



# **Peace AirShed Zone Association**

## **Ambient Air Monitoring Network Summary**

**Continuous Ambient Air Quality Monitoring Program  
Monthly Report  
January 2010**

**Operations and Reporting**  
**FOCUS**  
AIR QUALITY MONITORING



P.O. Box 21135  
Grande Prairie, AB  
T8V 6W7  
Phone: (780) 539-2298

February 24, 2010

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

**RE: Peace Airshed Zone Association (PASZA) – January 2010 Ambient Air Report**

---

Enclosed is the PASZA Ambient Monitoring Network Report for the month of **January 2010**.

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

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 Summary" and "Continuous Monitoring" pages of the report.

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.

**Evergreen Park Station:**

- ◆ The measured ambient air quality was within the AAAQO for the Evergreen Park station. However, the PM<sub>2.5</sub> exceeded the 1-hour Alberta Ambient Air Quality Guideline (AAAQG) of 80 µg/m<sup>3</sup> twice during the month of January:
  - January 8<sup>th</sup> 12:00: 194 µg/m<sup>3</sup> **Alberta Environment Reference #222988**
  - January 8<sup>th</sup> 13:00: 117 µg/m<sup>3</sup> **Alberta Environment Reference #222988**
- ◆ 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. However, the PM<sub>2.5</sub> exceeded the 1-hour Alberta Ambient Air Quality Guideline (AAAQG) of 80 µg/m<sup>3</sup> once during the month of January:
  - January 20<sup>th</sup> 24:00: 100 µg/m<sup>3</sup> **Alberta Environment Reference #223540**
- ◆ 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; except the relative humidity sensor which was only operational 77.6%.

**Portable – Kinuso Station:**

- ◆ The measured ambient air quality was within the AAAQO for the Kinuso station.
- ◆ All analyzers / sensors at the Kinuso 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, except for H2S which exceeded the 1-hour AAAQO of 10 ppb twice during the month of January:
  - January 6<sup>th</sup> 12:00: 23 µg/m<sup>3</sup> **Alberta Environment Reference #222830**
  - January 6<sup>th</sup> 13:00: 17 µg/m<sup>3</sup> **Alberta Environment Reference #222830**
- ◆ All analyzers / sensors at the Valleyview station had an operational uptime of 100% for the month of January.

**Passive Monitoring - 43 Stations throughout the PASZA zone:**

There were four duplicate sites sampled in the month of January: Sylvester, Saddle Hills, Clairmont Lake and Gift Lake. All three passive samples (SO<sub>2</sub>, O<sub>3</sub> and NO<sub>2</sub>) were found damaged at the Shaftesbury Site; consequently there are no passive results for said samples. 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 SO<sub>2</sub> passives ranged from 0.2 ppb to 0.9 ppb, with a mean of 0.5 ppb.
- Monthly average concentrations for NO<sub>2</sub> passives ranged from 0.9 ppb to 16.9 ppb, with a mean of 3.5 ppb.
- Monthly average concentrations for O<sub>3</sub> passives ranged from 13.4 ppb to 31.7 ppb, with a mean of 23.4 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

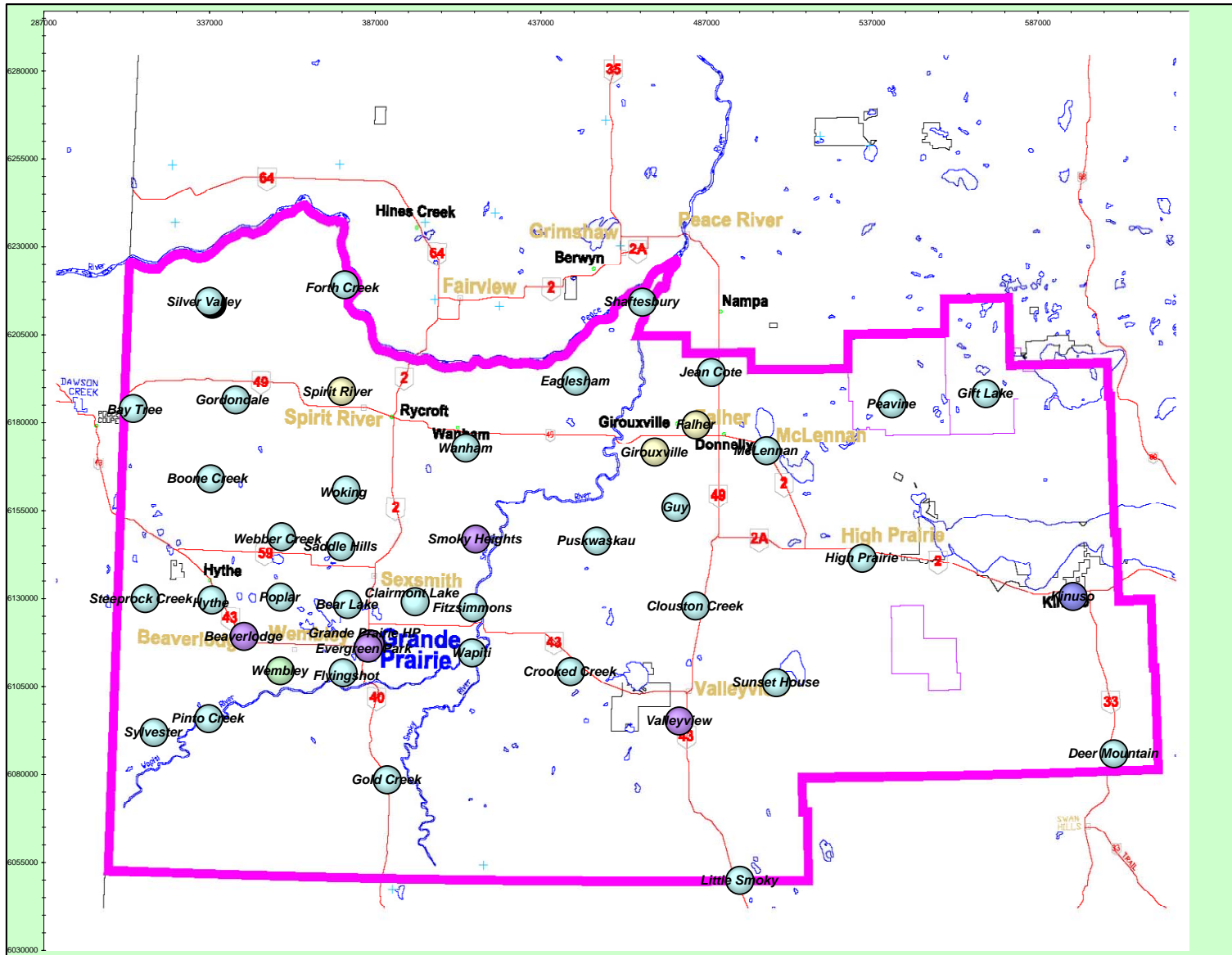


Shelly Pruden  
Program Manager



Sharon Whiteley, B.Sc..  
FOCUS AQM Data Specialist

# Location of PASZA Continuous and Passive Monitoring Stations



## PASZA Monthly Continuous Data Summary

Jan-2010 Peace Airshed Zone Association							Maximum Recorded Values				Operational Time (%)	
Pollutant (units)	Objectives		Station	Monthly Average	Exceedence		Conc	1-hr		24-hr / 8-hr		
	1-hr	24-hr			1-hr	24-hr		Day	Conc	Day		
SO <sub>2</sub> (ppb)	172	57	Henry Pirker	0.9	0	0	4.0	Jan-01 22:00	1.8	Jan-31	100.0%	
SO <sub>2</sub> (ppb)	172	57	Evergreen Park	0.5	0	0	2.5	Jan-01 22:00	1.0	Jan-01	99.7%	
SO <sub>2</sub> (ppb)	172	57	Smoky Heights	1.1	0	0	23.4	Jan-31 18:00	3.4	Jan-01	100.0%	
SO <sub>2</sub> (ppb)	172	57	Beaverlodge	0.9	0	0	3.9	Jan-30 02:00	2.0	Jan-31	100.0%	
SO <sub>2</sub> (ppb)	172	57	Portable-Kinuso	0.4	0	0	11.2	Jan-01 01:00	2.6	Jan-01	100.0%	
SO <sub>2</sub> (ppb)	172	57	Valleyview	0.1	0	0	2.8	Jan-16 02:00	0.5	Jan-21	96.2%	
NO (ppb)			Henry Pirker	28.5	0	0	269.3	Jan-15 10:00	98.8	Jan-19	100.0%	
NO <sub>2</sub> (ppb)	212	106	Henry Pirker	22.2	0	0	67.6	Jan-15 10:00	41.4	Jan-19	100.0%	
NO <sub>x</sub> (ppb)			Henry Pirker	50.8	0	0	337.3	Jan-15 10:00	140.3	Jan-19	100.0%	
NO (ppb)			Beaverlodge	5.3	0	0	73.0	Jan-27 13:00	22.8	Jan-28	100.0%	
NO <sub>2</sub> (ppb)	212	106	Beaverlodge	12.3	0	0	35.9	Jan-18 20:00	24.6	Jan-06	100.0%	
NO <sub>x</sub> (ppb)			Beaverlodge	17.7	0	0	99.8	Jan-27 13:00	47.5	Jan-28	100.0%	
NO (ppb)			Portable-Kinuso	1.2	-	-	18.1	Jan-06 17:00	7.9	Jan-08	100.0%	
NO <sub>2</sub> (ppb)	212	106	Portable-Kinuso	6.3	0	0	25.3	Jan-07 20:00	18.9	Jan-08	100.0%	
NO <sub>x</sub> (ppb)			Portable-Kinuso	7.5	-	-	36.6	Jan-08 19:00	26.8	Jan-08	100.0%	
O <sub>3</sub> (ppb)	82		Henry Pirker	9.1	0	-	25.8	Jan-16 03:00	27.3	Jan-02	100.0%	
O <sub>3</sub> (ppb) - 8-hr			Henry Pirker		0				34.6	Jan-16		
O <sub>3</sub> (ppb)	82		Beaverlodge	16.5	0	-	40.7	Jan-16 08:00	38.9	Jan-16	100.0%	
O <sub>3</sub> (ppb) - 8-hr			Beaverlodge		0				39.7	Jan-16		
O <sub>3</sub> (ppb)	82		Portable-Kinuso	17.8	0	-	41.8	Jan-16 16:00	38.3	Jan-16	100.0%	
O <sub>3</sub> (ppb) - 8-hr			Portable-Kinuso		0				40.9	Jan-16		
CO (ppm)	13		Henry Pirker	0.36	0	-	2.4	Jan-15 10:00	0.8	Jan-11	100.0%	
CO (ppm) - 8-hr		5	Henry Pirker		0				1.3	Jan-11		
THC (ppm)			Henry Pirker	2.79	-	-	5.1	Jan-07 12:00	4.0	Jan-07	100.0%	
TRS (ppb)			Henry Pirker	0.5	-	-	2.5	Jan-15 10:00	0.9	Jan-19	100.0%	
TRS (ppb)			Evergreen Park	0.9	-	-	4.8	Jan-19 18:00	1.5	Jan-09	99.7%	
TRS (ppb)			Smoky Heights	0.3	-	-	1.5	Jan-04 06:00	0.6	Jan-08	100.0%	
TRS (ppb)			Portable-Kinuso	0.5	-	-	0.7	Jan-05 17:00	0.6	Jan-31	100.0%	
H <sub>2</sub> S (ppb)	10	3	Valleyview	0.3	2	0	22.9	Jan-06 12:00	2.5	Jan-06	99.5%	
PM <sub>2.5</sub> (µg/m <sup>3</sup> )	80	30	Henry Pirker	14.5	0	0	54.9	Jan-27 15:00	27.2	Jan-19	99.6%	
PM <sub>2.5</sub> (µg/m <sup>3</sup> )	80	30	Evergreen Park	8.9	2	0	194.1	Jan-08 12:00	29.7	Jan-08	98.8%	
PM <sub>2.5</sub> (µg/m <sup>3</sup> )	80	30	Smoky Heights	5.8	1	0	99.9	Jan-21 00:00	18.7	Jan-20	99.9%	
PM <sub>2.5</sub> (µg/m <sup>3</sup> )	80	30	Beaverlodge	11.5	0	0	33.8	Jan-20 01:00	23.4	Jan-22	100.0%	

## PASZA Monthly Continuous Data Summary – continued

Jan-2010		Peace Airshed Zone Association					Maximum Recorded Values				
							1-hr		24-hr / 8-hr		
RH (%)			Henry Pirker	73.4	-	-	88.5	Jan-15 19:00	81.9	Jan-10	100.0%
RH (%)			Evergreen Park	82.0	-	-	95.9	Jan-11 20:00	90.4	Jan-09	99.7%
RH (%)			Beaverlodge	79.9	-	-	96.1	Jan-09 22:00	88.4	Jan-09	77.6%
RH (%)			Valleyview	77.4	-	-	95.2	Jan-09 09:00	90.6	Jan-09	99.6%
SR (W/m <sup>2</sup> )			Henry Pirker	18.7	-	-	181.4	Jan-18 13:00	31.3	Jan-20	100.0%
Temp (°C)			Henry Pirker	-13.1	-	-	9.6	Jan-11 15:00	0.9	Jan-11	100.0%
Temp (°C)			Evergreen Park	-12.8	-	-	7.0	Jan-11 15:00	0.1	Jan-11	99.7%
Temp (°C)			Smoky Heights	-12.9	-	-	3.6	Jan-11 07:00	-1.2	Jan-15	99.9%
Temp (°C)			Beaverlodge	-10.7	-	-	8.3	Jan-11 16:00	4.1	Jan-11	99.9%
Temp (°C)			Portable-Kinuso	-11.2	-	-	9.0	Jan-11 15:00	4.0	Jan-11	100.0%
Temp (°C)			Valleyview	-10.9	-	-	10.2	Jan-11 16:00	3.8	Jan-11	99.6%
WSPD s (km/hr)			Henry Pirker	5.2	-	-	29.0	Jan-15 22:00	9.6	Jan-16	100.0%
WSPD s (km/hr)			Evergreen Park	3.0	-	-	20.0	Jan-15 22:00	7.1	Jan-16	99.7%
WSPD s (km/hr)			Smoky Heights	8.9	-	-	29.0	Jan-12 02:00	15.6	Jan-30	95.2%
WSPD s (km/hr)			Beaverlodge	5.8	-	-	37.0	Jan-16 01:00	12.0	Jan-16	100.0%
WSPD s (km/hr)			Portable-Kinuso	4.9	-	-	29.0	Jan-01 06:00	13.1	Jan-01	100.0%
WSPD s (km/hr)			Valleyview	4.7	-	-	21.0	Jan-16 03:00	9.4	Jan-01	99.6%
WSPD v (km/hr)			Henry Pirker	1.4	-	-	29.0	Jan-15 22:00	8.6	Jan-16	100.0%
WSPD v (km/hr)			Evergreen Park	0.5	-	-	20.0	Jan-15 22:00	6.0	Jan-16	99.7%
WSPD v (km/hr)			Smoky Heights	2.6	-	-	29.0	Jan-12 02:00	15.5	Jan-30	95.2%
WSPD v (km/hr)			Beaverlodge	1.8	-	-	37.0	Jan-16 01:00	10.1	Jan-16	100.0%
WSPD v (km/hr)			Portable-Kinuso	1.6	-	-	29.0	Jan-01 06:00	10.7	Jan-01	100.0%
WSPD v (km/hr)			Valleyview	0.5	-	-	21.0	Jan-16 03:00	7.7	Jan-01	99.6%
WDIR			Henry Pirker	NNW	-	-	-	-	-	-	100.0%
WDIR			Evergreen Park	NNW	-	-	-	-	-	-	99.7%
WDIR			Smoky Heights	NNW	-	-	-	-	-	-	95.2%
WDIR			Beaverlodge	NNW	-	-	-	-	-	-	100.0%
WDIR			Portable-Kinuso	SSW	-	-	-	-	-	-	100.0%
WDIR			Valleyview	WSW	-	-	-	-	-	-	99.6%

# Continuous Network Equipment Summary

---



---

## PASZA – Henry Pirker Station

---



---

### General Station Issues

Routine monthly calibrations were performed on January 13<sup>th</sup> (SO<sub>2</sub>, NO<sub>x</sub> & O<sub>3</sub>), January 14<sup>th</sup> (TRS, THC & CO), January 17<sup>th</sup> (PM<sub>2.5</sub>) & January 21<sup>st</sup> (PM<sub>2.5</sub>).

Parameter	Make	Model	Notes
SO <sub>2</sub>	TEI	43C	No operational issues observed.
NO <sub>x</sub> /NO/NO <sub>2</sub>	TEI	42C	Spans were just outside target January 1 <sup>st</sup> to 7 <sup>th</sup> , 27 <sup>th</sup> & 28 <sup>th</sup> – due to external temperature influences (very cold).
O <sub>3</sub>	TEI	49C	Spans were outside target from January 1 <sup>st</sup> to 13 <sup>th</sup> – losing vacuum in pump.
CO	TEI	48C	No operational issues observed.
THC	TEI	51-CLT	No operational issues observed.
TRS	TEI	43C	No operational issues observed.
PM <sub>2.5</sub>	R&P	1400AB	Two (2) hours were flagged for maintenance (filter change & modifications). One (1) hour was flagged invalid due to baseline drift.
RH	Met One	083D	No operational issues observed.
ET	Met One	083D	No operational issues observed.
SR	Met One	096-1	No operational issues observed.
WS	Met One	010C	No operational issues observed.
WD	Met One	020C	No operational issues observed.

---

---



---

**PASZA – Evergreen Park Station**

---



---

**General Station Issues**

Routine monthly calibrations were performed on January 19<sup>th</sup> (SO<sub>2</sub>, TRS & PM<sub>2.5</sub>). Two (2) hours were flagged invalid due to power failure on January 27<sup>th</sup> for all parameters.

Parameter	Make	Model	Notes
SO <sub>2</sub>	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 <sub>2.5</sub>	R&P	1400AB	Two (2) 1-hour exceedence of the AAAQG: <ul style="list-style-type: none"> <li>◆ January 8<sup>th</sup>: 12:00: 194 µg/m<sup>3</sup> – <b>AE Reference #222988.</b></li> <li>◆ January 8<sup>th</sup>: 13:00: 117 µg/m<sup>3</sup> – <b>AE Reference #222988</b></li> </ul> Seven (7) hours were flagged invalid due to baseline drift. Two (2) hours 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	Met One/ Gill	010C	No operational issues observed, other than above noted power failure.
WD	Met One/ Gill	020C	No operational issues observed, other than above noted power failure.

---



---



---



---

**PASZA – Smoky Heights Station**

---



---

**General Station Issues**

Routine monthly calibrations were performed on January 20<sup>th</sup> (TRS, SO<sub>2</sub> & PM<sub>2.5</sub>).

<b>Parameter</b>	<b>Make</b>	<b>Model</b>	<b>Notes</b>
SO <sub>2</sub>	TEI	43C	No operational issues observed.
TRS	TEI	43C	No operational issues observed.
PM <sub>2.5</sub>	R&P	1400AB	One (1) 1-hour exceedence on January 20 <sup>th</sup> of 100 µg/m <sup>3</sup> – <b>AE Reference #223540</b> . One (1) hour of data was flagged invalid due to communication/DACS error on January 1 <sup>st</sup> .
ET	Met One	083D	One (1) hour of data was flagged invalid due to communication/DACS error on January 1 <sup>st</sup> .
WS	Met One	010C	Thirty-five (5) hours were flagged invalid due to flatlining (due to freezing). One (1) hour of data was flagged invalid due to communication/DACS error on January 1 <sup>st</sup> .
WD	Met One	020C	Thirty-five (35) hours were flagged invalid due to flatlining (due to freezing). One (1) hour of data was flagged invalid due to communication/DACS error on January 1 <sup>st</sup> .

---



---

---



---

**PASZA – Beaverlodge Station**

---

**General Station Issues**

Routine monthly calibrations were performed on January 15<sup>th</sup> (SO<sub>2</sub>, O<sub>3</sub> & NO<sub>x</sub>) & January 16<sup>th</sup> (PM<sub>2.5</sub>).

Parameter	Make	Model	Notes
SO <sub>2</sub>	TEI	43CTL	No operational issues observed.
NO <sub>x</sub> /NO/NO <sub>2</sub>	TEI	42C	No operational issues observed.
O <sub>3</sub>	TEI	49C	No operational issues observed.
PM <sub>2.5</sub>	R&P	1400AB	No operational issues observed.
ET	n/a	n/a	One (1) hour was flagged maintenance on January 22 <sup>nd</sup> to address power supply & connection issues.
RH	n/a	n/a	One hundred and sixty-six (166) hours were flagged invalid; on January 22 <sup>nd</sup> one (1) hour was flagged for maintenance (all sensor connections and power supply connections were cleaned, checked & reconnected). Less than 90% operational.
WS	Blue Sky	857	No operational issues observed.
WD	Blue Sky	857	No operational issues observed.

---

---

**PASZA – Kinuso (Portable) Station**

---

---

**General Station Issues**

Routine monthly calibrations were performed on January 27<sup>th</sup> (SO<sub>2</sub>, TRS, NO<sub>x</sub> & O<sub>3</sub>).

---

---

<b>Parameter</b>	<b>Make</b>	<b>Model</b>	<b>Notes</b>
SO <sub>2</sub>	TEI	43C	No operational issues observed.
TRS	TEI	43C	No operational issues observed.
NO <sub>x</sub> /NO/NO <sub>2</sub>	TEI	42I	No operational issues observed.
O <sub>3</sub>	TEI	49C	No operational issues observed.
ET	Met One		No operational issues observed.
WS	Met One		No operational issues observed.
WD	Met One		No operational issues observed.

---

---

---



---

**PASZA – Valleyview Station**

---



---

**General Station Issues**

Routine monthly calibrations were performed January 24<sup>th</sup> (SO<sub>2</sub> & H<sub>2</sub>S). A power failure on January 25<sup>th</sup> resulted in a number of hours flagged invalid for all parameters.

---



---

<b>Parameter</b>	<b>Make</b>	<b>Model</b>	<b>Notes</b>
SO <sub>2</sub>	TEI	43i	Fifty-eight hours were flagged for baseline drift – issue was addressed on February 18 <sup>th</sup> (new lamp and socket was installed in analyzer). Four (4) hours were flagged for above noted power failure.
H <sub>2</sub> S	TEI	43A	Two (2) 1-hour exceedence of the AAAQO: ♦ January 6 <sup>th</sup> : 12:00: 23 µg/m <sup>3</sup> – <b>AE Reference #222830.</b> ♦ January 6 <sup>th</sup> : 13:00: 17 µg/m <sup>3</sup> – <b>AE Reference #222830.</b> Four (4) hours were flagged for above noted power failure.
ET	Gill	Met Pak 3	Three (3) hours were flagged for above noted power failure.
RH	Gill	Met Pak 3	Three (3) hours were flagged for above noted power failure.
WS	Gill	Met Pak 3	Three (3) hours were flagged for above noted power failure.
WD	Gill	Met Pak 3	Three (3) hours were flagged for above noted power failure.

---



---

PASZA  
Henry Pirker Station  
Monthly Summary Tables, Graphs and  
Roses

# Hourly Averages

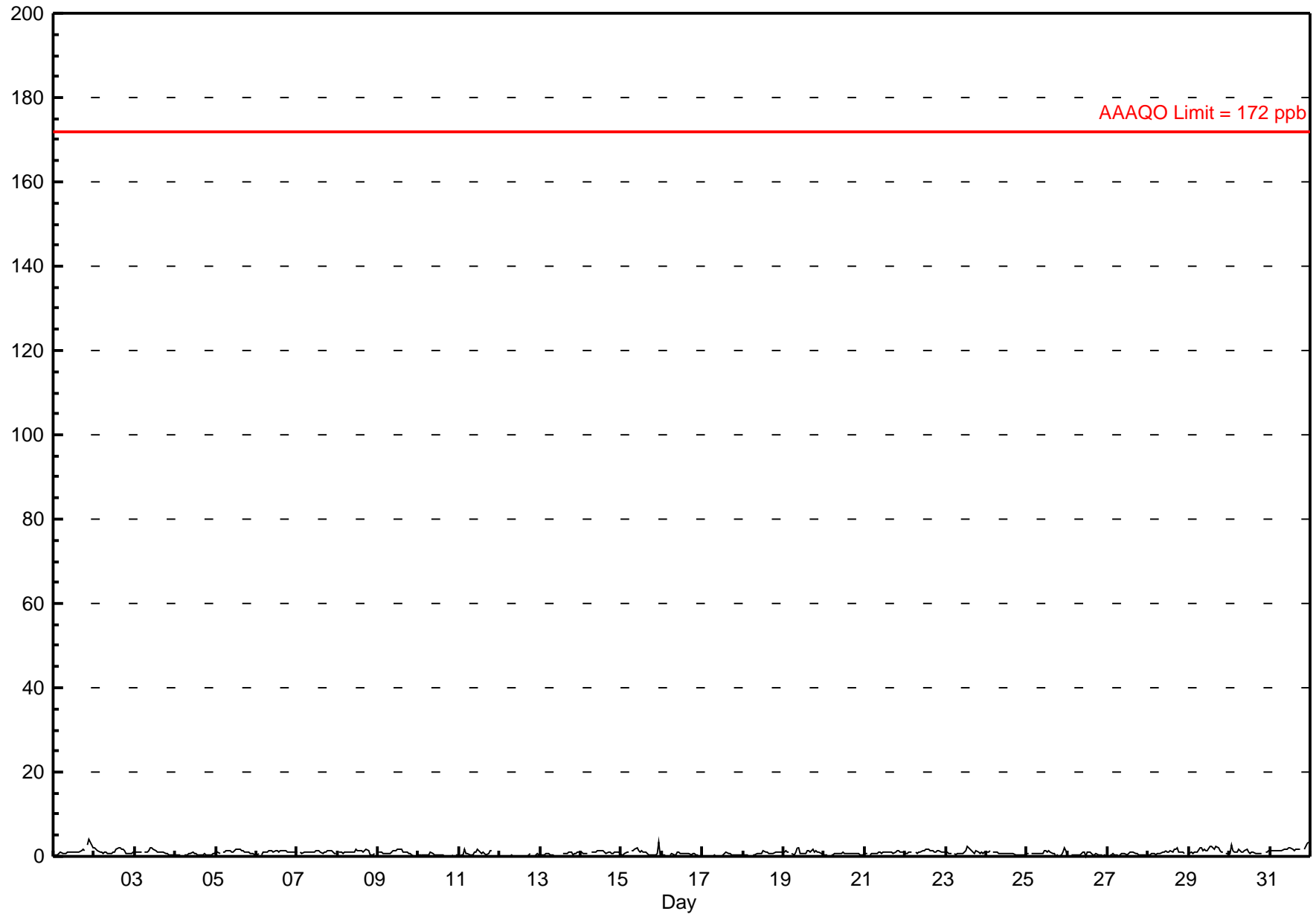
Sulphur Dioxide (SO<sub>2</sub>) - ppb

Henry Pirker - January 2010

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 4.0 ppb on Jan 1 22:00	Maximum Daily Average: 1.8 ppb on Jan 31
Minimum Value: 0 ppb on Jan 11 22:00	Hours of Data: 710
Maximum Diurnal Average: 1.1 ppb at hour 13	Hours of Missing Data: 34
Monthly Average: 0.85 ppb	Hours of Calibration: 34
Minimum Daily Average: 0.1 ppb on Jan 12	Percent Operational Time: 100.0
Minimum Diurnal Average: 0.6 ppb at hour 1	
Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.2 Q <sub>1</sub> = 0.5 Median = 0.8 Q <sub>3</sub> = 1.1 P <sub>90</sub> = 1.5 P <sub>99</sub> = 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	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	A	3	4	3	2	1.2	4.0
2-Jan	2	2	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	1	1	1	1	1	1.2	2.1
3-Jan	1	1	1	1	1	A	1	1	1	2	2	2	1	1	1	1	1	1	1	1	0	0	0	0	1.0	2.2
4-Jan	0	0	0	0	A	0	0	0	1	1	1	1	1	0	0	0	0	1	0	0	0	0	1	1	0.5	0.8
5-Jan	1	1	1	A	1	1	1	1	2	1	1	1	2	2	2	1	1	1	1	1	1	1	1	0	1.1	1.8
6-Jan	0	1	A	0	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.5
7-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
8-Jan	A	1	1	1	1	1	1	1	1	1	1	2	1	1	1	2	2	1	1	1	0	0	1	A	1.0	1.6
9-Jan	1	1	1	1	1	1	1	1	1	1	2	2	2	2	1	1	1	1	1	1	0	0	A	A	0.9	1.7
10-Jan	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.3	0.9
11-Jan	0	0	1	2	1	1	0	0	0	1	1	2	1	1	1	1	0	1	1	1	A	0	0	0	0.7	1.6
12-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	0	0	1	0	0.1	0.5
13-Jan	0	0	0	1	1	1	0	0	0	0	C	C	C	1	1	1	1	1	1	0	1	1	1	1	0.5	1.0
14-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	1.5
15-Jan	0	0	1	1	1	A	1	1	2	2	1	1	1	1	1	1	0	0	0	0	0	1	3	0	1.0	3.3
16-Jan	0	0	0	0	A	0	1	0	0	1	1	1	1	1	1	1	1	0	1	1	0	0	0	0	0.5	1.1
17-Jan	0	0	0	A	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0.3	0.9
18-Jan	0	0	0	0	0	A	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.4
19-Jan	1	1	1	1	A	1	0	1	2	2	1	1	1	1	1	1	2	1	1	1	1	1	1	0	1.0	2.0
20-Jan	0	0	0	A	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0.6	1.1
21-Jan	1	1	A	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.4
22-Jan	1	1	1	1	1	A	1	1	1	1	1	2	2	2	2	1	1	1	1	1	1	1	1	1	1.1	1.7
23-Jan	1	1	1	1	A	1	0	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1.0	2.2
24-Jan	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	1	0.6	1.3
25-Jan	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	1	2	1	0.8	2.0
26-Jan	0	A	0	0	0	0	0	0	1	1	1	0	1	1	1	0	0	1	0	0	0	0	0	0	0.5	1.1
27-Jan	A	0	0	1	0	0	0	0	1	1	1	0	1	1	1	1	1	1	0	0	0	0	0	A	0.5	1.1
28-Jan	0	1	1	1	0	1	1	1	1	1	1	1	1	1	2	2	2	2	1	1	1	1	A	1	1.0	2.0
29-Jan	1	1	1	1	1	1	2	2	1	2	2	1	2	2	2	2	2	2	1	1	1	A	1	1	1.4	2.3
30-Jan	1	3	1	1	1	2	1	1	1	1	2	1	1	1	1	1	1	1	1	1	A	1	1	1	1.1	2.6
31-Jan	1	1	1	1	1	1	1	1	2	2	2	2	2	2	1	2	2	2	2	2	A	2	3	3	1.8	3.5
	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.9	1.0	1.0	1.0	1.1	1.1	1.0	0.9	0.9	0.9	0.9	0.9	0.7	0.7	0.8	0.9	0.8	Diurnal Average
	2.0	2.6	1.4	1.6	1.5	1.8	2.0	2.0	2.0	2.1	2.2	1.9	2.3	2.2	2.0	2.1	2.3	2.1	1.7	1.4	2.6	4.0	3.3	3.5	Diurnal Maximum	

C - Calibration      A - Automated Daily Zero Span  
 Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb    24-hr 57 ppb



# Hourly Maximums

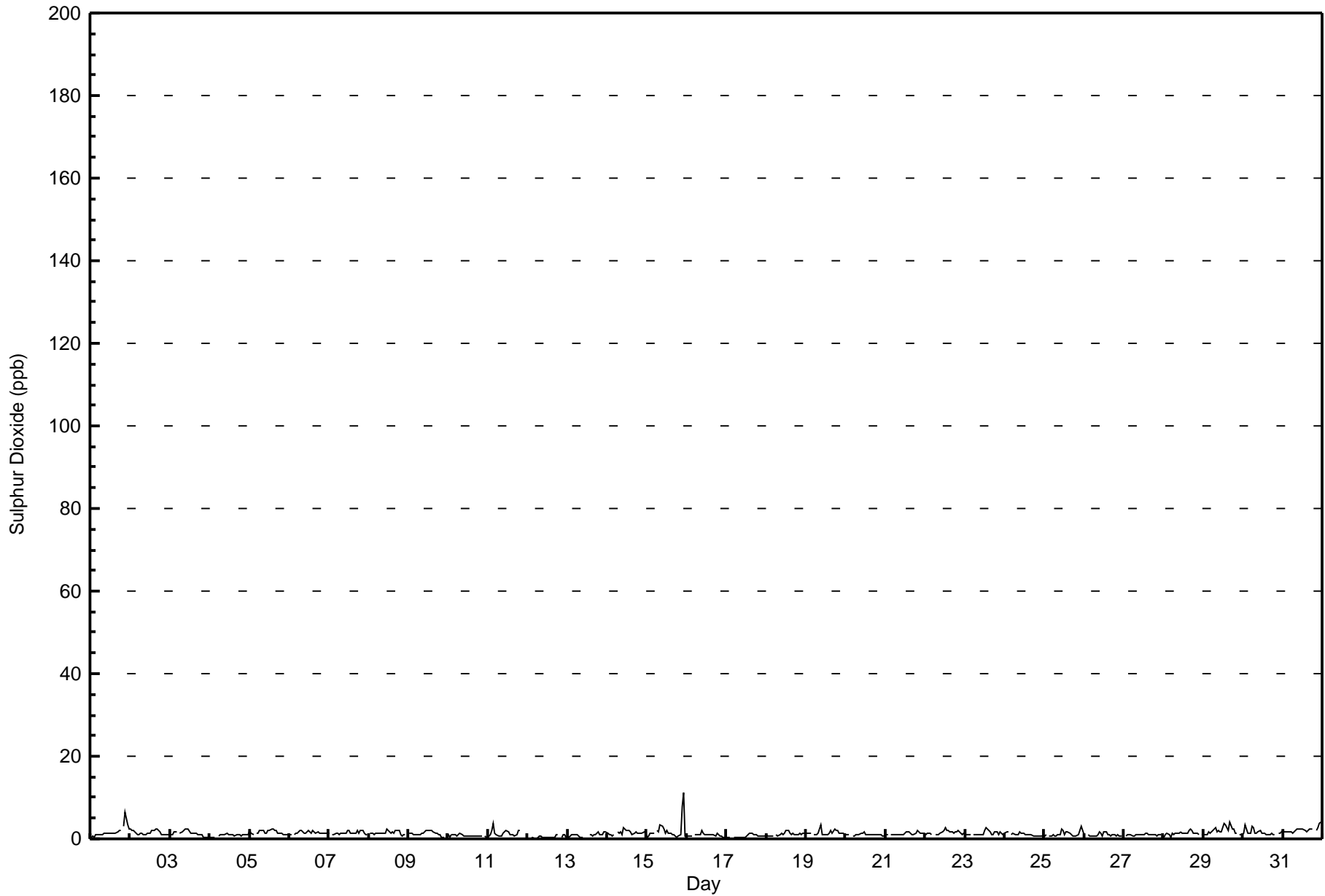
Sulphur Dioxide (SO<sub>2</sub>) - ppb

Henry Pirker - January 2010

Maximum Value: 11.0 ppb on Jan 15 23:00		Maximum Daily Average: 2.2 ppb on Jan 31		Hours in Service: 744																						
Minimum Value: 0 ppb on Jan 11 22:00		Minimum Daily Average: 0.4 ppb on Jan 12		Hours of Data: 710																						
Maximum Diurnal Average: 1.6 ppb at hour 13		Minimum Diurnal Average: 1.0 ppb at hour 1		Hours of Missing Data: 34																						
Monthly Average: 1.30 ppb		Percentiles: P <sub>1</sub> = 0.2 P <sub>10</sub> = 0.5 Q <sub>1</sub> = 0.9 Median = 1.1 Q <sub>3</sub> = 1.5 P <sub>90</sub> = 2.0 P <sub>99</sub> = 3.6		Hours of Calibration: 34																						
				Percent Operational Time: 100.0																						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jan	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	A	3	6	3	2	1.7	6.4
2-Jan	2	2	2	1	1	1	2	2	1	1	1	2	2	2	2	3	2	2	2	1	1	1	1	1	1.5	2.5
3-Jan	1	1	2	2	2	A	1	2	2	3	3	3	2	2	2	1	1	1	1	1	0	0	0	0	1.4	2.5
4-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	0.8	1.4
5-Jan	2	1	1	A	1	1	2	2	2	1	1	2	2	2	2	2	2	1	1	1	1	1	1	1	1.6	2.3
6-Jan	1	1	A	1	1	1	2	2	2	1	1	2	2	1	2	2	1	2	1	1	1	1	1	1	1.5	1.9
7-Jan	1	A	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	2	1	2	2	1	1	1	1.4	2.0
8-Jan	A	1	1	1	1	1	1	1	1	1	1	2	2	1	2	1	2	2	2	1	1	1	1	A	1.5	2.5
9-Jan	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	1	1	1	1	0	A	1	1	1.3	2.2
10-Jan	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0	0.7	1.5
11-Jan	0	1	2	4	1	1	1	1	1	1	2	2	2	1	1	1	1	1	2	2	A	0	0	0	1.2	3.6
12-Jan	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1	A	0	1	1	0	0.4	1.0
13-Jan	1	0	1	1	1	1	1	0	0	0	C	C	C	1	1	1	1	1	2	1	1	1	2	2	0.9	1.6
14-Jan	1	1	1	1	1	A	2	1	2	1	3	2	2	2	2	1	1	2	2	2	1	1	2	1	1.5	2.6
15-Jan	0	1	1	1	2	A	2	2	3	3	2	1	2	1	1	1	1	1	1	1	1	8	11	1	2.1	11.0
16-Jan	1	1	1	1	A	1	1	1	1	2	1	1	1	1	1	1	1	2	1	1	1	1	1	1	0.9	2.0
17-Jan	0	0	0	A	0	0	1	1	0	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	0.7	1.5
18-Jan	1	1	1	1	1	A	1	1	1	2	1	2	2	2	1	1	1	1	1	1	2	1	2	1	1.1	2.0
19-Jan	1	1	1	1	A	1	1	1	2	3	1	1	1	1	1	2	1	2	2	2	2	2	1	1	1.6	3.5
20-Jan	1	1	1	A	1	1	1	1	1	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.5
21-Jan	1	1	A	1	1	1	1	1	1	1	1	1	2	2	2	2	1	1	2	2	2	2	1	2	1.3	2.0
22-Jan	1	1	2	2	1	A	1	1	1	1	2	2	3	2	2	2	2	1	2	2	2	1	1	1	1.5	2.6
23-Jan	1	1	1	1	A	1	1	1	1	1	1	1	2	3	2	2	1	1	2	2	1	2	1	1	1.3	2.6
24-Jan	1	2	2	A	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.6
25-Jan	1	1	A	1	1	1	1	1	1	1	2	2	1	2	2	1	1	1	1	1	1	2	3	2	1.2	3.0
26-Jan	1	A	1	1	1	1	1	1	1	2	2	1	2	2	1	1	1	1	1	1	1	1	1	1	0.9	1.5
27-Jan	A	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	A	1.0	1.5
28-Jan	0	1	1	1	0	1	1	1	2	2	2	1	2	2	2	2	3	2	2	2	2	2	1	1	1.4	2.5
29-Jan	1	1	1	2	1	2	2	3	2	2	2	2	4	3	3	2	4	2	2	1	2	A	1	1	2.0	3.9
30-Jan	2	3	2	1	1	3	3	1	1	2	2	1	1	1	1	1	1	1	1	1	A	1	1	2	1.6	3.5
31-Jan	2	2	2	2	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	A	2	3	4	4	2.2	4.2
		1.0	1.1	1.2	1.1	1.1	1.1	1.2	1.2	1.3	1.5	1.5	1.5	1.6	1.5	1.5	1.3	1.4	1.3	1.3	1.2	1.2	1.5	1.6	1.1	Diurnal Average
		2.5	3.5	2.5	3.6	1.8	3.0	2.6	2.7	3.4	3.5	2.6	2.5	3.8	3.2	2.9	2.5	3.9	2.5	2.5	2.0	3.0	7.8	11.0	4.2	Diurnal Maximum
C - Calibration		A - Automated Daily Zero Span																								



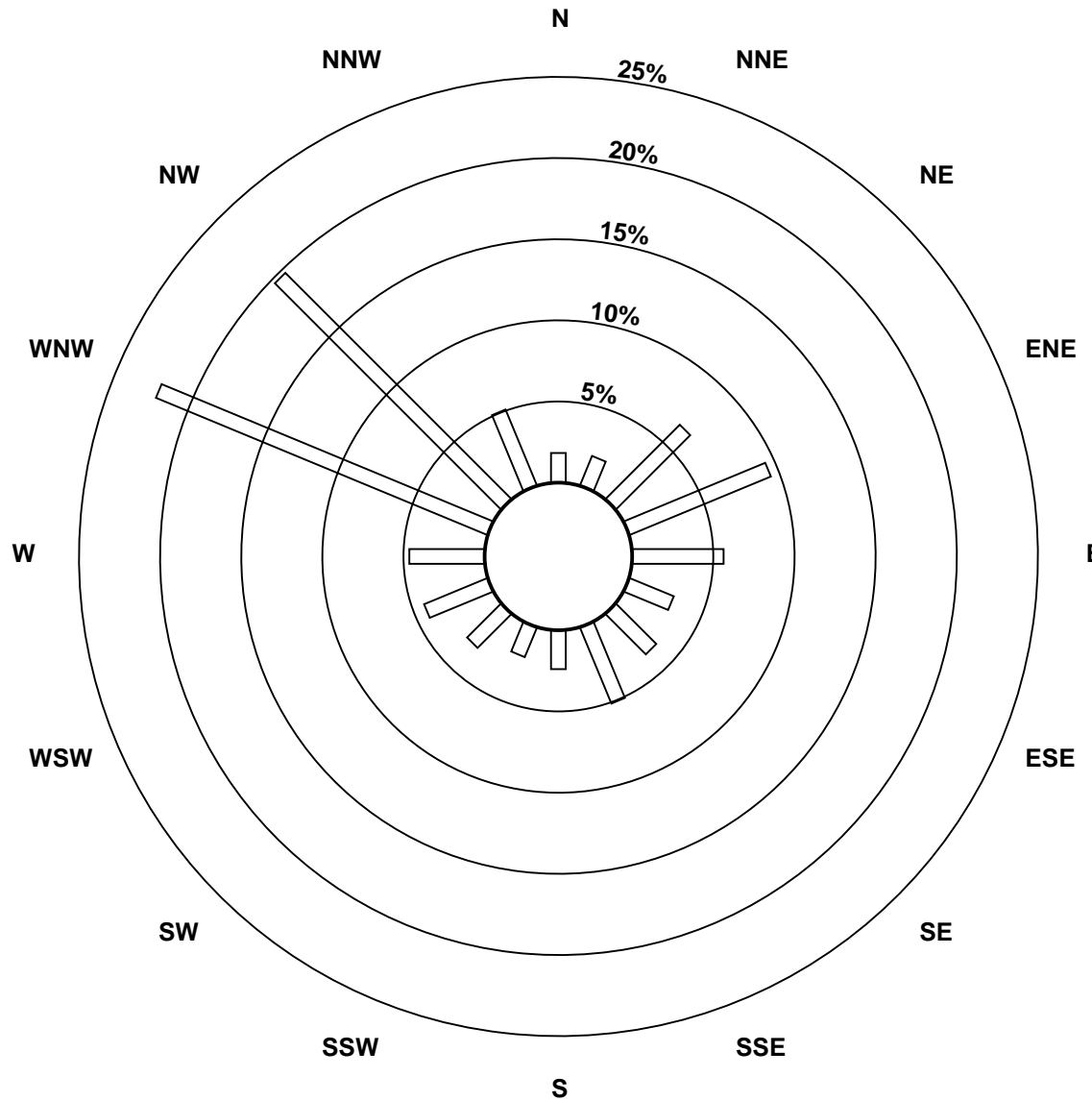
# Hourly Maximums for SO<sub>2</sub> at Henry Pirker January 2010



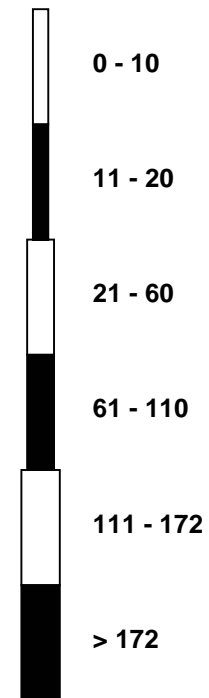
# Pollutant Rose

Sulphur Dioxide (SO<sub>2</sub>) - ppb

Henry Pirker - January 2010



## Pollutant Classes (ppb)



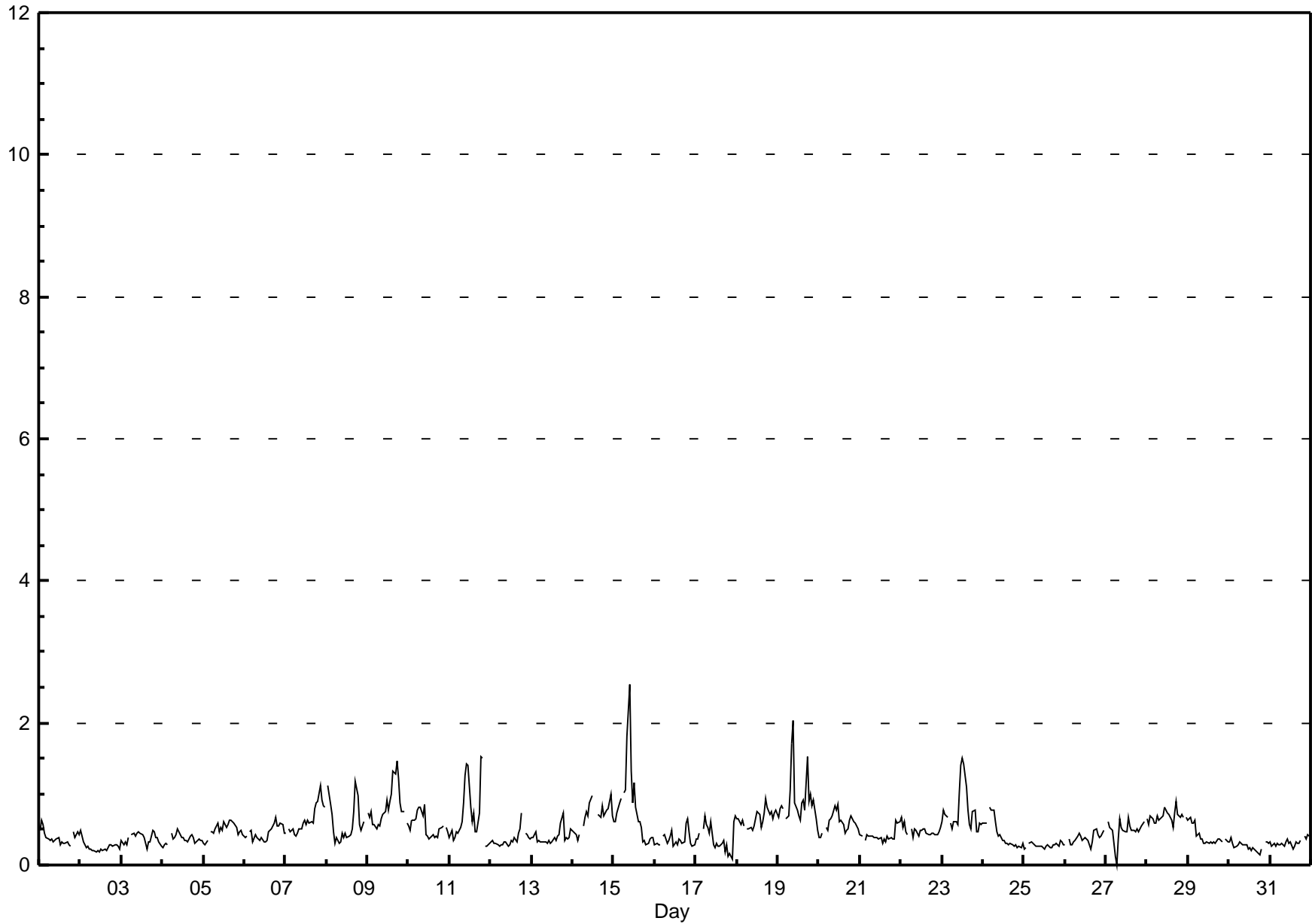
# Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - January 2010

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 2.5 ppb on Jan 15 10:00      Maximum Daily Average: 0.9 ppb on Jan 19		Hours in Service: 744 Hours of Data: 710 Hours of Missing Data: 34 Hours of Calibration: 34 Percent Operational Time: 100.0																								
Minimum Value: 0 ppb on Jan 27 07:00 Maximum Diurnal Average: 0.6 ppb at hour 10 Monthly Average: 0.50 ppb		Minimum Daily Average: 0.3 ppb on Jan 2 Minimum Diurnal Average: 0.4 ppb at hour 6 Percentiles: P <sub>1</sub> = 0.2 P <sub>10</sub> = 0.3 Q <sub>1</sub> = 0.3 Median = 0.4 Q <sub>3</sub> = 0.6 P <sub>90</sub> = 0.8 P <sub>99</sub> = 1.5																								
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jan	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.4	0.6
2-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
3-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	0.4	0.5
4-Jan	0	0	0	0	A	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5
5-Jan	0	0	0	A	0	0	0	1	1	0	1	0	1	1	1	1	1	1	1	1	0	0	0	0	0.5	0.6
6-Jan	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	0	0.5	0.7
7-Jan	0	A	1	0	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	1.1
8-Jan	A	1	1	1	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	1	1	A	0.6	1.2
9-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.8	1.5
10-Jan	1	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	1	1	A	1	0	0.5	0.9
11-Jan	0	0	0	0	0	0	1	1	1	1	1	1	1	1	0	0	1	2	2	A	0	0	0	0	0.7	1.5
12-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	A	0	0	0	0	0	0.4	0.7
13-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	0	0.4	0.7
14-Jan	0	0	0	0	0	A	1	1	1	1	1	C	C	C	1	1	1	1	1	1	1	1	1	1	0.7	1.0
15-Jan	1	1	1	1	1	A	1	1	2	3	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0.8	2.5
16-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0.4	0.7
17-Jan	0	0	0	A	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.4	0.7
18-Jan	1	1	1	1	1	A	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
19-Jan	1	1	1	1	A	1	1	1	1	2	2	1	1	1	1	1	1	2	1	1	1	1	1	0	0.9	2.0
20-Jan	0	0	0	A	1	0	1	1	1	1	1	1	1	1	0	0	0	1	1	1	1	1	1	1	0.6	0.9
21-Jan	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0.4	0.6
22-Jan	1	1	1	0	0	A	1	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0.5	0.7
23-Jan	1	1	1	1	A	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	0	0	1	1	0.8	1.5
24-Jan	1	1	1	A	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.8
25-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
26-Jan	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0.4	0.5
27-Jan	A	1	1	1	0	0	0	0	1	1	0	0	0	1	1	0	0	0	1	0	1	1	1	A	0.5	0.7
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	0.9
29-Jan	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.4	0.7
30-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.3	0.4
31-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.3	0.4
																								Diurnal Average	Diurnal Maximum	
																								0.5	0.7	
																								0.5	1.1	
																								0.5	0.9	
																								0.5	0.9	
																								0.5	0.9	
																								0.4	0.8	
																								0.5	1.0	
																								0.5	1.1	
																								0.6	1.8	
																								0.6	2.5	
																								0.5	1.4	
																								0.5	1.4	
																								0.5	1.5	
																								0.5	1.4	
																								0.5	1.1	
																								0.5	1.3	
																								0.5	1.3	
																								0.6	1.5	
																								0.6	1.5	
																								0.5	1.5	
																								0.5	1.1	
																								0.5	0.9	
																								0.5	1.0	
																								0.5	0.8	

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

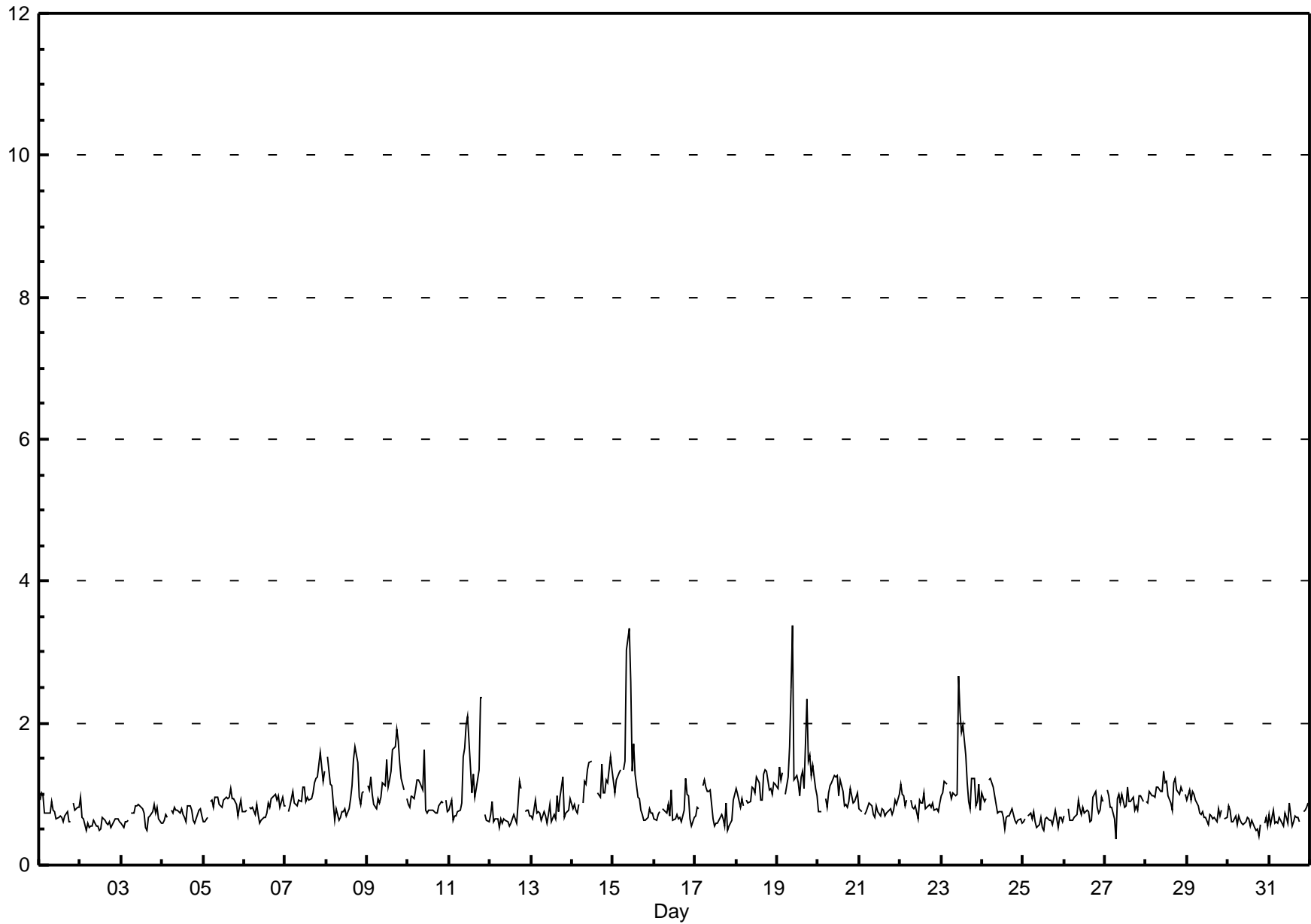


# Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

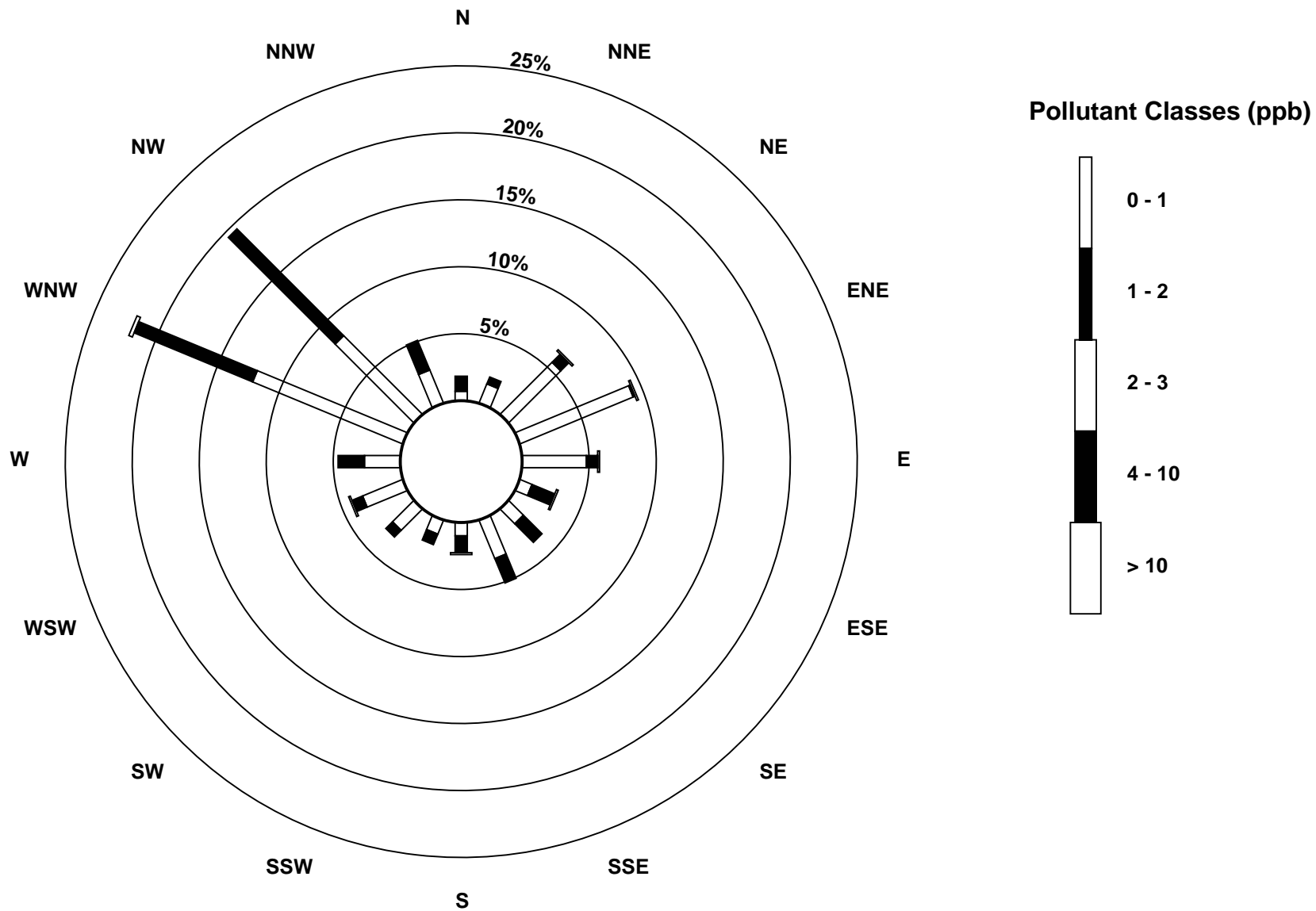
Henry Pirker - January 2010

Maximum Value: 3.4 ppb on Jan 19 10:00		Maximum Daily Average: 1.4 ppb on Jan 19		Hours in Service: 744																							
Minimum Value: 0 ppb on Jan 27 07:00		Minimum Daily Average: 0.6 ppb on Jan 2		Hours of Data: 710																							
Maximum Diurnal Average: 1.0 ppb at hour 10		Minimum Diurnal Average: 0.8 ppb at hour 6		Hours of Missing Data: 34																							
Monthly Average: 0.89 ppb		Percentiles: P <sub>1</sub> = 0.5 P <sub>10</sub> = 0.6 Q <sub>1</sub> = 0.7 Median = 0.8 Q <sub>3</sub> = 1.0 P <sub>90</sub> = 1.2 P <sub>99</sub> = 2.3		Hours of Calibration: 34																							
				Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.8	1.0	
2-Jan	1	1	1	0	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0.6	1.0	
3-Jan	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0.7	0.9	
4-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	0.8	
5-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	1.1	
6-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	
7-Jan	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1.0	1.6	
8-Jan	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	A	A	1.0	1.7	
9-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	1	1	1	A	1	1.2	1.9	
10-Jan	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.9	1.6	
11-Jan	1	1	1	1	1	1	1	2	2	2	2	1	1	1	1	1	1	2	2	A	1	1	1	1	1.2	2.4	
12-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.7	1.2	
13-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	
14-Jan	1	1	1	1	1	A	1	1	1	1	1	C	C	C	1	1	1	1	1	1	1	2	1	1	1.1	1.5	
15-Jan	1	1	1	1	1	A	1	1	3	3	3	1	2	1	1	1	1	1	1	1	1	1	1	1	1.3	3.3	
16-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	1.2	
17-Jan	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0.8	1.2	
18-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	
19-Jan	1	1	1	1	A	1	1	2	2	3	1	1	1	1	1	1	2	1	2	1	1	1	1	1	1.4	3.4	
20-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	1.0	1.3	
21-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	
22-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	1.1	
23-Jan	1	1	1	1	A	1	1	1	1	3	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1.2	2.7	
24-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	
25-Jan	1	1	A	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.8	
26-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	1.0	
27-Jan	A	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.9	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	A	1	1.0	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	A	1	1	0.8	1.1	
30-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	1	A	1	1	1	1	0.6	0.8	
31-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	0.9	
		0.8	0.9	0.9	0.8	0.9	0.8	0.8	0.9	1.0	1.0	1.0	0.9	0.9	0.9	0.8	0.8	0.9	1.0	1.0	0.9	0.9	0.9	0.9	0.8	Diurnal Average	
		1.2	1.5	1.3	1.3	1.3	1.2	1.3	1.7	3.0	3.4	2.7	2.2	1.9	2.0	1.6	1.6	1.7	2.3	2.4	2.4	1.6	1.4	1.5	1.3	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									



# Pollutant Rose

Total Reduced Sulphur (TRS) - ppb  
Henry Pirker - January 2010



# Hourly Averages

Nitrogen Dioxide (NO<sub>2</sub>) - ppb

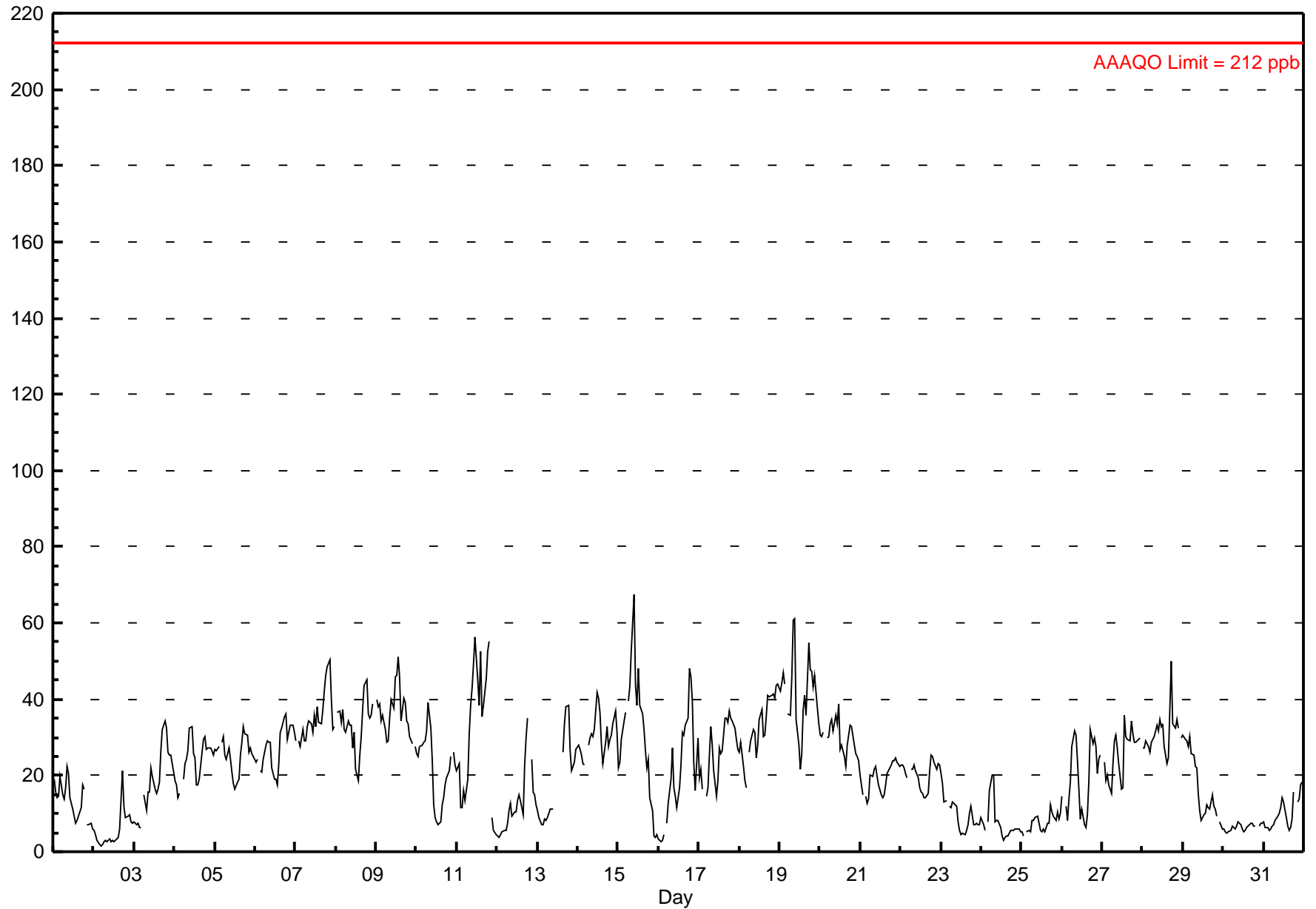
Henry Pirker - January 2010

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 67.6 ppb on Jan 15 10:00	Maximum Daily Average: 41.4 ppb on Jan 19
Minimum Value: 2 ppb on Jan 2 05:00	Hours of Data: 708
Maximum Diurnal Average: 28.8 ppb at hour 18	Hours of Missing Data: 36
Monthly Average: 22.22 ppb	Hours of Calibration: 36
Minimum Daily Average: 5.9 ppb on Jan 2	Percent Operational Time: 100.0
Minimum Diurnal Average: 17.8 ppb at hour 4	
Percentiles: P <sub>1</sub> = 2.7 P <sub>10</sub> = 6.1 Q <sub>1</sub> = 11.2 Median = 22.6 Q <sub>3</sub> = 31.0 P <sub>90</sub> = 37.4 P <sub>99</sub> = 51.3	

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	19	16	14	15	20	15	14	17	22	20	14	11	9	7	8	9	11	18	16	A	7	7	7	6	13.2	22.4																						
2-Jan	6	4	3	2	2	2	3	3	2	3	3	3	3	3	4	6	14	21	12	9	9	10	8	7	5.9	21.3																						
3-Jan	8	7	8	6	6	A	15	11	16	16	22	20	17	15	16	18	27	32	34	33	26	25	26	21	18.4	34.3																						
4-Jan	19	18	14	15	A	19	23	24	26	32	33	26	25	17	17	19	26	29	30	27	27	27	27	25	23.8	32.9																						
5-Jan	27	26	27	A	29	30	26	24	27	24	21	18	17	18	19	25	29	33	31	31	26	27	26	25	25.4	33.0																						
6-Jan	24	24	A	21	21	24	28	29	29	29	22	19	19	17	23	31	33	35	36	30	31	33	33	31	27.1	36.1																						
7-Jan	29	A	29	27	32	29	29	33	34	33	31	36	33	38	34	33	37	42	46	49	50	40	32	33	35.3	50.3																						
8-Jan	A	36	37	34	37	32	31	34	33	33	27	31	22	19	25	30	37	44	45	36	35	36	39	A	33.4	45.0																						
9-Jan	40	38	39	34	36	32	29	29	35	40	38	46	46	51	46	34	40	39	34	34	30	28	A	27	36.8	51.1																						
10-Jan	26	25	28	28	29	29	32	39	33	24	12	9	8	7	8	12	14	18	19	21	25	A	26	23	21.5	39.2																						
11-Jan	21	23	11	11	16	13	19	31	38	43	49	56	45	38	53	35	38	46	52	55	A	9	6	4	31.1	56.5																						
12-Jan	4	4	5	5	6	5	7	11	13	9	10	11	13	15	13	10	23	30	35	A	24	15	15	12	12.9	35.1																						
13-Jan	11	9	7	7	8	8	9	11	11	11	C	C	C	C	C	26	33	38	38	26	21	22	23	27	18.4	38.4																						
14-Jan	28	27	25	23	23	A	28	30	31	30	32	42	40	37	28	23	29	33	27	30	31	34	37	31	30.4	41.7																						
15-Jan	22	23	29	34	36	A	39	43	52	68	44	38	48	39	36	32	26	22	24	14	11	4	4	4	30.2	67.6																						
16-Jan	3	3	3	4	A	7	13	19	27	17	14	11	17	23	31	30	33	35	48	46	39	24	16	30	21.5	48.0																						
17-Jan	20	22	16	A	14	17	25	33	28	21	15	19	27	26	26	35	35	34	37	35	34	32	29	27	26.5	37.0																						
18-Jan	26	29	22	19	17	A	26	29	32	31	25	28	35	37	30	31	35	41	40	41	42	40	44	44	32.4	43.9																						
19-Jan	42	45	47	44	A	36	36	46	61	61	35	28	22	26	37	41	36	55	48	47	43	46	38	34	41.4	61.0																						
20-Jan	30	30	31	A	30	30	34	35	32	36	33	39	27	28	25	22	28	31	33	33	28	26	25	24	30.0	38.8																						
21-Jan	20	15	A	15	13	14	20	20	21	22	20	17	15	14	15	17	20	21	23	24	24	25	24	22	19.2	24.6																						
22-Jan	23	23	22	21	19	A	22	22	23	21	19	17	16	15	14	14	15	21	25	25	23	22	23	23	20.3	25.2																						
23-Jan	20	18	13	13	A	12	12	13	12	12	8	6	5	5	4	6	7	10	12	7	7	7	7	7	9.7	20.4																						
24-Jan	9	7	6	A	8	16	20	20	8	8	8	6	4	3	4	4	4	5	6	5	6	6	6	5	7.6	20.2																						
25-Jan	5	4	A	5	6	5	8	8	9	9	8	6	5	6	5	8	8	12	10	9	8	11	9	10	7.6	12.2																						
26-Jan	15	A	12	8	14	18	28	32	31	24	17	9	11	7	6	10	18	32	28	30	28	21	24	25	19.4	31.9																						
27-Jan	A	24	18	20	18	15	23	29	31	27	23	17	17	36	30	29	29	34	31	29	29	29	30	A	25.8	35.9																						
28-Jan	27	27	29	28	26	29	29	30	33	32	35	33	34	28	23	25	37	50	34	32	35	32	A	30	31.2	50.0																						
29-Jan	31	30	29	28	30	26	25	22	22	15	11	8	10	10	12	12	11	15	12	11	9	A	8	6	17.1	30.6																						
30-Jan	6	5	5	5	6	7	6	6	7	8	7	6	5	6	6	7	8	7	7	7	A	7	7	8	6.4	7.8																						
31-Jan	8	7	6	6	6	7	7	8	9	10	12	14	13	9	7	6	6	9	16	A	13	14	17	18	9.9	18.4																						
																								19.6	19.6	19.2	17.8	18.7	18.4	21.5	23.9	25.4	24.9	21.6	20.9	20.2	20.0	20.3	20.7	24.2	28.8	28.8	27.7	25.0	22.7	21.2	20.4	Diurnal Average
																								42.0	44.5	46.9	43.9	37.2	36.1	39.4	45.9	60.9	67.6	49.2	56.5	47.9	51.1	52.5	41.1	40.4	54.6	52.4	55.0	50.3	46.4	43.7	43.9	Diurnal Maximum

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





# Hourly Maximums

Nitrogen Dioxide (NO<sub>2</sub>) - ppb

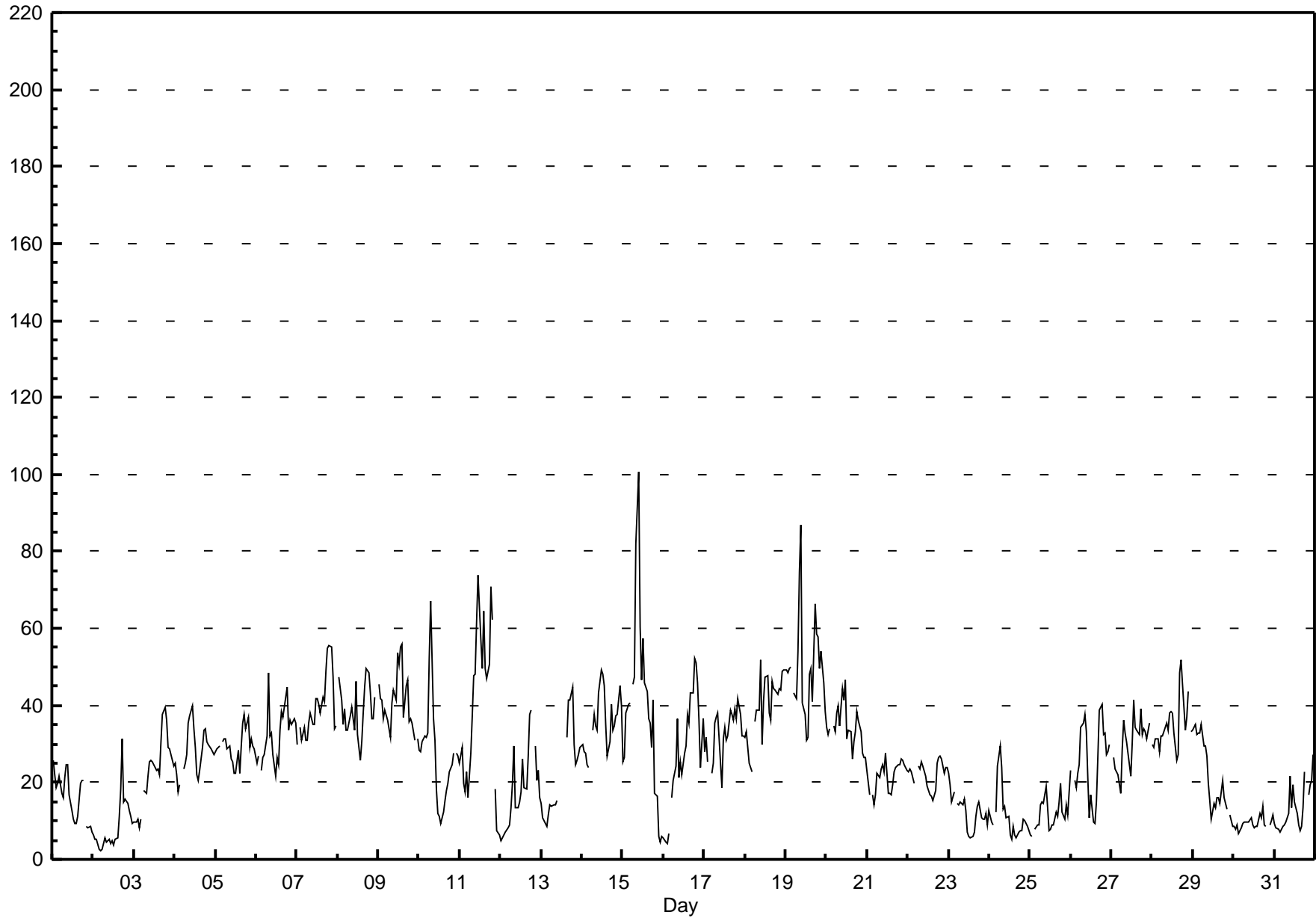
Henry Pirker - January 2010

Maximum Value: 100.6 ppb on Jan 15 10:00		Maximum Daily Average: 49.9 ppb on Jan 19		Hours in Service: 744																						
Minimum Value: 2 ppb on Jan 2 05:00		Minimum Daily Average: 8.6 ppb on Jan 2		Hours of Data: 708																						
Maximum Diurnal Average: 34.5 ppb at hour 19		Minimum Diurnal Average: 21.1 ppb at hour 4		Hours of Missing Data: 36																						
Monthly Average: 26.99 ppb		Percentiles: P <sub>1</sub> = 4.3 P <sub>10</sub> = 8.8 Q <sub>1</sub> = 14.9 Median = 26.9 Q <sub>3</sub> = 36.1 P <sub>90</sub> = 45.0 P <sub>99</sub> = 65.3		Hours of Calibration: 36																						
				Percent Operational Time: 100.0																						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jan	26	22	19	20	22	17	16	21	25	24	17	13	11	9	9	11	20	21	21	A	9	8	9	7	16.3	25.6
2-Jan	6	5	5	3	2	3	4	6	4	5	4	5	4	5	6	11	18	31	15	16	15	13	11	9	8.6	31.3
3-Jan	10	10	10	8	10	A	18	17	22	25	26	25	24	23	24	22	30	38	40	36	29	29	27	24	22.9	39.6
4-Jan	25	22	18	19	A	23	25	27	35	37	40	34	29	22	21	23	29	33	34	31	30	29	28	27	27.9	40.0
5-Jan	28	29	29	A	30	31	31	29	29	26	25	22	22	28	22	29	36	38	34	37	29	31	29	29	29.4	37.6
6-Jan	25	27	A	23	27	27	32	48	32	33	27	21	26	24	33	38	37	42	45	33	36	35	36	35	32.5	48.5
7-Jan	30	A	34	31	34	31	31	36	38	35	35	42	42	40	38	42	41	49	55	55	55	47	34	35	39.6	55.5
8-Jan	A	47	42	35	39	33	34	37	40	36	34	46	33	26	31	38	45	49	48	43	36	37	42	A	38.7	49.4
9-Jan	46	42	41	37	39	36	34	32	41	44	42	54	51	55	56	37	45	46	36	37	35	31	A	31	41.1	56.0
10-Jan	28	28	31	32	32	33	52	67	37	31	18	12	11	9	12	15	18	20	23	25	28	A	27	27	26.8	67.3
11-Jan	25	29	20	17	23	16	28	37	48	48	62	74	57	50	65	50	47	51	71	62	A	18	8	6	39.5	73.8
12-Jan	5	6	6	7	8	9	14	20	30	14	14	15	18	26	19	18	27	38	39	A	30	21	23	16	18.2	38.9
13-Jan	15	11	9	9	12	14	14	14	14	15	C	C	C	C	C	32	41	42	45	30	25	26	27	29	22.2	44.6
14-Jan	30	28	28	25	24	A	33	38	35	33	43	49	48	45	35	27	30	40	33	35	37	38	45	40	35.7	49.2
15-Jan	25	26	38	40	41	A	45	48	82	101	61	46	58	46	44	36	35	29	42	17	16	6	5	6	38.8	100.6
16-Jan	6	5	4	7	A	16	21	24	37	21	25	22	28	30	37	35	43	43	52	51	46	36	24	36	28.2	52.3
17-Jan	28	32	25	A	22	25	36	37	38	32	19	31	34	31	32	39	38	36	39	37	42	38	32	32	32.7	41.9
18-Jan	32	33	25	24	23	A	36	39	39	52	30	41	47	48	38	36	46	44	44	43	44	44	49	49	39.4	51.7
19-Jan	49	49	49	50	A	43	42	54	75	87	41	38	31	32	48	49	41	66	59	58	50	54	46	38	49.9	86.7
20-Jan	34	33	34	A	35	33	38	40	35	44	42	46	31	34	33	26	30	33	38	36	33	28	27	27	34.3	46.4
21-Jan	23	17	A	17	14	17	22	21	23	25	23	28	17	17	17	19	23	24	25	25	26	26	24	23	21.5	27.7
22-Jan	23	23	23	21	20	A	24	24	25	24	22	19	18	17	16	15	18	25	26	27	26	22	24	24	22.1	26.9
23-Jan	22	19	15	17	A	15	14	15	14	16	13	7	6	6	6	7	11	14	15	11	10	10	12	9	12.4	22.4
24-Jan	13	10	9	A	12	24	29	24	13	14	11	11	6	5	9	6	5	7	7	8	10	10	8	7	11.3	29.3
25-Jan	6	6	A	8	9	9	14	15	15	19	13	7	8	9	9	12	11	15	20	12	10	14	11	17	11.8	19.8
26-Jan	23	A	21	18	22	24	34	35	38	33	21	11	17	10	9	15	26	39	40	32	33	27	28	30	25.6	40.3
27-Jan	A	26	23	23	22	17	29	36	33	30	28	22	31	42	34	34	32	39	33	34	33	31	36	A	30.3	41.5
28-Jan	30	29	31	31	28	32	32	33	35	33	38	38	38	33	26	27	48	52	46	33	37	44	A	33	35.2	51.8
29-Jan	34	35	32	33	33	35	29	30	27	20	15	10	14	13	16	16	14	21	16	15	13	A	12	9	21.4	35.1
30-Jan	9	8	9	7	8	9	10	10	10	10	11	9	8	9	9	12	11	14	9	8	A	9	10	11	9.5	13.9
31-Jan	9	8	8	7	8	9	9	10	12	22	13	19	15	12	9	7	8	13	23	A	17	19	21	27	13.3	27.1
		22.9	22.9	22.8	21.1	22.2	22.4	26.8	29.8	31.5	31.9	27.0	27.3	26.1	25.2	25.4	25.4	29.3	33.9	34.5	31.7	29.0	26.9	24.7	24.0	Diurnal Average
		49.1	48.6	49.5	49.9	40.5	43.1	52.3	67.3	82.0	100.6	61.5	73.8	57.5	55.2	64.5	49.7	48.4	66.2	70.7	62.4	55.4	54.2	49.0	49.3	Diurnal Maximum
C - Calibration		A - Automated Daily Zero Span																								

# Hourly Maximums

Nitrogen Dioxide (NO<sub>2</sub>) - ppb

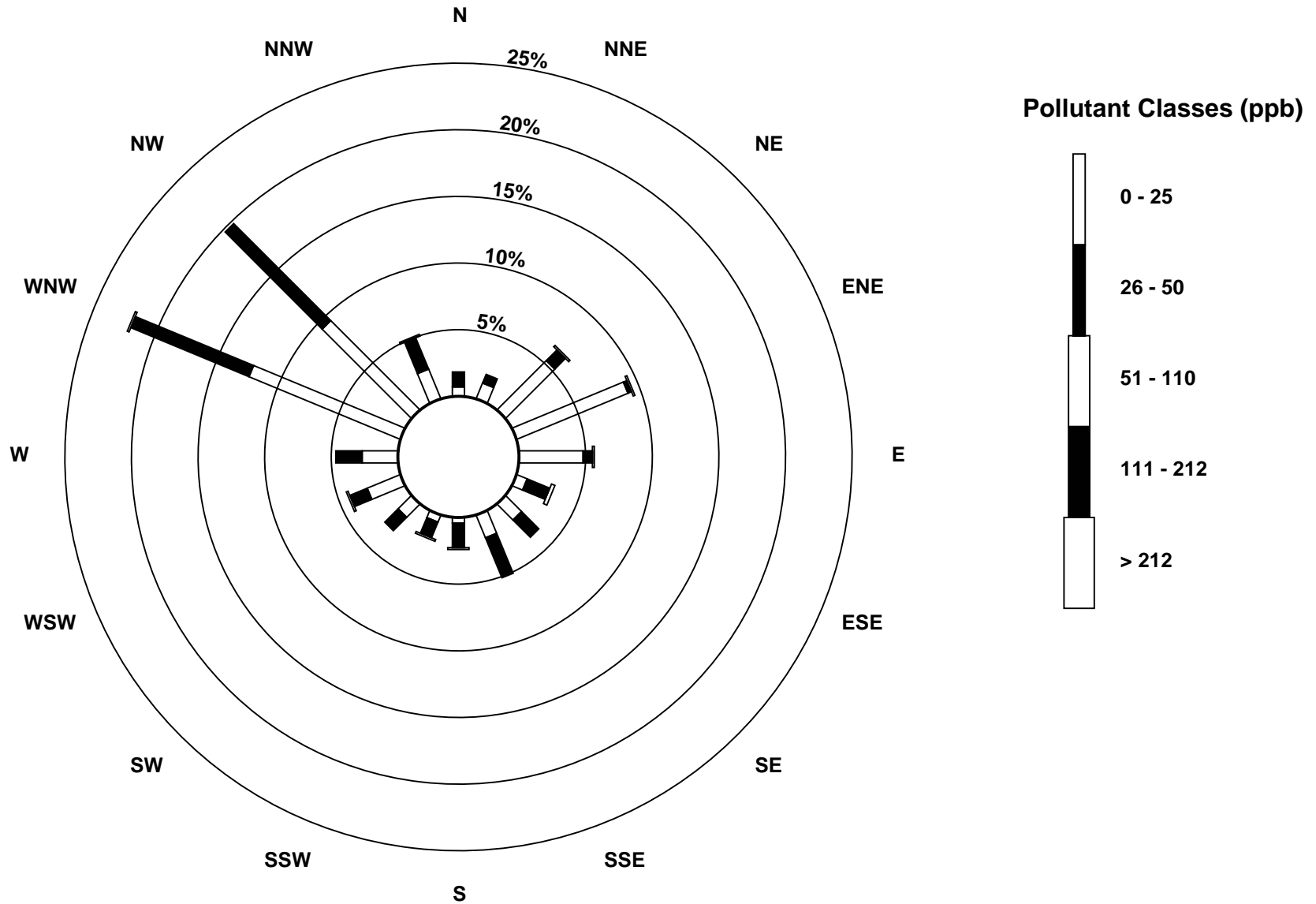
Henry Pirker - January 2010



# Pollutant Rose

Nitrogen Dioxide (NO<sub>2</sub>) - ppb

Henry Pirker - January 2010



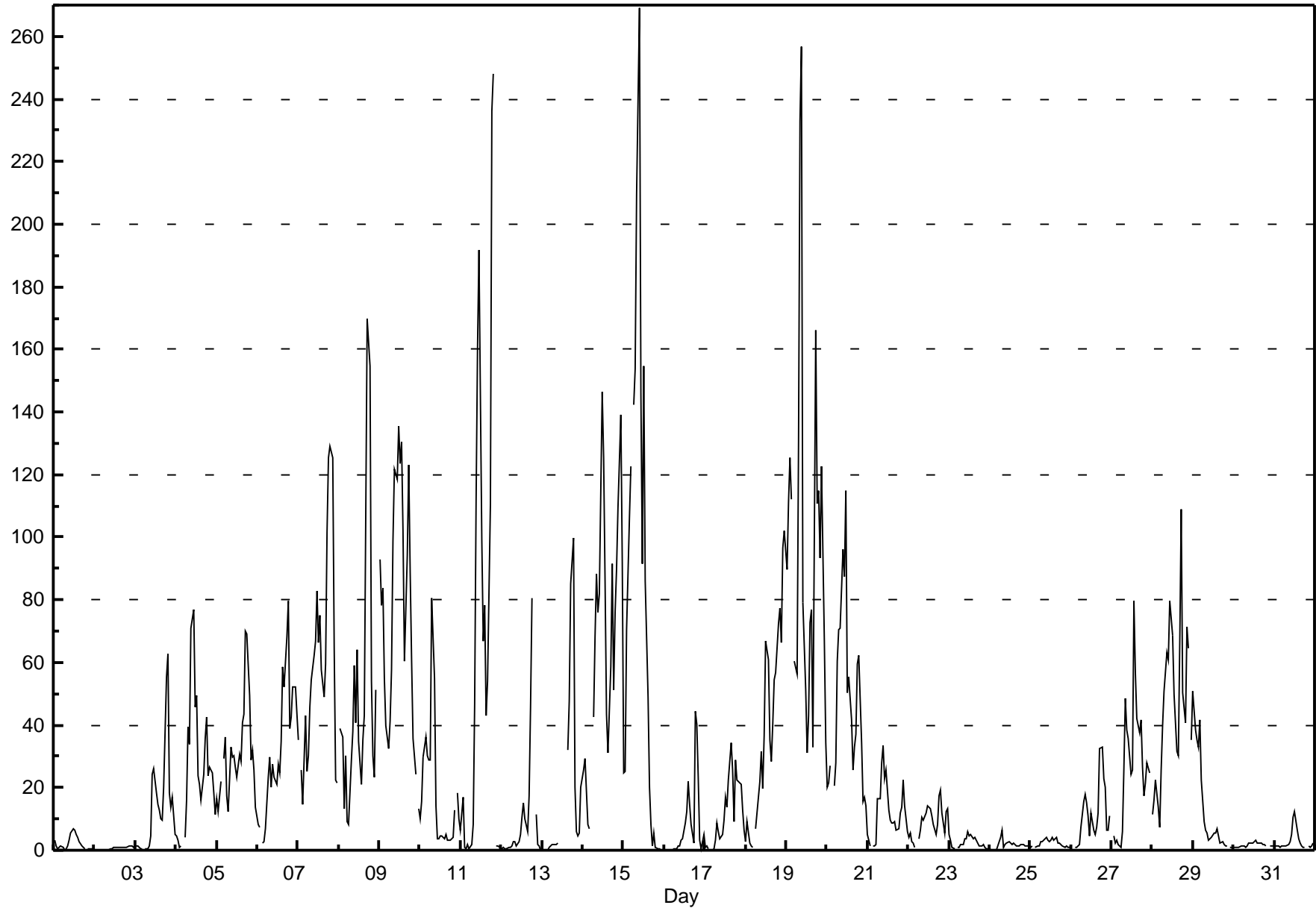
# Hourly Averages

## Nitrogen Oxide (NO) - ppb Henry Pirker - January 2010

Number of Exceedences (AAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 269.3 ppb on Jan 15 10:00	Maximum Daily Average: 98.8 ppb on Jan 19		Hours of Data:	708
Minimum Value: 0 ppb on Jan 2 04:00	Minimum Daily Average: 0.6 ppb on Jan 2		Hours of Missing Data:	36
Maximum Diurnal Average: 49.6 ppb at hour 19	Minimum Diurnal Average: 11.3 ppb at hour 6		Hours of Calibration:	36
Monthly Average: 28.46 ppb	Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.9 Q <sub>1</sub> = 1.8 Median = 11.8 Q <sub>3</sub> = 39.4 P <sub>90</sub> = 79.5 P <sub>99</sub> = 181.1		Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jan	3	2	1	1	1	1	0	0	2	3	6	7	6	5	4	3	1	1	1	A	1	0	0	0	2.1	6.8	
2-Jan	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	1.3	
3-Jan	1	1	1	1	0	A	0	0	2	5	24	26	18	15	13	10	10	20	56	63	18	14	17	5	13.9	62.6	
4-Jan	5	3	1	2	A	4	16	40	34	71	77	46	49	24	21	16	24	36	42	24	26	25	18	12	26.7	76.9	
5-Jan	17	12	22	A	30	36	18	12	33	30	30	27	23	31	28	41	43	70	69	50	29	32	26	14	31.4	70.0	
6-Jan	8	7	A	2	3	7	24	30	20	28	23	21	28	25	35	59	52	68	80	39	43	52	52	43	32.5	79.7	
7-Jan	35	A	26	14	43	25	30	46	54	62	67	83	67	75	58	49	60	102	126	129	125	65	22	21	60.1	129.3	
8-Jan	A	39	36	13	30	9	8	29	38	59	41	64	35	21	35	43	106	170	155	54	30	24	51	A	49.5	169.7	
9-Jan	93	78	84	55	40	33	41	58	99	122	118	135	124	130	102	60	94	123	89	61	36	24	A	13	78.8	135.3	
10-Jan	10	16	30	36	30	29	29	81	55	14	4	4	4	4	5	3	3	3	4	13	A	18	10	17.8	80.8		
11-Jan	6	17	1	1	2	1	2	8	47	111	160	192	99	67	78	43	54	111	236	248	A	2	1	1	64.6	248.1	
12-Jan	1	1	0	0	1	1	1	3	3	2	3	5	10	15	10	6	17	46	81	A	11	2	2	0	9.6	80.6	
13-Jan	0	0	0	0	1	1	2	2	2	2	C	C	C	C	C	32	48	85	100	20	6	4	6	20	17.4	99.5	
14-Jan	26	29	19	8	7	A	43	68	88	76	82	147	125	85	44	31	58	92	51	76	90	109	139	92	68.9	146.6	
15-Jan	24	25	70	106	123	A	142	154	209	269	146	91	154	86	49	20	8	1	5	1	1	0	0	0	73.4	269.3	
16-Jan	0	0	0	0	A	0	0	1	1	1	3	4	9	12	22	15	8	2	44	40	23	3	1	5	8.5	44.4	
17-Jan	1	2	0	A	0	0	3	9	6	4	5	10	17	14	22	34	26	9	29	23	22	21	13	7	12.0	34.4	
18-Jan	3	9	2	1	1	A	7	12	22	31	20	37	67	61	35	29	40	54	57	73	77	67	97	102	39.3	102.1	
19-Jan	90	111	126	112	A	60	56	131	233	257	79	51	31	43	73	77	33	166	111	115	93	123	67	34	98.8	256.9	
20-Jan	20	22	27	A	20	28	60	70	71	96	87	115	50	56	41	26	33	37	59	62	34	15	17	14	46.2	114.8	
21-Jan	5	2	A	2	2	2	17	16	28	34	23	26	13	10	9	9	9	6	7	12	14	22	14	6	12.4	33.6	
22-Jan	4	5	3	2	1	A	4	7	10	10	12	14	14	13	11	8	5	8	18	19	12	6	12	13	9.2	19.2	
23-Jan	5	3	1	1	A	1	1	2	2	4	3	6	5	5	4	4	3	2	2	1	2	1	1	1	2.5	5.9	
24-Jan	0	0	0	A	0	2	4	7	1	2	2	3	2	2	2	2	1	1	2	2	2	1	1	2	1.8	6.6	
25-Jan	1	1	A	1	1	1	3	3	3	4	3	3	3	4	3	4	2	2	2	1	1	1	1	1	2.2	4.2	
26-Jan	1	A	1	1	1	2	7	16	18	15	11	5	12	7	5	7	12	32	33	23	20	6	6	11	11.0	33.1	
27-Jan	A	5	2	3	2	1	6	26	48	39	36	24	26	80	57	42	37	42	27	17	21	28	25	A	27.0	79.6	
28-Jan	11	16	22	14	7	25	40	51	63	61	80	74	69	50	32	30	67	109	50	41	72	65	A	35	47.1	108.8	
29-Jan	51	39	35	33	42	22	9	6	5	3	4	4	5	5	7	5	2	3	2	1	1	A	1	1	12.5	51.0	
30-Jan	1	1	1	1	1	1	1	1	1	2	2	2	3	3	3	2	2	2	2	2	A	1	1	1	1.7	3.0	
31-Jan	2	1	1	1	1	1	1	2	2	3	5	10	13	7	4	2	1	1	1	1	A	1	1	1	2	2.8	12.5
14.6 15.4 18.3 15.3 14.4 11.3 18.6 28.6 38.7 45.8 38.6 41.2 36.0 31.8 27.0 23.0 27.8 45.3 49.6 42.9 28.5 24.7 21.1 16.1																								Diurnal Average			
92.7 111.2 125.6 112.2 122.5 60.4 142.2 153.6 233.0 269.3 160.3 191.5 154.5 130.5 102.2 76.7 105.5 169.7 235.9 248.1 125.3 122.7 139.3 102.1																								Diurnal Maximum			

C - Calibration                      A - Automated Daily Zero Span



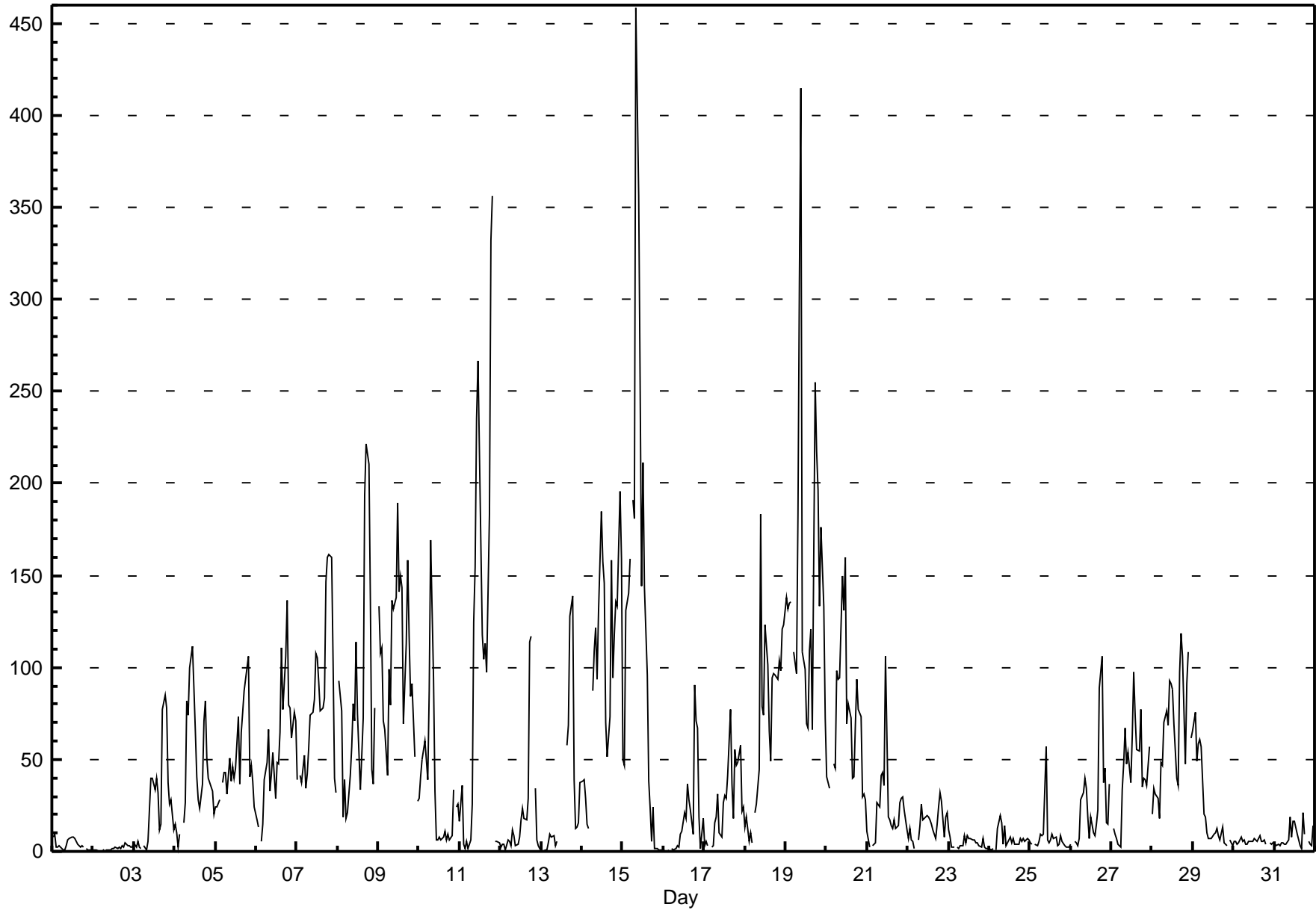
# Hourly Maximums

## Nitrogen Oxide (NO) - ppb Henry Pirker - January 2010

Maximum Value: 458.8 ppb on Jan 15 09:00		Maximum Daily Average: 151.2 ppb on Jan 19		Hours in Service: 744																																													
Minimum Value: 0 ppb on Jan 13 02:00		Minimum Daily Average: 1.5 ppb on Jan 2		Hours of Data: 708																																													
Maximum Diurnal Average: 80.0 ppb at hour 19		Minimum Diurnal Average: 21.3 ppb at hour 6		Hours of Missing Data: 36																																													
Monthly Average: 45.93 ppb		Percentiles: P <sub>1</sub> = 0.5 P <sub>10</sub> = 2.5 Q <sub>1</sub> = 5.5 Median = 24.0 Q <sub>3</sub> = 70.7 P <sub>90</sub> = 121.1 P <sub>99</sub> = 241.7		Hours of Calibration: 36																																													
				Percent Operational Time: 100.0																																													
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																									
1-Jan	8	9	2	2	3	2	1	1	3	6	7	8	8	7	5	4	2	3	3	A	2	1	1	1	3.7	9.0																							
2-Jan	1	0	0	0	0	0	0	0	1	1	1	2	2	2	2	2	1	3	2	4	3	3	3	2	1.5	4.3																							
3-Jan	5	3	6	2	2	A	3	1	6	23	40	40	33	39	32	12	15	77	85	78	37	26	28	12	26.3	85.1																							
4-Jan	15	10	2	9	A	16	27	82	74	100	112	89	65	41	28	24	37	71	82	51	40	35	33	20	46.2	111.8																							
5-Jan	24	24	28	A	38	43	43	32	51	38	46	40	45	73	37	65	75	87	93	106	41	47	38	24	49.5	105.7																							
6-Jan	18	13	A	6	15	39	48	66	33	42	54	29	48	48	65	110	77	106	136	79	78	61	75	71	57.3	136.3																							
7-Jan	39	A	41	37	52	34	42	56	74	76	82	107	105	92	76	78	83	146	160	161	160	103	40	32	81.7	161.4																							
8-Jan	A	93	76	19	39	18	21	42	57	80	71	114	75	34	52	72	193	221	211	136	44	37	78	A	81.0	221.4																							
9-Jan	133	108	111	71	66	41	99	80	136	132	138	190	141	150	143	69	113	158	117	84	91	51	A	28	106.6	189.7																							
10-Jan	29	41	50	60	50	39	88	169	94	33	6	6	8	6	8	11	6	9	7	8	34	A	24	26	35.3	169.2																							
11-Jan	16	36	4	2	6	1	6	25	125	155	235	267	167	118	105	113	97	184	332	356	A	5	5	5	102.8	356.1																							
12-Jan	3	4	4	1	6	5	3	11	9	3	4	8	17	24	18	17	29	114	117	A	35	6	3	1	19.1	116.8																							
13-Jan	1	0	1	1	5	9	7	9	3	5	C	C	C	C	C	57	68	128	139	39	13	14	16	38	29.0	139.0																							
14-Jan	38	39	29	15	12	A	88	109	122	94	130	185	157	146	70	51	73	158	94	118	136	134	196	159	102.3	195.5																							
15-Jan	50	47	131	140	159	A	191	181	459	356	254	144	211	143	96	38	23	6	24	1	1	1	1	1	115.6	458.8																							
16-Jan	0	0	0	0	A	1	1	1	3	3	10	11	21	18	36	28	23	9	90	71	67	19	2	18	18.8	90.2																							
17-Jan	4	6	3	A	3	3	15	18	31	10	8	26	31	29	41	78	37	18	55	47	48	58	22	24	26.6	77.6																							
18-Jan	13	18	5	10	4	A	21	26	44	184	78	74	123	101	66	49	94	97	96	94	104	98	121	123	71.5	183.6																							
19-Jan	138	132	135	136	A	109	96	183	311	415	108	99	69	67	109	121	66	255	218	196	134	176	134	73	151.2	415.0																							
20-Jan	41	37	34	A	48	45	98	94	94	150	131	160	69	80	72	39	40	68	94	77	74	30	31	28	71.1	159.7																							
21-Jan	11	3	A	4	4	5	27	24	41	43	36	106	19	17	14	13	17	13	14	27	29	30	22	12	22.9	106.0																							
22-Jan	7	13	6	5	2	A	7	14	25	17	19	19	18	17	15	12	7	15	24	32	28	7	19	21	15.2	32.1																							
23-Jan	12	7	2	2	A	2	2	3	3	8	5	8	7	7	7	6	4	5	3	2	7	2	2	1	4.8	12.0																							
24-Jan	1	1	1	A	1	13	19	15	4	14	3	7	8	5	7	4	4	4	7	5	7	6	7	6	6.4	19.2																							
25-Jan	5	4	A	4	3	5	10	8	9	57	6	5	6	9	7	8	3	4	8	5	3	2	2	2	7.8	56.8																							
26-Jan	4	A	5	4	3	7	28	32	40	34	18	7	19	11	9	15	23	89	106	38	45	16	15	37	26.2	106.4																							
27-Jan	A	13	9	7	4	2	34	47	67	47	53	37	63	97	74	55	55	77	35	40	39	36	57	A	43.3	97.3																							
28-Jan	20	35	31	29	18	48	47	70	76	68	93	91	88	69	40	36	97	119	106	48	91	108	A	62	64.8	118.5																							
29-Jan	66	76	49	58	61	57	21	19	10	7	7	7	10	10	13	9	6	13	4	4	3	A	6	4	22.6	75.9																							
30-Jan	5	5	4	4	8	5	6	4	4	5	5	5	7	6	5	9	5	5	6	4	A	4	4	5	5.4	8.7																							
31-Jan	4	3	4	3	5	4	4	4	6	19	8	17	16	10	6	3	2	21	10	A	5	4	3	14	7.6	21.3																							
																								24.5	26.8	27.7	23.4	22.8	21.3	35.5	46.1	65.0	71.7	58.9	63.6	55.2	49.2	41.9	39.0	44.4	73.7	80.0	68.3	48.2	38.6	34.0	29.3	Diurnal Average	
																								137.7	131.8	134.7	140.2	159.4	108.7	191.3	183.2	458.8	415.0	253.6	267.0	211.4	150.0	143.2	121.2	193.1	255.1	332.1	356.1	160.2	176.2	195.5	159.2	Diurnal Maximum	
C - Calibration																								A - Automated Daily Zero Span																									

# Hourly Maximums

Nitrogen Oxide (NO) - ppb  
Henry Pirker - January 2010







# Hourly Averages

## Oxides of Nitrogen (NO<sub>x</sub>) - ppb

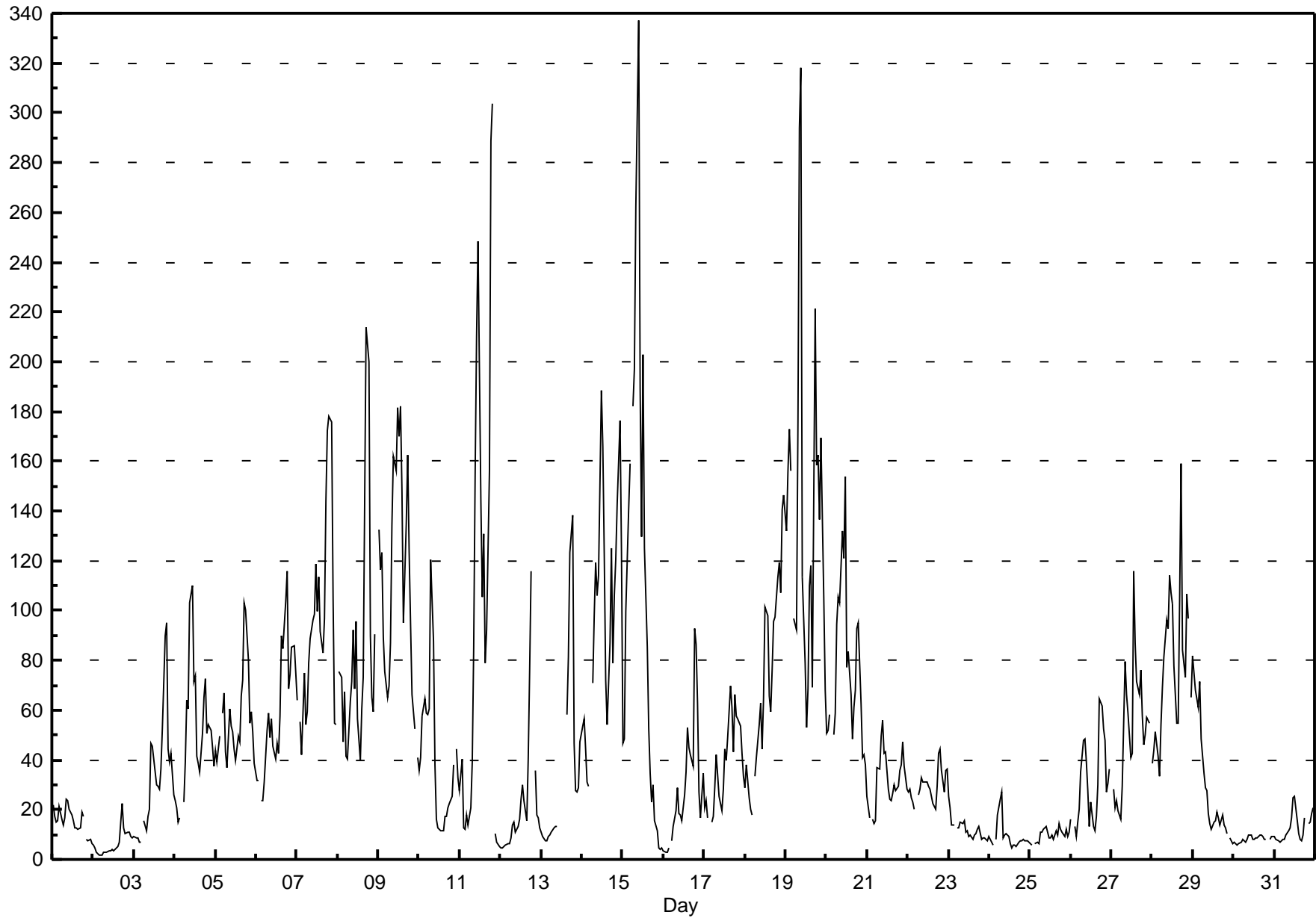
### Henry Pirker - January 2010

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 337.3 ppb on Jan 15 10:00	Maximum Daily Average: 140.3 ppb on Jan 19		Hours of Data:	708
Minimum Value: 2 ppb on Jan 2 05:00	Minimum Daily Average: 6.6 ppb on Jan 2		Hours of Missing Data:	36
Maximum Diurnal Average: 78.5 ppb at hour 19	Minimum Diurnal Average: 29.8 ppb at hour 6		Hours of Calibration:	36
Monthly Average: 50.79 ppb	Percentiles: P <sub>1</sub> = 3.1 P <sub>10</sub> = 7.8 Q <sub>1</sub> = 13.3 Median = 35.9 Q <sub>3</sub> = 68.8 P <sub>90</sub> = 116.1 P <sub>99</sub> = 240.5		Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jan	22	17	15	15	21	16	14	17	24	24	20	18	16	12	12	12	13	19	17	A	8	8	8	6	15.4	24.1
2-Jan	6	5	3	2	2	2	3	3	3	4	3	4	4	4	5	7	15	23	13	10	11	11	9	8	6.6	22.6
3-Jan	9	9	9	7	7	A	15	11	17	20	47	46	35	30	29	28	36	53	90	95	44	39	43	26	32.4	95.3
4-Jan	23	21	15	17	A	23	39	64	61	103	110	72	74	41	38	35	51	65	73	51	54	52	45	37	50.6	110.0
5-Jan	44	39	49	A	59	67	43	37	60	54	51	45	40	49	47	66	72	103	100	80	55	59	51	39	57.0	103.2
6-Jan	32	32	A	24	24	31	52	59	49	57	45	40	47	42	58	90	85	104	116	68	74	85	86	75	59.8	116.1
7-Jan	64	A	55	42	75	54	59	79	89	96	99	119	100	113	92	83	97	144	172	178	176	105	55	54	95.6	178.1
8-Jan	A	76	73	47	68	41	40	63	71	92	68	95	57	40	61	73	143	214	200	90	65	59	90	A	83.1	213.6
9-Jan	133	117	123	89	76	65	70	87	134	162	156	181	170	182	148	95	135	162	124	95	66	53	A	41	115.8	182.0
10-Jan	36	41	57	65	59	58	61	120	88	38	16	13	12	12	11	17	17	21	22	26	38	A	45	33	39.4	120.2
11-Jan	28	40	13	12	18	14	21	39	85	154	210	248	144	105	131	79	92	157	289	303	A	10	7	5	95.9	303.5
12-Jan	5	4	5	6	7	6	9	14	15	11	13	16	24	30	24	16	40	76	116	A	36	18	17	13	22.6	116.0
13-Jan	11	9	7	7	9	10	11	13	13	13	C	C	C	C	C	58	81	123	138	47	27	27	29	47	35.9	138.1
14-Jan	54	56	44	31	30	A	71	98	119	106	114	189	166	122	72	54	87	125	79	106	121	143	176	123	99.4	188.6
15-Jan	47	48	100	141	159	A	182	197	262	337	190	130	203	125	86	52	35	23	30	15	12	4	4	5	103.7	337.3
16-Jan	4	3	3	4	A	8	13	20	29	18	18	15	26	35	53	45	42	38	93	87	63	27	17	35	30.1	92.7
17-Jan	20	23	17	A	15	17	29	42	34	25	20	28	44	40	49	70	61	43	66	58	57	54	42	34	38.6	69.6
18-Jan	29	38	25	20	18	A	33	41	54	63	44	65	101	98	66	59	76	96	97	114	119	107	141	146	71.8	146.3
19-Jan	132	156	173	156	A	97	92	177	294	318	114	79	53	69	110	118	69	221	159	162	137	169	105	68	140.3	318.2
20-Jan	51	52	58	A	50	59	94	105	103	132	121	154	77	84	67	48	61	68	93	95	63	41	42	38	76.3	153.8
21-Jan	25	17	A	16	14	15	37	36	49	56	43	43	28	24	24	26	30	28	30	36	38	47	38	28	31.6	56.1
22-Jan	27	28	25	23	20	A	26	28	33	31	31	31	29	28	25	22	20	29	43	44	36	27	35	36	29.6	44.3
23-Jan	26	21	14	14	A	13	13	15	14	16	11	12	9	10	8	10	10	12	14	8	9	8	8	8	12.2	25.5
24-Jan	9	7	6	A	8	18	24	27	9	10	11	9	6	5	6	6	5	7	7	7	8	7	8	7	9.4	26.8
25-Jan	6	5	A	6	7	7	11	11	12	13	11	9	8	10	8	12	10	15	12	11	9	12	9	11	9.8	14.6
26-Jan	16	A	13	9	15	20	35	48	49	39	28	13	23	13	12	17	30	64	62	53	48	27	31	36	30.5	64.3
27-Jan	A	28	21	24	20	16	29	55	79	66	59	41	43	116	87	72	67	76	58	46	50	57	55	A	52.9	115.7
28-Jan	39	44	51	41	33	54	69	81	96	93	114	107	102	78	55	55	104	159	84	73	106	97	A	65	78.4	159.0
29-Jan	82	68	65	61	72	48	35	29	27	18	14	12	15	15	19	16	14	18	14	13	10	A	9	7	29.6	81.6
30-Jan	7	6	6	6	7	8	7	7	8	10	10	8	8	9	9	10	10	9	8	8	A	8	9	9	8.1	10.0
31-Jan	9	8	8	7	7	8	8	10	11	13	17	25	25	16	10	8	8	10	17	A	14	15	19	21	12.7	25.4

34.3	35.1	37.6	33.1	33.3	29.8	40.2	52.7	64.3	70.8	60.3	62.2	56.3	51.9	47.4	43.9	52.2	74.3	78.5	70.7	53.6	47.5	42.4	36.6	Diurnal Average	
132.7	155.9	172.7	156.3	159.1	96.6	181.9	196.9	294.1	337.3	209.9	248.4	202.6	182.0	148.3	117.9	143.0	221.1	288.7	303.5	175.9	169.4	176.3	146.3	Diurnal Maximum	

C - Calibration      A - Automated Daily Zero Span

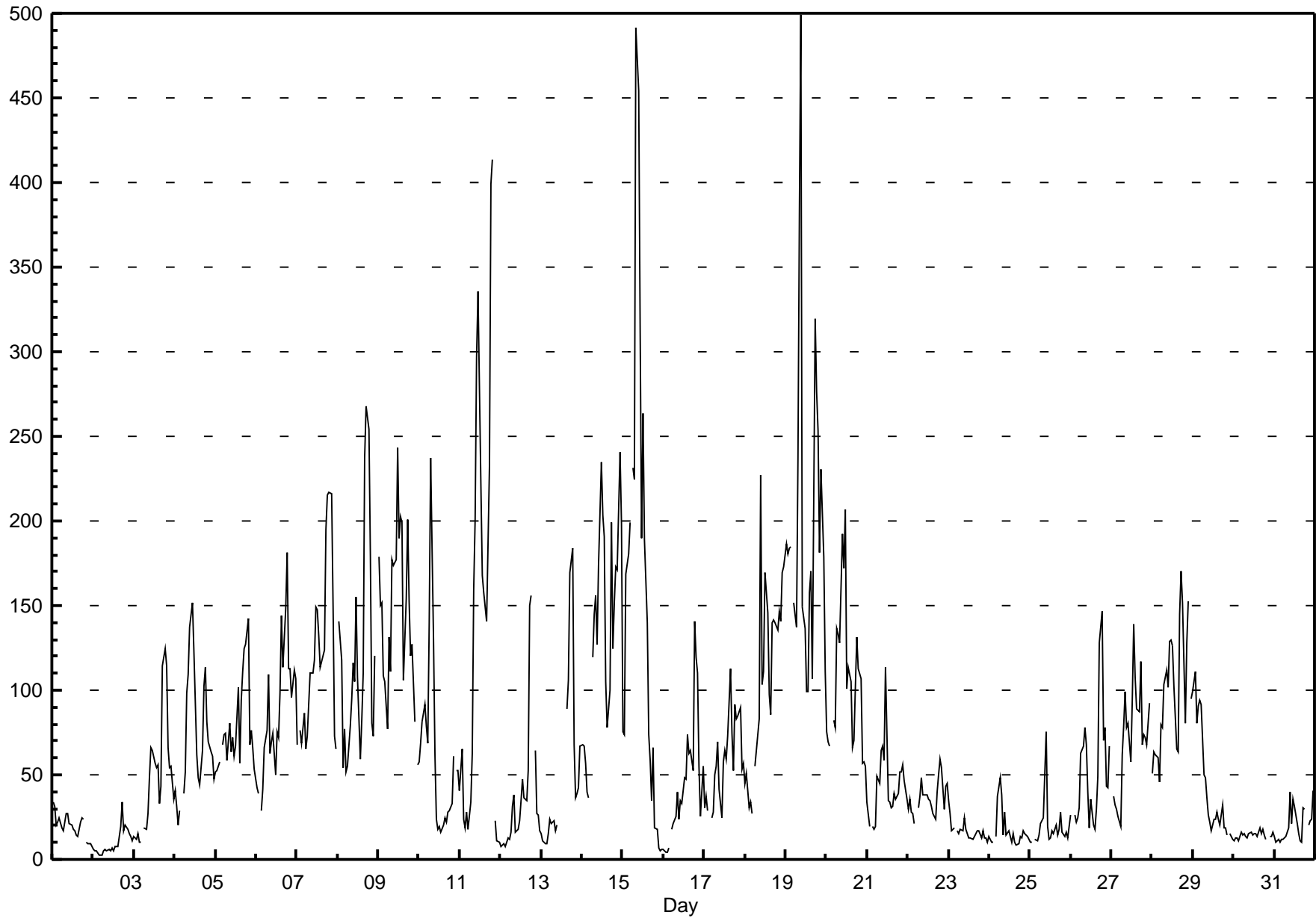


# Hourly Maximums

## Oxides of Nitrogen (NO<sub>x</sub>) - ppb

### Henry Pirker - January 2010

Maximum Value: 499.3 ppb on Jan 19 10:00		Maximum Daily Average: 200.5 ppb on Jan 19		Hours in Service: 744																						
Minimum Value: 2 ppb on Jan 2 05:00		Minimum Daily Average: 10.0 ppb on Jan 2		Hours of Data: 708																						
Maximum Diurnal Average: 113.7 ppb at hour 19		Minimum Diurnal Average: 43.3 ppb at hour 6		Hours of Missing Data: 36																						
Monthly Average: 72.17 ppb		Percentiles: P <sub>1</sub> = 4.7 P <sub>10</sub> = 12.8 Q <sub>1</sub> = 20.0 Median = 52.3 Q <sub>3</sub> = 105.0 P <sub>90</sub> = 167.3 P <sub>99</sub> = 308.9		Hours of Calibration: 36																						
				Percent Operational Time: 100.0																						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jan	34	31	20	22	24	19	17	22	27	27	21	20	18	17	15	14	22	24	23	A	10	9	10	8	19.7	33.7
2-Jan	6	5	5	3	2	3	5	6	5	6	5	6	5	8	8	14	19	34	17	20	18	16	14	11	10.0	33.5
3-Jan	14	12	16	10	10	A	19	18	27	48	66	65	57	54	56	33	43	115	124	114	66	55	55	35	48.4	124.2
4-Jan	40	32	20	29	A	39	52	99	109	137	152	123	93	62	49	44	64	103	113	82	70	64	61	48	73.2	151.9
5-Jan	52	53	58	A	68	74	75	59	80	63	72	61	67	102	57	94	111	125	128	142	67	76	66	53	78.4	142.1
6-Jan	43	39	A	29	41	66	76	109	63	70	75	50	75	72	98	144	113	148	182	113	113	96	112	107	88.4	181.7
7-Jan	68	A	76	68	86	65	73	92	110	110	118	149	147	132	113	120	124	195	215	217	216	150	73	66	121.0	216.7
8-Jan	A	140	118	55	77	52	55	79	95	116	105	155	108	59	82	110	238	268	254	178	81	73	120	A	119.0	267.8
9-Jan	179	150	151	108	105	77	132	111	177	173	244	190	202	199	106	155	200	153	120	127	81	A	A	56	146.7	243.5
10-Jan	57	68	81	92	79	69	140	237	130	62	24	18	19	16	20	24	22	28	29	33	61	A	52	53	61.5	236.9
11-Jan	41	65	24	19	28	18	34	62	159	201	297	336	222	168	157	149	141	233	399	414	A	23	11	11	139.6	413.5
12-Jan	8	9	10	8	13	12	16	32	39	16	18	22	35	47	37	35	52	150	156	A	64	27	26	17	36.8	156.0
13-Jan	15	11	9	10	15	23	21	23	17	21	C	C	C	C	C	89	106	170	184	68	37	39	42	67	50.9	183.7
14-Jan	68	67	57	39	36	A	120	145	156	127	173	235	203	191	105	78	100	199	125	151	173	171	241	199	137.4	240.9
15-Jan	75	74	169	181	200	A	231	225	492	454	315	190	264	189	140	74	58	35	66	19	17	7	5	6	151.5	491.6
16-Jan	6	5	4	7	A	18	21	26	40	24	35	33	49	47	73	63	65	52	141	120	110	55	25	55	46.6	140.9
17-Jan	31	37	29	A	25	28	50	55	69	41	25	58	65	60	73	113	75	53	92	83	85	90	53	56	58.5	112.9
18-Jan	45	51	30	34	27	A	55	64	83	227	103	111	169	146	98	85	140	141	140	136	147	140	170	173	109.4	226.8
19-Jan	187	181	184	185	A	152	137	238	382	499	149	136	99	99	157	170	107	319	276	254	181	231	179	111	200.5	499.3
20-Jan	75	70	67	A	82	78	136	133	128	193	172	206	101	113	105	66	70	101	131	113	107	57	58	55	105.1	206.4
21-Jan	34	19	A	20	18	20	49	45	64	67	58	114	35	34	30	31	39	36	39	52	52	56	47	35	43.2	113.6
22-Jan	29	36	28	27	21	A	31	37	49	39	38	38	36	34	31	27	23	40	50	59	54	30	43	45	36.8	58.9
23-Jan	34	27	17	19	A	17	15	18	17	24	18	15	13	13	12	13	15	17	17	12	17	13	13	10	16.8	34.4
24-Jan	14	10	10	A	13	37	49	38	14	28	14	17	13	10	16	10	9	9	13	13	17	15	13	12	17.2	48.6
25-Jan	10	10	A	12	11	14	21	23	24	76	19	12	13	17	16	20	14	18	28	16	13	17	13	19	19.0	75.6
26-Jan	27	A	26	22	25	30	62	67	78	68	40	18	36	20	18	29	49	128	147	70	78	44	42	67	51.7	146.6
27-Jan	A	37	32	30	25	20	62	79	99	78	80	57	94	139	108	89	87	117	68	74	72	68	92	A	73.1	139.1
28-Jan	51	64	62	60	46	80	78	104	112	101	129	129	126	102	66	63	145	170	152	81	128	152	A	95	99.8	170.2
29-Jan	99	111	80	91	94	91	50	49	37	27	22	17	24	24	28	24	21	32	19	19	14	A	15	12	43.4	111.3
30-Jan	11	13	13	11	16	15	15	13	13	15	16	14	15	15	14	19	15	18	15	12	A	13	13	16	14.4	18.9
31-Jan	13	10	12	10	12	12	13	13	18	40	21	36	31	22	15	11	10	30	30	A	20	23	23	41	20.3	40.9
		47.1	49.6	50.3	44.4	44.5	43.3	61.6	74.8	93.9	102.6	85.2	89.5	80.7	73.8	66.5	63.3	72.6	106.8	113.7	99.4	76.5	65.1	58.3	53.0	Diurnal Average
		186.8	180.9	183.9	185.0	199.5	151.6	231.1	237.7	491.6	499.3	314.5	335.7	263.9	202.5	199.0	170.0	237.6	319.3	399.5	413.5	215.9	230.7	240.9	198.7	Diurnal Maximum
C - Calibration		A - Automated Daily Zero Span																								



# Hourly Averages

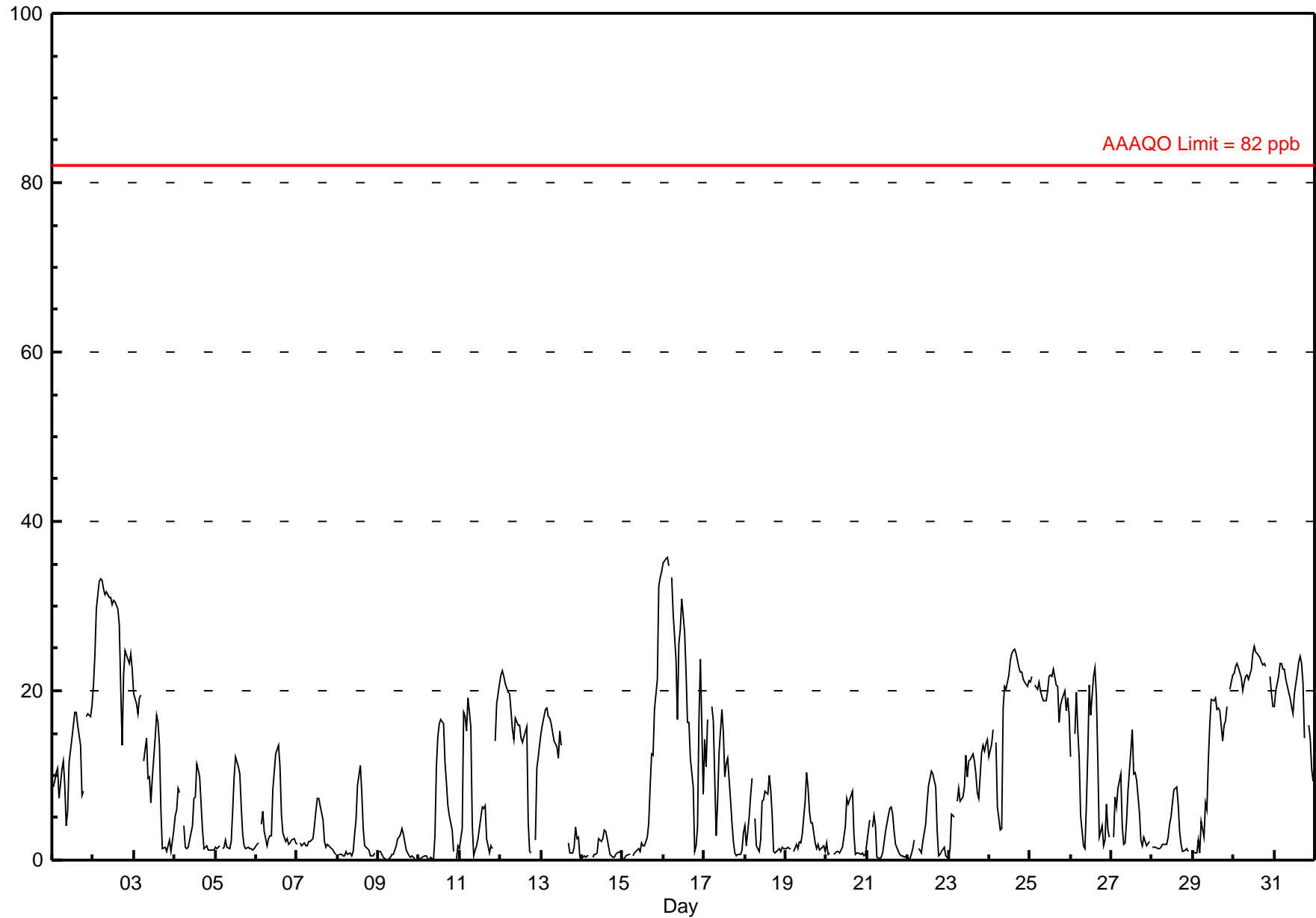
Ozone (O<sub>3</sub>) - ppb

Henry Pirker - January 2010

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 35.8 ppb on Jan 16 03:00	Maximum Daily Average: 27.3 ppb on Jan 2
Minimum Value: 0 ppb on Jan 10 07:00	Hours of Data: 710
Maximum Diurnal Average: 13.3 ppb at hour 14	Hours of Missing Data: 34
Monthly Average: 9.12 ppb	Hours of Calibration: 34
Minimum Daily Average: 1.1 ppb on Jan 9	Percent Operational Time: 100.0
Minimum Diurnal Average: 5.7 ppb at hour 19	
Percentiles: P <sub>1</sub> = 0.2 P <sub>10</sub> = 0.7 Q <sub>1</sub> = 1.5 Median = 5.7 Q <sub>3</sub> = 16.1 P <sub>90</sub> = 21.9 P <sub>99</sub> = 33.3	

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	9	9	10	11	7	11	12	9	4	6	11	14	16	18	17	16	14	8	8	A	17	17	17	18	12.1	18.3																						
2-Jan	21	24	30	33	33	33	32	31	32	31	31	30	31	30	30	28	20	14	22	25	24	23	24	23	27.3	33.2																						
3-Jan	20	18	17	19	20	A	12	14	10	10	7	10	14	17	16	14	6	1	2	1	2	2	1	4	10.3	19.6																						
4-Jan	5	6	9	8	A	4	2	1	1	2	4	7	7	11	11	10	4	1	2	2	1	1	1	1	4.4	11.3																						
5-Jan	1	1	2	A	1	1	2	1	1	2	6	10	12	11	10	6	3	2	1	1	1	1	1	1	3.6	12.1																						
6-Jan	2	2	A	4	6	3	2	3	3	3	8	12	13	14	11	5	3	2	3	2	2	2	3	2	4.8	13.5																						
7-Jan	2	A	2	2	2	2	2	2	2	3	4	6	7	7	6	5	2	2	2	2	1	1	1	1	2.8	7.3																						
8-Jan	A	1	1	1	1	1	1	1	1	1	3	5	9	11	8	4	2	1	1	1	0	1	1	A	2.4	11.2																						
9-Jan	1	1	1	0	0	0	0	0	1	1	2	3	3	3	4	3	1	1	1	0	0	0	1	A	1.1	3.7																						
10-Jan	0	0	0	0	0	0	0	0	0	3	11	15	16	17	16	11	9	6	5	4	1	A	0	2	5.1	16.6																						
11-Jan	1	4	17	17	15	19	16	4	0	1	2	3	5	6	6	6	3	1	2	1	A	14	19	21	8.0	20.9																						
12-Jan	22	22	22	21	20	20	18	15	14	17	16	16	14	14	15	16	4	1	1	A	2	11	12	14	14.2	22.4																						
13-Jan	15	16	18	18	17	17	16	14	14	13	12	15	14	C	C	C	2	1	1	2	4	3	3	0	10.2	18.0																						
14-Jan	0	0	0	0	0	A	0	1	1	1	3	2	3	4	3	3	1	1	0	0	1	1	1	1	1.2	3.5																						
15-Jan	0	0	1	1	1	A	1	1	1	1	1	2	2	2	3	4	9	13	12	18	21	32	33	34	8.3	34.0																						
16-Jan	35	36	36	35	A	33	29	24	17	26	27	31	27	22	16	16	12	9	1	2	4	17	24	8	21.1	35.8																						
17-Jan	14	11	17	A	18	16	10	3	7	13	18	15	10	11	12	7	4	2	1	1	1	1	1	3	8.5	18.2																						
18-Jan	4	2	5	8	10	A	5	2	1	2	7	7	8	8	10	8	5	1	1	1	1	1	2	1	4.4	10.0																						
19-Jan	1	2	1	1	A	1	2	1	2	2	3	7	10	9	6	4	4	2	1	2	1	1	2	1	3.0	10.4																						
20-Jan	2	1	1	A	1	1	1	1	1	1	3	4	7	7	8	8	3	1	1	1	1	1	0	1	2.3	8.1																						
21-Jan	2	5	A	4	5	4	0	0	0	1	2	3	5	6	6	5	3	2	1	1	0	0	0	0	2.6	6.3																						
22-Jan	0	0	1	1	2	A	1	1	1	2	4	7	9	10	11	10	9	4	0	1	1	1	1	0	3.4	10.5																						
23-Jan	0	1	5	5	A	7	8	7	7	9	12	10	12	12	12	12	10	8	7	13	14	13	14	14	9.3	14.2																						
24-Jan	12	14	15	A	14	6	4	4	18	21	20	22	24	24	25	25	24	23	22	22	21	21	21	21	18.4	24.9																						
25-Jan	21	22	A	21	20	21	20	19	19	19	20	22	22	22	22	21	20	16	18	19	20	18	19	17	19.9	22.5																						
26-Jan	12	A	15	20	15	12	5	2	1	6	13	21	17	22	23	19	12	3	4	2	2	7	4	3	10.4	22.7																						
27-Jan	A	3	7	6	9	10	4	2	2	5	8	13	15	10	10	10	6	2	2	3	2	2	2	A	6.0	15.4																						
28-Jan	2	1	1	1	1	1	2	2	2	3	4	5	7	8	9	7	3	2	1	1	1	1	A	1	2.9	8.6																						
29-Jan	1	1	1	2	1	5	3	7	6	12	16	19	19	19	18	18	18	14	16	16	18	A	20	22	11.8	21.8																						
30-Jan	22	23	23	23	22	20	21	22	22	21	22	24	25	25	24	24	23	23	23	23	A	22	20	18	22.4	25.2																						
31-Jan	18	20	22	23	23	23	23	21	20	19	18	17	20	22	23	24	23	21	14	A	16	14	11	9	19.4	24.0																						
																								8.5	8.5	10.0	10.6	9.8	10.5	8.1	7.0	6.8	8.2	10.3	12.2	13.0	13.3	13.1	11.7	8.5	6.0	5.7	5.9	6.3	7.9	8.8	8.3	Diurnal Average
																								35.1	35.6	35.8	34.7	33.2	33.4	32.1	31.4	31.7	31.0	31.1	30.8	30.6	30.5	29.6	27.9	24.4	23.0	23.3	24.8	23.8	32.3	33.5	34.0	Diurnal Maximum

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

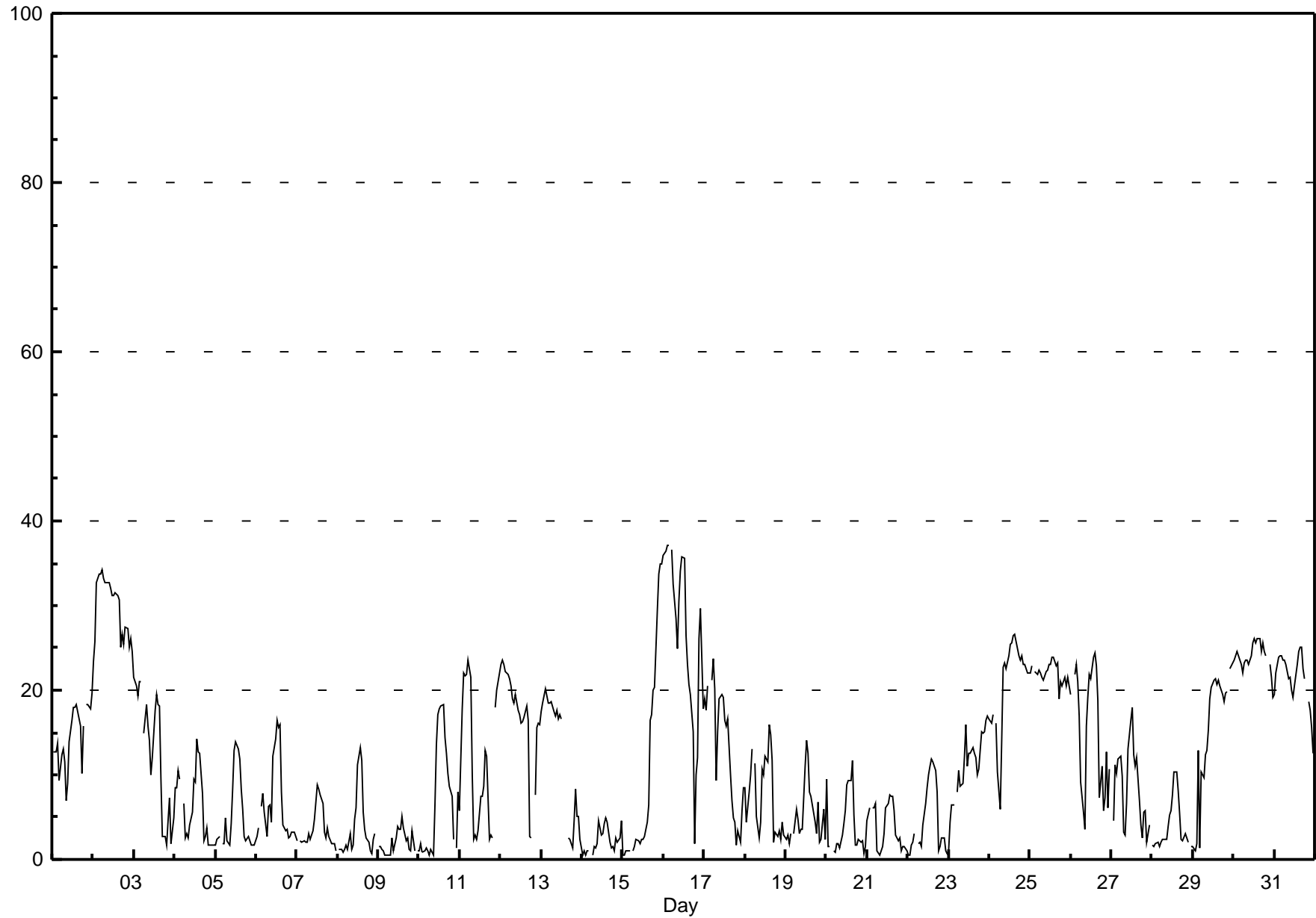


# Hourly Maximums

Ozone (O<sub>3</sub>) - ppb

Henry Pirker - January 2010

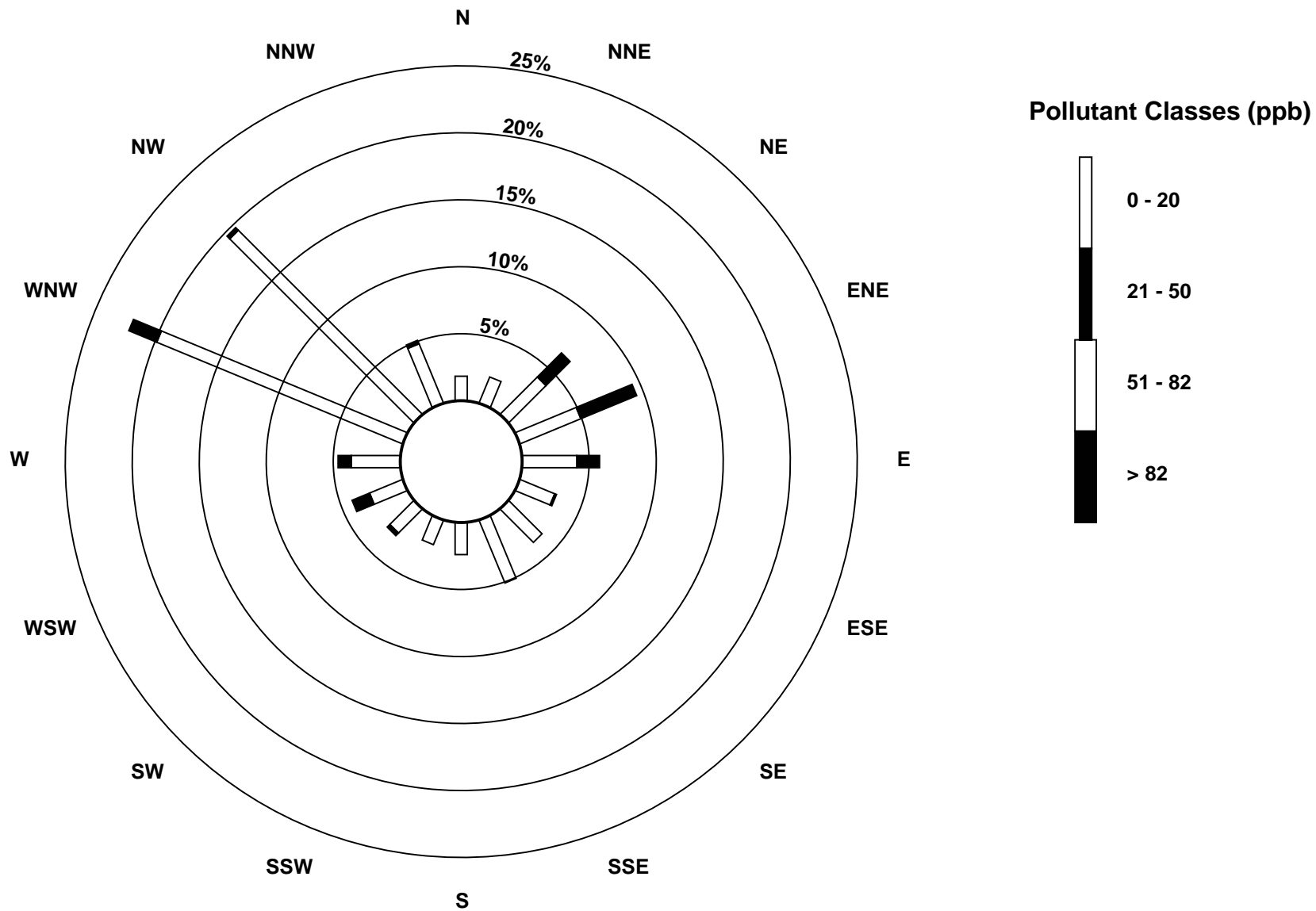
Maximum Value: 37.2 ppb on Jan 16 03:00		Maximum Daily Average: 29.6 ppb on Jan 2		Hours in Service: 744																							
Minimum Value: 0 ppb on Jan 10 07:00		Minimum Daily Average: 2.0 ppb on Jan 9		Hours of Data: 710																							
Maximum Diurnal Average: 15.3 ppb at hour 15		Minimum Diurnal Average: 8.0 ppb at hour 20		Hours of Missing Data: 34																							
Monthly Average: 11.38 ppb		Percentiles: P <sub>1</sub> = 0.5 P <sub>10</sub> = 1.5 Q <sub>1</sub> = 2.6 Median = 9.1 Q <sub>3</sub> = 19.2 P <sub>90</sub> = 24.0 P <sub>99</sub> = 35.4		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	13	13	13	14	9	12	13	12	7	9	14	16	18	18	18	17	16	10	16	A	18	18	18	20	14.4	19.7	
2-Jan	23	26	33	34	34	34	33	33	33	33	32	31	31	32	31	31	25	27	26	27	27	25	26	25	29.6	34.3	
3-Jan	22	21	19	21	21	A	15	18	16	14	10	12	18	19	18	18	10	3	3	2	5	7	2	5	12.9	21.5	
4-Jan	8	8	11	10	A	7	3	3	3	4	6	9	9	14	13	13	8	2	3	4	2	2	2	2	6.2	14.2	
5-Jan	2	2	3	A	2	2	5	2	2	4	8	13	14	13	12	8	6	3	2	3	2	2	2	2	4.9	13.8	
6-Jan	3	4	A	6	8	6	3	6	6	4	12	14	16	16	16	8	4	3	4	3	3	3	3	3	6.7	16.4	
7-Jan	2	A	2	2	2	2	2	3	2	3	5	7	9	8	8	7	3	3	4	3	2	2	2	1	3.6	8.8	
8-Jan	A	1	1	1	1	2	1	3	1	2	5	6	11	13	12	6	4	3	2	1	1	2	3	A	3.7	13.2	
9-Jan	2	2	1	1	1	1	1	1	1	3	4	4	4	4	5	4	2	2	1	1	3	1	A	1	2.0	5.0	
10-Jan	1	2	1	1	1	1	0	1	0	6	14	17	18	18	18	14	12	10	9	7	2	A	1	8	7.2	18.2	
11-Jan	6	18	22	22	22	24	22	10	2	3	2	3	8	7	9	13	12	2	3	3	A	18	20	22	11.8	23.6	
12-Jan	23	24	23	22	22	21	21	19	18	19	18	17	16	16	17	18	16	3	2	A	8	16	16	16	17.0	23.6	
13-Jan	18	19	20	19	19	18	19	17	17	18	17	17	17	C	C	C	3	2	1	5	8	5	5	2	12.6	20.1	
14-Jan	1	1	1	1	1	A	1	2	1	2	4	3	3	4	5	4	2	1	1	1	3	2	2	5	2.2	5.0	
15-Jan	0	0	1	1	1	A	1	1	2	2	2	2	2	3	4	6	16	17	20	20	29	34	35	35	10.4	35.0	
16-Jan	36	36	37	37	A	37	32	28	25	30	34	36	36	26	23	21	19	15	2	10	12	26	30	18	26.4	37.2	
17-Jan	19	18	21	A	21	24	20	9	15	19	20	19	16	16	17	10	7	5	4	2	3	2	6	8	13.1	23.7	
18-Jan	8	4	8	10	13	A	11	5	3	4	11	10	12	12	16	15	12	2	3	3	3	2	4	3	7.6	15.9	
19-Jan	2	3	2	3	A	3	6	5	3	3	3	11	14	13	8	7	6	4	3	7	2	2	6	2	5.2	14.0	
20-Jan	9	1	1	A	1	1	2	2	1	3	4	6	9	9	9	12	5	2	2	2	2	2	1	2	3.9	11.7	
21-Jan	5	6	A	6	6	7	1	1	1	2	3	6	7	8	8	8	6	3	2	3	1	2	2	1	3.9	7.5	
22-Jan	1	1	2	2	3	A	2	2	2	4	7	9	10	11	12	12	11	8	1	1	2	2	1	1	4.5	11.9	
23-Jan	1	4	7	7	A	8	10	9	9	12	16	11	13	12	13	13	12	10	11	15	15	15	17	17	11.1	17.0	
24-Jan	17	16	17	A	16	10	6	14	23	23	23	24	25	26	27	27	26	24	23	24	23	23	22	22	20.8	26.5	
25-Jan	22	23	A	22	22	22	22	21	21	22	22	23	23	24	24	23	23	19	21	20	21	20	21	20	21.9	24.0	
26-Jan	19	A	22	23	21	17	9	6	4	16	19	22	21	24	24	23	19	7	11	6	7	13	6	11	15.2	24.4	
27-Jan	A	5	11	10	12	12	10	3	3	7	13	16	18	12	11	12	7	4	3	6	6	2	4	A	8.5	17.9	
28-Jan	2	2	2	2	2	2	2	2	2	4	5	6	8	10	10	8	5	2	2	3	3	2	A	1	3.8	10.3	
29-Jan	1	1	2	13	1	10	10	12	13	15	19	20	21	21	21	21	21	20	19	20	20	A	23	23	15.1	23.2	
30-Jan	24	24	25	24	23	22	23	24	24	23	24	26	26	26	26	26	26	25	26	25	24	A	23	22	19	24.0	26.1
31-Jan	20	22	24	24	24	24	24	23	21	22	20	19	21	23	25	25	25	23	21	A	19	18	16	13	21.4	25.1	
		10.6	10.6	11.8	12.5	11.4	12.6	10.6	9.6	9.1	10.8	12.7	14.1	15.2	15.3	15.3	14.3	11.9	8.6	8.0	8.0	8.7	10.1	10.9	10.6	Diurnal Average	
		36.0	36.5	37.2	37.2	33.8	36.5	33.3	32.6	32.7	32.7	34.0	35.8	35.5	31.6	31.2	30.7	25.8	26.6	25.5	27.4	29.5	33.7	35.0	35.0	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									





# Pollutant Rose

Ozone (O<sub>3</sub>) - ppb  
Henry Pirker - January 2010





# Eight Hour Running Averages

Ozone (O<sub>3</sub>) - ppb

Henry Pirker - January 2010

Maximum Value: 34.6 ppb on Jan 16 06:00																					Hours in Service:	744			
Minimum Value: 0.3 ppb on Jan 10 09:00																					Hours of Data:	738			
Percentiles: P <sub>1</sub> = 0.3 P <sub>10</sub> = 1.1 Q <sub>1</sub> = 2.1 Median = 5.7 Q <sub>3</sub> = 14.4 P <sub>90</sub> = 21.6 P <sub>99</sub> = 31.7																					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	11	11	11	11	10	10	9	10	9	9	9	10	11	12	13	14	14	14	14	14	14	14	14	14	14.3
2-Jan	15	18	21	22	24	26	28	30	31	32	32	32	31	31	31	30	29	27	26	25	24	23	22	22	32.0
3-Jan	22	22	22	21	21	20	18	17	16	14	13	12	11	12	12	12	12	11	10	9	7	5	4	2	22.3
4-Jan	2	3	4	5	5	5	5	5	4	4	3	3	4	5	6	7	7	7	7	6	5	4	3	2	7.1
5-Jan	1	1	1	1	1	1	2	2	2	2	2	3	5	6	7	7	8	7	7	6	5	3	2	2	7.5
6-Jan	1	1	2	2	3	3	3	3	3	3	4	5	6	7	8	9	9	9	8	7	5	4	3	2	8.8
7-Jan	2	2	2	2	2	2	2	2	2	2	2	3	3	4	5	5	5	5	5	4	3	3	2	1	5.0
8-Jan	1	1	1	1	1	1	1	1	1	1	1	2	3	4	5	5	5	5	5	5	4	2	1	1	5.3
9-Jan	1	1	1	1	1	1	0	0	0	0	1	1	2	2	2	2	2	2	2	2	2	1	1	1	2.3
10-Jan	0	0	0	0	0	0	0	0	0	1	2	4	6	8	10	11	12	13	12	11	9	8	5	4	12.7
11-Jan	3	2	4	6	8	9	11	12	12	11	9	8	6	5	3	4	4	4	4	4	4	5	6	9	11.7
12-Jan	11	14	17	20	20	21	21	20	19	18	18	17	16	16	15	15	14	12	10	9	8	7	7	6	20.7
13-Jan	8	10	13	13	15	16	16	16	16	16	15	15	14	14	14	N	N	N	N	N	N	2	2	2	16.4
14-Jan	2	2	2	1	1	1	0	0	1	1	1	1	1	2	2	2	2	2	2	2	2	1	1	1	2.3
15-Jan	1	1	1	1	1	1	0	0	1	1	1	1	1	1	2	2	3	4	6	8	10	14	18	22	21.6
16-Jan	25	28	31	33	34	35	34	32	30	28	27	27	27	25	24	23	22	20	17	13	10	10	10	9	34.6
17-Jan	10	10	12	13	15	15	13	13	12	12	12	12	11	11	11	12	11	10	8	6	5	4	2	2	15.4
18-Jan	2	2	2	3	4	5	5	5	5	5	5	5	5	6	6	7	7	7	6	5	5	4	3	2	7.0
19-Jan	1	1	1	1	1	1	1	1	2	2	2	3	4	5	5	6	6	6	5	5	4	3	2	2	5.7
20-Jan	2	1	1	1	1	1	1	1	1	1	1	2	2	3	4	5	5	5	5	4	4	3	2	1	5.1
21-Jan	1	1	1	2	3	3	3	3	3	2	2	2	2	2	3	4	4	4	4	4	3	2	2	1	4.2
22-Jan	1	0	0	1	1	1	1	1	1	1	2	3	4	4	6	7	8	8	7	7	6	5	3	2	7.8
23-Jan	1	1	1	2	2	3	4	5	6	7	8	9	9	10	10	11	11	11	10	11	11	11	11	12	11.6
24-Jan	12	13	14	14	14	13	11	10	11	12	12	14	15	17	20	22	23	23	24	24	23	23	22	22	23.7
25-Jan	22	21	21	21	21	21	21	21	20	20	20	20	20	20	21	21	21	21	20	20	20	19	19	18	21.5
26-Jan	17	18	17	17	17	16	14	12	10	10	9	9	10	11	13	15	17	16	15	13	11	9	7	4	17.6
27-Jan	3	3	4	5	5	6	6	6	5	6	6	7	7	7	8	9	10	9	9	7	6	5	3	3	9.6
28-Jan	2	2	2	2	2	2	2	2	2	2	2	3	3	4	5	6	6	6	5	5	4	3	2	2	5.7
29-Jan	1	1	1	1	1	2	2	3	3	4	6	8	11	12	14	16	17	18	18	17	17	17	17	18	17.8
30-Jan	18	20	21	22	22	22	22	22	22	22	22	22	22	23	23	24	24	24	24	24	24	23	23	22	24.0
31-Jan	21	21	20	20	21	21	21	22	22	22	21	21	20	20	20	20	21	21	21	21	21	19	18	16	21.8
24.9 27.7 30.7 32.8 34.4 34.6 34.0 32.5 31.0 31.9 32.0 31.7 31.4 31.1 30.7 30.3 28.9 26.7 25.6 24.9 24.0 23.2 22.5 22.0																									
Diurnal Maximums																									
N - Not Valid																									

# Hourly Averages

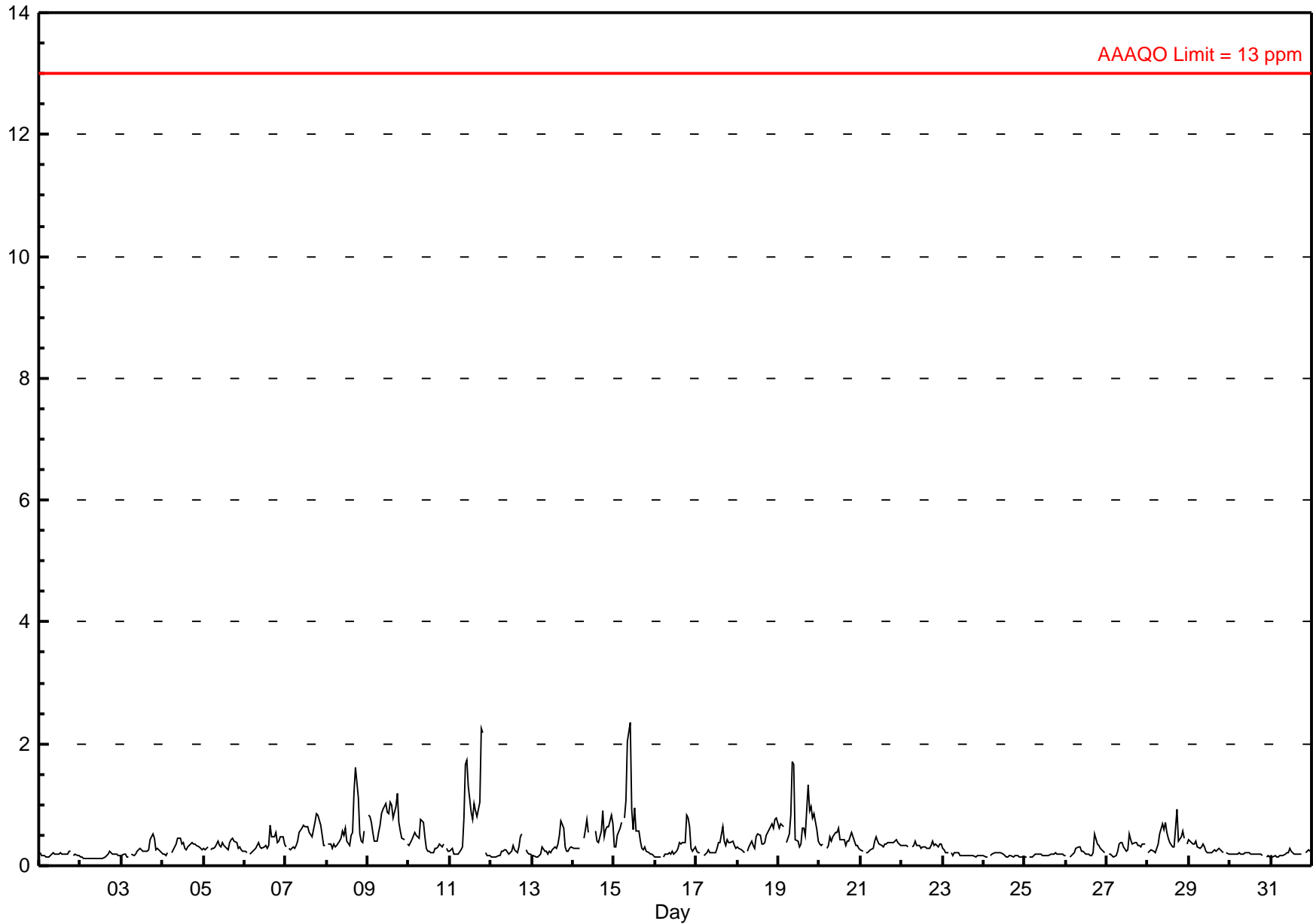
Carbon Monoxide (CO) - ppm

Henry Pirker - January 2010

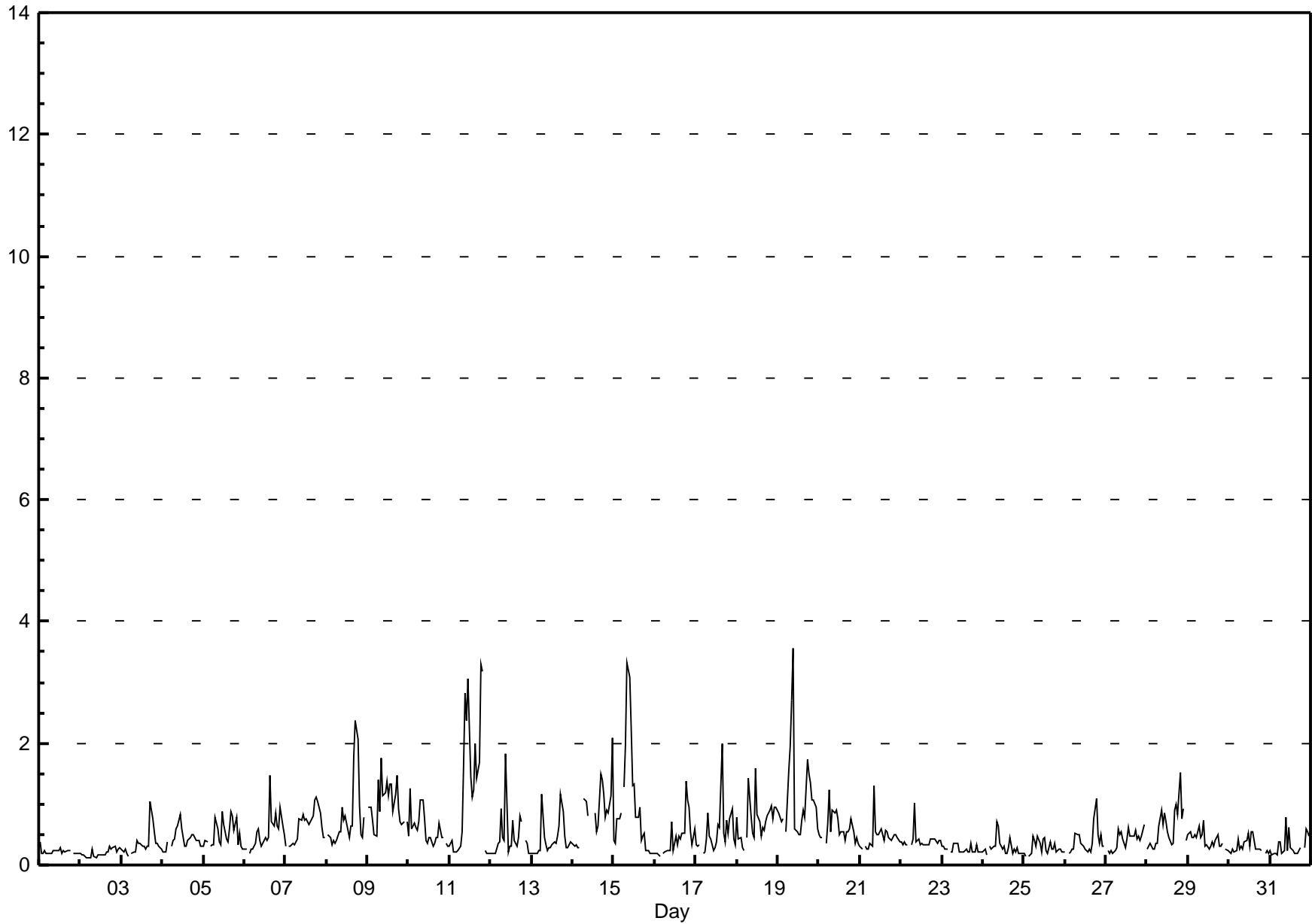
Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 2.36 ppm on Jan 15 10:00	Maximum Daily Average: 0.77 ppm on Jan 11		Hours of Data:	710
Minimum Value: 0.1 ppm on Jan 2 10:00	Minimum Daily Average: 0.15 ppm on Jan 2		Hours of Missing Data:	34
Maximum Diurnal Average: 0.52 ppm at hour 18	Minimum Diurnal Average: 0.24 ppm at hour 6		Hours of Calibration:	34
Monthly Average: 0.362 ppm	Percentiles: P <sub>1</sub> = 0.12 P <sub>10</sub> = 0.16 Q <sub>1</sub> = 0.20 Median = 0.29 Q <sub>3</sub> = 0.41 P <sub>90</sub> = 0.64 P <sub>99</sub> = 1.64		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	0.2	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	A	0.2	0.2	0.2	0.2	0.19	0.23	
2-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	0.15	0.23	
3-Jan	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	0.3	0.4	0.5	0.4	0.3	0.3	0.3	0.2	0.25	0.51	
4-Jan	0.2	0.2	0.2	0.2	A	0.2	0.3	0.3	0.3	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.30	0.46	
5-Jan	0.3	0.3	0.3	A	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.32	0.44	
6-Jan	0.2	0.2	A	0.2	0.2	0.2	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.7	0.5	0.5	0.5	0.4	0.4	0.5	0.5	0.4	0.36	0.66		
7-Jan	0.3	A	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.6	0.7	0.6	0.6	0.6	0.5	0.5	0.6	0.7	0.9	0.8	0.7	0.5	0.3	0.3	0.51	0.85	
8-Jan	A	0.4	0.4	0.3	0.4	0.3	0.3	0.4	0.5	0.6	0.5	0.6	0.4	0.3	0.5	0.5	1.2	1.6	1.1	0.5	0.4	0.4	0.6	A	0.55	1.61	
9-Jan	0.8	0.8	0.7	0.5	0.4	0.4	0.5	0.7	0.8	0.9	1.0	0.9	0.8	1.1	1.0	0.8	1.0	1.2	0.7	0.6	0.4	0.4	A	0.4	0.73	1.18	
10-Jan	0.3	0.4	0.4	0.5	0.5	0.5	0.4	0.8	0.7	0.5	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.3	0.4	A	0.3	0.2	0.37	0.77		
11-Jan	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.8	1.7	1.7	1.3	0.9	0.8	1.0	0.9	0.8	1.0	2.2	2.2	A	0.2	0.2	0.2	0.77	2.25	
12-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.2	0.3	0.5	0.5	A	0.3	0.2	0.2	0.2	0.24	0.51	
13-Jan	0.2	0.2	0.2	0.1	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.5	0.7	0.6	0.3	0.2	0.2	0.3	0.3	0.29	0.74	
14-Jan	0.3	0.3	0.3	0.3	0.3	A	0.5	0.6	0.8	0.6	C	C	C	0.6	0.4	0.4	0.6	0.9	0.5	0.6	0.6	0.6	0.8	0.7	0.52	0.90	
15-Jan	0.3	0.3	0.5	0.6	0.7	A	0.8	1.1	2.0	2.4	0.9	0.6	1.0	0.6	0.6	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.63	2.36	
16-Jan	0.2	0.1	0.1	0.1	A	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.4	0.4	0.8	0.8	0.6	0.3	0.2	0.3	0.31	0.83	
17-Jan	0.2	0.2	0.2	A	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.6	0.4	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.30	0.64	
18-Jan	0.3	0.3	0.3	0.2	0.2	A	0.2	0.3	0.4	0.3	0.3	0.5	0.5	0.5	0.4	0.3	0.4	0.5	0.6	0.7	0.7	0.6	0.8	0.8	0.43	0.79	
19-Jan	0.6	0.7	0.7	0.6	A	0.4	0.5	0.8	1.7	1.7	0.4	0.4	0.3	0.4	0.6	0.6	0.5	1.3	0.9	1.0	0.8	0.9	0.6	0.4	0.73	1.71	
20-Jan	0.3	0.3	0.4	A	0.3	0.3	0.5	0.4	0.5	0.5	0.5	0.6	0.4	0.4	0.4	0.3	0.4	0.4	0.5	0.5	0.4	0.3	0.3	0.3	0.41	0.63	
21-Jan	0.3	0.2	A	0.2	0.2	0.2	0.3	0.3	0.4	0.5	0.4	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.34	0.47	
22-Jan	0.3	0.3	0.3	0.3	0.3	A	0.3	0.3	0.4	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	0.33	0.41	
23-Jan	0.3	0.3	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18	0.29	
24-Jan	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	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.17	0.22	
25-Jan	0.2	0.1	A	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18	0.21	
26-Jan	0.2	A	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.5	0.4	0.3	0.3	0.3	0.2	0.2	0.24	0.52	
27-Jan	A	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.4	0.4	0.3	0.2	0.3	0.5	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.4	A	0.31	0.52	
28-Jan	0.2	0.2	0.3	0.2	0.2	0.3	0.3	0.5	0.7	0.6	0.7	0.5	0.5	0.4	0.3	0.3	0.6	0.9	0.4	0.5	0.6	0.5	A	0.4	0.44	0.93	
29-Jan	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.3	0.2	0.2	A	0.2	0.2	0.28	0.43	
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	A	0.2	0.2	0.2	0.19	0.22	
31-Jan	0.2	0.1	0.2	0.1	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	A	0.2	0.2	0.3	0.2	0.19	0.27
	0.27	0.27	0.28	0.26	0.25	0.24	0.30	0.36	0.48	0.50	0.40	0.37	0.35	0.35	0.35	0.36	0.40	0.52	0.51	0.48	0.37	0.34	0.32	0.28		Diurnal Average	
	0.83	0.81	0.71	0.63	0.71	0.47	0.79	1.08	2.05	2.36	1.74	1.30	0.95	1.05	1.03	0.91	1.20	1.61	2.25	2.18	0.79	0.85	0.82	0.79		Diurnal Maximum	

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

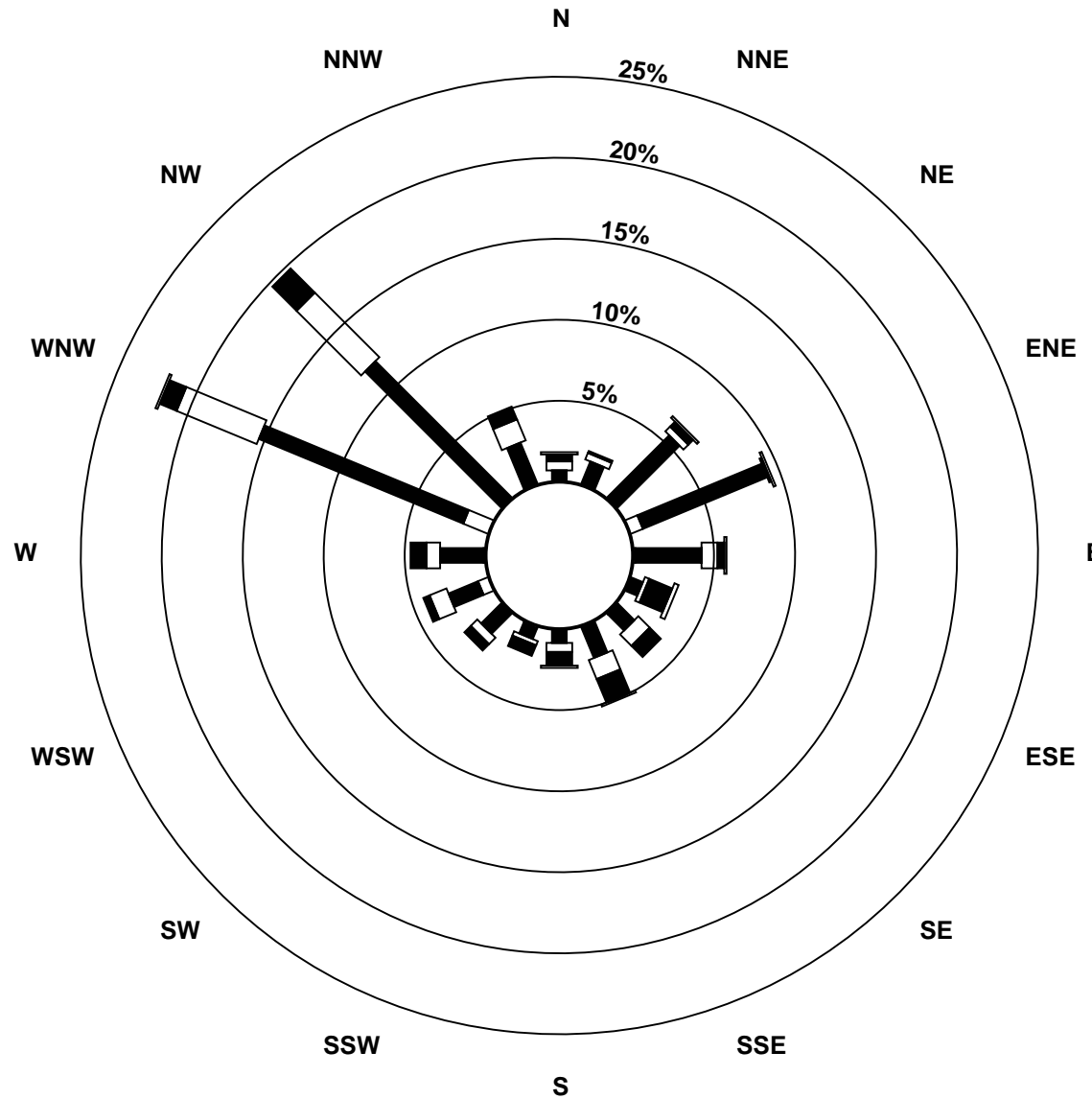


Maximum Value: 3.56 ppm on Jan 19 10:00		Maximum Daily Average: 1.23 ppm on Jan 11		Hours in Service: 744																																													
Minimum Value: 0.1 ppm on Jan 2 10:00		Minimum Daily Average: 0.20 ppm on Jan 2		Hours of Data: 710																																													
Maximum Diurnal Average: 0.84 ppm at hour 10		Minimum Diurnal Average: 0.31 ppm at hour 5		Hours of Missing Data: 34																																													
Monthly Average: 0.539 ppm		Percentiles: P <sub>1</sub> = 0.15 P <sub>10</sub> = 0.20 Q <sub>1</sub> = 0.25 Median = 0.40 Q <sub>3</sub> = 0.65 P <sub>90</sub> = 0.99 P <sub>99</sub> = 2.69		Hours of Calibration: 34																																													
				Percent Operational Time: 100.0																																													
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																									
1-Jan	0.4	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	A	0.2	0.2	0.2	0.2	0.22	0.39																							
2-Jan	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.3	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.20	0.31																							
3-Jan	0.3	0.2	0.3	0.2	0.2	A	0.2	0.2	0.2	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	1.0	0.8	0.6	0.4	0.4	0.3	0.3	0.34	1.04																							
4-Jan	0.2	0.2	0.2	0.4	A	0.3	0.4	0.4	0.6	0.6	0.8	0.6	0.5	0.3	0.3	0.4	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.41	0.83																							
5-Jan	0.3	0.4	0.4	A	0.3	0.3	0.3	0.8	0.6	0.4	0.3	0.9	0.7	0.4	0.4	0.6	0.9	0.8	0.6	0.8	0.3	0.5	0.3	0.3	0.50	0.88																							
6-Jan	0.3	0.3	A	0.2	0.2	0.3	0.3	0.5	0.6	0.4	0.3	0.4	0.5	0.4	0.5	1.5	0.7	0.7	0.8	0.6	0.6	0.9	0.6	0.5	0.53	1.48																							
7-Jan	0.3	A	0.3	0.3	0.3	0.3	0.4	0.4	0.8	0.7	0.8	0.7	0.8	0.7	0.7	0.8	0.8	1.1	1.1	1.0	0.9	0.6	0.5	0.4	0.64	1.11																							
8-Jan	A	0.5	0.4	0.3	0.4	0.4	0.4	0.5	0.5	0.9	0.7	0.8	0.7	0.4	0.6	0.6	1.8	2.4	2.1	1.0	0.5	0.4	0.8	A	0.79	2.37																							
9-Jan	0.9	0.9	0.9	0.7	0.5	0.5	1.4	0.9	1.8	1.1	1.2	1.4	1.1	1.3	1.3	0.9	1.2	1.5	0.9	0.7	0.7	0.7	A	0.7	1.01	1.76																							
10-Jan	0.5	1.2	0.6	0.7	0.6	0.6	0.7	1.1	1.1	0.8	0.4	0.3	0.5	0.5	0.3	0.4	0.5	0.4	0.7	0.4	0.5	A	0.3	0.3	0.58	1.25																							
11-Jan	0.3	0.4	0.2	0.2	0.2	0.2	0.3	0.5	1.6	2.8	2.4	3.1	1.4	1.1	1.2	2.0	1.4	1.7	3.3	3.2	A	0.2	0.2	0.2	1.23	3.30																							
12-Jan	0.2	0.2	0.2	0.2	0.3	0.4	0.9	0.4	0.4	1.8	0.2	0.3	0.3	0.7	0.4	0.3	0.4	0.8	0.7	A	0.4	0.4	0.2	0.2	0.46	1.83																							
13-Jan	0.2	0.2	0.2	0.2	0.2	0.2	1.2	0.4	0.3	0.2	0.3	0.3	0.3	0.4	0.4	0.5	0.6	1.2	0.9	0.5	0.3	0.3	0.3	0.4	0.42	1.16																							
14-Jan	0.3	0.3	0.3	0.3	0.3	A	1.1	1.1	1.1	0.8	C	C	C	0.8	0.5	0.6	1.5	1.4	1.2	0.8	0.9	0.9	1.1	2.1	0.87	2.09																							
15-Jan	0.4	0.4	0.7	0.7	0.8	A	1.3	2.0	3.3	3.1	2.2	1.3	1.3	0.8	0.8	0.9	0.4	0.5	0.5	0.2	0.2	0.2	0.2	0.2	0.98	3.31																							
16-Jan	0.2	0.2	0.2	0.1	A	0.2	0.2	0.2	0.2	0.2	0.7	0.2	0.5	0.3	0.5	0.4	0.5	0.5	1.4	1.1	1.0	0.5	0.3	0.6	0.45	1.37																							
17-Jan	0.3	0.3	0.3	A	0.2	0.2	0.4	0.9	0.5	0.4	0.2	0.3	0.4	0.7	0.6	2.0	0.5	0.4	0.7	0.5	0.8	0.9	0.4	0.3	0.54	1.99																							
18-Jan	0.8	0.4	0.4	0.3	0.2	A	0.4	1.4	0.8	0.5	0.5	1.6	0.8	0.7	0.5	0.6	0.6	0.7	0.8	0.9	1.0	0.8	1.0	1.0	0.72	1.58																							
19-Jan	0.9	0.8	0.7	0.7	A	0.5	1.5	2.0	2.7	3.6	0.6	0.5	0.5	0.5	0.7	0.9	0.8	1.7	1.5	1.3	1.1	1.1	0.9	0.6	1.14	3.56																							
20-Jan	0.5	0.5	0.5	A	0.3	0.7	1.2	0.5	0.9	0.9	0.9	0.7	0.5	0.6	0.5	0.4	0.5	0.6	0.6	0.8	0.6	0.4	0.4	0.4	0.60	1.23																							
21-Jan	0.3	0.3	A	0.3	0.2	0.2	0.3	0.3	1.3	0.5	0.5	0.5	0.6	0.5	0.4	0.6	0.5	0.4	0.4	0.4	0.5	0.5	0.5	0.4	0.46	1.31																							
22-Jan	0.4	0.3	0.4	0.3	0.3	A	0.3	0.4	1.0	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.40	1.02																							
23-Jan	0.3	0.3	0.3	0.3	A	0.2	0.2	0.3	0.4	0.4	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.4	0.2	0.2	0.3	0.2	0.2	0.2	0.25	0.35																							
24-Jan	0.2	0.3	0.2	A	0.3	0.3	0.3	0.3	0.7	0.6	0.4	0.3	0.3	0.2	0.2	0.3	0.4	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.29	0.71																							
25-Jan	0.2	0.2	A	0.2	0.2	0.5	0.4	0.3	0.5	0.4	0.2	0.4	0.5	0.2	0.2	0.4	0.3	0.2	0.4	0.2	0.3	0.3	0.2	0.2	0.29	0.49																							
26-Jan	0.2	A	0.2	0.2	0.3	0.3	0.5	0.5	0.5	0.4	0.3	0.3	0.3	0.2	0.3	0.2	0.4	0.8	1.1	0.5	0.4	0.5	0.3	0.3	0.38	1.09																							
27-Jan	A	0.2	0.2	0.2	0.2	0.2	0.3	0.6	0.5	0.5	0.4	0.3	0.4	0.6	0.5	0.5	0.5	0.6	0.4	0.5	0.4	0.5	0.7	A	0.42	0.66																							
28-Jan	0.3	0.3	0.4	0.3	0.3	0.4	0.4	0.6	0.9	0.7	0.9	0.7	0.6	0.5	0.3	0.4	0.9	1.0	0.8	1.5	0.7	0.9	A	0.4	0.61	1.52																							
29-Jan	0.5	0.5	0.5	0.5	0.5	0.4	0.7	0.4	0.5	0.7	0.3	0.3	0.3	0.3	0.4	0.3	0.4	0.5	0.3	0.3	0.3	A	0.3	0.2	0.41	0.73																							
30-Jan	0.2	0.2	0.3	0.2	0.2	0.4	0.3	0.3	0.2	0.4	0.4	0.5	0.3	0.5	0.5	0.3	0.2	0.2	0.3	0.2	A	0.2	0.2	0.2	0.30	0.54																							
31-Jan	0.2	0.2	0.2	0.2	0.2	0.4	0.4	0.2	0.2	0.8	0.2	0.6	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	A	0.3	0.6	0.6	0.5	0.32	0.79																						
																								0.35	0.36	0.35	0.32	0.31	0.34	0.55	0.62	0.81	0.84	0.59	0.62	0.52	0.49	0.47	0.58	0.60	0.75	0.78	0.70	0.51	0.49	0.42	0.42	Diurnal Average	
																								0.94	1.25	0.94	0.75	0.85	0.69	1.54	1.97	3.31	3.56	2.37	3.07	1.44	1.32	1.32	2.00	1.77	2.37	3.30	3.19	1.06	1.07	1.15	2.09	Diurnal Maximum	
C - Calibration																								A - Automated Daily Zero Span																									

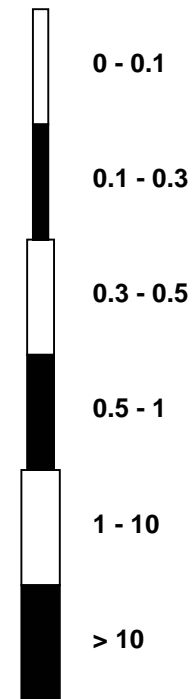


# Pollutant Rose

Carbon Monoxide (CO) - ppm  
Henry Pirker - January 2010



## Pollutant Classes (ppm)



# Eight Hour Running Averages

Carbon Monoxide (CO) - ppm

Henry Pirker - January 2010

Number of Exceedences (AAAQO): 8-hr: 0 Maximum Value: 1.28 ppm on Jan 11 21:00		Hours in Service: 744 Hours of Data: 737																								
Minimum Value: 0.12 ppm on Jan 2 12:00		Hours of Missing Data: 7 Hours of Calibration: 7																								
Percentiles: P <sub>1</sub> = 0.13 P <sub>10</sub> = 0.17 Q <sub>1</sub> = 0.20 Median = 0.31 Q <sub>3</sub> = 0.43 P <sub>90</sub> = 0.63 P <sub>99</sub> = 1.13		Percent Operational Time: 100.0																								
Day	Hourly Period Ending At (MST)																								Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-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	0.26	
2-Jan	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.19	
3-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	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.34	
4-Jan	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.36	
5-Jan	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	0.4	0.4	0.4	0.4	0.4	0.3	0.37	
6-Jan	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.4	0.49
7-Jan	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.6	0.6	0.6	0.66	
8-Jan	0.6	0.6	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.83	
9-Jan	0.8	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.8	0.8	0.9	0.9	0.9	1.0	0.9	0.9	0.8	0.8	0.7	0.7	0.97	
10-Jan	0.6	0.5	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.57	
11-Jan	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.5	0.7	0.8	0.9	1.0	1.1	1.1	1.1	1.1	1.1	1.2	1.3	1.2	1.1	1.0	1.28	
12-Jan	0.9	0.8	0.5	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.88	
13-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	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.42	
14-Jan	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.5	0.5	N	N	N	N	N	N	N	0.5	0.6	0.6	0.6	0.6	0.7	0.66	
15-Jan	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.9	1.2	1.2	1.2	1.2	1.2	1.1	1.1	0.8	0.6	0.5	0.4	0.4	0.3	0.3	0.2	1.25	
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	0.3	0.3	0.3	0.4	0.5	0.5	0.5	0.5	0.5	0.50	
17-Jan	0.5	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.46	
18-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	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.6	0.6	0.61	
19-Jan	0.6	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.8	0.9	0.9	0.8	0.8	0.8	0.8	0.6	0.6	0.6	0.7	0.8	0.8	0.8	0.8	0.92	
20-Jan	0.8	0.7	0.6	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.77	
21-Jan	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.38	
22-Jan	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.38	
23-Jan	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.34	
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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20	
25-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	
26-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	0.3	0.3	0.3	0.3	0.3	0.3	0.30	
27-Jan	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	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.38	
28-Jan	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.54	
29-Jan	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.52	
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	0.23	
31-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22	
0.88 0.75 0.68 0.68 0.68 0.65 0.62 0.62 0.86 1.16 1.22 1.22 1.25 1.17 1.14 1.14 1.14 1.06 1.12 1.23 1.28 1.20 1.08 0.98 Diurnal Maximums																										
N - Not Valid Alberta Ambient Air Quality Objectives (AAAQO): 8-hr 5 ppm																										

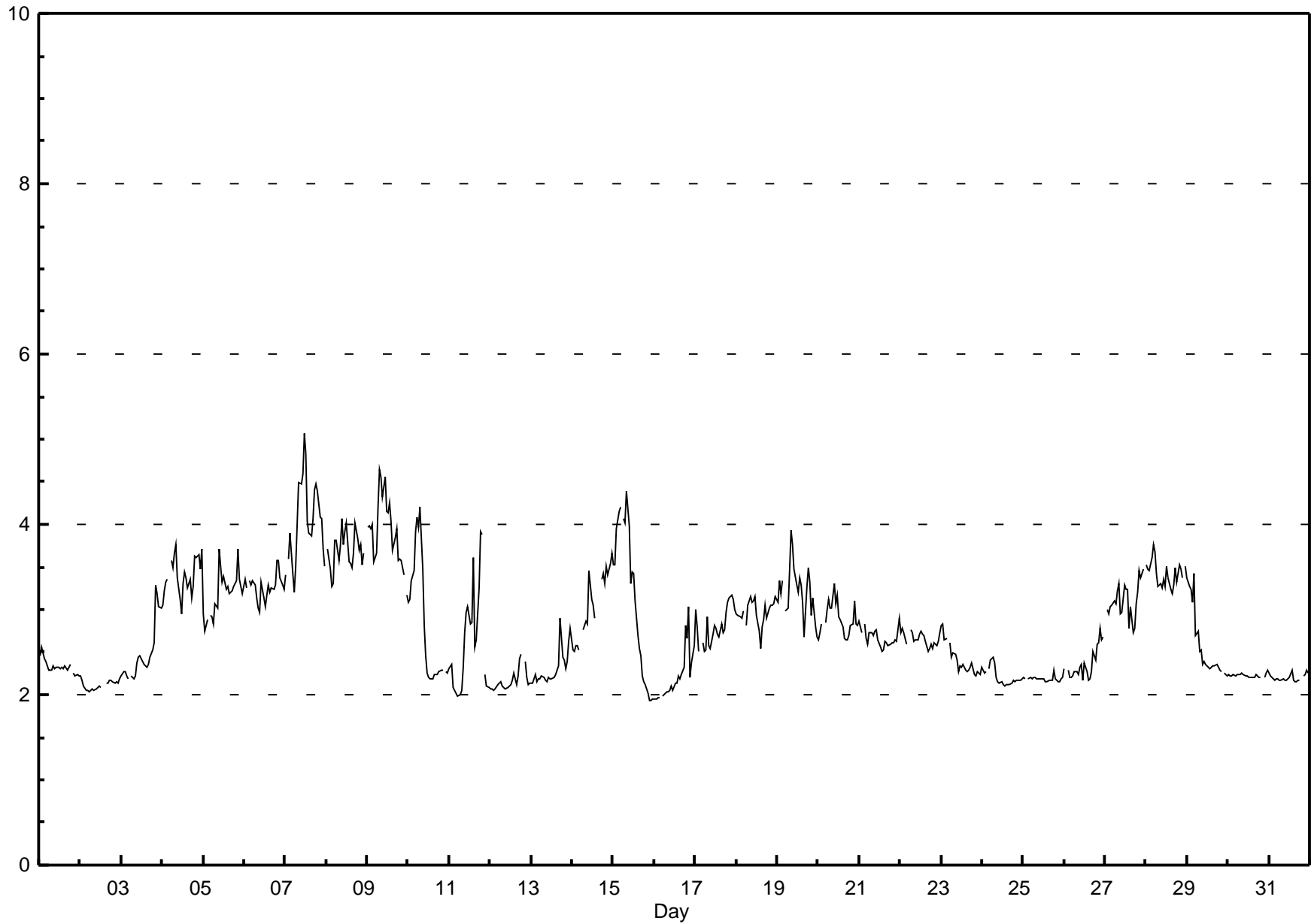


# Hourly Averages

## Total Hydrocarbons (THC) - ppm

### Henry Pirker - January 2010

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 5.06 ppm on Jan 7 12:00      Maximum Daily Average: 4.04 ppm on Jan 7																			Hours in Service: 744 Hours of Data: 708 Hours of Missing Data: 36 Hours of Calibration: 36 Percent Operational Time: 100.0																														
Minimum Value: 1.9 ppm on Jan 15 22:00      Minimum Daily Average: 2.11 ppm on Jan 2 Maximum Diurnal Average: 2.91 ppm at hour 20      Minimum Diurnal Average: 2.66 ppm at hour 16 Monthly Average: 2.791 ppm      Percentiles: P <sub>1</sub> = 1.99 P <sub>10</sub> = 2.15 Q <sub>1</sub> = 2.23 Median = 2.65 Q <sub>3</sub> = 3.26 P <sub>90</sub> = 3.65 P <sub>99</sub> = 4.45																																																	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum																							
	1	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	2.5	2.6	2.5	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4	A	2.3	2.2	2.2	2.2	2.33	2.56																							
2-Jan	2.2	2.2	2.1	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	C	A	2.1	2.1	2.2	2.2	2.2	2.1	2.2	2.1	2.2	2.11	2.23																						
3-Jan	2.2	2.3	2.3	2.2	2.2	A	2.2	2.2	2.2	2.4	2.4	2.4	2.4	2.4	2.3	2.3	2.3	2.4	2.5	2.6	3.3	3.2	3.0	3.0	2.47	3.29																							
4-Jan	3.0	3.2	3.3	3.4	A	3.6	3.5	3.7	3.8	3.4	3.1	3.0	3.3	3.4	3.4	3.2	3.3	3.1	3.3	3.6	3.6	3.7	3.5	3.7	3.40	3.77																							
5-Jan	3.0	2.8	2.9	A	2.9	2.9	2.8	3.1	3.0	3.7	3.5	3.3	3.4	3.2	3.3	3.2	3.2	3.2	3.3	3.3	3.7	3.4	3.3	3.2	3.20	3.71																							
6-Jan	3.4	3.3	A	3.3	3.3	3.3	3.3	3.1	3.0	3.0	3.3	3.1	3.0	3.2	3.3	3.2	3.3	3.2	3.3	3.6	3.6	3.4	3.3	3.2	3.26	3.58																							
7-Jan	3.4	A	3.6	3.9	3.4	3.2	3.5	4.0	4.5	4.5	4.6	5.1	4.8	4.0	3.9	3.9	4.1	4.4	4.5	4.4	4.1	4.1	3.7	3.5	4.04	5.06																							
8-Jan	A	3.7	3.5	3.3	3.3	3.8	3.8	3.6	3.8	4.1	3.8	3.9	4.0	3.6	3.5	3.5	3.7	4.0	3.8	3.7	3.8	3.5	3.7	A	3.69	4.06																							
9-Jan	4.0	4.0	3.9	4.0	3.6	3.7	4.2	4.6	4.6	4.3	4.6	4.2	4.1	4.2	4.0	3.7	3.8	3.9	3.6	3.6	3.6	3.4	A	3.2	3.95	4.64																							
10-Jan	3.1	3.1	3.3	3.5	3.9	4.1	4.0	4.2	3.5	2.8	2.5	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	A	2.3	2.3	2.82	4.20																							
11-Jan	2.3	2.4	2.1	2.0	2.0	2.0	2.0	2.1	2.3	2.7	3.0	3.0	2.8	2.9	3.6	2.6	2.6	3.2	3.9	3.9	A	2.2	2.1	2.1	2.60	3.92																							
12-Jan	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.2	2.4	2.5	A	2.4	2.2	2.1	2.1	2.16	2.48																							
13-Jan	2.1	2.1	2.2	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.9	2.4	2.4	2.3	2.4	2.6	2.8	2.30	2.90																							
14-Jan	2.5	2.5	2.6	2.6	2.5	A	2.8	2.8	2.9	2.8	3.5	3.1	3.1	2.9	C	C	C	3.4	3.4	3.3	3.5	3.4	3.5	3.7	3.04	3.66																							
15-Jan	3.5	3.5	4.0	4.2	4.2	A	4.1	4.0	4.4	4.0	3.3	3.4	3.4	3.1	2.7	2.5	2.5	2.2	2.1	2.1	2.0	1.9	1.9	2.0	3.09	4.39																							
16-Jan	1.9	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.2	2.2	2.2	2.3	2.8	2.7	3.0	2.2	2.4	2.6	2.22	3.04																							
17-Jan	3.0	2.8	2.5	A	2.6	2.5	2.5	2.9	2.6	2.5	2.7	2.8	2.8	2.7	2.7	2.8	2.7	2.8	3.0	3.1	3.1	3.2	3.1	3.0	2.80	3.18																							
18-Jan	2.9	2.9	2.9	2.9	3.0	A	2.8	3.1	3.1	3.1	3.1	2.9	2.7	2.5	2.8	2.9	3.0	2.9	3.0	3.1	3.1	3.1	3.1	3.1	2.97	3.15																							
19-Jan	3.1	3.3	3.2	3.3	A	3.0	3.0	3.5	3.9	3.8	3.5	3.3	3.2	3.4	3.3	3.1	2.7	3.3	3.5	3.3	2.9	3.1	2.8	2.7	3.22	3.93																							
20-Jan	2.7	2.7	2.8	A	2.8	3.0	3.1	3.0	3.0	3.3	3.1	3.2	2.9	2.9	2.8	2.7	2.6	2.6	2.7	2.8	2.8	3.1	2.8	2.8	2.89	3.30																							
21-Jan	2.9	2.7	A	2.8	2.7	2.6	2.7	2.7	2.7	2.8	2.8	2.6	2.6	2.5	2.5	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.9	2.67	2.89																							
22-Jan	2.7	2.8	2.7	2.7	2.6	A	2.8	2.7	2.6	2.6	2.6	2.6	2.7	2.7	2.7	2.6	2.5	2.5	2.6	2.5	2.6	2.6	2.6	2.7	2.66	2.77																							
23-Jan	2.8	2.8	2.6	2.7	A	2.6	2.4	2.5	2.5	2.4	2.3	2.3	2.3	2.4	2.3	2.3	2.3	2.3	2.4	2.2	2.2	2.3	2.3	2.2	2.41	2.84																							
24-Jan	2.3	2.3	2.3	A	2.3	2.4	2.4	2.4	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.21	2.45																							
25-Jan	2.2	2.2	A	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.2	2.3	2.2	2.2	2.2	2.2	2.2	2.19	2.30																							
26-Jan	2.3	A	2.3	2.2	2.2	2.2	2.3	2.3	2.2	2.3	2.4	2.2	2.4	2.3	2.2	2.2	2.3	2.5	2.4	2.6	2.6	2.8	2.7	2.7	2.36	2.77																							
27-Jan	A	3.0	3.0	3.0	3.0	3.1	3.1	3.2	3.3	3.0	3.0	3.3	3.2	3.2	2.8	3.0	2.7	2.8	3.1	3.2	3.5	3.4	3.5	A	3.10	3.47																							
28-Jan	3.5	3.5	3.5	3.6	3.8	3.7	3.4	3.3	3.3	3.3	3.4	3.3	3.5	3.4	3.2	3.2	3.3	3.5	3.3	3.5	3.5	3.4	A	3.5	3.42	3.77																							
29-Jan	3.4	3.3	3.2	3.1	3.4	2.7	2.8	2.5	2.5	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.3	2.3	2.3	A	2.3	2.2	2.58	3.42																							
30-Jan	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	A	2.2	2.3	2.3	2.23	2.29																							
31-Jan	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.2	2.2	2.2	2.2	A	2.2	2.3	2.3	2.20	2.29																							
																								2.74	2.77	2.77	2.81	2.78	2.75	2.80	2.86	2.88	2.85	2.84	2.82	2.81	2.77	2.73	2.66	2.66	2.79	2.83	2.91	2.87	2.81	2.70	2.71	Diurnal Average	
																								3.97	3.99	3.96	4.15	4.21	4.08	4.21	4.64	4.56	4.47	4.59	5.06	4.83	4.25	4.03	3.87	4.07	4.41	4.47	4.40	4.09	4.06	3.71	3.72	Diurnal Maximum	
C - Calibration																								A - Automated Daily Zero Span																									

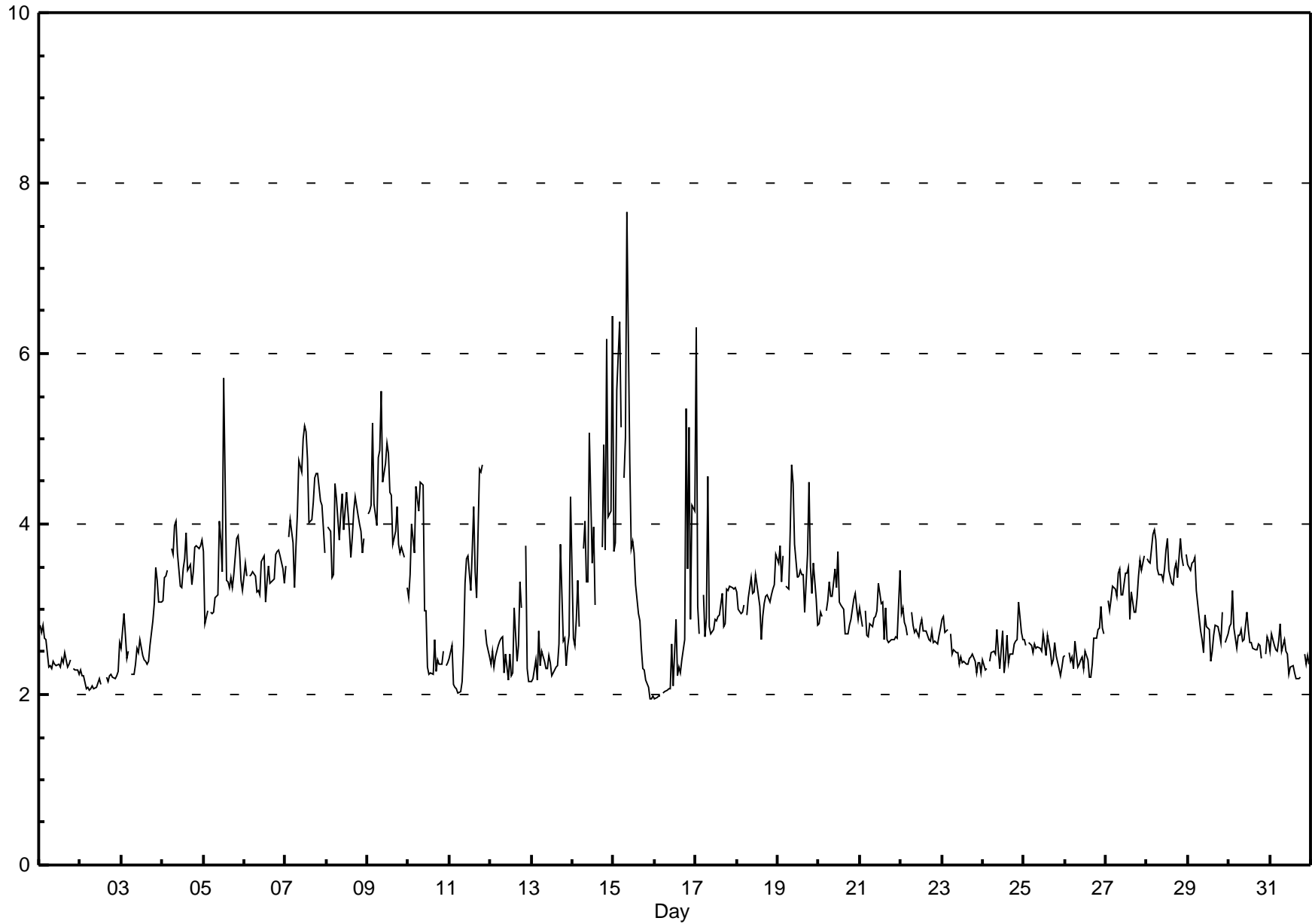


# Hourly Maximums

## Total Hydrocarbons (THC) - ppm

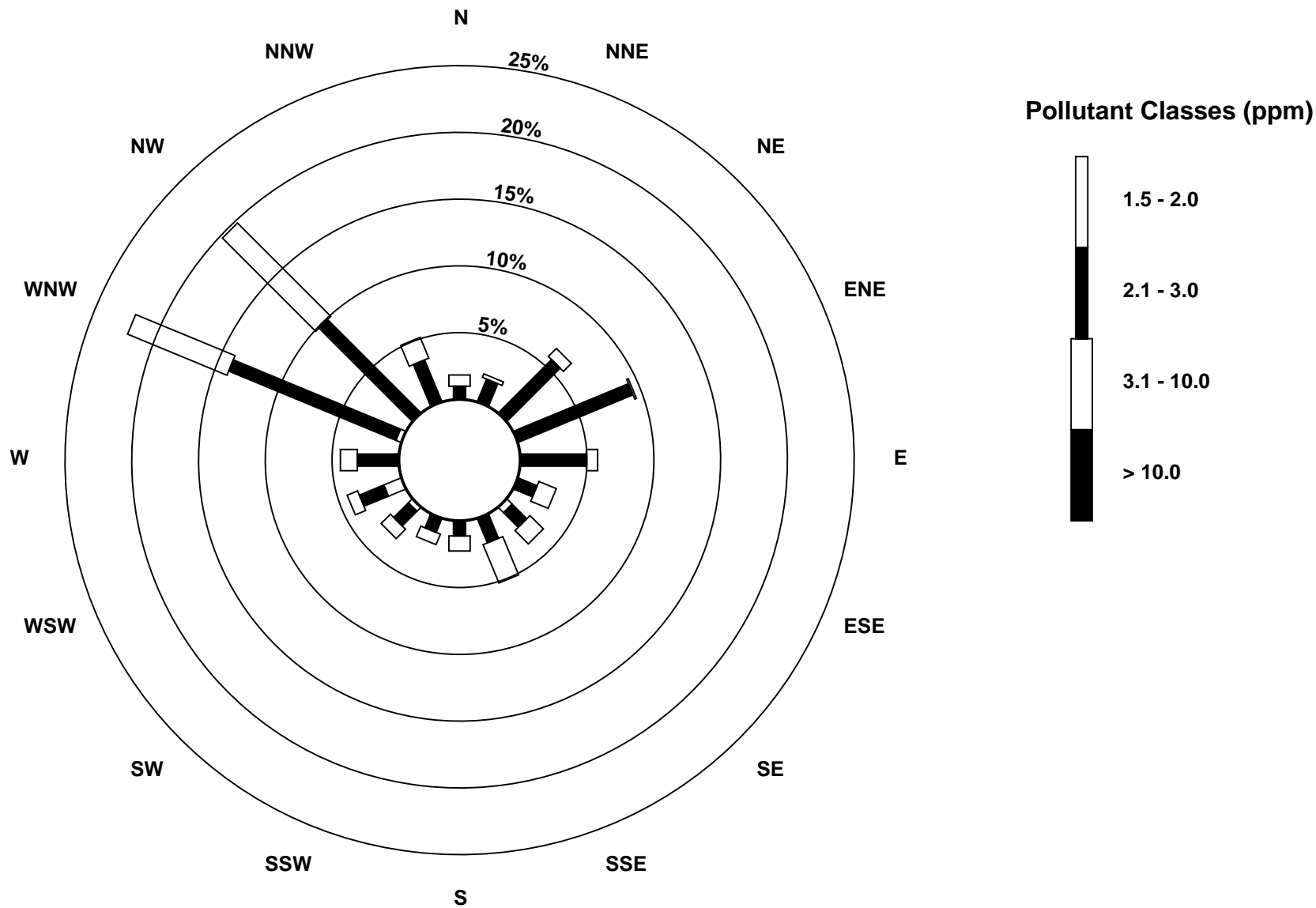
### Henry Pirker - January 2010

Maximum Value: 7.66 ppm on Jan 15 09:00		Maximum Daily Average: 4.29 ppm on Jan 9		Hours in Service: 744																							
Minimum Value: 2.0 ppm on Jan 16 01:00		Minimum Daily Average: 2.18 ppm on Jan 2		Hours of Data: 708																							
Maximum Diurnal Average: 3.25 ppm at hour 9		Minimum Diurnal Average: 2.84 ppm at hour 17		Hours of Missing Data: 36																							
Monthly Average: 3.064 ppm		Percentiles: P <sub>1</sub> = 2.01 P <sub>10</sub> = 2.27 Q <sub>1</sub> = 2.48 Median = 2.88 Q <sub>3</sub> = 3.48 P <sub>90</sub> = 4.05 P <sub>99</sub> = 5.48		Hours of Calibration: 36																							
				Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jan	2.8	2.7	2.8	2.7	2.6	2.3	2.3	2.3	2.4	2.4	2.3	2.4	2.3	2.4	2.4	2.5	2.3	2.4	2.4	A	2.3	2.3	2.3	2.2	2.43	2.81	
2-Jan	2.3	2.2	2.2	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.2	2.1	C	A	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.6	2.18	2.60	
3-Jan	2.5	3.0	2.7	2.4	2.5	A	2.2	2.2	2.4	2.5	2.5	2.7	2.5	2.4	2.4	2.4	2.4	2.6	2.9	3.1	3.5	3.3	3.1	3.1	2.66	3.49	
4-Jan	3.1	3.4	3.4	3.5	A	3.7	3.6	4.0	4.0	3.7	3.3	3.2	3.5	3.6	3.9	3.5	3.5	3.3	3.4	3.7	3.7	3.7	3.7	3.8	3.58	4.04	
5-Jan	3.7	2.8	3.0	A	3.0	2.9	3.0	3.1	3.2	4.0	3.8	3.4	5.7	3.3	3.3	3.3	3.4	3.3	3.4	3.8	3.9	3.7	3.3	3.2	3.46	5.72	
6-Jan	3.5	3.4	A	3.4	3.4	3.4	3.4	3.2	3.2	3.2	3.6	3.6	3.1	3.3	3.5	3.3	3.3	3.4	3.6	3.7	3.7	3.6	3.5	3.3	3.42	3.70	
7-Jan	3.5	A	3.9	4.1	3.8	3.3	3.7	4.1	4.7	4.6	5.0	5.1	5.1	4.8	4.0	4.1	4.2	4.5	4.6	4.6	4.3	4.2	3.9	3.7	4.25	5.15	
8-Jan	A	4.0	3.9	3.4	3.4	4.5	4.3	3.8	4.1	4.4	3.9	4.1	4.4	3.9	3.6	3.8	4.1	4.3	4.1	4.0	3.9	3.7	3.8	A	3.98	4.47	
9-Jan	4.1	4.2	4.2	5.2	4.2	4.0	4.8	4.9	5.6	4.5	4.7	5.0	4.8	4.4	4.3	3.8	3.9	4.2	3.8	3.7	3.7	3.6	A	3.2	4.29	5.55	
10-Jan	3.1	3.4	4.0	3.7	4.4	4.3	4.1	4.5	4.5	3.0	3.0	2.3	2.2	2.3	2.2	2.6	2.3	2.4	2.4	2.4	2.5	A	2.3	2.4	3.06	4.48	
11-Jan	2.4	2.6	2.1	2.1	2.1	2.0	2.0	2.1	2.6	3.3	3.6	3.6	3.2	3.7	4.2	3.4	3.1	4.6	4.6	4.7	A	2.8	2.6	2.4	3.04	4.70	
12-Jan	2.3	2.5	2.3	2.4	2.6	2.6	2.7	2.7	2.3	2.5	2.2	2.5	2.2	2.3	3.0	2.4	2.6	3.3	3.0	A	3.7	2.3	2.1	2.2	2.55	3.75	
13-Jan	2.1	2.2	2.4	2.2	2.7	2.3	2.5	2.4	2.3	2.3	2.5	2.4	2.2	2.3	2.3	2.3	2.6	3.8	2.6	2.7	2.3	2.6	2.7	4.3	2.55	4.33	
14-Jan	2.7	2.6	2.9	3.3	2.8	A	3.7	4.0	3.3	3.3	5.1	3.6	4.0	3.1	C	C	C	3.7	4.9	3.7	6.2	4.1	4.1	6.4	3.88	6.44	
15-Jan	3.7	3.8	5.6	6.4	5.1	A	4.5	5.0	7.7	4.7	3.7	3.8	3.7	3.3	3.0	2.9	2.5	2.3	2.3	2.2	2.1	2.0	2.0	2.0	3.65	7.66	
16-Jan	2.0	2.0	2.0	2.0	A	2.0	2.0	2.1	2.1	2.1	2.6	2.1	2.9	2.2	2.3	2.3	2.4	2.6	5.4	3.5	5.1	2.9	4.2	4.1	2.73	5.35	
17-Jan	6.3	3.0	2.7	A	3.2	2.7	2.9	4.6	2.8	2.7	2.8	2.9	2.9	2.9	2.9	3.2	2.8	2.8	3.2	3.2	3.3	3.3	3.2	3.3	3.20	6.31	
18-Jan	3.2	3.0	2.9	3.0	3.1	A	2.9	3.1	3.4	3.2	3.4	3.3	3.0	2.6	2.9	3.1	3.1	3.2	3.1	3.2	3.1	3.2	3.2	3.3	3.6	3.14	3.65
19-Jan	3.5	3.7	3.3	3.6	A	3.3	3.2	3.9	4.7	4.5	3.8	3.4	3.4	3.5	3.4	3.4	3.0	3.7	4.5	3.5	3.2	3.5	3.1	2.8	3.56	4.69	
20-Jan	2.8	3.0	2.9	A	3.0	3.1	3.3	3.1	3.1	3.5	3.3	3.7	3.1	3.1	3.0	2.7	2.7	2.7	2.8	2.9	3.1	3.2	3.0	2.9	3.04	3.68	
21-Jan	3.0	2.8	A	3.0	2.7	2.7	2.8	2.8	2.9	2.9	3.0	3.3	3.1	3.1	2.6	3.0	2.6	2.6	2.6	2.6	2.6	2.7	2.7	3.5	2.86	3.45	
22-Jan	2.9	3.0	2.9	2.8	2.7	A	3.0	2.8	2.7	2.8	2.7	2.8	2.9	2.8	2.8	2.7	2.7	2.6	2.7	2.6	2.6	2.6	2.7	2.8	2.76	3.02	
23-Jan	2.9	2.9	2.7	2.8	A	2.7	2.5	2.5	2.5	2.5	2.4	2.4	2.4	2.4	2.4	2.3	2.4	2.4	2.5	2.4	2.3	2.4	2.4	2.3	2.49	2.92	
24-Jan	2.4	2.3	2.3	A	2.4	2.5	2.5	2.5	2.8	2.5	2.3	2.8	2.3	2.4	2.7	2.4	2.5	2.5	2.6	2.6	2.6	3.1	2.7	2.6	2.53	3.09	
25-Jan	2.6	2.6	A	2.6	2.6	2.5	2.6	2.5	2.6	2.5	2.5	2.7	2.6	2.5	2.7	2.5	2.4	2.4	2.6	2.5	2.3	2.2	2.3	2.4	2.51	2.71	
26-Jan	2.5	A	2.5	2.4	2.4	2.3	2.6	2.3	2.4	2.4	2.4	2.3	2.5	2.4	2.2	2.2	2.4	2.7	2.7	2.8	2.8	3.0	2.8	2.7	2.50	3.03	
27-Jan	A	3.1	3.0	3.1	3.3	3.2	3.2	3.4	3.5	3.2	3.2	3.4	3.4	3.5	2.9	3.2	3.0	3.0	3.1	3.4	3.6	3.4	3.6	A	3.26	3.63	
28-Jan	3.6	3.6	3.5	3.9	3.9	3.8	3.5	3.4	3.4	3.3	3.5	3.7	3.8	3.5	3.3	3.3	3.5	3.5	3.4	3.8	3.6	3.5	A	3.6	3.57	3.93	
29-Jan	3.5	3.5	3.5	3.6	3.6	3.2	2.9	2.7	2.6	2.5	2.9	2.8	2.8	2.4	2.5	2.7	2.8	2.8	2.7	2.6	3.0	A	2.6	2.7	2.91	3.60	
30-Jan	2.8	2.8	3.2	2.8	2.5	2.7	2.7	2.8	2.6	2.6	3.0	2.8	2.6	2.6	2.5	2.5	2.5	2.6	2.6	2.4	A	2.5	2.7	2.6	2.67	3.22	
31-Jan	2.5	2.7	2.6	2.5	2.5	2.6	2.8	2.5	2.6	2.5	2.5	2.2	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	A	2.5	2.4	2.4	2.44	2.83	
		3.05	2.99	3.05	3.14	3.06	2.95	3.05	3.15	3.25	3.10	3.13	3.12	3.13	2.98	2.94	2.87	2.84	3.05	3.20	3.15	3.23	3.03	2.96	3.08	Diurnal Average	
		6.31	4.15	5.57	6.38	5.13	4.47	4.78	5.02	7.66	4.73	5.07	5.15	5.72	4.76	4.35	4.06	4.25	4.65	5.35	4.70	6.16	4.22	4.22	6.44	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									



# Pollutant Rose

Total Hydrocarbons (THC) - ppm  
Henry Pirker - January 2010

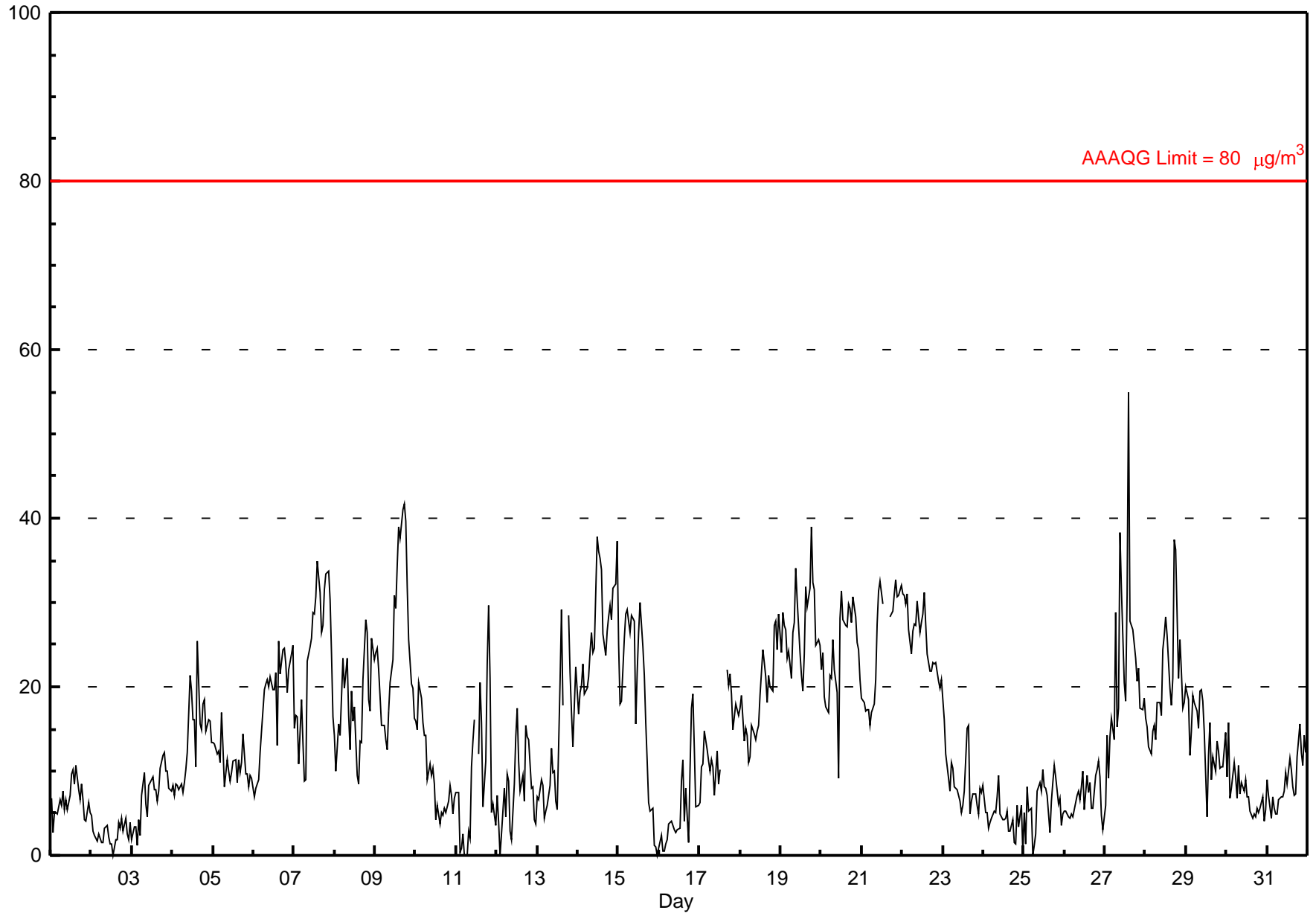


# Hourly Averages

## Particulate Matter 2.5 (PM<sub>2.5</sub>) - µg/m<sup>3</sup>

### Henry Pirker - January 2010

Number of Exceedences: 1-hr: 0 24-hr: 0 Maximum Value: 54.9 µg/m <sup>3</sup> on Jan 27 15:00 Minimum Value: 0 µg/m <sup>3</sup> on Jan 2 14:00 Maximum Diurnal Average: 18.5 µg/m <sup>3</sup> at hour 19 Monthly Average: 14.50 µg/m <sup>3</sup>		Maximum Daily Average: 27.2 µg/m <sup>3</sup> on Jan 19 Minimum Daily Average: 2.6 µg/m <sup>3</sup> on Jan 2 Minimum Diurnal Average: 11.5 µg/m <sup>3</sup> at hour 3 Percentiles: P <sub>1</sub> = 0.4 P <sub>10</sub> = 4.0 Q <sub>1</sub> = 6.9 Median = 12.4 Q <sub>3</sub> = 21.1 P <sub>90</sub> = 28.2 P <sub>99</sub> = 37.9		Hours in Service: 744 Hours of Data: 734 Hours of Missing Data: 10 Hours of Calibration: 7 Percent Operational Time: 99.6																							
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	7	3	5	5	5	7	6	8	5	7	5	7	10	10	8	11	8	7	8	7	4	4	6	5	6.6	10.7	
2-Jan	5	3	2	2	3	2	1	2	3	3	2	1	1	0	2	2	4	3	4	3	4	3	2	4	2.6	4.8	
3-Jan	2	3	3	1	4	2	7	10	6	5	8	9	9	8	8	6	8	10	12	12	10	10	8	8	7.1	12.3	
4-Jan	8	7	8	8	8	8	8	9	10	12	21	19	16	16	11	25	16	15	18	18	15	16	16	13	13.5	25.4	
5-Jan	13	13	12	12	11	17	13	8	11	10	9	10	11	11	9	11	10	11	14	10	10	8	9	9	11.0	16.9	
6-Jan	7	8	9	9	12	15	20	20	21	20	21	20	20	22	13	25	21	24	25	23	19	22	24	25	18.5	25.4	
7-Jan	15	17	16	11	19	13	9	9	23	25	26	29	29	31	35	31	26	27	32	33	34	30	24	16	23.3	35.0	
8-Jan	14	10	16	14	19	23	20	23	17	13	20	16	18	10	8	14	13	21	28	26	19	17	26	23	17.8	27.9	
9-Jan	24	24	22	19	15	15	14	13	17	21	23	31	29	34	39	38	41	42	40	32	26	20	20	16	25.6	41.8	
10-Jan	16	15	21	19	16	14	14	9	11	9	10	9	4	6	4	5	5	6	5	6	8	7	5	7	9.6	20.5	
11-Jan	8	7	0	1	2	0	0	3	2	11	14	16	BD	12	21	16	6	11	23	30	21	5	6	4	9.5	29.7	
12-Jan	7	4	0	2	8	5	10	9	3	2	8	14	18	11	8	10	6	15	14	14	8	8	4	4	8.0	17.5	
13-Jan	7	7	9	8	4	5	6	8	13	10	10	6	5	21	29	18	M	M	28	22	17	13	18	22	13.0	29.2	
14-Jan	17	19	20	23	19	20	21	24	26	24	25	38	36	35	34	26	24	27	28	30	28	32	32	37	26.9	37.9	
15-Jan	25	18	18	26	29	29	28	26	28	28	16	22	26	30	25	21	16	11	6	5	6	1	1	0	18.4	29.9	
16-Jan	1	2	1	0	1	2	4	4	4	3	3	3	3	9	11	4	8	2	10	17	19	13	6	6	5.6	19.1	
17-Jan	6	10	11	15	12	11	10	11	11	7	12	9	10	C	C	C	22	20	21	19	15	18	17	17	13.6	22.0	
18-Jan	18	19	13	15	14	11	12	15	14	15	15	19	24	23	21	18	21	20	19	27	28	24	29	29	18.8	28.7	
19-Jan	24	29	27	27	23	24	21	26	28	34	30	24	21	19	24	32	29	32	39	32	32	25	26	25	27.2	38.9	
20-Jan	22	24	19	18	17	21	21	26	22	19	9	28	31	28	27	27	30	29	28	31	28	25	24	21	24.0	31.3	
21-Jan	19	18	17	17	17	15	17	18	21	27	31	32	30	C	C	C	C	28	29	31	33	31	31	32	24.8	32.7	
22-Jan	31	31	30	31	27	24	27	27	27	30	27	28	29	31	28	24	22	22	23	23	23	21	20	21	26.0	31.2	
23-Jan	18	16	12	9	8	11	10	8	8	7	6	5	6	8	15	15	5	6	7	7	6	5	8	8	9.0	18.4	
24-Jan	8	5	5	3	4	4	5	5	7	10	5	4	4	4	5	3	3	4	1	1	6	3	6	0	4.5	9.6	
25-Jan	5	1	8	5	6	0	1	3	8	9	8	10	8	8	7	3	6	9	11	9	6	7	3	5	6.0	10.6	
26-Jan	5	5	5	4	5	4	5	7	8	7	8	10	5	9	7	9	6	6	9	10	11	9	5	3	6.8	11.2	
27-Jan	6	14	9	14	16	14	29	15	17	38	32	21	18	31	55	28	27	25	23	21	22	17	17	19	22.0	54.9	
28-Jan	16	15	13	12	15	15	14	18	18	17	24	26	28	26	20	18	21	38	36	21	26	22	17	18	20.6	37.5	
29-Jan	20	18	12	15	19	18	17	15	20	20	18	15	5	12	16	9	12	10	14	12	10	11	10	15	14.2	20.0	
30-Jan	9	16	7	8	11	9	7	11	7	9	8	9	7	7	5	4	5	5	6	5	6	7	4	5	7.3	15.8	
31-Jan	9	7	4	7	6	5	5	7	7	7	8	10	9	12	10	8	7	7	12	16	12	11	14	12	8.8	15.5	
		12.7	12.6	11.5	11.7	12.1	11.8	12.3	12.8	13.6	14.7	14.9	16.0	15.5	16.7	17.5	16.0	14.6	16.5	18.5	17.6	16.4	14.5	14.0	13.8	Diurnal Average	
		31.1	30.8	29.8	31.1	28.6	29.2	28.9	27.5	28.5	38.4	31.7	37.9	36.2	35.3	54.9	37.6	41.0	41.8	39.6	33.4	33.8	31.7	32.2	37.4	Diurnal Maximum	
C - Calibration		M - Maintenance					BD - Baseline Drift																				
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 µg/m <sup>3</sup>		Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 µg/m <sup>3</sup>																									



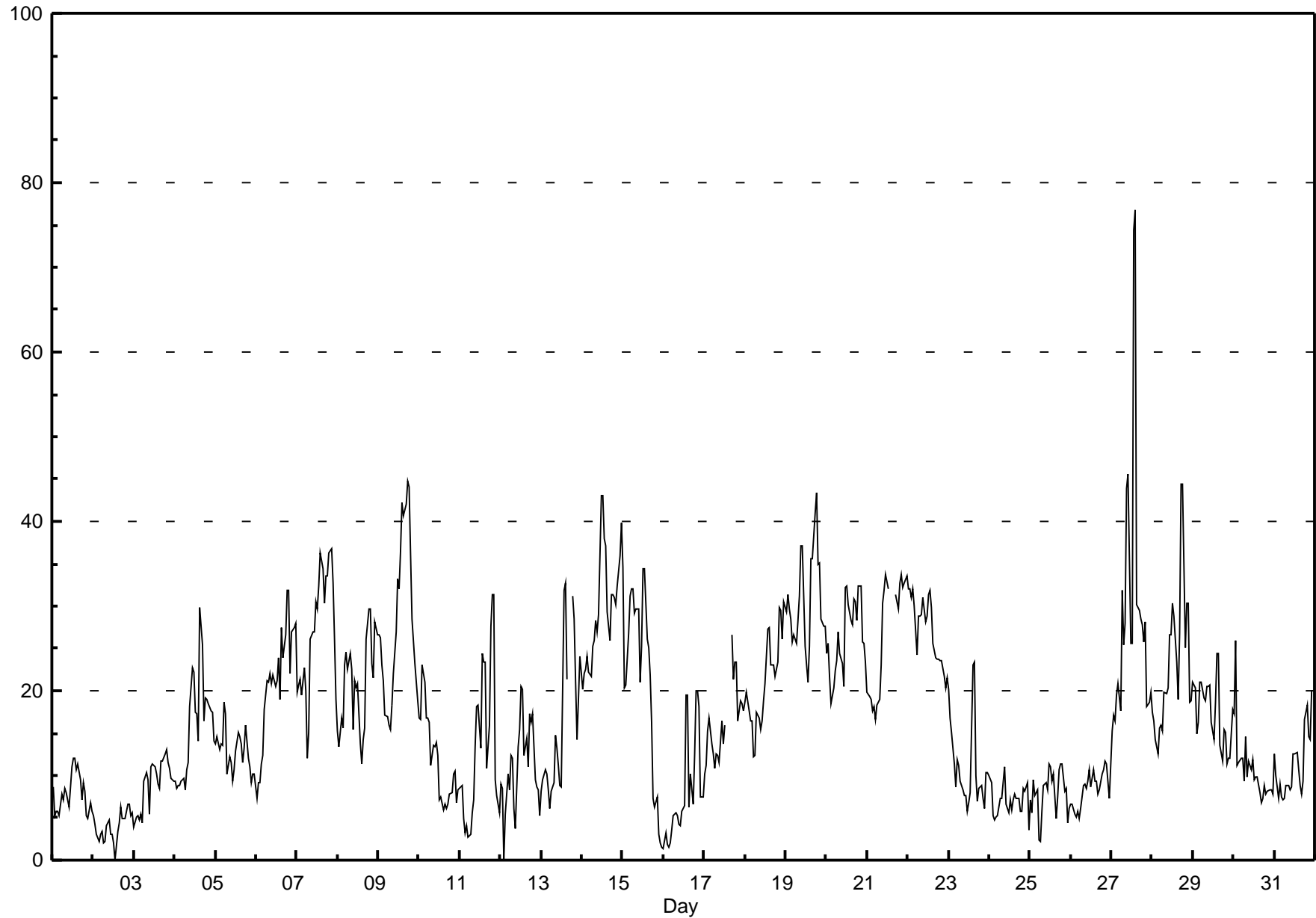
# Hourly Maximums

# Particulate Matter 2.5 (PM<sub>2.5</sub>) - µg/m<sup>3</sup>

## Henry Pirker - January 2010

Maximum Value: 76.8 µg/m <sup>3</sup> on Jan 27 15:00		Maximum Daily Average: 30.6 µg/m <sup>3</sup> on Jan 19		Hours in Service: 744																						
Minimum Value: 0 µg/m <sup>3</sup> on Jan 2 14:00		Minimum Daily Average: 4.0 µg/m <sup>3</sup> on Jan 2		Hours of Data: 735																						
Maximum Diurnal Average: 21.6 µg/m <sup>3</sup> at hour 14		Minimum Diurnal Average: 13.6 µg/m <sup>3</sup> at hour 4		Hours of Missing Data: 9																						
Monthly Average: 17.13 µg/m <sup>3</sup>		Percentiles: P <sub>1</sub> = 2.0 P <sub>10</sub> = 5.7 Q <sub>1</sub> = 8.9 Median = 15.5 Q <sub>3</sub> = 24.1 P <sub>90</sub> = 31.2 P <sub>99</sub> = 43.9		Hours of Calibration: 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	9	5	6	6	5	8	7	9	8	7	6	11	12	12	11	11	9	7	9	8	5	5	7	6	7.9	12.0
2-Jan	5	4	3	2	3	3	2	2	4	5	3	3	2	0	3	4	6	5	5	5	7	7	5	6	4.0	6.7
3-Jan	4	5	5	5	5	4	9	10	9	5	11	11	11	10	9	9	12	12	13	13	11	11	10	9	8.9	13.1
4-Jan	9	9	9	9	9	10	8	11	12	18	23	22	17	17	14	30	25	16	19	19	18	18	17	14	15.6	29.8
5-Jan	14	15	13	14	14	19	17	10	12	12	9	11	13	15	15	14	11	13	16	12	11	9	10	10	12.8	18.7
6-Jan	7	9	9	11	12	18	21	21	22	21	22	21	21	24	19	28	24	27	32	32	22	27	27	28	21.0	31.8
7-Jan	20	21	21	19	23	20	12	15	26	27	27	31	30	32	36	34	30	34	34	36	37	33	26	19	26.8	36.7
8-Jan	15	13	17	16	23	25	22	24	22	16	21	20	21	14	11	14	16	26	30	30	23	22	28	27	20.7	29.7
9-Jan	27	26	23	21	17	17	16	15	18	22	27	33	32	36	42	41	42	45	44	36	29	23	21	19	28.0	44.7
10-Jan	17	17	23	21	17	17	16	11	14	13	14	12	7	7	6	7	6	7	8	8	10	10	7	8	11.8	23.1
11-Jan	9	9	5	3	4	3	3	6	7	13	18	18	13	24	23	23	11	16	28	31	31	9	8	6	13.4	31.3
12-Jan	9	9	0	5	10	8	12	12	6	4	13	15	21	20	12	14	11	17	16	17	9	9	8	5	11.1	20.6
13-Jan	8	9	11	10	8	6	8	9	15	13	11	9	9	32	33	21	M	M	31	28	21	14	19	24	15.9	32.7
14-Jan	20	22	22	24	22	22	25	26	28	27	29	43	43	38	37	29	26	31	31	31	30	32	36	40	29.8	43.1
15-Jan	35	20	21	27	31	32	32	29	30	30	21	25	34	34	26	25	22	16	7	6	7	3	2	2	21.6	34.5
16-Jan	1	3	2	2	2	3	5	6	5	4	4	6	6	19	19	6	10	7	13	20	20	18	8	8	8.2	20.0
17-Jan	10	11	15	17	14	13	11	13	12	11	16	14	16	C	C	C	27	21	23	23	16	19	18	18	16.2	26.7
18-Jan	19	20	18	16	16	12	12	17	17	15	16	19	21	27	27	23	23	23	22	23	30	29	26	30	21.0	30.5
19-Jan	29	31	30	29	26	27	26	28	31	37	37	25	23	21	25	36	36	41	43	35	35	29	28	28	30.6	43.3
20-Jan	24	26	22	19	20	22	24	27	24	23	21	32	32	30	28	28	31	30	28	32	32	26	26	23	26.3	32.4
21-Jan	20	19	19	18	18	17	18	19	23	30	32	34	32	C	C	C	C	31	30	33	34	32	33	34	26.3	33.8
22-Jan	32	32	31	32	30	24	29	29	29	31	28	29	31	32	30	26	24	24	24	24	24	22	20	22	27.4	32.1
23-Jan	20	17	15	11	9	12	11	9	8	8	8	6	7	8	23	23	10	7	9	9	7	6	10	10	11.0	23.3
24-Jan	10	9	5	5	5	5	7	7	9	11	7	6	7	6	7	8	7	7	6	6	9	8	9	4	7.1	11.0
25-Jan	7	6	9	8	8	2	2	6	9	9	8	11	11	9	10	5	7	11	11	11	8	9	4	6	7.9	11.3
26-Jan	7	7	5	5	6	5	6	9	9	9	9	11	9	11	9	9	8	8	10	11	12	11	9	7	8.4	11.7
27-Jan	15	17	16	19	21	18	32	25	28	44	46	26	26	74	77	30	29	28	28	26	28	18	19	20	29.6	76.8
28-Jan	17	16	14	13	16	16	15	20	20	20	27	27	30	29	23	19	27	44	44	25	30	30	19	19	23.4	44.5
29-Jan	21	20	15	16	21	21	19	19	21	21	16	14	19	24	24	14	12	16	15	11	12	12	18	18	17.6	24.5
30-Jan	17	26	11	11	12	12	9	15	10	12	11	12	9	10	10	8	7	7	9	8	8	8	8	8	10.8	25.9
31-Jan	13	10	7	9	8	7	7	9	9	8	9	13	13	13	11	9	8	9	17	18	15	14	20	20	11.4	20.0
		15.2	15.0	13.7	13.6	14.1	13.8	14.4	15.1	16.1	17.0	17.9	18.4	18.5	21.6	21.5	19.3	17.9	19.5	21.1	20.4	19.1	16.9	16.2	16.0	Diurnal Average
		34.5	32.1	30.9	32.1	31.2	32.1	32.0	29.1	31.2	43.8	45.5	43.1	43.1	74.4	76.8	40.6	42.0	44.7	44.5	36.2	36.7	32.8	36.0	39.8	Diurnal Maximum
C - Calibration		M - Maintenance																								

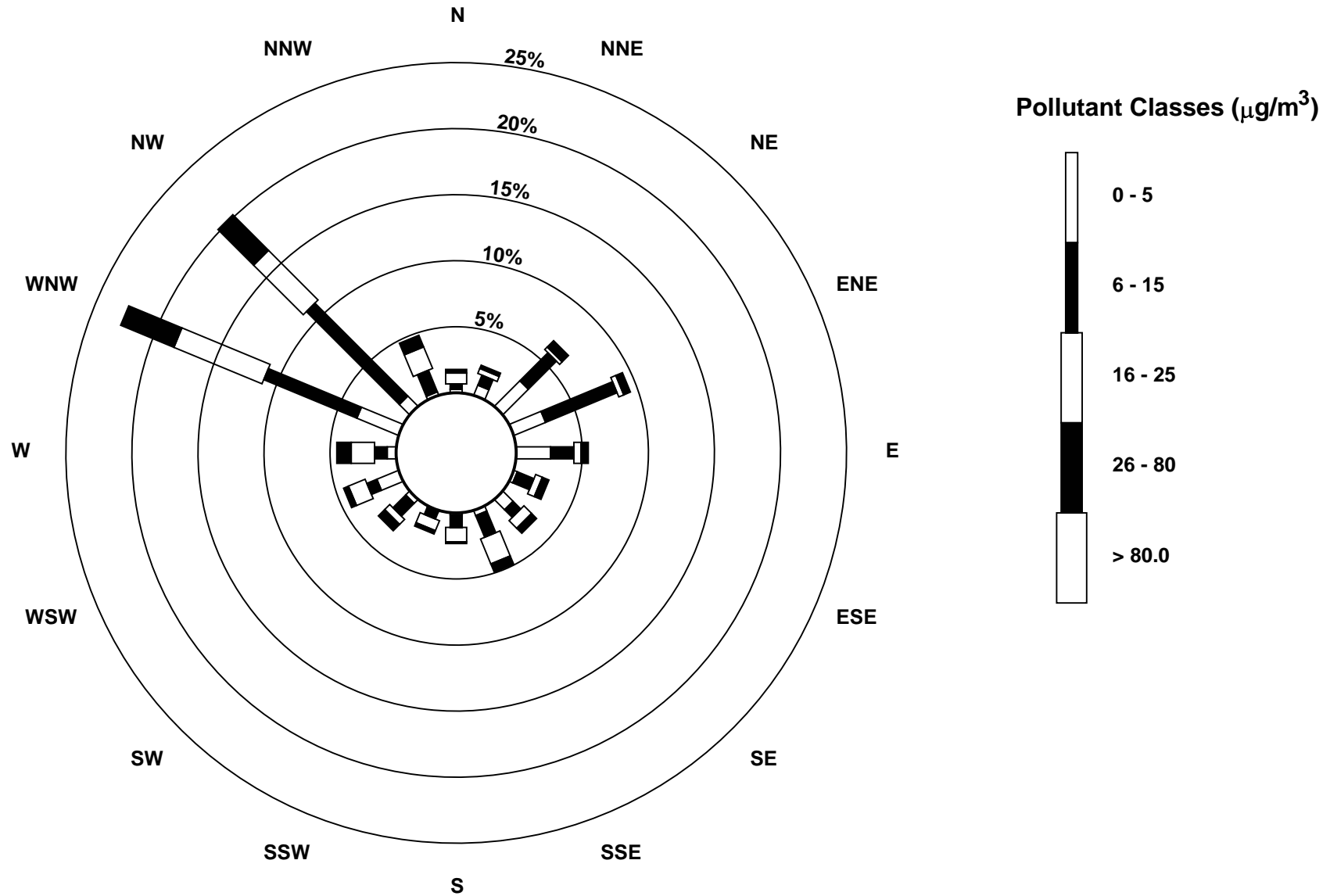




### Pollutant Rose

Particulate Matter 2.5 (PM<sub>2.5</sub>) - μg/m<sup>3</sup>

Henry Pirker - January 2010

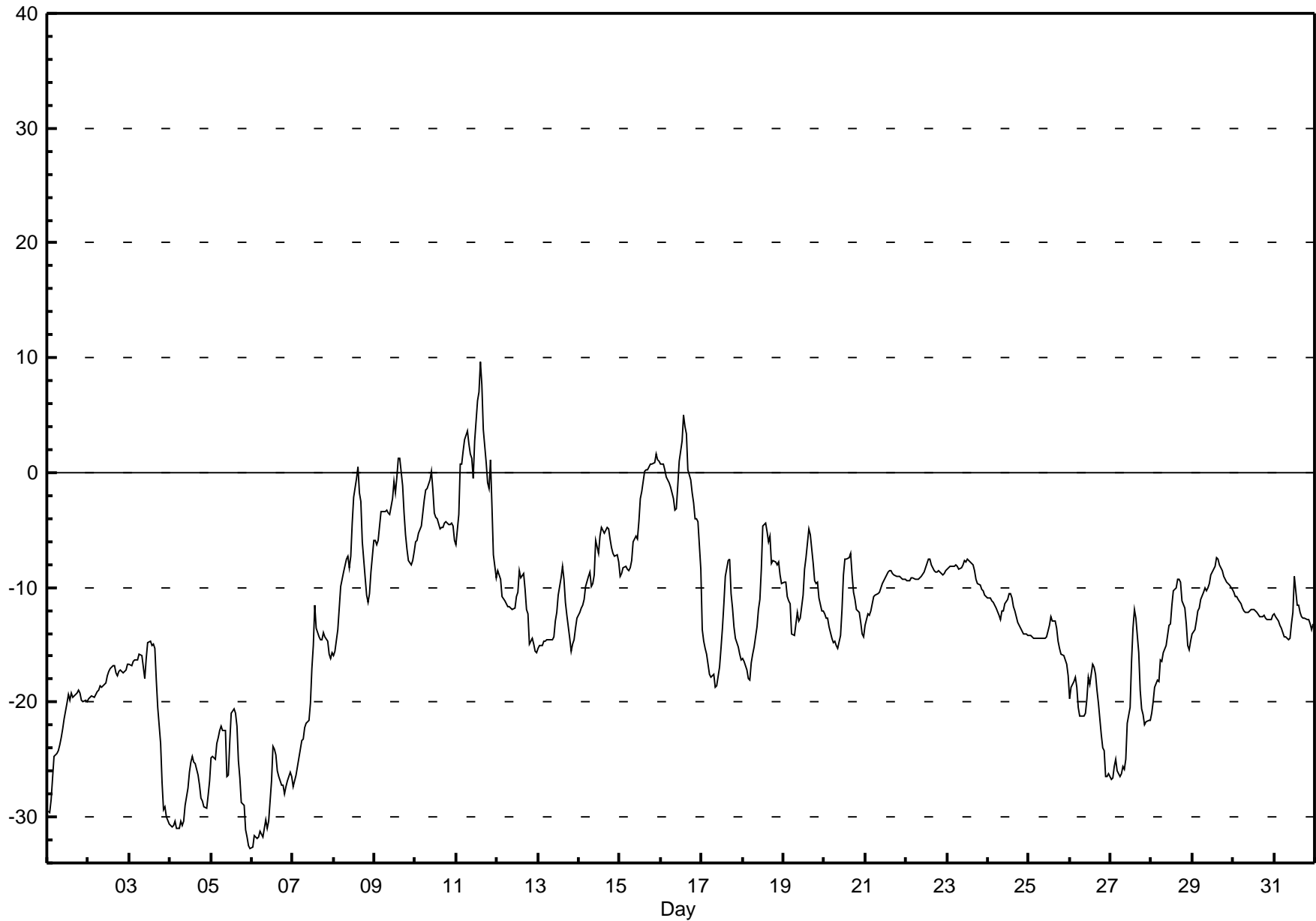


# Hourly Averages

External Temperature (ET) - °C

Henry Pirker - January 2010

Number of Exceedences (AAAQO):		1-hr: 0		24-hr: 0		Hours in Service: 744																Daily Average		Daily Maximum																								
Maximum Value: 9.6 °C on Jan 11 15:00		Maximum Daily Average: 0.9 °C on Jan 11		Hours of Data: 744																																												
Minimum Value: -33 °C on Jan 6 00:00		Minimum Daily Average: -28.6 °C on Jan 6		Hours of Missing Data: 0																																												
Maximum Diurnal Average: -9.4 °C at hour 15		Minimum Diurnal Average: -15.2 °C at hour 1		Hours of Calibration: 0																																												
Monthly Average: -13.09 °C		Percentiles: P <sub>1</sub> = -31.8 P <sub>10</sub> = -25.4 Q <sub>1</sub> = -17.3 Median = -12.2 Q <sub>3</sub> = -8.4 P <sub>90</sub> = -3.5 P <sub>99</sub> = 3.5		Percent Operational Time: 100.0																																												
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum																						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																								
1-Jan	-29	-30	-28	-27	-25	-24	-24	-24	-23	-22	-21	-20	-19	-20	-19	-20	-19	-19	-19	-20	-20	-20	-20	-20	-22.2	-18.9																						
2-Jan	-20	-20	-20	-20	-19	-19	-19	-19	-19	-19	-18	-18	-17	-17	-17	-17	-17	-18	-17	-17	-17	-17	-17	-17	-18.1	-16.7																						
3-Jan	-17	-17	-16	-16	-16	-16	-16	-16	-17	-18	-16	-15	-15	-15	-15	-15	-18	-20	-24	-27	-29	-29	-30	-31	-19.4	-14.7																						
4-Jan	-31	-31	-31	-30	-31	-31	-30	-31	-30	-29	-27	-26	-25	-25	-25	-25	-26	-27	-28	-29	-29	-29	-28	-27	-28.5	-24.7																						
5-Jan	-25	-25	-25	-24	-23	-22	-22	-23	-23	-26	-26	-23	-21	-21	-21	-22	-25	-27	-29	-29	-31	-32	-33	-33	-25.4	-20.5																						
6-Jan	-33	-32	-32	-32	-32	-31	-32	-31	-30	-31	-30	-27	-24	-24	-25	-26	-27	-27	-27	-28	-27	-27	-26	-26	-28.6	-23.8																						
7-Jan	-27	-27	-26	-26	-24	-23	-23	-22	-22	-22	-20	-17	-15	-11	-14	-14	-15	-15	-14	-14	-15	-16	-16	-16	-18.9	-11.5																						
8-Jan	-16	-16	-14	-12	-10	-9	-9	-8	-7	-8	-7	-4	-2	0	0	-2	-3	-6	-9	-11	-11	-11	-9	-6	-7.9	0.5																						
9-Jan	-6	-6	-6	-5	-3	-3	-3	-3	-3	-4	-2	-1	-2	0	1	1	-1	-3	-5	-7	-8	-8	-8	-7	-3.9	1.3																						
10-Jan	-6	-6	-5	-5	-3	-2	-2	-1	-1	0	-1	-4	-4	-4	-5	-5	-5	-4	-4	-5	-5	-4	-5	-6	-3.8	0.2																						
11-Jan	-6	-4	1	1	2	3	4	3	2	1	-1	3	6	7	10	8	4	1	-1	-1	1	-3	-7	-9	0.9	9.6																						
12-Jan	-9	-9	-9	-11	-11	-11	-12	-12	-12	-12	-12	-11	-10	-9	-9	-9	-10	-12	-12	-15	-14	-15	-16	-16	-11.5	-8.5																						
13-Jan	-15	-15	-15	-15	-15	-15	-15	-15	-15	-14	-13	-12	-11	-9	-8	-9	-11	-12	-14	-16	-15	-15	-13	-13	-13.3	-8.2																						
14-Jan	-12	-12	-12	-11	-10	-9	-9	-10	-10	-9	-6	-7	-5	-5	-5	-5	-5	-5	-6	-6	-7	-7	-7	-8	-7.8	-4.7																						
15-Jan	-9	-9	-8	-8	-8	-9	-8	-8	-6	-5	-6	-4	-2	-2	0	0	0	1	1	1	1	2	1	1	-3.6	1.6																						
16-Jan	1	1	0	0	-1	-1	-1	-2	-3	-3	-1	1	3	5	4	3	0	-1	-2	-3	-4	-4	-4	-8	-0.9	5.1																						
17-Jan	-14	-15	-15	-16	-18	-18	-18	-18	-19	-19	-17	-15	-14	-11	-9	-8	-7	-11	-12	-13	-14	-15	-16	-16	-14.4	-7.5																						
18-Jan	-16	-16	-17	-18	-18	-17	-16	-15	-13	-12	-11	-8	-5	-4	-5	-6	-6	-8	-8	-8	-8	-9	-10	-10	-10.9	-4.4																						
19-Jan	-10	-10	-11	-11	-11	-14	-14	-13	-12	-13	-13	-11	-8	-7	-6	-5	-5	-8	-9	-10	-10	-11	-12	-12	-10.3	-4.9																						
20-Jan	-12	-13	-13	-13	-14	-15	-15	-15	-15	-14	-12	-9	-7	-8	-7	-7	-9	-10	-11	-12	-12	-13	-14	-14	-11.9	-7.0																						
21-Jan	-13	-12	-12	-12	-11	-11	-11	-11	-10	-10	-10	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-10.0	-8.5																						
22-Jan	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-8	-8	-7	-8	-8	-9	-9	-9	-9	-9	-9	-9	-9	-8.8	-7.5																						
23-Jan	-8	-8	-8	-8	-8	-8	-8	-8	-8	-8	-8	-8	-8	-8	-8	-8	-9	-9	-10	-10	-10	-10	-11	-11	-8.7	-7.5																						
24-Jan	-11	-11	-11	-11	-12	-12	-12	-13	-12	-12	-11	-11	-11	-10	-11	-12	-12	-13	-13	-14	-14	-14	-14	-14	-12.1	-10.5																						
25-Jan	-14	-14	-14	-14	-14	-14	-14	-14	-14	-14	-14	-14	-13	-13	-13	-13	-14	-15	-15	-16	-16	-16	-17	-18	-14.6	-12.6																						
26-Jan	-20	-19	-18	-18	-19	-21	-21	-21	-21	-21	-20	-18	-18	-17	-17	-18	-19	-20	-23	-24	-24	-26	-26	-26	-20.6	-16.7																						
27-Jan	-27	-27	-26	-25	-26	-27	-26	-26	-26	-25	-22	-21	-16	-14	-12	-13	-16	-19	-21	-21	-22	-22	-22	-22	-21.6	-12.0																						
28-Jan	-21	-20	-19	-18	-18	-16	-16	-16	-15	-14	-13	-12	-10	-10	-9	-9	-10	-11	-12	-13	-15	-15	-15	-15	-14.2	-9.3																						
29-Jan	-14	-14	-13	-12	-12	-11	-10	-10	-10	-10	-9	-8	-8	-7	-8	-8	-9	-9	-9	-9	-10	-10	-10	-10	-10.0	-7.5																						
30-Jan	-10	-11	-11	-11	-11	-12	-12	-12	-12	-12	-12	-12	-12	-12	-12	-13	-13	-13	-12	-13	-13	-13	-13	-12	-12.0	-10.5																						
31-Jan	-12	-13	-13	-13	-14	-14	-14	-14	-15	-14	-13	-12	-9	-12	-12	-12	-12	-13	-13	-13	-13	-13	-14	-13	-12.9	-9.1																						
																								-15.2	-15.0	-14.7	-14.5	-14.4	-14.3	-14.2	-14.1	-13.9	-13.8	-13.0	-11.7	-10.4	-9.7	-9.4	-9.8	-10.8	-11.9	-12.8	-13.4	-13.8	-14.2	-14.4	-14.6	Diurnal Average
																								0.8	0.7	0.7	0.7	1.9	2.9	3.6	2.5	1.6	1.2	-0.6	2.7	6.2	7.0	9.6	7.7	3.7	0.8	0.7	0.7	1.1	1.6	1.1	1.0	Diurnal Maximum





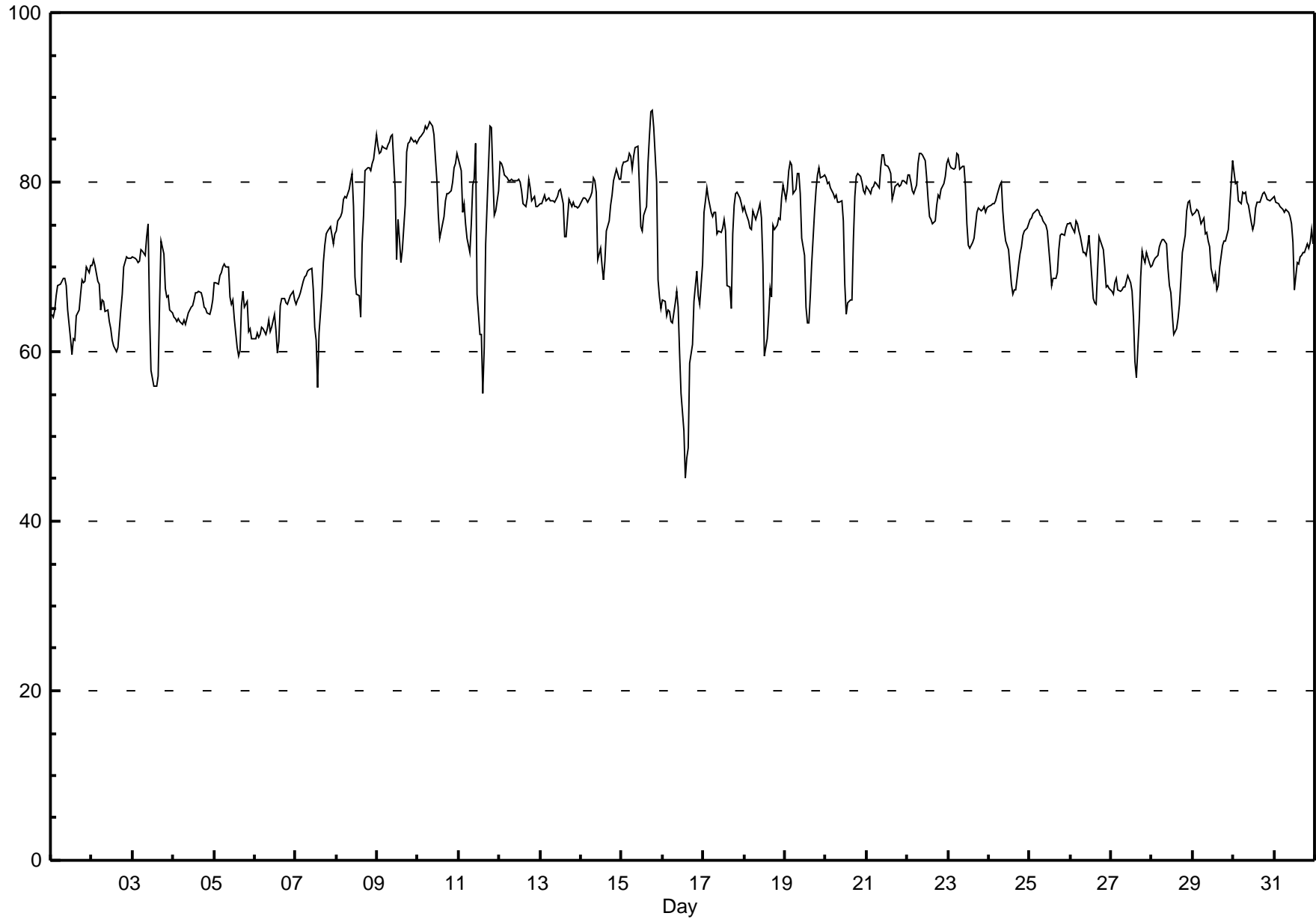
# Hourly Averages

## Relative Humidity (RH) - % Henry Pirker - January 2010

Number of Exceedences (AAQO): 1-hr: 0 24-hr: 0										Hours in Service: 744																																						
Maximum Value: 88.5 % on Jan 15 19:00										Maximum Daily Average: 81.9 % on Jan 10										Hours of Data: 744																												
Minimum Value: 45 % on Jan 16 14:00										Minimum Daily Average: 61.8 % on Jan 16										Hours of Missing Data: 0																												
Maximum Diurnal Average: 75.6 % at hour 9										Minimum Diurnal Average: 66.7 % at hour 15										Hours of Calibration: 0																												
Monthly Average: 73.38 %										Percentiles: P <sub>1</sub> = 55.9 P <sub>10</sub> = 63.9 Q <sub>1</sub> = 67.8 Median = 74.5 Q <sub>3</sub> = 78.7 P <sub>90</sub> = 81.7 P <sub>99</sub> = 86.5										Percent Operational Time: 100.0																												
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum																						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																								
1-Jan	64	64	65	67	68	68	68	69	69	68	65	61	60	62	61	64	65	67	68	68	68	70	69	70	66.2	70.2																						
2-Jan	70	71	70	68	68	65	66	66	65	65	63	63	61	61	60	61	63	65	67	70	71	71	71	71	66.3	71.2																						
3-Jan	71	71	71	71	71	72	72	71	74	75	65	58	56	56	56	57	66	73	72	67	66	67	65	65	66.9	75.1																						
4-Jan	64	64	64	64	64	63	64	63	64	65	65	65	66	67	67	67	67	66	65	65	65	64	65	66	65.0	67.0																						
5-Jan	68	68	68	69	69	70	70	70	70	66	66	66	64	60	59	60	65	67	65	66	62	63	62	62	65.7	70.3																						
6-Jan	62	62	62	62	63	63	62	63	64	62	63	64	63	60	61	65	66	66	66	66	66	67	67	66	63.8	67.1																						
7-Jan	66	66	66	67	68	69	69	70	70	70	67	63	61	56	62	67	71	73	74	74	75	74	73	74	68.4	74.8																						
8-Jan	74	75	76	76	78	78	78	79	80	81	77	69	67	67	64	73	76	81	82	82	81	82	83	86	76.9	85.6																						
9-Jan	84	83	84	84	84	84	84	85	85	86	79	71	76	73	71	72	77	84	85	85	85	85	85	85	81.4	85.6																						
10-Jan	85	85	86	86	87	86	87	87	87	86	83	80	76	73	75	76	78	79	79	79	80	82	82	83	81.9	87.1																						
11-Jan	83	81	76	77	75	73	72	75	80	80	85	67	62	62	55	60	73	82	87	87	81	76	77	79	75.2	86.7																						
12-Jan	82	82	82	81	80	80	80	80	80	80	80	80	80	79	78	77	78	80	79	78	78	77	77	77	79.5	82.3																						
13-Jan	77	77	78	78	78	78	78	78	78	78	78	79	79	77	73	74	76	78	77	78	77	77	77	77	77.4	79.1																						
14-Jan	78	78	78	78	78	78	79	81	80	79	71	72	70	68	71	74	75	77	79	80	81	81	80	80	77.0	81.5																						
15-Jan	82	82	82	83	83	83	82	83	84	84	79	75	74	76	77	82	85	88	89	86	80	68	66	65	80.0	88.5																						
16-Jan	66	66	64	65	65	64	63	66	67	65	60	55	51	45	48	49	59	61	66	68	70	67	66	70	61.8	70.3																						
17-Jan	76	78	79	78	76	76	76	76	74	74	74	75	76	74	68	68	65	74	77	79	79	78	77	77	75.2	79.2																						
18-Jan	77	76	75	75	74	77	76	76	77	77	76	70	60	61	64	67	66	75	74	75	76	76	78	80	73.3	79.7																						
19-Jan	78	79	81	82	82	79	79	81	81	79	73	71	65	63	63	67	71	77	79	81	82	80	81	81	76.5	82.4																						
20-Jan	80	80	80	79	79	78	78	78	78	78	75	68	64	66	66	66	73	78	81	81	81	80	79	79	76.1	81.1																						
21-Jan	79	79	79	79	79	80	80	79	82	83	83	82	82	81	81	78	79	80	80	79	80	80	80	80	80.2	83.3																						
22-Jan	81	81	80	79	79	80	82	83	83	83	82	80	78	76	76	75	75	77	78	78	79	80	81	82	79.6	83.5																						
23-Jan	83	82	82	82	82	83	83	82	82	82	79	75	73	72	73	73	75	76	77	77	77	77	76	77	78.3	83.5																						
24-Jan	77	77	77	77	78	78	80	80	77	74	73	72	70	68	67	67	67	70	72	72	74	74	75	75	73.9	80.0																						
25-Jan	76	76	76	77	77	77	76	76	75	75	74	72	70	68	69	69	69	72	74	74	74	74	75	75	73.7	76.7																						
26-Jan	75	75	74	75	75	74	73	72	72	71	72	74	71	66	66	66	70	74	73	72	70	68	68	67	71.4	75.4																						
27-Jan	67	67	68	69	67	67	67	68	68	68	69	68	67	64	59	57	64	69	72	71	71	72	70	70	67.4	71.9																						
28-Jan	70	71	71	71	72	73	73	73	73	70	68	67	64	62	63	64	66	68	72	74	77	78	77	77	70.6	77.8																						
29-Jan	76	77	77	77	76	75	76	74	74	73	72	70	68	69	67	68	70	73	73	73	74	74	77	83	73.5	82.5																						
30-Jan	81	80	80	78	77	79	79	79	78	77	75	74	75	77	78	78	78	79	79	78	78	78	78	78	77.9	81.2																						
31-Jan	78	78	77	77	77	77	77	77	76	76	75	73	67	70	70	71	71	72	72	73	72	73	74	73	74.0	78.3																						
																								75.2	75.2	75.1	75.2	75.1	75.1	75.2	75.4	75.6	75.2	73.2	70.4	68.3	67.1	66.7	68.1	70.9	74.2	75.1	75.3	75.1	74.6	74.6	75.1	Diurnal Average
																								84.9	85.2	85.5	85.9	86.6	86.3	86.6	87.1	86.7	85.6	84.7	82.1	81.8	81.5	81.1	82.2	85.5	88.3	88.5	86.5	85.2	84.7	84.9	85.6	Diurnal Maximum

# Hourly Averages

Relative Humidity (RH) - %  
Henry Pirker - January 2010

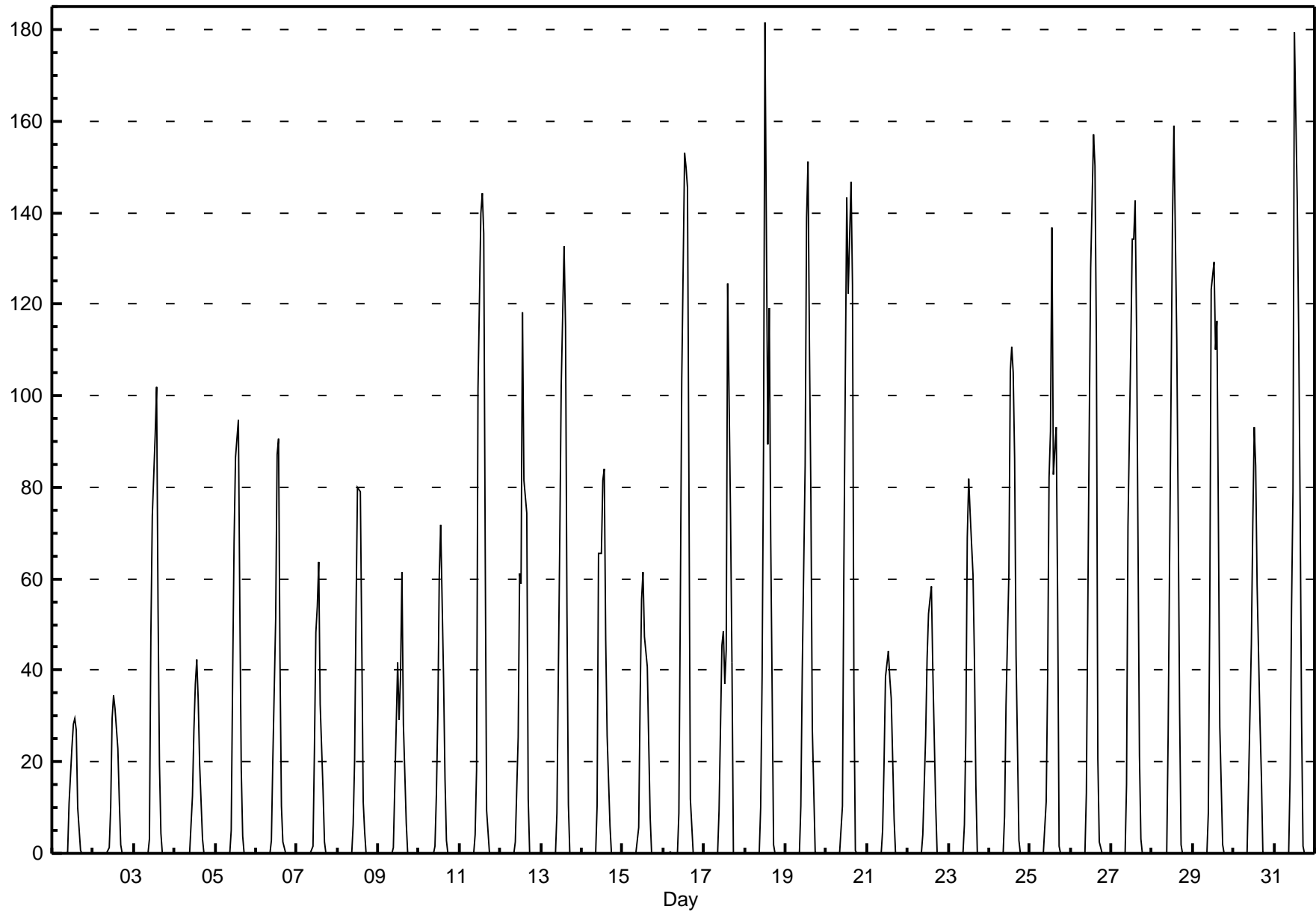


# Hourly Averages

**Solar Radiation (SR) - W/m<sup>2</sup>**

**Henry Pirker - January 2010**

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 181.4 W/m <sup>2</sup> on Jan 18 13:00      Maximum Daily Average: 31.3 W/m <sup>2</sup> on Jan 20		Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0																								
Minimum Value: 0 W/m <sup>2</sup> on Jan 1 01:00 Maximum Diurnal Average: 94.5 W/m <sup>2</sup> at hour 14 Monthly Average: 18.66 W/m <sup>2</sup>		Minimum Daily Average: 5.4 W/m <sup>2</sup> on Jan 1 Minimum Diurnal Average: 0.0 W/m <sup>2</sup> at hour 1 Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.0 Median = 0.0 Q <sub>3</sub> = 19.3 P <sub>90</sub> = 72.3 P <sub>99</sub> = 149.5																								
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	0	11	23	28	30	27	10	1	0	0	0	0	0	0	0	5.4	29.6
2-Jan	0	0	0	0	0	0	0	0	0	1	10	30	35	32	23	12	2	0	0	0	0	0	0	0	6.0	34.6
3-Jan	0	0	0	0	0	0	0	0	0	3	47	74	91	102	54	19	4	0	0	0	0	0	0	0	16.5	101.9
4-Jan	0	0	0	0	0	0	0	0	0	0	13	27	37	42	34	19	3	0	0	0	0	0	0	0	7.3	42.2
5-Jan	0	0	0	0	0	0	0	0	0	5	39	68	87	95	54	18	4	0	0	0	0	0	0	0	15.4	94.7
6-Jan	0	0	0	0	0	0	0	0	0	3	20	51	87	90	42	10	3	0	0	0	0	0	0	0	12.8	90.5
7-Jan	0	0	0	0	0	0	0	0	0	2	23	48	54	64	33	14	2	0	0	0	0	0	0	0	10.0	63.6
8-Jan	0	0	0	0	0	0	0	0	0	6	21	53	80	79	46	11	5	0	0	0	0	0	0	0	12.5	80.1
9-Jan	0	0	0	0	0	0	0	0	0	1	28	42	29	39	61	28	7	0	0	0	0	0	0	0	9.8	61.5
10-Jan	0	0	0	0	0	0	0	0	0	2	13	30	61	72	38	16	3	0	0	0	0	0	0	0	9.8	71.9
11-Jan	0	0	0	0	0	0	0	0	0	4	18	102	140	144	136	68	9	0	0	0	0	0	0	0	25.8	144.2
12-Jan	0	0	0	0	0	0	0	0	0	3	25	61	59	118	82	74	12	0	0	0	0	0	0	0	18.1	118.1
13-Jan	0	0	0	0	0	0	0	0	0	9	39	69	102	133	115	53	11	0	0	0	0	0	0	0	22.1	132.6
14-Jan	0	0	0	0	0	0	0	0	0	10	65	65	81	84	47	26	6	0	0	0	0	0	0	0	16.1	83.9
15-Jan	0	0	0	0	0	0	0	0	0	6	34	56	61	47	41	24	8	0	0	0	0	0	0	0	11.5	61.4
16-Jan	0	0	0	0	0	0	0	0	0	9	54	104	153	150	146	81	12	0	0	0	0	0	0	0	29.5	153.2
17-Jan	0	0	0	0	0	0	0	0	0	9	46	49	37	44	124	74	42	0	0	0	0	0	0	0	17.7	124.4
18-Jan	0	0	0	0	0	0	0	0	0	10	38	89	181	89	119	69	36	2	0	0	0	0	0	0	26.4	181.4
19-Jan	0	0	0	0	0	0	0	0	0	10	40	85	139	151	111	78	27	0	0	0	0	0	0	0	26.8	151.1
20-Jan	0	0	0	0	0	0	0	0	0	10	63	104	143	122	147	124	36	1	0	0	0	0	0	0	31.3	146.6
21-Jan	0	0	0	0	0	0	0	0	0	5	20	39	44	38	34	21	7	0	0	0	0	0	0	0	8.7	44.2
22-Jan	0	0	0	0	0	0	0	0	0	4	26	43	52	56	58	40	10	0	0	0	0	0	0	0	12.1	58.4
23-Jan	0	0	0	0	0	0	0	0	0	6	26	69	82	74	61	42	15	0	0	0	0	0	0	0	15.7	81.8
24-Jan	0	0	0	0	0	0	0	0	0	8	32	61	105	111	105	86	43	3	0	0	0	0	0	0	23.1	110.6
25-Jan	0	0	0	0	0	0	0	0	0	11	38	82	92	137	83	93	54	2	0	0	0	0	0	0	24.7	136.6
26-Jan	0	0	0	0	0	0	0	0	0	13	53	93	128	157	150	111	21	3	0	0	0	0	0	0	30.4	157.2
27-Jan	0	0	0	0	0	0	0	0	0	15	71	112	134	134	143	114	21	3	0	0	0	0	0	0	31.2	142.8
28-Jan	0	0	0	0	0	0	0	0	0	26	64	100	138	159	112	74	31	2	0	0	0	0	0	0	29.4	159.1
29-Jan	0	0	0	0	0	0	0	0	0	9	53	123	129	110	116	74	28	2	0	0	0	0	0	0	26.8	129.1
30-Jan	0	0	0	0	0	0	0	0	0	15	46	72	93	85	59	29	17	0	0	0	0	0	0	0	17.3	93.1
31-Jan	0	0	0	0	0	0	0	0	0	17	54	79	179	142	113	75	29	2	0	0	0	0	0	0	28.7	179.5
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.5	36.4	67.8	92.4	94.5	81.1	51.2	16.4	0.6	0.0	0.0	0.0	0.0	0.0	0.0	Diurnal Average	
		0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0	26.0	71.4	123.3	181.4	159.1	150.3	124.2	54.4	3.2	0.0	0.0	0.1	0.1	0.1	0.0	Diurnal Maximum	





# Hourly Averages

**Wind Speed (km/h)**  
**Wind Direction (deg)**  
**Henry Pirker - January 2010**

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	3	3	3	3	3	3	3	1	2	2	1	1	3	5	5	5	3	2	2	11	12	11	11	10	3.7	11.6
Dir	286	313	299	280	257	213	167	172	189	232	213	274	305	287	303	282	283	205	214	295	300	305	297	289	284.9	299.7
2 Spd	10	9	11	10	10	10	8	7	9	7	8	6	7	5	3	2	2	3	7	8	8	8	9	8	3.2	10.7
Dir	299	298	293	291	297	290	295	287	286	303	299	289	287	281	274	301	159	126	96	97	93	81	81	79	305.8	292.9
3 Spd	5	5	4	3	3	2	3	4	5	5	5	7	6	8	7	3	3	2	4	4	4	4	4	4	2.2	8.0
Dir	51	62	63	39	10	23	319	307	302	288	286	275	232	235	232	209	189	189	307	313	281	326	320	313	293.4	234.8
4 Spd	4	4	4	4	4	3	4	3	4	3	3	3	4	4	4	4	4	3	3	3	3	2	3	2	3.4	4.5
Dir	308	320	286	300	312	307	311	298	303	316	309	302	292	305	284	293	313	312	304	303	299	321	284	300	303.1	300.1
5 Spd	2	2	0	1	1	1	2	2	1	3	3	3	2	3	3	4	3	3	3	4	4	3	4	4	2.3	3.9
Dir	201	257	43	232	285	292	310	299	287	309	308	321	313	299	286	292	290	310	318	305	311	314	326	294	301.3	294.4
6 Spd	3	3	4	3	3	3	2	3	3	3	4	3	2	4	4	2	3	3	3	4	0	3	1	3	2.6	4.3
Dir	328	293	296	309	305	320	308	300	327	295	305	315	293	279	290	313	294	300	298	290	98	156	243	302	299.5	289.8
7 Spd	3	2	3	1	2	3	2	2	2	3	2	3	2	1	3	2	2	1	2	4	4	5	6	4	1.1	5.6
Dir	294	304	293	228	143	164	161	234	214	164	148	161	184	223	321	306	308	245	276	329	308	321	337	307	281.7	337.4
8 Spd	3	2	3	2	2	4	4	5	4	3	3	2	5	5	4	4	3	1	4	6	4	4	2	1	1.1	5.9
Dir	303	253	267	294	166	180	161	210	228	158	134	167	157	159	150	145	103	5	335	312	324	304	49	255	199.7	311.7
9 Spd	2	2	1	4	3	4	2	2	2	1	2	3	1	2	3	2	1	1	3	3	4	3	3	1	0.7	4.1
Dir	147	199	261	1	345	174	101	319	344	182	181	307	304	195	134	138	53	348	314	299	308	314	307	307	301.6	173.5
10 Spd	2	3	1	4	3	3	3	3	4	6	10	10	6	8	6	5	4	3	4	3	2	2	2	3	2.9	10.0
Dir	302	5	115	148	171	150	126	93	116	91	97	102	92	80	94	75	92	95	96	128	311	286	321	287	97.4	97.4
11 Spd	2	5	10	10	10	10	10	7	5	4	3	2	4	4	1	6	1	1	3	3	7	10	14	12	4.5	14.1
Dir	359	109	113	124	126	124	137	134	139	119	163	335	124	112	106	329	166	106	174	77	66	58	63	69	103.2	62.9
12 Spd	11	12	7	6	6	6	5	6	5	5	4	1	1	2	6	5	3	3	6	4	3	7	6	4	2.7	11.6
Dir	66	68	102	95	65	67	39	66	80	97	157	237	278	239	217	185	324	355	338	314	96	116	124	151	82.1	67.7
13 Spd	3	5	5	3	4	5	4	4	5	3	2	1	2	4	2	2	4	4	4	5	5	3	3	0	0.5	5.4
Dir	144	166	155	131	68	80	68	86	97	99	31	86	294	286	228	247	328	6	300	316	311	300	302	50	30.7	155.2
14 Spd	3	2	3	2	3	2	1	2	1	1	1	3	2	5	4	3	0	3	2	1	1	1	1	3	0.9	5.1
Dir	152	210	166	149	155	82	266	212	221	189	206	295	293	313	300	303	173	294	325	285	324	119	282	304	264.5	313.3
15 Spd	3	1	2	2	0	1	3	3	3	1	4	3	3	3	2	5	11	4	10	12	12	29	27	28	5.3	29.3
Dir	313	282	55	112	306	63	150	119	87	104	307	165	311	311	300	298	308	292	231	236	247	249	247	248	254.3	248.7
16 Spd	27	23	20	18	17	14	12	8	7	9	5	6	4	2	5	6	6	5	4	5	5	7	6	3	6.5	26.9
Dir	249	249	250	248	245	249	239	222	230	235	319	271	275	299	253	249	172	161	126	111	105	106	101	62	239.0	248.7
17 Spd	4	5	4	3	3	3	4	4	5	5	4	4	3	3	1	2	4	4	4	3	2	4	4	4	3.4	5.1
Dir	298	315	315	319	334	317	288	348	301	307	301	301	310	321	200	298	284	288	318	326	288	309	312	297	307.4	300.6
18 Spd	1	4	4	3	4	4	4	3	4	4	4	1	4	4	5	3	4	5	4	1	2	1	1	1	2.7	4.7
Dir	288	317	311	302	326	318	309	286	325	306	298	49	291	275	291	289	296	284	264	187	196	90	280	247	296.5	283.8
19 Spd	1	2	1	2	1	3	2	3	2	4	4	4	3	3	4	3	2	2	3	4	2	1	1	3	1.3	4.3
Dir	196	9	222	148	15	294	256	159	51	296	298	309	283	291	317	40	31	259	274	20	65	233	270	313	309.2	316.5
20 Spd	4	3	2	3	3	1	3	4	2	3	3	2	3	4	5	5	4	4	4	3	4	3	4	4	2.9	5.2
Dir	3	227	24	302	288	299	318	299	295	322	292	277	299	271	260	280	303	295	301	343	295	332	320	314	300.7	260.3
21 Spd	4	6	5	4	6	1	3	1	0	2	4	4	3	5	6	7	7	5	2	4	4	4	4	5	1.2	7.3
Dir	334	328	292	320	346	345	257	257	165	146	96	77	55	69	88	97	125	126	229	311	331	310	309	309	11.6	96.8
22 Spd	5	5	6	5	5	5	6	5	5	6	5	5	6	6	8	9	9	6	4	6	6	5	4	4	5.3	8.9
Dir	310	293	286	293	301	296	303	313	327	332	322	282	282	302	311	296	285	278	251	270	250	253	263	278	291.5	285.4

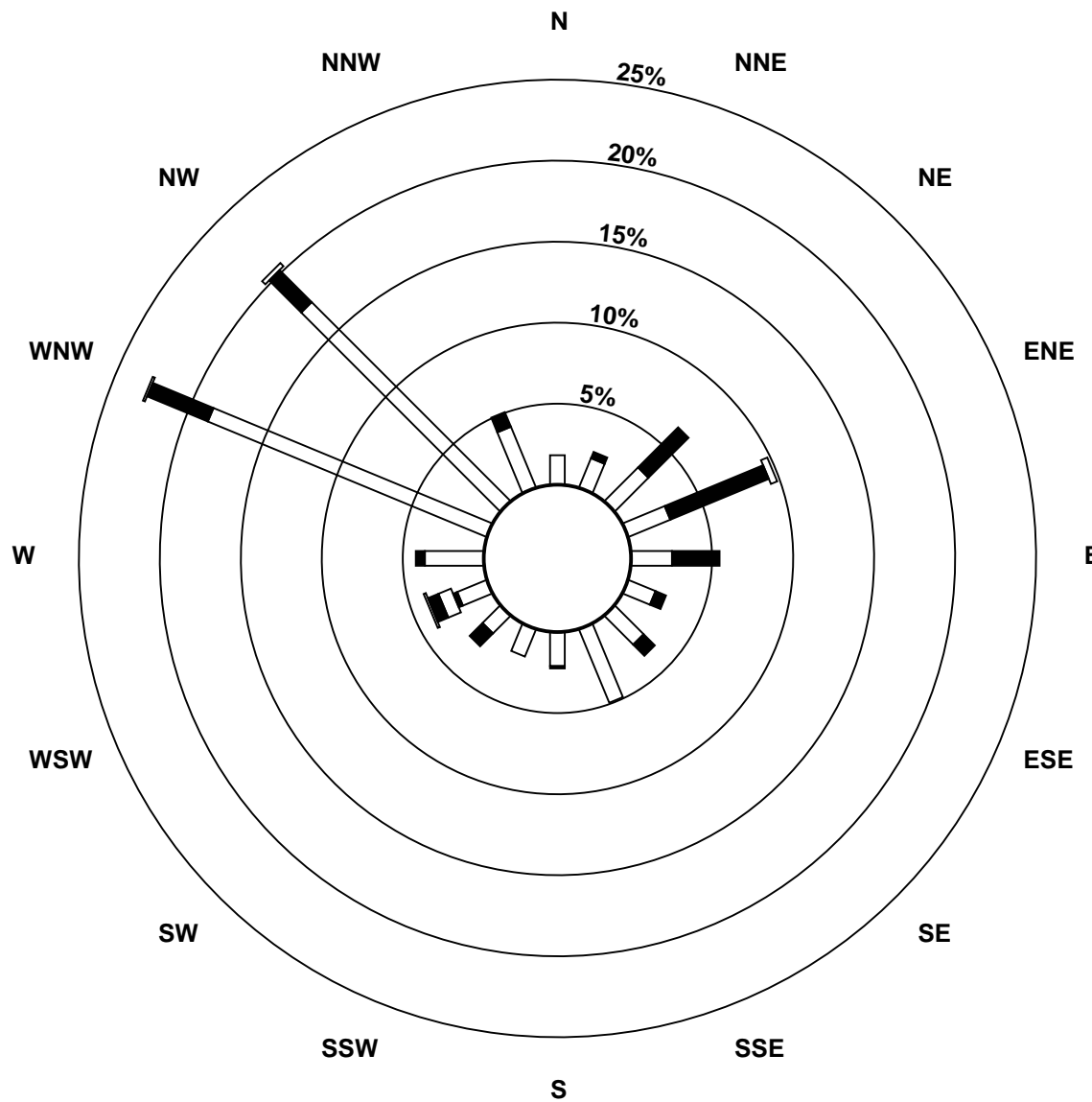
# Hourly Averages

**Wind Speed (km/h)**  
**Wind Direction (deg)**  
**Henry Pirker - January 2010**

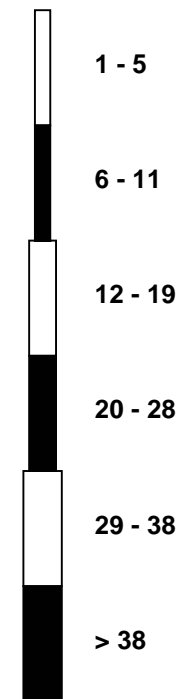
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	5	5	6	4	5	6	5	6	7	6	7	8	10	12	12	11	9	7	8	11	10	7	9	7	7.6	12.3
Dir	286	301	317	299	306	302	316	315	316	324	308	298	302	304	304	311	307	306	305	313	317	307	312	315	308.3	304.0
24 Spd	4	3	4	4	4	4	3	2	5	4	4	6	7	7	8	9	9	9	8	8	8	7	7	9	4.4	9.5
Dir	320	300	307	316	287	292	358	25	67	67	93	84	79	83	74	83	73	70	59	60	61	64	64	56	58.5	83.5
25 Spd	8	7	5	7	7	7	8	9	9	8	9	8	8	7	8	7	7	7	6	6	5	4	3	6.9	9.3	
Dir	58	61	54	59	62	50	51	52	59	67	50	59	47	39	41	40	36	35	42	45	32	29	42	20	48.4	58.9
26 Spd	3	3	2	4	3	4	4	4	3	5	3	3	6	7	7	6	3	2	6	4	5	6	4	3	3.1	7.3
Dir	13	48	341	54	46	39	26	297	315	278	332	49	293	325	326	296	302	44	296	344	321	304	338	303	331.1	326.3
27 Spd	4	3	4	5	4	3	2	3	3	3	3	4	2	1	2	3	5	4	4	5	5	2	5	3	3.3	5.2
Dir	304	321	294	334	295	302	288	310	309	310	294	284	295	280	289	285	318	306	344	290	322	348	297	298	306.1	318.5
28 Spd	2	2	4	4	1	3	5	2	3	2	3	5	4	4	1	4	1	6	5	4	3	4	1	1.5	6.0	
Dir	325	299	307	315	306	176	150	128	146	146	289	283	310	284	287	310	130	90	303	355	350	308	294	339	300.4	302.6
29 Spd	2	2	1	2	2	4	5	5	6	6	7	6	6	6	5	4	4	5	7	7	5	5	5	5	3.6	7.4
Dir	238	295	14	114	161	270	1	58	82	86	66	53	22	16	22	48	65	73	73	76	68	46	50	61	54.4	72.7
30 Spd	6	7	6	6	6	8	7	7	7	8	9	10	11	11	9	9	9	10	10	9	11	10	10	11	8.6	11.4
Dir	50	64	59	62	55	60	64	67	58	60	60	59	64	61	51	53	55	56	55	55	62	66	63	65	59.5	63.6
31 Spd	10	11	10	11	10	9	7	6	7	6	3	4	4	5	5	5	4	4	4	5	4	3	3	3	4.0	11.1
Dir	58	57	55	59	58	53	48	57	62	72	33	343	312	275	277	276	295	336	338	1	55	64	57	84	38.4	58.8
Spd	1.9	1.5	1.4	1.0	1.1	0.6	0.7	0.8	0.9	0.7	1.2	1.3	1.6	1.9	1.8	1.6	1.4	1.1	1.7	2.3	2.1	1.7	1.9	1.9	Diurnal Average	
Dir	318.5	326.1	309.7	334.7	334.4	326.4	343.4	351.8	9.1	353.4	347.1	332.1	320.8	315.5	308.3	316.0	333.6	353.2	330.2	335.0	340.4	330.1	334.6	319.7	Diurnal Maximum	
Spd	26.9	23.0	19.7	17.6	16.8	13.9	11.7	9.0	9.3	8.9	10.0	10.0	11.4	12.1	12.3	11.3	10.5	10.2	10.5	12.1	12.0	29.3	27.1	28.1	Diurnal Maximum	
Dir	248.7	248.5	250.5	248.0	244.7	248.8	238.6	51.5	58.9	235.3	97.4	59.4	63.6	304.5	304.0	311.0	308.5	55.8	55.2	236.3	247.1	248.7	247.3	248.1	Diurnal Maximum	
Maximum Speed Value: 29 km/h on Jan 15 22:00																		Minimum Speed Value: 0 km/h on Jan 6 21:00						Hours in Service: 744		
Maximum Daily Speed Average: 8.6 km/h on Jan 16																		Minimum Daily Speed Average: 0.5 km/h on Jan 14						Hours of Data: 744		
Maximum Diurnal Speed Average: 2.3 km/h at hour 20																		Minimum Diurnal Speed Average: 0.6 km/h at hour 6						Hours of Missing Data: 0		
Monthly Average Velocity: 1.39 km/h 330.00 deg																		Speed Percentiles: P <sub>1</sub> = 0.5 P <sub>10</sub> = 1.6 Q <sub>1</sub> = 2.7 Median = 3.9 Q <sub>3</sub> = 5.6 P <sub>90</sub> = 8.7 P <sub>99</sub> = 15.7						Percent Operational Time: 100.0		
All monthly, daily, and diurnal averages have been calculated using vector methods																										
Frequency Distribution																										
		Speed Range (km/h)																								
Direction	0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total																			
North	32	6	0	0	0	0	38																			
NorthEast	38	68	6	0	0	0	112																			
East	35	33	2	0	0	0	70																			
SouthEast	39	11	0	0	0	0	50																			
South	40	3	0	0	0	0	43																			
SouthWest	29	8	4	1	0	0	42																			
West	82	27	2	3	2	0	116																			
NorthWest	210	57	6	0	0	0	273																			
Total	505	213	20	4	2	0	744																			

# Wind Rose

Wind Speed (WS) (km/h)  
Henry Pirker - January 2010



## Wind Speed Classes (km/h)





# Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Henry Pirker - January 2010

Maximum Speed: 29 km/h on Jan 15 22:00	Maximum Daily Speed Average: 9.6 km/h on Jan 16	Hours in Service: 744
Minimum Speed: 1 km/h on Jan 5 06:00	Minimum Daily Speed Average: 2.9 km/h on Jan 5	Hours of Data: 744
Maximum Diurnal Speed Average: 6.1 km/h at hour 23	Minimum Diurnal Speed Average: 4.5 km/h at hour 8	Hours of Missing Data: 0
Monthly Average Speed: 5.16 km/h	Percentiles: P <sub>1</sub> = 1.8 P <sub>10</sub> = 2.8 Q <sub>1</sub> = 3.4 Median = 4.4 Q <sub>3</sub> = 5.9 P <sub>90</sub> = 8.8 P <sub>99</sub> = 15.7	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	4	3	3	3	3	3	3	1	2	2	2	2	3	6	5	5	3	3	4	11	12	11	11	10	4.8	11.7
2-Jan	10	9	11	10	10	10	8	7	9	7	8	6	7	5	3	3	3	4	7	8	8	8	9	8	7.4	10.8
3-Jan	5	6	4	4	4	4	4	5	5	6	5	7	6	8	8	4	3	3	4	4	5	5	4	5	4.8	8.2
4-Jan	4	4	4	5	4	3	4	4	4	3	3	4	4	5	4	4	4	3	3	3	3	2	3	2	3.6	4.6
5-Jan	3	2	1	2	2	1	3	2	2	3	3	3	3	3	3	4	3	4	3	4	4	4	4	4	2.9	4.3
6-Jan	4	3	4	3	4	3	3	4	3	3	4	3	3	4	4	3	4	4	3	4	2	3	3	4	3.5	4.3
7-Jan	3	3	4	2	2	3	3	2	3	3	2	3	3	2	4	3	2	2	3	4	4	5	6	5	3.2	6.4
8-Jan	4	3	4	5	5	4	5	5	5	4	5	3	5	5	4	5	3	3	4	6	4	4	4	4	4.4	6.5
9-Jan	5	4	4	5	5	5	3	3	4	3	4	4	3	3	4	4	2	4	4	3	4	3	4	3	3.6	5.4
10-Jan	3	3	2	4	4	3	3	4	5	6	10	10	8	8	7	5	5	4	4	4	3	2	3	4	4.8	10.3
11-Jan	3	6	10	10	10	11	11	7	5	4	3	4	4	5	3	6	5	3	4	5	7	11	14	12	6.8	14.3
12-Jan	11	12	8	7	6	6	6	6	5	6	4	3	3	4	7	7	6	5	6	5	5	7	6	4	6.0	11.8
13-Jan	3	5	6	4	4	5	5	4	5	3	2	2	3	4	3	3	4	4	4	5	5	3	3	3	3.9	5.8
14-Jan	3	3	3	3	4	4	4	3	2	3	3	4	3	5	4	4	3	3	3	3	3	3	3	4	3.4	5.4
15-Jan	3	4	4	3	3	3	4	4	4	3	4	3	4	4	5	6	11	6	10	12	12	29	27	28	8.2	29.3
16-Jan	27	23	20	18	17	14	12	9	7	9	7	6	5	3	5	6	6	5	4	5	5	7	6	4	9.6	26.9
17-Jan	5	6	5	5	4	4	5	4	5	6	4	5	4	3	3	4	5	4	5	4	3	4	4	4	4.3	5.5
18-Jan	3	4	5	5	4	5	5	5	5	5	3	4	5	5	4	4	5	5	3	3	4	3	3	3	4.2	5.4
19-Jan	3	3	2	3	2	4	2	3	2	4	4	5	3	4	4	3	4	4	5	4	3	3	4	5	3.5	5.0
20-Jan	4	3	2	4	3	2	4	4	3	4	3	3	4	4	5	5	4	4	4	3	4	4	4	5	3.7	5.4
21-Jan	5	6	5	5	6	3	4	2	2	3	4	4	4	5	6	8	7	5	3	4	4	4	5	5	4.5	7.6
22-Jan	5	6	6	5	5	6	6	5	5	6	5	5	6	6	8	9	9	6	4	6	6	6	4	4	5.8	9.0
23-Jan	5	5	6	4	5	6	5	6	7	6	7	8	10	12	12	11	9	7	8	11	10	7	9	7	7.7	12.3
24-Jan	4	4	4	4	4	4	3	3	5	4	4	6	8	8	8	10	9	9	9	8	8	7	7	9	6.2	9.6
25-Jan	8	7	5	7	8	7	8	9	10	8	9	8	9	7	9	7	7	8	7	6	6	6	5	4	7.2	9.5
26-Jan	4	4	4	4	3	4	4	4	3	5	4	3	7	7	8	7	3	3	6	5	5	6	4	4	4.6	7.6
27-Jan	5	3	5	5	5	3	3	3	3	3	3	4	2	2	2	3	5	4	4	5	5	4	5	3	3.8	5.5
28-Jan	3	3	4	4	2	4	5	3	4	2	4	5	5	5	4	3	4	3	6	5	4	3	5	2	3.8	6.4
29-Jan	3	3	3	4	3	5	6	6	6	6	7	6	6	7	5	4	5	5	8	7	5	5	6	5	5.2	7.5
30-Jan	6	8	6	6	6	8	7	7	8	8	9	10	12	11	9	9	10	10	11	9	11	10	10	11	8.8	11.5
31-Jan	10	11	10	11	10	9	7	6	7	6	3	4	5	5	5	5	5	4	4	5	4	3	3	4	6.1	11.2
	5.4	5.4	5.3	5.3	5.1	5.0	4.9	4.5	4.7	4.6	4.7	4.7	4.9	5.2	5.4	5.2	5.1	4.6	5.2	5.5	5.5	5.9	6.1	5.7	Diurnal Average	
	26.9	23.0	19.8	17.6	17.1	14.1	12.0	9.1	9.5	9.1	10.3	10.1	11.5	12.2	12.3	11.4	10.6	10.3	10.6	12.3	12.2	29.3	27.2	28.1	Diurnal Maximum	

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

# Hourly Standard Deviations

Wind Direction (WD) - deg  
Henry Pirker - January 2010

Maximum Value: 93.0 deg on Jan 14 22:00																						Hours in Service:	744		
Minimum Value: 2.3 deg on Jan 16 00:00																						Hours of Data:	744		
Percentiles: P <sub>1</sub> = 5.0 P <sub>10</sub> = 9.0 Q <sub>1</sub> = 13.0 Median = 22.8 Q <sub>3</sub> = 42.9 P <sub>90</sub> = 68.1 P <sub>99</sub> = 89.9																						Hours of Missing Data:	0		
																						Hours of Calibration:	0		
																						Percent Operational Time:	100.0		
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jan	25	20	22	10	28	19	16	49	32	47	49	87	37	26	20	23	24	25	61	6	7	6	6	5	87.0
2-Jan	6	8	6	6	7	7	7	8	6	10	7	15	13	18	34	55	34	43	12	11	11	8	8	14	55.2
3-Jan	19	20	28	38	43	63	63	23	17	9	19	9	21	12	11	24	25	42	15	28	20	22	15	21	63.2
4-Jan	10	13	18	8	15	35	8	18	27	15	27	10	11	15	17	8	7	11	17	15	19	11	14	60	59.7
5-Jan	30	45	86	73	70	69	58	30	61	10	17	15	23	18	19	13	28	12	14	36	22	23	18	14	85.5
6-Jan	30	33	13	14	26	25	40	32	28	16	16	13	39	12	13	70	19	49	51	20	85	13	78	51	85.2
7-Jan	25	65	50	73	49	17	36	36	67	11	20	17	54	47	53	49	52	66	59	43	27	10	28	34	73.2
8-Jan	40	60	51	69	90	26	18	12	34	55	63	62	14	11	21	43	37	90	41	24	11	32	70	83	90.4
9-Jan	70	71	73	44	52	43	77	66	76	72	61	34	85	59	64	59	61	83	49	39	33	25	31	81	84.6
10-Jan	56	21	62	14	61	35	37	27	19	15	14	14	40	14	21	14	41	58	42	49	57	45	66	71	70.8
11-Jan	65	48	9	10	7	16	14	14	25	40	47	77	20	16	72	9	90	80	38	57	14	9	9	12	89.8
12-Jan	13	11	40	27	17	26	25	22	23	18	35	88	85	58	30	53	70	76	29	30	63	12	10	19	87.9
13-Jan	22	13	22	52	28	13	21	24	20	42	60	80	79	19	53	47	17	27	29	20	14	39	19	83	83.5
14-Jan	13	33	26	72	61	77	84	65	58	63	74	42	68	20	40	50	91	57	59	86	80	93	82	59	93.0
15-Jan	46	77	57	51	91	72	68	35	41	85	22	33	50	52	73	40	8	69	10	9	9	3	3	2	90.8
16-Jan	3	4	5	4	10	9	17	19	10	11	34	23	41	41	19	11	24	9	38	16	12	7	13	55	54.9
17-Jan	42	26	45	55	48	76	38	28	22	28	38	38	47	25	73	68	30	38	28	49	54	27	31	24	75.6
18-Jan	90	42	51	56	16	44	36	55	37	27	28	86	39	44	15	26	13	17	37	75	67	85	91	80	91.2
19-Jan	83	59	79	30	65	32	57	39	65	45	14	26	24	19	14	39	72	65	63	29	85	79	84	51	85.0
20-Jan	28	21	60	19	28	80	39	14	69	34	28	34	24	16	17	21	11	18	18	18	28	25	17	19	80.2
21-Jan	21	16	20	18	10	86	35	73	90	52	13	17	23	16	15	19	18	24	54	9	27	11	14	16	90.5
22-Jan	12	10	13	13	11	11	10	17	11	9	11	7	5	12	10	6	7	9	18	7	9	8	12	6	17.7
23-Jan	5	10	8	17	9	13	11	6	6	9	12	5	6	5	5	6	8	7	7	5	6	14	6	10	17.1
24-Jan	17	27	22	11	18	11	24	36	13	16	27	18	15	18	17	10	10	10	11	11	9	10	11	8	36.4
25-Jan	10	9	19	14	13	16	12	10	13	14	13	15	16	18	16	23	17	13	13	25	17	16	15	38	38.0
26-Jan	50	43	53	25	16	15	27	27	36	9	39	42	31	13	16	15	38	55	19	23	23	16	21	25	55.2
27-Jan	20	16	20	21	22	31	45	24	19	20	29	7	23	57	34	26	11	50	26	15	21	56	26	39	56.7
28-Jan	33	21	18	24	62	53	15	33	18	29	36	11	37	32	19	84	36	75	20	14	19	25	34	79	84.0
29-Jan	47	77	62	57	32	40	28	23	12	21	12	23	27	22	26	32	18	18	12	10	17	21	18	17	76.9
30-Jan	15	11	24	13	17	11	12	13	12	10	10	11	10	9	12	12	11	9	9	10	7	11	9	7	23.9
31-Jan	8	7	9	6	8	8	11	11	15	13	36	38	28	8	10	7	22	18	17	29	21	20	28	27	37.8
90.1	77.2	85.5	73.3	90.8	85.6	83.8	73.0	90.5	85.5	73.5	87.9	85.3	59.1	73.2	84.0	91.1	90.4	62.7	86.2	85.2	93.0	91.2	83.5		

**PASZA**  
**Evergreen Park Station**  
**Monthly Summary Tables, Graphs and**  
**Roses**

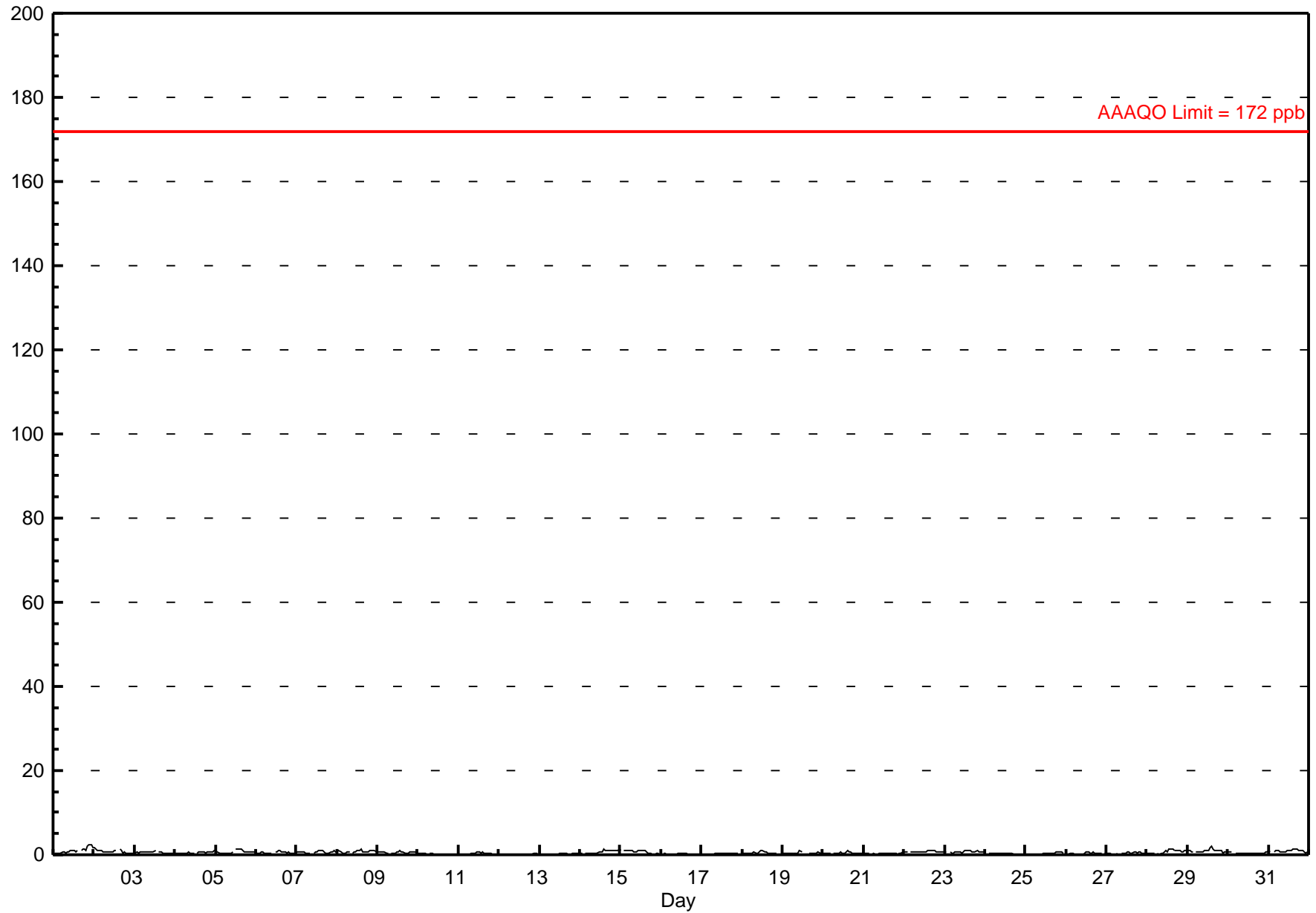
# Hourly Averages

## Sulphur Dioxide (SO<sub>2</sub>) - ppb Evergreen Park - January 2010

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 2.5 ppb on Jan 1 22:00	Maximum Daily Average: 1.0 ppb on Jan 1		Hours of Data:	707
Minimum Value: 0 ppb on Jan 10 19:00	Minimum Daily Average: 0.1 ppb on Jan 10		Hours of Missing Data:	37
Maximum Diurnal Average: 0.8 ppb at hour 15	Minimum Diurnal Average: 0.4 ppb at hour 7		Hours of Calibration:	35
Monthly Average: 0.50 ppb	Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.1 Q <sub>1</sub> = 0.2 Median = 0.4 Q <sub>3</sub> = 0.7 P <sub>90</sub> = 1.0 P <sub>99</sub> = 1.6		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	0	0	0	0	0	1	1	0	1	1	1	1	1	1	1	A	1	1	1	1	2	3	2	2	1.0	2.5
2-Jan	2	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0	1	0	0	0	0	0	0.8	1.7
3-Jan	0	1	0	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0	0	0	0	0	0	0	0.5	0.9
4-Jan	0	0	0	0	0	0	0	0	1	0	0	0	A	0	1	1	1	1	0	1	1	1	1	1	0.5	1.1
5-Jan	1	1	0	0	0	0	0	0	0	0	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.4
6-Jan	0	0	0	1	1	1	0	0	0	0	A	1	1	1	1	1	1	1	0	1	0	0	0	0	0.5	1.1
7-Jan	1	1	1	1	1	0	0	0	0	A	0	1	1	1	1	1	1	0	0	1	1	1	1	1	0.6	1.0
8-Jan	1	1	1	0	0	0	1	1	A	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.2
9-Jan	1	1	1	1	1	0	0	A	0	0	0	1	1	1	1	1	0	0	0	1	1	1	1	0	0.6	0.9
10-Jan	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
11-Jan	0	0	0	0	0	A	0	0	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0.3	0.6
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	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
14-Jan	0	0	A	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.4
15-Jan	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0.7	1.1
16-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
17-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
18-Jan	0	0	0	0	0	0	0	0	1	0	0	1	1	1	1	0	0	1	0	0	0	0	A	0	0.4	1.0
19-Jan	0	0	0	0	0	0	0	0	0	0	1	1	C	C	C	C	0	0	0	0	0	1	0	0	0.4	1.1
20-Jan	0	0	0	0	0	A	0	0	0	0	1	0	0	0	1	1	1	0	0	0	0	0	0	0	0.4	0.9
21-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.3	0.5
22-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	1.1
23-Jan	1	1	A	1	0	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.2
24-Jan	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
25-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	A	0.3	0.8
26-Jan	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0	0	0	0	0	0	A	0	0.3	0.6
27-Jan	0	0	0	0	0	0	0	P	P	0	0	0	1	1	0	0	1	1	0	1	1	0	0	0	0.4	0.7
28-Jan	0	0	0	0	0	A	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.3
29-Jan	1	1	1	1	A	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1.0	2.0
30-Jan	1	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.4	0.8
31-Jan	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0.9	1.3
	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.6	0.6	0.7	0.8	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.6	0.5		Diurnal Average
	1.7	1.5	1.0	0.9	1.0	0.9	0.9	1.0	0.8	0.8	1.1	1.1	1.2	1.8	2.0	1.3	1.2	1.4	1.3	1.2	2.1	2.5	2.4	1.8		Diurnal Maximum

C - Calibration      P - Power Failure      A - Automated Daily Zero Span  
 Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb      24-hr 57 ppb



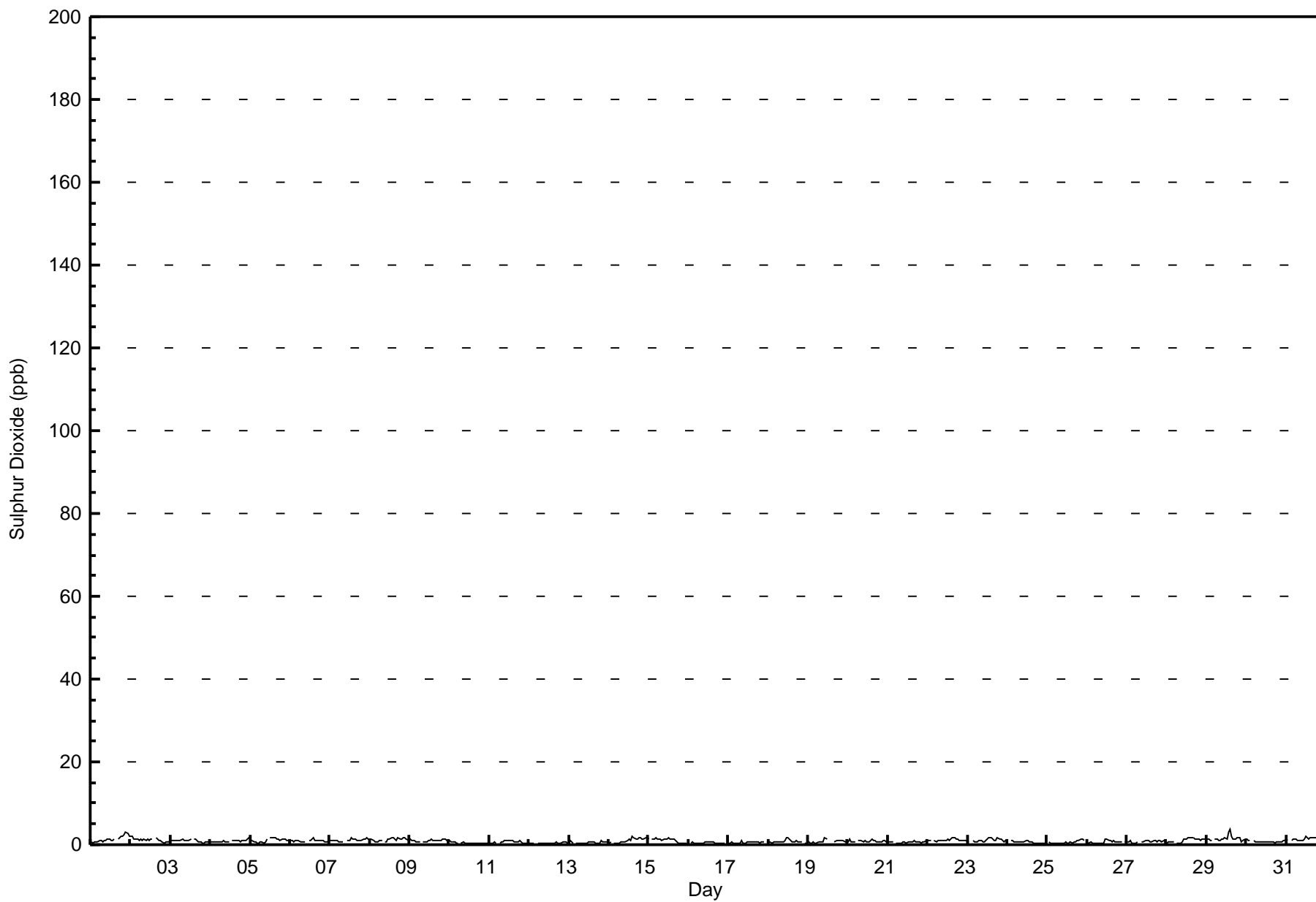


# Hourly Maximums

## Sulphur Dioxide (SO<sub>2</sub>) - ppb Evergreen Park - January 2010

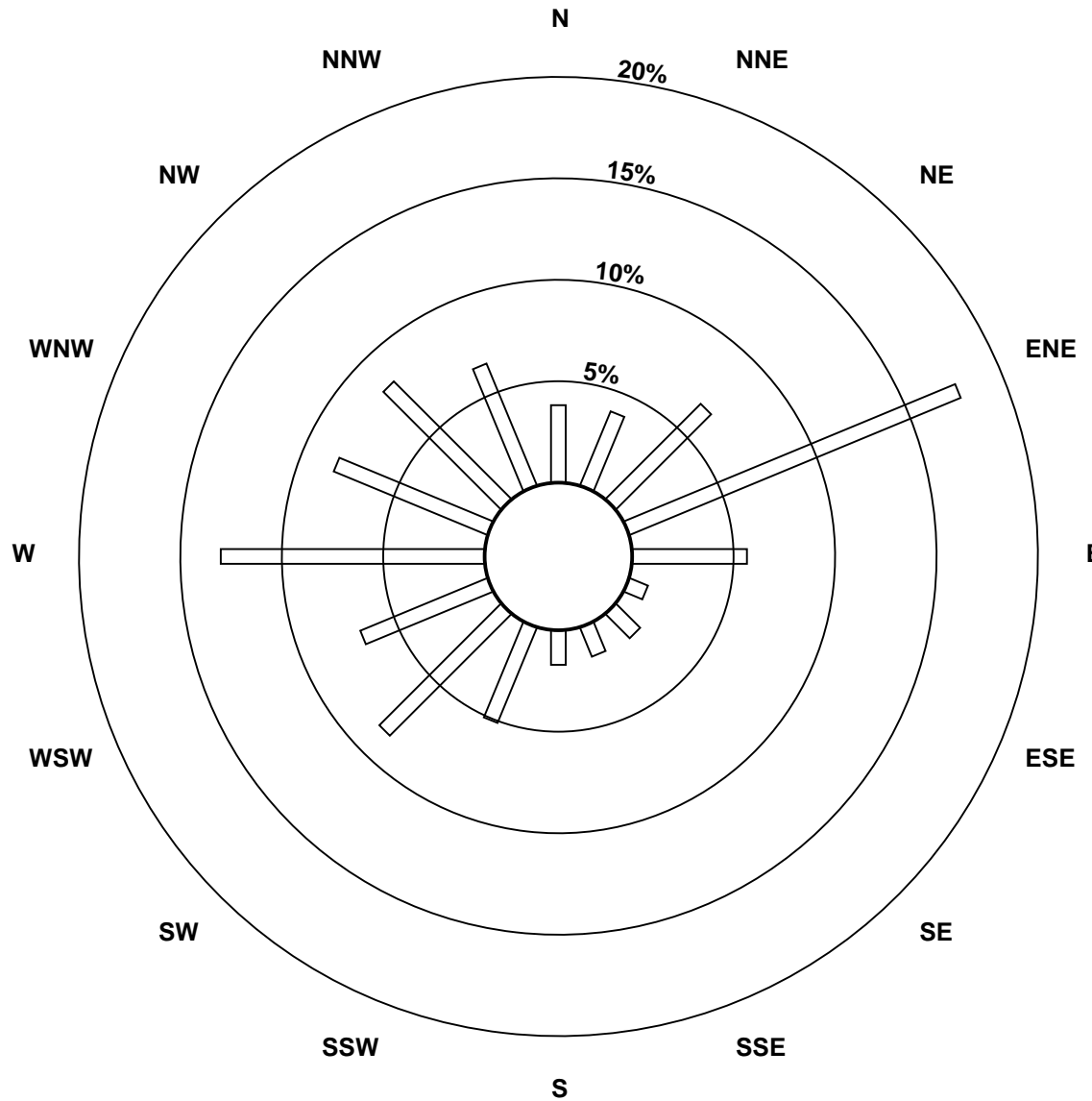
Maximum Value: 3.7 ppb on Jan 29 15:00		Maximum Daily Average: 1.5 ppb on Jan 29		Hours in Service: 744																						
Minimum Value: 0 ppb on Jan 10 11:00		Minimum Daily Average: 0.4 ppb on Jan 10		Hours of Data: 707																						
Maximum Diurnal Average: 1.2 ppb at hour 15		Minimum Diurnal Average: 0.7 ppb at hour 6		Hours of Missing Data: 37																						
Monthly Average: 0.87 ppb		Percentiles: P <sub>1</sub> = 0.3 P <sub>10</sub> = 0.4 Q <sub>1</sub> = 0.6 Median = 0.8 Q <sub>3</sub> = 1.1 P <sub>90</sub> = 1.4 P <sub>99</sub> = 1.8		Hours of Calibration: 35																						
				Percent Operational Time: 99.7																						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jan	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	A	2	2	2	2	3	3	3	2	1.4	3.1
2-Jan	2	2	1	1	1	1	1	1	1	1	1	1	1	1	A	2	2	1	1	1	0	1	1	1	1.1	1.9
3-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0	0	1	1	1	0.9	1.3
4-Jan	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	2	0.9	1.6
5-Jan	1	1	1	1	0	0	1	1	0	1	1	A	2	2	2	2	1	1	1	1	1	1	1	1	1.1	1.8
6-Jan	1	1	1	1	1	1	1	1	1	1	A	1	1	1	2	1	1	1	1	1	1	1	1	1	0.9	1.5
7-Jan	1	1	1	1	1	1	1	1	1	1	A	1	1	1	2	1	1	1	1	1	1	2	2	1	1.0	1.5
8-Jan	1	1	1	1	1	1	1	1	1	1	A	1	1	1	2	2	1	1	2	1	2	2	1	1	1.2	1.8
9-Jan	1	1	1	1	1	1	1	1	A	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1.0	1.5
10-Jan	1	1	1	1	1	0	A	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.9
11-Jan	0	0	0	1	0	A	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0.7	1.0
12-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	0	0.4	0.7
13-Jan	0	1	0	A	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	1	1	1	1	1	0.5	1.0
14-Jan	0	1	A	0	0	0	0	1	1	1	1	1	1	1	2	2	1	1	2	2	1	1	2	2	1.1	1.9
15-Jan	2	A	1	1	2	1	1	1	1	1	1	1	2	1	1	1	1	1	0	0	0	0	0	0	1.1	1.6
16-Jan	A	0	1	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	A	0.5	0.7
17-Jan	0	0	1	0	0	0	0	0	1	0	0	1	1	1	1	1	1	1	1	0	1	1	A	1	0.6	0.9
18-Jan	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	A	0	0	0.8	1.7
19-Jan	1	0	0	1	0	0	1	1	1	1	2	1	C	C	C	C	1	1	1	1	1	1	1	1	0.8	1.6
20-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	1.4
21-Jan	1	1	1	1	A	0	1	0	0	1	1	0	1	1	1	1	1	1	1	1	0	1	1	1	0.6	0.9
22-Jan	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1.1	1.6
23-Jan	1	1	A	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	2	1	1	1	1	1	1.0	1.6
24-Jan	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0.6	0.9
25-Jan	A	1	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1	1	1	1	1	1	1	A	0.6	1.3
26-Jan	0	0	1	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.6	1.5
27-Jan	1	1	1	0	0	0	1	P	P	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.1
28-Jan	0	1	1	1	1	A	0	0	0	1	1	1	1	2	2	2	2	1	1	1	1	1	1	1	1.1	1.7
29-Jan	1	1	1	1	A	1	1	1	1	1	2	1	3	4	2	1	1	2	2	2	2	1	1	1	1.5	3.7
30-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	1.2
31-Jan	1	1	A	1	1	1	1	1	1	1	1	1	2	1	2	2	2	2	2	2	1	1	1	1	1.3	2.0
		0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.9	1.0	1.0	1.1	1.2	1.0	1.0	0.9	0.9	0.9	0.9	0.9	0.9	Diurnal Average	
		1.9	1.9	1.4	1.3	1.5	1.4	1.3	1.3	1.3	1.3	1.6	1.6	2.0	3.1	3.7	1.9	1.6	1.8	1.9	1.9	2.5	3.1	2.8	2.2	Diurnal Maximum
C - Calibration		P - Power Failure						A - Automated Daily Zero Span																		

# Hourly Maximums for SO<sub>2</sub> at Evergreen Park January 2010

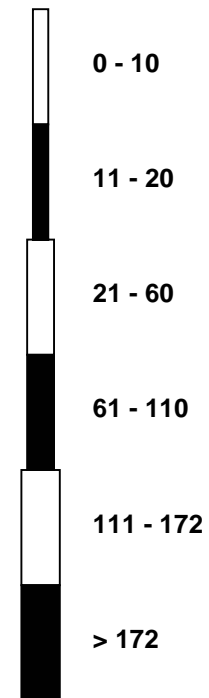


### Pollutant Rose

Sulphur Dioxide (SO<sub>2</sub>) - ppb  
Evergreen Park - January 2010



### Pollutant Classes (ppb)

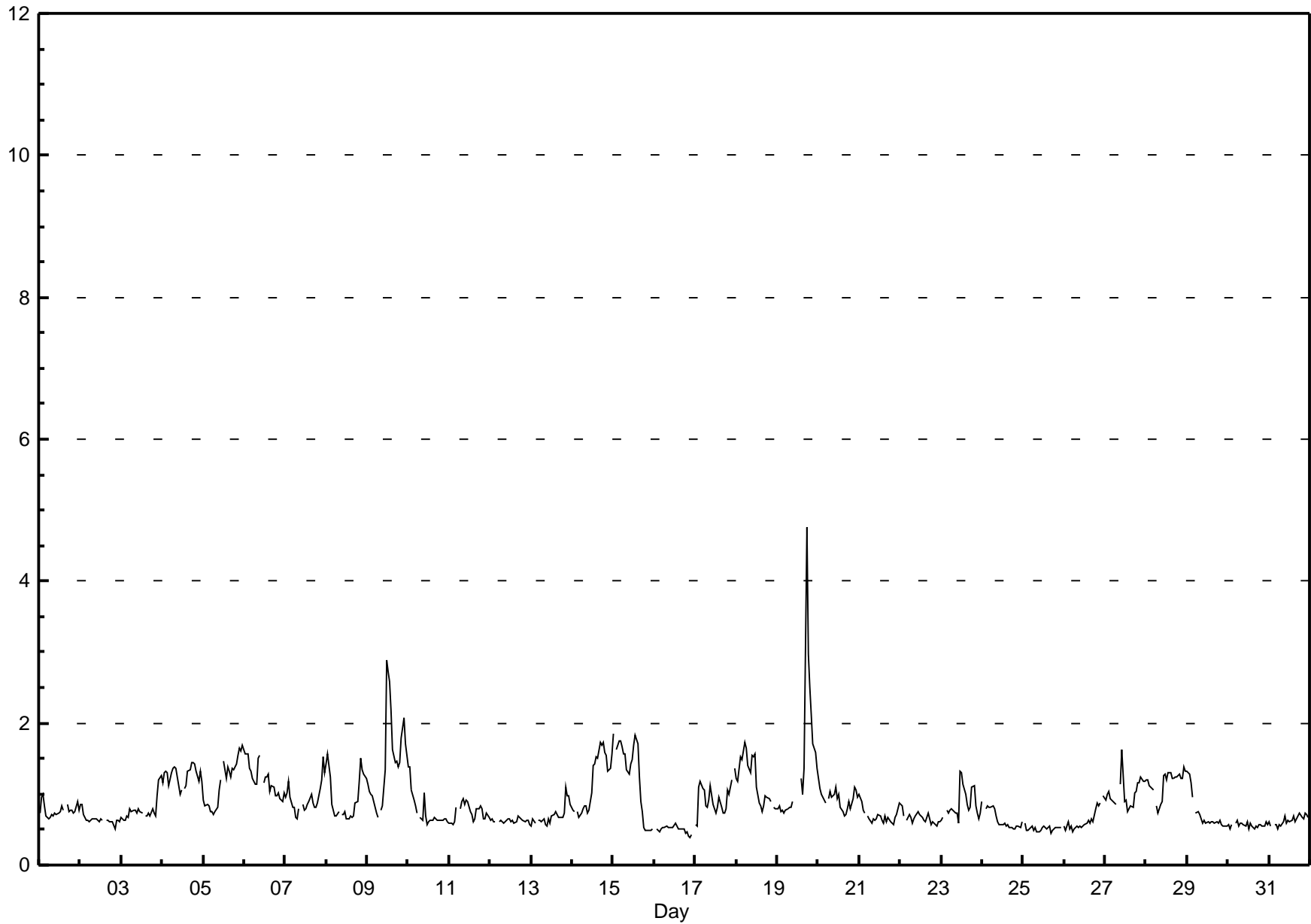


# Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Evergreen Park - January 2010

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 4.8 ppb on Jan 19 18:00      Maximum Daily Average: 1.5 ppb on Jan 9		Hours in Service: 744 Hours of Data: 707 Hours of Missing Data: 37 Hours of Calibration: 35 Percent Operational Time: 99.7																																															
Minimum Value: 0 ppb on Jan 16 22:00 Maximum Diurnal Average: 1.0 ppb at hour 18 Monthly Average: 0.89 ppb		Minimum Daily Average: 0.5 ppb on Jan 16 Minimum Diurnal Average: 0.8 ppb at hour 8 Percentiles: P <sub>1</sub> = 0.5 P <sub>10</sub> = 0.5 Q <sub>1</sub> = 0.6 Median = 0.8 Q <sub>3</sub> = 1.1 P <sub>90</sub> = 1.4 P <sub>99</sub> = 2.0																																															
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																									
1-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	1.0																							
2-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.6	0.9																							
3-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	0.8	1.3																							
4-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	1.3	1.4																							
5-Jan	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	2	2	2	1.2	1.7																							
6-Jan	2	2	2	1	1	1	1	1	2	2	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	1.6																							
7-Jan	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	2	1	0.9	1.5																							
8-Jan	1	2	1	1	1	1	1	1	A	A	1	1	1	1	1	1	1	1	1	1	2	1	1	1	0.9	1.6																							
9-Jan	1	1	1	1	1	1	1	A	A	1	1	3	3	3	2	2	1	1	1	1	1	2	2	2	1.5	2.9																							
10-Jan	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.4																							
11-Jan	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9																							
12-Jan	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.7																							
13-Jan	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.1																							
14-Jan	1	1	A	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	1	2	1.2	1.7																							
15-Jan	2	A	2	2	2	2	2	2	1	1	1	1	2	2	2	1	1	1	1	1	0	0	0	0	1.2	1.9																							
16-Jan	A	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	A	0.5	0.6																							
17-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.9	1.4																							
18-Jan	1	1	2	1	2	2	2	1	1	2	2	2	1	1	1	1	1	1	1	1	1	A	1	1	1.2	1.7																							
19-Jan	1	1	1	1	1	1	1	1	1	1	C	C	C	C	1	1	1	5	3	3	3	2	2	1	1.4	4.8																							
20-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																							
21-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	1.0																							
22-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																							
23-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																							
24-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	0.9																							
25-Jan	A	1	0	0	1	1	0	1	0	0	0	1	1	1	1	1	0	0	1	1	1	1	1	A	0.5	0.6																							
26-Jan	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.6	1.0																							
27-Jan	1	1	1	1	1	1	1	P	P	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.6																							
28-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	1.2	1.4																							
29-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	1.3																							
30-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	0.6	0.6																							
31-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	0.6	0.7																							
																								0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.8	0.8	1.0	0.9	0.9	0.9	0.9	0.9	1.0	Diurnal Average	
																								1.9	1.6	1.6	1.7	1.7	1.7	1.6	1.6	1.5	1.5	1.6	2.9	2.7	2.6	2.2	1.6	1.7	4.8	3.0	2.5	2.1	2.1	1.7	1.7	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																																																	

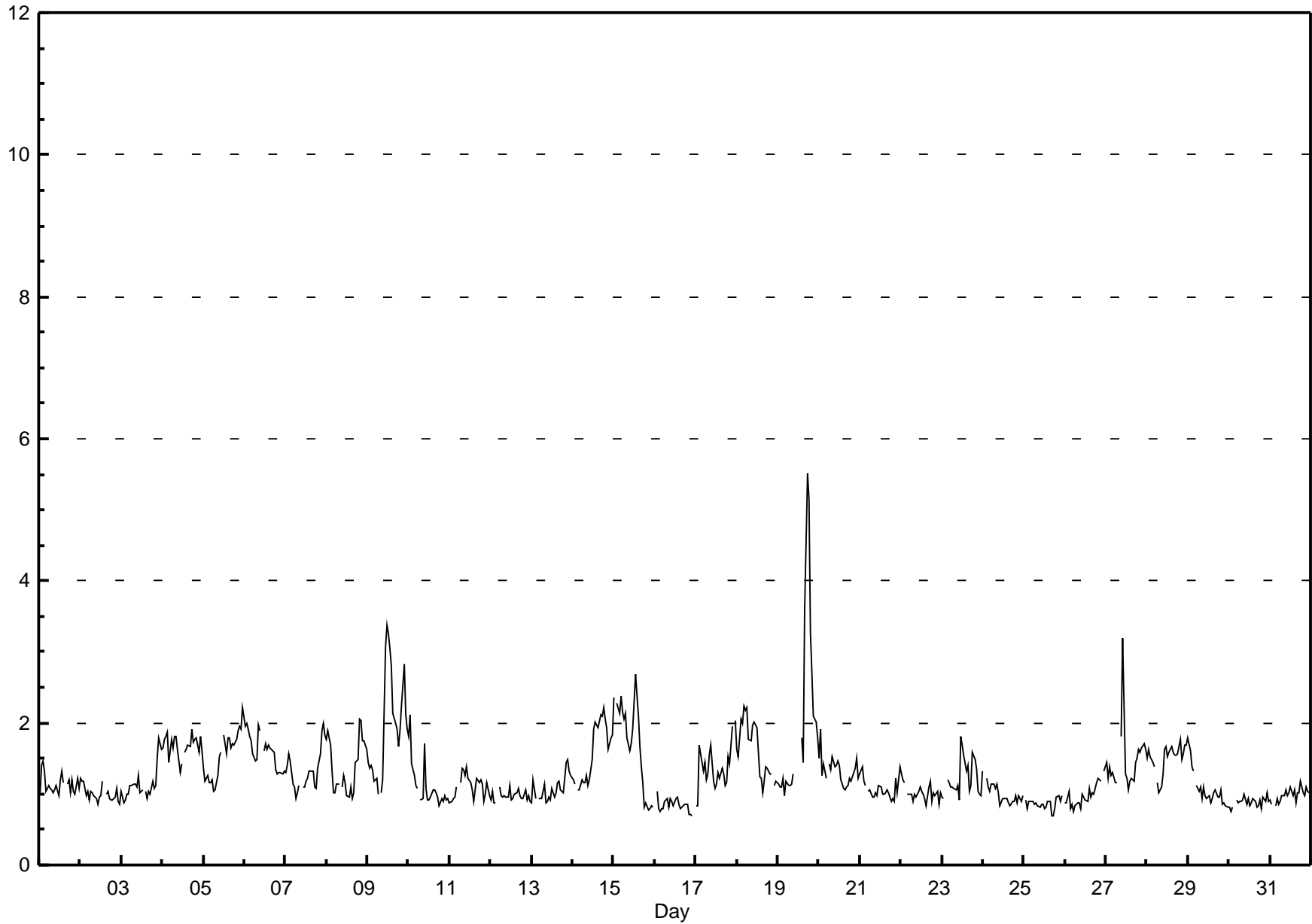


# Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

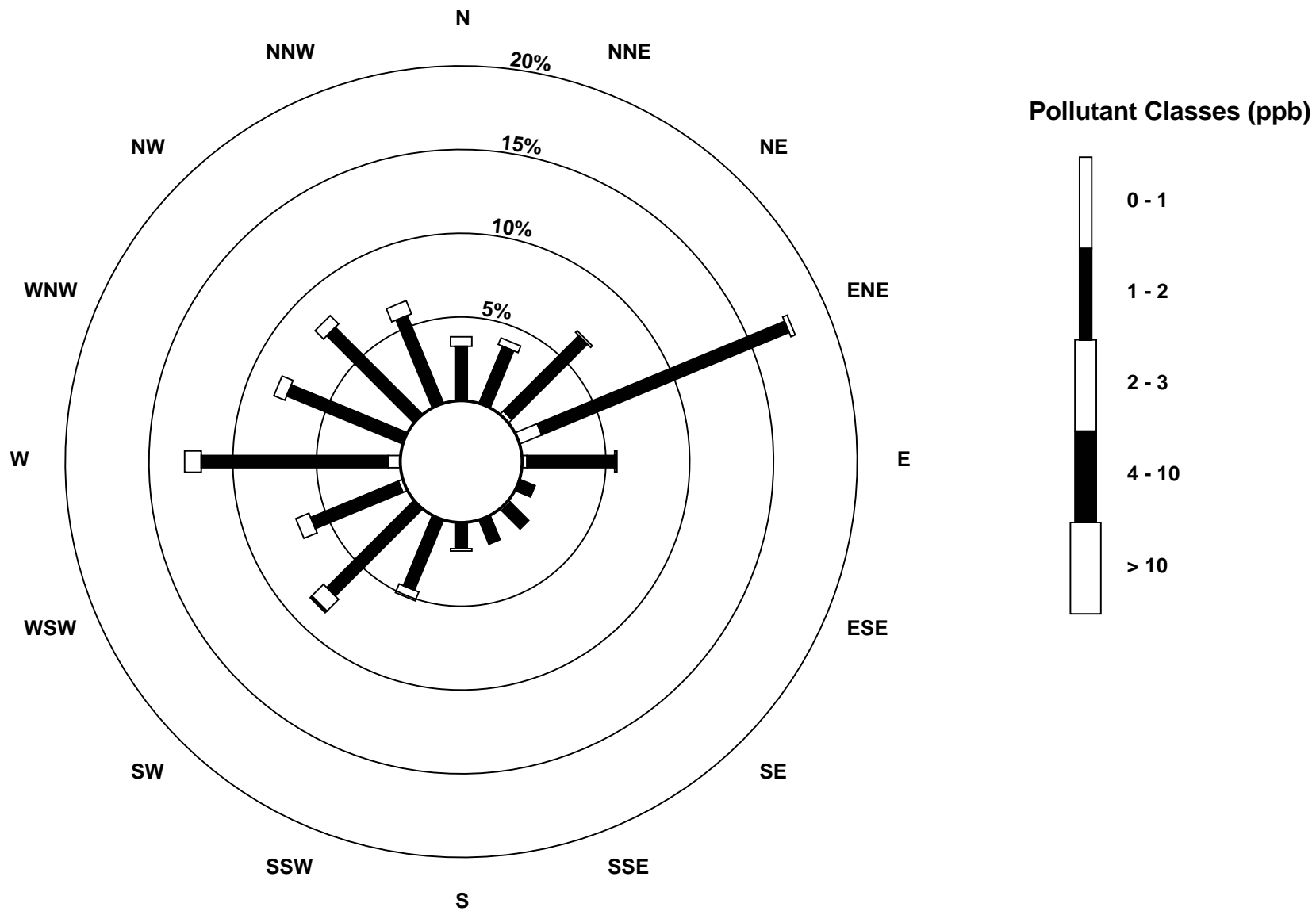
Evergreen Park - January 2010

Maximum Value: 5.5 ppb on Jan 19 18:00		Maximum Daily Average: 2.0 ppb on Jan 19		Hours in Service: 744																						
Minimum Value: 1 ppb on Jan 25 17:00		Minimum Daily Average: 0.8 ppb on Jan 16		Hours of Data: 707																						
Maximum Diurnal Average: 1.4 ppb at hour 18		Minimum Diurnal Average: 1.2 ppb at hour 7		Hours of Missing Data: 37																						
Monthly Average: 1.27 ppb		Percentiles: P <sub>1</sub> = 0.8 P <sub>10</sub> = 0.9 Q <sub>1</sub> = 1.0 Median = 1.1 Q <sub>3</sub> = 1.5 P <sub>90</sub> = 1.8 P <sub>99</sub> = 3.2		Hours of Calibration: 35																						
				Percent Operational Time: 99.7																						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-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	1.1	1.5
2-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1.0	1.2
3-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	2	2	2	1.1	1.8
4-Jan	2	2	2	2	1	2	2	2	2	2	1	1	A	2	2	2	2	2	2	2	2	2	2	2	1.7	1.9
5-Jan	1	1	1	1	1	1	1	1	1	2	2	A	2	2	2	2	2	2	2	2	2	2	2	2	1.5	2.2
6-Jan	2	2	2	2	2	2	1	1	2	2	A	2	2	2	2	2	2	2	1	1	1	1	1	1	1.6	2.0
7-Jan	1	1	2	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	2	2	2	1.3	2.0
8-Jan	2	2	2	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	2	2	2	2	2	1.4	2.0
9-Jan	1	1	1	1	1	1	1	1	A	1	1	3	3	3	3	3	2	2	2	2	2	3	2	2	2.0	3.4
10-Jan	2	2	1	1	1	1	A	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	2.1
11-Jan	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.4
12-Jan	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.1
13-Jan	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.5
14-Jan	1	1	A	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	1.6	2.2
15-Jan	2	A	2	2	2	2	2	2	2	2	2	2	2	3	2	2	1	1	1	1	1	1	1	1	1.7	2.7
16-Jan	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0
17-Jan	1	1	2	2	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	2	1	2	A	2	1.4	2.0
18-Jan	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	A	1	1	1.6	2.2
19-Jan	1	1	1	1	1	1	1	1	1	1	1	C	C	C	C	2	1	4	6	5	3	3	2	2	2.0	5.5
20-Jan	2	2	1	1	1	A	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1.3	1.9
21-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	1.1	1.4
22-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	1.0	1.3
23-Jan	1	1	A	1	1	1	1	1	1	1	1	2	2	2	1	1	1	1	2	1	1	1	1	1	1.2	1.8
24-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	1.3
25-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	1.0
26-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1.0	1.3
27-Jan	1	1	1	1	1	1	1	P	P	2	3	1	1	1	1	1	1	1	1	2	2	2	2	2	1.5	3.2
28-Jan	1	2	2	1	1	A	1	1	1	1	2	2	2	2	2	2	2	2	2	2	1	2	2	2	1.5	1.8
29-Jan	2	2	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.8
30-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
31-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	1.0	1.2
		1.3	1.3	1.3	1.3	1.2	1.2	1.2	1.2	1.2	1.2	1.3	1.3	1.3	1.3	1.3	1.2	1.3	1.4	1.3	1.3	1.3	1.3	1.3	1.3	Diurnal Average
		2.4	2.1	2.3	2.1	2.4	2.2	2.2	2.1	2.0	2.0	3.2	3.4	3.3	3.0	2.8	2.1	3.6	5.5	5.1	3.3	2.7	2.8	2.1	2.2	Diurnal Maximum
C - Calibration		P - Power Failure						A - Automated Daily Zero Span																		



### Pollutant Rose

Total Reduced Sulphur (TRS) - ppb  
Evergreen Park - January 2010





# Hourly Averages

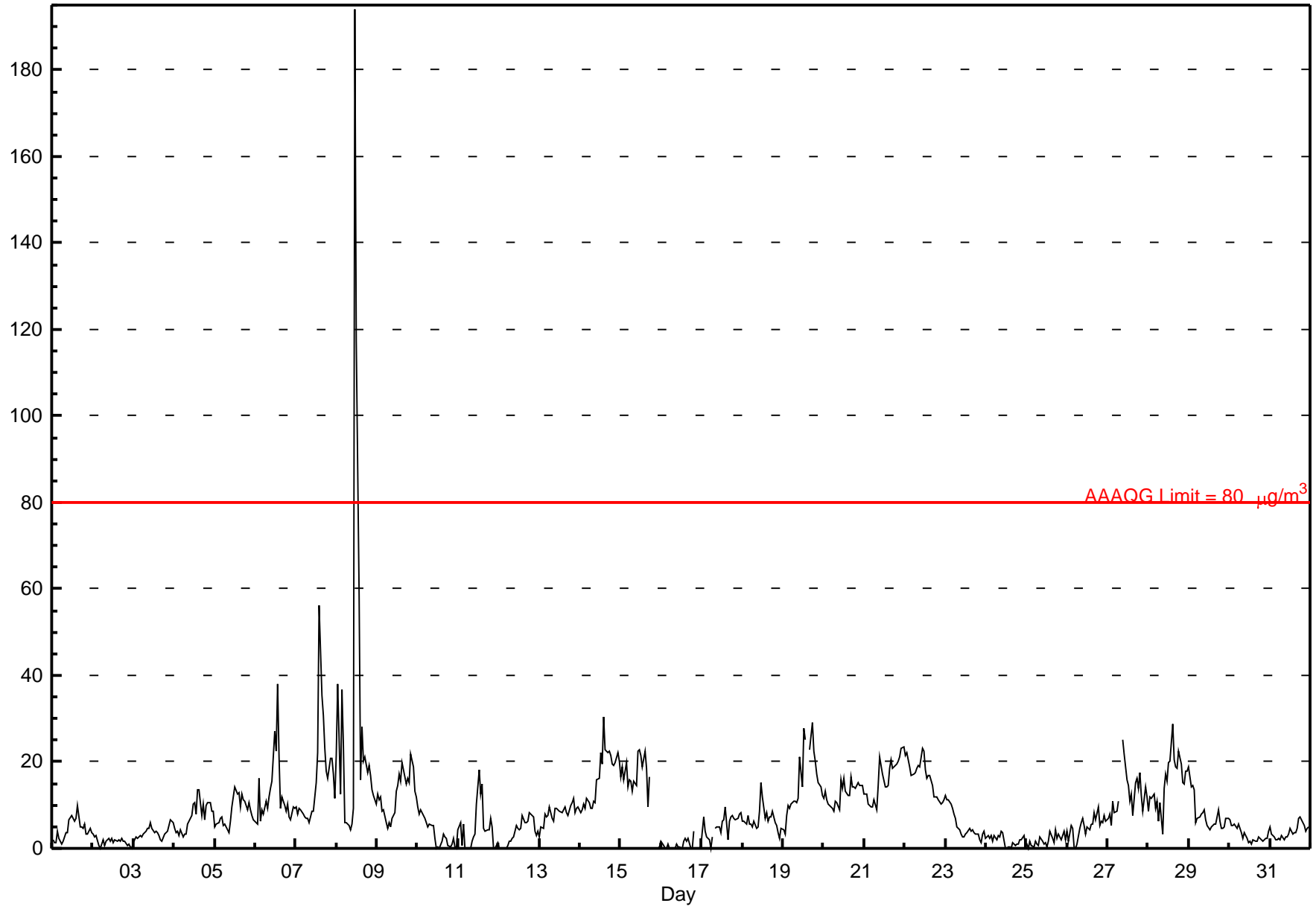
# Particulate Matter 2.5 (PM<sub>2.5</sub>) - µg/m<sup>3</sup>

## Evergreen Park - January 2010

Number of Exceedences: 1-hr: 2 24-hr: 0	Hours in Service: 744
Maximum Value: 194.1 µg/m <sup>3</sup> on Jan 8 12:00	Maximum Daily Average: 29.7 µg/m <sup>3</sup> on Jan 8
Minimum Value: 0 µg/m <sup>3</sup> on Jan 2 05:00	Hours of Data: 733
Maximum Diurnal Average: 15.5 µg/m <sup>3</sup> at hour 12	Hours of Missing Data: 11
Monthly Average: 8.93 µg/m <sup>3</sup>	Hours of Calibration: 2
Minimum Daily Average: 0.8 µg/m <sup>3</sup> on Jan 16	Percent Operational Time: 98.8
Minimum Diurnal Average: 5.8 µg/m <sup>3</sup> at hour 6	
Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 1.3 Q <sub>1</sub> = 3.2 Median = 6.8 Q <sub>3</sub> = 12.1 P <sub>90</sub> = 18.9 P <sub>99</sub> = 35.4	

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	4	2	1	2	3	4	4	7	8	7	6	7	10	5	5	5	6	3	3	5	4	4.3	9.9	
2-Jan	3	3	3	1	0	1	2	1	2	2	2	2	1	2	2	2	2	2	2	2	1	1	0	0	1.6	3.2	
3-Jan	1	3	2	3	3	3	3	4	5	4	6	5	4	4	4	3	2	2	3	4	4	5	6	6	3.7	6.5	
4-Jan	5	4	4	3	4	3	3	3	5	6	8	10	11	8	13	14	8	10	7	10	10	11	9	9	7.4	13.6	
5-Jan	5	5	6	7	7	5	6	5	4	6	9	12	14	13	13	10	13	11	11	9	11	9	8	6	8.5	14.1	
6-Jan	6	6	16	6	9	8	11	9	12	14	16	27	23	38	21	9	12	10	9	10	7	6	10	9	12.7	38.0	
7-Jan	10	8	9	9	8	7	7	7	6	9	9	12	15	22	56	35	31	23	18	16	21	21	17	12	16.1	56.2	
8-Jan	22	38	13	37	24	6	6	5	4	6	9	194	117	58	16	28	20	21	17	19	17	14	12	10	29.7	194.1	
9-Jan	12	11	12	9	9	6	5	6	5	7	8	13	15	17	16	20	17	15	16	15	22	19	13	12	12.5	21.7	
10-Jan	10	8	9	7	7	6	5	6	5	5	2	0	0	0	2	3	3	2	1	0	1	2	0	0	3.6	9.6	
11-Jan	4	6	1	6	0	0	BD	0	2	3	3	10	18	13	15	5	4	4	4	7	5	0	0	1	4.8	18.1	
12-Jan	0	0	0	0	0	1	2	2	2	3	5	5	4	5	8	6	6	6	8	8	7	4	3	4	3.7	8.2	
13-Jan	3	5	5	8	7	8	10	7	6	9	9	9	9	8	9	10	8	8	10	11	12	8	9	9	8.2	11.6	
14-Jan	8	9	10	9	12	10	9	9	11	11	16	16	22	19	30	23	22	22	22	20	19	20	22	20	16.4	30.3	
15-Jan	17	19	16	20	14	16	16	13	16	15	22	23	22	19	23	18	10	16	BD	BD	BD	BD	0	0	15.7	22.7	
16-Jan	2	1	0	0	1	0	0	0	0	1	0	0	0	2	2	2	2	0	0	4	BD	0	0	0	0.8	3.9	
17-Jan	4	7	4	3	2	0	3	BD	5	5	5	4	6	7	9	2	6	7	8	7	6	7	8	8	5.4	9.4	
18-Jan	6	6	6	8	5	6	5	6	4	5	9	15	12	7	8	6	7	7	9	6	5	4	2	5	6.6	15.3	
19-Jan	4	3	7	10	9	10	11	11	10	12	21	14	28	25	C	C	23	29	23	20	17	15	14	12	15.0	29.0	
20-Jan	12	13	11	10	9	9	9	11	10	9	16	14	16	13	12	12	17	14	14	14	15	15	14	14	12.7	16.6	
21-Jan	12	13	10	10	10	10	11	9	15	21	19	17	14	14	15	18	21	19	19	19	20	21	23	23	16.0	23.4	
22-Jan	22	22	21	19	17	17	17	18	19	19	23	22	18	16	17	17	15	12	12	12	11	10	11	11	16.6	23.2	
23-Jan	12	11	11	10	9	8	7	5	4	3	3	3	3	4	5	4	4	4	3	3	2	1	3	4	5.3	12.2	
24-Jan	2	3	2	3	2	3	2	3	3	4	4	0	0	0	0	0	1	1	1	1	2	2	3	0	1.8	4.0	
25-Jan	1	0	2	1	0	2	1	1	2	2	1	1	0	2	4	2	1	4	2	3	2	3	4	2	1.8	4.4	
26-Jan	4	2	5	5	0	0	1	5	6	7	5	3	5	4	6	6	8	7	10	5	6	6	8	6	5.0	9.6	
27-Jan	7	8	5	11	8	9	11	P	P	25	22	16	15	11	13	8	15	16	14	17	12	9	14	12	12.6	25.2	
28-Jan	9	12	11	12	9	11	6	11	3	14	17	16	20	20	29	20	19	19	22	19	15	15	18	18	15.2	28.8	
29-Jan	19	14	14	14	6	7	7	8	8	9	7	5	4	5	5	6	6	9	6	5	5	5	7	7	7.8	18.8	
30-Jan	6	5	5	6	5	5	5	4	2	4	2	1	2	1	2	2	2	2	2	2	2	2	2	4	3.1	6.5	
31-Jan	5	3	3	2	2	2	2	3	2	2	2	2	3	4	3	4	4	5	7	7	6	5	4	5	5	3.8	7.2
	7.6	8.0	7.3	8.1	6.5	5.8	6.1	6.0	6.1	7.9	9.3	15.5	13.9	11.8	12.1	10.1	10.1	10.2	9.5	9.4	9.2	8.1	8.1	7.6	Diurnal Average		
	21.6	38.1	20.6	36.6	23.7	17.2	17.4	18.5	19.0	25.2	23.2	194.1	117.4	58.4	56.2	35.3	30.7	29.0	22.6	20.3	21.7	21.2	23.2	23.4	Diurnal Maximum		

C - Calibration P - Power Failure BD - Baseline Drift  
 Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 µg/m<sup>3</sup> Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 µg/m<sup>3</sup>



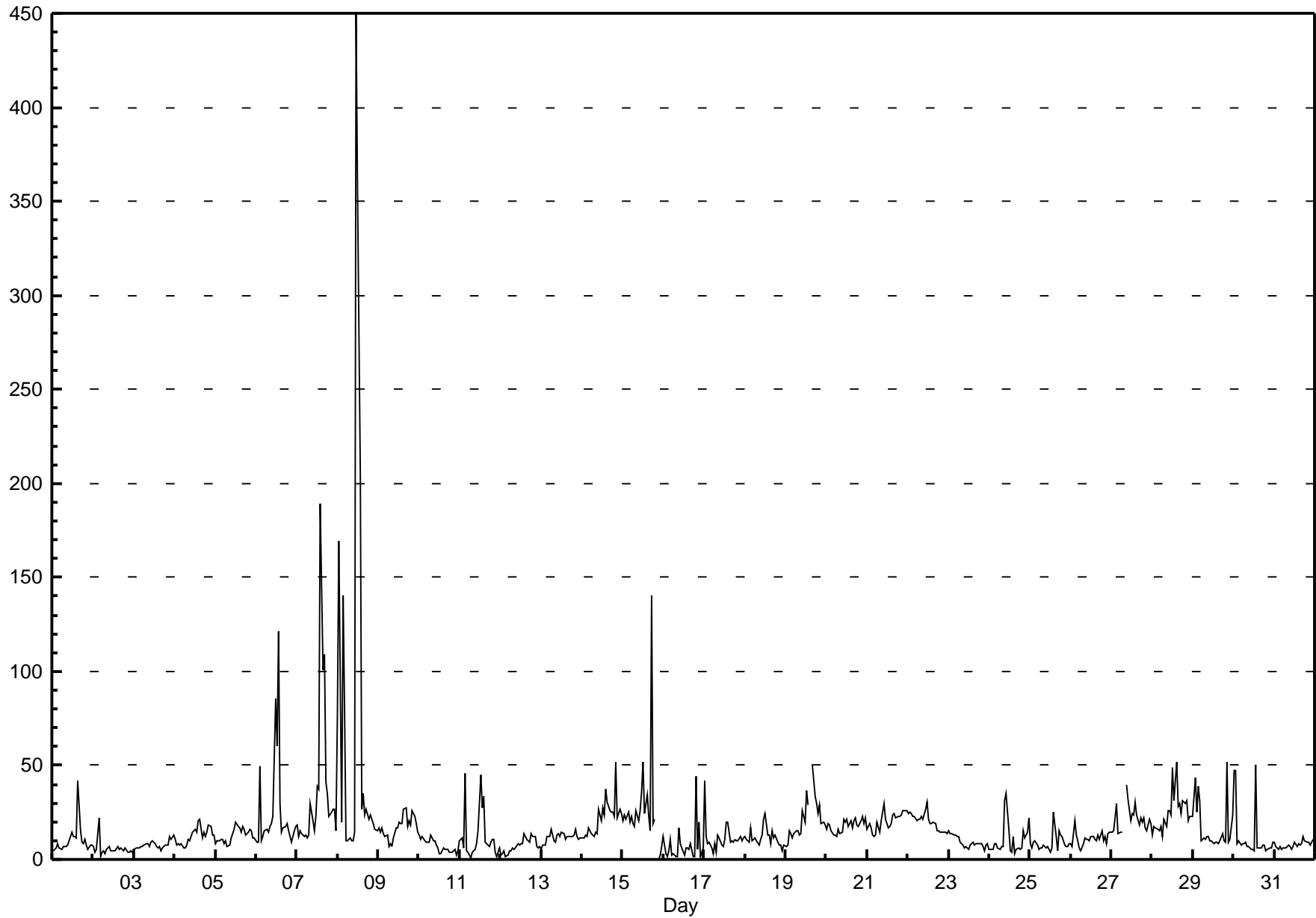


# Hourly Maximums

# Particulate Matter 2.5 (PM<sub>2.5</sub>) - µg/m<sup>3</sup>

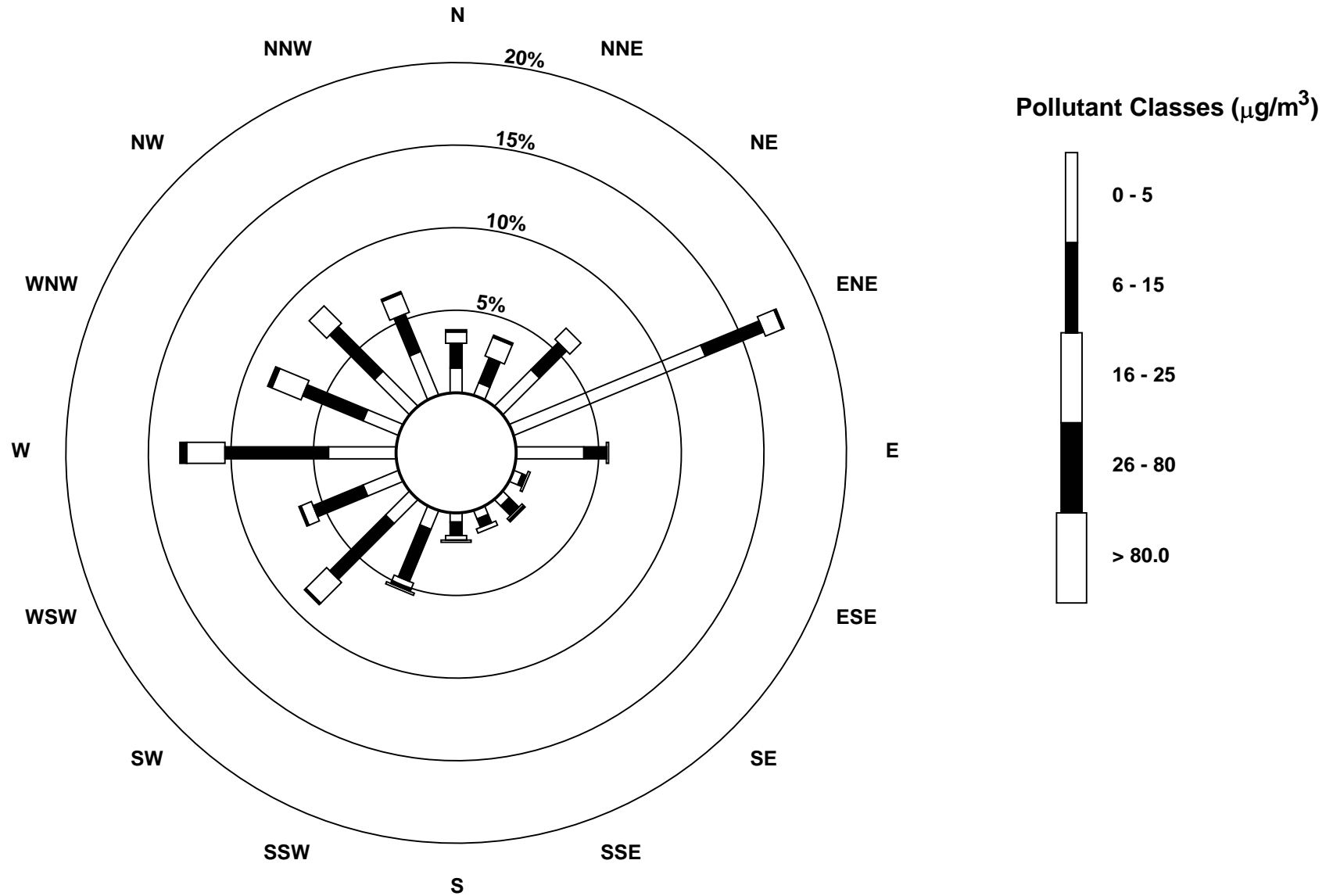
## Evergreen Park - January 2010

Maximum Value: 450.0 µg/m <sup>3</sup> on Jan 8 12:00		Maximum Daily Average: 74.6 µg/m <sup>3</sup> on Jan 8		Hours in Service: 744																							
Minimum Value: 0 µg/m <sup>3</sup> on Jan 15 22:00		Minimum Daily Average: 5.6 µg/m <sup>3</sup> on Jan 2		Hours of Data: 739																							
Maximum Diurnal Average: 31.0 µg/m <sup>3</sup> at hour 12		Minimum Diurnal Average: 10.1 µg/m <sup>3</sup> at hour 6		Hours of Missing Data: 5																							
Monthly Average: 16.80 µg/m <sup>3</sup>		Percentiles: P <sub>1</sub> = 1.6 P <sub>10</sub> = 5.4 Q <sub>1</sub> = 7.5 Median = 12.0 Q <sub>3</sub> = 19.3 P <sub>90</sub> = 26.3 P <sub>99</sub> = 140.0		Hours of Calibration: 2																							
				Percent Operational Time: 99.6																							
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	5	6	6	8	6	5	7	7	7	7	10	15	12	12	12	42	15	9	8	10	8	6	7	8	9.9	42.2	
2-Jan	7	4	5	22	2	4	5	3	5	7	5	4	5	5	7	6	6	5	5	6	4	4	4	4	5.6	22.1	
3-Jan	6	6	6	6	7	7	8	8	8	7	9	10	8	7	6	7	5	6	8	7	7	12	11	13	7.7	12.7	
4-Jan	11	7	8	7	9	6	6	7	10	10	14	15	16	14	20	21	12	15	12	14	19	18	13	13	12.4	21.2	
5-Jan	8	10	10	11	10	9	10	7	8	11	13	16	20	17	15	17	16	13	15	16	15	12	12	12	12.8	20.2	
6-Jan	9	9	49	10	12	15	16	15	18	19	23	86	60	121	30	14	17	17	19	15	12	10	16	18	26.2	121.3	
7-Jan	18	12	15	14	13	13	12	13	30	21	15	23	39	37	189	101	109	41	35	23	26	26	27	15	36.1	189.3	
8-Jan	76	169	20	140	79	10	10	11	10	10	14	450	359	203	27	35	24	27	21	23	21	19	16	15	74.6	450.0	
9-Jan	17	15	17	14	12	13	7	8	7	11	17	17	20	19	19	27	27	18	21	18	26	23	19	14	16.9	27.2	
10-Jan	13	11	12	10	9	9	9	13	10	10	8	6	3	3	6	6	5	5	4	4	4	6	2	4	7.2	12.9	
11-Jan	10	11	6	46	4	4	1	4	4	5	9	15	45	28	34	9	8	7	9	10	10	4	2	6	12.0	46.1	
12-Jan	3	3	4	2	3	4	4	6	5	6	8	7	8	9	13	11	10	9	14	12	12	7	6	7	7.2	13.8	
13-Jan	5	8	8	13	12	12	16	10	9	13	14	12	14	14	11	12	12	12	12	13	16	12	11	12	11.7	16.3	
14-Jan	11	11	13	13	16	14	13	12	14	14	27	21	28	24	37	30	26	25	25	23	52	22	26	25	21.8	51.6	
15-Jan	20	23	22	25	20	23	19	18	26	21	26	36	52	24	34	23	15	140	19	21	BD	0	2	7	26.8	140.1	
16-Jan	12	3	1	4	10	2	3	2	2	17	8	6	2	6	6	6	8	1	2	44	6	20	1	6	7.5	44.0	
17-Jan	42	12	8	9	6	3	8	4	13	11	8	7	11	20	20	9	10	9	11	10	10	12	10	12	11.5	42.1	
18-Jan	12	11	9	17	10	11	11	10	8	11	13	22	24	13	13	8	15	11	13	9	8	8	5	7	11.6	24.4	
19-Jan	7	8	15	14	11	14	15	16	13	14	26	20	37	29	C	C	51	34	30	25	29	19	20	18	21.1	50.5	
20-Jan	16	19	18	15	13	13	12	16	14	15	21	20	21	18	20	16	20	22	18	18	20	23	19	22	18.0	23.1	
21-Jan	16	19	17	13	12	13	20	15	21	25	30	21	17	18	19	23	25	22	23	23	23	26	26	26	20.5	29.5	
22-Jan	24	25	25	23	23	21	21	21	23	21	27	30	21	19	19	20	19	15	15	15	15	14	14	14	20.2	30.4	
23-Jan	16	14	14	13	13	12	12	9	7	6	7	6	5	7	9	8	9	9	8	8	7	5	8	8	9.2	15.6	
24-Jan	5	6	5	9	8	6	6	7	7	31	35	16	4	4	12	3	5	6	5	6	15	12	14	22	10.4	34.8	
25-Jan	8	6	9	10	7	5	6	6	7	6	7	5	4	6	25	12	5	15	13	12	8	7	7	8	8.6	25.2	
26-Jan	9	7	20	13	10	6	4	9	11	11	11	10	12	12	11	10	13	11	15	10	12	9	14	14	10.9	20.4	
27-Jan	15	15	22	30	13	15	14	P	P	40	32	21	24	24	30	24	18	22	20	22	17	15	21	19	21.6	39.7	
28-Jan	13	17	17	16	15	18	12	21	17	26	26	23	49	32	52	28	30	24	31	30	31	21	23	23	24.8	52.0	
29-Jan	23	43	25	39	31	10	11	11	12	12	10	10	9	9	9	8	10	14	10	9	52	9	11	24	17.1	51.5	
30-Jan	47	47	9	10	8	9	9	9	7	7	6	6	5	51	6	6	6	7	7	5	5	6	6	9	12.1	50.6	
31-Jan	9	7	6	7	6	6	6	6	7	7	6	7	9	7	8	7	8	12	10	9	9	8	9	10	7.8	11.8	
		15.9	18.2	13.6	18.7	13.3	10.1	10.1	10.1	11.4	13.9	15.6	31.0	30.5	26.2	24.2	18.3	18.0	18.9	14.7	15.2	16.6	12.7	12.3	13.4	Diurnal Average	
		76.5	169.0	49.5	140.3	79.3	22.8	21.4	21.2	29.9	39.7	34.8	450.0	359.1	203.5	189.3	100.9	109.1	140.1	34.8	44.0	51.6	26.3	26.7	26.1	Diurnal Maximum	
C - Calibration		P - Power Failure					BD - Baseline Drift																				



### Pollutant Rose

Particulate Matter 2.5 (PM<sub>2.5</sub>) -  $\mu\text{g}/\text{m}^3$   
Evergreen Park - January 2010



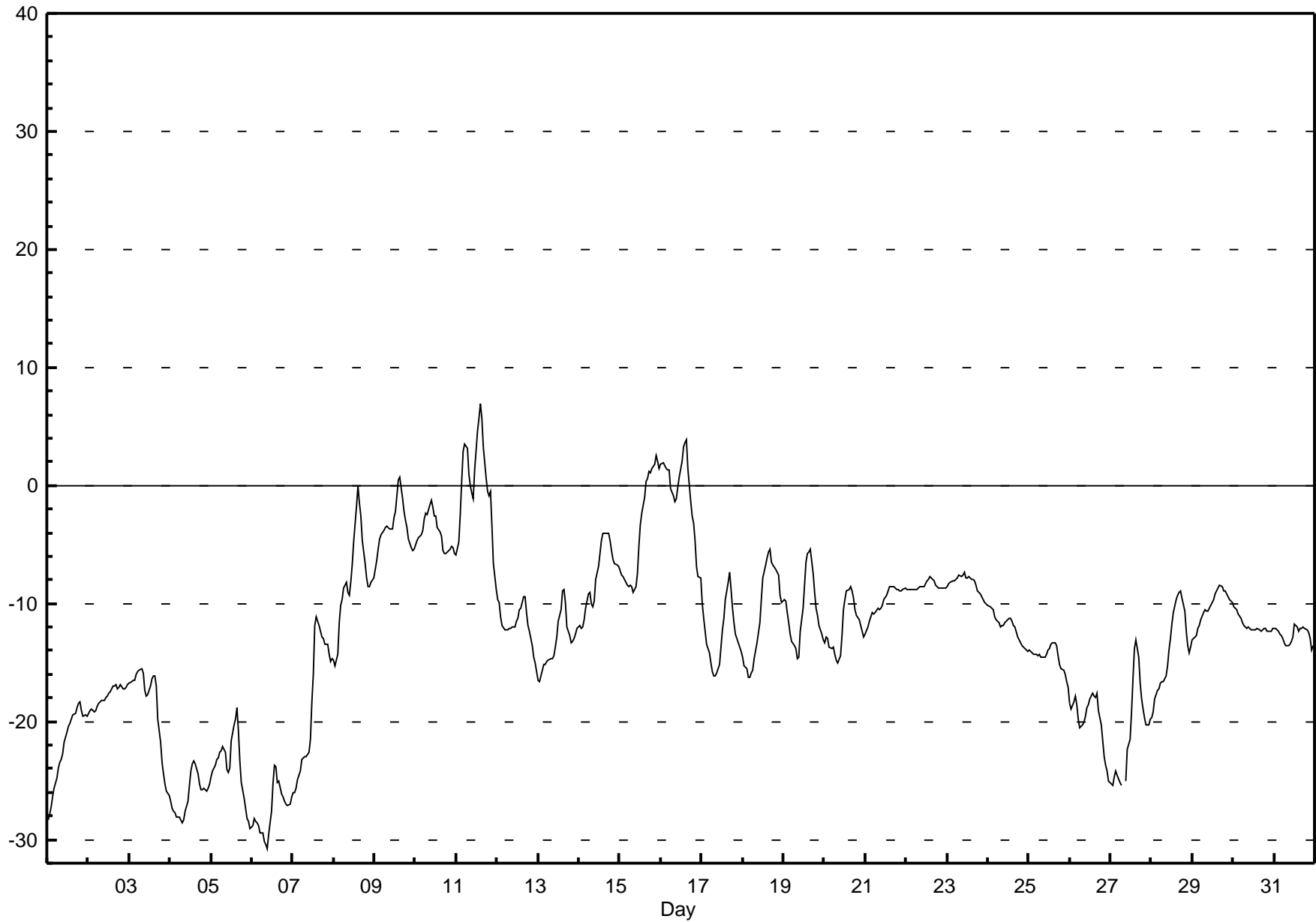


# Hourly Averages

External Temperature (ET) - °C

Evergreen Park - January 2010

Number of Exceedences (AAQO): 1-hr: 0 24-hr: 0 Maximum Value: 7.0 °C on Jan 11 15:00      Maximum Daily Average: 0.1 °C on Jan 11		Hours in Service: 744 Hours of Data: 742 Hours of Missing Data: 2 Hours of Calibration: 0 Percent Operational Time: 99.7																																														
Minimum Value: -31 °C on Jan 6 10:00 Maximum Diurnal Average: -9.7 °C at hour 16 Monthly Average: -12.72 °C		Minimum Daily Average: -27.5 °C on Jan 6 Minimum Diurnal Average: -14.4 °C at hour 1 Percentiles: P <sub>1</sub> = -28.9 P <sub>10</sub> = -24.2 Q <sub>1</sub> = -17.0 Median = -12.1 Q <sub>3</sub> = -8.5 P <sub>90</sub> = -3.6 P <sub>99</sub> = 3.5																																														
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum																						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																								
1-Jan	-28	-28	-27	-26	-26	-25	-24	-24	-23	-23	-22	-21	-20	-20	-19	-19	-19	-18	-18	-19	-20	-19	-20	-22.0	-18.3																							
2-Jan	-19	-19	-19	-19	-19	-19	-19	-18	-18	-18	-18	-18	-18	-17	-17	-17	-17	-17	-17	-17	-17	-17	-17	-17.9	-16.8																							
3-Jan	-17	-17	-17	-16	-16	-16	-16	-16	-16	-17	-18	-18	-17	-16	-16	-16	-17	-20	-22	-23	-24	-25	-26	-18.6	-15.6																							
4-Jan	-27	-27	-28	-28	-28	-28	-28	-29	-28	-28	-27	-25	-24	-24	-23	-24	-24	-25	-26	-26	-26	-26	-26	-26.2	-23.4																							
5-Jan	-25	-24	-24	-23	-23	-23	-22	-22	-23	-24	-24	-24	-22	-20	-20	-19	-21	-23	-25	-26	-27	-28	-28	-23.8	-18.8																							
6-Jan	-29	-28	-28	-29	-29	-29	-29	-30	-30	-31	-30	-28	-25	-24	-24	-25	-25	-26	-26	-27	-27	-27	-27	-27.5	-23.7																							
7-Jan	-26	-26	-26	-25	-24	-23	-23	-23	-23	-23	-21	-18	-16	-12	-11	-12	-12	-13	-13	-13	-13	-14	-15	-18.4	-11.1																							
8-Jan	-15	-15	-14	-12	-10	-10	-9	-8	-9	-9	-8	-7	-5	-2	0	-2	-3	-5	-7	-8	-9	-9	-8	-7.9	-0.1																							
9-Jan	-7	-6	-5	-5	-4	-4	-4	-3	-4	-4	-4	-3	-2	-1	0	1	-1	-2	-3	-4	-5	-5	-6	-3.5	0.7																							
10-Jan	-5	-5	-4	-4	-4	-3	-2	-2	-2	-1	-2	-3	-3	-4	-4	-4	-5	-6	-6	-6	-5	-5	-5	-4.0	-1.2																							
11-Jan	-6	-5	-3	0	3	4	3	1	0	-1	-1	1	5	6	7	6	3	1	-1	-1	0	-3	-7	0.1	7.0																							
12-Jan	-10	-10	-11	-12	-12	-12	-12	-12	-12	-12	-12	-12	-11	-10	-10	-9	-9	-11	-12	-12	-14	-15	-15	-11.8	-9.4																							
13-Jan	-17	-17	-16	-15	-15	-15	-15	-15	-15	-14	-14	-13	-11	-11	-9	-9	-10	-12	-13	-13	-13	-13	-13	-13.2	-8.8																							
14-Jan	-12	-12	-12	-11	-10	-9	-9	-10	-10	-10	-8	-7	-6	-5	-4	-4	-4	-4	-5	-5	-6	-7	-7	-7.7	-4.0																							
15-Jan	-7	-8	-8	-8	-8	-9	-8	-9	-9	-9	-7	-5	-3	-2	-1	0	1	1	1	1	2	3	2	-3.7	2.6																							
16-Jan	2	2	2	1	1	1	0	-1	-1	-1	0	1	2	3	4	4	1	-1	-3	-3	-5	-7	-8	-0.6	3.9																							
17-Jan	-10	-11	-12	-14	-14	-15	-16	-16	-16	-16	-15	-14	-12	-11	-10	-8	-7	-9	-10	-12	-13	-13	-14	-12.6	-7.3																							
18-Jan	-15	-15	-16	-16	-16	-16	-16	-15	-13	-12	-10	-8	-7	-6	-6	-5	-7	-7	-7	-7	-8	-9	-10	-10.7	-5.4																							
19-Jan	-10	-10	-11	-12	-13	-13	-14	-14	-15	-14	-12	-10	-8	-7	-6	-6	-5	-8	-9	-10	-11	-12	-13	-10.6	-5.4																							
20-Jan	-13	-13	-13	-14	-14	-14	-14	-15	-15	-14	-13	-11	-10	-9	-9	-9	-9	-10	-10	-11	-11	-12	-13	-11.9	-8.6																							
21-Jan	-13	-12	-11	-11	-11	-11	-11	-10	-11	-10	-10	-10	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9.8	-8.5																							
22-Jan	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-8	-8	-8	-8	-8	-8	-8	-9	-9	-9	-9	-9	-8.5	-7.8																							
23-Jan	-9	-8	-8	-8	-8	-8	-8	-8	-8	-8	-7	-8	-8	-8	-8	-8	-8	-8	-9	-9	-9	-10	-10	-8.3	-7.4																							
24-Jan	-10	-10	-10	-11	-11	-11	-12	-12	-12	-12	-12	-11	-11	-11	-11	-12	-12	-13	-13	-13	-14	-14	-14	-11.9	-10.2																							
25-Jan	-14	-14	-14	-14	-14	-14	-14	-15	-15	-15	-14	-14	-14	-13	-13	-13	-14	-14	-15	-16	-16	-16	-17	-14.6	-13.3																							
26-Jan	-18	-19	-18	-18	-19	-20	-20	-20	-20	-20	-19	-19	-18	-18	-18	-18	-18	-19	-20	-22	-23	-24	-24	-19.8	-17.6																							
27-Jan	-25	-25	-25	-24	-25	-25	-25	P	P	-25	-22	-22	-19	-16	-14	-13	-15	-17	-18	-19	-20	-20	-20	-20.7	-13.1																							
28-Jan	-20	-19	-18	-17	-17	-17	-17	-17	-16	-15	-14	-13	-12	-11	-10	-9	-9	-9	-10	-11	-12	-14	-14	-13.9	-9.0																							
29-Jan	-13	-13	-13	-12	-12	-11	-11	-11	-11	-11	-10	-10	-9	-9	-9	-8	-9	-9	-9	-9	-9	-10	-10	-10.3	-8.5																							
30-Jan	-10	-10	-11	-11	-11	-12	-12	-12	-12	-12	-12	-12	-12	-12	-12	-12	-12	-12	-12	-12	-12	-12	-12	-11.8	-10.2																							
31-Jan	-12	-12	-12	-13	-13	-13	-13	-14	-14	-14	-14	-13	-13	-12	-12	-12	-12	-12	-12	-12	-12	-13	-14	-12.7	-11.8																							
																								-14.4	-14.4	-14.2	-14.0	-13.9	-13.8	-13.8	-13.6	-13.6	-13.9	-13.3	-12.3	-11.2	-10.3	-9.8	-9.7	-10.2	-11.1	-11.8	-12.3	-12.8	-13.3	-13.7	-13.9	Diurnal Average
																								1.9	2.0	1.7	1.5	3.0	3.5	3.1	1.0	0.0	-0.7	-0.2	1.3	4.7	5.7	7.0	5.7	3.2	1.2	1.1	1.4	1.8	2.6	2.0	1.4	Diurnal Maximum
P - Power Failure																																																





# Hourly Averages

Relative Humidity (RH) - %

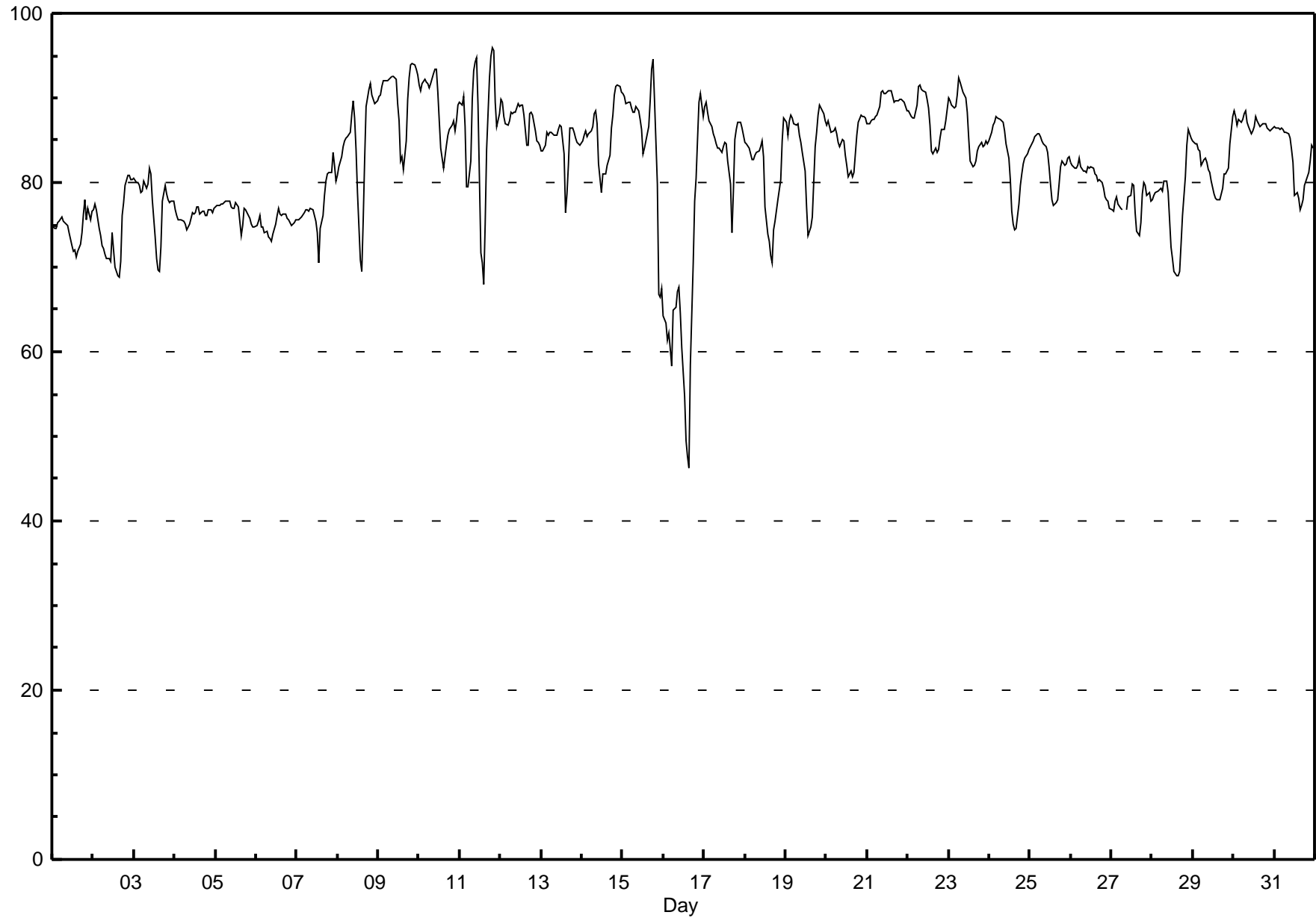
Evergreen Park - January 2010

Number of Exceedences (AAQO): 1-hr: 0 24-hr: 0 Maximum Value: 95.9 % on Jan 11 20:00      Maximum Daily Average: 90.4 % on Jan 9		Hours in Service: 744 Hours of Data: 742 Hours of Missing Data: 2 Hours of Calibration: 0 Percent Operational Time: 99.7																																														
Minimum Value: 46 % on Jan 16 16:00 Maximum Diurnal Average: 83.9 % at hour 20 Monthly Average: 82.04 %		Minimum Daily Average: 66.6 % on Jan 16 Minimum Diurnal Average: 76.9 % at hour 15 Percentiles: P <sub>1</sub> = 60.4 P <sub>10</sub> = 74.2 Q <sub>1</sub> = 77.1 Median = 83.1 Q <sub>3</sub> = 87.1 P <sub>90</sub> = 89.9 P <sub>99</sub> = 94.0																																														
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	75	75	74	75	75	76	75	75	75	75	74	73	72	72	71	72	73	74	76	78	76	77	76	77	74.6	77.9																						
2-Jan	77	77	77	75	74	73	72	72	71	71	71	74	72	70	69	69	71	76	78	80	81	81	80	80	74.5	80.8																						
3-Jan	81	80	80	80	79	79	80	79	80	82	81	78	74	71	70	69	72	78	80	79	78	78	78	78	77.6	81.8																						
4-Jan	77	76	76	76	76	75	75	74	75	75	76	76	76	77	77	76	77	77	76	76	77	77	76	77	76.1	77.2																						
5-Jan	77	77	77	78	77	78	78	78	78	77	77	77	78	77	75	74	75	77	77	76	76	75	75	75	76.6	77.8																						
6-Jan	75	75	76	75	75	74	74	74	73	73	74	75	76	77	76	76	76	76	76	76	75	75	75	76	75.1	76.9																						
7-Jan	76	76	76	76	76	77	77	77	77	77	76	75	74	71	75	76	79	80	81	81	81	83	82	80	77.4	83.5																						
8-Jan	81	82	83	84	85	85	85	86	88	90	88	84	79	71	70	76	83	89	91	92	90	90	89	90	84.5	91.7																						
9-Jan	90	90	91	92	92	92	92	92	93	93	92	89	87	82	83	82	85	90	92	94	94	93	93	93	90.4	94.1																						
10-Jan	92	91	92	92	92	92	91	92	93	93	93	91	87	84	82	83	84	86	86	87	87	86	87	89	88.8	93.4																						
11-Jan	90	89	90	87	80	80	82	90	93	94	95	89	72	70	68	75	84	92	95	96	96	89	87	88	86.3	95.9																						
12-Jan	90	90	88	87	87	87	88	88	88	88	89	89	89	89	88	84	84	88	88	88	86	85	85	84	87.5	89.9																						
13-Jan	84	84	84	86	86	86	86	86	86	86	86	87	87	83	76	79	82	86	86	86	85	85	85	84	84.6	86.8																						
14-Jan	85	86	86	85	86	86	87	88	88	87	82	79	81	81	81	82	83	86	88	90	91	92	91	91	86.0	91.6																						
15-Jan	91	90	89	90	89	89	88	88	89	88	87	86	83	84	86	87	90	93	95	90	80	67	66	68	85.6	94.6																						
16-Jan	64	63	61	62	60	58	65	65	67	68	65	60	55	50	48	46	58	70	78	81	85	90	91	88	66.6	90.5																						
17-Jan	89	89	88	87	87	86	85	85	84	84	84	84	85	85	83	80	74	79	85	86	87	87	86	86	84.8	89.5																						
18-Jan	85	85	84	83	83	83	83	84	84	84	85	83	77	74	73	71	70	74	75	78	79	80	85	88	80.5	87.7																						
19-Jan	87	86	87	88	88	87	87	87	86	85	84	81	77	74	74	75	76	84	86	88	89	89	88	87	84.1	89.2																						
20-Jan	87	87	87	86	86	86	86	85	84	85	85	83	82	81	81	81	81	83	86	87	88	88	88	88	85.0	87.9																						
21-Jan	87	87	87	87	88	88	88	89	91	91	91	91	91	91	91	90	90	90	90	90	90	90	90	88	89.3	90.9																						
22-Jan	88	88	88	88	88	89	91	91	91	91	91	90	89	87	84	83	84	84	84	84	85	86	86	87	89	87.6	91.5																					
23-Jan	90	90	89	89	89	90	92	92	91	90	90	88	85	83	82	82	83	84	84	85	84	84	85	85	86.9	92.3																						
24-Jan	85	86	87	87	88	88	87	87	87	86	85	83	80	77	75	74	75	77	80	81	82	83	83	84	82.8	87.8																						
25-Jan	84	85	85	85	86	86	85	85	85	84	83	82	80	78	77	78	78	80	82	82	82	82	83	83	82.5	85.8																						
26-Jan	82	82	82	82	82	83	82	81	81	81	82	82	82	82	81	81	80	80	80	79	78	78	78	77	80.8	82.9																						
27-Jan	77	77	78	78	77	77	77	P	P	77	78	79	80	80	77	74	74	75	79	80	80	78	79	78	77.6	80.1																						
28-Jan	78	79	79	79	79	79	79	80	80	79	76	72	71	70	69	69	70	73	76	81	84	86	86	85	77.4	86.3																						
29-Jan	85	85	85	84	84	82	83	83	82	82	81	80	79	78	78	78	78	79	81	81	81	82	85	88	81.7	87.8																						
30-Jan	88	88	87	88	87	88	88	88	87	87	86	86	87	88	87	87	87	87	87	87	87	86	86	86	87.0	88.4																						
31-Jan	87	86	86	86	86	86	86	86	86	85	84	82	79	79	78	77	77	78	80	81	81	83	84	84	82.8	86.6																						
																								83.3	83.2	83.2	83.1	82.7	82.7	83.1	83.6	83.7	83.5	82.9	81.6	79.5	77.8	76.9	77.0	78.4	81.5	83.1	83.9	83.8	83.4	83.5	83.6	Diurnal Average
																								91.6	90.9	91.7	92.2	92.1	92.0	92.3	92.3	93.3	94.3	94.8	90.7	90.8	90.8	90.9	90.2	89.6	93.4	95.0	95.9	95.6	93.9	93.4	92.7	Diurnal Maximum
P - Power Failure																																																



# Hourly Averages

Relative Humidity (RH) - %  
Evergreen Park - January 2010



# Hourly Averages

**Wind Speed (km/h)**  
**Wind Direction (deg)**  
**Evergreen Park - January 2010**

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	1	1	1	3	3	2	1	1	2	2	1	1	1	4	4	4	4	1	2	2	8	7	6	5	2.3	7.6
Dir	288	266	263	245	253	249	246	219	262	267	248	275	304	321	345	292	336	312	217	290	339	312	318	313	300.0	338.5
2 Spd	5	4	6	6	6	5	5	6	5	5	4	3	4	3	2	1	1	1	3	2	3	3	4	4	2.2	6.3
Dir	318	317	303	313	315	299	280	269	309	335	353	308	341	311	315	306	58	75	86	95	86	79	79	75	327.9	268.8
3 Spd	4	3	2	2	0	1	2	3	3	2	4	7	7	8	7	5	1	0	0	1	1	1	0	1	1.7	7.9
Dir	72	81	77	62	248	234	268	317	297	256	265	268	273	286	280	287	342	214	360	64	245	333	313	289	287.2	285.6
4 Spd	1	2	1	1	2	1	0	1	1	1	2	1	1	2	2	3	2	1	1	1	2	2	1	2	1.3	3.4
Dir	298	275	332	248	274	285	302	241	272	314	285	287	268	341	324	339	340	300	309	313	324	311	300	266	303.6	339.5
5 Spd	3	2	0	1	1	1	1	1	2	1	2	1	1	2	3	1	1	0	1	0	1	0	1	1	0.6	3.2
Dir	223	303	276	299	211	124	223	121	203	303	330	346	274	308	259	297	11	324	33	345	276	316	328	253	281.1	223.5
6 Spd	1	1	2	2	2	1	0	0	1	1	2	1	2	2	3	2	2	2	1	3	1	0	0	1	1.1	3.3
Dir	336	304	300	308	295	322	227	2	348	222	299	286	264	261	291	329	273	284	224	249	187	167	193	324	283.4	290.9
7 Spd	2	1	1	2	1	1	2	1	1	1	2	0	2	1	2	1	1	1	1	2	1	1	2	2	0.4	2.5
Dir	266	303	276	224	205	223	217	133	110	216	209	278	224	256	4	21	60	73	23	20	234	261	8	250	255.5	216.7
8 Spd	1	1	2	3	3	3	2	1	1	3	1	1	6	0	1	4	2	0	1	1	2	1	1	2	1.2	5.7
Dir	237	237	246	266	219	229	214	227	199	203	222	188	207	145	227	211	65	301	34	316	250	261	77	61	224.2	207.2
9 Spd	0	1	2	2	0	2	1	1	1	0	2	1	0	0	1	1	2	0	2	0	1	1	1	0	0.1	2.5
Dir	34	226	230	56	127	201	71	36	48	222	209	349	297	264	321	22	35	25	19	5	260	332	292	19	326.8	201.2
10 Spd	1	1	1	1	1	2	0	2	1	2	4	3	3	4	2	3	3	2	2	2	2	1	1	0	1.3	4.5
Dir	240	68	115	202	212	211	264	64	169	86	76	59	54	61	56	50	64	62	80	95	43	66	47	141	70.8	61.4
11 Spd	0	1	1	3	6	8	2	1	1	0	0	0	1	1	1	1	1	1	3	3	4	9	7	9	1.5	8.7
Dir	37	83	48	186	183	187	153	200	64	172	232	12	219	67	65	36	199	105	218	71	74	80	87	84	114.0	84.4
12 Spd	10	8	7	5	5	4	4	2	1	1	1	1	2	1	5	5	1	1	4	3	3	2	1	0	2.1	10.1
Dir	82	90	88	91	90	82	64	84	89	143	76	298	329	234	219	209	209	58	43	60	77	123	158	78	91.7	81.9
13 Spd	0	1	1	1	2	2	3	2	1	0	2	1	1	2	1	2	1	2	1	1	1	1	1	2	0.2	2.8
Dir	99	198	202	76	77	73	67	86	77	11	40	300	275	267	268	176	22	54	349	314	287	267	257	219	40.7	67.2
14 Spd	1	1	3	0	3	1	1	1	1	1	0	1	1	2	1	1	0	0	0	1	0	1	1	1	0.3	2.7
Dir	191	221	206	217	209	66	50	197	211	202	351	233	55	350	346	297	205	310	262	210	70	162	23	225	226.9	206.2
15 Spd	1	1	0	0	1	1	0	1	1	0	1	0	1	1	1	2	3	2	8	13	12	20	15	15	3.7	20.1
Dir	230	278	232	189	242	66	207	85	51	157	18	295	5	39	322	301	296	281	248	254	262	269	260	255	263.5	268.5
16 Spd	18	18	17	17	16	13	6	6	8	11	10	3	2	3	4	3	1	0	1	0	1	1	2	2	6.0	18.2
Dir	264	262	265	261	258	261	221	246	238	252	254	316	305	275	274	261	208	148	99	124	76	65	60	67	259.0	263.6
17 Spd	1	1	1	0	1	0	2	1	1	2	2	2	1	2	1	2	2	1	1	1	1	1	1	1	0.7	2.0
Dir	18	344	278	300	272	160	234	44	307	244	275	302	267	319	248	4	4	313	276	255	220	326	242	233	286.8	244.0
18 Spd	1	1	0	1	0	0	1	0	0	0	2	1	3	3	4	3	2	3	2	2	2	1	1	0	1.2	3.6
Dir	203	355	289	222	345	358	205	280	9	237	221	227	259	281	268	280	270	264	276	242	228	222	204	163	258.9	267.5
19 Spd	1	0	0	0	0	0	2	0	0	0	1	1	1	2	2	3	1	1	2	1	1	1	1	0	0.3	2.7
Dir	219	42	253	226	58	216	209	179	54	316	263	324	266	336	24	54	161	223	259	33	228	269	243	348	265.6	54.2
20 Spd	1	1	0	1	1	1	0	1	2	0	2	1	3	4	5	5	3	2	2	0	1	0	0	2	1.4	5.3
Dir	237	223	164	231	252	216	127	221	215	53	229	335	251	280	285	281	284	315	253	352	240	282	274	253	265.1	284.7
21 Spd	1	1	2	1	1	2	2	1	1	1	2	2	3	2	3	3	2	1	1	1	0	0	1	2	0.5	3.2
Dir	315	317	327	300	228	211	210	157	88	74	70	73	67	72	73	106	134	176	48	66	99	264	285	301	78.2	105.8
22 Spd	3	3	3	2	2	2	2	1	1	1	2	3	3	4	6	6	4	4	3	5	5	5	4	4	2.9	6.0
Dir	325	291	274	305	314	306	340	335	303	326	271	271	299	329	341	332	305	278	259	265	276	285	286	285	298.7	332.3

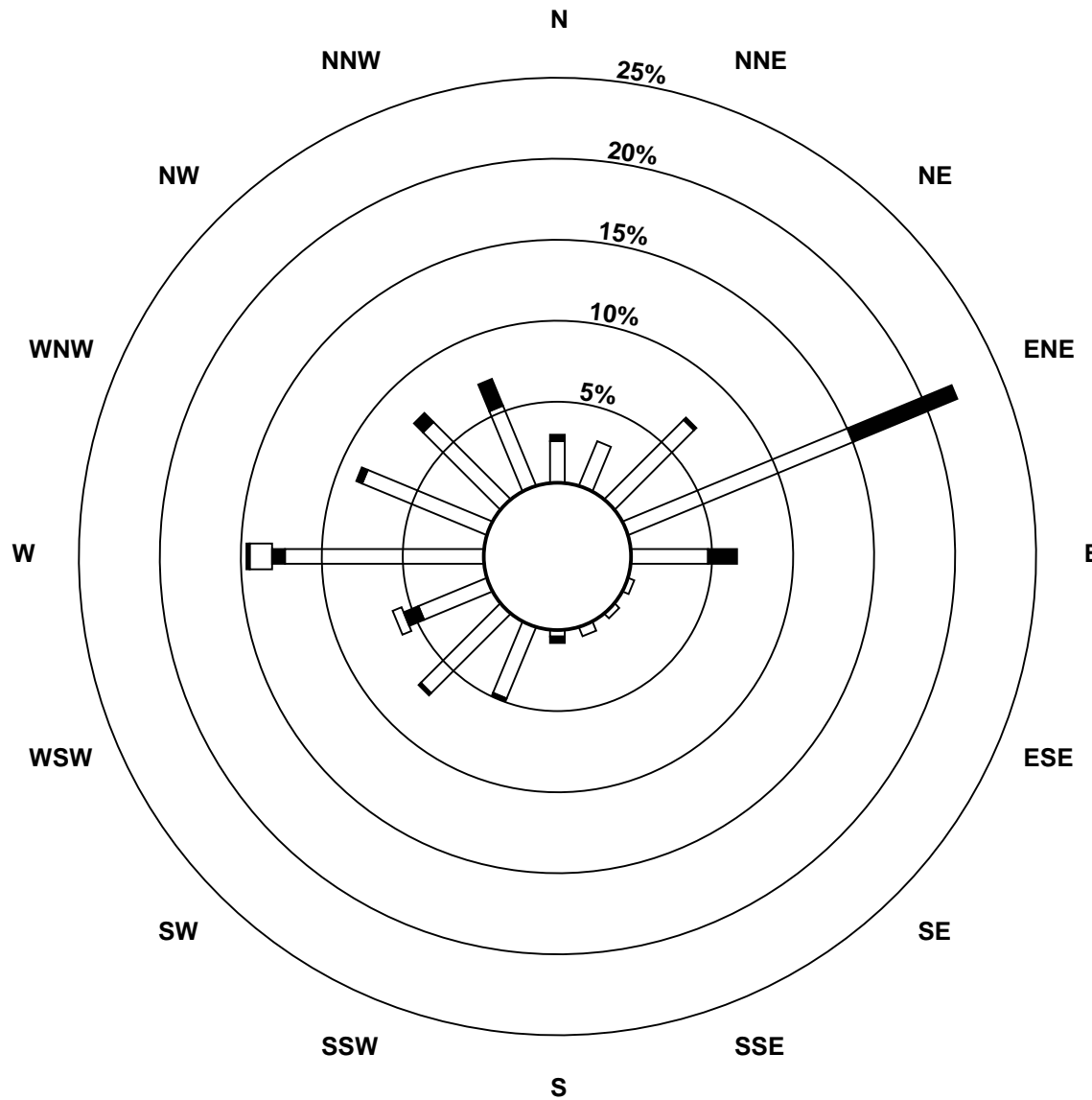
# Hourly Averages

Wind Speed (km/h)  
Wind Direction (deg)  
Evergreen Park - January 2010

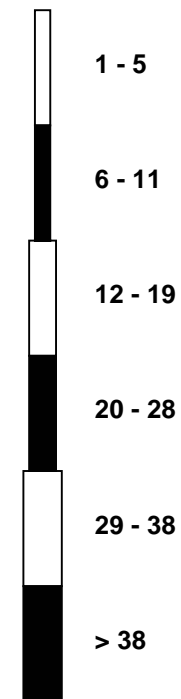
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	3	3	3	3	3	3	3	3	4	4	4	8	7	8	9	8	6	3	3	6	7	4	4	2	4.2	8.7
Dir	275	293	281	258	266	311	288	333	352	350	346	341	340	339	336	345	343	322	306	351	353	333	330	333	330.3	335.9
24 Spd	2	2	1	2	2	1	0	1	1	1	3	4	5	7	6	6	5	5	4	5	4	5	6	2.7	6.6	
Dir	297	297	322	297	271	320	44	60	57	68	77	74	86	73	75	80	77	69	65	70	69	74	72	75	68.6	72.8
25 Spd	5	6	6	4	6	6	6	7	5	5	7	7	7	6	7	7	5	6	3	3	3	3	1	1	4.9	7.4
Dir	73	68	70	78	68	71	67	66	75	68	65	74	71	62	61	59	56	47	46	47	44	50	22	1	63.8	66.1
26 Spd	1	0	1	1	2	2	2	2	3	2	2	3	2	4	3	2	2	1	1	1	0	1	1	0	1.1	3.7
Dir	48	69	227	78	70	82	70	12	74	51	49	37	12	15	29	25	15	51	274	307	127	269	307	206	35.4	15.2
27 Spd	1	1	1	1	1	2	1	P	P	0	1	4	3	2	1	2	3	2	1	1	1	0	2	1	0.9	4.5
Dir	194	235	334	341	239	208	215	P	P	290	263	271	268	272	298	4	19	16	43	305	268	139	278	274	290.4	271.2
28 Spd	0	2	1	1	0	4	1	1	1	1	1	2	2	3	2	2	1	1	1	1	0	0	0	1	0.5	3.8
Dir	62	222	258	302	254	210	174	86	47	73	256	267	318	272	289	309	233	22	345	11	39	144	219	50	275.8	210.2
29 Spd	1	1	1	0	1	4	1	1	2	4	4	6	4	4	4	3	2	3	2	2	3	3	5	3	2.0	5.5
Dir	218	352	49	256	345	264	74	95	86	92	86	63	48	36	33	16	61	69	93	90	71	59	54	40	56.8	62.8
30 Spd	4	3	3	4	5	4	4	4	5	4	7	6	7	7	7	7	7	8	6	7	6	7	7	7	5.6	7.8
Dir	55	73	77	67	65	70	70	68	66	71	75	71	69	72	70	71	62	66	64	69	71	70	66	76	68.9	64.5
31 Spd	7	7	7	6	6	6	6	4	3	2	1	1	3	5	5	3	2	1	2	2	2	1	0	2	2.1	6.9
Dir	80	79	76	71	68	67	69	73	82	95	77	3	273	286	281	277	352	3	47	66	60	92	104	75	60.1	79.0
Spd	0.5	0.5	0.5	0.7	0.7	0.6	0.2	0.4	0.3	0.1	0.3	0.9	0.8	1.6	1.6	1.3	1.1	0.8	0.4	0.5	0.7	0.7	0.6	0.4	Diurnal Average	
Dir	304.8	303.3	298.2	282.1	254.6	231.5	149.0	38.3	38.6	334.9	349.6	352.4	328.8	337.8	332.3	346.4	9.6	21.1	8.8	354.1	356.3	333.5	349.9	344.1	Diurnal Maximum	
Spd	18.2	17.5	16.7	16.9	16.0	13.3	6.2	7.4	7.7	10.5	10.1	7.6	7.3	7.9	8.7	7.9	6.5	6.6	8.3	13.2	12.4	20.1	15.1	15.1	Diurnal Maximum	
Dir	263.6	262.2	264.8	261.1	258.3	260.6	221.2	66.1	237.6	252.1	254.2	341.1	340.4	285.6	335.9	344.8	61.8	66.0	248.2	254.2	262.0	268.5	260.0	255.2	Diurnal Maximum	
Maximum Speed Value: 20 km/h on Jan 15 22:00																		Minimum Speed Value: 0 km/h on Jan 26 21:00						Hours in Service: 744		
Maximum Daily Speed Average: 6.0 km/h on Jan 16																		Minimum Daily Speed Average: 0.1 km/h on Jan 14						Hours of Data: 742		
Maximum Diurnal Speed Average: 1.6 km/h at hour 15																		Minimum Diurnal Speed Average: 0.1 km/h at hour 10						Hours of Missing Data: 2		
Monthly Average Velocity: 0.54 km/h 337.86 deg																		Speed Percentiles: P <sub>1</sub> = 0.1 P <sub>10</sub> = 0.5 Q <sub>1</sub> = 0.9 Median = 1.7 Q <sub>3</sub> = 3.2 P <sub>90</sub> = 5.8 P <sub>99</sub> = 14.4						Percent Operational Time: 99.7		
All monthly, daily, and diurnal averages have been calculated using vector methods																										
P - Power Failure																										
Frequency Distribution																										
Direction	Speed Range (km/h)							Total																		
	0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38																				
North	64	9	0	0	0	0	73																			
NorthEast	93	16	0	0	0	0	109																			
East	90	35	0	0	0	0	125																			
SouthEast	19	0	0	0	0	0	19																			
South	29	2	0	0	0	0	31																			
SouthWest	106	5	0	0	0	0	111																			
West	131	13	10	1	0	0	155																			
NorthWest	111	8	0	0	0	0	119																			
Total	643	88	10	1	0	0	742																			

# Wind Rose

Wind Speed (WS) (km/h)  
Evergreen Park - January 2010



## Wind Speed Classes (km/h)





# Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Evergreen Park - January 2010

Maximum Speed: 20 km/h on Jan 15 22:00	Maximum Daily Speed Average: 7.1 km/h on Jan 16	Hours in Service: 744
Minimum Speed: 1 km/h on Jan 24 07:00	Minimum Daily Speed Average: 1.6 km/h on Jan 5	Hours of Data: 742
Maximum Diurnal Speed Average: 3.8 km/h at hour 15	Minimum Diurnal Speed Average: 2.4 km/h at hour 9	Hours of Missing Data: 2
Monthly Average Speed: 2.97 km/h	Percentiles: P <sub>1</sub> = 0.8 P <sub>10</sub> = 1.2 Q <sub>1</sub> = 1.5 Median = 2.1 Q <sub>3</sub> = 3.5 P <sub>90</sub> = 5.9 P <sub>99</sub> = 14.4	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	2	1	1	4	3	2	1	1	2	2	2	2	2	5	5	4	4	2	2	4	8	7	6	5	3.2	8.0
2-Jan	6	5	6	6	6	5	5	6	5	5	4	3	4	4	2	2	1	2	3	3	3	3	4	4	4.1	6.5
3-Jan	4	3	3	2	1	2	3	3	3	3	5	7	7	8	7	5	2	1	1	1	2	1	1	2	3.2	8.0
4-Jan	2	2	2	1	3	2	1	1	1	1	2	1	1	2	3	4	3	2	1	1	2	2	2	3	1.9	3.5
5-Jan	3	3	1	2	2	1	1	1	2	1	2	2	2	2	3	2	2	1	1	1	1	1	1	1	1.6	3.2
6-Jan	1	1	2	2	3	1	1	1	2	1	2	1	2	3	4	3	2	4	1	3	2	1	2	2	2.0	3.7
7-Jan	2	2	2	2	2	1	3	1	2	1	2	1	2	1	2	1	2	1	1	3	2	2	3	2	1.8	3.2
8-Jan	2	2	3	4	4	4	2	1	2	3	3	2	6	1	1	4	2	2	2	2	2	3	2	2	2.6	5.8
9-Jan	2	3	3	3	3	4	2	1	2	2	3	2	2	1	2	1	2	2	2	2	2	1	1	1	2.1	3.5
10-Jan	2	2	1	1	2	2	1	2	2	3	4	4	4	5	3	4	3	3	2	2	2	1	1	1	2.4	4.6
11-Jan	1	3	2	4	6	8	2	2	1	1	1	1	2	2	1	2	2	2	3	4	4	9	8	9	3.2	9.0
12-Jan	10	8	8	6	5	4	4	2	2	2	2	2	2	2	5	5	3	3	4	3	4	3	1	1	3.8	10.5
13-Jan	1	2	1	1	2	2	3	2	1	1	2	2	1	2	1	2	2	2	1	1	1	1	1	2	1.7	3.0
14-Jan	1	1	3	1	3	3	2	2	1	2	1	1	1	3	2	2	2	1	1	1	1	2	2	2	1.7	3.1
15-Jan	2	2	2	2	2	1	1	2	2	1	1	1	1	3	3	4	3	8	13	13	20	15	15	5.0	20.2	
16-Jan	18	18	17	17	16	13	6	6	8	11	10	3	2	3	4	4	2	1	1	2	2	2	2	2	7.1	18.3
17-Jan	1	1	1	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	2	1	2	1.8	2.4
18-Jan	2	2	2	2	1	1	3	3	2	2	2	2	3	4	4	3	3	2	2	2	1	2	1	2	2.2	3.7
19-Jan	2	1	1	1	1	2	2	2	1	1	1	2	1	2	2	3	3	3	4	1	3	2	2	1	1.9	3.5
20-Jan	2	2	1	1	1	1	1	1	2	2	2	1	3	4	5	5	4	2	2	1	1	1	1	2	2.0	5.4
21-Jan	1	1	2	2	1	2	2	1	1	2	2	2	3	2	3	3	3	1	1	1	1	1	1	2	1.8	3.5
22-Jan	3	3	3	2	2	2	3	2	1	1	2	3	3	4	6	6	5	4	3	5	6	5	4	4	3.4	6.2
23-Jan	4	3	3	3	3	3	3	3	4	4	4	8	7	8	9	8	6	3	4	6	7	5	4	3	4.7	8.9
24-Jan	2	2	2	2	2	1	1	1	1	2	3	4	5	7	7	7	5	5	5	4	5	4	5	6	3.6	7.1
25-Jan	5	6	6	4	6	6	6	8	6	5	7	7	7	6	7	7	5	6	3	3	3	3	1	1	5.2	7.5
26-Jan	1	1	1	1	2	2	2	2	3	2	2	4	3	4	3	3	2	2	1	1	1	2	1	1	2.0	3.9
27-Jan	1	1	1	2	1	2	1	P	P	1	2	5	3	2	2	2	3	2	2	1	1	2	2	1	1.8	4.5
28-Jan	1	2	2	2	1	4	2	1	1	1	1	2	2	3	3	2	1	1	1	1	1	1	1	1	1.7	3.9
29-Jan	2	1	1	2	2	4	1	1	2	4	4	6	5	5	5	4	3	3	2	2	3	3	5	3	3.0	5.6
30-Jan	4	3	3	4	5	5	4	4	5	4	7	6	7	8	7	7	7	7	8	6	8	7	7	7	5.8	7.9
31-Jan	7	7	7	6	6	6	6	4	3	3	2	2	3	5	5	3	3	1	2	2	2	1	1	2	3.7	7.0
	3.2	3.0	3.0	3.0	3.2	3.2	2.5	2.4	2.4	2.5	3.0	2.9	3.2	3.6	3.8	3.6	2.9	2.4	2.6	2.7	3.0	3.2	3.0	3.0	Diurnal Average	
	18.3	17.6	16.8	16.9	16.1	13.5	6.3	7.5	7.9	10.6	10.2	7.8	7.5	8.1	8.9	8.1	6.6	6.7	8.4	13.3	12.6	20.2	15.2	15.2	Diurnal Maximum	

P - Power Failure  
 All monthly, daily, and diurnal averages have been calculated using scalar methods

# Hourly Standard Deviations

Wind Direction (WD) - deg  
Evergreen Park - January 2010

Maximum Value: 98.9 deg on Jan 7 12:00		Hours in Service: 744																								
Minimum Value: 3.8 deg on Jan 16 04:00		Hours of Data: 742																								
Percentiles: P <sub>1</sub> = 6.1 P <sub>10</sub> = 13.1 Q <sub>1</sub> = 20.3 Median = 41.9 Q <sub>3</sub> = 66.7 P <sub>90</sub> = 83.1 P <sub>99</sub> = 94.6		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	35	37	53	13	14	31	36	50	30	30	36	60	50	48	28	25	24	56	11	60	17	18	19	19	60.1	
2-Jan	20	20	18	15	18	19	22	14	26	19	20	39	32	38	41	52	77	35	19	23	17	20	17	21	77.0	
3-Jan	21	39	35	52	87	72	47	26	27	35	20	14	12	12	14	20	62	77	84	75	74	45	69	75	87.1	
4-Jan	48	42	45	41	42	60	80	65	52	47	59	67	55	49	39	13	27	41	51	55	22	25	46	30	80.3	
5-Jan	11	46	93	59	54	47	57	57	65	68	39	46	55	39	44	42	30	68	33	65	70	74	46	85	93.3	
6-Jan	66	70	26	23	38	43	95	74	89	17	38	54	56	20	32	61	37	68	62	31	65	83	95	75	95.4	
7-Jan	38	79	62	43	45	70	39	74	62	35	35	99	21	45	39	45	31	27	74	22	92	70	61	59	98.9	
8-Jan	62	82	66	53	56	39	28	43	73	21	79	78	12	80	72	64	50	83	90	62	58	63	81	59	89.6	
9-Jan	85	88	63	57	86	69	41	73	53	86	56	80	87	96	82	69	47	80	32	86	59	61	61	94	96.5	
10-Jan	73	92	55	73	84	56	86	48	71	50	24	35	44	16	43	10	16	36	23	49	15	72	33	96	95.8	
11-Jan	84	87	64	57	11	7	51	72	76	84	78	93	79	56	37	54	48	84	44	48	15	12	16	15	93.3	
12-Jan	16	18	23	22	25	22	18	37	64	54	58	55	52	62	17	41	81	76	37	27	25	45	34	91	90.7	
13-Jan	87	61	59	66	32	31	24	35	29	75	35	67	53	24	41	39	57	18	67	52	45	71	63	36	86.7	
14-Jan	49	49	18	82	45	81	83	94	71	76	91	77	54	31	68	75	87	82	98	70	72	79	70	61	98.2	
15-Jan	75	75	95	91	66	81	87	72	37	92	69	91	44	52	68	65	28	54	9	6	11	6	6	5	94.7	
16-Jan	4	5	5	4	6	8	14	14	15	7	8	37	42	14	9	23	50	83	71	73	47	53	48	55	83.0	
17-Jan	69	61	74	77	68	82	29	49	68	31	65	52	55	42	66	46	41	94	61	72	81	70	77	87	93.9	
18-Jan	90	89	94	80	70	82	80	83	82	91	63	67	15	12	13	20	21	13	34	52	41	76	58	92	93.5	
19-Jan	59	77	87	95	88	94	28	80	96	87	81	66	52	35	17	26	60	80	69	66	94	79	76	90	95.9	
20-Jan	68	51	85	77	38	76	79	57	72	90	46	51	14	24	10	10	20	24	16	76	28	83	84	26	89.8	
21-Jan	49	42	29	64	56	10	24	51	26	44	25	32	20	31	19	24	48	62	37	64	85	72	46	27	84.9	
22-Jan	33	26	34	29	25	35	15	29	59	51	17	11	32	20	12	15	23	22	15	8	16	13	14	15	58.8	
23-Jan	26	18	21	18	16	19	25	13	10	18	12	12	12	15	13	10	10	21	16	11	11	27	14	21	27.5	
24-Jan	20	42	63	31	54	45	85	31	35	32	27	31	28	22	22	19	22	17	11	18	13	16	13	11	84.6	
25-Jan	16	13	10	17	15	13	10	11	19	16	11	15	20	24	15	17	21	9	13	12	13	21	47	52	52.0	
26-Jan	69	95	80	50	17	45	26	34	30	36	58	35	25	19	21	29	41	72	52	56	87	71	66	70	94.9	
27-Jan	58	21	44	54	67	30	48	P	P	84	87	10	15	29	28	27	17	42	45	49	45	87	47	58	87.3	
28-Jan	84	26	56	72	92	25	81	61	66	33	61	19	49	19	36	47	40	76	46	70	79	86	91	45	92.2	
29-Jan	47	71	34	90	51	14	84	45	37	21	22	16	29	20	27	35	30	26	21	25	16	15	11	13	90.0	
30-Jan	11	26	19	15	18	17	22	16	12	20	15	18	16	17	18	14	12	13	11	14	13	16	12	11	25.8	
31-Jan	11	14	14	13	12	10	12	17	23	40	49	22	55	19	11	19	24	35	20	19	18	66	85	27	84.9	
	89.5	94.9	94.7	95.0	92.2	94.1	94.9	94.5	95.9	91.7	90.6	98.9	87.5	96.5	82.1	74.8	87.4	93.9	98.2	86.4	93.5	87.3	95.4	95.8		
P - Power Failure																										

PASZA  
Smoky Heights Station  
Monthly Summary Tables, Graphs and  
Roses

# Hourly Averages

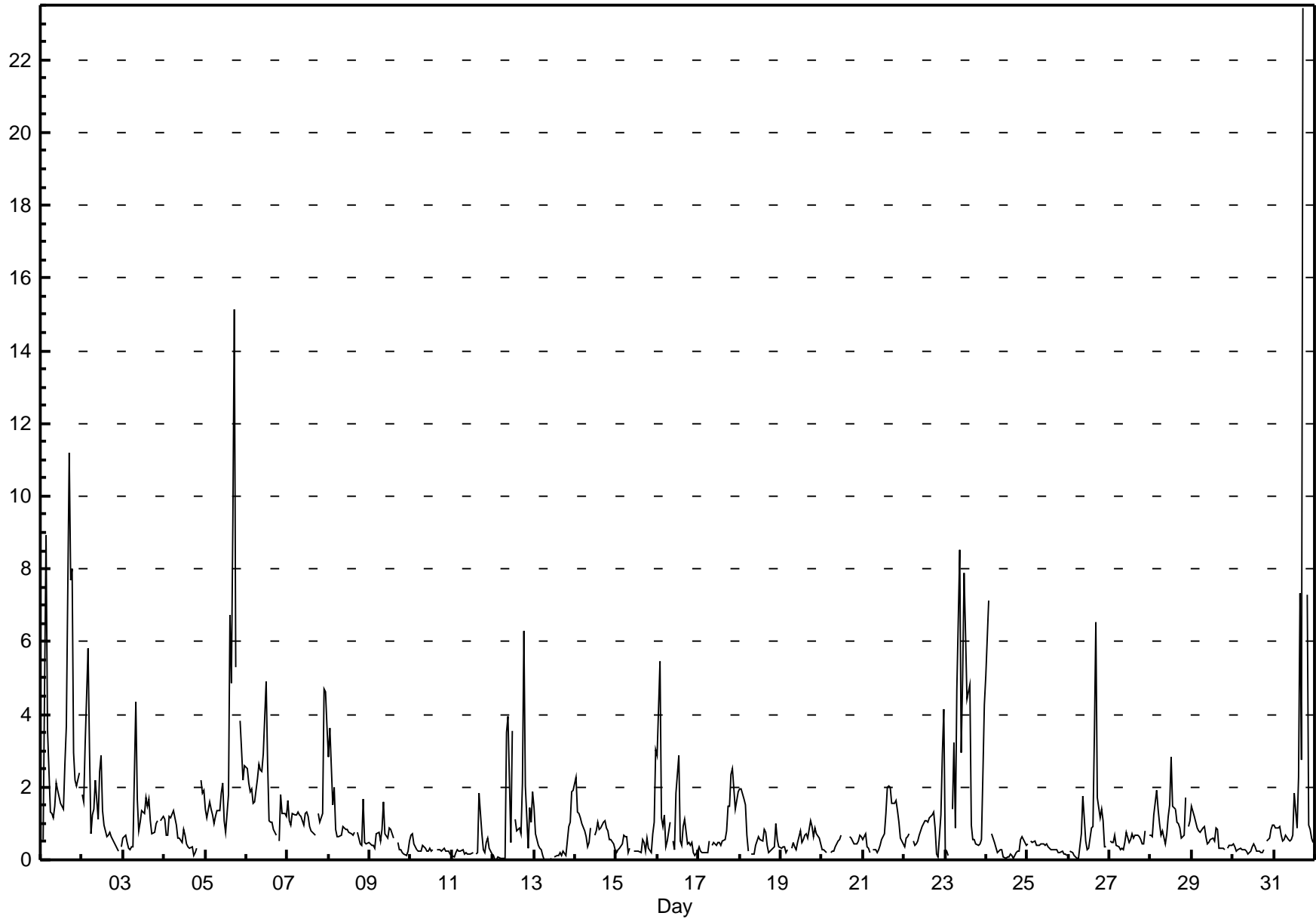
## Sulphur Dioxide (SO<sub>2</sub>) - ppb Smoky Heights - January 2010

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 23.4 ppb on Jan 31 18:00	Maximum Daily Average: 3.4 ppb on Jan 1		Hours of Data:	707
Minimum Value: 0 ppb on Jan 13 07:00	Minimum Daily Average: 0.3 ppb on Jan 10		Hours of Missing Data:	37
Maximum Diurnal Average: 2.2 ppb at hour 18	Minimum Diurnal Average: 0.6 ppb at hour 7		Hours of Calibration:	37
Monthly Average: 1.10 ppb	Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.2 Q <sub>1</sub> = 0.3 Median = 0.6 Q <sub>3</sub> = 1.2 P <sub>90</sub> = 2.2 P <sub>99</sub> = 7.7		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	A	1	5	9	4	1	1	1	1	2	2	2	1	1	3	4	11	8	8	3	2	2	2	A	3.4	11.2
2-Jan	2	2	3	6	3	1	1	1	2	1	2	3	1	1	1	1	1	1	1	0	0	0	A	0	1.5	5.8
3-Jan	1	1	0	0	0	0	0	4	2	1	1	1	1	2	1	2	1	1	1	1	1	A	1	1	1.1	4.3
4-Jan	1	1	1	1	1	1	1	1	1	1	0	1	1	0	0	0	0	0	0	0	A	2	2	2	0.8	2.2
5-Jan	1	1	2	1	1	1	1	1	1	2	2	1	1	2	7	5	9	15	5	A	4	3	2	3	3.1	15.1
6-Jan	3	2	2	2	2	2	2	3	2	2	3	5	3	1	1	1	1	1	A	1	2	1	1	1	1.9	4.9
7-Jan	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	5	5	4	1.5	4.7
8-Jan	3	4	2	2	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0	0	2	0	0	0	1.0	3.6
9-Jan	0	0	0	0	1	1	1	1	2	1	1	1	1	1	1	A	0	0	0	0	0	0	0	1	0.6	1.6
10-Jan	1	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.3	0.7
11-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	2	1	0	0	0	1	0	0	0.3	1.8
12-Jan	0	0	0	0	0	0	0	0	3	4	0	4	A	1	1	1	1	2	6	2	0	1	1	2	1.3	6.3
13-Jan	1	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	1	1	2	2	0.5	1.9
14-Jan	2	1	1	1	1	1	1	0	0	1	A	1	1	1	1	1	1	1	1	1	1	1	0	0	0.9	2.3
15-Jan	0	0	0	0	1	1	1	0	0	A	0	0	0	0	0	1	0	0	1	0	0	1	1	3	0.5	3.0
16-Jan	3	5	1	1	1	0	0	1	A	1	0	2	3	1	0	1	1	0	0	0	0	0	0	0	1.1	5.5
17-Jan	0	0	0	0	0	0	1	A	0	0	0	0	0	0	1	1	1	1	1	2	3	1	2	2	0.8	2.5
18-Jan	2	2	2	2	1	0	A	0	0	0	1	1	1	1	1	0	0	0	0	0	0	1	1	0	0.7	2.0
19-Jan	0	0	0	0	0	A	0	0	0	0	0	1	0	1	1	1	1	1	1	1	1	1	1	0	0.5	1.1
20-Jan	0	0	0	0	A	0	0	0	0	1	1	1	C	C	C	C	1	1	1	0	0	1	1	1	0.4	0.7
21-Jan	1	1	0	0	0	A	0	0	0	0	0	1	1	1	2	2	2	2	2	2	1	1	1	0	0.9	2.0
22-Jan	0	1	1	1	A	1	0	0	1	1	1	1	1	1	1	1	1	1	1	0	0	1	3	4	1.0	4.1
23-Jan	0	0	0	A	1	3	1	5	9	3	5	8	6	4	5	1	1	1	0	0	0	1	2	4	2.7	8.5
24-Jan	5	7	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0.8	7.1
25-Jan	0	A	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
26-Jan	A	0	0	0	0	0	0	1	2	1	1	0	0	1	1	3	7	2	1	1	1	0	0	A	1.1	6.5
27-Jan	1	0	0	1	0	0	0	0	0	0	1	0	1	1	1	1	1	1	1	0	0	1	A	1	0.5	0.8
28-Jan	1	1	1	2	1	1	1	1	1	1	1	2	3	1	1	1	1	1	1	1	1	2	A	1	1.1	2.8
29-Jan	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	0	0	0	0	0	1	A	0	0.7	1.5
30-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	1	1	1	0.4	1.0
31-Jan	1	1	1	1	1	1	1	1	1	1	1	1	2	1	2	7	3	23	A	7	1	1	1	0	2.5	23.4
	1.2	1.2	0.9	1.2	0.9	0.7	0.6	0.9	1.1	0.9	0.9	1.3	1.1	0.9	1.2	1.3	1.6	2.2	1.2	1.0	0.9	1.0	1.1	1.2	Diurnal Average	
	5.1	7.1	4.9	8.9	3.6	3.2	2.2	4.7	8.5	4.0	5.0	7.9	6.2	4.4	6.7	7.3	11.2	23.4	8.0	7.3	3.8	4.7	4.6	4.2	Diurnal Maximum	

C - Calibration      A - Automated Daily Zero Span  
 Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb    24-hr 57 ppb



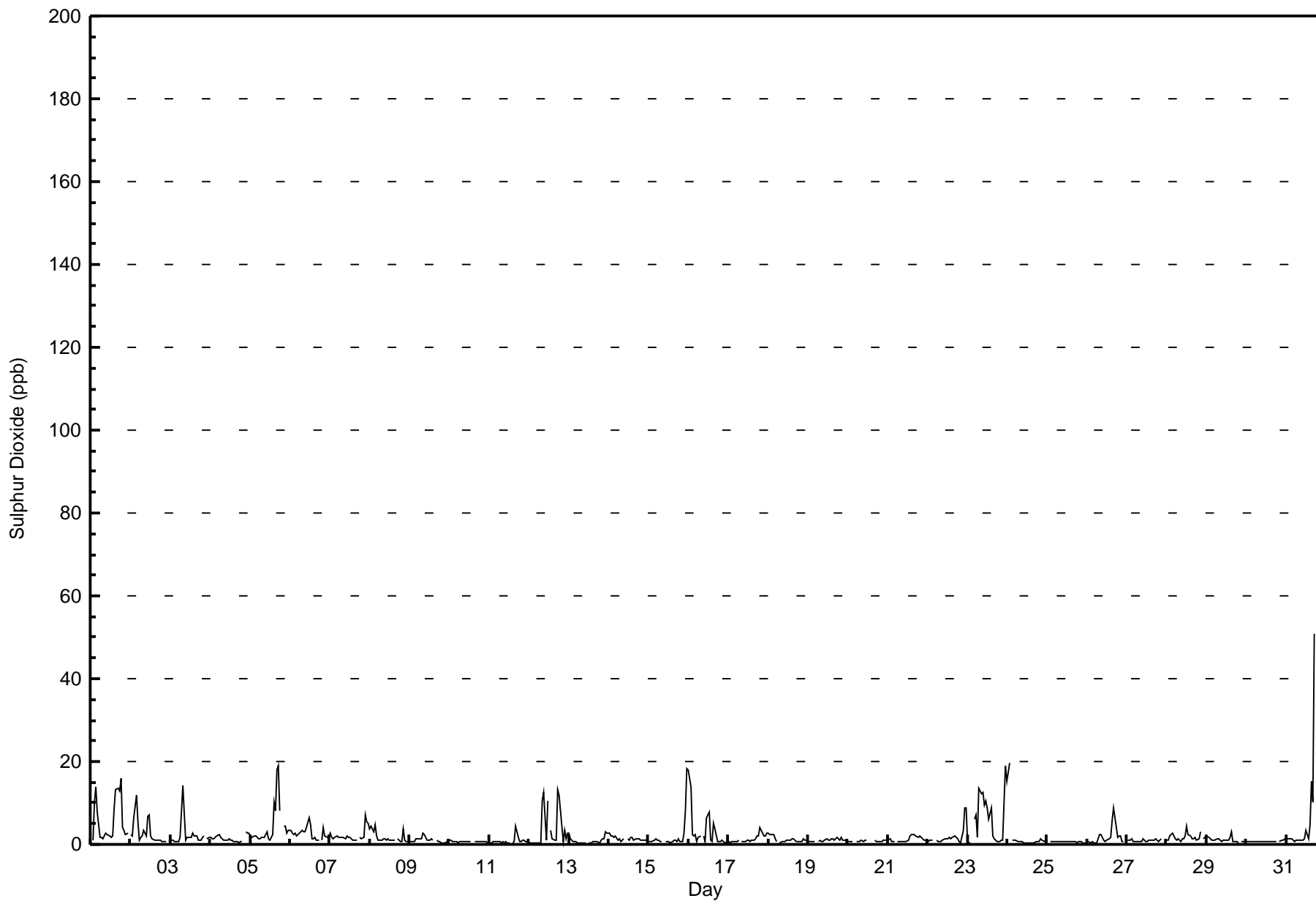


# Hourly Maximums

## Sulphur Dioxide (SO<sub>2</sub>) - ppb Smoky Heights - January 2010

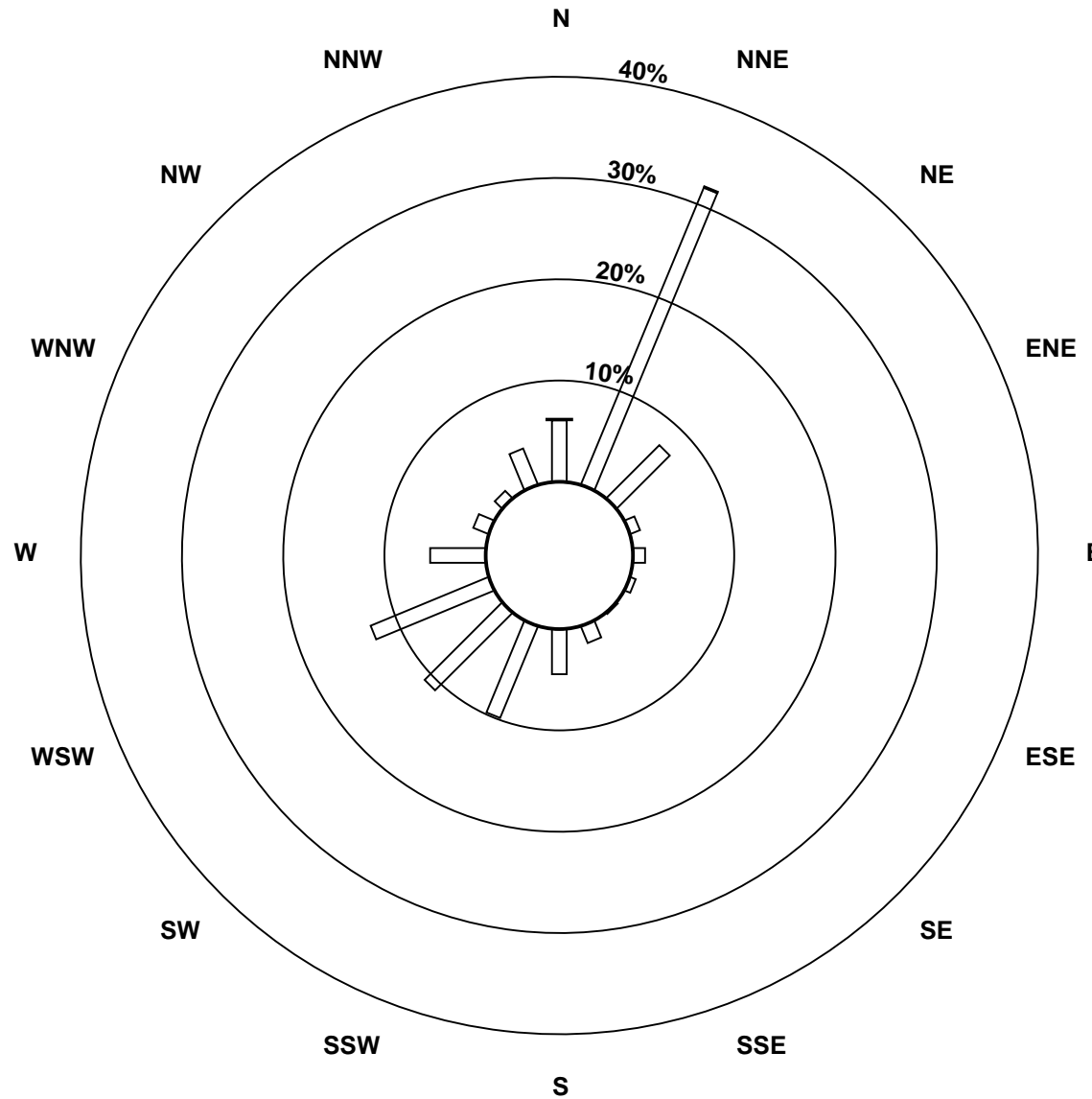
Maximum Value: 50.7 ppb on Jan 31 18:00		Maximum Daily Average: 5.9 ppb on Jan 23		Hours in Service: 744																							
Minimum Value: 0 ppb on Jan 13 09:00		Minimum Daily Average: 0.6 ppb on Jan 10		Hours of Data: 707																							
Maximum Diurnal Average: 4.3 ppb at hour 18		Minimum Diurnal Average: 1.1 ppb at hour 7		Hours of Missing Data: 37																							
Monthly Average: 2.09 ppb		Percentiles: P <sub>1</sub> = 0.3 P <sub>10</sub> = 0.5 Q <sub>1</sub> = 0.7 Median = 1.0 Q <sub>3</sub> = 1.8 P <sub>90</sub> = 4.0 P <sub>99</sub> = 18.1		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	A	1	10	14	8	2	2	2	2	3	3	2	2	2	8	13	14	13	16	4	3	3	3	A	5.8	15.9	
2-Jan	2	2	6	12	6	1	2	2	3	2	7	7	2	1	1	1	1	1	1	1	1	1	A	1	2.8	12.0	
3-Jan	1	1	1	1	1	1	2	14	7	1	2	2	2	3	2	2	2	1	1	2	2	A	1	2	2.3	14.1	
4-Jan	2	1	1	2	2	2	2	1	1	1	1	1	1	1	1	1	1	0	1	1	A	3	3	3	1.4	2.9	
5-Jan	2	2	2	2	2	1	2	2	2	2	3	2	1	2	10	8	18	19	8	A	4	4	3	3	4.5	19.1	
6-Jan	3	3	2	3	2	2	3	3	3	3	4	7	5	2	1	2	1	1	A	1	4	2	2	2	2.6	6.6	
7-Jan	3	2	1	2	2	2	2	2	2	2	2	2	2	1	1	1	1	A	2	1	2	7	5	5	2.2	7.2	
8-Jan	4	4	3	5	2	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	4	1	1	1	1.7	4.9	
9-Jan	1	1	1	1	1	1	1	1	3	2	1	1	1	1	1	A	1	1	1	0	0	0	1	1	1.1	2.9	
10-Jan	1	1	1	1	1	0	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0	0.6	1.1	
11-Jan	0	0	1	1	1	1	1	0	1	0	1	1	0	A	0	1	4	2	1	1	1	1	1	1	0.8	4.4	
12-Jan	0	0	0	0	0	0	0	0	11	13	1	11	A	3	1	1	1	13	12	8	1	4	1	3	3.7	13.1	
13-Jan	3	1	1	1	1	0	0	0	0	0	0	A	0	0	1	1	1	1	0	1	1	1	3	3	0.9	3.0	
14-Jan	3	2	2	2	2	1	1	1	1	1	A	1	1	2	2	1	2	1	1	1	1	1	1	1	1.4	2.6	
15-Jan	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	3	8	18	2.0	18.1	
16-Jan	18	14	3	2	2	1	2	2	A	2	1	6	8	1	1	5	4	1	1	1	1	1	0	1	3.3	18.1	
17-Jan	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	2	2	4	3	2	2	3	1.3	4.0	
18-Jan	3	3	2	2	1	1	A	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	2.6	
19-Jan	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	2	1	1	2	1	1	1	0.9	1.8	
20-Jan	1	1	1	1	A	1	1	1	1	1	1	1	C	C	C	C	1	1	1	1	1	1	1	1	0.8	1.0	
21-Jan	1	1	1	1	1	A	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	1	1	1	1.3	2.5	
22-Jan	1	1	1	1	A	1	1	1	1	1	1	1	2	2	1	2	2	2	1	1	0	3	9	9	1.9	8.8	
23-Jan	1	0	0	A	6	7	2	14	12	13	9	10	9	6	9	2	1	1	1	1	1	1	10	19	5.9	18.9	
24-Jan	15	20	A	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	1	1	1	1	1	1	2.1	19.7	
25-Jan	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	0	0	0.7	0.8	
26-Jan	A	1	0	1	0	0	0	2	2	2	1	1	1	1	2	6	9	6	2	2	2	1	1	A	1.9	8.8	
27-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	
28-Jan	1	1	2	3	2	1	1	1	1	1	1	2	4	2	2	1	1	2	1	1	1	3	A	1	2	1.7	4.3
29-Jan	2	2	1	1	1	1	1	1	1	1	1	1	1	1	2	3	1	1	1	0	A	1	1	1	1.1	3.0	
30-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	1.3	
31-Jan	1	1	1	1	1	1	1	1	1	1	1	4	1	5	15	10	51	A	19	1	1	1	1	1	5.3	50.7	
		2.5	2.3	1.7	2.1	1.7	1.2	1.1	2.0	2.1	2.0	1.6	2.3	1.9	1.5	2.1	2.7	2.8	4.3	2.1	2.0	1.6	1.7	2.2	2.9	Diurnal Average	
		18.1	19.7	10.2	13.8	7.9	7.1	2.9	14.1	12.3	12.7	9.4	10.6	8.7	6.1	10.2	15.4	18.1	50.7	15.9	19.1	4.5	7.2	10.0	18.9	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

# Hourly Maximums for SO<sub>2</sub> at Smoky Heights January 2010

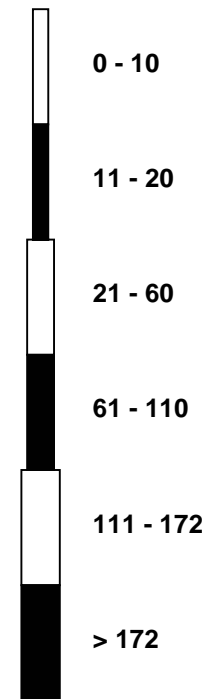


### Pollutant Rose

Sulphur Dioxide (SO<sub>2</sub>) - ppb  
Smoky Heights - January 2010



### Pollutant Classes (ppb)

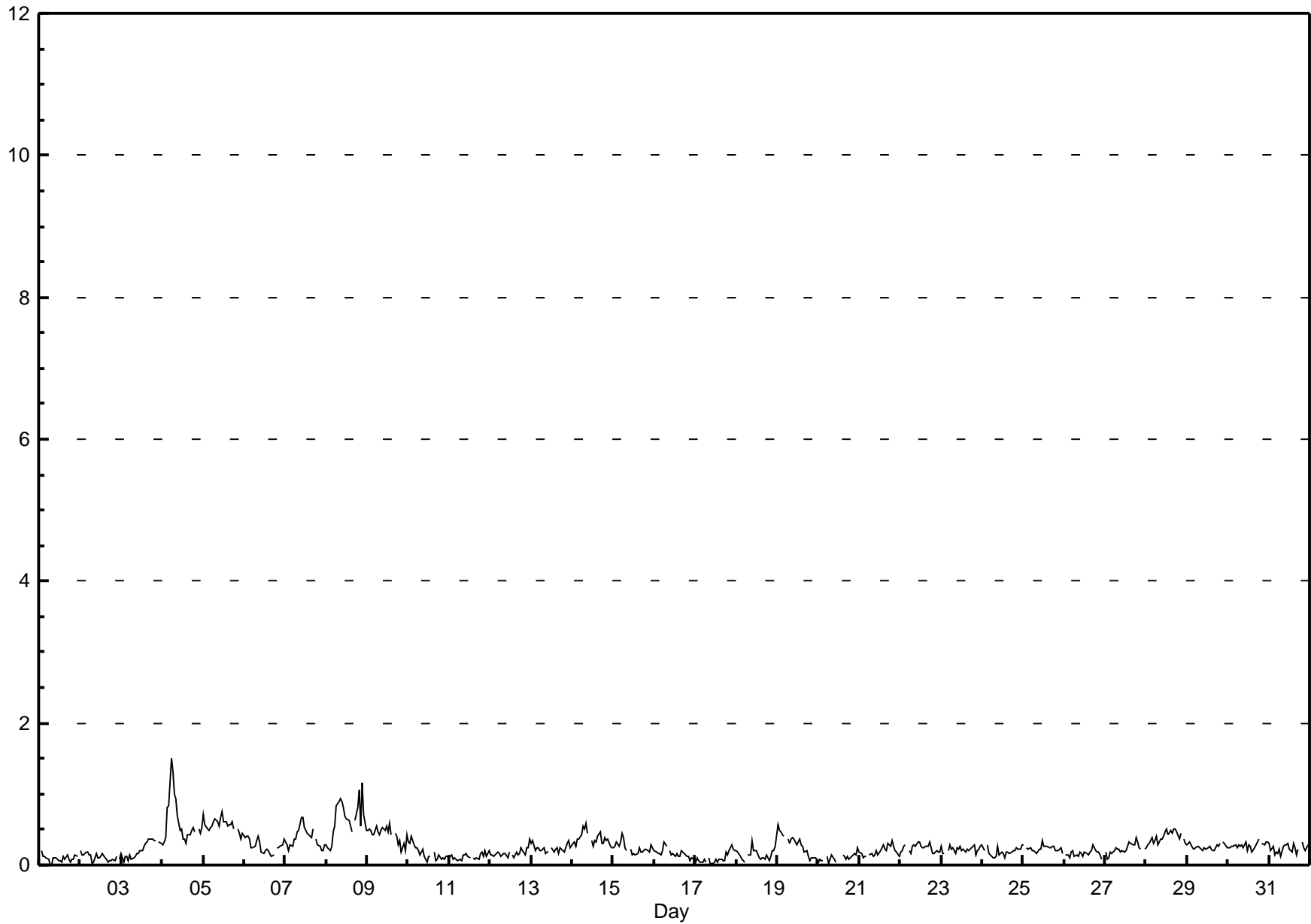


# Hourly Averages

## Total Reduced Sulphur (TRS) - ppb

### Smoky Heights - January 2010

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 1.5 ppb on Jan 4 06:00      Maximum Daily Average: 0.6 ppb on Jan 8		Hours in Service: 744 Hours of Data: 708 Hours of Missing Data: 36 Hours of Calibration: 36 Percent Operational Time: 100.0																									
Minimum Value: 0 ppb on Jan 1 07:00 Maximum Diurnal Average: 0.3 ppb at hour 10 Monthly Average: 0.26 ppb		Minimum Daily Average: 0.1 ppb on Jan 1 Minimum Diurnal Average: 0.2 ppb at hour 21 Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.1 Q <sub>1</sub> = 0.1 Median = 0.2 Q <sub>3</sub> = 0.3 P <sub>90</sub> = 0.5 P <sub>99</sub> = 0.9																									
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-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	0.1	0.2	
2-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.1	0.2	
3-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.2	0.4	
4-Jan	0	0	0	1	1	1	1	1	1	1	0	1	0	0	0	0	0	0	1	0	A	1	0	1	0.6	1.5	
5-Jan	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	A	1	0	0	0	0.6	0.8	
6-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	
7-Jan	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	1	A	0	0	0	0	0	0	0.4	0.7	
8-Jan	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	0	A	1	1	1	1	1	1	0	0.6	1.2	
9-Jan	0	1	0	0	0	1	0	0	0	1	0	1	0	1	0	A	0	0	0	0	0	0	0	0	0.4	0.6	
10-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.2	0.4	
11-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
12-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	
13-Jan	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3	
14-Jan	0	0	0	0	0	0	1	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6	
15-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	0.4	
16-Jan	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3	
17-Jan	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3	
18-Jan	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3	
19-Jan	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6	
20-Jan	0	0	0	0	A	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
21-Jan	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3	
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	0.3	
23-Jan	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3	
24-Jan	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3	
25-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	0.3	
26-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.2	0.3	
27-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.2	0.4	
28-Jan	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	A	0	0	0.4	0.5	
29-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.3	0.3	
30-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.3	0.4	
31-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	0.3	
		0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.3	0.2	0.3	Diurnal Average		
		0.7	0.6	0.5	0.8	0.8	1.5	1.3	1.0	0.9	0.9	0.8	0.8	0.6	0.6	0.6	0.6	0.6	0.8	1.1	0.6	1.2	0.7	0.5	Diurnal Maximum		
C - Calibration		A - Automated Daily Zero Span																									
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb		24-hr 3 ppb																									

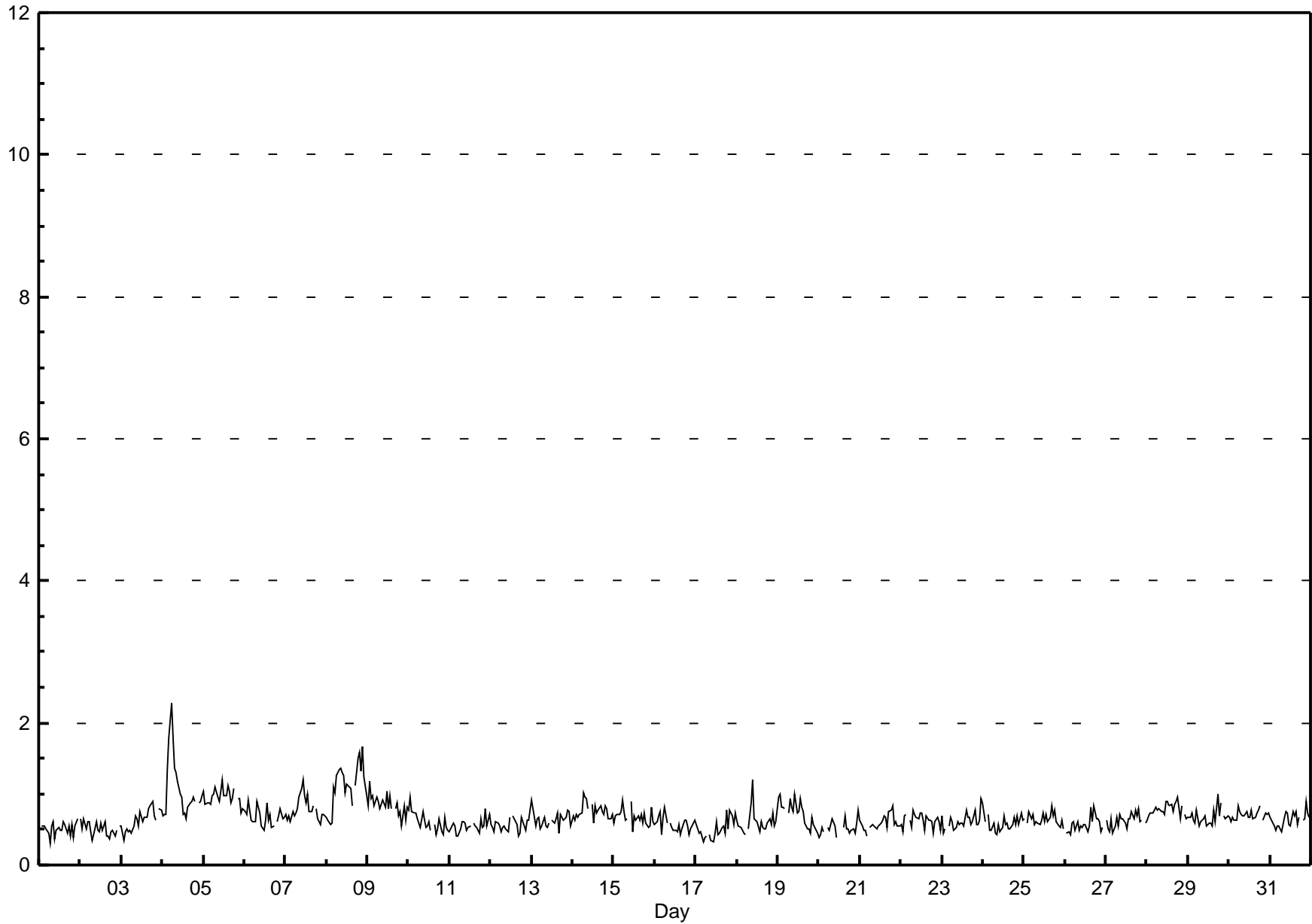


# Hourly Maximums

# Total Reduced Sulphur (TRS) - ppb

## Smoky Heights - January 2010

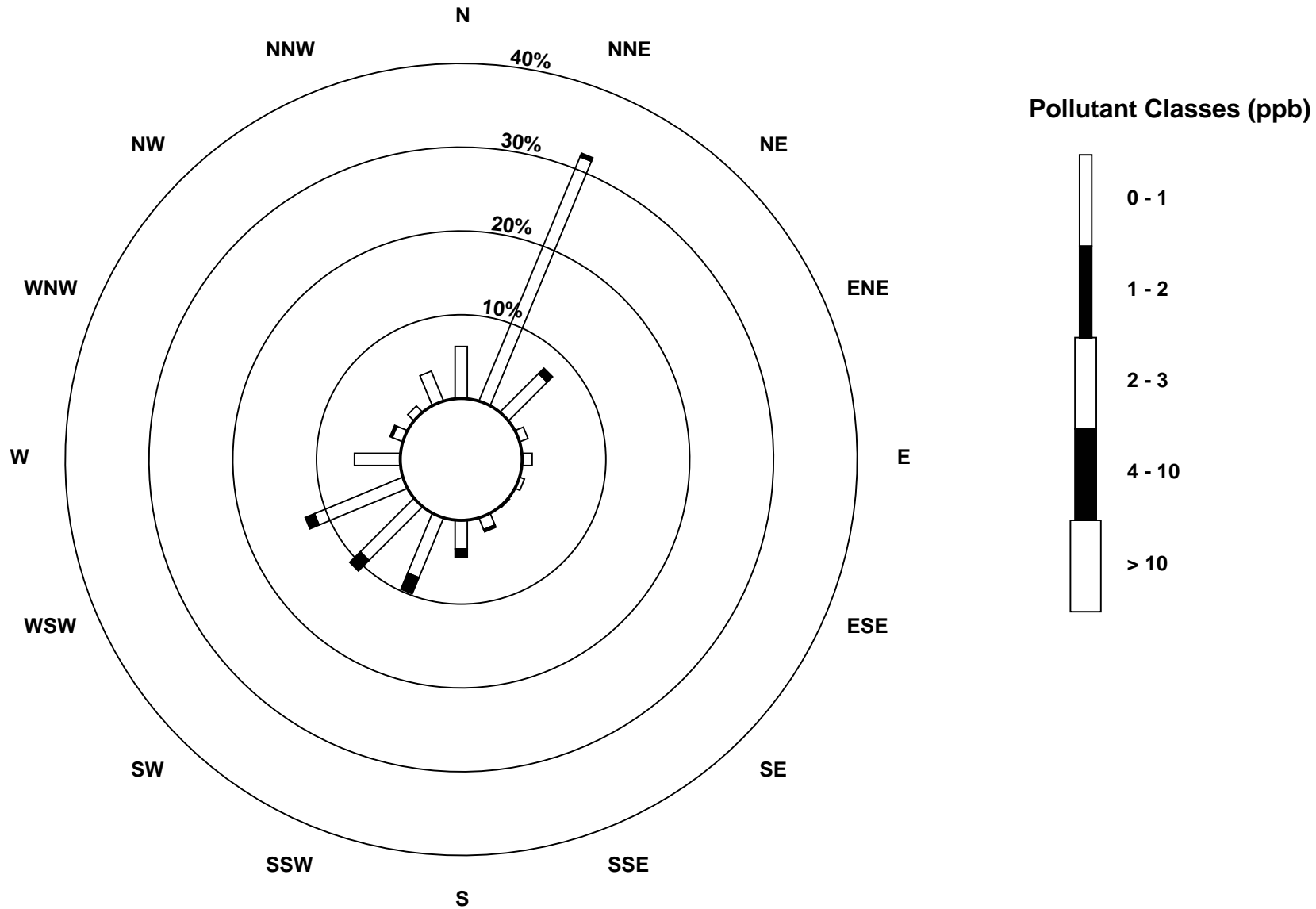
Maximum Value: 2.3 ppb on Jan 4 06:00		Maximum Daily Average: 1.1 ppb on Jan 8		Hours in Service: 744																							
Minimum Value: 0 ppb on Jan 1 07:00		Minimum Daily Average: 0.5 ppb on Jan 2		Hours of Data: 708																							
Maximum Diurnal Average: 0.7 ppb at hour 19		Minimum Diurnal Average: 0.6 ppb at hour 17		Hours of Missing Data: 36																							
Monthly Average: 0.68 ppb		Percentiles: P <sub>1</sub> = 0.4 P <sub>10</sub> = 0.5 Q <sub>1</sub> = 0.5 Median = 0.6 Q <sub>3</sub> = 0.8 P <sub>90</sub> = 0.9 P <sub>99</sub> = 1.3		Hours of Calibration: 36																							
				Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jan	A	1	1	1	1	0	0	1	1	0	0	1	0	0	1	1	0	1	0	1	0	1	1	A	0.5	0.7	
2-Jan	1	1	1	0	1	1	0	0	0	1	0	0	1	0	1	0	0	0	0	0	0	0	A	1	0.5	0.7	
3-Jan	1	0	0	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.6	0.9	
4-Jan	1	1	1	1	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1.1	2.3	
5-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	1.0	1.2	
6-Jan	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	A	1	1	1	1	1	0.7	0.9	
7-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0.8	1.2	
8-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	2	2	1	2	1	1	1.1	1.7	
9-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	
10-Jan	1	1	1	1	1	1	1	1	1	1	1	1	0	A	1	0	1	1	0	0	0	1	0	0	0.6	1.0	
11-Jan	0	1	1	1	0	0	1	1	1	1	0	1	1	A	1	1	1	0	1	1	1	1	1	1	0.6	0.8	
12-Jan	1	1	0	1	1	1	0	1	1	1	0	1	A	1	1	1	0	0	1	1	0	1	1	1	0.6	0.8	
13-Jan	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0	1	1	1	1	1	1	1	0.6	0.9	
14-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	0.8	1.0	
15-Jan	1	1	1	1	1	1	1	1	1	A	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9	
16-Jan	1	1	1	1	0	1	1	1	A	1	1	0	0	0	1	0	1	1	1	1	0	1	1	1	0.6	0.8	
17-Jan	1	1	0	0	0	0	0	A	0	0	0	0	1	0	0	1	1	0	1	1	1	1	1	1	0.5	0.8	
18-Jan	1	1	1	0	0	0	A	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0.6	1.2	
19-Jan	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	0	0.7	1.0	
20-Jan	0	0	1	0	A	1	0	1	1	1	0	C	C	C	1	1	1	1	0	0	1	0	1	1	0.5	0.8	
21-Jan	1	1	0	0	0	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.8	
22-Jan	1	0	1	1	A	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0	1	1	1	0	0.6	0.8	
23-Jan	1	0	1	A	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.9	
24-Jan	1	1	A	1	0	0	1	0	0	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1	0.6	0.9	
25-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	
26-Jan	A	0	0	0	1	1	0	1	0	1	1	1	1	0	1	1	1	1	1	1	1	0	1	A	0.6	0.8	
27-Jan	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.6	0.8	
28-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	0.8	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	A	1	1	0.7	1.0	
30-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	0.8	
31-Jan	1	1	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.6	0.9	
		0.7	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.7	0.7	0.7	0.6	0.7	0.7	0.7	0.7	Diurnal Average	
		1.0	1.2	0.9	1.3	1.8	2.3	1.8	1.4	1.4	1.3	1.3	1.2	1.1	1.1	1.1	1.0	0.9	1.1	1.5	1.6	1.3	1.7	1.2	1.0	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									





# Pollutant Rose

Total Reduced Sulphur (TRS) - ppb  
Smoky Heights - January 2010



# Hourly Averages

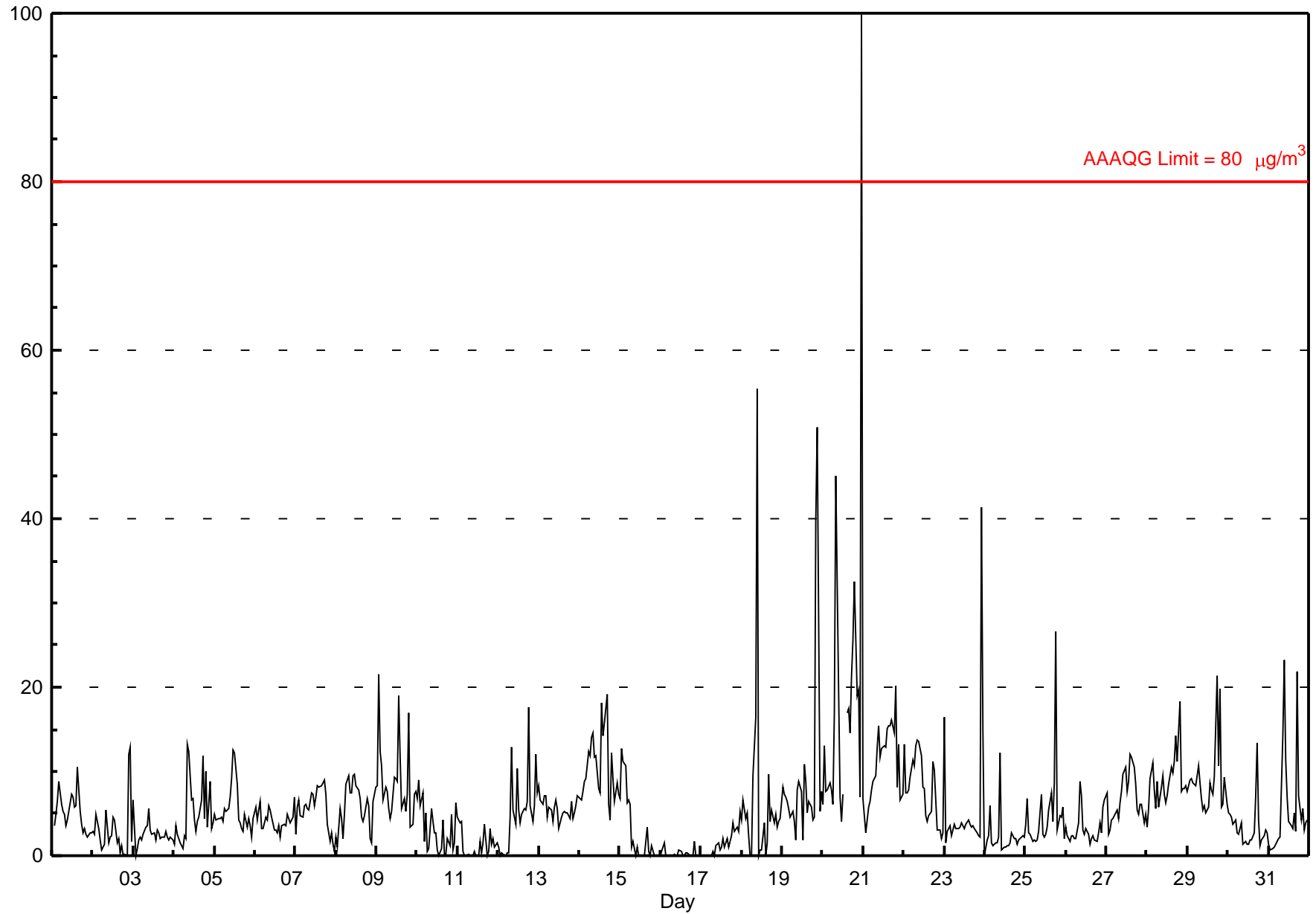
## Particulate Matter 2.5 (PM<sub>2.5</sub>) - µg/m<sup>3</sup>

### Smoky Heights - January 2010

Number of Exceedences: 1-hr: 1 24-hr: 0	Hours in Service: 744
Maximum Value: 99.9 µg/m <sup>3</sup> on Jan 21 00:00	Maximum Daily Average: 18.7 µg/m <sup>3</sup> on Jan 20
Minimum Value: 0 µg/m <sup>3</sup> on Jan 2 21:00	Hours of Data: 742
Maximum Diurnal Average: 8.8 µg/m <sup>3</sup> at hour 10	Hours of Missing Data: 2
Monthly Average: 5.76 µg/m <sup>3</sup>	Hours of Calibration: 1
Minimum Daily Average: 0.3 µg/m <sup>3</sup> on Jan 16	Percent Operational Time: 99.9
Minimum Diurnal Average: 4.1 µg/m <sup>3</sup> at hour 5	
Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.6 Q <sub>1</sub> = 2.1 Median = 4.5 Q <sub>3</sub> = 7.4 P <sub>90</sub> = 11.6 P <sub>99</sub> = 25.8	

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	N	4	5	6	9	6	5	5	4	4	5	7	7	6	6	11	5	4	3	3	2	2	3	3	5.0	10.6
2-Jan	3	3	5	3	2	1	1	1	5	2	2	2	5	4	2	2	0	1	0	0	0	12	13	2	3.0	12.9
3-Jan	7	0	1	2	2	2	3	3	4	6	3	3	3	2	3	3	2	2	2	3	2	2	2	2	2.6	6.5
4-Jan	1	4	2	2	1	1	2	2	13	12	7	7	4	3	4	4	7	12	4	10	3	9	3	4	5.1	13.2
5-Jan	5	4	4	4	5	4	6	5	6	7	9	13	12	8	4	4	3	3	5	3	4	4	2	4	5.4	12.6
6-Jan	6	4	5	6	3	3	5	4	6	5	5	3	3	3	4	2	4	4	3	5	4	4	5	7	4.3	6.9
7-Jan	3	6	7	5	5	6	6	6	5	7	7	6	7	8	8	8	9	9	7	4	2	3	1	1	5.6	9.0
8-Jan	2	1	6	4	2	5	8	10	7	8	10	10	8	8	7	5	4	5	7	6	2	2	7	8	5.8	9.7
9-Jan	8	21	12	11	7	8	8	6	4	5	9	9	9	19	12	6	7	5	7	17	3	4	7	8	8.9	21.5
10-Jan	7	9	6	7	2	5	0	1	6	4	3	3	1	0	1	4	0	0	2	1	5	1	2	6	3.1	9.0
11-Jan	5	4	4	1	0	0	0	0	0	0	0	0	0	2	0	1	4	0	0	3	1	2	1	1	1.3	4.5
12-Jan	1	0	0	0	0	0	0	5	13	5	4	10	5	4	5	6	5	6	18	6	4	6	12	8	5.2	17.6
13-Jan	8	7	6	7	7	5	6	5	4	6	7	6	3	4	5	5	5	5	4	6	4	5	6	7	5.6	8.3
14-Jan	7	7	8	9	9	12	12	14	15	12	12	8	7	18	14	16	19	6	4	12	9	6	9	7	10.5	19.1
15-Jan	7	13	11	11	6	7	6	1	2	0	1	0	0	0	0	2	3	1	0	1	0	0	0	0	3.0	12.7
16-Jan	0	1	2	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2	0	0	0	0.3	1.6
17-Jan	0	0	0	0	0	0	0	0	0	1	2	1	1	2	1	2	1	2	2	4	3	3	3	5	1.4	5.2
18-Jan	4	7	4	5	2	0	0	9	16	55	0	1	1	4	0	2	10	4	5	4	5	3	4	4	6.3	55.5
19-Jan	8	7	7	6	6	5	5	4	2	8	9	8	2	11	9	5	6	6	4	5	40	51	5	8	9.4	50.9
20-Jan	6	13	8	8	9	8	6	17	45	19	7	4	7	C	17	17	15	21	26	33	19	20	7	100	18.7	99.9
21-Jan	7	3	4	6	6	8	9	9	13	15	12	13	13	13	15	15	15	16	15	20	8	13	7	7	11.0	20.2
22-Jan	13	7	7	8	9	11	11	13	14	14	12	8	8	5	4	5	5	11	10	7	3	3	2	3	8.0	13.8
23-Jan	16	1	3	4	2	3	4	3	3	3	4	4	3	4	4	4	3	4	3	3	2	2	41	15	5.8	41.4
24-Jan	0	2	2	6	2	1	2	2	2	12	1	1	1	1	1	2	3	2	2	1	2	2	2	2	2.2	12.1
25-Jan	4	7	3	3	2	2	2	2	3	7	3	2	3	3	5	7	4	9	27	3	5	5	6	2	4.8	26.7
26-Jan	3	2	2	2	2	2	2	4	9	7	3	3	3	3	1	2	2	2	2	3	4	3	6	7	3.3	8.8
27-Jan	8	3	3	4	4	5	5	4	6	8	10	11	8	9	12	12	10	9	5	5	6	6	4	5	6.7	12.0
28-Jan	3	6	9	11	8	6	9	6	8	9	7	6	7	8	11	10	11	14	11	18	8	8	8	8	8.8	18.3
29-Jan	8	9	9	9	9	8	11	9	7	5	6	5	6	9	8	7	9	21	11	20	6	6	9	6	8.8	21.4
30-Jan	5	5	5	4	4	3	3	3	4	1	2	1	1	2	2	3	7	13	4	1	2	2	3	3	3.5	13.4
31-Jan	1	1	1	1	1	2	2	2	14	23	11	7	4	4	3	5	3	22	7	4	6	3	4	4	5.7	23.2
	5.2	5.1	4.9	5.0	4.1	4.1	4.4	5.0	7.8	8.8	5.5	5.2	4.6	5.5	5.4	5.7	5.9	7.1	6.5	6.8	5.4	6.2	5.9	7.9		Diurnal Average
	16.4	21.5	12.4	11.0	9.3	12.3	11.9	16.9	45.1	55.5	11.9	12.7	13.1	18.9	17.0	17.5	19.1	21.9	26.7	32.5	39.8	50.9	41.4	99.9		Diurnal Maximum

C - Calibration N - Not Valid  
 Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 µg/m<sup>3</sup> Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 µg/m<sup>3</sup>

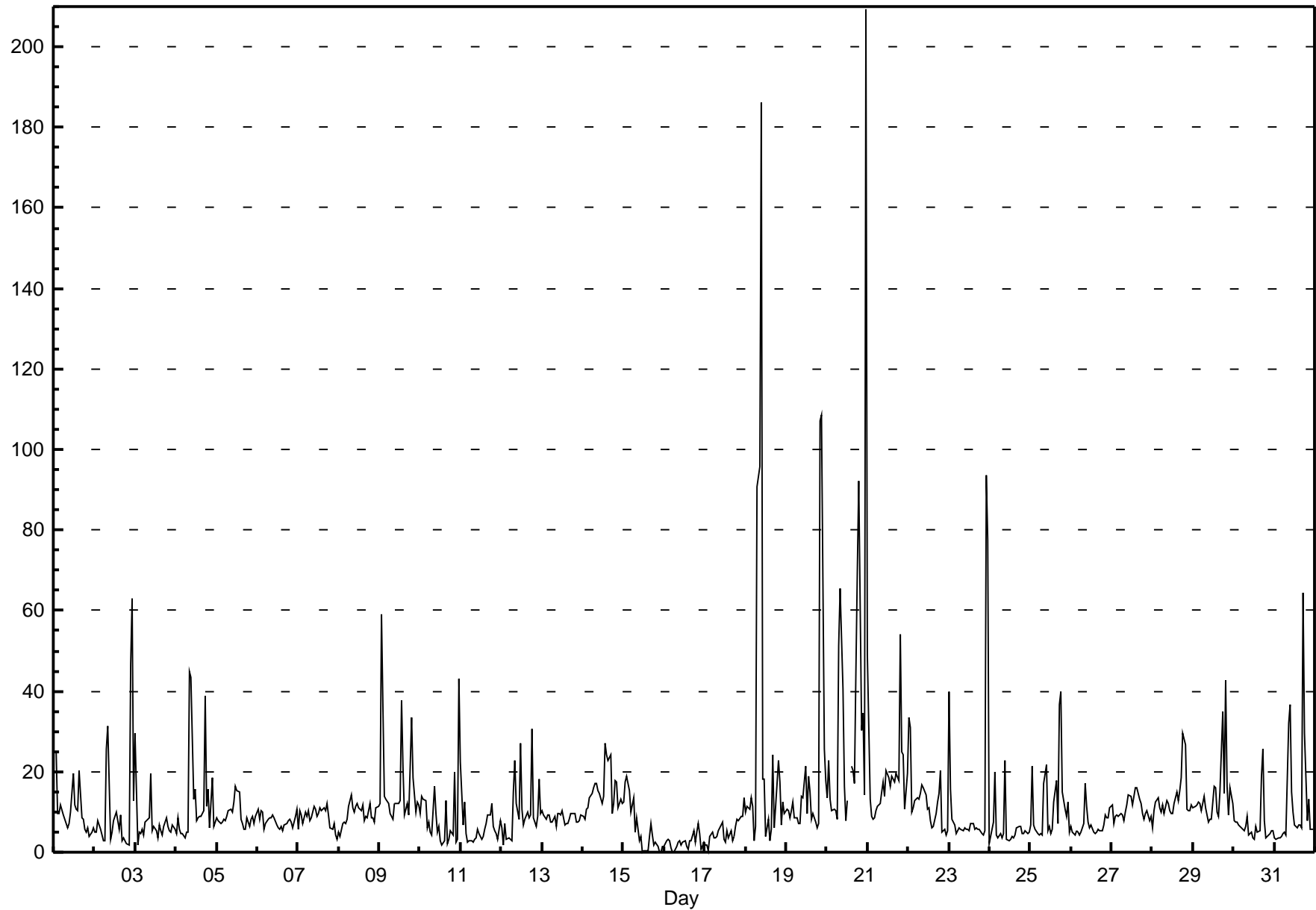


# Hourly Maximums

# Particulate Matter 2.5 (PM<sub>2.5</sub>) - µg/m<sup>3</sup>

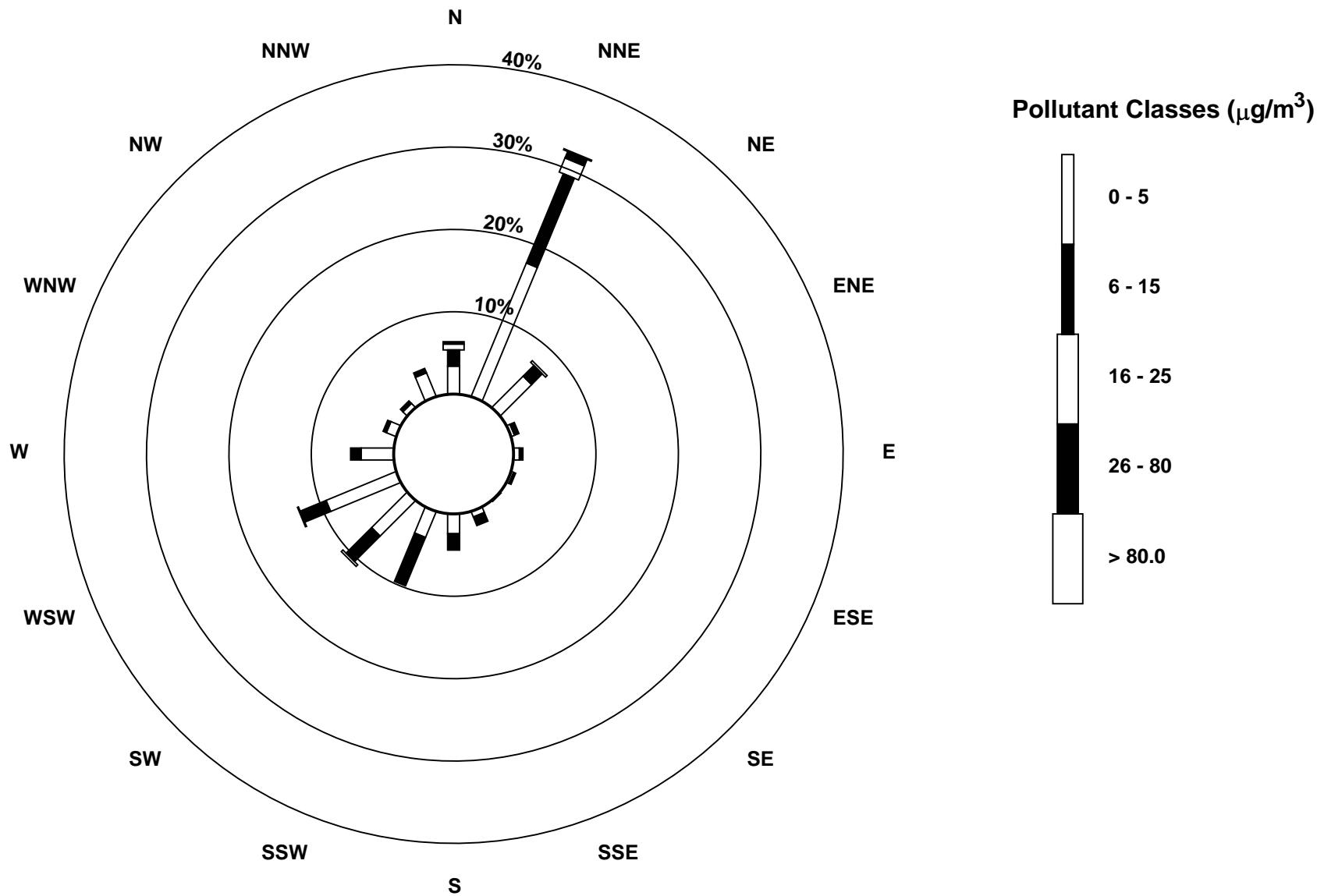
## Smoky Heights - January 2010

Maximum Value: 209.4 µg/m <sup>3</sup> on Jan 21 00:00		Maximum Daily Average: 36.3 µg/m <sup>3</sup> on Jan 20		Hours in Service: 744																							
Minimum Value: 0 µg/m <sup>3</sup> on Jan 15 12:00		Minimum Daily Average: 2.5 µg/m <sup>3</sup> on Jan 16		Hours of Data: 742																							
Maximum Diurnal Average: 19.2 µg/m <sup>3</sup> at hour 10		Minimum Diurnal Average: 7.0 µg/m <sup>3</sup> at hour 6		Hours of Missing Data: 2																							
Monthly Average: 11.77 µg/m <sup>3</sup>		Percentiles: P <sub>1</sub> = 0.5 P <sub>10</sub> = 3.5 Q <sub>1</sub> = 5.4 Median = 8.5 Q <sub>3</sub> = 12.2 P <sub>90</sub> = 19.4 P <sub>99</sub> = 91.2		Hours of Calibration: 1																							
				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	N	25	10	10	12	9	8	7	6	7	10	20	12	11	10	20	8	8	6	5	6	4	5	6	9.7	24.8	
2-Jan	5	5	8	6	4	3	3	26	31	3	5	8	9	10	6	9	3	3	3	2	2	47	63	13	11.5	62.8	
3-Jan	30	2	5	5	6	4	8	8	9	20	6	6	5	4	7	5	4	6	8	6	5	5	7	6	7.4	29.7	
4-Jan	5	9	6	5	5	4	5	5	45	43	13	16	8	8	9	9	10	39	11	16	6	18	6	7	12.8	44.8	
5-Jan	9	8	7	7	8	8	9	10	11	10	13	16	15	15	8	7	6	6	9	6	8	9	7	9	9.2	16.2	
6-Jan	11	8	10	10	6	7	8	9	9	9	9	7	6	6	7	5	7	7	8	8	7	6	9	11	7.9	10.8	
7-Jan	6	10	9	7	10	9	10	8	8	11	11	9	10	11	10	11	10	12	9	6	6	7	4	3	8.7	12.0	
8-Jan	5	4	7	8	7	8	11	14	11	10	11	12	11	10	12	8	9	8	12	9	8	7	11	11	9.4	14.3	
9-Jan	12	59	36	14	13	12	10	9	8	12	12	12	13	38	21	9	12	9	21	33	19	10	12	12	17.4	59.0	
10-Jan	10	14	13	13	6	7	5	4	16	10	5	6	3	2	3	13	2	3	5	4	20	2	3	43	8.9	43.2	
11-Jan	22	7	13	5	2	3	3	2	3	3	6	5	3	4	6	7	9	9	12	6	5	4	3	8	6.3	22.4	
12-Jan	6	2	7	3	4	3	3	15	23	12	8	27	11	7	8	10	9	9	31	8	6	9	18	10	10.4	30.5	
13-Jan	10	9	8	9	9	7	8	9	6	10	10	9	10	7	7	7	8	10	10	10	7	7	8	9	8.6	10.5	
14-Jan	9	8	11	11	13	15	16	17	17	15	15	12	14	27	24	23	24	10	12	18	17	11	13	12	15.2	27.1	
15-Jan	12	17	19	15	10	12	13	5	8	3	4	0	0	0	0	4	7	4	2	3	1	0	0	1	6.0	18.8	
16-Jan	1	3	3	3	1	0	0	2	2	3	2	3	3	1	1	3	3	5	2	5	7	4	1	2	2.5	7.2	
17-Jan	2	2	0	4	5	4	4	4	5	6	7	3	3	5	4	5	3	4	6	8	8	9	9	14	5.1	13.6	
18-Jan	10	11	11	14	12	3	6	91	96	186	18	18	4	8	3	6	24	6	11	23	17	7	12	10	25.3	186.0	
19-Jan	11	10	9	10	12	9	9	7	7	14	13	21	10	19	15	8	10	8	6	7	107	109	26	18	19.8	108.6	
20-Jan	13	23	13	10	11	10	8	51	65	40	16	8	13	C	21	20	17	44	70	92	30	34	14	209	36.3	209.4	
21-Jan	49	13	9	8	9	10	11	12	15	17	14	20	18	17	19	18	18	19	18	54	25	24	11	20	18.7	54.2	
22-Jan	33	31	10	11	13	14	13	15	17	16	14	11	11	8	6	6	10	13	15	20	5	6	4	5	12.8	33.4	
23-Jan	40	16	8	7	5	5	6	6	5	6	6	6	5	7	7	6	6	6	6	5	4	5	94	77	14.3	93.6	
24-Jan	2	6	8	20	4	4	4	4	5	23	3	3	3	4	4	4	6	6	6	5	5	5	5	5	5.9	22.7	
25-Jan	7	21	7	6	5	4	5	4	17	22	5	6	5	6	12	18	7	36	40	15	11	9	13	5	11.9	39.9	
26-Jan	6	5	4	5	5	4	5	7	17	12	8	6	7	5	5	5	6	5	5	7	9	9	9	11	6.9	17.1	
27-Jan	12	7	9	9	9	10	9	8	10	12	14	14	12	14	16	16	13	12	10	8	10	10	8	9	10.8	16.0	
28-Jan	6	10	12	14	11	10	12	10	13	12	10	10	9	12	15	13	15	18	29	27	11	10	10	12	13.0	29.4	
29-Jan	11	12	12	13	12	10	14	11	9	8	8	8	16	16	10	9	15	35	15	43	16	9	16	12	14.2	42.7	
30-Jan	8	7	8	7	6	6	5	6	9	4	5	4	3	6	5	5	19	26	8	4	4	5	5	5	7.1	25.8	
31-Jan	3	3	4	4	4	5	5	4	32	37	15	10	7	6	7	7	6	64	29	8	13	6	6	6	12.1	64.3	
		12.2	11.9	9.5	8.7	7.7	7.0	7.6	12.6	17.3	19.2	9.5	10.2	8.4	9.8	9.2	9.6	9.9	14.6	14.0	15.2	13.2	13.2	13.3	18.8	Diurnal Average	
		49.0	59.0	36.1	19.9	13.4	14.7	16.1	90.8	95.6	186.0	18.3	27.2	18.5	37.7	24.1	22.7	24.2	64.3	69.7	92.4	107.2	108.6	93.6	209.4	Diurnal Maximum	
C - Calibration		N - Not Valid																									



### Pollutant Rose

Particulate Matter 2.5 (PM<sub>2.5</sub>) -  $\mu\text{g}/\text{m}^3$   
Smoky Heights - January 2010

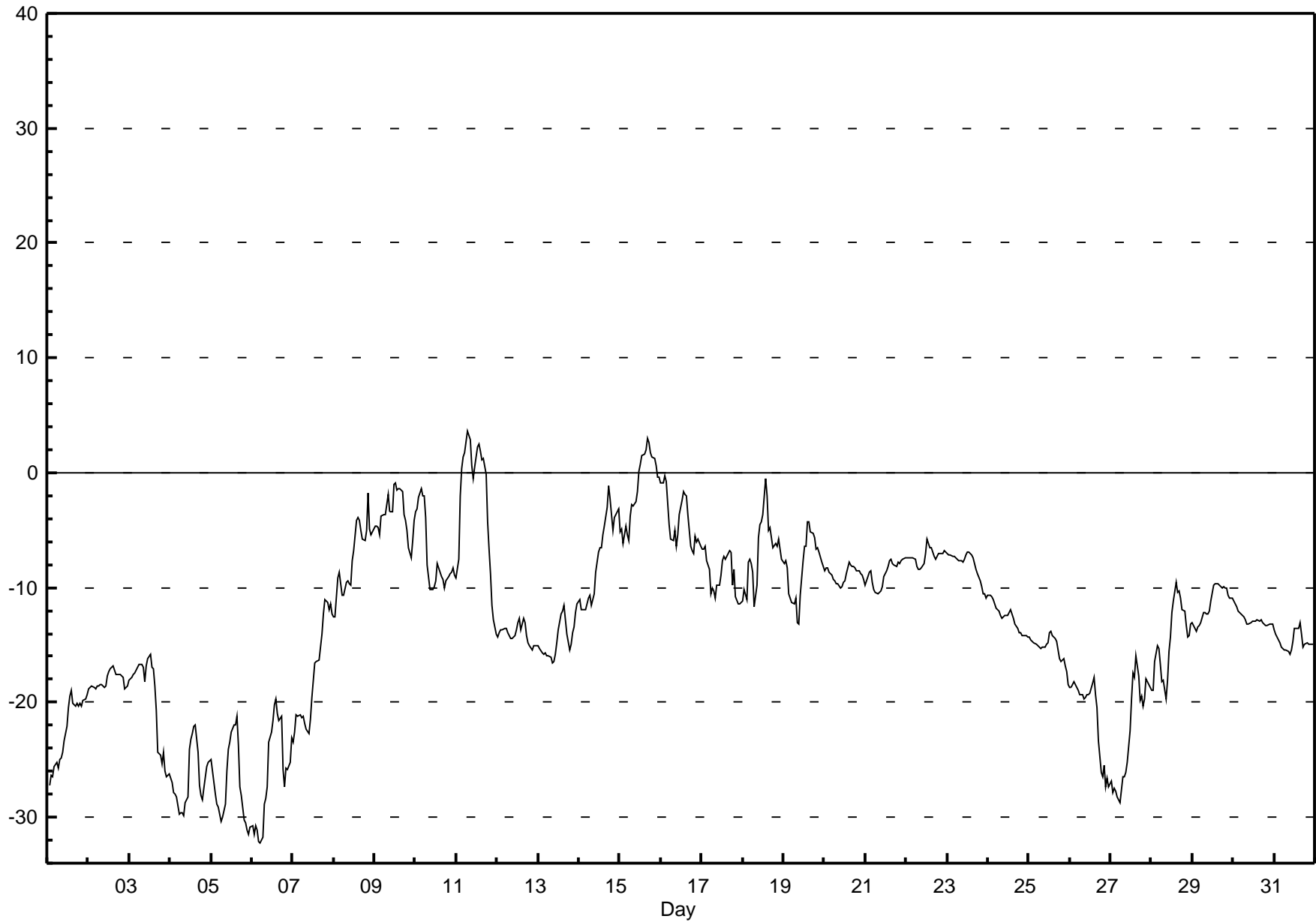


# Hourly Averages

External Temperature (ET) - °C

Smoky Heights - January 2010

Number of Exceedences (AAQO):		1-hr: 0		24-hr: 0		Hours in Service: 744														Daily Average		Daily Maximum																										
Maximum Value: 3.6 °C on Jan 11 07:00		Maximum Daily Average: -1.2 °C on Jan 15		Hours of Data: 743																																												
Minimum Value: -32 °C on Jan 6 06:00		Minimum Daily Average: -27.1 °C on Jan 5		Hours of Missing Data: 1																																												
Maximum Diurnal Average: -10.6 °C at hour 15		Minimum Diurnal Average: -14.3 °C at hour 9		Hours of Calibration: 0																																												
Monthly Average: -12.94 °C		Percentiles: P <sub>1</sub> = -30.8 P <sub>10</sub> = -25.2 Q <sub>1</sub> = -17.8 Median = -12.2 Q <sub>3</sub> = -7.5 P <sub>90</sub> = -3.8 P <sub>99</sub> = 2.0		Percent Operational Time: 99.9																																												
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum																						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																								
1-Jan	N	-27	-26	-26	-26	-25	-26	-25	-25	-24	-23	-22	-20	-20	-19	-20	-20	-20	-20	-20	-20	-20	-20	-19	-22.4	-19.0																						
2-Jan	-19	-19	-19	-19	-19	-19	-19	-19	-18	-19	-19	-18	-17	-17	-17	-17	-18	-18	-18	-18	-18	-18	-19	-19	-18.1	-16.9																						
3-Jan	-18	-18	-18	-17	-17	-17	-17	-17	-17	-18	-17	-16	-16	-17	-17	-19	-21	-24	-25	-25	-24	-26	-26	-26	-19.7	-15.8																						
4-Jan	-27	-27	-28	-28	-28	-30	-30	-30	-30	-29	-28	-24	-23	-23	-22	-22	-24	-27	-28	-29	-28	-26	-25	-25	-26.6	-22.0																						
5-Jan	-25	-26	-28	-29	-29	-30	-30	-30	-29	-26	-24	-24	-23	-22	-22	-21	-24	-27	-28	-30	-30	-31	-32	-31	-27.1	-21.2																						
6-Jan	-31	-31	-31	-31	-32	-32	-32	-29	-28	-27	-23	-23	-22	-20	-20	-21	-22	-21	-26	-27	-26	-26	-25	-23	-26.2	-19.6																						
7-Jan	-23	-23	-21	-21	-21	-21	-21	-22	-22	-23	-21	-20	-18	-17	-16	-16	-15	-14	-12	-11	-11	-12	-11	-12	-17.8	-11.1																						
8-Jan	-13	-13	-9	-9	-10	-11	-11	-10	-9	-10	-10	-8	-7	-4	-4	-5	-6	-6	-5	-2	-5	-5	-5	-5	-7.4	-1.8																						
9-Jan	-5	-5	-5	-5	-4	-4	-4	-3	-2	-3	-3	-1	-1	-2	-1	-1	-2	-4	-4	-5	-7	-7	-6	-4	-3.6	-0.9																						
10-Jan	-3	-3	-2	-1	-2	-2	-4	-8	-10	-10	-10	-10	-9	-8	-9	-9	-9	-10	-9	-9	-9	-9	-8	-9	-7.3	-1.4																						
11-Jan	-9	-7	-2	0	1	2	4	3	3	1	0	0	2	2	2	1	1	0	-4	-7	-9	-12	-13	-14	-2.3	3.6																						
12-Jan	-14	-14	-14	-14	-14	-14	-14	-14	-14	-14	-14	-14	-13	-13	-14	-13	-13	-14	-15	-15	-15	-15	-15	-15	-14.0	-12.6																						
13-Jan	-15	-15	-16	-16	-16	-16	-16	-16	-16	-17	-16	-16	-15	-14	-12	-12	-12	-13	-14	-15	-15	-14	-13	-12	-11	-14.5	-11.4																					
14-Jan	-11	-12	-12	-12	-12	-11	-11	-12	-11	-11	-9	-7	-7	-7	-5	-5	-3	-1	-2	-4	-5	-4	-3	-3	-7.4	-1.1																						
15-Jan	-5	-5	-6	-5	-5	-6	-4	-3	-3	-2	-2	0	1	2	2	2	3	3	2	1	1	1	0	0	-1.2	3.0																						
16-Jan	-1	-1	0	-1	-3	-4	-6	-6	-5	-6	-5	-4	-2	-2	-2	-2	-4	-6	-7	-7	-6	-6	-6	-6	-4.1	-0.3																						
17-Jan	-7	-7	-6	-8	-8	-11	-10	-10	-11	-10	-10	-9	-8	-7	-8	-7	-7	-7	-10	-8	-11	-11	-11	-11	-8.8	-6.5																						
18-Jan	-11	-10	-11	-8	-8	-8	-9	-12	-10	-6	-5	-4	-4	-1	-2	-5	-5	-6	-6	-6	-6	-6	-7	-8	-6.7	-0.5																						
19-Jan	-8	-8	-8	-11	-11	-11	-11	-11	-13	-13	-11	-8	-6	-6	-4	-4	-5	-5	-6	-7	-6	-7	-8	-8	-8.2	-4.3																						
20-Jan	-9	-8	-8	-9	-9	-9	-9	-10	-10	-10	-10	-10	-9	-9	-8	-8	-8	-8	-8	-9	-9	-9	-9	-9	-8.9	-7.8																						
21-Jan	-10	-9	-9	-9	-10	-10	-10	-11	-10	-10	-10	-9	-9	-8	-8	-8	-8	-8	-8	-8	-8	-8	-8	-7	-8.8	-7.4																						
22-Jan	-7	-7	-7	-7	-7	-8	-8	-8	-8	-8	-8	-7	-6	-6	-6	-6	-7	-8	-7	-7	-7	-7	-7	-7	-7.3	-5.8																						
23-Jan	-7	-7	-7	-7	-7	-7	-8	-8	-8	-8	-8	-7	-7	-7	-7	-7	-8	-8	-9	-9	-10	-10	-11	-11	-8.1	-6.9																						
24-Jan	-11	-11	-11	-11	-11	-12	-12	-12	-13	-13	-12	-12	-12	-12	-12	-13	-13	-14	-14	-14	-14	-14	-14	-14	-12.6	-10.7																						
25-Jan	-14	-15	-15	-15	-15	-15	-15	-15	-15	-15	-15	-15	-14	-14	-14	-14	-15	-15	-16	-16	-16	-17	-17	-18	-15.3	-13.8																						
26-Jan	-19	-19	-18	-18	-19	-19	-19	-19	-20	-20	-19	-19	-19	-18	-18	-19	-20	-23	-26	-27	-25	-27	-27	-27	-21.1	-17.9																						
27-Jan	-27	-28	-28	-28	-28	-29	-28	-26	-27	-26	-25	-22	-20	-17	-18	-16	-18	-20	-19	-20	-20	-18	-18	-19	-22.7	-15.9																						
28-Jan	-19	-19	-16	-15	-15	-17	-18	-18	-20	-18	-16	-14	-12	-11	-10	-10	-10	-10	-11	-12	-13	-14	-14	-13	-14.5	-9.6																						
29-Jan	-13	-14	-14	-13	-13	-13	-12	-12	-12	-12	-12	-11	-10	-10	-10	-10	-10	-10	-10	-10	-10	-11	-11	-11	-11.4	-9.6																						
30-Jan	-11	-11	-12	-12	-12	-12	-13	-13	-13	-13	-13	-13	-13	-13	-13	-13	-13	-13	-13	-13	-13	-13	-13	-13	-12.7	-11.1																						
31-Jan	-14	-14	-15	-15	-15	-15	-15	-15	-16	-16	-15	-15	-14	-14	-14	-13	-14	-15	-15	-15	-15	-15	-15	-15	-14.7	-13.0																						
																								-13.5	-13.9	-13.6	-13.5	-13.7	-14.0	-14.1	-14.2	-14.3	-14.1	-13.3	-12.2	-11.3	-10.7	-10.6	-10.7	-11.2	-12.1	-12.8	-13.1	-13.1	-13.5	-13.4	-13.4	Diurnal Average
																								-0.8	-0.9	-0.3	0.4	1.4	1.8	3.6	3.2	2.8	0.6	-0.5	0.5	2.2	2.5	1.9	2.0	3.0	2.7	1.7	1.3	1.3	0.7	-0.4	-0.4	Diurnal Maximum
N - Not Valid																																																





# Hourly Averages

Wind Speed (km/h)  
Wind Direction (deg)  
Smoky Heights - January 2010

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	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	N	5	5	6	5	4	4	3	3	3	3	3	2	3	4	2	2	3	3	3	4	2	1	2.6	5.7		
Dir	N	25	9	20	24	35	38	40	47	41	43	28	31	33	18	18	23	41	60	26	222	317	287	282	22.4	19.7	
2 Spd	3	3	2	2	1	4	3	4	4	5	5	4	4	3	3	4	4	4	5	6	6	6	7	3.5	6.9		
Dir	303	345	7	107	93	321	87	72	48	19	18	25	19	19	20	34	45	43	50	52	44	22	27	29	30.4	28.7	
3 Spd	8	10	10	10	8	7	7	7	6	4	4	6	5	7	6	8	9	8	6	7	9	5	6	6	3.8	10.0	
Dir	26	28	30	21	18	7	9	353	352	340	326	273	239	256	270	273	276	268	259	242	259	233	247	254	310.7	21.4	
4 Spd	1	1	1	1	2	1	1	1	0	1	1	1	1	2	1	2	3	3	3	2	1	0	1	2	0.3	3.4	
Dir	242	350	46	11	289	284	203	241	51	219	225	218	193	113	87	41	27	28	36	22	257	20	162	175	22.9	28.5	
5 Spd	4	2	2	1	3	4	3	3	3	3	3	2	N	N	N	N	N	N	N	N	N	N	N	N	--	3.9	
Dir	182	226	240	181	224	229	249	223	197	213	212	180	N	N	N	N	N	N	N	N	N	N	N	N	--	181.9	
6 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	--	10.2	
Dir	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	258	263	189	199	233	216	222	243	--	242.9
7 Spd	9	9	11	11	10	11	11	12	11	12	12	13	10	7	7	7	9	10	12	10	8	9	9	4	9.1	12.9	
Dir	250	240	231	229	227	224	212	206	202	206	218	220	213	203	188	237	231	256	262	251	233	241	246	212	227.1	220.1	
8 Spd	7	5	11	14	9	8	13	12	12	13	10	5	7	4	9	12	14	13	13	13	16	9	6	9	8.9	16.4	
Dir	225	250	226	239	160	169	204	205	201	192	185	192	161	198	239	241	235	244	237	250	240	178	166	175	213.7	239.7	
9 Spd	4	3	1	5	3	3	6	6	8	7	4	2	3	3	3	1	3	7	5	4	1	6	5	9	1.5	8.9	
Dir	293	37	80	252	271	47	209	209	239	171	203	231	263	43	351	324	42	22	5	24	0	262	215	240	256.8	239.8	
10 Spd	6	14	6	9	5	3	11	16	15	16	14	14	11	15	10	11	12	10	10	10	9	8	9	8	7.4	16.2	
Dir	236	228	185	163	191	153	34	31	29	26	26	26	28	32	28	26	33	32	29	27	26	30	24	29	30.4	30.9	
11 Spd	3	2	4	10	8	6	11	8	9	4	2	0	3	4	4	6	2	11	13	19	20	23	27	28	2.5	28.4	
Dir	347	303	235	213	206	219	207	209	220	186	205	208	99	47	182	198	301	242	28	25	23	26	27	25	13.7	24.6	
12 Spd	26	29	28	28	25	23	20	15	12	10	10	6	6	2	6	13	10	4	16	19	14	12	10	9	12.1	28.7	
Dir	26	28	28	28	30	30	26	21	15	20	27	23	29	90	186	196	203	338	14	17	27	28	8	6	24.8	27.8	
13 Spd	6	3	2	2	2	4	5	6	6	7	4	2	1	4	8	9	10	10	7	10	11	15	12	16	2.0	15.6	
Dir	23	58	80	78	41	39	32	34	31	22	19	40	164	167	177	177	193	216	232	241	243	255	244	256	238.2	255.7	
14 Spd	11	12	12	13	12	10	9	13	12	9	8	9	8	9	8	6	8	8	3	2	2	6	5	4	7.7	12.6	
Dir	234	210	212	217	198	212	198	207	216	228	207	196	189	219	198	224	252	277	228	104	230	242	215	237	215.9	216.5	
15 Spd	5	6	9	14	9	9	3	10	7	8	11	8	8	7	10	11	15	20	17	21	24	24	23	25	11.9	25.0	
Dir	187	228	209	205	217	222	256	212	246	257	210	226	255	219	227	259	273	267	245	244	248	252	241	253	240.6	252.7	
16 Spd	24	24	21	16	17	17	N	N	N	N	N	N	N	N	13	13	13	12	9	8	8	5	8	5	6	--	23.8
Dir	255	252	254	253	236	258	N	N	N	N	N	N	N	N	243	245	240	252	241	241	242	233	184	200	248	--	251.7
17 Spd	4	4	4	9	9	7	6	9	7	7	7	8	7	10	8	8	9	8	6	10	10	9	9	9	7.2	10.4	
Dir	232	219	181	191	215	236	245	247	258	260	250	251	211	222	195	227	267	261	252	244	215	235	220	214	231.6	243.8	
18 Spd	9	9	7	9	10	9	2	5	5	7	4	8	8	3	6	4	4	7	5	4	5	7	8	10	2.4	10.0	
Dir	238	264	243	251	254	267	253	27	6	10	3	31	29	0	249	253	53	26	43	33	272	261	214	186	287.5	186.0	
19 Spd	10	8	8	9	6	8	7	7	7	6	7	3	1	1	3	7	13	16	17	15	15	15	15	16	2.3	17.4	
Dir	195	188	195	199	209	211	207	242	240	188	229	210	72	348	356	28	21	15	17	12	13	15	20	20	0.4	17.3	
20 Spd	17	15	15	16	17	17	18	17	18	17	17	17	16	18	17	15	14	15	14	14	12	13	11	10	15.4	18.1	
Dir	21	18	18	16	17	19	20	19	16	19	21	22	22	18	22	15	14	17	18	17	12	16	21	15	18.2	15.8	
21 Spd	9	10	11	5	6	2	3	4	3	3	4	1	4	1	2	2	3	3	5	6	7	7	6	7	2.5	11.2	
Dir	2	8	30	51	164	161	172	202	194	213	265	12	23	64	135	68	313	2	343	16	25	22	28	26	20.9	30.1	
22 Spd	6	7	6	7	5	5	3	3	3	4	5	3	1	1	2	1	7	7	5	6	4	3	7	6	2.4	7.2	
Dir	24	31	40	47	42	54	169	204	273	247	282	318	6	329	296	332	265	259	285	356	340	319	341	356	341.7	30.6	

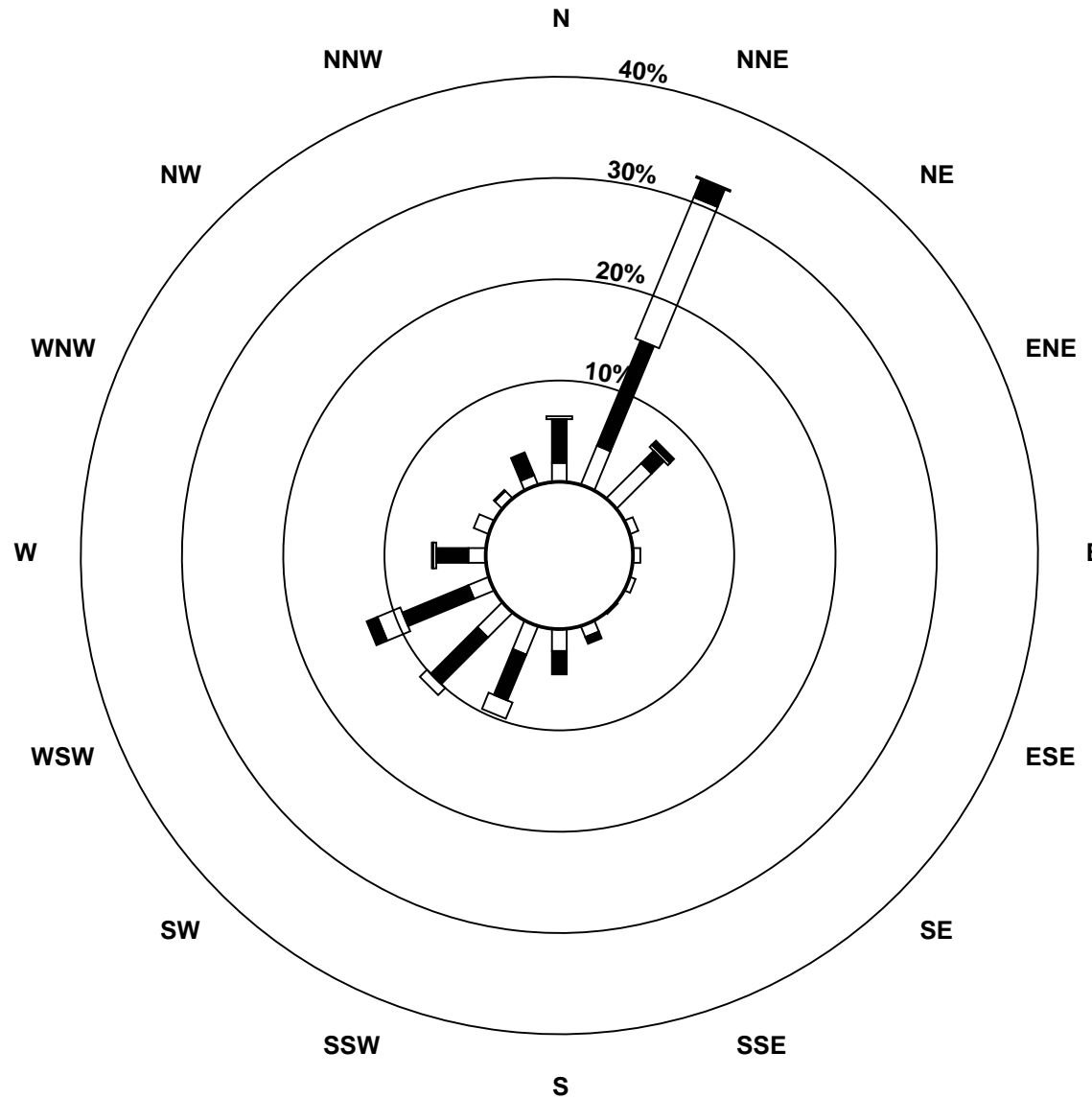
# Hourly Averages

**Wind Speed (km/h)**  
**Wind Direction (deg)**  
**Smoky Heights - January 2010**

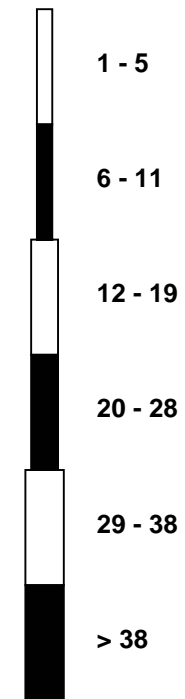
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
23 Spd	7	6	8	7	7	10	8	8	9	9	10	9	10	9	10	11	11	9	9	8	8	8	11	9	8.6	11.1	
Dir	3	344	349	352	331	348	353	333	341	348	350	342	343	342	335	340	344	340	333	329	318	349	2	354	343.5	344.0	
24 Spd	9	8	6	6	6	6	9	8	5	3	9	9	10	11	12	11	10	9	11	12	10	13	12	10	8.6	12.8	
Dir	343	352	356	23	38	30	30	39	34	18	39	45	44	39	29	24	22	25	30	31	24	34	31	28	27.2	34.2	
25 Spd	10	9	13	14	14	12	17	17	16	15	13	15	13	14	15	12	13	10	9	10	10	9	10	8	12.5	17.3	
Dir	19	13	19	19	25	22	25	27	25	23	23	24	24	19	16	16	16	17	14	20	19	9	18	20	20.3	27.2	
26 Spd	7	5	7	5	3	3	2	3	2	1	4	4	5	4	4	5	7	8	4	4	8	5	4	2	2.2	8.2	
Dir	13	37	46	37	28	34	29	22	360	251	231	259	255	277	266	272	271	274	294	263	258	262	248	209	293.9	273.8	
27 Spd	3	6	6	5	3	3	5	6	5	6	5	3	4	3	3	3	7	7	10	7	11	15	9	11	5.5	15.0	
Dir	259	262	251	235	171	208	222	222	226	212	201	190	194	178	150	189	244	244	248	230	249	256	230	218	230.1	255.9	
28 Spd	9	8	9	10	9	3	5	4	6	9	8	8	8	4	1	2	4	7	10	8	10	11	11	12	1.0	12.4	
Dir	194	209	225	231	210	164	214	231	205	243	220	221	222	151	80	119	35	16	21	15	24	25	28	28	245.8	27.9	
29 Spd	19	19	18	17	17	16	16	15	17	16	15	11	9	11	12	12	11	11	10	8	10	11	13	12	13.4	19.3	
Dir	28	22	24	28	29	29	16	25	25	33	28	30	30	17	10	8	6	7	12	16	27	20	22	25	22.4	27.7	
30 Spd	13	13	15	16	13	14	15	12	14	15	17	14	15	15	15	18	15	16	17	17	16	18	21	20	15.5	20.6	
Dir	30	30	31	27	21	25	28	16	17	27	28	27	27	23	23	21	19	17	19	21	23	27	29	37	25.0	29.3	
31 Spd	20	20	20	19	21	20	17	17	15	14	12	11	11	10	9	8	7	7	7	7	8	7	8	6	12.3	20.6	
Dir	41	38	35	34	32	30	21	17	15	12	14	14	11	8	2	10	3	6	1	14	25	28	26	38	22.8	31.7	
Spd	3.1	3.1	2.5	1.7	1.2	2.3	2.3	2.0	2.5	2.2	2.1	2.3	2.3	2.1	1.7	2.2	3.5	4.3	4.2	4.1	3.6	3.6	3.1	2.8	Diurnal Average		
Dir	346.5	348.1	357.8	350.7	358.3	359.0	13.3	357.9	351.3	356.3	354.1	1.3	14.2	3.1	340.4	320.3	315.4	320.8	344.4	347.3	330.3	335.5	350.1	343.1	Diurnal Maximum		
Spd	25.8	28.7	27.8	28.3	24.7	23.2	20.1	17.5	18.1	16.7	16.9	16.7	16.4	17.8	16.7	17.5	15.3	20.5	17.4	21.4	23.9	23.8	27.1	28.4	Diurnal Maximum		
Dir	26.0	27.8	28.5	28.4	29.6	29.9	26.0	18.5	15.8	18.5	20.6	22.1	21.7	18.4	22.0	20.9	19.3	267.1	17.3	243.5	248.3	252.0	27.2	24.6			
Maximum Speed Value: 29 km/h on Jan 12 02:00		Minimum Speed Value: 0 km/h on Jan 11 12:00																Hours in Service: 744									
Maximum Daily Speed Average: 15.5 km/h on Jan 30		Minimum Daily Speed Average: 0.3 km/h on Jan 4																Hours of Data: 708									
Maximum Diurnal Speed Average: 4.3 km/h at hour 18		Minimum Diurnal Speed Average: 1.2 km/h at hour 5																Hours of Missing Data: 36									
Monthly Average Velocity: 2.61 km/h 345.85 deg		Speed Percentiles: P <sub>1</sub> = 0.7 P <sub>10</sub> = 2.6 Q <sub>1</sub> = 4.4 Median = 7.9 Q <sub>3</sub> = 11.3 P <sub>90</sub> = 15.8 P <sub>99</sub> = 24.5																Percent Operational Time: 95.2									
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	30	70	66	0	0	0	166																				
NorthEast	46	63	52	18	3	0	182																				
East	14	0	0	0	0	0	14																				
SouthEast	6	0	0	0	0	0	6																				
South	29	34	4	0	0	0	67																				
SouthWest	37	97	29	2	0	0	165																				
West	23	47	10	7	0	0	87																				
NorthWest	15	6	0	0	0	0	21																				
Total	200	317	161	27	3	0	708																				

# Wind Rose

Wind Speed (WS) (km/h)  
Smoky Heights - January 2010



## Wind Speed Classes (km/h)





# Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

## Smoky Heights - January 2010

Maximum Speed: 29 km/h on Jan 12 02:00		Maximum Daily Speed Average: 15.6 km/h on Jan 30		Hours in Service: 744																																												
Minimum Speed: 1 km/h on Jan 4 09:00		Minimum Daily Speed Average: 1.9 km/h on Jan 4		Hours of Data: 708																																												
Maximum Diurnal Speed Average: 10.2 km/h at hour 22		Minimum Diurnal Speed Average: 7.1 km/h at hour 14		Hours of Missing Data: 36																																												
Monthly Average Speed: 8.89 km/h		Percentiles: P <sub>1</sub> = 1.4 P <sub>10</sub> = 3.2 Q <sub>1</sub> = 4.9 Median = 8.1 Q <sub>3</sub> = 11.6 P <sub>90</sub> = 15.9 P <sub>99</sub> = 24.6		Percent Operational Time: 95.2																																												
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	N	5	5	6	5	4	4	3	3	3	3	3	3	3	4	3	2	3	3	4	4	2	2	3.4	5.7																							
2-Jan	3	3	2	3	3	4	3	4	4	5	5	5	4	4	3	3	4	4	4	5	6	6	6	7	4.2	7.1																						
3-Jan	8	10	10	10	8	7	8	7	6	5	5	6	5	7	6	8	9	8	6	8	9	6	6	6	7.3	10.1																						
4-Jan	3	2	2	2	2	2	1	1	1	1	1	1	1	2	1	2	3	3	3	2	1	1	2	2	1.9	3.5																						
5-Jan	4	3	3	2	3	4	3	3	3	3	3	2	N	N	N	N	N	N	N	N	N	N	N	--	4.0																							
6-Jan	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	9	9	3	4	8	9	9	10	--	10.4																						
7-Jan	10	9	11	11	10	11	11	12	11	12	12	13	10	7	7	7	10	10	12	10	8	9	9	5	9.8	13.0																						
8-Jan	7	5	11	14	10	8	13	13	13	10	6	7	4	9	13	15	13	13	14	17	10	10	10	10.8	16.6																							
9-Jan	6	5	7	6	4	5	7	7	8	8	5	3	4	4	3	3	7	5	4	3	7	6	9	5.4	9.2																							
10-Jan	7	14	10	10	6	5	12	16	16	16	14	15	14	11	15	10	11	12	10	10	9	9	9	8	11.2	16.3																						
11-Jan	3	3	5	10	8	6	12	9	9	5	3	3	4	5	5	7	5	11	14	19	20	23	27	28	10.2	28.4																						
12-Jan	26	29	28	28	25	23	20	15	12	10	10	6	6	4	7	13	10	6	16	19	14	13	10	9	14.9	28.7																						
13-Jan	6	3	3	3	2	5	5	6	6	7	4	3	2	4	8	9	10	10	7	10	11	15	12	16	6.9	15.6																						
14-Jan	12	12	12	13	13	11	9	13	12	10	8	9	8	10	8	7	8	8	4	3	3	6	5	4	8.8	12.7																						
15-Jan	5	7	10	14	10	10	8	12	7	8	11	8	8	7	11	12	15	21	17	22	24	24	23	25	13.3	25.1																						
16-Jan	24	24	21	16	17	17	N	N	N	N	N	N	N	13	13	13	12	9	8	8	5	8	5	6	--	24.0																						
17-Jan	4	5	5	9	10	7	6	9	7	7	7	8	8	10	8	8	9	9	7	11	10	9	9	10	8.0	10.5																						
18-Jan	11	9	8	9	10	9	6	6	6	7	5	8	8	4	7	4	4	7	5	4	7	7	10	10	7.2	10.6																						
19-Jan	10	9	8	9	6	8	8	7	8	6	7	3	3	3	4	7	13	16	17	15	16	16	15	16	9.5	17.5																						
20-Jan	17	15	15	16	17	17	18	18	18	17	17	17	16	18	17	15	14	15	14	14	12	13	11	10	15.4	18.2																						
21-Jan	9	10	11	6	6	3	3	5	4	3	4	2	4	4	3	2	3	3	5	6	7	7	6	7	5.2	11.3																						
22-Jan	6	7	6	7	5	6	4	3	3	4	5	3	2	2	2	2	7	7	6	7	4	3	7	7	4.9	7.3																						
23-Jan	7	6	8	7	7	10	8	8	9	9	10	10	10	9	10	11	11	9	9	8	8	8	11	9	8.9	11.2																						
24-Jan	9	8	6	6	6	6	9	8	6	3	9	9	10	11	12	11	10	9	11	12	10	13	12	10	8.9	12.8																						
25-Jan	10	9	13	14	14	12	17	17	17	15	13	15	13	14	15	12	13	10	9	10	10	9	10	8	12.5	17.3																						
26-Jan	7	5	7	5	3	3	2	3	2	2	4	4	5	4	4	6	7	8	5	5	8	6	4	3	4.7	8.4																						
27-Jan	3	6	6	5	3	4	5	6	5	6	5	3	4	3	4	4	7	7	10	7	11	15	10	12	6.2	15.1																						
28-Jan	10	8	9	10	9	5	6	5	6	9	8	8	9	5	2	3	4	7	10	8	10	11	11	12	7.7	12.4																						
29-Jan	19	19	18	17	17	16	16	15	17	16	15	11	9	11	12	12	11	11	10	8	10	11	13	12	13.6	19.3																						
30-Jan	13	13	15	16	13	14	15	12	14	15	17	14	15	15	15	18	15	16	17	17	16	18	21	20	15.6	20.6																						
31-Jan	20	20	20	19	21	20	17	17	15	14	12	11	11	10	9	8	7	7	7	7	8	8	8	6	12.6	20.6																						
																								9.7	9.5	9.9	10.1	9.1	8.7	8.8	8.9	8.5	8.3	8.0	7.3	7.3	7.1	7.7	8.1	8.7	9.2	9.0	9.3	9.6	10.2	10.0	10.0	Diurnal Average
																								25.8	28.7	27.9	28.3	24.8	23.3	20.1	17.5	18.2	16.8	17.0	16.7	16.4	17.8	16.8	17.5	15.4	20.8	17.5	21.5	23.9	23.8	27.2	28.4	Diurnal Maximum
N - Not Valid																																																
All monthly, daily, and diurnal averages have been calculated using scalar methods																																																

# Hourly Standard Deviations

Wind Direction (WD) - deg  
Smoky Heights - January 2010

Maximum Value: 93.5 deg on Jan 11 12:00		Hours in Service: 744																									
Minimum Value: 2.1 deg on Jan 20 07:00		Hours of Data: 708																									
Percentiles: P <sub>1</sub> = 2.5 P <sub>10</sub> = 3.9 Q <sub>1</sub> = 5.9 Median = 10.6 Q <sub>3</sub> = 21.4 P <sub>90</sub> = 41.6 P <sub>99</sub> = 79.2		Hours of Missing Data: 36																									
		Hours of Calibration: 0																									
		Percent Operational Time: 95.2																									
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	N	7	12	7	6	7	11	15	14	12	16	13	23	52	83	15	39	30	13	14	55	16	16	14	83.5		
2-Jan	32	15	21	51	82	22	23	12	10	11	14	11	15	13	17	17	13	17	16	10	7	10	11	12	82.0		
3-Jan	10	4	7	7	12	11	15	13	14	14	23	14	25	22	22	4	3	7	12	18	6	20	15	8	25.2		
4-Jan	63	48	38	29	11	74	70	23	71	40	27	24	9	24	41	21	6	9	9	21	75	77	44	14	77.3		
5-Jan	13	45	39	39	15	11	22	22	7	9	19	11	N	N	N	N	N	N	N	N	N	N	N	N	45.5		
6-Jan	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	7	8	27	26	29	19	11	13	29.0		
7-Jan	10	13	8	9	6	6	8	6	12	14	10	2	11	9	7	12	9	8	4	8	14	12	12	62	62.0		
8-Jan	17	15	10	7	27	19	14	14	8	8	6	64	32	38	18	10	7	11	15	42	9	21	63	27	64.0		
9-Jan	62	56	87	25	59	53	38	26	15	19	31	53	45	53	45	79	38	6	18	26	62	34	21	14	87.2		
10-Jan	31	8	55	30	45	55	20	5	6	6	6	8	6	5	3	6	6	6	7	6	9	6	7	18	55.2		
11-Jan	36	53	42	17	19	20	22	16	14	38	59	93	47	34	69	42	80	27	33	4	3	5	3	4	93.5		
12-Jan	4	3	5	3	3	3	4	6	10	11	6	13	14	74	26	6	9	47	5	4	5	6	9	13	73.6		
13-Jan	9	36	27	24	13	12	7	8	7	6	12	36	66	26	7	6	12	6	9	6	8	6	8	3	66.2		
14-Jan	14	8	8	7	9	14	21	11	6	17	7	14	12	26	21	30	19	5	52	66	49	28	21	34	66.3		
15-Jan	32	33	15	12	35	24	73	31	25	16	7	10	15	20	18	26	21	9	5	5	5	4	4	5	72.5		
16-Jan	4	6	5	12	11	4	N	N	N	N	N	N	N	7	6	7	6	12	11	17	18	18	13	10	18.0		
17-Jan	22	24	29	14	15	10	9	13	14	11	15	10	21	14	17	9	12	22	25	9	11	14	10	27	28.7		
18-Jan	29	25	26	14	8	12	80	30	40	22	37	7	8	39	36	29	37	5	10	39	36	32	40	16	80.2		
19-Jan	11	12	11	9	11	11	12	16	24	12	17	46	70	32	12	5	4	3	9	8	5	5	3	3	69.7		
20-Jan	3	4	5	3	3	3	2	4	3	3	3	2	4	3	3	6	5	4	6	7	5	4	5	4	7.0		
21-Jan	10	10	5	36	26	73	52	12	17	25	15	73	16	79	56	49	39	25	13	14	8	5	21	7	79.5		
22-Jan	6	5	9	5	8	20	44	12	24	14	14	46	57	85	42	57	8	3	42	16	9	13	5	12	85.2		
23-Jan	10	9	11	11	7	7	10	6	5	9	12	8	8	9	6	7	7	6	6	8	9	23	9	12	23.2		
24-Jan	5	9	10	16	7	8	6	4	7	24	8	7	8	6	9	4	5	3	4	3	4	3	5	4	24.2		
25-Jan	4	5	3	4	4	4	4	3	4	5	4	4	5	3	4	5	5	4	4	3	8	7	5	4	7.8		
26-Jan	8	14	11	13	30	37	48	17	32	57	14	16	8	8	8	10	8	15	23	56	9	13	44	55	56.6		
27-Jan	13	6	6	15	30	40	9	9	15	10	17	11	10	34	7	34	14	10	15	18	8	7	27	9	39.9		
28-Jan	11	13	10	7	13	56	32	38	13	9	15	9	13	37	85	37	20	5	5	6	4	3	6	2	85.4		
29-Jan	2	4	4	4	5	4	5	7	6	5	4	6	10	6	7	8	8	7	6	5	6	9	5	5	9.6		
30-Jan	3	3	4	3	6	4	3	7	5	4	3	4	4	4	4	3	5	3	3	2	3	4	3	5	7.2		
31-Jan	5	5	4	4	4	2	6	4	4	4	5	5	6	6	8	7	6	7	8	14	6	7	6	8	14.1		
		63.2	56.3	87.2	50.7	82.0	74.4	80.2	37.6	71.1	56.6	58.8	93.5	69.7	85.2	85.4	78.7	79.5	47.3	52.5	66.3	74.9	77.3	62.6	62.0		
N - Not Valid																											

**PASZA**  
**Beaverlodge Station**  
Monthly Summary Tables, Graphs and  
Roses

# Hourly Averages

**Sulphur Dioxide (SO<sub>2</sub>) - ppb**

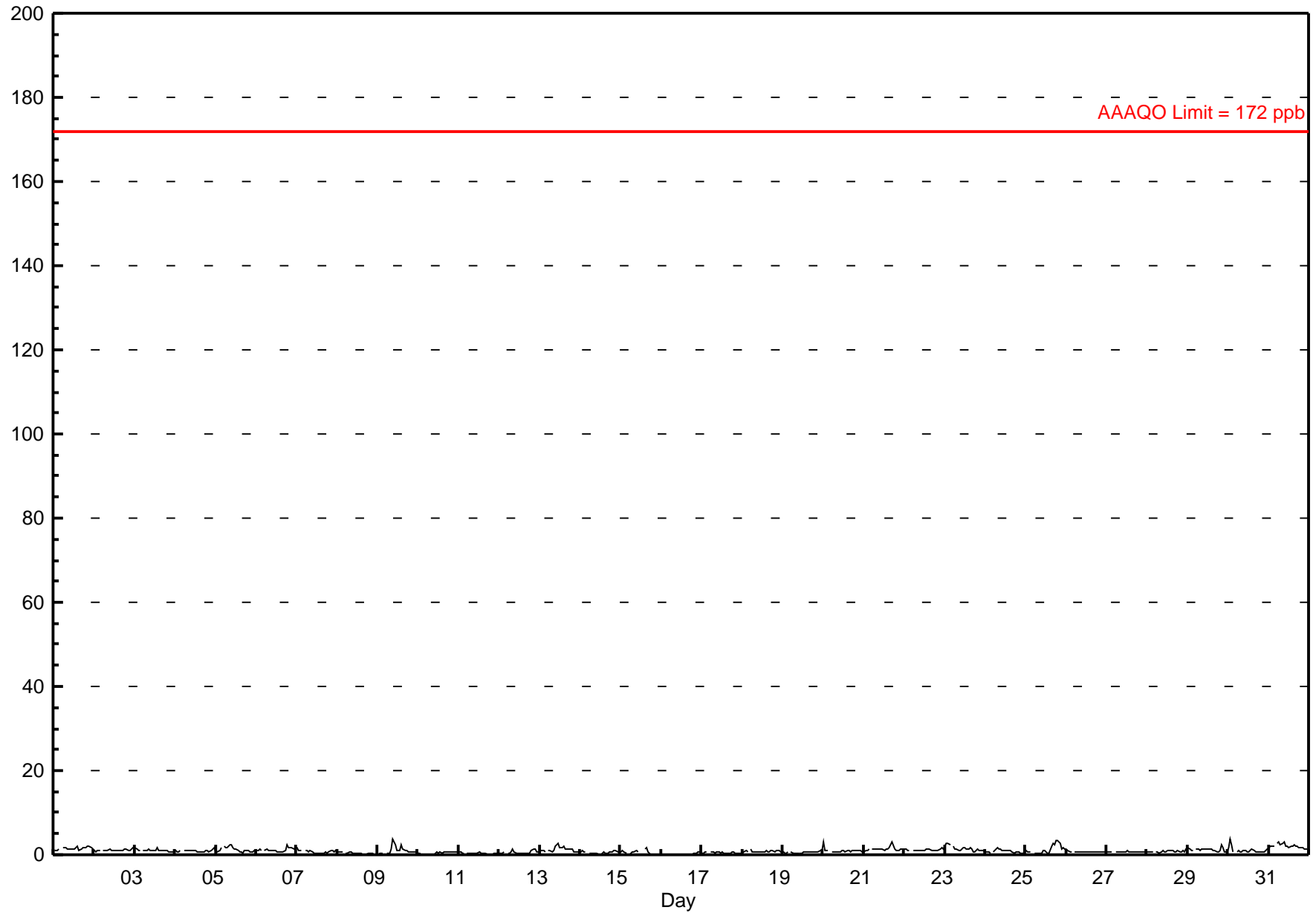
**Beaverlodge - January 2010**

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0		Hours in Service: 744	
Maximum Value: 3.9 ppb on Jan 30 02:00		Maximum Daily Average: 2.0 ppb on Jan 31	
Minimum Value: 0 ppb on Jan 16 03:00		Hours of Data: 710	
Maximum Diurnal Average: 1.0 ppb at hour 10		Hours of Missing Data: 34	
Monthly Average: 0.91 ppb		Hours of Calibration: 34	
Minimum Daily Average: 0.2 ppb on Jan 16		Percent Operational Time: 100.0	
Minimum Diurnal Average: 0.8 ppb at hour 8		Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.2 Q <sub>1</sub> = 0.5 Median = 0.8 Q <sub>3</sub> = 1.2 P <sub>90</sub> = 1.6 P <sub>99</sub> = 3.0	

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	A	2	2	2	2	1	1	1	1	2	2	1	1	2	2	2	2	2	1	1.5	2.0	
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	1.1	1.6	
3-Jan	2	1	1	1	A	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1.1	1.7	
4-Jan	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	1.7	
5-Jan	1	1	1	2	A	2	2	2	2	2	2	1	1	1	1	0	1	1	1	1	1	1	1	1.2	2.4	
6-Jan	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	1	2	1.2	2.5	
7-Jan	2	1	1	1	A	1	1	1	1	1	0	0	0	0	0	0	0	1	0	1	1	1	1	0.7	1.6	
8-Jan	1	1	1	1	A	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8	
9-Jan	0	0	0	0	A	0	0	0	1	4	2	1	1	1	2	1	1	1	1	1	1	1	1	1.0	3.7	
10-Jan	0	0	0	0	A	0	0	0	0	0	0	1	0	1	0	1	1	1	1	1	1	1	1	0.4	0.8	
11-Jan	1	1	0	0	A	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.3	0.6	
12-Jan	0	0	0	1	A	0	0	1	1	1	0	0	0	0	0	0	0	0	0	1	1	1	1	0.6	1.5	
13-Jan	1	1	1	1	A	1	1	1	1	2	2	3	2	2	2	1	1	1	1	1	1	1	1	1.2	2.6	
14-Jan	1	1	1	1	A	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	1	1	1	0.5	1.1	
15-Jan	1	1	1	0	A	0	0	1	1	1	C	C	C	2	2	1	0	0	0	0	0	0	0	0.5	1.6	
16-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	0.8	
17-Jan	0	1	1	1	A	1	1	1	0	1	1	0	1	0	0	0	0	0	1	1	0	0	0	0.5	0.7	
18-Jan	0	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.5	
19-Jan	1	0	1	1	A	1	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	0.6	1.1	
20-Jan	3	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	3.0	
21-Jan	1	1	1	1	A	1	1	1	2	1	1	1	1	1	2	2	3	1	1	1	1	1	1	1.4	3.0	
22-Jan	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1.2	1.8	
23-Jan	2	3	3	3	A	2	1	1	1	1	1	2	2	1	2	2	1	1	1	1	1	1	1	1.5	2.8	
24-Jan	1	1	1	1	A	1	2	2	1	1	1	1	1	1	1	1	0	1	1	1	0	0	1	0.8	1.8	
25-Jan	1	1	1	1	A	0	0	0	0	0	1	1	0	0	2	3	2	3	3	3	3	1	2	1.2	3.4	
26-Jan	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	1.3	
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	0.7	0.9	
28-Jan	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.4	
29-Jan	2	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	2	1	1.2	2.5	
30-Jan	2	4	2	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	3.9	
31-Jan	2	2	2	2	A	3	3	2	3	3	2	2	2	2	2	2	2	2	2	2	2	1	1	2.0	3.1	
																								Diurnal Average		
																								Diurnal Maximum		

C - Calibration      A - Automated Daily Zero Span  
 Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb    24-hr 57 ppb





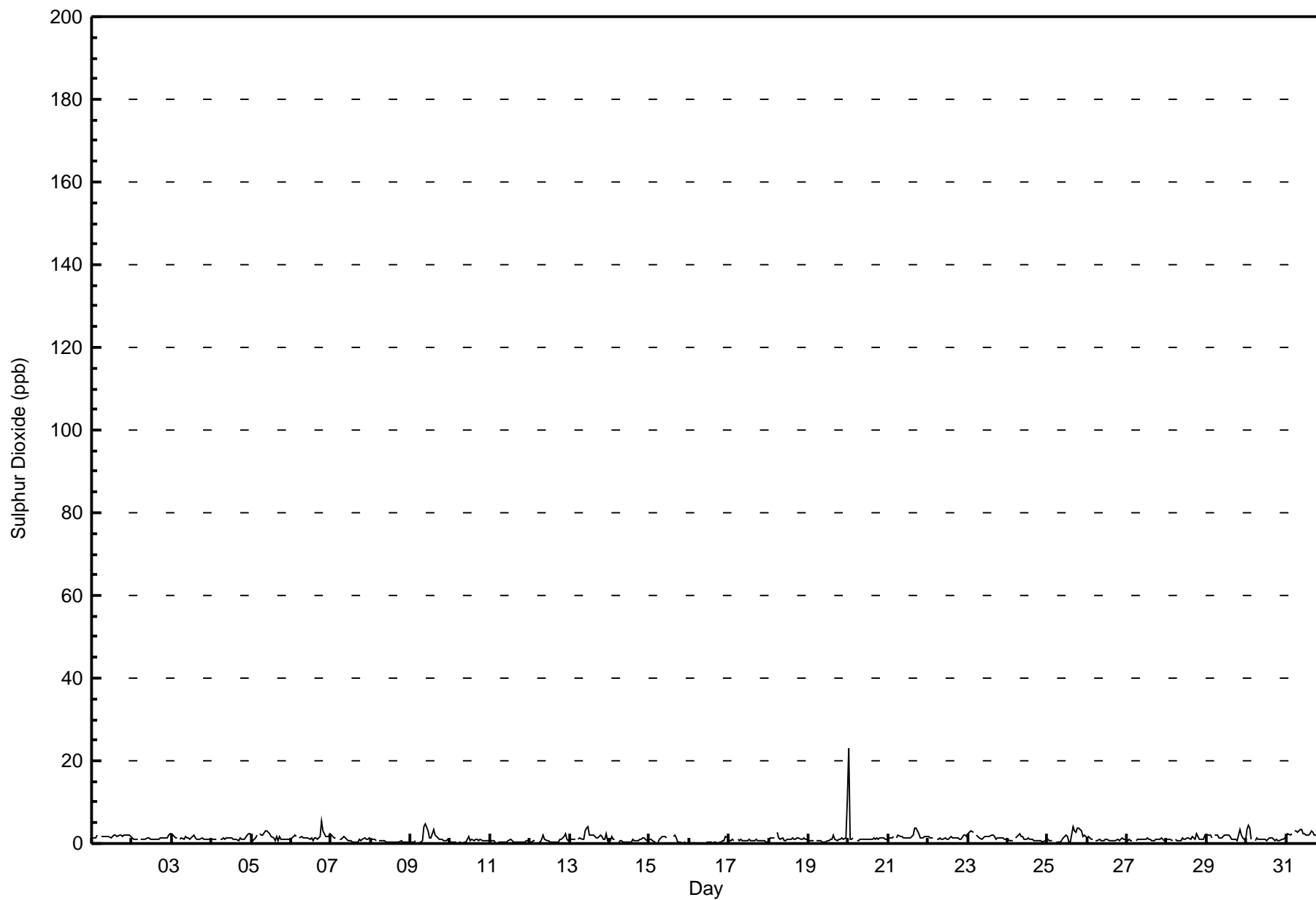
# Hourly Maximums

**Sulphur Dioxide (SO<sub>2</sub>) - ppb**

**Beaverlodge - January 2010**

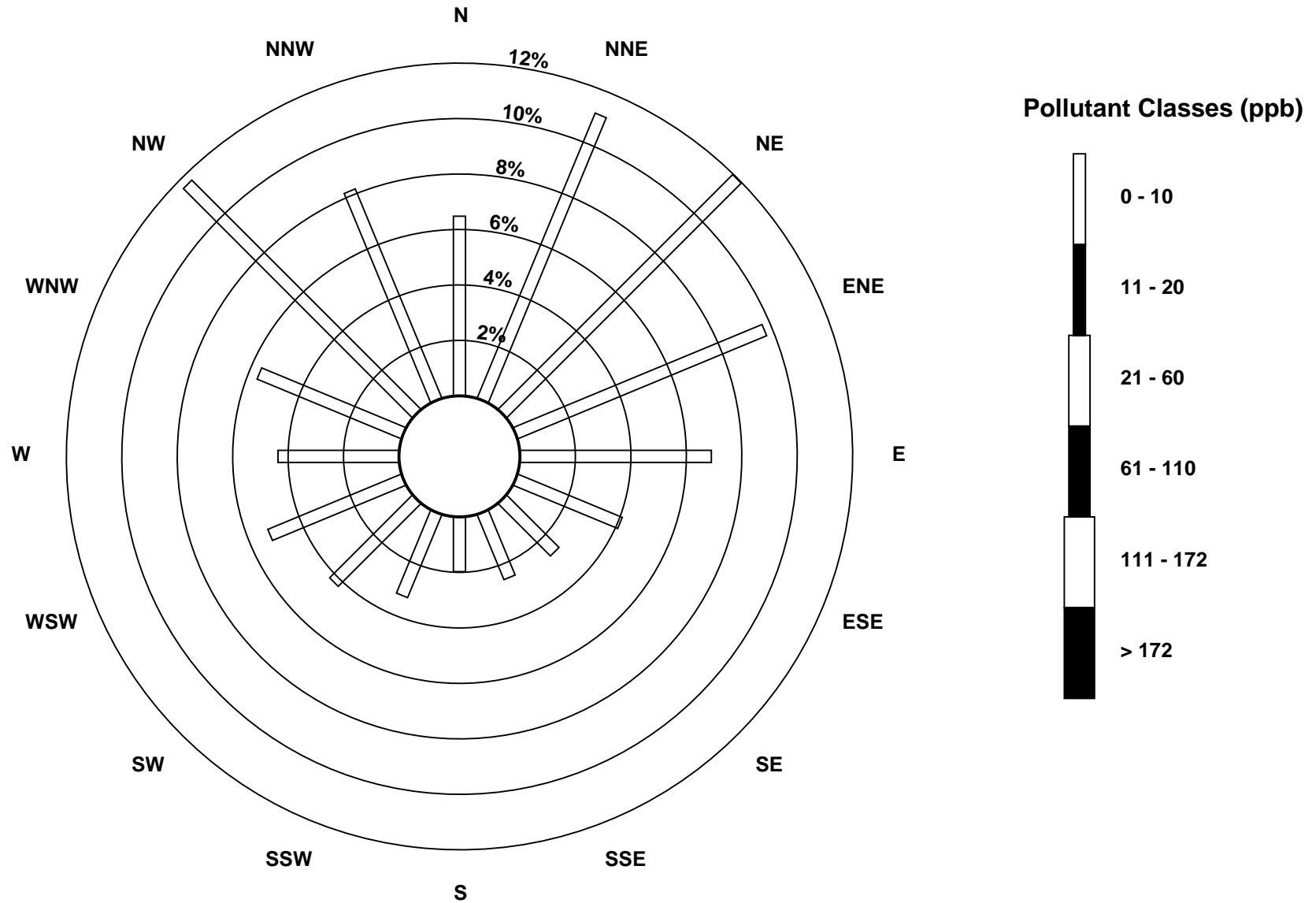
Maximum Value: 23.1 ppb on Jan 20 01:00		Maximum Daily Average: 2.3 ppb on Jan 31		Hours in Service: 744																						
Minimum Value: 0 ppb on Jan 16 03:00		Minimum Daily Average: 0.3 ppb on Jan 16		Hours of Data: 710																						
Maximum Diurnal Average: 1.9 ppb at hour 1		Minimum Diurnal Average: 1.1 ppb at hour 4		Hours of Missing Data: 34																						
Monthly Average: 1.24 ppb		Percentiles: P <sub>1</sub> = 0.1 P <sub>10</sub> = 0.4 Q <sub>1</sub> = 0.7 Median = 1.1 Q <sub>3</sub> = 1.5 P <sub>90</sub> = 2.1 P <sub>99</sub> = 4.2		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	2	A	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1.8	2.2
2-Jan	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	2	2	1.3	2.4
3-Jan	2	2	1	1	A	1	1	1	2	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1.3	2.4
4-Jan	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	1.2	2.5
5-Jan	1	1	1	2	A	2	2	2	3	3	3	2	2	1	1	2	1	2	1	1	1	1	1	1	1.6	3.2
6-Jan	1	2	2	2	A	1	2	1	1	1	1	1	1	1	1	1	1	2	5	3	3	2	2	2	1.7	5.3
7-Jan	2	2	1	1	A	1	1	1	2	1	1	1	0	0	0	0	0	1	1	1	1	1	1	1	1.0	1.9
8-Jan	1	1	1	1	A	1	1	1	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.5	1.1
9-Jan	0	0	0	1	A	0	0	1	4	5	3	1	2	2	3	2	1	1	1	1	1	1	1	1	1.4	4.6
10-Jan	0	0	0	0	A	0	0	0	0	0	1	2	1	1	1	1	1	1	1	1	1	1	1	1	0.6	1.6
11-Jan	1	1	1	0	A	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	1	0.5	0.9
12-Jan	0	0	1	1	A	1	0	1	2	1	1	1	0	0	0	0	0	0	1	1	2	3	1	1	0.8	2.5
13-Jan	1	1	1	1	A	1	1	1	1	3	4	4	2	2	2	2	1	1	2	2	1	1	2	1	1.7	4.1
14-Jan	1	2	1	1	A	0	1	1	0	0	0	0	0	0	1	1	1	1	1	1	1	2	1	1	0.8	1.6
15-Jan	1	1	1	0	A	0	1	1	2	2	1	C	C	C	2	2	1	0	0	0	0	0	0	0	0.9	2.2
16-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	1	0.3	1.6
17-Jan	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0.7	1.1
18-Jan	1	1	1	1	A	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	2.7
19-Jan	1	1	1	1	A	1	1	1	0	0	0	1	1	1	1	2	1	1	1	1	1	1	1	11	1.3	10.9
20-Jan	23	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2.1	23.1
21-Jan	1	1	1	2	A	1	2	2	2	1	1	1	1	2	2	4	4	2	1	1	1	2	2	2	1.7	3.8
22-Jan	2	1	1	1	A	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	2	2	2	1.3	2.0
23-Jan	3	3	3	3	A	2	2	1	1	1	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1.7	3.0
24-Jan	1	1	1	1	A	1	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1.1	2.2
25-Jan	1	1	1	1	A	0	0	0	0	1	2	2	2	0	0	4	3	3	4	4	3	2	2	2	1.7	4.2
26-Jan	1	2	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.6
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	1.3
28-Jan	1	1	1	1	A	1	1	1	1	1	1	1	2	1	2	1	1	1	2	1	1	1	2	2	1.1	2.2
29-Jan	2	2	2	1	A	2	2	1	1	1	2	2	2	2	2	1	1	1	1	2	3	2	1	1	1.7	3.3
30-Jan	3	5	4	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.4	4.5
31-Jan	2	2	2	2	A	3	3	3	3	3	2	2	2	2	2	3	3	2	2	2	2	2	1	2	2.3	3.3
		1.9	1.3	1.2	1.1	--	1.1	1.1	1.1	1.3	1.3	1.3	1.2	1.2	1.1	1.2	1.3	1.2	1.1	1.3	1.2	1.2	1.2	1.5	Diurnal Average	
		23.1	4.5	3.8	2.8	--	2.9	3.2	2.8	4.2	4.6	3.8	4.1	2.0	2.5	3.3	4.2	3.8	3.6	5.3	3.9	3.3	2.5	2.3	10.9	Diurnal Maximum
C - Calibration		A - Automated Daily Zero Span																								

# Hourly Maximums for SO<sub>2</sub> at Beaverlodge January 2010



# Pollutant Rose

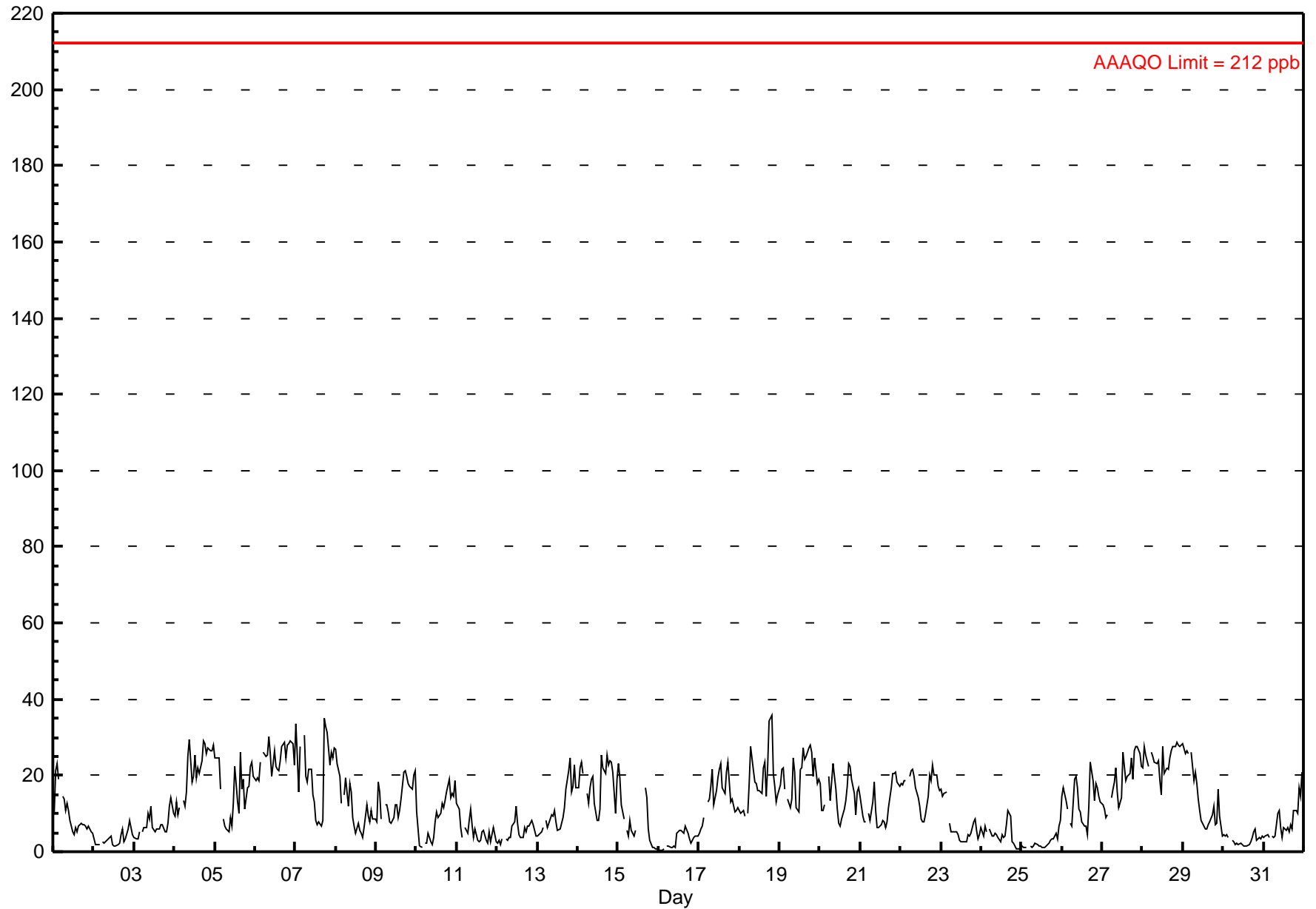
Sulphur Dioxide (SO<sub>2</sub>) - ppb  
Beaverlodge - January 2010



# Hourly Averages

## Nitrogen Dioxide (NO<sub>2</sub>) - ppb Beaverlodge - January 2010

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 35.9 ppb on Jan 18 20:00 Maximum Daily Average: 24.6 ppb on Jan 6																	Hours in Service: 744 Hours of Data: 708																																	
Minimum Value: 0 ppb on Jan 16 03:00 Minimum Daily Average: 2.5 ppb on Jan 25 Maximum Diurnal Average: 15.5 ppb at hour 18 Minimum Diurnal Average: 9.4 ppb at hour 12 Monthly Average: 12.27 ppb Percentiles: P <sub>1</sub> = 0.9 P <sub>10</sub> = 2.6 Q <sub>1</sub> = 5.2 Median = 10.6 Q <sub>3</sub> = 18.8 P <sub>90</sub> = 24.6 P <sub>99</sub> = 30.1																	Hours of Missing Data: 36 Hours of Calibration: 36 Percent Operational Time: 100.0																																	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum																								
	1	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	11	21	23	19	A	14	14	11	13	11	8	5	5	6	5	7	7	7	7	7	6	7	5	5	9.7	23.2																								
2-Jan	3	2	2	2	A	3	2	3	3	4	4	2	2	2	2	5	6	2	3	6	8	6	5	3.4	8.3																									
3-Jan	4	4	3	5	A	5	6	6	10	9	12	6	5	6	6	7	7	5	5	8	12	14	10	7.0	14.2																									
4-Jan	9	13	10	11	A	13	12	16	25	29	18	20	25	19	22	21	24	29	28	26	27	26	26	28	20.8	29.4																								
5-Jan	25	25	25	16	A	9	7	6	5	9	7	13	22	13	10	26	17	19	11	17	17	22	23	20	15.8	25.9																								
6-Jan	19	20	19	23	A	26	25	25	30	26	20	26	23	22	21	24	27	29	25	28	28	29	28	23	24.6	30.3																								
7-Jan	33	25	16	27	A	30	20	18	22	22	15	13	8	7	8	7	8	35	33	31	23	26	25	27	20.8	35.0																								
8-Jan	27	23	20	13	A	15	19	12	18	16	9	7	5	7	6	5	4	6	12	9	8	11	9	9	11.7	26.7																								
9-Jan	8	18	16	9	A	12	12	11	8	7	9	12	12	9	11	14	21	21	20	18	17	16	20	21	14.0	21.1																								
10-Jan	10	6	1	1	A	2	2	5	3	2	4	8	10	9	10	13	12	14	16	19	14	15	15	19	9.1	19.2																								
11-Jan	13	11	6	4	A	6	5	8	11	7	4	6	3	3	3	5	6	3	2	5	3	5	6	2	5.6	12.6																								
12-Jan	2	3	2	3	A	3	3	4	4	7	8	12	7	4	4	4	7	5	7	7	8	7	6	4	5.2	11.9																								
13-Jan	4	5	5	6	A	8	6	9	10	10	11	8	6	6	8	9	12	17	21	25	16	17	23	17	11.1	24.7																								
14-Jan	17	22	23	20	A	15	13	17	19	20	13	8	8	11	25	22	21	25	23	24	24	21	10	19	18.2	25.3																								
15-Jan	23	19	12	9	A	6	4	8	6	4	6	C	C	C	C	C	17	14	6	3	1	1	1	1	7.8	23.1																								
16-Jan	0	0	0	1	A	2	2	1	1	2	1	5	6	6	5	5	7	5	3	2	3	4	4	4	3.0	6.8																								
17-Jan	5	6	7	9	A	13	14	17	21	12	16	19	22	23	17	15	21	23	18	13	14	10	11	12	14.7	23.3																								
18-Jan	11	10	11	9	A	10	18	27	21	18	18	16	16	15	22	23	15	23	34	36	20	17	13	15	18.2	35.9																								
19-Jan	18	22	22	16	A	14	12	14	25	21	12	10	22	22	27	24	25	27	28	26	20	25	18	19	20.3	28.1																								
20-Jan	18	11	11	12	A	20	13	18	23	16	11	7	7	9	11	13	17	23	22	19	15	10	16	17	14.8	23.3																								
21-Jan	15	9	8	8	A	10	8	13	18	11	6	6	7	8	8	6	8	12	17	20	20	21	18	17	12.0	21.0																								
22-Jan	18	17	19	19	A	20	21	22	20	17	14	12	9	8	8	10	14	20	19	23	20	20	17	16	16.6	22.7																								
23-Jan	16	15	15	16	A	8	5	5	5	5	5	3	2	2	3	3	4	4	5	8	9	5	3	5	6.6	16.4																								
24-Jan	6	4	7	5	A	6	4	4	5	5	4	2	4	4	4	7	11	9	3	2	2	1	1	1	4.4	10.7																								
25-Jan	1	1	1	1	A	1	1	1	2	2	2	1	1	1	1	2	2	3	3	3	5	4	7	8	2.5	8.1																								
26-Jan	14	17	13	11	A	7	7	19	20	17	11	11	8	7	7	5	12	23	19	13	18	17	14	13	13.1	23.4																								
27-Jan	12	11	9	10	A	14	16	18	22	15	11	14	26	22	19	20	21	24	19	26	28	28	26	22	18.9	27.6																								
28-Jan	22	28	25	23	A	26	25	24	23	24	19	15	28	21	22	22	25	27	28	27	29	28	28	28	24.5	28.8																								
29-Jan	28	26	26	26	A	26	19	21	18	14	11	8	7	6	6	7	8	10	12	7	8	17	9	4	14.0	28.3																								
30-Jan	5	4	5	4	A	3	3	2	2	2	2	2	1	2	2	2	3	4	5	6	3	4	3	4	3.1	6.0																								
31-Jan	4	4	4	4	A	4	4	4	10	11	6	4	6	6	6	5	7	6	11	11	10	17	15	21	7.8	20.7																								
																									12.9	12.9	11.9	11.0	--	11.4	10.4	11.9	13.6	12.0	9.5	9.4	10.4	9.5	10.2	11.1	12.6	15.5	15.0	15.2	13.8	14.5	13.6	13.4	Diurnal Average	
																									33.5	27.5	26.4	27.5	--	30.5	24.9	27.4	30.3	29.4	19.9	26.5	27.5	23.1	27.2	25.9	27.5	35.0	34.2	35.9	28.8	28.9	28.5	27.9	Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 212 ppb 24-hr 106 ppb																																																		





# Hourly Maximums

## Nitrogen Dioxide (NO<sub>2</sub>) - ppb

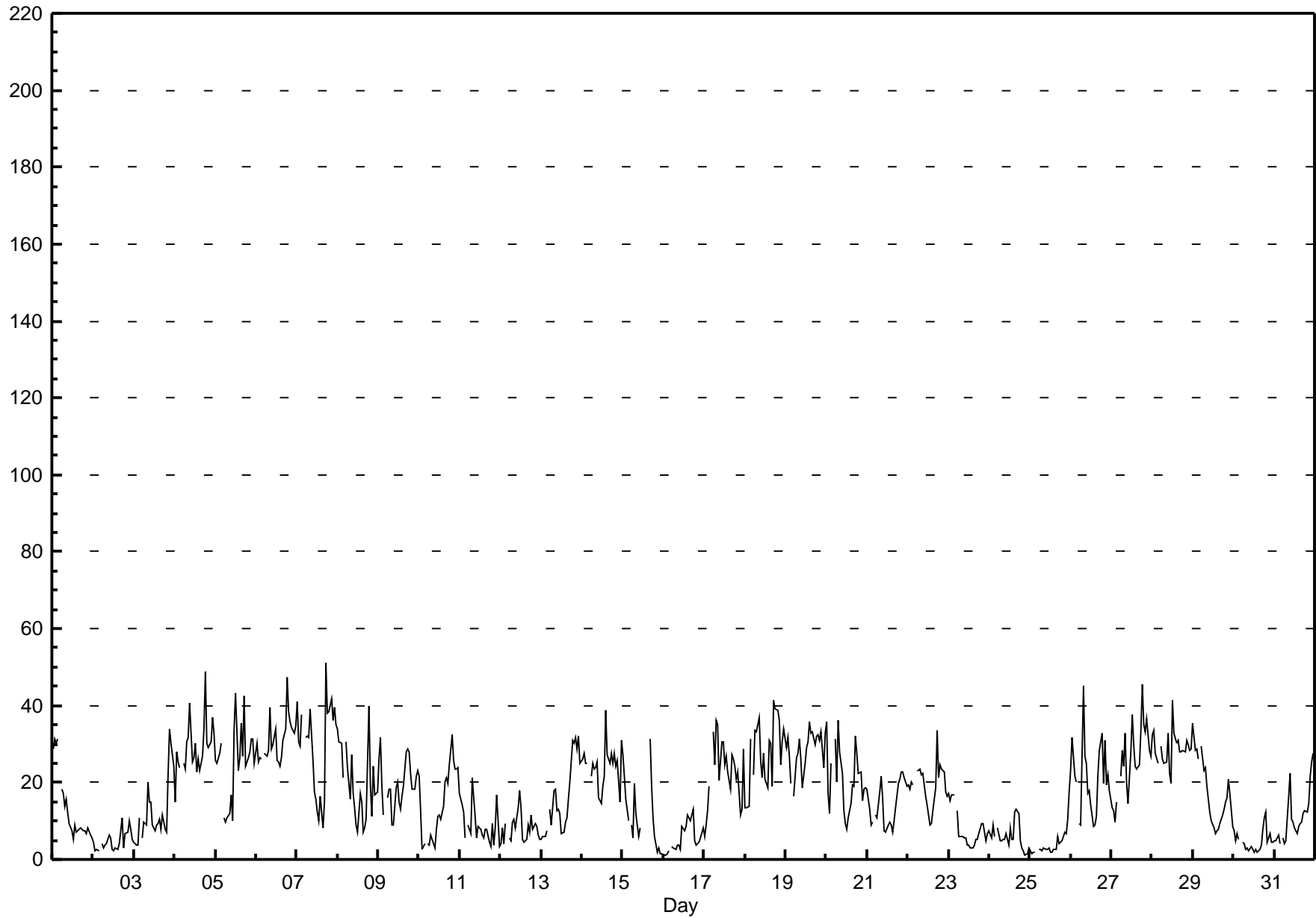
### Beaverlodge - January 2010

Maximum Value: 51.1 ppb on Jan 7 18:00		Maximum Daily Average: 31.0 ppb on Jan 6		Hours in Service: 744																							
Minimum Value: 1 ppb on Jan 16 02:00		Minimum Daily Average: 4.1 ppb on Jan 25		Hours of Data: 708																							
Maximum Diurnal Average: 21.9 ppb at hour 19		Minimum Diurnal Average: 13.1 ppb at hour 14		Hours of Missing Data: 36																							
Monthly Average: 17.25 ppb		Percentiles: P <sub>1</sub> = 1.6 P <sub>10</sub> = 3.9 Q <sub>1</sub> = 7.6 Median = 16.1 Q <sub>3</sub> = 26.1 P <sub>90</sub> = 32.0 P <sub>99</sub> = 42.2		Hours of Calibration: 36																							
				Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jan	29	31	30	31	A	18	17	14	16	12	9	7	5	9	7	8	8	8	8	8	7	8	6	6	13.1	31.3	
2-Jan	5	2	3	2	A	4	3	4	4	6	6	3	2	3	3	4	7	11	3	7	7	10	8	5	4.8	10.9	
3-Jan	5	4	4	11	A	6	10	9	20	15	15	9	7	9	9	10	8	12	8	7	22	34	30	24	12.5	34.0	
4-Jan	15	28	25	24	A	25	23	30	32	41	25	27	30	23	26	23	27	34	49	30	29	31	37	33	29.0	48.8	
5-Jan	26	25	28	30	A	11	10	11	12	17	10	34	43	23	26	35	27	43	24	26	28	31	31	25	25.0	43.1	
6-Jan	30	25	26	26	A	27	27	28	40	29	30	34	26	25	24	26	31	34	48	38	36	34	33	35	31.0	47.5	
7-Jan	41	31	30	38	A	32	32	32	39	26	17	16	12	10	16	8	15	51	38	38	42	36	40	35	29.3	51.1	
8-Jan	34	30	30	21	A	31	24	16	27	17	13	9	7	17	15	7	8	11	40	20	11	24	17	17	19.4	39.8	
9-Jan	26	32	19	11	A	16	18	18	9	9	19	20	15	13	17	19	28	29	28	22	18	18	22	23	19.5	31.6	
10-Jan	22	13	2	4	A	4	4	6	4	3	8	11	12	10	14	20	21	20	25	33	26	24	24	24	14.5	32.6	
11-Jan	17	14	12	6	A	9	7	21	16	11	6	9	8	6	6	8	8	5	3	9	4	8	17	3	9.2	21.3	
12-Jan	4	8	4	9	A	6	5	10	11	8	13	18	13	5	5	5	9	7	12	8	9	9	6	5	8.2	17.9	
13-Jan	5	6	6	7	A	13	9	18	18	13	13	12	7	7	10	11	16	20	31	30	32	29	32	25	16.1	32.1	
14-Jan	26	28	25	25	A	21	25	24	24	25	16	14	19	21	39	27	25	28	25	27	24	26	15	31	24.4	38.6	
15-Jan	27	22	16	10	A	9	6	20	12	6	8	C	C	C	C	C	31	19	11	6	2	3	2	2	11.7	31.4	
16-Jan	1	1	1	2	A	3	3	3	4	4	3	9	7	8	12	11	10	13	5	4	4	4	6	8	5.4	13.2	
17-Jan	6	9	13	19	A	33	25	36	35	20	31	31	24	27	23	18	27	26	24	21	23	11	13	29	22.8	36.2	
18-Jan	13	13	14	31	A	22	34	33	37	26	21	28	21	19	31	30	19	41	39	39	36	25	31	34	27.7	41.4	
19-Jan	29	32	27	20	A	16	27	27	31	26	19	25	29	31	36	33	33	30	32	32	31	33	24	33	28.5	35.8	
20-Jan	36	17	12	25	A	31	20	36	28	22	13	9	8	11	15	19	19	32	28	22	23	15	18	19	20.8	36.3	
21-Jan	18	13	9	10	A	12	11	18	22	16	7	7	9	10	9	7	10	13	20	21	23	23	21	19	14.2	22.9	
22-Jan	19	18	20	19	A	23	23	24	22	22	16	14	11	9	9	13	19	34	21	25	23	23	18	17	19.2	33.5	
23-Jan	17	15	17	17	A	13	6	6	6	6	6	4	4	3	3	4	5	5	7	10	9	7	5	7	7.8	17.1	
24-Jan	8	6	9	6	A	8	5	5	5	5	7	4	8	5	5	12	13	12	5	3	2	1	1	3	6.0	13.0	
25-Jan	2	1	2	2	A	3	2	2	3	2	3	3	2	2	2	2	6	4	4	5	7	7	10	17	4.1	17.4	
26-Jan	23	32	22	20	A	9	9	45	27	25	17	18	14	9	9	11	22	28	33	20	31	19	22	18	21.0	45.0	
27-Jan	14	13	10	15	A	21	28	24	33	20	15	28	38	30	24	23	25	33	46	35	33	37	28	27	26.1	45.6	
28-Jan	33	33	28	25	A	29	26	25	25	33	22	20	41	33	30	31	28	28	28	28	31	30	28	29	28.9	41.4	
29-Jan	36	28	29	26	A	29	23	24	19	16	12	10	8	7	7	8	9	12	13	15	16	21	17	8	17.1	35.6	
30-Jan	8	5	7	5	A	4	4	3	3	2	3	3	2	2	2	2	4	8	11	12	5	7	4	4	4.8	12.5	
31-Jan	5	5	7	4	A	6	4	5	16	22	10	10	8	7	9	9	10	12	13	12	15	22	25	28	11.4	27.5	
		18.7	17.4	15.6	16.2	--	16.0	15.1	18.6	19.4	16.3	13.4	14.8	14.7	13.1	14.7	14.9	17.0	21.3	21.9	19.8	19.6	19.6	19.1	19.1	Diurnal Average	
		40.9	33.4	30.3	37.8	--	33.3	33.6	45.0	39.6	40.6	30.7	33.9	43.1	33.0	38.6	35.3	33.2	51.1	48.8	38.9	41.7	36.5	39.5	35.0	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

# Hourly Maximums

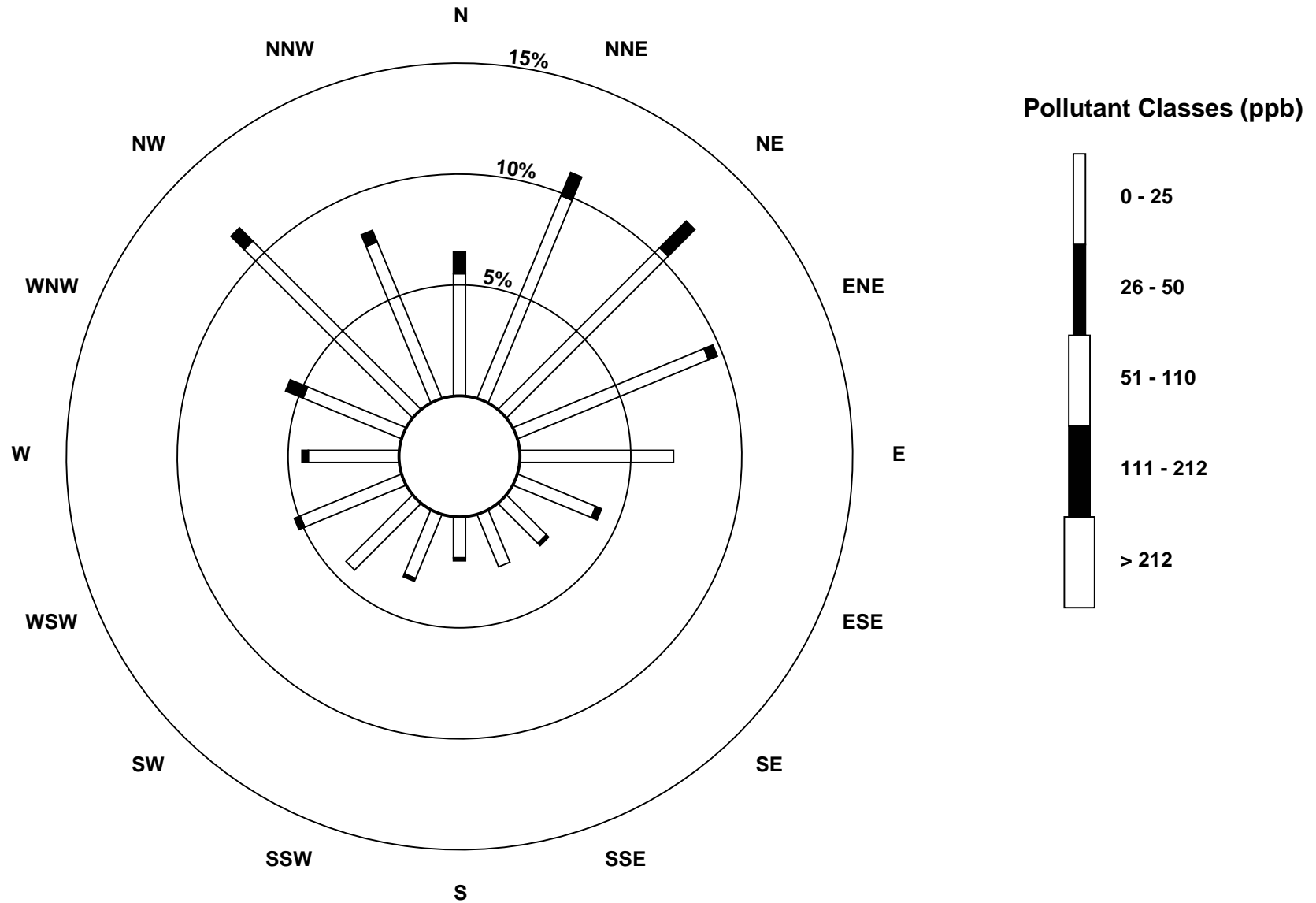
Nitrogen Dioxide (NO<sub>2</sub>) - ppb

Beaverlodge - January 2010



# Pollutant Rose

Nitrogen Dioxide (NO<sub>2</sub>) - ppb  
Beaverlodge - January 2010







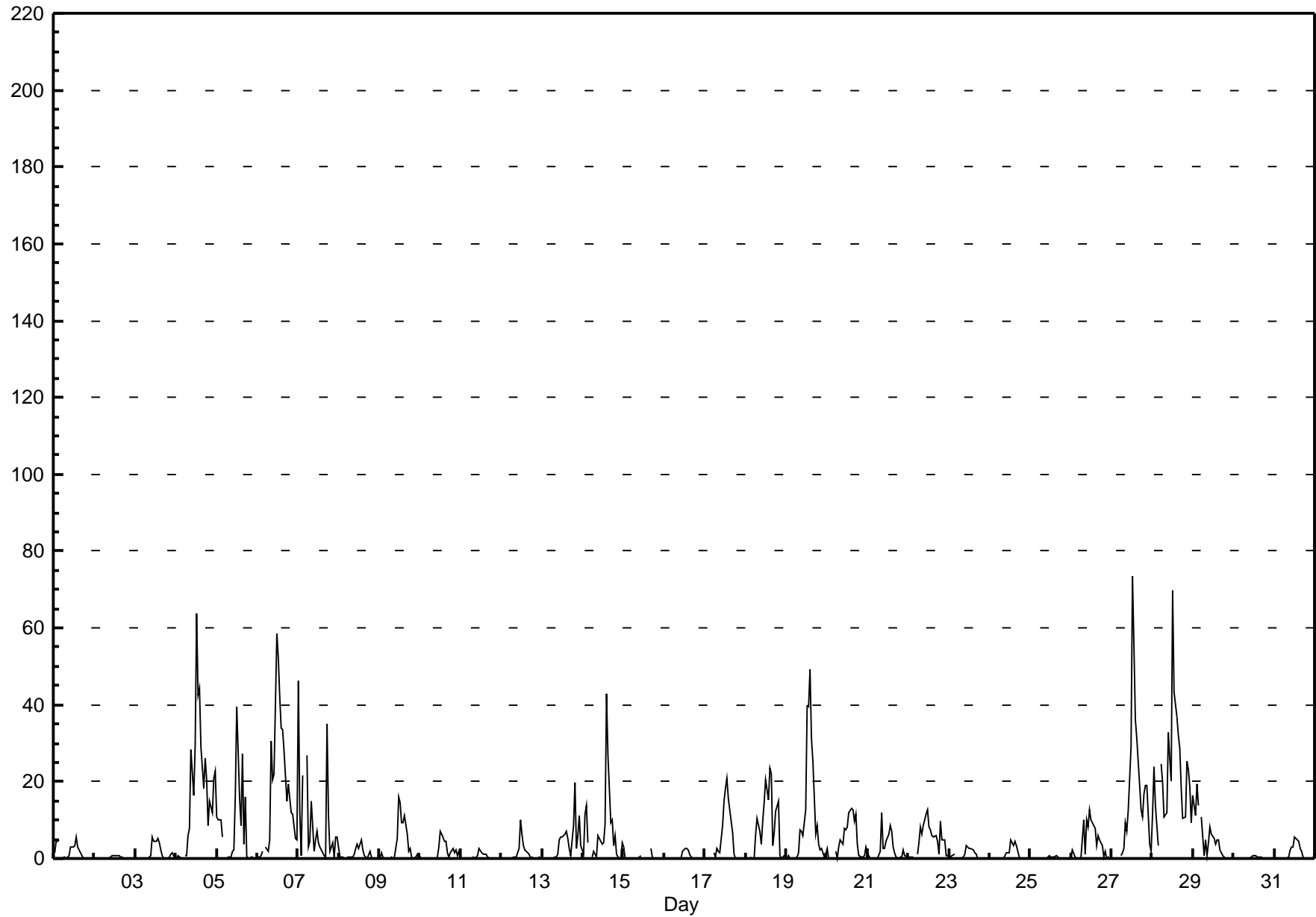
# Hourly Averages

## Nitrogen Oxide (NO) - ppb Beaverlodge - January 2010

Number of Exceedences (AAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 73.6 ppb on Jan 27 13:00	Maximum Daily Average: 22.8 ppb on Jan 28		Hours of Data:	708
Minimum Value: 0 ppb on Jan 2 03:00	Minimum Daily Average: 0.2 ppb on Jan 25		Hours of Missing Data:	36
Maximum Diurnal Average: 16.2 ppb at hour 13	Minimum Diurnal Average: 1.3 ppb at hour 7		Hours of Calibration:	36
Monthly Average: 5.29 ppb	Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.1 Median = 0.9 Q <sub>3</sub> = 5.7 P <sub>90</sub> = 15.7 P <sub>99</sub> = 47.5		Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jan	1	4	4	5	A	0	0	0	0	1	3	3	3	6	3	2	1	0	0	0	0	0	0	0	1.7	5.6
2-Jan	0	0	0	0	A	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0.2	0.8
3-Jan	0	0	0	0	A	0	0	0	0	1	6	4	4	5	4	2	1	0	0	0	0	1	2	0	1.4	5.7
4-Jan	0	1	0	0	A	1	1	6	8	28	16	29	64	42	44	29	18	26	20	9	15	12	21	23	18.0	63.8
5-Jan	11	10	10	6	A	0	0	0	0	2	2	16	40	16	9	27	4	16	0	0	0	0	0	0	7.4	39.7
6-Jan	0	0	1	2	A	3	2	5	31	20	22	59	52	42	34	33	28	15	19	16	12	12	5	5	18.2	58.6
7-Jan	46	12	1	22	A	27	3	5	15	2	5	7	4	3	2	1	0	35	11	2	4	0	6	6	9.5	46.2
8-Jan	3	0	0	0	A	1	0	0	1	1	3	4	3	5	2	1	0	0	2	0	0	0	0	0	1.2	4.9
9-Jan	0	2	0	0	A	0	0	0	0	0	5	16	15	9	9	11	6	2	3	0	0	0	1	1	3.6	16.1
10-Jan	0	0	0	0	A	0	0	0	0	0	0	3	7	6	4	5	2	1	1	3	1	2	1	2	1.7	7.1
11-Jan	0	0	0	0	A	0	0	0	0	0	1	3	2	1	1	1	0	0	0	0	0	0	0	0	0.5	2.7
12-Jan	0	0	0	0	A	0	0	0	0	1	3	10	6	3	2	1	1	0	0	0	0	0	0	0	1.3	10.2
13-Jan	0	0	0	0	A	0	0	0	0	1	5	6	6	6	7	5	3	1	9	20	3	6	11	3	4.0	19.7
14-Jan	1	12	14	4	A	0	2	1	1	6	5	4	4	9	43	27	9	10	3	6	1	0	0	4	7.2	43.0
15-Jan	3	0	0	0	A	0	0	0	0	0	1	C	C	C	C	C	3	0	0	0	0	0	0	0	0.4	2.8
16-Jan	0	0	0	0	A	0	0	0	0	0	0	2	3	2	2	1	1	0	0	0	0	0	0	0	0.5	2.6
17-Jan	0	0	0	0	A	1	0	3	2	1	9	15	18	21	16	10	7	1	0	0	0	0	0	0	4.5	20.8
18-Jan	0	0	0	0	A	0	6	10	7	4	10	15	21	15	24	22	3	7	12	15	1	0	0	1	7.5	23.6
19-Jan	0	1	0	0	A	0	0	1	8	7	6	13	40	39	49	31	25	6	9	4	2	3	0	1	10.7	49.2
20-Jan	3	0	0	0	A	2	0	3	5	4	8	8	8	12	13	13	10	11	4	1	0	0	1	3	4.7	13.2
21-Jan	2	0	0	0	A	0	0	2	12	3	3	4	6	9	7	3	1	0	0	0	0	2	1	0	2.5	11.9
22-Jan	0	0	0	0	A	1	4	8	6	9	11	13	8	7	6	6	6	4	1	10	5	5	1	1	4.9	12.8
23-Jan	1	0	1	1	A	0	0	0	0	1	3	3	3	3	2	1	1	0	0	0	0	0	0	0	0.9	3.2
24-Jan	0	0	0	0	A	0	0	0	0	1	2	2	5	4	4	5	4	0	0	0	0	0	0	0	1.1	5.0
25-Jan	0	0	0	0	A	0	0	0	0	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0.2	0.6
26-Jan	0	2	0	0	A	0	0	10	1	10	8	13	10	9	8	3	6	5	3	0	2	0	0	0	4.0	12.5
27-Jan	0	0	0	0	A	1	1	3	9	7	12	29	74	56	36	31	19	13	11	17	19	19	4	2	15.7	73.6
28-Jan	12	24	14	3	A	25	20	11	12	33	26	20	70	43	37	32	29	18	10	11	25	23	18	9	22.8	69.6
29-Jan	16	11	19	14	A	11	1	5	1	4	8	6	5	4	5	5	2	1	0	0	0	0	0	0	5.2	19.4
30-Jan	0	0	0	0	A	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0.2	0.7
31-Jan	0	0	0	0	A	0	0	0	0	2	3	3	6	5	5	3	2	0	0	0	0	0	0	0	1.2	5.8
	3.3	2.6	2.1	1.9	--	2.4	1.3	2.4	3.9	4.8	6.0	10.3	16.2	12.8	12.7	10.5	6.2	5.6	3.9	3.6	3.0	2.8	2.3	2.0	Diurnal Average	
	46.2	23.8	19.4	21.7	--	26.9	19.9	10.9	30.7	32.9	26.0	58.6	73.6	55.6	49.2	33.4	28.6	35.0	20.5	19.7	25.4	23.0	20.8	22.8	Diurnal Maximum	

C - Calibration                      A - Automated Daily Zero Span





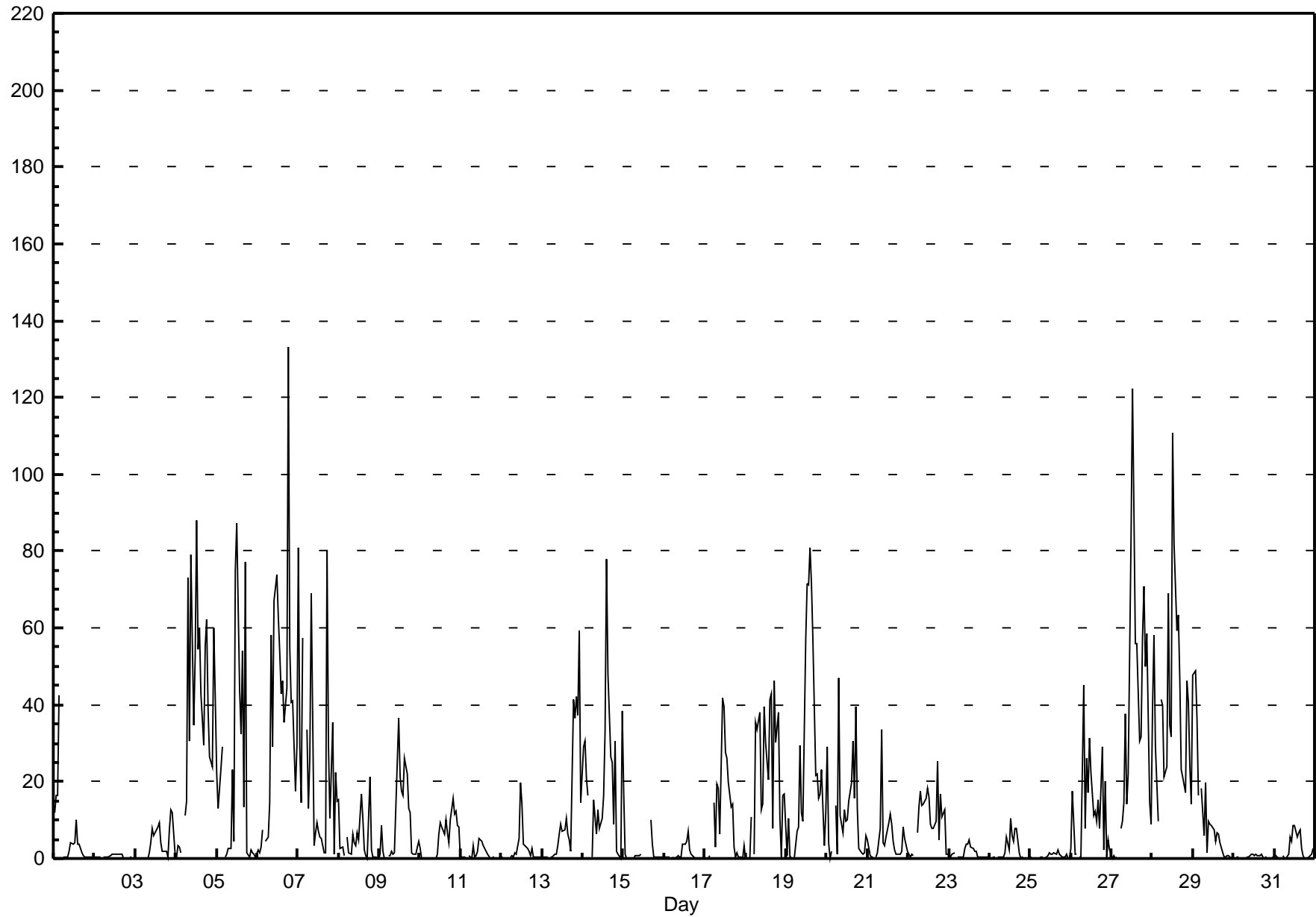
# Hourly Maximums

## Nitrogen Oxide (NO) - ppb Beaverlodge - January 2010

Maximum Value: 133.0 ppb on Jan 6 19:00		Maximum Daily Average: 41.2 ppb on Jan 28		Hours in Service: 744																							
Minimum Value: 0 ppb on Jan 16 07:00		Minimum Daily Average: 0.4 ppb on Jan 30		Hours of Data: 708																							
Maximum Diurnal Average: 26.4 ppb at hour 13		Minimum Diurnal Average: 5.1 ppb at hour 3		Hours of Missing Data: 36																							
Monthly Average: 12.55 ppb		Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.2 Q <sub>1</sub> = 0.4 Median = 3.3 Q <sub>3</sub> = 15.4 P <sub>90</sub> = 40.7 P <sub>99</sub> = 81.3		Hours of Calibration: 36																							
				Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jan	12	17	17	43	A	0	0	0	0	2	4	4	4	10	4	4	1	1	0	0	0	0	0	0	5.4	42.6	
2-Jan	0	0	0	0	A	0	0	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0.5	1.2	
3-Jan	0	0	0	0	A	0	0	0	1	4	8	6	7	8	9	4	2	2	2	0	8	13	12	1	3.9	12.7	
4-Jan	0	3	3	1	A	11	15	73	31	79	35	53	88	54	60	43	29	55	62	39	26	24	60	42	38.6	87.9	
5-Jan	22	13	24	29	A	0	1	3	3	23	4	75	87	44	33	54	14	77	2	0	2	2	1	0	22.3	87.1	
6-Jan	2	2	3	7	A	5	6	15	58	29	67	74	63	54	43	46	35	44	133	55	41	41	18	29	37.8	133.0	
7-Jan	81	29	14	57	A	33	13	26	69	4	7	9	7	6	5	2	1	80	29	10	35	1	22	15	24.3	80.7	
8-Jan	15	3	3	1	A	6	1	1	6	4	4	7	5	17	10	2	1	0	21	2	0	0	0	0	4.8	21.2	
9-Jan	1	8	2	0	A	1	1	2	1	2	25	36	21	18	16	26	22	13	12	1	1	1	3	5	9.5	36.4	
10-Jan	3	0	0	0	A	0	0	0	0	0	1	6	9	8	6	10	7	4	10	16	12	12	9	8	5.3	15.5	
11-Jan	0	0	0	0	A	1	0	3	0	1	2	5	5	3	3	2	1	0	0	0	0	0	0	0	1.2	5.1	
12-Jan	0	0	0	0	A	0	1	0	1	1	5	20	14	4	3	2	2	1	2	1	0	0	0	0	2.7	19.8	
13-Jan	0	0	0	0	A	0	0	1	1	3	6	9	7	7	10	6	5	2	41	36	42	37	59	14	12.7	59.4	
14-Jan	29	31	21	17	A	0	15	11	6	13	8	10	17	33	78	48	27	25	9	31	2	1	0	38	20.4	78.0	
15-Jan	17	1	0	0	A	0	0	1	1	1	1	C	C	C	C	C	10	4	0	0	0	0	0	0	2.1	17.2	
16-Jan	0	0	0	0	A	0	0	0	1	0	0	4	4	4	7	2	1	0	0	0	0	0	0	0	1.1	6.9	
17-Jan	0	0	0	1	A	15	3	20	18	6	42	40	28	26	20	13	14	3	0	1	0	0	0	3	11.0	41.9	
18-Jan	0	0	0	11	A	1	35	34	38	13	14	39	30	21	41	43	8	46	30	38	10	0	16	17	21.2	46.4	
19-Jan	1	10	0	0	A	0	7	8	29	12	10	57	72	71	81	72	57	22	22	16	17	23	3	12	26.2	81.0	
20-Jan	29	4	0	2	A	14	1	47	11	7	12	10	10	15	20	31	16	40	13	2	1	1	1	6	12.8	47.1	
21-Jan	5	1	0	0	A	0	1	8	33	4	3	5	9	12	9	5	2	1	1	1	2	8	5	2	5.2	33.4	
22-Jan	1	0	1	1	A	7	13	18	14	14	16	18	16	9	8	8	10	25	5	17	11	13	1	1	9.8	25.4	
23-Jan	1	0	1	1	A	0	0	0	0	3	4	4	5	3	3	2	2	0	0	0	0	0	0	0	1.4	4.8	
24-Jan	0	0	0	0	A	0	0	0	0	1	5	2	11	6	4	8	8	1	0	0	0	0	0	0	2.1	10.6	
25-Jan	0	0	0	0	A	0	1	0	0	0	1	2	1	1	1	1	2	1	1	0	0	1	0	0	0.6	2.1	
26-Jan	3	18	1	1	A	0	0	45	8	26	17	31	23	11	12	10	15	8	29	2	20	0	5	2	12.5	45.2	
27-Jan	0	1	0	0	A	8	10	15	38	14	22	83	122	91	56	56	31	32	58	71	50	58	15	9	36.4	122.2	
28-Jan	40	58	29	10	A	41	40	21	24	69	35	32	111	82	59	63	47	23	21	17	46	41	24	14	41.2	110.6	
29-Jan	48	49	37	16	A	18	6	20	2	10	9	9	8	4	7	6	4	1	0	0	1	1	0	0	11.1	48.7	
30-Jan	0	0	0	0	A	0	0	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0.4	1.1	
31-Jan	0	1	0	0	A	1	0	0	1	6	4	9	9	5	7	8	3	1	0	0	0	1	1	2	2.5	8.7	
		10.1	8.1	5.1	6.5	--	5.3	5.6	12.0	12.8	11.3	12.1	22.0	26.4	21.0	20.6	19.3	12.2	16.6	16.3	11.6	10.7	9.1	8.3	7.2	Diurnal Average	
		80.7	58.3	36.7	57.4	--	41.5	40.0	72.9	69.1	79.1	67.2	83.4	122.2	90.7	81.0	71.6	56.9	80.3	133.0	70.7	49.8	58.5	60.2	42.1	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

# Hourly Maximums

Nitrogen Oxide (NO) - ppb  
Beaverlodge - January 2010





# Hourly Averages

## Oxides of Nitrogen (NO<sub>x</sub>) - ppb

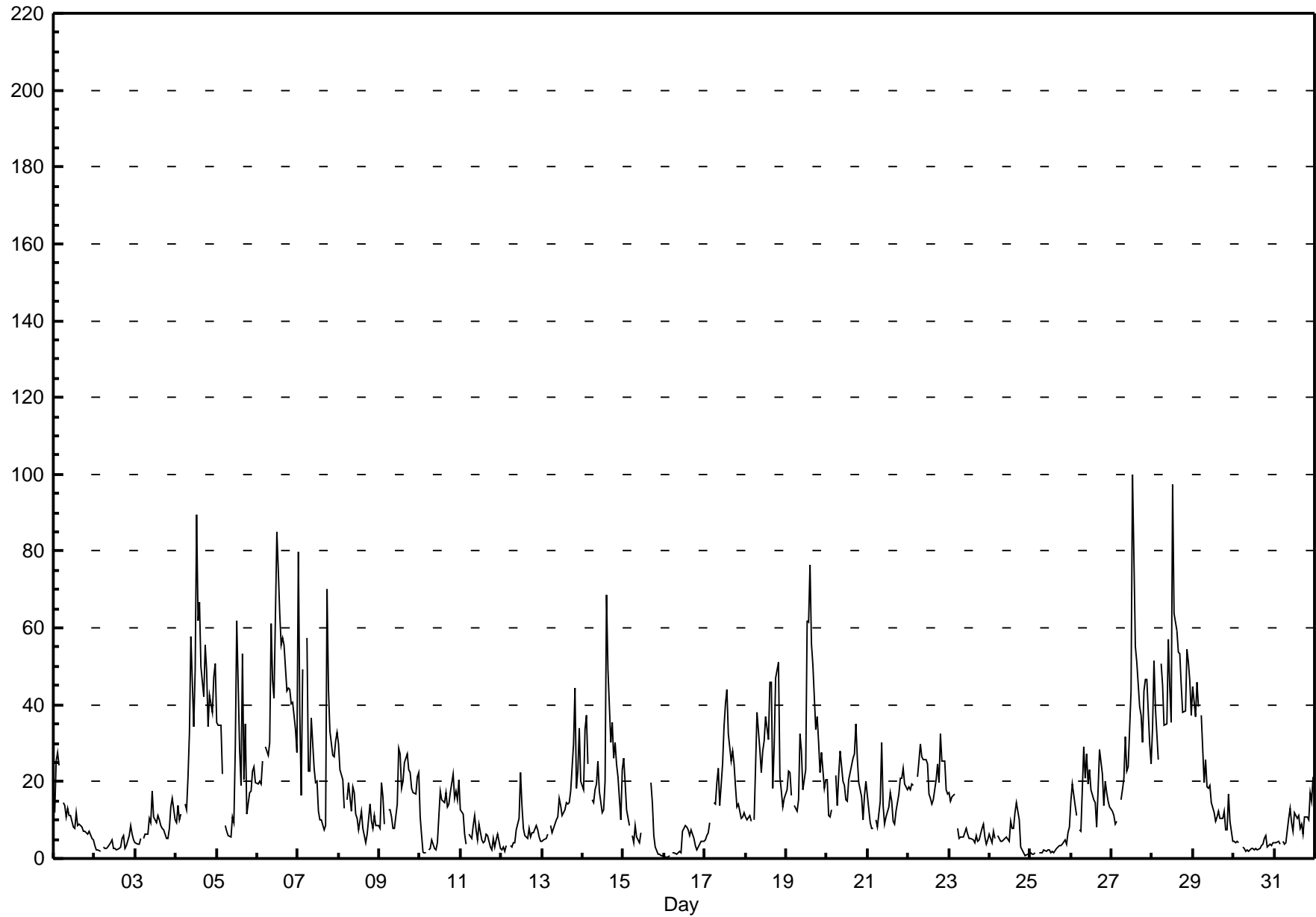
### Beaverlodge - January 2010

Number of Exceedences (AAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 99.8 ppb on Jan 27 13:00	Maximum Daily Average: 47.5 ppb on Jan 28		Hours of Data:	708
Minimum Value: 0 ppb on Jan 16 03:00	Minimum Daily Average: 2.7 ppb on Jan 25		Hours of Missing Data:	36
Maximum Diurnal Average: 26.8 ppb at hour 13	Minimum Diurnal Average: 11.8 ppb at hour 7		Hours of Calibration:	36
Monthly Average: 17.66 ppb	Percentiles: P <sub>1</sub> = 1.0 P <sub>10</sub> = 3.0 Q <sub>1</sub> = 6.1 Median = 12.7 Q <sub>3</sub> = 23.6 P <sub>90</sub> = 40.0 P <sub>99</sub> = 75.7		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	12	25	28	24	A	14	14	11	13	11	11	8	8	12	9	9	8	7	7	7	6	7	5	5	11.4	27.6
2-Jan	3	2	2	2	A	3	3	3	3	4	5	3	3	2	2	3	5	6	3	3	6	8	6	5	3.7	8.5
3-Jan	4	4	4	5	A	5	6	6	10	9	18	11	10	11	10	8	8	7	5	5	8	13	16	10	8.5	17.7
4-Jan	9	14	10	12	A	14	13	21	33	58	34	49	89	62	67	50	42	56	49	34	42	38	47	51	38.9	89.3
5-Jan	35	35	35	22	A	9	7	6	6	11	9	29	62	29	19	53	21	35	12	17	17	23	24	20	23.2	62.1
6-Jan	19	20	19	25	A	29	27	30	61	46	42	85	75	64	56	57	56	44	44	44	40	41	34	27	42.9	85.1
7-Jan	80	37	17	49	A	58	23	23	36	24	20	20	12	10	10	7	8	70	44	33	27	26	30	33	30.4	79.8
8-Jan	30	23	20	13	A	15	20	12	19	17	12	11	8	12	8	6	4	6	14	10	8	11	9	9	12.9	29.8
9-Jan	8	20	16	9	A	13	13	11	8	8	14	29	27	18	20	25	27	23	22	18	17	17	21	23	17.7	28.7
10-Jan	11	6	1	1	A	2	2	5	3	2	4	11	18	15	15	17	13	14	17	22	16	17	15	21	10.9	22.1
11-Jan	13	11	6	4	A	7	5	9	11	8	5	9	5	4	4	6	6	3	2	5	3	5	6	3	6.1	12.8
12-Jan	2	3	2	3	A	3	3	4	4	7	11	22	14	8	6	5	8	5	7	7	9	7	6	4	6.6	22.3
13-Jan	4	5	5	6	A	8	7	9	10	11	16	14	11	13	15	14	14	17	30	45	18	23	34	20	15.2	44.6
14-Jan	18	33	37	25	A	15	15	18	19	26	18	12	13	20	68	49	30	35	26	30	25	21	10	23	25.5	68.5
15-Jan	26	20	13	9	A	6	4	8	6	4	7	C	C	C	C	C	20	15	6	3	1	1	1	1	8.3	26.0
16-Jan	0	0	0	1	A	2	2	1	1	2	1	7	8	8	8	6	7	5	3	2	3	4	4	4	3.5	8.5
17-Jan	5	6	7	9	A	15	14	20	24	14	25	34	40	44	33	25	28	25	19	13	14	10	11	12	19.4	44.1
18-Jan	11	10	11	10	A	10	24	38	29	22	28	31	37	31	46	46	18	29	47	51	21	18	13	16	25.9	51.0
19-Jan	18	23	22	16	A	14	12	15	32	28	18	23	62	62	77	56	50	33	37	30	22	28	18	20	31.2	76.6
20-Jan	21	11	11	13	A	22	14	21	28	20	19	15	15	21	24	26	27	35	26	20	16	10	17	20	19.6	35.0
21-Jan	16	9	8	8	A	10	8	15	30	14	9	11	14	17	15	10	9	12	17	21	21	23	19	18	14.6	30.3
22-Jan	19	18	20	19	A	21	25	30	26	26	26	25	17	16	14	15	20	25	20	33	25	25	18	17	21.7	32.6
23-Jan	17	15	16	17	A	8	5	5	6	7	8	6	5	5	5	4	6	5	5	8	9	6	4	5	7.7	17.3
24-Jan	6	4	7	5	A	6	4	4	5	5	5	4	10	8	8	12	14	10	3	2	2	1	1	1	5.6	14.4
25-Jan	2	1	1	1	A	2	1	1	2	2	2	2	2	2	2	2	3	3	3	4	5	4	7	8	2.7	8.2
26-Jan	15	19	14	11	A	8	7	29	21	27	19	23	18	15	14	8	18	28	22	14	20	17	15	13	17.2	29.2
27-Jan	12	11	9	10	A	15	18	21	32	23	24	44	100	78	55	51	40	37	30	43	47	47	30	25	34.8	99.8
28-Jan	34	52	39	26	A	51	45	35	35	57	45	35	97	64	59	54	53	45	38	38	54	51	46	37	47.5	97.3
29-Jan	45	37	46	40	A	37	20	26	19	18	19	14	12	10	11	12	10	11	12	7	8	17	10	4	19.3	46.0
30-Jan	5	4	5	4	A	3	3	2	2	2	3	3	2	2	2	3	3	4	5	6	3	4	4	4	3.3	6.1
31-Jan	4	4	5	4	A	4	4	4	10	13	9	7	12	10	11	8	9	6	11	11	10	17	15	21	9.2	21.4

16.3	15.6	14.1	13.0	--	13.8	11.8	14.3	17.6	16.9	15.6	19.9	26.8	22.5	23.1	21.7	19.0	21.2	19.0	18.9	16.9	17.4	16.0	15.5	Diurnal Average
79.8	51.5	46.0	49.3	--	57.5	45.0	38.0	61.2	57.8	44.8	85.1	99.8	78.2	76.6	57.5	55.5	70.2	48.9	51.0	54.4	51.2	47.3	50.8	Diurnal Maximum

C - Calibration                      A - Automated Daily Zero Span

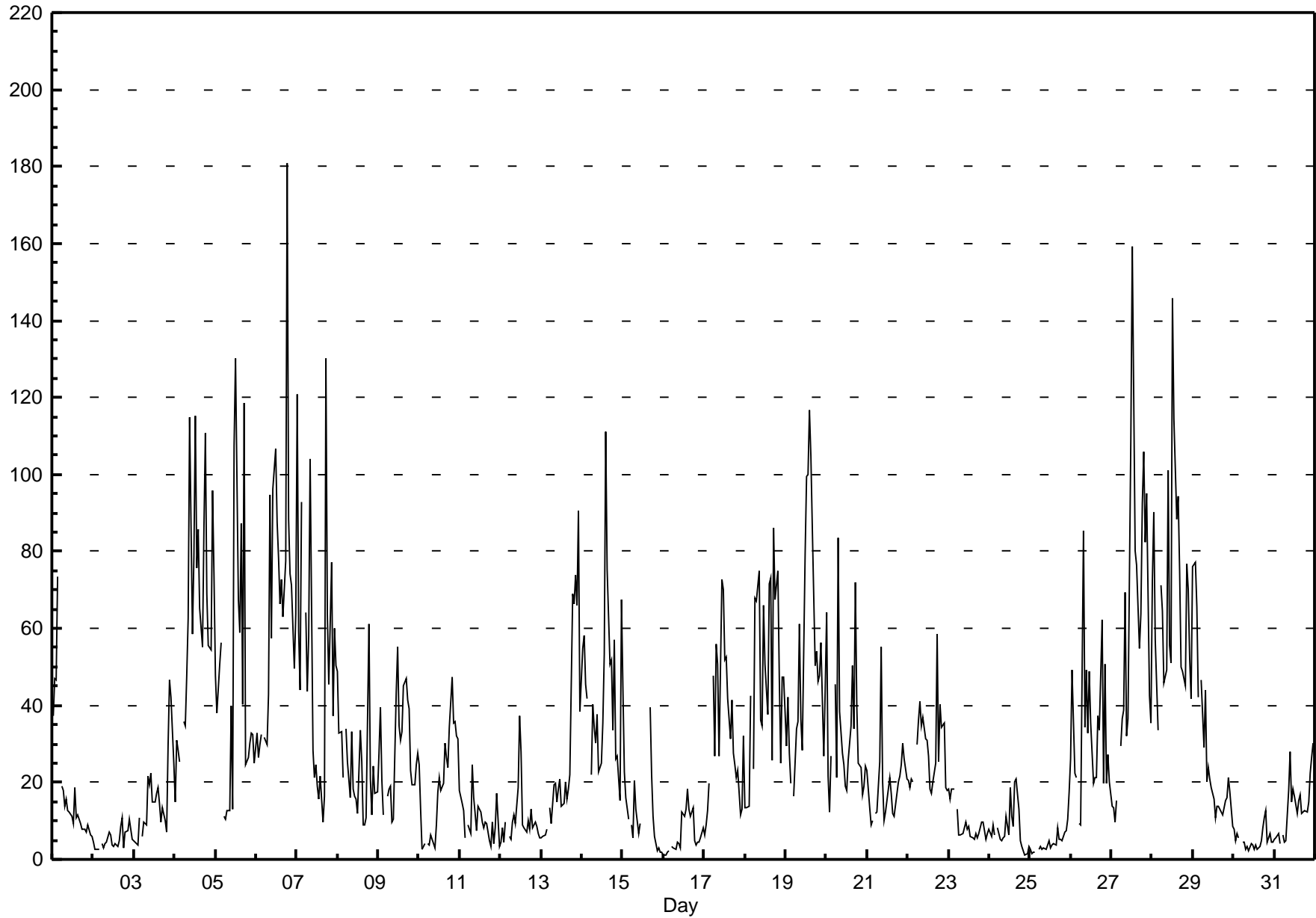


# Hourly Maximums

## Oxides of Nitrogen (NO<sub>x</sub>) - ppb

### Beaverlodge - January 2010

Maximum Value: 180.7 ppb on Jan 6 19:00		Maximum Daily Average: 69.3 ppb on Jan 28		Hours in Service: 744																						
Minimum Value: 1 ppb on Jan 16 01:00		Minimum Daily Average: 4.8 ppb on Jan 25		Hours of Data: 708																						
Maximum Diurnal Average: 40.6 ppb at hour 13		Minimum Diurnal Average: 20.3 ppb at hour 7		Hours of Missing Data: 36																						
Monthly Average: 29.32 ppb		Percentiles: P <sub>1</sub> = 1.8 P <sub>10</sub> = 4.4 Q <sub>1</sub> = 9.1 Median = 19.9 Q <sub>3</sub> = 41.4 P <sub>90</sub> = 69.8 P <sub>99</sub> = 120.0		Hours of Calibration: 36																						
				Percent Operational Time: 100.0																						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jan	37	47	47	73	A	19	18	14	16	13	12	11	9	19	11	11	9	8	8	8	7	9	6	6	18.1	73.4
2-Jan	5	3	3	3	A	4	3	4	4	7	6	4	3	4	4	5	9	11	3	7	7	11	8	5	5.3	10.9
3-Jan	5	4	4	11	A	6	10	9	22	19	22	15	15	17	19	14	10	13	10	7	29	47	42	25	16.3	46.6
4-Jan	15	31	28	25	A	36	35	48	63	115	59	79	115	76	86	65	55	86	111	69	56	55	96	74	64.1	115.1
5-Jan	48	38	51	56	A	11	10	13	13	40	13	107	130	68	59	87	40	119	25	27	30	33	33	25	46.7	130.2
6-Jan	33	26	30	32	A	32	30	43	95	57	96	107	88	78	66	73	63	78	181	88	74	71	50	64	67.6	180.7
7-Jan	121	59	44	93	A	64	44	58	104	28	21	25	19	16	22	10	16	130	64	46	77	37	60	50	52.5	130.0
8-Jan	49	33	33	21	A	34	25	16	33	18	16	16	12	34	26	9	9	11	61	21	12	24	17	18	23.8	61.2
9-Jan	27	39	21	12	A	16	18	19	10	10	43	55	35	31	33	45	47	41	39	23	19	19	25	28	28.6	55.0
10-Jan	25	13	3	4	A	4	4	6	4	3	9	17	21	18	20	30	26	24	34	47	35	36	32	31	19.5	47.2
11-Jan	18	15	13	6	A	9	7	25	16	12	7	14	12	10	8	10	9	5	3	10	4	8	17	3	10.4	24.6
12-Jan	4	8	4	10	A	6	5	10	12	9	18	37	28	9	8	7	10	8	13	8	10	9	7	5	10.7	37.4
13-Jan	6	6	6	8	A	14	9	19	20	15	18	21	14	14	20	16	18	22	69	66	74	66	91	38	28.3	90.7
14-Jan	55	58	46	42	A	22	40	34	30	38	23	25	35	54	111	75	51	52	33	57	26	27	15	68	44.2	111.2
15-Jan	44	23	16	10	A	9	5	20	13	7	9	C	C	C	C	C	40	22	11	6	2	3	2	2	13.6	44.2
16-Jan	1	1	2	2	A	3	3	3	4	4	3	12	11	13	18	13	11	13	5	4	4	5	6	8	6.6	18.1
17-Jan	6	9	13	20	A	48	27	56	51	27	73	70	52	53	42	31	41	28	25	21	23	12	13	32	33.5	72.8
18-Jan	14	14	14	42	A	23	68	67	75	36	34	66	51	38	72	73	26	86	67	75	47	25	47	47	48.1	86.0
19-Jan	30	42	28	20	A	17	34	36	61	37	28	79	100	100	117	105	86	50	54	46	48	56	27	44	54.1	116.6
20-Jan	64	21	12	27	A	45	21	84	38	28	25	19	18	26	35	50	34	72	40	25	24	17	19	24	33.4	83.6
21-Jan	23	13	9	10	A	12	12	25	55	20	10	12	18	21	17	12	11	14	20	21	25	30	26	21	19.2	55.3
22-Jan	20	19	21	20	A	30	36	41	35	37	31	31	27	18	17	20	25	59	25	40	34	35	19	18	28.6	58.6
23-Jan	18	16	18	18	A	13	6	6	7	8	10	8	8	6	6	5	7	6	7	10	10	7	5	7	9.2	18.3
24-Jan	8	6	9	6	A	8	5	5	6	6	11	6	19	11	9	20	21	13	5	3	2	1	1	4	8.1	20.9
25-Jan	2	1	2	2	A	3	3	3	3	3	4	5	3	4	4	4	8	5	5	5	7	8	11	18	4.8	17.6
26-Jan	26	49	22	21	A	9	9	85	34	49	33	49	35	20	21	21	37	34	62	20	51	20	27	20	32.9	85.4
27-Jan	14	14	10	15	A	29	37	39	69	32	36	109	159	120	80	76	55	64	93	106	82	95	43	35	61.4	159.4
28-Jan	72	90	57	34	A	71	65	46	49	101	55	51	146	114	89	94	75	50	49	45	77	70	52	42	69.3	145.9
29-Jan	76	77	66	42	A	47	29	44	20	24	21	19	16	11	14	14	13	12	14	15	16	21	17	9	27.7	77.1
30-Jan	8	5	7	6	A	4	4	3	3	2	4	4	3	4	3	3	5	8	11	13	5	7	4	4	5.2	12.7
31-Jan	5	5	7	4	A	6	4	5	18	28	15	18	16	12	15	17	12	12	13	12	15	22	26	30	13.9	30.3
		28.3	25.4	20.7	22.4	--	21.1	20.3	28.5	31.7	26.9	24.8	36.4	40.6	33.9	35.0	33.9	28.4	37.2	37.4	30.7	30.1	28.5	27.2	26.0	Diurnal Average
		121.0	90.2	65.6	92.7	--	71.1	68.0	85.4	104.0	114.7	96.4	109.2	159.4	120.4	116.6	104.7	86.1	130.0	180.7	105.9	82.5	95.1	95.9	73.8	Diurnal Maximum
C - Calibration		A - Automated Daily Zero Span																								





# Hourly Averages

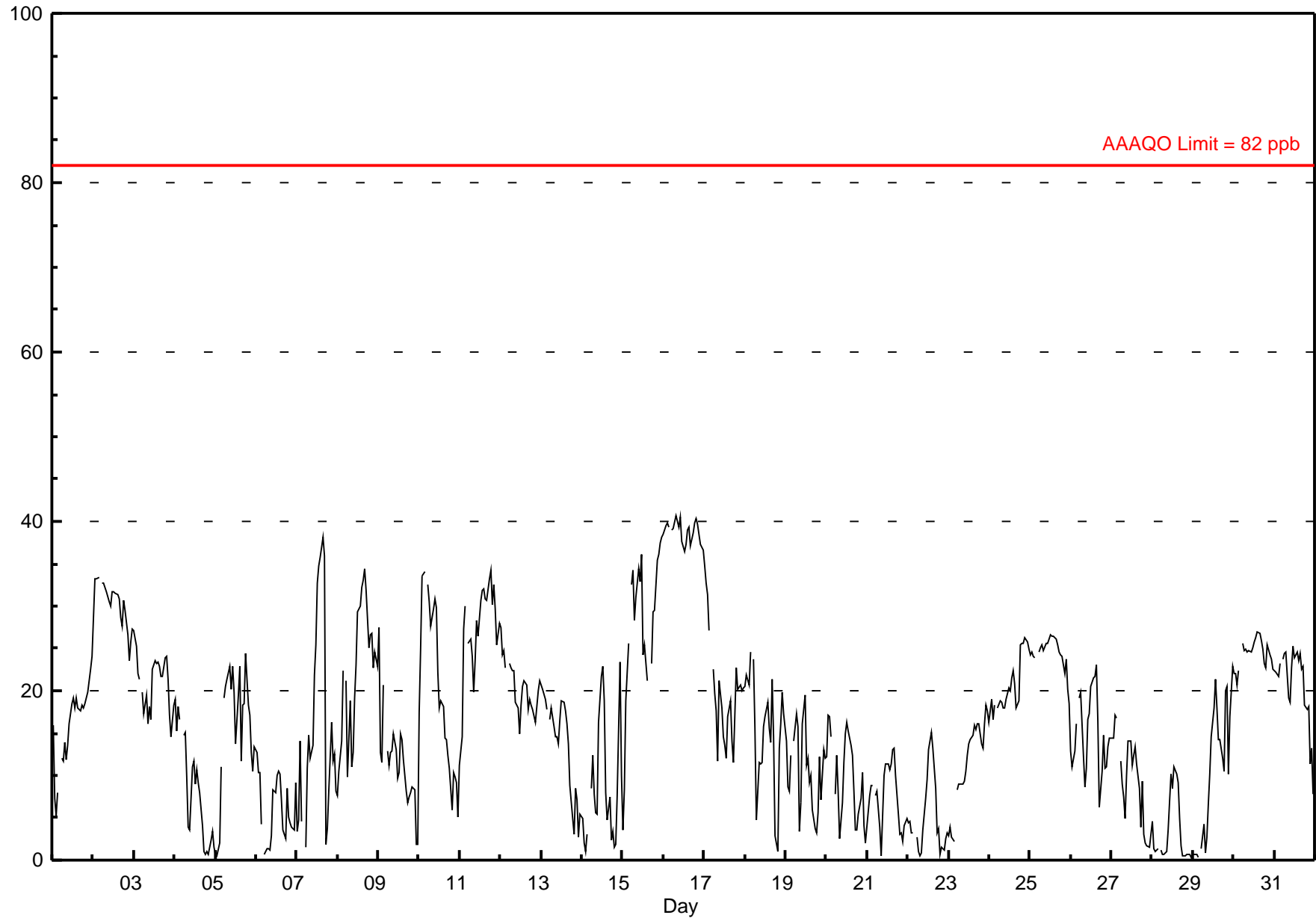
Ozone (O<sub>3</sub>) - ppb

Beaverlodge - January 2010

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 40.7 ppb on Jan 16 08:00	Maximum Daily Average: 38.9 ppb on Jan 16		Hours of Data:	711
Minimum Value: 0 ppb on Jan 29 04:00	Minimum Daily Average: 3.6 ppb on Jan 28		Hours of Missing Data:	33
Maximum Diurnal Average: 20.2 ppb at hour 14	Minimum Diurnal Average: 13.9 ppb at hour 9		Hours of Calibration:	33
Monthly Average: 16.47 ppb	Percentiles: P <sub>1</sub> = 0.6 P <sub>10</sub> = 3.1 Q <sub>1</sub> = 9.0 Median = 16.2 Q <sub>3</sub> = 23.2 P <sub>90</sub> = 30.5 P <sub>99</sub> = 39.7		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	16	7	5	8	A	12	12	14	12	14	16	18	19	18	19	18	18	18	19	19	20	23	24	15.9	24.1	
2-Jan	29	33	33	33	A	33	33	32	32	30	30	32	32	31	31	29	28	31	30	27	24	26	27	30.2	33.3	
3-Jan	27	25	22	21	A	20	17	19	16	18	17	23	24	23	23	22	22	24	24	21	17	15	18	20.9	27.1	
4-Jan	19	15	18	17	A	15	15	10	4	4	11	12	9	11	9	8	4	1	1	1	1	2	3	2	8.3	18.9
5-Jan	1	1	2	11	A	19	20	21	23	20	23	20	14	19	23	12	18	19	24	18	17	13	10	13	15.7	24.4
6-Jan	13	10	10	4	A	1	1	1	1	3	8	8	10	11	10	7	4	3	8	5	4	4	4	9	6.1	12.7
7-Jan	3	5	14	5	A	1	11	15	12	13	22	25	33	35	36	38	36	2	4	8	16	12	13	8	15.9	38.1
8-Jan	8	10	14	22	A	21	10	19	11	13	19	23	29	30	32	33	34	32	25	27	27	23	25	23	22.2	34.5
9-Jan	27	13	12	21	A	13	11	13	13	15	13	10	10	15	14	12	8	7	7	8	9	8	2	2	11.4	27.4
10-Jan	17	25	34	34	A	32	31	28	30	31	30	22	18	19	18	14	14	12	11	6	10	10	9	5	20.0	34.0
11-Jan	11	14	27	30	A	26	26	24	20	24	28	26	31	32	32	31	31	33	34	30	32	30	25	28	27.2	34.2
12-Jan	27	24	25	23	A	23	23	22	22	19	18	15	18	21	21	21	18	19	18	18	16	18	20	21	20.5	27.5
13-Jan	21	20	19	18	A	17	18	16	15	15	14	16	19	19	18	16	14	9	5	3	9	7	3	5	13.6	20.8
14-Jan	5	2	1	3	A	8	12	8	6	5	16	22	23	19	8	5	7	2	3	1	2	8	23	10	8.7	23.5
15-Jan	4	8	19	26	A	33	34	28	31	34	33	36	24	25	21	C	C	23	29	30	35	36	37	38	27.9	38.1
16-Jan	38	40	40	39	A	39	39	41	40	39	40	38	36	37	39	39	37	39	40	40	40	38	37	37	38.9	40.7
17-Jan	35	33	31	27	A	22	20	18	12	21	18	15	14	12	17	19	14	12	17	23	20	21	20	20	20.0	34.8
18-Jan	20	22	21	25	A	24	16	5	12	11	12	16	17	19	16	14	21	15	3	1	13	16	20	17	15.4	24.5
19-Jan	14	9	8	12	A	14	17	16	3	7	16	19	11	12	9	10	6	4	3	6	12	7	13	12	10.5	19.4
20-Jan	12	17	17	15	A	8	12	8	2	7	12	15	16	15	14	12	8	3	4	5	7	10	4	2	9.9	17.2
21-Jan	4	8	9	9	A	8	8	4	0	5	10	11	11	11	11	13	13	10	5	3	3	2	4	5	7.3	13.3
22-Jan	4	5	3	3	A	3	1	1	1	4	7	9	13	14	15	13	9	3	4	1	2	1	3	3	5.3	15.0
23-Jan	3	4	3	2	A	8	9	9	9	9	11	12	14	14	15	16	15	16	16	14	13	16	18	18	11.5	18.2
24-Jan	16	19	17	18	A	18	19	19	18	18	19	20	20	22	22	21	18	19	26	26	26	26	26	25	20.7	26.2
25-Jan	24	25	24	24	A	25	25	25	25	26	26	26	27	26	27	26	25	25	24	24	22	24	20	18	24.4	26.6
26-Jan	13	11	13	16	A	19	20	12	9	11	17	17	20	21	22	23	16	6	11	15	11	11	13	14	14.9	23.0
27-Jan	14	14	17	17	A	12	9	7	5	10	14	14	11	12	13	11	8	4	9	3	2	2	1	3	9.4	17.1
28-Jan	5	1	1	1	A	1	1	1	1	4	7	10	8	11	10	9	5	2	1	0	1	1	1	0	3.6	11.0
29-Jan	1	1	1	0	A	1	4	1	3	7	10	15	18	21	18	14	14	12	11	20	20	10	17	23	10.5	22.9
30-Jan	22	22	21	22	A	26	25	25	25	25	25	25	26	26	27	27	26	25	23	23	25	24	24	22	24.3	27.0
31-Jan	22	22	22	23	A	24	24	25	19	19	23	25	24	25	24	24	23	23	18	18	18	11	13	8	20.7	25.3
	15.4	15.0	16.2	17.1	--	16.9	16.9	15.7	13.9	15.4	18.2	19.3	19.3	20.2	19.8	18.7	17.2	14.4	14.8	14.5	15.5	14.6	15.2	14.9	Diurnal Average	
	38.4	39.5	39.8	39.4	--	39.1	39.2	40.7	40.1	39.4	40.4	37.6	36.5	37.3	39.0	39.3	37.2	38.6	39.8	40.4	39.7	38.4	37.5	38.1	Diurnal Maximum	

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





# Hourly Maximums

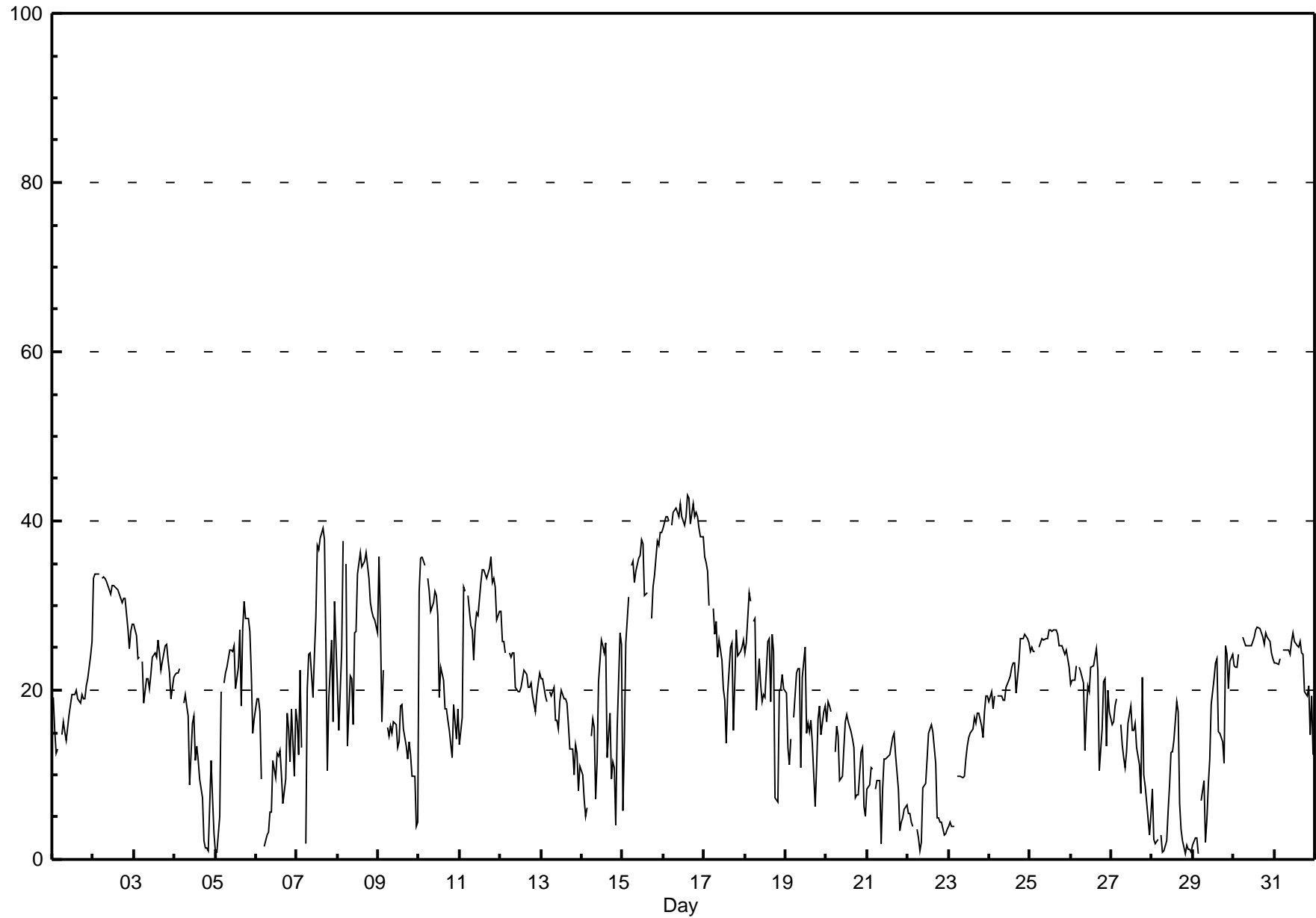
Ozone (O<sub>3</sub>) - ppb

Beaverlodge - January 2010

Maximum Value: 43.0 ppb on Jan 16 15:00		Maximum Daily Average: 40.5 ppb on Jan 16		Hours in Service: 744																							
Minimum Value: 1 ppb on Jan 28 20:00		Minimum Daily Average: 5.6 ppb on Jan 28		Hours of Data: 711																							
Maximum Diurnal Average: 23.3 ppb at hour 15		Minimum Diurnal Average: 18.4 ppb at hour 9		Hours of Missing Data: 33																							
Monthly Average: 19.90 ppb		Percentiles: P <sub>1</sub> = 1.0 P <sub>10</sub> = 6.5 Q <sub>1</sub> = 13.3 Median = 19.9 Q <sub>3</sub> = 25.7 P <sub>90</sub> = 33.2 P <sub>99</sub> = 41.0		Hours of Calibration: 33																							
				Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jan	19	15	13	13	A	15	16	15	14	16	17	20	20	20	19	18	19	19	19	20	21	24	26	18.2	25.7		
2-Jan	33	34	34	34	A	33	33	33	33	32	31	32	32	32	31	31	30	31	31	27	25	27	28	31.3	33.8		
3-Jan	28	26	24	24	A	23	18	21	21	20	22	24	24	24	26	24	22	23	25	25	23	22	19	21	23.2	27.9	
4-Jan	22	22	22	22	A	18	20	18	17	9	16	17	12	13	12	10	7	2	1	1	1	12	7	3	12.4	22.5	
5-Jan	1	1	5	20	A	21	22	23	25	25	25	25	20	23	27	18	27	31	29	29	27	22	15	17	20.7	30.5	
6-Jan	19	19	18	10	A	2	3	3	6	6	12	10	13	12	13	10	7	10	17	15	11	18	10	18	11.2	19.0	
7-Jan	16	12	22	13	A	2	20	24	24	19	24	29	37	37	38	39	38	25	10	19	26	16	31	25	23.8	39.1	
8-Jan	21	15	25	38	A	35	13	22	21	16	27	34	36	35	35	35	36	33	30	29	29	28	27	28.1	37.7		
9-Jan	36	28	16	22	A	16	15	16	15	16	13	14	18	18	15	13	12	14	12	10	10	4	4	15.4	35.7		
10-Jan	32	36	36	35	A	33	32	29	30	32	31	29	19	23	21	18	18	16	15	12	18	16	14	18	24.5	35.7	
11-Jan	14	17	32	32	A	31	28	27	24	27	29	29	33	34	34	34	33	34	36	33	33	32	28	29	29.7	35.7	
12-Jan	29	26	26	24	A	24	24	24	24	20	20	20	20	21	22	22	20	20	21	19	17	20	21	22	22.1	29.3	
13-Jan	21	21	19	19	A	20	19	20	16	16	15	19	20	19	19	18	16	13	13	10	14	13	8	11	16.6	21.4	
14-Jan	10	7	5	6	A	15	17	16	7	12	21	26	25	24	26	12	17	9	11	11	4	15	27	25	15.2	26.9	
15-Jan	6	14	26	31	A	35	35	33	34	36	36	38	37	31	31	C	C	28	32	34	38	37	39	39	31.8	38.6	
16-Jan	39	41	41	40	A	40	41	42	41	41	42	41	39	41	43	43	40	42	40	41	40	39	38	38	40.5	43.0	
17-Jan	36	35	34	30	A	30	27	28	24	26	24	20	19	14	20	25	26	15	21	27	24	25	25	26	25.2	35.7	
18-Jan	24	26	32	31	A	28	28	18	24	21	19	19	19	26	26	19	27	25	7	7	20	20	22	20	22.0	31.5	
19-Jan	20	13	11	14	A	17	22	23	23	11	22	25	15	16	15	17	14	6	11	17	18	15	17	18	16.5	25.2	
20-Jan	16	19	18	17	A	13	16	15	9	10	13	16	17	16	15	14	13	7	8	8	13	13	6	5	12.9	18.7	
21-Jan	8	9	11	11	A	8	9	9	2	8	12	12	12	12	13	14	15	12	8	3	4	5	6	6	9.2	14.8	
22-Jan	5	5	4	4	A	3	2	1	2	8	9	12	15	15	16	15	11	5	5	4	4	3	3	4	6.9	15.9	
23-Jan	4	4	4	4	A	10	10	10	10	10	12	13	14	15	15	17	16	17	17	16	14	18	19	19	12.6	19.3	
24-Jan	19	20	18	19	A	19	19	19	19	19	20	21	22	23	23	23	20	23	26	26	26	27	26	26	21.9	26.7	
25-Jan	25	25	25	25	A	25	26	26	26	26	26	27	27	27	27	27	27	25	25	25	24	25	24	23	25.5	27.1	
26-Jan	21	21	21	23	A	23	22	21	13	17	21	20	23	23	24	25	22	10	15	21	21	13	20	17	19.9	24.8	
27-Jan	16	16	18	19	A	16	14	12	11	13	16	18	15	15	16	13	11	8	22	10	9	7	3	5	13.2	21.6	
28-Jan	8	2	2	2	A	3	1	1	2	6	9	13	13	14	19	17	7	4	2	1	2	1	1	1	5.6	18.6	
29-Jan	2	3	3	1	A	7	9	2	5	9	12	18	21	23	24	15	15	14	11	25	24	20	23	24	13.5	25.2	
30-Jan	23	23	23	24	A	26	26	25	25	25	25	26	26	27	27	27	27	26	25	27	26	26	24	24	25.4	27.5	
31-Jan	23	23	23	24	A	25	25	25	25	24	26	27	26	25	25	26	24	24	20	19	20	15	19	12	22.8	26.7	
		19.2	18.7	19.6	20.3	--	19.8	19.8	19.4	18.4	18.5	20.9	22.1	22.1	22.6	23.3	21.4	20.6	18.6	18.5	18.6	19.1	18.7	18.7	18.8	Diurnal Average	
		39.1	40.6	40.6	40.1	--	39.6	41.0	41.5	41.0	40.5	42.0	40.5	39.4	40.5	43.0	42.7	39.6	42.0	40.5	41.0	40.5	39.2	38.6	38.6	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

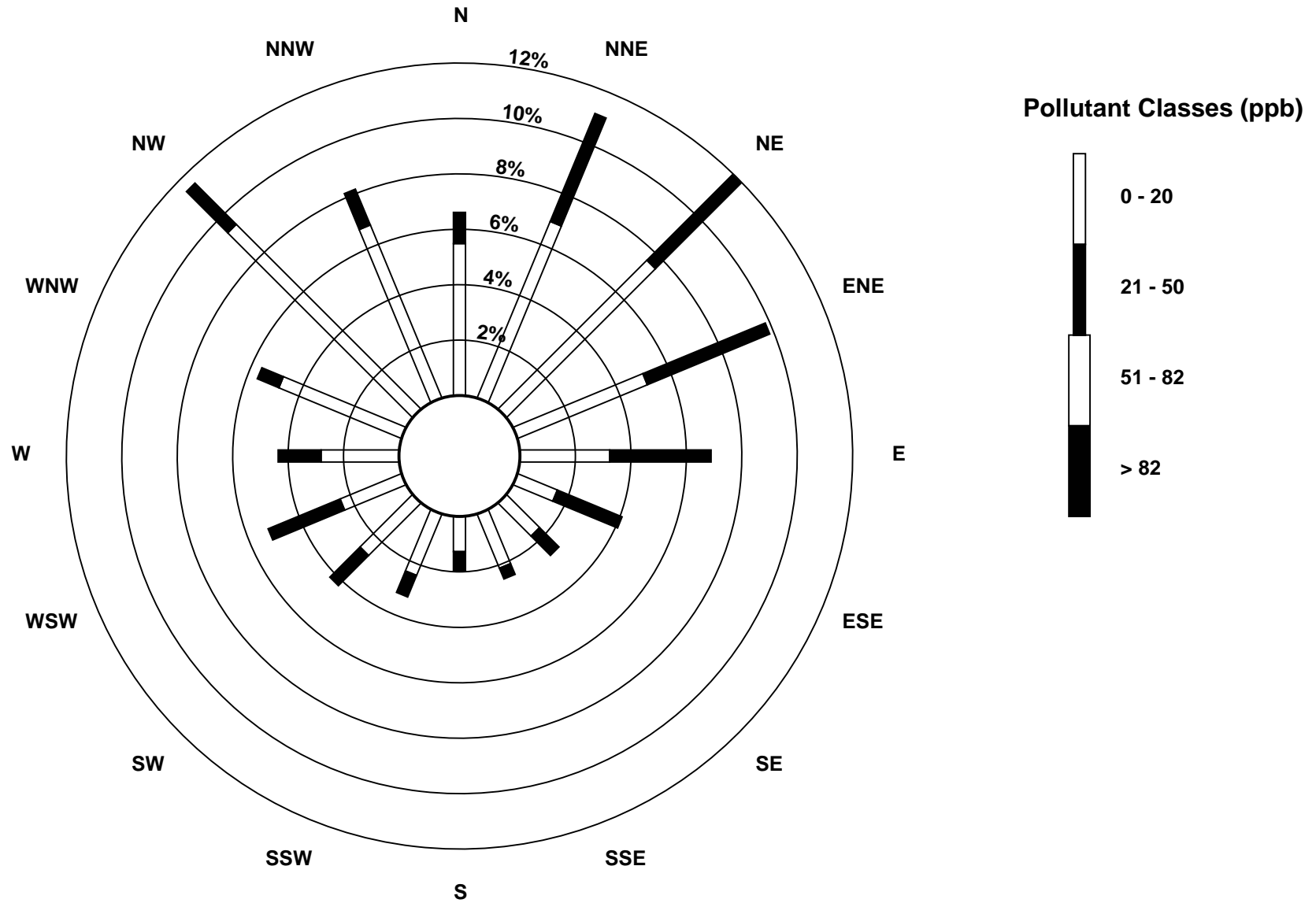
# Hourly Maximums

Ozone (O<sub>3</sub>) - ppb  
Beaverlodge - January 2010



# Pollutant Rose

Ozone (O<sub>3</sub>) - ppb  
Beaverlodge - January 2010





# Eight Hour Running Averages

Ozone (O<sub>3</sub>) - ppb

Beaverlodge - January 2010

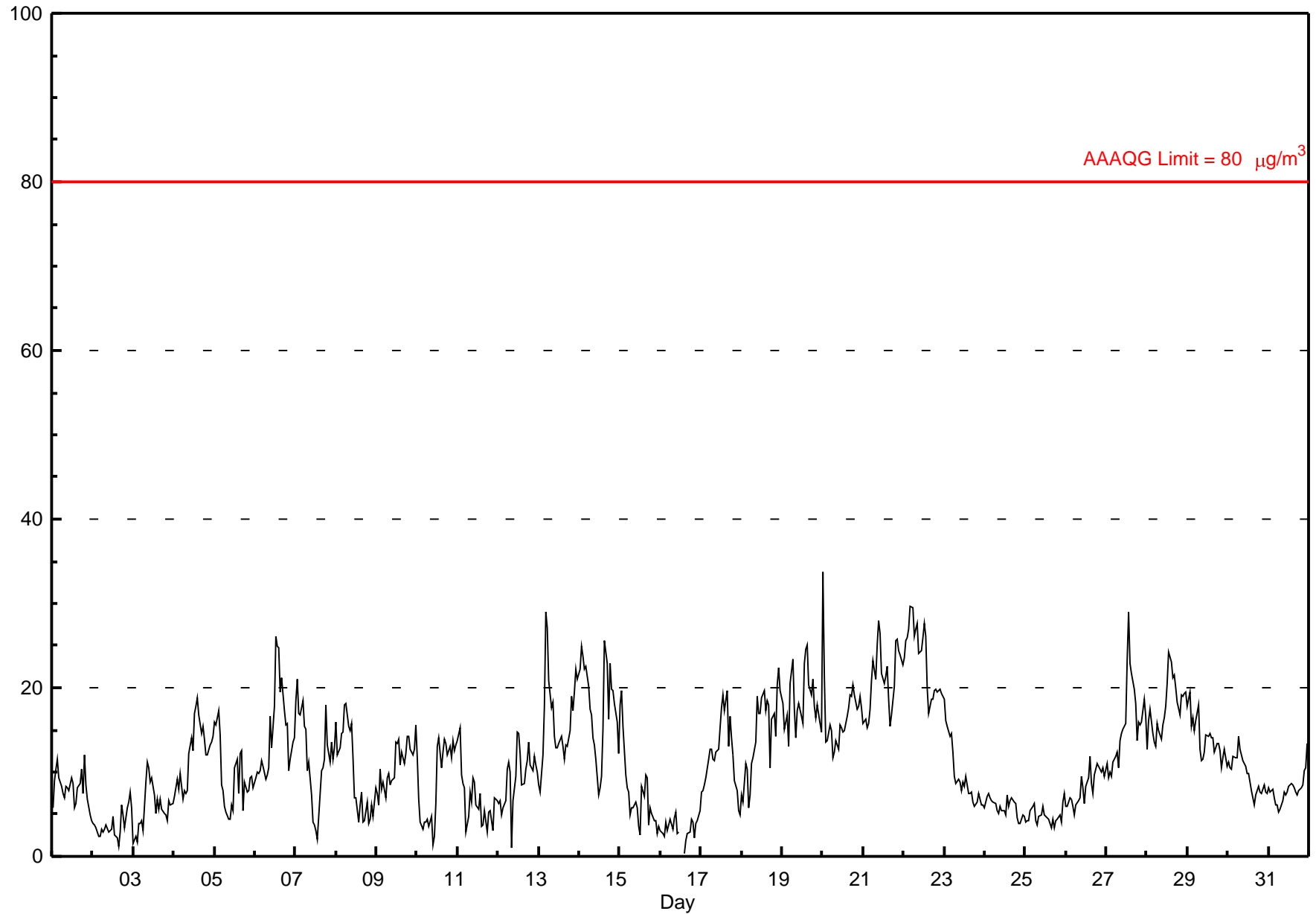
Maximum Value: 39.7 ppb on Jan 16 11:00																					Hours in Service:	744			
Minimum Value: 0.6 ppb on Jan 29 05:00																					Hours of Data:	744			
Percentiles: P <sub>1</sub> = 1.2 P <sub>10</sub> = 5.1 Q <sub>1</sub> = 9.8 Median = 15.9 Q <sub>3</sub> = 22.9 P <sub>90</sub> = 29.1 P <sub>99</sub> = 39.0																					Hours of Missing Data:	0			
																					Hours of Calibration:	0			
																					Percent Operational Time:	100.0			
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jan	16	15	14	13	12	12	11	11	10	11	12	14	15	15	16	17	18	18	18	18	18	19	19	20	19.8
2-Jan	21	23	25	27	28	30	31	32	33	32	32	32	32	32	31	31	31	30	30	30	30	29	28	27	32.7
3-Jan	27	27	26	25	25	24	23	22	20	19	18	19	19	20	20	21	21	22	23	23	23	22	21	20	27.2
4-Jan	20	19	18	17	17	17	17	15	13	12	11	10	10	9	9	8	8	8	7	5	4	3	3	2	20.0
5-Jan	1	1	2	3	3	5	8	11	14	17	20	21	20	20	20	19	19	18	19	18	19	18	16	17	20.9
6-Jan	16	15	13	11	11	9	8	6	4	3	3	3	4	5	7	7	8	8	8	7	6	6	5	5	16.0
7-Jan	5	5	6	6	6	6	7	8	9	10	11	14	17	21	24	27	30	28	26	24	22	19	16	12	29.7
8-Jan	9	10	11	13	12	14	13	15	15	16	16	17	18	19	22	24	27	29	30	30	30	29	28	27	30.3
9-Jan	26	24	22	21	20	19	17	16	14	14	13	12	12	13	13	12	11	10	10	10	9	8	8	6	26.0
10-Jan	8	10	13	16	17	21	25	29	30	31	31	29	28	26	24	23	21	18	16	14	13	12	11	10	31.2
11-Jan	9	10	12	15	15	18	20	23	24	25	25	25	26	26	27	28	29	31	31	32	32	32	31	31	32.0
12-Jan	30	29	28	27	26	25	25	24	23	22	21	20	20	20	20	19	19	19	19	19	19	19	18	19	30.1
13-Jan	19	19	19	19	20	19	19	18	17	17	16	16	16	16	16	16	16	15	14	13	11	10	8	7	19.6
14-Jan	6	5	4	4	4	4	5	6	6	6	8	11	13	14	13	13	13	13	11	9	6	5	7	7	13.9
15-Jan	7	7	9	12	14	17	19	22	26	29	31	33	32	31	29	29	29	27	27	25	27	29	32	33	32.8
16-Jan	33	35	37	38	38	39	39	39	40	40	40	39	39	39	39	39	38	38	38	39	39	39	39	38	39.7
17-Jan	38	37	36	35	34	32	29	27	23	22	20	18	17	16	16	16	16	15	15	16	17	18	18	18	38.2
18-Jan	19	20	21	21	21	22	21	19	17	16	15	13	14	13	13	14	16	16	15	13	13	12	13	13	21.7
19-Jan	12	12	12	14	14	13	13	13	11	11	12	13	13	13	12	11	11	11	9	8	8	7	8	8	13.8
20-Jan	9	10	12	13	13	13	13	13	11	10	9	9	10	11	11	12	12	12	11	10	9	8	7	6	13.4
21-Jan	5	6	6	7	7	6	7	7	6	6	6	7	7	8	8	9	11	11	11	10	9	8	7	6	11.4
22-Jan	5	4	4	4	4	4	3	3	2	2	3	4	5	6	8	10	11	11	10	9	8	6	4	3	10.5
23-Jan	2	2	2	2	3	4	5	5	6	7	8	10	10	11	12	13	13	14	15	15	15	15	16	16	15.8
24-Jan	16	16	16	17	17	18	18	18	18	18	18	19	19	19	20	20	20	20	20	21	22	22	23	24	23.8
25-Jan	25	25	25	25	25	25	24	25	25	25	25	25	25	26	26	26	26	26	26	26	25	25	24	23	26.0
26-Jan	21	20	18	17	16	16	16	15	14	14	15	15	16	16	16	18	18	18	17	17	16	14	13	12	21.3
27-Jan	12	13	14	14	15	15	14	13	12	11	11	10	10	10	11	11	12	11	11	9	8	7	5	4	14.6
28-Jan	4	3	2	2	2	2	2	2	1	1	2	3	4	5	7	8	8	8	7	6	5	4	2	1	8.1
29-Jan	1	1	1	1	1	1	1	1	2	2	4	6	7	10	12	13	15	15	15	16	16	15	15	16	16.4
30-Jan	17	18	19	20	20	22	23	23	24	24	24	25	25	25	25	26	26	26	26	25	25	25	25	24	25.8
31-Jan	24	23	23	23	23	23	23	23	23	22	22	23	23	23	23	23	23	24	23	22	22	20	19	17	23.8
38.2 37.5 36.8 38.0 38.4 38.8 39.1 39.4 39.7 39.7 39.7 39.5 39.1 38.9 38.9 38.7 38.3 38.2 38.2 38.5 38.9 39.0 38.8 38.5																									
Diurnal Maximums																									

# Hourly Averages

## Particulate Matter 2.5 (PM<sub>2.5</sub>) - µg/m<sup>3</sup>

### Beaverlodge - January 2010

Number of Exceedences: 1-hr: 0 24-hr: 0 Maximum Value: 33.8 µg/m <sup>3</sup> on Jan 20 01:00 Minimum Value: 0 µg/m <sup>3</sup> on Jan 16 15:00 Maximum Diurnal Average: 13.1 µg/m <sup>3</sup> at hour 14 Monthly Average: 11.49 µg/m <sup>3</sup>		Maximum Daily Average: 23.4 µg/m <sup>3</sup> on Jan 22 Minimum Daily Average: 3.4 µg/m <sup>3</sup> on Jan 16 Minimum Diurnal Average: 10.4 µg/m <sup>3</sup> at hour 8 Percentiles: P <sub>1</sub> = 2.0 P <sub>10</sub> = 4.2 Q <sub>1</sub> = 6.5 Median = 10.5 Q <sub>3</sub> = 15.6 P <sub>90</sub> = 19.8 P <sub>99</sub> = 27.4		Hours in Service: 744 Hours of Data: 742 Hours of Missing Data: 2 Hours of Calibration: 2 Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jan	6	9	10	11	9	8	7	7	8	8	8	9	9	6	6	8	9	10	8	12	8	7	5	4	8.1	12.1	
2-Jan	4	4	3	2	2	3	3	3	4	3	3	3	5	3	2	1	3	6	5	3	6	6	8	6	3.8	7.7	
3-Jan	2	2	2	4	4	4	3	9	11	10	9	9	7	5	7	6	7	6	5	5	4	7	6	6	5.8	11.1	
4-Jan	7	8	9	8	10	7	8	7	8	12	14	13	17	18	19	17	15	15	14	12	12	13	14	14	12.1	18.9	
5-Jan	16	16	17	14	9	8	6	5	4	4	6	5	11	12	8	12	12	5	9	8	8	9	10	8	9.2	17.3	
6-Jan	9	10	10	10	11	11	9	10	11	17	13	18	26	25	25	19	21	17	16	16	10	12	13	14	14.7	26.1	
7-Jan	18	21	17	17	18	15	15	10	11	7	4	4	3	2	5	10	11	11	18	13	11	14	12	13	11.7	21.0	
8-Jan	16	12	13	15	15	18	18	15	15	16	12	7	7	4	6	8	4	4	6	4	4	6	5	8	9.9	18.2	
9-Jan	7	6	10	8	9	7	9	10	8	9	9	14	13	14	11	12	11	12	14	14	13	12	13	16	10.9	15.5	
10-Jan	12	7	4	3	4	4	4	4	5	1	2	6	13	14	10	12	14	13	12	13	12	14	13	13	8.8	14.0	
11-Jan	14	15	10	9	8	3	5	8	6	9	9	6	6	7	4	4	5	3	5	5	4	3	7	7	6.7	15.2	
12-Jan	6	7	5	6	7	10	11	10	1	7	10	15	15	12	9	9	10	11	14	11	10	12	11	10	9.4	14.7	
13-Jan	9	8	12	18	29	27	21	18	18	14	13	13	13	14	13	12	13	13	15	19	17	20	22	21	16.3	29.0	
14-Jan	22	25	24	22	23	20	17	17	14	13	12	7	8	10	15	26	23	16	23	20	20	18	16	12	17.6	25.7	
15-Jan	18	20	15	10	8	8	5	6	6	6	6	4	2	8	7	10	9	4	6	5	4	4	3	4	7.4	19.7	
16-Jan	3	3	2	4	3	4	4	3	5	5	3	3	C	C	0	2	3	3	4	4	2	4	4	5	3.4	5.4	
17-Jan	8	8	8	9	11	13	13	12	11	12	13	15	18	19	17	20	13	17	14	12	9	8	5	5	12.1	19.7	
18-Jan	7	6	11	10	6	7	11	12	14	19	17	17	19	20	17	18	18	10	16	17	14	20	22	20	14.6	22.4	
19-Jan	18	15	16	17	13	20	23	18	14	17	18	17	16	23	25	25	20	19	21	18	16	18	16	15	18.2	25.0	
20-Jan	34	21	14	14	16	15	12	12	14	13	16	15	15	15	17	18	19	19	20	19	17	18	19	18	17.0	33.8	
21-Jan	16	16	15	16	17	21	23	21	25	28	26	22	20	21	23	19	15	17	20	26	26	24	24	23	21.0	27.9	
22-Jan	24	26	26	27	30	30	26	27	28	24	24	26	28	26	20	17	19	19	20	20	20	20	19	19	23.4	29.7	
23-Jan	19	16	15	14	15	12	10	9	9	9	8	9	8	10	7	7	8	6	6	7	7	7	6	6	9.6	18.6	
24-Jan	6	7	7	7	7	6	6	5	5	6	5	5	5	7	6	7	7	6	6	5	4	4	5	5	5.8	7.5	
25-Jan	4	4	4	6	6	6	4	4	5	5	6	5	5	5	4	3	4	3	4	4	5	4	6	7	4.8	7.4	
26-Jan	6	6	7	7	6	5	6	7	7	9	8	6	8	9	12	9	7	10	11	11	10	10	11	9	8.2	11.9	
27-Jan	11	9	10	10	11	12	12	11	14	15	15	16	23	29	23	22	20	18	14	16	16	16	19	17	15.7	29.0	
28-Jan	13	16	17	15	14	13	16	15	14	16	16	18	21	24	23	21	21	20	18	17	19	19	19	20	17.7	24.2	
29-Jan	18	20	15	16	15	16	18	13	11	11	12	14	14	15	14	14	12	13	13	13	10	12	13	11	14.0	19.6	
30-Jan	11	11	10	12	12	12	14	13	12	11	11	10	10	9	8	6	7	8	8	8	8	9	8	7	9.7	14.2	
31-Jan	8	8	8	7	6	6	5	6	7	8	7	8	8	9	8	8	8	7	8	8	9	10	11	13	7.9	13.3	
		11.9	11.6	11.3	11.2	11.4	11.3	11.2	10.4	10.5	11.2	10.8	10.9	12.4	13.1	12.0	12.3	11.9	11.1	12.1	11.7	10.9	11.6	11.7	11.5	Diurnal Average	
		33.8	25.6	26.0	26.9	29.7	29.5	26.1	27.0	27.7	27.9	26.4	25.9	27.6	29.0	24.8	25.7	22.9	20.0	22.9	25.6	25.8	24.3	23.9	22.8	Diurnal Maximum	
C - Calibration																											
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 µg/m <sup>3</sup>		Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 µg/m <sup>3</sup>																									



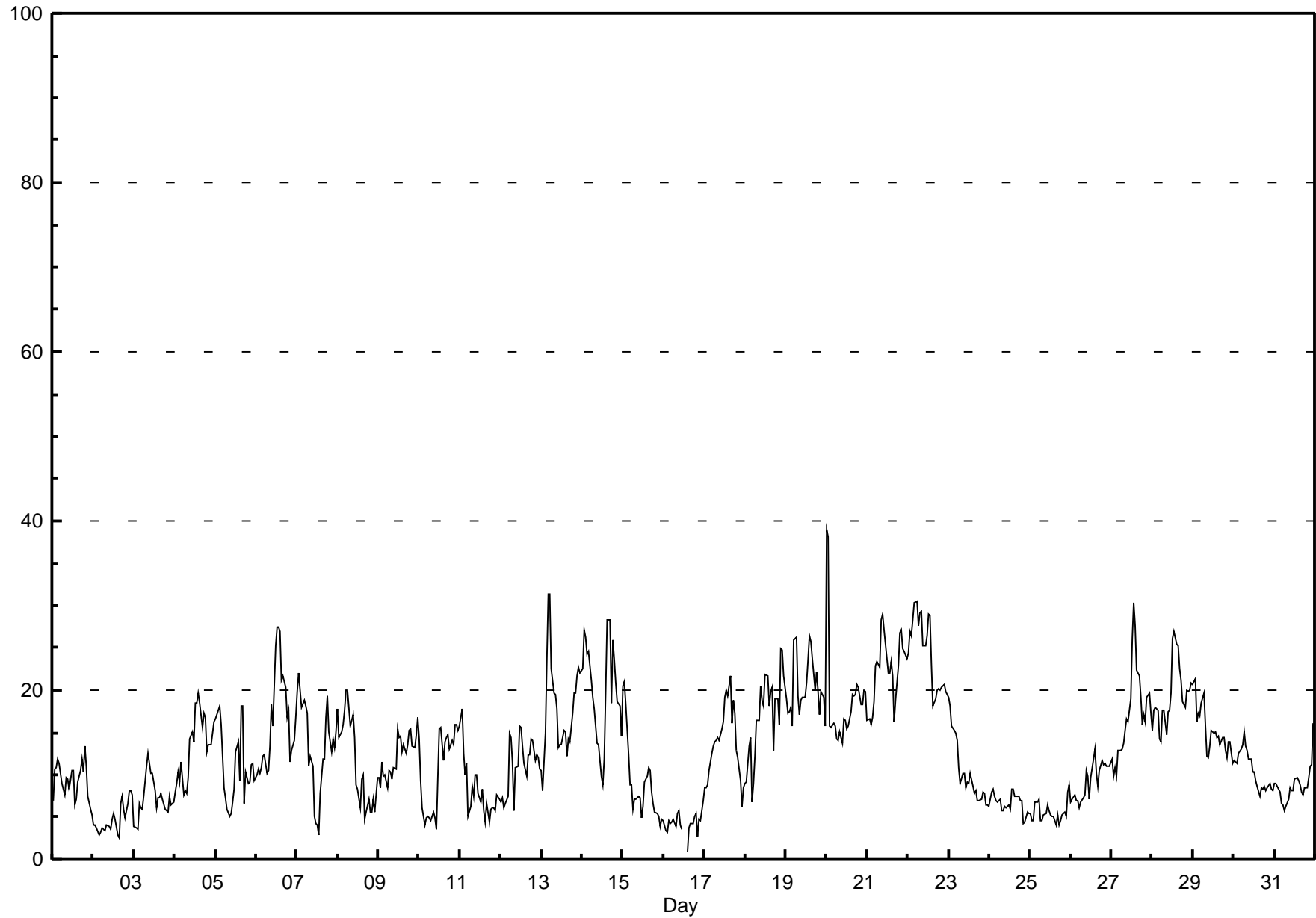


# Hourly Maximums

# Particulate Matter 2.5 (PM<sub>2.5</sub>) - µg/m<sup>3</sup>

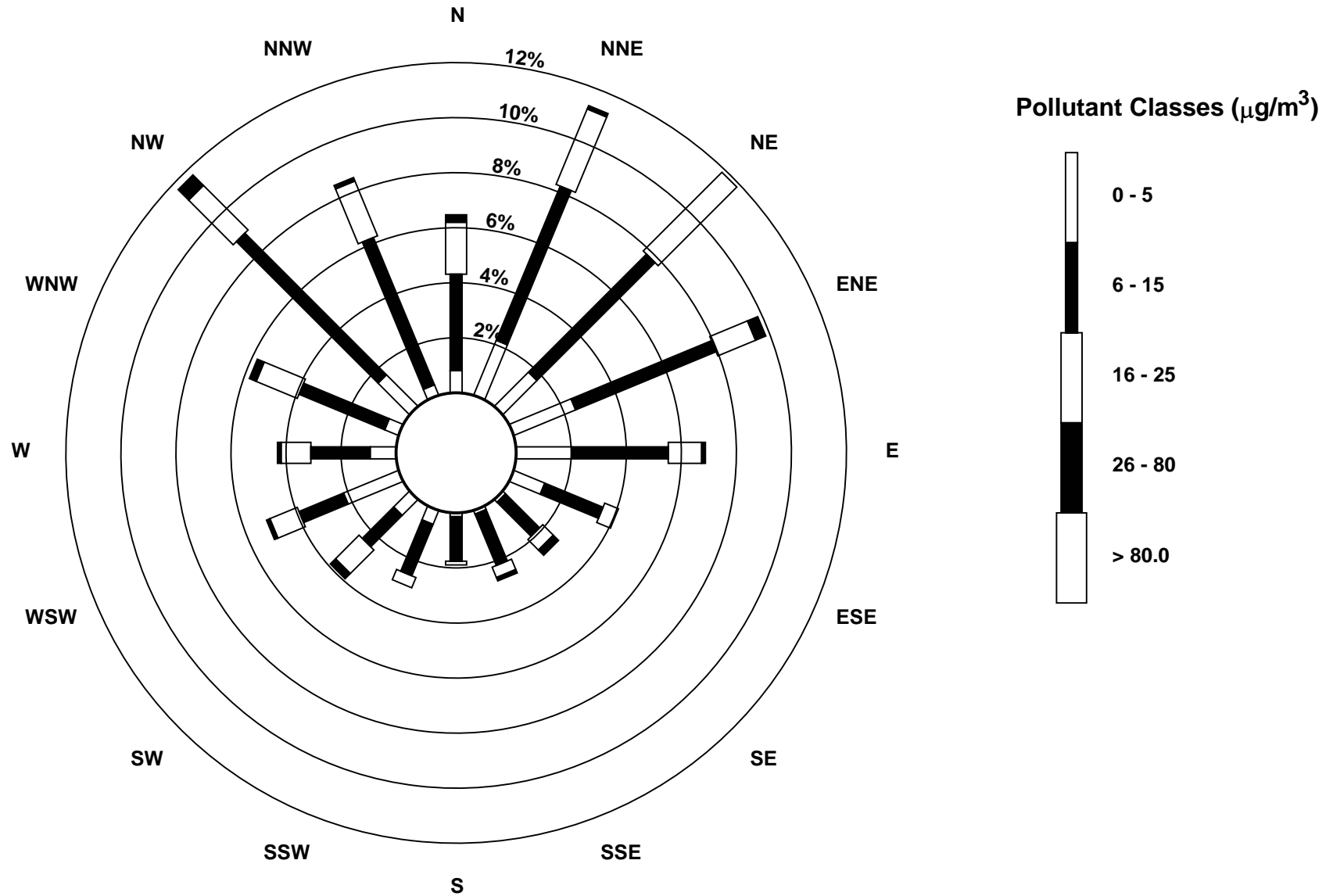
## Beaverlodge - January 2010

Maximum Value: 39.0 µg/m <sup>3</sup> on Jan 20 01:00		Maximum Daily Average: 24.5 µg/m <sup>3</sup> on Jan 22		Hours in Service: 744																							
Minimum Value: 1 µg/m <sup>3</sup> on Jan 16 15:00		Minimum Daily Average: 4.3 µg/m <sup>3</sup> on Jan 16		Hours of Data: 742																							
Maximum Diurnal Average: 14.4 µg/m <sup>3</sup> at hour 14		Minimum Diurnal Average: 11.8 µg/m <sup>3</sup> at hour 8		Hours of Missing Data: 2																							
Monthly Average: 12.94 µg/m <sup>3</sup>		Percentiles: P <sub>1</sub> = 3.3 P <sub>10</sub> = 5.3 Q <sub>1</sub> = 7.5 Median = 11.9 Q <sub>3</sub> = 17.5 P <sub>90</sub> = 21.7 P <sub>99</sub> = 30.3		Hours of Calibration: 2																							
				Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jan	7	11	11	12	11	9	8	8	10	10	8	11	11	6	7	9	11	12	10	13	11	7	6	5	9.3	13.4	
2-Jan	4	4	4	3	3	4	3	3	4	4	4	5	5	5	3	3	7	7	6	5	7	8	8	8	4.8	8.2	
3-Jan	4	4	4	7	6	6	7	11	13	11	10	10	8	6	7	7	8	7	6	6	6	7	6	7	7.2	12.5	
4-Jan	8	9	10	9	12	8	8	8	10	14	15	14	18	18	20	18	16	17	17	13	13	14	15	16	13.3	19.6	
5-Jan	17	17	18	16	12	8	7	6	5	5	7	8	13	14	9	18	18	7	10	9	9	11	11	9	11.1	18.1	
6-Jan	10	11	10	11	12	12	10	10	13	18	16	25	27	27	27	21	22	20	17	18	12	13	14	17	16.4	27.5	
7-Jan	20	22	20	18	19	18	17	11	12	11	5	4	4	3	8	12	12	17	19	15	13	14	13	15	13.4	22.1	
8-Jan	18	14	15	16	18	20	20	16	16	17	14	9	8	6	9	10	5	6	7	6	6	7	6	10	11.6	20.0	
9-Jan	10	9	11	10	10	8	11	10	9	11	11	15	14	15	13	14	13	14	15	15	13	13	15	17	12.3	16.7	
10-Jan	14	9	6	4	5	5	5	5	6	5	4	10	15	16	12	14	14	15	13	14	14	16	16	15	10.4	16.0	
11-Jan	16	18	12	10	11	5	6	9	7	10	10	8	7	8	6	4	7	4	6	6	6	6	8	7	8.2	17.8	
12-Jan	7	7	6	7	7	15	14	11	6	11	11	16	16	13	11	10	12	12	14	14	12	12	12	11	11.2	15.8	
13-Jan	10	8	15	24	31	31	23	20	20	18	13	14	14	15	15	12	14	14	17	20	20	22	23	22	18.1	31.4	
14-Jan	23	27	26	24	25	21	19	18	16	14	14	10	9	12	20	28	28	19	26	24	21	19	18	15	19.7	28.3	
15-Jan	21	21	18	12	9	9	6	7	7	8	7	5	6	9	10	11	10	8	7	6	5	5	4	5	9.0	21.0	
16-Jan	5	3	3	5	4	4	5	4	5	6	4	4	C	C	1	4	4	4	5	5	3	5	5	7	4.3	6.9	
17-Jan	8	9	9	11	13	13	14	14	14	14	15	16	19	20	19	22	16	19	17	13	12	9	6	8	13.8	21.6	
18-Jan	9	9	13	14	7	9	12	16	16	21	19	18	22	22	18	20	20	13	19	19	16	25	25	22	16.8	24.9	
19-Jan	19	17	17	18	16	26	26	19	17	19	19	19	21	24	26	26	24	20	22	20	17	20	19	16	20.3	26.4	
20-Jan	39	38	16	16	16	16	14	14	15	14	17	16	15	16	18	19	19	19	19	21	20	18	18	20	18.9	39.0	
21-Jan	16	17	16	17	19	23	23	23	28	29	27	25	22	22	23	22	16	19	23	27	27	25	25	24	22.4	29.0	
22-Jan	24	27	26	28	30	30	28	29	29	25	25	27	29	29	23	18	19	20	20	20	20	21	20	19	24.5	30.4	
23-Jan	19	18	16	15	15	14	11	9	10	10	9	9	9	10	9	8	8	7	7	7	8	8	6	6	10.4	19.2	
24-Jan	6	8	8	7	7	7	7	6	6	6	6	6	6	8	8	7	8	7	7	7	4	4	6	5	6.6	8.3	
25-Jan	5	5	5	7	7	7	5	5	5	5	6	6	5	5	5	4	5	4	5	5	6	5	8	9	5.6	8.7	
26-Jan	7	7	8	7	7	6	7	7	8	10	10	7	10	12	13	10	9	10	12	11	11	11	11	11	9.2	13.1	
27-Jan	12	10	11	10	13	13	13	14	15	17	16	19	26	30	28	22	22	19	16	17	16	19	20	17	17.3	30.4	
28-Jan	15	18	18	18	14	14	18	18	15	17	18	20	26	27	25	25	23	21	19	18	20	20	20	21	19.4	27.0	
29-Jan	21	21	16	17	17	18	20	16	12	12	13	15	15	15	14	15	13	14	14	13	12	14	14	11	15.2	21.3	
30-Jan	12	12	11	13	13	14	15	13	13	12	12	10	10	9	9	7	8	8	9	8	8	9	8	8	10.5	15.1	
31-Jan	9	9	8	8	7	6	6	6	7	9	8	8	10	10	9	9	8	8	9	9	10	11	11	16	8.7	16.1	
		13.4	13.5	12.6	12.7	12.8	12.9	12.5	11.8	12.0	12.7	12.0	12.5	14.0	14.4	13.7	13.9	13.5	12.7	13.4	13.0	12.1	12.9	12.8	12.9	Diurnal Average	
		39.0	38.1	26.4	28.4	31.4	31.3	27.6	29.2	29.3	29.0	27.0	26.5	28.9	30.4	27.6	28.3	28.3	21.1	25.9	26.8	27.1	25.0	24.8	23.8	Diurnal Maximum	
C - Calibration																											



### Pollutant Rose

Particulate Matter 2.5 (PM<sub>2.5</sub>) -  $\mu\text{g}/\text{m}^3$   
Beaverlodge - January 2010

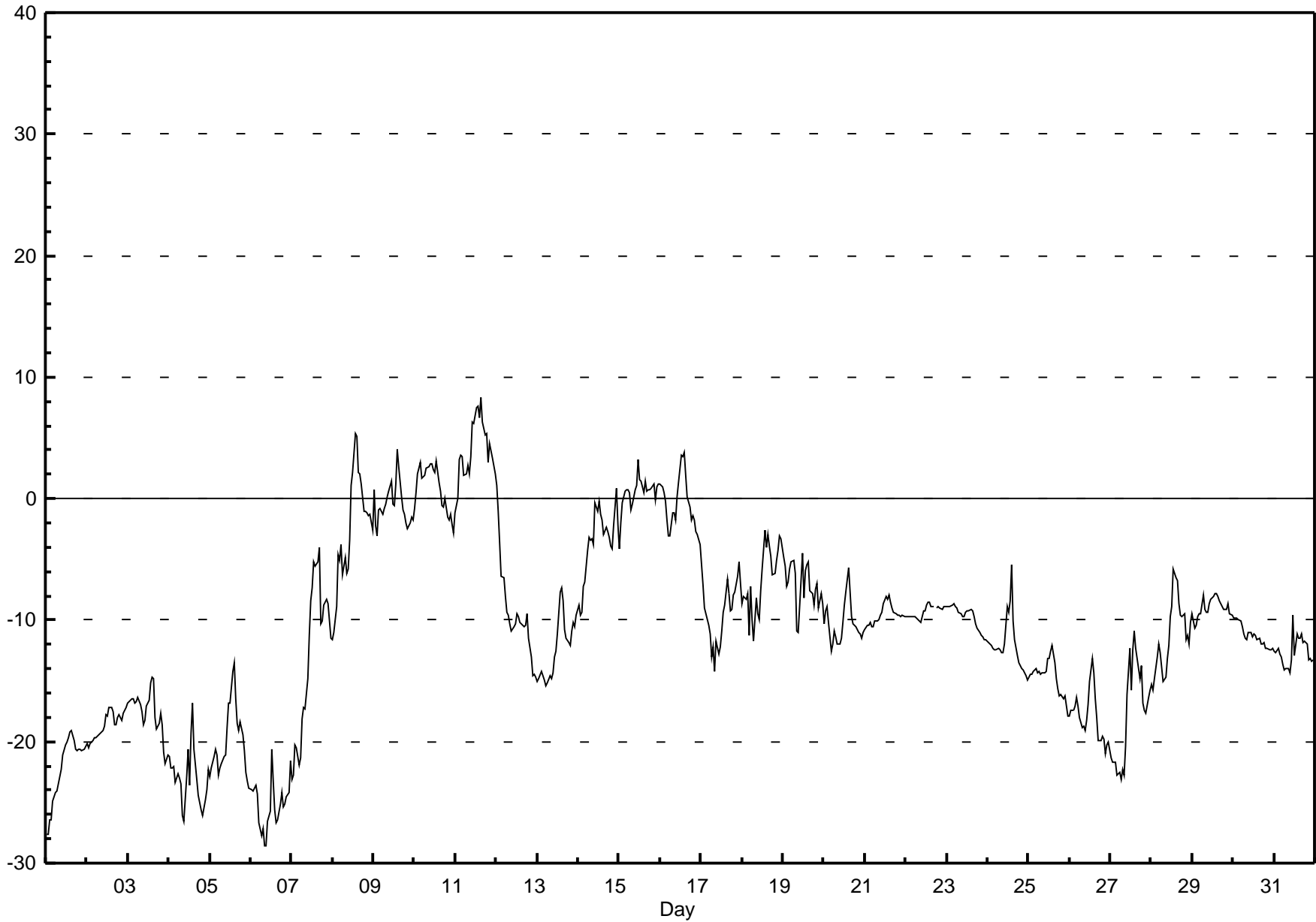


# Hourly Averages

External Temperature (ET) - °C

Beaverlodge - January 2010

Number of Exceedences (AAAQO):		1-hr: 0		24-hr: 0		Hours in Service:		744																			
Maximum Value: 8.3 °C on Jan 11 16:00		Maximum Daily Average: 4.1 °C on Jan 11				Hours of Data:		743																			
Minimum Value: -29 °C on Jan 6 09:00		Minimum Daily Average: -25.2 °C on Jan 6				Hours of Missing Data:		1																			
Maximum Diurnal Average: -7.7 °C at hour 15		Minimum Diurnal Average: -12.2 °C at hour 9				Hours of Calibration:		0																			
Monthly Average: -10.70 °C		Percentiles: P <sub>1</sub> = -26.7 P <sub>10</sub> = -21.3 Q <sub>1</sub> = -16.3 Median = -10.4 Q <sub>3</sub> = -5.8 P <sub>90</sub> = 0.6 P <sub>99</sub> = 6.1				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	-28	-28	-26	-26	-25	-24	-24	-23	-23	-22	-21	-20	-20	-19	-19	-20	-21	-21	-21	-21	-21	-21	-21	-20	-22.2	-19.1	
2-Jan	-20	-20	-20	-20	-20	-20	-20	-19	-19	-19	-19	-18	-18	-17	-17	-18	-19	-19	-18	-18	-18	-18	-17	-17	-18.6	-17.2	
3-Jan	-17	-17	-17	-17	-17	-17	-16	-17	-18	-19	-18	-17	-17	-15	-15	-15	-18	-19	-18	-18	-19	-21	-22	-21	-17.6	-14.7	
4-Jan	-21	-22	-22	-22	-23	-23	-23	-23	-26	-27	-23	-21	-24	-19	-17	-21	-23	-24	-25	-26	-26	-25	-24	-22	-23.0	-16.9	
5-Jan	-23	-22	-21	-21	-21	-23	-22	-22	-21	-21	-19	-17	-17	-14	-14	-16	-18	-19	-18	-19	-21	-23	-23	-24	-20.0	-13.5	
6-Jan	-24	-24	-24	-24	-24	-27	-28	-27	-29	-29	-27	-26	-21	-23	-26	-27	-26	-25	-24	-25	-25	-25	-24	-22	-25.2	-20.6	
7-Jan	-23	-23	-20	-20	-22	-21	-18	-17	-17	-15	-11	-8	-7	-5	-6	-5	-4	-10	-10	-9	-8	-9	-10	-11	-13.0	-4.0	
8-Jan	-12	-11	-9	-5	-5	-4	-6	-5	-6	-6	-3	1	2	5	5	2	2	1	-1	-1	-1	-1	-3	-2.5	5.4		
9-Jan	1	-2	-3	-1	-1	-1	-1	0	0	1	1	-1	-1	1	4	3	0	-1	-1	-2	-2	-2	-2	-2	-0.5	4.1	
10-Jan	-1	1	2	3	2	2	2	2	3	3	3	2	2	3	1	1	-1	-1	0	-1	-2	-1	-2	-3	0.8	3.1	
11-Jan	-1	0	3	4	4	2	2	3	2	3	6	6	7	8	7	8	6	5	5	3	5	4	3	2	4.1	8.3	
12-Jan	1	-1	-4	-6	-7	-8	-9	-10	-10	-11	-11	-10	-9	-10	-10	-10	-11	-10	-10	-11	-13	-15	-14	-15	-9.3	1.1	
13-Jan	-15	-15	-14	-15	-15	-15	-15	-15	-15	-14	-13	-13	-11	-8	-7	-8	-11	-11	-12	-12	-11	-10	-11	-10	-12.3	-7.3	
14-Jan	-9	-10	-9	-7	-7	-4	-3	-3	-3	-4	0	-1	0	-1	-2	-3	-2	-3	-3	-4	-4	-2	1	-2	-3.6	0.8	
15-Jan	-4	-2	0	1	1	1	1	-1	0	1	1	3	2	1	0	1	1	1	1	1	1	0	1	1	0.5	3.2	
16-Jan	1	1	0	0	-2	-3	-3	-1	-1	-2	0	1	4	4	4	2	0	-1	-2	-1	-2	-3	-3	-4	-0.4	3.8	
17-Jan	-5	-7	-9	-9	-10	-11	-13	-12	-14	-12	-13	-12	-11	-9	-9	-7	-8	-9	-9	-8	-8	-6	-5	-7	-9.4	-5.2	
18-Jan	-9	-8	-8	-8	-11	-7	-10	-12	-8	-9	-10	-8	-6	-3	-4	-3	-4	-5	-6	-6	-5	-4	-3	-3	-6.7	-2.6	
19-Jan	-5	-6	-7	-7	-6	-5	-5	-6	-11	-11	-9	-4	-8	-6	-5	-5	-8	-8	-9	-7	-7	-9	-8	-9	-7.1	-4.5	
20-Jan	-10	-9	-9	-10	-13	-12	-11	-11	-12	-12	-12	-10	-9	-8	-6	-8	-10	-10	-10	-10	-11	-11	-12	-11	-10.3	-5.7	
21-Jan	-11	-10	-10	-10	-11	-11	-10	-10	-10	-10	-9	-9	-8	-8	-8	-8	-9	-9	-9	-10	-10	-10	-10	-10	-9.6	-7.9	
22-Jan	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-9	-9	-9	-8	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9.3	-8.5	
23-Jan	-9	-9	-9	-9	-9	-9	-9	-9	-9	-10	-10	-10	-9	-9	-9	-9	-10	-10	-11	-11	-11	-11	-12	-12	-9.7	-8.7	
24-Jan	-12	-12	-12	-12	-12	-12	-12	-12	-13	-13	-12	-9	-9	-8	-5	-10	-12	-13	-14	-14	-14	-14	-15	-15	-11.9	-5.4	
25-Jan	-15	-14	-15	-14	-14	-14	-14	-14	-14	-14	-14	-13	-13	-13	-12	-13	-15	-16	-16	-16	-16	-16	-17	-18	-14.7	-12.1	
26-Jan	-18	-17	-17	-17	-16	-17	-18	-19	-19	-19	-18	-17	-15	-13	-14	-17	-18	-20	-20	-20	-20	-21	-20	-20	-17.9	-13.2	
27-Jan	-21	-22	-22	-22	-23	-23	-23	-22	-23	-20	-16	-12	-16	-12	-11	-12	-14	-15	-14	-17	-17	-18	-16	-16	-17.8	-10.9	
28-Jan	-15	-16	-15	-13	-12	-13	-14	-15	-15	-13	-12	-10	-9	-6	-7	-7	-9	-10	-10	-9	-12	-11	-12	-10	-11.4	-5.8	
29-Jan	-10	-11	-10	-10	-10	-9	-8	-9	-9	-9	-8	-8	-8	-8	-8	-8	-9	-9	-9	-9	-9	-9	-10	-10	-9.0	-7.8	
30-Jan	-10	-10	-10	-10	-10	-11	-11	-11	-12	-11	-11	-11	-11	-11	-12	-11	-12	-12	-12	-12	-12	-12	-12	-12	-11.3	-9.8	
31-Jan	-13	-13	-12	-13	-13	-14	-14	-14	-14	-14	-13	-10	-13	-11	-11	-12	-11	-12	-12	-12	-12	-13	-13	-13	-12.6	-9.6	
		-11.8	-11.9	-11.6	-11.3	-11.7	-11.7	-11.8	-11.9	-12.2	-11.9	-10.7	-9.3	-9.1	-7.9	-7.7	-8.5	-9.6	-10.5	-10.5	-10.8	-11.0	-11.2	-11.0	-11.2	Diurnal Average	
		1.2	0.9	3.2	3.6	3.5	1.9	2.0	2.8	2.6	3.5	6.3	6.2	7.5	7.6	6.7	8.3	6.3	5.2	5.3	3.0	4.6	4.0	3.4	2.0	Diurnal Maximum	
M - Maintenance																											



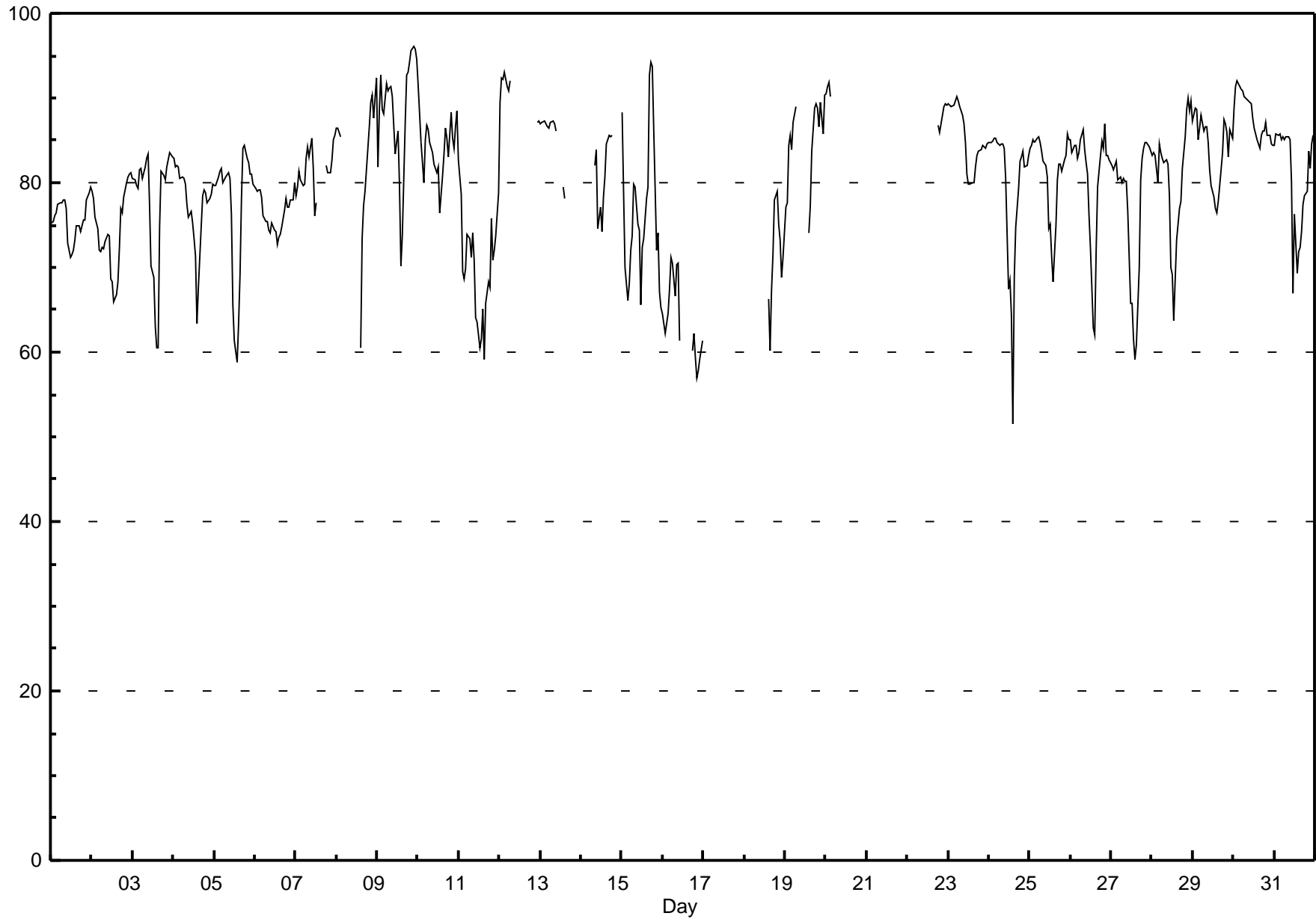
# Hourly Averages

## Relative Humidity (RH) - % Beaverlodge - January 2010

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 96.1 % on Jan 9 22:00      Maximum Daily Average: 88.4 % on Jan 9		Hours in Service: 744 Hours of Data: 577 Hours of Missing Data: 167 Hours of Calibration: 0 Percent Operational Time: 77.6																									
Minimum Value: 51 % on Jan 24 15:00 Maximum Diurnal Average: 83.2 % at hour 1 Monthly Average: 79.85 %		Minimum Daily Average: 63.9 % on Jan 16 Minimum Diurnal Average: 70.1 % at hour 15 Percentiles: P <sub>1</sub> = 59.1 P <sub>10</sub> = 68.4 Q <sub>1</sub> = 75.1 Median = 81.1 Q <sub>3</sub> = 85.2 P <sub>90</sub> = 88.9 P <sub>99</sub> = 94.2																									
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	75	75	76	76	78	78	78	78	78	77	73	71	72	72	73	75	75	74	75	76	76	78	79	80	75.7	79.6	
2-Jan	79	78	76	75	72	72	72	72	73	74	74	69	68	66	67	68	72	77	76	78	80	81	81	81	74.2	81.1	
3-Jan	80	80	80	79	81	82	80	82	83	83	77	70	69	63	61	61	75	81	81	80	82	83	84	83	77.5	83.6	
4-Jan	83	82	82	82	80	81	81	80	77	76	77	75	73	71	63	68	75	78	79	79	78	78	79	80	77.4	82.9	
5-Jan	80	80	81	81	82	80	80	81	81	80	76	66	61	59	63	69	78	84	84	83	82	81	81	80	77.2	84.4	
6-Jan	79	79	79	79	78	76	76	75	74	74	74	74	74	73	74	74	75	77	78	77	77	78	78	80	76.4	80.0	
7-Jan	79	80	81	80	80	80	83	84	83	85	82	76	78	N	N	N	N	N	82	81	81	83	85	86	81.5	85.7	
8-Jan	86	86	85	N	N	N	N	N	N	N	N	N	N	N	60	73	77	79	84	87	90	90	88	92	--	92.4	
9-Jan	82	89	93	89	88	92	91	91	91	90	83	85	86	80	70	74	87	93	93	94	96	96	96	95	88.4	96.1	
10-Jan	91	88	85	80	85	87	86	85	84	82	82	81	82	76	81	83	87	85	83	88	85	84	87	89	84.4	91.5	
11-Jan	83	79	70	69	70	74	73	71	74	71	64	64	61	62	65	59	66	68	68	76	71	72	74	79	70.0	82.6	
12-Jan	89	92	92	93	91	91	92	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	87	87	--	93.0	
13-Jan	87	87	87	87	87	87	87	87	87	86	N	88	N	80	78	N	N	N	N	N	N	N	N	N	--	88.0	
14-Jan	N	N	N	N	83	N	N	N	82	84	75	77	74	78	81	85	86	85	86	N	N	N	N	N	--	85.7	
15-Jan	88	79	70	66	68	72	74	80	80	75	74	66	72	73	78	80	93	94	94	86	72	74	67	65	76.7	94.2	
16-Jan	65	62	63	65	68	71	70	67	70	71	61	N	N	N	N	N	N	60	62	59	57	58	59	61	63.9	71.3	
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	N	N	N	N	N	66	60	67	72	78	79	75	73	69	71	--	78.9
19-Jan	77	78	84	86	84	87	89	N	N	N	N	N	N	N	74	77	84	89	89	89	87	90	86	90	--	90.4	
20-Jan	91	91	92	90	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	91.8	
21-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	--	--	
22-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	--	89.3	
23-Jan	89	89	89	89	90	90	90	89	88	87	85	81	80	80	80	80	82	83	84	84	84	84	84	85	85.2	90.1	
24-Jan	85	85	85	85	85	85	84	85	85	84	80	67	69	64	51	69	75	79	83	83	84	82	82	83	79.1	85.3	
25-Jan	84	84	85	85	85	85	85	84	83	82	81	75	75	71	68	75	80	82	82	81	83	83	86	85	81.2	85.8	
26-Jan	85	84	84	84	83	84	85	86	84	82	81	76	72	63	62	72	79	81	85	84	87	83	83	83	80.6	86.9	
27-Jan	82	81	82	83	80	81	80	80	80	80	77	66	66	61	59	61	70	80	83	84	85	85	84	84	77.3	84.8	
28-Jan	83	84	83	80	85	84	83	82	83	82	78	70	69	64	73	75	77	78	82	85	89	90	88	90	80.7	90.0	
29-Jan	87	89	89	85	86	88	86	87	87	85	82	80	78	77	76	78	80	84	88	87	86	83	86	85	84.1	88.7	
30-Jan	89	91	92	92	91	91	90	90	90	90	89	88	86	86	85	84	86	86	86	87	86	86	85	84	87.8	92.0	
31-Jan	84	86	86	86	85	85	85	85	86	85	80	67	76	69	72	72	74	77	78	79	84	82	85	86	80.6	85.7	
		83.2	83.0	82.7	81.8	81.8	82.5	82.5	81.9	81.8	81.1	77.5	74.1	73.4	70.9	70.1	72.7	78.2	80.4	81.9	82.1	81.6	81.8	81.9	82.8	Diurnal Average	
		91.5	92.4	92.7	93.0	91.4	91.7	92.0	91.2	91.3	90.1	89.2	88.0	86.4	85.7	85.0	84.5	92.7	94.2	93.8	94.2	95.7	96.1	95.7	94.5	Diurnal Maximum	
M - Maintenance      N - Not Valid																											

# Hourly Averages

Relative Humidity (RH) - %  
Beaverlodge - January 2010



# Hourly Averages

Wind Speed (km/h)  
Wind Direction (deg)  
Beaverlodge - January 2010

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	1	3	1	6	2	2	4	3	4	4	3	3	6	8	6	10	11	14	11	12	16	12	10	8	6.3	15.6
Dir	1	360	69	281	343	283	276	318	289	294	291	330	330	329	325	303	308	317	325	325	325	321	313	304	316	325
2 Spd	10	10	8	11	11	9	8	6	5	6	6	6	6	5	4	4	3	5	8	9	7	12	11	10	3.5	11.9
Dir	319	327	323	322	314	312	322	317	324	325	352	337	351	15	2	38	93	93	108	114	95	93	93	96	6	93
3 Spd	8	6	6	2	7	4	3	5	5	9	7	9	10	7	5	1	4	5	6	5	1	2	4	2	1.9	9.6
Dir	99	112	91	309	265	196	298	337	320	313	292	315	312	292	246	218	63	54	52	48	36	307	44	34	337	312
4 Spd	1	2	5	2	1	2	1	2	2	0	1	1	3	1	1	3	3	1	1	1	2	2	2	1	0.7	4.9
Dir	203	279	39	1	312	32	21	221	68	326	269	211	15	286	137	79	58	18	124	209	44	353	33	254	26	39
5 Spd	3	4	3	7	10	4	4	5	4	4	4	1	1	3	3	1	2	2	5	2	1	2	1	1	2.2	9.6
Dir	217	45	328	329	315	8	360	23	29	29	44	290	24	57	40	332	37	18	42	55	80	87	204	141	12	315
6 Spd	2	1	2	1	4	3	2	1	4	4	3	3	3	1	5	7	6	3	6	3	1	2	2	1	2.0	7.5
Dir	29	33	59	11	53	55	67	330	305	53	37	5	74	23	39	277	38	10	328	25	76	352	31	17	17	277
7 Spd	5	3	4	3	3	3	4	3	3	4	3	4	6	5	3	3	5	4	2	3	2	4	9	6	2.5	9.3
Dir	295	33	34	263	46	53	53	52	75	66	73	87	74	102	91	59	48	175	103	76	71	285	6	15	49	6
8 Spd	3	1	5	5	6	2	5	4	3	4	2	2	1	3	1	4	3	2	2	3	0	2	3	7	1.2	6.7
Dir	299	275	342	19	284	237	66	64	137	81	52	103	44	236	96	45	49	229	57	59	134	238	207	47	39	47
9 Spd	5	2	5	4	2	3	1	2	4	0	2	2	1	4	2	2	1	2	1	1	2	3	2	3	1.1	5.1
Dir	25	207	116	77	24	7	358	69	50	142	226	58	169	78	162	90	329	208	222	38	80	94	149	175	89	116
10 Spd	10	3	3	10	0	2	4	3	4	7	9	12	10	6	5	2	4	3	0	1	1	1	2	3	1.9	12.2
Dir	229	32	227	237	156	98	59	95	78	81	114	118	136	130	174	273	59	239	244	96	249	302	318	57	131	118
11 Spd	2	3	11	10	8	3	1	1	2	2	8	8	10	14	16	9	0	3	2	4	6	9	7	8	2.0	16.4
Dir	207	99	117	124	113	253	46	126	217	2	261	223	241	230	227	268	268	57	27	90	73	88	86	116	169	227
12 Spd	5	10	9	5	3	5	8	4	9	8	6	6	1	2	8	8	5	5	7	9	11	12	11	9	2.7	12.2
Dir	53	339	188	259	8	182	243	327	331	322	303	283	211	257	175	188	114	69	337	10	16	12	348	3	336	12
13 Spd	9	3	2	7	7	4	7	2	3	5	2	4	5	1	1	2	3	3	2	2	2	2	2	1	1.0	8.6
Dir	18	31	60	150	139	126	49	123	251	174	155	183	189	192	181	163	50	13	213	20	345	305	12	35	105	18
14 Spd	0	1	1	2	3	7	4	3	3	3	3	1	2	3	1	3	3	1	1	4	1	2	4	2	1.5	6.8
Dir	125	246	55	59	58	63	79	140	98	97	122	108	168	54	179	146	57	222	87	218	222	97	72	218	97	63
15 Spd	3	4	6	3	4	3	4	3	5	4	4	3	1	3	2	6	2	2	8	11	21	18	29	34	3.5	34.4
Dir	75	56	67	75	168	66	75	135	90	75	84	77	293	0	25	321	289	198	213	247	251	246	253	257	249	257
16 Spd	37	34	31	25	13	1	1	17	24	9	6	7	3	4	8	9	2	4	7	6	8	7	5	2	7.7	36.7
Dir	264	264	263	260	246	120	254	250	246	248	240	217	198	218	237	230	199	68	78	73	73	85	78	119	251	264
17 Spd	2	1	2	4	6	5	4	5	5	2	1	3	3	3	5	1	1	3	5	5	1	5	2	1	1.9	5.9
Dir	102	183	162	299	30	350	12	2	2	18	16	47	330	52	242	289	50	84	37	39	149	61	37	83	22	30
18 Spd	3	1	1	1	4	4	2	7	3	7	4	6	3	3	5	2	4	5	5	3	3	3	6	3	2.3	7.1
Dir	140	37	227	133	48	39	201	46	331	293	8	307	356	39	318	2	347	299	303	35	49	25	39	66	1	293
19 Spd	3	1	1	4	2	3	5	5	2	3	5	4	3	2	2	3	6	9	6	6	3	1	2	1	1.8	9.1
Dir	104	80	169	70	58	28	338	46	160	34	36	10	42	45	17	280	286	275	16	310	277	14	304	318	356	275
20 Spd	3	2	0	1	1	1	2	4	11	14	14	14	11	10	1	3	3	2	2	8	7	5	11	11	5.1	14.0
Dir	323	30	229	316	12	58	38	341	318	325	319	323	321	306	248	223	50	328	316	330	21	352	327	330	329	323
21 Spd	7	7	4	3	3	3	2	1	1	2	3	2	2	2	1	4	5	6	4	3	3	4	3	4	1.5	7.1
Dir	349	20	351	6	334	318	44	242	20	70	60	65	90	210	332	37	96	83	31	16	100	202	217	274	29	349
22 Spd	4	4	3	3	3	3	2	2	4	5	3	4	4	6	7	7	4	1	0	3	4	4	8	6	3.3	8.3
Dir	310	321	314	352	348	317	291	279	232	255	283	215	257	289	282	274	286	337	81	234	273	324	316	320	292	316



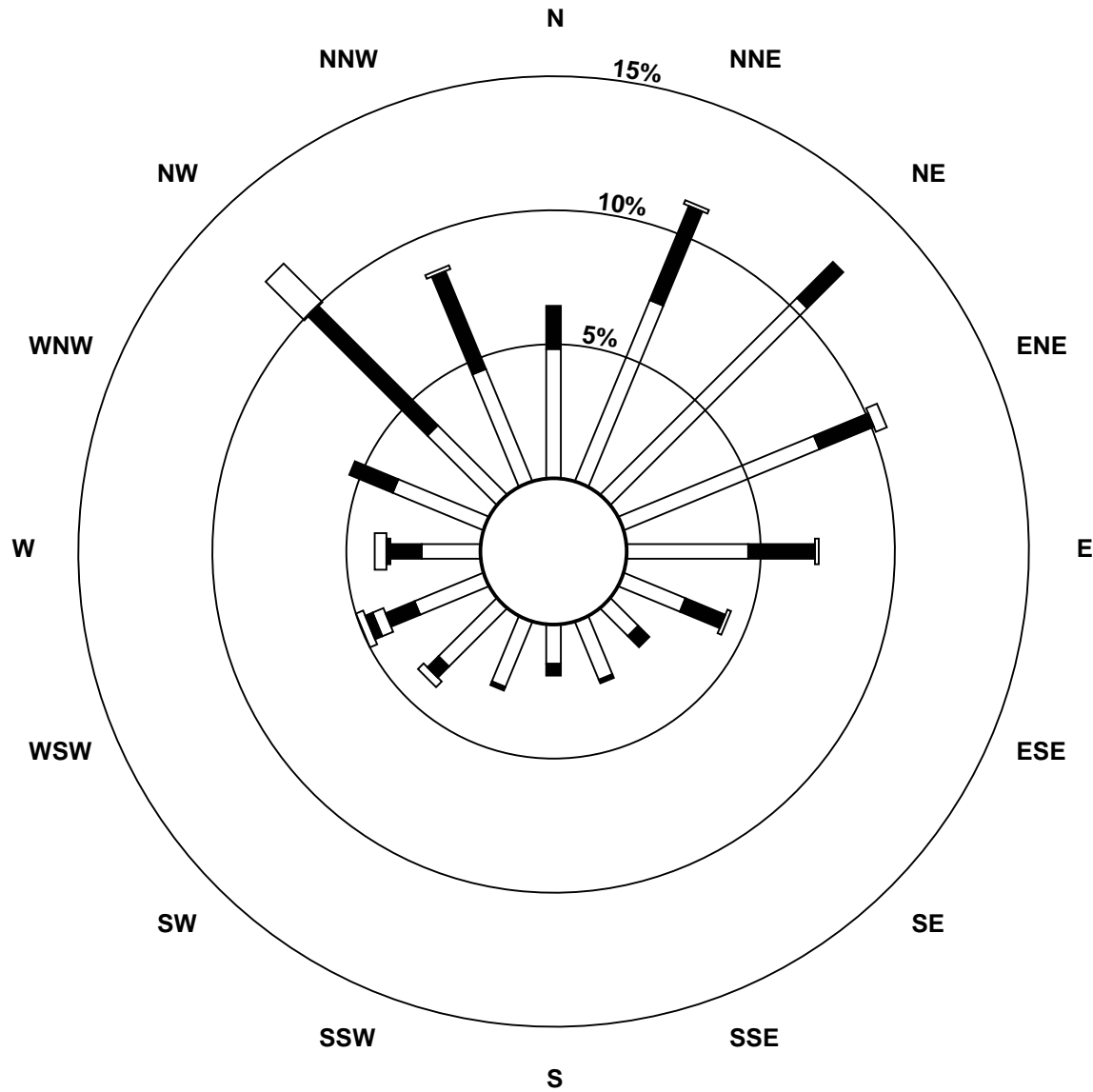
# Hourly Averages

**Wind Speed (km/h)**  
**Wind Direction (deg)**  
**Beaverlodge - January 2010**

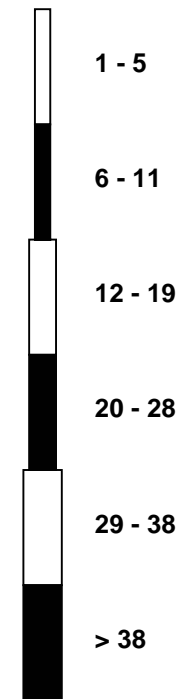
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	8	10	11	9	10	12	12	12	13	12	9	9	12	13	11	9	10	11	11	10	10	7	9	5	10.1	13.3
Dir	315	318	327	317	316	318	320	325	325	329	323	325	322	313	320	327	323	321	328	335	334	339	337	324	325	
24 Spd	5	8	7	9	7	6	9	10	10	9	5	1	3	1	1	4	4	4	6	10	8	8	9	11	3.3	11.3
Dir	334	329	329	325	346	354	353	7	11	16	20	13	244	272	146	207	164	139	83	105	103	85	79	80	29	80
25 Spd	9	11	11	9	12	13	12	10	6	7	10	4	7	6	5	8	9	9	10	8	6	4	4	1	7.3	12.7
Dir	71	58	55	67	61	65	69	53	58	34	31	2	28	48	54	25	19	18	20	18	34	21	248	355	43	65
26 Spd	0	1	3	3	0	2	3	2	1	1	2	2	1	2	4	8	6	3	6	5	4	1	2	1	0.7	7.6
Dir	292	296	272	279	80	248	232	298	12	275	200	177	270	239	21	28	250	91	28	67	259	353	18	51	324	28
27 Spd	1	6	3	1	4	2	1	2	1	1	0	0	3	1	1	1	4	4	4	3	2	3	3	3	1.6	5.6
Dir	119	58	60	318	29	246	342	14	346	317	293	146	341	351	229	338	44	22	346	51	345	360	54	37	23	58
28 Spd	1	5	3	3	2	2	2	2	5	2	3	2	3	2	3	1	5	2	3	3	4	2	3	4	1.4	5.0
Dir	51	319	22	6	336	306	123	199	24	315	33	45	288	40	355	217	195	55	360	318	58	237	56	11	4	24
29 Spd	4	4	6	1	4	5	3	8	11	9	7	7	9	10	9	9	10	12	8	6	3	1	3	8	5.7	11.9
Dir	312	41	286	126	285	26	0	315	332	328	329	328	326	334	326	312	309	314	315	2	33	104	328	29	330	314
30 Spd	8	6	1	5	7	8	7	8	5	2	4	11	8	9	8	5	5	2	1	2	4	3	6	4	4.0	10.7
Dir	38	13	123	162	85	107	118	92	64	64	49	70	84	66	70	36	44	287	264	330	35	335	19	26	64	70
31 Spd	8	7	3	8	7	7	8	6	3	6	5	0	6	2	3	4	2	2	3	2	2	3	1	2	2.4	8.0
Dir	23	26	29	38	25	13	12	20	297	296	336	305	279	283	296	314	125	51	162	152	112	157	335	319	2	12
Spd	2.0	2.6	1.3	1.6	2.0	1.9	2.0	2.1	2.5	2.7	2.1	1.3	1.6	1.5	1.2	1.8	1.7	1.7	2.3	2.2	1.7	1.5	2.2	1.7	Diurnal Average	
Dir	327	348	341	314	357	18	15	1	335	340	348	342	329	332	298	311	10	356	6	18	15	11	352	356	Diurnal Maximum	
Spd	36.7	34.5	31.4	24.6	13.1	12.7	12.0	17.2	23.6	13.6	13.5	14.0	11.6	14.0	16.4	9.7	11.3	13.9	10.9	12.2	21.1	18.3	28.7	34.4	Diurnal Maximum	
Dir	264	264	263	260	246	65	320	250	246	325	319	323	322	230	227	303	308	317	325	325	251	246	253	257	Diurnal Maximum	
Maximum Speed Value: 37 km/h on Jan 16 01:00																		Minimum Speed Value: 0 km/h on Jan 4 10:00						Hours in Service: 744		
Maximum Daily Speed Average: 10.1 km/h on Jan 16																		Minimum Daily Speed Average: 0.7 km/h on Jan 4						Hours of Data: 744		
Maximum Diurnal Speed Average: 2.7 km/h at hour 10																		Minimum Diurnal Speed Average: 1.2 km/h at hour 15						Hours of Missing Data: 0		
Monthly Average Velocity: 1.76 km/h 349.8 deg																		Speed Percentiles: P <sub>1</sub> = 0.4 P <sub>10</sub> = 1.1 Q <sub>1</sub> = 2.2 Median = 3.6 Q <sub>3</sub> = 6.6 P <sub>90</sub> = 9.7 P <sub>99</sub> = 22.8						Percent Operational Time: 100.0		
All monthly, daily, and diurnal averages have been calculated using vector methods																										
Frequency Distribution																										
		Speed Range (km/h)																								
Direction	0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total																			
North	74	34	1	0	0	0	109																			
NorthEast	125	41	3	0	0	0	169																			
East	63	30	3	0	0	0	96																			
SouthEast	33	12	1	0	0	0	46																			
South	31	4	0	0	0	0	35																			
SouthWest	47	12	4	1	0	0	64																			
West	47	18	1	2	5	0	73																			
NorthWest	61	75	16	0	0	0	152																			
Total	481	226	29	3	5	0	744																			

# Wind Rose

**Wind Speed (WS) (km/h)**  
**Beaverlodge - January 2010**



**Wind Speed Classes (km/h)**





# Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Beaverlodge - January 2010

Maximum Speed: 37 km/h on Jan 16 01:00	Maximum Daily Speed Average: 12.0 km/h on Jan 16	Hours in Service: 744
Minimum Speed: 1 km/h on Jan 22 19:00	Minimum Daily Speed Average: 2.9 km/h on Jan 4	Hours of Data: 744
Maximum Diurnal Speed Average: 6.5 km/h at hour 23	Minimum Diurnal Speed Average: 5.1 km/h at hour 7	Hours of Missing Data: 0
Monthly Average Speed: 5.76 km/h	Percentiles: P <sub>1</sub> = 1.6 P <sub>10</sub> = 2.6 Q <sub>1</sub> = 3.4 Median = 4.6 Q <sub>3</sub> = 7.4 P <sub>90</sub> = 10.0 P <sub>99</sub> = 22.7	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	3	5	3	6	3	2	4	3	4	4	3	4	6	8	7	10	11	14	11	12	16	12	10	8	7.1	15.7
2-Jan	10	10	9	11	11	10	8	6	5	6	6	7	6	5	5	4	3	5	8	9	8	12	11	10	7.6	11.9
3-Jan	8	7	6	4	8	5	3	5	6	9	8	9	10	7	6	3	4	6	6	6	4	5	4	2	5.8	9.7
4-Jan	2	3	5	4	2	4	2	3	3	2	2	2	4	3	2	4	3	2	2	2	3	3	4	3	2.9	5.1
5-Jan	4	4	4	7	10	6	5	5	5	4	4	4	2	3	3	3	2	4	5	2	3	3	2	1	4.0	9.7
6-Jan	3	3	3	3	4	4	4	5	6	4	3	5	3	4	6	8	6	5	9	6	3	5	5	3	4.6	9.2
7-Jan	7	5	5	4	3	3	4	4	4	4	3	4	6	5	4	3	5	5	4	4	3	5	14	10	4.9	14.1
8-Jan	5	3	8	8	11	6	5	5	4	4	3	4	2	4	4	5	4	4	6	5	3	3	3	7	4.8	10.5
9-Jan	6	4	7	4	6	6	3	4	4	1	3	2	3	4	3	4	3	3	3	2	3	2	2	4	3.7	7.5
10-Jan	10	6	3	10	5	3	4	3	4	7	10	12	11	7	6	3	6	4	3	4	3	4	4	4	5.7	12.4
11-Jan	3	4	11	10	8	6	3	2	3	3	9	8	10	14	17	9	3	4	4	4	6	10	8	8	6.9	16.6
12-Jan	9	12	12	6	6	6	8	7	9	8	6	6	3	3	8	8	6	6	8	9	11	13	11	9	7.9	12.5
13-Jan	9	3	2	7	7	4	7	5	3	5	3	4	5	2	2	2	3	4	2	3	3	4	4	1	3.9	8.7
14-Jan	2	3	3	4	4	7	4	3	3	3	3	3	3	4	3	4	6	4	3	4	3	2	4	4	3.7	6.9
15-Jan	3	4	6	3	7	4	5	4	6	5	5	4	4	4	5	6	5	3	9	11	21	19	29	34	8.6	34.4
16-Jan	37	34	31	25	13	3	4	17	24	10	8	7	4	4	8	9	6	4	8	6	9	7	5	4	12.0	36.7
17-Jan	2	3	4	6	7	9	6	10	9	4	4	4	8	5	5	4	4	3	5	5	3	5	6	4	5.2	9.9
18-Jan	4	3	4	3	6	5	4	7	8	11	7	7	6	4	6	3	4	6	8	5	5	5	7	4	5.5	10.6
19-Jan	4	3	3	4	3	4	7	5	3	4	6	5	5	3	4	4	7	10	8	8	5	5	4	6	5.0	9.9
20-Jan	5	3	1	3	3	3	2	6	11	14	14	14	11	10	3	3	4	3	3	9	7	6	11	11	6.6	14.1
21-Jan	8	7	4	3	3	3	2	2	2	2	3	2	2	3	2	4	5	6	4	4	4	4	4	4	3.7	7.6
22-Jan	4	4	3	3	3	4	2	3	4	5	3	4	4	6	7	7	4	2	1	3	4	5	8	6	4.2	8.3
23-Jan	8	11	11	9	10	12	12	12	13	12	9	9	12	13	11	9	10	11	11	10	10	7	9	5	10.2	13.4
24-Jan	6	8	8	9	7	6	9	10	10	9	5	1	3	2	2	4	4	4	6	10	8	8	9	11	6.7	11.3
25-Jan	9	11	11	9	12	13	12	10	6	7	10	5	8	7	6	8	9	9	10	8	6	4	4	4	8.3	12.8
26-Jan	2	4	4	4	2	3	5	4	2	3	3	3	3	2	5	9	6	4	7	5	5	3	3	2	3.9	8.5
27-Jan	1	6	4	3	5	2	3	3	4	2	2	2	5	3	2	4	4	5	7	4	6	6	3	5	3.8	7.1
28-Jan	4	7	4	4	5	5	3	4	7	3	3	2	3	3	4	3	5	3	4	5	4	4	3	5	4.1	7.3
29-Jan	5	5	7	3	5	5	4	8	11	9	7	7	9	10	9	10	10	12	8	6	5	3	4	8	7.0	12.0
30-Jan	8	6	5	6	7	8	7	8	5	2	4	11	8	10	8	5	5	3	3	4	4	4	6	4	5.9	10.7
31-Jan	8	8	3	8	7	7	8	6	4	6	5	3	6	2	3	4	2	2	3	3	2	3	2	3	4.5	8.1
	6.4	6.3	6.3	6.3	6.3	5.4	5.1	5.7	6.3	5.7	5.2	5.3	5.5	5.3	5.4	5.4	5.2	5.2	5.7	5.8	5.7	5.9	6.5	6.3	Diurnal Average	
	36.7	34.5	31.4	24.8	13.3	12.8	12.0	17.3	23.7	13.7	13.6	14.1	11.7	14.1	16.6	9.8	11.4	14.0	11.0	12.3	21.4	18.6	28.8	34.4	Diurnal Maximum	

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



# Hourly Standard Deviations

Wind Direction (WD) - deg  
Beaverlodge - January 2010

Maximum Value: 100.5 deg on Jan 9 10:00																								Hours in Service:	744
Minimum Value: 1.9 deg on Jan 16 03:00																								Hours of Data:	744
Percentiles: P <sub>1</sub> = 3.5 P <sub>10</sub> = 7.0 Q <sub>1</sub> = 13.2 Median = 37.8 Q <sub>3</sub> = 64.0 P <sub>90</sub> = 80.4 P <sub>99</sub> = 94.3																								Hours of Missing Data:	0
																								Hours of Calibration:	0
																								Percent Operational Time:	100.0
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jan	66	56	83	18	49	46	27	35	24	19	34	44	19	18	19	10	7	8	9	7	5	9	7	7	83.4
2-Jan	10	9	10	8	8	9	11	8	11	13	12	16	12	19	29	31	23	13	6	8	11	6	6	7	31.0
3-Jan	8	13	12	71	22	46	40	17	16	10	6	10	12	15	24	71	12	5	7	5	76	63	47	55	76.1
4-Jan	83	68	14	71	72	65	87	63	80	87	73	72	54	85	81	40	33	68	74	83	84	66	75	82	87.1
5-Jan	66	27	52	15	11	37	35	28	42	46	50	70	94	34	52	71	22	67	10	56	78	63	62	59	93.9
6-Jan	81	89	86	75	32	67	82	80	56	12	55	54	30	77	43	35	19	54	52	74	85	72	76	93	92.8
7-Jan	89	50	44	57	40	34	26	21	24	17	24	22	9	20	48	22	13	51	64	59	64	50	49	47	89.3
8-Jan	60	94	87	64	68	63	35	20	40	27	81	60	66	63	75	19	55	83	86	68	89	80	58	39	94.1
9-Jan	62	69	48	34	68	59	90	91	30	100	64	68	65	32	34	65	80	65	92	74	53	20	49	49	100.5
10-Jan	13	83	47	12	79	36	21	20	11	14	11	11	17	38	47	78	59	63	88	79	91	90	67	65	90.6
11-Jan	43	43	7	22	14	58	83	57	57	65	17	22	15	4	8	15	95	46	54	21	14	20	31	18	94.6
12-Jan	74	37	47	48	76	40	18	80	14	8	21	13	67	59	22	41	40	41	22	13	11	12	8	10	80.0
13-Jan	7	23	36	17	10	29	12	66	25	31	67	24	16	82	71	31	31	37	41	39	55	66	50	54	81.9
14-Jan	73	84	82	84	55	8	30	45	34	50	31	88	68	40	88	63	69	87	87	54	72	56	23	60	88.2
15-Jan	47	42	23	42	59	41	19	44	29	34	59	20	88	62	54	22	72	57	18	15	10	9	4	3	87.8
16-Jan	2	2	2	8	33	73	96	6	3	57	61	17	21	20	18	9	71	53	14	11	7	7	16	57	96.2
17-Jan	55	70	63	58	37	60	58	57	51	93	87	77	65	68	50	91	79	45	28	36	89	27	70	80	93.1
18-Jan	66	91	81	81	71	59	82	31	70	54	55	56	56	41	25	49	34	24	57	57	84	57	21	52	90.5
19-Jan	43	84	77	33	46	38	47	7	48	68	12	51	66	78	65	77	56	43	42	53	56	89	74	78	88.5
20-Jan	47	57	82	95	84	87	50	65	22	5	5	7	9	5	83	30	14	62	47	32	49	45	6	7	95.3
21-Jan	23	11	25	59	23	29	24	61	70	28	11	14	29	50	50	12	21	13	33	36	37	25	28	27	70.2
22-Jan	6	11	10	26	18	27	34	32	12	24	28	12	22	8	11	8	11	49	78	21	31	27	4	5	78.3
23-Jan	5	3	4	3	4	5	4	4	5	5	6	8	8	4	9	10	6	5	5	5	6	10	6	10	9.8
24-Jan	13	8	20	8	12	11	10	9	6	5	8	57	37	65	82	14	15	21	11	6	6	12	9	5	82.4
25-Jan	5	4	4	12	11	7	6	3	7	12	8	38	22	33	21	15	3	4	4	4	7	10	27	72	72.5
26-Jan	87	88	52	59	91	95	68	69	77	66	59	43	89	52	55	35	23	52	38	9	43	70	57	78	95.0
27-Jan	47	10	40	78	45	66	72	66	78	74	97	90	61	93	86	77	52	43	52	69	81	63	30	51	96.8
28-Jan	83	54	43	59	70	96	46	63	55	61	50	37	41	66	42	75	22	66	37	72	32	81	31	33	95.8
29-Jan	47	25	38	75	45	22	55	17	5	5	10	11	12	9	11	9	7	5	6	22	52	84	34	11	84.0
30-Jan	11	7	76	22	21	13	7	17	14	65	18	7	14	9	11	24	12	51	91	48	54	48	12	20	90.6
31-Jan	6	12	64	5	7	5	7	9	72	7	21	89	6	33	20	17	64	31	15	25	43	31	50	50	88.7
89.3	94.1	87.1	95.3	90.8	95.8	96.2	90.9	80.5	100.5	96.8	90.0	93.9	93.3	87.6	91.3	94.6	86.8	91.7	82.7	90.6	90.1	75.7	92.8		

**PASZA**

**Portable – Kinuso Station**

**Monthly Summary Tables, Graphs and  
Roses**

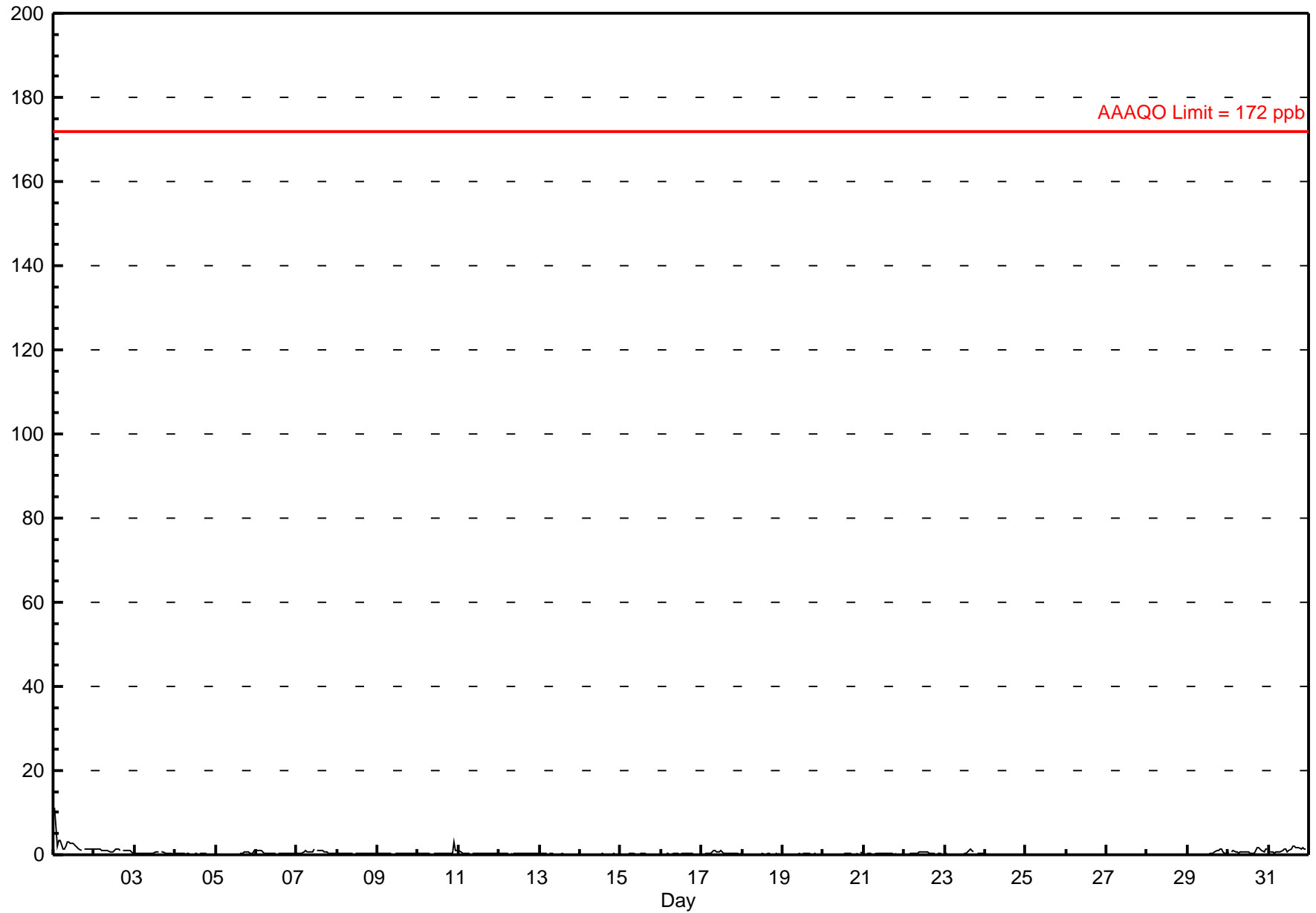
# Hourly Averages

## Sulphur Dioxide (SO<sub>2</sub>) - ppb Portable-Kinuso - January 2010

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 11.2 ppb on Jan 1 01:00	Maximum Daily Average: 2.6 ppb on Jan 1
Minimum Value: 0 ppb on Jan 4 21:00	Hours of Data: 709
Maximum Diurnal Average: 0.6 ppb at hour 1	Hours of Missing Data: 35
Monthly Average: 0.40 ppb	Hours of Calibration: 35
Minimum Daily Average: 0.0 ppb on Jan 26	Percent Operational Time: 100.0
Minimum Diurnal Average: 0.3 ppb at hour 6	
Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.1 Median = 0.2 Q <sub>3</sub> = 0.4 P <sub>90</sub> = 1.0 P <sub>99</sub> = 2.9	

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	11	7	2	3	3	1	1	2	3	3	3	3	2	2	2	1	1	A	1	1	1	1	1	1	2.6	11.2	
2-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0	1.0	1.4	
3-Jan	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	A	1	1	0	0	0	0	0	0	0.5	0.7	
4-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.2	0.4	
5-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	1	1	1	1	0	0	0	1	0.2	0.9	
6-Jan	1	1	1	1	1	0	0	0	0	0	0	0	A	0	0	0	1	0	0	0	0	0	0	0	0.5	1.1	
7-Jan	0	0	0	0	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0	0	0	0	0	0.6	1.2	
8-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	
9-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.4	
10-Jan	0	0	0	0	0	0	0	0	A	A	0	0	0	0	0	0	0	0	0	0	0	1	3	1	1	0.6	2.9
11-Jan	1	1	0	0	0	0	0	A	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.9	
12-Jan	0	0	0	0	0	0	A	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4	
13-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	0.1	0.3	
14-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
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	0.2	0.4	
16-Jan	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3	
17-Jan	0	A	0	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.5	1.0	
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	0	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	
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	1	0.2	0.7	
21-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.2	0.4	
22-Jan	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0	A	0	0	0	0.4	0.8	
23-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	A	0	0	0	0	0	0.3	1.4	
24-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	A	0	0	0	0	0	0	0.0	0.2	
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	0.0	0.1	
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	0.0	0.0	
27-Jan	0	0	0	0	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	
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	0.0	0.1	
29-Jan	0	0	A	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	0	0.4	1.5	
30-Jan	1	A	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	2	2	2	1	1	1	1	0.8	1.8	
31-Jan	A	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	1	1	1.1	2.0	
	0.6	0.5	0.3	0.4	0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.3		Diurnal Average		
	11.2	6.7	2.1	3.3	3.3	1.4	1.5	2.0	2.9	3.1	2.9	2.6	2.4	2.0	2.0	2.0	1.6	1.8	1.6	1.5	1.5	2.9	1.4	1.3	Diurnal Maximum		

C - Calibration      A - Automated Daily Zero Span  
 Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb    24-hr 57 ppb



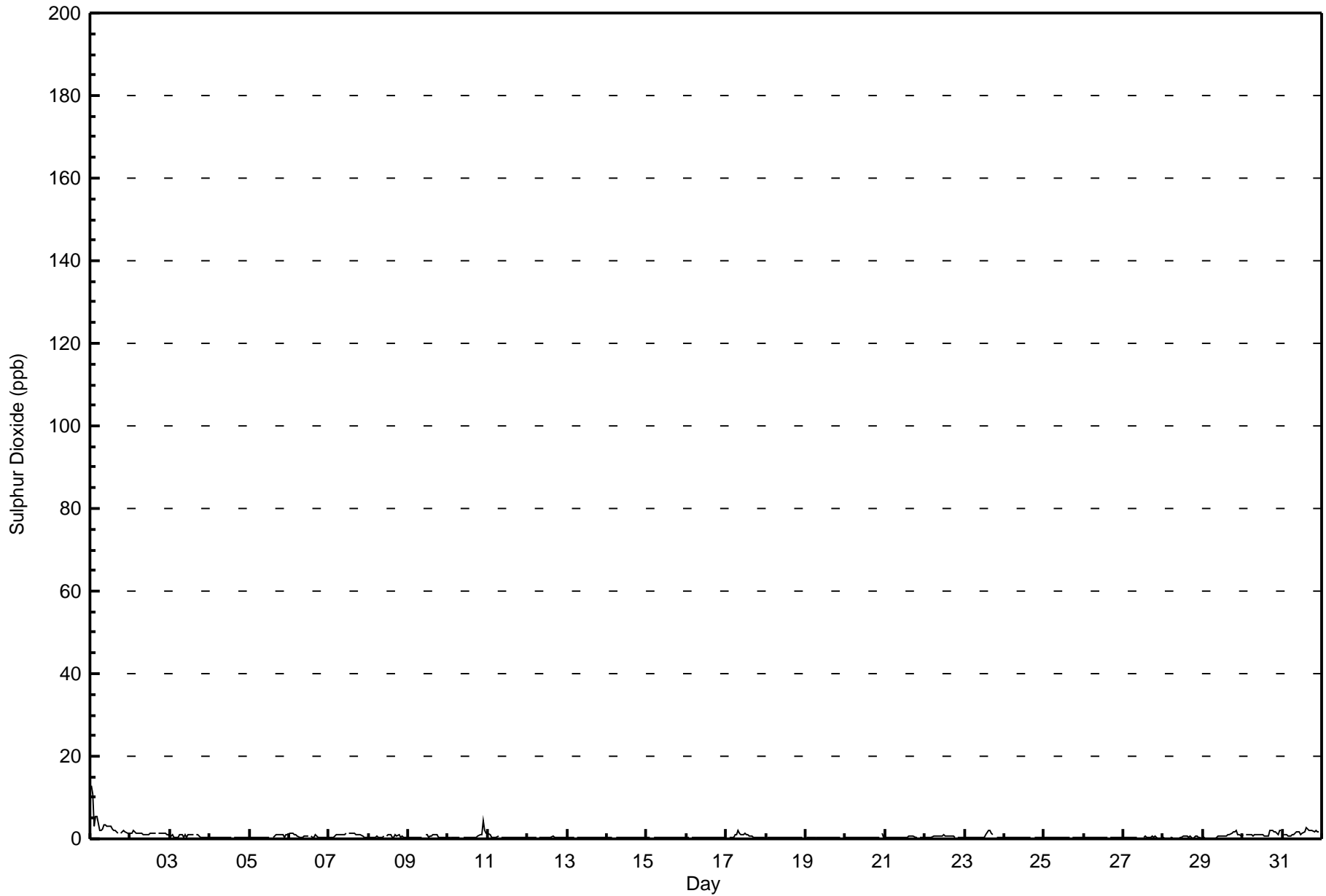
# Hourly Maximums

## Sulphur Dioxide (SO<sub>2</sub>) - ppb Portable-Kinuso - January 2010

Maximum Value: 12.9 ppb on Jan 1 01:00		Maximum Daily Average: 3.3 ppb on Jan 1		Hours in Service: 744																							
Minimum Value: 0 ppb on Jan 28 03:00		Minimum Daily Average: 0.3 ppb on Jan 28		Hours of Data: 709																							
Maximum Diurnal Average: 1.0 ppb at hour 1		Minimum Diurnal Average: 0.5 ppb at hour 24		Hours of Missing Data: 35																							
Monthly Average: 0.67 ppb		Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.3 Q <sub>1</sub> = 0.4 Median = 0.4 Q <sub>3</sub> = 0.8 P <sub>90</sub> = 1.4 P <sub>99</sub> = 3.4		Hours of Calibration: 35																							
				Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jan	13	11	3	5	5	2	2	2	3	3	3	3	3	2	2	2	1	A	1	2	2	2	1	1	3.3	12.9	
2-Jan	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1.3	1.9	
3-Jan	0	1	0	0	0	0	1	1	0	1	0	1	1	1	1	A	1	1	0	0	0	0	0	0	0.7	1.0	
4-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	0.4	0.5	
5-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	1	1	1	1	1	1	0	1	0.6	1.0	
6-Jan	1	1	1	1	1	1	0	0	0	1	1	1	A	1	1	0	1	0	0	0	0	0	0	0	0.7	1.5	
7-Jan	0	0	0	0	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0	0	0.9	1.4	
8-Jan	0	0	0	0	0	1	0	0	0	0	A	1	1	1	0	0	1	1	1	1	0	1	0	0	0.5	0.9	
9-Jan	0	0	0	0	0	0	0	0	0	0	A	1	1	0	1	1	1	1	1	0	0	0	0	0	0.5	0.9	
10-Jan	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	1	1	1	4	2	1	0.8	4.5	
11-Jan	1	1	0	0	0	0	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	1.4	
12-Jan	0	0	0	0	0	0	A	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.5	0.6	
13-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	0.5	0.5	
14-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.4	
15-Jan	0	0	0	A	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.4	0.5	
16-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	0.4	0.4	
17-Jan	0	A	0	0	0	1	1	2	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0.7	1.9	
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	0.5	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	0.4	0.5	
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	1	0.5	1.4	
21-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0	A	0	0	0	0.4	0.8	
22-Jan	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	A	0	0	0	0	0.6	1.2	
23-Jan	0	0	0	0	0	0	0	0	0	0	0	0	1	2	2	1	1	A	0	0	0	0	0	0	0.6	1.9	
24-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.3	0.4	
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	0.3	0.4	
26-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	0.3	
27-Jan	0	0	0	0	0	0	0	0	0	0	C	C	C	0	1	1	0	0	1	0	1	0	0	0	0.3	0.5	
28-Jan	0	0	0	A	0	0	0	0	0	0	0	0	1	1	1	0	1	0	0	1	1	0	0	0	0.3	0.5	
29-Jan	1	0	A	0	0	0	0	0	0	1	1	1	1	1	1	1	1	2	2	2	2	1	1	1	0.7	2.0	
30-Jan	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	1	2	1.2	2.1	
31-Jan	A	1	1	1	1	1	1	1	2	2	2	1	1	2	3	3	2	2	2	2	2	2	2	A	1.5	2.5	
		1.0	0.9	0.6	0.6	0.6	0.5	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.5	Diurnal Average		
		12.9	10.9	2.9	5.4	5.4	1.9	1.9	2.4	3.4	3.4	2.9	2.9	2.9	2.4	2.5	2.5	2.0	2.0	2.0	1.8	2.0	4.5	2.1	2.0	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

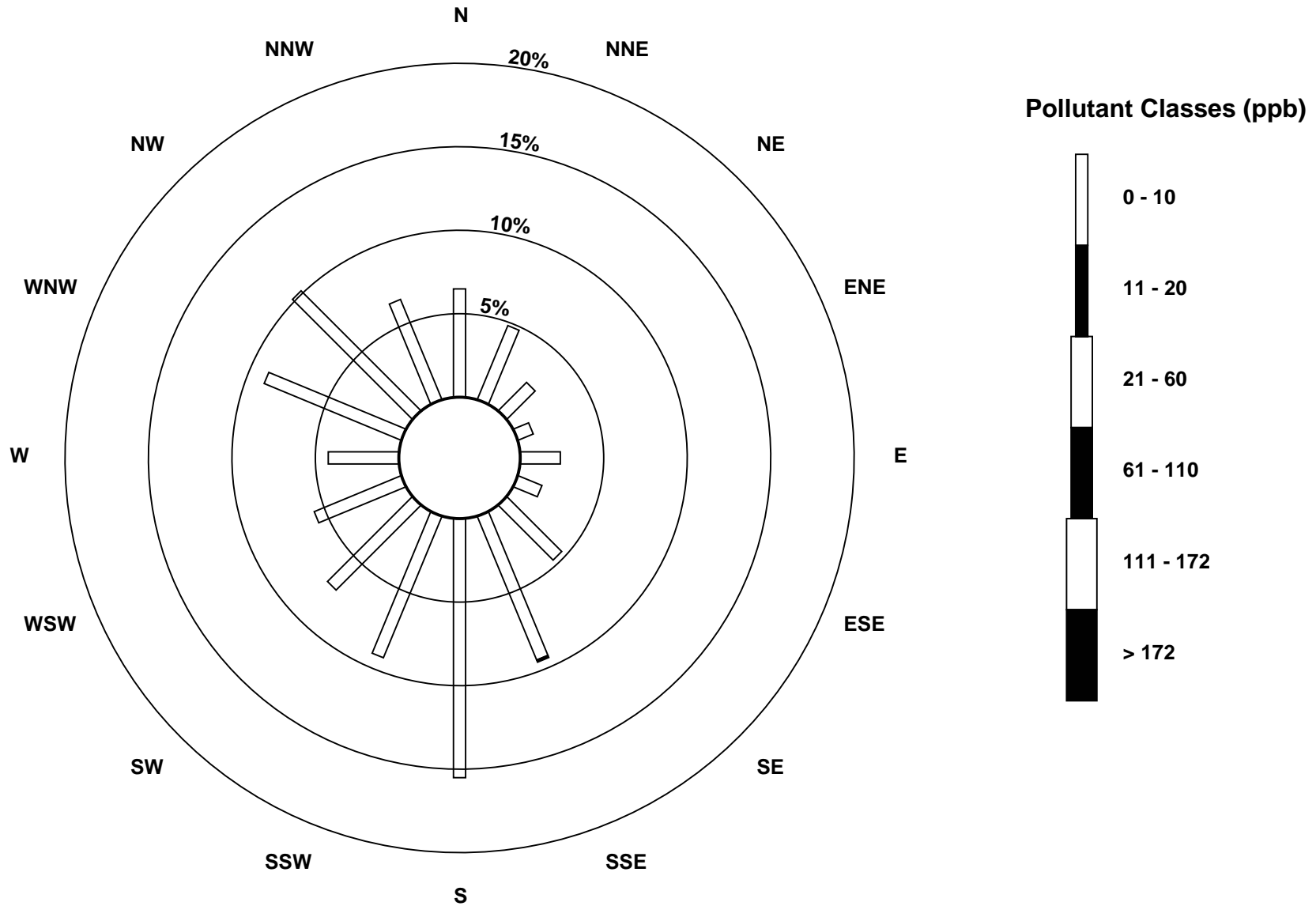


# Hourly Maximums for SO<sub>2</sub> at Portable-Kinuso January 2010



# Pollutant Rose

Sulphur Dioxide (SO<sub>2</sub>) - ppb  
Portable-Kinuso - January 2010



# Hourly Averages

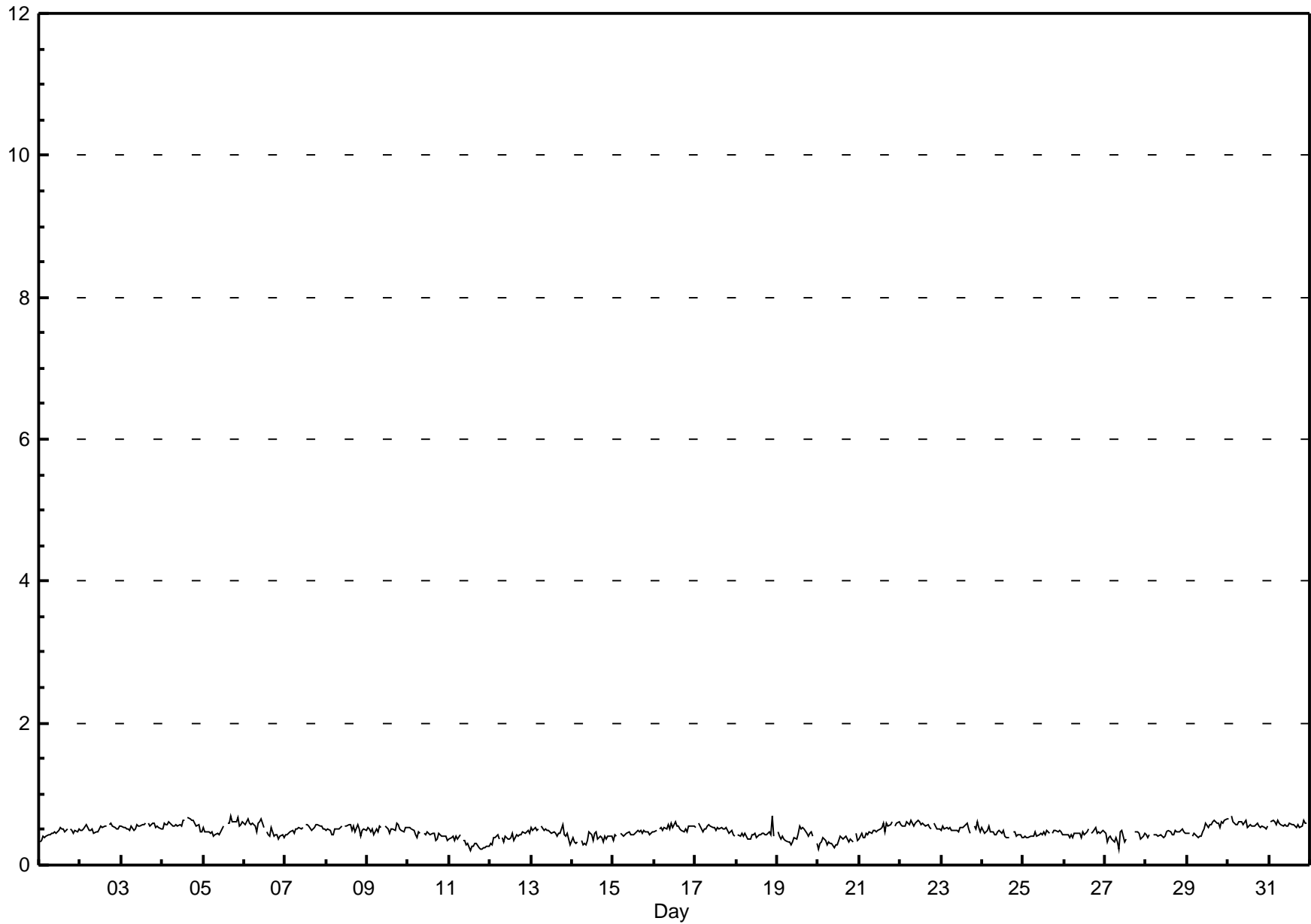
## Total Reduced Sulphur (TRS) - ppb

### Portable-Kinuso - January 2010

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 0.7 ppb on Jan 5 17:00	Maximum Daily Average: 0.6 ppb on Jan 31		Hours of Data:	708
Minimum Value: 0 ppb on Jan 11 13:00	Minimum Daily Average: 0.3 ppb on Jan 11		Hours of Missing Data:	36
Maximum Diurnal Average: 0.5 ppb at hour 14	Minimum Diurnal Average: 0.5 ppb at hour 2		Hours of Calibration:	36
Monthly Average: 0.48 ppb	Percentiles: P <sub>1</sub> = 0.2 P <sub>10</sub> = 0.4 Q <sub>1</sub> = 0.4 Median = 0.5 Q <sub>3</sub> = 0.5 P <sub>90</sub> = 0.6 P <sub>99</sub> = 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	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	1	A	1	0	0	0	0	0	0.5	0.5
2-Jan	0	0	1	1	1	0	0	0	0	0	0	1	1	1	1	1	A	1	1	1	1	1	1	1	0.5	0.6
3-Jan	1	1	1	1	1	0	1	0	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0.5	0.6
4-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0	0.6	0.7
5-Jan	1	0	0	0	0	0	0	0	0	0	0	1	1	A	1	1	1	1	1	1	1	1	1	1	0.5	0.7
6-Jan	1	1	1	1	1	1	1	0	1	1	1	1	A	0	0	0	1	0	0	0	0	0	0	0	0.5	0.6
7-Jan	0	0	0	0	0	0	1	1	1	1	1	1	A	1	1	1	0	1	1	1	1	1	1	0	0.5	0.6
8-Jan	0	1	0	0	0	1	0	1	1	1	1	1	A	1	1	0	1	0	1	1	0	0	1	0	0.5	0.6
9-Jan	1	1	0	1	0	1	0	1	1	A	1	1	1	0	1	1	0	1	1	1	0	0	1	1	0.5	0.6
10-Jan	1	1	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5
11-Jan	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
12-Jan	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5
13-Jan	1	0	1	0	1	A	1	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.5	0.6
14-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5
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	1	0	1	1	1	1	1	1	1	1	1	1	0	0	1	0	1	1	1	1	0.5	0.6
17-Jan	1	A	1	1	0	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0	0	0	0	0	0.5	0.6
18-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	A	0.4	0.7
19-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0.4	0.6
20-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.3	0.4
21-Jan	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	1	1	1	1	1	A	1	1	0.5	0.6
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	0.6	0.6
23-Jan	0	1	1	1	1	1	0	0	0	0	0	1	1	1	1	1	1	0	A	1	1	1	1	0	0.5	0.6
24-Jan	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.5	0.5
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	0.4	0.5
26-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	0	0	1	0	0	0	0	0	0.4	0.5
27-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	C	C	C	C	0	0	0	0	0	0	0.4	0.5
28-Jan	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.4	0.5
29-Jan	0	0	A	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.5	0.7
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	0.6	0.7
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	0.6	0.6

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

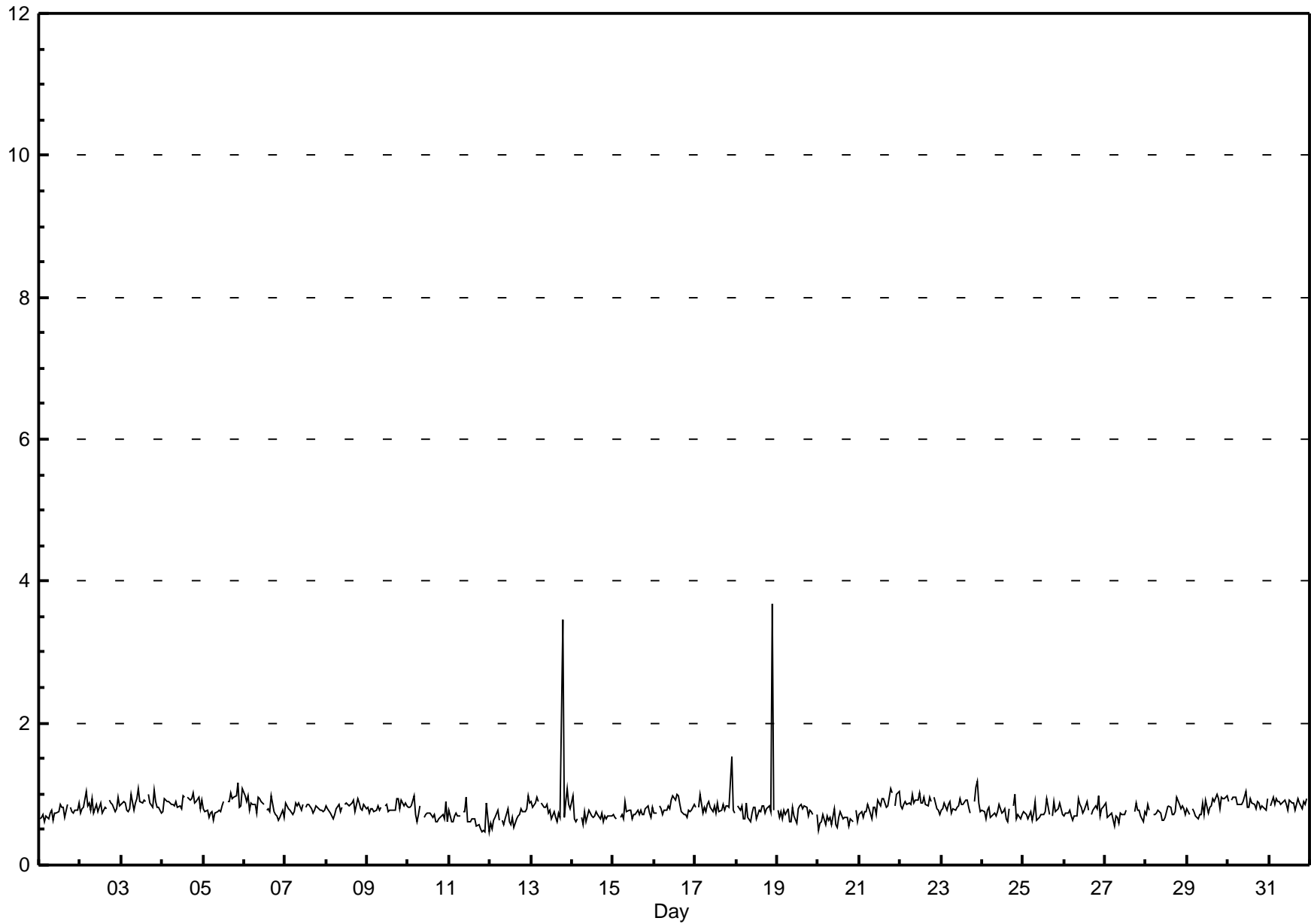


# Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

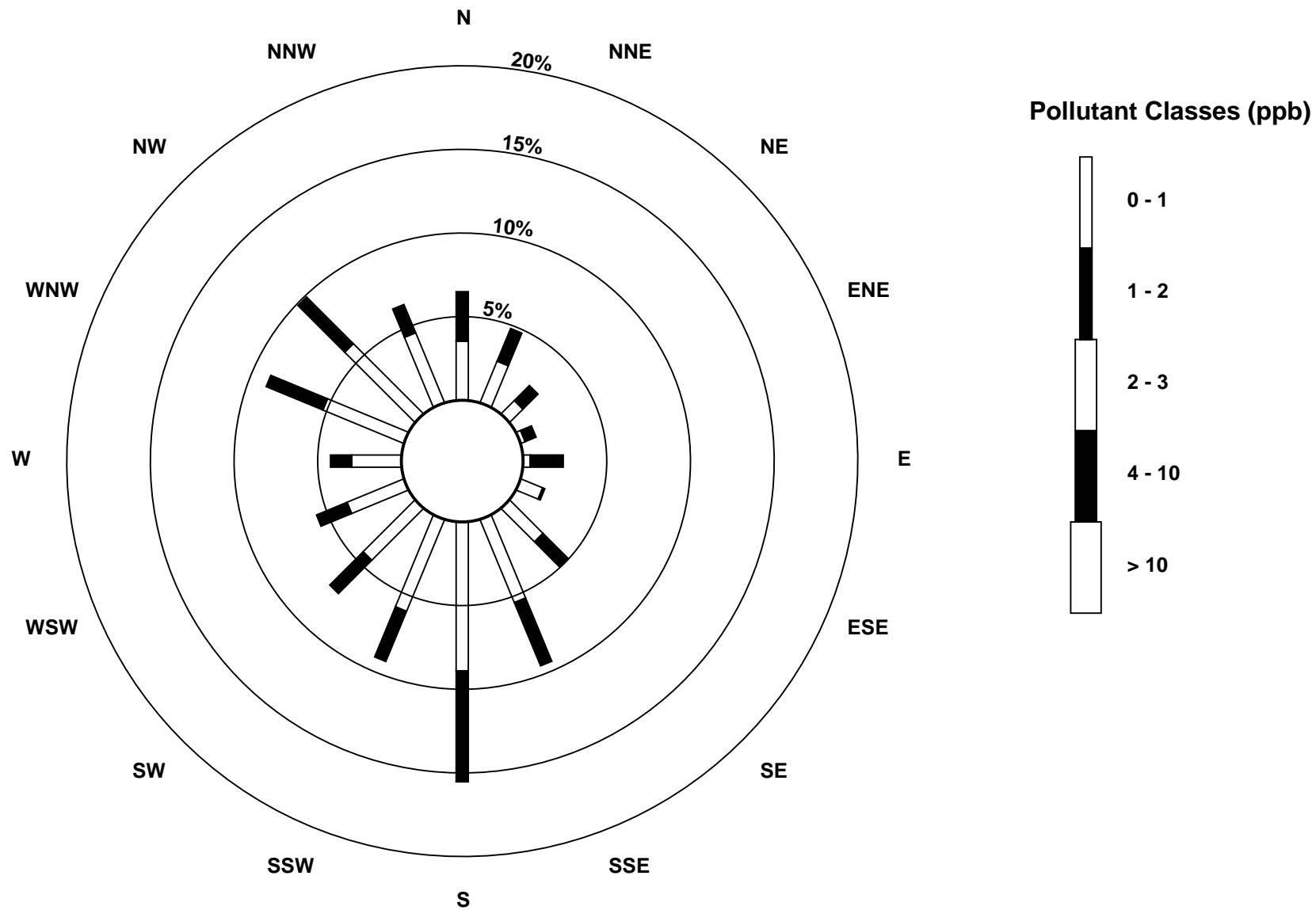
Portable-Kinuso - January 2010

Maximum Value: 3.7 ppb on Jan 18 22:00		Maximum Daily Average: 0.9 ppb on Jan 13		Hours in Service: 744																							
Minimum Value: 0 ppb on Jan 12 00:00		Minimum Daily Average: 0.6 ppb on Jan 20		Hours of Data: 708																							
Maximum Diurnal Average: 0.9 ppb at hour 22		Minimum Diurnal Average: 0.7 ppb at hour 6		Hours of Missing Data: 36																							
Monthly Average: 0.80 ppb		Percentiles: P <sub>1</sub> = 0.5 P <sub>10</sub> = 0.6 Q <sub>1</sub> = 0.7 Median = 0.8 Q <sub>3</sub> = 0.9 P <sub>90</sub> = 0.9 P <sub>99</sub> = 1.1		Hours of Calibration: 36																							
				Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0.7	0.9	
2-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	
3-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	1.1	
4-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	0.9	1.0	
5-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	0.8	1.2	
6-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	0.8	1.0	
7-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	0.8	0.9	
8-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	0.8	0.9	
9-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	0.8	0.9	
10-Jan	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0	
11-Jan	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	0	0.6	1.0	
12-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	0.7	1.0	
13-Jan	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	3	1	1	1	1	1	0.9	3.5	
14-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	1.0	
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	0.7	0.9	
16-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	
17-Jan	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	0.8	1.5	
18-Jan	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1	A	0.9	3.7	
19-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.7	0.9	
20-Jan	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.6	0.8	
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	1	1	1	1	1	1	1	A	1	1	1	1	0.9	1.0	
23-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.9	1.2	
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	0.7	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	0.7	0.9	
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	0.8	1.0	
27-Jan	1	1	1	1	1	1	1	1	1	1	1	1	C	C	C	C	1	1	1	1	1	1	1	1	0.7	0.9	
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	0.8	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	0.8	1.0	
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	0.9	1.0	
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	0.9	1.0	
		0.8	0.8	0.8	0.8	0.8	0.7	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	0.8	0.8	0.9	0.8	0.8	Diurnal Average	
		1.0	0.9	1.0	1.0	1.0	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.9	1.0	1.0	3.5	1.1	1.2	3.7	1.0	1.1	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									



# Pollutant Rose

Total Reduced Sulphur (TRS) - ppb  
Portable-Kinuso - January 2010



# Hourly Averages

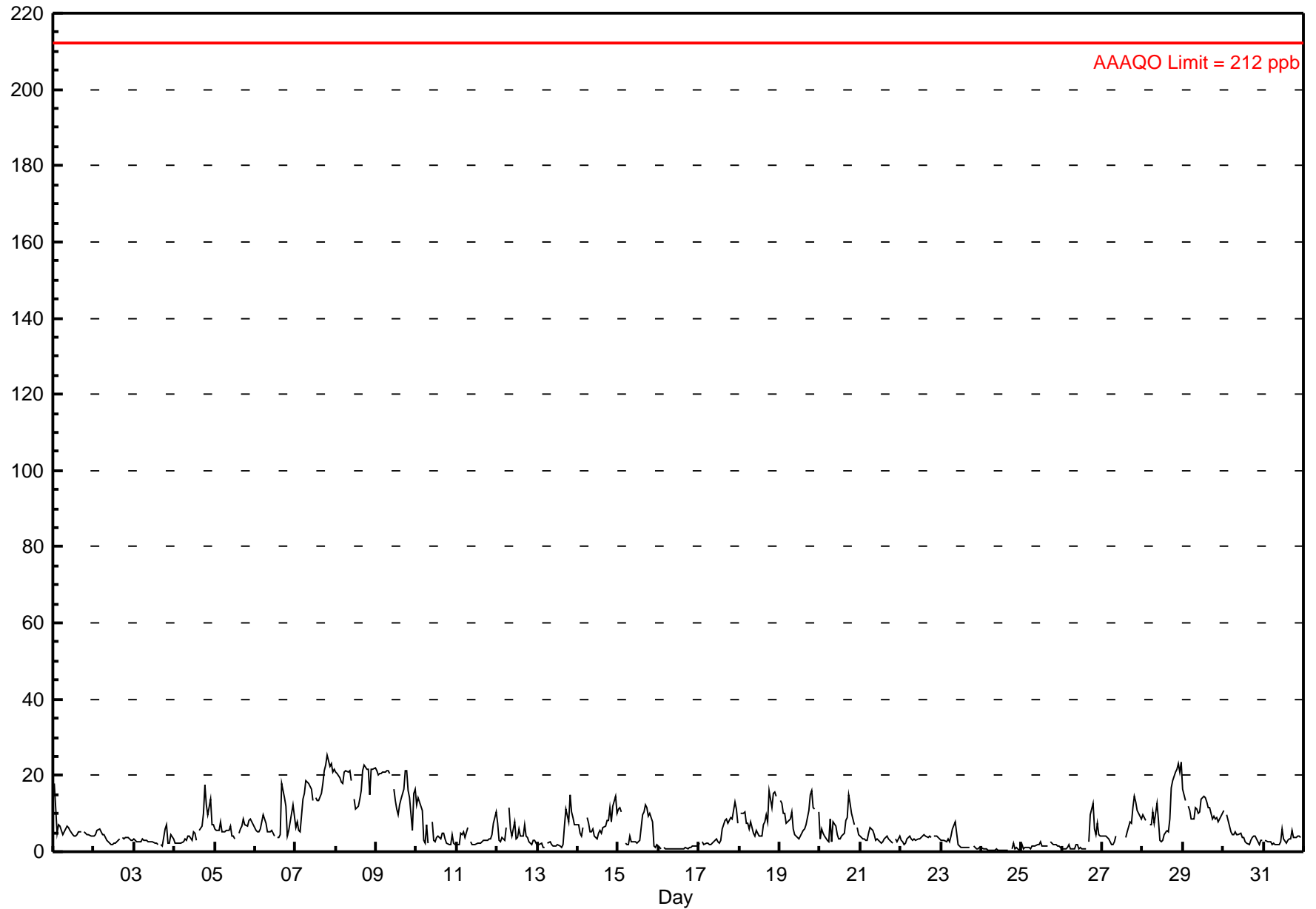
## Nitrogen Dioxide (NO<sub>2</sub>) - ppb Portable-Kinuso - January 2010

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 25.3 ppb on Jan 7 20:00	Maximum Daily Average: 18.9 ppb on Jan 8		Hours of Data:	707
Minimum Value: 0 ppb on Jan 24 15:00	Minimum Daily Average: 0.6 ppb on Jan 24		Hours of Missing Data:	37
Maximum Diurnal Average: 9.1 ppb at hour 19	Minimum Diurnal Average: 4.0 ppb at hour 12		Hours of Calibration:	37
Monthly Average: 6.28 ppb	Percentiles: P <sub>1</sub> = 0.4 P <sub>10</sub> = 1.2 Q <sub>1</sub> = 2.5 Median = 4.2 Q <sub>3</sub> = 8.5 P <sub>90</sub> = 14.4 P <sub>99</sub> = 22.4		Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
1-Jan	18	12	5	7	7	4	5	6	7	6	5	4	4	4	4	5	5	A	5	5	4	4	4	4	5.9	17.8		
2-Jan	4	5	5	6	5	5	4	4	3	2	2	2	2	3	3	A	A	4	3	4	4	3	3	3	3.5	6.1		
3-Jan	3	3	3	2	3	3	3	3	3	2	3	3	2	2	2	A	A	2	2	6	7	2	2	4	3	2.9	7.2	
4-Jan	2	2	2	2	2	3	3	3	4	4	3	5	5	3	A	A	5	7	10	17	12	10	14	7	7	5.8	17.4	
5-Jan	6	6	6	8	5	5	5	6	6	7	4	4	3	A	A	5	6	7	9	7	7	8	9	8	7	6.2	8.7	
6-Jan	6	5	5	6	8	10	8	5	5	5	6	4	A	A	4	4	4	18	14	12	4	6	8	12	9	7.3	17.8	
7-Jan	6	8	6	5	14	15	18	18	18	16	14	A	A	14	14	13	15	18	21	23	25	23	23	21	22	16.1	25.3	
8-Jan	21	21	19	18	18	21	21	21	21	21	19	A	A	14	11	12	14	16	21	23	22	15	21	22	22	18.9	22.8	
9-Jan	21	20	21	20	21	21	21	21	21	21	A	A	16	13	11	10	12	14	16	21	21	16	14	6	15	17	17.0	21.3
10-Jan	12	14	13	11	3	2	7	2	A	A	8	3	3	4	4	3	5	5	4	2	2	2	4	2	2	5.1	14.0	
11-Jan	2	2	5	5	5	4	6	A	A	3	2	2	2	2	2	3	3	3	3	3	3	3	4	8	11	3.7	10.6	
12-Jan	7	3	3	4	3	6	A	A	12	6	4	8	4	4	6	4	4	7	4	4	3	2	3	3	2	4.5	11.7	
13-Jan	2	2	2	1	1	A	A	2	3	2	2	1	2	2	1	1	2	7	11	8	15	10	9	7	7	4.3	14.8	
14-Jan	7	5	4	6	A	A	9	7	5	5	6	4	3	5	6	5	6	7	8	8	11	8	12	15	10	7.1	14.7	
15-Jan	11	11	10	A	A	2	2	2	4	3	3	3	2	3	3	10	10	12	12	9	10	8	1	1	2	5.9	12.3	
16-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	1	0.9	1.5	
17-Jan	2	A	3	2	2	2	2	2	2	2	4	3	2	3	6	8	9	7	8	9	9	9	13	11	7	5.1	12.9	
18-Jan	A	10	10	10	7	8	6	8	5	4	6	5	4	4	7	8	10	8	16	12	15	16	14	A	A	8.8	16.2	
19-Jan	13	13	10	10	8	8	9	10	6	4	4	3	4	5	5	6	7	11	15	16	12	11	A	A	10	8.7	16.1	
20-Jan	3	6	5	4	3	3	9	3	8	7	4	3	3	4	5	8	9	15	13	10	7	A	A	6	4	6.2	14.8	
21-Jan	4	3	3	3	3	5	6	6	4	3	3	3	2	3	3	4	4	3	3	2	A	A	3	3	4	3.5	6.2	
22-Jan	3	2	2	2	3	4	3	3	3	3	3	3	4	4	4	4	4	4	4	4	A	A	4	4	4	3	3.4	4.4
23-Jan	3	3	3	3	3	3	4	6	8	5	2	1	1	1	1	1	1	1	A	A	1	1	1	1	1	2.4	7.7	
24-Jan	1	1	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	A	A	1	2	1	1	0	1	0.6	2.1
25-Jan	2	1	1	1	1	1	1	2	1	2	2	3	2	2	1	2	A	A	3	2	2	2	1	1	1	1.6	2.6	
26-Jan	1	1	1	1	2	1	1	1	2	2	1	1	1	1	1	A	A	3	10	13	6	5	7	5	4	2.9	12.6	
27-Jan	4	4	4	4	4	2	2	3	4	C	C	C	C	C	4	5	8	7	12	14	13	11	9	9	9	6.4	14.5	
28-Jan	10	9	8	A	7	7	10	7	13	8	3	3	3	4	6	5	9	17	19	21	22	23	21	24	11.2	23.7		
29-Jan	16	14	A	12	11	9	9	12	11	10	11	14	14	14	13	12	11	9	9	8	9	8	9	10	10	11.0	16.3	
30-Jan	11	A	10	8	5	4	4	5	4	4	5	4	4	3	2	2	3	4	4	4	4	3	2	3	3	4.4	10.9	
31-Jan	A	3	3	3	3	2	2	2	2	2	2	6	3	2	3	3	4	6	4	4	4	4	4	4	A	3.2	5.8	
	7.0	6.5	5.9	5.7	5.3	5.6	6.1	6.1	6.0	5.0	4.3	4.0	4.2	4.3	4.8	5.8	7.5	8.6	9.1	8.6	7.5	7.7	7.5	7.3		Diurnal Average		
	21.2	20.7	20.6	20.4	20.8	21.0	21.3	21.2	21.2	18.7	16.3	13.7	14.4	14.2	13.8	16.1	21.3	22.8	22.8	25.3	22.5	23.2	21.7	23.7		Diurnal Maximum		

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





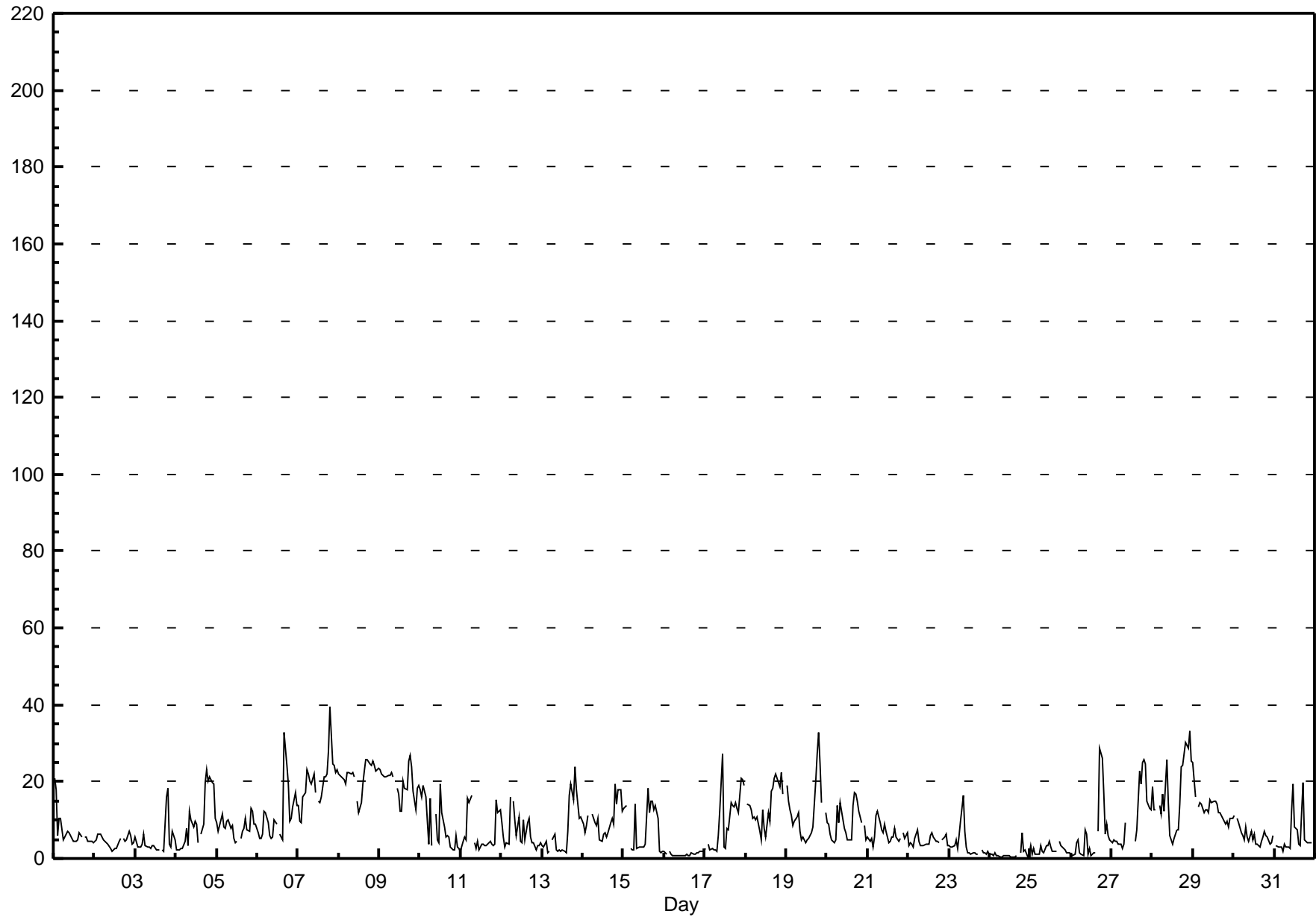
# Hourly Maximums

## Nitrogen Dioxide (NO<sub>2</sub>) - ppb Portable-Kinuso - January 2010

Maximum Value: 39.6 ppb on Jan 7 20:00		Maximum Daily Average: 21.5 ppb on Jan 8		Hours in Service: 744																							
Minimum Value: 0 ppb on Jan 24 13:00		Minimum Daily Average: 1.1 ppb on Jan 24		Hours of Data: 707																							
Maximum Diurnal Average: 13.6 ppb at hour 20		Minimum Diurnal Average: 5.7 ppb at hour 13		Hours of Missing Data: 37																							
Monthly Average: 8.93 ppb		Percentiles: P <sub>1</sub> = 0.6 P <sub>10</sub> = 1.8 Q <sub>1</sub> = 3.4 Median = 6.2 Q <sub>3</sub> = 13.1 P <sub>90</sub> = 20.4 P <sub>99</sub> = 28.6		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	21	18	6	11	11	5	6	7	7	7	6	5	4	4	5	7	6	A	6	6	5	4	4	4	7.0	20.7	
2-Jan	4	5	6	6	6	5	5	4	4	3	2	2	2	3	5	5	A	5	4	5	7	6	4	4	4.4	6.9	
3-Jan	6	3	3	3	4	6	3	3	3	3	3	3	2	2	2	A	2	2	16	18	4	3	7	5	4.6	18.4	
4-Jan	2	2	2	3	3	5	8	3	12	10	8	10	9	4	A	6	9	20	23	20	21	20	19	10	10.0	23.2	
5-Jan	9	7	10	12	8	8	10	10	8	9	5	4	4	A	5	7	8	10	7	7	13	12	9	9	8.4	12.9	
6-Jan	7	5	5	6	12	12	9	6	5	6	10	9	A	6	6	5	33	24	19	10	11	13	17	14	10.9	32.7	
7-Jan	14	10	9	16	17	23	22	20	20	22	17	A	15	14	16	21	21	22	28	40	25	24	22	23	20.1	39.6	
8-Jan	22	22	21	20	19	22	22	22	22	21	A	15	12	14	19	23	26	26	25	24	26	24	23	24	21.5	25.6	
9-Jan	23	22	21	21	21	22	22	22	22	21	A	18	17	12	12	20	18	18	26	27	24	18	13	18	19	19.8	26.7
10-Jan	18	16	19	16	10	4	16	3	A	12	5	4	19	12	8	6	6	6	3	2	2	6	3	2	8.6	19.5	
11-Jan	2	5	5	5	16	15	17	A	4	2	5	2	4	4	3	3	4	4	4	4	4	15	12	13	6.6	16.5	
12-Jan	9	6	3	4	4	16	A	15	10	6	11	4	4	10	5	9	10	6	4	4	2	3	3	4	6.7	15.9	
13-Jan	3	3	5	1	2	A	5	6	2	2	2	2	2	2	1	7	16	19	15	24	18	14	11	11	7.6	23.8	
14-Jan	9	7	9	11	A	12	11	9	9	11	5	4	6	7	6	7	9	10	9	20	14	18	18	12	10.1	19.5	
15-Jan	13	14	14	A	3	2	2	14	3	3	3	3	3	4	18	12	15	15	13	14	10	2	2	2	7.9	18.3	
16-Jan	2	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	1.2	2.0	
17-Jan	3	A	4	2	2	2	2	2	6	12	27	3	3	8	8	15	14	13	15	13	12	21	20	19	9.8	27.2	
18-Jan	A	14	14	13	11	11	10	11	7	5	13	8	6	12	10	18	18	21	22	20	19	22	17	A	13.6	22.2	
19-Jan	19	15	13	11	8	10	11	12	7	5	6	4	5	5	6	7	8	20	27	33	25	14	A	12	12.3	32.6	
20-Jan	9	9	6	5	4	5	14	10	15	10	8	7	5	5	5	14	17	17	15	12	9	A	9	5	9.2	17.0	
21-Jan	6	5	5	3	6	11	12	9	8	7	9	7	4	4	6	6	8	6	4	5	A	7	5	7	6.5	12.3	
22-Jan	4	4	4	3	5	7	4	3	3	3	4	4	4	6	7	6	4	4	4	A	5	5	6	4	4.5	7.4	
23-Jan	3	3	3	3	5	3	6	10	16	7	3	1	1	1	1	1	1	1	A	2	1	2	1	2	3.5	16.3	
24-Jan	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	A	1	7	2	2	1	1	1.1	6.6	
25-Jan	3	1	3	1	1	1	3	2	2	3	3	5	3	2	2	2	A	4	3	3	2	2	2	1	2.4	4.6	
26-Jan	1	1	1	4	5	1	1	1	7	6	1	3	1	2	2	A	7	29	26	17	6	9	6	5	6.1	28.6	
27-Jan	4	5	5	4	4	4	3	4	9	C	C	C	C	C	4	7	23	19	25	26	25	15	13	13	11.1	25.7	
28-Jan	19	13	13	A	14	12	17	12	26	15	6	5	4	5	8	7	14	24	24	30	29	29	33	25	16.7	33.0	
29-Jan	25	16	A	14	15	14	12	13	13	12	15	15	15	15	14	12	12	10	10	9	10	8	10	11	13.0	25.1	
30-Jan	11	A	10	9	7	6	5	8	6	5	7	5	6	4	4	3	4	6	7	6	5	4	4	6	6.0	11.4	
31-Jan	A	3	3	3	3	2	4	3	3	3	12	19	8	7	4	3	12	20	5	4	4	4	4	A	6.1	19.8	
		9.4	8.1	7.7	7.4	7.5	8.2	8.7	8.2	8.6	7.2	7.5	5.9	5.7	6.1	6.6	8.2	11.3	13.5	13.1	13.6	11.1	10.8	10.2	9.3	Diurnal Average	
		25.1	21.9	21.5	21.2	21.4	23.0	22.3	22.2	25.8	22.1	27.2	19.3	19.5	14.8	20.0	22.6	32.7	28.6	27.9	39.6	29.3	28.8	33.0	25.5	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

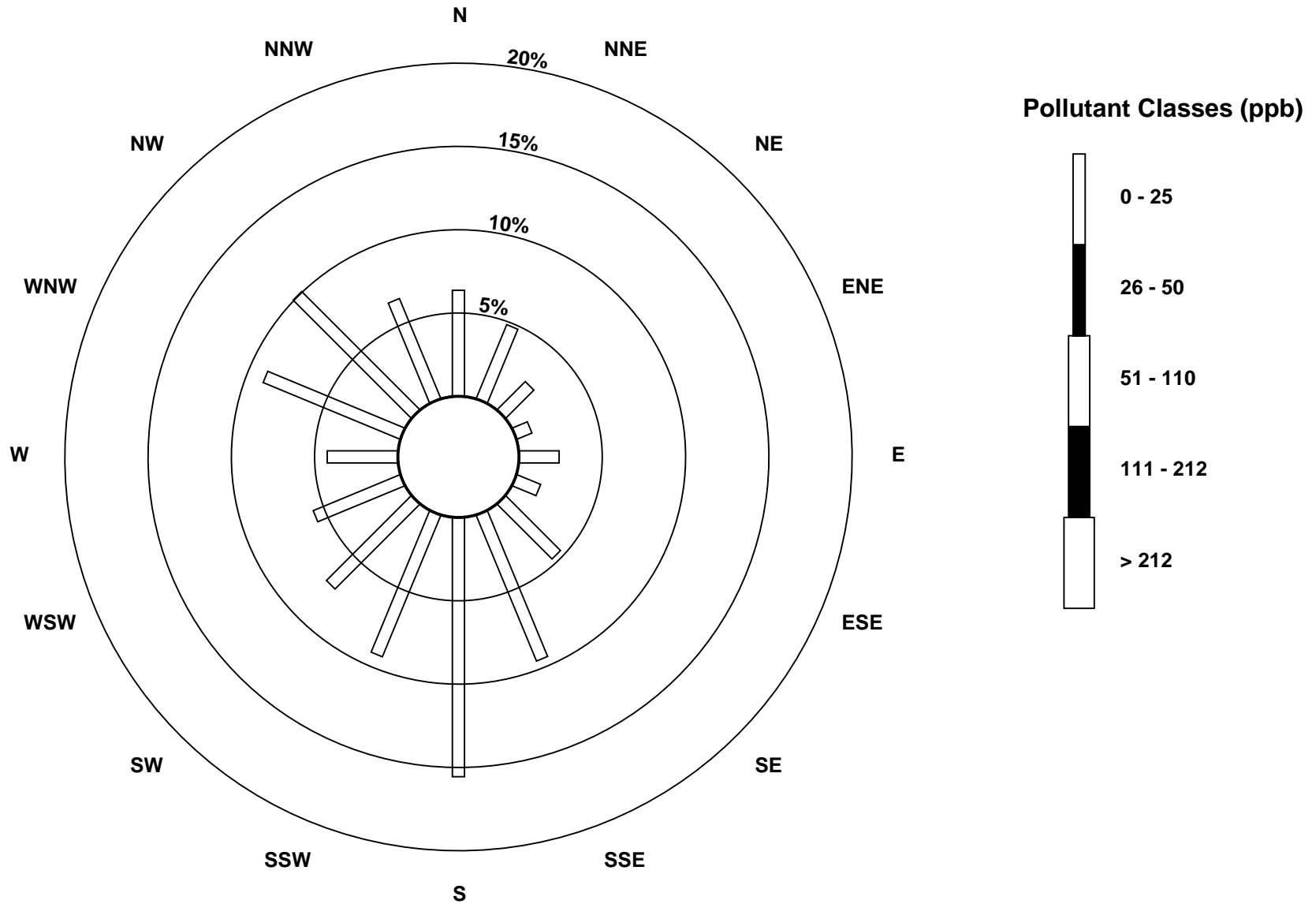
# Hourly Maximums

Nitrogen Dioxide (NO<sub>2</sub>) - ppb  
Portable-Kinuso - January 2010



# Pollutant Rose

Nitrogen Dioxide (NO<sub>2</sub>) - ppb  
Portable-Kinuso - January 2010



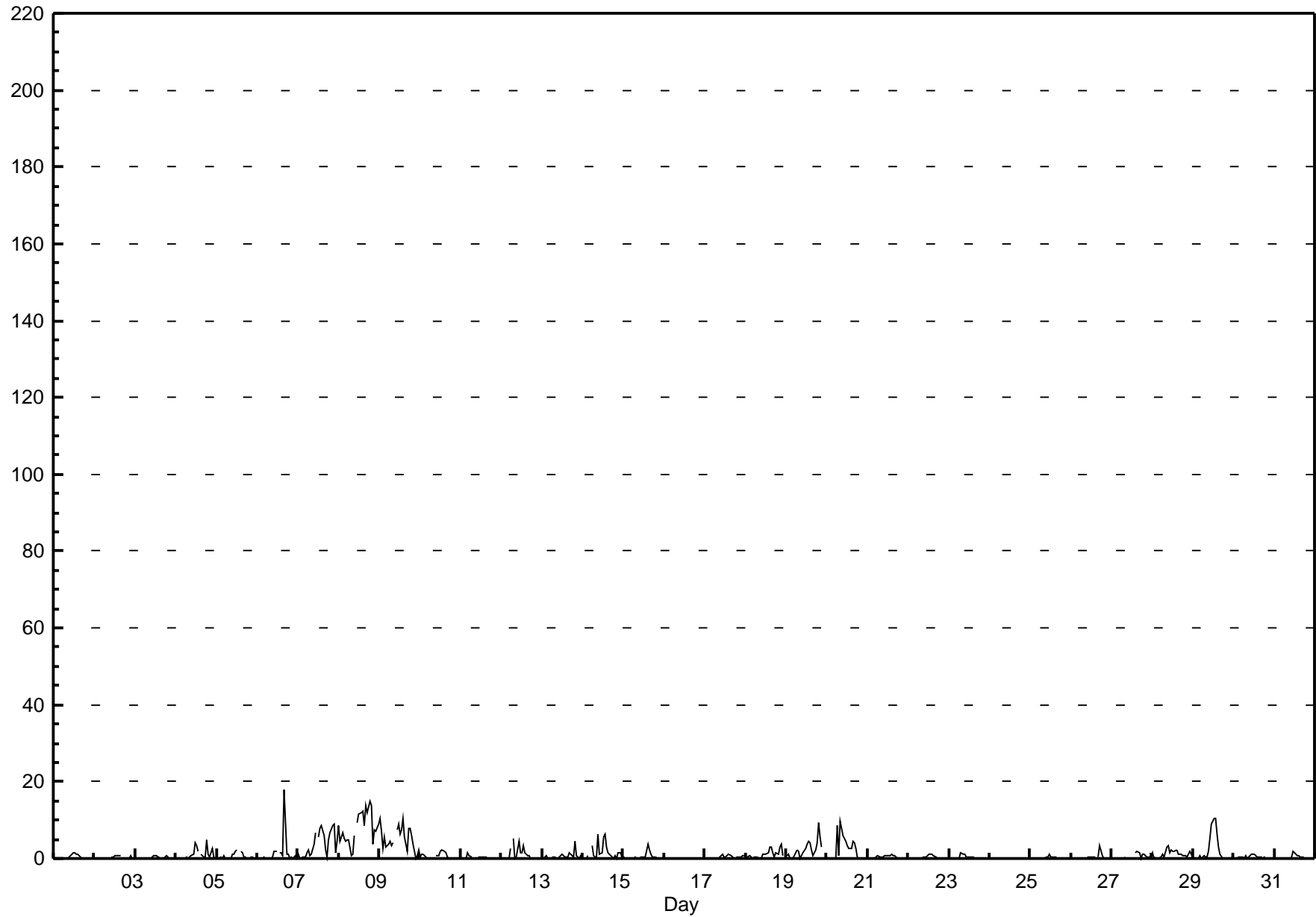
# Hourly Averages

## Nitrogen Oxide (NO) - ppb Portable-Kinuso - January 2010

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 18.1 ppb on Jan 6 17:00	Maximum Daily Average: 7.9 ppb on Jan 8		Hours of Data:	707
Minimum Value: 0 ppb on Jan 1 02:00	Minimum Daily Average: 0.0 ppb on Jan 24		Hours of Missing Data:	37
Maximum Diurnal Average: 2.5 ppb at hour 14	Minimum Diurnal Average: 0.4 ppb at hour 5		Hours of Calibration:	37
Monthly Average: 1.20 ppb	Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.0 Median = 0.2 Q <sub>3</sub> = 1.1 P <sub>90</sub> = 3.9 P <sub>99</sub> = 11.8		Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jan	0	0	0	0	0	0	0	0	0	0	1	2	2	1	1	1	0	A	0	0	0	0	0	0	0.3	1.6	
2-Jan	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	A	0	0	0	0	1	0	0	0.2	0.7	
3-Jan	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	A	0	0	1	0	0	0	0	0	0.2	0.9	
4-Jan	0	0	0	0	0	0	0	0	0	1	1	4	4	2	A	1	0	1	5	1	0	2	0	0	1.0	4.7	
5-Jan	0	0	0	0	1	0	0	0	0	1	1	2	2	A	2	2	0	0	0	0	0	1	0	0	0.5	2.1	
6-Jan	0	0	0	0	0	0	0	0	0	0	2	2	A	1	1	1	18	1	1	0	0	0	1	0	1.3	18.1	
7-Jan	1	0	0	0	0	2	2	1	1	4	7	A	6	8	9	6	2	0	5	7	9	9	2	5	3.7	9.1	
8-Jan	9	4	7	5	4	5	5	1	1	6	A	9	12	12	12	9	14	12	15	14	4	8	7	9	7.9	15.0	
9-Jan	11	7	3	5	3	4	4	4	4	A	6	8	9	6	8	11	6	2	8	8	6	4	0	1	2	5.3	10.6
10-Jan	0	1	1	1	0	0	0	0	A	1	1	1	2	2	2	2	0	0	0	0	0	0	0	0	0.6	2.1	
11-Jan	0	0	0	0	2	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.6	
12-Jan	0	0	0	0	0	2	A	5	0	0	5	1	2	3	2	1	1	0	0	0	0	0	0	0	1.0	5.4	
13-Jan	0	0	1	0	0	A	0	0	0	0	0	1	1	0	0	0	2	1	0	5	1	0	0	1	0.7	4.6	
14-Jan	0	0	0	1	A	3	1	0	0	6	1	1	6	6	3	2	1	0	0	1	0	1	2	0	1.6	6.4	
15-Jan	0	0	0	A	0	0	0	0	0	0	0	0	1	0	4	2	1	1	0	0	0	0	0	0	0.5	3.9	
16-Jan	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2	
17-Jan	0	A	0	0	0	0	0	0	0	0	1	1	0	1	1	1	0	0	0	0	0	0	1	1	0.3	1.0	
18-Jan	A	0	1	0	0	1	1	0	0	0	1	1	1	2	3	3	1	1	2	1	3	4	1	A	1.2	3.9	
19-Jan	1	1	0	0	0	1	2	2	0	1	1	3	4	4	4	2	1	2	4	9	5	3	A	1	2.3	9.2	
20-Jan	0	0	0	0	0	0	9	1	10	6	5	5	3	3	2	5	4	3	0	0	0	A	0	0	2.4	9.8	
21-Jan	0	0	0	0	0	0	1	0	0	0	1	1	1	1	1	1	1	0	0	0	A	0	0	0	0.4	1.0	
22-Jan	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	A	0	0	0	0	0.3	1.1	
23-Jan	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.2	1.4	
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	0.0	0.0	
25-Jan	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	A	0	0	0	0	0	0	0	0.2	1.2	
26-Jan	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	A	0	3	1	0	0	0	0	0	0.3	3.2	
27-Jan	0	0	0	0	0	0	0	0	0	0	C	C	C	C	C	2	2	2	0	1	1	1	0	0	0.5	1.7	
28-Jan	2	0	0	A	1	0	1	0	3	3	2	2	2	2	2	1	1	1	1	1	0	1	2	1	1.3	3.3	
29-Jan	0	0	A	0	1	0	1	0	0	2	5	9	10	11	6	3	1	0	0	0	0	0	0	0	2.2	10.5	
30-Jan	0	A	0	0	0	0	0	1	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0.4	1.3	
31-Jan	A	0	0	0	0	0	0	0	0	0	1	2	1	1	1	0	1	1	0	0	0	0	0	A	0.3	1.7	
	0.9	0.5	0.5	0.5	0.4	0.7	0.9	0.6	0.7	1.2	1.6	2.1	2.4	2.5	2.4	1.8	1.9	1.2	1.5	1.6	0.9	1.1	0.6	0.7	Diurnal Average		
	10.6	7.1	6.6	5.5	4.3	4.9	8.7	5.4	9.8	6.4	7.5	9.2	11.6	11.9	12.2	8.7	18.1	11.8	15.0	13.6	8.5	9.1	7.2	8.8	Diurnal Maximum		

C - Calibration                      A - Automated Daily Zero Span



# Hourly Maximums

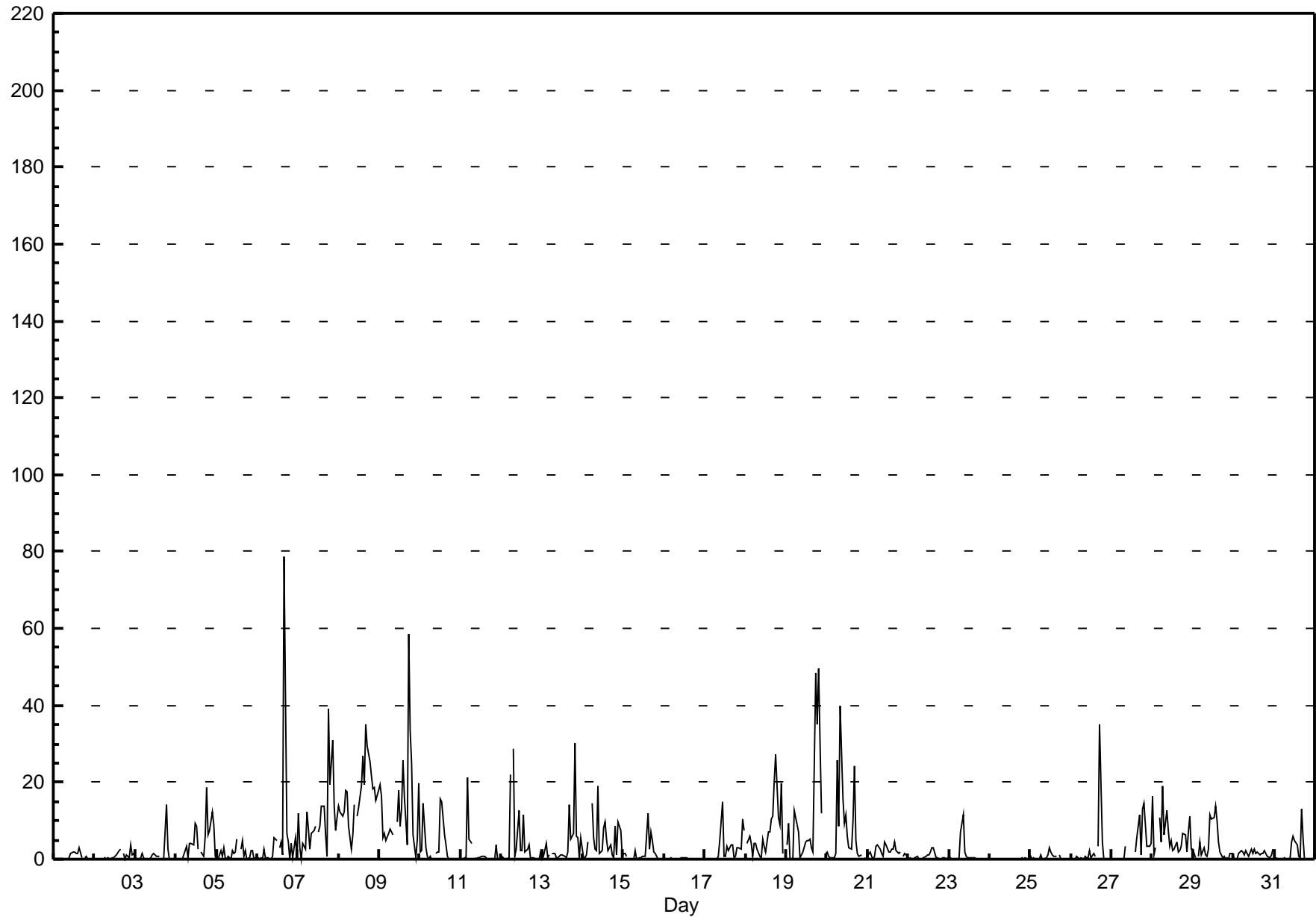
Nitrogen Oxide (NO) - ppb

Portable-Kinuso - January 2010

Maximum Value: 78.6 ppb on Jan 6 17:00		Maximum Daily Average: 16.9 ppb on Jan 8		Hours in Service: 744																							
Minimum Value: 0 ppb on Jan 27 03:00		Minimum Daily Average: 0.1 ppb on Jan 16		Hours of Data: 707																							
Maximum Diurnal Average: 8.3 ppb at hour 18		Minimum Diurnal Average: 1.4 ppb at hour 4		Hours of Missing Data: 37																							
Monthly Average: 4.08 ppb		Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.1 Q <sub>1</sub> = 0.2 Median = 1.1 Q <sub>3</sub> = 4.4 P <sub>90</sub> = 12.3 P <sub>99</sub> = 32.9		Hours of Calibration: 37																							
				Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jan	0	0	0	0	0	0	0	0	0	0	1	2	2	1	2	3	0	A	0	1	0	0	0	0	0.6	2.9	
2-Jan	0	0	0	0	0	0	0	0	0	0	0	1	1	1	2	3	A	1	0	1	0	4	1	2	0.8	3.7	
3-Jan	0	0	0	0	1	0	0	0	0	0	1	1	1	1	1	A	0	0	14	3	0	0	0	0	1.1	14.1	
4-Jan	0	0	0	0	0	2	3	0	4	4	4	9	9	3	A	2	1	6	19	6	7	12	9	1	4.4	18.7	
5-Jan	0	0	2	1	3	0	0	1	0	2	2	2	5	A	3	5	1	2	0	0	2	2	0	0	1.5	5.3	
6-Jan	1	0	0	0	3	0	0	0	0	1	6	5	A	3	5	1	79	7	5	0	4	0	6	0	5.4	78.6	
7-Jan	12	3	0	4	3	12	8	3	7	7	8	A	7	9	14	14	6	1	39	19	31	14	8	11	10.4	39.3	
8-Jan	14	12	11	12	18	18	9	3	6	14	A	11	13	19	27	20	35	29	25	22	18	19	15	18	16.9	35.2	
9-Jan	19	17	5	7	5	7	8	7	6	A	10	18	9	13	26	16	4	58	34	25	6	0	5	20	14.1	58.4	
10-Jan	2	2	14	3	1	0	1	0	A	1	2	2	16	15	6	4	1	0	0	0	0	0	0	0	3.1	15.8	
11-Jan	0	0	0	0	21	5	4	A	0	0	0	0	1	1	1	0	0	0	0	0	0	4	0	0	1.7	21.2	
12-Jan	1	0	0	0	0	22	A	29	1	3	13	2	2	12	2	2	4	0	0	0	0	0	0	2	4.2	28.7	
13-Jan	0	1	4	0	1	A	1	2	0	0	1	1	1	1	1	2	14	5	7	30	6	6	0	6	3.9	30.1	
14-Jan	0	0	1	4	A	15	6	3	2	19	1	2	8	10	5	2	4	1	0	9	1	10	7	1	4.9	18.9	
15-Jan	1	1	1	A	0	0	0	2	0	0	0	1	1	1	12	3	7	5	2	2	0	0	0	0	1.7	11.9	
16-Jan	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4	
17-Jan	0	A	0	0	0	0	0	0	1	5	15	1	1	4	2	4	4	0	1	3	3	3	10	7	2.7	15.1	
18-Jan	A	4	6	4	1	4	4	3	1	0	5	3	2	7	7	11	11	20	27	11	9	20	2	A	7.4	27.4	
19-Jan	4	9	0	0	0	13	9	7	0	1	2	5	5	5	5	3	2	48	35	50	30	12	A	1	10.7	49.6	
20-Jan	2	1	0	0	0	1	26	9	40	16	9	12	6	3	3	10	24	5	1	1	1	A	0	0	7.4	40.0	
21-Jan	1	2	1	0	1	3	4	2	1	1	5	4	2	2	3	2	5	2	1	2	A	1	1	1	2.0	4.6	
22-Jan	0	0	0	0	0	1	0	0	0	0	1	1	1	2	3	3	1	0	0	A	0	0	0	0	0.6	3.1	
23-Jan	0	0	0	0	0	0	0	7	12	2	1	0	0	0	0	0	0	0	A	0	0	0	0	0	1.1	11.5	
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	0.2	0.4	
25-Jan	1	0	0	0	0	0	1	0	0	0	1	3	2	1	1	1	A	1	0	0	0	0	0	0	0.6	2.8	
26-Jan	0	0	0	1	0	0	0	0	1	0	0	2	0	1	1	A	3	35	4	0	0	0	0	0	2.2	34.9	
27-Jan	0	0	0	0	0	0	0	0	3	C	C	C	C	C	2	5	11	1	13	15	9	4	4	4	3.8	14.7	
28-Jan	17	1	3	A	11	4	19	6	13	7	3	5	2	3	5	2	2	3	7	6	2	7	11	2	6.2	19.0	
29-Jan	2	0	A	1	4	1	3	1	1	2	12	10	11	14	10	4	2	0	1	0	0	0	1	2	3.6	13.7	
30-Jan	0	A	0	2	2	2	1	2	1	1	2	2	3	2	2	1	2	1	2	2	1	0	1	3	1.5	2.7	
31-Jan	A	0	0	0	0	0	0	0	0	0	4	6	5	4	1	0	13	5	0	0	0	0	0	A	1.8	12.9	
		2.7	1.9	1.8	1.4	2.5	3.7	3.6	2.9	3.4	3.1	3.8	3.8	4.0	4.7	4.9	4.3	8.1	8.3	8.0	6.9	4.5	3.9	2.8	2.8	Diurnal Average	
		19.2	16.5	14.4	12.4	21.2	22.0	25.7	28.7	40.0	18.9	15.1	17.7	15.8	18.9	26.7	19.6	78.6	58.4	39.3	49.6	30.9	19.6	15.3	19.6	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

# Hourly Maximums

Nitrogen Oxide (NO) - ppb  
Portable-Kinuso - January 2010



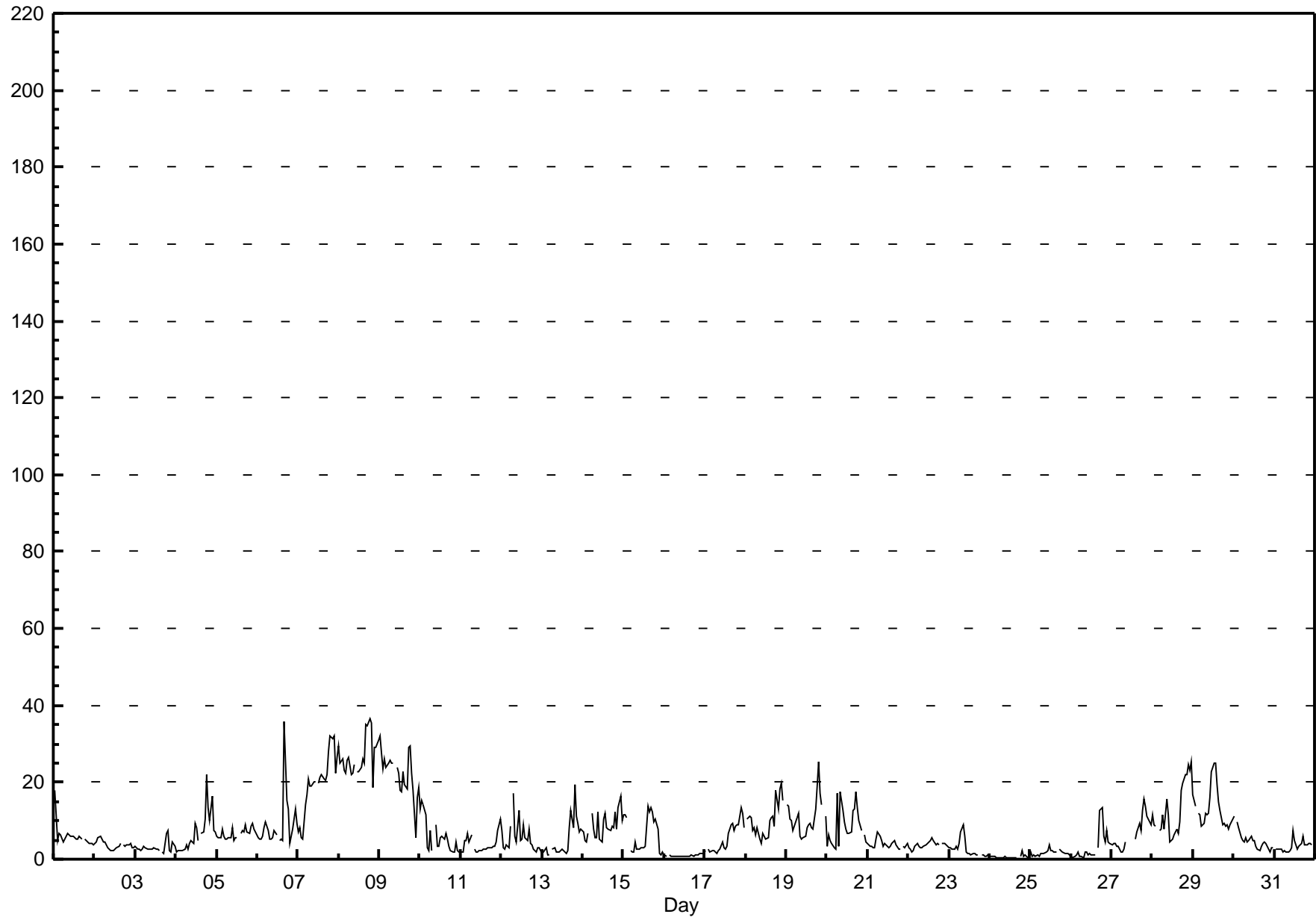


# Hourly Averages

## Oxides of Nitrogen (NO<sub>x</sub>) - ppb

### Portable-Kinuso - January 2010

Number of Exceedences (AAQO): 1-hr: 0 24-hr: 0		Hours in Service: 744																									
Maximum Value: 36.6 ppb on Jan 8 19:00		Maximum Daily Average: 26.8 ppb on Jan 8																									
Minimum Value: 0 ppb on Jan 24 15:00		Hours of Data: 707																									
Maximum Diurnal Average: 10.6 ppb at hour 19		Hours of Missing Data: 37																									
Monthly Average: 7.47 ppb		Hours of Calibration: 37																									
Minimum Daily Average: 0.6 ppb on Jan 24		Percent Operational Time: 100.0																									
Minimum Diurnal Average: 5.7 ppb at hour 5		Percentages: P <sub>1</sub> = 0.4 P <sub>10</sub> = 1.3 Q <sub>1</sub> = 2.6 Median = 4.9 Q <sub>3</sub> = 9.3 P <sub>90</sub> = 18.9 P <sub>99</sub> = 32.1																									
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
1-Jan	18	12	5	7	6	4	5	6	7	6	6	6	6	5	5	6	5	A	5	5	4	4	4	4	6.2	17.9	
2-Jan	4	5	5	6	5	5	4	4	3	2	2	3	3	3	4	A	4	3	4	4	4	4	3	3	3.7	6.1	
3-Jan	3	3	3	2	3	3	3	3	3	3	3	3	3	2	A	2	2	7	7	2	2	4	3	3.0	7.4		
4-Jan	2	2	2	2	2	3	4	3	4	5	4	9	8	5	A	7	7	10	22	13	10	17	7	7	6.8	22.2	
5-Jan	6	6	6	8	6	5	5	6	6	8	5	6	6	A	7	7	7	9	7	7	8	9	8	7	6.7	9.2	
6-Jan	6	5	5	6	8	10	8	5	5	6	7	6	A	5	5	5	36	15	13	4	6	8	13	9	8.5	35.8	
7-Jan	7	8	6	5	14	17	21	19	19	20	20	A	20	21	22	21	20	22	28	32	31	32	22	26	19.8	32.2	
8-Jan	30	25	26	23	22	26	26	22	23	25	A	23	23	24	26	25	35	35	37	35	18	29	29	31	26.8	36.6	
9-Jan	32	27	23	26	24	25	26	25	25	A	24	22	18	17	23	20	18	29	29	22	18	6	16	19	22.4	31.9	
10-Jan	13	15	14	12	3	2	7	2	A	9	3	3	6	6	5	7	5	4	2	2	2	4	2	2	5.7	15.2	
11-Jan	2	2	5	5	7	4	6	A	3	2	2	2	3	3	3	3	3	3	3	3	3	5	8	11	3.8	10.6	
12-Jan	8	3	3	4	3	9	A	17	6	5	13	5	5	9	6	5	8	4	4	3	2	3	3	2	5.5	17.1	
13-Jan	2	2	3	1	1	A	2	3	2	2	2	2	3	2	2	2	8	13	8	19	11	9	7	8	4.9	19.4	
14-Jan	7	5	4	7	A	12	8	6	6	12	5	5	11	12	8	8	8	8	8	12	8	13	16	10	8.7	16.5	
15-Jan	11	12	11	A	2	2	2	4	2	3	3	3	3	3	14	12	13	12	10	11	8	1	1	2	6.3	13.6	
16-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	1.5	
17-Jan	2	A	3	2	2	2	2	2	2	3	4	3	3	4	7	9	9	8	8	9	9	13	12	8	5.4	13.4	
18-Jan	A	10	11	11	8	8	6	8	5	4	7	6	5	6	10	11	11	8	18	13	18	20	15	A	10.0	19.6	
19-Jan	14	14	10	10	8	9	11	12	6	5	6	6	8	9	9	8	8	13	19	25	17	14	A	11	11.0	25.2	
20-Jan	3	6	5	4	3	3	17	3	17	13	10	8	7	7	7	13	13	18	13	10	7	A	6	4	8.6	17.6	
21-Jan	4	4	3	3	3	5	7	6	5	3	4	4	3	3	4	4	5	4	3	2	A	3	3	4	3.9	7.0	
22-Jan	3	2	2	2	3	4	3	3	3	3	4	4	4	5	6	5	4	4	4	A	4	4	4	3	3.6	5.5	
23-Jan	3	3	3	3	3	3	4	7	9	6	2	2	2	1	1	1	1	1	A	1	1	1	1	1	2.6	8.9	
24-Jan	1	1	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	A	1	2	1	1	0	1	0.6	2.1
25-Jan	2	1	1	1	1	1	1	1	1	2	2	4	2	2	2	2	A	3	2	2	2	1	1	1	1.7	3.6	
26-Jan	1	1	1	1	2	1	1	0	2	2	1	2	1	1	1	A	3	13	13	6	4	7	5	4	3.1	13.3	
27-Jan	4	4	4	4	3	2	2	3	4	C	C	C	C	C	5	7	9	8	13	16	14	11	10	9	6.9	15.7	
28-Jan	11	9	9	A	7	8	12	8	16	11	4	5	5	6	8	7	10	18	20	22	22	25	23	25	12.6	25.2	
29-Jan	17	14	A	12	12	9	9	12	11	12	16	23	25	25	20	15	13	9	9	9	9	8	9	10	13.3	24.9	
30-Jan	11	A	10	8	6	5	4	6	5	5	6	5	5	3	3	2	3	4	4	4	3	2	3	3	4.8	11.1	
31-Jan	A	3	3	3	2	2	2	2	2	2	3	8	5	3	3	4	4	6	4	4	4	4	4	A	3.4	7.6	
		7.9	7.0	6.4	6.2	5.7	6.2	7.0	6.6	6.7	6.2	5.8	6.1	6.5	6.7	7.2	7.6	9.3	9.9	10.6	10.2	8.4	8.8	8.1	8.0	Diurnal Average	
		31.9	27.4	26.0	26.0	24.0	25.8	26.4	24.9	24.8	24.7	23.9	22.9	24.8	24.9	26.0	25.0	35.8	34.7	36.6	35.5	31.2	32.1	29.0	30.9	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

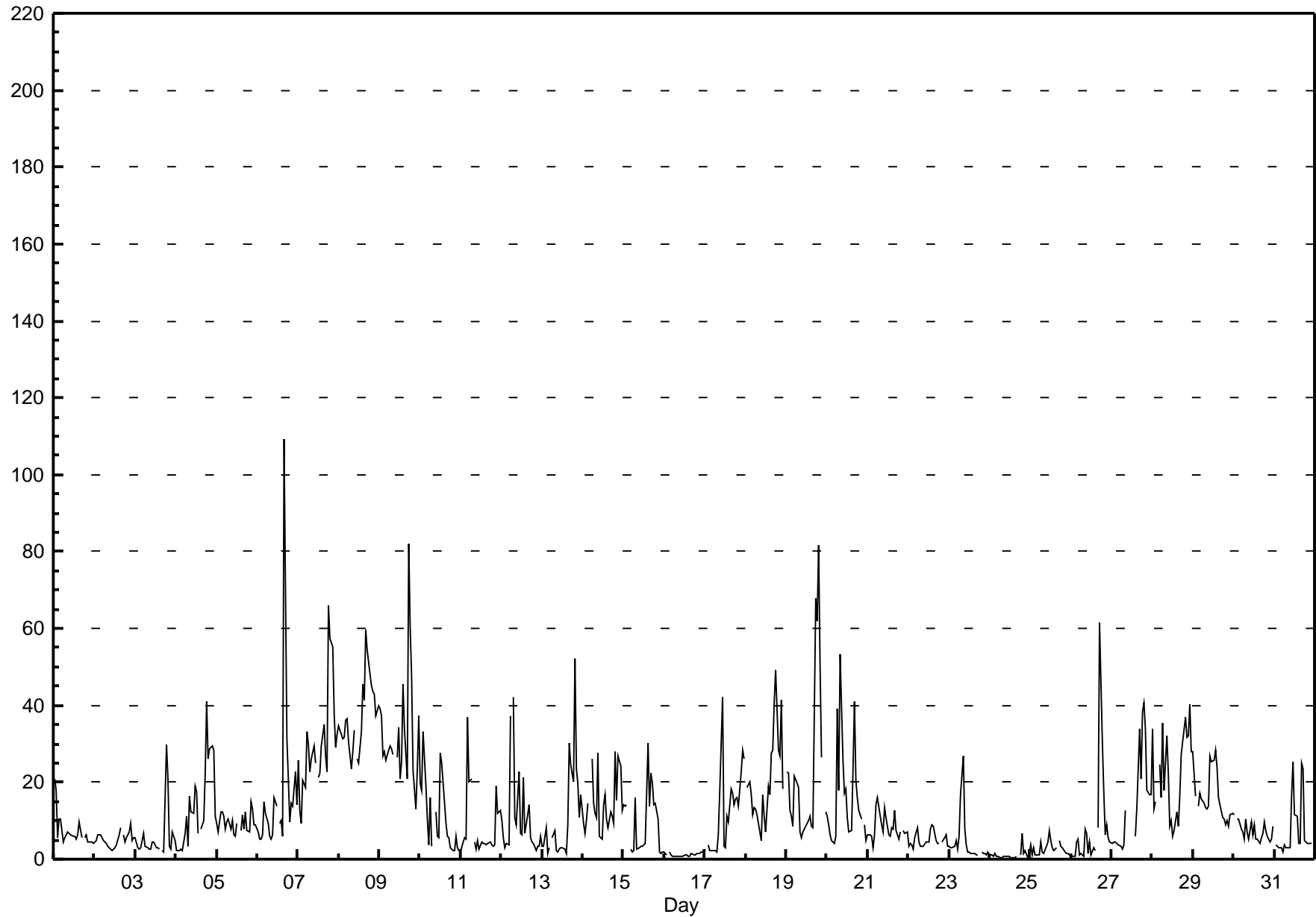


# Hourly Maximums

Oxides of Nitrogen (NO<sub>x</sub>) - ppb

Portable-Kinuso - January 2010

Maximum Value: 109.1 ppb on Jan 6 17:00		Maximum Daily Average: 37.5 ppb on Jan 8		Hours in Service: 744																							
Minimum Value: 0 ppb on Jan 24 15:00		Minimum Daily Average: 1.1 ppb on Jan 24		Hours of Data: 707																							
Maximum Diurnal Average: 21.3 ppb at hour 18		Minimum Diurnal Average: 8.6 ppb at hour 4		Hours of Missing Data: 37																							
Monthly Average: 12.68 ppb		Percentiles: P <sub>1</sub> = 0.6 P <sub>10</sub> = 1.7 Q <sub>1</sub> = 3.6 Median = 7.5 Q <sub>3</sub> = 17.1 P <sub>90</sub> = 29.8 P <sub>99</sub> = 61.1		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	21	18	6	10	10	5	6	6	7	7	6	6	6	5	6	10	6	A	5	7	5	4	4	4	7.4	20.8	
2-Jan	4	5	6	6	6	5	5	4	3	3	2	3	3	4	7	8	A	6	5	6	7	9	5	6	5.1	9.4	
3-Jan	6	3	3	3	5	7	3	3	3	3	4	5	3	3	3	A	2	2	30	21	4	3	7	5	5.6	29.9	
4-Jan	2	2	2	3	2	7	11	3	16	12	12	19	17	7	A	8	10	22	41	26	29	30	28	11	14.0	41.2	
5-Jan	9	7	12	12	11	8	10	11	8	10	6	6	9	A	8	12	8	12	7	7	15	13	9	9	9.6	15.0	
6-Jan	7	5	5	6	15	12	9	6	5	6	16	14	A	9	10	6	109	31	21	10	15	14	23	14	16.0	109.1	
7-Jan	26	13	9	20	19	33	30	23	26	30	25	A	21	22	30	35	27	23	66	57	55	38	29	32	29.9	65.9	
8-Jan	35	34	31	32	36	36	31	24	28	34	A	26	25	33	46	41	60	54	48	45	44	43	37	40	37.5	59.7	
9-Jan	39	37	27	28	26	28	29	29	27	A	26	34	21	25	46	34	21	82	60	48	23	13	24	37	33.3	82.1	
10-Jan	20	18	33	19	10	4	16	3	A	12	6	6	28	25	14	9	6	6	3	2	2	6	3	2	11.1	33.2	
11-Jan	2	5	5	5	37	20	21	A	4	2	5	3	4	4	4	4	4	4	4	4	4	19	12	13	8.2	36.9	
12-Jan	10	6	3	4	4	37	A	42	11	9	23	7	6	21	7	12	14	6	5	4	2	3	3	6	10.6	42.1	
13-Jan	3	3	8	1	3	A	6	7	2	2	3	3	3	2	9	30	25	20	52	24	20	11	17	11.1	52.1		
14-Jan	9	7	10	14	A	26	15	12	11	27	6	5	14	17	10	8	12	11	9	28	15	27	24	12	14.4	27.9	
15-Jan	14	14	14	A	3	2	2	16	3	3	3	3	4	4	30	14	22	20	14	15	10	2	2	2	9.4	30.2	
16-Jan	2	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	1.2	1.9	
17-Jan	3	A	4	2	2	2	2	2	7	18	42	3	3	11	10	18	17	14	16	16	14	23	28	26	12.3	42.3	
18-Jan	A	18	20	17	11	14	13	11	7	5	17	11	7	19	17	28	28	41	49	28	27	42	18	A	20.4	49.3	
19-Jan	23	22	13	11	8	22	20	18	7	6	7	9	9	10	11	9	8	68	62	81	51	26	A	12	22.3	81.5	
20-Jan	11	9	6	5	4	6	39	18	53	26	17	18	11	7	7	23	41	21	16	13	10	A	9	5	16.3	53.2	
21-Jan	6	6	6	3	6	14	16	11	9	7	14	11	6	6	8	8	13	8	5	7	A	7	7	7	8.3	16.0	
22-Jan	4	4	4	3	6	8	4	3	3	4	4	5	5	8	9	9	5	4	4	A	5	5	6	3	5.0	8.9	
23-Jan	3	3	3	3	5	3	6	17	27	8	4	2	2	1	1	1	1	1	A	2	1	2	1	2	4.3	26.7	
24-Jan	1	1	1	1	1	1	0	0	1	1	1	1	0	0	0	0	1	A	1	7	2	2	0	1	1.1	6.6	
25-Jan	4	1	3	1	1	1	4	2	2	3	5	7	5	3	2	3	A	5	3	3	2	2	2	1	2.8	7.3	
26-Jan	1	1	1	5	5	1	1	1	8	7	1	5	1	3	2	A	8	61	30	17	6	9	6	4	8.0	61.3	
27-Jan	4	5	4	4	4	3	3	4	13	C	C	C	C	C	6	13	34	21	38	40	34	18	17	17	14.8	40.5	
28-Jan	34	13	15	A	25	16	36	18	32	22	8	10	6	7	12	9	16	27	31	37	32	32	40	28	22.0	40.1	
29-Jan	28	16	A	14	17	16	14	13	13	14	27	25	26	28	24	16	14	11	11	9	10	8	12	12	16.5	28.4	
30-Jan	12	A	10	10	8	7	5	11	7	5	10	7	9	5	5	4	6	7	10	8	6	4	5	8	7.3	11.6	
31-Jan	A	4	3	3	3	2	4	3	3	3	16	25	12	11	4	4	25	23	5	4	4	4	4	A	7.7	25.3	
		11.8	9.7	9.3	8.6	9.8	11.6	12.1	10.8	11.5	9.9	11.0	9.6	9.2	10.5	11.4	12.2	19.0	21.3	20.7	20.2	15.2	14.3	12.6	11.7	Diurnal Average	
		39.0	37.2	33.2	31.8	36.9	37.5	39.2	42.1	53.2	33.5	42.3	34.5	27.7	33.2	45.5	41.5	109.1	82.1	65.9	81.5	55.1	42.8	40.1	40.0	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									



# Hourly Averages

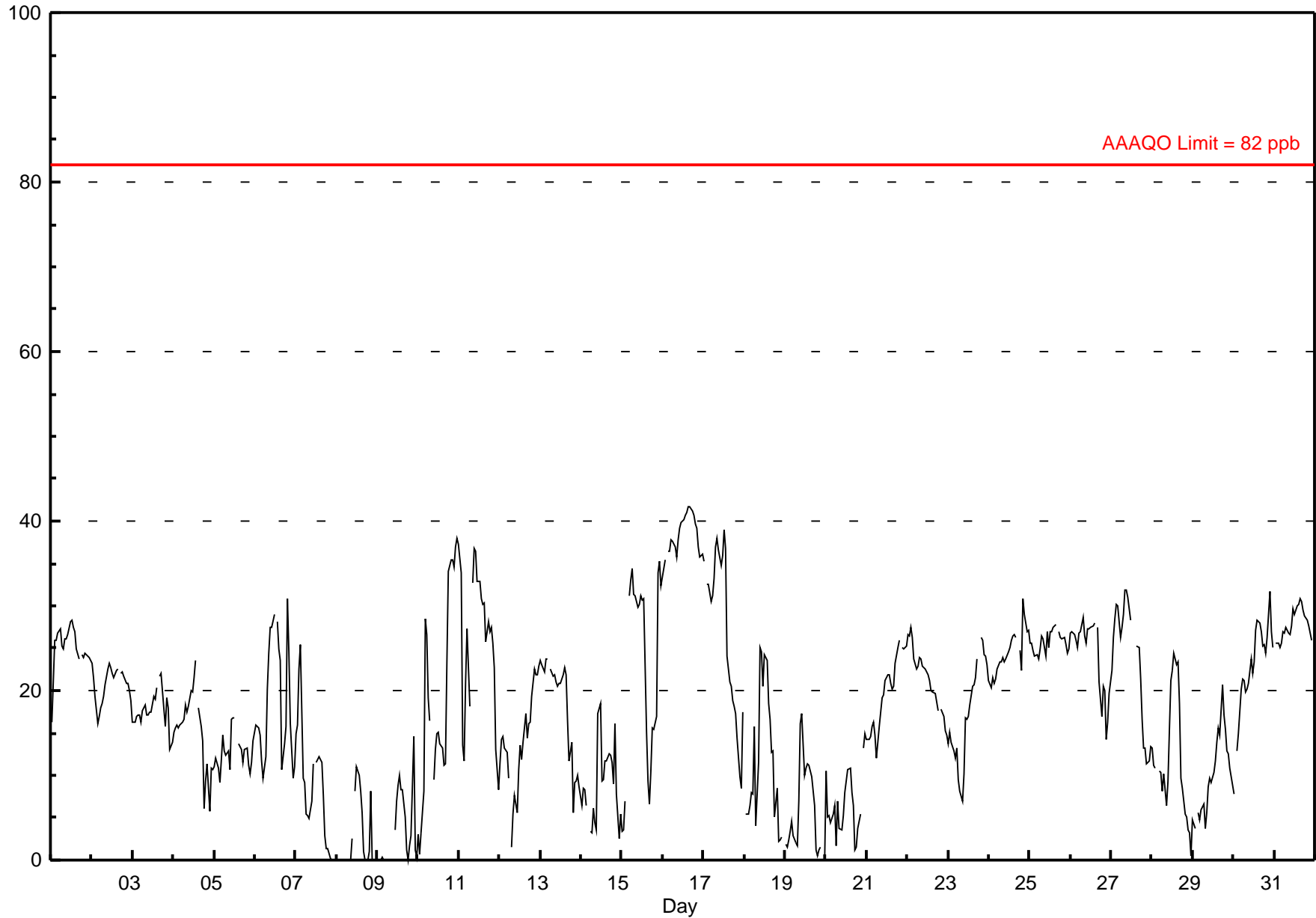
Ozone (O<sub>3</sub>) - ppb

Portable-Kinuso - January 2010

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 41.8 ppb on Jan 16 16:00	Maximum Daily Average: 38.3 ppb on Jan 16		Hours of Data:	709
Minimum Value: 0 ppb on Jan 7 22:00	Minimum Daily Average: 2.4 ppb on Jan 8		Hours of Missing Data:	35
Maximum Diurnal Average: 21.7 ppb at hour 14	Minimum Diurnal Average: 15.3 ppb at hour 2		Hours of Calibration:	35
Monthly Average: 17.78 ppb	Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 3.6 Q <sub>1</sub> = 10.3 Median = 17.7 Q <sub>3</sub> = 25.2 P <sub>90</sub> = 30.2 P <sub>99</sub> = 40.0		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	16	21	26	26	27	27	25	25	26	26	27	28	28	27	27	25	24	A	24	24	24	24	24	24	25.0	28.3																						
2-Jan	23	21	19	16	17	18	18	19	21	23	23	23	22	22	22	23	A	22	22	22	21	21	20	19	20.7	23.2																						
3-Jan	16	16	17	17	17	16	18	18	17	17	17	17	19	19	20	A	22	22	18	16	19	18	13	14	17.6	22.1																						
4-Jan	15	16	16	16	16	16	17	18	17	18	20	20	22	24	A	18	16	14	6	9	11	6	11	11	15.3	23.5																						
5-Jan	11	12	11	9	12	15	13	12	13	11	17	17	17	A	14	13	13	12	13	13	11	10	12	14	12.8	16.8																						
6-Jan	16	16	16	15	12	10	12	20	24	27	27	29	A	28	25	24	11	14	16	31	25	16	10	11	18.8	30.9																						
7-Jan	15	16	22	25	10	9	5	5	5	7	11	A	11	12	12	12	8	3	1	1	0	0	0	0	8.4	25.4																						
8-Jan	0	0	0	0	0	0	0	0	0	0	0	A	8	11	10	8	6	1	0	0	1	8	0	0	2.4	11.0																						
9-Jan	0	0	0	0	0	0	0	0	0	0	A	4	7	9	10	8	8	5	1	0	2	3	15	1	0	3.2	14.7																					
10-Jan	3	1	3	8	28	27	19	16	A	9	13	15	15	14	13	11	11	23	34	35	35	35	37	38	19.4	37.9																						
11-Jan	37	34	14	12	21	27	18	A	33	37	36	33	33	31	30	30	26	28	27	27	26	23	13	8	26.2	37.3																						
12-Jan	12	14	15	13	13	10	A	1	5	8	6	11	14	12	14	17	14	16	16	19	22	22	22	23	13.9	22.9																						
13-Jan	23	23	22	24	24	A	23	22	22	21	20	21	21	22	23	22	16	12	14	6	9	9	10	9	18.1	23.8																						
14-Jan	6	8	8	6	A	3	3	6	4	4	17	18	9	10	12	12	13	12	12	9	16	8	2	5	9.0	18.4																						
15-Jan	3	4	7	A	31	33	34	31	31	30	30	31	31	31	15	9	7	11	16	15	17	34	35	32	22.6	35.2																						
16-Jan	33	35	A	36	36	38	38	37	36	38	39	40	40	41	41	42	42	41	41	40	39	37	36	36	38.3	41.8																						
17-Jan	35	A	32	33	31	31	33	37	38	37	35	36	39	37	24	21	20	19	18	17	14	10	8	17	27.1	39.0																						
18-Jan	A	5	5	6	8	8	16	4	12	25	20	24	24	18	17	13	13	5	8	2	2	3	A	12.0	25.2																							
19-Jan	2	2	2	3	5	3	2	2	7	16	17	10	11	11	11	11	10	6	1	1	1	2	A	0	5.9	17.3																						
20-Jan	11	5	5	4	5	6	2	7	4	4	5	8	9	11	11	8	7	1	2	4	5	A	13	15	6.6	14.9																						
21-Jan	14	14	15	16	16	15	12	16	17	19	19	21	22	22	21	20	20	20	23	25	26	A	25	25	19.6	25.9																						
22-Jan	27	26	27	26	24	23	23	24	24	23	23	22	22	21	20	20	20	19	18	A	18	17	15	15	21.5	27.4																						
23-Jan	14	15	14	13	12	13	9	8	7	10	17	17	17	18	21	21	22	24	A	26	26	24	24	23	17.1	26.3																						
24-Jan	21	20	22	21	21	23	23	23	24	23	24	25	25	26	26	27	26	A	25	22	31	29	27	27	24.4	30.8																						
25-Jan	26	26	25	24	24	24	25	27	26	24	27	25	27	27	27	28	A	27	26	26	26	25	24	25	25.7	27.8																						
26-Jan	27	27	27	26	25	27	27	29	26	26	27	27	27	28	28	A	27	21	17	21	20	14	16	20	24.3	28.6																						
27-Jan	22	26	28	30	30	26	28	29	32	32	31	28	C	C	C	25	25	21	17	13	13	11	12	13	23.5	31.9																						
28-Jan	13	11	11	A	10	10	8	10	6	9	16	21	22	24	23	23	18	10	9	5	5	4	3	0	11.9	24.4																						
29-Jan	5	4	A	6	5	6	7	4	6	9	10	9	10	12	14	16	15	21	17	16	13	13	11	9	10.1	20.7																						
30-Jan	8	A	13	15	20	21	21	20	20	21	24	22	23	27	28	28	27	25	25	24	26	32	27	25	22.8	31.7																						
31-Jan	A	26	26	25	26	27	27	27	27	27	28	30	29	30	30	31	30	29	29	28	28	27	26	A	27.8	30.8																						
																								15.7	15.3	15.4	16.3	17.5	17.1	16.9	16.6	17.7	19.4	21.1	21.3	21.1	21.7	20.3	19.5	17.5	16.9	16.4	17.0	17.2	17.1	16.0	15.8	Diurnal Average
																								37.3	35.5	32.5	36.4	36.5	37.7	37.6	37.0	38.0	37.7	39.1	39.9	40.2	40.6	41.0	41.8	41.7	41.2	40.7	39.7	39.1	37.0	37.0	37.9	Diurnal Maximum

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



# Hourly Maximums

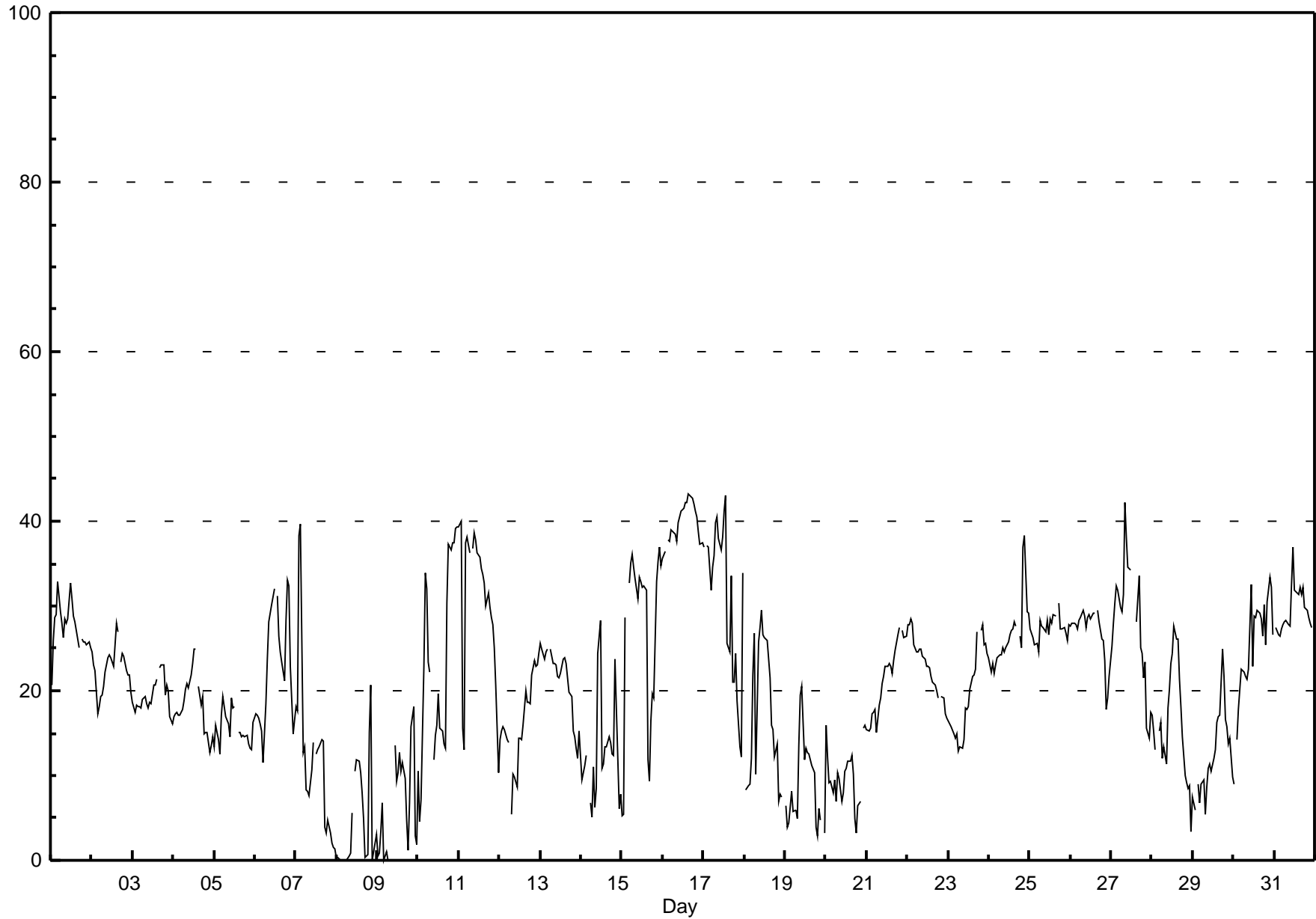
Ozone (O<sub>3</sub>) - ppb

Portable-Kinuso - January 2010

Maximum Value: 43.2 ppb on Jan 16 16:00		Maximum Daily Average: 39.8 ppb on Jan 16		Hours in Service: 744																							
Minimum Value: 0 ppb on Jan 8 03:00		Minimum Daily Average: 4.6 ppb on Jan 8		Hours of Data: 709																							
Maximum Diurnal Average: 24.1 ppb at hour 11		Minimum Diurnal Average: 17.6 ppb at hour 2		Hours of Missing Data: 35																							
Monthly Average: 20.72 ppb		Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 7.5 Q <sub>1</sub> = 13.6 Median = 21.4 Q <sub>3</sub> = 27.7 P <sub>90</sub> = 33.6 P <sub>99</sub> = 42.1		Hours of Calibration: 35																							
				Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jan	21	26	29	29	33	29	28	26	28	28	28	33	31	29	28	27	25	A	26	26	26	25	26	25	27.5	32.9	
2-Jan	25	23	22	17	18	19	20	21	22	24	24	24	23	23	28	27	A	23	24	24	22	22	22	20	22.5	28.0	
3-Jan	19	18	18	18	18	18	19	19	18	18	19	18	21	21	21	A	23	23	23	19	21	20	17	16	19.4	23.0	
4-Jan	17	17	17	17	17	18	19	20	21	20	22	23	25	25	A	21	18	19	15	15	15	13	14	14	18.4	25.0	
5-Jan	13	16	14	13	17	19	18	17	16	15	19	18	18	A	15	15	15	15	15	15	14	13	13	16	15.6	19.4	
6-Jan	17	17	17	16	15	11	18	24	28	29	30	32	A	31	26	25	23	21	28	33	32	23	15	17	23.1	33.0	
7-Jan	18	18	38	40	13	13	8	8	8	11	14	A	13	13	13	14	14	4	3	5	3	2	2	1	12.0	39.6	
8-Jan	0	0	0	0	0	0	0	1	1	1	6	A	10	12	12	10	8	5	0	1	15	21	0	1	3	4.6	20.7
9-Jan	0	1	3	7	0	1	0	0	0	0	A	14	9	10	13	10	12	10	5	1	7	16	18	3	2	6.2	18.2
10-Jan	10	5	7	23	34	32	23	22	A	12	15	16	20	16	15	14	13	30	37	37	37	37	39	39	23.2	39.3	
11-Jan	39	40	16	13	38	38	36	A	37	39	38	36	36	34	34	33	30	32	30	29	28	25	21	10	30.8	39.9	
12-Jan	14	15	16	16	14	14	A	5	10	10	9	14	14	14	16	20	19	19	19	22	24	23	23	24	16.2	24.4	
13-Jan	26	25	24	25	25	A	25	23	23	23	22	22	22	24	24	23	21	20	19	15	15	13	12	15	21.1	25.5	
14-Jan	9	10	11	12	A	7	5	11	6	8	24	28	11	11	13	13	15	14	13	12	24	18	6	8	12.7	28.4	
15-Jan	5	5	29	A	33	35	36	35	33	31	33	33	32	32	32	12	9	16	20	19	33	35	37	35	27.0	36.9	
16-Jan	36	37	A	38	38	39	39	39	38	40	40	41	41	42	42	43	43	43	42	41	40	39	37	37	39.8	43.2	
17-Jan	37	A	37	37	32	35	36	40	40	38	37	38	41	43	26	25	33	21	21	24	19	13	12	34	31.3	43.1	
18-Jan	A	8	9	9	12	22	27	10	26	27	29	27	26	26	24	21	16	15	12	14	7	8	8	A	17.4	29.5	
19-Jan	7	4	4	6	8	6	6	5	14	20	21	12	13	13	13	12	11	10	4	3	6	5	A	3	8.9	20.6	
20-Jan	16	12	9	9	8	10	7	10	10	7	8	10	11	12	12	12	10	5	3	6	7	A	16	16	9.9	16.0	
21-Jan	15	15	16	17	17	18	15	18	19	21	22	23	23	23	23	22	24	25	27	27	A	27	26	26	21.3	27.4	
22-Jan	28	28	29	28	25	25	25	25	25	24	24	23	23	23	22	21	21	20	19	A	19	19	17	17	23.0	28.5	
23-Jan	16	16	16	15	14	15	13	13	13	14	18	18	18	20	22	22	22	27	A	27	28	26	26	24	19.3	27.9	
24-Jan	24	22	23	22	23	24	24	24	25	24	25	26	27	27	27	28	28	A	26	25	37	38	29	29	26.5	38.3	
25-Jan	27	27	26	25	26	25	28	28	27	27	28	27	28	28	29	29	A	30	27	27	27	27	26	28	27.3	30.3	
26-Jan	28	28	28	28	27	28	29	30	29	27	29	29	29	29	A	30	28	26	26	24	18	19	22	26.9	29.5		
27-Jan	25	28	30	32	32	30	29	31	42	38	35	34	C	C	C	28	34	25	24	22	23	16	14	17	28.2	42.3	
28-Jan	17	15	13	A	15	16	12	13	11	18	20	23	24	28	26	26	21	18	15	10	9	8	9	3	16.2	27.6	
29-Jan	8	6	A	9	7	9	10	5	9	11	11	10	12	13	16	17	17	25	22	17	16	14	14	10	12.5	25.0	
30-Jan	9	A	14	18	22	22	22	22	21	23	33	23	29	29	29	29	29	26	30	25	30	33	32	27	25.2	33.4	
31-Jan	A	27	27	26	27	28	28	28	28	28	33	37	32	31	31	32	31	32	30	30	29	28	28	A	29.6	37.0	
		18.2	17.6	18.7	19.5	20.3	20.2	20.2	19.2	21.0	22.0	24.1	23.9	22.9	23.6	22.7	21.7	21.0	20.4	20.1	20.6	21.7	20.2	18.8	18.6	Diurnal Average	
		39.4	39.9	38.3	39.6	37.7	38.9	38.9	39.8	42.3	39.8	40.5	41.1	41.5	43.1	42.2	43.2	43.1	42.7	42.0	41.2	40.5	38.8	39.2	39.3	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

# Hourly Maximums

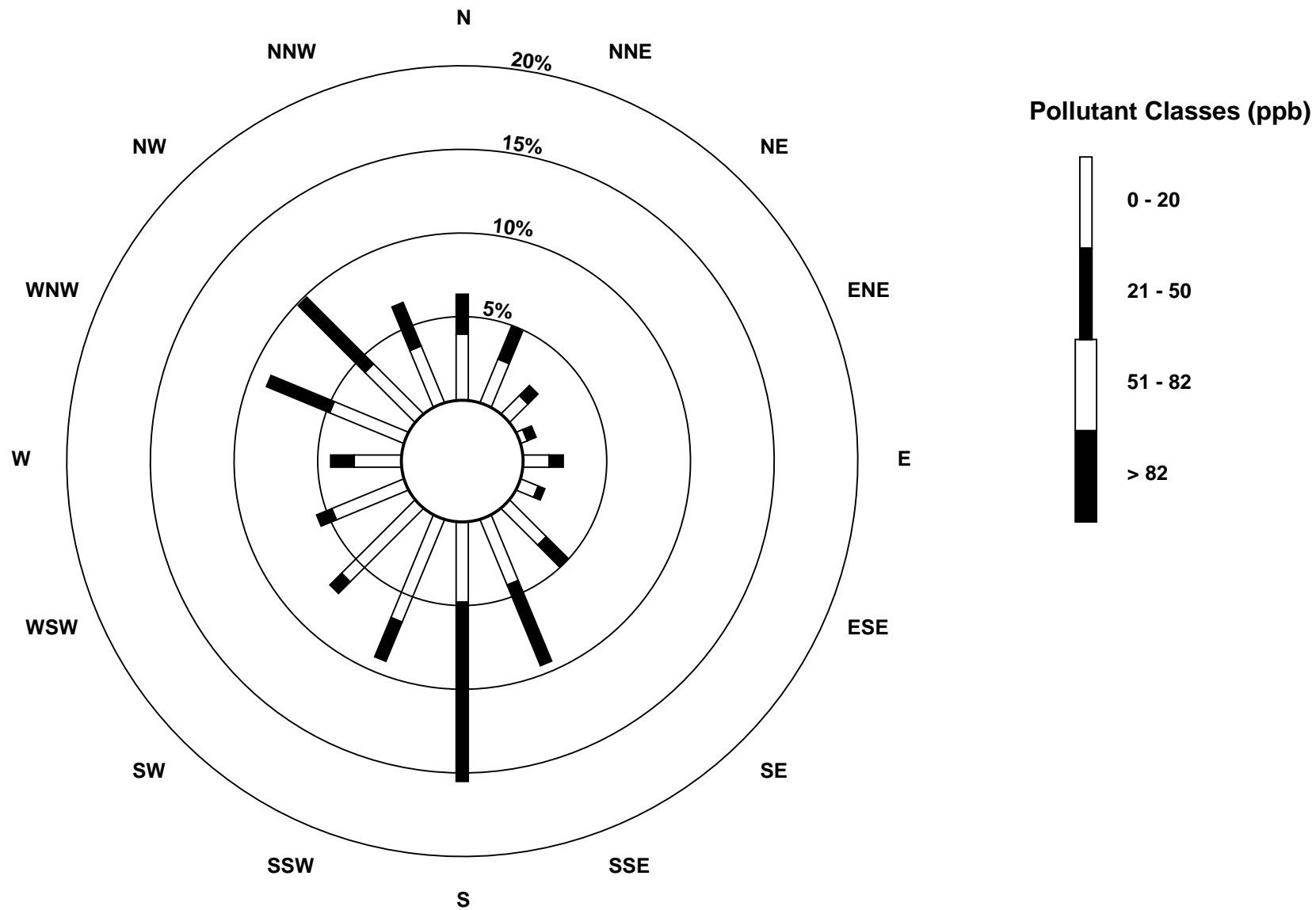
Ozone (O<sub>3</sub>) - ppb  
Portable-Kinuso - January 2010





# Pollutant Rose

Ozone (O<sub>3</sub>) - ppb  
Portable-Kinuso - January 2010





# Eight Hour Running Averages

Ozone (O<sub>3</sub>) - ppb

Portable-Kinuso - January 2010

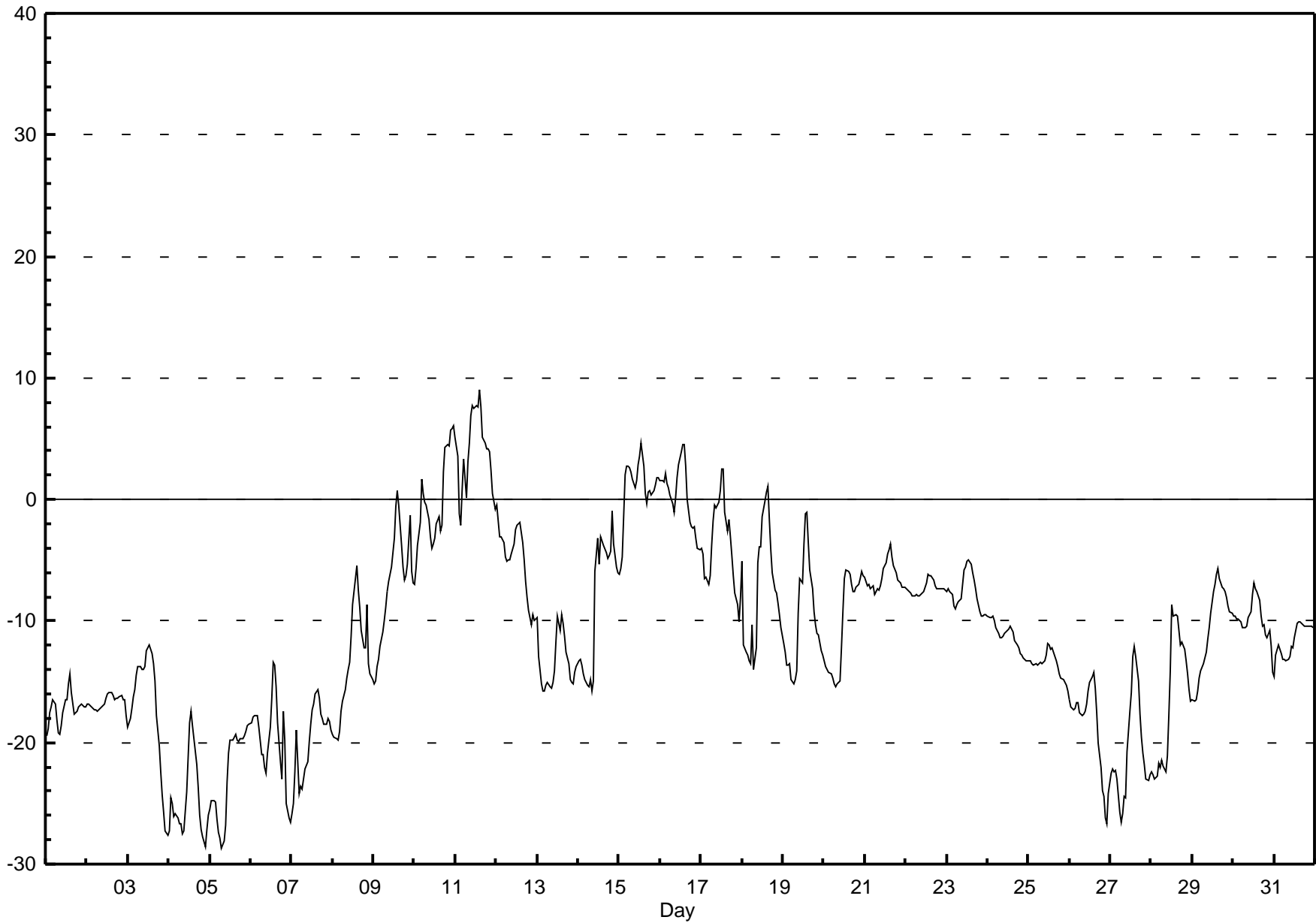
Maximum Value: 40.9 ppb on Jan 16 19:00																					Hours in Service:	744			
Minimum Value: 0.0 ppb on Jan 8 03:00																					Hours of Data:	738			
Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 5.1 Q <sub>1</sub> = 10.8 Median = 17.9 Q <sub>3</sub> = 25.0 P <sub>90</sub> = 28.4 P <sub>99</sub> = 39.0																					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	25	26	26	27	27	26	24	24	25	26	26	26	27	27	27	27	27	26	26	25	25	24	24	26.9	
2-Jan	24	24	23	22	21	20	20	19	19	19	19	20	21	21	22	22	22	22	22	22	22	21	21	23.9	
3-Jan	20	20	19	18	18	17	17	17	17	17	17	17	18	18	18	18	19	20	20	19	19	19	18	18	20.3
4-Jan	17	16	16	16	15	15	16	16	16	17	17	18	19	19	20	20	20	19	17	15	14	11	11	10	19.8
5-Jan	10	10	10	10	10	11	12	12	12	12	13	14	14	14	14	14	15	14	14	13	12	12	12	14.5	
6-Jan	13	13	13	14	14	14	14	14	16	17	18	20	21	24	26	26	24	22	21	21	22	20	18	17	26.4
7-Jan	17	17	18	17	16	15	14	14	12	11	10	8	8	8	9	10	10	10	8	8	6	5	3	2	18.2
8-Jan	1	0	0	0	0	0	0	0	0	0	0	1	3	4	6	6	7	6	5	4	4	3	2	1	6.6
9-Jan	0	0	0	0	0	0	0	0	0	0	0	0	2	4	5	6	7	7	6	5	5	5	4	3	7.3
10-Jan	3	3	3	4	7	9	11	13	15	16	17	18	16	15	14	13	13	14	17	20	22	25	28	31	31.1
11-Jan	34	36	33	30	28	27	25	23	23	23	26	29	31	32	33	33	32	31	30	29	28	27	25	22	35.7
12-Jan	20	19	17	15	14	12	12	11	10	9	8	8	8	8	9	11	12	13	14	15	16	18	19	19	20.5
13-Jan	21	21	22	23	23	23	23	23	23	22	22	22	21	21	21	21	21	20	19	17	15	14	12	11	23.1
14-Jan	9	9	8	8	8	7	6	6	6	5	6	8	8	9	10	11	12	13	12	11	12	12	10	10	12.9
15-Jan	9	7	7	7	9	12	17	21	25	28	32	32	32	31	29	26	23	21	19	17	15	15	18	21	31.6
16-Jan	24	27	29	32	35	35	36	36	37	37	37	38	38	39	39	40	40	41	41	41	41	40	40	39	40.9
17-Jan	38	38	36	35	34	33	33	33	34	34	34	35	36	36	35	33	31	29	27	24	21	18	16	16	38.1
18-Jan	15	13	11	10	9	8	9	8	8	11	13	15	17	19	19	21	21	19	17	15	12	10	8	7	20.7
19-Jan	5	3	3	2	3	3	3	3	3	5	7	8	8	10	11	12	12	11	9	8	7	5	4	3	12.2
20-Jan	3	3	3	4	5	5	5	6	5	5	5	5	6	6	7	7	8	7	7	6	6	5	6	7	7.7
21-Jan	8	10	11	13	15	15	15	15	15	16	16	17	18	19	20	20	21	21	22	22	23	23	24	24	24.3
22-Jan	25	26	26	26	26	25	25	25	25	24	24	23	23	23	22	22	21	21	20	20	19	19	18	17	26.0
23-Jan	16	16	15	15	14	14	13	12	11	11	11	12	12	13	14	16	18	19	20	21	22	23	24	24	24.1
24-Jan	24	24	23	23	22	22	22	22	22	23	23	23	24	24	25	25	25	26	26	25	26	27	27	27	26.7
25-Jan	27	27	27	27	26	25	25	25	25	25	25	26	26	26	26	26	26	27	27	27	27	26	26	26	26.9
26-Jan	26	26	26	26	26	26	26	27	27	27	27	27	27	27	27	27	27	25	24	23	21	19	20	27.3	
27-Jan	19	20	21	22	23	25	26	27	29	29	30	29	29	30	N	N	N	N	N	N	19	18	17	16	29.9
28-Jan	14	13	12	12	12	12	11	11	10	9	10	11	13	15	17	18	20	20	19	17	15	12	10	7	19.7
29-Jan	5	4	4	4	4	4	5	5	5	6	6	7	7	8	9	11	12	13	14	15	15	15	15	14	15.4
30-Jan	13	12	12	12	13	14	15	17	19	19	20	21	22	22	23	24	25	26	26	26	26	27	27	26	27.0
31-Jan	26	26	27	27	27	26	26	26	26	26	27	27	28	28	28	29	29	30	30	30	29	29	29	28	29.8
38.1 37.7 36.5 35.5 34.8 35.3 35.7 36.3 36.6 37.0 37.2 37.7 38.1 38.5 38.9 39.5 40.3 40.7 40.9 40.9 40.7 40.3 39.6 38.9																									
Diurnal Maximums																									
N - Not Valid																									

# Hourly Averages

External Temperature (ET) - °C

Portable-Kinuso - January 2010

Number of Exceedences (AAQO): 1-hr: 0 24-hr: 0 Maximum Value: 9.0 °C on Jan 11 15:00      Maximum Daily Average: 4.0 °C on Jan 11		Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0																									
Minimum Value: -29 °C on Jan 5 08:00 Maximum Diurnal Average: -7.1 °C at hour 15 Monthly Average: -11.15 °C		Minimum Daily Average: -24.6 °C on Jan 4 Minimum Diurnal Average: -13.2 °C at hour 3 Percentiles: P <sub>1</sub> = -27.3 P <sub>10</sub> = -21.8 Q <sub>1</sub> = -16.5 Median = -11.4 Q <sub>3</sub> = -6.1 P <sub>90</sub> = -0.3 P <sub>99</sub> = 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	-19	-19	-18	-17	-17	-17	-18	-19	-19	-19	-18	-16	-16	-15	-14	-16	-18	-18	-17	-17	-17	-17	-17	-17	-17	-17.3	-14.4
2-Jan	-17	-17	-17	-17	-17	-17	-17	-17	-17	-17	-17	-16	-16	-16	-16	-16	-16	-16	-16	-16	-16	-16	-16	-17	-18	-16.7	-15.8
3-Jan	-19	-18	-17	-16	-16	-14	-14	-14	-14	-14	-14	-12	-12	-12	-13	-14	-15	-18	-20	-22	-24	-26	-27	-28	-17.2	-12.0	
4-Jan	-27	-25	-25	-26	-26	-26	-27	-27	-28	-27	-24	-21	-18	-17	-19	-20	-22	-24	-26	-27	-28	-29	-27	-26	-24.6	-17.4	
5-Jan	-26	-25	-25	-25	-26	-27	-28	-29	-28	-27	-23	-21	-20	-20	-20	-19	-20	-20	-20	-20	-19	-19	-19	-19	-22.6	-18.5	
6-Jan	-18	-18	-18	-18	-18	-19	-21	-21	-22	-22	-21	-19	-16	-13	-14	-15	-18	-22	-23	-17	-20	-25	-26	-27	-19.6	-13.3	
7-Jan	-26	-25	-22	-19	-24	-24	-24	-23	-22	-22	-20	-18	-17	-17	-16	-16	-18	-18	-18	-19	-18	-18	-19	-19	-20.0	-15.6	
8-Jan	-19	-20	-20	-20	-19	-17	-17	-16	-15	-14	-13	-11	-9	-7	-5	-7	-9	-11	-12	-12	-9	-14	-14	-15	-13.5	-5.4	
9-Jan	-15	-15	-14	-13	-12	-11	-10	-9	-8	-7	-6	-4	-3	-1	1	0	-4	-6	-7	-6	-5	-1	-6	-7	-7.0	0.8	
10-Jan	-7	-6	-4	-2	2	1	0	0	-2	-3	-4	-4	-3	-2	-1	-3	-2	2	4	5	4	6	6	6	-0.3	6.1	
11-Jan	5	4	-1	-2	1	3	0	3	5	7	8	8	8	8	9	8	5	5	4	4	4	2	0	-1	4.0	9.0	
12-Jan	0	-2	-3	-3	-4	-5	-5	-5	-5	-5	-4	-2	-2	-2	-2	-4	-5	-7	-8	-9	-10	-9	-10	-10	-5.0	-0.5	
13-Jan	-10	-13	-15	-16	-16	-15	-15	-15	-16	-15	-14	-12	-10	-11	-9	-10	-11	-13	-14	-15	-15	-15	-14	-14	-13.4	-9.5	
14-Jan	-13	-13	-14	-14	-15	-15	-15	-15	-16	-15	-6	-3	-5	-3	-3	-4	-4	-5	-5	-4	-1	-4	-6	-6	-8.5	-0.9	
15-Jan	-6	-6	-5	2	3	3	3	2	2	1	2	3	4	5	3	0	0	1	1	0	1	1	2	2	0.9	4.7	
16-Jan	2	2	1	2	1	1	0	0	-1	0	2	3	4	5	5	3	0	-2	-2	-2	-2	-3	-4	-4	0.4	4.6	
17-Jan	-4	-5	-7	-6	-7	-6	-4	-2	0	-1	0	1	3	3	-1	-3	-2	-3	-5	-6	-8	-9	-10	-8	-3.7	2.5	
18-Jan	-5	-12	-13	-13	-13	-13	-10	-14	-12	-5	-4	-4	-1	0	1	1	-2	-4	-6	-8	-8	-9	-9	-11	-7.2	1.1	
19-Jan	-12	-13	-14	-14	-14	-15	-15	-15	-14	-9	-7	-7	-4	-1	-1	-4	-6	-7	-9	-10	-11	-11	-12	-13	-9.9	-1.0	
20-Jan	-13	-14	-14	-14	-14	-15	-15	-15	-15	-15	-12	-9	-7	-6	-6	-6	-7	-8	-8	-7	-7	-7	-7	-6	-6	-10.2	-5.7
21-Jan	-6	-7	-7	-7	-7	-7	-8	-7	-7	-7	-6	-6	-5	-4	-4	-4	-5	-5	-6	-7	-7	-7	-7	-7	-6.3	-3.7	
22-Jan	-7	-7	-8	-8	-8	-8	-8	-8	-8	-8	-8	-7	-7	-6	-6	-6	-7	-7	-7	-7	-7	-7	-7	-7	-7.3	-6.2	
23-Jan	-8	-7	-8	-8	-9	-9	-9	-8	-8	-7	-6	-6	-5	-5	-5	-6	-7	-7	-8	-9	-10	-10	-9	-9	-7.6	-5.0	
24-Jan	-10	-10	-10	-10	-10	-11	-11	-11	-11	-11	-11	-11	-11	-10	-11	-11	-12	-12	-12	-13	-13	-13	-13	-13	-11.2	-9.6	
25-Jan	-13	-13	-13	-14	-14	-14	-14	-13	-13	-13	-13	-12	-12	-12	-12	-13	-13	-14	-14	-15	-15	-15	-15	-16	-13.6	-11.9	
26-Jan	-17	-17	-17	-17	-17	-17	-18	-18	-18	-17	-17	-16	-15	-15	-14	-15	-18	-20	-22	-24	-24	-26	-27	-24	-18.7	-14.2	
27-Jan	-23	-22	-22	-22	-23	-26	-27	-26	-24	-25	-21	-17	-16	-13	-12	-13	-15	-18	-20	-21	-22	-23	-23	-23	-20.6	-12.1	
28-Jan	-22	-23	-23	-23	-22	-22	-21	-22	-22	-21	-18	-14	-9	-10	-9	-10	-11	-12	-12	-12	-13	-14	-16	-17	-16.6	-8.7	
29-Jan	-16	-17	-17	-16	-15	-14	-14	-13	-13	-11	-11	-9	-8	-7	-6	-6	-6	-7	-7	-8	-8	-9	-9	-9	-10.6	-5.7	
30-Jan	-10	-10	-10	-10	-10	-10	-11	-11	-10	-10	-9	-8	-7	-7	-8	-8	-10	-10	-10	-11	-11	-11	-12	-14	-9.9	-6.9	
31-Jan	-15	-13	-12	-12	-13	-13	-13	-13	-13	-13	-12	-12	-11	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-11	-11.6	-10.1	
																								Diurnal Average			
																								Diurnal Maximum			





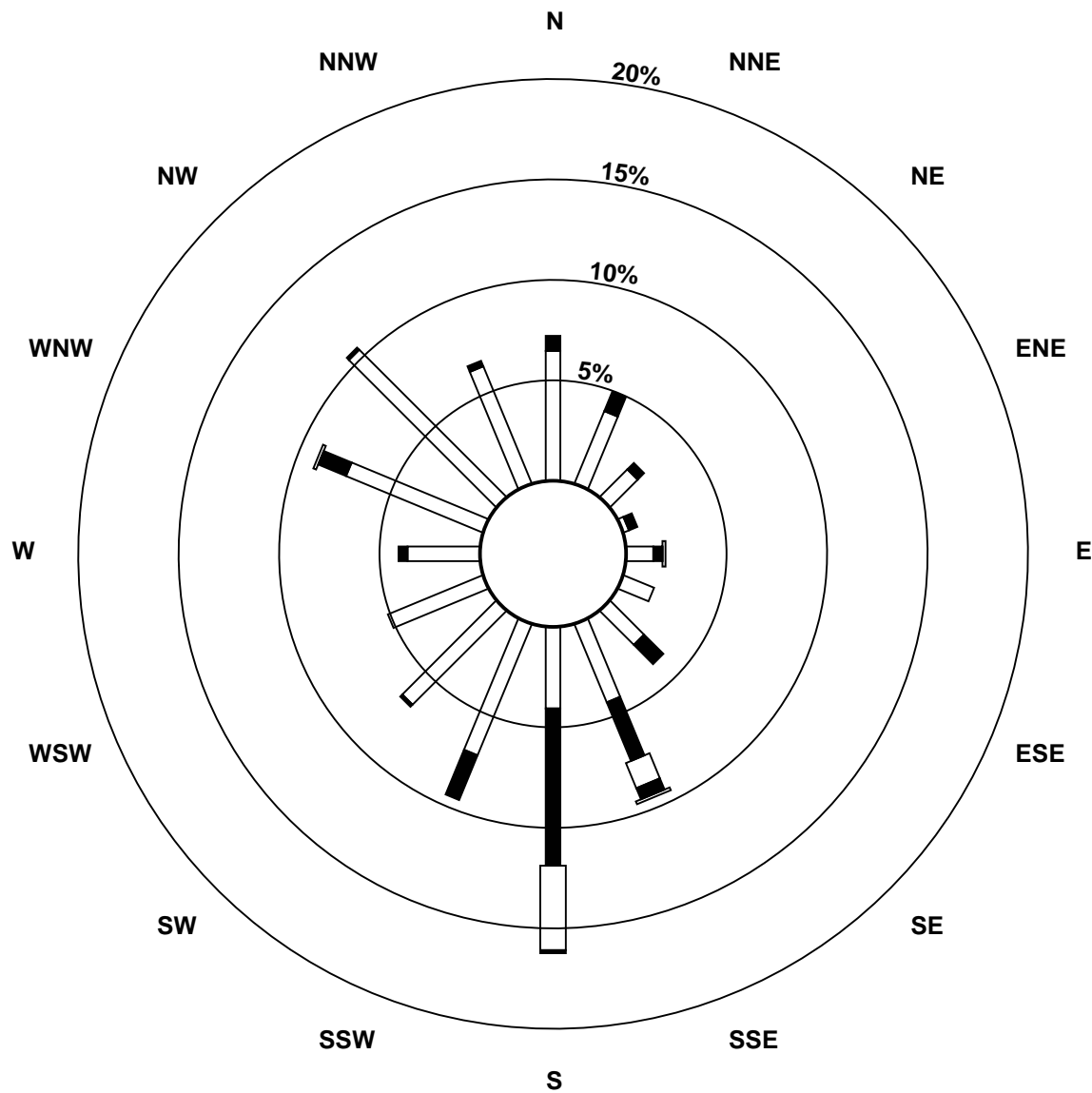
# Hourly Averages

Wind Speed (km/h)  
Wind Direction (deg)  
Portable-Kinuso - January 2010

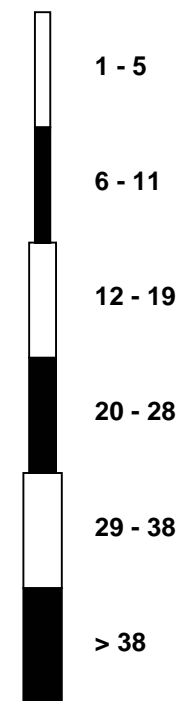
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	2	2	1	1	1	2	2	1	1	1	3	4	5	5	5	5	5	5	4	3	2	2	1	2	1.9	5.4
Dir	236	208	212	222	234	205	211	132	186	244	305	312	324	325	322	321	322	332	324	311	281	289	306	150	302	325
24 Spd	1	2	2	3	4	4	3	3	4	3	3	5	5	4	5	4	3	2	2	2	7	1	2	2	2.8	7.2
Dir	250	286	306	324	318	321	316	315	322	311	324	321	321	320	325	325	315	287	284	323	21	13	291	340	322	21
25 Spd	1	2	1	2	3	3	3	2	2	2	5	5	5	7	6	9	6	5	5	5	4	2	2	3	3.4	9.4
Dir	318	259	139	303	341	322	356	332	294	11	6	30	338	2	355	12	5	7	357	356	351	320	315	348	353	12
26 Spd	4	3	2	2	2	2	4	3	2	2	2	4	4	4	4	3	0	2	2	2	2	2	4	9	1.0	9.2
Dir	333	328	2	121	171	232	328	299	172	251	308	18	338	340	334	7	4	132	221	226	210	238	212	196	294	196
27 Spd	12	15	14	15	9	3	5	6	6	4	4	0	4	3	3	1	2	2	1	1	2	0	1	4	3.4	15.1
Dir	189	185	185	186	201	220	203	206	199	131	131	28	354	309	322	19	344	269	138	171	233	245	330	116	191	186
28 Spd	2	0	2	1	1	1	2	1	2	1	1	2	1	3	2	3	1	1	1	3	2	1	0	0	0.3	2.9
Dir	147	266	187	212	171	234	160	217	92	248	290	46	310	321	342	342	273	42	98	360	282	186	327	50	300	321
29 Spd	2	1	2	2	1	2	1	1	2	2	3	0	2	3	3	3	3	4	5	7	6	5	4	4	1.7	7.2
Dir	238	255	228	163	198	226	51	315	285	239	14	43	222	10	320	304	299	302	335	328	4	3	10	354	329	4
30 Spd	4	4	5	6	7	10	5	6	2	2	3	2	1	4	6	10	13	9	6	10	6	9	9	9	4.5	12.6
Dir	327	329	331	16	18	32	9	24	323	294	48	178	175	79	84	64	79	82	63	72	56	137	90	47	56	79
31 Spd	7	9	12	12	10	8	7	7	4	4	2	3	2	4	10	14	11	9	9	9	7	6	7	6	6.6	13.7
Dir	52	152	167	174	178	179	158	153	155	164	198	11	51	135	168	167	157	163	166	175	179	180	180	199	165	167
Spd	1.8	2.1	2.3	2.6	2.6	1.9	2.3	3.1	3.4	3.4	2.6	1.7	0.9	0.9	1.0	1.2	0.3	0.8	1.3	1.5	1.7	1.0	1.4	1.4	Diurnal Average	
Dir	198	191	184	191	196	184	187	187	189	192	192	193	231	301	328	352	269	183	178	164	188	177	196	198		
Spd	18.8	19.8	23.1	26.2	26.2	29.1	16.9	18.0	21.8	18.1	18.6	18.2	12.2	9.0	10.1	13.7	12.6	12.0	12.3	14.3	13.1	12.3	12.0	11.9	Diurnal Maximum	
Dir	164	162	162	162	162	163	173	179	173	174	172	173	180	194	168	167	79	168	164	162	171	177	169	178		
Maximum Speed Value: 29 km/h on Jan 1 06:00		Minimum Speed Value: 0 km/h on Jan 10 02:00																Hours in Service: 744								
Maximum Daily Speed Average: 10.7 km/h on Jan 1		Minimum Daily Speed Average: 0.1 km/h on Jan 8																Hours of Data: 744								
Maximum Diurnal Speed Average: 3.4 km/h at hour 10		Minimum Diurnal Speed Average: 0.3 km/h at hour 17																Hours of Missing Data: 0								
Monthly Average Velocity: 1.55 km/h 192.8 deg		Speed Percentiles: P <sub>1</sub> = 0.3 P <sub>10</sub> = 1.0 Q <sub>1</sub> = 1.6 Median = 2.8 Q <sub>3</sub> = 5.4 P <sub>90</sub> = 9.4 P <sub>99</sub> = 17.8																Percent Operational Time: 100.0								
All monthly, daily, and diurnal averages have been calculated using vector methods																										
Frequency Distribution																										
		Speed Range (km/h)																								
Direction	0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total																			
North	81	15	0	0	0	0	96																			
NorthEast	30	9	0	0	0	0	39																			
East	18	4	1	0	0	0	23																			
SouthEast	49	23	1	0	0	0	73																			
South	56	73	43	5	1	0	178																			
SouthWest	112	6	0	0	0	0	118																			
West	72	13	0	0	0	0	85																			
NorthWest	119	12	1	0	0	0	132																			
Total	537	155	46	5	1	0	744																			

# Wind Rose

Wind Speed (WS) (km/h)  
Portable-Kinuso - January 2010



Wind Speed Classes (km/h)





# Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Portable-Kinuso - January 2010

Maximum Speed: 29 km/h on Jan 1 06:00	Maximum Daily Speed Average: 13.1 km/h on Jan 1	Hours in Service: 744
Minimum Speed: 1 km/h on Jan 22 21:00	Minimum Daily Speed Average: 2.7 km/h on Jan 28	Hours of Data: 744
Maximum Diurnal Speed Average: 5.9 km/h at hour 11	Minimum Diurnal Speed Average: 4.2 km/h at hour 18	Hours of Missing Data: 0
Monthly Average Speed: 4.89 km/h	Percentiles: P <sub>1</sub> = 1.3 P <sub>10</sub> = 2.0 Q <sub>1</sub> = 2.5 Median = 3.6 Q <sub>3</sub> = 5.9 P <sub>90</sub> = 9.6 P <sub>99</sub> = 18.1	Percent Operational Time: 100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jan	19	20	23	26	26	29	17	18	22	18	19	18	12	9	5	6	3	3	3	2	3	3	4	3	13.1	29.4
2-Jan	4	4	4	4	5	5	5	5	4	5	5	5	5	5	5	5	4	3	2	2	3	5	5	2	4.2	5.4
3-Jan	2	2	3	3	2	2	3	2	2	2	3	2	4	5	6	6	5	2	2	2	3	4	4	5	3.2	6.3
4-Jan	5	12	12	7	9	8	7	8	6	4	5	2	1	1	2	1	2	3	3	2	2	2	2	2	4.5	11.9
5-Jan	2	2	2	1	3	2	4	4	5	4	5	2	2	5	5	4	3	2	1	2	2	3	2	2	2.8	4.7
6-Jan	2	2	2	3	2	1	5	9	13	14	10	6	5	2	2	2	2	3	5	9	7	3	3	5	4.8	14.1
7-Jan	5	5	8	7	5	4	4	3	3	3	3	3	3	4	3	4	7	2	3	3	2	2	1	2	3.7	7.7
8-Jan	2	2	2	3	2	3	2	2	3	3	5	3	3	2	3	3	3	3	3	5	6	3	2	3	2.8	6.1
9-Jan	3	4	3	2	2	2	2	4	4	4	3	2	3	2	3	3	3	2	3	4	5	9	3	3	3.2	9.4
10-Jan	4	4	4	3	6	4	3	2	3	4	4	3	3	2	3	4	8	12	13	14	13	12	12	11	6.3	14.4
11-Jan	7	5	4	2	7	7	6	6	6	7	9	9	9	8	8	8	8	9	10	12	11	4	3	5	7.2	12.0
12-Jan	4	8	5	2	2	3	3	3	3	2	2	2	2	3	4	6	3	3	4	7	8	4	3	2	3.7	7.9
13-Jan	3	6	7	5	5	4	3	2	2	2	2	3	3	3	3	3	3	3	3	3	4	3	3	2	3.3	7.3
14-Jan	2	2	2	3	3	3	2	3	3	3	13	8	3	3	3	2	3	3	4	4	10	4	2	3	3.8	13.2
15-Jan	3	3	6	10	12	12	10	11	12	12	13	12	10	8	5	3	4	6	4	3	4	6	7	7	7.6	12.5
16-Jan	9	9	9	10	12	9	6	5	4	7	6	7	7	6	5	5	4	7	9	10	11	12	11	12	8.1	12.4
17-Jan	11	10	8	6	7	7	11	17	15	11	12	12	9	5	3	4	5	4	3	5	3	3	3	7	7.6	17.3
18-Jan	7	3	4	4	3	5	8	3	5	12	6	6	5	3	3	3	3	2	2	3	3	2	2	3	4.0	11.6
19-Jan	3	3	2	4	5	4	3	4	7	10	4	3	2	2	2	3	2	2	2	3	3	3	2	2	3.3	10.1
20-Jan	3	2	2	2	2	2	3	3	3	2	2	2	2	3	3	2	3	2	2	2	3	3	9	4	2.8	9.1
21-Jan	6	9	8	6	7	4	4	6	7	7	5	5	4	5	6	4	9	10	11	9	7	6	6	7	6.6	10.9
22-Jan	6	6	6	7	7	5	7	8	8	8	10	9	8	4	2	3	2	2	2	1	1	1	2	2	4.9	9.7
23-Jan	2	2	1	1	1	2	2	2	2	2	3	4	5	6	5	5	5	5	4	3	2	2	2	2	2.9	5.5
24-Jan	2	2	2	4	4	4	3	3	4	3	3	5	5	5	5	4	3	2	2	2	7	2	2	3	3.3	7.4
25-Jan	2	2	2	2	4	3	3	3	2	2	5	5	6	7	6	10	6	5	5	5	4	2	2	4	4.1	9.6
26-Jan	4	3	3	3	3	3	4	3	2	2	3	4	4	4	4	4	4	1	2	3	2	2	4	9	3.3	9.2
27-Jan	12	15	15	15	9	4	6	7	7	5	6	3	4	3	4	2	2	2	2	2	3	3	3	4	5.7	15.1
28-Jan	3	3	3	3	3	2	3	3	3	2	3	3	2	3	3	3	2	2	2	3	2	3	2	2	2.7	3.3
29-Jan	2	1	2	3	3	3	3	2	2	3	4	2	2	3	4	3	3	3	4	5	7	7	5	5	3.4	7.4
30-Jan	4	4	5	7	7	10	5	6	3	2	5	2	2	5	7	10	13	9	7	10	6	9	10	9	6.5	12.7
31-Jan	7	11	12	12	10	8	7	7	4	5	3	4	3	4	10	14	11	10	9	9	7	6	7	6	7.9	13.8
	4.9	5.3	5.5	5.5	5.7	5.3	4.9	5.3	5.4	5.4	5.9	5.0	4.5	4.3	4.3	4.5	4.5	4.2	4.2	4.9	5.0	4.3	4.2	4.4	Diurnal Average	
	19.0	20.0	23.3	26.4	26.4	29.4	17.2	18.4	22.0	18.3	18.8	18.3	12.4	9.1	10.3	13.8	12.7	12.1	12.5	14.4	13.3	12.4	12.1	11.9	Diurnal Maximum	

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



# Hourly Standard Deviations

Wind Direction (WD) - deg

Portable-Kinuso - January 2010

Maximum Value: 97.5 deg on Jan 27 12:00																								Hours in Service:	744
Minimum Value: 0.1 deg on Jan 23 00:00																								Hours of Data:	744
Percentiles: P <sub>1</sub> = 5.1 P <sub>10</sub> = 9.1 Q <sub>1</sub> = 14.0 Median = 31.2 Q <sub>3</sub> = 58.4 P <sub>90</sub> = 76.4 P <sub>99</sub> = 93.4																								Hours of Missing Data:	0
																								Hours of Calibration:	0
																								Percent Operational Time:	100.0
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jan	9	8	7	6	7	7	10	12	7	9	9	7	12	10	64	17	18	37	41	51	35	39	19	19	64.0
2-Jan	18	15	12	13	14	14	17	14	15	15	14	17	20	17	27	21	23	50	54	70	60	26	29	42	69.7
3-Jan	58	77	35	58	67	61	23	21	23	36	40	76	30	16	17	13	15	23	59	38	14	13	13	12	76.5
4-Jan	31	6	7	10	9	10	18	12	26	10	11	52	62	92	17	43	24	18	23	45	38	62	23	71	92.1
5-Jan	37	50	75	41	59	26	14	16	9	12	10	32	58	23	27	57	35	65	29	49	72	45	18	26	75.3
6-Jan	45	37	45	45	53	51	29	5	6	8	12	22	29	72	58	32	52	66	33	18	65	91	76	46	91.3
7-Jan	40	34	30	82	48	58	79	72	62	77	78	55	45	40	51	33	55	20	74	91	57	78	40	83	91.1
8-Jan	80	29	75	86	64	81	56	80	82	72	28	68	56	95	91	69	71	77	94	82	67	58	56	91	95.0
9-Jan	77	92	83	44	62	95	74	85	84	92	50	65	34	55	54	39	44	68	58	78	59	33	78	70	95.0
10-Jan	56	92	95	47	17	65	59	39	69	33	23	61	60	55	75	64	23	7	11	6	10	10	7	12	95.4
11-Jan	21	51	60	60	56	92	52	25	22	10	7	11	12	11	11	7	8	6	8	7	13	60	70	55	92.4
12-Jan	39	40	41	35	46	44	50	84	36	60	94	45	42	52	23	46	75	59	58	11	14	21	29	48	94.2
13-Jan	36	35	12	20	23	45	41	63	39	23	25	21	44	39	70	71	68	83	63	91	45	88	43	79	91.0
14-Jan	44	50	72	85	34	79	52	32	72	78	11	81	33	35	35	45	69	87	68	77	12	68	68	55	87.5
15-Jan	62	83	60	6	7	5	7	7	9	10	8	9	7	20	66	61	59	80	49	16	35	48	48	15	82.7
16-Jan	11	10	12	14	9	11	13	30	36	14	15	14	14	22	19	18	24	6	6	6	8	7	5	6	35.8
17-Jan	6	9	18	22	10	18	20	5	22	26	20	13	19	88	30	61	79	51	77	76	72	46	75	69	87.8
18-Jan	59	59	44	69	32	83	36	63	38	14	38	69	39	85	82	69	50	49	68	71	67	96	37	74	96.0
19-Jan	75	74	63	34	49	89	87	20	13	9	33	29	29	43	34	29	31	49	40	72	81	84	14	40	88.5
20-Jan	39	70	24	42	18	22	66	33	55	91	29	42	51	23	41	32	64	79	36	15	67	92	12	27	92.1
21-Jan	13	8	14	8	9	68	56	8	8	11	18	26	22	31	29	45	12	10	11	9	10	12	10	13	67.6
22-Jan	13	12	16	20	10	10	11	8	10	11	10	12	10	30	54	32	20	18	23	10	1	17	4	0	54.1
23-Jan	7	15	9	5	10	13	18	55	61	41	18	16	12	12	11	10	11	13	15	14	17	27	75	34	74.8
24-Jan	29	22	21	10	11	13	14	13	8	14	15	12	15	19	13	11	13	22	28	49	13	83	31	34	83.2
25-Jan	62	24	83	34	20	11	37	49	25	55	23	22	20	17	17	11	13	15	15	14	22	30	24	30	82.5
26-Jan	17	18	51	60	56	56	21	36	34	35	47	18	14	15	16	33	40	76	25	16	26	25	20	6	75.5
27-Jan	7	4	5	6	15	25	15	19	37	50	59	97	31	19	23	66	41	52	81	57	49	83	76	40	97.5
28-Jan	49	88	54	56	72	71	52	76	84	76	74	74	47	31	46	34	62	86	85	36	15	62	74	93	92.7
29-Jan	21	24	22	47	75	37	93	66	24	23	38	97	45	69	20	19	13	20	32	12	16	15	21	26	96.6
30-Jan	15	15	13	21	14	8	32	17	43	29	64	29	64	48	24	7	6	7	14	7	25	12	29	7	64.2
31-Jan	9	43	9	10	11	9	10	10	21	22	57	33	74	29	12	8	9	10	7	8	7	9	7	10	73.6
79.6	92.5	95.4	86.0	75.5	95.0	92.6	84.9	83.9	92.5	94.2	97.5	73.6	95.0	90.5	70.8	79.0	87.5	93.7	91.1	81.1	96.0	78.3	92.7		

**PASZA**  
**Valleyview Station**  
**Monthly Summary Tables, Graphs and**  
**Roses**

# Hourly Averages

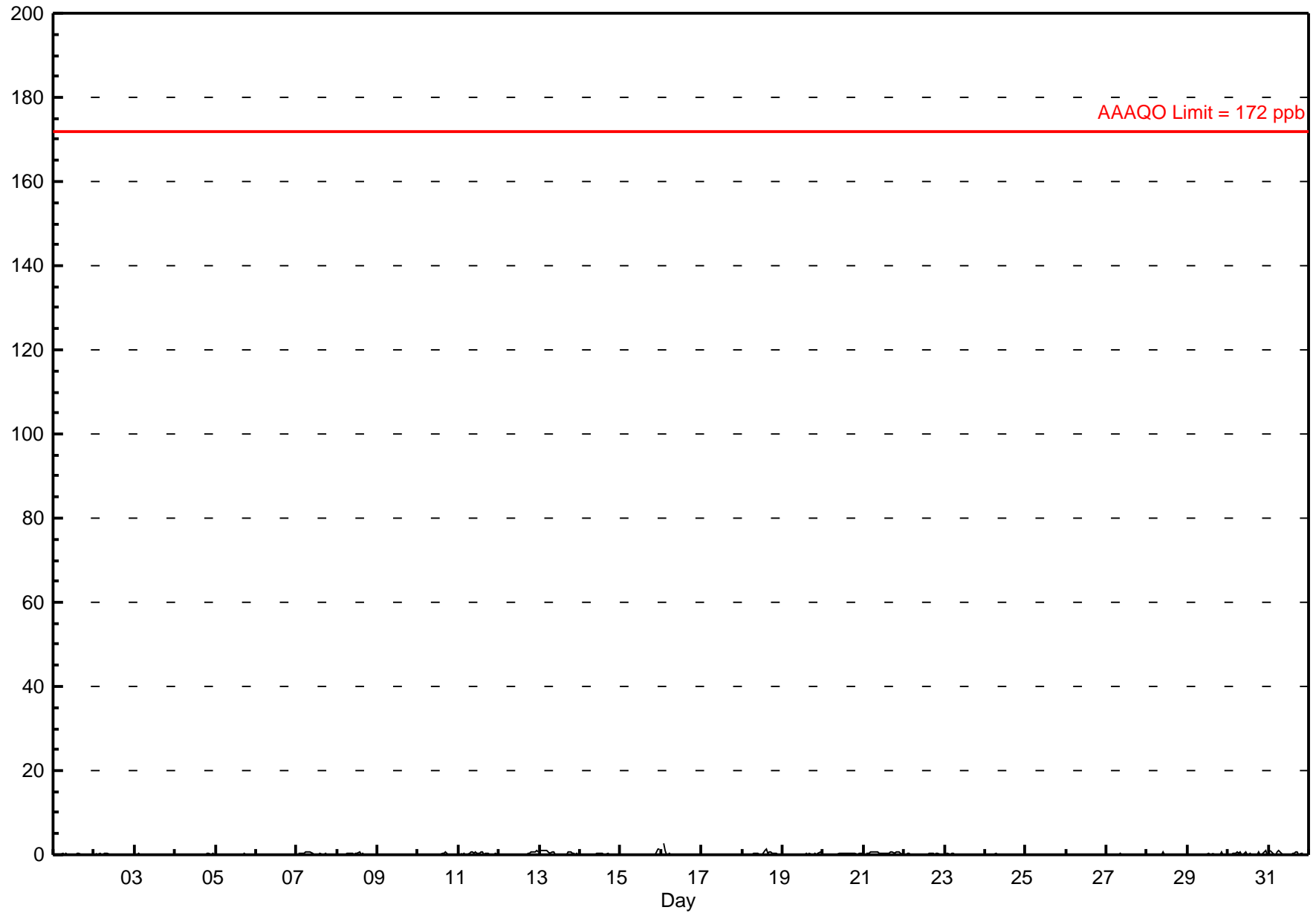
Sulphur Dioxide (SO<sub>2</sub>) - ppb

Valleyview - January 2010

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 2.8 ppb on Jan 16 02:00	Maximum Daily Average: 0.5 ppb on Jan 21		Hours of Data:	682
Minimum Value: 0 ppb on Jan 1 12:00	Minimum Daily Average: 0.0 ppb on Jan 26		Hours of Missing Data:	62
Maximum Diurnal Average: 0.2 ppb at hour 2	Minimum Diurnal Average: 0.1 ppb at hour 13		Hours of Calibration:	34
Monthly Average: 0.14 ppb	Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.0 Median = 0.0 Q <sub>3</sub> = 0.2 P <sub>90</sub> = 0.4 P <sub>99</sub> = 0.9		Percent Operational Time:	96.2

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	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
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	0.3
3-Jan	A	0	0	0	0	0	0	0	0	0	BD	BD	BD	BD	0	0	0	0	0	0	0	0	0	0	0.0	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	0.0	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	0.1	0.2
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	0.0	0.1
7-Jan	A	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.8
8-Jan	A	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.1	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	0.0	0.1
10-Jan	A	BD	BD	BD	0	0	0	0	0	0	0	0	0	0	0	1	0	0	BD	BD	BD	BD	BD	BD	--	0.6
11-Jan	A	0	0	0	0	0	0	1	1	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0.3	0.8
12-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0.2	0.9
13-Jan	A	1	1	1	1	1	0	1	1	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0.4	1.0
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	0.1	0.5
15-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0.2	1.4
16-Jan	A	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	2.8
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	0.2
18-Jan	A	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1	0	0	0	0	0	0	0	0.3	1.3
19-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.1	0.7
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	0.2	0.5
21-Jan	A	0	0	0	1	1	1	1	1	0	0	0	0	0	0	1	1	0	1	1	1	0	0	0	0.5	0.8
22-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
23-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
24-Jan	A	0	0	0	0	0	0	0	0	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
25-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	P	P	P	0.0	0.2
26-Jan	P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
27-Jan	A	0	0	0	0	0	0	0	0	0	0	0	BD	BD	BD	0	0	0	0	0	0	0	0	0	0.0	0.2
28-Jan	A	0	0	0	0	0	0	0	0	1	0	0	0	0	BD	0	0	BD	BD	0	0	0	0	0	0.0	0.7
29-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.1	0.8
30-Jan	A	0	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	1	0	0	1	1	0	0.3	0.9
31-Jan	A	1	0	0	0	1	1	1	0	BD	BD	BD	0	0	0	0	1	1	0	0	0	BD	BD	BD	--	1.0
	--	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	Diurnal Average	
	--	2.8	1.0	0.9	0.9	0.8	0.9	0.8	0.7	0.7	0.7	0.5	0.4	0.9	1.3	0.5	0.8	0.6	0.6	0.6	0.8	0.7	1.2	1.4	Diurnal Maximum	

C - Calibration      P - Power Failure      BD - Baseline Drift      A - Automated Daily Zero Span  
 Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb      24-hr 57 ppb



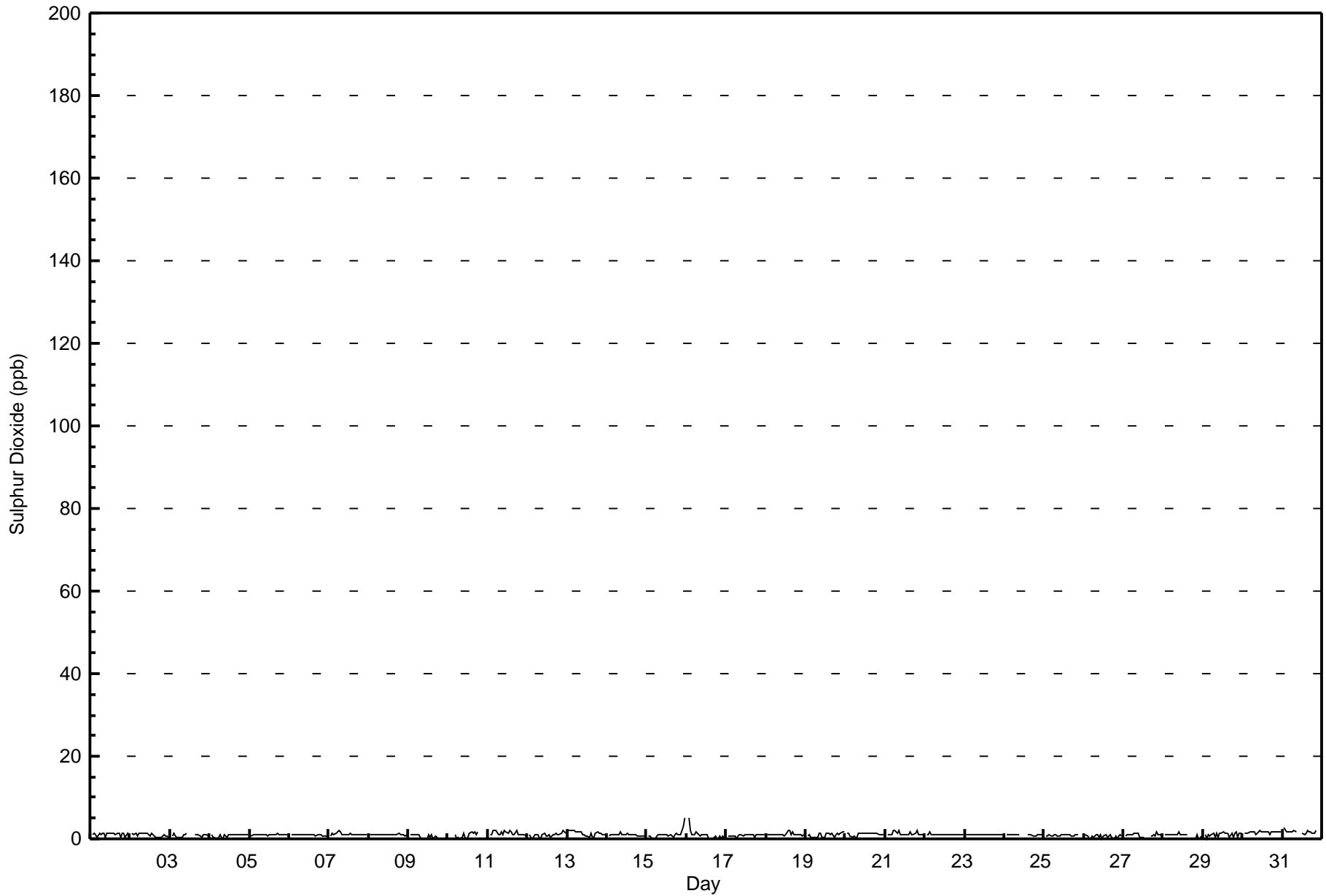
# Hourly Maximums

Sulphur Dioxide (SO<sub>2</sub>) - ppb

Valleyview - January 2010

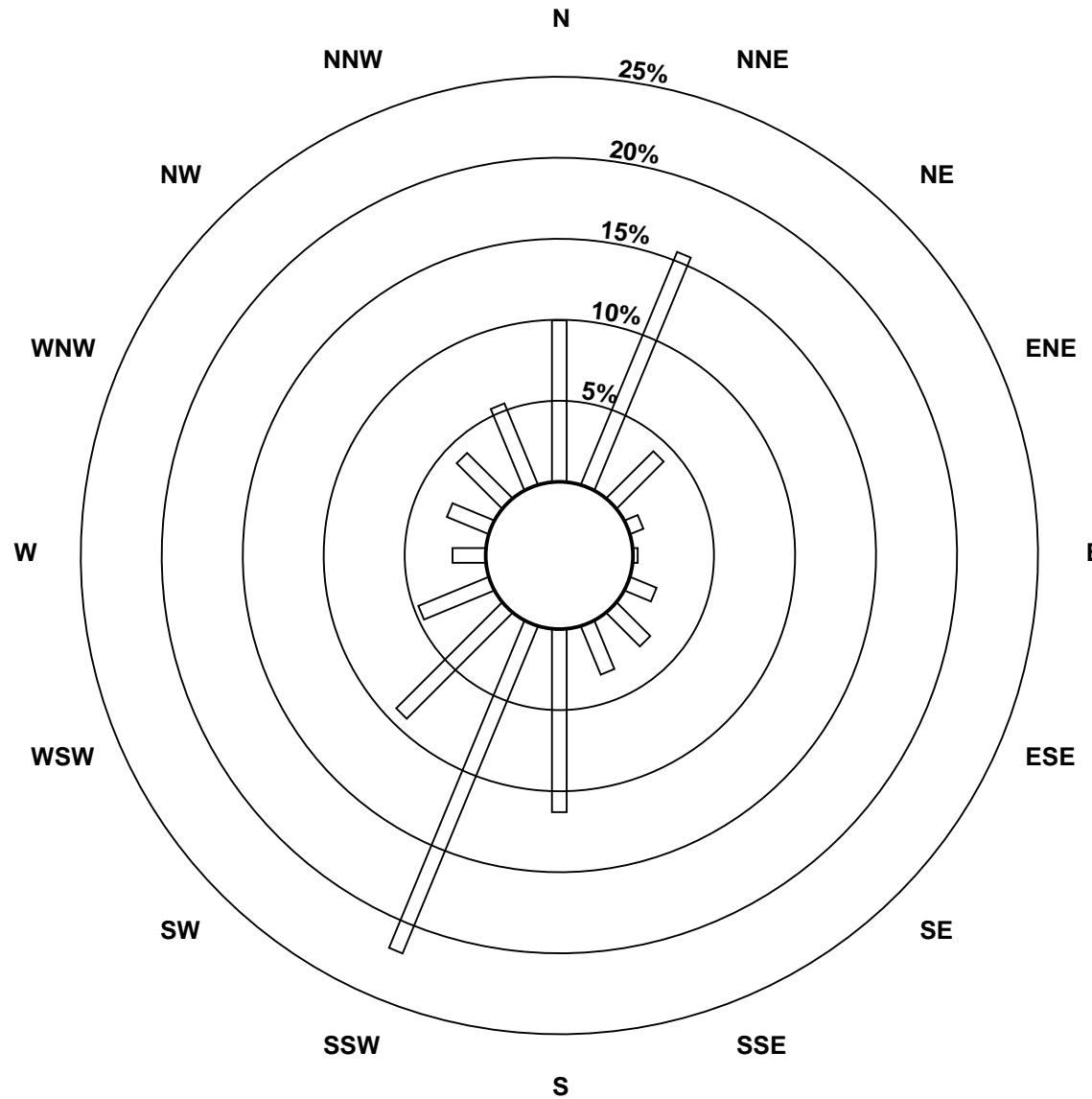
Maximum Value: 5.1 ppb on Jan 16 02:00		Maximum Daily Average: 1.6 ppb on Jan 30		Hours in Service: 744																							
Minimum Value: 0 ppb on Jan 9 10:00		Minimum Daily Average: 0.5 ppb on Jan 9		Hours of Data: 682																							
Maximum Diurnal Average: 1.2 ppb at hour 2		Minimum Diurnal Average: 0.9 ppb at hour 12		Hours of Missing Data: 62																							
Monthly Average: 1.00 ppb		Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.4 Q <sub>1</sub> = 0.8 Median = 1.0 Q <sub>3</sub> = 1.2 P <sub>90</sub> = 1.6 P <sub>99</sub> = 2.1		Hours of Calibration: 34																							
				Percent Operational Time: 96.2																							
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	A	1	1	1	0	1	1	1	1	0	1	1	1	1	1	1	1	1	0	1	1	0	1	0	1.0	1.4	
2-Jan	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	1	1	1	0	0.8	1.3	
3-Jan	A	1	1	1	0	0	0	0	1	1	1	BD	BD	BD	BD	1	1	1	1	0	1	1	1	1	0.8	1.2	
4-Jan	A	1	0	0	0	0	1	0	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.1	
5-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	1.0	1.4	
6-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	1.0	
7-Jan	A	1	1	1	1	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.9	
8-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	1.0	1.2	
9-Jan	A	1	1	1	1	1	1	0	0	0	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0.5	1.0	
10-Jan	A	BD	BD	BD	1	0	0	0	0	1	0	0	1	2	1	2	1	2	1	2	BD	BD	BD	BD	BD	--	1.7
11-Jan	A	1	1	2	2	1	1	2	1	2	2	1	2	2	1	1	2	1	1	1	1	1	1	1	1.3	2.0	
12-Jan	A	1	0	0	1	1	1	0	0	1	1	1	1	0	1	1	1	1	1	1	1	1	2	2	0.9	2.0	
13-Jan	A	2	2	2	2	2	2	2	2	1	1	1	1	0	1	0	0	1	2	1	1	1	1	1	1.3	2.0	
14-Jan	A	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.6	
15-Jan	A	1	1	0	0	0	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	2	3	5	1.1	5.0	
16-Jan	A	5	2	1	1	1	2	1	1	1	1	1	0	0	0	0	1	0	0	1	0	1	0	0	0.8	5.1	
17-Jan	A	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0.8	1.1	
18-Jan	A	1	1	1	1	1	1	1	1	1	1	1	2	2	1	2	1	1	1	1	1	1	1	1	1.2	2.1	
19-Jan	A	1	1	0	0	0	0	0	1	1	0	0	1	1	1	1	1	0	1	1	1	2	2	2	0.9	1.6	
20-Jan	A	2	1	1	0	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.5	
21-Jan	A	1	1	1	1	2	2	1	2	1	1	1	1	1	2	1	1	1	1	2	1	1	1	1	1.3	2.1	
22-Jan	A	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.7	
23-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	1.0	1.0	
24-Jan	A	1	1	1	1	1	1	1	1	1	C	C	C	C	1	1	1	1	1	1	1	1	1	1	0.9	0.9	
25-Jan	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	P	P	P	0.9	0.9	
26-Jan	P	1	1	0	0	1	0	1	1	0	1	0	1	0	1	1	0	0	1	0	1	0	1	1	0.5	0.9	
27-Jan	A	1	1	1	1	1	1	1	1	1	0	0	0	BD	BD	BD	1	1	1	1	2	1	1	0	0.9	1.8	
28-Jan	A	1	1	1	1	1	1	1	1	2	1	1	1	1	BD	1	BD	BD	0	1	0	0	0	1	0.9	1.7	
29-Jan	A	1	0	1	1	1	1	0	1	0	1	1	2	1	1	1	0	1	0	1	2	0	1	1	1.0	1.7	
30-Jan	A	1	2	2	2	2	2	2	1	1	2	2	2	2	2	2	1	2	2	2	2	2	2	2	1.6	2.0	
31-Jan	A	3	2	2	2	2	2	2	2	BD	BD	BD	1	1	1	2	2	2	1	1	2	BD	BD	BD	--	2.7	
--		1.2	1.0	1.0	0.9	1.0	1.0	0.9	1.0	1.0	1.0	0.9	1.0	1.1	1.1	1.0	1.0	1.0	0.9	0.9	1.1	1.0	1.1	1.0	Diurnal Average		
--		5.1	2.0	2.0	2.0	2.1	2.0	2.2	1.9	1.7	2.0	1.7	1.7	2.1	2.1	2.0	1.8	1.9	1.7	2.0	1.9	2.0	3.1	5.0	Diurnal Maximum		
C - Calibration		P - Power Failure					BD - Baseline Drift					A - Automated Daily Zero Span															

# Hourly Maximums for SO<sub>2</sub> at Valleyview January 2010

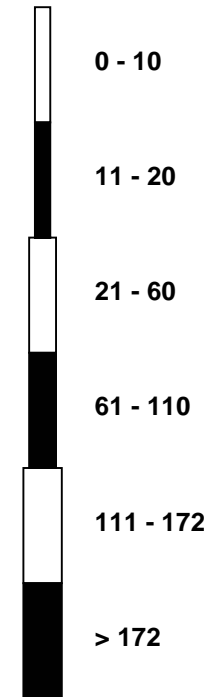


# Pollutant Rose

Sulphur Dioxide (SO<sub>2</sub>) - ppb  
Valleyview - January 2010



## Pollutant Classes (ppb)



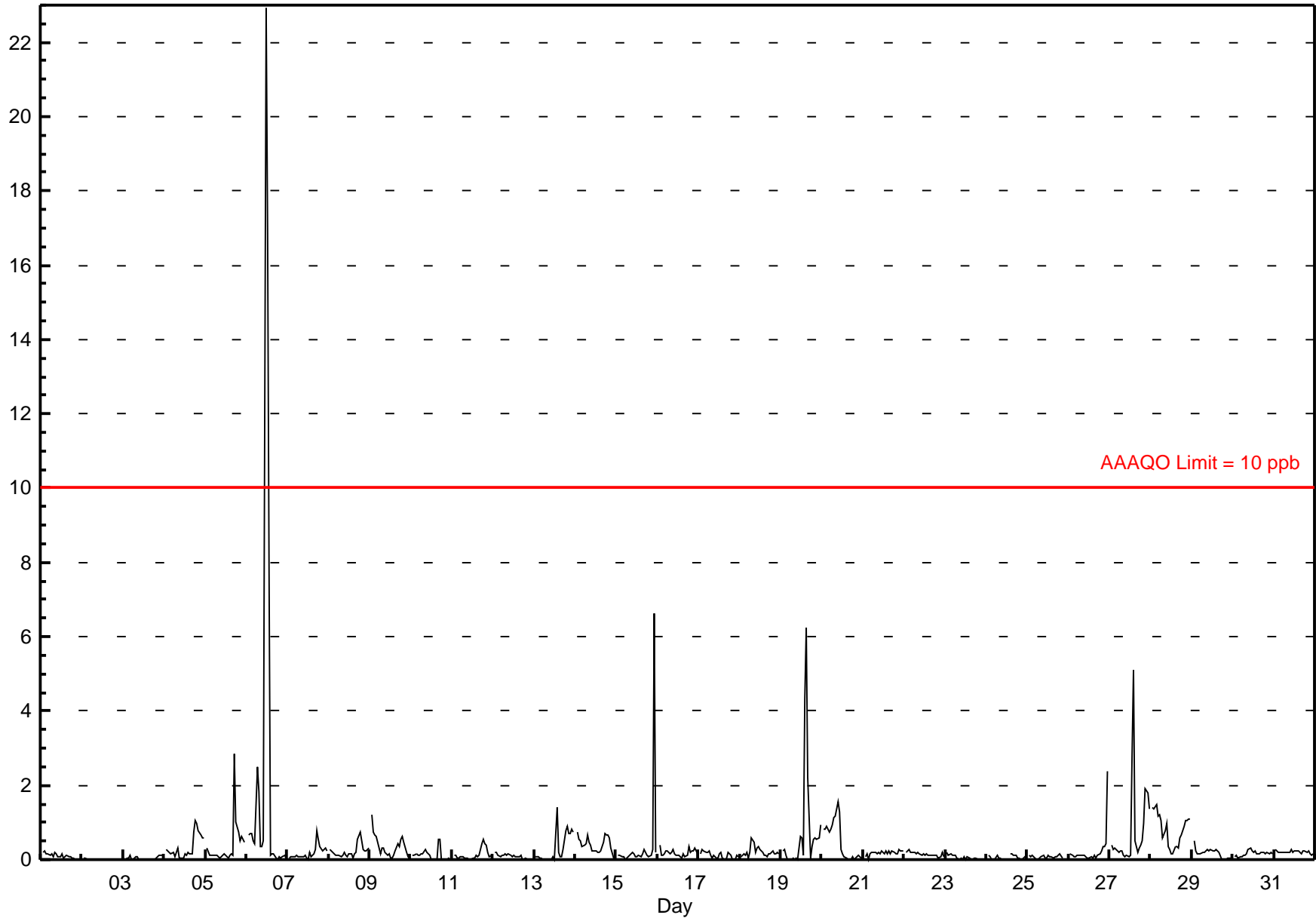
# Hourly Averages

## Hydrogen Sulphide (H<sub>2</sub>S) - ppb

### Valleyview - January 2010

Number of Exceedences (AAAQO): 1-hr: 2 24-hr: 0 Maximum Value: 22.9 ppb on Jan 6 12:00 Maximum Daily Average: 2.5 ppb on Jan 6		Hours in Service: 744 Hours of Data: 707 Hours of Missing Data: 37 Hours of Calibration: 33 Percent Operational Time: 99.5																								
Minimum Value: 0 ppb on Jan 2 04:00 Maximum Diurnal Average: 0.9 ppb at hour 12 Monthly Average: 0.33 ppb		Minimum Daily Average: 0.0 ppb on Jan 2 Minimum Diurnal Average: 0.2 ppb at hour 11 Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.1 Median = 0.1 Q <sub>3</sub> = 0.2 P <sub>90</sub> = 0.6 P <sub>99</sub> = 3.9																								
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	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
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	0.0	0.0
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	0.0	0.1
4-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0.3	1.1
5-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	1	1	1	1	0	0.4	2.8
6-Jan	A	1	1	1	0	0	2	2	0	0	1	23	17	8	0	0	0	0	0	0	0	0	0	0	2.5	22.9
7-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0.2	0.8
8-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0.2	0.8
9-Jan	A	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0.3	1.2
10-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	0.1	0.6
11-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.1	0.6
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	1	0	0	0	0	1	1	1	1	1	1	0.3	1.4
14-Jan	A	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0.4	0.7
15-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0.4	6.6
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	0.2	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	0.1	0.3
18-Jan	A	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
19-Jan	A	0	0	0	0	0	0	0	0	0	1	1	0	4	6	2	0	0	1	1	1	1	1	1	0.8	6.2
20-Jan	A	1	1	1	1	1	1	1	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	1.6
21-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
22-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
23-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
24-Jan	A	0	0	0	0	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0	0	0	0.1	0.2
25-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	P	P	P	0.1	0.2
26-Jan	P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.2	2.4	
27-Jan	A	0	0	0	0	0	0	0	0	0	0	0	3	5	1	0	0	0	1	1	2	2	1	0.8	5.1	
28-Jan	A	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	1	1	1	1	1	1	1	0.8	1.5	
29-Jan	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5	
30-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3	
31-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3	
--		0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.9	0.7	0.5	0.4	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.5	0.3	Diurnal Average	
--		1.4	1.4	1.5	1.2	1.2	2.5	1.8	1.2	1.6	1.3	22.9	16.9	7.8	5.1	6.2	2.2	2.8	1.1	1.0	1.1	1.9	6.6	2.4	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																			



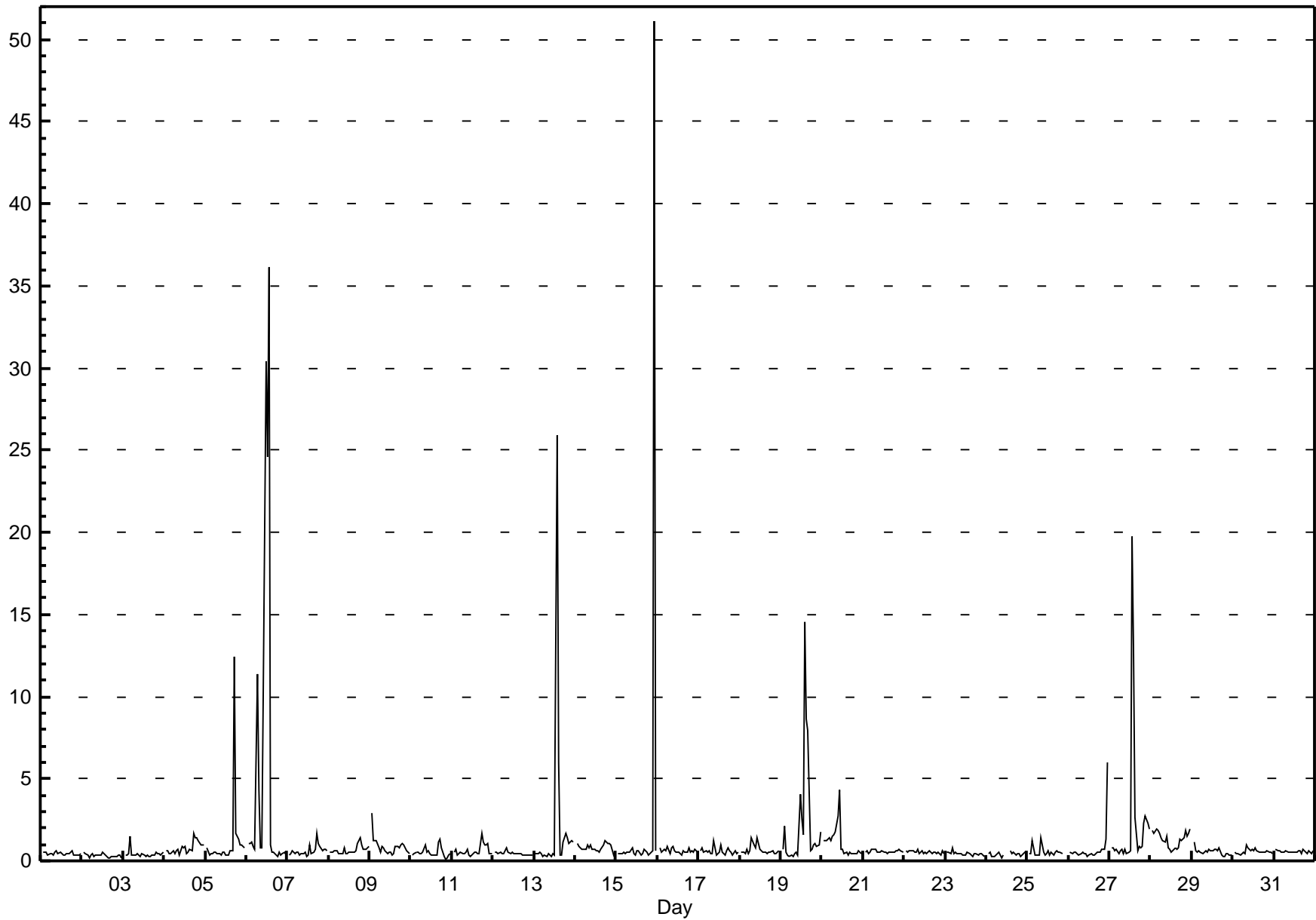


# Hourly Maximums

## Hydrogen Sulphide (H<sub>2</sub>S) - ppb

### Valleyview - January 2010

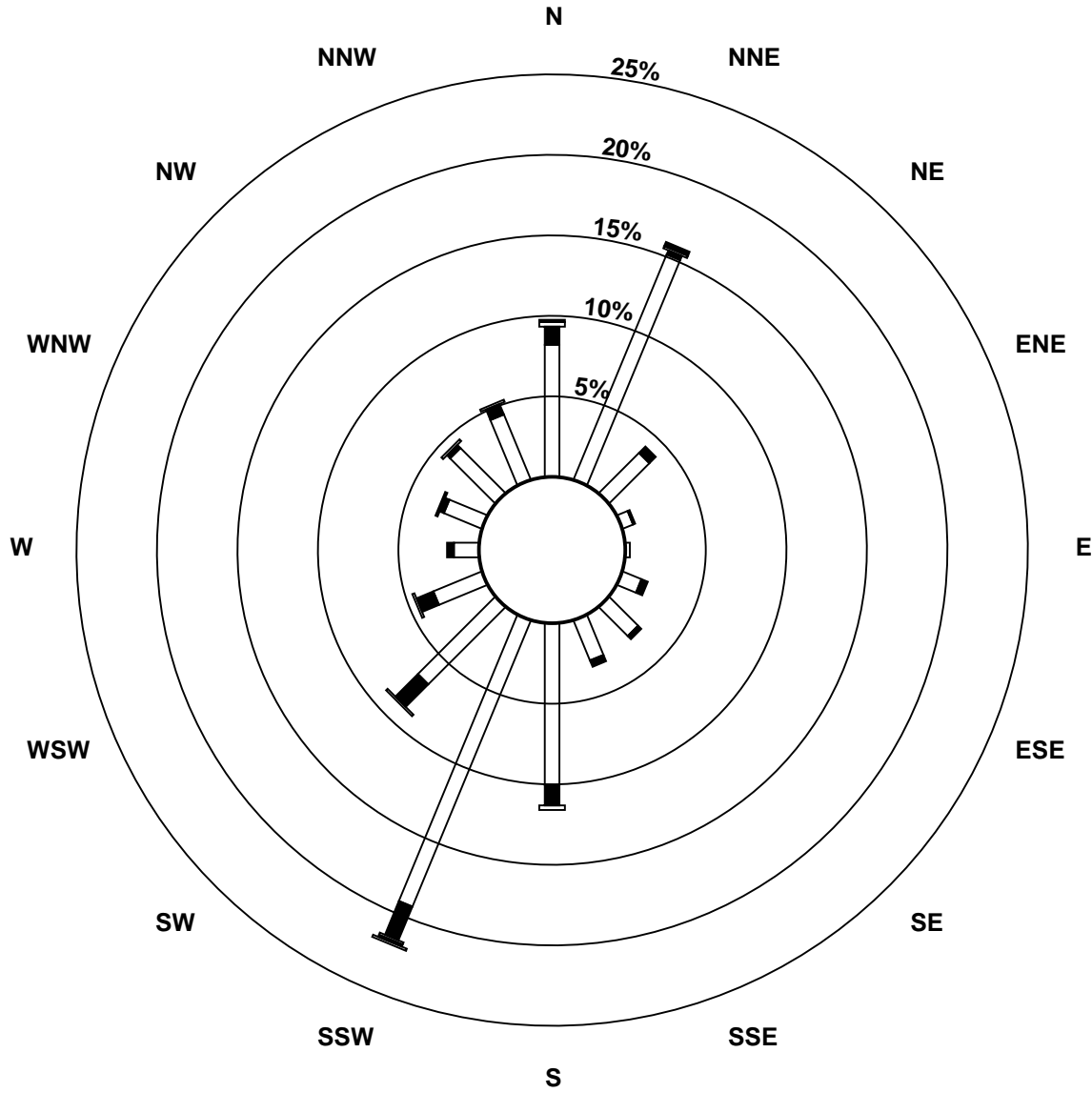
Maximum Value: 51.1 ppb on Jan 15 23:00		Maximum Daily Average: 5.6 ppb on Jan 6		Hours in Service: 744																							
Minimum Value: 0 ppb on Jan 10 21:00		Minimum Daily Average: 0.3 ppb on Jan 2		Hours of Data: 707																							
Maximum Diurnal Average: 3.2 ppb at hour 14		Minimum Diurnal Average: 0.6 ppb at hour 6		Hours of Missing Data: 37																							
Monthly Average: 1.03 ppb		Percentiles: P <sub>1</sub> = 0.2 P <sub>10</sub> = 0.3 Q <sub>1</sub> = 0.4 Median = 0.5 Q <sub>3</sub> = 0.7 P <sub>90</sub> = 1.2 P <sub>99</sub> = 11.6		Hours of Calibration: 33																							
				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	A	0	1	1	0	0	0	0	1	1	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0.5	0.6	
2-Jan	A	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5	
3-Jan	A	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.4	1.5	
4-Jan	A	1	1	0	0	1	0	1	1	0	1	1	1	0	1	1	1	2	1	1	1	1	1	1	0.8	1.7	
5-Jan	A	1	0	0	0	1	1	0	0	0	1	1	0	0	1	1	1	12	2	1	1	1	1	1	1.2	12.4	
6-Jan	A	1	1	1	1	1	11	4	1	1	10	30	25	36	1	1	0	0	0	1	0	0	0	0	5.6	36.1	
7-Jan	A	0	0	1	0	1	0	0	0	0	1	0	0	1	0	0	1	2	1	1	1	1	1	1	0.6	1.7	
8-Jan	A	1	0	1	1	1	0	0	0	1	0	0	1	1	1	0	1	1	1	1	1	1	1	1	0.7	1.4	
9-Jan	A	3	1	1	1	1	1	1	1	1	0	1	1	0	0	1	1	1	1	1	1	1	1	0	0.9	2.9	
10-Jan	A	0	0	1	1	0	0	0	1	1	1	0	0	0	0	0	1	1	1	1	0	0	0	0	0.5	1.3	
11-Jan	A	0	1	0	0	0	0	0	1	1	0	0	0	1	1	0	0	2	1	1	1	1	0	0	0.6	1.7	
12-Jan	A	1	1	0	0	0	0	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0.5	0.8	
13-Jan	A	0	0	1	0	0	0	0	0	0	0	0	0	26	6	0	0	1	2	1	1	1	1	1	2.0	25.9	
14-Jan	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0.8	1.2	
15-Jan	A	0	0	0	1	0	0	1	0	1	0	0	1	1	0	0	1	1	0	0	1	1	51	1	2.7	51.1	
16-Jan	A	1	1	1	1	1	1	0	1	1	1	1	1	0	0	1	1	0	1	1	1	1	1	0	0.6	0.9	
17-Jan	A	1	1	1	1	1	1	0	0	1	0	0	1	1	1	0	1	1	1	1	1	0	1	0	0.6	1.2	
18-Jan	A	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	0	0	1	0.7	1.4	
19-Jan	A	1	2	1	0	0	0	0	0	1	0	4	3	2	15	9	8	1	1	1	1	1	1	2	2.3	14.6	
20-Jan	A	1	1	1	1	1	1	2	2	3	4	1	1	0	1	0	1	0	0	0	0	0	1	0	1.1	4.3	
21-Jan	A	1	1	0	1	1	1	1	1	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1	0.6	0.7	
22-Jan	A	1	1	1	1	1	1	1	1	0	1	0	0	0	1	1	0	1	1	0	1	0	1	0	0.5	0.7	
23-Jan	A	1	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.8	
24-Jan	A	0	1	0	0	0	0	1	0	0	0	C	C	C	1	0	1	0	0	0	0	1	0	0.4	0.6		
25-Jan	A	0	0	1	0	0	0	0	1	1	0	0	1	0	1	0	0	1	1	0	0	P	P	P	0.5	1.4	
26-Jan	P	1	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	1	1	1	1	1	1	6	0.8	6.0	
27-Jan	A	1	1	1	1	0	1	1	0	1	0	0	1	20	13	3	1	1	1	1	1	2	3	2	2	2.4	19.8
28-Jan	A	2	2	2	2	2	1	1	1	1	1	0	1	1	1	1	1	1	1	1	2	1	2	2	1.3	2.0	
29-Jan	A	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0.6	1.1	
30-Jan	A	1	0	0	0	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0.6	1.0	
31-Jan	A	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	0	1	1	0	1	1	0	1	0.6	0.7	
--		0.7	0.7	0.7	0.7	0.6	0.9	0.7	0.7	0.7	1.0	1.6	1.4	3.2	1.5	0.8	0.8	1.1	0.8	0.7	0.7	0.7	2.4	0.8	Diurnal Average		
--		2.9	2.2	2.0	1.8	1.7	11.4	4.3	1.8	2.7	10.3	30.4	24.6	36.1	14.6	8.7	7.9	12.4	1.7	1.4	2.3	2.7	51.1	6.0	Diurnal Maximum		
C - Calibration		P - Power Failure						A - Automated Daily Zero Span																			



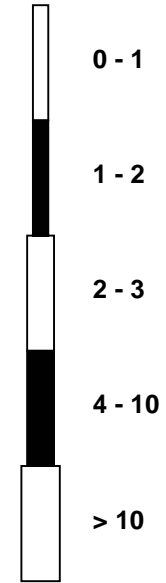
# Pollutant Rose

Hydrogen Sulphide (H<sub>2</sub>S) - ppb

Valleyview - January 2010



### Pollutant Classes (ppb)

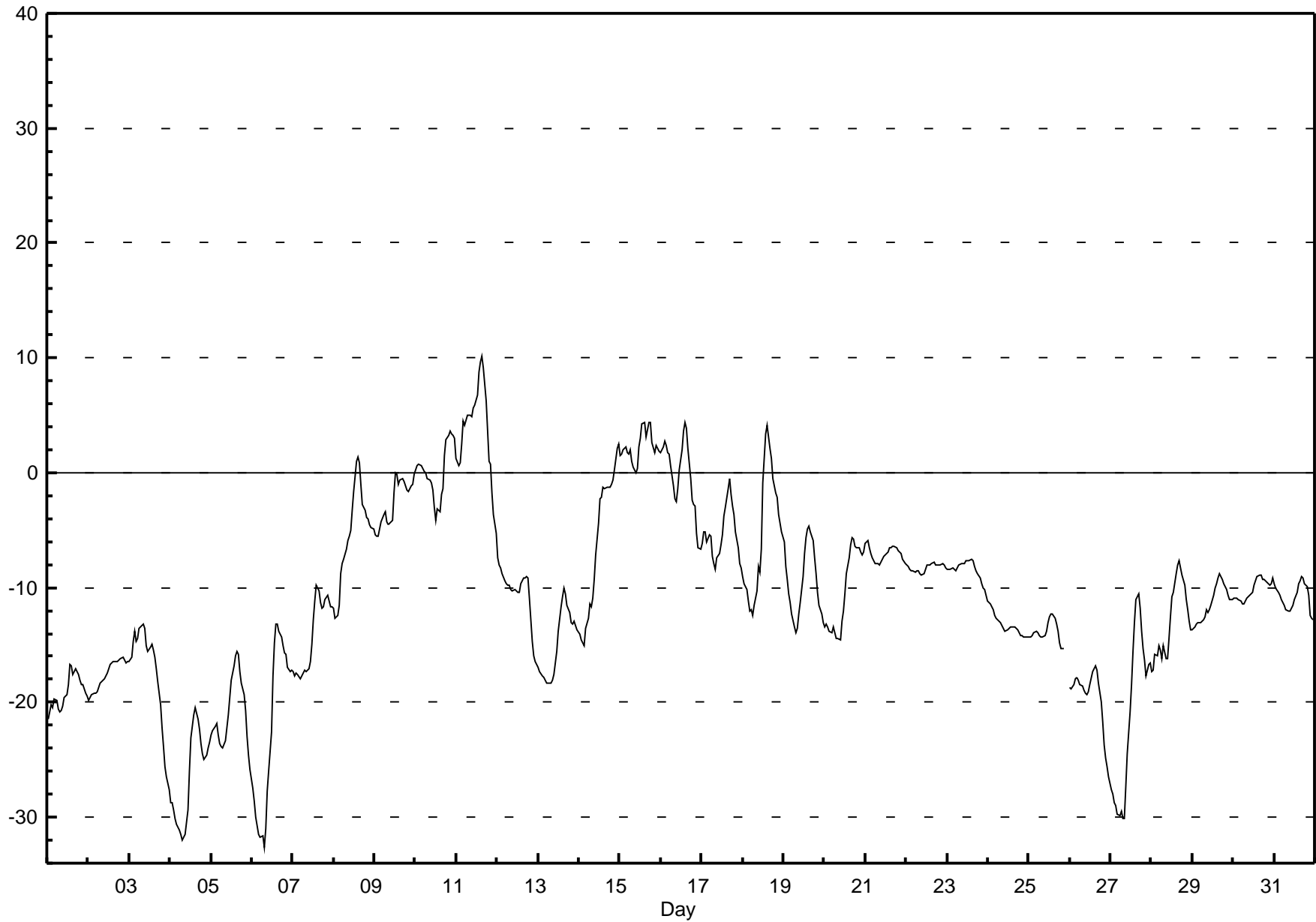


# Hourly Averages

External Temperature (ET) - °C

Valleyview - January 2010

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 10.2 °C on Jan 11 16:00      Maximum Daily Average: 3.8 °C on Jan 11		Hours in Service: 744 Hours of Data: 741 Hours of Missing Data: 3 Hours of Calibration: 0 Percent Operational Time: 99.6																								
Minimum Value: -33 °C on Jan 6 08:00 Maximum Diurnal Average: -7.6 °C at hour 16 Monthly Average: -10.93 °C		Minimum Daily Average: -26.5 °C on Jan 4 Minimum Diurnal Average: -13.0 °C at hour 8 Percentiles: P <sub>1</sub> = -31.5 P <sub>10</sub> = -20.7 Q <sub>1</sub> = -16.2 Median = -10.9 Q <sub>3</sub> = -6.3 P <sub>90</sub> = 0.6 P <sub>99</sub> = 5.5																								
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	-21	-21	-20	-20	-20	-20	-21	-21	-21	-20	-20	-19	-18	-17	-17	-18	-17	-17	-18	-18	-18	-19	-19	-19	-19	
2-Jan	-20	-20	-19	-19	-19	-19	-19	-18	-18	-18	-18	-17	-17	-17	-16	-16	-16	-16	-16	-16	-16	-16	-17	-16	-16	
3-Jan	-17	-16	-15	-14	-15	-14	-14	-13	-13	-14	-15	-16	-15	-15	-15	-16	-17	-18	-20	-22	-24	-26	-27	-28	-17.4	
4-Jan	-29	-29	-29	-30	-31	-31	-31	-32	-32	-31	-29	-26	-23	-22	-21	-20	-21	-22	-24	-24	-25	-25	-24	-23	-26.5	
5-Jan	-23	-22	-22	-22	-23	-24	-24	-24	-23	-22	-21	-20	-18	-17	-16	-16	-16	-17	-18	-19	-21	-23	-25	-26	-20.9	
6-Jan	-27	-29	-30	-31	-31	-32	-32	-33	-31	-28	-26	-23	-18	-15	-13	-13	-14	-14	-15	-16	-16	-17	-17	-17	-22.4	
7-Jan	-17	-18	-17	-18	-18	-18	-17	-17	-17	-17	-16	-15	-13	-11	-10	-10	-11	-12	-12	-11	-11	-11	-12	-12	-14.2	
8-Jan	-12	-13	-12	-12	-9	-8	-7	-7	-6	-5	-5	-3	-2	1	1	1	-1	-3	-3	-4	-4	-5	-5	-5	-5.3	
9-Jan	-5	-5	-6	-5	-4	-4	-3	-4	-4	-4	-4	-2	0	0	-1	-1	0	-1	-1	-2	-2	-1	-1	0	-2.6	
10-Jan	0	1	1	1	0	0	0	-1	-1	-1	-1	-3	-4	-3	-3	-2	-1	1	3	3	4	3	3	3	0.1	
11-Jan	1	1	1	3	5	4	5	5	5	5	6	6	7	9	10	10	9	6	4	1	1	-2	-4	-5	3.8	
12-Jan	-7	-8	-8	-9	-9	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-9	-9	-9	-9	-11	-15	-16	-16	-17	-10.6	
13-Jan	-17	-17	-18	-18	-18	-18	-18	-18	-18	-18	-17	-16	-14	-12	-11	-10	-11	-12	-12	-13	-13	-13	-13	-14	-14.9	
14-Jan	-14	-15	-15	-15	-14	-13	-11	-12	-11	-9	-7	-4	-2	-2	-1	-1	-1	-1	-1	-1	0	2	3	3	-6.1	
15-Jan	2	2	2	2	2	2	2	1	0	0	0	2	3	4	4	3	4	4	4	3	2	2	2	2	2.3	
16-Jan	2	2	3	2	2	2	1	-1	-2	-3	-1	0	2	4	4	4	2	-1	-2	-3	-3	-5	-7	-7	-0.2	
17-Jan	-6	-5	-5	-6	-5	-6	-7	-8	-8	-7	-7	-6	-5	-4	-3	-1	-1	-2	-3	-4	-5	-6	-8	-8	-5.3	
18-Jan	-9	-10	-10	-11	-12	-12	-12	-12	-10	-8	-9	-7	-1	3	4	3	2	1	-1	-2	-2	-4	-4	-5	-5.3	
19-Jan	-6	-8	-9	-11	-11	-12	-13	-14	-14	-12	-11	-9	-7	-6	-5	-5	-5	-6	-7	-9	-10	-12	-12	-13	-9.5	
20-Jan	-13	-13	-13	-14	-14	-13	-14	-14	-14	-15	-13	-12	-11	-9	-7	-6	-6	-6	-6	-7	-7	-7	-7	-7	-10.3	
21-Jan	-6	-6	-6	-7	-7	-8	-8	-8	-8	-8	-8	-7	-7	-7	-7	-7	-6	-6	-7	-7	-7	-7	-8	-8	-7.1	
22-Jan	-8	-8	-8	-9	-9	-9	-9	-9	-9	-9	-9	-8	-8	-8	-8	-8	-8	-8	-8	-8	-8	-8	-8	-8	-8.3	
23-Jan	-8	-8	-8	-8	-8	-9	-8	-8	-8	-8	-8	-8	-8	-8	-8	-8	-8	-9	-9	-9	-10	-10	-10	-11	-8.5	
24-Jan	-11	-11	-12	-12	-12	-13	-13	-13	-13	-14	-14	-14	-14	-13	-13	-13	-13	-14	-14	-14	-14	-14	-14	-14	-13.3	
25-Jan	-14	-14	-14	-14	-14	-14	-14	-14	-14	-14	-14	-13	-12	-12	-12	-13	-13	-14	-15	-15	-15	P	P	P	-13.8	
26-Jan	-19	-19	-18	-18	-18	-18	-18	-19	-19	-19	-19	-19	-18	-17	-17	-17	-17	-18	-20	-22	-24	-25	-26	-26	-19.6	
27-Jan	-28	-28	-29	-29	-30	-30	-29	-30	-30	-27	-25	-21	-18	-16	-13	-11	-11	-12	-14	-15	-16	-18	-17	-17	-21.3	
28-Jan	-17	-17	-16	-16	-15	-15	-16	-15	-16	-16	-14	-13	-11	-10	-9	-8	-8	-8	-9	-10	-11	-12	-13	-14	-12.9	
29-Jan	-14	-13	-13	-13	-13	-13	-13	-12	-12	-12	-12	-12	-11	-10	-10	-9	-9	-9	-10	-10	-10	-11	-11	-11	-11.4	
30-Jan	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11	-10	-10	-9	-9	-9	-9	-9	-9	-9	-10	-10	-10	-9	-10.2	
31-Jan	-10	-10	-10	-11	-11	-11	-12	-12	-12	-12	-12	-12	-11	-10	-10	-9	-9	-9	-10	-10	-11	-12	-13	-13	-10.9	
																								Diurnal Average		
																								Diurnal Maximum		
-12.4 -12.6 -12.6 -12.7 -12.7 -12.8 -12.9 -13.0 -13.0 -12.5 -11.9 -10.8 -9.5 -8.4 -7.8 -7.6 -7.8 -8.4 -9.1 -9.8 -10.4 -10.9 -11.3 -11.5 1.8 2.2 2.7 2.5 4.5 4.1 5.1 5.0 5.0 4.9 5.6 5.8 6.7 8.7 9.6 10.2 9.2 6.2 4.3 3.3 3.7 3.4 3.3 3.0																										
P - Power Failure																										





# Hourly Averages

Relative Humidity (RH) - %

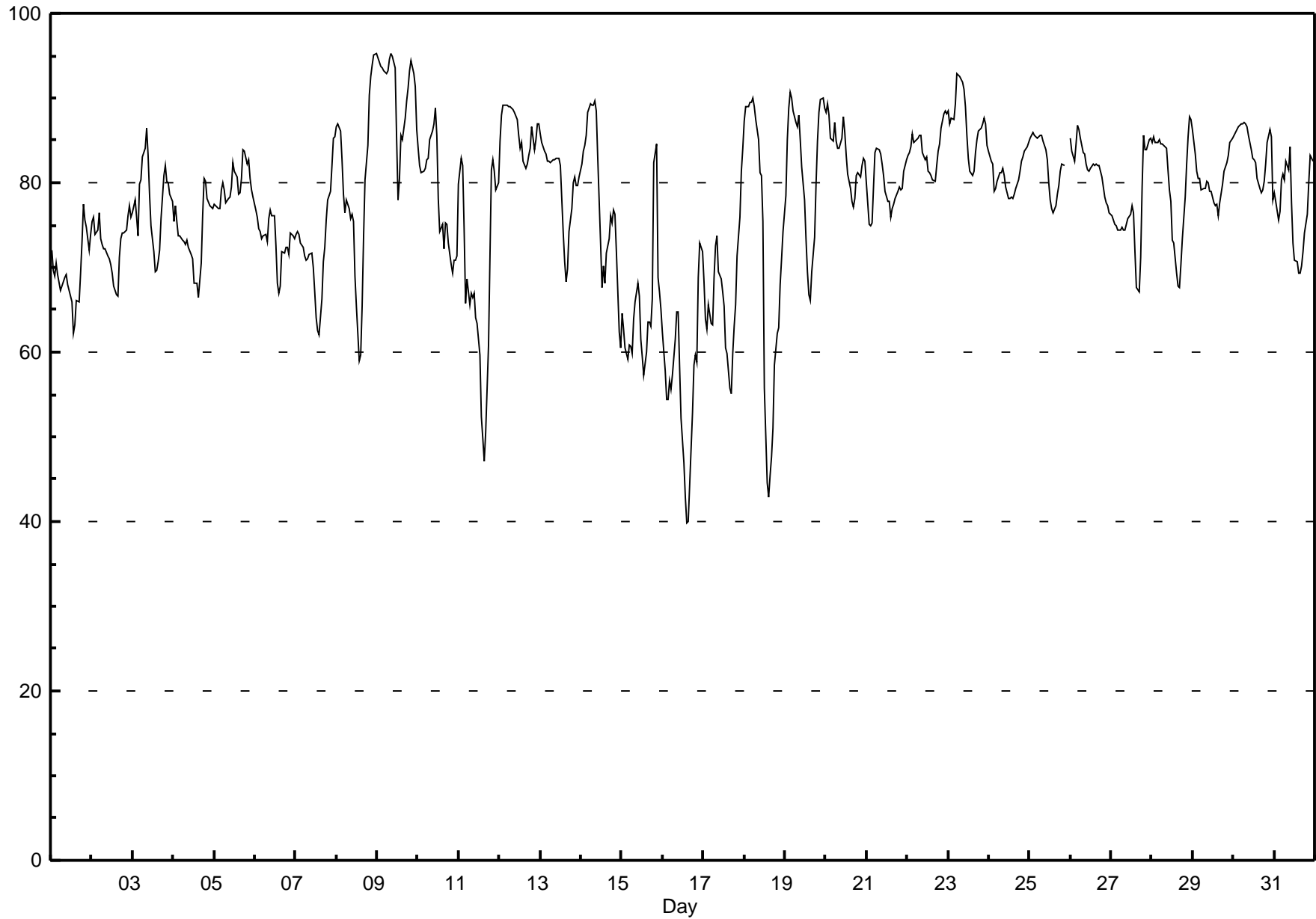
Valleyview - January 2010

Number of Exceedences (AAQO): 1-hr: 0 24-hr: 0 Maximum Value: 95.2 % on Jan 9 09:00 Maximum Daily Average: 90.6 % on Jan 9		Hours in Service: 744 Hours of Data: 741 Hours of Missing Data: 3 Hours of Calibration: 0 Percent Operational Time: 99.6																									
Minimum Value: 40 % on Jan 16 15:00 Maximum Diurnal Average: 80.6 % at hour 23 Monthly Average: 77.37 %		Minimum Daily Average: 56.6 % on Jan 16 Minimum Diurnal Average: 69.6 % at hour 15 Percentiles: P <sub>1</sub> = 47.0 P <sub>10</sub> = 65.4 Q <sub>1</sub> = 72.1 Median = 79.2 Q <sub>3</sub> = 84.0 P <sub>90</sub> = 87.4 P <sub>99</sub> = 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	72	70	69	70	69	67	68	68	69	69	68	67	66	62	63	66	66	69	73	77	76	75	72	74	69.4	77.5	
2-Jan	75	76	74	74	77	73	73	72	72	71	71	70	69	68	67	67	71	73	74	74	74	76	77	76	72.8	77.3	
3-Jan	76	78	76	74	80	80	83	84	86	83	79	75	72	70	70	71	72	76	81	82	80	80	79	78	77.7	86.5	
4-Jan	76	77	75	74	74	73	73	73	73	72	71	71	68	68	68	66	71	76	80	80	78	77	77	77	73.8	80.4	
5-Jan	77	77	77	77	79	80	79	78	78	78	79	82	81	81	79	79	80	84	84	82	83	81	79	78	79.7	83.9	
6-Jan	77	76	75	74	73	74	74	73	76	77	76	76	73	68	67	68	72	72	72	72	71	74	74	73	73.2	76.8	
7-Jan	74	74	74	73	72	71	71	71	72	72	70	67	64	62	62	66	71	72	76	78	79	82	85	85	72.7	85.4	
8-Jan	87	87	86	83	79	77	78	77	76	76	75	69	65	59	60	65	74	80	84	90	92	94	95	95	79.3	95.2	
9-Jan	95	94	94	94	93	93	93	95	95	95	94	85	78	81	86	85	88	90	91	93	94	93	91	86	90.6	95.2	
10-Jan	84	82	81	81	82	83	83	85	86	87	89	86	78	74	75	72	75	75	73	70	69	71	71	71	78.5	88.8	
11-Jan	80	83	82	75	66	69	66	67	66	67	64	63	60	52	50	47	51	61	71	82	83	81	79	80	68.5	82.8	
12-Jan	85	88	89	89	89	89	89	89	89	88	88	86	84	85	83	82	82	83	84	87	84	85	87	87	86.2	89.2	
13-Jan	86	85	84	83	82	83	82	83	83	83	83	83	82	74	71	68	70	74	77	80	81	80	80	81	79.8	85.8	
14-Jan	82	84	84	86	88	89	89	89	90	88	83	73	68	70	68	72	73	76	75	77	76	72	62	60	78.2	89.7	
15-Jan	65	63	61	59	61	61	60	64	66	68	67	62	60	57	60	64	64	63	66	82	85	69	67	65	64.8	84.5	
16-Jan	62	58	54	54	57	56	57	62	65	65	58	52	47	43	40	40	44	53	58	60	59	69	73	72	56.6	72.9	
17-Jan	68	64	63	66	63	63	69	73	74	69	69	67	65	61	60	56	55	60	63	66	71	76	81	84	66.9	84.1	
18-Jan	87	89	89	89	90	90	89	87	85	81	81	75	56	45	43	45	48	51	59	62	63	68	71	74	71.6	89.9	
19-Jan	78	85	89	91	90	89	87	87	88	85	82	78	73	70	67	66	70	74	80	85	88	90	90	89	82.0	90.7	
20-Jan	88	89	88	85	85	87	85	84	84	85	88	86	83	81	79	78	77	78	81	81	81	82	83	83	83.4	89.2	
21-Jan	80	75	75	75	79	84	84	84	83	82	81	79	78	78	76	77	78	78	79	80	79	79	81	83	79.4	84.0	
22-Jan	83	84	84	86	85	85	85	86	86	84	83	83	81	81	81	80	80	82	84	85	87	88	88	88	84.1	88.4	
23-Jan	89	87	88	87	89	93	93	93	92	91	89	86	83	81	81	81	83	85	86	86	87	88	87	84	87.0	92.9	
24-Jan	84	83	82	79	79	80	81	81	82	81	80	78	78	78	78	79	79	80	81	82	83	84	84	85	80.9	84.7	
25-Jan	85	86	86	86	85	85	86	86	85	84	83	80	78	77	76	77	79	80	81	82	82	P	P	P	82.3	85.9	
26-Jan	85	84	83	85	87	86	85	84	83	82	82	81	82	82	82	82	82	82	81	80	78	78	77	76	82.0	86.8	
27-Jan	76	76	75	75	74	74	75	74	74	75	76	76	77	76	72	68	67	71	79	86	84	84	85	85	76.5	85.7	
28-Jan	85	85	85	85	85	85	85	84	84	82	79	78	73	73	69	68	68	70	73	78	82	85	88	87	79.9	87.9	
29-Jan	86	83	81	81	80	79	79	79	80	80	79	79	78	77	77	76	78	80	81	82	82	83	85	85	80.5	86.2	
30-Jan	86	86	86	87	87	87	87	87	87	86	84	83	83	82	81	79	79	79	80	82	85	86	85	78	83.8	87.1	
31-Jan	79	78	76	77	80	81	80	83	81	84	78	73	71	71	69	69	70	72	74	76	80	83	83	83	77.1	84.2	
		80.4	80.1	79.5	79.1	79.4	79.5	79.6	80.0	80.3	79.7	78.2	75.8	72.7	70.6	69.6	69.7	71.5	74.2	76.9	79.4	79.9	80.4	80.6	80.1	Diurnal Average	
		94.7	94.3	93.7	93.6	93.1	92.9	93.2	94.6	95.2	94.9	93.5	85.9	84.1	84.8	85.7	85.0	87.7	89.7	91.3	93.2	94.4	93.9	95.1	95.2	Diurnal Maximum	
P - Power Failure																											

# Hourly Averages

Relative Humidity (RH) - %

Valleyview - January 2010







# Hourly Averages

Wind Speed (km/h)  
Wind Direction (deg)  
Valleyview - January 2010

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	8	13	12	6	10	16	17	15	12	10	10	13	10	7	4	4	1	5	8	9	7	6	10	8	5.0	16.7
Dir	180	186	187	195	194	191	188	189	192	191	190	190	189	195	241	268	245	345	353	4	12	351	319	331	203	188
2 Spd	8	5	6	6	4	6	5	4	3	3	3	3	3	1	1	0	1	2	2	3	2	2	3	3	1.9	8.1
Dir	350	349	333	324	319	298	303	285	294	307	322	339	348	27	35	349	47	130	113	133	116	111	117	70	337	350
3 Spd	4	3	3	1	4	3	3	4	2	7	8	7	5	6	8	5	7	2	3	2	2	4	1	1	2.2	8.3
Dir	32	38	108	100	359	353	203	210	234	334	318	310	307	302	307	323	319	306	182	202	208	204	353	198	310	318
4 Spd	2	2	0	0	2	3	1	3	1	2	2	0	1	2	2	2	2	1	2	0	0	2	1	1	0.4	2.9
Dir	210	216	178	143	180	203	105	358	257	209	185	131	319	360	9	338	327	258	13	330	240	200	161	202	237	358
5 Spd	2	3	1	1	2	1	1	1	3	4	5	4	4	4	4	4	1	3	1	1	1	2	2	0	1.6	5.0
Dir	217	165	166	4	1	340	12	155	175	187	192	191	181	188	186	183	230	315	224	264	234	181	229	240	196	192
6 Spd	0	2	1	2	2	2	0	2	2	2	2	2	6	9	9	9	7	14	11	10	11	10	11	11	5.7	13.8
Dir	249	198	186	189	209	203	29	186	212	223	216	215	203	194	191	192	191	191	196	185	195	200	193	193	195	191
7 Spd	12	10	10	9	9	9	9	9	8	8	7	7	7	6	5	3	2	0	3	3	2	2	2	1	5.7	12.2
Dir	194	198	202	202	195	194	199	196	200	198	205	201	201	211	203	235	353	162	228	227	238	219	220	218	202	194
8 Spd	1	1	1	3	4	3	2	6	4	2	3	5	5	2	2	2	2	1	3	3	3	2	1	2	2.3	5.9
Dir	230	257	206	217	208	184	267	196	205	211	207	209	207	202	232	216	359	208	216	235	215	215	249	55	213	196
9 Spd	0	3	4	3	2	2	2	3	3	3	3	2	0	1	1	1	3	1	2	2	4	5	4	6	1.8	6.3
Dir	0	329	182	64	236	215	138	200	196	210	204	186	182	311	333	196	196	203	211	237	214	212	206	198	206	198
10 Spd	6	5	4	3	5	5	4	2	1	1	4	5	5	3	3	1	1	5	3	6	8	4	5	4	2.2	7.9
Dir	200	208	206	188	203	203	217	219	218	16	17	10	350	341	340	238	195	195	198	197	189	197	202	208	211	189
11 Spd	4	4	3	5	8	6	7	6	7	6	8	6	7	6	4	5	6	2	1	2	3	9	9	9	3.0	9.2
Dir	216	214	215	195	191	203	198	207	204	204	198	197	189	190	195	179	191	246	249	211	19	24	21	6	201	21
12 Spd	11	10	8	8	6	6	5	5	5	3	3	6	9	6	2	2	2	1	1	10	13	6	7	7	5.4	13.1
Dir	16	33	20	23	14	12	359	12	14	10	35	13	3	43	78	325	203	215	208	23	24	28	34	34	21	24
13 Spd	6	3	2	1	1	1	1	3	2	3	2	3	2	1	3	2	2	1	0	1	2	2	0	2	1.1	5.5
Dir	13	338	305	45	196	334	333	19	344	28	18	341	21	352	352	353	306	234	170	330	207	216	116	167	352	13
14 Spd	2	2	2	4	3	5	3	2	2	3	2	1	1	1	0	0	1	0	1	2	4	7	8	7	2.5	8.4
Dir	143	212	190	211	216	211	218	217	209	226	206	248	240	248	14	270	293	200	169	206	209	208	200	202	208	200
15 Spd	6	8	8	9	6	7	8	6	4	2	4	5	3	3	3	1	3	3	12	10	6	16	9	11	4.6	15.6
Dir	211	202	193	192	196	192	193	205	214	228	224	206	191	186	338	96	243	249	299	295	255	284	281	271	238	284
16 Spd	13	18	21	19	13	13	6	6	3	3	4	4	4	4	3	3	4	3	3	5	3	1	2	1	5.0	21.3
Dir	273	284	292	300	292	289	258	253	201	163	195	187	207	223	227	209	181	200	212	205	200	191	207	200	263	292
17 Spd	2	3	4	6	7	2	4	4	5	6	5	3	4	5	4	5	3	3	5	5	2	2	2	2	3.7	7.2
Dir	165	171	217	202	198	210	222	228	220	210	217	223	212	207	195	191	190	214	207	209	230	247	242	230	209	198
18 Spd	2	2	1	2	1	0	1	1	2	2	1	2	3	8	9	7	5	3	1	2	2	2	5	3	2.3	9.3
Dir	230	271	284	219	185	69	232	225	262	268	256	344	189	191	189	193	193	194	233	249	268	226	201	226	211	189
19 Spd	1	1	1	2	0	1	2	1	3	1	2	2	2	1	2	4	5	2	1	1	2	1	1	1	0.3	4.7
Dir	222	44	285	176	12	196	184	227	189	238	199	321	275	11	4	26	356	354	209	218	197	215	350	40	275	356
20 Spd	2	2	0	1	3	1	1	1	1	4	4	3	3	3	4	4	3	5	6	3	2	2	1	1	2.2	6.3
Dir	332	348	210	34	356	332	136	221	53	344	355	11	25	336	343	345	5	6	352	4	31	42	17	342	359	352
21 Spd	2	6	4	5	8	9	5	11	9	9	9	9	9	8	10	7	5	5	7	8	10	11	10	7	7.2	11.0
Dir	193	192	203	205	185	179	191	177	183	178	174	167	156	164	155	160	139	133	152	170	140	137	138	152	165	177
22 Spd	7	7	7	5	5	3	1	1	1	2	3	3	1	3	5	4	3	4	3	3	3	6	7	6	0.2	7.3
Dir	135	136	137	128	190	183	161	39	118	150	159	173	115	5	328	324	328	322	322	323	320	304	310	315	281	137

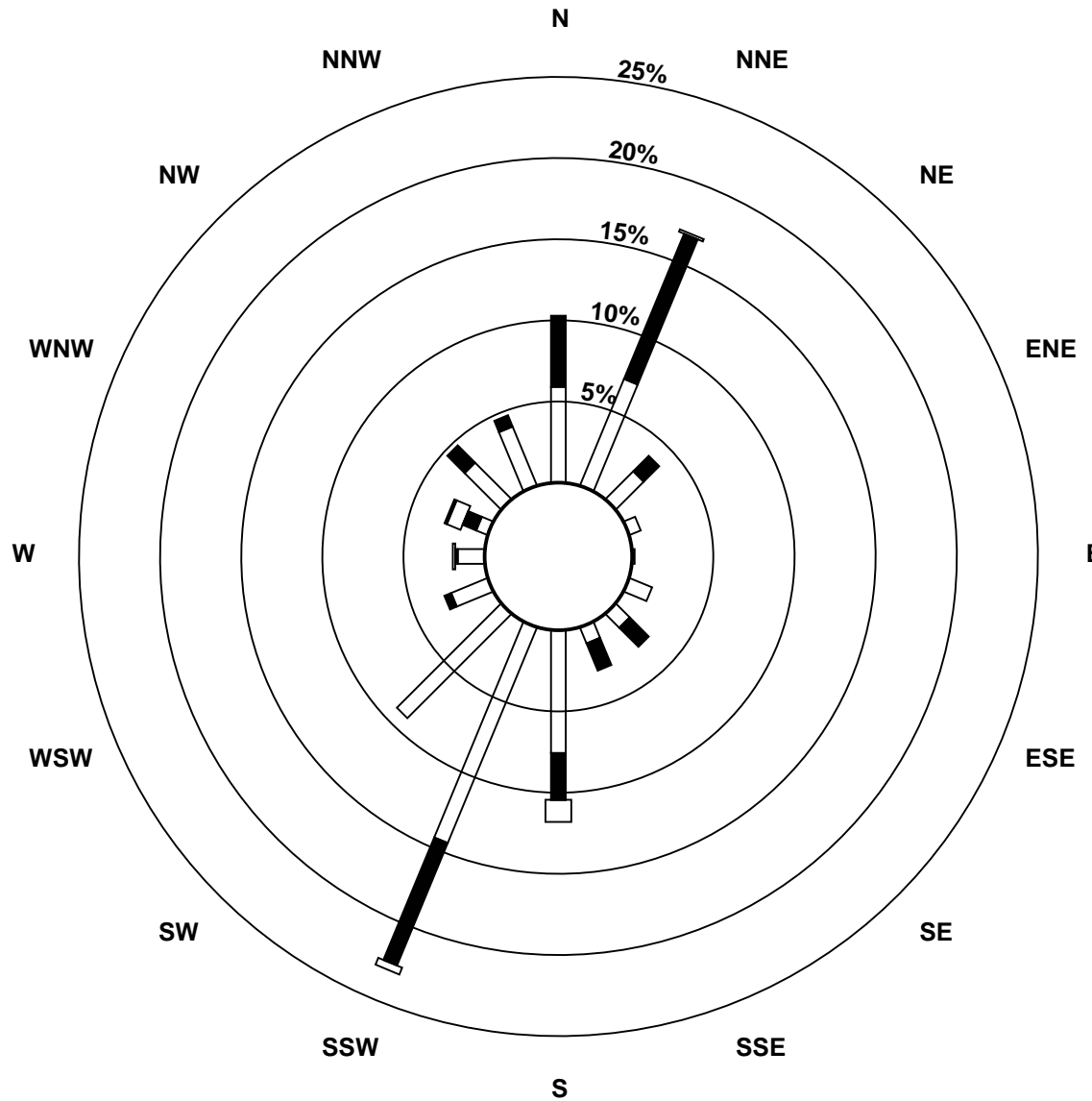
# Hourly Averages

**Wind Speed (km/h)**  
**Wind Direction (deg)**  
**Valleyview - January 2010**

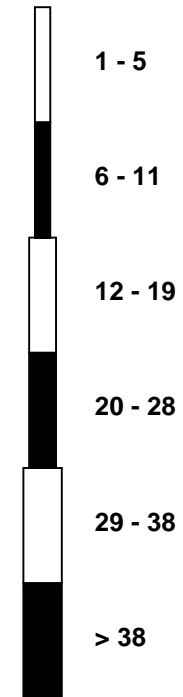
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	5	4	2	3	6	7	6	6	8	6	7	7	8	9	8	7	7	6	6	7	7	5	8	10	5.6	9.9
Dir	319	311	278	275	299	303	316	327	345	5	12	10	10	14	24	25	23	19	15	10	17	13	20	14	359	14
24 Spd	11	9	7	9	10	9	9	8	7	8	10	9	8	8	9	9	9	7	7	7	5	5	4	4	7.7	10.7
Dir	5	1	6	20	15	15	16	7	17	15	19	17	13	360	349	354	2	12	10	29	37	23	23	26	12	5
25 Spd	4	4	6	6	3	4	6	7	6	5	6	7	6	7	9	8	8	7	6	7	6	P	P	P	6.1	8.9
Dir	22	17	27	23	27	17	22	31	28	18	26	43	31	22	22	26	23	20	17	25	30	P	P	P	25	22
26 Spd	4	3	2	2	2	3	3	1	2	3	3	3	2	1	4	5	4	1	1	1	2	2	0	1	0.7	4.7
Dir	345	16	331	44	45	357	28	42	133	173	189	175	226	3	1	353	331	325	343	228	183	246	201	237	351	353
27 Spd	2	1	2	1	2	1	1	2	2	2	2	2	2	3	2	2	2	1	1	2	2	3	1	1	0.5	2.6
Dir	198	187	186	207	194	189	191	177	176	201	226	199	358	4	19	13	37	57	353	2	207	185	206	252	201	4
28 Spd	2	3	3	2	1	1	2	2	1	1	2	2	0	3	1	1	0	0	1	2	1	2	0	1	0.3	3.0
Dir	190	358	220	53	274	240	245	242	122	182	205	266	173	359	13	40	27	291	324	354	121	290	189	131	286	359
29 Spd	3	4	4	5	3	4	4	5	6	7	6	7	6	6	8	8	9	10	9	6	8	7	7	6	6.0	10.3
Dir	18	7	57	19	12	34	15	30	37	27	18	2	359	352	358	3	357	6	22	12	13	22	20	11	14	6
30 Spd	6	5	4	5	6	7	5	4	5	6	6	7	6	6	7	7	8	7	5	5	4	3	4	7	5.0	7.5
Dir	27	24	39	22	10	13	17	16	4	20	20	24	29	36	34	32	39	44	26	23	32	19	112	157	30	39
31 Spd	7	8	9	8	8	6	7	7	6	5	12	14	12	9	5	4	1	1	2	2	5	6	5	5	4.0	13.6
Dir	146	144	144	139	136	152	152	166	167	179	183	188	188	191	199	208	207	21	28	25	19	13	18	16	160	188
Spd	0.5	0.8	1.1	0.5	1.3	1.4	1.3	1.5	1.2	0.7	1.0	0.7	0.6	0.4	0.8	0.6	0.9	0.6	0.8	0.7	0.1	0.6	0.4	0.5	Diurnal Average	
Dir	271	242	218	219	225	230	216	211	201	221	209	220	213	262	329	331	347	346	321	330	63	276	300	280	Diurnal Maximum	
Spd	13.3	17.9	21.3	18.8	12.9	16.0	16.7	15.4	12.3	10.0	11.7	13.6	12.1	9.2	9.8	9.1	9.2	13.8	12.3	10.4	13.1	15.6	10.9	11.2	Diurnal Maximum	
Dir	273	284	292	300	292	191	188	189	192	191	183	188	188	14	155	354	357	191	299	23	24	284	193	271	Diurnal Maximum	
Maximum Speed Value: 21 ppb on Jan 16 03:00		Minimum Speed Value: 0 ppb on Jan 9 01:00										Hours in Service: 744														
Maximum Daily Speed Average: 7.7 ppb on Jan 1		Minimum Daily Speed Average: 0.2 ppb on Jan 28										Hours of Data: 741														
Maximum Diurnal Speed Average: 1.5 ppb at hour 8		Minimum Diurnal Speed Average: 0.1 ppb at hour 21										Hours of Missing Data: 3														
Monthly Average Velocity: 0.52 ppb 245.9 deg		Speed Percentiles: P <sub>1</sub> = 0.3 P <sub>10</sub> = 1.0 Q <sub>1</sub> = 1.9 Median = 3.5 Q <sub>3</sub> = 6.4 P <sub>90</sub> = 8.8 P <sub>99</sub> = 15.2										Percent Operational Time: 99.6														
All monthly, daily, and diurnal averages have been calculated using vector methods																										
P - Power Failure																										
Frequency Distribution																										
		Speed Range (ppb)																								
Direction	0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total																			
North	87	80	1	0	0	0	168																			
NorthEast	39	38	1	0	0	0	78																			
East	9	0	0	0	0	0	9																			
SouthEast	19	21	0	0	0	0	40																			
South	99	71	14	0	0	0	184																			
SouthWest	140	21	0	0	0	0	161																			
West	30	4	6	1	0	0	41																			
NorthWest	37	21	2	0	0	0	60																			
Total	460	256	24	1	0	0	741																			

# Wind Rose

Wind Speed (WS) (km/h)  
Valleyview - January 2010



## Wind Speed Classes (km/h)





# Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Valleyview - January 2010

Maximum Speed: 21 km/h on Jan 16 03:00		Maximum Daily Speed Average: 9.4 km/h on Jan 1		Hours in Service: 744																							
Minimum Speed: 1 km/h on Jan 28 17:00		Minimum Daily Speed Average: 1.8 km/h on Jan 4		Hours of Data: 741																							
Maximum Diurnal Speed Average: 5.2 km/h at hour 12		Minimum Diurnal Speed Average: 3.9 km/h at hour 18		Hours of Missing Data: 3																							
Monthly Average Speed: 4.71 km/h		Percentiles: P <sub>1</sub> = 1.0 P <sub>10</sub> = 1.6 Q <sub>1</sub> = 2.3 Median = 3.8 Q <sub>3</sub> = 6.4 P <sub>90</sub> = 8.9 P <sub>99</sub> = 15.3		Percent Operational Time: 99.6																							
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	8	13	12	6	10	16	17	16	12	10	11	14	11	7	5	4	1	5	8	9	7	6	10	8	9.4	16.8	
2-Jan	8	6	6	6	4	6	5	5	3	4	4	4	3	2	2	2	2	2	2	3	3	2	3	3	3.7	8.2	
3-Jan	5	3	3	2	4	4	5	6	4	7	8	8	5	7	8	5	7	3	3	2	2	4	2	2	4.5	8.4	
4-Jan	2	2	1	1	2	3	1	3	2	2	2	1	1	2	2	2	2	1	2	1	1	3	2	2	1.8	3.0	
5-Jan	2	3	2	1	2	1	1	2	3	4	5	4	4	4	4	4	3	3	2	1	1	3	2	1	2.6	5.0	
6-Jan	1	2	2	2	2	3	2	3	3	2	2	2	6	9	9	9	7	14	11	10	12	10	11	11	6.1	13.8	
7-Jan	12	10	10	9	9	9	9	9	8	8	7	7	7	6	6	3	3	2	3	3	2	2	2	2	6.2	12.3	
8-Jan	1	1	2	3	5	4	4	6	4	2	4	5	5	2	2	2	3	2	3	3	3	3	3	4	3.3	6.1	
9-Jan	2	4	4	5	3	2	2	3	3	3	3	2	2	1	2	2	3	2	2	2	4	5	4	6	3.0	6.3	
10-Jan	6	5	4	3	5	5	4	2	1	2	4	6	5	3	4	2	2	6	3	6	8	4	5	4	4.1	8.0	
11-Jan	4	4	4	6	8	6	7	6	7	6	8	6	7	6	4	5	6	3	2	2	5	9	9	9	5.9	9.3	
12-Jan	12	11	8	8	6	7	5	5	5	4	4	7	9	6	3	3	5	3	2	11	13	6	7	7	6.5	13.2	
13-Jan	6	3	3	2	2	1	1	3	2	3	2	3	3	4	3	2	2	2	1	1	2	2	1	2	2.4	5.6	
14-Jan	3	2	3	4	3	5	3	3	3	3	2	1	2	2	2	1	2	2	2	2	4	7	8	7	3.2	8.4	
15-Jan	6	8	8	9	6	7	8	6	4	2	5	6	4	3	4	3	4	3	12	10	6	16	9	11	6.7	15.8	
16-Jan	13	18	21	19	13	13	6	6	3	3	4	4	4	4	3	3	4	3	3	5	3	2	2	2	6.7	21.5	
17-Jan	2	4	4	6	7	3	4	4	5	6	5	4	4	5	4	5	3	3	5	5	2	2	2	3	4.1	7.4	
18-Jan	2	2	2	2	2	1	2	2	3	3	2	2	4	8	9	7	5	3	2	2	3	3	5	3	3.3	9.4	
19-Jan	2	1	2	3	1	1	2	2	3	1	2	2	2	2	2	4	5	2	2	2	3	1	2	2	2.1	4.8	
20-Jan	2	2	1	2	3	2	1	1	2	4	4	4	3	3	4	4	3	5	6	3	2	2	2	2	2.8	6.4	
21-Jan	3	6	4	5	9	9	5	11	10	9	9	9	9	9	10	7	6	5	7	8	10	11	10	7	7.8	11.2	
22-Jan	7	7	7	5	5	3	1	1	2	2	3	3	2	3	5	4	3	4	3	3	4	6	7	6	4.0	7.4	
23-Jan	5	4	2	3	6	7	6	6	8	6	7	8	8	9	8	7	8	6	6	7	7	5	8	10	6.5	10.0	
24-Jan	11	9	7	9	10	9	9	8	7	8	10	9	8	8	9	9	9	8	7	7	5	5	4	4	8.0	10.8	
25-Jan	4	4	6	6	3	4	6	7	6	5	6	7	6	8	9	8	8	7	6	7	6	P	P	P	6.2	9.0	
26-Jan	4	3	2	3	3	3	3	2	3	3	3	3	3	2	4	5	4	2	1	1	3	2	2	2	2.7	4.7	
27-Jan	2	2	2	1	2	2	2	2	3	2	3	3	2	3	2	2	2	1	2	3	3	3	2	2	2.2	3.1	
28-Jan	2	3	4	2	1	2	3	3	2	1	2	2	2	3	2	1	1	1	2	2	2	2	1	1	1.9	3.5	
29-Jan	3	4	4	5	4	4	4	5	6	7	6	7	6	6	8	8	9	10	9	6	8	7	7	6	6.3	10.4	
30-Jan	6	5	4	5	6	7	5	4	5	6	7	7	6	6	7	7	8	7	5	5	4	3	6	8	5.9	7.7	
31-Jan	7	8	9	8	8	6	7	7	6	5	12	14	12	9	5	4	1	1	2	3	5	6	6	5	6.5	13.8	
		5.0	5.2	5.0	4.9	5.1	5.1	4.6	4.8	4.4	4.4	5.0	5.2	5.0	4.9	4.9	4.3	4.2	3.9	4.1	4.4	4.6	4.7	4.8	4.7	Diurnal Average	
		13.5	18.1	21.5	19.0	13.0	16.2	16.8	15.5	12.4	10.1	11.9	13.8	12.2	9.2	10.1	9.2	9.2	13.8	12.4	10.6	13.2	15.8	11.0	11.4	Diurnal Maximum	
P - Power Failure All monthly, daily, and diurnal averages have been calculated using scalar methods																											

# Hourly Standard Deviations

Wind Direction (WD) - deg

Valleyview - January 2010

Maximum Value: 98.0 deg on Jan 13 19:00		Hours in Service: 744																								
Minimum Value: 3.5 deg on Jan 9 22:00		Hours of Data: 741																								
Percentiles: P <sub>1</sub> = 5.0 P <sub>10</sub> = 7.6 Q <sub>1</sub> = 9.7 Median = 17.8 Q <sub>3</sub> = 41.8 P <sub>90</sub> = 66.3 P <sub>99</sub> = 92.5		Hours of Missing Data: 3																								
		Hours of Calibration: 0																								
		Percent Operational Time: 99.6																								
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	13	8	9	8	9	8	6	7	8	9	9	10	12	13	31	29	61	29	17	8	9	24	9	10	60.8	
2-Jan	11	12	15	11	14	12	14	23	20	21	28	19	27	64	47	90	49	36	40	20	35	32	20	20	90.2	
3-Jan	21	31	44	72	27	26	62	53	52	21	9	11	15	25	12	11	12	73	36	26	26	26	81	49	81.5	
4-Jan	26	12	76	91	29	14	43	15	82	17	31	94	53	21	19	23	39	40	23	73	55	14	66	59	93.8	
5-Jan	12	19	81	81	43	61	67	67	15	11	9	11	14	15	17	18	59	18	50	73	51	27	23	71	81.1	
6-Jan	90	31	64	32	36	29	78	42	52	24	15	23	7	10	7	9	11	6	7	9	12	8	7	10	90.0	
7-Jan	9	12	9	9	9	11	7	7	7	7	7	9	7	6	9	21	68	85	10	25	31	49	27	40	84.7	
8-Jan	57	63	45	25	25	54	68	14	9	21	10	5	6	46	41	8	70	75	20	17	8	31	76	82	82.4	
9-Jan	84	60	24	62	43	29	66	20	22	32	15	29	91	42	84	53	17	84	36	46	9	4	15	7	91.0	
10-Jan	10	6	9	23	8	7	5	21	58	93	39	14	17	20	47	48	59	26	31	7	7	14	15	43	92.9	
11-Jan	10	7	30	28	9	13	8	9	15	6	5	10	8	10	14	11	8	51	56	60	83	7	8	11	83.1	
12-Jan	21	27	15	13	14	11	17	13	19	48	21	14	14	16	50	56	80	65	64	13	8	11	9	11	80.3	
13-Jan	10	69	49	70	75	66	60	25	28	15	31	27	50	92	31	32	43	74	98	74	25	25	84	37	98.0	
14-Jan	59	26	26	20	14	9	49	42	30	37	47	67	72	63	97	84	78	96	32	24	10	4	5	5	96.7	
15-Jan	5	6	7	5	6	7	5	4	6	8	22	23	23	23	58	61	54	17	8	18	13	9	10	9	60.7	
16-Jan	8	9	9	8	8	8	18	12	21	25	9	10	5	22	29	14	11	24	11	9	24	42	34	36	41.9	
17-Jan	40	20	19	15	15	56	22	10	10	10	10	26	24	31	39	7	25	12	7	35	43	37	32	40	56.4	
18-Jan	12	37	65	43	89	73	82	72	71	53	85	58	60	8	6	7	6	21	64	28	31	65	21	30	89.5	
19-Jan	78	72	61	43	94	56	60	78	29	52	21	36	25	62	17	9	11	46	72	66	29	79	51	35	93.8	
20-Jan	37	21	92	55	12	79	72	69	72	17	19	15	18	15	13	25	12	7	10	30	26	18	45	90	91.8	
21-Jan	76	10	11	8	13	14	14	11	11	11	12	14	15	15	14	17	15	9	15	13	9	7	8	13	76.1	
22-Jan	9	11	9	14	18	45	67	32	55	46	20	21	42	27	13	9	13	5	8	8	15	9	9	10	67.2	
23-Jan	12	20	38	27	16	9	11	8	8	9	8	9	7	7	9	10	10	9	8	6	7	9	8	8	38.3	
24-Jan	7	7	8	8	8	7	7	9	9	8	10	10	11	9	6	5	8	9	8	12	8	10	10	10	12.4	
25-Jan	11	7	6	8	14	18	8	7	9	11	11	12	15	10	9	7	8	7	8	8	8	P	P	P	17.6	
26-Jan	26	22	50	31	37	40	25	82	38	33	28	25	59	54	13	6	13	46	57	41	22	27	91	77	90.7	
27-Jan	20	25	46	68	12	55	54	29	31	30	37	61	53	14	9	14	36	45	62	38	61	40	62	60	67.9	
28-Jan	43	36	38	33	41	70	33	29	48	71	19	38	85	16	37	60	72	93	38	42	54	44	88	60	93.3	
29-Jan	21	10	24	23	47	18	16	16	10	12	12	11	12	6	8	8	7	10	9	10	9	9	10	9	46.7	
30-Jan	9	11	10	11	8	8	12	11	11	10	10	8	16	12	11	9	11	9	8	10	15	22	50	13	49.9	
31-Jan	12	12	11	9	7	13	12	11	12	17	9	8	10	12	18	16	63	50	13	12	14	8	10	10	63.3	
	90.0	71.5	91.8	90.9	93.8	79.1	82.2	81.8	81.6	92.9	85.5	93.8	91.0	92.2	96.7	90.2	80.3	96.1	98.0	74.3	83.1	78.7	90.7	89.9		
P - Power Failure																										

# PASZA

## Monthly Passive Data Summary

## PASZA Passive Results for January 2010

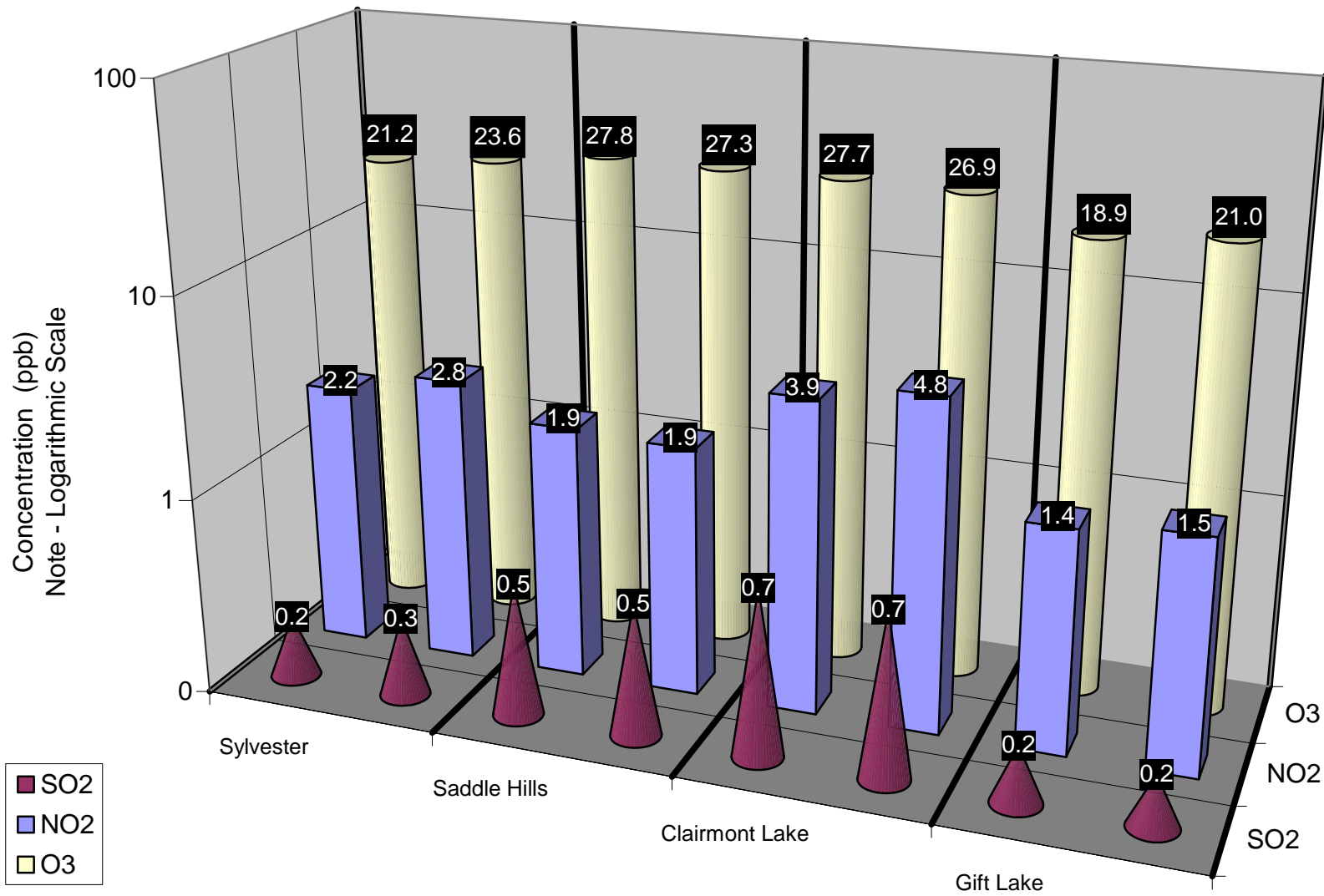
Station Number	Station Name	SO2 ppb	O3 ppb	NO2 ppb	Site Legal
<b>Duplicates</b>					
14a	Sylvester	0.2	21.2	2.2	
14b	Sylvester	0.3	23.6	2.8	
18a	Saddle Hills	0.5	27.8	1.9	
18b	Saddle Hills	0.5	27.3	1.9	
28a	Clairmont Lake	0.7	27.7	3.9	
28b	Clairmont Lake	0.7	26.9	4.8	
45a	Gift Lake	0.2	18.9	1.4	
45b	Gift Lake	0.2	21.0	1.5	
1	Silver Valley	0.7	24.7	2.4	08-27-081-11 W6M
2	Bay Tree	0.6	23.9	2.1	13-16-078-13 W6M
3	Forth Creek	0.5	29.1	1.3	04-13-082-07 W6M
4	Gordondale	0.5	28.4	1.5	04-34-078-10 W6M
5	Boone Creek	0.3	22.7	1.9	01-23-076-11 W6M
7	Steeprock Creek	0.4	26.1	2.0	09-35-072-13 W6M
9	Spirit River	0.3	22.6	2.1	08-12-079-07 W6M
10	Woking	0.5	27.6	1.3	01-13-076-07 W6M
11	Webber Creek	0.6	25.3	2.0	09-36-074-09 W6M
12	Hythe	0.5	21.2	4.1	14-36-072-11 W6M
14	Sylvester	0.2	22.4	2.5	08-06-069-12 W6M
16	Beaverlodge	0.5	23.1	5.7	15-36-071-10 W6M
17	Poplar	0.8	23.8	4.1	13-06-073-08 W6M
18	Saddle Hills	0.5	27.6	1.9	04-25-074-07 W6M
19	Wanham	0.4	28.2	2.5	16-22-077-03 W6M
20	Shaftesbury	N/A	N/A	N/A	04-03-082-23 W5M
21	Eaglesham	0.3	23.9	1.8	16-21-079-25 W5M
23	Bear Lake	0.7	26.3	4.0	15-31-072-06 W6M

## PASZA Passive Results for January 2010 (Continued)

Station Number	Station Name	SO2 ppb	O3 ppb	NO2 ppb	Site Legal
24	Wembley	0.5	22.1	5.1	12-31-070-08 W6M
25	Pinto Creek	0.2	23.2	3.8	04-24-069-11 W6M
26	Flyingshot	0.4	16.8	8.1	15-36-070-07 W6M
27	Grande Prairie I	0.7	15.5	15.5	08-15-071-06 W6M
28	Clairmont Lake	0.7	27.3	4.3	09-06-073-04 W6M
29	Smoky Heights	0.8	24.1	4.7	04-06-075-02 W6M
30	Fitzsimmons	0.3	20.2	4.1	15-36-072-03 W6M
32	Gold Creek	0.2	16.2	4.3	06-33-067-05 W6M
33	Wapiti	0.3	18.9	4.3	02-25-071-03 W6M
34	Puskaskau	0.2	21.7	0.9	15-35-074-25 W5M
35	Jean Cote	0.5	29.2	1.8	12-35-079-21 W5M
36	Guy	0.4	27.1	1.4	03-04-076-22 W5M
37	Crooked Creek	0.5	21.8	4.0	16-01-071-26 W5M
38	Karr Creek	0.2	19.5	2.4	10-16-065-02 W6M
39	Clouston Creek	0.8	26.6	1.7	12-01-073-22 W5M
40	McLennan	0.5	25.8	1.8	03-29-077-19 W5M
41	Valleyview	0.9	24.9	2.9	09-30-069-22 W5M
42	Sunset House	0.6	31.7	1.4	05-32-070-19 W5M
43	High Prairie	0.3	22.2	2.6	16-13-074-17 W5M
44	Peavine	0.2	21.1	1.0	03-05-079-15 W5M
45	Gift Lake	0.2	20.0	1.4	10-07-079-12 W5M
46	Little Smoky	0.4	20.9	6.0	12-01-065-21 W5M
47	Kinuso	0.2	17.6	2.7	12-10-073-10 W5M
48	Deer Mountain	0.3	29.2	1.7	15-22-068-09 W5M
49	Grande Prairie HP	0.6	13.4	16.9	17-26-071-06 W6M

\*BDL = Below Detection Level





Duplicate Summary Chart

## Passive Summary for January 2010

Stats	Sulphur Dioxide SO <sub>2</sub>	Ozone O <sub>3</sub>	Nitrogen Dioxide NO <sub>2</sub>
	ppb	ppb	ppb

Passive Summary for January 2010 (PASZA Zone)			
<b>Mean</b>	0.5	23.4	3.5
<b>Standard Deviation</b>	0.2	4.1	3.3
<b>Minimum</b>	0.2	13.4	0.9
<b>Minimum At</b>	Gold Creek (#32)	Grande Prairie HP	Puskwaskau (#34)
<b>Maximum</b>	0.9	31.7	16.9
<b>Maximum At</b>	Valleyview (#41)	Sunset House (#42)	Grande Prairie HP

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

	SO <sub>2</sub>	O <sub>3</sub>	NO <sub>2</sub>
PASZA Beaverlodge station	0.9	16.5	12.3
PASZA Beaverlodge passive	0.5	23.1	5.7

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

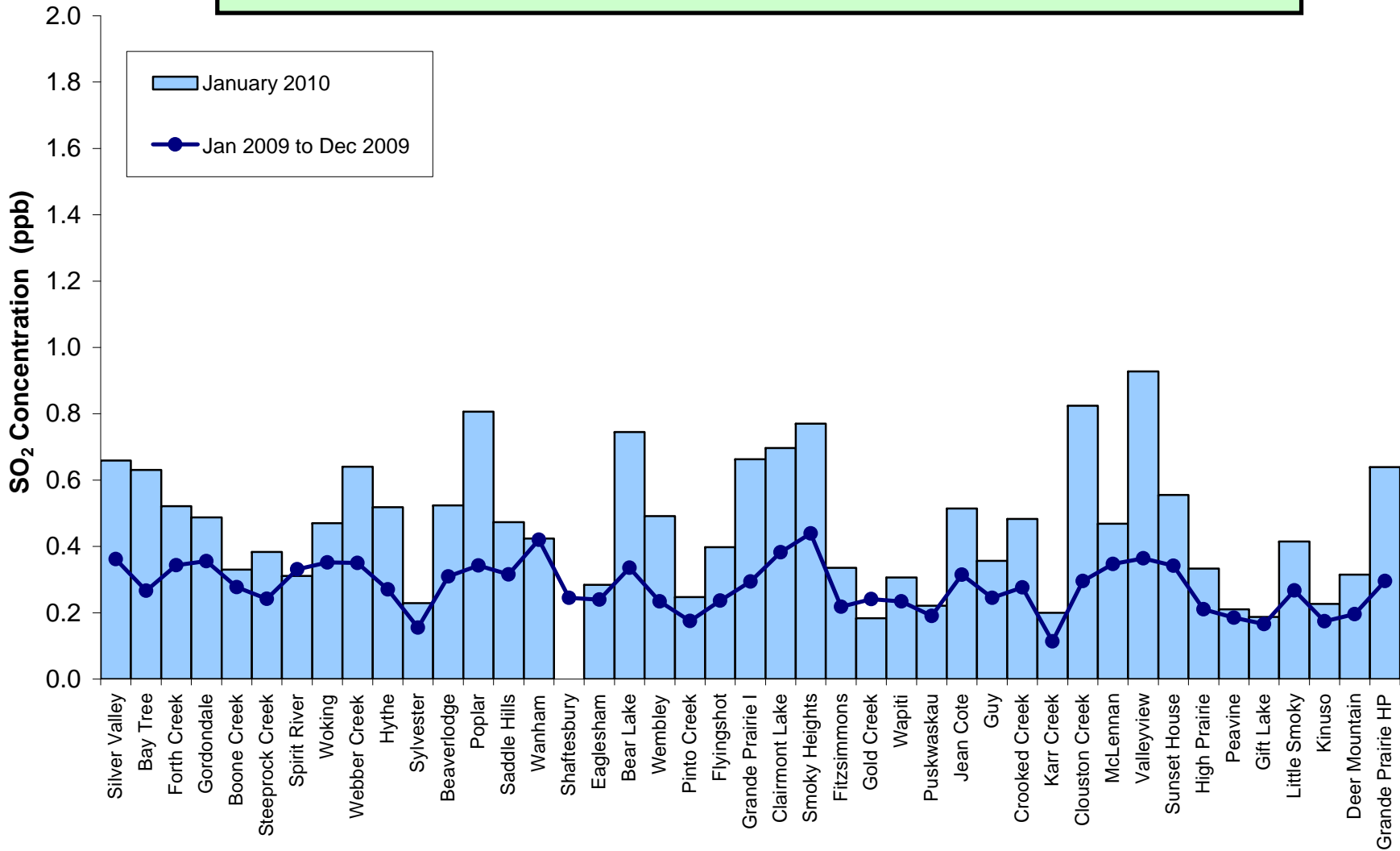
	SO <sub>2</sub>	O <sub>3</sub>	NO <sub>2</sub>
PASZA Henry Pirker station	0.9	9.1	22.2
PASZA Grande Prairie passive	0.6	13.4	16.9

### Comparison between Continuous and Passive monitoring at Kinuso (passive #47 Kinuso)

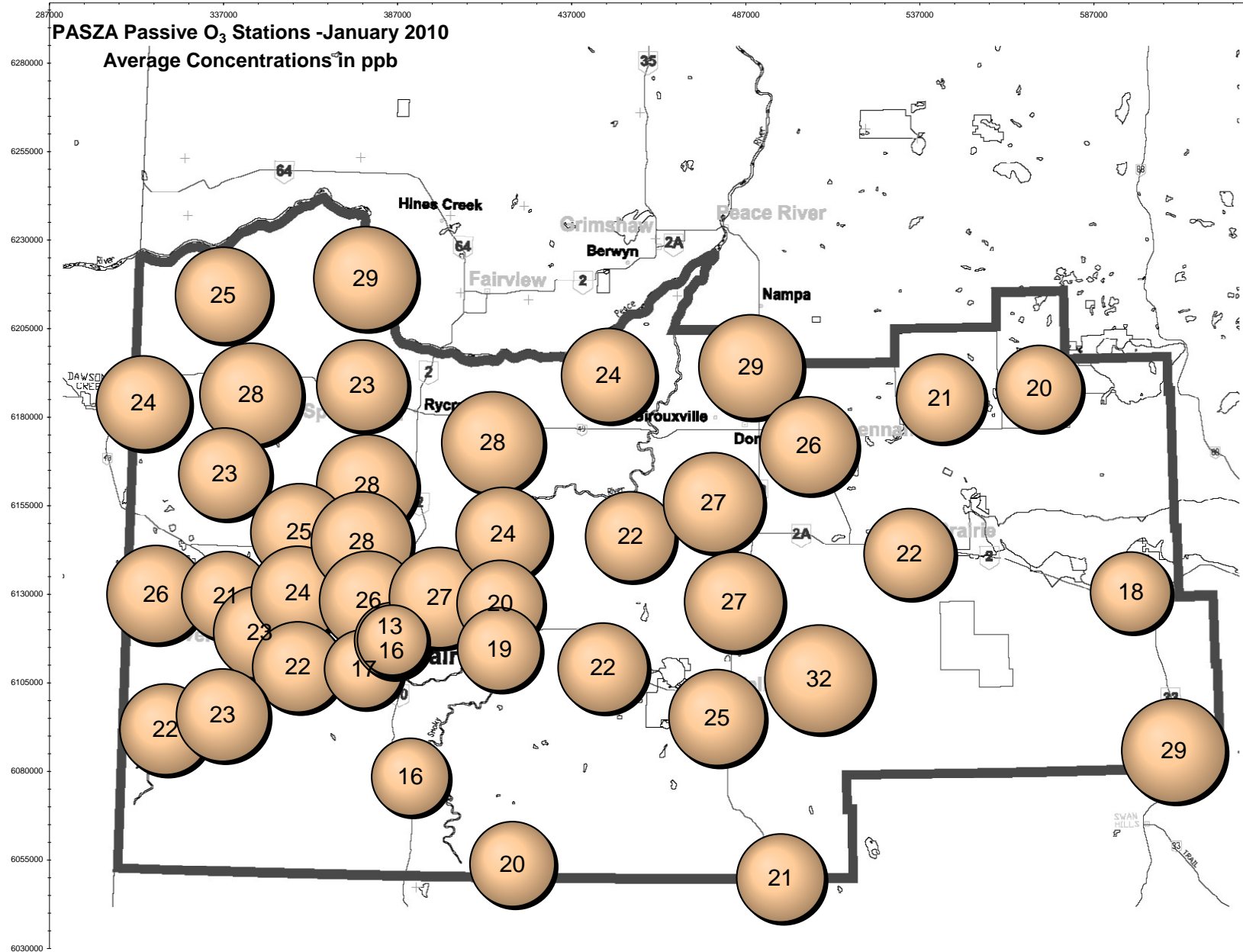
	SO <sub>2</sub>	O <sub>3</sub>	NO <sub>2</sub>
PASZA Portable Kinuso station	0.4	17.8	6.3
PASZA Kinuso passive	0.2	17.6	2.7



**Alberta Ambient Air Quality Objective - Annual SO<sub>2</sub> Objective is 11 ppb**

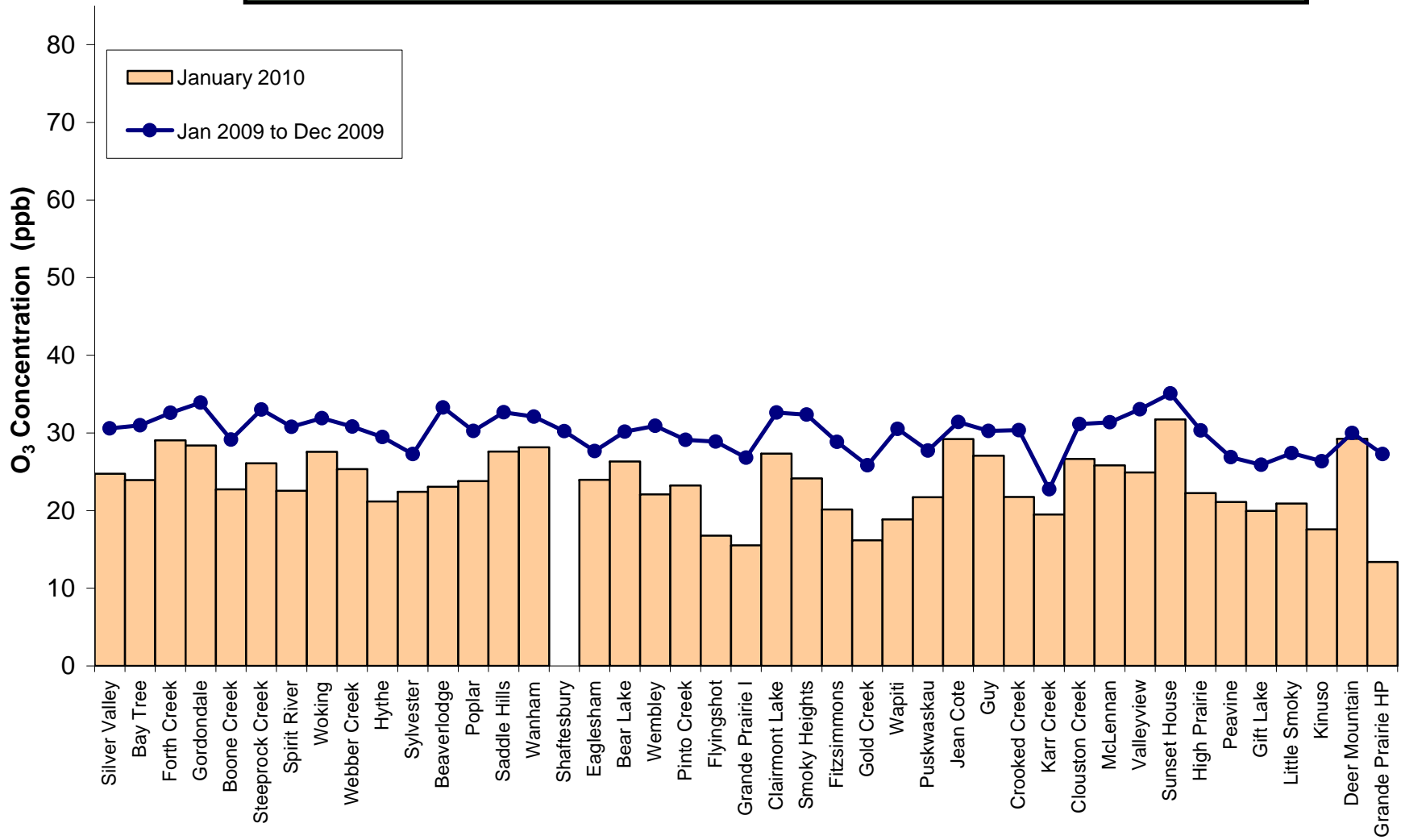


**SO<sub>2</sub> Summary Chart**



**O<sub>3</sub> Bubble Chart**

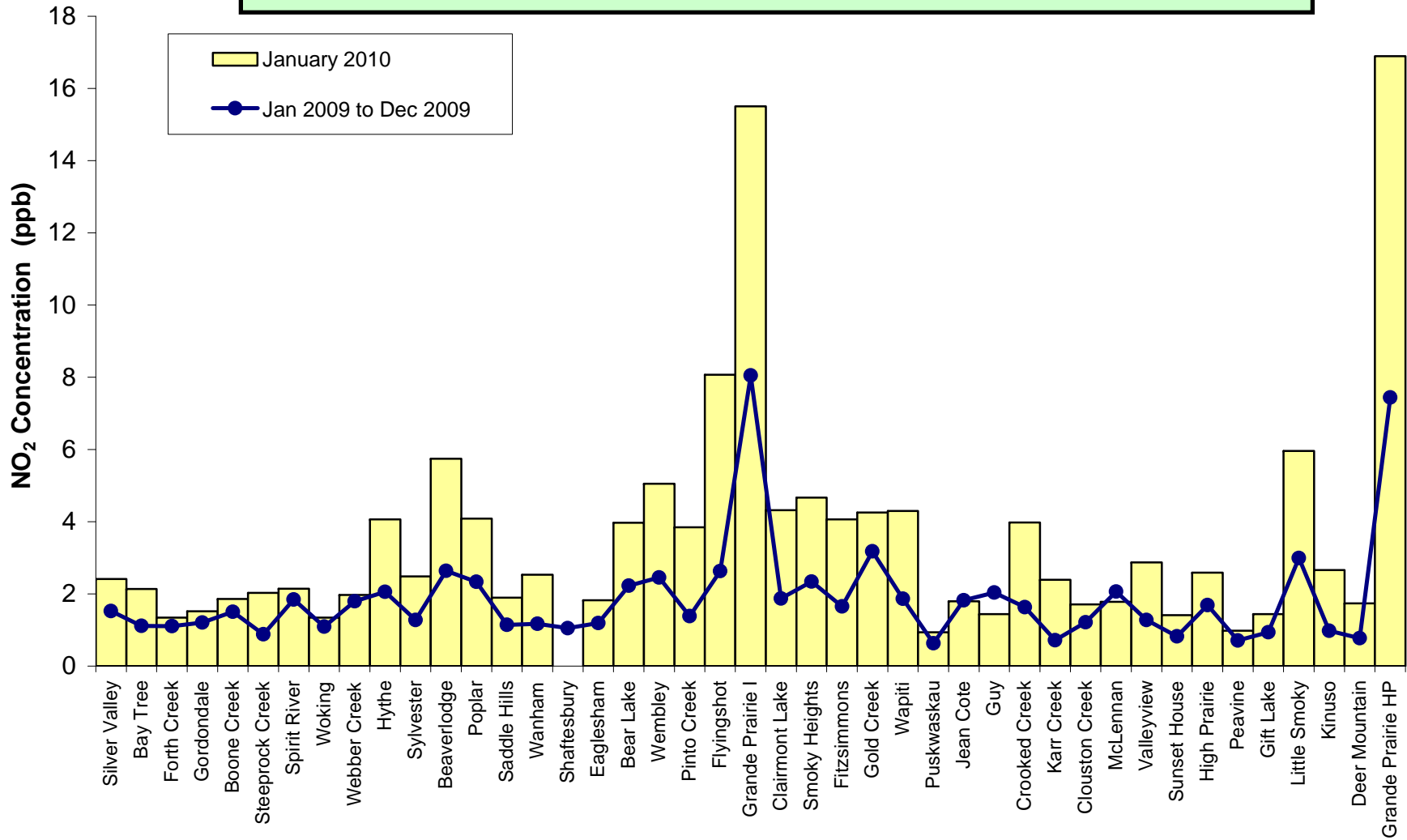
**Alberta Ambient Air Quality Objective - No Annual O<sub>3</sub> Objective**



**O<sub>3</sub> Summary Chart**



**Alberta Ambient Air Quality Objective - Annual NO<sub>2</sub> Objective is 32 ppb**



**NO<sub>2</sub> Summary Chart**



# January 2010 Calibration Reports

**PASZA - Henry Pirker Station with the following calibrations:  
SO<sub>2</sub>, NO, NO<sub>2</sub>, NO<sub>x</sub>, O<sub>3</sub>, CO, THC, TRS**

**PASZA – Evergreen Park Station with the following calibrations:  
SO<sub>2</sub>, TRS**

**PASZA – Smoky Heights Station with the following calibrations:  
SO<sub>2</sub>, TRS**

**PASZA – Beaverlodge Station with the following calibrations:  
SO<sub>2</sub>, NO, NO<sub>2</sub>, NO<sub>x</sub>, O<sub>3</sub>**

**PASZA – Kinuso (Portable) Station with the following calibrations:  
SO<sub>2</sub>, TRS, NO, NO<sub>2</sub>, NO<sub>x</sub> & O<sub>3</sub>,**

**PASZA – Valleyview Station with the following calibrations:  
SO<sub>2</sub> & H<sub>2</sub>S**

# Calibration Report

Parameter SO2  
 Air Monitoring Network \_\_\_\_\_

**PASZA**



## Station Information

Calibration Date	January 13, 2010	Previous Calibration	December 5, 2009
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)	10:20	End Time (MST)	12:47
Barometric Pressure	0.958 ATM	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
Cal Gas Conc	50.6 ppb	Cal Gas Cert Date	13/3/2009
		Cal Gas Cylinder #	AAL 15377
DACS make	Focus AP1000	DACS serial No.	1
DACS voltage range	0 - 1 volt	DACS channel #	10
	<u>Before</u>		<u>After</u>
Calculated slope	0.999282	Calculated slope	1.003746
Calculated intercept	-1.223682	Calculated intercept	-1.630304
Analyzer make	TEI 43C	Analyzer serial #	610816292

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	8.6		8.5	
Coefficient	.815		.815	
Pressure	641.1	mm Hg	662.1	mm Hg
Flow	0.477	lpm	0.490	lpm
Lamp Voltage	43975	Hz	44501	Hz

## Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)
4989	0.00	0.0	0.3	N/A
4991	39.85	400.8	400.4	1.0011
4991	19.91	201.1	202.2	0.9943
4991	9.95	100.7	103.5	0.9723
4989	0.00	0.0	0.0	As Found Zero
4991	39.85	400.8	406.4	As Found Span
Average Correction Factor				0.9892

Calculated value of As Found Response: 404.8 ppb      Percent Change of As Found: -1.0%

	before calibration		after calibration	
Auto zero	0.1	ppb	0.1	ppb
Auto span	239.8	ppb	235.5	ppb

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Calibration Performed By: Grover Christiansen

# Calibration Summary

Parameter SO2

Air Monitoring Network PASZA



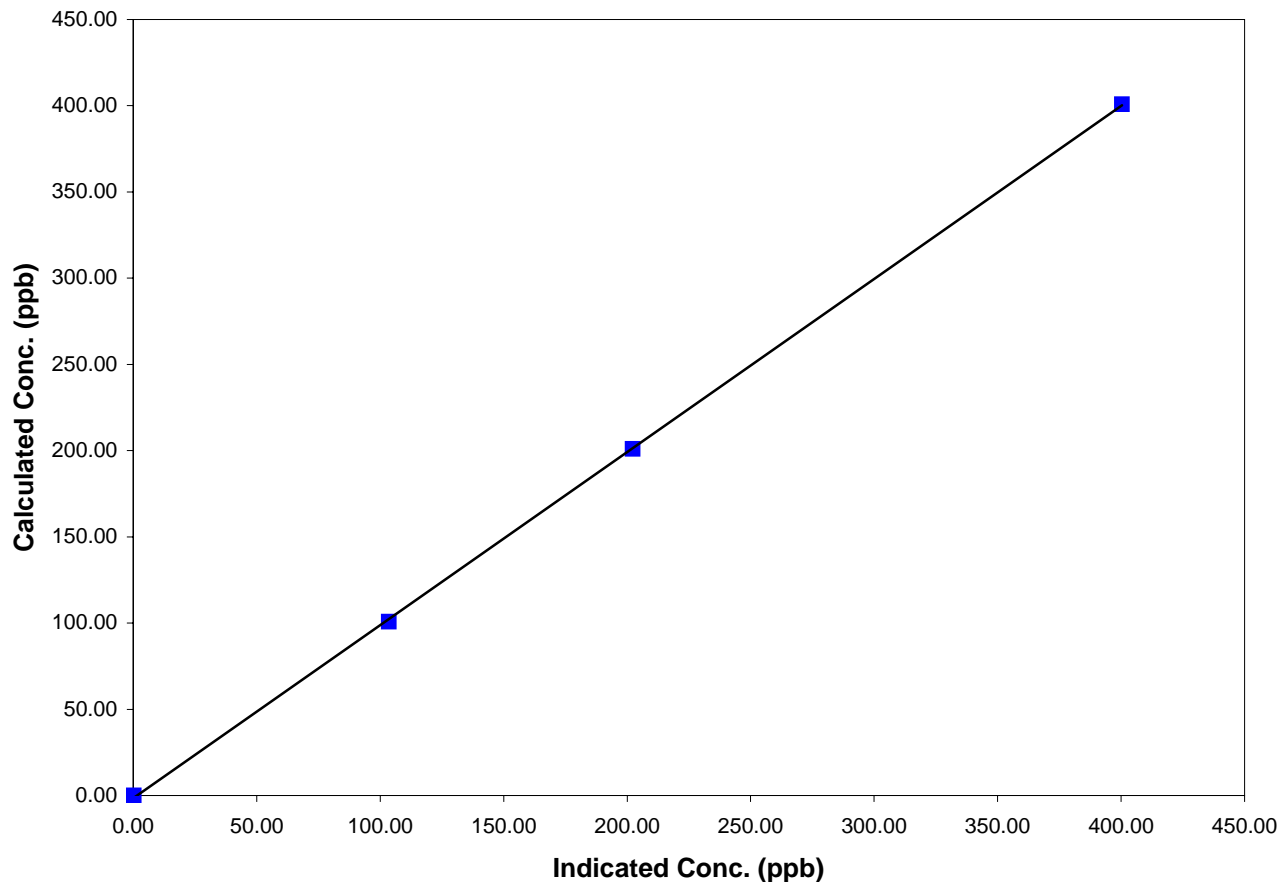
## Station Information

Calibration Date	January 13, 2010	Previous Calibration	December 5, 2009
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	10:20	End Time (MST)	12:47
Analyzer make/model	TEI 43C	Analyzer serial #	610816292

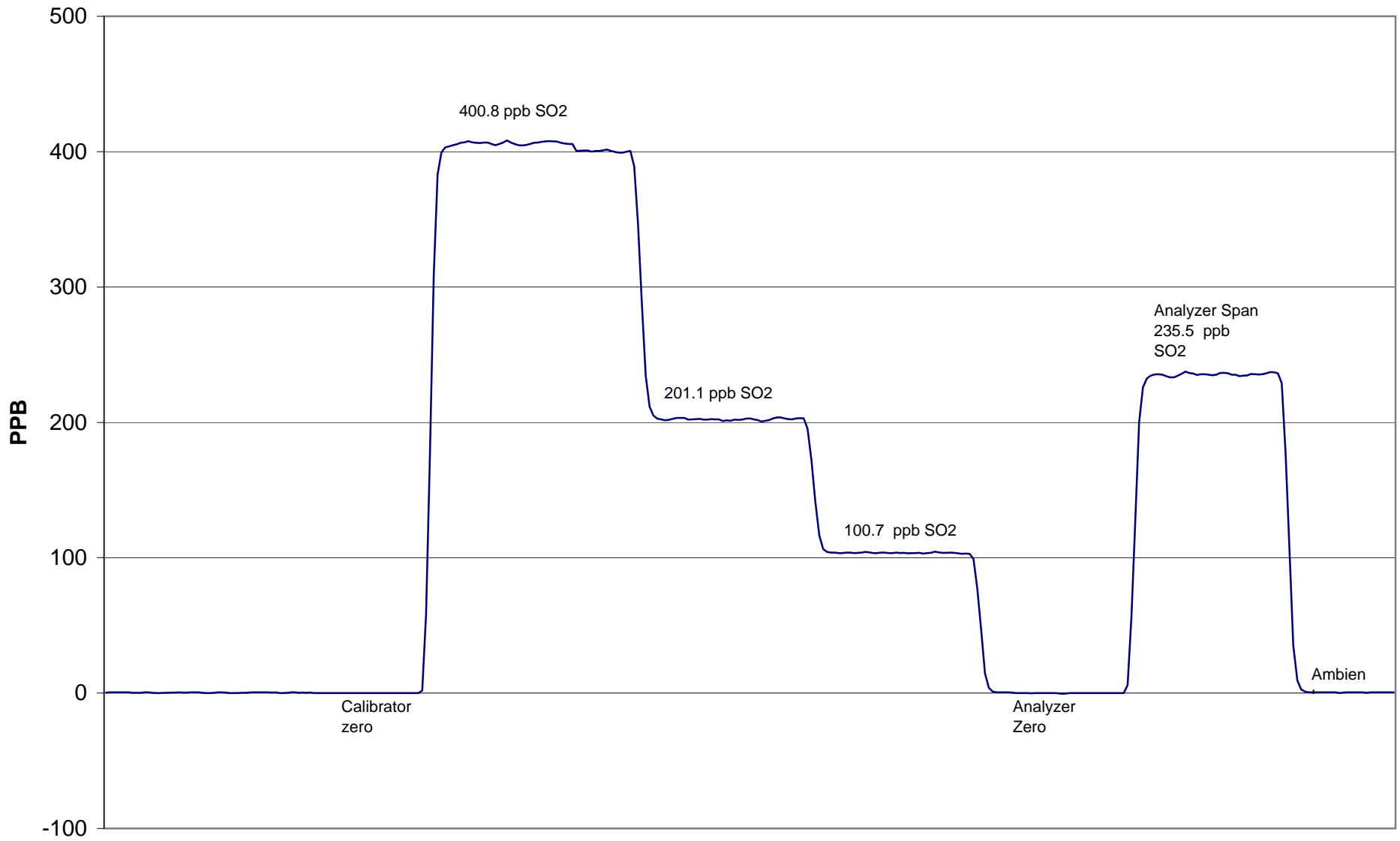
## Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	N/A		
400.8	400.4	1.0011	Correlation Coefficient	0.999945
201.1	202.2	0.9943		
100.7	103.5	0.9723	Slope	1.003746
			Intercept	-1.630304

## SO2 Calibration Curve



# Henry Pirker SO<sub>2</sub> Calibration



January 13, 2010



# Calibration Summary



Parameter                                                                                                                                                                                                                                      
Air Monitoring Network                                                                                                                                                                                                                                    

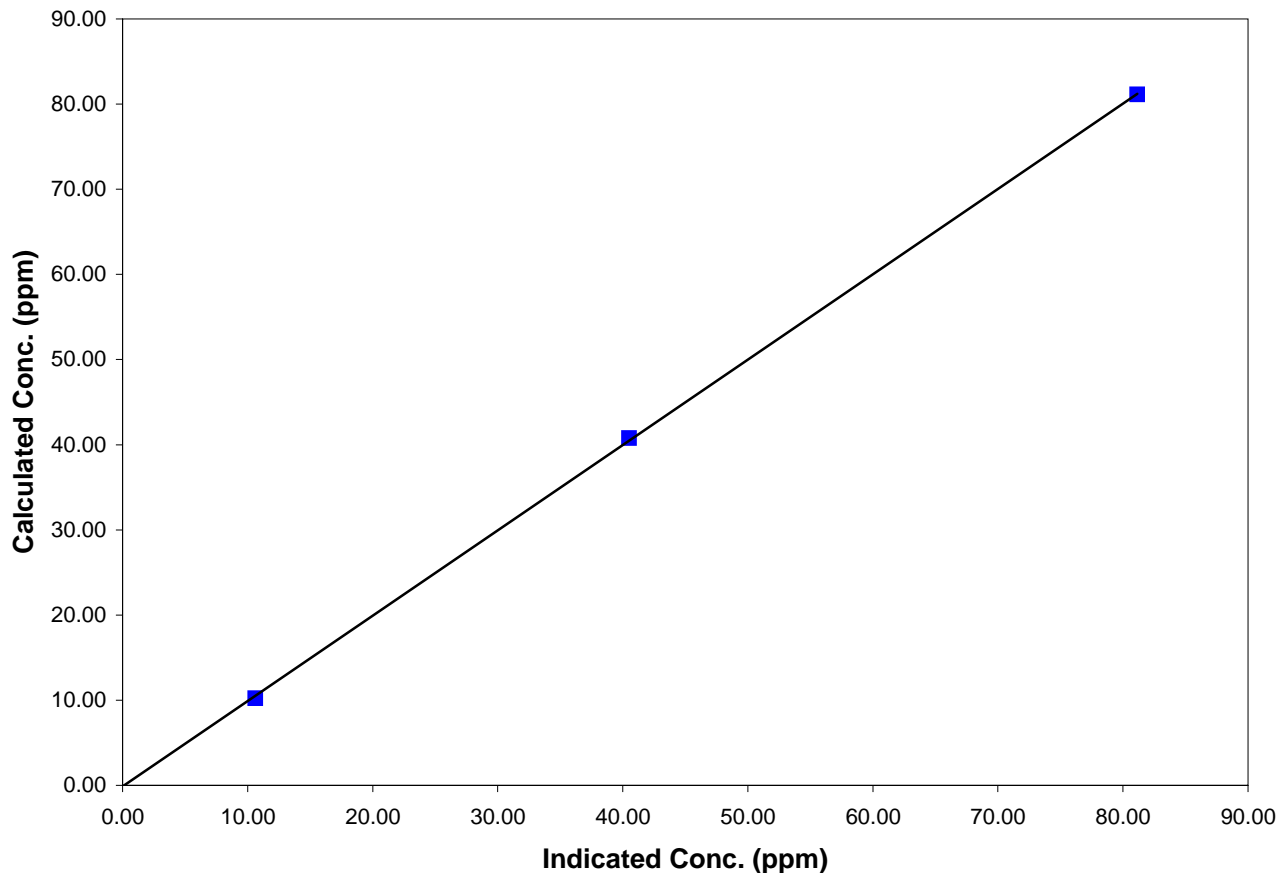
### Station Information

Calibration Date	January 14, 2010	Previous Calibration	December 4, 2009
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	11:55	End Time (MST)	15:07
Analyzer make/model	TEI 45C	Analyzer serial #	630718528

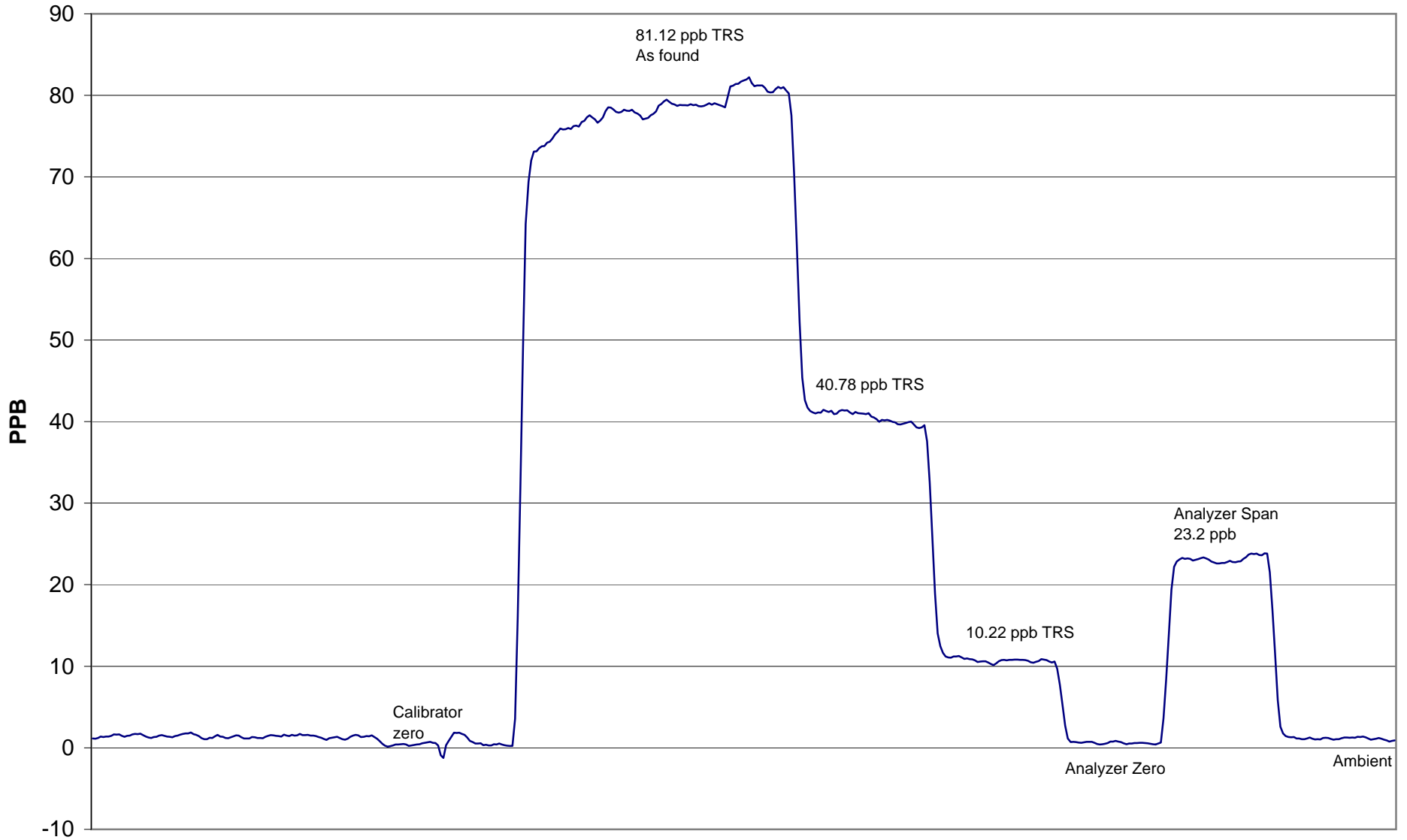
### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	-0.027	N/A	Correlation Coefficient	0.999947
81.124	81.155	0.9996		
40.777	40.511	1.0066	Slope	1.002189
10.222	10.626	0.9619		
			Intercept	-0.107846

### TRS Calibration Curve



# Henry Pirker TRS Calibration



January 14, 2010

# Calibration Report

Parameter

**NO<sub>x</sub>-NO-NO<sub>2</sub>**

Air Monitoring Network

**PASZA**



## Station Information

Calibration Date	January 13, 2010	Previous Calibration	December 5, 2009
Station Number	1	Station Location	Henry Pirker
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Installation	<input type="checkbox"/> Removal
Start Time (MST)	10:20	End Time (MST)	14:22
Barometric Pressure	0.958 Atm	Station Temperature	25.0 Deg C
Calibrator	EnviroNics	Serial Number	3474
NO Cal Gas Conc	49.6 ppm	Cal Gas Expiry Date	June 8, 2008
NOx Cal Gas Conc	49.6 ppm	Cal Gas Serial #	AAL 15377

## DACS Information

DACS make	Focus AP1000	DACS serial No.	
-----------	--------------	-----------------	--

Parameter	NO2	NOx	NO
Before	Data Slope	1.000915	1.006418
	Data Offset	-0.027066	-2.718584
After	Data Slope	1.001053	1.004077
	Data Offset	0.745285	-2.181754
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	9.3	mV	9.6	mV
NOx bkgnd	10.0	mV	10.0	mV
NO coefficient	0.708		0.730	
NOx coefficient	0.999		1.002	
NO2 conv temp	318.0	Deg C	319.0	Deg C
PMT Temp	-2.4	Deg C	-2.5	Deg C
PMT Volt	-786.0	mV	-787.0	mV
R Cell Press	169.2	in Hg	169.7	in Hg



# Calibration Report

Parameter **NOx-NO-NO<sub>2</sub>**  
 Air Monitoring Network **PASZA**



## Station Information

Calibration Date: **January 13, 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	4989	0.00	0.0	0.0	0.0	0.0	0.0	0.0	N/A	N/A	
1	4991	39.85	392.9	392.9	0.0	392.3	392.6	-0.3	1.0015	1.0009	
2	4991	19.87	196.7	196.7	0.0	199.2	199.4	-0.2	0.9872	0.9862	
3	4991	9.91	98.3	98.3	0.0	102.2	101.9	0.2	0.9615	0.9643	
AFZ	4991	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0000	0.0000	
AFS	4991	39.84	392.8	392.8	0.0	380.1	381.3	-1.2	1.0335	1.0303	
									Average Correction Factor	0.9834	0.9838

As Found Concentrations: **NO<sub>x</sub>= 377.3** **NO= 378.6** As Found Percent Change **NO<sub>x</sub>= -3.9%** **NO= -3.6%**

## 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	0.0	0.0	0.0	0.0	0.0	0.0	N/A	N/A	N/A	N/A	
NO point	392.5	392.5	0.0	392.5	392.5	0.0	1.0000	1.0000	N/A	N/A	
300	392.5	99.6	292.9	391.7	99.6	292.2	1.0022	1.0000	1.0024	99.8%	
200	392.5	191.9	200.6	391.6	191.9	199.8	1.0024	1.0000	1.0040	99.6%	
100	392.5	280.3	112.2	390.2	280.3	110.2	1.0060	1.0000	1.0189	98.1%	
							Average Correction Factor	1.0035	1.0000	1.0084	99.2%

## 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	174.5	173.7	0.9	ppb

Calibration Performed By: Grover Christiansen

# Calibration Summary

Parameter NO<sub>2</sub>

Air Monitoring Network PASZA



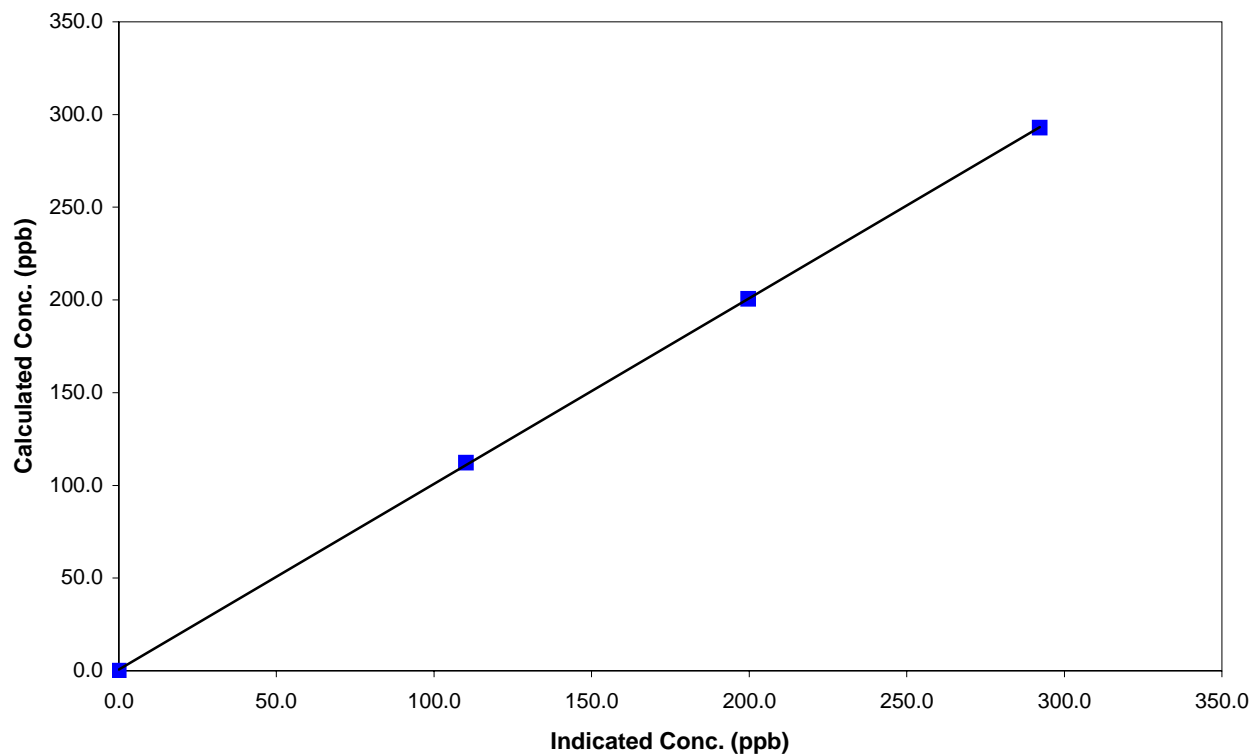
## Station Information

Calibration Date	January 13, 2010	Previous Calibration	December 5, 2009
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	10:20	End Time (MST)	14:22
Analyzer make	TEI 42C	Analyzer serial #	508011073

## Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A	Correlation Coefficient	0.999955
292.9	292.2	1.0024		
200.6	199.8	1.0040	Slope	1.001053
112.2	110.2	1.0189		
			Intercept	0.745285

### NO<sub>2</sub> Calibration Curve



# Calibration Summary

Parameter NO<sub>x</sub>

Air Monitoring Network PASZA



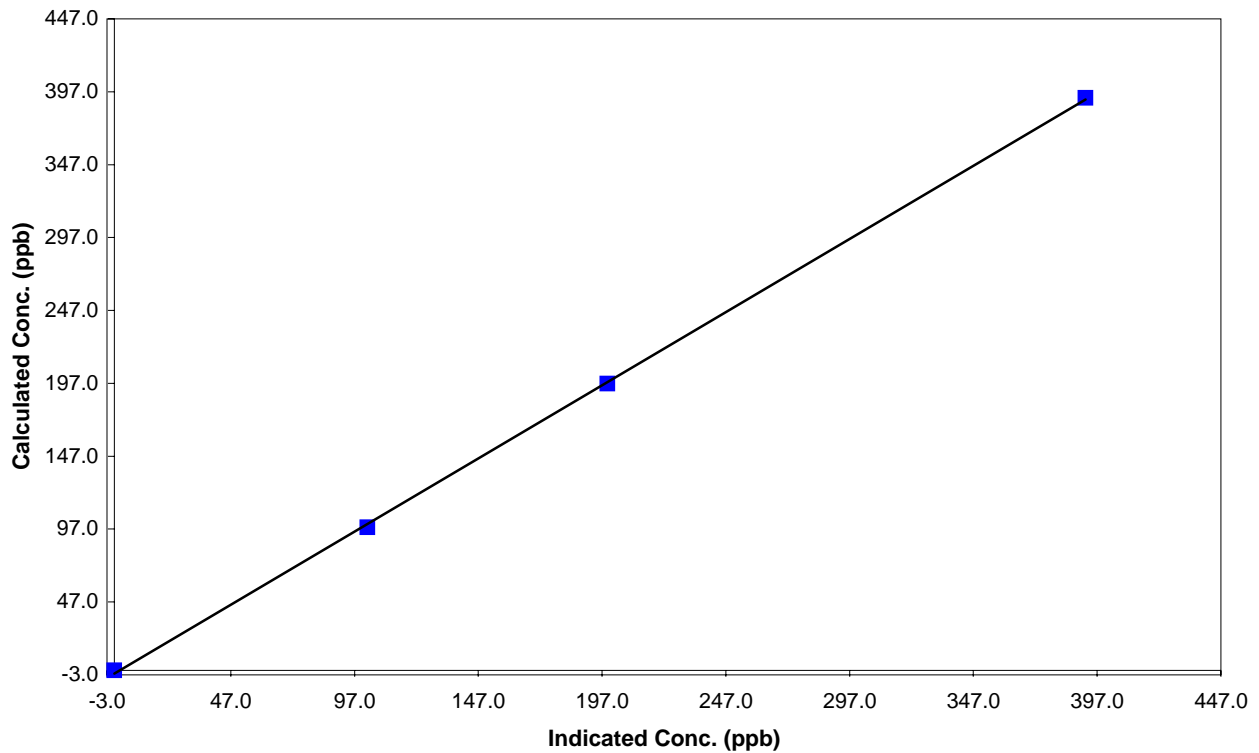
## Station Information

Calibration Date	January 13, 2010	Previous Calibration	December 5, 2009
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	10:20	End Time (MST)	14:22
Analyzer make	TEI 42C	Analyzer serial #	508011073

## Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A	Correlation Coefficient	0.999855
392.9	392.3	1.0015		
196.7	199.2	0.9872		
98.3	102.2	0.9615	Slope	1.004077
			Intercept	-2.181754

## NO<sub>x</sub> Calibration Curve



# Calibration Summary

Parameter NO

Air Monitoring Network PASZA



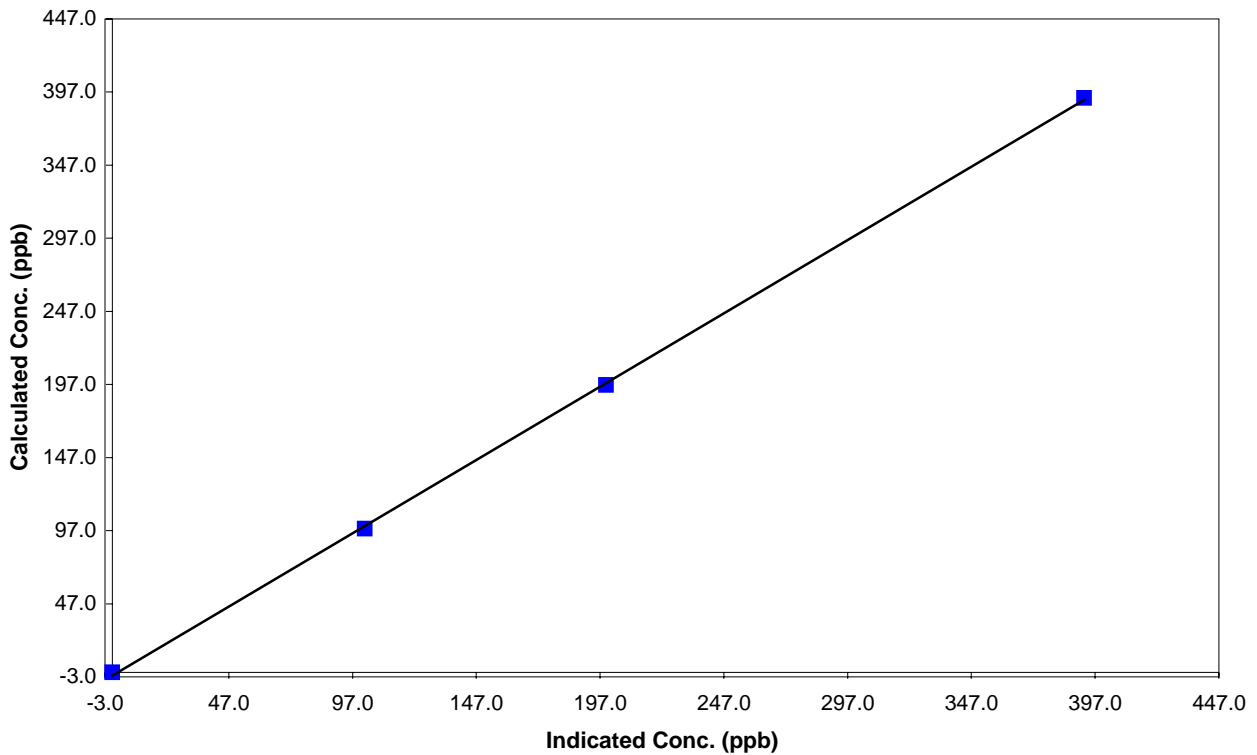
## Station Information

Calibration Date	January 13, 2010	Previous Calibration	December 5, 2009
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	10:20	End Time (MST)	14:22
Analyzer make	TEI 42C	Analyzer serial #	508011073

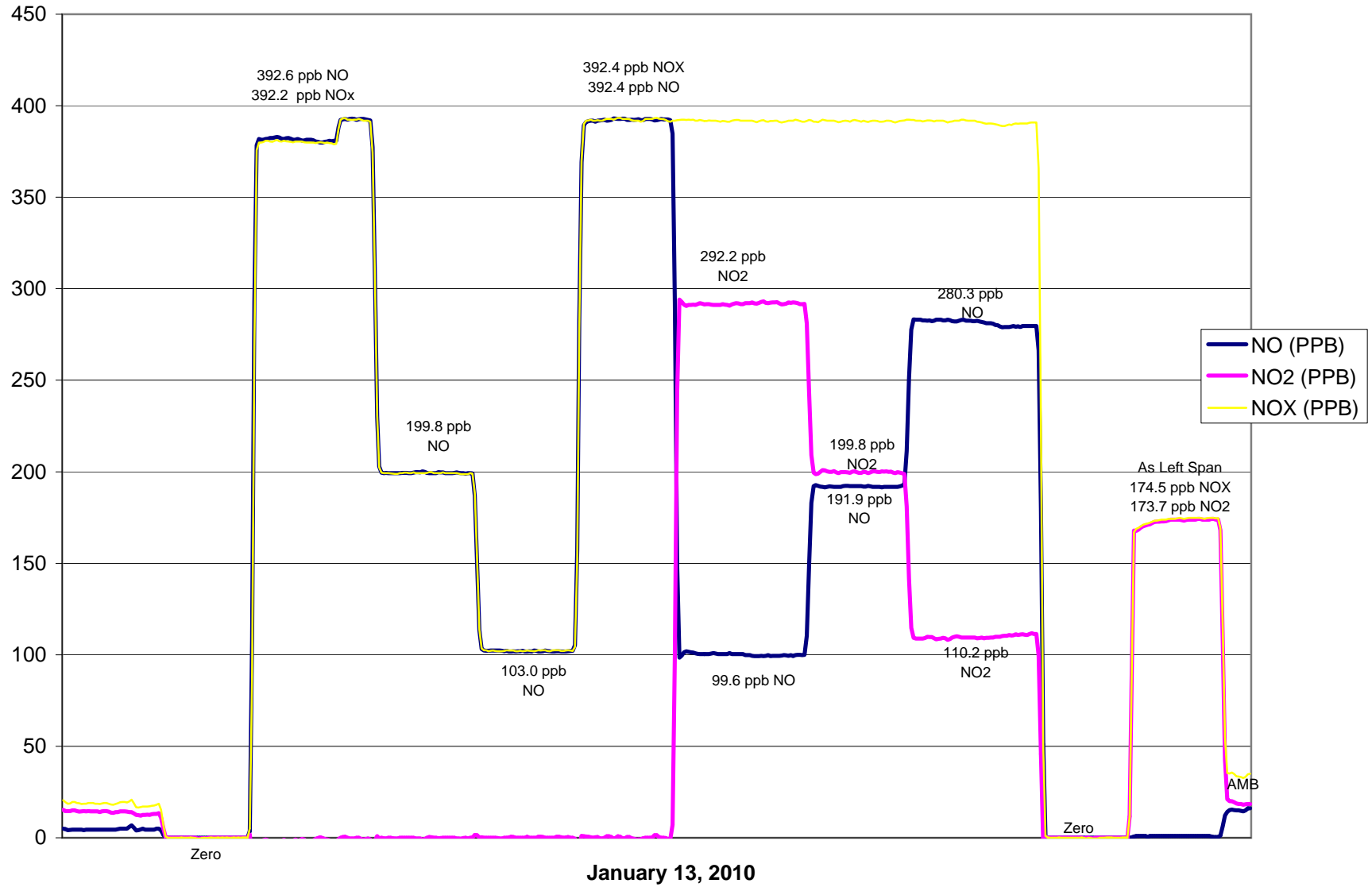
## Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A	Correlation Coefficient	0.999870
392.9	392.6	1.0009		
196.7	199.4	0.9862	Slope	1.003089
98.3	101.9	0.9643		
			Intercept	-2.046094

## NO Calibration Curve



# Henry Pirker NO<sub>x</sub> Calibration



# Calibration Report



Parameter 03  
 Air Monitoring Network PASZA

## Station Information

Calibration Date	January 13, 2009	Previous Calibration	December 5, 2009
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)	13:35	End Time (MST)	16:03
Barometric Pressure	0.958 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
	<u>Before</u>		<u>After</u>
Calculated slope	1.008022	Calculated slope	1.004478
Calculated intercept	-0.183426	Calculated intercept	1.800408
Analyzer make	TECO 49C	Analyzer serial #	607415761

	before		after	
Concentration range	500	ppb	500	ppb
offset	-1.0	ppb	-0.9	ppb
slope	1.014		1.014	
O3 Lamp temp	71.1	Deg C	71	Deg C
Intensities	91597/77022	mV	90903/80527	mV
Pressure	695.3	inches Hg	695.2	inches Hg
Flow A	0.709	ccm	0.710	ccm
Flow B	0.725	Deg C	0.732	Deg C

## 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	0.1	N/A
300	4991	292.9	291.1	1.0061
200	4991	200.6	197.5	1.0159
100	4991	112.2	107.1	1.0471
0	4991	0.0	0.7	As found zero
300	4991	292.9	290.5	As found span
Average Correction Factor				1.0231

Calculated value of As Found Response: 291.9 ppm      Percent Change of As Found: -0.3%

	before calibration		after calibration	
Auto zero	0.3	ppb	0.3	ppb
Auto span	138.2	ppb	127.3	ppb

Notes: \_\_\_\_\_

Calibration Performed By: Grover Christiansen

## Calibration Summary

Parameter                   03                    
 Air Monitoring Network   PASZA  

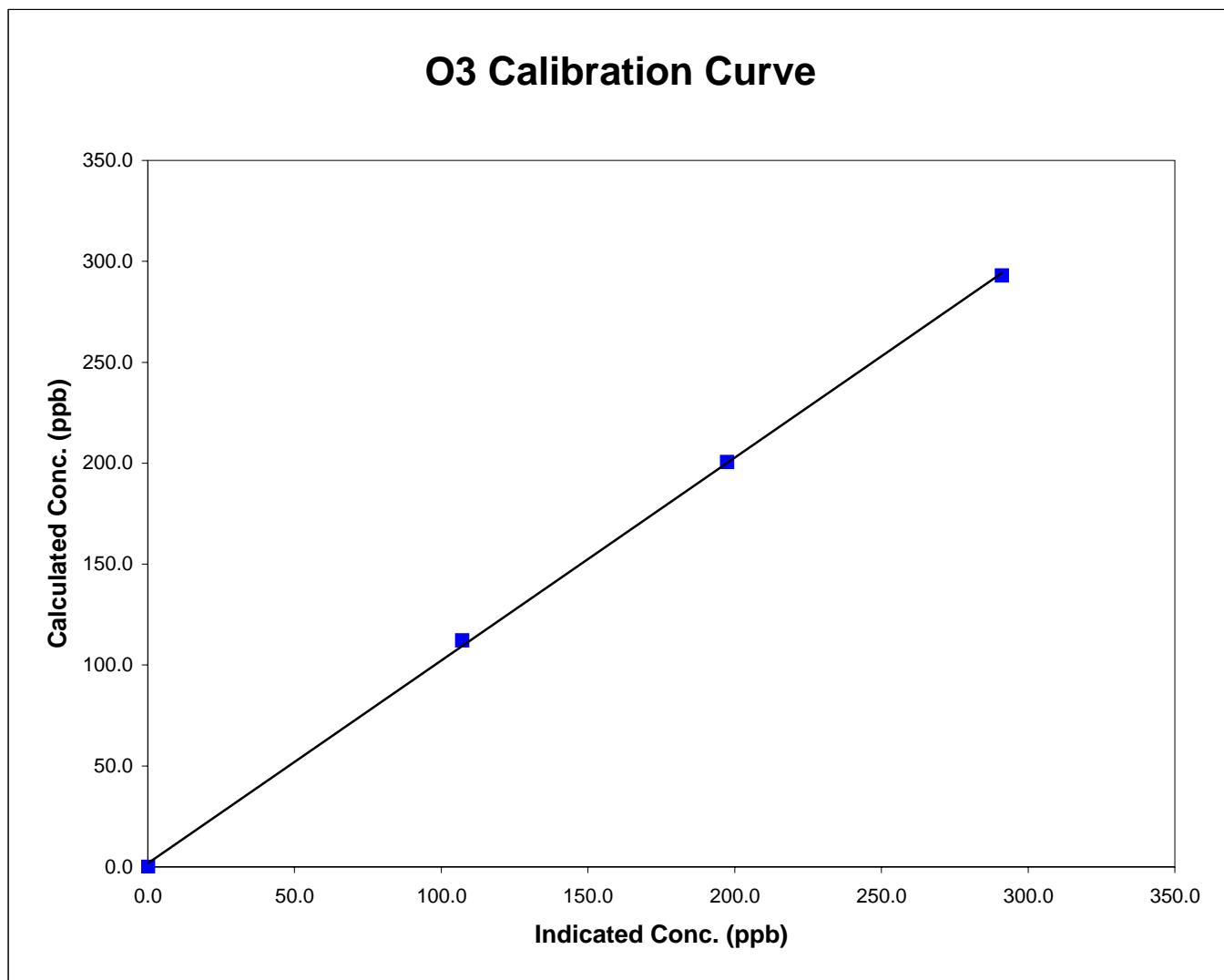


### Station Information

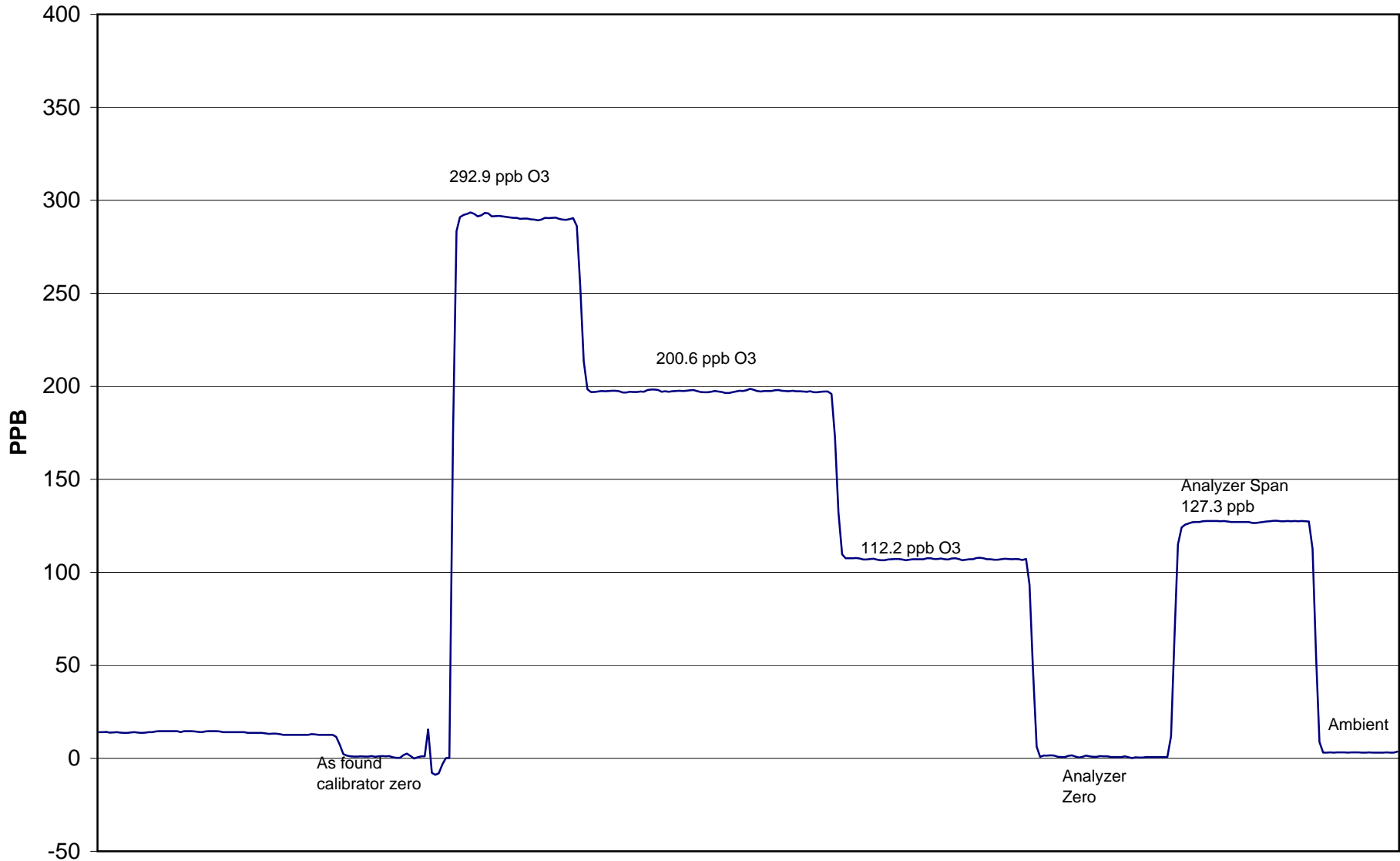
Calibration Date	January 13, 2009	Previous Calibration	December 5, 2009
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	13:35	End Time (MST)	16:03
Analyzer make/model	TECO 49C	Analyzer serial #	607415761

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	NA	Correlation Coefficient	0.999717
292.9	291.1	1.0061		
200.6	197.5	1.0159		
112.2	107.1	1.0471		
			Slope	1.004478
			Intercept	1.800408



# Henry Pirker O<sub>3</sub> Calibration



January 13, 2009



# Calibration Report



Parameter CO  
 Air Monitoring Network PASZA

## Station Information

Calibration Date	January 14, 2010	Previous Calibration	December 4, 2009
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)	10:10	End Time (MST)	13:23
Barometric Pressure	0.927 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
	<u>Before</u>		<u>After</u>
Calculated slope	0.997197	Calculated slope	1.013918
Calculated intercept	-0.236824	Calculated intercept	-0.623943
Analyzer make	TEI Model 48C	Analyzer serial #	508011062

	before		after	
Concentration range	0 - 50	ppm	0 - 50	ppm
CO span setting	1.054		1.017	
CO zero setting	7.988		8.307	
Sample pressure	681.3	mm Hg	680.7	mm Hg
Sample Flow	1.133	LPM	1.132	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	0.04	N/A
4991	39.85	23.76	23.70	1.0026
4991	19.88	11.90	12.68	0.9389
4991	9.94	5.96	7.09	0.8402
4990	0.00	0.00	0.26	As Found Zero
4991	39.85	23.76	25.08	As Found Span
Average Correction Factor				0.9272

Calculated value of As Found Response: 24.515 ppm      Percent Change of As Found: -3.2%

	before calibration		after calibration	
Auto zero	0.03	ppm	0.03	ppm
Auto span	19.80	ppm	17.44	ppm

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Calibration Performed By: Grover Christiansen

# Calibration Summary



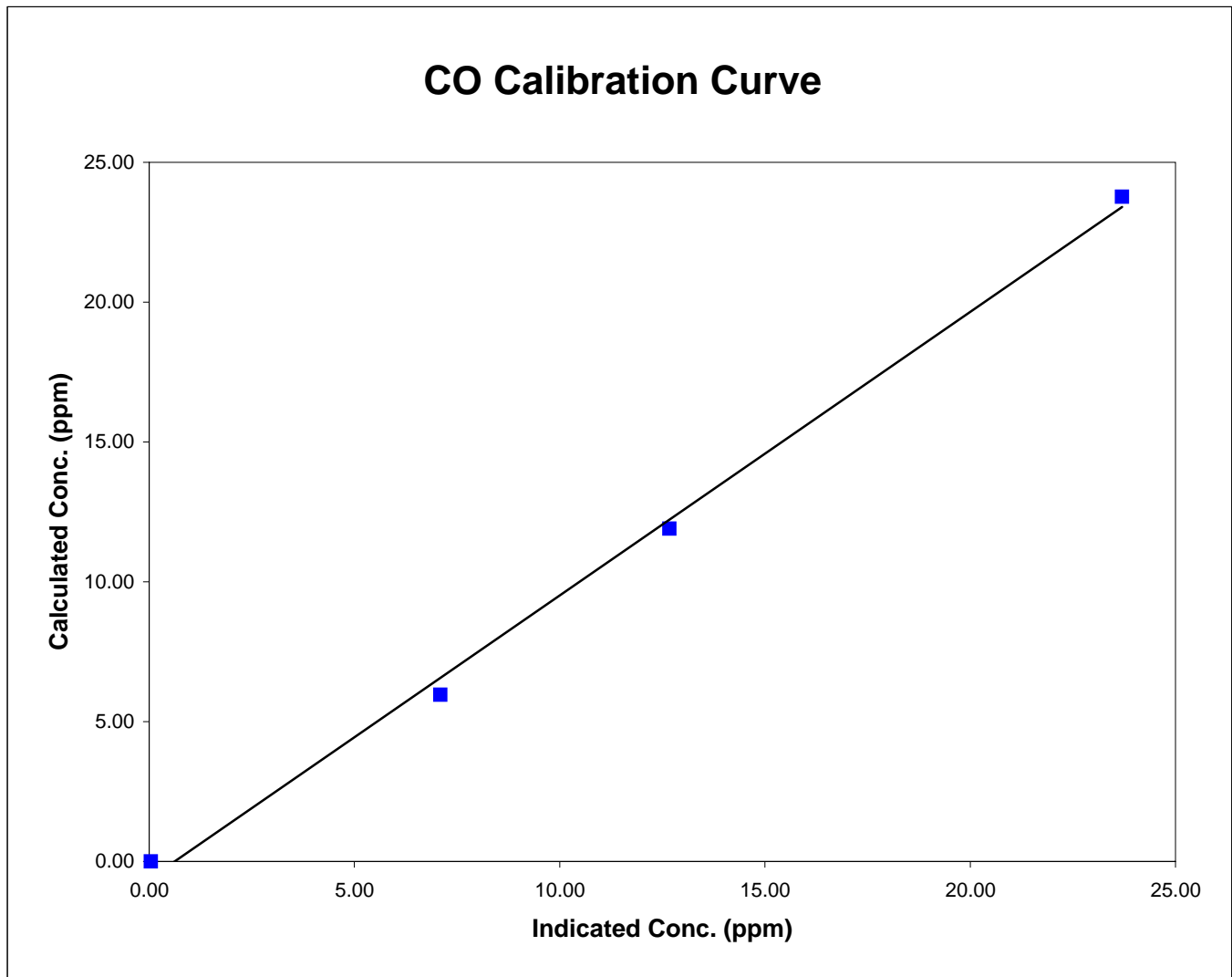
Parameter CO  
 Air Monitoring Network PASZA

### Station Information

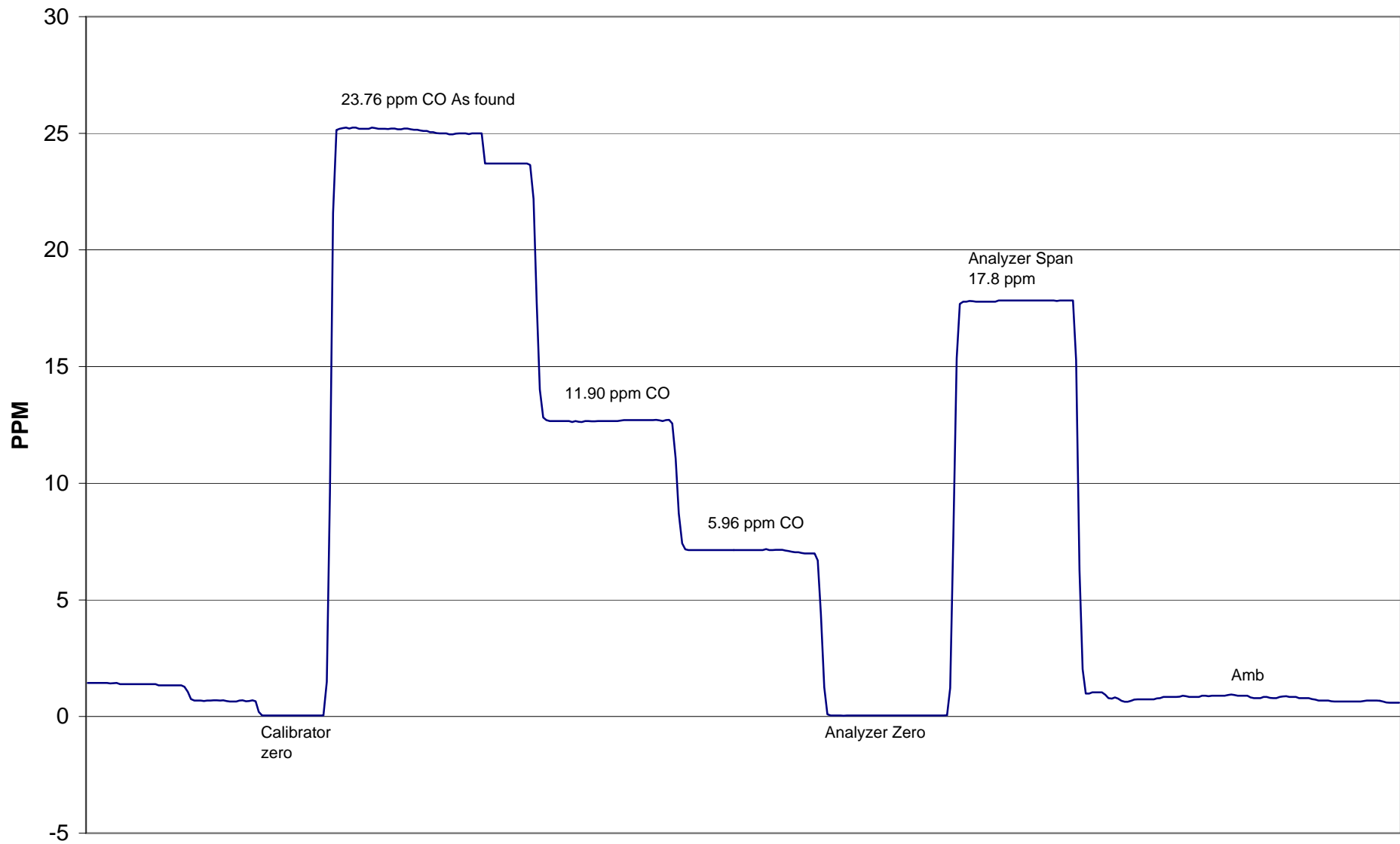
Calibration Date	January 14, 2010	Previous Calibration	December 4, 2009
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	10:10	End Time (MST)	13:23
Analyzer make/model	TEI Model 48C	Analyzer serial #	508011062

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.044	N/A		
23.763	23.701	1.0026	Correlation Coefficient	0.996954
11.902	12.677	0.9389		
5.960	7.094	0.8402	Slope	1.013918
			Intercept	-0.623943



# Henry Pirker CO Calibration



January 14, 2010

# Calibration Report



Parameter THC

Air Monitoring Network PASZA

## Station Information

Calibration Date	January 14, 2010	Previous Calibration	December 4, 2009
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)	14:00	End Time (MST)	16:19
Barometric Pressure	0.927 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	1.012401	Calculated slope	1.022362
Calculated intercept	-0.068855	Calculated intercept	-0.010386
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	9615	capture	9615	capture
THC zero counts	431	capture	431	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	0.03	N/A
4990	69.50	20.92	20.51	1.0200
4989	29.94	9.09	8.79	1.0335
4988	9.92	3.02	3.02	1.0017
4988	0.00	0.00	0.07	As Found Zero
4988	69.82	21.03	20.51	As Found Span
Average Correction Factor				1.0184

Calculated value of As Found Response: 20.630 ppm Percent Change of As Found: 1.9%

	before calibration		after calibration	
Auto zero	0.10	ppm	0.02	ppm
Auto span	21.34	ppm	21.50	ppm

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Calibration Performed By: Grover Christiansen

# Calibration Summary



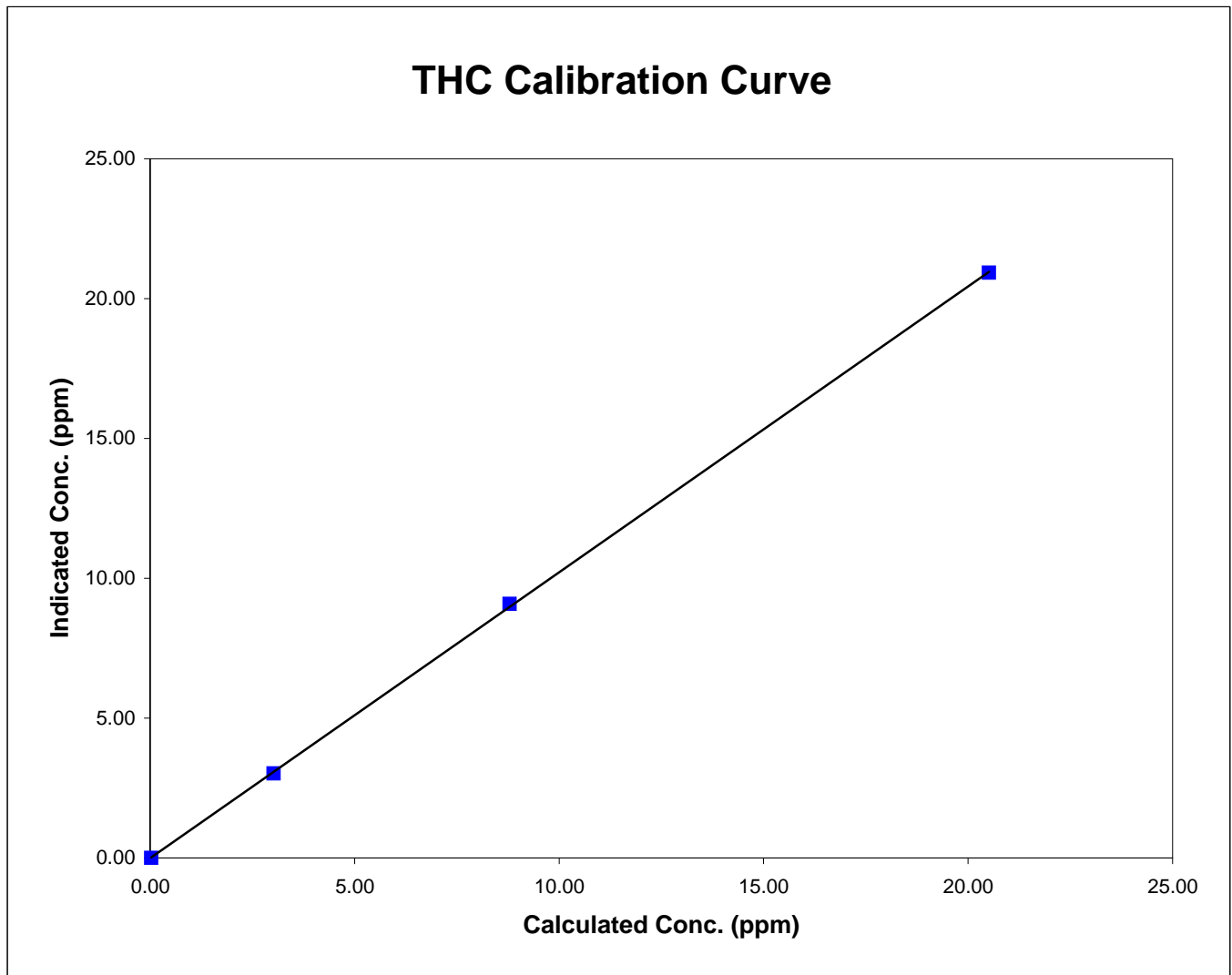
Parameter THC  
 Air Monitoring Network PASZA

### Station Information

Calibration Date	January 14, 2010	Previous Calibration	December 4, 2009
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	14:00	End Time (MST)	16:19
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	0.027	N/A		
20.924	20.515	1.0200	Correlation Coefficient	0.999937
9.087	8.792	1.0335		
3.023	3.018	1.0017	Slope	1.022362
			Intercept	-0.010386



# Henry Pirker THC Calibration



January 14, 2010

# FDMS TEOM PM2.5 AUDIT



STATION: Henry Pirker  
 LOCATION: PASZA - Grande Prairie

OPERATOR: Grover Christiansen  
 DATE: 17-Jan-10

MONITOR INFO / PARAMETER VALUES:

Make/Model	TEOM AB
Configuration	PM2.5
Serial Number	AMU 1697
Site Number	1
Inlet Type	PM 10 / SCC
FAdj. Main Setting	1.000
FAdj. Aux. Setting	1.000
T-Case Indicated / Set Point	30/30
T-Air Indicated / Set Point	30/30
T-Cap Indicated / Set Point	30/30
Splitter Assembly Alignment (cm)	15.5

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

RECENT CALIBRATION AND AUDIT HISTORY

Previous Audit	
Previous Calibration	NA

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

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

LEAK CHECK	Indicated Flow (lpm)	
	Main	Auxiliary
PUMP ON	0.070	0.000
PUMP OFF	0.000	0.000
NET	0.070	0.000
<b>LIMITS</b>	<b>&lt;0.15</b>	<b>&lt;0.65</b>

	Ambient Temp. (°C)	Ambient Pres. (atm)	Ko *	Bypass flow (lpm)	Sample flow (lpm)
SET POINT ( S )	na	na	13020	13.67	3.000
INDICATED ( I )	-10.7	0.914	<del>13020</del>	13.67	3.000
MEASURED ( AF )	-9.7	0.909	<del>13020</del>	13.68	3.010
MEASURED ( M )	-9.7	0.909	12935	13.68	3.010
DIFFERENCE (M-I)	1.0	-0.005	-0.7%	0.07	0.33
<b>LIMITS</b>	<b>± 2 ° C</b>	<b>± 0.005 atm</b>	<b>± 2.5 %</b>	<b>± 1.0 L/min</b>	<b>± 0.2 L/min</b>

*As Found Data*  
*Adjusted Data*

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

COMMENTS:      Barro of 687 mm was measured.

**Sample Head Inspection Or Cleaning:**

PM10: Good  
 PM2.5: Good

**TEOM / FDMS IN LINE FILTER INSPECTION OR REPLACEMENT:**

TEOM IN LINE:      FDMS Water knck out: Good  
 Main: Good      In Line Audit filter(Bowl with internal screen): Good  
 AUX: Good      FDMS 47 mm Filter Cassette: Replaced

# FDMS TEOM PM2.5 AUDIT



STATION: Henry Pirker  
 LOCATION: PASZA - Grande Prairie

OPERATOR: Grover Christiansen  
 DATE: 21-Jan-10

MONITOR INFO / PARAMETER VALUES:

Make/Model	TEOM AB
Configuration	PM2.5
Serial Number	AMU 1697
Site Number	1
Inlet Type	PM 10 / SCC
FAdj. Main Setting	0.975
FAdj. Aux. Setting	0.960
T-Case Indicated / Set Point	30/30
T-Air Indicated / Set Point	30/30
T-Cap Indicated / Set Point	30/30
Splitter Assembly Alignment (cm)	15.5

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

RECENT CALIBRATION AND AUDIT HISTORY

Previous Audit	17-Jan-10
Previous Calibration	NA

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

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

LEAK CHECK	Indicated Flow (lpm)	
	Main	Auxiliary
PUMP ON	0.070	0.000
PUMP OFF	0.000	0.000
NET	0.070	0.000
<b>LIMITS</b>	<b>&lt;0.15</b>	<b>&lt;0.60</b>

	Ambient Temp. (°C)	Ambient Pres. (atm)	Ko *	Bypass flow (lpm)	Sample flow (lpm)
SET POINT ( S )	na	na	13020	13.67	3.000
INDICATED ( I )	-10.7	0.909	<del>13020</del>	13.67	3.000
MEASURED ( AF )	-9.7	0.909	<del>13020</del>	13.68	3.001
MEASURED ( M )	-9.7	0.909	12935	13.68	3.001
DIFFERENCE (M-I)	1.0	0.000	-0.7%	0.07	0.03
<b>LIMITS</b>	<b>± 2 ° C</b>	<b>± 0.005 atm</b>	<b>± 2.5 %</b>	<b>± 1.0 L/min</b>	<b>± 0.2 L/min</b>

As Found Data  
 Adjusted Data

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

COMMENTS:      Barro of 921 mb was measured.  
 TEOM F-Adj Main & Aux flows adjusted. Pressure Transducer adjusted.  
 Pump off zero's adjusted.

**Sample Head Inspection Or Cleaning:**

PM10: Good  
 PM2.5: Good

**TEOM / FDMS IN LINE FILTER INSPECTION OR REPLACEMENT:**

TEOM IN LINE:      FDMS Water knock out: Good  
 Main: Good      In Line Audit filter(Bowl with internal screen): Good  
 AUX: Good      FDMS 47 mm Filter Cassette: Good



# FDMS TEOM PM2.5 AUDIT



STATION: Henry Pirker  
 LOCATION: PASZA - Grande Prairie

OPERATOR: Grover Christiansen  
 DATE: 21-Jan-10

MONITOR INFO / PARAMETER VALUES:

Make/Model	TEOM AB
Configuration	PM2.5
Serial Number	AMU 1697
Site Number	1
Inlet Type	PM 10 / SCC
FAdj. Main Setting	0.975
FAdj. Aux. Setting	0.960
T-Case Indicated / Set Point	30/30
T-Air Indicated / Set Point	30/30
T-Cap Indicated / Set Point	30/30
Splitter Assembly Alignment (cm)	15.5

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

RECENT CALIBRATION AND AUDIT HISTORY

Previous Audit	17-Jan-10
Previous Calibration	NA

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

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

LEAK CHECK	Indicated Flow (lpm)	
	Main	Auxiliary
PUMP ON	0.070	0.000
PUMP OFF	0.000	0.000
NET	0.070	0.000
<b>LIMITS</b>	<b>&lt;0.15</b>	<b>&lt;0.60</b>

	Ambient Temp. (°C)	Ambient Pres. (atm)	Ko *	Bypass flow (lpm)	Sample flow (lpm)
SET POINT ( S )	na	na	13020	13.67	3.000
INDICATED ( I )	-10.7	0.909	<del>XXXXXXXXXX</del>	13.67	3.000
MEASURED ( AF )	-9.7	0.909	<del>XXXXXXXXXX</del>	13.68	3.001
MEASURED ( M )	-9.7	0.909	12935	13.68	3.001
DIFFERENCE (M-I)	1.0	0.000	-0.7%	0.07	0.03
<b>LIMITS</b>	<b>± 2 ° C</b>	<b>± 0.005 atm</b>	<b>± 2.5 %</b>	<b>± 1.0 L/min</b>	<b>± 0.2 L/min</b>

As Found Data  
 Adjusted Data

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

COMMENTS:      Barro of 921 mb was measured.  
 TEOM F-Adj Main & Aux flows adjusted. Pressure Transducer adjusted.  
 Pump off zero's adjusted.

**Sample Head Inspection Or Cleaning:**

PM10: Good  
 PM2.5: Good

**TEOM / FDMS IN LINE FILTER INSPECTION OR REPLACEMENT:**

TEOM IN LINE:      FDMS Water knock out: Good  
 Main: Good      In Line Audit filter(Bowl with internal screen): Good  
 AUX: Good      FDMS 47 mm Filter Cassette: Good

# Calibration Report



Parameter SO<sub>2</sub>

Air Monitoring Network PASZA

## Station Information

Calibration Date	January 19, 2010	Previous Calibration	December 2, 2009
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)	12:40	End Time (MST)	15:15
Barometric Pressure	0.912 ATM	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
Cal Gas Concentration	50.6 ppm	Cal Gas Expiry Date	1/2/2009
Correction factor	0.031001	Cal Gas Cylinder #	LL16161
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	1.002229	Calculated slope	1.002124
Calculated intercept	-2.388315	Calculated intercept	-1.966664
Analyzer make	Teco 43i	Analyzer serial #	701120008

	before		after	
Concentration range	0 - 1000	ppb	0 - 1000	ppb
Background	10.6		10.5	
coefficient	1.034		1.034	
Lamp Voltage	832	volts	830	volts
Chamber Temp	45	Deg C	45.3	Deg C
Perm Gas Temp	45	Deg C	44.99	Deg C
Pressure	654.4	mm Hg	653.3	mm Hg
Sample Flow	441	ccm	440	ccm
Lamp Intensity	90	%	90	%

## 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	0.0	0.00	0.0	N/A
4990	39.85	400.89	401.1	0.9995
4990	19.91	201.09	203.3	0.9892
4990	9.95	100.70	104.6	0.9626
4990	0.0	0.00	1.0	As Found Zero
4990	39.85	400.89	396.2	As Found Span
Average Correction Factor				0.9837

Calculated value of As Found Response: 393.708 ppm      Percent Change of As Found: 1.8%

	before calibration		after calibration	
Auto zero	0.7	ppm	1.0	ppm
Auto span	266.0	ppm	299.1	ppm

Notes:

Calibration Performed By: Grover Christiansen

# Calibration Summary



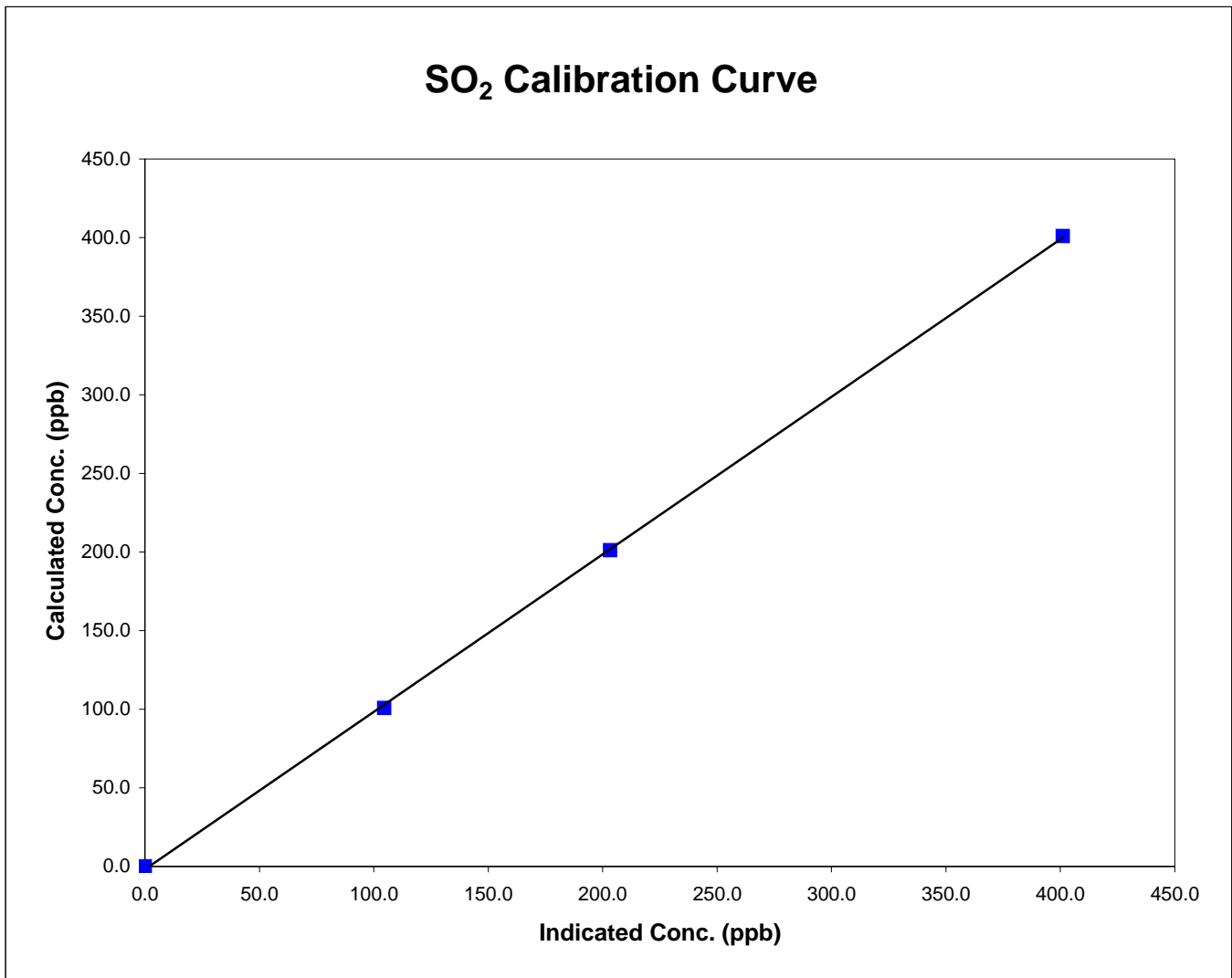
Parameter SO2  
 Air Monitoring Network PASZA

### Station Information

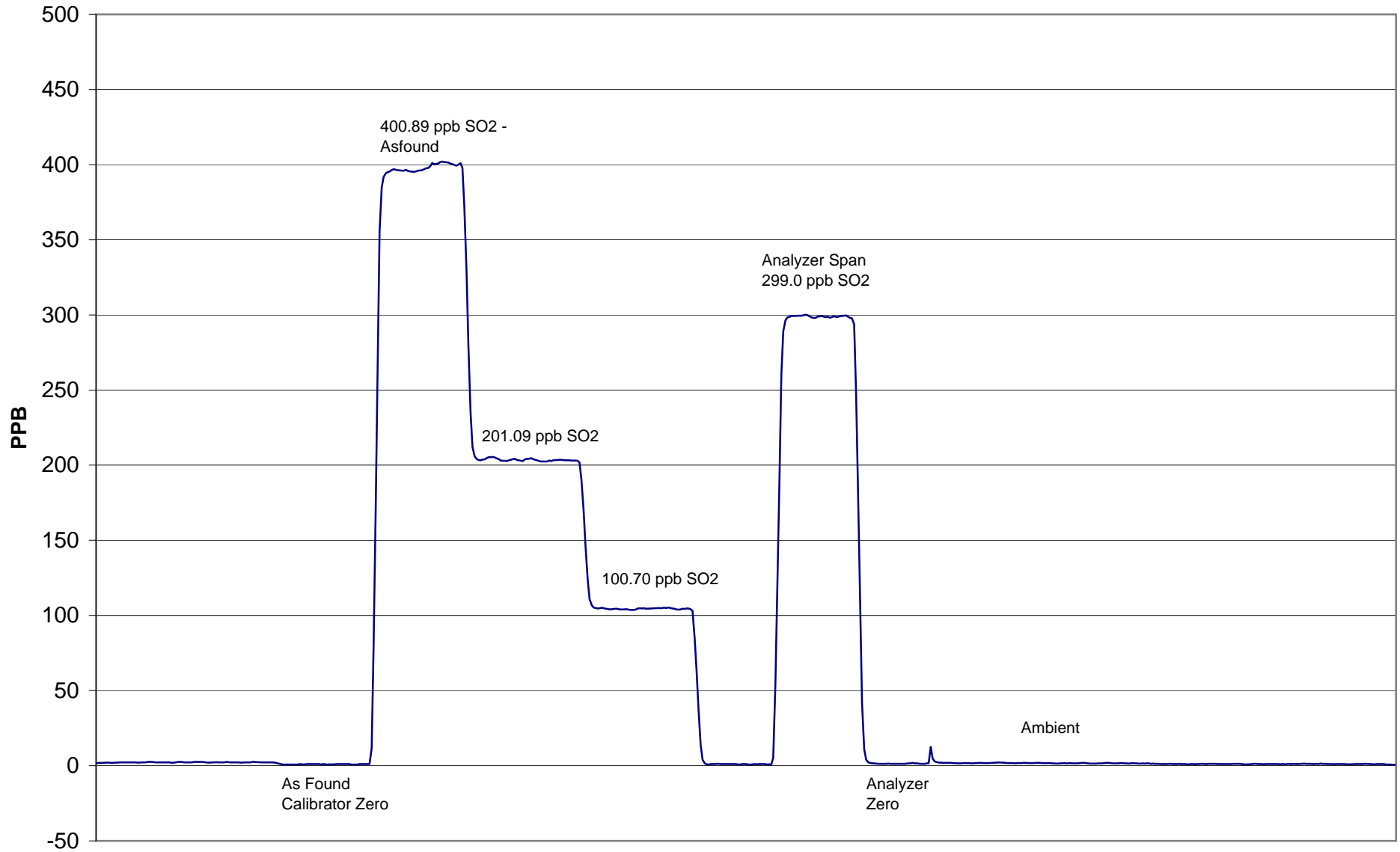
Calibration Date	January 19, 2010	Previous Calibration	December 2, 2009
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	12:40	End Time (MST)	15:15
Analyzer make/model	Teco 43i	Analyzer serial #	701120008

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A		
400.9	401.1	0.9995	Correlation Coefficient	0.999890
201.1	203.3	0.9892		
100.7	104.6	0.9626	Slope	1.002124
			Intercept	-1.966664



# Evergreen Park SO<sub>2</sub> Calibration



January 19, 2010



# Calibration Summary



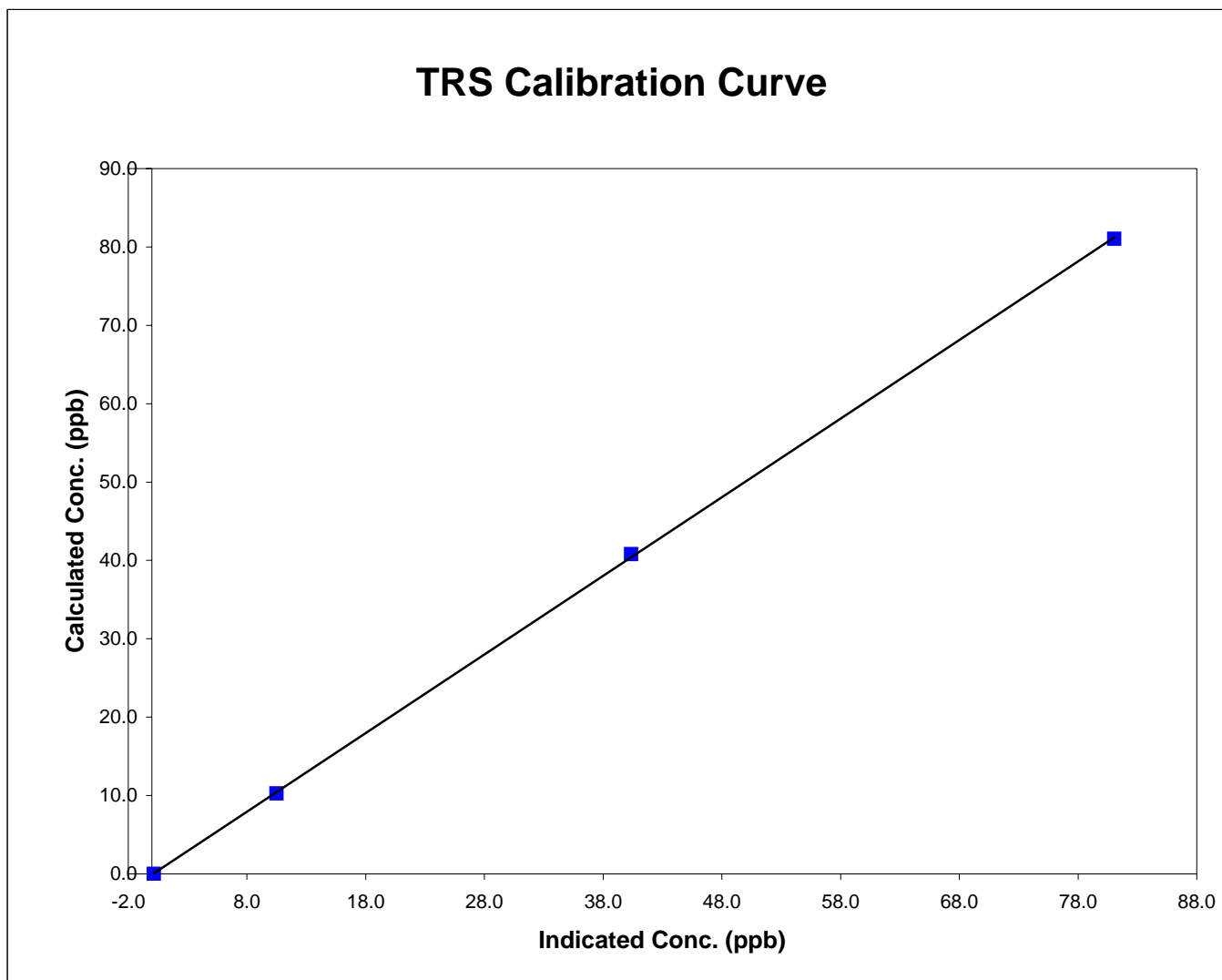
Parameter TRS  
Air Monitoring Network PASZA

## Station Information

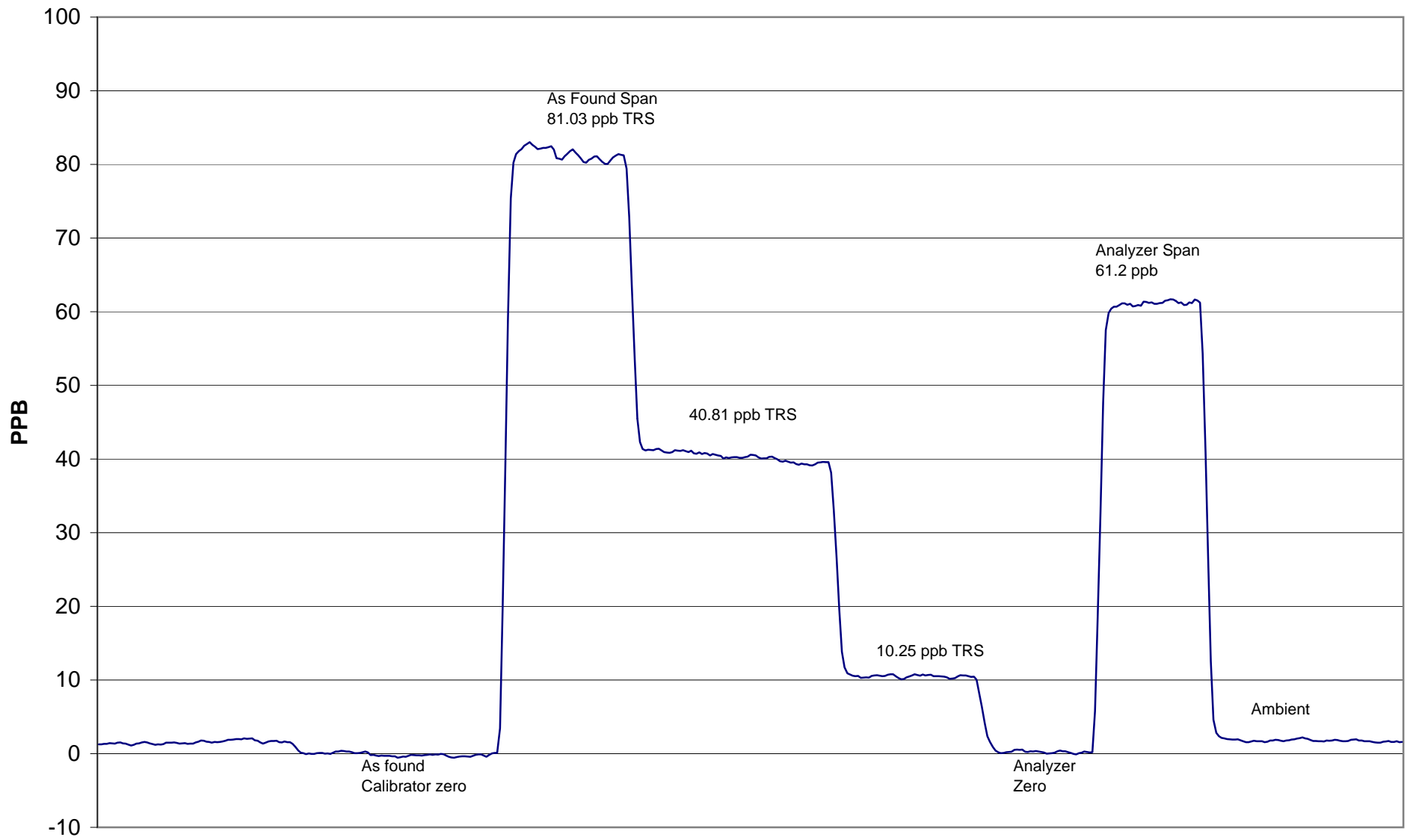
Calibration Date	<u>January 19, 2010</u>	Previous Calibration	<u>December 2, 2009</u>
Station Number	<u>2</u>	Station Location	<u>Evergreen Park</u>
Start Time (MST)	<u>10:20</u>	End Time (MST)	<u>14:02</u>
Analyzer make/model	<u>TEI Model 43C</u>	Analyzer serial #	<u>436610005</u>

## Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A	Correlation Coefficient	0.999935
81.0	81.1	0.9995		
40.8	40.4	1.0114	Slope	1.002981
10.2	10.5	0.9774		
			Intercept	-0.089983



# Evergreen Park TRS Calibration



January 19, 2010

# AB TEOM PM2.5 Calibration



STATION: Evergreen Park  
 LOCATION: PASZA - Grande Prairie

OPERATOR: Grover Christiansen  
 DATE: 19-Jan-10

MONITOR INFO / PARAMETER VALUES:

Make/Model	TEOM AB
Configuration	PM2.5
Serial Number	21551
Site Number	2
Inlet Type	PM 10 / SCC
FAdj. Main Setting	1.000
FAdj. Aux. Setting	1.000
T-Case Indicated / Set Point	40/40
T-Air Indicated / Set Point	40/40
T-Cap Indicated / Set Point	40/40
Splitter Assembly Alignment (cm)	15.5

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

RECENT CALIBRATION AND AUDIT HISTORY

Previous Audit	
Previous Calibration	NA

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

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

LEAK CHECK	Indicated Flow (lpm)	
	Main	Auxiliary
PUMP ON	0.010	0.010
PUMP OFF	0.000	0.000
NET	0.010	0.010
<b>LIMITS</b>	<b>&lt;0.15</b>	<b>&lt;0.65</b>

	Ambient Temp. (°C)	Ambient Pres. (atm)	Ko *	Bypass flow (lpm)	Sample flow (lpm)
SET POINT ( S )	na	na	10124	13.67	3.000
INDICATED ( I )	-5.9	0.910	<del>10124</del>	13.67	3.000
MEASURED ( AF )	-5.2	0.905	<del>10124</del>	13.70	3.006
MEASURED ( M )	-5.2	0.905	10190	13.70	3.006
DIFFERENCE (M-I)	0.7	-0.005	0.7%	0.22	0.20
<b>LIMITS</b>	<b>± 2<sup>0</sup> C</b>	<b>± 0.005 atm</b>	<b>± 2.5 %</b>	<b>± 1.0 L/min</b>	<b>± 0.2 L/min</b>

*As Found Data*  
*Adjusted Data*

Ko Audit Filter data      Weight: 0.11014      Serial #: CVK 2123

COMMENTS:    917 mb measured (barro)

All is Good in Gaping Gonga.

**Sample Head Inspection/Cleaning:**

PM10:Good  
 PM2.5:Good

**Large In Line Filter Inspection & Or Cleaning:**

Main:Good  
 Aux:Good



# Calibration Report



Parameter SO<sub>2</sub>

Air Monitoring Network PASZA

## Station Information

Calibration Date	January 20, 2010	Previous Calibration	December 3, 2009
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)	12:20	End Time (MST)	15:20
Barometric Pressure	0.907 ATM	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
Cal Gas Concentration	50.6 ppm	Cal Gas Cert Date	6/8/2008
Correction factor	0.030831	Cal Gas Cylinder #	AAL 15377
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	1.009330	Calculated slope	1.006311
Calculated intercept	-2.152916	Calculated intercept	-1.766108
Analyzer make	Teco 43i	Analyzer serial #	701120009

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	8.6		8.5	
coefficient	0.701		0.706	
Lamp Voltage	924	volts	925	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	631.6	mm Hg	657.2	mm Hg
Sample Flow	417	ccm	434	ccm
Lamp Intensity	88	%	89	%

## Calibration Data

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4990	0.0	0.00	0.2	N/A
4989	39.84	400.87	399.5	1.0034
4990	19.95	201.49	202.2	0.9967
4990	9.95	100.70	103.8	0.9701
4990	0.0	0.00	0.4	As Found Zero
4990	39.85	400.89	396.7	As Found Span
Average Correction Factor				0.9901

Calculated value of As Found Response: 397.834 ppm      Percent Change of As Found: 0.8%

	before calibration		after calibration	
Auto zero	0.7	ppb	0.3	ppb
Auto span	315.5	ppb	317.0	ppb

Notes: \_\_\_\_\_

Calibration Performed By: Grover Christiansen

# Calibration Summary



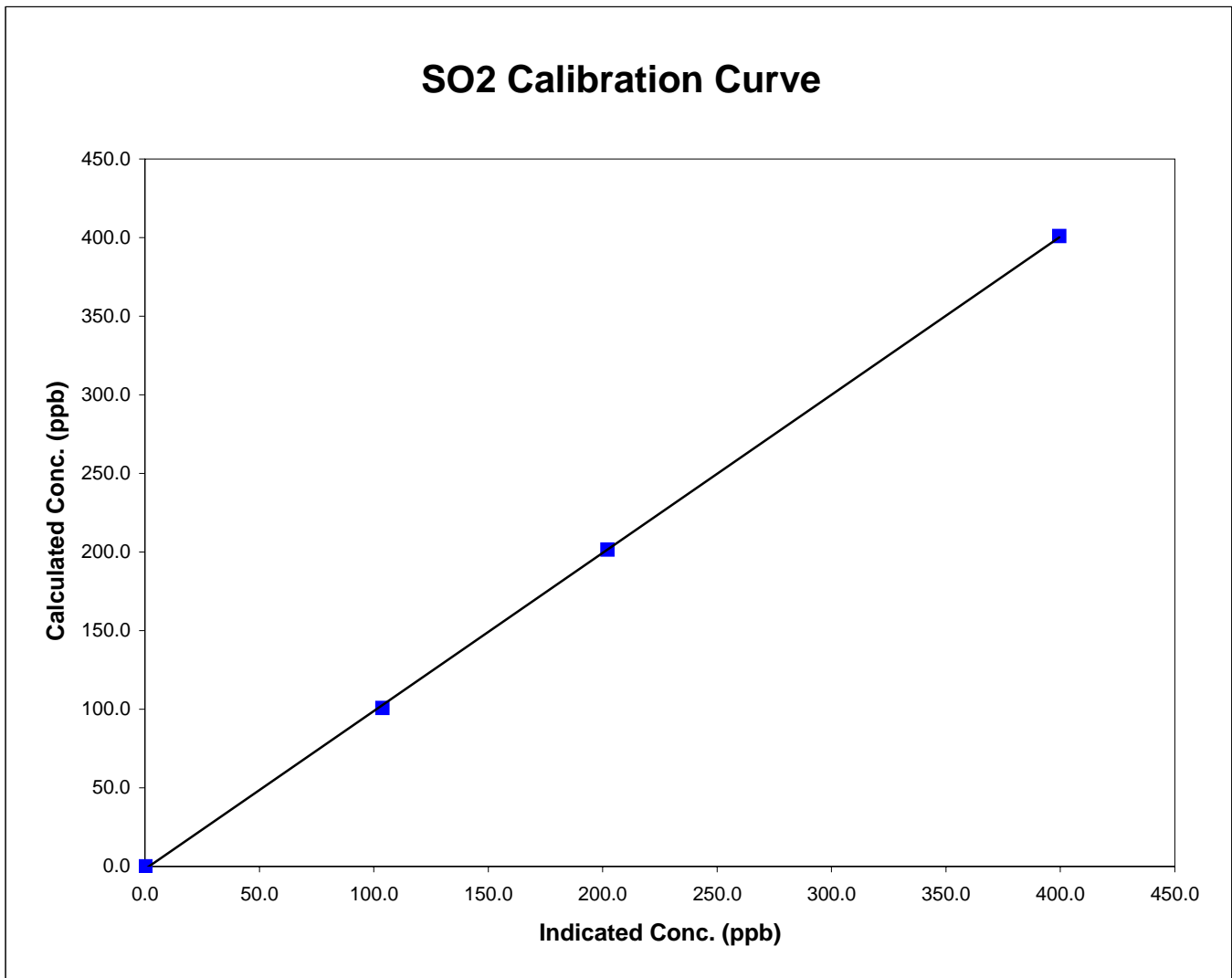
Parameter SO2  
 Air Monitoring Network PASZA

### Station Information

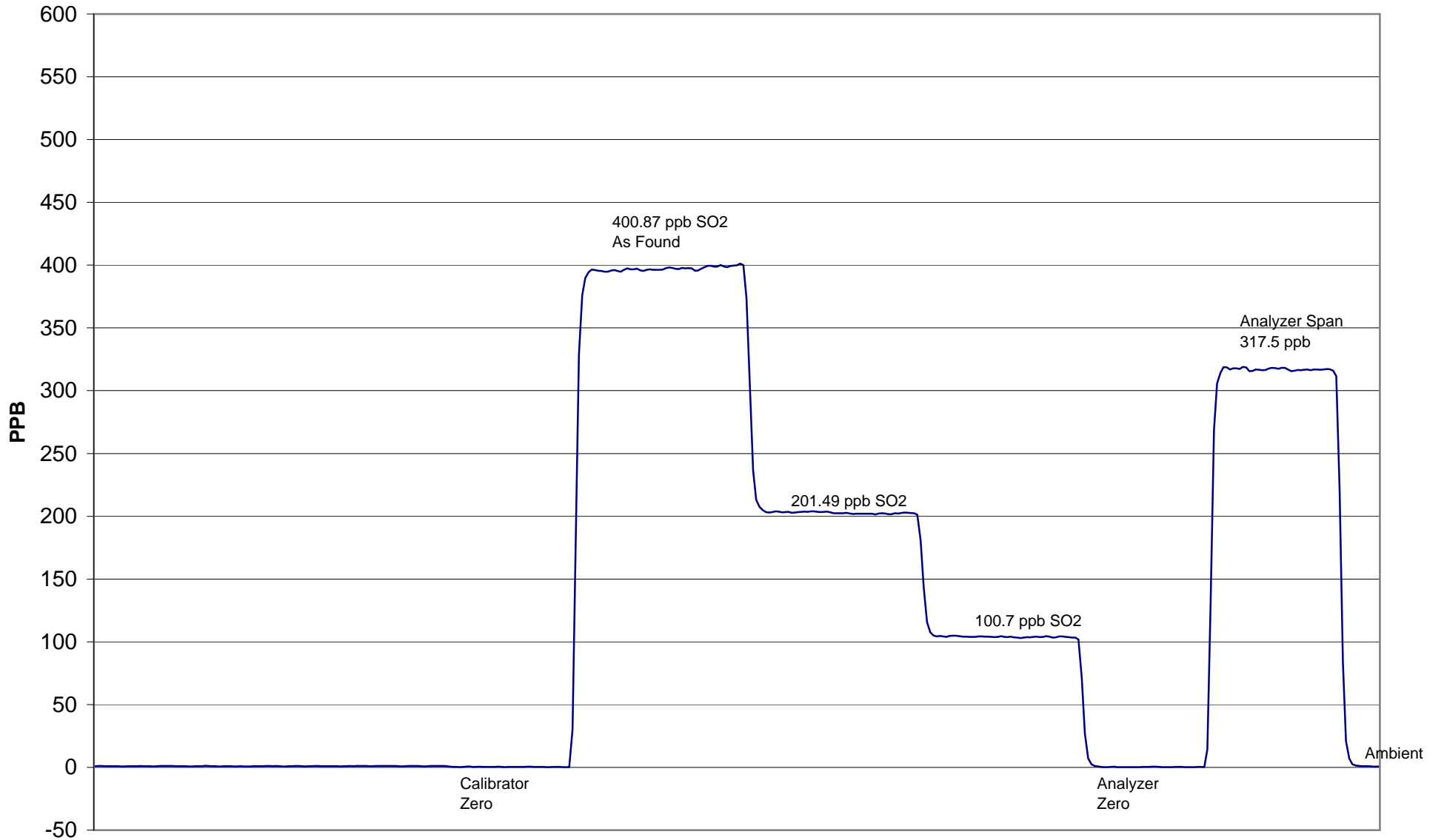
Calibration Date	January 20, 2010	Previous Calibration	December 3, 2009
Station Number	3	Station Location	Smoky Heights
Start Time (MST)	12:20	End Time (MST)	15:20
Analyzer make/model	Teco 43i	Analyzer serial #	701120009

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A		
400.9	399.5	1.0034	Correlation Coefficient	0.999922
201.5	202.2	0.9967		
100.7	103.8	0.9701	Slope	1.006311
			Intercept	-1.766108



# Smoky Heights SO<sub>2</sub> Calibration



January 20, 2010

# Calibration Report



Parameter TRS  
Air Monitoring Network PASZA

## Station Information

Calibration Date	January 20, 2010	Previous Calibration	December 3, 2009
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)	11:00	End Time (MST)	13:41
Barometric Pressure	0.927 ATM	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
Cal Gas Conc	5.15 ppm	Cal Gas Expiry Date	4/2/2009
Correction factor	0.031511	Cal Gas Cylinder #	ALM013295
DACS make	Focus AP1000	DACS serial No.	52620
DACS voltage range	0 - 10 volt	DACS channel #	5
	Before		After
Calculated slope	1.014167	Calculated slope	0.996972
Calculated intercept	-0.316463	Calculated intercept	-0.037164
Analyzer make	TEI Model 43C	Analyzer serial #	0436610005

	before		after	
Concentration range	100	ppb	100	ppb
Background	14.1	ppb	15	ppb
coefficient	1.043		1.043	
Lamp Voltage	769	volts	764	volts
Chamber Temp	43.7	Deg C	43.9	Deg C
Perm Gas Temp	45	Deg C	44.9	Deg C
Pressure	492.9	mm Hg	458.9	mm Hg
Sample Flow	736	ccm	698	ccm
Lamp Intensity	32,319	mv	32,291	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	0.0	0.00	0.3	N/A
4989	79.77	81.05	81.5	0.9939
4989	39.84	40.80	40.5	1.0062
4990	9.93	10.23	10.2	0.9990
4990	0.0	0.00	-0.2	As Found Zero
4989	79.77	81.05	82.9	As Found Span
Average Correction Factor				0.9997

Calculated value of As Found Response: 83.96 ppm Percent Change of As Found: -3.6%

	before calibration		after calibration	
Auto zero	-0.4	ppm	-0.1	ppm
Auto span	44.1	ppm	42.2	ppm

Notes: \_\_\_\_\_  
\_\_\_\_\_

Calibration Performed By: Grover Christiansen

# Calibration Summary



Parameter TRS

Air Monitoring Network PASZA

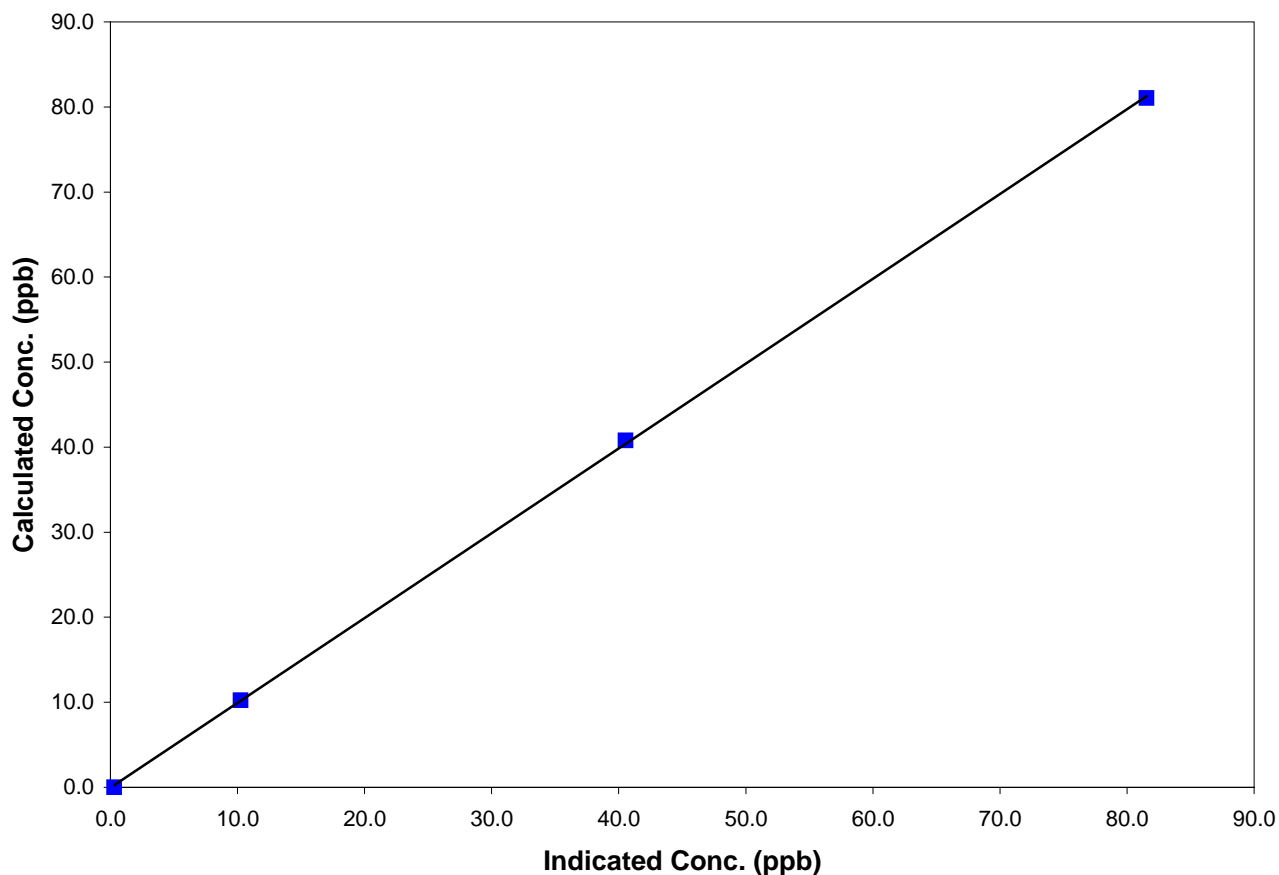
### Station Information

Calibration Date	January 20, 2010	Previous Calibration	December 3, 2009
Station Number	3	Station Location	Smoky Heights
Start Time (MST)	11:00	End Time (MST)	13:41
Analyzer make/model	TEI Model 43C	Analyzer serial #	0436610005

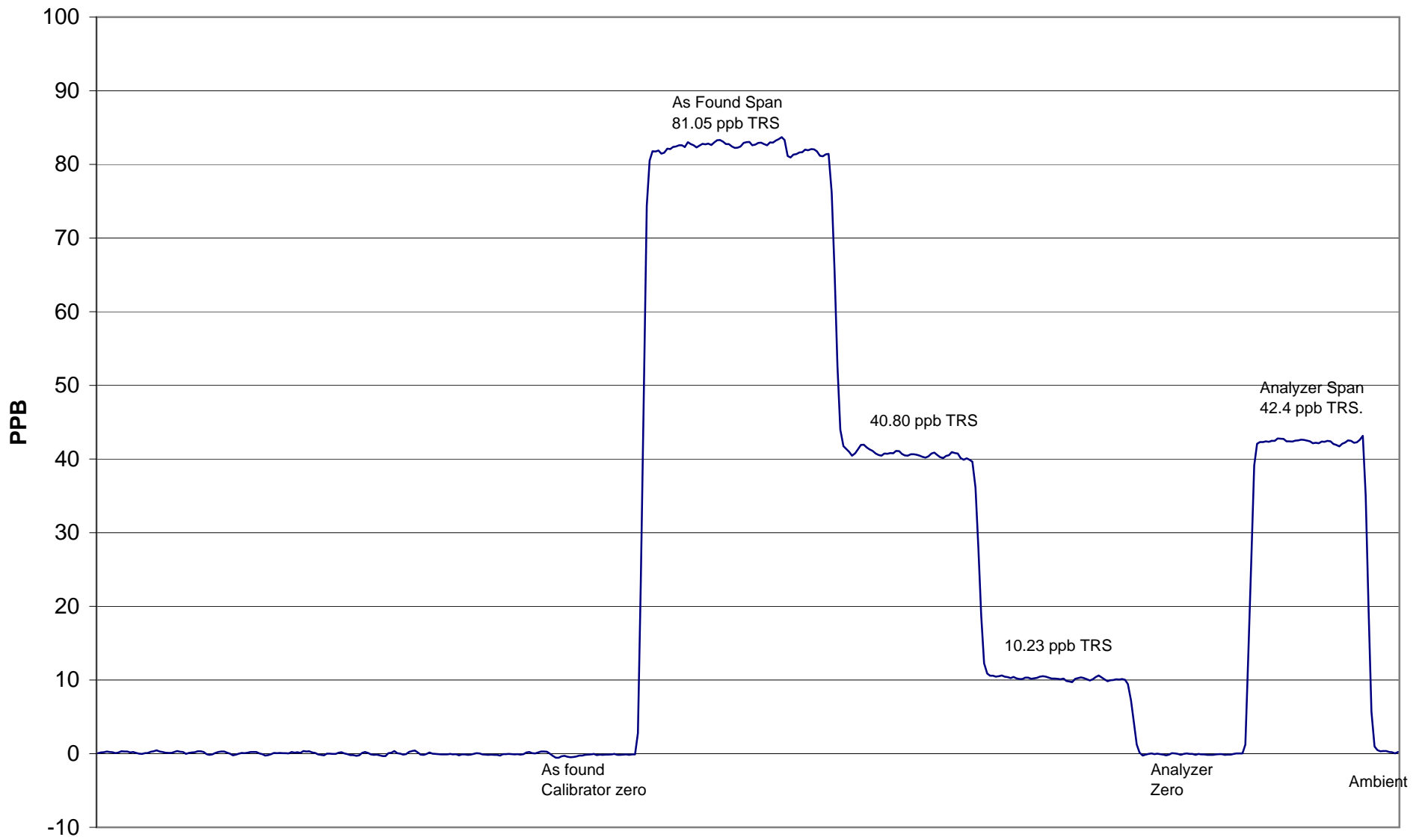
### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	N/A		
81.0	81.5	0.9939	Correlation Coefficient	0.999929
40.8	40.5	1.0062		
10.2	10.2	0.9990	Slope	0.996972
			Intercept	-0.037164

## TRS Calibration Curve



# Smoky Heights TRS Calibration



January 20, 2010

# AB TEOM PM2.5 Calibration



STATION: Smoky Heights  
 LOCATION: PASZA - Grande Prairie

OPERATOR: Grover Christiansen  
 DATE: 20-Jan-10

MONITOR INFO / PARAMETER VALUES:

Make/Model	TEOM AB
Configuration	PM2.5
Serial Number	24634
Site Number	3
Inlet Type	PM 10 / SCC
FAdj. Main Setting	1.000
FAdj. Aux. Setting	1.000
T-Case Indicated / Set Point	40/40
T-Air Indicated / Set Point	40/40
T-Cap Indicated / Set Point	40/40
Splitter Assembly Alignment (cm)	15.5

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

RECENT CALIBRATION AND AUDIT HISTORY

Previous Audit	
Previous Calibration	NA

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

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

LEAK CHECK	Indicated Flow (lpm)	
	Main	Auxiliary
PUMP ON	0.007	0.009
PUMP OFF	0.000	0.000
NET	0.007	0.009
<b>LIMITS</b>	<b>&lt;0.15</b>	<b>&lt;0.65</b>

	Ambient Temp. (°C)	Ambient Pres. (atm)	Ko *	Bypass flow (lpm)	Sample flow (lpm)
SET POINT (S)	na	na	12122	13.67	3.000
INDICATED (I)	-9.0	0.907	<del>12122</del>	13.67	3.000
MEASURED (AF)	-8.7	0.906	<del>12122</del>	13.69	3.004
MEASURED (M)	-8.7	0.906	12180	13.69	3.004
DIFFERENCE (M-I)	0.3	-0.001	0.5%	0.15	0.13
<b>LIMITS</b>	<b>± 2 ° C</b>	<b>± 0.005 atm</b>	<b>± 2.5 %</b>	<b>± 1.0 L/min</b>	<b>± 0.2 L/min</b>

*As Found Data*  
*Adjusted Data*

Ko Audit Filter data      Weight: 0.11043      Serial #: CVK 2564

COMMENTS: \_\_\_\_\_

Sample Head Inspection/Cleaning:      Large In Line Filter Inspection & Or Replacement:  
 PM10:Good      Main: Good  
 PM2.5:Good      Aux: Good

# Calibration Report



Parameter SO2

Air Monitoring Network PASZA

## Station Information

Calibration Date	January 15, 2010	Previous Calibration	December 15, 2009
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)	11:10	End Time (MST)	14:00
Barometric Pressure	0.892 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	1.003872	Calculated slope	0.992143
Calculated intercept	-0.304927	Calculated intercept	0.006043
Analyzer make	TEI Model 43i-TLE	Analyzer serial #	713021137

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	2.74		2.59	
Coefficient	0.906		0.897	
PMT	-812.9	V	-812.9	V
UV Lamp Voltage	1070	V	1071	V
Chamber Temp	45.1	Deg C	45.1	Deg C
Pressure	648.9	mm Hg	647.1	mm Hg
Sample Flow	0.474	LPM	0.473	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
4989	39.84	79.7	80.3	0.9920
4988	19.87	39.9	40.1	0.9942
4988	9.91	19.9	20.2	0.9876
4988	0.00	0.0	0.0	As found zero
4988	39.90	79.8	80.3	As found span
Average Correction Factor				0.9913

Calculated value of As Found Response: 80.359 ppm      Percent Change of As Found: -0.7%

	before calibration		after calibration	
Auto zero	-0.3	ppb	0.1	ppb
Auto span	57.8	ppb	59.1	ppb

Notes: \_\_\_\_\_

Calibration Performed By: Grover Christiansen



# Calibration Summary

Parameter SO2

Air Monitoring Network PASZA



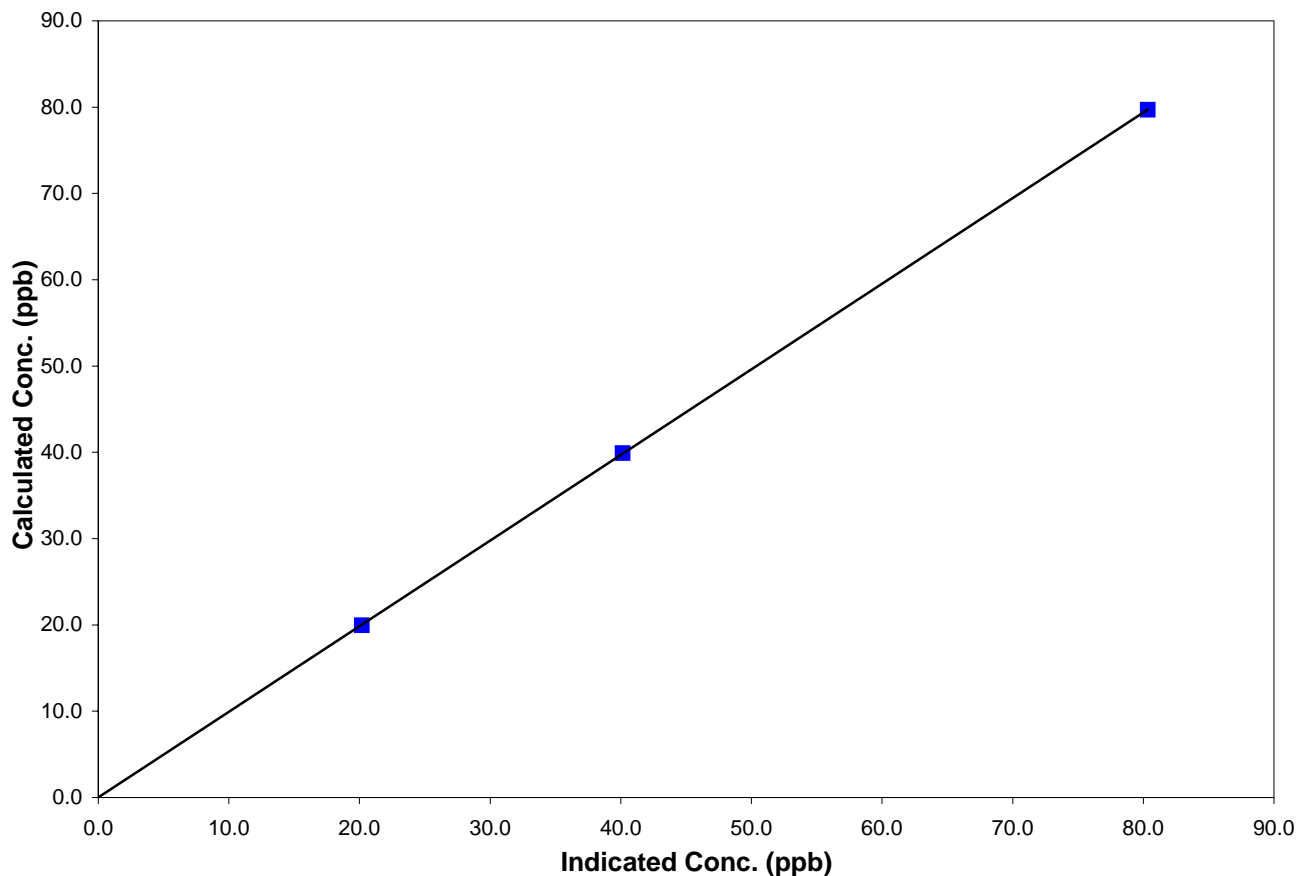
## Station Information

Calibration Date	January 15, 2010	Previous Calibration	December 15, 2009
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	11:10	End Time (MST)	14:00
Analyzer make/model	TEI Model 43i-TLE	Analyzer serial #	713021137

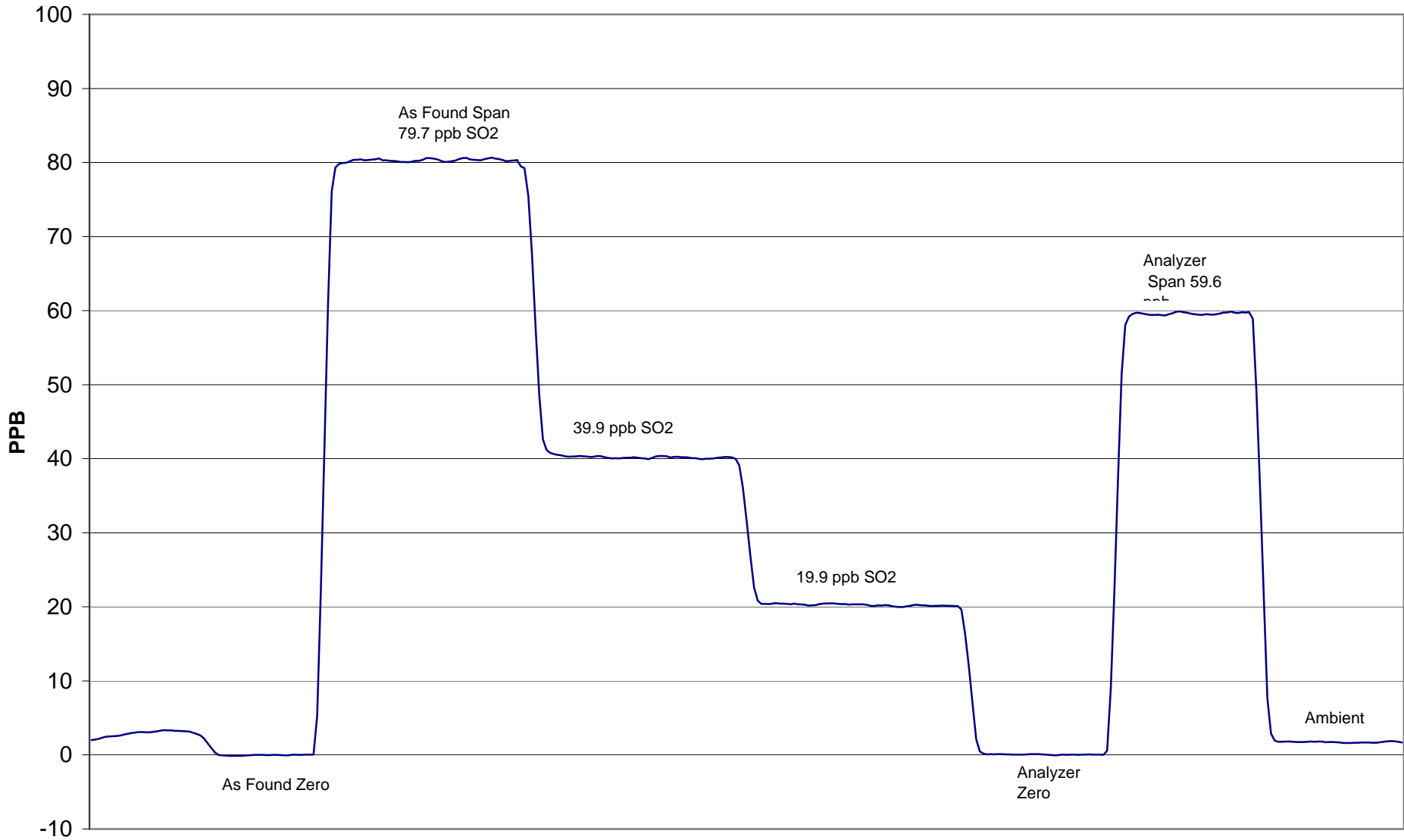
## Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A		
79.7	80.3	0.9920	Correlation Coefficient	0.999995
39.9	40.1	0.9942		
19.9	20.2	0.9876	Slope	0.992143
			Intercept	0.006043

## SO<sub>2</sub> Calibration Curve



# Beaverlodge SO<sub>2</sub> Calibration



January 15, 2010

# Calibration Report

Parameter

NO<sub>x</sub>-NO-NO<sub>2</sub>

Air Monitoring Network

PASZA



## Station Information

Calibration Date	January 15, 2010	Previous Calibration	December 15, 2009
Station Number	4	Station Location	BeaverLodge
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Installation	<input type="checkbox"/> Removal
Start Time (MST)	11:10	End Time (MST)	15:48
Barometric Pressure	0.893 Atm	Station Temperature	20.0 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	0.999049	1.003832	1.002444
	Data Offset	-0.157009	-2.550764	-1.047440
After	Data Slope	0.994249	1.002020	1.002392
	Data Offset	-0.263178	-1.333138	-0.372877
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 - 1000	ppb	0 - 1000	ppb
NO offset	2.3	mV	2.3	mV
NOx bkgnd	2.9	mV	2.9	mV
NO coefficient	1.427		1.427	
NOx coefficient	0.993		0.993	
NO2 conv temp	322.4	Deg C	322.4	Deg C
PMT Temp	-3.0	Deg C	-3.0	Deg C
PMT Volt	-675.6	mV	-676.0	mV
R Cell Press	178.3	in Hg	178.0	in Hg
Sample Flow	0.724	ccm	0.748	ccm

Notes:

---



---



---

# Calibration Report

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



## Station Information

Calibration Date: January 15, 2010 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	0.2	-0.1	0.0	N/A	N/A
1	4989	39.84	397.7	396.9	0.8	397.7	396.2	0.1	0.9999	1.0018
2	4989	19.87	199.1	198.7	0.4	200.3	198.7	1.2	0.9941	1.0004
3	4989	9.91	99.5	99.3	0.2	102.1	100.0	1.6	0.9751	0.9931
AFZ	4988	0.00	0.0	0.0	0.0	0.2	-0.1	0.0	0.0000	0.0000
AFS	4988	39.84	397.8	397.0	0.8	387.7	386.8	-0.6	1.0261	1.0262
Average Correction Factor									0.9897	0.9984

As Found Concentrations: NO<sub>x</sub>= 385.0 NO= 385.9 As Found Percent Change NO<sub>x</sub>= -3.2% NO= -2.8%

## GPT Calibration Data

Dilution Flow 4989 ccm Source Gas Flow 39.84 ccm

O3 Setpoint (ppb)	Indicated NO high point (ppb)	Indicated NO drop conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor	NO2 Correction factor	Converter Efficiency
0	-0.1	-0.1	0.0	0.2	-0.1	0.0	N/A	N/A	N/A	N/A
NO point	395.9	395.9	0.0	397.5	395.9	0.1	0.9960	1.0000	N/A	N/A
400	395.9	112.2	283.7	398.4	112.2	285.3	0.9936	1.0000	0.9945	100.6%
200	395.9	200.3	195.6	398.5	200.3	197.3	0.9935	1.0000	0.9913	100.9%
100	395.9	286.5	109.4	397.9	286.5	110.6	0.9949	1.0000	0.9891	101.1%
Average Correction Factor							0.9940	1.0000	0.9916	100.8%

## AIC Data

Parameter	Previous calibration				Current calibration			
	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	-0.2	-0.3	-0.2	ppb	-0.1	-0.2	-0.1	ppb
Auto span	175.3	173.3	2.1	ppb	220.7	218.2	2.3	ppb

Calibration Performed By: Grover Christiansen

# Calibration Summary

Parameter NO<sub>2</sub>

Air Monitoring Network PASZA



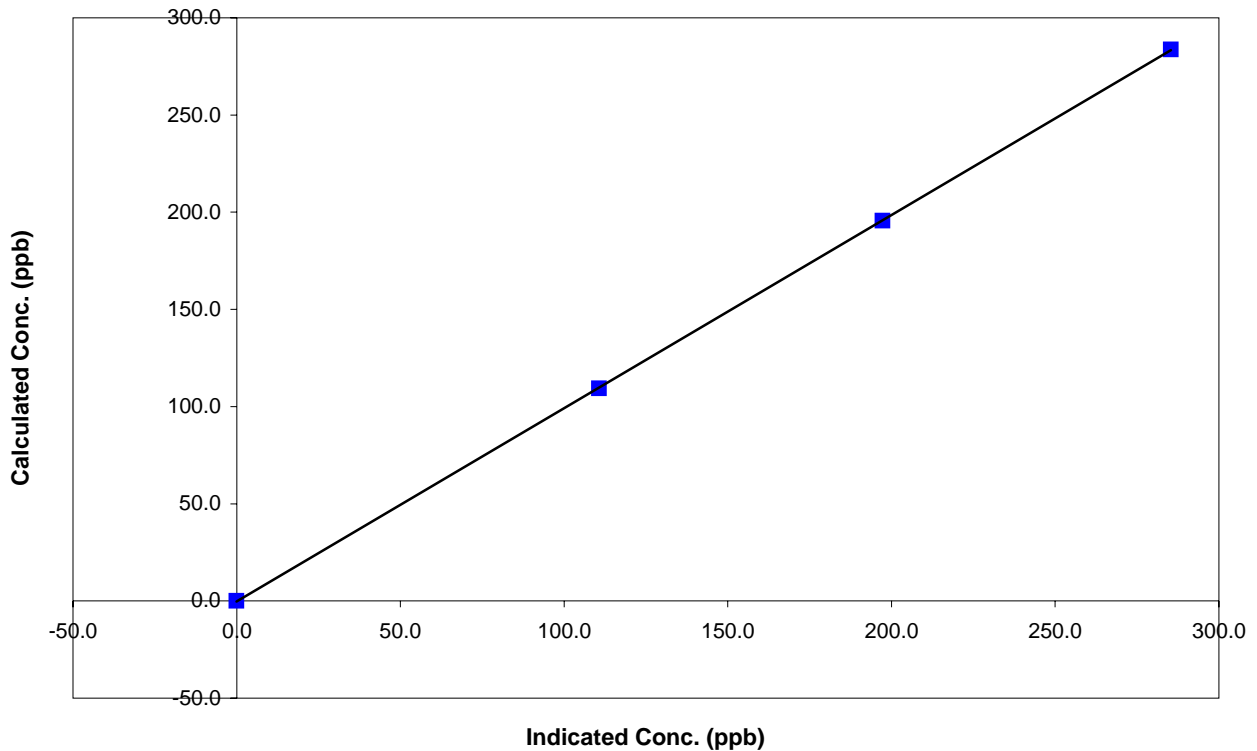
## Station Information

Calibration Date	January 15, 2010	Previous Calibration	December 15, 2009
Station Number	4	Station Location	BeaverLodge
Start Time (MST)	11:10	End Time (MST)	15:48
Analyzer make	TEI 42i	Analyzer serial #	906535068

## Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A	Correlation Coefficient	0.999991
283.7	285.3	0.9945		
195.6	197.3	0.9913	Slope	0.994249
109.4	110.6	0.9891		

## NO<sub>2</sub> Calibration Curve



# Calibration Summary



Parameter NO<sub>x</sub>

Air Monitoring Network PASZA

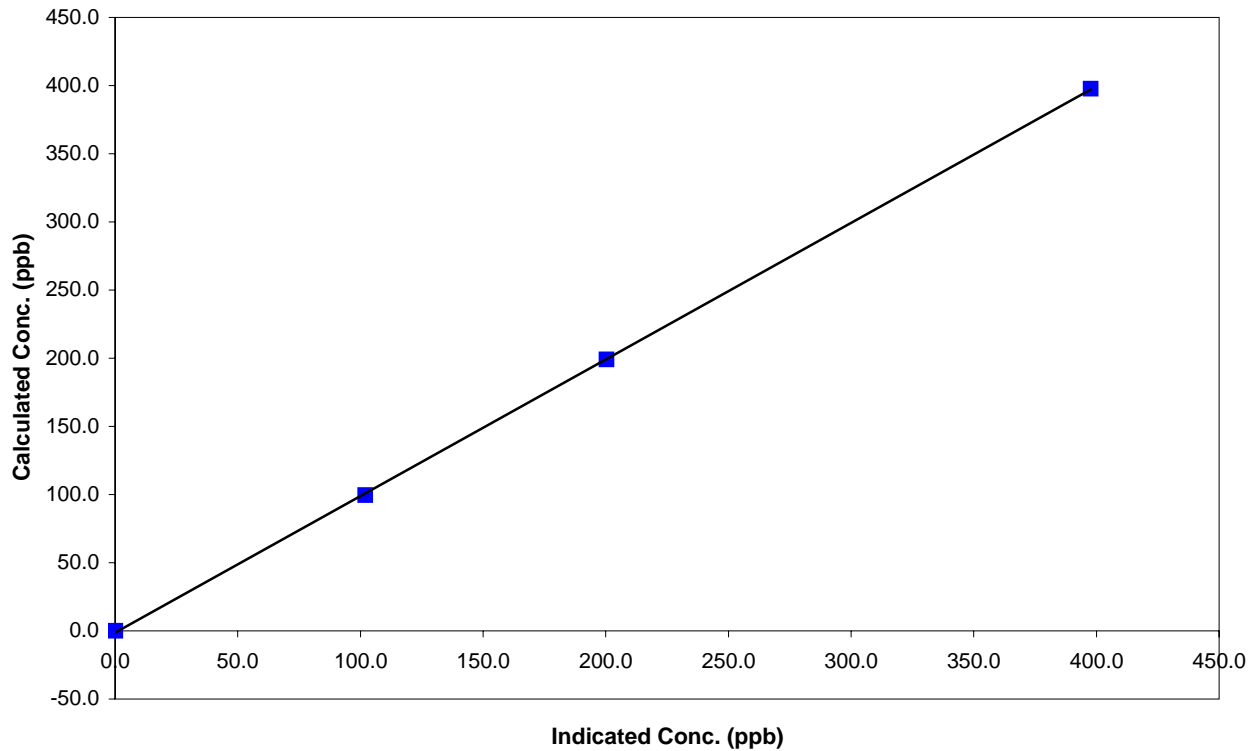
## Station Information

Calibration Date	January 15, 2010	Previous Calibration	December 15, 2009
Station Number	4	Station Location	BeaverLodge
Start Time (MST)	11:10	End Time (MST)	15:48
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	0.999957
397.7	397.7	0.9999		
199.1	200.3	0.9941		
99.5	102.1	0.9751	Slope	1.002020
			Intercept	-1.333138

## NO<sub>x</sub> Calibration Curve



# Calibration Summary



Parameter NO

Air Monitoring Network PASZA

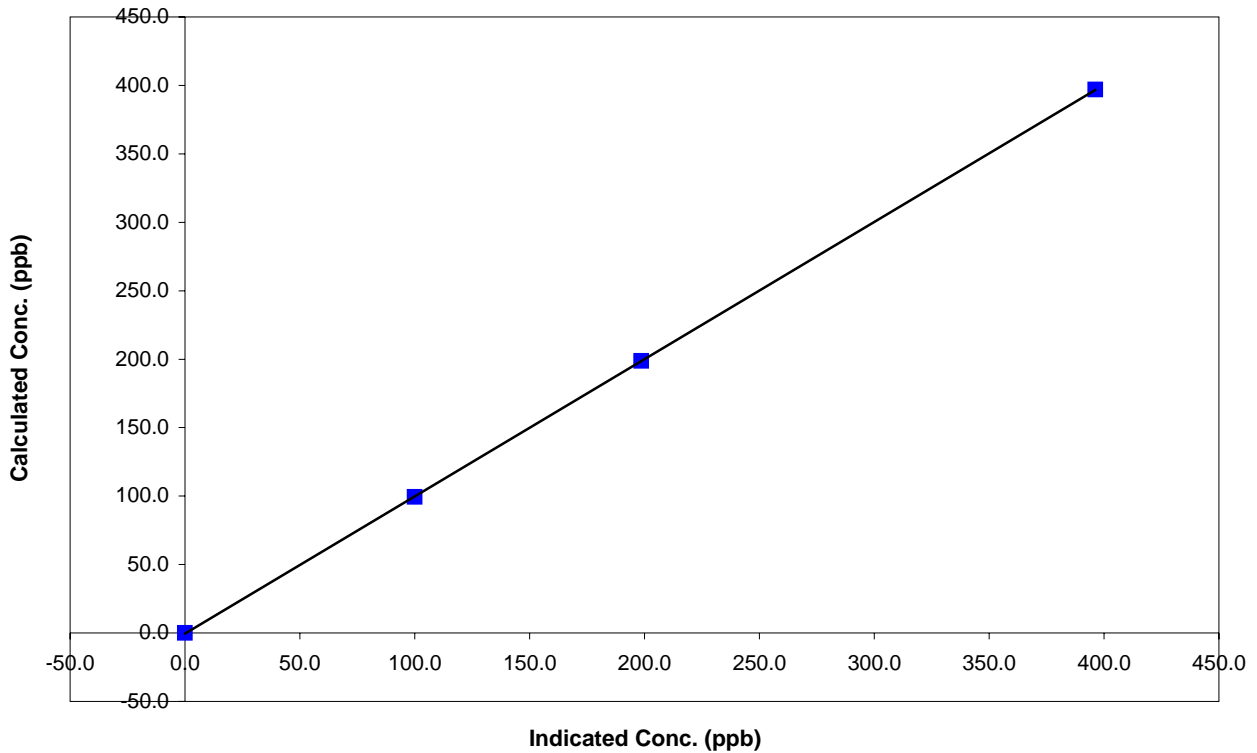
## Station Information

Calibration Date	November 16, 2009	Previous Calibration	December 15, 2009
Station Number	4	Station Location	BeaverLodge
Start Time (MST)	11:10	End Time (MST)	15:48
Analyzer make	TEI 42i	Analyzer serial #	906535068

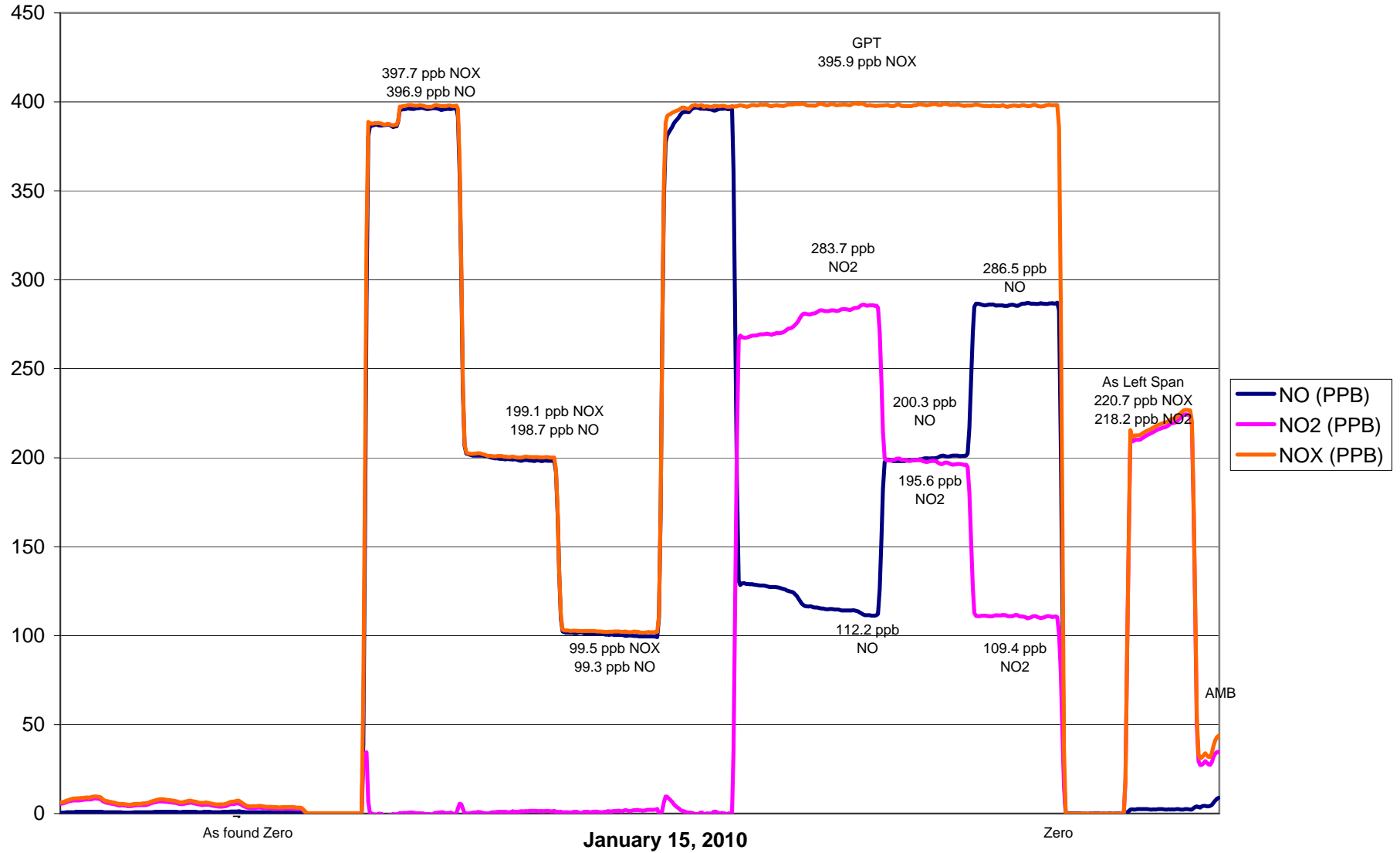
## Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	N/A	Correlation Coefficient	0.999994
396.9	396.2	1.0018		
198.7	198.7	1.0004		
99.3	100.0	0.9931		
			Slope	1.002392
			Intercept	-0.372877

## NO Calibration Curve



# Beaverlodge NO<sub>x</sub> Calibration





# Calibration Report



Parameter 03

Air Monitoring Network PASZA

## Station Information

Calibration Date	January 15, 2010	Previous Calibration	December 15, 2009
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)	14:20:00 PM	End Time (MST)	16:54
Barometric Pressure	0.893 atm	Station Temperature	21.0 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	0.994599	Calculated slope	0.992230
Calculated intercept	0.608852	Calculated intercept	-0.010103
Analyzer make	Teco 49C	Analyzer serial #	49C-76443-383

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
offset	-1.80	ppb	-1.00	ppb
slope	1.027		1.041	
Lamp temp	56.4	mV	56.2	mV
Lamp Intensity A/B	71175 / 71026	mV	71405 / 71350	mV
Pressure	647.5	mm Hg	670.6	mm Hg
Flow A	684	ccm	703	ccm
Flow B	630	ccm	650	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	-0.4	N/A
4990	0.00	283.7	285.5	0.9937
4990	0.00	195.6	197.5	0.9905
4990	0.00	109.4	110.8	0.9875
4990	0.00	0.0	1.1	As found zero
4990	0.00	283.7	285.3	As found span
Average Correction Factor				0.9906

Calculated value of As Found Response: 283.3 ppm      Percent Change of As Found: -0.2%

	before calibration		after calibration	
Auto zero	0.1	ppb	0.2	ppb
Auto span	114.3	ppb	125.4	ppb

Notes: \_\_\_\_\_

Calibration Performed By: Grover Christiansen

# Calibration Summary

Parameter           03            
Air Monitoring Network                                   PASZA                                  

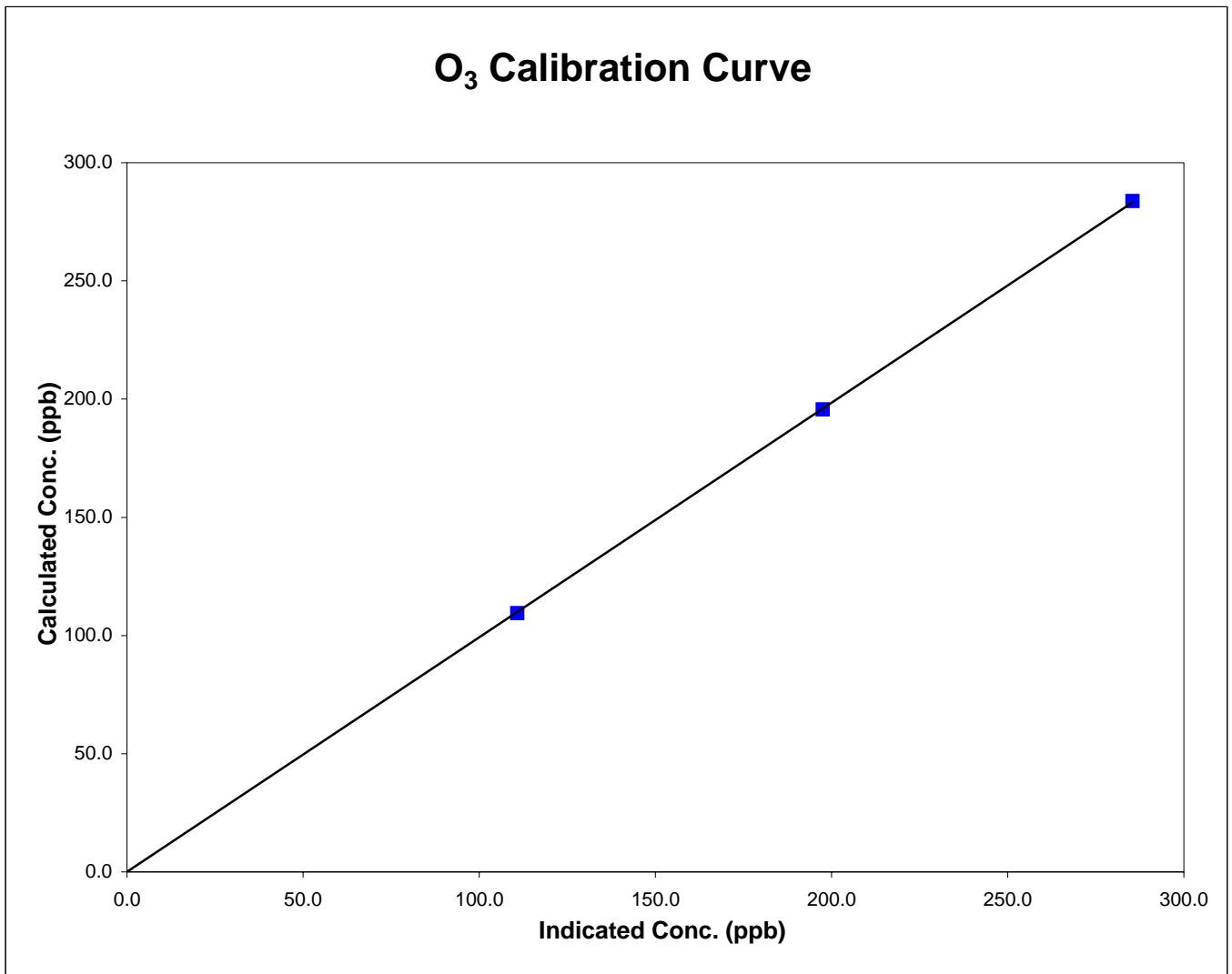


### Station Information

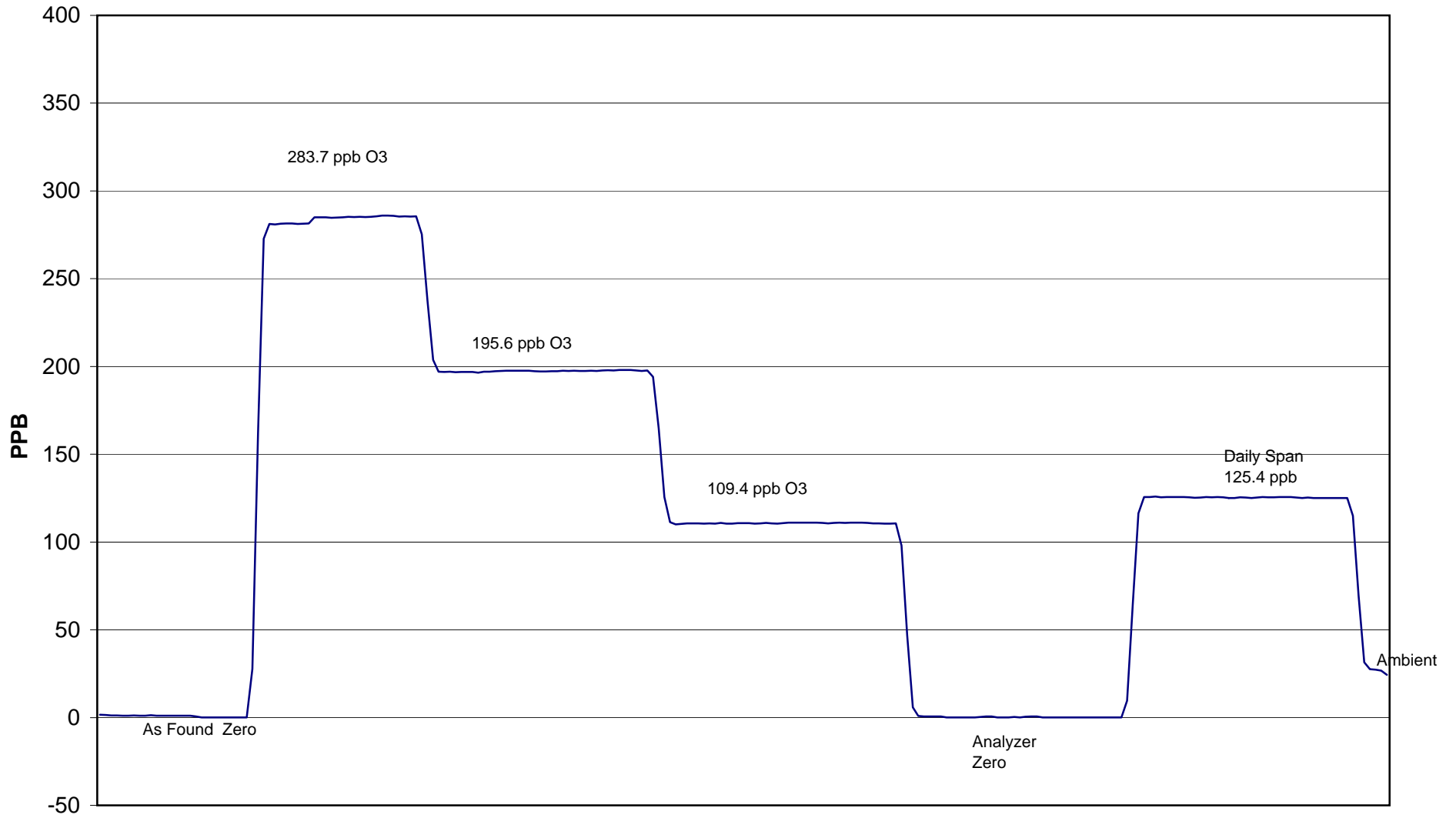
Calibration Date	<u>          January 15, 2010          </u>	Previous Calibration	<u>          December 15, 2009          </u>
Station Number	<u>          4          </u>	Station Location	<u>          Beaverlodge          </u>
Start Time (MST)	<u>          14:20:00 PM          </u>	End Time (MST)	<u>          16:54          </u>
Analyzer make/model	<u>          Teco 49C          </u>	Analyzer serial #	<u>          49C-76443-383          </u>

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.4	NA		
283.7	285.5	0.9937	Correlation Coefficient	0.999983
195.6	197.5	0.9905		
109.4	110.8	0.9875	Slope	0.992230
			Intercept	-0.010103



# Beaverlodge O<sub>3</sub> Calibration



January 15, 2010

# FDMS TEOM PM2.5 AUDIT



STATION: BeaverLodge  
 LOCATION: PASZA - Grande Prairie

OPERATOR: Grover Christiansen  
 DATE: 16-Jan-10

MONITOR INFO / PARAMETER VALUES:

Make/Model	TEOM AB
Configuration	PM2.5
Serial Number	AMU1649
Site Number	4
Inlet Type	PM 10 / SCC
FAdj. Main Setting	1.000
FAdj. Aux. Setting	1.000
T-Case Indicated / Set Point	30/30
T-Air Indicated / Set Point	30/30
T-Cap Indicated / Set Point	30/30
Splitter Assembly Alignment (cm)	15.5

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

RECENT CALIBRATION AND AUDIT HISTORY

Previous Audit	
Previous Calibration	

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

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

LEAK CHECK	Indicated Flow (lpm)	
	Main	Auxiliary
PUMP ON	-0.090	0.230
PUMP OFF	0.000	0.060
NET	-0.090	0.170
<b>LIMITS</b>	<b>&lt;0.15</b>	<b>&lt;0.65</b>

	Ambient Temp. (°C)	Ambient Pres. (atm)	Ko *	Bypass flow (lpm)	Sample flow (lpm)
SET POINT (S)	na	na	14287	13.67	3.000
INDICATED (I)	4.8	0.905	<del>14287</del>	13.67	3.000
MEASURED (AF)	4.7	0.905	<del>14287</del>	13.70	3.003
MEASURED (M)	4.7	0.905	14119	13.70	3.003
DIFFERENCE (M-I)	-0.1	0.000	-1.2%	0.22	0.10
<b>LIMITS</b>	<b>± 2 ° C</b>	<b>± 0.005 atm</b>	<b>± 2.5 %</b>	<b>± 1.0 L/min</b>	<b>± 0.2 L/min</b>

*As Found Data*  
*Adjusted Data*

Ko Audit Filter data      Weight: 0.11477      Serial #: CVK 3532

COMMENTS: Although pump capacity check was good Dekta Cal would not measure flows at flow splitter. A Bios DC Lite was used to measure flows.

**PASS**

**Sample Head Inspection Or Cleaning:**

PM10: Good.  
 PM2.5: Good

**TEOM / FDMS IN LINE FILTER INSPECTION OR REPLACEMENT:**

TEOM IN LINE:	FDMS Water knock out: Good
Main: Good	In Line Audit filter(Bowl with internal screen): Good
AUX: Good	FDMS 47 mm Filter Cassette: Replaced

# Calibration Report



Parameter SO2

Air Monitoring Network PASZA

## Station Information

Calibration Date	January 27, 2010	Previous Calibration	December 27, 2009
Station Number	9	Station Location	Rover - Kinuso
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
		<input type="checkbox"/> Other:	
Start Time (MST)	9:30	End Time (MST)	12:03
Barometric Pressure	27.66 inches Hg	Station Temperature	22.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
Cal Gas Concentration	50.6 ppm	Cal Gas Expiry Date	7/27/2009
Gas Cert Reference	LL 16161		
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	1.004175	Calculated slope	1.003820
Calculated intercept	-2.496360	Calculated intercept	-1.866516
Analyzer make	TEI 43C	Analyzer serial #	609716238

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Background	8.6		8.8	
Coefficient	0.87		0.869	
UV Lamp Voltage	807	V	806	V
Chamber Temp	44.5	C	44.6	C
Perm Gas Temp	45	C	45	C
Pressure	685.6	mm Hg	685.3	mm Hg
Sample Flow	0.494	LPM	0.494	LPM
Lamp Intesity	47613	Hz	47648	Hz

## Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4988	0.00	0.0	0.4	N/A
4989	39.83	400.8	400.4	1.0009
4989	19.88	200.8	202.4	0.9923
4989	9.92	100.4	103.6	0.9692
4988	0.00	0.0	-0.1	As found zero
4990	39.89	401.3	401.0	As found span
Average Correction Factor				0.9875

Calculated value of As Found Response: 400.245 ppm      Percent Change of As Found: 0.3%

	before calibration		after calibration	
Auto zero	0.3	ppm	0.3	ppm
Auto span	258.2	ppm	255.0	ppm

Notes: Internal Pump Replaced

Calibration Performed By: Grover Christiansen

# Calibration Summary

Parameter SO2

Air Monitoring Network PASZA

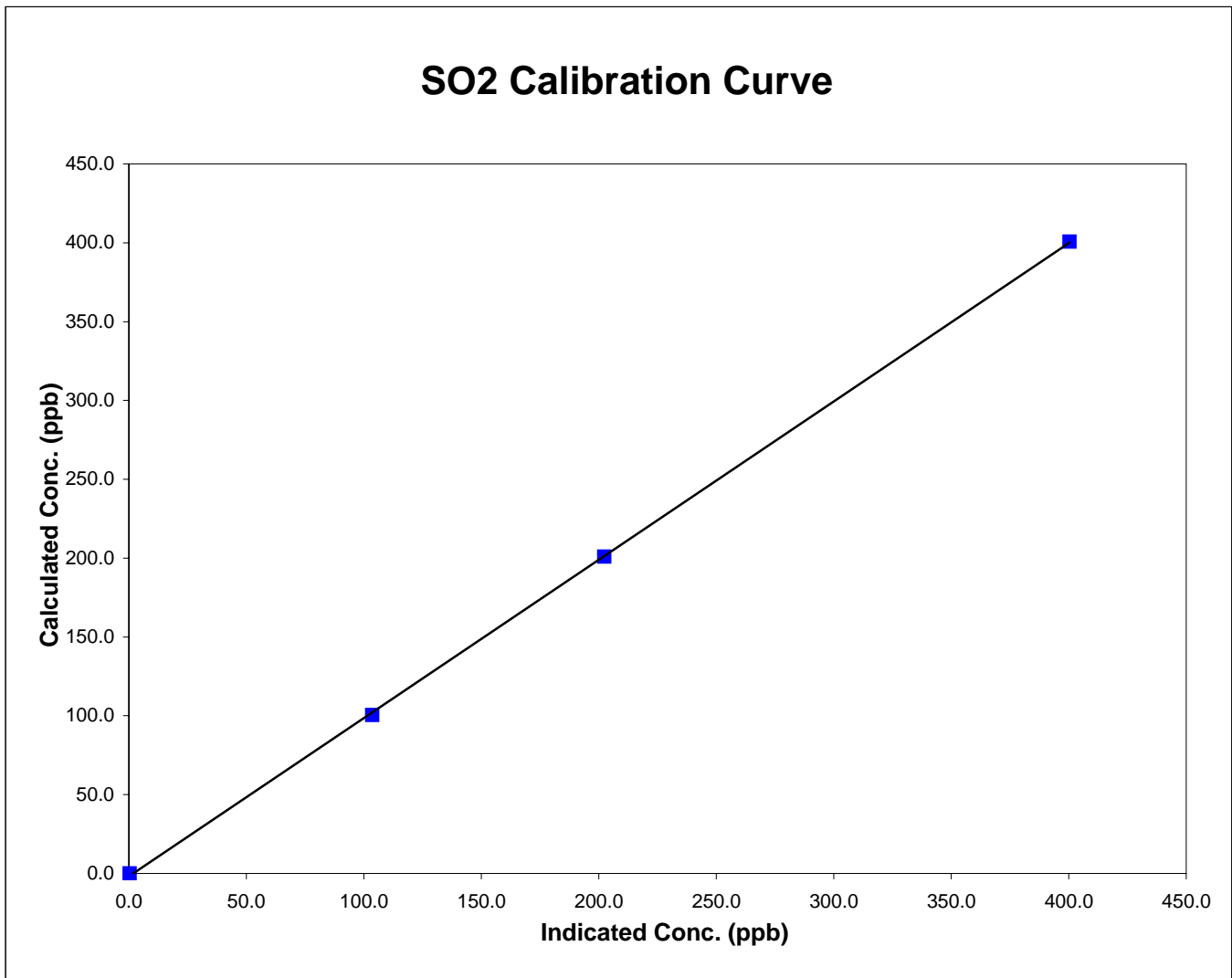


## Station Information

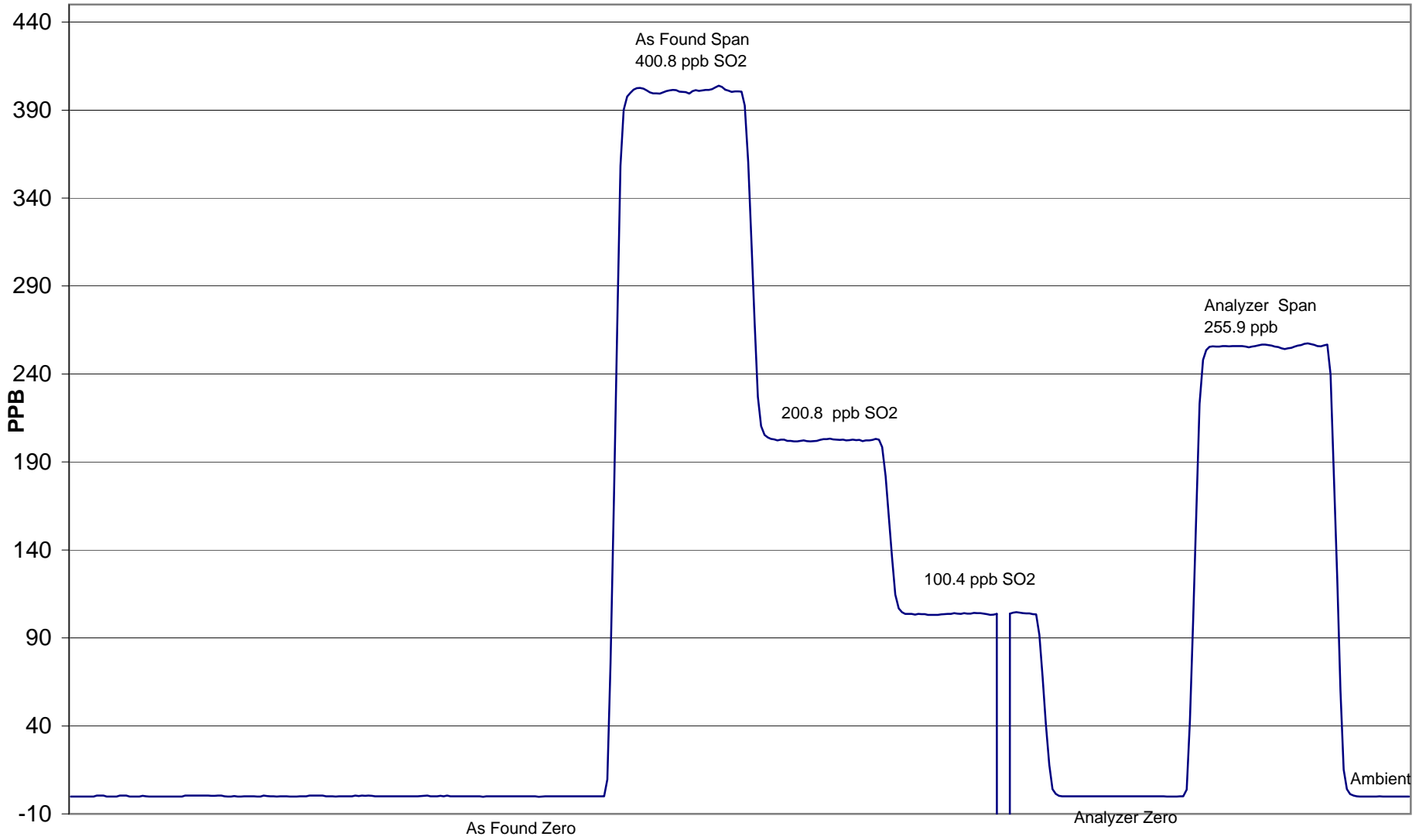
Calibration Date	January 27, 2010	Previous Calibration	December 27, 2009
Station Number	9	Station Location	Rover - Kinuso
Start Time (MST)	9:30	End Time (MST)	12:03
Analyzer make/model	TEI 43C	Analyzer serial #	609716238

## Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.4	N/A		
400.8	400.4	1.0009	Correlation Coefficient	0.999933
200.8	202.4	0.9923		
100.4	103.6	0.9692	Slope	1.003820
			Intercept	-1.866516



# Kinuso SO<sub>2</sub> Calibration



January 27, 2010

# Calibration Report

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



## Station Information

Calibration Date	<u>                    </u> January 27, 2010	Previous Calibration	<u>                    </u> December 27, 2009
Station Number	<u>                    </u> 9	Station Location	<u>                    </u> Rover-Kinuso
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	<u>                    </u> 13:40	End Time (MST)	<u>                    </u> 16:05
Barometric Pressure	<u>                    </u> 27.5 inches Hg	Station Temperature	<u>                    </u> 21.0 Deg C
Calibrator	<u>                    </u> Environics 6100	Serial Number	<u>                    </u> 3474
Cal Gas Concentration	<u>                    </u> 5.15 ppm	Cal Gas Expiry Date	<u>                    </u> 11/15/2005
Gas Cert Reference	<u>                    </u> ALM013295		
DACS make	<u>                    </u> Focus AP1000	DACS serial No.	<u>                    </u> 52662
DACS voltage range	<u>                    </u> 0 - 5 volt	DACS channel #	<u>                    </u> 8
	<u>                    </u> Before		<u>                    </u> After
DACS Scale High	<u>                    </u> 100	DACS slope	<u>                    </u> 100
DACS Scale Low	<u>                    </u> 0	DACS intercept	<u>                    </u> 0
Calculated slope	<u>                    </u> 0.997775	Calculated slope	<u>                    </u> 1.004469
Calculated intercept	<u>                    </u> 0.243797	Calculated intercept	<u>                    </u> 0.126095
Analyzer make	<u>                    </u> TEI 43C	Analyzer serial #	<u>                    </u> 609716238

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	10.4	ppb	10.4	ppb
Coefficient	1.402		1.402	
Lamp Voltage	794	V	795	V
Chamber Temp	44.0	C	44.0	C
Perm gas Temp	45	C	45	C
Pressure	667	mmHg	675	mmHg
Sample Flow	429	ccm	435	ccm
Lamp Intensity	39372.0	Hz	38687.0	Hz

## Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4988	0.0	0.0	0.3	N/A
4988	79.70	81.0	80.8	1.0028
4988	39.85	40.8	40.0	1.0196
4988	9.80	10.1	9.7	1.0383
4988	0.00	0.0	-0.5	As found zero
4988	79.88	81.2	80.7	As found span
Average Correction Factor				1.0203

Calculated value of As Found Response:                      81.19 ppm      Percent Change of As Found:                      0.0%

	before calibration		after calibration	
Auto zero	-0.4	ppm	-0.5	ppm
Auto span	66.6	ppm	64.9	ppm

Notes:                     

Calibration Performed By:                      Grover Christiansen



# Calibration Summary



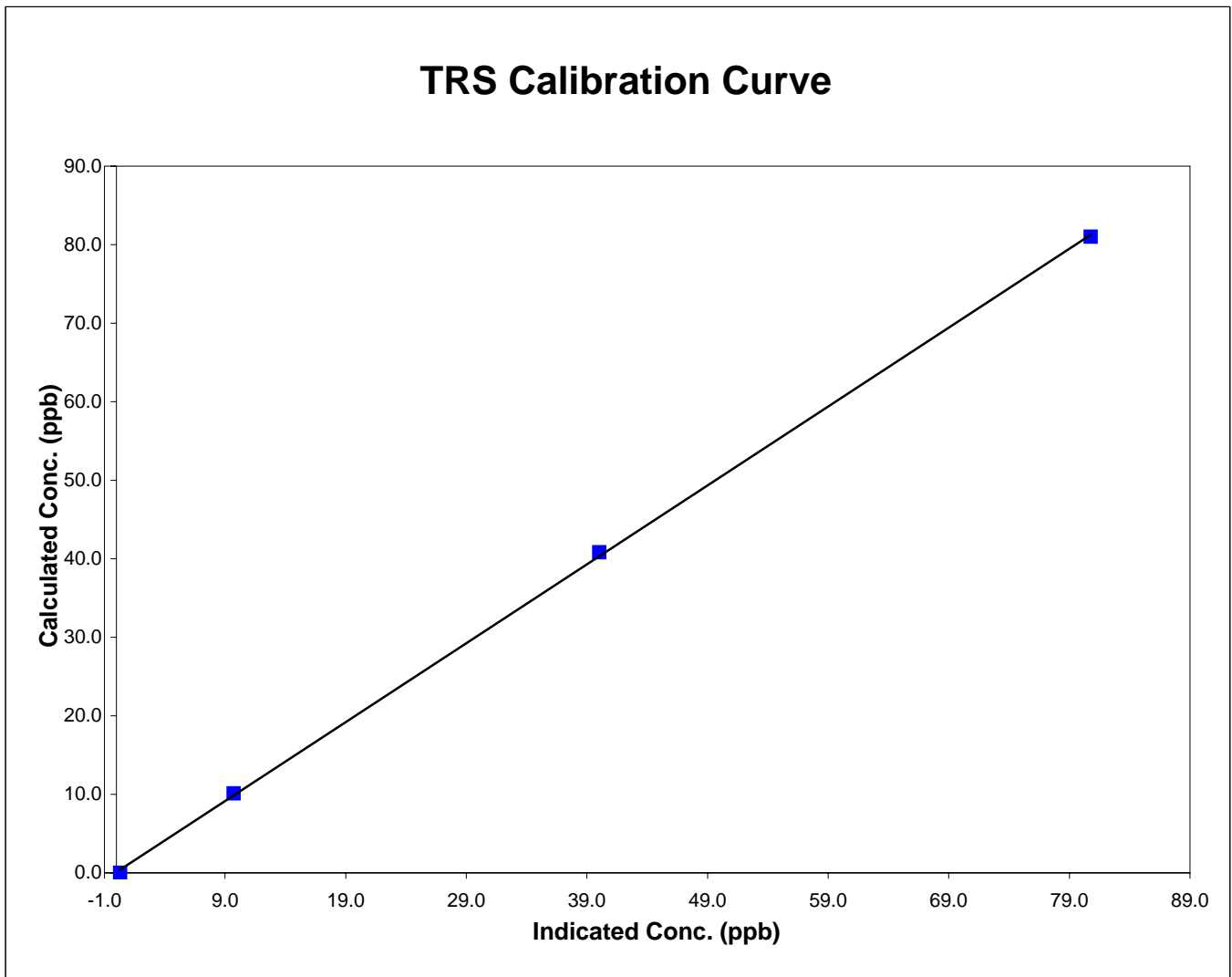
Parameter TRS  
Air Monitoring Network PASZA

## Station Information

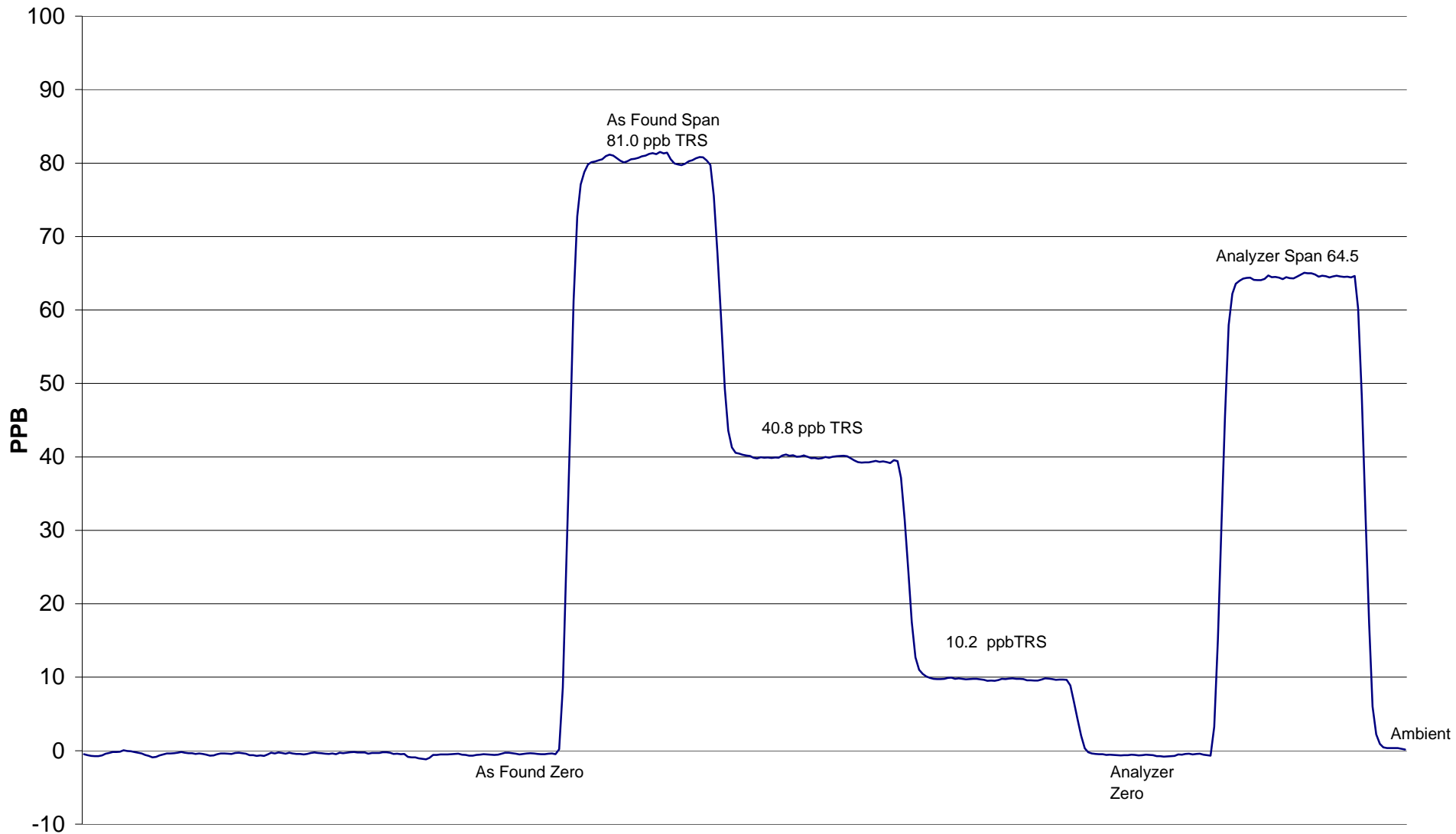
Calibration Date	<u>January 27, 2010</u>	Previous Calibration	<u>December 27, 2009</u>
Station Number	<u>9</u>	Station Location	<u>Rover-Kinuso</u>
Start Time (MST)	<u>13:40</u>	End Time (MST)	<u>16:05</u>
Analyzer make/model	<u>TEI 43C</u>	Analyzer serial #	<u>609716238</u>

## Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	N/A	Correlation Coefficient	0.999869
81.0	80.8	1.0028		
40.8	40.0	1.0196	Slope	1.004469
10.1	9.7	1.0383		
			Intercept	0.126095



# Kinuso TRS Calibration



January 27, 2010

# Calibration Report

Parameter **NO<sub>x</sub>-NO-NO<sub>2</sub>**  
 Air Monitoring Network **PASZA**



## Station Information

Calibration Date	January 27, 2010	Previous Calibration	December 27, 2009
Station Number	9	Station Location	Rover Kinuso
Reason:	Routine	Installation	Removal
Other:			
Start Time (MST)	9:30	End Time (MST)	13:22
Barometric Pressure	0.916 Atm	Station Temperature	25.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
NO Cal Gas Conc	49.6 ppm	Cal Gas Expiry Date	July 2, 2007
NOx Cal Gas Conc	49.6 ppm	Cal Gas Serial #	CC114395

## DACS Information

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

Parameter		NO2	NOx	NO
Before	Data Slope	1.006450	0.996901	1.002857
	Data Offset	1.638236	-2.787218	-3.058891
After	Data Slope	1.000345	0.997931	1.003778
	Data Offset	1.384724	-2.627872	-2.945132
Channel #		8	6	7
Voltage Range		0 - 10 VDC	0 - 10 VDC	0 - 10 VDC

## Analyzer Information

Analyzer make/model **TEI 42i**      Analyzer serial # **701120011**

Test Point	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
NO offset	4.1	mV	4.2	mV
NOx bkgnd	4.5	mV	4.5	mV
NO coefficient	0.771		0.771	
NOx coefficient	0.997		0.997	
NO2 conv temp	323.7	Deg C	323.9	Deg C
PMT Temp	-3.1	Deg C	-3.1	Deg C
PMT Volt	-829.5	mV	-829.5	mV
R Cell Press	141.5	in Hg	141.2	in Hg
Sample Flow	0.584	ccm	0.585	ccm

Notes:

---



---



---

# Calibration Report

Parameter **NOx-NO-NO<sub>2</sub>**  
 Air Monitoring Network **PASZA**



## Station Information

Calibration Date: **January 27, 2010** Station Location: **Rover Kinuso**

## 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	4990	0.00	0.0	0.0	0.0	0.2	0.5	-0.7	N/A	N/A
1	4989	39.85	393.0	393.0	0.0	395.0	393.2	-1.0	0.9950	0.9997
2	4989	19.87	196.8	196.8	0.0	201.6	200.4	-0.5	0.9759	0.9819
3	4988	9.93	98.5	98.5	0.0	103.5	103.5	-0.7	0.9524	0.9525
AFZ	4990	0.00	0.0	0.0	0.0	0.1	0.5	-0.9	0.0000	0.0000
AFS	4989	39.85	393.0	393.0	0.0	395.5	395.4	-2.8	0.9939	0.9941
Average Correction Factor									0.9744	0.9781

As Found Concentrations: **NO<sub>x</sub>= 392.6** **NO= 391.8** As Found Percent Change **NO<sub>x</sub>= -0.1%** **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	0.5	0.5	0.0	0.2	0.5	-0.7	N/A	N/A	N/A	N/A
NO point	393.6	393.6	0.0	395.9	393.6	-0.8	0.9942	1.0000	N/A	N/A
300	393.6	88.3	305.3	394.3	88.3	304.2	0.9981	1.0000	1.0035	99.6%
200	393.6	182.1	211.5	394.4	182.1	210.1	0.9981	1.0000	1.0068	99.3%
100	393.6	274.8	118.8	393.7	274.8	116.3	0.9998	1.0000	1.0219	97.9%
Average Correction Factor							0.9987	1.0000	1.0108	98.9%

## AIC Data

Parameter	Previous calibration				Current calibration			
	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	0.1	-1.0	0.6	ppb	0.3	-0.9	0.7	ppb
Auto span	305.0	300.2	3.0	ppb	313.8	309.3	2.9	ppb

Calibration Performed By: Grover Christiansen

# Calibration Summary

Parameter NO<sub>2</sub>

Air Monitoring Network PASZA



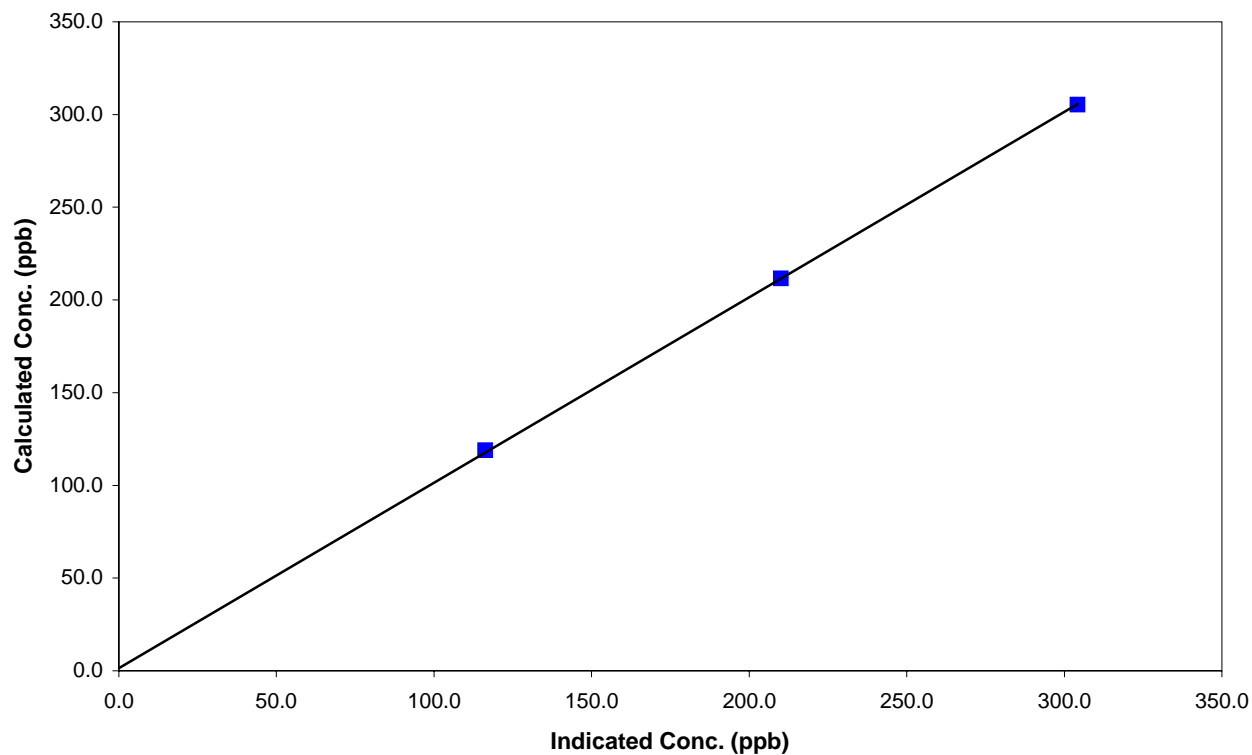
## Station Information

Calibration Date	January 27, 2010	Previous Calibration	December 27, 2009
Station Number	9	Station Location	Rover Kinuso
Start Time (MST)	9:30	End Time (MST)	13:22
Analyzer make	TEI 42i	Analyzer serial #	701120011

## Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.7	N/A	Correlation Coefficient	0.999963
305.3	304.2	1.0035		
211.5	210.1	1.0068	Slope	1.000345
118.8	116.3	1.0219		
			Intercept	1.384724

**NO<sub>2</sub> Calibration Curve**



# Calibration Summary

Parameter NO<sub>x</sub>

Air Monitoring Network PASZA



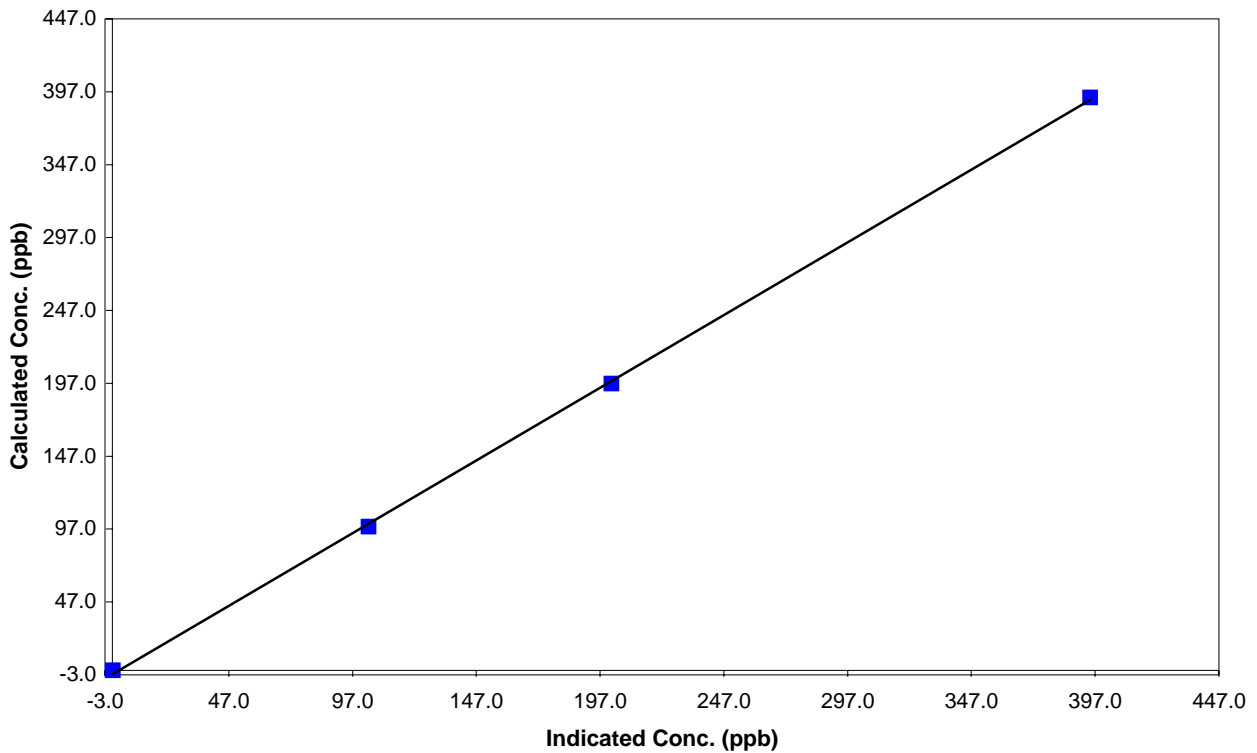
## Station Information

Calibration Date	January 27, 2010	Previous Calibration	December 27, 2009
Station Number	9	Station Location	Rover Kinuso
Start Time (MST)	9:30	End Time (MST)	13:22
Analyzer make	TEI 42i	Analyzer serial #	701120011

## Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A	Correlation Coefficient	0.999814
393.0	395.0	0.9950		
196.8	201.6	0.9759		
98.5	103.5	0.9524	Slope	0.997931
			Intercept	-2.627872

## NO<sub>x</sub> Calibration Curve



# Calibration Summary

Parameter NO

Air Monitoring Network PASZA



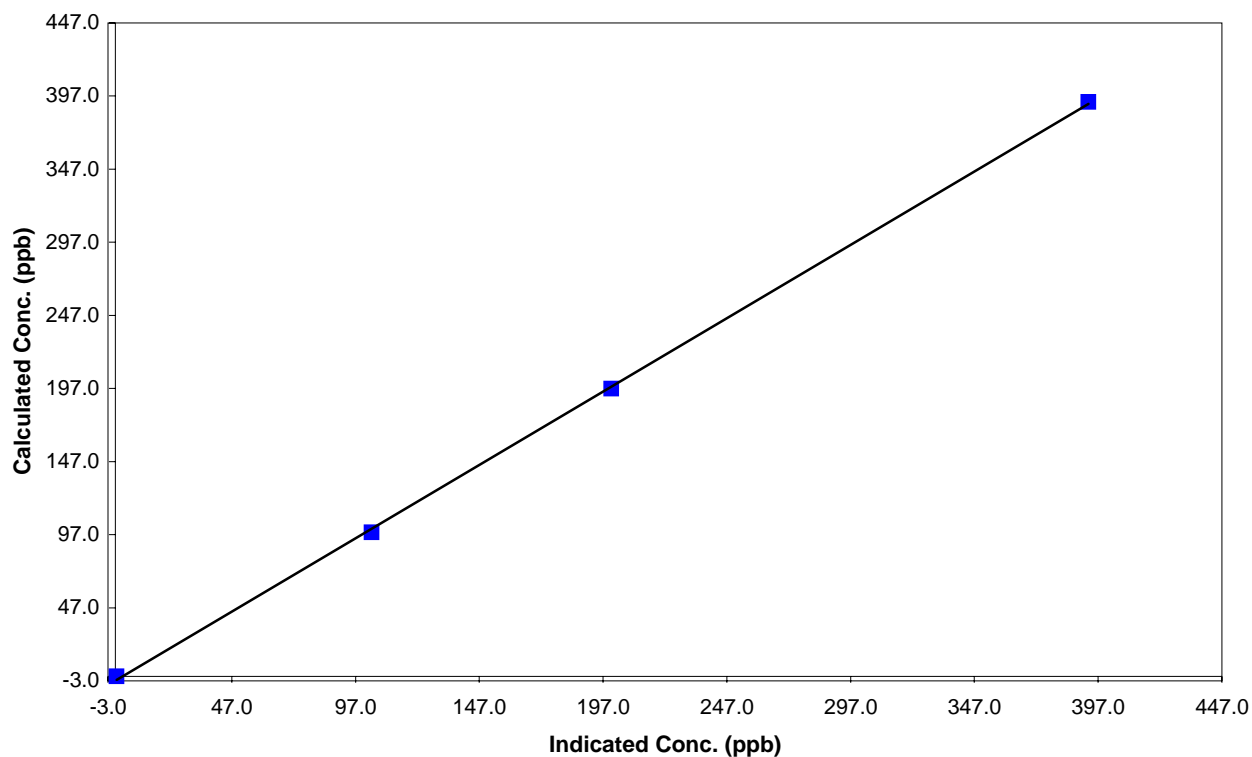
## Station Information

Calibration Date	January 27, 2010	Previous Calibration	December 27, 2009
Station Number	9	Station Location	Rover Kinuso
Start Time (MST)	9:30	End Time (MST)	13:22
Analyzer make	TEI 42i	Analyzer serial #	701120011

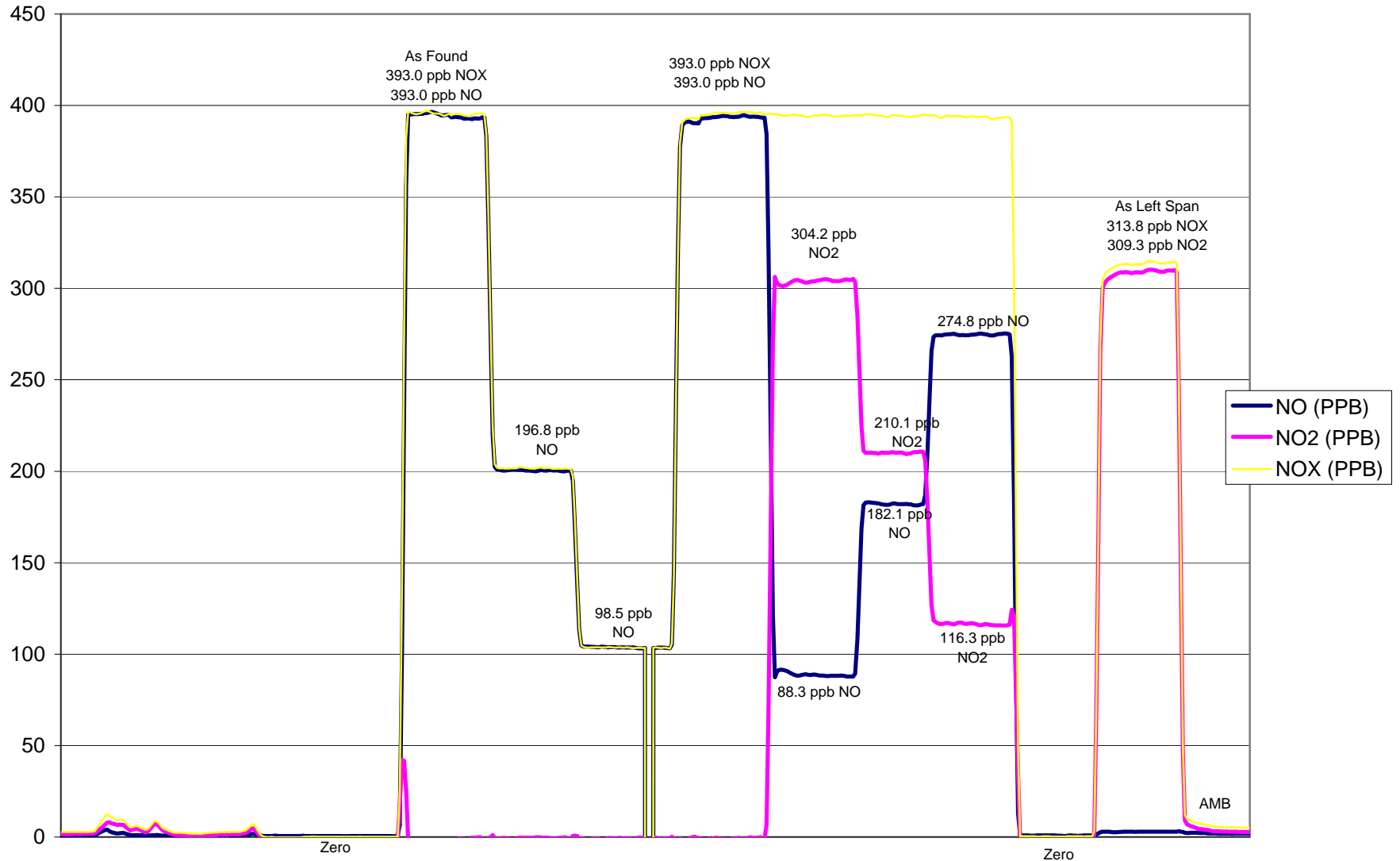
## Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.5	N/A	Correlation Coefficient	0.999818
393.0	393.2	0.9997		
196.8	200.4	0.9819		
98.5	103.5	0.9525	Slope	1.003778
			Intercept	-2.945132

## NO Calibration Curve



# Kinuso NO<sub>x</sub> Calibration



January 27, 2010



# Calibration Report



Parameter 03

Air Monitoring Network PASZA

## Station Information

Calibration Date	January 27, 2010	Previous Calibration	December 27, 2009
Station Number	9	Station Location	Rover - Kinuso
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	12:20	End Time (MST)	14:39
Barometric Pressure	0.935 atm	Station Temperature	21.0 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	1.034687	Calculated slope	0.999429
Calculated intercept	0.879377	Calculated intercept	-0.317820
Analyzer make	TEI Model 49C	Analyzer serial #	609-716240

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Offset	-14	ppb	-13.8	ppb
Span	1.517		1.517	
Cell A	90644	Hz	90644	Hz
Cell B	98378	Hz	98378	Hz
Pressure	708	in Hg	709	in Hg
CellA Flow	722	ccm	724	ccm
Cell B Flow	691	cmm	692	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	0.0	N/A
4990	0.00	304.2	305.4	0.9961
4990	0.00	212.0	210.6	1.0065
4990	0.00	115.3	117.1	0.9849
4990	0.00	0.0	-0.1	As found zero
4990	0.00	304.2	305.4	As found span
Average Correction Factor				0.9958

Calculated value of As Found Response: 317.0 ppm      Percent Change of As Found: 4.2%

	before calibration		after calibration	
Auto zero	1.2	ppb	-0.8	ppb
Auto span	275.5	ppb	335.4	ppb

Notes: \_\_\_\_\_

Calibration Performed By: Grover Christiansen

# Calibration Summary

Parameter 03

Air Monitoring Network PASZA



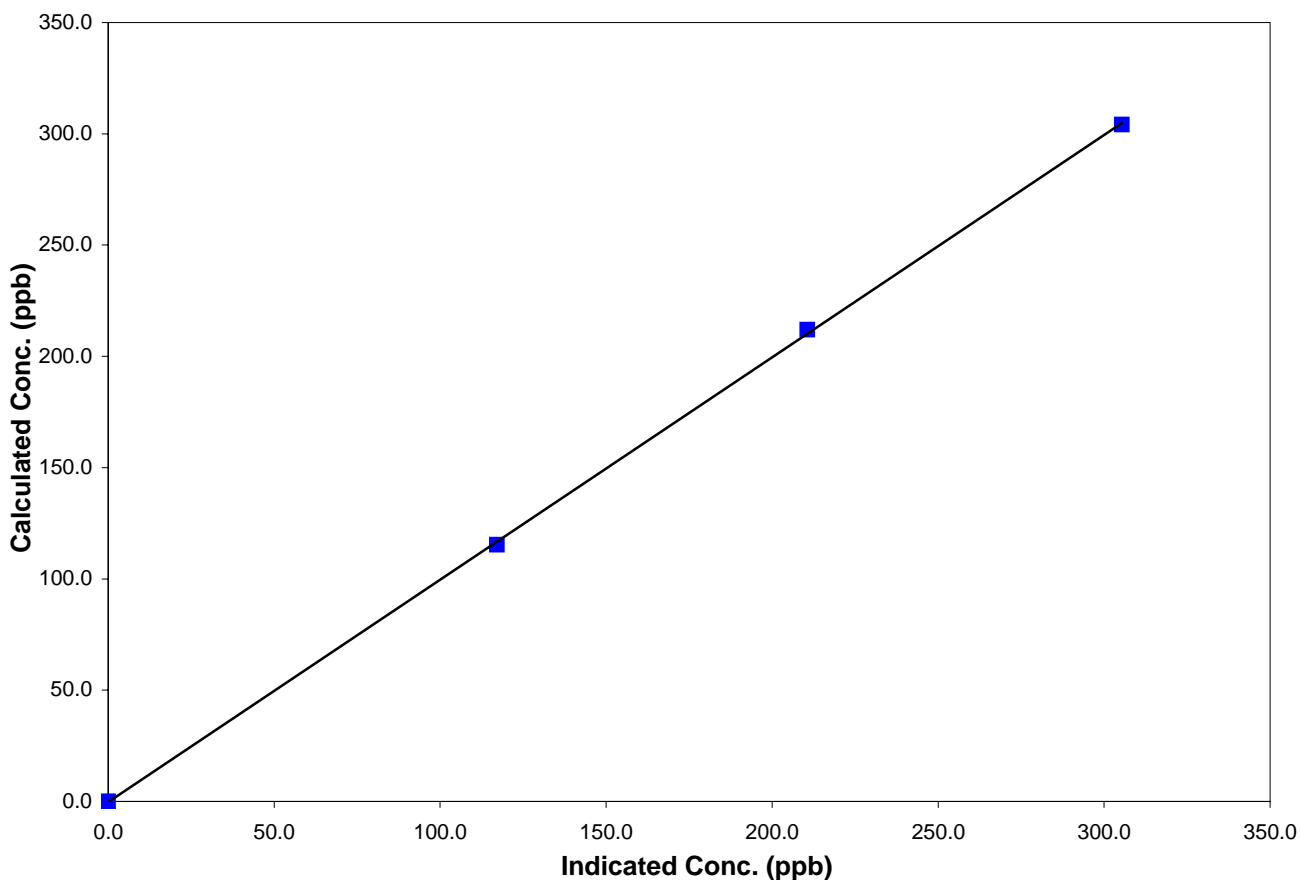
## Station Information

Calibration Date	<u>January 27, 2010</u>	Previous Calibration	<u>December 27, 2009</u>
Station Number	<u>9</u>	Station Location	<u>Rover - Kinuso</u>
Start Time (MST)	<u>12:20</u>	End Time (MST)	<u>14:39</u>
Analyzer make/model	<u>TEI Model 49C</u>	Analyzer serial #	<u>609-716240</u>

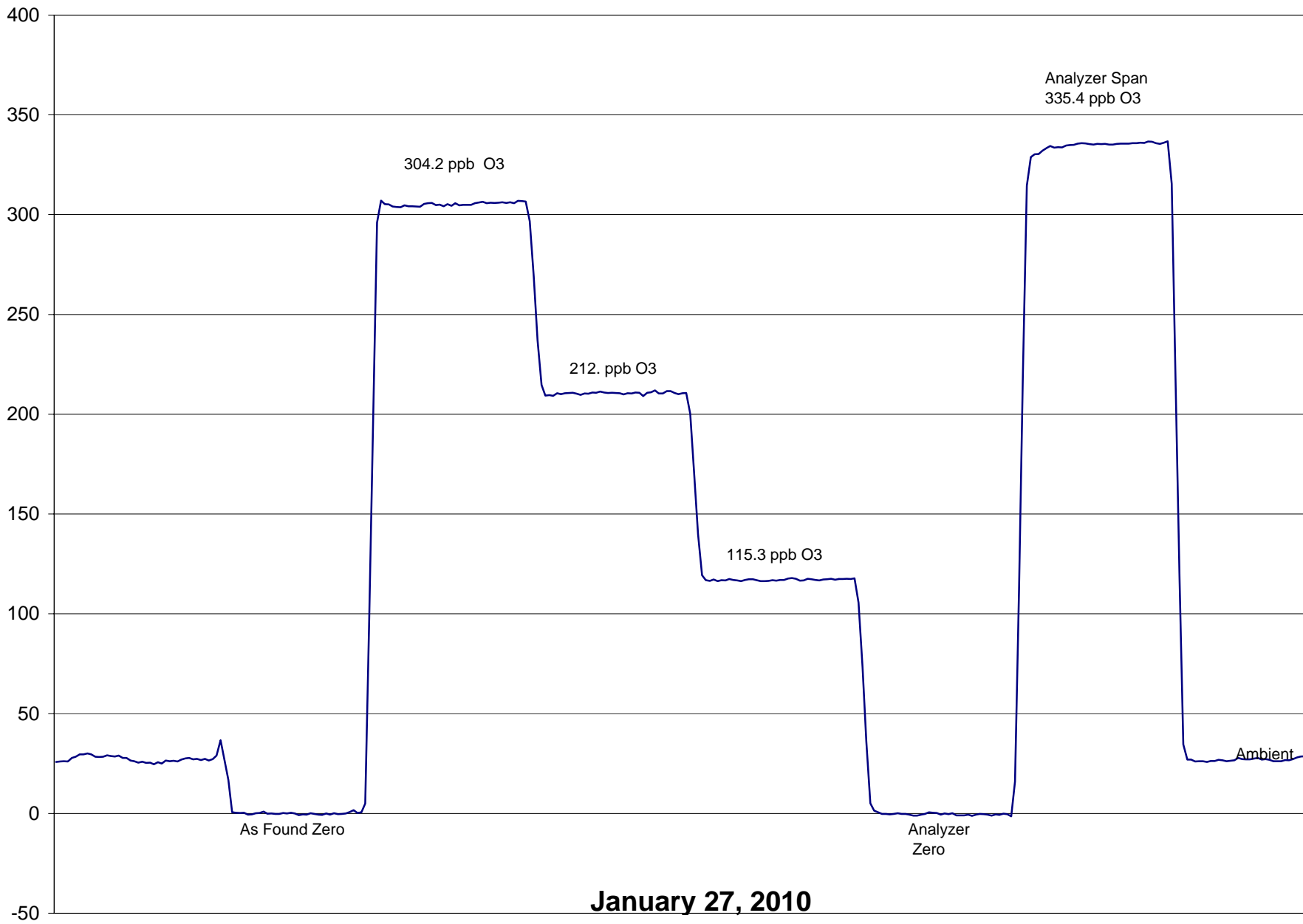
## Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	NA		
304.2	305.4	0.9961	Correlation Coefficient	0.999887
212.0	210.6	1.0065		
115.3	117.1	0.9849	Slope	0.999429
			Intercept	-0.317820

## O3 Calibration Curve



# Kinuso O<sub>3</sub> Calibration



# Calibration Report



Parameter SO2

Air Monitoring Network PASZA

## Station Information

Calibration Date	January 24, 2010	Previous Calibration	December 8, 2009
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)	10:30	End Time (MST)	12:36
Barometric Pressure	29.90 inches Hg	Station Temperature	25.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
Cal Gas Concentration	50.6 ppm	Cal Gas Cert Date	12/3/2009
Gas Cert Reference	AAL 56996		
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	1.000695	Calculated slope	1.003043
Calculated intercept	-2.137951	Calculated intercept	-1.321377
Analyzer make	TEI 45C	Analyzer serial #	45C-57531-313

	before		after	
Concentration range	0 - 1000	ppb	0 - 1000	ppb
Background	29.6		29.5	
Coefficient	0.713		0.713	
UV Lamp Voltage	699	LPM	700	LPM
Chamber Temp	44.2	V	44.2	V
Perm Gas Temp	35.1	C	35.1	C
Pressure	628	in Hg	628.1	in Hg
Sample Flow	0.472	LPM	0.472	LPM
Lamp Intesity	45235	Hz	45266	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)
4990	0.00	0.0	0.2	N/A
4990	39.85	400.9	400.8	1.0003
4990	19.92	201.2	201.4	0.9991
4990	9.90	100.2	103.1	0.9716
4990	0.00	0.0	0.2	As found zero
4990	39.88	401.2	400.8	As found span
Average Correction Factor				0.9904

Calculated value of As Found Response: 398.746 ppm      Percent Change of As Found: 0.6%

	before calibration		after calibration	
Auto zero	0.0	ppm	0.0	ppm
Auto span	158.3	ppm	150.8	ppm

Notes: \_\_\_\_\_

Calibration Performed By: Grover Christiansen

# Calibration Summary

Parameter SO2

Air Monitoring Network PASZA



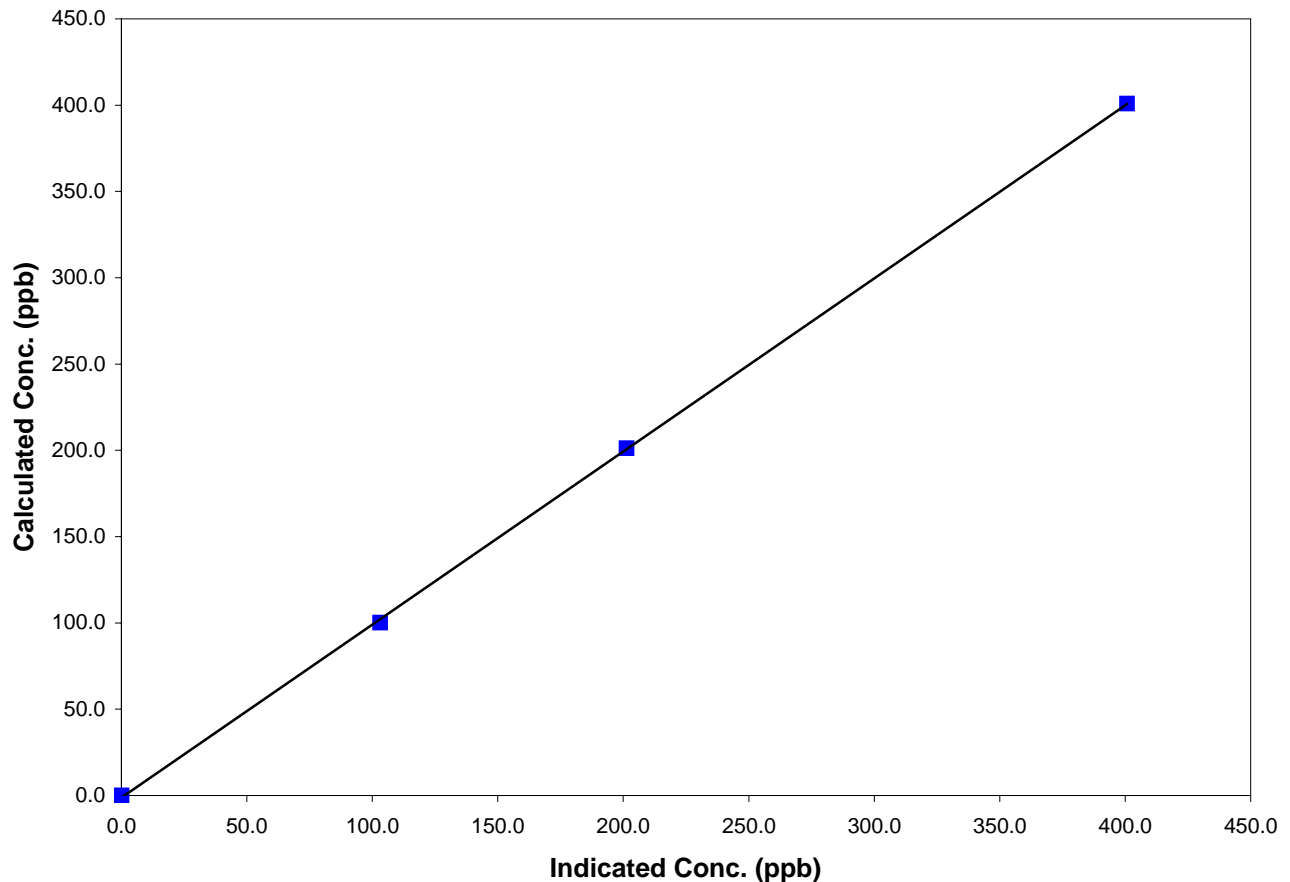
## Station Information

Calibration Date	January 24, 2010	Previous Calibration	December 8, 2009
Station Number	6	Station Location	Valleyview
Start Time (MST)	10:30	End Time (MST)	12:36
Analyzer make/model	TEI 45C	Analyzer serial #	45C-57531-313

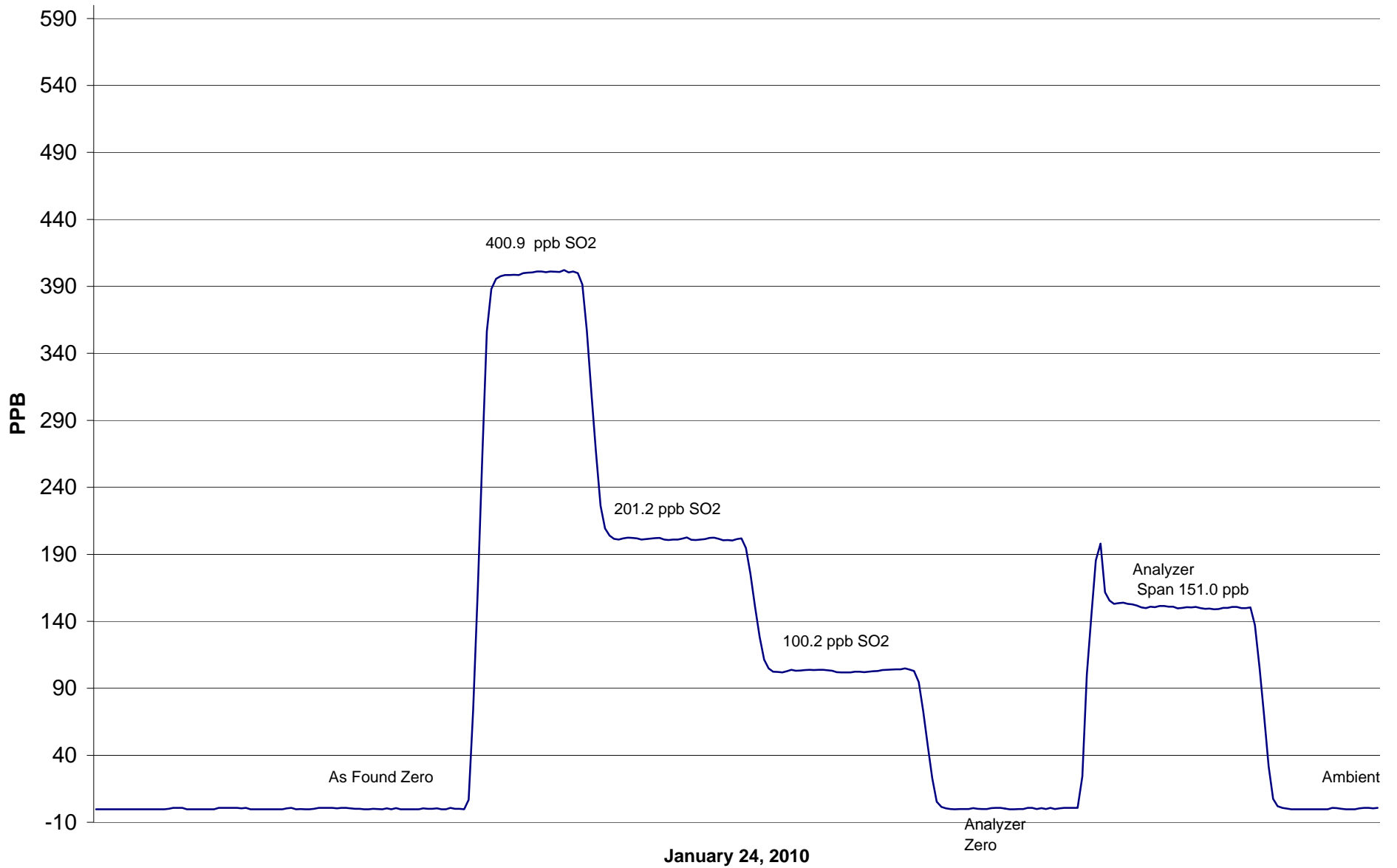
## Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A	Correlation Coefficient	0.999939
400.9	400.8	1.0003		
201.2	201.4	0.9991	Slope	1.003043
100.2	103.1	0.9716		
			Intercept	-1.321377

## SO2 Calibration Curve



# Valleyview SO<sub>2</sub> Calibration



# Calibration Report



Parameter H2S  
 Air Monitoring Network PASZA

## Station Information

Calibration Date	January 24, 2010	Previous Calibration	December 8, 2009
Station Number	5	Station Location	Valleyview
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
Other: <input type="checkbox"/>			
Start Time (MST)	12:00	End Time (MST)	14:03
Barometric Pressure	0.00 inches Hg	Station Temperature	23.0 Deg C
Calibrator	Enviroincs 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
Before		After	
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	1.007773	Calculated slope	1.006408
Calculated intercept	-0.306696	Calculated intercept	-0.229808
Analyzer make	TEI Model 43i - APSCB	Analyzer serial #	701120010

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Back Ground	5.1	ppb	5.1	ppb
Coefficient	1.125		1.125	
Lamp Voltage	792	v	792	v
Chamber Temp	45.2	c	45	c
Perm Oven Temp	45.01	c	45	c
Pressure	646	mm Hg	642	mm Hg
Sample Flow	430	ccm	428	ccm
Lamp Intensity	92.0	%	92.0	%

## 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	0.2	N/A
4988	79.72	81.0	80.7	1.0040
4988	39.83	40.8	40.8	0.9988
4988	9.93	10.2	10.4	0.9873
4989	0.00	0.0	0.2	As found zero
4989	79.81	81.1	83.1	As found span
Average Correction Factor				0.9967

Calculated value of As Found Response: 83.18 ppm Percent Change of As Found: -2.6%

	before calibration		after calibration	
Auto zero	0.1	ppm	0.0	ppm
Auto span	62.4	ppm	59.5	ppm

Notes: \_\_\_\_\_

Calibration Performed By: Grover Christiansen

# Calibration Summary

Parameter                 H2S                

Air Monitoring Network                                 PASZA                                

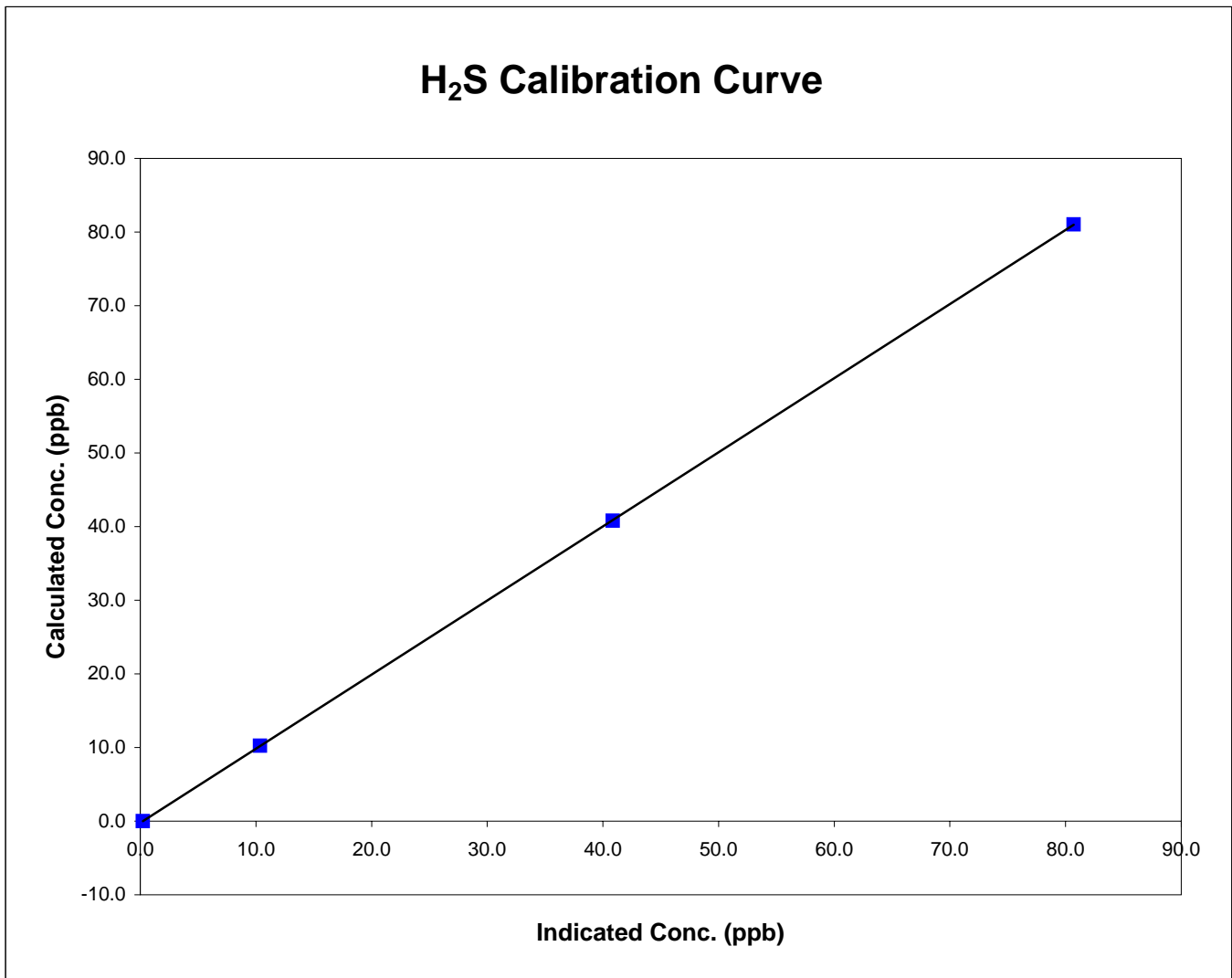


## Station Information

Calibration Date	January 24, 2010	Previous Calibration	December 8, 2009
Station Number	5	Station Location	Valleyview
Start Time (MST)	12:00	End Time (MST)	14:03
Analyzer make/model	TEI Model 43i - APSCB	Analyzer serial #	701120010

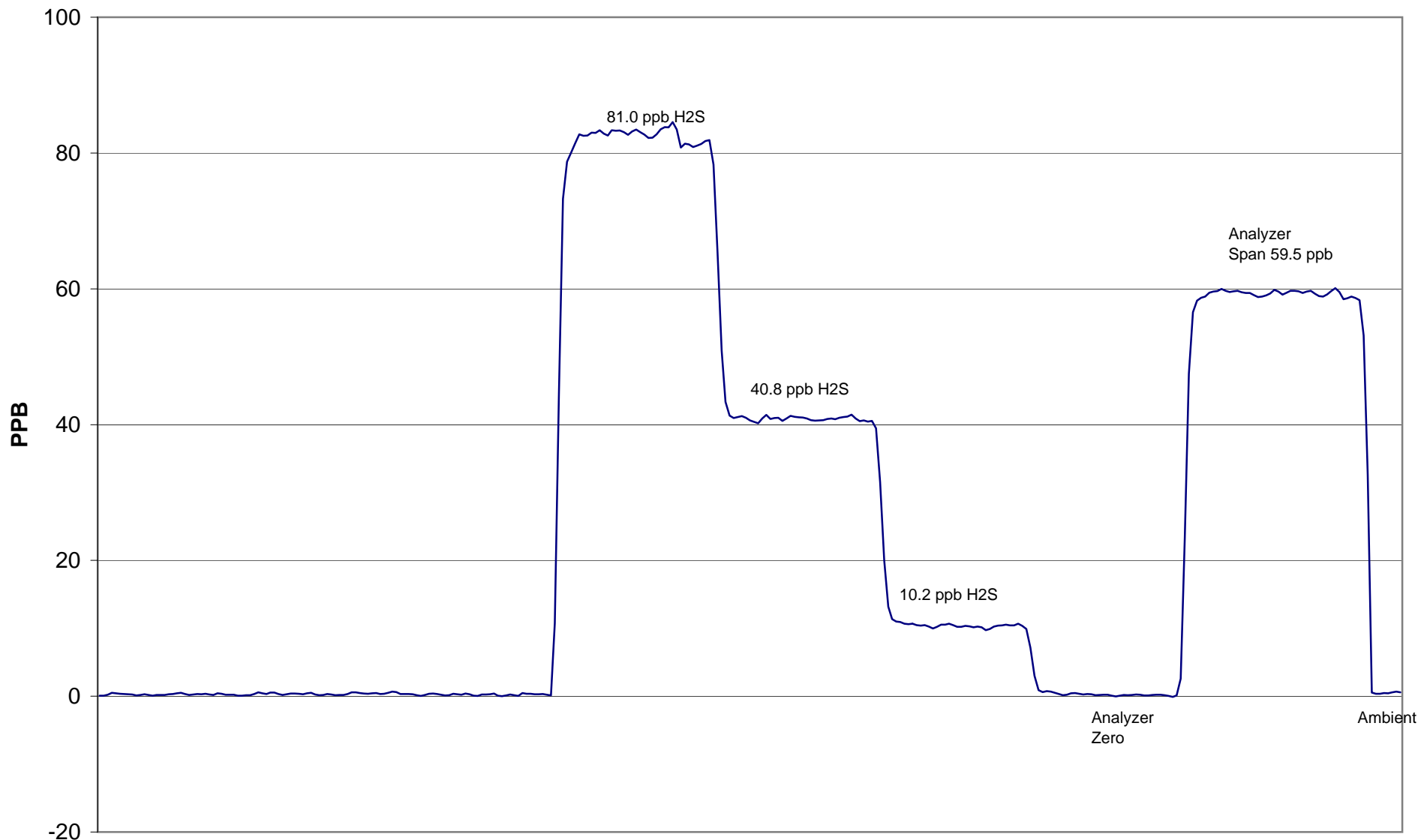
## Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A		
81.0	80.7	1.0040	Correlation Coefficient	0.999998
40.8	40.8	0.9988		
10.2	10.4	0.9873	Slope	1.006408
			Intercept	-0.229808





# Vallyview H<sub>2</sub>S Calibration



January 24, 2010