



Peace AirShed Zone Association

Ambient Air Monitoring Network Summary

**Continuous Ambient Air Quality Monitoring Program
Monthly Report
January 2011**

Operations and Reporting
FOCUS
AIR QUALITY MONITORING

March 9, 2011

Alberta Environment
11th Floor, Oxbridge Place
9820-106 Street
Edmonton Alberta T6B 2X3

RE: Peace Airshed Zone Association (PASZA) – January 2011 Ambient Air Report

Enclosed is the PASZA Ambient Monitoring Network Report for the month of **January 2011**.

This report is submitted by PASZA 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.	Sunset House	06-22-0707-20-W5	138884-01-00
	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
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	00000029-01-00
	Progress/Gordondale	01-01-077-10-W6	00010036-02-00
	Gold Creek	13-26-067-05-W6	00010446-02-00
	Teepee Creek	SE-2-074-04-W6	00001635-02-00
Conocophillips Canada Energy Partnership	Wembley	06-19-073-08-W6	00000212-01-00

Devon Canada	Tangent	16-20-080-24-W5	00011346-01-00
	NW Belloy (Dunvegan)	16-36-079-03-W6	00009810-02-00
	Eaglesham (South)	02-14-077-25-W5	00047669-01-00
	Puskwaskau	03-26-074-01-W6	00017524-01-00
	North Normanville	03-36-079-23-W5	00047455-01-00
	West Culp	05-34-078-25-W6	00136284-00-00
	Cecil	08-15-084-08-W6	00010032-02-00
EnCana Corporation	Hythe Brainard	11-18-074-12-W6	00010910-02-00
	Sexsmith	04-08-075-07-W6	00010002-01-00
Galleon Energy Inc.	Eaglesham	01-25-076-01-W6	00241532-00-00
	Kakut	14-12-075-03-W6	00248469-00-00
	Donnelly	06-01-077-21-W5	00000087-02-00
Grande Prairie Generation Inc.	Northern Prairie Power Project	04-19-073-08-W6	00238762-00-00
Penn West Petroleum Ltd.	Tangent	13-29-080-23-W5	00001746-02-00
	Pouce Coupe	16-07-078-11-W6	00000614-01-00
Spectra Energy Midstream	Gordondale	11-26-079-09-W6	00011495-02-00
	Fourth Creek	16-11-082-09-W6	00000263-01-00
Suncor Energy Inc.	Progress	07-22-078-09-W6	00011428-02-00
Taqa North Ltd.	Valhalla	13-21-076-09-W6	00017620-01-00
Weyerhaeuser Canada	Grande Prairie Pulp and Wood Plant	01-14-070-05-W6	00000113-02-00

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

Continuous Monitoring: Six (6) Stations including Henry Pirker (Grande Prairie), Evergreen Park, Smoky Heights, Beaverlodge, Bonanza (portable) and Valleyview.

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.
- ◆ All analyzers and sensors at the Henry Pirker station had an operational uptime greater than 90% for the month of January with the exception of the TEOM - **Alberta Environment Reference #244571**.

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 Smoky Heights station had an operational uptime greater than 90% for the month of January.

Beaverlodge Station:

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

Portable – Bonanza Station:

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

Passive Monitoring - 43 Stations throughout the PASZA zone:

There were four duplicate sites sampled in the month of January: Silver Valley, Pinto Creek, Fitzsimmons and Guy. The passive samples at Shaftesbury and McLennan were not collected as roads were inaccessible due to heavy snow conditions; therefore there are no results for the SO₂, NO₂ and O₃ samples for the month of January. The passive sample analyses were performed by MAXXAM Analytics Inc.

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

- Monthly average concentrations for SO₂ passives ranged from 0.1 ppb to 0.5 ppb, with a mean of 0.3 ppb.
- Monthly average concentrations for NO₂ passives ranged from 0.5 ppb to 9.6 ppb, with a mean of 1.6 ppb.
- Monthly average concentrations for O₃ passives ranged from 25.6 ppb to 42.9 ppb, with a mean of 36.5 ppb.

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

On Behalf of the,
Peace Airshed Zone Association

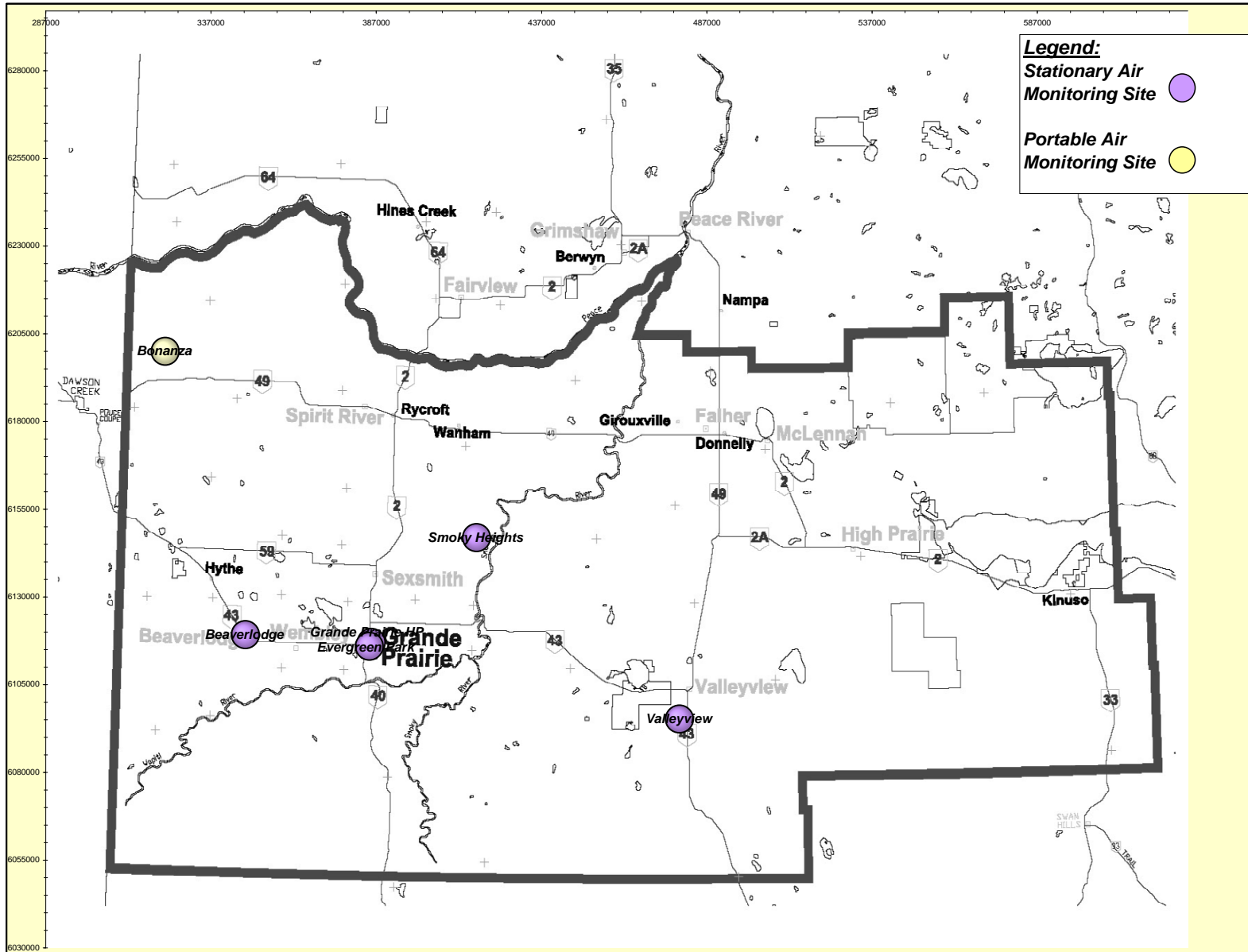


Shelly Pruden
Program Manager



Sharon Whiteley, B.Sc.
FOCUS AQM Data Specialist

Location of PASZA Continuous Monitoring Stations



PASZA Monthly Continuous Data Summary

Jan-2011		Peace Airshed Zone Association					Maximum Recorded Values				Operational Time (%)
							1-hr		24-hr / 8-hr		
Pollutant (units)	Objectives		Station	Monthly Average	Exceedence		Conc	Day	Conc	Day	
	1-hr	24-hr			1-hr	24-hr					
SO ₂ (ppb)	172	48	Henry Pirker	0.4	0	0	4.5	Jan-24 23:00	1.0	Jan-24	99.2%
SO ₂ (ppb)	172	48	Evergreen Park	0.3	0	0	6.7	Jan-18 09:00	1.2	Jan-18	99.9%
SO ₂ (ppb)	172	48	Smoky Heights	0.8	0	0	14.3	Jan-30 02:00	3.3	Jan-30	100.0%
SO ₂ (ppb)	172	48	Beaverlodge	0.5	0	0	3.6	Jan-29 01:00	1.3	Jan-29	99.5%
SO ₂ (ppb)	172	48	Portable-Bonanza	0.4	0	0	8.3	Jan-02 00:00	1.1	Jan-17	99.9%
SO ₂ (ppb)	172	48	Valleyview	1.0	0	0	31.4	Jan-06 07:00	6.4	Jan-06	100.0%
NO (ppb)			Henry Pirker	7.5	0	0	94.5	Jan-11 19:00	34.8	Jan-03	99.1%
NO ₂ (ppb)	212	106	Henry Pirker	14.8	0	0	51.4	Jan-23 23:00	32.5	Jan-03	99.1%
NO _x (ppb)			Henry Pirker	22.4	0	0	145.8	Jan-23 23:00	67.3	Jan-03	99.1%
NO (ppb)			Beaverlodge	1.7	0	0	67.0	Jan-10 13:00	14.5	Jan-31	96.4%
NO ₂ (ppb)	212	106	Beaverlodge	5.3	0	0	29.1	Jan-10 13:00	21.0	Jan-31	96.4%
NO _x (ppb)			Beaverlodge	6.9	0	0	96.5	Jan-10 13:00	35.2	Jan-31	96.4%
NO (ppb)			Portable-Bonanza	0.9	0	0	40.8	Jan-31 20:00	14.2	Jan-31	97.3%
NO ₂ (ppb)	212	106	Portable-Bonanza	3.6	0	0	61.3	Jan-31 20:00	14.2	Jan-31	97.3%
NO _x (ppb)			Portable-Bonanza	4.4	0	0	102.0	Jan-31 20:00	20.1	Jan-31	97.3%
O ₃ (ppb)	82		Henry Pirker	20.3	0	-	44.6	Jan-22 23:00	37.6	Jan-22	99.2%
O ₃ (ppb) - 8-hr			Henry Pirker		0				42.0	Jan-23	
O ₃ (ppb)	82		Beaverlodge	31.1	0	-	48.2	Jan-22 18:00	44.8	Jan-23	99.7%
O ₃ (ppb) - 8-hr			Beaverlodge		0				46.7	Jan-22	
O ₃ (ppb)	82		Portable-Bonanza	30.0	0	-	46.6	Jan-22 17:00	43.8	Jan-23	99.9%
O ₃ (ppb) - 8-hr			Portable-Bonanza		0				45.8	Jan-22	
CO (ppm)	13		Henry Pirker	0.23	0	-	1.3	Jan-23 23:00	0.5	Jan-03	99.5%
CO (ppm) - 8-hr		5	Henry Pirker		0				0.8	Jan-01	
THC (ppm)			Henry Pirker	2.21	-	-	3.6	Jan-11 21:00	2.9	Jan-03	99.5%
TRS (ppb)			Henry Pirker	0.3	-	-	3.8	Jan-24 18:00	0.6	Jan-24	99.2%
TRS (ppb)			Evergreen Park	0.6	-	-	2.6	Jan-05 16:00	1.1	Jan-10	99.9%
TRS (ppb)			Smoky Heights	0.4	-	-	0.8	Jan-03 13:00	0.5	Jan-26	100.0%
TRS (ppb)			Portable-Bonanza	0.6	-	-	7.7	Jan-10 01:00	1.8	Jan-10	99.9%
H ₂ S (ppb)	10	3	Valleyview	0.1	0	0	8.3	Jan-26 20:00	0.7	Jan-26	99.7%

PASZA Monthly Continuous Data Summary – continued

Jan-2011		Peace Airshed Zone Association					Maximum Recorded Values				
							1-hr		24-hr / 8-hr		
PM2.5 (µg/m3)	80	30	Henry Pirker	9.9	0	0	40.8	Jan-11 19:00	21.6	Jan-08	83.9%
PM2.5 (µg/m3)	80	30	Evergreen Park	2.7	0	0	57.4	Jan-27 05:00	9.7	Jan-31	97.6%
PM2.5 (µg/m3)	80	30	Smoky Heights	2.4	0	0	48.9	Jan-10 00:00	5.9	Jan-09	98.1%
PM2.5 (µg/m3)	80	30	Beaverlodge	4.9	0	0	27.4	Jan-11 16:00	17.0	Jan-11	99.5%
RH (%)			Henry Pirker	68.0	-	-	89.7	Jan-26 07:00	78.3	Jan-04	95.8%
RH (%)			Evergreen Park	72.3	-	-	96.3	Jan-26 07:00	86.1	Jan-08	99.9%
RH (%)			Beaverlodge	71.4	-	-	90.0	Jan-03 04:00	83.2	Jan-08	99.7%
RH (%)			Valleyview	73.1	-	-	96.0	Jan-05 02:00	90.4	Jan-05	100.0%
SR (W/m ²)			Henry Pirker	18.9	-	-	212.9	Jan-23 14:00	43.4	Jan-23	95.8%
Temp (°C)			Henry Pirker	-12.0	-	-	8.1	Jan-27 13:00	3.5	Jan-27	98.9%
Temp (°C)			Evergreen Park	-10.8	-	-	8.8	Jan-27 13:00	5.4	Jan-26	99.9%
Temp (°C)			Smoky Heights	-12.7	-	-	6.0	Jan-27 14:00	3.8	Jan-26	100.0%
Temp (°C)			Beaverlodge	-10.4	-	-	6.6	Jan-26 19:00	4.7	Jan-26	99.7%
Temp (°C)			Portable-Bonanza	-11.4	-	-	6.8	Jan-27 07:00	4.4	Jan-26	99.9%
Temp (°C)			Valleyview	-11.5	-	-	9.2	Jan-27 14:00	5.3	Jan-27	100.0%
WSPD s (km/hr)			Henry Pirker	9.3	-	-	43.0	Jan-06 01:00	20.7	Jan-22	98.9%
WSPD s (km/hr)			Evergreen Park	7.3	-	-	34.0	Jan-06 06:00	21.6	Jan-22	94.1%
WSPD s (km/hr)			Smoky Heights	13.3	-	-	50.0	Jan-22 23:00	28.8	Jan-06	99.9%
WSPD s (km/hr)			Beaverlodge	12.0	-	-	60.0	Jan-22 22:00	31.4	Jan-22	99.7%
WSPD s (km/hr)			Portable-Bonanza	13.5	-	-	53.0	Jan-22 21:00	30.5	Jan-22	94.8%
WSPD s (km/hr)			Valleyview	6.3	-	-	29.0	Jan-27 20:00	14.5	Jan-28	93.6%
WSPD v (km/hr)			Henry Pirker	4.9	-	-	42.0	Jan-06 01:00	20.1	Jan-22	98.9%
WSPD v (km/hr)			Evergreen Park	4.3	-	-	34.0	Jan-06 06:00	21.3	Jan-22	94.1%
WSPD v (km/hr)			Smoky Heights	6.8	-	-	50.0	Jan-22 23:00	28.5	Jan-06	99.9%
WSPD v (km/hr)			Beaverlodge	6.8	-	-	60.0	Jan-22 22:00	30.7	Jan-22	99.7%
WSPD v (km/hr)			Portable-Bonanza	8.3	-	-	53.0	Jan-22 21:00	30.0	Jan-22	94.8%
WSPD v (km/hr)			Valleyview	3.0	-	-	29.0	Jan-27 20:00	13.3	Jan-28	93.6%
WDIR			Henry Pirker	WNW	-	-	-	-	-	-	98.9%
WDIR			Evergreen Park	WNW	-	-	-	-	-	-	94.1%
WDIR			Smoky Heights	W	-	-	-	-	-	-	99.9%
WDIR			Beaverlodge	W	-	-	-	-	-	-	99.7%
WDIR			Portable-Bonanza	WSW	-	-	-	-	-	-	94.8%
WDIR			Valleyview	NW	-	-	-	-	-	-	93.6%

Continuous Network Equipment Summary

PASZA – Henry Pirker Station

General Station Issues

Routine monthly calibrations were performed on January 3rd (TRS, CO & THC), January 4th (SO₂ NO_x & O₃), and January 11th (PM_{2.5}). On January 26th the AP1000 data logger was replaced with a new Campbell Scientific datalogger – Single points were done on the SO₂, TRS, NO_x, O₃, CO & THC analyzers prior to data logger replacement; several hours were flagged for maintenance for all parameters at this time. One (1) hour was flagged maintenance on January 31st to upload new configuration files for all parameters.

Parameter	Make	Model	Notes
SO ₂	TEI	43C	Five (5) hours were flagged for maintenance on January 26 th .
NO _x /NO/NO ₂	TEI	42C	Six (6) hours were flagged for maintenance on January 26 th .
O ₃	TEI	49C	Spans were outside the target January 1 st to 4 th – fluctuations due to external temperature. Five (5) hours were flagged for maintenance on January 26 th .
CO	TEI	48C	Three (3) hours were flagged for maintenance on January 26 th .
THC	TEI	51-CLT	Spans were outside the target January 25 th to 31 st – influences from external temperature. Three (3) hours were flagged for maintenance on January 26 th .
TRS	TEI	45C/43C	Spans were outside the target January 9 th to 17 th , 30 th and 31 st – influences from external temperature. Five (5) hours were flagged for maintenance on January 26 th .
PM _{2.5}	R&P	1400AB	One hundred and ten (110) hours were flagged for baseline drift. Four (4) hours were flagged invalid due to sporadic electronic software issue. Seven (7) hours were flagged for maintenance on January 26 th . AE Reference #244571.
RH	Met One	083D	Eight (8) hours were flagged for maintenance on January 26 th ; followed by twenty-two hours of invalid data – sensor was not set properly in new data logger.
ET	Met One	083D	Seven (7) hours were flagged for maintenance on January 26 th .
SR	Met One	096-1	Eight (8) hours were flagged for maintenance on January 26 th ; followed by twenty-two hours of invalid data – sensor was not set properly in new data logger.
WS / WD	Met One	010C/020C	Seven (7) hours were flagged for maintenance on January 26 th .

PASZA – Evergreen Park Station

General Station Issues

Routine monthly calibrations were performed on January 25th (SO₂ & TRS). A power failure on January 19th resulted in one (1) hour of invalid data for all parameters.

Parameter	Make	Model	Notes
SO ₂	TEI	43i	No operational issues observed, other than above noted power failure.
TRS	TEI	43C	No operational issues observed, other than above noted power failure.
PM _{2.5}	R&P	1400AB	Thirteen (13) hours were flagged for baseline drift. Four (4) hours were flagged invalid due to meteorological issues. One (1) hour flagged for above noted power failure.
ET	Met One/Gill	083D	No operational issues observed, other than above noted power failure.
RH	Met One/Gill		No operational issues observed, other than above noted power failure.
WS / WD	Met One/ Gill		Forty-three (43) hours flagged invalid due to freezing conditions. One (1) hour flagged for above noted power failure.

PASZA – Smoky Heights Station

General Station Issues

Routine monthly calibrations were performed on January 6th (TRS) and January 11th (SO₂).

Parameter	Make	Model	Notes
SO ₂	TEI	43C	A calibration was started on January 6 th but was aborted due to gas cylinder out – resumed January 11 th . Spans were outside the target range January 3 rd , 9 th to 11 th , 29 th & 30 th – influences from external temperatures.
TRS	TEI	43C	Spans were outside the target range January 13 th to 15 th & 31 st – influences from external temperatures.
PM _{2.5}	R&P	1400AB	Fourteen (14) hours were flagged due to baseline drift.
ET	Met One	083D	No operational issues observed.
WS / WD	Met One	010C/020C	One (1) hour was flagged invalid due to flatlining – caused by freezing conditions.

PASZA – Beaverlodge Station

General Station Issues

Routine monthly calibrations were performed on January 5th (SO₂, O₃ & NO_x) and January 27th (PM_{2.5}). On January 27th the AP1000 data logger was replaced with a new Campbell Scientific datalogger – Single points were done on the SO₂, NO_x & O₃, analyzers prior to data logger replacement; several hours were flagged for maintenance for all parameters at this time.

Parameter	Make	Model	Notes
SO ₂	TEI	43CTL	Four (4) hours were flagged maintenance on January 27 th . A second calibration was done after datalogger installation as it became apparent that the analyzer needed adjustment. New trigger pack has been ordered.
NO _x /NO/NO ₂	TEI	42C	Twenty-five (25) hours were flagged invalid due to baseline drift. Two (2) hours were flagged maintenance on January 27 th .
O ₃	TEI	49C	Two (2) hours were flagged maintenance on January 27 th .
PM _{2.5}	R&P	1400AB	Four (4) hours were flagged maintenance on January 27 th .
ET	n/a	n/a	Two (2) hours were flagged maintenance on January 27 th .
RH	n/a	n/a	Two (2) hours were flagged maintenance on January 27 th .
WS / WD	Blue Sky	857	Two (2) hours were flagged maintenance on January 27 th .

PASZA – Bonanza (Portable) Station

General Station Issues

Routine monthly calibrations were performed on January 12th (SO₂, TRS, NO_x & O₃). One (1) hour was flagged invalid due to DACS/communication error for all parameters.

Parameter	Make	Model	Notes
SO ₂	TEI	43C	No operational issues observed, other than above noted DACS failure.
TRS	TEI	43C	One (1) span outside the target range January 22 nd – due to external temperature fluctuations. No other operational issues observed, other than above noted DACS failure.
NO _x /NO/NO ₂	TEI	42I	Spans were outside the target from January 5 th to 11 th – due to temperature fluctuations. A second calibration was performed on January 13 th to replace pump, analyzer disabled from January 13 th to 14 th while troubleshooting ongoing. A third calibration was completed on January 14 th after second pump rebuild and all adjustments were made. A total of nineteen (19) hours were flagged for maintenance. One (1) hour was flagged for above noted DACS failure.
O ₃	TEI	49C	A second calibration was completed on January 14 th after issues with NO _x analyzer resolved. One (1) hour was flagged for above noted DACS failure.
ET	Met One		No operational issues observed, other than above noted DACS failure.
WS / WD	Met One	010C/020C	Thirty-eight (38) hours were flagged invalid due to flatlining caused by freezing conditions. One (1) hour was flagged for above noted DACS failure.

PASZA – Valleyview Station

General Station Issues

Routine monthly calibrations were performed on January 21st (SO₂ & H₂S).

Parameter	Make	Model	Notes
SO ₂	TEI	43i	No operational issues observed.
H ₂ S	TEI	43A	Maintenace (two (2) hours) and a second calibration were performed on January 23 rd to address flow issues. (Leak check, scrubber replacement and cap replacement).
ET	Gill	Met Pak 3	No operational issues observed.
RH	Gill	Met Pak 3	No operational issues observed.
WS	Gill	Met Pak 3	Forty-eight (48) hours were flagged invalid due to freezing conditions.
WD	Gill	Met Pak 3	Forty-eight (48) hours were flagged invalid due to freezing conditions.

PASZA
Henry Pirker Station
Monthly Summary Tables, Graphs and
Roses

Hourly Averages

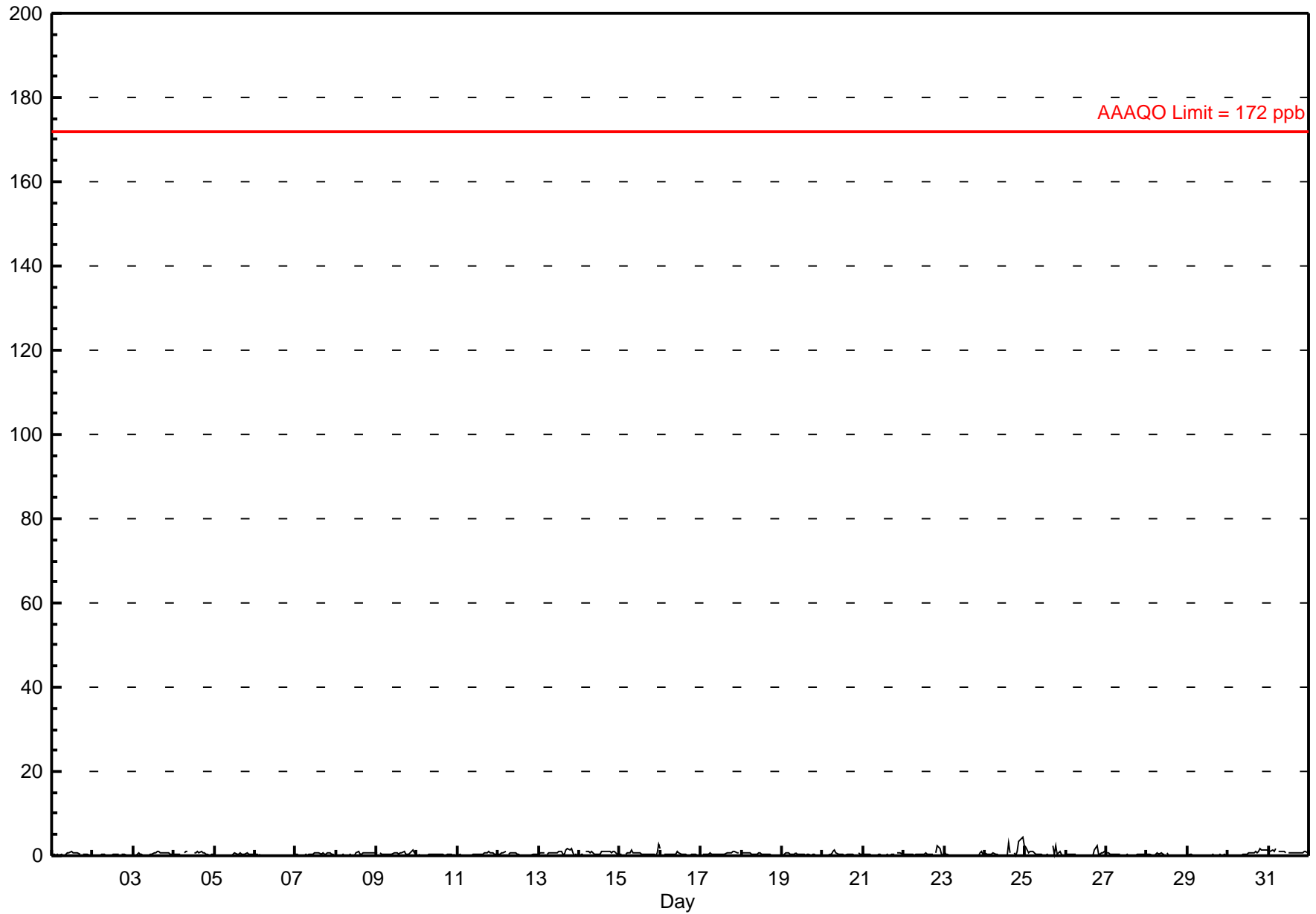
Sulphur Dioxide (SO₂) - ppb

Henry Pirker - January 2011

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 4.5 ppb on Jan 24 23:00	Maximum Daily Average: 1.0 ppb on Jan 24
Minimum Value: 0 ppb on Jan 6 20:00	Hours of Data: 703
Maximum Diurnal Average: 0.6 ppb at hour 21	Hours of Missing Data: 41
Monthly Average: 0.43 ppb	Hours of Calibration: 35
Minimum Daily Average: 0.1 ppb on Jan 29	Percent Operational Time: 99.2
Minimum Diurnal Average: 0.3 ppb at hour 10	
Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.1 Median = 0.3 Q ₃ = 0.6 P ₉₀ = 0.9 P ₉₉ = 2.5	

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	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	A	0	0	0	0	0	0	0.4	1.0
2-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	0.2	0.5
3-Jan	0	0	0	1	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	0	0	0.4	0.9
4-Jan	0	0	0	0	0	A	1	1	1	C	C	C	1	1	1	1	1	1	1	0	0	0	0	0	0.5	1.0
5-Jan	0	0	0	0	0	A	0	0	0	0	0	0	1	0	0	1	0	0	0	1	0	0	0	0	0.3	0.6
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	1	0	A	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0	1	1	0	0	0	0.4	0.8
8-Jan	0	0	A	0	0	0	0	0	0	0	0	1	1	1	0	0	1	1	1	1	1	1	1	1	0.4	0.9
9-Jan	1	A	1	0	0	0	0	0	0	0	1	1	1	0	1	1	1	0	0	0	1	1	1	1	0.6	1.4
10-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	A	0.2	0.5
11-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0.4	1.0
12-Jan	0	0	1	1	1	A	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.9
13-Jan	0	1	1	1	A	1	1	1	1	1	1	1	1	1	0	1	2	1	2	1	0	0	0	0	0.7	1.7
14-Jan	0	0	0	A	1	1	1	1	1	0	0	0	1	1	1	1	1	1	1	1	1	1	0	0	0.7	1.2
15-Jan	0	0	A	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	1	3	0.6	2.8
16-Jan	2	A	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0.4	1.8
17-Jan	A	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	A	0.5	1.1
18-Jan	1	1	1	1	1	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.7
19-Jan	0	0	1	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	A	A	0	0.3	0.7
20-Jan	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	A	1	0	0	0.3	1.4
21-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	1	1	0	0.3	0.7
22-Jan	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	A	1	2	2	0	0	0.4	2.4
23-Jan	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	1	0	0.2	0.9
24-Jan	1	0	0	0	0	1	0	0	0	0	0	0	0	0	3	1	A	1	0	1	4	4	4	2	1.0	4.5
25-Jan	2	2	1	1	1	1	1	0	0	0	0	0	0	0	A	2	0	2	0	1	0	0	0	0	0.7	2.5
26-Jan	0	0	0	0	0	0	0	C	C	C	M	M	M	M	M	0	0	1	2	0	0	1	1	1	--	2.5
27-Jan	1	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
28-Jan	0	0	0	0	0	0	1	0	1	0	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
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	A	0	0	0	0	0	1	1	1	1	1	1	1	2	1	1	1	1	0.6	1.6
31-Jan	1	1	1	1	2	A	1	1	1	1	1	M	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.5
	0.5	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.4	0.3	0.3	0.3	0.4	0.4	0.5	0.4	0.5	0.5	0.6	0.5	0.6	0.6	0.5	0.5		Diurnal Average
	2.2	1.5	1.2	1.2	1.5	1.1	1.0	1.4	1.0	0.9	0.9	1.0	0.9	0.9	3.2	1.0	2.5	1.6	2.5	1.7	3.5	3.7	4.5	2.8		Diurnal Maximum

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



Hourly Maximums

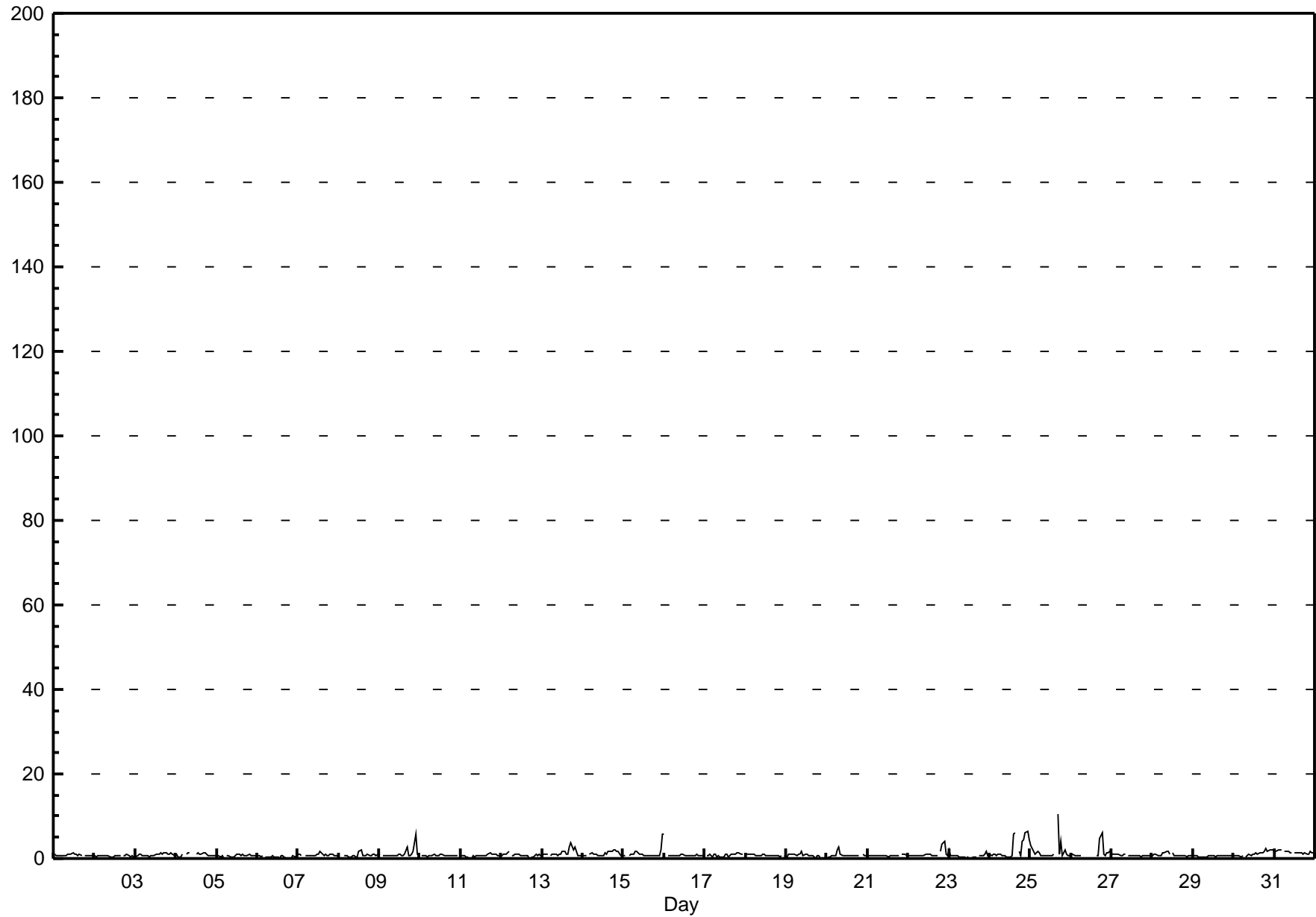
Sulphur Dioxide (SO₂) - ppb

Henry Pirker - January 2011

Maximum Value: 10.6 ppb on Jan 25 17:00		Maximum Daily Average: 2.1 ppb on Jan 24		Hours in Service: 744																						
Minimum Value: 0 ppb on Jan 11 07:00		Minimum Daily Average: 0.4 ppb on Jan 6		Hours of Data: 703																						
Maximum Diurnal Average: 1.3 ppb at hour 22		Minimum Diurnal Average: 0.7 ppb at hour 6		Hours of Missing Data: 41																						
Monthly Average: 0.92 ppb		Percentiles: P ₁ = 0.1 P ₁₀ = 0.5 Q ₁ = 0.6 Median = 0.6 Q ₃ = 1.1 P ₉₀ = 1.5 P ₉₉ = 5.7		Hours of Calibration: 35																						
				Percent Operational Time: 99.2																						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-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	0.7	1.3
2-Jan	1	1	1	1	1	1	1	1	1	0	0	0	1	1	1	1	A	1	1	1	1	0	1	1	0.5	1.0
3-Jan	0	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	0.9	1.5
4-Jan	1	1	0	0	1	A	1	1	2	C	C	C	1	2	1	1	1	1	1	1	1	1	1	1	0.9	1.5
5-Jan	1	1	1	1	0	A	1	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.2
6-Jan	1	1	0	1	A	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	1	0	1	0.4	0.7
7-Jan	1	1	1	A	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	0.8	1.6
8-Jan	1	0	A	1	1	1	0	0	1	1	0	0	2	2	1	1	1	1	1	1	1	1	1	1	0.7	2.2
9-Jan	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1	1	1	2	6	1	1	1.1	5.7
10-Jan	A	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	1.1
11-Jan	1	1	1	0	0	0	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	1.3
12-Jan	1	1	1	1	2	A	1	1	1	1	1	1	1	1	1	1	0	0	0	0	1	1	1	1	0.7	1.6
13-Jan	1	1	1	1	A	1	1	1	1	1	1	1	2	2	1	1	3	4	2	3	2	1	1	1	1.3	3.6
14-Jan	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	1	1	1.2	2.1
15-Jan	1	1	A	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2	6	1.1	5.7
16-Jan	6	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	5.7
17-Jan	A	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	2	2	1	1	0.8	1.5
18-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	A	A	0.7	1.1
19-Jan	0	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	0	1	1	1	A	0	0	0.8	1.6
20-Jan	0	0	0	1	1	1	2	3	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.7	2.6
21-Jan	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	A	1	1	1	0.6	1.1
22-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	2	3	4	1	1	1.1	4.2
23-Jan	2	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	A	1	1	1	1	2	1	0.6	2.2
24-Jan	1	1	1	1	1	1	1	1	1	1	0	0	0	1	6	6	A	2	1	4	5	6	7	5	2.1	6.6
25-Jan	3	2	2	1	2	1	1	1	1	1	1	1	1	1	A	11	1	4	1	2	1	1	1	1	1.6	10.6
26-Jan	1	1	1	1	1	1	1	C	C	C	M	M	M	M	M	1	1	5	6	1	1	1	2	2	--	6.2
27-Jan	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0.8	1.1
28-Jan	1	1	1	1	1	1	1	1	2	2	1	A	1	1	1	1	1	1	1	1	0	1	1	1	0.8	1.6
29-Jan	1	1	1	0	1	0	0	0	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0.6	0.7
30-Jan	1	1	1	1	0	1	A	0	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	1.2	2.4
31-Jan	2	2	2	2	2	A	2	2	2	1	1	M	1	1	1	1	1	1	1	1	1	2	1	1	1.5	2.1
	1.0	0.8	0.8	0.8	0.8	0.7	0.7	0.8	0.8	0.7	0.7	0.7	0.9	0.9	0.9	1.0	1.2	1.0	1.1	1.1	1.1	1.3	1.1	1.0	Diurnal Average	
	5.7	2.2	2.1	1.9	2.1	1.5	2.1	2.6	1.6	1.6	1.2	1.3	1.7	2.2	5.9	6.0	10.6	4.7	6.2	4.1	4.6	6.1	6.6	5.7	Diurnal Maximum	
C - Calibration		M - Maintenance					A - Automated Daily Zero Span																			

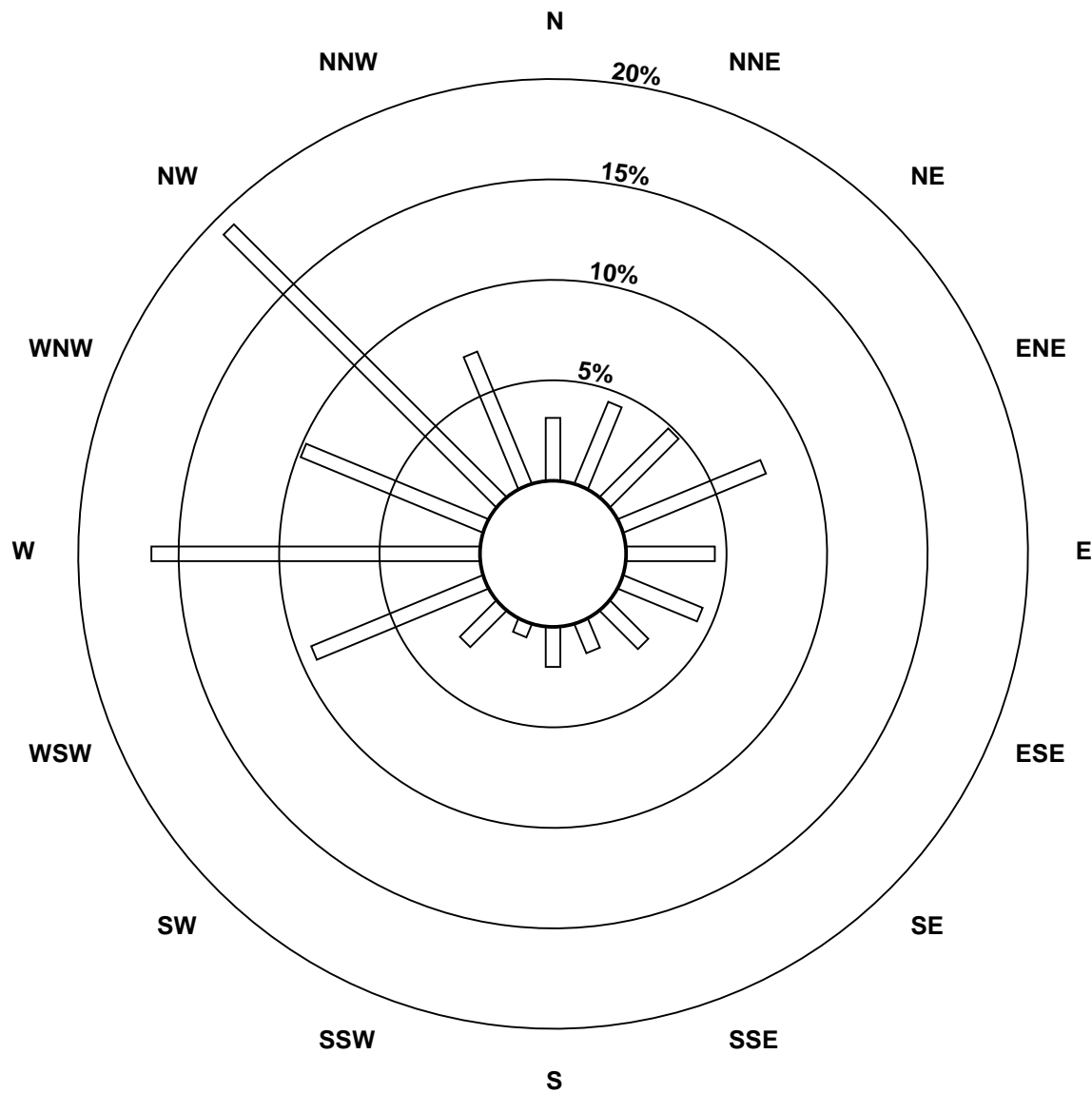
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Henry Pirker - January 2011

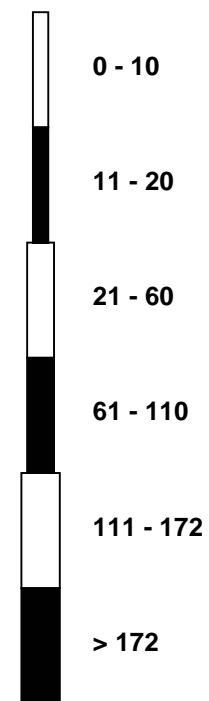


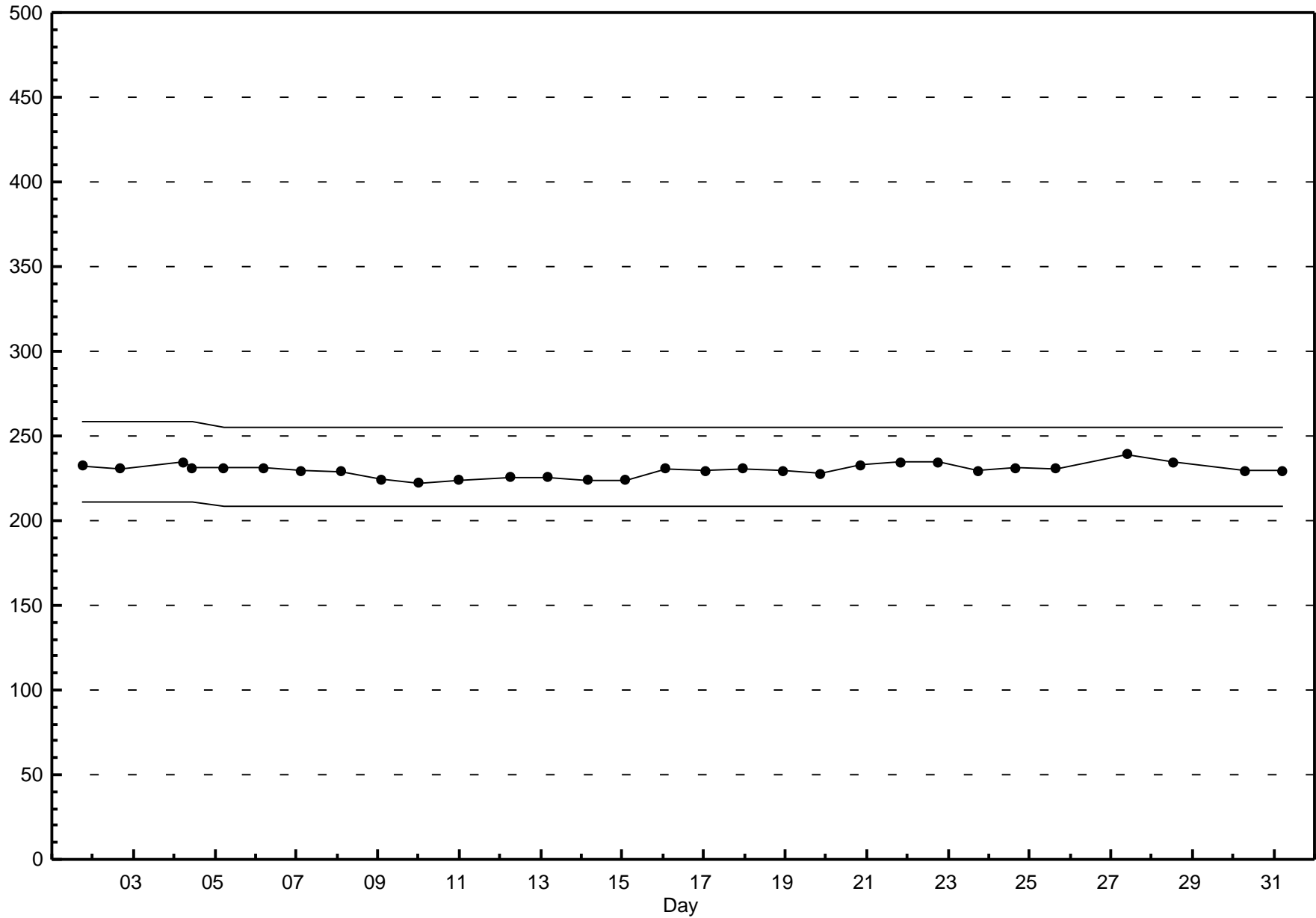
Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Henry Pirker - January 2011



Pollutant Classes (ppb)





Hourly Averages

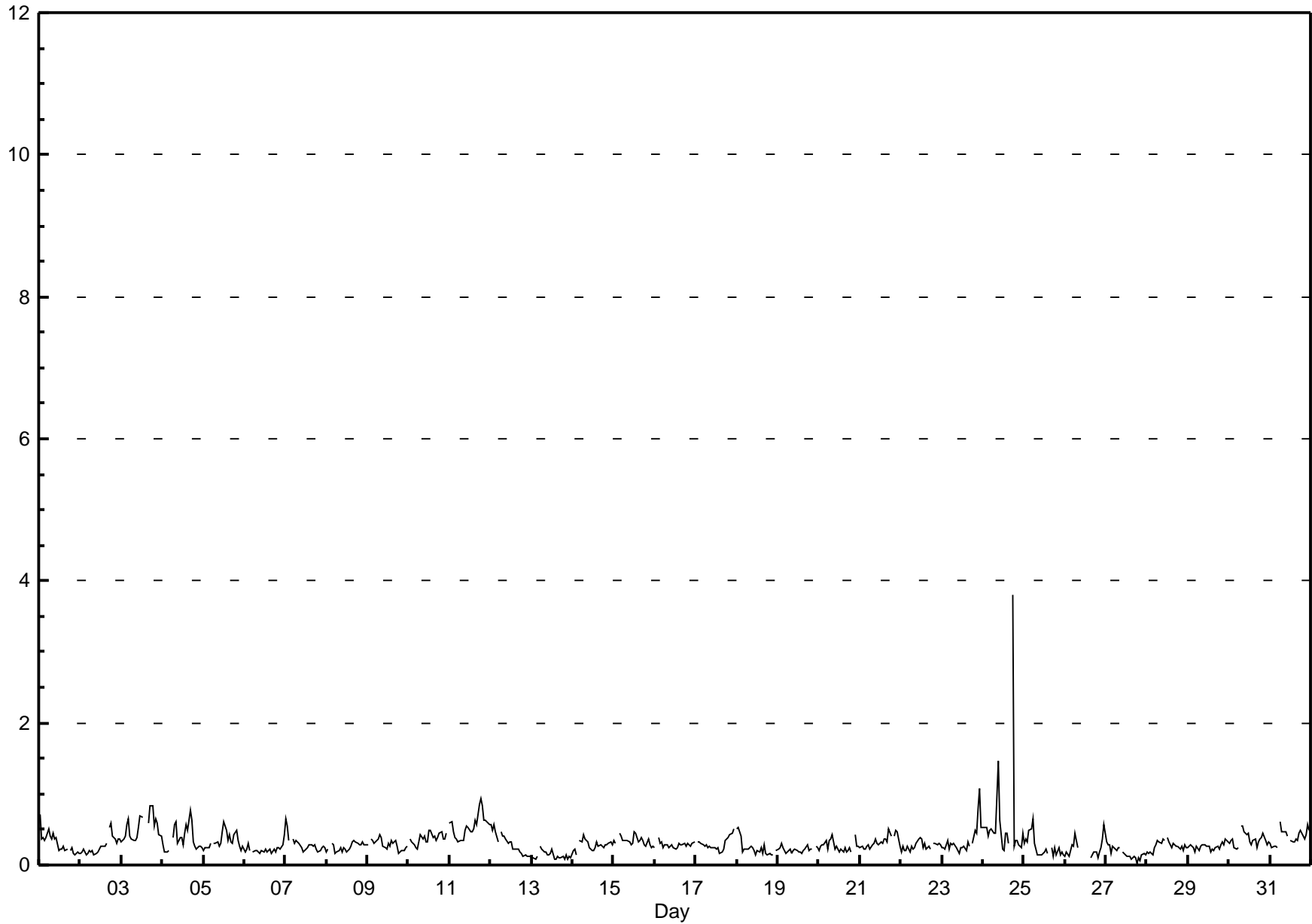
Total Reduced Sulphur (TRS) - ppb

Henry Pirker - January 2011

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 3.8 ppb on Jan 24 18:00	Maximum Daily Average: 0.6 ppb on Jan 24		Hours of Data:	704
Minimum Value: 0 ppb on Jan 27 19:00	Minimum Daily Average: 0.1 ppb on Jan 13		Hours of Missing Data:	40
Maximum Diurnal Average: 0.4 ppb at hour 18	Minimum Diurnal Average: 0.3 ppb at hour 14		Hours of Calibration:	34
Monthly Average: 0.31 ppb	Percentiles: P ₁ = 0.1 P ₁₀ = 0.2 Q ₁ = 0.2 Median = 0.3 Q ₃ = 0.4 P ₉₀ = 0.5 P ₉₉ = 0.8		Percent Operational Time:	99.2

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jan	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.3	0.7
2-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	1	0	0	0	0	0	0.3	0.6
3-Jan	0	0	0	1	1	0	0	0	0	0	1	1	1	C	C	C	1	1	1	1	1	1	0	0	0.5	0.8
4-Jan	0	0	0	0	0	A	0	1	1	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0.4	0.8
5-Jan	0	0	0	0	0	A	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
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	0.2	0.4
7-Jan	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
8-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	0.3
9-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	0.4
10-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	0.4	0.5
11-Jan	1	1	0	0	0	0	0	0	0	0	1	1	0	0	1	1	1	1	1	1	1	1	1	1	0.5	0.9
12-Jan	1	0	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
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	0.3
14-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	0.3	0.4
15-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
16-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	0.4
17-Jan	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	0.5
18-Jan	1	1	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	0.2	0.3
20-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	A	0	0.3	0.4
21-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	A	0	0	0	0	0.3	0.5
22-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	0.4
23-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	1	1	0.3	1.1
24-Jan	1	1	1	0	0	1	0	0	1	1	1	0	0	0	0	0	A	4	0	0	0	0	0	0	0.6	3.8
25-Jan	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.3	0.7
26-Jan	0	0	0	0	0	0	0	0	C	C	M	M	M	M	M	0	0	0	0	0	0	0	0	1	--	0.6
27-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	0.3
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	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
30-Jan	0	0	0	0	0	0	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6
31-Jan	0	0	0	0	0	A	1	0	0	0	0	M	0	0	0	0	0	0	0	0	0	0	1	0	0.4	0.6
	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	Diurnal Average	
	0.7	0.6	0.6	0.6	0.7	0.7	0.6	0.6	1.0	1.5	0.6	0.7	0.7	0.5	0.6	0.6	0.8	3.8	0.9	0.8	0.6	0.8	1.1	0.6	Diurnal Maximum	

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

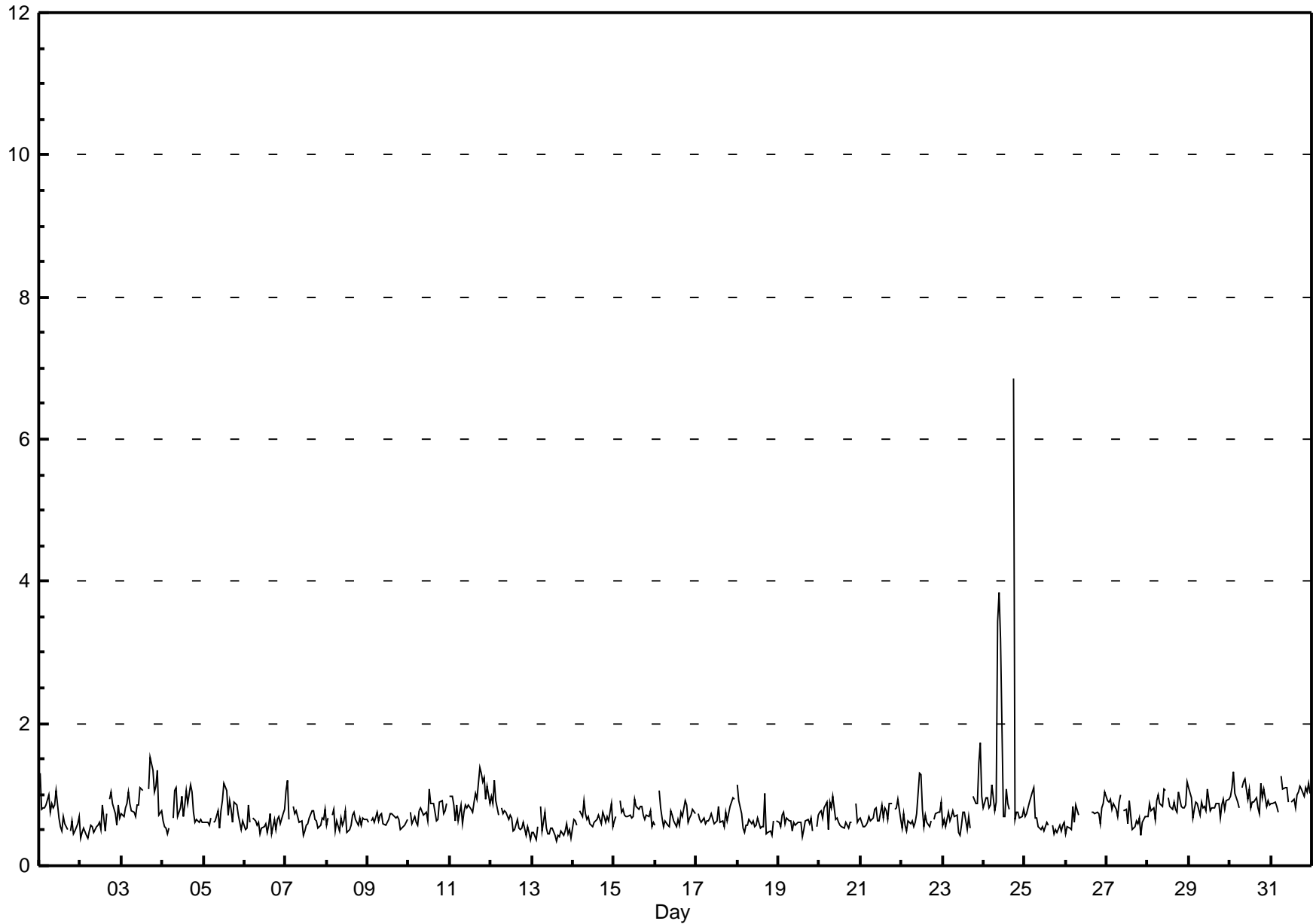


Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - January 2011

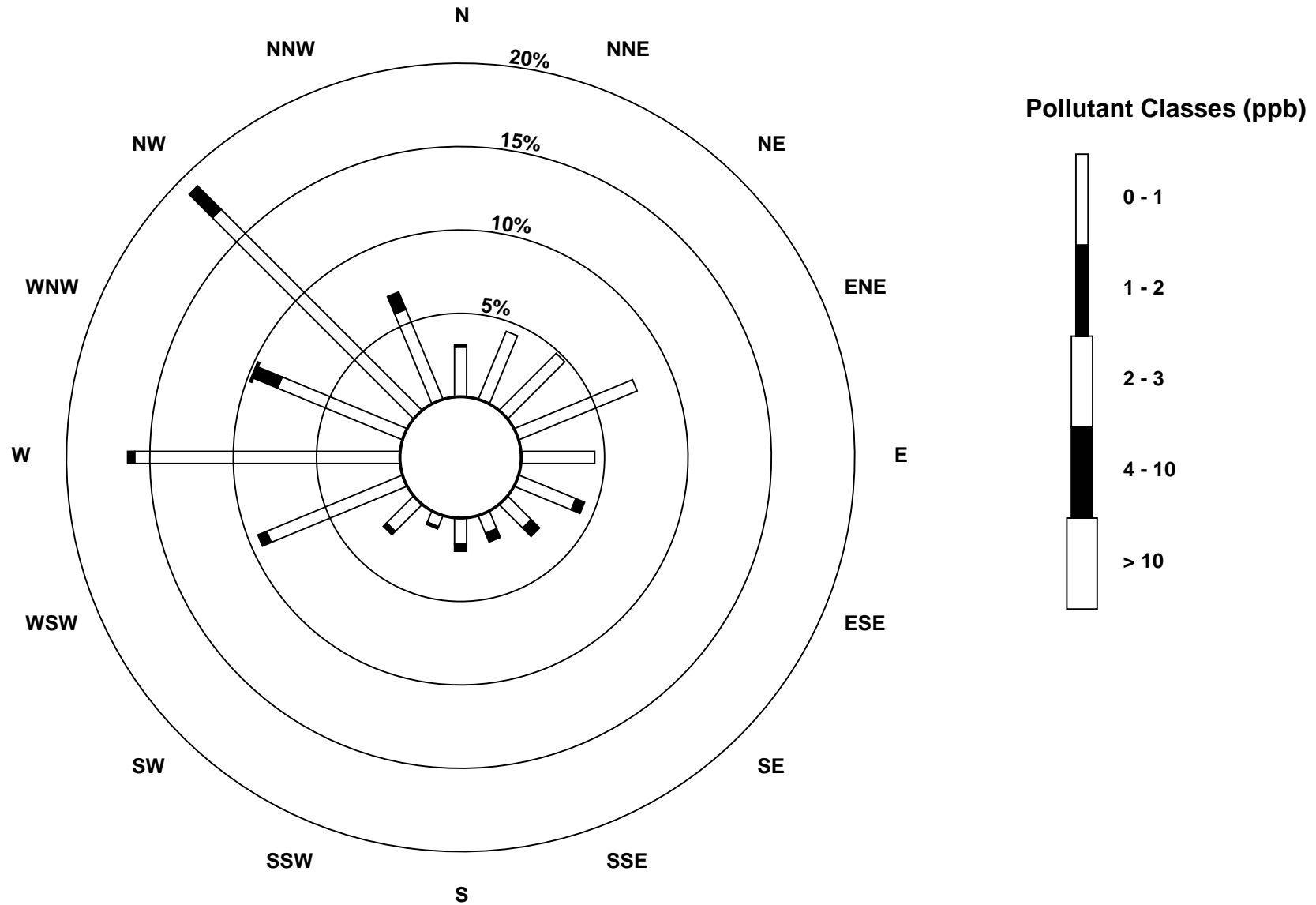
Maximum Value: 6.9 ppb on Jan 24 18:00		Maximum Daily Average: 1.4 ppb on Jan 24		Hours in Service: 744																							
Minimum Value: 0 ppb on Jan 13 15:00		Minimum Daily Average: 0.5 ppb on Jan 13		Hours of Data: 704																							
Maximum Diurnal Average: 1.0 ppb at hour 18		Minimum Diurnal Average: 0.7 ppb at hour 15		Hours of Missing Data: 40																							
Monthly Average: 0.75 ppb		Percentiles: P ₁ = 0.4 P ₁₀ = 0.5 Q ₁ = 0.6 Median = 0.7 Q ₃ = 0.8 P ₉₀ = 1.0 P ₉₉ = 1.4		Hours of Calibration: 34																							
				Percent Operational Time: 99.2																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	A	0	1	0	0	1	1	0.7	1.3	
2-Jan	0	0	1	0	0	0	1	1	0	1	1	1	1	1	0	1	A	1	1	1	1	1	1	1	0.6	1.0	
3-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	C	C	C	1	2	1	1	1	1	1	1	1.0	1.5	
4-Jan	1	1	1	0	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1	
5-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	1.2	
6-Jan	1	1	1	1	A	1	1	1	1	0	1	1	1	0	1	1	0	1	1	1	1	1	1	1	0.6	0.9	
7-Jan	1	1	1	A	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.2	
8-Jan	1	1	A	1	1	0	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.8	
9-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	
10-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	0.8	1.1	
11-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	0.9	1.4	
12-Jan	1	1	1	1	1	A	1	1	1	1	1	1	1	0	0	1	1	1	1	1	0	1	0	0	0.7	1.2	
13-Jan	0	0	0	1	A	1	0	1	1	0	0	1	1	0	0	0	0	0	0	0	1	0	1	0	0.5	0.8	
14-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	0.7	0.9	
15-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	0.7	0.9	
16-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	0.7	1.1	
17-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	0.9	
18-Jan	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	1	1	0.6	1.1	
19-Jan	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	1	1	1	0	A	1	1	0.6	0.7	
20-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	1.0	
21-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	0.9	
22-Jan	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.7	1.3	
23-Jan	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	A	1	1	1	1	2	1	0.8	1.7	
24-Jan	1	1	1	1	1	1	1	1	1	3	4	3	1	1	1	1	A	7	1	1	1	1	1	1	1.4	6.9	
25-Jan	1	1	1	1	1	1	1	1	1	1	0	1	1	1	A	1	0	1	0	1	0	1	1	1	0.6	1.1	
26-Jan	0	1	1	1	1	1	1	1	C	C	M	M	M	M	M	1	1	1	1	1	1	1	1	--	1.0		
27-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	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	0.9	1.2	
29-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	0.9	1.1	
30-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	1.3	
31-Jan	1	1	1	1	1	A	1	1	1	1	1	M	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.3	
																								Diurnal Average			
																								Diurnal Maximum			
C - Calibration																								M - Maintenance		A - Automated Daily Zero Span	

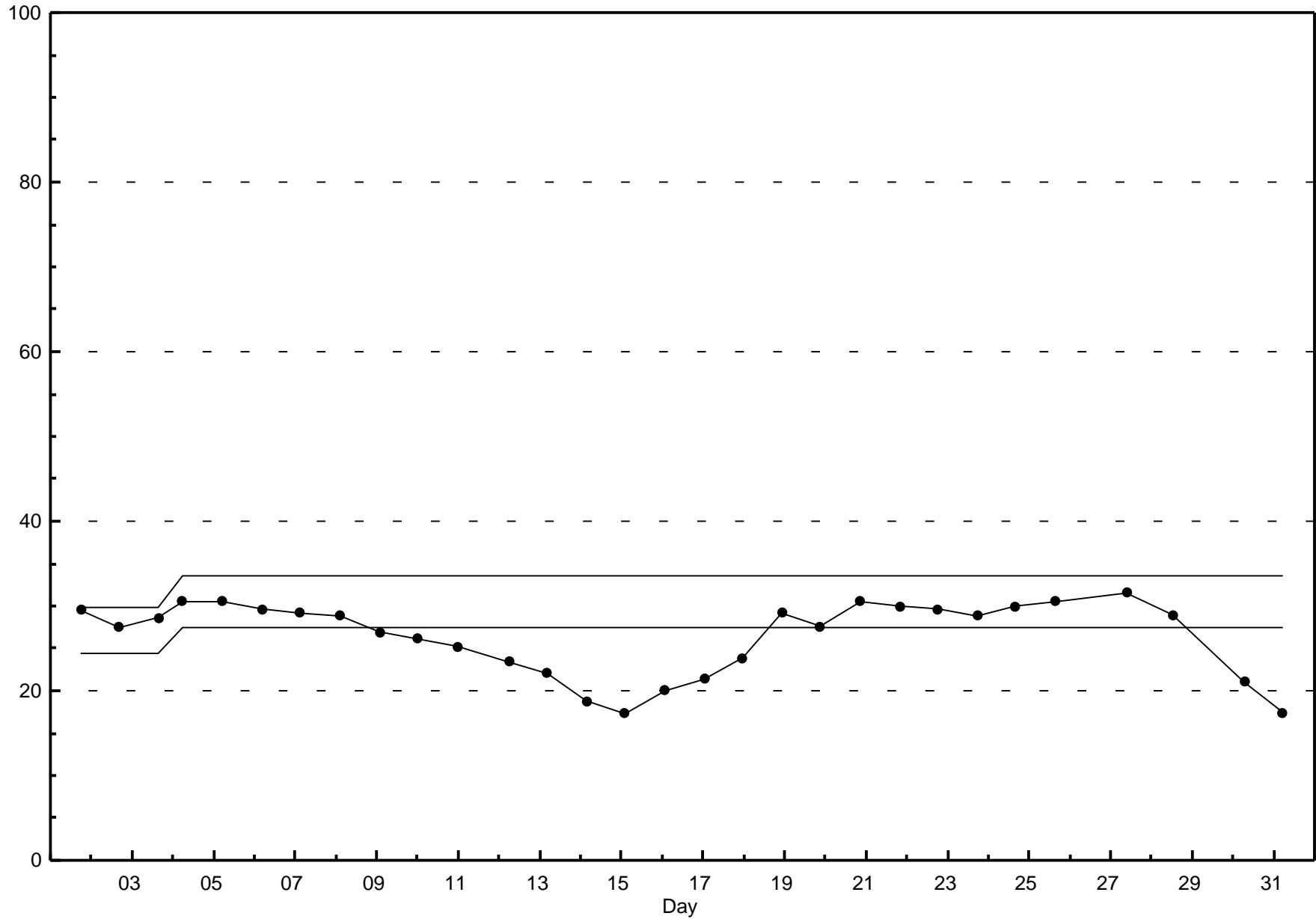


Pollutant Rose

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - January 2011





Hourly Averages

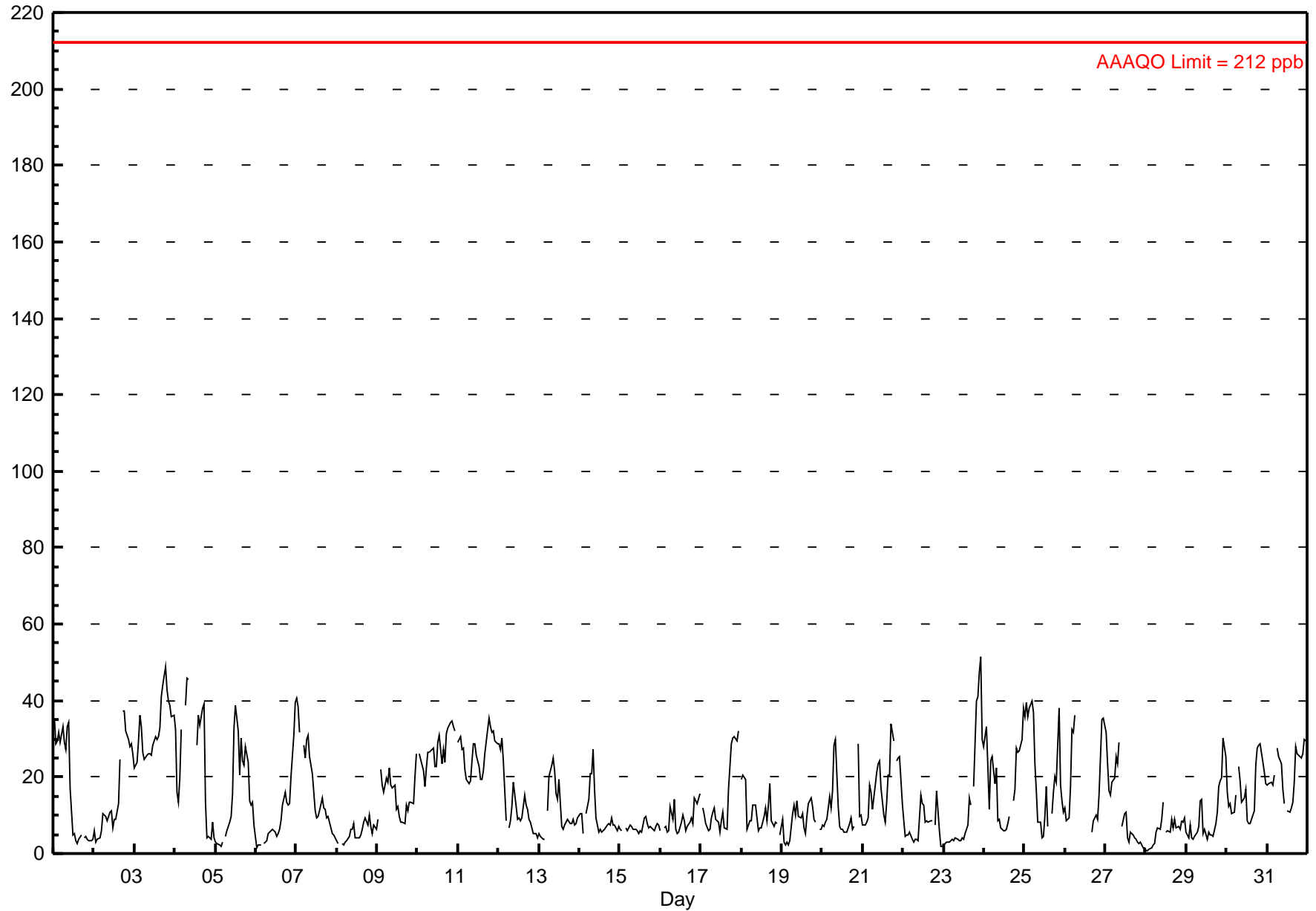
Nitrogen Dioxide (NO₂) - ppb

Henry Pirker - January 2011

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0		Hours in Service: 744	
Maximum Value: 51.4 ppb on Jan 23 23:00		Maximum Daily Average: 32.5 ppb on Jan 3	
Minimum Value: 1 ppb on Jan 28 02:00		Hours of Data: 701	
Maximum Diurnal Average: 18.4 ppb at hour 23		Hours of Missing Data: 43	
Monthly Average: 14.81 ppb		Hours of Calibration: 36	
Minimum Daily Average: 5.5 ppb on Jan 8		Percent Operational Time: 99.1	
Minimum Diurnal Average: 10.8 ppb at hour 15		Percentiles: P ₁ = 1.7 P ₁₀ = 4.0 Q ₁ = 6.4 Median = 10.6 Q ₃ = 23.0 P ₉₀ = 30.7 P ₉₉ = 42.1	

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	35	29	29	32	29	33	29	27	33	34	17	5	5	3	3	4	5	A	4	5	4	3	3	4	16.4	35.4
2-Jan	6	3	4	4	6	11	10	10	8	11	11	7	9	9	13	25	A	37	37	32	30	28	29	26	15.9	37.3
3-Jan	23	24	29	36	33	26	24	26	26	26	26	28	31	30	30	33	41	44	49	43	40	39	36	36	32.5	48.8
4-Jan	32	16	14	20	32	A	39	46	46	C	C	C	C	28	36	33	38	39	13	4	4	4	8	4	24.1	46.0
5-Jan	3	3	2	2	3	A	4	6	8	10	16	33	39	32	21	30	24	23	28	24	14	13	13	7	15.5	38.9
6-Jan	2	2	2	2	A	3	3	5	6	6	6	6	5	5	6	8	13	16	14	13	13	20	31	40	9.8	39.6
7-Jan	41	38	32	A	28	25	30	31	26	21	16	11	9	10	11	15	12	12	9	10	7	5	5	4	17.7	40.8
8-Jan	3	3	A	2	2	3	3	4	6	6	8	4	4	4	5	6	8	9	8	10	7	5	7	6	5.5	10.0
9-Jan	9	A	22	18	16	20	19	22	18	17	18	12	12	10	8	8	8	13	11	13	13	13	20	26	15.0	26.0
10-Jan	A	26	24	21	18	22	27	26	27	28	23	23	29	31	24	27	24	31	33	34	35	33	32	A	27.2	34.7
11-Jan	29	31	27	28	22	19	18	19	24	29	29	26	23	19	19	22	26	33	36	33	32	32	29	29	26.4	35.6
12-Jan	29	27	30	24	8	A	7	8	12	19	12	9	9	8	9	15	13	12	9	8	5	5	5	4	12.6	30.2
13-Jan	5	5	4	4	A	11	20	23	25	22	16	14	19	7	6	8	8	9	8	8	9	8	8	9	11.1	24.8
14-Jan	11	10	5	A	11	14	21	21	27	17	9	6	6	6	6	6	7	8	7	9	8	7	6	7	10.2	27.1
15-Jan	6	6	A	7	6	7	7	7	6	6	6	5	6	6	9	10	8	7	7	7	6	7	8	7	6.8	9.7
16-Jan	6	A	7	7	6	6	12	9	14	6	5	6	8	10	9	6	7	8	9	8	15	14	13	16	9.0	15.8
17-Jan	A	12	10	8	6	6	9	11	12	9	8	6	9	11	7	6	17	23	29	30	31	29	32	A	14.6	32.0
18-Jan	20	21	20	6	8	8	9	13	13	9	6	7	7	10	12	9	13	18	8	7	8	8	A	5	10.5	20.5
19-Jan	9	3	2	3	2	3	11	13	10	14	10	9	10	7	5	10	13	15	12	9	8	A	6	6	8.3	14.6
20-Jan	8	7	8	9	15	12	16	28	30	12	7	6	6	5	6	7	8	9	6	7	A	29	10	10	11.4	29.7
21-Jan	7	8	8	9	18	16	12	18	21	23	24	17	10	8	14	21	21	34	29	A	24	25	25	13	17.7	33.9
22-Jan	8	5	5	5	5	4	3	4	4	3	15	13	13	8	9	8	9	9	A	8	16	6	2	2	7.1	16.4
23-Jan	2	3	3	3	3	4	3	4	4	3	3	4	4	5	8	15	13	A	18	40	41	47	51	30	13.5	51.4
24-Jan	28	33	23	12	24	25	18	22	9	9	7	6	6	6	8	10	A	14	17	27	26	27	30	38	18.5	38.1
25-Jan	36	39	36	38	40	37	23	16	8	8	4	5	10	18	7	A	11	16	20	18	38	18	14	11	20.5	39.9
26-Jan	12	9	9	18	32	32	36	C	C	C	M	M	M	M	M	M	6	8	10	9	15	25	35	35	--	36.2
27-Jan	32	24	16	15	19	20	25	23	29	A	7	11	11	4	3	6	5	4	4	3	3	3	2	1	11.7	31.7
28-Jan	1	1	1	1	2	3	5	7	6	9	13	A	5	6	6	9	7	9	7	7	6	8	8	10	6.0	13.4
29-Jan	6	4	7	4	4	5	6	7	14	14	5	6	4	6	5	5	5	8	11	18	19	20	30	25	9.8	30.2
30-Jan	16	12	13	10	11	15	A	23	19	13	15	17	9	8	8	10	11	23	28	28	29	24	21	18	16.6	28.6
31-Jan	18	18	19	18	21	A	27	26	24	17	13	M	11	11	12	13	19	28	26	25	25	26	30	29	20.8	30.0
15.2 14.5 14.2 12.7 14.8 14.4 16.0 16.9 17.2 14.4 12.3 11.1 11.4 11.0 10.8 13.2 13.7 17.9 16.9 16.6 17.7 17.7 18.4 15.9																								Diurnal Average		
40.8 39.4 35.8 38.0 39.9 36.7 38.8 46.0 45.6 34.1 28.6 32.7 38.9 32.0 36.1 33.4 41.2 44.0 48.8 42.8 41.1 47.3 51.4 39.6																								Diurnal Maximum		

C - Calibration	M - Maintenance	A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 212 ppb 24-hr 106 ppb		



Hourly Maximums

Nitrogen Dioxide (NO₂) - ppb

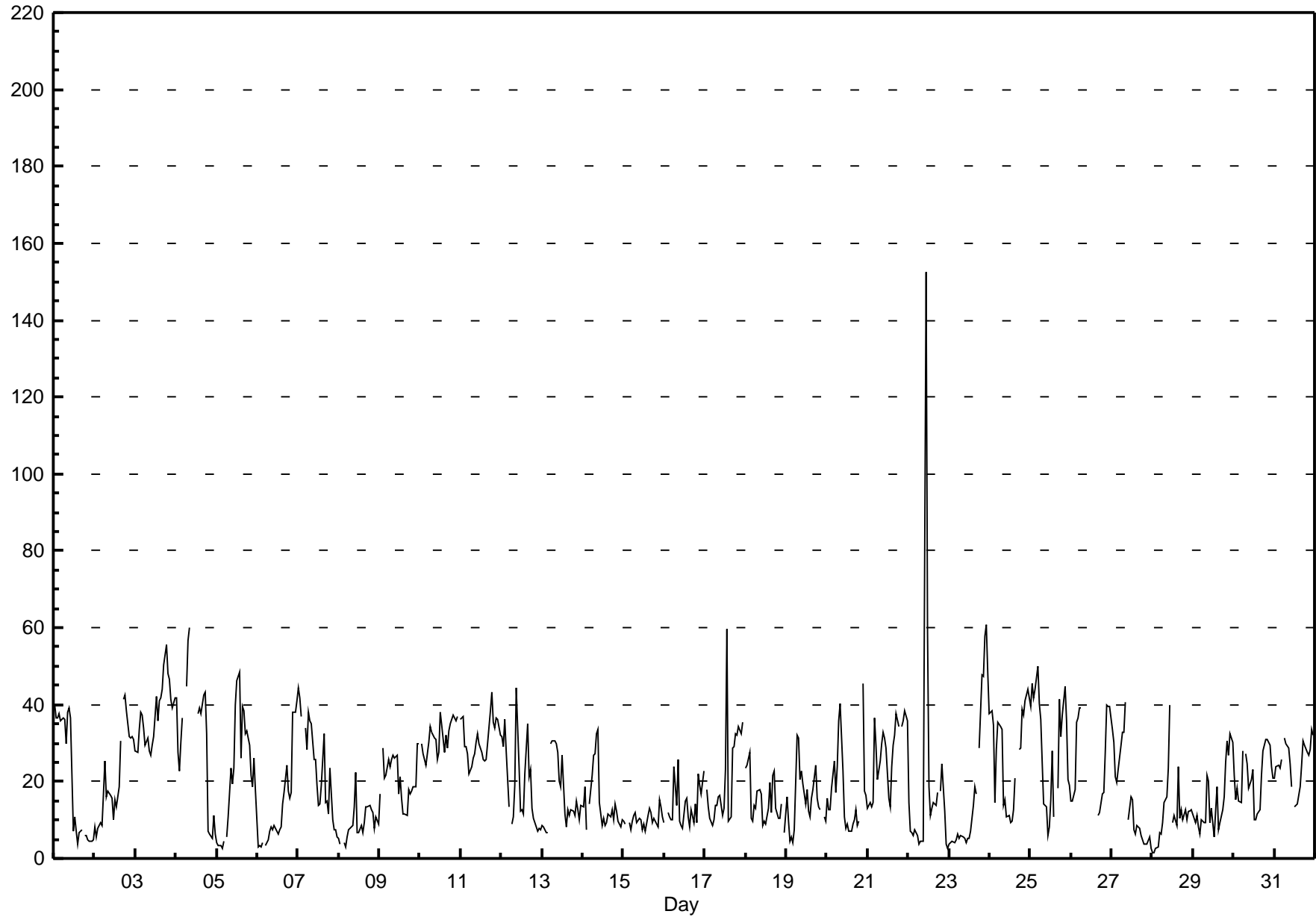
Henry Pirker - January 2011

Maximum Value: 152.4 ppb on Jan 22 11:00		Maximum Daily Average: 37.6 ppb on Jan 3		Hours in Service: 744																						
Minimum Value: 2 ppb on Jan 28 01:00		Minimum Daily Average: 9.2 ppb on Jan 8		Hours of Data: 701																						
Maximum Diurnal Average: 24.1 ppb at hour 22		Minimum Diurnal Average: 15.7 ppb at hour 15		Hours of Missing Data: 43																						
Monthly Average: 20.54 ppb		Percentiles: P ₁ = 2.9 P ₁₀ = 6.6 Q ₁ = 10.0 Median = 17.0 Q ₃ = 29.9 P ₉₀ = 37.9 P ₉₉ = 56.0		Hours of Calibration: 36																						
				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	40	37	37	38	36	37	36	30	38	39	37	7	11	7	4	7	7	A	6	6	5	4	4	5	20.7	39.9
2-Jan	8	6	8	9	9	17	25	16	17	16	16	10	15	13	19	30	A	41	43	38	32	31	32	31	21.0	42.6
3-Jan	28	28	34	38	37	34	29	31	28	27	29	32	42	36	41	42	44	50	55	48	47	42	39	42	37.6	55.4
4-Jan	42	28	23	30	37	A	45	57	60	C	C	C	C	38	39	38	42	43	32	7	6	5	11	6	31.0	60.1
5-Jan	4	3	3	3	5	A	6	11	23	19	23	40	46	48	26	40	38	32	33	29	21	19	26	18	22.5	48.3
6-Jan	3	3	3	4	A	4	5	7	8	8	9	7	6	7	8	14	17	24	18	16	17	38	38	41	13.3	40.9
7-Jan	44	42	37	A	34	28	38	36	35	26	26	19	14	14	19	32	15	15	12	24	10	7	7	6	23.4	44.3
8-Jan	5	4	A	4	3	6	7	8	9	13	23	7	7	8	7	9	13	13	14	13	12	8	11	9	9.2	22.5
9-Jan	17	A	29	21	22	26	24	26	27	26	27	17	21	16	11	12	11	18	17	18	19	19	30	30	20.9	29.7
10-Jan	A	30	27	24	27	30	34	33	31	31	26	28	38	35	28	32	29	33	35	37	37	36	37	A	31.7	37.9
11-Jan	36	37	29	29	27	22	24	26	27	30	33	30	28	26	26	26	30	38	43	36	34	36	36	32	30.9	43.2
12-Jan	32	29	36	28	13	A	9	11	19	44	24	12	13	11	22	35	21	23	13	11	8	7	8	8	19.0	44.3
13-Jan	9	8	7	7	A	30	31	31	30	27	20	19	27	12	8	13	11	13	12	11	15	13	10	14	16.3	30.7
14-Jan	14	18	8	A	14	22	27	27	32	33	15	9	10	9	9	11	11	13	10	14	12	10	8	10	15.1	33.4
15-Jan	10	9	A	9	8	10	11	12	9	10	10	7	9	7	11	13	12	9	11	10	8	15	13	11	10.2	15.1
16-Jan	9	A	12	11	10	10	24	14	26	10	9	8	15	16	11	8	13	9	14	9	22	19	17	23	13.8	25.8
17-Jan	A	18	13	10	9	10	14	14	16	16	11	13	23	60	10	11	29	29	32	32	34	32	36	A	21.5	59.6
18-Jan	24	24	28	11	10	14	13	17	18	17	9	10	9	13	20	12	22	23	13	11	11	14	A	7	15.0	27.7
19-Jan	16	10	5	6	4	8	32	31	21	23	20	14	18	12	11	16	18	24	16	14	13	A	11	10	15.2	31.9
20-Jan	16	13	13	18	25	17	24	36	40	23	11	8	9	7	7	9	10	13	9	10	A	45	17	17	17.2	45.4
21-Jan	13	15	14	15	37	29	20	25	30	33	31	29	16	13	24	30	32	38	34	A	34	36	38	36	27.0	38.4
22-Jan	15	7	7	6	8	6	4	5	5	5	152	59	19	11	13	14	14	17	A	18	24	12	4	3	18.5	152.4
23-Jan	4	4	5	4	5	6	5	6	6	5	4	5	5	7	14	19	17	A	29	48	47	58	61	49	17.9	60.9
24-Jan	38	38	35	14	28	35	34	34	14	15	11	11	9	10	13	21	A	28	29	39	37	41	44	42	26.9	44.1
25-Jan	40	46	42	44	50	40	36	25	14	13	6	8	15	28	11	A	18	41	32	37	45	36	21	19	29.0	49.8
26-Jan	15	15	18	35	37	39	39	C	C	C	M	M	M	M	M	M	11	12	17	17	28	40	39	40	--	40.1
27-Jan	34	30	21	20	23	29	33	33	41	A	10	16	15	7	6	8	8	6	5	4	4	4	6	3	15.9	40.5
28-Jan	2	2	3	3	7	6	9	15	16	24	40	A	9	11	9	24	11	13	10	13	10	12	12	13	11.8	39.8
29-Jan	12	9	11	8	6	10	9	10	22	20	9	13	5	12	19	8	9	13	16	25	31	27	32	30	15.3	32.5
30-Jan	22	15	18	15	15	28	A	27	25	18	21	23	10	10	12	13	22	28	29	31	31	29	24	21	21.1	31.0
31-Jan	21	24	24	23	26	A	31	30	29	25	19	M	13	14	16	19	24	31	29	28	27	28	34	32	24.8	33.7
		19.6	18.9	18.8	16.8	19.6	20.5	22.6	22.7	23.8	21.3	23.4	17.0	16.5	17.3	15.7	19.5	19.3	23.8	22.2	21.7	22.7	24.1	23.5	20.8	Diurnal Average
		44.3	45.5	41.9	44.0	49.8	40.4	44.8	56.6	60.1	44.3	152.4	59.0	46.1	59.6	41.1	41.6	44.1	50.4	55.4	48.1	47.5	57.7	60.9	48.5	Diurnal Maximum
C - Calibration		M - Maintenance					A - Automated Daily Zero Span																			

Hourly Maximums

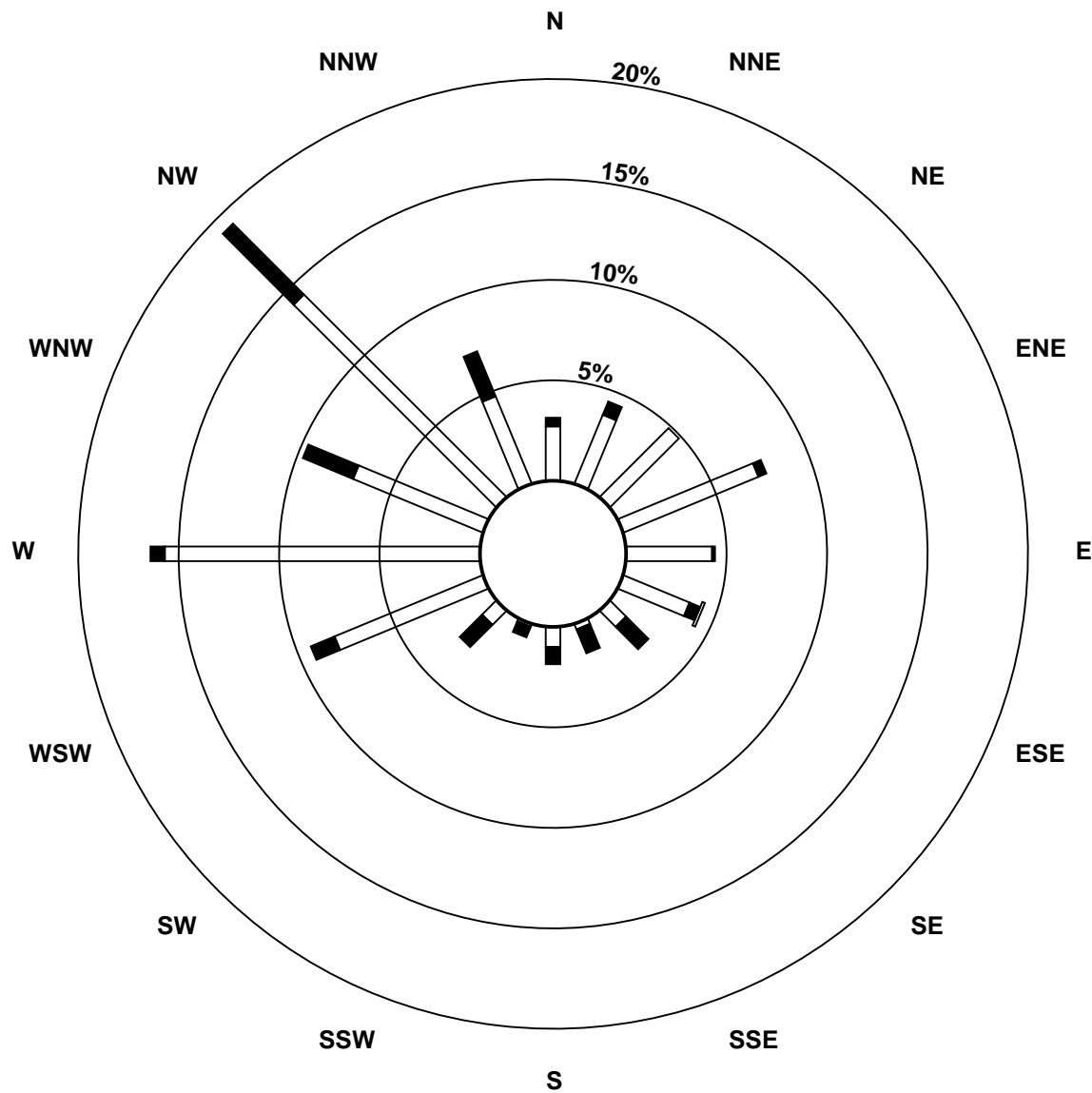
Nitrogen Dioxide (NO₂) - ppb

Henry Pirker - January 2011

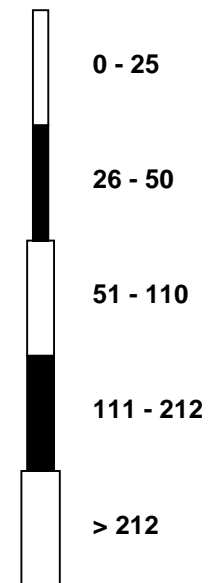


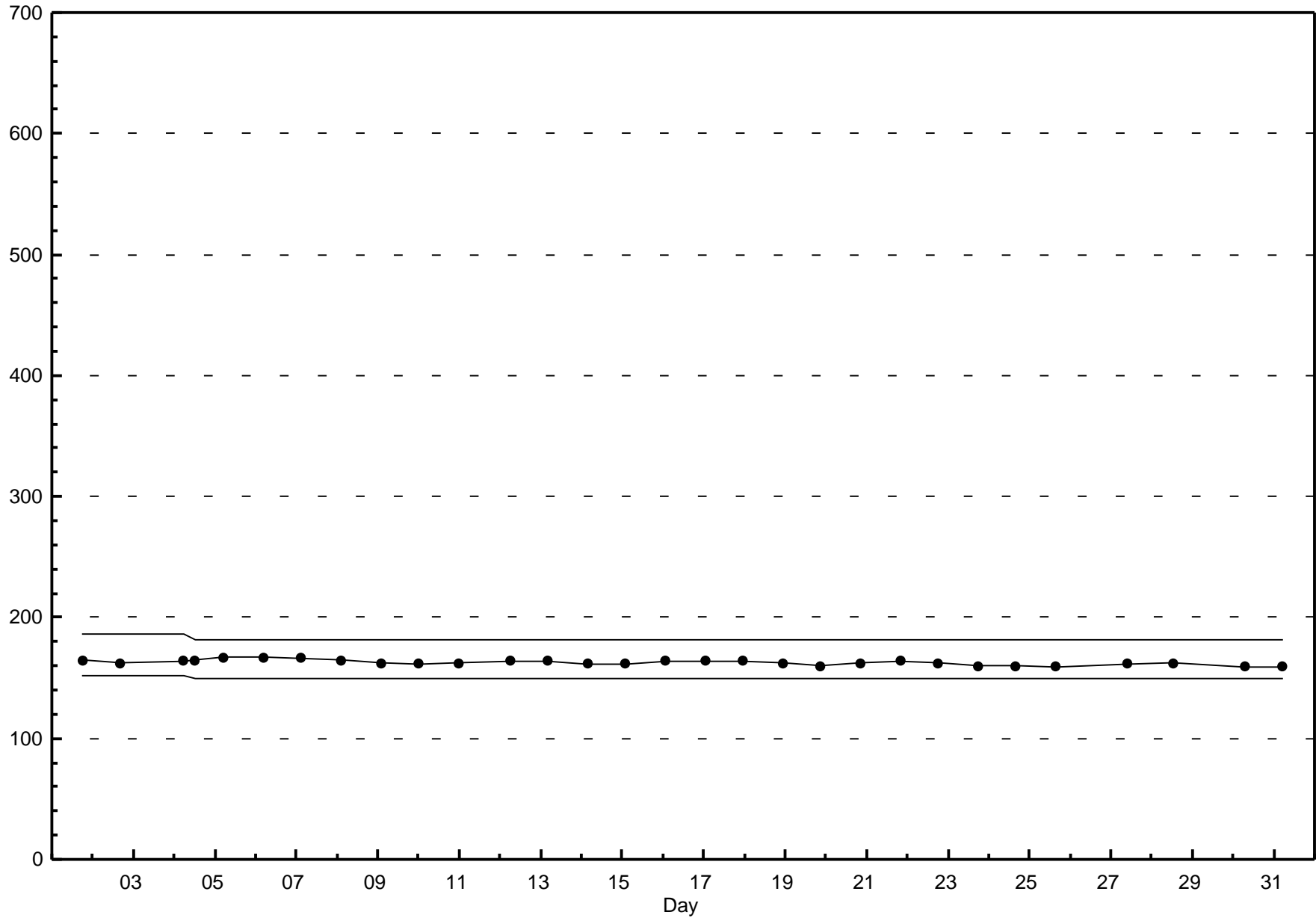
Pollutant Rose

Nitrogen Dioxide (NO₂) - ppb
Henry Pirker - January 2011



Pollutant Classes (ppb)





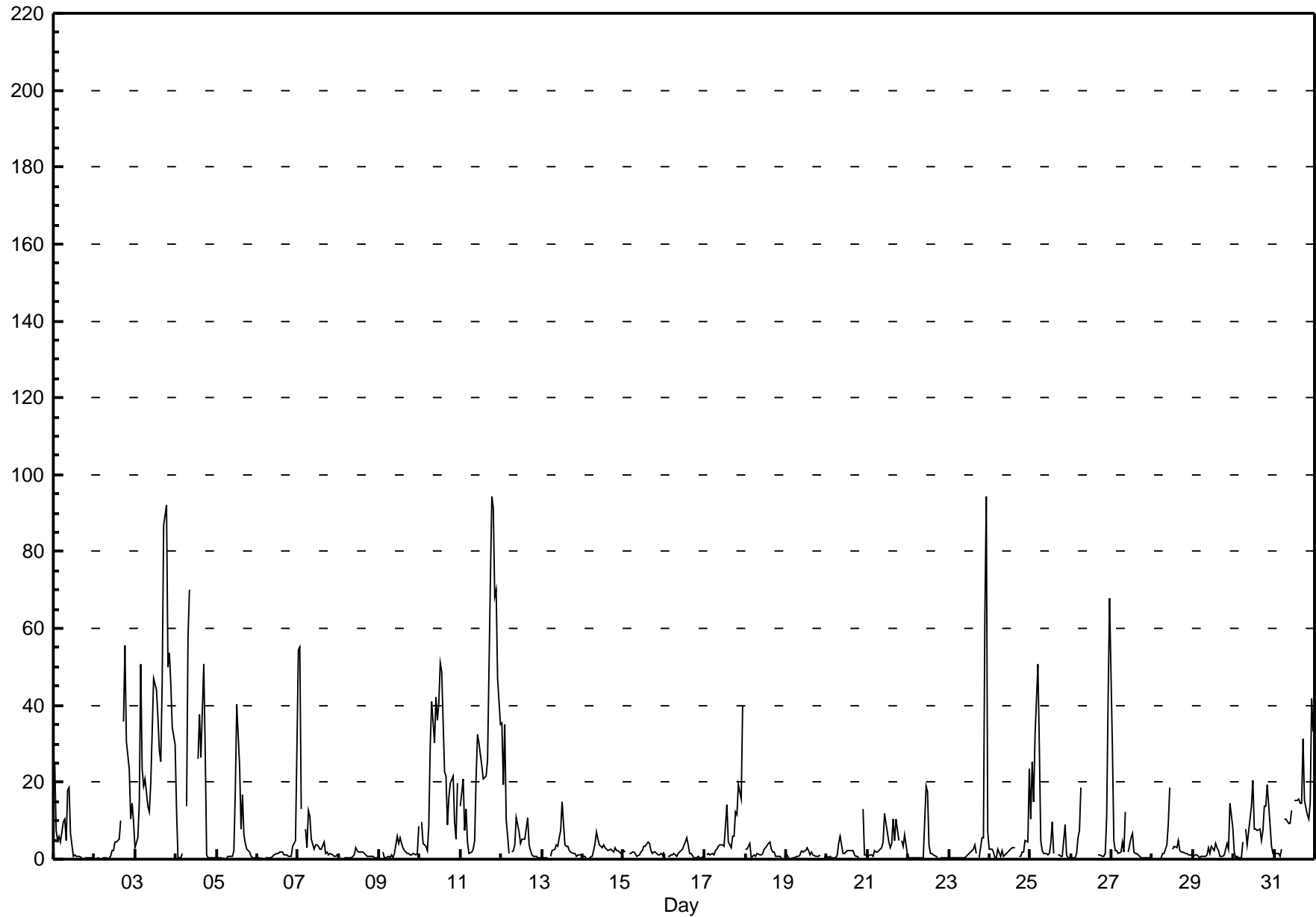
Hourly Averages

Nitrogen Oxide (NO) - ppb
Henry Pirker - January 2011

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 94.5 ppb on Jan 11 19:00	Maximum Daily Average: 34.8 ppb on Jan 3
Minimum Value: 0 ppb on Jan 2 01:00	Hours of Data: 701
Maximum Diurnal Average: 12.6 ppb at hour 23	Hours of Missing Data: 43
Monthly Average: 7.54 ppb	Hours of Calibration: 36
Minimum Daily Average: 1.0 ppb on Jan 8	Percent Operational Time: 99.1
Minimum Diurnal Average: 3.7 ppb at hour 6	
Percentiles: P ₁ = 0.1 P ₁₀ = 0.4 Q ₁ = 0.8 Median = 2.0 Q ₃ = 6.4 P ₉₀ = 21.0 P ₉₉ = 68.7	

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	25	7	5	6	4	10	10	5	18	19	7	1	1	1	1	1	0	A	0	0	0	0	0	0	5.3	24.9																						
2-Jan	0	0	0	0	0	0	0	0	0	1	2	2	5	4	5	10	A	36	56	31	23	10	15	10	9.2	55.7																						
3-Jan	3	6	14	51	23	19	21	14	12	20	33	47	44	37	28	25	47	87	92	50	54	45	34	30	34.8	92.0																						
4-Jan	13	1	0	0	1	A	14	58	70	C	C	C	C	26	38	27	51	28	1	1	0	0	0	0	17.3	70.0																						
5-Jan	0	0	0	0	0	A	0	1	1	1	2	18	40	24	8	17	6	4	3	2	1	1	0	0	5.7	40.4																						
6-Jan	0	0	0	0	A	0	0	0	1	1	1	2	2	2	2	2	1	1	1	1	1	3	5	29	2.4	29.0																						
7-Jan	54	55	13	A	8	3	13	11	5	3	4	4	3	3	3	4	2	2	1	2	1	1	1	1	8.5	55.3																						
8-Jan	1	1	A	0	0	1	1	0	1	1	3	2	2	2	2	2	1	1	1	1	1	1	1	0	1.0	2.8																						
9-Jan	0	A	2	0	0	1	1	1	1	1	6	4	6	4	3	2	1	1	1	1	2	1	1	8	2.2	8.5																						
10-Jan	A	10	4	4	2	8	30	41	30	42	36	41	51	49	23	22	9	16	20	22	10	5	20	A	22.5	51.2																						
11-Jan	14	21	8	13	4	1	2	3	5	21	33	30	24	21	21	22	26	73	94	91	68	70	47	35	31.1	94.5																						
12-Jan	35	19	35	10	2	A	2	2	4	11	7	4	5	5	5	11	4	2	1	1	1	0	0	0	7.3	35.3																						
13-Jan	0	0	0	0	A	1	2	3	4	3	6	7	15	4	3	3	2	2	2	1	1	1	1	1	2.7	14.9																						
14-Jan	1	1	0	A	1	1	2	4	7	5	4	3	4	3	3	2	3	2	2	3	2	2	2	2	2.5	7.0																						
15-Jan	2	2	A	1	1	2	2	1	1	1	2	2	3	3	5	4	2	1	2	2	1	1	1	1	1.9	4.5																						
16-Jan	2	A	1	1	1	1	2	1	1	2	2	3	4	5	4	2	1	0	0	0	1	0	0	1	1.5	5.4																						
17-Jan	A	1	1	1	2	1	2	3	3	4	4	4	9	14	4	3	6	6	12	12	19	16	40	A	7.6	39.9																						
18-Jan	3	2	4	1	1	1	1	1	1	1	2	3	3	4	5	3	2	2	1	1	1	0	A	1	1.8	4.6																						
19-Jan	1	0	0	0	0	0	1	1	1	2	2	2	3	2	1	2	1	1	1	1	1	A	1	1	1.1	3.0																						
20-Jan	1	1	1	0	0	0	1	4	6	1	1	2	2	2	2	2	1	1	1	0	A	13	1	1	2.0	13.1																						
21-Jan	1	1	1	1	2	2	2	3	3	4	12	9	4	3	4	10	5	10	5	A	5	3	6	1	4.3	11.8																						
22-Jan	0	0	0	0	0	0	0	0	0	0	19	18	4	2	1	1	1	1	A	0	0	0	0	0	2.3	18.9																						
23-Jan	0	0	0	0	0	0	0	0	0	0	1	1	1	2	3	4	2	A	0	5	5	63	94	7	8.4	94.2																						
24-Jan	2	2	2	0	1	3	1	2	1	1	1	2	3	3	3	3	A	1	1	2	2	5	5	24	3.0	23.5																						
25-Jan	10	25	15	32	51	30	5	2	1	1	1	2	4	10	2	A	1	1	1	1	9	1	0	0	8.9	50.9																						
26-Jan	0	0	0	1	6	7	18	C	C	C	M	M	M	M	M	M	1	1	1	1	1	11	42	68	--	68.0																						
27-Jan	29	5	2	2	2	2	4	2	12	A	2	6	7	2	1	2	1	1	0	0	0	0	0	0	3.6	28.8																						
28-Jan	0	0	0	0	0	0	1	2	4	10	19	A	3	4	3	5	2	2	2	2	2	1	1	1	2.7	18.6																						
29-Jan	1	1	1	1	1	1	1	1	1	3	2	3	2	4	3	2	1	1	1	3	4	3	15	8	2.6	14.6																						
30-Jan	2	1	1	0	0	5	A	8	4	7	14	20	8	8	8	8	5	8	14	14	19	9	4	2	7.2	20.3																						
31-Jan	1	2	2	1	2	A	10	10	9	9	12	M	15	15	16	15	15	31	15	12	10	14	42	33	13.3	41.7																						
																								7.0	5.7	3.9	4.5	4.1	3.7	5.0	6.1	6.9	6.3	8.2	8.9	9.6	8.9	7.0	7.4	6.9	11.1	11.0	8.7	8.2	9.5	12.6	9.2	Diurnal Average
																								54.3	55.3	34.9	50.5	50.9	29.6	29.6	57.7	70.0	42.0	36.2	46.8	51.2	48.9	37.6	26.5	50.6	86.7	94.5	91.4	68.1	70.1	94.2	68.0	Diurnal Maximum

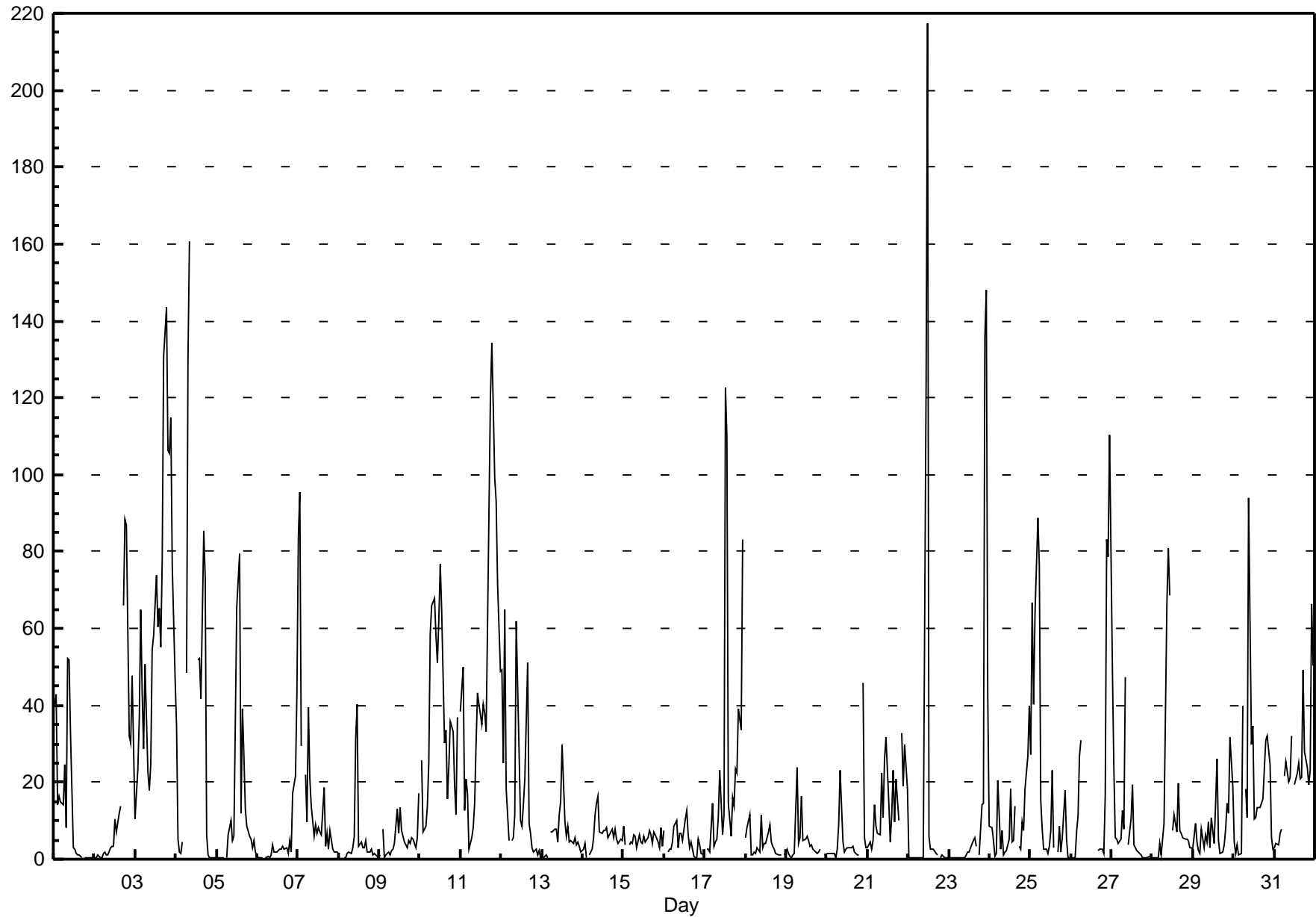
C - Calibration M - Maintenance A - Automated Daily Zero Span



Hourly Maximums

Nitrogen Oxide (NO) - ppb
Henry Pirker - January 2011

Maximum Value: 217.4 ppb on Jan 22 12:00		Maximum Daily Average: 62.2 ppb on Jan 3		Hours in Service: 744																							
Minimum Value: 0 ppb on Jan 13 00:00		Minimum Daily Average: 3.9 ppb on Jan 18		Hours of Data: 701																							
Maximum Diurnal Average: 25.7 ppb at hour 23		Minimum Diurnal Average: 8.2 ppb at hour 4		Hours of Missing Data: 43																							
Monthly Average: 16.72 ppb		Percentiles: P ₁ = 0.5 P ₁₀ = 0.5 Q ₁ = 2.0 Median = 5.5 Q ₃ = 19.2 P ₉₀ = 49.1 P ₉₉ = 129.4		Hours of Calibration: 36																							
				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	40	43	14	16	15	14	25	8	52	52	33	3	3	2	1	1	1	A	1	1	1	1	1	1	14.1	52.1	
2-Jan	1	0	1	0	1	1	2	1	1	3	3	4	10	7	12	14	A	66	88	87	32	30	48	29	19.2	88.4	
3-Jan	11	23	36	65	44	29	51	23	18	25	55	58	74	60	65	55	78	131	144	106	105	115	77	47	62.2	143.5	
4-Jan	35	5	2	2	4	A	49	131	161	C	C	C	C	52	52	42	85	73	6	1	1	1	1	1	36.9	160.5	
5-Jan	1	1	1	1	1	A	1	6	10	5	6	35	66	80	12	39	27	13	9	6	5	3	5	2	14.4	79.6	
6-Jan	1	1	1	1	A	1	1	1	1	4	2	2	2	3	3	3	3	3	1	5	2	17	22	44	5.2	43.6	
7-Jan	84	95	29	A	22	10	39	21	14	6	9	7	8	7	7	19	3	7	2	8	3	2	2	2	17.6	95.3	
8-Jan	2	1	A	1	1	1	2	2	3	6	31	40	3	4	3	3	5	2	2	2	1	1	1	1	5.2	40.4	
9-Jan	1	A	8	1	1	2	1	2	3	4	13	7	14	7	6	4	3	5	4	6	5	3	6	17	5.3	17.1	
10-Jan	A	26	7	9	14	25	59	66	68	58	51	62	77	65	30	34	16	24	36	33	20	12	37	A	37.6	76.7	
11-Jan	39	50	13	21	17	3	5	8	14	30	43	40	35	40	38	33	61	120	134	118	99	93	72	49	49.0	134.2	
12-Jan	49	25	65	18	5	A	5	6	11	62	28	10	9	14	21	51	9	7	3	2	2	1	2	0	17.6	64.8	
13-Jan	1	0	1	0	A	7	7	8	8	4	12	15	30	10	6	9	4	5	4	5	4	4	3	2	6.5	29.8	
14-Jan	2	4	0	A	1	2	6	12	15	17	7	7	8	7	8	5	7	8	5	8	5	4	5	5	6.5	16.5	
15-Jan	9	4	A	4	5	4	6	6	3	6	4	4	6	4	6	8	7	4	7	7	4	3	8	4	5.3	8.6	
16-Jan	7	A	2	3	3	4	9	10	3	7	7	5	10	13	6	3	4	1	1	1	5	4	1	1	4.7	12.7	
17-Jan	A	3	2	2	15	3	4	5	11	23	6	12	123	110	15	6	16	14	23	22	39	34	83	A	26.0	122.6	
18-Jan	5	8	12	1	1	2	2	3	2	12	3	4	4	7	9	4	3	2	1	1	1	1	A	1	3.9	11.7	
19-Jan	3	2	1	1	1	1	24	4	6	16	5	5	6	5	3	4	3	2	1	2	2	A	1	1	4.3	23.9	
20-Jan	1	1	2	2	2	1	3	9	23	5	2	3	3	3	3	4	2	1	1	1	A	46	6	3	5.4	45.9	
21-Jan	3	4	3	5	14	9	7	6	23	11	26	32	15	5	12	23	10	21	10	A	33	19	30	18	14.6	32.8	
22-Jan	1	1	1	1	1	0	1	0	0	1	124	217	6	2	2	2	1	1	A	0	1	0	1	1	15.9	217.4	
23-Jan	1	1	1	1	1	1	1	1	1	1	1	2	2	3	5	6	4	A	1	14	15	136	148	43	16.7	148.1	
24-Jan	8	8	5	1	1	20	3	8	1	2	2	5	18	5	5	14	A	4	3	10	8	18	27	40	9.4	40.0	
25-Jan	27	67	40	64	89	76	15	8	3	3	2	4	7	23	3	A	2	9	2	6	18	5	1	1	20.5	88.7	
26-Jan	1	1	1	7	11	27	31	C	C	C	M	M	M	M	M	M	2	3	3	1	17	83	79	110	--	110.4	
27-Jan	49	23	6	5	4	5	13	8	47	A	4	10	20	4	3	2	2	1	1	1	1	1	1	1	9.1	49.4	
28-Jan	0	1	1	1	4	1	5	9	66	81	69	A	8	12	7	20	7	7	6	5	5	3	3	3	14.1	81.1	
29-Jan	2	9	5	2	2	8	3	6	5	10	3	11	4	15	26	5	2	2	4	8	15	12	32	19	8.6	31.7	
30-Jan	4	2	4	1	2	40	A	18	11	94	30	35	10	11	14	13	15	16	23	31	32	25	6	3	19.0	93.8	
31-Jan	3	4	4	7	8	A	22	25	20	21	32	M	19	23	25	21	21	49	28	24	19	23	66	50	23.4	66.3	
		13.4	14.2	9.1	8.2	9.8	11.0	13.3	14.0	20.1	20.2	21.1	23.6	20.6	20.0	13.6	15.4	13.9	20.7	18.5	17.3	16.7	23.4	25.7	17.1	Diurnal Average	
		83.9	95.3	64.8	64.9	88.7	76.4	58.6	131.0	160.5	93.8	123.8	217.4	122.6	110.0	65.2	55.3	85.4	130.9	143.5	117.6	105.4	135.8	148.1	110.4	Diurnal Maximum	
C - Calibration		M - Maintenance					A - Automated Daily Zero Span																				



Hourly Averages

Oxides of Nitrogen (NO_x) - ppb

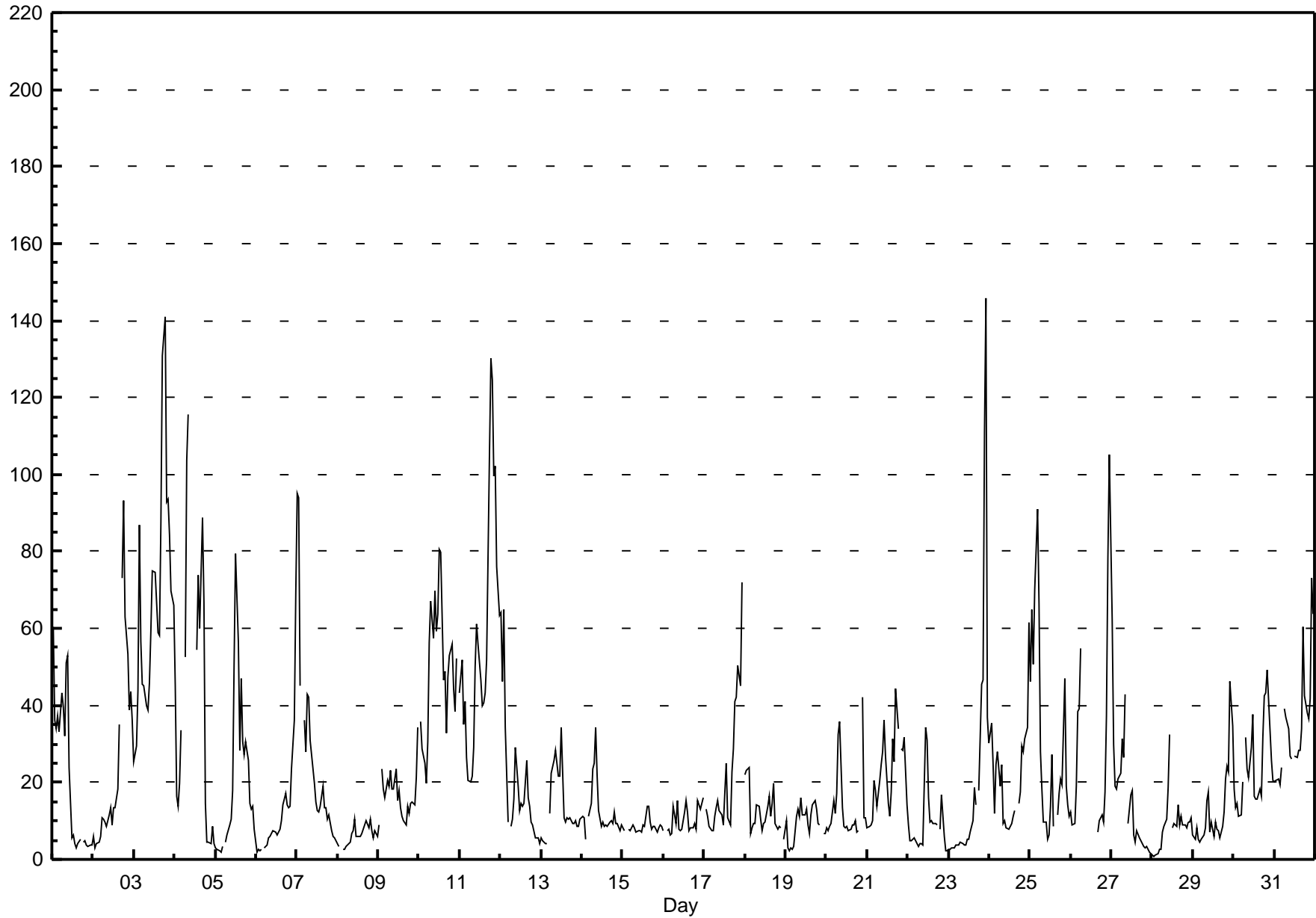
Henry Pirker - January 2011

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 145.8 ppb on Jan 23 23:00	Maximum Daily Average: 67.3 ppb on Jan 3		Hours of Data:	701
Minimum Value: 1 ppb on Jan 28 02:00	Minimum Daily Average: 6.3 ppb on Jan 8		Hours of Missing Data:	43
Maximum Diurnal Average: 31.1 ppb at hour 23	Minimum Diurnal Average: 17.1 ppb at hour 4		Hours of Calibration:	36
Monthly Average: 22.38 ppb	Percentiles: P ₁ = 1.9 P ₁₀ = 4.4 Q ₁ = 8.1 Median = 13.4 Q ₃ = 29.5 P ₉₀ = 52.9 P ₉₉ = 108.6		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	60	36	34	37	33	43	39	32	51	53	24	6	6	4	3	4	5	A	4	5	4	3	4	4	21.6	60.3
2-Jan	6	3	4	4	6	11	10	10	9	12	13	9	14	13	18	35	A	73	93	63	53	39	44	36	25.2	93.2
3-Jan	25	30	44	87	57	45	45	40	39	46	59	75	75	67	59	58	88	131	141	93	94	84	70	66	67.3	140.9
4-Jan	45	16	14	20	34	A	53	104	116	C	C	C	C	54	74	60	89	67	14	4	5	4	8	4	41.3	115.5
5-Jan	3	3	2	2	3	A	4	6	9	10	18	51	79	56	28	47	31	27	30	26	15	13	14	8	21.1	79.2
6-Jan	2	2	2	3	A	3	4	6	6	7	8	7	6	7	8	10	14	17	14	14	14	23	36	69	12.2	68.8
7-Jan	95	94	45	A	36	28	43	42	31	24	20	15	13	12	14	19	14	13	10	11	8	6	6	5	26.2	95.3
8-Jan	4	3	A	3	2	3	4	5	7	8	10	6	6	6	7	8	9	10	8	10	7	5	7	6	6.3	10.4
9-Jan	9	A	23	18	16	20	19	23	18	18	23	15	18	13	11	10	9	14	12	14	15	14	21	34	17.0	34.4
10-Jan	A	36	29	25	20	31	56	67	57	70	59	64	80	80	46	49	33	47	53	56	44	38	52	A	49.7	80.5
11-Jan	43	52	35	41	26	20	20	22	29	50	61	56	47	40	41	43	52	106	130	125	100	102	76	63	57.5	130.1
12-Jan	64	46	65	34	10	A	8	11	16	29	19	13	14	14	15	26	16	14	10	9	6	5	6	4	19.7	65.0
13-Jan	5	5	4	4	A	12	22	26	28	25	21	21	34	11	10	11	10	11	9	9	10	9	9	10	13.8	34.4
14-Jan	11	11	5	A	11	15	23	25	34	22	13	8	10	9	9	8	10	10	9	12	9	9	7	9	12.6	34.1
15-Jan	8	8	A	8	7	8	9	8	7	7	8	7	9	9	14	14	10	8	8	8	7	8	9	8	8.6	13.7
16-Jan	7	A	7	8	7	7	14	9	15	8	7	8	12	15	12	7	8	8	9	8	15	14	13	16	10.3	16.1
17-Jan	A	13	11	9	7	7	11	13	15	13	12	9	17	25	11	9	23	29	41	42	50	45	72	A	22.0	72.1
18-Jan	22	23	24	7	8	9	10	14	14	11	8	9	10	14	16	11	14	20	9	8	9	8	A	5	12.3	23.7
19-Jan	10	3	2	3	2	3	11	13	11	16	12	11	13	9	7	11	14	15	13	9	9	A	7	7	9.3	16.1
20-Jan	8	8	9	9	15	12	17	32	36	14	9	8	9	8	8	9	9	10	7	8	A	42	11	11	13.4	42.0
21-Jan	8	9	9	10	20	18	14	21	25	28	36	27	15	11	18	31	25	44	34	A	29	28	32	14	22.0	44.4
22-Jan	9	5	5	5	6	4	3	4	4	4	34	31	16	10	10	9	9	9	A	8	17	6	2	2	9.3	34.1
23-Jan	3	3	3	3	4	4	4	4	4	4	4	5	5	7	10	18	14	A	18	45	47	111	146	37	21.8	145.8
24-Jan	30	36	25	12	25	28	19	25	9	10	8	8	9	9	11	13	A	15	18	30	28	31	34	62	21.4	61.6
25-Jan	46	65	51	70	91	66	28	18	10	10	5	6	14	27	9	A	12	17	21	19	47	19	14	11	29.4	90.9
26-Jan	12	9	9	19	38	39	55	C	C	C	M	M	M	M	M	M	7	10	11	10	17	37	78	105	--	105.3
27-Jan	62	30	19	18	21	23	31	26	43	A	9	17	18	6	5	7	6	5	4	3	3	3	2	2	15.8	62.1
28-Jan	1	1	1	2	2	3	7	8	10	19	33	A	8	9	9	14	9	11	9	9	8	10	10	11	8.9	32.6
29-Jan	7	5	8	5	4	5	6	8	15	18	7	10	6	10	8	7	5	9	12	21	24	23	46	35	12.7	46.2
30-Jan	18	13	15	11	12	20	A	32	23	21	29	38	17	16	16	18	16	32	43	43	49	34	26	21	24.4	49.1
31-Jan	20	21	21	19	24	A	39	37	34	27	26	M	27	27	28	28	34	61	42	38	37	42	73	64	34.9	73.1

22.3	20.2	18.1	17.1	18.9	18.1	21.0	23.1	24.2	20.7	20.5	20.0	20.9	19.9	17.7	20.6	20.5	29.1	28.0	25.4	26.0	27.3	31.1	25.2	Diurnal Average	
95.3	93.8	65.0	87.0	90.9	66.5	56.2	103.7	115.5	69.6	61.2	75.1	80.5	79.8	73.7	59.9	88.8	130.8	140.9	124.6	99.7	111.0	145.8	105.3	Diurnal Maximum	

C - Calibration M - Maintenance A - Automated Daily Zero Span

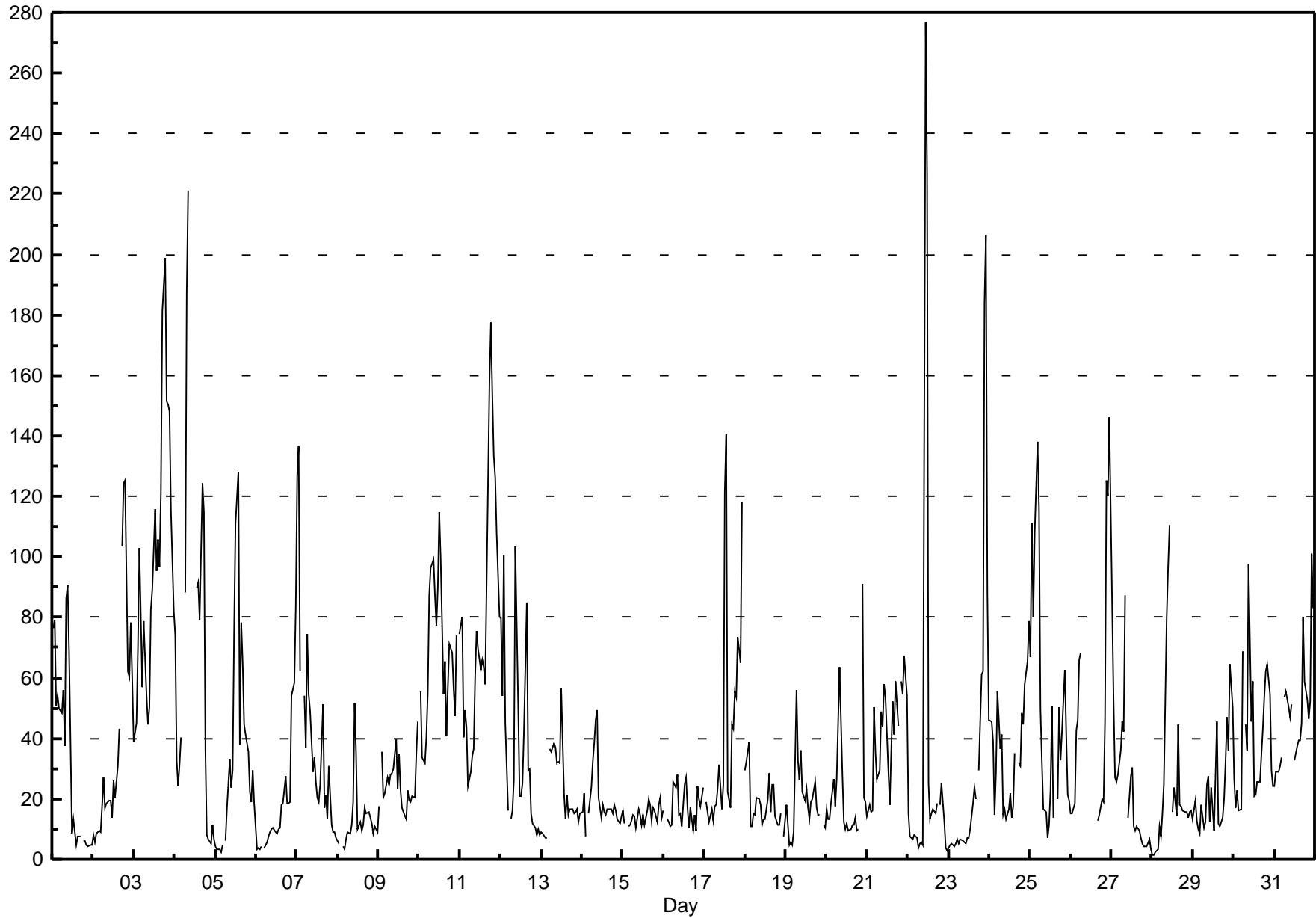


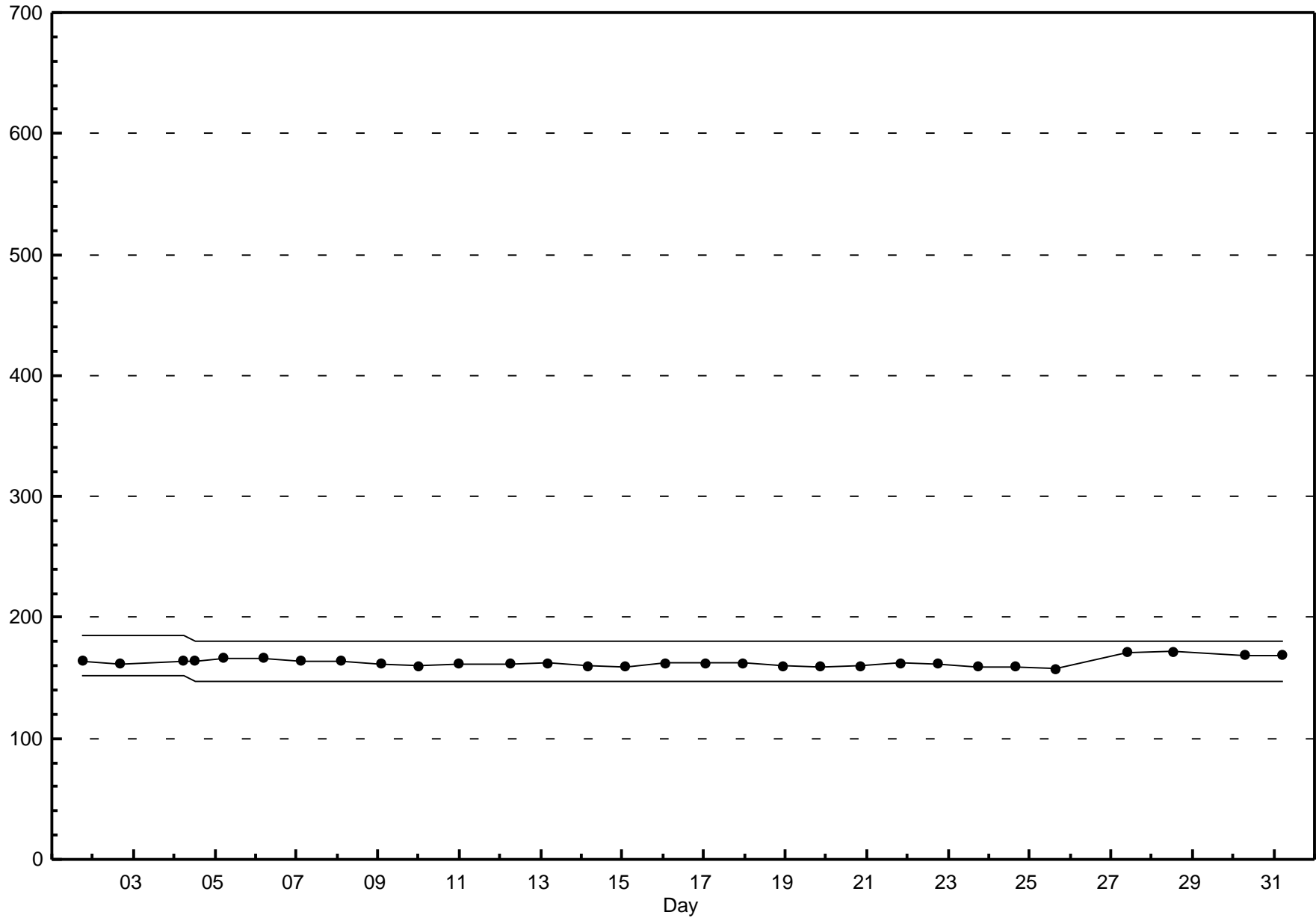
Hourly Maximums

Oxides of Nitrogen (NO_x) - ppb

Henry Pirker - January 2011

Maximum Value: 276.8 ppb on Jan 22 11:00		Maximum Daily Average: 98.2 ppb on Jan 3		Hours in Service: 744																						
Minimum Value: 2 ppb on Jan 28 01:00		Minimum Daily Average: 13.3 ppb on Jan 8		Hours of Data: 701																						
Maximum Diurnal Average: 48.6 ppb at hour 23		Minimum Diurnal Average: 24.6 ppb at hour 4		Hours of Missing Data: 43																						
Monthly Average: 36.37 ppb		Percentiles: P ₁ = 3.4 P ₁₀ = 7.5 Q ₁ = 13.1 Median = 22.3 Q ₃ = 49.0 P ₉₀ = 82.5 P ₉₉ = 182.2		Hours of Calibration: 36																						
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	76	79	51	54	50	48	56	37	86	91	69	8	13	9	5	8	8	A	6	6	5	4	5	5	33.9	90.7
2-Jan	8	6	9	9	9	18	27	17	18	19	19	14	26	20	31	43	A	103	124	125	62	60	78	60	39.4	125.2
3-Jan	39	45	70	103	81	57	79	54	45	51	82	89	116	96	106	97	122	181	199	151	151	148	115	82	98.2	198.9
4-Jan	74	33	24	31	40	A	88	187	221	C	C	C	C	89	91	79	124	115	37	8	7	5	12	7	67.0	220.9
5-Jan	4	4	4	3	5	A	6	17	33	24	30	75	111	128	38	78	65	45	42	36	22	19	29	19	36.3	128.1
6-Jan	3	4	3	4	A	4	6	8	9	10	10	9	9	10	11	18	19	28	19	19	19	54	58	84	18.1	83.7
7-Jan	127	137	62	A	54	37	75	55	49	29	34	26	20	19	25	51	17	21	13	31	12	9	9	7	39.9	136.8
8-Jan	6	5	A	4	4	6	9	9	11	19	52	36	10	12	10	11	17	15	16	14	12	8	11	9	13.3	51.9
9-Jan	18	A	36	21	22	27	25	28	29	30	40	23	35	23	17	16	13	23	20	19	21	21	35	46	25.4	45.7
10-Jan	A	55	34	32	40	55	87	96	99	88	77	90	115	99	55	66	41	57	71	69	56	47	74	A	68.3	114.8
11-Jan	74	80	40	49	44	24	29	34	37	60	75	70	63	66	64	58	91	158	178	153	134	126	108	80	78.9	177.5
12-Jan	80	54	101	45	16	A	13	16	26	104	51	21	21	25	42	85	29	30	15	12	10	8	10	8	35.7	103.7
13-Jan	9	8	7	7	A	37	36	39	37	32	32	32	57	21	14	21	15	17	17	15	16	17	12	15	22.2	56.5
14-Jan	16	22	8	A	15	24	32	39	46	49	20	14	18	16	15	17	16	17	15	18	16	13	12	14	20.5	49.1
15-Jan	16	12	A	11	11	13	14	14	11	17	15	11	15	11	16	20	18	13	17	16	12	18	21	14	14.6	20.6
16-Jan	16	A	13	12	11	11	26	24	28	15	15	11	25	27	17	10	17	10	15	10	24	20	18	24	17.3	28.2
17-Jan	A	19	16	12	17	13	17	18	23	31	17	25	122	140	23	17	45	43	55	54	74	65	118	A	43.8	140.4
18-Jan	29	32	39	11	11	15	15	20	20	18	11	13	13	20	28	15	25	25	14	12	11	15	A	8	18.3	38.9
19-Jan	18	11	5	6	5	9	56	33	26	36	22	19	23	17	13	19	20	26	17	15	15	A	11	10	18.8	55.8
20-Jan	17	13	13	19	27	18	26	45	63	28	13	10	12	10	10	12	12	14	9	10	A	91	20	19	22.2	91.2
21-Jan	14	18	15	16	50	35	26	29	49	44	58	53	30	18	36	52	41	59	44	A	59	55	67	54	40.2	67.2
22-Jan	15	8	7	7	8	7	4	5	6	5	277	226	25	13	15	17	15	18	A	18	25	13	4	3	32.2	276.8
23-Jan	4	5	5	4	5	7	5	7	6	6	5	7	7	10	18	24	20	A	30	61	62	184	207	88	33.8	206.5
24-Jan	46	46	39	15	29	56	37	41	15	17	13	17	22	14	17	35	A	32	31	48	45	58	65	79	35.4	78.8
25-Jan	67	111	80	108	138	116	50	32	17	16	7	12	23	51	14	A	20	50	33	42	63	41	21	19	49.2	138.3
26-Jan	15	15	18	43	46	66	68	C	C	C	M	M	M	M	M	M	13	15	20	19	46	125	120	146	--	146.0
27-Jan	83	52	27	25	28	36	45	42	87	A	14	27	30	11	9	11	9	7	5	4	4	4	6	3	24.9	87.2
28-Jan	2	2	3	3	11	8	15	24	80	97	111	A	16	24	14	45	18	18	16	16	16	14	15	16	25.3	110.6
29-Jan	13	19	13	10	8	18	10	12	24	28	12	24	9	27	46	12	11	14	20	32	47	36	64	50	23.4	64.4
30-Jan	27	17	23	16	16	69	A	45	36	98	46	59	21	21	25	26	34	43	54	62	65	55	29	24	39.6	97.7
31-Jan	24	29	29	31	34	A	53	55	50	47	51	M	33	37	39	39	45	80	59	53	47	52	101	83	48.8	101.0
32.5		32.4	27.3	24.6	28.7	30.9	34.5	36.1	42.9	39.5	44.1	37.8	35.7	36.2	28.8	34.6	32.4	43.9	40.3	38.2	38.6	46.2	48.6	37.1	Diurnal Average	
126.8		136.8	100.7	108.4	138.3	116.4	88.4	187.3	220.9	103.7	276.8	226.3	121.6	140.4	105.9	96.8	124.4	181.3	198.9	153.1	150.6	184.0	206.5	146.0	Diurnal Maximum	
C - Calibration		M - Maintenance					A - Automated Daily Zero Span																			





Hourly Averages

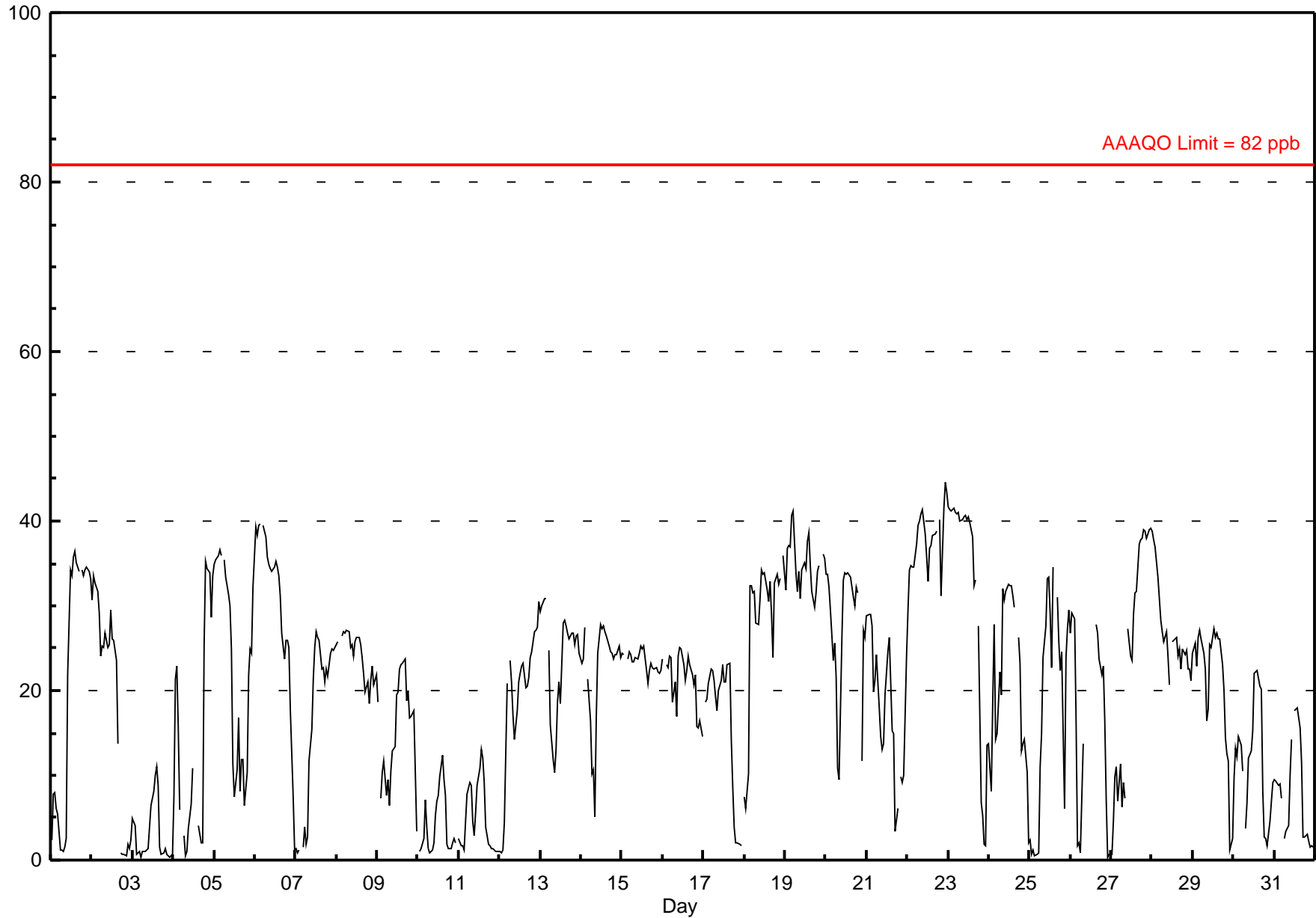
Ozone (O₃) - ppb

Henry Pirker - January 2011

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 44.6 ppb on Jan 22 23:00 Maximum Daily Average: 37.6 ppb on Jan 22	Hours of Data: 704
Minimum Value: 0 ppb on Jan 26 23:00 Minimum Daily Average: 3.0 ppb on Jan 3 Maximum Diurnal Average: 26.0 ppb at hour 15 Minimum Diurnal Average: 16.8 ppb at hour 23	Hours of Missing Data: 40 Hours of Calibration: 34 Percent Operational Time: 99.2
Monthly Average: 20.27 ppb Percentiles: P ₁ = 0.6 P ₁₀ = 1.8 Q ₁ = 9.8 Median = 22.8 Q ₃ = 29.0 P ₉₀ = 34.9 P ₉₉ = 41.3	

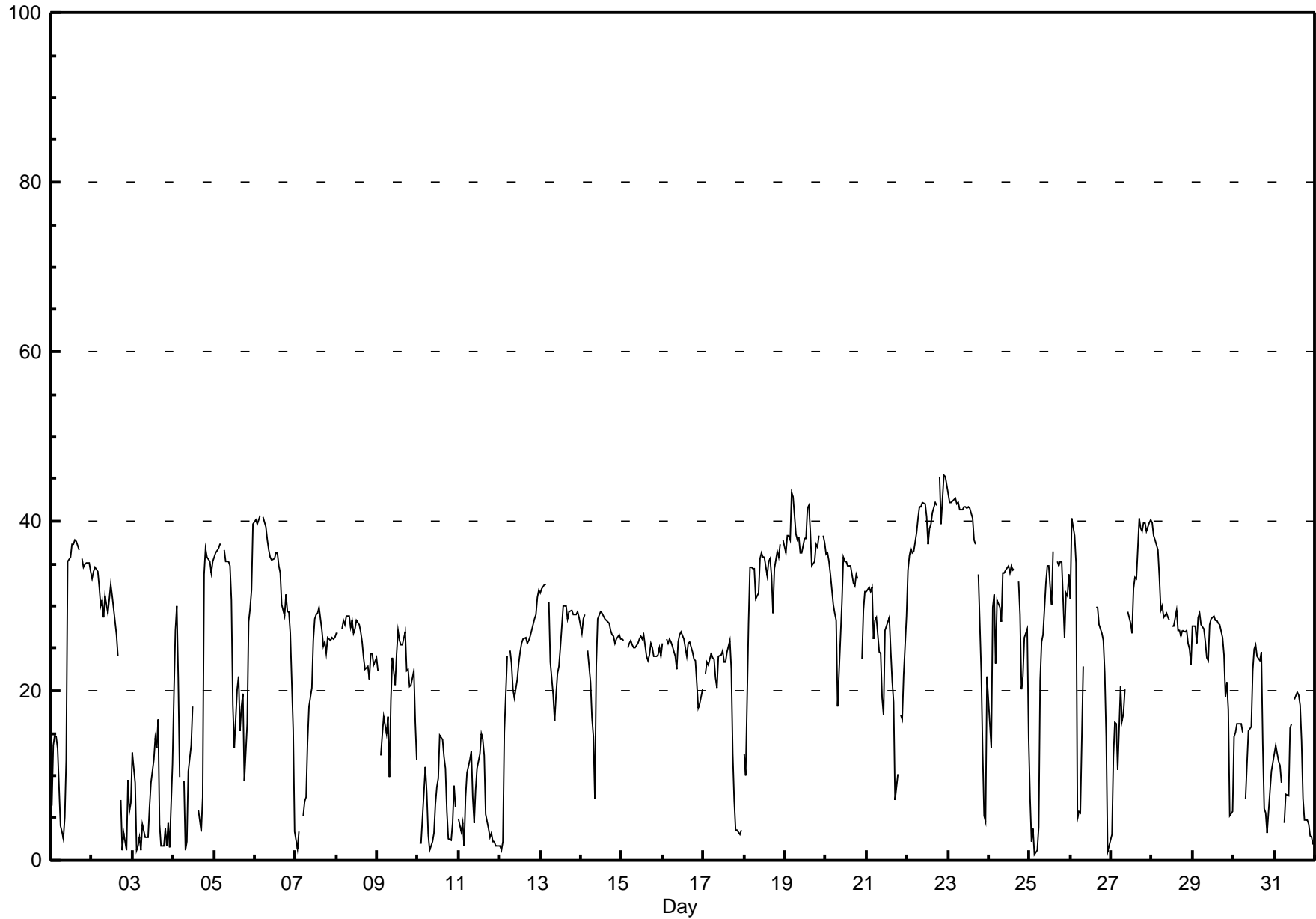
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jan	2	8	8	6	5	1	1	1	2	3	22	34	34	36	36	35	34	A	34	34	34	35	34	33	20.5	36.4
2-Jan	31	34	33	32	29	24	25	25	27	25	25	30	26	26	24	14	A	1	1	1	1	2	1	2	19.0	33.5
3-Jan	5	4	1	1	1	0	1	1	1	1	4	6	8	10	11	9	2	1	1	1	1	1	0	1	3.0	11.0
4-Jan	8	21	23	16	6	A	3	1	1	4	7	11	C	C	C	4	2	2	26	35	34	34	29	33	14.9	35.2
5-Jan	35	36	36	37	36	A	35	33	31	30	25	11	7	11	17	8	12	12	6	10	22	25	24	32	23.1	36.6
6-Jan	39	38	40	40	A	40	38	36	35	34	34	35	35	35	33	31	27	24	26	26	25	18	7	1	30.3	39.7
7-Jan	1	1	1	A	1	4	2	3	12	15	21	25	27	26	26	23	23	21	22	22	24	25	25	25	16.3	27.0
8-Jan	25	26	A	26	27	27	27	25	25	24	26	26	26	25	24	22	20	21	18	21	23	21	22	22	24.2	27.2
9-Jan	19	A	7	10	12	8	10	6	10	13	13	19	20	22	23	23	24	19	20	17	17	18	11	3	15.0	23.7
10-Jan	A	1	1	3	7	4	1	1	1	2	5	7	8	10	12	10	8	2	1	1	2	3	2	A	4.2	12.4
11-Jan	2	2	2	1	4	8	9	9	4	3	6	9	11	13	12	9	4	2	2	1	1	1	1	1	4.9	13.0
12-Jan	1	1	1	4	21	A	23	21	17	14	18	21	22	23	23	20	21	22	24	25	27	27	27	30	18.9	30.4
13-Jan	29	30	31	31	A	25	16	12	10	13	19	21	18	28	28	28	27	26	27	27	25	26	27	24	23.8	30.9
14-Jan	23	24	27	A	21	16	10	11	5	17	24	28	27	28	27	26	25	25	24	24	24	24	25	24	22.2	27.9
15-Jan	24	24	A	24	25	24	23	23	24	24	24	25	25	25	22	21	22	23	23	23	23	22	22	22	23.4	25.3
16-Jan	24	A	23	23	24	24	19	21	17	24	25	25	23	21	22	24	23	22	21	22	16	16	16	14	21.2	25.1
17-Jan	A	19	19	21	22	22	21	19	18	20	21	23	21	21	23	23	14	9	4	2	2	2	2	A	15.8	23.2
18-Jan	7	6	10	32	32	32	32	28	28	31	34	34	34	32	30	33	29	24	33	34	33	33	A	36	28.5	36.0
19-Jan	32	37	37	37	41	41	34	32	34	31	34	35	34	38	39	35	32	30	32	34	35	A	36	36	34.9	41.1
20-Jan	34	34	32	29	23	26	22	11	10	26	33	34	34	34	33	32	31	30	32	32	A	12	27	26	27.7	33.9
21-Jan	29	29	29	28	20	21	24	18	15	13	14	19	25	26	21	15	15	3	6	A	10	9	10	24	18.4	29.0
22-Jan	30	34	35	35	35	37	39	40	41	41	39	36	33	37	37	38	39	39	A	40	31	42	45	43	37.6	44.6
23-Jan	42	41	41	42	41	41	41	40	40	41	41	40	40	40	38	32	33	A	28	7	5	2	2	14	31.8	41.6
24-Jan	14	8	19	28	14	15	22	19	32	31	32	33	32	32	31	30	A	26	23	13	14	14	10	2	21.5	32.6
25-Jan	2	1	1	1	1	1	11	15	24	28	33	33	29	23	35	A	31	26	22	25	6	24	27	29	18.6	34.5
26-Jan	27	29	28	17	2	2	1	14	C	C	M	M	M	M	M	28	27	24	22	23	16	7	0	1	--	29.1
27-Jan	1	5	10	11	7	11	6	9	7	A	27	24	24	29	32	32	37	38	38	39	39	38	39	39	23.5	39.2
28-Jan	39	38	37	33	31	28	27	26	27	24	21	A	26	26	26	24	25	23	25	24	25	23	23	21	27.0	38.8
29-Jan	24	26	23	26	27	26	24	23	16	18	25	25	27	26	27	26	26	23	20	14	13	12	1	3	20.9	27.2
30-Jan	10	13	12	15	14	10	A	4	7	12	13	15	22	22	22	21	20	8	3	3	2	5	7	9	11.6	22.3
31-Jan	10	9	9	9	7	A	2	3	4	10	14	M	18	18	17	16	11	3	3	3	2	1	2	1	7.9	18.0
	19.6	19.9	19.9	21.2	18.5	19.2	18.4	17.1	17.5	19.8	22.6	24.5	24.7	25.6	26.0	23.1	22.2	18.1	19.0	19.3	17.7	17.4	16.8	19.1	Diurnal Average	
	41.6	41.4	41.3	41.5	41.0	41.1	41.1	40.0	40.8	41.4	40.6	40.1	40.4	39.8	38.6	38.3	38.5	38.8	37.9	40.2	38.7	41.5	44.6	43.4	Diurnal Maximum	

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



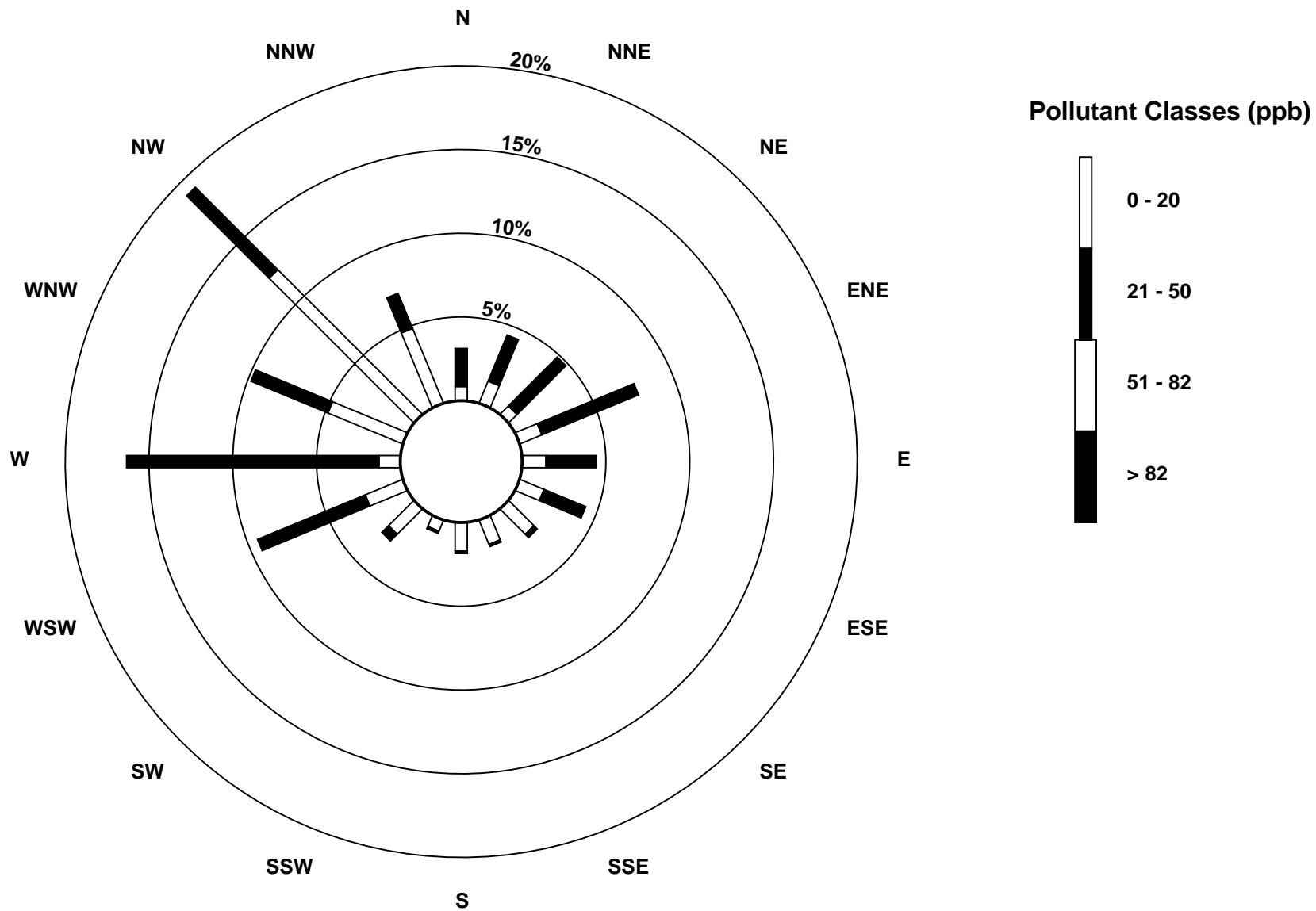
Hourly Maximums

Ozone (O₃) - ppb
Henry Pirker - January 2011



Pollutant Rose

Ozone (O₃) - ppb
Henry Pirker - January 2011

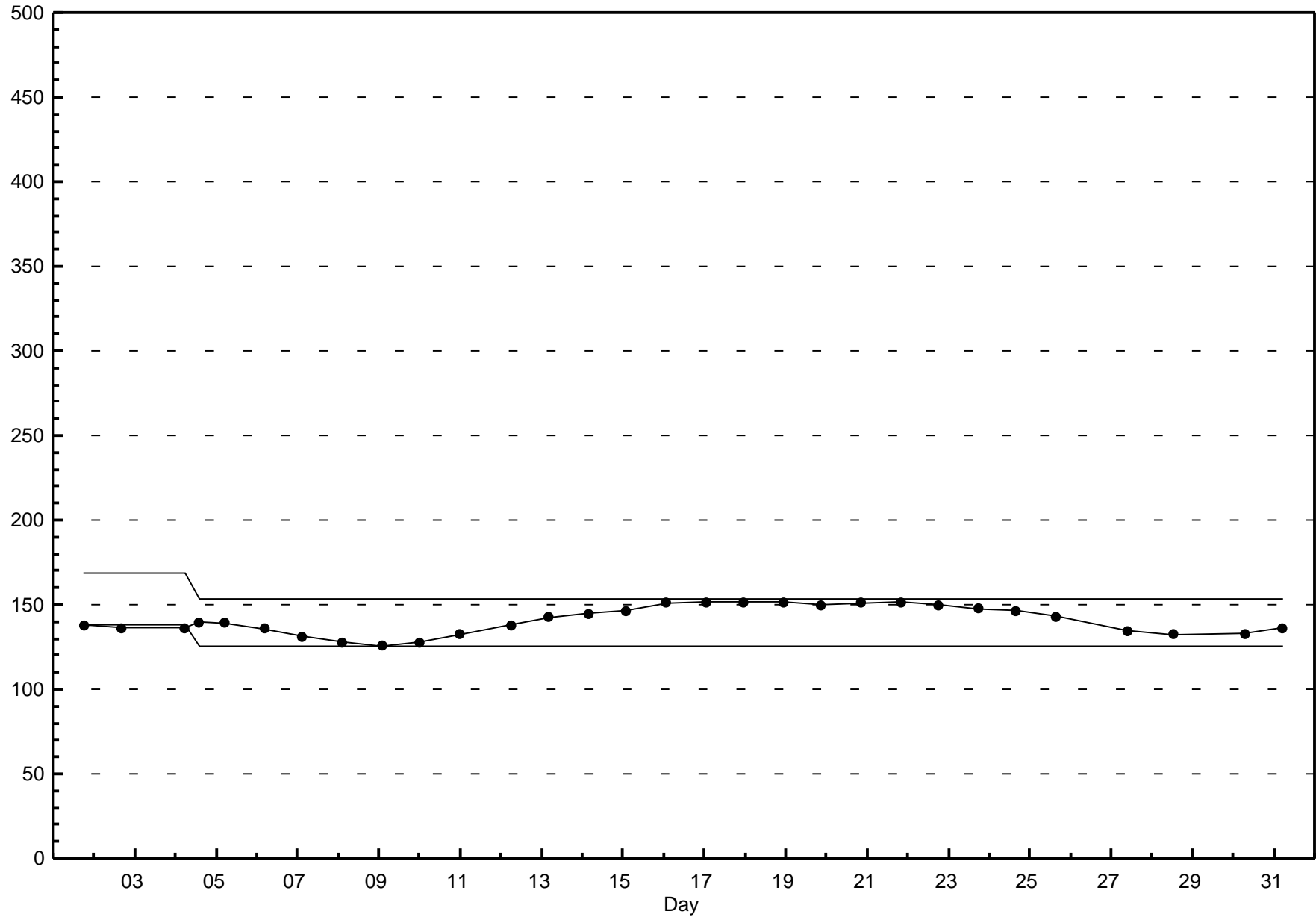


Eight Hour Running Averages

Ozone (O₃) - ppb

Henry Pirker - January 2011

Maximum Value: 42.0 ppb on Jan 23 05:00																					Hours in Service:	744			
Minimum Value: 0.8 ppb on Jan 4 00:00																					Hours of Data:	728			
Percentiles: P ₁ = 1.3 P ₁₀ = 4.4 Q ₁ = 10.9 Median = 22.3 Q ₃ = 26.9 P ₉₀ = 34.6 P ₉₉ = 40.8																					Hours of Missing Data:	16			
																					Hours of Calibration:	13			
																					Percent Operational Time:	99.6			
Day	Hourly Period Ending At (MST)																								Daily Maximum
1-Jan	2	3	4	4	5	5	4	4	4	3	5	9	12	16	21	25	29	33	35	35	35	35	34	34	34.8
2-Jan	34	34	33	33	32	31	30	29	29	27	27	26	26	26	26	25	24	21	17	13	9	6	3	1	33.5
3-Jan	2	2	2	2	2	2	2	2	1	1	1	2	3	4	5	6	6	6	6	5	4	3	2	1	6.4
4-Jan	2	4	7	9	9	11	11	11	10	7	5	5	4	4	N	N	N	N	N	N	17	20	21	24	24.4
5-Jan	29	33	34	34	34	34	35	35	35	34	32	29	25	23	21	18	15	13	11	10	12	14	15	18	35.4
6-Jan	21	25	29	33	34	36	38	39	38	37	37	36	36	35	35	34	33	32	31	30	28	26	23	19	38.6
7-Jan	16	13	10	8	4	2	2	2	3	5	8	10	14	16	19	22	23	24	24	24	23	23	23	23	24.1
8-Jan	24	24	25	25	26	26	26	27	26	26	26	26	26	26	26	25	25	24	24	23	22	22	21	21	26.5
9-Jan	21	21	19	18	16	14	12	10	9	10	10	11	12	14	16	18	20	21	21	21	21	20	18	16	21.3
10-Jan	15	12	10	8	6	4	3	3	2	3	3	4	4	4	6	7	8	8	7	6	6	5	4	3	14.9
11-Jan	2	2	2	2	2	3	4	5	5	5	6	7	7	8	8	8	8	8	8	7	6	4	3	2	8.4
12-Jan	1	1	1	2	4	4	8	10	13	15	17	19	20	20	20	20	20	21	22	22	23	24	24	25	25.3
13-Jan	26	27	28	29	29	29	27	25	22	20	18	17	17	17	19	21	23	24	25	26	27	27	27	26	29.4
14-Jan	26	25	25	25	25	23	21	19	16	15	15	17	17	19	21	23	25	26	26	26	25	25	25	24	26.3
15-Jan	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	23	23	23	22	22	23	24.3
16-Jan	23	23	23	23	23	23	23	22	21	22	22	22	22	22	22	23	23	23	23	22	21	21	20	19	23.5
17-Jan	18	18	17	17	18	19	20	21	20	20	21	21	21	21	21	21	21	19	17	15	12	10	7	5	21.3
18-Jan	4	4	4	9	13	17	22	22	25	28	31	31	31	32	31	32	32	31	31	31	31	31	31	32	32.1
19-Jan	32	34	34	35	36	37	37	36	37	36	35	35	34	34	35	35	35	35	34	34	34	34	33	33	37.2
20-Jan	34	34	34	34	32	31	29	26	23	22	22	23	24	25	27	30	32	33	33	32	32	29	28	27	34.3
21-Jan	27	27	26	26	25	26	26	25	23	21	19	18	19	19	19	18	19	17	16	16	14	11	10	11	26.8
22-Jan	13	18	22	23	26	30	34	36	37	38	38	38	38	38	38	38	37	37	37	38	37	38	39	40	39.7
23-Jan	40	41	41	41	42	42	42	41	41	41	41	41	40	40	40	39	38	38	36	31	26	21	16	13	42.0
24-Jan	10	10	9	11	12	14	17	17	20	22	24	25	27	29	30	32	32	31	30	27	24	22	19	15	31.6
25-Jan	13	10	7	6	4	2	2	4	7	10	14	18	22	24	27	29	30	30	28	27	24	24	23	24	30.2
26-Jan	23	24	24	23	23	20	17	15	13	11	N	N	N	N	N	N	N	N	N	23	21	18	15	24.4	
27-Jan	12	9	8	6	5	6	6	7	8	9	11	13	16	18	22	25	29	30	32	33	35	36	37	38	38.3
28-Jan	39	39	38	38	37	36	34	32	31	29	27	26	26	25	25	25	25	24	25	25	25	24	24	23	38.5
29-Jan	23	24	24	24	24	25	25	25	24	23	23	23	23	23	23	24	25	26	25	24	22	20	17	14	25.8
30-Jan	12	11	10	10	10	10	11	11	11	10	11	11	12	14	15	17	18	18	17	15	13	10	8	7	18.5
31-Jan	6	6	7	7	8	9	8	7	6	6	7	7	9	10	12	14	15	14	12	11	9	7	5	3	14.8
40.2 40.5 40.6 40.8 42.0 42.0 41.5 41.1 40.9 40.8 40.7 40.5 40.5 40.3 40.0 39.0 38.1 37.8 36.9 37.5 37.3 37.9 39.0 39.7																									
Diurnal Maximums																									
N - Not Valid																									



Hourly Averages

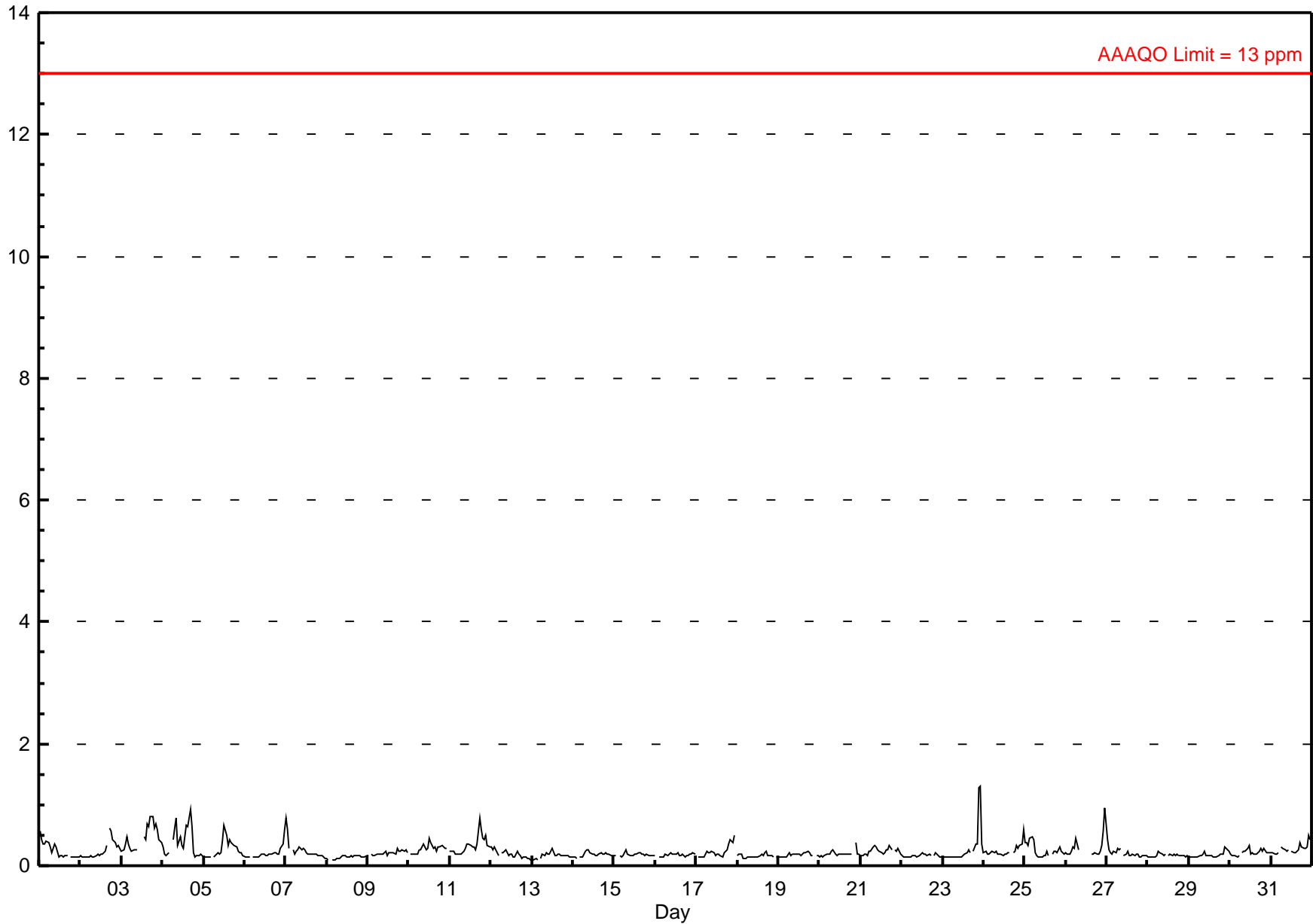
Carbon Monoxide (CO) - ppm

Henry Pirker - January 2011

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 1.30 ppm on Jan 23 23:00	Maximum Daily Average: 0.45 ppm on Jan 3		Hours of Data:	704
Minimum Value: 0.1 ppm on Jan 8 04:00	Minimum Daily Average: 0.14 ppm on Jan 8		Hours of Missing Data:	40
Maximum Diurnal Average: 0.29 ppm at hour 18	Minimum Diurnal Average: 0.19 ppm at hour 3		Hours of Calibration:	36
Monthly Average: 0.232 ppm	Percentiles: P ₁ = 0.11 P ₁₀ = 0.15 Q ₁ = 0.16 Median = 0.19 Q ₃ = 0.25 P ₉₀ = 0.35 P ₉₉ = 0.79		Percent Operational Time:	99.5

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jan	0.6	0.4	0.3	0.4	0.4	0.4	0.3	0.2	0.3	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.1	0.1	0.1	0.1	0.25	0.57	
2-Jan	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	A	0.6	0.6	0.4	0.4	0.3	0.3	0.3	0.25	0.63	
3-Jan	0.2	0.3	0.4	0.5	0.4	0.3	0.2	0.3	0.3	0.3	C	C	C	0.5	0.4	0.7	0.6	0.8	0.8	0.6	0.7	0.6	0.4	0.4	0.45	0.81	
4-Jan	0.3	0.2	0.2	0.2	0.2	A	0.4	0.6	0.8	0.3	0.5	0.3	0.3	0.5	0.7	0.6	0.9	0.6	0.2	0.2	0.2	0.2	0.2	0.2	0.38	0.93	
5-Jan	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.4	0.7	0.5	0.3	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.27	0.66	
6-Jan	0.2	0.2	0.2	0.2	A	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.6	0.20	0.58	
7-Jan	0.8	0.6	0.3	A	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.25	0.79	
8-Jan	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.14	0.17	
9-Jan	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.21	0.30	
10-Jan	A	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.3	0.3	0.3	0.5	0.4	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	A	0.28	0.46	
11-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.4	0.8	0.6	0.5	0.4	0.5	0.3	0.3	0.33	0.79	
12-Jan	0.3	0.3	0.3	0.3	0.2	A	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.19	0.31	
13-Jan	0.1	0.1	0.1	0.1	A	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.16	0.27	
14-Jan	0.2	0.1	0.1	A	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19	0.27	
15-Jan	0.2	0.2	A	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18	0.26	
16-Jan	0.2	A	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.18	0.21	
17-Jan	A	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.5	A	0.23	0.50
18-Jan	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.1	0.16	0.23	
19-Jan	0.2	0.1	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.18	0.23	
20-Jan	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.4	0.2	0.2	0.19	0.38	
21-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	A	0.3	0.2	0.3	0.2	0.24	0.34	
22-Jan	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.17	0.22	
23-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	A	0.2	0.3	0.4	1.3	1.3	0.4	0.29	1.30	
24-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.3	0.3	0.3	0.4	0.6	0.24	0.59	
25-Jan	0.4	0.4	0.3	0.5	0.5	0.4	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.25	0.48	
26-Jan	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.3	C	C	C	C	M	M	M	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.6	1.0	--	0.95	
27-Jan	0.4	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21	0.42	
28-Jan	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.17	0.23	
29-Jan	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.18	0.30	
30-Jan	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.22	0.33	
31-Jan	0.2	0.2	0.2	0.2	0.2	A	0.3	0.3	0.3	0.2	0.3	M	0.2	0.2	0.2	0.2	0.3	0.4	0.3	0.3	0.3	0.3	0.5	0.4	0.27	0.49	
	0.23	0.21	0.19	0.19	0.20	0.19	0.22	0.22	0.24	0.22	0.22	0.21	0.23	0.22	0.22	0.24	0.25	0.29	0.26	0.24	0.25	0.28	0.29	0.26	Diurnal Average		
	0.79	0.60	0.35	0.47	0.48	0.43	0.45	0.61	0.78	0.35	0.47	0.39	0.66	0.50	0.66	0.68	0.93	0.80	0.81	0.61	0.69	1.28	1.30	0.95	Diurnal Maximum		

C - Calibration M - Maintenance A - Automated Daily Zero Span
 Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 13 ppm 24-hr na

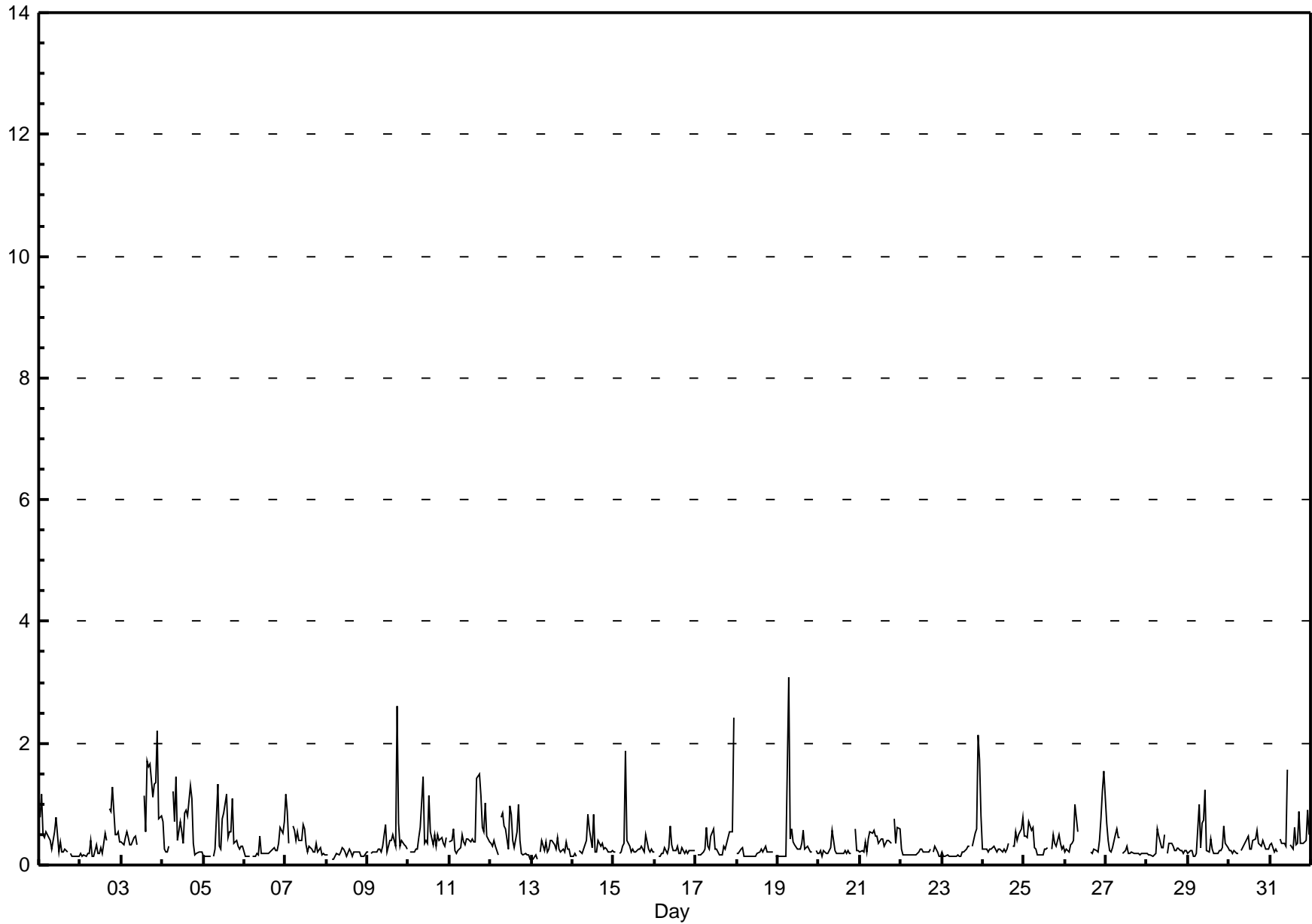


Hourly Maximums

Carbon Monoxide (CO) - ppm

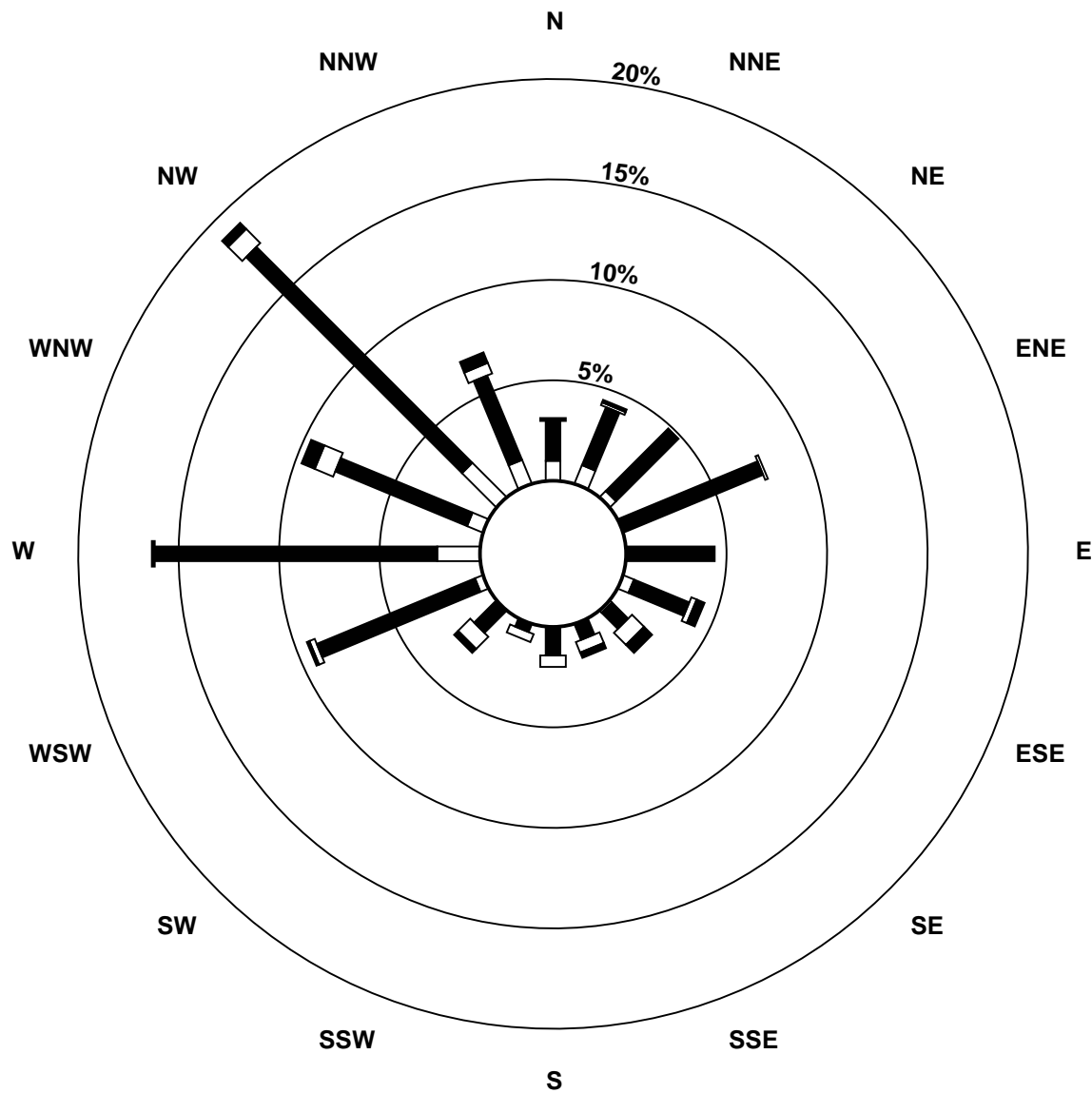
Henry Pirker - January 2011

Maximum Value: 3.09 ppm on Jan 19 07:00		Maximum Daily Average: 0.87 ppm on Jan 3		Hours in Service: 744																						
Minimum Value: 0.1 ppm on Jan 8 04:00		Minimum Daily Average: 0.18 ppm on Jan 8		Hours of Data: 704																						
Maximum Diurnal Average: 0.56 ppm at hour 18		Minimum Diurnal Average: 0.24 ppm at hour 4		Hours of Missing Data: 40																						
Monthly Average: 0.374 ppm		Percentiles: P ₁ = 0.14 P ₁₀ = 0.15 Q ₁ = 0.20 Median = 0.25 Q ₃ = 0.41 P ₉₀ = 0.68 P ₉₉ = 1.66		Hours of Calibration: 36																						
				Percent Operational Time: 99.5																						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jan	0.8	1.2	0.5	0.5	0.6	0.5	0.4	0.3	0.4	0.6	0.8	0.2	0.4	0.2	0.3	0.2	A	0.2	0.2	0.2	0.2	0.1	0.1	0.38	1.15	
2-Jan	0.2	0.1	0.2	0.1	0.2	0.2	0.4	0.1	0.1	0.3	0.2	0.2	0.3	0.2	0.5	0.4	A	0.9	0.9	1.3	0.5	0.5	0.5	0.4	0.39	1.28
3-Jan	0.4	0.3	0.4	0.5	0.4	0.3	0.3	0.4	0.5	0.3	C	C	C	1.1	0.5	1.7	1.6	1.7	1.1	1.3	1.4	2.2	0.8	0.8	0.87	2.20
4-Jan	0.7	0.3	0.2	0.2	0.3	A	1.2	0.7	1.5	0.4	0.7	0.6	0.4	0.9	0.9	0.8	1.3	1.1	0.4	0.2	0.2	0.2	0.2	0.2	0.58	1.45
5-Jan	0.2	0.2	0.2	0.2	0.2	A	0.2	0.3	1.3	0.3	0.3	0.8	0.9	1.2	0.5	0.6	0.6	1.1	0.4	0.4	0.3	0.3	0.3	0.3	0.45	1.32
6-Jan	0.2	0.2	0.2	0.2	A	0.2	0.1	0.2	0.2	0.5	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.4	0.6	0.5	0.7	0.26	0.72
7-Jan	1.2	0.9	0.4	A	0.6	0.6	0.4	0.5	0.4	0.4	0.7	0.6	0.3	0.2	0.3	0.3	0.2	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.41	1.17
8-Jan	0.2	0.2	A	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18	0.29
9-Jan	0.2	A	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.3	0.7	0.2	0.3	0.4	0.4	0.5	0.3	2.6	0.7	0.3	0.4	0.3	0.3	0.3	0.42	2.60
10-Jan	A	0.2	0.2	0.2	0.3	0.3	0.5	0.6	1.4	0.4	0.4	0.4	1.1	0.6	0.3	0.5	0.3	0.5	0.4	0.4	0.4	0.3	0.4	A	0.46	1.44
11-Jan	0.4	0.4	0.6	0.2	0.2	0.2	0.3	0.5	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	1.4	1.5	1.1	0.6	0.5	1.0	0.5	0.4	0.54	1.49
12-Jan	0.4	0.3	0.4	0.3	0.2	A	0.8	0.8	0.6	0.6	0.3	1.0	0.8	0.4	0.3	0.5	1.0	0.4	0.2	0.2	0.2	0.2	0.1	0.44	1.01	
13-Jan	0.1	0.1	0.2	0.1	A	0.2	0.4	0.2	0.4	0.2	0.3	0.4	0.4	0.3	0.2	0.5	0.3	0.2	0.3	0.2	0.4	0.3	0.2	0.2	0.26	0.46
14-Jan	0.2	0.2	0.2	A	0.2	0.2	0.3	0.3	0.4	0.8	0.6	0.3	0.8	0.2	0.2	0.4	0.3	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.32	0.83
15-Jan	0.2	0.2	A	0.2	0.2	0.3	0.4	1.9	0.4	0.3	0.2	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.5	0.3	0.2	0.2	0.2	0.33	1.88
16-Jan	0.2	A	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.6	0.3	0.2	0.2	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.24	0.63
17-Jan	A	0.2	0.2	0.2	0.2	0.3	0.6	0.3	0.3	0.5	0.6	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.4	0.5	0.6	0.5	2.4	A	0.42	2.43
18-Jan	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.2	A	0.2	0.20	0.30
19-Jan	0.2	0.2	0.2	0.2	0.2	0.2	3.1	0.4	0.6	0.4	0.3	0.3	0.3	0.3	0.4	0.6	0.3	0.3	0.3	0.2	0.2	A	0.2	0.2	0.40	3.09
20-Jan	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.3	0.6	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.6	0.2	0.2	0.24	0.59
21-Jan	0.2	0.2	0.2	0.4	0.2	0.4	0.6	0.5	0.6	0.5	0.5	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	A	0.8	0.4	0.6	0.6	0.42	0.76
22-Jan	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.3	A	0.2	0.3	0.2	0.2	0.2	0.19	0.30
23-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	A	0.3	0.5	0.6	2.1	1.7	0.8	0.40	2.14
24-Jan	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.2	0.3	0.2	0.3	0.4	A	0.3	0.3	0.5	0.4	0.5	0.6	0.8	0.32	0.79
25-Jan	0.5	0.5	0.5	0.7	0.6	0.6	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	A	0.3	0.5	0.4	0.3	0.5	0.4	0.3	0.3	0.36	0.71
26-Jan	0.2	0.3	0.2	0.3	0.4	0.4	1.0	0.6	C	C	C	C	M	M	M	0.2	0.2	0.3	0.2	0.2	0.4	0.7	1.2	1.5	--	1.54
27-Jan	0.7	0.4	0.2	0.2	0.3	0.5	0.6	0.4	0.4	A	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.29	0.70
28-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.6	0.5	0.3	0.3	0.5	A	0.2	0.3	0.3	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.27	0.58
29-Jan	0.2	0.2	0.2	0.1	0.1	0.2	1.0	0.3	0.7	0.7	1.2	0.2	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.6	0.4	0.3	0.37	1.24
30-Jan	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.3	0.3	0.4	0.5	0.3	0.3	0.4	0.4	0.6	0.4	0.3	0.3	0.4	0.3	0.3	0.3	0.31	0.57
31-Jan	0.3	0.4	0.2	0.3	0.2	A	0.4	0.4	0.3	0.3	1.6	M	0.3	0.3	0.6	0.3	0.4	0.9	0.4	0.4	0.4	0.4	0.9	0.5	0.46	1.56
		0.32	0.29	0.24	0.24	0.25	0.27	0.52	0.40	0.45	0.37	0.44	0.33	0.36	0.36	0.32	0.39	0.43	0.56	0.37	0.36	0.38	0.47	0.48	0.37	Diurnal Average
		1.17	1.15	0.60	0.71	0.64	0.63	3.09	1.88	1.45	0.82	1.56	0.96	1.13	1.15	0.90	1.70	1.62	2.60	1.15	1.33	1.36	2.20	2.43	1.54	Diurnal Maximum
C - Calibration		M - Maintenance					A - Automated Daily Zero Span																			

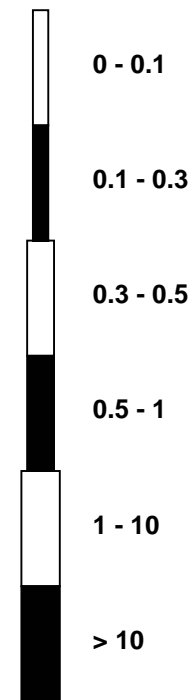


Pollutant Rose

Carbon Monoxide (CO) - ppm
Henry Pirker - January 2011



Pollutant Classes (ppm)

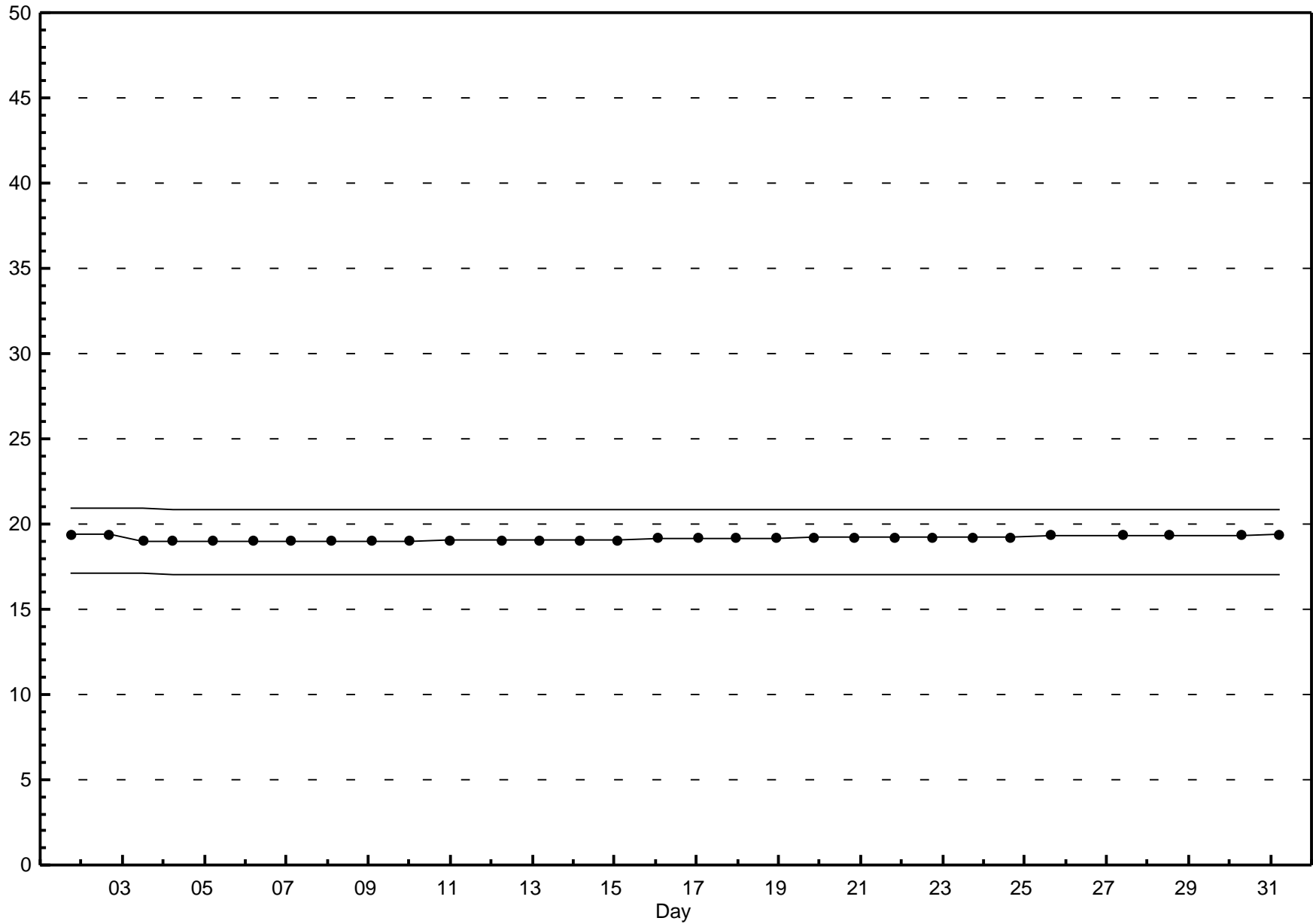


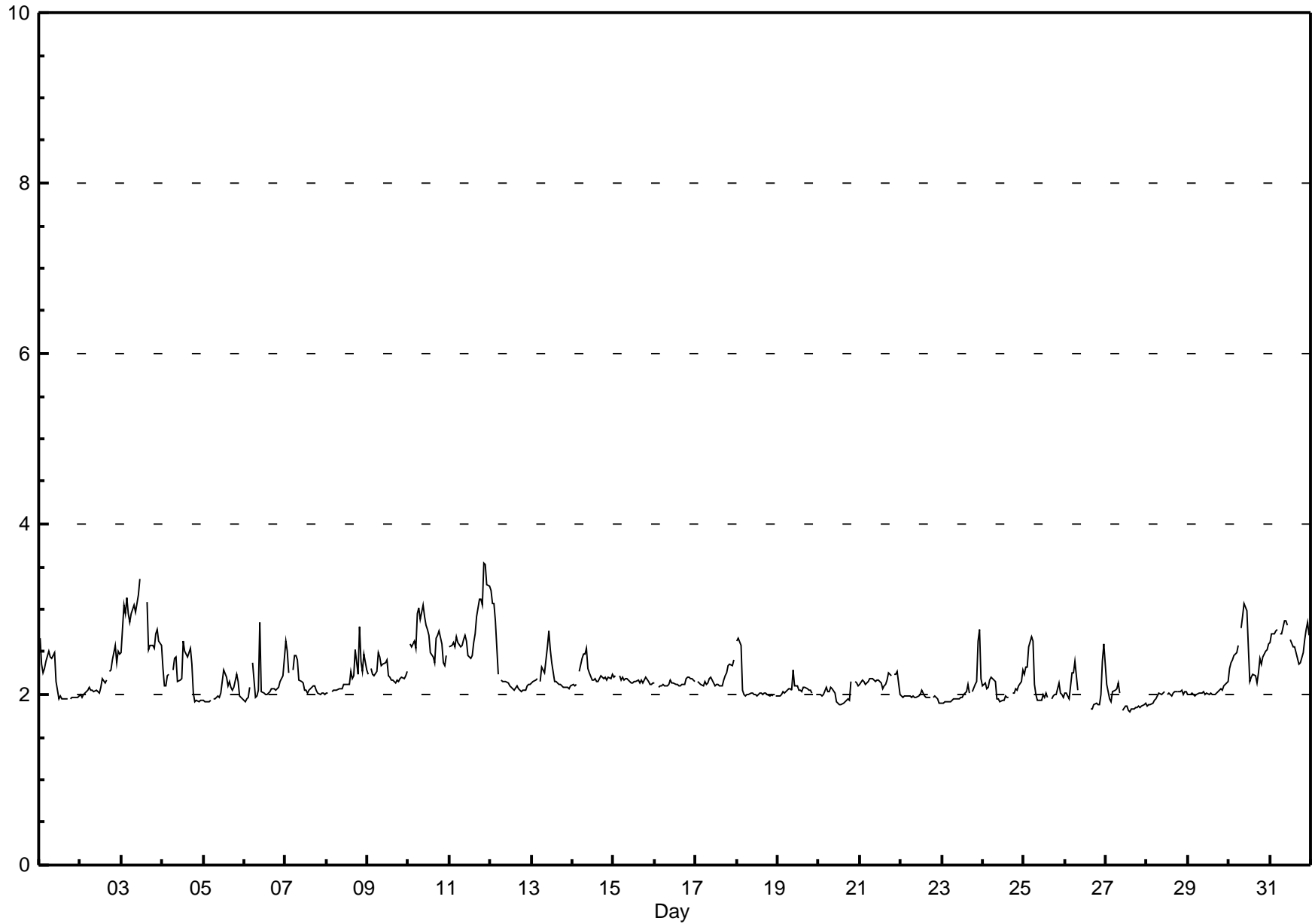
Eight Hour Running Averages

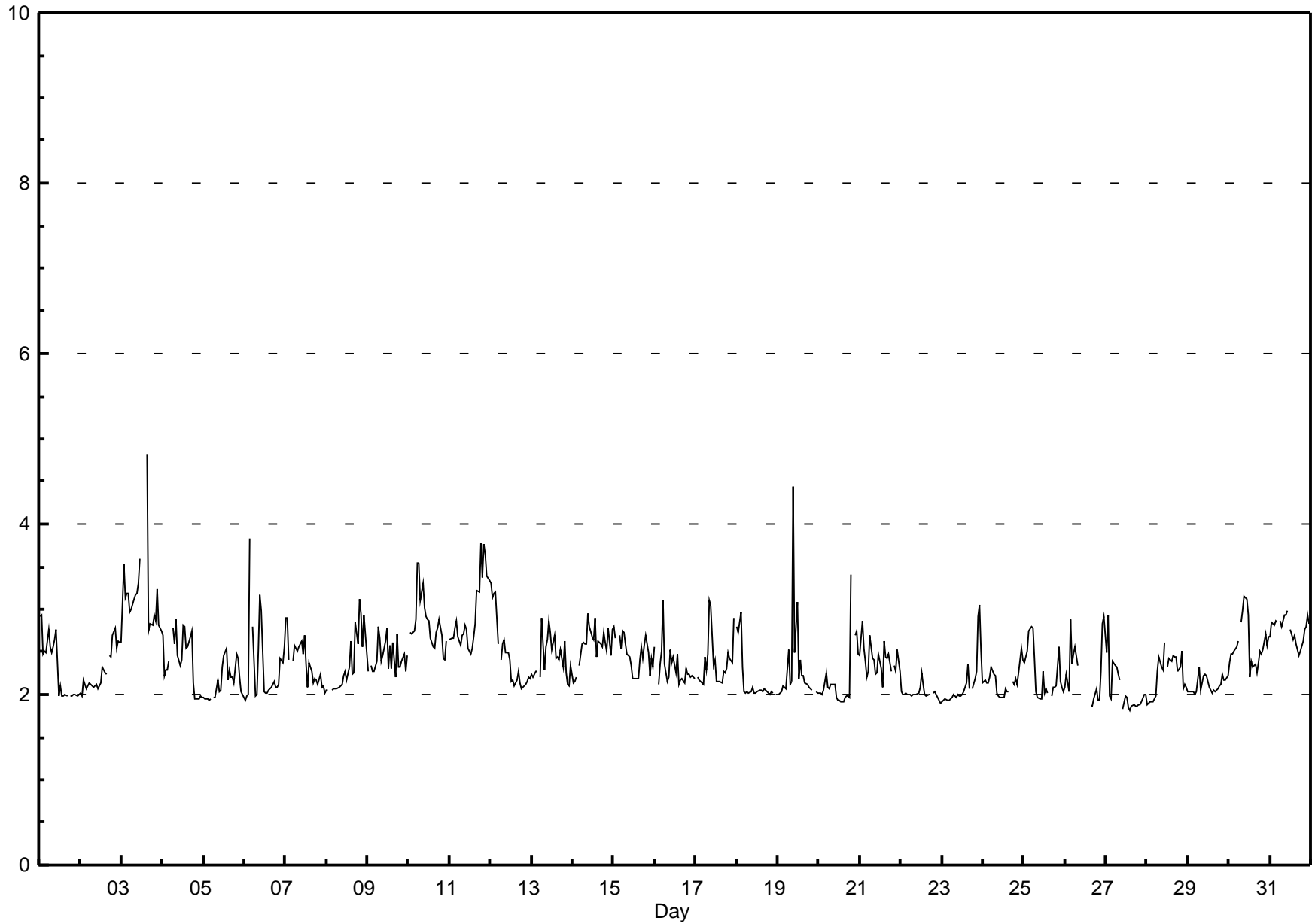
Carbon Monoxide (CO) - ppm

Henry Pirker - January 2011

Number of Exceedences (AAAQO): 8-hr: 0 Maximum Value: 0.77 ppm on Jan 1 01:00		Hours in Service: 744 Hours of Data: 728																								
Minimum Value: 0.11 ppm on Jan 13 06:00		Hours of Missing Data: 16 Hours of Calibration: 15																								
Percentiles: P ₁ = 0.11 P ₁₀ = 0.15 Q ₁ = 0.17 Median = 0.20 Q ₃ = 0.26 P ₉₀ = 0.37 P ₉₉ = 0.64		Percent Operational Time: 99.9																								
Day	Hourly Period Ending At (MST)																								Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jan	0.8	0.7	0.7	0.6	0.6	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.77	
2-Jan	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.42	
3-Jan	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	N	N	N	N	N	N	0.6	0.6	0.6	0.7	0.7	0.6	0.66	
4-Jan	0.6	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.5	0.5	0.5	0.4	0.4	0.3	0.58	
5-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.42	
6-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.28	
7-Jan	0.4	0.4	0.4	0.4	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.45	
8-Jan	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.16	
9-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.24	
10-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.33	
11-Jan	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.47	
12-Jan	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.47	
13-Jan	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20	
14-Jan	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21	
15-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20	
16-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19	
17-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.34	
18-Jan	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.33	
19-Jan	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20	
20-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21	
21-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.27	
22-Jan	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.25	
23-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.6	0.6	0.59	
24-Jan	0.6	0.5	0.5	0.5	0.5	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.59	
25-Jan	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.43	
26-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	N	N	N	N	N	N	N	N	N	N	N	0.2	0.2	0.3	0.4	0.36
27-Jan	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.40	
28-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20	
29-Jan	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21	
30-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.24	
31-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.34	
0.77 0.70 0.66 0.62 0.56 0.48 0.43 0.38 0.37 0.39 0.43 0.45 0.46 0.47 0.49 0.50 0.52 0.56 0.64 0.63 0.64 0.66 0.65 0.62																										
Diurnal Maximums																										
N - Not Valid																										
Alberta Ambient Air Quality Objectives (AAAQO): 8-hr 5 ppm																										

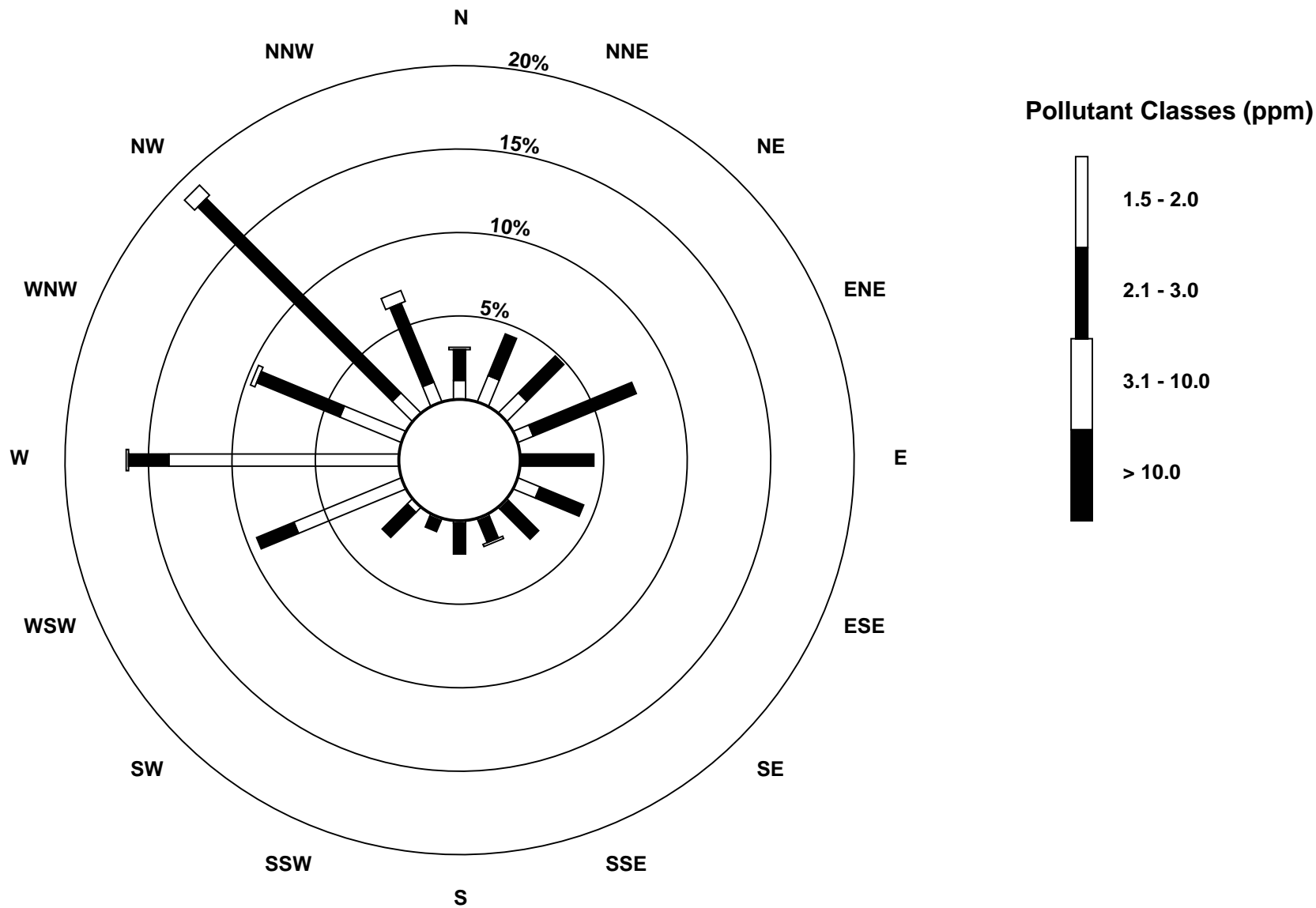






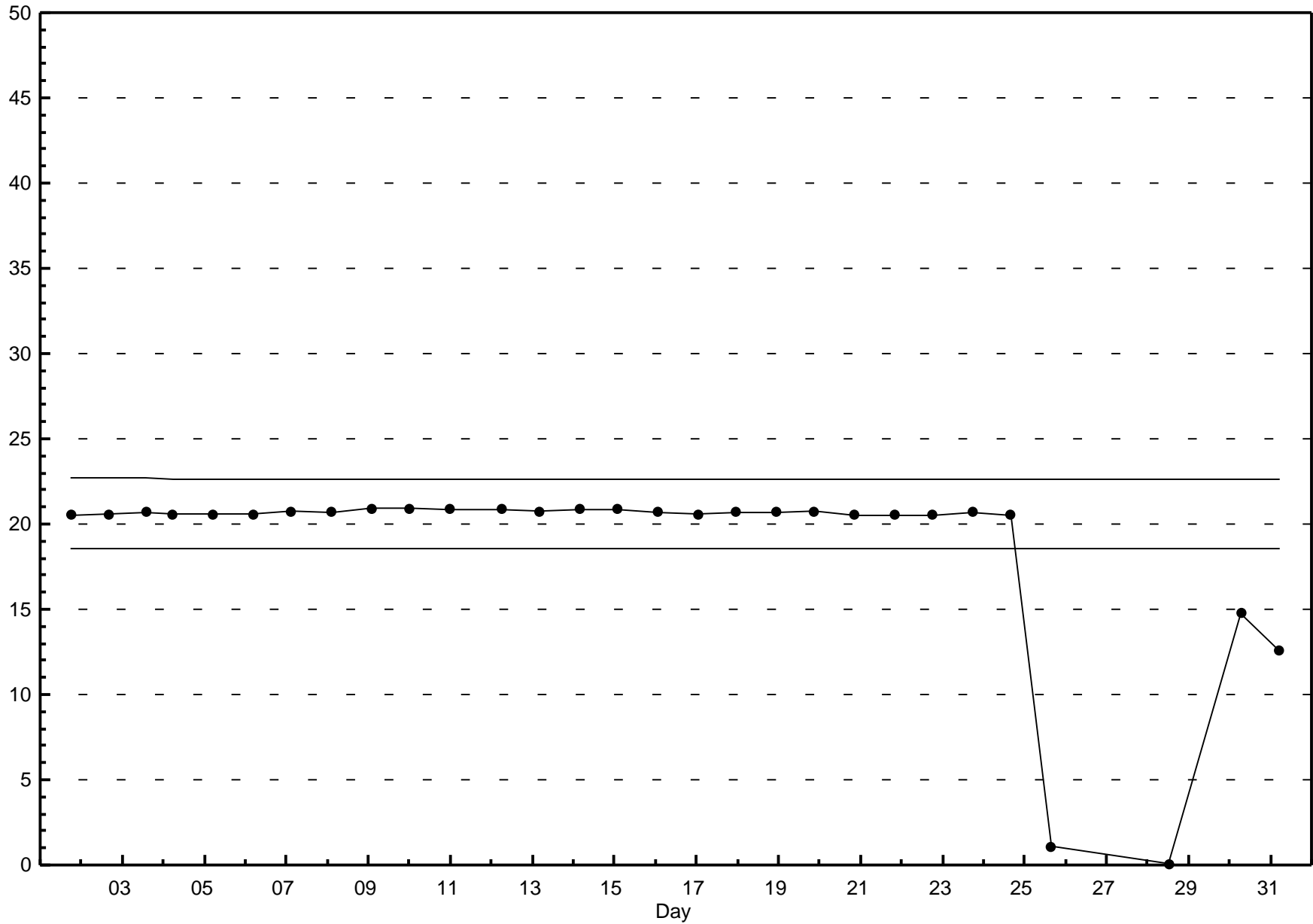
Pollutant Rose

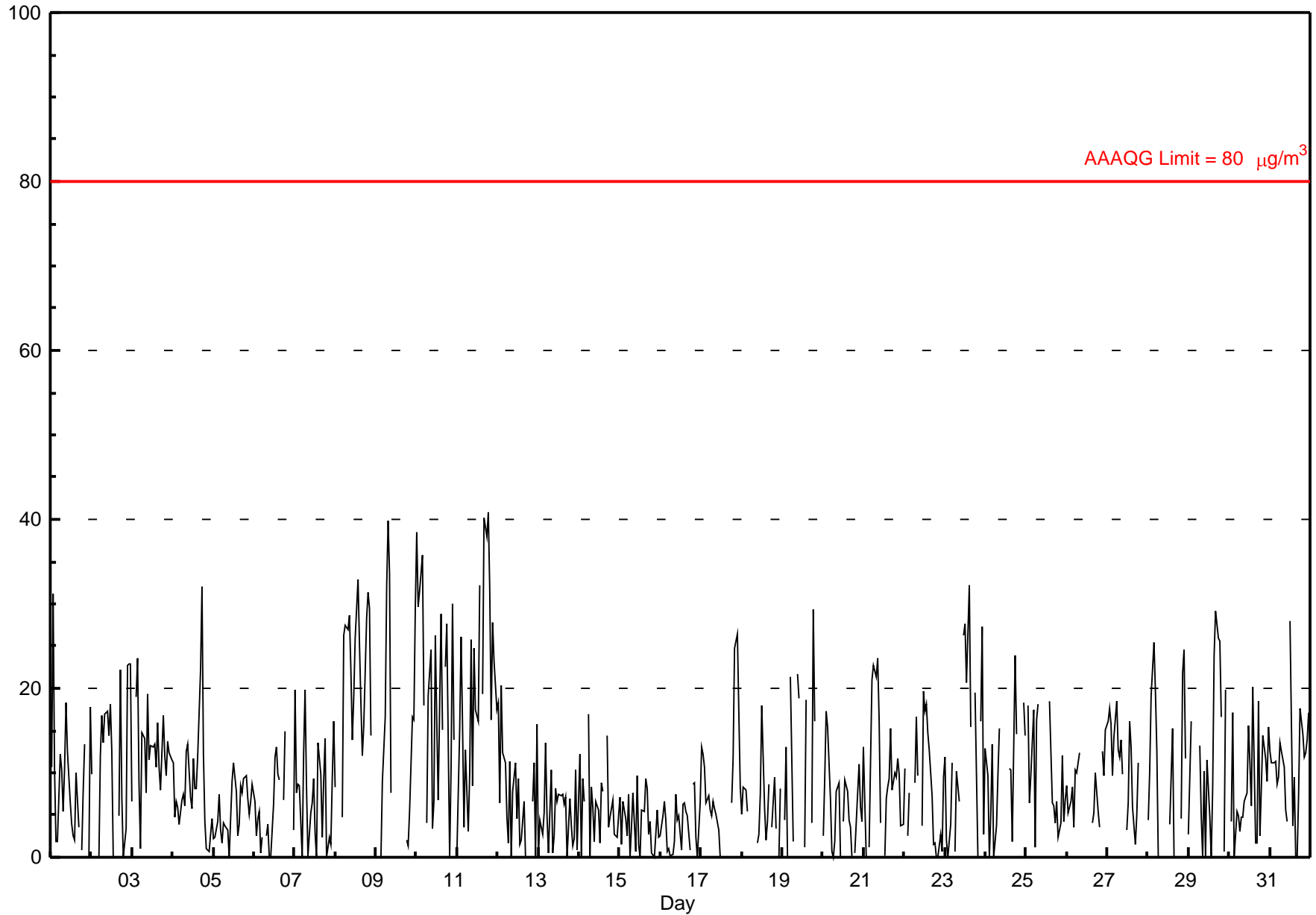
Total Hydrocarbons (THC) - ppm
Henry Pirker - January 2011



Span Responses

Total Hydrocarbons (THC)
Henry Pirker - January 2011



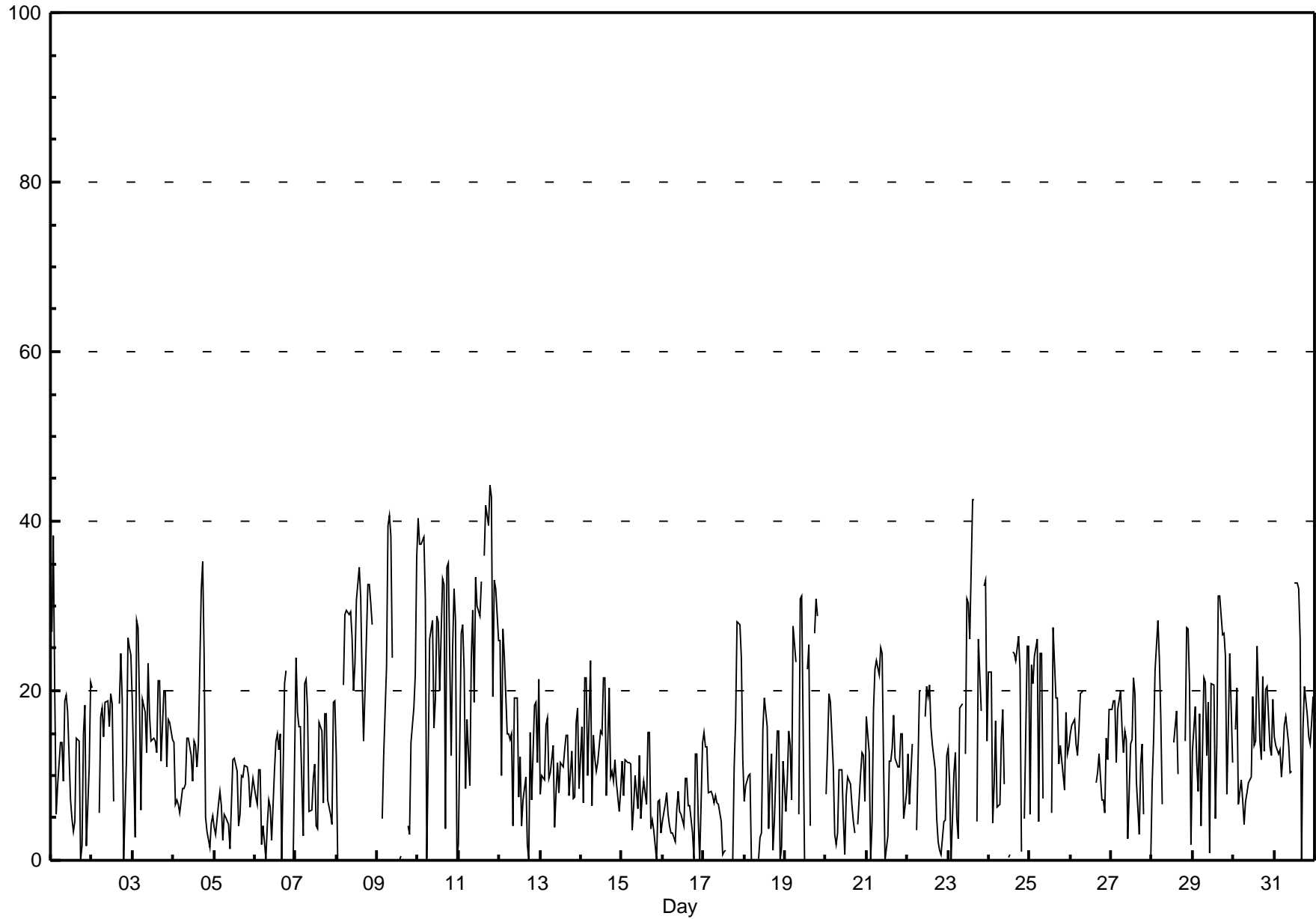


Hourly Maximums

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

Henry Pirker - January 2011

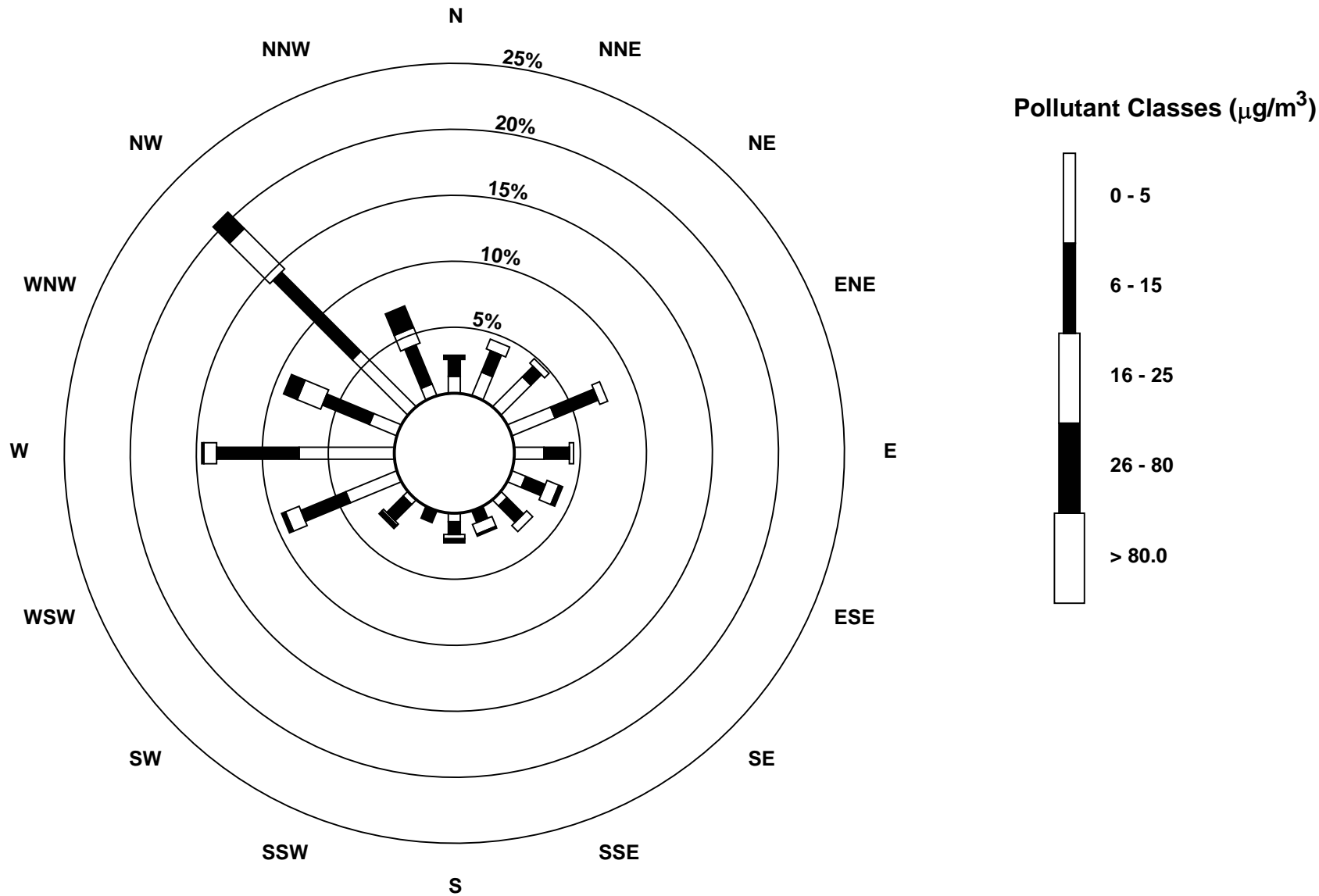
Maximum Value: 44.2 µg/m ³ on Jan 11 19:00		Maximum Daily Average: 27.2 µg/m ³ on Jan 11		Hours in Service: 744																							
Minimum Value: 0 µg/m ³ on Jan 1 18:00		Minimum Daily Average: 6.1 µg/m ³ on Jan 16		Hours of Data: 676																							
Maximum Diurnal Average: 16.8 µg/m ³ at hour 15		Minimum Diurnal Average: 12.0 µg/m ³ at hour 6		Hours of Missing Data: 68																							
Monthly Average: 14.14 µg/m ³		Percentiles: P ₁ = 0.0 P ₁₀ = 3.3 Q ₁ = 6.9 Median = 12.8 Q ₃ = 19.5 P ₉₀ = 27.4 P ₉₉ = 40.3		Hours of Calibration: 1																							
				Percent Operational Time: 91.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jan	27	38	20	5	9	14	14	9	19	19	18	7	5	3	5	14	14	0	2	15	18	2	11	21	12.9	38.3	
2-Jan	20	BD	BD	BD	6	17	18	15	19	19	16	20	18	7	BD	BD	18	24	19	0	12	26	25	24	17.0	26.3	
3-Jan	19	3	28	27	19	6	19	18	13	23	17	14	14	14	13	21	21	12	20	20	11	17	16	14	16.6	28.2	
4-Jan	14	7	7	7	6	8	9	9	14	14	12	9	14	14	11	14	32	35	24	5	3	2	4	5	11.7	35.3	
5-Jan	4	3	7	8	6	2	5	5	4	1	7	12	12	10	4	5	10	10	11	11	10	6	8	10	7.2	12.1	
6-Jan	7	7	11	11	2	4	0	4	7	6	2	11	14	15	13	15	0	21	22	N	N	N	0	12	8.8	22.4	
7-Jan	24	17	16	16	3	21	21	18	6	6	10	11	4	4	16	15	7	17	17	7	5	4	19	19	12.6	23.9	
8-Jan	12	0	BD	BD	21	29	30	29	29	26	20	23	31	35	31	21	14	20	32	32	30	28	BD	BD	24.7	34.6	
9-Jan	BD	BD	BD	5	12	23	39	41	38	24	BD	BD	0	0	0	BD	BD	BD	BD	4	3	14	18	22	36	--	40.8
10-Jan	40	37	37	38	31	0	12	26	28	16	19	29	28	20	33	32	4	35	35	12	25	32	28	0	25.0	40.4	
11-Jan	2	27	28	23	9	17	9	24	29	19	33	30	29	33	C	36	42	39	44	43	19	33	32	26	27.2	44.2	
12-Jan	26	10	27	24	15	15	14	15	4	19	19	7	12	4	7	10	2	0	15	7	18	19	11	21	13.5	27.3	
13-Jan	8	10	9	16	17	10	10	14	4	8	11	8	11	11	13	15	15	8	13	7	7	16	18	9	11.2	18.0	
14-Jan	16	7	22	22	10	24	6	15	12	10	12	15	15	22	22	8	20	10	10	9	12	9	6	8	13.3	23.6	
15-Jan	12	8	12	12	12	11	4	6	10	6	12	5	8	9	7	15	15	4	5	4	0	7	7	3	8.0	15.1	
16-Jan	5	7	8	5	4	3	3	2	6	8	6	5	4	10	10	6	6	3	0	13	13	5	0	14	6.1	13.9	
17-Jan	15	13	13	8	8	8	7	8	7	7	5	1	1	1	BD	BD	BD	0	11	16	28	28	24	12	10.5	28.1	
18-Jan	7	9	10	10	0	BD	BD	BD	0	3	3	16	19	16	4	9	13	1	5	15	15	0	1	12	8.0	19.2	
19-Jan	6	9	15	14	7	28	23	BD	5	31	31	0	BD	23	25	4	BD	27	31	29	BD	BD	BD	BD	--	31.3	
20-Jan	8	13	20	19	11	3	2	3	11	11	5	1	8	10	9	6	5	3	BD	4	10	13	12	7	8.4	19.6	
21-Jan	17	13	0	5	18	23	23	22	25	24	11	0	3	12	12	13	17	12	11	11	15	15	5	8	13.1	25.1	
22-Jan	13	7	10	14	BD	4	11	20	20	BD	17	21	19	21	16	14	11	5	2	1	1	5	5	12	11.2	20.7	
23-Jan	13	9	0	10	13	5	3	18	18	BD	13	31	30	26	42	42	BD	5	26	18	BD	32	33	14	19.1	42.5	
24-Jan	22	22	4	9	16	6	7	14	18	9	BD	0	1	BD	25	24	24	27	23	1	BD	5	25	25	14.7	26.5	
25-Jan	5	23	21	24	26	5	24	24	7	BD	BD	BD	BD	6	28	19	19	11	14	12	8	18	13	13	16.0	27.5	
26-Jan	15	16	17	14	12	15	20	20	M	M	M	M	M	M	M	9	10	13	7	7	6	14	12	18	--	20.0	
27-Jan	18	19	19	12	18	20	16	13	15	14	2	14	14	22	20	9	3	11	14	5	BD	BD	BD	0	13.2	21.5	
28-Jan	9	14	22	28	24	17	7	BD	BD	BD	BD	BD	BD	14	18	10	BD	BD	BD	14	27	27	21	2	--	28.3	
29-Jan	13	18	12	8	17	4	22	21	12	19	1	21	21	5	14	31	31	27	27	24	8	16	24	11	16.9	31.2	
30-Jan	BD	15	20	7	10	7	4	7	8	9	10	19	13	14	25	14	12	22	13	20	21	13	12	19	13.7	25.2	
31-Jan	15	13	13	13	10	12	16	17	14	10	11	M	33	33	32	26	0	16	21	17	15	14	16	19	16.7	32.7	
		14.2	13.6	15.3	14.2	12.3	12.0	13.3	15.6	13.9	13.9	12.4	12.7	14.2	14.2	16.8	16.5	14.0	14.4	16.5	12.8	13.6	15.1	14.7	13.6	Diurnal Average	
		40.4	38.3	37.4	38.1	30.9	29.0	39.4	40.8	38.3	30.8	33.3	30.9	32.6	34.6	42.5	42.5	41.9	39.4	44.2	42.8	30.4	33.1	33.1	35.8	Diurnal Maximum	
C - Calibration		M - Maintenance					N - Not Valid					BD - Baseline Drift															



Pollutant Rose

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

Henry Pirker - January 2011

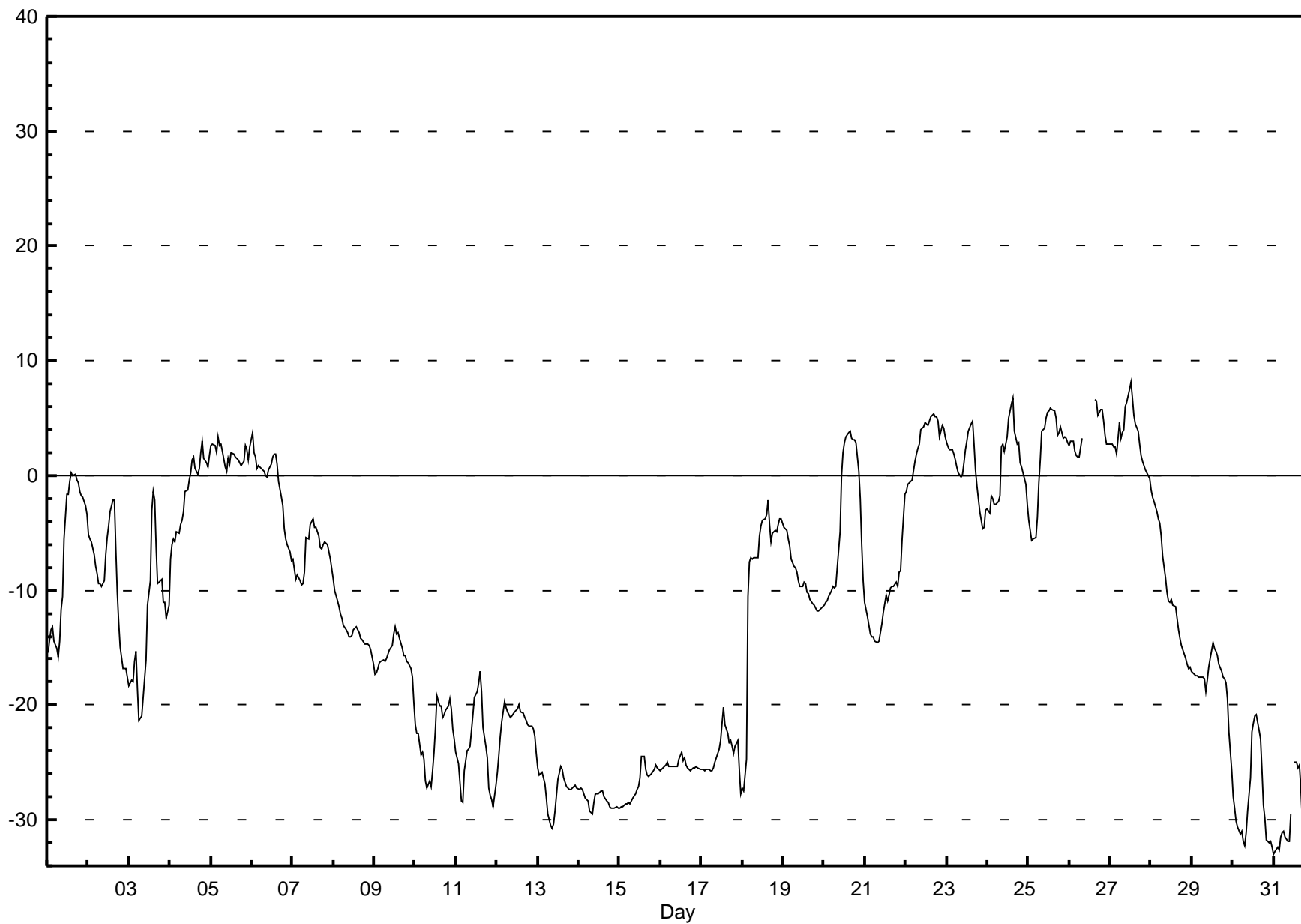


Hourly Averages

External Temperature (ET) - °C

Henry Pirker - January 2011

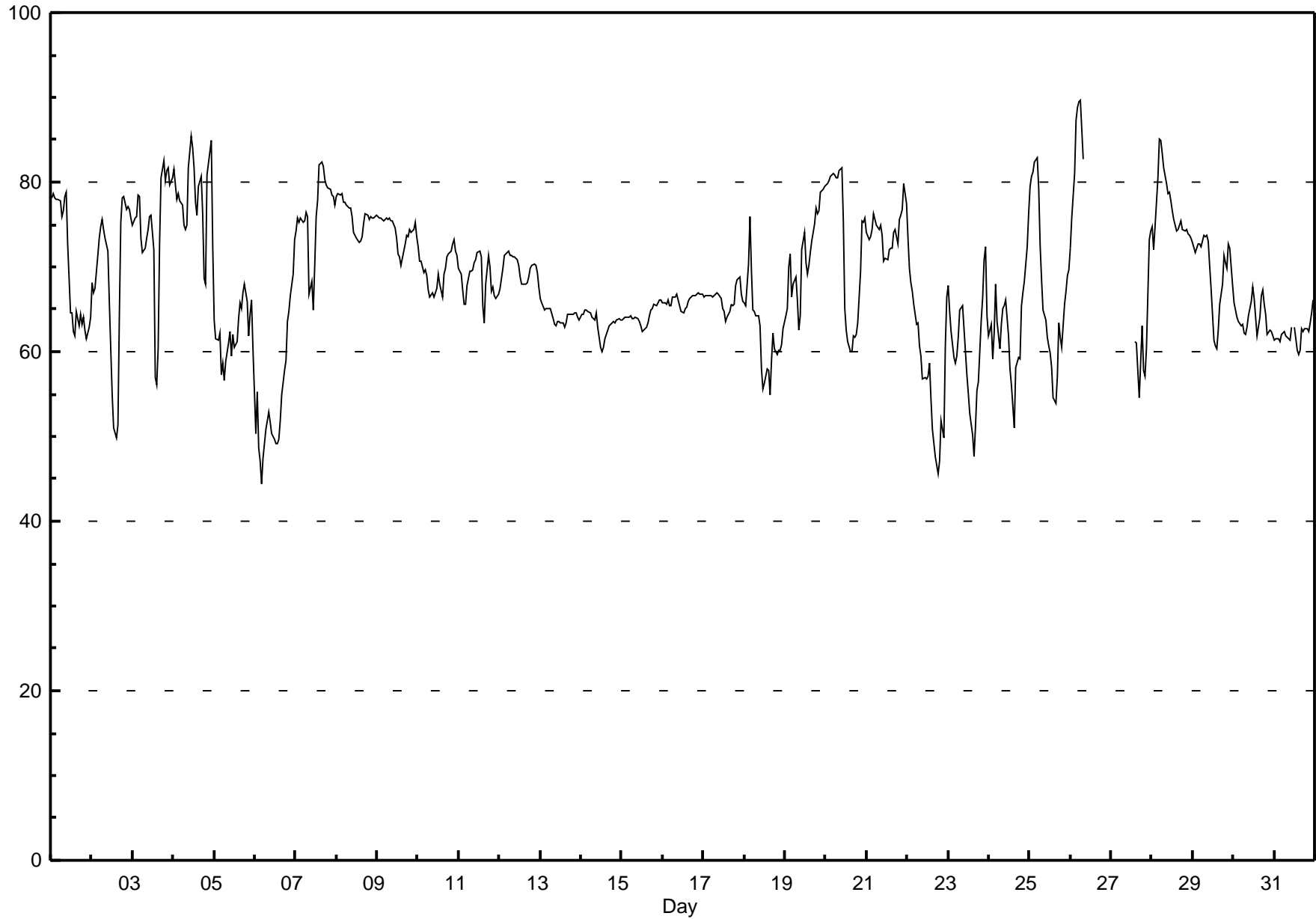
Number of Exceedences (AAQO): 1-hr: 0 24-hr: 0		Hours in Service: 744																																														
Maximum Value: 8.1 °C on Jan 27 13:00		Maximum Daily Average: 3.5 °C on Jan 27																																														
Minimum Value: -33 °C on Jan 31 01:00		Hours of Data: 736																																														
Maximum Diurnal Average: -9.1 °C at hour 16		Hours of Missing Data: 8																																														
Monthly Average: -12.01 °C		Hours of Calibration: 0																																														
Minimum Daily Average: -29.9 °C on Jan 31		Percent Operational Time: 98.9																																														
Minimum Diurnal Average: -13.4 °C at hour 9																																																
Percentiles: P ₁ = -31.9 P ₁₀ = -27.6 Q ₁ = -23.6 Median = -11.3 Q ₃ = -0.6 P ₉₀ = 2.8 P ₉₉ = 6.4																																																
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum																						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																								
1-Jan	-15	-14	-13	-13	-14	-15	-16	-14	-12	-11	-6	-2	-2	-1	0	0	0	0	-1	-1	-2	-2	-3	-3	-6.6	0.3																						
2-Jan	-5	-6	-6	-7	-8	-9	-9	-9	-10	-9	-7	-5	-4	-3	-2	-2	-6	-10	-13	-15	-17	-17	-17	-18	-8.9	-2.1																						
3-Jan	-18	-18	-18	-16	-15	-19	-21	-21	-19	-18	-16	-11	-9	-3	-1	-2	-6	-9	-9	-9	-11	-11	-12	-11	-12.8	-1.4																						
4-Jan	-7	-6	-5	-6	-5	-5	-4	-4	-3	-1	-1	0	0	1	2	1	0	1	2	3	1	1	1	2	-1.4	3.0																						
5-Jan	3	3	3	2	3	3	3	2	1	0	1	1	2	2	2	1	1	1	1	1	3	2	1	3	1.9	3.4																						
6-Jan	4	2	2	1	1	1	0	0	0	0	0	1	2	2	2	1	-1	-2	-3	-5	-5	-6	-7	-7	-0.7	3.8																						
7-Jan	-7	-8	-9	-9	-9	-10	-9	-8	-5	-6	-4	-4	-4	-5	-5	-6	-6	-6	-6	-6	-6	-7	-7	-8	-6.7	-3.8																						
8-Jan	-9	-10	-11	-11	-12	-12	-13	-13	-14	-14	-14	-13	-13	-13	-14	-14	-14	-14	-15	-15	-15	-15	-16	-16	-13.4	-9.1																						
9-Jan	-17	-17	-17	-16	-16	-16	-16	-16	-16	-15	-15	-14	-13	-14	-14	-14	-15	-16	-16	-16	-16	-17	-18	-20	-15.8	-13.2																						
10-Jan	-22	-22	-22	-24	-24	-25	-27	-27	-27	-27	-26	-24	-22	-19	-20	-20	-21	-21	-20	-20	-19	-20	-22	-23	-22.7	-19.2																						
11-Jan	-24	-25	-27	-28	-28	-26	-24	-24	-24	-22	-21	-19	-19	-18	-17	-19	-22	-24	-25	-27	-28	-28	-29	-27	-23.9	-17.0																						
12-Jan	-26	-24	-23	-21	-20	-20	-21	-21	-21	-21	-21	-20	-20	-20	-21	-21	-21	-21	-22	-22	-22	-22	-23	-24	-21.6	-19.7																						
13-Jan	-25	-26	-26	-26	-27	-28	-29	-31	-31	-30	-29	-28	-26	-25	-26	-26	-27	-27	-27	-27	-27	-27	-27	-27	-27.4	-25.4																						
14-Jan	-27	-27	-27	-28	-28	-28	-29	-29	-29	-28	-28	-28	-28	-27	-27	-28	-28	-29	-29	-29	-29	-29	-29	-29	-28.3	-27.2																						
15-Jan	-29	-29	-29	-29	-29	-28	-29	-28	-28	-28	-27	-27	-26	-25	-25	-26	-26	-26	-26	-26	-26	-25	-25	-26	-27.0	-24.5																						
16-Jan	-26	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-24	-25	-25	-25	-25	-25	-26	-26	-26	-25	-25	-26	-26	-25.3	-24.1																						
17-Jan	-26	-26	-26	-26	-26	-26	-26	-26	-26	-25	-25	-24	-23	-22	-22	-22	-23	-23	-24	-24	-24	-23	-26	-28	-24.2	-20.2																						
18-Jan	-27	-27	-25	-11	-8	-7	-7	-7	-7	-7	-5	-4	-4	-4	-3	-2	-4	-6	-5	-5	-5	-4	-4	-4	-8.0	-2.1																						
19-Jan	-5	-5	-5	-6	-6	-7	-8	-8	-8	-9	-10	-10	-9	-9	-10	-10	-11	-11	-11	-12	-12	-12	-11	-9.0	-4.5																							
20-Jan	-11	-11	-11	-11	-10	-10	-10	-10	-8	-5	0	2	3	3	4	4	3	3	3	3	0	-2	-6	-9	-3.5	3.9																						
21-Jan	-11	-12	-13	-14	-14	-14	-14	-15	-14	-14	-13	-12	-10	-11	-10	-10	-10	-10	-9	-10	-8	-8	-6	-2	-11.0	-1.7																						
22-Jan	-1	-1	-1	-1	0	1	2	2	3	4	4	5	4	4	5	5	5	5	5	5	3	4	4	3	3.0	5.3																						
23-Jan	3	2	2	2	2	1	1	0	0	0	1	2	3	4	5	5	3	0	-1	-3	-4	-5	-5	-3	0.7	4.8																						
24-Jan	-3	-3	-2	-2	-2	-3	-2	-2	3	3	2	3	5	6	6	7	4	3	3	1	1	0	-1	-3	1.0	6.8																						
25-Jan	-4	-5	-6	-6	-5	-4	-1	1	4	4	5	5	6	6	6	6	5	4	4	4	3	3	3	3	1.8	5.9																						
26-Jan	3	3	3	2	2	2	2	3	M	M	M	M	M	M	M	7	6	5	6	6	5	4	3	3	--	6.7																						
27-Jan	3	3	2	2	2	5	3	4	4	6	6	8	8	7	5	5	4	3	2	1	1	1	0	0	3.5	8.1																						
28-Jan	-1	-2	-2	-3	-4	-4	-5	-7	-9	-10	-11	-11	-11	-11	-11	-12	-13	-14	-15	-16	-16	-16	-17	-17	-10.0	-1.3																						
29-Jan	-17	-17	-17	-17	-18	-18	-18	-18	-18	-19	-18	-17	-16	-15	-15	-15	-16	-16	-17	-18	-18	-18	-19	-22	-26	-17.7	-14.6																					
30-Jan	-28	-29	-30	-31	-31	-31	-32	-32	-31	-29	-26	-22	-22	-21	-21	-22	-23	-26	-29	-30	-32	-32	-32	-32	-28.1	-20.8																						
31-Jan	-33	-33	-32	-33	-32	-31	-31	-32	-32	-32	-29	M	-25	-25	-26	-25	-27	-30	-31	-31	-31	-30	-29	-27	-29.9	-25.0																						
																								-13.3	-13.4	-13.4	-13.2	-13.1	-13.2	-13.4	-13.3	-13.4	-12.9	-11.8	-10.1	-9.9	-9.3	-9.3	-9.1	-10.2	-11.1	-11.4	-11.8	-12.3	-12.5	-13.1	-13.4	Diurnal Average
																								3.8	2.9	3.0	2.5	3.4	4.6	3.3	3.7	4.0	6.0	6.4	7.5	8.1	6.8	6.2	6.8	6.5	5.3	5.8	5.8	4.7	4.3	4.1	3.3	Diurnal Maximum
M - Maintenance																																																



Hourly Averages

Relative Humidity (RH) - %
Henry Pirker - January 2011

Number of Exceedences (AAQO): 1-hr: 0 24-hr: 0										Hours in Service: 744																																						
Maximum Value: 89.7 % on Jan 26 07:00										Maximum Daily Average: 78.3 % on Jan 4										Hours of Data: 713																												
Minimum Value: 44 % on Jan 6 05:00										Minimum Daily Average: 54.5 % on Jan 6										Hours of Missing Data: 31																												
Maximum Diurnal Average: 70.7 % at hour 23										Minimum Diurnal Average: 63.0 % at hour 15										Hours of Calibration: 0																												
Monthly Average: 67.96 %										Percentiles: P ₁ = 47.3 P ₁₀ = 59.2 Q ₁ = 63.2 Median = 66.8 Q ₃ = 74.1 P ₉₀ = 78.2 P ₉₉ = 84.9										Percent Operational Time: 95.8																												
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	78	79	78	78	78	78	76	77	78	79	73	65	65	62	62	65	63	64	63	64	62	62	63	64	69.8	78.8																						
2-Jan	68	67	68	71	73	75	76	74	73	72	66	60	55	51	50	51	64	75	78	78	77	77	77	76	68.9	78.2																						
3-Jan	75	76	76	78	78	73	72	72	73	74	76	76	72	57	56	60	73	80	82	80	81	82	80	80	74.4	82.5																						
4-Jan	82	80	78	79	78	77	75	74	75	82	85	84	82	78	76	79	81	76	69	68	81	84	85	72	78.3	85.4																						
5-Jan	64	62	61	62	57	59	57	59	61	62	60	62	61	61	64	66	65	67	68	66	62	64	66	60	62.3	68.0																						
6-Jan	50	55	49	47	44	47	51	52	53	52	50	50	49	49	50	52	55	58	59	63	65	67	69	73	54.5	73.3																						
7-Jan	74	76	75	76	75	75	76	76	67	68	65	70	76	78	82	82	82	80	80	79	79	78	78	77	76.1	82.3																						
8-Jan	78	79	78	79	78	78	77	77	77	76	74	74	73	73	74	75	76	76	76	76	76	76	76	76	76.0	78.7																						
9-Jan	76	76	76	76	75	76	76	76	75	75	75	73	72	71	70	71	73	74	74	74	74	74	75	74	74.2	76.0																						
10-Jan	72	71	71	69	70	69	67	66	67	66	67	67	69	68	66	69	70	71	71	72	73	73	72	71	69.6	73.2																						
11-Jan	70	69	67	66	66	68	70	70	70	70	71	72	72	71	65	63	68	71	70	67	68	67	66	67	68.4	71.8																						
12-Jan	67	69	70	71	72	72	71	71	71	71	71	70	69	68	68	68	68	69	70	70	70	70	69	68	69.7	71.9																						
13-Jan	66	66	65	65	65	65	65	64	63	63	63	63	63	63	63	63	64	64	64	64	65	65	64	64	64.3	66.3																						
14-Jan	64	64	65	65	65	65	64	64	64	65	63	60	60	61	61	62	63	63	63	63	64	64	64	64	63.3	65.0																						
15-Jan	64	64	64	64	64	64	64	64	64	64	64	63	62	63	63	63	64	65	65	66	65	66	66	66	64.2	66.1																						
16-Jan	66	66	66	66	65	65	66	66	67	66	65	65	65	65	65	66	66	67	67	67	67	67	67	67	66.0	66.9																						
17-Jan	66	67	67	67	67	67	67	67	67	67	66	65	65	64	64	65	66	65	66	68	69	69	67	66	66.2	68.7																						
18-Jan	66	65	70	76	70	65	65	64	64	63	58	56	56	58	58	55	59	62	60	60	60	61	63	62.2	75.9																							
19-Jan	64	65	70	71	66	68	69	66	63	64	72	74	71	69	70	72	73	75	77	76	77	79	79	79	71.3	79.5																						
20-Jan	80	80	80	81	81	81	80	81	81	82	76	65	63	61	60	60	62	62	62	63	69	75	75	76	72.3	81.7																						
21-Jan	74	73	74	74	76	76	75	74	75	74	71	71	71	72	72	72	74	74	73	76	76	77	80	77	74.2	79.9																						
22-Jan	73	70	68	67	66	63	63	61	59	57	57	57	57	59	54	51	48	47	46	47	52	50	61	66	58.3	73.3																						
23-Jan	68	65	62	59	59	60	62	65	65	63	60	57	55	53	50	48	51	55	56	64	66	71	72	64	60.4	72.4																						
24-Jan	62	63	59	62	68	64	60	63	65	65	66	62	58	56	54	51	58	59	59	65	67	68	72	76	62.7	76.2																						
25-Jan	79	81	81	82	83	79	73	68	65	64	62	61	60	58	55	54	57	63	62	60	66	67	69	70	67.4	82.9																						
26-Jan	72	76	81	87	89	90	90	83	M	M	M	M	M	M	M	M	N	N	N	N	N	N	N	N	--	89.7																						
27-Jan	N	N	N	N	N	N	N	N	N	N	N	N	N	N	61	61	55	59	63	58	57	60	73	74	--	74.2																						
28-Jan	75	72	75	80	85	85	83	82	80	79	79	78	77	76	74	74	75	75	74	74	74	74	74	73	77.0	85.1																						
29-Jan	73	72	72	73	73	72	74	74	74	73	70	67	61	61	60	63	66	68	71	70	70	73	72	68	69.6	73.8																						
30-Jan	66	65	64	64	63	63	62	62	63	64	66	68	66	64	62	64	67	67	66	64	62	62	62	62	64.1	67.6																						
31-Jan	61	62	62	61	62	62	62	62	62	61	63	M	63	60	60	60	63	62	63	63	62	63	65	66	62.2	66.1																						
																								69.8	69.7	69.7	70.6	70.4	70.0	69.6	69.1	68.3	68.3	67.3	66.3	65.0	63.7	63.0	63.5	65.6	67.2	67.2	67.6	68.5	69.5	70.7	70.0	Diurnal Average
																								81.5	80.7	81.2	87.3	88.8	89.6	89.7	82.7	81.3	81.7	85.4	84.1	81.7	77.9	82.0	82.3	81.9	80.4	82.5	80.2	81.3	83.6	85.0	80.4	Diurnal Maximum
M - Maintenance N - Not Valid																																																

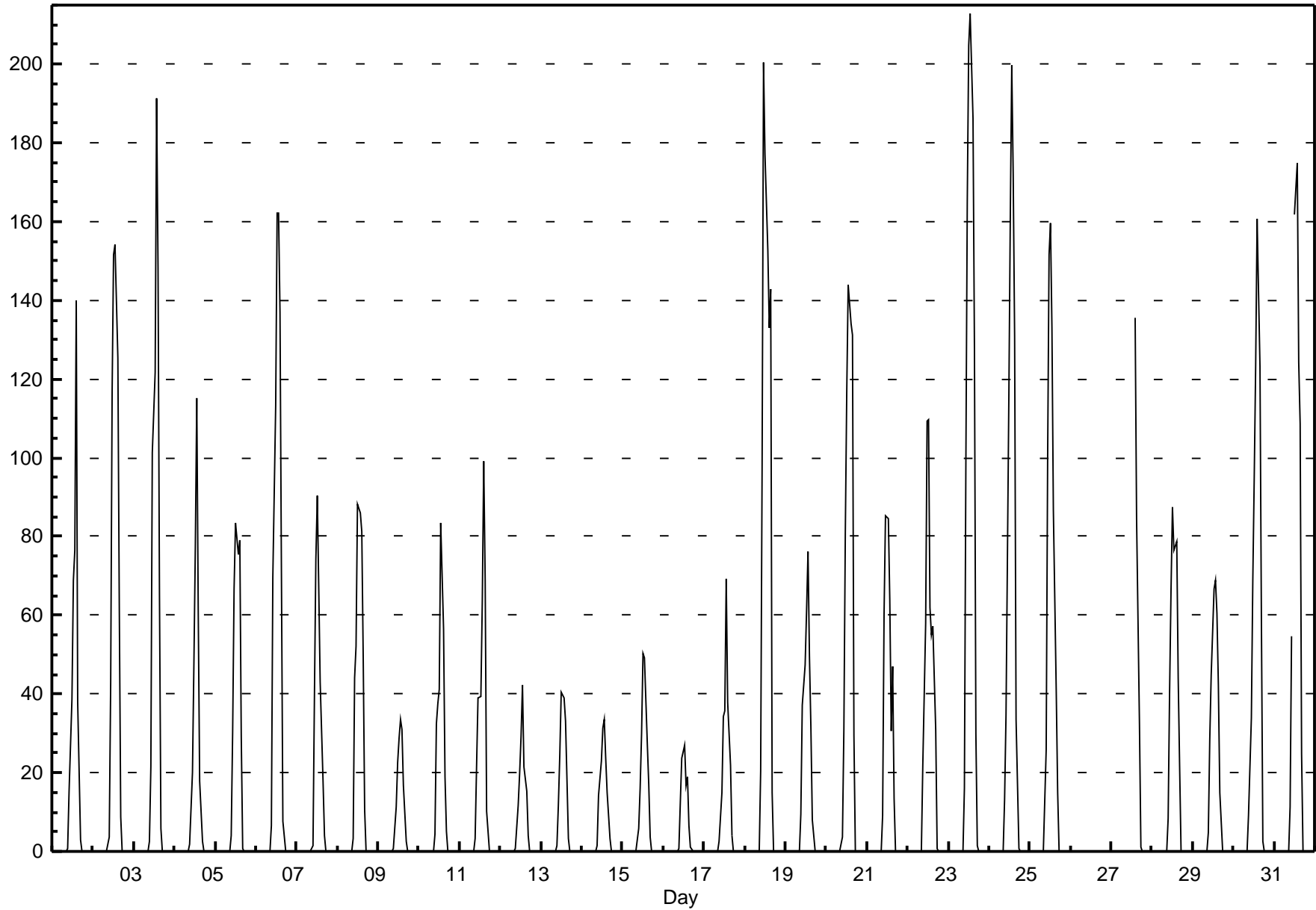


Hourly Averages

Solar Radiation (SR) - W/m²

Henry Pirker - January 2011

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0		Hours in Service: 744																																														
Maximum Value: 212.9 W/m ² on Jan 23 14:00		Maximum Daily Average: 43.4 W/m ² on Jan 23																																														
Minimum Value: 0 W/m ² on Jan 1 01:00		Hours of Data: 713																																														
Maximum Diurnal Average: 98.1 W/m ² at hour 14		Hours of Missing Data: 31																																														
Monthly Average: 18.86 W/m ²		Hours of Calibration: 0																																														
Minimum Daily Average: 4.4 W/m ² on Jan 16		Percent Operational Time: 95.8																																														
Minimum Diurnal Average: 0.0 W/m ² at hour 1		Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.0 Q ₃ = 14.9 P ₉₀ = 73.9 P ₉₉ = 171.7																																														
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	0	0	0	0	0	1	15	38	69	77	140	38	3	0	0	0	0	0	0	0	15.9	139.9																						
2-Jan	0	0	0	0	0	0	0	0	0	4	43	117	152	154	125	62	9	0	0	0	0	0	0	0	27.7	154.3																						
3-Jan	0	0	0	0	0	0	0	0	0	3	22	101	122	191	148	65	6	0	0	0	0	0	0	0	27.4	191.3																						
4-Jan	0	0	0	0	0	0	0	0	0	2	20	48	78	115	62	18	3	0	0	0	0	0	0	0	14.4	115.3																						
5-Jan	0	0	0	0	0	0	0	0	0	4	30	67	84	75	79	29	1	0	0	0	0	0	0	0	15.4	83.5																						
6-Jan	0	0	0	0	0	0	0	0	0	6	70	113	162	162	137	71	8	0	0	0	0	0	0	0	30.4	162.3																						
7-Jan	0	0	0	0	0	0	0	0	0	1	39	75	91	67	43	18	4	0	0	0	0	0	0	0	14.1	90.5																						
8-Jan	0	0	0	0	0	0	0	0	0	3	44	52	88	86	81	49	11	0	0	0	0	0	0	0	17.3	88.1																						
9-Jan	0	0	0	0	0	0	0	0	0	1	11	23	29	34	31	17	3	0	0	0	0	0	0	0	6.2	33.7																						
10-Jan	0	0	0	0	0	0	0	0	0	4	33	37	41	83	56	19	5	0	0	0	0	0	0	0	11.6	83.3																						
11-Jan	0	0	0	0	0	0	0	0	0	3	21	39	39	64	99	69	10	0	0	0	0	0	0	0	14.4	99.2																						
12-Jan	0	0	0	0	0	0	0	0	0	1	12	20	29	42	21	15	4	0	0	0	0	0	0	0	6.0	42.3																						
13-Jan	0	0	0	0	0	0	0	0	0	2	12	25	40	39	33	18	3	0	0	0	0	0	0	0	7.2	40.4																						
14-Jan	0	0	0	0	0	0	0	0	0	2	14	23	31	34	24	15	3	0	0	0	0	0	0	0	6.1	33.6																						
15-Jan	0	0	0	0	0	0	0	0	0	6	16	30	50	49	27	17	3	0	0	0	0	0	0	0	8.3	50.3																						
16-Jan	0	0	0	0	0	0	0	0	0	1	12	24	27	17	19	6	1	0	0	0	0	0	0	0	4.4	26.9																						
17-Jan	0	0	0	0	0	0	0	0	0	3	15	34	36	69	38	22	4	0	0	0	0	0	0	0	9.2	69.2																						
18-Jan	0	0	0	0	0	0	0	0	0	20	97	201	177	153	133	143	15	0	0	0	0	0	0	0	39.1	200.6																						
19-Jan	0	0	0	0	0	0	0	0	0	9	37	47	61	76	50	32	8	0	0	0	0	0	0	0	13.4	76.2																						
20-Jan	0	0	0	0	0	0	0	0	0	4	31	81	116	144	134	131	29	0	0	0	0	0	0	0	28.0	144.0																						
21-Jan	0	0	0	0	0	0	0	0	0	9	60	85	85	64	31	47	13	0	0	0	0	0	0	0	16.4	85.1																						
22-Jan	0	0	0	0	0	0	0	0	0	22	58	109	110	62	55	57	31	1	0	0	0	0	0	0	21.0	109.9																						
23-Jan	0	0	0	0	0	0	0	0	0	16	97	165	205	213	186	127	30	1	0	0	0	0	0	0	43.4	212.9																						
24-Jan	0	0	0	0	0	0	0	0	0	13	35	116	162	200	172	131	34	1	0	0	0	0	0	0	35.9	199.6																						
25-Jan	0	0	0	0	0	0	0	0	0	26	99	152	160	133	87	41	15	0	0	0	0	0	0	0	29.7	159.7																						
26-Jan	0	0	0	0	0	0	0	0	0	M	M	M	M	M	M	M	M	N	N	N	N	N	N	N	--	0.0																						
27-Jan	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	136	85	32	1	0	0	0	0	0	--	135.6																						
28-Jan	0	0	0	0	0	0	0	0	0	8	41	66	88	77	79	44	21	0	0	0	0	0	0	0	17.7	87.5																						
29-Jan	0	0	0	0	0	0	0	0	0	5	28	45	67	69	60	42	15	0	0	0	0	0	0	0	13.8	68.7																						
30-Jan	0	0	0	0	0	0	0	0	0	9	34	69	95	124	161	123	58	3	0	0	0	0	0	0	28.2	160.7																						
31-Jan	0	0	0	0	0	0	0	0	0	11	55	M	162	175	124	109	25	0	0	0	0	0	0	0	28.7	174.8																						
																								0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.8	38.0	71.5	91.5	98.1	85.7	55.3	13.6	0.2	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	0.0	26.0	99.1	200.6	204.7	212.9	186.1	143.0	58.3	2.7	0.0	0.0	0.0	0.0	0.0	0.0	Diurnal Maximum
M - Maintenance N - Not Valid																																																



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Henry Pirker - January 2011

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	1	4	3	3	5	1	1	2	3	0	11	14	12	19	19	18	17	16	18	18	19	23	21	15	10.3	22.8
Dir	279	230	258	218	171	193	257	252	351	18	272	280	298	281	290	287	271	278	276	271	269	266	273	267	274.2	266.0
2 Spd	5	11	6	6	4	6	6	7	8	10	13	12	7	4	2	1	2	2	4	4	4	2	2	4	5.3	12.9
Dir	262	267	293	300	304	312	312	314	296	291	281	281	306	307	320	283	306	303	297	323	345	333	307	320	297.1	281.1
3 Spd	2	3	3	4	5	2	4	3	4	3	3	4	3	2	1	2	4	2	5	5	4	3	4	2	2.2	5.0
Dir	314	345	158	162	174	315	317	315	316	318	331	311	299	307	215	334	320	249	289	327	340	343	338	286	310.3	288.7
4 Spd	4	6	4	3	2	4	3	5	6	4	4	4	5	3	3	4	3	4	13	26	19	17	8	15	5.2	26.3
Dir	292	290	318	248	253	271	192	234	235	215	201	166	170	146	127	107	106	299	289	271	269	264	278	264	259.0	270.8
5 Spd	21	24	22	22	29	23	27	17	12	10	11	4	1	5	7	6	9	7	6	8	8	8	5	20	9.3	28.8
Dir	268	267	276	285	260	263	260	278	315	308	279	233	126	117	123	130	126	130	160	178	216	251	271	274	262.1	260.0
6 Spd	42	25	24	24	37	37	29	23	24	28	27	28	24	22	17	16	13	13	9	7	6	3	1	1	19.6	42.3
Dir	274	269	265	256	259	260	276	267	264	259	256	258	265	269	266	272	268	274	274	315	316	323	219	12	266.4	273.5
7 Spd	2	2	1	3	3	4	3	2	4	4	6	10	9	12	14	12	13	11	9	10	11	12	14	15	7.0	14.6
Dir	152	321	83	94	31	317	315	12	63	72	72	89	65	38	34	36	36	38	48	41	35	19	20	23	38.4	22.7
8 Spd	12	13	13	12	11	10	10	9	8	9	8	9	10	9	9	8	7	8	9	10	10	10	8	6	9.0	13.0
Dir	11	359	358	352	342	347	335	334	345	346	330	320	326	316	314	303	309	316	315	315	317	317	311	313	332.1	359.5
9 Spd	5	3	3	2	3	2	4	2	3	2	4	2	1	5	3	6	7	5	5	4	4	5	3	3	1.1	6.8
Dir	320	354	328	338	299	183	179	216	281	322	308	302	135	87	99	92	98	91	90	86	77	96	144	327	70.4	97.6
10 Spd	2	4	3	3	3	3	3	3	4	4	3	4	5	4	6	5	5	4	4	4	1	2	3	3	3.3	6.3
Dir	341	347	338	322	294	323	313	306	320	311	318	310	319	289	307	292	299	318	305	313	61	159	297	2	313.8	307.4
11 Spd	3	4	3	4	4	3	4	4	2	2	1	2	3	4	3	4	2	2	3	3	3	3	3	2	2.7	4.0
Dir	291	317	333	322	304	302	310	311	310	323	172	238	252	301	313	307	294	350	289	329	320	333	296	347	307.8	309.8
12 Spd	3	3	2	3	6	7	7	6	5	3	3	6	8	8	8	10	9	9	8	7	8	9	9	11	4.8	10.7
Dir	337	275	320	22	60	65	71	68	84	87	65	42	32	26	21	8	5	359	337	327	314	320	314	317	7.2	316.8
13 Spd	10	9	10	9	7	6	6	5	5	4	5	7	5	5	7	8	6	7	7	6	4	8	7	7	4.6	10.4
Dir	321	321	320	318	299	299	324	305	304	297	332	335	352	62	64	76	64	55	54	46	25	3	17	32	354.7	320.1
14 Spd	4	5	4	5	5	5	4	7	4	4	6	9	8	7	6	7	8	8	7	7	8	8	6	7	4.2	8.7
Dir	1	353	306	323	328	304	314	331	315	39	66	84	78	69	64	85	78	65	63	69	75	72	62	70	47.6	84.4
15 Spd	8	7	6	6	6	5	5	5	4	4	6	4	1	2	5	6	6	6	6	5	5	4	5	6	4.6	8.3
Dir	74	71	69	77	77	70	80	79	80	99	110	126	125	234	311	101	109	89	80	67	75	47	39	51	80.5	74.1
16 Spd	6	5	5	4	5	5	4	5	4	6	6	5	3	5	5	6	5	5	4	4	4	2	3	4	2.8	6.1
Dir	49	27	24	44	50	42	37	1	23	71	71	55	21	356	308	308	316	307	298	310	339	298	188	158	11.8	49.4
17 Spd	6	6	7	7	8	8	7	6	5	6	6	6	1	6	8	7	5	9	6	5	4	3	5	8	1.3	8.7
Dir	137	126	123	116	111	88	88	80	72	82	89	112	273	292	292	301	277	254	209	170	142	181	309	322	118.1	254.1
18 Spd	5	3	8	16	18	22	20	21	15	15	19	16	14	17	15	19	16	13	24	21	15	15	18	26	15.6	25.7
Dir	310	315	323	275	264	262	267	260	272	273	280	310	293	261	258	258	258	248	258	257	250	268	266	267	268.2	266.9
19 Spd	20	15	16	12	15	12	4	8	10	9	6	5	6	5	4	4	6	9	11	11	12	13	11	11	2.0	20.4
Dir	279	307	302	308	329	329	322	310	338	15	59	74	16	56	104	117	122	123	121	121	120	118	119	119	15.8	278.6
20 Spd	9	7	8	3	4	6	6	6	8	17	22	30	31	31	31	26	21	20	21	18	8	4	7	8	10.8	31.3
Dir	120	116	120	158	226	243	243	240	278	287	274	259	258	259	257	259	268	267	272	267	310	63	80	94	260.5	258.9
21 Spd	5	5	5	3	4	4	5	4	4	3	5	5	5	7	3	2	4	7	6	7	6	5	1	6	1.6	7.4
Dir	82	76	71	74	60	66	72	76	101	48	16	58	107	116	79	280	285	256	285	314	322	316	303	256	39.0	116.2
22 Spd	11	15	18	14	14	21	35	28	30	35	25	19	9	16	14	14	19	21	21	15	12	22	37	31	20.5	37.2
Dir	263	250	256	245	255	268	261	260	258	261	254	257	259	255	252	242	254	253	257	268	269	256	255	247	256.6	255.5



PASZA

Peace Air Shed Zone Association

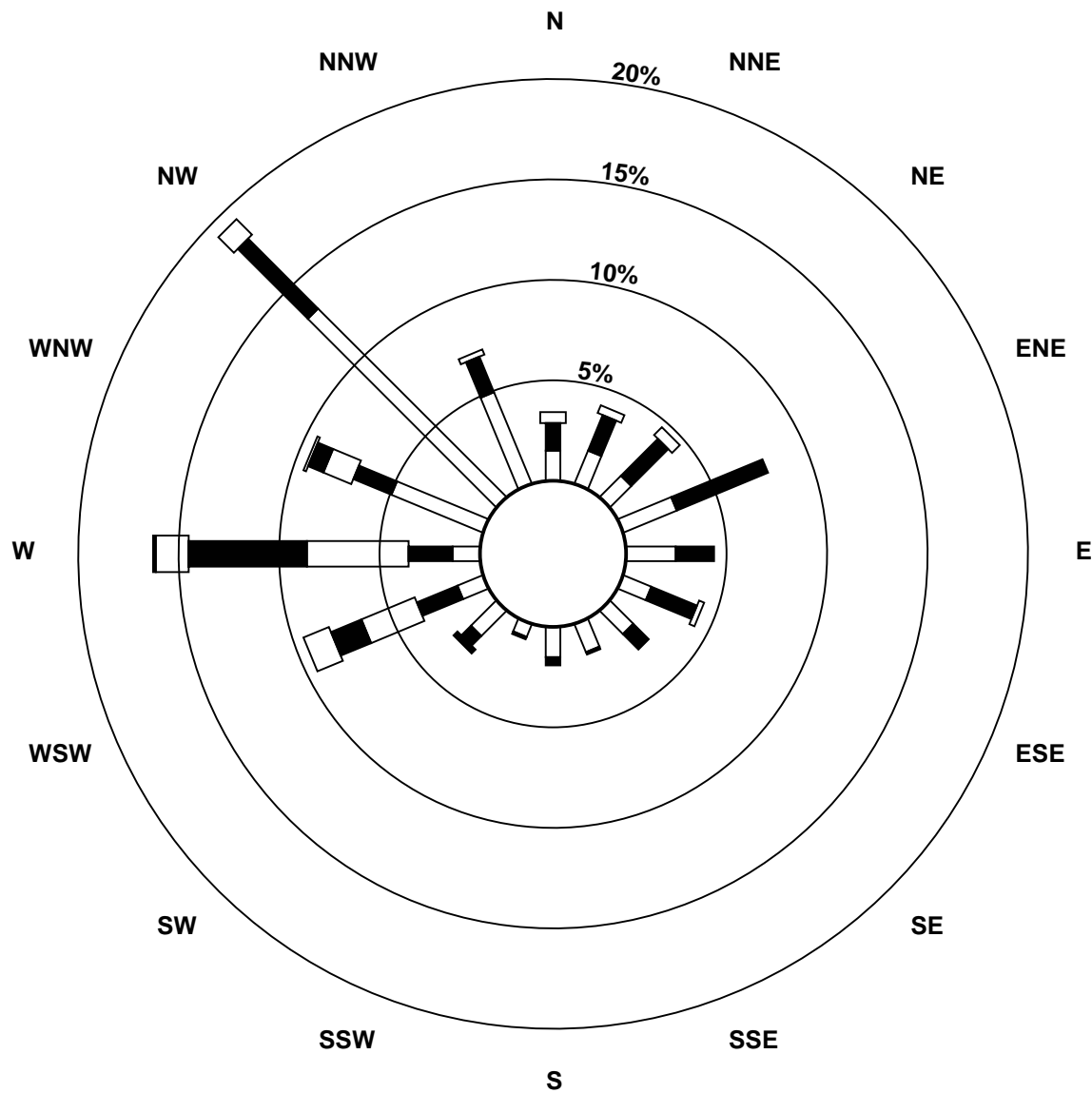
Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Henry Pirker - January 2011

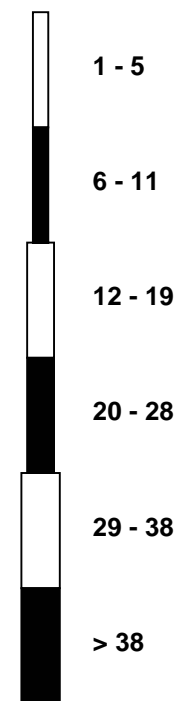
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	33	29	24	28	26	24	21	19	19	24	24	19	22	16	11	7	10	9	9	4	2	3	4	7	15.3	33.3
Dir	257	260	261	260	259	260	264	267	275	261	260	253	258	266	267	266	237	245	258	218	227	130	115	123	258.2	257.2
24 Spd	7	5	9	4	4	7	8	15	22	18	13	16	22	18	13	5	8	11	10	5	5	4	4	2	7.6	22.5
Dir	131	148	112	176	302	244	244	243	264	278	299	290	260	259	267	303	297	289	267	274	269	324	284	325	267.4	260.0
25 Spd	1	3	2	2	4	3	12	12	21	25	32	34	15	9	16	23	16	5	8	10	7	8	9	8	11.1	33.9
Dir	292	289	22	129	156	188	244	253	254	256	260	259	250	251	264	261	279	302	279	275	235	255	260	270	259.1	258.6
26 Spd	4	8	4	2	4	4	2	9	M	M	M	M	M	M	M	24	20	16	20	15	9	2	2	4	--	23.9
Dir	251	257	212	108	138	196	248	258	M	M	M	M	M	M	M	281	274	288	263	261	277	277	168	127	--	281.3
27 Spd	5	5	7	7	7	9	2	6	8	22	24	14	14	28	35	26	31	37	35	33	32	25	22	23	16.0	36.9
Dir	133	120	118	130	179	225	232	189	235	225	232	248	253	266	284	261	267	257	258	262	263	270	300	291	257.6	257.4
28 Spd	26	23	19	18	15	12	9	10	11	10	9	7	8	6	8	8	7	7	7	6	6	7	8	8	6.3	26.2
Dir	299	299	304	317	315	319	68	76	66	63	64	61	49	50	46	48	55	46	57	54	53	44	21	19	8.1	299.4
29 Spd	9	8	7	10	10	7	6	4	4	3	4	3	3	6	5	5	6	5	6	6	5	3	3	4	4.8	10.4
Dir	8	14	31	11	7	7	31	13	330	20	301	20	11	350	338	311	283	318	7	23	41	49	341	326	0.8	11.4
30 Spd	5	4	5	4	4	4	4	5	5	4	3	3	3	4	6	6	6	4	4	4	4	5	5	4	4.2	6.1
Dir	320	320	321	322	333	321	311	307	304	315	320	314	306	315	342	359	342	320	323	313	332	322	329	329	324.0	359.2
31 Spd	4	4	4	3	3	2	2	3	3	4	2	M	3	3	4	4	5	5	5	5	5	2	0	3	3.0	4.9
Dir	320	326	314	307	333	336	313	317	320	304	325	M	298	314	289	312	348	305	326	329	319	355	290	167	318.2	347.6
Spd	5.0	4.9	4.0	4.1	4.6	5.4	5.1	5.2	5.6	5.9	6.2	5.6	4.9	5.3	5.5	5.2	5.0	5.0	5.9	5.3	3.9	3.7	3.8	4.1	Diurnal Average	
Dir	289.8	291.6	298.0	290.1	281.0	281.1	278.4	278.6	285.7	278.5	275.0	274.9	280.6	281.7	288.2	284.3	283.8	282.9	278.0	283.1	291.3	294.1	295.6	291.4	Diurnal Maximum	
Spd	42.3	28.9	24.4	28.2	36.7	37.2	35.0	28.2	29.5	35.3	31.8	33.9	30.6	31.3	35.0	25.7	30.8	36.9	35.4	33.4	32.2	24.7	37.2	30.8	Diurnal Maximum	
Dir	273.5	260.1	265.5	259.9	258.7	259.5	260.6	259.7	258.4	260.9	260.5	258.6	257.6	258.9	284.1	258.8	266.9	257.4	258.0	261.8	263.0	270.2	255.5	247.1	Diurnal Maximum	
Maximum Speed Value: 42 km/h on Jan 6 01:00																		Minimum Speed Value: 0 km/h on Jan 1 10:00						Hours in Service:		744
Maximum Daily Speed Average: 20.5 km/h on Jan 22																		Minimum Daily Speed Average: 1.1 km/h on Jan 11						Hours of Data:		736
Maximum Diurnal Speed Average: 6.2 km/h at hour 11																		Minimum Diurnal Speed Average: 3.7 km/h at hour 22						Hours of Missing Data:		8
Monthly Average Velocity: 4.93 km/h 284.22 deg																		Speed Percentiles: P ₁ = 1.2 P ₁₀ = 2.6 Q ₁ = 4.0 Median = 6.0 Q ₃ = 11.2 P ₉₀ = 21.0 P ₉₉ = 35.2						Percent Operational Time:		98.9
All monthly, daily, and diurnal averages have been calculated using vector methods																										
M - Maintenance																										
Frequency Distribution																										
Speed Range (km/h)																										
Direction	0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total																			
North	32	27	7	0	0	0	66																			
NorthEast	20	44	8	0	0	0	72																			
East	24	49	0	0	0	0	73																			
SouthEast	17	24	3	0	0	0	44																			
South	22	5	0	0	0	0	27																			
SouthWest	14	14	4	2	1	0	35																			
West	31	32	61	58	26	1	209																			
NorthWest	132	61	13	4	0	0	210																			
Total	292	256	96	64	27	1	736																			

Wind Rose

Wind Speed (WS) (km/h)
Henry Pirker - January 2011



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Henry Pirker - January 2011

Maximum Speed: 43 km/h on Jan 6 01:00	Maximum Daily Speed Average: 20.7 km/h on Jan 22	Hours in Service: 744
Minimum Speed: 2 km/h on Jan 2 16:00	Minimum Daily Speed Average: 3.2 km/h on Jan 11	Hours of Data: 736
Maximum Diurnal Speed Average: 10.7 km/h at hour 12	Minimum Diurnal Speed Average: 8.1 km/h at hour 22	Hours of Missing Data: 8
Monthly Average Speed: 9.32 km/h	Percentiles: P ₁ = 2.2 P ₁₀ = 3.3 Q ₁ = 4.4 Median = 6.3 Q ₃ = 11.4 P ₉₀ = 21.2 P ₉₉ = 35.2	Percent Operational Time: 98.9

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	2	4	5	4	5	3	2	2	4	2	11	14	13	20	19	18	17	16	19	18	19	23	21	15	11.5	22.8
2-Jan	6	12	8	7	5	7	7	8	8	10	13	13	7	4	3	2	2	2	3	4	5	3	3	4	6.1	12.9
3-Jan	3	4	4	5	5	4	5	4	4	3	3	4	4	3	2	3	4	2	5	6	5	4	4	4	3.9	5.6
4-Jan	4	6	5	3	3	4	3	5	6	5	5	4	5	4	4	4	4	4	13	26	19	18	8	15	7.4	26.5
5-Jan	21	24	23	22	29	23	27	19	13	11	11	5	4	5	7	6	9	7	7	9	9	9	6	20	13.6	28.9
6-Jan	43	26	24	25	37	37	29	23	24	28	27	28	24	22	17	16	13	13	10	7	7	3	3	3	20.4	42.7
7-Jan	3	3	3	3	3	4	4	3	5	4	7	10	10	12	14	13	13	11	9	10	12	12	14	15	8.2	14.8
8-Jan	13	13	13	13	11	10	10	9	8	9	8	9	10	9	9	8	7	8	9	10	10	10	8	6	9.6	13.2
9-Jan	5	3	3	2	3	3	4	3	3	2	4	2	2	5	4	6	7	5	5	4	4	5	4	4	3.9	6.9
10-Jan	3	4	4	3	3	4	4	4	4	4	4	4	5	4	7	5	5	4	4	4	3	2	4	3	4.0	6.5
11-Jan	4	4	3	4	4	4	4	4	3	2	2	3	4	4	3	4	2	3	3	3	4	3	3	2	3.2	4.2
12-Jan	3	3	3	4	6	7	7	6	5	3	4	7	9	8	9	10	9	9	8	7	8	9	9	11	6.8	10.8
13-Jan	10	9	10	9	7	6	6	5	5	4	5	7	6	5	7	8	6	8	7	6	5	8	8	7	6.9	10.5
14-Jan	5	5	4	5	5	5	5	7	4	5	6	9	8	7	6	8	9	8	7	7	8	8	6	7	6.4	8.9
15-Jan	8	7	6	6	7	5	5	5	5	5	5	6	5	3	3	5	6	6	6	5	5	4	6	6	5.5	8.4
16-Jan	6	5	6	5	6	6	4	6	4	6	6	5	4	5	5	6	5	5	4	4	4	3	3	4	4.9	6.3
17-Jan	6	6	7	7	8	8	7	6	5	6	6	6	4	6	8	7	6	9	6	5	5	4	5	8	6.3	8.9
18-Jan	6	4	8	16	18	22	20	21	16	15	19	16	15	17	15	19	16	14	24	21	15	15	18	26	16.5	25.7
19-Jan	21	15	16	12	15	12	5	9	10	10	6	5	6	6	6	5	4	6	9	11	11	12	13	11	9.8	20.6
20-Jan	9	7	8	6	5	6	7	7	8	17	23	30	31	31	31	26	21	20	21	18	8	5	7	8	15.0	31.3
21-Jan	6	6	5	4	4	5	6	5	4	4	5	6	6	8	4	7	5	7	8	7	6	6	4	6	5.6	8.0
22-Jan	11	15	18	14	14	21	35	28	30	35	25	19	9	16	15	14	19	21	21	15	12	22	37	31	20.7	37.3
23-Jan	33	29	24	28	26	24	21	19	19	24	24	19	22	16	11	8	10	9	10	5	3	3	4	7	16.6	33.4
24-Jan	7	5	9	4	4	9	8	15	22	18	13	16	23	18	14	6	9	11	11	6	6	5	5	3	10.3	22.6
25-Jan	4	3	3	2	5	5	12	12	21	25	32	34	16	9	16	23	16	5	8	11	7	8	9	9	12.3	33.9
26-Jan	6	10	5	3	4	4	4	9	M	M	M	M	M	M	M	24	21	17	20	15	9	4	3	4	--	24.1
27-Jan	5	6	7	7	8	9	5	6	8	22	24	14	14	28	35	26	31	37	35	33	32	25	22	24	19.4	37.0
28-Jan	26	23	19	18	15	12	9	10	12	10	9	7	8	7	8	8	7	8	8	7	6	7	9	8	10.9	26.3
29-Jan	9	8	7	11	10	7	6	5	4	3	5	5	4	6	6	5	6	5	6	6	5	3	3	4	5.8	10.5
30-Jan	5	4	5	4	4	4	5	5	5	4	3	3	4	4	6	6	6	5	4	4	4	5	5	4	4.5	6.3
31-Jan	4	4	4	3	3	3	3	3	3	4	2	M	3	4	4	4	5	5	5	5	5	3	2	3	3.6	5.1
	9.6	8.9	8.7	8.3	9.1	9.1	9.0	8.8	9.1	10.1	10.6	10.7	9.4	9.9	9.9	9.9	9.7	9.3	10.2	9.6	8.4	8.1	8.3	9.2	Diurnal Average	
	42.7	29.0	24.5	28.3	36.8	37.3	35.1	28.2	29.6	35.3	31.9	33.9	30.7	31.3	35.3	25.9	31.2	37.0	35.4	33.5	32.3	24.9	37.3	30.9	Diurnal Maximum	

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

Hourly Standard Deviations

Wind Direction (WD) - deg
Henry Pirker - January 2011

Maximum Value: 93.7 deg on Jan 7 00:00																	Hours in Service: 744					Hours of Data: 736																			
Minimum Value: 2.6 deg on Jan 25 12:00																	Hours of Missing Data: 8					Hours of Calibration: 0																			
Percentiles: P ₁ = 3.4 P ₁₀ = 5.6 Q ₁ = 8.4 Median = 14.4 Q ₃ = 23.0 P ₉₀ = 41.9 P ₉₉ = 84.3																	Percent Operational Time: 98.9																								
Day	Hourly Period Ending At (MST)																								Daily Maximum																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																	
1-Jan	90	29	75	58	8	70	57	45	33	85	18	8	20	7	7	6	9	14	12	5	5	5	6	6	89.7																
2-Jan	40	11	59	11	42	20	12	12	7	8	5	13	15	24	48	42	19	26	46	14	19	42	53	27	59.4																
3-Jan	44	51	46	12	11	63	19	29	24	20	12	13	18	48	54	41	13	30	16	28	24	32	15	63	62.9																
4-Jan	35	11	27	17	38	20	39	17	10	34	32	13	15	27	17	17	20	23	11	7	6	6	12	6	39.5																
5-Jan	6	6	11	11	5	7	4	25	27	24	10	45	84	21	7	14	13	27	27	21	37	22	39	12	83.7																
6-Jan	8	6	5	7	3	5	6	6	7	4	5	4	6	6	6	6	6	9	17	11	8	49	72	94	93.7																
7-Jan	75	69	61	35	22	18	16	54	21	21	15	11	15	9	8	10	11	10	20	24	14	11	9	8	75.1																
8-Jan	19	12	10	8	8	6	6	13	9	16	7	9	11	5	6	5	6	5	4	4	4	4	5	4	19.4																
9-Jan	8	26	43	26	16	58	12	47	13	41	9	13	87	19	38	28	8	10	9	16	19	9	31	54	86.5																
10-Jan	35	19	19	8	14	18	29	20	16	16	20	17	12	17	16	13	15	21	14	15	75	49	52	41	75.1																
11-Jan	32	12	12	10	9	19	14	11	14	22	63	45	22	21	25	17	35	37	17	15	34	41	27	35	63.2																
12-Jan	17	18	40	24	21	11	12	13	13	23	32	14	11	13	13	8	8	10	7	13	5	6	8	9	39.8																
13-Jan	7	8	8	12	12	10	6	12	15	16	17	7	42	18	12	11	18	13	15	20	32	13	12	15	41.6																
14-Jan	27	18	9	11	8	17	22	8	17	43	13	12	14	20	21	16	15	13	14	14	13	12	14	11	42.9																
15-Jan	10	10	16	13	12	11	13	18	21	27	28	19	19	65	65	28	26	15	12	16	16	31	19	13	65.2																
16-Jan	24	24	18	23	19	18	33	10	27	15	19	22	30	22	21	14	12	10	9	8	20	53	25	11	52.5																
17-Jan	10	11	10	10	10	9	8	13	19	18	17	24	73	14	8	8	21	12	19	23	26	52	21	13	72.9																
18-Jan	15	34	27	19	5	5	6	4	15	10	6	11	17	6	9	5	5	8	4	5	8	7	7	4	34.1																
19-Jan	7	13	8	8	9	6	65	36	14	23	18	22	30	34	21	16	16	8	8	7	6	5	5	6	64.9																
20-Jan	9	10	7	57	34	24	20	29	21	9	20	3	4	3	3	5	5	5	5	6	17	34	22	14	57.2																
21-Jan	36	32	17	69	26	29	23	15	18	46	23	37	34	18	58	93	50	10	37	12	18	18	92	16	93.4																
22-Jan	10	12	5	5	7	6	3	3	4	4	6	8	17	8	14	7	8	6	5	8	10	7	5	6	16.6																
23-Jan	4	4	4	4	3	4	5	5	8	6	4	7	4	6	8	12	11	9	12	30	57	24	16	7	56.9																
24-Jan	10	22	12	47	46	41	22	9	7	6	9	11	6	6	19	30	23	12	20	25	17	36	32	53	53.5																
25-Jan	82	37	63	19	49	67	9	25	5	5	4	3	7	15	7	5	10	17	18	12	20	18	9	15	81.7																
26-Jan	54	51	38	57	32	24	62	10	M	M	M	M	M	M	M	7	19	15	11	7	16	53	42	23	61.6																
27-Jan	17	17	11	8	24	8	68	14	21	9	6	8	8	9	8	8	9	4	4	5	5	7	10	8	68.2																
28-Jan	5	6	8	6	5	21	9	12	13	16	15	19	12	21	17	16	18	15	16	17	27	11	12	11	26.6																
29-Jan	10	12	14	9	8	17	15	30	14	40	42	46	46	17	18	25	10	18	9	8	17	17	26	10	46.4																
30-Jan	8	12	14	12	10	14	16	11	9	8	17	17	20	16	15	12	15	12	13	19	10	12	9	8	20.1																
31-Jan	16	18	19	8	18	28	35	10	26	16	58	M	16	17	9	19	17	13	12	14	10	28	88	20	88.4																
																	89.7	69.4	74.6	69.1	49.0	70.1	68.2	54.5	32.7	85.3	63.2	46.0	86.5	65.1	65.2	93.4	50.0	37.2	46.3	29.9	75.1	53.2	92.1	93.7	
M - Maintenance																																									

PASZA
Evergreen Park Station
Monthly Summary Tables, Graphs and
Roses

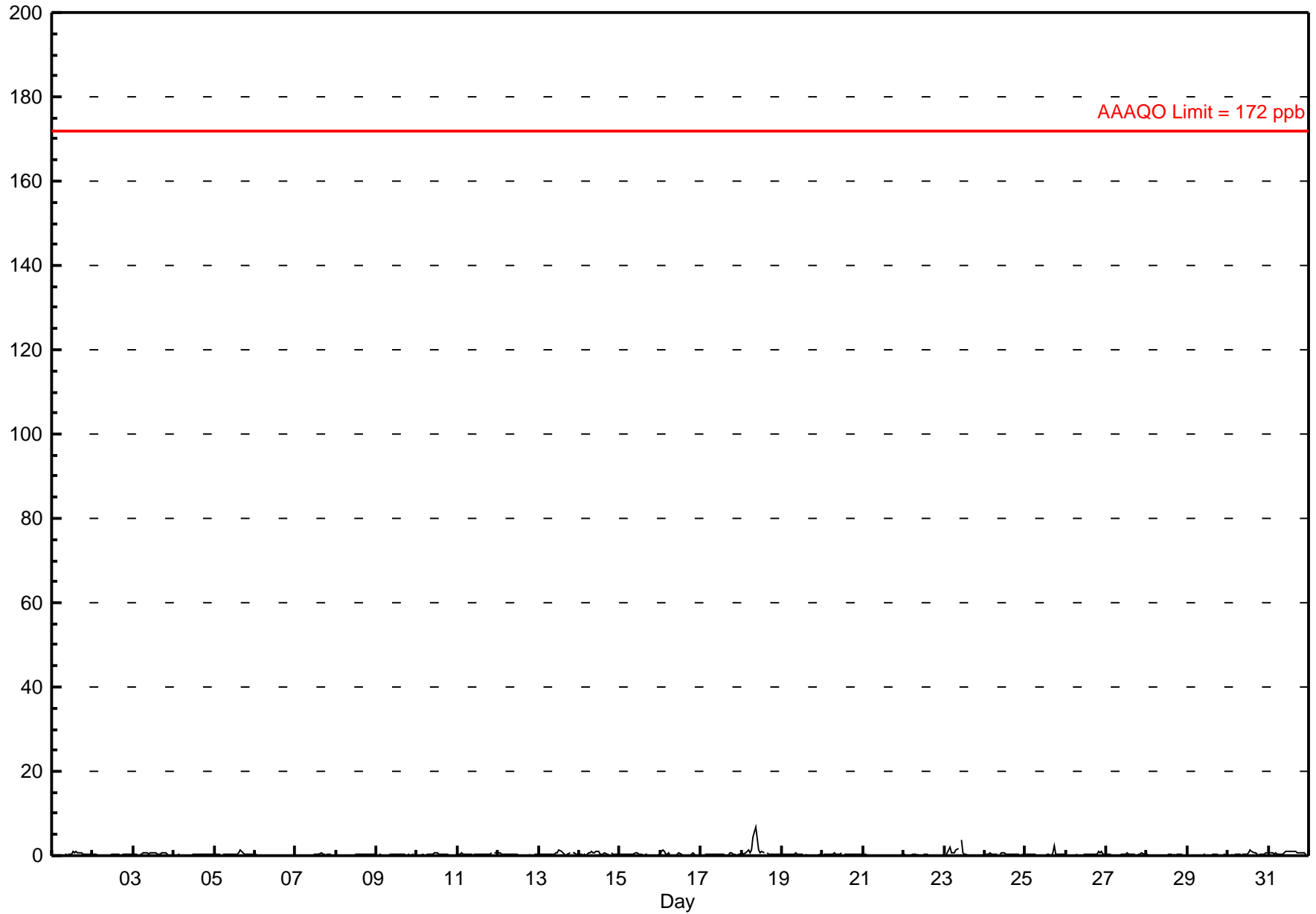
Hourly Averages

Sulphur Dioxide (SO₂) - ppb Evergreen Park - January 2011

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 6.7 ppb on Jan 18 09:00	Maximum Daily Average: 1.2 ppb on Jan 18		Hours of Data:	707
Minimum Value: 0 ppb on Jan 22 19:00	Minimum Daily Average: 0.1 ppb on Jan 6		Hours of Missing Data:	37
Maximum Diurnal Average: 0.5 ppb at hour 9	Minimum Diurnal Average: 0.2 ppb at hour 24		Hours of Calibration:	36
Monthly Average: 0.33 ppb	Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.1 Median = 0.2 Q ₃ = 0.4 P ₉₀ = 0.6 P ₉₉ = 1.7		Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jan	0	0	0	0	0	A	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0.4	0.9
2-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
3-Jan	0	0	0	A	0	0	1	1	1	0	1	1	1	0	0	0	0	1	1	1	0	0	0	0	0.4	0.8
4-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	0.5
5-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0.4	1.4
6-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	0.2
7-Jan	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0.2	0.5
8-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	0.5
9-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
10-Jan	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	A	0	0.3	0.8
11-Jan	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	1	1	0.4	0.5
12-Jan	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.3	0.5
13-Jan	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	1	A	1	1	0	0	0.5	1.2
14-Jan	0	0	0	0	0	1	1	1	1	1	1	1	0	0	0	1	0	0	A	1	0	0	0	0	0.5	1.1
15-Jan	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0.3	0.6
16-Jan	1	1	1	0	0	1	0	0	0	0	0	1	0	0	0	0	A	0	0	0	1	0	0	0	0.4	1.3
17-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
18-Jan	1	0	1	1	1	1	1	4	7	4	1	1	1	1	A	1	0	0	0	0	0	0	0	0	1.2	6.7
19-Jan	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	P	0	0	0	0.3	0.5
20-Jan	0	0	0	0	0	0	0	1	0	0	0	1	A	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
21-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	0.1	0.2
22-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	0.1	0.3
23-Jan	0	0	1	2	1	1	1	1	2	A	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0.6	3.6
24-Jan	0	0	0	1	0	0	0	0	A	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.8
25-Jan	0	0	0	0	0	0	0	A	0	C	C	C	0	0	0	0	1	2	0	0	0	0	0	0	0.4	2.2
26-Jan	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0.3	0.9
27-Jan	0	0	0	0	A	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0.2	0.7
28-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	0.5
29-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	0.4
30-Jan	0	A	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	1	1	0.4	1.3
31-Jan	A	1	1	0	1	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0	A	0.7	1.1
	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.4	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.2	0.2	Diurnal Average	
	0.7	1.3	0.9	2.1	1.4	0.8	1.3	4.3	6.7	4.1	3.6	1.1	1.2	1.3	0.9	1.4	0.9	2.2	0.6	0.9	0.8	0.9	0.8	0.7	Diurnal Maximum	

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



Hourly Maximums

Sulphur Dioxide (SO₂) - ppb Evergreen Park - January 2011

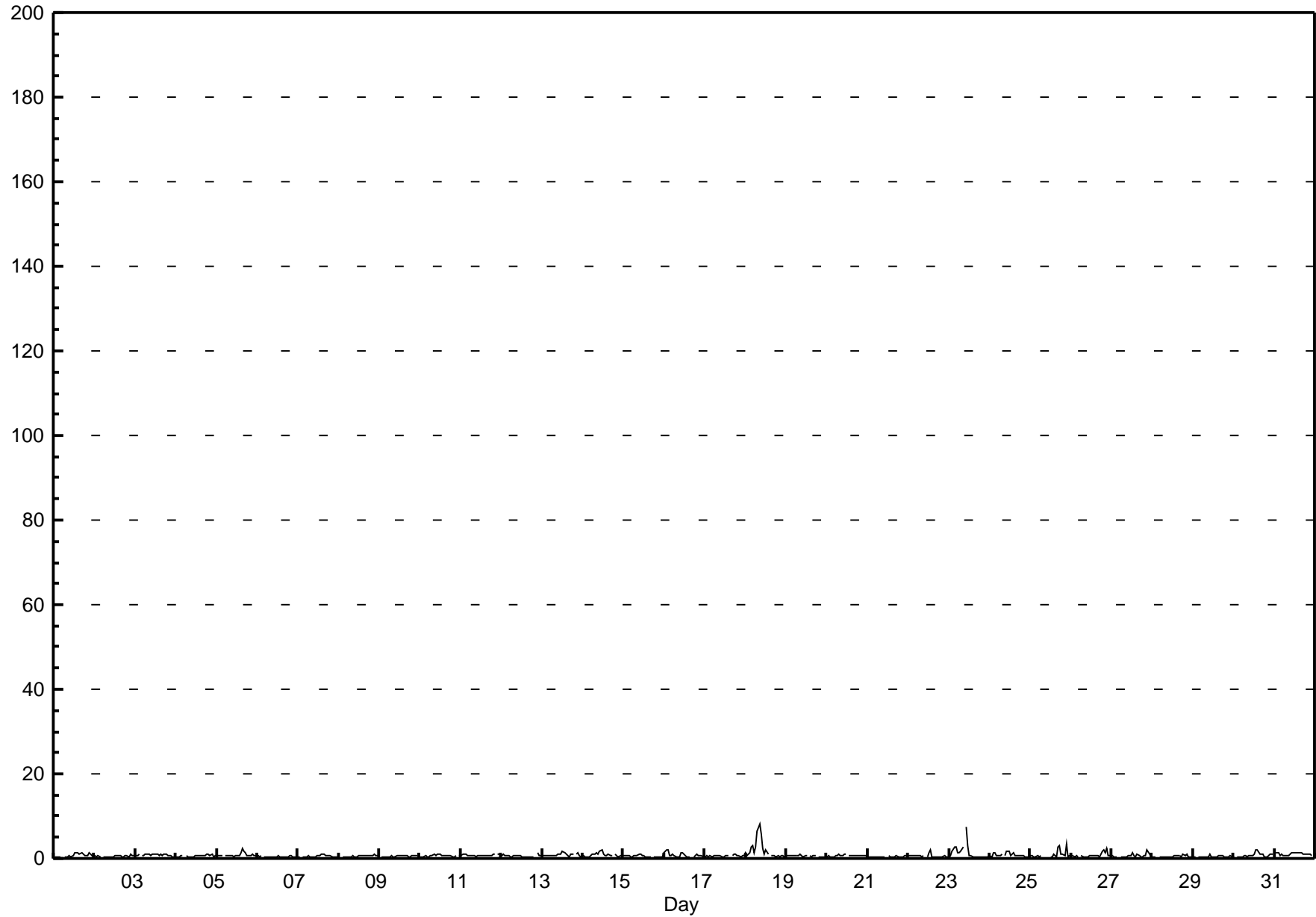
Maximum Value: 8.3 ppb on Jan 18 09:00	Maximum Daily Average: 2.0 ppb on Jan 18	Hours in Service: 744
Minimum Value: 0 ppb on Jan 22 19:00	Minimum Daily Average: 0.4 ppb on Jan 6	Hours of Data: 707
Maximum Diurnal Average: 1.0 ppb at hour 11	Minimum Diurnal Average: 0.6 ppb at hour 24	Hours of Missing Data: 37
Monthly Average: 0.74 ppb	Percentiles: P ₁ = 0.3 P ₁₀ = 0.4 Q ₁ = 0.5 Median = 0.6 Q ₃ = 0.8 P ₉₀ = 1.2 P ₉₉ = 2.9	Hours of Calibration: 36
		Percent Operational Time: 99.9

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jan	0	0	0	0	0	A	0	0	0	1	0	1	1	1	1	1	2	1	1	1	1	1	1	1	0.8	1.5	
2-Jan	1	0	1	0	A	0	0	0	0	0	0	0	1	1	1	1	0	0	1	1	0	1	1	1	0.5	0.9	
3-Jan	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0.8	1.2	
4-Jan	0	0	0	1	1	A	1	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.9	
5-Jan	1	1	1	1	A	1	1	1	1	1	0	1	1	1	1	2	2	1	1	1	1	1	1	1	0.8	2.4	
6-Jan	1	0	1	A	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0	0	0	0.4	0.6	
7-Jan	0	0	A	0	0	0	1	0	0	0	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0.5	1.0	
8-Jan	0	A	0	0	0	0	0	0	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0.6	1.0	
9-Jan	A	0	0	0	0	0	0	1	0	0	1	1	1	1	1	1	1	0	0	1	1	1	1	1	0.5	0.7	
10-Jan	0	0	0	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	A	1	0.6	1.1
11-Jan	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.7	1.0
12-Jan	1	1	1	1	1	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	A	1	1	1	0.6	1.3
13-Jan	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	0	1	1	A	1	1	1	1	1	0.8	1.6
14-Jan	1	0	0	0	0	1	1	1	1	1	2	2	1	1	1	1	1	1	A	1	1	0	1	1	1	0.9	1.9
15-Jan	1	1	1	1	1	0	1	1	1	1	1	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0.6	1.1
16-Jan	1	2	2	1	1	1	1	0	0	0	1	1	1	0	0	0	A	0	1	1	1	1	1	1	0	0.8	2.2
17-Jan	0	1	0	1	0	1	1	1	1	1	0	0	1	1	1	A	1	1	1	1	1	0	1	1	1	0.6	1.1
18-Jan	1	1	1	3	3	1	3	6	8	6	2	1	2	1	A	1	1	1	1	0	1	1	1	0	2.0	8.3	
19-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0	1	1	1	P	0	0	0	0	0	0.6	1.0
20-Jan	0	1	0	0	0	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0
21-Jan	0	0	1	0	1	0	0	0	0	0	0	0	A	1	0	0	0	0	1	0	0	0	0	1	1	0.4	0.6
22-Jan	1	1	1	1	1	1	1	1	1	1	1	1	A	0	1	2	0	0	0	0	0	0	1	0	0	0.6	2.1
23-Jan	0	1	2	3	3	1	1	2	3	A	8	3	1	1	0	0	0	0	0	0	0	0	0	0	0	1.4	7.6
24-Jan	1	0	1	1	1	1	1	1	A	1	2	2	1	1	1	1	1	1	1	1	1	0	0	0	0	0.8	1.7
25-Jan	1	1	0	0	1	0	1	A	1	C	C	C	0	0	1	0	3	3	1	1	1	3	1	1	1.0	3.4	
26-Jan	1	1	0	1	0	A	1	0	0	0	0	1	1	1	1	1	0	2	2	1	2	1	1	1	0.8	2.3	
27-Jan	1	0	0	0	A	0	0	0	0	1	1	1	1	0	1	1	0	0	1	1	2	1	0	0	0.7	1.9	
28-Jan	0	0	0	A	0	0	0	0	0	0	0	0	0	1	1	1	0	1	1	1	0	0	0	0	0.5	1.0	
29-Jan	0	0	A	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	1	0	0	1	0	0	0.5	0.9
30-Jan	0	A	0	0	0	0	1	1	0	1	1	1	1	2	2	1	1	1	0	0	0	1	1	1	0.8	2.2	
31-Jan	A	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
	0.6	0.6	0.7	0.7	0.7	0.6	0.7	0.8	0.9	0.8	1.0	0.9	0.8	0.8	0.8	0.7	0.8	0.7	0.7	0.7	0.6	0.9	0.6	0.6		Diurnal Average	
	1.4	2.0	2.2	2.7	2.9	1.4	2.8	6.3	8.3	5.9	7.6	2.9	2.1	2.1	2.2	2.4	2.5	3.0	1.8	2.1	1.4	3.4	1.1	1.1		Diurnal Maximum	

C - Calibration P - Power Failure A - Automated Daily Zero Span

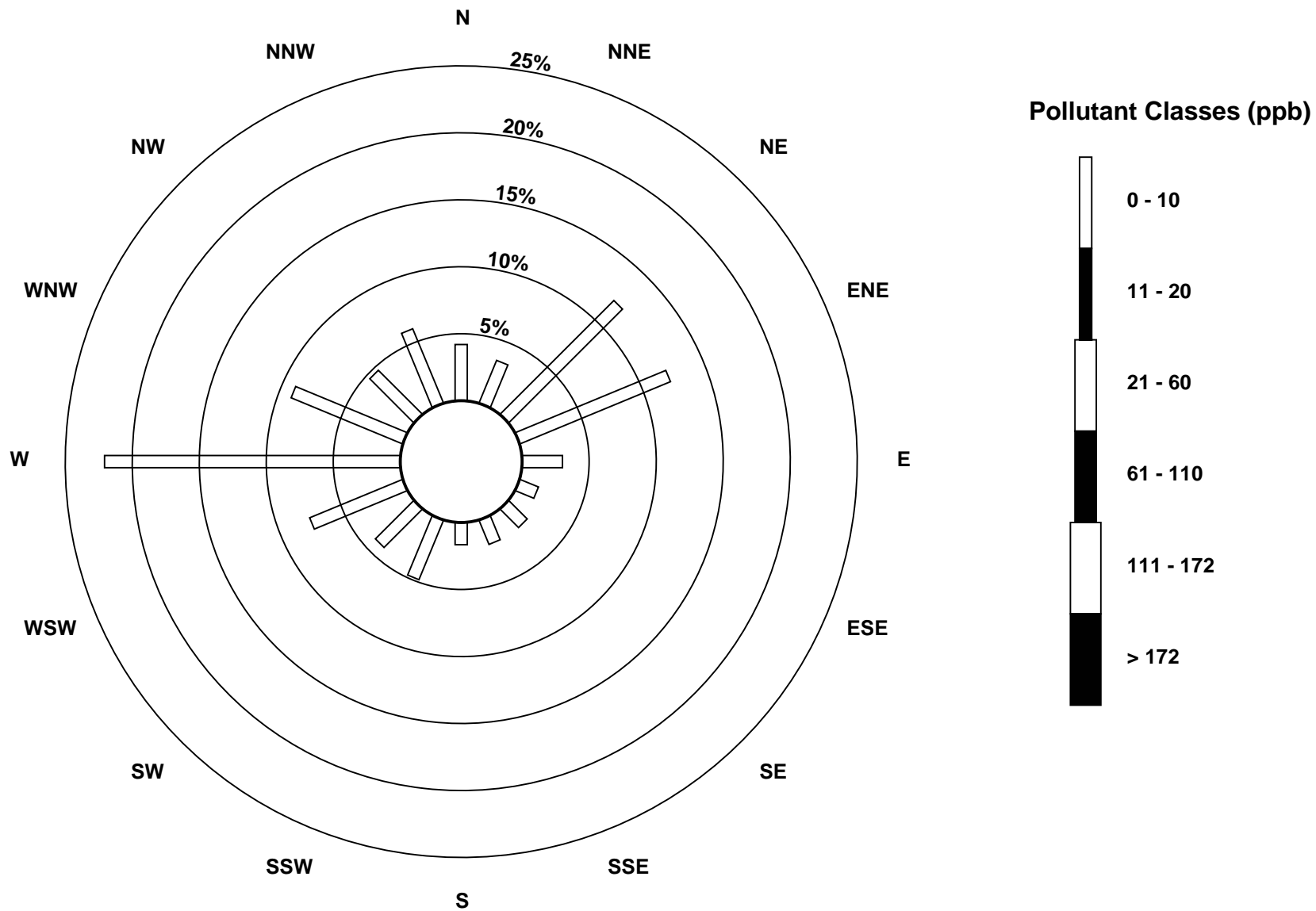
Hourly Maximums

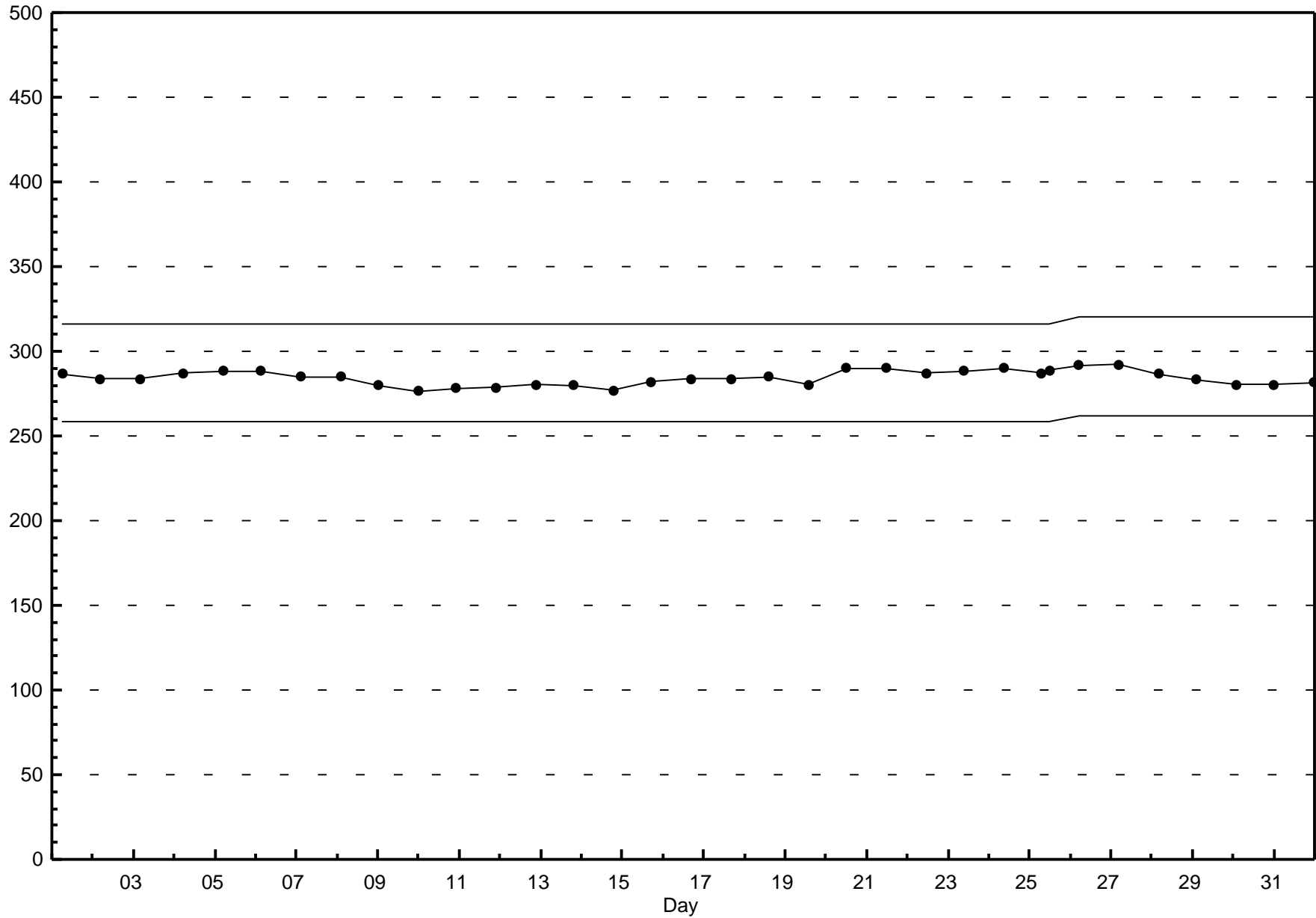
Sulphur Dioxide (SO₂) - ppb
Evergreen Park - January 2011



Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Evergreen Park - January 2011







PASZA

Peace Air Shed Zone Association

Hourly Averages

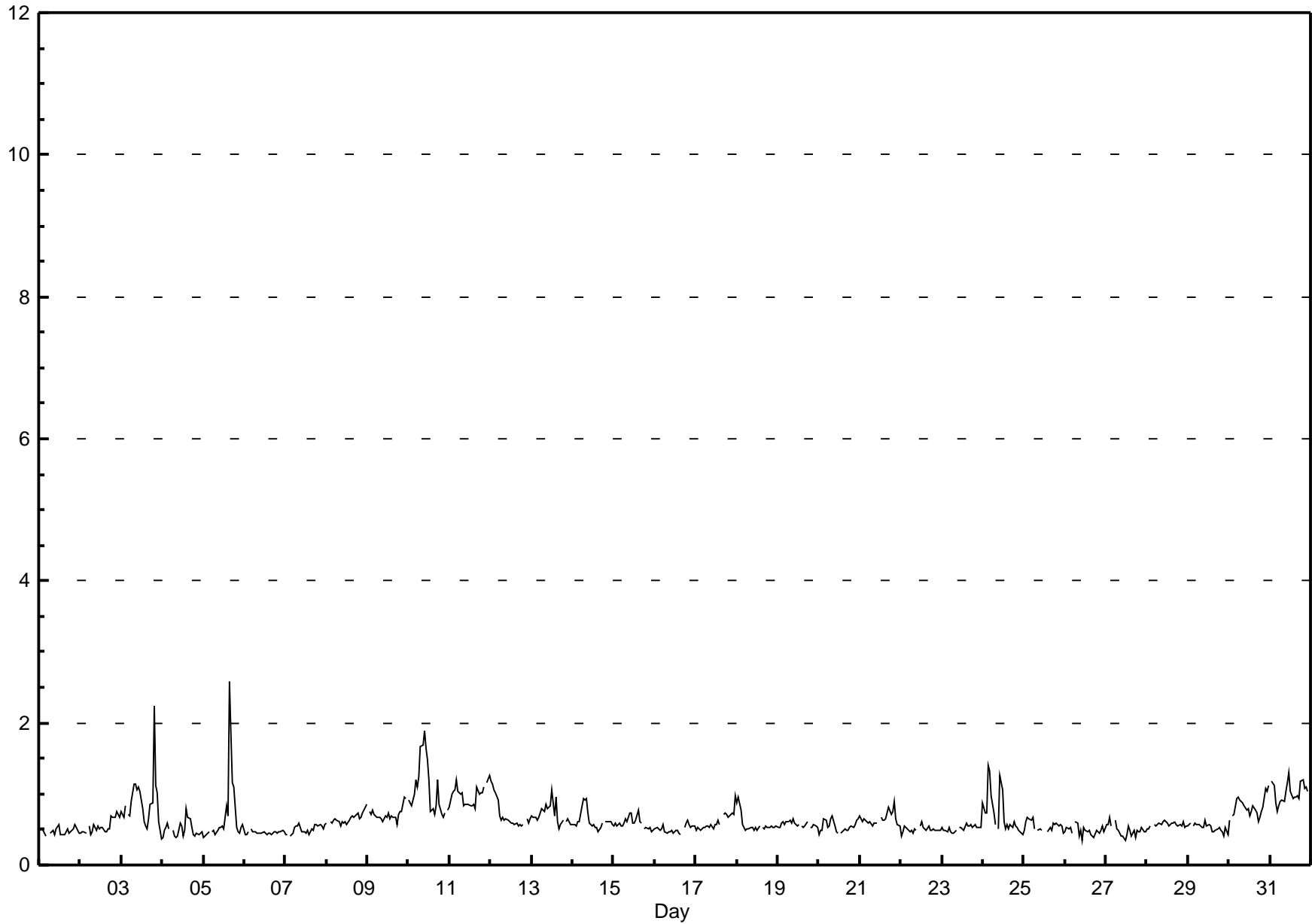
Total Reduced Sulphur (TRS) - ppb

Evergreen Park - January 2011

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 2.6 ppb on Jan 5 16:00	Maximum Daily Average: 1.1 ppb on Jan 10		Hours of Data:	707
Minimum Value: 0 ppb on Jan 26 11:00	Minimum Daily Average: 0.5 ppb on Jan 6		Hours of Missing Data:	37
Maximum Diurnal Average: 0.7 ppb at hour 11	Minimum Diurnal Average: 0.6 ppb at hour 14		Hours of Calibration:	36
Monthly Average: 0.64 ppb	Percentiles: P ₁ = 0.4 P ₁₀ = 0.5 Q ₁ = 0.5 Median = 0.6 Q ₃ = 0.7 P ₉₀ = 0.9 P ₉₉ = 1.6		Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jan	0	1	0	0	0	A	0	0	0	0	1	1	0	0	0	0	1	0	0	0	1	1	0	0	0.5	0.6
2-Jan	0	0	0	0	A	1	0	0	1	0	1	0	1	1	0	0	1	1	1	1	1	1	1	1	0.5	0.7
3-Jan	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	0	0.9	2.2
4-Jan	0	0	1	1	1	A	0	0	0	0	1	1	0	0	1	1	1	1	0	0	0	0	0	0	0.5	0.8
5-Jan	0	0	0	0	A	0	0	0	0	1	1	1	1	1	1	3	2	1	1	1	0	0	1	1	0.7	2.6
6-Jan	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0.5
7-Jan	0	0	A	0	0	1	1	1	1	0	0	0	0	0	0	1	0	1	1	1	1	1	1	1	0.5	0.6
8-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	0.7	0.9
9-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	1.0
10-Jan	1	1	1	1	1	1	1	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	A	1	1.1	1.9
11-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	1.0	1.3
12-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
13-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	0.7	1.0
14-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	A	1	1	1	1	1	1	0.6	0.9
15-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	0.6	0.8
16-Jan	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	A	1	1	1	1	1	1	1	1	0.5	0.6
17-Jan	0	1	1	0	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.6	1.0
18-Jan	1	1	1	1	1	0	1	1	1	1	0	1	0	1	A	1	1	1	1	1	1	1	1	1	0.6	1.0
19-Jan	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	P	1	1	1	1	1	0.6	0.6
20-Jan	0	0	0	1	1	1	1	1	1	1	0	0	A	0	0	1	0	0	1	1	1	1	1	1	0.5	0.7
21-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
22-Jan	0	0	1	1	1	0	0	0	1	0	A	1	1	1	1	0	1	0	0	1	0	0	0	0	0.5	0.6
23-Jan	1	0	0	0	1	0	0	0	0	A	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0.5	0.6
24-Jan	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0.7	1.4
25-Jan	0	1	1	1	1	1	1	A	0	1	0	C	C	C	0	1	0	1	1	1	1	1	1	0	0.6	0.7
26-Jan	0	1	1	1	0	A	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0.5	0.6
27-Jan	1	1	1	1	A	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0.5	0.7
28-Jan	1	0	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.6
29-Jan	1	1	A	1	1	1	1	1	1	1	1	1	1	0	0	0	1	1	0	0	1	0	1	0	0.5	0.6
30-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	0.8	1.1
31-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	1.3
	0.6	0.6	0.6	0.7	0.7	0.7	0.6	0.7	0.6	0.6	0.7	0.7	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	Diurnal Average
	1.2	1.2	1.1	1.4	1.3	1.1	1.2	1.7	1.7	1.9	1.6	1.5	1.2	0.9	1.0	2.6	1.9	1.2	1.2	2.2	1.1	1.1	1.2	1.3	Diurnal Maximum	

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

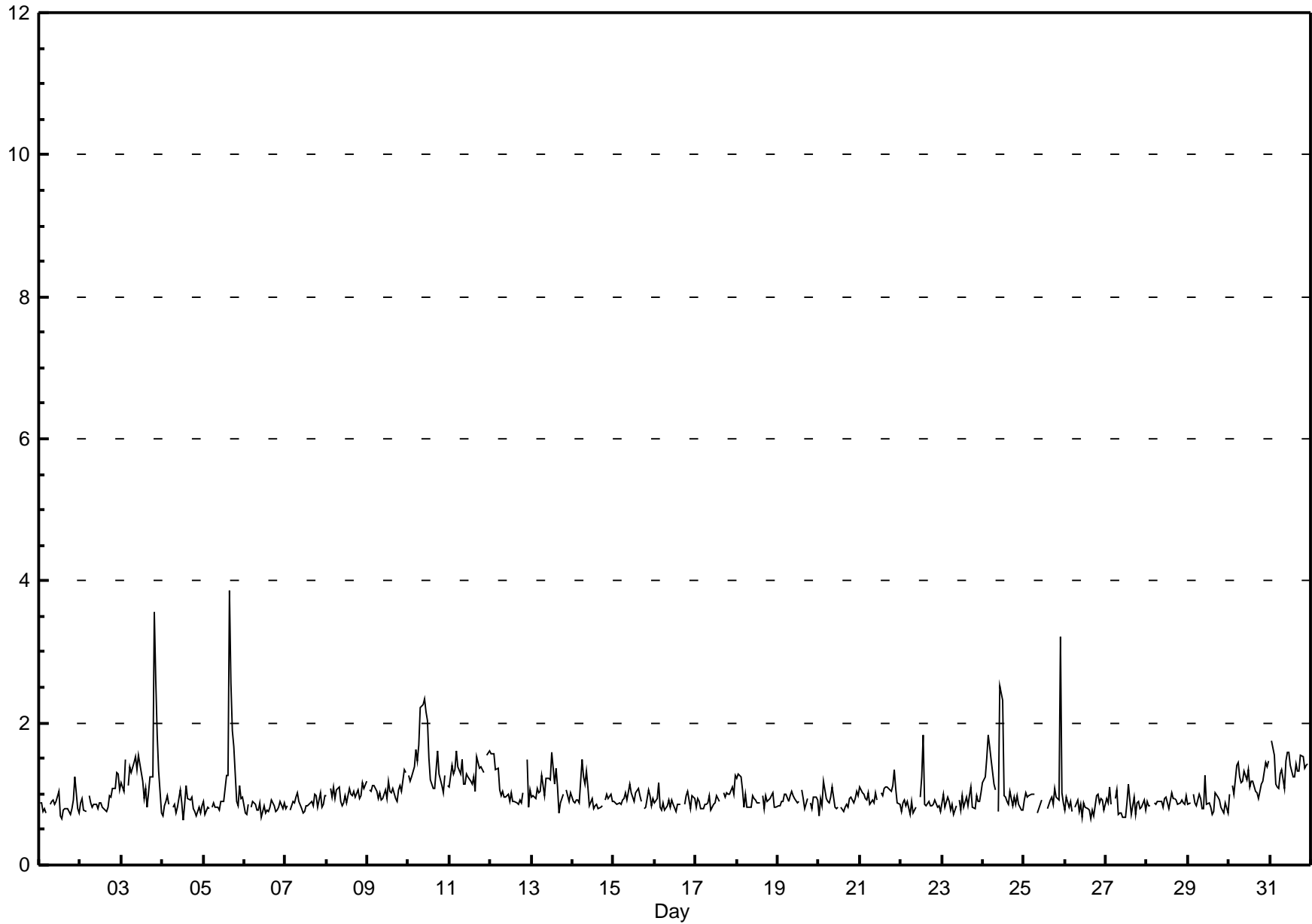


Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

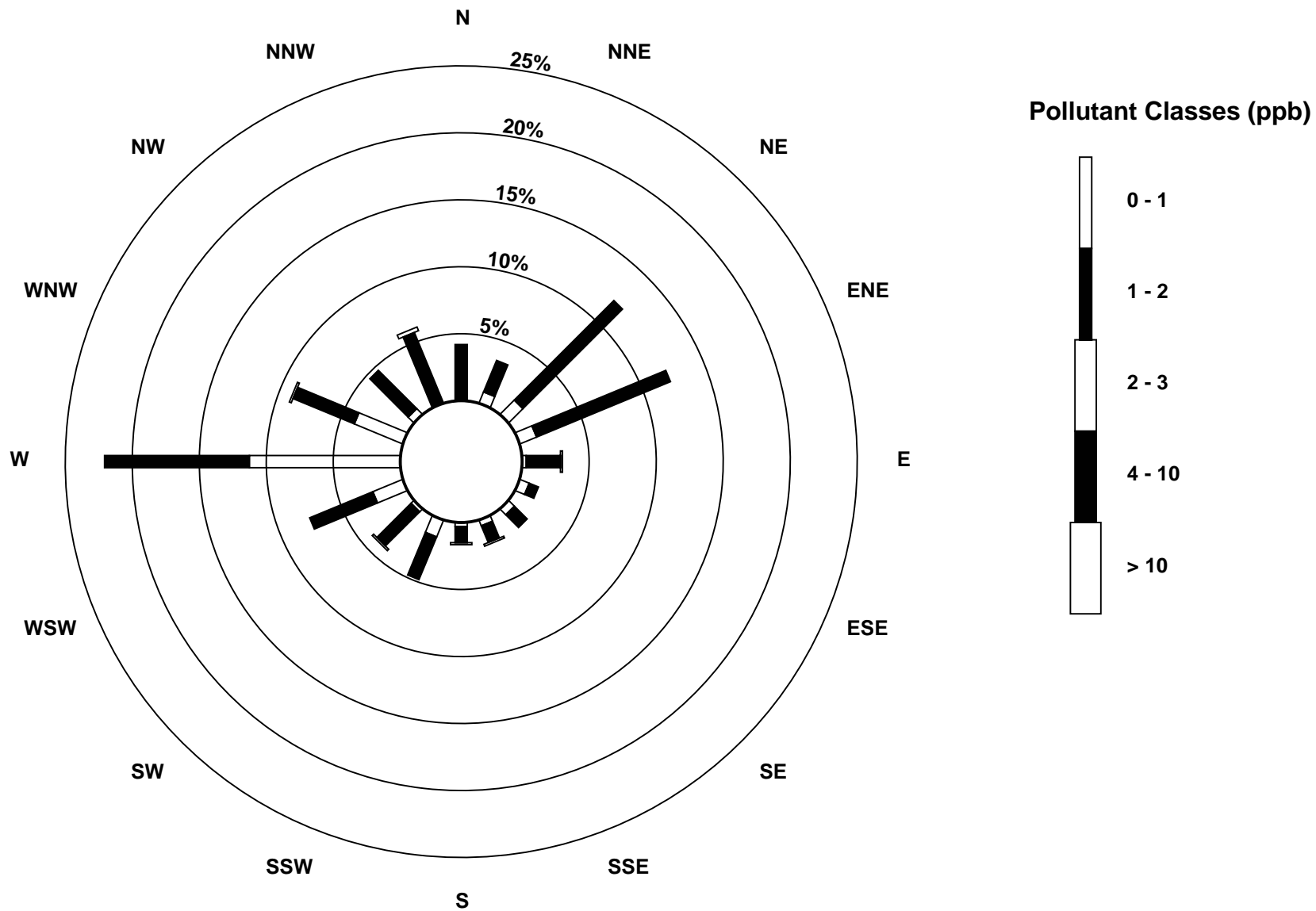
Evergreen Park - January 2011

Maximum Value: 3.9 ppb on Jan 5 16:00		Maximum Daily Average: 1.5 ppb on Jan 10		Hours in Service: 744																							
Minimum Value: 1 ppb on Jan 4 13:00		Minimum Daily Average: 0.8 ppb on Jan 6		Hours of Data: 707																							
Maximum Diurnal Average: 1.1 ppb at hour 22		Minimum Diurnal Average: 0.9 ppb at hour 1		Hours of Missing Data: 37																							
Monthly Average: 1.01 ppb		Percentiles: P ₁ = 0.7 P ₁₀ = 0.8 Q ₁ = 0.8 Median = 0.9 Q ₃ = 1.1 P ₉₀ = 1.3 P ₉₉ = 2.2		Hours of Calibration: 36																							
				Percent Operational Time: 99.9																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-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	0.8	1.2	
2-Jan	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.3	
3-Jan	1	1	1	A	1	1	1	1	2	1	2	1	1	1	1	1	1	1	1	4	3	2	1	1	1.4	3.6	
4-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	0.8	1.1	
5-Jan	1	1	1	1	A	1	1	1	1	1	1	1	1	1	4	3	2	2	1	1	1	1	1	1	1.2	3.9	
6-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	0.8	0.9	
7-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	1.0	
8-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	1.0	1.2	
9-Jan	A	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	
10-Jan	1	1	1	1	2	1	2	2	2	2	2	2	1	1	1	1	1	2	1	1	1	1	A	1	1.5	2.3	
11-Jan	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	A	2	2	1.3	1.6	
12-Jan	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1.1	1.6	
13-Jan	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	A	1	1	1	1	1.1	1.6	
14-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	1.0	1.5	
15-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	0.9	1.1	
16-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	0.9	1.2	
17-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	0.9	1.3	
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	0.9	1.3	
19-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	0.9	1.0	
20-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	0.9	1.2	
21-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	1.0	1.3	
22-Jan	1	1	1	1	1	1	1	1	1	1	1	A	1	2	1	1	1	1	1	1	1	1	1	1	0.9	1.8	
23-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	0.9	1.1	
24-Jan	1	1	1	2	2	1	1	1	1	A	1	3	2	1	1	1	1	1	1	1	1	1	1	1	1.2	2.5	
25-Jan	1	1	1	1	1	1	1	A	1	1	1	C	C	C	1	1	1	1	1	1	1	3	1	1	1.0	3.2	
26-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	0.8	1.0	
27-Jan	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.1	
28-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	1.0	
29-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	1.3	
30-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	1.2	1.5	
31-Jan	A	2	2	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	2	2	1	1	1	A	1.4	1.8	
		0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.1	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.1	1.0	1.1	1.0	1.0	Diurnal Average		
		1.6	1.8	1.6	1.8	1.7	1.5	1.7	2.2	2.3	2.3	2.5	2.3	1.6	1.8	1.4	3.9	2.6	1.9	1.7	3.6	2.6	3.2	1.5	1.6	Diurnal Maximum	
C - Calibration		P - Power Failure					A - Automated Daily Zero Span																				



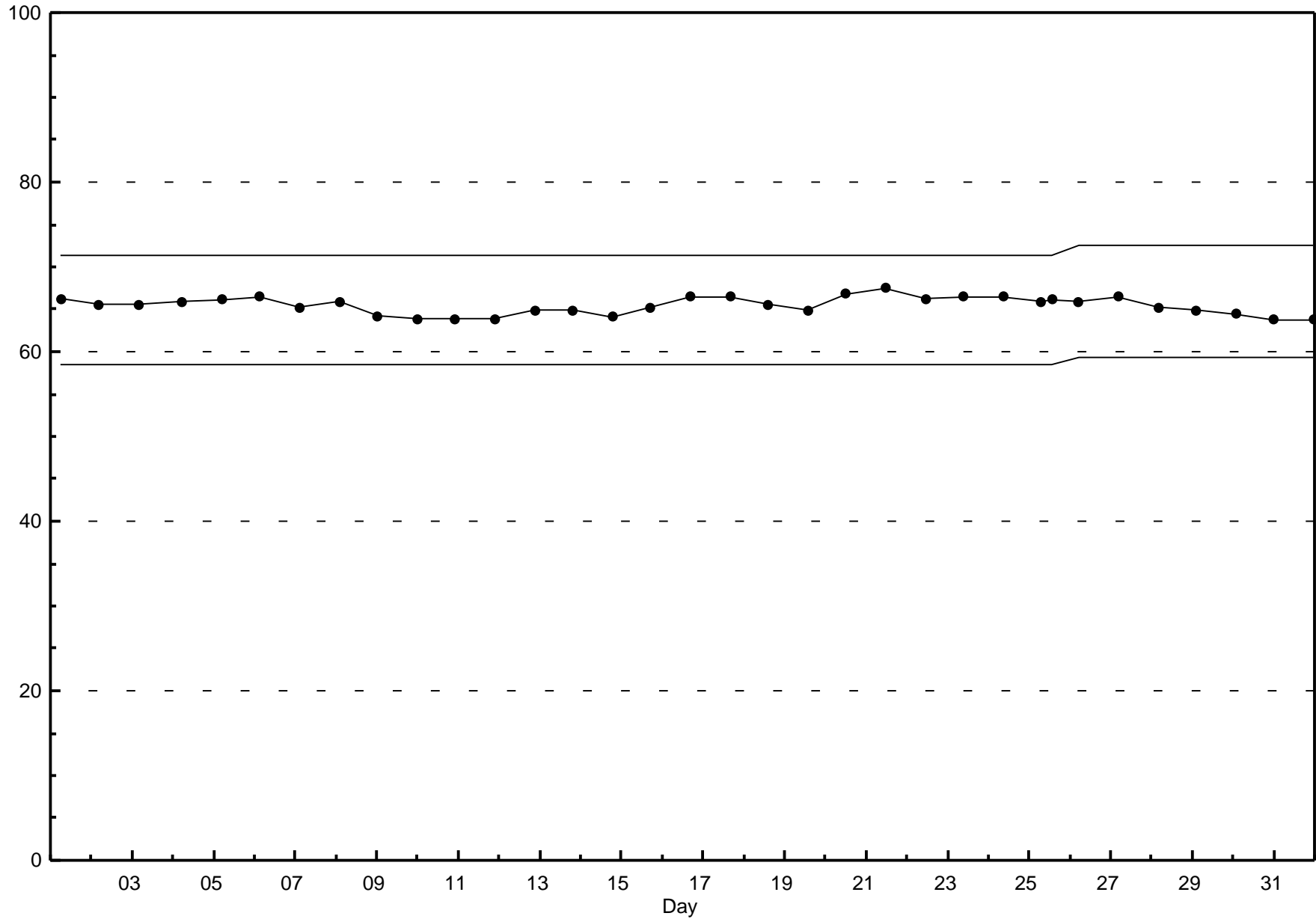
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb
Evergreen Park - January 2011



Span Responses

Total Reduced Sulphur (TRS)
Evergreen Park - January 2011



Hourly Averages

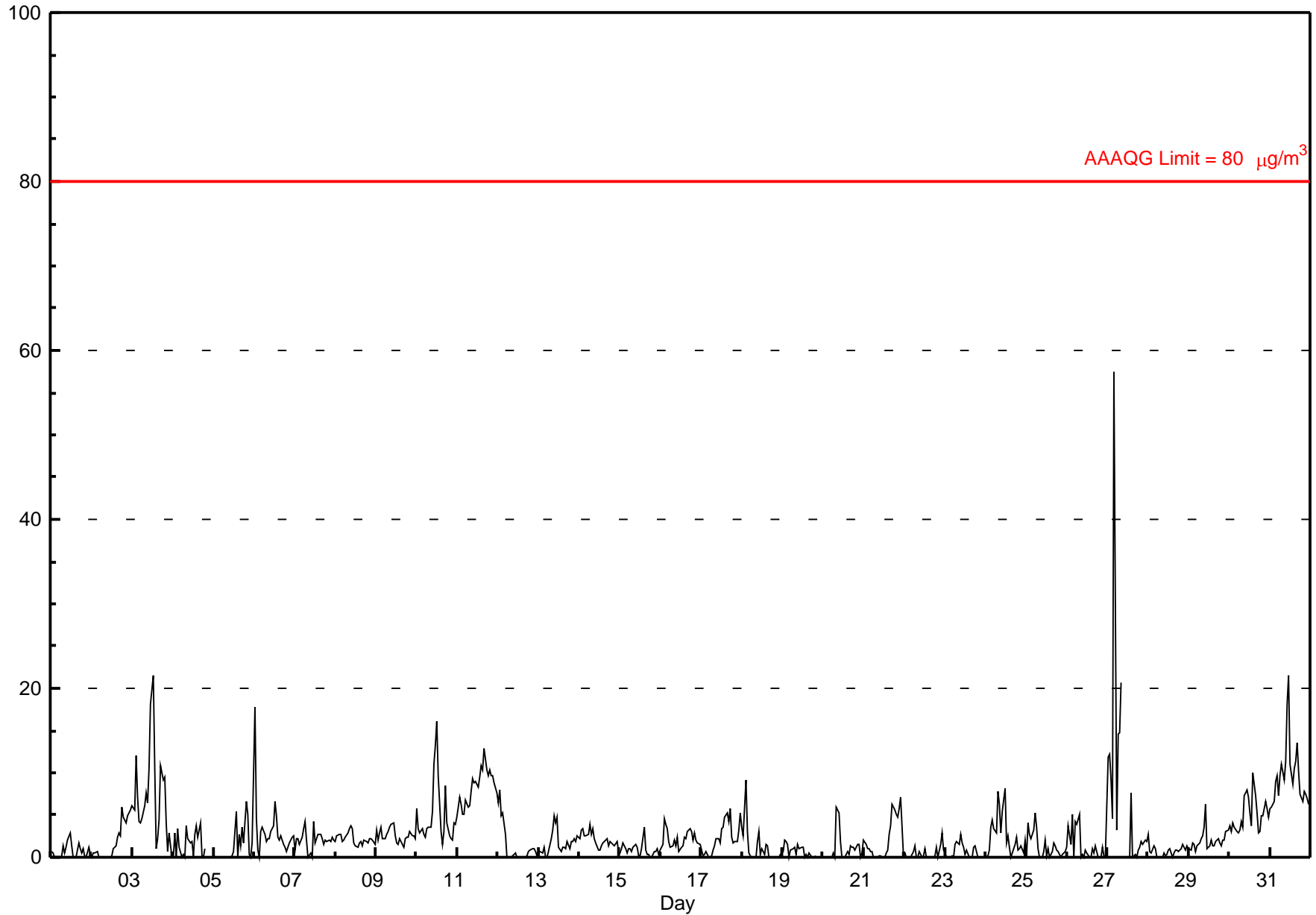
Particulate Matter 2.5 (PM_{2.5}) - µg/m³

Evergreen Park - January 2011

Number of Exceedences: 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 57.4 µg/m ³ on Jan 27 05:00	Maximum Daily Average: 9.7 µg/m ³ on Jan 31
Minimum Value: 0 µg/m ³ on Jan 1 04:00	Hours of Data: 726
Maximum Diurnal Average: 3.8 µg/m ³ at hour 5	Hours of Missing Data: 18
Monthly Average: 2.68 µg/m ³	Hours of Calibration: 0
Minimum Daily Average: 0.5 µg/m ³ on Jan 22	Percent Operational Time: 97.6
Minimum Diurnal Average: 2.0 µg/m ³ at hour 6	
Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.5 Median = 1.6 Q ₃ = 3.4 P ₉₀ = 6.6 P ₉₉ = 17.5	

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	0	0	0	0	0	0	1	0	1	2	3	1	0	0	0	2	1	0	1	0	0	1	0	0.7	2.9																						
2-Jan	0	1	0	1	0	0	0	0	0	0	0	0	0	1	1	2	3	3	6	5	4	5	5	6	1.8	5.9																						
3-Jan	6	6	12	7	4	4	5	6	8	6	10	18	21	10	1	2	4	11	9	9	4	1	3	0	7.0	21.5																						
4-Jan	0	3	0	3	1	0	0	0	4	2	2	2	0	3	4	2	4	0	0	1	N	N	N	N	1.6	4.1																						
5-Jan	0	0	BD	0	BD	BD	BD	BD	BD	0	0	0	1	5	0	3	1	4	2	7	5	0	0	2	1.6	6.6																						
6-Jan	18	5	1	0	3	4	3	2	2	2	3	4	7	5	2	2	3	1	1	1	1	2	2	3	3.1	17.8																						
7-Jan	1	2	2	2	2	3	4	2	0	0	0	4	2	2	3	3	2	1	2	2	2	2	2	2	2.0	4.2																						
8-Jan	2	3	3	3	2	2	2	3	3	4	3	2	1	1	2	2	1	2	2	2	2	2	2	2	2.2	3.7																						
9-Jan	3	2	3	4	2	2	3	3	4	4	4	3	2	1	2	2	1	2	2	2	3	3	3	2	2.6	4.1																						
10-Jan	6	3	3	3	3	2	3	3	4	5	11	13	16	10	3	2	3	8	4	3	2	2	4	4	5.1	16.1																						
11-Jan	5	7	6	5	5	7	6	6	8	9	9	9	8	9	11	10	13	10	10	10	10	10	9	8	8.3	12.9																						
12-Jan	6	8	5	5	3	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	1.3	7.9																						
13-Jan	1	1	0	1	0	0	1	2	3	5	4	5	1	1	1	1	1	2	1	2	2	2	2	3	1.7	4.9																						
14-Jan	2	3	3	3	2	3	4	3	3	2	2	1	1	1	2	2	2	1	2	2	2	1	2	1	2.1	4.0																						
15-Jan	1	1	2	1	1	1	1	1	1	2	1	0	0	1	4	1	0	0	0	0	1	1	1	0	0.9	3.6																						
16-Jan	1	1	5	4	3	2	1	1	2	1	2	1	1	1	2	2	3	3	3	2	3	2	2	2	2.2	4.5																						
17-Jan	1	0	0	1	0	0	0	1	1	2	2	2	3	4	5	5	4	6	2	2	2	2	3	5	2.3	5.7																						
18-Jan	4	3	9	3	0	0	0	0	0	2	3	0	1	0	1	0	0	0	0	0	0	0	0	0	1.2	9.1																						
19-Jan	1	2	2	1	0	1	1	1	0	2	1	1	1	0	0	1	0	0	P	0	0	0	BD	BD	0.7	2.0																						
20-Jan	BD	0	BD	0	0	0	1	0	6	5	2	0	0	0	1	0	1	1	1	1	1	2	0	0	1.0	6.0																						
21-Jan	2	1	1	1	1	1	0	0	0	0	0	0	0	1	1	3	4	6	6	5	5	6	7	0	2.1	7.1																						
22-Jan	1	0	0	0	0	1	1	0	0	1	0	0	1	0	0	BD	0	0	0	1	0	2	3	1	0.5	2.9																						
23-Jan	0	0	0	0	0	0	1	2	2	3	2	1	0	1	0	0	0	1	1	0	0	0	0	0	0.6	2.7																						
24-Jan	0	0	1	4	4	3	3	8	6	3	5	8	2	3	1	0	1	2	2	1	1	1	1	2	2.5	8.1																						
25-Jan	0	4	3	2	3	5	4	1	0	0	1	2	0	1	0	1	2	1	1	1	0	0	1	1	1.4	5.2																						
26-Jan	1	4	2	5	0	4	4	5	0	0	0	1	1	0	0	1	0	1	0	0	0	1	0	0	1.3	5.2																						
27-Jan	12	12	9	4	57	3	15	15	21	BD	0	0	BD	0	8	0	0	0	1	1	2	2	2	2	7.5	57.4																						
28-Jan	3	1	1	1	1	0	0	0	0	0	0	1	1	0	1	1	1	1	1	1	2	1	1	1	0.7	2.7																						
29-Jan	1	1	2	1	1	1	2	2	3	4	6	1	1	2	1	1	2	2	2	1	2	2	3	3	2.0	6.3																						
30-Jan	4	3	4	4	3	3	3	4	4	7	8	7	5	4	10	7	5	3	3	5	5	7	6	5	4.9	10.0																						
31-Jan	6	6	7	9	10	7	10	11	9	11	18	22	11	9	10	11	14	10	7	7	8	7	7	6	9.7	21.6																						
																								2.9	2.7	2.9	2.5	3.8	2.0	2.6	2.8	3.1	2.8	3.3	3.5	3.0	2.5	2.5	2.3	2.5	2.8	2.4	2.4	2.3	2.2	2.5	2.1	Diurnal Average
																								17.8	12.3	12.0	8.9	57.4	7.2	14.6	14.8	20.6	11.3	18.2	21.6	21.5	10.5	10.8	11.3	13.6	10.8	9.6	10.3	9.7	9.6	8.8	7.6	Diurnal Maximum

P - Power Failure N - Not Valid BD - Baseline Drift
 Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 µg/m³ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 µg/m³

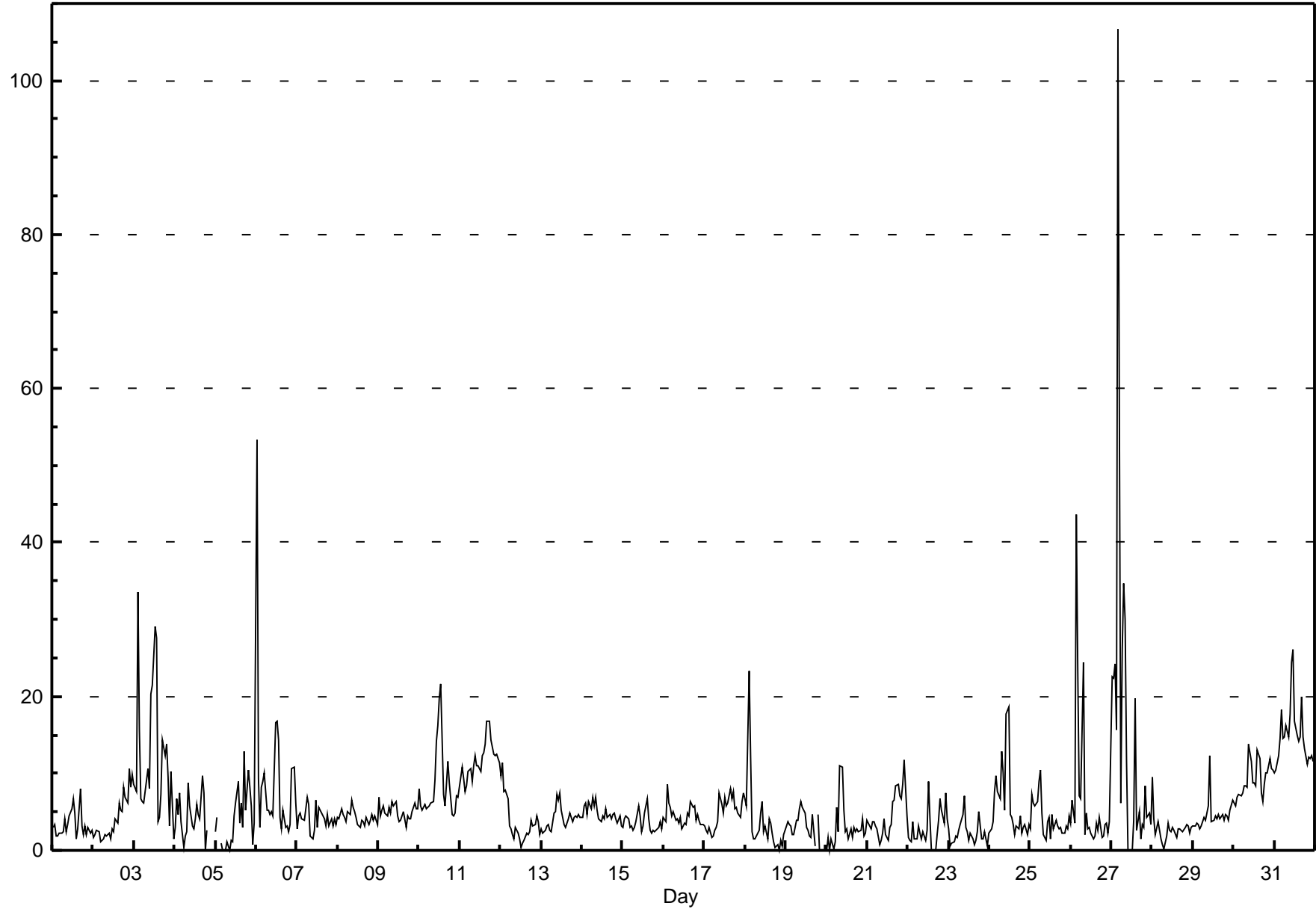


Hourly Maximums

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

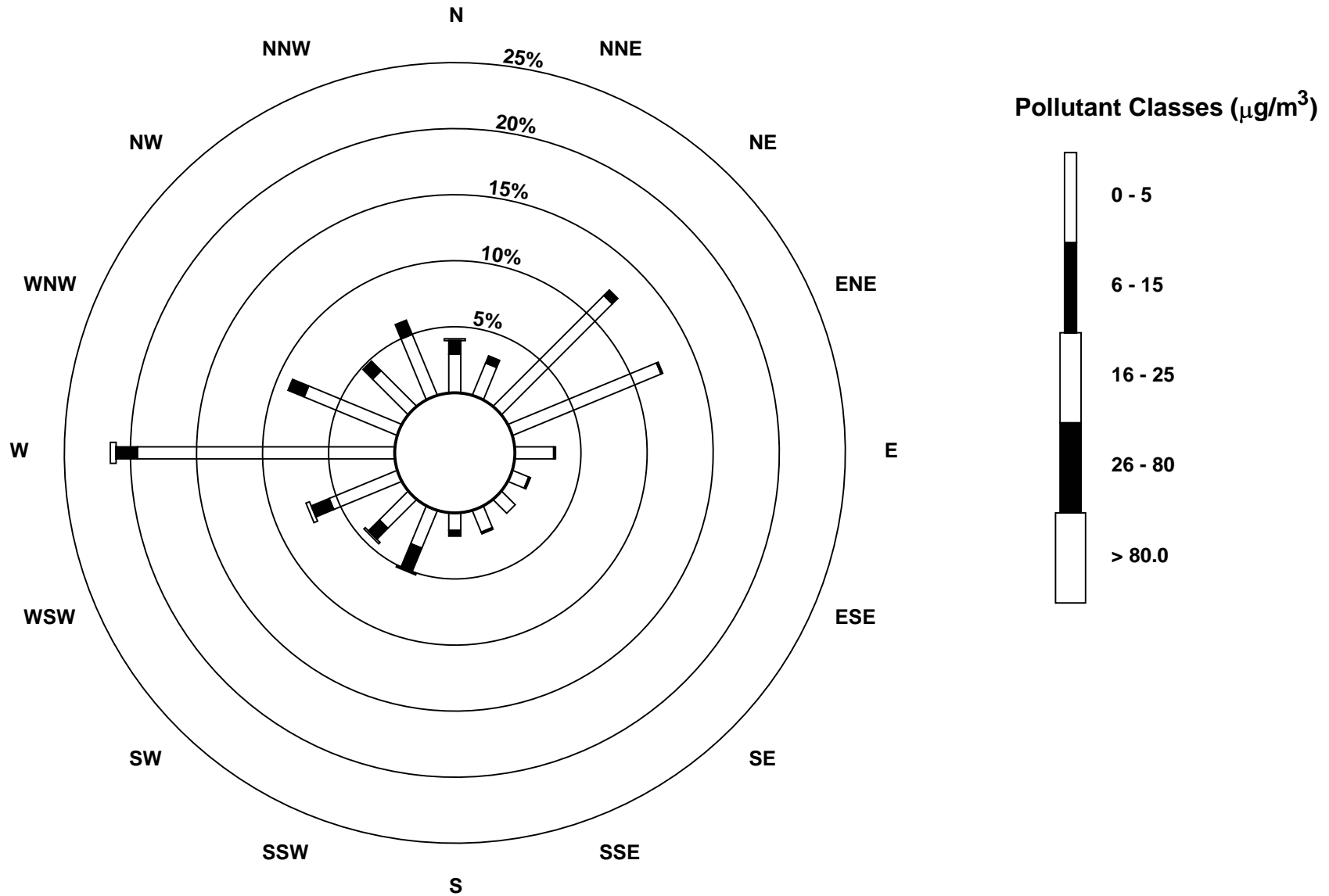
Evergreen Park - January 2011

Maximum Value: 106.6 µg/m ³ on Jan 27 05:00										Maximum Daily Average: 15.1 µg/m ³ on Jan 31										Hours in Service: 744						
Minimum Value: 0 µg/m ³ on Jan 4 19:00										Minimum Daily Average: 2.2 µg/m ³ on Jan 23										Hours of Data: 738						
Maximum Diurnal Average: 8.5 µg/m ³ at hour 5										Minimum Diurnal Average: 4.5 µg/m ³ at hour 6										Hours of Missing Data: 6						
Monthly Average: 5.80 µg/m ³										Percentiles: P ₁ = 0.0 P ₁₀ = 1.6 Q ₁ = 2.7 Median = 4.2 Q ₃ = 6.7 P ₉₀ = 11.5 P ₉₉ = 28.1										Hours of Calibration: 0						
																				Percent Operational Time: 99.2						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jan	3	3	2	2	2	2	2	4	2	3	5	5	7	5	1	3	8	3	2	3	2	3	2	3	3.3	7.9
2-Jan	2	2	3	2	1	1	2	2	2	2	1	3	2	4	4	6	5	5	8	7	6	11	8	10	4.2	10.6
3-Jan	9	8	34	16	7	6	6	9	11	8	20	21	29	28	4	4	7	14	12	14	10	3	10	2	12.1	33.6
4-Jan	3	7	5	7	4	0	2	2	9	6	3	3	4	6	5	4	10	7	0	3	N	N	N	N	4.5	9.7
5-Jan	3	4	BD	1	0	0	0	1	0	1	1	4	6	9	3	6	3	13	5	11	8	6	1	4	3.9	12.9
6-Jan	53	9	3	8	9	10	5	5	5	5	4	17	17	14	4	3	5	3	3	2	3	11	11	6	9.0	53.3
7-Jan	3	4	5	4	4	5	7	6	2	2	3	7	3	6	5	4	4	3	5	3	4	3	4	3	4.1	6.9
8-Jan	4	4	5	5	4	4	5	5	7	6	5	4	3	3	4	4	3	4	3	4	5	4	5	3	4.3	6.5
9-Jan	7	4	5	6	5	4	6	5	6	6	6	5	4	4	5	5	3	4	4	4	5	6	5	5	5.0	7.0
10-Jan	8	6	5	6	5	6	6	6	6	9	14	16	20	22	7	6	9	12	9	5	5	5	7	7	8.5	21.5
11-Jan	8	11	9	8	8	10	11	9	11	12	11	11	10	12	13	14	17	17	14	13	12	12	13	11	11.6	16.7
12-Jan	10	11	8	8	7	3	3	2	2	3	2	1	0	1	1	2	2	2	4	3	3	4	4	2	3.7	11.3
13-Jan	3	2	3	3	3	3	2	5	5	7	7	7	5	3	3	3	4	5	4	4	5	4	5	4	4.2	7.4
14-Jan	4	6	6	5	6	5	7	6	7	5	4	4	5	4	5	4	5	4	5	5	4	3	4	3	4.9	6.9
15-Jan	3	4	4	4	3	3	3	3	4	6	5	2	3	5	7	4	3	2	3	3	3	3	4	3	3.5	6.7
16-Jan	4	4	9	6	6	5	5	4	4	3	4	3	3	3	5	4	6	6	6	4	5	4	3	3	4.6	8.5
17-Jan	3	3	2	3	2	2	3	3	4	8	6	5	7	6	6	8	7	8	5	6	5	4	6	8	4.9	8.1
18-Jan	7	6	23	12	2	1	2	2	3	5	6	2	3	1	4	4	2	1	0	1	0	1	1	2	3.8	23.3
19-Jan	3	4	3	3	2	2	4	4	5	6	6	5	3	3	2	2	5	1	P	5	0	0	0	0	2.9	6.4
20-Jan	0	2	0	2	0	1	6	2	11	11	5	2	3	1	3	2	3	2	3	2	3	4	2	2	3.0	11.0
21-Jan	4	3	3	4	4	3	3	1	1	2	4	2	1	3	3	6	6	8	9	7	7	9	12	4	4.6	11.7
22-Jan	2	1	1	4	2	2	3	2	1	2	1	3	9	4	0	0	0	2	4	7	5	3	7	4	2.9	8.9
23-Jan	3	0	1	1	2	2	3	3	5	7	3	2	1	2	1	1	1	2	5	1	2	2	1	1	2.2	7.1
24-Jan	2	3	4	8	10	8	7	13	10	5	18	19	5	4	3	2	3	3	4	2	3	3	2	3	6.0	18.6
25-Jan	3	7	6	6	6	9	11	5	2	1	4	4	2	5	3	4	3	3	3	2	2	3	3	4	4.2	10.5
26-Jan	4	7	3	44	23	7	7	24	2	5	3	3	2	2	2	3	3	4	2	2	3	4	2	4	6.8	43.7
27-Jan	22	22	24	16	107	6	26	35	30	12	0	0	0	4	20	3	5	1	3	3	8	4	5	3	15.0	106.6
28-Jan	10	4	2	4	3	2	1	0	2	4	3	2	3	3	2	3	3	2	3	3	3	3	2	3	2.8	9.6
29-Jan	3	3	4	3	3	3	4	4	5	6	12	4	4	4	5	4	5	4	5	4	5	4	5	7	4.5	12.2
30-Jan	6	6	7	7	7	7	8	8	8	14	12	9	9	8	13	12	7	6	9	10	10	12	11	11	9.1	13.8
31-Jan	10	10	12	15	18	15	15	16	15	18	24	26	17	15	14	15	20	15	13	11	12	12	12	12	15.1	26.0
																								Diurnal Average		
																								Diurnal Maximum		
6.7 5.5 6.7 7.1 8.5 4.5 5.5 6.4 6.0 6.1 6.5 6.5 6.1 6.3 5.1 4.7 5.4 5.5 5.1 5.0 4.9 5.1 5.3 4.6 53.3 22.3 33.6 43.7 106.6 14.6 26.1 34.7 30.1 17.6 24.4 26.0 29.0 27.7 19.8 14.7 19.9 16.7 14.3 13.8 12.4 12.4 12.6 11.5																										
P - Power Failure			N - Not Valid			BD - Baseline Drift																				



Pollutant Rose

Particulate Matter 2.5 (PM_{2.5}) - μg/m³
Evergreen Park - January 2011

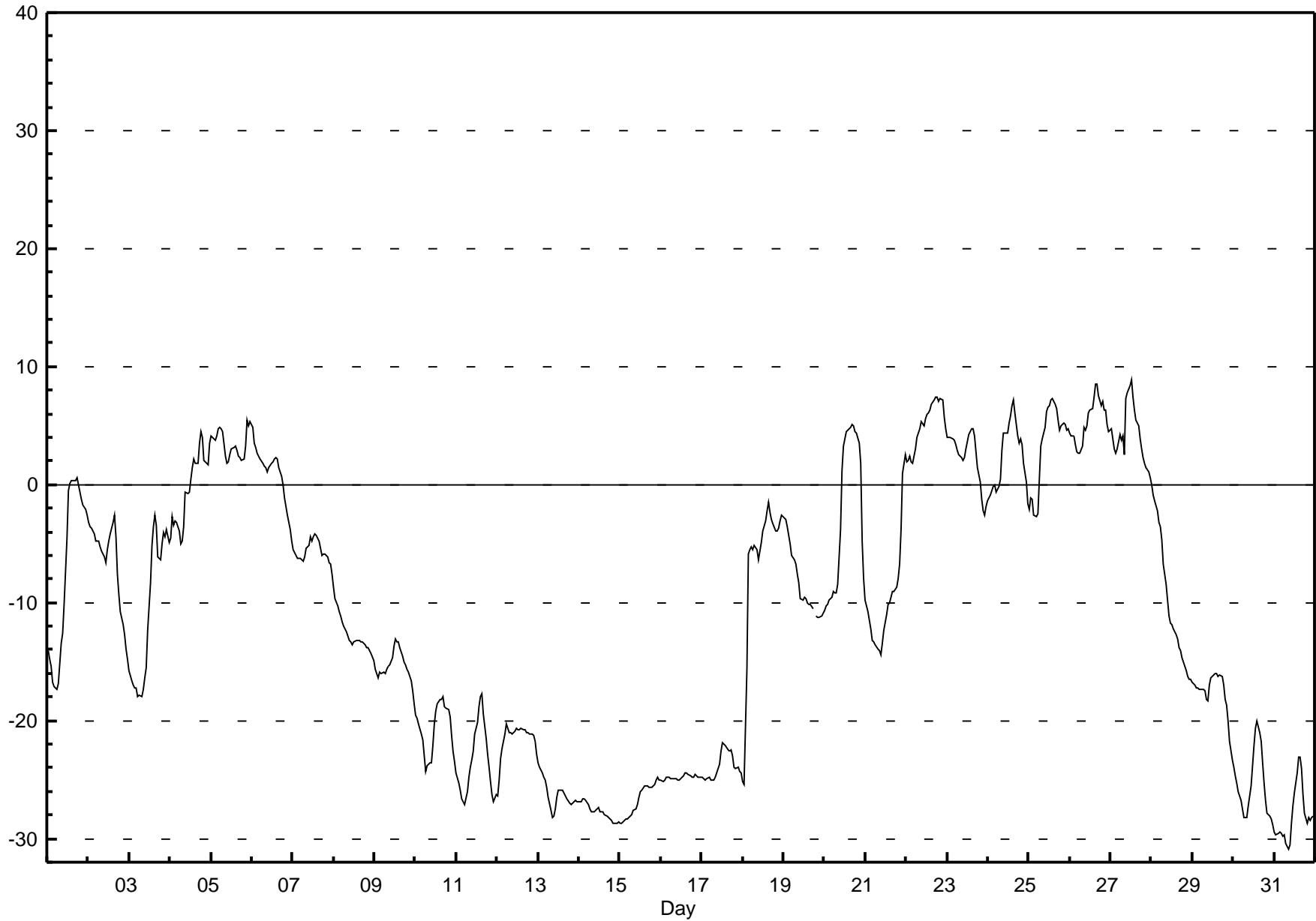


Hourly Averages

External Temperature (ET) - °C

Evergreen Park - January 2011

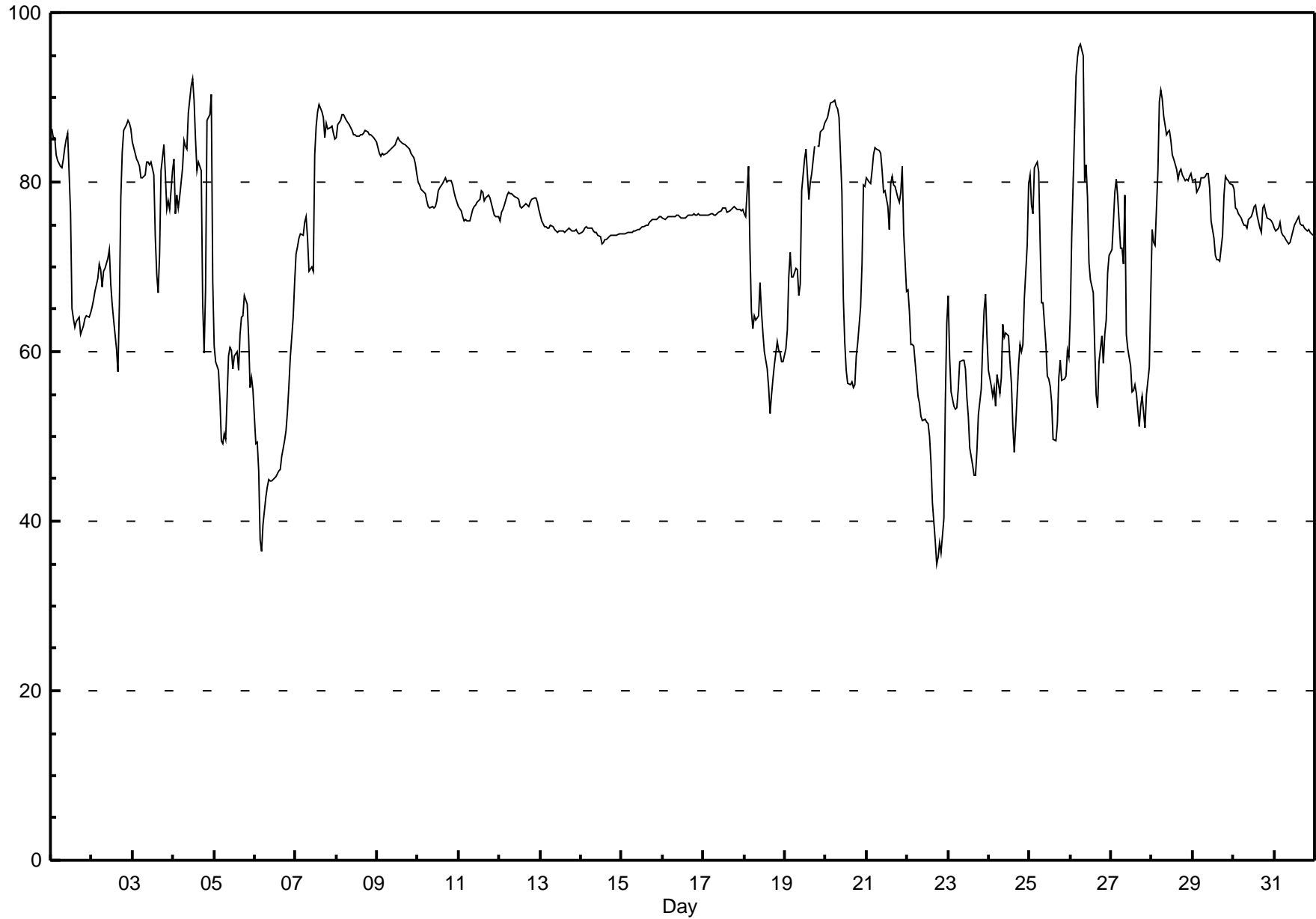
Number of Exceedences (AAQO):		1-hr: 0 24-hr: 0		Hours in Service: 744																																												
Maximum Value: 8.8 °C on Jan 27 13:00		Maximum Daily Average: 5.4 °C on Jan 26		Hours of Data: 743																																												
Minimum Value: -31 °C on Jan 31 09:00		Minimum Daily Average: -28.0 °C on Jan 31		Hours of Missing Data: 1																																												
Maximum Diurnal Average: -8.5 °C at hour 15		Minimum Diurnal Average: -12.1 °C at hour 7		Hours of Calibration: 0																																												
Monthly Average: -10.78 °C		Percentiles: P ₁ = -29.6 P ₁₀ = -26.8 Q ₁ = -22.6 Median = -10.5 Q ₃ = 1.1 P ₉₀ = 4.5 P ₉₉ = 7.4		Percent Operational Time: 99.9																																												
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum																						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																								
1-Jan	-14	-15	-15	-17	-17	-17	-17	-15	-13	-13	-10	-5	-1	0	0	0	0	1	0	-1	-1	-2	-2	-3	-7.3	0.6																						
2-Jan	-3	-4	-4	-4	-5	-5	-5	-5	-6	-6	-7	-6	-5	-4	-3	-3	-4	-8	-9	-11	-12	-13	-14	-15	-6.6	-2.6																						
3-Jan	-16	-17	-17	-17	-17	-18	-18	-18	-17	-16	-16	-12	-8	-5	-4	-3	-4	-6	-6	-5	-4	-4	-4	-5	-10.7	-2.5																						
4-Jan	-5	-3	-3	-3	-3	-4	-5	-5	-4	-1	-1	-1	0	1	2	2	2	4	5	4	2	2	2	3	-0.3	4.5																						
5-Jan	4	4	4	4	5	5	5	4	2	2	2	2	3	3	3	3	2	2	2	2	3	6	5	5	3.5	5.5																						
6-Jan	5	4	3	3	2	2	2	2	1	1	1	2	2	2	2	2	1	1	0	-1	-2	-3	-4	-5	1.0	4.8																						
7-Jan	-6	-6	-6	-6	-6	-6	-6	-6	-5	-5	-4	-5	-4	-4	-4	-5	-5	-6	-6	-6	-6	-7	-7	-8	-5.7	-4.2																						
8-Jan	-9	-10	-10	-11	-11	-12	-12	-13	-13	-13	-13	-14	-13	-13	-13	-13	-13	-13	-14	-14	-14	-14	-15	-15	-12.7	-8.7																						
9-Jan	-16	-16	-16	-16	-16	-16	-16	-16	-15	-15	-15	-14	-13	-13	-13	-13	-14	-15	-15	-16	-16	-17	-17	-19	-15.4	-13.1																						
10-Jan	-20	-20	-20	-21	-22	-23	-24	-24	-24	-24	-22	-20	-19	-19	-18	-18	-18	-19	-19	-19	-20	-21	-23	-23	-20.8	-18.0																						
11-Jan	-24	-25	-26	-27	-27	-27	-26	-25	-24	-23	-23	-21	-20	-19	-18	-18	-19	-21	-23	-24	-25	-26	-27	-26	-23.5	-17.7																						
12-Jan	-26	-25	-23	-22	-21	-20	-21	-21	-21	-21	-21	-21	-21	-21	-21	-21	-21	-21	-21	-21	-21	-21	-22	-23	-21.6	-20.2																						
13-Jan	-24	-24	-24	-25	-25	-26	-27	-28	-28	-28	-27	-27	-26	-26	-26	-26	-26	-27	-27	-27	-27	-27	-27	-27	-26.3	-23.6																						
14-Jan	-27	-27	-27	-27	-27	-27	-27	-28	-28	-28	-28	-27	-28	-28	-28	-28	-28	-28	-28	-29	-29	-29	-29	-29	-27.7	-26.6																						
15-Jan	-29	-29	-29	-28	-28	-28	-28	-28	-28	-27	-27	-26	-26	-26	-25	-26	-26	-26	-26	-26	-25	-25	-25	-25	-26.7	-24.8																						
16-Jan	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-24	-24	-25	-25	-25	-25	-25	-25	-25	-25	-24.8	-24.4																						
17-Jan	-25	-25	-25	-25	-25	-25	-25	-25	-25	-24	-24	-23	-22	-22	-22	-22	-23	-23	-23	-24	-24	-24	-24	-24	-23.9	-21.9																						
18-Jan	-25	-25	-16	-6	-5	-5	-6	-5	-5	-6	-6	-5	-4	-3	-2	-2	-3	-3	-4	-4	-4	-4	-3	-3	-6.4	-1.5																						
19-Jan	-3	-3	-4	-4	-5	-6	-6	-7	-8	-8	-10	-10	-10	-10	-10	-10	-10	-11	P	-11	-11	-11	-11	-11	-8.2	-2.8																						
20-Jan	-11	-10	-10	-10	-10	-9	-9	-9	-8	-4	1	3	4	4	5	5	5	5	5	4	4	2	-5	-8	-2.3	5.1																						
21-Jan	-10	-11	-12	-12	-13	-13	-14	-14	-14	-14	-13	-12	-11	-10	-10	-10	-9	-9	-9	-8	-7	-4	1	3	-9.8	2.6																						
22-Jan	2	2	2	2	2	3	4	4	4	5	5	5	6	6	6	7	7	7	7	7	7	7	6	5	5.1	7.5																						
23-Jan	4	4	4	4	4	3	3	3	2	2	2	3	4	4	5	5	4	3	1	0	-1	-2	-3	-2	2.3	4.8																						
24-Jan	-1	-1	-1	0	0	-1	0	0	3	4	4	4	5	6	7	7	6	4	3	4	3	2	0	-2	2.5	7.2																						
25-Jan	-2	-1	-1	-3	-3	-2	1	3	4	5	6	7	7	7	7	7	6	6	5	5	5	5	5	5	3.4	7.3																						
26-Jan	4	4	4	3	3	3	3	3	5	5	5	6	6	6	7	9	9	8	7	7	6	6	5	5	5.4	8.6																						
27-Jan	5	4	3	3	3	4	4	4	3	7	8	8	9	7	6	5	5	4	3	2	2	1	1	1	4.3	8.8																						
28-Jan	0	-1	-1	-2	-3	-4	-5	-7	-8	-10	-11	-12	-12	-12	-13	-13	-14	-14	-15	-15	-16	-17	-17	-17	-9.9	0.0																						
29-Jan	-17	-17	-17	-17	-17	-17	-17	-18	-18	-18	-17	-16	-16	-16	-16	-16	-16	-16	-16	-17	-18	-19	-20	-22	-23	-17.6	-16.0																					
30-Jan	-24	-25	-25	-26	-27	-28	-28	-28	-28	-27	-26	-24	-22	-21	-20	-21	-22	-24	-25	-27	-28	-28	-28	-29	-25.4	-20.1																						
31-Jan	-29	-30	-30	-29	-30	-30	-30	-30	-31	-31	-29	-27	-26	-24	-23	-23	-24	-26	-28	-29	-28	-28	-28	-28	-28.0	-23.0																						
																								-11.8	-12.0	-11.8	-11.8	-11.9	-12.1	-12.1	-12.1	-12.0	-11.5	-10.9	-10.0	-9.2	-8.8	-8.5	-8.5	-8.9	-9.6	-10.0	-10.4	-10.7	-11.0	-11.4	-11.8	Diurnal Average
																								4.8	4.2	4.1	4.1	4.8	4.9	4.7	4.5	4.9	7.2	7.8	8.4	8.8	7.4	7.4	8.5	8.6	7.6	7.4	7.0	7.3	7.1	5.7	5.3	Diurnal Maximum
P - Power Failure																																																



Hourly Averages

Relative Humidity (RH) - % Evergreen Park - January 2011

Number of Exceedences (AAQO): 1-hr: 0 24-hr: 0 Maximum Value: 96.3 % on Jan 26 07:00 Maximum Daily Average: 86.1 % on Jan 8		Hours in Service: 744 Hours of Data: 743 Hours of Missing Data: 1 Hours of Calibration: 0 Percent Operational Time: 99.9																									
Minimum Value: 35 % on Jan 22 18:00 Maximum Diurnal Average: 74.4 % at hour 4 Monthly Average: 72.26 %		Minimum Daily Average: 48.2 % on Jan 6 Minimum Diurnal Average: 68.2 % at hour 16 Percentiles: P ₁ = 39.6 P ₁₀ = 55.2 Q ₁ = 64.2 Median = 75.5 Q ₃ = 80.1 P ₉₀ = 85.2 P ₉₉ = 90.6																									
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	86	85	85	83	83	82	82	83	84	85	86	76	65	64	63	64	64	62	63	63	64	64	64	65	73.5	86.2	
2-Jan	65	66	67	69	70	70	68	70	70	71	72	68	66	64	60	58	66	78	84	86	87	87	87	86	72.2	87.2	
3-Jan	85	83	83	82	82	80	81	81	82	82	82	82	81	73	69	67	72	81	84	81	77	78	77	81	79.5	84.8	
4-Jan	83	76	78	77	78	82	85	84	84	88	91	92	90	85	81	82	81	66	60	67	87	88	90	68	81.1	92.3	
5-Jan	61	59	58	54	50	49	50	50	59	60	60	58	59	60	58	62	64	64	67	66	62	56	57	55	58.2	66.6	
6-Jan	49	49	46	38	36	40	43	44	45	45	45	45	45	46	46	46	48	50	51	53	56	59	64	68	48.2	68.2	
7-Jan	71	72	73	74	74	75	76	73	69	70	69	83	87	88	89	88	88	85	87	86	86	87	86	85	80.1	89.1	
8-Jan	85	87	87	88	88	88	87	87	86	86	86	86	85	85	86	86	86	86	86	86	86	85	85	85	86.1	88.0	
9-Jan	84	83	83	83	83	83	84	84	84	84	84	85	85	85	85	85	84	84	84	84	83	83	82	81	83.8	85.3	
10-Jan	80	80	79	79	79	78	77	77	77	77	77	78	79	79	80	80	81	80	80	80	80	79	78	78	78.8	80.5	
11-Jan	77	77	76	75	76	75	75	76	77	77	77	78	78	79	79	78	78	78	78	77	77	76	76	76	77.0	79.0	
12-Jan	75	76	77	77	78	79	79	79	78	78	78	78	77	77	77	78	77	77	78	78	78	78	78	77	77.6	78.9	
13-Jan	76	75	75	75	75	75	75	75	74	74	74	74	74	74	74	74	74	75	74	74	74	74	74	74	74.5	76.1	
14-Jan	74	74	75	75	75	75	75	74	74	74	74	74	73	73	73	73	74	74	74	74	74	74	74	74	73.9	74.7	
15-Jan	74	74	74	74	74	74	74	74	74	74	74	75	75	75	75	75	75	75	76	76	76	76	76	76	74.7	75.9	
16-Jan	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76.0	76.2	
17-Jan	76	76	76	76	76	76	76	76	76	76	77	77	77	77	76	77	77	77	77	77	77	77	77	77	76.5	77.2	
18-Jan	76	76	82	72	65	63	64	64	64	68	65	62	60	58	56	53	55	57	58	61	60	60	59	59	63.2	81.9	
19-Jan	60	63	69	72	69	69	70	70	67	68	79	83	84	81	78	80	81	84	P	84	84	86	86	87	76.2	87.0	
20-Jan	87	88	89	89	90	90	89	89	88	79	66	61	58	56	56	56	56	56	60	61	65	70	80	80	73.2	89.7	
21-Jan	80	80	80	81	83	84	84	84	83	81	79	79	77	74	80	81	80	79	78	78	79	82	74	67	79.5	84.0	
22-Jan	67	65	61	61	61	57	55	54	52	52	52	52	52	50	47	42	38	35	36	37	36	40	54	63	50.7	67.3	
23-Jan	67	59	55	54	53	53	56	59	59	59	58	55	52	49	47	45	45	48	52	56	61	65	67	62	55.6	66.7	
24-Jan	58	56	55	56	54	57	55	57	63	62	62	62	59	56	51	48	51	59	61	60	61	66	73	80	59.2	79.8	
25-Jan	81	77	76	82	82	81	73	66	66	61	57	57	56	54	50	49	52	57	59	57	57	57	60	59	63.6	82.4	
26-Jan	64	74	86	93	95	96	96	95	80	82	78	70	68	67	61	55	53	59	62	59	62	64	69	71	73.3	96.3	
27-Jan	72	75	79	80	78	72	72	70	78	62	60	58	55	55	56	55	51	54	55	53	51	55	58	67	63.5	80.4	
28-Jan	74	73	73	81	89	91	90	88	86	86	86	85	83	83	82	80	81	82	81	80	80	80	81	81	82.3	90.9	
29-Jan	80	80	79	79	80	81	81	81	81	81	79	75	73	71	71	71	71	74	78	81	80	80	80	80	77.8	81.1	
30-Jan	79	77	77	76	76	75	75	75	75	76	76	76	77	77	76	75	74	77	77	76	76	76	75	75	76.0	79.1	
31-Jan	74	74	75	75	74	74	74	73	73	73	74	74	75	76	76	75	75	75	75	74	74	74	74	74	74.3	75.9	
		74.2	73.8	74.2	74.4	74.2	74.1	74.0	73.7	73.8	73.2	72.7	72.1	71.0	69.9	68.8	68.2	68.6	69.8	70.3	71.0	71.8	72.7	73.9	73.7	Diurnal Average	
		87.3	87.6	88.5	92.6	94.8	95.9	96.3	95.0	87.6	88.1	91.4	92.3	89.6	88.3	89.1	88.3	87.7	86.0	86.9	86.2	87.2	88.0	90.3	87.0	Diurnal Maximum	
P - Power Failure																											





PASZA

Peace Air Shed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Evergreen Park - January 2011

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	1	0	1	0	1	0	1	1	1	1	2	1	8	9	12	12	13	14	14	15	15	16	14	15	6.5	15.6
Dir	95	133	102	155	198	142	211	211	139	185	200	345	297	300	291	286	271	278	279	283	281	287	293	282.4	281.4	
2 Spd	14	11	11	9	9	8	11	7	8	6	6	6	8	6	4	2	1	0	2	2	1	1	0	1	5.3	14.3
Dir	292	292	287	281	297	312	289	306	299	310	298	312	295	285	303	288	17	128	225	261	44	54	306	212	295.0	292.2
3 Spd	1	1	1	1	1	0	1	1	1	0	1	3	2	1	1	1	2	1	2	3	2	3	2	2	1.0	2.8
Dir	242	65	215	233	234	7	231	237	236	35	211	251	271	279	55	20	237	246	293	282	290	300	265	212	260.7	290.4
4 Spd	2	4	2	2	2	1	0	0	1	3	3	4	2	2	1	1	0	7	14	23	16	12	2	16	4.4	23.0
Dir	275	294	351	250	227	171	163	51	237	242	208	211	207	194	177	69	333	291	285	275	265	272	259	266	266.2	275.1
5 Spd	21	21	14	14	18	19	18	18	3	7	2	2	2	2	2	2	1	3	6	12	9	11	12	7.8	21.1	
Dir	275	271	263	270	266	268	277	271	12	303	277	268	141	160	154	176	146	155	195	212	221	252	234	278	261.6	271.0
6 Spd	29	31	24	28	34	34	23	26	26	23	24	22	24	21	21	19	16	16	12	7	3	0	2	0	19.0	33.7
Dir	280	275	272	265	266	269	279	272	272	271	274	276	276	274	274	274	274	272	270	253	247	107	62	179	272.2	268.9
7 Spd	0	0	1	2	1	1	1	3	2	4	5	6	7	9	10	10	9	9	6	8	5	8	8	10	5.1	10.3
Dir	111	300	96	60	30	356	1	47	79	68	87	76	68	57	57	60	57	56	53	53	48	44	45	46	56.0	59.5
8 Spd	11	8	6	6	6	7	6	8	8	5	7	9	10	8	7	7	7	5	4	5	6	6	4	3	6.1	11.0
Dir	40	37	21	16	8	1	360	349	352	14	349	339	343	341	339	332	336	333	329	331	332	336	322	321	352.4	39.8
9 Spd	1	1	1	1	1	1	2	1	1	1	1	1	1	2	1	3	3	1	2	2	1	1	0	0	0.3	3.0
Dir	276	64	330	188	215	160	220	233	233	206	296	251	234	65	65	67	78	77	73	63	80	99	218	34	97.0	66.5
10 Spd	0	0	1	1	1	0	0	0	0	1	1	1	2	3	2	1	1	1	1	1	1	0	0	0	0.6	2.8
Dir	218	77	65	310	201	86	60	83	229	347	339	270	5	351	11	10	342	328	35	36	76	34	251	67	4.2	351.4
11 Spd	1	0	1	0	0	1	1	1	2	2	3	2	2	3	2	2	2	1	1	1	0	1	1	0	0.9	2.7
Dir	213	240	359	11	66	214	209	189	200	200	204	206	209	272	257	281	279	50	235	219	336	192	302	15	231.7	271.7
12 Spd	1	3	0	1	5	7	8	5	3	3	2	5	7	7	4	4	4	5	4	5	6	6	7	7	3.4	8.3
Dir	199	212	35	39	63	71	73	71	84	75	56	40	42	38	49	50	36	40	31	346	337	337	338	339	33.8	72.7
13 Spd	6	6	7	6	5	3	2	1	2	2	3	3	5	5	5	6	5	5	5	4	3	4	4	5	2.8	6.9
Dir	308	318	331	310	318	310	297	297	332	318	341	353	66	57	61	67	64	52	53	51	50	44	46	43	14.6	331.2
14 Spd	3	2	1	1	1	2	3	3	1	3	4	4	6	5	5	5	5	6	4	4	4	5	5	4	2.8	6.2
Dir	40	53	97	167	50	266	300	313	324	72	81	70	73	65	62	69	71	66	66	75	75	68	70	74	63.0	73.2
15 Spd	4	5	4	3	3	2	2	2	1	2	2	1	1	3	1	3	3	3	4	3	4	3	2	4	2.2	4.7
Dir	73	63	65	71	67	68	87	97	103	73	80	153	197	238	159	25	50	70	69	58	64	59	48	50	68.1	63.4
16 Spd	3	4	3	2	4	3	4	2	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	3.8
Dir	51	46	49	55	52	46	29	53	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	45.7
17 Spd	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
Dir	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
18 Spd	N	N	N	17	15	17	18	18	16	5	10	15	15	15	16	21	20	19	18	17	16	17	17	22	16.2	22.0
Dir	N	N	N	270	276	271	264	262	260	282	283	268	274	272	275	272	268	269	262	252	251	259	259	271	266.8	271.2
19 Spd	21	14	12	10	10	8	3	5	7	5	6	6	3	4	4	3	2	1	P	5	5	6	6	5	2.5	20.9
Dir	273	294	331	338	343	348	344	327	2	50	66	57	30	41	65	95	81	98	P	127	125	126	128	125	359.8	272.8
20 Spd	4	2	3	1	3	2	3	2	3	14	25	23	28	28	27	24	21	20	19	18	7	3	7	6	10.3	27.8
Dir	129	113	125	218	238	259	262	249	272	262	264	270	267	266	264	267	274	272	270	270	301	346	67	79	268.3	267.1
21 Spd	5	5	3	1	1	3	3	2	2	3	2	4	2	2	2	2	4	4	3	3	2	3	7	14	1.1	14.0
Dir	71	64	65	25	22	69	84	76	77	50	48	70	73	122	32	301	272	259	317	324	2	32	270	263	9.4	262.9
22 Spd	12	13	17	18	18	21	29	28	25	22	14	19	19	20	18	17	22	31	28	17	23	25	32	30	21.3	31.9
Dir	260	259	255	258	255	268	270	271	272	269	236	254	265	261	251	253	259	258	259	265	268	263	259	255	261.0	259.2

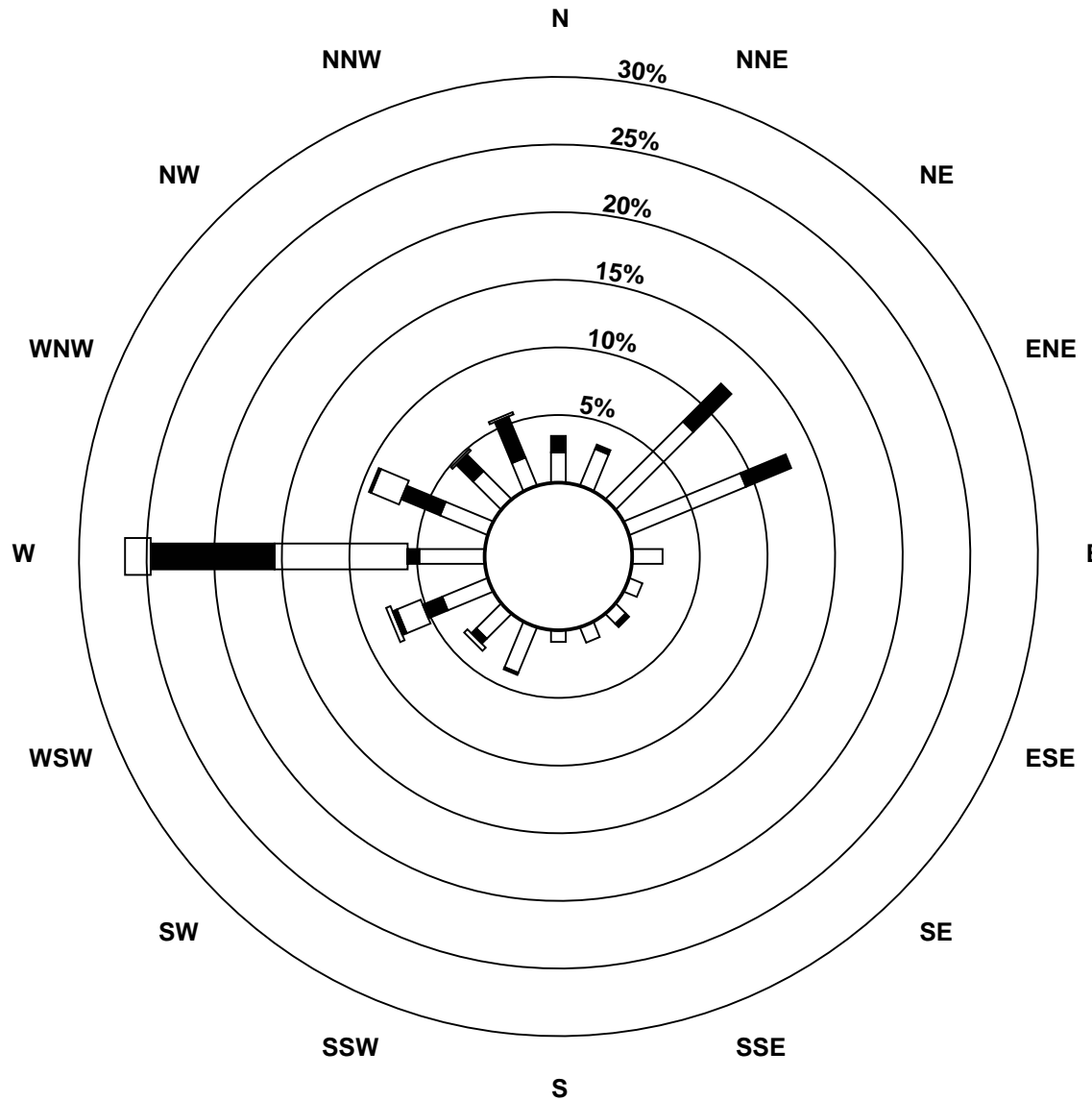
Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Evergreen Park - January 2011

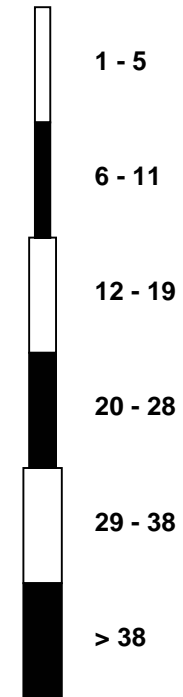
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
23 Spd	29	27	26	27	25	24	20	22	21	20	20	21	19	18	14	12	10	5	6	3	1	1	1	1	15.2	28.7	
Dir	260	268	269	269	266	267	269	274	276	273	273	275	273	275	278	273	261	259	258	254	235	105	86	135	269.4	260.4	
24 Spd	3	3	2	2	1	2	3	10	17	17	13	14	17	12	13	10	6	1	6	5	3	2	1	0	5.9	17.3	
Dir	178	186	123	230	238	270	248	259	268	269	276	276	276	283	280	298	306	53	258	288	271	46	203	137	272.4	269.4	
25 Spd	2	4	0	1	1	0	8	11	14	22	29	29	15	7	12	13	12	2	1	2	7	4	5	4	8.2	28.7	
Dir	205	216	101	181	213	207	251	254	254	260	264	264	263	269	267	265	265	269	37	224	230	275	260	260	259.1	264.2	
26 Spd	1	4	1	1	1	3	1	6	11	2	8	6	5	7	16	17	26	11	10	15	5	4	1	2	6.2	26.3	
Dir	291	260	194	97	195	216	38	231	258	270	249	254	283	261	266	283	271	291	284	271	274	265	53	152	268.2	271.2	
27 Spd	1	1	1	1	5	3	0	1	3	21	24	19	17	19	22	24	23	29	29	27	26	21	13	12	13.5	29.4	
Dir	168	92	111	158	211	205	178	238	232	248	248	253	262	277	291	275	275	260	268	274	274	280	295	289	267.6	267.6	
28 Spd	13	11	11	11	11	10	9	10	10	9	11	9	9	8	8	8	8	7	7	7	6	6	7	6	6.4	13.2	
Dir	312	310	318	339	339	339	45	69	64	63	55	59	56	56	56	52	56	52	62	55	50	53	51	55	31.2	311.9	
29 Spd	5	5	6	5	5	3	3	1	0	0	1	3	4	4	4	2	1	1	1	0	1	0	1	1	2.3	5.6	
Dir	46	42	44	40	49	40	44	51	48	310	356	359	4	31	35	37	23	72	64	54	122	21	2	21	37.3	44.3	
30 Spd	1	1	1	1	1	1	1	1	1	2	1	2	2	2	3	3	3	2	1	0	0	1	1	2	0.9	3.2	
Dir	278	307	321	293	299	301	285	276	314	310	336	258	271	247	19	35	48	26	350	299	298	292	296	324	323.9	35.1	
31 Spd	1	2	2	1	2	2	2	3	1	1	0	1	1	2	3	4	3	2	2	2	2	0	1	0	1.2	3.8	
Dir	307	325	339	304	292	339	239	249	355	316	248	269	0	355	336	351	37	347	298	306	304	20	170	199	322.4	350.6	
Spd	4.2	4.1	3.2	4.1	4.1	4.2	4.0	4.6	4.5	4.7	5.1	5.4	5.2	4.8	5.0	4.9	4.9	4.4	4.9	4.6	3.8	3.1	2.6	3.3	Diurnal Average		
Dir	284.1	286.4	293.0	282.8	281.4	284.8	282.2	276.3	278.6	275.2	270.3	276.2	283.4	287.1	288.3	289.7	283.4	280.9	277.6	277.9	276.2	289.3	283.8	283.2	Diurnal Maximum		
Spd	29.1	30.5	25.7	28.0	33.6	33.7	29.0	28.2	25.8	23.1	28.6	28.7	27.8	27.6	27.1	24.3	26.3	30.5	29.4	26.9	26.4	25.0	31.9	29.5	Diurnal Maximum		
Dir	279.8	274.8	269.2	264.5	266.4	268.9	270.2	270.8	272.0	270.7	264.0	264.2	267.1	266.5	264.5	275.0	271.2	257.6	267.6	274.2	274.1	263.2	259.2	254.5	Diurnal Maximum		
Maximum Speed Value: 34 km/h on Jan 6 06:00																		Minimum Speed Value: 0 km/h on Jan 11 05:00						Hours in Service:		744	
Maximum Daily Speed Average: 21.3 km/h on Jan 22																		Minimum Daily Speed Average: 0.3 km/h on Jan 10						Hours of Data:		700	
Maximum Diurnal Speed Average: 5.4 km/h at hour 12																		Minimum Diurnal Speed Average: 2.6 km/h at hour 23						Hours of Missing Data:		44	
Monthly Average Velocity: 4.31 km/h 281.83 deg																		Speed Percentiles: P ₁ = 0.2 P ₁₀ = 0.7 Q ₁ = 1.5 Median = 3.7 Q ₃ = 9.9 P ₉₀ = 19.3 P ₉₉ = 29.3						Percent Operational Time:		94.1	
All monthly, daily, and diurnal averages have been calculated using vector methods																											
P - Power Failure N - Not Valid																											
Frequency Distribution																											
		Speed Range (km/h)																									
Direction	0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total																				
North	42	20	1	0	0	0	63																				
NorthEast	94	47	0	0	0	0	141																				
East	56	10	0	0	0	0	66																				
SouthEast	20	4	0	0	0	0	24																				
South	32	0	0	0	0	0	32																				
SouthWest	59	4	3	0	0	0	66																				
West	51	21	80	58	15	0	225																				
NorthWest	51	25	7	0	0	0	83																				
Total	405	131	91	58	15	0	700																				

Wind Rose

Wind Speed (WS) (km/h)
Evergreen Park - January 2011



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Evergreen Park - January 2011

Maximum Speed: 34 km/h on Jan 6 06:00	Maximum Daily Speed Average: 21.6 km/h on Jan 22	Hours in Service: 744
Minimum Speed: 1 km/h on Jan 11 04:00	Minimum Daily Speed Average: 1.3 km/h on Jan 10	Hours of Data: 700
Maximum Diurnal Speed Average: 8.6 km/h at hour 15	Minimum Diurnal Speed Average: 6.0 km/h at hour 3	Hours of Missing Data: 44
Monthly Average Speed: 7.25 km/h	Percentiles: P ₁ = 0.8 P ₁₀ = 1.1 Q ₁ = 1.9 Median = 4.0 Q ₃ = 10.1 P ₉₀ = 19.5 P ₉₉ = 29.4	Percent Operational Time: 94.1

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	1	1	1	1	1	1	1	1	1	1	2	4	8	9	13	12	14	14	14	15	15	16	15	15	7.4	15.7
2-Jan	14	11	11	10	9	8	11	8	8	6	6	6	8	7	5	2	1	1	2	2	1	1	1	1	5.9	14.5
3-Jan	1	2	2	2	1	1	1	1	2	1	2	3	2	1	1	2	2	2	1	2	3	3	3	2	1.8	3.0
4-Jan	2	4	2	2	2	2	1	1	2	4	3	4	3	2	1	1	1	8	14	23	16	12	2	16	5.4	23.2
5-Jan	21	21	14	14	18	19	18	18	4	8	2	3	2	2	3	3	3	3	3	6	12	10	11	13	9.6	21.2
6-Jan	29	31	24	28	34	34	23	26	26	23	24	22	24	21	21	19	16	16	12	7	3	1	2	2	19.5	33.9
7-Jan	1	2	1	2	2	2	2	3	3	4	5	6	7	9	10	10	9	9	6	8	6	8	9	10	5.5	10.4
8-Jan	11	9	6	6	6	7	7	8	8	5	7	9	10	9	8	7	7	5	5	5	6	6	4	3	6.8	11.1
9-Jan	2	1	1	1	1	1	2	1	1	1	1	1	1	2	2	3	3	1	2	2	1	1	1	1	1.5	3.1
10-Jan	1	1	1	1	2	1	1	1	1	1	1	1	2	3	3	2	1	1	1	1	1	1	1	1	1.3	2.9
11-Jan	1	1	1	1	1	1	1	1	2	2	3	2	2	3	2	2	3	1	1	2	1	1	2	1	1.6	2.9
12-Jan	2	3	1	1	5	7	9	5	3	3	2	6	7	7	4	4	5	5	4	5	6	6	8	8	4.8	8.6
13-Jan	6	7	7	6	5	3	2	1	3	3	3	3	6	5	5	6	5	5	5	4	4	4	5	5	4.4	7.1
14-Jan	3	2	1	1	1	2	3	3	1	3	4	5	6	5	5	5	5	6	4	4	5	5	5	4	3.7	6.4
15-Jan	4	5	4	3	3	2	2	2	1	3	2	2	2	3	3	4	3	3	4	4	4	3	3	4	3.0	4.8
16-Jan	3	4	3	2	4	3	4	2	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	4.0
17-Jan	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
18-Jan	N	N	N	17	15	18	18	18	16	6	10	15	15	15	16	21	20	19	18	17	16	17	17	22	16.4	22.1
19-Jan	21	14	12	10	10	8	3	5	7	6	7	6	3	5	4	3	2	2	P	5	5	6	6	6	6.8	21.0
20-Jan	4	2	3	3	3	3	3	2	3	14	25	23	28	28	27	24	21	20	19	18	9	5	7	6	12.6	28.0
21-Jan	6	6	4	2	1	3	3	3	3	4	3	5	3	3	3	4	4	4	4	4	3	4	8	14	4.0	14.1
22-Jan	12	13	17	18	18	21	29	28	25	22	14	20	19	20	18	17	22	31	28	17	23	25	32	30	21.6	32.1
23-Jan	29	27	26	27	25	24	21	22	21	20	20	21	20	18	14	12	10	6	6	3	1	2	2	2	15.7	28.8
24-Jan	3	3	4	2	2	4	5	10	17	17	13	14	17	12	13	11	7	2	6	5	3	3	2	1	7.3	17.4
25-Jan	3	4	1	2	2	2	8	11	14	22	29	29	15	7	12	13	12	3	2	2	7	4	5	4	8.9	28.8
26-Jan	2	5	2	1	2	3	1	6	11	3	8	6	5	8	16	17	26	13	11	15	5	5	1	2	7.3	26.4
27-Jan	2	3	2	2	5	4	1	2	4	21	24	19	17	19	22	24	23	29	30	27	27	21	14	12	14.8	29.5
28-Jan	14	12	12	11	11	10	10	10	10	9	11	9	9	9	8	8	8	7	7	7	6	6	7	6	9.0	13.8
29-Jan	5	5	6	5	5	3	3	2	1	1	2	3	3	4	4	4	3	1	1	1	1	1	1	1	2.7	5.8
30-Jan	1	1	1	1	1	1	2	2	1	2	1	2	2	2	3	3	3	2	1	1	1	2	2	2	1.6	3.4
31-Jan	1	2	2	2	2	2	2	3	1	2	1	2	1	3	3	4	3	2	2	2	2	1	1	1	1.9	3.9
	7.1	6.9	6.0	6.2	6.5	6.6	6.5	7.0	7.0	7.5	8.1	8.5	8.5	8.3	8.6	8.6	8.3	7.6	7.6	7.4	6.6	6.1	6.0	6.7	Diurnal Average	
	29.4	30.7	25.9	28.4	33.7	33.9	29.1	28.4	26.0	23.2	28.7	28.8	28.0	27.8	27.2	24.5	26.4	30.7	29.5	27.0	26.5	25.1	32.1	29.8	Diurnal Maximum	

P - Power Failure N - Not Valid
 All monthly, daily, and diurnal averages have been calculated using scalar methods

Hourly Standard Deviations

Wind Direction (WD) - deg
Evergreen Park - January 2011

Maximum Value: 99.8 deg on Jan 25 06:00																								Hours in Service: 744	
Minimum Value: 3.6 deg on Jan 22 04:00																								Hours of Data: 700	
Percentiles: P ₁ = 4.6 P ₁₀ = 5.9 Q ₁ = 11.2 Median = 19.0 Q ₃ = 44.6 P ₉₀ = 70.9 P ₉₉ = 90.2																								Hours of Missing Data: 44	
																								Hours of Calibration: 0	
																								Percent Operational Time: 94.1	
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	58	72	71	74	49	85	48	27	51	63	48	76	15	19	22	13	16	10	7	10	7	7	9	8	84.9
2-Jan	8	11	10	12	13	12	11	14	11	14	15	18	19	14	27	33	39	72	40	60	32	70	79	97	96.7
3-Jan	83	90	85	81	62	78	55	52	68	90	18	15	16	71	58	41	70	25	33	28	7	27	36	30	90.3
4-Jan	30	15	48	19	25	67	67	89	83	52	18	7	16	36	38	56	88	28	11	6	7	8	34	10	89.5
5-Jan	4	5	5	8	7	7	9	20	38	36	53	70	49	31	26	27	63	68	21	17	11	16	12	26	69.5
6-Jan	8	7	5	9	6	6	8	5	7	5	6	6	5	5	6	6	6	5	7	15	57	93	52	84	93.2
7-Jan	90	86	69	13	21	31	80	13	30	9	17	17	11	11	10	11	10	12	15	13	20	12	13	11	90.4
8-Jan	10	13	22	19	20	13	18	9	12	21	14	10	9	12	19	17	13	12	14	14	11	12	16	19	21.6
9-Jan	40	66	63	49	41	60	16	37	20	19	37	32	28	52	48	19	15	24	15	19	32	61	93	89	92.6
10-Jan	91	87	62	57	81	89	72	89	88	67	45	72	37	17	26	52	43	78	23	33	79	87	81	88	90.6
11-Jan	74	71	53	62	98	20	24	24	21	17	11	15	15	31	25	29	50	52	80	87	62	75	80	91	97.6
12-Jan	69	50	89	63	13	12	15	16	19	19	41	18	10	12	15	16	17	14	18	23	10	12	12	12	88.8
13-Jan	16	16	15	15	15	17	18	29	21	44	21	27	29	24	18	17	17	16	13	16	16	15	16	15	43.7
14-Jan	22	43	63	51	50	19	25	14	47	19	20	20	16	19	17	18	18	12	17	21	21	13	16	18	62.7
15-Jan	17	15	14	16	16	25	38	30	47	58	58	62	60	28	81	27	35	21	21	18	18	22	24	18	81.1
16-Jan	36	19	25	23	21	25	22	24	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	36.1
17-Jan	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--
18-Jan	N	N	N	6	6	6	4	5	7	25	15	6	6	5	5	6	5	5	9	6	6	5	7	5	25.0
19-Jan	6	21	12	11	10	12	27	19	19	20	15	13	29	22	23	22	30	27	P	13	17	16	14	14	30.0
20-Jan	18	36	19	66	13	24	17	16	34	28	6	5	6	5	5	5	6	5	5	6	47	50	19	20	65.6
21-Jan	34	22	32	48	38	18	23	24	28	31	38	22	66	67	47	88	39	18	43	33	60	36	52	5	88.0
22-Jan	8	5	5	4	4	6	5	5	5	15	8	7	8	8	9	8	6	6	7	7	6	6	6	7	14.8
23-Jan	5	6	5	5	5	5	6	5	5	5	5	6	5	6	5	6	5	14	7	36	65	43	53	58	64.7
24-Jan	22	45	63	31	56	67	70	8	6	5	7	8	5	8	8	20	33	66	27	33	25	75	62	88	88.1
25-Jan	76	14	86	67	81	100	21	8	5	4	5	4	6	10	16	6	5	68	77	15	16	18	14	28	99.8
26-Jan	72	63	84	64	74	62	60	22	6	75	6	18	13	30	5	12	6	31	21	7	30	21	63	45	84.3
27-Jan	49	78	74	68	18	29	94	71	61	6	6	8	8	7	10	6	7	6	6	5	5	6	16	10	93.7
28-Jan	16	15	17	13	11	11	21	10	11	12	10	13	14	12	12	14	14	14	12	13	11	10	9	15	20.5
29-Jan	13	14	12	16	16	18	13	16	82	80	80	31	17	26	26	20	33	26	17	19	77	66	69	49	81.8
30-Jan	50	52	19	36	39	45	39	42	57	40	41	31	40	19	45	21	11	15	61	73	88	32	18	19	87.9
31-Jan	33	29	31	45	48	33	31	27	72	48	62	46	45	37	34	11	12	36	23	25	25	79	67	77	79.2
90.6	90.3	88.8	80.9	97.6	99.8	93.7	89.5	87.9	89.9	80.2	75.8	66.2	71.2	81.1	88.0	87.8	78.1	79.7	87.1	87.9	93.2	92.6	96.7		
P - Power Failure N - Not Valid																									

PASZA
Smoky Heights Station
Monthly Summary Tables, Graphs and
Roses

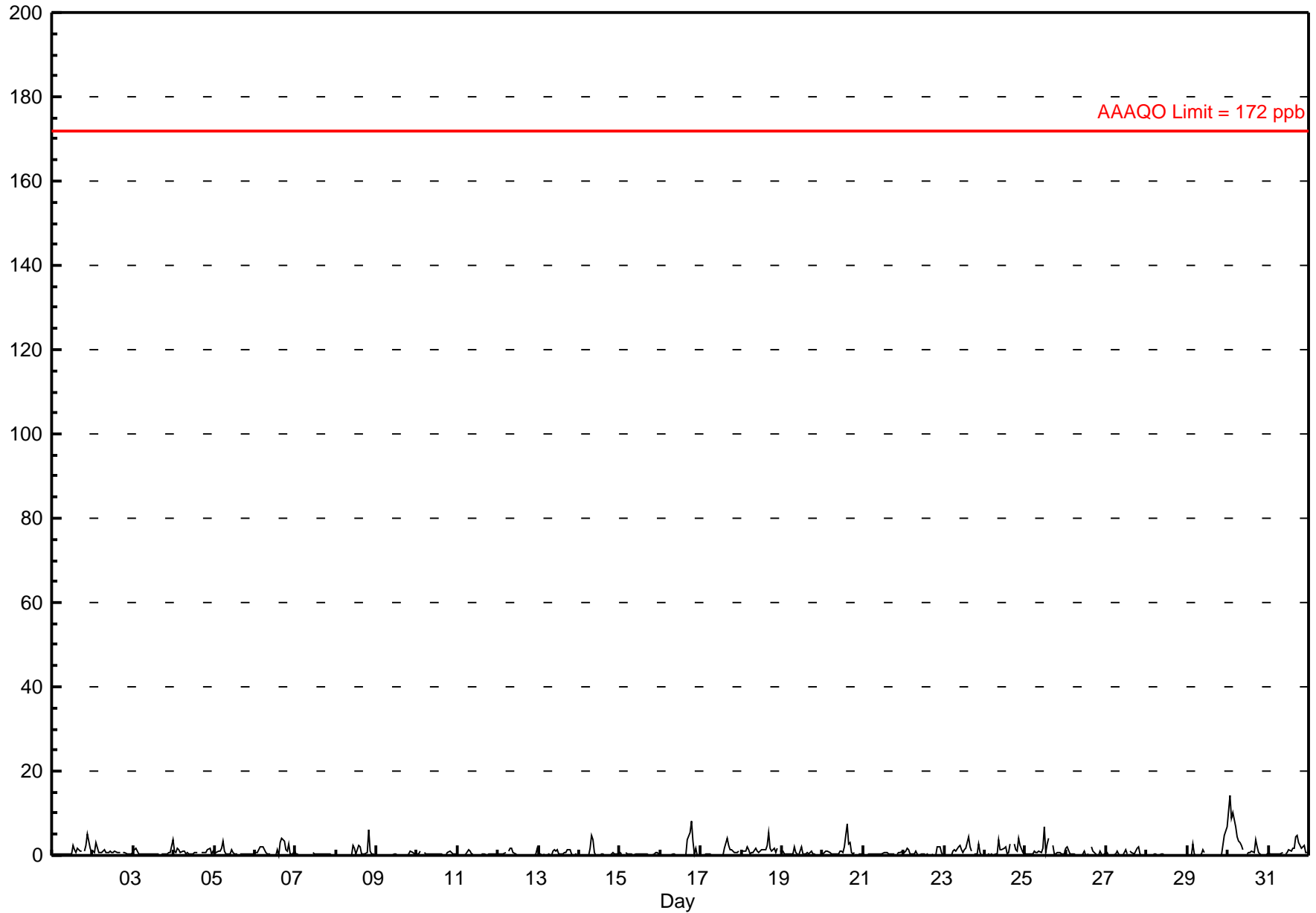
Hourly Averages

Sulphur Dioxide (SO₂) - ppb Smoky Heights - January 2011

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 14.3 ppb on Jan 30 02:00	Maximum Daily Average: 3.3 ppb on Jan 30		Hours of Data:	707
Minimum Value: 0 ppb on Jan 6 13:00	Minimum Daily Average: 0.1 ppb on Jan 28		Hours of Missing Data:	37
Maximum Diurnal Average: 1.2 ppb at hour 17	Minimum Diurnal Average: 0.5 ppb at hour 10		Hours of Calibration:	37
Monthly Average: 0.81 ppb	Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.2 Median = 0.4 Q ₃ = 0.9 P ₉₀ = 1.9 P ₉₉ = 6.3		Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jan	0	0	0	0	0	0	0	0	0	0	0	1	2	1	1	2	1	1	A	1	2	5	2	1	1.0	5.2
2-Jan	1	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0	0	0	0	0.8	3.0
3-Jan	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	0	1	1	1	4	0.7	3.9
4-Jan	1	1	2	1	1	1	1	0	1	0	0	0	1	1	1	A	1	1	1	1	1	2	0	1	0.9	1.8
5-Jan	0	1	1	1	2	4	1	0	0	0	1	1	0	0	A	0	0	0	0	0	0	0	0	0	0.7	3.5
6-Jan	1	1	2	2	2	2	1	0	0	0	C	C	0	1	0	3	4	3	2	1	3	0	0	1	1.3	4.0
7-Jan	0	0	0	0	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
8-Jan	0	0	0	0	0	A	0	0	0	0	2	2	0	2	2	0	0	0	1	6	1	0	0	0	0.8	6.1
9-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0.2	1.0
10-Jan	0	0	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0.4	1.1
11-Jan	0	0	A	0	0	0	1	1	0	0	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0.4	1.3
12-Jan	0	0	0	0	1	A	1	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0.4	1.7
13-Jan	1	0	0	0	A	0	0	0	1	1	1	1	0	0	0	1	1	1	1	0	0	0	0	0	0.5	1.4
14-Jan	0	0	0	A	0	0	2	5	4	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.6	4.7
15-Jan	1	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0.3	0.7
16-Jan	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	6	8	3	0	2	0	0	1.1	8.0
17-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4	2	1	1	1	1	1	1	A	0.7	4.1
18-Jan	1	1	1	2	2	0	1	1	2	1	1	1	1	1	2	5	2	1	2	1	2	1	2	1	1.4	5.3
19-Jan	1	1	0	0	0	0	0	2	1	0	0	2	0	0	0	1	0	1	0	0	0	A	A	0	0.5	2.1
20-Jan	0	1	1	1	1	1	0	0	0	0	1	1	1	2	7	3	3	1	0	1	A	0	0	0	1.1	7.4
21-Jan	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	A	0	1	1	1	0.4	1.0
22-Jan	1	1	2	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	A	0	2	2	1	0	0.6	1.9
23-Jan	0	0	0	0	0	1	1	1	2	2	1	1	1	2	4	2	1	A	0	0	3	1	0	0	1.1	4.4
24-Jan	0	0	0	0	0	0	0	0	4	1	2	2	2	0	1	3	A	3	2	1	4	2	1	1	1.2	4.1
25-Jan	1	0	0	0	0	1	1	1	1	1	2	7	1	3	4	A	2	0	0	1	1	0	0	0	1.2	6.7
26-Jan	2	2	0	0	0	0	0	0	0	0	0	1	0	0	A	2	1	1	0	0	1	0	0	0	0.5	2.1
27-Jan	1	0	0	0	0	0	1	0	0	0	0	1	0	A	1	1	0	1	2	2	0	0	0	0	0.5	1.9
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	0.1	0.3
29-Jan	0	0	0	3	0	0	0	0	0	0	1	1	A	0	0	0	0	0	0	0	0	2	5	7	0.9	6.7
30-Jan	10	14	9	10	7	4	3	3	2	2	A	0	1	1	1	1	4	2	1	0	0	0	0	0	3.3	14.3
31-Jan	1	0	0	0	0	0	0	0	1	A	0	1	1	1	2	2	4	5	3	2	2	2	1	1	1.3	4.7
	0.8	0.9	0.9	0.9	0.7	0.6	0.6	0.7	0.8	0.5	0.6	0.9	0.6	0.7	1.1	1.0	1.2	1.1	0.9	0.9	0.9	0.9	0.5	0.7	Diurnal Average	
	10.4	14.3	8.9	10.1	6.6	4.4	3.4	4.7	3.7	2.3	2.4	6.7	2.5	2.7	7.4	4.1	5.3	5.5	8.0	6.1	4.1	5.2	4.8	6.7	Diurnal Maximum	

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



Hourly Maximums

Sulphur Dioxide (SO₂) - ppb Smoky Heights - January 2011

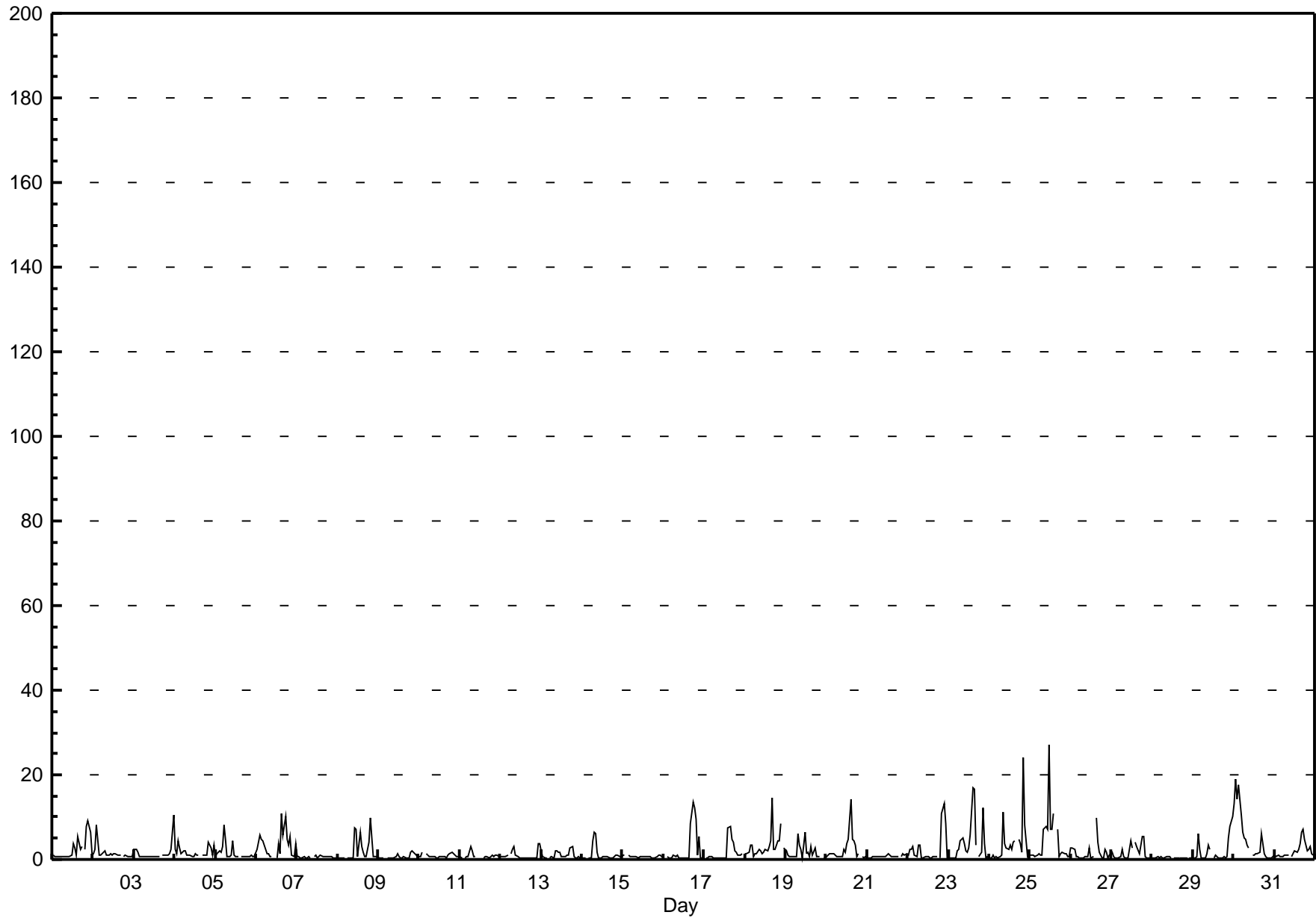
Maximum Value: 27.1 ppb on Jan 25 12:00	Maximum Daily Average: 5.1 ppb on Jan 30	Hours in Service: 744
Minimum Value: 0 ppb on Jan 28 22:00	Minimum Daily Average: 0.4 ppb on Jan 28	Hours of Data: 707
Maximum Diurnal Average: 3.2 ppb at hour 21	Minimum Diurnal Average: 1.3 ppb at hour 6	Hours of Missing Data: 37
Monthly Average: 1.96 ppb	Percentiles: P ₁ = 0.2 P ₁₀ = 0.4 Q ₁ = 0.5 Median = 0.8 Q ₃ = 2.0 P ₉₀ = 4.8 P ₉₉ = 13.5	Hours of Calibration: 37
		Percent Operational Time: 100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jan	1	1	1	1	1	1	1	1	1	1	1	1	4	3	1	5	2	3	A	2	8	9	6	1	2.3	9.3	
2-Jan	1	2	8	1	1	1	2	2	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1.5	8.1	
3-Jan	3	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	2	11	1.5	10.5	
4-Jan	2	1	4	3	1	2	2	1	1	1	1	1	1	1	1	A	1	1	1	1	4	3	1	4	1.7	4.2	
5-Jan	1	1	2	2	3	8	5	1	1	1	4	1	1	1	A	1	1	1	1	1	1	1	1	1	1.6	8.1	
6-Jan	2	4	6	5	4	3	1	1	1	1	C	C	0	4	1	11	6	10	5	3	6	1	1	4	3.6	10.7	
7-Jan	1	1	0	0	1	0	0	1	0	A	1	1	0	1	1	1	1	1	1	1	1	0	0	0	0.6	0.9	
8-Jan	0	0	0	0	0	A	0	0	0	0	7	7	1	6	3	2	1	1	4	10	5	1	1	1	2.2	10.0	
9-Jan	0	0	0	0	A	0	0	0	0	0	1	1	1	0	0	1	0	0	0	2	2	1	1	0	0.6	1.9	
10-Jan	1	1	2	A	1	1	1	1	1	1	0	0	1	1	1	1	0	1	1	2	1	1	1	1	0.8	1.8	
11-Jan	1	0	A	0	1	1	3	2	1	1	C	C	C	C	0	1	1	1	1	1	1	1	1	1	0.9	3.1	
12-Jan	1	1	1	1	1	A	1	2	3	1	1	0	0	0	0	0	0	0	0	0	0	4	4	4	1.0	3.9	
13-Jan	2	1	0	0	A	0	1	0	2	2	2	2	1	1	1	1	3	3	1	0	0	1	0	0	1.1	3.2	
14-Jan	0	0	0	A	0	0	4	6	6	2	0	0	1	1	1	1	0	0	0	1	1	1	1	0	1.2	6.4	
15-Jan	1	1	A	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0	0	0	1	1	1	1	0.7	1.2	
16-Jan	1	A	1	0	0	0	1	1	1	0	0	0	0	0	0	8	14	12	10	1	5	0	0	0	2.5	13.6	
17-Jan	A	0	0	1	1	0	0	0	0	0	0	0	0	8	8	5	4	2	2	1	1	1	A	3	1.7	7.8	
18-Jan	1	1	2	3	4	1	1	1	2	2	1	2	2	2	3	4	15	2	2	5	4	8	A	3	3.2	14.7	
19-Jan	2	1	1	1	1	1	1	6	3	2	0	6	2	2	1	3	1	3	1	1	1	A	0	0	1.6	6.3	
20-Jan	1	1	1	1	1	1	1	1	1	1	2	2	4	5	14	5	4	3	1	1	A	1	1	1	2.3	14.1	
21-Jan	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	2	0.8	1.5	
22-Jan	1	2	2	3	1	1	4	3	0	1	1	1	1	0	0	1	1	1	A	0	11	13	8	0	2.4	13.3	
23-Jan	0	0	0	0	0	2	2	4	5	4	2	2	3	6	17	17	4	A	1	2	12	4	0	1	3.8	16.9	
24-Jan	0	0	1	0	1	0	1	1	11	4	3	2	3	2	4	4	A	5	4	2	24	8	1	1	3.6	24.1	
25-Jan	1	1	1	1	1	1	1	1	7	8	7	27	7	7	11	A	7	1	1	2	1	1	1	1	4.2	27.1	
26-Jan	3	3	2	1	1	0	0	0	1	1	1	3	0	1	A	10	4	2	0	0	2	2	0	1	1.6	9.7	
27-Jan	2	1	0	0	0	1	3	1	0	0	0	4	3	A	4	3	1	3	5	5	1	0	0	0	1.7	5.4	
28-Jan	0	0	0	1	0	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.8	
29-Jan	0	0	1	6	2	0	0	0	1	3	2	A	0	1	1	0	0	0	1	0	1	5	8	10	2.0	10.0	
30-Jan	13	19	14	18	11	6	5	5	3	3	A	1	1	1	1	2	6	4	1	1	0	0	0	1	5.1	19.1	
31-Jan	1	1	1	1	1	1	1	1	1	1	A	1	1	2	2	2	4	6	7	5	2	3	3	1	1	2.1	7.0
	1.5	1.6	1.9	1.8	1.4	1.3	1.4	1.5	1.9	1.4	1.5	2.5	1.5	1.8	2.8	3.0	2.7	2.5	2.0	1.9	3.2	2.6	1.5	1.7	Diurnal Average		
	13.1	19.1	14.3	17.8	10.6	8.1	5.0	6.4	11.3	7.8	7.5	27.1	7.2	7.2	16.9	16.7	14.7	13.6	12.2	10.0	24.1	13.3	8.3	10.5	Diurnal Maximum		

C - Calibration A - Automated Daily Zero Span

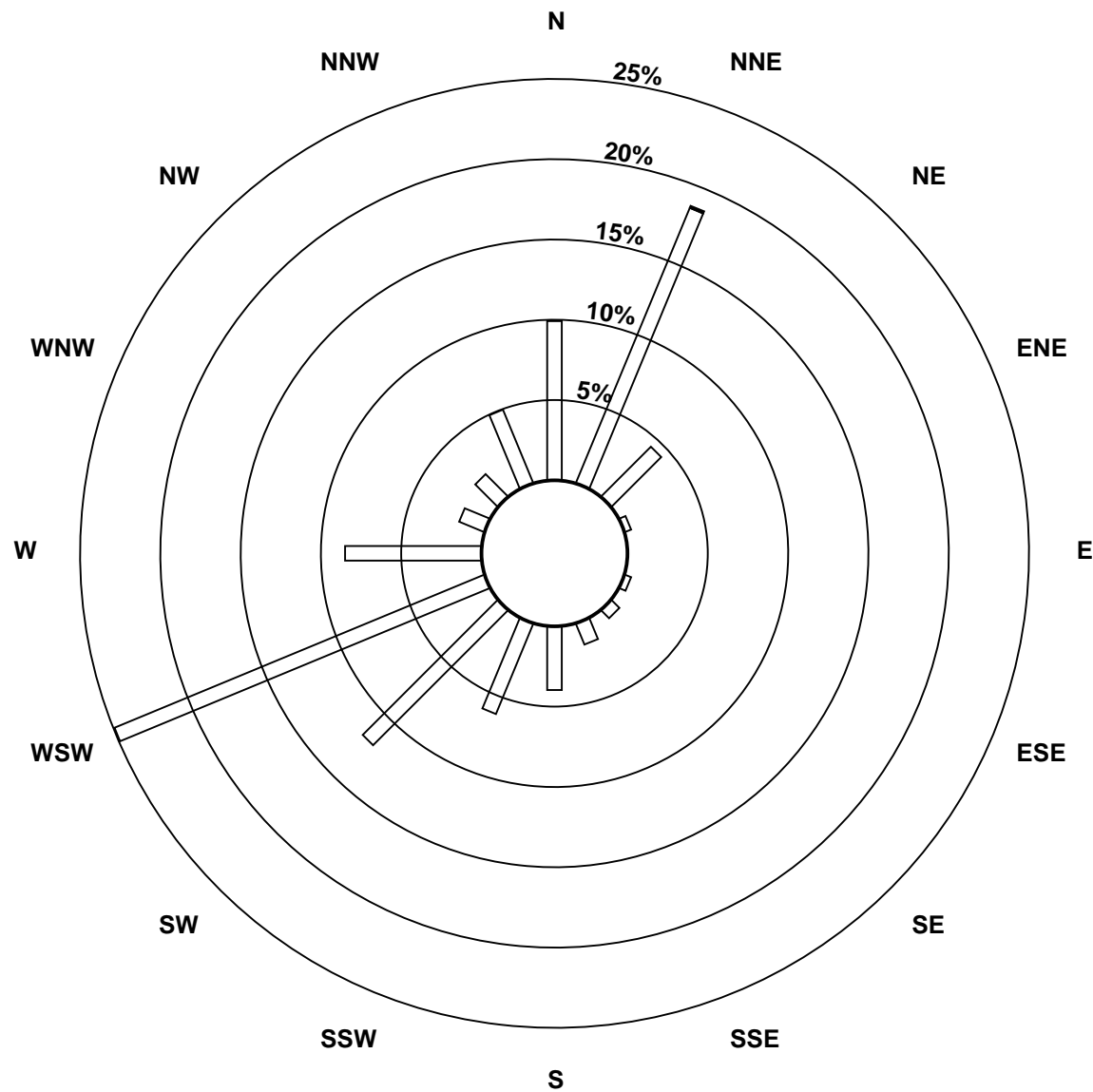
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Smoky Heights - January 2011

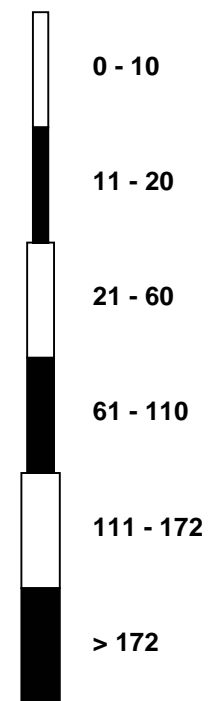


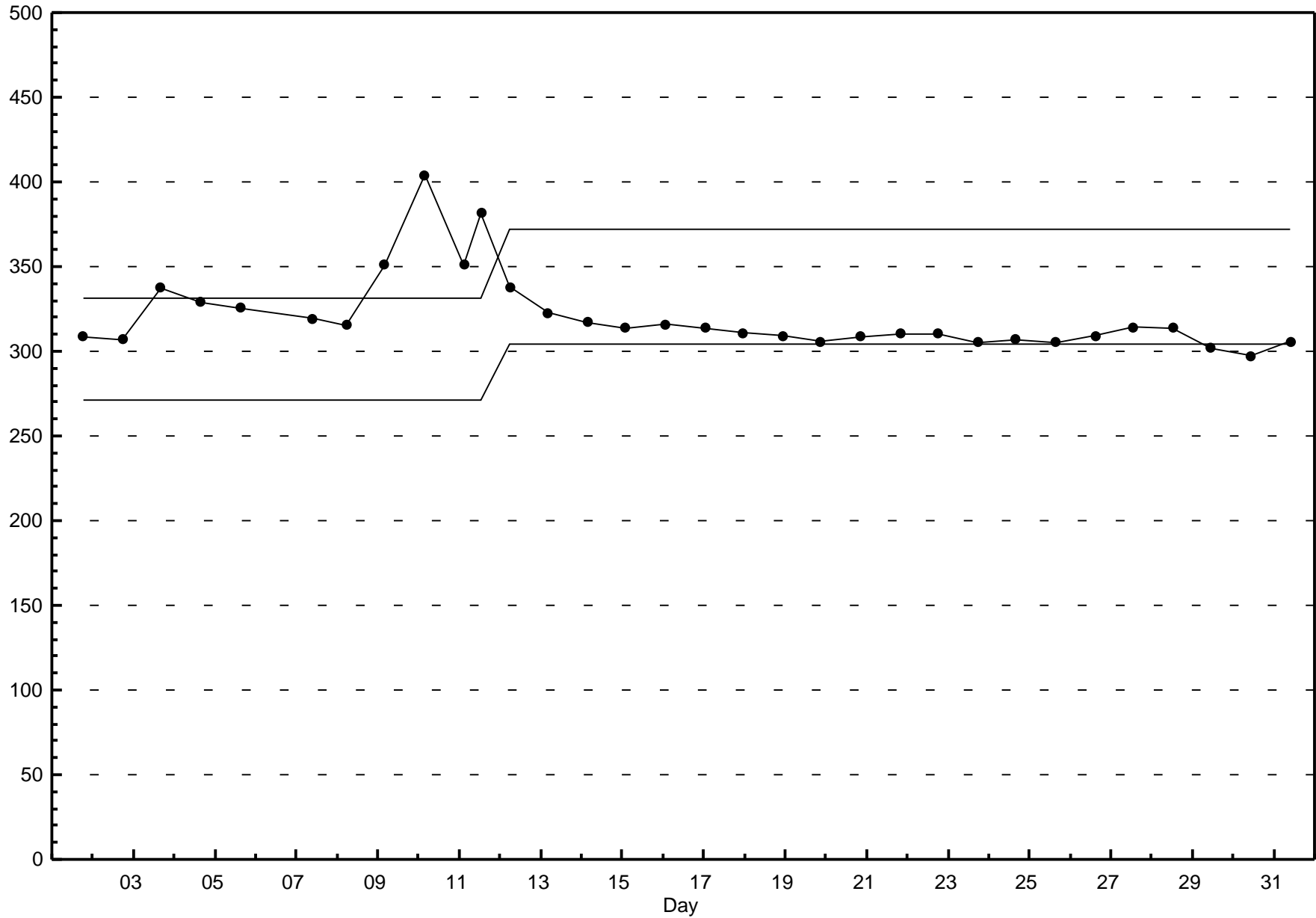
Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Smoky Heights - January 2011



Pollutant Classes (ppb)





Hourly Averages

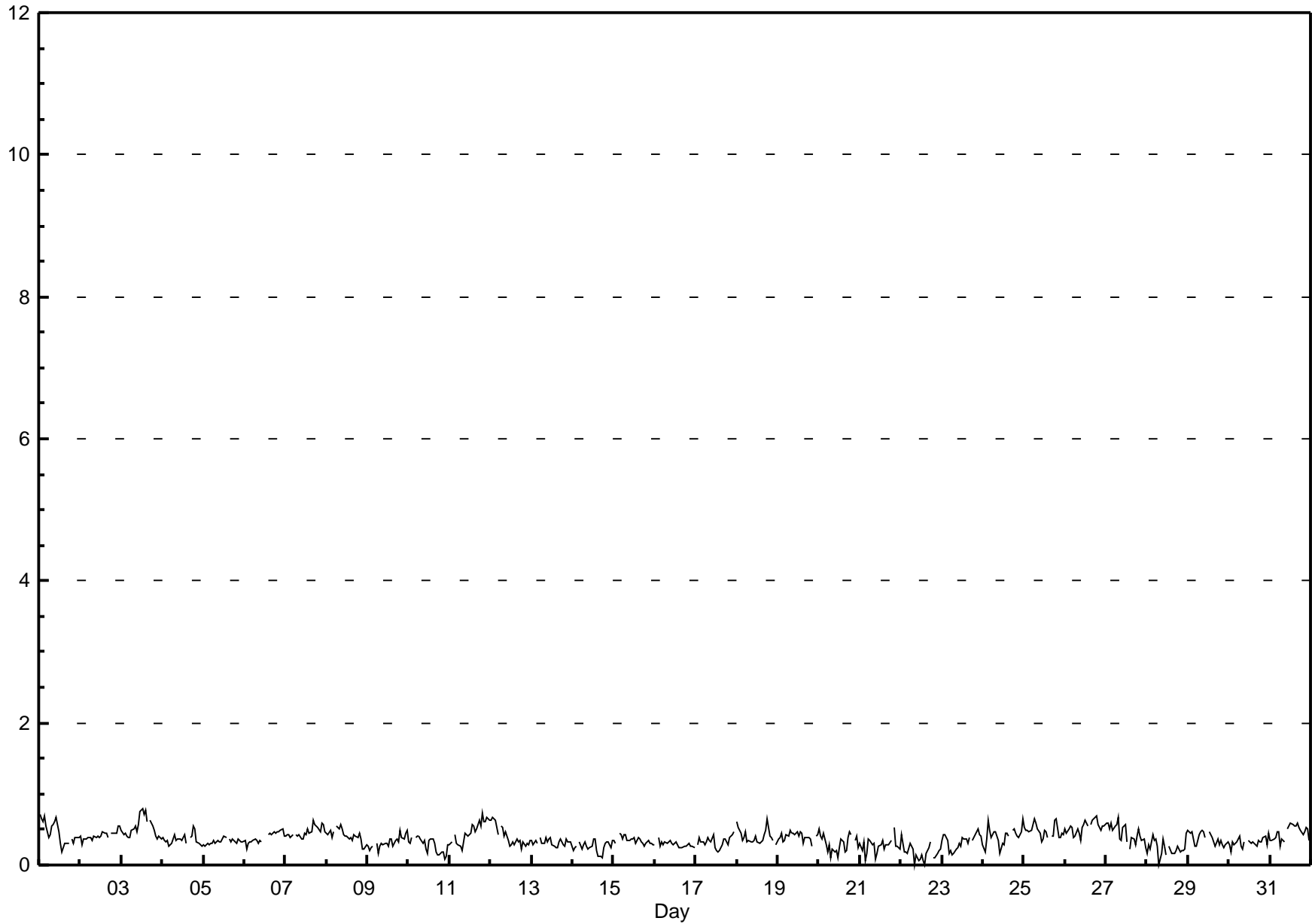
Total Reduced Sulphur (TRS) - ppb

Smoky Heights - January 2011

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 0.8 ppb on Jan 3 13:00	Maximum Daily Average: 0.5 ppb on Jan 26
Minimum Value: 0 ppb on Jan 22 15:00	Hours of Data: 710
Maximum Diurnal Average: 0.4 ppb at hour 19	Hours of Missing Data: 34
Monthly Average: 0.37 ppb	Hours of Calibration: 34
Percentiles: P ₁ = 0.1 P ₁₀ = 0.2 Q ₁ = 0.3 Median = 0.4 Q ₃ = 0.4 P ₉₀ = 0.5 P ₉₉ = 0.7	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	0	0	1	1	1	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0.5	0.7
2-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	1	1	0.4	0.6
3-Jan	0	0	0	0	0	0	0	1	1	0	1	1	1	1	1	1	A	1	1	0	0	0	0	0	0.5	0.8
4-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	1	0	0	0	0	0	0.4	0.5
5-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
6-Jan	0	0	0	0	0	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0	1	0	0.4	0.5
7-Jan	0	0	0	0	0	A	0	0	0	0	0	0	0	1	0	0	1	1	1	1	0	1	1	0	0.5	0.6
8-Jan	0	0	0	0	0	A	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6
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	0.3	0.5
10-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	0.3	0.4
11-Jan	0	0	A	0	0	0	0	0	0	0	0	0	1	1	0	1	1	1	1	1	1	1	1	1	0.5	0.7
12-Jan	1	1	1	1	0	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.7
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	0.3	0.4
14-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	0.3	0.4
15-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
16-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	0.4
17-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
18-Jan	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0.4	0.7
19-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	A	0	0.4	0.5
20-Jan	1	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	0.5
21-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	0	0	0	0.3	0.5
22-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	0.2	0.4
23-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	0	0	0.3	0.5
24-Jan	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	1	0	0	0	0	1	0.4	0.7
25-Jan	1	0	0	0	0	1	1	1	1	0	0	0	0	0	A	0	0	1	1	0	0	0	0	0	0.5	0.6
26-Jan	1	0	1	1	1	0	0	1	0	0	1	1	1	1	A	1	1	1	1	1	1	0	1	1	0.5	0.7
27-Jan	1	1	1	1	0	1	1	1	0	0	1	1	0	A	0	0	0	0	0	1	0	0	0	0	0.4	0.7
28-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
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	0.4	0.5
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	0.3	0.4
31-Jan	0	0	0	0	0	0	0	0	0	A	0	1	1	1	1	1	1	1	0	0	0	1	1	0	0.5	0.6
	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	Diurnal Average	
	0.7	0.7	0.6	0.7	0.6	0.6	0.6	0.7	0.6	0.6	0.7	0.7	0.8	0.7	0.8	0.6	0.6	0.7	0.7	0.7	0.7	0.6	0.6	0.7	Diurnal Maximum	

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

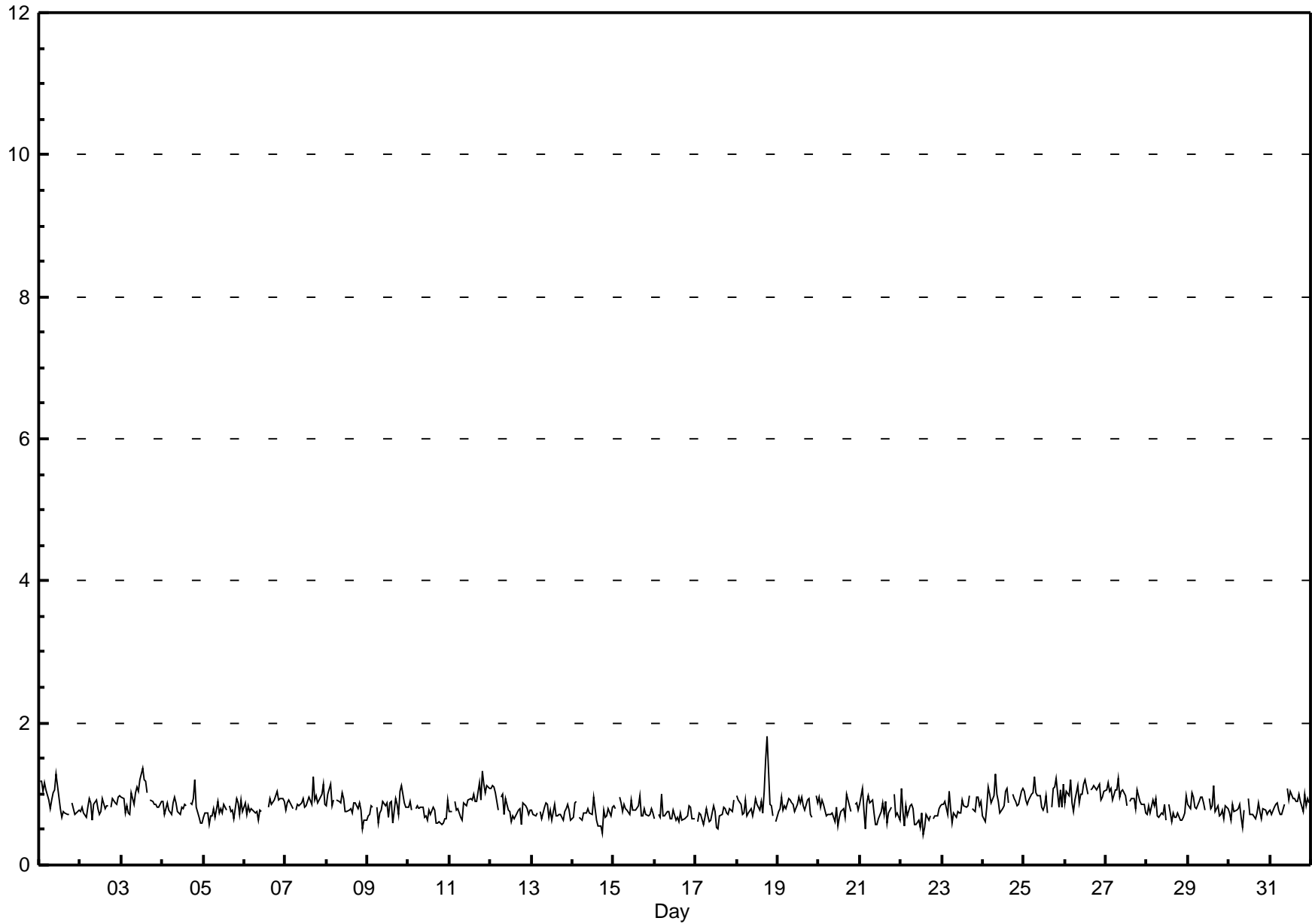


Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

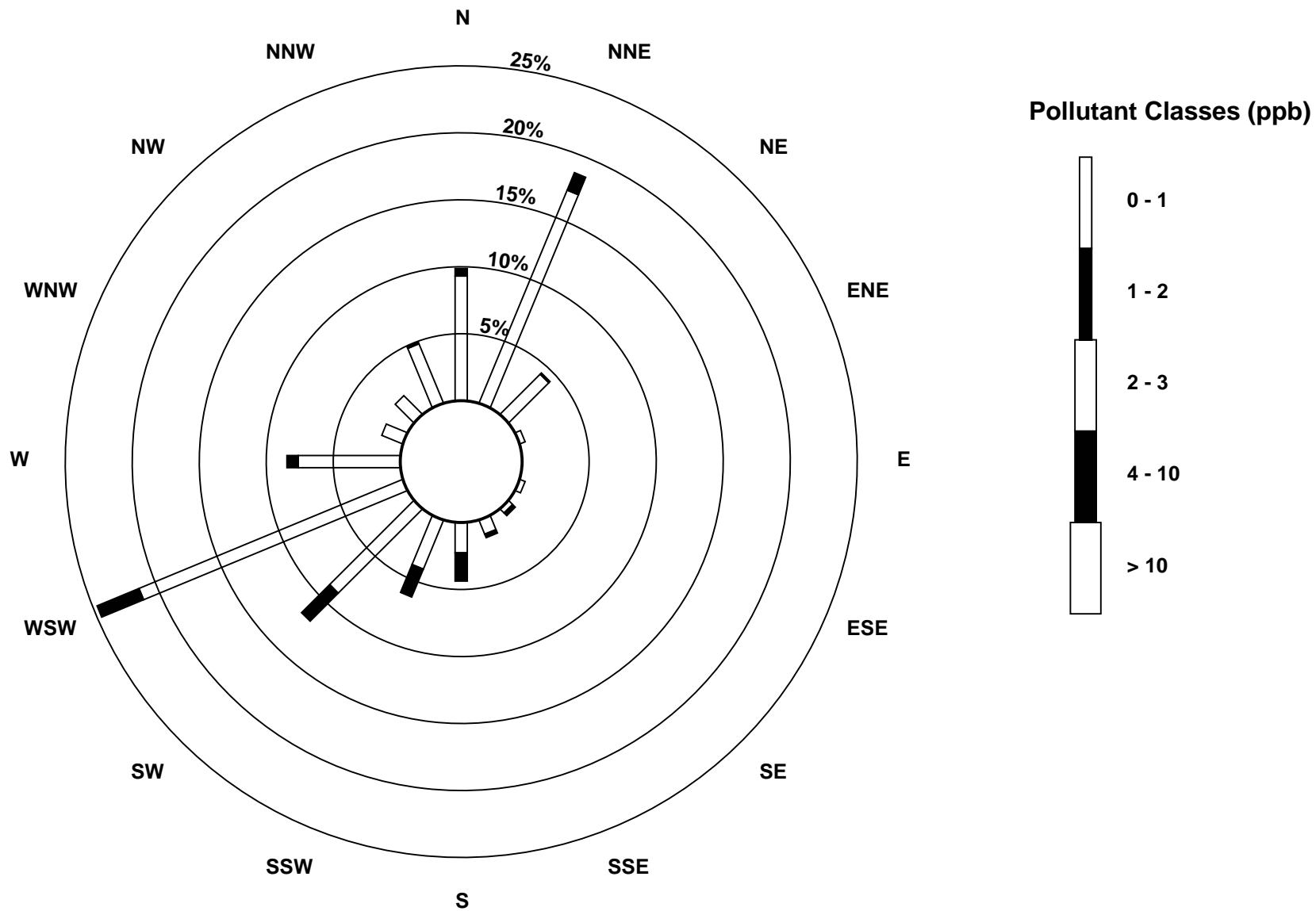
Smoky Heights - January 2011

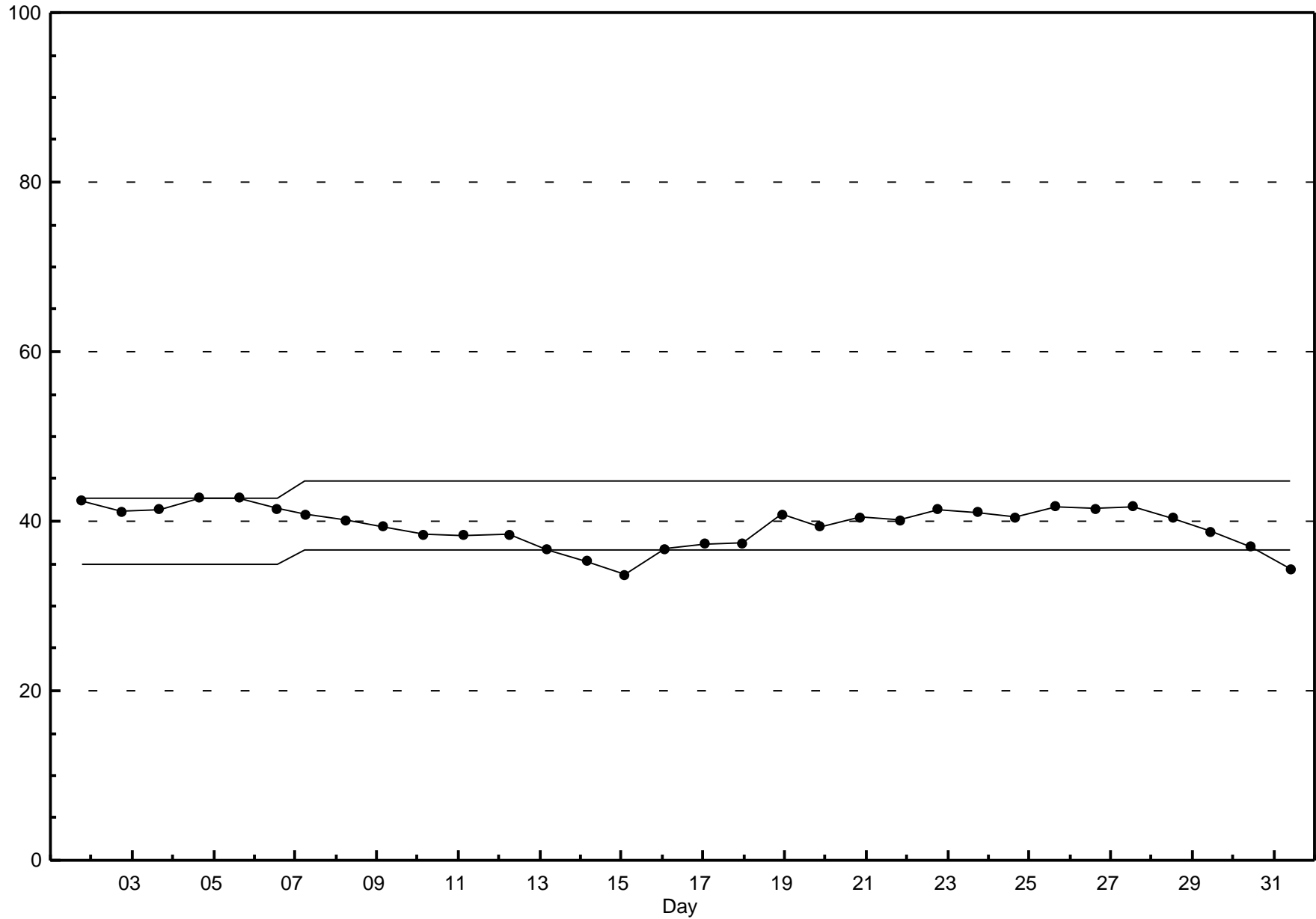
Maximum Value: 1.8 ppb on Jan 18 19:00		Maximum Daily Average: 1.0 ppb on Jan 26		Hours in Service: 744																																											
Minimum Value: 0 ppb on Jan 22 14:00		Minimum Daily Average: 0.7 ppb on Jan 22		Hours of Data: 710																																											
Maximum Diurnal Average: 0.9 ppb at hour 19		Minimum Diurnal Average: 0.8 ppb at hour 22		Hours of Missing Data: 34																																											
Monthly Average: 0.83 ppb		Percentiles: P ₁ = 0.5 P ₁₀ = 0.7 Q ₁ = 0.7 Median = 0.8 Q ₃ = 0.9 P ₉₀ = 1.0 P ₉₉ = 1.2		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	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	1.3																					
2-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	1.0																					
3-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	1.0	1.4																					
4-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	0.8	1.2																					
5-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	0.8	0.9																					
6-Jan	1	1	1	1	1	1	1	1	1	1	1	C	C	C	1	1	1	1	1	1	1	1	1	1	0.8	1.0																					
7-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	0.9	1.2																					
8-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	0.8	1.1																					
9-Jan	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1																					
10-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	0.7	0.9																					
11-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	1.3																					
12-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	0.8	1.1																					
13-Jan	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9																					
14-Jan	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0.7	1.0																					
15-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	0.8	1.0																					
16-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	0.7	1.0																					
17-Jan	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9																					
18-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	A	1	0.9	1.8																					
19-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	0.9	1.0																					
20-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																					
21-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																					
22-Jan	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	A	1	1	1	1	1	0.7	1.1																					
23-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	1.0																					
24-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	0.9	1.3																					
25-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	1.0	1.2																					
26-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	1.0	1.2																					
27-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1.0	1.2																					
28-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	0.7	1.0																					
29-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																					
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	0.7	0.9																					
31-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																					
																								Diurnal Average	Diurnal Maximum																						
																								0.8	0.8	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.8	0.8	0.8	0.8
																								1.2	1.2	1.1	1.2	1.0	1.1	1.2	1.3	1.0	1.1	1.3	1.2	1.4	1.2	1.2	1.1	1.2	1.5	1.8	1.3	1.1	1.1	1.1	1.1
C - Calibration																								A - Automated Daily Zero Span																							



Pollutant Rose

Total Reduced Sulphur (TRS) - ppb
Smoky Heights - January 2011





Hourly Averages

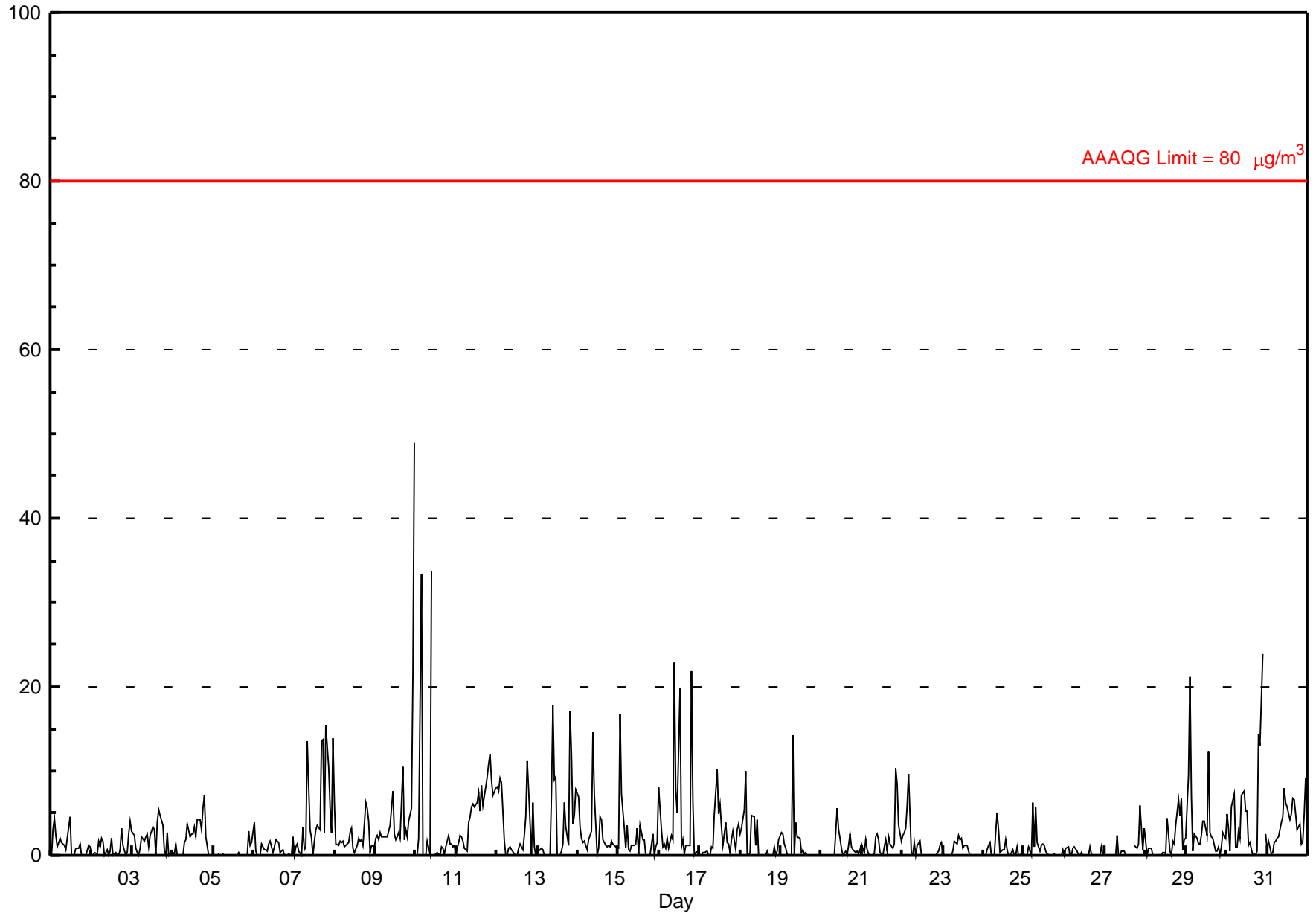
Particulate Matter 2.5 (PM_{2.5}) - µg/m³

Smoky Heights - January 2011

Number of Exceedences: 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 48.9 µg/m ³ on Jan 10 00:00	Maximum Daily Average: 5.9 µg/m ³ on Jan 9
Minimum Value: 0 µg/m ³ on Jan 1 01:00	Hours of Data: 730
Maximum Diurnal Average: 5.0 µg/m ³ at hour 10	Hours of Missing Data: 14
Monthly Average: 2.38 µg/m ³	Hours of Calibration: 0
Minimum Daily Average: 0.3 µg/m ³ on Jan 5	Percent Operational Time: 98.1
Minimum Diurnal Average: 0.8 µg/m ³ at hour 7	
Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 1.1 Q ₃ = 2.7 P ₉₀ = 6.2 P ₉₉ = 21.5	

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	0	3	4	2	1	2	2	1	1	1	2	5	0	0	0	1	1	1	0	0	0	0	1	1	1.2	4.6																						
2-Jan	0	0	0	0	2	1	2	2	0	1	0	0	2	0	0	0	0	1	3	1	0	0	3	4	0.9	4.1																						
3-Jan	3	2	1	0	0	1	2	2	2	2	1	2	3	3	0	4	5	5	3	0	0	3	0	1	2.0	5.5																						
4-Jan	0	0	1	0	0	0	0	1	2	4	2	2	3	3	2	4	4	3	6	7	2	0	0	0	2.0	7.2																						
5-Jan	BD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	2	0.3	2.9																						
6-Jan	4	1	0	0	0	1	1	1	1	1	2	0	1	2	2	2	0	1	0	0	0	0	0	2	0.9	3.9																						
7-Jan	0	1	1	1	0	3	1	1	14	3	2	0	2	3	4	3	14	14	3	15	11	6	3	14	4.9	15.4																						
8-Jan	6	1	1	2	2	2	1	1	2	3	3	1	0	1	2	2	2	1	6	6	4	0	1	1	2.1	6.3																						
9-Jan	2	2	2	3	2	2	2	2	3	4	8	3	2	2	3	2	11	2	3	2	4	6	22	49	5.9	48.9																						
10-Jan	BD	0	2	33	0	0	0	2	0	34	BD	0	0	0	0	1	1	0	1	2	1	1	1	1	3.7	33.7																						
11-Jan	0	1	2	2	2	1	1	4	4	6	6	6	6	8	5	8	6	8	9	11	12	9	7	8	5.5	12.0																						
12-Jan	8	8	9	9	2	0	0	1	1	1	0	0	0	1	1	1	2	5	11	8	0	6	1	0	3.1	11.2																						
13-Jan	0	1	1	1	0	0	0	0	7	18	9	9	0	0	1	1	6	3	1	17	12	4	5	8	4.3	17.9																						
14-Jan	7	3	2	1	2	1	2	2	3	15	7	0	1	5	4	2	1	1	1	1	2	1	1	1	2.7	14.5																						
15-Jan	1	17	7	3	1	4	1	1	1	1	1	3	0	4	2	2	0	0	0	0	3	0	1	1	2.2	16.8																						
16-Jan	8	3	1	1	1	2	1	2	2	23	8	5	20	1	2	0	1	1	1	22	7	0	0	1	4.7	22.8																						
17-Jan	0	0	0	0	0	0	0	1	1	5	10	5	6	3	1	4	2	1	0	2	3	1	3	4	2.2	10.2																						
18-Jan	2	3	5	10	0	0	0	5	5	1	4	0	0	0	0	0	1	0	0	0	1	0	0	2	1.7	10.0																						
19-Jan	3	3	1	1	0	0	0	14	0	4	2	2	0	1	0	0	0	0	0	0	0	0	BD	BD	1.4	14.3																						
20-Jan	BD	0	BD	BD	0	0	BD	0	0	6	3	2	1	0	0	0	1	3	1	1	0	1	0	1	1.0	5.5																						
21-Jan	1	0	2	1	0	0	0	0	2	2	2	0	0	1	2	0	2	1	1	1	10	9	3	2	1.9	10.4																						
22-Jan	2	3	3	6	10	0	0	2	0	1	2	0	0	BD	0	0	BD	0	BD	0	0	1	1	2	1.5	9.6																						
23-Jan	0	0	0	0	0	0	0	2	1	2	2	2	1	1	1	0	0	0	0	0	0	0	0	0	0.6	2.3																						
24-Jan	0	0	1	1	1	0	0	3	5	3	0	1	1	2	1	0	0	1	0	0	1	0	0	1	0.9	5.1																						
25-Jan	0	0	0	1	0	6	1	6	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0	1	0.9	6.2																						
26-Jan	0	1	1	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0.3	1.1																						
27-Jan	0	0	0	0	0	0	0	2	0	0	1	0	0	0	0	0	BD	1	1	1	1	6	1	3	0.8	5.9																						
28-Jan	2	0	1	1	0	0	0	0	0	0	0	0	0	4	1	0	2	1	4	7	5	7	1	2	1.5	6.7																						
29-Jan	2	9	21	7	1	3	2	1	1	2	4	4	2	12	3	2	2	0	0	1	0	1	3	2	3.6	21.2																						
30-Jan	5	3	0	6	7	1	1	3	2	7	8	5	5	1	2	0	0	0	1	14	13	24	BD	3	4.8	23.9																						
31-Jan	1	2	0	0	2	2	2	2	4	5	8	6	6	4	5	7	7	5	3	4	1	2	5	9	3.8	9.2																						
																								2.1	2.2	2.4	3.1	1.1	1.0	0.8	2.1	2.1	5.0	3.3	2.2	2.1	2.1	1.4	1.5	2.4	1.9	2.0	4.0	3.0	2.9	2.3	4.1	Diurnal Average
																								8.2	16.8	21.2	33.4	9.6	6.2	2.2	14.3	13.6	33.7	10.2	9.2	19.8	12.3	5.3	8.2	13.5	13.8	11.2	21.9	13.1	23.9	21.6	48.9	Diurnal Maximum

BD - Baseline Drift
 Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 µg/m³ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 µg/m³

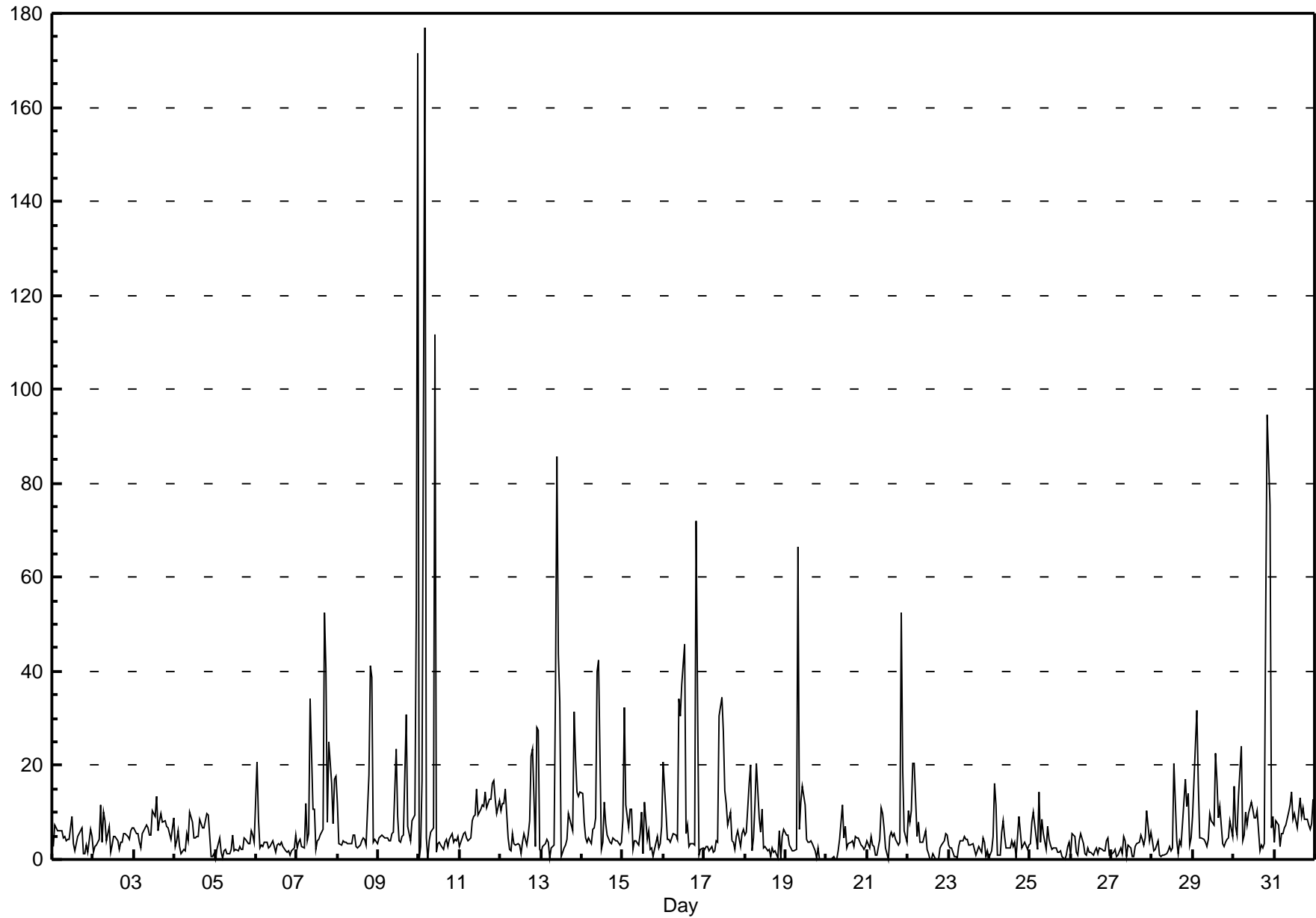


Hourly Maximums

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

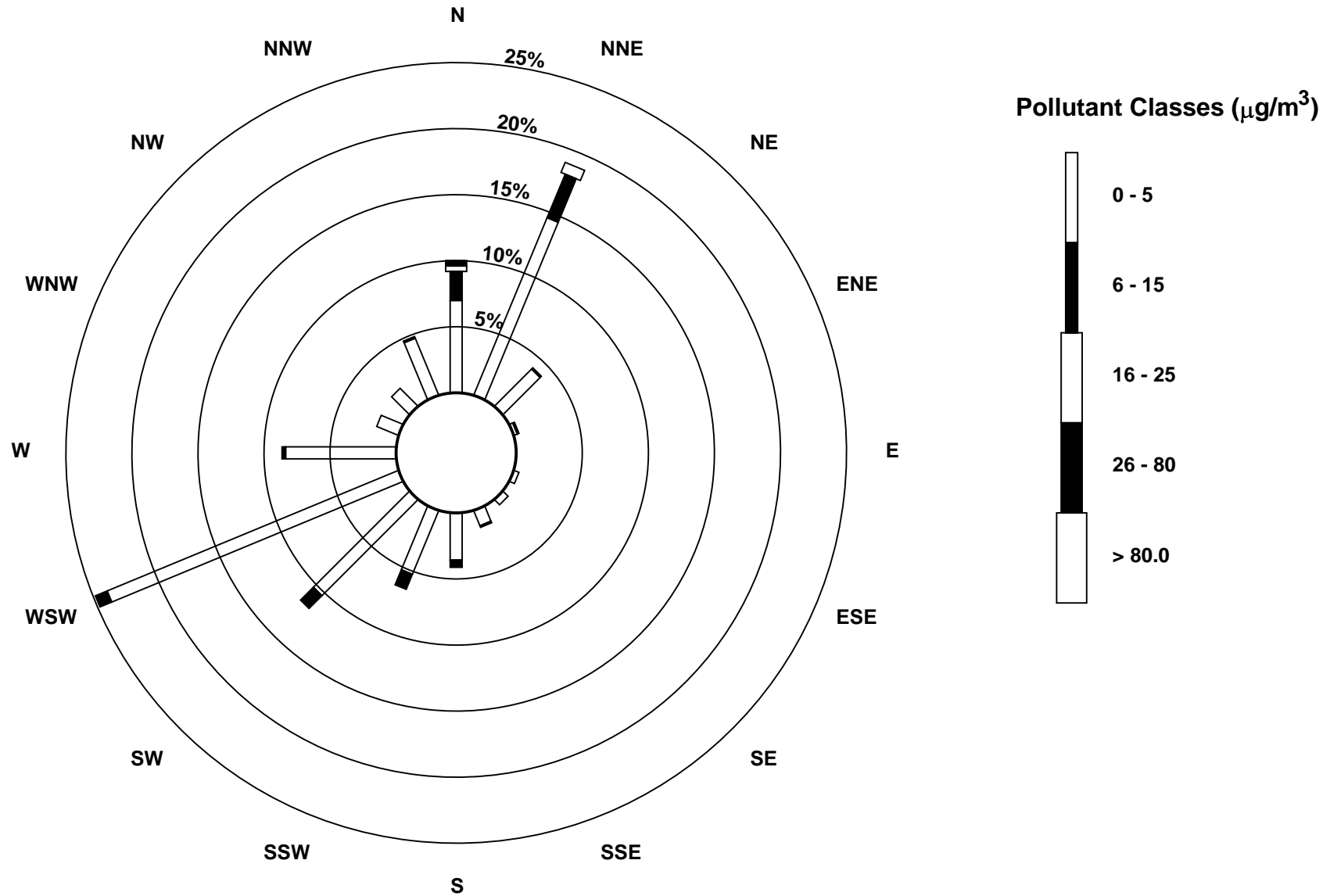
Smoky Heights - January 2011

Maximum Value: 177.1 µg/m ³ on Jan 10 04:00		Maximum Daily Average: 16.7 µg/m ³ on Jan 30		Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0																							
Minimum Value: 0 µg/m ³ on Jan 5 01:00 Maximum Diurnal Average: 14.7 µg/m ³ at hour 10 Monthly Average: 7.55 µg/m ³		Minimum Daily Average: 2.4 µg/m ³ on Jan 26 Minimum Diurnal Average: 3.8 µg/m ³ at hour 6 Percentiles: P ₁ = 0.0 P ₁₀ = 1.3 Q ₁ = 2.6 Median = 4.2 Q ₃ = 7.4 P ₉₀ = 14.2 P ₉₉ = 69.1																									
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	3	7	7	6	6	6	5	5	4	4	4	9	3	2	3	5	6	7	1	1	3	1	7	5	4.6	9.0	
2-Jan	2	3	3	4	12	4	10	8	4	7	2	3	5	5	4	2	4	4	6	6	5	4	6	7	4.9	11.6	
3-Jan	7	5	5	4	2	5	6	7	7	5	5	10	9	13	6	8	10	8	8	7	7	5	4	9	6.9	13.3	
4-Jan	3	4	6	3	1	2	2	5	4	10	8	5	5	5	5	8	7	7	8	10	10	0	1	1	5.0	10.1	
5-Jan	0	2	5	2	0	2	2	1	1	2	5	2	2	2	3	2	2	4	4	3	3	6	5	4	2.7	6.2	
6-Jan	21	8	2	3	3	4	4	3	3	3	4	2	3	3	3	4	3	2	2	2	1	2	2	5	3.8	20.7	
7-Jan	2	4	4	3	3	12	4	5	34	11	11	2	4	4	5	6	52	41	8	25	16	8	17	18	12.4	52.3	
8-Jan	12	3	3	4	4	4	3	3	3	5	5	3	2	3	4	5	4	3	18	41	39	4	4	3	7.6	41.1	
9-Jan	4	5	5	5	5	4	4	4	5	6	23	9	4	4	5	5	31	7	6	4	8	9	53	171	16.2	171.5	
10-Jan	0	3	17	177	4	0	4	6	7	112	2	3	4	3	2	4	4	3	4	6	4	4	4	5	15.8	177.1	
11-Jan	3	5	6	6	5	4	5	8	9	10	15	9	11	12	11	14	11	13	13	16	17	13	10	12	9.8	16.6	
12-Jan	10	12	12	15	5	2	2	5	3	3	3	3	1	4	5	3	5	8	22	23	3	28	28	2	8.7	28.1	
13-Jan	2	3	4	4	4	0	2	3	36	86	44	34	1	3	3	4	10	9	6	31	21	14	13	14	14.6	85.9	
14-Jan	14	8	4	4	5	3	6	7	9	40	42	2	4	12	8	5	4	3	4	4	4	4	3	4	8.5	42.4	
15-Jan	9	32	12	7	11	11	2	4	4	3	6	10	1	12	4	6	2	2	1	2	5	2	3	7	6.6	32.2	
16-Jan	21	10	4	4	4	5	5	5	4	34	31	37	46	5	7	3	3	3	3	72	35	1	2	2	14.5	72.1	
17-Jan	2	3	3	2	3	2	2	4	4	30	34	27	15	12	7	10	4	4	2	5	6	3	6	6	8.1	34.4	
18-Jan	5	6	16	20	2	5	12	20	9	6	11	2	3	2	2	1	2	1	2	0	6	0	5	6	6.0	20.5	
19-Jan	5	5	3	2	2	2	2	2	66	6	12	16	12	4	4	4	3	2	0	2	0	0	0	0	6.5	66.5	
20-Jan	0	0	0	0	1	0	0	2	4	12	5	7	3	3	4	4	3	5	5	4	3	3	2	3	3.0	11.6	
21-Jan	4	3	5	3	3	1	1	4	11	10	7	3	0	5	6	5	6	4	3	4	52	19	6	4	6.9	52.5	
22-Jan	10	8	10	20	20	5	8	4	4	4	6	2	1	0	0	1	0	0	0	2	3	4	6	5	5.2	20.4	
23-Jan	3	2	2	1	1	0	3	4	4	5	4	4	3	3	3	2	1	2	3	2	5	4	1	2	2.6	5.0	
24-Jan	0	2	5	16	11	1	1	6	8	5	2	2	2	4	3	4	0	9	6	2	3	4	2	3	4.3	16.3	
25-Jan	3	8	10	7	2	14	4	9	5	2	7	4	3	2	2	2	2	1	2	1	0	1	3	4	4.1	14.4	
26-Jan	1	5	5	1	1	4	5	3	1	1	3	2	2	1	2	3	1	2	2	2	2	4	5	1	2.4	5.4	
27-Jan	1	2	2	1	1	2	1	5	4	1	3	2	1	1	3	3	4	5	4	3	4	10	4	6	3.0	10.3	
28-Jan	4	2	2	4	1	1	1	1	1	2	3	2	3	20	4	1	4	3	8	17	11	14	3	5	4.8	20.4	
29-Jan	9	24	32	16	4	5	4	4	3	4	10	8	7	23	17	9	11	3	3	4	4	5	8	5	9.2	31.6	
30-Jan	16	7	5	13	24	4	5	10	7	10	12	11	9	9	11	2	3	3	3	52	94	75	7	9	16.7	94.5	
31-Jan	4	8	7	3	5	6	7	7	10	12	14	9	10	7	10	13	9	11	9	8	7	6	8	13	8.4	14.2	
		5.8	6.4	6.7	11.6	4.9	3.8	3.9	7.4	7.1	14.7	11.1	7.8	5.4	6.0	5.1	4.8	6.8	5.8	5.3	11.7	12.3	8.3	7.3	11.0	Diurnal Average	
		20.9	32.2	31.6	177.1	24.1	14.4	11.6	66.5	36.0	111.6	43.6	37.3	45.7	22.7	16.7	14.3	52.3	40.6	22.0	72.1	94.5	75.3	53.4	171.5	Diurnal Maximum	



Pollutant Rose

Particulate Matter 2.5 (PM_{2.5}) - μg/m³
Smoky Heights - January 2011

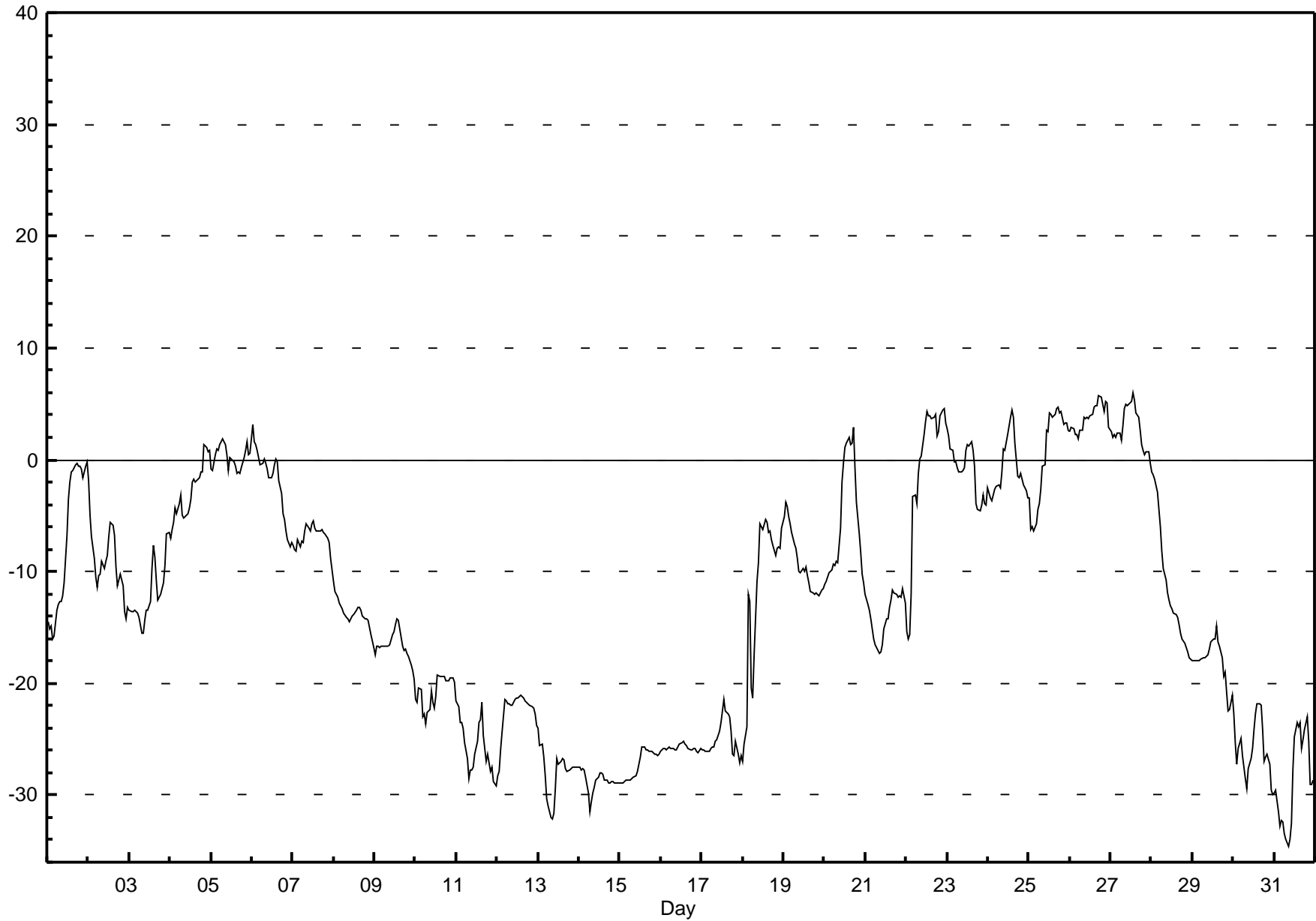


Hourly Averages

External Temperature (ET) - °C

Smoky Heights - January 2011

Number of Exceedences (AAQO):		1-hr: 0		24-hr: 0		Hours in Service:		744																		
Maximum Value: 6.0 °C on Jan 27 14:00		Maximum Daily Average: 3.8 °C on Jan 26				Hours of Data:		744																		
Minimum Value: -35 °C on Jan 31 09:00		Minimum Daily Average: -28.8 °C on Jan 14				Hours of Missing Data:		0																		
Maximum Diurnal Average: -10.4 °C at hour 15		Minimum Diurnal Average: -14.2 °C at hour 7				Hours of Calibration:		0																		
Monthly Average: -12.69 °C		Percentiles: P ₁ = -32.2 P ₁₀ = -27.5 Q ₁ = -23.5 Median = -12.6 Q ₃ = -2.0 P ₉₀ = 2.0 P ₉₉ = 5.0				Percent Operational Time:		100.0																		
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jan	-14	-15	-15	-16	-16	-13	-13	-13	-13	-12	-11	-7	-4	-2	-1	-1	-1	0	-1	-1	-1	-2	-1	0	-7.1	-0.2
2-Jan	-2	-5	-7	-9	-10	-11	-10	-10	-10	-9	-9	-9	-7	-6	-6	-7	-10	-11	-11	-10	-11	-14	-14	-13	-9.2	-1.8
3-Jan	-13	-14	-14	-13	-14	-14	-14	-16	-15	-14	-13	-13	-13	-10	-8	-9	-11	-13	-12	-11	-11	-10	-7	-7	-12.0	-6.5
4-Jan	-7	-6	-6	-4	-5	-4	-3	-5	-5	-5	-5	-4	-4	-2	-2	-2	-2	-2	-1	-1	1	1	1	1	-2.9	1.3
5-Jan	-1	-1	0	1	1	1	2	2	1	0	-1	0	0	0	-1	-1	-1	-1	-1	0	1	2	0	1	0.2	1.9
6-Jan	3	2	1	1	0	0	0	0	0	-1	-2	-2	-1	0	0	0	-2	-3	-5	-5	-6	-7	-8	-7	-1.8	3.2
7-Jan	-8	-8	-8	-7	-8	-7	-7	-6	-6	-6	-6	-6	-6	-6	-6	-6	-6	-6	-6	-7	-7	-7	-9	-10	-7.0	-5.5
8-Jan	-11	-12	-12	-13	-13	-13	-14	-14	-14	-15	-14	-14	-14	-13	-13	-13	-13	-14	-14	-14	-14	-15	-16	-17	-13.8	-10.9
9-Jan	-18	-17	-17	-17	-17	-17	-17	-17	-17	-17	-16	-15	-15	-14	-14	-15	-17	-17	-17	-17	-18	-18	-19	-20	-16.7	-14.2
10-Jan	-21	-22	-20	-20	-23	-23	-24	-23	-22	-21	-22	-22	-21	-19	-19	-19	-19	-19	-20	-20	-19	-19	-20	-20	-20.8	-19.2
11-Jan	-22	-22	-24	-23	-24	-25	-27	-29	-28	-28	-28	-26	-25	-23	-23	-22	-25	-27	-26	-27	-28	-27	-29	-29	-25.7	-21.6
12-Jan	-28	-28	-26	-24	-21	-22	-22	-22	-22	-22	-21	-21	-21	-21	-21	-21	-22	-22	-22	-22	-22	-22	-23	-24	-22.6	-21.1
13-Jan	-24	-26	-25	-27	-28	-30	-31	-32	-32	-32	-29	-27	-27	-27	-27	-27	-28	-28	-28	-28	-27	-27	-28	-27	-28.0	-24.1
14-Jan	-28	-28	-28	-28	-28	-30	-31	-31	-30	-29	-29	-28	-28	-28	-28	-29	-29	-29	-29	-29	-29	-29	-29	-29	-28.8	-27.5
15-Jan	-29	-29	-29	-29	-29	-29	-29	-29	-28	-28	-28	-27	-27	-26	-26	-26	-26	-26	-26	-26	-26	-26	-26	-26	-27.3	-25.7
16-Jan	-26	-26	-26	-26	-26	-26	-26	-26	-26	-26	-26	-25	-25	-25	-25	-26	-26	-26	-26	-26	-26	-26	-26	-26	-25.8	-25.2
17-Jan	-26	-26	-26	-26	-26	-26	-26	-26	-26	-25	-25	-24	-23	-23	-23	-23	-23	-24	-26	-27	-25	-26	-27	-27	-25.0	-21.5
18-Jan	-27	-25	-24	-12	-13	-20	-21	-18	-11	-9	-6	-6	-6	-5	-6	-6	-7	-8	-9	-8	-8	-8	-8	-6	-11.5	-5.4
19-Jan	-5	-4	-4	-5	-6	-6	-8	-8	-9	-10	-10	-10	-10	-10	-10	-11	-12	-12	-12	-12	-12	-12	-12	-12	-9.2	-3.8
20-Jan	-11	-11	-11	-10	-10	-9	-9	-9	-9	-9	-6	-2	0	1	1	2	1	2	3	-1	-4	-7	-8	-10	-5.4	3.0
21-Jan	-12	-13	-13	-14	-15	-16	-17	-17	-17	-17	-17	-15	-14	-14	-13	-13	-12	-12	-12	-12	-12	-12	-12	-13	-13.9	-11.6
22-Jan	-15	-16	-16	-12	-3	-3	-4	-1	0	0	2	3	4	4	4	4	4	4	2	3	4	5	5	3	-0.8	4.5
23-Jan	3	2	1	1	0	0	-1	-1	-1	-1	-1	1	1	1	2	1	-1	-4	-4	-5	-4	-3	-4	-4	-0.9	2.8
24-Jan	-3	-3	-4	-3	-3	-2	-2	-2	-1	1	1	2	3	4	4	4	1	-1	-2	-1	-2	-2	-3	-3	-0.7	4.4
25-Jan	-3	-6	-6	-6	-6	-4	-4	-3	-1	0	3	3	4	4	4	4	5	5	4	4	3	3	3	3	0.5	4.8
26-Jan	3	3	3	2	2	2	3	3	4	4	4	4	4	4	5	5	5	6	6	5	4	5	5	3	3.8	5.8
27-Jan	3	2	2	2	2	2	2	3	5	5	5	5	5	6	5	4	4	3	1	1	0	1	1	0	2.9	6.0
28-Jan	-1	-1	-2	-3	-4	-6	-8	-10	-11	-12	-13	-13	-14	-14	-14	-15	-16	-16	-16	-17	-17	-18	-18	-18	-11.3	-1.1
29-Jan	-18	-18	-18	-18	-18	-18	-18	-18	-18	-17	-17	-16	-16	-16	-15	-16	-17	-18	-19	-19	-21	-22	-22	-21	-18.1	-14.9
30-Jan	-23	-25	-27	-26	-25	-26	-28	-29	-29	-28	-27	-26	-24	-23	-22	-22	-22	-24	-27	-27	-26	-27	-30	-30	-25.9	-21.8
31-Jan	-30	-30	-32	-33	-32	-32	-33	-34	-35	-34	-32	-28	-25	-24	-24	-23	-26	-25	-24	-23	-25	-29	-29	-29	-28.8	-23.0
		-13.4	-13.8	-13.9	-13.5	-13.5	-13.9	-14.2	-14.1	-13.7	-13.4	-12.7	-11.8	-11.1	-10.5	-10.4	-10.6	-11.2	-11.9	-12.4	-12.4	-12.6	-13.0	-13.3	-13.5	Diurnal Average
		3.2	2.9	2.8	2.3	2.4	2.4	2.6	3.1	4.6	5.0	4.8	5.1	5.2	6.0	5.3	4.8	4.8	5.8	5.6	5.0	4.4	5.3	5.0	3.3	Diurnal Maximum





PASZA

Peace Air Shed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Smoky Heights - January 2011

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	5	5	9	9	8	11	10	12	10	14	11	14	21	21	22	18	21	24	23	21	23	21	21	27	13.0	27.1
Dir	180	191	198	194	210	224	197	183	178	185	168	215	235	238	263	261	263	261	249	260	258	252	283	303	241.5	303.4
2 Spd	21	16	19	17	7	6	4	8	6	11	6	6	7	8	10	7	8	15	19	16	14	11	13	19	11.1	20.8
Dir	284	265	269	271	252	243	248	220	274	267	267	242	252	229	243	242	249	264	256	255	235	243	252	257	256.5	284.1
3 Spd	15	14	11	11	12	11	13	12	6	5	7	7	8	6	6	8	9	7	9	9	5	12	16	15	8.1	15.6
Dir	251	247	248	227	217	230	245	243	225	187	186	190	189	170	175	155	141	174	195	223	222	257	264	249	222.7	263.6
4 Spd	9	11	13	19	15	12	13	11	9	7	6	7	10	11	14	11	8	7	9	8	26	26	15	13	10.8	25.9
Dir	222	257	256	249	250	231	202	189	175	160	191	193	201	207	193	207	206	213	213	231	250	249	230	208	223.3	249.5
5 Spd	13	N	30	27	22	31	31	30	23	18	11	11	8	5	6	9	3	5	6	12	19	21	15	14	13.6	31.3
Dir	197	N	257	257	256	256	261	271	265	263	156	195	237	178	162	190	187	168	198	181	207	218	225	222	236.7	261.3
6 Spd	45	36	40	41	41	33	31	38	39	38	31	27	25	25	25	22	19	19	21	22	22	19	17	11	28.5	45.3
Dir	261	254	247	255	253	250	248	247	247	249	255	252	254	257	259	248	256	253	262	260	261	256	258	230	253.0	260.6
7 Spd	6	7	6	7	5	4	6	10	13	13	14	18	17	19	16	18	20	23	25	23	23	22	21	23	13.0	25.4
Dir	207	257	248	264	281	28	29	19	18	21	20	27	34	19	9	12	20	17	18	16	16	14	9	13	13.8	18.4
8 Spd	24	23	22	21	16	15	15	15	16	14	12	15	14	11	11	11	10	9	7	6	5	6	5	3	12.2	24.1
Dir	15	16	13	13	7	2	1	353	351	346	346	337	338	346	343	341	343	344	356	356	39	49	52	27	0.1	14.8
9 Spd	2	2	2	2	4	4	4	4	3	2	3	1	4	5	5	5	4	4	3	4	3	3	5	4	1.6	5.0
Dir	343	321	288	221	227	243	215	214	202	313	17	343	32	35	43	40	21	4	12	324	341	21	27	9	354.2	40.2
10 Spd	4	4	4	4	3	2	2	2	1	3	4	5	3	2	1	1	3	2	1	2	2	3	2	2	1.5	4.7
Dir	350	348	352	5	29	277	310	42	308	4	248	271	248	232	280	28	19	314	276	276	243	247	272	271	311.8	271.2
11 Spd	3	3	2	1	1	2	3	3	3	3	3	2	3	3	3	2	3	4	4	4	5	4	4	4	2.6	4.7
Dir	198	250	255	298	250	247	273	197	234	197	170	212	181	189	144	166	183	210	237	207	221	248	206	196	212.3	221.2
12 Spd	3	2	0	3	6	7	6	6	9	8	12	16	14	15	14	12	13	10	9	9	9	8	6	7	7.7	15.5
Dir	212	233	28	18	30	34	33	29	32	36	30	30	23	17	12	9	6	11	4	3	352	357	343	328	14.4	30.1
13 Spd	7	9	10	6	3	2	3	0	2	2	4	8	9	13	11	9	10	11	11	11	11	10	11	11	6.7	12.7
Dir	330	320	345	305	298	202	254	7	12	24	16	29	30	30	35	28	15	16	26	17	16	10	5	8	9.2	29.6
14 Spd	10	8	8	5	5	5	8	7	5	4	8	10	8	9	10	12	12	12	10	11	10	11	12	13	8.3	13.3
Dir	6	0	354	360	349	337	314	330	344	4	24	30	37	16	19	28	36	32	32	36	31	30	26	27	16.8	27.2
15 Spd	12	12	13	12	10	10	10	9	10	9	7	6	7	4	5	5	5	7	7	8	9	12	11	13	8.7	13.1
Dir	25	19	18	21	25	22	21	23	16	18	16	34	46	27	14	24	46	34	31	24	13	18	15	20	22.5	18.4
16 Spd	12	11	10	10	10	9	10	9	9	9	8	7	8	6	6	6	5	5	4	3	2	3	5	4	6.2	12.4
Dir	22	9	5	1	356	352	357	3	1	12	15	359	8	0	359	354	338	341	338	358	349	238	222	227	358.6	22.5
17 Spd	5	3	3	4	4	4	5	7	8	9	8	7	6	2	6	5	4	11	13	12	12	14	15	17	1.7	17.2
Dir	200	188	144	122	117	66	40	29	32	40	27	28	17	28	349	344	191	222	211	207	229	232	231	220	222.7	219.6
18 Spd	10	9	13	24	16	6	3	7	23	23	30	27	28	26	21	22	19	19	20	24	21	22	23	23	18.6	29.8
Dir	226	227	222	255	264	24	241	222	260	242	268	246	248	253	251	249	255	249	247	252	256	254	261	256	251.8	267.7
19 Spd	23	25	19	13	12	8	6	12	16	8	5	5	6	6	10	8	7	7	8	9	11	14	15	15	4.4	24.5
Dir	265	291	311	332	324	322	301	343	339	357	1	344	302	327	264	244	237	230	185	180	156	139	145	137	289.7	290.6
20 Spd	16	12	9	7	11	16	20	22	17	22	31	37	36	32	35	21	24	24	14	13	13	15	18	15	11.0	36.9
Dir	145	158	157	176	219	218	231	237	232	248	252	253	255	250	249	252	247	275	18	18	29	43	50	44	247.7	253.1
21 Spd	15	13	12	13	13	12	12	11	11	12	11	9	11	8	5	4	2	3	5	5	4	10	8	3	7.9	14.7
Dir	35	29	19	18	19	17	17	22	21	21	21	31	38	35	30	44	44	78	166	197	40	25	47	42	28.4	35.4
22 Spd	3	7	10	11	20	18	23	26	30	28	35	42	38	31	36	22	16	21	14	18	25	37	50	45	25.1	49.8
Dir	278	261	245	223	246	246	253	242	241	246	244	246	248	237	242	244	226	231	233	236	242	251	247	244	243.4	247.4

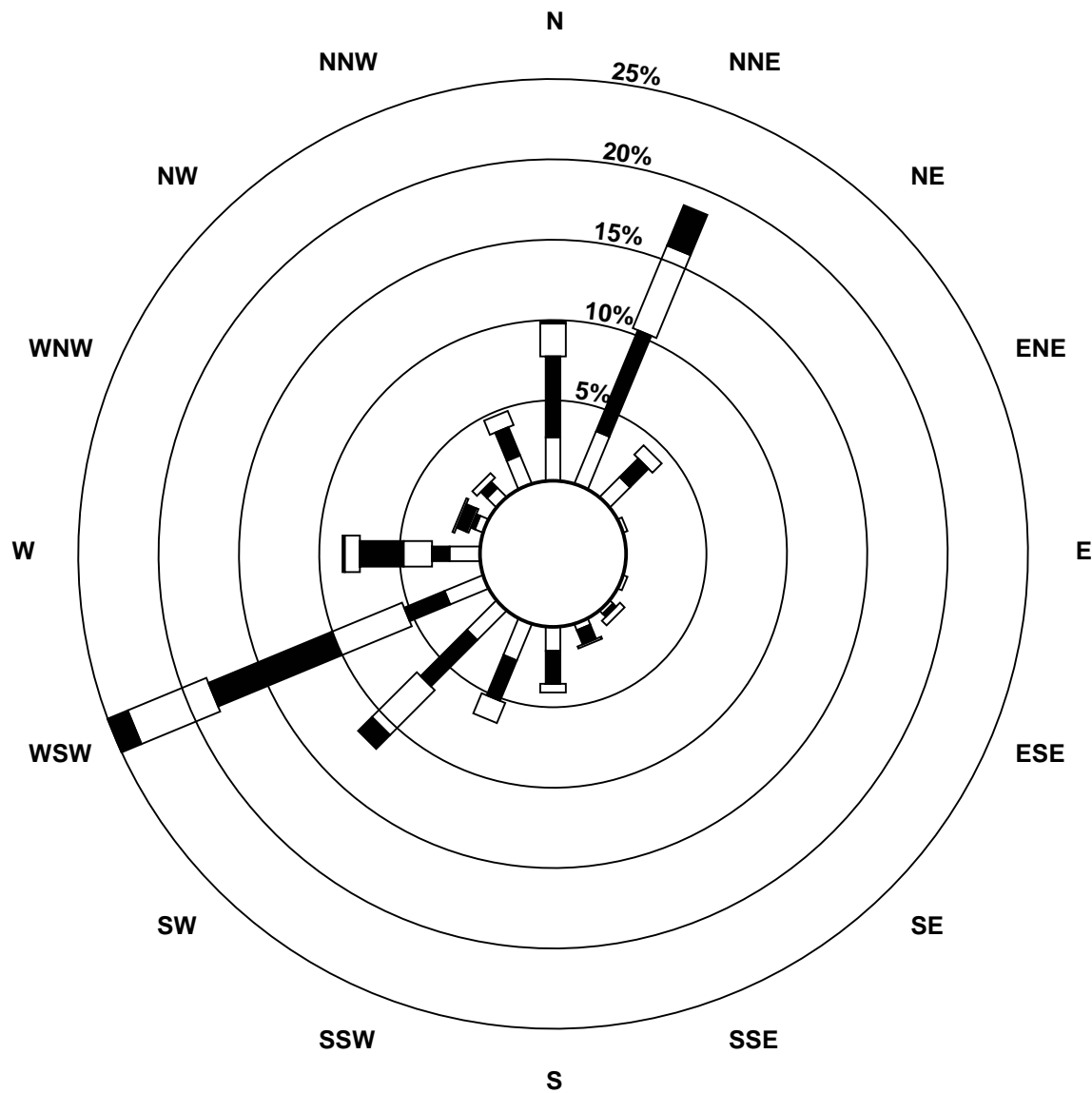
Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Smoky Heights - January 2011

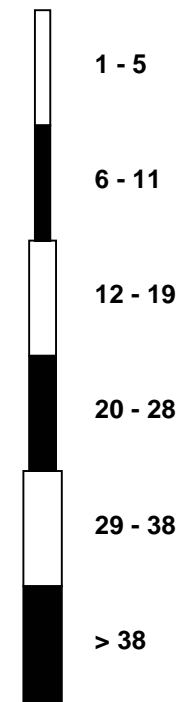
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	44	38	33	31	29	30	28	26	28	28	27	30	31	29	25	20	19	15	19	17	15	16	11	11	24.8	43.7
Dir	244	248	243	248	246	249	250	247	245	246	244	250	253	255	242	246	258	263	261	265	253	228	238	207	247.8	244.4
24 Spd	13	11	10	1	6	11	18	21	19	24	24	31	37	35	27	19	13	9	14	17	20	20	20	16	17.2	37.4
Dir	180	196	241	182	265	222	227	239	249	257	250	257	258	264	255	258	254	233	244	255	263	263	261	257	250.0	258.4
25 Spd	9	7	7	6	11	13	16	21	23	20	25	25	29	26	19	18	23	24	14	18	12	19	21	21	17.5	29.0
Dir	227	221	234	216	220	234	225	235	249	246	247	253	249	244	249	244	257	258	252	242	223	225	229	238	241.5	249.1
26 Spd	15	16	18	15	18	15	19	20	26	27	26	22	23	18	20	20	23	27	31	27	27	29	20	8	20.3	30.6
Dir	227	239	234	211	199	204	229	235	241	247	248	249	231	225	244	260	264	254	248	250	260	264	269	230	243.0	248.5
27 Spd	5	7	8	3	11	15	12	17	27	34	33	31	25	36	35	31	39	43	35	37	36	34	29	27	24.0	42.5
Dir	209	220	181	204	224	226	227	243	236	237	244	247	237	237	254	253	256	252	254	253	260	280	283	284	250.1	251.8
28 Spd	11	13	17	14	16	19	24	23	23	25	23	25	23	20	18	16	20	18	19	17	15	13	12	11	16.5	25.2
Dir	286	290	307	6	26	29	27	28	32	29	25	28	30	24	29	29	24	24	24	23	21	9	6	8	18.5	27.7
29 Spd	12	14	13	12	10	8	7	7	7	5	6	8	7	6	8	7	6	6	5	5	6	6	5	2	7.3	14.3
Dir	6	6	9	6	0	5	3	339	343	335	350	12	17	10	30	5	356	351	358	6	352	345	352	21	1.9	6.3
30 Spd	3	4	1	1	2	2	4	0	3	1	3	5	5	5	4	4	2	2	4	3	3	3	3	3	1.2	5.0
Dir	13	23	309	57	6	272	261	115	200	229	227	216	224	250	253	261	277	358	345	11	4	12	35	28	299.3	215.7
31 Spd	2	2	1	2	2	3	3	4	4	4	4	5	8	8	9	9	14	13	12	11	6	7	8	8	5.4	13.8
Dir	3	24	329	230	218	224	221	237	225	206	216	241	224	207	228	245	265	267	258	260	236	249	208	200	239.7	264.9
Spd	5.4	6.0	6.6	5.9	5.9	5.6	6.4	6.8	7.3	7.3	7.1	7.9	8.3	7.9	8.1	6.6	6.7	7.4	6.3	6.7	7.3	7.8	7.2	6.2	Diurnal Average	
Dir	262.6	275.3	272.1	272.8	265.9	262.5	262.1	262.0	266.5	265.1	265.0	265.8	263.4	262.2	264.4	268.8	273.3	271.7	268.5	267.3	267.8	269.7	270.8	265.8	Diurnal Maximum	
Spd	45.3	38.4	39.6	41.1	41.1	33.1	31.4	38.0	39.0	38.0	35.2	41.8	38.5	35.5	36.2	30.5	38.7	42.5	34.6	36.7	36.1	36.9	49.8	45.4	Diurnal Maximum	
Dir	260.6	248.4	246.9	255.4	253.1	250.1	248.2	247.1	246.6	248.6	244.4	245.7	248.3	237.5	242.1	252.6	255.7	251.8	253.9	253.0	260.0	251.5	247.4	243.7	Diurnal Maximum	
Maximum Speed Value: 50 km/h on Jan 22 23:00																		Minimum Speed Value: 0 km/h on Jan 12 03:00						Hours in Service:		744
Maximum Daily Speed Average: 28.5 km/h on Jan 6																		Minimum Daily Speed Average: 1.2 km/h on Jan 10						Hours of Data:		743
Maximum Diurnal Speed Average: 8.3 km/h at hour 13																		Minimum Diurnal Speed Average: 5.4 km/h at hour 1						Hours of Missing Data:		1
Monthly Average Velocity: 6.84 km/h 267.07 deg																		Speed Percentiles: P ₁ = 1.0 P ₁₀ = 3.1 Q ₁ = 5.7 Median = 10.7 Q ₃ = 18.8 P ₉₀ = 26.6 P ₉₉ = 40.5						Percent Operational Time:		99.9
All monthly, daily, and diurnal averages have been calculated using vector methods																										
N - Not Valid																										
Frequency Distribution																										
Speed Range (km/h)																										
Direction	0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total																			
North	35	70	51	12	0	0	168																			
NorthEast	26	40	27	10	0	0	103																			
East	1	0	0	0	0	0	1																			
SouthEast	5	6	3	0	0	0	14																			
South	19	32	10	0	0	0	61																			
SouthWest	36	47	50	36	12	6	187																			
West	25	16	33	63	36	8	181																			
NorthWest	12	10	5	1	0	0	28																			
Total	159	221	179	122	48	14	743																			

Wind Rose

Wind Speed (WS) (km/h)
Smoky Heights - January 2011



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Smoky Heights - January 2011

Maximum Speed: 50 km/h on Jan 22 23:00	Maximum Daily Speed Average: 28.8 km/h on Jan 6	Hours in Service: 744
Minimum Speed: 1 km/h on Jan 31 03:00	Minimum Daily Speed Average: 2.8 km/h on Jan 10	Hours of Data: 743
Maximum Diurnal Speed Average: 15.7 km/h at hour 13	Minimum Diurnal Speed Average: 11.4 km/h at hour 6	Hours of Missing Data: 1
Monthly Average Speed: 13.31 km/h	Percentiles: P ₁ = 1.8 P ₁₀ = 3.4 Q ₁ = 6.0 Median = 11.0 Q ₃ = 18.9 P ₉₀ = 26.7 P ₉₉ = 40.6	Percent Operational Time: 99.9

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jan	6	6	9	9	8	11	10	12	11	14	11	15	21	22	22	18	22	24	23	21	23	21	22	27	16.1	27.2
2-Jan	23	17	19	17	8	6	7	9	8	11	6	6	7	9	10	7	8	15	19	16	14	11	13	19	11.9	22.7
3-Jan	15	14	11	11	12	11	13	12	6	5	7	7	8	6	6	8	9	7	9	10	5	12	16	15	9.8	15.8
4-Jan	10	11	13	19	16	12	13	11	9	7	7	7	10	11	14	11	8	8	9	8	26	26	15	14	12.2	26.0
5-Jan	13	N	30	27	22	31	31	30	23	18	11	12	8	6	6	9	3	5	7	13	19	22	15	15	16.5	31.4
6-Jan	46	36	40	41	41	33	31	38	39	38	31	27	25	25	25	22	19	19	21	22	22	19	18	13	28.8	45.6
7-Jan	6	7	6	7	5	5	7	10	13	13	14	18	17	19	16	18	21	23	25	23	23	22	21	23	15.1	25.4
8-Jan	24	23	22	21	16	15	15	15	16	15	12	15	14	12	11	11	10	9	7	6	5	6	5	4	12.9	24.2
9-Jan	2	3	2	3	4	4	4	4	3	3	4	2	4	5	5	5	4	3	4	4	3	5	4	4	3.7	5.0
10-Jan	4	4	4	4	3	2	2	3	3	4	5	5	3	3	2	2	3	2	2	2	2	3	2	2	2.8	4.8
11-Jan	3	3	2	1	2	3	3	4	3	3	3	2	3	3	3	2	3	4	4	5	5	4	4	4	3.2	4.8
12-Jan	3	2	2	3	6	7	6	6	9	8	12	16	14	15	14	12	13	11	9	9	9	9	6	7	8.6	15.5
13-Jan	7	9	11	7	5	3	3	2	3	3	4	8	9	13	11	9	10	11	11	11	11	10	11	11	8.1	12.7
14-Jan	10	9	8	5	5	5	8	8	6	4	8	10	9	9	10	13	12	12	10	11	10	11	12	13	9.0	13.4
15-Jan	12	12	13	12	10	10	10	9	10	9	7	7	7	4	5	5	6	7	7	8	9	12	11	13	8.9	13.1
16-Jan	12	11	11	10	10	9	10	9	9	9	8	7	8	6	6	6	5	5	4	3	2	3	5	4	7.2	12.4
17-Jan	5	3	3	4	4	5	6	7	8	9	8	7	6	3	6	5	5	11	13	12	12	14	16	18	7.9	17.7
18-Jan	10	9	14	24	19	7	5	11	23	23	30	28	28	28	26	22	22	19	19	20	24	21	22	23	19.9	29.8
19-Jan	23	25	19	13	12	9	9	13	16	8	6	5	7	7	10	8	7	7	8	9	11	14	16	16	11.1	25.2
20-Jan	16	12	9	7	11	16	20	22	17	22	31	37	36	32	35	22	24	25	14	13	13	15	18	15	20.0	37.0
21-Jan	15	13	12	14	13	12	12	11	11	12	11	9	11	8	5	5	4	4	6	6	5	10	8	4	9.2	14.8
22-Jan	4	7	11	12	21	18	23	26	30	28	35	42	39	31	36	23	16	21	14	18	25	37	50	45	25.5	49.9
23-Jan	44	38	33	31	29	30	28	26	28	28	27	30	31	29	25	20	19	15	19	17	16	16	11	12	25.1	43.7
24-Jan	13	11	10	4	8	12	18	22	19	25	24	31	37	35	27	20	13	11	14	17	20	20	20	16	18.5	37.5
25-Jan	11	8	7	6	11	13	16	21	23	21	25	25	29	26	19	18	23	25	15	18	13	19	21	21	18.1	29.1
26-Jan	16	17	18	15	18	15	19	20	26	27	26	23	23	18	20	20	23	27	31	28	27	29	20	9	21.3	30.6
27-Jan	6	7	8	5	11	15	12	18	27	34	33	31	25	36	35	31	39	43	35	37	36	35	29	27	25.5	42.7
28-Jan	11	13	17	17	16	19	24	23	23	25	23	25	23	20	18	16	20	18	19	17	15	13	12	11	18.3	25.3
29-Jan	12	14	13	12	10	8	7	7	7	5	6	8	7	6	8	7	6	6	5	5	6	6	5	3	7.6	14.3
30-Jan	3	4	3	2	2	2	4	2	3	2	4	6	5	5	4	4	2	2	4	3	3	3	3	3	3.3	5.5
31-Jan	2	2	1	2	2	3	3	4	4	4	4	5	8	8	9	9	14	13	12	11	7	7	8	8	6.3	13.8
	12.5	11.7	12.3	11.8	11.6	11.4	12.3	13.4	14.1	14.1	14.3	15.4	15.7	14.8	14.4	12.6	12.6	13.3	12.7	12.9	13.6	14.5	14.1	13.5	Diurnal Average	
	45.6	38.5	39.7	41.1	41.2	33.1	31.5	38.0	39.1	38.1	35.2	41.8	38.6	35.7	36.3	30.7	39.2	42.7	34.6	36.8	36.1	37.0	49.9	45.5	Diurnal Maximum	

N - Not Valid
All monthly, daily, and diurnal averages have been calculated using scalar methods

Hourly Standard Deviations

Wind Direction (WD) - deg
Smoky Heights - January 2011

Maximum Value: 93.2 deg on Jan 30 08:00																		Hours in Service: 744									
Minimum Value: 1.5 deg on Jan 6 21:00																		Hours of Data: 743									
Percentiles: P ₁ = 2.2 P ₁₀ = 3.6 Q ₁ = 4.8 Median = 7.8 Q ₃ = 14.9 P ₉₀ = 27.3 P ₉₉ = 73.6																		Hours of Missing Data: 1									
																		Hours of Calibration: 0									
																		Percent Operational Time: 99.9									
Day	Hourly Period Ending At (MST)																								Daily Maximum		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jan	34	22	9	7	10	5	3	4	3	3	15	15	4	15	3	10	5	8	4	5	10	7	17	6	33.7		
2-Jan	25	17	7	5	35	29	61	27	47	10	14	17	15	14	6	17	8	6	4	4	5	8	7	4	61.0		
3-Jan	5	4	7	7	6	6	7	14	15	9	6	6	7	8	6	11	13	8	9	18	29	31	8	6	31.3		
4-Jan	15	5	5	5	4	15	6	8	17	24	16	10	6	4	3	6	11	18	9	6	6	6	4	15	23.7		
5-Jan	4	N	4	5	6	6	5	5	7	6	24	24	15	35	13	7	38	21	27	12	4	11	13	15	37.7		
6-Jan	7	7	4	2	2	3	4	3	3	2	2	4	4	2	2	6	3	3	3	2	2	3	5	33	32.7		
7-Jan	28	10	8	8	15	25	13	4	3	3	6	4	6	5	5	5	6	3	3	4	4	5	7	4	27.8		
8-Jan	4	6	4	5	7	8	8	9	8	6	8	7	8	10	8	5	7	6	10	14	9	9	12	33	33.4		
9-Jan	21	8	43	39	20	10	20	17	25	41	21	61	13	10	13	7	10	15	20	5	24	14	6	14	61.0		
10-Jan	15	8	9	15	28	32	36	18	78	25	25	12	12	16	49	31	18	32	70	33	37	14	12	29	77.6		
11-Jan	17	15	25	12	40	15	10	36	21	19	21	25	15	12	8	66	16	11	12	19	16	16	15	9	65.7		
12-Jan	12	29	92	36	6	4	4	4	4	4	4	4	6	4	6	9	7	7	9	8	9	13	8	7	92.3		
13-Jan	7	10	13	38	71	71	23	88	67	52	16	12	5	5	6	8	5	8	4	6	6	9	8	8	87.9		
14-Jan	7	12	11	9	10	19	3	7	27	12	6	7	10	9	9	6	5	5	5	5	4	4	4	3	27.4		
15-Jan	4	3	3	4	4	4	4	7	5	6	11	16	11	15	16	14	12	11	7	5	5	4	5	4	16.4		
16-Jan	5	12	7	8	9	10	11	11	9	6	17	14	10	13	15	12	10	8	8	11	16	31	7	5	31.1		
17-Jan	6	11	25	8	12	22	8	5	8	13	10	8	12	67	29	19	45	15	10	8	6	6	5	14	66.9		
18-Jan	11	25	23	5	59	42	63	53	6	6	3	12	4	2	3	7	4	5	7	9	7	7	4	4	63.4		
19-Jan	5	13	9	11	16	29	45	15	10	21	29	18	47	26	25	4	11	9	16	9	5	5	4	4	47.5		
20-Jan	5	7	8	19	11	4	8	4	8	4	3	4	3	3	3	10	4	25	5	7	8	8	6	4	25.1		
21-Jan	8	4	6	4	5	4	3	4	4	4	10	9	7	14	11	27	76	45	25	27	57	11	20	61	75.5		
22-Jan	29	14	18	18	5	5	4	6	2	4	3	2	4	3	4	12	7	7	15	14	5	5	3	2	29.2		
23-Jan	2	3	2	3	4	2	3	3	3	2	3	2	2	4	4	4	6	3	2	6	17	8	7	13	17.4		
24-Jan	2	14	26	81	53	9	10	5	5	3	6	3	4	3	5	17	8	45	4	7	2	6	7	9	81.1		
25-Jan	43	18	20	26	11	7	7	7	4	6	4	5	5	4	6	9	4	5	9	10	13	3	6	5	42.8		
26-Jan	8	11	7	5	6	5	6	6	3	4	7	11	5	4	10	7	3	5	3	7	2	9	7	14	14.4		
27-Jan	27	14	23	49	8	7	11	12	5	3	4	4	4	6	3	6	10	5	3	3	2	11	6	5	48.9		
28-Jan	25	15	8	31	10	7	4	3	4	4	4	3	4	5	5	6	6	5	6	8	7	7	7	7	30.8		
29-Jan	7	5	6	6	7	8	12	9	9	10	16	12	13	12	11	9	9	7	6	9	16	8	10	26	26.4		
30-Jan	16	21	62	78	46	30	14	93	22	71	30	29	8	11	20	8	21	26	5	17	8	6	11	6	93.2		
31-Jan	26	28	39	17	14	20	16	22	11	20	26	7	6	22	6	10	5	6	6	9	23	18	6	21	38.7		
	42.8	29.2	92.3	81.1	71.3	71.1	63.4	93.2	77.6	71.3	29.7	61.0	47.5	66.9	49.4	65.7	75.5	45.4	69.9	33.3	56.6	31.3	19.9	60.9			
N - Not Valid																											

PASZA
Beaverlodge Station
Monthly Summary Tables, Graphs and
Roses

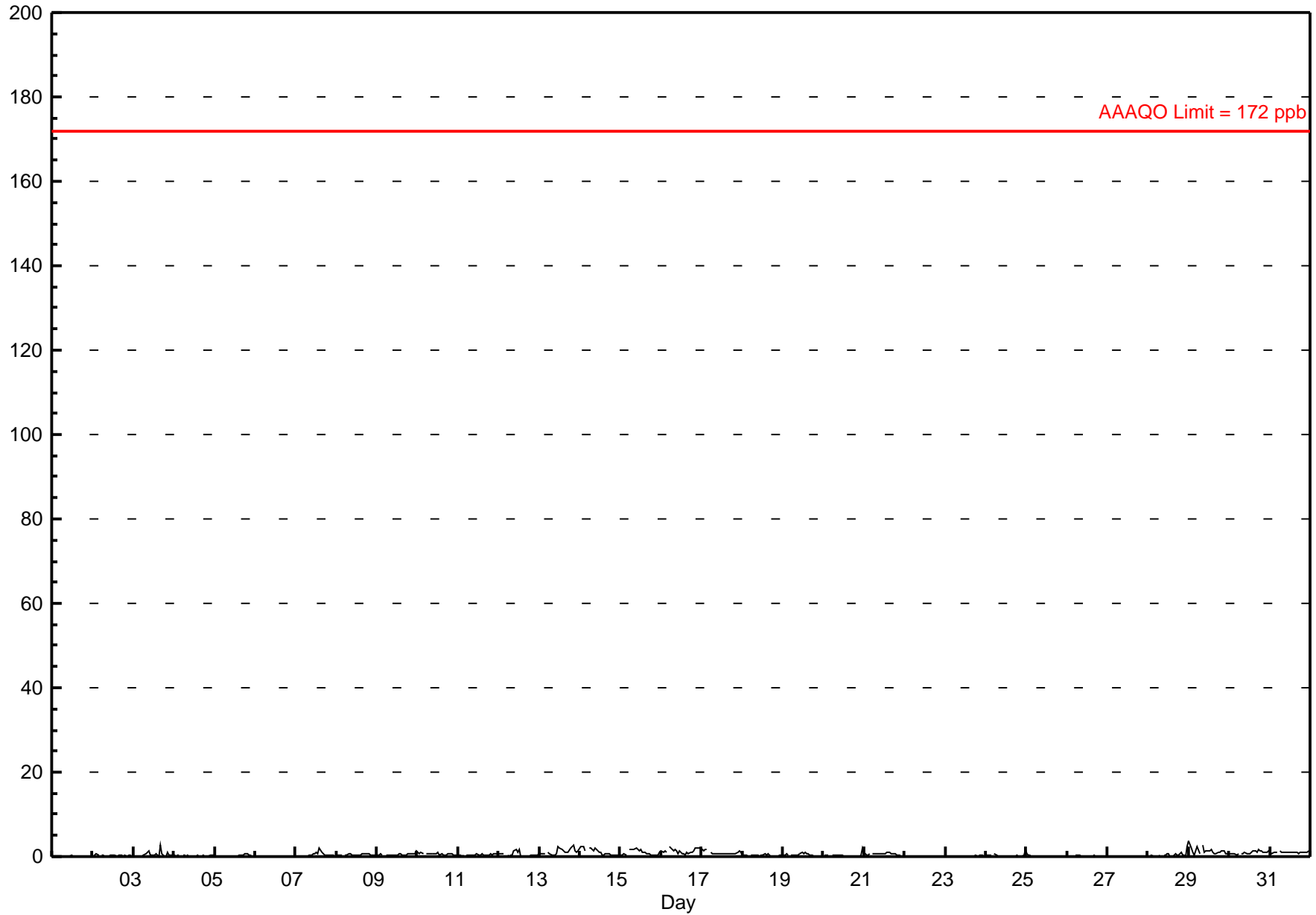
Hourly Averages

Sulphur Dioxide (SO₂) - ppb Beaverlodge - January 2011

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 3.6 ppb on Jan 29 01:00	Maximum Daily Average: 1.3 ppb on Jan 29
Minimum Value: 0 ppb on Jan 22 15:00	Hours of Data: 699
Maximum Diurnal Average: 0.7 ppb at hour 5	Hours of Missing Data: 45
Monthly Average: 0.51 ppb	Hours of Calibration: 41
Minimum Daily Average: 0.1 ppb on Jan 22	Percent Operational Time: 99.5
Minimum Diurnal Average: 0.4 ppb at hour 4	
Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.1 Median = 0.3 Q ₃ = 0.7 P ₉₀ = 1.2 P ₉₉ = 2.3	

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-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
2-Jan	0	0	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
3-Jan	0	0	0	0	A	0	0	1	1	1	0	0	0	1	0	0	3	1	0	0	1	0	0	0	0.5	2.8
4-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
5-Jan	0	0	0	0	A	0	0	0	0	C	C	C	0	0	0	0	0	0	1	1	0	0	0	0	0.2	0.6
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	0.2
7-Jan	0	0	0	0	A	0	0	0	0	0	1	1	1	1	2	1	1	0	0	0	0	0	0	0	0.4	1.9
8-Jan	0	0	0	0	A	0	0	1	1	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0.4	0.7
9-Jan	0	0	1	0	A	0	0	0	0	0	0	0	0	1	1	0	0	0	1	1	1	1	1	1	0.5	1.2
10-Jan	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0	0	0	1	1	1	0	0	0	0.6	0.9
11-Jan	0	0	0	0	A	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	1	1	1	1	0.5	0.8
12-Jan	1	1	1	1	A	0	0	0	0	1	2	1	2	0	0	0	0	0	0	0	0	0	0	0	0.5	1.9
13-Jan	1	1	1	1	A	1	1	0	0	0	1	2	2	2	1	1	1	1	2	2	3	1	1	1	1.2	2.7
14-Jan	2	2	2	1	A	2	2	2	1	2	2	1	1	0	0	1	1	1	0	0	0	0	0	0	1.1	2.3
15-Jan	0	0	1	0	A	2	2	2	2	2	2	2	2	1	1	1	1	1	0	0	0	0	0	1	0.9	1.9
16-Jan	1	1	1	1	A	2	2	1	2	1	1	1	1	0	1	1	1	1	1	1	2	2	2	2	1.3	2.2
17-Jan	2	1	2	2	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.8
18-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0.2	0.5
19-Jan	0	0	1	0	A	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0.4	1.2
20-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	2.0
21-Jan	1	0	0	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0.6	1.1
22-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
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	0.2	0.3
24-Jan	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.2	1.8
25-Jan	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.8
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	0.1	0.4
27-Jan	0	0	0	0	A	0	C	C	C	M	M	M	M	C	C	C	C	0	0	0	0	0	0	0	--	0.2
28-Jan	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	0	0	1	0	0	0	2	0.4	2.4
29-Jan	4	2	1	0	1	2	1	A	3	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1.3	3.6
30-Jan	1	1	1	1	0	1	A	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	0.9	1.6
31-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	1.0	1.3
	0.6	0.5	0.5	0.4	0.7	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.4	0.4	0.5	0.5	0.4	0.4	0.7	Diurnal Average	
	3.6	2.2	2.3	1.6	1.3	2.4	2.2	1.8	2.6	1.9	1.8	2.5	2.0	1.8	1.9	1.4	2.8	1.6	1.9	2.4	2.7	2.2	2.1	2.4	Diurnal Maximum	

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



Hourly Maximums

Sulphur Dioxide (SO₂) - ppb Beaverlodge - January 2011

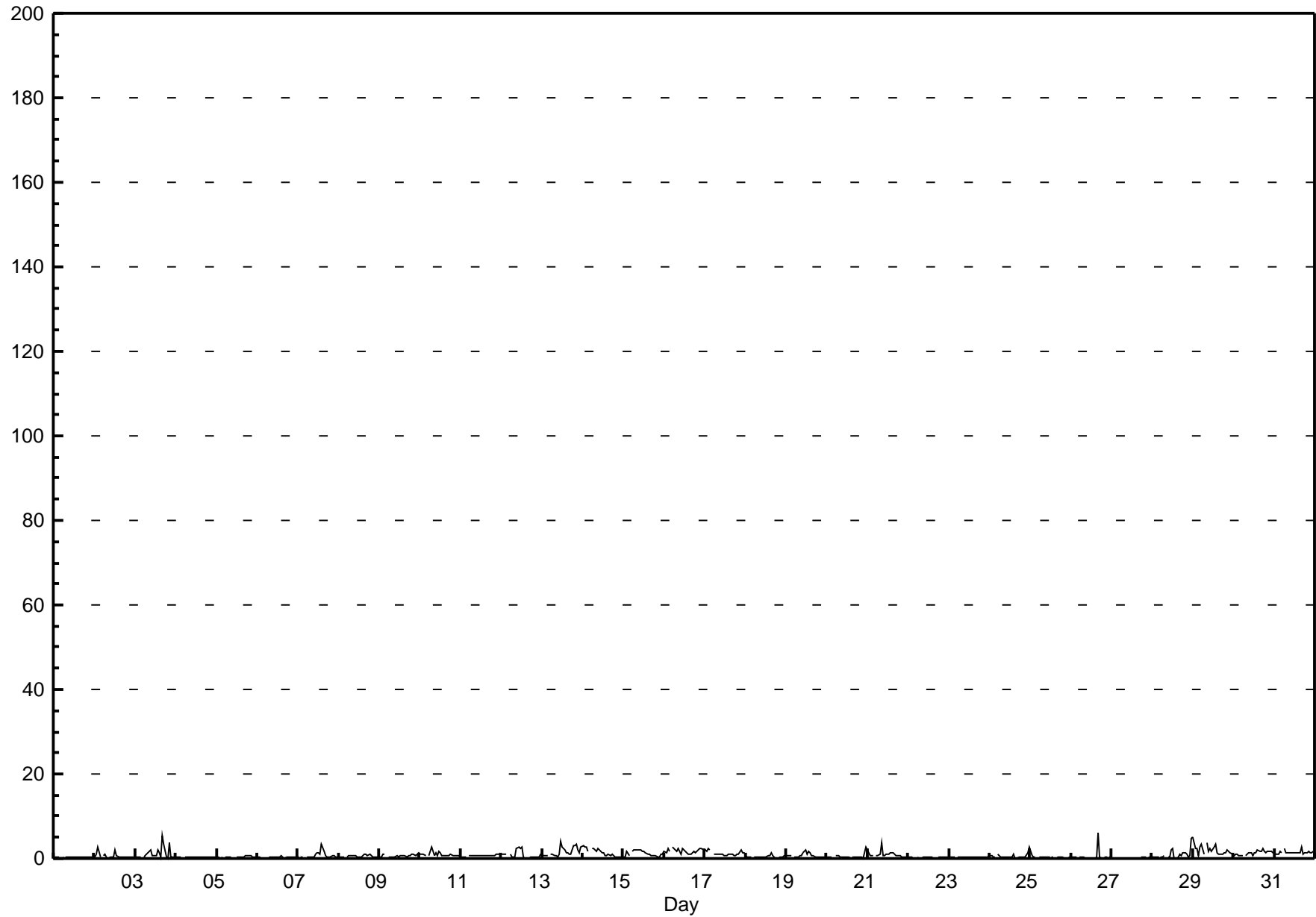
Maximum Value: 6.2 ppb on Jan 26 17:00	Maximum Daily Average: 2.0 ppb on Jan 29	Hours in Service: 744
Minimum Value: 0 ppb on Jan 26 15:00	Minimum Daily Average: 0.2 ppb on Jan 22	Hours of Data: 699
Maximum Diurnal Average: 1.2 ppb at hour 5	Minimum Diurnal Average: 0.6 ppb at hour 4	Hours of Missing Data: 45
Monthly Average: 0.80 ppb	Percentiles: P ₁ = 0.1 P ₁₀ = 0.2 Q ₁ = 0.3 Median = 0.5 Q ₃ = 1.1 P ₉₀ = 1.9 P ₉₉ = 3.6	Hours of Calibration: 41
		Percent Operational Time: 99.5

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-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
2-Jan	0	1	3	0	A	1	1	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0.6	2.7
3-Jan	0	0	0	0	A	0	1	1	2	2	1	1	1	2	1	0	5	3	0	0	4	0	0	0	1.1	5.4
4-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
5-Jan	0	0	0	0	A	0	0	0	0	C	C	C	0	0	0	0	0	1	1	1	1	0	0	0	0.3	0.8
6-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.2	0.6
7-Jan	0	0	0	0	A	0	0	0	0	0	1	1	2	1	4	2	1	0	0	0	1	1	0	0	0.7	3.5
8-Jan	0	0	0	0	A	0	1	1	1	1	1	0	0	0	1	1	1	1	1	1	0	0	0	0	0.5	1.1
9-Jan	0	0	1	1	A	0	0	0	0	0	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0.7	1.5
10-Jan	1	1	1	1	A	1	2	3	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1.0	2.7
11-Jan	0	0	0	0	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.2
12-Jan	1	1	1	1	A	1	0	0	0	2	3	2	3	0	0	0	0	0	0	0	0	0	0	1	0.9	2.7
13-Jan	1	1	1	1	A	1	1	1	1	0	1	4	3	2	2	1	1	1	3	3	3	2	1	3	1.6	4.2
14-Jan	3	3	3	2	A	2	2	2	2	2	2	1	1	1	1	1	1	1	1	0	0	0	0	0	1.4	3.1
15-Jan	0	0	2	1	A	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	0	0	1	1	1.2	2.1
16-Jan	2	1	2	2	A	3	2	2	2	2	1	2	2	1	1	1	1	2	1	2	2	2	2	2	1.8	2.6
17-Jan	2	2	2	2	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1.2	2.2
18-Jan	1	0	0	0	A	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	1	0.5	1.4
19-Jan	1	1	1	1	A	0	0	0	0	1	2	2	1	2	1	1	1	0	0	0	0	0	0	0	0.7	2.2
20-Jan	0	0	0	0	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0.5	2.7
21-Jan	2	1	1	1	A	1	1	1	4	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	1.0	3.6
22-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
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	0.4
24-Jan	1	1	0	0	A	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	3	0.5	2.6
25-Jan	2	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.6
26-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0.4	6.2
27-Jan	0	0	0	0	A	0	C	C	C	M	M	M	M	C	C	C	C	0	0	0	0	0	0	1	--	0.6
28-Jan	0	0	0	0	0	0	0	1	A	0	0	2	2	0	0	0	1	1	1	1	1	0	1	5	0.9	4.8
29-Jan	5	2	2	1	3	3	1	A	4	2	2	2	3	3	1	1	1	1	1	1	2	2	1	1	2.0	5.0
30-Jan	1	1	1	1	1	1	A	1	1	1	1	1	1	1	2	2	2	2	2	2	1	2	2	2	1.3	2.3
31-Jan	1	1	1	2	1	A	2	1	1	1	1	1	1	1	1	1	3	1	1	1	2	1	1	2	1.4	2.6
	0.9	0.7	0.8	0.6	1.2	0.8	0.8	0.7	0.9	0.8	0.8	1.0	1.0	0.8	0.8	0.7	1.0	0.7	0.7	0.7	0.8	0.6	0.7	1.0		Diurnal Average
	5.0	2.7	2.8	2.1	2.6	3.4	2.5	2.7	3.7	2.5	2.7	4.2	2.8	3.2	3.5	1.9	6.2	3.3	3.0	2.9	3.6	2.4	2.4	4.8		Diurnal Maximum

C - Calibration M - Maintenance A - Automated Daily Zero Span

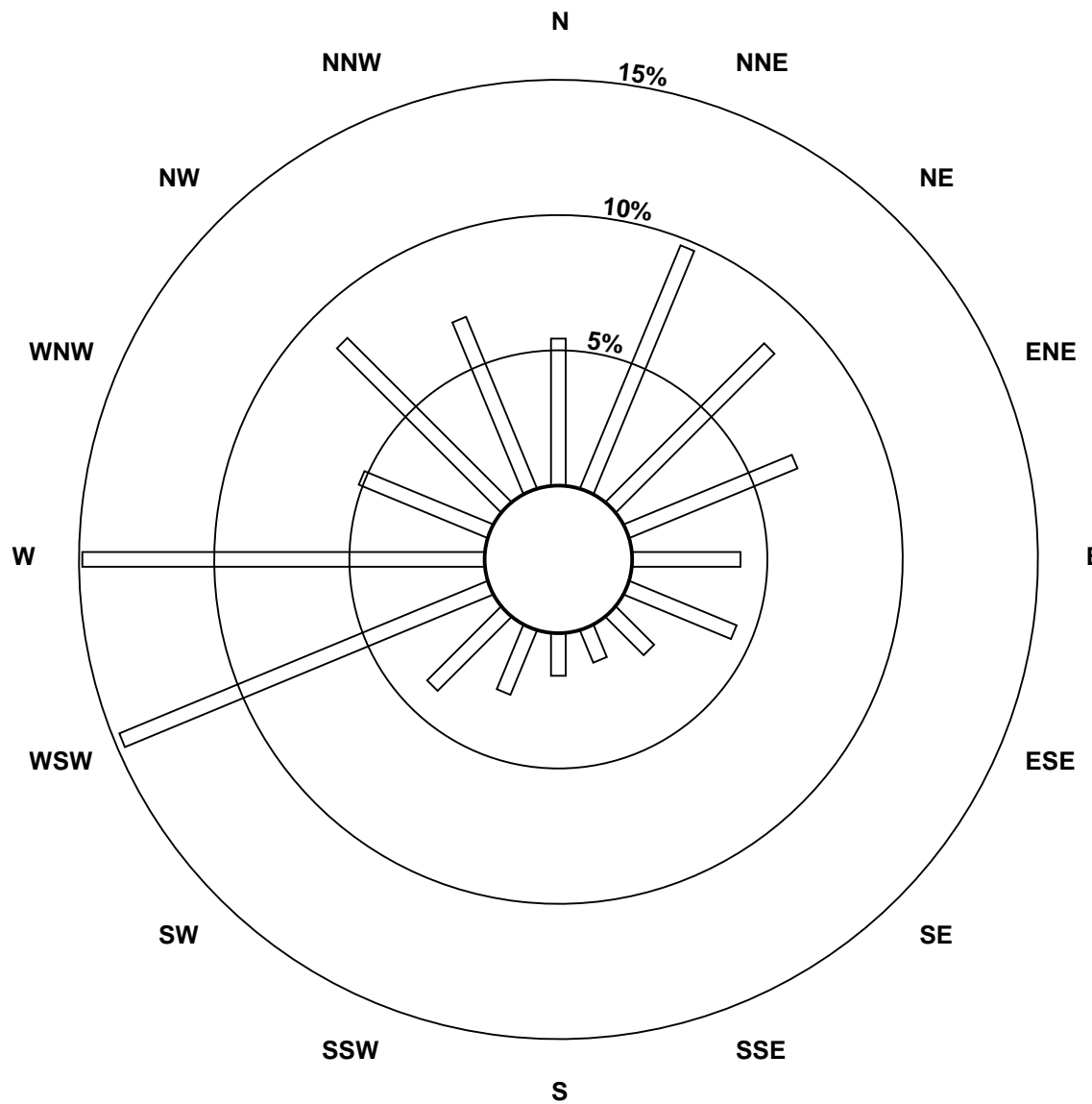
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Beaverlodge - January 2011

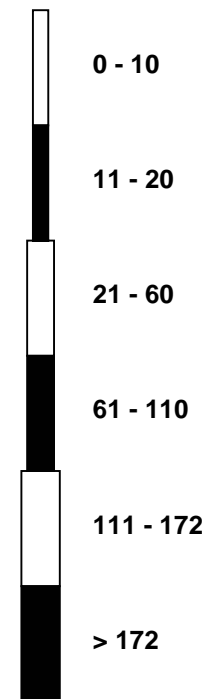


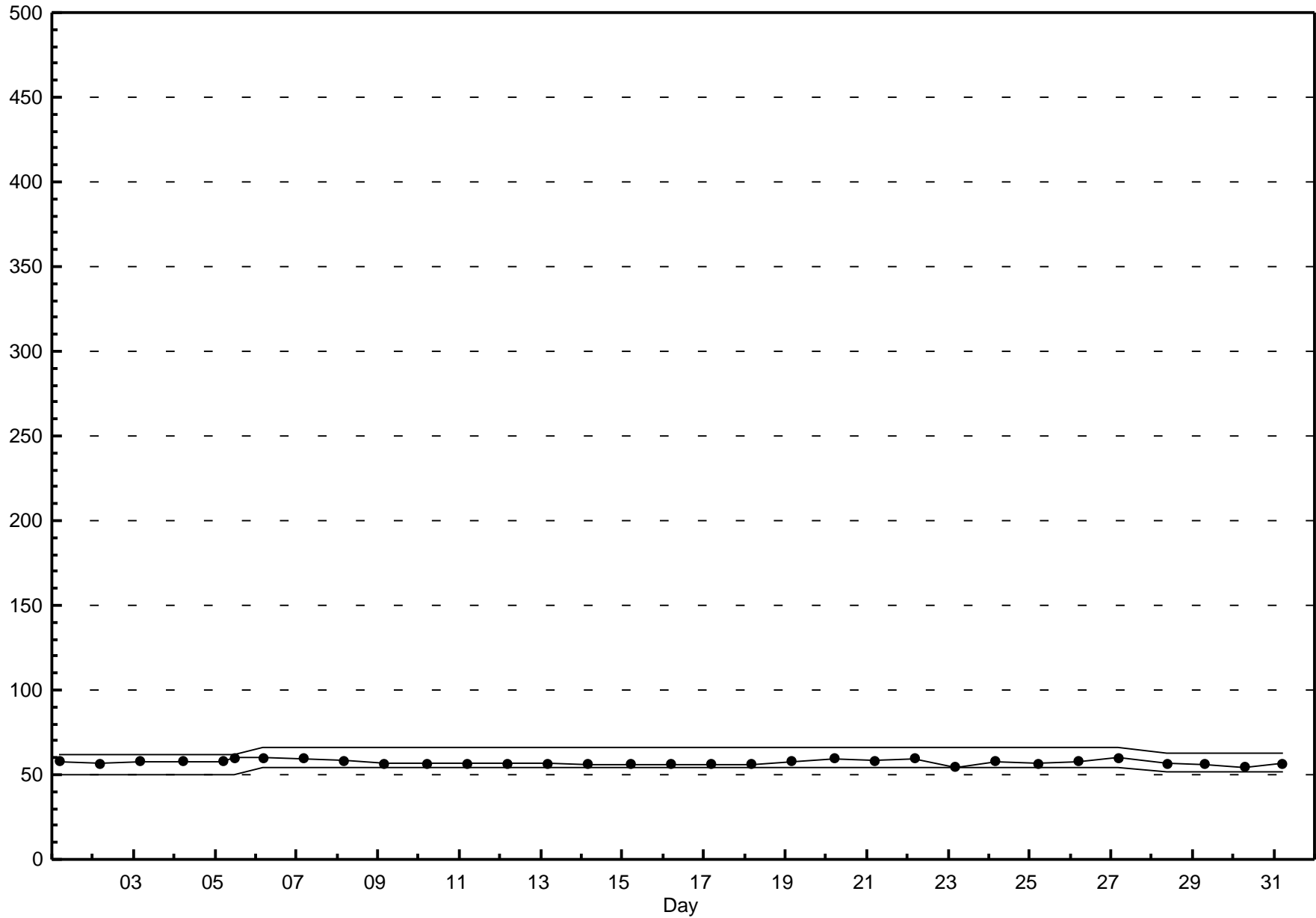
Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Beaverlodge - January 2011



Pollutant Classes (ppb)





Hourly Averages

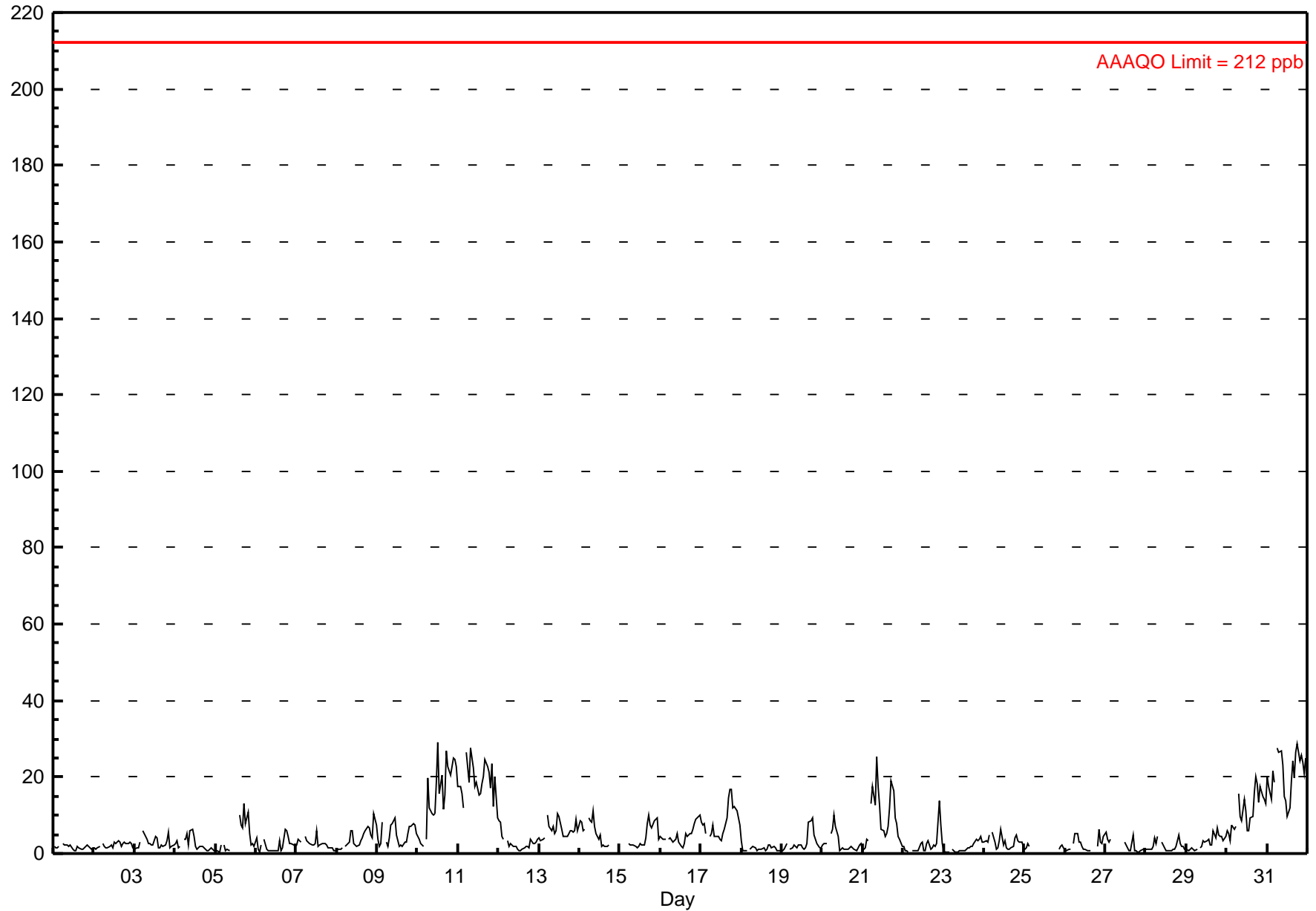
Nitrogen Dioxide (NO₂) - ppb Beaverlodge - January 2011

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 29.1 ppb on Jan 10 13:00	Maximum Daily Average: 21.0 ppb on Jan 31
Minimum Value: 0 ppb on Jan 23 02:00	Hours of Data: 675
Maximum Diurnal Average: 7.5 ppb at hour 19	Hours of Missing Data: 69
Monthly Average: 5.27 ppb	Hours of Calibration: 42
Minimum Daily Average: 1.3 ppb on Jan 18	Percent Operational Time: 96.4
Minimum Diurnal Average: 3.3 ppb at hour 3	
Percentiles: P ₁ = 0.5 P ₁₀ = 0.9 Q ₁ = 1.6 Median = 2.8 Q ₃ = 6.2 P ₉₀ = 14.1 P ₉₉ = 26.6	

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	2	1	1	2	A	3	2	2	2	2	2	1	1	1	2	2	1	1	1	2	2	2	1	2	1.6	2.6
2-Jan	1	1	1	2	A	3	2	2	1	2	2	2	3	2	3	3	2	3	3	3	3	3	3	1	2.2	3.3
3-Jan	1	1	1	3	A	6	5	4	2	3	2	2	4	4	1	1	2	2	2	3	6	2	2	2	2.8	5.9
4-Jan	3	3	2	2	A	4	4	5	2	6	6	4	2	1	2	2	2	1	1	1	1	1	1	1	2.5	6.2
5-Jan	1	1	1	2	A	2	1	1	1	C	C	C	C	C	10	7	7	13	8	11	5	2	2	2	4.3	13.0
6-Jan	4	1	1	2	A	4	1	1	1	1	1	1	1	1	3	1	1	6	6	4	3	2	2	2	2.2	6.2
7-Jan	2	4	3	3	A	4	4	3	3	2	2	3	6	2	2	3	3	3	2	2	1	1	1	1	2.6	5.8
8-Jan	1	1	1	1	A	2	2	3	6	6	3	2	2	2	3	4	5	6	7	7	5	4	10	7	4.0	10.3
9-Jan	4	2	3	8	A	3	2	4	8	8	9	5	3	2	2	2	3	3	5	7	7	8	8	5	4.8	9.4
10-Jan	4	4	3	2	A	4	20	12	10	10	11	19	29	16	20	11	15	27	23	21	23	25	25	23	15.4	29.1
11-Jan	18	18	16	12	A	27	19	28	25	22	17	19	15	16	18	20	25	23	21	17	23	12	20	9	19.1	27.8
12-Jan	8	8	5	4	A	3	2	3	2	2	2	1	1	1	1	2	2	2	2	4	3	3	3	4	2.9	8.4
13-Jan	4	3	4	4	A	10	7	6	7	5	6	10	10	6	4	5	5	5	6	6	6	6	9	6	6.1	10.4
14-Jan	9	8	6	6	A	9	9	8	11	7	5	4	5	2	2	2	2	2	BD	BD	BD	BD	BD	BD	--	11.3
15-Jan	BD	BD	BD	BD	A	3	2	2	2	2	2	2	3	2	2	4	8	10	7	7	8	9	9	4	4.7	10.2
16-Jan	4	4	4	4	A	4	4	3	3	4	5	3	2	2	2	5	4	5	5	6	8	9	9	10	4.8	10.1
17-Jan	8	7	8	5	A	5	5	8	5	5	4	4	4	5	6	9	15	17	17	12	12	11	9	7	8.1	16.8
18-Jan	3	1	1	1	A	1	1	2	2	1	1	1	1	1	1	1	2	2	2	2	1	1	1	1	1.3	3.3
19-Jan	1	1	2	2	A	1	2	2	2	2	2	2	1	1	2	3	8	8	9	5	4	3	2	1	2.9	9.4
20-Jan	2	2	2	3	A	5	6	10	7	4	1	1	1	1	1	1	1	2	1	1	1	1	2	3	2.7	10.0
21-Jan	1	1	4	3	A	13	18	13	25	17	13	6	6	4	5	7	12	19	16	9	8	4	4	2	9.2	25.2
22-Jan	2	1	1	1	A	1	1	1	1	1	3	3	1	1	2	3	1	2	2	2	3	14	8	3	2.3	13.7
23-Jan	1	0	0	0	A	1	1	1	0	1	1	1	1	1	1	1	2	2	3	4	3	4	5	3	1.5	4.6
24-Jan	3	3	3	5	A	6	3	1	1	3	6	2	3	1	1	1	1	2	4	5	3	3	3	2	2.9	6.3
25-Jan	1	1	3	2	A	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	--	2.6
26-Jan	1	1	1	1	A	3	5	5	3	3	2	1	1	1	1	1	C	C	C	2	6	3	2	4	2.4	6.2
27-Jan	6	4	3	4	A	4	C	C	C	M	M	3	2	1	1	1	5	1	1	1	1	1	1	1	2.1	5.6
28-Jan	1	1	1	1	2	4	3	4	A	3	2	1	1	1	1	1	1	1	2	5	3	2	2	1	1.9	5.0
29-Jan	1	1	1	1	1	1	1	1	A	2	2	3	3	3	4	2	2	6	4	7	5	5	3	5	2.9	6.6
30-Jan	6	5	3	7	6	7	A	16	10	9	14	11	6	6	9	10	16	20	18	14	17	15	14	13	11.0	20.2
31-Jan	20	17	14	22	19	A	28	26	27	23	15	14	10	12	19	24	20	26	29	24	26	24	21	25	21.0	28.7

4.1	3.6	3.3	3.9	6.9	4.9	5.6	6.2	6.1	5.5	5.1	4.5	4.4	3.5	4.5	4.6	6.1	7.5	7.5	6.5	6.6	6.0	6.2	5.0	Diurnal Average	
20.2	17.6	15.6	21.7	18.6	26.6	27.5	27.8	26.7	23.1	17.5	18.8	29.1	15.8	20.4	24.3	24.8	26.9	28.7	24.2	25.8	24.9	24.6	25.0	Diurnal Maximum	

C - Calibration M - Maintenance BD - Baseline Drift A - Automated Daily Zero Span
 Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 212 ppb 24-hr 106 ppb



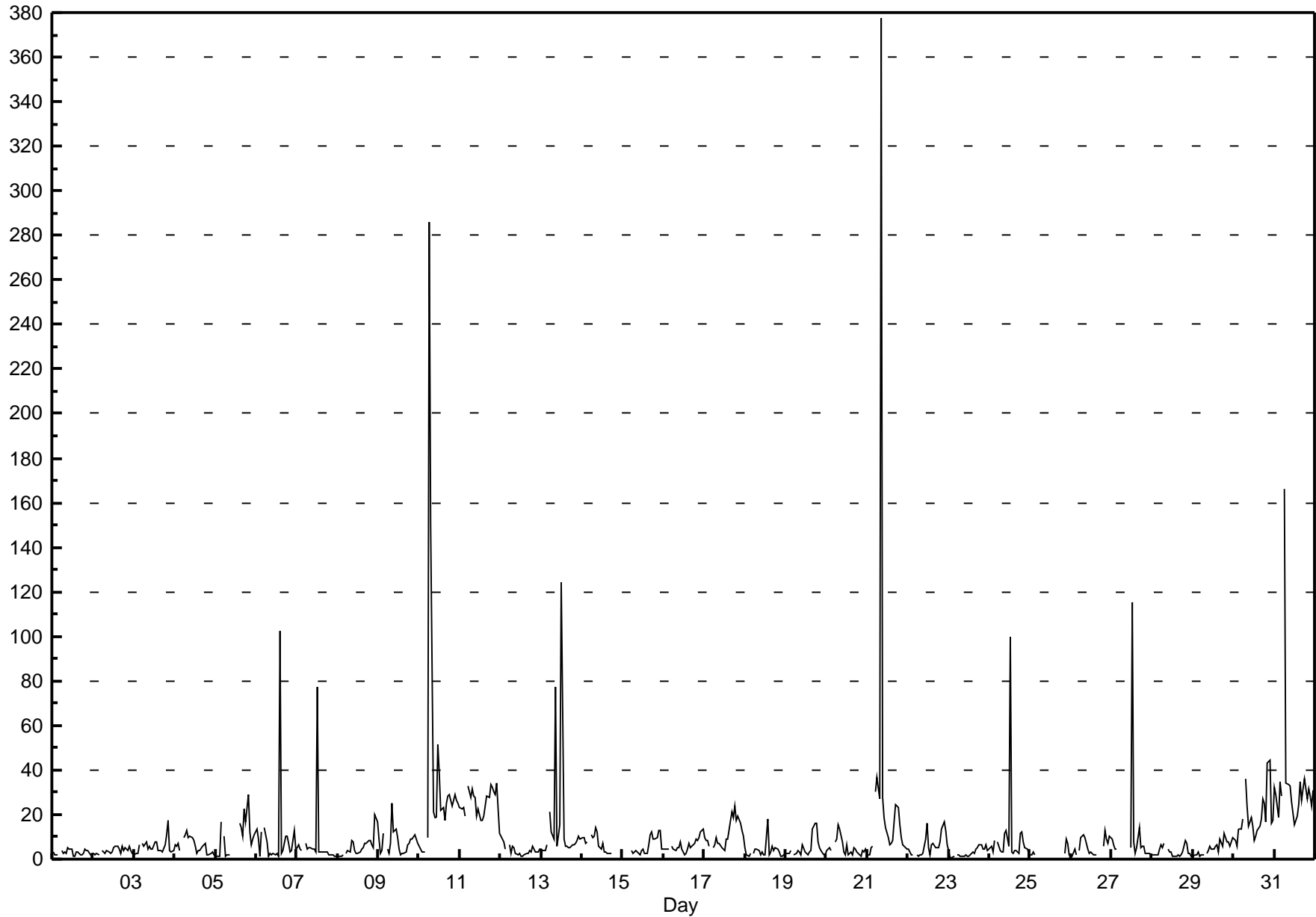
Hourly Maximums

Nitrogen Dioxide (NO₂) - ppb Beaverlodge - January 2011

Maximum Value: 377.7 ppb on Jan 21 09:00		Maximum Daily Average: 38.6 ppb on Jan 10		Hours in Service: 744																							
Minimum Value: 1 ppb on Jan 23 02:00		Minimum Daily Average: 3.0 ppb on Jan 1		Hours of Data: 675																							
Maximum Diurnal Average: 25.0 ppb at hour 9		Minimum Diurnal Average: 4.8 ppb at hour 3		Hours of Missing Data: 69																							
Monthly Average: 10.49 ppb		Percentiles: P ₁ = 1.1 P ₁₀ = 1.9 Q ₁ = 2.9 Median = 5.3 Q ₃ = 10.1 P ₉₀ = 23.1 P ₉₉ = 99.3		Hours of Calibration: 42																							
				Percent Operational Time: 96.4																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jan	4	2	2	2	A	4	3	3	3	5	5	4	2	1	3	3	2	2	3	5	4	4	2	3	3.0	4.9	
2-Jan	2	2	2	2	A	4	3	3	4	3	3	3	5	6	6	5	2	6	4	5	4	6	4	3	3.7	6.0	
3-Jan	2	3	2	6	A	7	6	8	5	6	5	4	8	8	4	4	4	3	7	11	17	4	3	4	5.6	17.1	
4-Jan	6	6	7	4	A	10	11	13	9	10	10	8	6	3	4	4	6	7	7	2	2	3	3	2	6.1	12.7	
5-Jan	2	2	1	16	A	10	1	2	2	C	C	C	C	C	16	14	10	22	17	29	12	7	9	11	10.2	29.2	
6-Jan	13	9	2	12	A	14	7	2	2	2	3	2	3	2	102	3	4	10	10	7	4	4	13	4	10.2	102.5	
7-Jan	5	6	4	4	A	7	4	5	5	4	4	3	77	3	3	3	3	3	2	2	2	1	1	1	6.9	77.4	
8-Jan	1	1	1	2	A	3	4	3	9	8	4	3	3	3	4	5	7	7	8	8	7	5	20	16	5.8	19.9	
9-Jan	9	3	4	12	A	5	3	7	25	12	13	9	5	2	3	2	4	6	7	9	9	11	9	7	7.7	25.2	
10-Jan	6	5	3	3	A	10	286	150	22	19	18	52	39	22	23	18	25	28	29	24	27	29	26	25	38.6	285.9	
11-Jan	23	22	23	19	A	33	28	32	29	28	20	23	17	17	20	24	28	28	33	32	31	29	34	11	25.4	33.9	
12-Jan	10	9	8	4	A	6	3	6	5	3	2	2	1	1	2	2	3	4	3	6	3	3	3	4	4.2	10.3	
13-Jan	4	4	4	6	A	21	13	9	77	6	10	15	125	9	6	6	5	5	7	7	7	8	10	9	16.2	124.5	
14-Jan	10	10	7	7	A	11	10	10	14	12	6	5	7	3	3	3	3	3	BD	BD	BD	BD	BD	BD	--	14.3	
15-Jan	BD	BD	BD	BD	A	4	3	3	4	2	2	4	4	3	3	6	11	12	9	9	10	13	13	4	6.3	12.9	
16-Jan	5	4	5	5	A	6	5	4	5	5	8	5	2	2	4	7	5	6	7	9	8	10	12	13	6.2	13.3	
17-Jan	10	8	9	6	A	5	6	9	7	7	5	5	4	9	9	17	21	19	24	18	19	16	13	10	11.2	24.1	
18-Jan	5	2	1	3	A	3	4	4	4	2	3	2	2	18	2	3	6	4	5	4	3	1	1	2	3.8	18.2	
19-Jan	2	2	2	4	A	2	3	4	3	2	6	3	3	2	3	4	13	16	16	8	5	4	2	2	4.9	16.4	
20-Jan	4	4	5	4	A	8	9	16	13	7	3	2	6	2	3	2	5	5	3	3	1	4	3	5	5.1	15.5	
21-Jan	2	2	5	6	A	30	37	27	378	28	19	14	9	6	7	9	17	25	23	15	10	7	6	4	29.8	377.7	
22-Jan	5	3	2	2	A	2	1	2	2	3	9	16	5	2	6	7	5	5	5	8	13	16	13	7	6.1	16.4	
23-Jan	4	1	1	1	A	2	2	1	1	1	2	2	1	2	3	3	5	5	6	6	5	5	7	4	3.0	6.7	
24-Jan	4	6	4	9	A	7	4	3	3	11	13	6	100	4	2	4	4	3	11	12	8	5	5	2	9.9	100.1	
25-Jan	2	2	3	2	A	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	--	9.1	
26-Jan	2	1	4	2	A	4	10	11	10	7	4	3	3	2	2	2	C	C	C	6	13	9	7	10	5.6	12.7	
27-Jan	9	6	4	4	A	5	C	C	C	M	M	5	115	7	2	5	14	5	6	6	2	3	3	2	11.4	115.3	
28-Jan	2	2	2	2	5	6	5	7	A	4	3	3	1	1	1	2	2	2	3	8	7	3	2	1	3.3	8.4	
29-Jan	1	2	2	3	2	2	2	A	2	4	6	4	5	6	6	3	9	6	12	9	8	8	6	10	5.1	11.8	
30-Jan	9	9	6	14	13	18	A	36	24	15	19	15	8	10	13	15	18	27	25	17	43	44	16	17	18.7	44.3	
31-Jan	32	29	19	35	28	A	166	34	33	33	26	20	15	19	24	34	26	32	36	27	32	29	24	31	34.1	166.0	
		6.5	5.6	4.8	6.7	12.0	8.6	22.8	14.8	25.0	8.9	8.2	8.3	20.1	6.1	9.7	7.3	9.2	10.6	11.8	10.8	10.6	10.0	9.2	7.6	Diurnal Average	
		32.1	28.9	23.1	34.5	28.4	32.8	285.9	150.0	377.7	32.6	26.0	51.7	124.5	21.9	102.5	34.5	28.2	31.7	35.9	32.4	43.3	44.3	33.9	30.7	Diurnal Maximum	
C - Calibration		M - Maintenance				BD - Baseline Drift				A - Automated Daily Zero Span																	

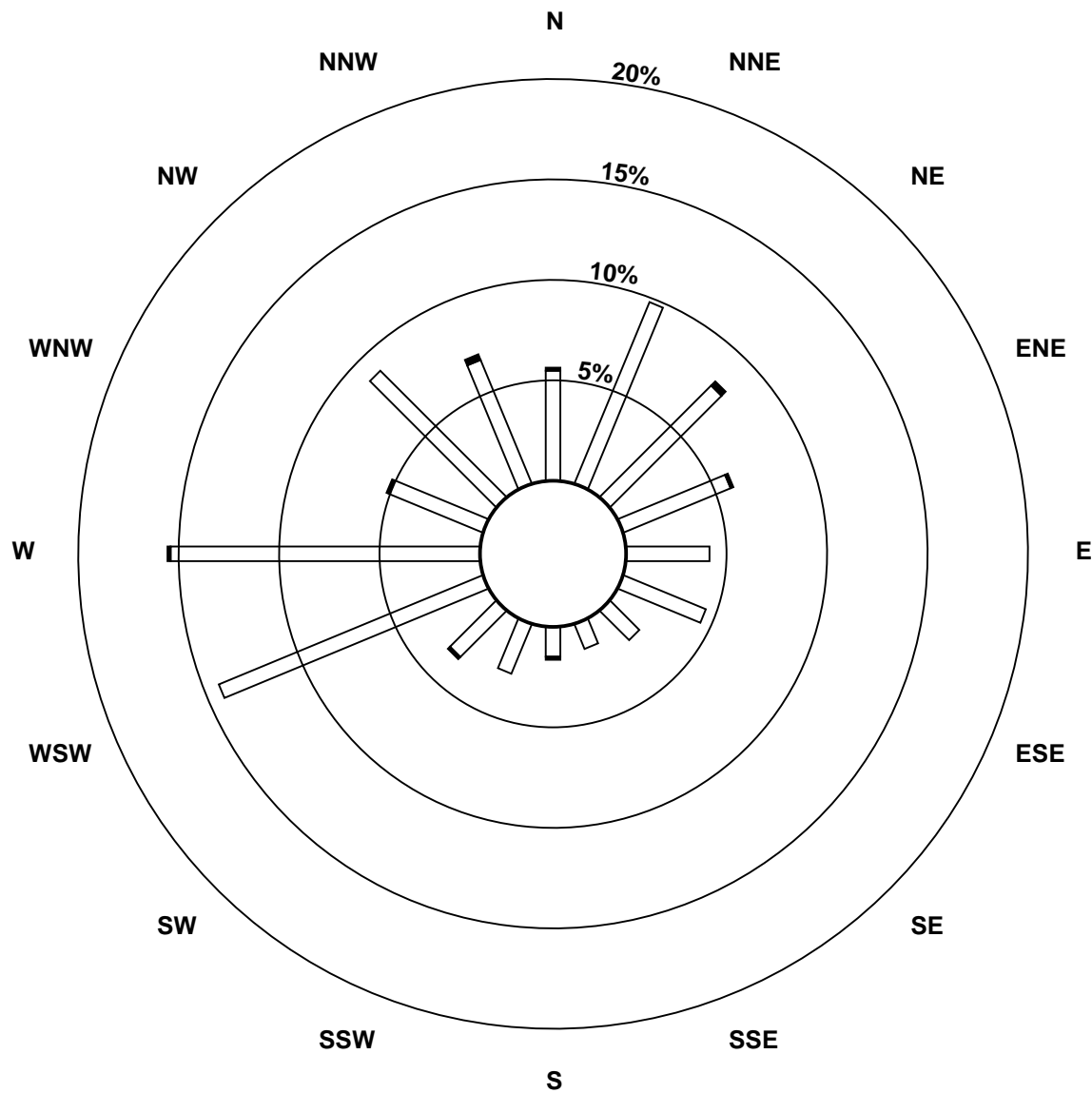
Hourly Maximums

Nitrogen Dioxide (NO₂) - ppb
Beaverlodge - January 2011

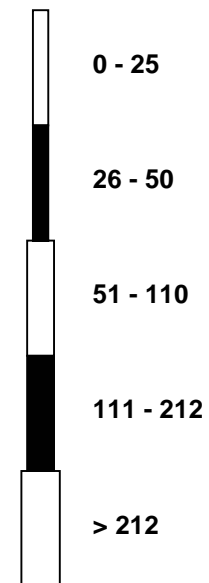


Pollutant Rose

Nitrogen Dioxide (NO₂) - ppb
Beaverlodge - January 2011

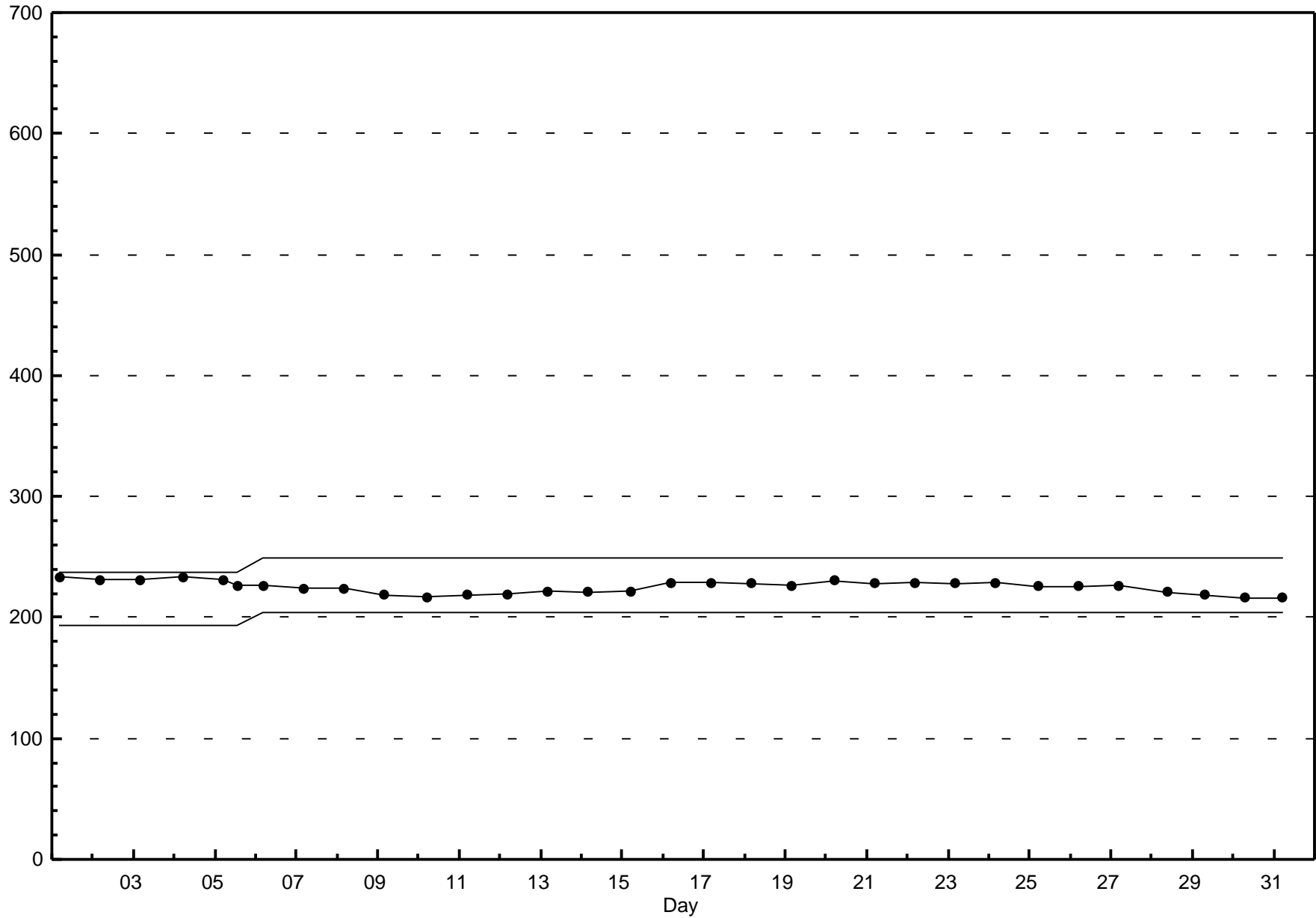


Pollutant Classes (ppb)



Span Responses

Nitrogen Dioxide (NO₂)
Beaverlodge - January 2011



Hourly Averages

Nitrogen Oxide (NO) - ppb Beaverlodge - January 2011

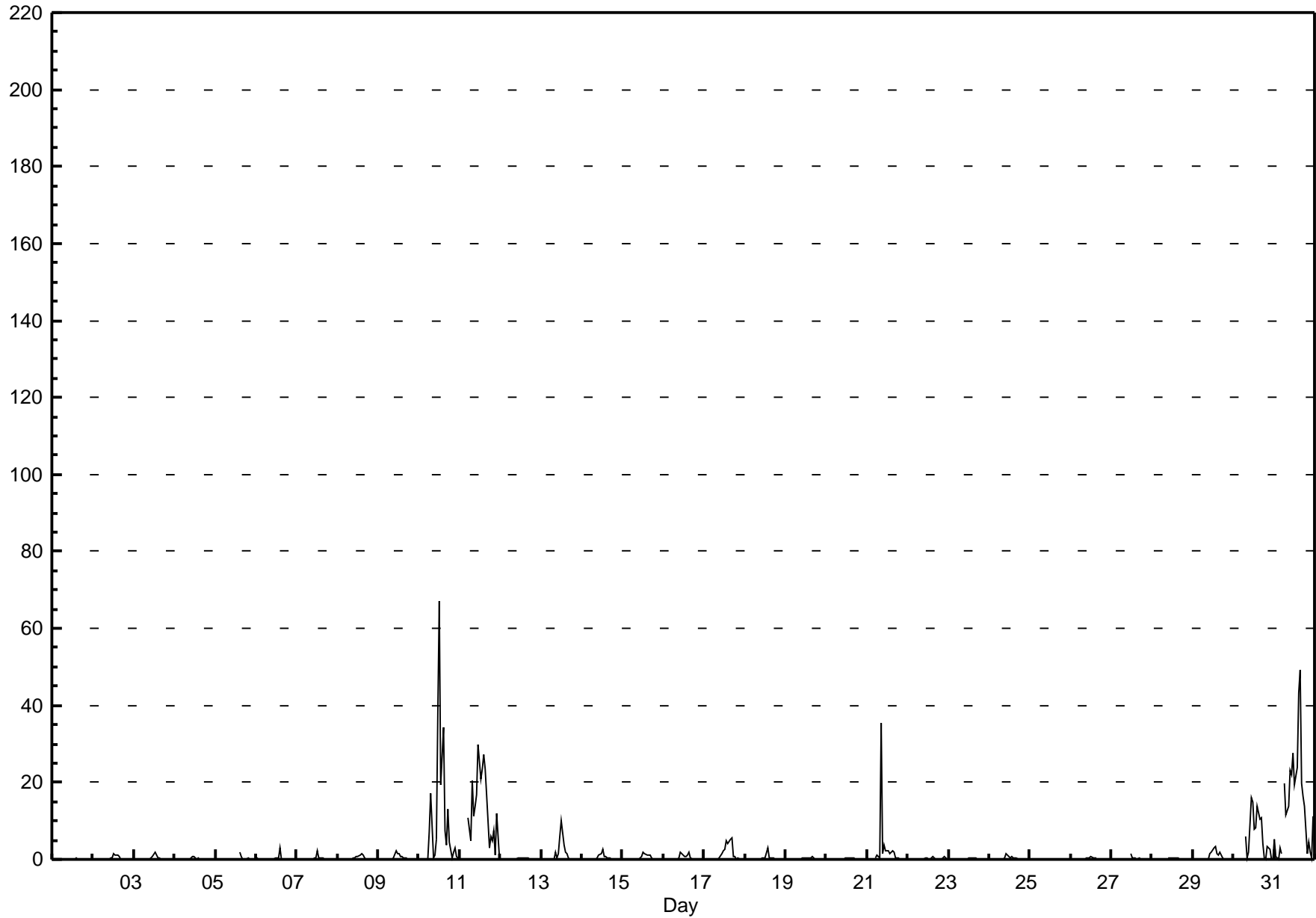
Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 67.0 ppb on Jan 10 13:00	Maximum Daily Average: 14.5 ppb on Jan 31
Minimum Value: 0 ppb on Jan 1 02:00	Hours of Data: 675
Maximum Diurnal Average: 5.2 ppb at hour 13	Hours of Missing Data: 69
Monthly Average: 1.70 ppb	Hours of Calibration: 42
Minimum Daily Average: 0.1 ppb on Jan 1	Percent Operational Time: 96.4
Minimum Diurnal Average: 0.0 ppb at hour 3	
Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.5 P ₉₀ = 2.9 P ₉₉ = 28.6	

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	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3																							
2-Jan	0	0	0	0	A	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0.2	1.3																						
3-Jan	0	0	0	0	A	0	0	0	0	0	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0.2	1.8																						
4-Jan	0	0	0	0	A	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.7																						
5-Jan	0	0	0	0	A	0	0	0	0	C	C	C	C	C	2	1	0	0	0	0	0	0	0	0	0.2	2.0																							
6-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0.2	3.1																							
7-Jan	0	0	0	0	A	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0.2	2.3																							
8-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	0.3	1.3																							
9-Jan	0	0	0	0	A	0	0	0	0	0	2	2	1	1	1	0	0	0	0	0	0	0	0	0	0.4	2.2																							
10-Jan	0	0	0	0	A	0	7	17	0	1	5	38	67	20	34	7	4	13	4	0	2	3	1	0	9.8	67.0																							
11-Jan	0	0	0	0	A	11	5	20	11	14	17	30	21	24	27	23	17	3	6	5	7	1	12	0	11.1	29.8																							
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	0.4																							
13-Jan	0	0	0	0	A	0	0	0	2	0	2	6	10	4	2	1	1	0	0	0	0	0	0	0	1.2	10.0																							
14-Jan	0	0	0	0	A	0	0	0	0	0	1	1	3	1	1	0	0	0	BD	BD	BD	BD	BD	BD	--	2.6																							
15-Jan	BD	BD	BD	BD	A	0	0	0	0	0	0	1	2	1	1	1	1	0	0	0	0	0	0	0	0.4	1.9																							
16-Jan	0	0	0	0	A	0	0	0	0	0	2	1	1	1	1	2	1	0	0	0	0	0	0	0	0.4	1.7																							
17-Jan	0	0	0	0	A	0	0	0	0	0	1	2	3	5	4	5	6	1	1	0	0	0	0	0	1.3	5.5																							
18-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0.3	2.9																							
19-Jan	0	0	0	0	A	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0.2	0.7																							
20-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																							
21-Jan	0	0	0	0	A	0	1	0	35	2	4	2	2	1	2	2	2	0	0	0	0	0	0	0	2.4	35.3																							
22-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0.2	0.7																							
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	0.1	0.5																							
24-Jan	0	0	0	0	A	0	0	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0.2	1.5																							
25-Jan	0	0	0	0	A	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	0	--	0.1	0.1																						
26-Jan	0	0	0	0	A	0	0	0	0	0	0	0	1	0	0	0	0	C	C	C	0	0	0	0	0.2	0.6																							
27-Jan	0	0	0	0	A	0	C	C	C	M	M	2	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.5																							
28-Jan	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.6																							
29-Jan	0	0	0	0	0	0	0	0	A	0	0	1	2	3	4	2	1	2	0	0	0	0	0	0	0.7	3.5																							
30-Jan	0	0	0	0	0	0	A	6	0	0	2	16	15	8	8	14	11	11	4	0	0	3	2	0	4.4	15.9																							
31-Jan	5	1	0	3	1	A	20	12	14	23	22	28	19	24	43	49	20	17	14	1	5	2	0	11	14.5	49.2																							
																								0.2	0.1	0.0	0.1	0.3	0.4	1.2	2.0	2.3	1.6	2.8	4.7	5.2	3.5	4.8	3.7	2.3	1.4	1.0	0.3	0.6	0.3	0.5	0.4	Diurnal Average	
																								5.3	0.8	0.1	2.8	1.3	10.6	19.6	20.4	35.3	22.9	22.0	37.9	67.0	24.0	43.1	49.2	19.6	16.5	13.8	5.0	7.4	2.9	12.0	11.3	Diurnal Maximum	

C - Calibration M - Maintenance BD - Baseline Drift A - Automated Daily Zero Span

Hourly Averages

Nitrogen Oxide (NO) - ppb
Beaverlodge - January 2011



Hourly Maximums

Nitrogen Oxide (NO) - ppb Beaverlodge - January 2011

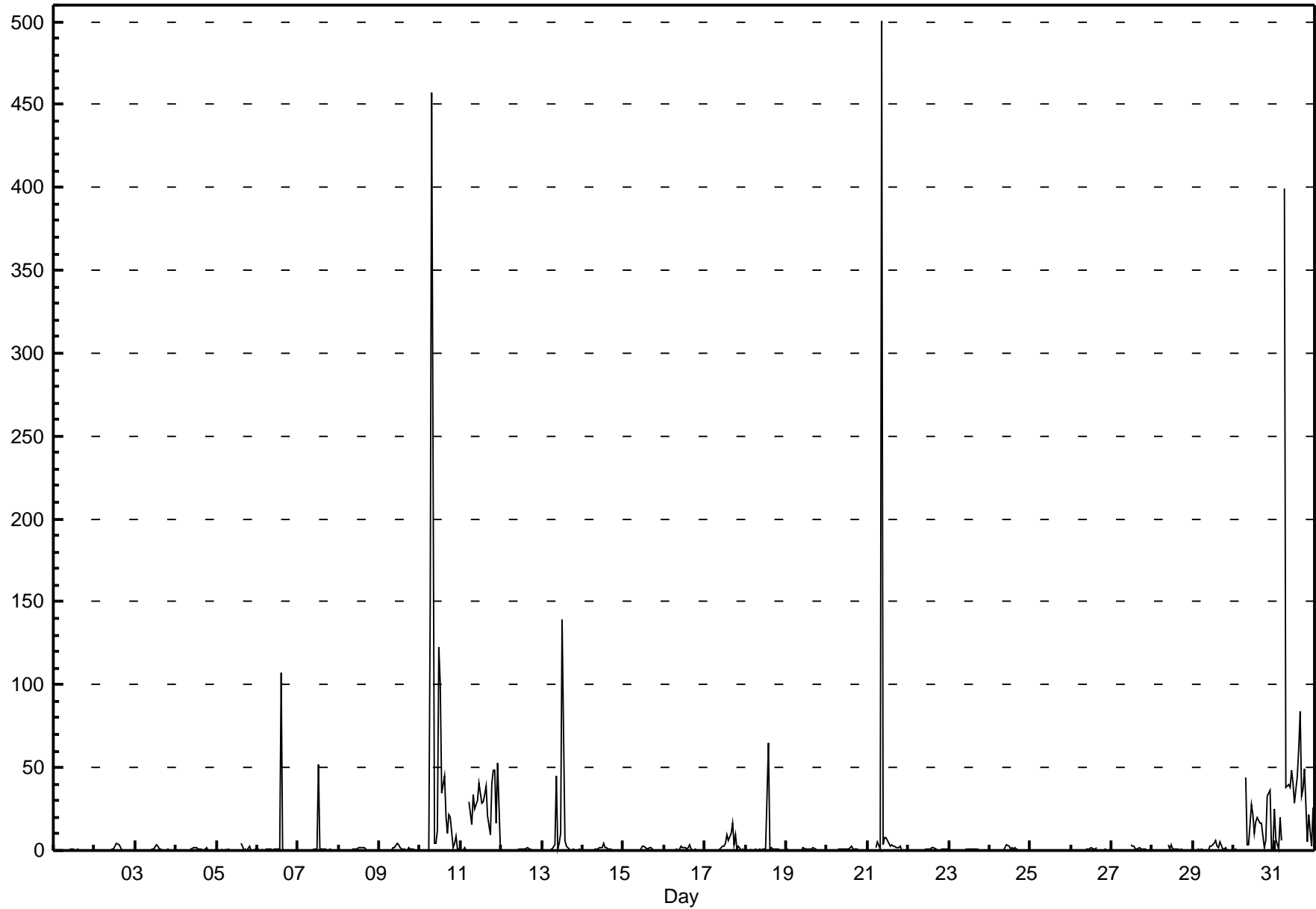
Maximum Value: 500.2 ppb on Jan 21 09:00	Maximum Daily Average: 46.4 ppb on Jan 31	Hours in Service: 744
Minimum Value: 0 ppb on Jan 28 01:00	Minimum Daily Average: 0.2 ppb on Jan 1	Hours of Data: 675
Maximum Diurnal Average: 22.3 ppb at hour 9	Minimum Diurnal Average: 0.2 ppb at hour 3	Hours of Missing Data: 69
Monthly Average: 6.38 ppb	Percentiles: P ₁ = 0.1 P ₁₀ = 0.1 Q ₁ = 0.1 Median = 0.4 Q ₃ = 1.3 P ₉₀ = 9.3 P ₉₉ = 103.0	Hours of Calibration: 42
		Percent Operational Time: 96.4

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jan	0	0	0	0	A	0	0	0	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0.2	0.8
2-Jan	0	0	0	0	A	0	0	0	0	0	1	1	3	4	3	1	0	0	0	0	0	0	0	0	0.6	4.1
3-Jan	0	0	0	0	A	0	0	0	0	0	1	1	4	2	1	1	0	0	0	0	0	0	0	0	0.6	3.6
4-Jan	0	0	0	0	A	0	0	0	0	1	2	1	1	0	1	1	0	1	2	0	0	0	0	0	0.5	1.7
5-Jan	0	0	0	1	A	1	0	0	0	C	C	C	C	C	5	2	0	1	0	3	0	0	0	1	0.9	4.7
6-Jan	1	0	0	1	A	1	1	0	0	0	1	1	1	1	107	1	0	0	0	0	0	0	0	0	5.1	106.9
7-Jan	0	0	0	0	A	0	0	0	0	1	1	1	52	1	1	0	1	0	0	0	0	0	0	0	2.6	51.8
8-Jan	0	0	0	0	A	0	0	0	0	0	1	1	1	1	2	2	1	0	0	0	0	0	0	0	0.5	2.0
9-Jan	0	0	0	0	A	0	0	0	1	1	4	3	2	1	1	1	0	2	1	1	1	0	0	0	0.9	4.1
10-Jan	0	0	0	0	A	0	149	457	5	4	12	123	101	34	45	21	11	21	20	2	5	9	1	1	44.3	457.1
11-Jan	0	0	2	0	A	29	16	34	25	28	31	40	28	29	34	39	21	10	41	48	48	17	53	0	24.9	52.8
12-Jan	0	0	0	0	A	0	0	0	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0.5	1.5
13-Jan	0	0	0	0	A	0	1	3	45	1	5	10	139	6	3	2	1	0	0	0	0	0	0	0	9.5	139.2
14-Jan	0	0	0	0	A	0	0	1	0	1	2	2	5	1	2	1	0	0	BD	BD	BD	BD	BD	BD	--	4.5
15-Jan	BD	BD	BD	BD	A	0	0	0	0	0	0	3	3	2	1	2	1	1	0	0	0	0	0	0	0.8	2.6
16-Jan	0	0	0	0	A	0	0	0	0	1	3	2	1	1	2	4	1	0	0	0	0	0	0	0	0.8	3.8
17-Jan	0	0	0	0	A	0	0	0	0	1	2	3	4	9	6	10	17	3	10	1	2	0	1	0	3.1	16.6
18-Jan	0	0	0	1	A	0	1	0	1	0	1	1	1	65	1	1	1	1	0	0	0	0	0	0	3.3	64.6
19-Jan	0	0	0	0	A	0	0	0	0	0	2	1	1	1	1	1	2	1	0	0	0	0	0	0	0.5	1.9
20-Jan	0	0	0	0	A	0	0	1	1	1	0	1	1	1	2	1	1	0	0	0	0	0	0	0	0.5	2.2
21-Jan	0	0	0	0	A	1	5	1	500	4	8	8	4	2	3	3	3	1	2	2	0	0	0	0	23.9	500.2
22-Jan	0	0	0	0	A	0	0	0	0	0	1	1	1	1	2	1	1	0	0	0	1	1	1	0	0.5	1.7
23-Jan	0	0	0	0	A	0	0	0	0	0	1	1	0	1	1	1	1	0	0	0	0	0	0	0	0.3	1.1
24-Jan	0	0	0	0	A	0	0	0	0	1	3	2	1	2	1	1	1	0	0	0	0	0	0	0	0.7	3.2
25-Jan	0	0	0	0	A	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	0	--	0.3
26-Jan	0	0	0	0	A	0	0	0	0	1	1	1	2	1	1	1	C	C	C	0	1	0	0	0	0.5	1.6
27-Jan	0	0	0	0	A	0	C	C	C	M	M	3	3	2	1	1	2	1	1	0	1	0	0	0	0.9	3.2
28-Jan	0	0	0	0	0	0	0	0	0	4	1	3	1	1	1	1	0	1	0	0	0	0	0	0	0.6	3.7
29-Jan	0	0	0	1	0	1	0	A	0	0	3	3	4	6	3	2	5	1	0	1	0	0	0	0	1.3	5.7
30-Jan	0	1	0	0	0	0	A	44	4	4	4	28	21	11	17	20	16	16	9	1	6	33	36	1	11.7	43.8
31-Jan	25	7	1	20	6	A	399	38	40	38	49	40	29	45	62	84	33	37	50	5	22	11	3	26	46.4	399.2
	1.0	0.4	0.2	0.9	1.5	1.3	20.5	20.8	22.3	3.3	5.8	9.7	13.9	8.2	10.5	6.7	4.2	3.2	4.7	2.6	3.9	2.6	2.1	1.1		Diurnal Average
	25.2	6.5	1.7	20.0	5.7	29.4	399.2	457.1	500.2	37.9	48.8	122.9	139.2	64.6	106.9	83.5	33.0	37.1	49.6	48.0	48.4	36.1	52.8	25.8		Diurnal Maximum

C - Calibration M - Maintenance BD - Baseline Drift A - Automated Daily Zero Span

Hourly Maximums

Nitrogen Oxide (NO) - ppb
Beaverlodge - January 2011



Hourly Averages

Oxides of Nitrogen (NO_x) - ppb

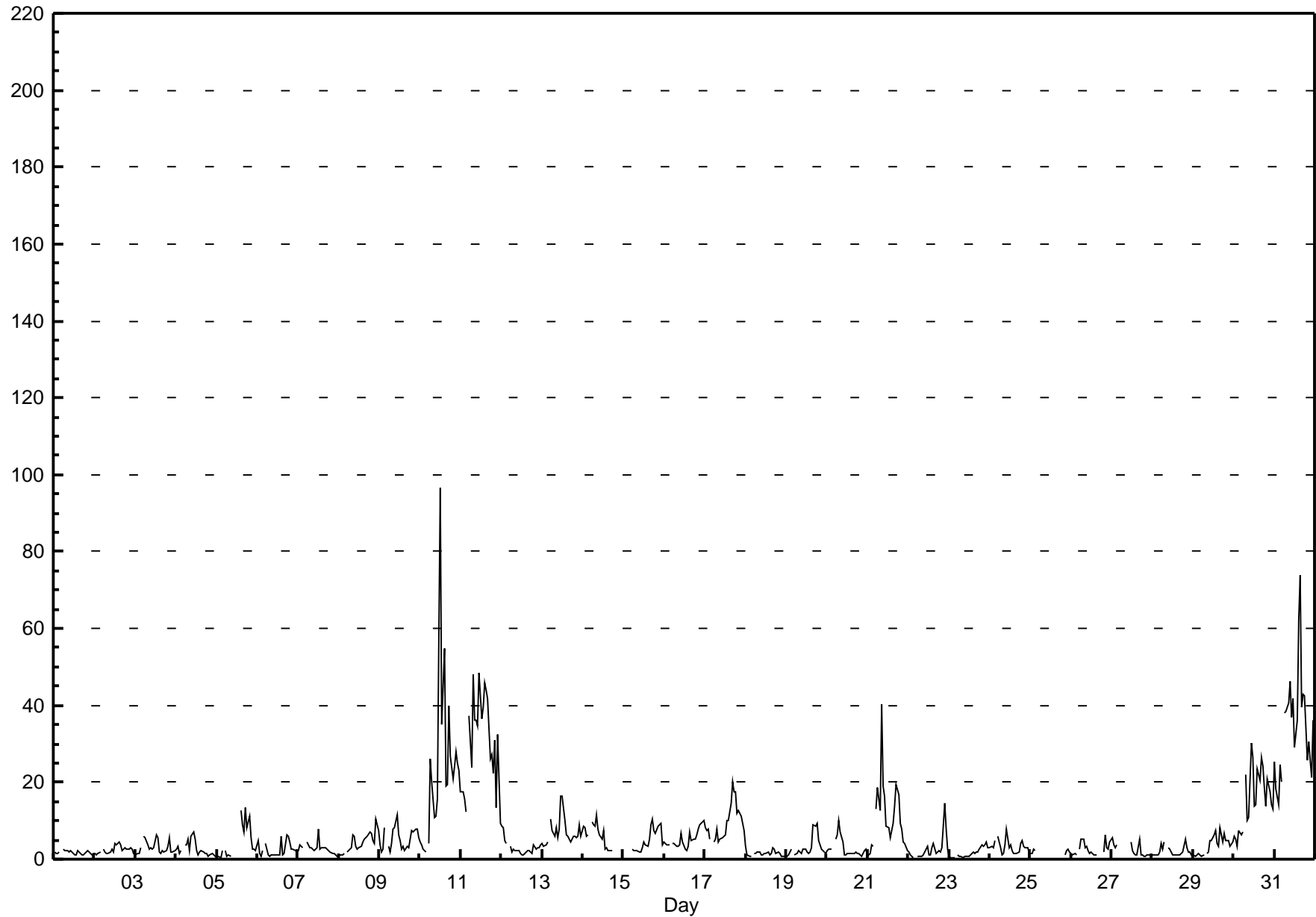
Beaverlodge - January 2011

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 96.5 ppb on Jan 10 13:00	Maximum Daily Average: 35.2 ppb on Jan 31		Hours of Data:	675
Minimum Value: 0 ppb on Jan 23 02:00	Minimum Daily Average: 1.5 ppb on Jan 18		Hours of Missing Data:	69
Maximum Diurnal Average: 9.5 ppb at hour 13	Minimum Diurnal Average: 3.3 ppb at hour 3		Hours of Calibration:	42
Monthly Average: 6.94 ppb	Percentiles: P ₁ = 0.6 P ₁₀ = 1.0 Q ₁ = 1.7 Median = 3.1 Q ₃ = 7.0 P ₉₀ = 18.2 P ₉₉ = 48.1		Percent Operational Time:	96.4

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jan	2	1	1	2	A	3	2	2	2	2	2	1	1	1	2	2	1	1	1	2	2	2	1	2	1.7	2.6
2-Jan	1	1	1	2	A	3	2	2	1	2	3	2	4	4	5	4	2	3	3	3	3	3	3	1	2.4	4.5
3-Jan	1	1	2	3	A	6	5	4	3	3	3	3	6	6	2	2	2	2	2	3	6	2	2	2	3.1	6.3
4-Jan	3	3	2	2	A	4	4	5	2	6	7	5	2	1	2	2	2	2	1	1	1	2	1	1	2.6	6.9
5-Jan	1	1	1	2	A	2	1	1	1	C	C	C	C	C	13	9	7	14	8	11	6	3	3	2	4.7	13.5
6-Jan	5	1	1	2	A	4	1	1	1	1	1	1	1	1	6	1	2	6	6	5	3	3	2	2	2.4	6.3
7-Jan	2	4	3	3	A	4	4	3	3	2	3	3	8	2	3	3	3	3	2	2	1	1	1	1	2.8	7.9
8-Jan	1	1	1	1	A	2	2	3	6	6	3	3	3	4	5	5	6	6	7	7	5	4	10	7	4.3	10.4
9-Jan	4	2	3	8	A	3	2	4	8	8	12	7	5	3	3	2	3	3	5	7	7	8	8	5	5.2	11.6
10-Jan	5	4	3	2	A	4	26	20	11	11	16	57	96	35	55	19	19	40	27	21	24	28	25	23	24.8	96.5
11-Jan	18	18	16	12	A	37	24	48	36	36	35	49	36	39	46	44	42	26	27	22	31	13	32	9	30.3	48.6
12-Jan	9	8	5	4	A	3	2	3	2	2	2	1	1	1	2	2	2	2	2	4	3	3	3	4	3.0	8.6
13-Jan	4	3	4	4	A	10	7	6	8	5	8	17	16	10	6	6	5	5	6	6	6	6	9	6	7.2	16.5
14-Jan	9	8	6	6	A	10	9	9	12	8	6	5	7	3	3	2	2	2	BD	BD	BD	BD	BD	BD	--	11.5
15-Jan	BD	BD	BD	BD	A	3	2	2	2	2	2	3	5	4	4	5	9	10	7	7	8	9	9	4	5.1	10.4
16-Jan	4	4	4	4	A	4	4	3	3	4	7	4	3	2	3	7	5	5	5	6	8	9	9	10	5.2	10.1
17-Jan	8	7	8	5	A	5	5	8	5	5	6	6	6	10	10	15	20	17	17	12	13	11	9	7	9.4	20.2
18-Jan	3	1	1	1	A	1	1	2	2	1	1	1	2	2	1	2	3	2	2	2	1	1	1	1	1.5	3.3
19-Jan	1	1	2	2	A	1	2	2	2	2	3	3	2	2	2	3	9	9	9	5	4	3	2	1	3.0	9.5
20-Jan	2	3	3	3	A	5	6	10	7	5	1	1	2	1	2	2	2	2	2	1	1	1	2	3	2.8	10.2
21-Jan	1	1	4	3	A	13	19	13	40	19	16	9	8	6	7	9	14	20	17	9	8	4	4	2	10.7	40.3
22-Jan	2	1	1	1	A	1	1	1	1	1	3	3	1	1	3	4	1	2	2	2	3	14	8	3	2.5	14.4
23-Jan	1	0	1	0	A	1	1	1	1	1	1	1	1	1	2	2	2	2	3	4	3	4	5	3	1.7	4.6
24-Jan	3	3	3	5	A	6	3	1	1	4	8	3	4	2	2	2	2	2	4	5	3	3	3	2	3.2	7.8
25-Jan	1	1	3	2	A	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	--	2.6
26-Jan	1	1	1	1	A	3	5	5	3	3	2	2	2	1	1	1	C	C	C	2	6	3	3	4	2.6	6.3
27-Jan	6	4	3	4	A	4	C	C	C	M	M	5	2	2	1	1	5	1	1	1	1	1	1	1	2.3	5.6
28-Jan	1	1	1	1	2	4	3	4	A	3	3	2	1	1	1	1	1	1	2	5	3	2	2	1	2.0	5.1
29-Jan	1	1	1	1	1	1	1	1	A	2	2	5	5	6	7	4	3	8	4	7	5	5	4	5	3.6	8.2
30-Jan	6	5	3	8	6	7	A	22	10	11	30	26	14	14	23	20	27	24	19	14	21	17	14	13	15.4	30.1
31-Jan	25	18	14	25	20	A	38	38	41	46	37	42	29	36	62	74	40	43	43	26	30	26	21	36	35.2	73.7

4.3	3.7	3.3	4.0	7.3	5.3	6.5	8.0	7.7	7.2	8.0	9.3	9.5	7.0	9.3	8.4	8.5	8.9	8.5	6.9	7.2	6.4	6.7	5.5	Diurnal Average	
25.5	18.2	15.8	24.6	20.0	37.3	37.9	48.2	40.5	46.2	36.9	57.0	96.5	39.5	62.3	73.7	41.6	43.0	42.5	25.8	30.9	27.8	32.4	36.3	Diurnal Maximum	

C - Calibration M - Maintenance BD - Baseline Drift A - Automated Daily Zero Span

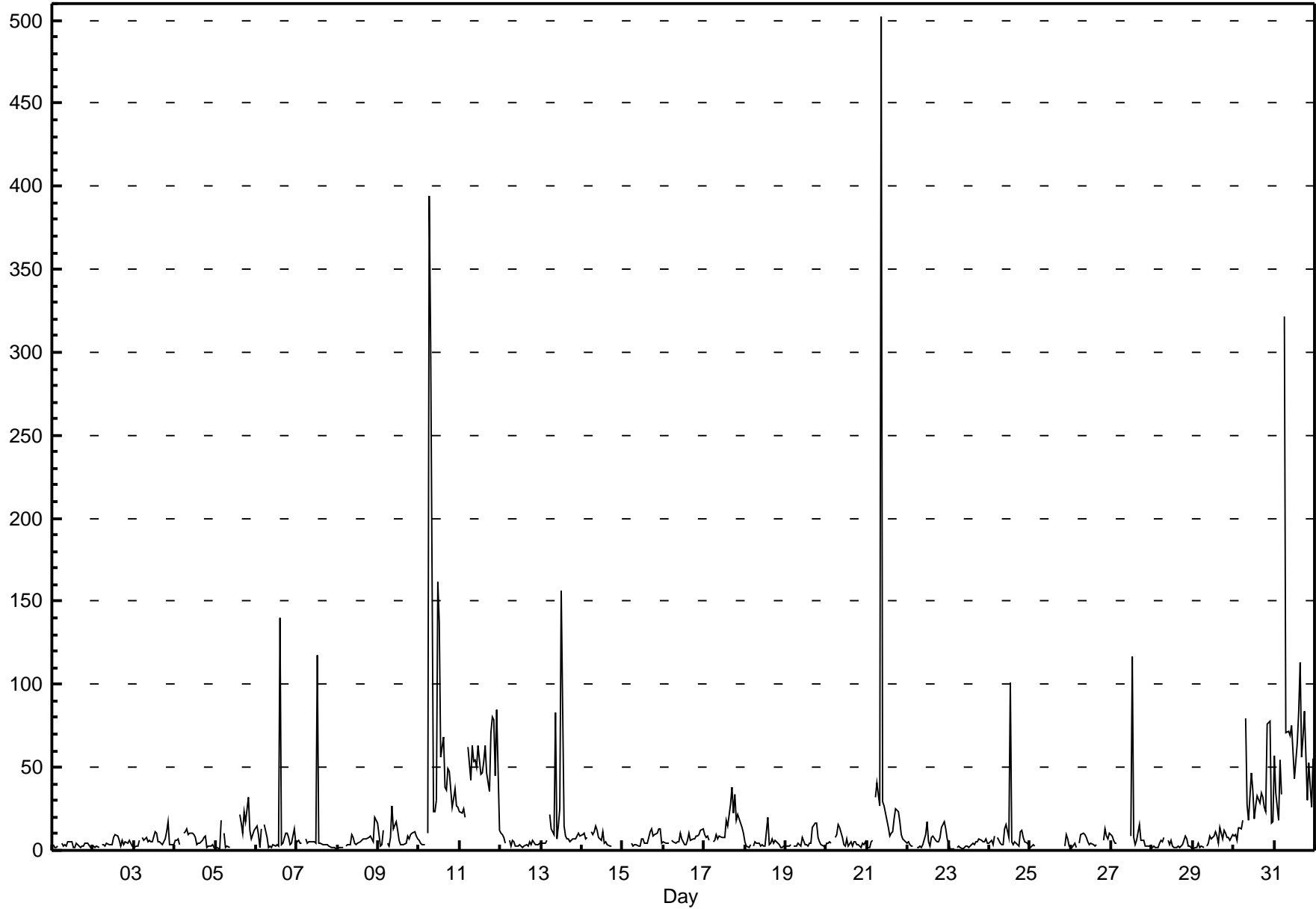


Hourly Maximums

Oxides of Nitrogen (NO_x) - ppb

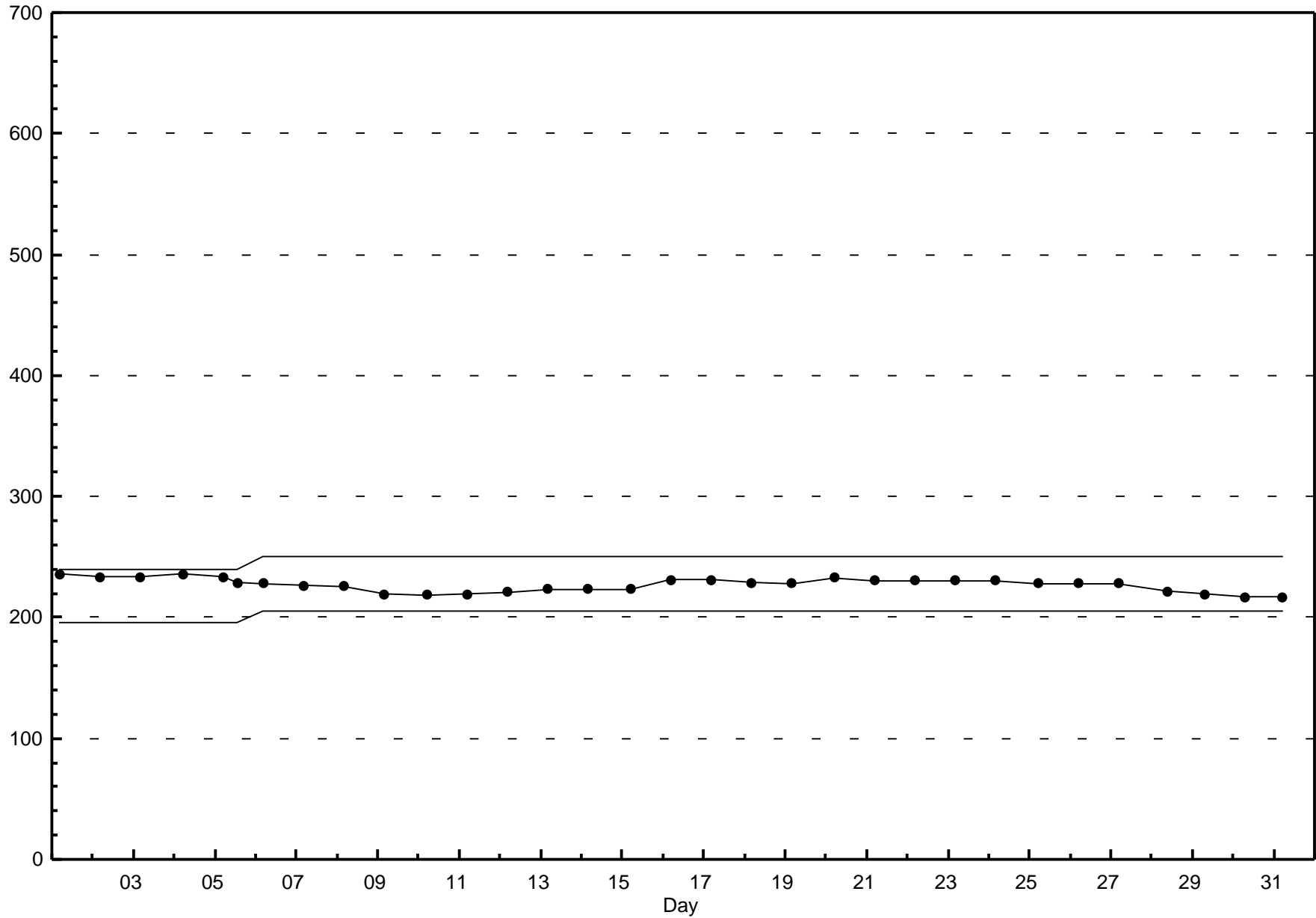
Beaverlodge - January 2011

Maximum Value: 502.1 ppb on Jan 21 09:00		Maximum Daily Average: 68.9 ppb on Jan 31		Hours in Service: 744																									
Minimum Value: 1 ppb on Jan 23 02:00		Minimum Daily Average: 3.2 ppb on Jan 1		Hours of Data: 675																									
Maximum Diurnal Average: 33.0 ppb at hour 7		Minimum Diurnal Average: 4.9 ppb at hour 3		Hours of Missing Data: 69																									
Monthly Average: 14.84 ppb		Percentiles: P ₁ = 1.2 P ₁₀ = 2.2 Q ₁ = 3.4 Median = 5.9 Q ₃ = 11.2 P ₉₀ = 32.2 P ₉₉ = 136.2		Hours of Calibration: 42																									
				Percent Operational Time: 96.4																									
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
1-Jan	4	2	2	2	A	4	3	3	3	5	5	5	2	2	4	3	2	2	3	5	4	4	2	3	3.2	5.3			
2-Jan	2	2	2	2	A	4	3	3	4	3	4	4	8	10	9	6	3	6	4	5	4	6	4	3	4.3	9.9			
3-Jan	2	3	2	6	A	7	6	8	5	6	6	5	11	10	5	5	4	3	7	11	18	4	3	4	6.2	17.7			
4-Jan	6	6	7	4	A	10	11	13	10	11	11	10	8	3	4	5	6	7	9	2	2	3	3	2	6.6	12.8			
5-Jan	2	2	1	18	A	11	2	3	2	C	C	C	C	C	21	17	11	23	17	32	12	7	10	12	11.2	32.2			
6-Jan	14	9	2	13	A	15	8	2	3	2	4	3	4	2	140	3	4	10	11	7	4	4	13	4	12.3	140.2			
7-Jan	5	6	4	4	A	7	4	5	5	5	5	4	117	4	4	4	3	3	3	2	2	2	1	1	8.9	117.4			
8-Jan	1	1	1	2	A	3	4	3	9	8	5	3	4	5	6	7	7	8	8	8	7	5	20	17	6.2	20.1			
9-Jan	9	3	4	12	A	5	3	7	26	13	17	13	6	3	4	3	4	8	7	10	10	11	9	7	8.5	26.5			
10-Jan	6	5	3	3	A	10	394	306	23	23	31	162	138	56	69	38	36	49	48	26	31	38	27	26	67.3	394.5			
11-Jan	23	23	25	20	A	62	42	63	53	55	50	63	46	47	53	63	47	35	71	80	79	45	85	12	49.6	85.0			
12-Jan	11	9	8	4	A	6	3	6	5	3	3	4	2	2	3	4	3	5	3	6	3	4	4	5	4.5	10.7			
13-Jan	5	4	4	6	A	22	13	10	83	7	15	25	156	15	8	7	7	5	7	7	7	9	10	9	19.2	156.3			
14-Jan	10	10	7	8	A	11	10	11	15	13	8	6	12	4	5	3	3	3	BD	BD	BD	BD	BD	BD	--	14.8			
15-Jan	BD	BD	BD	BD	A	4	3	3	4	3	2	7	7	4	4	8	12	13	9	9	10	13	13	4	6.9	12.9			
16-Jan	5	4	5	5	A	6	5	4	5	6	10	7	3	3	6	11	6	7	7	9	8	10	12	13	6.9	13.3			
17-Jan	10	8	9	6	A	5	6	10	7	8	7	8	8	18	15	27	38	22	34	18	21	16	14	10	14.2	38.0			
18-Jan	5	2	1	3	A	3	5	5	4	2	4	2	3	20	3	5	7	4	6	4	3	2	2	2	4.3	20.2			
19-Jan	3	2	2	4	A	2	3	4	3	2	8	4	4	3	4	5	14	16	16	8	5	4	2	2	5.2	16.4			
20-Jan	4	4	6	4	A	8	9	16	14	8	3	3	7	3	5	3	5	5	4	3	2	4	3	5	5.5	16.0			
21-Jan	2	2	5	6	A	32	41	27	502	29	27	22	13	9	10	12	19	25	23	18	10	7	6	4	37.0	502.1			
22-Jan	5	3	2	2	A	2	1	2	2	3	9	17	5	2	8	8	6	5	5	8	14	17	13	7	6.5	17.3			
23-Jan	4	1	1	1	A	2	3	1	1	1	3	2	2	2	4	4	5	5	7	6	5	5	7	4	3.3	6.8			
24-Jan	4	6	4	9	A	8	4	3	3	13	16	8	101	5	4	5	4	3	12	12	8	5	5	2	10.5	101.3			
25-Jan	2	2	4	2	A	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	3	9	7	2	--	9.2
26-Jan	2	1	4	2	A	4	10	11	10	7	5	4	5	3	3	4	C	C	C	6	13	9	7	10	6.0	13.3			
27-Jan	9	6	4	4	A	5	C	C	C	M	M	9	116	8	3	6	15	6	6	6	3	3	3	2	11.9	116.5			
28-Jan	2	2	2	2	5	6	5	8	A	6	4	6	2	2	2	2	3	4	9	7	3	3	1	3.8	8.7				
29-Jan	1	2	2	4	2	3	2	A	3	4	9	7	9	11	9	5	14	6	12	10	8	8	6	10	6.3	13.7			
30-Jan	9	9	6	14	13	18	A	80	27	18	47	36	19	27	33	29	34	32	26	23	76	78	16	17	30.0	79.7			
31-Jan	57	35	19	55	34	A	322	71	72	69	75	60	43	65	84	113	56	68	84	30	52	39	26	56	68.9	322.0			
		7.5	5.9	4.9	7.6	13.4	9.8	33.0	24.6	32.3	11.9	14.0	17.5	29.7	12.1	17.8	13.8	13.1	13.5	16.1	13.2	14.4	12.4	11.2	8.5	Diurnal Average			
		57.4	34.8	24.9	54.6	34.1	62.4	394.5	306.3	502.1	69.0	75.0	161.9	156.3	64.5	140.2	113.3	56.2	68.5	84.3	80.1	79.1	77.5	85.0	55.7	Diurnal Maximum			
C - Calibration		M - Maintenance				BD - Baseline Drift				A - Automated Daily Zero Span																			



Span Responses

Oxides of Nitrogen (NO_x)
Beaverlodge - January 2011



Hourly Averages

Ozone (O₃) - ppb

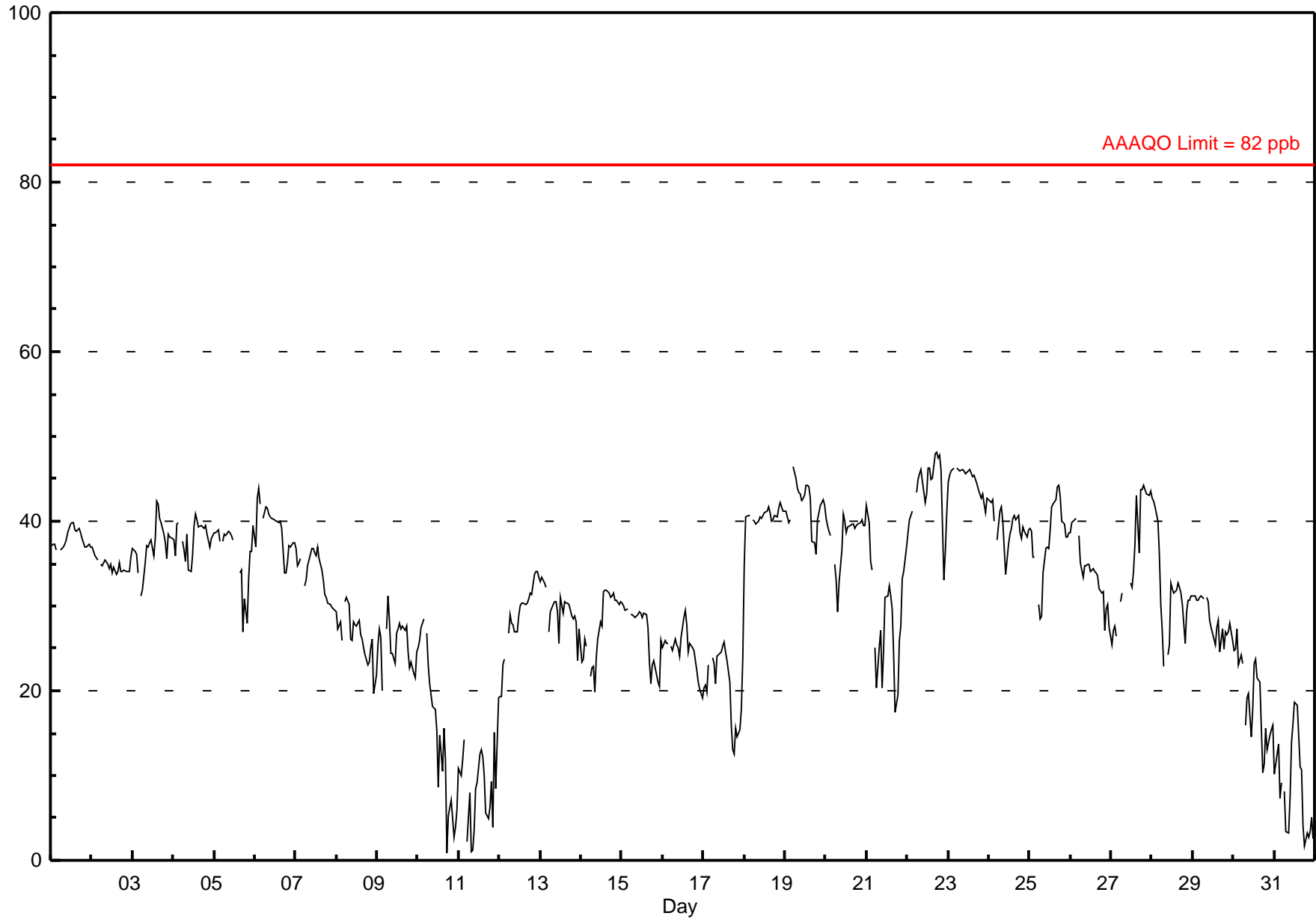
Beaverlodge - January 2011

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 48.2 ppb on Jan 22 18:00	Maximum Daily Average: 44.8 ppb on Jan 23		Hours of Data:	706
Minimum Value: 1 ppb on Jan 10 18:00	Minimum Daily Average: 8.7 ppb on Jan 31		Hours of Missing Data:	38
Maximum Diurnal Average: 32.9 ppb at hour 14	Minimum Diurnal Average: 25.1 ppb at hour 5		Hours of Calibration:	36
Monthly Average: 31.05 ppb	Percentiles: P ₁ = 2.6 P ₁₀ = 14.7 Q ₁ = 25.5 Median = 32.3 Q ₃ = 39.0 P ₉₀ = 42.0 P ₉₉ = 46.2		Percent Operational Time:	99.7

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jan	37	37	37	37	A	37	37	37	37	38	39	40	40	39	39	39	39	38	37	37	37	37	37	37	37.9	39.9
2-Jan	37	36	36	35	A	35	35	35	35	35	34	35	34	35	34	34	35	34	34	34	34	34	34	36	34.8	37.0
3-Jan	37	36	36	34	A	31	32	35	37	37	37	38	36	38	42	42	40	40	38	37	36	38	38	38	37.2	42.3
4-Jan	38	36	40	40	A	38	37	35	39	34	34	36	40	41	40	39	39	39	39	39	38	37	38	38	38.0	40.8
5-Jan	39	39	39	38	A	38	39	38	39	39	38	38	C	C	C	34	34	27	31	28	33	36	36	40	36.1	39.6
6-Jan	37	43	44	42	A	40	42	41	41	41	40	40	40	40	40	39	34	34	35	37	37	37	37	37	39.2	43.9
7-Jan	37	35	35	36	A	32	33	35	35	37	37	36	36	37	36	34	33	31	31	30	30	30	30	29	33.7	37.0
8-Jan	29	27	28	26	A	31	31	30	26	26	28	28	28	28	27	26	25	24	23	23	25	26	20	22	26.4	31.0
9-Jan	26	27	26	20	A	27	31	28	24	24	23	27	27	28	27	28	27	28	25	23	23	22	22	25	25.6	31.1
10-Jan	25	26	27	29	A	27	23	21	18	18	18	15	9	15	11	16	12	1	5	7	5	3	4	6	14.8	28.5
11-Jan	11	10	12	14	A	2	8	1	1	4	9	9	13	13	12	10	6	5	6	9	4	15	9	19	8.7	19.2
12-Jan	19	19	23	24	A	27	29	28	28	27	27	29	30	30	30	30	30	31	32	31	34	34	34	33	28.7	34.1
13-Jan	33	33	33	32	A	27	29	30	30	31	29	26	31	29	31	30	30	30	29	28	29	28	24	27	29.6	33.4
14-Jan	23	24	26	25	A	22	23	23	20	24	26	28	28	32	32	32	31	31	31	32	31	31	30	30	27.6	31.9
15-Jan	30	30	29	30	A	29	29	29	29	29	29	29	29	29	29	27	23	21	23	24	22	21	21	26	26.8	30.3
16-Jan	25	26	26	26	A	25	25	26	25	25	24	26	29	30	28	25	26	25	25	24	22	21	20	19	24.8	29.5
17-Jan	20	21	20	23	A	24	23	21	24	24	24	25	26	25	24	21	16	13	13	16	15	15	18	24	20.6	25.8
18-Jan	35	40	41	41	A	40	40	40	40	40	41	41	41	41	42	41	40	40	41	41	42	42	42	41	40.5	42.2
19-Jan	41	41	40	40	A	46	45	44	43	43	42	43	44	44	44	43	38	37	36	40	41	42	42	42	41.9	46.5
20-Jan	40	39	39	38	A	35	33	29	33	37	41	40	39	39	39	40	40	39	39	40	40	40	40	39	38.2	40.8
21-Jan	42	40	35	34	A	25	20	25	27	20	25	31	31	32	31	30	24	17	19	26	28	33	34	37	29.1	41.9
22-Jan	39	40	41	41	A	43	45	46	46	45	42	43	46	46	45	45	48	48	47	48	46	33	36	41	43.5	48.2
23-Jan	45	45	46	46	A	46	46	46	46	46	46	46	46	46	45	45	45	44	44	43	43	42	41	43	44.8	46.2
24-Jan	43	42	42	40	A	38	41	42	40	37	34	37	39	39	40	41	40	41	39	38	39	39	38	39	39.4	42.6
25-Jan	39	39	36	36	A	30	28	29	34	37	37	37	39	42	42	43	44	44	43	40	40	38	38	39	37.9	44.3
26-Jan	39	40	40	40	A	38	35	33	35	35	35	35	34	34	34	34	34	32	31	32	27	30	30	27	34.1	40.4
27-Jan	25	27	28	26	A	31	32	C	C	M	M	33	32	34	37	43	36	44	44	44	44	43	43	44	36.3	44.3
28-Jan	43	42	42	40	36	30	27	23	A	24	25	33	32	32	32	33	32	32	30	26	29	31	31	31	32.0	42.8
29-Jan	31	31	31	31	31	31	31	A	31	31	28	27	26	25	27	28	25	27	25	27	27	27	28	26	28.4	31.3
30-Jan	25	25	27	23	24	23	A	16	19	20	15	18	23	24	22	21	16	10	11	16	13	15	15	16	19.0	27.3
31-Jan	10	11	14	7	9	A	8	3	3	7	14	16	19	18	15	11	11	4	2	3	3	3	5	2	8.7	18.7

32.2	32.5	32.8	32.0	25.1	31.6	31.2	30.0	30.6	30.4	30.7	31.7	32.1	32.9	32.6	32.4	30.9	29.5	29.3	29.7	29.5	29.8	29.5	30.8	Diurnal Average
44.5	45.4	45.9	46.2	36.1	46.5	46.1	45.9	46.0	46.0	45.5	45.7	46.2	46.3	45.3	45.5	48.0	48.2	47.4	47.8	46.1	43.2	43.0	43.6	Diurnal Maximum

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



Hourly Maximums

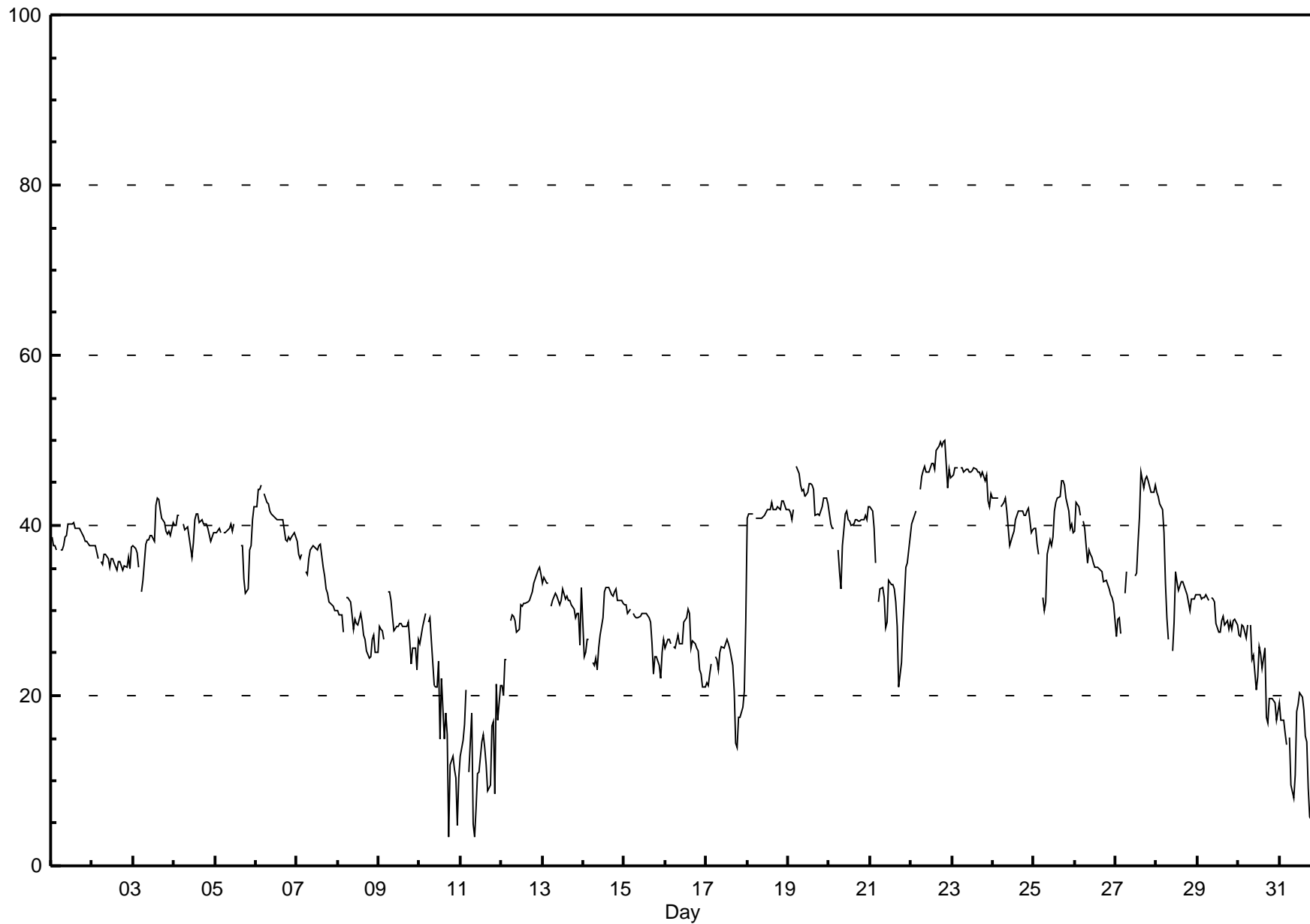
Ozone (O₃) - ppb

Beaverlodge - January 2011

Maximum Value: 50.0 ppb on Jan 22 21:00		Maximum Daily Average: 46.2 ppb on Jan 22		Hours in Service: 744																						
Minimum Value: 3 ppb on Jan 10 18:00		Minimum Daily Average: 12.9 ppb on Jan 31		Hours of Data: 706																						
Maximum Diurnal Average: 34.3 ppb at hour 14		Minimum Diurnal Average: 27.9 ppb at hour 5		Hours of Missing Data: 38																						
Monthly Average: 33.01 ppb		Percentiles: P ₁ = 6.2 P ₁₀ = 20.5 Q ₁ = 27.7 Median = 33.6 Q ₃ = 40.6 P ₉₀ = 43.3 P ₉₉ = 46.5		Hours of Calibration: 36																						
				Percent Operational Time: 99.7																						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jan	39	38	38	37	A	37	37	38	39	39	40	40	40	40	40	40	39	39	39	38	38	38	38	38.6	40.3	
2-Jan	38	38	38	36	A	36	35	37	37	36	35	36	36	35	36	36	35	35	35	35	35	36	35	37	36.0	37.7
3-Jan	38	37	37	35	A	32	34	38	38	38	39	39	38	42	43	43	42	41	40	39	39	39	39	40	38.7	43.3
4-Jan	40	40	41	41	A	40	39	40	40	39	36	38	41	41	41	40	41	40	40	40	40	38	39	39	39.8	41.4
5-Jan	39	39	40	39	A	39	39	39	40	40	39	40	C	C	C	38	38	34	32	33	37	38	41	42	38.3	42.2
6-Jan	42	44	44	45	A	44	43	43	42	41	41	41	41	41	41	41	38	38	39	38	39	39	39	39	41.0	44.8
7-Jan	38	37	36	37	A	35	34	36	37	38	37	37	37	38	38	35	34	33	32	31	31	31	30	30	34.8	38.1
8-Jan	30	29	30	27	A	32	32	31	29	28	29	29	28	30	29	27	27	25	24	25	27	27	25	25	28.0	31.6
9-Jan	28	28	28	27	A	32	32	31	29	28	28	28	29	29	28	28	28	29	26	24	26	26	23	27	27.8	32.3
10-Jan	26	27	28	30	A	29	29	26	21	21	21	24	15	22	15	18	15	3	12	13	11	10	5	10	18.8	29.6
11-Jan	13	15	17	21	A	11	18	5	3	7	11	11	15	15	14	12	9	9	17	17	8	21	17	21	13.3	21.3
12-Jan	21	20	24	24	A	29	30	29	29	28	28	31	30	31	31	31	31	32	32	33	34	35	35	34	29.6	35.1
13-Jan	33	34	33	33	A	31	31	32	32	31	31	31	33	31	32	31	31	31	30	29	30	30	26	33	31.2	33.9
14-Jan	25	25	27	27	A	24	24	24	23	26	27	29	32	33	33	33	32	32	32	33	31	31	31	31	28.8	32.7
15-Jan	31	31	30	30	A	30	29	29	29	29	30	30	30	30	29	29	26	23	25	25	24	22	25	27	27.8	30.7
16-Jan	26	27	27	26	A	26	26	27	26	26	26	29	29	30	30	26	26	26	26	25	23	23	21	21	26.0	30.2
17-Jan	22	21	23	24	A	25	24	23	25	26	26	26	27	26	25	24	20	14	14	17	17	19	20	29	22.5	28.6
18-Jan	41	41	41	41	A	41	41	41	41	41	41	41	42	42	43	42	42	42	42	43	43	42	42	42	41.6	42.9
19-Jan	42	42	41	42	A	47	46	45	44	44	43	44	45	45	45	44	41	41	42	42	43	43	43	43	43.3	46.9
20-Jan	41	40	40	40	A	37	35	33	38	41	42	41	40	40	40	41	41	40	40	41	41	41	41	42	39.8	42.2
21-Jan	42	42	40	36	A	31	33	33	32	28	29	34	33	33	33	31	28	21	24	28	32	35	36	39	32.6	42.2
22-Jan	40	41	41	42	A	44	46	46	47	46	46	47	47	47	47	49	49	50	49	50	50	44	47	46	46.2	50.0
23-Jan	46	46	47	47	A	47	47	46	47	47	46	46	46	47	47	46	46	46	46	45	46	43	42	44	45.9	46.7
24-Jan	43	43	43	43	A	42	43	43	42	40	38	39	39	41	41	42	42	42	41	41	42	42	39	39	41.3	43.2
25-Jan	40	40	38	37	A	32	30	31	37	38	38	39	42	43	43	43	45	45	45	43	42	40	40	39	39.5	45.2
26-Jan	39	43	42	41	A	41	40	36	37	37	36	36	35	35	35	35	35	33	34	33	33	32	32	31	36.0	42.6
27-Jan	27	29	29	27	A	32	35	C	C	M	M	34	34	38	41	46	44	45	46	45	45	44	44	45	38.5	46.3
28-Jan	44	43	43	42	39	33	29	27	A	25	29	35	33	32	33	33	33	32	32	30	31	31	31	32	33.6	43.9
29-Jan	32	32	31	31	31	32	31	A	31	31	31	28	27	27	29	29	28	29	28	29	28	29	29	28	29.7	31.9
30-Jan	27	27	28	28	27	28	A	28	24	25	21	22	26	25	23	26	17	17	20	20	20	19	17	18	23.2	28.3
31-Jan	19	17	17	16	14	A	15	10	8	11	18	19	20	20	18	15	15	9	6	5	6	6	6	6	12.9	20.3
		33.9	34.0	34.2	33.9	27.9	33.9	33.5	32.6	32.6	32.5	32.7	33.6	33.7	34.3	34.0	34.0	33.0	31.5	31.9	31.9	31.9	32.1	31.6	32.8	Diurnal Average
		45.7	46.0	46.7	46.7	39.1	46.9	46.7	46.5	47.0	46.6	46.3	46.8	47.3	47.3	46.6	48.7	49.3	49.8	49.3	49.8	50.0	44.4	46.7	45.6	Diurnal Maximum
C - Calibration		M - Maintenance					A - Automated Daily Zero Span																			

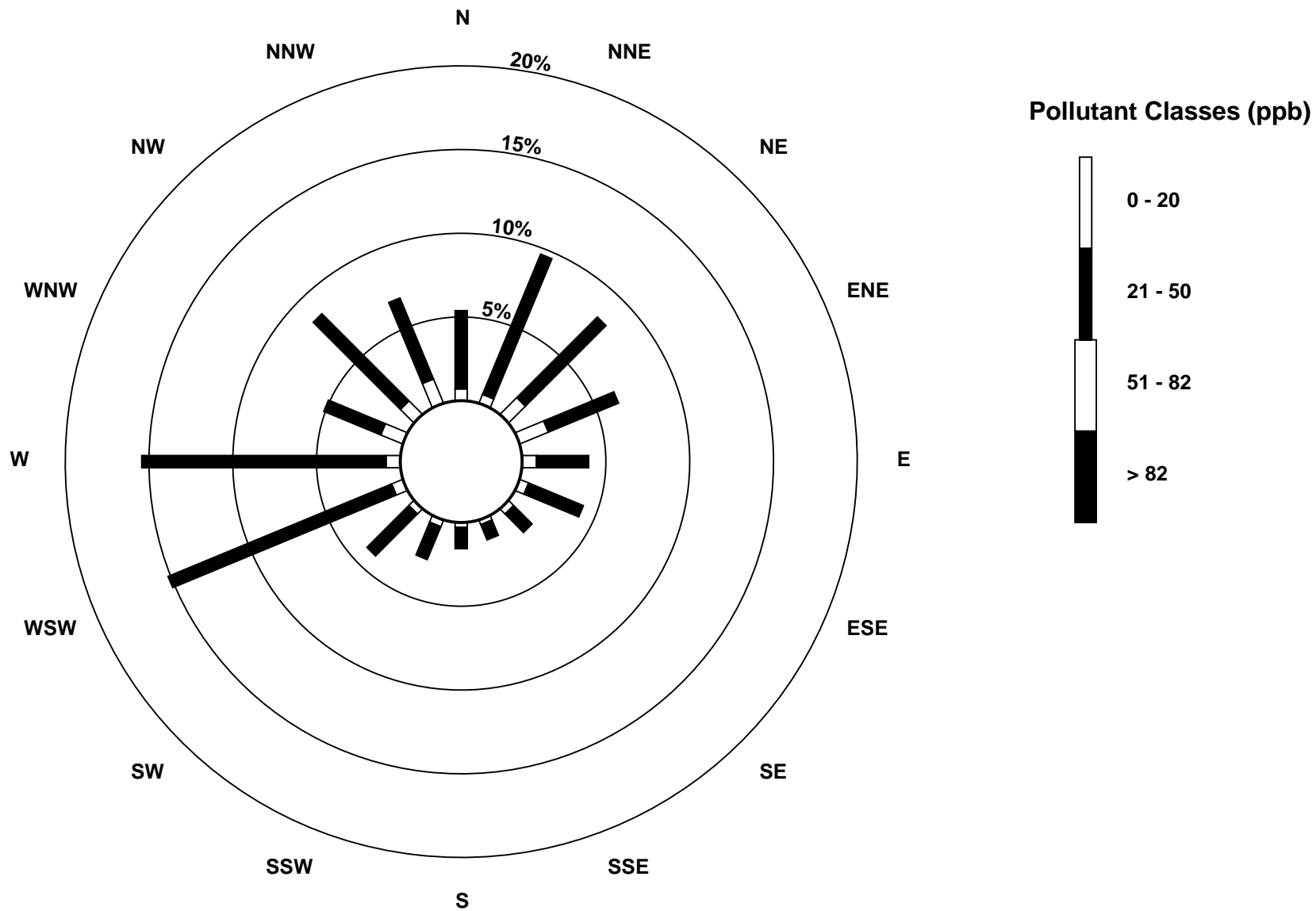
Hourly Maximums

Ozone (O₃) - ppb
Beaverlodge - January 2011



Pollutant Rose

Ozone (O₃) - ppb
Beaverlodge - January 2011

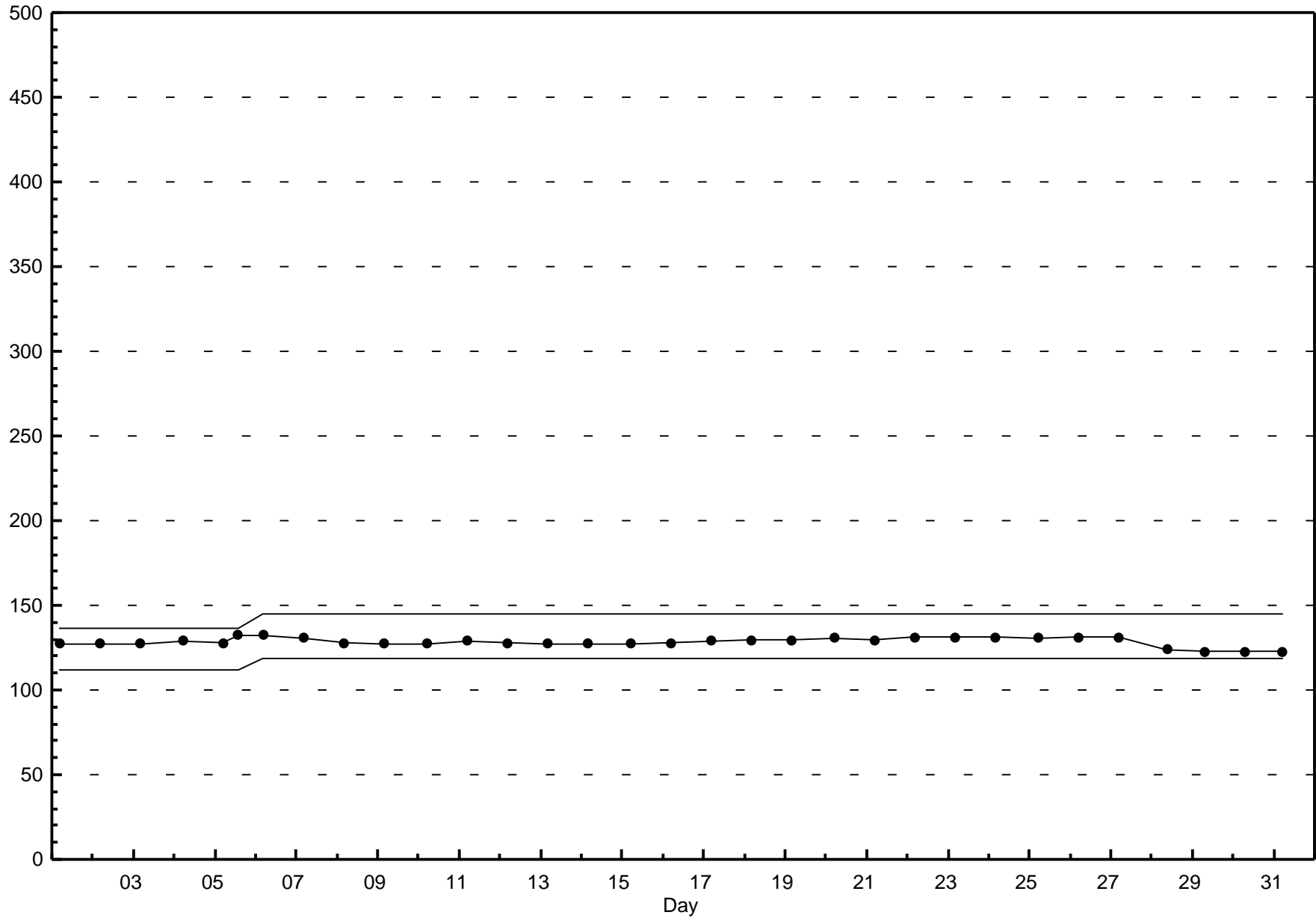


Eight Hour Running Averages

Ozone (O₃) - ppb

Beaverlodge - January 2011

Maximum Value: 46.7 ppb on Jan 22 20:00																					Hours in Service:	744				
Minimum Value: 4.2 ppb on Feb 1 00:00																					Hours of Data:	730				
Percentiles: P ₁ = 5.9 P ₁₀ = 18.2 Q ₁ = 26.0 Median = 32.8 Q ₃ = 38.6 P ₉₀ = 41.5 P ₉₉ = 45.9																					Hours of Missing Data:	14				
																					Hours of Calibration:	14				
																					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	35	36	37	37	37	37	37	37	37	37	37	38	38	38	39	39	39	39	39	39	39	38	38	38	38	39.2
2-Jan	37	37	37	37	37	36	36	36	35	35	35	35	35	35	35	34	34	34	34	34	34	34	34	34	34	37.4
3-Jan	35	35	35	35	35	35	35	34	35	35	35	35	35	36	38	38	39	39	39	39	39	39	39	39	38	39.3
4-Jan	38	37	38	38	38	38	38	38	38	37	37	36	37	37	37	38	38	39	39	39	40	40	39	39	39	39.7
5-Jan	39	38	38	38	38	38	38	38	38	38	38	38	38	38	N	N	N	N	N	N	31	32	32	33	38.5	
6-Jan	34	35	37	39	40	40	41	41	42	42	41	41	41	41	40	40	40	39	38	38	37	37	37	36	41.9	
7-Jan	36	36	36	36	36	36	35	35	34	35	35	35	35	36	36	36	36	35	34	34	33	32	31	31	36.4	
8-Jan	30	30	29	29	29	29	29	29	28	28	28	29	28	28	27	27	27	27	26	26	25	25	24	24	30.2	
9-Jan	24	24	24	24	24	24	26	27	26	26	26	27	27	27	26	26	26	27	27	27	26	25	25	24	27.0	
10-Jan	24	24	24	25	25	26	26	25	24	23	22	20	19	17	16	15	14	12	10	9	9	7	7	5	25.9	
11-Jan	5	6	7	8	9	8	9	8	7	6	6	5	6	7	8	9	9	10	9	9	8	8	8	9	9.5	
12-Jan	11	13	15	16	18	20	23	24	25	26	27	28	28	28	29	29	29	30	30	31	31	32	32	32	32.4	
13-Jan	33	33	33	33	33	32	32	31	31	30	30	29	29	29	30	30	30	30	30	30	30	29	29	28	33.3	
14-Jan	27	27	26	26	25	24	24	24	23	23	23	24	24	25	27	28	29	30	31	31	31	31	31	31	31.4	
15-Jan	31	31	30	30	30	30	30	29	29	29	29	29	29	29	29	29	28	27	26	26	25	24	23	23	30.8	
16-Jan	23	23	24	24	24	25	25	25	26	25	25	25	26	26	27	26	26	26	27	26	25	24	23	23	26.6	
17-Jan	22	21	21	21	21	21	21	22	22	23	23	24	24	24	24	24	23	22	20	19	18	16	16	16	24.1	
18-Jan	18	22	25	29	31	34	37	40	40	40	40	40	40	40	41	41	41	41	41	41	41	41	41	41	41.0	
19-Jan	41	41	41	41	41	42	42	42	43	43	44	44	44	44	44	43	43	42	41	41	40	40	40	40	44.0	
20-Jan	40	40	41	40	40	39	38	36	35	35	35	35	36	36	37	38	39	40	39	39	40	40	40	40	40.7	
21-Jan	40	40	39	39	39	36	34	32	30	27	25	25	26	27	28	28	28	28	27	26	26	26	26	27	40.0	
22-Jan	29	32	35	37	38	39	41	42	43	44	44	44	45	45	45	45	45	46	46	47	47	45	44	44	46.7	
23-Jan	43	43	43	42	42	44	45	46	46	46	46	46	46	46	46	46	46	45	45	45	45	44	43	43	46.1	
24-Jan	43	43	42	42	42	41	41	41	41	40	39	38	38	39	38	38	38	39	39	40	40	40	39	39	42.8	
25-Jan	39	39	38	38	38	37	35	34	33	33	33	33	34	35	37	39	40	41	42	42	42	42	41	41	42.2	
26-Jan	40	40	39	39	39	39	39	38	37	37	36	35	35	35	34	34	34	34	34	33	32	32	31	30	40.1	
27-Jan	29	29	28	28	28	28	28	28	N	N	N	N	N	N	N	N	36	37	38	39	41	42	43	43	42.7	
28-Jan	44	43	43	43	42	40	38	35	34	32	29	28	28	28	29	30	30	31	32	31	31	31	30	30	43.5	
29-Jan	30	30	30	31	31	31	31	31	31	30	30	29	29	28	28	27	27	26	26	26	26	27	27	26	31.0	
30-Jan	26	26	26	26	26	25	25	23	23	22	20	19	19	19	19	20	20	18	18	18	17	15	15	14	26.4	
31-Jan	13	13	14	13	12	12	11	9	8	7	7	9	10	11	12	13	14	13	12	10	8	6	5	4	13.8	
<div style="display: flex; justify-content: space-between;"> 43.543.343.142.541.843.745.045.846.046.146.045.945.945.945.845.845.645.546.246.746.745.144.043.5 </div> <p style="text-align: center;">Diurnal Maximums</p>																										
N - Not Valid																										



Hourly Averages

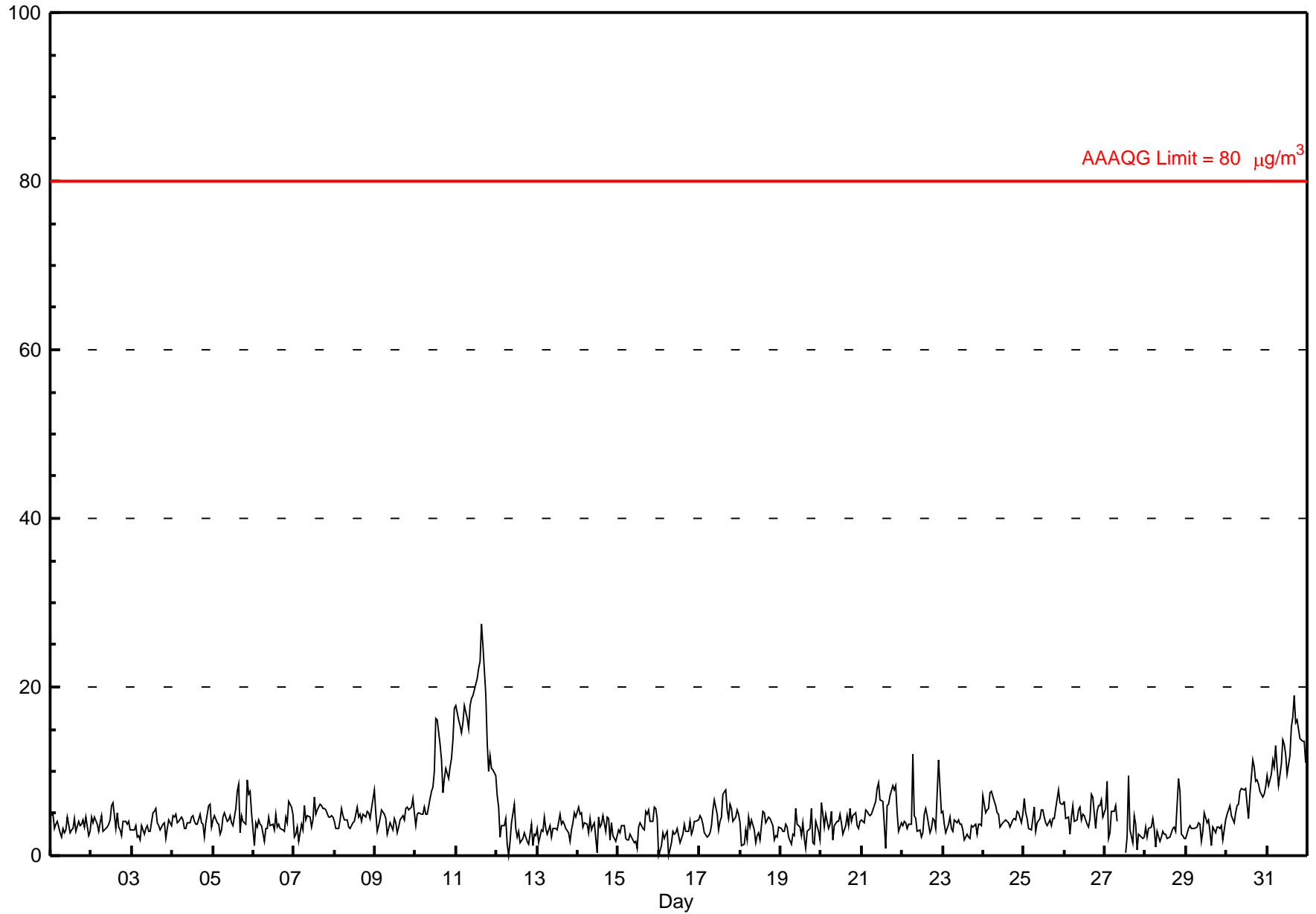
Particulate Matter 2.5 (PM_{2.5}) - µg/m³

Beaverlodge - January 2011

Number of Exceedences: 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 27.4 µg/m ³ on Jan 11 16:00	Maximum Daily Average: 17.0 µg/m ³ on Jan 11
Minimum Value: 0 µg/m ³ on Jan 12 08:00	Hours of Data: 740
Maximum Diurnal Average: 5.7 µg/m ³ at hour 16	Hours of Missing Data: 4
Monthly Average: 4.90 µg/m ³	Hours of Calibration: 0
Minimum Daily Average: 2.6 µg/m ³ on Jan 16	Percent Operational Time: 99.5
Minimum Diurnal Average: 4.1 µg/m ³ at hour 8	
Percentiles: P ₁ = 0.8 P ₁₀ = 2.2 Q ₁ = 3.1 Median = 4.0 Q ₃ = 5.3 P ₉₀ = 8.2 P ₉₉ = 18.7	

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum																						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																								
1-Jan	5	5	3	4	4	3	2	3	3	3	5	3	3	3	4	3	4	4	4	4	3	5	2	3	3.5	4.9																						
2-Jan	5	4	5	4	3	4	5	3	3	3	4	4	6	6	3	5	3	3	2	4	4	4	4	3	3.9	6.2																						
3-Jan	3	3	3	2	2	2	4	2	3	4	3	3	5	5	6	4	4	3	4	4	2	3	4	4	3.4	5.6																						
4-Jan	5	5	5	4	4	5	4	3	3	4	4	5	5	4	4	4	5	4	4	2	4	6	6	3	4.2	6.1																						
5-Jan	4	5	4	4	3	3	5	5	4	4	5	4	4	6	8	8	3	5	4	4	9	7	8	5	4.9	8.9																						
6-Jan	1	4	3	4	4	4	2	3	3	5	3	4	3	5	3	4	3	3	3	5	4	6	6	5	3.7	6.5																						
7-Jan	2	3	3	2	4	3	6	4	5	5	3	4	7	5	5	6	6	6	6	5	5	5	5	5	4.5	7.0																						
8-Jan	4	3	3	4	6	5	4	4	3	3	4	4	4	6	5	5	4	5	5	5	5	4	6	8	4.5	7.8																						
9-Jan	5	3	4	4	5	5	4	3	3	4	3	4	4	3	3	4	5	4	6	6	5	6	7	5	4.4	6.8																						
10-Jan	4	5	5	5	5	6	5	5	7	8	8	10	16	16	13	11	8	9	10	9	10	11	14	17	9.1	17.4																						
11-Jan	18	16	15	15	16	18	16	15	18	19	19	20	21	22	23	27	25	19	13	10	12	10	10	9	17.0	27.4																						
12-Jan	7	6	2	4	4	4	1	0	2	4	6	3	2	3	2	2	3	2	2	1	4	1	2	2	2.9	7.1																						
13-Jan	3	2	3	3	5	3	3	4	2	3	3	3	3	5	4	4	4	3	3	2	3	4	5	5	3.3	5.1																						
14-Jan	6	5	5	3	4	4	3	4	3	4	4	0	5	3	4	5	3	5	4	2	4	2	2	2	3.6	5.7																						
15-Jan	3	3	4	3	2	2	2	3	2	2	2	1	3	4	3	3	5	5	5	4	4	6	6	4	3.4	5.8																						
16-Jan	0	1	3	2	2	3	0	2	3	3	3	3	2	2	3	4	3	3	4	2	3	4	4	4	2.6	4.3																						
17-Jan	5	4	4	3	2	2	3	3	5	7	5	3	4	5	7	8	5	4	6	6	4	5	5	5	4.6	7.8																						
18-Jan	4	1	1	3	2	5	3	4	3	2	2	3	2	5	5	4	4	4	4	4	2	2	2	3	3.2	5.3																						
19-Jan	3	3	3	4	3	2	1	3	2	6	4	3	2	4	2	1	3	3	6	2	1	4	3	2	2.9	5.6																						
20-Jan	6	5	3	5	3	4	5	2	3	4	4	5	4	3	4	5	4	6	4	5	5	4	3	4	4.1	6.2																						
21-Jan	4	4	5	5	5	5	5	6	6	8	9	7	6	4	1	6	6	7	8	8	8	5	3	4	5.6	8.7																						
22-Jan	4	4	4	3	4	4	12	5	4	3	3	2	3	5	6	5	3	3	4	4	3	11	8	5	4.7	12.1																						
23-Jan	5	4	3	4	5	3	3	4	4	4	4	4	3	2	3	2	2	4	3	4	2	4	4	4	3.4	5.2																						
24-Jan	7	5	5	6	8	8	7	6	5	5	3	4	4	4	4	4	3	4	4	4	5	5	4	5	5.0	7.6																						
25-Jan	7	5	4	3	3	4	6	3	4	4	5	5	5	4	4	4	4	4	4	6	8	6	6	6	4.8	7.8																						
26-Jan	6	4	5	3	5	6	4	4	5	6	4	5	5	4	3	4	7	7	3	5	6	6	7	5	5.0	7.4																						
27-Jan	6	9	2	3	5	5	6	4	M	M	M	M	0	2	10	3	2	5	4	1	3	2	2	2	3.7	9.5																						
28-Jan	3	2	3	3	4	3	1	3	2	2	3	3	2	2	2	3	3	3	3	9	8	3	2	2	3.1	9.1																						
29-Jan	2	3	4	3	3	3	3	4	4	2	3	5	4	4	3	1	3	3	3	3	3	4	2	4	3.2	5.0																						
30-Jan	5	5	6	5	4	5	6	6	8	8	8	8	6	4	7	11	11	9	9	8	8	7	7	8	7.0	11.3																						
31-Jan	9	8	10	11	10	13	11	8	11	14	13	12	10	12	15	16	19	16	16	14	14	14	14	11	12.5	19.1																						
																								4.9	4.5	4.3	4.2	4.5	4.7	4.5	4.1	4.5	5.0	4.9	4.8	4.9	5.2	5.4	5.7	5.3	5.3	5.2	4.9	5.2	5.4	5.2	5.0	Diurnal Average
																								17.7	16.1	15.4	14.6	15.8	17.8	16.2	15.0	17.8	18.7	19.0	19.7	21.0	22.3	23.0	27.4	24.9	19.1	16.0	13.9	13.7	13.6	13.7	17.4	Diurnal Maximum

M - Maintenance
 Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 µg/m³ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 µg/m³

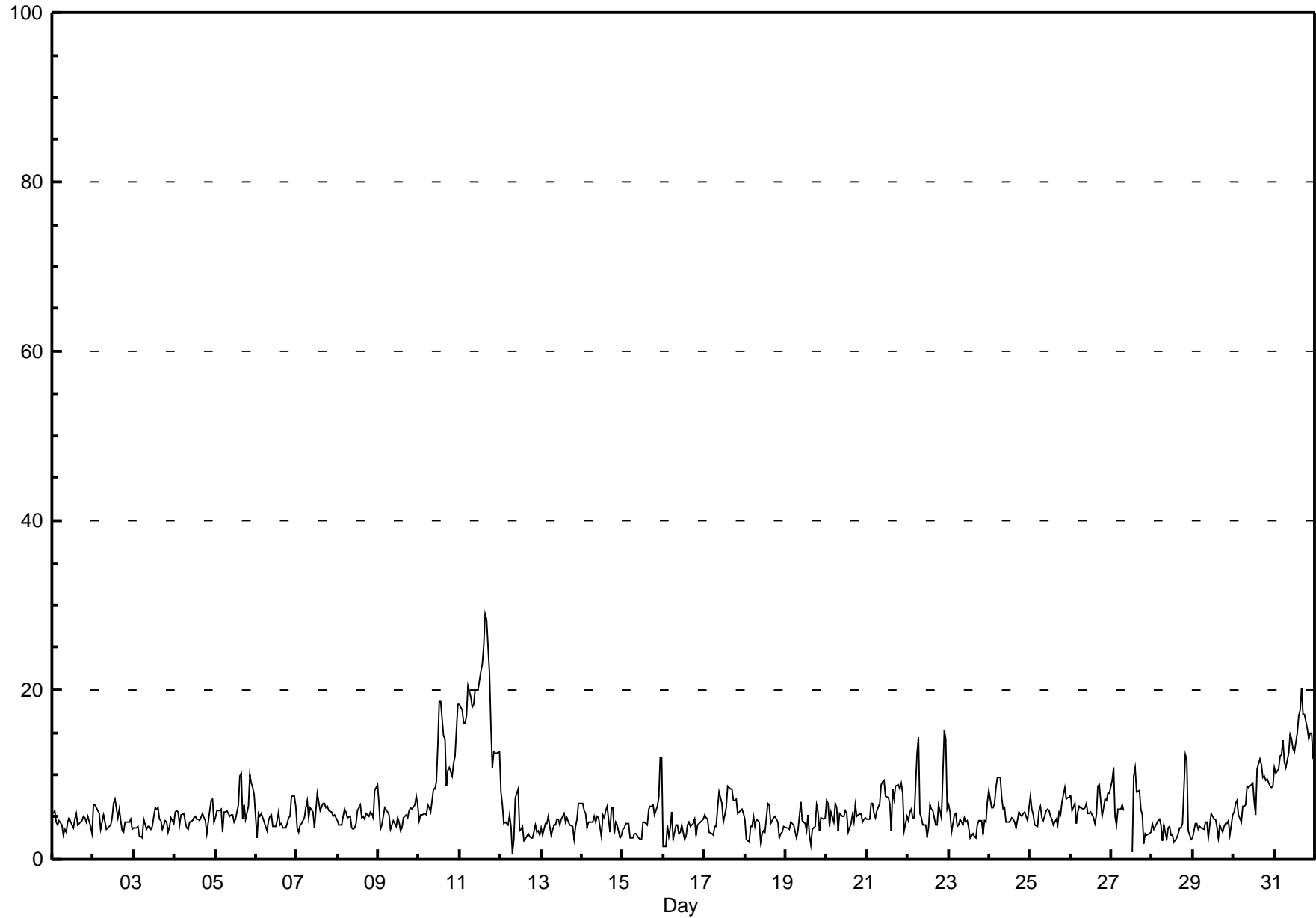


Hourly Maximums

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

Beaverlodge - January 2011

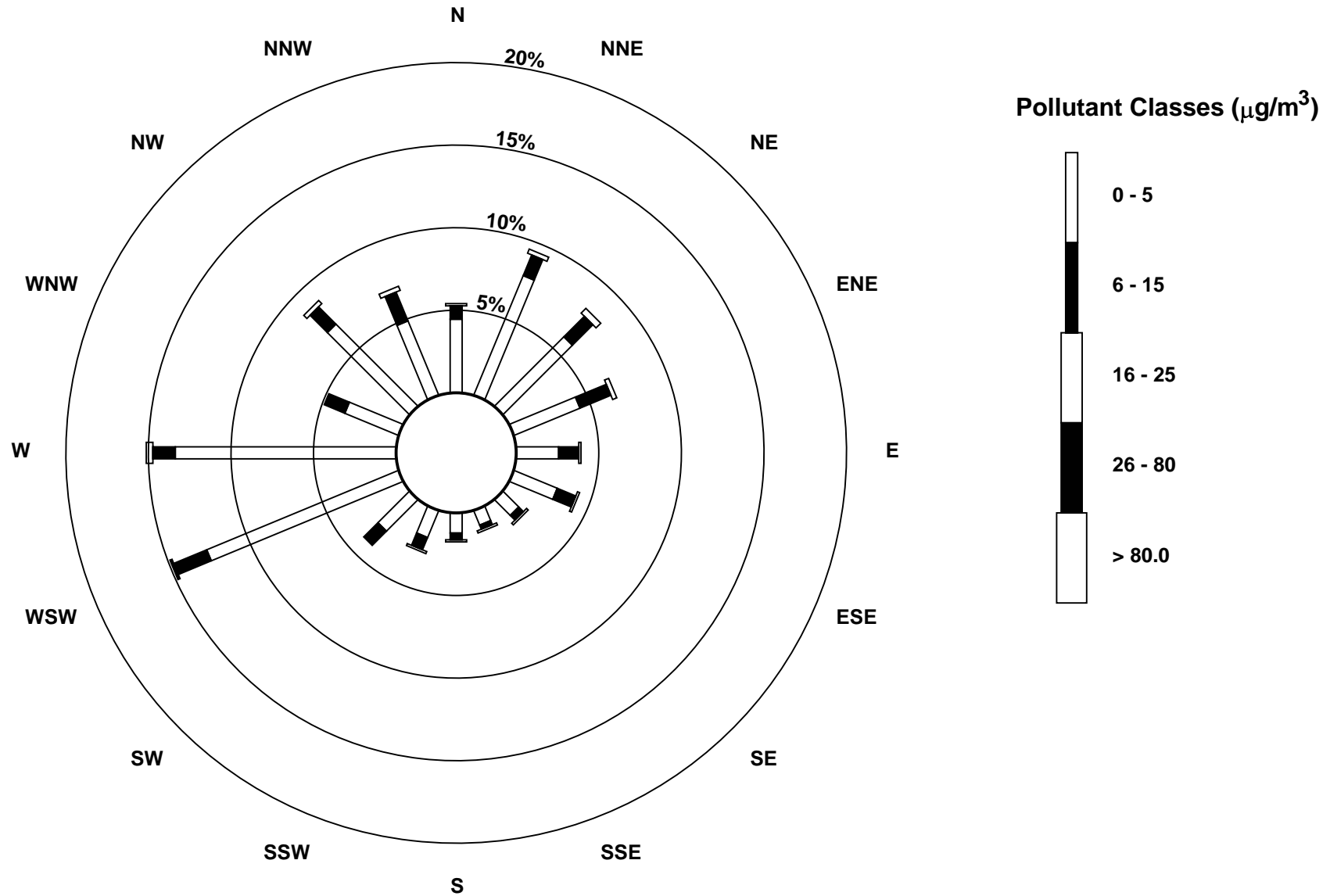
Maximum Value: 28.9 µg/m ³ on Jan 11 16:00		Maximum Daily Average: 18.7 µg/m ³ on Jan 11		Hours in Service: 744 Hours of Data: 740 Hours of Missing Data: 4 Hours of Calibration: 0 Percent Operational Time: 99.5																							
Minimum Value: 1 µg/m ³ on Jan 12 08:00 Maximum Diurnal Average: 6.8 µg/m ³ at hour 16 Monthly Average: 6.00 µg/m ³		Minimum Daily Average: 3.6 µg/m ³ on Jan 16 Minimum Diurnal Average: 5.2 µg/m ³ at hour 8 Percentiles: P ₁ = 2.0 P ₁₀ = 3.1 Q ₁ = 4.0 Median = 5.0 Q ₃ = 6.4 P ₉₀ = 9.9 P ₉₉ = 19.2																									
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jan	5	6	4	4	5	4	3	3	3	4	5	4	4	5	5	4	4	5	5	5	4	5	4	3	4.4	5.8	
2-Jan	7	7	6	5	4	4	5	4	4	4	4	5	7	7	5	6	5	3	3	4	4	4	5	4	4.8	7.1	
3-Jan	4	4	4	3	3	3	5	4	4	4	4	4	6	6	6	5	5	4	5	4	3	4	5	4	4.1	6.2	
4-Jan	6	6	6	4	5	5	4	4	4	4	4	5	5	5	5	4	5	5	5	3	4	7	7	4	4.9	7.0	
5-Jan	5	6	6	6	3	6	6	6	5	5	5	4	5	6	10	10	5	6	5	6	10	9	8	8	6.3	10.2	
6-Jan	3	5	5	5	5	4	3	5	5	5	4	4	5	6	4	4	4	4	4	5	5	7	7	6	4.8	7.4	
7-Jan	4	3	4	4	5	6	7	5	6	6	4	6	8	7	6	7	7	6	6	6	6	5	5	5	5.5	7.7	
8-Jan	4	4	4	5	6	6	5	5	4	4	4	6	6	6	5	5	5	5	5	6	5	5	8	9	5.2	8.7	
9-Jan	7	3	4	5	6	6	5	4	4	5	4	5	4	3	4	5	5	5	6	6	6	6	7	6	5.1	7.5	
10-Jan	5	5	5	5	5	6	6	6	8	8	9	13	19	19	15	14	9	11	11	10	11	12	15	18	10.2	18.6	
11-Jan	18	18	16	16	17	21	19	18	18	20	20	20	22	23	25	29	28	22	16	11	13	13	13	13	18.7	28.9	
12-Jan	8	6	4	4	4	5	4	1	2	7	8	3	4	4	2	3	3	3	3	3	4	3	3	3	4.0	8.3	
13-Jan	4	3	4	4	5	4	3	4	4	5	5	4	5	5	4	5	4	4	4	2	4	5	7	7	4.4	6.6	
14-Jan	7	6	5	4	4	4	4	5	4	5	5	3	5	5	6	6	3	6	6	3	4	4	3	3	4.6	6.5	
15-Jan	4	4	4	4	2	3	3	3	3	3	2	2	4	4	4	6	6	6	6	5	6	7	12	12	4.9	12.1	
16-Jan	2	2	4	3	4	6	2	4	4	3	3	4	2	3	4	4	4	4	5	3	4	4	4	5	3.6	5.5	
17-Jan	5	5	5	3	3	3	4	4	6	8	7	4	5	6	9	8	8	7	7	7	5	6	6	5	5.7	8.6	
18-Jan	5	2	2	4	4	5	4	5	4	2	3	3	3	7	6	4	5	5	5	4	3	3	3	4	4.0	6.7	
19-Jan	4	4	4	4	4	4	2	3	5	7	5	4	3	5	3	2	4	4	6	6	3	5	5	5	4.2	6.8	
20-Jan	7	7	4	6	4	7	6	3	5	5	5	6	5	3	4	5	4	6	5	5	5	4	5	5	5.2	6.9	
21-Jan	5	5	7	7	5	5	6	7	9	9	9	7	7	7	3	8	7	9	9	8	9	8	3	5	6.8	9.3	
22-Jan	5	6	6	5	5	13	14	5	5	4	4	3	4	7	6	6	4	4	6	6	5	15	14	6	6.5	15.2	
23-Jan	6	6	3	5	5	4	4	5	4	5	4	5	4	3	3	3	3	4	4	5	3	5	4	7	4.3	6.8	
24-Jan	8	6	6	7	9	10	10	7	6	6	4	4	5	5	5	4	4	6	5	5	5	6	5	6	6.0	9.7	
25-Jan	7	6	5	4	4	6	6	5	5	6	6	6	5	5	4	5	4	6	5	7	9	7	7	7	5.7	8.6	
26-Jan	8	6	7	4	6	6	6	6	6	7	5	5	6	5	4	5	9	9	5	6	7	7	8	8	6.2	8.9	
27-Jan	9	11	5	4	6	6	6	6	M	M	M	M	1	10	11	8	8	6	5	2	3	3	3	3	5.8	10.9	
28-Jan	4	3	4	5	5	4	2	4	2	4	4	3	3	2	3	3	4	4	4	12	12	3	3	2	4.1	12.4	
29-Jan	3	4	4	4	4	4	4	4	4	3	4	5	5	5	4	3	4	3	4	4	4	5	3	5	4.0	5.5	
30-Jan	6	7	7	5	4	6	6	7	9	8	9	9	7	5	11	12	11	10	10	9	9	9	8	9	8.0	11.9	
31-Jan	11	10	11	12	12	14	12	11	13	15	14	13	13	15	17	18	20	17	17	15	14	15	15	12	14.0	20.2	
		5.9	5.6	5.3	5.2	5.3	6.1	5.7	5.2	5.5	6.0	5.8	5.7	6.0	6.5	6.5	6.8	6.5	6.4	6.2	6.0	6.2	6.5	6.7	6.4	Diurnal Average	
		18.4	17.6	16.0	16.2	16.9	20.5	19.2	17.9	18.4	19.9	19.9	20.0	22.2	23.1	25.3	28.9	28.4	22.0	17.2	15.5	14.3	15.2	15.5	18.3	Diurnal Maximum	
M - Maintenance																											



Pollutant Rose

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

Beaverlodge - January 2011



Hourly Averages

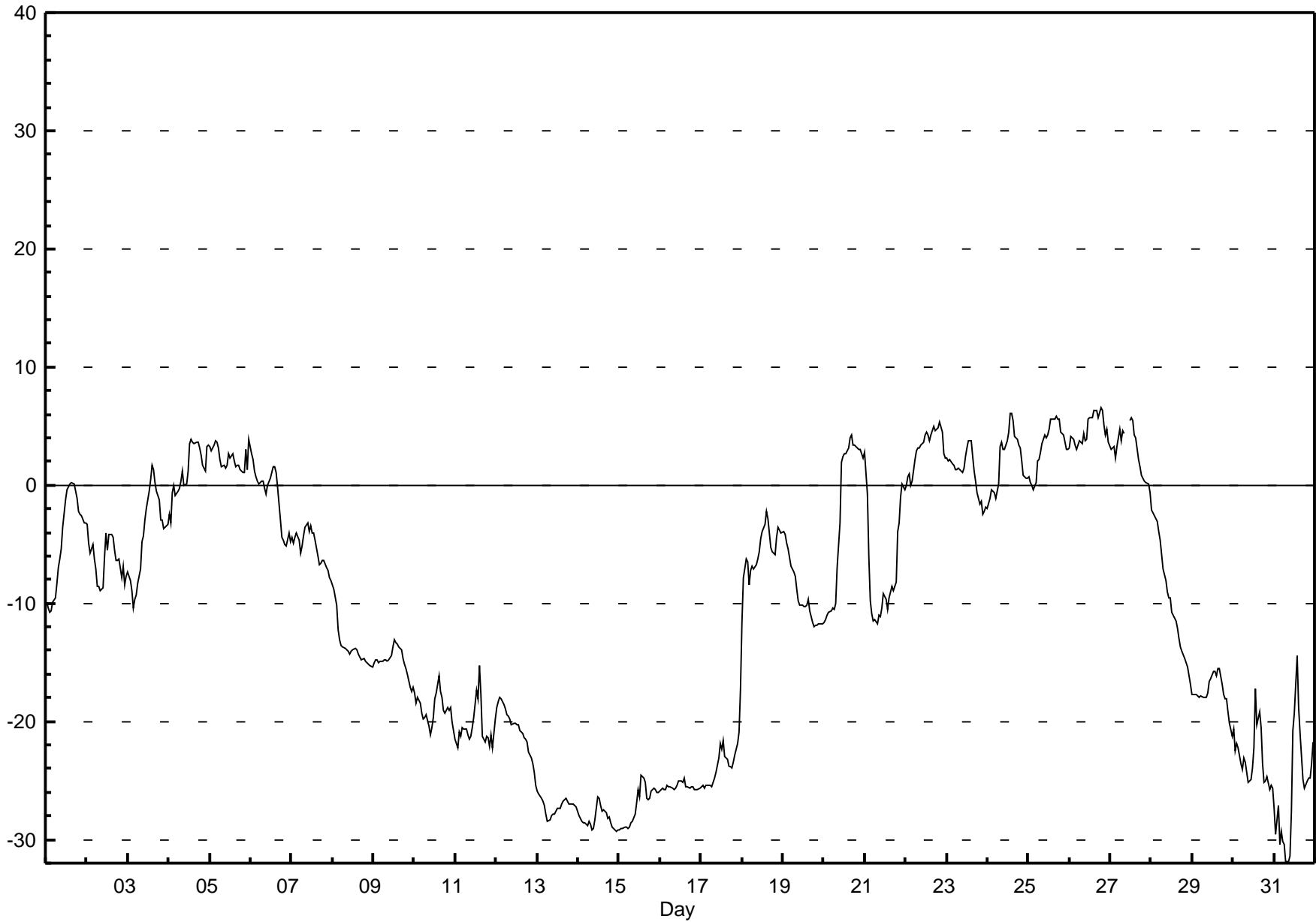
External Temperature (ET) - °C

Beaverlodge - January 2011

Number of Exceedences (AAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 6.6 °C on Jan 26 19:00	Maximum Daily Average: 4.7 °C on Jan 26		Hours of Data:	742
Minimum Value: -32 °C on Jan 31 08:00	Minimum Daily Average: -28.3 °C on Jan 14		Hours of Missing Data:	2
Maximum Diurnal Average: -8.3 °C at hour 14	Minimum Diurnal Average: -11.5 °C at hour 10		Hours of Calibration:	0
Monthly Average: -10.38 °C	Percentiles: P ₁ = -29.3 P ₁₀ = -26.0 Q ₁ = -20.7 Median = -9.0 Q ₃ = 0.3 P ₉₀ = 3.5 P ₉₉ = 6.0		Percent Operational Time:	99.7

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum																						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																								
1-Jan	-10	-10	-11	-11	-10	-10	-8	-7	-6	-5	-4	-1	0	0	0	0	0	-1	-1	-2	-2	-3	-3	-3	-4.5	0.2																						
2-Jan	-3	-5	-6	-5	-6	-7	-9	-9	-9	-9	-9	-6	-4	-6	-4	-4	-4	-6	-6	-6	-6	-8	-7	-8	-8	-6.3	-3.4																					
3-Jan	-7	-8	-9	-10	-10	-9	-8	-7	-5	-4	-3	-2	-1	0	2	1	0	-1	-1	-3	-3	-4	-4	-3	-4.1	1.7																						
4-Jan	-2	-3	-1	0	-1	-1	0	0	1	0	0	1	3	4	4	3	4	4	3	3	2	1	3	3	1.3	3.8																						
5-Jan	3	3	3	4	4	3	2	2	2	1	2	3	2	3	2	2	2	2	1	1	1	3	1	4	2.3	3.8																						
6-Jan	3	2	1	1	0	0	0	0	0	-1	0	1	1	2	2	1	0	-3	-4	-5	-5	-5	-4	-5	-0.8	2.7																						
7-Jan	-4	-5	-4	-4	-5	-6	-5	-4	-4	-3	-4	-3	-4	-4	-5	-6	-7	-7	-6	-6	-7	-7	-8	-8	-5.3	-3.2																						
8-Jan	-8	-9	-10	-12	-13	-14	-14	-14	-14	-14	-14	-14	-14	-14	-14	-14	-15	-15	-15	-15	-15	-15	-15	-15	-13.6	-8.4																						
9-Jan	-15	-15	-15	-15	-15	-15	-15	-15	-15	-15	-14	-14	-13	-13	-13	-14	-14	-15	-15	-15	-16	-17	-18	-17	-14.9	-13.1																						
10-Jan	-18	-18	-18	-18	-19	-20	-20	-19	-20	-21	-21	-20	-18	-18	-16	-18	-18	-19	-19	-19	-19	-19	-20	-21	-19.0	-16.2																						
11-Jan	-22	-22	-21	-21	-21	-21	-21	-21	-21	-21	-21	-20	-17	-18	-15	-18	-21	-22	-21	-21	-22	-21	-22	-20	-20.5	-15.2																						
12-Jan	-19	-18	-18	-18	-19	-19	-19	-20	-20	-20	-20	-20	-20	-20	-21	-21	-21	-22	-22	-23	-23	-24	-24	-25	-20.7	-18.0																						
13-Jan	-26	-26	-26	-27	-27	-28	-28	-28	-28	-28	-28	-28	-27	-27	-27	-27	-27	-27	-27	-27	-27	-27	-27	-27	-27.2	-25.9																						
14-Jan	-28	-28	-29	-29	-29	-29	-29	-29	-29	-29	-28	-26	-26	-27	-28	-27	-28	-28	-28	-29	-29	-29	-29	-29	-28.3	-26.4																						
15-Jan	-29	-29	-29	-29	-29	-29	-29	-29	-29	-28	-28	-27	-26	-26	-25	-25	-26	-27	-26	-26	-26	-26	-26	-26	-27.1	-24.5																						
16-Jan	-26	-26	-26	-26	-25	-26	-26	-26	-26	-26	-25	-25	-25	-25	-25	-26	-26	-26	-25	-26	-26	-26	-26	-26	-25.5	-24.8																						
17-Jan	-26	-25	-26	-25	-25	-25	-25	-25	-25	-24	-23	-22	-22	-22	-23	-23	-24	-24	-24	-23	-23	-22	-21	-17	-23.6	-17.2																						
18-Jan	-12	-8	-6	-7	-8	-7	-7	-7	-7	-6	-6	-5	-4	-3	-2	-3	-4	-5	-6	-6	-4	-4	-4	-4	-5.6	-2.2																						
19-Jan	-4	-4	-5	-5	-6	-7	-7	-8	-9	-10	-10	-10	-10	-10	-10	-11	-11	-12	-12	-12	-12	-12	-12	-12	-9.1	-4.0																						
20-Jan	-12	-11	-11	-11	-11	-10	-11	-10	-7	-3	2	2	3	3	3	4	4	4	3	3	3	3	3	2	-2.3	4.2																						
21-Jan	3	-1	-6	-10	-11	-12	-11	-12	-11	-11	-10	-9	-10	-11	-9	-9	-9	-9	-8	-4	-3	-1	0	0	-7.3	2.8																						
22-Jan	0	1	1	0	0	2	3	3	3	3	4	4	5	4	4	4	5	5	5	5	5	4	3	2	3.1	5.4																						
23-Jan	2	2	2	2	2	1	1	1	1	1	1	2	3	4	4	4	2	1	0	-1	-2	-1	-2	-2	1.0	3.7																						
24-Jan	-2	-1	0	-1	-1	-1	0	3	4	3	3	4	4	6	6	5	4	4	3	3	2	1	1	1	2.1	6.0																						
25-Jan	1	0	0	0	0	2	2	3	3	4	4	4	5	6	6	6	6	6	6	4	4	4	3	3	3.4	5.9																						
26-Jan	3	4	4	3	3	3	4	3	4	4	4	6	6	6	6	6	6	6	7	6	5	4	5	4	4.7	6.6																						
27-Jan	3	3	3	2	3	5	4	5	4	M	M	5	6	6	4	4	2	2	1	1	0	0	-1	2.8	5.7																							
28-Jan	-2	-2	-3	-3	-4	-5	-6	-7	-8	-9	-9	-10	-11	-11	-11	-12	-13	-14	-14	-15	-15	-15	-16	-17	-9.7	-2.1																						
29-Jan	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-17	-16	-16	-16	-16	-16	-16	-17	-18	-18	-18	-19	-20	-21	-17.6	-15.5																						
30-Jan	-21	-22	-22	-22	-24	-24	-23	-23	-24	-25	-25	-24	-22	-17	-20	-19	-20	-24	-25	-25	-25	-26	-25	-26	-23.1	-17.3																						
31-Jan	-27	-30	-27	-30	-29	-30	-30	-32	-32	-31	-28	-21	-19	-14	-19	-21	-23	-25	-26	-25	-25	-25	-24	-22	-25.6	-14.4																						
																								-10.4	-10.7	-10.7	-11.2	-11.4	-11.4	-11.4	-11.2	-11.1	-11.5	-10.8	-9.3	-8.9	-8.3	-8.5	-8.8	-9.4	-10.1	-10.4	-10.5	-10.7	-10.8	-11.0	-10.8	Diurnal Average
																								3.2	4.1	3.9	3.8	3.6	4.8	3.8	4.7	4.4	4.2	4.0	5.6	5.7	6.0	6.3	6.3	6.3	5.7	6.6	6.3	5.4	4.5	4.7	3.8	Diurnal Maximum

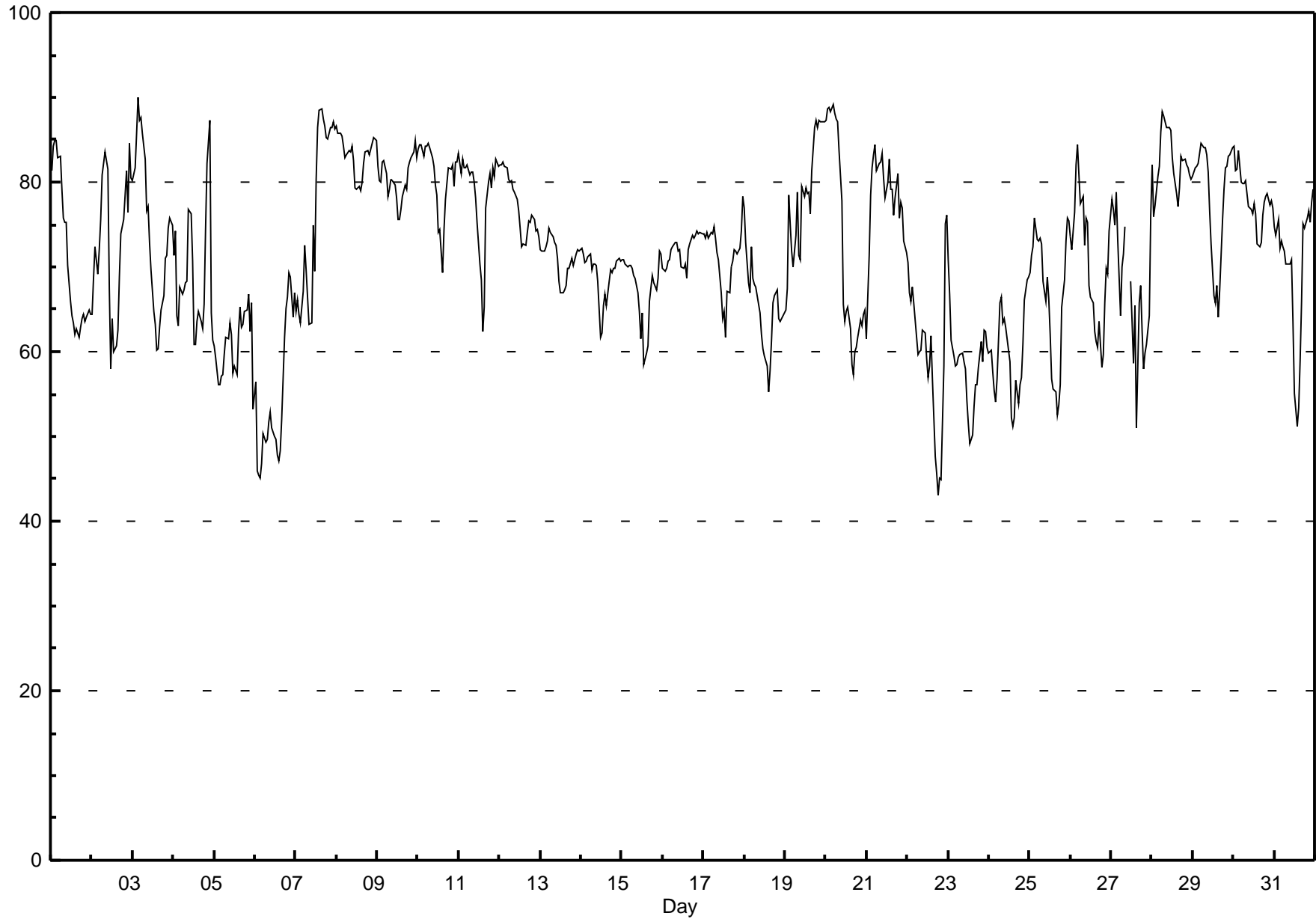
M - Maintenance



Hourly Averages

Relative Humidity (RH) - %
Beaverlodge - January 2011

Number of Exceedences (AAQO): 1-hr: 0 24-hr: 0 Maximum Value: 90.0 % on Jan 3 04:00 Maximum Daily Average: 83.2 % on Jan 8		Hours in Service: 744 Hours of Data: 742 Hours of Missing Data: 2 Hours of Calibration: 0 Percent Operational Time: 99.7																									
Minimum Value: 43 % on Jan 22 19:00 Maximum Diurnal Average: 74.3 % at hour 23 Monthly Average: 71.43 %		Minimum Daily Average: 54.2 % on Jan 6 Minimum Diurnal Average: 65.5 % at hour 15 Percentiles: P ₁ = 46.8 P ₁₀ = 58.5 Q ₁ = 64.4 Median = 72.0 Q ₃ = 79.6 P ₉₀ = 83.6 P ₉₉ = 88.2																									
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	81	84	85	85	83	83	79	76	75	75	70	66	64	63	62	63	62	63	64	64	64	64	65	64	71.1	85.0	
2-Jan	64	69	72	69	72	76	81	82	83	82	67	58	64	60	61	63	69	74	75	76	81	76	85	81	72.4	84.5	
3-Jan	80	82	86	90	87	88	86	83	77	77	73	70	65	63	60	60	63	65	67	71	71	75	76	75	74.5	90.0	
4-Jan	71	74	64	63	68	67	67	68	68	77	76	71	61	61	64	65	64	63	66	74	82	87	65	61	68.6	87.3	
5-Jan	61	59	56	56	57	57	60	62	62	63	62	57	58	57	63	65	63	63	65	65	67	62	66	53	60.8	66.7	
6-Jan	56	46	45	45	47	50	49	50	52	53	51	50	50	48	47	48	52	62	65	67	69	69	64	67	54.2	69.3	
7-Jan	65	66	64	63	67	73	70	66	63	63	75	70	80	87	89	89	87	87	85	85	86	87	87	86	76.7	88.6	
8-Jan	87	86	86	85	84	83	83	84	84	84	83	79	79	80	79	80	82	84	84	83	84	85	85	85	83.2	86.6	
9-Jan	82	80	80	82	83	81	78	79	80	80	80	78	76	76	77	78	80	79	82	82	83	84	85	83	80.3	85.0	
10-Jan	84	84	84	83	84	84	85	84	83	82	80	79	74	74	69	74	78	80	82	81	82	80	82	82	80.6	84.6	
11-Jan	83	81	83	82	82	82	81	81	81	80	78	75	70	68	62	65	77	80	81	79	82	81	83	82	78.3	83.3	
12-Jan	82	82	82	82	82	80	80	80	79	79	78	77	75	72	73	73	74	75	75	76	76	74	74	74	77.3	82.3	
13-Jan	72	72	72	72	73	75	74	74	73	72	71	68	67	67	67	68	70	70	71	70	71	71	72	72	71.0	74.5	
14-Jan	72	71	70	71	71	71	70	70	70	70	68	62	62	65	67	65	68	70	69	70	70	71	71	71	69.1	72.2	
15-Jan	71	71	70	70	70	70	70	69	69	67	65	61	65	58	60	61	66	67	69	68	67	69	72	72	67.4	71.9	
16-Jan	70	69	70	71	71	72	72	73	73	72	72	70	70	70	69	72	73	74	73	74	74	74	74	74	71.9	74.2	
17-Jan	74	73	74	73	74	74	75	73	72	71	67	64	65	62	67	67	70	71	72	72	72	72	74	78	71.1	78.3	
18-Jan	77	73	68	67	72	69	68	68	66	65	62	60	59	58	55	58	61	66	67	67	64	64	64	64	65.1	76.9	
19-Jan	65	67	78	75	72	70	74	79	71	71	79	78	79	79	79	76	81	87	87	86	87	87	87	87	78.5	87.3	
20-Jan	87	89	89	88	89	88	87	87	84	78	66	64	65	65	63	59	57	60	61	62	64	63	64	65	72.6	89.1	
21-Jan	62	71	79	82	83	84	81	82	82	83	81	78	80	83	79	79	76	78	81	76	78	77	73	72	78.4	84.5	
22-Jan	71	67	66	68	66	62	60	60	60	63	62	59	57	58	62	57	48	46	43	45	45	58	75	76	59.7	76.0	
23-Jan	71	67	61	59	58	58	59	60	60	59	58	54	52	49	50	54	56	56	58	61	59	63	62	60	58.6	70.8	
24-Jan	60	60	58	55	54	57	66	66	63	64	63	60	59	52	51	52	57	54	56	57	61	66	68	69	59.5	68.7	
25-Jan	69	71	72	76	73	73	73	73	68	66	69	66	62	57	56	55	53	54	56	65	68	73	76	75	66.7	75.7	
26-Jan	74	72	76	82	84	81	77	78	73	76	75	68	66	66	62	61	61	64	58	60	66	70	69	74	70.5	84.3	
27-Jan	78	77	75	79	73	64	70	72	75	M	M	68	64	59	65	51	66	68	62	58	60	61	64	76	67.5	78.8	
28-Jan	82	76	77	81	82	86	88	88	86	86	87	86	83	81	79	77	79	83	83	83	82	82	81	80	82.4	88.3	
29-Jan	81	82	82	82	83	85	84	84	83	81	77	73	67	66	68	64	67	76	79	82	82	83	83	84	78.2	84.5	
30-Jan	84	81	81	84	80	80	80	80	79	77	77	76	77	76	73	72	73	76	78	78	79	77	78	77	78.1	84.2	
31-Jan	75	74	76	72	73	72	72	70	70	70	71	64	55	51	53	59	66	75	75	76	77	75	78	79	69.9	79.1	
		73.9	73.5	73.7	74.0	74.1	74.0	74.2	74.2	73.0	72.9	71.4	68.1	66.7	65.6	65.5	65.5	67.7	69.9	70.6	71.4	72.6	73.5	74.3	74.2	Diurnal Average	
		87.4	88.6	88.9	90.0	89.1	88.2	88.3	87.8	86.4	86.4	86.5	86.0	82.8	86.5	88.6	88.6	87.5	86.7	87.2	86.5	87.3	87.3	87.1	87.0	Diurnal Maximum	
M - Maintenance																											



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Beaverlodge - January 2011

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	1	4	5	4	3	2	4	2	2	2	8	23	31	25	18	18	21	18	12	14	11	19	18	15	9.3	30.7
Dir	40	50	55	54	72	72	54	64	71	98	226	268	273	283	282	269	273	273	275	290	282	283	293	279	268	
2 Spd	10	3	5	8	6	3	3	1	1	3	4	2	4	3	4	3	0	1	1	1	2	2	2	0	1.1	9.7
Dir	293	291	290	289	305	326	84	51	36	285	242	143	56	68	66	64	53	122	215	213	39	259	96	13	325	293
3 Spd	3	2	1	3	1	3	4	3	6	6	4	6	10	15	24	27	24	23	18	10	10	6	1	4	7.6	26.7
Dir	261	257	342	76	91	53	44	314	290	303	305	300	286	274	256	258	264	264	262	251	254	242	186	263	268	258
4 Spd	10	8	9	12	7	11	11	10	17	6	2	1	20	25	18	14	20	26	25	33	28	16	27	31	15.6	32.8
Dir	251	238	270	281	277	264	255	254	259	193	66	4	276	275	265	264	264	258	253	260	264	265	261	262	262	260
5 Spd	36	23	32	41	40	37	30	28	19	20	13	3	3	4	4	8	7	7	3	9	11	10	18	42	16.1	42.3
Dir	264	253	258	254	248	246	239	240	254	247	259	260	67	57	111	103	111	141	223	227	245	242	237	258	248	258
6 Spd	53	41	35	40	39	42	38	37	24	23	23	25	29	26	33	30	23	3	5	3	2	3	1	3	23.2	53.3
Dir	262	267	265	249	248	250	260	264	254	254	249	252	257	261	267	270	265	212	227	220	95	66	223	63	258	262
7 Spd	3	2	2	5	4	1	7	5	8	14	16	17	20	22	20	24	23	23	21	19	17	10	15	21	12.4	24.1
Dir	60	89	45	44	47	145	81	45	44	71	64	73	58	40	26	31	26	19	24	20	29	358	20	19	36	31
8 Spd	23	19	17	17	20	18	16	14	11	10	12	13	13	13	14	12	10	6	5	7	6	5	4	5	11.4	23.4
Dir	13	3	348	320	321	321	323	324	323	319	314	314	313	309	306	313	311	317	320	326	319	316	294	319	326	13
9 Spd	6	6	3	3	3	5	6	3	4	3	4	4	4	6	6	5	6	10	8	6	4	1	2	1	3.6	9.6
Dir	351	6	5	295	308	331	336	313	258	285	291	335	19	6	346	346	350	17	32	25	15	121	98	80	352	17
10 Spd	2	4	4	2	1	1	4	0	1	1	1	1	0	0	2	1	2	1	2	1	2	2	1	1	0.9	4.4
Dir	42	47	40	53	50	79	35	291	4	0	134	293	170	65	208	80	70	228	260	61	285	137	84	89	50	35
11 Spd	1	2	0	2	1	2	4	6	4	3	2	3	1	3	1	1	3	0	2	1	1	3	3	8	1.3	8.3
Dir	143	67	250	46	353	342	30	294	276	29	344	310	157	261	316	241	46	105	285	282	339	325	239	331	325	331
12 Spd	11	6	10	12	8	9	8	5	3	8	8	10	12	12	12	10	9	8	9	12	15	16	13	14	7.8	15.5
Dir	331	341	347	354	32	57	66	73	105	52	46	28	28	18	17	13	11	8	351	318	313	311	314	318	360	311
13 Spd	15	13	12	12	6	5	9	8	7	8	8	7	8	10	7	6	3	2	7	6	4	6	6	8	7.1	14.7
Dir	313	324	326	316	307	304	321	326	325	327	330	346	346	334	352	14	37	8	25	23	346	343	334	334	334	313
14 Spd	9	10	11	11	9	9	9	8	9	9	7	2	3	6	8	6	6	8	6	8	8	7	8	7	5.1	10.8
Dir	324	319	321	321	322	323	323	335	336	12	13	75	163	40	51	64	50	45	73	75	73	64	54	64	11	321
15 Spd	5	4	6	5	5	5	5	5	4	2	2	1	3	1	1	2	7	8	7	4	3	1	3	7	2.4	7.7
Dir	56	38	32	25	10	357	8	19	32	29	44	194	215	200	130	131	137	117	109	98	43	336	339	18	50	117
16 Spd	8	6	7	5	4	6	8	5	5	6	6	8	8	6	4	5	5	4	3	5	7	6	4	3	5.1	8.4
Dir	12	14	2	338	342	357	16	13	350	3	317	9	26	20	359	333	342	347	337	327	311	321	316	317	352	9
17 Spd	1	2	4	8	11	9	7	9	10	8	4	4	3	3	6	7	6	3	4	4	1	3	2	6	3.1	11.2
Dir	81	77	104	115	106	90	91	83	99	100	110	172	241	280	318	287	217	112	82	77	123	88	64	47	97	106
18 Spd	5	21	30	23	21	24	23	24	25	28	24	28	29	27	31	30	26	21	16	13	19	33	36	33	24.4	35.7
Dir	239	241	257	252	248	262	252	261	265	267	265	263	267	264	266	264	258	248	243	238	252	260	261	264	259	261
19 Spd	29	17	12	9	10	9	5	6	13	13	10	7	7	6	5	1	4	11	14	14	17	18	18	17	3.3	29.5
Dir	264	301	321	319	345	357	358	347	20	21	17	3	350	15	7	70	141	115	111	115	117	117	116	116	42	264
20 Spd	12	12	8	6	6	5	5	4	6	8	38	35	39	34	31	29	26	24	27	28	33	23	13	17	16.0	39.4
Dir	122	112	145	125	186	169	185	189	216	252	262	257	252	247	250	256	255	256	263	262	265	278	289	277	252	252
21 Spd	27	7	3	3	3	3	3	4	2	6	3	3	7	7	3	2	3	2	7	4	2	15	9	10	3.1	27.3
Dir	266	34	165	187	208	249	188	193	139	288	326	309	203	204	192	189	193	61	44	53	231	261	277	265	251	266
22 Spd	16	21	26	21	18	40	39	36	26	37	42	42	33	35	22	16	27	24	9	17	42	60	51	46	30.7	59.7
Dir	268	263	254	245	243	263	262	257	240	240	245	249	247	242	223	235	245	249	244	263	255	251	240	239	248	251

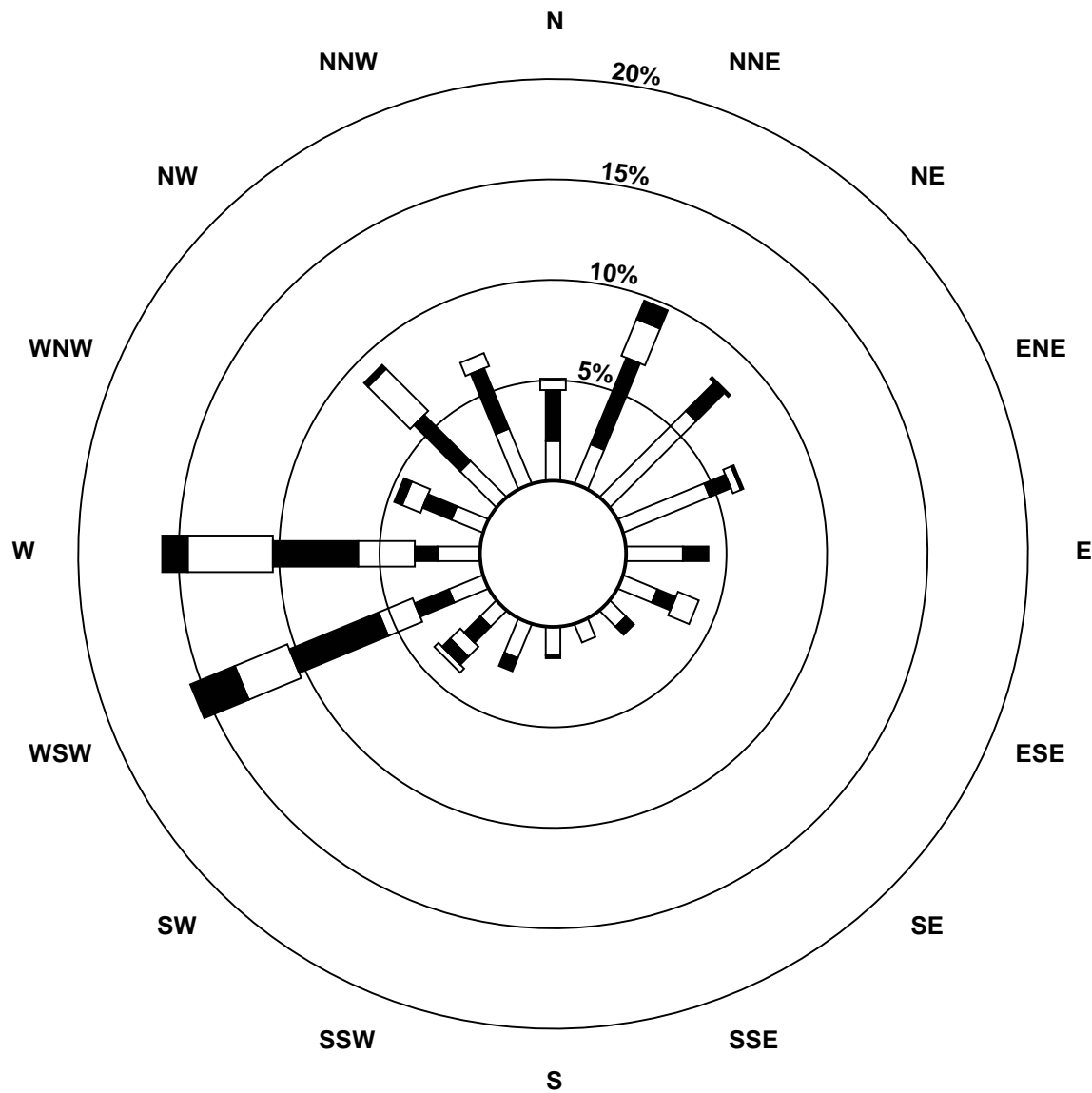
Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Beaverlodge - January 2011

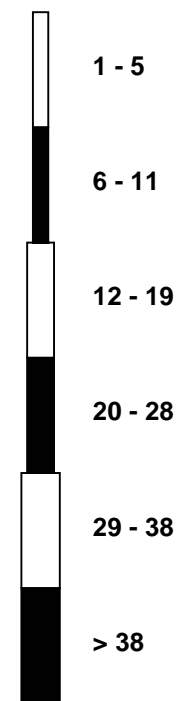
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	41	34	36	28	31	27	36	40	37	33	31	30	29	29	12	15	17	15	15	6	5	4	3	4	22.2	40.9
Dir	251	259	262	257	260	257	262	267	265	264	264	265	265	238	237	239	250	251	212	192	159	108	105	257	251	
24 Spd	5	7	7	2	3	2	7	22	20	15	13	21	27	22	29	25	17	9	8	8	3	3	4	4	9.0	28.9
Dir	93	100	101	251	263	182	193	250	257	269	280	263	262	268	263	260	262	264	278	266	227	96	66	53	260	263
25 Spd	4	1	4	1	5	20	24	25	29	36	31	15	19	22	35	29	27	26	21	12	12	13	8	1	16.7	36.2
Dir	61	167	207	137	203	245	241	243	245	247	242	233	232	233	244	250	251	254	268	265	262	231	231	113	244	247
26 Spd	5	1	3	4	3	3	4	7	9	10	17	13	16	30	34	38	28	2	8	9	2	6	2	5	8.2	38.1
Dir	56	47	271	74	177	186	209	235	249	239	238	235	244	243	234	235	235	340	289	309	120	56	123	103	239	235
27 Spd	4	6	4	3	5	8	10	20	23	M	M	5	35	50	40	45	50	42	39	45	38	27	20	22	22.0	50.4
Dir	102	92	168	91	57	228	220	235	238	M	M	250	241	266	259	266	254	246	253	260	267	276	291	294	257	266
28 Spd	21	22	17	14	11	10	13	14	13	13	15	13	15	13	14	12	11	8	7	7	7	9	11	11	10.8	21.9
Dir	304	299	311	329	332	326	330	329	336	351	3	25	21	24	19	33	32	33	21	338	1	17	27	30	352	299
29 Spd	10	8	6	7	7	7	6	6	5	3	2	6	5	6	6	3	2	4	3	4	2	3	3	2	3.7	9.6
Dir	31	30	11	15	25	35	35	33	31	15	281	313	350	11	30	22	147	164	95	59	29	51	51	264	25	31
30 Spd	3	4	2	2	2	1	1	2	4	1	2	4	2	0	3	3	1	2	1	2	1	2	2	5	1.1	4.5
Dir	301	51	44	241	52	73	146	305	331	336	305	291	257	355	334	23	280	207	230	27	6	59	316	38	344	38
31 Spd	4	6	1	3	1	5	5	5	1	1	2	0	0	1	2	1	1	2	3	1	2	1	3	5	1.4	5.9
Dir	280	31	334	34	39	335	45	333	60	240	60	165	66	284	247	199	49	276	45	354	11	48	57	59	17	31
Spd	7.4	5.1	6.2	5.8	5.2	6.7	6.0	8.0	7.2	6.4	7.5	7.3	9.2	10.0	9.4	8.7	8.4	5.8	4.9	5.3	6.0	6.1	5.1	5.7	Diurnal Average	
Dir	284	294	285	281	275	272	272	270	269	273	272	272	268	273	270	270	263	265	275	276	274	273	274	287		
Spd	53.3	41.4	36.5	41.3	39.8	41.5	38.8	40.1	37.2	37.1	42.4	41.6	39.4	50.4	40.1	45.1	50.1	41.6	39.3	44.7	42.2	59.7	51.1	46.1	Diurnal Maximum	
Dir	262	267	262	254	248	250	262	267	265	240	245	249	252	266	259	266	254	246	253	260	255	251	240	239		
Maximum Speed Value: 60 km/h on Jan 22 22:00																		Minimum Speed Value: 0 km/h on Jan 11 03:00						Hours in Service: 744		
Maximum Daily Speed Average: 30.7 km/h on Jan 22																		Minimum Daily Speed Average: 0.9 km/h on Jan 10						Hours of Data: 742		
Maximum Diurnal Speed Average: 10.0 km/h at hour 14																		Minimum Diurnal Speed Average: 4.9 km/h at hour 19						Hours of Missing Data: 2		
Monthly Average Velocity: 6.75 km/h 273.7 deg																		Speed Percentiles: P ₁ = 0.4 P ₁₀ = 1.6 Q ₁ = 3.4 Median = 7.1 Q ₃ = 17.0 P ₉₀ = 29.0 P ₉₉ = 44.3						Percent Operational Time: 99.7		
All monthly, daily, and diurnal averages have been calculated using vector methods																										
M - Maintenance																										
Frequency Distribution																										
		Speed Range (km/h)																								
Direction	0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total																			
North	34	46	12	4	0	0	96																			
NorthEast	74	38	9	6	0	0	127																			
East	41	17	5	0	0	0	63																			
SouthEast	19	7	6	0	0	0	32																			
South	24	5	0	0	0	0	29																			
SouthWest	24	19	14	14	13	5	89																			
West	33	20	29	53	41	23	199																			
NorthWest	31	43	29	4	0	0	107																			
Total	280	195	104	81	54	28	742																			

Wind Rose

Wind Speed (WS) (km/h)
Beaverlodge - January 2011



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Beaverlodge - January 2011

Maximum Speed: 60 km/h on Jan 22 22:00		Maximum Daily Speed Average: 31.4 km/h on Jan 22		Hours in Service: 744																																													
Minimum Speed: 1 km/h on Jan 11 03:00		Minimum Daily Speed Average: 2.1 km/h on Jan 10		Hours of Data: 742																																													
Maximum Diurnal Speed Average: 15.3 km/h at hour 14		Minimum Diurnal Speed Average: 10.0 km/h at hour 5		Hours of Missing Data: 2																																													
Monthly Average Speed: 11.97 km/h		Percentiles: P ₁ = 1.3 P ₁₀ = 2.6 Q ₁ = 4.0 Median = 7.4 Q ₃ = 17.4 P ₉₀ = 29.1 P ₉₉ = 44.7		Percent Operational Time: 99.7																																													
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																									
1-Jan	3	4	5	4	3	2	4	3	2	4	8	24	31	25	18	18	21	18	12	14	11	19	18	16	12.0	30.8																							
2-Jan	10	5	6	8	7	4	3	2	2	4	5	3	4	3	4	4	4	1	1	2	3	4	2	4	3.9	9.8																							
3-Jan	5	3	3	3	2	4	4	4	6	6	5	6	10	15	24	27	24	23	18	10	10	7	2	6	9.4	26.7																							
4-Jan	10	9	10	12	7	11	12	11	17	6	3	3	20	25	18	14	20	26	25	33	28	16	27	31	16.4	32.8																							
5-Jan	36	24	32	41	40	37	30	28	19	20	13	4	4	6	4	8	7	7	4	9	11	11	18	42	19.0	42.4																							
6-Jan	53	42	35	41	39	42	38	37	24	23	23	25	29	26	33	30	23	5	8	6	3	4	3	3	24.8	53.4																							
7-Jan	3	5	3	5	6	3	7	5	8	14	16	18	20	22	20	24	23	23	21	19	17	10	16	21	13.8	24.1																							
8-Jan	23	19	18	17	20	18	16	14	11	10	12	13	13	13	14	12	10	6	5	7	6	5	4	5	12.2	23.4																							
9-Jan	6	6	3	3	4	5	7	3	4	3	4	4	5	6	6	5	6	10	8	6	4	1	2	1	4.8	9.7																							
10-Jan	2	4	4	2	2	2	4	1	2	2	1	3	1	2	2	2	1	2	2	3	3	2	1	1	2.1	4.5																							
11-Jan	2	2	1	2	2	3	4	6	4	4	4	3	1	3	2	1	4	2	2	3	3	4	4	8	3.1	8.4																							
12-Jan	11	6	10	12	9	9	8	5	4	8	8	10	12	12	12	10	9	9	9	12	15	16	13	14	10.0	15.6																							
13-Jan	15	13	12	12	6	6	9	8	7	8	8	7	8	10	7	6	3	3	7	6	5	6	6	8	7.8	14.7																							
14-Jan	9	10	11	11	10	9	9	8	9	9	7	2	4	6	8	6	6	8	6	8	8	7	8	7	7.8	10.9																							
15-Jan	5	4	6	5	5	5	5	5	4	3	2	1	3	2	2	3	7	8	7	4	3	2	5	7	4.3	7.8																							
16-Jan	8	6	7	5	4	6	8	6	5	6	6	9	8	6	4	5	5	4	3	5	7	6	4	3	5.6	8.5																							
17-Jan	2	2	4	9	11	9	7	9	10	8	4	4	3	4	7	7	7	3	4	5	4	4	3	6	5.7	11.2																							
18-Jan	12	21	30	23	21	24	23	24	25	28	24	28	29	27	31	30	26	21	16	13	20	34	36	33	25.0	35.7																							
19-Jan	30	18	12	9	10	9	5	6	13	13	10	7	8	7	5	2	5	11	14	14	17	18	18	17	11.5	29.5																							
20-Jan	12	12	9	6	7	5	5	5	8	10	38	35	40	34	31	29	26	24	27	28	33	23	14	17	19.9	39.5																							
21-Jan	28	8	3	3	4	4	3	6	3	6	5	5	8	7	5	4	4	3	7	4	3	15	9	12	6.7	27.6																							
22-Jan	16	21	26	21	18	40	39	36	26	37	42	42	33	35	22	16	27	25	12	18	42	60	51	46	31.4	59.8																							
23-Jan	41	34	37	28	31	27	37	40	37	33	31	30	29	29	12	15	17	16	16	6	5	5	4	4	23.6	41.0																							
24-Jan	6	7	7	6	4	5	9	22	21	15	13	21	27	22	29	25	17	9	9	9	6	5	5	5	12.6	28.9																							
25-Jan	4	3	5	2	5	20	24	25	29	36	31	15	19	22	35	29	27	26	21	13	12	13	8	2	17.7	36.2																							
26-Jan	5	4	6	4	4	3	4	7	10	10	17	13	16	30	34	38	28	6	8	9	4	7	3	6	11.5	38.2																							
27-Jan	4	6	4	3	5	8	10	20	23	M	M	16	35	51	40	45	50	42	39	45	38	27	20	22	25.2	50.7																							
28-Jan	21	22	18	14	11	10	13	14	13	13	15	13	15	13	13	14	12	11	9	8	7	9	11	11	13.0	22.1																							
29-Jan	10	8	7	7	7	7	6	6	5	3	4	6	5	7	6	3	3	4	3	4	2	4	3	3	5.0	9.6																							
30-Jan	3	4	2	2	3	2	1	3	4	2	3	4	3	2	5	4	1	3	2	3	4	4	4	5	3.0	5.1																							
31-Jan	5	7	3	5	3	7	6	7	3	2	3	2	2	1	4	2	1	3	4	3	4	3	3	5	3.6	7.3																							
																								12.9	11.0	10.9	10.5	10.0	11.1	11.6	12.1	11.5	11.6	12.2	12.1	14.4	15.3	14.7	14.2	13.7	11.6	10.7	10.6	10.9	11.2	10.6	12.1	Diurnal Average	
																								53.4	41.5	36.5	41.4	39.9	41.6	38.9	40.1	37.2	37.2	42.4	41.7	39.5	50.7	40.2	45.4	50.3	41.7	39.4	44.8	42.3	59.8	51.2	46.3	Diurnal Maximum	
M - Maintenance All monthly, daily, and diurnal averages have been calculated using scalar methods																																																	

Hourly Standard Deviations

Wind Direction (WD) - deg
Beaverlodge - January 2011

Maximum Value: 100.8 deg on Jan 11 03:00		Hours in Service: 744																									
Minimum Value: 1.5 deg on Jan 25 11:00		Hours of Data: 742																									
Percentiles: P ₁ = 2.1 P ₁₀ = 3.5 Q ₁ = 5.4 Median = 10.8 Q ₃ = 33.0 P ₉₀ = 67.2 P ₉₉ = 88.3		Hours of Missing Data: 2																									
		Hours of Calibration: 0																									
		Percent Operational Time: 99.7																									
Day	Hourly Period Ending At (MST)																								Daily Maximum		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jan	81	11	9	7	13	30	16	28	66	54	20	14	3	8	5	5	5	5	6	13	5	7	3	4	80.9		
2-Jan	7	69	70	9	11	61	27	68	60	47	70	53	11	10	12	7	9	91	65	59	55	82	45	86	90.8		
3-Jan	84	75	84	31	63	21	21	44	4	6	8	8	4	11	3	4	2	2	8	6	15	86	84	83	85.9		
4-Jan	17	16	19	7	26	9	29	17	5	11	55	81	6	4	7	7	6	5	6	4	3	18	4	4	80.5		
5-Jan	4	11	4	4	2	4	2	3	10	7	24	65	64	42	26	13	20	25	23	19	11	12	6	4	64.9		
6-Jan	3	5	3	10	3	3	7	4	6	4	5	5	4	5	5	3	9	69	65	63	53	72	82	42	82.1		
7-Jan	50	74	77	9	65	84	7	10	9	6	4	14	11	5	6	3	4	2	4	3	6	19	7	4	84.1		
8-Jan	3	6	16	5	4	5	5	5	6	5	4	4	5	4	4	4	3	5	8	5	9	8	13	11	16.5		
9-Jan	17	7	18	14	21	19	14	13	22	14	9	25	28	14	9	9	17	9	4	3	19	35	30	43	43.2		
10-Jan	25	11	4	42	71	46	12	78	68	67	71	84	75	84	77	17	38	39	64	55	79	29	48	58	84.4		
11-Jan	43	26	101	42	66	58	34	13	10	45	70	44	42	21	85	68	13	94	51	64	75	44	40	8	100.8		
12-Jan	7	18	8	8	12	10	5	11	16	32	7	8	6	5	6	6	7	8	14	6	5	3	5	5	31.9		
13-Jan	3	6	4	7	12	21	3	5	6	6	6	13	9	9	18	7	22	52	5	7	15	11	9	16	51.6		
14-Jan	6	4	4	4	4	4	6	7	9	9	5	40	38	14	11	15	13	4	14	6	6	9	8	7	40.1		
15-Jan	8	15	6	8	10	9	8	10	10	36	53	59	20	78	62	57	11	10	11	18	45	48	43	7	78.0		
16-Jan	10	10	15	16	24	18	7	9	13	13	17	9	5	5	16	11	11	9	13	15	4	6	10	9	23.8		
17-Jan	63	17	9	8	3	9	5	8	6	15	28	16	11	37	21	11	33	24	15	29	75	35	88	16	87.5		
18-Jan	90	8	3	10	9	6	4	5	5	2	2	4	3	2	3	4	5	2	4	9	28	3	3	2	90.5		
19-Jan	4	22	12	8	11	7	15	15	8	6	7	12	12	15	20	78	22	4	5	6	3	3	4	4	78.3		
20-Jan	5	6	30	13	25	19	13	62	56	88	3	4	3	2	7	4	7	5	3	3	3	10	8	10	87.6		
21-Jan	9	28	42	29	55	45	43	44	86	22	51	71	42	15	53	62	31	65	10	48	77	10	8	78	86.1		
22-Jan	33	7	2	3	11	3	4	4	6	4	2	4	4	7	6	12	4	17	40	22	5	4	3	5	39.6		
23-Jan	4	5	3	4	3	4	2	3	2	2	2	3	3	4	12	3	4	20	22	17	18	23	33	19	33.0		
24-Jan	15	11	10	77	63	63	42	6	8	13	6	3	3	8	2	4	6	18	19	51	74	43	41	42	77.5		
25-Jan	19	61	44	41	14	6	6	3	2	3	1	8	10	6	3	6	4	7	5	20	6	11	15	72	71.6		
26-Jan	10	85	76	33	36	25	22	14	39	20	4	9	9	5	4	5	8	76	18	18	70	29	50	33	85.5		
27-Jan	11	15	25	40	47	16	5	7	3	M	M	82	4	8	5	7	6	3	4	3	6	6	6	9	81.8		
28-Jan	6	8	11	6	7	7	6	6	6	8	9	11	4	8	11	5	3	3	17	12	14	8	5	4	16.6		
29-Jan	3	6	12	9	4	4	4	5	10	30	67	14	21	26	5	43	28	6	30	10	17	19	24	76	76.5		
30-Jan	10	44	55	33	45	73	61	76	17	63	51	18	36	89	55	46	32	55	73	79	81	79	65	28	89.0		
31-Jan	55	30	72	56	77	51	54	49	93	73	81	73	87	87	60	55	36	64	53	73	54	89	23	17	92.7		
	90.5	85.5	100.8	77.5	77.0	84.1	61.5	78.2	92.7	87.6	81.2	84.4	86.5	89.0	85.4	78.3	38.3	93.8	72.7	78.7	80.7	88.7	87.5	86.0			
M - Maintenance																											

PASZA

Portable – Bonanza Station

Monthly Summary Tables, Graphs and
Roses

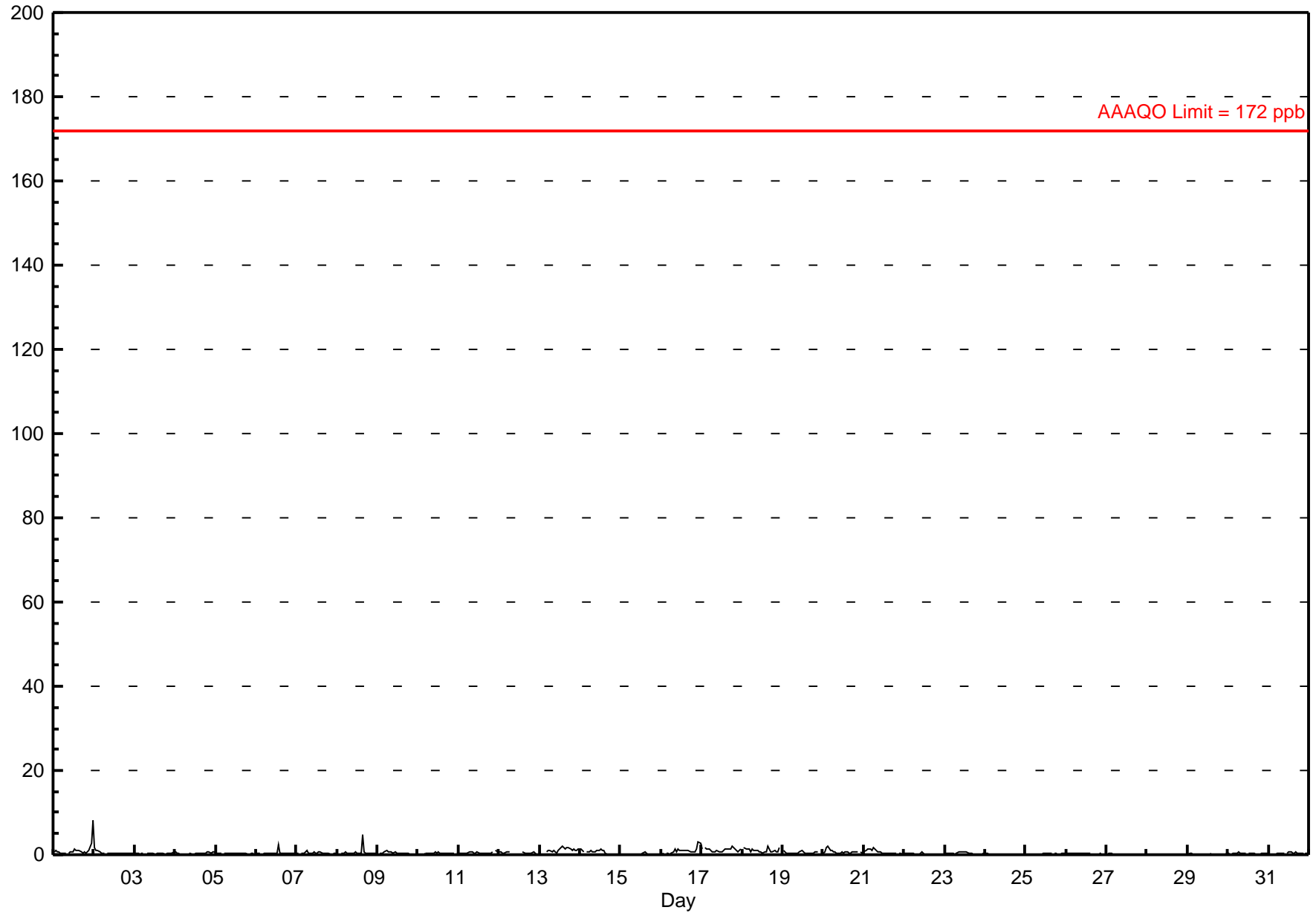
Hourly Averages

Sulphur Dioxide (SO₂) - ppb Portable-Bonanza - January 2011

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 8.3 ppb on Jan 2 00:00	Maximum Daily Average: 1.1 ppb on Jan 17		Hours of Data:	706
Minimum Value: 0 ppb on Jan 22 18:00	Minimum Daily Average: 0.1 ppb on Jan 24		Hours of Missing Data:	38
Maximum Diurnal Average: 0.7 ppb at hour 24	Minimum Diurnal Average: 0.3 ppb at hour 22		Hours of Calibration:	37
Monthly Average: 0.44 ppb	Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.2 Median = 0.3 Q ₃ = 0.6 P ₉₀ = 1.0 P ₉₉ = 1.9		Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jan	1	1	1	1	0	0	0	0	A	0	1	1	1	1	1	1	1	0	1	1	1	1	3	8	1.1	8.3
2-Jan	2	1	1	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	1.7
3-Jan	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0.3	0.7
4-Jan	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1	0.3	0.7
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	0.2	0.4
6-Jan	0	0	0	A	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0.4	2.5
7-Jan	0	0	A	0	1	1	1	0	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0.4	1.0
8-Jan	0	A	0	0	0	1	0	0	0	0	0	1	0	0	1	5	1	0	0	0	0	0	0	0	0.6	4.9
9-Jan	A	0	0	0	1	1	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.1
10-Jan	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	A	0	0.3	0.6
11-Jan	0	0	0	0	0	0	1	1	1	0	0	1	0	0	0	0	0	0	0	0	1	A	1	1	0.4	0.9
12-Jan	1	1	0	0	1	1	1	D	0	C	C	C	C	C	1	0	0	0	0	0	1	0	0	0	0.4	0.7
13-Jan	0	0	0	A	1	1	1	1	1	1	0	1	1	2	2	1	2	2	1	1	1	1	1	1	1.0	2.0
14-Jan	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0.6	1.4
15-Jan	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.1	0.5
16-Jan	0	0	A	0	0	0	0	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	3	3	0.9	3.0
17-Jan	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1.1	1.9
18-Jan	A	2	1	1	1	1	1	1	1	1	1	1	0	1	1	2	1	1	1	1	1	1	2	A	1.0	1.9
19-Jan	1	1	0	0	1	0	0	0	0	0	1	1	1	0	0	0	0	0	0	1	1	1	1	0	0.5	1.1
20-Jan	0	1	2	2	1	1	1	1	0	0	0	1	0	1	1	0	0	1	1	1	1	A	1	0	0.7	2.1
21-Jan	1	1	1	1	2	1	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0.6	1.6
22-Jan	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	0.6
23-Jan	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	A	0	0	0	0	0	0.3	0.8
24-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	0.1	0.5
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	0.2	0.4
26-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
27-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	0.4
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	0.1	0.2
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	0.2	0.3
30-Jan	0	0	0	0	0	0	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
31-Jan	0	0	0	0	0	0	0	0	0	0	A	1	1	1	0	0	1	0	0	0	0	0	0	0	0.3	0.7
	0.4	0.4	0.5	0.5	0.4	0.5	0.5	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.6	0.4	0.4	0.4	0.4	0.4	0.3	0.5	0.7	Diurnal Average	
	1.7	1.5	1.5	2.1	1.5	1.1	1.6	1.0	1.2	0.9	1.5	1.2	1.3	2.5	1.6	4.9	1.7	1.8	1.9	1.7	1.4	1.4	3.0	8.3	Diurnal Maximum	

C - Calibration D - DAS Failure A - Automated Daily Zero Span
 Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb



Hourly Maximums

Sulphur Dioxide (SO₂) - ppb Portable-Bonanza - January 2011

Maximum Value: 20.6 ppb on Jan 6 14:00	Maximum Daily Average: 2.5 ppb on Jan 1	Hours in Service: 744
Minimum Value: 0 ppb on Jan 24 17:00	Minimum Daily Average: 0.2 ppb on Jan 28	Hours of Data: 706
Maximum Diurnal Average: 1.5 ppb at hour 14	Minimum Diurnal Average: 0.6 ppb at hour 19	Hours of Missing Data: 38
Monthly Average: 0.87 ppb	Percentiles: P ₁ = 0.1 P ₁₀ = 0.2 Q ₁ = 0.4 Median = 0.7 Q ₃ = 0.9 P ₉₀ = 1.6 P ₉₉ = 3.5	Hours of Calibration: 37
		Percent Operational Time: 99.9

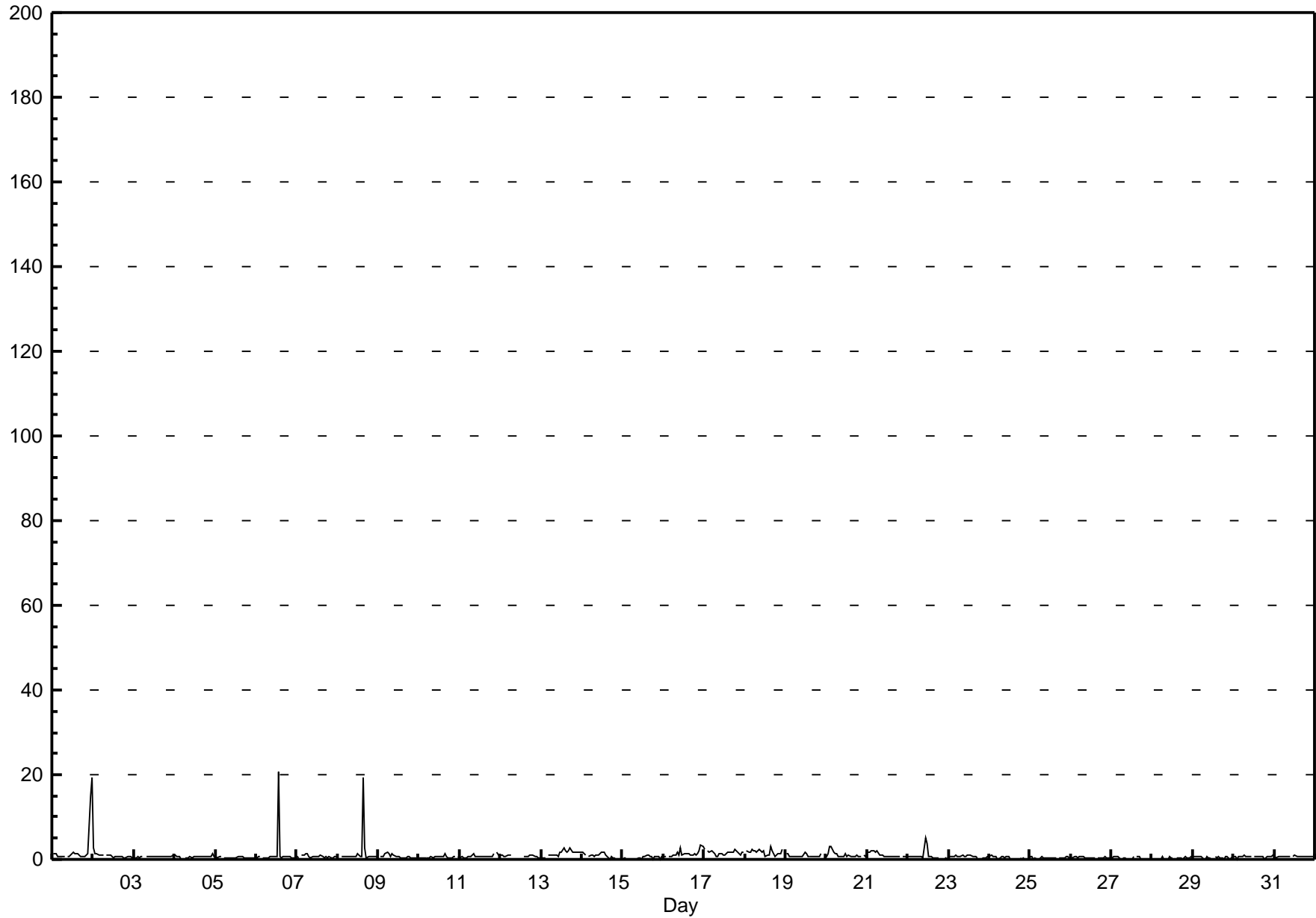
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jan	1	1	1	1	1	1	1	1	A	1	1	1	2	1	1	1	1	1	1	1	1	1	15	19	2.5	19.4
2-Jan	3	1	1	1	1	1	1	A	1	1	1	1	0	1	1	1	1	1	0	0	1	1	1	0	0.9	2.7
3-Jan	0	0	1	0	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	1.1
4-Jan	1	1	1	1	0	A	0	0	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.3
5-Jan	1	0	1	1	A	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0.4	0.8
6-Jan	0	1	1	A	0	0	0	0	1	1	1	1	1	21	1	0	1	1	1	1	1	0	0	0	1.5	20.6
7-Jan	1	0	A	1	1	1	1	1	0	1	1	1	1	1	1	0	1	0	1	0	1	0	0	1	0.7	1.4
8-Jan	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	19	3	0	1	1	1	1	1	1	1.7	19.3
9-Jan	A	1	1	1	1	2	1	1	1	1	1	1	0	0	0	0	0	1	1	0	0	0	0	0	0.7	1.8
10-Jan	0	0	0	0	0	0	0	1	0	1	1	1	1	1	1	1	1	0	0	0	1	1	A	1	0.6	1.3
11-Jan	0	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	2	1	0.7	1.7
12-Jan	1	1	1	1	1	1	1	D	1	C	C	C	C	C	1	1	1	1	1	1	1	1	0	0	0.8	1.2
13-Jan	0	0	0	A	1	1	1	1	1	1	2	2	3	2	2	2	3	2	2	2	2	2	2	2	1.4	2.6
14-Jan	2	1	1	A	1	1	1	1	1	1	1	2	2	2	1	1	0	1	0	0	0	0	0	0	0.9	1.7
15-Jan	0	0	0	A	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	1	1	1	0	1	0.4	1.1
16-Jan	1	1	A	1	1	1	1	1	2	1	3	1	1	1	1	1	1	1	1	1	1	2	4	3	1.4	3.6
17-Jan	2	A	2	2	2	2	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	1	2	2	1.5	2.3
18-Jan	A	2	2	2	2	2	2	2	3	2	2	2	1	1	3	2	1	1	1	1	1	1	2	A	1.7	3.2
19-Jan	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	A	1	0.8	1.7
20-Jan	1	1	3	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1.1	3.2
21-Jan	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1.1	2.2
22-Jan	1	1	1	1	1	1	1	1	1	0	5	4	1	1	1	1	0	0	0	A	0	0	0	0	0.8	5.1
23-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	A	0	0	0	0	0	1	0.6	1.1
24-Jan	1	1	1	1	1	0	0	1	1	0	1	1	0	0	0	0	0	A	0	0	0	0	0	0	0.3	1.1
25-Jan	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	1	1	0.4	0.8
26-Jan	0	0	1	1	0	1	1	1	0	0	0	0	0	0	0	A	0	0	0	0	0	1	0	0	0.4	0.7
27-Jan	0	1	1	1	1	0	0	0	0	0	0	0	0	1	A	1	1	0	0	0	0	0	0	0	0.3	0.7
28-Jan	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0.2	0.7
29-Jan	1	1	1	1	1	1	1	0	1	0	0	0	0	A	1	0	1	0	0	0	1	1	0	0	0.5	0.7
30-Jan	1	1	0	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0	0	1	1	1	1	0.6	1.1
31-Jan	1	0	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.2

0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.8	0.7	0.9	0.9	0.8	1.5	0.8	1.4	0.8	0.7	0.6	0.7	0.7	0.7	1.3	1.4	Diurnal Average
2.7	2.1	3.2	3.2	2.5	2.1	2.1	1.7	2.5	2.1	5.1	3.6	1.8	20.6	2.1	19.3	2.8	2.6	2.3	2.2	1.7	2.2	14.9	19.4	Diurnal Maximum	

C - Calibration D - DAS Failure A - Automated Daily Zero Span

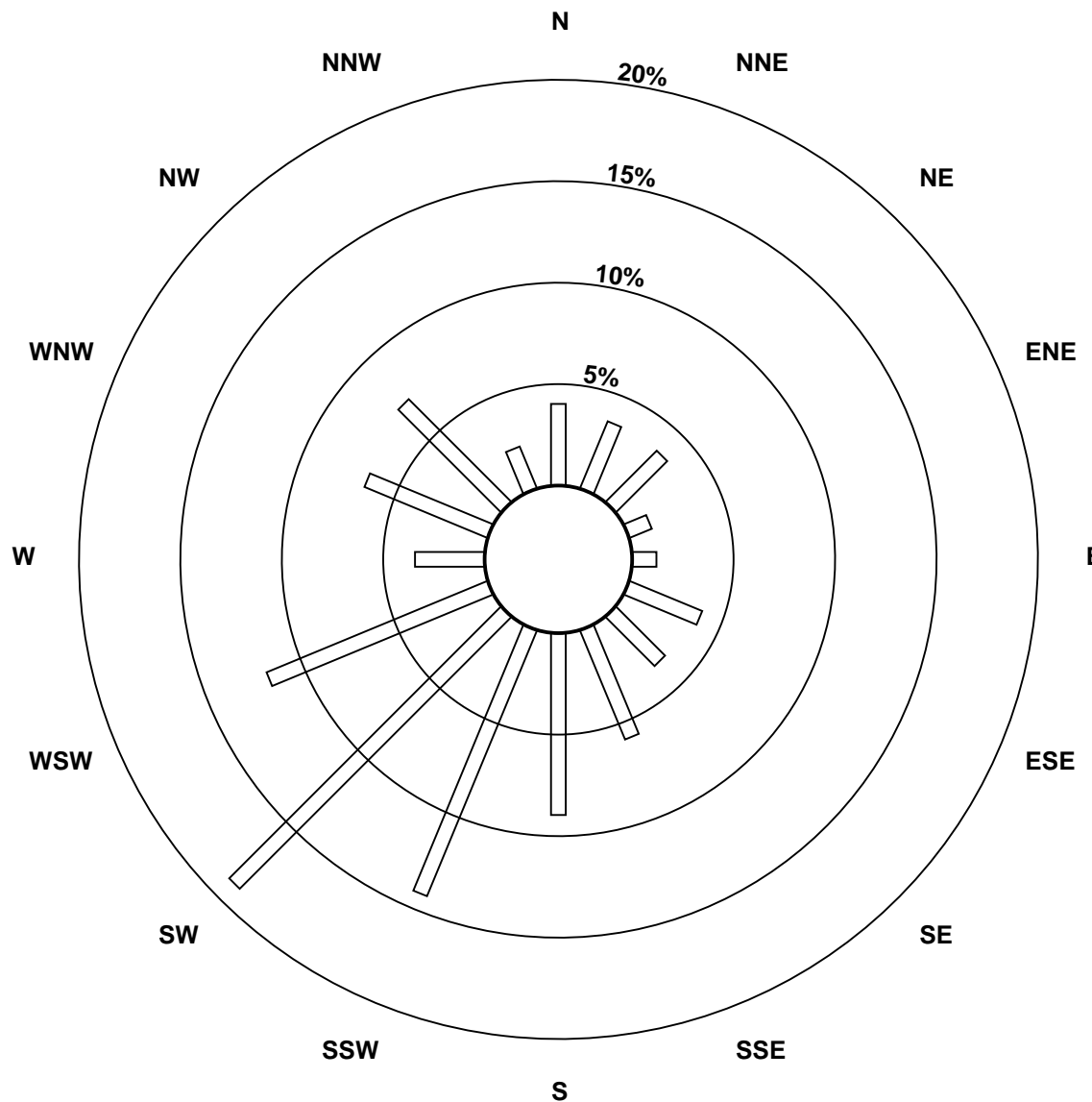
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Portable-Bonanza - January 2011

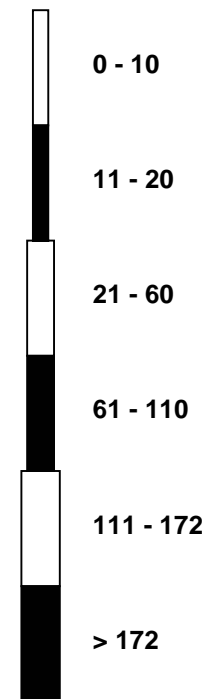


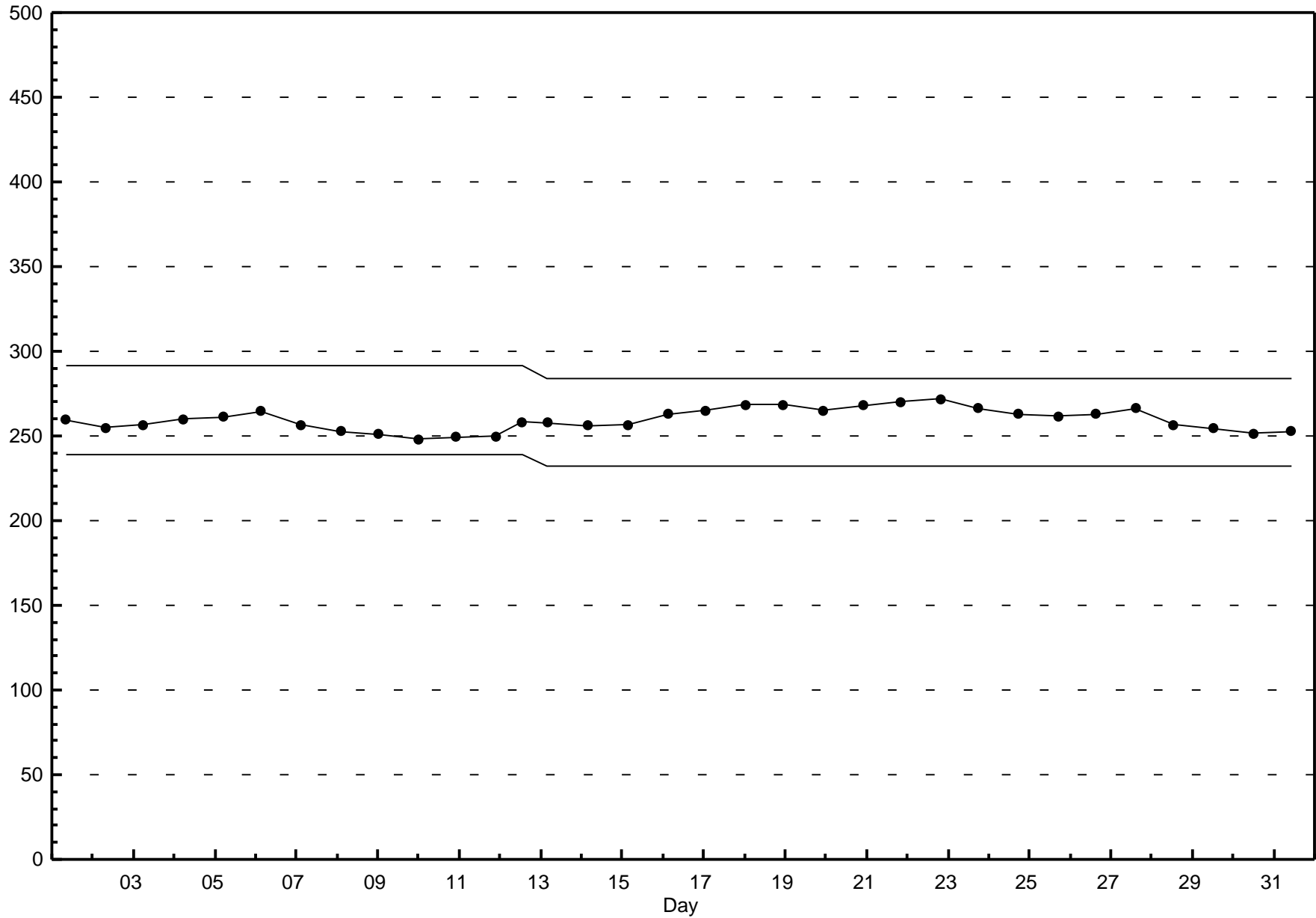
Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Portable-Bonanza - January 2011



Pollutant Classes (ppb)





Hourly Averages

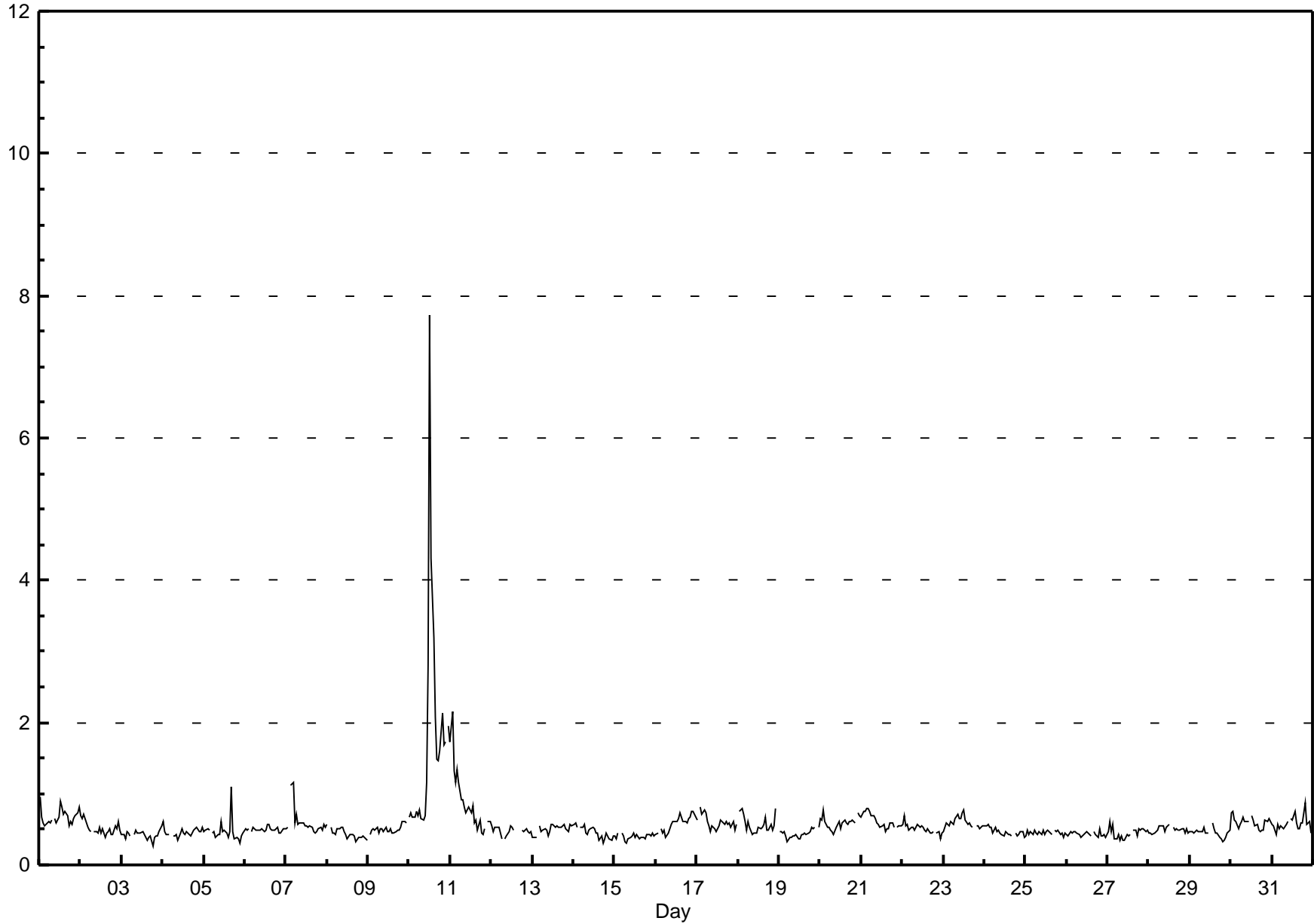
Total Reduced Sulphur (TRS) - ppb

Portable-Bonanza - January 2011

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 7.7 ppb on Jan 10 13:00	Maximum Daily Average: 1.8 ppb on Jan 10
Minimum Value: 0 ppb on Jan 3 19:00	Hours of Data: 707
Maximum Diurnal Average: 0.8 ppb at hour 13	Hours of Missing Data: 37
Monthly Average: 0.56 ppb	Hours of Calibration: 36
Minimum Daily Average: 0.4 ppb on Jan 15	Percent Operational Time: 99.9
Minimum Diurnal Average: 0.5 ppb at hour 10	
Percentiles: P ₁ = 0.3 P ₁₀ = 0.4 Q ₁ = 0.4 Median = 0.5 Q ₃ = 0.6 P ₉₀ = 0.7 P ₉₉ = 2.1	

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	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
2-Jan	1	1	1	1	1	0	0	A	0	0	0	1	0	0	0	0	0	1	0	0	1	0	1	0	0.5	0.7
3-Jan	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.4	0.5
4-Jan	1	0	0	0	0	A	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	0	0	1	0.5	0.6
5-Jan	0	0	1	0	A	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0.5	1.1
6-Jan	1	0	1	A	0	1	0	0	0	0	1	0	0	1	1	1	0	0	1	1	0	0	1	1	0.5	0.6
7-Jan	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	1	0	1	1	0.6	1.2
8-Jan	1	A	1	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6
9-Jan	A	0	0	1	0	1	0	1	1	0	1	0	0	1	0	0	0	0	0	1	1	1	1	A	0.5	0.6
10-Jan	1	1	1	1	1	1	1	1	1	1	1	3	8	4	3	2	1	1	2	2	2	2	A	2	1.8	7.7
11-Jan	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	0	0	A	1	1	0.9	2.2
12-Jan	1	0	1	1	1	0	0	D	0	0	0	1	1	0	C	C	C	C	0	0	0	0	0	0	0.5	0.6
13-Jan	0	0	0	A	1	0	0	1	0	0	0	1	1	1	1	1	1	1	1	1	0	0	1	1	0.5	0.6
14-Jan	1	1	1	A	1	1	1	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.5	0.6
15-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	0.4	0.5
16-Jan	0	0	A	1	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.8
17-Jan	1	A	1	1	1	1	1	1	0	1	1	0	1	1	1	1	1	1	1	1	1	1	0	1	0.6	0.8
18-Jan	A	1	1	1	1	0	1	1	0	0	0	1	1	1	1	1	0	0	1	0	1	0	1	A	0.6	0.8
19-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	A	1	0.4	0.5
20-Jan	1	1	1	1	1	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.6	0.8
21-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
22-Jan	1	1	1	1	0	1	1	0	1	1	1	1	1	0	0	1	0	0	0	A	0	0	0	0	0.5	0.7
23-Jan	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.6	0.8
24-Jan	1	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.5	0.6
25-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	0.5	0.5
26-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	0	0	0	0	0.4	0.5
27-Jan	0	1	0	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	0	1	1	0	0	0.4	0.6
28-Jan	0	0	0	0	0	0	1	1	1	0	1	1	1	1	1	0	1	0	0	1	1	0	1	0	0.5	0.6
29-Jan	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6
30-Jan	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0	0	0	0	1	1	1	1	0.6	0.8
31-Jan	1	1	0	1	1	1	1	1	1	1	A	1	1	1	1	0	1	1	1	1	1	1	1	0	0.6	0.9

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

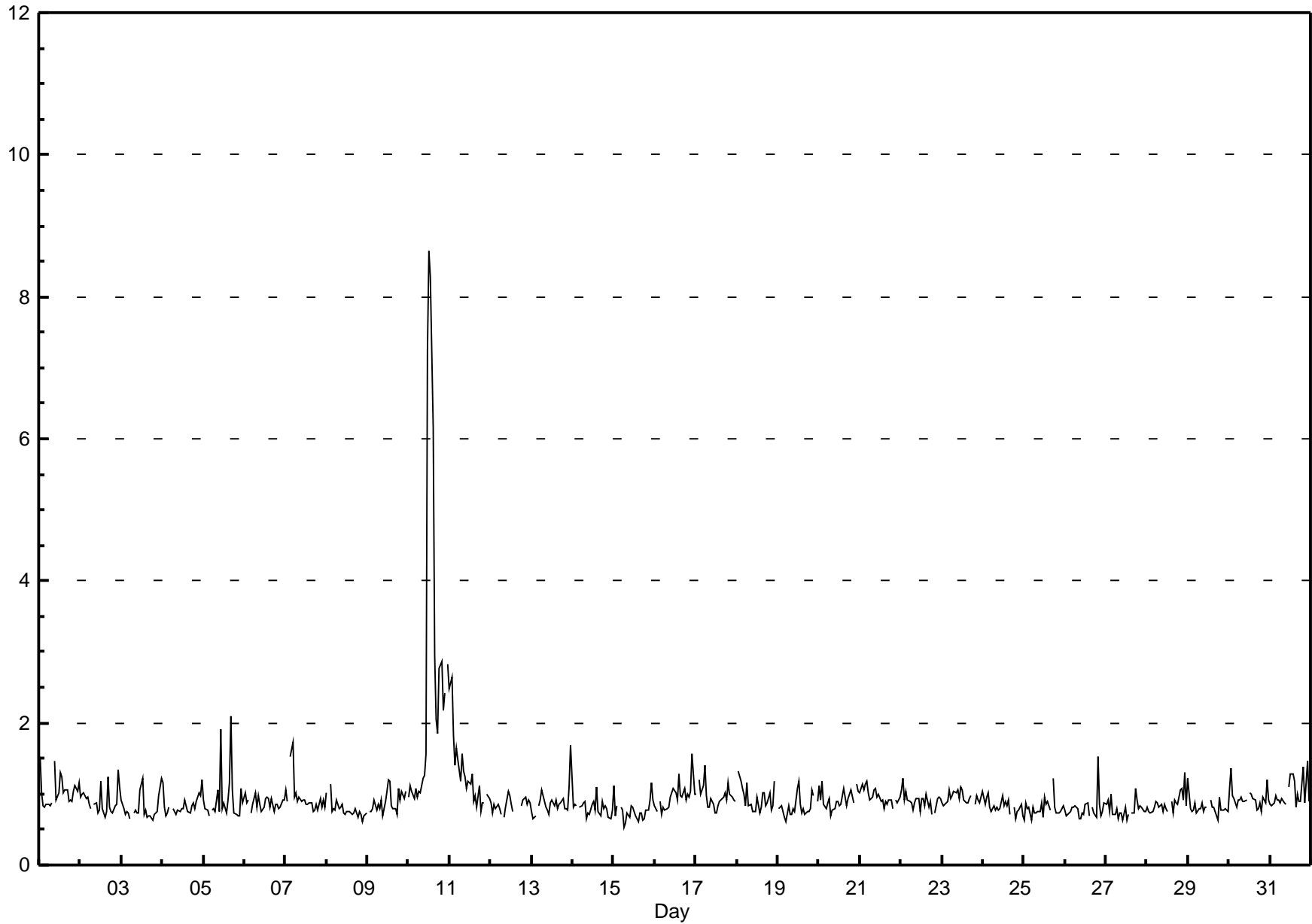


Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

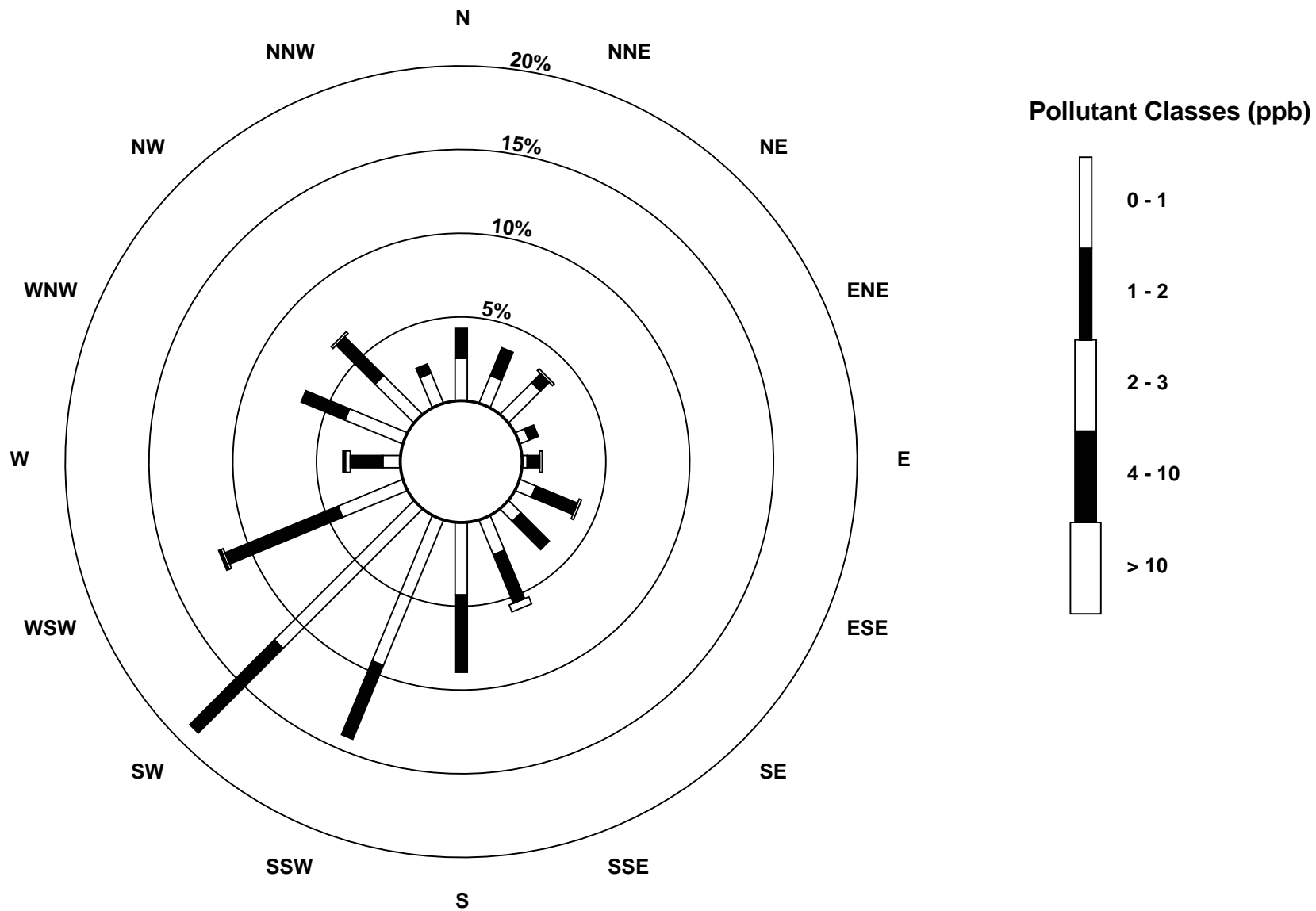
Portable-Bonanza - January 2011

Maximum Value: 8.6 ppb on Jan 10 13:00		Maximum Daily Average: 2.7 ppb on Jan 10		Hours in Service: 744																							
Minimum Value: 1 ppb on Jan 15 07:00		Minimum Daily Average: 0.8 ppb on Jan 15		Hours of Data: 707																							
Maximum Diurnal Average: 1.2 ppb at hour 13		Minimum Diurnal Average: 0.8 ppb at hour 8		Hours of Missing Data: 37																							
Monthly Average: 0.96 ppb		Percentiles: P ₁ = 0.6 P ₁₀ = 0.7 Q ₁ = 0.8 Median = 0.9 Q ₃ = 1.0 P ₉₀ = 1.2 P ₉₉ = 2.8		Hours of Calibration: 36																							
				Percent Operational Time: 99.9																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jan	2	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	1.5	
2-Jan	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.3	
3-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	0.8	1.2	
4-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	0.8	1.2	
5-Jan	1	1	1	1	A	1	1	1	1	1	2	1	1	1	1	2	1	1	1	1	1	1	1	1	0.9	2.1	
6-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	1.0	
7-Jan	1	1	A	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.7	
8-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	0.8	1.1	
9-Jan	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.2	
10-Jan	1	1	1	1	1	1	1	1	1	1	2	7	9	8	6	3	2	2	3	3	2	2	A	3	2.7	8.6	
11-Jan	2	3	2	1	2	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1.3	2.6	
12-Jan	1	1	1	1	1	1	1	D	1	1	1	1	1	1	C	C	C	C	1	1	1	1	1	1	0.8	1.0	
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	2	0.9	1.7	
14-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	0.8	1.1	
15-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	0.8	1.2	
16-Jan	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1.0	1.6	
17-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	1.0	1.4	
18-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	0.9	1.3	
19-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	1.2	
20-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	0.9	1.2	
21-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	1.0	1.2	
22-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	1.2	
23-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	1.1	
24-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	1.0	
25-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	0.8	1.2	
26-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	2	1	1	1	1	0.8	1.5	
27-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	0.8	1.1	
28-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	0.9	1.3	
29-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	1.2	
30-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	0.9	1.4	
31-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	
		1.0	1.0	0.9	0.9	0.9	0.9	0.9	0.8	0.9	0.9	0.9	1.1	1.2	1.1	1.1	0.9	0.9	0.9	0.9	1.0	0.9	0.9	1.0	1.0	Diurnal Average	
		2.5	2.6	1.8	1.5	1.7	1.5	1.2	1.6	1.3	1.5	1.9	7.2	8.6	8.3	6.1	2.9	2.1	1.9	2.8	2.9	2.2	2.4	1.6	2.8	Diurnal Maximum	
C - Calibration		D - DAS Failure						A - Automated Daily Zero Span																			



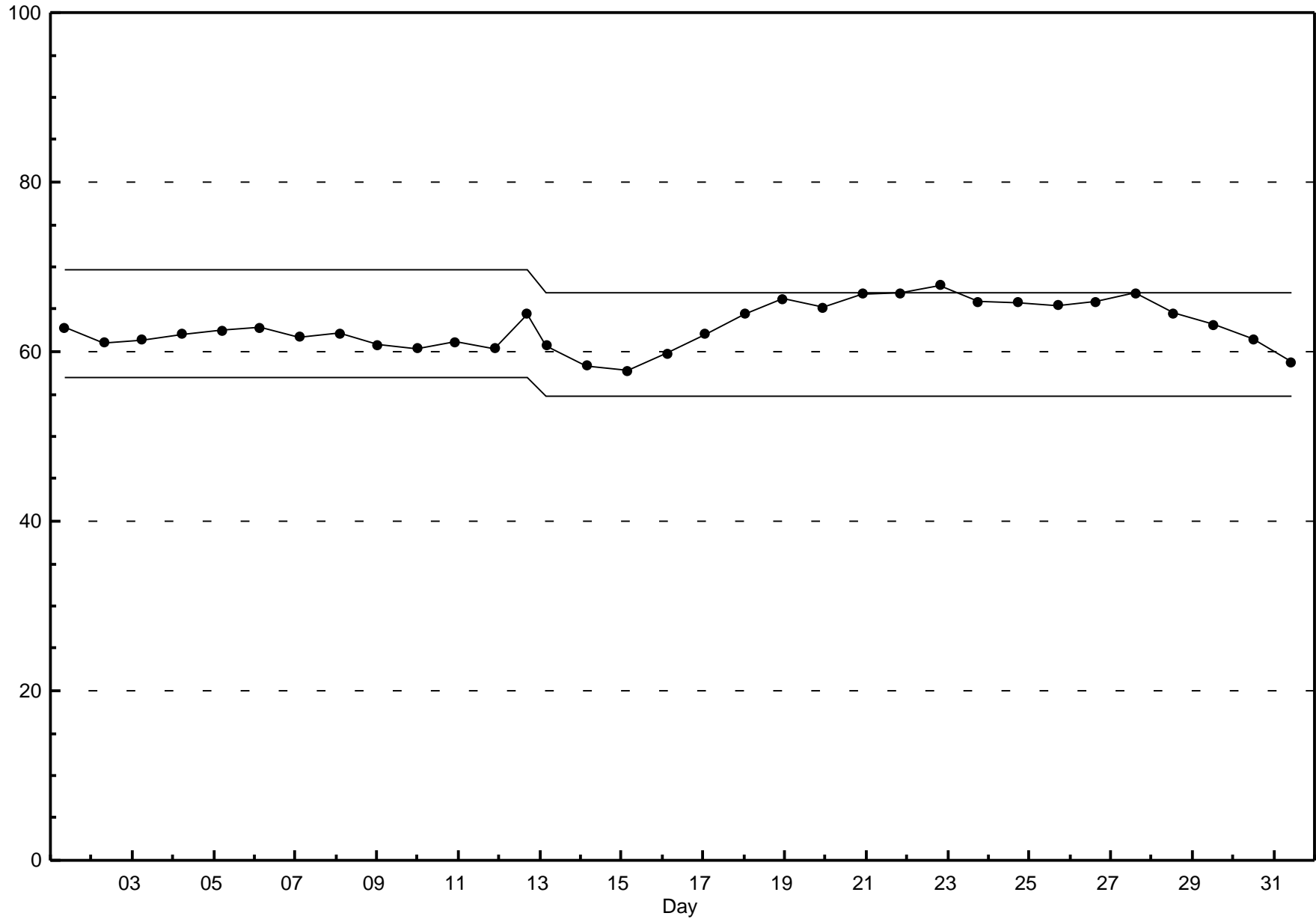
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb
Portable-Bonanza - January 2011



Span Responses

Total Reduced Sulphur (TRS)
Portable-Bonanza - January 2011



Hourly Averages

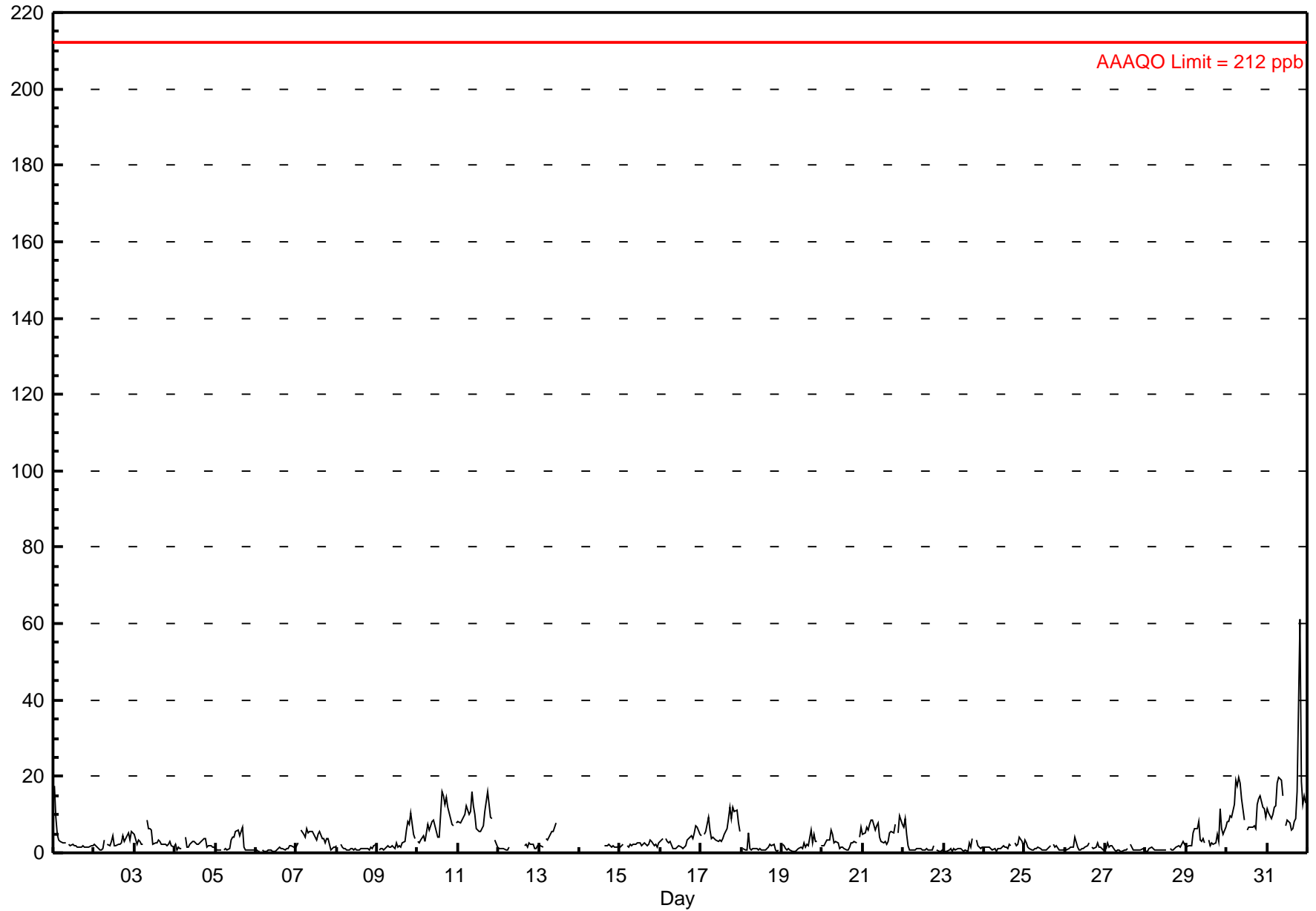
Nitrogen Dioxide (NO₂) - ppb Portable-Bonanza - January 2011

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 61.3 ppb on Jan 31 20:00	Maximum Daily Average: 14.2 ppb on Jan 31
Minimum Value: 0 ppb on Jan 23 01:00	Hours of Data: 678
Maximum Diurnal Average: 5.9 ppb at hour 20	Hours of Missing Data: 66
Monthly Average: 3.57 ppb	Hours of Calibration: 46
Minimum Daily Average: 0.9 ppb on Jan 6	Percent Operational Time: 97.3
Minimum Diurnal Average: 2.4 ppb at hour 13	
Percentiles: P ₁ = 0.4 P ₁₀ = 0.8 Q ₁ = 1.1 Median = 2.0 Q ₃ = 4.6 P ₉₀ = 8.5 P ₉₉ = 18.2	

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	17	9	5	4	3	3	3	3	A	2	2	2	2	2	1	2	2	2	1	1	2	1	2	2	3.1	17.5
2-Jan	2	2	1	1	1	1	3	A	2	2	3	4	2	2	2	2	3	5	3	4	5	3	5	5	2.8	5.5
3-Jan	5	2	3	3	2	2	A	8	6	6	6	2	3	3	3	3	2	2	2	2	2	3	2	1	3.3	8.5
4-Jan	2	1	1	1	1	A	4	2	1	2	3	3	3	2	2	3	4	4	4	2	2	2	1	1	2.2	4.0
5-Jan	1	1	1	1	A	1	1	1	1	1	4	4	4	5	6	4	6	7	2	1	1	1	1	1	2.3	6.9
6-Jan	1	0	0	A	1	0	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	2	2	2	0.9	1.9
7-Jan	2	2	A	6	5	4	6	5	6	5	5	4	3	5	6	4	4	3	4	4	1	1	1	2	3.8	6.4
8-Jan	2	A	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	2	2	1.2	2.4
9-Jan	A	1	1	1	1	2	2	2	2	2	1	3	1	2	2	3	3	6	8	8	11	5	4	A	3.0	10.5
10-Jan	3	3	3	4	3	5	7	6	8	8	7	5	4	4	16	15	13	15	12	9	7	7	A	8	7.6	16.0
11-Jan	8	8	9	9	10	12	10	11	16	12	10	6	6	6	6	7	11	16	13	9	9	A	3	1	9.1	16.2
12-Jan	1	1	1	1	1	1	1	D	1	C	C	C	C	C	C	2	2	2	2	2	2	1	1	2	--	2.5
13-Jan	2	2	2	A	4	4	4	6	6	7	8	C	C	C	C	M	M	M	M	M	M	M	M	M	--	7.7
14-Jan	M	M	M	M	M	M	M	M	M	M	C	C	C	C	C	2	2	2	2	1	2	2	2	2	--	2.3
15-Jan	1	2	2	A	2	1	2	2	2	2	3	3	3	2	3	2	2	2	3	3	2	2	2	3	2.2	3.3
16-Jan	3	4	A	4	3	3	3	1	1	1	2	2	1	1	1	2	4	4	4	4	5	7	7	5	3.1	7.1
17-Jan	4	A	5	6	10	6	4	4	4	3	3	3	3	4	5	6	9	12	9	12	11	11	8	6	6.4	11.8
18-Jan	A	1	1	1	5	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	1	1	1	A	1.3	5.1
19-Jan	2	2	1	1	1	1	1	0	1	1	2	1	3	1	2	2	6	3	5	3	3	A	2	2	1.9	5.9
20-Jan	2	2	3	3	3	6	5	3	3	3	1	1	2	1	1	1	2	3	3	3	3	A	4	7	2.7	6.7
21-Jan	5	5	7	6	8	8	8	6	7	8	4	3	3	3	2	3	5	6	5	7	A	5	10	8	5.7	9.6
22-Jan	7	9	5	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	A	1	1	1	1	1.7	9.0
23-Jan	0	0	1	1	1	1	1	1	1	1	1	1	0	1	1	2	2	4	A	3	2	1	1	1	1.2	3.8
24-Jan	1	2	1	2	1	1	1	1	1	1	1	2	1	2	1	2	2	A	3	2	2	4	3	2	1.7	4.3
25-Jan	3	3	1	1	1	1	1	1	1	1	1	1	1	1	1	2	A	2	2	2	1	1	1	1	1.3	3.2
26-Jan	1	1	1	2	1	1	4	2	1	1	1	1	2	2	2	A	2	1	2	3	1	2	1	1	1.5	4.2
27-Jan	1	3	2	2	2	1	0	1	1	1	0	1	1	1	1	A	2	1	1	1	1	1	1	0	1.0	2.6
28-Jan	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	2	3	2	1.1	3.1
29-Jan	2	2	2	2	5	6	6	8	3	3	4	3	A	3	2	3	2	2	5	3	12	6	5	7	4.2	11.7
30-Jan	8	8	10	9	13	19	17	20	18	14	9	A	6	7	7	7	7	6	13	14	15	12	11	9	11.3	19.6
31-Jan	12	10	9	10	12	12	18	20	19	15	A	7	9	8	6	6	8	9	16	61	19	13	15	13	14.2	61.3

3.6	3.1	2.9	3.1	3.5	3.6	4.1	4.1	4.0	3.8	3.0	2.5	2.4	2.6	3.0	3.2	3.5	4.2	4.4	5.9	4.3	3.6	3.5	3.4	Diurnal Average	
17.5	10.4	9.8	9.9	12.6	18.9	18.2	19.9	18.9	15.0	10.0	7.0	8.5	7.8	16.0	14.8	12.6	16.2	16.1	61.3	18.5	12.7	15.1	13.0	Diurnal Maximum	

C - Calibration D - DAS Failure M - Maintenance A - Automated Daily Zero Span
 Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 212 ppb 24-hr 106 ppb



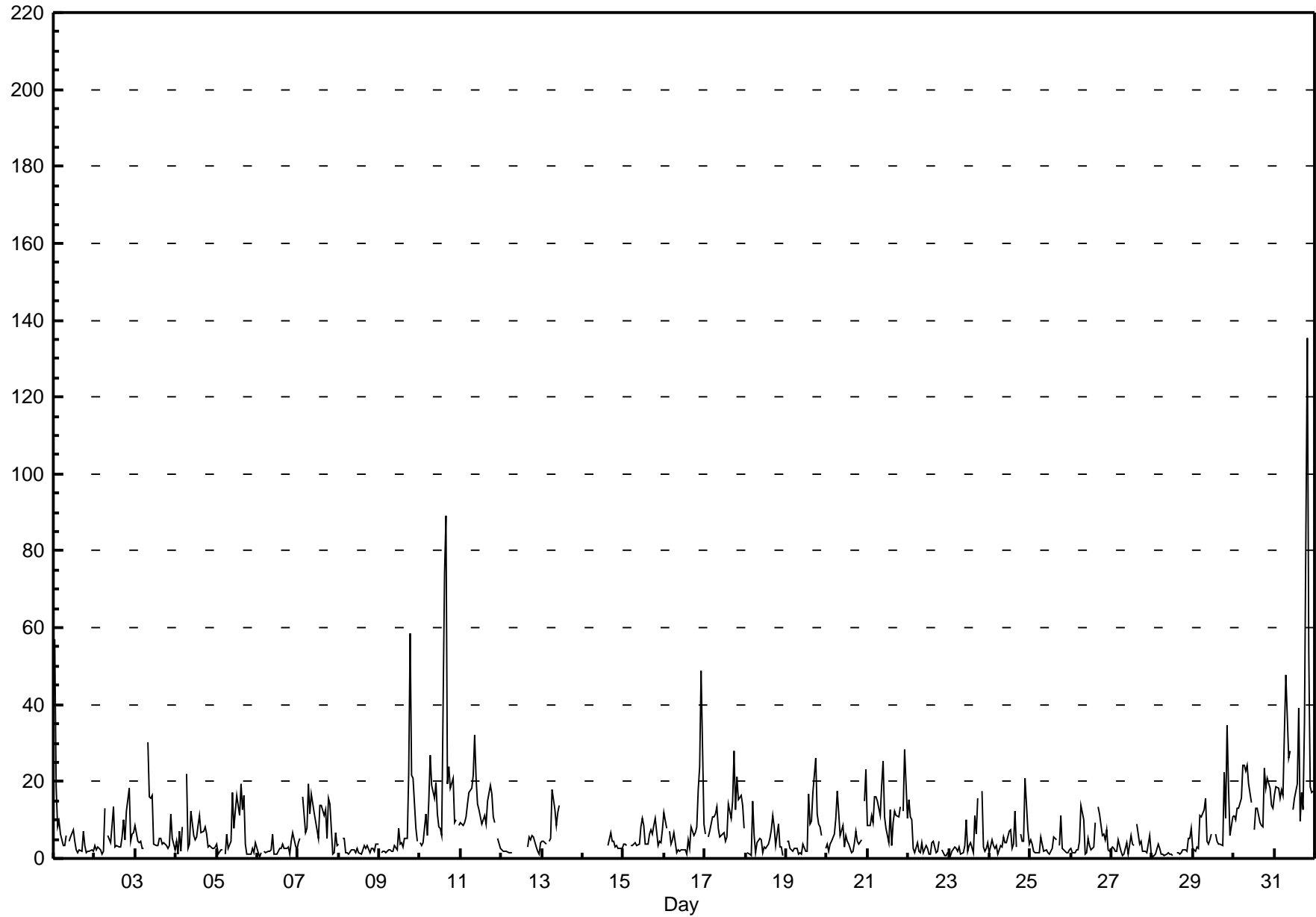
Hourly Maximums

Nitrogen Dioxide (NO₂) - ppb Portable-Bonanza - January 2011

Maximum Value: 135.4 ppb on Jan 31 20:00		Maximum Daily Average: 27.9 ppb on Jan 31		Hours in Service: 744																																													
Minimum Value: 1 ppb on Jan 6 02:00		Minimum Daily Average: 2.1 ppb on Jan 28		Hours of Data: 678																																													
Maximum Diurnal Average: 12.9 ppb at hour 20		Minimum Diurnal Average: 4.8 ppb at hour 3		Hours of Missing Data: 66																																													
Monthly Average: 7.79 ppb		Percentiles: P ₁ = 0.8 P ₁₀ = 1.5 Q ₁ = 2.4 Median = 4.5 Q ₃ = 10.5 P ₉₀ = 17.0 P ₉₉ = 47.4		Hours of Calibration: 46																																													
				Percent Operational Time: 97.3																																													
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																									
1-Jan	57	19	8	10	6	3	4	6	A	5	5	7	4	2	2	2	7	3	2	2	2	2	2	2	7.1	57.2																							
2-Jan	4	2	3	2	1	2	13	A	6	4	8	13	3	3	3	3	6	10	5	12	18	4	6	7	6.1	18.4																							
3-Jan	9	5	4	4	3	3	A	30	16	16	16	4	3	3	5	5	4	4	3	2	3	12	5	2	7.1	30.0																							
4-Jan	4	1	7	2	8	A	22	3	4	12	6	5	5	9	11	7	7	8	6	3	3	3	3	3	6.2	22.0																							
5-Jan	4	1	2	2	A	1	7	3	4	17	8	12	16	11	19	13	17	4	1	1	1	3	1	4	6.6	19.3																							
6-Jan	1	1	2	A	2	2	2	2	2	6	1	1	2	3	3	4	3	3	3	1	5	7	3	2	2.5	6.8																							
7-Jan	4	5	A	16	7	8	19	12	17	12	10	7	5	14	14	11	13	5	15	14	1	2	7	3	9.6	19.5																							
8-Jan	4	A	5	5	2	2	1	2	2	2	1	2	1	1	2	3	2	3	2	2	3	2	4	4	2.6	5.4																							
9-Jan	A	1	2	2	1	2	2	2	2	3	2	8	4	4	3	5	5	22	59	22	21	8	5	A	8.4	58.6																							
10-Jan	4	3	4	12	6	15	27	19	16	20	12	8	8	6	74	89	19	24	18	21	9	10	A	8	18.8	89.0																							
11-Jan	9	8	9	11	14	17	18	22	32	21	14	13	9	10	11	9	15	19	17	11	9	A	5	2	13.3	32.1																							
12-Jan	2	2	2	2	2	1	2	D	2	C	C	C	C	C	C	C	3	6	5	6	6	3	2	1	4	--	5.8																						
13-Jan	4	4	4	A	4	5	18	13	9	12	14	C	C	C	C	M	M	M	M	M	M	M	M	M	--	18.1																							
14-Jan	M	M	M	M	M	M	M	M	M	M	C	C	C	C	C	3	7	5	4	3	3	3	3	3	3	--	6.7																						
15-Jan	4	4	4	A	3	3	4	4	3	4	8	11	9	4	4	6	7	6	9	11	3	4	4	7	5.5	10.5																							
16-Jan	12	8	A	7	4	5	7	1	2	2	2	2	1	5	3	8	6	7	8	18	24	49	9	8.3	48.8																								
17-Jan	6	A	6	7	11	11	11	13	8	6	6	7	5	5	14	11	15	28	13	21	15	16	14	8	11.2	27.9																							
18-Jan	A	2	1	1	15	6	1	4	5	5	1	3	3	4	5	8	11	8	3	9	3	3	1	A	4.6	15.0																							
19-Jan	5	4	2	2	2	3	3	1	1	1	4	2	2	17	9	10	17	26	11	9	8	6	A	3	6.4	26.2																							
20-Jan	4	2	4	5	6	11	18	12	6	9	3	6	4	4	1	2	4	7	5	4	5	A	15	23	6.9	23.2																							
21-Jan	9	9	11	9	16	16	15	11	19	25	11	8	4	13	3	9	12	11	11	13	A	12	28	10	12.5	28.5																							
22-Jan	15	11	10	3	1	4	2	1	4	1	3	3	1	1	4	5	1	2	4	A	2	1	1	2	3.6	15.4																							
23-Jan	2	1	2	3	2	2	3	1	1	3	10	2	3	4	1	11	6	16	A	17	3	2	3	4	4.5	17.4																							
24-Jan	2	5	3	3	3	1	3	3	5	4	4	7	7	3	4	12	3	A	6	5	4	21	7	4	5.3	21.0																							
25-Jan	5	4	2	1	2	1	5	4	2	2	2	1	2	3	6	5	A	3	11	2	2	2	1	2	3.0	11.0																							
26-Jan	2	1	2	2	2	4	14	10	1	1	5	3	2	3	9	A	13	12	6	6	5	8	2	2	5.1	13.9																							
27-Jan	3	3	2	2	5	2	1	1	3	4	1	6	4	3	A	9	4	4	2	2	2	2	6	2	3.1	8.9																							
28-Jan	1	1	1	4	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	5	5	8	2.1	7.9																							
29-Jan	3	2	3	3	11	11	13	16	4	4	5	6	A	7	5	4	4	4	22	10	35	19	6	11	8.9	34.8																							
30-Jan	11	10	13	13	16	24	24	23	24	19	15	A	7	13	13	9	9	8	23	18	21	18	14	13	15.6	24.2																							
31-Jan	16	19	18	16	18	16	33	48	26	28	A	13	16	20	39	10	17	13	35	135	54	19	17	17	27.9	135.4																							
																								7.3	4.9	4.8	5.5	6.1	6.3	10.1	9.5	7.9	8.7	6.4	6.0	4.9	6.3	10.1	9.4	8.2	9.4	10.8	12.9	9.1	7.7	7.8	6.0	Diurnal Average	
																								57.2	18.8	18.2	16.2	17.8	24.2	32.8	47.9	32.1	27.8	16.4	13.3	16.3	19.5	74.3	89.0	19.3	27.9	58.6	135.4	53.9	24.0	48.8	23.2	Diurnal Maximum	
C - Calibration				D - DAS Failure				M - Maintenance				A - Automated Daily Zero Span																																					

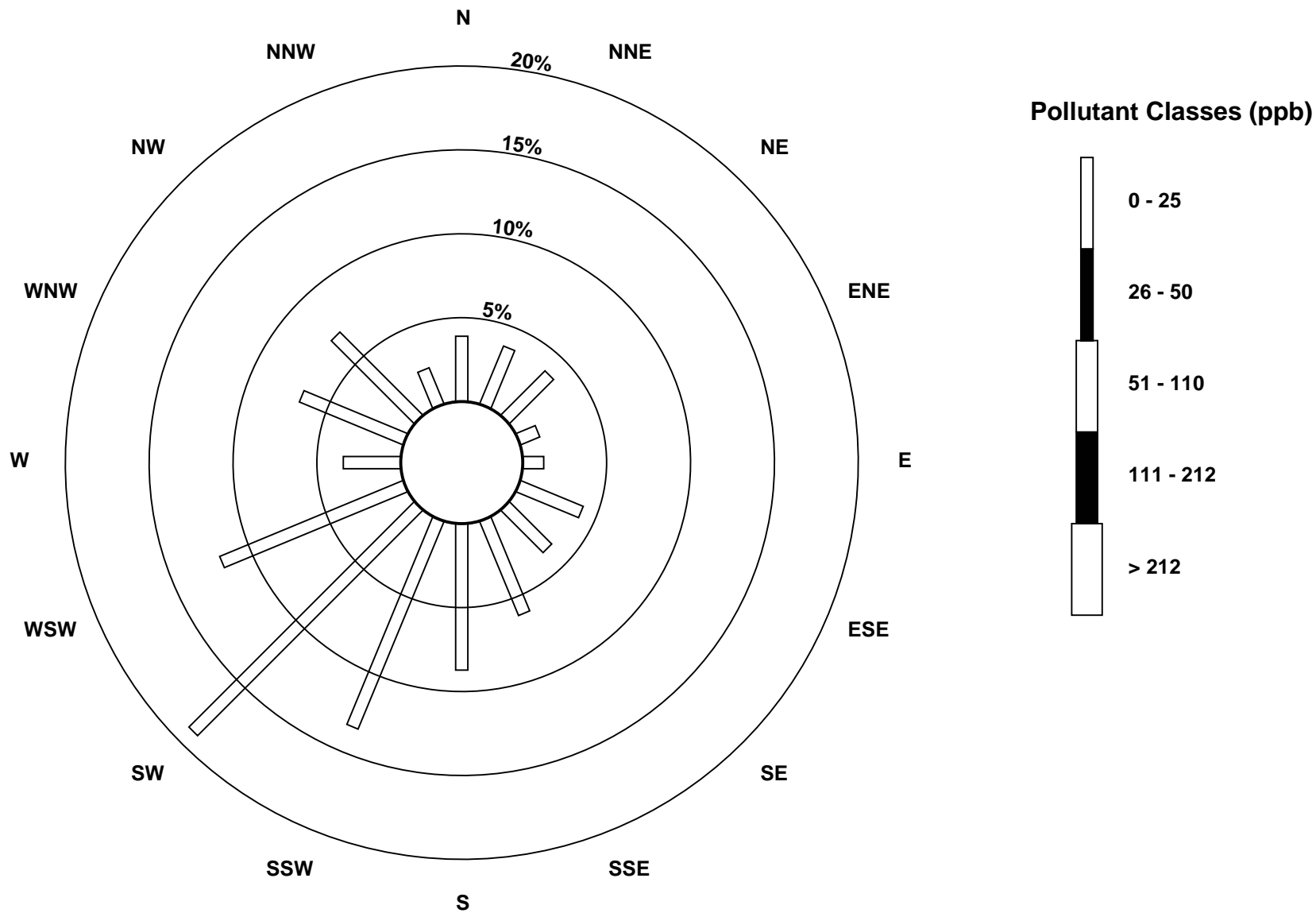
Hourly Maximums

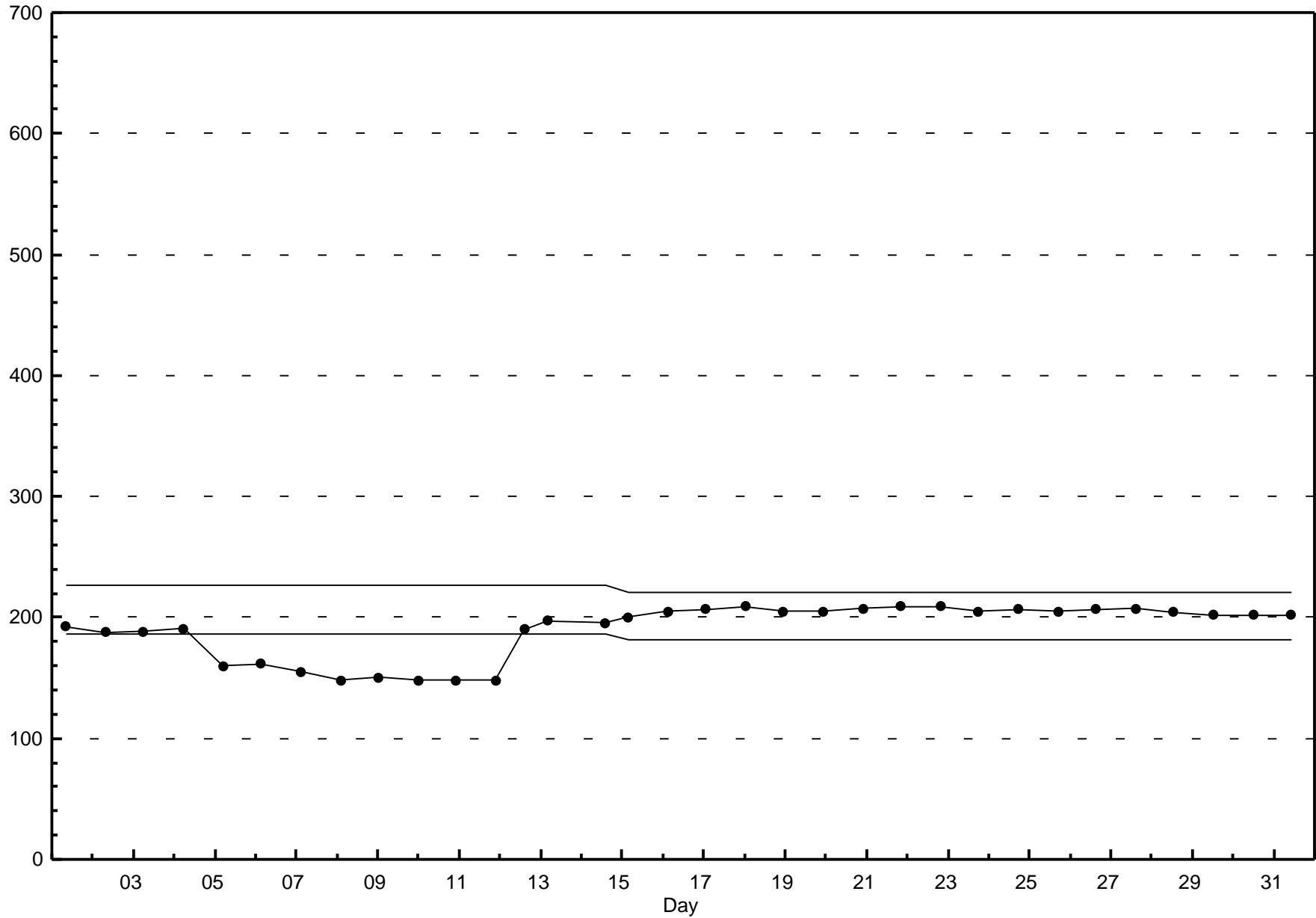
Nitrogen Dioxide (NO₂) - ppb
Portable-Bonanza - January 2011



Pollutant Rose

Nitrogen Dioxide (NO₂) - ppb
Portable-Bonanza - January 2011





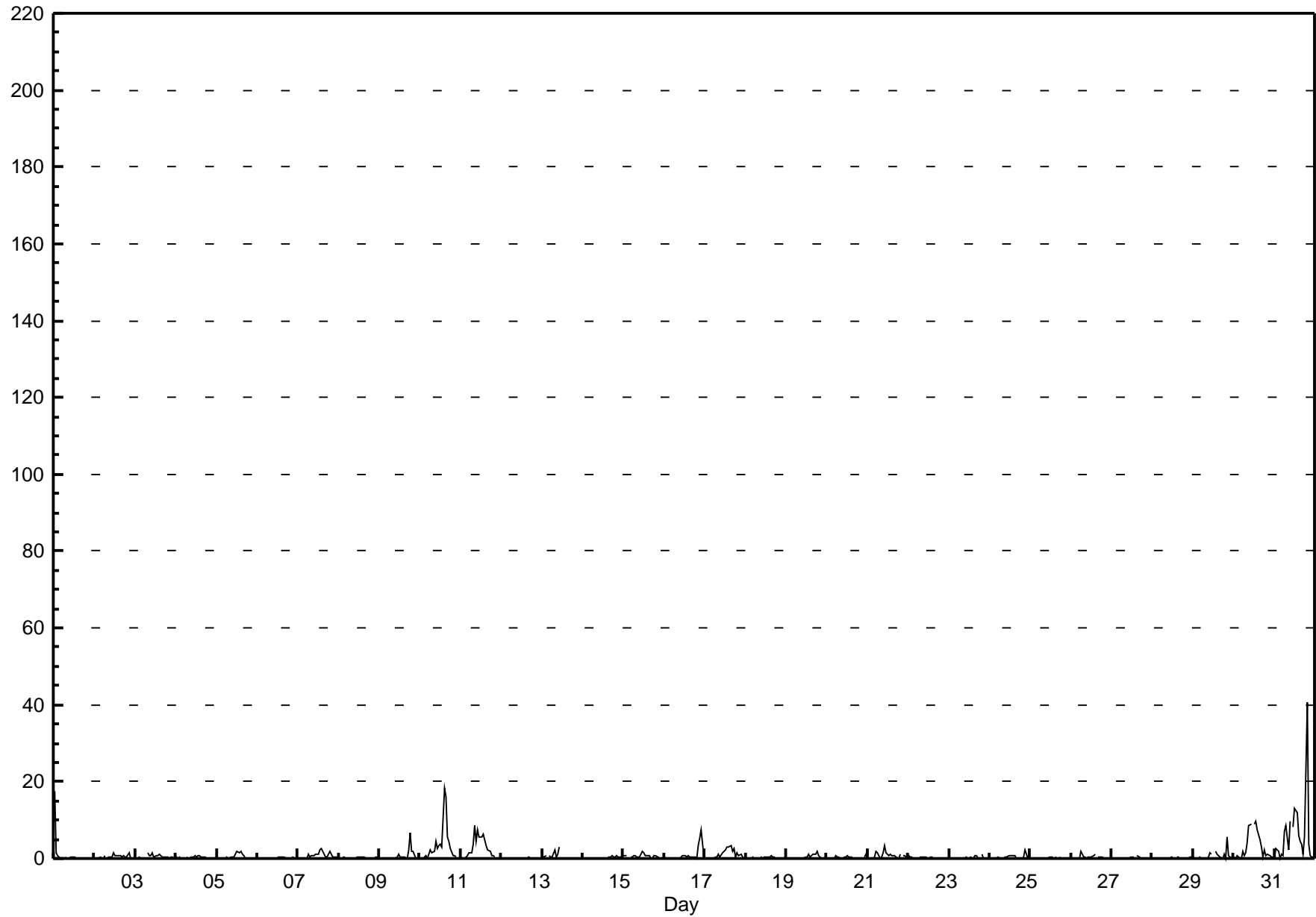
Hourly Averages

Nitrogen Oxide (NO) - ppb Portable-Bonanza - January 2011

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 40.8 ppb on Jan 31 20:00	Maximum Daily Average: 5.8 ppb on Jan 31
Minimum Value: 0 ppb on Jan 6 01:00	Hours of Data: 678
Maximum Diurnal Average: 2.0 ppb at hour 15	Hours of Missing Data: 66
Monthly Average: 0.87 ppb	Hours of Calibration: 46
Minimum Daily Average: 0.1 ppb on Jan 28	Percent Operational Time: 97.3
Minimum Diurnal Average: 0.1 ppb at hour 4	
Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.2 Q ₃ = 0.7 P ₉₀ = 1.9 P ₉₉ = 9.2	

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	17	1	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.0	17.4
2-Jan	0	0	0	0	0	0	1	A	0	0	1	1	1	1	1	1	0	1	0	0	1	0	0	0	0.4	1.5
3-Jan	0	0	0	0	0	0	A	1	1	1	2	1	1	1	1	1	0	0	0	1	0	0	0	0	0.5	1.6
4-Jan	0	0	0	0	0	A	0	0	0	0	0	1	0	1	1	0	1	0	0	0	0	0	0	0	0.3	0.7
5-Jan	0	0	0	0	A	0	0	0	0	0	0	1	2	1	2	1	1	0	0	0	0	0	0	0	0.4	1.9
6-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	0.4
7-Jan	0	0	A	0	0	0	1	0	1	1	1	1	1	2	2	1	1	0	1	2	0	0	0	0	0.7	2.5
8-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	0.5
9-Jan	A	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	2	7	2	2	0	0	A	0.7	6.6
10-Jan	0	0	0	1	0	1	2	1	2	4	3	3	4	3	18	16	6	4	3	1	1	0	A	0	3.2	18.3
11-Jan	0	0	0	0	1	2	1	4	9	4	8	6	6	6	5	4	2	2	1	1	0	A	0	0	2.6	8.6
12-Jan	0	0	0	0	0	0	0	D	0	C	C	C	C	C	C	0	0	0	0	0	0	0	0	0	--	0.3
13-Jan	0	0	1	A	1	0	1	2	0	1	3	C	C	C	C	M	M	M	M	M	M	M	M	M	--	3.1
14-Jan	M	M	M	M	M	M	M	M	M	M	C	C	C	C	C	0	0	1	0	0	1	0	1	1	--	0.7
15-Jan	1	1	1	A	0	0	1	1	0	0	1	2	2	1	1	1	0	0	1	1	0	0	0	0	0.6	1.8
16-Jan	0	0	A	0	0	0	0	0	0	0	0	1	1	0	1	1	0	0	0	0	3	5	7	0	0.9	7.5
17-Jan	0	A	0	0	0	0	0	0	1	1	1	2	2	3	3	3	2	2	1	1	1	1	0	0	1.1	3.2
18-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	A	0.2	0.7
19-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1	2	1	0	0	A	0	0.3	1.8
20-Jan	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	A	0	1	0.2	1.0
21-Jan	0	0	0	0	1	2	1	0	0	2	3	2	1	1	1	1	1	0	0	1	A	1	1	0	0.8	3.3
22-Jan	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.2	0.9
23-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	A	1	0	0	0	0	0.2	1.0
24-Jan	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	A	0	0	0	2	0	0	0.3	2.3
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	0.4
26-Jan	0	0	0	0	0	0	2	0	0	0	0	0	0	1	1	A	0	0	0	0	0	0	0	0	0.3	1.7
27-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
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	0.1	0.3
29-Jan	0	0	0	0	0	0	0	0	0	0	1	1	A	2	1	1	0	0	1	0	6	1	0	0	0.7	5.5
30-Jan	0	0	1	0	0	2	1	1	4	9	9	A	9	10	8	5	3	0	2	1	1	1	0	0	2.9	9.6
31-Jan	0	2	2	0	1	1	7	8	2	10	A	8	13	12	6	5	4	1	5	41	4	1	0	0	5.8	40.8
	0.8	0.2	0.2	0.1	0.2	0.3	0.7	0.8	0.8	1.2	1.3	1.3	1.7	1.8	2.0	1.5	0.9	0.6	0.9	1.9	0.7	0.5	0.4	0.2	Diurnal Average	
	17.4	2.5	1.8	0.6	1.0	1.9	6.9	8.5	8.6	9.8	8.9	8.3	13.0	11.9	18.3	16.0	5.8	4.3	6.6	40.8	5.5	5.2	7.5	1.0	Diurnal Maximum	

C - Calibration D - DAS Failure M - Maintenance A - Automated Daily Zero Span



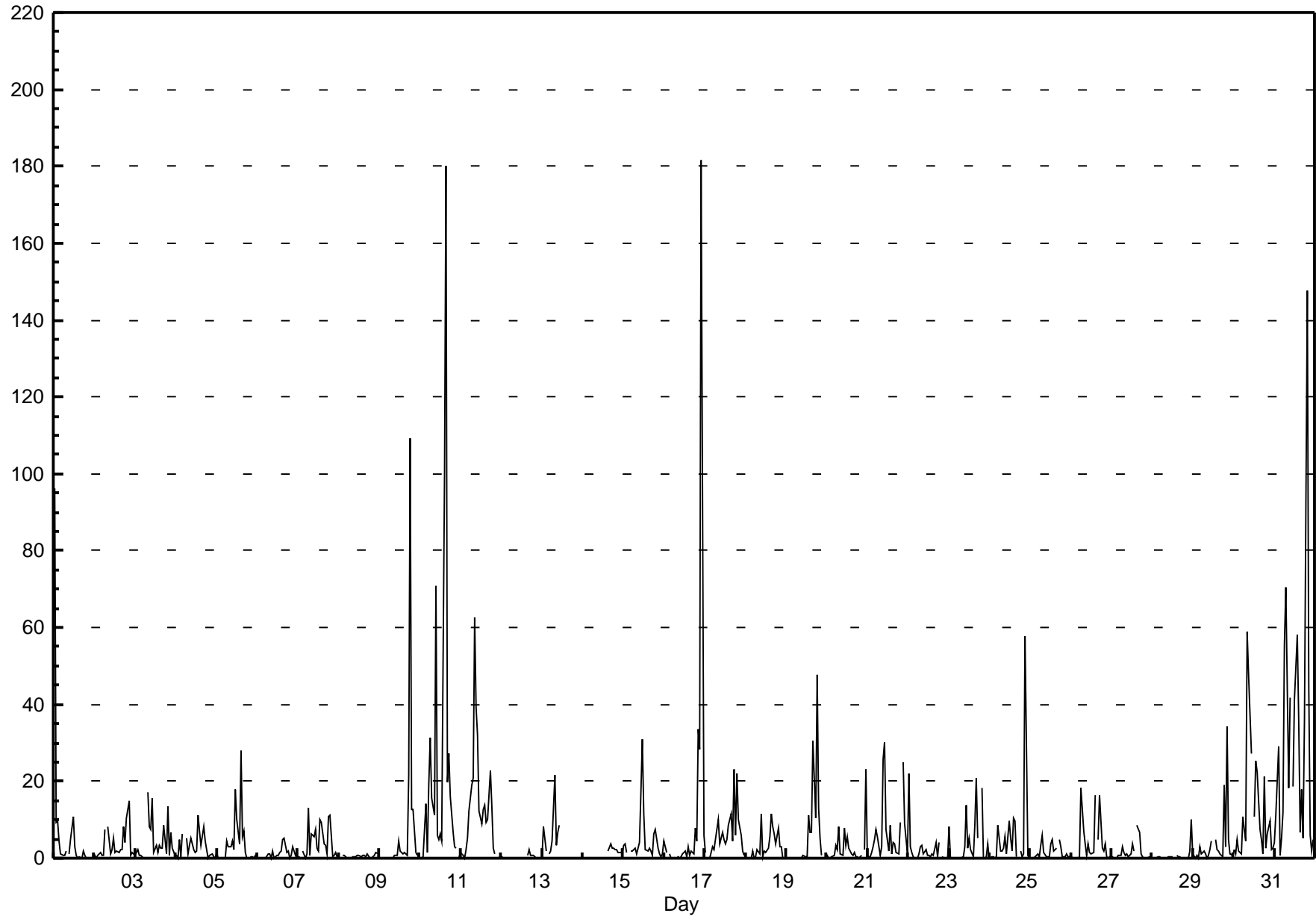
Hourly Maximums

Nitrogen Oxide (NO) - ppb Portable-Bonanza - January 2011

Maximum Value: 181.4 ppb on Jan 16 23:00		Maximum Daily Average: 29.2 ppb on Jan 31		Hours in Service: 744																									
Minimum Value: 0 ppb on Jan 16 05:00		Minimum Daily Average: 0.5 ppb on Jan 8		Hours of Data: 678																									
Maximum Diurnal Average: 11.2 ppb at hour 19		Minimum Diurnal Average: 1.3 ppb at hour 4		Hours of Missing Data: 66																									
Monthly Average: 6.17 ppb		Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.4 Median = 1.6 Q ₃ = 5.3 P ₉₀ = 13.6 P ₉₉ = 63.8		Hours of Calibration: 46																									
				Percent Operational Time: 97.3																									
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
1-Jan	96	9	10	5	1	1	1	2	A	1	5	11	3	1	0	0	0	2	1	0	0	0	0	0	6.5	96.3			
2-Jan	1	0	1	2	1	1	8	A	8	1	2	5	1	2	1	2	2	8	4	10	15	1	1	1	3.4	14.9			
3-Jan	1	2	1	1	0	0	A	17	8	8	16	2	3	1	3	2	3	9	1	14	1	7	2	1	4.5	17.1			
4-Jan	1	0	5	0	6	A	5	1	3	5	2	1	2	11	7	3	8	4	2	0	1	1	0	0	3.1	11.2			
5-Jan	2	0	0	0	A	0	4	3	3	5	2	18	10	4	28	5	7	2	0	0	0	0	0	1	4.1	27.8			
6-Jan	0	0	0	A	0	0	1	1	0	2	0	1	1	2	2	5	5	1	2	0	1	3	1	0	1.2	5.1			
7-Jan	0	0	A	2	0	1	13	1	6	6	7	3	2	10	9	4	3	1	11	11	0	1	1	0	4.1	13.2			
8-Jan	1	A	1	1	0	0	0	0	0	0	0	1	1	0	1	1	1	1	0	0	0	1	1	1	0.5	1.4			
9-Jan	A	0	0	0	0	0	0	0	0	1	1	5	2	2	1	2	1	22	109	13	13	2	1	A	7.8	109.2			
10-Jan	0	0	0	14	2	19	31	16	11	71	6	5	6	5	101	180	20	27	16	7	3	2	A	0	23.6	180.2			
11-Jan	1	1	0	2	5	12	19	21	63	39	32	12	9	13	14	9	10	23	14	2	1	A	0	0	13.2	62.7			
12-Jan	0	0	0	0	0	0	0	D	0	C	C	C	C	C	C	1	2	1	1	1	0	0	0	0	--	2.1			
13-Jan	0	8	2	A	1	2	5	21	4	7	9	C	C	C	C	M	M	M	M	M	M	M	M	M	--	21.5			
14-Jan	M	M	M	M	M	M	M	M	M	M	C	C	C	C	C	2	4	3	3	2	2	1	1	2	--	3.7			
15-Jan	3	4	2	A	2	2	2	3	1	4	17	31	12	2	2	3	2	1	6	7	2	1	0	1	4.8	31.1			
16-Jan	5	2	A	1	0	0	0	0	0	0	1	1	2	0	3	1	2	1	8	4	34	28	181	6	12.2	181.4			
17-Jan	1	A	0	0	3	2	5	8	10	4	7	5	4	5	8	12	5	23	6	22	10	6	2	1	6.4	23.1			
18-Jan	A	0	0	0	2	0	0	2	1	11	1	2	2	3	6	11	8	6	4	8	3	3	0	A	3.3	11.4			
19-Jan	0	0	0	0	0	0	0	0	0	0	1	0	0	11	7	7	31	11	48	13	5	1	A	0	5.9	47.8			
20-Jan	1	0	0	0	1	3	2	8	1	1	8	3	5	3	1	1	1	0	0	0	1	A	2	23	2.9	23.0			
21-Jan	0	0	1	3	5	7	6	1	3	26	30	7	2	8	1	4	4	2	1	9	A	25	9	1	6.8	30.0			
22-Jan	22	3	1	0	0	0	1	3	3	1	2	1	1	0	1	1	4	1	4	A	0	0	0	0	2.2	22.0			
23-Jan	8	0	0	0	0	0	0	0	0	3	14	2	5	2	0	8	21	5	A	18	0	0	0	4	4.1	21.0			
24-Jan	0	0	0	0	0	8	2	2	2	6	1	10	5	2	11	10	0	A	2	0	1	58	1	0	5.3	57.7			
25-Jan	0	0	0	0	1	0	3	6	2	0	1	0	4	5	2	3	A	5	3	0	1	1	0	0	1.7	5.8			
26-Jan	1	0	0	0	0	0	18	7	4	1	4	1	1	1	16	A	5	17	3	2	4	0	0	0	3.7	18.1			
27-Jan	0	0	0	0	1	1	3	1	1	1	0	1	4	2	A	9	7	1	1	0	0	0	1	0	1.5	8.7			
28-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	10	0.7	9.9			
29-Jan	1	0	1	0	3	1	2	1	0	1	2	4	A	5	2	2	1	0	0	19	3	34	5	1	1	3.9	34.2		
30-Jan	2	1	5	2	1	11	7	4	59	48	27	A	11	25	23	7	5	1	21	2	6	10	2	3	12.4	59.0			
31-Jan	4	11	29	1	5	12	55	70	18	42	A	18	41	58	35	7	18	5	36	148	45	6	2	5	29.2	147.6			
																								Diurnal Average					
																								Diurnal Maximum					
C - Calibration																								D - DAS Failure		M - Maintenance		A - Automated Daily Zero Span	

Hourly Maximums

Nitrogen Oxide (NO) - ppb
Portable-Bonanza - January 2011



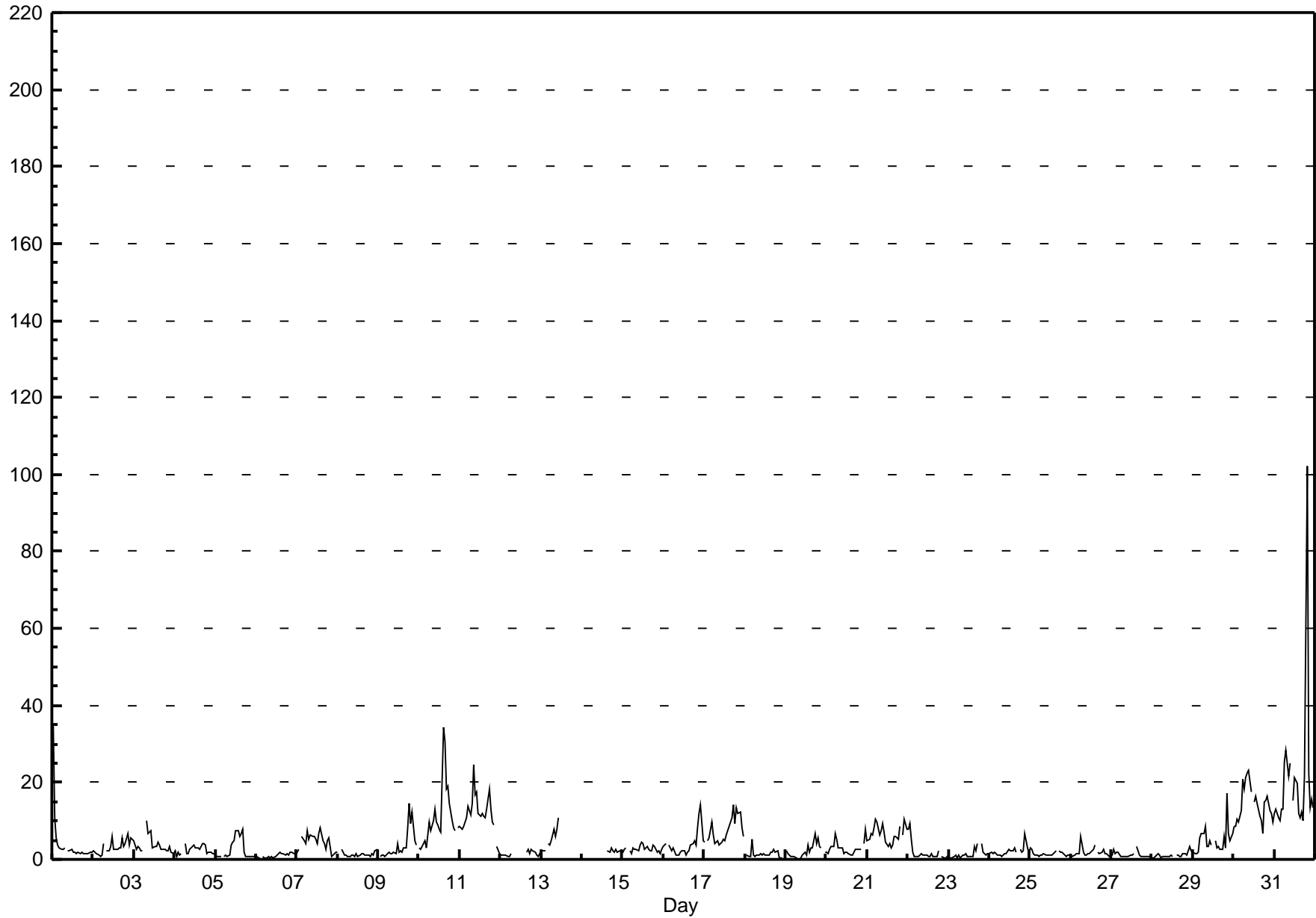
Hourly Averages

Oxides of Nitrogen (NO_x) - ppb Portable-Bonanza - January 2011

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 102.0 ppb on Jan 31 20:00	Maximum Daily Average: 20.1 ppb on Jan 31
Minimum Value: 0 ppb on Jan 19 09:00	Hours of Data: 678
Maximum Diurnal Average: 7.7 ppb at hour 20	Hours of Missing Data: 66
Monthly Average: 4.41 ppb	Hours of Calibration: 46
Minimum Daily Average: 1.0 ppb on Jan 6	Percent Operational Time: 97.3
Minimum Diurnal Average: 3.1 ppb at hour 3	
Percentiles: P ₁ = 0.3 P ₁₀ = 0.8 Q ₁ = 1.2 Median = 2.3 Q ₃ = 5.2 P ₉₀ = 10.7 P ₉₉ = 24.7	

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	35	11	6	4	3	3	3	3	A	2	2	3	2	2	2	2	2	2	1	1	2	1	2	2	4.1	34.8	
2-Jan	2	2	2	1	1	1	4	A	2	2	3	6	3	3	3	3	3	5	3	4	7	4	6	5	3.2	6.7	
3-Jan	5	2	3	3	2	2	A	10	7	7	8	3	3	3	4	4	3	3	3	2	2	3	2	1	3.7	10.0	
4-Jan	2	1	2	1	1	A	4	2	2	3	3	4	3	3	3	3	4	4	4	1	2	2	1	1	2.4	4.2	
5-Jan	1	1	1	1	A	1	1	1	1	4	5	5	7	7	6	7	8	2	1	1	1	1	1	1	2.7	7.8	
6-Jan	1	0	0	A	1	0	0	1	1	1	1	1	1	1	2	2	1	1	1	1	2	2	2	1	1.0	2.0	
7-Jan	2	3	A	6	5	4	8	5	6	6	6	5	4	7	8	5	4	3	5	6	1	1	1	2	4.5	8.1	
8-Jan	2	A	3	2	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	2	1	2	3	1.3	2.7	
9-Jan	A	1	1	1	1	2	2	2	2	2	1	4	2	2	2	3	3	8	15	9	12	5	4	A	3.8	14.6	
10-Jan	3	3	3	5	3	6	10	7	10	13	10	9	8	7	34	31	18	19	14	10	8	7	A	8	10.7	34.2	
11-Jan	9	8	9	10	11	14	12	14	24	17	18	12	11	12	11	11	13	18	13	10	9	A	3	1	11.7	24.5	
12-Jan	1	1	1	1	1	1	1	D	1	C	C	C	C	C	C	C	2	2	2	2	2	2	1	1	2	--	2.5
13-Jan	2	2	2	A	4	4	5	8	6	8	11	C	C	C	C	C	M	M	M	M	M	M	M	M	--	10.8	
14-Jan	M	M	M	M	M	M	M	M	M	M	C	C	C	C	C	2	2	3	2	2	2	2	2	2	2	--	2.9
15-Jan	2	3	3	A	2	2	3	2	2	2	4	4	4	3	3	3	2	2	4	4	2	2	2	3	2.7	4.4	
16-Jan	3	4	A	4	3	2	3	1	1	1	2	2	2	1	2	2	4	4	5	4	8	12	14	5	3.9	14.2	
17-Jan	5	A	5	6	10	6	4	4	5	4	4	5	5	6	7	10	11	14	9	13	12	12	8	6	7.5	14.3	
18-Jan	A	1	1	1	5	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	1	0	1	A	1.4	5.4	
19-Jan	2	2	1	1	1	1	0	0	1	1	2	1	4	2	3	3	7	4	6	3	3	A	A	2	2.1	6.8	
20-Jan	2	2	3	3	3	7	5	3	3	3	1	2	2	1	1	1	2	3	3	3	3	A	4	8	2.9	7.8	
21-Jan	5	5	7	6	8	10	10	6	8	9	7	5	3	4	3	4	6	6	5	8	A	6	10	8	6.5	10.4	
22-Jan	8	9	5	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	A	1	1	1	1	1.8	9.4	
23-Jan	0	0	0	1	1	1	1	1	1	1	2	1	1	1	1	3	2	4	A	4	2	1	1	2	1.4	4.3	
24-Jan	1	2	1	2	1	1	1	1	1	1	1	3	2	2	2	3	2	A	3	2	2	7	3	1	2.0	6.6	
25-Jan	3	3	1	1	1	1	1	1	1	1	1	1	1	1	2	A	2	2	2	2	1	1	1	1	1.4	3.2	
26-Jan	1	1	1	2	1	1	6	2	1	1	2	1	2	3	4	A	2	2	2	3	2	2	1	1	1.8	5.9	
27-Jan	1	3	2	2	2	1	1	1	1	1	1	1	1	2	A	3	1	1	1	1	1	1	1	0	1.1	3.3	
28-Jan	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	2	3	2	1.1	3.3	
29-Jan	2	2	2	2	6	7	7	8	3	3	5	4	A	5	3	3	3	2	6	3	17	7	5	7	4.8	17.3	
30-Jan	9	8	11	10	13	21	18	21	23	23	18	A	15	16	14	11	10	7	15	15	16	13	12	10	14.3	23.0	
31-Jan	12	13	11	10	13	13	25	28	21	25	A	15	21	20	12	11	12	10	22	102	22	13	16	13	20.1	102.0	
	4.3	3.3	3.1	3.2	3.7	4.0	4.7	4.9	4.8	5.0	4.2	3.8	4.0	4.4	5.0	4.7	4.4	4.8	5.2	7.7	5.0	4.1	3.9	3.5		Diurnal Average	
	34.8	12.9	10.7	10.0	12.9	21.1	25.3	28.5	24.5	24.9	17.6	15.4	21.4	19.6	34.2	30.7	18.4	19.0	21.6	102.0	22.3	13.4	15.7	13.4		Diurnal Maximum	

C - Calibration D - DAS Failure M - Maintenance A - Automated Daily Zero Span



Hourly Maximums

Oxides of Nitrogen (NO_x) - ppb Portable-Bonanza - January 2011

Maximum Value: 268.7 ppb on Jan 10 16:00	Maximum Daily Average: 53.8 ppb on Jan 31	Hours in Service: 744
Minimum Value: 0 ppb on Jan 28 01:00	Minimum Daily Average: 2.6 ppb on Jan 28	Hours of Data: 678
Maximum Diurnal Average: 20.9 ppb at hour 19	Minimum Diurnal Average: 6.2 ppb at hour 2	Hours of Missing Data: 66
Monthly Average: 13.30 ppb	Percentiles: P ₁ = 0.7 P ₁₀ = 1.7 Q ₁ = 2.8 Median = 6.2 Q ₃ = 15.8 P ₉₀ = 28.8 P ₉₉ = 102.0	Hours of Calibration: 46
		Percent Operational Time: 97.3

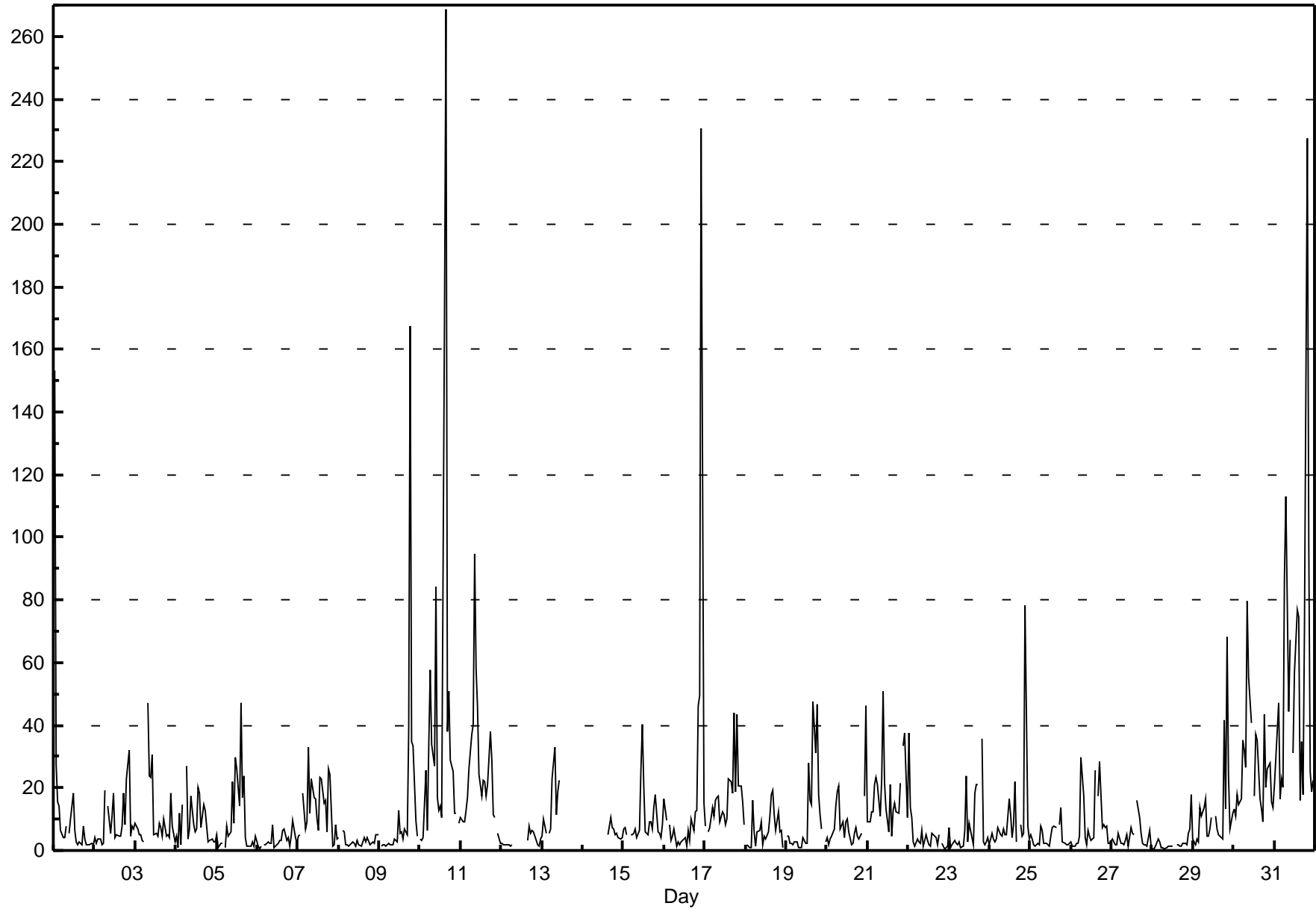
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jan	153	27	15	14	6	4	4	8	A	6	10	18	6	3	2	3	2	8	4	2	2	2	2	2	13.2	153.1
2-Jan	4	2	4	4	2	2	19	A	14	5	11	18	4	5	4	5	8	18	8	23	32	5	8	7	9.2	31.9
3-Jan	9	7	5	5	3	3	A	47	24	23	31	5	5	5	9	7	4	10	4	5	4	18	8	3	10.6	47.1
4-Jan	4	1	12	2	15	A	27	4	7	18	8	6	7	20	18	8	15	13	8	3	3	4	3	3	9.0	27.2
5-Jan	5	1	2	2	A	1	8	5	6	22	9	30	26	14	47	17	24	4	1	1	1	3	1	5	10.2	47.0
6-Jan	1	0	2	A	2	2	3	2	2	8	1	2	2	3	3	6	7	3	4	1	5	10	4	2	3.3	9.5
7-Jan	4	5	A	18	7	9	33	12	23	17	17	10	6	24	23	15	16	6	26	24	2	2	8	4	13.5	32.8
8-Jan	4	A	6	6	2	2	1	2	3	3	1	3	2	2	3	4	3	4	2	2	3	2	5	5	3.0	6.2
9-Jan	A	1	2	2	1	2	2	2	2	4	3	13	6	6	4	7	5	39	167	35	33	9	5	A	15.9	167.4
10-Jan	4	3	4	26	6	34	58	34	27	84	17	13	14	11	174	269	38	51	29	25	12	12	A	8	41.4	268.7
11-Jan	10	9	9	13	17	26	37	40	95	58	46	24	17	23	22	17	21	38	29	11	10	A	5	2	25.3	94.6
12-Jan	2	2	2	2	2	1	2	D	1	C	C	C	C	C	C	3	8	5	7	6	3	2	1	4	--	7.8
13-Jan	5	10	5	A	5	7	23	33	11	19	22	C	C	C	C	M	M	M	M	M	M	M	M	M	--	33.1
14-Jan	M	M	M	M	M	M	M	M	M	M	C	C	C	C	C	5	10	7	7	5	5	4	4	4	--	10.4
15-Jan	7	7	5	A	5	5	6	7	4	6	25	40	20	6	5	9	9	7	14	18	6	5	4	8	10.0	40.3
16-Jan	17	9	A	8	3	5	7	1	3	2	3	3	4	1	6	3	10	7	12	13	46	50	230	15	19.9	230.5
17-Jan	8	A	6	7	14	11	16	17	17	9	12	12	8	10	23	22	18	44	19	43	20	21	16	8	16.6	43.8
18-Jan	A	2	1	1	16	6	1	6	6	9	2	5	4	6	11	18	19	11	6	12	6	6	1	A	7.1	19.4
19-Jan	5	4	2	2	2	3	3	1	1	1	4	2	2	28	16	15	47	31	47	18	11	7	A	3	11.1	47.4
20-Jan	4	2	4	5	7	14	19	20	7	9	4	9	10	6	2	2	5	7	5	4	6	A	17	46	9.3	46.1
21-Jan	9	9	12	12	21	23	21	11	22	51	22	13	6	21	4	13	15	12	12	21	A	33	38	11	18.0	50.8
22-Jan	37	14	11	3	1	4	3	2	6	2	5	3	2	1	5	5	4	2	5	A	3	1	1	2	5.3	37.4
23-Jan	7	1	2	3	2	2	3	1	1	6	24	3	8	6	2	18	21	21	A	36	3	2	3	4	7.8	35.6
24-Jan	2	5	4	3	4	8	5	5	7	5	5	17	11	4	8	22	3	A	8	5	6	78	8	4	9.8	78.3
25-Jan	5	4	2	2	2	2	8	7	2	3	2	1	5	7	8	8	A	8	14	3	2	2	2	2	4.3	13.9
26-Jan	3	1	1	2	2	5	30	17	4	2	6	5	3	4	26	A	17	28	7	8	7	8	2	2	8.4	29.9
27-Jan	3	3	2	2	5	2	2	2	3	5	1	7	5	5	A	16	11	5	2	2	2	1	6	2	4.2	16.1
28-Jan	0	1	1	4	3	1	1	1	1	2	1	1	1	1	A	2	2	1	1	2	2	5	7	18	2.6	17.9
29-Jan	4	2	3	3	14	11	14	16	4	4	7	11	A	11	7	5	5	3	41	13	68	24	7	12	12.6	68.1
30-Jan	13	11	18	14	16	35	32	27	79	55	41	A	18	37	35	17	13	9	44	20	26	28	16	14	26.9	79.5
31-Jan	20	29	47	17	23	20	87	113	44	67	A	31	57	77	75	16	35	18	71	227	98	25	19	22	53.8	227.4

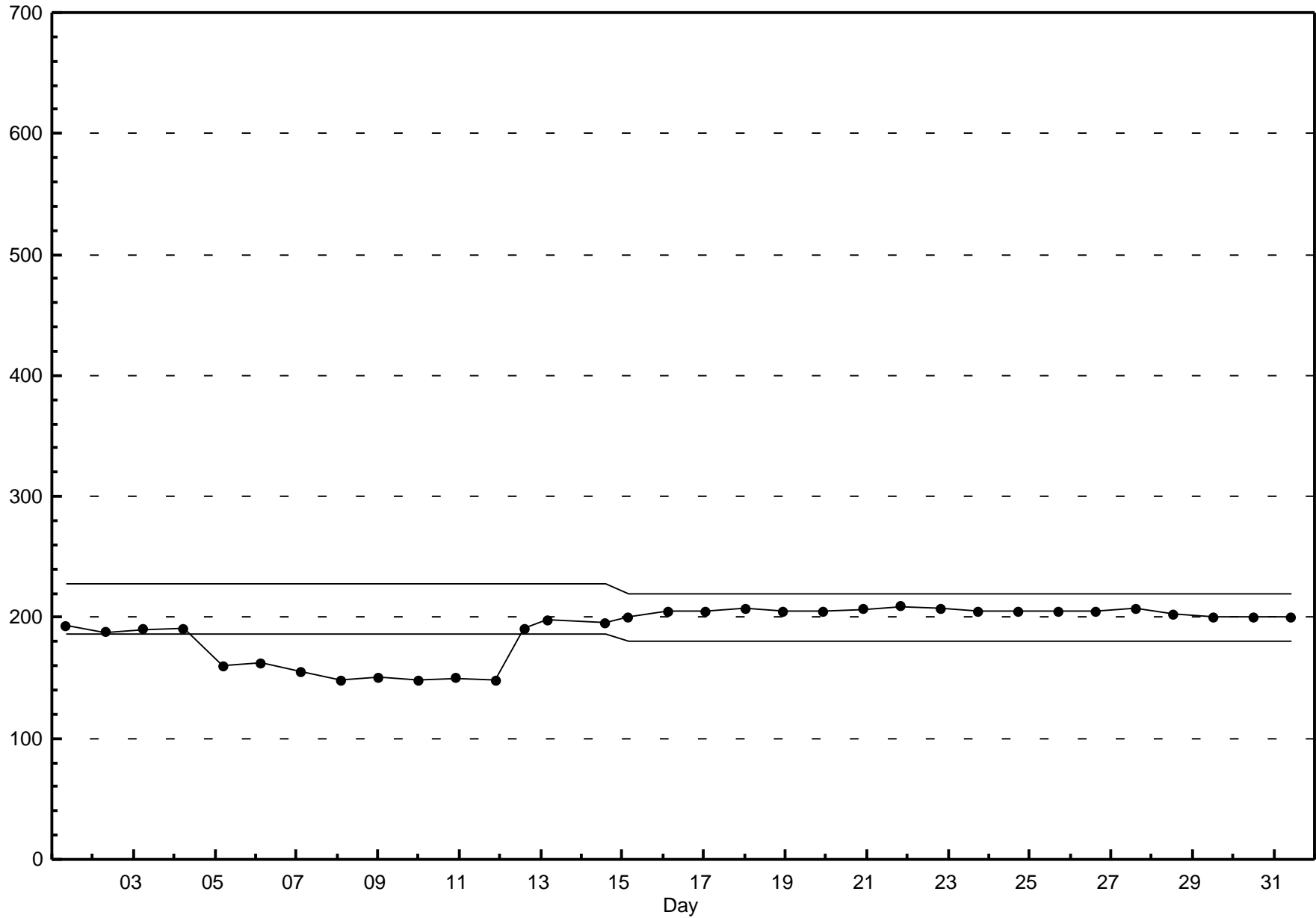
12.5	6.2	6.7	6.7	7.2	8.6	16.3	15.8	14.8	17.4	12.1	11.3	9.7	12.8	20.2	19.2	13.6	14.6	20.9	20.3	14.7	13.1	15.3	7.9	Diurnal Average	
153.1	29.4	46.9	25.6	23.0	35.5	86.5	113.2	94.6	84.4	45.7	40.3	56.5	76.8	174.5	268.7	47.4	50.8	167.4	227.4	98.2	78.3	230.5	46.1	Diurnal Maximum	

C - Calibration D - DAS Failure M - Maintenance A - Automated Daily Zero Span

Hourly Maximums

Oxides of Nitrogen (NO_x) - ppb
Portable-Bonanza - January 2011





Hourly Averages

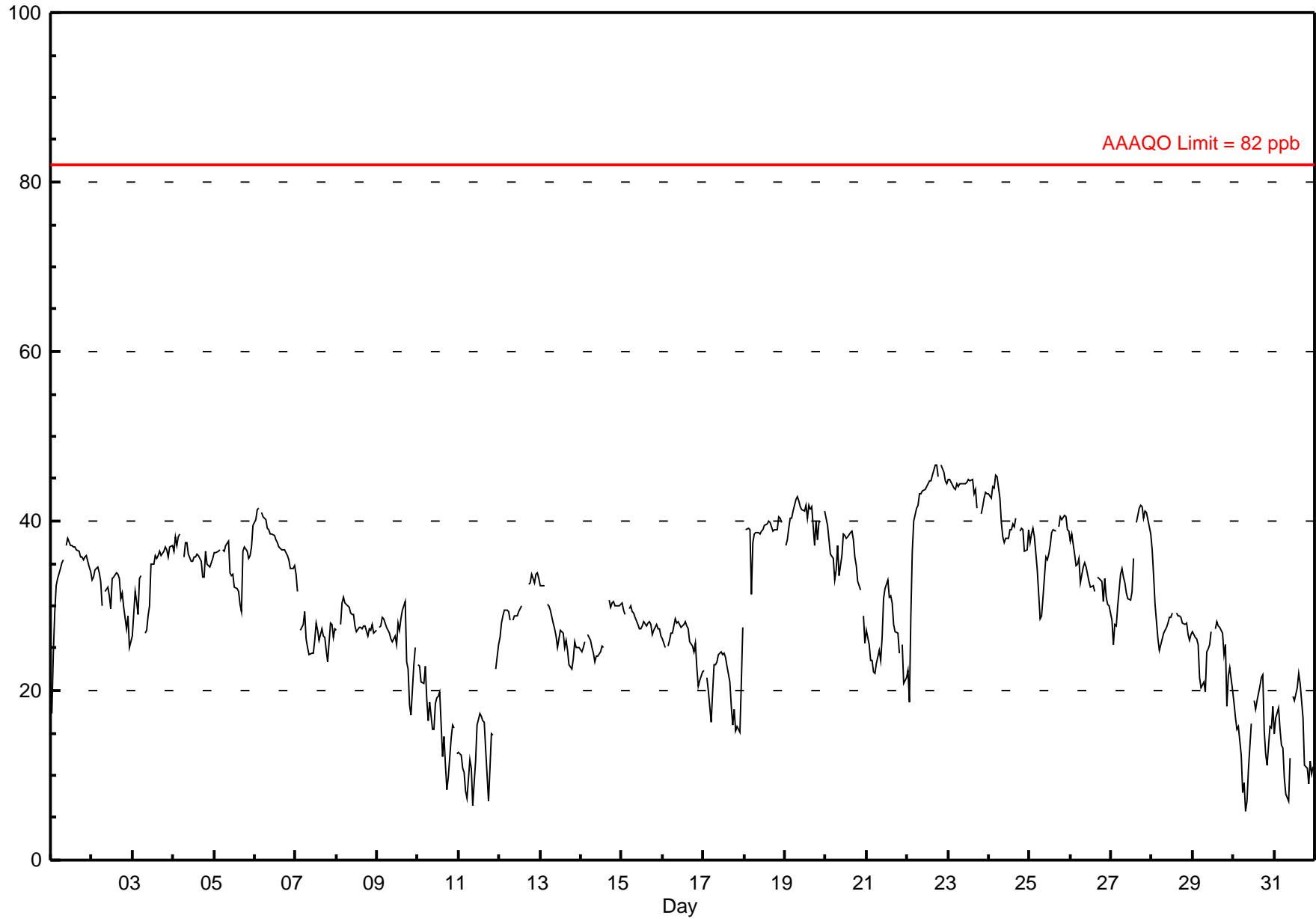
Ozone (O₃) - ppb

Portable-Bonanza - January 2011

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 46.6 ppb on Jan 22 17:00	Maximum Daily Average: 43.8 ppb on Jan 23		Hours of Data:	706
Minimum Value: 6 ppb on Jan 30 08:00	Minimum Daily Average: 13.2 ppb on Jan 11		Hours of Missing Data:	38
Maximum Diurnal Average: 31.5 ppb at hour 16	Minimum Diurnal Average: 28.7 ppb at hour 9		Hours of Calibration:	37
Monthly Average: 30.04 ppb	Percentiles: P ₁ = 7.9 P ₁₀ = 17.9 Q ₁ = 25.2 Median = 30.0 Q ₃ = 36.9 P ₉₀ = 40.5 P ₉₉ = 45.2		Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum																						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																								
1-Jan	17	24	29	32	33	34	35	35	A	37	38	37	37	37	37	36	36	36	35	36	36	35	34	34	34.1	38.0																						
2-Jan	33	33	34	35	34	33	30	A	32	32	31	30	33	33	34	34	33	31	32	30	27	29	25	26	31.5	34.6																						
3-Jan	26	32	30	29	33	34	A	27	27	29	30	35	35	36	36	36	37	36	36	37	37	36	37	37	33.3	37.1																						
4-Jan	36	38	37	38	38	A	36	37	37	36	35	35	36	36	36	36	35	33	33	36	35	35	35	36	36.0	38.4																						
5-Jan	36	36	36	37	A	37	36	37	38	34	33	34	32	32	32	30	29	36	37	36	36	36	37	40	35.1	39.5																						
6-Jan	40	41	42	A	41	40	40	39	39	39	38	38	38	37	37	37	37	37	36	36	35	34	34	35	37.9	41.6																						
7-Jan	34	32	A	27	28	29	26	25	24	24	24	26	28	27	26	27	26	26	25	23	28	28	26	27	26.9	33.7																						
8-Jan	27	A	28	30	31	30	30	30	29	29	28	27	27	27	27	27	28	28	26	27	27	28	27	27	28.2	31.0																						
9-Jan	A	27	28	29	28	27	27	27	26	26	26	25	28	27	29	29	30	23	23	18	17	23	25	A	25.9	30.4																						
10-Jan	23	23	21	21	23	19	16	19	15	15	18	19	19	20	12	15	11	8	10	14	16	16	A	13	16.8	23.1																						
11-Jan	13	12	11	10	8	7	12	11	6	9	12	16	17	17	16	16	13	7	11	15	15	A	22	25	13.2	25.5																						
12-Jan	26	28	29	29	30	29	28	D	28	29	29	29	30	30	C	C	C	33	33	34	33	34	34	33	30.3	33.9																						
13-Jan	32	32	32	A	30	30	29	28	27	27	25	26	27	27	25	26	25	23	23	24	26	25	25	25	26.9	32.4																						
14-Jan	25	25	26	A	27	26	25	24	23	24	24	25	25	25	C	C	31	30	30	31	30	30	30	30	26.9	30.7																						
15-Jan	30	30	29	A	30	30	29	29	29	28	27	27	28	28	28	28	28	28	27	27	28	27	27	26	28.2	30.4																						
16-Jan	26	25	A	25	26	27	27	28	28	28	28	27	28	28	28	27	26	25	25	26	23	21	21	22	25.8	28.4																						
17-Jan	22	A	22	20	16	20	23	23	23	24	25	24	24	24	23	21	18	16	18	15	16	15	21	27	20.9	27.4																						
18-Jan	A	39	39	39	31	37	38	39	39	39	39	40	40	40	40	39	39	39	39	40	40	40	40	A	38.8	40.5																						
19-Jan	37	38	39	40	40	41	43	43	42	42	41	41	42	40	42	41	42	37	40	38	40	40	A	41	40.5	43.0																						
20-Jan	40	40	38	36	36	33	34	37	34	36	38	38	38	38	39	39	38	36	35	33	32	A	29	26	35.7	40.4																						
21-Jan	27	25	24	24	22	22	23	25	24	26	31	32	33	31	31	30	28	27	27	24	A	25	21	22	26.3	33.0																						
22-Jan	22	19	29	36	40	41	42	43	43	44	44	44	44	45	45	45	47	47	45	A	47	46	45	44	41.2	46.6																						
23-Jan	45	45	45	44	44	44	44	44	44	44	44	45	45	45	45	43	44	41	A	41	42	43	43	43	43.8	45.0																						
24-Jan	43	43	44	44	45	45	43	40	38	37	38	38	39	39	40	39	40	A	39	39	39	36	37	39	40.2	45.4																						
25-Jan	37	38	39	38	34	31	28	29	31	36	35	36	37	39	39	39	A	39	41	40	41	40	39	39	36.8	40.7																						
26-Jan	38	38	36	35	35	36	33	35	35	35	34	33	32	32	32	A	33	33	33	31	33	31	30	30	33.5	38.4																						
27-Jan	28	25	28	28	30	34	34	33	33	32	31	31	32	36	A	40	42	42	42	40	41	41	39	38	34.7	41.9																						
28-Jan	37	34	30	26	25	25	26	27	27	28	29	29	29	A	29	29	29	29	28	28	27	26	27	27	28.2	36.6																						
29-Jan	27	26	26	25	21	20	21	20	25	25	25	27	A	27	28	28	27	27	24	25	18	22	23	20	24.3	28.1																						
30-Jan	18	17	15	16	12	8	9	6	7	11	16	A	19	18	19	20	21	22	15	13	11	16	16	18	14.9	21.9																						
31-Jan	15	17	18	15	13	13	10	8	7	12	A	19	19	20	22	21	19	17	11	11	9	12	10	11	14.3	22.1																						
																								29.8	30.5	30.5	30.0	29.5	29.5	29.3	29.2	28.7	29.5	30.7	31.1	31.4	31.4	31.3	31.5	30.7	29.7	29.3	28.9	29.5	30.0	29.6	29.7	Diurnal Average
																								44.9	44.8	44.5	44.0	45.4	45.3	44.0	44.5	44.3	44.4	44.4	44.6	44.9	44.8	45.0	45.5	46.6	46.5	45.2	40.9	46.6	45.7	44.8	44.5	Diurnal Maximum

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



Hourly Maximums

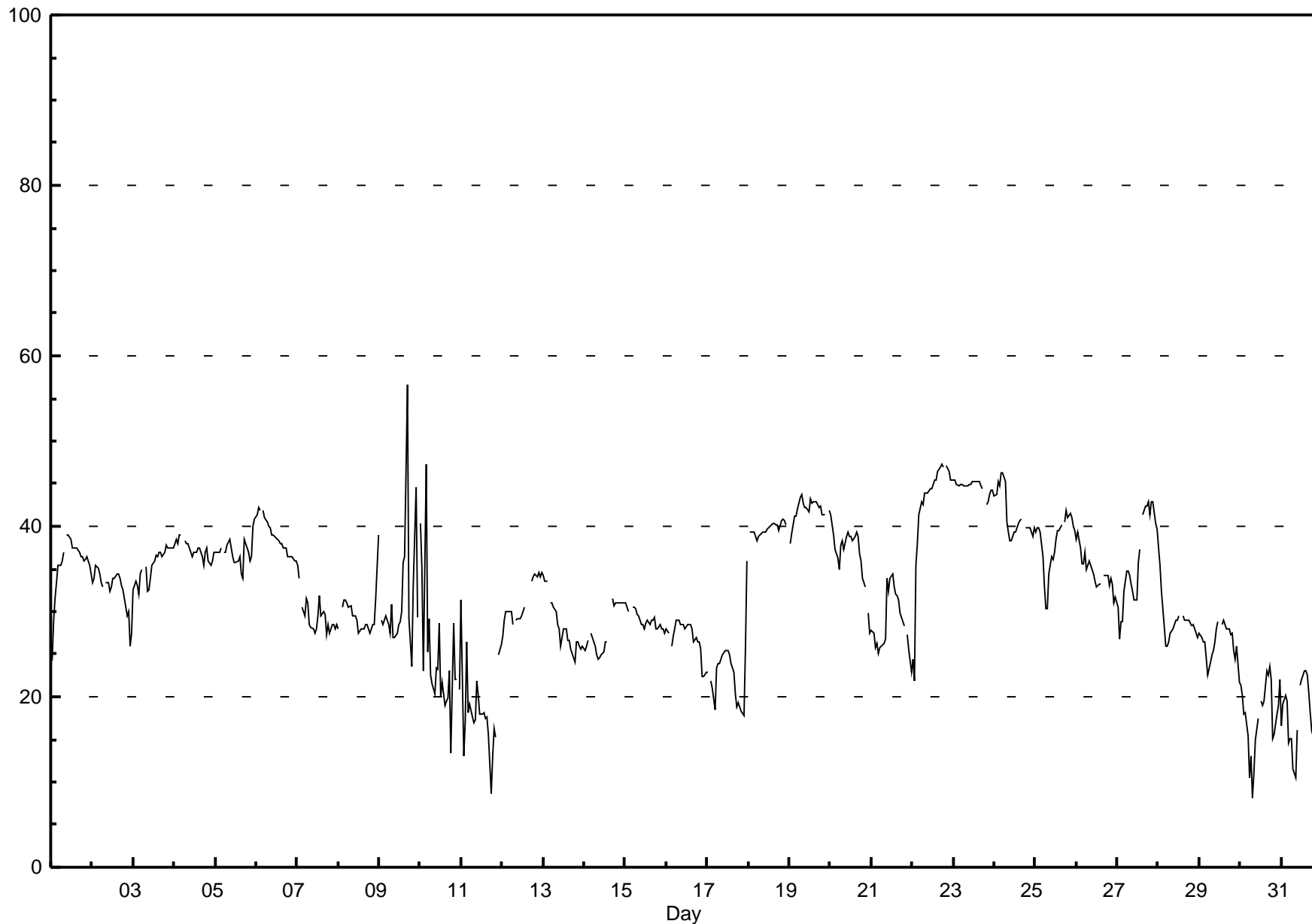
Ozone (O₃) - ppb

Portable-Bonanza - January 2011

Maximum Value: 56.6 ppb on Jan 9 17:00	Maximum Daily Average: 44.7 ppb on Jan 23	Hours in Service: 744
Minimum Value: 8 ppb on Jan 30 08:00	Minimum Daily Average: 17.0 ppb on Jan 31	Hours of Data: 706
Maximum Diurnal Average: 33.1 ppb at hour 17	Minimum Diurnal Average: 30.7 ppb at hour 9	Hours of Missing Data: 38
Monthly Average: 31.97 ppb	Percentiles: P ₁ = 11.8 P ₁₀ = 21.7 Q ₁ = 27.2 Median = 31.9 Q ₃ = 38.0 P ₉₀ = 41.9 P ₉₉ = 46.1	Hours of Calibration: 37
		Percent Operational Time: 99.9

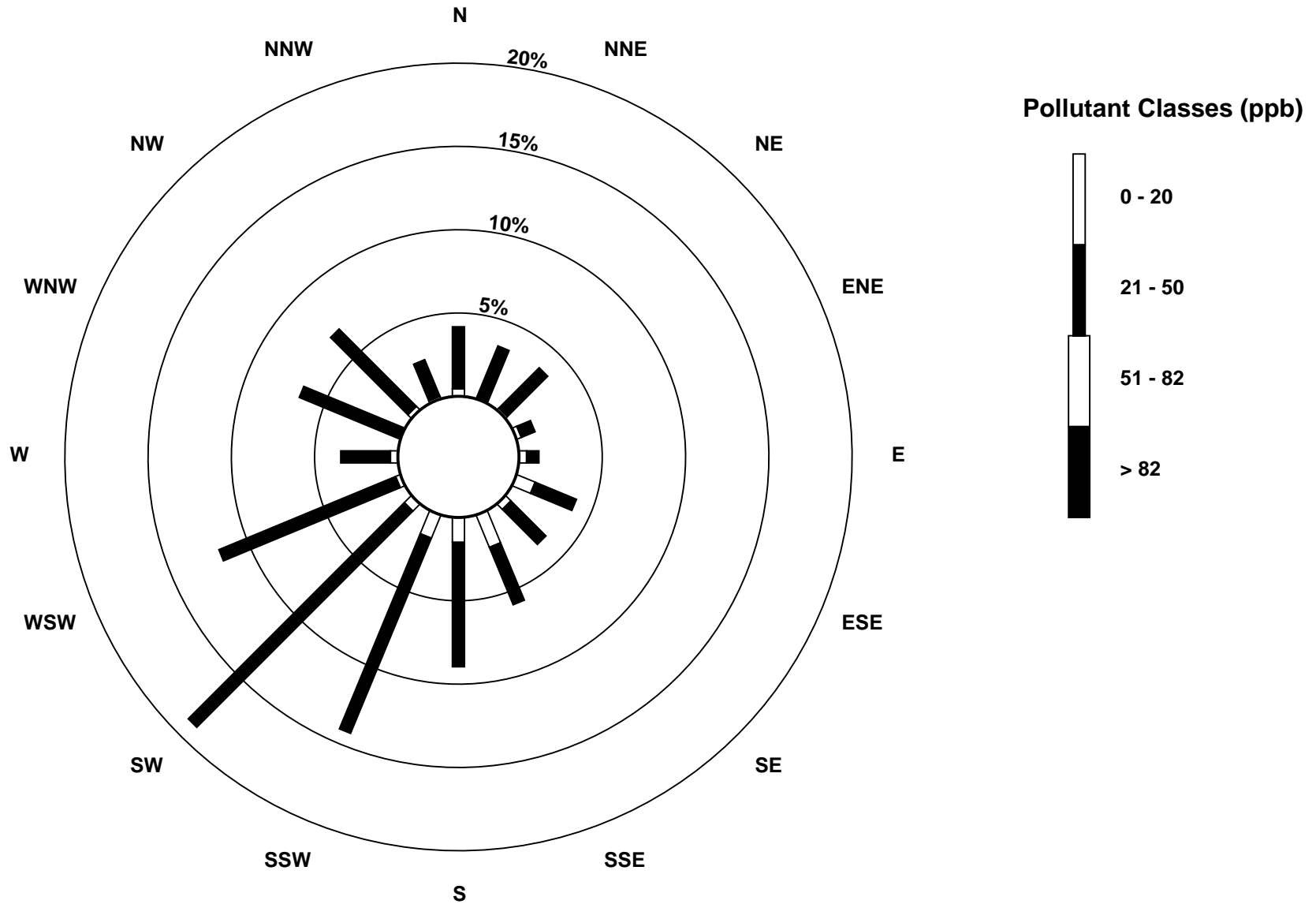
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum																						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																								
1-Jan	24	29	31	33	35	35	36	37	A	39	39	38	37	37	37	37	36	36	36	36	36	35	34	35.5	38.9																							
2-Jan	33	34	35	35	34	33	33	A	33	33	32	33	34	34	34	34	33	32	31	29	30	26	27	32.7	35.4																							
3-Jan	32	33	33	32	34	35	A	35	32	32	34	35	36	37	36	37	37	36	37	38	37	37	37	35.4	37.8																							
4-Jan	38	38	38	39	39	A	38	38	38	37	36	37	37	37	37	36	35	37	37	36	35	36	37	37.2	38.9																							
5-Jan	37	37	37	37	A	37	37	38	38	37	36	36	36	36	34	34	38	38	37	36	36	40	41	37.0	40.8																							
6-Jan	41	42	42	A	42	41	40	40	40	39	39	39	38	38	38	38	37	37	36	36	36	36	36	38.7	42.2																							
7-Jan	35	34	A	30	29	31	31	28	28	28	27	28	29	32	29	30	30	27	28	27	28	28	28	29.5	35.5																							
8-Jan	28	A	30	31	31	31	31	29	29	29	27	28	28	28	28	28	28	27	28	28	28	31	39	29.6	39.0																							
9-Jan	A	29	28	29	29	28	27	31	27	27	27	28	29	30	36	37	57	29	26	24	33	45	29	A	31.2	56.6																						
10-Jan	40	35	23	47	25	29	23	22	20	23	23	29	20	22	19	19	20	23	13	29	22	22	A	21	24.8	47.2																						
11-Jan	31	13	17	26	18	19	18	17	17	22	20	18	18	17	18	16	9	13	16	15	A	25	26	18.6	31.3																							
12-Jan	27	29	30	30	30	30	29	D	29	29	29	30	30	31	C	C	C	33	34	34	34	35	34	35	31.1	34.5																						
13-Jan	34	34	34	A	31	31	30	30	29	28	26	27	28	28	27	27	26	25	24	26	26	26	26	26	28.1	34.2																						
14-Jan	26	26	27	A	28	26	26	25	24	25	25	25	26	27	C	C	31	31	31	31	31	31	31	31	27.8	31.5																						
15-Jan	31	30	30	A	31	31	30	30	30	29	29	28	29	29	29	29	29	29	28	28	29	28	28	27	29.1	31.0																						
16-Jan	28	28	A	26	27	28	29	29	29	29	28	28	29	29	28	28	26	27	26	26	26	22	22	23	27.0	29.0																						
17-Jan	23	A	22	21	18	23	24	24	24	25	25	25	25	25	24	23	20	19	19	19	18	18	26	36	23.0	35.9																						
18-Jan	A	39	39	39	39	38	39	39	39	39	40	40	40	40	40	40	40	39	41	41	41	41	40	A	39.7	40.9																						
19-Jan	38	39	40	41	41	42	43	44	43	42	42	42	43	43	43	43	43	42	42	41	41	41	41	A	42	41.9	43.7																					
20-Jan	41	40	39	37	36	35	38	38	37	39	39	39	39	38	39	39	39	37	36	34	33	A	30	28	37.0	41.3																						
21-Jan	28	27	26	26	25	26	26	26	27	34	32	34	34	33	32	32	31	30	29	28	A	27	26	23	28.8	34.4																						
22-Jan	24	22	35	38	41	43	43	44	44	44	44	44	45	45	45	46	47	47	47	A	47	46	45	45	42.4	47.4																						
23-Jan	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	44	A	42	43	44	44	44	44.7	45.4																						
24-Jan	44	44	45	45	46	46	45	40	39	38	38	39	39	40	40	41	41	A	40	40	40	40	39	40	41.3	46.3																						
25-Jan	39	40	40	39	36	33	30	30	34	36	36	37	38	39	39	40	A	40	42	41	41	41	40	39	38.0	41.9																						
26-Jan	38	39	37	36	36	37	35	36	35	35	34	34	33	33	33	A	34	34	34	33	34	33	31	32	34.7	39.4																						
27-Jan	30	27	29	29	32	35	35	34	33	32	31	31	36	37	A	41	42	42	43	41	43	43	40	40	36.0	42.9																						
28-Jan	37	35	32	28	26	26	26	27	28	29	29	30	30	A	30	29	29	29	29	28	29	28	28	27	29.1	37.4																						
29-Jan	28	27	27	27	25	22	24	25	25	26	28	29	A	29	29	29	28	28	27	28	25	24	26	22	26.4	29.0																						
30-Jan	21	20	18	18	16	11	13	8	11	15	18	A	20	19	20	23	23	24	22	15	16	18	19	22	17.7	23.6																						
31-Jan	17	19	20	20	15	15	15	12	11	16	A	21	22	23	23	23	21	18	16	17	13	13	12	12	17.0	23.1																						
																								32.5	32.3	32.1	32.8	31.4	31.5	31.3	31.1	30.7	31.7	32.1	32.6	32.4	32.7	32.7	33.1	33.1	31.8	31.2	31.2	31.6	32.3	31.4	31.7	Diurnal Average
																								45.4	45.3	45.2	47.2	46.3	46.3	45.2	44.8	44.8	44.8	44.8	45.3	45.3	45.4	45.4	46.4	56.6	47.4	46.9	42.5	47.0	46.4	45.4	45.3	Diurnal Maximum

C - Calibration D - DAS Failure A - Automated Daily Zero Span



Pollutant Rose

Ozone (O₃) - ppb
Portable-Bonanza - January 2011

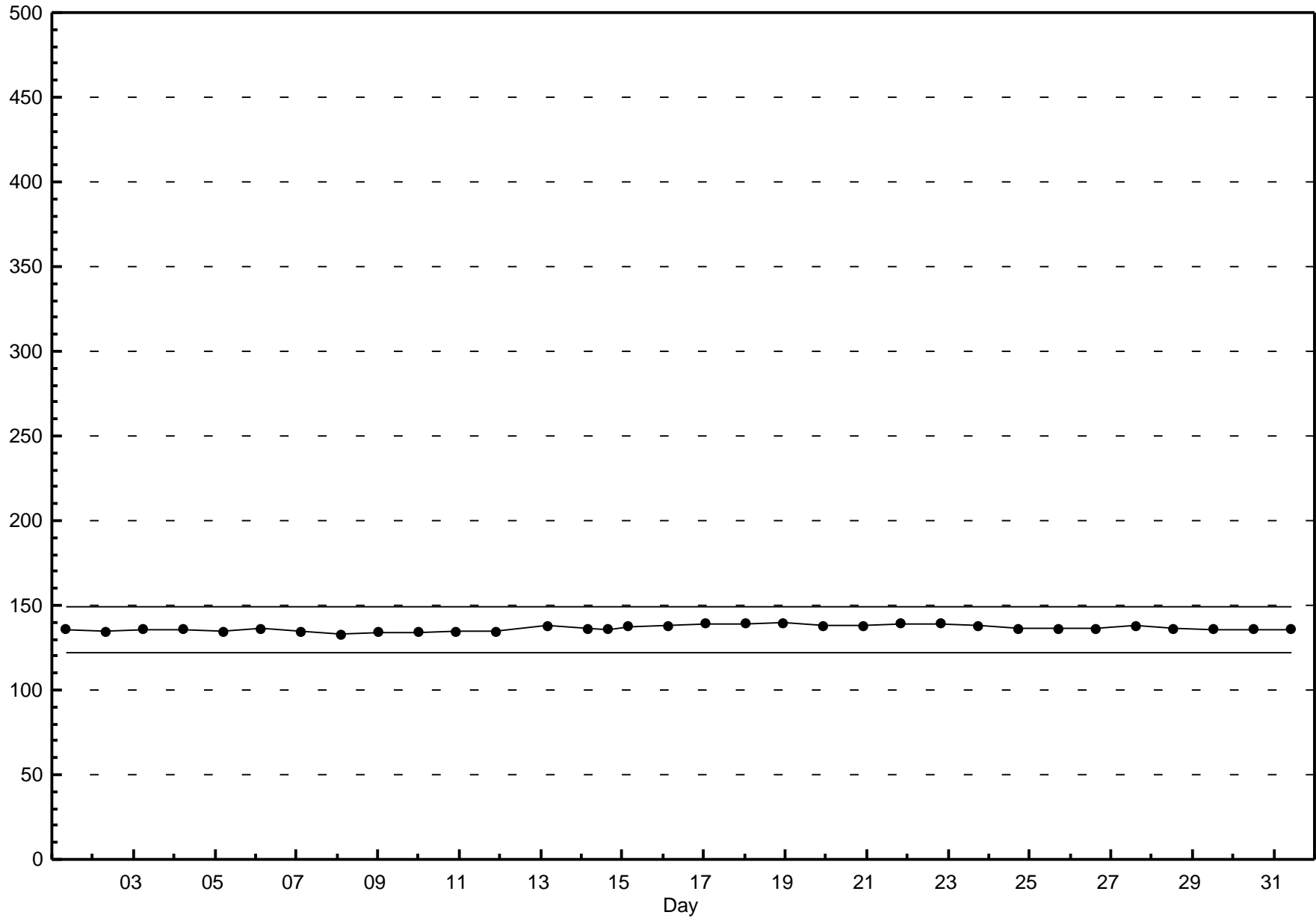


Eight Hour Running Averages

Ozone (O₃) - ppb

Portable-Bonanza - January 2011

Maximum Value: 45.8 ppb on Jan 22 23:00																						Hours in Service:	744		
Minimum Value: 9.4 ppb on Jan 11 10:00																						Hours of Data:	738		
Percentiles: P ₁ = 10.6 P ₁₀ = 17.8 Q ₁ = 25.6 Median = 29.8 Q ₃ = 36.7 P ₉₀ = 39.9 P ₉₉ = 45.1																						Hours of Missing Data:	6		
																						Hours of Calibration:	6		
																						Percent Operational Time:	100.0		
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jan	26	26	25	26	26	27	28	30	32	34	35	36	37	37	37	37	37	37	36	36	36	36	35	37.1	
2-Jan	35	35	35	34	34	34	33	33	33	33	32	32	32	32	32	33	32	32	32	32	32	31	30	29	35.1
3-Jan	28	28	28	28	29	29	30	30	30	30	31	31	31	32	33	34	35	36	36	36	36	36	36	37	36.5
4-Jan	37	37	37	37	37	37	37	37	37	37	37	37	36	36	36	36	36	35	35	35	35	35	35	35	37.5
5-Jan	35	35	36	36	36	36	36	37	37	36	36	36	35	35	34	33	32	32	33	33	34	34	35	36	36.7
6-Jan	37	38	38	39	40	40	41	41	40	40	40	39	39	39	38	38	38	37	37	37	36	36	36	36	40.6
7-Jan	35	35	34	33	32	31	30	29	27	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	35.2
8-Jan	26	26	27	28	28	29	29	30	30	30	30	29	29	28	28	28	28	27	27	27	27	27	27	27	29.8
9-Jan	27	27	27	28	28	28	28	28	28	27	27	27	27	27	27	27	28	27	27	26	25	24	24	23	27.7
10-Jan	22	22	22	22	23	22	21	21	20	19	18	18	18	18	17	17	16	15	14	14	13	13	13	13	22.7
11-Jan	13	13	13	13	12	11	11	11	10	9	9	10	11	13	13	14	15	14	14	14	14	13	14	15	15.5
12-Jan	17	20	23	25	27	27	28	29	29	29	29	29	29	29	29	29	N	N	N	N	N	N	33	33	33.2
13-Jan	33	33	33	33	33	32	31	31	30	29	28	28	27	27	27	26	26	25	25	25	25	24	24	24	33.1
14-Jan	24	25	25	25	25	25	25	25	25	25	25	25	25	25	24	24	26	27	28	29	29	30	30	30	30.3
15-Jan	30	30	30	30	30	30	30	30	29	29	29	29	28	28	28	28	28	28	28	28	28	28	27	27	30.2
16-Jan	27	27	27	26	26	26	26	26	27	27	27	27	28	28	28	28	28	27	27	26	26	25	24	23	27.9
17-Jan	23	23	22	22	21	20	21	21	21	22	22	23	24	24	24	23	22	21	20	19	18	17	18	18	23.9
18-Jan	18	22	25	28	30	33	36	38	38	38	38	38	39	39	39	39	39	39	39	39	39	40	40	40	39.6
19-Jan	39	39	39	39	39	39	40	40	41	41	42	42	42	42	42	41	41	41	41	40	40	40	40	40	41.9
20-Jan	39	40	40	39	39	38	37	37	36	35	36	36	36	37	37	37	38	38	38	37	36	36	34	32	39.8
21-Jan	31	29	28	27	25	25	24	24	24	24	25	26	27	28	29	30	30	30	30	29	28	28	26	25	30.9
22-Jan	24	23	23	25	27	29	31	34	37	40	42	43	43	44	44	44	45	45	45	45	46	46	46	46	45.8
23-Jan	45	45	45	45	45	44	44	44	44	44	44	44	44	44	45	44	44	44	44	43	43	43	42	42	45.5
24-Jan	42	43	43	43	44	44	44	43	43	42	41	41	40	39	39	39	39	39	39	39	39	39	39	38	43.9
25-Jan	38	38	38	38	37	37	36	35	34	33	33	33	33	34	35	36	37	38	39	39	40	40	40	40	39.9
26-Jan	40	39	39	38	37	37	36	36	35	35	34	34	34	34	33	33	33	33	33	32	32	32	32	32	39.6
27-Jan	31	30	30	29	29	29	30	30	31	31	32	32	32	33	32	33	35	36	38	39	40	41	41	41	41.1
28-Jan	40	39	38	36	34	32	30	29	28	27	27	27	28	28	28	29	29	29	29	29	28	28	28	28	40.1
29-Jan	27	27	27	26	26	25	24	23	23	23	23	23	23	24	25	26	27	27	27	27	26	25	24	23	27.3
30-Jan	22	21	20	19	18	16	14	13	11	11	11	10	11	12	14	16	18	19	19	18	17	17	17	16	22.2
31-Jan	16	15	15	16	16	16	15	14	13	12	11	12	13	14	15	17	19	20	19	17	16	15	14	12	19.6
45.5 45.2 45.1 45.0 44.6 44.4 44.3 44.3 44.3 44.2 44.2 44.3 44.4 44.5 44.6 44.5 44.7 45.1 45.2 45.4 45.7 45.8 45.8 45.7																									
Diurnal Maximums																									
N - Not Valid																									



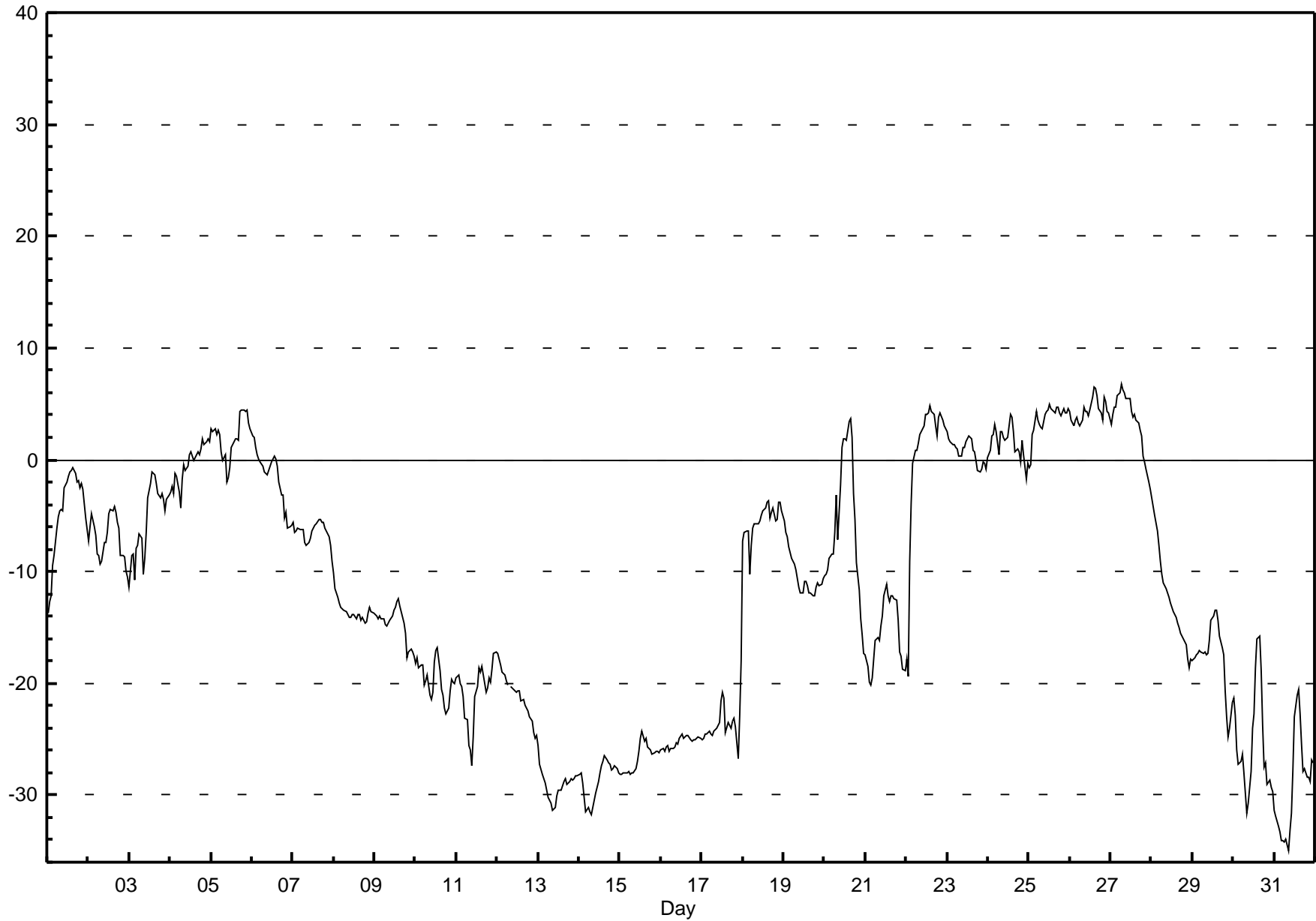
Hourly Averages

External Temperature (ET) - °C
Portable-Bonanza - January 2011

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 6.8 °C on Jan 27 07:00	Maximum Daily Average: 4.4 °C on Jan 26		Hours of Data:	743
Minimum Value: -35 °C on Jan 31 09:00	Minimum Daily Average: -29.2 °C on Jan 31		Hours of Missing Data:	1
Maximum Diurnal Average: -9.3 °C at hour 14	Minimum Diurnal Average: -12.6 °C at hour 23		Hours of Calibration:	0
Monthly Average: -11.41 °C	Percentiles: P ₁ = -32.8 P ₁₀ = -27.6 Q ₁ = -21.2 Median = -11.1 Q ₃ = -0.6 P ₉₀ = 3.2 P ₉₉ = 5.6		Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jan	-14	-13	-12	-9	-9	-6	-5	-5	-4	-5	-3	-2	-1	-1	-1	-1	-2	-2	-3	-2	-3	-5	-6	-4.7	-0.7		
2-Jan	-7	-6	-5	-6	-7	-8	-9	-9	-9	-7	-7	-7	-5	-4	-5	-4	-5	-6	-6	-9	-9	-9	-10	-11	-7.0	-4.2	
3-Jan	-11	-9	-8	-11	-8	-8	-7	-7	-10	-9	-6	-3	-2	-1	-1	-1	-2	-3	-3	-3	-4	-5	-3	-3	-5.4	-1.1	
4-Jan	-3	-2	-3	-1	-2	-3	-4	-2	0	-1	-1	0	1	0	0	0	1	0	1	2	1	2	2	2	-0.4	1.9	
5-Jan	3	2	3	2	3	2	1	0	0	-2	-2	-1	1	2	2	2	2	4	4	4	4	4	3	3	2.0	4.5	
6-Jan	2	2	1	0	0	0	-1	-1	-1	-1	-1	0	0	0	0	-1	-2	-3	-3	-5	-5	-6	-6	-6	-1.5	2.2	
7-Jan	-6	-7	-6	-6	-6	-6	-6	-7	-8	-7	-7	-6	-6	-6	-6	-5	-5	-6	-6	-6	-7	-7	-8	-9	-6.5	-5.3	
8-Jan	-10	-11	-12	-13	-13	-13	-13	-14	-14	-14	-14	-14	-14	-14	-14	-14	-14	-14	-15	-15	-14	-13	-14	-14	-13.5	-10.0	
9-Jan	-14	-14	-14	-14	-14	-14	-15	-15	-15	-14	-14	-13	-13	-13	-12	-13	-14	-15	-16	-18	-17	-17	-17	-18	-14.7	-12.4	
10-Jan	-18	-18	-19	-18	-18	-20	-20	-19	-21	-21	-21	-18	-17	-17	-19	-20	-21	-22	-23	-22	-21	-20	-20	-20	-19.7	-16.8	
11-Jan	-19	-19	-20	-20	-21	-23	-23	-26	-26	-27	-25	-21	-20	-19	-19	-18	-19	-21	-20	-19	-20	-19	-17	-17	-20.9	-17.1	
12-Jan	-17	-18	-18	-19	-19	-20	-20	D	-20	-20	-21	-21	-21	-21	-22	-21	-22	-22	-23	-23	-23	-24	-25	-25	-21.1	-17.3	
13-Jan	-26	-27	-28	-29	-29	-30	-30	-31	-31	-31	-31	-30	-30	-30	-29	-29	-29	-29	-29	-29	-29	-28	-28	-28	-29.1	-25.5	
14-Jan	-28	-28	-29	-30	-31	-31	-32	-32	-31	-30	-30	-29	-28	-27	-27	-26	-27	-27	-27	-28	-28	-27	-28	-28	-28.7	-26.5	
15-Jan	-28	-28	-28	-28	-28	-28	-28	-28	-28	-28	-27	-26	-25	-24	-25	-25	-26	-26	-26	-26	-26	-26	-26	-26	-26.7	-24.3	
16-Jan	-26	-26	-26	-26	-26	-26	-26	-26	-26	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25.3	-24.6	
17-Jan	-25	-25	-25	-25	-24	-25	-25	-24	-24	-24	-24	-22	-21	-21	-24	-23	-24	-24	-23	-23	-24	-27	-23	-18	-23.6	-17.9	
18-Jan	-7	-7	-6	-6	-10	-8	-6	-6	-6	-6	-5	-5	-5	-4	-4	-4	-5	-5	-4	-5	-4	-4	-5	-5	-5.5	-3.7	
19-Jan	-6	-6	-7	-8	-8	-9	-9	-10	-11	-11	-12	-12	-11	-11	-11	-12	-12	-12	-11	-11	-11	-11	-11	-11	-10.2	-5.5	
20-Jan	-10	-10	-10	-9	-8	-8	-7	-3	-7	-2	1	2	2	2	3	4	2	-3	-5	-9	-12	-14	-16	-17	-5.7	3.6	
21-Jan	-17	-19	-20	-20	-20	-18	-16	-16	-16	-15	-14	-12	-11	-12	-13	-12	-12	-12	-13	-14	-17	-18	-19	-19	-15.6	-11.2	
22-Jan	-18	-19	-9	-4	0	1	1	2	2	3	3	4	4	4	5	4	4	4	3	2	4	4	4	3	0.4	4.8	
23-Jan	2	2	2	1	1	1	1	0	0	1	1	2	2	2	2	1	1	0	-1	-1	-1	0	0	-1	0.8	2.5	
24-Jan	0	1	2	2	3	3	1	2	2	2	2	2	3	4	4	2	1	1	1	0	2	1	-2	0	1.6	4.1	
25-Jan	-1	0	2	3	4	4	3	3	3	4	4	4	5	5	5	4	5	5	4	4	5	4	4	5	3.6	4.9	
26-Jan	4	4	3	4	4	3	3	4	5	4	4	4	4	6	7	6	6	5	4	3	6	5	4	4	4.4	6.5	
27-Jan	3	4	5	5	6	6	7	6	6	5	6	5	4	4	4	4	3	3	2	0	0	-1	-2	-3	3.4	6.8	
28-Jan	-3	-4	-5	-6	-8	-9	-10	-11	-11	-12	-12	-13	-13	-14	-14	-15	-15	-16	-16	-16	-17	-18	-19	-18	-12.3	-3.5	
29-Jan	-18	-18	-17	-17	-17	-17	-17	-17	-17	-17	-16	-14	-13	-13	-13	-14	-14	-16	-17	-17	-21	-23	-25	-24	-22	-17.7	-13.4
30-Jan	-21	-23	-26	-27	-27	-26	-28	-30	-32	-31	-28	-24	-23	-19	-16	-16	-19	-24	-27	-27	-29	-29	-29	-30	-25.4	-15.8	
31-Jan	-31	-32	-33	-33	-34	-34	-34	-34	-35	-33	-32	-28	-23	-21	-21	-23	-25	-28	-28	-28	-28	-29	-27	-27	-29.2	-20.6	
																								Diurnal Average			
																								Diurnal Maximum			

D - DAS Failure





PASZA

Peace Air Shed Zone Association

Hourly Averages

Wind Speed (km/h)

Wind Direction (deg)

Portable-Bonanza - January 2011

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	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	7	5	6	8	8	11	11	9	11	10	26	25	23	22	21	21	22	20	21	20	24	23	15	14	14.3	26.1
Dir	229	187	188	192	176	184	195	196	199	237	243	242	255	259	253	256	263	257	260	257	263	266	271	262	245	243
2 Spd	9	14	11	15	18	13	8	7	10	12	4	2	7	11	13	13	8	9	8	10	10	9	10	9.7	18.4	
Dir	240	256	230	212	215	226	214	199	192	194	208	193	204	217	215	207	201	194	201	186	185	191	196	189	209	215
3 Spd	7	10	11	9	14	10	8	5	5	5	6	10	11	12	13	13	12	11	15	17	10	7	13	15	10.2	17.3
Dir	181	193	206	179	187	177	183	180	179	178	184	188	199	203	206	210	206	202	209	209	211	215	214	217	199	209
4 Spd	15	20	9	11	9	6	5	16	19	12	8	8	7	12	11	8	9	9	14	32	28	14	23	27	13.2	32.2
Dir	215	241	219	194	185	198	226	219	218	232	223	221	222	232	245	188	197	196	228	236	236	214	237	241	225	236
5 Spd	38	34	29	25	27	30	22	24	25	8	11	12	4	5	6	10	11	15	16	20	27	26	38	48	19.1	47.7
Dir	240	242	238	237	230	225	226	225	226	249	237	232	187	197	161	128	128	173	174	192	206	208	242	230	222	230
6 Spd	47	52	43	45	37	34	29	27	28	22	27	33	32	31	25	21	19	17	19	12	6	5	6	5	25.4	51.8
Dir	231	239	238	229	228	236	234	226	226	215	222	229	234	233	236	235	230	230	232	233	196	155	164	187	230	239
7 Spd	4	5	8	7	9	7	5	6	6	5	9	8	11	13	14	10	10	14	15	19	17	13	13	21	7.5	21.1
Dir	163	132	120	121	123	108	96	32	25	16	15	23	9	11	12	20	8	3	7	15	31	29	328	323	21	323
8 Spd	22	24	23	22	20	16	15	14	15	13	14	15	17	16	15	16	14	14	10	9	11	8	5	3	14.1	23.7
Dir	321	314	314	324	326	325	326	323	322	322	310	309	302	306	304	309	313	319	330	327	319	352	44	37	319	314
9 Spd	4	5	6	9	7	7	8	5	6	8	9	9	7	4	3	1	1	3	4	4	2	1	2	3	3.1	9.3
Dir	340	325	302	314	295	278	283	276	287	317	344	12	8	8	33	358	253	173	200	165	217	230	219	198	310	12
10 Spd	2	1	3	2	6	3	4	4	3	4	2	1	3	3	2	2	3	2	2	1	2	2	1	3	1.6	5.6
Dir	189	254	114	198	175	199	174	180	171	163	138	266	245	269	159	118	192	89	161	168	55	306	264	277	186	175
11 Spd	2	2	3	1	1	2	6	4	4	2	3	5	5	5	5	8	10	9	11	9	7	13	14	14	3.2	13.9
Dir	94	255	307	6	99	152	149	143	141	173	156	183	205	201	205	187	213	213	208	205	215	265	311	317	219	317
12 Spd	13	14	11	14	14	13	14	D	14	13	13	14	15	15	16	18	17	17	18	20	18	15	12	14	14.3	20.0
Dir	324	325	317	317	325	329	330	D	352	356	350	340	339	325	311	314	315	310	312	313	309	303	292	289	321	313
13 Spd	14	8	9	11	12	10	9	8	8	9	6	4	3	4	5	4	2	3	3	2	4	3	4	4	5.2	13.7
Dir	291	254	223	206	210	219	198	202	181	194	197	202	223	241	296	307	270	229	250	198	221	188	200	206	222	291
14 Spd	5	6	6	5	6	8	9	8	7	6	4	2	4	5	7	11	9	10	9	7	6	8	8	9	1.2	10.8
Dir	209	220	215	222	200	196	185	192	183	195	189	243	323	356	11	30	40	40	44	70	50	41	52	56	86	30
15 Spd	9	6	5	6	6	6	7	6	5	7	7	5	3	3	7	7	9	8	4	6	6	4	6	8	5.1	8.6
Dir	56	56	46	41	44	34	51	53	75	119	120	118	69	5	6	22	21	17	87	79	55	35	16	6	48	21
16 Spd	7	8	9	6	5	6	6	4	3	6	5	4	3	4	4	4	1	2	3	4	5	6	6	5	2.2	8.7
Dir	15	8	6	3	336	280	265	283	253	318	287	300	258	248	227	245	1	132	181	195	214	219	208	185	280	6
17 Spd	5	4	5	6	6	8	7	9	9	10	7	2	3	6	8	8	6	7	7	4	3	3	6	8	3.4	9.5
Dir	191	158	121	118	122	112	102	111	109	103	109	78	293	318	250	215	180	155	119	78	149	3	164	238	138	103
18 Spd	40	42	44	38	11	23	29	31	31	28	24	21	23	22	22	19	16	19	15	20	28	34	24	24	25.4	43.8
Dir	252	248	247	255	289	258	251	252	251	245	238	230	240	240	243	238	231	212	222	229	235	246	253	287	246	247
19 Spd	20	13	13	13	8	9	18	13	8	9	8	9	9	8	8	8	7	4	8	11	16	15	16	16	2.9	19.7
Dir	305	306	277	287	289	300	332	347	339	297	289	295	275	263	229	218	207	134	118	119	130	129	130	134	276	305
20 Spd	14	14	10	9	4	6	6	9	5	25	33	28	31	39	41	36	21	15	11	14	10	8	2	1	11.3	41.1
Dir	136	132	143	153	307	70	166	161	222	222	223	221	231	231	236	242	273	324	311	303	290	246	241	156	231	236
21 Spd	4	4	2	3	4	6	4	4	3	10	12	9	9	8	6	8	7	6	6	3	9	4	3	5	3.1	11.8
Dir	177	185	186	115	66	48	35	17	9	127	106	54	31	1	337	2	4	10	1	79	5	93	154	184	49	106
22 Spd	5	4	14	16	32	37	31	32	29	29	34	43	45	32	19	22	29	27	20	38	53	51	46	43	30.0	53.0
Dir	171	170	198	222	233	230	218	219	213	214	221	219	224	220	201	217	231	226	235	227	227	224	220	230	222	227

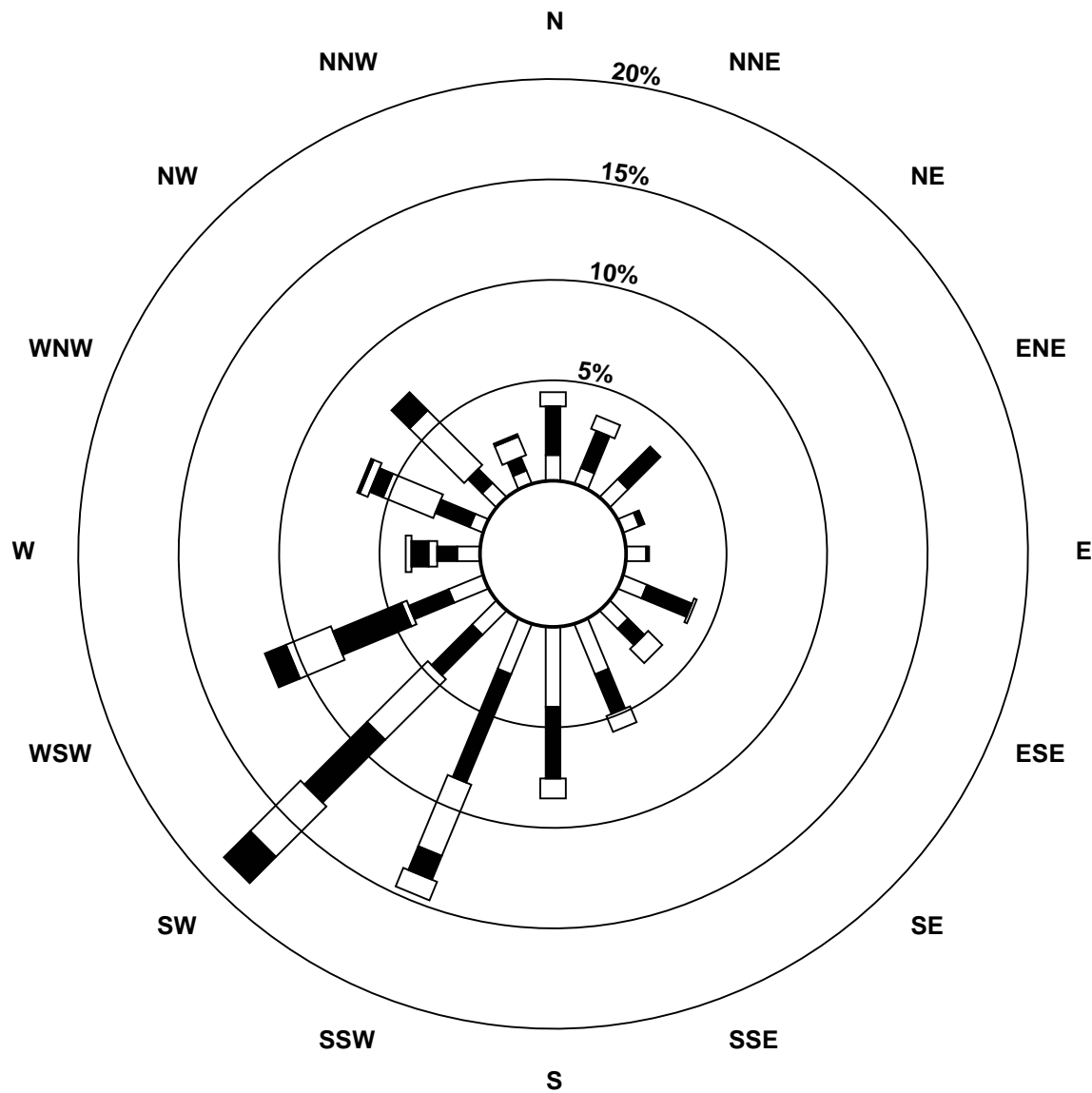
Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Portable-Bonanza - January 2011

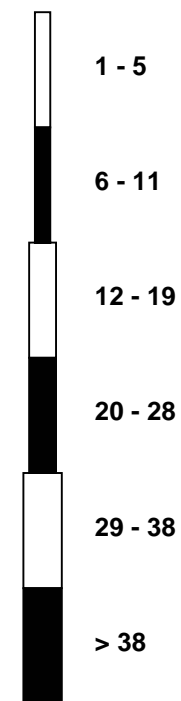
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	39	31	31	30	32	32	30	24	22	27	30	29	26	15	16	16	12	9	10	12	12	12	12	13	19.7	38.7
Dir	241	237	233	225	229	235	238	238	244	244	243	240	237	223	220	234	212	197	192	171	171	169	161	143	227	241
24 Spd	11	10	12	15	21	17	23	34	30	27	28	22	24	20	19	17	11	5	12	14	10	3	3	7	14.5	34.0
Dir	145	142	148	167	197	208	235	238	234	234	225	224	228	231	234	242	258	259	229	224	196	161	182	172	219	238
25 Spd	7	10	11	14	21	24	22	26	22	36	41	27	19	26	23	17	16	17	21	18	14	15	18	16	19.3	40.8
Dir	168	157	153	187	204	215	220	223	212	221	223	217	215	226	232	221	209	206	219	208	203	208	209	196	212	223
26 Spd	10	10	11	11	11	8	11	14	20	21	20	18	15	8	5	5	20	20	15	2	7	7	9	8	10.4	21.5
Dir	168	183	145	158	171	208	213	213	205	211	214	225	216	240	247	206	257	240	225	153	205	186	152	157	207	211
27 Spd	9	13	13	14	11	19	24	31	32	34	34	32	36	41	38	39	39	36	36	31	31	39	29	30	22.4	41.0
Dir	137	149	150	148	177	210	202	208	209	212	212	212	234	233	232	233	240	241	259	280	286	300	301	302	236	233
28 Spd	27	24	19	22	21	22	21	17	16	14	14	15	16	15	16	15	13	10	9	9	9	7	6	7	15.1	27.0
Dir	302	301	302	307	305	301	303	301	300	295	288	299	290	288	288	290	295	293	298	286	280	258	251	226	295	302
29 Spd	8	7	6	4	4	2	3	6	5	4	2	3	3	4	4	3	1	1	3	5	5	4	5	2	0.5	7.6
Dir	222	237	239	266	17	343	343	1	13	343	323	4	16	42	41	46	186	233	132	104	107	140	144	147	23	222
30 Spd	2	2	3	3	5	3	1	2	2	1	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	5.2
Dir	148	165	111	201	172	154	180	229	116	78	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	172
31 Spd	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
Dir	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
Spd	7.8	8.1	7.4	7.5	7.9	8.6	8.3	9.4	8.8	9.4	10.9	10.1	10.6	10.5	9.7	8.5	8.0	6.4	6.9	6.8	7.4	6.5	7.4	7.6	Diurnal Average	
Dir	242	242	232	229	227	234	235	230	228	229	231	235	243	245	245	243	246	240	238	234	234	235	235	240	Diurnal Maximum	
Spd	47.0	51.8	43.8	44.7	37.5	36.9	31.0	34.0	31.9	35.6	40.8	42.7	44.7	41.0	41.1	38.6	38.7	36.3	35.6	37.8	53.0	50.9	45.9	47.7	Diurnal Maximum	
Dir	231	239	247	229	228	230	218	238	209	221	223	219	224	233	236	233	240	241	259	227	227	224	220	230	Diurnal Maximum	
Maximum Speed Value: 53 km/h on Jan 22 21:00																		Minimum Speed Value: 1 km/h on Jan 9 22:00						Hours in Service: 744		
Maximum Daily Speed Average: 30.0 km/h on Jan 22																		Minimum Daily Speed Average: 0.5 km/h on Jan 10						Hours of Data: 705		
Maximum Diurnal Speed Average: 10.9 km/h at hour 11																		Minimum Diurnal Speed Average: 6.4 km/h at hour 18						Hours of Missing Data: 39		
Monthly Average Velocity: 8.31 km/h 236.5 deg																		Speed Percentiles: P ₁ = 1.2 P ₁₀ = 3.1 Q ₁ = 5.6 Median = 10.0 Q ₃ = 18.3 P ₉₀ = 29.2 P ₉₉ = 44.0						Percent Operational Time: 94.8		
All monthly, daily, and diurnal averages have been calculated using vector methods																										
D - DAS Failure N - Not Valid																										
Frequency Distribution																										
																		Speed Range (km/h)								
																		0 to 5 5 to 11 11 to 19 19 to 28 28 to 38 > 38 Total								
North																		15 29 11 1 0 0						56		
NorthEast																		10 23 2 0 0 0						35		
East																		13 12 1 0 0 0						26		
SouthEast																		21 27 13 0 0 0						61		
South																		43 64 19 3 0 0						129		
SouthWest																		22 40 54 55 48 20						239		
West																		15 20 15 14 8 2						74		
NorthWest																		9 18 41 14 2 1						85		
Total																		148 233 156 87 58 23						705		

Wind Rose

Wind Speed (WS) (km/h)
Portable-Bonanza - January 2011



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Portable-Bonanza - January 2011

Maximum Speed: 53 km/h on Jan 22 21:00		Maximum Daily Speed Average: 30.5 km/h on Jan 22		Hours in Service: 744																																												
Minimum Speed: 1 km/h on Jan 9 17:00		Minimum Daily Speed Average: 3.0 km/h on Jan 10		Hours of Data: 705																																												
Maximum Diurnal Speed Average: 15.5 km/h at hour 11		Minimum Diurnal Speed Average: 11.9 km/h at hour 18		Hours of Missing Data: 39																																												
Monthly Average Speed: 13.51 km/h		Percentiles: P ₁ = 1.9 P ₁₀ = 3.7 Q ₁ = 5.8 Median = 10.3 Q ₃ = 18.5 P ₉₀ = 29.3 P ₉₉ = 44.1		Percent Operational Time: 94.8																																												
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	7	5	6	8	8	11	11	10	11	11	26	25	23	22	21	21	22	20	21	20	24	23	15	14	16.0	26.1																						
2-Jan	9	14	11	15	19	13	8	8	10	12	5	4	7	11	13	13	13	9	10	8	10	10	9	10	10.4	18.5																						
3-Jan	7	10	11	10	14	10	8	5	5	5	6	10	11	12	13	13	12	11	15	17	10	7	13	15	10.5	17.3																						
4-Jan	15	20	10	11	9	6	5	16	19	12	8	8	7	12	11	8	9	9	15	32	28	14	24	27	14.0	32.3																						
5-Jan	38	34	29	25	27	30	22	24	25	9	11	13	5	5	6	10	11	15	16	20	27	26	38	48	21.5	48.1																						
6-Jan	47	52	43	45	38	34	29	27	28	22	28	33	32	31	25	22	19	17	19	12	7	5	6	5	26.0	51.9																						
7-Jan	4	5	8	7	9	7	7	6	6	5	9	8	11	13	15	10	10	14	15	19	17	13	14	21	10.6	21.1																						
8-Jan	22	24	23	22	20	16	15	14	15	13	14	15	17	16	15	16	14	14	10	9	11	9	5	4	14.7	23.8																						
9-Jan	5	5	7	9	7	7	8	5	7	8	9	9	7	4	3	2	1	3	4	4	2	1	3	3	5.1	9.4																						
10-Jan	2	2	4	2	6	3	4	4	3	4	3	2	4	3	2	2	3	3	3	2	3	2	2	3	3.0	5.7																						
11-Jan	3	2	3	2	2	3	6	4	4	3	3	5	5	5	5	5	8	10	9	11	10	9	13	14	6.0	14.0																						
12-Jan	13	14	11	14	14	14	14	D	14	13	13	14	15	16	16	18	17	17	18	20	18	15	12	14	14.9	20.0																						
13-Jan	14	9	9	11	12	10	9	8	8	9	7	4	3	4	5	4	2	3	3	2	4	4	4	5	6.4	13.7																						
14-Jan	5	6	6	5	6	8	9	8	8	6	5	3	4	6	7	11	9	10	9	7	6	8	8	9	6.9	10.9																						
15-Jan	9	7	5	6	6	6	7	7	5	7	7	5	4	4	7	8	9	9	6	6	6	5	6	8	6.3	8.7																						
16-Jan	8	8	9	6	5	6	6	4	3	6	5	4	4	4	4	4	2	3	3	4	5	6	6	5	5.1	8.7																						
17-Jan	5	4	5	6	6	8	7	9	9	10	8	4	3	7	8	8	6	8	7	5	5	6	9	10	6.8	9.7																						
18-Jan	40	42	44	38	13	23	30	31	31	28	24	21	23	22	22	22	20	16	19	15	20	29	34	27	26.4	43.8																						
19-Jan	20	14	13	13	8	10	19	13	8	9	9	9	10	8	8	8	7	5	8	11	16	15	16	16	11.4	19.8																						
20-Jan	14	14	10	10	5	6	7	9	8	25	33	28	31	39	41	36	25	15	11	14	11	9	5	3	17.1	41.1																						
21-Jan	5	4	3	3	5	6	5	4	3	11	12	10	10	8	6	8	7	6	6	5	10	5	3	5	6.3	12.1																						
22-Jan	6	5	14	17	32	37	31	32	29	29	34	43	45	32	19	23	29	27	20	38	53	51	46	44	30.5	53.1																						
23-Jan	39	31	31	30	32	32	30	24	22	27	30	29	26	15	16	16	13	10	10	12	12	12	12	13	21.8	38.8																						
24-Jan	11	10	12	15	21	17	23	34	30	27	28	22	24	20	19	17	12	5	12	15	11	4	4	8	16.7	34.0																						
25-Jan	8	10	11	14	21	24	22	26	22	36	41	28	19	26	23	17	16	17	21	18	14	15	18	17	20.2	40.8																						
26-Jan	10	10	11	11	11	10	11	14	20	21	21	18	15	9	7	6	21	20	15	4	7	8	9	8	12.5	21.5																						
27-Jan	9	13	13	14	12	19	24	31	32	34	34	33	37	41	38	39	39	36	37	32	31	39	29	30	29.1	41.1																						
28-Jan	27	24	19	22	21	22	21	17	16	14	14	15	16	16	15	16	15	13	10	9	9	8	7	8	15.6	27.1																						
29-Jan	8	7	6	5	4	3	4	6	5	5	2	3	3	5	4	3	2	1	3	5	5	5	5	3	4.3	7.7																						
30-Jan	3	3	4	5	6	3	5	2	3	3	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	5.7																						
31-Jan	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																						
																								13.8	13.6	13.0	13.3	13.3	13.4	13.5	13.9	13.6	14.2	15.5	14.7	14.5	14.3	13.6	13.4	12.9	11.9	12.3	13.0	13.5	12.5	13.0	13.6	Diurnal Average
																								47.1	51.9	43.8	44.8	37.5	37.0	31.0	34.0	31.9	35.7	40.8	42.7	44.7	41.1	41.1	38.6	38.8	36.4	37.2	37.9	53.1	50.9	46.0	48.1	Diurnal Maximum
D - DAS Failure N - Not Valid																																																
All monthly, daily, and diurnal averages have been calculated using scalar methods																																																

Hourly Standard Deviations

Wind Direction (WD) - deg
Portable-Bonanza - January 2011

Maximum Value: 82.5 deg on Jan 20 23:00																	Hours in Service: 744								
Minimum Value: 1.6 deg on Jan 6 13:00																	Hours of Data: 705								
Percentiles: P ₁ = 2.0 P ₁₀ = 3.3 Q ₁ = 4.6 Median = 7.8 Q ₃ = 15.9 P ₉₀ = 36.4 P ₉₉ = 75.8																	Hours of Missing Data: 39								
																	Hours of Calibration: 0								
																	Percent Operational Time: 94.8								
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	23	15	15	9	7	9	9	14	17	3	3	7	6	4	7	4	3	4	7	3	4	6	4	23.2
2-Jan	21	5	20	13	6	11	17	20	6	4	26	76	5	6	3	4	7	10	6	9	6	10	5	13	76.4
3-Jan	8	8	7	8	4	5	9	10	19	23	12	7	9	4	3	4	5	7	7	2	6	7	5	3	22.6
4-Jan	7	8	14	9	10	16	19	7	4	10	7	7	14	6	15	12	12	17	28	6	2	8	15	4	28.1
5-Jan	3	3	6	6	4	2	4	4	7	20	15	25	37	18	22	15	12	6	6	5	6	7	12	7	37.0
6-Jan	5	3	4	3	4	2	2	5	3	5	4	3	2	2	3	7	8	8	3	7	20	17	16	15	20.2
7-Jan	11	23	7	11	6	12	49	18	6	20	8	6	4	4	4	9	5	2	6	4	5	5	25	4	49.3
8-Jan	4	3	3	5	3	3	4	7	4	3	4	4	3	6	3	6	7	3	8	6	23	11	42	42.1	
9-Jan	11	9	21	11	9	7	5	9	5	7	11	6	6	5	22	49	25	18	10	13	22	60	45	22	60.1
10-Jan	36	15	42	38	11	18	18	11	26	8	53	46	28	13	56	53	31	58	46	61	75	39	36	20	74.8
11-Jan	51	43	8	53	77	66	8	30	24	42	34	17	6	6	11	8	4	5	6	4	16	36	6	7	77.3
12-Jan	4	2	7	7	2	2	3	D	4	4	5	3	4	13	3	4	4	4	5	4	3	4	4	6	13.0
13-Jan	5	19	6	10	4	4	5	6	5	7	8	14	10	16	10	15	31	11	29	43	11	20	9	8	43.4
14-Jan	9	8	5	8	9	4	5	7	6	6	12	37	16	13	6	7	5	2	8	19	8	4	8	5	36.8
15-Jan	8	8	5	4	6	6	9	11	15	17	12	17	61	49	12	9	6	4	46	17	14	19	8	5	61.1
16-Jan	6	8	4	13	18	14	11	8	17	16	9	10	37	10	9	12	66	40	5	8	8	4	3	9	66.0
17-Jan	7	21	10	9	3	5	9	8	7	11	9	71	32	27	22	16	20	17	18	48	53	76	50	27	76.0
18-Jan	9	2	3	6	38	5	4	4	3	2	5	4	2	4	3	8	7	5	5	9	4	5	4	28	38.3
19-Jan	4	10	6	8	18	14	8	11	11	12	9	7	15	13	6	10	16	30	6	4	5	7	4	5	29.8
20-Jan	4	3	7	20	44	15	54	13	55	6	6	7	3	3	3	2	36	11	12	10	24	44	82	76	82.5
21-Jan	35	27	41	36	36	14	23	30	57	51	14	25	16	17	21	16	17	18	13	46	28	66	41	16	65.7
22-Jan	26	31	17	9	5	5	2	3	5	5	3	2	2	9	7	6	4	4	8	3	3	2	3	6	31.0
23-Jan	2	2	3	4	3	4	5	6	6	2	2	2	2	8	6	11	12	17	14	13	7	10	13	3	16.6
24-Jan	5	4	6	8	7	7	6	2	4	5	4	6	3	3	5	10	9	57	11	14	15	68	48	15	68.1
25-Jan	9	19	7	11	3	4	8	4	4	4	3	9	8	3	6	7	3	6	7	6	10	7	3	14	19.4
26-Jan	11	19	5	6	5	32	10	13	5	4	6	4	4	24	43	59	12	4	14	66	10	26	8	18	66.2
27-Jan	10	7	5	3	23	5	3	3	4	4	3	2	10	4	4	2	4	2	16	9	7	6	9	5	22.6
28-Jan	4	4	4	6	7	5	4	5	5	5	5	5	4	4	5	4	5	4	8	6	12	30	9	9	29.7
29-Jan	5	5	9	26	15	25	37	6	9	20	39	10	31	18	15	27	51	9	27	9	6	19	9	48	50.9
30-Jan	53	45	73	53	26	49	79	50	69	81	N	N	N	N	N	N	N	N	N	N	N	N	N	N	81.2
31-Jan	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--
53.3	45.3	72.9	53.3	77.3	66.3	79.1	49.9	68.6	81.2	53.2	76.4	61.1	48.8	55.9	58.9	66.0	57.6	46.4	66.2	74.8	76.0	82.5	76.3		
D - DAS Failure																	N - Not Valid								

PASZA
Valleyview Station
Monthly Summary Tables, Graphs and
Roses

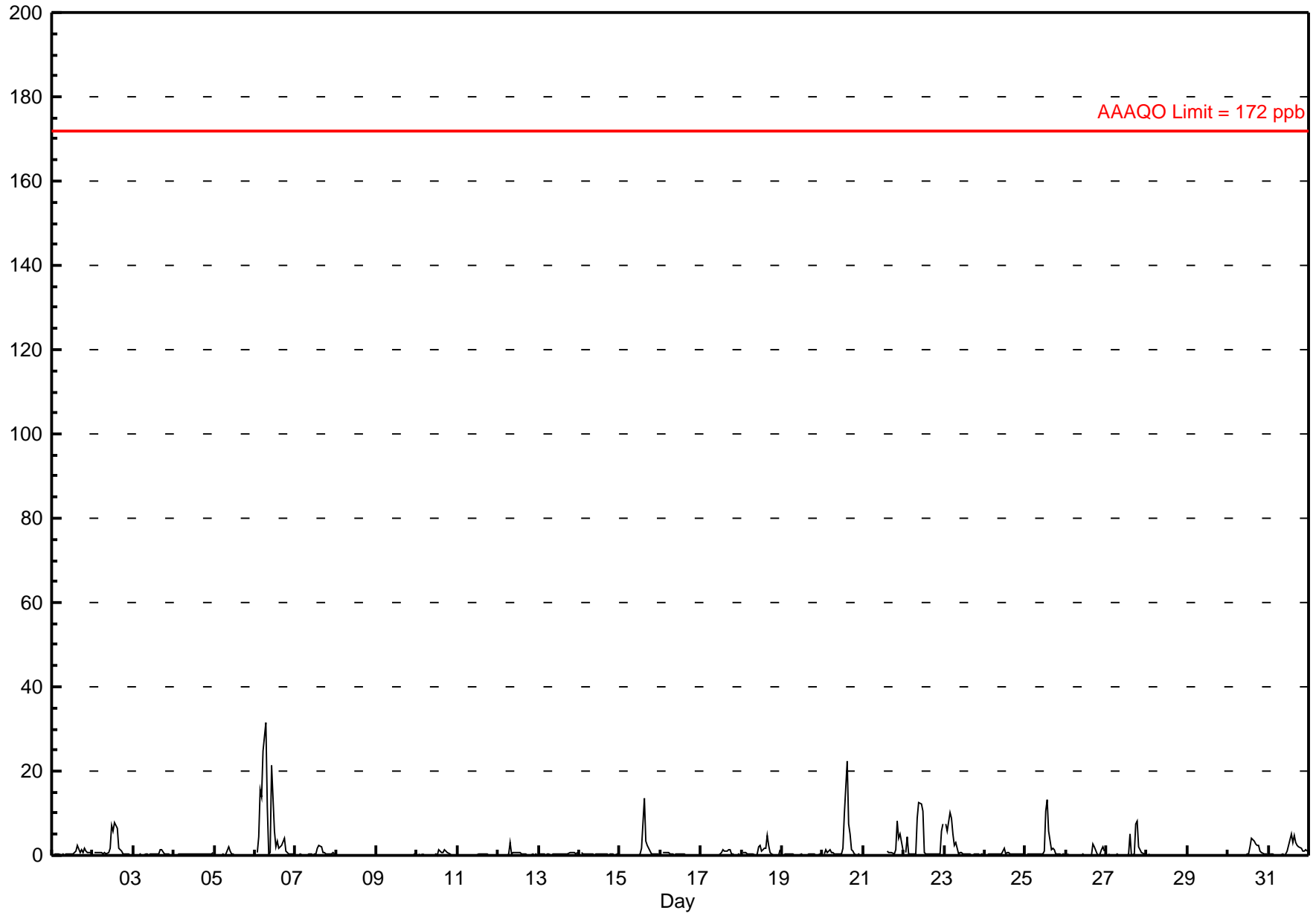
Hourly Averages

Sulphur Dioxide (SO₂) - ppb Valleyview - January 2011

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 31.4 ppb on Jan 6 07:00	Maximum Daily Average: 6.4 ppb on Jan 6
Minimum Value: 0 ppb on Jan 5 23:00	Hours of Data: 710
Maximum Diurnal Average: 2.4 ppb at hour 15	Hours of Missing Data: 34
Monthly Average: 0.95 ppb	Hours of Calibration: 34
Minimum Daily Average: 0.0 ppb on Jan 8	Percent Operational Time: 100.0
Minimum Diurnal Average: 0.4 ppb at hour 22	
Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.2 Q ₃ = 0.5 P ₉₀ = 1.9 P ₉₉ = 13.4	

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	1	1	1	2	1	1	1	1	0.6	2.3
2-Jan	A	1	1	1	1	1	0	1	0	1	2	7	6	8	6	2	1	1	0	0	0	0	0	0	1.7	7.8
3-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0.3	1.3
4-Jan	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	0.5
5-Jan	A	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	2.1
6-Jan	A	1	4	16	14	25	31	12	0	1	22	6	2	3	2	2	2	4	1	1	0	0	0	0	6.4	31.4
7-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	1	1	0	0	0	0	1	0	0.5	2.3
8-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
9-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
10-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0.3	1.4
11-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
12-Jan	A	0	0	0	0	0	0	3	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.4	2.9
13-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	1	0.3	0.7
14-Jan	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
15-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	2	14	3	2	2	1	0	0	0	0	0	1.2	13.5
16-Jan	A	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
17-Jan	A	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0.4	1.5
18-Jan	A	1	1	0	0	0	0	0	0	0	2	2	1	2	2	5	2	1	0	0	0	0	0	1	0.9	4.8
19-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
20-Jan	A	0	2	1	2	1	1	0	0	0	0	0	2	10	22	8	5	1	1	0	0	0	0	0	2.5	22.2
21-Jan	A	0	0	0	0	0	0	0	0	0	0	C	C	C	1	1	1	1	0	1	8	4	5	1	1.2	8.1
22-Jan	A	1	4	1	0	0	0	0	9	13	12	11	1	0	0	0	0	0	0	0	0	0	6	7	2.9	12.6
23-Jan	A	7	6	10	9	5	2	3	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2.0	10.0
24-Jan	A	0	0	0	0	0	0	0	0	0	0	2	0	1	1	0	1	0	0	0	0	0	0	0	0.4	1.6
25-Jan	A	0	0	0	0	0	0	0	0	0	0	1	11	13	6	2	2	1	0	0	0	0	0	0	1.7	13.3
26-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	0	0	0	1	2	1	0.5	2.9
27-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	7	8	2	1	1	0	0	1.2	8.1
28-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
29-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
30-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	2	4	3	3	2	2	1	1	0	0	0	0.9	4.1
31-Jan	A	0	0	0	0	0	0	0	0	0	0	1	2	5	3	5	3	2	2	2	1	1	1	1	1.4	5.1
--	--	0.5	0.7	1.0	0.9	1.1	1.3	0.7	0.5	0.6	1.4	1.2	1.0	1.8	2.4	1.3	1.1	1.0	0.7	0.4	0.5	0.4	0.6	0.6	Diurnal Average	
--	--	7.4	5.6	15.6	13.8	24.8	31.4	11.5	8.8	12.6	21.5	10.5	10.6	13.3	22.2	7.6	5.2	7.5	8.1	2.0	8.1	4.0	5.7	7.3	Diurnal Maximum	

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

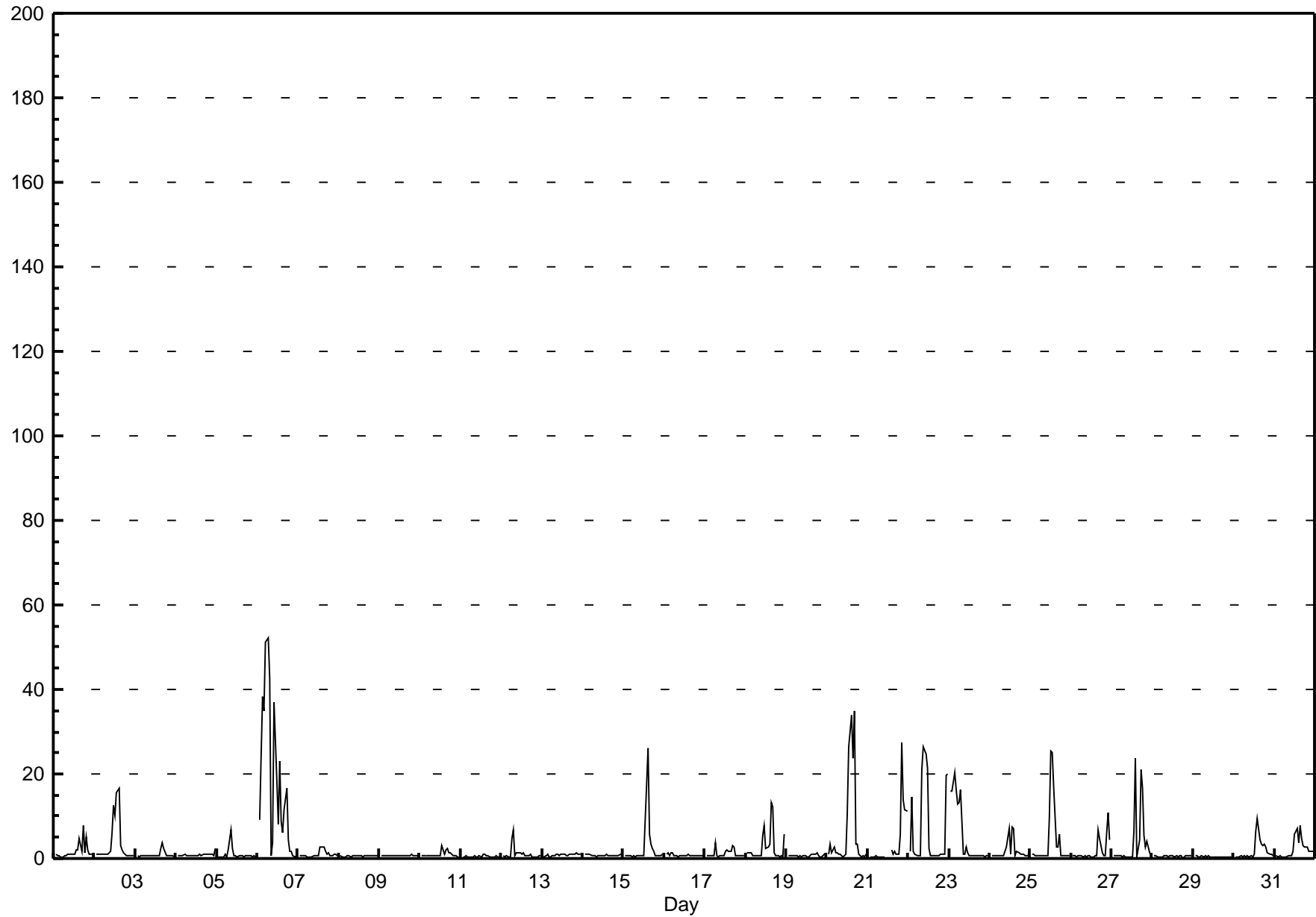


Hourly Maximums

Sulphur Dioxide (SO₂) - ppb

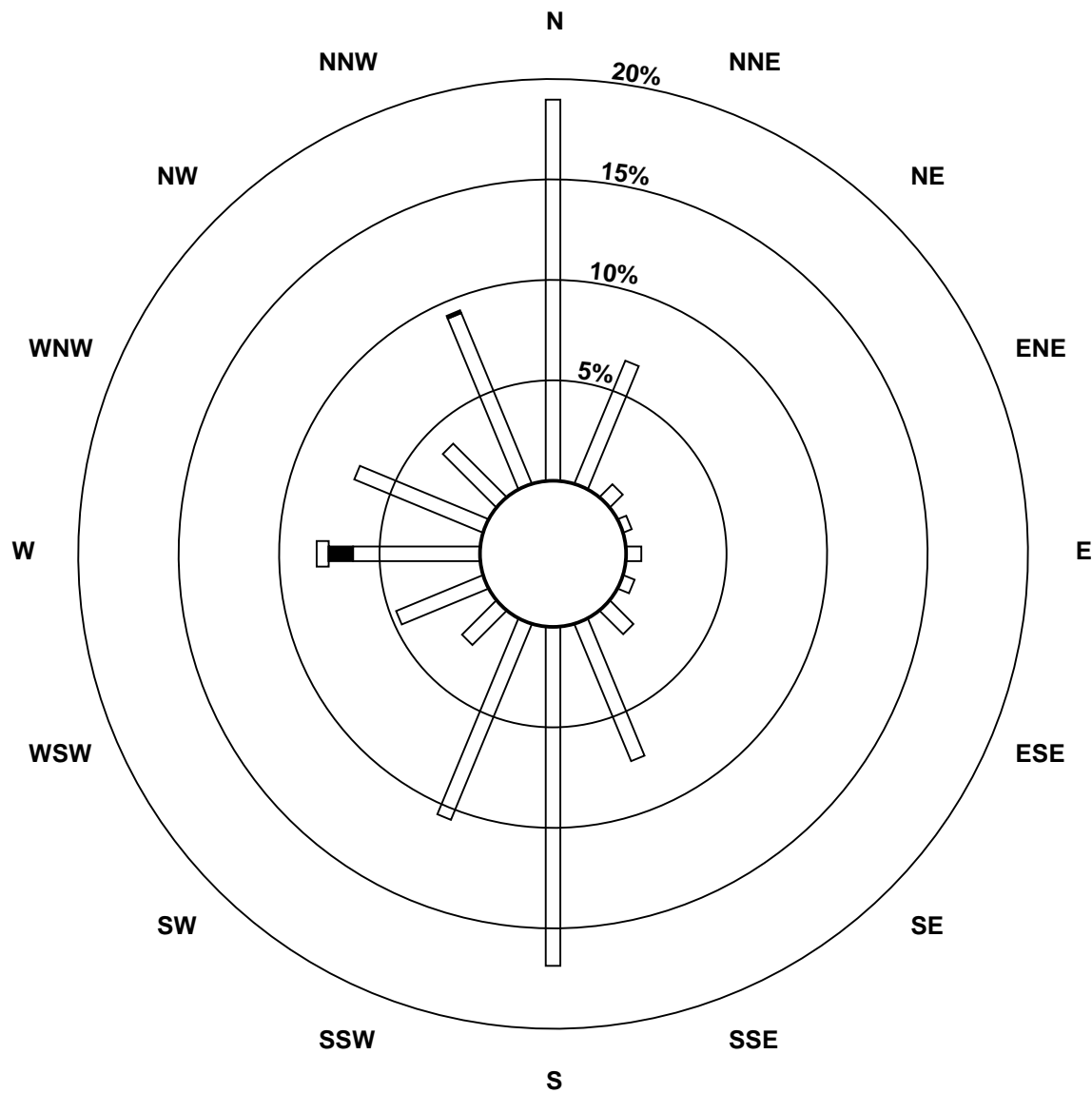
Valleyview - January 2011

Maximum Value: 52.3 ppb on Jan 6 07:00		Maximum Daily Average: 17.2 ppb on Jan 6		Hours in Service: 744																						
Minimum Value: 0 ppb on Jan 28 19:00		Minimum Daily Average: 0.4 ppb on Jan 29		Hours of Data: 710																						
Maximum Diurnal Average: 5.5 ppb at hour 15		Minimum Diurnal Average: 1.3 ppb at hour 20		Hours of Missing Data: 34																						
Monthly Average: 2.59 ppb		Percentiles: P ₁ = 0.3 P ₁₀ = 0.4 Q ₁ = 0.6 Median = 0.8 Q ₃ = 1.2 P ₉₀ = 5.8 P ₉₉ = 34.7		Hours of Calibration: 34																						
				Percent Operational Time: 100.0																						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jan	A	1	1	1	1	0	1	1	1	1	1	1	2	2	5	2	8	1	5	2	1	1	1	1	1.7	7.7
2-Jan	A	1	1	1	1	1	1	1	1	2	6	13	10	15	16	3	2	1	1	1	1	1	1	1	3.6	16.5
3-Jan	A	1	0	1	1	1	1	1	1	1	1	1	1	1	2	4	2	1	1	1	1	1	0	0.9	3.7	
4-Jan	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	0.9	2.4	
5-Jan	A	0	0	0	0	1	0	2	7	2	1	1	0	1	1	0	1	1	1	1	1	0	1	0	1.0	6.9
6-Jan	A	9	24	38	35	51	52	43	1	4	37	18	8	23	9	6	12	17	4	2	2	1	0	1	17.2	52.3
7-Jan	A	1	1	1	1	0	0	0	0	1	1	1	1	3	3	3	2	1	1	1	1	1	1	1	1.0	2.8
8-Jan	A	1	0	0	0	1	1	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0.5	0.7
9-Jan	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	1.0
10-Jan	A	1	1	1	1	1	1	1	1	1	1	1	3	1	2	2	2	1	1	1	1	0	0	0	0.9	3.1
11-Jan	A	0	0	1	0	0	0	0	1	0	0	1	0	1	1	1	0	0	0	0	0	1	0	0	0.5	0.9
12-Jan	A	1	0	1	0	0	5	7	1	1	1	1	1	1	1	1	1	1	0	0	0	0	1	1	1.2	6.9
13-Jan	A	0	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.4
14-Jan	A	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
15-Jan	A	1	1	1	1	1	1	0	1	1	1	1	1	9	26	6	3	2	2	1	1	1	1	1	2.6	26.2
16-Jan	A	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.3
17-Jan	A	1	1	1	1	1	4	1	0	1	1	1	2	2	2	2	3	3	1	1	1	1	1	1	1.2	3.7
18-Jan	A	1	1	1	1	1	1	1	1	1	5	8	2	3	4	13	12	1	1	1	0	1	0	6	2.9	13.2
19-Jan	A	1	1	1	1	1	1	1	1	0	1	1	0	0	1	1	1	1	1	1	0	0	1	1	0.7	1.4
20-Jan	A	1	3	1	3	1	1	1	1	0	1	1	11	26	34	24	35	3	3	1	0	1	0	1	6.7	34.8
21-Jan	A	0	0	0	0	1	0	0	0	0	0	C	C	C	2	1	2	1	1	6	28	14	12	11	4.1	27.6
22-Jan	A	2	15	2	1	1	1	1	21	26	25	21	2	1	1	1	1	1	1	1	1	1	20	20	7.1	26.4
23-Jan	A	16	16	20	16	13	13	16	1	1	3	1	1	1	1	1	1	1	1	1	1	0	1	1	5.4	20.3
24-Jan	A	1	1	1	1	1	1	1	1	2	3	7	1	8	7	1	2	1	1	1	1	1	1	1	1.8	7.6
25-Jan	A	1	1	1	1	1	1	1	1	1	1	10	25	25	17	3	3	6	1	1	1	1	1	1	4.4	25.3
26-Jan	A	1	1	0	1	1	1	0	1	0	1	1	0	0	1	1	7	5	2	1	1	6	11	4	1.9	10.8
27-Jan	A	1	1	1	1	1	0	1	0	0	0	0	0	7	24	0	4	21	17	5	3	4	1	1	4.0	23.6
28-Jan	A	1	1	0	0	0	0	1	1	0	1	1	0	1	0	1	1	0	1	0	1	1	1	1	0.5	0.8
29-Jan	A	1	1	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.7
30-Jan	A	0	0	1	1	0	1	0	1	0	1	0	1	6	9	4	3	3	3	3	3	1	1	1	1.9	9.4
31-Jan	A	1	0	1	0	1	0	0	1	1	1	2	6	7	4	8	5	3	3	3	3	2	2	2	2.2	7.7
--		1.5	2.5	2.6	2.3	2.7	3.0	2.7	1.5	1.7	3.1	3.2	2.7	5.0	5.5	3.0	3.6	2.9	1.7	1.3	1.7	1.4	2.0	2.0	Diurnal Average	
--		15.9	24.0	38.3	35.0	51.1	52.3	42.7	21.0	26.4	36.9	21.3	25.3	26.3	33.9	23.6	34.8	20.9	16.7	5.8	27.6	13.9	19.7	19.9	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																								

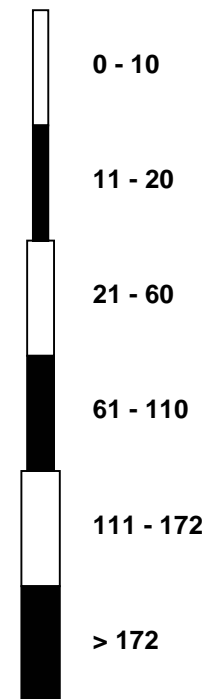


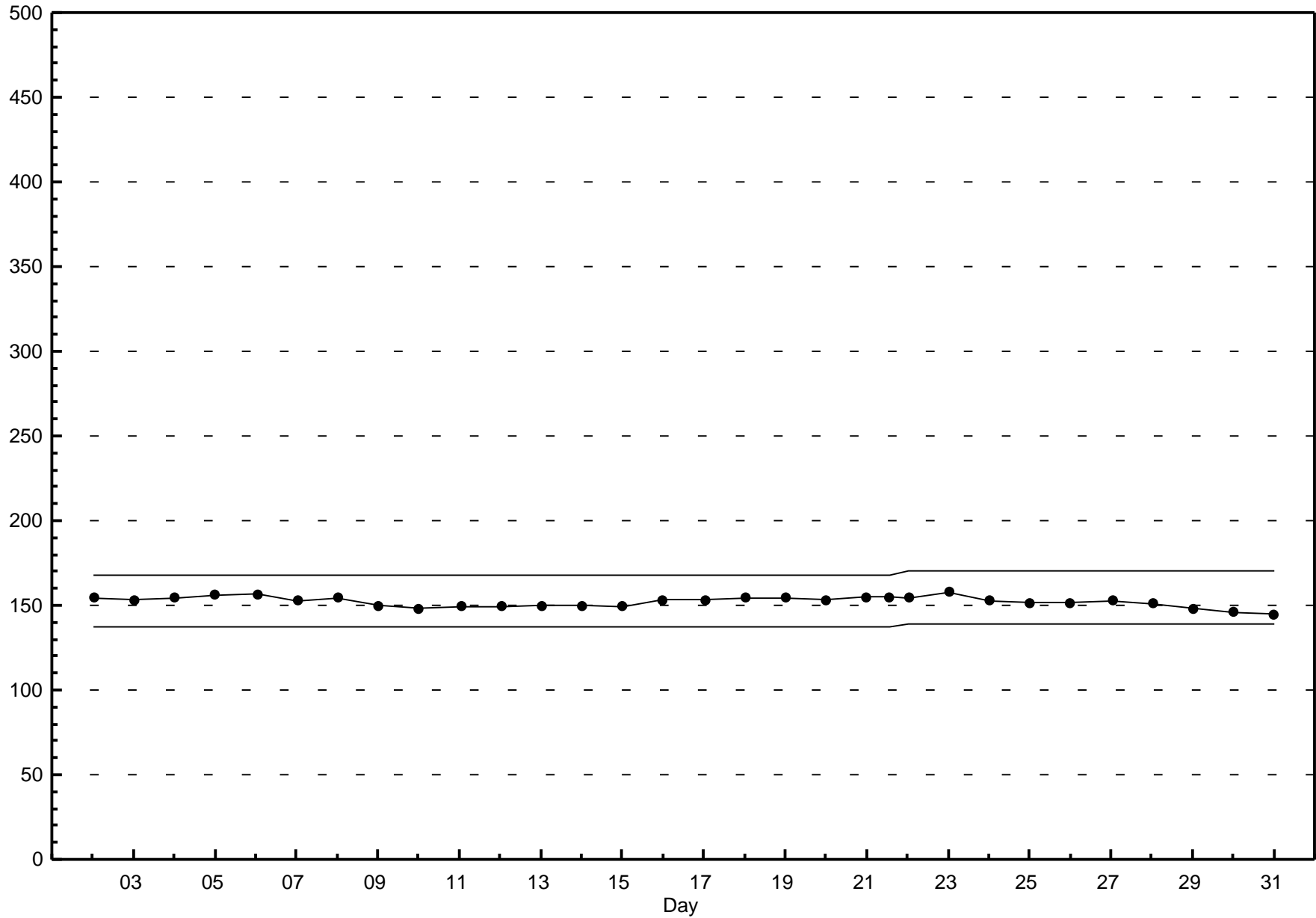
Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Valleyview - January 2011



Pollutant Classes (ppb)



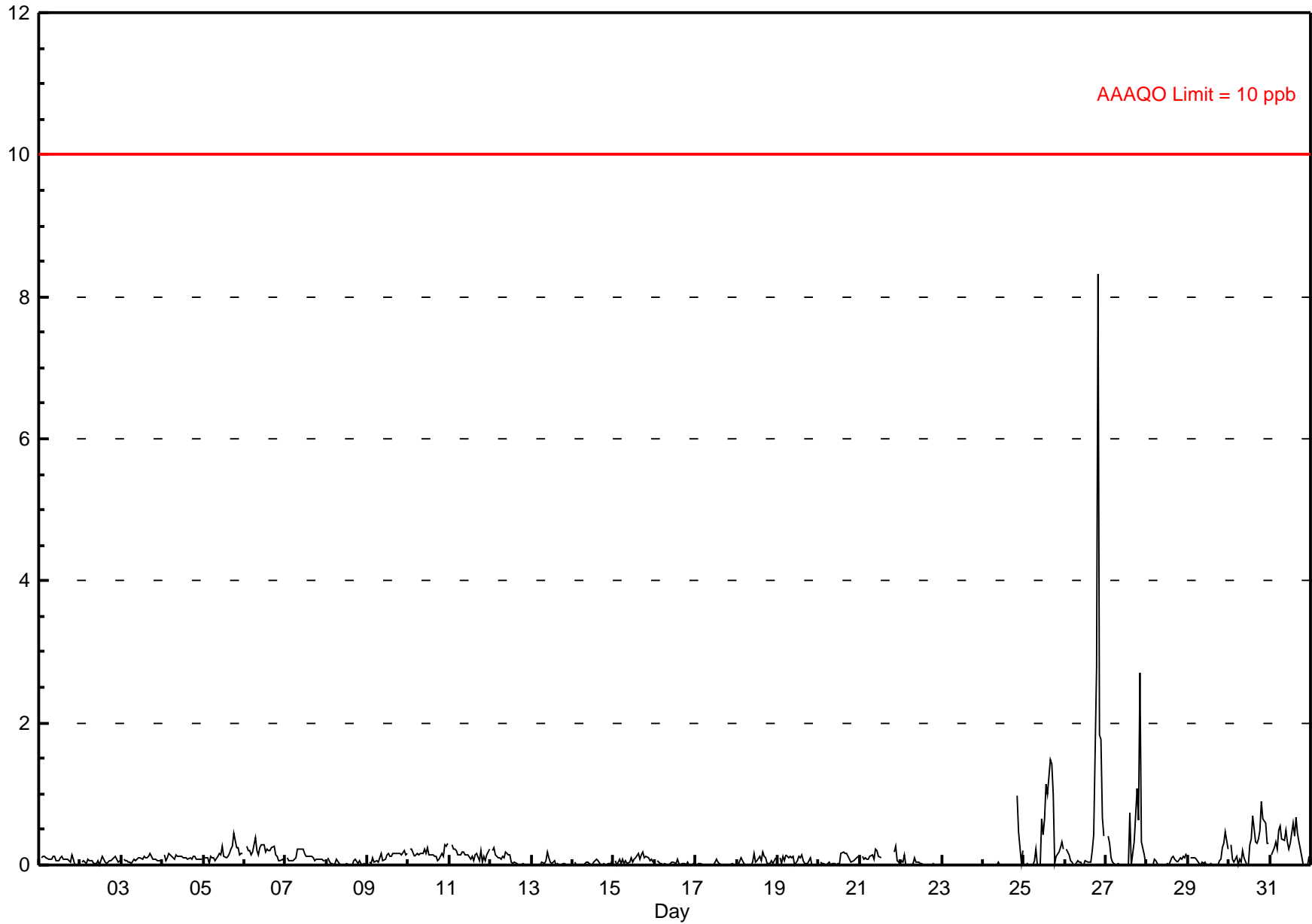


Hourly Averages

Hydrogen Sulphide (H₂S) - ppb

Valleyview - January 2011

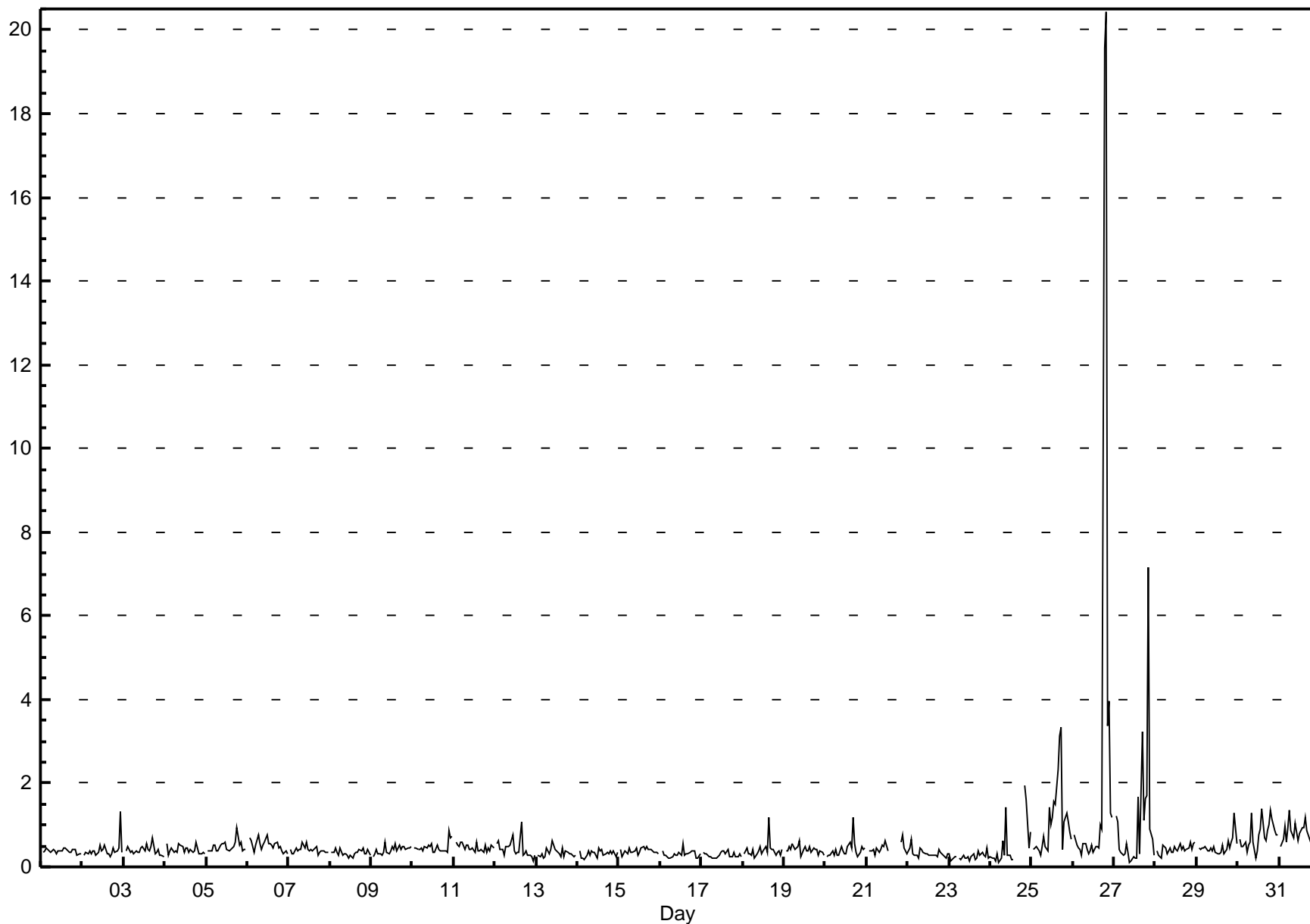
Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 8.3 ppb on Jan 26 20:00 Maximum Daily Average: 0.7 ppb on Jan 26		Hours in Service: 744 Hours of Data: 702 Hours of Missing Data: 42 Hours of Calibration: 40 Percent Operational Time: 99.7																									
Minimum Value: 0 ppb on Jan 1 22:00 Maximum Diurnal Average: 0.4 ppb at hour 20 Monthly Average: 0.13 ppb		Minimum Daily Average: 0.0 ppb on Jan 23 Minimum Diurnal Average: 0.0 ppb at hour 1 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.1 P ₉₀ = 0.2 P ₉₉ = 1.4																									
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1	
2-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1	
3-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
4-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
5-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4	
6-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4	
7-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
8-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1	
9-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
10-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3	
11-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3	
12-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
13-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2	
14-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1	
15-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
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	0	0.0	0.1	
17-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1	
18-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
19-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1	
20-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
21-Jan	A	0	0	0	0	0	0	0	0	0	0	0	C	C	C	C	C	C	C	C	0	0	0	0	--	0.3	
22-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	
23-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	0.0	
24-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	C	C	M	M	C	C	1	0	0	0	0	0.1	1.0	
25-Jan	A	0	0	0	0	0	0	0	0	1	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0.4	1.5	
26-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	8	2	2	1	0	0.7	8.3		
27-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	3	0	0	0	0.3	2.7		
28-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2		
29-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5	
30-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	0	0.3	0.9		
31-Jan	A	0	0	0	0	0	1	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0.3	0.7	
		0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.4	0.3	0.2	0.1	0.1	Diurnal Average		
		0.1	0.4	0.3	0.3	0.2	0.5	0.5	0.4	0.3	0.5	0.6	0.4	0.6	1.1	1.0	1.5	1.4	1.0	2.8	8.3	2.7	1.8	0.7	0.4	Diurnal Maximum	
C - Calibration		M - Maintenance						A - Automated Daily Zero Span																			
Alberta Ambient Air Quality Objectives (AAAQO):		1-hr 10 ppb						24-hr 3 ppb																			



Hourly Maximums

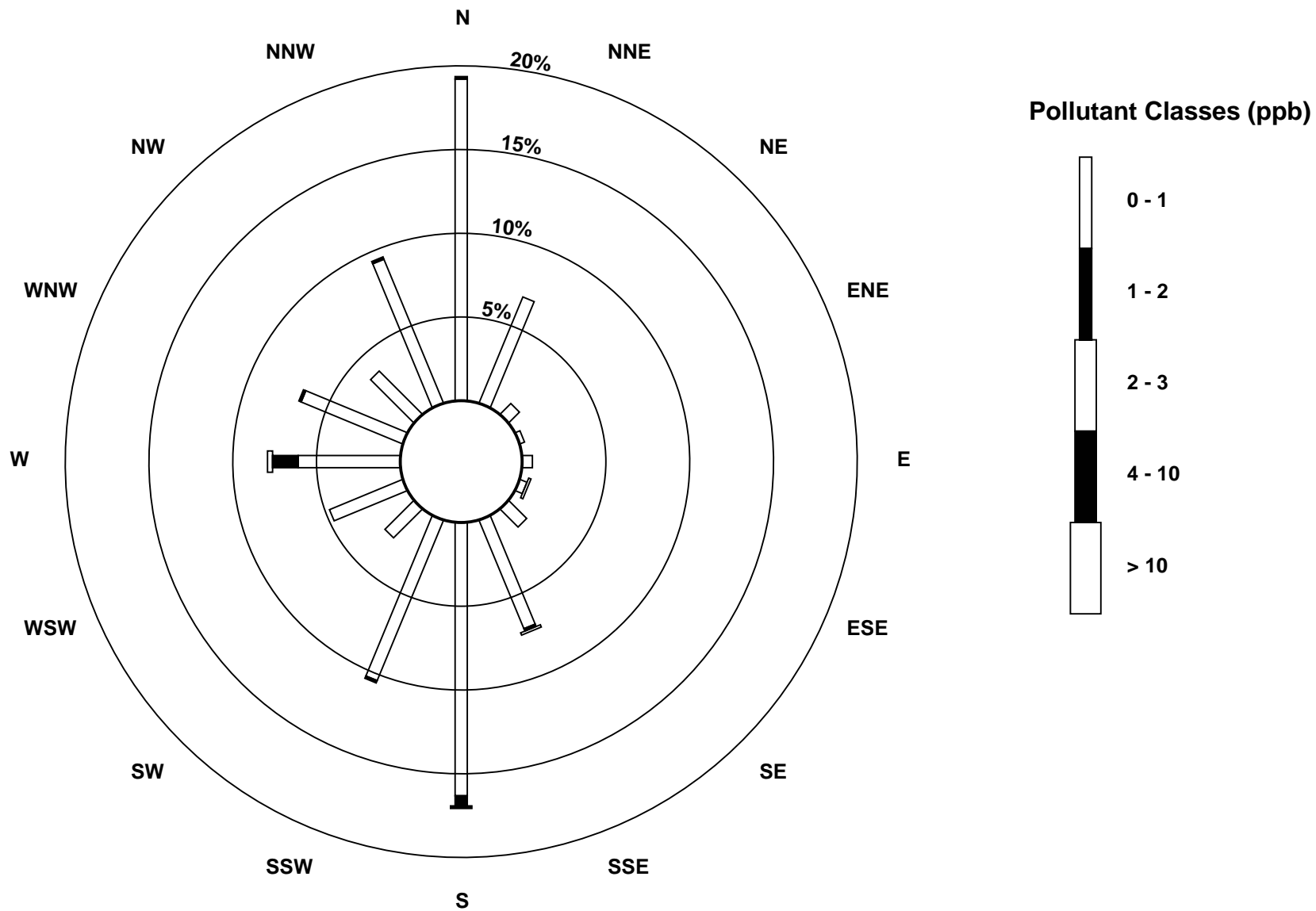
Hydrogen Sulphide (H₂S) - ppb Valleyview - January 2011

Maximum Value: 20.4 ppb on Jan 26 20:00		Maximum Daily Average: 2.5 ppb on Jan 26		Hours in Service: 744																							
Minimum Value: 0 ppb on Jan 24 06:00		Minimum Daily Average: 0.2 ppb on Jan 23		Hours of Data: 702																							
Maximum Diurnal Average: 1.2 ppb at hour 20		Minimum Diurnal Average: 0.3 ppb at hour 1		Hours of Missing Data: 42																							
Monthly Average: 0.54 ppb		Percentiles: P ₁ = 0.2 P ₁₀ = 0.3 Q ₁ = 0.3 Median = 0.4 Q ₃ = 0.5 P ₉₀ = 0.7 P ₉₉ = 3.2		Hours of Calibration: 40																							
				Percent Operational Time: 99.7																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5	
2-Jan	A	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0.4	1.3
3-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0.4	0.7	
4-Jan	A	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.4	0.6	
5-Jan	A	0	0	0	1	1	0	0	1	1	1	1	0	0	0	0	0	1	1	1	1	0	0	0	0.5	0.9	
6-Jan	A	1	1	0	0	1	1	1	0	1	1	1	1	1	1	0	1	1	0	0	0	0	0	0	0.5	0.8	
7-Jan	A	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6	
8-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5	
9-Jan	A	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0.4	0.6	
10-Jan	A	0	0	0	0	0	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	1	1	0.5	0.9	
11-Jan	A	1	1	0	1	1	0	1	1	0	0	0	0	1	0	0	0	0	1	0	0	0	1	0	0.5	0.6	
12-Jan	A	1	1	0	0	0	0	0	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0.4	1.1	
13-Jan	A	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6	
14-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4	
15-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5	
16-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.3	0.6	
17-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4	
18-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.4	1.2	
19-Jan	A	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6	
20-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0.4	1.2	
21-Jan	A	0	0	0	0	0	0	0	0	1	0	1	0	C	C	C	C	C	C	C	C	1	1	0	--	0.8	
22-Jan	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6	
23-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	
24-Jan	0	0	0	0	0	0	0	1	0	1	0	0	0	0	C	C	M	M	C	C	2	2	0	1	0.5	1.9	
25-Jan	A	0	0	0	0	0	0	1	0	0	1	1	1	2	2	2	3	3	0	1	1	1	1	1	1.1	3.3	
26-Jan	A	1	1	0	0	0	1	1	0	0	0	1	0	0	0	0	1	1	20	20	3	4	1	1	2.5	20.4	
27-Jan	A	1	1	0	0	0	0	1	0	0	0	0	0	0	2	0	3	1	2	2	7	1	1	0	1.1	7.1	
28-Jan	A	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	1	1	0.4	0.6	
29-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	1	1	1	0.5	1.3	
30-Jan	A	1	0	0	1	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.4	
31-Jan	A	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0.7	1.3	
		0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.6	1.2	1.2	0.8	0.6	0.5	0.4	Diurnal Average		
		0.4	1.2	1.1	1.0	0.6	0.9	1.3	0.9	1.3	1.4	1.4	1.0	1.2	1.6	1.7	2.3	3.2	3.3	19.6	20.4	7.1	4.0	1.3	1.2	Diurnal Maximum	
C - Calibration		M - Maintenance					A - Automated Daily Zero Span																				



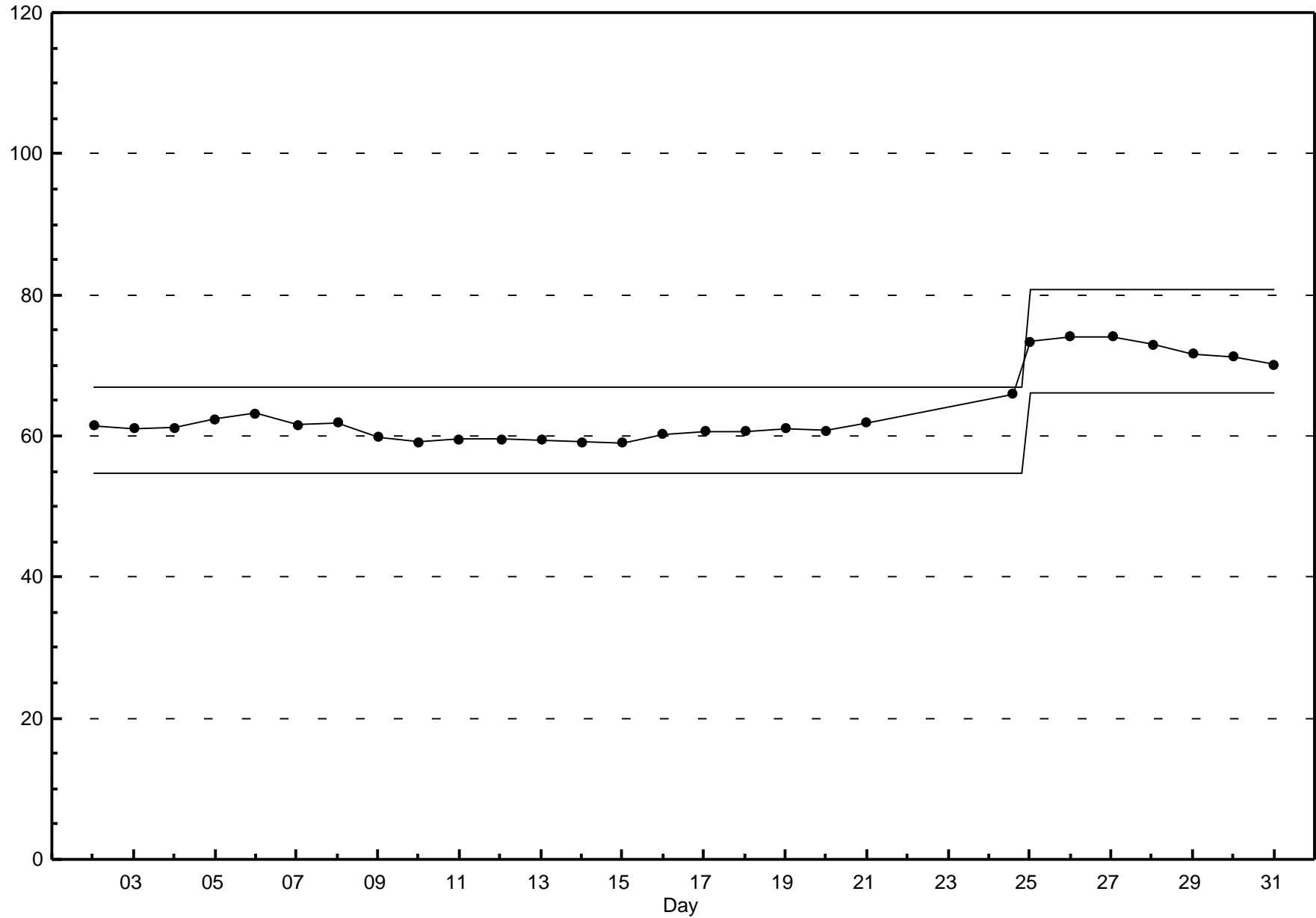
Pollutant Rose

Hydrogen Sulphide (H₂S) - ppb
Valleyview - January 2011



Span Responses

Hydrogen Sulphide (H₂S)
Valleyview - January 2011

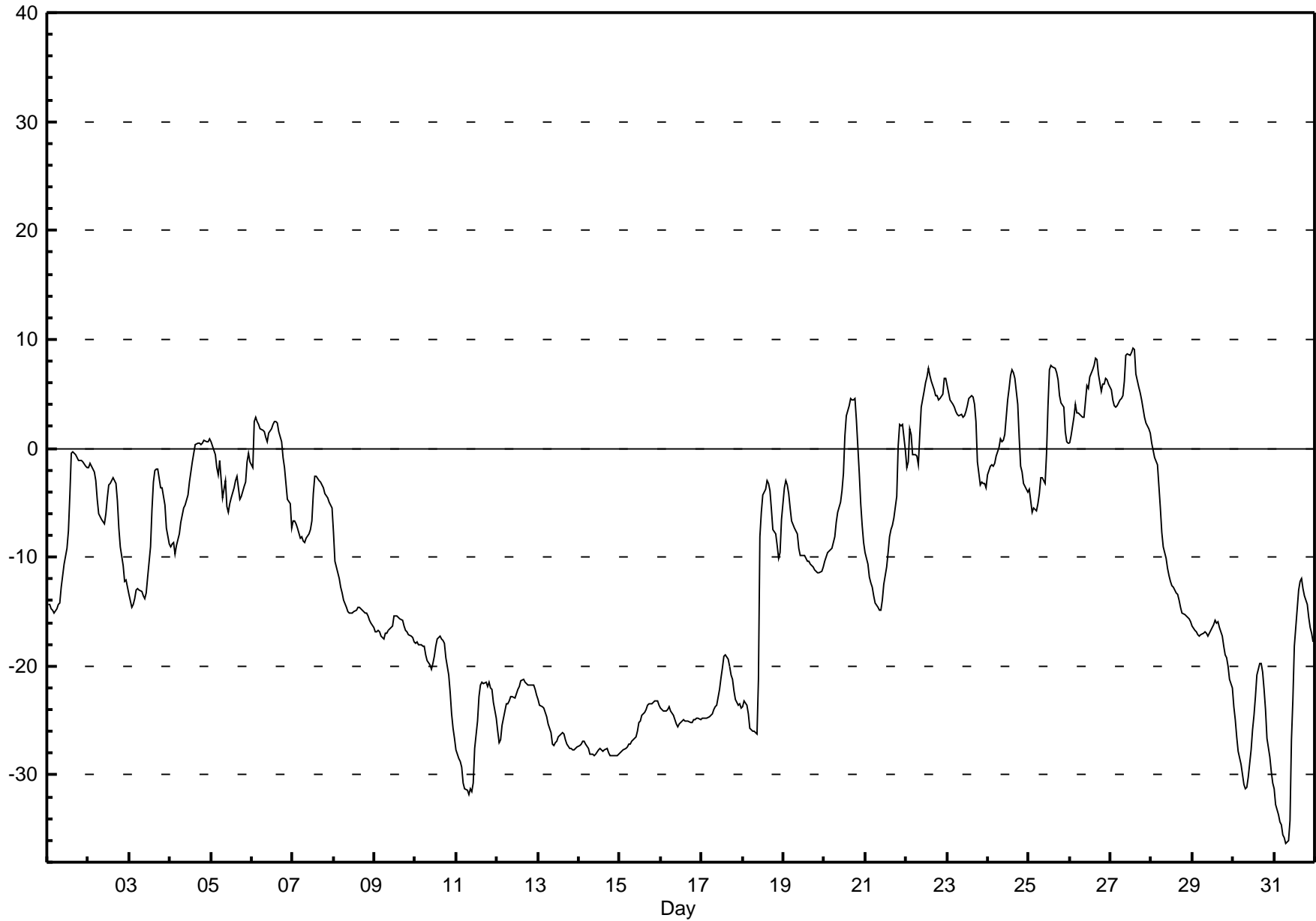


Hourly Averages

External Temperature (ET) - °C

Valleyview - January 2011

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0		Hours in Service: 744																								
Maximum Value: 9.2 °C on Jan 27 14:00		Maximum Daily Average: 5.3 °C on Jan 27																								
Minimum Value: -36 °C on Jan 31 08:00		Hours of Data: 744																								
Maximum Diurnal Average: -8.3 °C at hour 16		Hours of Missing Data: 0																								
Monthly Average: -11.45 °C		Hours of Calibration: 0																								
Minimum Daily Average: -27.8 °C on Jan 14		Percent Operational Time: 100.0																								
Minimum Diurnal Average: -13.8 °C at hour 8																										
Percentiles: P ₁ = -33.6 P ₁₀ = -26.9 Q ₁ = -22.2 Median = -11.3 Q ₃ = -1.7 P ₉₀ = 3.9 P ₉₉ = 7.9																										
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	-14	-14	-15	-15	-15	-15	-14	-14	-13	-12	-11	-9	-8	-4	0	0	-1	-1	-1	-1	-1	-1	-2	-2	-7.6	-0.4
2-Jan	-2	-1	-2	-2	-3	-5	-6	-6	-7	-7	-6	-5	-3	-3	-3	-3	-3	-5	-7	-9	-11	-12	-12	-13	-5.6	-1.4
3-Jan	-13	-15	-14	-14	-13	-13	-13	-13	-14	-14	-13	-12	-9	-6	-3	-2	-2	-2	-4	-4	-4	-5	-7	-9	-9.1	-1.9
4-Jan	-9	-9	-9	-10	-9	-8	-7	-6	-6	-5	-4	-3	-2	-1	0	0	0	1	0	0	1	1	1	1	-3.4	0.8
5-Jan	1	0	-1	-2	-3	-1	-3	-5	-3	-5	-6	-5	-5	-4	-3	-3	-4	-5	-4	-3	-3	-1	0	-1	-2.8	0.6
6-Jan	-2	2	3	2	2	2	2	2	1	1	1	2	2	2	3	2	1	1	-1	-2	-3	-5	-5	-7	0.3	2.8
7-Jan	-7	-7	-7	-7	-8	-8	-9	-9	-8	-8	-7	-7	-4	-3	-3	-3	-3	-3	-4	-4	-4	-5	-5	-5	-5.8	-2.5
8-Jan	-8	-10	-11	-12	-13	-13	-14	-15	-15	-15	-15	-15	-15	-15	-15	-15	-15	-15	-15	-15	-15	-16	-16	-16	-14.1	-7.7
9-Jan	-17	-17	-17	-17	-17	-17	-17	-17	-17	-17	-17	-16	-15	-15	-15	-15	-16	-16	-16	-17	-17	-17	-17	-18	-16.6	-15.4
10-Jan	-18	-18	-18	-18	-18	-18	-19	-20	-20	-20	-20	-19	-18	-17	-17	-18	-18	-18	-19	-21	-22	-24	-26	-27	-19.6	-17.2
11-Jan	-28	-28	-29	-29	-31	-31	-31	-32	-31	-32	-31	-28	-25	-23	-22	-21	-22	-21	-22	-22	-22	-22	-23	-25	-26.2	-21.4
12-Jan	-26	-27	-27	-25	-24	-23	-24	-23	-23	-23	-23	-23	-22	-22	-21	-21	-21	-22	-22	-22	-22	-22	-23	-23	-23.0	-21.2
13-Jan	-23	-24	-24	-24	-24	-25	-25	-26	-27	-27	-27	-27	-27	-26	-26	-26	-27	-27	-28	-28	-28	-28	-28	-27	-26.1	-23.1
14-Jan	-27	-27	-27	-27	-27	-28	-28	-28	-28	-28	-28	-28	-28	-28	-28	-28	-28	-28	-28	-28	-28	-28	-28	-28	-27.8	-26.8
15-Jan	-28	-28	-28	-28	-27	-27	-27	-27	-27	-26	-26	-25	-25	-24	-24	-24	-24	-24	-23	-23	-23	-23	-24	-24	-25.4	-23.1
16-Jan	-24	-24	-24	-24	-24	-24	-24	-25	-25	-25	-26	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-24.7	-23.8
17-Jan	-25	-25	-25	-25	-25	-25	-24	-24	-24	-24	-22	-21	-20	-19	-19	-19	-20	-21	-21	-22	-23	-24	-24	-24	-22.6	-19.0
18-Jan	-24	-23	-24	-24	-26	-26	-26	-26	-26	-21	-8	-6	-4	-3	-3	-4	-6	-7	-8	-9	-10	-10	-7	-7	-13.9	-2.9
19-Jan	-4	-3	-3	-4	-5	-7	-7	-8	-8	-9	-10	-10	-10	-10	-10	-10	-11	-11	-11	-11	-11	-11	-11	-11	-8.6	-3.0
20-Jan	-10	-10	-10	-9	-9	-9	-8	-7	-6	-5	-4	-2	1	3	4	5	4	4	5	3	-2	-5	-7	-9	-3.5	4.6
21-Jan	-10	-11	-12	-12	-13	-14	-14	-15	-15	-15	-14	-12	-11	-10	-8	-7	-7	-6	-4	0	2	2	2	0	-8.5	2.2
22-Jan	-2	-1	2	1	-1	-1	-1	-2	1	4	5	6	7	7	7	6	5	5	5	4	5	5	6	6	3.4	7.4
23-Jan	6	5	4	4	4	3	3	3	3	3	3	3	4	5	5	5	4	2	-1	-3	-3	-3	-4	2.2	5.8	
24-Jan	-2	-2	-2	-2	-1	-1	0	1	1	1	1	4	6	7	7	7	6	4	1	-2	-2	-3	-4	-4	0.9	7.3
25-Jan	-4	-5	-6	-6	-6	-5	-4	-3	-3	-3	0	4	7	8	7	7	7	6	5	4	4	2	1	0	0.8	7.6
26-Jan	0	1	3	4	3	3	3	3	3	4	6	6	7	7	8	8	8	7	5	6	6	6	6	6	5.0	8.2
27-Jan	5	4	4	4	4	4	5	5	6	9	9	9	9	9	9	7	6	5	4	4	3	2	2	1	5.3	9.2
28-Jan	0	0	-1	-2	-3	-6	-8	-9	-10	-11	-12	-12	-13	-13	-13	-13	-14	-15	-15	-15	-15	-16	-16	-16	-10.3	0.4
29-Jan	-16	-17	-17	-17	-17	-17	-17	-17	-17	-17	-17	-17	-16	-16	-16	-16	-16	-16	-17	-18	-19	-19	-20	-21	-17.5	-15.8
30-Jan	-24	-25	-26	-28	-29	-30	-31	-31	-31	-30	-28	-26	-24	-23	-21	-20	-20	-20	-22	-24	-27	-28	-30	-31	-26.2	-19.7
31-Jan	-31	-33	-34	-34	-35	-35	-36	-36	-36	-34	-27	-23	-18	-15	-13	-12	-12	-13	-14	-14	-16	-16	-17	-18	-23.8	-11.9
																								Diurnal Average		
																								Diurnal Maximum		

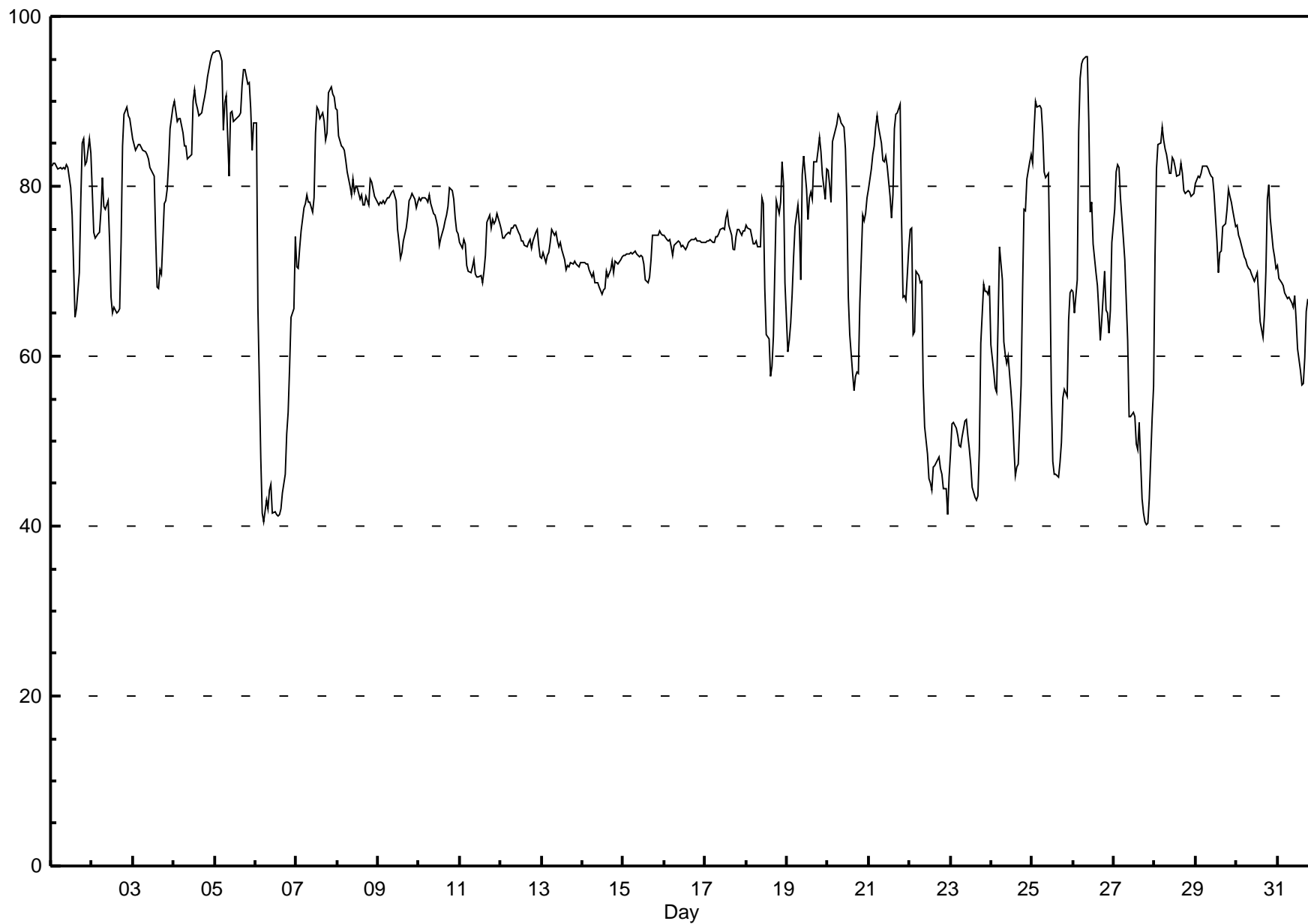


Hourly Averages

Relative Humidity (RH) - %

Valleyview - January 2011

Number of Exceedences (AAQO): 1-hr: 0 24-hr: 0 Maximum Value: 96.0 % on Jan 5 02:00 Maximum Daily Average: 90.4 % on Jan 5		Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0																								
Minimum Value: 40 % on Jan 27 20:00 Maximum Diurnal Average: 76.2 % at hour 7 Monthly Average: 73.12 %		Minimum Daily Average: 50.9 % on Jan 6 Minimum Diurnal Average: 67.1 % at hour 15 Percentiles: P ₁ = 41.4 P ₁₀ = 53.3 Q ₁ = 68.7 Median = 74.3 Q ₃ = 81.1 P ₉₀ = 87.3 P ₉₉ = 95.0																								
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	82	83	83	82	82	82	82	82	82	83	82	80	77	71	65	66	70	78	85	86	83	83	86	84	79.9	85.7
2-Jan	79	75	74	74	75	77	81	78	77	78	73	67	65	66	65	65	66	73	85	88	89	88	88	87	76.4	89.4
3-Jan	86	84	85	85	85	85	84	84	84	83	82	82	81	74	68	68	70	70	78	78	80	83	87	89	80.6	89.4
4-Jan	90	89	88	88	88	86	85	85	83	83	84	90	91	90	89	88	89	90	90	91	93	95	95	96	89.0	95.7
5-Jan	96	96	96	95	95	87	90	91	81	89	89	88	88	88	88	89	92	94	94	92	92	89	84	87	90.4	96.0
6-Jan	88	66	57	48	41	41	43	42	44	45	41	42	41	41	41	42	44	46	51	53	59	65	66	74	50.9	87.5
7-Jan	70	70	73	75	78	78	79	78	78	77	79	86	89	89	88	89	88	85	86	91	92	91	90	89	82.8	91.7
8-Jan	89	86	85	85	84	83	82	80	79	81	79	80	80	78	79	78	78	79	78	81	81	80	79	78	80.8	89.0
9-Jan	78	78	78	78	78	79	79	79	79	79	78	75	73	72	72	74	75	76	78	79	79	79	78	78	77.1	79.4
10-Jan	79	78	79	79	78	78	79	78	77	77	76	75	73	74	75	76	77	78	80	80	78	76	75	74	77.0	79.9
11-Jan	73	73	74	73	71	70	70	71	71	70	69	69	70	69	70	72	76	77	75	76	76	76	77	76	72.5	76.7
12-Jan	75	74	74	74	75	74	75	75	75	75	75	74	74	74	73	73	73	74	73	74	75	75	73	72	74.0	75.5
13-Jan	71	72	71	72	72	73	75	74	75	74	73	73	72	71	70	71	71	71	71	71	71	71	70	71	71.9	74.9
14-Jan	71	71	71	71	70	69	70	69	69	69	68	67	68	68	70	69	70	71	70	71	71	71	71	72	69.9	71.7
15-Jan	72	72	72	72	72	72	72	72	72	72	72	72	71	69	69	69	71	74	74	74	74	75	74	74	72.2	74.7
16-Jan	74	74	74	74	73	72	73	73	74	73	73	73	73	73	73	74	74	74	74	74	74	73	73	73	73.4	74.3
17-Jan	73	73	74	74	73	73	74	74	74	75	75	75	76	77	75	74	73	73	74	75	75	74	75	75	74.3	77.0
18-Jan	75	75	75	74	73	73	74	73	73	79	78	68	62	62	58	59	62	70	78	77	78	83	80	69	72.0	82.8
19-Jan	60	62	64	67	72	75	78	76	69	81	84	80	76	79	79	78	83	83	84	86	84	81	79	82	76.7	85.7
20-Jan	82	80	78	85	87	87	88	88	87	87	84	78	67	63	58	56	58	58	58	66	77	76	77	79	75.2	88.4
21-Jan	80	82	84	85	87	88	87	85	83	83	83	82	79	76	79	87	88	89	90	76	67	67	67	73	81.1	89.7
22-Jan	75	75	62	63	70	70	69	69	57	52	48	46	45	44	47	47	48	48	47	46	44	44	41	46	54.3	75.1
23-Jan	49	52	52	52	51	50	49	51	52	52	51	49	47	45	43	43	44	49	62	68	68	68	67	68	53.4	68.4
24-Jan	61	58	56	56	64	73	69	62	60	59	60	56	53	49	46	47	47	57	68	77	77	81	83	84	62.6	83.7
25-Jan	83	87	90	89	90	89	86	82	81	82	70	56	48	46	46	46	48	50	55	56	55	64	68	68	68.0	90.0
26-Jan	68	65	69	86	93	94	95	95	95	88	77	78	73	70	68	65	62	64	70	65	65	63	65	73	75.3	95.2
27-Jan	77	82	83	82	79	74	71	67	62	53	53	53	53	50	49	52	43	42	40	40	40	43	53	56	58.2	82.5
28-Jan	72	82	85	85	87	85	84	84	82	82	83	82	81	81	83	82	82	79	79	79	79	79	79	79	81.6	87.0
29-Jan	80	81	81	82	82	82	82	82	82	81	81	79	74	70	72	72	75	76	77	80	79	78	77	75	78.4	82.4
30-Jan	75	74	74	73	72	71	71	70	70	70	69	69	70	67	64	62	65	70	79	80	76	73	72	70	71.1	80.1
31-Jan	71	69	69	68	67	67	67	67	66	66	67	64	61	58	57	57	60	65	67	66	67	68	69	72	65.6	71.5
		76.0	75.4	75.0	75.7	76.2	76.1	76.2	75.3	74.0	74.1	72.8	71.3	69.4	67.8	67.1	67.4	68.4	70.4	73.2	74.1	74.1	74.5	74.8	75.6	Diurnal Average
		95.8	96.0	96.0	95.5	94.7	94.4	95.0	95.2	95.2	88.6	88.8	89.9	91.3	89.8	89.1	88.7	91.8	93.7	93.7	92.1	92.9	94.7	95.5	95.7	Diurnal Maximum





PASZA

Peace Air Shed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Valleyview - January 2011

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	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	2	1	2	3	2	4	2	3	4	4	2	3	12	9	13	15	16	14	13	15	15	13	5.8	16.5
Dir	187	194	187	210	202	199	201	196	197	191	183	169	156	258	288	285	292	288	284	278	285	287	288	293	272	284
2 Spd	12	13	16	12	8	4	1	1	1	3	3	7	2	4	2	3	3	1	1	2	1	2	1	2	3.1	15.9
Dir	294	303	312	314	315	308	179	271	138	167	165	281	313	265	243	242	235	181	198	211	184	186	212	216	286	312
3 Spd	1	1	2	2	3	3	3	3	3	2	1	1	2	3	3	2	6	8	2	2	2	3	3	3	2.2	8.1
Dir	224	224	211	205	184	188	193	185	197	205	198	177	178	171	162	177	262	259	160	161	155	172	197	165	198	259
4 Spd	2	2	2	2	3	3	2	3	3	2	2	2	3	3	3	2	2	2	2	3	2	2	2	1	2.3	3.4
Dir	198	204	215	210	211	206	199	193	188	184	181	180	181	184	166	175	190	170	175	205	201	189	175	176	190	181
5 Spd	2	3	2	1	2	3	1	2	1	1	2	2	3	2	1	1	0	1	0	1	3	4	2	2	1.5	3.7
Dir	166	164	197	193	195	230	119	154	123	143	183	200	186	179	185	183	223	342	167	251	189	190	193	201	185	190
6 Spd	1	17	20	24	23	19	13	17	15	13	17	17	17	15	13	9	9	9	5	3	2	2	2	1	11.3	23.9
Dir	239	285	284	275	269	272	274	266	257	261	275	279	282	283	286	286	283	276	245	249	173	162	168	189	273	275
7 Spd	2	1	0	1	0	1	1	4	2	1	2	5	9	7	8	6	7	7	7	6	8	8	9	11	4.1	10.8
Dir	178	169	330	268	259	249	355	8	340	346	11	8	33	63	54	41	50	53	47	22	26	9	11	18	30	18
8 Spd	15	17	16	16	17	17	17	20	18	14	14	14	14	12	9	8	9	7	9	6	5	11	10	7	12.5	20.2
Dir	10	11	10	5	350	350	350	343	346	347	351	347	344	349	357	5	5	3	354	355	359	345	348	345	354	343
9 Spd	5	5	7	7	4	3	1	2	1	1	1	0	2	3	4	4	3	3	4	3	3	5	3	4	3.0	7.0
Dir	336	336	350	338	336	337	301	321	313	231	163	341	348	347	4	6	18	21	12	11	352	347	4	350	350	350
10 Spd	3	2	3	2	1	0	0	0	0	0	1	1	2	1	1	1	1	1	1	1	1	2	1	1	0.1	2.9
Dir	339	325	356	5	20	314	210	197	145	199	189	172	156	129	158	93	97	3	135	189	196	176	195	183	139	339
11 Spd	1	0	1	1	0	1	1	1	1	1	1	2	2	1	1	1	3	1	0	0	0	1	0	0	0.8	2.8
Dir	182	148	275	168	169	165	160	163	239	178	165	168	165	162	192	201	151	190	125	174	357	174	204	174	176	151
12 Spd	0	1	1	2	1	0	1	2	3	7	8	9	8	10	10	11	11	8	10	7	4	4	5	6	4.8	11.1
Dir	224	190	240	206	247	204	97	49	351	357	355	359	7	0	359	355	355	352	344	348	342	325	318	323	351	355
13 Spd	5	5	6	4	2	2	2	2	2	1	2	4	5	7	7	8	9	9	8	6	8	8	7	6	5.0	8.7
Dir	317	314	344	27	19	27	3	337	348	331	2	11	13	356	4	359	359	7	10	13	14	9	4	8	2	7
14 Spd	7	7	5	6	6	5	3	5	2	3	3	2	3	5	6	6	6	7	7	5	6	5	5	5	4.9	7.4
Dir	0	352	350	325	337	338	333	330	331	348	356	23	356	348	350	4	7	7	17	10	11	19	18	20	357	17
15 Spd	4	4	4	4	4	3	3	3	4	4	4	2	2	2	4	4	3	4	5	5	7	7	8	9	4.3	9.0
Dir	16	14	9	9	12	4	5	9	14	7	2	343	340	355	345	2	15	24	28	26	13	17	11	12	10	12
16 Spd	10	11	9	9	9	9	11	10	9	9	7	5	5	4	5	5	4	4	N	N	N	N	N	N	7.4	11.0
Dir	7	3	6	7	8	7	352	357	4	12	8	8	19	26	17	19	10	358	N	N	N	N	N	N	7	352
17 Spd	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
Dir	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
18 Spd	N	N	N	N	N	N	N	N	N	N	N	2	14	16	13	13	6	4	2	3	3	4	2	4	--	16.0
Dir	N	N	N	N	N	N	N	N	N	N	311	285	285	282	281	278	261	150	172	162	171	153	140	259	--	285
19 Spd	12	16	15	17	20	13	8	6	8	8	6	6	7	5	3	3	1	2	2	5	6	7	8	4.7	19.7	
Dir	286	299	304	320	341	345	337	337	360	17	28	13	349	342	321	292	285	274	173	167	165	164	160	159	327	341
20 Spd	13	13	12	12	11	11	10	9	5	3	2	2	3	12	15	19	17	19	17	9	10	13	10	10	3.7	19.3
Dir	166	170	170	171	174	174	174	175	179	165	130	114	221	272	271	278	279	280	286	342	14	12	5	357	246	280
21 Spd	7	6	6	4	3	1	1	1	0	1	2	2	3	2	1	1	2	0	1	5	10	8	7	4	2.3	10.0
Dir	354	345	341	331	334	339	325	294	157	346	357	10	353	322	149	89	353	200	125	259	276	269	258	24	315	276
22 Spd	1	2	9	6	4	3	3	2	7	17	22	21	15	6	5	5	3	4	4	3	4	4	16	21	6.8	22.4
Dir	34	306	275	257	212	202	197	216	267	274	274	268	258	229	210	236	194	181	179	185	191	253	264	268	255	274

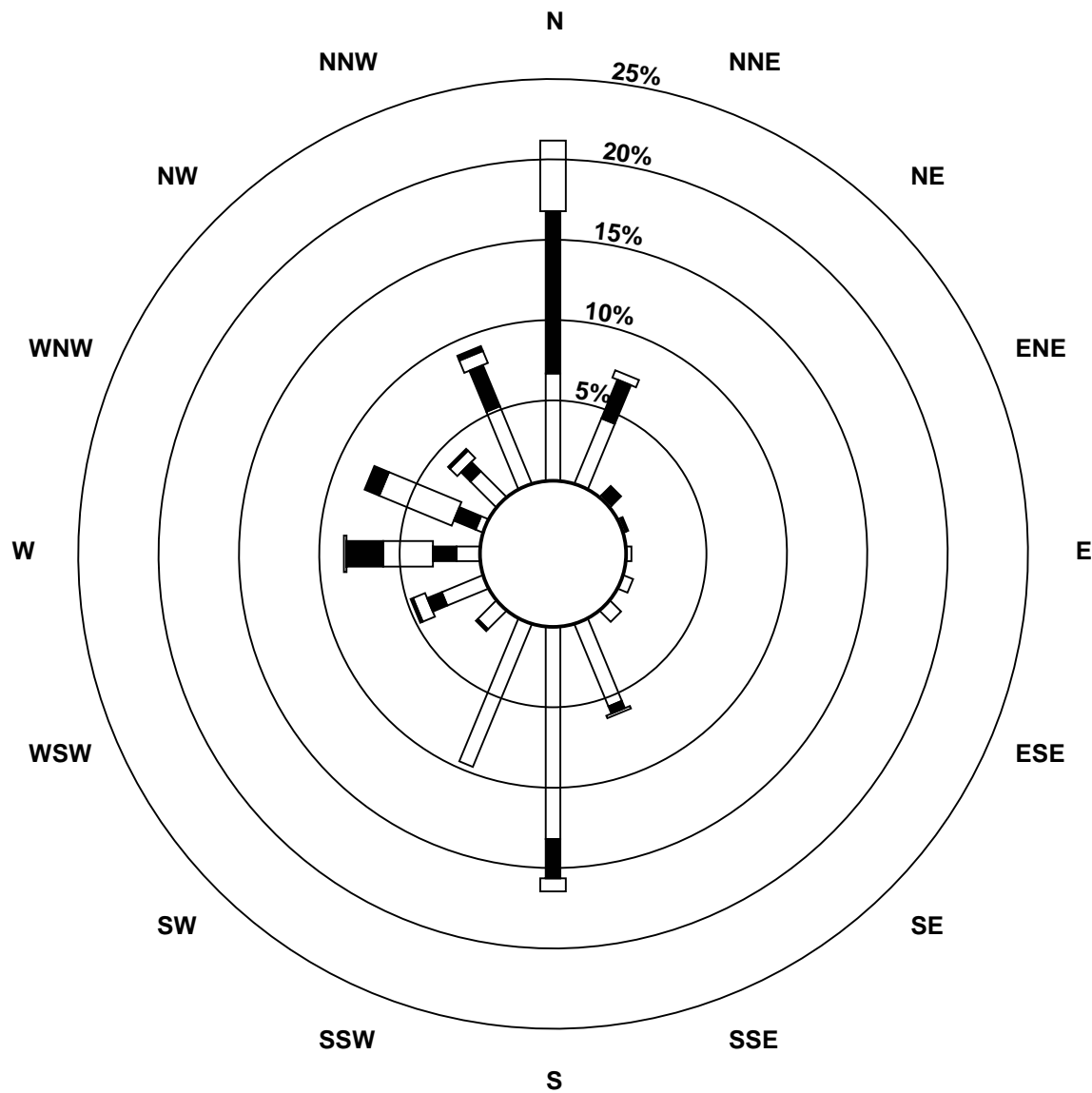
Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Valleyview - January 2011

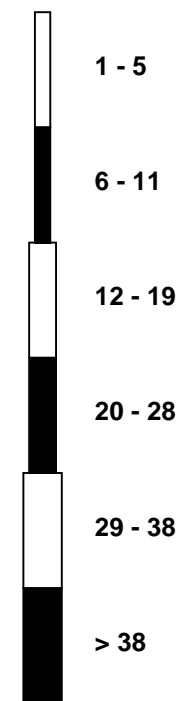
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
23 Spd	22	26	28	24	25	23	19	20	23	19	18	16	15	13	10	7	6	2	1	2	3	3	2	1	13.1	28.0	
Dir	266	270	277	276	276	278	280	282	283	286	287	288	291	291	293	294	288	244	195	182	187	178	193	196	278	277	
24 Spd	4	6	6	5	4	4	3	3	4	1	5	5	6	3	9	6	2	2	1	2	1	2	2	2	2.5	8.9	
Dir	182	180	175	189	164	189	184	188	168	246	237	239	245	235	293	298	316	74	276	179	209	199	199	201	216	293	
25 Spd	2	0	1	1	1	1	3	4	2	1	2	1	12	16	15	14	9	5	3	2	3	1	1	1	3.1	15.9	
Dir	164	272	199	199	203	230	193	182	190	72	187	307	271	273	275	281	278	260	154	150	140	197	208	192	254	273	
26 Spd	2	1	4	3	3	4	3	3	3	3	4	4	2	2	2	2	2	2	3	2	1	3	9	4	2.4	9.2	
Dir	176	233	241	213	184	177	179	185	188	202	222	202	201	188	181	179	243	141	153	171	115	262	263	250	208	263	
27 Spd	2	2	4	4	5	5	3	2	9	18	18	21	15	11	13	20	22	21	24	29	26	24	24	17	12.4	29.0	
Dir	195	196	182	178	172	179	177	188	241	248	245	253	251	255	282	304	286	276	276	280	280	284	286	291	269	280	
28 Spd	17	12	10	11	13	12	15	14	14	13	13	16	15	17	16	16	17	18	18	15	15	14	13	11	13.3	18.4	
Dir	294	297	306	313	5	17	13	9	6	6	9	7	10	6	2	2	358	0	2	1	4	3	7	5	357	0	
29 Spd	12	11	9	10	10	7	7	6	5	5	7	10	10	9	8	7	9	5	3	2	0	0	1	0	6.2	11.8	
Dir	5	7	5	358	3	5	5	5	359	360	353	353	348	1	2	10	1	5	340	337	334	338	180	177	0	5	
30 Spd	1	0	1	1	1	0	0	0	0	1	1	1	3	4	4	5	6	4	2	1	1	1	1	1	0.8	5.9	
Dir	159	177	195	163	198	180	204	90	235	159	166	340	351	346	347	340	346	352	334	356	165	186	176	189	340	346	
31 Spd	1	1	N	N	N	N	N	N	N	N	N	1	1	5	9	8	9	7	7	12	13	10	10	9	6	--	13.5
Dir	195	177	N	N	N	N	N	N	N	N	N	148	344	174	176	172	170	169	178	172	173	175	178	179	191	--	173
Spd	2.6	3.4	4.2	3.8	3.1	2.4	1.9	2.2	2.5	2.8	2.9	3.9	3.7	3.7	4.1	4.0	4.0	3.0	2.3	2.0	1.7	2.3	2.7	2.6	Diurnal Average		
Dir	308	304	304	302	310	306	311	309	305	304	298	303	305	306	310	315	315	314	313	305	313	313	301	313	Diurnal Maximum		
Spd	22.0	25.8	28.0	24.3	25.1	22.8	19.3	20.3	23.4	19.4	22.4	20.9	16.6	17.5	16.2	19.7	22.2	20.9	23.7	29.0	26.5	24.2	23.8	21.3	Diurnal Maximum		
Dir	266	270	277	276	276	278	280	282	283	286	274	268	282	6	2	304	286	276	276	280	280	284	286	268	Diurnal Maximum		
Maximum Speed Value: 29 ppb on Jan 27 20:00		Minimum Speed Value: 0 ppb on Jan 11 19:00																Hours in Service: 744									
Maximum Daily Speed Average: 13.3 ppb on Jan 28		Minimum Daily Speed Average: 0.1 ppb on Jan 11																Hours of Data: 696									
Maximum Diurnal Speed Average: 4.2 ppb at hour 3		Minimum Diurnal Speed Average: 1.7 ppb at hour 21																Hours of Missing Data: 48									
Monthly Average Velocity: 2.99 ppb 307.7 deg		Speed Percentiles: P ₁ = 0.3 P ₁₀ = 0.9 Q ₁ = 1.9 Median = 3.8 Q ₃ = 8.8 P ₉₀ = 15.4 P ₉₉ = 24.1																Percent Operational Time: 93.6									
All monthly, daily, and diurnal averages have been calculated using vector methods																											
N - Not Valid																											
Frequency Distribution																											
		Speed Range (ppb)																									
Direction	0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total																				
North	77	95	39	2	0	0	213																				
NorthEast	8	11	0	0	0	0	19																				
East	7	0	0	0	0	0	7																				
SouthEast	29	0	0	0	0	0	29																				
South	181	18	8	0	0	0	207																				
SouthWest	50	5	1	0	0	0	56																				
West	20	18	44	24	2	0	108																				
NorthWest	32	13	11	1	0	0	57																				
Total	404	160	103	27	2	0	696																				

Wind Rose

Wind Speed (WS) (km/h)
Valleyview - January 2011



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Valleyview - January 2011

Maximum Speed: 29 km/h on Jan 27 20:00	Maximum Daily Speed Average: 14.5 km/h on Jan 28	Hours in Service: 744
Minimum Speed: 0 km/h on Jan 30 00:00	Minimum Daily Speed Average: 1.2 km/h on Jan 11	Hours of Data: 696
Maximum Diurnal Speed Average: 7.3 km/h at hour 3	Minimum Diurnal Speed Average: 5.2 km/h at hour 7	Hours of Missing Data: 48
Monthly Average Speed: 6.33 km/h	Percentiles: P ₁ = 0.6 P ₁₀ = 1.2 Q ₁ = 2.1 Median = 4.0 Q ₃ = 9.0 P ₉₀ = 15.5 P ₉₉ = 24.4	Percent Operational Time: 93.6

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	3	3	2	1	2	3	2	4	2	3	4	4	2	5	12	9	13	16	17	15	14	16	15	14	7.5	16.6
2-Jan	12	13	16	12	8	4	2	2	2	3	3	7	3	4	2	3	3	1	1	2	1	2	1	2	4.6	16.0
3-Jan	1	1	2	2	3	3	3	3	3	2	2	1	2	3	3	3	6	8	3	2	2	3	3	3	2.8	8.3
4-Jan	2	2	2	2	3	3	3	3	3	3	2	3	3	3	3	2	2	2	2	3	2	2	2	2	2.4	3.4
5-Jan	2	3	2	2	2	3	2	3	2	2	2	2	3	2	2	1	1	1	2	3	3	4	3	2	2.2	3.8
6-Jan	2	17	21	24	23	19	14	17	15	13	17	17	17	16	13	9	9	9	5	4	3	2	2	1	12.0	24.1
7-Jan	2	1	1	1	1	1	2	4	2	1	2	5	9	7	8	7	7	7	7	6	8	8	10	11	4.9	10.9
8-Jan	15	17	16	16	18	17	17	20	18	14	14	15	14	12	9	8	9	7	9	6	5	11	10	7	12.7	20.3
9-Jan	5	5	7	7	5	3	1	2	1	1	1	1	2	4	4	4	3	3	4	3	3	5	3	4	3.3	7.1
10-Jan	3	2	3	2	1	1	1	0	1	1	1	1	2	1	2	2	1	1	1	1	1	2	1	1	1.3	2.9
11-Jan	1	1	2	1	1	1	1	2	2	1	2	2	2	1	1	1	3	1	1	1	1	1	1	1	1.2	2.9
12-Jan	1	1	2	2	2	1	1	2	3	7	8	9	8	10	10	11	11	8	10	8	4	4	5	6	5.6	11.2
13-Jan	5	5	7	4	3	2	2	2	2	1	2	4	5	7	8	8	9	9	8	7	8	8	8	6	5.3	8.7
14-Jan	7	7	5	6	6	5	4	5	2	3	3	2	4	5	7	6	6	7	7	5	6	5	5	5	5.2	7.5
15-Jan	4	4	4	4	4	3	4	3	4	4	4	2	3	3	4	4	3	4	5	5	7	7	8	9	4.5	9.0
16-Jan	10	11	9	9	9	9	11	10	10	9	7	5	5	4	5	5	4	4	N	N	N	N	N	N	7.5	11.0
17-Jan	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
18-Jan	N	N	N	N	N	N	N	N	N	N	N	4	15	16	13	13	6	5	2	3	3	4	2	3	--	16.1
19-Jan	12	16	16	17	20	14	8	7	8	9	6	6	6	7	5	3	3	1	2	2	5	6	7	8	8.1	19.8
20-Jan	13	13	12	12	11	11	10	9	5	3	2	3	4	12	16	19	18	19	18	12	11	13	10	10	11.1	19.4
21-Jan	7	6	6	4	3	2	2	1	1	2	2	3	3	2	1	1	3	2	2	7	10	8	7	5	3.8	10.1
22-Jan	2	4	9	6	4	3	3	2	7	17	23	21	15	7	5	5	3	4	4	3	4	5	17	21	8.0	22.5
23-Jan	22	26	28	24	25	23	19	20	24	20	18	16	15	14	10	7	6	2	1	2	3	4	2	2	13.9	28.2
24-Jan	4	6	6	5	5	5	4	3	4	2	5	6	6	4	9	6	4	2	3	2	2	2	2	2	4.1	9.1
25-Jan	2	1	1	1	1	1	3	4	4	1	2	4	12	16	15	14	9	5	3	3	3	1	1	1	4.6	16.0
26-Jan	2	2	5	3	3	4	4	3	3	3	5	4	2	2	2	3	2	2	3	4	2	3	9	5	3.3	9.4
27-Jan	2	2	4	4	6	5	3	2	9	18	18	21	15	11	13	20	22	21	24	29	27	24	24	18	14.3	29.2
28-Jan	17	12	10	12	13	12	15	14	15	13	13	16	15	18	16	16	17	19	18	15	16	14	13	11	14.5	18.6
29-Jan	12	11	9	10	10	7	7	6	5	5	7	10	10	9	8	7	9	5	3	2	1	1	1	0	6.4	11.9
30-Jan	1	0	1	1	1	1	1	1	1	1	1	2	3	4	4	5	6	4	2	1	1	1	1	1	1.8	5.9
31-Jan	1	1	N	N	N	N	N	N	N	N	1	1	6	9	9	9	7	7	12	14	10	10	9	6	--	13.6
	5.9	6.8	7.3	6.9	6.9	5.9	5.2	5.5	5.6	5.7	6.0	7.0	7.1	7.2	7.3	6.9	6.9	6.2	6.1	5.8	5.7	6.0	6.3	5.8	Diurnal Average	
	22.2	26.0	28.2	24.4	25.2	22.9	19.4	20.4	23.6	19.5	22.5	21.0	16.8	17.5	16.3	20.2	22.3	21.1	23.9	29.2	26.7	24.4	24.0	21.4	Diurnal Maximum	

N - Not Valid
All monthly, daily, and diurnal averages have been calculated using scalar methods

Hourly Standard Deviations

Wind Direction (WD) - deg

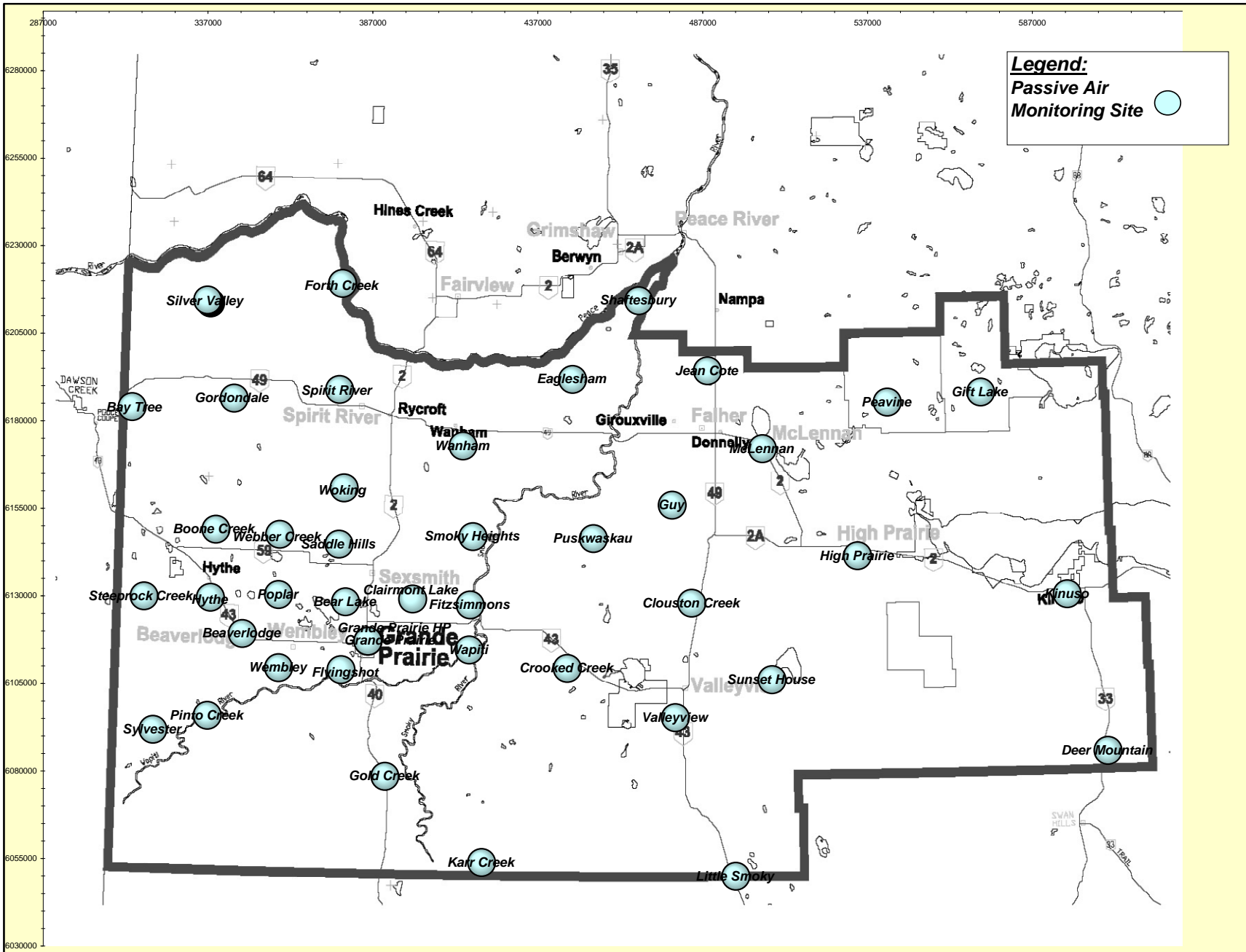
Valleyview - January 2011

Maximum Value: 93.6 deg on Jan 11 19:00		Hours in Service: 744																									
Minimum Value: 3.1 deg on Jan 30 17:00		Hours of Data: 696																									
Percentiles: P ₁ = 4.6 P ₁₀ = 6.4 Q ₁ = 7.8 Median = 11.8 Q ₃ = 29.1 P ₉₀ = 57.3 P ₉₉ = 83.9		Hours of Missing Data: 48																									
		Hours of Calibration: 0																									
		Percent Operational Time: 93.6																									
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	5	6	9	18	15	7	11	7	65	15	13	8	20	59	9	12	9	9	8	7	9	8	7	8	65.0		
2-Jan	8	8	7	7	7	24	39	57	34	18	31	22	80	23	31	15	13	22	24	14	36	22	17	12	80.0		
3-Jan	52	73	14	9	9	7	9	6	9	36	29	44	22	13	23	46	14	13	28	34	33	24	16	19	72.7		
4-Jan	14	11	11	17	10	8	9	9	8	14	12	5	7	11	8	22	9	10	13	14	15	13	7	37	36.9		
5-Jan	11	19	25	28	12	17	50	65	61	44	51	17	13	16	49	41	71	69	84	61	16	12	73	32	84.4		
6-Jan	50	21	10	7	7	7	8	9	6	6	9	7	7	9	8	8	9	9	11	32	36	22	22	27	50.1		
7-Jan	21	22	63	59	79	75	35	12	20	52	71	10	11	12	12	11	10	11	12	8	7	6	7	7	79.5		
8-Jan	6	5	7	6	5	5	6	4	4	5	5	4	4	6	9	10	6	8	7	8	9	5	8	6	9.7		
9-Jan	4	9	7	6	15	14	33	30	48	32	22	69	10	11	22	14	11	12	7	8	9	12	69	12	69.0		
10-Jan	13	12	11	9	55	73	82	29	73	75	14	16	21	67	30	47	43	49	34	59	35	18	29	21	81.5		
11-Jan	29	72	59	33	62	56	68	57	64	35	31	18	10	70	33	32	16	55	94	66	90	61	46	47	93.6		
12-Jan	73	12	72	32	74	58	43	46	33	6	8	8	8	10	7	8	9	8	6	7	7	11	11	9	74.3		
13-Jan	9	11	11	18	23	11	24	31	21	48	66	22	14	8	13	8	8	6	7	9	8	9	7	8	65.6		
14-Jan	8	6	7	11	7	5	23	11	25	20	22	38	24	15	11	9	10	10	9	12	9	9	10	10	38.4		
15-Jan	8	9	9	7	9	8	9	16	12	22	18	32	20	31	25	16	25	14	13	11	11	9	12	7	31.8		
16-Jan	8	5	7	7	9	9	7	8	7	8	9	15	15	10	12	13	11	13	N	N	N	N	N	N	15.3		
17-Jan	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--		
18-Jan	N	N	N	N	N	N	N	N	N	N	76	34	7	6	9	14	32	30	14	14	11	23	40	51	76.0		
19-Jan	9	10	11	11	6	8	9	22	15	14	14	15	19	18	20	25	41	47	26	10	9	8	8	11	47.3		
20-Jan	8	7	6	6	7	6	6	6	9	52	51	64	41	10	7	7	5	6	8	46	9	8	9	7	64.0		
21-Jan	8	10	7	9	13	60	59	83	87	68	29	67	24	38	42	67	47	91	78	37	10	11	8	47	91.0		
22-Jan	52	75	8	21	6	8	8	14	11	7	6	7	7	23	17	24	22	7	11	11	9	20	9	7	75.4		
23-Jan	8	7	6	6	6	6	6	7	6	7	7	8	8	9	8	10	9	34	32	15	10	10	19	65	64.9		
24-Jan	10	7	9	18	30	38	29	24	19	56	24	20	13	30	12	12	53	25	80	30	43	15	18	16	80.4		
25-Jan	36	89	22	32	29	52	23	9	81	81	12	83	9	7	6	5	7	34	11	43	24	39	52	37	89.4		
26-Jan	26	58	26	25	6	7	12	16	13	23	19	10	20	15	24	11	40	35	10	55	50	42	15	26	57.6		
27-Jan	10	7	9	13	11	7	11	18	24	5	6	5	7	12	15	12	7	8	7	6	7	8	7	10	24.0		
28-Jan	8	13	13	19	9	8	7	8	7	8	6	5	7	5	7	5	6	7	6	6	6	6	8	7	18.8		
29-Jan	7	6	7	7	7	8	10	10	8	6	10	5	7	15	9	10	6	8	12	6	81	79	41	86	85.5		
30-Jan	63	80	9	18	33	69	61	72	72	31	55	32	14	7	10	3	3	7	14	32	49	19	27	46	80.4		
31-Jan	31	25	N	N	N	N	N	N	N	N	49	76	72	8	9	8	8	8	7	6	6	5	7	5	75.7		
		73.4	89.4	72.1	59.1	79.5	74.7	81.5	82.6	87.3	80.6	76.0	83.4	80.0	70.3	49.1	67.0	71.2	91.0	93.6	65.7	89.5	79.3	72.9	85.5		
N - Not Valid																											

PASZA

Monthly Passive Data Summary

Location of PASZA Passive Monitoring Stations



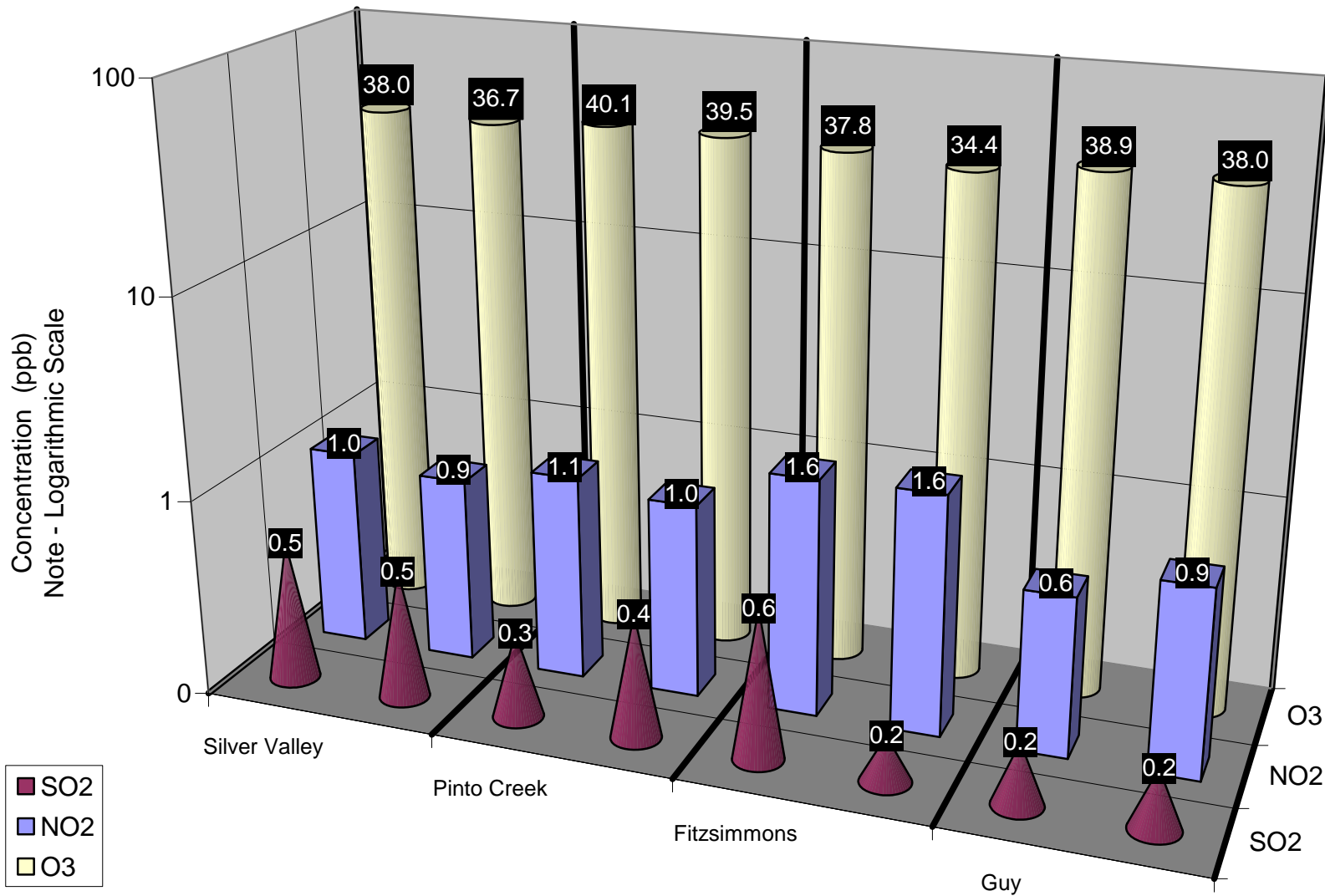
PASZA Passive Results for January 2011

Station Number	Station Name	SO2 ppb	O3 ppb	NO2 ppb	Site Legal
Duplicates					
1a	Silver Valley	0.5	38.0	1.0	
1b	Silver Valley	0.5	36.7	0.9	
25a	Pinto Creek	0.3	40.1	1.1	
25b	Pinto Creek	0.4	39.5	1.0	
29a	Fitzsimmons	0.6	37.8	1.6	
29b	Fitzsimmons	0.2	34.4	1.6	
36a	Guy	0.2	38.9	0.6	
36b	Guy	0.2	38.0	0.9	
1	Silver Valley	0.5	37.4	0.9	08-27-081-11 W6M
2	Bay Tree	0.4	37.3	0.7	13-16-078-13 W6M
3	Fourth Creek	0.3	41.1	0.8	04-13-082-07 W6M
4	Gordondale	0.4	35.7	1.1	04-34-078-10 W6M
5	Boone Creek	0.3	34.8	1.4	16-36-074-11 W6M
7	Steeprock Creek	0.3	40.3	0.6	09-35-072-13 W6M
9	Spirit River	0.3	36.7	1.0	08-12-079-07 W6M
10	Woking	0.3	37.5	0.5	01-13-076-07 W6M
11	Webber Creek	0.4	36.1	1.1	09-36-074-09 W6M
12	Hythe	0.3	36.1	1.4	14-36-072-11 W6M
14	Sylvester	0.1	37.8	1.0	08-06-069-12 W6M
16	Beaverlodge	0.3	37.2	2.1	15-36-071-10 W6M
17	Poplar	0.4	39.3	1.1	13-06-073-08 W6M
18	Saddle Hills	0.3	39.9	1.0	04-25-074-07 W6M
19	Wanham	0.3	41.6	0.8	16-22-077-03 W6M
20	Shaftesbury	n/a	n/a	n/a	04-03-082-23 W5M
21	Eaglesham	0.2	34.6	0.8	16-21-079-25 W5M
23	Bear Lake	0.3	39.5	1.5	15-31-072-06 W6M

PASZA Passive Results for January 2011 (Continued)

Station Number	Station Name	SO2 ppb	O3 ppb	NO2 ppb	Site Legal
24	Wembley	0.3	38.0	1.8	12-31-070-08 W6M
25	Pinto Creek	0.3	39.8	1.0	04-24-069-11 W6M
26	Flyingshot	0.3	36.2	2.1	15-36-070-07 W6M
27	Grande Prairie I	0.3	28.8	7.8	08-15-071-06 W6M
28	Clairmont Lake	0.4	42.0	1.6	09-06-073-04 W6M
29	Smoky Heights	0.4	36.1	1.6	04-06-075-02 W6M
30	Fitzsimmons	0.2	32.3	1.8	15-36-072-03 W6M
32	Gold Creek	0.3	28.0	2.7	06-33-067-05 W6M
33	Wapiti	0.2	34.5	1.7	02-25-071-03 W6M
34	Puskaskau	0.1	36.6	0.5	15-35-074-25 W5M
35	Jean Cote	0.3	41.0	0.8	12-35-079-21 W5M
36	Guy	0.2	38.4	0.8	03-04-076-22 W5M
37	Crooked Creek	0.2	36.6	1.6	16-01-071-26 W5M
38	Karr Creek	0.1	28.5	0.7	10-16-065-02 W6M
39	Clouston Creek	0.3	38.6	0.8	12-01-073-22 W5M
40	McLennan	n/a	n/a	n/a	03-29-077-19 W5M
41	Valleyview	0.3	38.4	1.1	09-30-069-22 W5M
42	Sunset House	0.3	42.9	0.5	05-32-070-19 W5M
43	High Prairie	0.1	39.1	1.3	16-13-074-17 W5M
44	Peavine	0.2	37.9	0.6	03-05-079-15 W5M
45	Gift Lake	0.1	33.4	0.9	10-07-079-12 W5M
46	Little Smoky	0.2	28.8	3.6	12-01-065-21 W5M
47	Kinuso	0.1	34.5	1.2	12-10-073-10 W5M
48	Deer Mountain	0.2	37.1	0.9	15-22-068-09 W5M
49	Grande Prairie HP	0.3	25.6	9.6	17-26-071-06 W6M

*BDL = Below Detection Level



Duplicate Summary Chart

Passive Summary for January 2011

Stats	Sulphur Dioxide SO ₂	Ozone O ₃	Nitrogen Dioxide NO ₂
	ppb	ppb	ppb

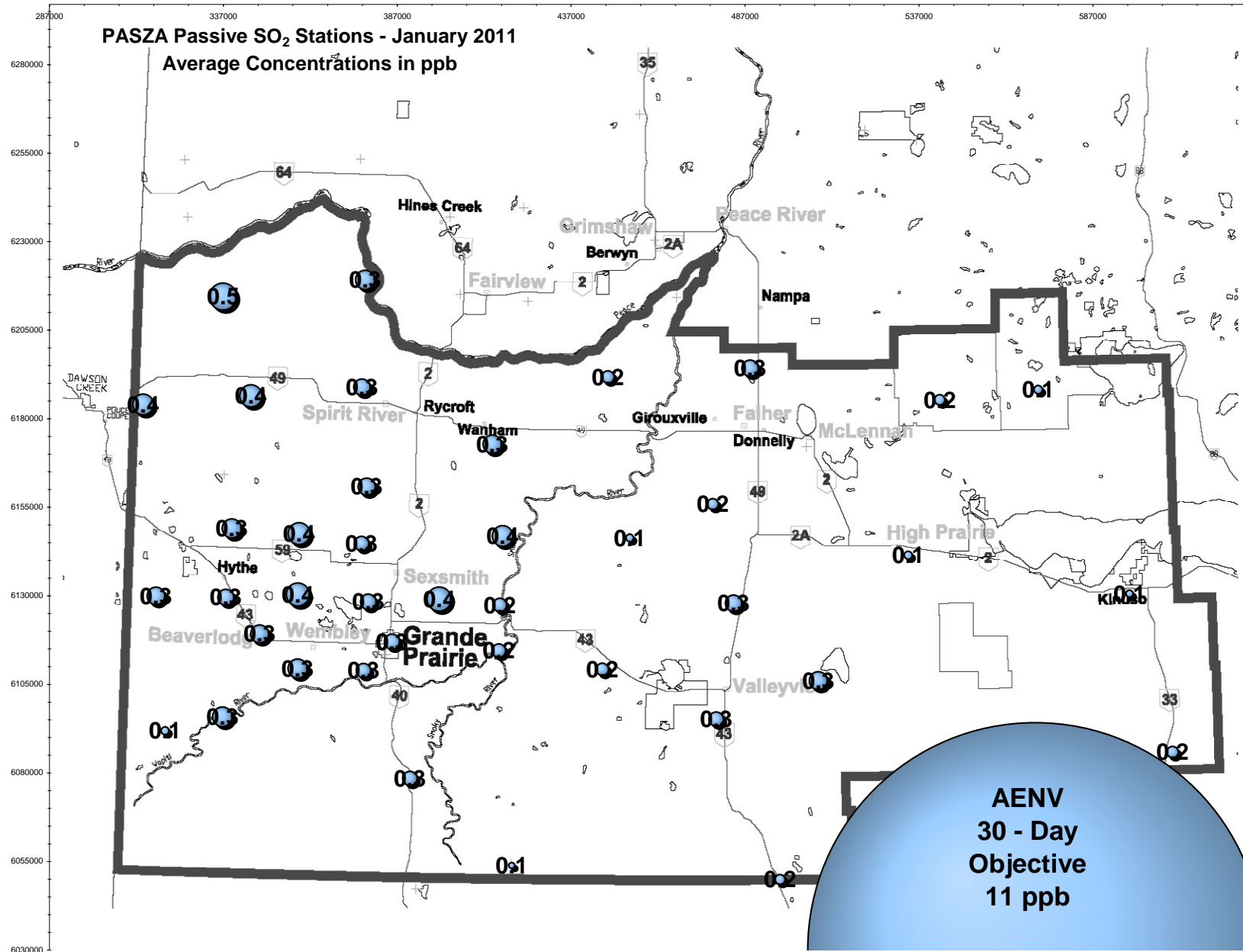
Passive Summary for January 2011 (PASZA Zone)			
Mean	0.3	36.5	1.6
Standard Deviation	0.1	4.0	1.8
Minimum	0.1	25.6	0.5
Minimum At	Karr Creek (#38)	Grande Prairie HP (#49)	Woking (#10)
Maximum	0.5	42.9	9.6
Maximum At	Silver Valley (#1)	Sunset House (#42)	Grande Prairie HP (#49)

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

	SO ₂	O ₃	NO ₂
PASZA Beaverlodge station	0.5	31.1	5.3
PASZA Beaverlodge passive	0.3	37.2	2.1

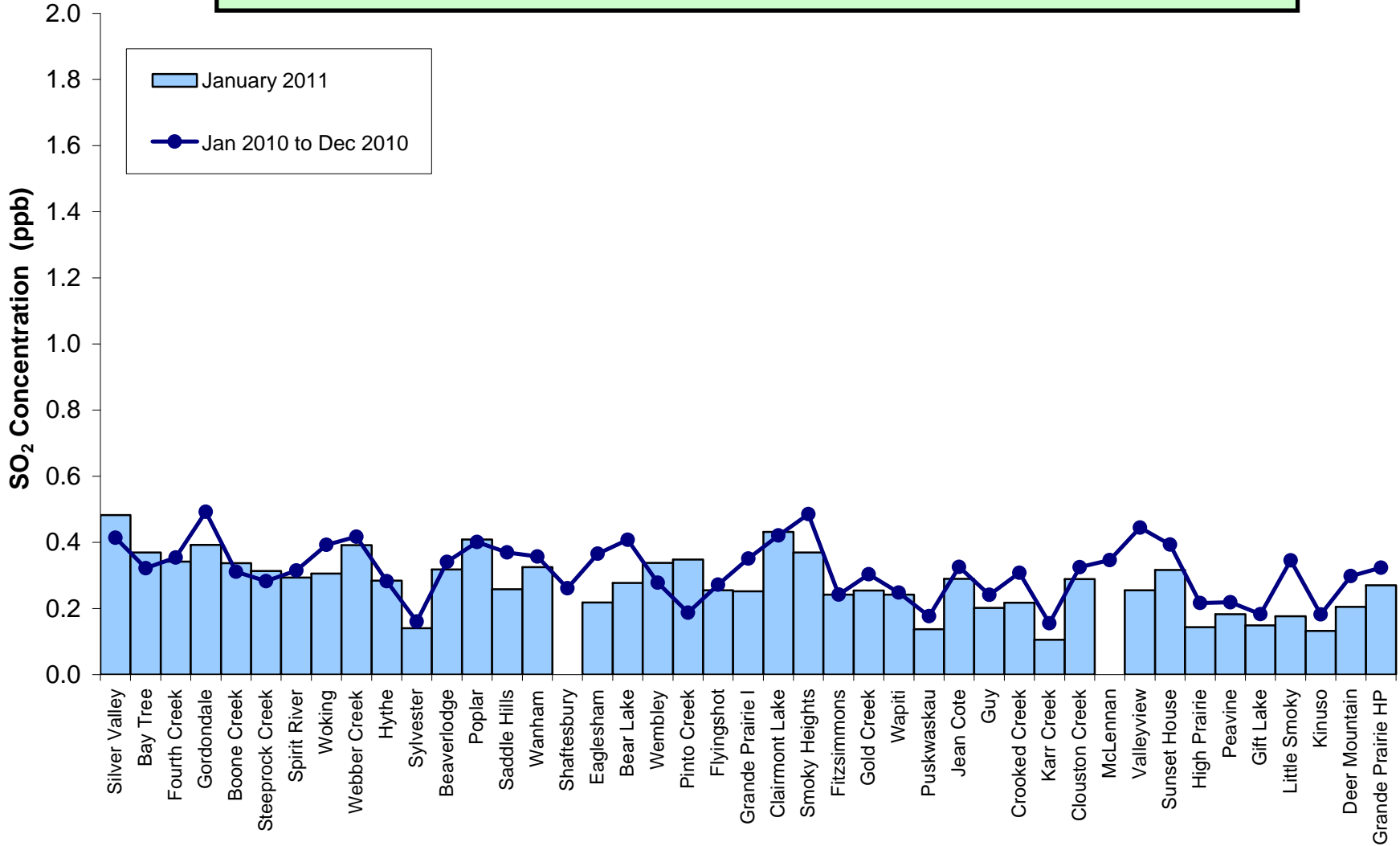
Comparison between Continuous and Passive monitoring at Henry Pirker (passive #49 Grande Prairie HP)

	SO ₂	O ₃	NO ₂
PASZA Henry Pirker station	0.4	20.3	14.8
PASZA Grande Prairie passive	0.3	25.6	9.6

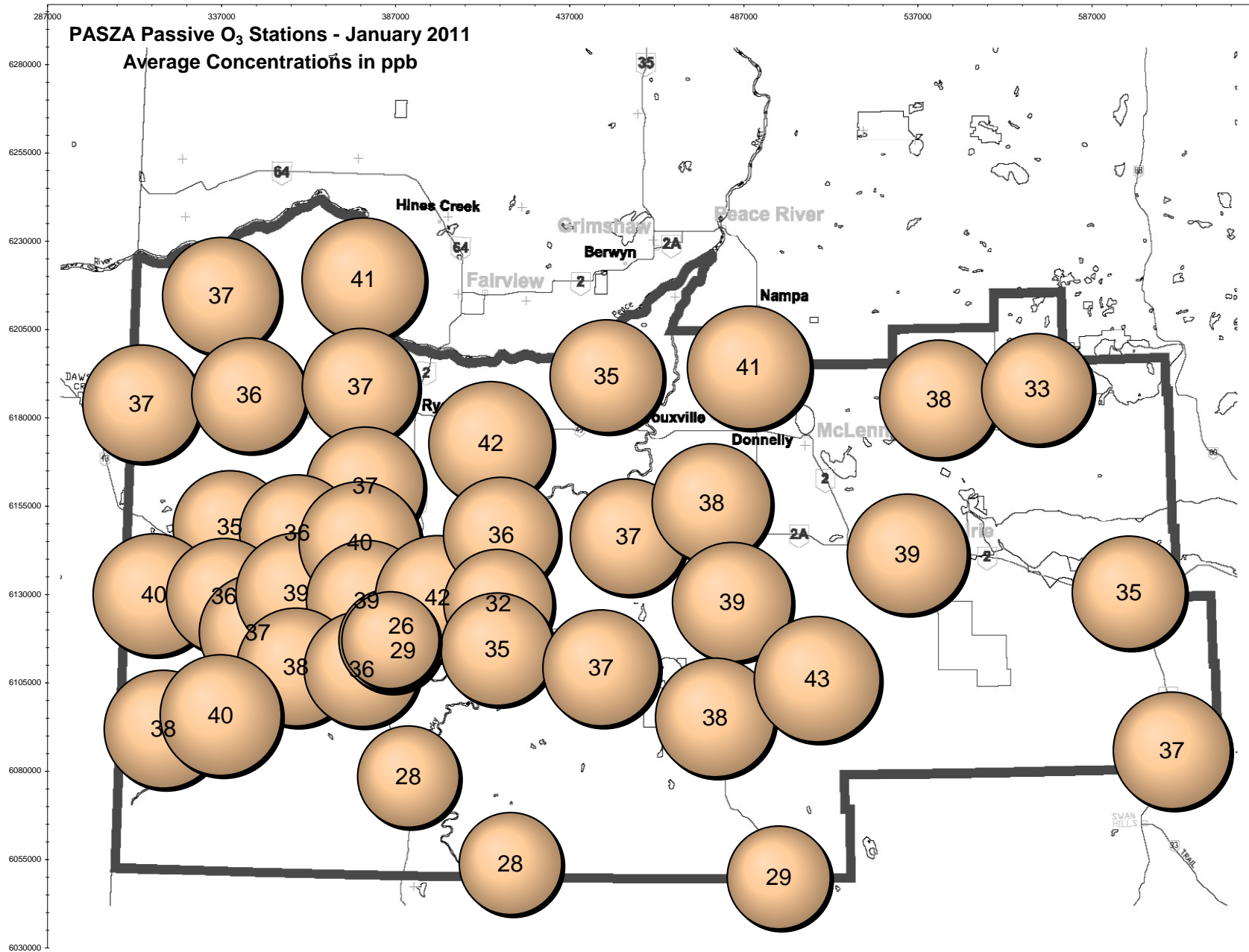


SO₂ Bubble Chart

Alberta Ambient Air Quality Objective - Annual SO₂ Objective is 8 ppb

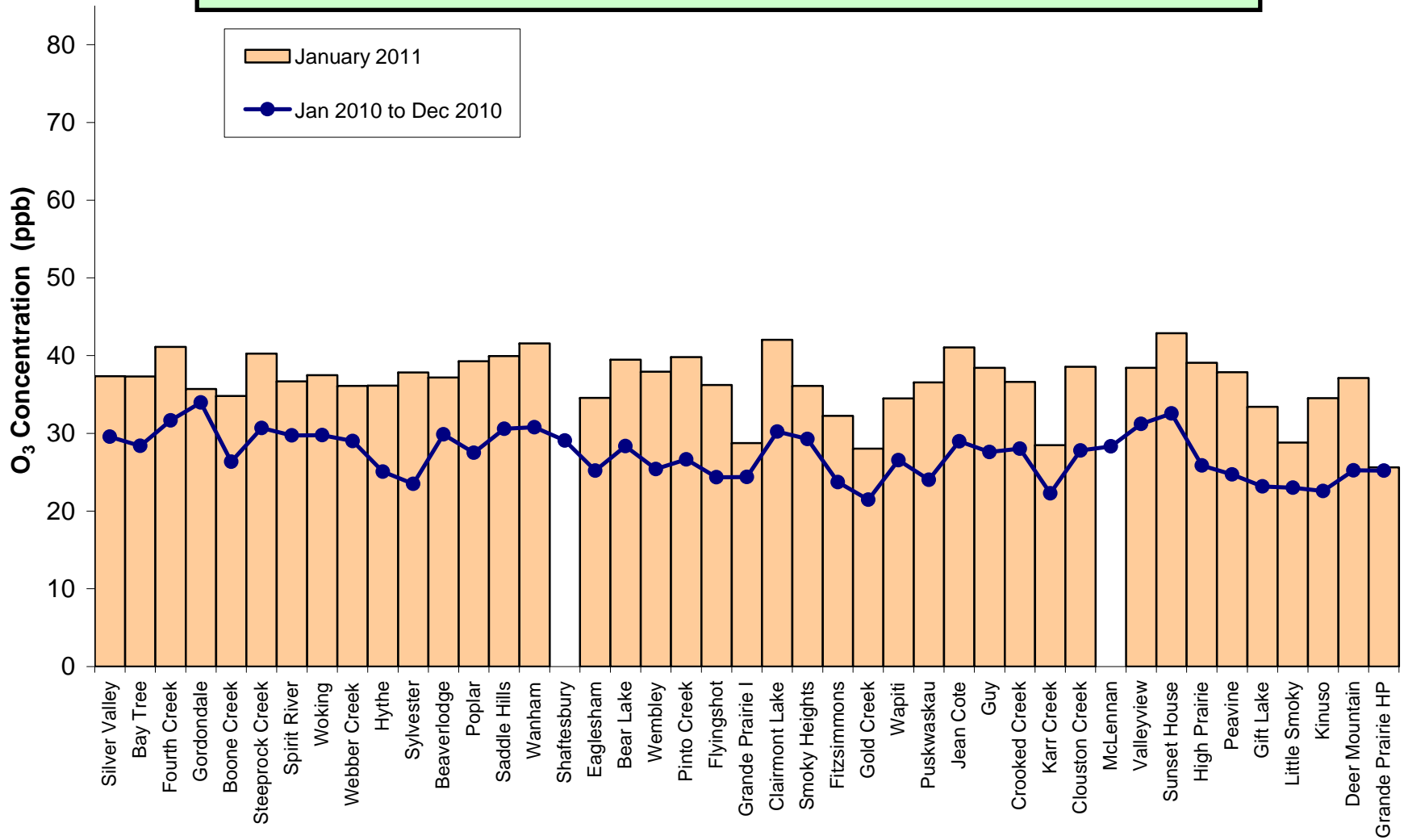


SO₂ Summary Chart

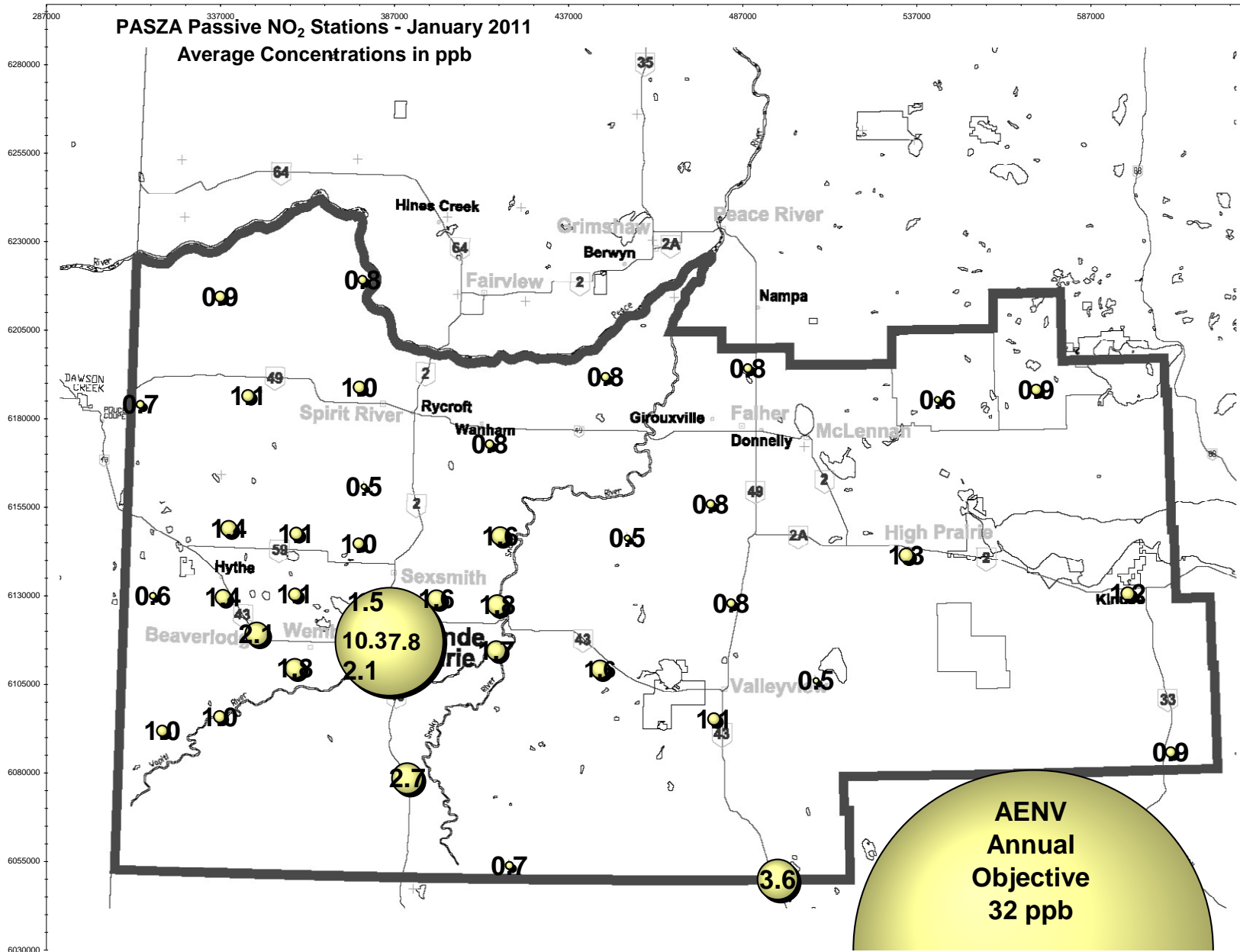


O₃ Bubble Chart

Alberta Ambient Air Quality Objective - No Annual O₃ Objective

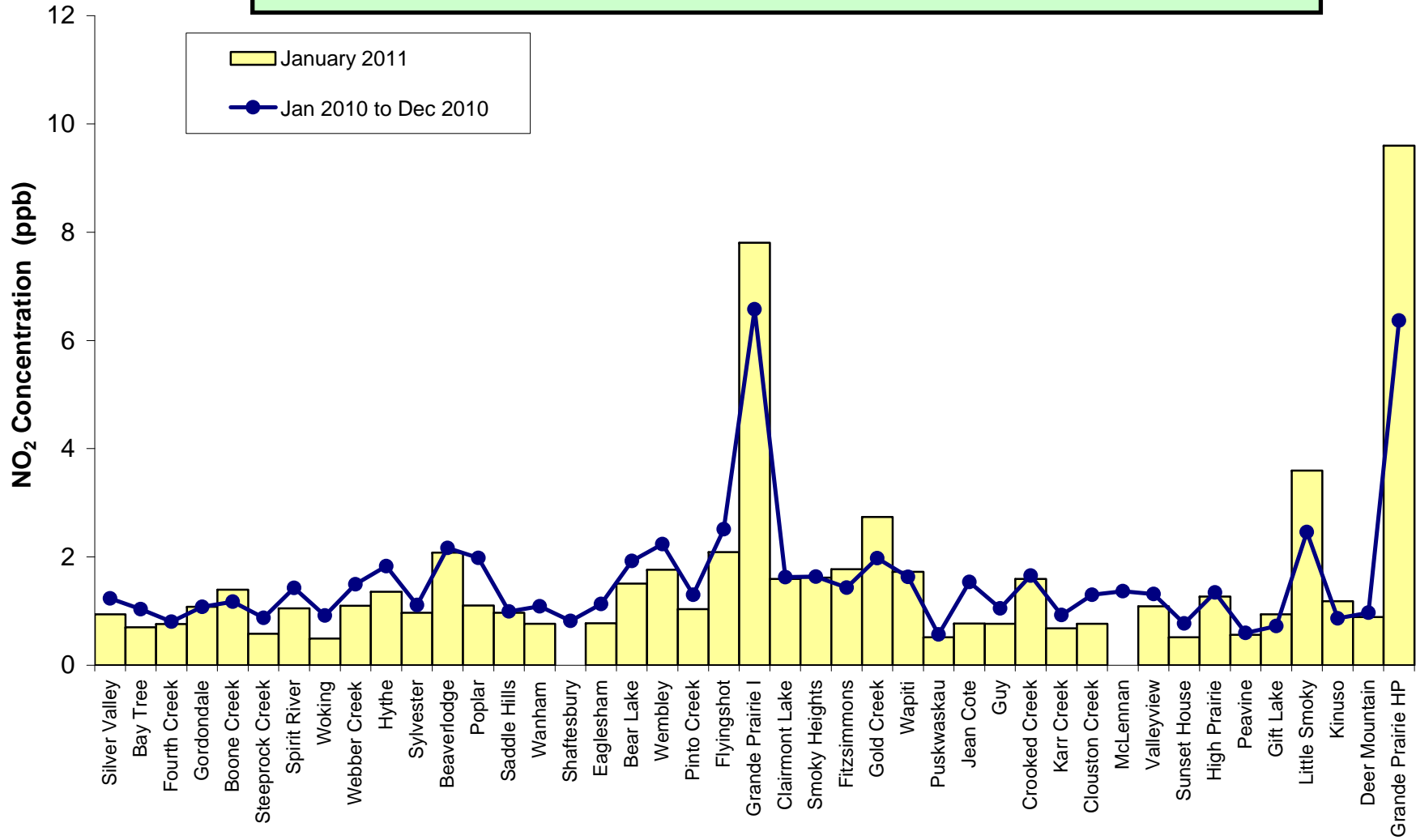


O₃ Summary Chart



NO₂ Bubble Chart

Alberta Ambient Air Quality Objective - Annual NO₂ Objective is 32 ppb



NO₂ Summary Chart

PASZA

ALBERTA ENVIRONMENT INCIDENCE REPORTS

January 2011

Air Monitoring Directive Non-Compliance 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:	244571	Reported To (AENV Contact):	Karla
Date & Time Incident Reported to AENV:	January 2011	Reported By:	Sharon Whiteley
Reported on Behalf of:	PASZA	Approval Number (if applicable):	
Location(s) of Incident:	PASZA Henry Pirker Monitoring Station - Grande Prairie		
Start Date & Time of Incident:	January 1, 2011	End Date & Time of Incident:	January 31, 2011
Details of Non-Compliance:			
<p>The PM2.5 analyzer (FDMS TEOM) housed within the Henry Pirker station, in Muskoseepi Park, (Grande Prairie) was at non-conformance level (operational time less than 90%). During the QAQC process of the data it was determined that many hours were to be flagged invalid due to baseline drift or unusual spiking. The unusual spiking was caused by adverse weather conditions, while the baseline drift issue is under ongoing investigation. A total of one hundred and twenty-one hours (121) were invalidated.</p>			
Immediate Actions Taken:			
Follow-up Details:			
<p>The issues have been related to FDMS upgrades for NAPS. Technicians are aware of issue and communication and follow-up with factory is ongoing</p>			
Actions Taken to Prevent Reoccurrence (if any):			
Not Applicable			
Additional Actions Required (if any):			
Not applicable			
Report Completed By:	Sharon Whiteley	Date Report Submitted:	February 24, 2011
7-Day Letter Due Date:	March 2, 2011		

January 2011 Calibration Reports

**PASZA - Henry Pirker Station with the following calibrations:
SO₂, NO, NO₂, NO_x, O₃, CO, THC, TRS**

**PASZA – Evergreen Park Station with the following calibrations:
SO₂, TRS**

**PASZA – Smoky Heights Station with the following calibrations:
SO₂, TRS**

**PASZA – Beaverlodge Station with the following calibrations:
SO₂, NO, NO₂, NO_x, O₃**

**PASZA – Kinuso (Portable) Station with the following calibrations:
SO₂, TRS, NO, NO₂, NO_x & O₃,**

**PASZA – Valleyview Station with the following calibrations:
SO₂ & H₂S**

Calibration Report



Parameter SO2

Air Monitoring Network PASZA

Station Information

Calibration Date	January 4, 2010	Previous Calibration	December 7, 2010
Station Number	1	Station Location	Henry Pirker
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	8:55	End Time (MST)	11:35
Barometric Pressure	0.936 ATM	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
Cal Gas Conc	51.5 ppb	Cal Gas Cert Date	4/6/2012
		Cal Gas Cylinder #	SGAL3245
DACS make	Focus AP1000	DACS serial No.	1
DACS voltage range	0 - 1 volt	DACS channel #	10
	Before		After
Calculated slope	1.001355	Calculated slope	1.005199
Calculated intercept	-1.259697	Calculated intercept	-1.601503
Analyzer make	TEI 43C	Analyzer serial #	610816292

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	8.7		8.6	
Coefficient	.809		.796	
Pressure	639.9	mm Hg	643.9	mm Hg
Flow	0.476	lpm	0.474	lpm
Lamp Voltage	44190	Hz	43704	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)
4991	0.00	0.0	-0.1	N/A
4991	39.83	407.7	406.3	1.0036
4991	19.89	204.4	206.1	0.9921
4991	9.93	102.3	104.8	0.9755
4991	0.00	0.0	-0.1	As Found Zero
4991	39.83	407.7	411.1	As Found Span
Average Correction Factor				0.9904

Calculated value of As Found Response: 410.5 ppb Percent Change of As Found: -0.7%

	before calibration		after calibration	
Auto zero	0.1	ppb	0.1	ppb
Auto span	239.8	ppb	231.5	ppb

Notes: _____

Calibration Performed By: Courtney Thompson

Calibration Summary

Parameter SO2
 Air Monitoring Network PASZA

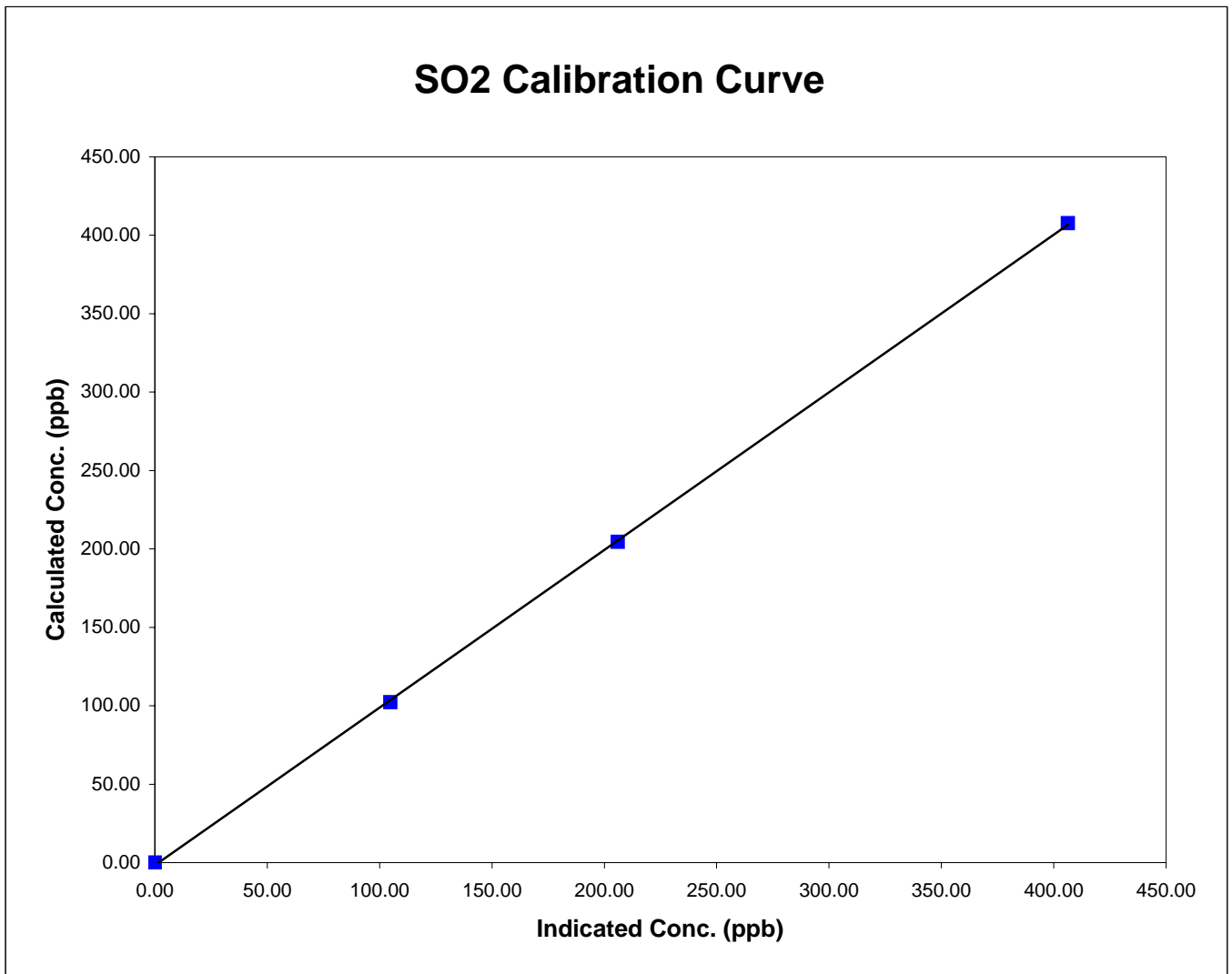


Station Information

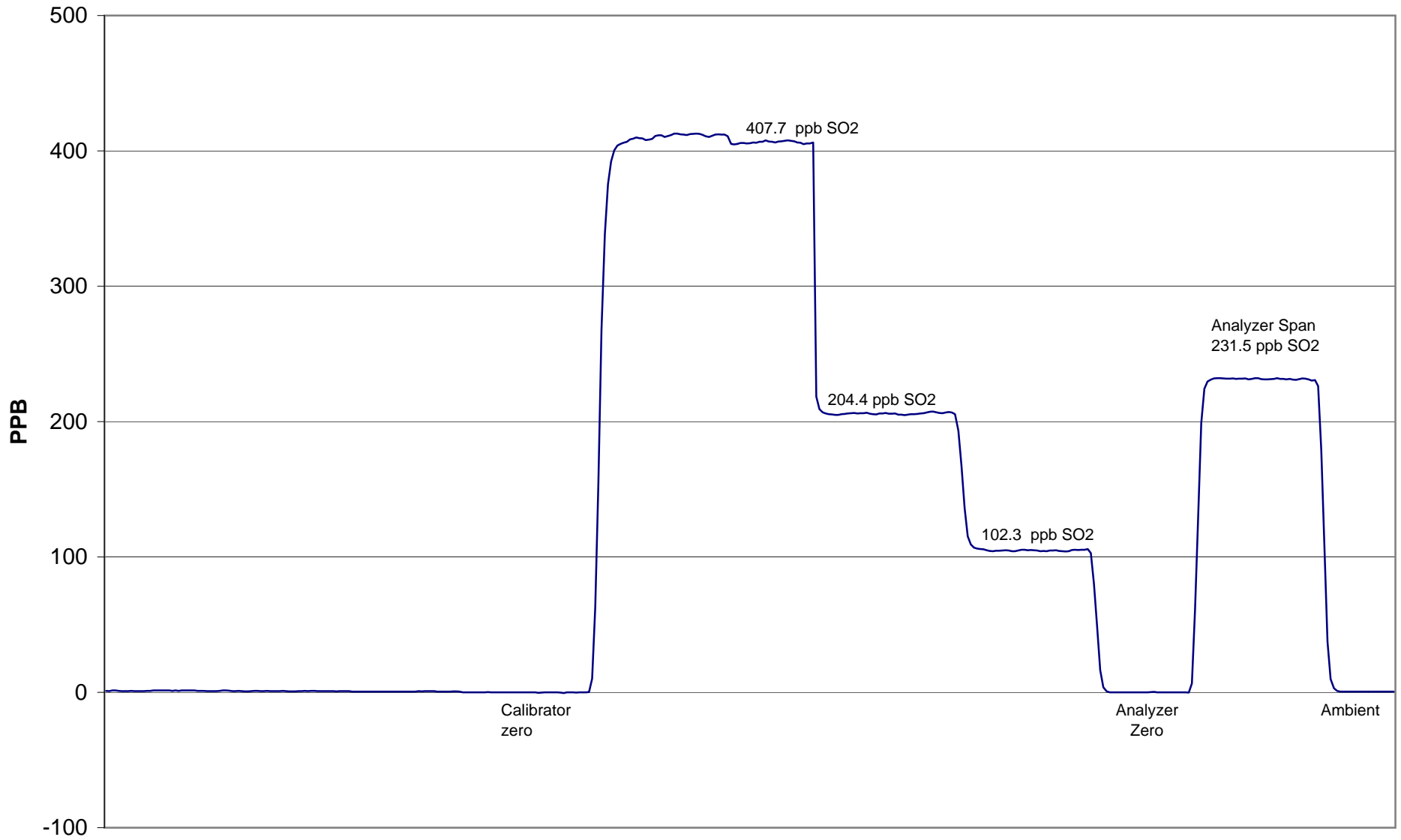
Calibration Date	January 4, 2010	Previous Calibration	December 7, 2010
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	8:55	End Time (MST)	11:35
Analyzer make/model	TEI 43C	Analyzer serial #	610816292

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	N/A		
407.7	406.3	1.0036	Correlation Coefficient	0.999921
204.4	206.1	0.9921		
102.3	104.8	0.9755	Slope	1.005199
			Intercept	-1.601503



Henry Pirker SO₂ Calibration



January 4, 2010

Calibration Report



Parameter SO2

Air Monitoring Network PASZA

Station Information

Calibration Date	January 26, 2010	Previous Calibration	January 4, 2011
Station Number	1	Station Location	Henry Pirker
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	7:30	End Time (MST)	10:18
Barometric Pressure	0.936 ATM	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
Cal Gas Conc	50.6 ppb	Cal Gas Cert Date	4/6/2012
		Cal Gas Cylinder #	LL34002
DACS make	Focus AP1000	DACS serial No.	1
DACS voltage range	0 - 1 volt	DACS channel #	10
	Before		After
Calculated slope	1.005199	Calculated slope	1.019473
Calculated intercept	-1.601503	Calculated intercept	-0.172462
Analyzer make	TEI 43C	Analyzer serial #	610816292

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	8.7		8.6	
Coefficient	.809		.796	
Pressure	639.9	mm Hg	643.9	mm Hg
Flow	0.476	lpm	0.474	lpm
Lamp Voltage	44190	Hz	43704	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)
4991	0.00	0.0	0.2	N/A
4991	39.83	400.6	393.1	1.0190
4991	0.00	0.0	0.2	As Found Zero
4991	39.83	400.6	393.1	As Found Span
Average Correction Factor				1.0190

Calculated value of As Found Response: 393.4 ppb Percent Change of As Found: 1.8%

	before calibration		after calibration	
Auto zero	0.1	ppb	0.1	ppb
Auto span	239.8	ppb	0.0	ppb

Notes: _____

Calibration Performed By: Courtney Thompson

Calibration Summary

Parameter SO2

Air Monitoring Network PASZA

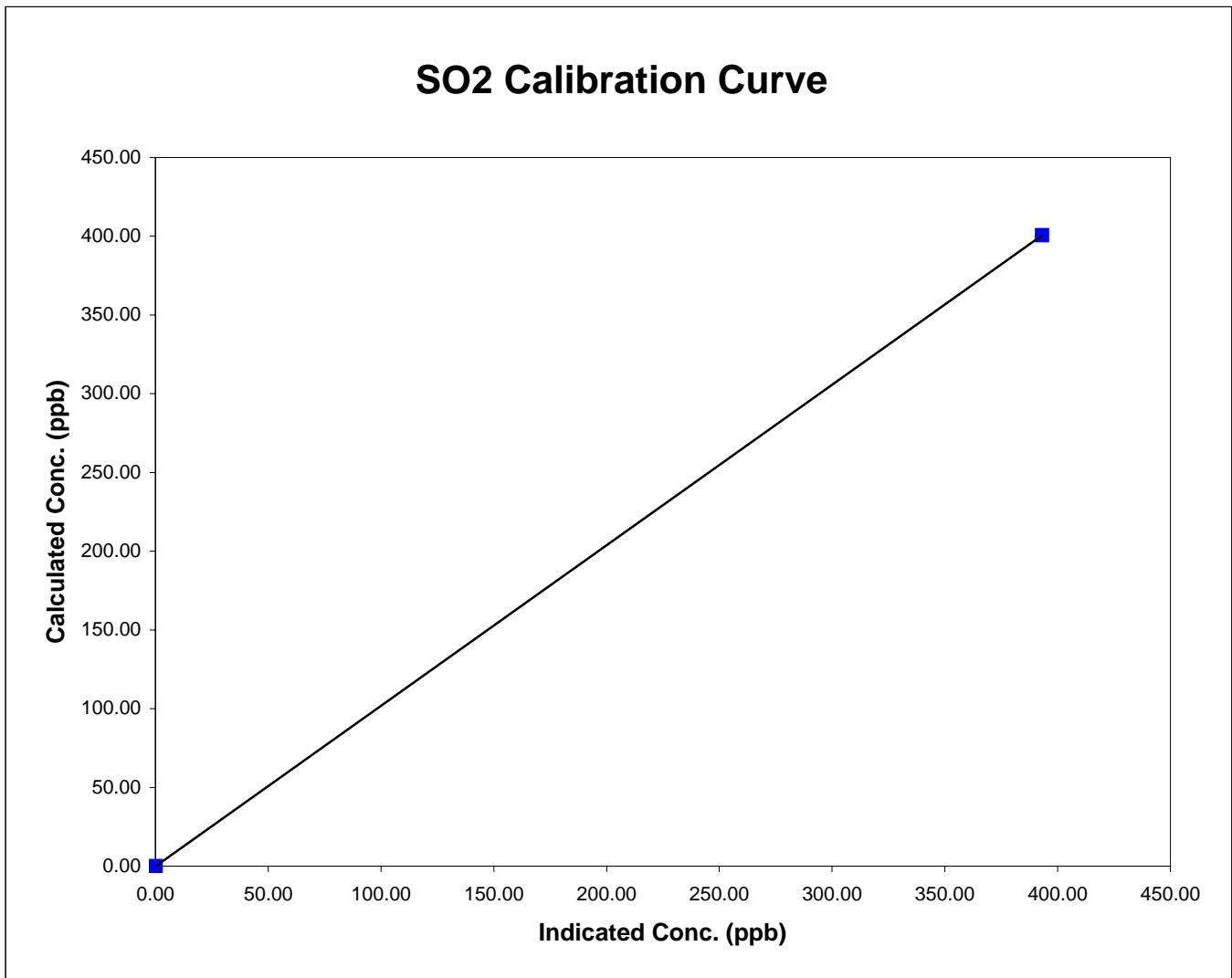


Station Information

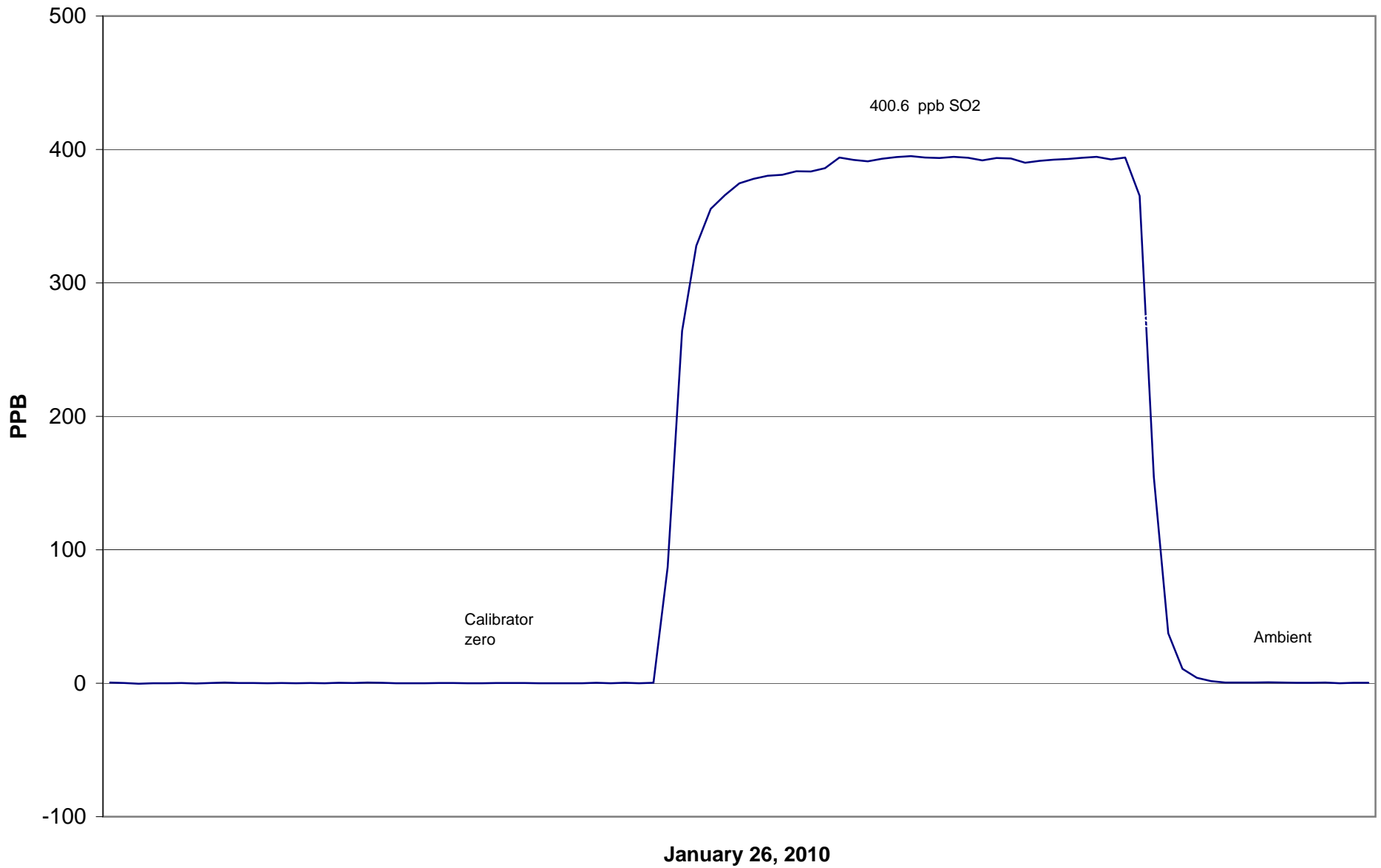
Calibration Date	January 26, 2010	Previous Calibration	January 4, 2011
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	7:30	End Time (MST)	10:18
Analyzer make/model	TEI 43C	Analyzer serial #	610816292

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A		
400.6	393.1	1.0190	Correlation Coefficient	1.000000
			Slope	1.019473
			Intercept	-0.172462



Henry Pirker - SO₂ As-Found



Calibration Report

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



Station Information

Calibration Date	January 3, 2010	Previous Calibration	December 7, 2010
Station Number	1	Station Location	Henry Pirker
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	13:15	End Time (MST)	15:51
Barometric Pressure	0.936 ATM	Station Temperature	20.0 Deg C
Calibrator	Enviroics 6100	Serial Number	3474
Cal Gas Conc	5.15 ppb	Cal Gas Expiry Date	7/31/2008
		Cal Gas Cylinder #	ALM013295
DACS make	Focus AP1000	DACS serial No.	1
DACS voltage range	0 - 1 volt	DACS channel #	9
	Before		After
Calculated slope	1.008692	Calculated slope	1.032022
Calculated intercept	-0.609988	Calculated intercept	0.138655
Analyzer make	TEI 45C	Analyzer serial #	630718528

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Coefficient	1.037		1.037	
Background	10.0		10.3	
Pressure	655.4	mm Hg	652.9	mm Hg
Flow	0.457	ccm	0.456	ccm
Lamp Voltage	829	v	829	v

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)
4991	0.00	0.00	0.17	N/A
4991	79.78	81.03	78.91	1.0269
4991	39.87	40.81	38.23	1.0677
4991	9.93	10.23	10.12	1.0102
4991	0.00	0.00	0.17	As Found Zero
4991	79.78	81.03	78.91	As Found Span
Average Correction Factor				1.0349

Calculated value of As Found Response: **78.8 ppb** Percent Change of As Found: **2.7%**

	before calibration		after calibration	
Auto zero	-0.29	ppb	0.80	ppb
Auto span	26.30	ppb	29.00	ppb

Notes: _____

Calibration Performed By: **Courtney Thompson**

Calibration Summary



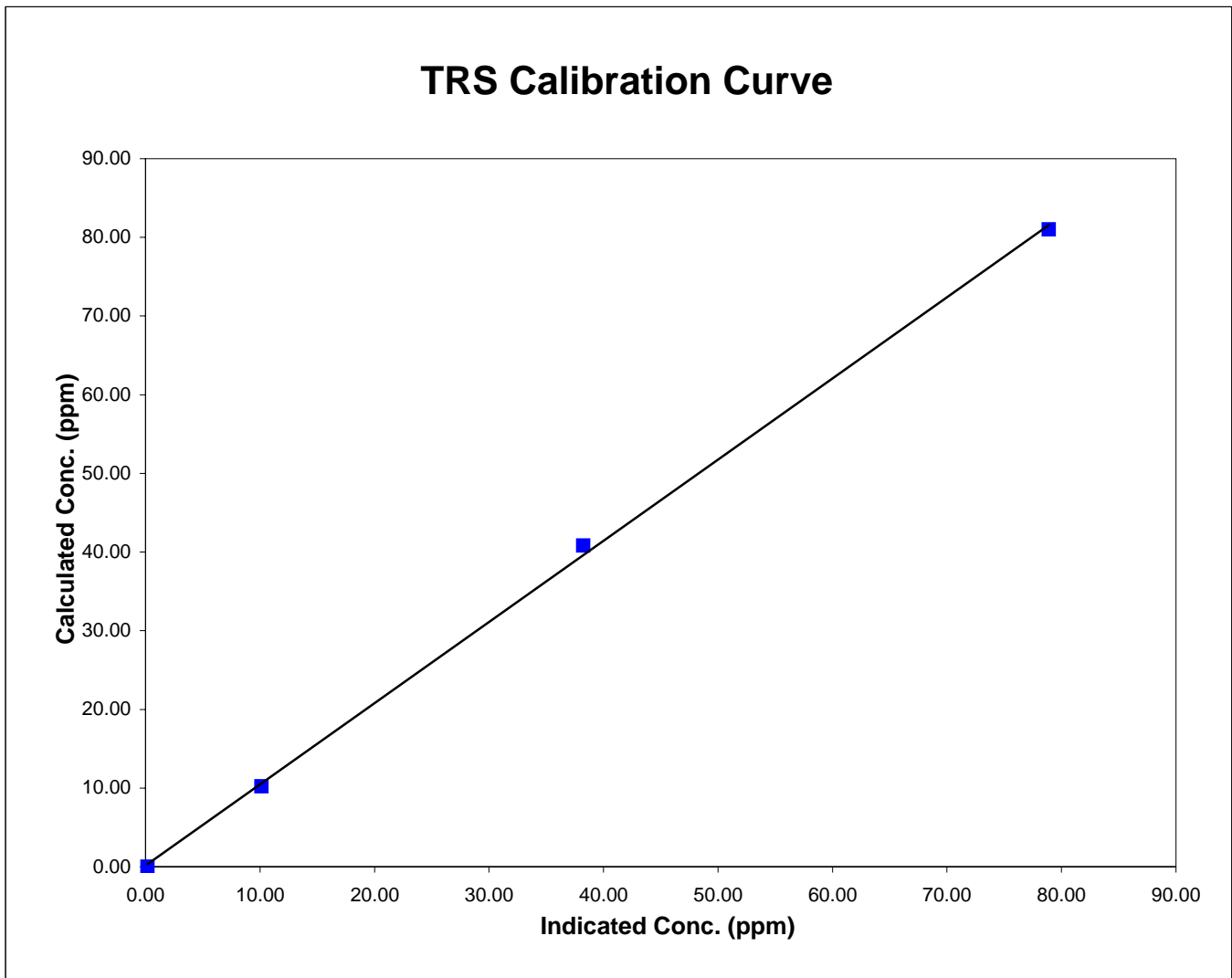
Parameter TRS
Air Monitoring Network PASZA

Station Information

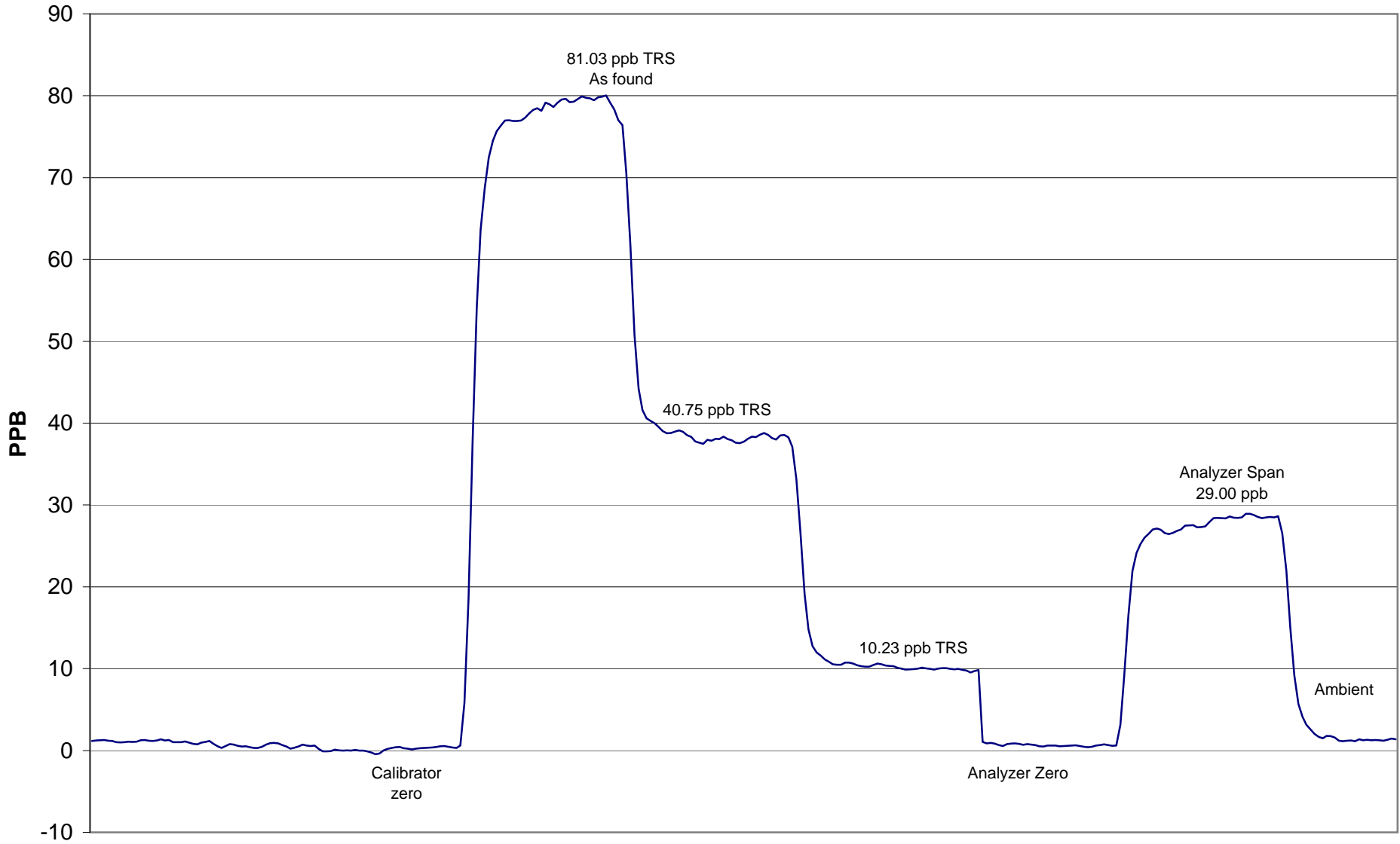
Calibration Date	January 3, 2010	Previous Calibration	December 7, 2010
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	13:15	End Time (MST)	15:51
Analyzer make/model	TEI 45C	Analyzer serial #	630718528

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.174	N/A	Correlation Coefficient	0.999490
81.026	78.907	1.0269		
40.814	38.227	1.0677	Slope	1.032022
10.226	10.123	1.0102		



Henry Pirker TRS Calibration



January 3, 2010

Calibration Report



Parameter TR5
Air Monitoring Network PASZA

Station Information

Calibration Date	January 26, 2011	Previous Calibration	January 3, 2011
Station Number	1	Station Location	Henry Pirker
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	9:10	End Time (MST)	11:55
Barometric Pressure	0.936 ATM	Station Temperature	20.0 Deg C
Calibrator	Enviroics 6100	Serial Number	3474
Cal Gas Conc	5.15 ppm	Cal Gas Expiry Date	7/31/2008
		Cal Gas Cylinder #	ALM013295
DACS make	Focus AP1000	DACS serial No.	1
DACS voltage range	0 - 1 volt	DACS channel #	9
	Before		After
Calculated slope	1.032022	Calculated slope	1.050906
Calculated intercept	0.138655	Calculated intercept	-0.422151
Analyzer make	TEI 45C	Analyzer serial #	630718528

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Coefficient	1.037		1.037	
Background	10.0		10.3	
Pressure	655.4	mm Hg	652.9	mm Hg
Flow	0.457	ccm	0.456	ccm
Lamp Voltage	829	v	829	v

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)
4991	0.00	0.00	0.40	N/A
4991	79.78	81.03	77.50	1.0455
4991	0.00	0.00	0.40	As Found Zero
4991	79.78	81.03	77.50	As Found Span
Average Correction Factor				1.0455

Calculated value of As Found Response: **79.7 ppb** Percent Change of As Found: **1.6%**

	before calibration		after calibration	
Auto zero	-0.29	ppb	NA	ppb
Auto span	26.30	ppb	NA	ppb

Notes:

As founds before datalogger removal

Calibration Performed By: Courtney Thompson

Calibration Summary

Parameter
 Air Monitoring Network

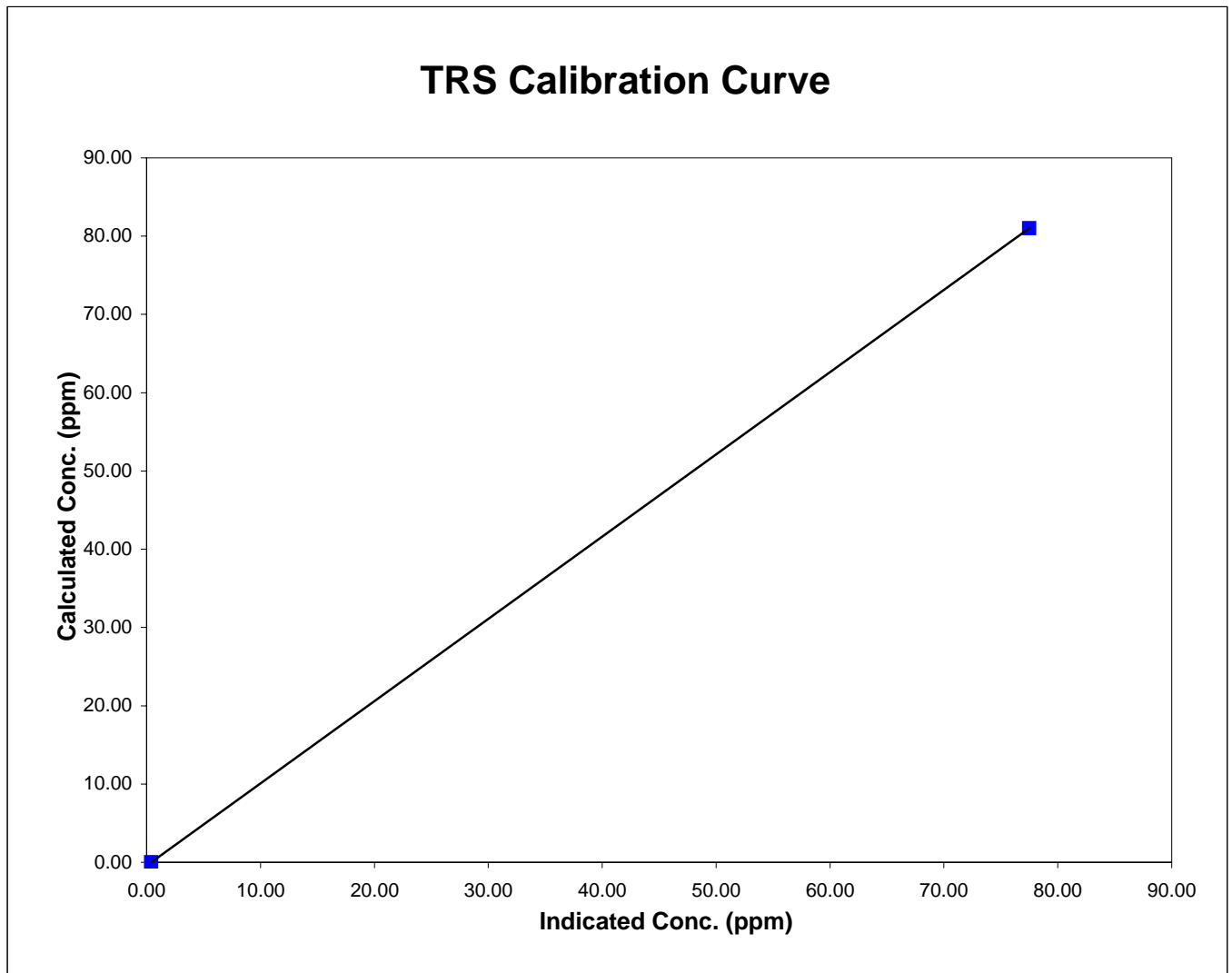


Station Information

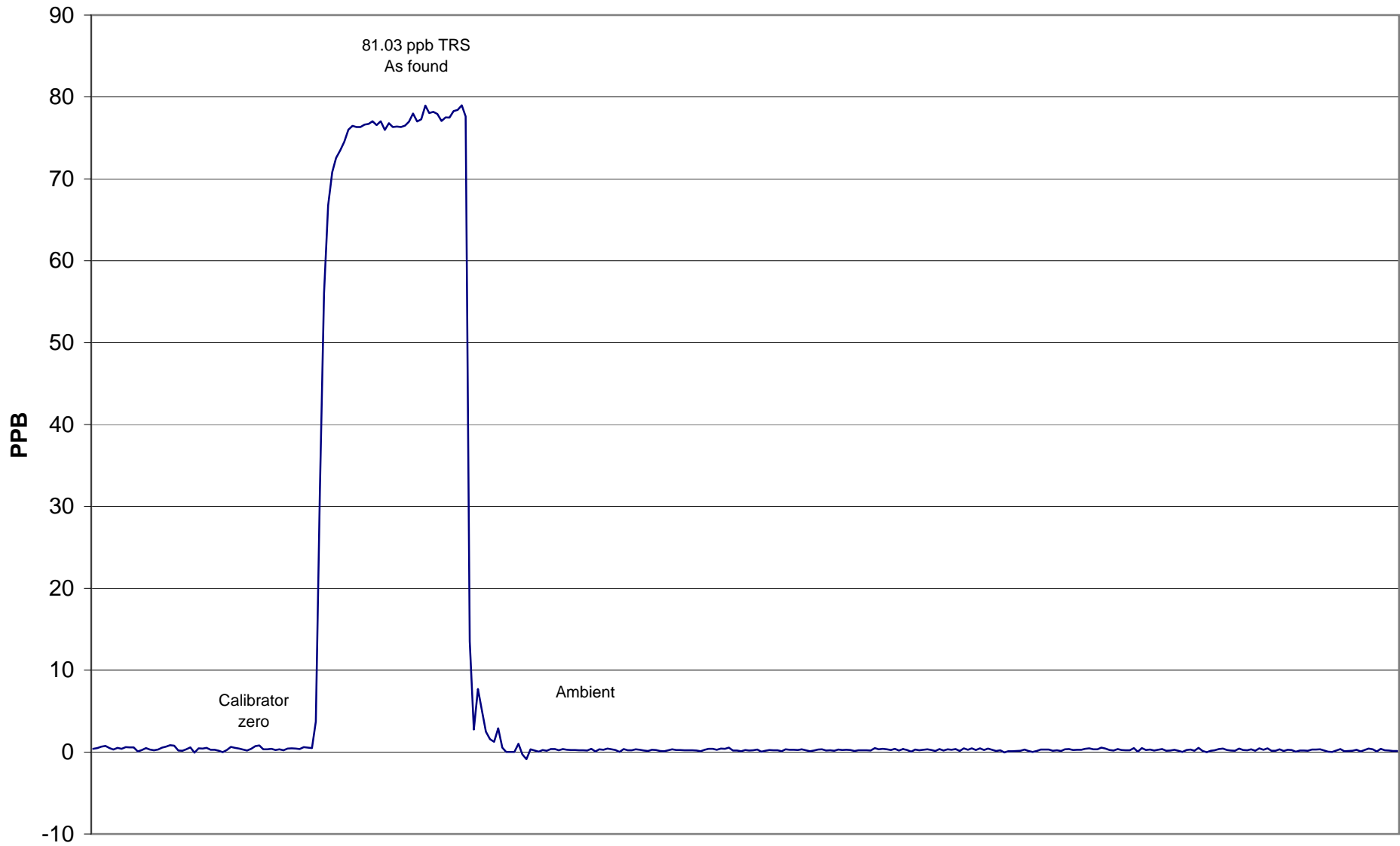
Calibration Date	January 26, 2011	Previous Calibration	January 3, 2011
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:10	End Time (MST)	11:55
Analyzer make/model	TEI 45C	Analyzer serial #	630718528

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.402	N/A		
81.026	77.503	1.0455	Correlation Coefficient	1.000000
			Slope	1.050906
			Intercept	-0.422151



Henry Pirker - TRS As-Found



January 26, 2011

Calibration Report

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



Station Information

Calibration Date	January 4, 2010	Previous Calibration	December 7, 2010
Station Number	1	Station Location	Henry Pirker
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Installation	<input type="checkbox"/> Removal
Start Time (MST)	8:55	End Time (MST)	13:10
Barometric Pressure	0.936 Atm	Station Temperature	20.0 Deg C
Calibrator	EnviroNics	Serial Number	3474
NO Cal Gas Conc	50.8 ppm	Cal Gas Expiry Date	April 6, 2012
NOx Cal Gas Conc	50.8 ppm	Cal Gas Serial #	SGAL3245

DACS Information

DACS make Focus AP1000 DACS serial No. _____

Parameter		NO2	NOx	NO
Before	Data Slope	1.000646	1.005581	1.005450
	Data Offset	0.131676	-2.074837	-2.083230
After	Data Slope	1.005244	1.008164	1.006072
	Data Offset	0.289265	-2.526656	-2.203144
Channel #		8	6	7
Voltage Range		0 - 10 VDC	0 - 10 VDC	0 - 10 VDC

Analyzer Information

Analyzer make/model **TEI 42C** Analyzer serial # **508011073**

Test Point	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
NO offset	9.7	mV	9.8	mV
NOx bkgnd	10.1	mV	10.2	mV
NO coefficient	0.722		0.735	
NOx coefficient	0.998		0.997	
NO2 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	176.9	in Hg	175.3	in Hg
Sample Flow	0.758	ccm	0.750	ccm

Notes:

Calibration Report

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



Station Information

Calibration Date: **January 4, 2010** Station Location: **Henry Pirker**

Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor	
zero	4991	0.00	0.0	0.0	0.0	0.5	0.1	0.1	N/A	N/A	
1	4991	39.83	402.2	402.2	0.0	400.4	400.8	-0.4	1.0045	1.0034	
2	4991	19.89	201.6	201.6	0.0	203.6	203.7	-0.2	0.9906	0.9897	
3	4991	9.93	100.9	100.9	0.0	104.5	104.6	-0.1	0.9651	0.9645	
AFZ	4991	0.00	0.0	0.0	0.0	0.5	0.1	0.1	0.0000	0.0000	
AFS	4991	39.83	402.2	402.2	0.0	394.1	393.7	0.4	1.0206	1.0216	
									Average Correction Factor	0.9867	0.9859

As Found Concentrations: **NO_x= 391.5** **NO= 391.5** As Found Percent Change **NO_x= -2.7%** **NO= -2.6%**

GPT Calibration Data

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	0.1	0.1	0.0	0.5	0.1	0.1	N/A	N/A	N/A	N/A	
NO point	401.0	401.0	0.0	400.1	401.0	-1.0	1.0023	1.0000	N/A	N/A	
300	401.0	181.9	219.1	399.7	181.9	217.9	1.0034	1.0000	1.0054	99.5%	
200	401.0	253.9	147.1	399.7	253.9	146.0	1.0033	1.0000	1.0075	99.3%	
100	401.0	322.7	78.3	399.4	322.7	77.0	1.0040	1.0000	1.0172	98.3%	
							Average Correction Factor	1.0036	1.0000	1.0100	99.0%

AIC Data

Parameter	Previous calibration				Current calibration			
	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	165.4	164.6	1.0	ppb

Calibration Performed By: Courtney Thompson

Calibration Summary

Parameter NO₂

Air Monitoring Network PASZA



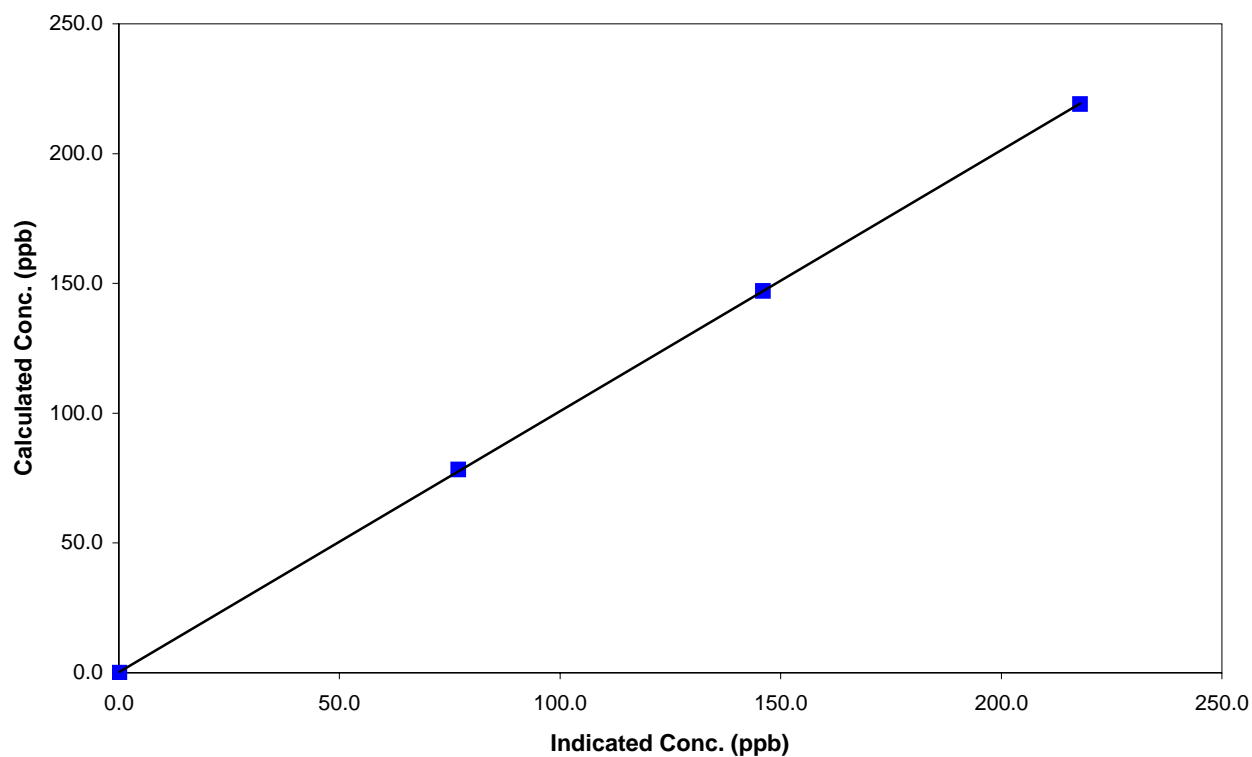
Station Information

Calibration Date	January 4, 2010	Previous Calibration	December 7, 2010
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	8:55	End Time (MST)	13:10
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	0.999976
219.1	217.9	1.0054		
147.1	146.0	1.0075	Slope	1.005244
78.3	77.0	1.0172		
			Intercept	0.289265

NO₂ Calibration Curve



Calibration Summary



Parameter NO_x

Air Monitoring Network PASZA

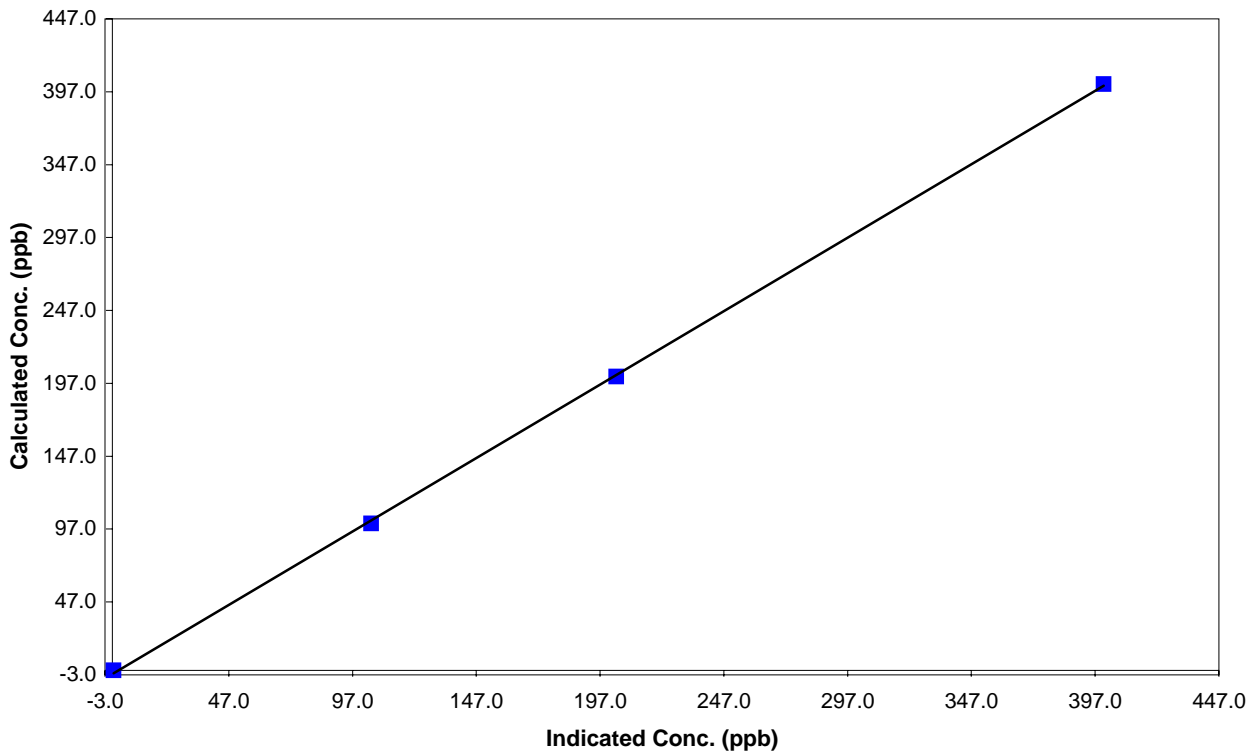
Station Information

Calibration Date	January 4, 2010	Previous Calibration	December 7, 2010
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	8:55	End Time (MST)	13:10
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	0.5	N/A	Correlation Coefficient	0.999887
402.2	400.4	1.0045		
201.6	203.6	0.9906		
100.9	104.5	0.9651	Slope	1.008164
			Intercept	-2.526656

NO_x Calibration Curve



Calibration Summary



Parameter NO

Air Monitoring Network PASZA

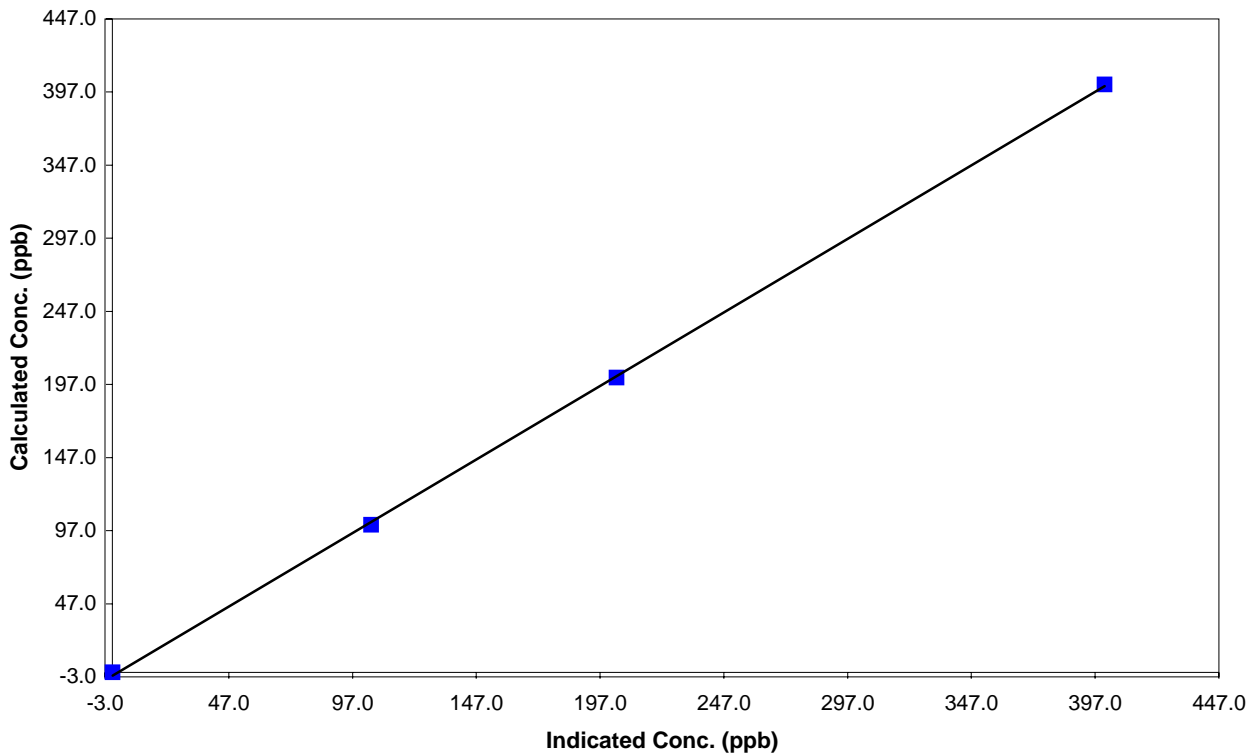
Station Information

Calibration Date	January 4, 2010	Previous Calibration	December 7, 2010
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	8:55	End Time (MST)	13:10
Analyzer make	TEI 42C	Analyzer serial #	508011073

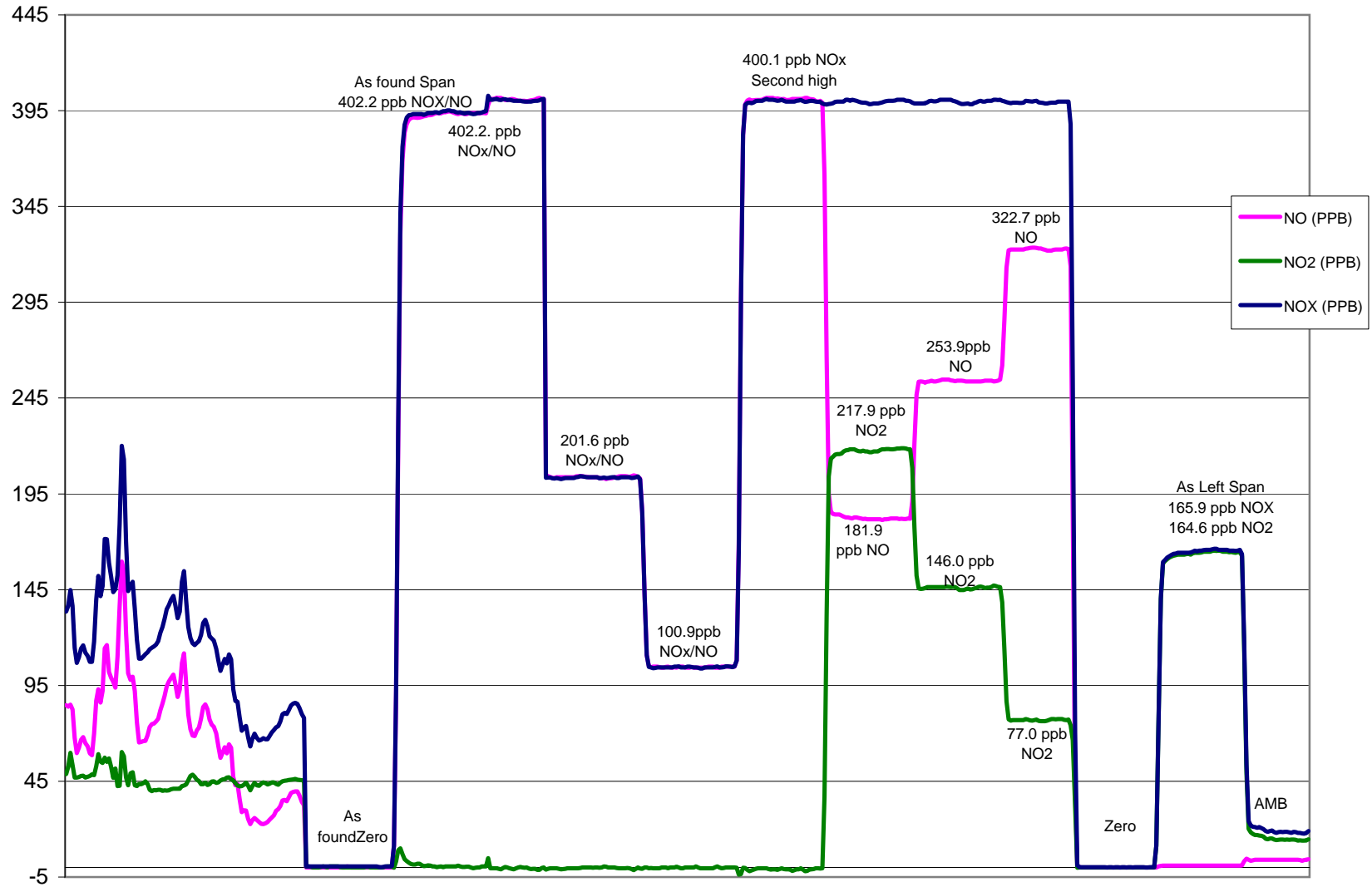
Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A	Correlation Coefficient	0.999867
402.2	400.8	1.0034		
201.6	203.7	0.9897		
100.9	104.6	0.9645	Slope	1.006072
			Intercept	-2.203144

NO Calibration Curve



Henry Pirker - NO_x Calibration



January 4, 2010

Calibration Report

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



Station Information

Calibration Date	January 26, 2010	Previous Calibration	January 4, 2011
Station Number	1	Station Location	Henry Pirker
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Installation	<input type="checkbox"/> Removal
Start Time (MST)	7:30	End Time (MST)	8:56
Barometric Pressure	0.936 Atm	Station Temperature	20.0 Deg C
Calibrator	EnviroNics	Serial Number	3474
NO Cal Gas Conc	51.4 ppm	Cal Gas Expiry Date	April 6, 2012
NOx Cal Gas Conc	51.4 ppm	Cal Gas Serial #	LL34002

DACS Information

DACS make Focus AP1000 DACS serial No. _____

Parameter		NO2	NOx	NO
Before	Data Slope	1.005244	1.008164	1.006072
	Data Offset	0.289265	-2.526656	-2.203144
After	Data Slope	0.996679	1.047321	1.043774
	Data Offset	0.083816	-0.093011	-0.348629
Channel #		8	6	7
Voltage Range		0 - 10 VDC	0 - 10 VDC	0 - 10 VDC

Analyzer Information

Analyzer make/model **TEI 42C** Analyzer serial # **508011073**

Test Point	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
NO offset	9.7	mV	9.8	mV
NOx bkgnd	10.1	mV	10.2	mV
NO coefficient	0.722		0.735	
NOx coefficient	0.998		0.997	
NO2 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	176.9	in Hg	175.3	in Hg
Sample Flow	0.758	ccm	0.750	ccm

Notes: As founds before datalogger removal

Calibration Report

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



Station Information

Calibration Date: **January 26, 2010** Station Location: **Henry Pirker**

Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor	
zero	4991	0.00	0.0	0.0	0.0	0.1	0.3	-0.1	N/A	N/A	
1	4991	39.83	406.9	406.9	0.0	388.6	390.2	-1.6	1.0471	1.0429	
2											
3											
AFZ	4991	0.00	0.0	0.0	0.0	0.1	0.3	-0.1	0.0000	0.0000	
AFS	4991	39.83	406.9	406.9	0.0	388.6	390.2	-1.6	1.0471	1.0429	
									Average Correction Factor	1.0471	1.0429

As Found Concentrations: **NO_x= 386.0** **NO= 387.7** As Found Percent Change **NO_x= -5.1%** **NO= -4.7%**

GPT Calibration Data

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	0.3	0.3	0.0	0.1	0.3	-0.1	N/A	N/A	N/A	N/A	
NO point	390.0	390.0	0.0	388.5	390.0	-1.6	1.0040	1.0000	N/A	N/A	
300	390.0	114.8	275.2	390.7	114.8	276.1	0.9982	1.0000	0.9970	100.3%	
200											
100											
							Average Correction Factor	0.9982	1.0000	0.9970	100.3%

AIC Data

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

Calibration Performed By: Courtney Thompson

Calibration Summary

Parameter NO₂

Air Monitoring Network PASZA



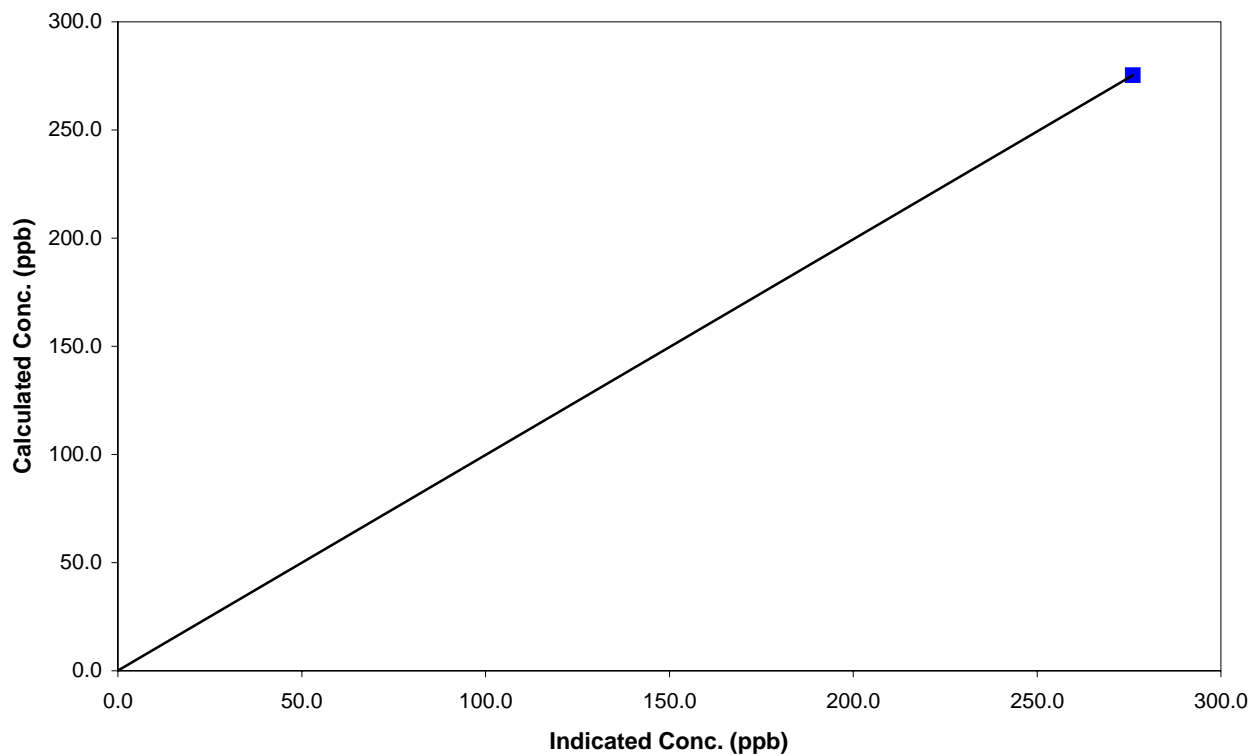
Station Information

Calibration Date	January 26, 2010	Previous Calibration	January 4, 2011
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	7:30	End Time (MST)	8:56
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		
275.2	276.1	0.9970	Correlation Coefficient	1.000000
			Slope	0.996679
			Intercept	0.083816

NO₂ Calibration Curve



Calibration Summary

Parameter NO_x

Air Monitoring Network PASZA



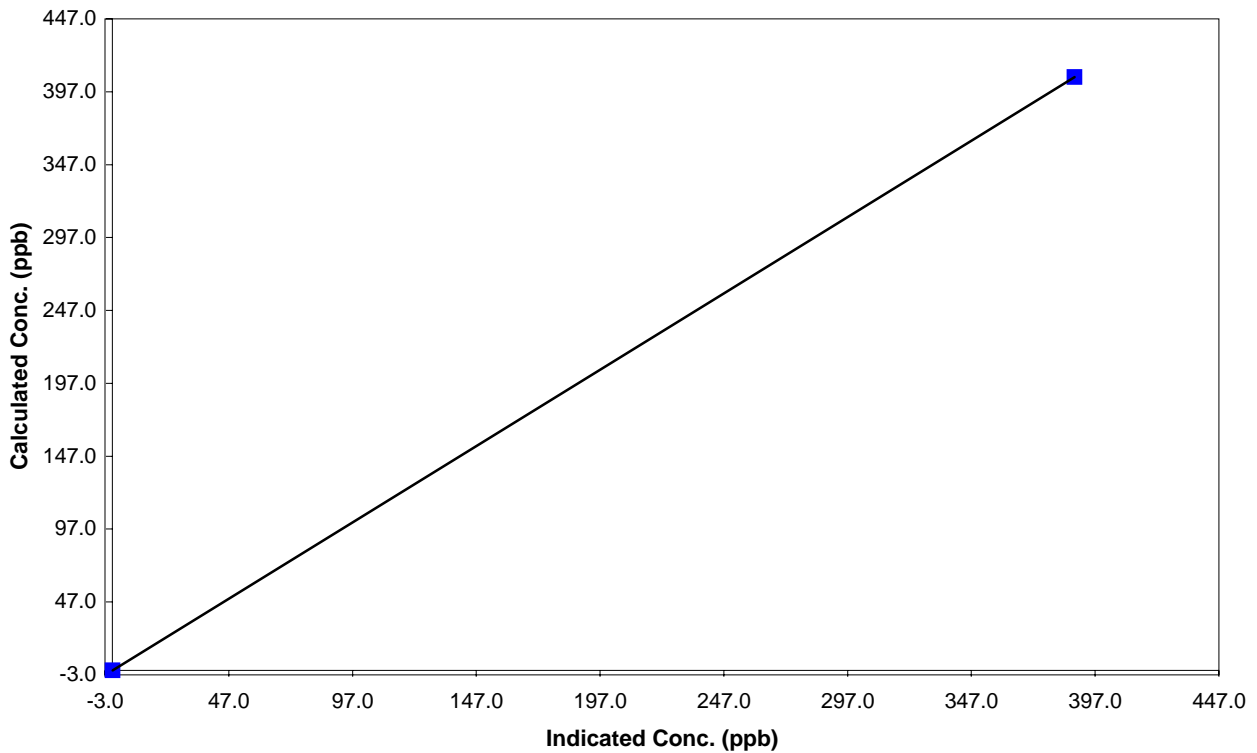
Station Information

Calibration Date	January 26, 2010	Previous Calibration	January 4, 2011
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	7:30	End Time (MST)	8:56
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		
406.9	388.6	1.0471	Correlation Coefficient	1.000000
			Slope	1.047321
			Intercept	-0.093011

NO_x Calibration Curve



Calibration Summary

Parameter NO

Air Monitoring Network PASZA



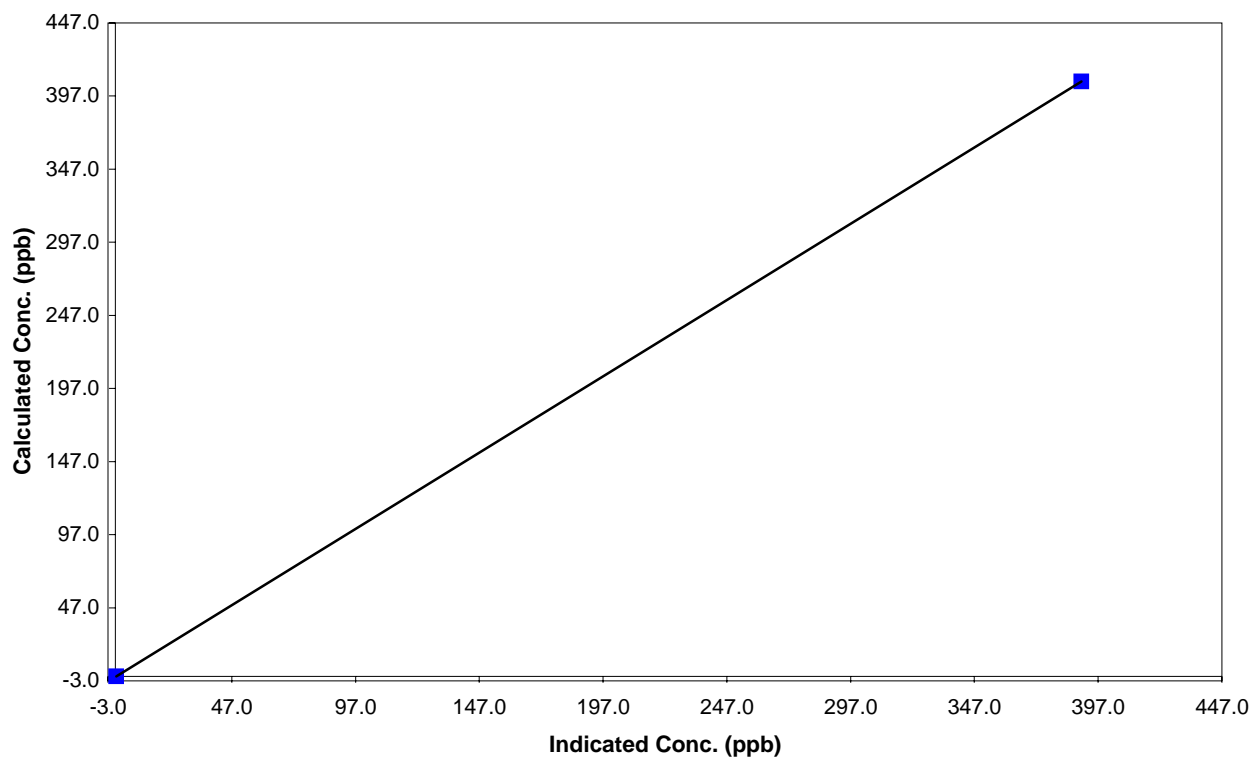
Station Information

Calibration Date	January 26, 2010	Previous Calibration	January 4, 2011
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	7:30	End Time (MST)	8:56
Analyzer make	TEI 42C	Analyzer serial #	508011073

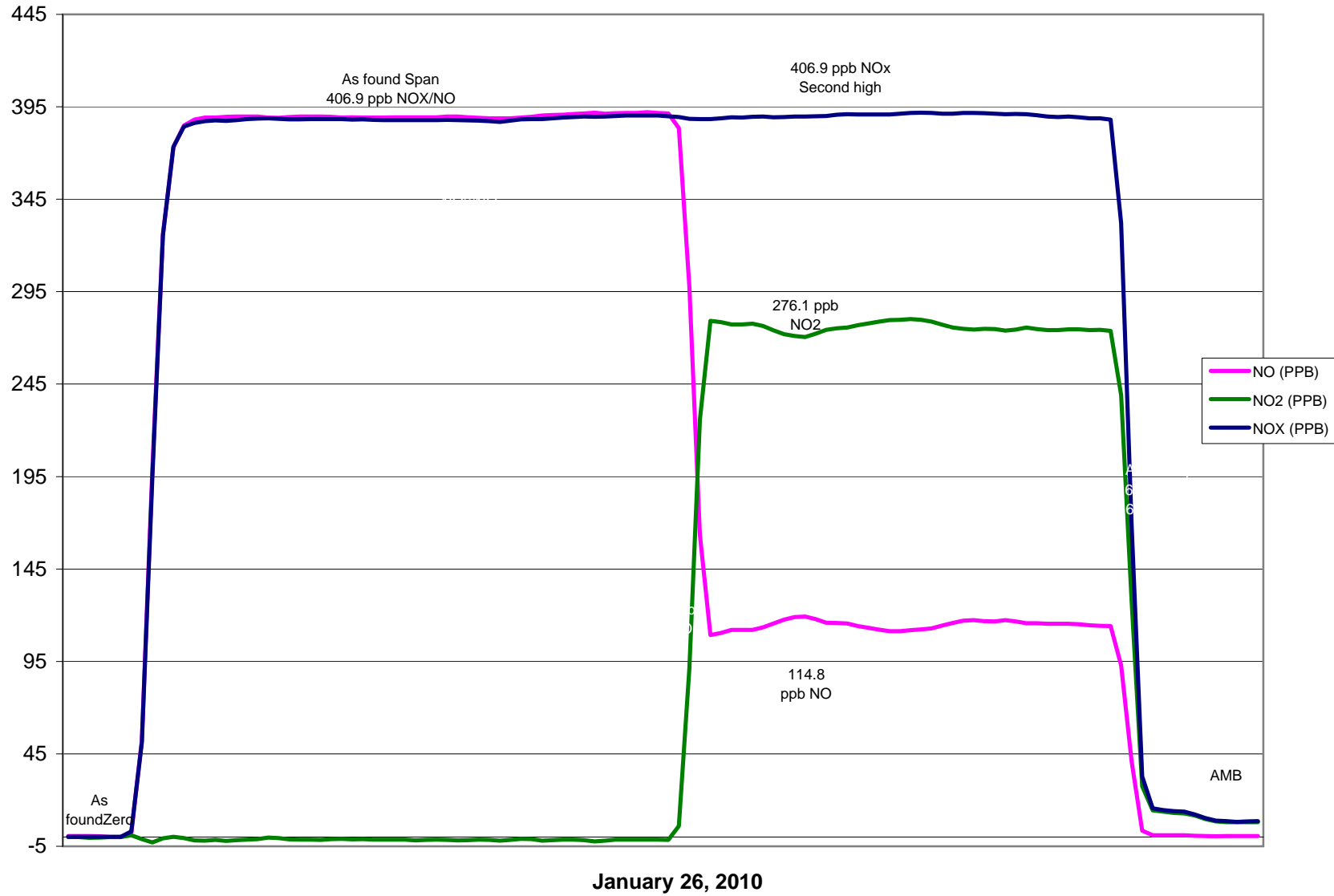
Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	N/A		
406.9	390.2	1.0429	Correlation Coefficient	1.000000
			Slope	1.043774
			Intercept	-0.348629

NO Calibration Curve



Henry Pirker - NO_x As-Found



Calibration Report



Parameter 03

Air Monitoring Network PASZA

Station Information

Calibration Date	January 4, 2010	Previous Calibration	December 7, 2010
Station Number	1	Station Location	Henry Pirker
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
		<input type="checkbox"/> Other:	
Start Time (MST)	11:51	End Time (MST)	14:16
Barometric Pressure	0.936 atm	Station Temperature	20.0 Deg C
Calibrator	Envionics 6100	Serial Number	3474
Cal Gas Concentration	NA	Cal Gas Expiry Date	NA
DACS make	Focus AP1000	DACS serial No.	45269
DACS voltage range	0 - 1 volt	DACS channel #	5
	Before		After
Calculated slope	0.995772	Calculated slope	1.002957
Calculated intercept	-0.255877	Calculated intercept	-0.279793
Analyzer make	TECO 49C	Analyzer serial #	607415761

	before		after	
Concentration range	500	ppb	500	ppb
offset	-0.6	ppb	-0.6	ppb
slope	0.986		0.986	
O3 Lamp temp	71.1	Deg C	71.1	Deg C
Intensities	85226/74185	mV	85134/74092	mV
Pressure	676.2	inches Hg	689.8	inches Hg
Flow A	0.713	ccm	0.722	ccm
Flow B	0.729	ccm	0.737	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	4991	0.0	0.3	N/A
300	4991	219.1	218.9	1.0009
200	4991	147.1	146.6	1.0035
100	4991	78.3	78.5	0.9969
0	4991	0.0	0.3	As found zero
300	4991	219.1	218.9	As found span
Average Correction Factor				1.0004

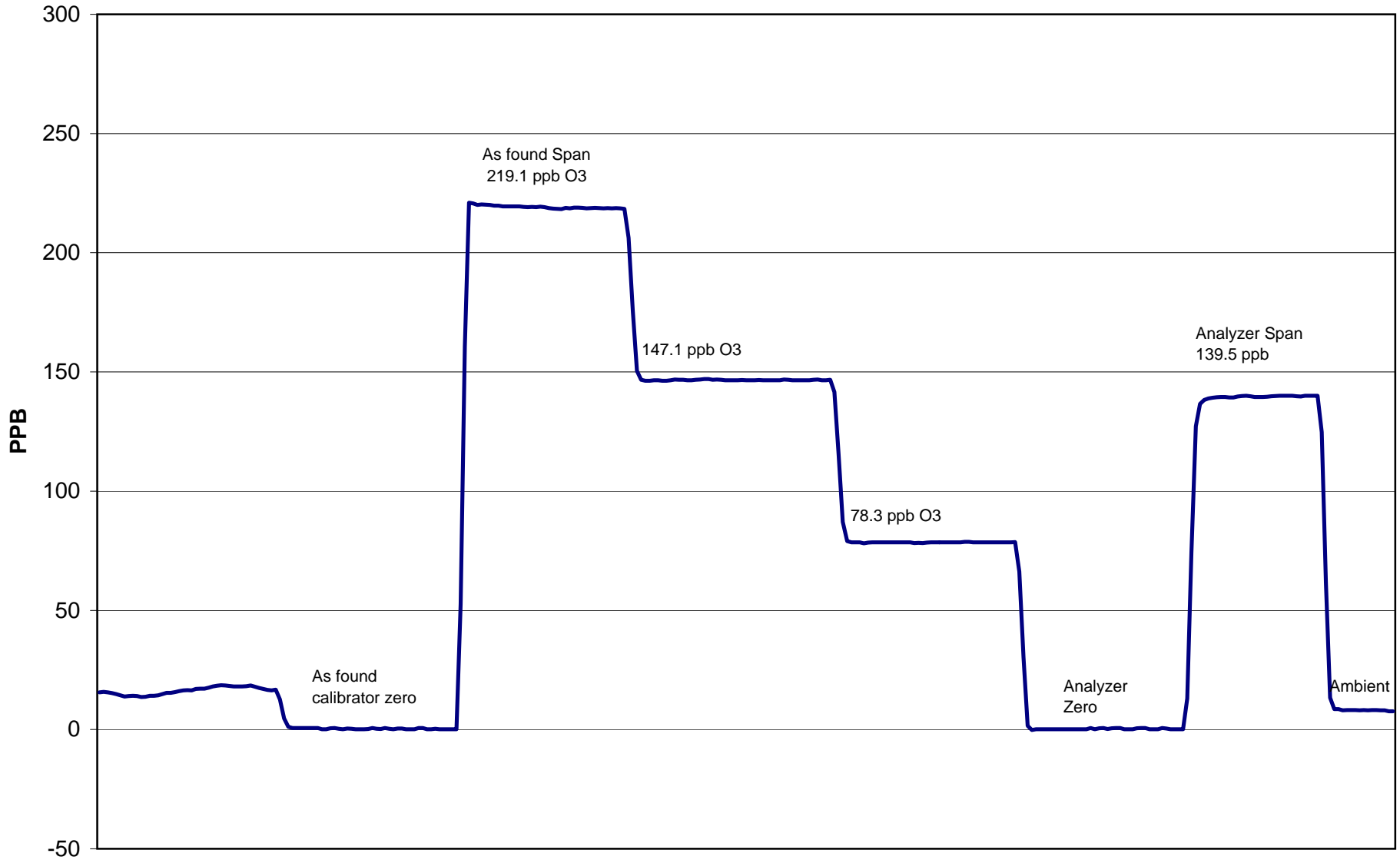
Calculated value of As Found Response: 217.4 ppm Percent Change of As Found: -0.8%

	before calibration		after calibration	
Auto zero	0.3	ppb	0.3	ppb
Auto span	153.1	ppb	139.5	ppb

Notes: _____

Calibration Performed By: Courtney Thompson

Henry Pirker O₃ Calibration



January 4, 2010

Calibration Report

Parameter 03

Air Monitoring Network PASZA



Station Information

Calibration Date	January 26, 2010	Previous Calibration	January 4, 2011
Station Number	1	Station Location	Henry Pirker
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
Start Time (MST)	8:45	End Time (MST)	11:51
Barometric Pressure	0.936 atm	Station Temperature	20.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Concentration	NA	Cal Gas Expiry Date	NA
DACS make	Focus AP1000	DACS serial No.	45269
DACS voltage range	0 - 1 volt	DACS channel #	5
	Before		After
Calculated slope	1.002957	Calculated slope	0.979117
Calculated intercept	-0.279793	Calculated intercept	-0.565003
Analyzer make	TECO 49C	Analyzer serial #	607415761

	before		after	
Concentration range	500	ppb	500	ppb
offset	-0.6	ppb	-0.6	ppb
slope	0.986		0.986	
O3 Lamp temp	71.1	Deg C	71.1	Deg C
Intensities	85226/74185	mV	85134/74092	mV
Pressure	676.2	inches Hg	689.8	inches Hg
Flow A	0.713	ccm	0.722	ccm
Flow B	0.729	ccm	0.737	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	4991	0.0	0.6	N/A
300	4991	275.2	281.6	0.9771
0	4991	0.0	0.6	As found zero
300	4991	275.2	281.6	As found span
Average Correction Factor				0.9771

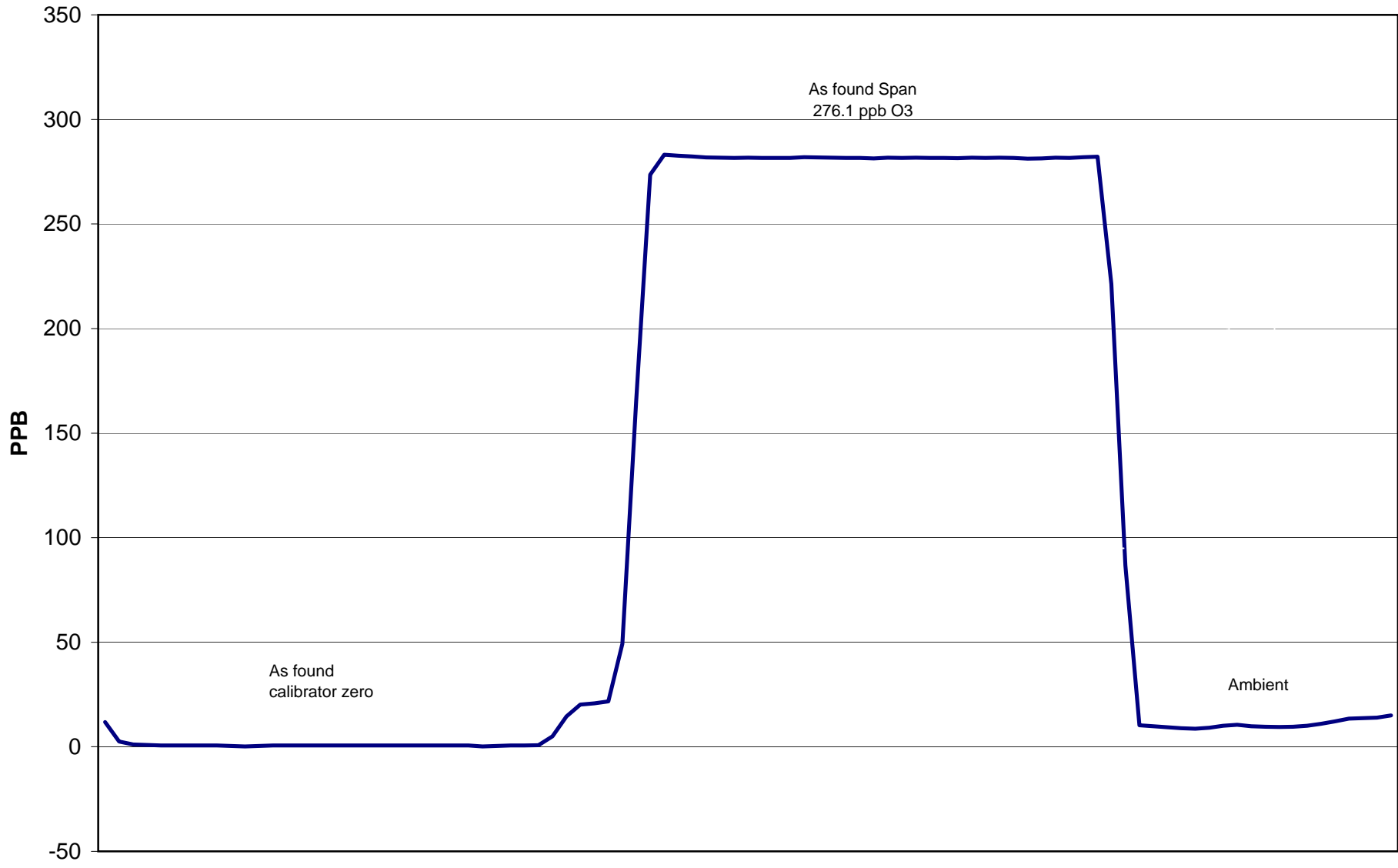
Calculated value of As Found Response: 281.6 ppm Percent Change of As Found: 2.3%

	before calibration		after calibration	
Auto zero	0.3	ppb	0.3	ppb
Auto span	153.1	ppb	0.0	ppb

Notes: _____

Calibration Performed By: Courtney Thompson

Henry Pirker - O₃ As-Found



January 26, 2010

Calibration Report



Parameter CO

Air Monitoring Network PASZA

Station Information

Calibration Date	January 3, 2011	Previous Calibration	December 14, 2010
Station Number	1	Station Location	Henry Pirker
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	10:00	End Time (MST)	12:46
Barometric Pressure	0.936 ATM	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
Cal Gas Conc	3000 ppm	Cal Gas Expiry Date	AUG 28/05
		Cal Gas Cylinder #	AAL20565
DACS make	Focus AP1000	DACS serial No.	1
DACS voltage range	0 - 1 volt	DACS channel #	9
	Before		After
Calculated slope	1.004117	Calculated slope	1.005709
Calculated intercept	-0.069753	Calculated intercept	-0.140742
Analyzer make	TEI Model 48C	Analyzer serial #	508011062

	before		after	
Concentration range	0 - 50	ppm	0 - 50	ppm
CO span setting	1.077		1.077	
CO zero setting	-0.007		0.184	
Sample pressure	687.8	mm Hg	675.1	mm Hg
Sample Flow	1.145	LPM	1.134	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)
4991	0.00	0.00	0.05	N/A
4991	39.84	23.76	23.71	1.0021
4991	19.90	11.91	12.05	0.9883
4991	9.95	5.97	6.15	0.9706
4991	0.00	0.00	0.25	As Found Zero
4991	39.84	23.76	23.71	As Found Span
Average Correction Factor				0.9870

Calculated value of As Found Response: 23.487 ppm Percent Change of As Found: 1.1%

	before calibration		after calibration	
Auto zero	0.03	ppm	0.03	ppm
Auto span	19.12	ppm	18.95	ppm

Notes: _____

Calibration Performed By: Courtney Thompson

Calibration Summary

Parameter CO

Air Monitoring Network PASZA



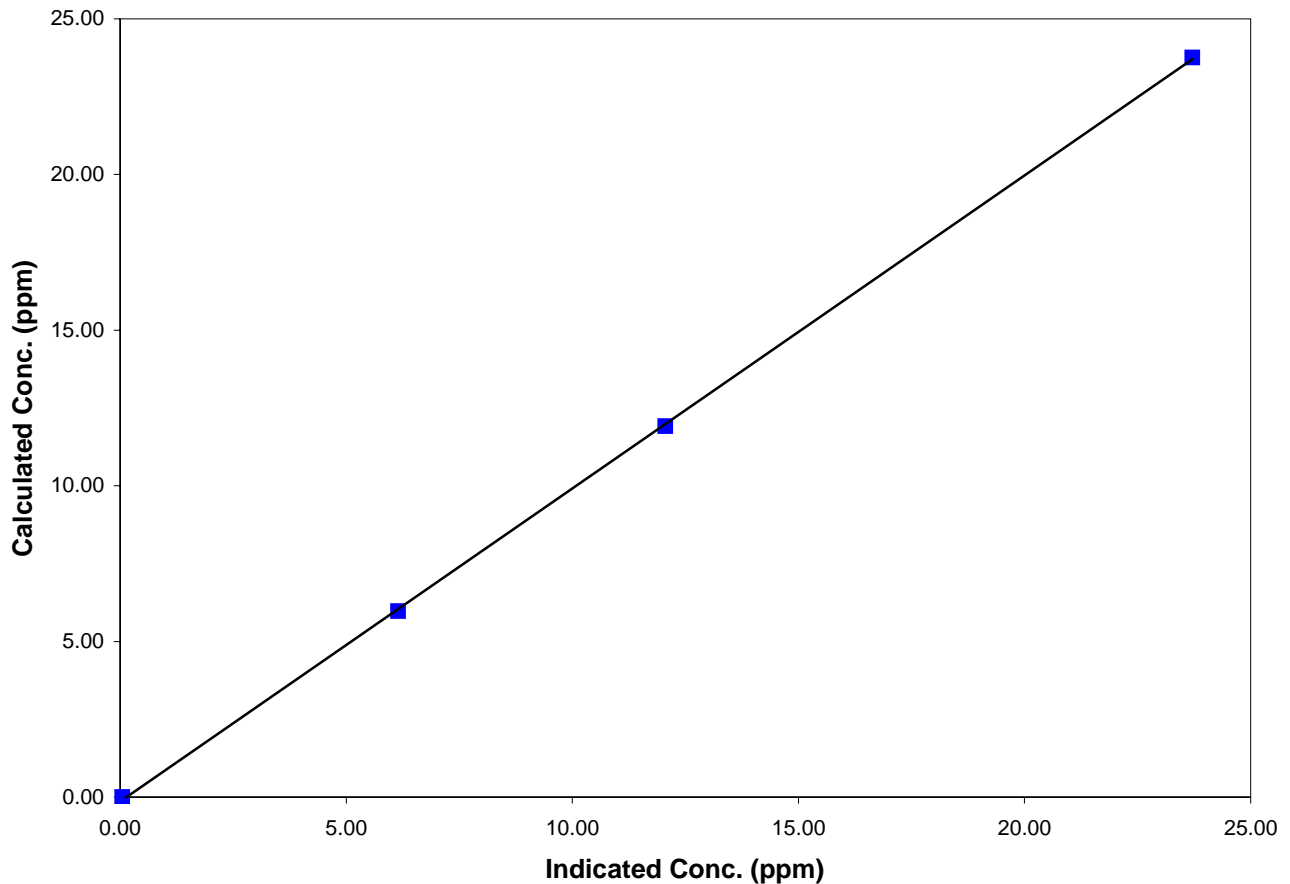
Station Information

Calibration Date	January 3, 2011	Previous Calibration	December 14, 2010
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	10:00	End Time (MST)	12:46
Analyzer make/model	TEI Model 48C	Analyzer serial #	508011062

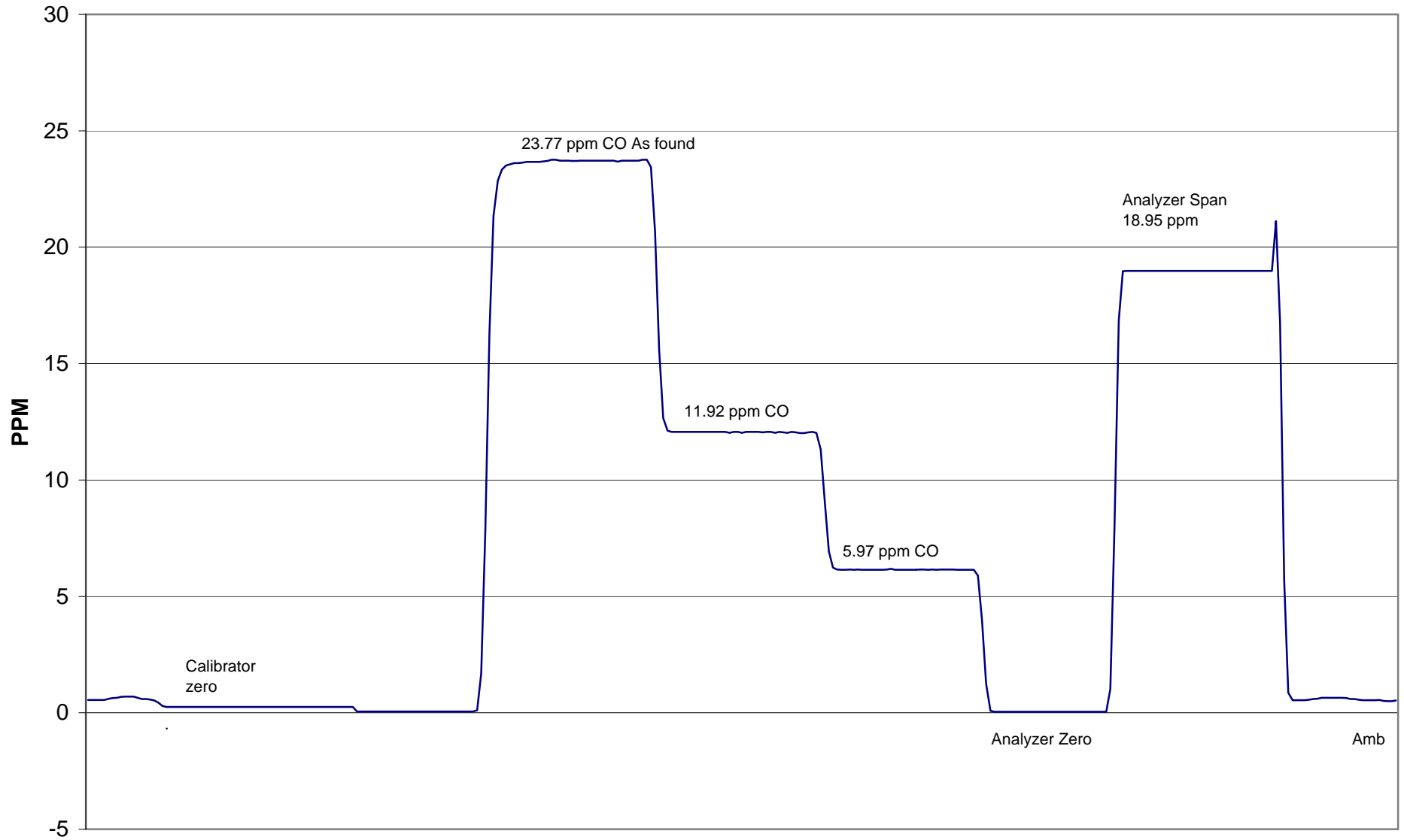
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.051	N/A		
23.757	23.709	1.0021	Correlation Coefficient	0.999931
11.914	12.055	0.9883		
5.969	6.149	0.9706	Slope	1.005709
			Intercept	-0.140742

CO Calibration Curve



Henry Pirker CO Calibration



January 3, 2011

Calibration Report



Parameter CO

Air Monitoring Network PASZA

Station Information

Calibration Date	January 26, 2011	Previous Calibration	January 3, 2011
Station Number	1	Station Location	Henry Pirker
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
		<input type="checkbox"/> Other:	
Start Time (MST)	10:40	End Time (MST)	11:55
Barometric Pressure	0.936 ATM	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
Cal Gas Conc	3000 ppm	Cal Gas Expiry Date	AUG 28/05
		Cal Gas Cylinder #	AAL20565
DACS make	Focus AP1000	DACS serial No.	1
DACS voltage range	0 - 1 volt	DACS channel #	9
	Before		After
Calculated slope	1.005709	Calculated slope	0.996321
Calculated intercept	-0.140742	Calculated intercept	-0.308242
Analyzer make	TEI Model 48C	Analyzer serial #	508011062

	before		after	
Concentration range	0 - 50	ppm	0 - 50	ppm
CO span setting	1.077		1.077	
CO zero setting	-0.007		0.184	
Sample pressure	687.8	mm Hg	675.1	mm Hg
Sample Flow	1.145	LPM	1.134	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)
4991	0.00	0.00	0.31	N/A
4991	39.84	23.76	24.15	0.9836
4991	0.00	0.00	0.31	As Found Zero
4991	39.84	23.76	24.15	As Found Span
Average Correction Factor				0.9836

Calculated value of As Found Response: 23.841 ppm Percent Change of As Found: -0.3%

	before calibration		after calibration	
Auto zero	0.03	ppm	0.03	ppm
Auto span	19.12	ppm	NA	ppm

Notes: As founds before datalogger removal

Calibration Performed By: Courtney Thompson

Calibration Summary



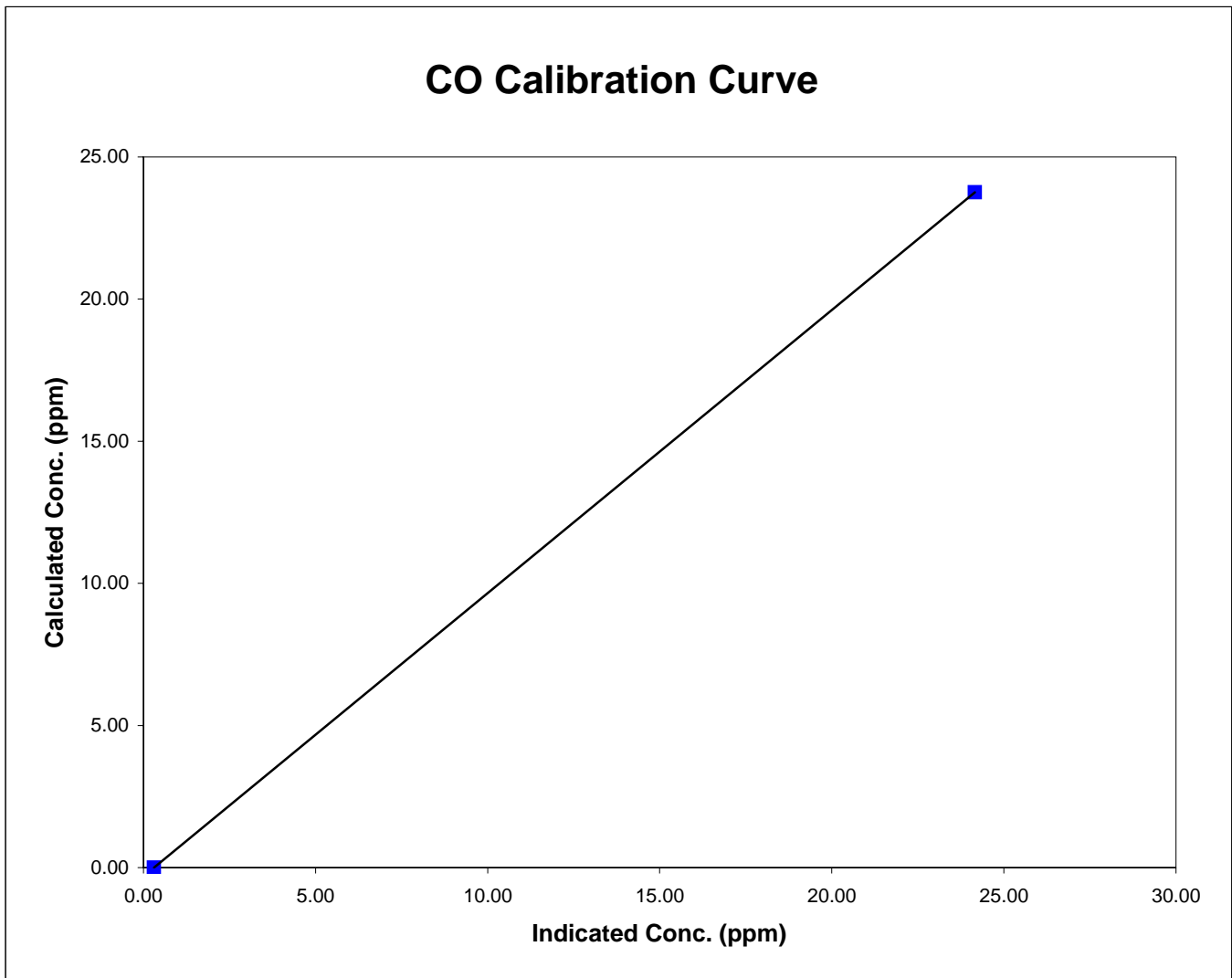
Parameter CO
 Air Monitoring Network PASZA

Station Information

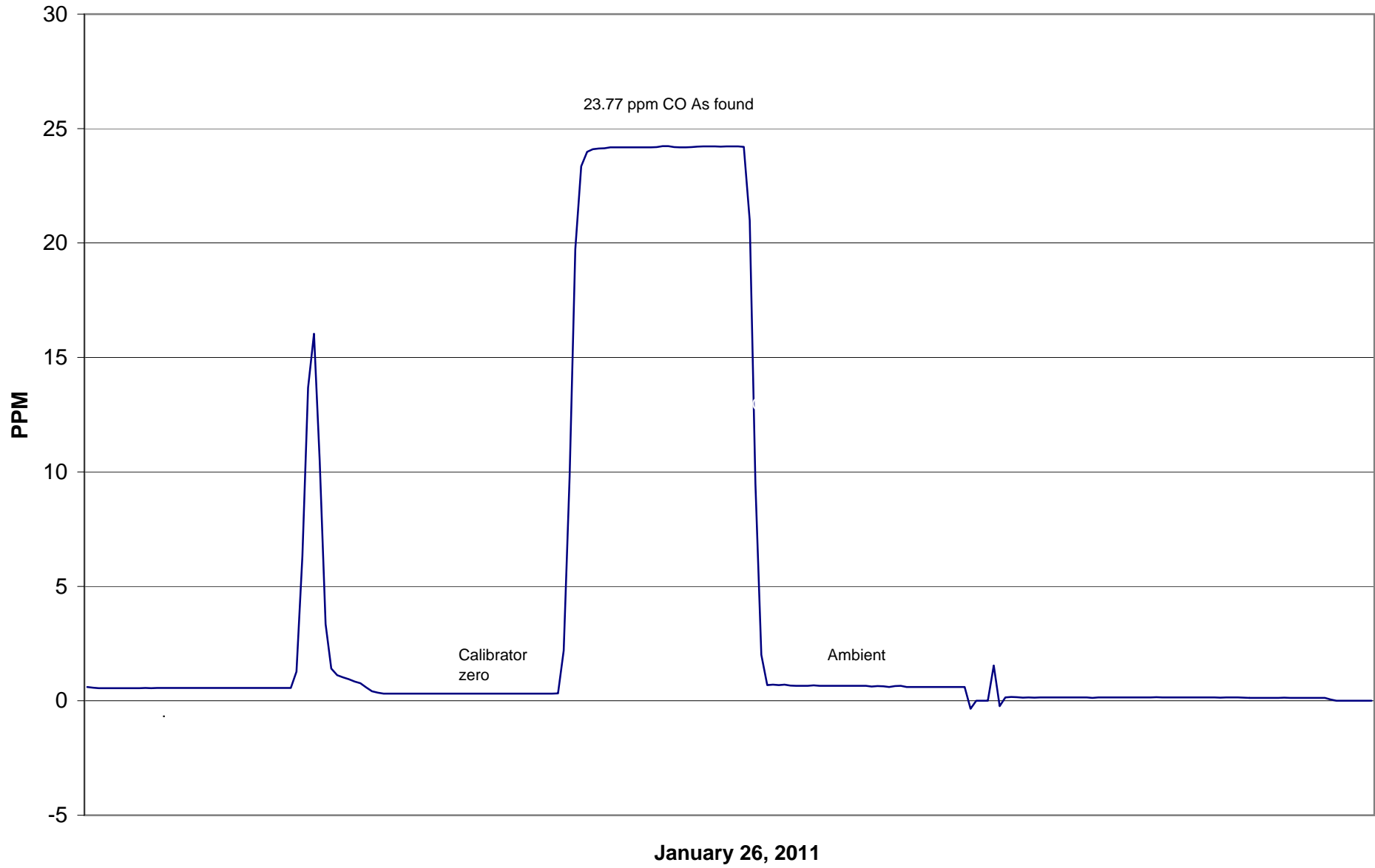
Calibration Date	January 26, 2011	Previous Calibration	January 3, 2011
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	10:40	End Time (MST)	11:55
Analyzer make/model	TEI Model 48C	Analyzer serial #	508011062

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.309	N/A		
23.757	24.155	0.9836	Correlation Coefficient	1.000000
			Slope	0.996321
			Intercept	-0.308242



Henry Pirker - CO As- Found



Calibration Report



Parameter THC
 Air Monitoring Network PASZA

Station Information

Calibration Date	January 3, 2011	Previous Calibration	December 6, 2010
Station Number	1	Station Location	Henry Pirker
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	11:54	End Time (MST)	14:20
Barometric Pressure	0.936 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	Focus AP1000	DACS serial No.	1
DACS voltage range	0 - 1 volt	DACS channel #	9
	<u>Before</u>		<u>After</u>
Calculated slope	0.998412	Calculated slope	1.005264
Calculated intercept	0.100789	Calculated intercept	0.104413
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	9617	capture	9616	capture
THC zero counts	448	capture	446	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)
4988	0.00	0.00	-0.11	N/A
4991	69.73	20.99	20.79	1.0093
4991	29.90	9.07	8.86	1.0242
4991	9.92	3.02	2.95	1.0232
4991	0.00	0.00	-0.11	As Found Zero
4991	69.73	20.99	20.79	As Found Span
Average Correction Factor				1.0189

Calculated value of As Found Response: 20.973 ppm Percent Change of As Found: 0.1%

	before calibration		after calibration	
Auto zero	0.10	ppm	-0.01	ppm
Auto span	20.65	ppm	20.67	ppm

Notes: _____

Calibration Performed By: Courtney Thompson

Calibration Summary



Parameter THC
 Air Monitoring Network PASZA

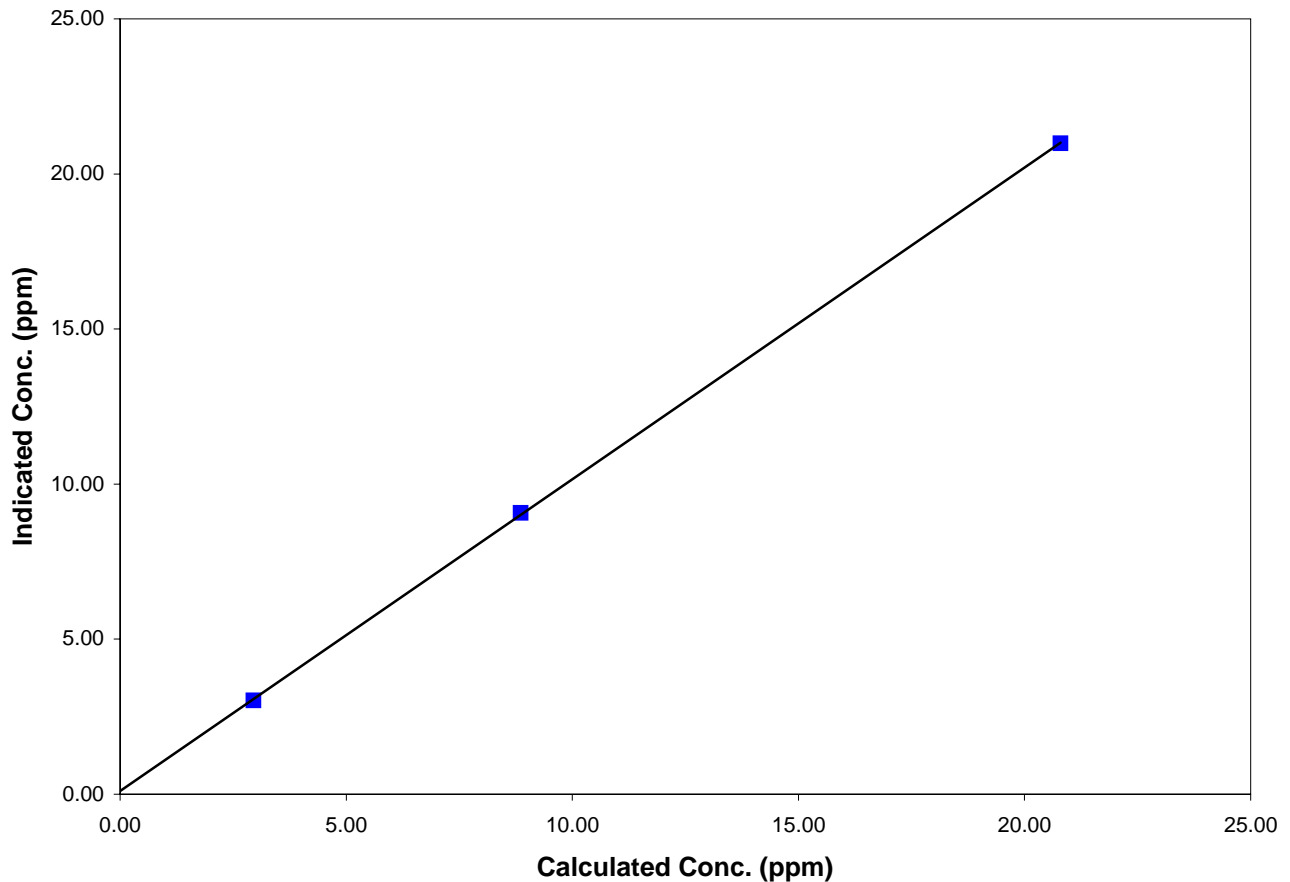
Station Information

Calibration Date	January 3, 2011	Previous Calibration	December 6, 2010
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	11:54	End Time (MST)	14:20
Analyzer make/model	TEI Model 51C-LT	Analyzer serial #	51CLT-79009-390

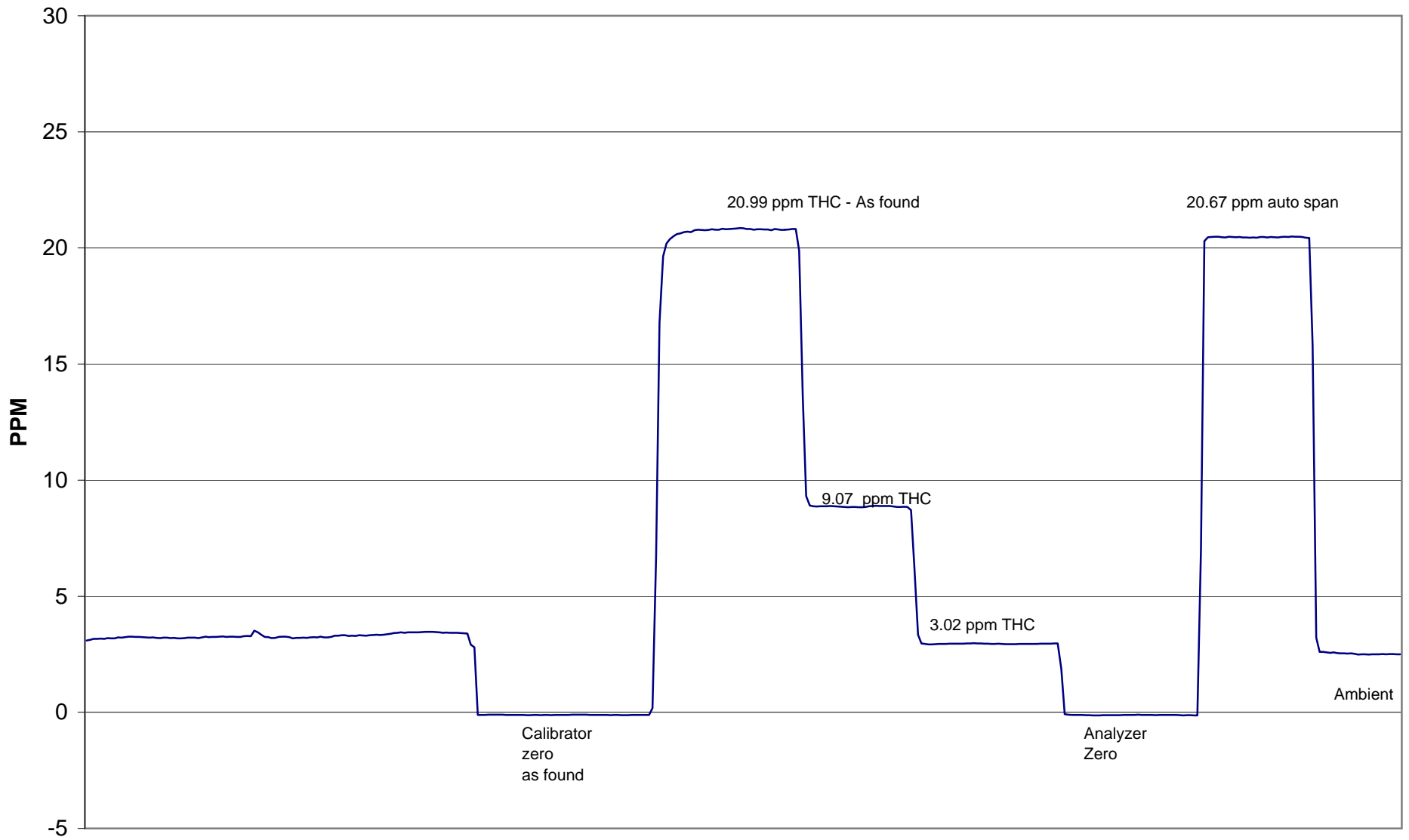
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	-0.112	N/A	Correlation Coefficient	0.999973
20.988	20.794	1.0093		
9.071	8.857	1.0242	Slope	1.005264
3.022	2.953	1.0232		
			Intercept	0.104413

THC Calibration Curve



Henry Pirker THC Calibration



January 3, 2011

Calibration Report



Parameter THC
 Air Monitoring Network PASZA

Station Information

Calibration Date	January 26, 2011	Previous Calibration	January 3, 2011
Station Number	1	Station Location	Henry Pirker
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	11:08	End Time (MST)	11:51
Barometric Pressure	0.936 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	Focus AP1000	DACS serial No.	1
DACS voltage range	0 - 1 volt	DACS channel #	9
	<u>Before</u>		<u>After</u>
Calculated slope	1.005264	Calculated slope	1.006442
Calculated intercept	0.104413	Calculated intercept	0.150385
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	9617	capture	9616	capture
THC zero counts	448	capture	446	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)
4988	0.00	0.00	-0.15	N/A
4991	69.73	20.99	20.70	1.0137
4991	0.00	0.00	-0.15	As Found Zero
4991	69.73	20.99	20.70	As Found Span
Average Correction Factor				1.0137

Calculated value of As Found Response: 21.068 ppm Percent Change of As Found: -0.4%

	before calibration		after calibration	
Auto zero	0.10	ppm	NA	ppm
Auto span	20.65	ppm	NA	ppm

Notes: _____

Calibration Performed By: Courtney Thompson

Calibration Summary



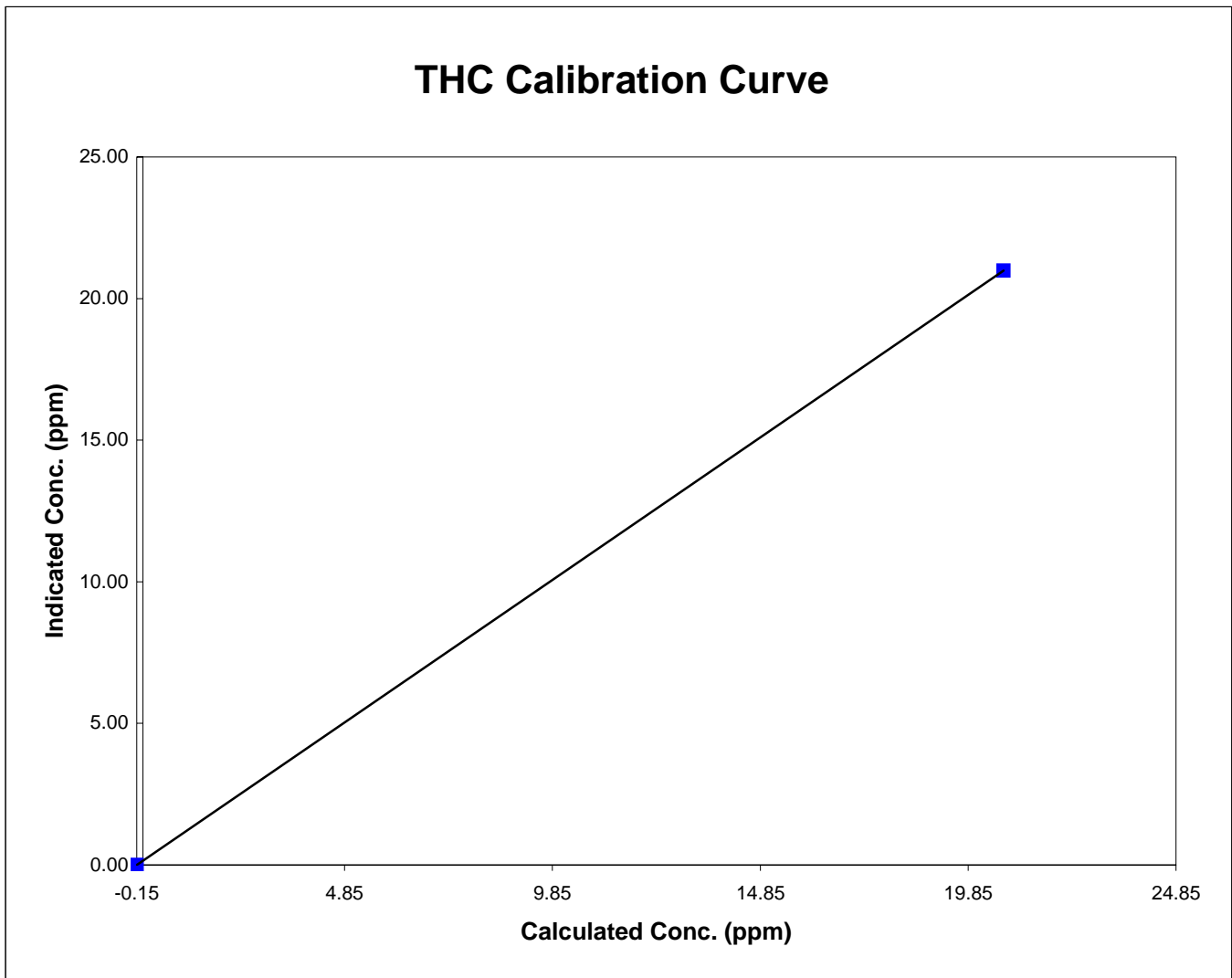
Parameter THC
 Air Monitoring Network PASZA

Station Information

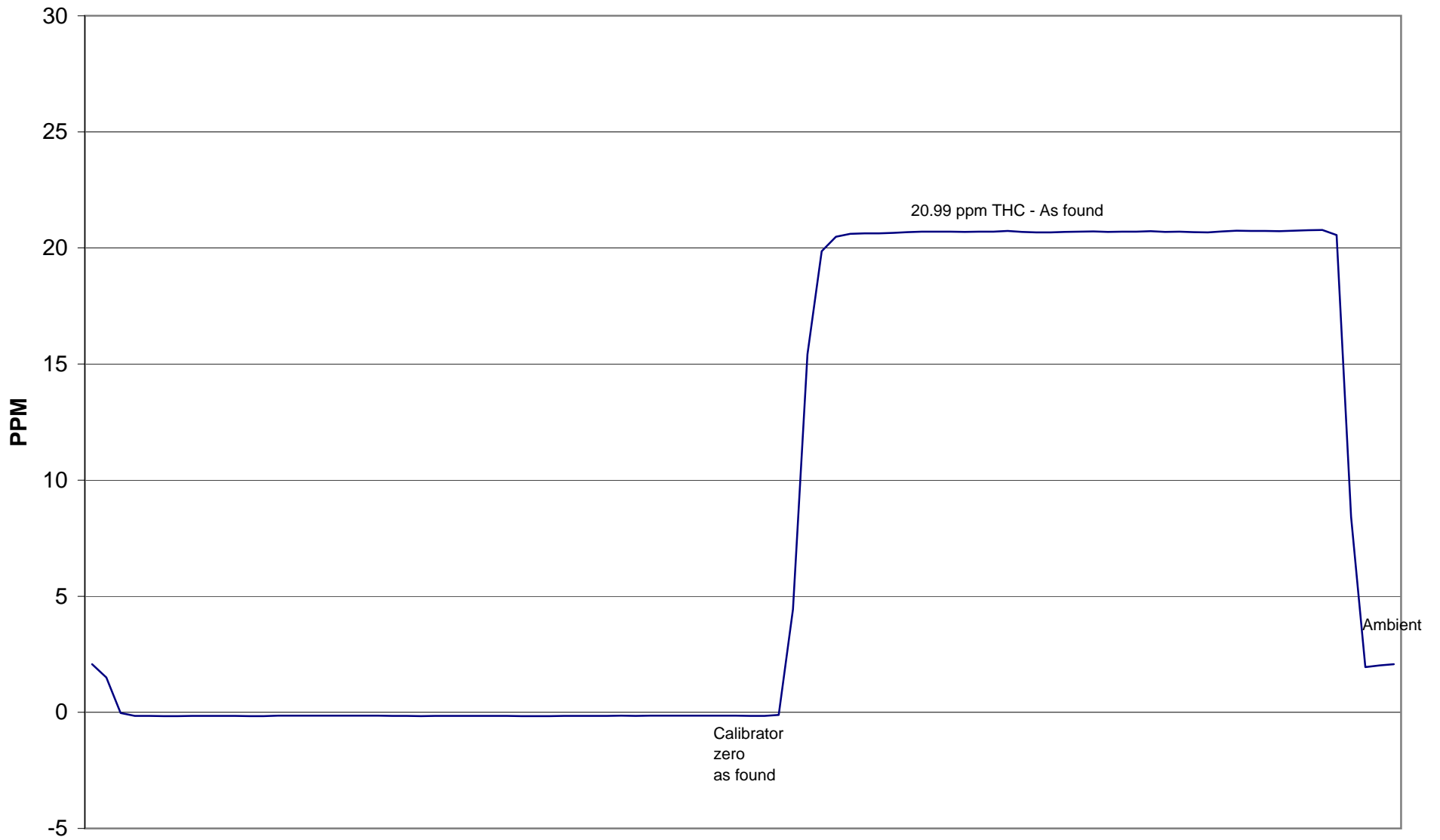
Calibration Date	January 26, 2011	Previous Calibration	January 3, 2011
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	11:08	End Time (MST)	11:51
Analyzer make/model	TEI Model 51C-LT	Analyzer serial #	51CLT-79009-390

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	-0.149	N/A		
20.988	20.705	1.0137	Correlation Coefficient	1.000000
			Slope	1.006442
			Intercept	0.150385



Henry Pirker - THC As-Found



January 26, 2011

Calibration Report



Parameter SO₂

Air Monitoring Network PASZA

Station Information

Calibration Date	January 25, 2011	Previous Calibration	December 8, 2010
Station Number	2	Station Location	Evergreen Park
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
		<input type="checkbox"/> Other:	
Start Time (MST)	9:20	End Time (MST)	12:14
Barometric Pressure	0.934 ATM	Station Temperature	20.0 Deg C
Calibrator	Enviroics 6100	Serial Number	3474
Cal Gas Concentration	50.6 ppm	Cal Gas Expiry Date	4/6/2012
Correction factor	0.031749	Cal Gas Cylinder #	SGAL3245
DACS make	Focus AP1000	DACS serial No.	52620
DACS voltage range	0 - 10 volt	DACS channel #	6
	<u>Before</u>		<u>After</u>
Calculated slope	1.010252	Calculated slope	0.990969
Calculated intercept	-2.000111	Calculated intercept	-1.948025
Analyzer make	Teco 43i	Analyzer serial #	701120008

	before		after	
Concentration range	0 - 1000	ppb	0 - 1000	ppb
Background	11		11.2	
coefficient	1.051		1.081	
Lamp Voltage	833	volts	832	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45.00	Deg C	45	Deg C
Pressure	665.9	mm Hg	665.3	mm Hg
Sample Flow	0.451	ccm	0.453	ccm
Lamp Intensity	89	%	93	%

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4990	0.0	0.00	0.4	N/A
4991	39.85	400.81	405.7	0.9880
4991	19.91	201.05	205.5	0.9784
4991	9.96	100.78	105.3	0.9568
	0.0			
4991	0.0	0.00	0.4	As Found Zero
4991	39.85	400.81	395.4	As Found Span
Average Correction Factor				0.9744

Calculated value of As Found Response: 397.052 ppm Percent Change of As Found: 0.9%

	before calibration		after calibration	
Auto zero	0.7	ppm	0.4	ppm
Auto span	286.9	ppm	293.1	ppm

Notes:

Calibration Performed By: Courtney Thompson

Calibration Summary



Parameter SO2
 Air Monitoring Network PASZA

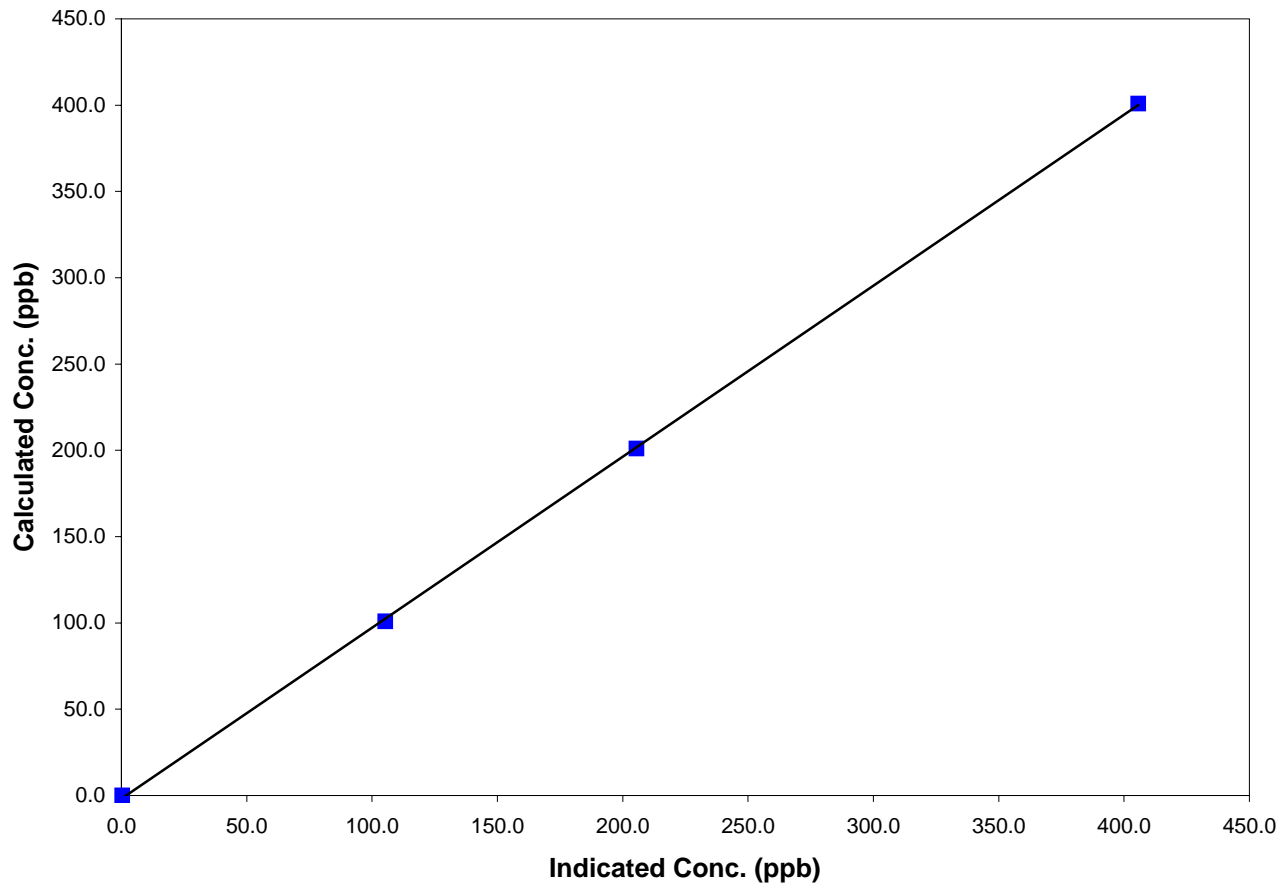
Station Information

Calibration Date	January 25, 2011	Previous Calibration	December 8, 2010
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	9:20	End Time (MST)	12:14
Analyzer make/model	Teco 43i	Analyzer serial #	701120008

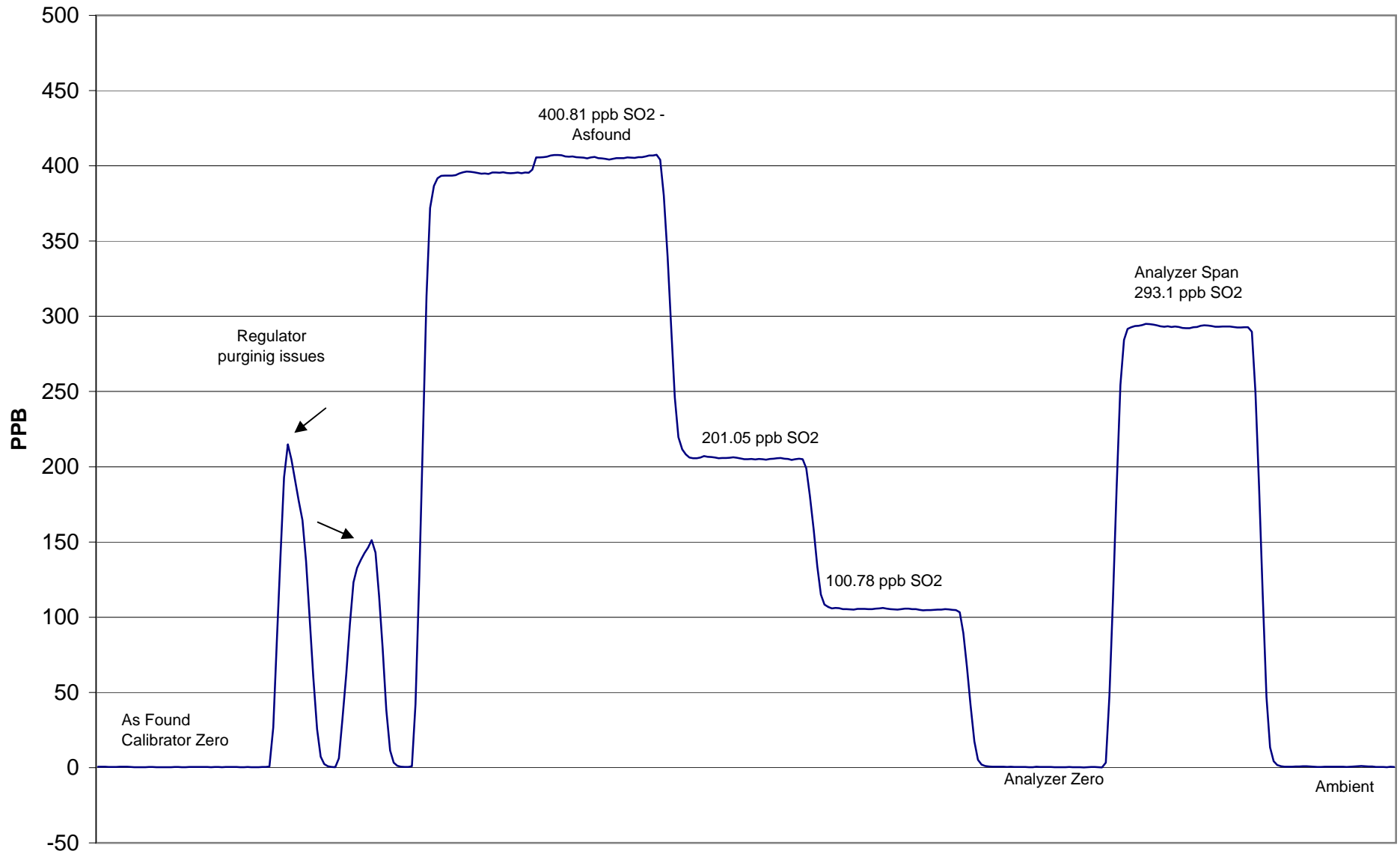
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.4	N/A	Correlation Coefficient	0.999931
400.8	405.7	0.9880		
201.1	205.5	0.9784		
100.8	105.3	0.9568	Slope	0.990969
			Intercept	-1.948025

SO2 Calibration Curve



Evergreen Park SO₂ Calibration



January 25, 2011

Calibration Report



Parameter
Air Monitoring Network

TRS

PASZA

Station Information

Calibration Date	January 25, 2011	Previous Calibration	December 8, 2010
Station Number	2	Station Location	Evergreen Park
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	11:00	End Time (MST)	13:27
Barometric Pressure	0.934 ATM	Station Temperature	20.0 Deg C
Calibrator	Enviroics 6100	Serial Number	3474
Cal Gas Conc	5.15 ppm	Cal Gas Expiry Date	4/2/2009
Correction factor	0.031749	Cal Gas Cylinder #	ALM 013295
DACS make	Focus AP1000	DACS serial No.	52620
DACS voltage range	0 - 10 volt	DACS channel #	5
	<u>Before</u>		<u>After</u>
Calculated slope	1.000328	Calculated slope	1.000900
Calculated intercept	-0.535708	Calculated intercept	-0.726106
Analyzer make	TEI Model 43C	Analyzer serial #	436610005

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	16	ppb	16	ppb
coefficient	0.859		0.859	
Lamp Voltage	813	volts	808	volts
Chamber Temp	44.2	Deg C	44.1	Deg C
Perm Gas Temp	45.01	Deg C	45.02	Deg C
Pressure	642.2	mm Hg	645.8	mm Hg
Sample Flow	0.478	ccm	0.479	ccm
Lamp Intensity	45,563	mv	45,619	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)
4990	0.00	0.00	0.6	N/A
4991	79.79	81.04	81.6	0.9928
4991	39.87	40.81	41.6	0.9813
4991	9.95	10.25	11.1	0.9231
4990	0.00	0.00	0.6	As Found Zero
4991	79.79	81.04	81.6	As Found Span
Average Correction Factor				0.9657

Calculated value of As Found Response: 80.55 ppm Percent Change of As Found: 0.6%

	before calibration		after calibration	
Auto zero	-0.5	ppm	-0.2	ppm
Auto span	62.0	ppm	66.8	ppm

Notes: _____

Calibration Performed By: Courtney Thompson

Calibration Summary



Parameter TRS
 Air Monitoring Network PASZA

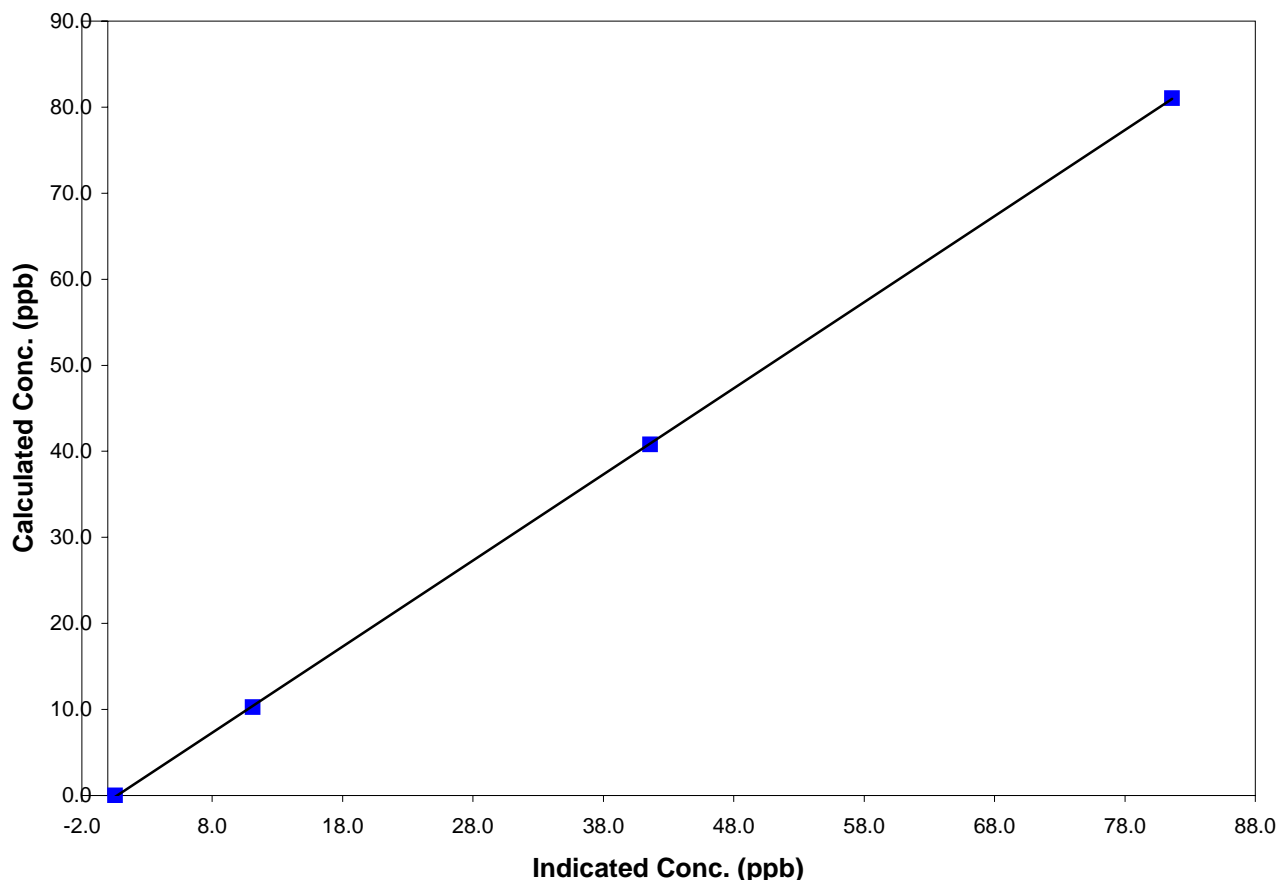
Station Information

Calibration Date	<u>January 25, 2011</u>	Previous Calibration	<u>December 8, 2010</u>
Station Number	<u>2</u>	Station Location	<u>Evergreen Park</u>
Start Time (MST)	<u>11:00</u>	End Time (MST)	<u>13:27</u>
Analyzer make/model	<u>TEI Model 43C</u>	Analyzer serial #	<u>436610005</u>

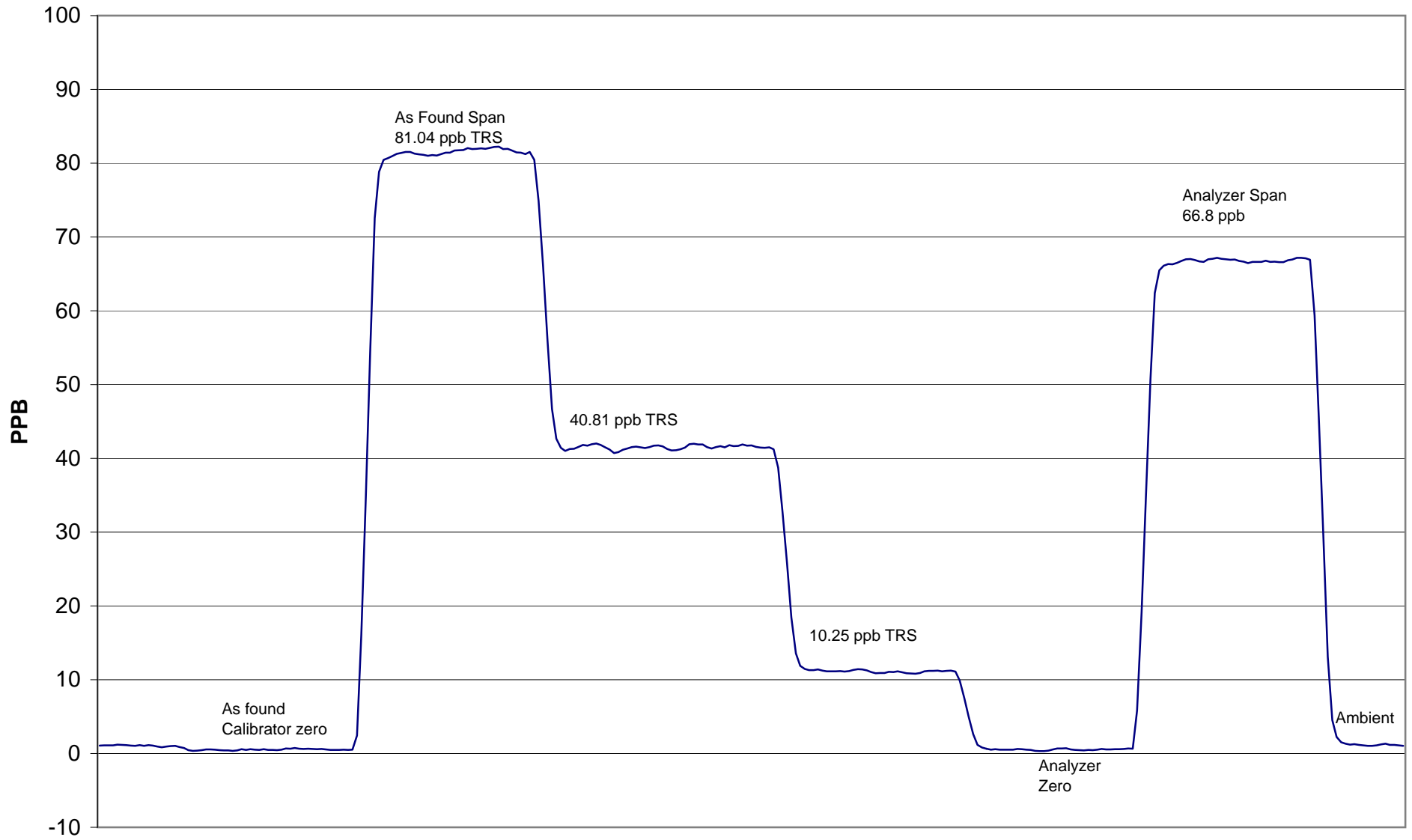
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
			Correlation Coefficient	Slope
0.0	0.6	N/A	0.999985	1.000900
81.0	81.6	0.9928		
40.8	41.6	0.9813	-0.726106	
10.2	11.1	0.9231		
			Intercept	

TRS Calibration Curve



Evergreen Park - TRS Calibration



January 25, 2011

Calibration Report



Parameter SO₂
 Air Monitoring Network PASZA

Station Information

Calibration Date	January 11, 2011	Previous Calibration	December 9, 2010
Station Number	3	Station Location	Smoky Heights
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	10:25	End Time (MST)	13:13
Barometric Pressure	0.936 ATM	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
Cal Gas Concentration	50.6 ppm	Cal Gas Cert Date	11/29/2010
Correction factor	0.031817	Cal Gas Cylinder #	LL34002
DACS make	Focus AP1000	DACS serial No.	45272
DACS voltage range	0 - 10 volt	DACS channel #	6
	<u>Before</u>		<u>After</u>
Calculated slope	1.006764	Calculated slope	1.006705
Calculated intercept	-2.489598	Calculated intercept	-1.891558
Analyzer make	Teco 43i	Analyzer serial #	701120009

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	8.8		9.2	
coefficient	0.686		0.684	
Lamp Voltage	924	volts	926	volts
Chamber Temp	45.1	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	669.6	mm Hg	675.9	mm Hg
Sample Flow	0.442	ccm	0.445	ccm
Lamp Intensity	87	%	88	%

Calibration Data

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4989	0.0	0.00	0.3	N/A
4989	39.84	400.87	399.3	1.0039
4989	19.91	201.13	202.2	0.9947
4989	9.95	100.72	103.7	0.9708
4989	0.0	0.00	0.3	As Found Zero
4989	39.84	400.87	403.4	As Found Span
Average Correction Factor				0.9898

Calculated value of As Found Response: 403.348 ppm Percent Change of As Found: -0.6%

	before calibration		after calibration	
Auto zero	0.4	ppb	0.3	ppb
Auto span	311.6	ppb	380.6	ppb

Notes: _____

Calibration Performed By: Courtney Thompson

Calibration Summary



Parameter SO2
 Air Monitoring Network PASZA

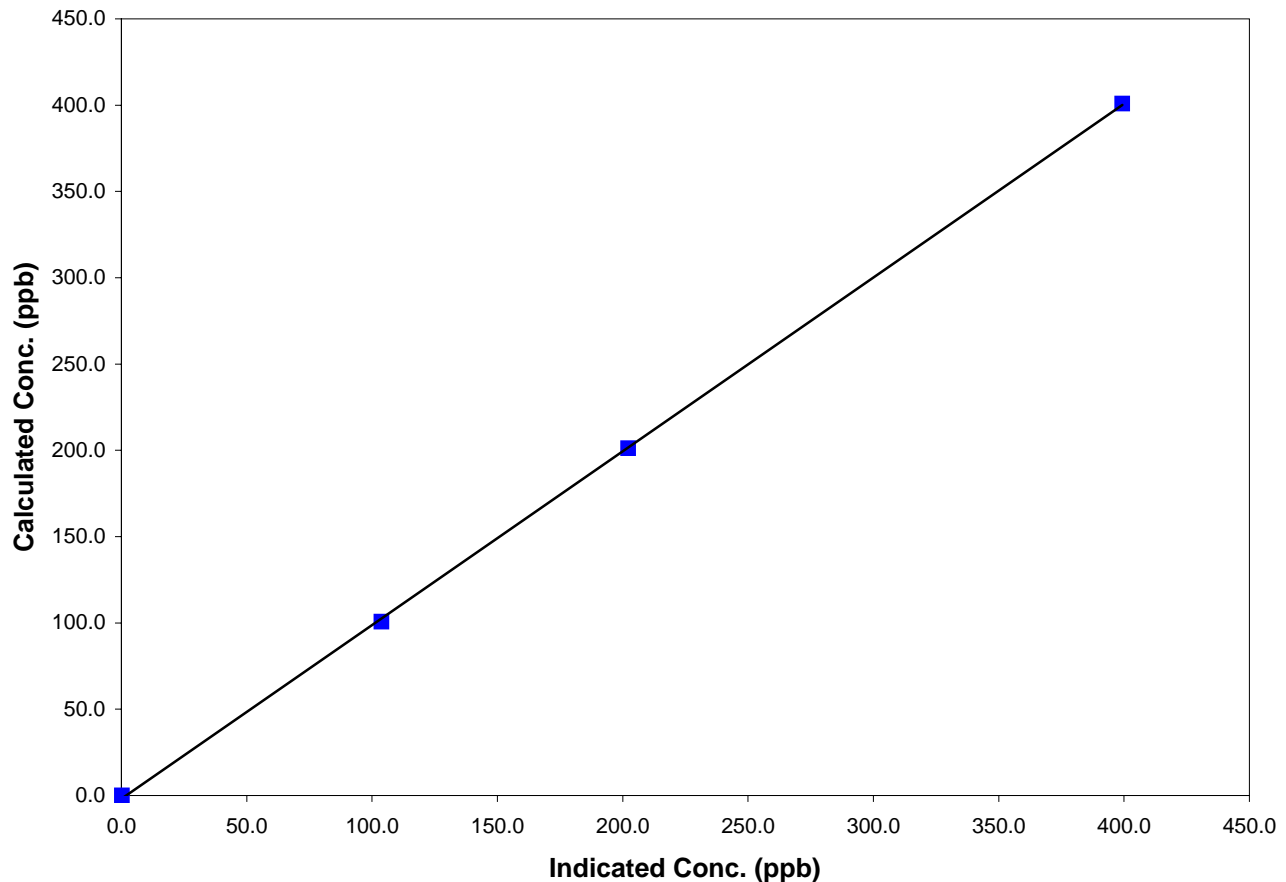
Station Information

Calibration Date	January 11, 2011	Previous Calibration	December 9, 2010
Station Number	3	Station Location	Smoky Heights
Start Time (MST)	10:25	End Time (MST)	13:13
Analyzer make/model	Teco 43i	Analyzer serial #	701120009

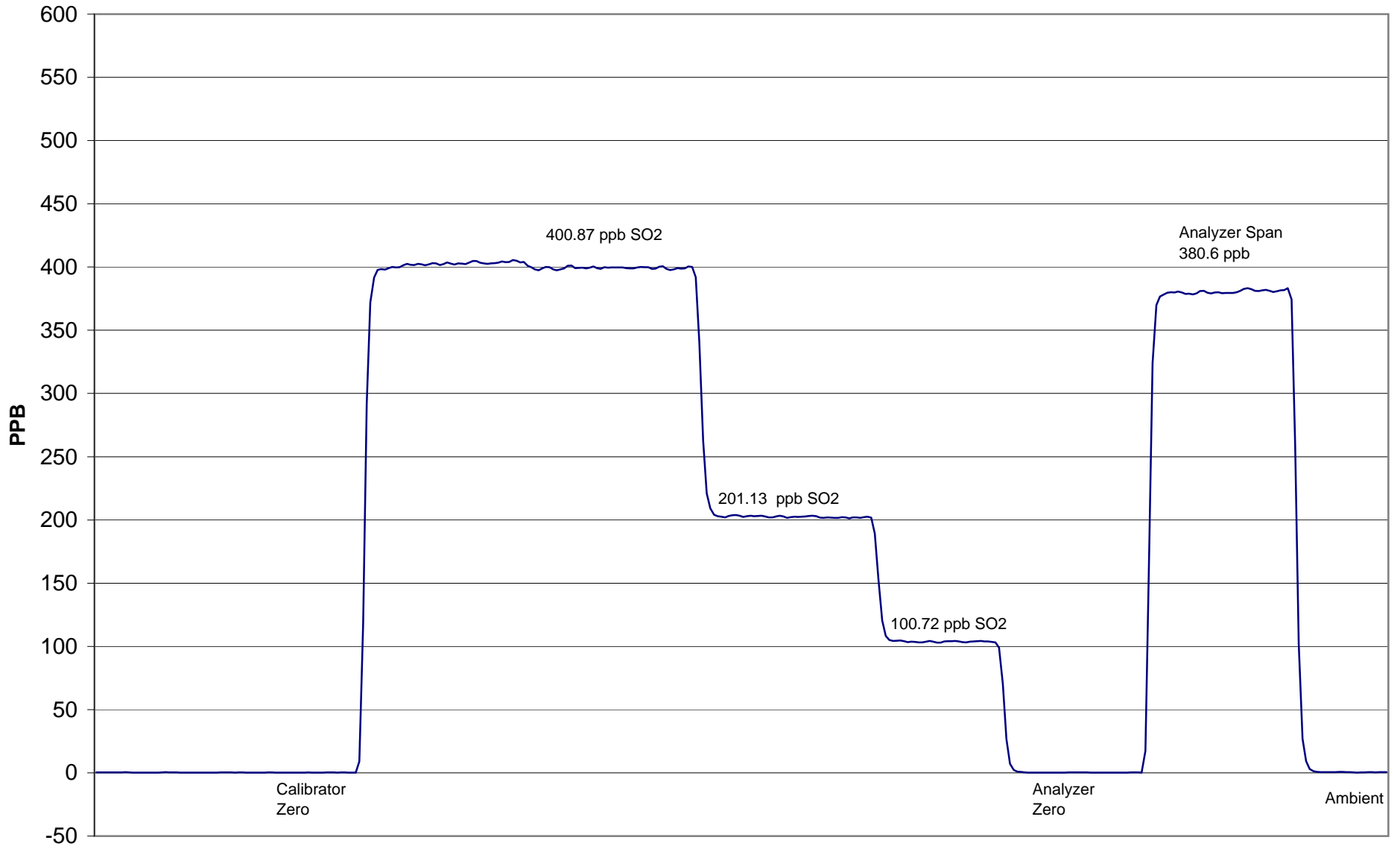
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	N/A	Correlation Coefficient	0.999922
400.9	399.3	1.0039		
201.1	202.2	0.9947	Slope	1.006705
100.7	103.7	0.9708		
			Intercept	-1.891558

SO2 Calibration Curve



Smoky Heights SO₂ Calibration



January 11, 2011

Calibration Report



Parameter
Air Monitoring Network

Station Information

Calibration Date	January 6, 2010	Previous Calibration	December 9, 2010
Station Number	3	Station Location	Smoky Heights
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
		<input type="checkbox"/> Other:	
Start Time (MST)	11:35	End Time (MST)	14:07
Barometric Pressure	0.936 ATM	Station Temperature	20.0 Deg C
Calibrator	Enviroics 6100	Serial Number	3474
Cal Gas Conc	5.15 ppm	Cal Gas Expiry Date	4/2/2009
Correction factor	0.031817	Cal Gas Cylinder #	ALM013295
DACS make	Focus AP1000	DACS serial No.	52620
DACS voltage range	0 - 10 volt	DACS channel #	5
	<u>Before</u>		<u>After</u>
Calculated slope	1.023183	Calculated slope	1.006366
Calculated intercept	-0.291595	Calculated intercept	-0.173267
Analyzer make	TEI Model 43C	Analyzer serial #	0436610005

	before		after	
Concentration range	100	ppb	100	ppb
Background	15.2	ppb	15.2	ppb
coefficient	1.068		1.068	
Lamp Voltage	771	volts	770	volts
Chamber Temp	43.9	Deg C	44	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	494.2	mm Hg	491.2	mm Hg
Sample Flow	0.718	ccm	0.710	ccm
Lamp Intensity	32,168	mv	32,622	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	0.1	N/A
4990	79.77	81.03	80.6	1.0048
4990	39.85	40.80	40.8	1.0003
4990	9.94	10.24	10.4	0.9818
4990	0.0	0.00	0.1	As Found Zero
4990	79.77	81.03	80.6	As Found Span
Average Correction Factor				0.9956

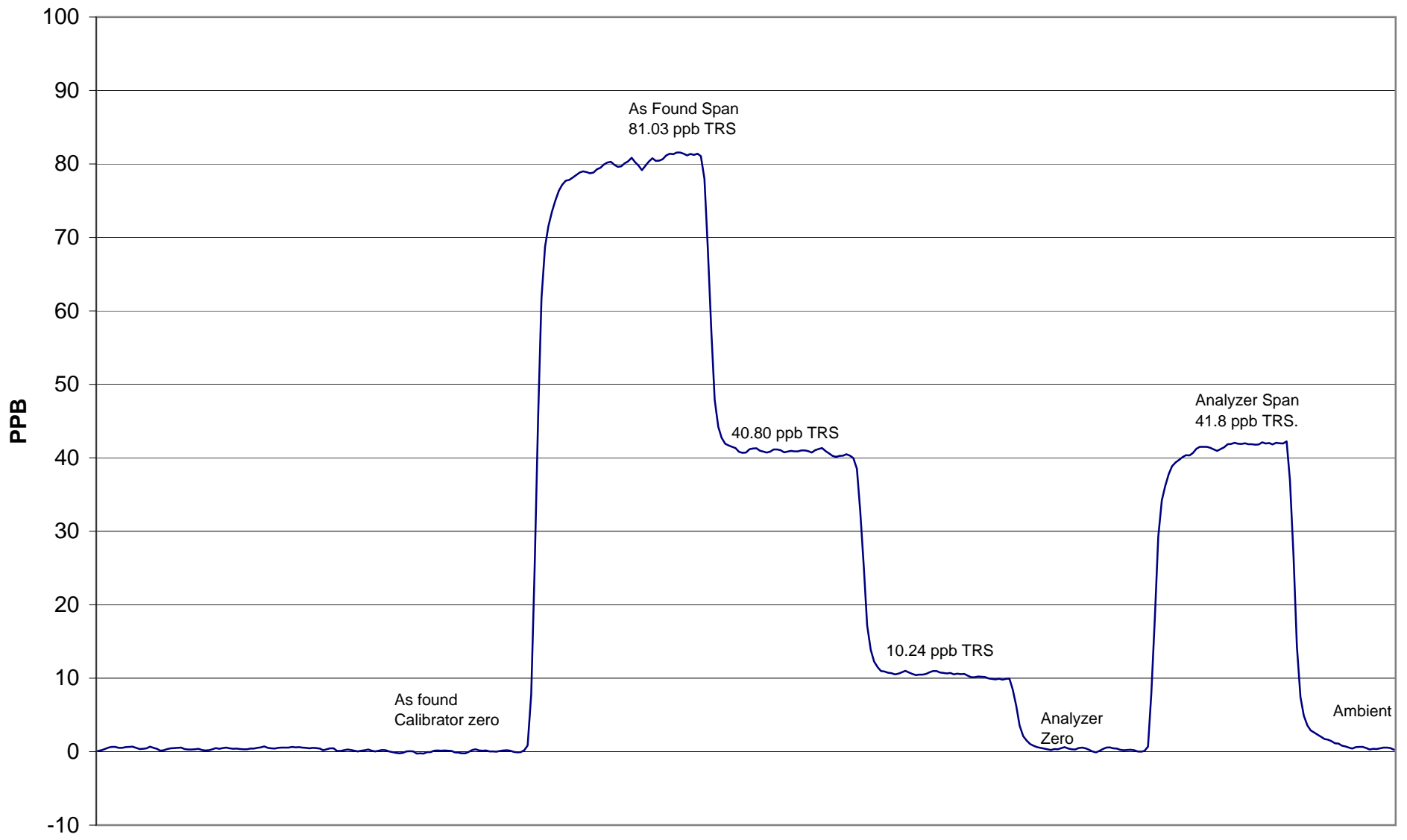
Calculated value of As Found Response: 82.16 ppm Percent Change of As Found: -1.4%

	before calibration		after calibration	
Auto zero	0.0	ppm	0.1	ppm
Auto span	41.9	ppm	41.8	ppm

Notes: _____

Calibration Performed By:

Smoky Heights TRS Calibration



January 6, 2010

Calibration Report



Parameter SO2

Air Monitoring Network PASZA

Station Information

Calibration Date	January 5, 2011	Previous Calibration	December 2, 2010
Station Number	4	Station Location	Beaverlodge
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
		<input type="checkbox"/> Other:	
Start Time (MST)	9:00	End Time (MST)	11:40
Barometric Pressure	0.912 atm	Station Temperature	23.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
Cal Gas Concentration	10.06 ppm	Cal Gas Expiry Date	7/27/2009
Gas Cert Reference	CC 114395		
DACS make	Focus AP1000	DACS serial No.	45269
DACS voltage range	0 - 10 volt	DACS channel #	5
	<u>Before</u>		<u>After</u>
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.988618	Calculated slope	1.009180
Calculated intercept	-0.531141	Calculated intercept	-0.123502
Analyzer make	TEI Model 43i-TLE	Analyzer serial #	713021137

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	2.48		2.77	
Coefficient	0.893		0.893	
PMT	-812.9	V	-812.9	V
UV Lamp Voltage	1077	V	1075	V
Chamber Temp	45.1	Deg C	45.4	Deg C
Pressure	657.1	mm Hg	651.9	mm Hg
Sample Flow	0.518	LPM	0.516	LPM
Lamp Intesity	85%	%	85%	%

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)
4988	0.00	0.0	0.0	N/A
4988	39.82	79.7	79.0	1.0090
4988	19.90	40.0	39.9	1.0009
4988	9.93	20.0	19.9	1.0028
4988	0.00	0.0	0.3	As found zero
4988	39.82	79.7	79.0	As found span
Average Correction Factor				1.0042

Calculated value of As Found Response: 77.258 ppm Percent Change of As Found: 3.0%

	before calibration		after calibration	
Auto zero	-0.3	ppb	-0.1	ppb
Auto span	59.7	ppb	60.1	ppb

Notes: _____

Calibration Performed By: Courtney Thompson

Calibration Summary

Parameter SO2

Air Monitoring Network PASZA



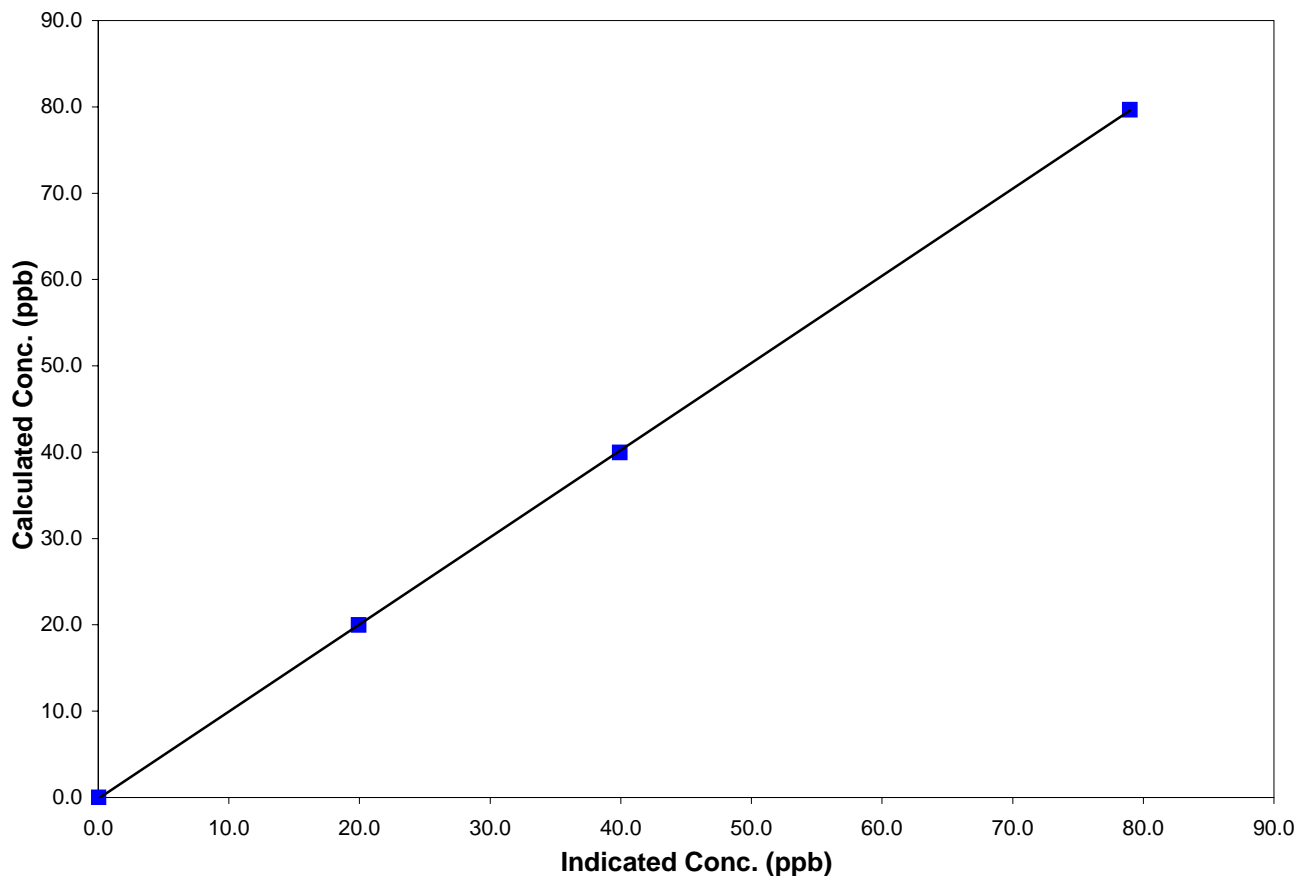
Station Information

Calibration Date	January 5, 2011	Previous Calibration	December 2, 2010
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	9:00	End Time (MST)	11:40
Analyzer make/model	TEI Model 43i-TLE	Analyzer serial #	713021137

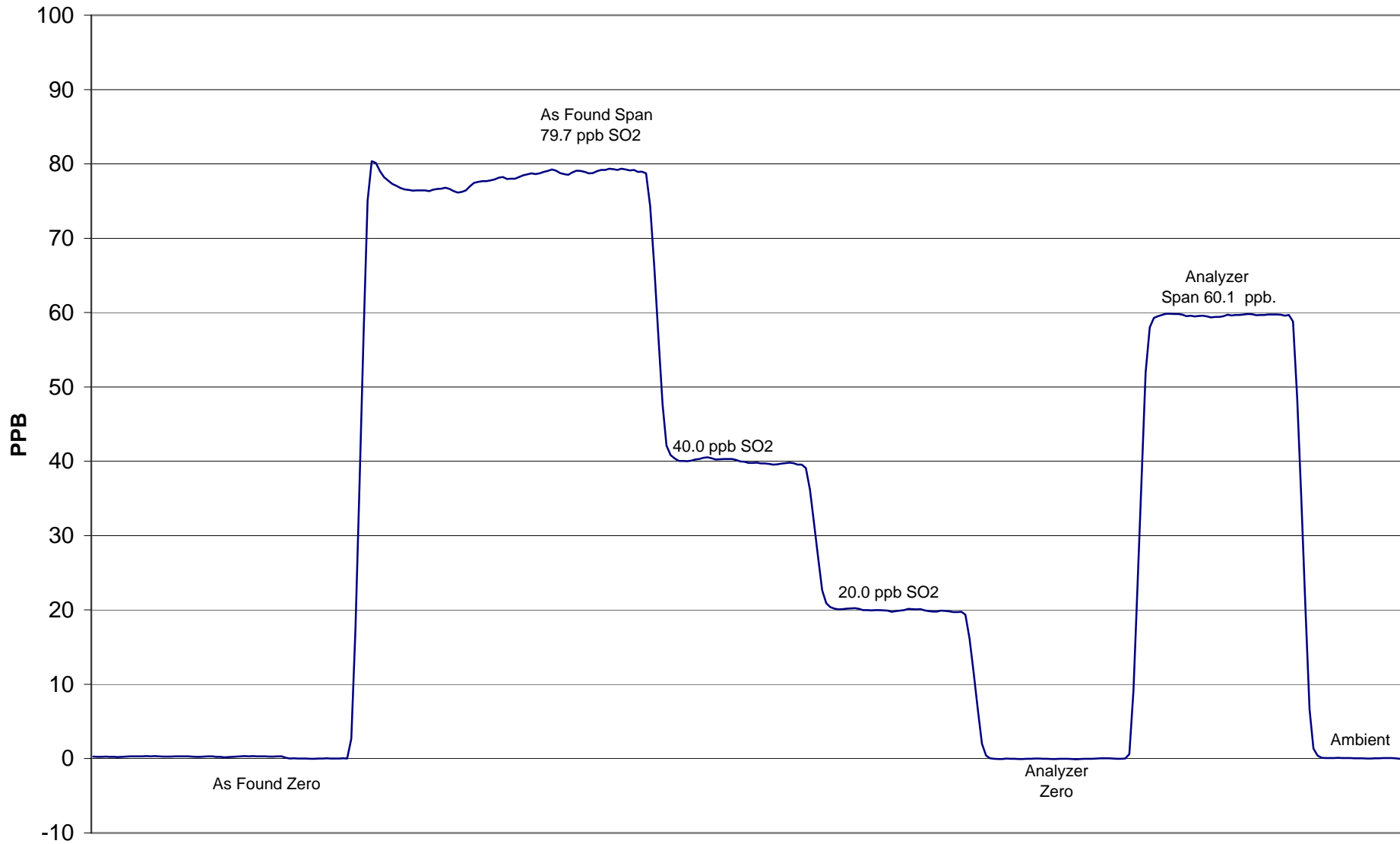
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A		
79.7	79.0	1.0090	Correlation Coefficient	0.999981
40.0	39.9	1.0009		
20.0	19.9	1.0028	Slope	1.009180
			Intercept	-0.123502

SO2 Calibration Curve



Beaverlodge SO₂ Calibration



January 5, 2011

Calibration Report



Parameter SO2

Air Monitoring Network PASZA

Station Information

Calibration Date	January 26, 2011	Previous Calibration	January 5, 2011
Station Number	4	Station Location	Beaverlodge
Reason:	<input type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input checked="" type="checkbox"/> Other:
Start Time (MST)	13:00	End Time (MST)	16:30
Barometric Pressure	0.912 atm	Station Temperature	23.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
Cal Gas Concentration	10.06 ppm	Cal Gas Expiry Date	7/27/2009
Gas Cert Reference	CC 114395		
DACS make	Focus AP1000	DACS serial No.	45269
DACS voltage range	0 - 10 volt	DACS channel #	5
	<u>Before</u>		<u>After</u>
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	1.009180	Calculated slope	0.991036
Calculated intercept	-0.123502	Calculated intercept	0.008364
Analyzer make	TEI Model 43i-TLE	Analyzer serial #	713021137

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	2.48		2.59	
Coefficient	0.893		0.959	
PMT	-812.9	V	-787.4	V
UV Lamp Voltage	1077	V	1129	V
Chamber Temp	45.1	Deg C	44.9	Deg C
Pressure	657.1	mm Hg	657.7	mm Hg
Sample Flow	0.518	LPM	0.518	LPM
Lamp Intesity	85%	%	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)
4988	0.00	0.0	0.0	N/A
4988	39.82	79.7	80.3	0.9919
4988	19.90	40.0	40.5	0.9880
4988	9.93	20.0	20.1	0.9934
4988	0.00	0.0	0.0	As found zero
4988	39.82	79.7	82.0	As found span
Average Correction Factor				0.9911

Calculated value of As Found Response: 82.702 ppm Percent Change of As Found: -3.8%

	before calibration		after calibration	
Auto zero	-0.3	ppb	0.0	ppb
Auto span	59.7	ppb	57.6	ppb

Notes: _____

Calibration Performed By: Courtney Thompson

Calibration Summary

Parameter SO2

Air Monitoring Network PASZA

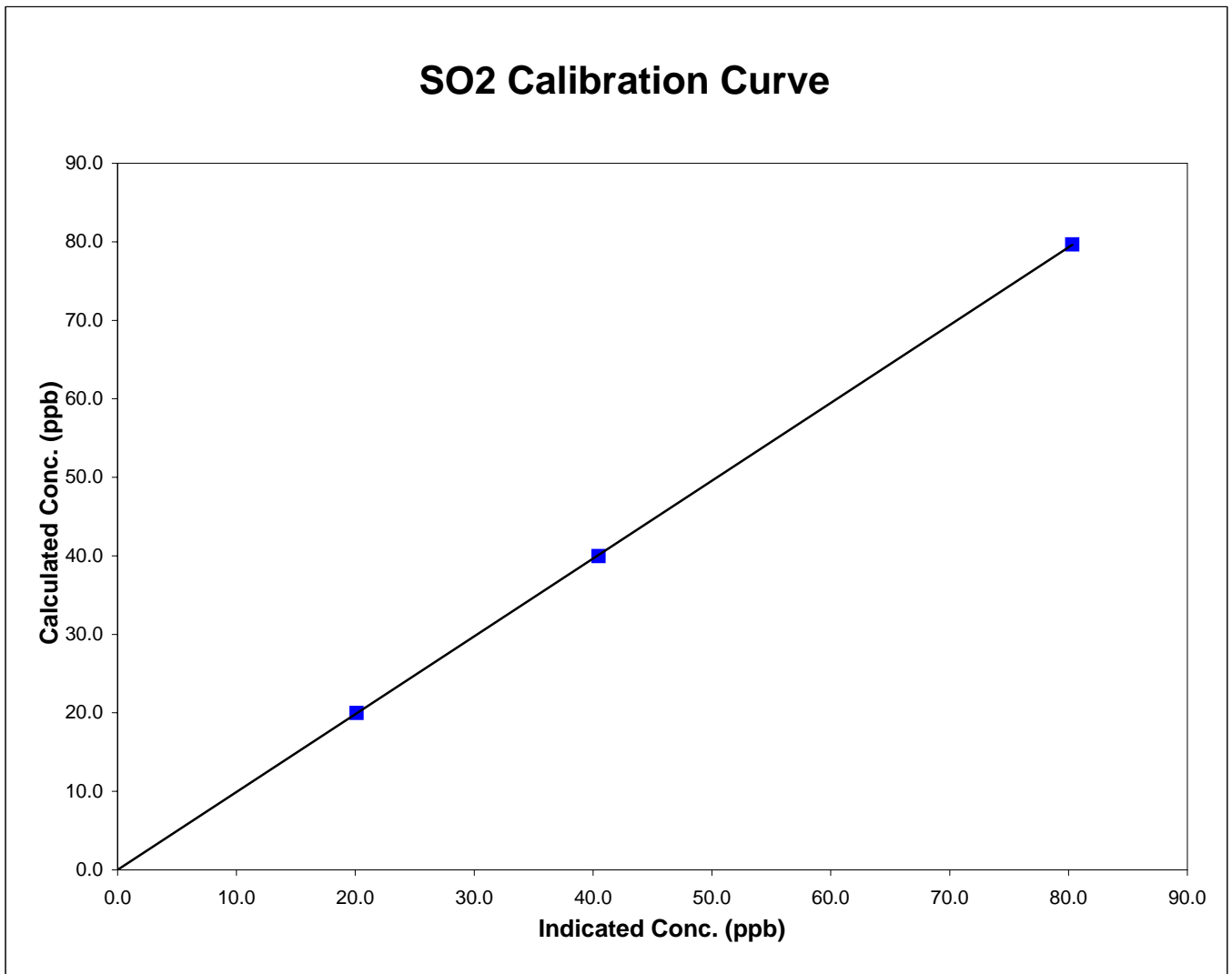


Station Information

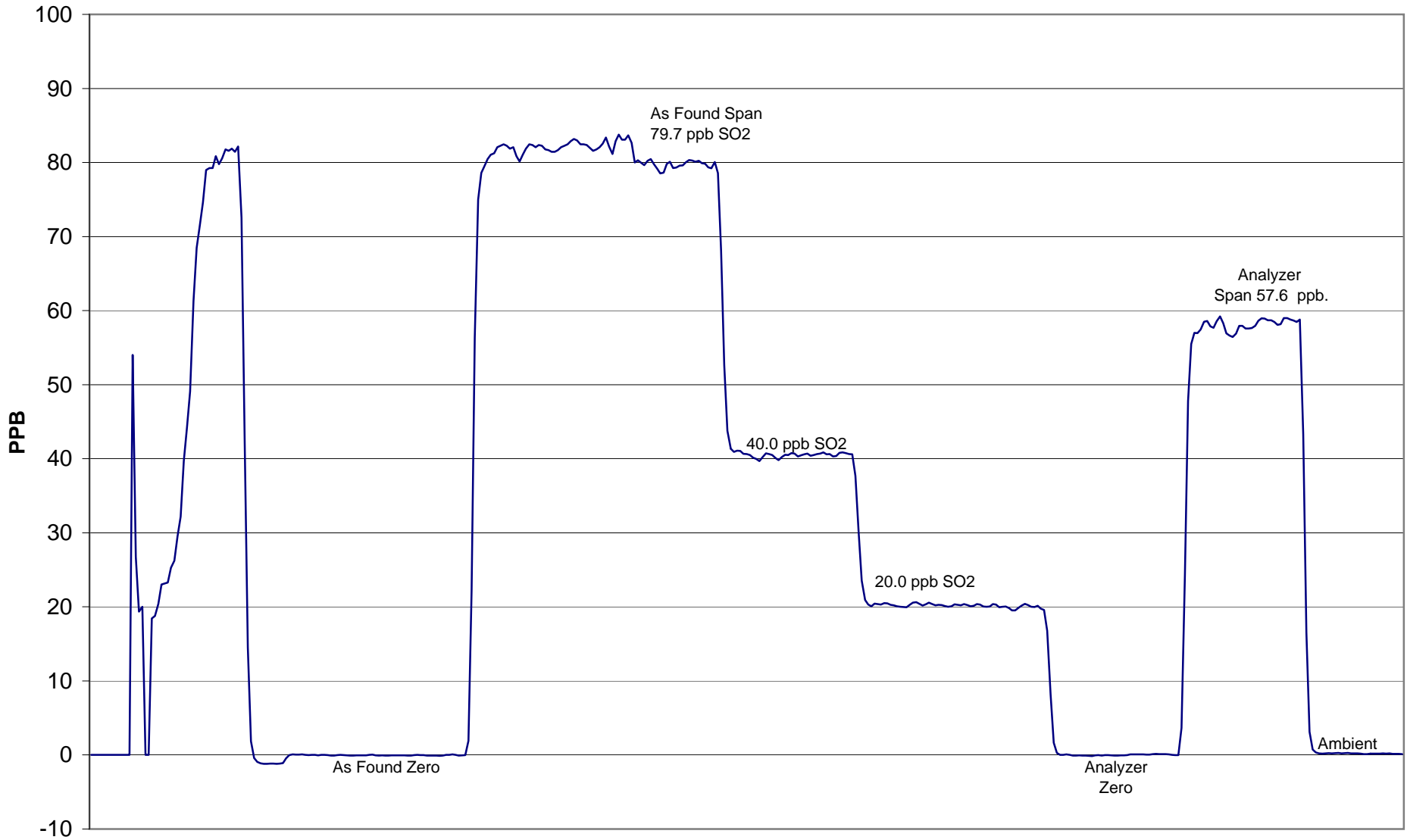
Calibration Date	January 26, 2011	Previous Calibration	January 5, 2011
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	13:00	End Time (MST)	16:30
Analyzer make/model	TEI Model 43i-TLE	Analyzer serial #	713021137

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A		
79.7	80.3	0.9919	Correlation Coefficient	0.999993
40.0	40.5	0.9880		
20.0	20.1	0.9934	Slope	0.991036
			Intercept	0.008364



Beaverlodge SO₂ Calibration



January 26, 2011

Calibration Report

Parameter

NO_x-NO-NO₂

Air Monitoring Network

PASZA



Station Information

Calibration Date	January 5, 2011	Previous Calibration	December 2, 2010
Station Number	4	Station Location	BeaverLodge
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Installation	<input type="checkbox"/> Removal
Start Time (MST)	9:00	End Time (MST)	13:44
Barometric Pressure	0.912 Atm	Station Temperature	23.0 Deg C
Calibrator	EnviroNics	Serial Number	2844
NO Cal Gas Conc	50.1 ppm	Cal Gas Expiry Date	
NOx Cal Gas Conc	50.2 ppm	Cal Gas Serial #	CC-114395

DACS Information

DACS make AP1000 DACS serial No. _____

Parameter		NO2	NOx	NO
Before	Data Slope	0.994007	1.004474	1.004435
	Data Offset	-0.440536	-2.611018	-2.288320
After	Data Slope	1.000204	1.004093	0.999971
	Data Offset	-0.280452	-1.756426	-0.591255
Channel #		8	6	7
Voltage Range		0 - 10 VDC	0 - 10 VDC	0 - 10 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	2.5	mV	2.5	mV
NOx bkgnd	2.8	mV	2.8	mV
NO coefficient	1.484		1.474	
NOx coefficient	1.002		0.997	
NO2 conv temp	326.6	Deg C	323.7	Deg C
PMT Temp	-3.1	Deg C	-3.0	Deg C
PMT Volt	-676.4	mV	-676.4	mV
R Cell Press	179.2	in Hg	176.4	in Hg
Sample Flow	0.717	ccm	0.689	ccm

Calibration Report

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



Station Information

Calibration Date: **January 5, 2011** 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	-0.1	-0.2	0.0	N/A	N/A
1	4988	39.82	397.6	396.8	0.8	396.7	397.0	-0.6	1.0023	0.9994
2	4988	19.90	199.5	199.1	0.4	201.6	200.0	0.9	0.9894	0.9953
3	4988	9.93	99.7	99.5	0.2	102.7	100.9	1.5	0.9710	0.9865
AFZ	4988	0.00	0.0	0.0	0.0	-0.1	-0.2	0.0	0.0000	0.0000
AFS	4988	39.84	397.8	397.0	0.8	406.4	401.7	4.3	0.9789	0.9882
Average Correction Factor									0.9875	0.9937

As Found Concentrations: **NO_x= 403.8** **NO= 399.6** As Found Percent Change **NO_x= 1.5%** **NO= 0.7%**

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	-0.2	-0.2	0.0	-0.1	-0.2	0.0	N/A	N/A	N/A	N/A
NO point	396.6	396.6	0.0	396.7	396.6	-0.2	0.9997	1.0000	N/A	N/A
300	396.6	180.8	215.8	397.1	180.8	215.8	0.9988	1.0000	1.0001	100.0%
200	396.6	254.0	142.6	397.3	254.0	143.0	0.9984	1.0000	0.9971	100.3%
100	396.6	323.1	73.5	397.4	323.1	74.2	0.9981	1.0000	0.9908	100.9%
Average Correction Factor							0.9984	1.0000	0.9960	100.4%

AIC Data

Parameter	Previous calibration				Current calibration			
	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	-0.2	-0.3	-0.2	ppb	0.0	-0.1	-0.1	ppb
Auto span	238.0	235.5	1.6	ppb	231.4	229.3	1.4	ppb

Calibration Performed By: Courtney Thompson

Calibration Summary

Parameter NO₂

Air Monitoring Network PASZA



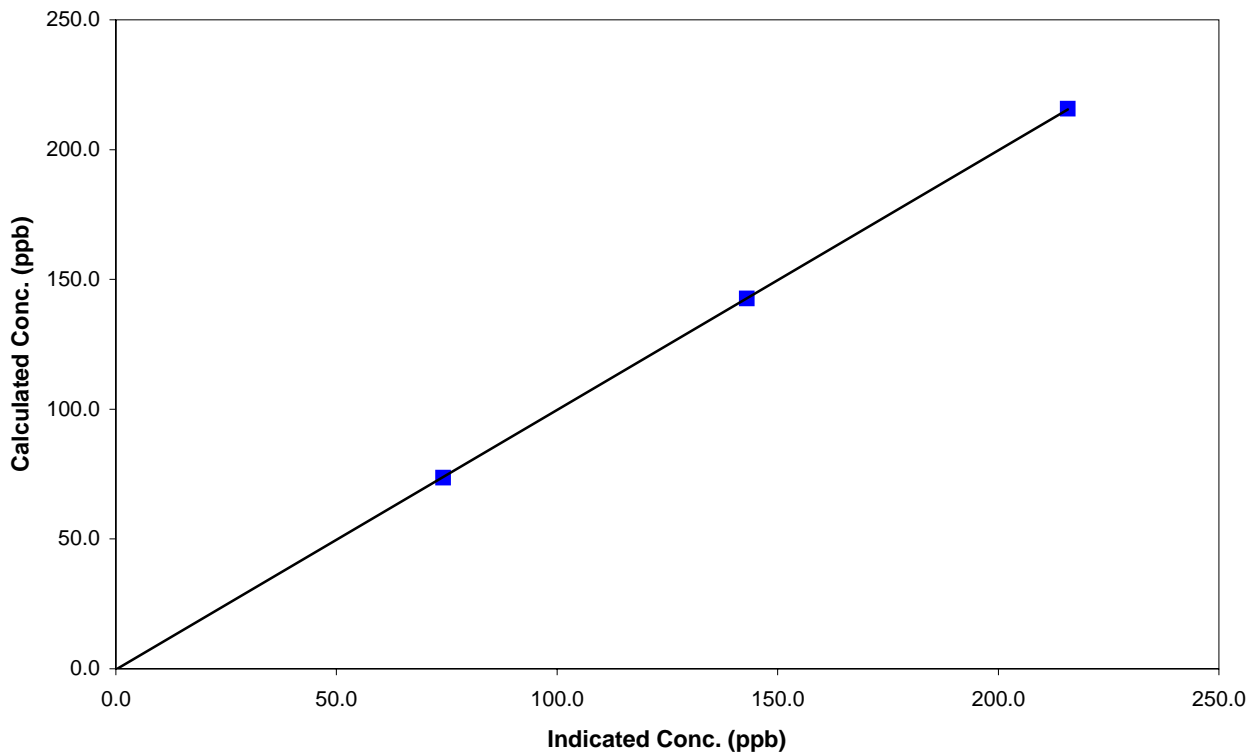
Station Information

Calibration Date	January 5, 2011	Previous Calibration	December 2, 2010
Station Number	4	Station Location	BeaverLodge
Start Time (MST)	9:00	End Time (MST)	13:44
Analyzer make	TEI 42i	Analyzer serial #	906535068

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A		
215.8	215.8	1.0001	Correlation Coefficient	0.999986
142.6	143.0	0.9971		
73.5	74.2	0.9908	Slope	1.000204
			Intercept	-0.280452

NO₂ Calibration Curve



Calibration Summary

Parameter NO_x

Air Monitoring Network PASZA



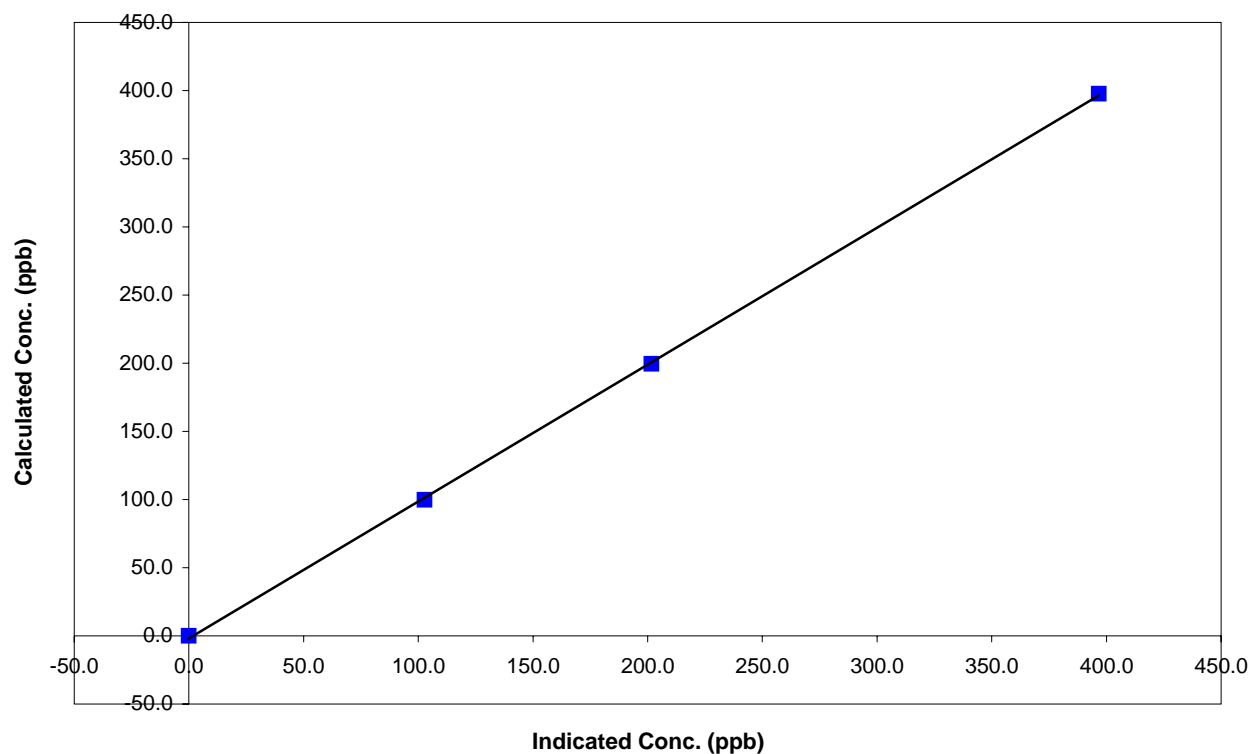
Station Information

Calibration Date	January 5, 2011	Previous Calibration	December 2, 2010
Station Number	4	Station Location	BeaverLodge
Start Time (MST)	9:00	End Time (MST)	13:44
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		
397.6	396.7	1.0023	Correlation Coefficient	0.999901
199.5	201.6	0.9894		
99.7	102.7	0.9710		
			Slope	1.004093
			Intercept	-1.756426

NO_x Calibration Curve



Calibration Summary

Parameter NO

Air Monitoring Network PASZA



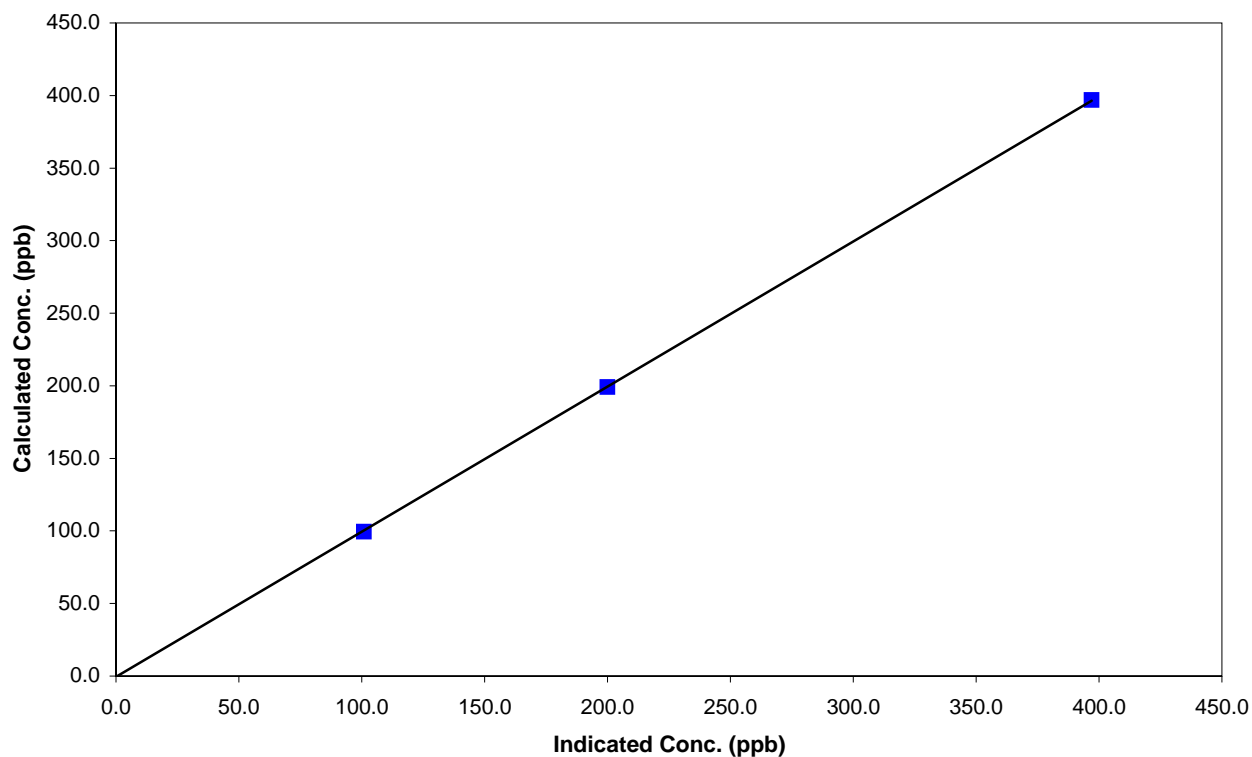
Station Information

Calibration Date	January 5, 2011	Previous Calibration	December 2, 2010
Station Number	4	Station Location	BeaverLodge
Start Time (MST)	9:00	End Time (MST)	13:44
Analyzer make	TEI 42i	Analyzer serial #	906535068

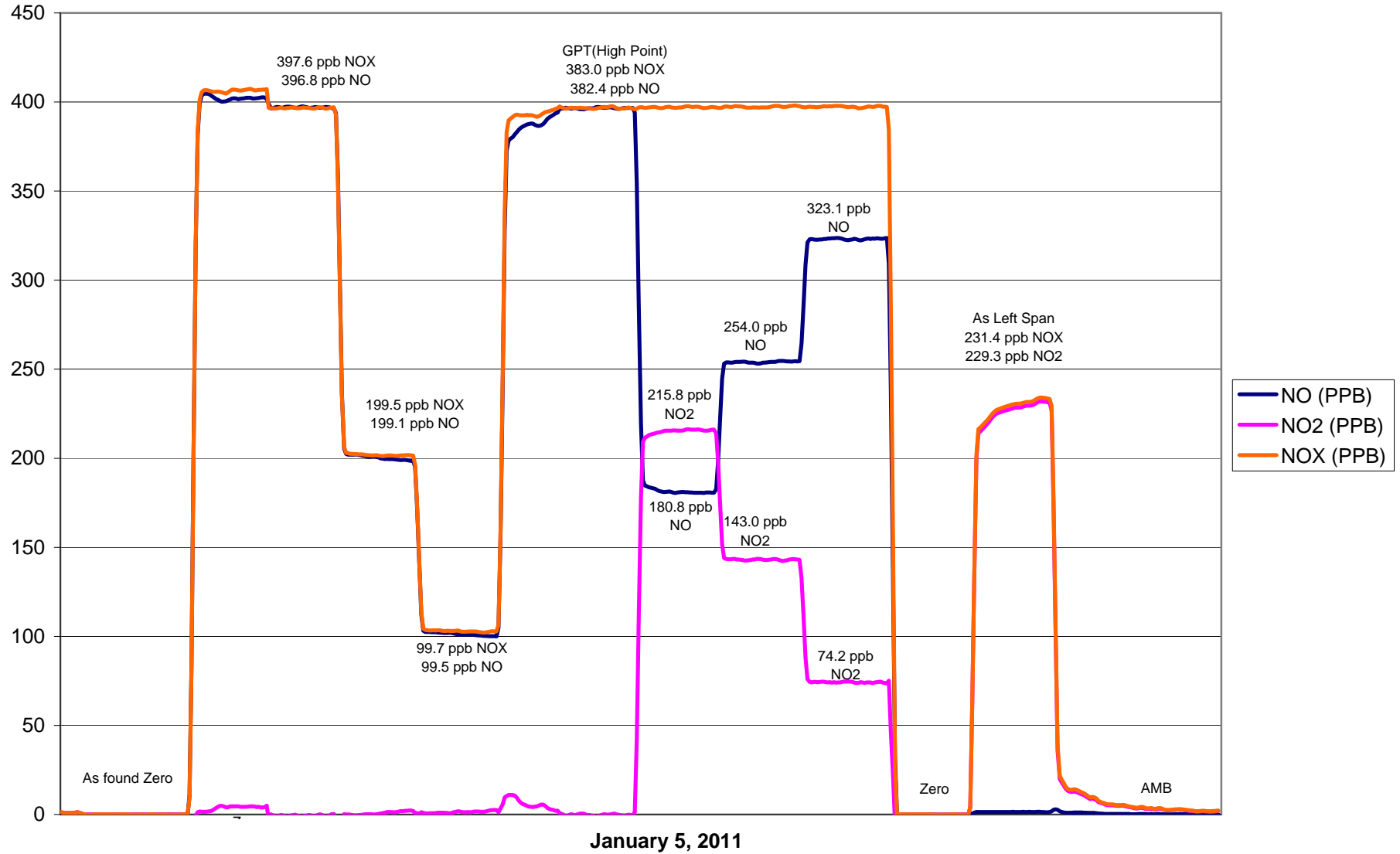
Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.2	N/A	Correlation Coefficient	0.999984
396.8	397.0	0.9994		
199.1	200.0	0.9953		
99.5	100.9	0.9865	Slope	0.999971
			Intercept	-0.591255

NO Calibration Curve



Beaverlodge NO_x Calibration



Calibration Report



Parameter 03

Air Monitoring Network PASZA

Station Information

Calibration Date	January 5, 2010	Previous Calibration	December 2, 2010
Station Number	4	Station Location	Beaverlodge
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
		<input type="checkbox"/> Other:	
Start Time (MST)	12:05	End Time (MST)	14:37
Barometric Pressure	0.912 atm	Station Temperature	23.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
Cal Gas Concentration	NA	Cal Gas Expiry Date	NA
DACS make	Focus AP1000	DACS serial No.	45269
DACS voltage range	0 - 1 volt	DACS channel #	9
	Before		After
Calculated slope	1.007160	Calculated slope	1.015064
Calculated intercept	-0.361026	Calculated intercept	0.062246
Analyzer make	Teco 49C	Analyzer serial #	49C-76443-383

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
offset	-1.40	ppb	-0.80	ppb
slope	1.008		1.008	
Lamp temp	56.5	mV	56.5	mV
Lamp Intensity A/B	64809/67244	mV	64643/67081	mV
Pressure	678.3	mm Hg	641.9	mm Hg
Flow A	0.708	ccm	0.679	ccm
Flow B	0.655	ccm	0.622	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)
4990	0.00	0.0	-0.1	N/A
4990	0.00	215.8	212.5	1.0156
4990	0.00	142.6	140.5	1.0152
4990	0.00	73.5	72.4	1.0152
4990	0.00	0.0	0.6	As found zero
4990	0.00	215.8	212.5	As found span
Average Correction Factor				1.0153

Calculated value of As Found Response: 213.1 ppm Percent Change of As Found: -1.3%

	before calibration		after calibration	
Auto zero	0.1	ppb	-0.2	ppb
Auto span	114.3	ppb	130.1	ppb

Notes: _____

Calibration Performed By: Courtney Thompson

Calibration Summary

Parameter 03
 Air Monitoring Network PASZA



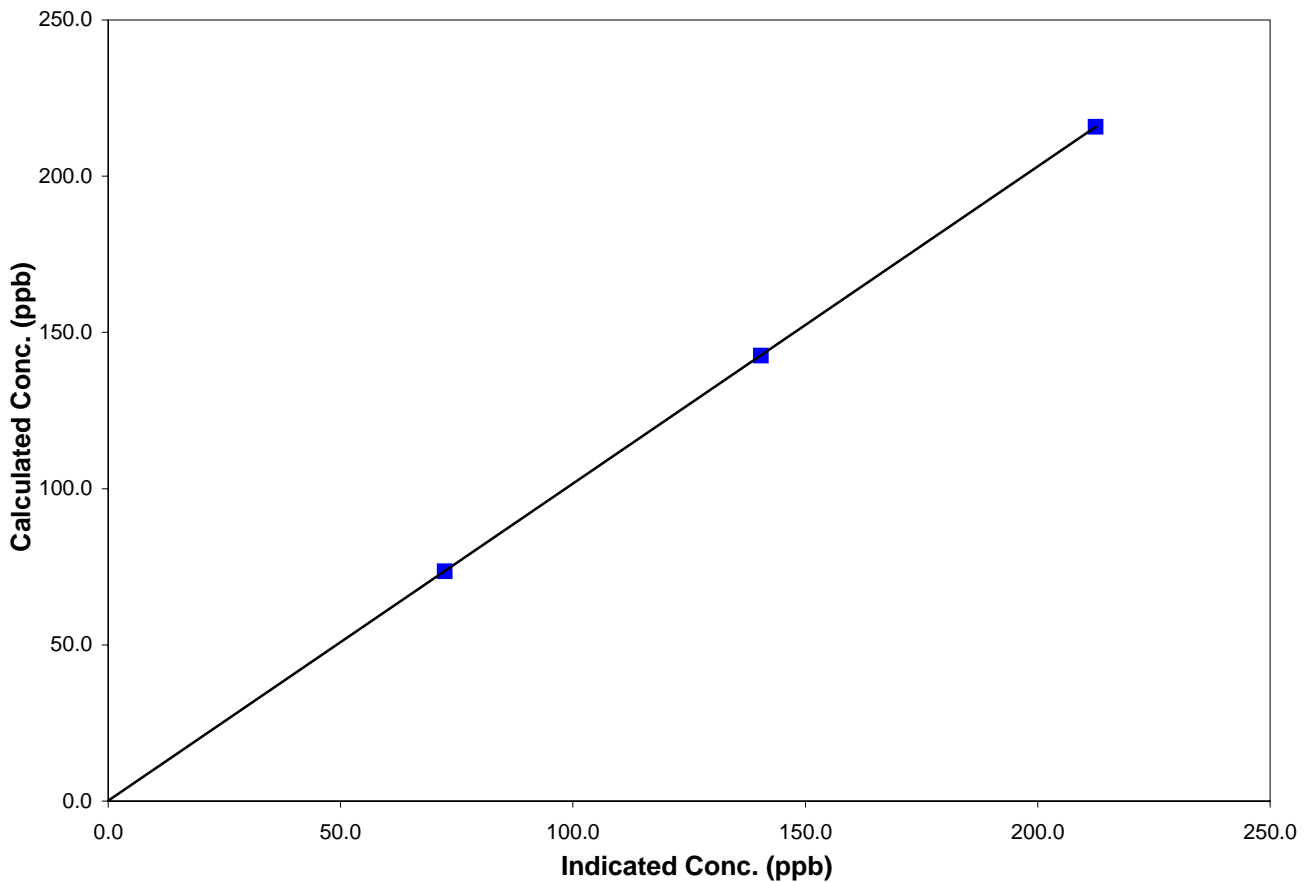
Station Information

Calibration Date	January 5, 2010	Previous Calibration	December 2, 2010
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	12:05	End Time (MST)	14:37
Analyzer make/model	Teco 49C	Analyzer serial #	49C-76443-383

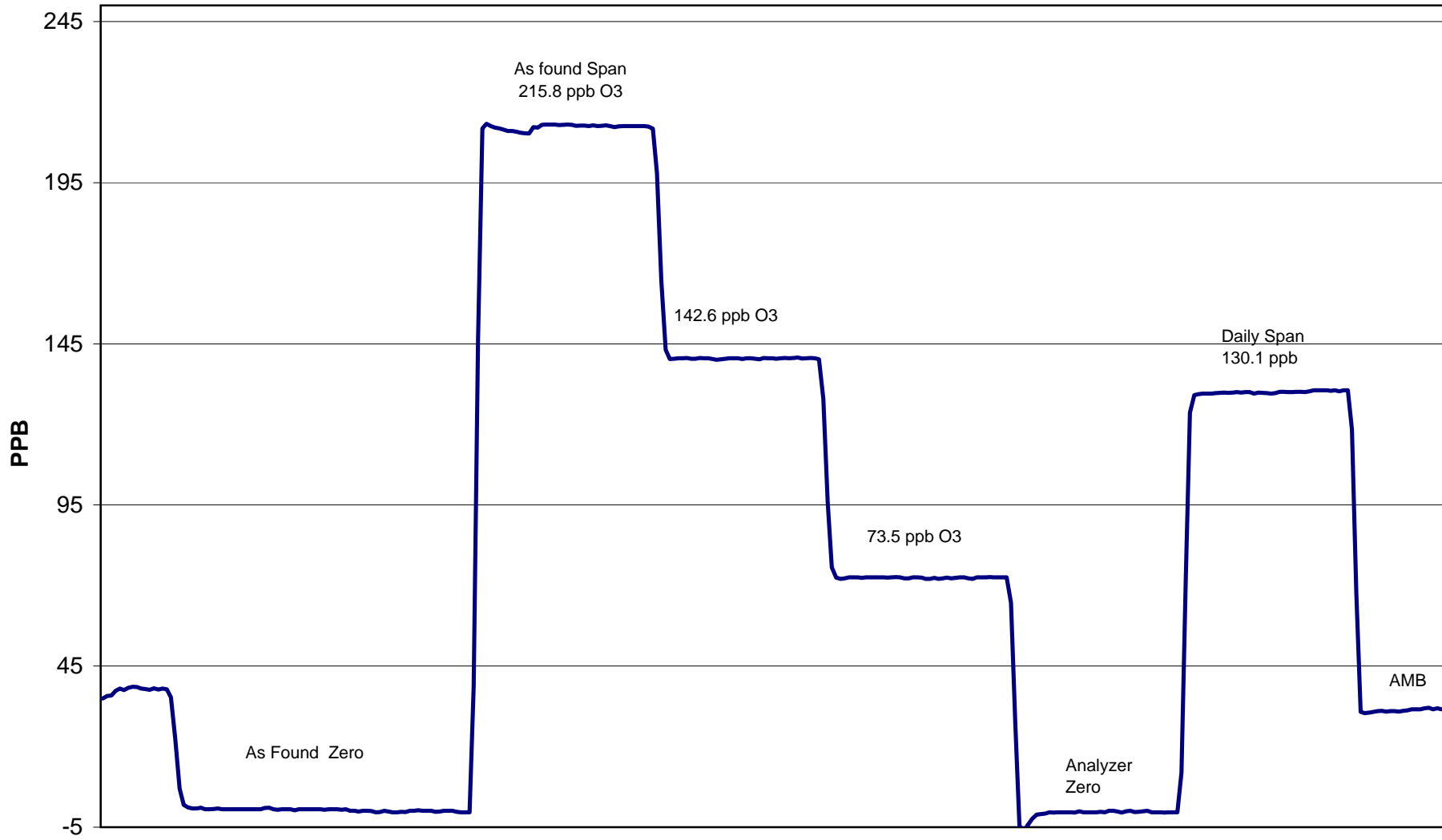
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
			Correlation Coefficient	Slope
0.0	-0.1	NA	1.000000	1.015064
215.8	212.5	1.0156		
142.6	140.5	1.0152		
73.5	72.4	1.0152		0.062246
			Intercept	

O3 Calibration Curve



Beaverlodge O₃ Calibration



January 5, 2010

Calibration Report

Parameter SO2
 Air Monitoring Network PASZA



Station Information

Calibration Date	January 12, 2011	Previous Calibration	December 13, 2010
Station Number	9	Station Location	Rover - Bonanza
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
		<input type="checkbox"/> Other:	
Start Time (MST)	9:40	End Time (MST)	13:34
Barometric Pressure	31.70 inches Hg	Station Temperature	15.7 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
Cal Gas Concentration	50.6 ppm	Cal Gas Expiry Date	4/6/2012
Gas Cert Reference	SGAL3245		
DACS make	Focus AP1000	DACS serial No.	52662
DACS voltage range	0 - 10 volt	DACS channel #	9
	<u>Before</u>		<u>After</u>
DACS Scale High	500	DACS slope	500
DACS Scale Low	0	DACS intercept	0
Calculated slope	1.000219	Calculated slope	0.997106
Calculated intercept	-1.457284	Calculated intercept	-0.816870
Analyzer make	TEI 43C	Analyzer serial #	609716238

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Background	9.5		9.5	
Coefficient	0.985		0.985	
UV Lamp Voltage	797	V	798	V
Chamber Temp	44.2	C	44.3	C
Perm Gas Temp	45	C	45	C
Pressure	664.1	mm Hg	677.1	mm Hg
Sample Flow	0.484	LPM	0.489	LPM
Lamp Intesity	47521	Hz	47535	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)
4991	0.00	0.0	-0.1	N/A
4991	39.84	400.7	402.2	0.9962
4991	19.90	200.9	202.8	0.9908
4991	9.93	100.5	102.5	0.9806
4991	0.00	0.0	-0.1	As found zero
4991	39.84	400.7	402.2	As found span
Average Correction Factor				0.9892

Calculated value of As Found Response: 400.928 ppm Percent Change of As Found: -0.1%

	before calibration		after calibration	
Auto zero	0.3	ppm	0.3	ppm
Auto span	264.0	ppm	259.9	ppm

Notes: _____

Calibration Performed By: Courtney Thompson

Calibration Summary

Parameter SO2

Air Monitoring Network PASZA



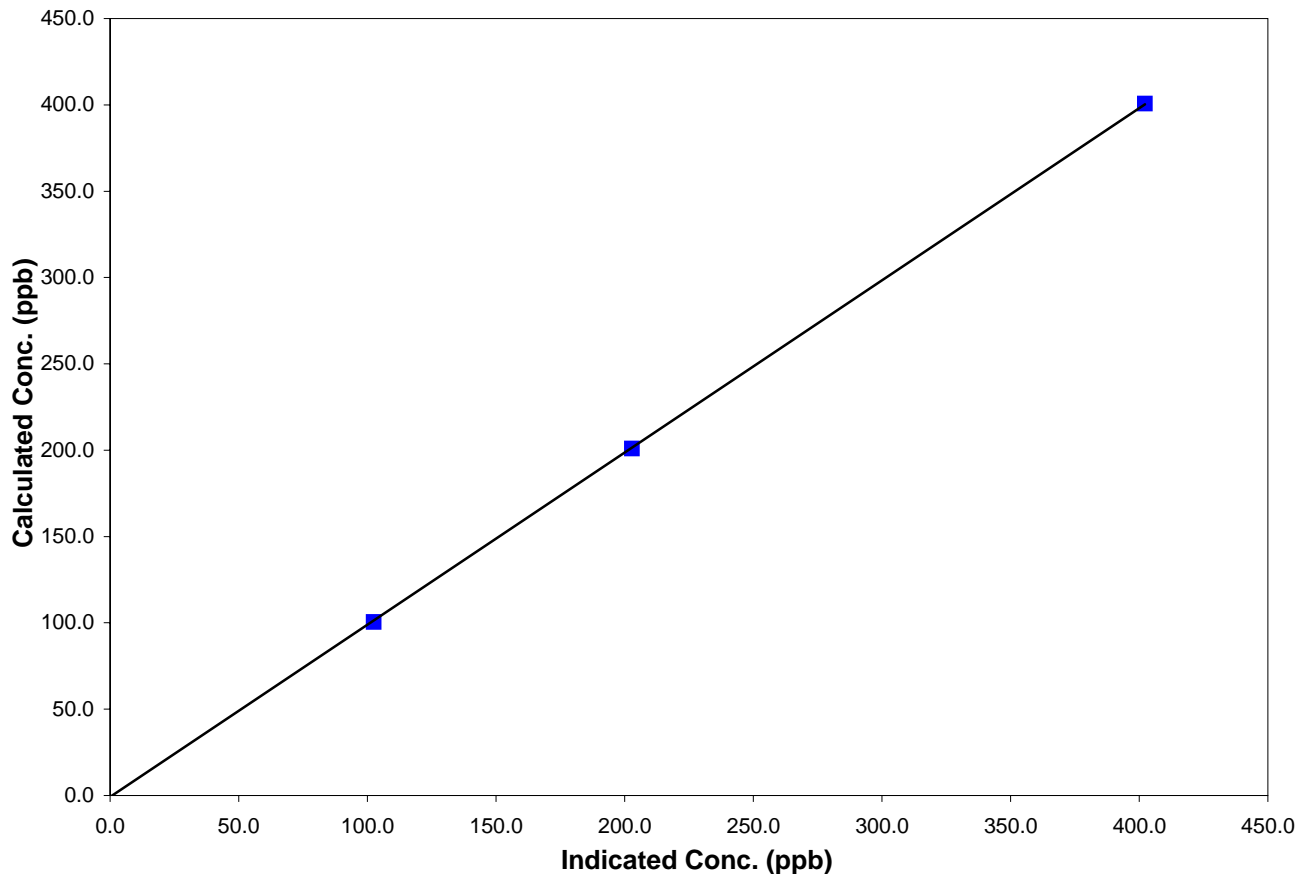
Station Information

Calibration Date	January 12, 2011	Previous Calibration	December 13, 2010
Station Number	9	Station Location	Rover - Bonanza
Start Time (MST)	9:40	End Time (MST)	13:34
Analyzer make/model	TEI 43C	Analyzer serial #	609716238

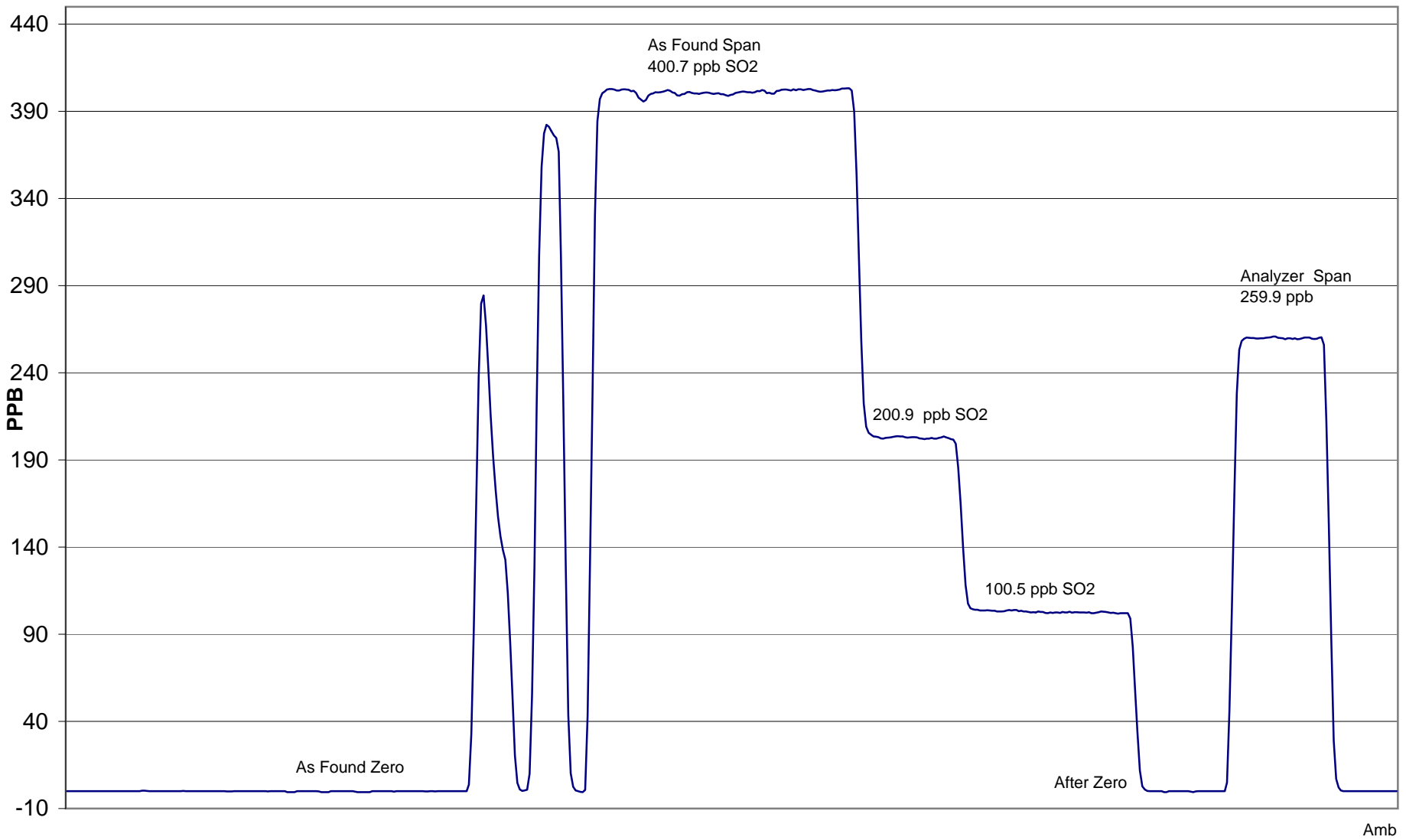
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	N/A		
400.7	402.2	0.9962	Correlation Coefficient	0.999978
200.9	202.8	0.9908		
100.5	102.5	0.9806	Slope	0.997106
			Intercept	-0.816870

SO2 Calibration Curve



Bonanza SO₂ Calibration



January 12, 2011

Calibration Report

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



Station Information

Calibration Date	January 12, 2010	Previous Calibration	December 13, 2010
Station Number	9	Station Location	Rover-Bonanza
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
		<input type="checkbox"/> Other:	
Start Time (MST)	14:45	End Time (MST)	17:14
Barometric Pressure	27.5 inches Hg	Station Temperature	15.7 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
Cal Gas Concentration	5.15 ppm	Cal Gas Expiry Date	11/15/2005
Gas Cert Reference	ALM013295		
DACS make	Focus AP1000	DACS serial No.	52662
DACS voltage range	0 - 5 volt	DACS channel #	8
	<u>Before</u>		<u>After</u>
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.973777	Calculated slope	0.998804
Calculated intercept	0.288375	Calculated intercept	0.234649
Analyzer make	TEI 43C	Analyzer serial #	609716238

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	11.4	ppb	11.4	ppb
Coefficient	1.460		1.460	
Lamp Voltage	791	V	792	V
Chamber Temp	44.0	C	43.9	C
Perm gas Temp	45.00	C	45.0	C
Pressure	647.9	mmHg	648.7	mmHg
Sample Flow	.430	ccm	.433	ccm
Lamp Intensity	39580.0	Hz	39034.0	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)
4989	0.0	0.0	-0.4	N/A
4991	79.74	81.0	80.8	1.0021
4991	39.80	40.7	40.6	1.0037
4991	9.93	10.2	10.1	1.0104
4991	0.00	0.0	-0.4	As found zero
4991	79.74	81.0	80.8	As found span
Average Correction Factor				1.0054

Calculated value of As Found Response: 79.33 ppm Percent Change of As Found: 2.0%

	before calibration		after calibration	
Auto zero	-0.6	ppm	0.2	ppm
Auto span	65.9	ppm	64.8	ppm

Notes: _____

Calibration Performed By: Courtney Thompson

Calibration Summary

Parameter TRS

Air Monitoring Network PASZA

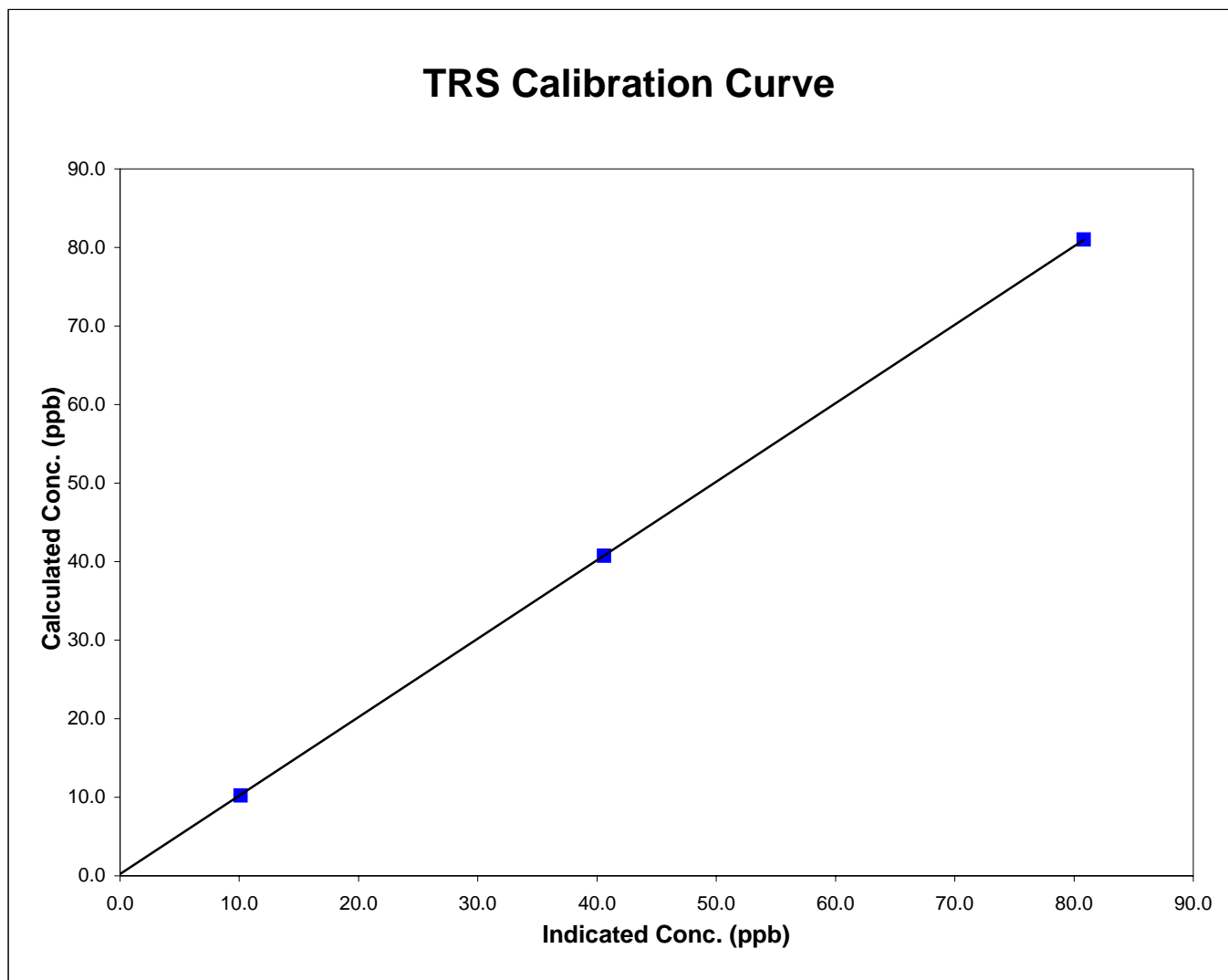


Station Information

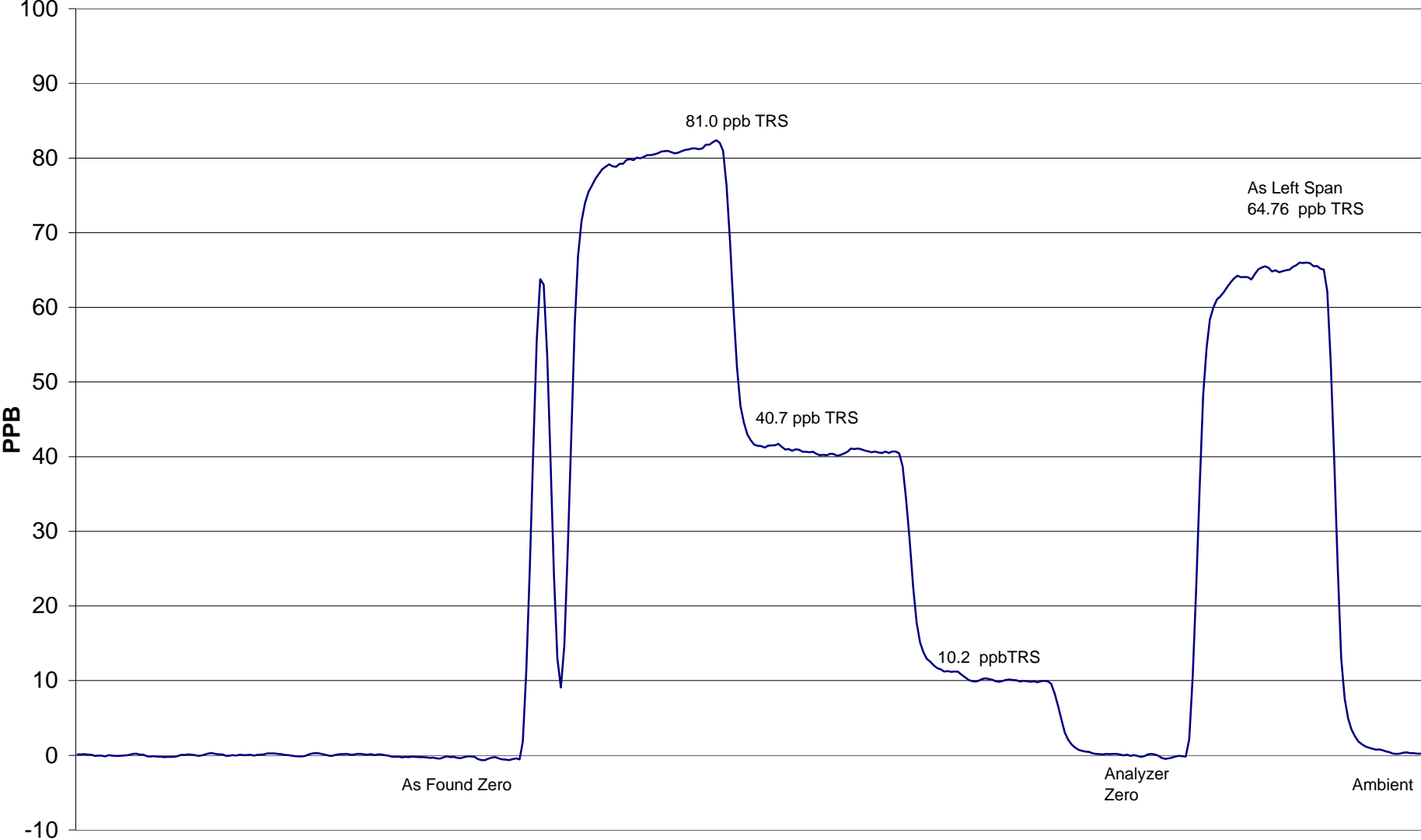
Calibration Date	January 12, 2010	Previous Calibration	December 13, 2010
Station Number	9	Station Location	Rover-Bonanza
Start Time (MST)	14:45	End Time (MST)	17:14
Analyzer make/model	TEI 43C	Analyzer serial #	609716238

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.4	N/A	Correlation Coefficient	0.999992
81.0	80.8	1.0021		
40.7	40.6	1.0037	Slope	0.998804
10.2	10.1	1.0104		
			Intercept	0.234649



Bonanza - TRS Calibration



January 12, 2010

Calibration Report

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



Station Information

Calibration Date	January 14, 2011	Previous Calibration	December 13, 2010
Station Number	9	Station Location	Rover - Bonanza
Reason:	Routine	Installation	Removal
	Other: Maintenance		
Start Time (MST)	10:50	End Time (MST)	15:02
Barometric Pressure	0.927 Atm	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
NO Cal Gas Conc	51.4 ppm	Cal Gas Expiry Date	April 6, 2012
NOx Cal Gas Conc	51.4 ppm	Cal Gas Serial #	SGAL 3245

DACS Information

DACS make **Focus AP1000** DACS serial No. **52662**

Parameter		NO2	NOx	NO
Before	Data Slope	0.996934	0.990850	0.998357
	Data Offset	1.733843	0.709432	-0.546948
After	Data Slope	0.997616	0.997182	1.005094
	Data Offset	1.168949	-2.474983	-3.315597
Channel #		8	6	7
Voltage Range		0 - 10 VDC	0 - 10 VDC	0 - 10 VDC

Analyzer Information

Analyzer make/model **TEI 42i** Analyzer serial # **0701120011**

Test Point	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
NO offset	4.3	mV	4.4	mV
NOx bkgnd	5.1	mV	5.2	mV
NO coefficient	1.123		1.122	
NOx coefficient	0.999		0.999	
NO2 conv temp	323.5	Deg C	325.3	Deg C
PMT Temp	-2.9	Deg C	-2.7	Deg C
PMT Volt	-786.6	mV	-772.9	mV
R Cell Press	194.1	in Hg	156.3	in Hg
Sample Flow	0.763	ccm	0.932	ccm

Notes:

Calibration Report

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



Station Information

Calibration Date: **January 14, 2011** Station Location: **Rover - Bonanza**

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	5000	0.00	0.0	0.0	0.0	0.1	0.6	-0.9	N/A	N/A	
1	4988	39.88	407.7	407.7	0.0	410.0	407.5	-0.6	0.9944	1.0006	
2	4988	19.89	204.1	204.1	0.0	208.7	207.9	-1.0	0.9780	0.9817	
3	4988	9.93	102.1	102.1	0.0	107.1	107.5	-1.2	0.9538	0.9501	
AFZ	4988	0.00	0.0	0.0	0.0	0.1	0.6	-0.9	0.0000	0.0000	
AFS	4989	39.88	407.6	407.6	0.0	410.0	407.5	-0.6	0.9942	1.0004	
									Average Correction Factor	0.9754	0.9775

As Found Concentrations: **NO_x= 410.6** **NO= 406.3** As Found Percent Change **NO_x= 0.7%** **NO= -0.3%**

GPT Calibration Data

Dilution Flow 4988 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	0.6	0.6	0.0	0.1	0.6	-0.9	N/A	N/A	N/A	N/A	
NO point	406.6	406.6	0.0	409.3	406.6	-0.9	0.9933	1.0000	N/A	N/A	
300	406.6	100.4	306.2	408.0	100.4	305.9	0.9965	1.0000	1.0009	99.9%	
200	406.6	199.5	207.1	408.3	199.5	206.3	0.9958	1.0000	1.0036	99.6%	
100	406.6	295.6	111.0	408.0	295.6	109.7	0.9964	1.0000	1.0114	98.9%	
							Average Correction Factor	0.9963	1.0000	1.0053	99.5%

AIC Data

Parameter	Previous calibration				Current calibration			
	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	0.4	-0.9	0.7	ppb	0.1	-1.0	0.7	ppb
Auto span	275.6	274.9	2.9	ppb	198.4	195.2	2.0	ppb

Calibration Performed By: Courtney Thompson

Calibration Summary

Parameter NO₂

Air Monitoring Network PASZA



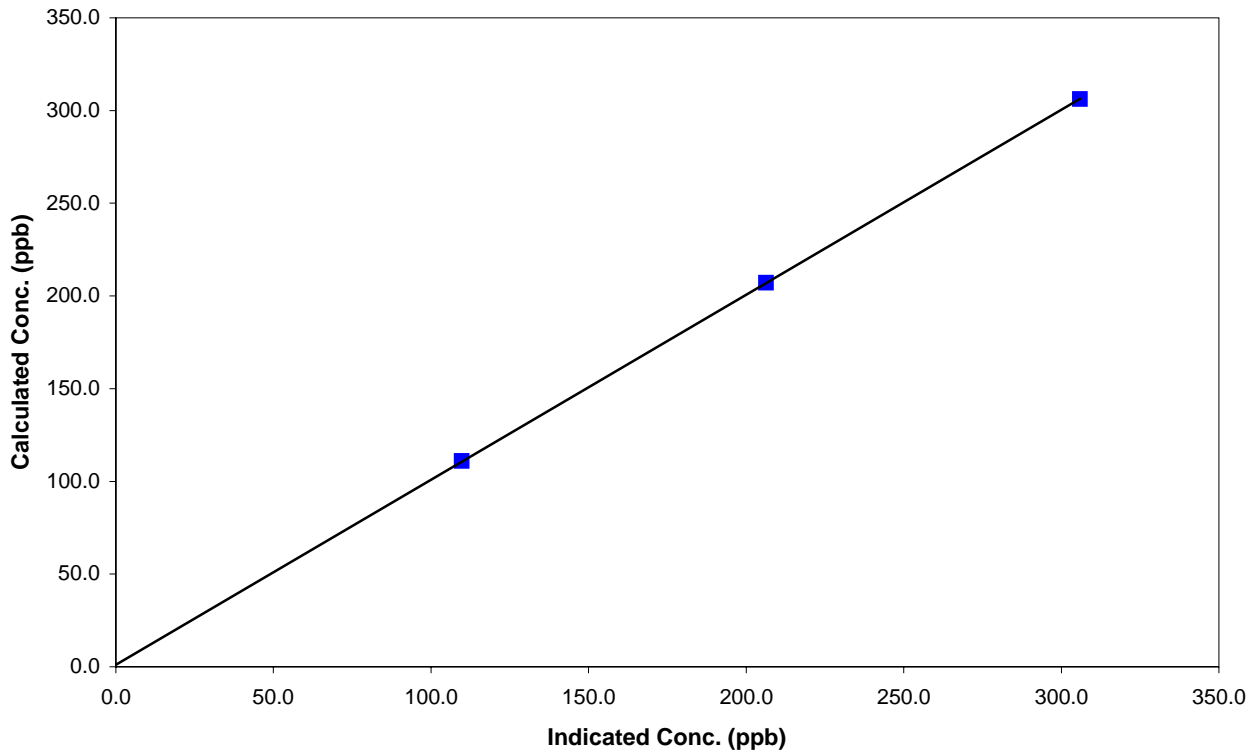
Station Information

Calibration Date	January 14, 2011	Previous Calibration	December 13, 2010
Station Number	9	Station Location	Rover - Bonanza
Start Time (MST)	10:50	End Time (MST)	13:12
Analyzer make	TEI 42i	Analyzer serial #	0701120011

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.9	N/A	Correlation Coefficient	0.999996
306.2	305.9	1.0009		
207.1	206.3	1.0036	Slope	0.997616
111.0	109.7	1.0114		
			Intercept	1.168949

NO₂ Calibration Curve



Calibration Summary

Parameter NO_x

Air Monitoring Network PASZA



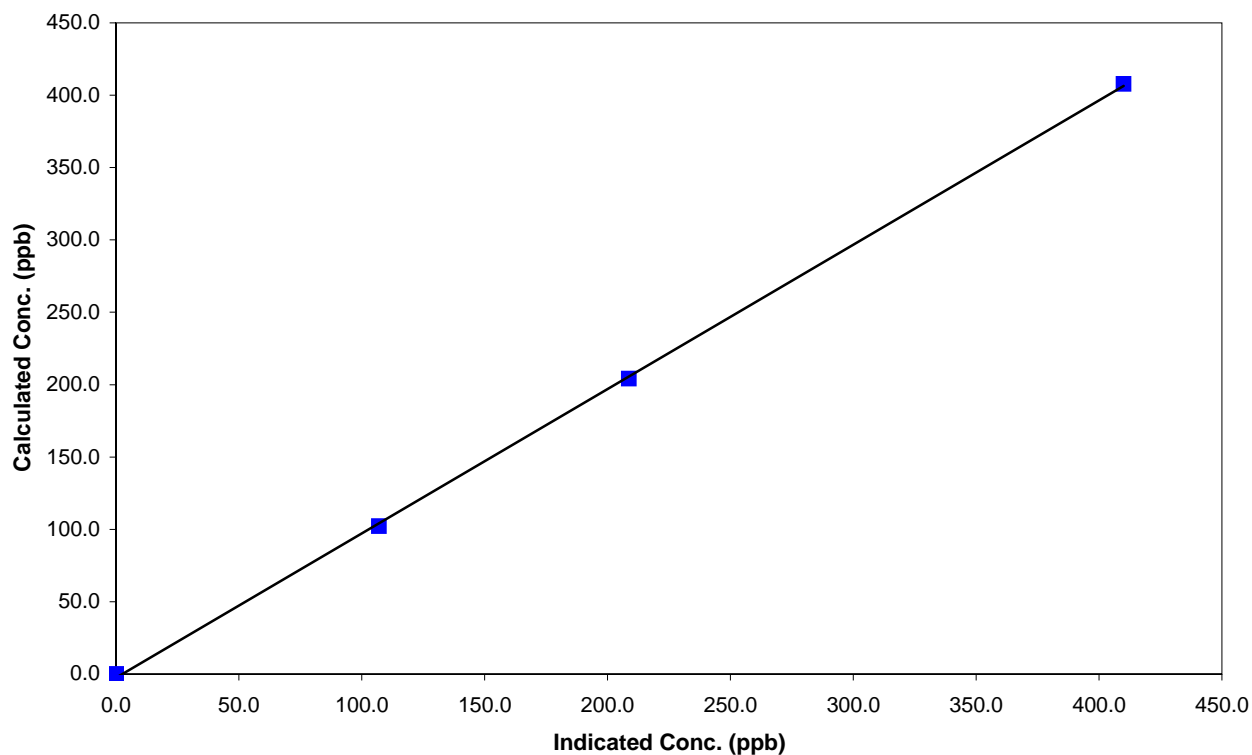
Station Information

Calibration Date	January 14, 2011	Previous Calibration	December 13, 2010
Station Number	9	Station Location	Rover - Bonanza
Start Time (MST)	10:50	End Time (MST)	13:12
Analyzer make	TEI 42i	Analyzer serial #	0701120011

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A	Correlation Coefficient	0.999841
407.7	410.0	0.9944		
204.1	208.7	0.9780	Slope	0.997182
102.1	107.1	0.9538		
			Intercept	-2.474983

NO_x Calibration Curve



Calibration Summary

Parameter NO

Air Monitoring Network PASZA



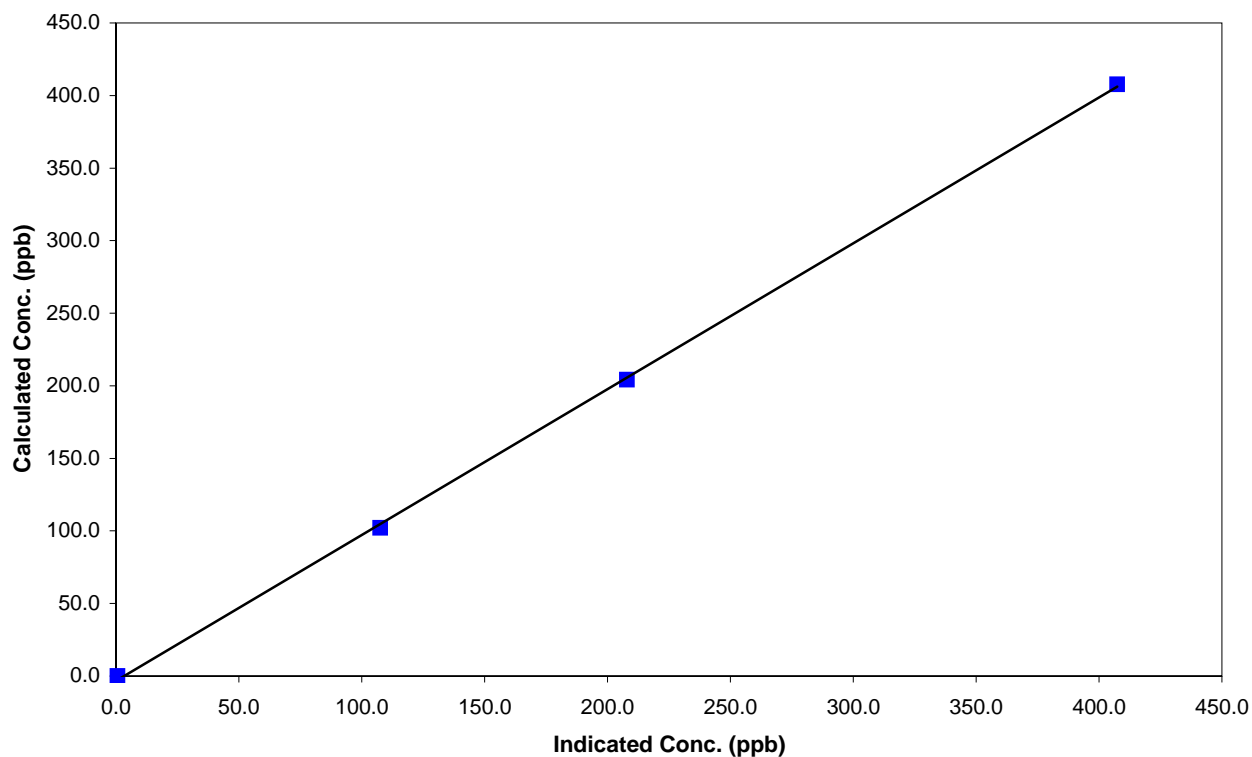
Station Information

Calibration Date	January 14, 2011	Previous Calibration	December 13, 2010
Station Number	9	Station Location	Rover - Bonanza
Start Time (MST)	10:50	End Time (MST)	13:12
Analyzer make	TEI 42i	Analyzer serial #	0701120011

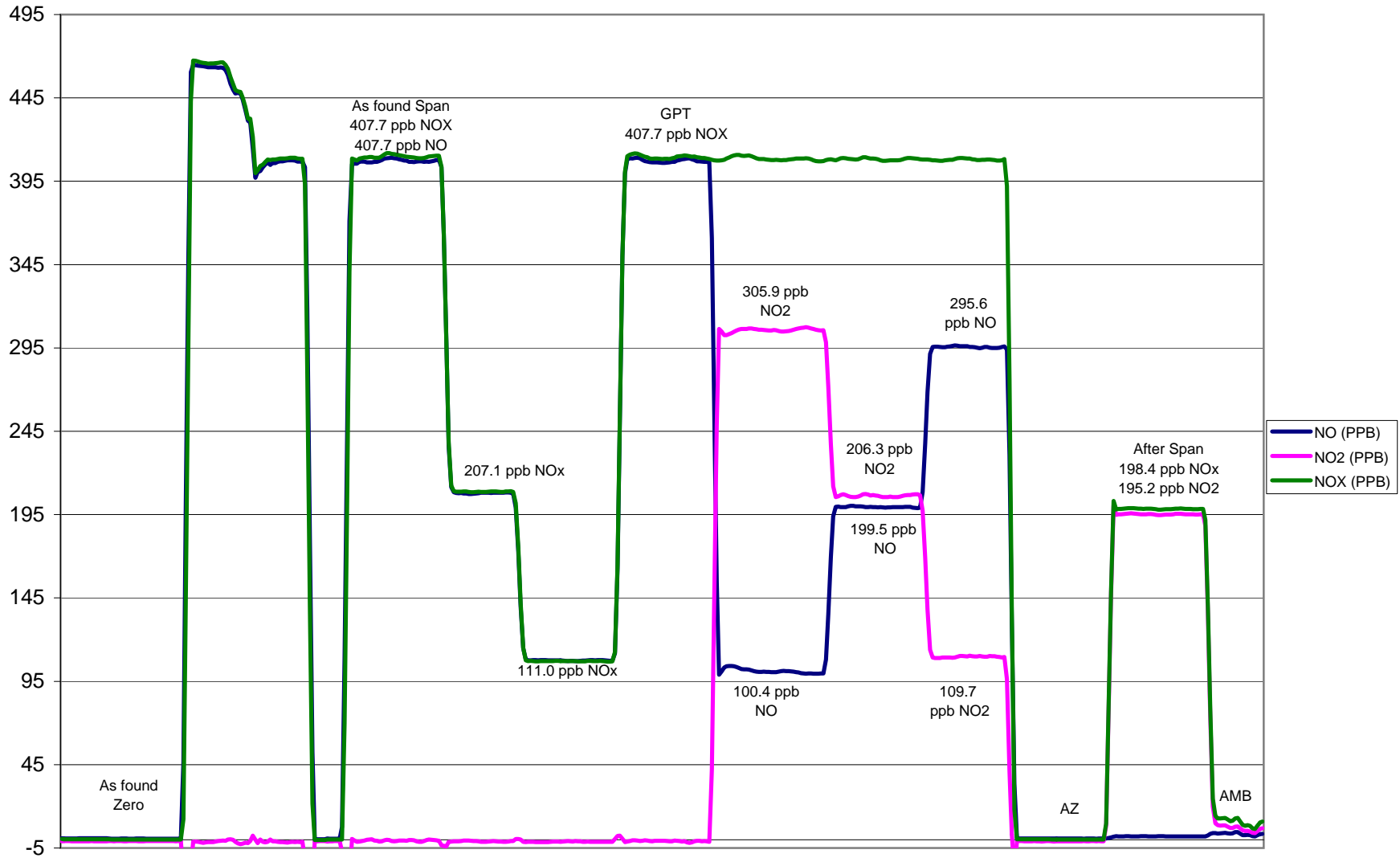
Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.6	N/A	Correlation Coefficient	0.999798
407.7	407.5	1.0006		
204.1	207.9	0.9817		
102.1	107.5	0.9501	Slope	1.005094
			Intercept	-3.315597

NO Calibration Curve



Bonanza - NO_x Calibration



January 14, 2011

Calibration Report



Parameter 03
 Air Monitoring Network PASZA

Station Information

Calibration Date	January 14, 2011	Previous Calibration	December 13, 2010
Station Number	12:00	Station Location	Rover - Bonanza
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal remove <input type="checkbox"/> Other:
Start Time (MST)	13:53	End Time (MST)	16:05
Barometric Pressure	0.927 atm	Station Temperature	15.7 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
DACS make	Focus AP1000	DACS serial No.	52662
DACS voltage range	0-5	DACS channel #	7
	Before		After
Calculated slope	0.997063	Calculated slope	0.999923
Calculated intercept	0.539824	Calculated intercept	-1.077668
Analyzer make	TEI Model 49C	Analyzer serial #	49C-71577-369

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Offset	0.4	ppb	0.4	ppb
Span	0.991		0.991	
Cell A intensity	86370	Hz	85814	Hz
Cell B intensity	89373	Hz	87731	Hz
Pressure	716.00	in Hg	680.41	in Hg
CellA Flow	0.795	ccm	0.773	ccm
Cell B Flow	0.702	cmm	0.683	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	0.1	N/A
4989	0.30	306.2	306.5	0.9989
4989	0.20	207.1	208.6	0.9927
4989	0.10	111.0	113.3	0.9793
4989	0.00	0.0	0.1	As found zero
4989	0.30	306.2	311.2	As found span
Average Correction Factor				0.9903

Calculated value of As Found Response: 306.2 ppm Percent Change of As Found: 0.0%

	before calibration		after calibration	
Auto zero	0.6	ppb	-0.9	ppb
Auto span	141.4	ppb	136.1	ppb

Notes: _____

Calibration Performed By: Courtney Thompson

Calibration Summary



Parameter O3

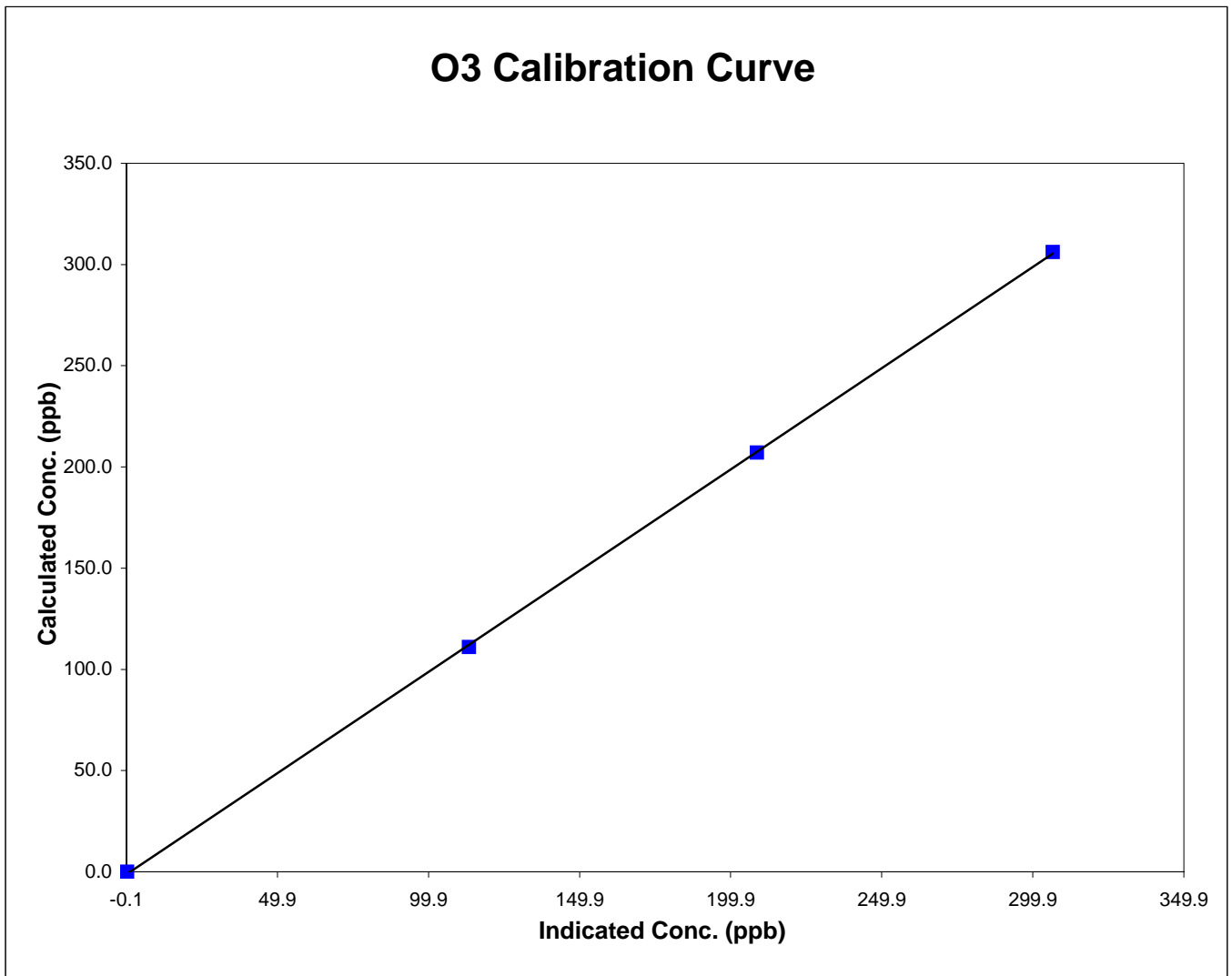
Air Monitoring Network PASZA

Station Information

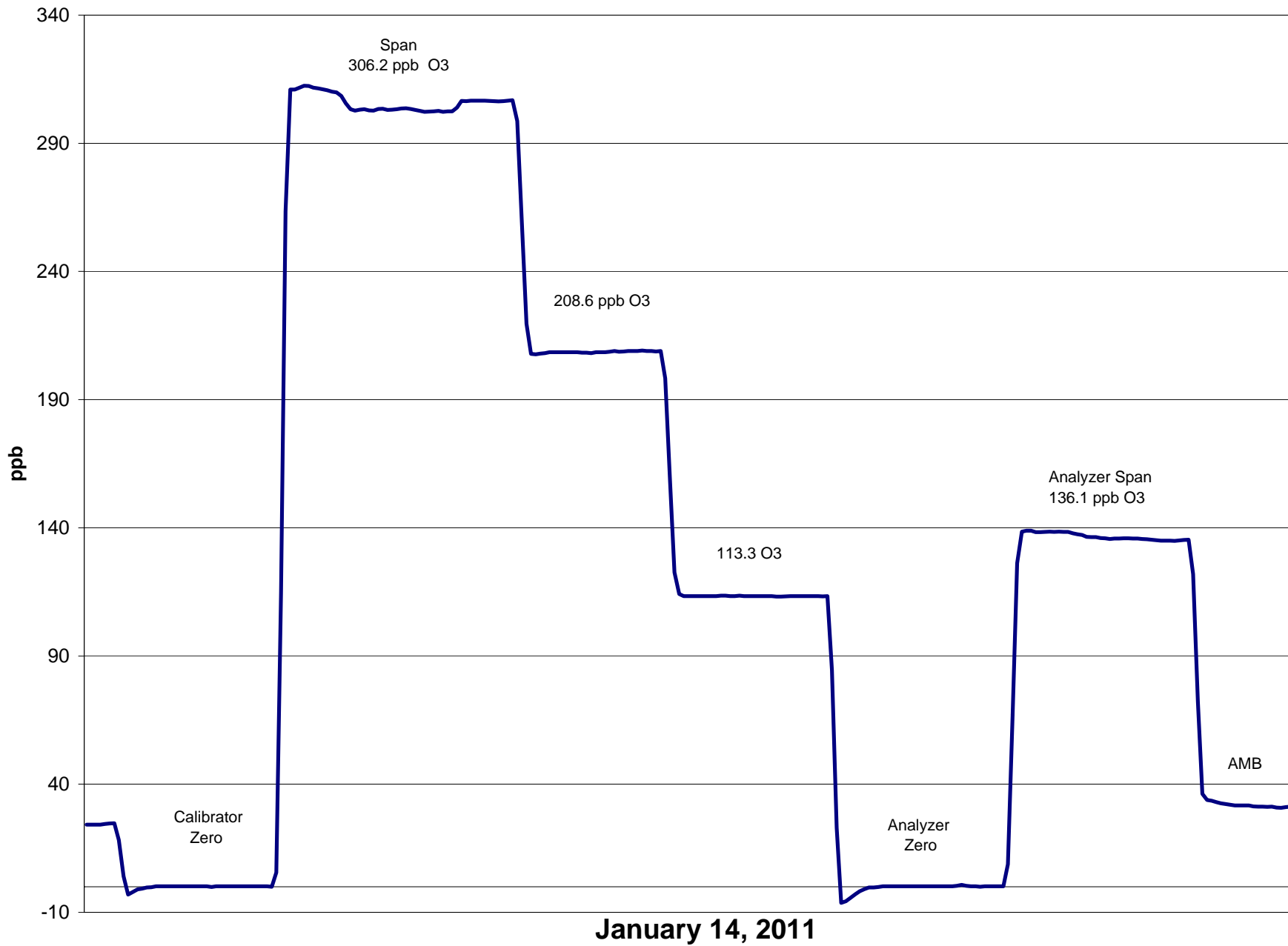
Calibration Date	<u> January 14, 2011 </u>	Previous Calibration	<u> December 13, 2010 </u>
Station Number	<u> 0.5 </u>	Station Location	<u> Rover - Bonanza </u>
Start Time (MST)	<u> 13:53 </u>	End Time (MST)	<u> 16:05 </u>
Analyzer make/model	<u> TEI Model 49C </u>	Analyzer serial #	<u> 49C-71577-369 </u>

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	NA		
306.2	306.5	0.9989	Correlation Coefficient	0.999937
207.1	208.6	0.9927		
111.0	113.3	0.9793		
			Slope	0.999923
			Intercept	-1.077668



Bonaza - O3 Calibration



Calibration Report



Parameter SO2

Air Monitoring Network PASZA

Station Information

Calibration Date	January 21, 2011	Previous Calibration	December 15, 2010
Station Number	6	Station Location	Valleyview
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
		<input type="checkbox"/> Other:	
Start Time (MST)	11:30	End Time (MST)	14:18
Barometric Pressure	702.00 mm	Station Temperature	14.7 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
Cal Gas Concentration	50.6 ppm	Cal Gas Cert Date	7/23/2010
Gas Cert Reference	SGAL3245		
DACS make	Focus AP1000	DACS serial No.	45274
DACS voltage range	0 - 10 volt	DACS channel #	4
	<u>Before</u>		<u>After</u>
DACS Scale High	500	DACS slope	500
DACS Scale Low	0	DACS intercept	0
Calculated slope	1.001819	Calculated slope	1.004126
Calculated intercept	-2.428339	Calculated intercept	-2.778761
Analyzer make	TEI 45C	Analyzer serial #	45C-57531-313

	before		after	
Concentration range	0 - 1000	ppb	0 - 1000	ppb
Background	26.9		27	
Coefficient	0.851		0.851	
UV Lamp Voltage	948	LPM	948	LPM
Chamber Temp	44.4	V	44.3	V
Perm Gas Temp	35.01	C	35.1	C
Pressure	604.9	in Hg	603.9	in Hg
Sample Flow	0.464	LPM	0.465	LPM
Lamp Intensity	48221	Hz	48935	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)
4991	0.00	0.0	0.4	N/A
4989	39.85	401.0	400.9	1.0003
4989	19.89	200.9	204.0	0.9851
4989	9.94	100.6	105.5	0.9537
4989	0.00	0.0	0.4	As found zero
4989	39.85	401.0	400.9	As found span
Average Correction Factor				0.9797

Calculated value of As Found Response: 398.805 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	157.5	ppm

Notes: _____

Calibration Performed By: Courtney Thompson

Calibration Summary

Parameter SO2

Air Monitoring Network PASZA

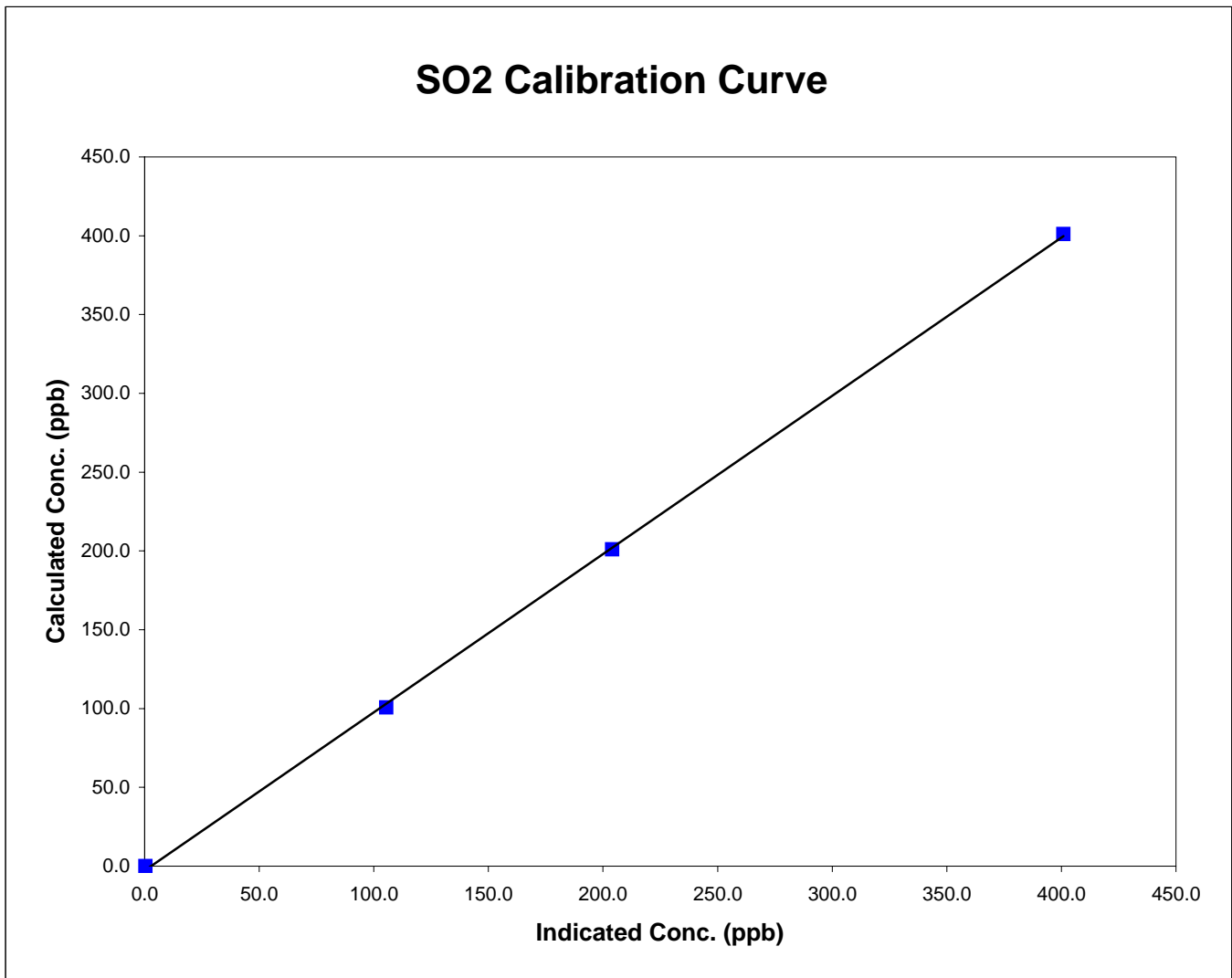


Station Information

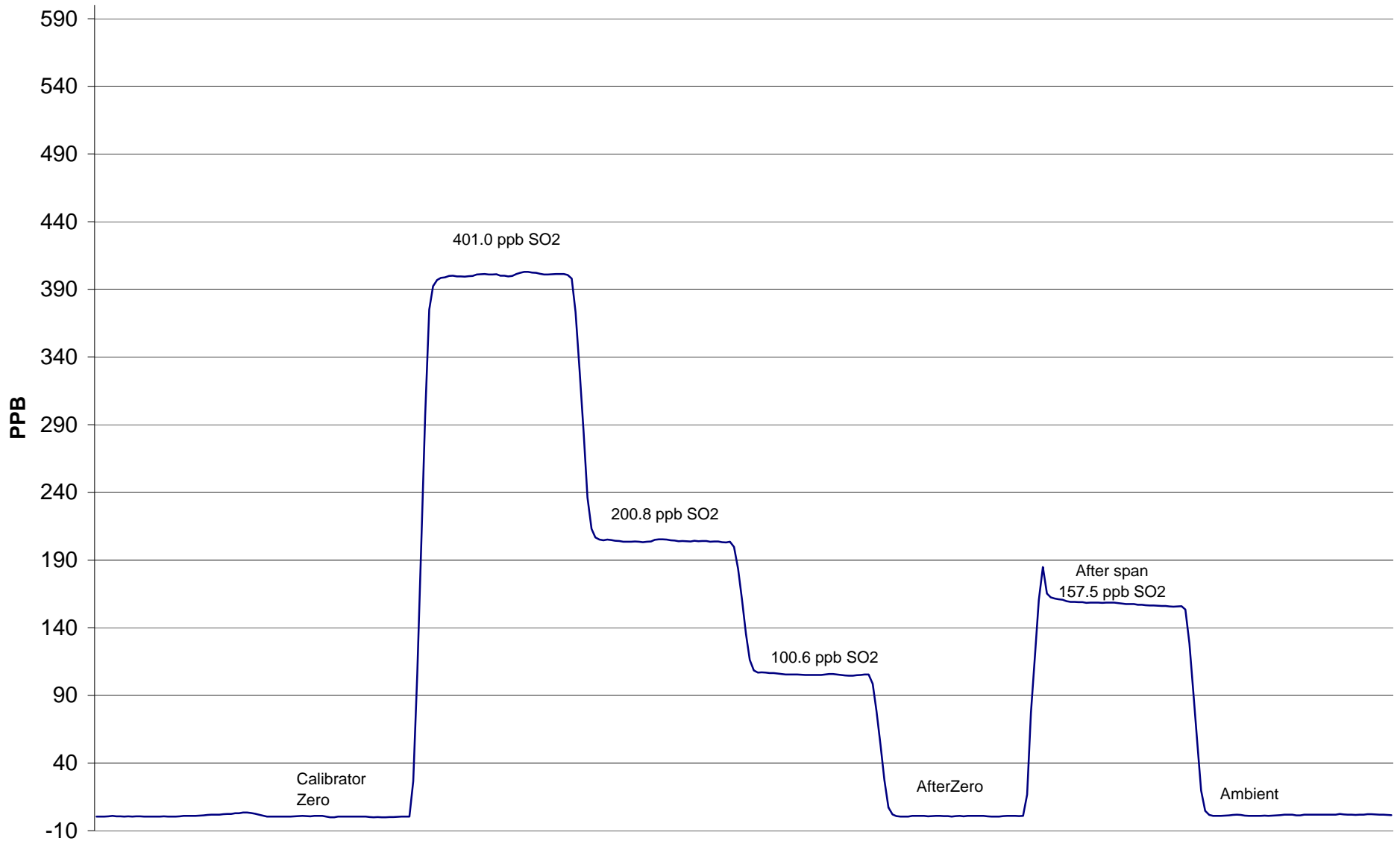
Calibration Date	January 21, 2011	Previous Calibration	December 15, 2010
Station Number	6	Station Location	Valleyview
Start Time (MST)	11:30	End Time (MST)	14:42
Analyzer make/model	TEI 45C	Analyzer serial #	45C-57531-313

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.4	N/A	Correlation Coefficient	0.999829
401.0	400.9	1.0003		
200.9	204.0	0.9851		
100.6	105.5	0.9537	Slope	1.004126
			Intercept	-2.778761



Valleyview SO₂ Calibration



January 21, 2011

Calibration Summary

Parameter H2S

Air Monitoring Network PASZA



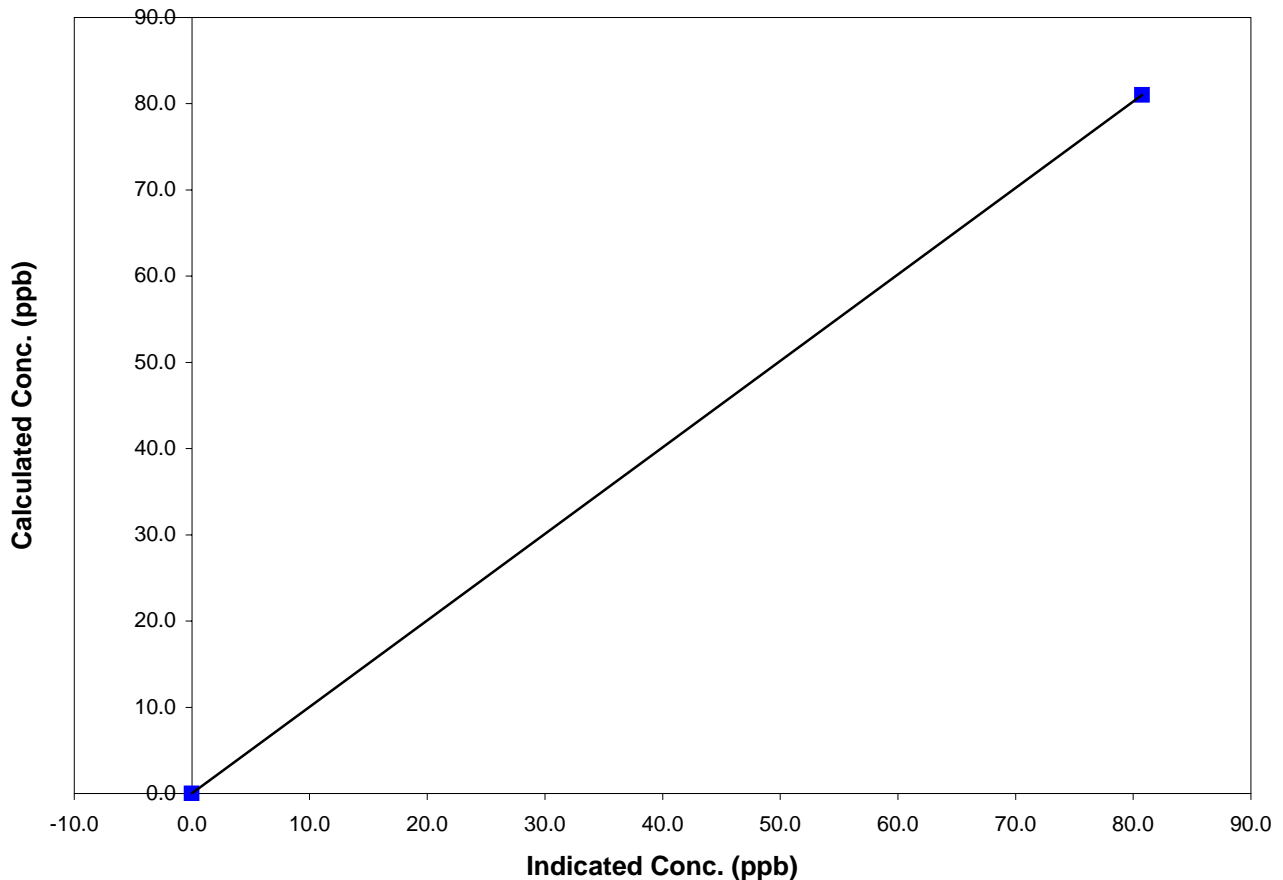
Station Information

Calibration Date	<u> January 21, 2011 </u>	Previous Calibration	<u> December 15, 2010 </u>
Station Number	<u> 5 </u>	Station Location	<u> Valleyview </u>
Start Time (MST)	<u> 13:00 </u>	End Time (MST)	<u> 19:17 </u>
Analyzer make/model	<u> TEI Model 43i - APSCB </u>	Analyzer serial #	<u> 701120010 </u>

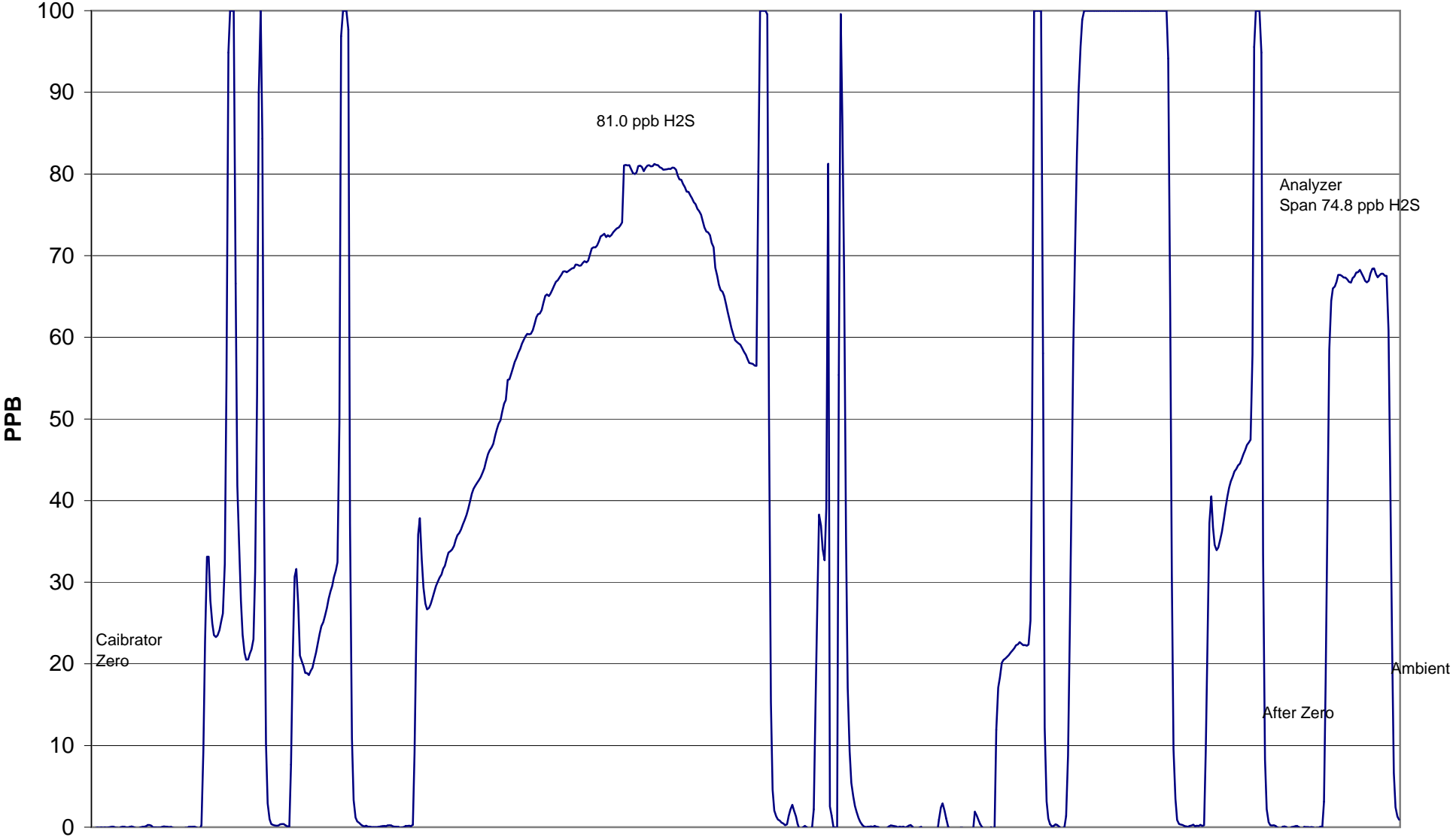
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A		
81.0	80.8	1.0033	Correlation Coefficient	1.000000
			Slope	1.003095
			Intercept	0.013381

H2S Calibration Curve



Valleyview H₂S Calibration



Many issues, trouble shooting the cause of low response to span gas, as well as reasons for spike in zero.

January 21, 2011

Calibration Report

Parameter H2S
 Air Monitoring Network PASZA



Station Information

Calibration Date	January 24, 2011		Previous Calibration	January 21, 2011
Station Number	5		Station Location	Valleyview
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal	<input type="checkbox"/> Other:
Start Time (MST)	14:00		End Time (MST)	19:35
Barometric Pressure	702.00	mm	Station Temperature	21.0 Deg C
Calibrator	Enviroics 6100		Serial Number	3474
Cal Gas Concentration	5.15	ppm	Cal Gas Expiry Date	4/4/2009
Gas Cert Reference	ALM013295			
DACS make	Focus AP1000		DACS serial No.	1
DACS voltage range	0 - 10 volt		DACS channel #	9
	<u>Before</u>			<u>After</u>
DACS Scale High	100		DACS slope	100
DACS Scale Low	0		DACS intercept	0
Calculated slope	1.003095		Calculated slope	1.005186
Calculated intercept	0.013381		Calculated intercept	-0.404501
Analyzer make	TEI Model 43i - APSCB		Analyzer serial #	701120010

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Back Ground	6.4	ppb	7.0	ppb
Coefficient	1.236		1.384	
Lamp Voltage	788	V	786	V
Chamber Temp	45.2	c	45.01	c
Perm Oven Temp	45.0	c	45.01	c
Pressure	619.50	mm Hg	632.80	mm Hg
Sample Flow	.421	ccm	.428	ccm
Lamp Intensity	92.0	%	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)
4988	0.00	0.0	-0.1	N/A
4989	79.75	81.0	80.9	1.0020
4989	39.83	40.8	41.1	0.9916
4989	9.93	10.2	11.1	0.9229
4989	0.00	0.0	-0.1	As found zero
4989	79.75	81.0	71.9	As found span
Average Correction Factor				0.9722

Calculated value of As Found Response: **72.20 ppm** Percent Change of As Found: **10.9%**

	before calibration		after calibration	
Auto zero	0.0	ppm	0.2	ppm
Auto span	70.6	ppm	74.7	ppm

Notes: _____

Calibration Performed By: Courtney Thompson

Calibration Summary



Parameter H2S

Air Monitoring Network PASZA

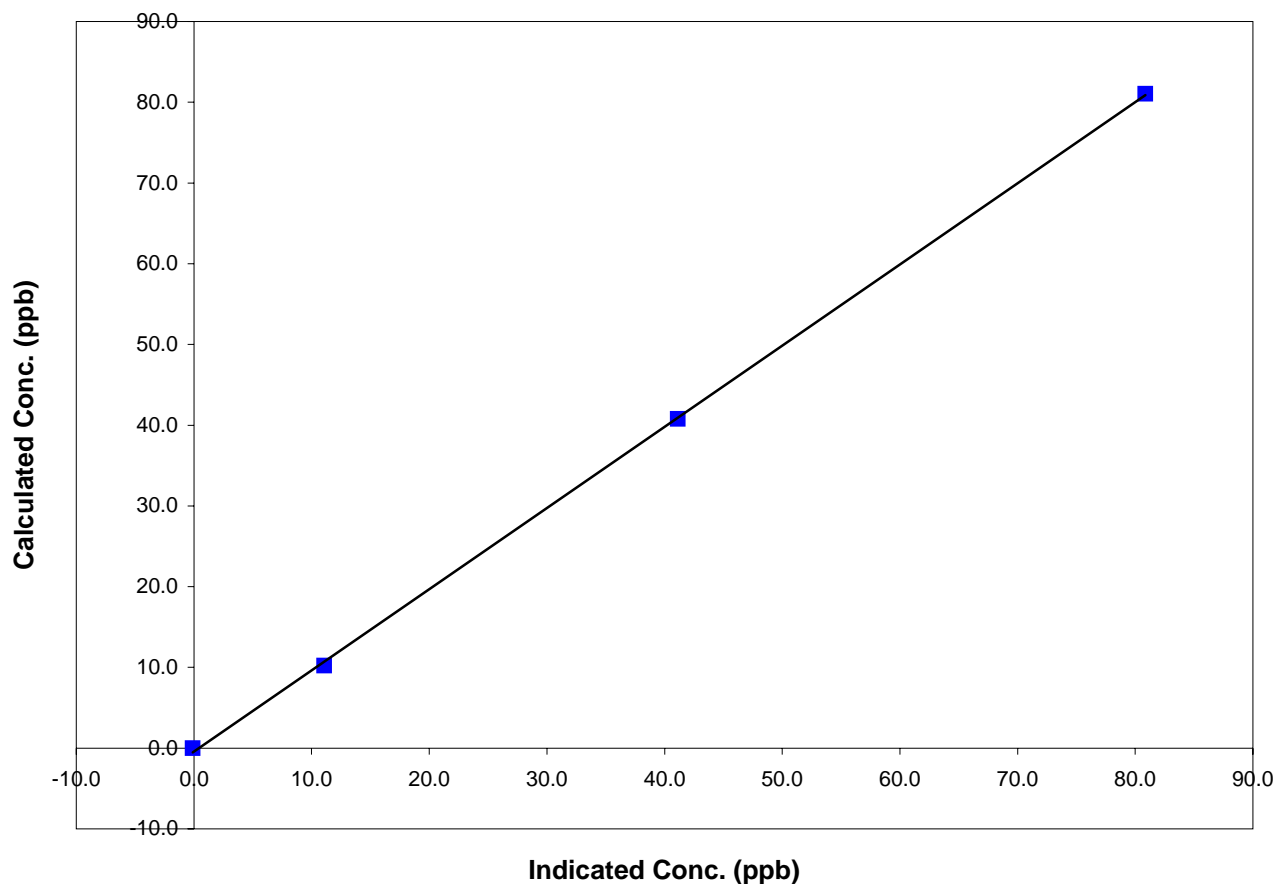
Station Information

Calibration Date	January 24, 2011	Previous Calibration	January 21, 2011
Station Number	5	Station Location	Valleyview
Start Time (MST)	14:00	End Time (MST)	19:35
Analyzer make/model	TEI Model 43i - APSCB	Analyzer serial #	701120010

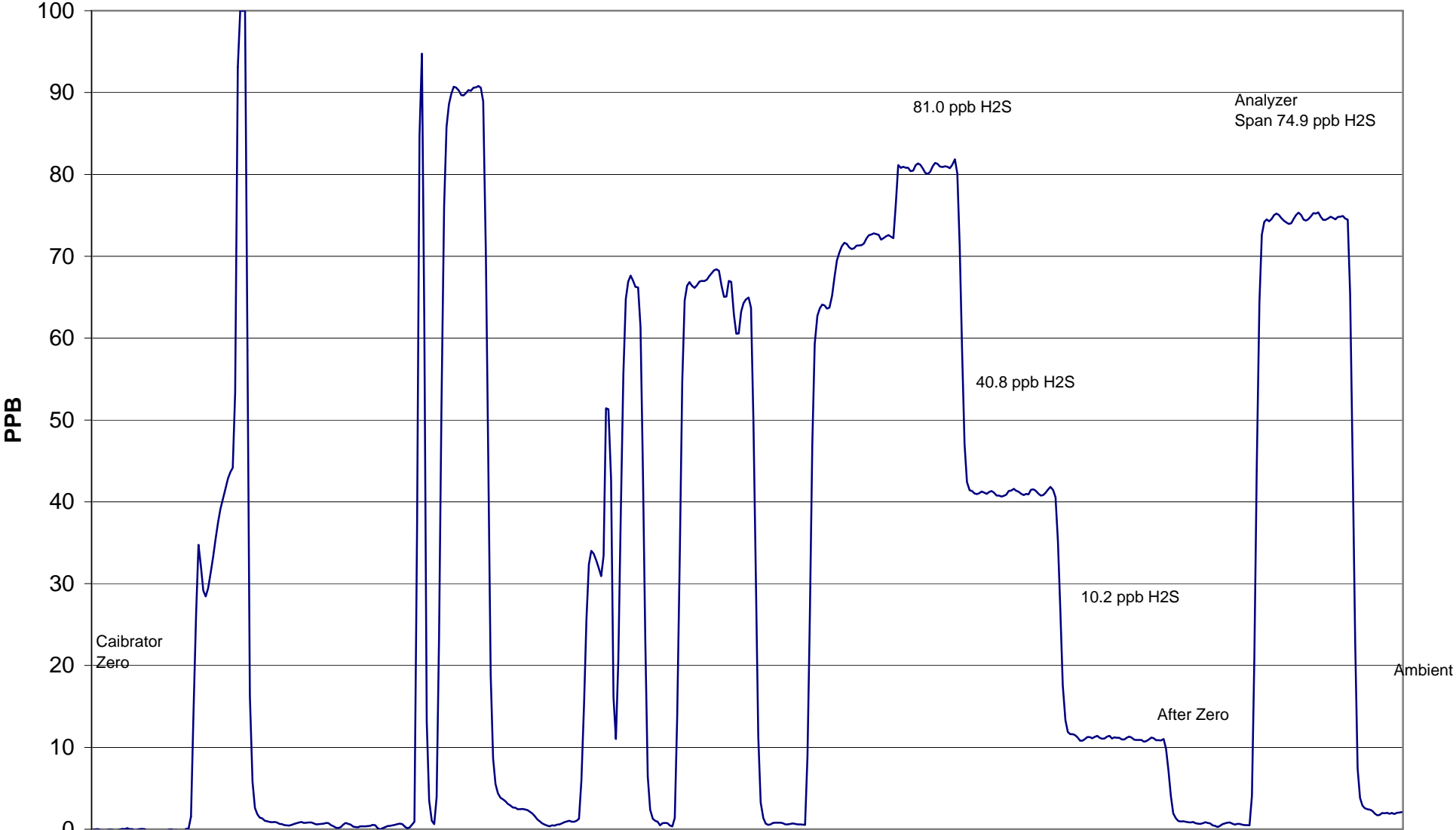
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	N/A		
81.0	80.9	1.0020	Correlation Coefficient	0.999858
40.8	41.1	0.9916		
10.2	11.1	0.9229	Slope	1.005186
			Intercept	-0.404501

H2S Calibration Curve



Valleyview H₂S Calibration



Many issues, trouble shooting the cause of low response to span gas, as well as reasons for spike in zero. *Changed SO₂ scrubber*

January 24, 2011