average: 2.6 ppb at hour 16 Monthly Average: 0.94 ppb										Minimum Daily Average: 0.0 ppb on Jan 7 Minimum Diurnal Average: 0.2 ppb at hour 6 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.2 Q ₃ = 0.6 P ₉₀ = 2.1 P ₉₉ = 10.8																
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jan	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	A	1	1	1	1	1	1	1	1	0.6	1.2
2-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0	0	0	0	0	0	0	0	0	0.6	1.2
3-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.2	0.4
4-Jan	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	0.3
5-Jan	0	0	1	2	0	0	1	1	0	2	6	A	9	6	5	9	11	11	8	7	2	4	5	0	3.9	11.0
6-Jan	1	10	13	5	2	0	0	0	1	0	A	0	0	0	0	1	0	0	0	0	0	0	0	0	1.6	13.0
7-Jan	0	0	0	0	0	0	0	0	0	A	0	C	C	C	0	0	0	0	0	0	0	0	0	0	0.0	0.1
8-Jan	0	0	0	0	0	0	0	0	A	0	0	0	1	3	0	0	3	0	0	0	0	0	0	0	0.4	3.4
9-Jan	0	0	0	0	0	0	0	0	A	0	0	0	0	0	7	2	6	1	6	2	5	4	6	2	1.9	7.0
10-Jan	0	0	0	0	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
11-Jan	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	0.3	1.8
12-Jan	6	1	0	2	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	8	0.9	8.0
13-Jan	7	7	12	A	6	1	1	1	3	4	1	0	0	0	1	1	2	1	0	0	0	0	0	0	2.2	12.4
14-Jan	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
15-Jan	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
16-Jan	A	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.3	0.6
17-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	A	0	0.2	0.8
18-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	10	6	2	1	3	3	1	1	A	0	1	1.3	10.0
19-Jan	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	A	0	0	0	0.4	1.5
20-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	A	0	0	0	1	0.3	0.9
21-Jan	1	2	1	1	1	1	1	1	1	1	1	2	2	2	2	2	1	1	A	1	1	1	1	1	1.2	1.8
22-Jan	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	1	A	0	0	0	0	0	0	0.4	0.6
23-Jan	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.2	0.6
24-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	1	0	0	0	0	0	0.2	0.5
25-Jan	0	0	0	0	0	0	0	0	0	1	1	1	2	6	A	10	10	4	0	0	0	0	0	0	1.6	10.1
26-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	A	4	10	8	12	10	6	11	13	7	2	3.6	13.4
27-Jan	9	13	10	0	4	0	0	0	0	0	0	0	A	7	6	9	4	2	0	0	0	1	0	0	3.0	13.3
28-Jan	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	2	2	2	1	2	2	1	1	1	0.7	2.4
29-Jan	1	0	0	0	0	0	0	0	0	0	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0.3	0.7
30-Jan	0	0	0	0	0	0	0	0	0	A	0	0	1	0	4	9	9	11	2	0	0	0	0	0	1.7	11.0
31-Jan	0	0	0	0	0	0	0	0	A	0	0	0	0	0	6	10	3	0	0	0	0	0	0	0	0.9	10.5
1.0 1.3 1.4 0.5 0.6 0.2 0.2 0.2 0.3 0.4 0.5 0.3 0.8 1.4 1.6 2.6 2.2 1.7 1.2 0.8 0.9 0.9 0.9 0.7																								Diurnal Average		
9.4 13.3 13.0 5.2 5.6 1.1 1.1 1.5 2.9 4.3 6.1 1.7 9.2 10.0 7.0 10.5 10.9 11.7 9.8 7.2 11.4 13.4 6.5 8.0																								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																										

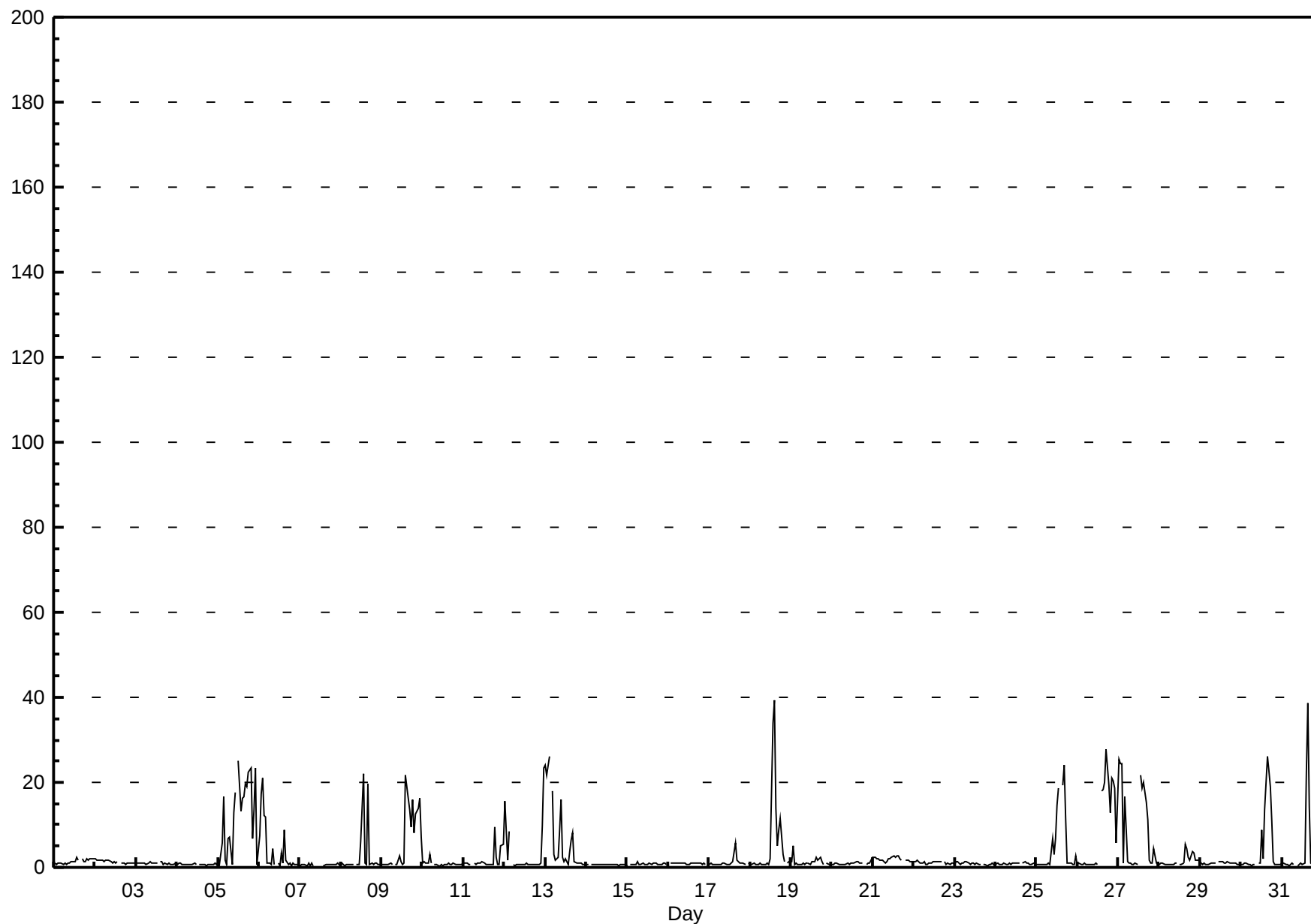
Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Valleyview - January 2012



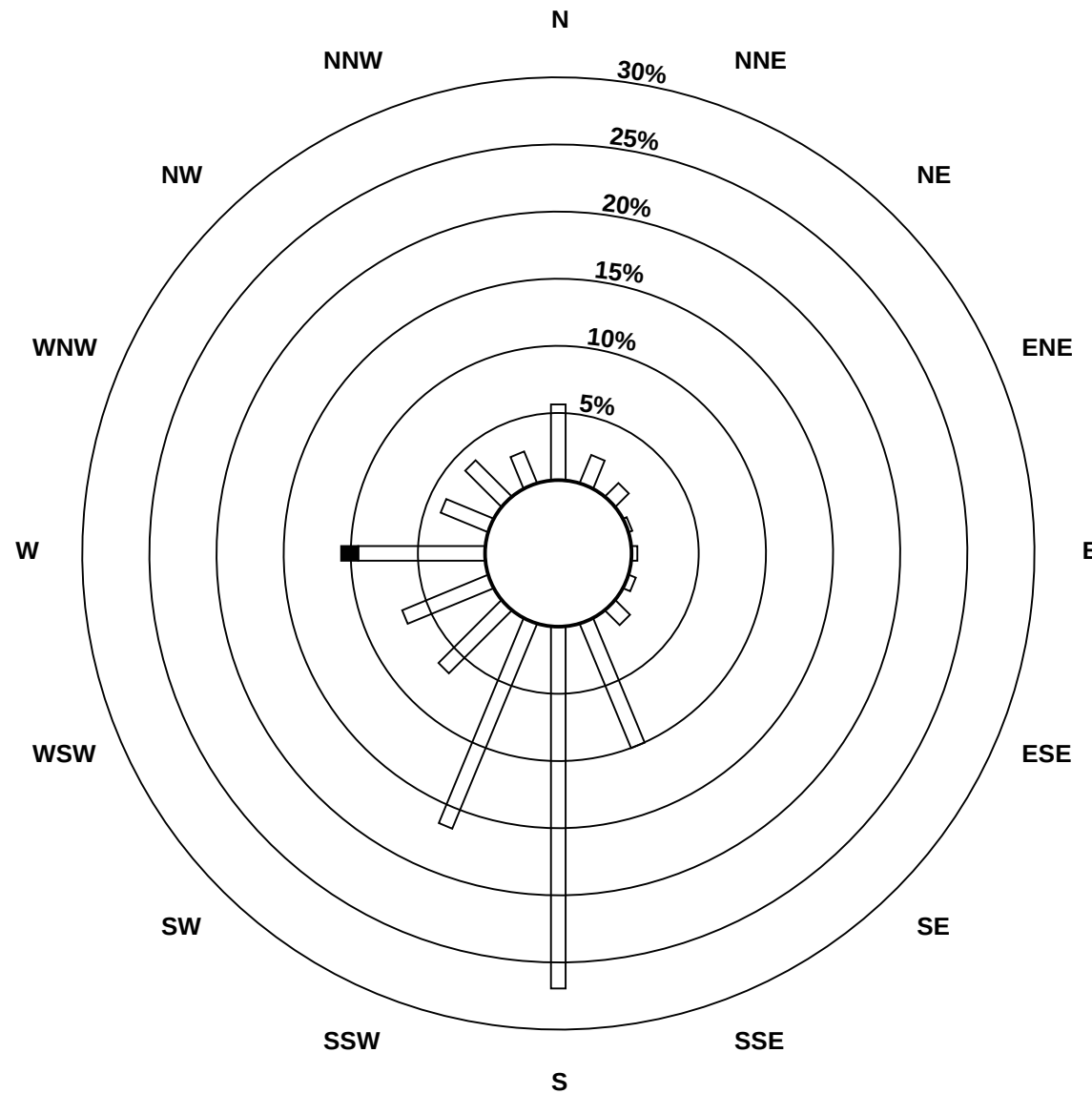
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Valleyview - January 2012



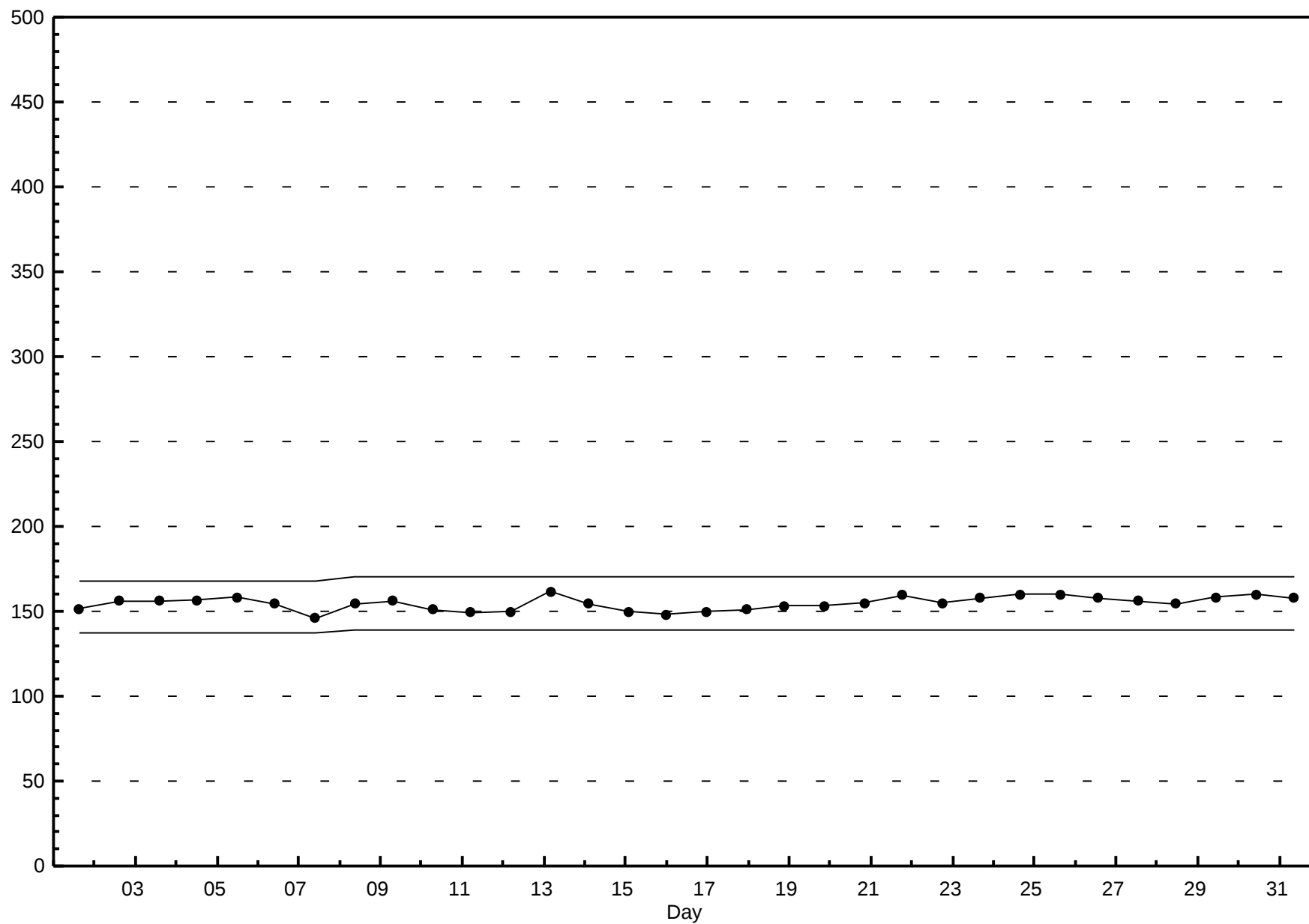
Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Valleyview - January 2012



Span Responses

Sulphur Dioxide (SO₂)
Valleyview - January 2012



Hourly Averages

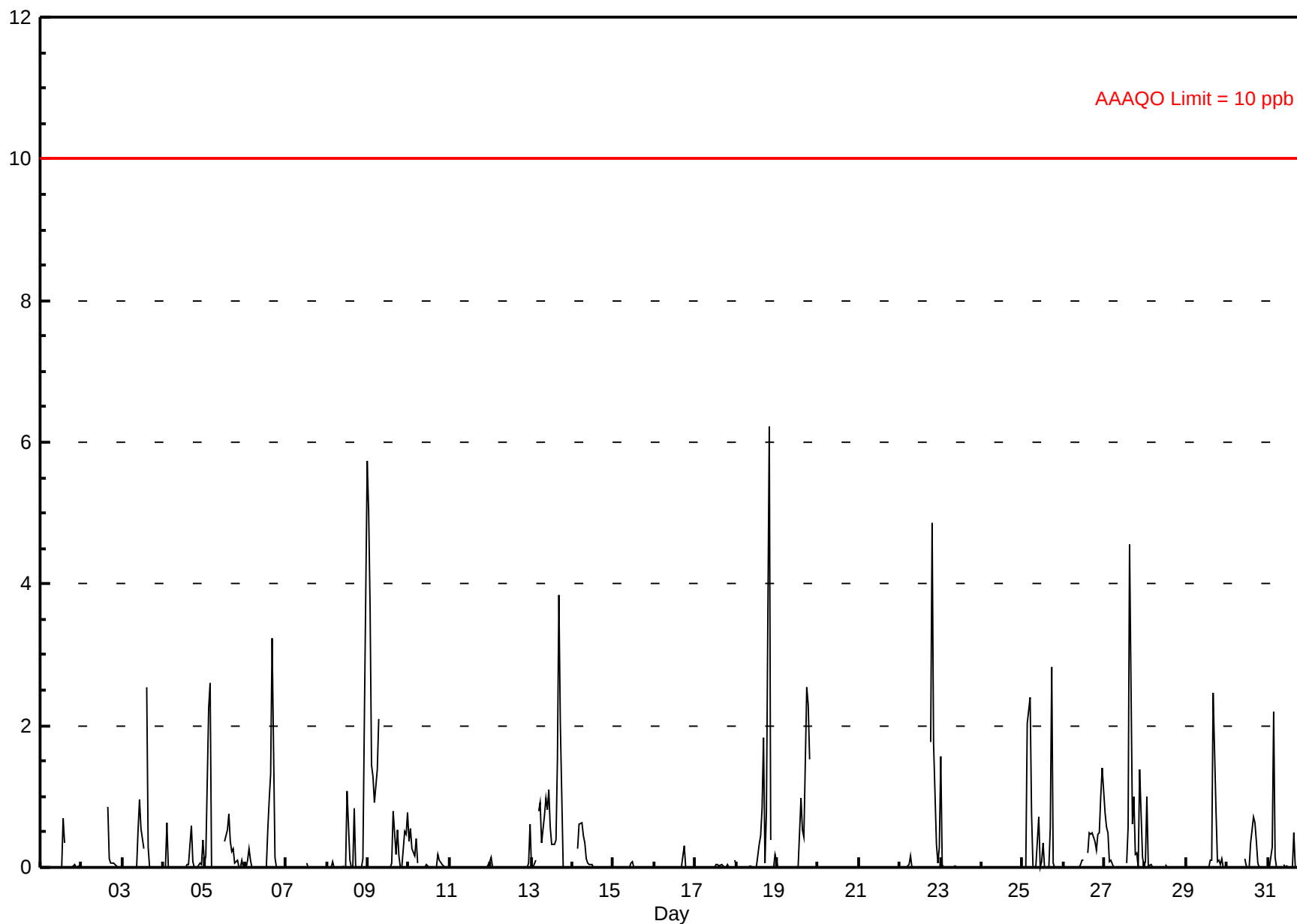
Hydrogen Sulphide (H₂S) - ppb

Valleyview - January 2012

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0																		Hours in Service: 744								
Maximum Value: 6.2 ppb on Jan 18 20:00																		Maximum Daily Average: 0.8 ppb on Jan 9		Hours of Data: 710						
Minimum Value: 0 ppb on Jan 1 01:00																		Minimum Daily Average: 0.0 ppb on Jan 20		Hours of Missing Data: 34						
Maximum Diurnal Average: 0.5 ppb at hour 17																		Minimum Diurnal Average: 0.0 ppb at hour 8		Hours of Calibration: 34						
Monthly Average: 0.20 ppb																		Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.0 Q ₃ = 0.1 P ₉₀ = 0.6 P ₉₉ = 3.6		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-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	A	0	0	0	0	0	0	0	0	0.1	0.7
2-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0.1	0.9
3-Jan	0	0	0	0	0	0	0	0	0	1	1	1	0	A	3	0	0	0	0	0	0	0	0	0	0.2	2.5
4-Jan	0	0	1	0	0	0	0	0	0	0	0	0	A	0	0	0	1	0	0	0	0	0	0	0	0.1	0.6
5-Jan	0	0	2	3	0	0	0	0	0	0	0	A	0	1	1	0	0	0	0	0	0	0	0	0	0.3	2.6
6-Jan	0	0	0	0	0	0	0	0	0	0	A	0	0	1	1	1	3	0	0	0	0	0	0	0	0.3	3.2
7-Jan	0	0	0	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
8-Jan	0	0	0	0	0	0	0	0	A	0	0	0	0	1	0	0	0	1	0	0	0	0	2	6	0.4	5.7
9-Jan	5	4	1	1	1	1	2	A	0	0	0	0	0	0	0	1	0	1	0	0	0	1	0	1	0.8	5.0
10-Jan	0	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
11-Jan	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
12-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	0.6
13-Jan	0	0	0	A	1	1	0	1	1	1	1	1	0	0	0	2	4	2	0	0	0	0	0	0	0.6	3.8
14-Jan	0	0	A	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.6
15-Jan	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
16-Jan	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	0.3
17-Jan	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
18-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	1	6	0	A	0	0	0.5	6.2
19-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	3	2	2	A	0	0	0	0.4	2.5
20-Jan	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
21-Jan	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
22-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	2	5	2	0	0	0	0	0.4	4.9
23-Jan	2	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	1.6
24-Jan	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
25-Jan	0	0	0	2	2	1	0	0	0	1	0	0	0	0	A	0	1	3	0	0	0	0	0	0	0.4	2.8
26-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	1	1	0.3	1.4
27-Jan	1	1	0	0	0	0	0	0	0	0	0	0	A	0	1	5	1	1	0	0	0	1	0	0	0.5	4.6
28-Jan	0	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.0
29-Jan	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	2	1	0	0	0	0	0	0	0.2	2.5
30-Jan	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0.1	0.7
31-Jan	0	0	0	2	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	2.2
0.3		0.2	0.2	0.3	0.2	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.3	0.4	0.5	0.4	0.2	0.4	0.1	0.1	0.1	0.3	Diurnal Average	
5.0		3.7	2.3	2.6	2.4	1.4	2.1	0.7	1.0	0.8	1.1	0.6	1.1	0.7	2.5	4.6	3.8	2.8	2.3	6.2	1.7	1.4	2.0	5.7	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																								
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb																										

Hourly Averages

Hydrogen Sulphide (H₂S) - ppb
Valleyview - January 2012



Hourly Maximums

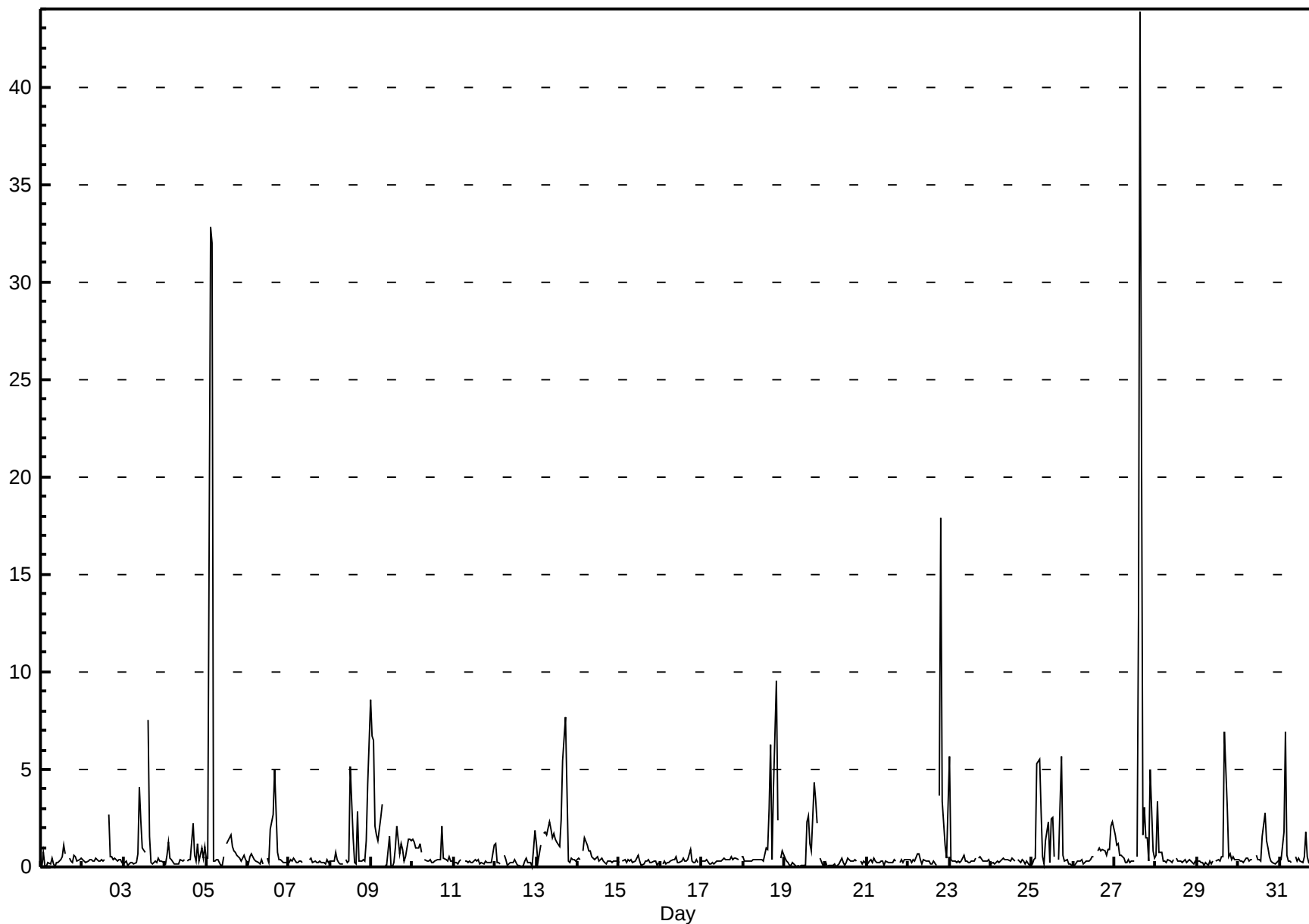
Hydrogen Sulphide (H₂S) - ppb

Valleyview - January 2012

Maximum Value: 43.8 ppb on Jan 27 16:00																				Maximum Daily Average: 3.4 ppb on Jan 27					Hours in Service: 744		
Minimum Value: 0 ppb on Jan 1 01:00																				Minimum Daily Average: 0.2 ppb on Jan 20					Hours of Data: 710		
Maximum Diurnal Average: 2.6 ppb at hour 16																				Minimum Diurnal Average: 0.3 ppb at hour 8					Hours of Missing Data: 34		
Monthly Average: 0.89 ppb																				Percentiles: P ₁ = 0.0 P ₁₀ = 0.2 Q ₁ = 0.2 Median = 0.3 Q ₃ = 0.5 P ₉₀ = 1.6 P ₉₉ = 8.0					Hours of Calibration: 34		
																				Percent Operational Time: 100.0							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jan	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	A	0	0	0	1	0	0	0	0	0.4	1.1	
2-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	3	1	1	0	0	0	0	0	0	0.5	2.7	
3-Jan	0	0	0	0	0	0	0	0	1	4	2	1	1	A	8	2	0	0	0	0	0	0	0	0	0.9	7.5	
4-Jan	0	1	1	0	0	0	0	0	0	0	0	0	A	0	0	0	2	1	0	1	0	1	0	1	0.5	2.2	
5-Jan	0	0	33	32	0	0	0	0	0	0	1	A	1	1	2	1	1	1	1	0	0	0	1	0	3.4	32.8	
6-Jan	0	1	1	1	0	0	0	0	0	0	A	0	0	2	2	3	5	1	0	0	0	0	0	0	0.8	5.0	
7-Jan	0	0	0	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4	
8-Jan	0	0	0	1	0	0	0	0	A	0	0	0	5	1	0	0	3	0	0	0	0	1	4	9	1.2	8.6	
9-Jan	7	6	2	2	1	3	3	A	0	0	2	0	0	0	1	2	1	1	1	0	0	1	1	1	1.6	6.7	
10-Jan	1	1	1	1	1	1	A	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	0.6	2.1	
11-Jan	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	1.1	
12-Jan	1	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0.4	1.9	
13-Jan	1	0	1	A	2	2	2	2	2	1	2	1	1	1	2	5	7	8	0	0	0	0	0	0	1.9	7.7	
14-Jan	0	0	A	1	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	1.5	
15-Jan	0	A	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6	
16-Jan	A	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	A	0.3	0.9	
17-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	A	1	0.3	0.5	
18-Jan	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	3	6	0	4	10	2	A	0	1	1.5	9.6	
19-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	1	1	4	3	2	A	0	0	0	0.8	4.4	
20-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.2	0.5	
21-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.3	0.5	
22-Jan	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	A	4	18	3	1	0	3	1.5	17.9	
23-Jan	6	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.6	5.7	
24-Jan	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	
25-Jan	0	0	0	5	6	3	1	0	1	2	0	2	3	1	A	0	3	6	1	0	0	0	0	0	1.5	5.7	
26-Jan	0	0	0	0	0	0	0	0	0	0	0	1	1	A	1	1	1	1	1	1	1	1	2	2	0.7	2.3	
27-Jan	2	1	1	1	1	0	0	0	0	0	0	0	A	1	13	44	2	3	1	2	0	5	1	0	3.4	43.8	
28-Jan	1	3	1	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.5	3.4	
29-Jan	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	0	7	3	1	1	0	0	0	0.7	6.9	
30-Jan	0	0	0	0	0	0	0	0	0	A	1	0	0	0	2	3	1	1	1	0	0	0	0	0	0.6	2.8	
31-Jan	0	0	2	7	1	0	0	0	A	1	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0.8	6.9
0.8 0.7 1.6 1.8 0.6 0.5 0.4 0.3 0.4 0.5 0.5 0.5 0.6 0.6 1.4 2.6 1.5 1.2 0.8 1.4 0.5 0.6 0.6 0.9																									Diurnal Average		
6.7 6.5 32.8 32.0 5.5 2.8 3.2 2.3 1.9 4.1 2.4 2.4 5.2 2.3 13.3 43.8 6.9 7.7 4.1 17.9 3.4 5.0 4.3 8.6																									Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																											

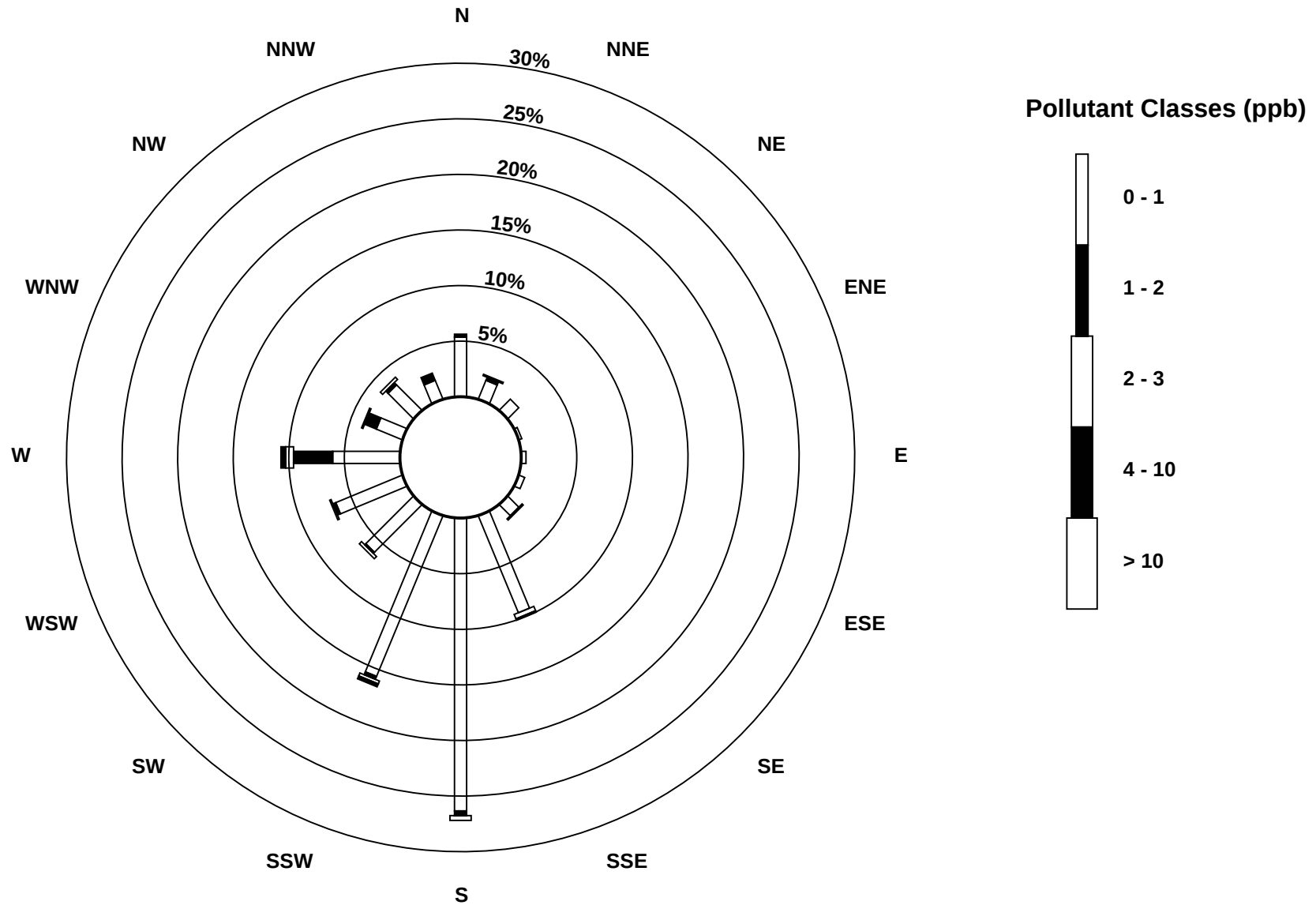
Hourly Maximums

Hydrogen Sulphide (H₂S) - ppb
Valleyview - January 2012



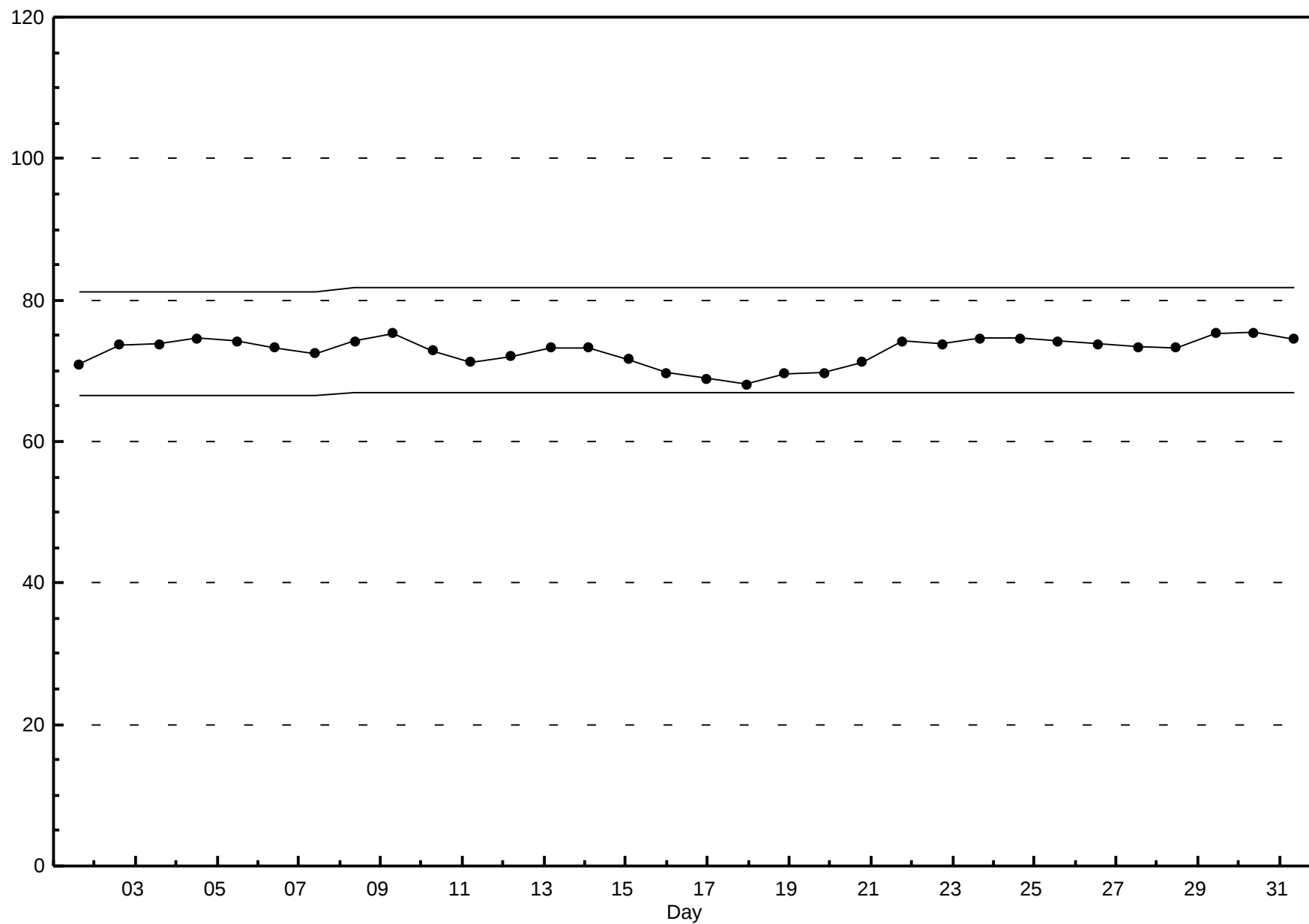
Pollutant Rose

Hydrogen Sulphide (H₂S) - ppb
Valleyview - January 2012



Span Responses

Hydrogen Sulphide (H₂S)
Valleyview - January 2012



Hourly Averages

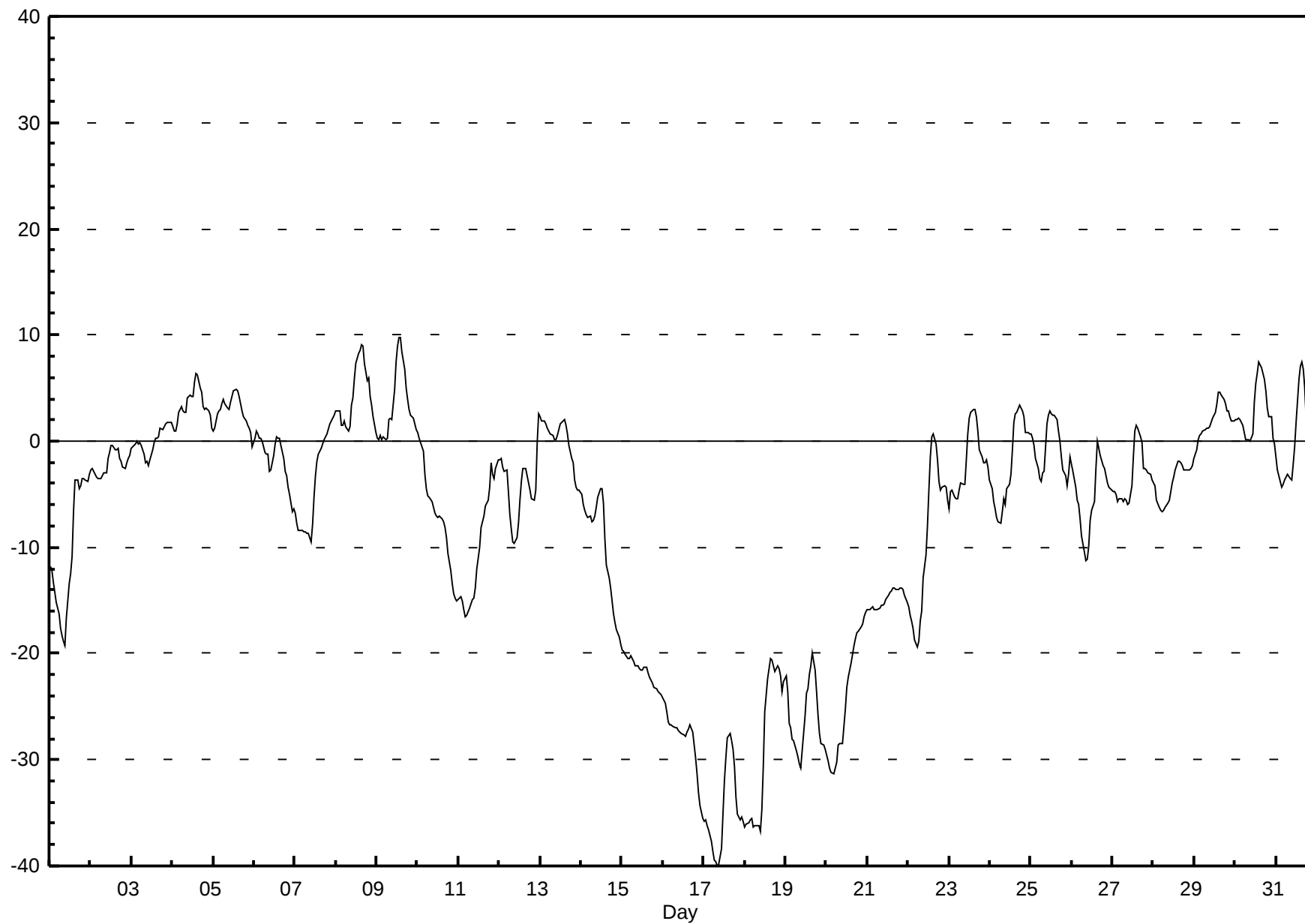
External Temperature (ET) - °C

Valleyview - January 2012

Number of Exceedences (AAAQO): Maximum Value: 9.8 °C on Jan 9 14:00																				1-hr: 0 24-hr: 0 Maximum Daily Average: 4.3 °C on Jan 8				Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0		
Minimum Value: -40 °C on Jan 17 09:00 Maximum Diurnal Average: -4.2 °C at hour 16 Monthly Average: -7.61 °C																				Minimum Daily Average: -34.7 °C on Jan 17 Minimum Diurnal Average: -10.1 °C at hour 7 Percentiles: P ₁ = -36.7 P ₁₀ = -26.9 Q ₁ = -15.0 Median = -3.6 Q ₃ = 0.7 P ₉₀ = 2.9 P ₉₉ = 8.2						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jan	-12	-12	-13	-14	-15	-16	-18	-18	-19	-19	-17	-13	-12	-11	-7	-4	-4	-4	-4	-3	-4	-4	-4	-3	-10.4	-3.1
2-Jan	-3	-3	-3	-3	-3	-4	-4	-3	-3	-3	-2	-1	0	0	-1	-1	-1	-2	-2	-2	-3	-2	-2	-1	-2.1	-0.5
3-Jan	-1	0	0	0	0	0	0	-1	-2	-2	-2	-2	-1	0	0	0	0	1	1	1	2	2	2	2	0.0	1.8
4-Jan	1	1	1	2	3	3	3	3	3	4	4	4	4	6	6	6	5	5	3	3	3	3	2	1	3.3	6.4
5-Jan	1	1	3	3	3	3	4	4	3	3	4	4	5	5	5	4	3	3	2	2	1	1	1	-1	2.8	4.9
6-Jan	0	1	1	0	0	0	-1	-1	-1	-3	-3	-1	0	0	0	0	0	-2	-3	-3	-4	-5	-7	-6	-1.6	1.0
7-Jan	-7	-8	-8	-8	-8	-9	-9	-9	-9	-9	-8	-5	-3	-2	-1	-1	0	0	0	1	2	2	2	3	-4.0	2.5
8-Jan	3	3	3	2	2	2	1	1	1	3	4	6	7	8	9	9	9	7	6	6	4	3	2	1	4.3	9.1
9-Jan	0	0	0	0	0	0	0	2	2	2	5	7	9	10	10	8	7	5	4	3	2	2	2	1	3.5	9.8
10-Jan	1	0	0	-1	-3	-4	-5	-5	-6	-6	-7	-7	-7	-7	-7	-8	-8	-9	-11	-12	-13	-14	-15	-15	-7.1	0.8
11-Jan	-15	-15	-15	-16	-17	-16	-16	-15	-15	-15	-14	-12	-10	-8	-8	-7	-6	-6	-4	-2	-3	-4	-3	-2	-10.1	-1.7
12-Jan	-2	-2	-2	-3	-3	-5	-7	-8	-9	-10	-9	-8	-6	-4	-3	-3	-3	-4	-5	-5	-6	-5	0	3	-4.5	2.5
13-Jan	2	2	2	2	1	1	1	0	0	0	0	1	2	2	2	2	1	0	-2	-2	-4	-4	-5	-5	0.0	2.2
14-Jan	-5	-6	-6	-7	-7	-7	-8	-7	-7	-6	-5	-5	-4	-6	-9	-12	-13	-14	-15	-16	-17	-18	-18	-19	-9.9	-4.4
15-Jan	-20	-20	-20	-20	-20	-20	-20	-21	-21	-21	-21	-22	-22	-21	-21	-22	-22	-22	-23	-23	-23	-24	-24	-24	-21.6	-19.7
16-Jan	-24	-25	-26	-26	-27	-27	-27	-27	-27	-27	-27	-27	-28	-28	-27	-27	-27	-27	-29	-30	-31	-33	-34	-36	-28.1	-24.2
17-Jan	-36	-36	-36	-37	-38	-39	-39	-40	-40	-40	-38	-35	-32	-30	-28	-28	-28	-29	-31	-33	-35	-36	-35	-36	-34.7	-27.5
18-Jan	-36	-36	-36	-36	-36	-36	-36	-36	-36	-37	-35	-31	-25	-22	-21	-20	-21	-21	-22	-21	-21	-22	-24	-23	-28.8	-20.4
19-Jan	-22	-24	-27	-27	-28	-28	-29	-30	-30	-31	-29	-26	-24	-23	-22	-21	-20	-22	-24	-26	-27	-29	-29	-29	-26.1	-20.0
20-Jan	-30	-30	-31	-31	-31	-31	-30	-29	-29	-28	-27	-25	-23	-22	-21	-20	-19	-19	-18	-18	-17	-17	-16	-16	-24.1	-16.2
21-Jan	-16	-16	-16	-16	-16	-16	-16	-16	-16	-16	-15	-15	-15	-14	-14	-14	-14	-14	-14	-14	-14	-14	-15	-15	-14.9	-13.8
22-Jan	-16	-16	-17	-18	-19	-19	-19	-17	-16	-13	-11	-8	-5	-1	0	1	0	-2	-4	-5	-4	-4	-4	-6	-9.2	0.7
23-Jan	-6	-5	-5	-5	-5	-5	-5	-4	-4	-4	-2	1	2	3	3	3	2	1	-1	-2	-2	-2	-3	-1.9	3.0	
24-Jan	-4	-4	-6	-6	-7	-8	-8	-7	-5	-6	-5	-4	-3	-1	2	3	3	3	3	3	2	1	1	1	-2.2	3.4
25-Jan	1	0	0	-2	-3	-4	-4	-3	-3	2	2	3	3	2	2	2	1	0	-1	-3	-3	-4	-3	-1	-0.7	2.8
26-Jan	-2	-3	-4	-6	-6	-7	-9	-10	-11	-11	-10	-7	-6	-6	-3	0	-1	-1	-2	-3	-3	-4	-4	-5	-5.2	0.0
27-Jan	-5	-5	-5	-6	-5	-5	-6	-5	-5	-6	-6	-4	-2	1	2	1	0	0	-3	-3	-3	-3	-3	-4	-3.3	1.5
28-Jan	-4	-4	-6	-6	-6	-7	-7	-6	-6	-6	-5	-4	-3	-3	-2	-2	-2	-2	-3	-3	-3	-3	-3	-2	-4.0	-1.9
29-Jan	-2	-1	0	1	1	1	1	1	1	1	2	2	3	4	5	5	4	4	3	3	3	2	2	2	2.0	4.7
30-Jan	2	2	2	2	1	1	0	0	0	0	1	4	5	6	7	7	6	6	5	3	2	2	0	0	2.8	7.4
31-Jan	-1	-3	-4	-4	-4	-4	-3	-3	-3	-4	-2	-1	2	6	7	7	7	5	2	1	1	0	-1	-2	-0.1	7.5
																									Diurnal Average	
																									Diurnal Maximum	

Hourly Averages

External Temperature (ET) - °C
Valleyview - January 2012



Hourly Averages

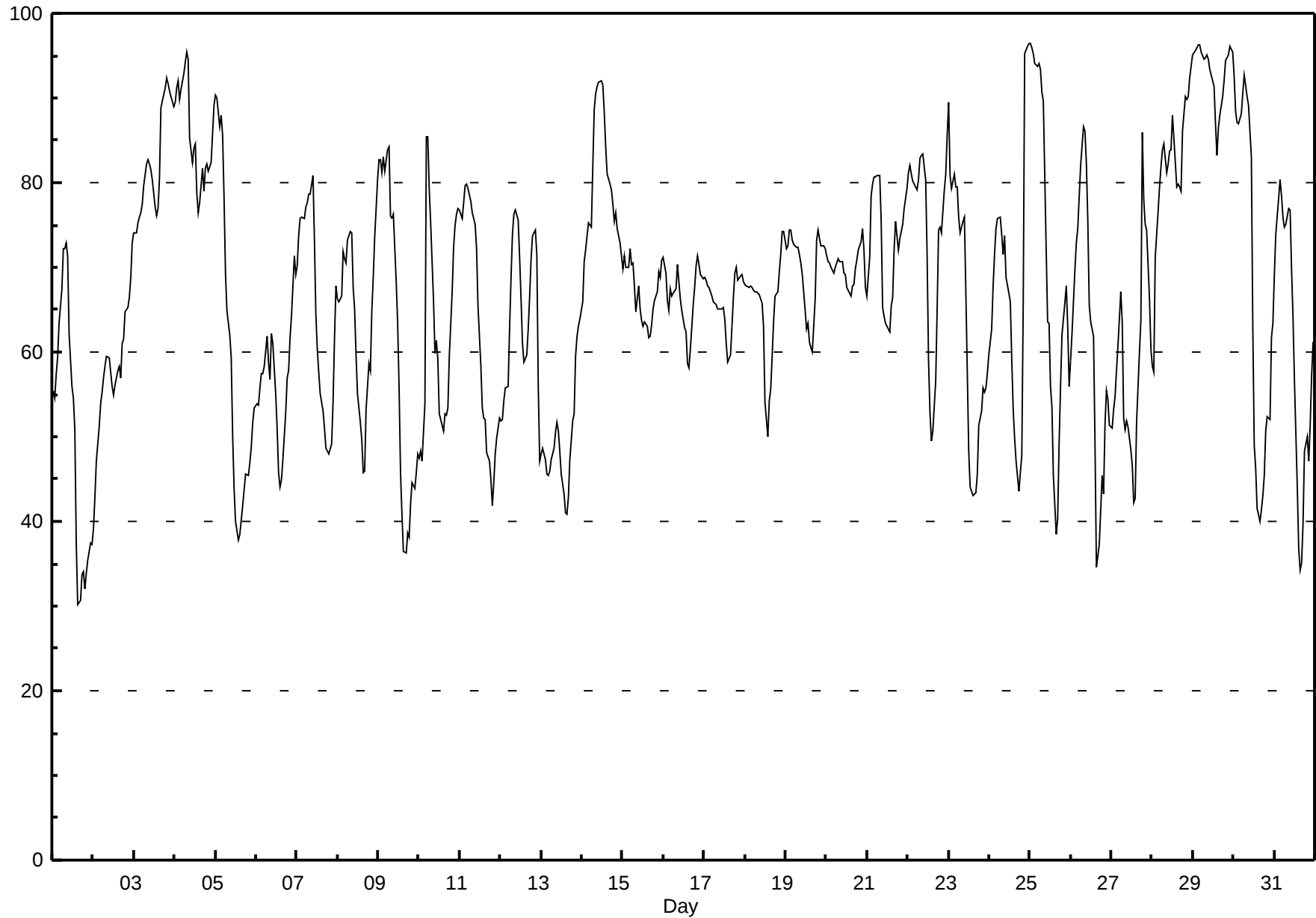
Relative Humidity (RH) - %

Valleyview - January 2012

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 96.4 % on Jan 25 00:00 Maximum Daily Average: 93.1 % on Jan 29																								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 Jan 1 16:00 Maximum Diurnal Average: 75.3 % at hour 7 Monthly Average: 66.94 %												Minimum Daily Average: 49.7 % on Jan 13 Minimum Diurnal Average: 54.6 % at hour 16 Percentiles: P ₁ = 34.5 P ₁₀ = 46.2 Q ₁ = 55.8 Median = 67.6 Q ₃ = 76.9 P ₉₀ = 87.8 P ₉₉ = 95.9														
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-Jan	55	55	57	59	63	67	72	72	73	71	62	56	55	51	38	30	31	34	34	32	34	35	38	37	50.5	72.9
2-Jan	39	43	47	51	54	55	57	58	60	59	58	56	55	56	58	58	57	61	62	65	65	66	69	73	57.6	72.8
3-Jan	74	74	75	76	76	77	80	82	83	82	82	80	77	76	77	81	89	90	91	92	92	91	90	89	82.3	92.5
4-Jan	89	91	92	90	91	93	94	95	95	85	82	84	85	79	76	78	82	79	82	82	81	82	86	89	86.0	95.4
5-Jan	90	90	87	88	86	78	69	65	62	59	50	44	40	38	38	40	42	44	46	45	47	49	52	53	58.4	90.4
6-Jan	54	54	56	58	57	58	62	59	57	62	61	55	51	46	44	45	47	53	57	58	62	64	71	69	56.7	71.3
7-Jan	70	74	76	76	76	77	78	79	79	81	73	64	60	58	55	53	51	49	48	48	49	54	62	68	64.9	80.8
8-Jan	66	66	67	72	71	70	73	74	74	68	65	60	55	52	50	46	46	53	59	58	65	69	74	80	63.8	80.3
9-Jan	83	83	81	83	81	84	84	76	76	76	68	63	56	46	41	36	36	39	38	42	45	44	46	48	60.6	84.3
10-Jan	47	48	47	54	85	85	79	75	66	60	61	59	53	52	51	53	52	53	59	67	72	75	76	77	62.9	85.4
11-Jan	77	76	78	80	80	79	78	77	76	75	72	65	58	53	52	52	48	47	45	42	45	48	50	52	62.7	79.8
12-Jan	52	52	54	56	56	63	69	74	76	77	76	71	66	61	59	60	63	67	71	74	74	72	56	47	64.3	76.7
13-Jan	48	49	47	46	45	46	47	49	51	52	51	48	46	43	41	41	43	47	52	53	59	62	63	64	49.7	63.9
14-Jan	66	71	72	74	75	75	82	89	91	91	92	92	91	88	84	81	80	79	77	75	76	74	73	71	80.0	92.0
15-Jan	70	71	70	70	72	70	70	68	65	68	65	64	63	63	63	62	62	63	65	66	67	70	69	71	67.0	72.3
16-Jan	71	69	66	65	67	67	67	68	70	68	66	65	63	62	59	58	60	66	68	70	71	70	69	69	66.5	71.3
17-Jan	69	69	68	68	67	66	66	66	65	65	65	65	64	61	59	60	63	66	69	70	68	69	69	68	66.0	70.0
18-Jan	68	68	68	68	68	67	67	67	67	66	66	63	54	50	54	56	60	64	67	67	70	72	74	74	65.1	74.3
19-Jan	72	72	74	74	73	73	72	72	72	70	69	65	63	63	61	61	60	66	73	74	73	73	73	72	69.7	74.5
20-Jan	71	71	71	70	69	70	70	71	71	71	69	69	68	67	67	68	68	70	71	72	73	75	72	68	70.0	74.5
21-Jan	67	71	79	80	81	81	81	81	75	65	64	63	63	62	65	66	72	75	72	73	74	75	77	79	72.6	80.9
22-Jan	81	82	81	80	80	79	80	83	83	83	80	72	59	53	49	51	57	65	74	75	74	79	81	86	73.7	85.5
23-Jan	89	81	79	81	80	80	76	74	75	76	67	58	48	44	43	43	43	46	51	53	56	55	56	58	63.0	89.4
24-Jan	60	63	68	72	75	76	76	74	72	74	69	67	66	59	53	50	47	43	46	48	66	95	96	96	67.0	96.4
25-Jan	96	96	95	94	94	94	93	91	90	72	64	63	56	54	45	38	40	49	56	62	66	68	63	56	70.6	96.4
26-Jan	59	62	70	73	75	78	82	87	86	82	76	66	63	62	50	35	36	37	45	43	52	55	54	51	61.6	86.7
27-Jan	51	53	55	58	61	67	64	52	51	52	51	48	47	42	43	52	60	64	86	78	75	74	66	60	58.7	85.9
28-Jan	58	58	71	77	80	82	84	85	81	82	84	84	88	85	79	80	80	79	86	90	90	90	92	94	81.6	93.7
29-Jan	95	96	96	96	96	95	95	95	95	95	93	93	91	87	83	86	88	90	92	94	95	95	96	95	93.1	96.4
30-Jan	93	88	87	87	88	91	93	92	90	89	83	63	49	46	41	40	41	43	45	51	52	52	62	63	67.9	92.6
31-Jan	69	74	78	80	78	76	75	75	77	77	70	64	57	44	37	34	35	40	48	50	47	51	57	61	60.6	80.3
69.4 69.9 71.3 72.7 74.2 74.9 75.3 74.9 74.2 72.7 69.5 65.5 61.6 58.2 55.4 54.6 56.1 58.7 62.4 63.6 65.7 67.9 68.7 69.0																								Diurnal Average		
96.4 95.9 96.0 96.4 96.3 95.4 94.6 95.4 95.2 94.6 93.4 92.6 91.5 88.4 84.2 86.4 88.7 90.1 92.1 94.4 94.8 95.2 96.1 96.4																								Diurnal Maximum		

Hourly Averages

Relative Humidity (RH) - %
Valleyview - January 2012



Hourly Averages

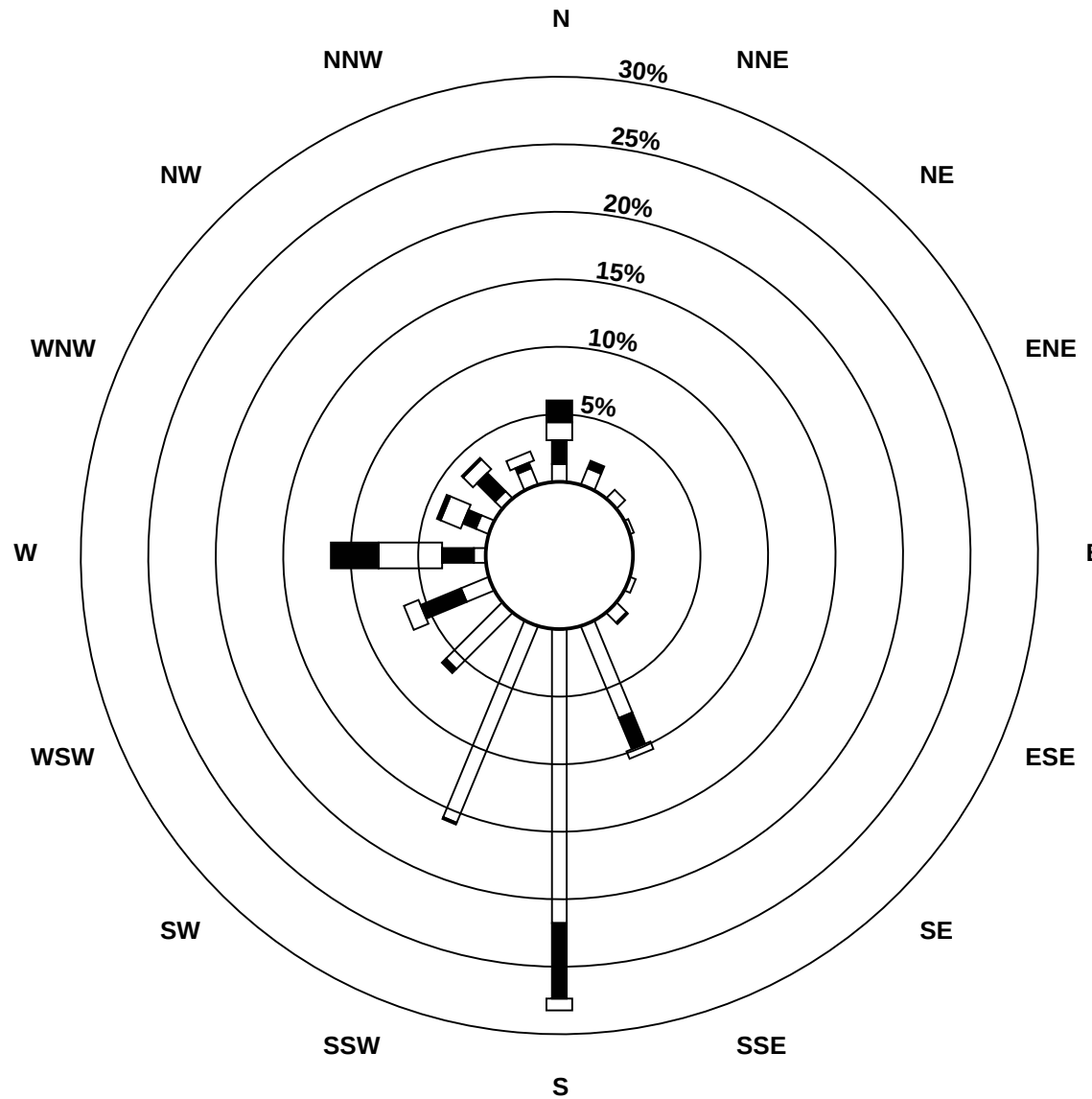
Wind Speed (km/h)
Wind Direction (deg)
Valleyview - January 2012

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	3	3	3	2	0	1	1	1	1	1	1	1	3	3	3	7	5	7	12	13	16	17	13	12	4.7	17.2
Dir	155	148	150	171	235	241	241	217	221	185	259	243	16	341	136	160	162	162	162	163	164	171	170	173	167	171
2 Spd	15	11	10	12	11	11	8	6	6	7	6	4	3	3	1	1	1	2	1	1	3	4	3	3	5.4	14.6
Dir	175	178	172	172	170	173	172	182	179	178	180	181	194	221	268	183	193	182	200	231	187	195	185	190	179	175
3 Spd	2	2	2	2	2	2	1	1	2	2	1	1	1	1	2	3	4	2	2	4	5	4	4	2	1.7	4.7
Dir	176	174	196	196	183	154	209	224	173	307	14	321	44	287	179	180	161	172	212	186	183	185	193	205	189	183
4 Spd	1	1	0	5	3	4	1	1	4	5	5	2	3	3	2	3	4	3	3	4	3	1	1	4	2.1	5.0
Dir	274	56	201	182	160	179	228	222	184	175	178	238	185	187	186	185	195	201	179	169	188	45	29	343	187	175
5 Spd	1	1	9	15	4	12	17	15	13	13	21	23	19	21	21	19	19	20	16	11	11	9	6	3	12.9	22.6
Dir	304	30	281	272	237	250	261	257	257	259	266	266	271	275	277	271	268	267	265	262	258	257	253	195	265	266
6 Spd	8	12	9	7	3	2	2	1	3	2	2	3	2	9	12	7	5	2	2	3	2	2	2	3	3.5	12.1
Dir	250	264	261	254	232	170	177	188	231	195	178	189	214	281	284	279	283	213	188	197	194	198	168	174	246	264
7 Spd	2	3	4	4	3	3	2	3	2	1	1	2	3	3	5	6	6	6	5	6	5	6	8	8	3.9	8.3
Dir	212	212	201	197	202	199	204	210	205	214	224	192	188	186	178	172	177	181	185	183	172	180	174	176	186	174
8 Spd	6	5	1	2	4	3	3	4	4	5	9	8	5	8	10	19	11	2	1	1	1	0	1	1	3.9	18.8
Dir	176	177	208	219	196	210	200	196	206	231	249	240	260	255	256	250	277	52	196	210	105	44	308	203	236	250
9 Spd	0	1	1	2	1	1	1	3	3	3	4	6	6	17	22	27	27	25	22	20	22	22	21	19	10.5	27.0
Dir	198	128	327	354	341	189	208	200	233	192	290	171	198	248	268	279	270	278	270	260	266	276	274	279	267	270
10 Spd	17	16	20	21	18	26	24	12	11	18	20	18	16	13	14	10	8	4	1	1	1	1	1	1	10.7	25.5
Dir	287	283	285	291	283	355	351	332	320	328	322	323	321	316	314	325	289	291	187	150	194	194	191	206	314	355
11 Spd	2	4	2	1	1	3	2	3	2	0	2	4	5	3	4	4	4	4	5	3	2	4	3	3	2.7	4.8
Dir	196	181	195	213	192	199	197	188	174	178	219	192	183	184	189	187	176	168	228	245	216	169	225	248	198	183
12 Spd	5	2	3	3	3	3	4	2	3	3	3	4	4	6	2	1	1	1	1	1	3	3	10	17	2.6	17.2
Dir	254	204	146	221	226	148	165	190	189	169	192	181	187	175	196	191	214	1	228	154	191	155	270	273	214	273
13 Spd	16	17	21	23	19	18	16	18	16	18	18	15	17	17	14	14	9	1	1	2	2	2	3	3	12.1	22.6
Dir	267	264	270	272	277	282	285	280	274	275	279	283	283	283	284	281	278	236	204	229	210	204	191	189	275	272
14 Spd	2	1	1	1	1	1	2	3	4	4	5	6	11	16	21	21	20	21	22	23	22	21	20	18	10.7	23.4
Dir	177	181	163	349	26	3	357	353	4	10	23	24	16	7	6	5	7	3	357	351	349	352	356	1	1	351
15 Spd	17	11	11	10	7	8	10	12	13	10	14	16	8	8	9	10	10	9	10	9	10	8	9	8	9.6	17.4
Dir	2	4	1	3	7	317	306	319	329	313	332	337	319	298	311	306	314	309	323	325	331	330	334	3	332	2
16 Spd	7	10	13	12	12	12	10	8	6	10	12	11	12	10	8	4	1	3	4	1	2	2	2	2	6.2	13.1
Dir	21	10	6	8	2	7	4	14	0	353	355	3	0	356	7	3	312	274	297	212	194	169	192	170	1	6
17 Spd	2	3	2	1	1	2	2	2	2	3	3	3	2	3	3	3	3	1	1	2	1	2	3	2	2.0	3.4
Dir	157	164	176	209	201	191	194	186	186	182	173	185	172	164	175	220	249	254	199	176	189	200	181	210	189	181
18 Spd	2	2	2	2	2	2	2	3	2	2	4	4	3	6	9	8	6	2	2	7	5	4	3	0	2.5	9.0
Dir	205	196	206	194	212	206	188	195	199	201	183	167	205	291	277	282	278	241	227	273	250	263	122	135	240	277
19 Spd	2	2	3	3	2	1	1	2	2	2	2	1	2	3	3	4	1	0	0	1	1	1	1	1	0.7	4.2
Dir	159	174	157	165	182	193	186	183	203	208	187	173	216	342	340	347	285	24	164	184	179	199	226	194	199	347
20 Spd	1	1	1	1	1	1	1	0	0	1	1	1	1	2	4	5	3	2	1	2	1	1	1	4	0.5	4.9
Dir	203	191	178	158	166	176	170	82	177	95	130	157	14	19	22	351	6	18	23	37	38	39	199	162	45	351
21 Spd	3	3	1	1	2	3	2	2	4	7	7	9	8	8	5	5	4	6	6	6	4	4	4	2	3.8	8.9
Dir	143	135	97	47	49	60	45	77	127	156	147	135	157	167	170	167	172	172	172	170	169	176	188	193	155	135
22 Spd	2	2	2	1	1	1	2	2	2	3	2	1	2	4	4	4	2	1	1	2	4	3	4	1	2.1	4.3
Dir	199	184	211	233	210	214	211	205	180	168	183	220	178	171	167	168	142	153	167	159	158	180	172	266	178	167

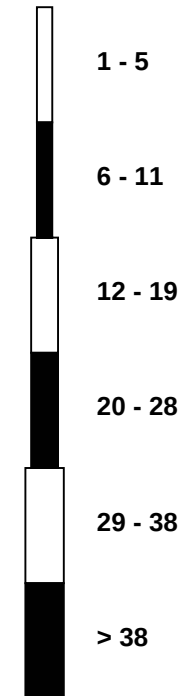
FOCUS
AIR QUALITY MONITORING

Wind Rose

Wind Speed (WS) (km/h)
Valleyview - January 2012



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Valleyview - January 2012

Maximum Speed: 27 km/h on Jan 9 17:00		Maximum Daily Speed Average: 13.4 km/h on Jan 5		Hours in Service: 744																							
Minimum Speed: 1 km/h on Jan 19 19:00		Minimum Daily Speed Average: 1.8 km/h on Jan 20		Hours of Data: 744																							
Maximum Diurnal Speed Average: 9.5 km/h at hour 16		Minimum Diurnal Speed Average: 4.5 km/h at hour 9		Hours of Missing Data: 0																							
Monthly Average Speed: 6.09 km/h		Percentiles: $P_1 = 0.8$ $P_{10} = 1.5$ $Q_1 = 2.2$ Median = 3.6 $Q_3 = 8.2$ $P_{90} = 15.8$ $P_{99} = 22.2$		Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
1-Jan	3	3	3	2	1	1	1	1	1	1	2	2	2	3	3	3	7	5	7	12	14	16	17	13	12	5.7	17.3
2-Jan	15	11	10	12	11	11	9	6	6	7	6	4	3	3	2	2	2	2	2	2	3	4	3	3	3	5.8	14.7
3-Jan	2	2	2	2	2	2	1	2	2	2	2	2	1	2	3	3	4	3	3	4	5	4	4	2	2.5	4.8	
4-Jan	2	1	2	5	4	4	3	2	5	5	5	3	3	3	2	3	4	3	3	4	5	3	2	4	3.3	5.1	
5-Jan	2	2	10	15	4	12	17	16	13	13	21	23	19	21	21	19	19	20	16	11	11	9	6	3	13.4	22.9	
6-Jan	8	12	9	8	4	2	2	2	3	2	3	3	3	10	12	7	5	2	2	3	2	2	2	3	4.6	12.2	
7-Jan	2	3	4	4	3	3	2	3	2	1	2	2	3	3	5	6	6	6	5	6	5	6	8	8	4.1	8.4	
8-Jan	6	5	2	2	4	3	3	4	4	5	9	8	5	8	10	19	11	3	2	3	2	2	2	1	5.2	18.9	
9-Jan	1	1	1	3	2	1	1	3	3	3	6	6	6	17	23	27	27	26	22	20	23	22	21	19	11.9	27.2	
10-Jan	17	16	20	22	18	26	24	12	11	18	20	18	16	13	14	11	8	4	1	2	1	1	2	1	12.4	26.3	
11-Jan	3	4	2	1	2	3	2	3	2	2	2	5	5	3	4	4	4	4	5	5	3	2	4	3	3.2	4.8	
12-Jan	5	2	3	5	3	3	4	2	3	3	3	4	4	6	2	2	2	2	1	2	3	4	11	17	4.0	17.4	
13-Jan	17	18	21	23	19	18	16	18	17	19	18	15	17	17	15	14	9	2	1	2	2	2	3	3	12.7	22.7	
14-Jan	2	1	2	2	1	2	2	3	4	4	5	6	11	16	21	21	20	21	22	24	22	21	21	18	11.3	23.6	
15-Jan	18	11	11	10	7	8	10	12	13	10	14	16	8	8	10	11	10	9	10	9	10	8	9	8	10.4	17.6	
16-Jan	8	10	13	12	12	12	10	8	6	10	12	12	12	10	8	4	1	3	4	2	2	2	2	2	7.4	13.3	
17-Jan	2	3	2	1	2	2	2	2	2	3	3	3	2	3	3	3	4	1	1	2	1	2	3	2	2.3	3.5	
18-Jan	2	2	2	2	2	2	2	3	2	2	4	4	4	7	9	8	6	2	3	7	5	5	3	2	3.8	9.2	
19-Jan	2	3	3	3	2	1	1	2	2	2	2	2	3	3	4	4	1	1	1	1	1	1	1	1	1.9	4.2	
20-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	3	4	5	3	2	2	2	1	2	1	4	1.8	5.0	
21-Jan	3	3	1	1	2	3	2	3	4	7	8	9	8	9	6	5	4	6	6	6	4	4	5	2	4.6	9.1	
22-Jan	2	2	2	1	1	1	2	2	2	4	2	1	2	4	4	4	3	2	1	2	4	3	4	1	2.4	4.5	
23-Jan	3	5	4	4	5	5	6	3	3	2	3	4	10	14	13	8	6	3	2	3	2	4	3	4	5.0	13.8	
24-Jan	3	4	4	2	2	1	2	2	3	2	2	1	2	4	4	7	10	14	13	9	8	4	2	2	4.4	13.7	
25-Jan	2	1	2	1	1	1	3	3	3	10	8	7	18	15	13	16	12	8	5	3	5	4	7	17	6.8	18.1	
26-Jan	9	8	3	3	3	4	3	3	5	5	5	4	3	3	10	21	21	22	21	21	17	17	17	15	10.1	22.3	
27-Jan	15	13	12	6	8	3	6	7	7	6	6	5	8	17	20	21	20	13	19	10	13	7	6	5	10.4	21.4	
28-Jan	2	5	5	2	2	2	3	2	4	5	5	5	5	7	5	7	7	9	9	8	9	9	9	9	5.7	9.5	
29-Jan	8	6	6	6	6	7	6	4	5	5	4	4	4	4	2	1	2	3	2	3	1	1	3	3	4.0	8.3	
30-Jan	2	3	1	2	3	2	2	4	2	2	2	5	11	8	9	15	11	8	6	3	3	4	3	4	4.8	15.1	
31-Jan	1	1	2	2	2	2	1	1	1	2	2	2	3	4	11	9	8	5	3	3	3	3	2	3	3.2	10.7	
5.4		5.2	5.4	5.3	4.5	4.8	4.8	4.5	4.5	5.3	6.0	6.0	6.6	7.9	8.8	9.5	8.2	6.9	6.6	6.2	6.2	5.8	5.8	5.9	Diurnal Average		
17.6		17.6	21.3	22.7	19.0	26.3	24.4	18.0	16.5	18.6	20.7	22.9	19.1	20.8	22.8	27.0	27.2	25.7	22.4	23.6	22.7	22.2	20.9	19.1	Diurnal Maximum		
All monthly, daily, and diurnal averages have been calculated using scalar methods																											

Hourly Standard Deviations

Wind Direction (WD) - deg

Valleyview - January 2012

Maximum Value: 97.0 deg on Jan 8 22:00																	Hours in Service: 744									
Minimum Value: 4.9 deg on Jan 10 10:00																	Hours of Data: 744									
Percentiles: P ₁ = 5.6 P ₁₀ = 7.2 Q ₁ = 8.8 Median = 13.5 Q ₃ = 28.0 P ₉₀ = 55.9 P ₉₉ = 86.5																	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-Jan	15	8	15	12	67	75	63	35	35	27	80	75	22	34	58	14	18	10	8	9	7	5	8	7	80.1	
2-Jan	7	8	10	10	8	9	10	8	13	8	8	12	14	27	80	88	49	33	68	63	27	11	14	10	87.8	
3-Jan	12	20	32	35	19	31	38	47	16	54	65	68	88	46	51	18	11	80	45	15	10	10	10	30	87.8	
4-Jan	59	84	86	10	39	24	76	56	34	14	16	36	15	8	9	6	7	12	10	8	57	67	74	54	85.6	
5-Jan	80	85	60	20	24	9	7	7	7	9	7	8	9	9	8	9	8	7	7	9	8	9	28	14	85.1	
6-Jan	12	8	7	8	34	15	25	43	16	34	62	34	32	33	9	12	21	21	17	6	6	9	11	11	61.8	
7-Jan	6	7	12	6	13	7	12	8	13	40	24	10	10	12	8	9	7	9	11	11	14	7	7	6	39.7	
8-Jan	9	10	81	31	15	12	13	16	9	13	7	7	18	8	7	5	19	65	54	64	57	97	80	63	97.0	
9-Jan	87	63	68	64	66	55	18	17	28	21	63	15	21	14	10	7	7	8	10	8	9	8	9	8	86.9	
10-Jan	9	8	8	10	8	16	7	10	9	5	10	8	7	9	9	14	8	41	20	20	21	13	44	16	44.3	
11-Jan	11	6	8	23	30	11	19	13	29	90	31	33	9	15	9	8	12	23	40	13	17	26	31	33	89.9	
12-Jan	11	26	24	45	17	13	19	18	23	21	20	10	12	11	27	31	63	84	48	50	26	27	49	9	84.1	
13-Jan	9	7	7	7	8	7	7	7	6	7	8	10	9	8	10	9	8	53	41	14	10	9	5	7	52.6	
14-Jan	12	47	58	29	42	69	8	10	7	7	9	10	9	8	7	6	9	8	8	7	6	8	9	8	68.8	
15-Jan	7	9	9	7	7	26	9	12	6	11	7	6	15	13	11	9	8	9	9	7	6	6	6	12	26.4	
16-Jan	18	10	8	7	9	7	8	10	10	6	7	8	11	12	12	15	50	14	7	42	11	7	10	20	50.2	
17-Jan	7	8	13	11	16	19	24	11	9	11	11	10	17	22	17	29	16	30	25	17	12	8	8	15	29.9	
18-Jan	9	15	16	16	14	12	16	11	25	17	9	8	35	35	13	11	31	31	40	13	10	17	28	90	90.3	
19-Jan	23	41	22	13	15	22	33	16	9	8	20	46	29	17	14	6	47	86	80	19	21	16	15	16	85.7	
20-Jan	52	20	18	20	50	20	10	77	84	58	61	72	30	18	10	9	15	14	42	43	50	80	85	33	84.9	
21-Jan	17	20	47	75	29	13	13	25	17	12	12	11	19	10	11	11	13	11	10	10	9	8	7	8	74.5	
22-Jan	17	18	12	46	55	56	16	18	49	14	31	58	38	9	10	15	18	49	57	24	14	11	38	62	62.4	
23-Jan	92	11	11	7	5	10	6	43	68	17	14	8	25	9	8	13	10	20	41	16	18	19	10	8	92.5	
24-Jan	9	14	18	19	11	27	13	19	10	14	38	28	70	35	9	8	5	5	6	14	9	15	75	33	74.5	
25-Jan	47	66	26	50	84	52	32	28	60	19	37	69	13	14	11	9	10	29	16	15	18	20	14	8	83.5	
26-Jan	13	14	87	29	65	22	15	19	8	12	16	25	22	35	38	9	8	7	8	8	8	8	7	6	87.1	
27-Jan	9	9	8	24	27	21	9	7	6	6	12	10	35	8	12	8	13	15	22	13	12	12	16	28	34.6	
28-Jan	38	22	52	23	16	48	53	71	8	7	9	6	8	10	9	11	9	7	9	8	9	8	8	6	70.9	
29-Jan	6	8	6	7	6	7	7	10	7	11	8	20	17	14	32	45	62	16	46	39	25	73	23	56	73.3	
30-Jan	23	25	23	6	6	29	6	8	9	13	7	21	9	9	14	8	10	10	10	29	12	12	12	11	29.2	
31-Jan	55	72	63	32	16	15	26	15	15	40	14	14	13	38	12	11	10	43	14	15	11	7	15	10	72.5	
92.5 85.1 87.1 74.5 83.5 74.6 75.5 76.7 84.3 89.9 80.1 75.1 87.8 46.2 80.4 87.8 63.1 85.7 80.4 64.1 57.2 97.0 84.9 90.3																										

PAZA

Portable – Sunset House Station

Monthly Summary Tables, Graphs and Roses

Hourly Averages

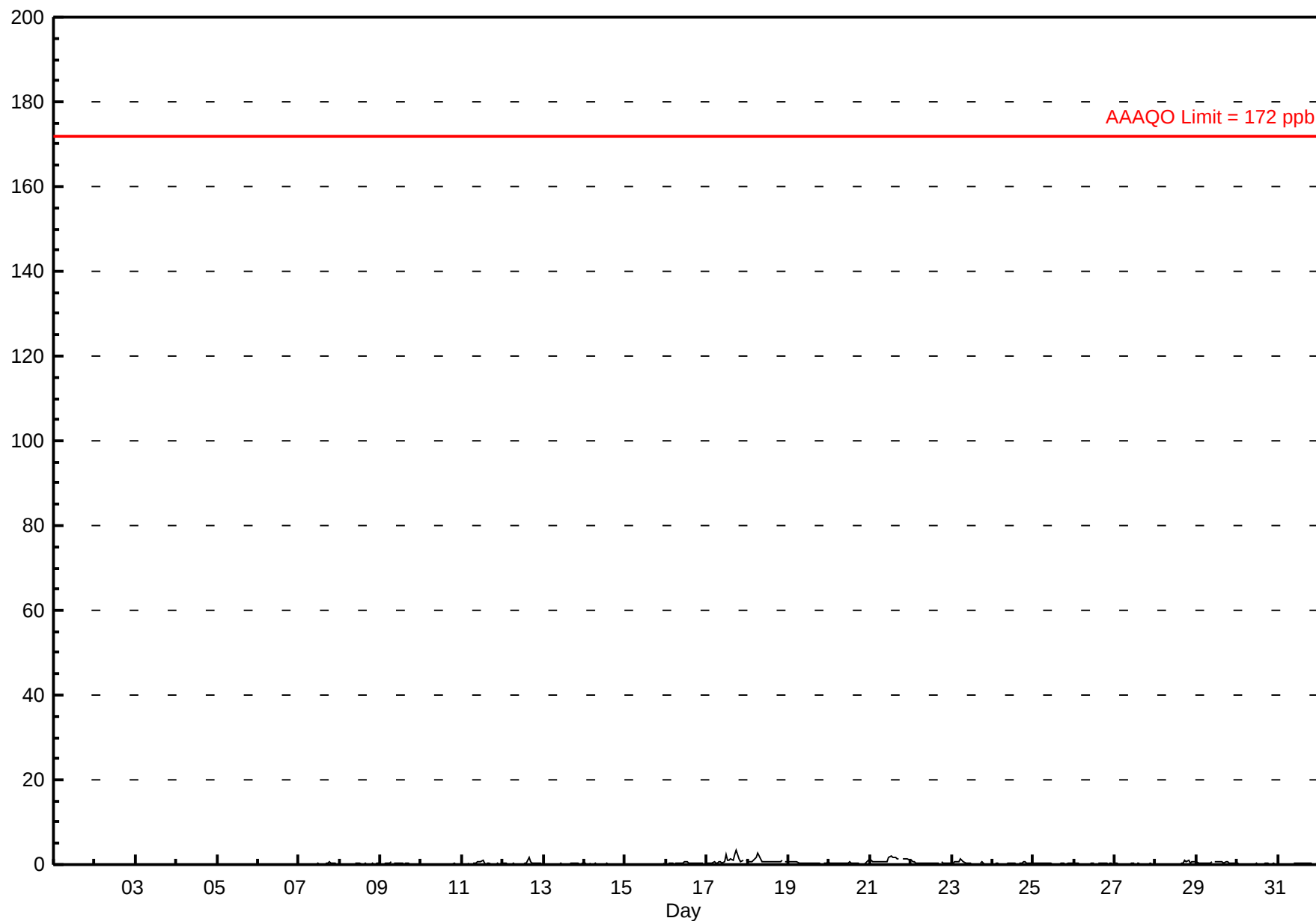
Sulphur Dioxide (SO₂) - ppb

Sunset House - January 2012

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0																								Hours in Service: 611			
Maximum Value: 3.5 ppb on Jan 17 18:00																								Maximum Daily Average: 1.1 ppb on Jan 21		Hours of Data: 579	
Minimum Value: 0 ppb on Jan 7 06:00																								Minimum Daily Average: 0.0 ppb on Jan 15		Hours of Missing Data: 32	
Maximum Diurnal Average: 0.5 ppb at hour 18																								Minimum Diurnal Average: 0.2 ppb at hour 9		Hours of Calibration: 32	
Monthly Average: 0.33 ppb																								Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.2 Q ₃ = 0.4 P ₉₀ = 0.7 P ₉₉ = 1.9		Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
2-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
3-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
4-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
5-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
6-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	C	C	C	C	C	C	0	0	0	0	0	--	0.2	
7-Jan	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.2	0.6	
8-Jan	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3	
9-Jan	0	0	0	0	0	0	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6	
10-Jan	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3	
11-Jan	0	0	0	0	0	A	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.3	0.9	
12-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0.3	1.5	
13-Jan	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3	
14-Jan	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3	
15-Jan	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	
16-Jan	A	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	A	0.3	0.6	
17-Jan	0	0	0	0	1	0	0	1	1	0	1	2	1	1	1	1	2	3	2	1	1	1	1	1	1.1	3.5	
18-Jan	1	1	1	1	1	2	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.9	2.6	
19-Jan	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	1	0.4	0.7	
20-Jan	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	A	0	0	1	1	0.3	1.1	
21-Jan	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	1	1	A	1	1	1	1	1	1.1	2.0	
22-Jan	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	0	0	0	0	0	0.4	0.8	
23-Jan	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	A	0	1	0	0	0	0	0	0.4	1.2	
24-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	1	1	0	0	0	0	0.3	0.6	
25-Jan	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	
26-Jan	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	
27-Jan	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	
28-Jan	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	1	1	1	0	1	1	1	0.3	1.1	
29-Jan	1	0	0	0	0	0	0	0	0	1	A	1	1	1	1	1	0	1	1	0	0	0	0	0	0.5	0.8	
30-Jan	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3	
31-Jan	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3	
0.3 0.3 0.3 0.3 0.3 0.3 0.4 0.3 0.2 0.3 0.3 0.4 0.4 0.3 0.3 0.4 0.4 0.5 0.4 0.3 0.3 0.3 0.3 0.3																								Diurnal Average			
1.5 0.8 0.7 1.2 1.5 1.8 2.6 1.9 0.6 0.6 0.8 2.4 2.0 1.7 1.6 1.6 2.5 3.5 2.4 1.3 1.4 1.3 1.2 1.1																								Diurnal Maximum			
C - Calibration NS - Not in service 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 - January 2012



Hourly Maximums

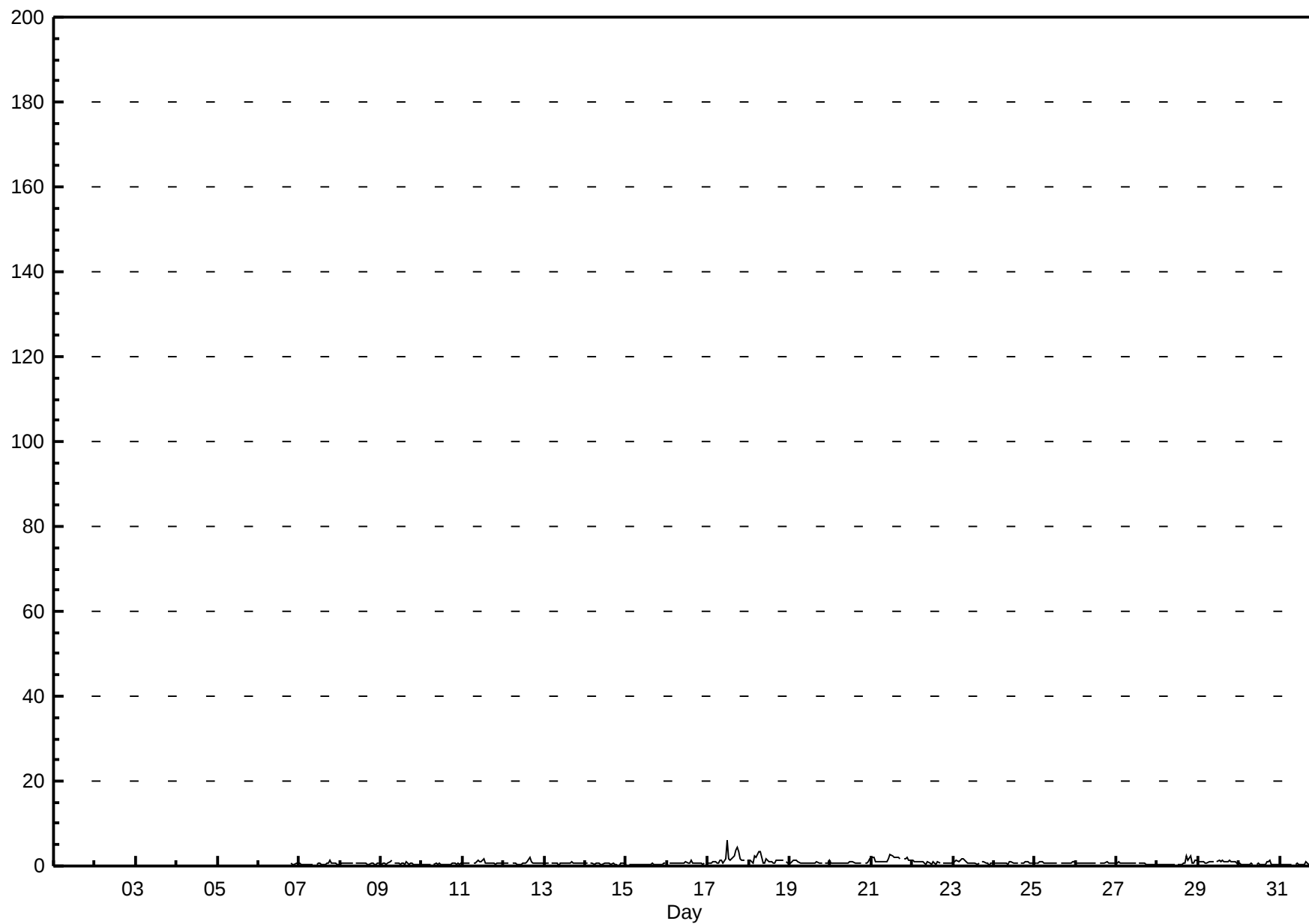
Sulphur Dioxide (SO₂) - ppb

Sunset House - January 2012

Maximum Value: 6.3 ppb on Jan 17 12:00																				Maximum Daily Average: 1.8 ppb on Jan 17					Hours in Service: 611				
Minimum Value: 0 ppb on Jan 13 09:00																				Minimum Daily Average: 0.3 ppb on Jan 15					Hours of Data: 579				
Maximum Diurnal Average: 1.0 ppb at hour 12																				Minimum Diurnal Average: 0.6 ppb at hour 9					Hours of Missing Data: 32				
Monthly Average: 0.76 ppb																				Percentiles: P ₁ = 0.2 P ₁₀ = 0.3 Q ₁ = 0.5 Median = 0.7 Q ₃ = 0.8 P ₉₀ = 1.3 P ₉₉ = 3.2					Hours of Calibration: 32				
																				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-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--			
2-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--			
3-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--			
4-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--			
5-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--			
6-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	C	C	C	C	C	C	1	0	0	1	1	--	0.8			
7-Jan	1	0	0	0	0	0	0	0	0	A	0	1	1	0	0	0	1	1	1	1	1	1	0	0	0.5	1.2			
8-Jan	0	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0	0	1	1	0	0	1	1	0.6	0.7			
9-Jan	0	1	1	0	1	1	1	A	1	1	1	0	1	1	0	1	0	1	1	0	0	0	0	1	0.6	1.3			
10-Jan	0	0	0	0	0	0	A	0	1	0	1	0	0	0	0	0	0	0	1	1	0	1	0	1	0.4	0.7			
11-Jan	1	1	1	1	1	A	1	1	1	1	1	1	2	1	1	1	1	1	1	0	1	1	1	1	0.8	1.7			
12-Jan	1	1	1	1	A	1	1	1	0	0	0	1	1	1	1	2	1	1	1	1	1	1	1	1	0.7	2.1			
13-Jan	0	1	1	A	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	1.2			
14-Jan	1	1	A	1	1	0	1	1	1	0	0	1	1	1	1	0	1	0	0	0	0	1	1	0	0.5	0.7			
15-Jan	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0.3	0.7			
16-Jan	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	A	0.8	1.3			
17-Jan	1	1	1	1	1	1	1	1	1	1	2	6	2	1	2	2	4	4	3	2	1	1	A	1	1.8	6.3			
18-Jan	1	1	1	2	2	3	3	3	1	1	2	1	1	1	1	1	1	1	1	1	1	A	1	1	1.4	3.3			
19-Jan	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			
20-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	2	0.8	1.6			
21-Jan	2	2	1	1	1	1	1	1	1	1	2	3	3	2	2	2	2	2	A	2	2	2	1	1	1.7	2.5			
22-Jan	1	1	1	1	1	1	1	1	0	1	1	0	1	1	0	1	1	A	1	1	1	1	1	1	0.8	1.3			
23-Jan	1	1	1	1	1	2	2	1	1	1	1	1	1	1	0	1	A	1	1	1	1	0	1	1	0.9	1.8			
24-Jan	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0.7	1.1			
25-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.6	1.1			
26-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0	0.5	0.9			
27-Jan	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0	0	0	0	0	0	1	0.5	1.0			
28-Jan	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	1	2	1	2	1	1	1	1	0.7	2.3			
29-Jan	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0	0.9	1.4			
30-Jan	1	0	0	0	0	0	0	1	0	A	0	1	0	1	0	0	0	1	1	1	0	0	0	0	0	0.5	1.4		
31-Jan	0	0	0	0	0	0	0	0	A	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0.5	0.9		
0.7 0.8 0.7 0.7 0.7 0.7 0.8 0.8 0.6 0.7 0.7 1.0 0.8 0.7 0.7 0.8 0.9 0.9 0.9 0.8 0.7 0.6 0.7 0.8																									Diurnal Average				
2.1 2.1 1.3 2.3 2.0 2.8 3.3 3.3 1.3 1.3 1.8 6.3 2.5 2.0 2.0 2.3 3.8 4.2 3.2 2.3 1.8 2.0 1.5 1.6																									Diurnal Maximum				
C - Calibration NS - Not in service A - Automated Daily Zero Span																													

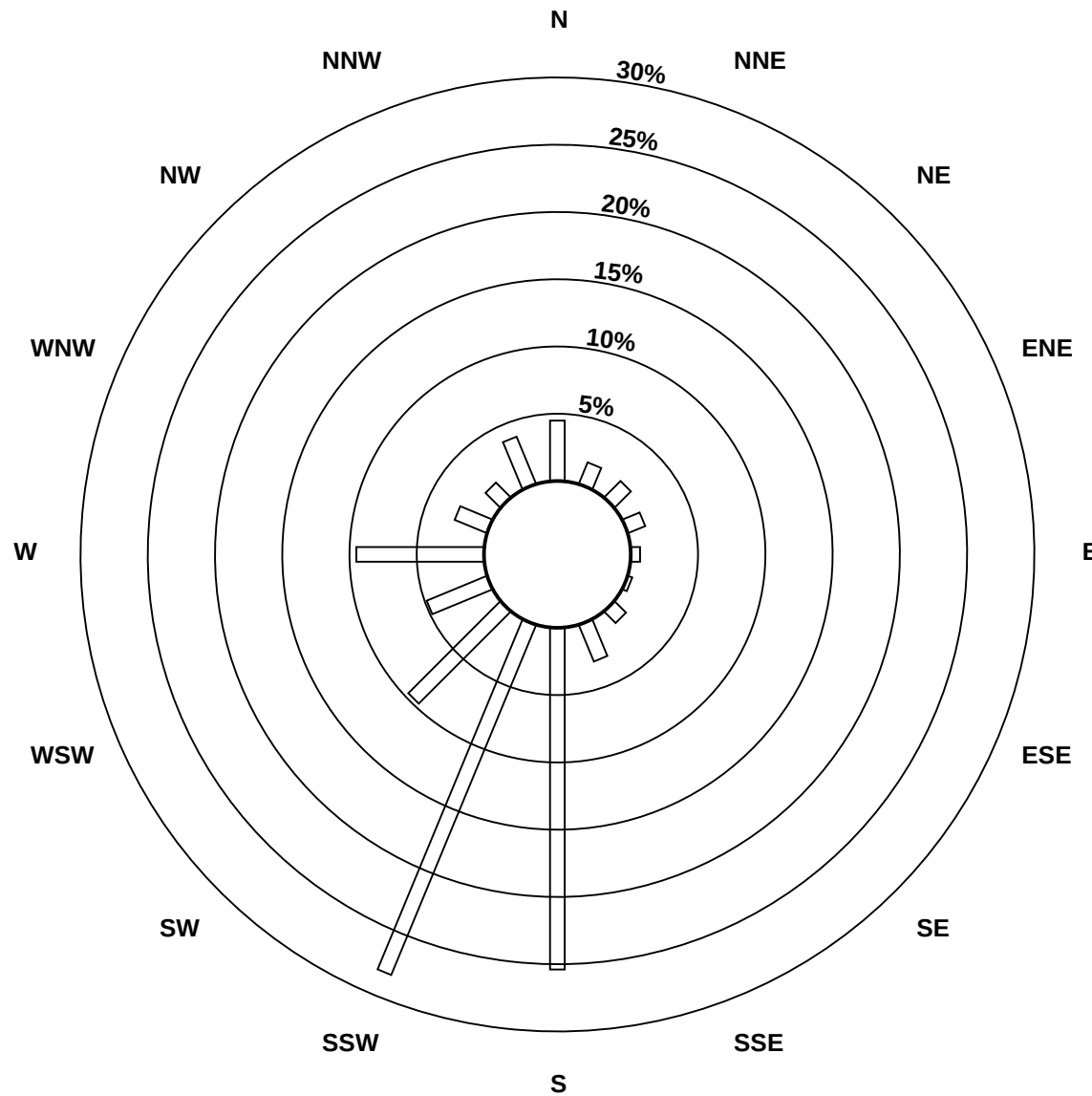
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Sunset House - January 2012

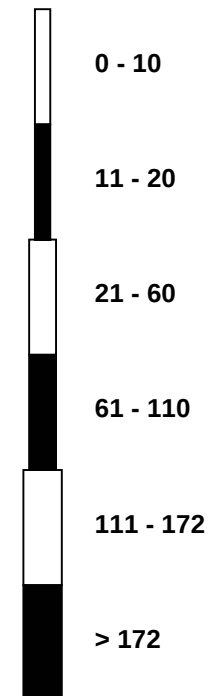


Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Sunset House - January 2012

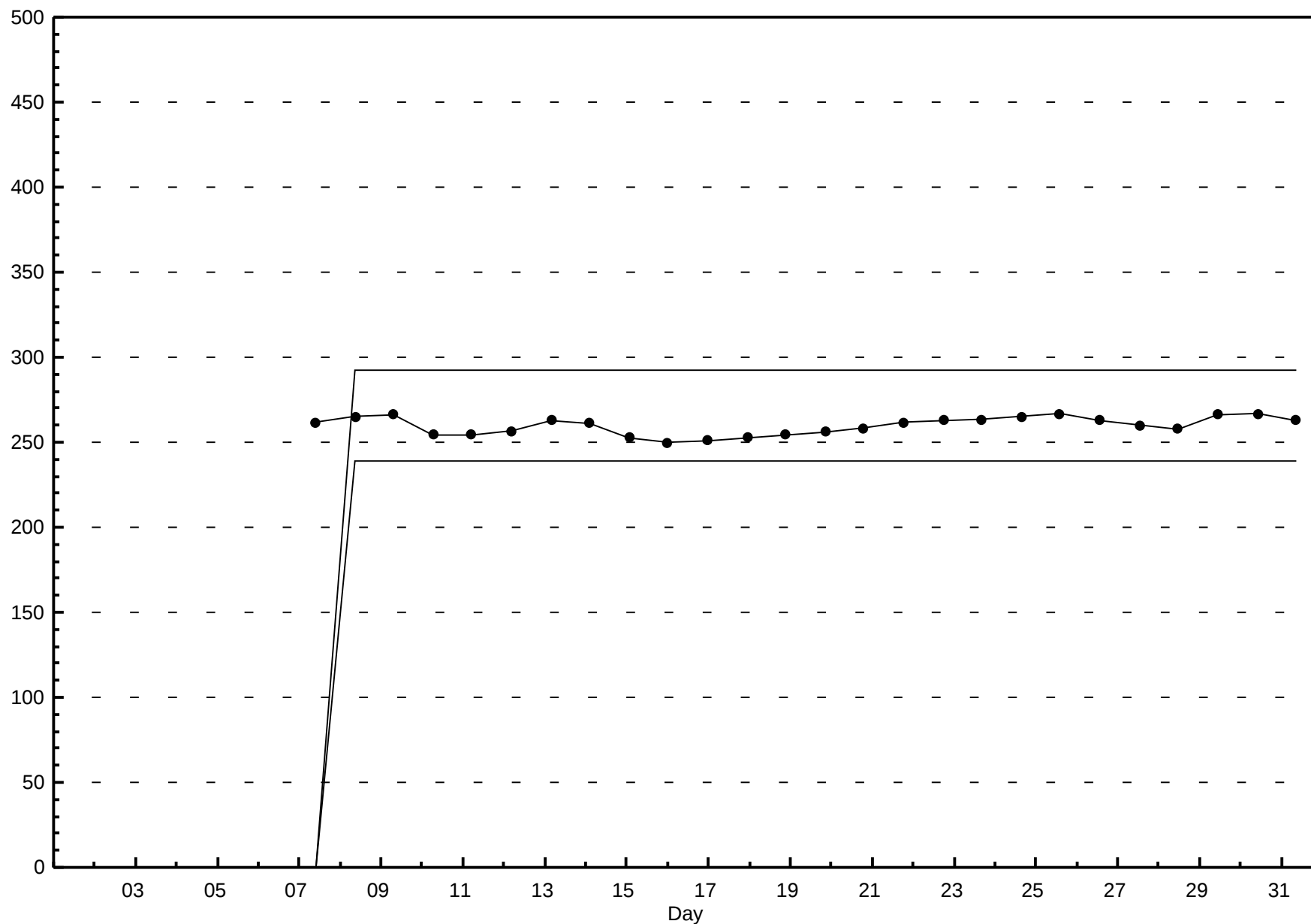


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Sunset House - January 2012



Hourly Averages

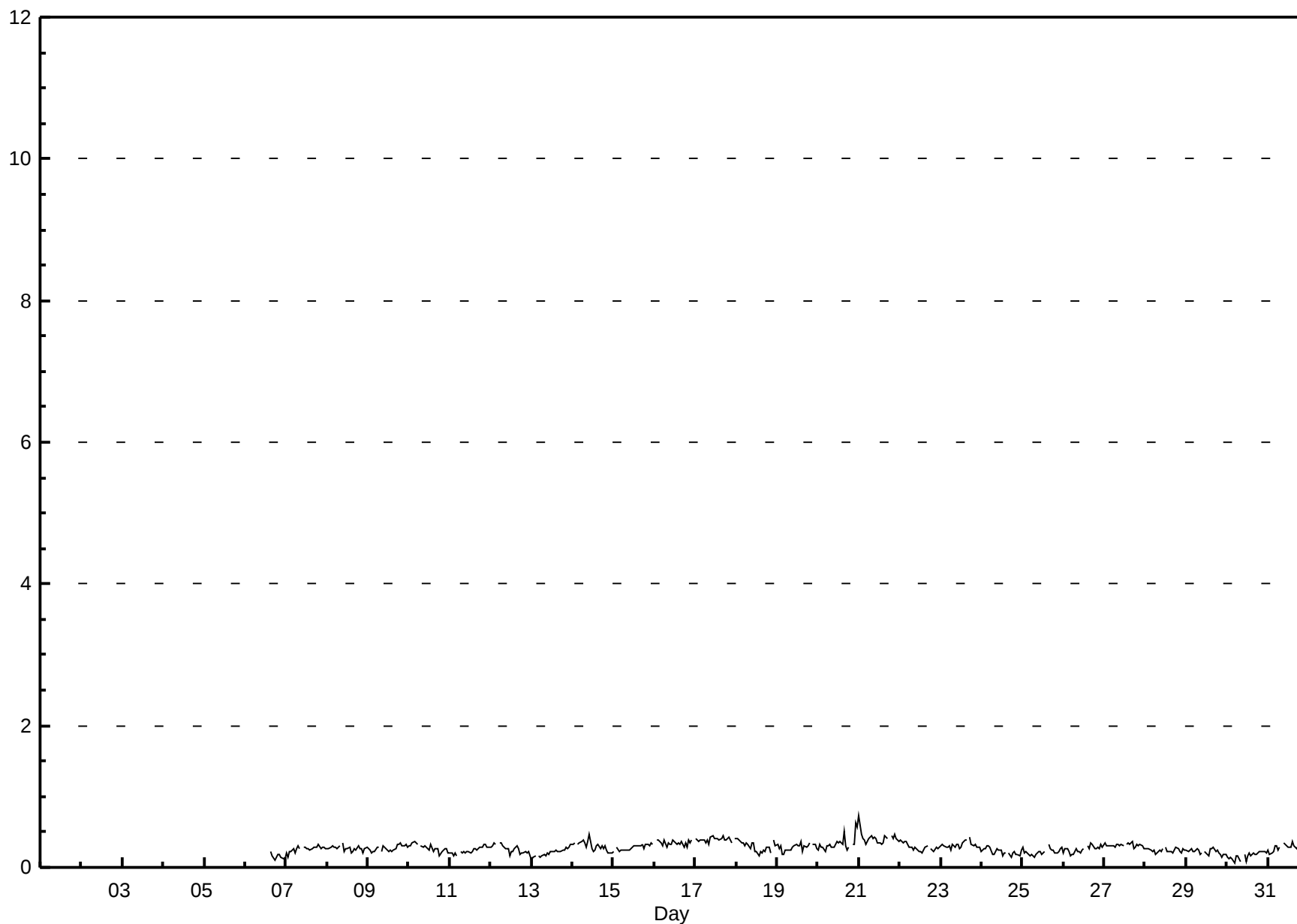
Total Reduced Sulphur (TRS) - ppb

Sunset House - January 2012

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 0.7 ppb on Jan 21 01:00 Maximum Daily Average: 0.4 ppb on Jan 21																								Hours in Service: 611 Hours of Data: 583 Hours of Missing Data: 28 Hours of Calibration: 28 Percent Operational Time: 100.0		
Minimum Value: 0 ppb on Jan 30 05:00 Minimum Daily Average: 0.2 ppb on Jan 30 Maximum Diurnal Average: 0.3 ppb at hour 16 Minimum Diurnal Average: 0.3 ppb at hour 9 Monthly Average: 0.28 ppb Percentiles: P ₁ = 0.1 P ₁₀ = 0.2 Q ₁ = 0.2 Median = 0.3 Q ₃ = 0.3 P ₉₀ = 0.4 P ₉₉ = 0.5																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
2-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
3-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
4-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
5-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
6-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	C	C	0	0	0	0	0	0	0	0	0	--	0.2
7-Jan	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	0.3
8-Jan	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
9-Jan	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	0.3
10-Jan	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
11-Jan	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
12-Jan	0	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
13-Jan	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	0.3
14-Jan	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
15-Jan	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	0.3
16-Jan	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
17-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.4	0.5
18-Jan	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
19-Jan	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
20-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	A	0	0	1	1	0.3	0.6
21-Jan	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	0.7
22-Jan	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	0.4
23-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.3	0.4
24-Jan	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
25-Jan	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
26-Jan	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	0.3
27-Jan	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
28-Jan	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
29-Jan	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
30-Jan	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.2
31-Jan	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
0.3 0.3																								Diurnal Average		
0.7 0.5 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.5 0.4 0.4 0.4 0.4 0.5 0.5 0.4 0.4 0.4 0.4 0.5 0.6 0.6																								Diurnal Maximum		
C - Calibration NS - Not in service 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 - January 2012



Hourly Maximums

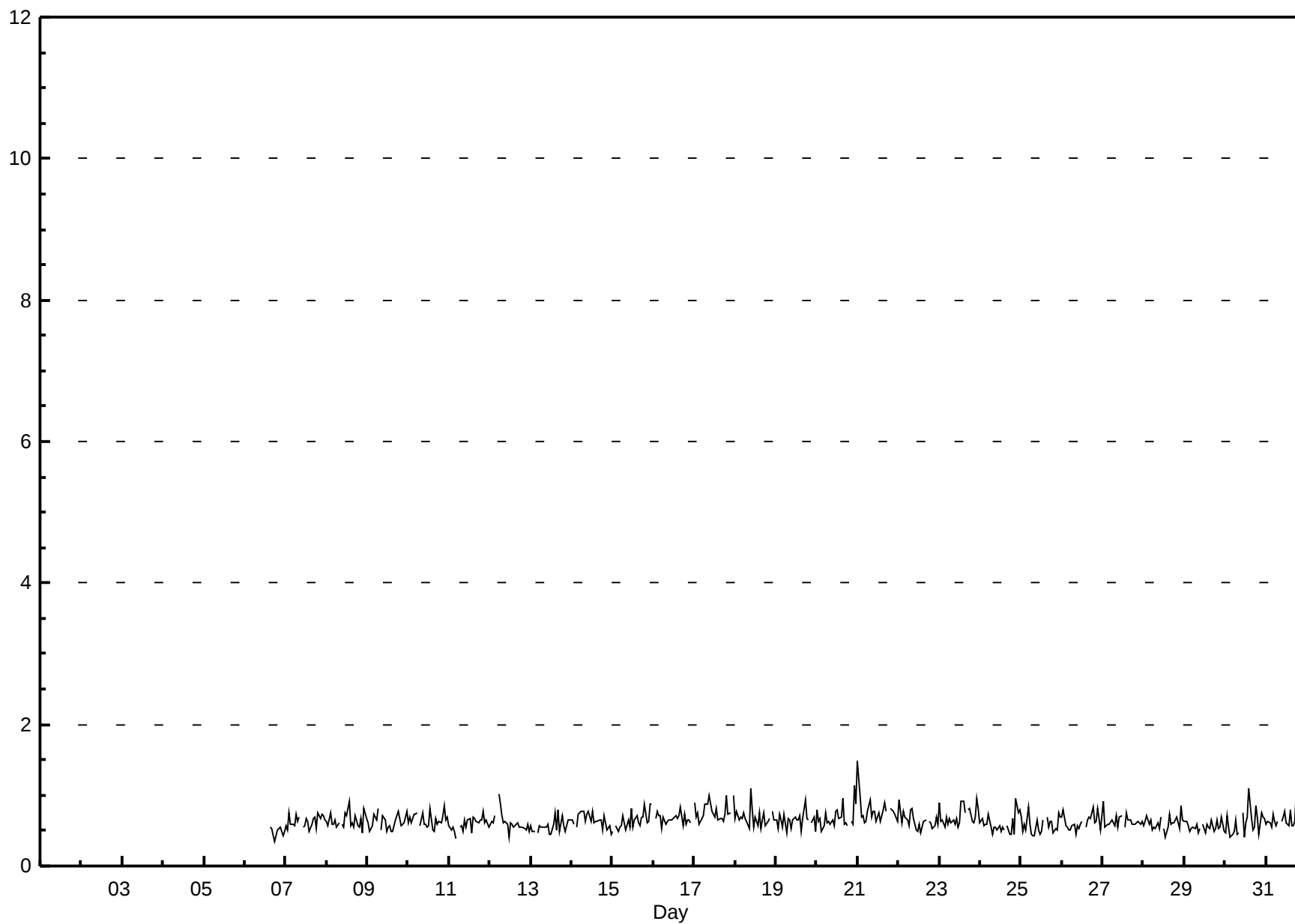
Total Reduced Sulphur (TRS) - ppb

Sunset House - January 2012

Maximum Value: 1.5 ppb on Jan 21 01:00																			Maximum Daily Average: 0.8 ppb on Jan 21																			Hours in Service: 611	
Minimum Value: 0 ppb on Jan 6 18:00																			Minimum Daily Average: 0.6 ppb on Jan 29																			Hours of Data: 583	
Maximum Diurnal Average: 0.7 ppb at hour 23																			Minimum Diurnal Average: 0.6 ppb at hour 4																			Hours of Missing Data: 28	
Monthly Average: 0.64 ppb																			Percentiles: P ₁ = 0.4 P ₁₀ = 0.5 Q ₁ = 0.6 Median = 0.6 Q ₃ = 0.7 P ₉₀ = 0.8 P ₉₉ = 1.0																			Hours of Calibration: 28	
																																						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-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--													
2-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--													
3-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--													
4-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--													
5-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--													
6-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	C	C	1	1	0	0	0	1	1	0	0	--	0.5													
7-Jan	1	0	1	1	1	1	1	1	1	A	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0.6	0.8													
8-Jan	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0.6	0.9													
9-Jan	1	0	1	1	1	1	1	A	1	1	1	0	1	1	0	0	1	1	1	1	1	1	1	1	0.6	0.8													
10-Jan	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	0.8													
11-Jan	1	1	1	0	0	A	1	1	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0.6	0.8													
12-Jan	1	1	1	1	A	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0	0.6	1.0													
13-Jan	1	0	0	A	0	1	1	1	1	1	1	0	0	1	1	1	1	0	1	1	0	1	1	1	0.6	0.8													
14-Jan	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0.6	0.8													
15-Jan	0	A	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.9													
16-Jan	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.7	0.8													
17-Jan	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													
18-Jan	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	1.1													
19-Jan	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0	1	1	1	1	A	1	1	0	0.6	0.9													
20-Jan	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.7	1.1													
21-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.8	1.5													
22-Jan	1	1	1	1	1	1	1	1	1	1	1	0	1	0	1	1	1	A	1	1	1	1	1	1	0.6	0.9													
23-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.7	1.0													
24-Jan	1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	A	1	0	0	1	0	1	1	1	0.6	0.9													
25-Jan	1	0	1	1	1	1	0	0	0	1	1	0	0	1	A	1	1	1	1	0	1	0	1	1	0.6	0.8													
26-Jan	1	1	1	1	1	1	1	1	0	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.6	0.8													
27-Jan	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.6	0.9													
28-Jan	1	1	1	1	1	1	1	1	1	1	1	A	1	0	1	1	1	1	1	1	1	1	1	1	0.6	0.9													
29-Jan	1	1	1	0	1	1	1	1	0	1	A	1	0	1	1	1	1	0	1	1	1	1	1	0	0.6	0.7													
30-Jan	0	1	1	0	0	0	1	0	0	A	1	0	1	1	1	1	1	1	1	1	0	1	1	1	0.6	1.1													
31-Jan	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0													
0.7 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.7 0.6 0.6 0.6 0.6 0.7 0.6 0.6 0.6 0.7 0.7 0.6 0.7 0.7 0.7																									Diurnal Average														
1.5 1.0 0.8 0.8 0.8 1.0 0.9 0.9 0.9 0.9 1.1 0.8 0.8 0.8 0.9 1.1 0.9 0.9 0.9 1.0 1.0 0.8 1.0 1.1 1.0																									Diurnal Maximum														
C - Calibration NS - Not in service A - Automated Daily Zero Span																																							

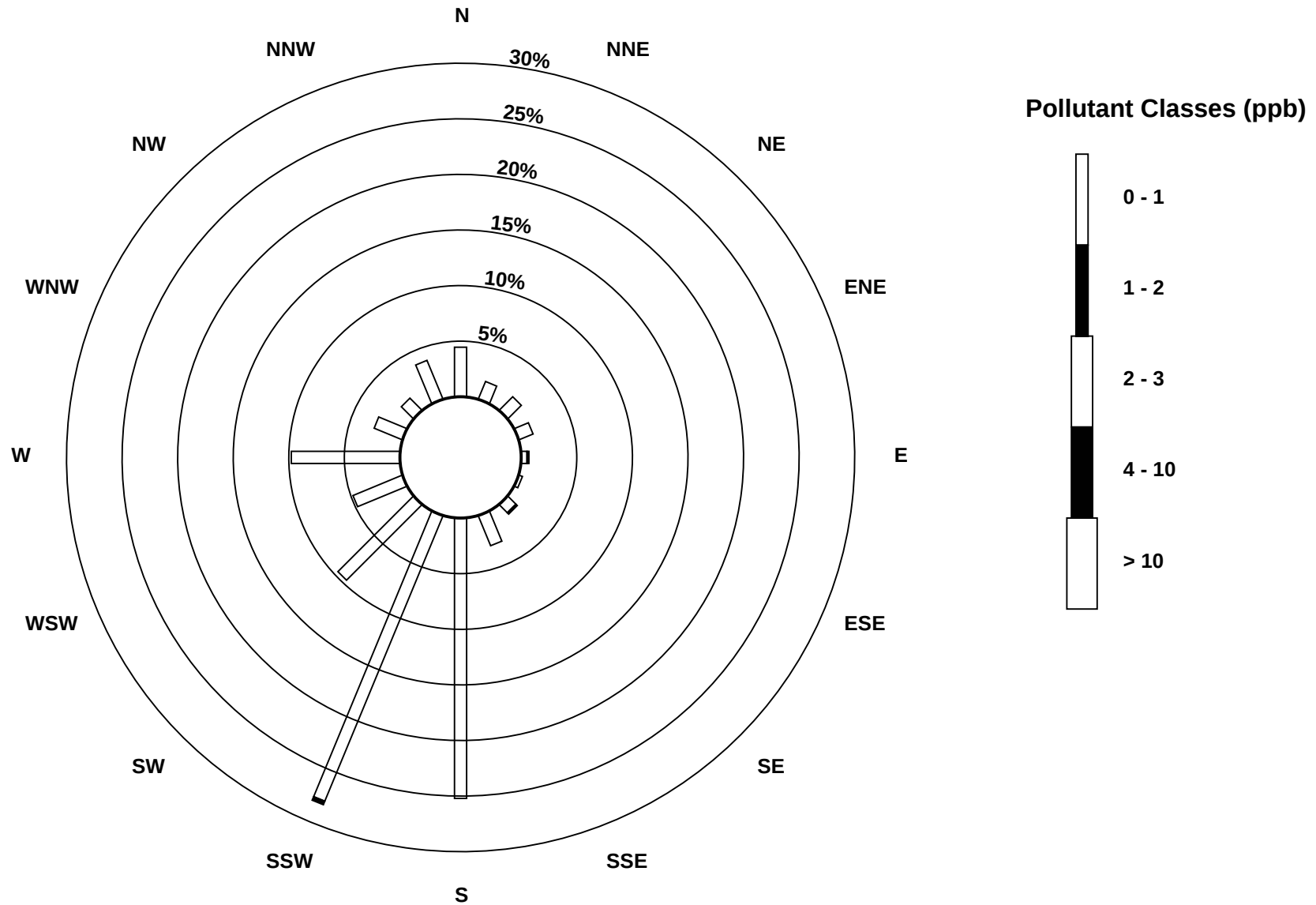
Hourly Maximums

Total Reduced Sulphur (TRS) - ppb
Sunset House - January 2012



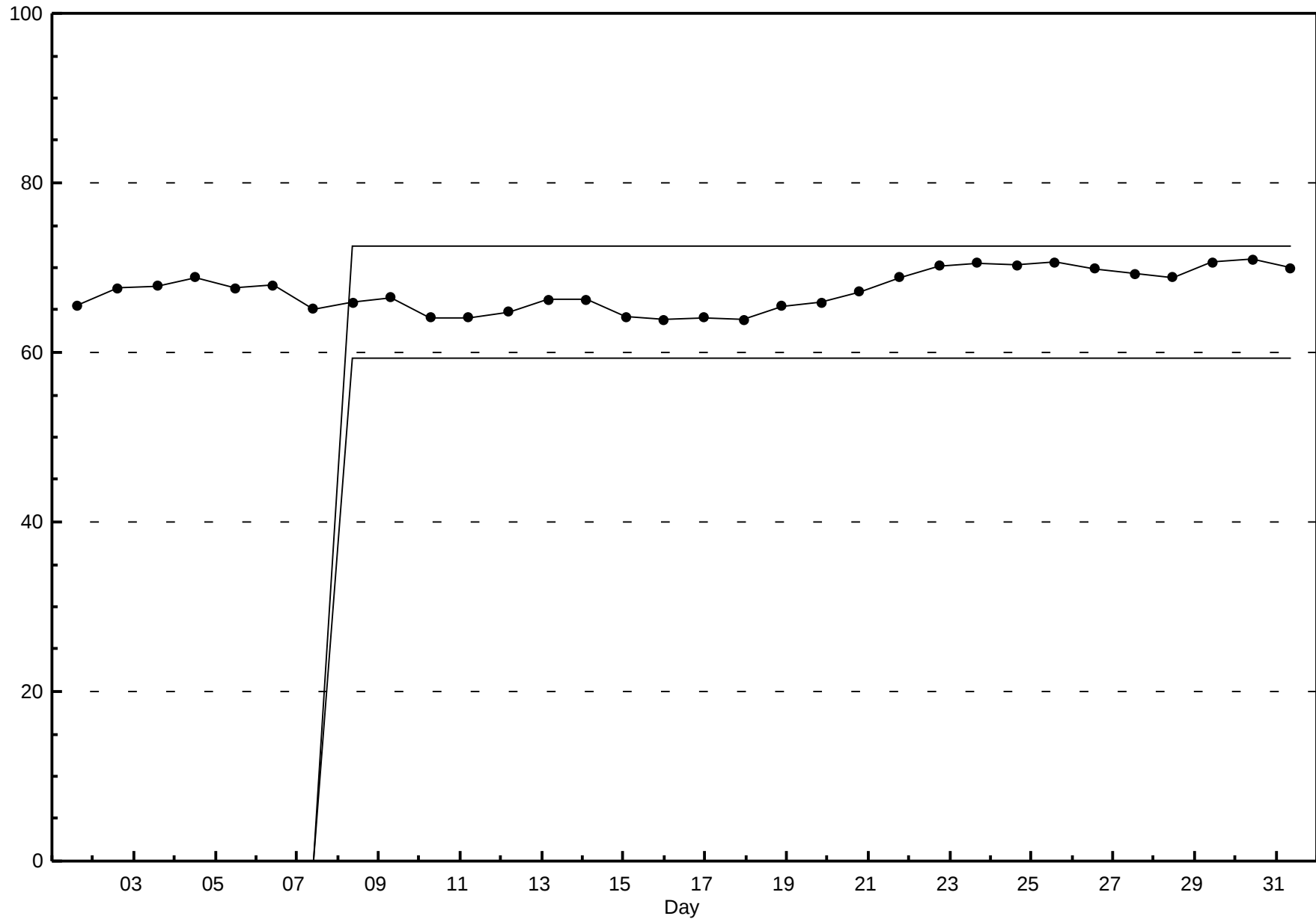
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb
Sunset House - January 2012



Span Responses

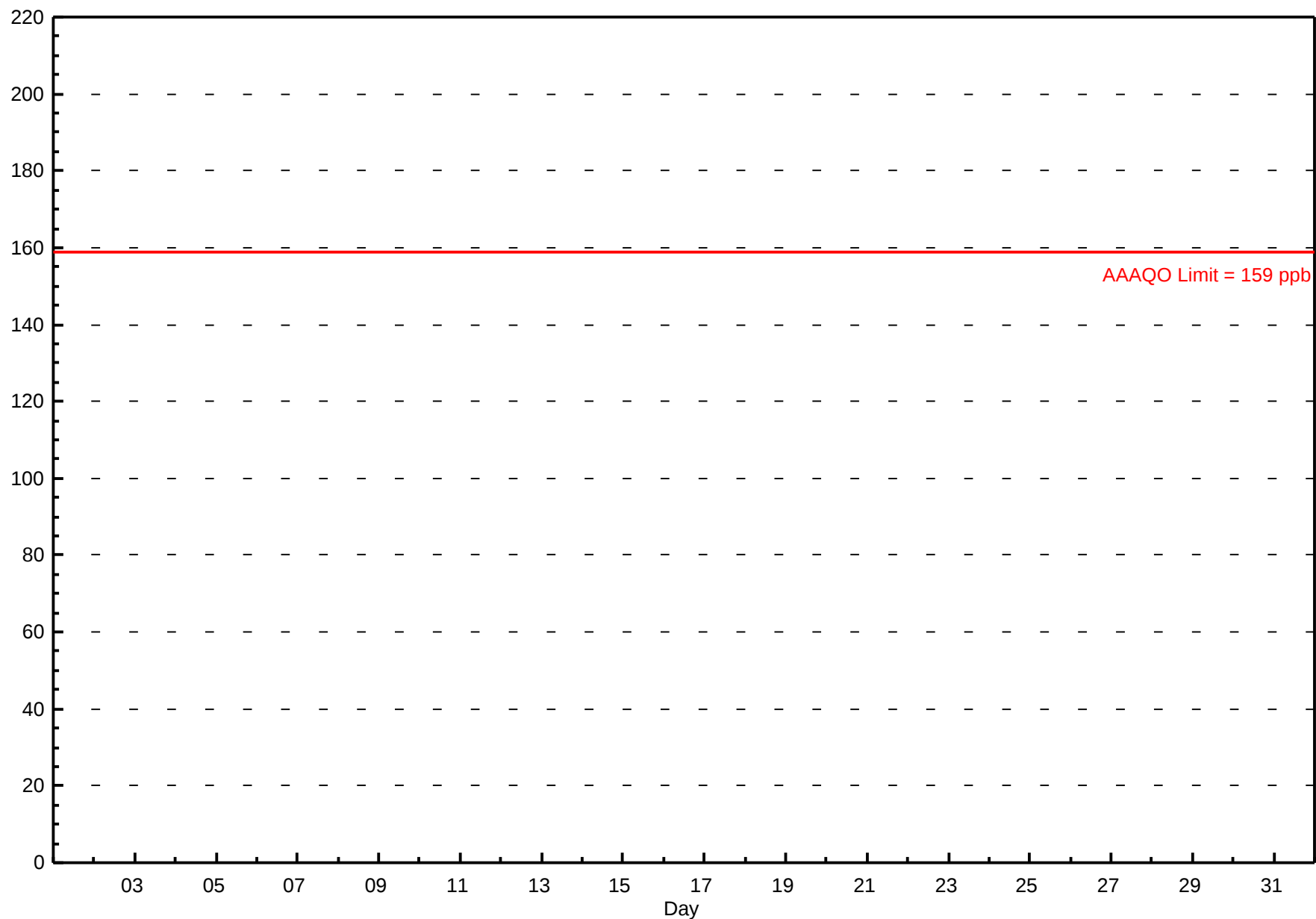
Total Reduced Sulphur (TRS)
Sunset House - January 2012



FOCUS

Hourly Averages

Nitrogen Dioxide (NO₂) - ppb
Sunset House - January 2012



Hourly Maximums

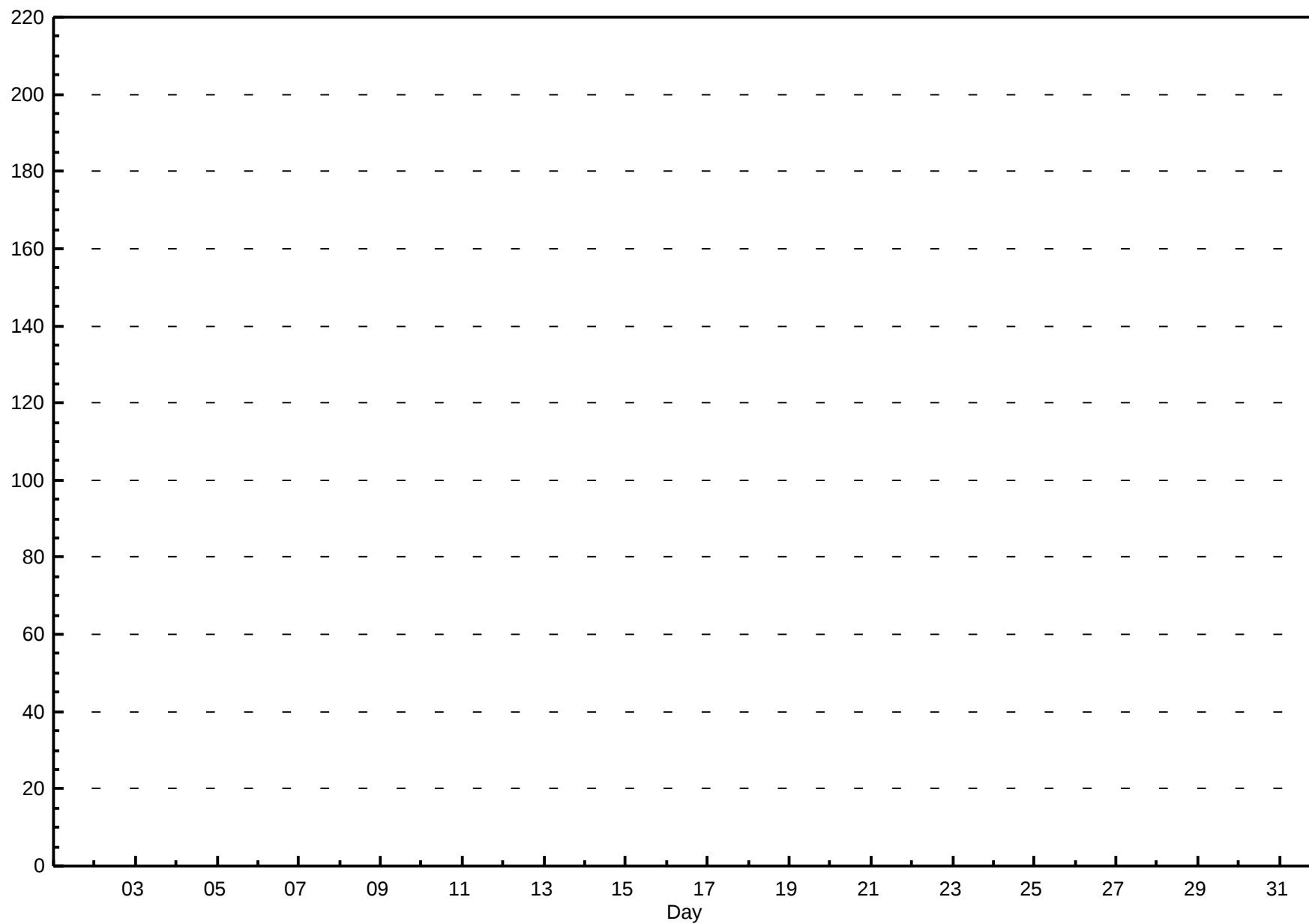
Nitrogen Dioxide (NO₂) - ppb

Sunset House - January 2012

Maximum Value: -- ppb on Jan 1 00:00																			Maximum Daily Average: -- ppb on Dec 31										Hours in Service: 0	
Minimum Value: -- ppb on Jan 1 00:00																			Minimum Daily Average: -- ppb on Dec 31										Hours of Data: 0	
Maximum Diurnal Average: -- ppb at hour 0																			Minimum Diurnal Average: -- ppb at hour 0										Hours of Missing Data: 0	
Monthly Average: -- ppb																			Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.0 Q ₃ = 0.0 P ₉₀ = 0.0 P ₉₉ = 0.0										Hours of Calibration: 0	
																			Percent Operational Time: 0.0											
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-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--				
2-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--				
3-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--				
4-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--				
5-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--				
6-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--				
7-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--				
8-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--				
9-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--				
10-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--				
11-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--				
12-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--				
13-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--				
14-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--				
15-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--				
16-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--				
17-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--				
18-Jan	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-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--				
20-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--				
21-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--				
22-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--				
23-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--				
24-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--				
25-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--				
26-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--				
27-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--				
28-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--				
29-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--				
30-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--				
31-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--				
																								Diurnal Average						
																								Diurnal Maximum						
NS - Not in service																														

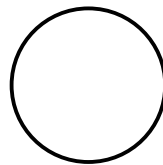
Hourly Maximums

Nitrogen Dioxide (NO₂) - ppb
Sunset House - January 2012

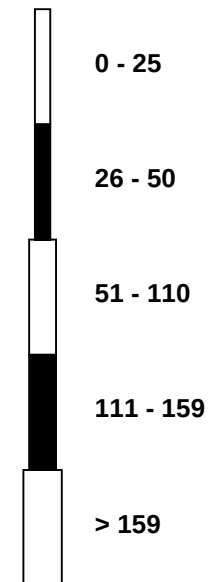


Pollutant Rose

Nitrogen Dioxide (NO₂) - ppb
Sunset House - January 2012

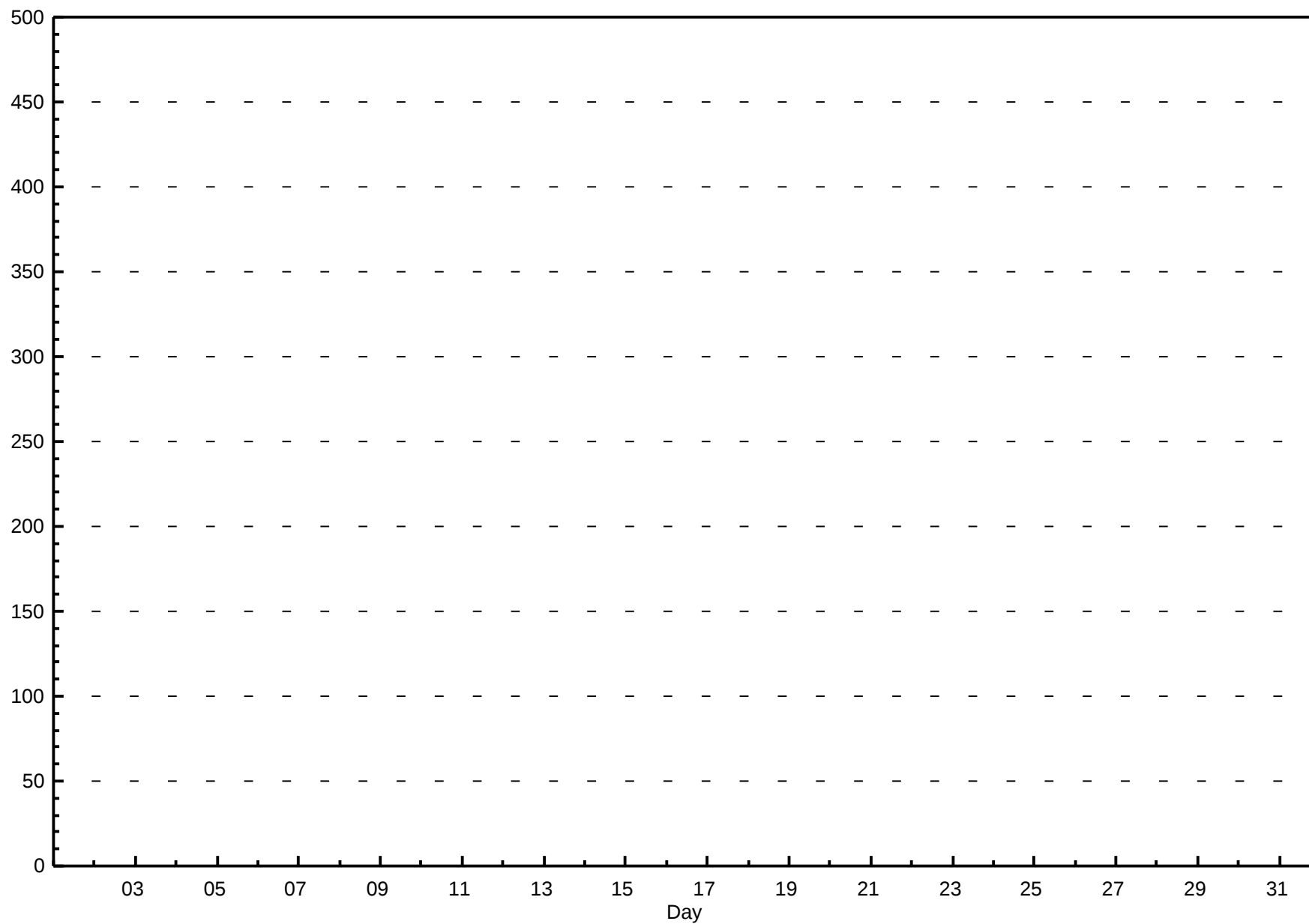


Pollutant Classes (ppb)



Span Responses

Nitrogen Dioxide (NO₂)
Sunset House - January 2012



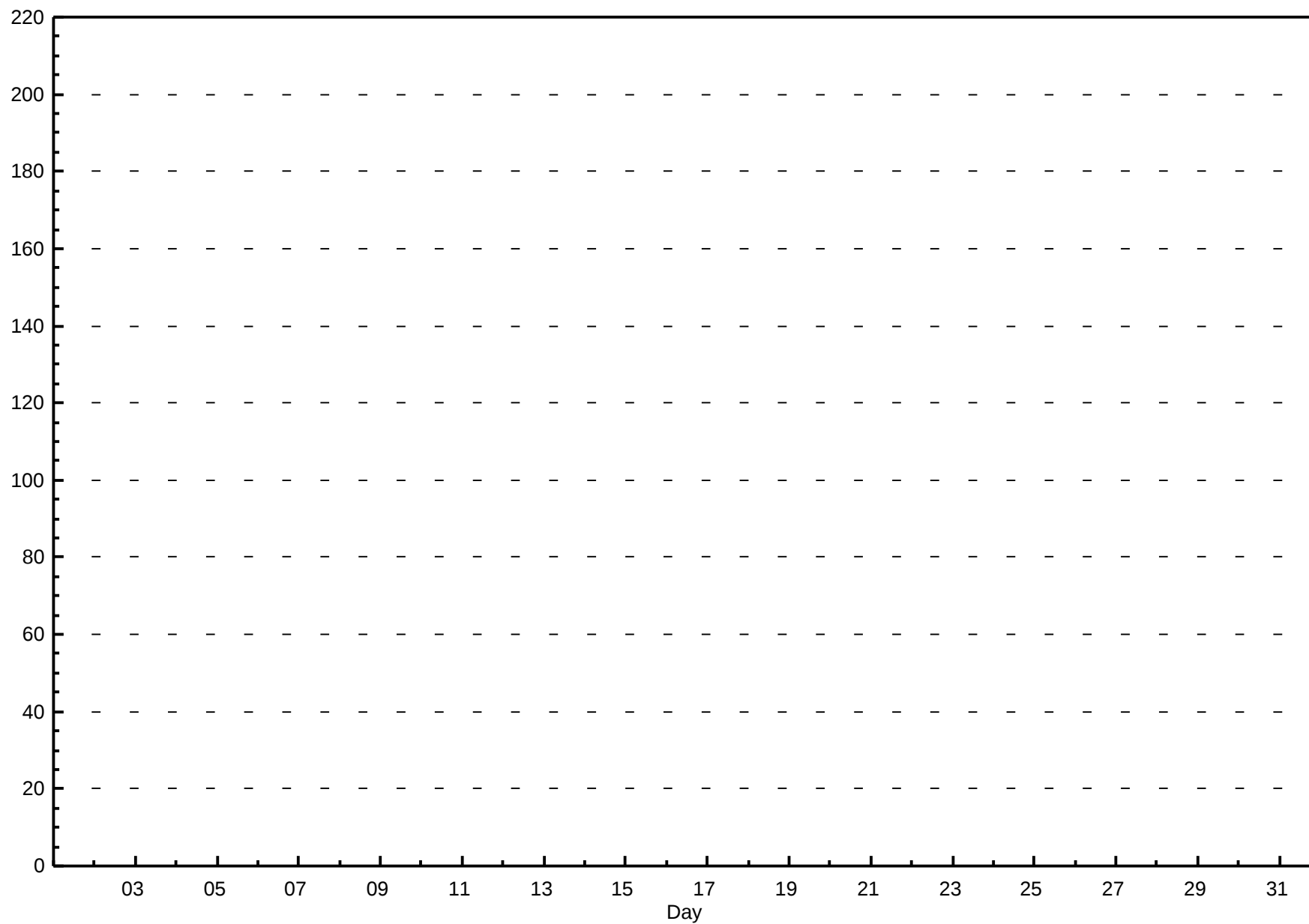
Hourly Averages

Nitrogen Oxide (NO) - ppb Sunset House - January 2012

Number of Exceedences (AAAQO):										1-hr: 0 24-hr: 0										Hours in Service: 0									
Maximum Value: -- ppb on Jan 1 00:00										Maximum Daily Average: -- ppb on Dec 31										Hours of Data: 0									
Minimum Value: -- ppb on Jan 1 00:00										Minimum Daily Average: -- ppb on Dec 31										Hours of Missing Data: 0									
Maximum Diurnal Average: -- ppb at hour 0										Minimum Diurnal Average: -- ppb at hour 0										Hours of Calibration: 0									
Monthly Average: -- ppb										Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.0 Q ₃ = 0.0 P ₉₀ = 0.0 P ₉₉ = 0.0										Percent Operational Time: 0.0									
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-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
2-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
3-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
4-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
5-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
6-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
7-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
8-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
9-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
10-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
11-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
12-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
13-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
14-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
15-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
16-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
17-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
18-Jan	NS	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-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
20-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
21-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
22-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
23-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
24-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
25-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
26-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
27-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
28-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
29-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
30-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
31-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
																								Diurnal Average					
																								Diurnal Maximum					
NS - Not in service																													

Hourly Averages

Nitrogen Oxide (NO) - ppb
Sunset House - January 2012



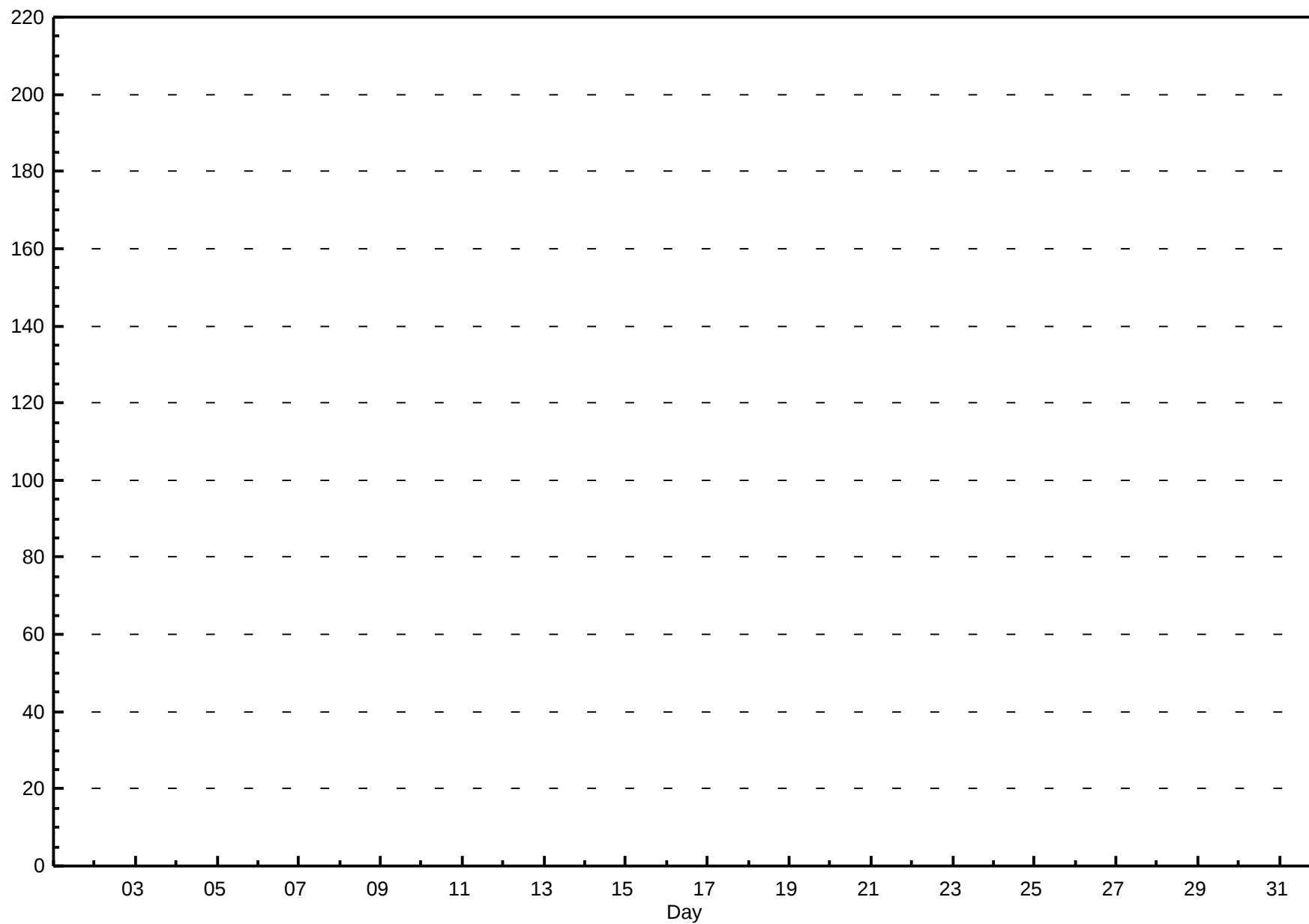
Hourly Maximums

Nitrogen Oxide (NO) - ppb Sunset House - January 2012

Maximum Value: -- ppb on Jan 1 00:00																				Maximum Daily Average: -- ppb on Dec 31										Hours in Service: 0	
Minimum Value: -- ppb on Jan 1 00:00																				Minimum Daily Average: -- ppb on Dec 31										Hours of Data: 0	
Maximum Diurnal Average: -- ppb at hour 0																				Minimum Diurnal Average: -- ppb at hour 0										Hours of Missing Data: 0	
Monthly Average: -- ppb																				Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.0 Q ₃ = 0.0 P ₉₀ = 0.0 P ₉₉ = 0.0										Hours of Calibration: 0	
																				Percent Operational Time: 0.0											
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-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--					
2-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--					
3-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--					
4-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--					
5-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--					
6-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--					
7-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--					
8-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--					
9-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--					
10-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--					
11-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--					
12-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--					
13-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--					
14-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--					
15-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--					
16-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--					
17-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--					
18-Jan	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-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--					
20-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--					
21-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--					
22-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--					
23-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--					
24-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--					
25-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--					
26-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--					
27-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--					
28-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--					
29-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--					
30-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--					
31-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--					
																								Diurnal Average							
																								Diurnal Maximum							
NS - Not in service																															

Hourly Maximums

Nitrogen Oxide (NO) - ppb
Sunset House - January 2012



Hourly Averages

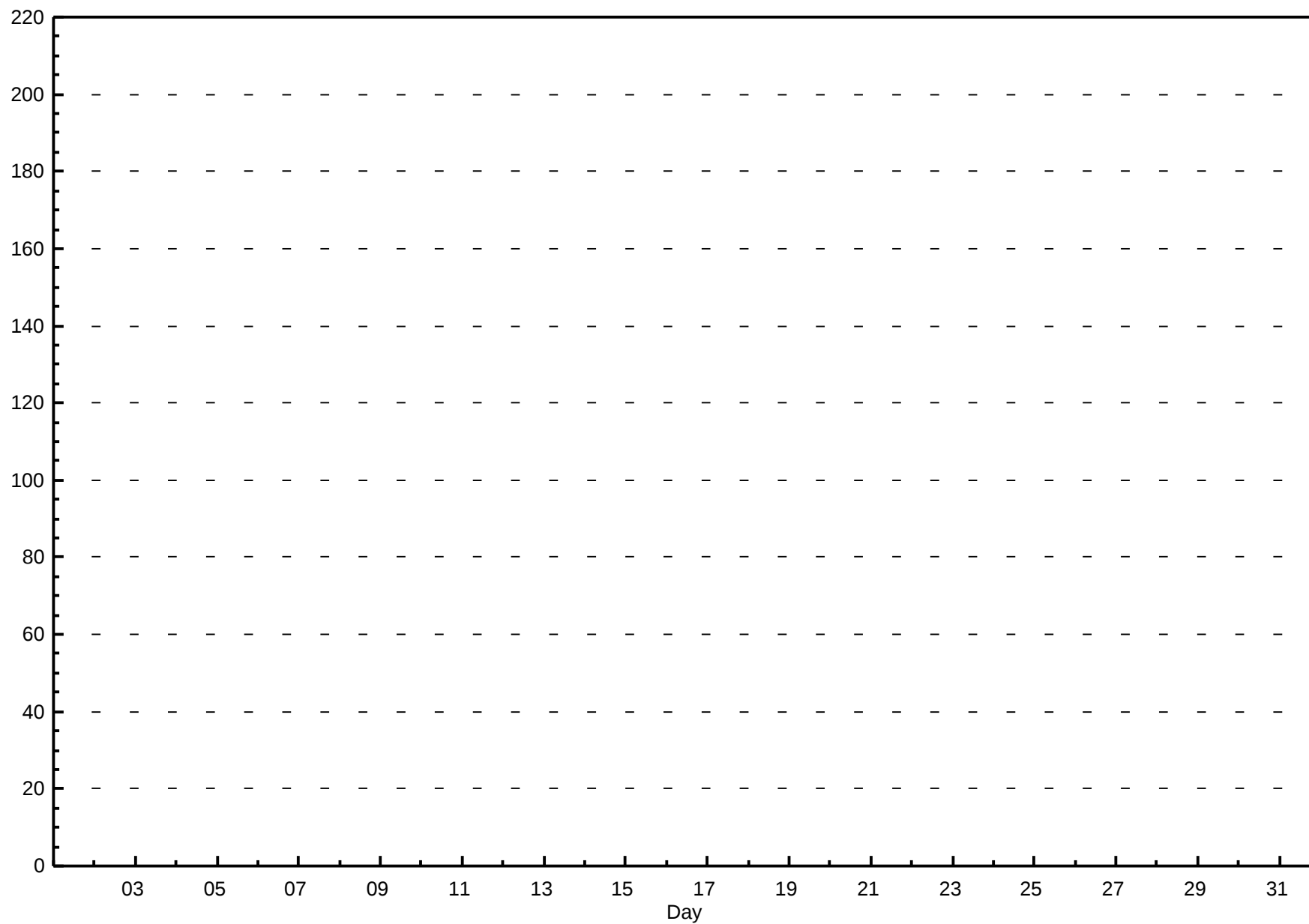
Oxides of Nitrogen (NO_x) - ppb

Sunset House - January 2012

Number of Exceedences (AAAQO):										1-hr: 0 24-hr: 0										Hours in Service: 0									
Maximum Value: -- ppb on Jan 1 00:00										Maximum Daily Average: -- ppb on Dec 31										Hours of Data: 0									
Minimum Value: -- ppb on Jan 1 00:00										Minimum Daily Average: -- ppb on Dec 31										Hours of Missing Data: 0									
Maximum Diurnal Average: -- ppb at hour 0										Minimum Diurnal Average: -- ppb at hour 0										Hours of Calibration: 0									
Monthly Average: -- ppb										Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.0 Q ₃ = 0.0 P ₉₀ = 0.0 P ₉₉ = 0.0										Percent Operational Time: 0.0									
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-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
2-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
3-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
4-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
5-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
6-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
7-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
8-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
9-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
10-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
11-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
12-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
13-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
14-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
15-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
16-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
17-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
18-Jan	NS	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-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
20-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
21-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
22-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
23-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
24-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
25-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
26-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
27-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
28-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
29-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
30-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
31-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--		
																								Diurnal Average					
																								Diurnal Maximum					
NS - Not in service																													

Hourly Averages

Oxides of Nitrogen (NO_x) - ppb
Sunset House - January 2012



Hourly Maximums

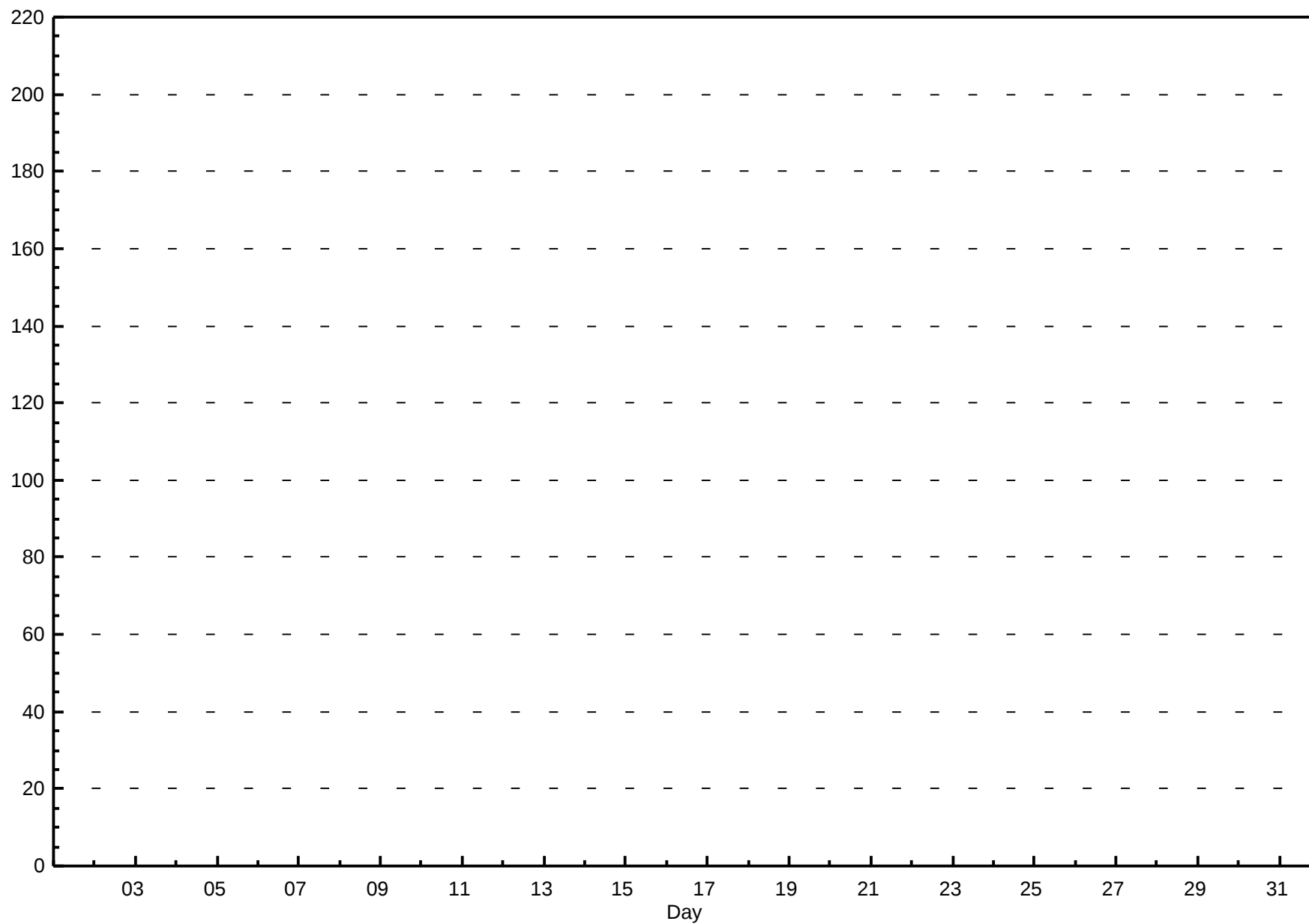
Oxides of Nitrogen (NO_x) - ppb

Sunset House - January 2012

Maximum Value: -- ppb on Jan 1 00:00																								Maximum Daily Average: -- ppb on Dec 31										Hours in Service: 0	
Minimum Value: -- ppb on Jan 1 00:00																								Minimum Daily Average: -- ppb on Dec 31										Hours of Data: 0	
Maximum Diurnal Average: -- ppb at hour 0																								Minimum Diurnal Average: -- ppb at hour 0										Hours of Missing Data: 0	
Monthly Average: -- ppb																								Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.0 Q ₃ = 0.0 P ₉₀ = 0.0 P ₉₉ = 0.0										Hours of Calibration: 0	
																								Percent Operational Time: 0.0											
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-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--									
2-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--									
3-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--									
4-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--									
5-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--									
6-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--									
7-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--									
8-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--									
9-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--									
10-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--									
11-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--									
12-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--									
13-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--									
14-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--									
15-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--									
16-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--									
17-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--									
18-Jan	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-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--									
20-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--									
21-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--									
22-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--									
23-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--									
24-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--									
25-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--									
26-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--									
27-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--									
28-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--									
29-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--									
30-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--									
31-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--									
																								Diurnal Average											
																								Diurnal Maximum											
NS - Not in service																																			

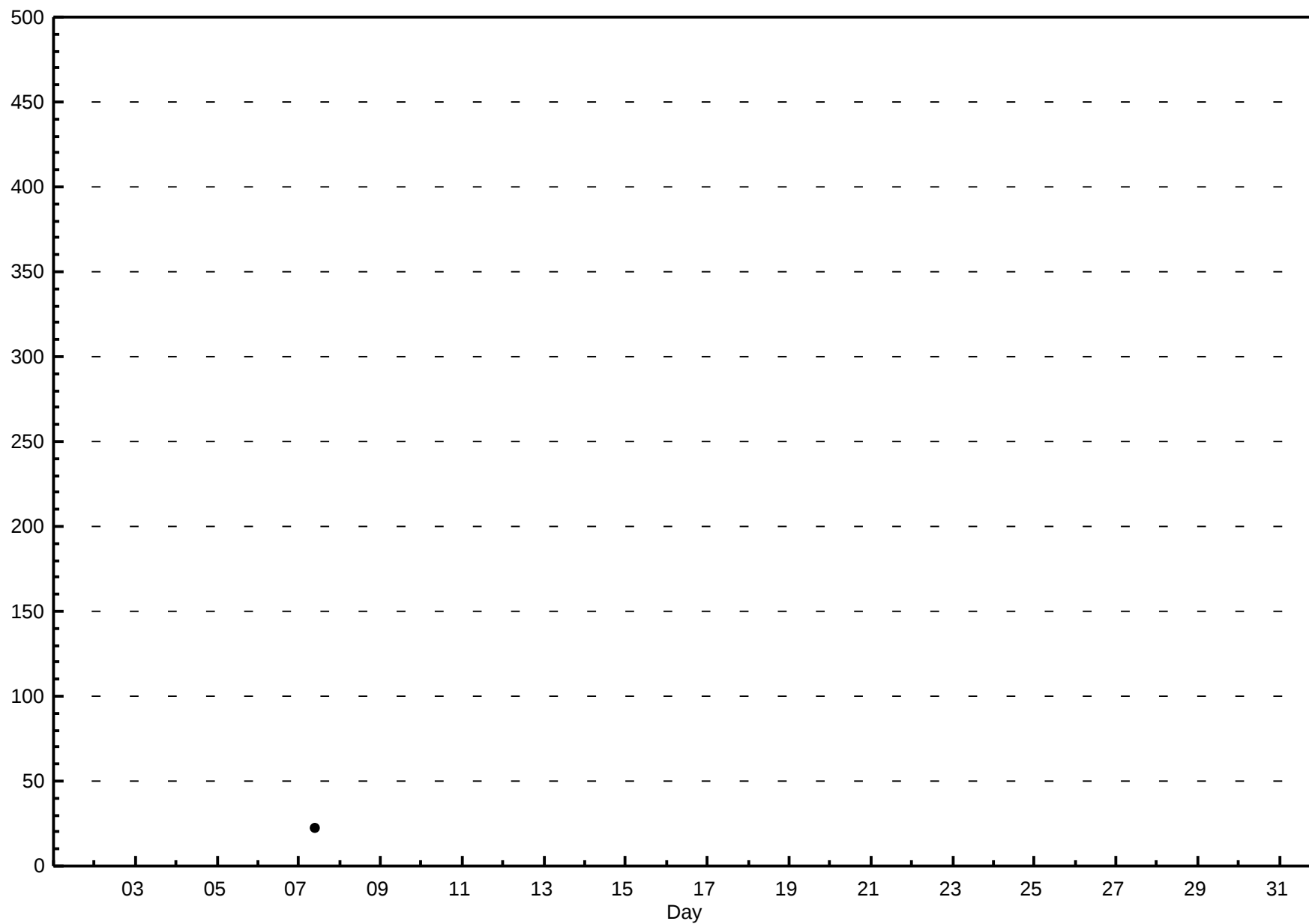
Hourly Maximums

Oxides of Nitrogen (NO_x) - ppb
Sunset House - January 2012



Span Responses

Oxides of Nitrogen (NO_x)
Sunset House - January 2012



Hourly Averages

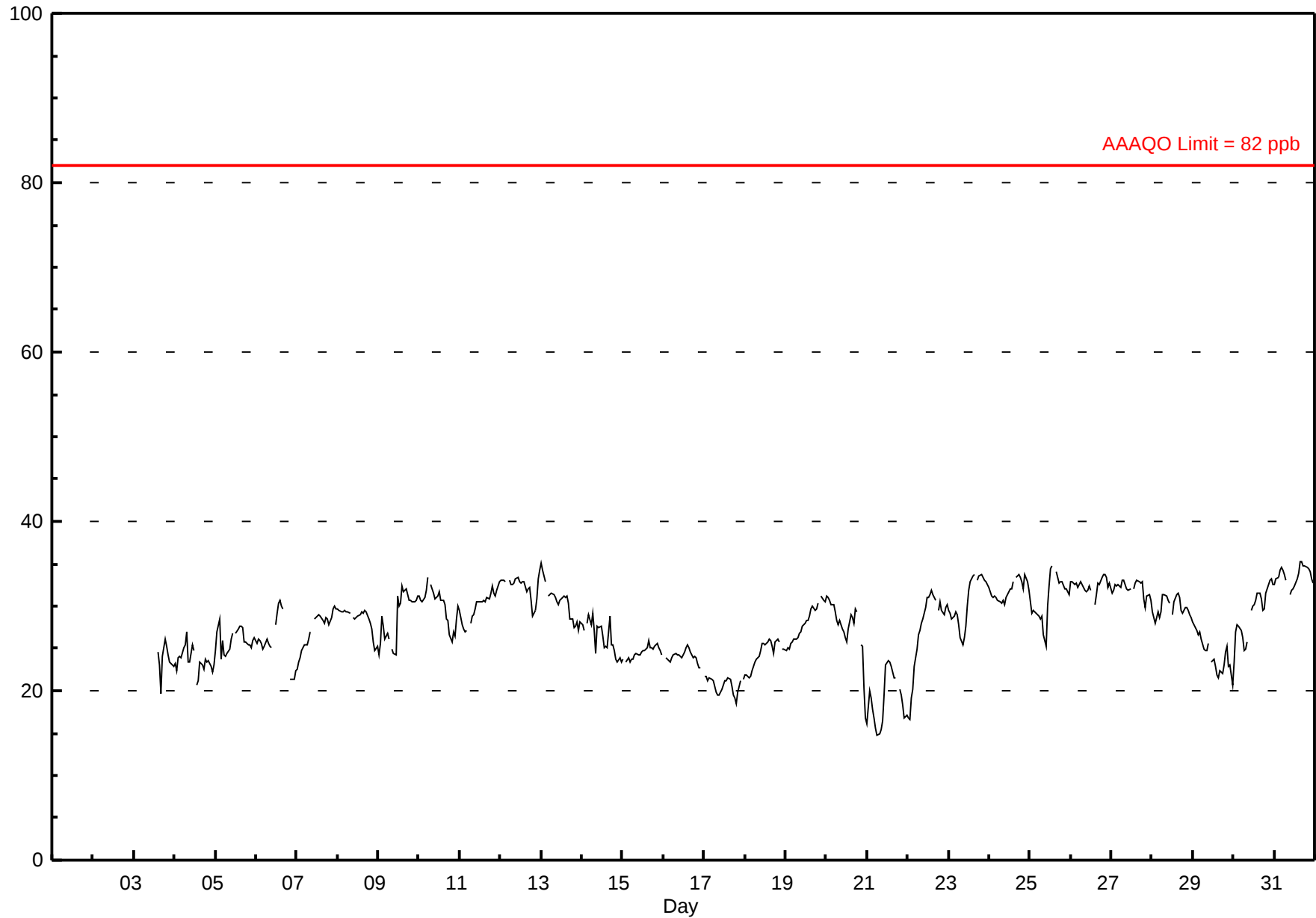
Ozone (O₃) - ppb

Sunset House - January 2012

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 35.3 ppb on Jan 31 17:00 Maximum Daily Average: 33.6 ppb on Jan 31																				Hours in Service: 683 Hours of Data: 650 Hours of Missing Data: 33 Hours of Calibration: 33 Percent Operational Time: 100.0						
Minimum Value: 15 ppb on Jan 21 07:00 Maximum Diurnal Average: 28.7 ppb at hour 15 Monthly Average: 27.77 ppb										Minimum Daily Average: 19.0 ppb on Jan 21 Minimum Diurnal Average: 26.7 ppb at hour 9 Percentiles: P ₁ = 16.6 P ₁₀ = 22.4 Q ₁ = 24.8 Median = 28.4 Q ₃ = 31.2 P ₉₀ = 32.9 P ₉₉ = 34.6																
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-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
2-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
3-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	A	25	23	20	24	26	25	24	23	23	23	--	26.0
4-Jan	23	22	24	24	24	25	25	27	23	23	25	25	A	21	21	23	23	22	24	23	24	23	22	23	23.5	26.9
5-Jan	25	27	28	24	26	24	24	24	25	26	27	A	27	27	28	28	28	26	26	25	25	25	26	26	25.9	28.5
6-Jan	26	26	26	26	25	25	26	26	25	25	A	28	29	30	31	30	30	C	C	C	21	21	21	22	26.0	30.6
7-Jan	23	23	24	25	25	25	25	26	27	A	28	29	29	29	29	28	28	29	29	28	29	30	30	30	27.3	30.0
8-Jan	30	29	29	29	29	29	29	29	A	29	28	29	29	29	29	29	29	29	28	28	27	26	25	25	28.5	29.7
9-Jan	24	26	29	28	26	27	26	A	25	24	24	31	30	30	32	32	32	31	31	31	31	31	31	31	28.8	32.4
10-Jan	31	31	31	31	32	33	A	33	31	31	31	31	32	31	31	30	28	28	27	26	27	26	28	30	30.0	33.4
11-Jan	29	28	27	27	27	A	28	29	29	30	30	30	31	31	31	31	31	31	32	32	32	31	32	33	30.0	32.8
12-Jan	33	33	33	33	A	33	33	33	33	33	33	33	33	33	33	32	32	32	31	29	29	31	33	34	32.4	34.3
13-Jan	35	34	33	A	31	31	32	31	31	31	30	31	31	31	31	31	30	29	29	27	28	28	27	28	30.4	35.1
14-Jan	28	27	A	28	29	28	29	27	24	28	27	28	26	25	25	25	29	25	25	25	24	23	24	23	26.2	29.2
15-Jan	24	A	23	24	23	24	24	24	24	24	24	25	25	25	25	26	25	25	25	25	26	25	25	24	24.5	26.0
16-Jan	A	24	24	24	23	24	24	24	24	24	24	24	25	25	25	25	25	24	24	24	23	23	23	A	24.0	25.4
17-Jan	22	22	21	22	21	21	21	20	19	20	20	21	21	21	21	21	21	19	19	19	20	21	A	21	20.6	21.7
18-Jan	22	22	22	22	22	23	23	24	24	25	26	26	25	26	26	26	25	24	26	26	26	A	25	25	24.3	26.0
19-Jan	25	25	25	26	26	26	26	26	27	27	28	28	28	28	29	30	30	29	30	30	A	31	31	31	27.9	31.2
20-Jan	31	31	31	30	30	29	28	28	28	27	27	26	26	27	29	29	28	30	29	A	25	25	20	17	27.5	31.2
21-Jan	16	20	19	18	17	16	15	15	15	16	19	23	23	23	23	22	22	22	A	20	20	18	17	17	19.0	23.5
22-Jan	17	17	19	20	23	25	27	27	28	28	30	31	31	31	32	31	31	A	30	30	29	29	30	30	27.2	31.9
23-Jan	30	29	29	29	29	29	28	26	25	26	28	30	32	33	34	34	A	33	34	34	33	33	33	33	30.5	33.8
24-Jan	32	31	31	31	31	31	31	30	31	30	31	32	32	32	33	A	33	34	33	33	32	34	33	32	31.9	33.8
25-Jan	30	29	29	29	29	29	29	29	27	25	30	32	34	35	A	34	33	33	33	33	32	32	32	31	30.9	34.8
26-Jan	33	33	33	33	32	32	33	32	32	32	32	32	32	A	30	31	33	33	33	34	34	33	32	33	32.5	33.7
27-Jan	32	32	32	32	33	32	33	33	33	32	32	32	A	32	33	33	33	33	33	31	30	31	31	31	32.1	33.0
28-Jan	29	29	28	29	29	29	31	31	31	31	30	A	29	30	31	31	31	30	29	30	30	30	29	29	29.9	31.5
29-Jan	28	27	27	27	27	26	25	25	25	26	A	23	24	23	22	21	22	22	23	25	25	23	23	21	24.3	28.2
30-Jan	23	27	28	28	27	26	25	25	26	A	29	30	30	31	32	32	31	30	30	31	32	33	33	33	29.2	33.1
31-Jan	33	33	33	34	35	34	34	33	A	31	32	32	32	33	34	35	35	35	35	35	34	34	33	33	33.6	35.3
27.1 27.3 27.4 27.1 27.1 27.4 27.1 27.3 26.7 27.1 28.0 28.5 28.7 28.6 28.7 28.7 28.5 28.2 28.5 28.1 27.6 27.7 27.6 27.4 Diurnal Average 35.1 34.2 33.4 34.2 34.6 34.2 33.7 33.0 32.6 33.2 33.4 32.9 34.3 34.8 33.9 35.2 35.3 34.8 34.7 34.6 34.3 34.0 33.3 34.3 Diurnal Maximum																										
C - Calibration 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
Sunset House - January 2012



Hourly Maximums

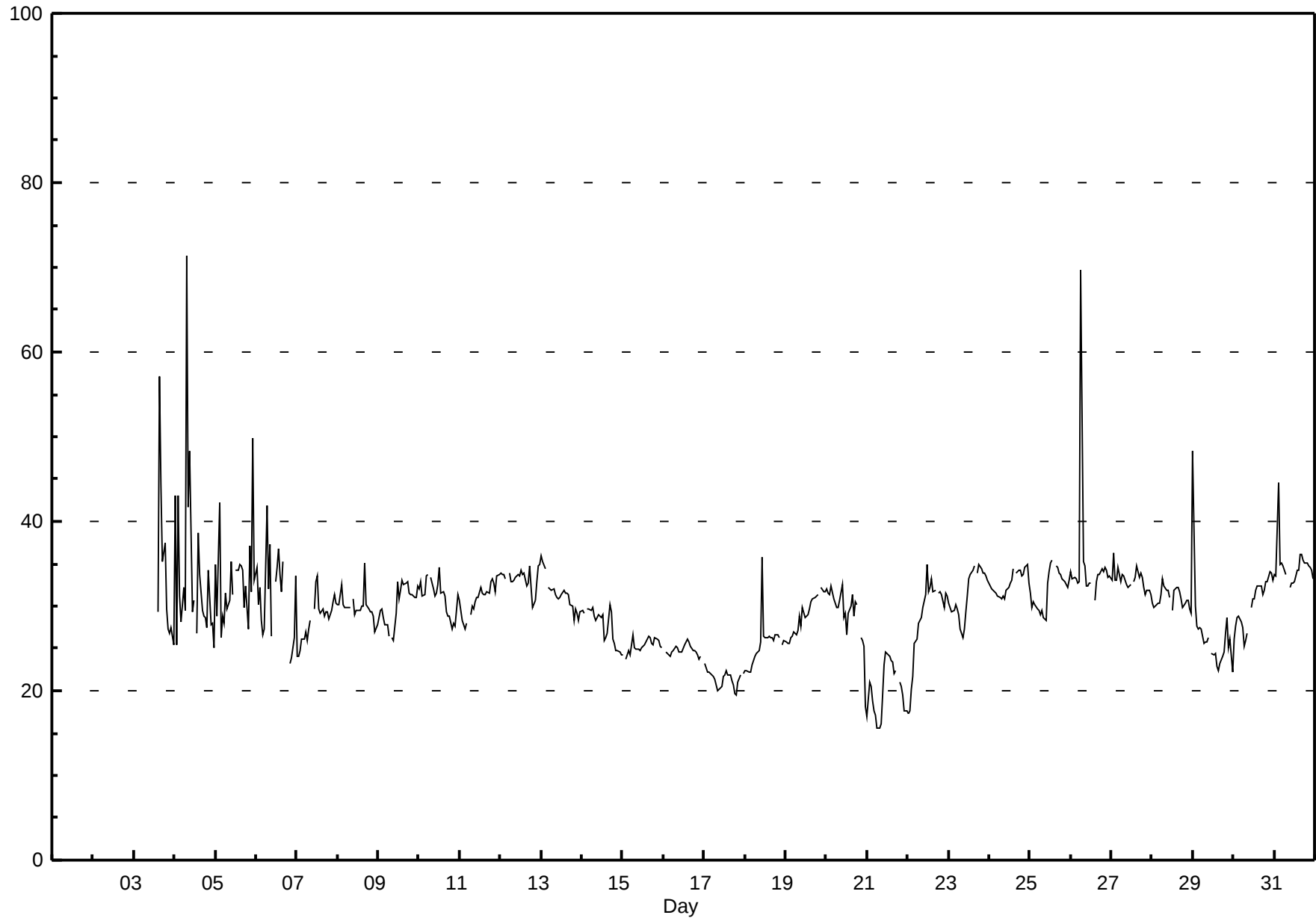
Ozone (O₃) - ppb

Sunset House - January 2012

Maximum Value: 71.3 ppb on Jan 4 08:00																				Maximum Daily Average: 35.0 ppb on Jan 26					Hours in Service: 683	
Minimum Value: 16 ppb on Jan 21 07:00																				Minimum Daily Average: 20.1 ppb on Jan 21					Hours of Data: 650	
Maximum Diurnal Average: 31.4 ppb at hour 16																				Minimum Diurnal Average: 28.3 ppb at hour 4					Hours of Missing Data: 33	
Monthly Average: 29.77 ppb																				Percentiles: P ₁ = 17.6 P ₁₀ = 24.0 Q ₁ = 26.3 Median = 30.1 Q ₃ = 32.8 P ₉₀ = 34.3 P ₉₉ = 44.6					Hours of Calibration: 33	
																									Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
2-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
3-Jan	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	A	29	57	44	35	37	30	27	27	27	25	--	57.2
4-Jan	43	25	43	31	28	32	29	71	42	48	29	31	A	27	39	34	29	29	29	27	34	28	28	25	34.0	71.3
5-Jan	35	29	42	26	29	28	31	30	31	35	31	A	34	34	35	35	34	30	32	27	37	32	50	33	33.1	49.9
6-Jan	35	30	32	28	27	27	42	32	37	26	A	33	35	37	34	32	35	C	C	C	23	24	26	34	31.4	41.8
7-Jan	24	24	25	26	26	27	26	27	28	A	30	33	34	30	29	30	29	29	29	29	29	30	31	30	28.5	33.6
8-Jan	30	30	32	30	30	30	30	30	A	31	29	29	29	30	30	30	35	30	30	29	29	29	27	28	29.9	35.0
9-Jan	29	30	30	29	28	28	26	A	26	26	29	33	31	32	33	32	33	33	32	31	31	31	31	32	30.2	33.0
10-Jan	32	33	31	31	34	34	A	33	32	31	31	33	35	32	32	31	29	29	29	27	28	28	29	31	31.1	34.6
11-Jan	31	28	28	27	28	A	29	30	30	31	31	31	32	32	31	31	32	31	33	33	33	32	34	34	30.9	33.8
12-Jan	34	34	34	33	A	34	33	33	33	33	34	34	34	34	34	32	33	35	32	30	31	33	35	35	33.2	34.9
13-Jan	36	35	34	A	32	32	32	32	31	31	31	31	31	32	31	31	31	30	30	28	30	29	28	29	31.3	35.9
14-Jan	29	29	A	30	30	29	30	29	28	29	29	29	29	26	26	27	30	29	26	26	25	25	25	24	27.8	30.2
15-Jan	24	A	24	25	24	26	27	25	25	25	25	25	25	25	26	26	26	26	25	26	26	26	25	25	25.3	26.6
16-Jan	A	25	24	24	24	25	25	25	25	25	25	25	25	26	26	26	25	25	25	25	24	24	24	A	24.8	26.1
17-Jan	23	23	22	22	22	22	21	21	20	20	21	22	22	22	22	22	21	21	20	19	21	22	A	22	21.4	23.2
18-Jan	22	22	22	22	23	24	24	24	25	26	36	26	26	26	26	26	26	26	27	27	26	A	25	26	25.4	35.7
19-Jan	26	26	26	26	26	27	27	27	29	28	30	29	29	29	30	31	31	31	31	31	A	32	32	32	28.8	32.1
20-Jan	32	32	31	32	31	30	30	30	31	32	29	29	27	29	30	31	29	31	30	A	26	26	25	18	29.2	32.5
21-Jan	17	21	21	19	18	17	16	16	16	20	23	25	24	24	24	23	22	22	A	21	21	19	18	18	20.1	24.6
22-Jan	17	18	20	22	26	26	28	28	29	30	31	35	32	32	33	32	32	A	31	32	31	30	31	31	28.6	34.9
23-Jan	30	30	29	30	30	30	29	27	26	27	29	31	33	34	34	35	A	34	35	34	34	34	34	33	31.4	34.9
24-Jan	33	32	32	32	31	31	31	31	31	31	32	32	33	33	34	A	34	34	34	33	34	35	35	33	32.7	34.9
25-Jan	32	30	30	30	30	30	29	29	29	28	33	34	35	35	A	35	35	34	34	33	33	33	32	33	32.0	35.4
26-Jan	34	33	33	33	33	33	70	35	35	32	32	33	33	A	31	33	34	34	34	34	35	34	33	34	35.0	69.6
27-Jan	33	36	33	33	35	33	34	33	33	32	32	33	A	33	33	35	33	34	33	32	31	32	32	31	33.1	36.2
28-Jan	30	30	30	30	30	31	33	32	32	32	31	A	30	32	32	32	32	31	30	30	31	31	30	29	30.9	33.3
29-Jan	48	30	28	27	27	27	26	26	26	26	A	24	24	24	23	22	23	24	25	27	29	25	26	22	26.5	48.3
30-Jan	26	28	29	29	28	27	25	26	27	A	30	31	31	32	32	32	32	31	32	33	33	34	34	33	30.2	34.1
31-Jan	34	34	45	35	35	35	34	34	A	32	33	33	33	34	34	36	36	35	35	35	35	35	34	33	34.7	44.6
30.4 28.7 30.0 28.3 28.3 28.7 30.2 30.3 29.1 29.5 29.8 30.0 30.2 30.2 30.5 31.4 31.0 30.1 30.4 29.3 29.5 29.2 30.1 29.1																									Diurnal Average	
48.3 36.2 44.6 35.0 35.1 34.8 69.6 71.3 41.8 48.4 35.7 34.9 35.1 36.8 38.6 57.2 44.4 35.5 37.5 35.0 37.1 34.6 49.9 34.9																									Diurnal Maximum	
C - Calibration NS - Not in service A - Automated Daily Zero Span																										

Hourly Maximums

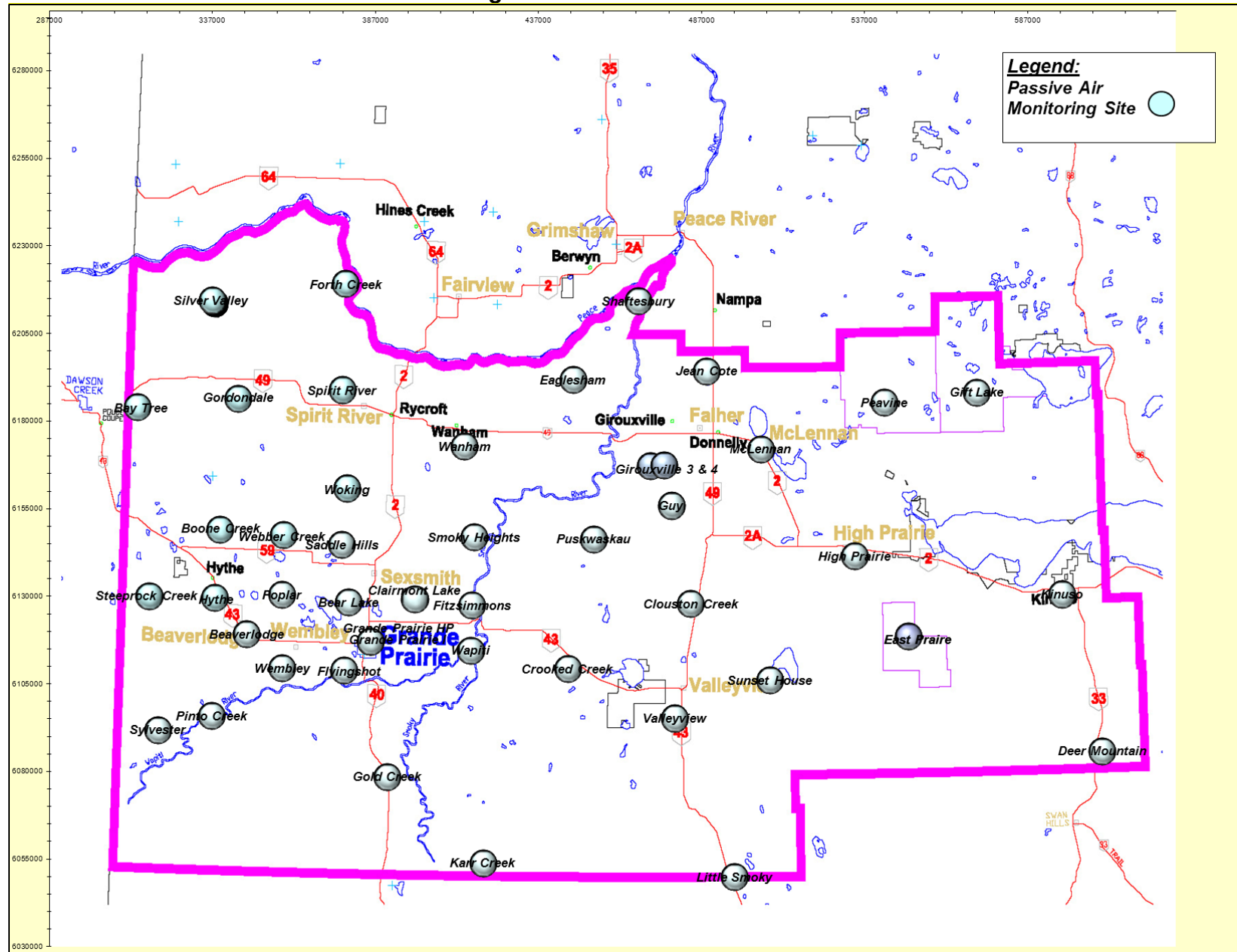
Ozone (O₃) - ppb
Sunset House - January 2012



PAZA

Monthly Passive Data Summary

Location of PAZA Passive Monitoring Stations



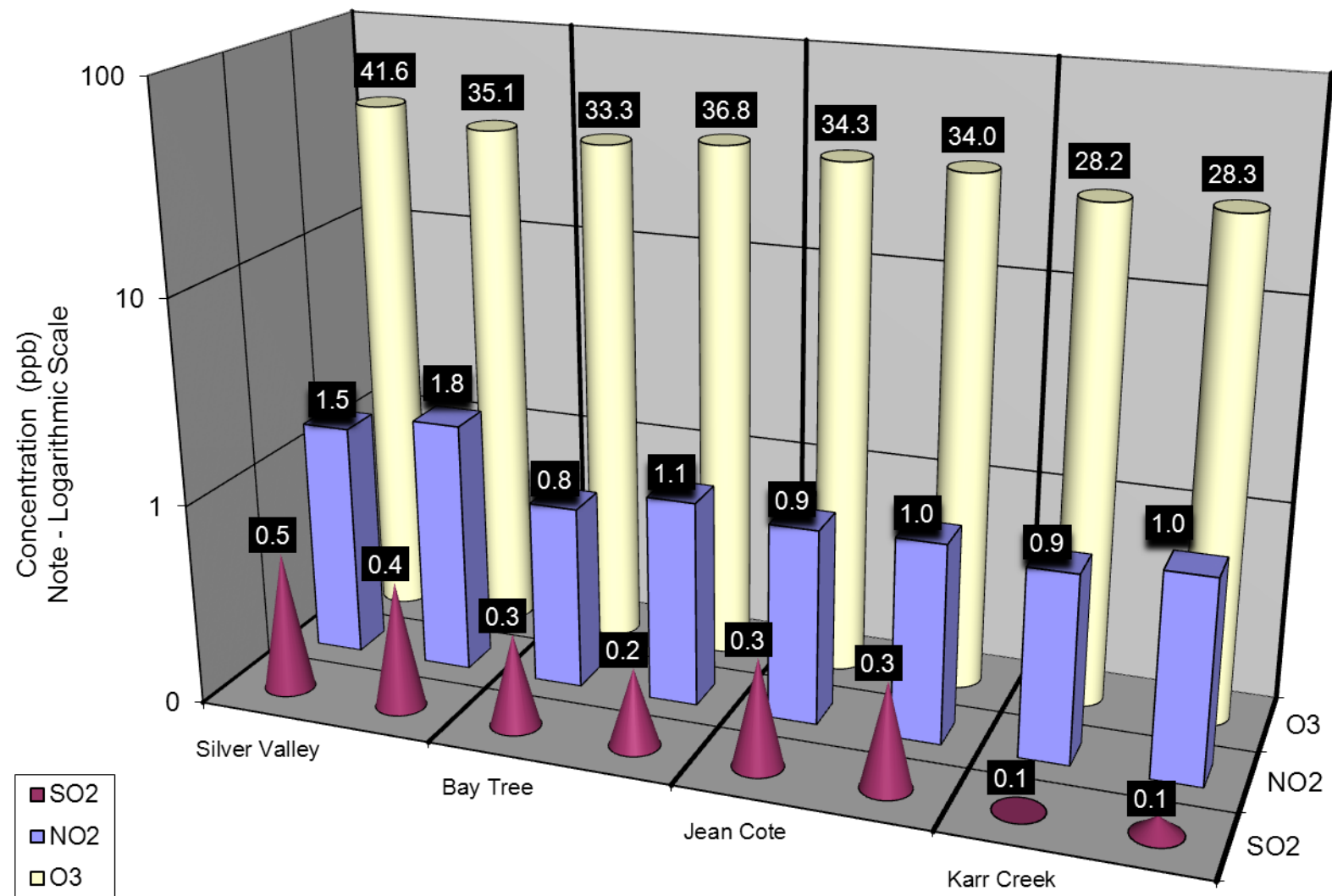
PAZA Passive Results for January 2012

Station Number	Station Name	SO2 ppb	O3 ppb	NO2 ppb	H2S ppb	Site Legal
Duplicates						
1a	Silver Valley	0.5	41.6	1.5		
1b	Silver Valley	0.4	35.1	1.8		
2a	Bay Tree	0.3	33.3	0.8		
2b	Bay Tree	0.2	36.8	1.1		
35a	Jean Cote	0.3	34.3	0.9		
35b	Jean Cote	0.3	34.0	1.0		
38a	Karr Creek	0.1	28.2	0.9		
38b	Karr Creek	0.1	28.3	1.0		
64a	Girouxville 4				0.2	
64b	Girouxville 4				Missing	

1	Silver Valley	0.5	38.3	1.6		08-27-081-11 W6M
2	Bay Tree	0.3	35.1	0.9		13-16-078-13 W6M
3	Fourth Creek	0.4	35.4	1.3		04-13-082-07 W6M
4	Gordondale	0.3	39.0	1.3		04-34-078-10 W6M
5	Boone Creek	0.3	33.2	1.4		16-36-074-11 W6M
7	Steeprock Creek	0.2	34.2	0.8		09-35-072-13 W6M
9	Spirit River	0.4	33.6	1.3		08-12-079-07 W6M
10	Woking	0.5	38.1	0.8		01-13-076-07 W6M
11	Webber Creek	0.6	34.6	1.9		09-36-074-09 W6M
12	Hythe	0.3	33.1	1.2		14-36-072-11 W6M
14	Sylvester	0.1	38.1	0.7		08-06-069-12 W6M
16	Beaverlodge	0.2	33.9	3.6		15-36-071-10 W6M
17	Poplar	0.3	36.0	1.5		13-06-073-08 W6M
18	Saddle Hills	0.6	36.3	0.9		04-25-074-07 W6M
19	Wanham	0.3	36.2	0.8		16-22-077-03 W6M
20	Shaftesbury	0.3	37.5	0.9		04-03-082-23 W5M
21	Eaglesham	0.2	31.7	0.7		16-21-079-25 W5M
23	Bear Lake	0.2	34.4	1.9		15-31-072-06 W6M

PAZA Passive Results for January 2012 (Continued)

24	Wembley	0.1	32.6	1.3		12-31-070-08 W6M
25	Pinto Creek	0.1	32.2	0.9		04-24-069-11 W6M
26	Flyingshot	0.2	26.8	2.1		15-36-070-07 W6M
27	Grande Prairie I	0.2	25.6	10.8		08-15-071-06 W6M
28	Clairmont Lake	0.3	38.8	2.8		09-06-073-04 W6M
29	Smoky Heights	0.5	31.3	2.7		04-06-075-02 W6M
30	Fitzsimmons	0.2	27.1	1.7		15-36-072-03 W6M
32	Gold Creek	0.3	34.2	1.0		06-33-067-05 W6M
33	Wapiti	0.3	35.1	0.9		02-25-071-03 W6M
34	Puskwaskau	0.1	27.8	0.7		15-35-074-25 W5M
35	Jean Cote	0.3	34.2	1.0		12-35-079-21 W5M
36	Guy	0.1	28.2	0.9		03-04-076-22 W5M
37	Crooked Creek	0.3	34.2	1.0		16-01-071-26 W5M
38	Karr Creek	0.1	28.2	0.9		10-16-065-02 W6M
39	Clouston Creek	0.1	28.2	0.9		12-01-073-22 W5M
40	McLennan	0.1	28.2	0.9		03-29-077-19 W5M
41	Valleyview	0.3	36.7	1.2		09-30-069-22 W5M
42	Sunset House	0.3	39.0	0.6		05-32-070-19 W5M
43	High Prairie	0.2	30.2	1.1		16-13-074-17 W5M
44	Peavine	0.2	31.7	0.8		03-05-079-15 W5M
45	Gift Lake	0.1	30.1	1.0	0.1	10-07-079-12 W5M
46	Little Smoky	0.2	30.7	3.8		12-01-065-21 W5M
47	Kinuso	0.2	31.2	0.9		12-10-073-10 W5M
48	Deer Mountain	0.3	38.3	0.8		15-22-068-09 W5M
49	Grande Prairie HP	0.2	23.2	9.9		17-26-071-06 W6M
62	East Prairie	0.1	31.6	0.9		13-02-072-15 W5M
63	Girouxville 3				0.2	14-02-077-23 W5M
64	Girouxville 4				0.2	4-08-077-22 W5M



Duplicate Summary Chart

Passive Summary for January 2012

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

Passive Summary for January 2012 (PAZA Zone)				
Mean	0.3	33.0	1.7	0.2
Standard Deviation	0.1	4.0	2.0	0.1
Minimum	0.1	23.2	0.6	0.1
Minimum At	East Prairie (#62)	Grande Prairie HP	Sunset House (#42)	Gift Lake (#45)
Maximum	0.6	39.0	10.8	0.2
Maximum At	Webber Creek (#11)	Gordondale (#4)	Grande Prairie I (#27)	Girouxville 4

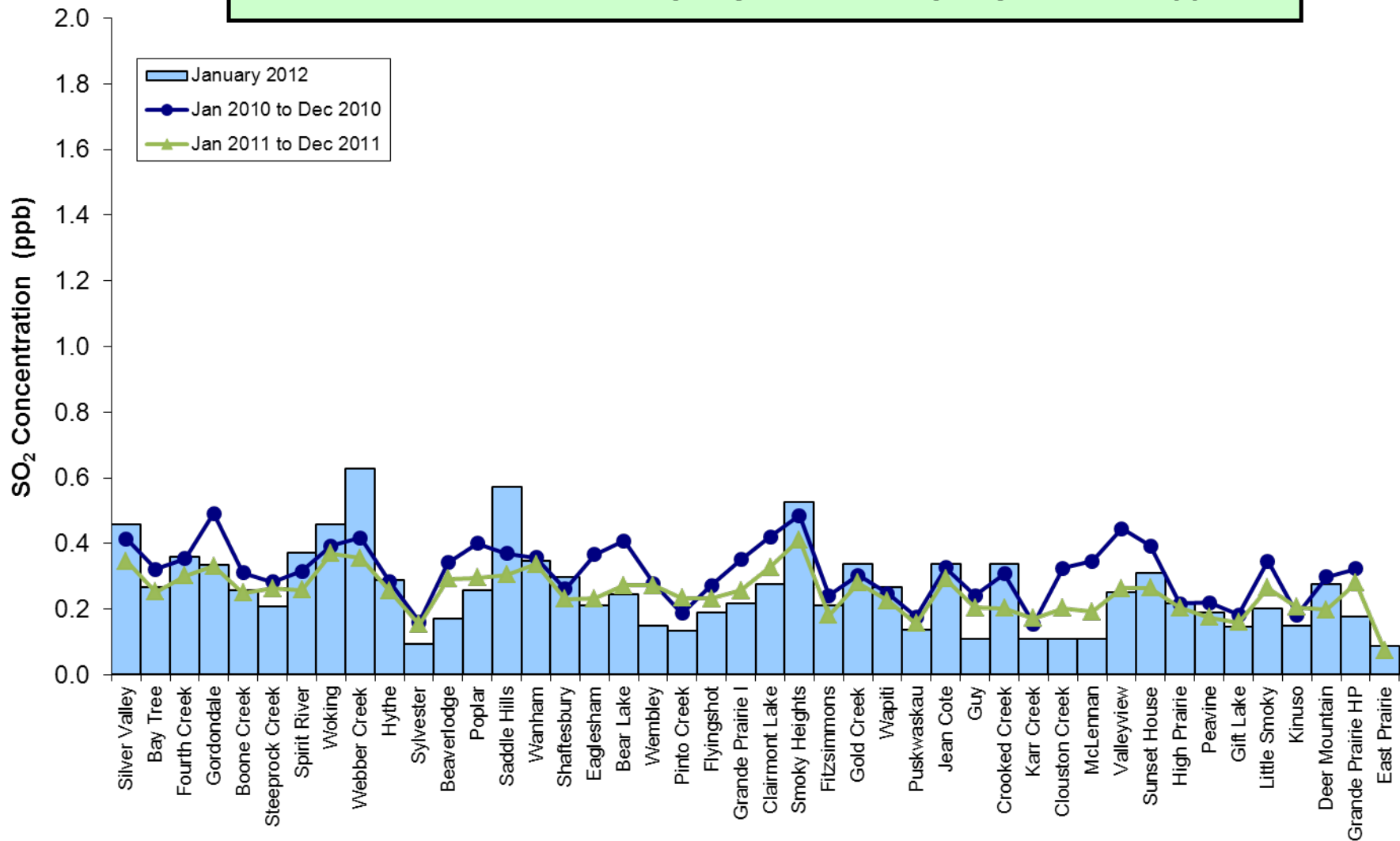
Comparison between Continuous and Passive monitoring at Beaverlodge (passive #16 Beaverlodge)

	SO ₂	O ₃	NO ₂
PAZA Beaverlodge station	0.2	28.5	4.9
PAZA Beaverlodge passive	0.2	33.9	3.6

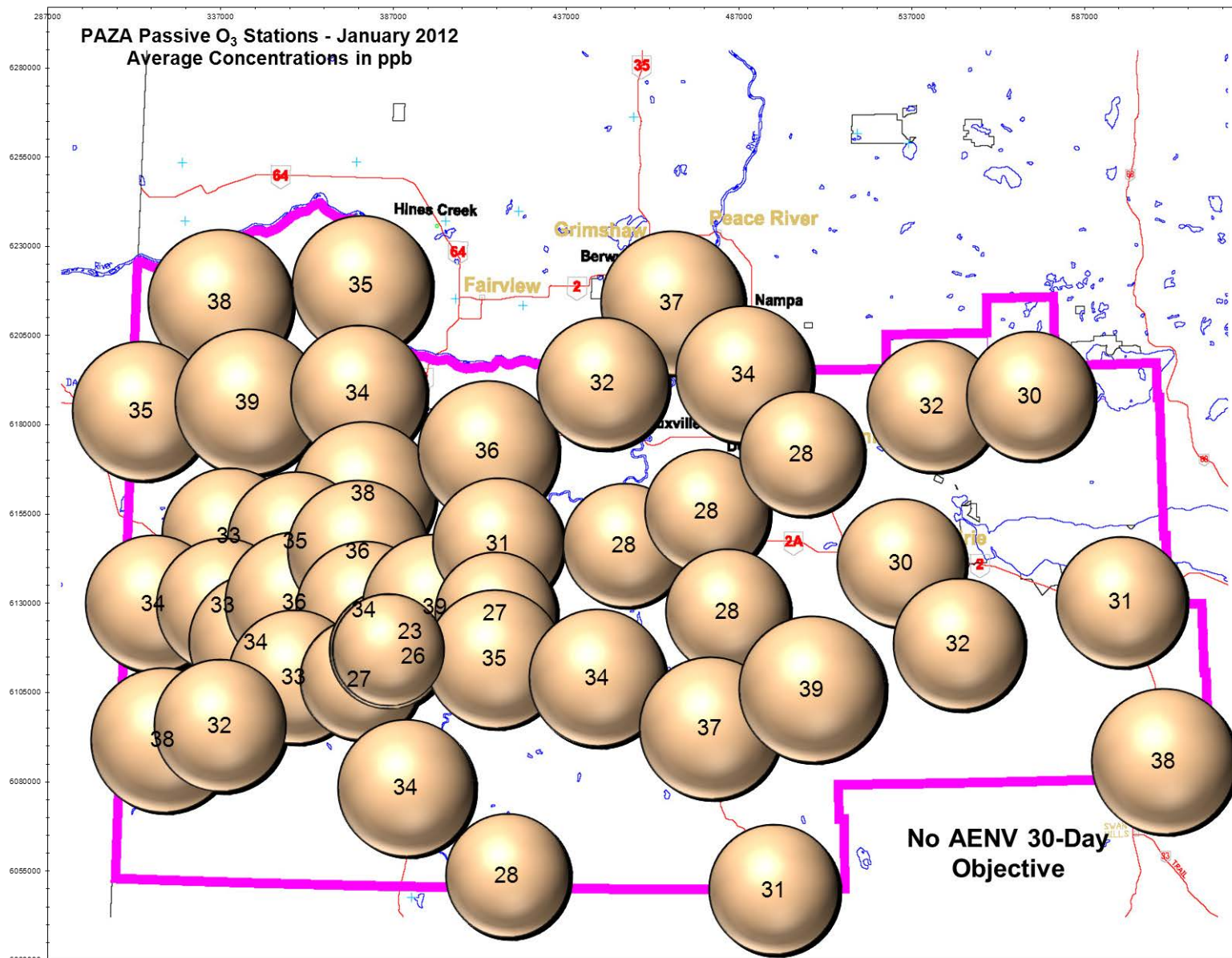
Comparison between Continuous and Passive monitoring at Henry Pirker (passive #49 Grande Prairie HP)

	SO ₂	O ₃	NO ₂
PAZA Henry Pirker station	0.3	18.0	16.4
PAZA Grande Prairie passive	0.2	23.2	9.9

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

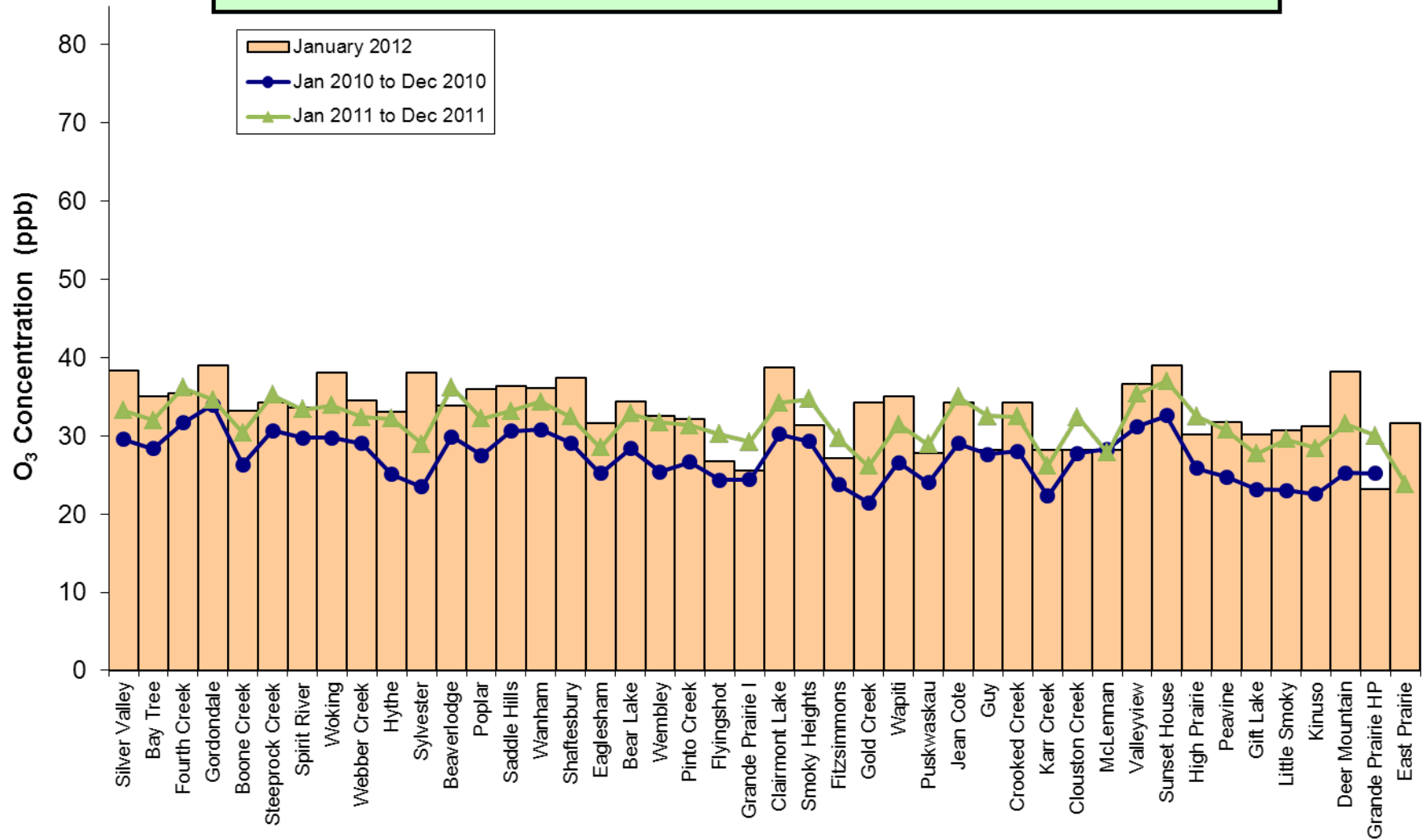


SO₂ Summary Chart

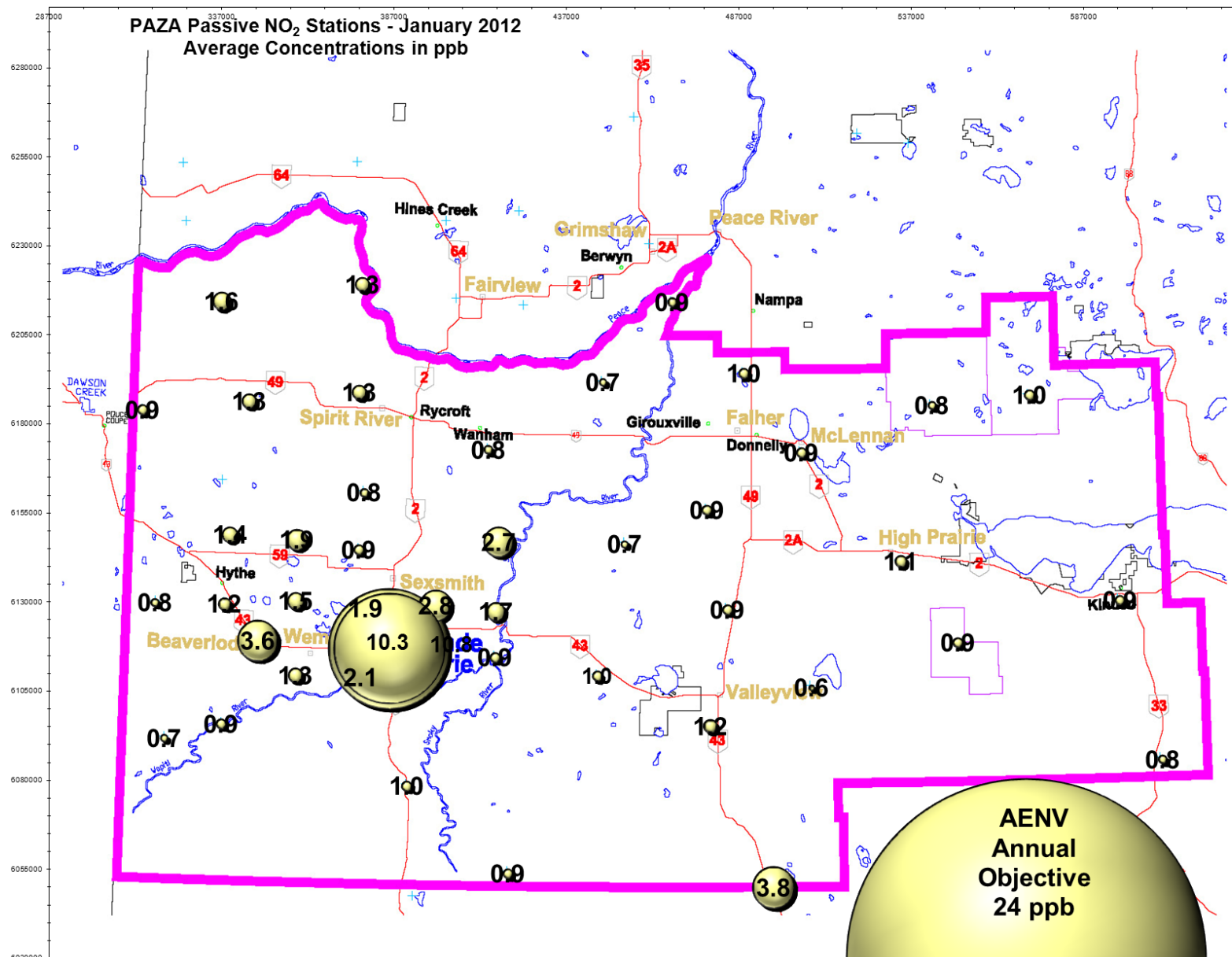


O₃ Bubble Chart

Alberta Ambient Air Quality Objective - No Annual O₃ Objective

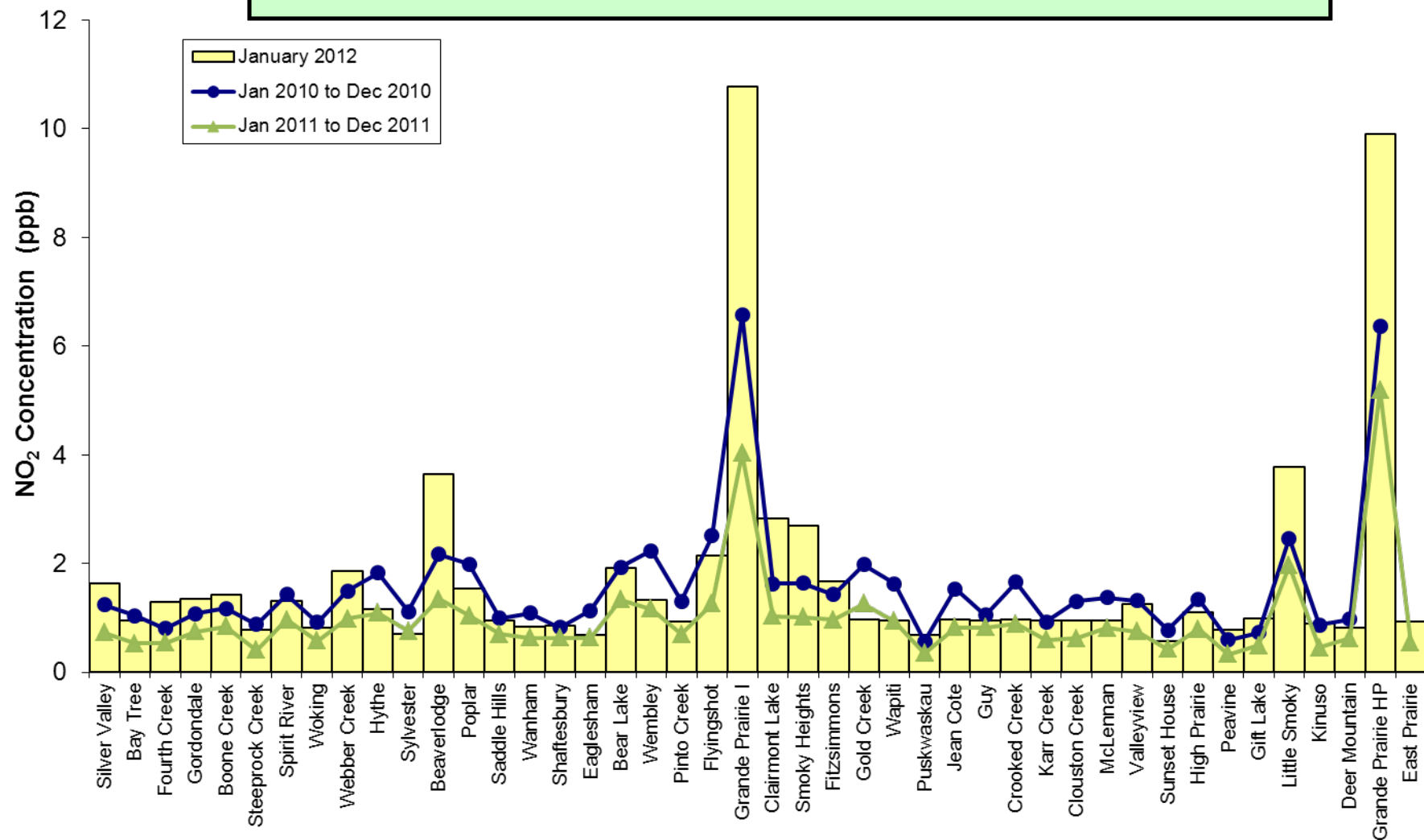


O₃ Summary Chart

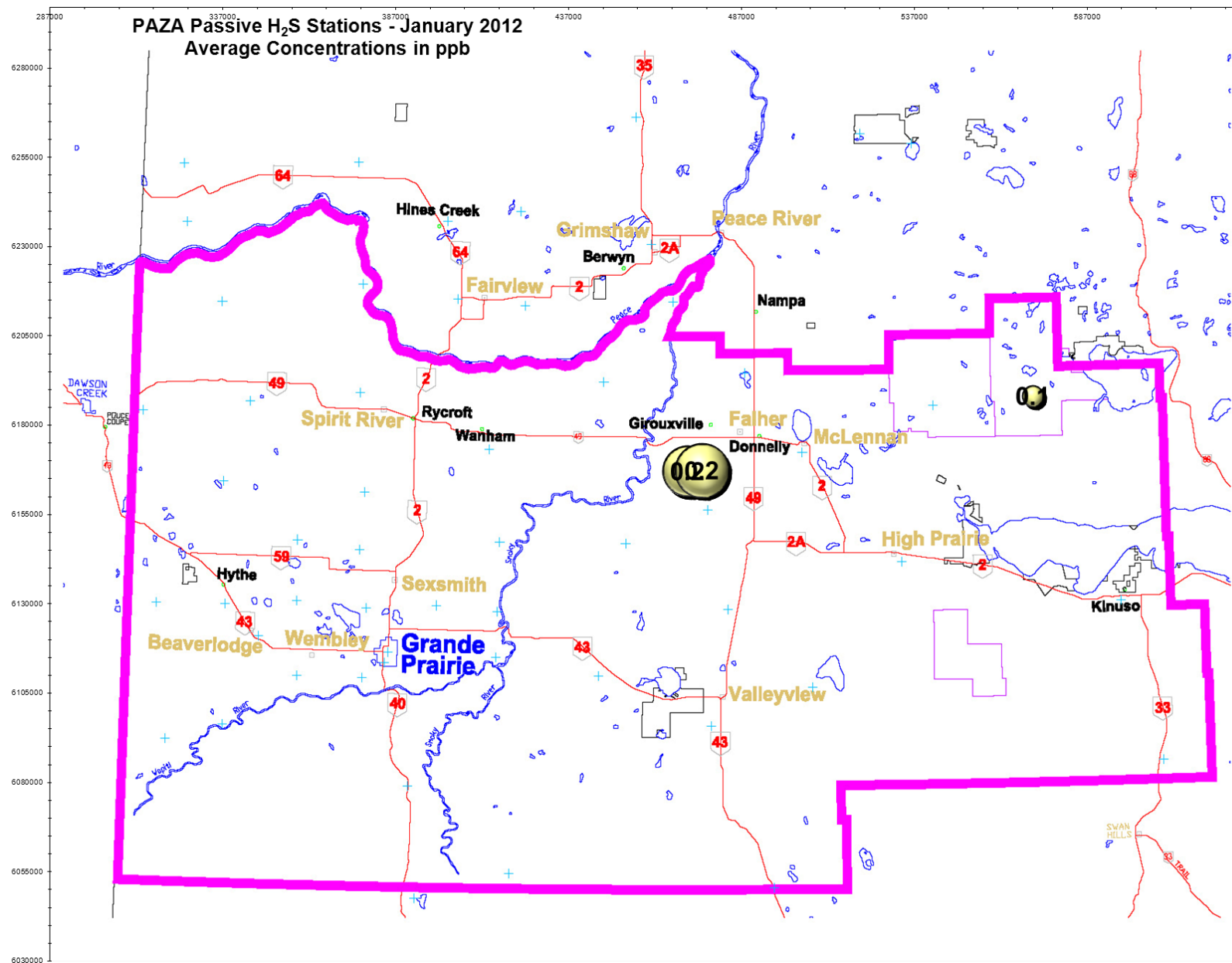


NO₂ Bubble Chart

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



NO₂ Summary Chart



H₂S Bubble Chart

PAZA

ALBERTA ENVIRONMENT INCIDENCE REPORTS

January 2012

Air Monitoring Directive Exceedence Report

Alberta Environment
 Environmental Service Response Centre
 111 Twin Atria Building
 4999 – 98th Avenue
 Edmonton, Alberta T6B 2X3
 Phone: (780) 422-4505
 Fax: (780) 427-1044

Reference Number:	255278	Reported To (AENV Contact):	Christi
Date & Time Incident Reported to AENV:	January 22, 2012 @5:00-7:00	Reported By:	Steven Prodanuk
Reported on Behalf of:	PAZA	Approval Number (if applicable):	
Location(s) of Incident:	Beaverlodge		
Start Date & Time of Incident:	January 22, 2012 @ 5:00	End Date & Time of Incident:	January 22, 2012 @ 7:00
Details of Exceedence:			
PM 2.5 Hourly Exceedence 5:00-6:00= 84.9 ug/m3,WS 3.5 km/h, WD 110.7 degrees PM 2.5 Hourly Exceedence 6:00-7:00= 80.1 ug/m3,WS 2.7 km/h, WD 124.1 degrees			
Immediate Actions Taken:			
Called in to AENV.			
Follow-up Details:			
Actions Taken to Prevent Reoccurrence (if any):			
Not Applicable			
Additional Actions Required (if any):			
Not applicable			
Report Completed By:	Steven Prodanuk	Date Report Submitted:	January 27, 2012
7-Day Letter Due Date:	January 29, 2012		

Air Monitoring Directive Exceedence Report

Alberta Environment
 Environmental Service Response Centre
 111 Twin Atria Building
 4999 – 98th Avenue
 Edmonton, Alberta T6B 2X3
 Phone: (780) 422-4505
 Fax: (780) 427-1044

Reference Number:	256501	Reported To (AENV Contact):	Jasmina
Date & Time Incident Reported to AENV:	March 6, 2012	Reported By:	Patrick Andersen
Reported on Behalf of:	PAZA	Approval Number (if applicable):	Not Applicable
Location(s) of Incident:	Henry Pirker Station		
Start Date & Time of Incident:	January 1, 2012 @01:00 MDT.	End Date & Time of Incident:	February 1, 2012 @00:00 MDT.
Reason or Nature of Incident:			
PM2.5 (particulate matter less than 2.5 microns) analyzer housed within the PAZA Henry Pirker station has not met the 90% uptime requirement for the month of December due to negative readings.			
Immediate Actions Taken:			
Called in to AENV			
Investigation Details:			
NA			
Actions Taken to Prevent Reoccurrence (if any):			
Analyzer serviced			
Additional Actions Required (if any):			
NA			
Report Completed By:	March 6, 2012	Date Report Submitted:	March 6, 2012
7-Day Letter Due Date:	March 13, 2012		

January 2012 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, . PM_{2.5}

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, O₃, TRS

Calibration Report

Parameter SO2

Air Monitoring Network PASZA



Station Information

Calibration Date	January 16, 2012		Previous Calibration	December 9, 2011	
Station Number	1		Station Location	Henry Pirker	
Reason:	☒ Routine	☐ Install	☐ Removal	☐ Other:	
Start Time (MST)	9:30		End Time (MST)	13:00	
Barometric Pressure	0.941	ATM	Station Temperature	20.0	Deg C
Calibrator	EnviroNics		Serial Number	3474	
Cal Gas Conc	49.8	ppm	Cal Gas Cert Date	3/28/2013	
			Cal Gas Cylinder #	LL85275	
DACS make	CR3000		DACS serial No.	5408	
DACS voltage range	0 - 1 volt		DACS channel #	10	
	Before			After	
Calculated slope	1.001051		Calculated slope	1.003304	
Calculated intercept	-1.770650		Calculated intercept	-1.929281	
Analyzer make	TEI 43C		Analyzer serial #	610816292	

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	9.0		8.7	
Coefficient	0.782		0.768	
Pressure	653.3	mm Hg	648.2	mm Hg
Flow	0.513	lpm	0.510	lpm
Lamp Voltage	43456	Hz	44129	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)
4989	0.00	0.0	0.0	N/A
4989	39.84	394.5	394.2	1.0009
4989	19.91	198.0	200.2	0.9890
4989	9.93	98.9	102.5	0.9648
4989	0.00	0.0	0.0	As Found Zero
4989	39.84	394.5	400.8	As Found Span
Average Correction Factor				0.9849

Calculated value of As Found Response: 399.4 ppb

Percent Change of As Found: -1.2%

	before calibration		after calibration	
Auto zero	0.1	ppb	0.1	ppb
Auto span	248.1	ppb	227.4	ppb

Notes: Adjusted Span

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter SO2

Air Monitoring Network PASZA



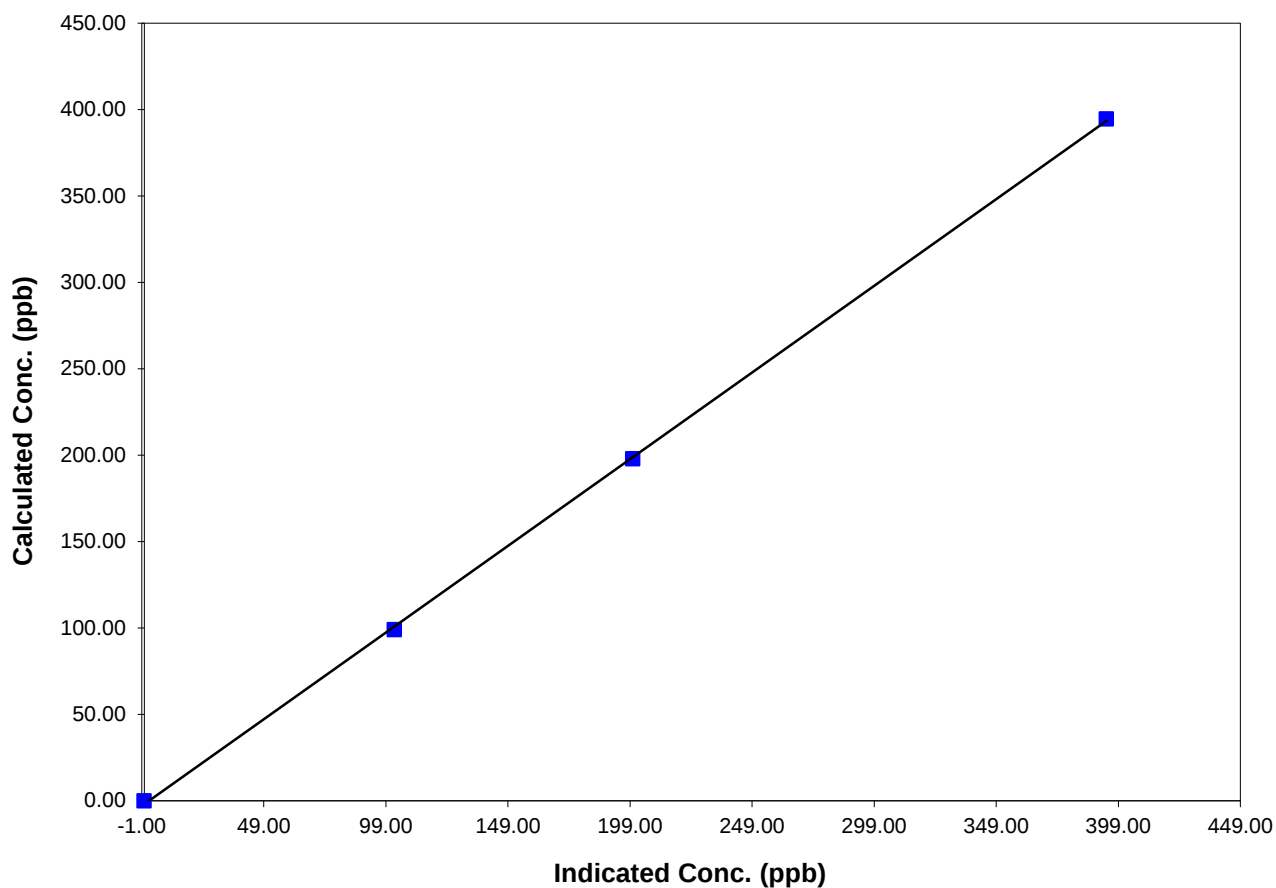
Station Information

Calibration Date	January 16, 2012	Previous Calibration	December 9, 2011
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:30	End Time (MST)	13:00
Analyzer make/model	TEI 43C	Analyzer serial #	610816292

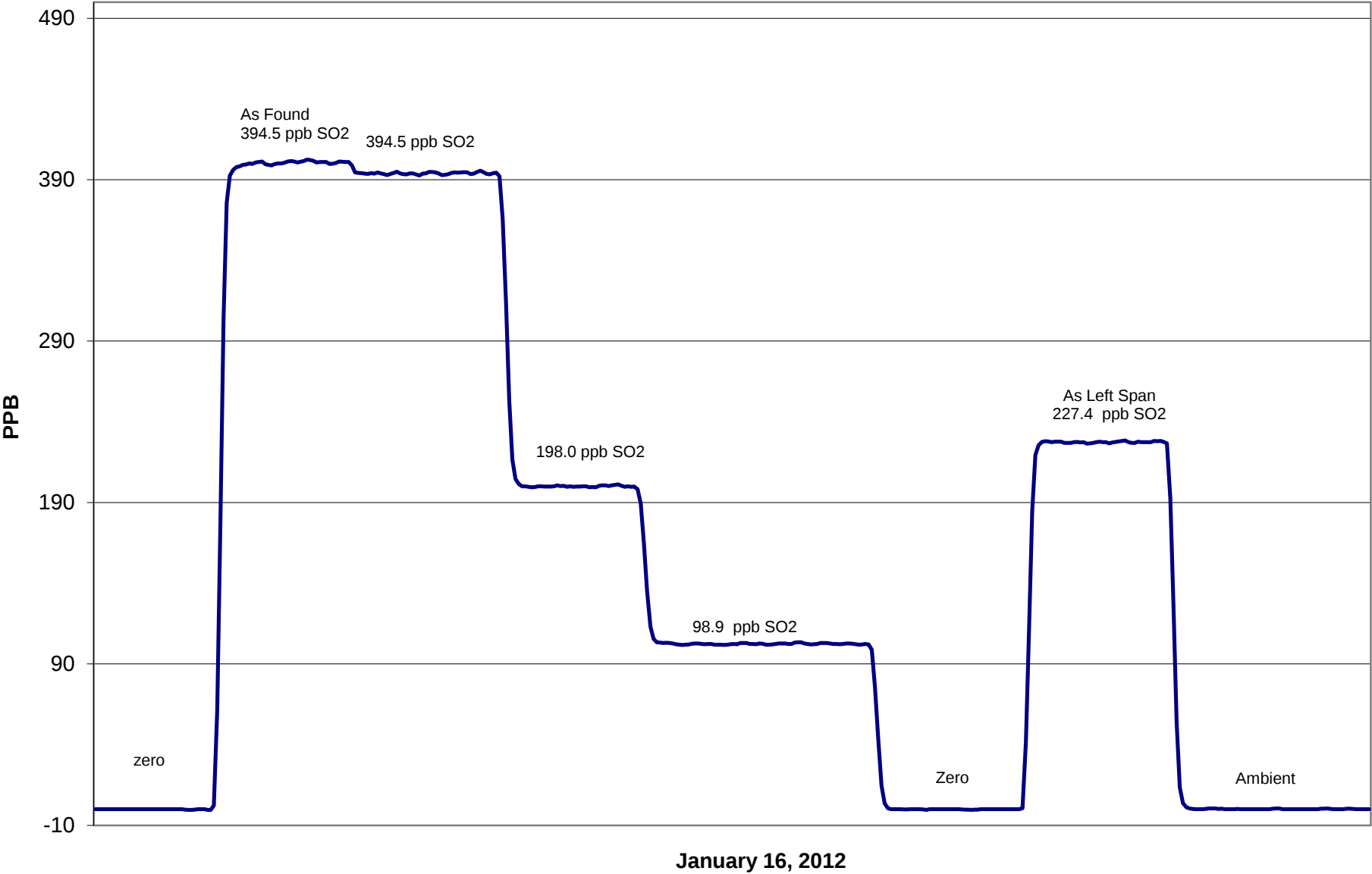
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A	Correlation Coefficient	0.999885
394.5	394.2	1.0009		
198.0	200.2	0.9890		
98.9	102.5	0.9648	Slope	1.003304
			Intercept	-1.929281

SO2 Calibration Curve



SO2 Calibration



Calibration Report

Parameter

NO_x-NO-NO₂

Air Monitoring Network

PASZA



Station Information

Calibration Date	January 16, 2012	Previous Calibration	December 9, 2011
Station Number	1	Station Location	Henry Pirker
Reason:	☒ Routine	☐ Installation	☐ Removal
Other:			
Start Time (MST)	9:30	End Time (MST)	15:00
Barometric Pressure	0.922 Atm	Station Temperature	20.0 Deg C
Calibrator	EnviroNics	Serial Number	3474
NO Cal Gas Conc	52.5 ppm	Cal Gas Expiry Date	March 28, 2013
NO _x Cal Gas Conc	52.5 ppm	Cal Gas Serial #	LL85275

DACS Information

DACS make	CR3000	DACS serial No.	5408
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	Parameter	NO ₂	NO _x	NO
Before	Data Slope	1.002101	1.005114	1.004409
	Data Offset	0.150478	-2.615947	-2.523484
After	Data Slope	0.999074	1.007093	1.005619
	Data Offset	0.289123	-2.616568	-2.508949
	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	9.9	mV	10.4	mV
NO _x bkgnd	10.3	mV	10.7	mV
NO coefficient	0.732		0.764	
NO _x coefficient	0.999		1.001	
NO ₂ conv temp	318.0	Deg C	318.0	Deg C
PMT Temp	-2.5	Deg C	-2.5	Deg C
PMT Volt	-786.0	mV	-786.0	mV
R Cell Press	176.4	in Hg	177.2	in Hg

Calibration Report

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



Calibration Date: January 16, 2012 Station Location: Henry Pirker

	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	4989	0.00	0.0	0.0	0.0	0.1	0.0	0.0	N/A	N/A
1	4989	39.84	415.9	415.9	0.0	414.3	414.8	-0.6	1.0039	1.0027
2	4989	19.91	208.7	208.7	0.0	211.0	211.2	-0.3	0.9890	0.9879
3	4989	9.94	104.4	104.4	0.0	108.9	108.9	-0.1	0.9587	0.9585
AFZ	4989	0.00	0.0	0.0	0.0	0.1	0.0	0.0	0.0000	0.0000
AFS	4989	39.83	415.8	415.8	0.0	396.9	398.7	-1.8	1.0477	1.0430
Average Correction Factor									0.9839	0.9831

As Found Concentrations: NO_x= 394.2 NO= 396.2 As Found Percent Change NO_x= -5.2% NO= -4.7%

Dilution Flow		4989	ccm	Source Gas Flow		39.85	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	0.0	0.0	0.0	0.1	0.0	0.0	N/A	N/A	N/A	N/A
NO point	415.8	415.8	0.0	415.6	415.8	-0.3	1.0007	1.0000	N/A	N/A
300	415.8	199.2	216.6	416.0	199.2	216.9	0.9996	1.0000	0.9986	100.1%
200	415.8	269.2	146.6	415.1	269.2	145.9	1.0018	1.0000	1.0044	99.6%
100	415.8	337.5	78.3	415.4	337.5	78.0	1.0011	1.0000	1.0049	99.5%
Average Correction Factor							1.0008	1.0000	1.0026	99.7%

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	-0.1	0.0	0.0	ppb	0.1	0.0	0.0	ppb
Auto span	168.4	169.5	1.2	ppb	160.1	159.3	1.0	ppb

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter NO₂

Air Monitoring Network PASZA



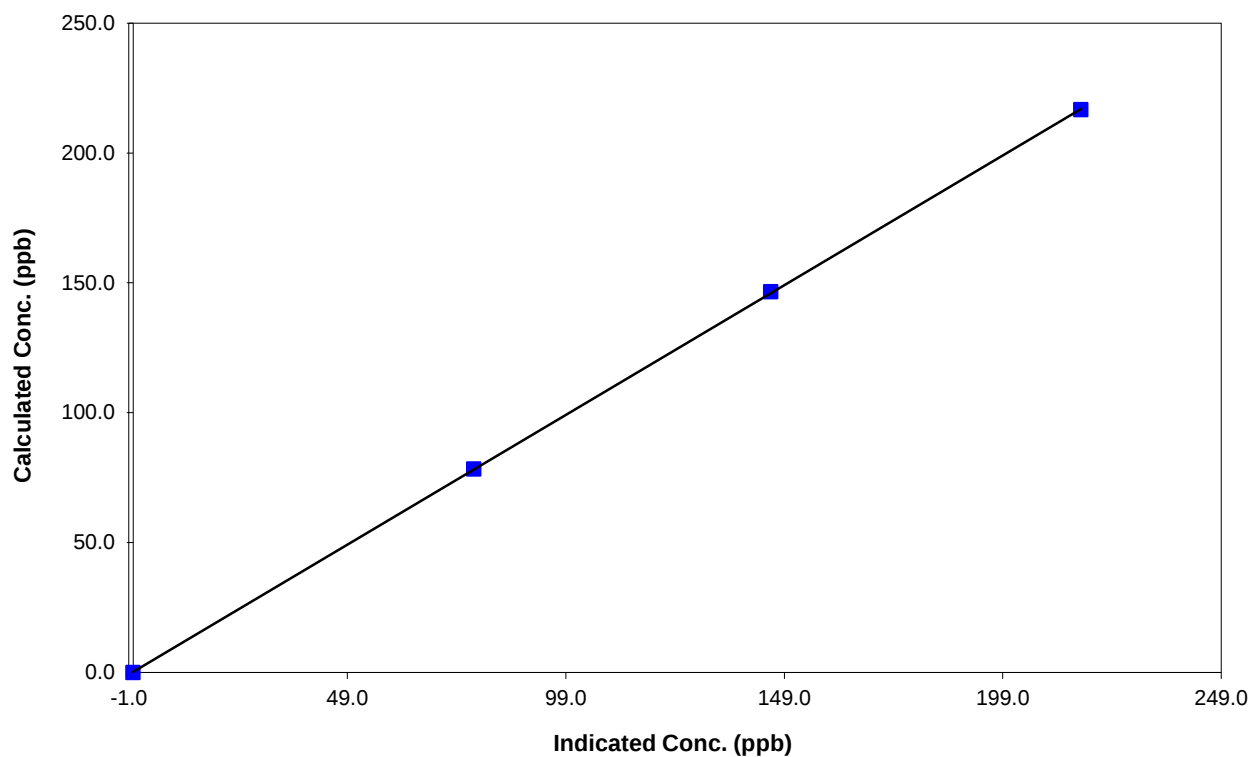
Station Information

Calibration Date	January 16, 2012	Previous Calibration	December 9, 2011
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:30	End Time (MST)	15:00
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	0.999982
216.6	216.9	0.9986		
146.6	145.9	1.0044		
78.3	78.0	1.0049	Slope	0.999074
			Intercept	0.289123

NO₂ Calibration Curve



Calibration Summary

Parameter NO_x

Air Monitoring Network PASZA



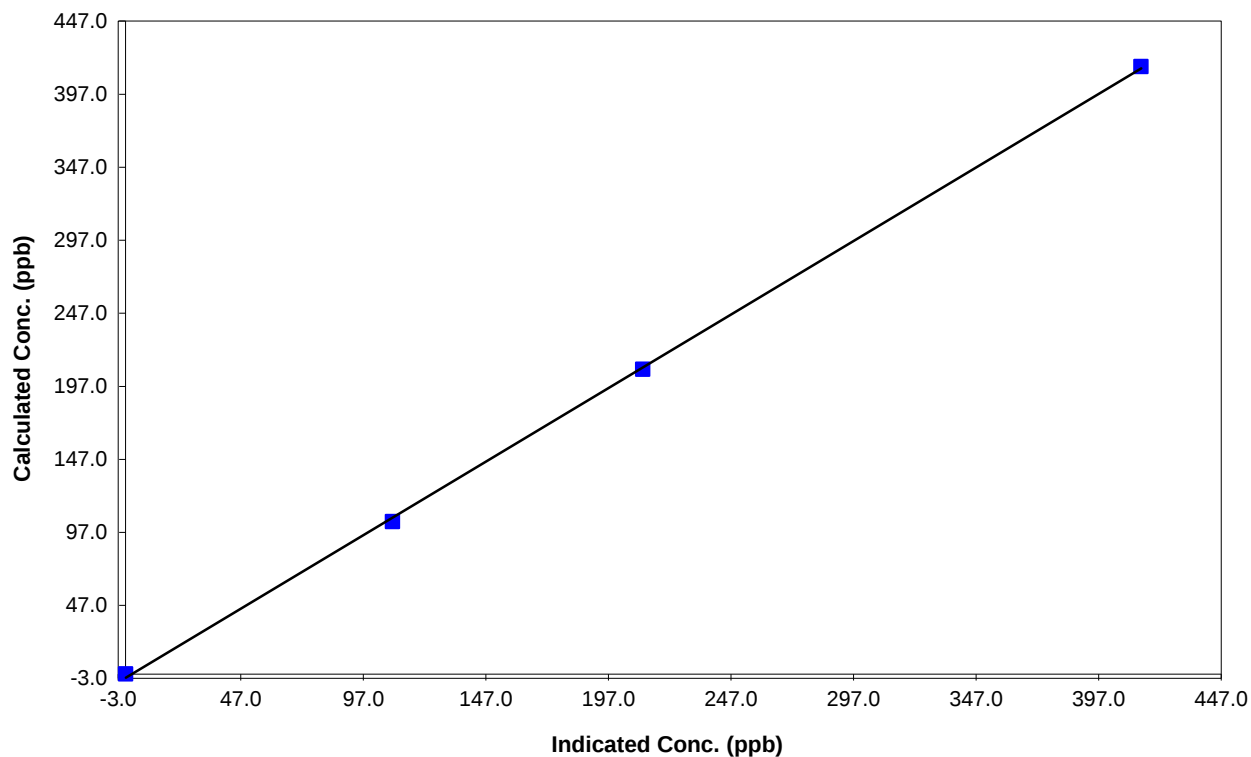
Station Information

Calibration Date	January 16, 2012	Previous Calibration	December 9, 2011
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:30	End Time (MST)	15:00
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	0.999824
415.9	414.3	1.0039		
208.7	211.0	0.9890		
104.4	108.9	0.9587	Slope	1.007093
			Intercept	-2.616568

NO_x Calibration Curve



Calibration Summary

Parameter NO

Air Monitoring Network PASZA



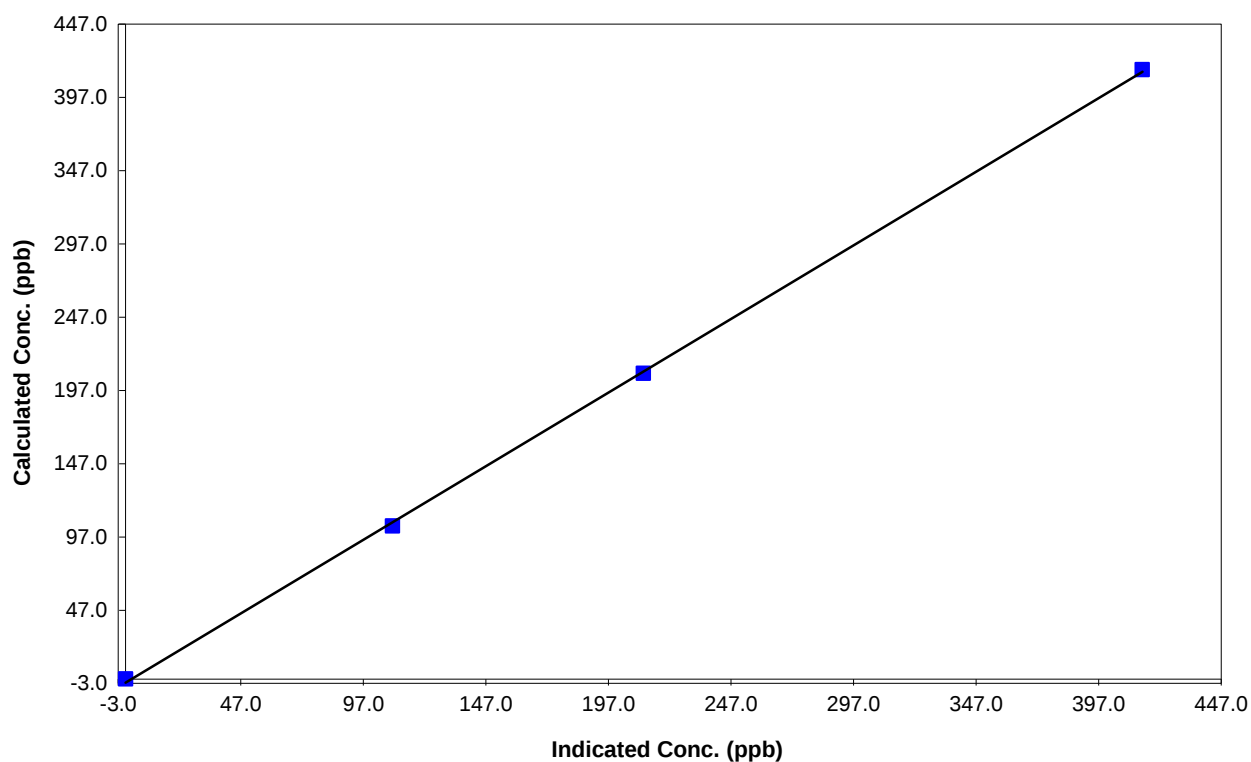
Station Information

Calibration Date	January 16, 2012	Previous Calibration	December 9, 2011
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:30	End Time (MST)	15:00
Analyzer make	TEI 42C	Analyzer serial #	508011073

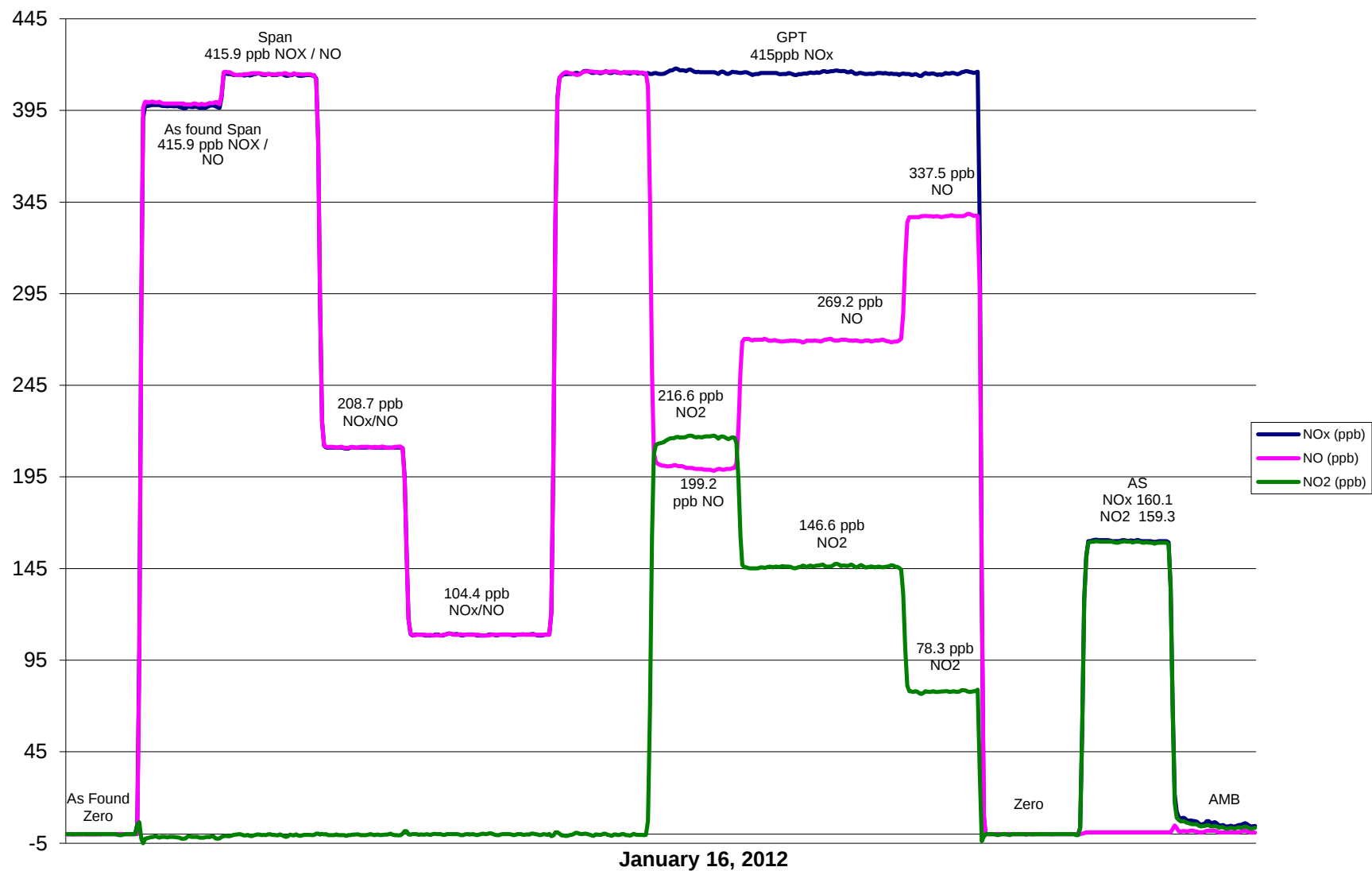
Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A	Correlation Coefficient	0.999825
415.9	414.8	1.0027		
208.7	211.2	0.9879		
104.4	108.9	0.9585	Slope	1.005619
			Intercept	-2.508949

NO Calibration Curve



PASZA NO_x Calibration



Calibration Report

Parameter 03

Air Monitoring Network PASZA



Station Information

Calibration Date	January 16, 2012	Previous Calibration	December 9, 2011
Station Number	1	Station Location	Henry Pirker
Reason:	☒ Routine	☐ Install	☐ Removal
		Other:	
Start Time (MST)	13:30	End Time (MST)	16:06
Barometric Pressure	0.922 atm	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
Cal Gas Concentration	NA	Cal Gas Expiry Date	NA
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 1 volt	DACS channel #	5
	Before		After
Calculated slope	0.967316	Calculated slope	1.010314
Calculated intercept	-1.863901	Calculated intercept	0.283023
Analyzer make	TECO 49C	Analyzer serial #	607415761

	before		after	
Concentration range	500	ppb	500	ppb
offset	-0.6	ppb	-0.6	ppb
slope	1.011		1.011	
O3 Lamp temp	71.1	Deg C	71.1	Deg C
Intensities	81235/71359	mV	81555/71228	mV
Pressure	709.7	inches Hg	711.4	inches Hg
Flow A	0.732	ccm	0.733	ccm
Flow B	0.750	ccm	0.752	ccm

Calibration Data

Referenced concentration (ppb)	Dilution air flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
0	4989	0.0	0.3	N/A
300	4989	216.6	214.7	1.0087
200	4989	146.6	144.2	1.0167
100	4989	78.3	76.6	1.0215
0	4989	0.0	0.3	As found zero
300	4989	216.6	214.7	As found span
Average Correction Factor				1.0156

Calculated value of As Found Response: 205.6 ppm Percent Change of As Found: -5.1%

	before calibration		after calibration	
Auto zero	0.3	ppb	0.3	ppb
Auto span	156.4	ppb	164.7	ppb

Notes: No adjustment made.

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter O3

Air Monitoring Network PASZA



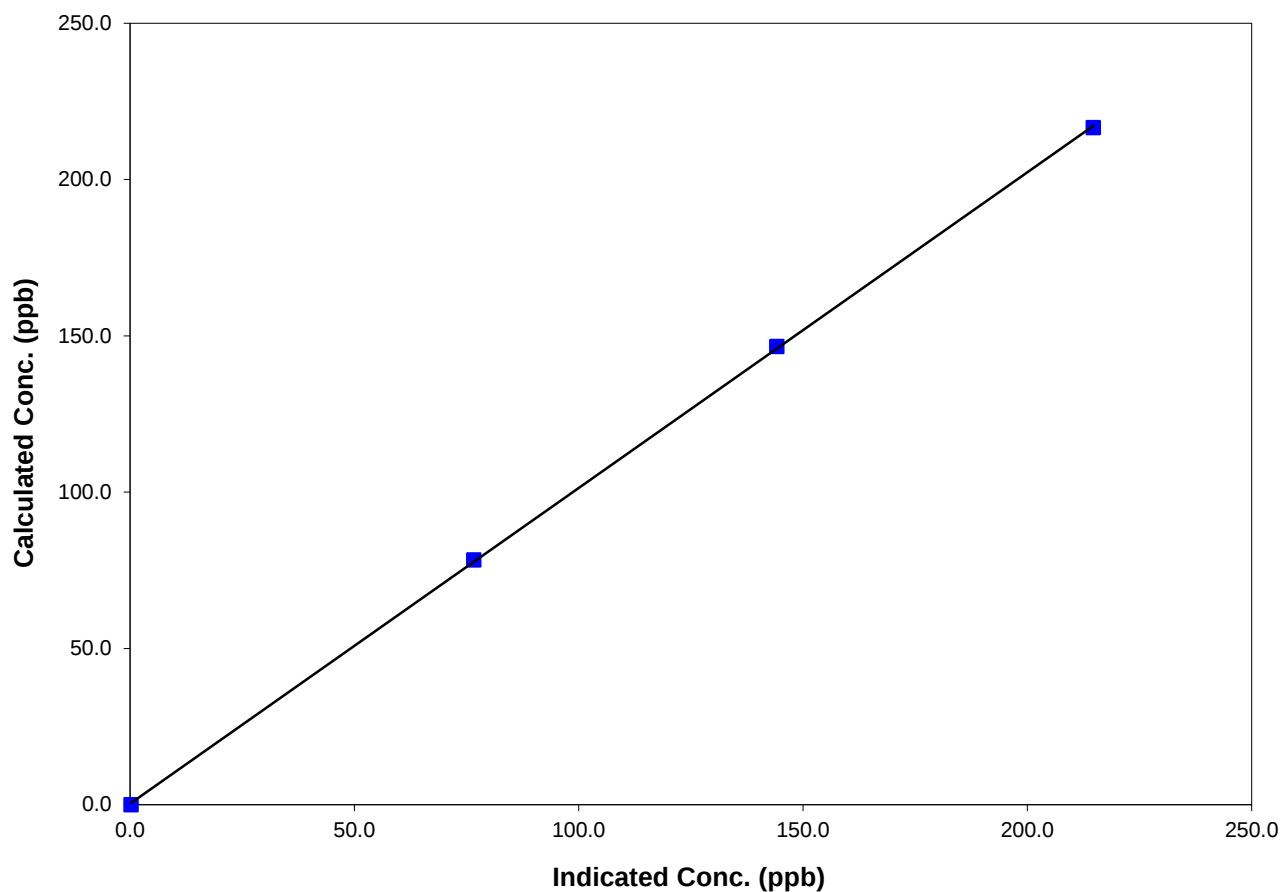
Station Information

Calibration Date	January 16, 2012	Previous Calibration	December 9, 2011
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	13:30	End Time (MST)	16:06
Analyzer make/model	TECO 49C	Analyzer serial #	607415761

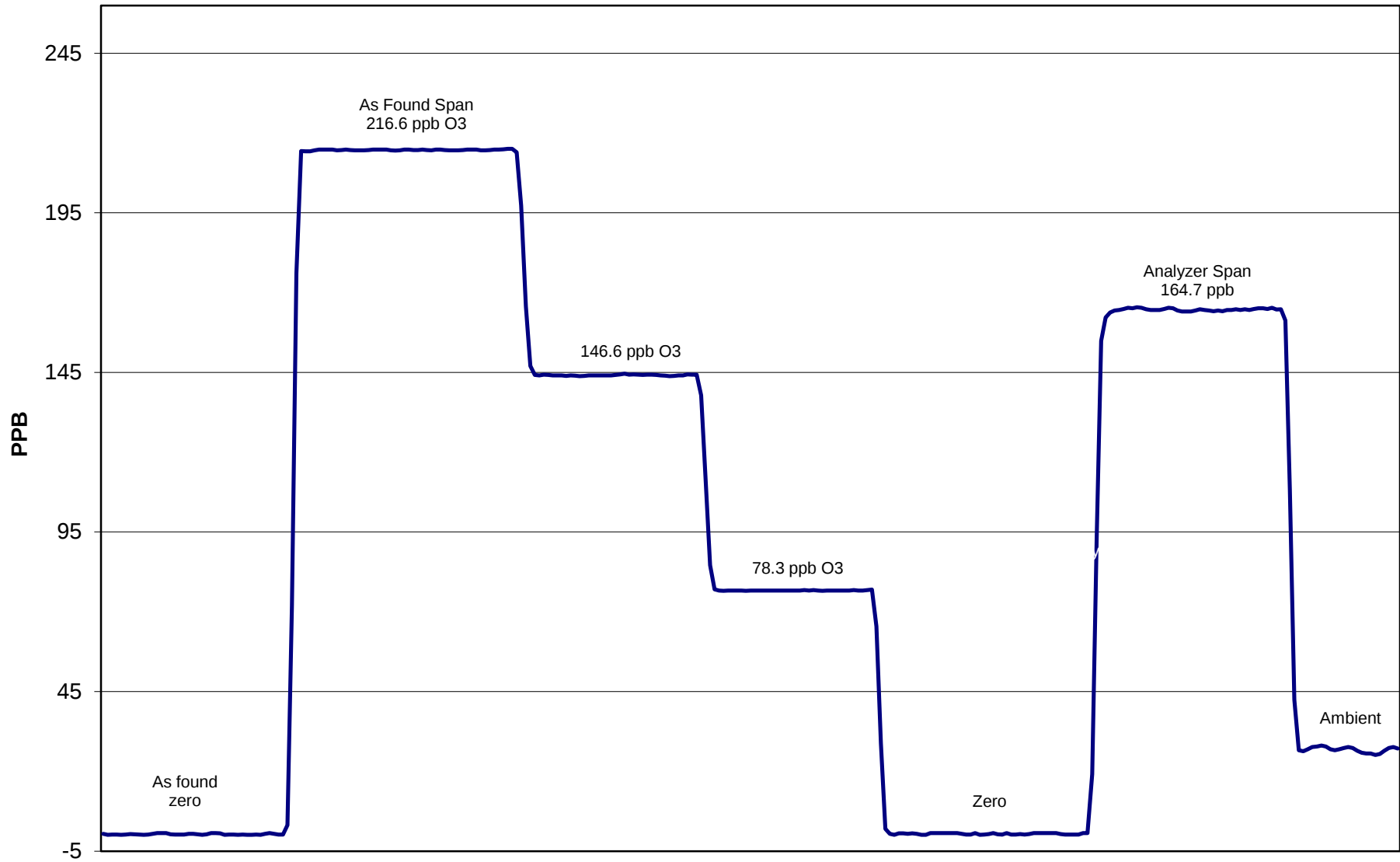
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	NA	Correlation Coefficient	0.999943
216.6	214.7	1.0087		
146.6	144.2	1.0167		
78.3	76.6	1.0215	Slope	1.010314
			Intercept	0.283023

O3 Calibration Curve



O3 Calibration



January 16, 2012

Calibration Report

Parameter CO

Air Monitoring Network PASZA



Station Information

Calibration Date	January 17, 2012	Previous Calibration	December 8, 2011
Station Number	1	Station Location	Henry Pirker
Reason:	☒ Routine	☐ Install	☐ Removal
		☐ Other:	
Start Time (MST)	8:50	End Time (MST)	11:40
Barometric Pressure	0.935 ATM	Station Temperature	21.0 Deg C
Calibrator	EnviroNics	Serial Number	3474
Cal Gas Conc	3000 ppm	Cal Gas Expiry Date	AUG 28/05
		Cal Gas Cylinder #	AAL20565
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 1 volt	DACS channel #	9
	Before		After
Calculated slope	1.004656	Calculated slope	1.004624
Calculated intercept	-0.493814	Calculated intercept	-0.491356
Analyzer make	TEI Model 48C	Analyzer serial #	508011062

	before		after	
Concentration range	0 - 50	ppm	0 - 50	ppm
CO span setting	1.088		1.088	
CO zero setting	2.109		2.459	
Sample pressure	693.5	mm Hg	693.2	mm Hg
Sample Flow	1.151	LPM	1.151	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)
4989	0.00	0.00	0.36	N/A
4989	39.85	23.77	24.09	0.9868
4989	19.91	11.92	12.41	0.9608
4989	9.93	5.96	6.56	0.9086
4989	0.00	0.00	0.48	As Found Zero
4989	39.85	23.77	24.09	As Found Span
Average Correction Factor				0.9521

Calculated value of As Found Response: 23.228 ppm Percent Change of As Found: 2.3%

	before calibration		after calibration	
Auto zero	0.03	ppm	0.03	ppm
Auto span	19.56	ppm	19.18	ppm

Notes:

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter CO

Air Monitoring Network PASZA



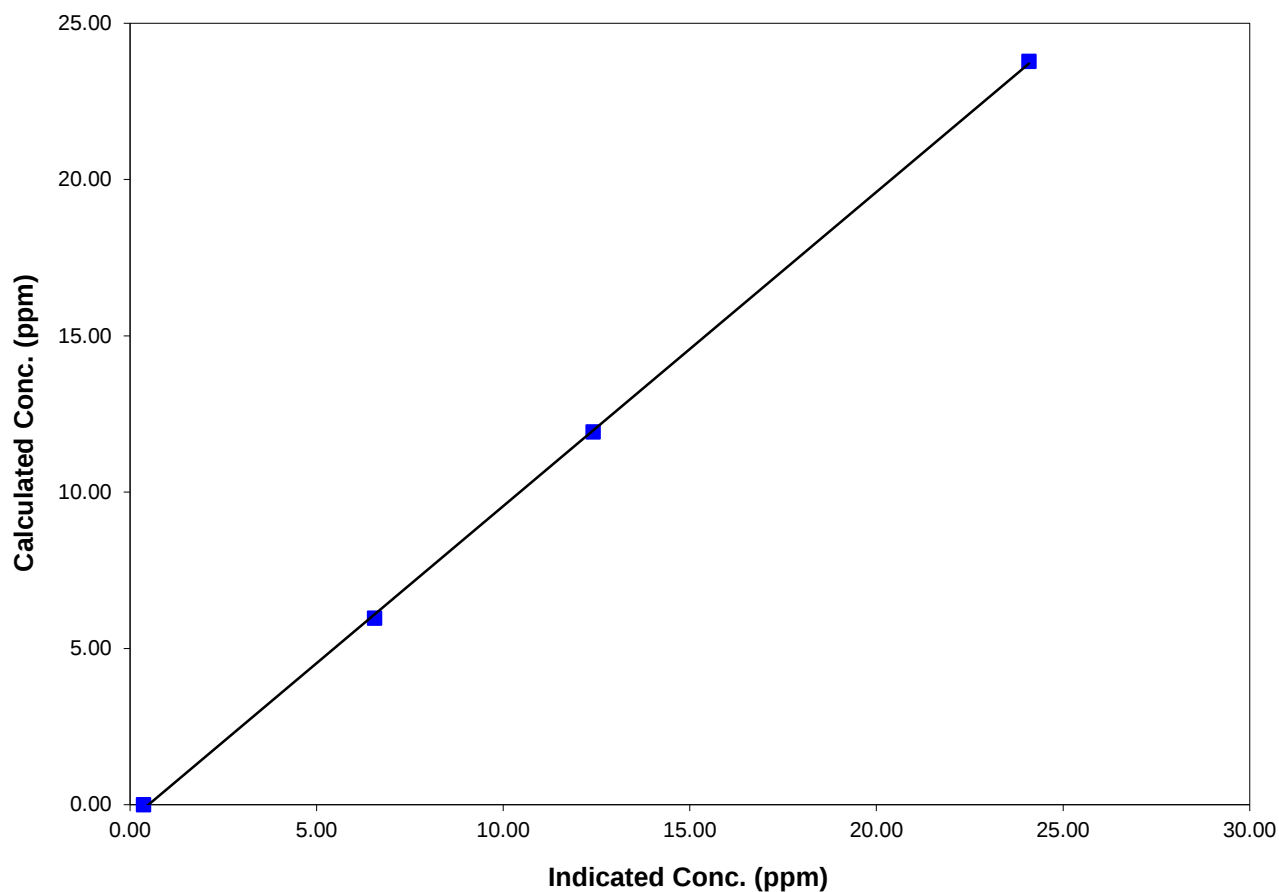
Station Information

Calibration Date	January 17, 2012	Previous Calibration	December 8, 2011
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	8:50	End Time (MST)	11:40
Analyzer make/model	TEI Model 48C	Analyzer serial #	508011062

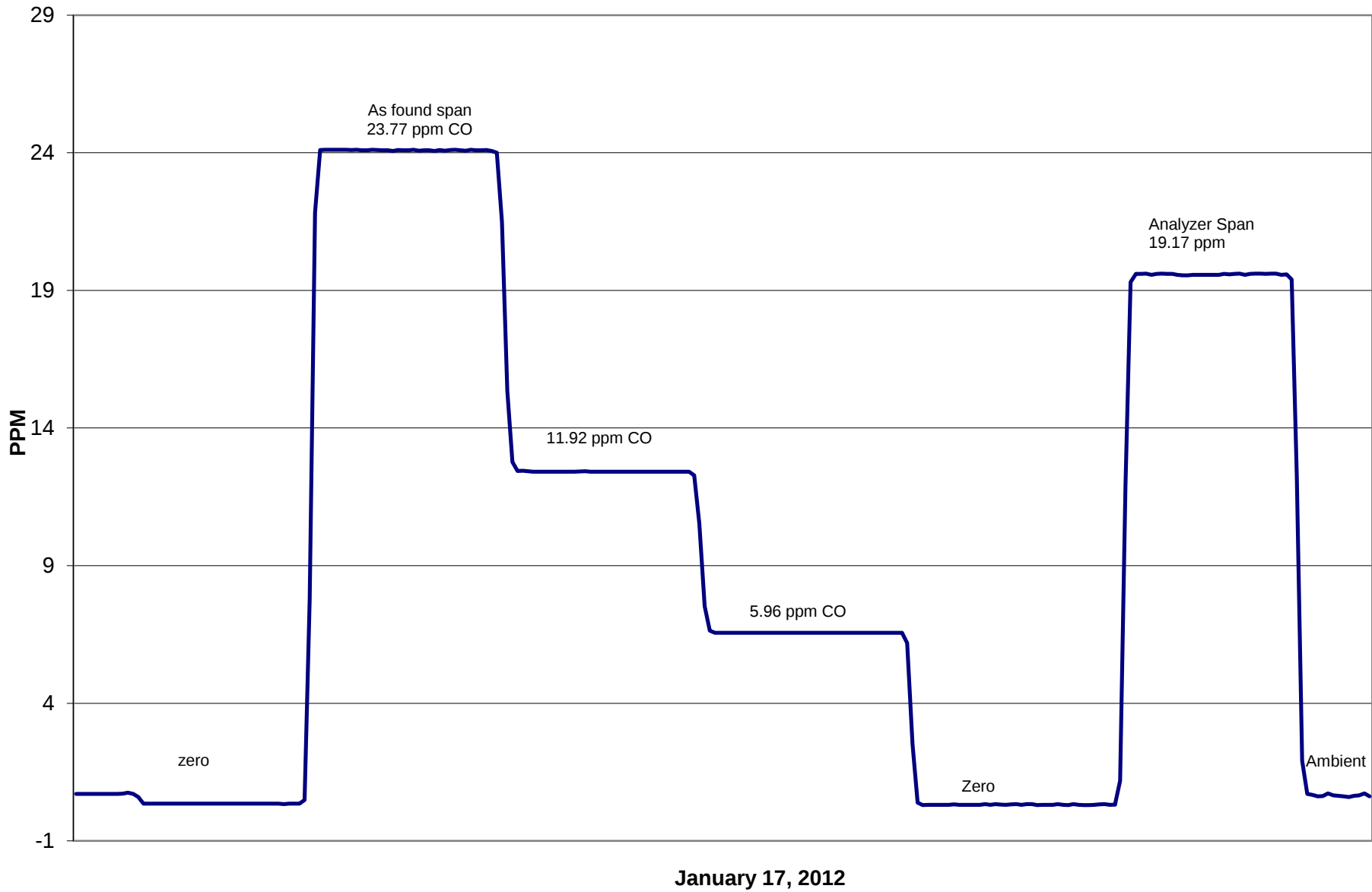
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.362	N/A	Correlation Coefficient	0.999863
23.773	24.090	0.9868		
11.925	12.411	0.9608		
5.959	6.559	0.9086	Slope	1.004624
			Intercept	-0.491356

CO Calibration Curve



CO Calibration



Calibration Report

Parameter THC

Air Monitoring Network PASZA



Station Information

Calibration Date	January 17, 2012	Previous Calibration	December 8, 2011
Station Number	1	Station Location	Henry Pirker
Reason:	☒ Routine	☐ Install	☐ Removal
			☐ Other:
Start Time (MST)	10:15	End Time (MST)	13:35
Barometric Pressure	0.935 ATM	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
Cal Gas Concentration	701 ppm CH4/ 299 ppm C3H8	Cal Gas Expiry Date	2/4/2010
Cal Gas CH4 equiv	1523.25 ppm	Cal Gas Cylinder #	ALM 004476
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 1 volt	DACS channel #	9
	Before		After
Calculated slope	1.049379	Calculated slope	1.039026
Calculated intercept	-0.077754	Calculated intercept	-0.258414
Analyzer make	TEI Model 51C-LT	Analyzer serial #	51CLT-79009-390

	before		after	
Concentration range	0 - 25	ppm	0 - 25	ppm
THC sample pressure	6.50	psi	6.50	psi
THC span counts	9616	capture	9616	capture
THC zero counts	447	capture	447	capture

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4989	0.00	0.00	0.25	N/A
4989	69.79	21.01	20.50	1.0249
4989	29.87	9.07	8.88	1.0206
4989	9.92	3.02	3.22	0.9380
4989	0.00	0.00	0.25	As Found Zero
4989	69.79	21.01	20.50	As Found Span
Average Correction Factor				0.9945

Calculated value of As Found Response: 21.180 ppm Percent Change of As Found: -0.8%

	before calibration		after calibration	
Auto zero	0.10	ppm	-0.01	ppm
Auto span	21.83	ppm	20.61	ppm

Notes:

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter THC

Air Monitoring Network PASZA



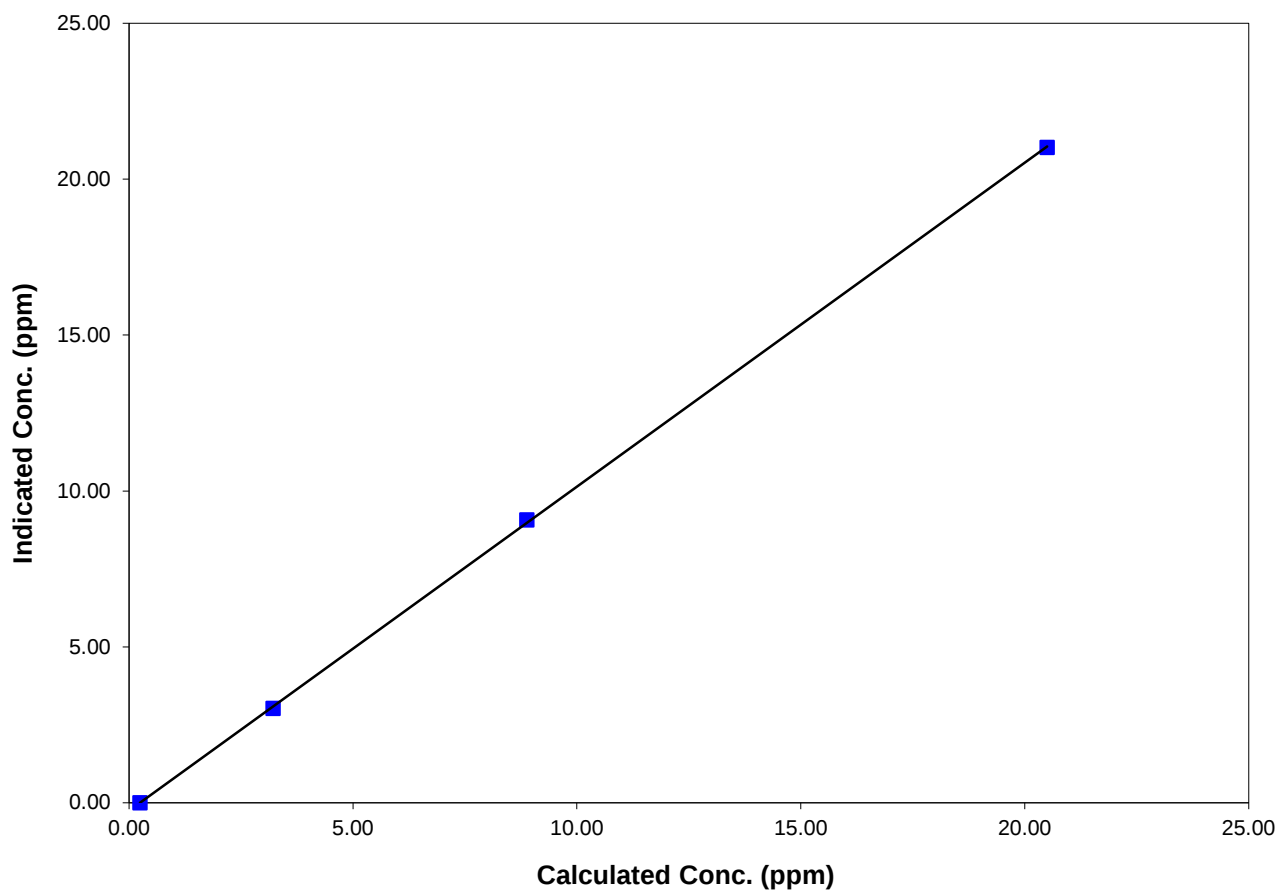
Station Information

Calibration Date	January 17, 2012	Previous Calibration	December 8, 2011
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	10:15	End Time (MST)	13:35
Analyzer make/model	TEI Model 51C-LT	Analyzer serial #	51CLT-79009-390

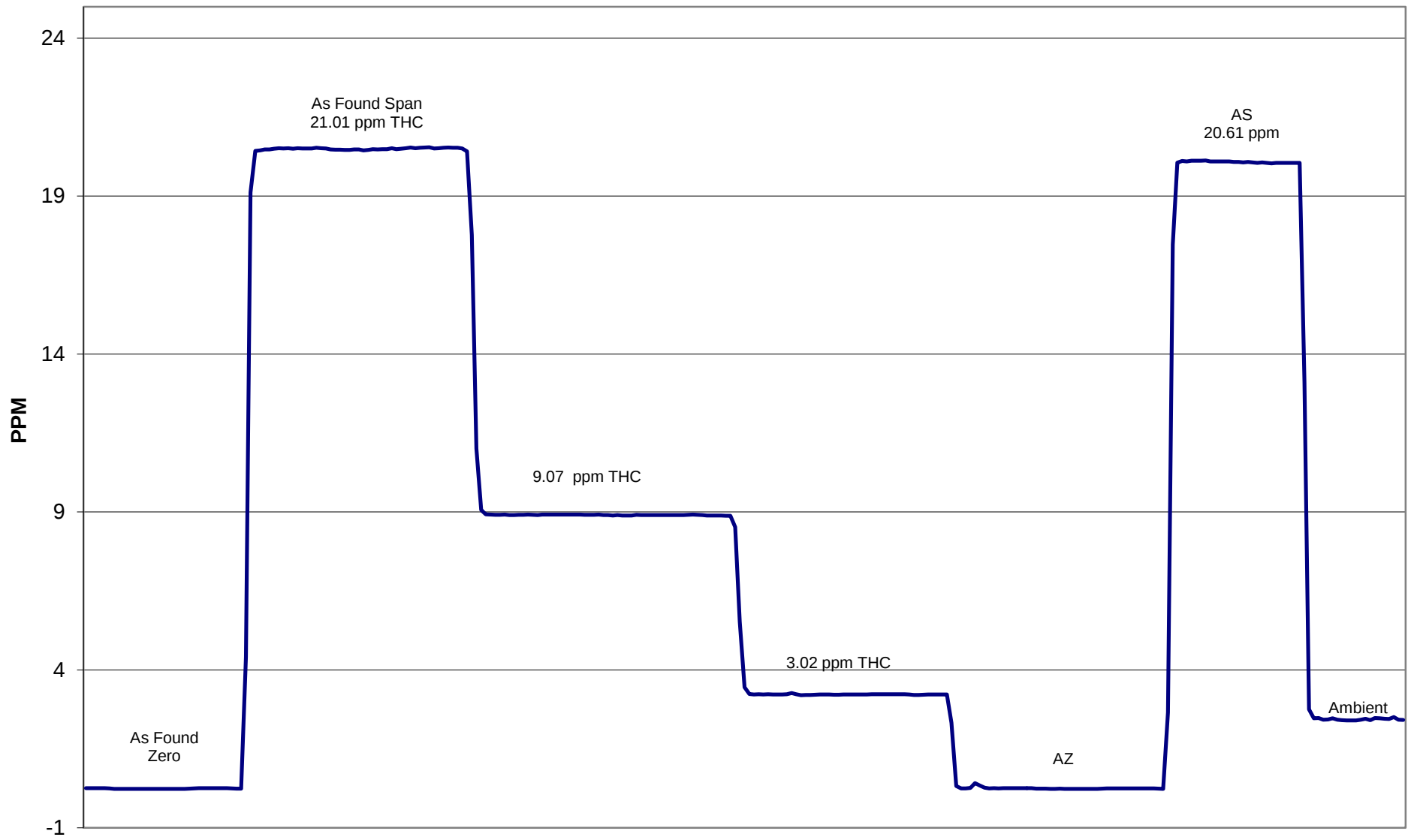
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.246	N/A		
21.014	20.503	1.0249	Correlation Coefficient	0.999945
9.066	8.883	1.0206		
3.023	3.223	0.9380	Slope	1.039026
			Intercept	-0.258414

THC Calibration Curve

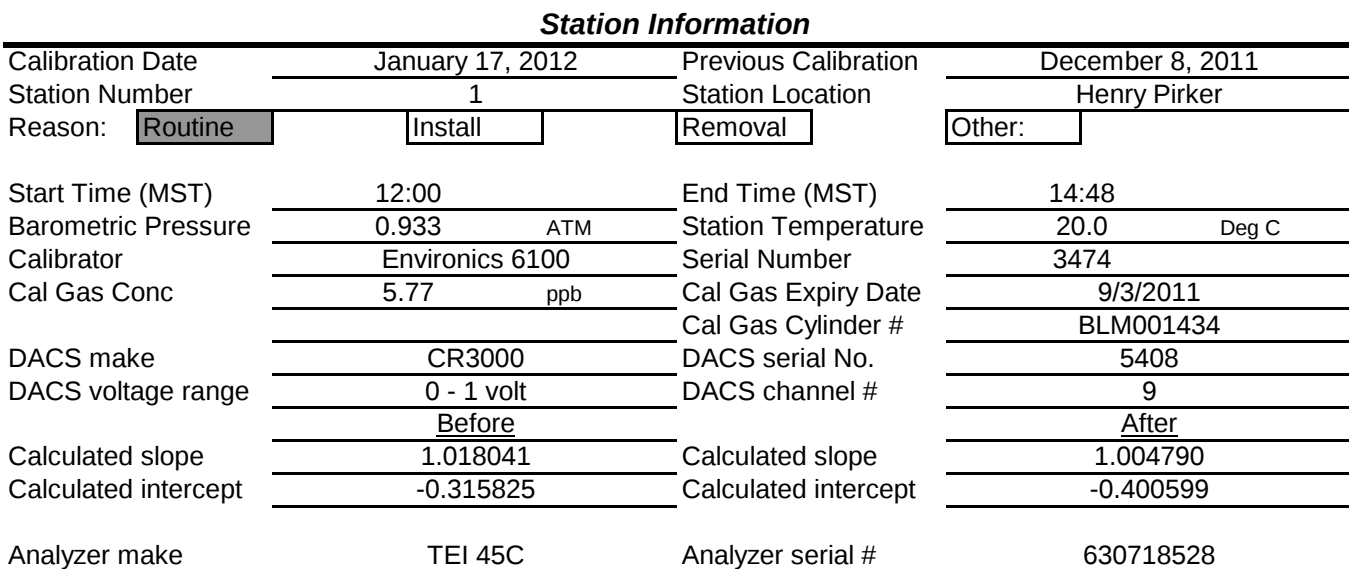


THC Calibration



January 17, 2012

Parameter	TRS
Air Monitoring Network	



	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Coefficient	1.107		1.107	
Background	11.1		11.1	
Pressure	670.6	mm Hg	667.4	mm Hg
Flow	0.461	ccm	0.46	ccm
Lamp Voltage	823	v	823	v

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)
4988	0.00	0.00	0.14	N/A
4989	69.78	79.59	79.45	1.0017
4989	34.88	40.06	40.53	0.9883
4989	8.96	10.34	10.84	0.9543
4989	0.00	0.00	0.14	As Found Zero
4988	69.78	79.61	79.45	As Found Span
Average Correction Factor				0.9814

Calculated value of As Found Response:	80.4 ppb	Percent Change of As Found:	-1.0%
--	----------	-----------------------------	-------

	before calibration		after calibration	
Auto zero	-0.29	ppb	0.02	ppb
Auto span	33.10	ppb	32.30	ppb

Notes: No adjustment made.

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter TRS

Air Monitoring Network PASZA



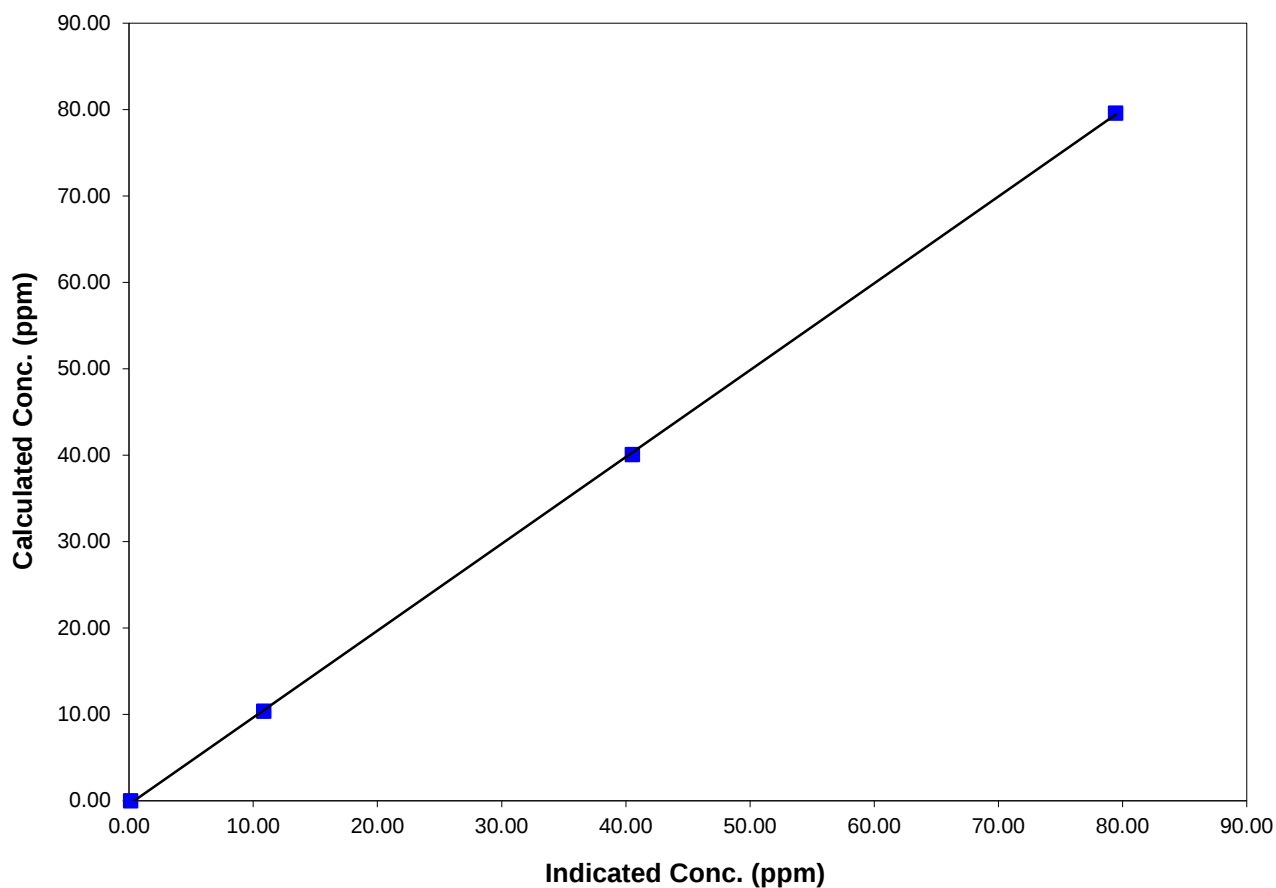
Station Information

Calibration Date	January 17, 2012	Previous Calibration	December 8, 2011
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	12:00	End Time (MST)	14:48
Analyzer make/model	TEI 45C	Analyzer serial #	630718528

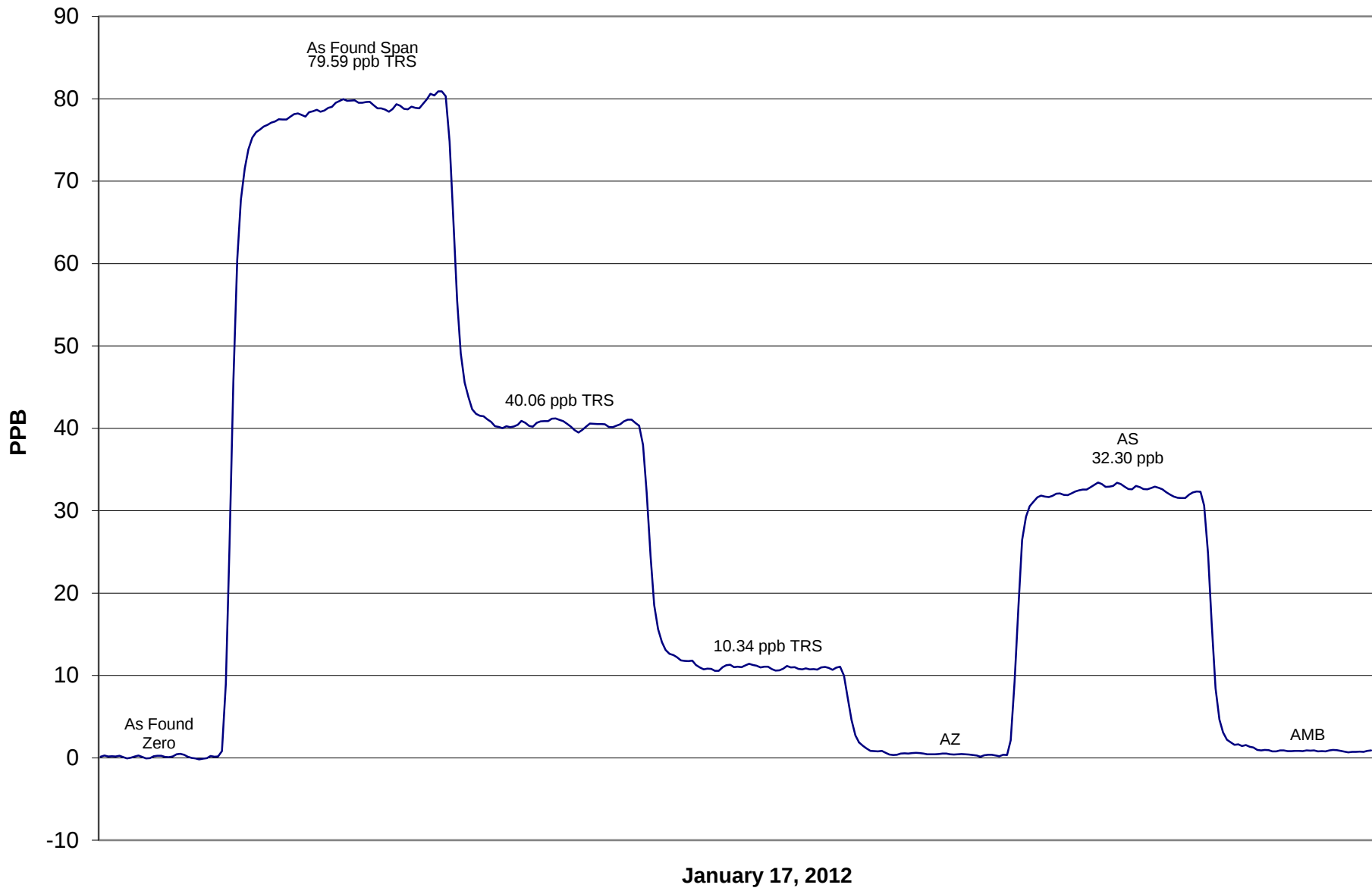
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.142	N/A	Correlation Coefficient	0.999952
79.590	79.455	1.0017		
40.060	40.534	0.9883		
10.344	10.839	0.9543	Slope	1.004790
			Intercept	-0.400599

TRS Calibration Curve



TRS Calibration



Calibration Report



Parameter SO₂

Air Monitoring Network PASZA

Station Information

Calibration Date	January 26, 2012	Previous Calibration	December 15, 2011
Station Number	2	Station Location	Evergreen Park
Reason:	☒ Routine	☐ Install	☐ Removal
			☐ Other:
Start Time (MST)	12:31	End Time (MST)	15:26
Barometric Pressure	0.914 ATM	Station Temperature	20.0 Deg C
Calibrator	EnviroNics	Serial Number	3474
Cal Gas Concentration	49.8 ppm	Cal Gas Expiry Date	3/28/2013
Correction factor	0.031069	Cal Gas Cylinder #	SGAL3245
DACS make	CR3000	DACS serial No.	5236
DACS voltage range	0 - 5 volt	DACS channel #	6
	<u>Before</u>		<u>After</u>
Calculated slope	1.002223	Calculated slope	1.009035
Calculated intercept	-1.298782	Calculated intercept	-1.814481
Analyzer make	Teco 43i	Analyzer serial #	701120008

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	11.1		11.1	
coefficient	1.069		1.069	
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	660.7	mm Hg	662.2	mm Hg
Sample Flow	0.451	ccm	0.45	ccm
Lamp Intensity	90	%	90	%

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4989	0.0	0.00	0.7	N/A
4989	39.84	394.5	392.6	1.0049
4989	20.15	200.3	199.7	1.0031
4989	10.10	100.6	103.4	0.9732
4989	0.0	0.0	0.6	As Found Zero
4989	39.84	394.5	392.6	As Found Span
Average Correction Factor				0.9937

Calculated value of As Found Response: 391.555 ppm Percent Change of As Found: 0.8%

	before calibration		after calibration	
Auto zero	0.6	ppm	0.8	ppm
Auto span	292.7	ppm	288.6	ppm

Notes: Remote auto cal interrupted first point. Go back to 80% & start second point.

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter SO2

Air Monitoring Network PASZA



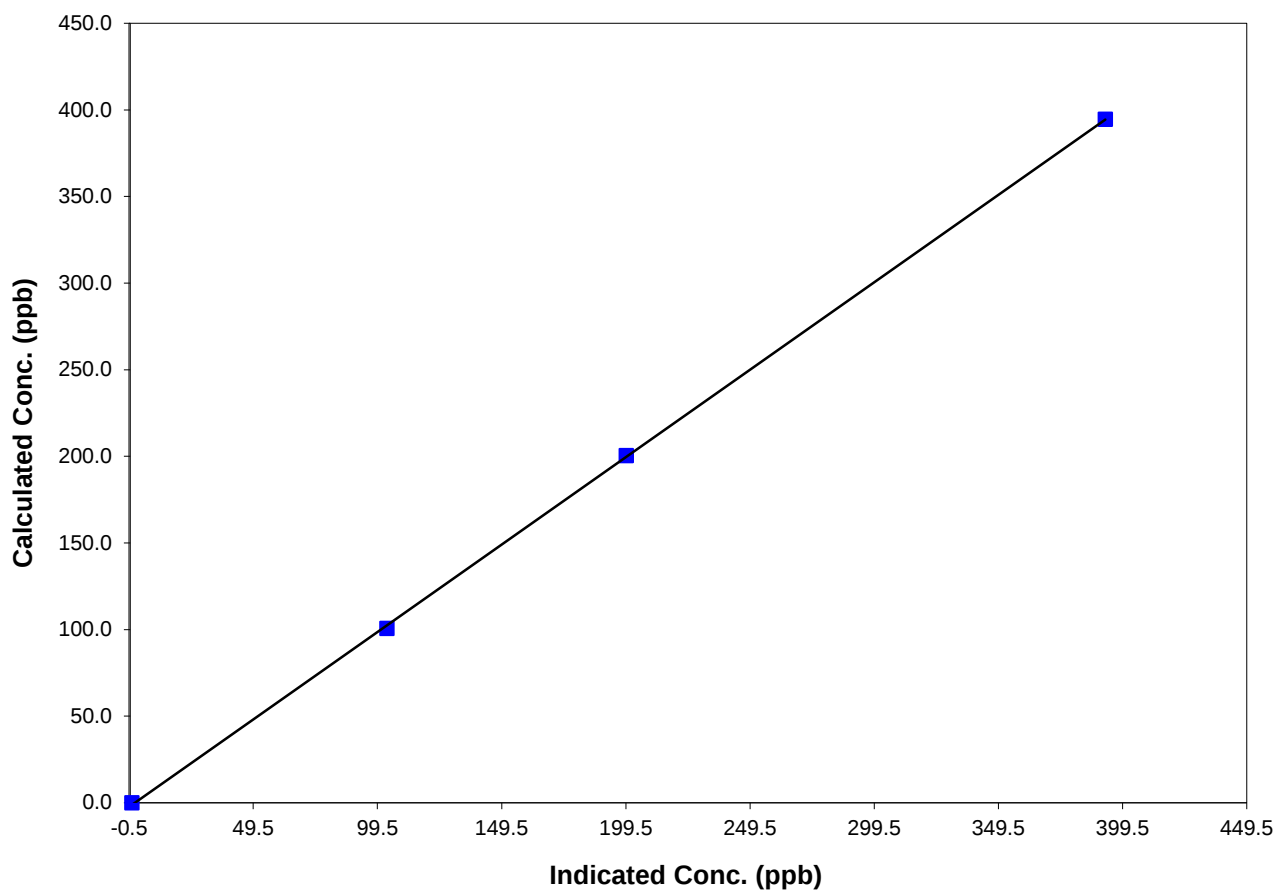
Station Information

Calibration Date	January 26, 2012	Previous Calibration	December 15, 2011
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	12:31	End Time (MST)	15:26
Analyzer make/model	Teco 43i	Analyzer serial #	701120008

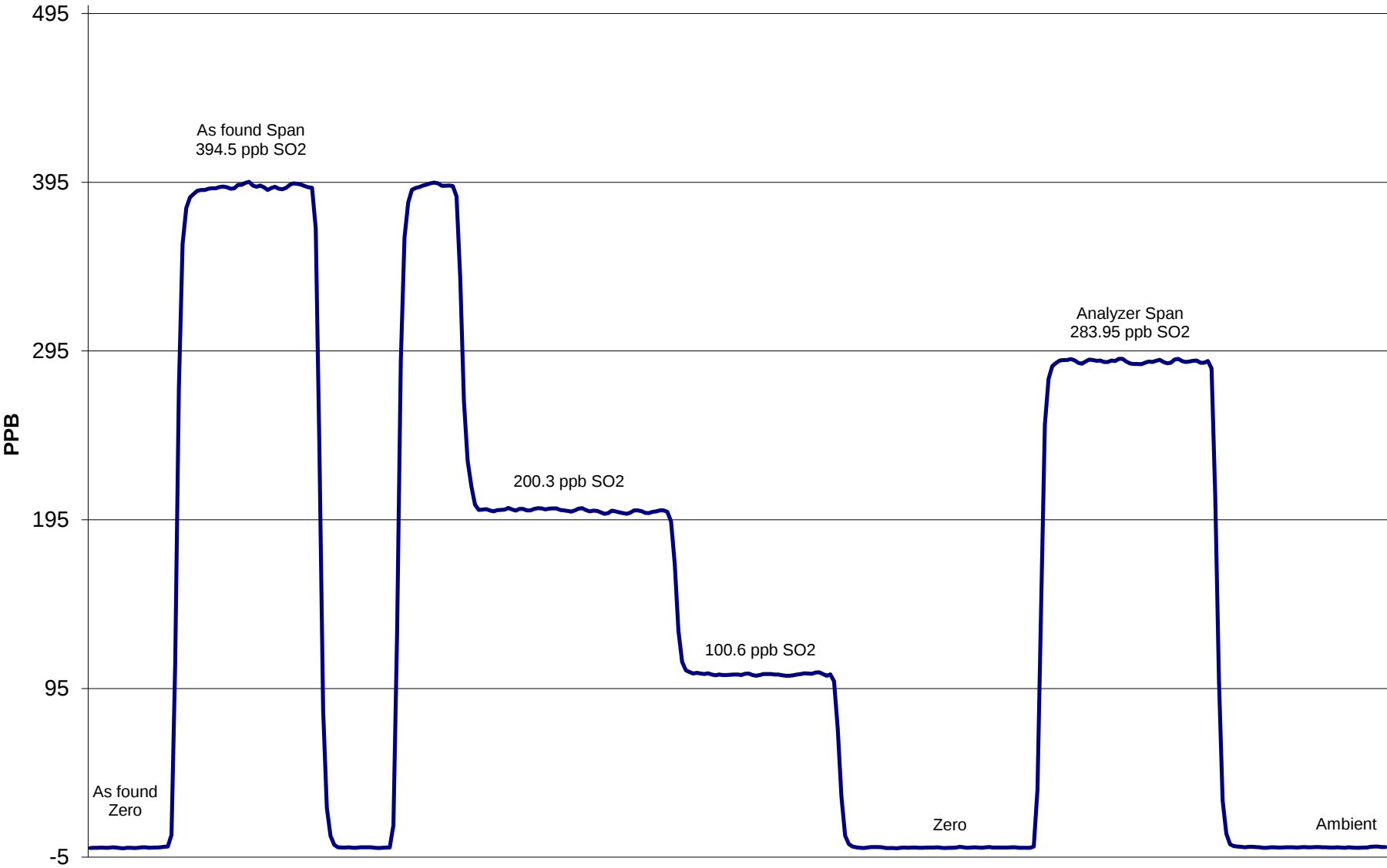
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.7	N/A	Correlation Coefficient	0.999939
394.5	392.6	1.0049		
200.3	199.7	1.0031		
100.6	103.4	0.9732	Slope	1.009035
			Intercept	-1.814481

SO2 Calibration Curve



SO2 Calibration



January 26, 2012

Calibration Report



Parameter TRS

Air Monitoring Network PASZA

Station Information

Calibration Date	January 26, 2012	Previous Calibration	December 15, 2011
Station Number	2	Station Location	Evergreen Park
Reason:	☒ Routine	☐ Install	☐ Removal
			☐ Other:
Start Time (MST)	10:35	End Time (MST)	13:40
Barometric Pressure	0.914 ATM	Station Temperature	20.0 Deg C
Calibrator	EnviroNics	Serial Number	3474
Cal Gas Conc	5.77 ppm	Cal Gas Expiry Date	9/3/2011
Correction factor	0.031069	Cal Gas Cylinder #	BLM1715
DACS make	CR3000	DACS serial No.	5236
DACS voltage range	0 - 5 volt	DACS channel #	5
	<u>Before</u>		<u>After</u>
Calculated slope	1.006409	Calculated slope	0.997564
Calculated intercept	-0.403589	Calculated intercept	0.058969

Analyzer make TEI Model 43C Analyzer serial # 436610005

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	18.6	ppb	19.7	ppb
coefficient	0.922		0.922	
Lamp Voltage	812	volts	812	volts
Chamber Temp	45	Deg C	44.3	Deg C
Perm Gas Temp	45.01	Deg C	44.97	Deg C
Pressure	638.9	mm Hg	639	mm Hg
Sample Flow	0.473	ccm	0.473	ccm
Lamp Intensity	45,492	mv	45,239	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)
4989	0.00	0.00	-0.2	N/A
4989	69.81	79.62	79.8	0.9977
4989	34.88	40.06	40.0	1.0026
4989	8.96	10.34	10.5	0.9844
4989	0.00	0.00	0.5	As Found Zero
4989	69.81	79.62	79.8	As Found Span
Average Correction Factor				0.9949

Calculated value of As Found Response: 79.42 ppm Percent Change of As Found: 0.3%

	before calibration		after calibration	
Auto zero	0.2	ppm	0.0	ppm
Auto span	71.9	ppm	72.1	ppm

Notes: **Slight adjust zero. Span/slope was not adjusted. Daily span was bypassed during cal recovery.**

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter TRS

Air Monitoring Network PASZA



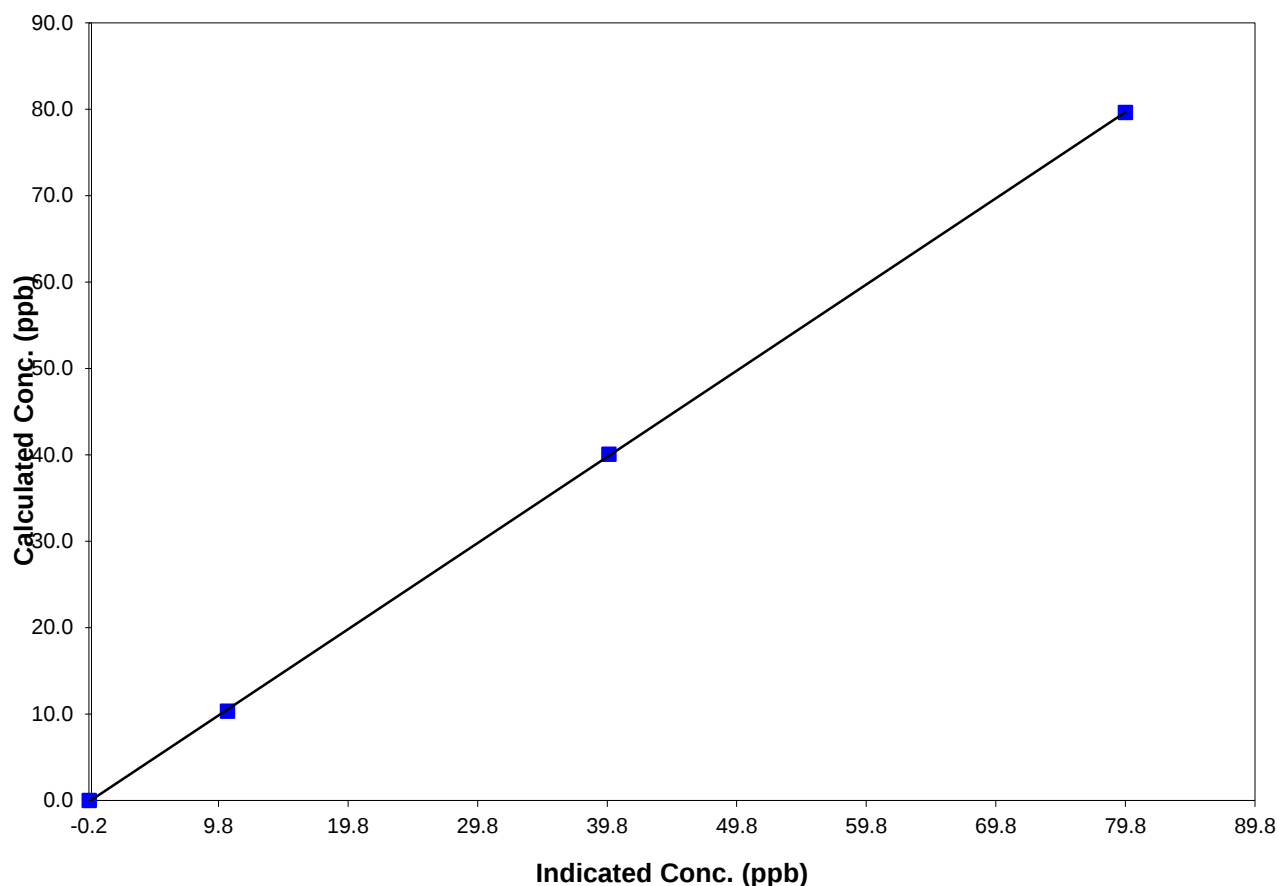
Station Information

Calibration Date	January 26, 2012	Previous Calibration	December 15, 2011
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	10:35	End Time (MST)	13:40
Analyzer make/model	TEI Model 43C	Analyzer serial #	436610005

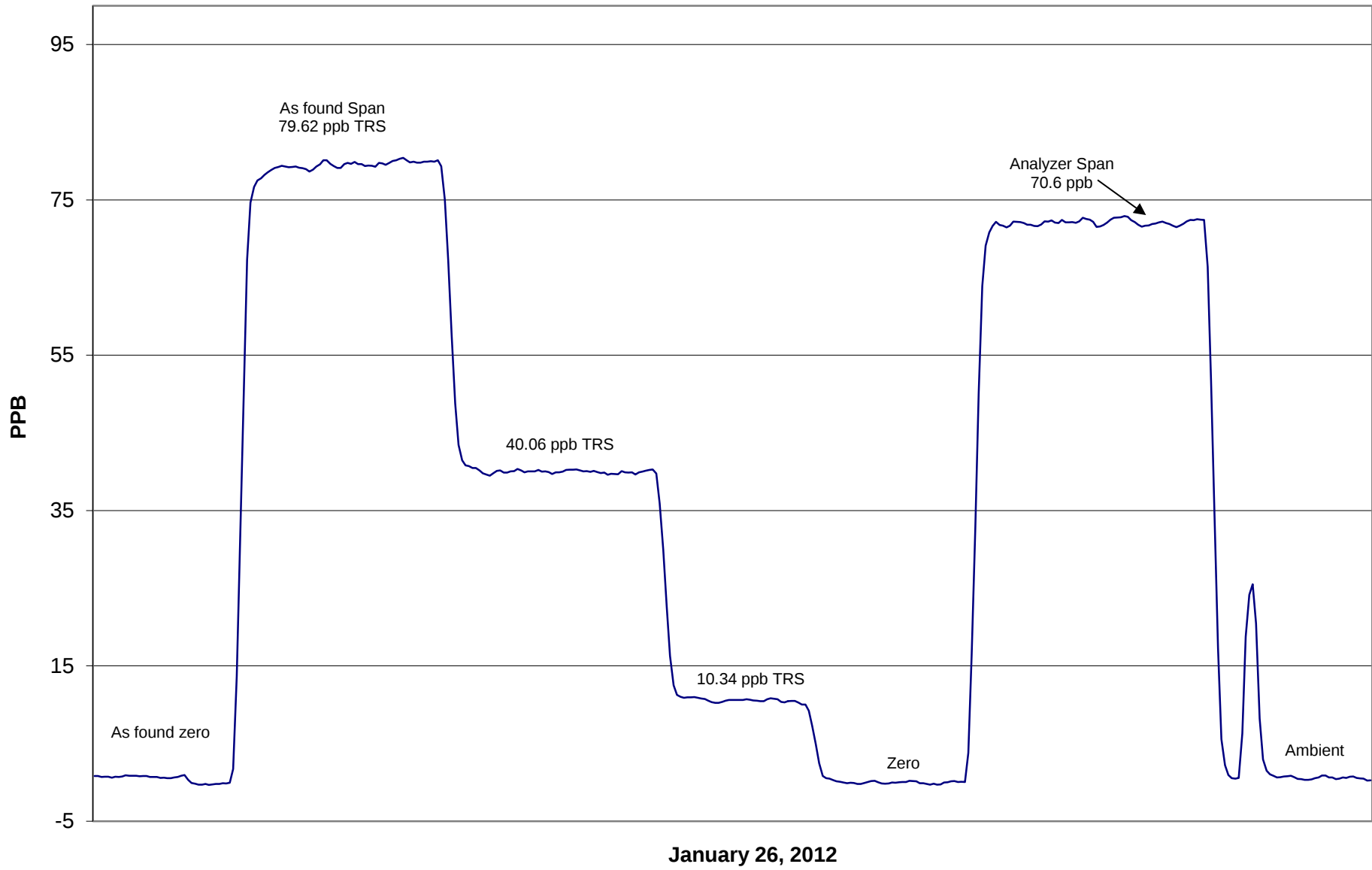
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.2	N/A	Correlation Coefficient	0.999981
79.6	79.8	0.9977		
40.1	40.0	1.0026		
10.3	10.5	0.9844	Slope	0.997564
			Intercept	0.058969

TRS Calibration Curve



TRS Calibration



AB TEOM PM2.5 Calibration



STATION: Evergreen Park
 LOCATION: PASZA - Grande Prairie

OPERATOR: Grover Christiansen
 DATE: 26/1/2012

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	2-Oct-11
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	0.020	0.100
PUMP OFF	0.000	0.000
NET	0.020	0.100
LIMITS	<0.15	<0.60

	Ambient Temp. (° C)	Ambient Pres. (atm)	Ko *	Bypass flow (lpm)	Sample flow (lpm)
SET POINT (S)	na	na	16147	13.67	3.000
INDICATED (I)	-0.8	0.916		13.69	3.000
MEASURED (AF)	-0.1	0.915		13.71	2.999
MEASURED (M)	-0.1	0.915	16189	13.71	2.999
DIFFERENCE (M-I)	0.7	-0.001	0.3%	0.29	-0.03
LIMITS	± 2 ° 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.

Heads cleaned, Large in-line filter Aux replaced & sample filter. Filter loaded @ 18%.

Sample Head Inspection/Cleaning:

Large In Line Filter Inspection & Or Cleaning:

Calibration Report



Parameter SO₂

Air Monitoring Network PASZA

Station Information

Calibration Date	January 27, 2012	Previous Calibration	December 19, 2011
Station Number	3	Station Location	Smokey Heights
Reason:	☒ Routine	☐ Install	☐ Removal
		☐ Other:	
Start Time (MST)	11:05	End Time (MST)	13:55
Barometric Pressure	0.917 ATM	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
Cal Gas Concentration	49.8 ppm	Cal Gas Cert Date	3/28/2011
Correction factor	0.031171	Cal Gas Cylinder #	LL85275
DACS make	CR3000	DACS serial No.	5238
DACS voltage range	0 - 5 volt	DACS channel #	6
	<u>Before</u>		<u>After</u>
Calculated slope	0.996895	Calculated slope	1.000761
Calculated intercept	-2.179825	Calculated intercept	-2.161548
Analyzer make	Teco 43i	Analyzer serial #	701120009

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	9.9		9.9	
coefficient	0.978		0.978	
Lamp Voltage	920	volts	920	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	664.8	mm Hg	669.3	mm Hg
Sample Flow	0.438	ccm	0.442	ccm
Lamp Intensity	87	%	87	%

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)
4989	0.0	0.00	0.5	N/A
4989	39.84	394.53	395.5	0.9975
4989	19.91	197.95	200.7	0.9862
4989	9.94	99.02	102.9	0.9624
4989	0.0	0.00	0.5	As Found Zero
4989	39.84	394.53	395.5	As Found Span
Average Correction Factor				0.9820

Calculated value of As Found Response: 391.672 ppm Percent Change of As Found: 0.7%

	before calibration		after calibration	
Auto zero	0.4	ppb	0.5	ppb
Auto span	304.5	ppb	276.6	ppb

Notes: No adjust. Second cal point interrupted by daily span sequence. Manually bypass, go to second point for 5 minutes & continue calibration. Third interrupted briefly as well.

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter SO2

Air Monitoring Network PASZA



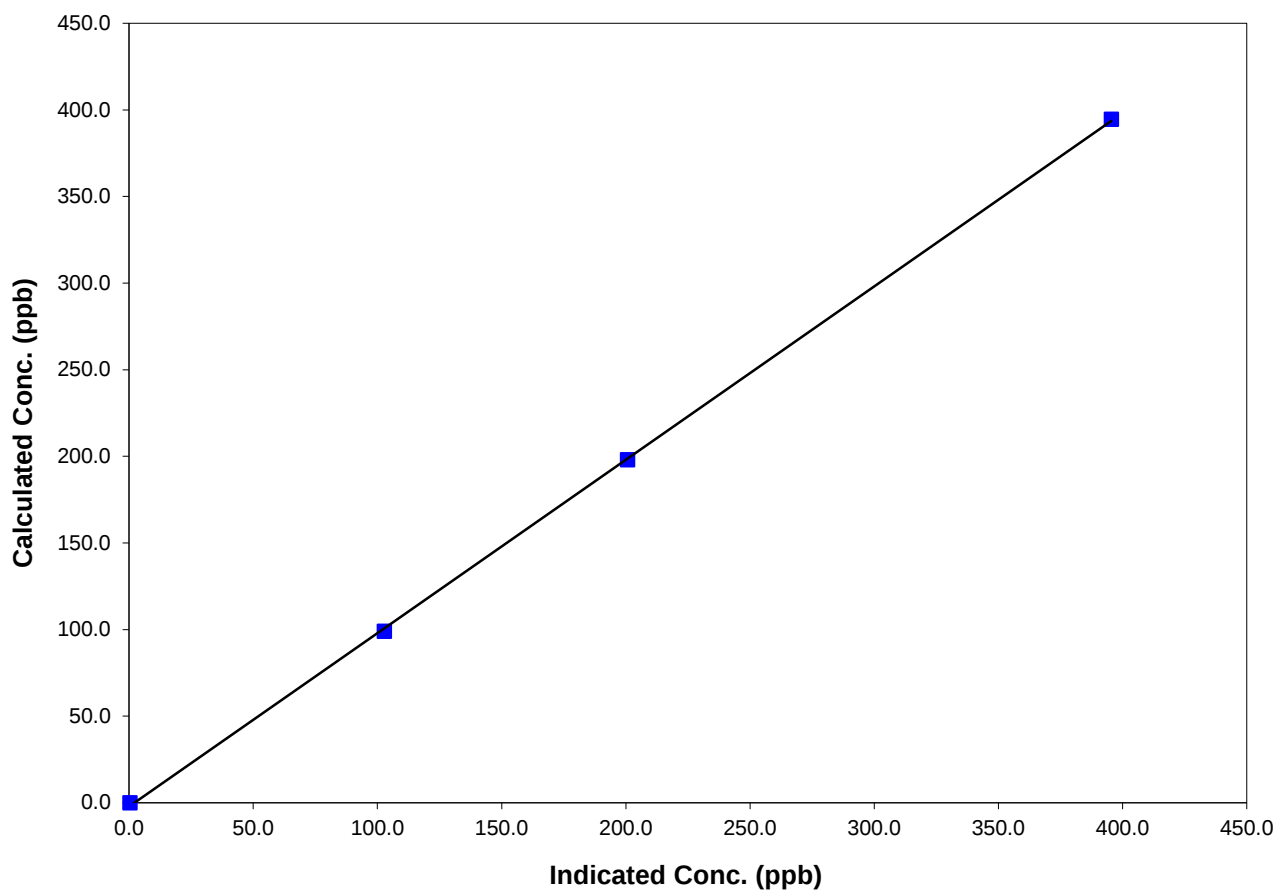
Station Information

Calibration Date	January 27, 2012	Previous Calibration	December 19, 2011
Station Number	3	Station Location	Smokey Heights
Start Time (MST)	11:05	End Time (MST)	13:55
Analyzer make/model	Teco 43i	Analyzer serial #	701120009

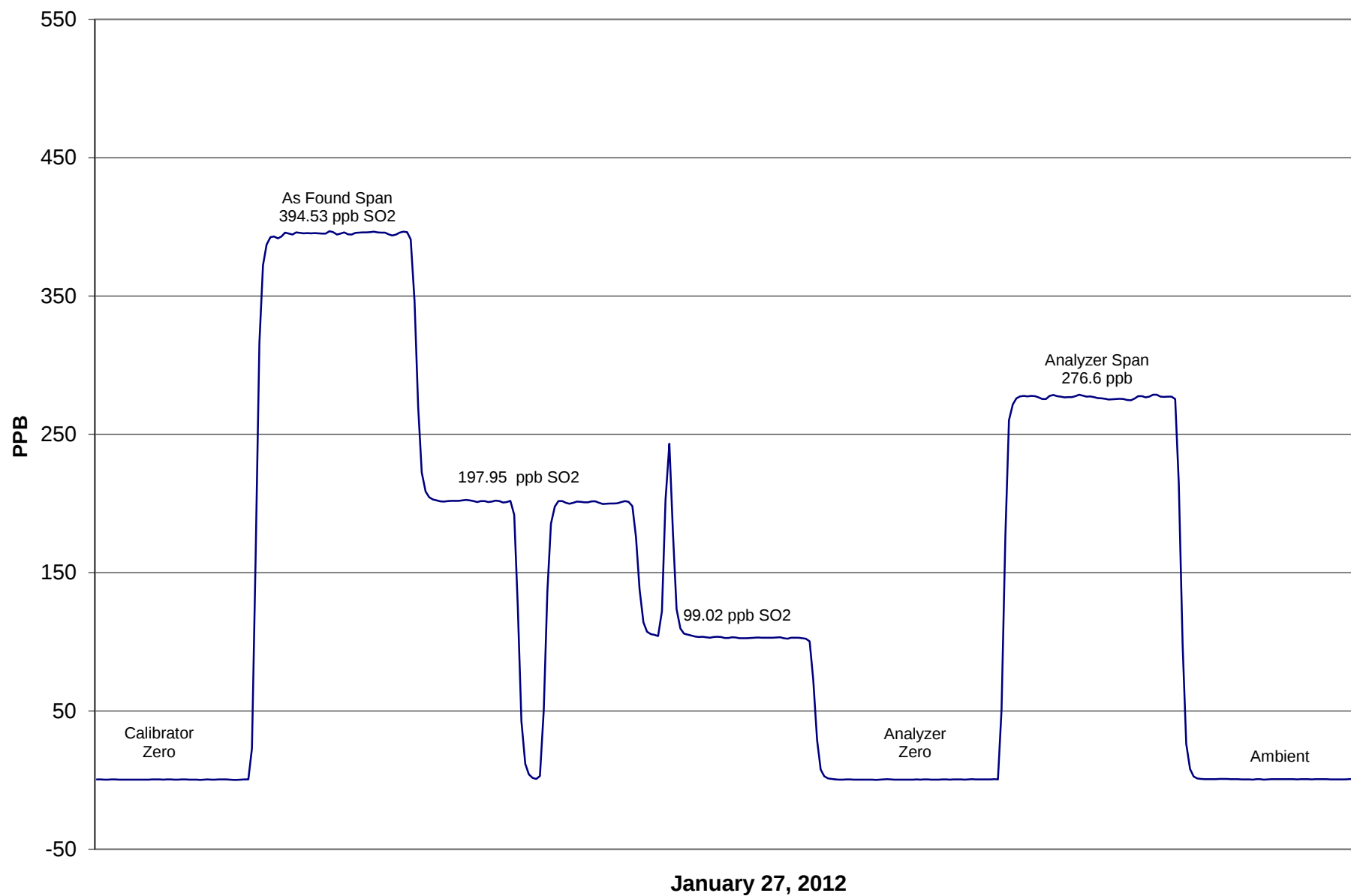
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.5	N/A	Correlation Coefficient	0.999913
394.5	395.5	0.9975		
198.0	200.7	0.9862		
99.0	102.9	0.9624	Slope	1.000761
			Intercept	-2.161548

SO2 Calibration Curve



Smokey Heights SO₂ Calibration



Calibration Report



Parameter TRS

Air Monitoring Network PASZA

Station Information

Calibration Date	January 27, 2012	Previous Calibration	December 19, 2011
Station Number	3	Station Location	Smokey Heights
Reason:	Routine	Install	Removal
		Other:	
Start Time (MST)	9:30	End Time (MST)	12:15
Barometric Pressure	0.919 ATM	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
Cal Gas Conc	5.77 ppm	Cal Gas Expiry Date	9/3/2011
Correction factor	0.031239	Cal Gas Cylinder #	BLM001434
DACS make	CR3000	DACS serial No.	5238
DACS voltage range	0 - 5 volt	DACS channel #	5
	Before		After
Calculated slope	1.008597	Calculated slope	1.005164
Calculated intercept	-0.379659	Calculated intercept	-0.579533

Analyzer make TEI Model 43C Analyzer serial # 0436610005

	before		after	
Concentration range	100	ppb	100	ppb
Background	17.4	ppb	17.4	ppb
coefficient	0.946		0.946	
Lamp Voltage	797	volts	797	volts
Chamber Temp	44	Deg C	44.99	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	547.8	mm Hg	533.5	mm Hg
Sample Flow	0.592	ccm	0.579	ccm
Lamp Intensity	35,130	mv	35,234	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)
4989	0.0	0.00	0.5	N/A
4989	69.80	79.61	79.7	0.9986
4989	34.88	40.06	40.5	0.9881
4989	8.96	10.34	10.9	0.9522
4989	0.0	0.00	0.5	As Found Zero
4989	69.80	79.61	79.7	As Found Span
Average Correction Factor				0.9796

Calculated value of As Found Response: 79.50 ppm Percent Change of As Found: 0.1%

	before calibration		after calibration	
Auto zero	0.0	ppm	-0.1	ppm
Auto span	52.9	ppm	53.6	ppm

Notes: No span adjust

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter TRS

Air Monitoring Network PASZA



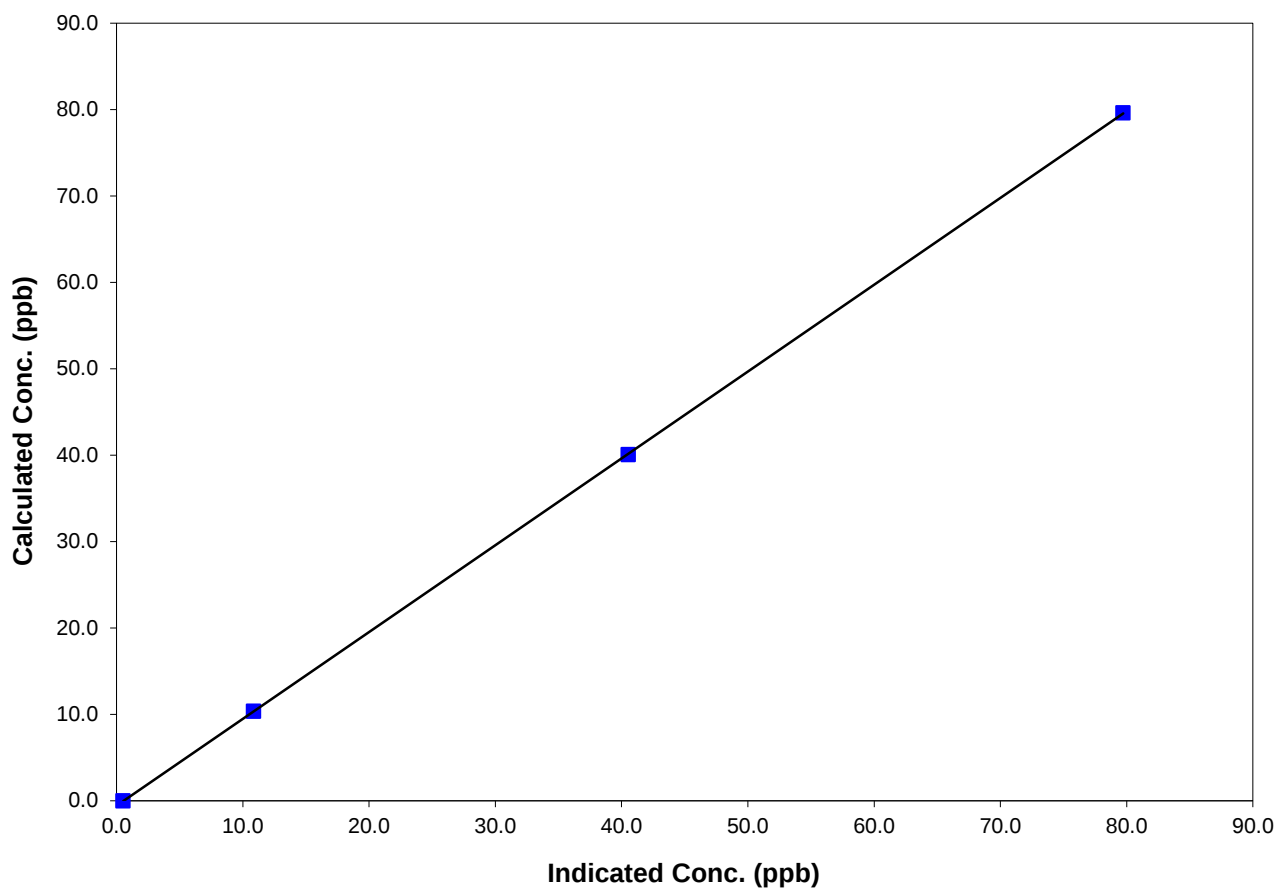
Station Information

Calibration Date	January 27, 2012	Previous Calibration	December 19, 2011
Station Number	3	Station Location	Smokey Heights
Start Time (MST)	9:30	End Time (MST)	12:15
Analyzer make/model	TEI Model 43C	Analyzer serial #	0436610005

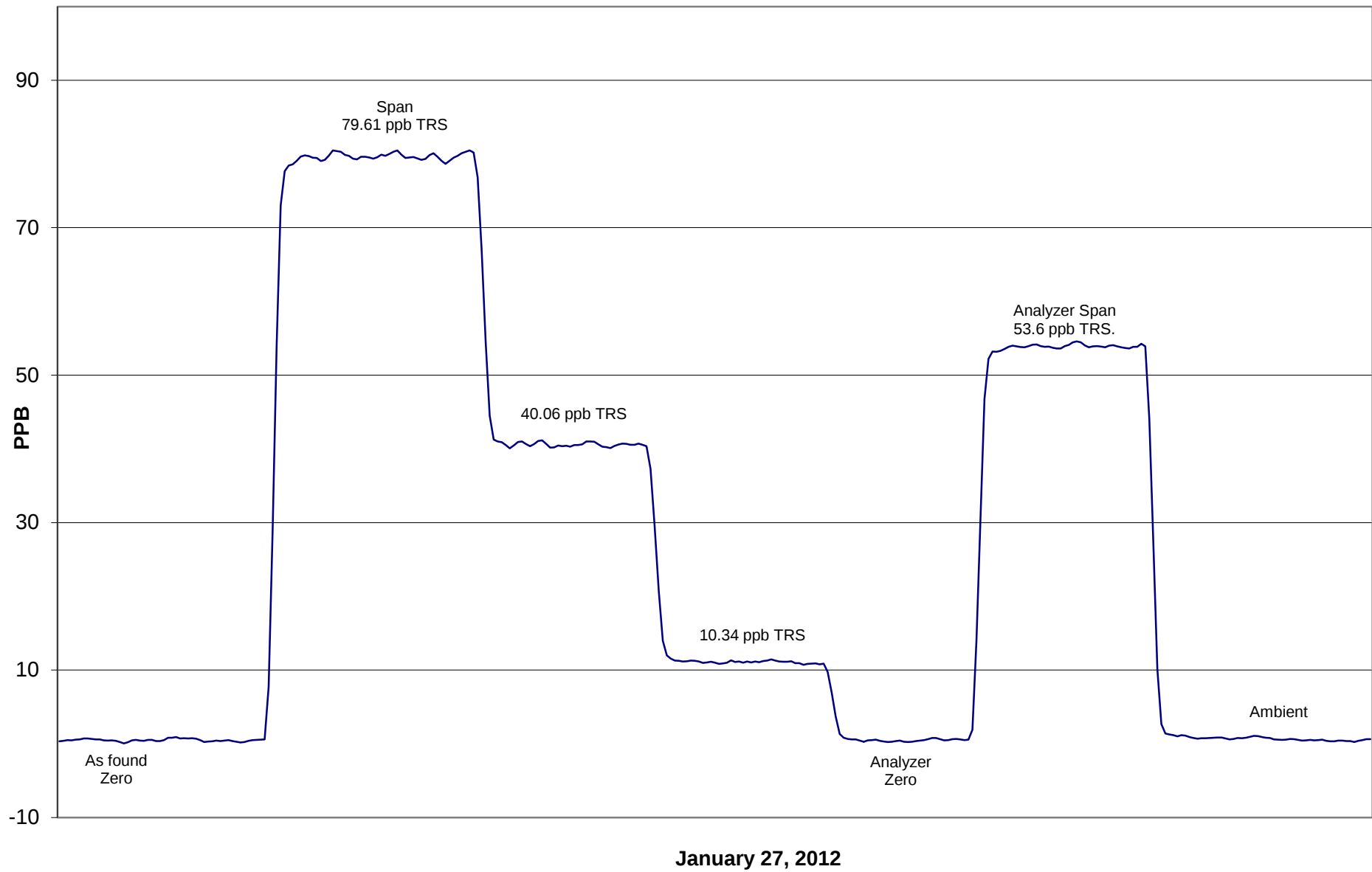
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.5	N/A	Correlation Coefficient	0.999995
79.6	79.7	0.9986		
40.1	40.5	0.9881		
10.3	10.9	0.9522	Slope	1.005164
			Intercept	-0.579533

TRS Calibration Curve



Smokey Heights TRS Calibration



AB TEOM PM2.5 Calibration



STATION: **Smokey Heights**
 LOCATION: PASZA - Grande Prairie

OPERATOR: Grover Christensen
 DATE: 27-Jan-12

MONITOR INFO / PARAMETER VALUES:

Make/Model	TEOM AB
Configuration	PM2.5
Serial Number	24634
Site Number	3
Inlet Type	PM 10 / SCC
FAdj. Main Setting	1.000
FAdj. Aux. Setting	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	22-Sep-11
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	0.009	0.015
PUMP OFF	0.010	0.010
NET	-0.001	0.005
LIMITS	<0.15	<0.60

		Ambient Temp. (^o C)	Ambient Pres. (atm)	Ko *	Bypass flow (lpm)	Sample flow (lpm)
As Found Data Adjusted Data	SET POINT (S)	na	na	12122	13.67	3.000
	INDICATED (I)	0.1	0.919		13.67	3.000
	MEASURED (AF)	-0.9	0.920		13.68	3.010
	MEASURED (M)	-0.9	0.920	12194	13.68	3.010
	DIFFERENCE (M-I)	-1.0	0.001	0.6%	0.07	0.01
	LIMITS	± 2 ^o C	± 0.005 atm	± 2.5 %	± 1.0 L/min	± 0.2 L/min

Ko Audit Filter data

Weight: 0.11251

Serial #: CVK 3316

COMMENTS: PASS

Heads cleaned.

Sample Head Inspection/Cleaning:

Large In Line Filter Inspection & Or Replacement:

Calibration Report

Parameter SO2
Air Monitoring Network

PASZA



Station Information

Calibration Date	January 18, 2012	Previous Calibration	December 11, 2011
Station Number	4	Station Location	Beaverlodge
Reason:	Routine	Install	Removal
			Other:
Start Time (MST)	15:05	End Time (MST)	18:12
Barometric Pressure	0.917 atm	Station Temperature	23.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
Cal Gas Concentration	10.1 ppm	Cal Gas Expiry Date	1/25/2010
Gas Cert Reference	SAGL 671		
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	1.009235	Calculated slope	1.006258
Calculated intercept	-0.796277	Calculated intercept	-0.801605
Analyzer make	TEI Model 43i-TLE	Analyzer serial #	713021137

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	2.37		2.39	
Coefficient	1.056		1.071	
PMT	-767.8	V	-767.6	V
UV Lamp Voltage	1051	V	1052	V
Chamber Temp	45	Deg C	45.2	Deg C
Pressure	663.1	mm Hg	667.9	mm Hg
Sample Flow	0.488	LPM	0.493	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)
4989	0.00	0.0	0.3	N/A
4989	39.83	80.0	80.0	0.9995
4989	19.90	40.1	40.9	0.9811
4989	9.93	20.1	21.3	0.9422
4989	0.00	0.0	0.3	As found zero
4989	39.83	80.0	78.6	As found span
Average Correction Factor				0.9743

Calculated value of As Found Response: 78.258 ppm Percent Change of As Found: 2.2%

	before calibration		after calibration	
Auto zero	-0.3	ppb	-0.5	ppb
Auto span	58.2	ppb	56.7	ppb

Notes: Slight adjust first point.

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter SO2

Air Monitoring Network PASZA



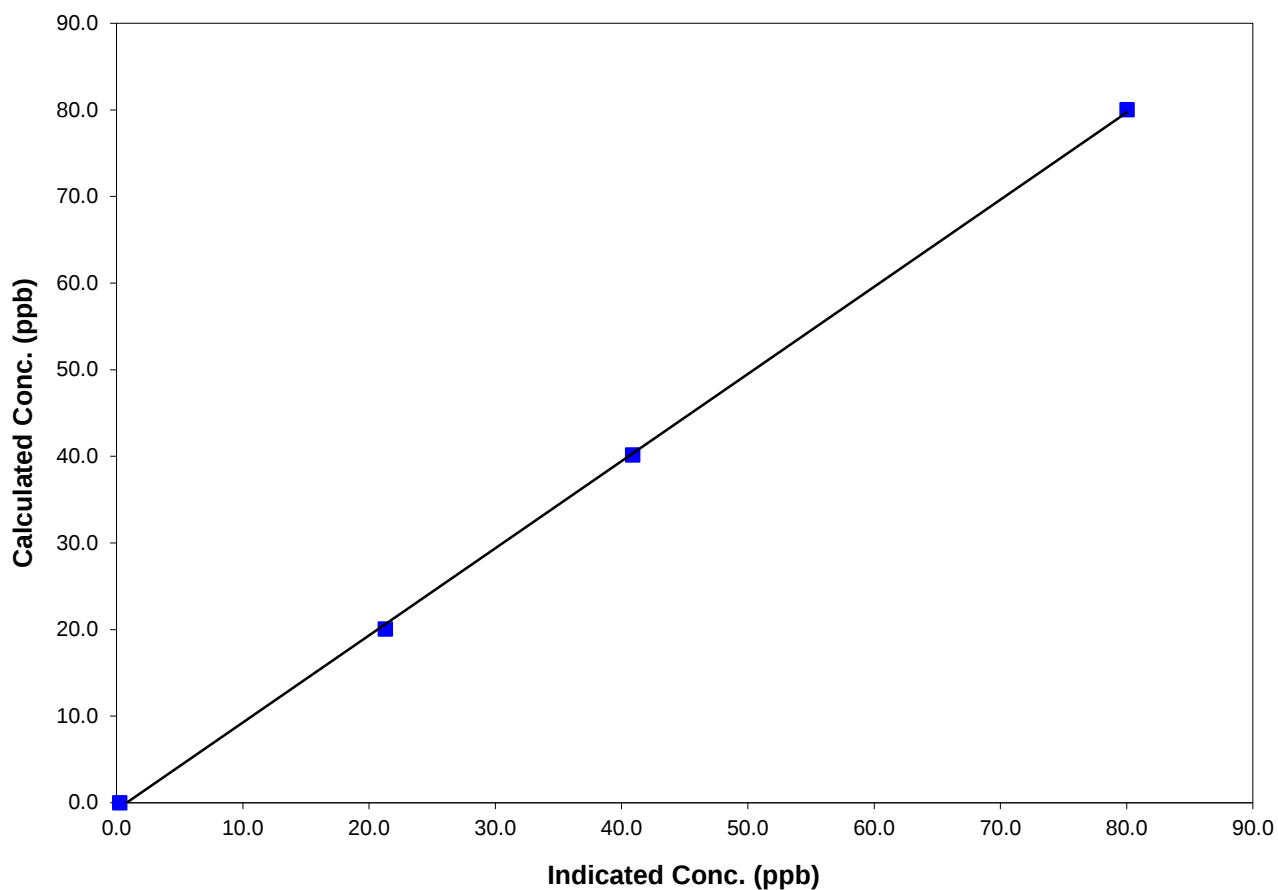
Station Information

Calibration Date	January 18, 2012	Previous Calibration	December 11, 2011
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	15:05	End Time (MST)	18:12
Analyzer make/model	TEI Model 43i-TLE	Analyzer serial #	713021137

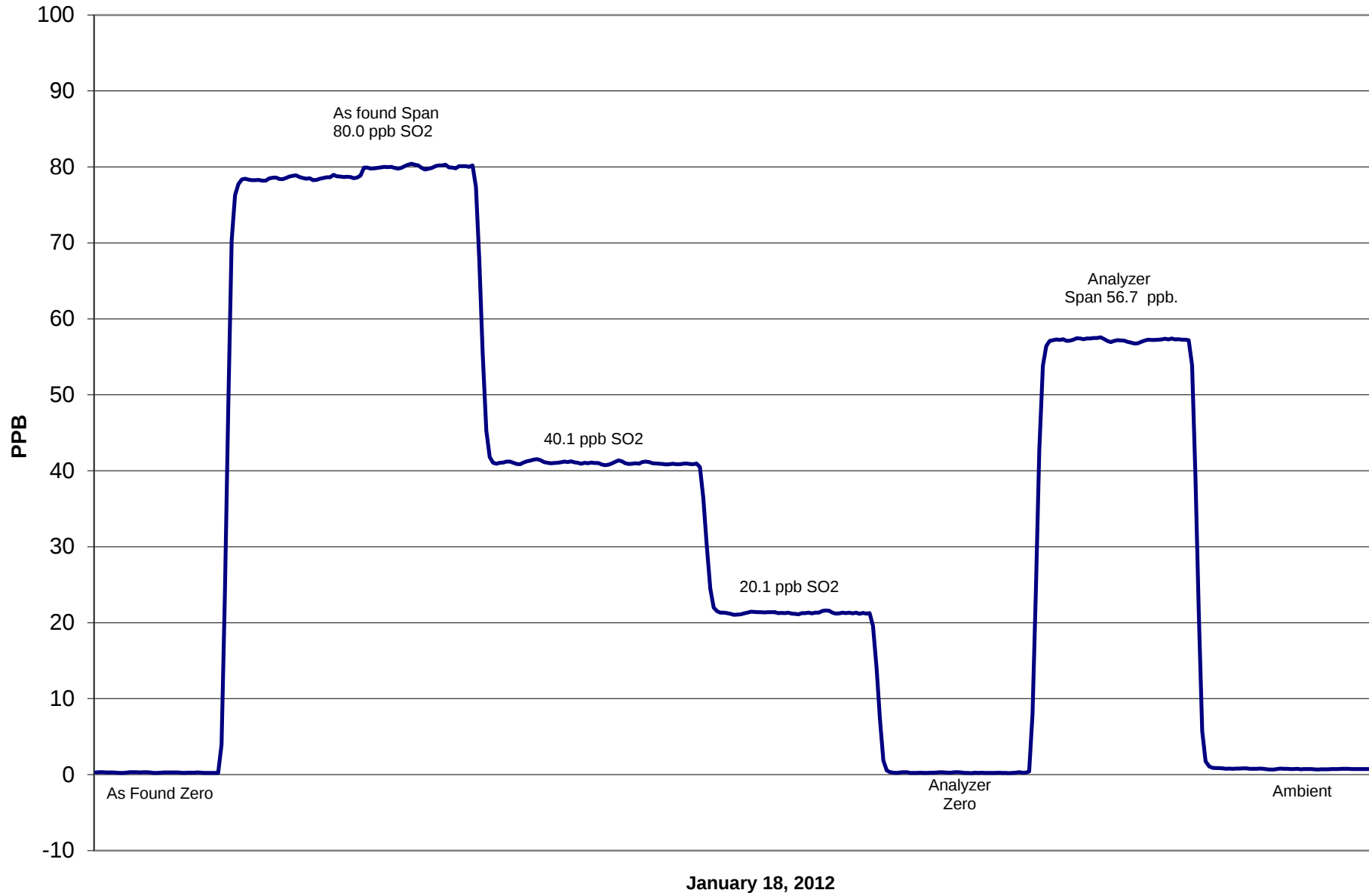
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	N/A	Correlation Coefficient	0.999796
80.0	80.0	0.9995		
40.1	40.9	0.9811		
20.1	21.3	0.9422	Slope	1.006258
			Intercept	-0.801605

SO2 Calibration Curve



SO2 Calibration



Parameter

Air Monitoring Network

NO_x-NO-NO₂
PAZA



Station Information

Calibration Date	January 18, 2012		Previous Calibration	December 11, 2011	
Station Number	4		Station Location	BeaverLodge	
Reason:	☒ Routine	☐ Installation	☐ Removal	Other:	
Start Time (MST)	9:50		End Time (MST)	15:12	
Barometric Pressure	0.917	Atm	Station Temperature	23.0	Deg C
Calibrator	EnviroNics		Serial Number	2844	
NO Cal Gas Conc	52.5	ppm	Cal Gas Expiry Date	March 28, 2013	
NOx Cal Gas Conc	52.5	ppm	Cal Gas Serial #	LL8575	

DACS Information

DACS make	AP1000	DACS serial No.	
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Parameter	NO2	NOx	NO
Before	Data Slope	0.999469	1.002909
	Data Offset	0.214555	-2.920264
After	Data Slope	1.011372	1.002590
	Data Offset	0.511703	-2.866628
Channel #		8	6
Voltage Range		0 - 5 VDC	0 - 5 VDC

Analyzer Information

Analyzer make/model	TEI 42i	Analyzer serial #	906535068	
Test Point	before		after	
Concentration range	0-500	ppb	0-500	ppb
NO offset	2.1	mV	2.2	mV
NOx bkgnd	2.7	mV	2.4	mV
NO coefficient	1.342		1.410	
NOx coefficient	1.002		0.992	
NO2 conv temp	325.7	Deg C	326.8	Deg C
PMT Temp	-3.0	Deg C	-2.9	Deg C
PMT Volt	-671.9	mV	-671.2	mV
R Cell Press	157.9	in Hg	159.1	in Hg
Sample Flow	0.698	ccm	0.698	ccm

Calibration Report

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



Station Information

Calibration Date: January 18, 2012 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	4989	0.00	0.0	0.0	0.0	0.4	-0.1	0.4	N/A	N/A
1	4989	39.84	415.9	415.9	0.0	416.3	415.4	0.6	0.9991	1.0012
2	4989	19.91	208.7	208.7	0.0	212.7	212.1	-0.2	0.9813	0.9838
3	4989	9.93	104.3	104.3	0.0	109.0	108.8	0.0	0.9564	0.9586
AFZ	4989	0.00	0.0	0.0	0.0	0.4	-0.1	0.4	0.0000	0.0000
AFS	4989	39.84	415.9	415.9	0.8	416.1	415.3	0.6	0.9995	1.0015
Average Correction Factor									0.9789	0.9812

As Found Concentrations: NO_x= 412.8 NO= 412.7 As Found Percent Change NO_x= -0.8% NO= -0.8%

GPT Calibration Data

Dilution Flow 4989 ccm Source Gas Flow 39.84 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	0.4	-0.1	0.4	N/A	N/A	N/A	N/A
NO point	419.8	419.8	0.0	419.7	419.8	-0.4	1.0002	1.0000	N/A	N/A
300	419.8	165.3	254.6	417.9	165.3	252.0	1.0046	1.0000	1.0102	99.0%
200	419.8	243.0	176.9	417.2	243.0	173.8	1.0063	1.0000	1.0175	98.3%
100	419.8	320.5	99.4	417.2	320.5	96.6	1.0062	1.0000	1.0284	97.2%
Average Correction Factor							1.0057	1.0000	1.0187	98.2%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	-0.2	-0.3	-0.2	ppb	0.1	-0.1	0.0	ppb
Auto span	238.0	235.5	1.6	ppb	249.7	247.4	1.5	ppb

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter NO₂

Air Monitoring Network PAZA



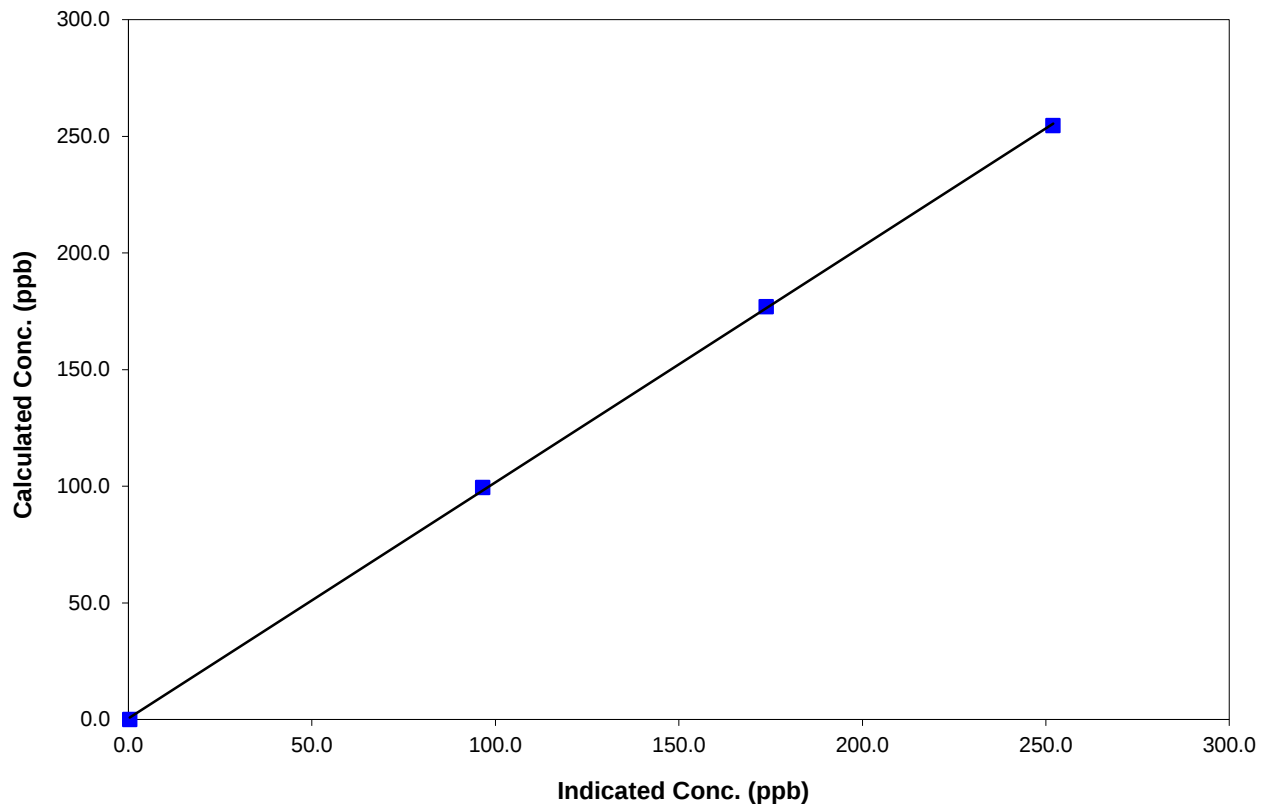
Station Information

Calibration Date	January 18, 2012	Previous Calibration	December 11, 2011
Station Number	4	Station Location	BeaverLodge
Start Time (MST)	9:50	End Time (MST)	15:12
Analyzer make	TEI 42i	Analyzer serial #	906535068

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.4	N/A	Correlation Coefficient	0.999915
254.6	252.0	1.0102		
176.9	173.8	1.0175		
99.4	96.6	1.0284	Slope	1.011372
			Intercept	0.511703

NO₂ Calibration Curve



Calibration Summary

Parameter NO_x

Air Monitoring Network PAZA



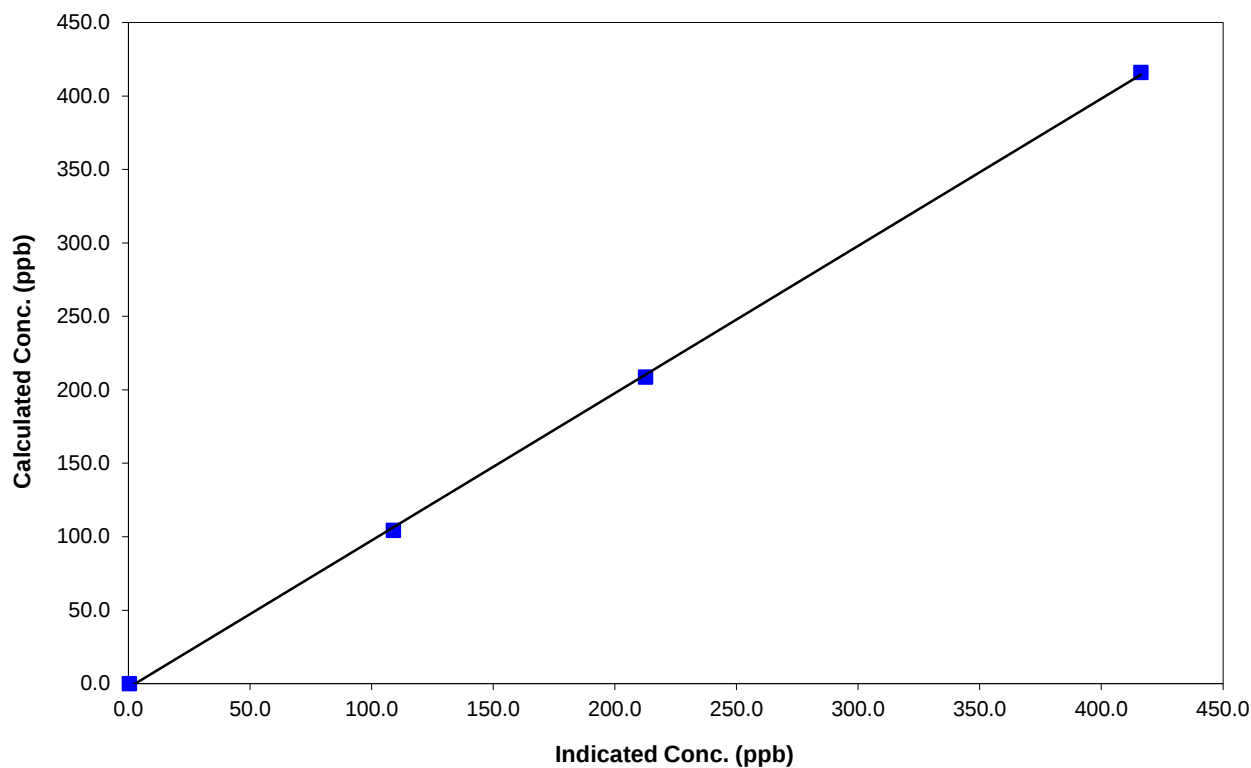
Station Information

Calibration Date	January 18, 2012	Previous Calibration	December 11, 2011
Station Number	4	Station Location	BeaverLodge
Start Time (MST)	9:50	End Time (MST)	15:12
Analyzer make	TEI 42i	Analyzer serial #	906535068

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.4	N/A	Correlation Coefficient	0.999838
415.9	416.3	0.9991		
208.7	212.7	0.9813		
104.3	109.0	0.9564	Slope	1.002590
			Intercept	-2.866628

NO_x Calibration Curve



Calibration Summary

Parameter NO

Air Monitoring Network PAZA



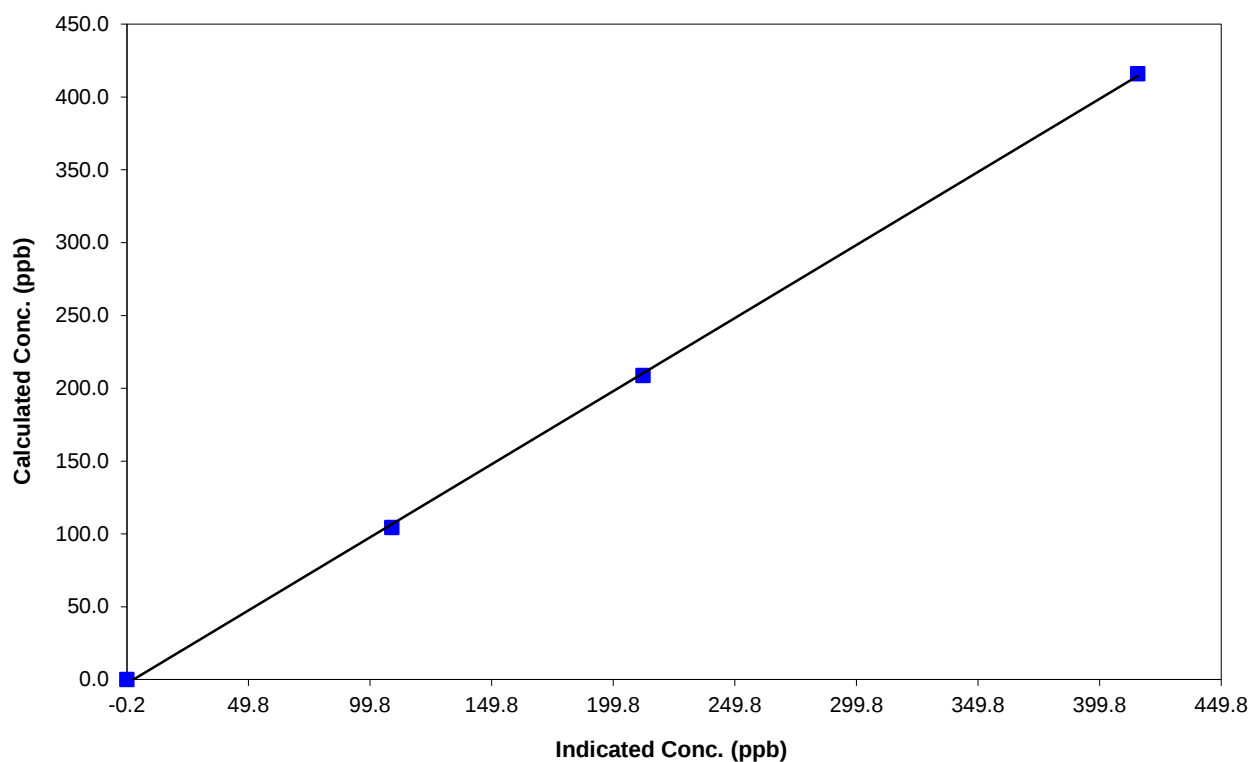
Station Information

Calibration Date	January 18, 2012	Previous Calibration	December 11, 2011
Station Number	4	Station Location	BeaverLodge
Start Time (MST)	9:50	End Time (MST)	15:12
Analyzer make	TEI 42i	Analyzer serial #	906535068

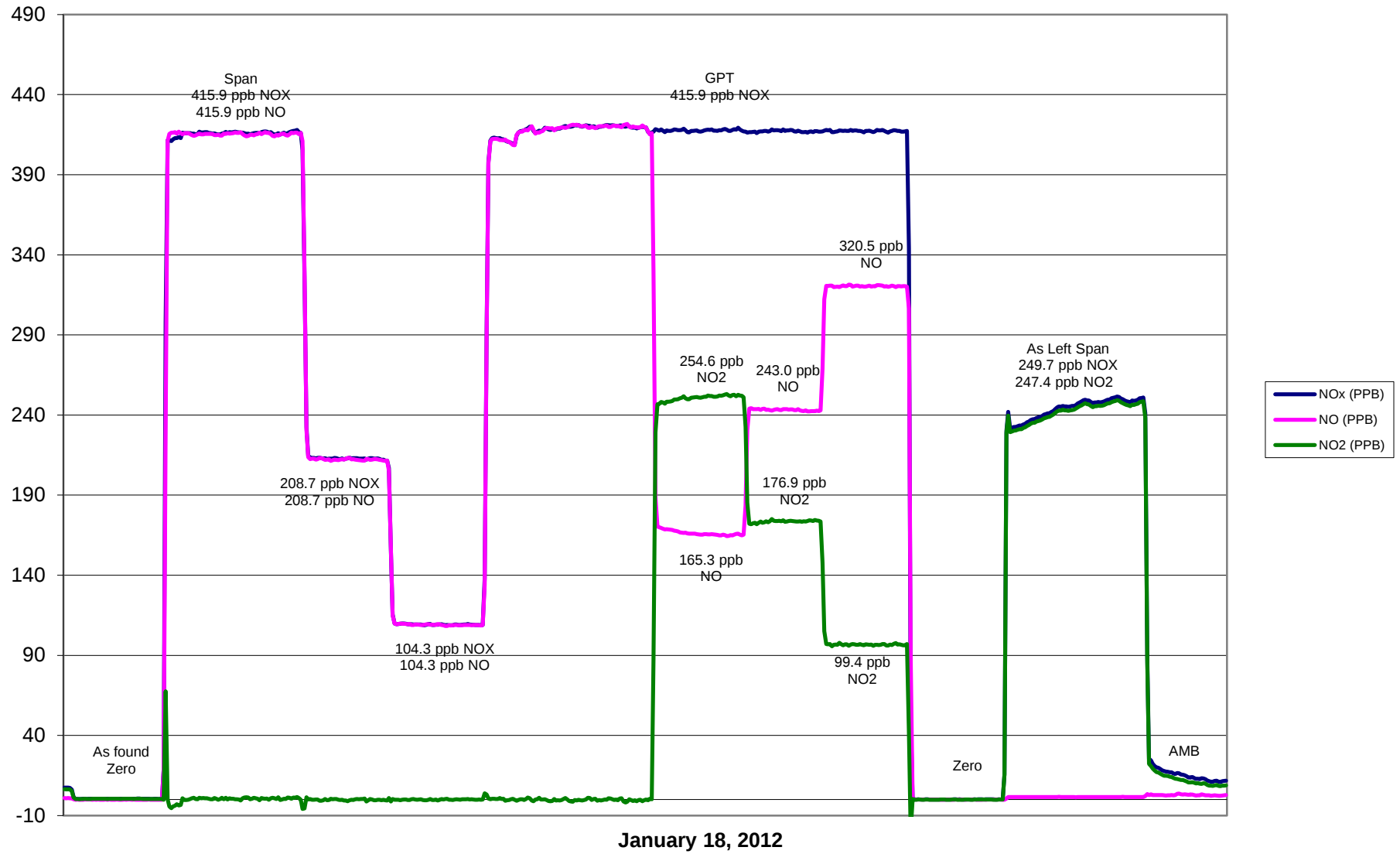
Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	N/A	Correlation Coefficient	0.999815
415.9	415.4	1.0012		
208.7	212.1	0.9838		
104.3	108.8	0.9586	Slope	1.003638
			Intercept	-2.513348

NO Calibration Curve



PASZA Beaverlodge NO_x Calibration



Calibration Report

Parameter 03

Air Monitoring Network PASZA



Station Information

Calibration Date	January 18, 2012	Previous Calibration	December 11, 2011
Station Number	4	Station Location	Beaverlodge
Reason:	Routine	Install	Removal
		Other:	

Start Time (MST)	13:45	End Time (MST)	16:28
Barometric Pressure	0.917 atm	Station Temperature	23.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
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	0.958455	Calculated slope	0.976518
Calculated intercept	-0.130155	Calculated intercept	1.460697

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

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
offset	-0.90	ppb	-1.00	ppb
slope	1.030		1.030	
Lamp temp	56.3	mV	56.3	mV
Lamp Intensity A/B	55066/61547	mV	54972/61442	mV
Pressure	691.8	mm Hg	679.2	mm Hg
Flow A	0.763	ccm	0.756	ccm
Flow B	0.713	ccm	0.707	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)
4989	0.00	0.0	-0.4	N/A
4989	0.00	254.6	260.5	0.9775
4989	0.00	176.9	178.5	0.9910
4989	0.00	99.4	99.1	1.0026
4989	0.00	0.0	-0.4	As found zero
4989	0.00	254.6	260.5	As found span
Average Correction Factor				0.9904

Calculated value of As Found Response: 249.9 ppm Percent Change of As Found: **-1.8%**

	before calibration		after calibration	
Auto zero	0.1	ppb	1.0	ppb
Auto span	114.3	ppb	113.9	ppb

Notes: No adjustment made.

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter O3

Air Monitoring Network PASZA



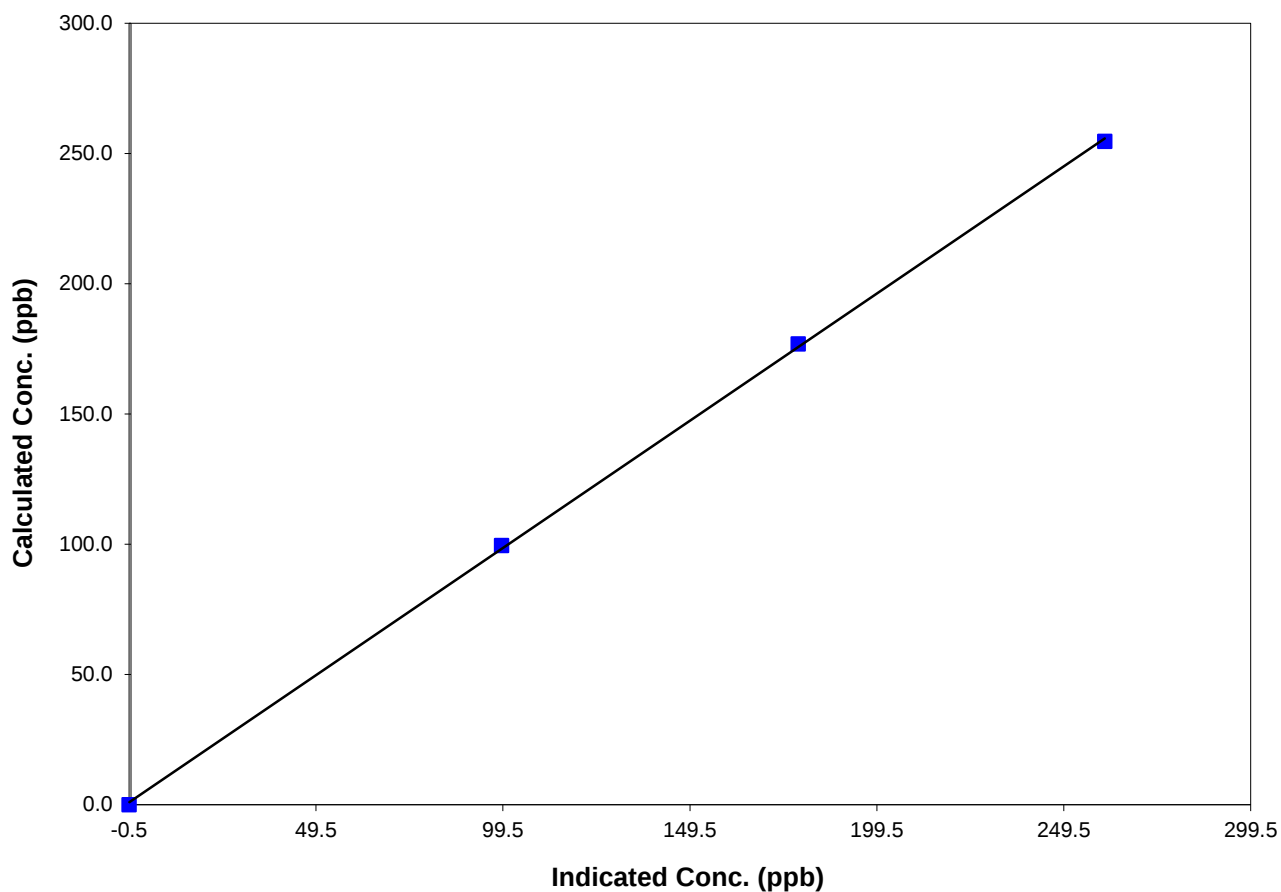
Station Information

Calibration Date	January 18, 2012	Previous Calibration	December 11, 2011
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	13:45	End Time (MST)	16:28
Analyzer make/model	Teco 49C	Analyzer serial #	49C-76443-383

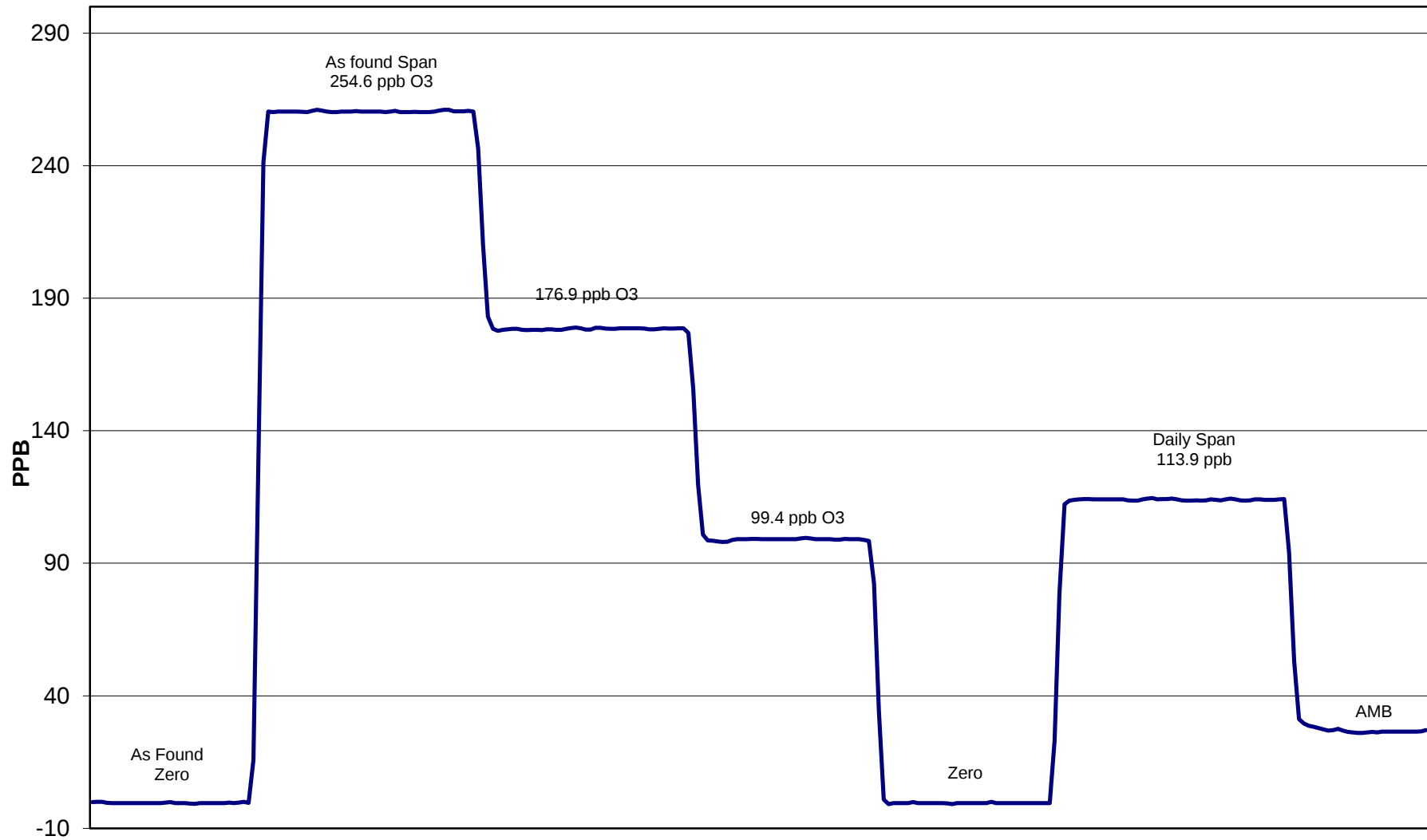
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.4	NA	Correlation Coefficient	0.999857
254.6	260.5	0.9775		
176.9	178.5	0.9910		
99.4	99.1	1.0026	Slope	0.976518
			Intercept	1.460697

O3 Calibration Curve



O3 Calibration



January 18, 2012

Calibration Report

Parameter SO2
Air Monitoring Network PASZA



Station Information

Calibration Date	January 7, 2011	Previous Calibration	December 22, 2011
Station Number	6	Station Location	Valleyview
Reason:	Routine	Install	Removal
			Other:
Start Time (MST)	11:15	End Time (MST)	14:00
Barometric Pressure	702.00 mmHg	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
Cal Gas Concentration	49.8 ppm	Cal Gas Cert Date	7/23/2010
Gas Cert Reference	SGAL3245		
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	1.003047	Calculated slope	1.004218
Calculated intercept	-2.200892	Calculated intercept	-2.554109
Analyzer make	TEI 45C	Analyzer serial #	45C-57531-313

	before		after	
Concentration range	0 - 1000	ppb	0 - 1000	ppb
Background	29.8		29.8	
Coefficient	0.865		0.865	
UV Lamp Voltage	962	LPM	961	LPM
Chamber Temp	44.4	V	44.5	V
Perm Gas Temp	35.1	C	35.1	C
Pressure	609.1	in Hg	610.5	in Hg
Sample Flow	0.560	LPM	0.561	LPM
Lamp Intensity	48484	Hz	48327	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)
4989	0.00	0.0	0.5	N/A
4989	39.84	394.5	394.2	1.0010
4989	19.89	197.8	201.1	0.9834
4989	9.94	99.0	102.9	0.9628
4989	0.00	0.0	0.5	As found zero
4989	39.84	394.5	394.2	As found span
Average Correction Factor				0.9824

Calculated value of As Found Response: 392.625 ppm Percent Change of As Found: 0.5%

	before calibration		after calibration	
Auto zero	0.0	ppm	0.0	ppm
Auto span	155.5	ppm	156.9	ppm

Notes: No span adjust.

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter SO2

Air Monitoring Network PASZA



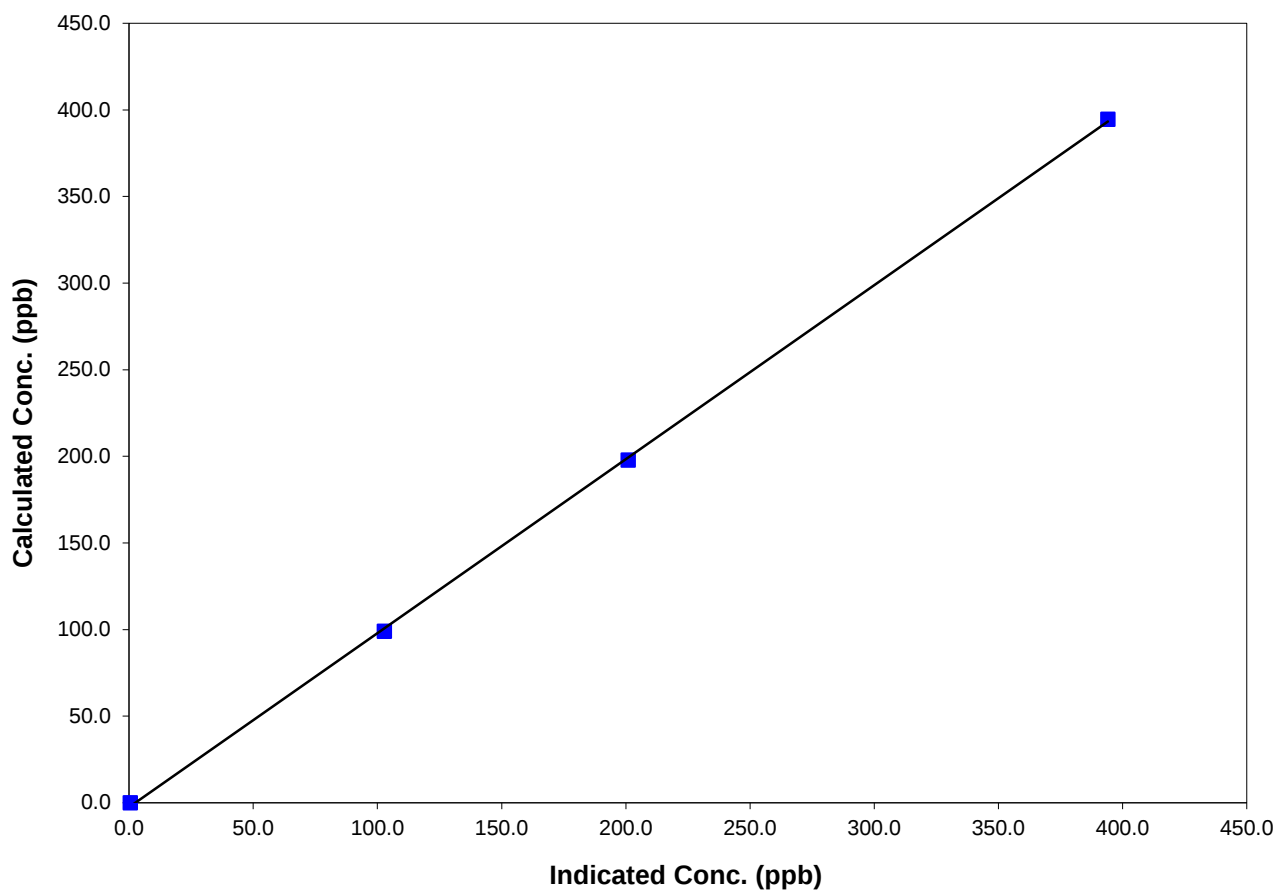
Station Information

Calibration Date	January 7, 2011	Previous Calibration	December 22, 2011
Station Number	6	Station Location	Valleyview
Start Time (MST)	11:15	End Time (MST)	14:42
Analyzer make/model	TEI 45C	Analyzer serial #	45C-57531-313

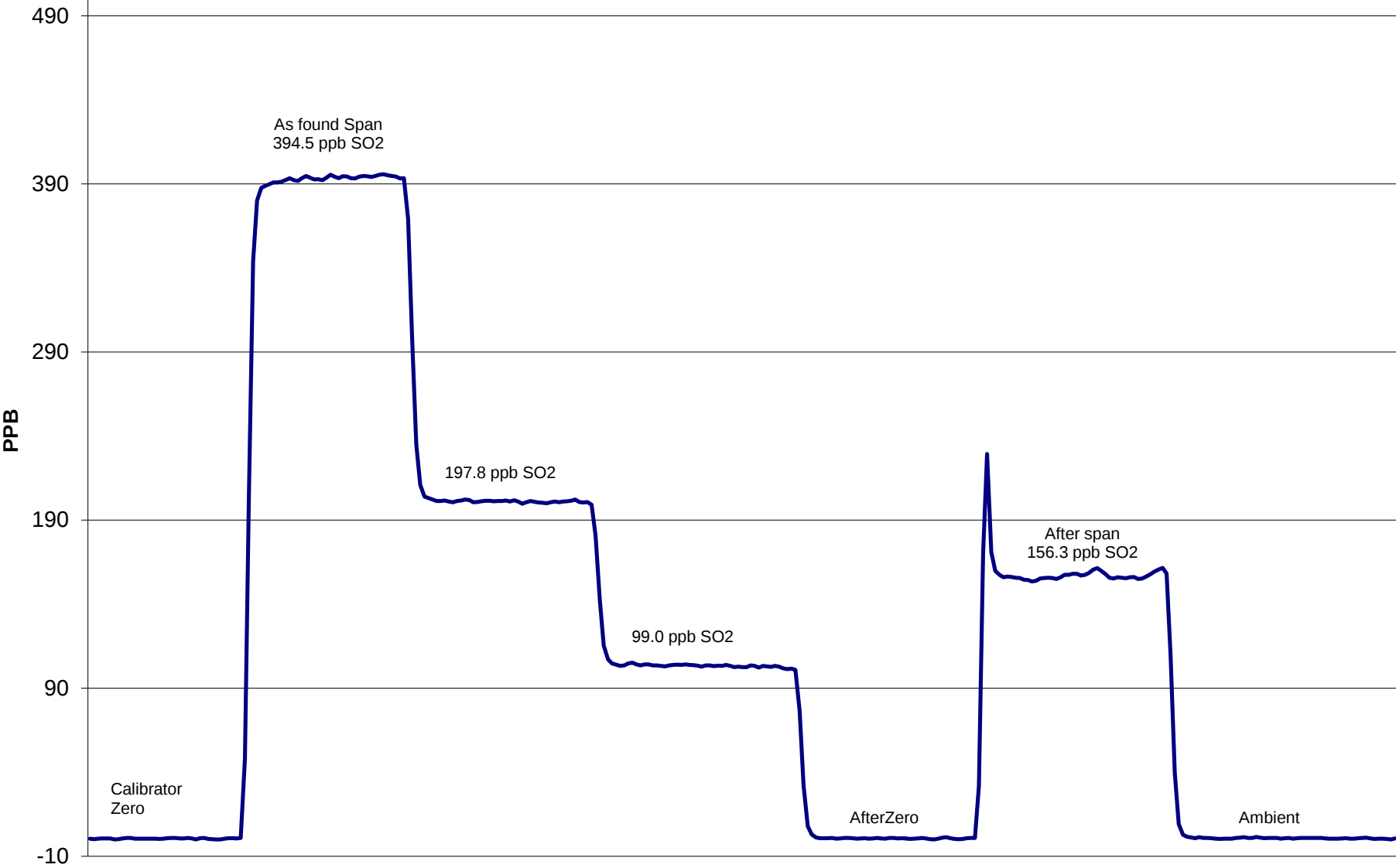
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.5	N/A	Correlation Coefficient	0.999866
394.5	394.2	1.0010		
197.8	201.1	0.9834		
99.0	102.9	0.9628	Slope	1.004218
			Intercept	-2.554109

SO2 Calibration Curve



SO2 Calibration



January 7, 2011

Calibration Report

Parameter H2S

Air Monitoring Network PASZA



Station Information

Calibration Date	January 6, 2011	Previous Calibration	December 22, 2011
Station Number	6	Station Location	Valleyview
Reason:	Routine	Install	Removal
Start Time (MST)	9:30	End Time (MST)	12:25
Barometric Pressure	702.00 mm	Station Temperature	21.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
Cal Gas Concentration	5.77 ppm	Cal Gas Expiry Date	9/3/2012
Gas Cert Reference	BLM001434		
DACS make	CR3000	DACS serial No.	5409
DACS voltage range	0 - 5 volt	DACS channel #	9
	Before		After
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	1.001953	Calculated slope	1.000274
Calculated intercept	-0.262029	Calculated intercept	-0.335700
Analyzer make	TEI Model 43i - APSCB	Analyzer serial #	701120010

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Back Ground	7.2	ppb	7.2	ppb
Coefficient	1.368		1.368	
Lamp Voltage	785	v	786	v
Chamber Temp	45.01	c	44.9	c
Perm Oven Temp	45.01	c	45.00	c
Pressure	624.50	mm Hg	624.40	mm Hg
Sample Flow	.422	ccm	.422	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)
4989	0.00	0.0	0.2	N/A
4989	69.79	79.6	79.8	0.9973
4989	34.87	40.0	40.6	0.9874
4989	8.96	10.3	10.7	0.9677
4989	0.00	0.0	0.3	As found zero
4989	69.79	79.6	79.8	As found span
Average Correction Factor				0.9841

Calculated value of As Found Response: 79.46 ppm Percent Change of As Found: 0.2%

	before calibration		after calibration	
Auto zero	0.0	ppm	0.2	ppm
Auto span	70.6	ppm	73.7	ppm

Notes: **Analyzer in daily span mode on arrival.**

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter H2S

Air Monitoring Network PASZA



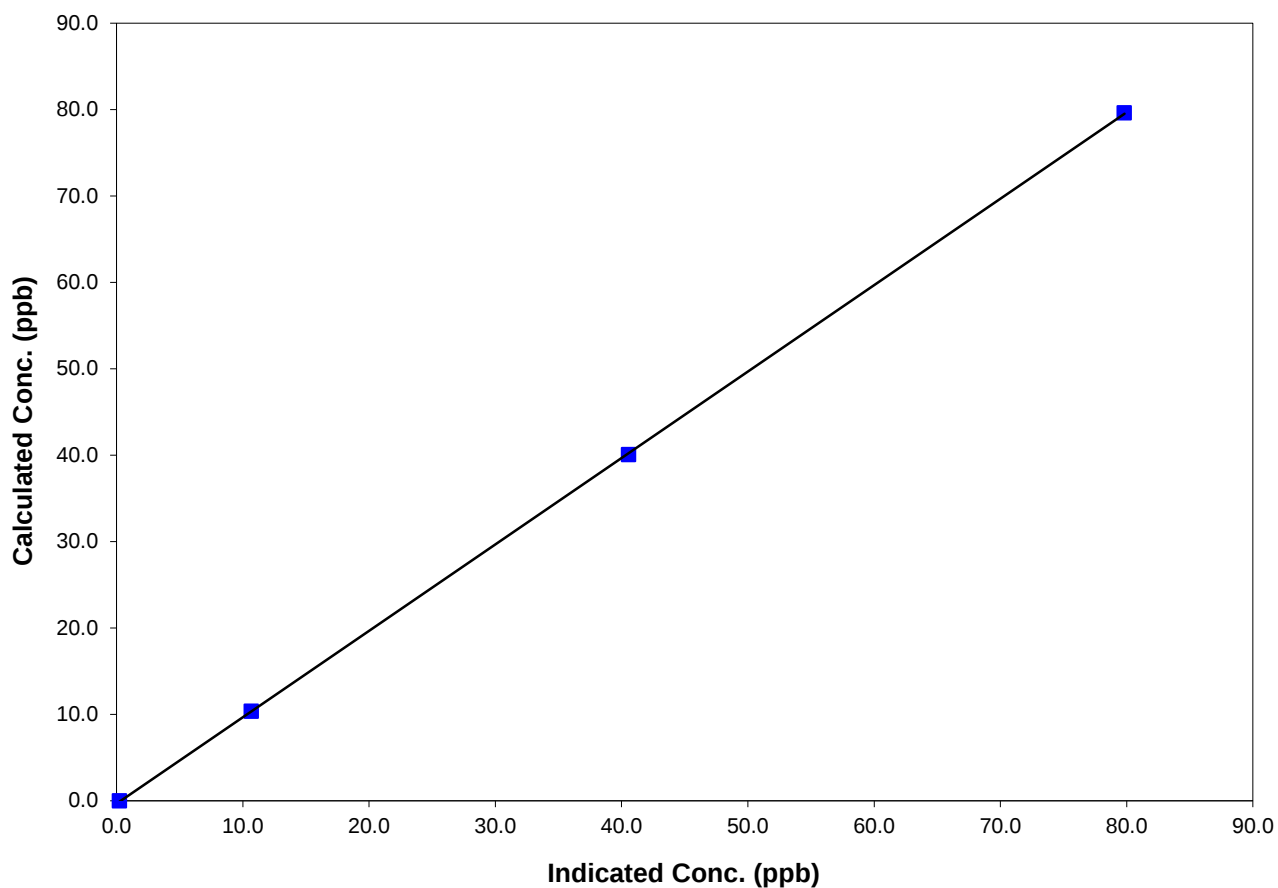
Station Information

Calibration Date	January 6, 2011	Previous Calibration	December 22, 2011
Station Number	6	Station Location	Valleyview
Start Time (MST)	9:30	End Time (MST)	12:25
Analyzer make/model	TEI Model 43i - APSCB	Analyzer serial #	701120010

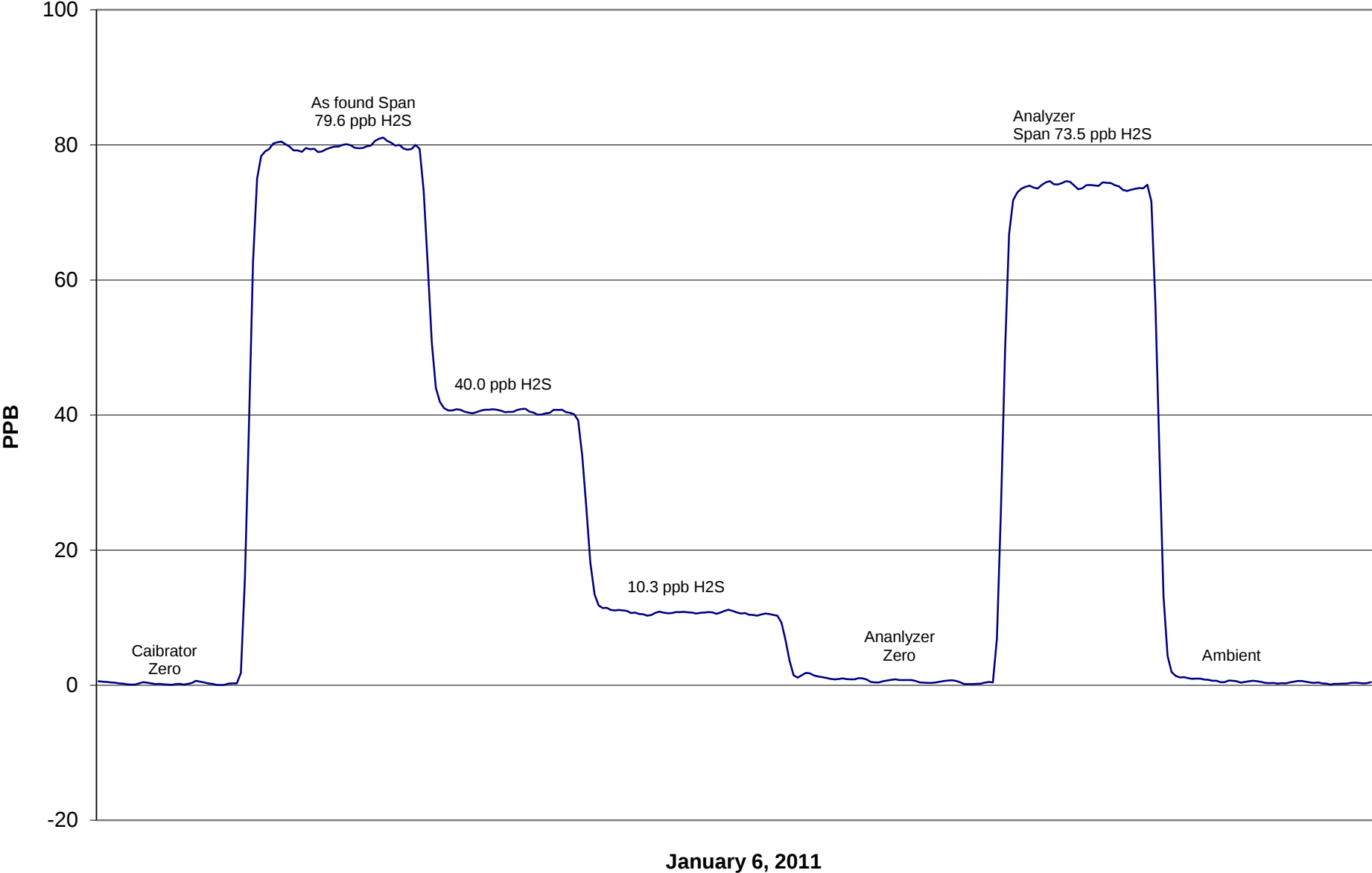
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A	Correlation Coefficient	0.999986
79.6	79.8	0.9973		
40.0	40.6	0.9874		
10.3	10.7	0.9677	Slope	1.000274
			Intercept	-0.335700

H2S Calibration Curve



H2S Calibration



Calibration Report

Parameter SO2
Air Monitoring Network PASZA



Station Information

Calibration Date	January 6, 2012	Previous Calibration	December 21, 2011
Station Name	PAZA Rover	Station Location	Sunset House
Reason:	Routine	Install	Removal
			Other:
Start Time (MST)	15:05	End Time (MST)	18:53
Barometric Pressure	31.70 inches Hg	Station Temperature	19.7 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
Cal Gas Concentration	49.8 ppm	Cal Gas Expiry Date	4/6/2012
Gas Cert Reference	SGAL3245		
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	1.001182	Calculated slope	1.001379
Calculated intercept	-1.506675	Calculated intercept	-1.993532
Analyzer make	TEI 43C	Analyzer serial #	609716238

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Background	14.4		14.4	
Coefficient	0.994		0.960	
UV Lamp Voltage	788	V	796	V
Chamber Temp	44.4	C	44.2	C
Perm Gas Temp	45	C	45	C
Pressure	666.7	mm Hg	662.3	mm Hg
Sample Flow	0.483	LPM	0.481	LPM
Lamp Intesity	37685	Hz	37743	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)
4989	0.00	0.0	0.1	N/A
4989	39.84	394.5	395.1	0.9985
4989	19.90	197.9	200.2	0.9881
4989	9.93	98.9	102.8	0.9619
4989	0.00	0.0	0.1	As found zero
4989	39.84	394.5	406.9	As found span
Average Correction Factor				0.9829

Calculated value of As Found Response: 405.751 ppm Percent Change of As Found: -2.8%

	before calibration		after calibration	
Auto zero	0.3	ppm	0.3	ppm
Auto span	264.0	ppm	266.5	ppm

Notes: _____

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter SO2

Air Monitoring Network PASZA



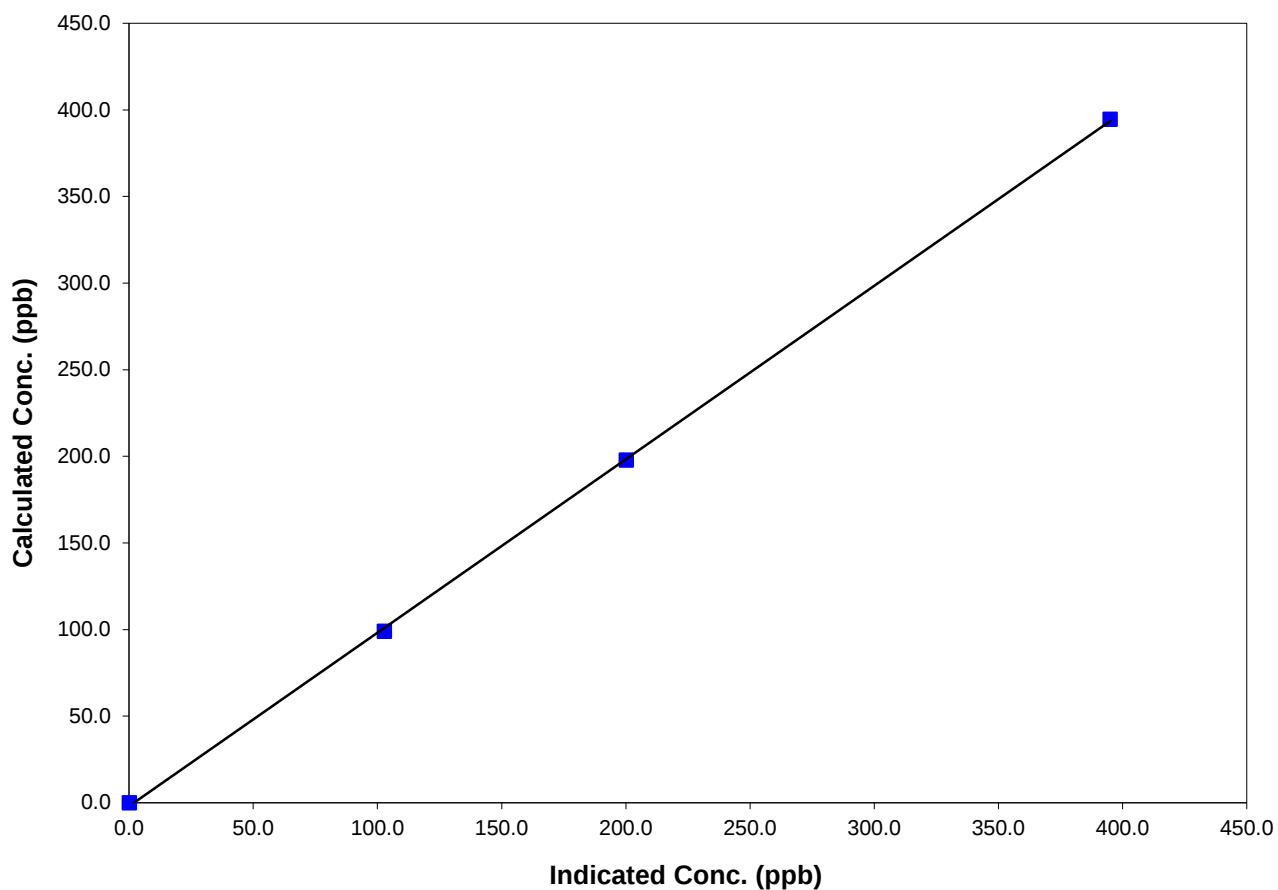
Station Information

Calibration Date	January 6, 2012	Previous Calibration	December 21, 2011
Station Number	PAZA Rover	Station Location	Sunset House
Start Time (MST)	15:05	End Time (MST)	18:53
Analyzer make/model	TEI 43C	Analyzer serial #	609716238

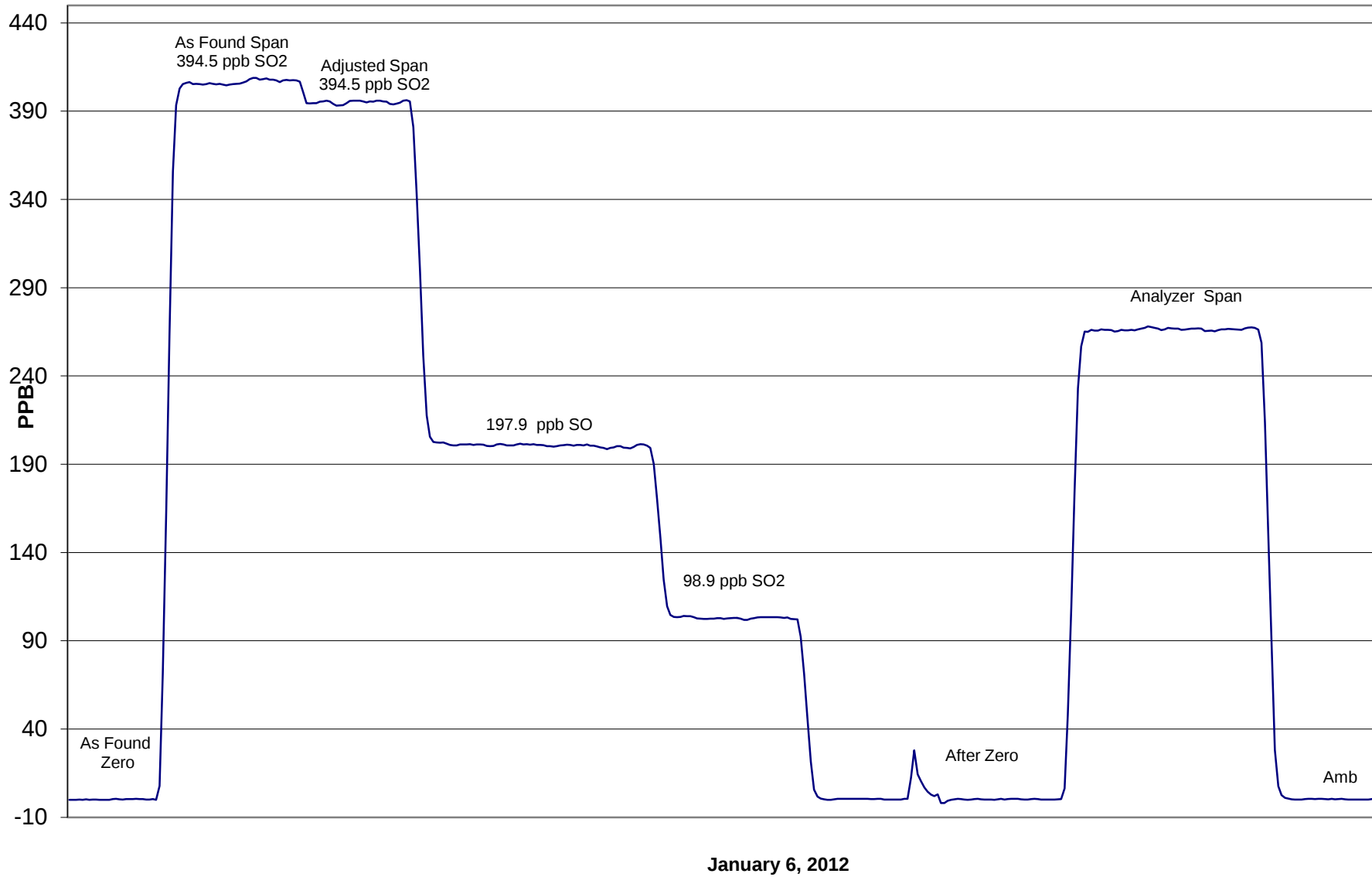
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A	Correlation Coefficient	0.999895
394.5	395.1	0.9985		
197.9	200.2	0.9881		
98.9	102.8	0.9619	Slope	1.001379
			Intercept	-1.993532

SO2 Calibration Curve



SO2 Calibration



Calibration Report



Parameter 03

Air Monitoring Network PASZA

Station Information

Calibration Date	January 6, 2012	Previous Calibration	December 21, 2011
Station Number	9	Station Location	Sunset House
Reason:	Routine	☐ Install	☐ Removal remove ☐ Other:

Start Time (MST)	17:40:00 PM	End Time (MST)	19:54
Barometric Pressure	0.911 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	0.965168	Calculated slope	0.967079
Calculated intercept	-1.520580	Calculated intercept	1.293631

Analyzer make	TEI Model 49C	Analyzer serial #	49C-0609716240
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	before		after	
Concentration range	0-500	ppb	0-500	ppb
Offset	-2	ppb	-2.1	ppb
Span	1.086		1.086	
Cell A intensity	37161	Hz	87512	Hz
Cell B intensity	99212	Hz	99212	Hz
Pressure	686.00	in Hg	685.90	in Hg
CellA Flow	1.346	ccm	1.178	ccm
Cell B Flow	0.724	cmm	0.723	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)
4990	0.00	0.0	0.4	N/A
4989	0.30	239.1	246.6	0.9695
4989	0.20	162.0	166.7	0.9716
4989	0.10	91.0	89.7	1.0142
4989	0.00	0.0	0.4	As found zero
4989	0.30	239.1	246.6	As found span
Average Correction Factor				0.9851

Calculated value of As Found Response: 236.1 ppm Percent Change of As Found: -1.2%

	before calibration		after calibration	
Auto zero	0.6	ppb	1.5	ppb
Auto span	137.7	ppb	255.1	ppb

Notes: Clean cell & detector housing. Allow stabilize.

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter O3

Air Monitoring Network PASZA



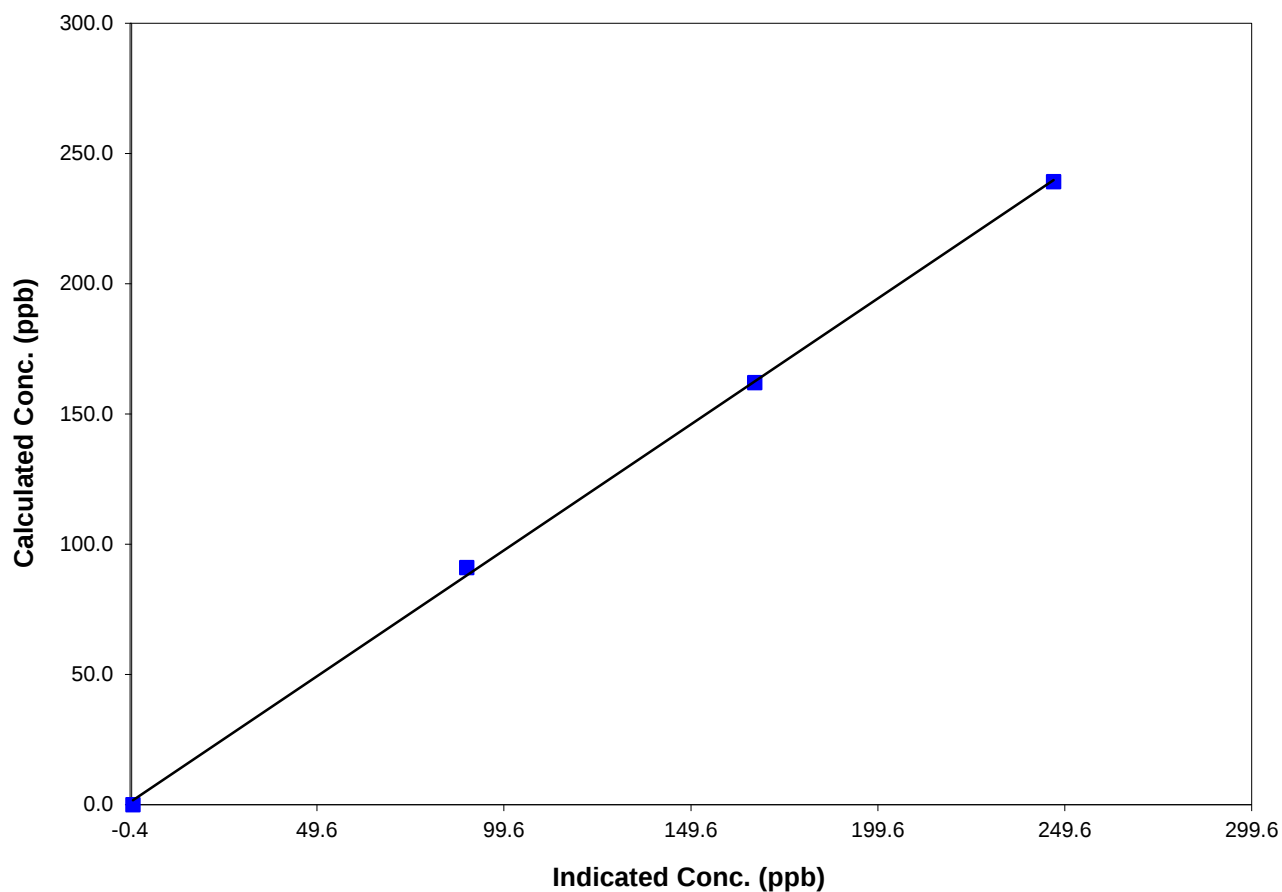
Station Information

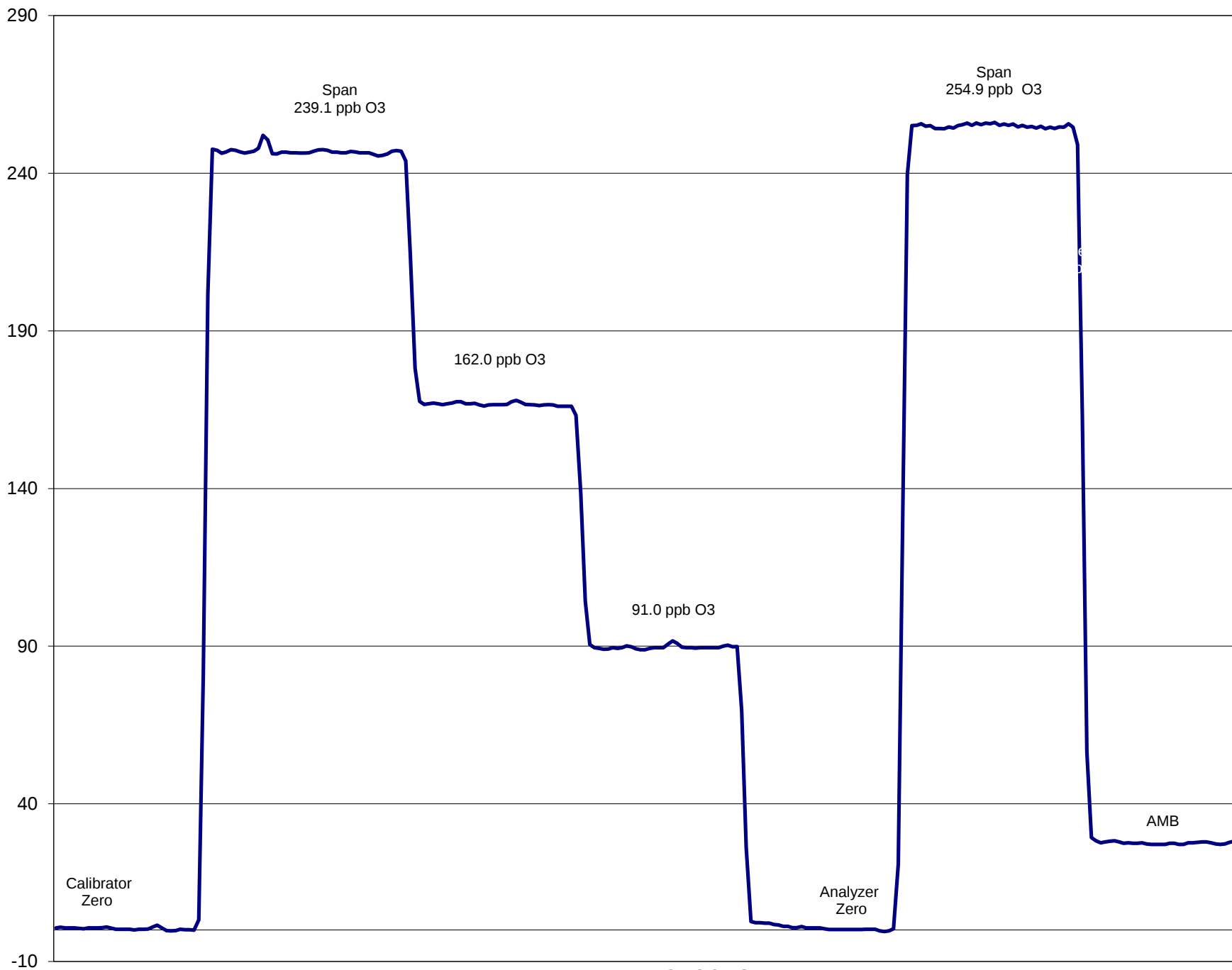
Calibration Date	January 6, 2012	Previous Calibration	December 21, 2011
Station Number	9	Station Location	Sunset House
Start Time (MST)	17:40:00 PM	End Time (MST)	19:54
Analyzer make/model	TEI Model 49C	Analyzer serial #	49C-0609716240

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.4	NA	Correlation Coefficient	0.999607
239.1	246.6	0.9695		
162.0	166.7	0.9716		
91.0	89.7	1.0142	Slope	0.967079
			Intercept	1.293631

O3 Calibration Curve





January 6, 2012

Calibration Report



Parameter **TRS**
 Air Monitoring Network **PASZA**

Station Information

Calibration Date	January 6, 2012	Previous Calibration	December 21, 2011
Station Name	PAZA Rover	Station Location	Sunset House
Reason:	Routine	Install	Removal
Start Time (MST)	12:30	End Time (MST)	15:52
Barometric Pressure	27.5 inches Hg	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
Cal Gas Concentration	5.77 ppm	Cal Gas Expiry Date	9/13/2011
Gas Cert Reference	BLM001434		
DACS make	CR3000	DACS serial No.	5407
DACS voltage range	0 - 5 Volt	DACS channel #	1
	<u>Before</u>		<u>After</u>
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	1.009583	Calculated slope	1.015370
Calculated intercept	0.294861	Calculated intercept	0.369981
Analyzer make	TEI 43C	Analyzer serial #	609716238

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	13.0	ppb	12.5	ppb
Coefficient	1.444		1.388	
Lamp Voltage	795	V	795	V
Chamber Temp	44.2	C	44.2	C
Perm gas Temp	45.0	C	45.0	C
Pressure	646.2	mmHg	645.1	mmHg
Sample Flow	.431	ccm	.430	ccm
Lamp Intensity	39122.0	Hz	39057.0	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)
4988	0.0	0.0	-0.3	N/A
4988	69.72	79.5	78.1	1.0187
4988	34.83	40.0	38.8	1.0313
4988	8.93	10.3	9.9	1.0415
4988	0.00	0.0	-0.3	As found zero
4988	69.72	79.5	81.0	As found span
Average Correction Factor				1.0305

Calculated value of As Found Response: 82.46 ppm Percent Change of As Found: -3.7%

	before calibration		after calibration	
Auto zero	-0.6	ppm	-0.2	ppm
Auto span	69.6	ppm	63.8	ppm

Notes:

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter TRS

Air Monitoring Network PASZA



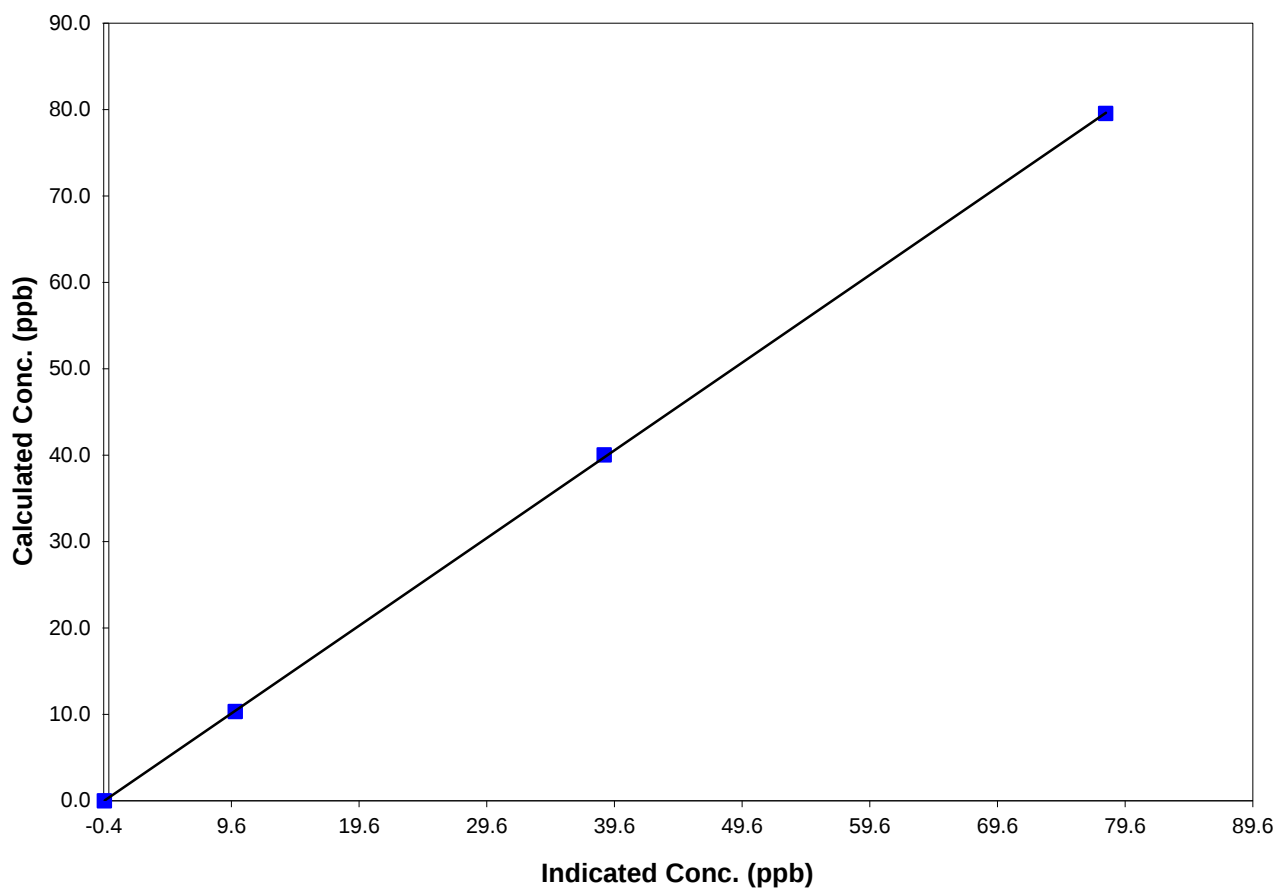
Station Information

Calibration Date	January 6, 2012	Previous Calibration	December 21, 2011
Station Number	PAZA Rover	Station Location	Sunset House
Start Time (MST)	12:30	End Time (MST)	15:52
Analyzer make/model	TEI 43C	Analyzer serial #	609716238

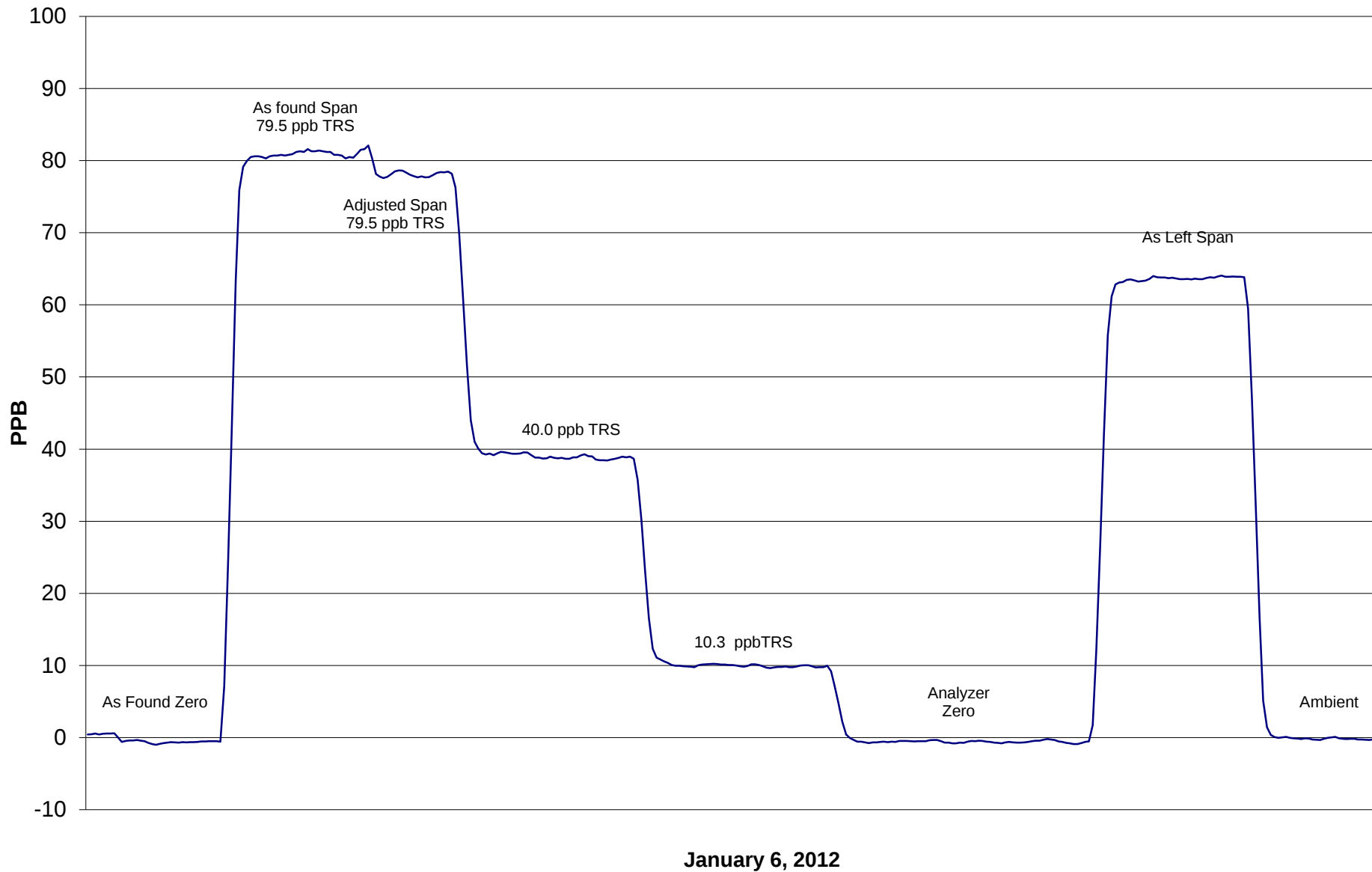
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.3	N/A	Correlation Coefficient	0.999977
79.5	78.1	1.0187		
40.0	38.8	1.0313		
10.3	9.9	1.0415	Slope	1.015370
			Intercept	0.369981

TRS Calibration Curve



TRS Calibration



AB TEOM PM2.5 Calibration



STATION: Rover-Sunset House
 LOCATION: PASZA - Grande Prairie

OPERATOR: Grover Christiansen
 DATE: 6-Jan-12

MONITOR INFO / PARAMETER VALUES:

Make/Model	TEOM AB
Configuration	PM2.5
Serial Number	21551
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	2-Oct-11
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	0.010	0.010
PUMP OFF	0.000	0.000
NET	0.010	0.010
LIMITS	<0.15	<0.60

	Ambient Temp. (° C)	Ambient Pres. (atm)	Ko *	Bypass flow (lpm)	Sample flow (lpm)
SET POINT (S)	na	na	10124	13.67	3.000
INDICATED (I)	-3.0	0.911		13.67	2.990
MEASURED (AF)	-3.4	0.911		13.71	3.020
MEASURED (M)	-3.4	0.911	10089	13.71	3.020
DIFFERENCE (M-I)	-0.4	0.000	-0.3%	0.29	0.67
LIMITS	± 2 ° 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:

TEOM on line as of 17:00 MST January 6, 2012

TEOM control unit S/N: 140AB215519705

TEOM sensor unit S/N: 1200B137649705

Sample Head Inspection/Cleaning:

Large In Line Filter Inspection & Or Cleaning: