



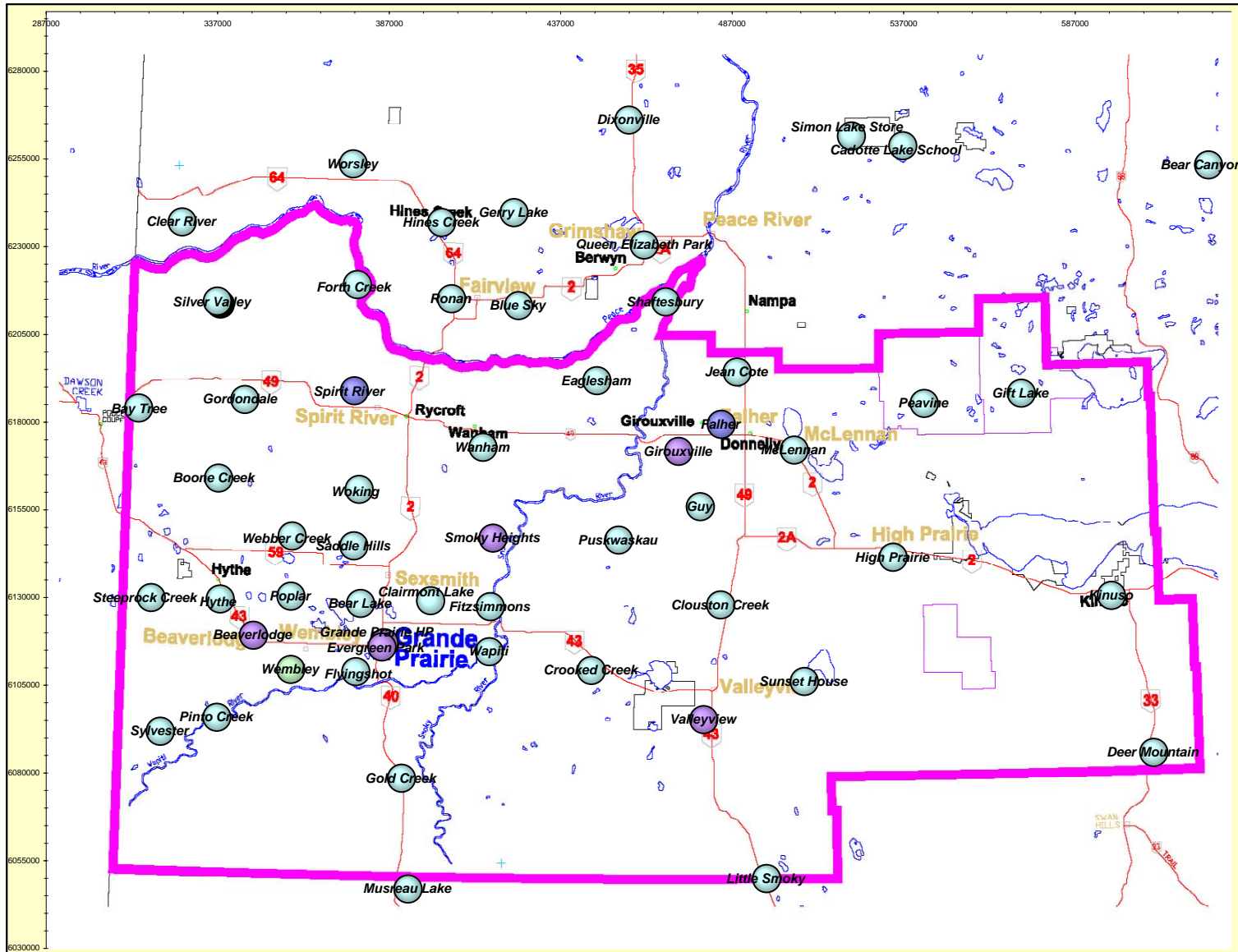
# **Peace AirShed Zone Association**

## **Ambient Air Monitoring Network Summary**

**Continuous Ambient Air Quality Monitoring Program  
Monthly Report  
October 2008**

Operations and Reporting  
**FOCUS**  
AIR QUALITY MONITORING

# Location of PASZA Continuous and Passive Monitoring Stations





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December 8<sup>th</sup>, 2008

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

**RE: Peace Airshed Zone Association (PASZA) – October 2008 Ambient Air Report**

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Enclosed is the PASZA Ambient Monitoring Network Report for the month of **October 2008**.

**Continuous Monitoring: Six (6) Stations including Henry Pirker (Grande Prairie), Evergreen Park, Smoky Heights, Beaverlodge, Spirit River (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.

The measured ambient air quality was within the Alberta Ambient Air Quality Objectives (AAAQO) for the Henry Pirker, Evergreen Park, Smoky Heights, Beaverlodge, Spirit River and Valleyview stations.

During the month of October the following events were noted:

**Henry Pirker Station:**

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

**Evergreen Park Station:**

- ◆ All analyzers / sensors at the Evergreen Park station had an operational uptime greater than 90%, with the exception of the temperature sensor – **Alberta Environment Reference #208635**.

**Smoky Heights Station:**

- ◆ All analyzers / sensors at the Smoky Heights station had an operational uptime greater than 90% for the month of October.

**Beaverlodge Station:**

- ◆ All analyzers / sensors at the Beaverlodge station had an operational uptime greater than 90% for the month of October.

**Portable – Spirit River Station:**

- ◆ From October 25<sup>th</sup> to October 27<sup>th</sup> the computer and data acquisition system went down and had to be manually rebooted (October 25<sup>th</sup>), however the data acquisition system while trying to capture missed data failed to capture the current data and a total of thirty-four (34) hours was not collected for all parameters.
- ◆ All analyzers / sensors at the Spirit River station had an operational uptime greater than 90%.

**Valleyview Station:**

- ◆ All analyzers / sensors at the Valleyview station had an operational uptime greater than 90% for the month of October.

**Passive Monitoring - 54 Stations throughout the PASZA zone:**

There were seven duplicate sites sampled in the month of October: Wanham, Grande Prairie I, Gold Creek, Guy, Dixonville, Musreau Lake and Grande Prairie HP. 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 0.0 ppb to 0.8 ppb, with a mean of 0.3 ppb.
- Monthly average concentrations for NO<sub>2</sub> passives ranged from 0.7 ppb to 11.8 ppb, with a mean of 2.3 ppb.
- Monthly average concentrations for O<sub>3</sub> passives ranged from 19.3 ppb to 35.3 ppb, with a mean of 27.5 ppb.

If you have any questions, please contact the Focus Intec office at 1.403.255.9440 (Kelly Baragar or Sharon Whiteley).

On Behalf of the,  
Peace Airshed Zone Association



Michael Bisaga  
PASZA Program Manager



Sharon Whiteley, B.Sc..  
AQM Data Specialist

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## PASZA Monthly Continuous Data Summary

Oct-2008 Peace Airshed Zone Association							Maximum Recorded Values				Operational Time (%)
Pollutant (units)	Objectives		Station	Monthly Average	Exceedence		1-hr		24-hr / 8-hr		
	1-hr	24-hr			1-hr	24-hr	Conc	Day	Conc	Day	
SO <sub>2</sub> (ppb)	172	57	Henry Pirker	0.4	0	0	7.2	Oct-19 13:00	1.4	Oct-28	100.0%
SO <sub>2</sub> (ppb)	172	57	Evergreen Park	1.0	0	0	18.4	Oct-14 17:00	6.5	Oct-14	100.0%
SO <sub>2</sub> (ppb)	172	57	Smoky Heights	0.4	0	0	6.7	Oct-21 20:00	1.5	Oct-21	100.0%
SO <sub>2</sub> (ppb)	172	57	Beaverlodge	0.3	0	0	3.0	Oct-01 11:00	1.0	Oct-31	100.0%
SO <sub>2</sub> (ppb)	172	57	Portable-Spirit River	0.4	0	0	5.5	Oct-01 16:00	1.5	Oct-01	94.9%
SO <sub>2</sub> (ppb)	172	57	Valleyview	0.8	0	0	14.5	Oct-21 20:00	4.1	Oct-08	99.9%
NO (ppb)			Henry Pirker	9.5	-	-	146.3	Oct-30 09:00	55.6	Oct-28	100.0%
NO <sub>2</sub> (ppb)	212	106	Henry Pirker	11.4	0	0	39.8	Oct-27 21:00	26.0	Oct-27	100.0%
NO <sub>x</sub> (ppb)			Henry Pirker	20.8	-	-	184.2	Oct-30 09:00	81.1	Oct-28	100.0%
NO (ppb)			Beaverlodge	0.7	-	-	21.8	Oct-20 09:00	3.4	Oct-02	100.0%
NO <sub>2</sub> (ppb)	212	106	Beaverlodge	3.8	0	0	19.2	Oct-28 19:00	11.6	Oct-28	100.0%
NO <sub>x</sub> (ppb)			Beaverlodge	4.6	-	-	38.3	Oct-20 09:00	12.4	Oct-28	100.0%
NO (ppb)			Portable-Spirit River	0.4	-	-	26.1	Oct-01 08:00	2.5	Oct-01	95.4%
NO <sub>2</sub> (ppb)	212	106	Portable-Spirit River	2.4	0	0	22.2	Oct-01 08:00	7.9	Oct-01	95.4%
NO <sub>x</sub> (ppb)			Portable-Spirit River	2.8	-	-	39.5	Oct-01 08:00	10.0	Oct-01	95.4%
O <sub>3</sub> (ppb)	82		Henry Pirker	18.9	0	-	38.4	Oct-17 14:00	30.1	Oct-25	100.0%
O <sub>3</sub> (ppb) - 8-hr		65	Henry Pirker			0			34.1	Oct-23	
O <sub>3</sub> (ppb)	82		Beaverlodge	24.6	0	-	41.3	Oct-27 15:00	32.9	Oct-23	100.0%
O <sub>3</sub> (ppb) - 8-hr		65	Beaverlodge			0			39.0	Oct-27	
O <sub>3</sub> (ppb)	82		Portable-Spirit River	20.7	0	-	37.7	Oct-27 14:00	30.3	Oct-24	95.4%
O <sub>3</sub> (ppb) - 8-hr		65	Portable-Spirit River			0			36.1	Oct-27	
CO (ppm)	13		Henry Pirker	0.11	0	-	1.3	Oct-27 22:00	0.4	Oct-28	100.0%
CO (ppm) - 8-hr		5	Henry Pirker			0			0.7	Oct-28	
THC (ppm)			Henry Pirker	2.08	-	-	3.5	Oct-16 09:00	2.8	Oct-28	100.0%
TRS (ppb)			Henry Pirker	0.4	-	-	2.0	Oct-28 11:00	1.0	Oct-28	100.0%
TRS (ppb)			Evergreen Park	0.6	-	-	2.6	Oct-28 11:00	1.4	Oct-28	Oct-28
TRS (ppb)			Smoky Heights	0.3	-	-	1.0	Nov-01 00:00	0.5	Oct-01	100.0%
TRS (ppb)			Portable-Spirit River	0.5	-	-	2.2	Oct-01 05:00	0.8	Oct-01	95.4%
H <sub>2</sub> S (ppb)	10	3	Valleyview	0.2	0	0	2.3	Oct-17 16:00	0.4	Oct-29	99.9%
PM <sub>2.5</sub> (µg/m <sup>3</sup> )	80	30	Henry Pirker	4.4	0	0	35.1	Oct-28 22:00	17.0	Oct-28	96.9%
PM <sub>2.5</sub> (µg/m <sup>3</sup> )	80	30	Evergreen Park	5.2	0	0	46.5	Oct-24 13:00	11.6	Oct-28	98.4%
PM <sub>2.5</sub> (µg/m <sup>3</sup> )	80	30	Smoky Heights	3.2	0	0	23.5	Oct-16 18:00	7.2	Oct-28	99.6%
PM <sub>2.5</sub> (µg/m <sup>3</sup> )	80	30	Beaverlodge	3.2	0	0	19.7	Oct-02 22:00	9.1	Oct-02	97.7%



# Continuous Network Equipment Summary

## PASZA – Henry Pirker Station

### General Station Issues

Routine monthly calibrations were performed on October 3<sup>rd</sup> (SO<sub>2</sub>, NO<sub>x</sub> & O<sub>3</sub>) and October 6<sup>th</sup> (CO, TRS & THC).

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	No operational issues observed.
O <sub>3</sub>	TEI	49C	No operational issues observed.
CO	TEI	48C	No spans Oct 1 <sup>st</sup> & 2 <sup>nd</sup> (span bottle replaced). No other 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	A total of six (6) hours were flagged invalid due to power bumps. On October 29 <sup>th</sup> the TEOM motherboard was replaced and flow audit performed, eight (8) hours were flagged for maintenance. A total of nine (9) hours were flagged for excessive baseline drift.
RH	Met One	083D	No operational issues observed.
AT	Met One	083D	No operational issues observed.
SR	Met One	096-1	No operational issues observed.
WS/WD	Met One	010C/020C	No operational issues observed.

## PASZA – Evergreen Park Station

### General Station Issues

Routine monthly calibrations were performed on October 9<sup>th</sup> (SO<sub>2</sub>, TRS & TEOM). The meteorological tower was replaced on October 23<sup>rd</sup>, with a new crank up tower and the Met One wind & sensors were replaced with a Gill Ultrasonic sensor.

Parameter	Make	Model	Notes
SO <sub>2</sub>	TEI	43i	No operational issues observed.
TRS	TEI	43C	No operational issues observed.
PM <sub>2.5</sub>	R&P	1400AB	A total of twelve (12) hours were flagged for excessive baseline drift.
AT	Met One/Gill	083D	A total of two hundred (200) hours were flagged invalid from October 23 <sup>rd</sup> to November 13 <sup>th</sup> due to the inability to access the met tower and hook-up the temperature gauge on the tower. <b>Alberta Environment reference # 208635.</b>
WS	Met One/ Gill	010C	Nine (9) hours were flagged for maintenance on October 23 <sup>rd</sup> due to met tower & sensor replacement.
WD	Met One/ Gill	020C	Nine (9) hours were flagged for maintenance on October 23 <sup>rd</sup> due to met tower & sensor replacement.

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**PASZA – Smoky Heights Station**

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**General Station Issues**

Routine monthly calibrations were performed on October 15<sup>th</sup> (TRS & SO<sub>2</sub>).

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Parameter	Make	Model	Notes
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	Two (2) hours were flagged for excessive baseline drift. One (1) hour was flagged for power bump.
AT	Met One	083D	No operational issues observed.
WS	Met One	010C	No operational issues observed.
WD	Met One	020C	No operational issues observed.

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**PASZA – Beaverlodge Station**

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**General Station Issues**

Routine monthly calibrations were performed on October 8<sup>th</sup> (SO<sub>2</sub>, O<sub>3</sub>, NO<sub>x</sub> & TEOM).

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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	Sixteen (16) hours were flagged for excessive baseline drift. One (1) hour was flagged for power bump.
AT	n/a	n/a	No operational issues observed.
RH	n/a	n/a	No operational issues observed.
WS	Blue Sky	857	No operational issues observed.
WD	Blue Sky	857	No operational issues observed.

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**PASZA – Spirit River (Portable) Station**

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**General Station Issues**

Routine monthly calibrations were performed on October 16<sup>th</sup> (SO<sub>2</sub> & NO<sub>x</sub>), October 17<sup>th</sup> (O<sub>3</sub> & TRS), October 24<sup>th</sup> (SO<sub>2</sub>). From October 25<sup>th</sup> to October 27<sup>th</sup> the computer and data acquisition system went down and had to be manually rebooted (October 25<sup>th</sup>), however the data acquisition system while trying to capture missed data, failed to capture the current data and a total of thirty-four (34) hours was not collected for all parameters.

Parameter	Make	Model	Notes
SO <sub>2</sub>	TEI	43C	SO2 adjustment made. Internal pump replaced October 24 <sup>th</sup> .
NOx/NO/NO <sub>2</sub>	TEI	42i	No operational issues observed – other than above mentioned missing data capture.
TRS	TEI	43C	No operational issues observed – other than above mentioned missing data capture.
O <sub>3</sub>	TEI	49C	No operational issues observed – other than above mentioned missing data capture.
AT	Gill	Met Pak 3	No operational issues observed – other than above mentioned missing data capture.
RH	Gill	Met Pak 3	No operational issues observed – other than above mentioned missing data capture.
WS	Met One		No operational issues observed – other than above mentioned missing data capture.
WD	Met One		No operational issues observed – other than above mentioned missing data capture.

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**PASZA – Valleyview Station**

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**General Station Issues**

Routine monthly calibrations were performed on October 7<sup>th</sup> (SO<sub>2</sub> & H<sub>2</sub>S). A power failure on October 7<sup>th</sup> resulted in one (1) hour of invalid data for all parameters.

Parameter	Make	Model	Notes
SO <sub>2</sub>	TEI	43i	No other operational issues observed (other than above noted power failure).
H <sub>2</sub> S	TEI	43A	No other operational issues observed (other than above noted power failure).
AT	Gill	Met Pak 3	No other operational issues observed (other than above noted power failure).
RH	Gill	Met Pak 3	No other operational issues observed (other than above noted power failure).
WS	Gill	Met Pak 3	No other operational issues observed (other than above noted power failure).
WD	Gill	Met Pak 3	No other operational issues observed (other than above noted power failure).

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PASZA

Henry Pirker Station

Monthly Summary Tables, Graphs and  
Roses

**Peace Airshed Zone Association  
Summary of Hourly Averages**

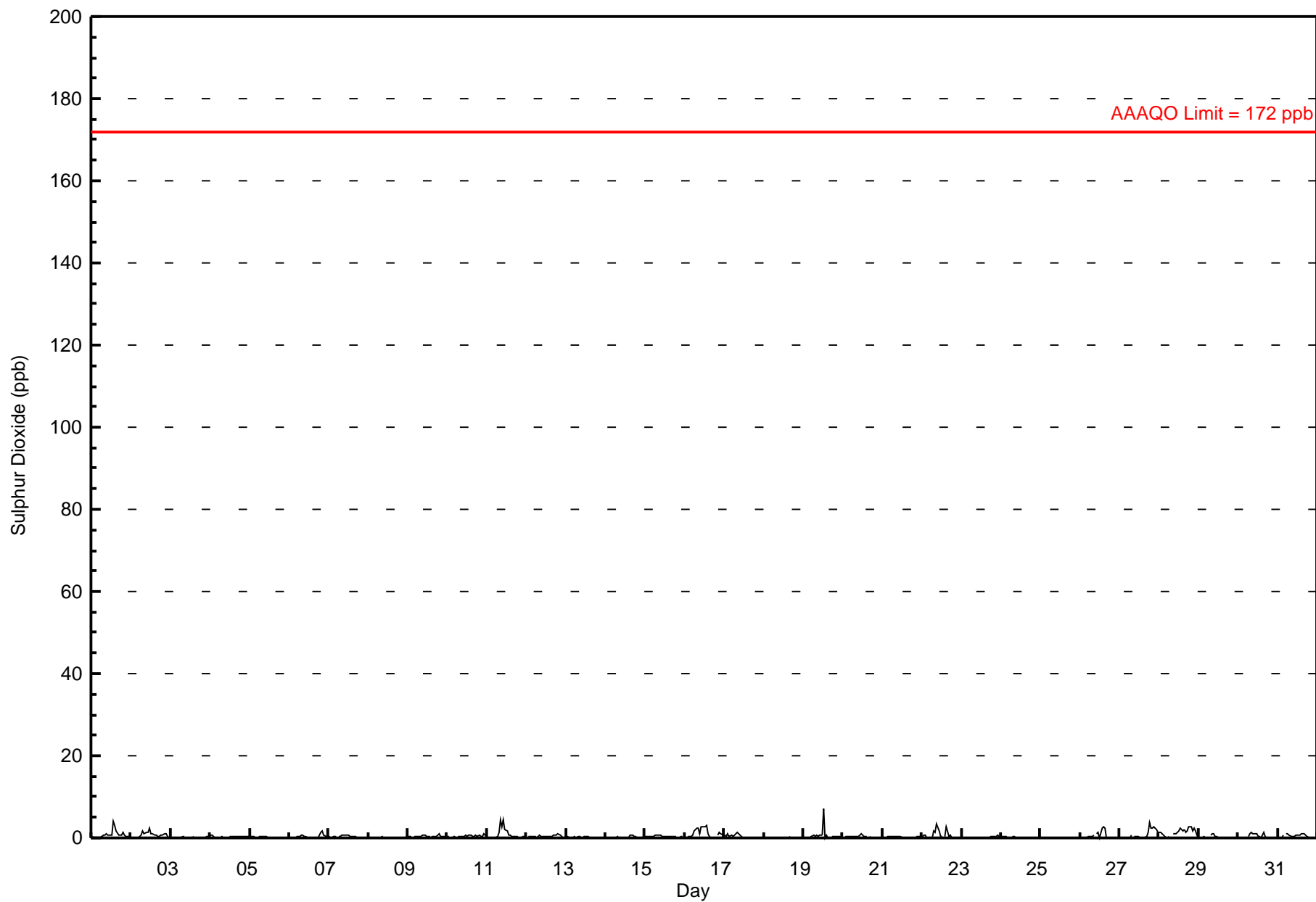
**Henry Pirker - Sulphur Dioxide (SO<sub>2</sub>) - ppb  
October 1, 2008 to November 1, 2008**

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 7.2 ppb on Oct 19 13:00	Maximum Daily Average: 1.4 ppb on Oct 28
Minimum Value: 0 ppb on Oct 1 03:00	Hours of Data: 708
Maximum Diurnal Average: 0.7 ppb at hour 9	Hours of Missing Data: 36
Monthly Average: 0.40 ppb	Hours of Calibration: 36
Minimum Daily Average: 0.0 ppb on Oct 25	Percent Operational Time: 100.0
Minimum Diurnal Average: 0.1 ppb at hour 5	
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> = 0.5 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-Oct	0	0	0	0	A	0	0	1	1	1	1	1	1	4	3	2	1	1	1	1	1	0	0	0	0.8	4.2
2-Oct	0	0	0	A	0	0	1	2	1	1	1	2	1	1	1	1	0	0	1	1	1	1	0	0	0.7	2.5
3-Oct	0	0	0	0	0	A	0	0	0	C	C	C	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
4-Oct	1	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8
5-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
6-Oct	0	0	0	A	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	1	2	1	0	0	0.4	1.7
7-Oct	0	0	0	0	0	A	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8
8-Oct	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
9-Oct	0	0	0	A	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	1	0	0	0	0	0.4	0.9
10-Oct	0	0	A	0	0	0	0	0	0	0	0	1	0	1	1	0	0	1	0	1	0	0	1	1	0.4	0.9
11-Oct	0	A	0	0	0	0	0	1	4	3	4	2	2	1	1	0	0	0	0	0	0	0	0	0	0.9	4.3
12-Oct	A	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0.4	0.9
13-Oct	0	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
14-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	A	0	0.2	0.8
15-Oct	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.3	0.6
16-Oct	0	0	0	0	0	1	2	2	2	1	3	3	3	3	1	0	0	0	0	A	1	1	1	1	1.1	3.0
17-Oct	1	0	1	0	1	0	1	1	1	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.4	1.3
18-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.1	0.3
19-Oct	0	0	0	0	0	0	1	0	1	0	1	1	7	0	1	0	A	0	0	0	0	0	0	0	0.6	7.2
20-Oct	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	A	0	0	0	0	0	0	0	0	0.3	0.9
21-Oct	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
22-Oct	0	1	1	0	0	0	0	2	1	3	2	0	A	0	3	0	0	1	0	0	0	0	0	0	0.6	3.3
23-Oct	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	0	0.1	0.6
24-Oct	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
25-Oct	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
26-Oct	0	0	0	0	0	0	0	1	A	1	1	0	2	3	2	0	0	0	0	0	0	0	0	0	0.5	2.6
27-Oct	0	0	0	0	0	0	0	1	A	0	0	0	0	0	0	0	0	1	4	2	3	3	2	1	0.8	3.7
28-Oct	1	1	1	0	0	0	0	A	1	1	1	1	2	2	2	2	1	2	3	3	2	2	2	1	1.4	2.8
29-Oct	0	0	0	0	0	0	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.1
30-Oct	0	0	0	0	0	A	0	1	2	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0.4	1.5
31-Oct	0	0	0	1	A	1	1	1	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0.5	0.9
	0.2	0.2	0.2	0.1	0.1	0.2	0.3	0.6	0.7	0.7	0.7	0.6	0.7	0.6	0.5	0.5	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.2	Diurnal Average	
	1.4	1.4	1.1	0.6	0.7	0.9	1.5	2.4	4.3	3.3	4.3	2.6	7.2	4.2	3.1	2.8	1.4	1.6	3.7	2.8	2.5	2.6	2.0	1.4	Diurnal Maximum	

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

# Hourly Averages for SO<sub>2</sub> at Henry Pirker October 2008



**Peace Airshed Zone Association  
Summary of Hourly Maximums**

**Henry Pirker - Sulphur Dioxide (SO<sub>2</sub>) - ppb  
October 1, 2008 to November 1, 2008**

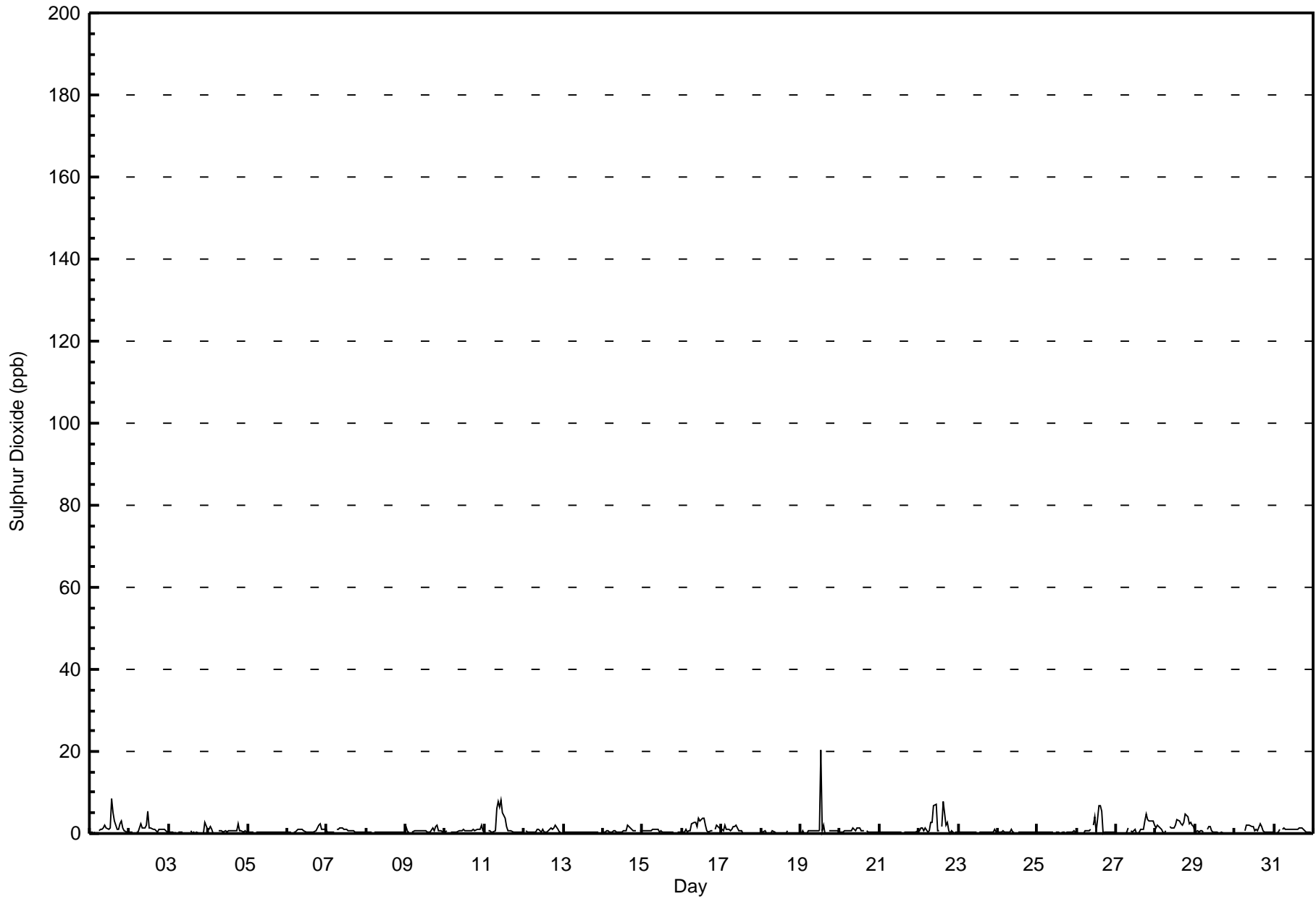
Maximum Value: 20.2 ppb on Oct 19 13:00	Maximum Daily Average: 2.0 ppb on Oct 28	Hours in Service: 744
Minimum Value: 0 ppb on Oct 25 18:00	Minimum Daily Average: 0.2 ppb on Oct 18	Hours of Data: 708
Maximum Diurnal Average: 1.5 ppb at hour 13	Minimum Diurnal Average: 0.4 ppb at hour 5	Hours of Missing Data: 36
Monthly Average: 0.87 ppb	Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.2 Q <sub>1</sub> = 0.3 Median = 0.5 Q <sub>3</sub> = 0.9 P <sub>90</sub> = 1.9 P <sub>99</sub> = 6.8	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-Oct	1	1	0	0	A	1	1	1	2	2	2	1	2	9	5	3	1	1	2	3	1	1	1	1	1.7	8.5
2-Oct	1	1	0	A	0	1	1	2	2	2	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	5.5
3-Oct	1	0	0	0	0	A	1	1	1	C	C	C	A	1	0	0	0	0	0	0	0	0	3	1	0.4	2.6
4-Oct	1	2	1	0	0	A	1	1	1	0	1	0	1	1	1	1	1	1	2	1	1	0	1	0	0.7	2.2
5-Oct	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
6-Oct	0	0	0	A	0	0	1	1	1	1	1	0	0	0	0	0	0	1	1	2	2	1	1	1	0.8	2.4
7-Oct	0	0	0	0	0	A	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0.6	1.4
8-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.3
9-Oct	1	0	0	A	0	1	1	1	1	1	1	1	1	0	0	0	1	1	2	2	1	1	0	0	0.8	2.1
10-Oct	0	1	A	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	0.7	2.1
11-Oct	1	A	1	1	0	0	1	6	8	7	8	5	4	2	1	1	1	0	0	0	0	0	0	0	2.0	8.2
12-Oct	A	1	0	0	0	0	0	0	1	1	0	1	0	0	0	1	1	1	1	2	1	0	0	A	0.7	1.9
13-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	A	1	0.5	0.5
14-Oct	1	0	1	1	1	1	1	1	1	1	1	0	1	1	1	2	1	1	1	1	1	A	1	1	0.6	2.0
15-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	A	0	0	0	0.6	1.0
16-Oct	0	0	1	0	1	1	2	3	3	2	4	3	4	4	2	1	0	1	1	A	1	2	2	1	1.6	3.7
17-Oct	1	1	2	1	1	1	1	2	2	2	1	1	1	0	0	0	0	0	A	0	0	0	0	0	0.7	2.1
18-Oct	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	A	0	0	0	0	0	0	0.2	0.7
19-Oct	0	1	0	0	0	1	1	1	1	1	1	1	20	1	2	0	A	1	1	1	1	1	1	0	1.5	20.2
20-Oct	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0	0	0	0	0	0	0	0.6	1.2
21-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	1	0.4	0.6
22-Oct	1	1	1	1	1	0	1	3	3	7	7	1	1	2	8	2	3	1	0	1	0	0	0	0	1.8	7.9
23-Oct	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	1	0	0	0.4	1.0
24-Oct	0	0	0	1	0	0	0	0	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0.9
25-Oct	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	0	0.3	0.7
26-Oct	0	0	0	0	0	1	1	1	1	A	2	4	0	7	7	5	0	0	0	0	0	0	0	0	1.3	6.9
27-Oct	0	0	0	0	0	0	1	2	A	1	0	1	0	0	0	1	1	3	5	3	3	3	3	2	1.2	4.8
28-Oct	1	2	2	1	0	0	1	A	2	1	1	1	2	3	3	2	2	3	5	4	3	3	2	2	2.0	4.8
29-Oct	0	1	0	1	1	0	A	1	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.8
30-Oct	0	0	0	0	0	A	1	2	2	2	2	2	1	1	1	3	2	1	0	0	0	0	0	0	0.9	2.5
31-Oct	0	0	0	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0.8	1.4

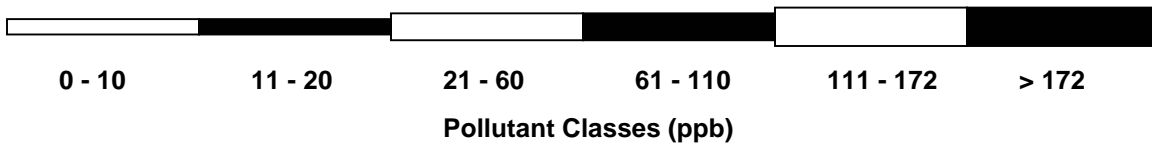
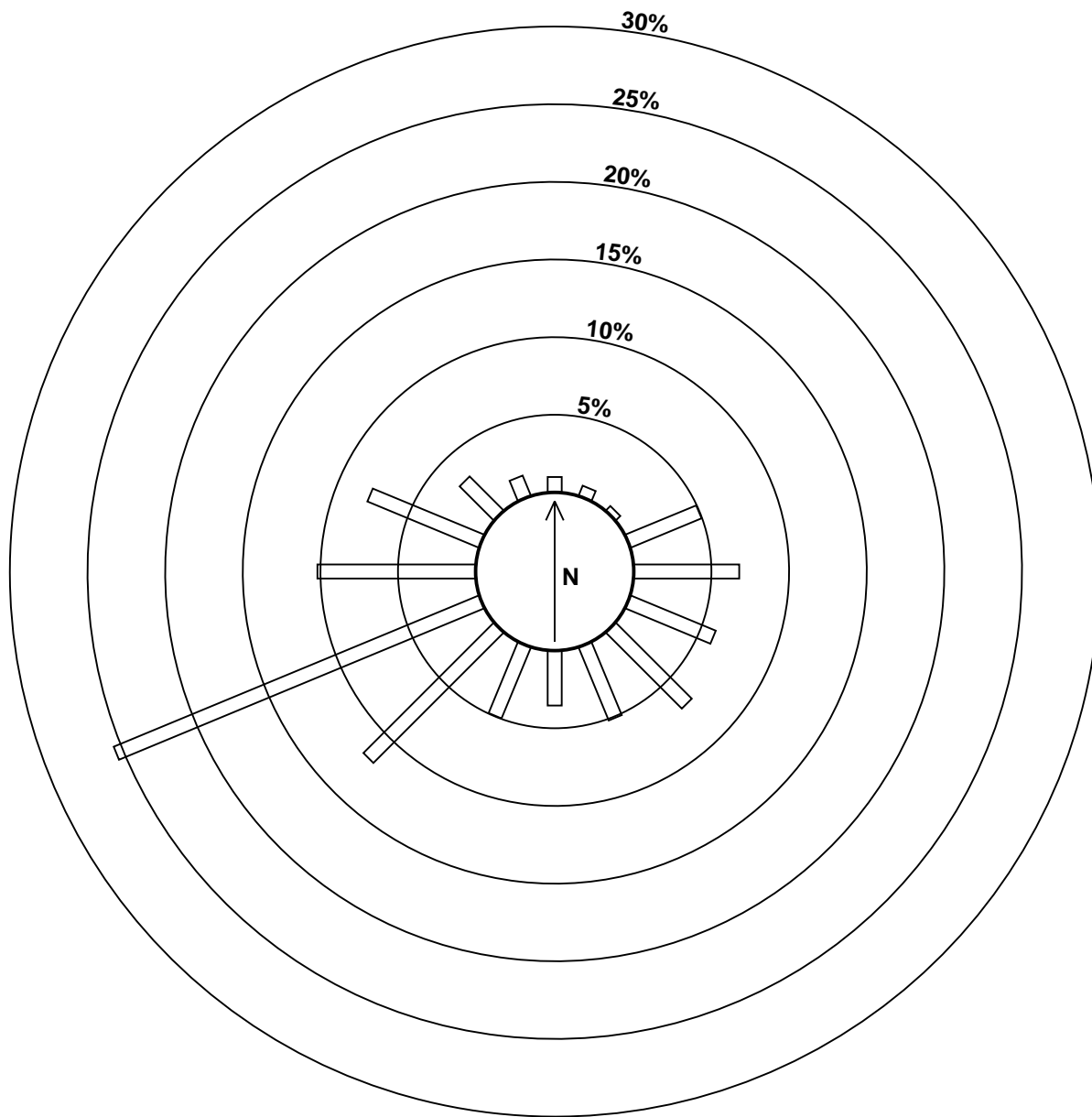
0.5	0.5	0.5	0.4	0.4	0.5	0.7	1.1	1.3	1.3	1.4	1.2	1.5	1.2	1.1	1.2	0.8	0.8	1.0	0.9	0.7	0.6	0.7	0.5	Diurnal Average	
1.5	1.9	2.1	1.1	1.2	1.1	2.3	6.1	7.6	6.8	8.2	5.5	20.2	8.5	6.9	7.9	2.1	3.0	4.8	4.0	3.0	3.0	2.9	2.0	Diurnal Maximum	

C - Calibration                      A - Automated Daily Zero Span

# Hourly Maximums for SO<sub>2</sub> at Henry Pirker October 2008



# Pollutant Rose for SO<sub>2</sub> at Henry Pirker October 2008



**Peace Airshed Zone Association  
Summary of Hourly Averages**

**Henry Pirker - Total Reduced Sulphur (TRS) - ppb  
October 1, 2008 to November 1, 2008**

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 2.0 ppb on Oct 28 11:00	Maximum Daily Average: 1.0 ppb on Oct 28
Minimum Value: 0 ppb on Oct 6 10:00	Hours of Data: 709
Maximum Diurnal Average: 0.5 ppb at hour 9	Hours of Missing Data: 35
Monthly Average: 0.38 ppb	Hours of Calibration: 35
Minimum Daily Average: 0.2 ppb on Oct 8	Percent Operational Time: 100.0
Minimum Diurnal Average: 0.3 ppb at hour 16	
Percentiles: P <sub>1</sub> = 0.1 P <sub>10</sub> = 0.2 Q <sub>1</sub> = 0.3 Median = 0.3 Q <sub>3</sub> = 0.4 P <sub>90</sub> = 0.6 P <sub>99</sub> = 1.4	

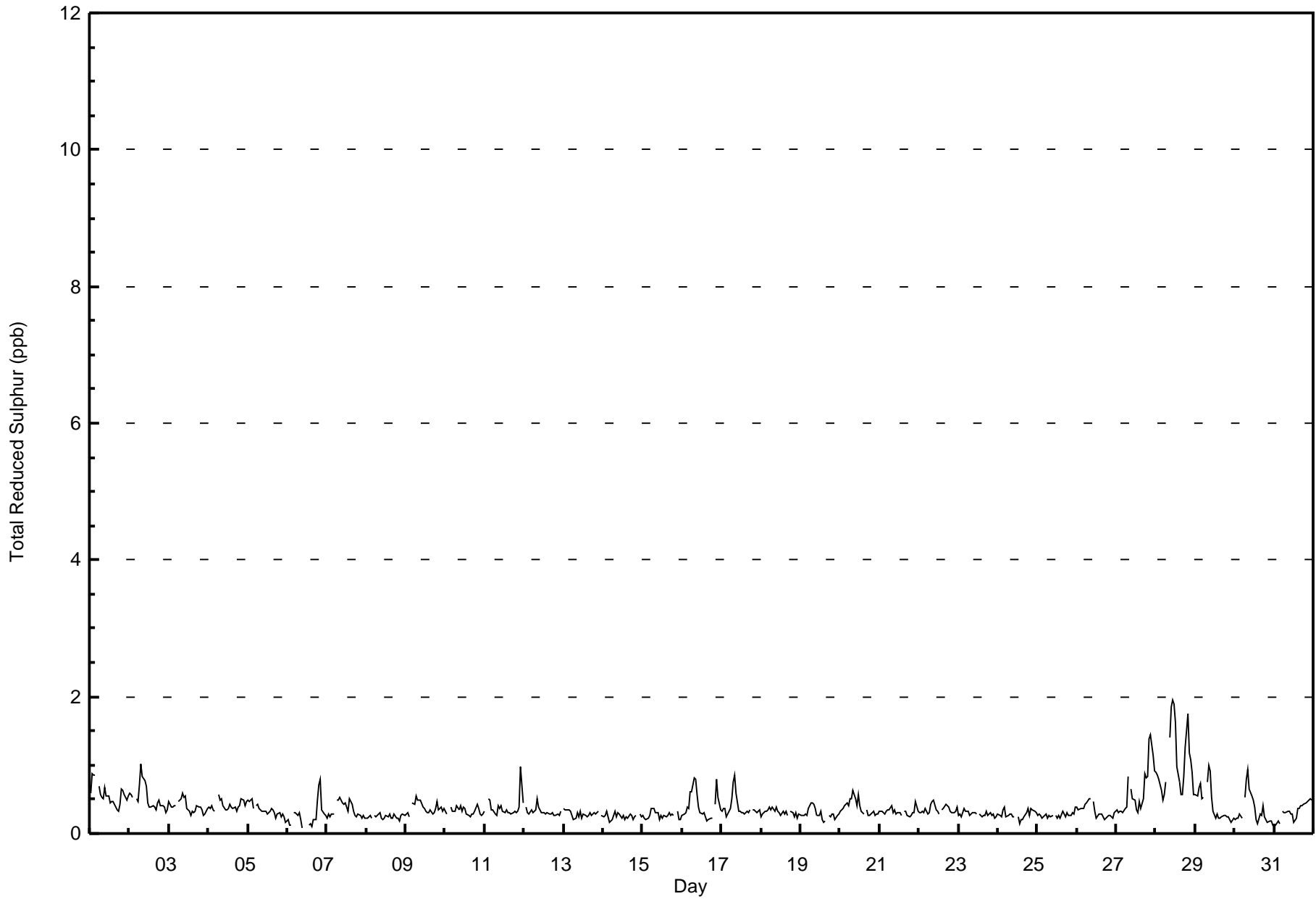
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	1	1	1	1	A	1	1	1	1	1	1	1	0	0	0	0	0	0	0	1	1	1	0	1	0.6	0.9
2-Oct	1	1	1	A	1	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	1.0
3-Oct	0	0	0	0	0	A	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6
4-Oct	0	0	0	0	0	A	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.4	0.6
5-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
6-Oct	0	0	0	A	0	0	0	0	0	0	C	C	A	0	0	0	0	0	0	1	1	0	0	0	0.3	0.8
7-Oct	0	0	0	0	0	A	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.3	0.5
8-Oct	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
9-Oct	0	0	0	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5
10-Oct	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	0.4
11-Oct	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.4	1.0
12-Oct	A	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
13-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.3	0.4
14-Oct	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	0.3
15-Oct	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
16-Oct	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	A	0	1	1	0	0.4	0.8
17-Oct	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.4	0.9
18-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.3	0.4
19-Oct	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	0.5
20-Oct	0	0	0	0	0	0	1	1	0	0	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0.4	0.6
21-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.3	0.5
22-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.4	0.5
23-Oct	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
24-Oct	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
25-Oct	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
26-Oct	0	0	0	0	0	0	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
27-Oct	0	0	0	0	0	0	0	1	A	1	1	0	0	0	0	0	1	1	1	1	1	1	1	1	0.6	1.4
28-Oct	1	1	1	1	0	1	1	A	1	2	2	2	2	1	1	1	1	1	1	2	1	1	1	1	1.0	2.0
29-Oct	1	1	1	1	1	1	A	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.0
30-Oct	0	0	0	0	0	A	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.9
31-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.3	0.5

0.3	0.4	0.4	0.4	0.3	0.4	0.4	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.3	Diurnal Average
0.9	0.9	0.9	0.9	0.5	0.7	0.8	1.0	1.4	1.8	2.0	1.9	1.6	1.0	0.8	0.6	0.6	0.9	1.3	1.8	1.4	1.4	1.1	0.9	Diurnal Maximum	

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



# Hourly Averages for TRS at Henry Pirker October 2008



**Peace Airshed Zone Association  
Summary of Hourly Maximums**

**Henry Pirker - Total Reduced Sulphur (TRS) - ppb  
October 1, 2008 to November 1, 2008**

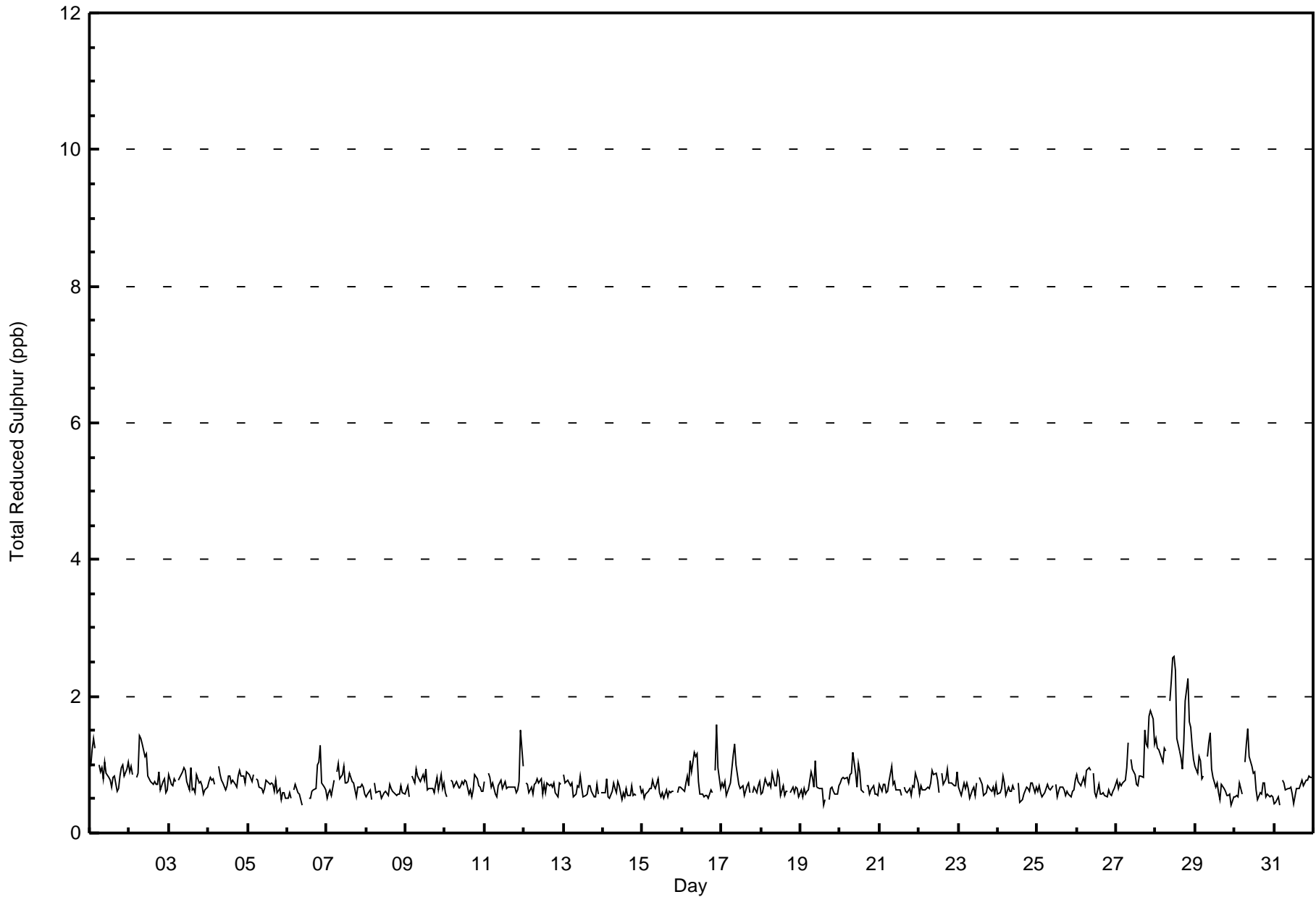
Maximum Value: 2.6 ppb on Oct 28 12:00	Maximum Daily Average: 1.6 ppb on Oct 28	Hours in Service: 744
Minimum Value: 0 ppb on Oct 6 10:00	Minimum Daily Average: 0.6 ppb on Oct 8	Hours of Data: 709
Maximum Diurnal Average: 0.9 ppb at hour 10	Minimum Diurnal Average: 0.7 ppb at hour 17	Hours of Missing Data: 35
Monthly Average: 0.75 ppb	Percentiles: P <sub>1</sub> = 0.4 P <sub>10</sub> = 0.5 Q <sub>1</sub> = 0.6 Median = 0.7 Q <sub>3</sub> = 0.8 P <sub>90</sub> = 1.0 P <sub>99</sub> = 1.9	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-Oct	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	1.4
2-Oct	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	1.4
3-Oct	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0
4-Oct	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0
5-Oct	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0.7	0.9
6-Oct	1	1	1	A	1	1	1	0	0	C	C	A	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.3
7-Oct	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0
8-Oct	1	1	1	0	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.7
9-Oct	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
10-Oct	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
11-Oct	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.5
12-Oct	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.8
13-Oct	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
14-Oct	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	A	1	1	0.6	0.8
15-Oct	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	0.8
16-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	2	1	1	0.8	1.6
17-Oct	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	1.3
18-Oct	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
19-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	A	0	1	1	1	1	1	1	1	0.6	1.1
20-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.7	1.2
21-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.7	1.0
22-Oct	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
23-Oct	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.6	0.8
24-Oct	1	1	1	1	1	1	1	1	1	1	1	A	1	0	0	0	1	1	1	1	1	1	1	1	0.6	0.8
25-Oct	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.8
26-Oct	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0
27-Oct	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	2	2	2	1	1.0	1.8
28-Oct	1	1	1	1	1	1	1	A	2	2	3	3	2	1	1	1	1	1	2	2	2	2	1	1	1.6	2.6
29-Oct	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0	1	0.8	1.5
30-Oct	1	1	1	1	1	A	1	1	2	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0.7	1.5
31-Oct	0	0	1	0	A	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0.7	0.8

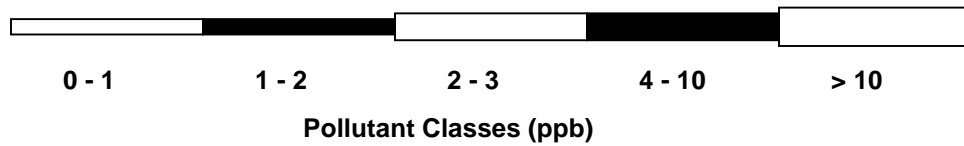
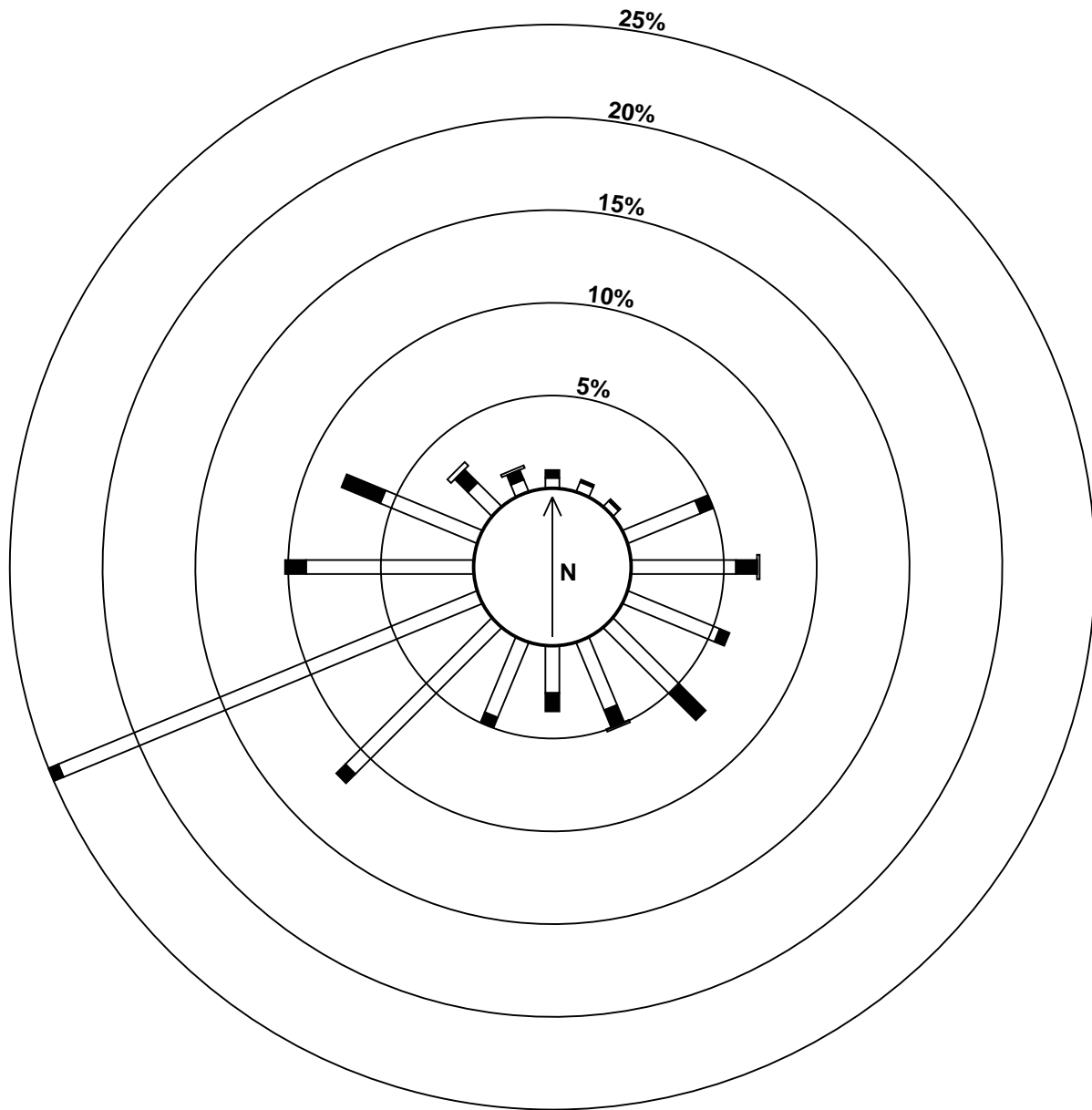
0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.9	0.9	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.7	0.7	Diurnal Average
1.4	1.2	1.4	1.2	1.0	1.2	1.4	1.4	1.9	2.2	2.6	2.6	2.4	1.4	1.2	1.1	0.9	1.5	1.9	2.3	1.7	1.8	1.7	1.3	Diurnal Maximum	

C - Calibration                      A - Automated Daily Zero Span

# Hourly Maximums for TRS at Henry Pirker October 2008



# Pollutant Rose for TRS at Henry Pirker October 2008



**Peace Airshed Zone Association  
Summary of Hourly Averages**

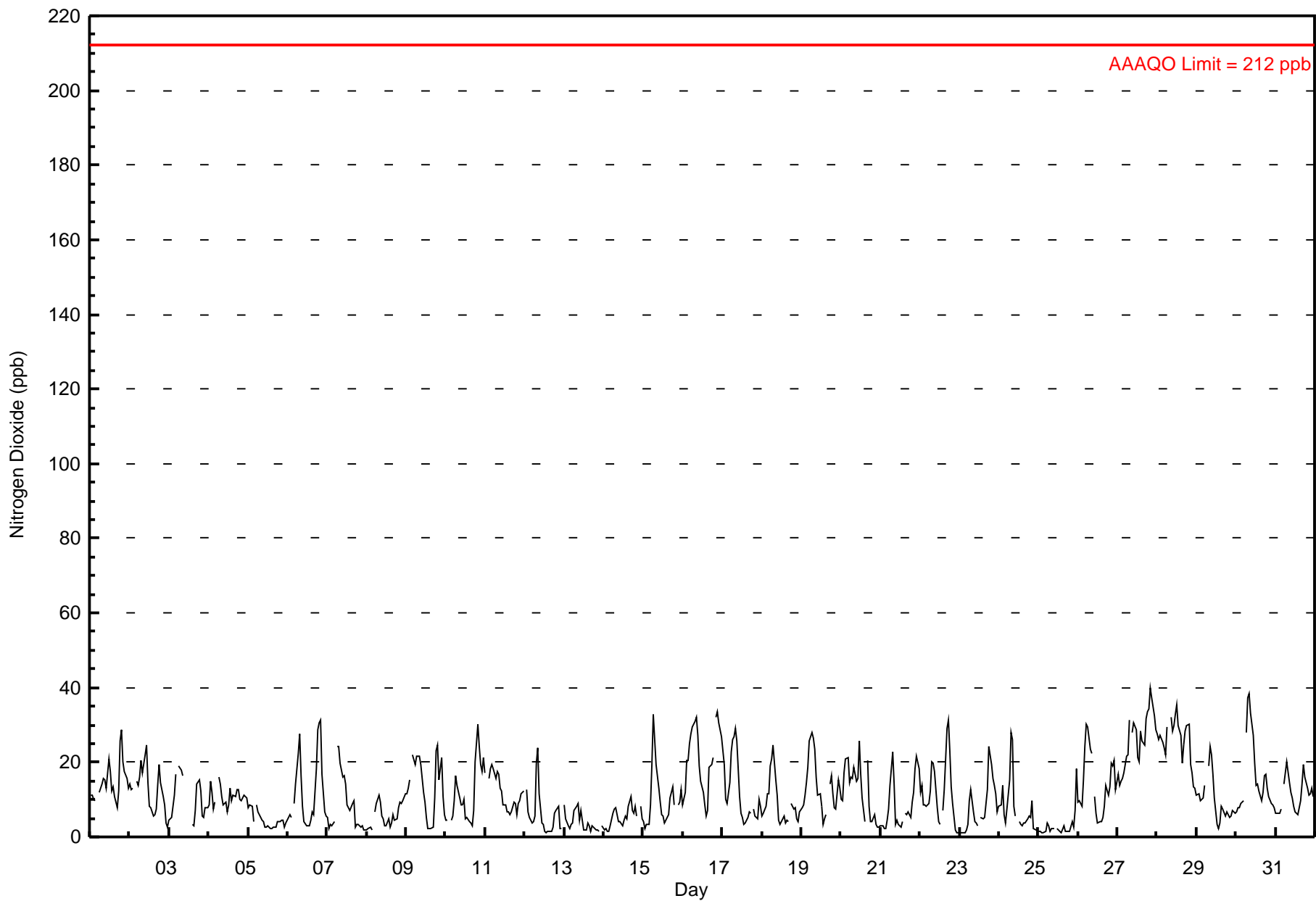
**Henry Pirker - Nitrogen Dioxide (NO<sub>2</sub>) - ppb  
October 1, 2008 to November 1, 2008**

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 39.8 ppb on Oct 27 21:00	Maximum Daily Average: 26.0 ppb on Oct 27
Minimum Value: 1 ppb on Oct 25 03:00	Hours of Data: 707
Maximum Diurnal Average: 19.7 ppb at hour 8	Hours of Missing Data: 37
Monthly Average: 11.40 ppb	Hours of Calibration: 37
Minimum Daily Average: 2.9 ppb on Oct 25	Percent Operational Time: 100.0
Minimum Diurnal Average: 6.6 ppb at hour 15	
Percentiles: P <sub>1</sub> = 1.2 P <sub>10</sub> = 2.7 Q <sub>1</sub> = 4.8 Median = 9.0 Q <sub>3</sub> = 16.1 P <sub>90</sub> = 24.4 P <sub>99</sub> = 33.2	

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-Oct	11	11	10	10	A	12	13	14	16	15	13	21	18	12	13	11	8	12	26	29	20	17	16	13	14.9	28.6
2-Oct	14	13	13	A	15	14	16	21	17	22	25	15	8	8	6	6	8	14	19	15	11	9	4	3	12.7	24.6
3-Oct	4	5	8	11	17	A	19	18	16	C	C	C	C	C	3	3	7	14	15	12	6	5	8	8	10.0	19.0
4-Oct	9	15	12	7	9	A	16	14	11	9	9	7	9	13	10	11	11	13	13	10	10	11	11	11	10.8	16.1
5-Oct	8	9	8	4	A	8	7	6	5	4	3	2	3	2	2	2	3	2	4	4	4	4	3	4	4.4	8.5
6-Oct	5	6	5	A	9	14	22	28	16	8	4	3	3	3	5	7	6	18	29	31	31	17	7	6	12.3	31.4
7-Oct	5	2	3	3	4	A	24	24	20	16	16	14	8	8	7	9	10	3	3	3	3	3	2	2	8.4	24.3
8-Oct	2	2	3	2	A	7	9	11	10	6	5	3	3	5	3	4	6	5	5	8	9	9	10	12	5.9	11.7
9-Oct	12	13	15	A	22	19	22	22	22	19	12	9	5	2	2	2	3	10	23	25	15	21	11	6	13.6	24.6
10-Oct	4	4	A	5	6	10	16	14	11	8	9	10	5	5	4	4	3	7	20	30	24	19	18	21	11.2	30.2
11-Oct	17	A	16	18	19	18	16	18	17	13	12	8	8	7	7	6	7	9	9	6	9	10	11	12	11.9	19.4
12-Oct	A	13	7	5	4	4	6	20	24	12	4	3	1	1	1	2	1	3	6	7	8	2	2	A	6.2	23.8
13-Oct	9	5	3	2	3	4	7	8	9	4	7	4	2	2	4	3	1	3	2	2	2	1	A	3	4.0	9.1
14-Oct	2	2	1	1	3	6	8	8	6	4	4	3	5	6	5	8	11	7	7	8	6	A	8	5	5.4	11.0
15-Oct	4	2	3	3	8	20	33	26	19	13	9	6	6	4	5	6	10	12	13	8	A	9	9	13	10.6	32.7
16-Oct	9	12	21	21	25	27	30	31	32	27	19	15	12	9	6	7	19	19	21	A	32	33	31	27	21.0	33.4
17-Oct	23	19	10	9	14	23	26	27	29	26	11	6	5	3	4	5	7	6	A	7	6	5	10	8	12.6	29.2
18-Oct	5	6	8	12	12	19	21	25	15	11	4	3	4	6	4	5	4	A	9	7	8	5	4	7	8.9	24.6
19-Oct	8	9	11	15	19	26	28	27	23	16	11	12	8	3	5	6	A	14	16	11	8	7	15	13	13.5	27.9
20-Oct	10	10	17	21	21	15	16	16	19	15	16	26	17	10	4	A	21	8	4	4	6	3	3	3	12.3	25.8
21-Oct	3	3	2	2	5	7	14	23	14	4	4	3	3	4	A	6	6	7	5	9	12	18	22	18	8.5	22.7
22-Oct	12	14	8	9	8	9	12	20	20	17	8	4	3	A	7	13	29	31	23	14	9	2	1	1	12.0	31.5
23-Oct	1	1	1	1	2	4	10	13	7	4	4	3	A	5	5	5	9	13	24	19	16	14	11	7	7.7	24.1
24-Oct	8	8	14	6	4	8	15	28	26	8	6	A	4	3	3	4	4	5	6	5	10	2	2	1	7.8	27.9
25-Oct	1	1	1	1	2	4	3	2	2	2	A	2	2	2	1	3	1	1	1	1	4	3	7	18	2.9	18.1
26-Oct	9	10	8	15	24	30	29	24	22	A	11	6	4	4	4	5	8	14	11	14	20	19	21	13	14.1	30.2
27-Oct	17	14	15	16	17	22	22	31	A	28	31	29	21	20	28	26	25	32	34	34	40	37	32	29	26.0	39.8
28-Oct	28	26	27	26	24	22	30	A	32	28	30	33	36	30	27	20	24	28	30	30	19	17	13	13	25.8	35.5
29-Oct	11	11	10	10	10	14	A	19	24	22	17	10	3	2	4	8	8	6	7	6	5	6	7	6	9.8	24.1
30-Oct	7	8	8	9	10	A	28	37	38	33	27	20	14	14	12	10	12	16	17	13	11	9	8	8	16.1	38.4
31-Oct	6	7	7	8	A	14	17	20	15	12	10	8	7	6	8	10	14	19	16	13	11	11	13	11	11.4	20.3
	8.8	8.7	9.2	9.0	11.7	14.0	17.8	19.7	17.9	14.1	11.7	10.0	7.8	6.9	6.6	7.2	9.5	11.7	14.0	12.9	12.5	11.0	10.6	10.0	Diurnal Average	
	27.8	26.2	27.2	25.5	24.9	30.2	32.7	37.1	38.4	33.2	30.7	32.8	35.5	29.7	28.2	25.7	29.2	31.6	33.7	34.5	39.8	37.3	32.3	28.7	Diurnal Maximum	

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

# Hourly Averages for NO<sub>2</sub> at Henry Pirker October 2008



**Peace Airshed Zone Association  
Summary of Hourly Maximums**

**Henry Pirker - Nitrogen Dioxide (NO<sub>2</sub>) - ppb  
October 1, 2008 to November 1, 2008**

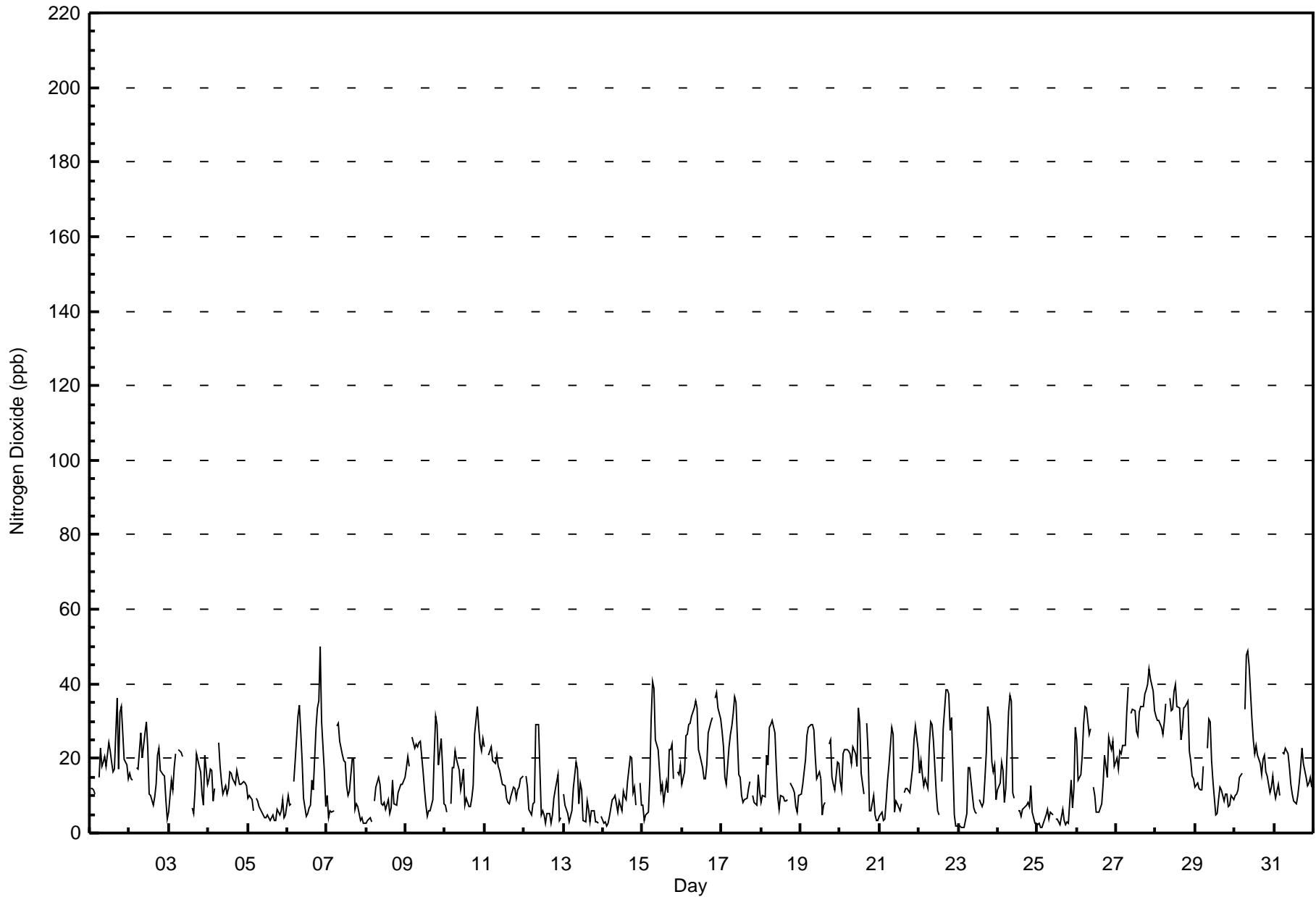
Maximum Value: 50.0 ppb on Oct 6 21:00	Maximum Daily Average: 31.4 ppb on Oct 27	Hours in Service: 744
Minimum Value: 2 ppb on Oct 23 03:00	Minimum Daily Average: 5.5 ppb on Oct 25	Hours of Data: 707
Maximum Diurnal Average: 25.0 ppb at hour 8	Minimum Diurnal Average: 10.4 ppb at hour 14	Hours of Missing Data: 37
Monthly Average: 15.78 ppb	Percentiles: P <sub>1</sub> = 2.0 P <sub>10</sub> = 4.8 Q <sub>1</sub> = 8.0 Median = 13.7 Q <sub>3</sub> = 22.0 P <sub>90</sub> = 30.2 P <sub>99</sub> = 40.5	Hours of Calibration: 37
		Percent Operational Time: 100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	12	12	12	11	A	15	23	18	19	20	18	24	22	19	16	17	36	17	32	34	27	20	18	15		
2-Oct	16	15	14	A	18	17	22	27	20	27	30	23	11	10	8	10	13	21	23	17	16	15	9	4		
3-Oct	6	14	12	18	21	A	23	22	21	C	C	C	C	C	7	5	11	21	18	16	11	8	21	13		
4-Oct	15	17	17	9	12	A	24	18	14	10	13	11	12	16	16	14	13	17	15	13	13	14	13	13		
5-Oct	9	10	9	6	A	9	8	7	5	5	4	4	5	3	4	5	3	3	6	5	6	9	4	5		
6-Oct	10	7	8	A	14	19	31	34	27	19	9	4	5	7	7	14	11	28	33	35	50	30	16	7		
7-Oct	10	4	6	6	6	A	29	29	24	21	19	19	12	10	11	20	20	6	8	7	4	4	3	3		
8-Oct	3	4	4	3	A	8	12	15	13	8	7	8	6	9	5	7	14	8	7	11	12	13	13	15		
9-Oct	18	20	18	A	26	23	24	23	24	25	16	11	7	4	6	6	9	21	31	29	18	25	17	8		
10-Oct	7	5	A	8	18	17	22	20	17	11	14	17	7	9	7	7	9	13	26	34	28	24	22	25		
11-Oct	23	A	21	22	23	19	18	21	18	17	15	13	13	9	8	8	10	12	12	9	12	12	14	15		
12-Oct	A	15	12	6	5	8	8	29	29	29	5	6	5	2	5	5	2	5	9	12	15	3	4	A		
13-Oct	10	7	5	3	4	6	12	19	17	8	13	11	4	3	8	6	3	6	6	3	3	3	A	5		
14-Oct	3	3	2	3	5	9	10	10	8	5	8	6	11	10	9	14	21	20	11	12	7	A	13	7		
15-Oct	8	4	5	5	14	30	41	39	25	22	17	11	13	8	14	11	22	22	24	15	A	16	16	18		
16-Oct	13	16	26	26	29	29	31	34	35	33	22	21	18	15	15	18	27	30	31	A	36	38	33	31		
17-Oct	27	23	15	13	23	26	29	32	36	35	16	15	10	8	9	9	12	14	A	10	8	7	15	11		
18-Oct	8	10	10	21	18	28	29	30	27	18	10	6	10	10	8	8	9	A	13	12	11	7	5	10		
19-Oct	10	13	16	20	26	28	29	29	28	20	14	16	14	5	7	8	A	24	25	15	13	11	19	19		
20-Oct	14	11	21	22	22	22	21	18	23	21	18	34	29	16	11	A	29	21	6	6	10	5	4	4		
21-Oct	5	5	4	4	9	14	18	28	27	6	9	8	6	8	A	11	12	12	11	14	18	25	29	22		
22-Oct	16	19	16	13	14	12	23	30	29	24	11	6	5	A	14	28	38	38	37	28	31	5	2	2		
23-Oct	2	2	2	2	3	5	18	18	10	7	6	5	A	9	7	8	14	22	34	29	19	16	18	9		
24-Oct	12	14	19	17	8	12	33	37	35	11	9	A	6	6	5	6	7	7	8	7	13	6	3	3		
25-Oct	2	3	2	2	4	5	6	4	5	5	A	4	4	3	2	6	3	2	3	3	14	7	12	28		
26-Oct	25	14	16	21	29	34	33	26	28	A	12	10	5	5	7	8	13	21	15	26	24	22	24	18		
27-Oct	20	17	22	21	23	23	33	39	A	32	33	33	27	26	32	34	34	37	38	40	44	41	38	33		
28-Oct	31	30	30	29	26	30	35	A	36	33	33	38	40	34	34	25	28	34	34	36	22	19	15	14		
29-Oct	12	13	12	11	12	18	A	23	31	30	19	14	5	5	9	12	11	9	10	10	7	7	10	9		
30-Oct	10	10	11	15	16	A	33	48	49	45	30	25	21	23	21	19	16	20	21	16	15	11	12	15		
31-Oct	12	9	13	10	A	22	21	23	21	17	13	10	8	8	10	13	17	23	18	15	13	13	15	12		
12.3 11.7 12.6 12.4 15.9 18.2 23.3 25.0 23.4 19.5 15.4 14.3 11.8 10.4 10.7 12.1 15.7 17.8 19.0 17.3 17.3 14.6 14.7 13.1																								Diurnal Average		
31.2 30.2 30.3 28.5 29.3 33.8 40.8 47.6 48.9 44.9 33.2 38.1 39.8 33.8 33.6 33.9 38.5 38.4 38.4 39.8 50.0 41.3 38.0 32.7																								Diurnal Maximum		

C - Calibration                      A - Automated Daily Zero Span

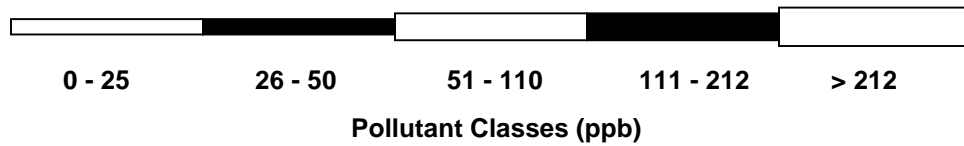
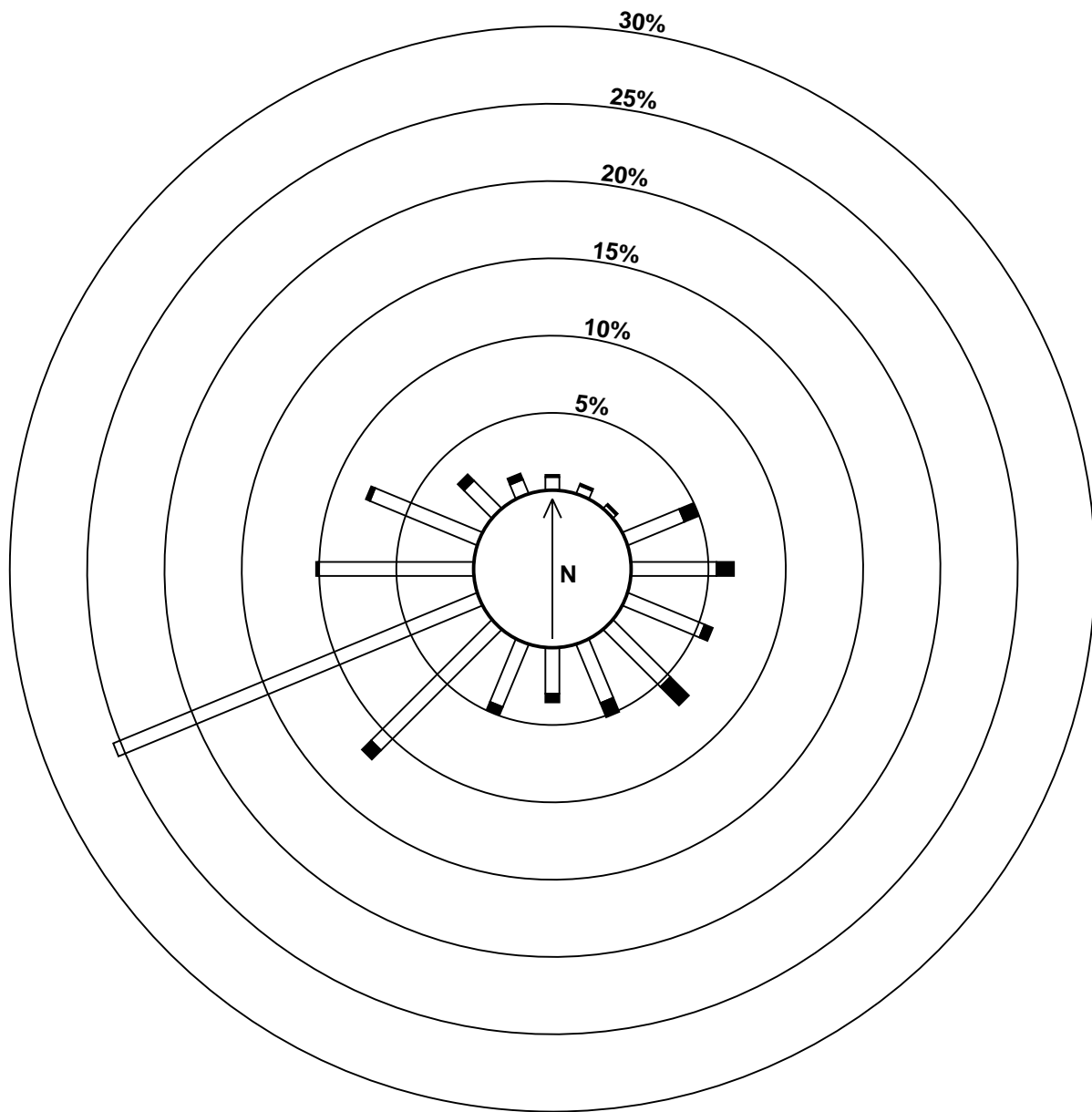
# Hourly Maximums for NO<sub>2</sub> at Henry Pirker

## October 2008





# Pollutant Rose for NO<sub>2</sub> at Henry Pirker October 2008



**Peace Airshed Zone Association  
Summary of Hourly Averages**

**Henry Pirker - Nitrogen Oxide (NO) - ppb  
October 1, 2008 to November 1, 2008**

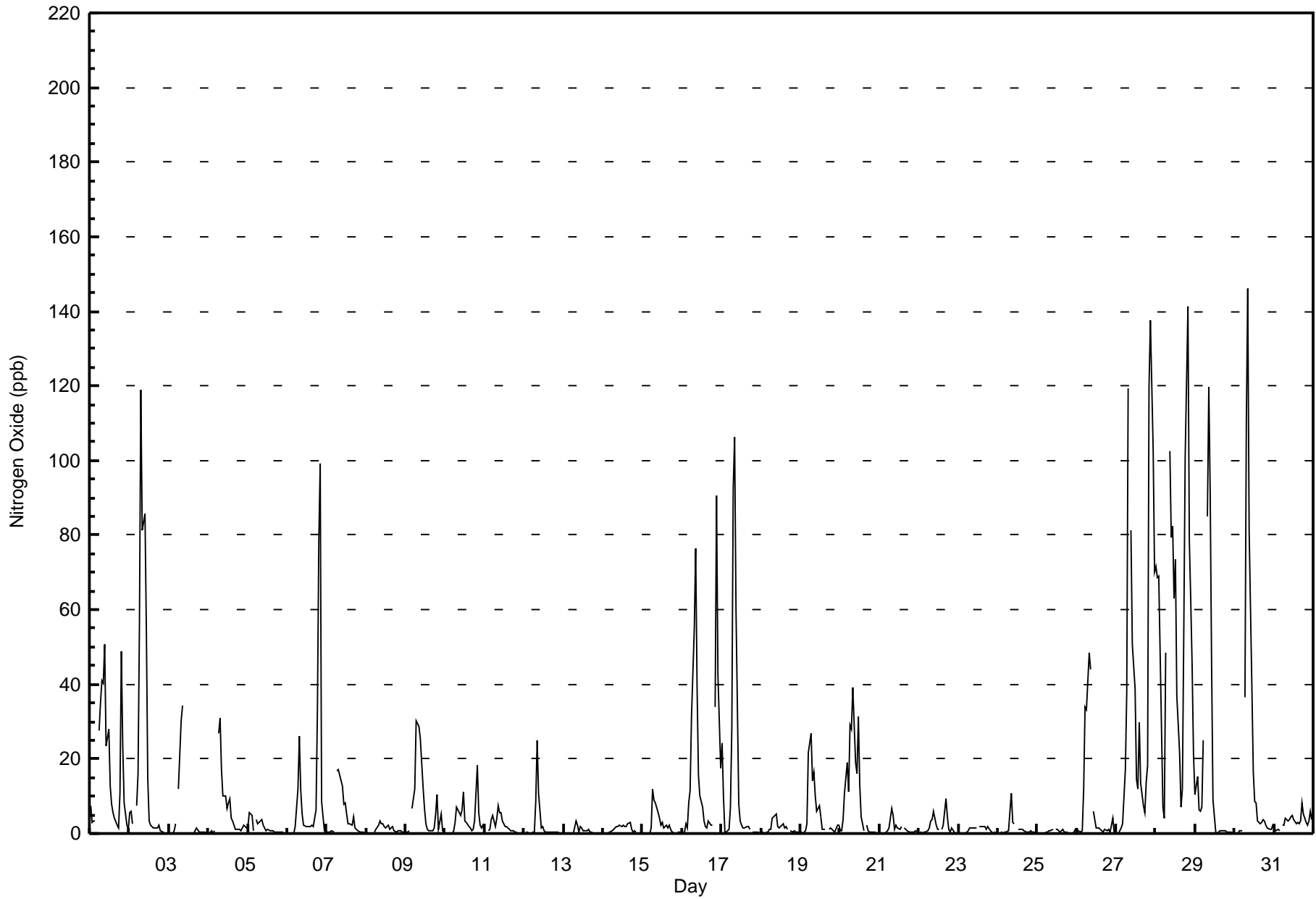
Maximum Value: 146.3 ppb on Oct 30 09:00	Maximum Daily Average: 55.6 ppb on Oct 28	Hours in Service: 744
Minimum Value: 0 ppb on Oct 2 23:00	Minimum Daily Average: 0.5 ppb on Oct 25	Hours of Data: 707
Maximum Diurnal Average: 32.2 ppb at hour 9	Minimum Diurnal Average: 2.1 ppb at hour 4	Hours of Missing Data: 37
Monthly Average: 9.46 ppb	Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.1 Q <sub>1</sub> = 0.5 Median = 1.5 Q <sub>3</sub> = 5.8 P <sub>90</sub> = 28.6 P <sub>99</sub> = 118.5	Hours of Calibration: 37
		Percent Operational Time: 100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	8	3	3	3	A	27	35	41	40	51	24	28	13	8	6	4	2	2	11	49	24	8	2	1	17.0	50.8
2-Oct	5	6	3	A	7	16	56	119	81	86	54	14	4	2	2	1	2	2	2	1	0	0	0	0	20.1	118.8
3-Oct	0	0	0	1	2	A	12	30	34	C	C	C	C	C	0	0	1	1	0	1	0	0	0	0	4.7	34.4
4-Oct	0	0	1	0	1	A	27	31	17	10	10	7	8	9	4	3	1	1	1	1	1	2	2	2	6.1	30.9
5-Oct	2	6	5	1	A	4	3	3	4	2	1	1	1	1	1	1	1	0	0	0	0	0	0	0	1.6	5.6
6-Oct	0	0	0	A	0	2	12	26	12	5	2	2	2	2	2	2	2	6	33	79	99	8	1	1	12.9	99.2
7-Oct	0	0	0	1	0	A	17	17	16	13	8	8	5	3	3	2	4	1	1	1	0	0	0	0	4.4	17.2
8-Oct	0	0	0	0	A	1	1	2	3	3	3	2	2	2	1	1	2	1	1	1	1	1	0	0	1.2	3.3
9-Oct	0	0	1	A	7	12	30	29	29	25	12	7	3	1	1	1	1	2	5	10	1	5	1	0	8.0	30.4
10-Oct	0	0	A	0	0	1	3	7	6	5	6	11	3	3	2	1	1	1	3	18	6	2	1	2	3.6	18.4
11-Oct	1	A	1	1	4	5	2	4	7	6	5	3	2	2	1	1	1	1	0	0	0	0	0	0	2.1	7.4
12-Oct	A	0	0	0	0	0	0	9	25	11	2	2	1	1	1	0	0	0	0	0	0	0	0	0	2.4	25.0
13-Oct	0	0	0	0	0	0	0	3	2	1	2	2	1	1	1	1	0	0	0	0	0	0	0	0	0.6	3.5
14-Oct	0	0	0	0	0	1	1	2	2	2	2	2	2	2	2	3	3	1	1	1	0	A	0	0	1.1	3.1
15-Oct	0	0	0	0	0	2	12	9	8	6	4	2	3	1	2	2	2	1	1	0	A	0	0	0	2.4	11.8
16-Oct	0	1	2	1	8	11	31	55	76	40	16	10	7	3	2	2	3	2	2	A	34	90	42	17	19.9	90.5
17-Oct	24	10	0	0	1	7	28	92	106	60	8	3	2	1	2	2	2	1	A	1	1	0	0	0	15.3	106.2
18-Oct	0	0	0	0	0	1	1	4	5	5	2	2	2	2	2	2	1	A	1	0	1	1	0	0	1.5	5.4
19-Oct	0	0	0	1	3	22	27	14	17	10	6	8	4	1	1	1	A	1	2	1	1	0	2	2	5.4	26.9
20-Oct	1	1	4	11	19	11	29	28	39	19	16	31	13	4	1	A	2	1	0	0	0	0	0	0	10.1	39.0
21-Oct	0	0	0	0	0	1	2	7	5	1	2	2	1	2	A	2	1	1	0	0	1	0	1	0	1.2	6.7
22-Oct	0	0	0	0	1	1	1	3	4	6	2	1	1	A	1	2	10	5	1	1	1	0	0	0	1.8	9.5
23-Oct	0	0	0	0	0	0	1	2	1	1	2	1	A	2	2	2	2	1	2	1	0	0	0	0	0.9	1.9
24-Oct	0	0	0	0	0	0	1	6	11	3	3	A	1	1	1	1	1	1	1	0	1	0	0	0	1.4	10.7
25-Oct	0	0	0	0	0	0	0	1	1	1	A	1	1	1	0	1	0	0	0	0	0	0	0	1	0.5	1.3
26-Oct	0	1	0	1	12	34	33	48	44	A	6	4	1	2	1	1	0	1	1	1	0	2	4	0	8.6	48.4
27-Oct	0	0	1	1	3	17	38	119	A	81	51	39	14	12	30	14	7	6	14	18	120	138	102	70	38.9	137.5
28-Oct	72	68	69	28	7	4	48	A	103	79	82	63	73	37	22	7	12	54	101	141	79	63	45	21	55.6	141.4
29-Oct	10	15	6	6	7	25	A	85	120	92	45	9	0	0	0	1	1	1	1	0	0	0	0	0	18.5	119.8
30-Oct	0	0	0	1	1	A	36	111	146	81	39	16	9	8	3	3	3	4	3	2	2	1	1	2	20.6	146.3
31-Oct	2	1	1	1	A	2	2	4	3	4	5	5	4	2	3	3	3	8	5	3	2	3	6	4	3.3	8.3
	4.2	3.8	3.3	2.1	3.1	7.7	16.4	30.4	32.2	24.4	14.5	9.8	6.3	4.0	3.3	2.2	2.4	3.6	6.5	11.1	12.5	11.0	7.2	4.2	Diurnal Average	
	71.6	68.5	69.0	28.0	19.1	34.1	55.5	119.4	146.3	91.5	82.4	63.0	73.3	37.0	30.0	13.5	12.0	53.9	100.6	141.4	119.5	137.5	102.5	69.9	Diurnal Maximum	

C - Calibration                      A - Automated Daily Zero Span

# Hourly Averages for NO at Henry Pirker

## October 2008



**Peace Airshed Zone Association  
Summary of Hourly Maximums**

**Henry Pirker - Nitrogen Oxide (NO) - ppb  
October 1, 2008 to November 1, 2008**

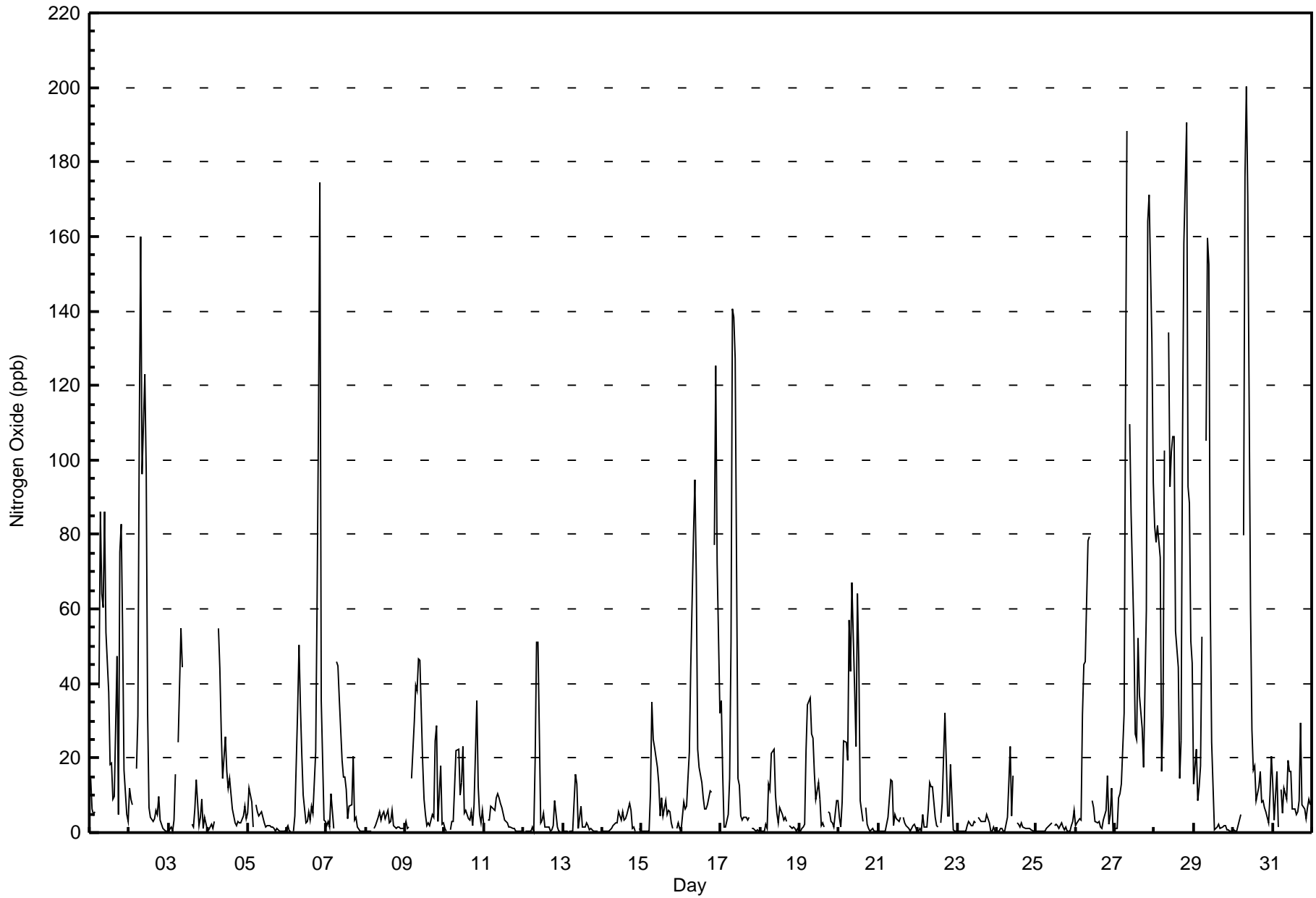
Maximum Value: 200.3 ppb on Oct 30 09:00	Maximum Daily Average: 81.5 ppb on Oct 28	Hours in Service: 744
Minimum Value: 0 ppb on Oct 13 04:00	Minimum Daily Average: 1.5 ppb on Oct 25	Hours of Data: 707
Maximum Diurnal Average: 49.2 ppb at hour 8	Minimum Diurnal Average: 5.6 ppb at hour 16	Hours of Missing Data: 37
Monthly Average: 17.00 ppb	Percentiles: P <sub>1</sub> = 0.4 P <sub>10</sub> = 0.5 Q <sub>1</sub> = 1.4 Median = 4.0 Q <sub>3</sub> = 14.7 P <sub>90</sub> = 51.2 P <sub>99</sub> = 170.6	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-Oct	14	6	5	5	A	39	86	64	60	86	54	38	18	19	9	10	47	5	75	83	55	17	5	3	34.9	86.0
2-Oct	12	9	7	A	17	31	108	160	96	123	97	32	7	4	3	4	6	5	10	3	1	1	0	0	32.0	160.1
3-Oct	0	2	0	3	16	A	24	55	45	C	C	C	C	C	2	1	6	14	2	4	9	1	4	1	10.6	54.7
4-Oct	1	1	2	1	3	A	55	44	27	15	26	17	12	15	11	6	2	2	3	3	3	4	7	4	11.4	54.8
5-Oct	5	12	8	1	A	8	6	5	6	4	3	1	2	2	2	1	1	1	1	1	1	1	1	1	3.1	12.1
6-Oct	2	1	1	A	1	5	33	50	34	21	10	3	3	6	3	7	5	22	62	110	174	36	4	3	25.8	174.4
7-Oct	2	3	1	10	1	A	46	45	36	19	15	15	12	4	7	8	21	4	4	1	1	1	1	1	11.1	46.0
8-Oct	0	1	1	1	A	1	2	4	6	4	5	6	4	6	2	3	6	2	1	1	1	1	1	1	2.5	6.0
9-Oct	3	1	1	A	15	30	39	38	46	46	19	9	5	2	2	2	5	4	25	29	3	18	2	3	15.1	46.4
10-Oct	1	1	A	1	3	3	12	22	22	10	13	23	5	6	4	3	6	2	8	36	12	5	3	6	9.0	35.6
11-Oct	2	A	3	3	7	7	6	9	11	10	8	7	3	3	3	1	1	1	1	0	0	0	0	0	3.9	10.5
12-Oct	A	0	0	0	0	1	1	20	51	51	2	3	5	1	1	1	1	1	2	9	1	1	0	A	7.1	51.2
13-Oct	0	0	0	0	0	0	0	16	13	1	4	7	1	1	2	2	1	1	1	1	1	1	A	0	2.4	15.5
14-Oct	1	1	1	0	1	1	2	2	3	3	6	4	6	4	4	5	8	6	1	1	1	A	1	1	2.5	7.8
15-Oct	1	1	1	0	0	10	35	25	23	18	13	5	9	4	9	5	6	6	2	1	A	1	2	1	7.7	35.1
16-Oct	0	8	6	7	15	22	44	80	95	69	22	17	13	9	6	6	7	11	11	A	77	125	72	32	32.9	125.3
17-Oct	36	16	1	1	5	15	51	141	138	127	14	13	4	3	4	4	4	4	A	1	1	1	1	1	25.4	140.8
18-Oct	1	1	1	2	1	13	11	21	22	10	5	3	7	5	4	4	3	A	2	1	2	1	1	1	5.2	22.3
19-Oct	1	1	2	2	22	34	36	26	25	16	9	14	9	2	2	2	A	6	5	3	2	2	9	9	10.3	36.2
20-Oct	4	2	8	25	24	19	57	43	67	38	23	64	46	9	3	A	7	2	1	1	1	1	1	1	19.3	67.0
21-Oct	1	1	1	1	1	2	4	14	14	2	5	4	3	4	A	4	3	2	1	1	1	2	2	1	3.0	14.0
22-Oct	1	1	1	5	1	2	6	13	12	12	4	2	2	A	3	8	32	19	4	4	18	1	1	1	6.6	31.9
23-Oct	1	0	1	1	1	1	2	3	2	2	3	3	A	4	3	3	3	3	5	3	1	1	1	1	1.9	4.8
24-Oct	1	1	1	1	1	1	4	13	23	4	15	A	3	2	2	2	2	1	1	1	1	1	1	1	3.5	23.2
25-Oct	1	1	1	1	1	1	1	1	2	2	A	2	2	2	1	2	1	1	1	0	0	2	3	6	1.5	5.8
26-Oct	2	3	4	3	32	45	46	78	79	A	9	7	3	3	3	2	1	3	6	15	2	5	12	0	15.7	79.3
27-Oct	1	1	9	10	13	32	115	188	A	110	86	54	27	25	52	37	28	17	39	60	164	171	132	94	63.8	188.3
28-Oct	82	78	82	74	16	31	103	A	134	93	102	106	106	54	44	15	24	103	158	191	93	88	51	46	81.5	190.7
29-Oct	13	22	8	12	18	53	A	105	160	153	63	24	1	1	1	2	1	1	2	2	1	1	0	0	28.0	159.6
30-Oct	1	0	0	2	5	A	80	176	200	171	60	28	17	18	9	12	16	8	9	7	5	3	10	20	37.3	200.3
31-Oct	13	3	17	2	A	11	5	12	9	20	17	16	6	7	5	5	8	29	8	7	4	7	9	7	9.8	29.5
	6.7	5.9	5.8	6.3	8.1	15.4	34.0	49.2	48.7	42.7	24.5	18.1	11.7	7.7	6.9	5.6	8.7	9.5	15.0	19.3	21.2	16.5	11.2	8.1	Diurnal Average	
	81.8	77.9	82.3	73.7	31.7	52.7	115.4	188.3	200.3	170.7	102.1	106.4	106.2	54.1	52.3	37.1	47.4	103.1	157.9	190.7	174.4	171.0	131.6	94.0	Diurnal Maximum	

C - Calibration                      A - Automated Daily Zero Span

# Hourly Maximums for NO at Henry Pirker

## October 2008



**Peace Airshed Zone Association  
Summary of Hourly Averages**

**Henry Pirker - Oxides of Nitrogen (NO<sub>x</sub>) - ppb  
October 1, 2008 to November 1, 2008**

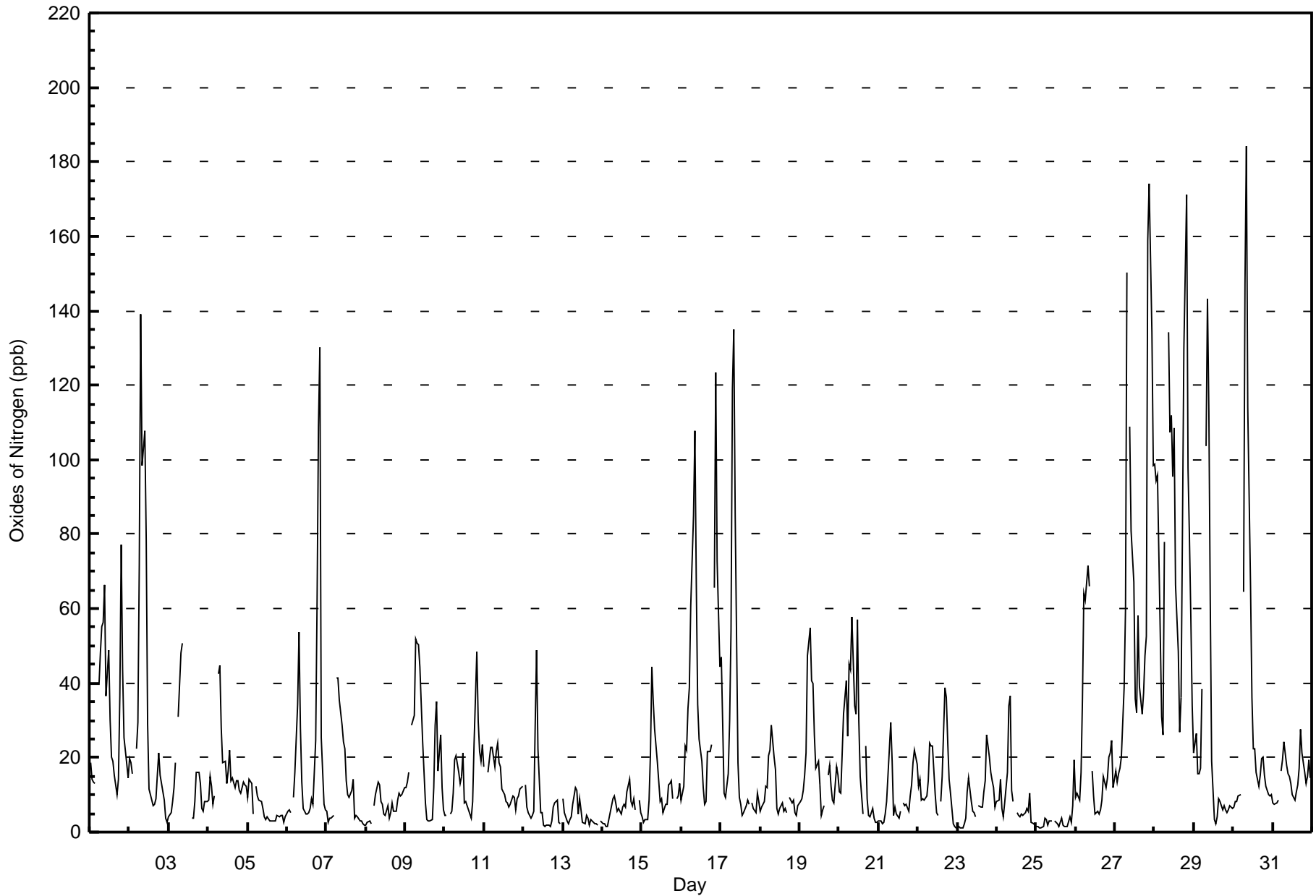
Maximum Value: 184.2 ppb on Oct 30 09:00	Maximum Daily Average: 81.1 ppb on Oct 28	Hours in Service: 744
Minimum Value: 1 ppb on Oct 25 04:00	Minimum Daily Average: 3.2 ppb on Oct 25	Hours of Data: 707
Maximum Diurnal Average: 50.0 ppb at hour 8	Minimum Diurnal Average: 9.3 ppb at hour 16	Hours of Missing Data: 37
Monthly Average: 20.80 ppb	Percentiles: P <sub>1</sub> = 1.4 P <sub>10</sub> = 3.1 Q <sub>1</sub> = 5.7 Median = 10.5 Q <sub>3</sub> = 22.0 P <sub>90</sub> = 50.6 P <sub>99</sub> = 140.8	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-Oct	19	14	14	13	A	40	48	55	56	66	37	49	30	20	19	15	10	14	36	77	44	25	18	14	31.9	77.4
2-Oct	20	19	16	A	22	30	72	139	99	108	78	29	11	10	7	7	9	15	21	15	11	9	4	2	32.7	139.3
3-Oct	4	5	8	12	19	A	31	48	51	C	C	C	C	C	4	4	8	16	16	13	6	6	8	8	14.8	50.7
4-Oct	8	15	12	7	10	A	43	45	28	18	19	13	17	22	14	15	12	14	14	11	10	13	13	12	16.7	44.9
5-Oct	9	14	13	5	A	12	10	9	8	6	4	3	4	3	3	3	3	3	4	4	5	5	3	4	6.0	14.1
6-Oct	5	6	5	A	9	16	34	54	28	13	6	5	5	5	6	9	8	25	62	109	130	25	8	6	25.2	130.3
7-Oct	6	3	4	4	4	A	41	41	35	29	24	23	14	10	9	11	14	4	4	4	3	3	2	2	12.8	41.3
8-Oct	2	2	3	2	A	7	10	13	13	8	8	5	4	7	4	5	8	5	5	9	10	10	10	12	7.1	13.4
9-Oct	12	13	16	A	29	31	52	51	50	44	24	16	8	3	3	3	3	12	29	35	16	26	12	6	21.5	51.8
10-Oct	5	5	A	5	6	10	19	21	16	13	15	21	8	8	6	5	4	8	23	49	30	22	19	23	14.8	48.5
11-Oct	18	A	16	19	23	23	17	22	24	19	17	11	10	8	8	7	7	10	9	6	9	10	11	12	13.8	23.9
12-Oct	A	13	7	5	4	4	6	28	49	22	5	5	2	2	2	2	2	3	7	8	9	3	2	A	8.5	48.7
13-Oct	9	5	3	2	3	4	7	12	11	5	9	6	3	2	5	4	2	3	3	2	2	2	A	3	4.7	11.8
14-Oct	2	2	2	1	3	7	9	10	8	6	6	5	7	7	7	11	14	8	7	9	6	A	9	5	6.6	14.1
15-Oct	4	3	3	3	9	21	45	35	28	19	13	8	9	5	7	7	13	13	14	9	A	9	10	13	13.0	44.5
16-Oct	9	12	23	22	33	39	61	85	108	67	34	25	19	12	7	8	22	22	23	A	66	123	73	44	40.8	123.5
17-Oct	47	29	10	9	16	30	54	119	135	85	19	9	7	5	5	7	9	7	A	8	6	5	10	8	27.9	135.0
18-Oct	6	7	8	12	12	20	22	29	20	17	6	5	6	8	5	6	5	A	9	8	8	5	4	7	10.4	28.7
19-Oct	8	9	11	15	21	47	55	41	40	26	17	19	13	4	6	7	A	15	18	12	9	8	18	15	18.9	54.8
20-Oct	11	10	21	32	41	26	45	44	58	34	32	57	30	15	5	A	23	9	4	4	6	4	3	3	22.4	57.7
21-Oct	3	3	2	3	5	8	15	29	19	5	7	5	4	6	A	8	7	7	6	10	13	19	22	18	9.7	29.3
22-Oct	12	14	9	9	9	10	14	24	23	10	5	4	A	8	15	39	36	24	14	10	2	1	1	1	13.8	38.8
23-Oct	1	1	1	1	2	4	11	14	8	5	5	4	A	7	7	7	11	14	26	20	16	14	12	7	8.6	26.0
24-Oct	8	9	14	6	4	8	16	34	37	11	8	A	5	5	4	5	5	5	6	6	10	3	2	1	9.2	36.7
25-Oct	1	1	1	1	2	4	3	2	3	3	A	3	3	2	1	4	2	1	1	1	4	3	7	19	3.2	19.4
26-Oct	9	10	9	16	36	64	62	72	66	A	17	10	5	6	5	6	9	15	12	15	20	21	25	12	22.6	71.7
27-Oct	17	13	16	17	20	39	60	150	A	109	81	67	36	32	58	39	32	37	47	53	159	174	134	98	64.7	174.2
28-Oct	99	94	96	53	31	26	78	A	134	108	112	95	109	66	48	27	36	82	130	171	98	79	58	34	81.1	171.0
29-Oct	21	27	16	16	17	38	A	104	143	113	62	19	3	2	4	9	8	6	7	6	5	6	7	6	28.1	143.2
30-Oct	7	8	8	10	10	A	64	147	184	114	66	36	22	22	16	12	15	20	20	15	12	10	10	10	36.6	184.2
31-Oct	8	7	8	8	A	16	19	24	18	16	15	13	10	8	11	13	17	28	21	16	13	15	19	15	14.7	27.7

13.0	12.5	12.5	11.1	14.8	21.7	34.1	50.0	50.0	38.4	26.1	19.7	14.1	10.8	9.8	9.3	11.8	15.3	20.4	24.0	24.9	21.9	17.8	14.2	Diurnal Average	
99.0	94.3	95.8	53.3	40.5	64.0	77.8	150.1	184.2	114.2	112.0	95.5	108.5	66.4	58.1	39.2	38.8	81.8	129.8	171.0	158.9	174.2	134.4	98.3	Diurnal Maximum	

C - Calibration                      A - Automated Daily Zero Span

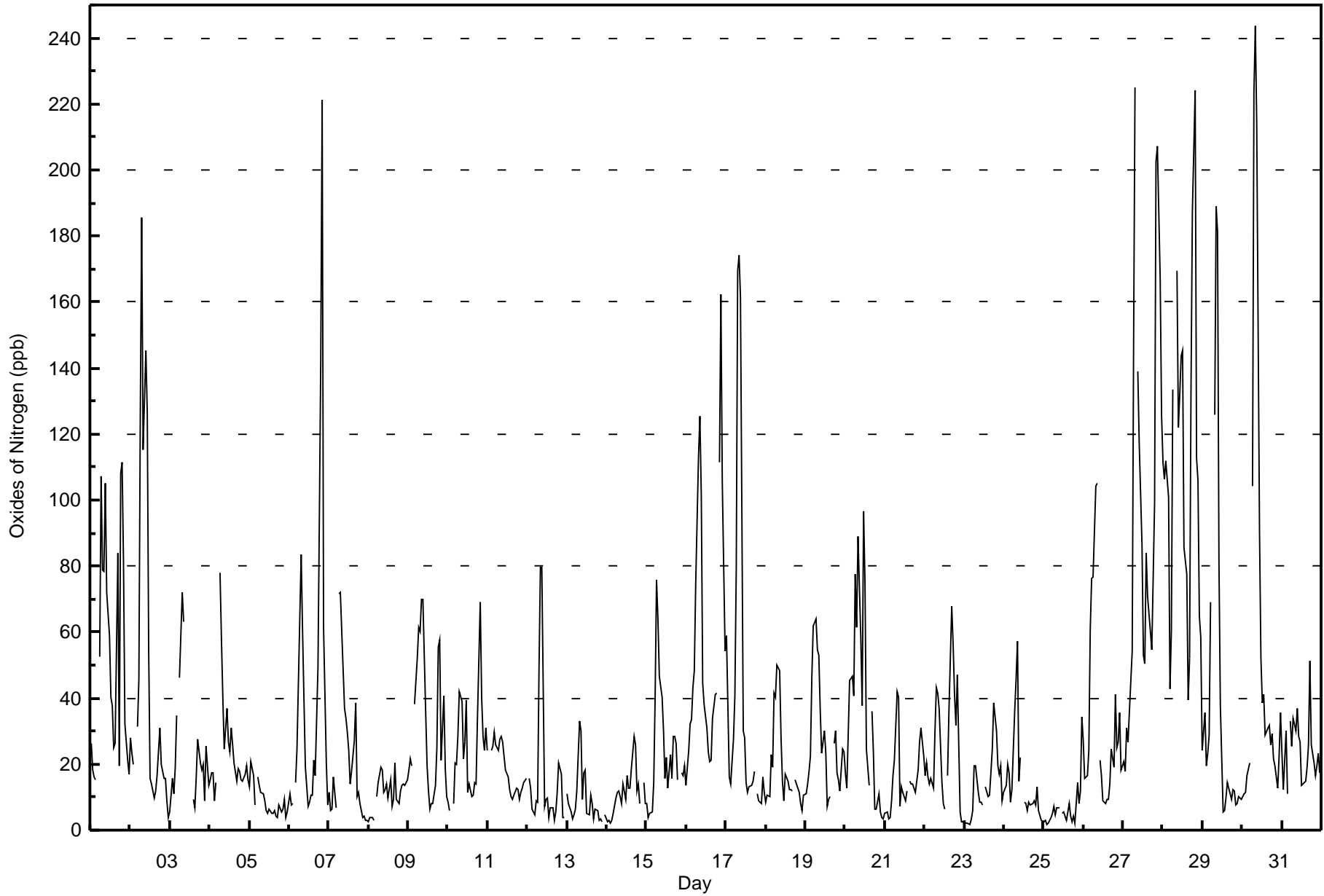
# Hourly Averages for NO<sub>x</sub> at Henry Pirker October 2008







# Hourly Maximums for NO<sub>x</sub> at Henry Pirker October 2008



**Peace Airshed Zone Association  
Summary of Hourly Averages**

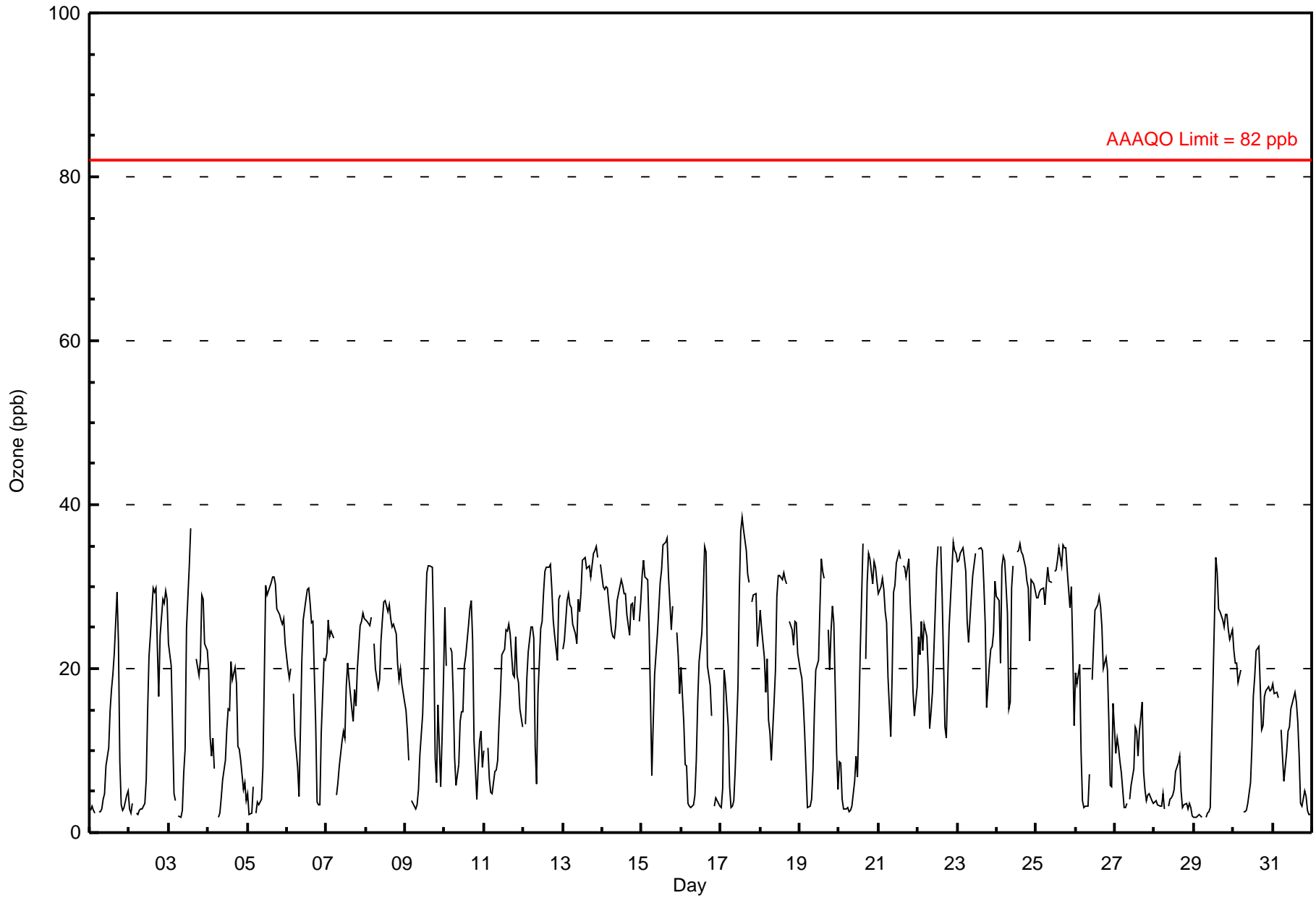
**Henry Pirker - Ozone (O<sub>3</sub>) - ppb  
October 1, 2008 to November 1, 2008**

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 38.4 ppb on Oct 17 14:00	Maximum Daily Average: 30.1 ppb on Oct 25
Minimum Value: 2 ppb on Oct 3 08:00	Hours of Data: 709
Maximum Diurnal Average: 28.0 ppb at hour 15	Hours of Missing Data: 35
Monthly Average: 18.85 ppb	Hours of Calibration: 35
Minimum Daily Average: 4.3 ppb on Oct 28	Percent Operational Time: 100.0
Minimum Diurnal Average: 8.8 ppb at hour 8	
Percentiles: P <sub>1</sub> = 2.1 P <sub>10</sub> = 3.3 Q <sub>1</sub> = 8.7 Median = 20.3 Q <sub>3</sub> = 28.2 P <sub>90</sub> = 32.3 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-Oct	3	3	3	2	A	3	3	3	4	5	8	10	15	17	19	22	29	23	9	3	3	3	5	5	8.7	29.4
2-Oct	3	2	4	A	2	2	3	3	3	4	6	15	22	24	30	29	30	23	17	24	29	28	30	28	15.6	29.9
3-Oct	23	20	13	5	4	A	2	2	3	7	10	25	32	37	C	C	C	21	19	21	29	29	23	22	17.4	37.1
4-Oct	20	12	9	11	8	A	2	2	4	6	9	12	15	15	21	19	20	18	11	10	9	5	6	4	10.8	20.8
5-Oct	5	2	2	6	A	2	4	3	4	8	19	30	29	30	31	31	31	30	27	27	26	25	26	23	18.4	31.2
6-Oct	20	19	20	A	17	12	8	4	12	21	26	28	30	30	28	26	26	13	4	3	3	12	21	21	17.6	29.8
7-Oct	22	26	24	25	24	A	5	6	8	11	12	12	18	21	19	15	14	18	15	20	25	26	27	26	18.1	26.7
8-Oct	26	26	25	26	A	23	20	18	19	23	26	28	28	27	28	26	25	26	24	20	19	20	18	16	23.3	28.3
9-Oct	15	12	9	A	4	3	3	3	5	10	14	20	26	32	33	33	32	24	9	6	16	6	12	19	15.0	32.6
10-Oct	27	20	A	23	22	17	9	6	8	13	15	15	20	21	25	27	28	23	11	4	8	11	12	8	16.4	28.3
11-Oct	10	A	10	7	5	5	8	8	9	13	17	22	22	25	25	26	24	19	19	24	19	18	15	13	15.7	25.5
12-Oct	A	13	19	22	25	25	24	11	6	17	25	26	29	32	32	32	33	30	26	24	21	28	29	A	24.0	32.6
13-Oct	22	23	28	29	28	27	25	24	23	28	27	29	33	34	32	32	32	31	34	34	35	34	A	33	29.6	35.0
14-Oct	30	30	30	30	28	25	24	24	25	28	29	31	30	29	29	27	24	28	28	26	29	A	26	28	27.7	30.8
15-Oct	31	33	31	31	25	16	7	13	19	24	27	31	32	35	35	36	31	28	25	28	A	24	22	17	26.2	35.9
16-Oct	20	13	8	8	3	3	3	3	5	9	16	21	24	29	35	34	20	18	14	A	3	4	4	3	13.2	34.9
17-Oct	3	5	20	18	13	6	3	3	4	8	18	30	37	38	37	34	32	30	A	28	29	29	23	25	20.5	38.4
18-Oct	27	25	21	17	21	14	12	9	16	20	29	31	31	31	32	31	30	A	26	25	23	26	26	22	23.6	31.8
19-Oct	20	19	16	12	8	3	3	4	8	14	20	21	27	33	32	31	A	25	20	25	28	26	10	5	17.8	33.4
20-Oct	9	8	4	3	3	3	3	3	3	6	9	7	14	22	35	A	21	31	34	33	30	33	32	31	16.4	35.2
21-Oct	29	30	31	30	27	26	19	12	19	29	30	33	34	33	A	33	32	31	33	28	24	17	14	18	26.7	34.2
22-Oct	24	22	26	22	25	24	20	13	15	17	27	32	35	A	35	29	13	12	19	25	28	35	34	34	24.6	35.4
23-Oct	33	33	34	35	33	32	26	23	29	31	33	34	A	35	35	34	30	25	15	21	22	23	24	31	29.2	34.8
24-Oct	29	28	21	32	34	33	27	15	16	30	33	A	34	34	35	34	34	32	31	30	23	31	30	29	29.4	35.3
25-Oct	29	29	29	30	30	28	30	32	31	30	A	32	32	33	35	33	35	35	35	32	27	30	22	13	30.1	35.0
26-Oct	20	18	20	10	4	3	3	3	7	A	19	23	27	28	29	28	25	20	21	20	14	6	6	16	16.0	28.8
27-Oct	10	12	10	9	7	3	3	4	A	4	6	8	13	12	9	12	16	7	5	4	5	5	4	3	7.4	16.0
28-Oct	4	4	3	3	3	5	3	A	3	4	4	5	5	8	8	9	5	3	3	4	3	4	3	2	4.3	9.3
29-Oct	2	2	2	2	2	2	A	2	2	3	3	11	26	34	32	27	27	26	25	27	27	25	24	25	15.5	33.6
30-Oct	22	21	21	18	20	A	2	3	3	4	6	11	17	19	22	23	18	13	13	17	17	18	17	17	14.8	22.7
31-Oct	18	17	17	16	A	13	9	6	10	12	13	15	16	17	16	14	9	4	3	5	4	3	2	2	10.5	18.1
	18.5	17.6	17.0	17.2	15.8	13.2	10.4	8.8	10.8	14.7	17.9	21.5	25.2	27.2	28.0	27.1	25.1	22.2	19.2	19.9	19.3	19.4	18.2	18.0		Diurnal Average
	33.1	33.2	34.1	34.8	33.7	33.2	30.3	32.4	30.7	31.4	32.8	34.1	36.7	38.4	36.9	35.9	35.0	34.7	34.7	34.4	35.0	35.4	34.4	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 Averages for O<sub>3</sub> at Henry Pirker October 2008



**Peace Airshed Zone Association  
Summary of Hourly Maximums**

**Henry Pirker - Ozone (O<sub>3</sub>) - ppb  
October 1, 2008 to November 1, 2008**

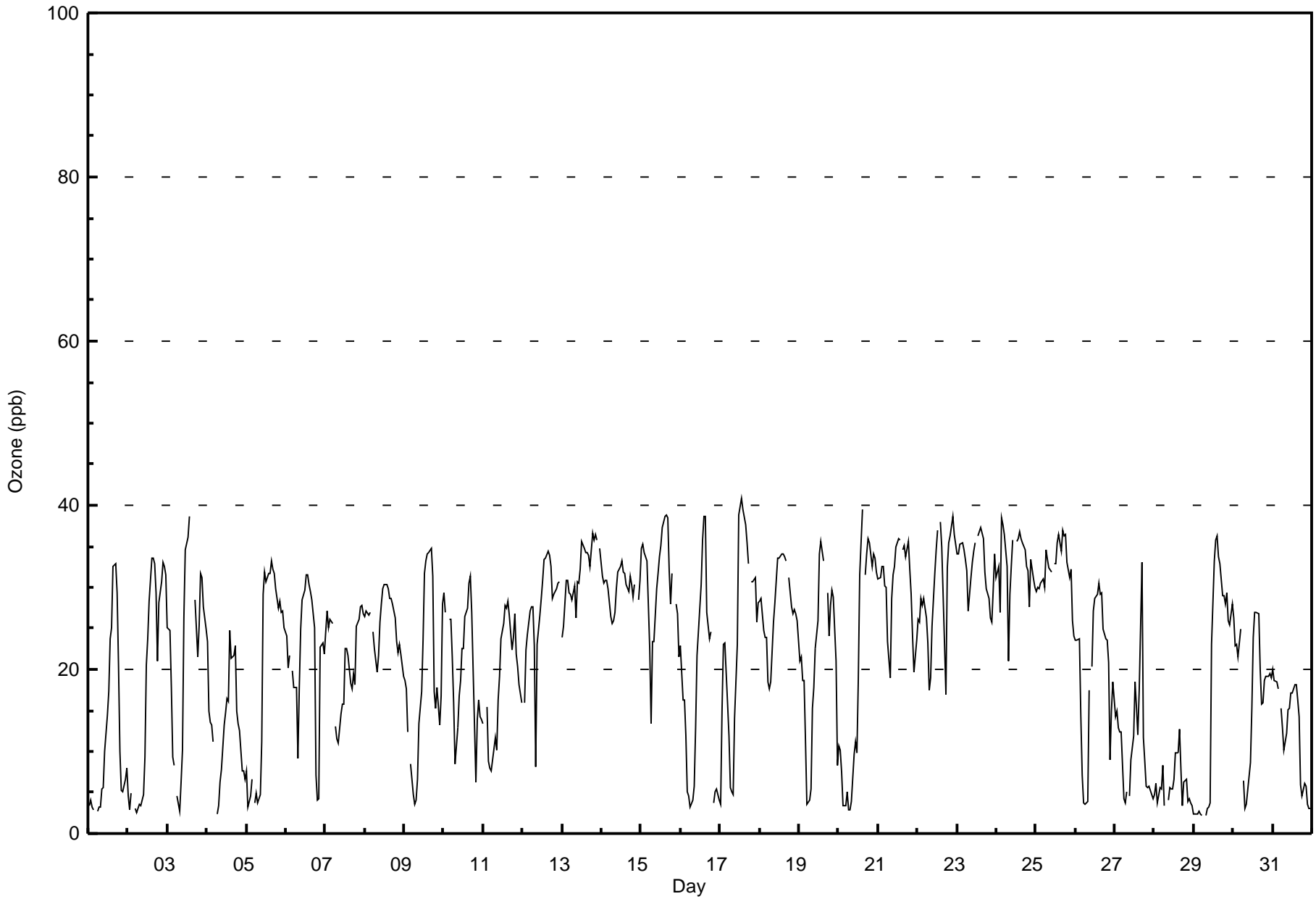
Maximum Value: 40.9 ppb on Oct 17 14:00	Maximum Daily Average: 32.8 ppb on Oct 24	Hours in Service: 744
Minimum Value: 2 ppb on Oct 29 08:00	Minimum Daily Average: 5.9 ppb on Oct 28	Hours of Data: 709
Maximum Diurnal Average: 30.8 ppb at hour 15	Minimum Diurnal Average: 12.1 ppb at hour 8	Hours of Missing Data: 35
Monthly Average: 22.04 ppb	Percentiles: P <sub>1</sub> = 2.5 P <sub>10</sub> = 4.7 Q <sub>1</sub> = 13.3 Median = 24.8 Q <sub>3</sub> = 31.0 P <sub>90</sub> = 34.5 P <sub>99</sub> = 38.6	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-Oct	3	4	3	3	A	3	3	3	5	6	10	14	17	24	25	33	33	29	21	10	5	5	7	8	11.9	32.9
2-Oct	5	3	5	A	3	3	3	4	3	5	9	21	24	28	34	34	33	29	21	28	31	33	33	32	18.3	33.6
3-Oct	25	25	18	9	8	A	5	3	6	10	26	35	36	39	C	C	C	28	22	25	32	31	28	25	21.8	38.6
4-Oct	23	15	14	13	11	A	2	3	6	8	13	15	16	16	25	21	22	23	15	13	13	8	8	7	13.5	24.7
5-Oct	8	3	5	7	A	4	5	4	5	11	29	32	31	32	32	33	32	32	30	27	28	27	27	25	20.3	33.3
6-Oct	24	20	22	A	20	18	18	9	18	25	29	30	31	31	30	30	29	25	7	4	4	23	23	22	21.4	31.5
7-Oct	25	27	25	26	26	A	13	12	11	15	16	16	22	23	22	18	18	19	18	25	26	28	28	27	21.0	27.8
8-Oct	26	27	27	27	A	24	23	20	22	26	28	30	30	30	30	29	29	28	26	23	22	23	22	19	25.7	30.3
9-Oct	19	18	12	A	8	5	4	4	7	13	17	24	32	33	34	34	35	31	17	15	18	13	17	28	19.0	34.7
10-Oct	29	27	A	26	26	22	16	8	13	17	19	22	23	27	27	31	31	27	20	6	14	16	14	14	20.7	31.4
11-Oct	13	A	15	9	8	8	10	12	10	16	19	24	26	28	27	28	27	22	24	27	22	20	18	16	18.7	28.3
12-Oct	A	16	22	24	27	28	28	23	8	23	27	29	31	33	34	34	34	33	29	29	30	30	31	A	27.4	34.5
13-Oct	24	25	31	31	29	29	29	30	26	31	30	32	36	35	34	34	34	33	37	36	36	36	A	35	31.8	36.7
14-Oct	31	31	31	31	30	26	26	26	27	30	32	32	33	32	32	30	30	31	30	29	30	A	28	31	30.0	33.3
15-Oct	35	35	34	33	28	23	13	23	23	30	32	34	35	37	39	39	38	32	28	32	A	28	27	22	30.4	38.7
16-Oct	23	16	16	12	5	5	3	4	6	13	22	25	30	36	39	39	27	24	25	A	4	5	5	4	16.8	38.7
17-Oct	4	15	23	23	16	12	6	5	5	14	23	39	40	41	39	38	35	33	A	31	31	31	26	28	24.2	40.9
18-Oct	28	29	25	24	24	19	18	18	26	28	31	34	34	34	34	34	33	A	31	28	27	27	27	26	27.7	34.1
19-Oct	21	22	19	19	11	4	4	5	15	18	22	26	34	36	34	33	A	29	24	28	30	29	21	8	21.4	35.5
20-Oct	11	10	7	3	3	5	3	3	4	10	11	10	19	32	40	A	31	34	36	35	33	34	33	32	19.1	39.6
21-Oct	31	31	33	33	30	30	23	19	29	32	33	35	36	36	A	35	35	34	36	32	29	24	20	24	30.3	36.0
22-Oct	26	26	29	28	29	26	23	17	19	25	32	35	37	A	38	35	23	17	32	35	36	39	36	35	29.5	38.7
23-Oct	34	34	35	35	35	33	32	27	31	33	34	35	A	36	37	37	36	32	30	29	26	26	30	34	32.7	37.2
24-Oct	31	33	27	38	38	36	33	21	29	33	36	A	36	36	37	36	35	35	33	32	28	33	31	30	32.8	38.4
25-Oct	30	30	30	30	31	30	35	33	32	32	A	33	33	35	36	34	37	36	37	33	31	32	26	24	32.2	36.9
26-Oct	24	24	24	14	7	4	3	4	17	A	20	27	29	29	30	29	29	25	24	24	21	9	15	18	19.6	30.5
27-Oct	14	15	13	12	12	4	4	5	A	5	9	12	19	15	12	17	33	12	9	6	6	6	5	4	10.8	33.0
28-Oct	5	6	4	6	5	8	3	A	4	6	5	5	7	10	10	13	8	3	6	7	4	4	4	3	5.9	12.7
29-Oct	2	2	2	3	2	2	A	2	3	3	4	23	33	36	36	34	33	29	29	28	29	26	26	28	18.1	36.2
30-Oct	26	23	23	22	25	A	7	3	4	5	9	15	24	27	27	27	20	16	16	19	19	19	19	19	17.9	27.0
31-Oct	20	19	19	18	A	15	13	10	12	15	15	17	17	18	18	16	14	6	5	6	6	4	3	3	12.6	20.1

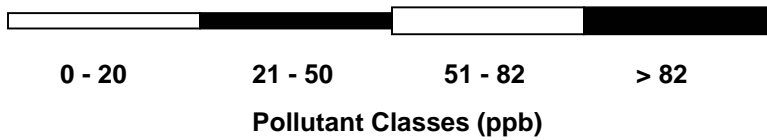
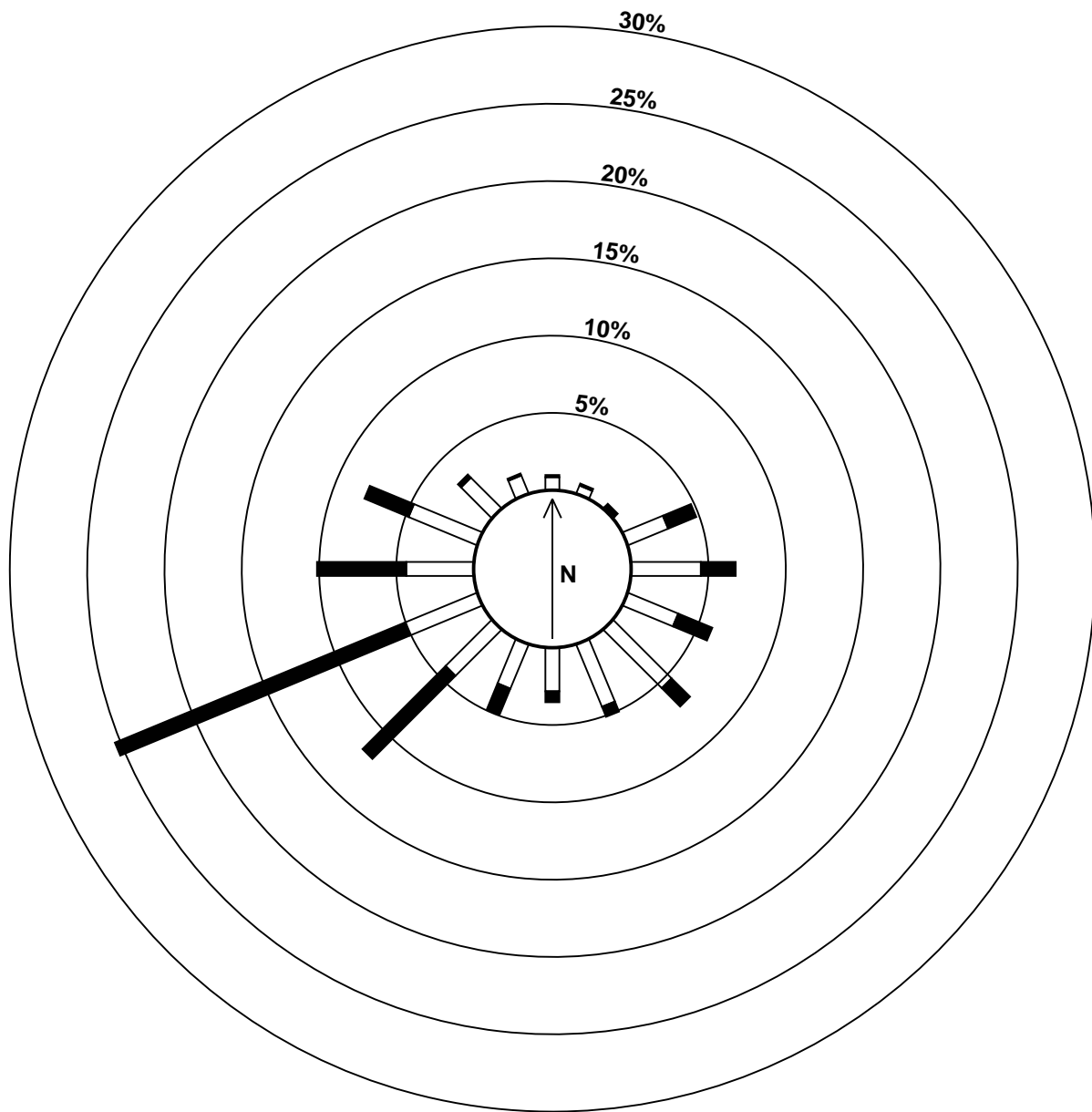
20.7	20.3	19.7	20.0	18.5	15.7	13.5	12.1	14.2	17.8	21.4	25.3	28.3	30.1	30.8	30.5	29.4	26.2	23.8	23.4	22.3	22.3	21.2	21.0	Diurnal Average	
34.7	35.2	35.3	38.4	37.7	36.5	34.6	33.4	32.4	33.0	35.7	38.8	39.9	40.9	39.6	38.7	38.5	36.2	36.7	35.7	36.5	38.7	36.4	35.2	Diurnal Maximum	

C - Calibration                      A - Automated Daily Zero Span

# Hourly Maximums for O<sub>3</sub> at Henry Pirker October 2008



# Pollutant Rose for O<sub>3</sub> at Henry Pirker October 2008



**Peace Airshed Zone Association  
Summary of Eight Hour Running Averages**

**Henry Pirker - Ozone (O<sub>3</sub>) - ppb  
October 1, 2008 to November 1, 2008**

Number of Exceedences (AAAQO): 8-hr: 0 Maximum Value: 34.1 ppb on Oct 23 05:00	Hours in Service: 744 Hours of Data: 738 Hours of Missing Data: 6 Hours of Calibration: 6 Percent Operational Time: 100.0
Minimum Value: 2.0 ppb on Oct 29 08:00	
Percentiles: P <sub>1</sub> = 2.4 P <sub>10</sub> = 5.4 Q <sub>1</sub> = 11.0 Median = 19.9 Q <sub>3</sub> = 26.6 P <sub>90</sub> = 30.2 P <sub>99</sub> = 33.6	

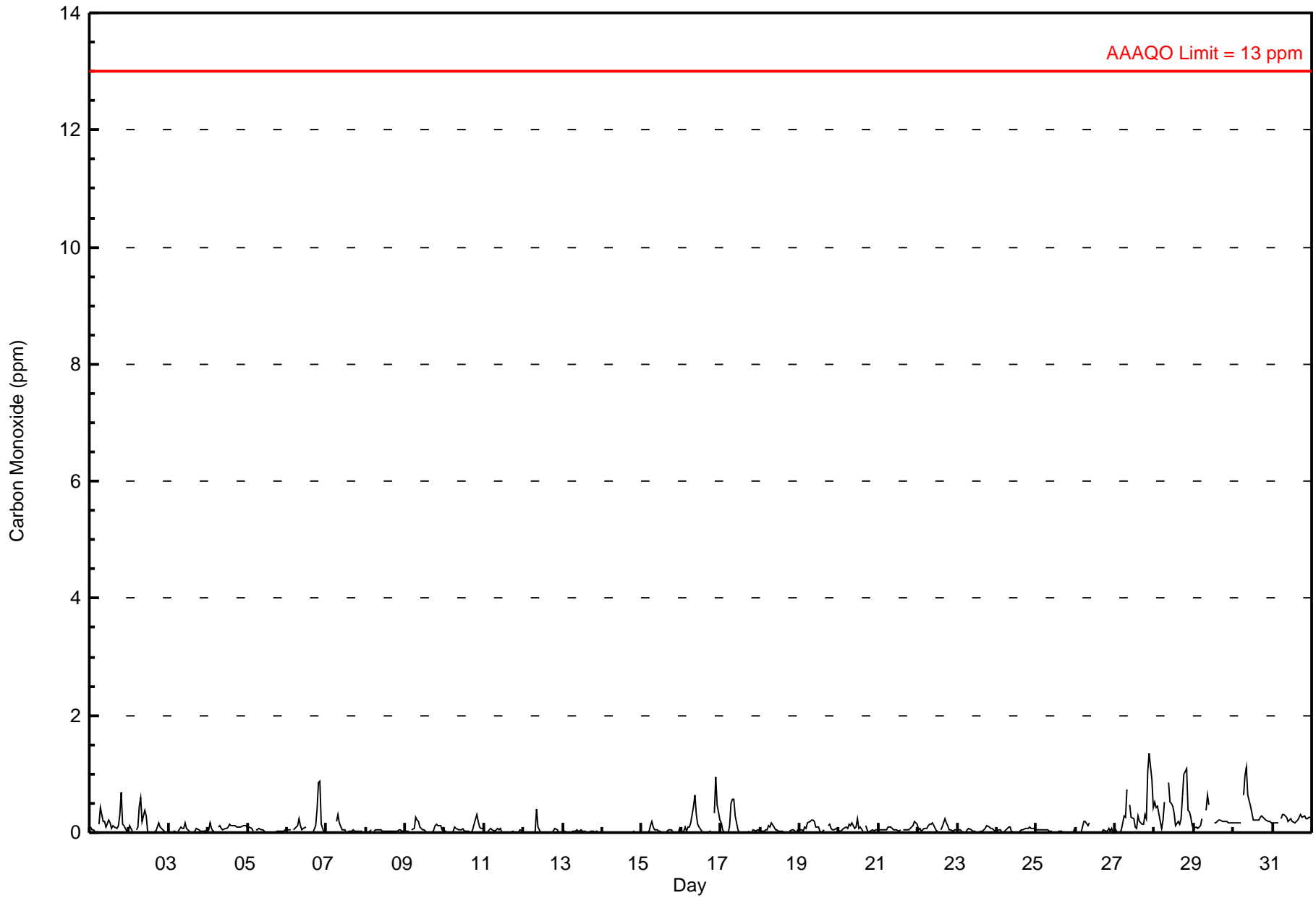
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Oct	6	4	3	3	3	3	3	3	3	3	4	5	6	8	10	13	16	18	18	17	16	14	12	10	18.2
2-Oct	7	4	3	3	3	3	3	3	3	3	3	5	7	10	13	17	20	22	24	25	26	26	26	26	26.1
3-Oct	25	25	24	22	19	18	14	10	7	5	5	8	12	15	17	19	N	N	N	N	N	N	24	23	25.1
4-Oct	23	22	21	19	17	15	12	9	7	6	6	6	7	8	11	13	15	16	16	16	15	14	12	10	23.0
5-Oct	8	6	5	5	4	4	4	4	3	4	7	10	12	16	19	23	26	29	30	30	29	29	28	27	30.0
6-Oct	26	24	23	23	21	20	17	14	13	13	14	16	18	20	22	25	27	26	23	20	17	14	14	13	26.8
7-Oct	13	14	17	19	22	23	21	19	17	15	13	11	10	12	13	14	15	16	16	17	18	19	20	21	23.2
8-Oct	23	24	25	26	26	26	25	23	22	22	22	22	23	24	25	26	26	27	27	26	24	23	22	21	26.7
9-Oct	20	18	16	16	13	11	9	7	6	5	6	8	11	14	18	22	25	27	26	24	23	20	17	15	26.7
10-Oct	15	14	15	17	18	20	20	18	15	14	14	13	13	13	15	18	21	22	21	20	19	17	16	13	21.9
11-Oct	11	9	9	10	9	8	7	7	7	8	9	11	13	15	18	20	22	22	23	23	23	22	21	19	23.0
12-Oct	18	17	17	17	18	19	20	20	18	19	19	20	20	21	22	25	28	30	30	30	29	28	28	27	30.0
13-Oct	26	25	25	26	27	27	26	26	26	27	27	27	27	28	29	30	31	31	32	33	33	33	33	33	33.3
14-Oct	33	33	32	32	31	29	29	27	27	27	27	27	27	28	28	29	28	28	28	28	27	27	27	27	33.0
15-Oct	28	29	29	30	29	28	25	24	22	21	20	20	21	24	27	30	31	32	32	31	31	30	28	25	31.9
16-Oct	23	21	19	16	15	12	10	8	6	5	6	8	11	14	18	22	24	25	25	25	22	18	14	10	25.0
17-Oct	7	5	6	8	9	9	9	9	9	9	9	10	13	18	22	26	29	32	34	34	33	31	29	28	34.0
18-Oct	27	27	26	24	24	22	20	18	17	16	17	19	20	22	25	28	29	31	30	29	28	27	27	25	30.8
19-Oct	24	23	22	20	18	16	13	11	9	9	9	10	13	16	20	23	26	27	27	28	28	26	23	20	27.6
20-Oct	18	16	14	12	8	6	5	4	4	3	4	5	6	8	12	14	16	20	23	27	30	31	31	31	31.1
21-Oct	32	32	31	31	30	29	28	25	24	24	24	24	25	26	27	30	32	32	33	32	31	28	27	25	32.8
22-Oct	24	23	22	21	21	22	23	22	21	20	20	22	23	23	25	27	27	26	25	24	23	24	24	25	27.1
23-Oct	28	30	32	33	34	34	33	31	31	30	30	30	30	30	31	33	33	32	30	28	27	26	24	24	34.1
24-Oct	24	24	25	26	28	29	29	27	26	26	27	27	27	27	28	31	33	34	34	33	32	31	31	30	33.9
25-Oct	29	29	29	29	30	29	29	30	30	30	30	30	31	32	32	32	33	33	34	34	33	33	31	29	33.6
26-Oct	27	25	23	20	17	14	11	10	9	7	7	9	12	16	19	23	25	25	25	25	23	20	17	16	26.7
27-Oct	14	13	12	10	9	9	9	7	7	6	5	5	6	7	8	9	10	10	10	10	9	8	7	6	13.9
28-Oct	5	4	4	4	4	4	4	4	3	4	4	4	4	5	5	6	6	6	6	6	5	5	4	3	6.1
29-Oct	3	3	3	2	2	2	2	2	2	2	2	4	7	12	14	17	20	23	26	28	28	27	26	26	28.0
30-Oct	25	24	24	23	22	21	18	15	12	10	8	7	6	8	10	13	15	16	17	18	18	17	17	16	24.9
31-Oct	16	17	17	17	17	17	15	14	13	12	11	11	12	12	13	14	14	13	12	10	9	7	6	4	17.4
33.0 32.7 32.2 33.4 34.1 33.6 32.5 31.2 30.7 30.4 30.3 30.5 30.8 31.6 32.2 33.0 33.5 33.9 34.0 33.8 33.1 33.1 33.3 33.3																									
Diurnal Maximums																									

N - Not Valid  
Alberta Ambient Air Quality Objectives (AAAQO): 8-hr 65 ppb



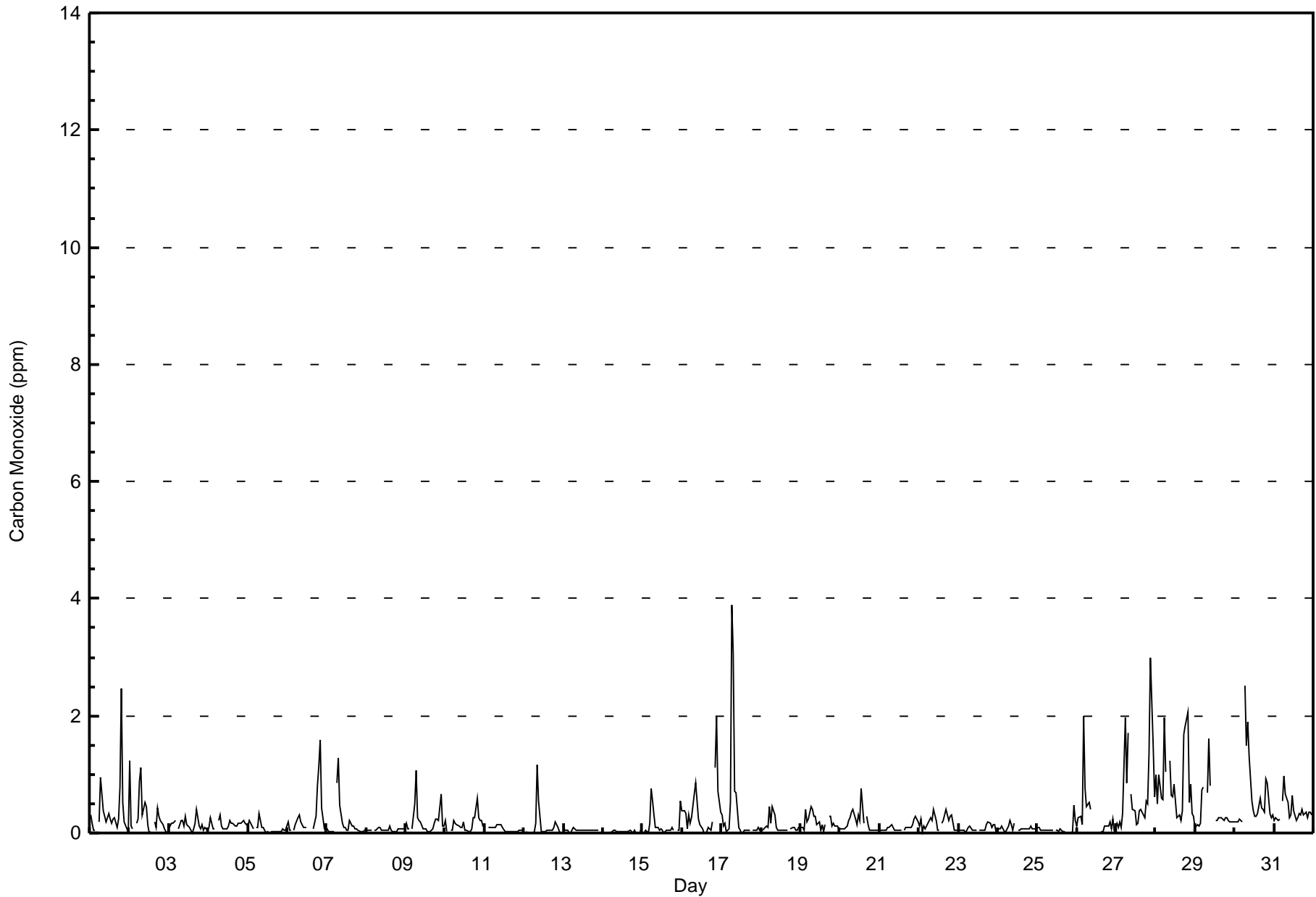


# Hourly Averages for CO at Henry Pirker October 2008

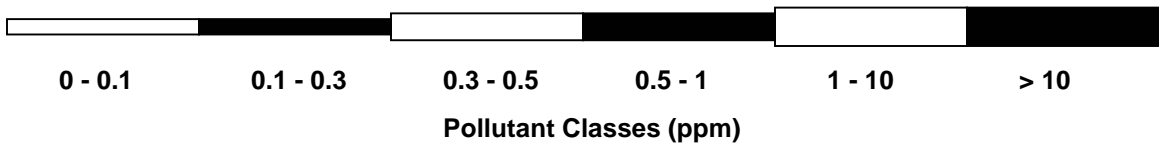
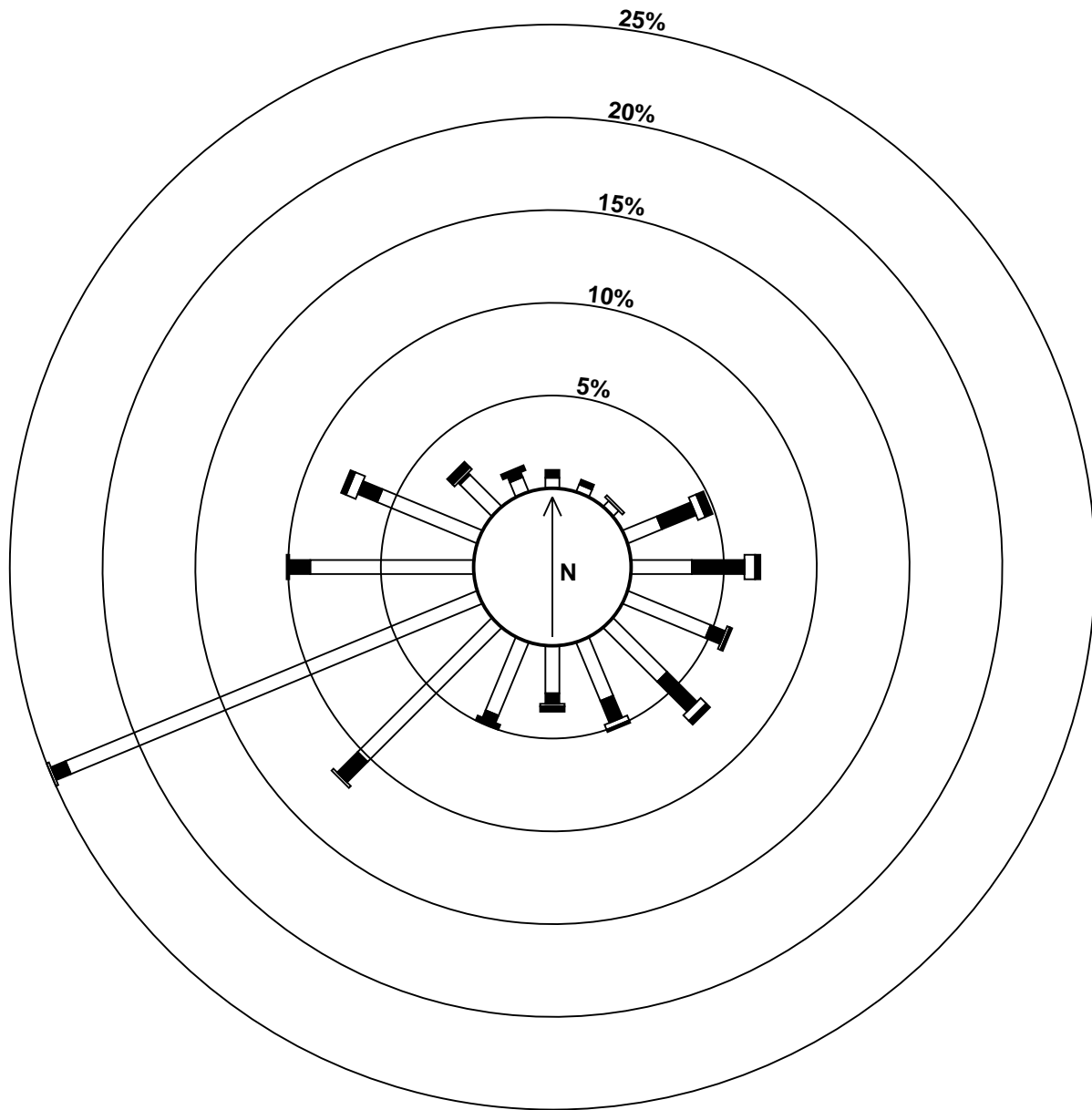




# Hourly Maximums for CO at Henry Pirker October 2008



**Pollutant Rose for CO at Henry Pirker  
October 2008**



**Peace Airshed Zone Association  
Summary of Eight Hour Running Averages**

**Henry Pirker - Carbon Monoxide (CO) - ppm  
October 1, 2008 to November 1, 2008**

Number of Exceedences (AAAQO): 8-hr: 0 Maximum Value: 0.67 ppm on Oct 28 03:00	Hours in Service: 744 Hours of Data: 734 Hours of Missing Data: 10 Hours of Calibration: 10 Percent Operational Time: 100.0
Minimum Value: 0.00 ppm on Oct 3 04:00	
Percentiles: P <sub>1</sub> = 0.00 P <sub>10</sub> = 0.01 Q <sub>1</sub> = 0.03 Median = 0.06 Q <sub>3</sub> = 0.12 P <sub>90</sub> = 0.25 P <sub>99</sub> = 0.57	

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-Oct	0.4	0.4	0.3	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.40	
2-Oct	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.0	0.29
3-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.08
4-Oct	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.11
5-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.10
6-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	N	N	N	N	N	N	N	N	0.4	0.3	0.3	0.40
7-Oct	0.3	0.3	0.2	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.29
8-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.04
9-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.13
10-Oct	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.12
11-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.14
12-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.06
13-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.03
14-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01
15-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.07
16-Oct	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.3	0.29
17-Oct	0.3	0.3	0.3	0.3	0.2	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.32
18-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.08
19-Oct	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.15
20-Oct	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.12
21-Oct	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.10
22-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.11
23-Oct	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.07
24-Oct	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.07
25-Oct	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.06
26-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.10
27-Oct	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.5	0.5	0.6	0.57
28-Oct	0.6	0.7	0.7	0.7	0.5	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.5	0.5	0.4	0.4	0.3	0.3	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.67
29-Oct	0.5	0.4	0.3	0.2	0.1	0.1	0.1	0.2	0.2	0.3	0.3	N	N	N	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.48
30-Oct	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.5	0.5	0.6	0.6	0.6	0.6	0.5	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.62
31-Oct	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	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	0.26
	0.62	0.65	0.67	0.66	0.54	0.40	0.35	0.35	0.48	0.55	0.59	0.61	0.62	0.57	0.51	0.42	0.31	0.32	0.38	0.46	0.47	0.50	0.54	0.57		

Diurnal Maximums

N - Not Valid

Alberta Ambient Air Quality Objectives (AAAQO): 8-hr 5 ppm

**Peace Airshed Zone Association**  
**Summary of Hourly Averages**

**Henry Pirker - Total Hydrocarbons (THC) - ppm**  
**October 1, 2008 to November 1, 2008**

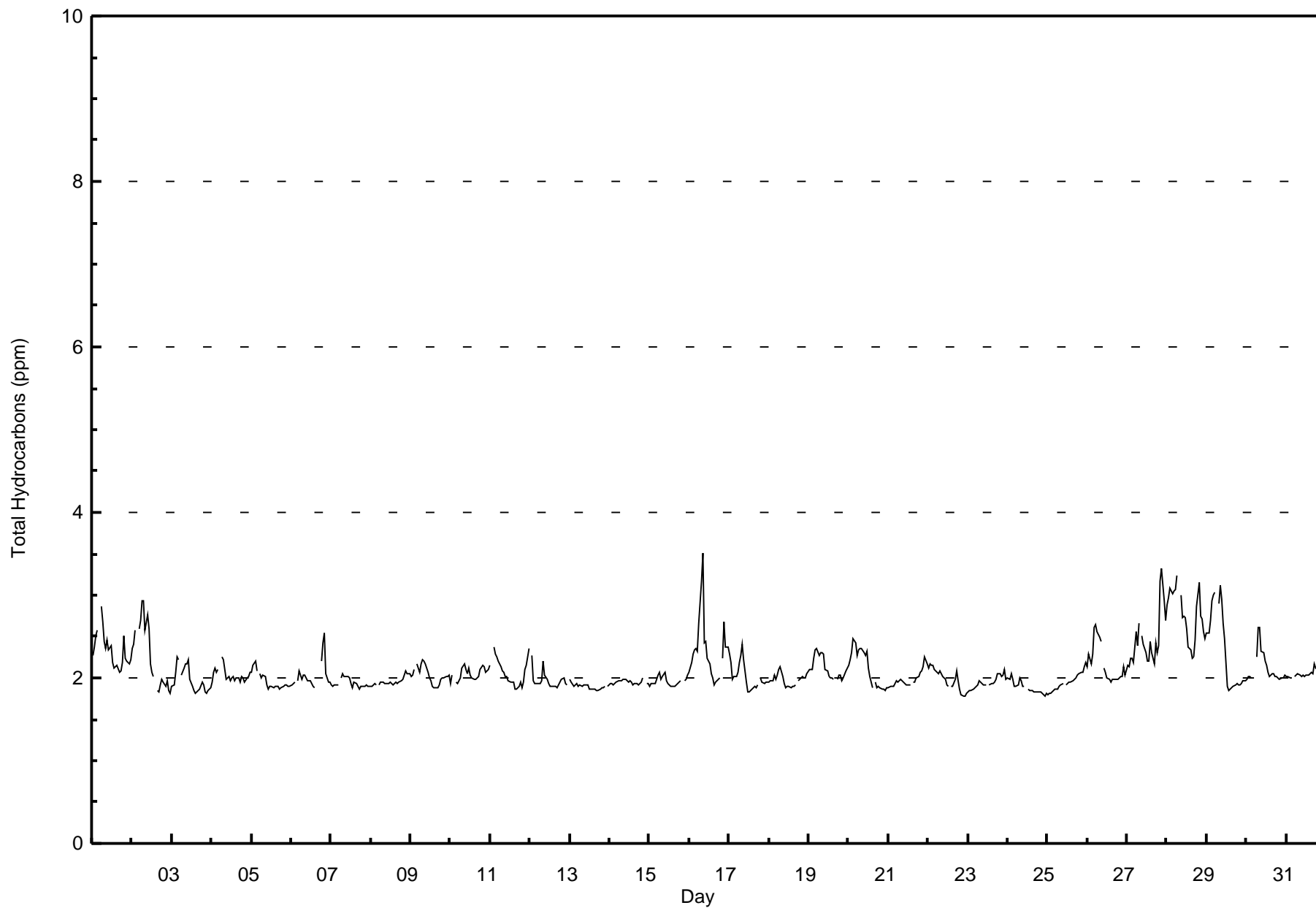
Maximum Value: 3.51 ppm on Oct 16 09:00	Maximum Daily Average: 2.75 ppm on Oct 28	Hours in Service: 744
Minimum Value: 1.8 ppm on Oct 22 22:00	Minimum Daily Average: 1.89 ppm on Oct 24	Hours of Data: 708
Maximum Diurnal Average: 2.25 ppm at hour 9	Minimum Diurnal Average: 1.95 ppm at hour 17	Hours of Missing Data: 36
Monthly Average: 2.084 ppm	Percentiles: P <sub>1</sub> = 1.81 P <sub>10</sub> = 1.88 Q <sub>1</sub> = 1.92 Median = 2.00 Q <sub>3</sub> = 2.15 P <sub>90</sub> = 2.42 P <sub>99</sub> = 3.11	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-Oct	2.3	2.4	2.5	2.6	A	2.9	2.7	2.4	2.4	2.5	2.3	2.4	2.2	2.1	2.1	2.2	2.1	2.1	2.2	2.5	2.2	2.2	2.2	2.2	2.3	2.87
2-Oct	2.4	2.4	2.6	A	2.6	2.7	2.9	2.9	2.6	2.8	2.6	2.2	2.1	2.0	A	1.9	1.8	1.9	2.0	1.9	1.9	2.0	1.8	1.8	2.26	2.94
3-Oct	1.9	1.9	2.1	2.2	2.2	A	2.0	2.1	2.2	2.2	2.2	2.0	1.9	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.9	1.9	1.97	2.25
4-Oct	2.0	2.1	2.1	2.1	2.1	A	2.3	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.1	2.04	2.26
5-Oct	2.1	2.1	2.2	2.1	A	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.96	2.20
6-Oct	1.9	1.9	1.9	A	2.0	2.1	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	C	C	A	2.2	2.4	2.5	2.1	2.0	1.9	2.03	2.54	
7-Oct	1.9	1.9	1.9	1.9	1.9	A	2.0	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.94	2.05
8-Oct	1.9	1.9	1.9	1.9	A	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.1	2.1	2.0	1.96	2.08
9-Oct	2.0	2.0	2.1	A	2.2	2.1	2.2	2.2	2.2	2.2	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.03	2.22
10-Oct	1.9	2.0	A	1.9	1.9	2.0	2.0	2.1	2.2	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.1	2.1	2.1	2.1	2.05	2.16
11-Oct	2.2	A	2.4	2.3	2.3	2.2	2.1	2.1	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1	2.2	2.3	2.06	2.38
12-Oct	A	2.3	2.0	1.9	1.9	1.9	1.9	2.0	2.2	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.9	1.9	A	1.97	2.27
13-Oct	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.9	1.9	1.9	1.9	A	1.9	1.90	1.98
14-Oct	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	A	1.9	1.9	1.95	2.00
15-Oct	1.9	1.9	1.9	1.9	2.0	2.0	2.1	2.0	2.0	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	A	2.0	2.0	2.0	1.96	2.07
16-Oct	2.1	2.2	2.3	2.3	2.4	2.3	2.7	3.2	3.5	2.4	2.4	2.2	2.2	2.1	2.0	1.9	2.0	2.0	2.0	A	2.2	2.7	2.4	2.4	2.34	3.51
17-Oct	2.3	2.2	2.0	2.0	2.0	2.1	2.2	2.3	2.4	2.2	1.9	1.8	1.8	1.8	1.9	1.9	1.9	1.9	A	2.0	2.0	1.9	2.0	1.9	2.02	2.41
18-Oct	1.9	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.0	2.0	2.0	2.0	2.0	2.1	1.97	2.13
19-Oct	2.1	2.1	2.1	2.2	2.3	2.4	2.3	2.3	2.3	2.3	2.1	2.1	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.12	2.36
20-Oct	2.2	2.2	2.3	2.5	2.4	2.3	2.3	2.3	2.4	2.3	2.3	2.3	2.1	2.0	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.13	2.47
21-Oct	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	A	1.9	2.0	2.0	2.0	2.1	2.1	2.1	2.2	2.2	1.98	2.25	
22-Oct	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	1.9	1.9	A	1.9	1.9	2.0	2.1	2.0	1.9	1.8	1.8	1.8	1.8	1.98	2.17
23-Oct	1.8	1.8	1.8	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	2.0	2.1	2.1	2.0	2.0	2.1	2.0	1.94	2.10
24-Oct	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0	1.9	1.9	A	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.89	2.05
25-Oct	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.2	1.95	2.18
26-Oct	2.1	2.3	2.2	2.3	2.6	2.6	2.6	2.5	2.4	A	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.17	2.65	
27-Oct	2.2	2.1	2.2	2.2	2.2	2.6	2.4	2.7	A	2.5	2.4	2.3	2.2	2.2	2.4	2.3	2.2	2.4	2.3	2.4	3.2	3.3	2.9	2.7	2.45	3.32
28-Oct	2.9	3.0	3.1	3.0	3.0	3.1	3.2	A	3.0	2.7	2.7	2.7	2.6	2.4	2.3	2.2	2.3	2.5	2.9	3.1	2.7	2.7	2.6	2.5	2.75	3.24
29-Oct	2.5	2.5	2.7	2.9	3.0	3.0	A	2.9	3.1	2.9	2.7	2.5	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.34	3.12	
30-Oct	2.0	2.0	2.0	2.0	2.0	A	2.3	2.6	2.6	2.3	2.3	2.2	2.1	2.1	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.12	2.61	
31-Oct	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.1	2.1	2.1	2.2	2.2	2.2	2.07	2.22

2.07	2.11	2.14	2.14	2.17	2.21	2.19	2.23	2.25	2.16	2.12	2.07	2.00	1.97	1.96	1.96	1.95	1.98	2.03	2.06	2.07	2.08	2.06	2.06	2.06	Diurnal Average
2.88	2.97	3.08	3.02	3.05	3.07	3.24	3.18	3.51	2.94	2.74	2.73	2.60	2.38	2.44	2.30	2.26	2.45	2.87	3.14	3.17	3.32	2.93	2.69	2.69	Diurnal Maximum

C - Calibration                      A - Automated Daily Zero Span

# Hourly Averages for THC at Henry Pirker October 2008



**Peace Airshed Zone Association  
Summary of Hourly Maximums**

**Henry Pirker - Total Hydrocarbons (THC) - ppm  
October 1, 2008 to November 1, 2008**

Maximum Value: 4.22 ppm on Oct 28 02:00	Maximum Daily Average: 3.07 ppm on Oct 28	Hours in Service: 744
Minimum Value: 1.8 ppm on Oct 22 23:00	Minimum Daily Average: 1.93 ppm on Oct 13	Hours of Data: 708
Maximum Diurnal Average: 2.41 ppm at hour 8	Minimum Diurnal Average: 2.01 ppm at hour 16	Hours of Missing Data: 36
Monthly Average: 2.195 ppm	Percentiles: P <sub>1</sub> = 1.84 P <sub>10</sub> = 1.92 Q <sub>1</sub> = 1.96 Median = 2.07 Q <sub>3</sub> = 2.28 P <sub>90</sub> = 2.68 P <sub>99</sub> = 3.63	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-Oct	2.3	2.5	2.6	2.7	A	3.0	2.9	2.5	2.5	2.5	2.4	2.5	2.3	2.2	2.2	2.2	2.1	2.1	2.5	3.4	2.6	2.2	2.2	2.3	2.47	3.42
2-Oct	2.5	2.5	2.8	A	2.8	2.8	3.2	3.3	2.6	2.9	2.9	2.4	2.1	2.1	A	1.9	1.9	2.0	2.0	2.0	1.9	2.1	2.1	1.9	2.39	3.31
3-Oct	1.9	2.1	2.5	2.5	2.4	A	2.1	2.2	2.3	2.3	2.3	2.1	1.9	1.9	1.8	1.9	1.9	1.9	2.7	2.7	1.9	1.9	1.9	1.9	2.13	2.71
4-Oct	2.1	2.3	2.3	2.2	2.2	A	2.4	2.3	2.2	2.0	2.1	2.0	2.0	2.1	2.0	2.0	2.1	2.0	2.1	2.1	2.0	2.1	2.1	2.2	2.13	2.38
5-Oct	2.1	2.2	2.3	2.2	A	2.1	2.0	2.1	2.0	2.0	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.00	2.26
6-Oct	1.9	2.0	2.0	A	2.0	2.2	2.0	2.1	2.1	2.2	2.0	2.0	2.1	2.1	1.9	C	C	A	2.5	2.6	2.7	2.3	2.0	2.1	2.14	2.73
7-Oct	2.0	1.9	2.0	1.9	2.0	A	2.2	2.4	2.1	2.2	2.1	2.0	2.1	1.9	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.01	2.37
8-Oct	1.9	1.9	2.0	1.9	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	1.99	2.12
9-Oct	2.1	2.2	2.2	A	2.4	2.2	2.2	2.4	2.3	2.3	2.1	2.0	2.0	1.9	1.9	1.9	1.9	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.12	2.40
10-Oct	2.0	2.1	A	2.1	2.0	2.0	2.1	2.2	2.2	2.1	2.1	2.7	2.1	2.0	2.0	2.0	2.0	2.1	2.3	2.3	2.2	2.1	2.1	2.2	2.14	2.70
11-Oct	2.2	A	2.5	2.4	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.2	2.5	2.14	2.48
12-Oct	A	2.5	2.1	2.0	2.0	2.0	2.0	2.1	2.4	2.3	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1	2.0	1.9	A	2.05	2.53
13-Oct	2.0	2.0	2.0	1.9	2.0	1.9	2.0	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.93	2.04
14-Oct	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.1	A	2.0	2.0	1.99	2.13
15-Oct	1.9	2.0	2.0	2.0	2.1	2.2	2.3	2.1	2.2	2.4	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	A	2.0	2.0	2.1	2.03	2.39
16-Oct	2.5	2.5	2.4	2.5	2.5	2.6	2.9	3.6	4.2	2.9	2.8	2.3	2.2	2.1	2.1	2.0	2.0	2.0	2.1	A	2.4	3.0	2.6	2.6	2.56	4.21
17-Oct	2.6	2.3	2.1	2.1	2.1	2.2	2.9	2.8	2.8	2.5	2.1	1.9	1.9	1.9	1.9	1.9	1.9	2.0	A	2.2	2.0	2.0	2.0	2.0	2.17	2.92
18-Oct	2.0	2.0	2.0	2.1	2.0	2.2	2.2	2.3	2.2	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.0	2.0	2.1	2.1	2.0	2.1	2.03	2.27
19-Oct	2.2	2.2	2.4	2.4	2.7	2.6	2.3	2.4	2.4	2.5	2.1	2.2	2.1	2.0	2.0	2.1	A	2.1	2.1	2.1	2.0	2.1	2.1	2.2	2.22	2.70
20-Oct	2.2	2.3	2.4	3.0	2.5	2.5	2.4	2.8	2.5	2.4	2.3	2.5	2.3	2.1	2.0	A	2.0	2.0	2.3	1.9	1.9	1.9	1.9	1.9	2.26	3.00
21-Oct	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	A	2.0	2.0	2.0	2.1	2.3	2.1	2.2	2.4	2.2	2.04	2.40	
22-Oct	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.2	2.1	2.1	2.0	2.0	1.9	A	2.1	2.1	2.2	2.4	2.2	2.0	2.0	1.8	1.8	1.8	2.08	2.38
23-Oct	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.3	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.2	2.2	2.1	2.1	2.2	2.0	2.02	2.32
24-Oct	2.2	2.0	2.2	2.2	1.9	1.9	2.0	2.5	2.0	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.96	2.51
25-Oct	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	2.0	2.0	A	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.2	2.2	2.2	1.99	2.24
26-Oct	2.2	2.6	2.2	2.5	2.9	2.9	2.8	2.9	2.6	A	2.2	2.1	2.0	2.0	2.0	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.3	2.1	2.30	2.94
27-Oct	2.4	2.3	2.8	2.9	2.4	3.1	2.7	3.1	A	2.7	2.6	2.4	2.3	2.4	2.5	2.4	2.3	2.9	2.4	2.9	3.7	4.0	3.6	2.8	2.77	3.99
28-Oct	3.1	4.2	3.7	3.4	3.4	3.3	3.6	A	3.3	2.9	2.8	2.8	2.9	2.5	2.6	2.3	2.3	2.9	3.9	3.8	3.0	2.8	2.6	2.6	3.07	4.22
29-Oct	2.7	2.7	2.8	3.0	3.2	3.2	A	3.0	3.4	3.4	2.8	2.8	2.0	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.46	3.41	
30-Oct	2.1	2.1	2.1	2.0	2.1	A	2.8	2.8	2.9	2.7	2.4	2.2	2.3	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.25	2.90
31-Oct	2.1	2.1	2.1	2.0	A	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.5	2.4	2.1	2.2	2.6	2.4	2.5	2.18	2.56

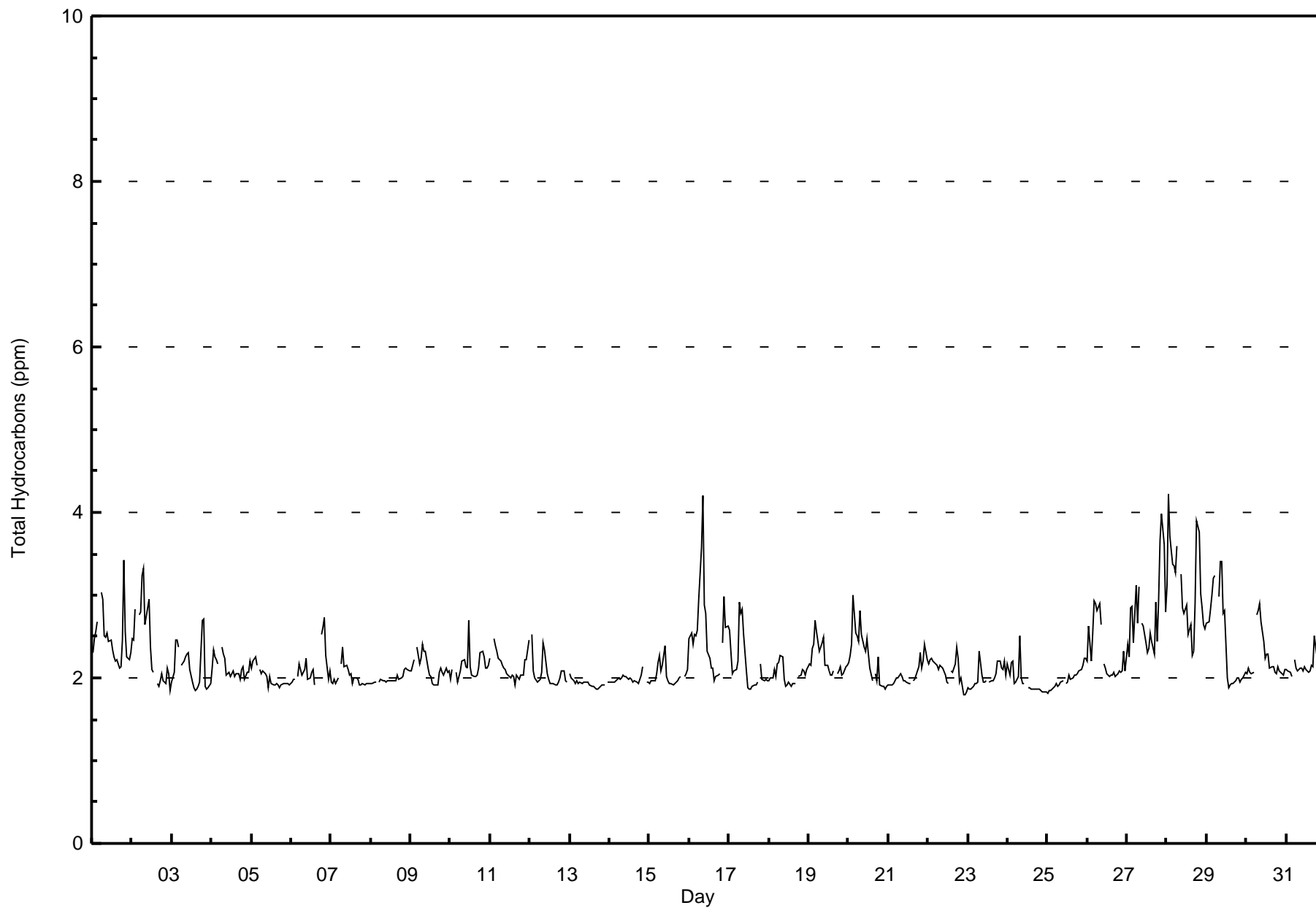
2.16	2.24	2.26	2.28	2.29	2.34	2.35	2.41	2.39	2.31	2.20	2.16	2.07	2.03	2.02	2.01	2.01	2.08	2.19	2.23	2.17	2.18	2.15	2.13	Diurnal Average	
3.12	4.22	3.71	3.38	3.35	3.28	3.59	3.58	4.21	3.40	2.95	2.83	2.87	2.53	2.64	2.43	2.32	2.92	3.90	3.76	3.66	3.99	3.61	2.79	Diurnal Maximum	

C - Calibration                      A - Automated Daily Zero Span

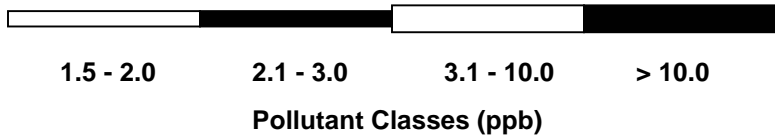
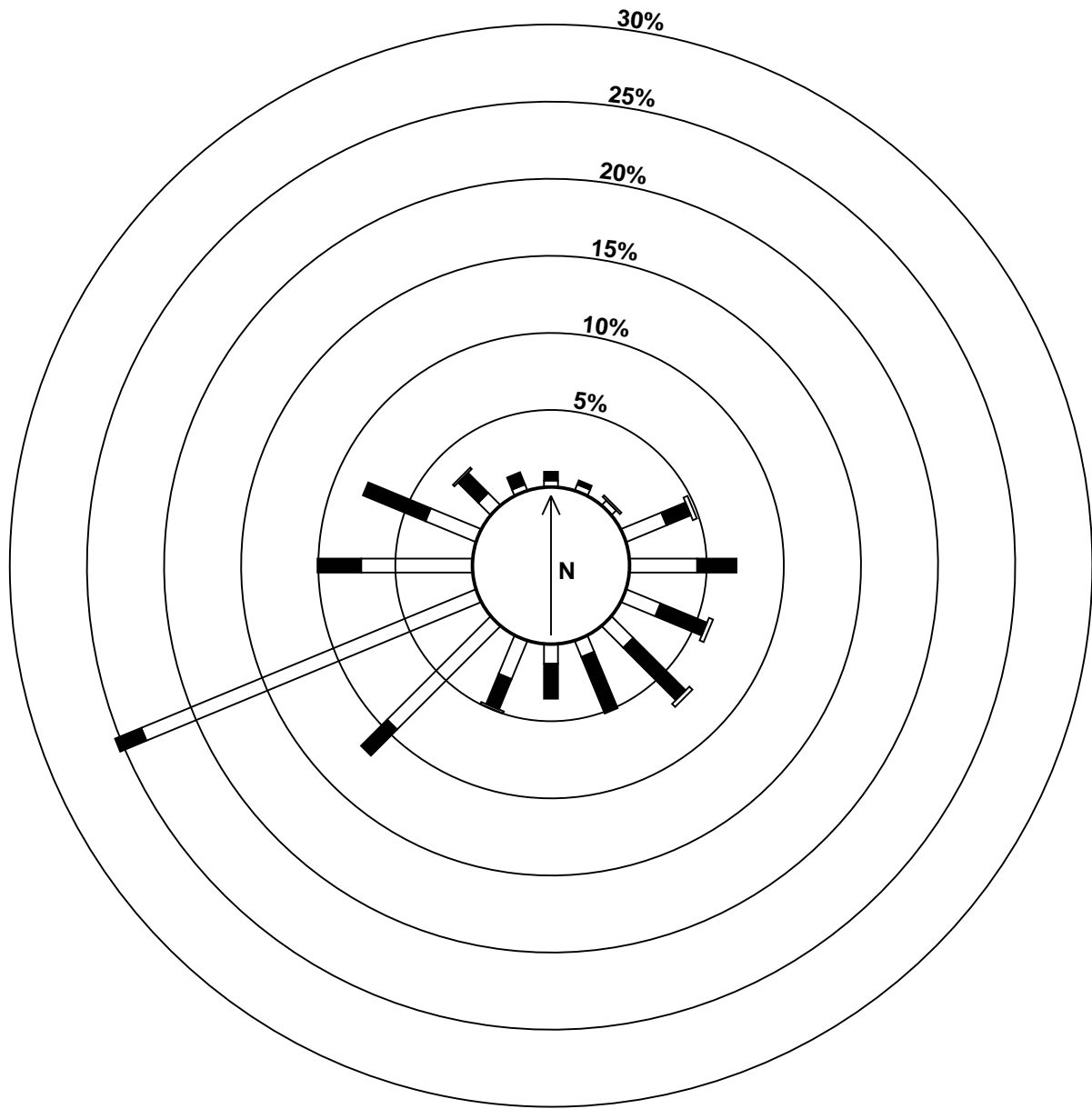


# Hourly Maximums for THC at Henry Pirker

## October 2008



# Pollutant Rose for THC at Henry Pirker October 2008



**Peace Airshed Zone Association  
Summary of Hourly Averages**

**Henry Pirker - Particulate Matter 2.5 (PM<sub>2.5</sub>) - µg/m<sup>3</sup>  
October 1, 2008 to November 1, 2008**

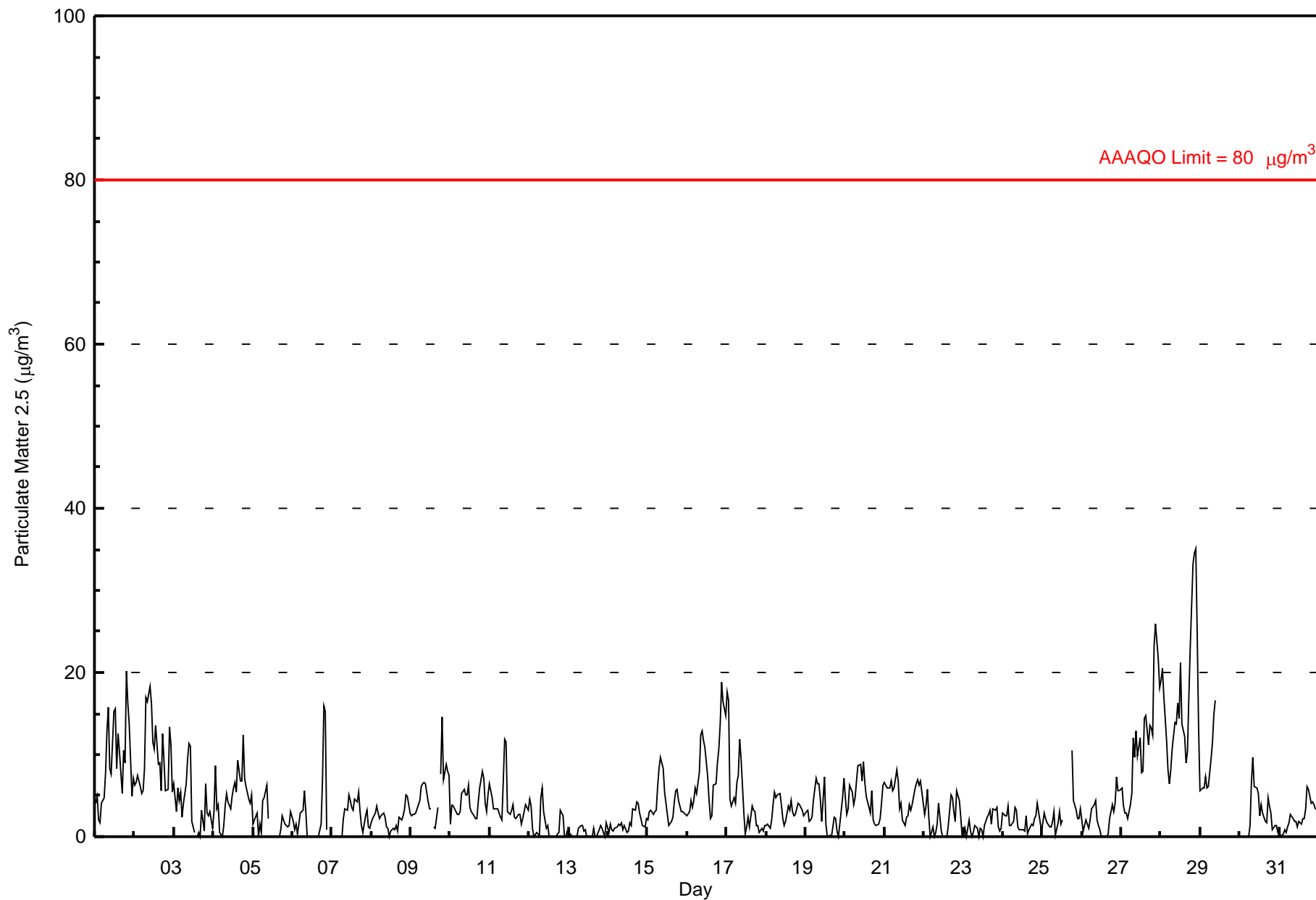
Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 35.1 µg/m <sup>3</sup> on Oct 28 22:00	Maximum Daily Average: 17.0 µg/m <sup>3</sup> on Oct 28
Minimum Value: 0 µg/m <sup>3</sup> on Oct 3 15:00	Hours of Data: 719
Maximum Diurnal Average: 6.8 µg/m <sup>3</sup> at hour 9	Hours of Missing Data: 25
Monthly Average: 4.43 µg/m <sup>3</sup>	Hours of Calibration: 2
Minimum Daily Average: 0.5 µg/m <sup>3</sup> on Oct 13	Percent Operational Time: 96.9
Minimum Diurnal Average: 2.7 µg/m <sup>3</sup> at hour 5	
Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.2 Q <sub>1</sub> = 1.4 Median = 3.1 Q <sub>3</sub> = 5.9 P <sub>90</sub> = 10.6 P <sub>99</sub> = 22.9	

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-Oct	4	5	2	2	4	5	8	13	16	8	8	15	16	8	12	10	5	10	9	20	16	14	5	7	9.3	20.2
2-Oct	6	7	7	6	5	6	8	17	16	18	16	11	11	14	9	9	6	13	9	6	6	13	11	5	9.8	18.4
3-Oct	6	3	6	4	5	2	4	6	10	11	11	2	1	BD	0	1	0	3	1	7	3	3	3	1	4.1	11.4
4-Oct	3	9	3	4	1	0	1	4	5	4	3	5	6	7	5	9	7	7	12	7	6	5	4	5	5.1	12.4
5-Oct	2	2	3	0	1	1	4	5	6	2	BD	BD	BD	0	0	0	0	1	3	2	1	1	1	3	1.8	6.2
6-Oct	2	1	2	0	2	3	3	6	3	0	0	0	0	0	C	C	0	2	7	16	15	1	BD	0	2.9	15.9
7-Oct	0	0	0	BD	0	0	0	2	3	3	5	4	3	3	5	4	5	3	1	0	3	3	1	1	2.3	5.4
8-Oct	2	2	3	4	3	2	3	3	2	1	1	0	1	1	1	1	1	2	2	3	3	5	5	3	2.2	5.1
9-Oct	3	3	3	3	3	4	6	6	7	6	4	3	3	P	1	1	4	BD	8	15	7	9	8	7	5.2	14.6
10-Oct	2	4	4	3	3	3	3	5	6	5	5	6	4	3	3	2	2	4	6	8	7	4	3	5	4.1	8.0
11-Oct	6	5	3	3	3	3	2	2	7	12	11	3	3	3	4	2	2	3	3	1	2	3	4	3	4.0	11.8
12-Oct	5	4	1	0	1	0	0	5	6	3	1	1	0	0	0	0	0	0	0	3	3	0	0	1	1.4	5.9
13-Oct	1	0	0	0	0	0	1	1	1	1	1	0	0	0	0	1	0	0	1	1	1	0	0	2	0.5	1.7
14-Oct	1	2	1	1	1	1	2	1	2	1	1	0	1	2	1	3	3	4	4	3	2	1	1	2	1.7	4.2
15-Oct	2	3	3	3	3	3	6	8	10	8	5	4	3	1	2	2	4	6	6	4	3	3	3	3	4.1	9.6
16-Oct	2	3	4	4	4	6	5	8	12	13	12	11	7	4	2	2	6	6	9	11	14	19	16	15	8.2	18.8
17-Oct	18	17	5	4	5	4	7	7	12	10	3	0	1	2	1	4	3	3	1	1	1	1	1	1	4.6	17.5
18-Oct	1	2	1	2	4	5	5	5	5	4	2	1	2	4	3	4	3	3	3	4	4	4	3	2	3.2	5.5
19-Oct	3	3	2	2	2	4	7	6	6	5	2	7	1	0	0	0	0	2	2	1	0	2	5	7	3.0	7.3
20-Oct	5	3	3	6	6	4	5	7	9	9	7	9	7	5	4	3	6	2	1	1	2	2	4	6	4.7	9.2
21-Oct	7	6	6	6	7	6	6	8	7	3	4	2	1	2	3	4	3	4	6	6	7	6	7	4	5.0	8.2
22-Oct	3	4	6	2	0	1	0	1	1	4	1	0	0	0	0	1	5	5	3	2	6	4	2	0	2.1	5.8
23-Oct	0	1	0	2	1	0	0	1	1	0	1	1	0	1	2	3	3	2	3	3	4	1	1	1	1.4	3.6
24-Oct	3	3	3	4	1	1	2	4	3	1	1	1	1	1	3	0	1	2	1	2	3	4	2	1	1.9	4.0
25-Oct	2	3	2	2	1	1	2	3	0	2	3	2	2	P	P	P	P	P	10	4	3	2	2	3	2.6	10.5
26-Oct	2	1	2	2	1	2	3	4	4	2	1	1	0	0	0	0	0	2	4	3	4	7	6	6	2.4	7.3
27-Oct	6	4	3	3	2	4	5	12	10	13	10	12	8	8	14	15	11	14	13	12	23	26	22	18	11.1	25.9
28-Oct	19	20	17	12	8	6	8	11	14	14	16	14	21	14	12	9	10	17	23	33	35	35	25	13	17.0	35.1
29-Oct	6	6	6	7	6	6	9	12	15	17	M	M	M	M	M	M	M	M	BD	BD	0	0	0	0	--	16.6
30-Oct	0	0	0	0	0	0	1	7	10	6	6	5	3	4	3	2	2	5	4	3	1	1	1	1	2.6	9.6
31-Oct	1	0	0	1	0	1	2	3	2	2	2	1	2	1	2	2	3	6	6	4	4	4	3	3	2.4	6.0

3.9	3.9	3.3	3.0	2.7	2.8	3.9	5.9	6.8	6.1	5.0	4.3	3.7	3.3	3.3	3.5	3.3	4.6	5.4	6.2	6.0	5.9	5.0	4.2	Diurnal Average	
19.0	20.5	17.1	11.7	8.1	6.4	9.5	17.0	16.4	18.4	16.2	15.3	21.1	13.8	14.5	14.7	11.2	16.9	23.0	33.2	34.5	35.1	24.9	18.2	Diurnal Maximum	

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

# Hourly Averages for PM<sub>2.5</sub> at Henry Pirker October 2008



**Peace Airshed Zone Association**  
**Summary of Hourly Maximums**

**Henry Pirker - Particulate Matter 2.5 (PM<sub>2.5</sub>) - µg/m<sup>3</sup>**  
**October 1, 2008 to November 1, 2008**

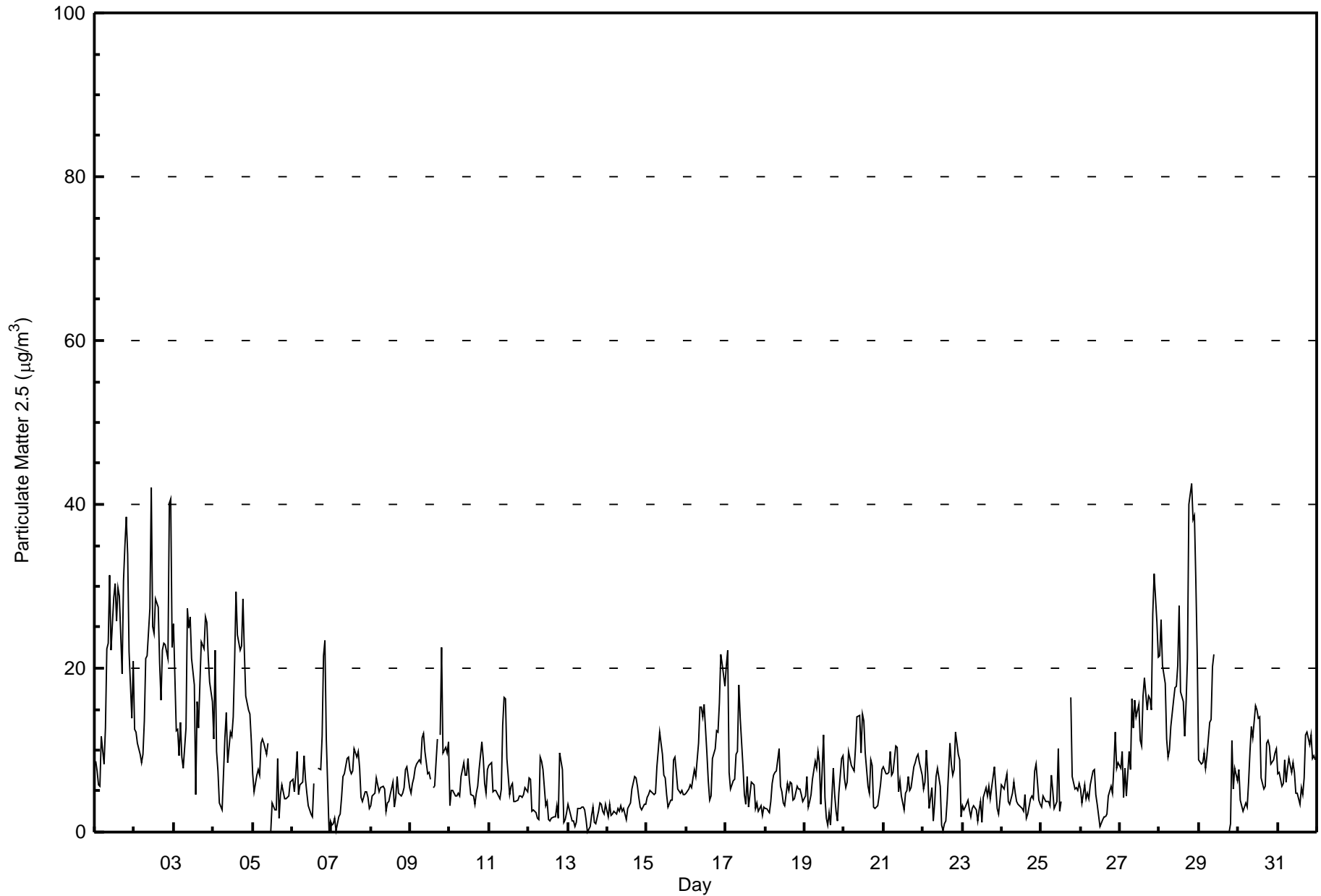
Maximum Value: 42.6 µg/m <sup>3</sup> on Oct 28 20:00	Maximum Daily Average: 21.8 µg/m <sup>3</sup> on Oct 2	Hours in Service: 744
Minimum Value: 0 µg/m <sup>3</sup> on Oct 5 12:00	Minimum Daily Average: 2.2 µg/m <sup>3</sup> on Oct 13	Hours of Data: 726
Maximum Diurnal Average: 11.3 µg/m <sup>3</sup> at hour 20	Minimum Diurnal Average: 5.8 µg/m <sup>3</sup> at hour 5	Hours of Missing Data: 18
Monthly Average: 8.64 µg/m <sup>3</sup>	Percentiles: P <sub>1</sub> = 0.7 P <sub>10</sub> = 2.5 Q <sub>1</sub> = 3.9 Median = 6.4 Q <sub>3</sub> = 10.3 P <sub>90</sub> = 20.3 P <sub>99</sub> = 38.3	Hours of Calibration: 2
		Percent Operational Time: 97.9

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-Oct	9	7	6	6	12	8	13	22	23	31	22	29	30	26	30	29	19	31	35	38	34	22	14	21	21.5	38.4
2-Oct	13	12	11	9	8	10	14	21	21	27	42	25	24	29	27	21	16	22	23	23	21	40	41	22	21.8	42.0
3-Oct	25	12	12	9	13	9	8	13	27	25	26	21	18	5	16	13	18	23	22	26	26	21	18	16	17.7	27.4
4-Oct	11	22	10	7	4	3	7	12	15	8	12	12	14	21	29	24	22	23	29	22	17	15	14	11	15.1	29.4
5-Oct	7	5	7	8	7	11	11	11	10	11	BD	0	3	3	3	9	2	5	6	4	4	4	4	6	6.1	11.4
6-Oct	6	5	7	10	5	6	6	9	6	5	3	2	2	6	C	C	8	8	12	21	23	11	0	1	7.4	23.4
7-Oct	1	1	2	0	2	2	4	7	7	9	9	8	7	7	10	9	10	8	4	4	5	5	4	3	5.3	10.2
8-Oct	3	4	5	7	6	5	5	6	5	3	4	4	5	6	3	4	7	5	4	5	5	8	8	5	5.0	7.9
9-Oct	5	6	7	8	8	9	9	12	12	10	7	7	6	P	5	6	11	BD	12	23	10	10	10	11	9.2	22.6
10-Oct	3	5	5	4	4	5	4	7	8	7	7	9	6	5	4	3	5	6	8	11	9	6	5	8	6.0	11.0
11-Oct	8	8	5	5	5	5	4	5	13	16	16	9	5	6	6	4	4	4	4	4	4	5	5	5	6.5	16.4
12-Oct	7	6	3	3	2	2	2	9	9	8	3	4	2	1	2	2	2	3	2	10	8	1	1	2	3.8	9.6
13-Oct	3	3	1	1	1	1	3	3	3	3	3	2	0	1	2	3	1	1	3	3	3	2	2	3	2.2	3.5
14-Oct	2	3	2	2	3	2	3	3	3	3	3	2	3	3	4	5	7	7	6	4	3	3	3	3	3.4	6.8
15-Oct	4	5	5	5	5	5	8	10	12	9	7	7	5	3	4	4	9	9	7	5	5	5	5	5	6.1	12.2
16-Oct	5	5	6	5	7	8	7	11	15	15	14	16	10	6	4	4	9	10	12	12	16	22	21	18	10.7	21.7
17-Oct	20	22	7	5	6	6	9	10	18	14	8	5	3	7	3	6	6	6	3	3	3	3	2	3	7.5	22.1
18-Oct	3	3	2	4	6	7	7	7	10	6	5	4	3	6	5	6	6	4	4	6	5	5	5	4	5.1	10.1
19-Oct	4	7	3	4	5	6	9	8	10	8	3	12	4	2	1	2	1	8	5	3	1	5	9	9	5.4	11.9
20-Oct	7	5	6	10	8	8	8	10	14	14	10	14	14	10	6	5	9	8	3	3	3	4	6	8	8.0	14.4
21-Oct	8	7	7	7	10	7	7	10	10	5	6	4	3	5	5	7	5	5	8	9	9	10	8	7	7.1	10.5
22-Oct	5	6	10	7	3	5	1	4	7	8	6	1	0	1	1	4	11	8	7	8	12	10	9	2	5.6	12.2
23-Oct	3	3	3	4	3	2	3	3	3	1	3	4	1	4	5	4	6	4	5	8	5	3	2	4	3.6	7.9
24-Oct	6	5	6	7	4	3	5	6	5	4	3	3	3	3	5	2	2	4	4	4	7	8	4	3	4.5	8.3
25-Oct	3	4	4	4	4	3	7	5	3	4	10	3	4	P	P	P	P	P	16	7	5	5	5	6	5.4	16.4
26-Oct	5	3	6	4	5	4	6	7	8	5	3	2	1	1	2	2	2	4	6	5	8	12	8	8	4.9	12.2
27-Oct	8	10	4	8	4	10	8	16	13	16	14	16	11	11	17	19	15	17	16	15	27	31	26	21	14.6	31.5
28-Oct	22	26	20	18	11	9	10	13	16	18	18	20	28	17	16	12	16	21	40	43	38	39	31	22	21.8	42.6
29-Oct	9	8	8	10	8	9	13	14	20	22	M	M	M	M	M	M	M	M	0	1	11	5	8	6	--	21.7
30-Oct	8	4	3	3	4	3	6	10	13	11	15	15	14	14	7	5	6	11	11	10	8	9	10	10	8.7	15.5
31-Oct	7	7	6	6	9	6	8	9	7	9	7	5	5	3	5	5	7	12	12	11	12	9	9	9	7.7	12.2

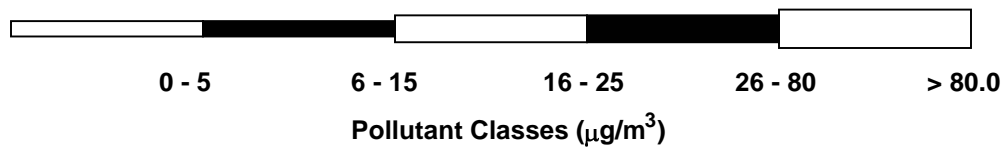
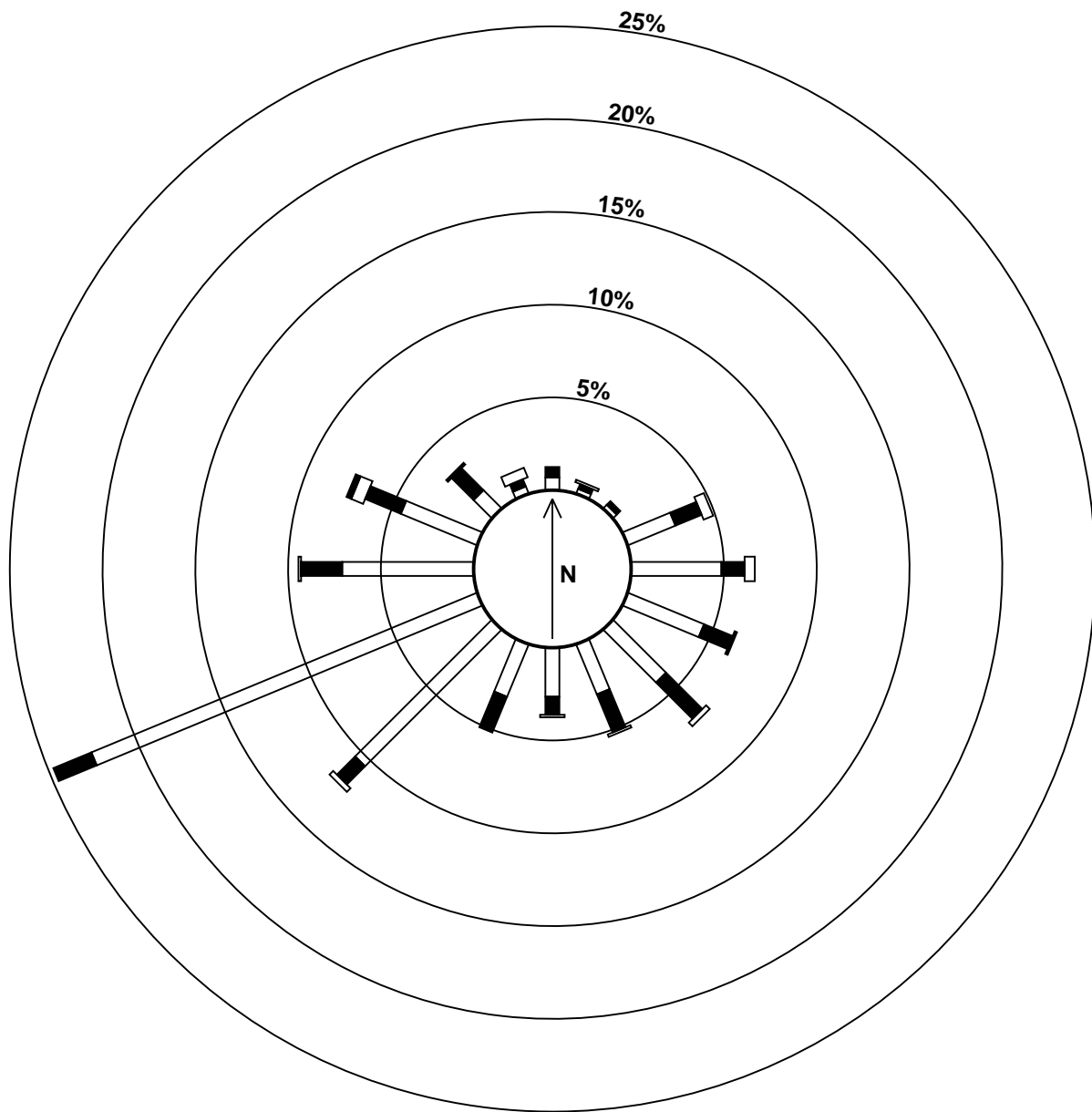
7.4	7.5	6.1	6.1	5.8	5.8	6.9	9.4	11.2	10.8	10.0	8.7	7.8	7.5	8.1	7.8	8.3	9.9	10.6	11.3	11.2	10.9	9.6	8.5	Diurnal Average	
25.5	26.0	20.3	18.2	13.4	10.9	13.6	22.3	27.4	31.3	42.0	28.7	30.4	28.5	29.8	28.9	22.2	30.8	40.1	42.6	38.1	40.1	40.6	22.5	Diurnal Maximum	

C - Calibration      P - Power Failure      M - Maintenance      BD - Baseline Drift

# Hourly Maximums for PM<sub>2.5</sub> at Henry Pirker October 2008



# Pollutant Rose for PM<sub>2.5</sub> at Henry Pirker October 2008



**Peace Airshed Zone Association  
Summary of Hourly Averages**

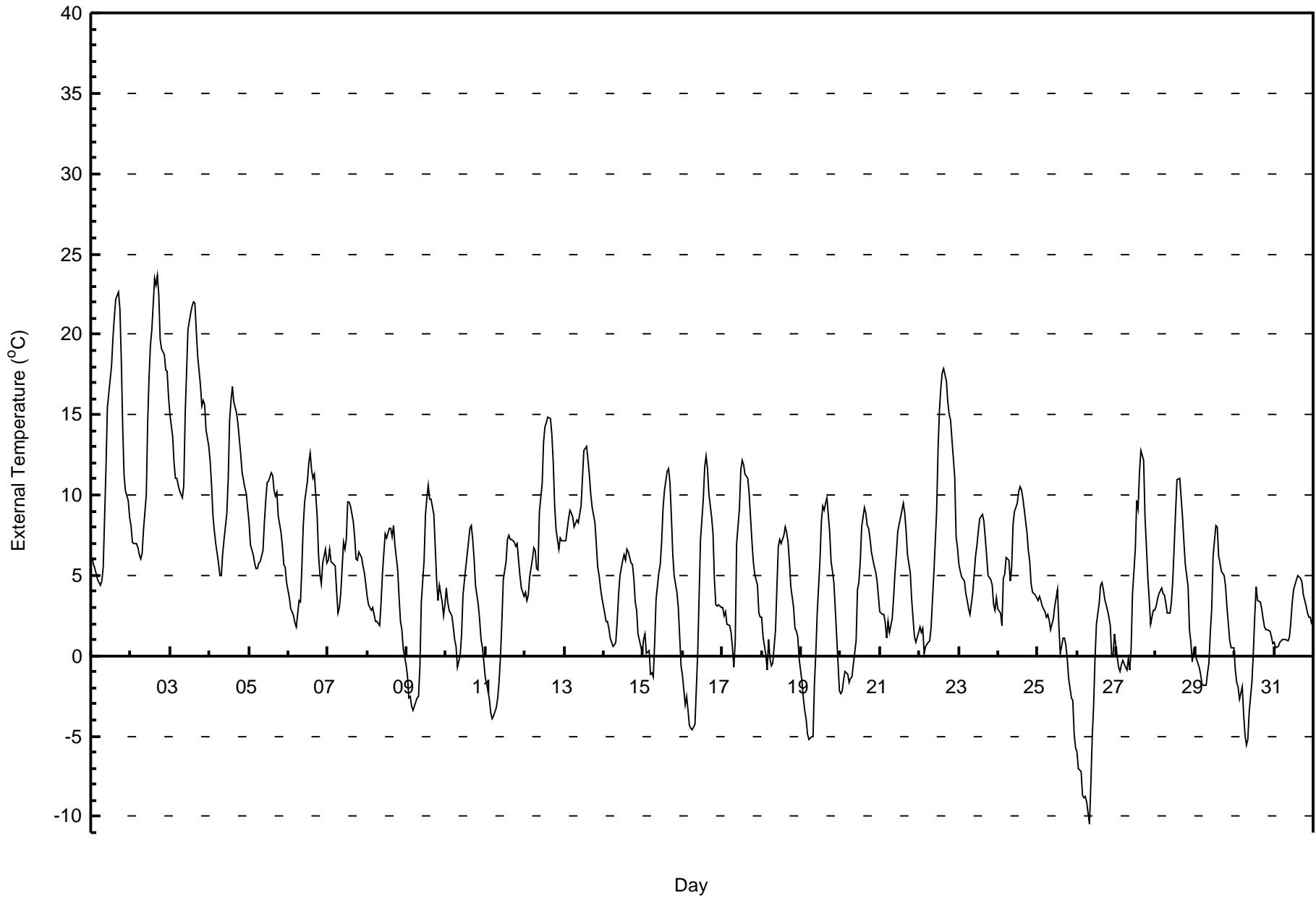
**Henry Pirker - External Temperature (ET) - °C  
October 1, 2008 to November 1, 2008**

Maximum Value: 23.7 °C on Oct 2 17:00	Maximum Daily Average: 15.6 °C on Oct 3	Hours in Service: 744
Minimum Value: -11 °C on Oct 26 08:00	Minimum Daily Average: -2.2 °C on Oct 26	Hours of Data: 744
Maximum Diurnal Average: 10.7 °C at hour 15	Minimum Diurnal Average: 1.2 °C at hour 8	Hours of Missing Data: 0
Monthly Average: 5.30 °C	Percentiles: P <sub>1</sub> = -7.1 P <sub>10</sub> = -1.1 Q <sub>1</sub> = 1.7 Median = 4.9 Q <sub>3</sub> = 8.4 P <sub>90</sub> = 12.0 P <sub>99</sub> = 21.9	Hours of Calibration: 0
		Percent Operational Time: 100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	6	6	5	5	5	4	5	5	9	12	15	17	18	20	21	22	23	22	18	14	11	10	10	9	12.2	22.6
2-Oct	8	7	7	7	7	6	6	6	8	10	14	17	19	20	23	23	24	22	20	19	19	18	18	16	14.4	23.7
3-Oct	15	14	12	11	11	11	10	10	11	15	18	20	21	22	22	22	20	19	17	16	16	16	14	13	15.6	22.0
4-Oct	12	11	9	8	7	6	5	5	6	7	9	11	15	16	17	16	15	14	13	13	11	10	10	9	10.6	16.7
5-Oct	8	7	6	6	5	5	6	6	7	8	10	11	11	11	11	10	10	10	9	8	7	6	5	5	7.8	11.4
6-Oct	4	3	3	2	2	2	3	3	6	8	10	11	12	13	12	11	11	9	6	5	4	6	7	6	6.6	12.6
7-Oct	6	7	6	6	6	4	3	3	4	7	7	7	10	10	9	8	7	6	6	6	6	6	5	4	6.2	9.6
8-Oct	4	3	3	3	3	2	2	2	3	5	6	8	7	8	8	7	8	7	5	4	2	2	0	-1	4.2	8.1
9-Oct	-1	-3	-3	-3	-3	-3	-3	-2	-1	3	6	9	10	11	10	10	9	7	5	3	4	3	2	3	3.1	10.6
10-Oct	4	3	3	3	2	1	1	-1	0	1	4	5	6	6	8	8	7	6	4	3	2	1	0	0	3.2	8.1
11-Oct	-1	-2	-3	-4	-4	-4	-3	-3	-2	0	2	5	6	7	7	7	7	7	7	7	6	5	4	4	2.4	7.5
12-Oct	4	3	4	5	6	7	7	5	5	9	11	13	14	14	15	15	14	12	9	8	7	7	7	7	8.7	14.9
13-Oct	7	7	9	9	9	9	8	8	8	9	9	11	13	13	12	11	10	9	8	7	6	5	4	4	8.6	13.1
14-Oct	3	2	2	2	1	1	1	1	2	4	5	6	6	6	7	6	6	6	5	3	3	1	1	0	3.3	6.6
15-Oct	1	1	0	0	-1	-1	-1	1	4	5	6	7	9	10	12	12	11	9	6	5	4	3	1	-1	4.3	11.7
16-Oct	-1	-3	-3	-3	-4	-4	-5	-4	-2	0	4	7	10	12	12	12	10	9	8	5	3	3	3	3	2.9	12.4
17-Oct	3	3	3	2	2	1	0	-1	1	7	9	12	12	12	11	11	10	9	7	6	5	4	3	2	5.6	12.2
18-Oct	2	1	0	-1	1	0	-1	0	2	4	7	7	7	8	8	8	7	6	4	3	2	2	1	0	3.2	8.0
19-Oct	-2	-3	-3	-4	-5	-5	-5	-5	-2	0	3	6	8	9	9	9	10	8	6	5	5	3	0	-2	1.9	9.8
20-Oct	-2	-2	-1	-1	-1	-2	-1	-1	-1	1	4	5	6	8	9	9	8	8	7	6	6	5	5	4	3.2	9.2
21-Oct	3	3	3	2	1	2	1	2	4	5	6	8	9	9	10	9	8	6	5	3	2	1	1	1	4.3	9.5
22-Oct	2	1	2	0	1	1	1	2	4	5	9	13	15	17	18	18	17	16	15	15	13	11	7	7	8.7	17.9
23-Oct	6	5	5	5	4	3	3	3	4	5	6	7	8	9	9	8	7	6	5	5	4	3	3	4	5.2	8.8
24-Oct	3	3	2	5	5	6	6	5	5	8	9	9	10	10	10	10	9	8	7	6	4	4	4	4	6.3	10.5
25-Oct	3	4	3	3	3	2	3	2	2	2	3	4	4	2	0	1	1	1	0	-1	-3	-3	-5	-6	1.1	4.1
26-Oct	-6	-7	-7	-9	-9	-9	-9	-11	-8	-5	-3	0	2	3	4	5	4	3	3	2	2	0	0	1	-2.2	4.6
27-Oct	0	-1	-1	-1	0	-1	-1	0	-1	0	4	7	10	9	11	13	12	9	7	5	3	2	3	3	3.8	12.8
28-Oct	3	4	4	4	4	4	3	3	3	3	5	7	9	11	11	10	9	7	6	4	2	1	0	0	4.8	11.0
29-Oct	0	0	-1	-1	-2	-2	-2	-1	0	1	3	6	8	8	6	6	5	5	4	3	2	1	0	0	2.1	8.1
30-Oct	-1	-2	-2	-3	-2	-4	-5	-6	-5	-3	-2	0	3	4	3	3	3	2	2	2	2	2	1	1	-0.2	4.3
31-Oct	1	1	1	1	1	1	1	1	1	1	2	3	4	5	5	5	5	5	4	3	3	2	2	2	2.4	5.0
	3.0	2.4	2.2	1.9	1.7	1.4	1.2	1.2	2.4	4.5	6.5	8.3	9.7	10.4	10.7	10.5	9.9	8.7	7.4	6.2	5.3	4.5	3.8	3.3	Diurnal Average	
	15.0	13.6	12.0	11.1	11.1	10.6	10.2	9.9	10.6	15.0	17.6	20.3	21.3	21.8	23.5	23.0	23.7	22.5	19.7	19.1	18.7	17.8	17.7	16.2	Diurnal Maximum	



# Hourly Averages for External Temperature at Henry Pirker October 2008



**Peace Airshed Zone Association  
Summary of Hourly Averages**

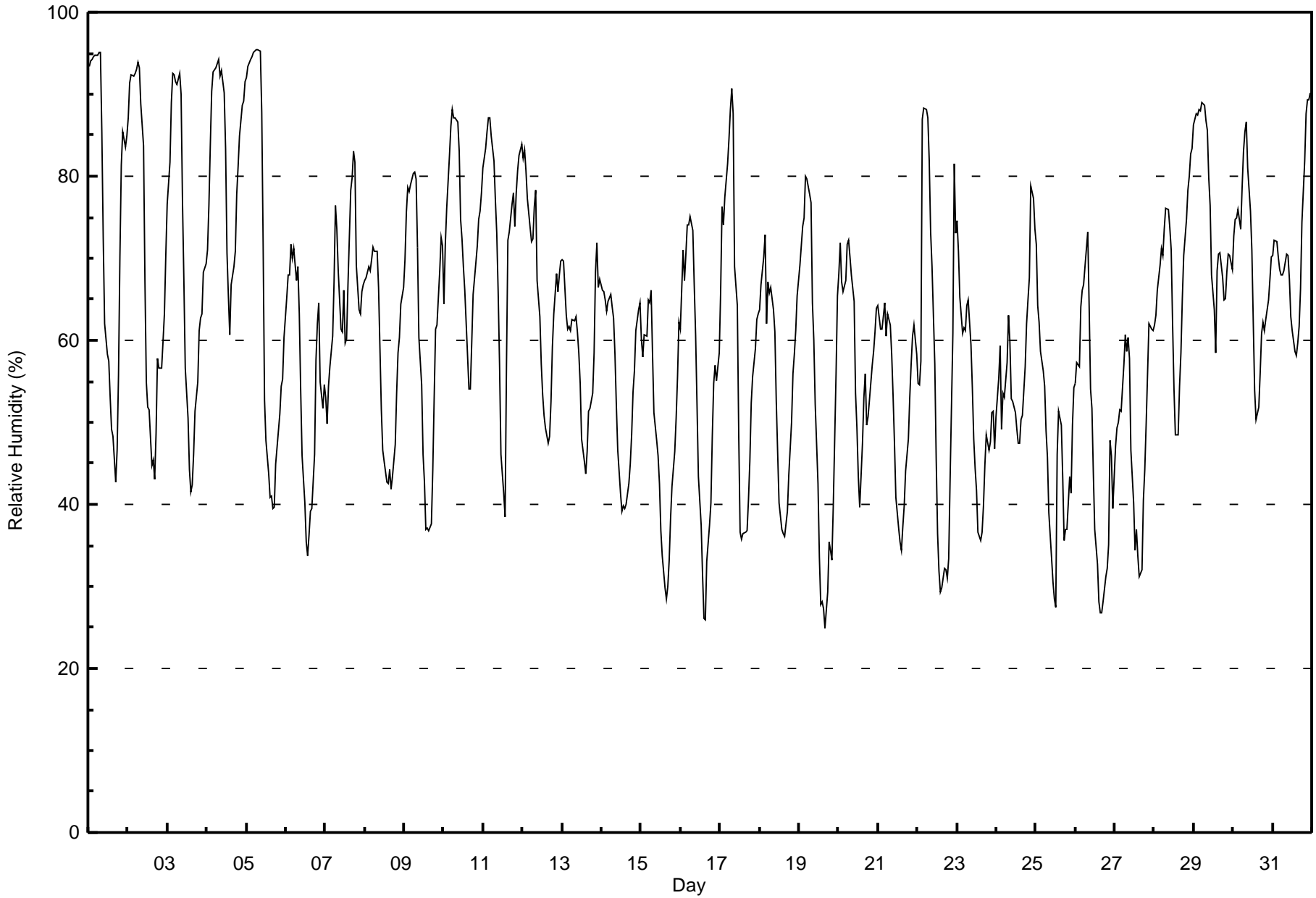
**Henry Pirker - Relative Humidity (RH) - %  
October 1, 2008 to November 1, 2008**

Maximum Value: 95.5 % on Oct 5 08:00	Maximum Daily Average: 82.1 % on Oct 4	Hours in Service: 744
Minimum Value: 25 % on Oct 19 17:00	Minimum Daily Average: 46.2 % on Oct 25	Hours of Data: 744
Maximum Diurnal Average: 75.5 % at hour 7	Minimum Diurnal Average: 43.8 % at hour 15	Hours of Missing Data: 0
Monthly Average: 61.50 %	Percentiles: P <sub>1</sub> = 27.8 P <sub>10</sub> = 38.4 Q <sub>1</sub> = 49.2 Median = 61.9 Q <sub>3</sub> = 71.9 P <sub>90</sub> = 85.3 P <sub>99</sub> = 95.0	Hours of Calibration: 0
		Percent Operational Time: 100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	93	94	94	95	95	95	95	95	85	73	62	58	57	53	49	48	43	47	56	70	81	85	84	85	74.7	95.1
2-Oct	87	91	92	92	93	93	94	93	89	84	67	55	52	52	45	45	43	49	58	57	57	60	63	70	70.0	93.9
3-Oct	77	82	89	92	92	91	91	93	90	77	67	57	50	44	42	42	46	51	55	61	63	63	68	69	68.9	92.5
4-Oct	71	76	84	90	93	93	94	94	92	93	90	83	71	65	61	67	69	71	78	81	85	89	89	92	82.1	94.2
5-Oct	92	93	94	95	95	95	95	95	95	88	72	53	48	44	41	41	39	40	45	49	51	54	55	60	67.9	95.5
6-Oct	65	68	68	72	70	71	67	69	63	54	46	40	36	34	36	39	40	46	58	62	65	55	52	55	55.4	71.8
7-Oct	53	50	54	57	61	67	76	74	68	61	61	66	60	60	67	78	80	83	82	69	64	63	66	67	66.1	83.1
8-Oct	67	68	69	68	70	71	71	71	66	59	52	47	45	43	43	44	42	43	47	54	59	60	64	66	57.9	71.3
9-Oct	70	76	79	78	79	80	80	80	71	60	55	46	43	37	37	37	38	44	53	61	62	69	72	72	61.6	80.4
10-Oct	64	72	76	83	86	88	87	87	87	83	75	72	69	66	58	54	54	60	66	69	71	75	76	78	73.2	88.1
11-Oct	81	83	85	87	87	85	82	77	73	66	57	46	41	38	57	72	73	77	78	74	78	81	82	84	72.8	87.2
12-Oct	82	83	81	77	74	72	72	76	78	67	63	57	53	51	49	47	48	52	59	63	68	66	68	70	65.8	83.2
13-Oct	70	70	63	61	62	61	62	62	63	61	58	55	48	45	44	46	51	52	54	59	68	72	66	68	59.2	71.9
14-Oct	66	66	65	64	65	66	64	63	58	52	47	41	39	40	40	40	43	45	48	54	56	61	64	65	54.6	66.0
15-Oct	60	58	61	60	65	65	66	58	51	48	46	42	37	34	30	28	30	33	38	42	47	51	56	62	48.7	66.1
16-Oct	61	71	67	70	74	74	75	73	67	61	52	43	37	31	26	26	33	37	40	48	55	57	55	58	53.9	75.1
17-Oct	66	76	74	77	81	85	88	91	88	69	64	49	37	36	37	37	37	41	45	52	56	59	63	63	61.2	90.8
18-Oct	64	67	70	73	62	67	66	66	64	61	53	46	40	37	36	36	38	39	44	50	56	58	61	65	55.0	72.9
19-Oct	69	72	74	75	80	80	78	77	65	60	52	43	34	28	28	27	25	29	35	34	33	40	56	65	52.4	80.0
20-Oct	68	72	67	66	67	72	72	70	68	65	54	49	43	40	47	53	56	50	51	53	57	59	61	64	59.3	72.2
21-Oct	64	61	61	63	65	61	63	62	58	53	48	41	37	35	34	37	40	44	48	53	57	61	62	58	52.8	64.6
22-Oct	55	55	58	87	88	88	87	82	73	69	57	46	36	32	29	30	32	32	31	33	43	61	82	73	56.6	88.4
23-Oct	75	71	65	61	61	61	64	65	60	54	48	44	42	37	36	37	40	45	49	47	48	51	51	47	52.4	74.5
24-Oct	51	55	59	49	54	53	57	63	60	53	53	51	49	47	48	50	51	57	62	65	68	79	77	74	57.7	78.7
25-Oct	72	64	62	59	56	54	49	46	39	33	31	28	27	46	51	50	43	36	37	37	43	41	50	54	46.2	71.7
26-Oct	55	57	57	64	66	67	69	73	64	54	52	44	37	33	28	27	27	28	31	32	35	48	46	39	47.2	73.2
27-Oct	47	49	50	52	51	57	61	59	60	58	47	40	34	37	34	31	32	40	44	50	56	62	61	61	48.9	62.0
28-Oct	62	63	66	69	71	70	73	76	76	74	71	62	54	49	48	54	59	65	70	75	78	80	83	83	68.0	83.4
29-Oct	86	88	87	88	88	89	89	87	86	80	76	68	64	58	68	70	71	68	65	65	68	70	70	69	75.8	89.0
30-Oct	73	75	75	76	74	79	83	85	87	81	76	71	62	54	50	52	56	61	62	61	63	65	67	70	69.0	86.6
31-Oct	70	72	72	70	69	68	68	68	70	70	68	63	61	59	58	60	62	66	74	82	88	89	89	90	71.1	90.1
	68.9	70.9	71.6	73.3	74.0	74.8	75.5	75.2	71.5	65.2	58.6	51.9	46.6	44.0	43.8	45.4	46.4	49.4	53.6	56.9	60.5	64.0	66.5	67.6	Diurnal Average	
	93.5	94.1	94.2	94.6	95.1	95.2	95.4	95.5	95.2	92.9	90.1	83.4	70.7	66.0	68.4	78.3	79.8	83.1	81.6	81.9	87.7	89.3	89.2	91.5	Diurnal Maximum	

# Hourly Averages for Relative Humidity at Henry Pirker

## October 2008

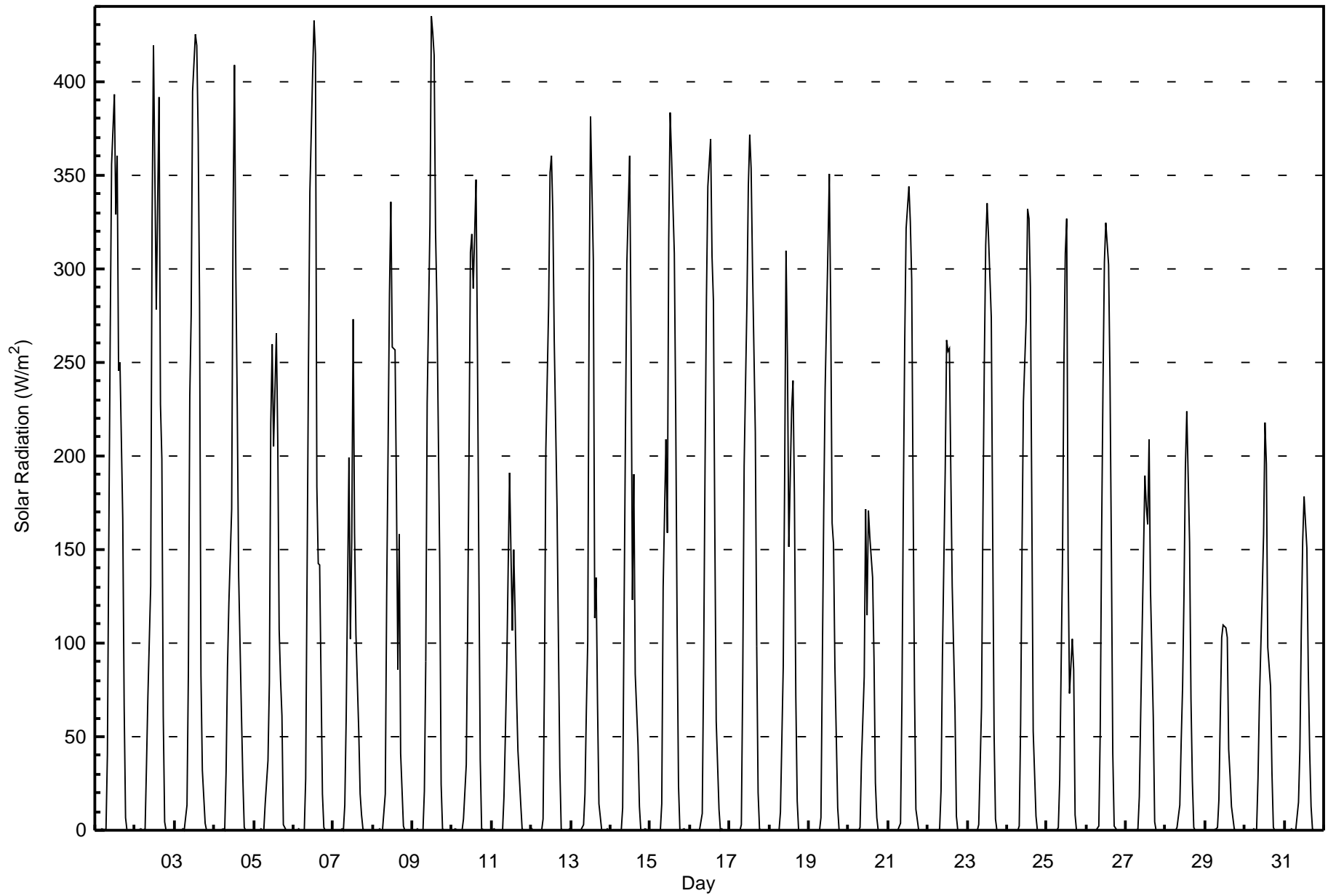


**Peace Airshed Zone Association  
Summary of Hourly Averages**

**Henry Pirker - Solar Radiation (SR) - W/m<sup>2</sup>  
October 1, 2008 to November 1, 2008**

Maximum Value: 434.9 W/m <sup>2</sup> on Oct 9 12:00		Maximum Daily Average: 112.8 W/m <sup>2</sup> on Oct 9		Hours in Service:	744																					
Minimum Value: 0 W/m <sup>2</sup> on Oct 1 01:00		Minimum Daily Average: 24.5 W/m <sup>2</sup> on Oct 29		Hours of Data:	744																					
Maximum Diurnal Average: 294.3 W/m <sup>2</sup> at hour 13		Minimum Diurnal Average: 0.0 W/m <sup>2</sup> at hour 23		Hours of Missing Data:	0																					
Monthly Average: 72.83 W/m <sup>2</sup>		Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.0 Median = 0.4 Q <sub>3</sub> = 122.2 P <sub>90</sub> = 276.5 P <sub>99</sub> = 411.1		Hours of Calibration:	0																					
				Percent Operational Time:	100.0																					
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	0	0	0	0	0	0	0	40	154	264	356	393	329	360	245	250	166	66	7	0	0	0	0	0	109.7	393.3
2-Oct	0	0	0	0	0	0	1	35	71	131	325	419	350	278	392	228	199	61	4	0	0	0	0	0	103.9	419.1
3-Oct	0	0	0	0	0	0	0	13	85	232	275	395	425	419	372	282	83	32	4	0	0	0	0	0	109.0	425.1
4-Oct	0	0	0	0	0	0	0	32	87	121	172	328	409	295	226	136	62	28	1	0	0	0	0	0	79.0	408.5
5-Oct	0	0	0	0	0	0	0	14	38	79	217	260	205	266	208	107	81	61	3	0	0	0	0	0	64.1	265.6
6-Oct	0	0	0	0	0	0	0	27	137	249	341	405	432	415	184	142	142	20	1	0	0	0	0	0	104.0	432.3
7-Oct	0	0	0	0	0	0	0	14	59	199	102	156	273	159	104	53	20	8	1	0	0	0	0	0	47.8	272.8
8-Oct	0	0	0	0	1	0	0	19	125	203	286	335	258	257	181	86	158	41	2	0	0	0	0	0	81.3	335.3
9-Oct	0	0	0	1	0	0	0	21	90	228	324	435	426	414	320	280	142	24	1	0	0	0	0	0	112.8	434.9
10-Oct	0	0	1	0	0	0	0	6	35	109	204	309	318	289	348	256	144	38	1	0	0	0	0	0	85.8	347.7
11-Oct	0	1	0	0	0	0	0	18	50	87	139	191	107	150	115	72	43	14	0	0	0	0	0	0	41.1	191.2
12-Oct	1	0	0	0	0	0	0	6	81	204	281	351	360	330	261	172	101	34	0	0	0	0	0	1	90.9	360.0
13-Oct	0	0	0	0	0	0	0	3	20	64	101	285	381	304	113	135	68	15	0	0	0	0	1	0	62.0	381.4
14-Oct	0	0	0	0	0	0	0	12	115	212	303	360	267	123	191	84	46	13	0	0	0	1	0	0	71.9	360.3
15-Oct	0	0	0	0	0	0	0	14	130	209	159	316	383	360	308	222	108	24	0	0	1	0	0	0	93.1	383.0
16-Oct	0	0	0	0	0	0	0	9	89	195	284	344	369	306	283	159	58	11	0	1	0	0	0	0	87.9	369.5
17-Oct	0	0	0	0	0	0	0	3	82	195	282	344	371	353	301	213	98	20	1	0	0	0	0	0	94.3	371.4
18-Oct	0	0	0	0	0	0	0	10	87	187	310	253	152	225	240	179	71	16	0	0	0	0	0	0	72.0	309.6
19-Oct	0	0	0	0	0	0	0	7	89	170	235	310	350	277	164	153	87	12	0	0	0	0	0	0	77.3	350.2
20-Oct	0	0	0	0	0	0	0	1	37	82	171	115	171	157	135	92	25	6	0	0	0	0	0	0	41.3	171.2
21-Oct	0	0	0	0	0	0	0	3	70	175	261	322	344	325	294	178	75	11	0	0	0	0	0	0	85.8	344.0
22-Oct	0	0	0	0	0	0	0	1	21	93	192	262	256	258	192	130	64	7	0	0	0	0	0	0	61.4	262.0
23-Oct	0	0	0	0	0	0	0	3	65	167	250	312	335	317	274	158	52	6	0	0	0	0	0	0	80.9	335.2
24-Oct	0	0	0	0	0	0	0	2	56	151	229	273	332	327	290	174	53	8	0	0	0	0	0	0	79.0	331.9
25-Oct	0	0	0	0	0	0	0	2	27	146	249	308	326	145	73	102	86	8	0	0	0	0	0	0	61.3	326.3
26-Oct	0	0	0	0	0	0	0	2	52	157	239	303	324	302	242	149	41	2	0	0	0	0	0	0	75.5	324.4
27-Oct	0	0	0	0	0	0	0	1	18	62	106	190	173	163	209	129	60	5	0	0	0	0	0	0	46.5	209.1
28-Oct	0	0	0	0	0	0	0	1	14	48	77	126	194	224	154	70	26	2	0	0	0	0	0	0	38.9	223.6
29-Oct	0	0	0	0	0	0	1	1	16	62	103	110	108	103	43	29	12	1	0	0	0	0	0	0	24.5	109.5
30-Oct	0	0	0	0	0	0	0	1	27	69	126	158	218	195	97	77	31	1	0	0	0	0	0	0	41.7	217.7
31-Oct	0	0	0	0	1	0	0	0	15	43	106	154	179	151	86	42	13	1	0	0	0	0	0	0	32.9	178.6
		0.0	0.0	0.0	0.0	0.1	0.1	0.1	10.3	65.9	148.2	219.5	284.6	294.3	266.0	214.3	146.4	77.9	19.2	0.9	0.0	0.0	0.0	0.0	0.0	Diurnal Average
		0.6	0.6	0.6	0.5	0.6	0.5	0.7	39.9	154.3	263.7	356.0	434.9	432.3	419.5	391.6	282.1	198.7	66.4	7.1	0.7	0.6	0.6	0.6	0.6	Diurnal Maximum

# Hourly Averages for Solar Radiation at Henry Pirker October 2008



**Peace Airshed Zone Association**  
**Summary of Hourly Averages**

Henry Pirker  
 October 1, 2008 to November 1, 2008  
 WS (km/h), WD (deg)

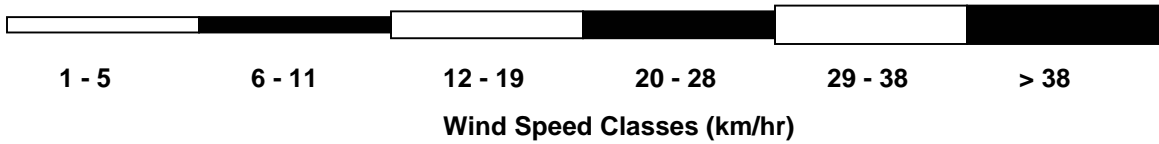
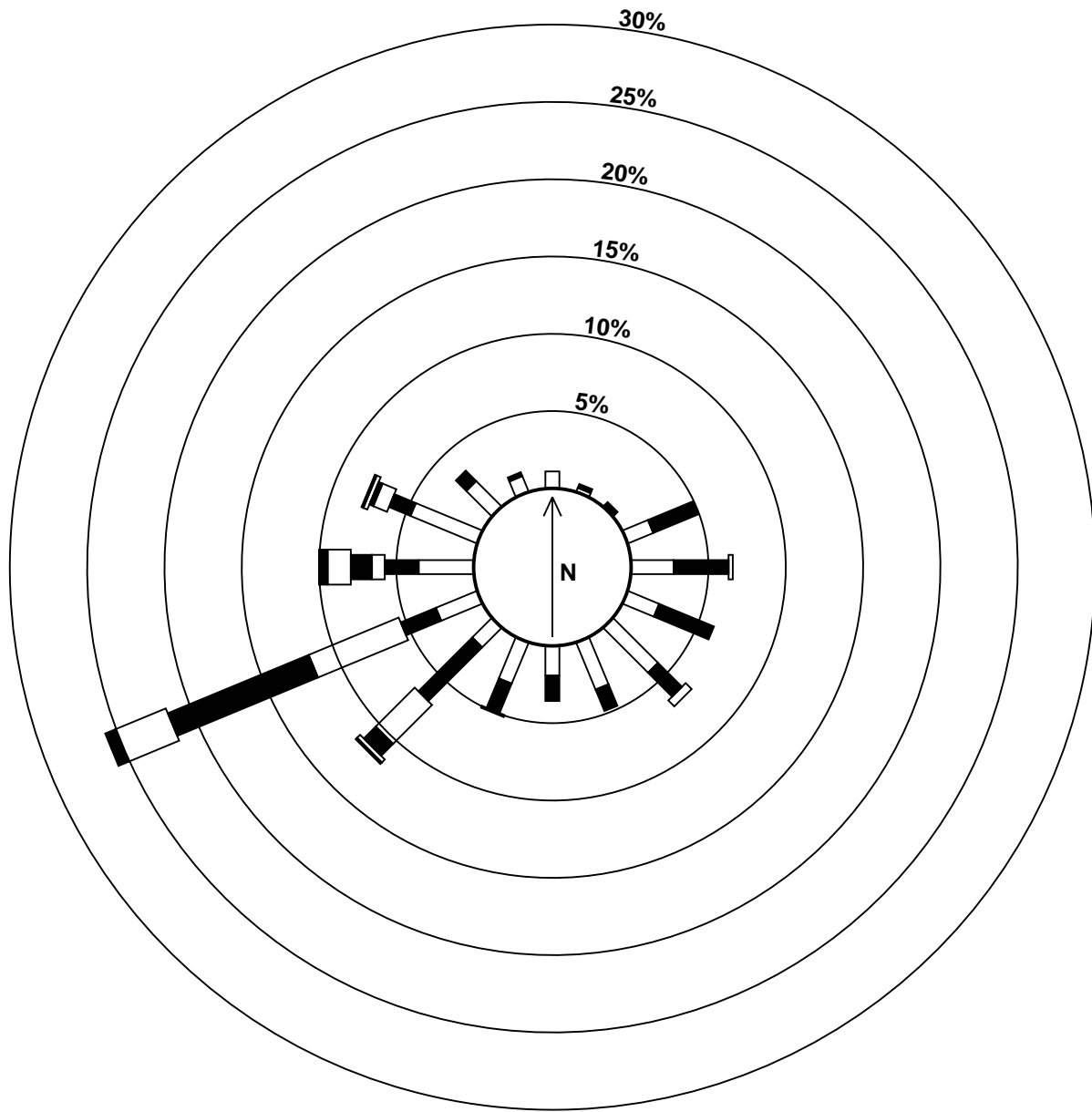
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	4	5	3	2	2	1	3	3	5	3	3	4	5	5	4	5	5	5	3	2	5	4	4	3	0.2	5.4
Dir	280	291	294	169	168	182	126	161	224	262	253	139	141	173	89	60	73	72	33	346	297	315	314	276	230.5	141.1
2 Spd	2	2	1	2	1	1	2	2	1	2	2	4	4	3	5	7	8	6	7	10	11	5	17	10	1.7	17.4
Dir	336	235	195	204	161	158	93	281	19	186	140	107	105	81	67	70	75	74	67	74	81	125	277	298	74.6	277.4
3 Spd	5	2	2	1	2	3	3	3	2	3	2	3	2	5	6	7	7	6	6	6	11	12	9	10	2.9	11.6
Dir	344	281	153	246	176	291	333	279	280	299	96	130	50	89	89	63	48	33	33	42	58	82	99	106	62.7	82.2
4 Spd	4	3	4	3	4	3	2	2	7	4	4	5	3	2	3	5	5	7	7	9	5	5	5	2	3.1	8.6
Dir	127	129	270	212	218	284	252	240	227	241	204	210	241	271	96	197	204	227	272	305	296	234	263	194	237.1	304.6
5 Spd	5	4	4	6	6	4	7	9	15	13	21	24	24	23	23	25	22	24	17	16	15	12	18	12	14.2	24.7
Dir	273	291	241	237	208	201	229	225	239	250	245	238	239	232	224	246	246	248	251	252	238	227	239	248	240.4	246.0
6 Spd	7	7	7	6	7	10	9	7	6	13	23	26	24	26	21	16	11	4	2	2	3	6	10	10	7.7	25.7
Dir	254	237	231	219	178	186	224	218	192	224	238	243	243	238	237	249	263	326	59	86	62	74	80	79	231.7	242.7
7 Spd	11	12	10	10	8	5	4	5	3	2	5	5	7	8	8	5	22	28	16	24	22	18	19	19	5.8	28.3
Dir	76	82	88	77	88	73	355	60	350	238	233	217	239	246	304	262	254	269	275	244	247	241	239	240	251.0	269.0
8 Spd	17	16	15	19	20	22	20	19	19	21	27	27	29	25	24	22	21	23	20	14	11	9	7	2	18.3	29.1
Dir	241	240	242	241	240	240	243	241	243	247	255	264	266	262	270	268	254	246	245	240	229	229	218	235	249.3	265.7
9 Spd	5	1	3	1	2	2	2	4	3	5	3	4	5	5	8	10	9	7	4	3	3	3	5	7	2.9	10.5
Dir	281	190	251	190	275	249	143	163	171	214	239	249	199	236	265	265	279	319	306	323	30	299	302	334	266.6	265.2
10 Spd	5	7	6	5	4	7	6	5	5	8	7	5	6	5	4	6	5	7	6	5	6	6	6	5	0.8	8.2
Dir	353	322	309	291	303	300	316	297	275	262	250	198	168	166	151	180	146	93	100	103	104	114	108	147	209.0	261.8
11 Spd	5	6	5	6	5	6	5	7	7	8	9	10	8	8	10	11	9	7	8	9	6	6	5	6	6.5	11.4
Dir	163	156	144	143	136	142	140	129	121	144	141	138	143	153	197	208	202	177	182	199	163	161	161	161	160.8	207.9
12 Spd	6	5	8	7	11	16	13	4	3	5	4	4	5	16	11	15	14	12	9	6	7	12	8	6	6.9	16.4
Dir	190	196	239	254	258	252	242	255	118	150	168	261	310	296	288	283	292	283	301	298	276	283	293	252	268.9	295.7
13 Spd	4	5	11	11	11	8	5	12	12	15	15	9	16	16	23	33	26	20	21	21	22	23	25	25	15.8	33.5
Dir	231	262	254	251	253	264	267	229	234	244	254	227	236	217	245	258	269	256	239	251	251	241	245	242	247.1	258.3
14 Spd	24	23	24	22	19	17	20	22	23	28	29	30	27	25	25	24	21	20	18	15	14	10	14	13	21.1	30.3
Dir	240	240	241	242	238	239	237	239	241	242	250	250	252	250	251	254	251	249	244	233	234	229	238	250	244.1	250.4
15 Spd	16	17	10	8	3	2	2	11	14	11	12	15	18	17	14	14	15	13	11	13	15	12	5	4	10.7	17.6
Dir	244	258	271	265	242	176	220	206	201	220	228	229	229	236	223	226	246	251	246	245	241	235	254	273	236.8	229.0
16 Spd	4	3	4	5	4	4	5	6	4	6	5	5	5	3	7	11	8	10	6	3	2	3	4	2	2.6	11.0
Dir	280	161	125	135	118	135	138	141	142	153	157	190	206	244	213	220	250	253	264	357	150	73	98	69	185.6	219.9
17 Spd	2	2	7	7	6	5	1	1	4	3	10	20	33	37	38	33	29	26	23	16	18	15	7	7	12.1	38.0
Dir	292	96	103	107	113	111	95	292	176	235	226	254	255	266	263	251	250	250	243	231	236	230	221	218	245.2	263.4
18 Spd	9	8	6	7	9	4	6	4	8	9	24	30	31	28	30	29	26	23	14	14	13	17	15	9	14.6	31.1
Dir	234	226	246	198	199	191	153	177	263	250	246	249	261	255	259	254	260	262	251	242	233	236	235	221	245.9	261.1
19 Spd	7	3	2	2	1	5	5	3	4	6	6	7	7	10	11	10	10	7	7	8	9	6	2	2	4.7	11.2
Dir	219	251	283	142	132	121	125	118	137	153	147	118	104	113	109	115	106	90	87	92	92	102	118	292	115.9	109.0
20 Spd	3	4	1	1	1	3	2	3	1	4	1	4	7	6	10	9	8	20	26	22	16	20	23	21	8.3	25.8
Dir	292	298	128	264	108	305	263	293	279	281	358	179	206	271	285	260	232	239	249	242	235	233	239	241	246.0	249.5
21 Spd	15	14	18	13	11	14	11	13	18	27	30	30	32	30	28	30	29	20	23	11	10	4	6	6	17.5	31.8
Dir	244	247	249	267	261	259	268	252	250	245	249	257	265	256	252	247	245	244	242	232	231	157	145	134	248.9	264.8
22 Spd	6	6	8	3	11	11	11	10	11	10	13	16	17	17	10	10	2	7	7	6	17	33	29	31	6.7	32.5
Dir	127	124	184	124	107	107	113	116	117	120	142	143	142	141	129	135	139	187	185	229	257	259	244	246	174.3	258.9

**Peace Airshed Zone Association  
Summary of Hourly Averages**

Henry Pirker  
October 1, 2008 to November 1, 2008  
WS (km/h), WD (deg)

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	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	30	33	32	30	23	21	14	16	25	29	35	44	34	34	35	38	28	14	7	7	6	7	7	9	22.3	44.0
Dir	238	240	236	245	247	246	230	226	236	237	247	252	249	250	255	257	254	241	215	208	185	165	172	201	241.6	251.8
24 Spd	6	5	3	9	13	11	10	11	15	22	29	40	42	42	44	34	35	24	20	17	10	27	26	26	21.1	43.7
Dir	206	252	108	297	243	218	209	225	218	225	231	235	245	245	241	240	241	242	232	237	226	233	235	240	236.6	241.4
25 Spd	21	22	24	25	26	21	32	42	36	37	43	47	45	43	39	32	29	30	25	18	14	13	6	3	27.1	47.0
Dir	244	251	248	244	245	246	260	264	261	261	259	263	267	287	279	272	289	290	294	284	280	292	295	224	267.1	262.7
26 Spd	5	8	3	1	3	4	3	1	4	7	8	9	9	11	10	10	8	7	7	5	2	3	3	4	3.5	11.2
Dir	291	342	307	228	101	79	87	355	84	105	113	99	115	119	123	122	115	82	75	88	116	292	192	229	103.6	118.9
27 Spd	2	2	2	4	2	3	1	2	1	4	5	3	3	4	5	6	6	7	6	3	2	3	2	1	1.5	6.6
Dir	311	137	207	312	289	350	146	316	3	147	196	210	165	152	149	145	186	133	90	140	73	104	278	290	154.4	132.8
28 Spd	1	0	2	1	3	1	1	2	4	1	1	2	4	1	4	4	4	2	2	3	2	2	2	5	0.4	5.0
Dir	64	236	59	161	149	111	36	112	133	101	154	321	337	1	135	114	142	329	81	321	296	300	330	313	69.5	313.5
29 Spd	2	3	5	5	5	1	2	2	2	3	4	11	21	27	25	20	20	21	18	17	19	15	10	10	10.3	27.1
Dir	301	290	303	309	305	295	313	251	191	284	277	289	283	277	267	258	257	258	264	247	237	234	223	231	262.5	277.4
30 Spd	6	4	7	8	9	3	2	2	2	2	5	5	5	3	5	7	8	7	7	9	9	9	7	6	2.1	9.5
Dir	236	197	227	220	236	293	185	152	210	315	132	152	167	264	95	72	68	73	73	74	80	82	72	57	111.4	80.3
31 Spd	7	6	6	7	6	6	4	4	6	6	5	7	9	8	7	7	5	3	6	6	5	4	5	4	3.2	8.6
Dir	69	74	72	84	90	88	93	91	86	91	83	72	98	98	94	98	83	295	302	317	291	280	254	290	76.4	98.4
Spd	5.2	4.8	5.1	4.9	4.6	4.0	4.0	5.0	5.9	7.7	9.9	11.0	11.6	11.5	11.2	11.3	10.4	9.3	7.4	6.4	5.7	6.5	6.7	6.0	Diurnal Average	
Dir	243.1	242.6	238.6	238.8	228.0	231.2	231.5	230.9	228.0	234.0	235.5	239.6	244.1	247.7	247.5	246.3	251.0	254.0	252.1	245.7	238.5	234.8	237.3	238.8	Diurnal Maximum	
Spd	30.5	32.6	32.5	29.9	25.8	21.7	32.4	41.6	35.7	37.4	43.3	47.0	45.3	43.1	43.7	37.9	34.5	30.4	25.8	24.0	21.6	32.5	29.3	31.2	Diurnal Maximum	
Dir	238.2	239.9	236.0	245.1	245.4	240.3	259.5	263.8	261.0	261.1	258.6	262.7	266.9	286.6	241.4	257.3	241.0	290.0	249.5	243.7	250.9	258.9	244.0	245.6	Diurnal Maximum	
Maximum Speed Value: 47 km/h on Oct 25 12:00																		Minimum Speed Value: 0 km/h on Oct 28 02:00						Hours in Service: 744		
Maximum Daily Speed Average: 27.1 km/h on Oct 25																		Minimum Daily Speed Average: 0.2 km/h on Oct 28						Hours of Data: 744		
Maximum Diurnal Speed Average: 11.6 km/h at hour 13																		Minimum Diurnal Speed Average: 4.0 km/h at hour 6						Hours of Missing Data: 0		
Monthly Average Velocity: 7.28 km/h 241.55 deg																		Speed Percentiles: P <sub>1</sub> = 0.7 P <sub>10</sub> = 2.2 Q <sub>1</sub> = 4.1 Median = 7.0 Q <sub>3</sub> = 15.4 P <sub>90</sub> = 25.3 P <sub>99</sub> = 41.8						Percent Operational Time: 100.0		
All monthly, daily, and diurnal averages have been calculated using vector methods																										
Percentage 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	1.48	0.27	0.00	0.00	0.00	0.00	1.75																			
NorthEast	1.21	1.34	0.00	0.00	0.00	0.00	2.55																			
East	4.17	7.80	0.94	0.00	0.00	0.00	12.90																			
SouthEast	6.18	5.91	0.67	0.00	0.00	0.00	12.77																			
South	4.17	4.30	0.13	0.00	0.00	0.00	8.60																			
SouthWest	4.03	6.59	8.20	7.80	1.75	0.54	28.90																			
West	6.72	4.70	3.90	4.30	4.17	0.94	24.73																			
NorthWest	4.84	2.69	0.13	0.13	0.00	0.00	7.80																			
Total	32.80	33.60	13.98	12.23	5.91	1.48	100.00																			

# Wind Rose for WS at Henry Pirker October 2008





**Peace Airshed Zone Association**  
**Summary of Hourly Averages - Wind Speed (Scalar)**

**Henry Pirker - Wind Speed (WS) - km/h**  
**October 1, 2008 to November 1, 2008**

Maximum Speed: 47 km/h on Oct 25 12:00	Maximum Daily Speed Average: 28.5 km/h on Oct 25	Hours in Service: 744
Minimum Speed: 2 km/h on Oct 9 02:00	Minimum Daily Speed Average: 3.5 km/h on Oct 28	Hours of Data: 744
Maximum Diurnal Speed Average: 16.6 km/h at hour 15	Minimum Diurnal Speed Average: 7.6 km/h at hour 7	Hours of Missing Data: 0
Monthly Average Speed: 11.36 km/h	Percentiles: P <sub>1</sub> = 2.5 P <sub>10</sub> = 3.5 Q <sub>1</sub> = 4.8 Median = 7.4 Q <sub>3</sub> = 15.6 P <sub>90</sub> = 25.5 P <sub>99</sub> = 42.1	Percent Operational Time: 100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	4	5	4	3	2	2	3	3	5	3	4	5	8	6	5	5	6	5	4	4	5	4	4	4	4.2	7.5
2-Oct	3	3	3	3	2	3	3	4	3	3	3	5	5	4	6	7	8	6	7	10	11	10	18	10	5.9	18.2
3-Oct	6	3	3	2	3	4	4	4	3	4	4	4	5	6	7	8	7	6	7	11	12	9	10	5.6	11.8	
4-Oct	5	5	5	4	5	4	3	3	7	5	5	6	5	4	4	6	6	8	8	9	6	6	5	3	5.1	8.8
5-Oct	6	4	4	6	6	5	7	9	15	14	21	25	24	23	23	25	23	24	17	16	15	12	18	12	14.8	25.3
6-Oct	7	7	7	6	7	10	9	7	7	14	23	26	25	26	22	17	11	5	3	3	4	6	10	10	11.3	25.9
7-Oct	11	12	10	10	8	6	5	6	6	4	6	5	8	8	9	6	23	28	17	24	22	18	20	19	12.1	28.5
8-Oct	17	16	15	19	20	22	20	19	19	21	28	28	29	25	24	22	21	23	20	14	11	10	7	3	18.9	29.2
9-Oct	5	2	4	2	3	3	3	4	3	5	4	4	6	6	9	11	10	7	4	4	3	4	6	7	5.0	10.8
10-Oct	5	7	6	6	5	8	6	5	5	8	7	6	7	6	6	7	6	7	6	5	6	6	6	6	6.2	8.3
11-Oct	5	6	6	6	5	7	5	7	8	8	9	10	9	9	11	12	9	7	8	9	6	6	6	6	7.4	11.5
12-Oct	6	5	9	8	11	16	13	6	3	5	5	5	6	17	11	15	14	12	9	7	7	12	9	6	9.1	16.8
13-Oct	5	6	11	11	11	8	5	12	12	16	15	10	17	17	23	34	26	20	21	22	22	24	25	25	16.5	33.7
14-Oct	24	23	24	22	19	17	20	22	23	28	29	31	28	25	26	24	22	20	18	15	14	10	14	13	21.3	30.6
15-Oct	16	17	11	9	5	4	3	11	14	12	13	16	18	17	14	14	15	13	11	13	15	12	7	4	11.7	17.9
16-Oct	5	3	4	5	5	4	5	6	5	6	6	6	6	5	8	11	9	10	7	3	3	4	4	3	5.4	11.4
17-Oct	3	4	7	7	6	5	4	4	6	6	11	20	33	38	38	33	30	26	23	16	18	15	7	7	15.4	38.2
18-Oct	9	9	6	7	9	4	6	5	12	10	24	31	31	28	31	30	27	23	14	14	13	17	15	9	15.9	31.3
19-Oct	7	4	3	3	3	5	5	4	4	6	6	7	8	10	11	10	10	7	7	8	9	6	3	3	6.2	11.5
20-Oct	3	4	3	4	4	4	4	4	3	5	3	5	8	7	10	9	8	20	26	22	16	20	24	21	10.0	26.0
21-Oct	15	14	18	14	11	14	12	13	18	27	30	30	32	30	29	30	30	20	23	12	10	5	6	6	18.7	32.2
22-Oct	6	6	9	5	11	11	11	11	11	11	13	16	17	17	10	10	5	8	8	9	17	33	29	31	13.1	32.8
23-Oct	31	33	33	30	23	21	15	16	25	29	35	44	34	34	35	38	28	14	8	8	7	7	8	9	23.4	44.4
24-Oct	7	6	5	11	14	12	10	12	15	22	29	40	43	42	44	34	35	24	20	17	11	27	27	26	22.2	43.8
25-Oct	22	22	24	25	26	21	34	42	36	38	44	47	46	45	40	32	30	31	26	18	14	13	6	4	28.5	47.4
26-Oct	6	8	5	3	3	4	4	4	5	7	8	9	9	12	11	11	8	7	7	6	5	4	4	5	6.4	11.7
27-Oct	4	4	4	4	4	3	4	4	3	5	6	4	4	5	6	7	8	7	6	4	3	3	3	3	4.4	7.8
28-Oct	2	3	3	4	4	3	3	3	4	3	3	3	4	4	5	5	4	4	3	4	3	4	3	5	3.5	5.3
29-Oct	3	4	5	5	5	4	4	3	4	4	5	11	21	27	25	20	20	21	18	17	19	15	10	10	11.7	27.3
30-Oct	7	6	7	9	10	4	4	2	3	3	5	5	5	4	5	7	8	7	7	9	9	9	7	6	6.3	10.2
31-Oct	8	7	6	7	6	6	4	4	6	7	5	7	9	8	8	7	5	5	6	6	5	4	5	4	6.0	8.9

8.4	8.3	8.5	8.4	8.2	7.9	7.6	8.3	9.4	10.9	13.2	15.2	16.4	16.6	16.6	16.3	15.1	13.7	11.9	10.8	10.3	10.9	10.5	9.5	Diurnal Average
30.6	32.7	32.6	30.1	25.9	21.7	33.5	41.7	35.9	37.6	43.5	47.4	45.6	44.7	43.8	38.0	34.6	31.1	26.0	24.1	22.1	32.8	29.4	31.3	Diurnal Maximum

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

**Peace Airshed Zone Association  
Summary of Hourly Standard Deviations**

**Henry Pirker - Wind Direction (WD) - deg  
October 1, 2008 to November 1, 2008**

Maximum Value: 94.8 deg on Oct 29 06:00																								Hours in Service:	744
Minimum Value: 3.1 deg on Oct 8 07:00																								Hours of Data:	744
Percentiles: P <sub>1</sub> = 3.7 P <sub>10</sub> = 5.6 Q <sub>1</sub> = 7.9 Median = 14.3 Q <sub>3</sub> = 34.1 P <sub>90</sub> = 60.1 P <sub>99</sub> = 87.9																								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-Oct	21	18	37	51	54	77	15	28	15	40	37	55	43	34	56	26	16	15	28	58	19	49	14	37	76.8
2-Oct	47	46	87	52	77	83	39	84	75	63	43	35	26	50	27	18	12	13	8	8	5	58	19	9	87.0
3-Oct	40	76	56	62	67	54	31	56	40	46	62	71	75	47	42	23	15	16	12	12	10	9	6	11	76.5
4-Oct	39	59	39	74	17	44	45	45	15	27	29	32	45	74	58	19	18	9	20	14	20	32	22	54	74.4
5-Oct	22	28	23	21	15	38	17	14	9	11	6	7	7	12	9	12	6	6	6	6	7	6	6	8	38.0
6-Oct	10	21	12	21	20	11	11	11	25	17	9	7	10	9	8	12	10	36	40	54	47	23	10	7	54.2
7-Oct	6	11	17	12	16	26	38	17	63	76	26	27	22	16	19	20	17	7	13	6	4	5	5	5	75.5
8-Oct	4	5	7	5	4	3	3	3	4	6	7	9	5	8	6	7	13	6	4	8	6	8	7	53	53.1
9-Oct	44	46	19	63	53	50	52	26	21	16	39	47	44	37	35	14	17	9	28	53	26	30	43	13	62.7
10-Oct	20	8	19	21	32	21	13	21	19	10	14	28	28	41	61	39	33	17	9	6	5	7	7	29	61.4
11-Oct	10	11	8	8	6	8	12	13	10	9	10	11	10	14	12	10	8	14	15	12	12	6	17	9	17.2
12-Oct	18	15	20	23	12	9	9	78	29	20	43	62	45	13	20	9	11	11	36	47	11	8	27	27	77.9
13-Oct	32	26	7	6	5	15	29	13	8	5	9	21	17	16	14	7	6	12	6	8	10	11	6	4	31.6
14-Oct	4	4	4	4	4	4	4	4	4	5	7	8	8	8	8	8	7	5	5	6	8	7	6	9	9.3
15-Oct	4	10	27	23	58	78	72	11	9	18	10	13	11	10	13	14	16	8	8	7	6	11	38	24	78.4
16-Oct	17	56	17	11	21	10	10	6	19	10	21	32	27	61	33	16	21	13	27	45	31	33	13	49	60.6
17-Oct	59	77	12	15	11	14	91	80	57	64	30	11	7	8	7	9	6	7	6	9	6	6	13	10	91.1
18-Oct	9	9	20	10	5	40	19	32	72	20	8	13	7	7	9	10	8	5	12	6	7	6	5	8	71.7
19-Oct	7	46	60	67	68	14	16	41	24	10	14	19	17	14	12	13	11	8	7	6	5	49	54	74	74.5
20-Oct	29	41	85	92	85	56	72	48	88	60	75	58	20	31	13	10	15	7	6	5	7	7	5	4	91.8
21-Oct	6	8	7	8	8	5	5	8	8	6	7	6	9	9	10	6	6	6	5	15	11	35	12	12	34.8
22-Oct	13	13	30	58	8	8	8	8	8	20	11	10	11	11	19	17	68	29	27	43	18	8	6	6	68.2
23-Oct	5	3	5	7	7	6	10	8	5	5	7	7	7	7	7	5	6	14	20	16	18	8	22	10	21.8
24-Oct	24	31	70	47	22	18	14	9	7	8	9	6	8	7	5	5	5	4	7	10	13	7	8	6	69.9
25-Oct	6	7	5	5	5	5	14	4	5	5	6	7	7	16	7	5	12	12	12	4	3	22	26	36	35.9
26-Oct	20	5	55	73	18	10	43	80	41	12	15	13	17	16	15	14	13	8	13	19	83	41	73	51	82.5
27-Oct	65	62	70	52	74	46	78	68	83	52	39	58	71	16	26	25	40	21	20	42	44	24	66	90	90.4
28-Oct	68	92	68	94	47	75	82	32	24	88	76	51	31	76	28	51	12	89	57	43	73	70	55	23	94.5
29-Oct	72	61	29	22	15	95	80	77	72	50	19	11	6	8	12	7	7	5	7	8	6	5	9	14	94.8
30-Oct	33	45	17	9	35	47	67	61	60	61	21	13	28	49	34	11	11	8	6	7	6	6	9	8	67.3
31-Oct	11	11	10	13	11	14	28	25	24	18	23	13	17	20	14	12	17	57	13	12	12	24	32	18	57.0
72.3	91.9	87.0	94.5	84.8	94.8	91.1	84.0	88.2	87.6	75.8	71.3	74.8	75.6	61.4	51.3	68.2	89.2	56.5	58.3	82.5	70.1	73.0	90.4		

PASZA

Evergreen Park Station

Monthly Summary Tables, Graphs and  
Roses

**Peace Airshed Zone Association  
Summary of Hourly Averages**

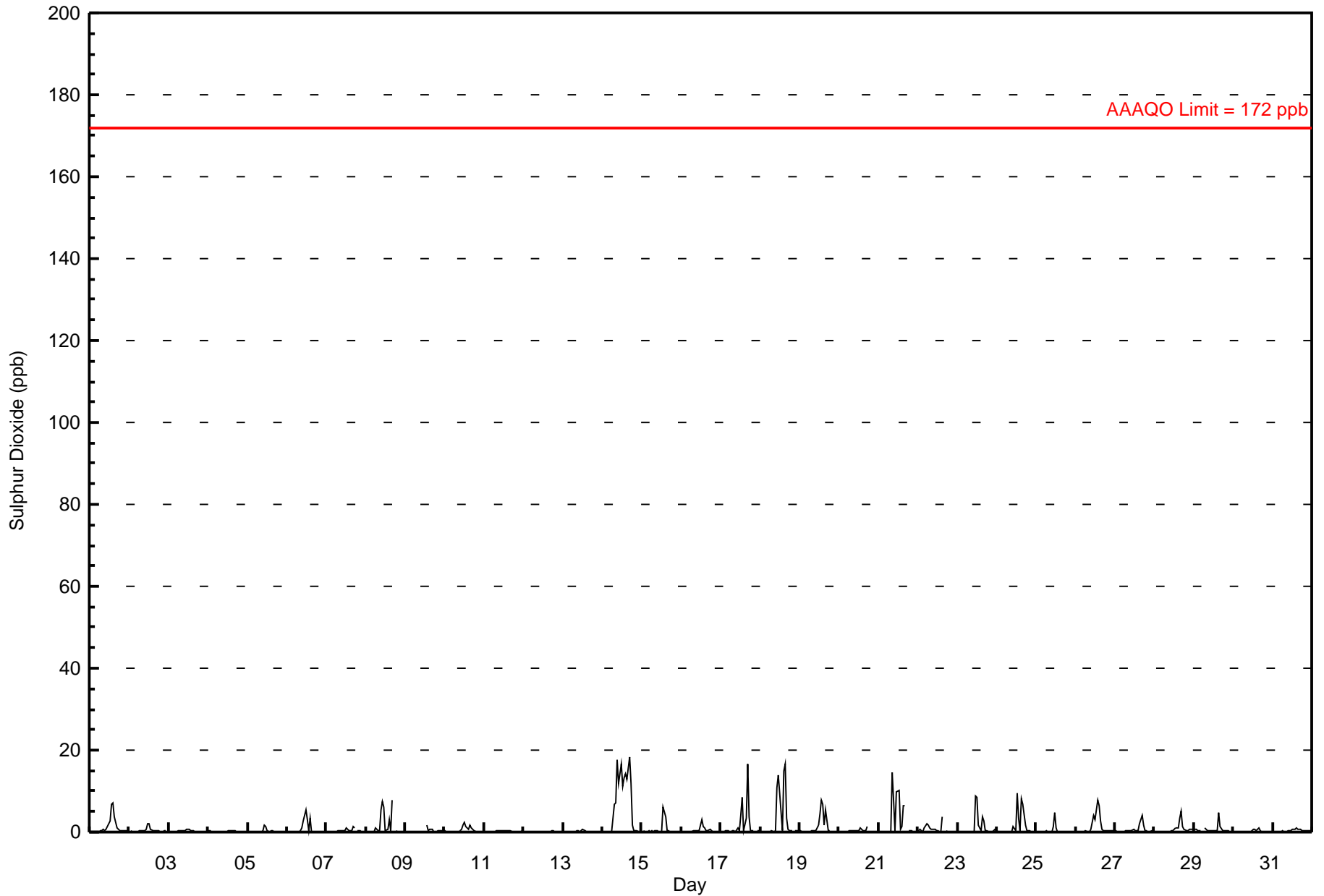
**Evergreen Park - Sulphur Dioxide (SO<sub>2</sub>) - ppb  
October 1, 2008 to November 1, 2008**

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 18.4 ppb on Oct 14 17:00	Maximum Daily Average: 6.5 ppb on Oct 14
Minimum Value: 0 ppb on Oct 3 03:00	Hours of Data: 709
Maximum Diurnal Average: 2.9 ppb at hour 17	Hours of Missing Data: 35
Monthly Average: 0.97 ppb	Hours of Calibration: 35
Minimum Daily Average: 0.1 ppb on Oct 12	Percent Operational Time: 100.0
Minimum Diurnal Average: 0.1 ppb at hour 4	
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> = 1.9 P <sub>99</sub> = 14.3	

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-Oct	0	A	0	0	0	0	0	0	1	0	1	2	3	7	7	4	1	1	0	0	0	0	0	0	1.2	7.2
2-Oct	A	0	0	0	0	0	0	0	0	0	1	2	2	1	0	0	0	0	0	0	0	0	0	0	0.4	2.0
3-Oct	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
4-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.5
5-Oct	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	A	0	0	0	0.2	1.7
6-Oct	0	0	0	0	0	0	0	0	0	1	3	5	3	0	3	0	0	0	0	A	0	0	0	0	0.8	5.3
7-Oct	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	1	A	0	0	0	0	0	0.3	1.5
8-Oct	0	0	0	0	0	0	1	0	0	5	8	6	0	1	3	0	8	A	0	0	0	0	0	0	1.5	7.7
9-Oct	0	0	0	0	0	0	0	0	0	0	C	C	C	A	2	0	1	1	0	0	0	0	0	0	0.3	1.9
10-Oct	0	0	0	0	0	A	0	0	0	0	1	2	2	1	1	2	1	1	0	0	0	0	0	0	0.5	2.3
11-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
12-Oct	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
13-Oct	0	0	A	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.1	0.7
14-Oct	0	A	0	0	0	0	4	7	7	18	12	17	11	13	14	13	18	12	2	0	0	0	0	0	6.5	18.4
15-Oct	A	0	0	0	0	0	0	0	0	0	0	0	0	6	4	0	0	0	0	0	0	0	0	0	0.6	6.2
16-Oct	0	0	0	0	0	0	0	0	0	0	0	0	3	1	1	0	0	1	0	0	0	0	A	0	0.4	3.0
17-Oct	0	0	0	0	0	0	0	0	0	0	1	0	4	8	0	3	17	4	0	0	0	A	0	0	1.8	16.7
18-Oct	0	0	0	0	0	0	0	0	0	0	11	14	10	0	15	17	3	1	0	0	A	0	0	0	3.2	16.7
19-Oct	0	0	0	0	0	0	0	0	0	0	0	2	5	8	7	2	6	1	0	A	0	0	0	0	1.4	7.9
20-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	A	0	0	0	0	0	0.3	1.4
21-Oct	0	0	0	0	0	0	0	0	14	8	0	10	10	1	1	6	6	A	0	0	0	0	0	0	2.6	14.5
22-Oct	0	1	0	0	1	2	1	1	1	1	0	0	0	0	0	4	A	0	0	0	0	0	0	0	0.6	3.8
23-Oct	0	0	0	0	0	0	0	0	0	0	0	9	9	2	0	4	3	0	0	0	0	0	0	0	1.1	8.7
24-Oct	0	0	0	0	0	A	0	0	0	0	1	0	9	4	0	8	7	2	0	0	0	0	0	0	1.4	9.4
25-Oct	0	0	0	0	A	0	0	0	0	0	1	5	1	0	0	0	0	0	0	0	0	0	0	0	0.4	4.7
26-Oct	0	0	0	A	0	0	0	0	0	1	2	4	3	8	6	3	1	0	0	0	0	0	0	0	1.3	7.9
27-Oct	0	0	A	0	0	0	0	0	0	0	0	1	0	0	0	2	4	2	1	0	0	0	0	0	0.6	4.2
28-Oct	0	A	0	0	0	0	0	0	0	0	0	0	1	1	1	3	5	1	1	0	0	1	1	1	0.8	5.0
29-Oct	1	1	0	0	0	A	1	1	0	0	0	0	0	0	0	5	1	0	0	0	0	0	0	0	0.6	4.6
30-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0.2	1.1
31-Oct	0	0	0	A	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0.3	0.9
	0.1	0.1	0.1	0.1	0.1	0.2	0.4	0.4	0.9	1.3	1.6	2.8	2.7	2.2	2.2	2.6	2.9	1.0	0.3	0.2	0.1	0.1	0.2	0.2	Diurnal Average	
	0.5	0.6	0.4	0.3	0.9	2.0	3.5	6.7	14.5	17.5	11.7	16.8	11.3	13.3	14.8	16.7	18.4	12.0	1.7	0.4	0.4	0.5	0.5	0.6	Diurnal Maximum	

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

# Hourly Averages for SO<sub>2</sub> at Evergreen Park October 2008



**Peace Airshed Zone Association  
Summary of Hourly Maximums**

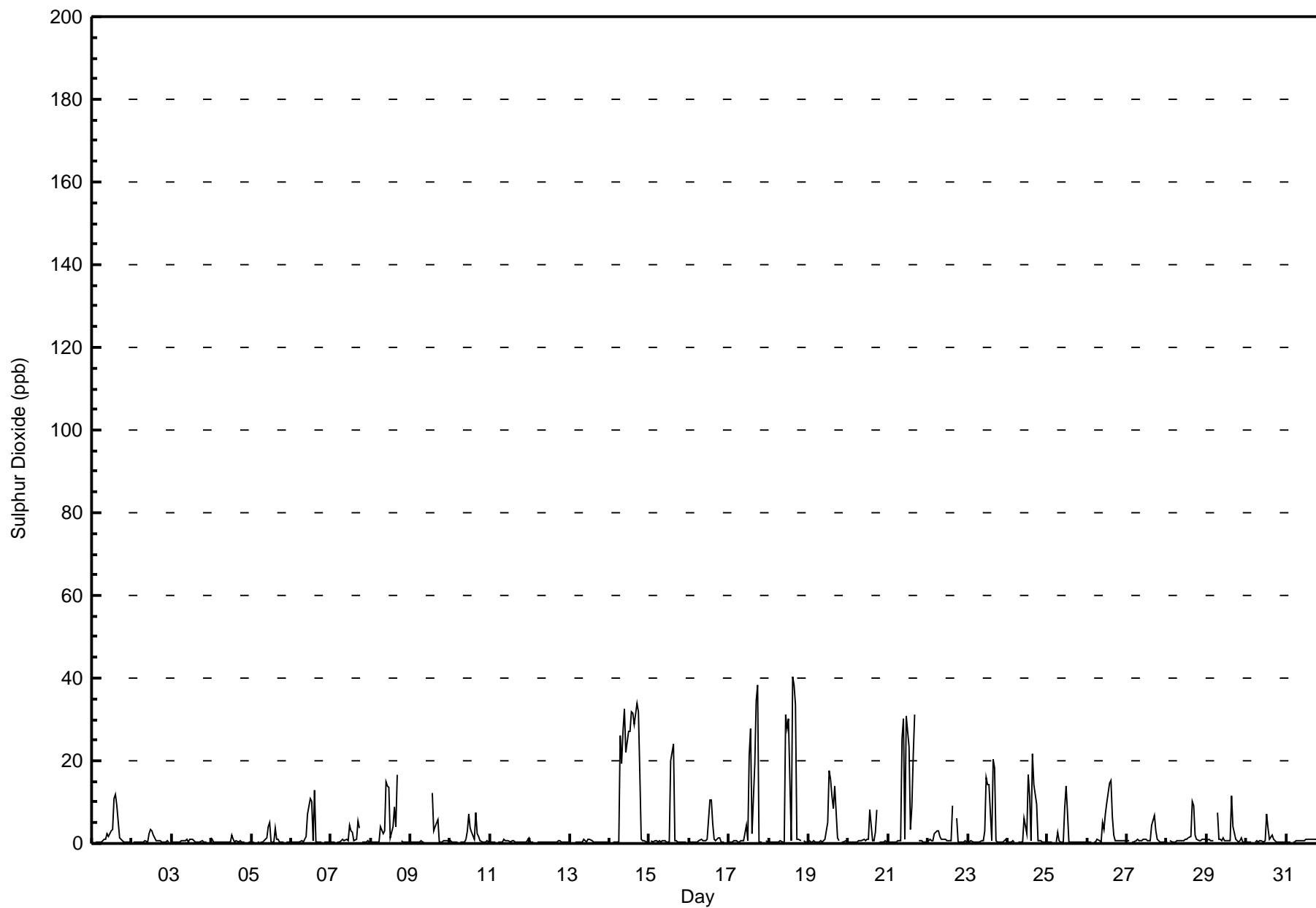
**Evergreen Park - Sulphur Dioxide (SO<sub>2</sub>) - ppb  
October 1, 2008 to November 1, 2008**

Maximum Value: 40.3 ppb on Oct 18 15:00	Maximum Daily Average: 15.7 ppb on Oct 14	Hours in Service: 744
Minimum Value: 0 ppb on Oct 7 04:00	Minimum Daily Average: 0.4 ppb on Oct 12	Hours of Data: 709
Maximum Diurnal Average: 8.1 ppb at hour 17	Minimum Diurnal Average: 0.3 ppb at hour 4	Hours of Missing Data: 35
Monthly Average: 2.76 ppb	Percentiles: P <sub>1</sub> = 0.2 P <sub>10</sub> = 0.3 Q <sub>1</sub> = 0.3 Median = 0.5 Q <sub>3</sub> = 0.9 P <sub>90</sub> = 8.5 P <sub>99</sub> = 31.9	Hours of Calibration: 35
		Percent Operational Time: 100.0

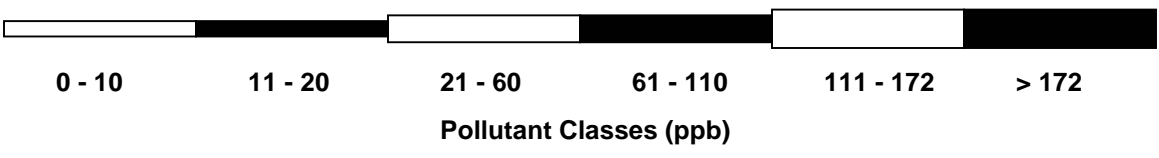
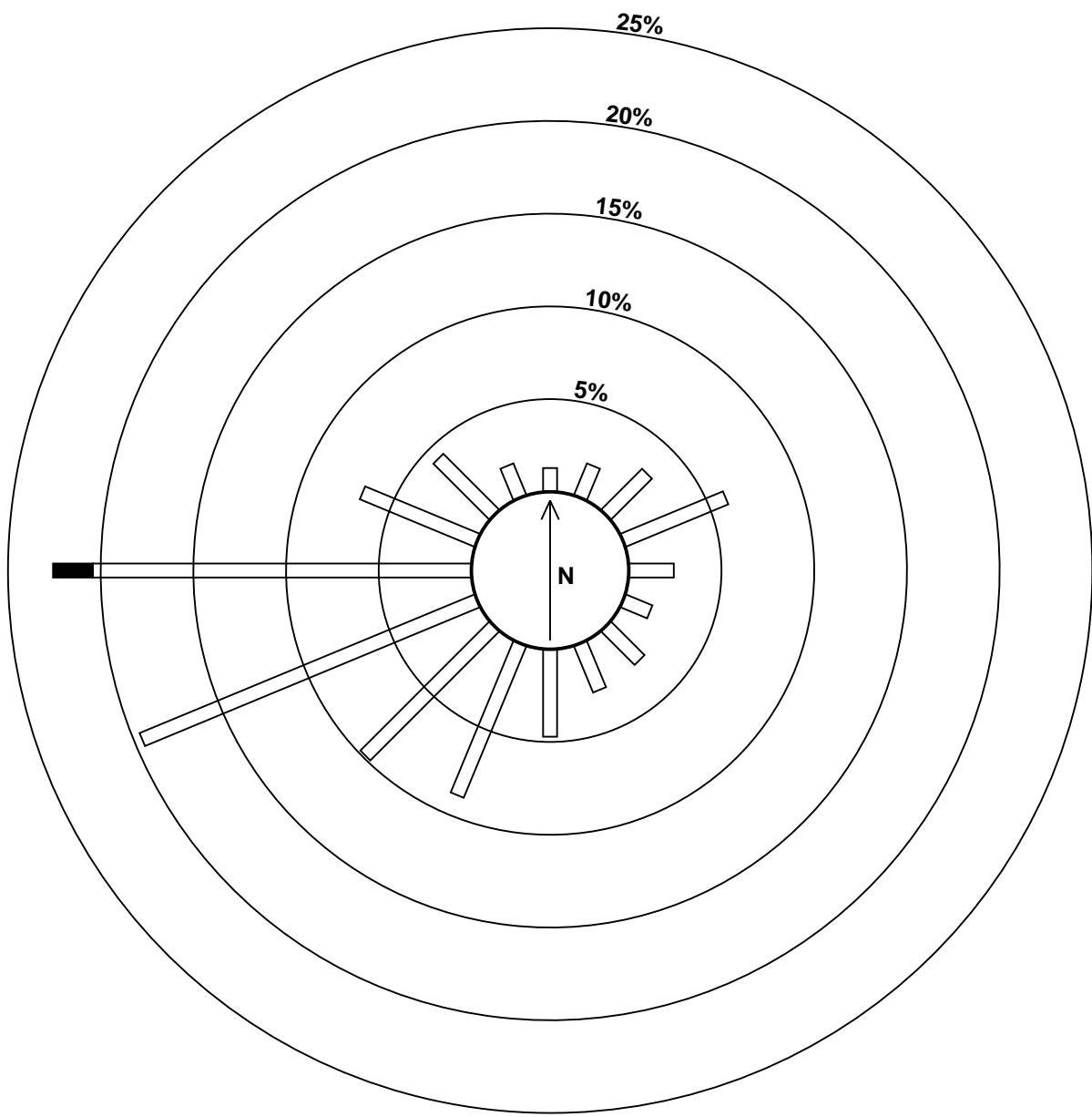
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	1	A	0	0	0	0	1	1	1	2	2	3	3	11	12	9	1	1	1	0	0	0	0	0	2.3	11.7
2-Oct	A	0	0	0	0	0	0	1	1	0	2	3	3	2	1	1	1	1	0	0	0	1	0	A	0.9	3.4
3-Oct	0	0	0	0	0	0	1	1	1	1	0	1	1	1	1	1	0	0	1	1	0	0	A	1	0.6	1.2
4-Oct	1	0	0	0	0	0	0	0	0	0	0	0	2	1	0	1	0	1	0	0	0	A	0	0	0.5	1.9
5-Oct	0	0	0	0	0	0	0	0	1	1	4	5	0	0	4	1	1	0	0	0	A	0	0	0	1.0	5.0
6-Oct	0	0	0	0	0	0	1	0	1	2	7	11	10	1	13	0	0	0	0	A	0	0	0	0	2.2	12.8
7-Oct	0	0	0	0	0	0	1	1	1	1	1	5	3	3	1	1	5	4	A	0	0	0	1	0	1.3	5.3
8-Oct	0	0	0	0	0	0	4	3	3	15	14	14	1	4	9	4	17	A	1	0	0	0	0	0	3.9	16.6
9-Oct	0	0	0	0	0	0	1	0	0	C	C	C	A	12	3	4	6	0	0	0	1	1	1	0	1.5	12.3
10-Oct	1	0	0	0	0	A	0	0	0	1	3	7	4	3	1	7	2	2	1	0	0	0	1	0	1.5	7.4
11-Oct	0	0	0	0	A	0	0	0	1	1	1	1	0	1	1	0	0	0	0	0	0	0	0	1	0.5	1.2
12-Oct	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0.4	0.6
13-Oct	0	0	A	0	0	0	0	0	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0.4	1.0
14-Oct	0	A	0	0	0	0	26	19	27	33	22	27	27	32	32	29	34	32	17	1	1	1	0	0	15.7	34.1
15-Oct	A	1	0	1	1	0	1	0	1	1	0	0	0	20	24	1	1	0	0	0	0	0	0	A	2.4	24.2
16-Oct	0	0	0	0	0	0	1	1	1	1	1	1	11	10	5	1	1	1	1	0	0	0	A	0	1.6	10.5
17-Oct	0	0	0	1	1	0	0	1	1	1	5	1	21	28	2	19	35	38	0	0	0	A	1	0	6.8	38.4
18-Oct	0	0	0	0	0	0	0	1	0	0	31	28	30	1	40	38	34	1	1	1	A	1	0	0	9.1	40.3
19-Oct	1	0	0	1	0	0	0	1	0	1	5	17	16	12	9	14	1	1	A	0	0	0	1	0	3.5	17.5
20-Oct	0	0	0	0	0	0	1	1	1	1	1	1	8	1	1	3	8	8	A	0	0	0	1	0	1.3	8.2
21-Oct	0	0	0	0	0	0	1	1	26	30	1	31	23	3	9	21	31	A	1	1	1	0	0	0	7.9	31.3
22-Oct	1	1	1	1	2	3	3	2	1	1	1	1	1	1	1	9	A	6	0	0	0	0	1	0	1.5	9.0
23-Oct	0	0	1	0	0	0	0	0	1	1	3	16	14	14	1	20	18	1	0	0	0	0	1	1	3.9	20.3
24-Oct	0	0	0	1	0	A	0	0	0	0	6	3	17	12	1	22	14	10	1	1	1	0	0	0	3.9	21.9
25-Oct	0	0	0	0	A	0	3	1	0	1	9	14	7	0	0	0	0	0	0	0	0	0	0	0	1.7	14.0
26-Oct	0	0	0	A	0	0	1	1	0	5	4	7	10	15	15	7	2	1	1	1	1	1	1	1	3.1	15.3
27-Oct	1	1	A	0	0	1	1	1	1	1	1	1	1	1	1	4	7	3	1	1	0	0	0	1	1.2	6.8
28-Oct	0	A	1	0	0	0	1	1	1	1	1	1	1	1	2	10	9	2	1	1	1	1	1	1	1.6	10.1
29-Oct	1	1	1	1	1	A	7	1	1	1	1	1	1	1	1	12	4	1	1	0	1	1	0	0	1.6	11.7
30-Oct	0	0	0	0	A	0	1	0	1	1	0	1	7	4	1	2	1	1	0	0	0	0	0	0	1.0	7.2
31-Oct	0	0	0	A	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	1.2
	0.4	0.4	0.4	0.3	0.4	0.4	1.8	1.2	2.4	3.4	4.1	6.3	7.4	6.6	6.2	7.6	8.1	4.1	1.1	0.4	0.4	0.5	0.5	0.5	Diurnal Average	
	0.8	1.0	0.8	0.6	2.4	2.9	26.1	19.4	27.0	32.5	31.3	31.0	30.2	32.0	40.3	38.3	34.6	38.4	17.0	1.0	0.6	1.2	0.9	1.2	Diurnal Maximum	

C - Calibration                      A - Automated Daily Zero Span

# Hourly Maximums for SO<sub>2</sub> at Evergreen Park October 2008



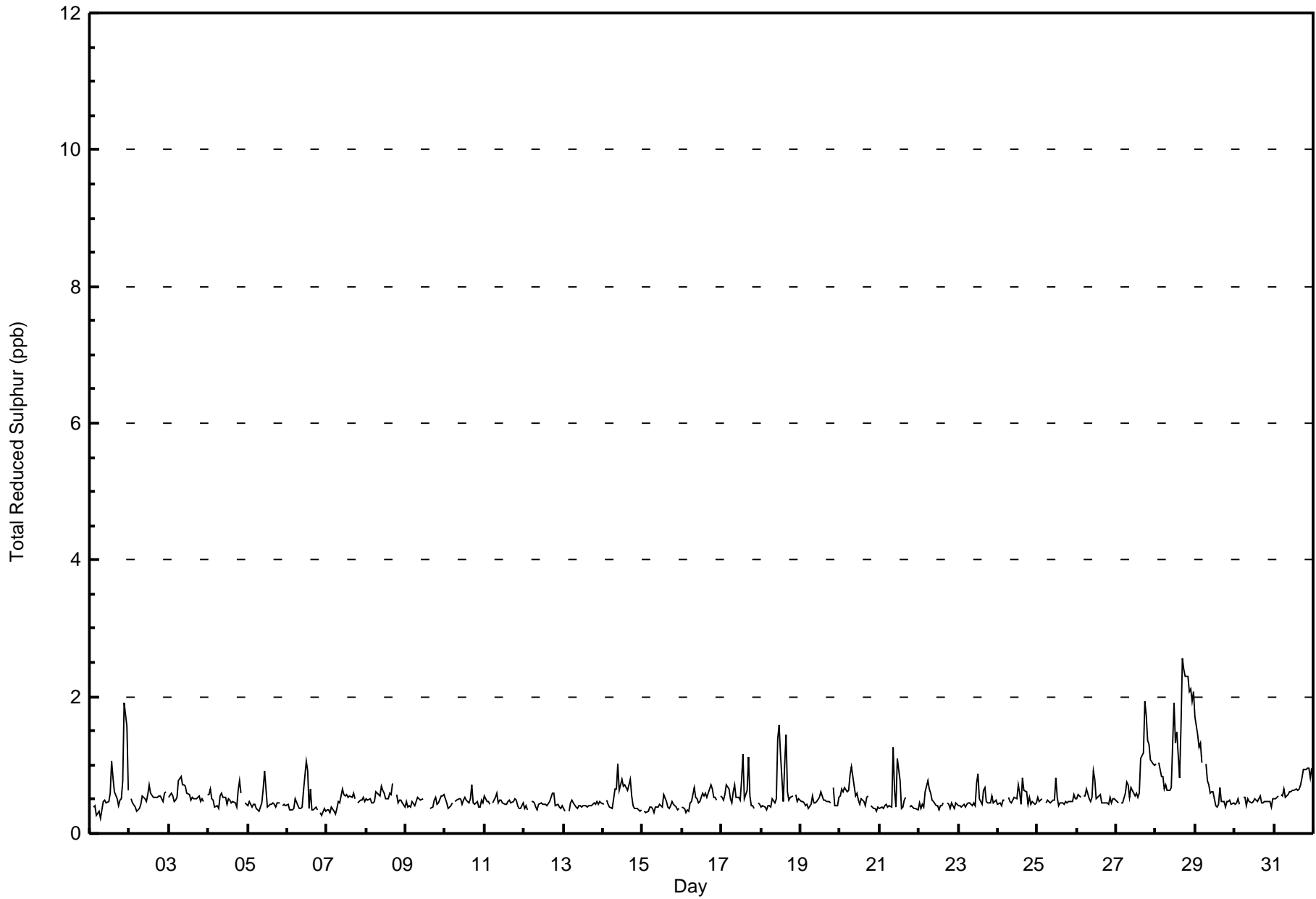
# Pollutant Rose for SO<sub>2</sub> at Evergreen Park October 2008







# Hourly Averages for TRS at Evergreen Park October 2008



**Peace Airshed Zone Association  
Summary of Hourly Maximums**

**Evergreen Park - Total Reduced Sulphur (TRS) - ppb  
October 1, 2008 to November 1, 2008**

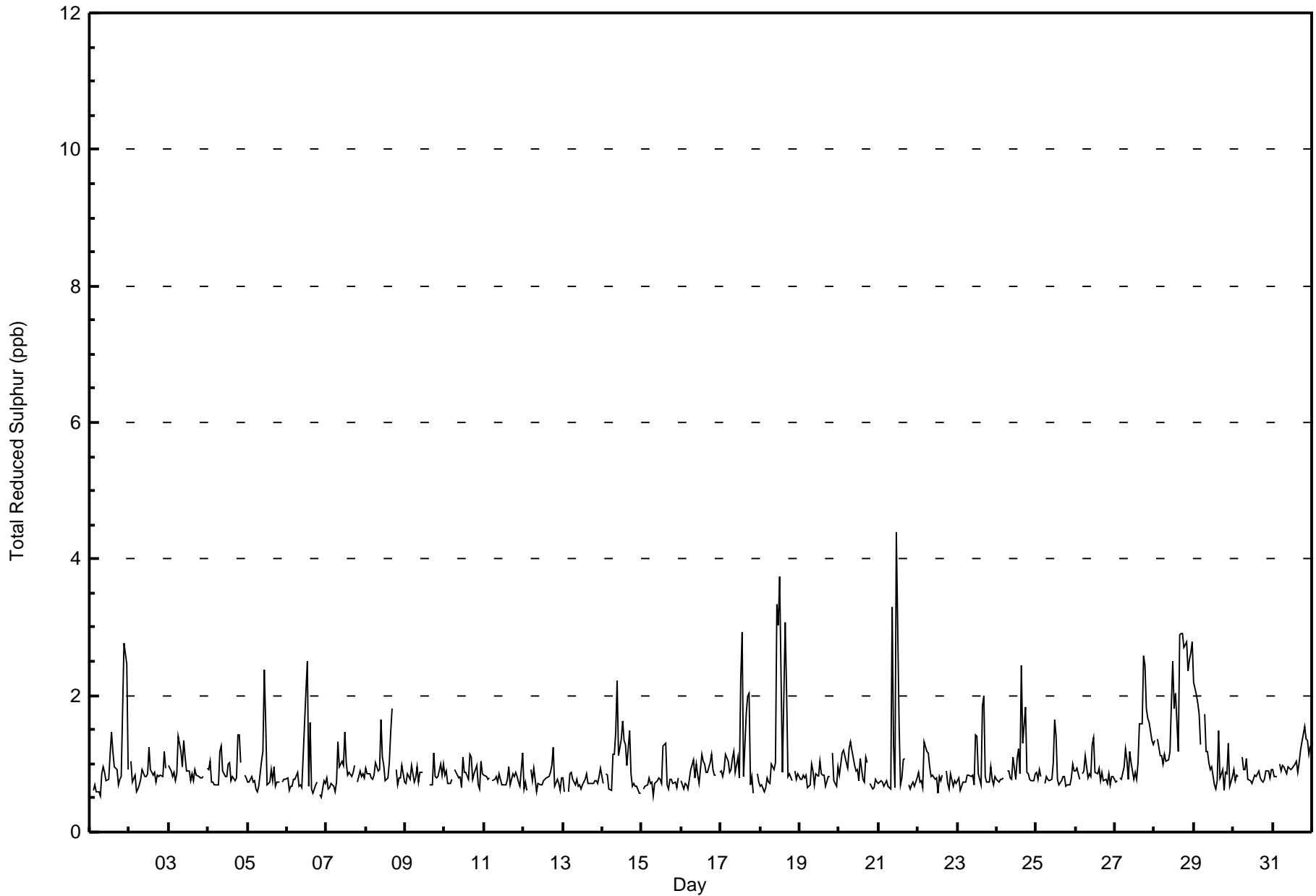
Maximum Value: 4.4 ppb on Oct 21 12:00	Maximum Daily Average: 1.9 ppb on Oct 28	Hours in Service: 744
Minimum Value: 1 ppb on Oct 6 22:00	Minimum Daily Average: 0.7 ppb on Oct 13	Hours of Data: 709
Maximum Diurnal Average: 1.2 ppb at hour 12	Minimum Diurnal Average: 0.8 ppb at hour 6	Hours of Missing Data: 35
Monthly Average: 0.97 ppb	Percentiles: P <sub>1</sub> = 0.6 P <sub>10</sub> = 0.7 Q <sub>1</sub> = 0.7 Median = 0.8 Q <sub>3</sub> = 1.0 P <sub>90</sub> = 1.4 P <sub>99</sub> = 2.9	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-Oct	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	3	2	1	1.0	2.8
2-Oct	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.8	1.2
3-Oct	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
4-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.9	1.4
5-Oct	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	A	1	1	1	0.9	2.4
6-Oct	1	1	1	1	1	1	1	1	1	1	1	2	3	1	2	1	1	1	1	A	1	1	1	1	0.9	2.5
7-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.9	1.5
8-Oct	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	2	A	1	1	1	1	1	1	1.0	1.8
9-Oct	1	1	1	1	1	1	1	1	1	1	1	C	C	C	A	1	1	1	1	1	1	1	1	1	0.8	1.2
10-Oct	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
11-Oct	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
12-Oct	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
13-Oct	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
14-Oct	1	A	1	1	1	1	1	1	1	2	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1.0	2.2
15-Oct	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.8	1.3
16-Oct	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	1.1
17-Oct	1	1	1	1	1	1	1	1	1	1	1	1	2	3	1	2	2	2	1	1	1	A	1	1	1.2	2.9
18-Oct	1	1	1	1	1	1	1	1	1	1	3	3	4	1	2	3	2	1	1	1	A	1	1	1	1.3	3.7
19-Oct	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	1.2
20-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.9	1.3
21-Oct	1	1	1	1	1	1	1	1	3	1	1	4	2	1	1	1	1	A	1	1	1	1	1	1	1.1	4.4
22-Oct	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	1.3
23-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	0.9	2.0
24-Oct	1	1	1	1	1	A	1	1	1	1	1	1	1	1	2	1	2	1	1	1	1	1	1	1	1.0	2.4
25-Oct	1	1	1	1	A	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.7
26-Oct	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	1.4
27-Oct	1	1	A	1	1	1	1	1	1	1	1	1	1	1	2	2	3	2	2	2	2	2	1	1	1.2	2.6
28-Oct	1	A	1	1	1	1	1	1	1	1	2	3	2	2	1	3	3	3	3	3	3	2	3	3	1.9	2.9
29-Oct	2	2	2	2	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	2.2
30-Oct	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1
31-Oct	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1.0	1.5

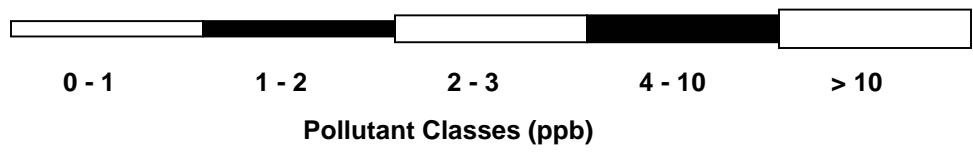
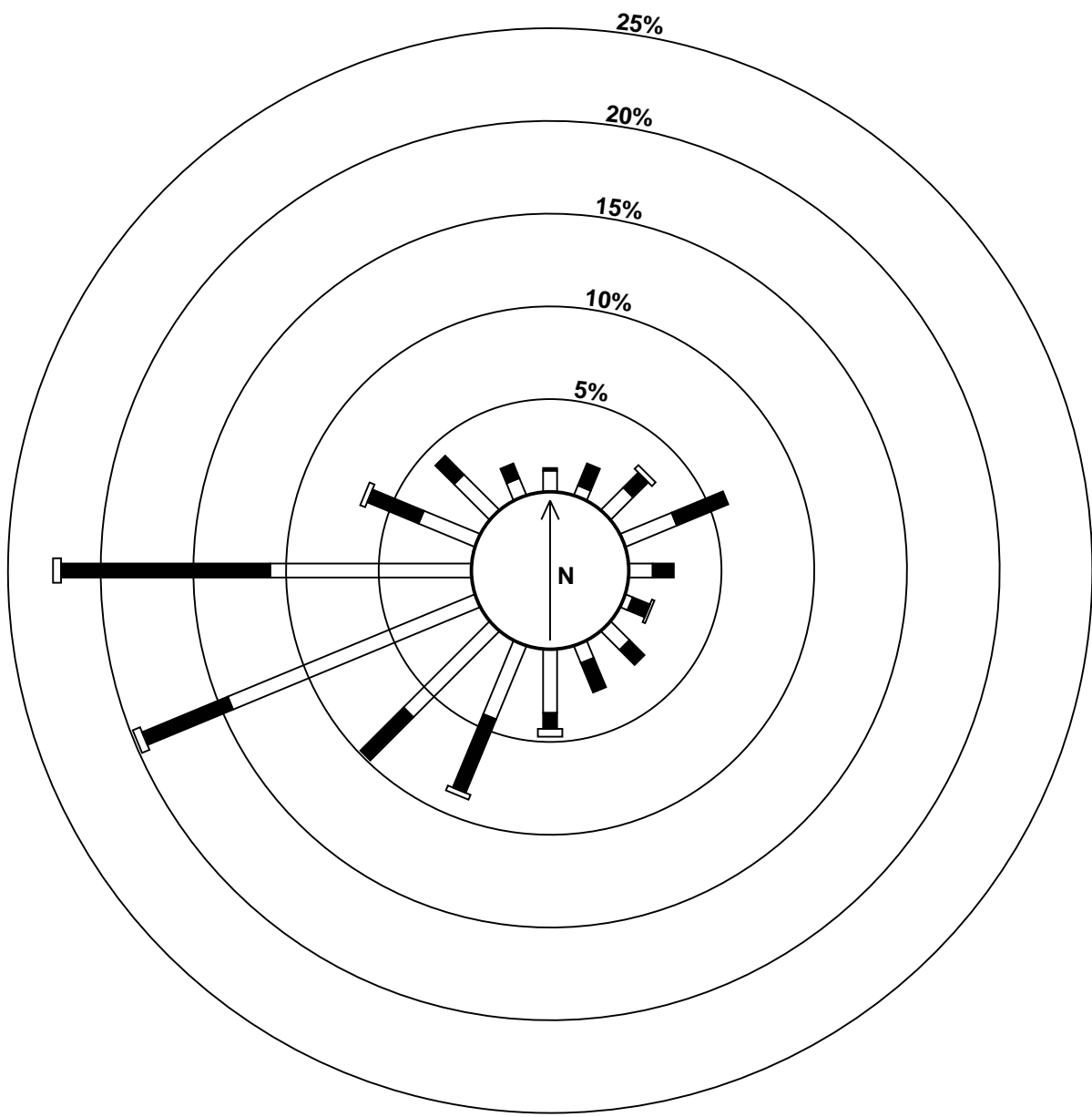
0.9	0.8	0.8	0.8	0.8	0.8	0.9	0.9	1.0	1.0	1.1	1.2	1.2	1.0	1.0	1.2	1.1	1.1	1.0	0.9	0.9	1.0	0.9	0.9	0.9	Diurnal Average
2.2	2.0	1.9	1.7	1.3	1.2	1.7	1.3	3.3	2.2	3.3	4.4	3.7	2.9	1.9	3.1	2.9	2.9	2.7	2.8	2.4	2.8	2.6	2.8	Diurnal Maximum	

C - Calibration                      A - Automated Daily Zero Span

# Hourly Maximums for TRS at Evergreen Park October 2008



# Pollutant Rose for TRS at Evergreen Park October 2008



**Peace Airshed Zone Association  
Summary of Hourly Averages**

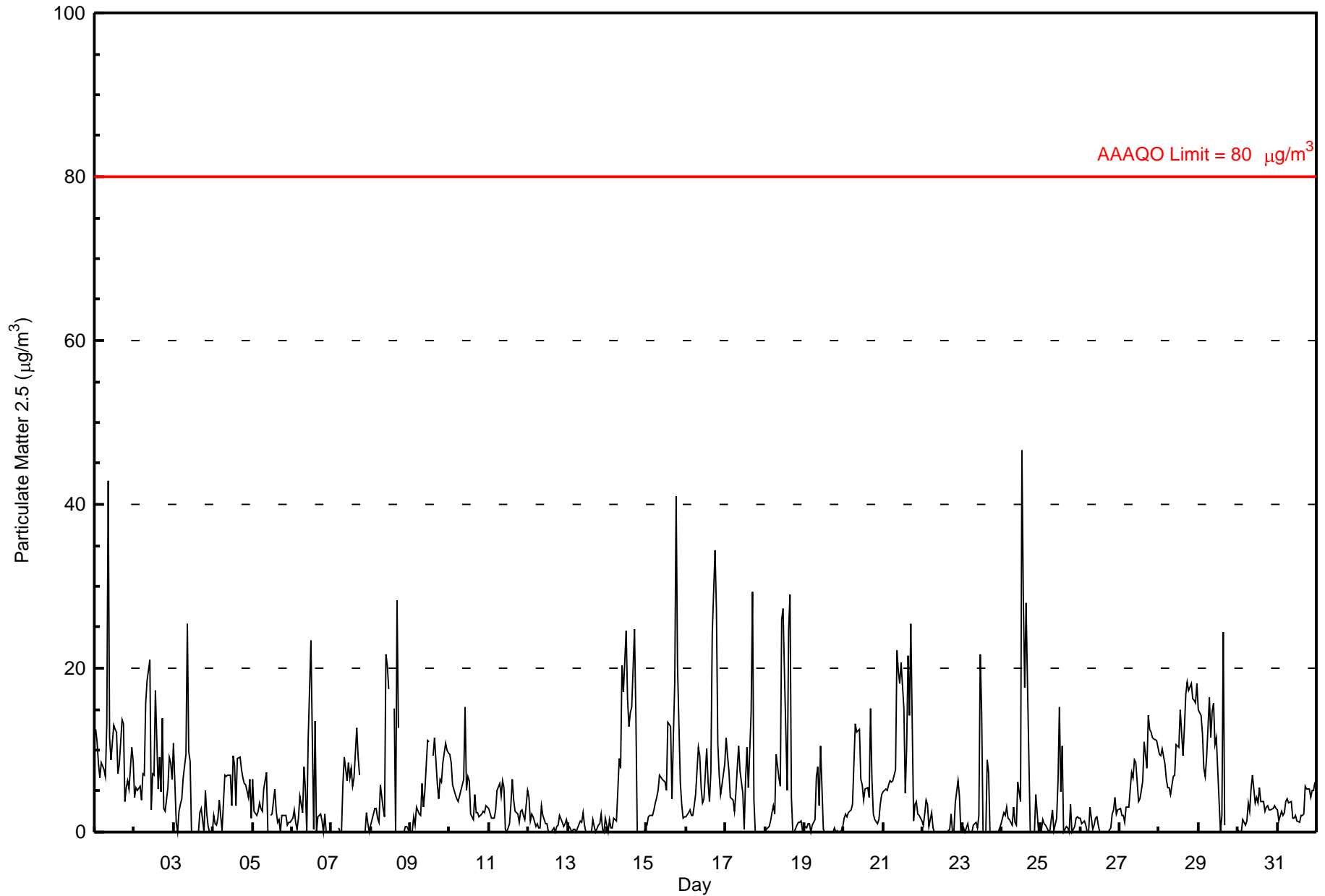
**Evergreen Park - Particulate Matter 2.5 (PM<sub>2.5</sub>) -  $\mu\text{g}/\text{m}^3$   
October 1, 2008 to November 1, 2008**

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 46.5 $\mu\text{g}/\text{m}^3$ on Oct 24 13:00	Maximum Daily Average: 11.6 $\mu\text{g}/\text{m}^3$ on Oct 28
Minimum Value: 0 $\mu\text{g}/\text{m}^3$ on Oct 3 03:00	Hours of Data: 730
Maximum Diurnal Average: 8.5 $\mu\text{g}/\text{m}^3$ at hour 17	Hours of Missing Data: 14
Monthly Average: 5.24 $\mu\text{g}/\text{m}^3$	Hours of Calibration: 2
Minimum Daily Average: 0.7 $\mu\text{g}/\text{m}^3$ on Oct 13	Percent Operational Time: 98.4
Minimum Diurnal Average: 2.6 $\mu\text{g}/\text{m}^3$ at hour 5	
Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.9 Median = 3.0 Q <sub>3</sub> = 6.9 P <sub>90</sub> = 13.2 P <sub>99</sub> = 28.1	

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-Oct	13	11	8	7	8	8	7	13	43	11	9	13	13	12	7	8	14	13	4	5	6	5	10	9	10.7	42.9
2-Oct	4	5	5	6	4	7	7	16	19	21	3	7	7	17	5	9	5	14	3	3	5	9	9	6	8.2	21.1
3-Oct	11	1	0	3	3	4	7	10	25	10	9	0	0	BD	0	0	2	3	0	5	2	1	0	0	4.1	25.5
4-Oct	2	1	1	2	4	0	4	7	7	7	7	3	9	8	3	9	9	8	7	6	6	4	7	2	5.1	9.3
5-Oct	6	3	2	2	3	3	2	5	7	0	BD	2	2	5	3	1	2	0	2	2	2	1	1	1	2.6	7.4
6-Oct	2	3	1	0	2	4	2	8	5	0	11	23	11	0	14	0	2	2	1	0	2	0	BD	0	4.1	23.4
7-Oct	0	0	0	BD	0	0	0	6	9	6	9	7	8	6	7	13	9	7	BD	BD	0	2	1	0	4.2	12.7
8-Oct	1	2	3	3	2	1	6	3	2	22	20	17	BD	BD	15	0	28	13	BD	0	0	1	1	0	6.6	28.3
9-Oct	0	0	2	1	3	2	2	6	3	5	11	11	C	C	9	12	6	4	6	6	8	11	10	10	5.8	11.6
10-Oct	9	8	6	5	4	4	4	5	6	15	5	7	6	2	2	5	2	2	2	2	3	2	3	3	4.7	15.3
11-Oct	3	2	2	2	3	5	6	4	6	5	0	0	1	3	6	4	3	2	1	3	3	2	2	5	3.0	6.4
12-Oct	4	1	2	2	1	1	1	1	3	2	1	1	0	0	0	0	0	1	1	2	1	1	1	2	1.2	4.2
13-Oct	1	1	0	0	0	0	0	1	1	2	1	0	0	0	0	2	1	0	1	1	2	0	0	2	0.7	2.4
14-Oct	0	2	1	0	2	1	5	9	8	20	17	25	16	13	15	15	25	14	0	0	0	0	0	1	7.8	24.7
15-Oct	1	2	2	2	3	4	4	5	7	7	6	6	5	13	13	4	12	18	41	20	6	3	2	2	7.8	41.1
16-Oct	2	2	3	2	2	3	5	10	9	5	4	4	10	6	4	7	24	34	27	11	7	5	6	8	8.4	34.4
17-Oct	12	9	7	4	4	3	5	8	11	7	5	0	6	10	5	15	29	4	0	0	0	0	0	0	6.0	29.4
18-Oct	0	0	1	1	2	3	2	9	7	6	26	27	19	5	25	29	4	0	0	1	1	1	1	0	7.2	29.0
19-Oct	1	1	1	1	0	1	2	7	8	3	10	0	0	0	0	0	0	0	1	0	0	0	0	1	1.5	10.4
20-Oct	2	2	2	2	3	3	8	13	12	13	6	6	4	5	5	4	15	6	2	2	1	2	3	5	5.3	15.1
21-Oct	5	5	5	6	6	6	6	8	22	20	18	21	15	5	10	22	14	25	1	3	4	2	2	1	9.7	25.4
22-Oct	1	2	4	3	1	2	1	0	0	0	0	0	BD	0	0	0	2	0	0	4	6	4	0	1.3	6.3	
23-Oct	0	1	0	1	0	0	0	1	1	0	2	22	15	0	0	9	7	0	0	0	0	0	0	1	2.5	21.8
24-Oct	1	2	2	3	2	2	1	3	1	1	6	4	47	28	18	28	18	0	0	0	0	5	0	0	7.1	46.5
25-Oct	0	1	1	1	0	0	1	3	0	2	6	15	5	11	0	1	1	0	3	0	1	2	2	2	2.4	15.2
26-Oct	2	1	1	1	0	0	3	0	1	2	2	1	0	0	0	0	0	0	0	2	3	4	2	3	1.2	4.2
27-Oct	3	2	2	1	3	3	5	7	7	9	8	4	4	5	6	11	8	14	13	12	11	11	11	10	7.2	14.2
28-Oct	10	9	10	8	6	5	5	5	7	7	11	10	10	15	9	13	17	18	17	18	16	16	16	18	11.6	18.4
29-Oct	15	14	12	8	7	9	16	12	15	16	11	11	4	0	2	24	1	BD	BD	0	0	0	0	0	8.0	24.5
30-Oct	0	0	0	2	1	1	4	2	5	7	3	4	4	5	4	4	2	3	3	3	3	3	3	3	2.9	6.9
31-Oct	3	1	2	2	2	4	4	4	4	2	2	2	1	1	2	2	2	6	5	5	4	5	5	6	3.2	6.1
	3.6	3.1	2.8	2.7	2.6	2.9	4.0	6.1	8.4	7.5	7.7	8.2	8.0	6.3	6.1	8.1	8.5	7.2	5.1	3.7	3.3	3.4	3.4	3.2	Diurnal Average	
	15.0	14.2	12.1	8.2	8.4	9.1	16.4	15.8	42.9	21.6	25.9	27.2	46.5	28.5	24.8	29.0	29.4	34.4	41.1	20.2	16.2	16.1	15.8	18.1	Diurnal Maximum	

C - Calibration BD - Baseline Drift  
 Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 80  $\mu\text{g}/\text{m}^3$  24-hr 30  $\mu\text{g}/\text{m}^3$

# Hourly Averages for PM<sub>2.5</sub> at Evergreen Park October 2008



**Peace Airshed Zone Association  
Summary of Hourly Maximums**

**Evergreen Park - Particulate Matter 2.5 (PM<sub>2.5</sub>) - µg/m<sup>3</sup>  
October 1, 2008 to November 1, 2008**

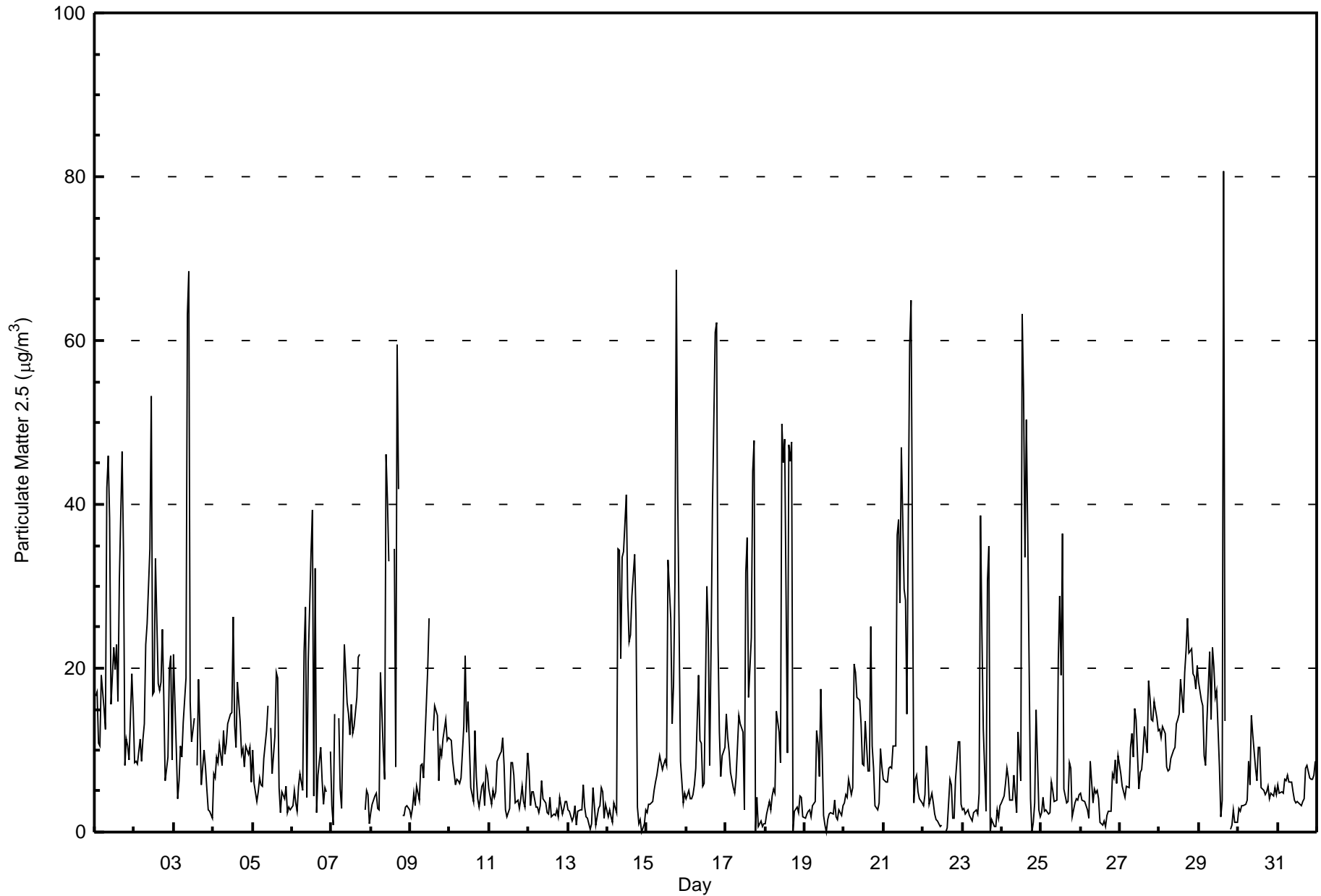
Maximum Value: 80.7 µg/m <sup>3</sup> on Oct 29 16:00	Maximum Daily Average: 21.2 µg/m <sup>3</sup> on Oct 1	Hours in Service: 744
Minimum Value: 0 µg/m <sup>3</sup> on Oct 14 22:00	Minimum Daily Average: 2.7 µg/m <sup>3</sup> on Oct 13	Hours of Data: 730
Maximum Diurnal Average: 20.0 µg/m <sup>3</sup> at hour 17	Minimum Diurnal Average: 5.4 µg/m <sup>3</sup> at hour 4	Hours of Missing Data: 14
Monthly Average: 10.92 µg/m <sup>3</sup>	Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 2.1 Q <sub>1</sub> = 3.5 Median = 6.6 Q <sub>3</sub> = 13.3 P <sub>90</sub> = 25.3 P <sub>99</sub> = 61.3	Hours of Calibration: 2
		Percent Operational Time: 98.4

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-Oct	17	17	11	11	19	15	13	42	46	38	16	22	20	23	16	31	46	34	8	11	11	9	19	15	21.2	46.5																							
2-Oct	8	9	8	11	9	11	13	23	25	35	53	17	17	33	18	17	18	25	16	6	9	20	22	9	18.1	53.2																							
3-Oct	22	10	4	6	11	9	13	19	63	68	16	11	14	BD	8	19	13	6	10	8	5	3	3	2	14.9	68.4																							
4-Oct	7	7	9	8	11	8	12	10	11	13	14	15	26	13	10	18	13	10	10	8	11	10	10	6	11.3	26.2																							
5-Oct	10	6	4	5	7	6	6	9	12	15	BD	13	7	12	19	19	6	2	5	4	6	2	3	3	7.8	19.5																							
6-Oct	3	5	4	3	6	7	5	22	27	4	21	34	39	4	32	2	7	10	6	3	5	5	BD	10	11.6	39.4																							
7-Oct	3	1	14	BD	14	5	3	13	23	16	14	12	16	12	13	17	21	22	BD	BD	3	5	5	1	11.0	22.9																							
8-Oct	2	3	4	5	3	3	19	10	6	46	41	33	BD	BD	34	8	59	42	BD	2	2	3	3	3	15.9	59.5																							
9-Oct	2	3	5	3	6	4	8	8	7	11	20	26	C	C	12	15	14	6	10	9	11	14	11	11	9.9	26.1																							
10-Oct	11	11	9	6	6	6	6	7	13	22	12	16	11	6	4	12	7	4	3	6	6	3	8	7	8.4	21.6																							
11-Oct	5	3	5	4	5	9	9	10	12	8	3	2	3	9	8	7	4	4	3	4	6	4	3	10	5.8	11.5																							
12-Oct	8	3	5	5	3	3	2	3	6	4	4	2	2	4	2	2	3	2	4	2	3	4	4	4	3.4	7.5																							
13-Oct	3	3	1	2	3	1	3	3	3	6	3	2	2	0	1	5	3	1	3	3	5	5	2	3	2.7	5.7																							
14-Oct	2	3	2	1	4	2	35	34	21	33	34	41	29	23	24	29	34	26	3	1	2	0	1	3	16.1	41.3																							
15-Oct	2	3	3	4	5	6	7	8	9	8	8	9	8	33	26	13	18	30	69	41	9	6	4	5	14.0	68.7																							
16-Oct	4	5	4	4	5	6	8	19	11	11	6	6	30	24	8	22	39	61	62	23	12	7	9	10	16.6	62.1																							
17-Oct	14	12	10	7	5	5	7	10	14	13	12	3	32	36	17	24	44	48	0	4	1	1	1	1	13.3	47.7																							
18-Oct	1	2	4	3	4	5	5	15	12	8	50	45	48	10	47	45	48	0	3	3	2	4	4	2	15.4	49.8																							
19-Oct	2	2	2	3	2	3	4	12	11	7	17	2	1	0	2	2	2	2	4	2	2	3	2	3	3.8	17.4																							
20-Oct	3	5	4	6	5	5	21	20	16	16	13	8	8	14	7	7	25	10	8	3	3	3	10	8	9.6	25.0																							
21-Oct	6	6	6	8	8	8	10	11	36	38	28	47	30	28	14	38	60	65	4	6	7	5	4	4	19.9	64.9																							
22-Oct	3	5	11	8	3	5	4	2	1	1	1	1	BD	0	0	1	6	6	2	2	6	11	11	3	4.0	11.0																							
23-Oct	3	3	2	3	2	2	1	2	3	2	5	39	24	13	3	31	35	0	2	1	1	3	2	3	7.6	38.7																							
24-Oct	3	4	6	8	7	4	4	7	5	2	12	6	63	54	34	50	36	4	0	1	4	15	3	2	13.9	63.2																							
25-Oct	2	4	3	3	2	2	6	5	4	4	21	29	19	37	5	4	4	8	8	2	4	4	4	5	7.8	36.5																							
26-Oct	5	4	4	3	3	2	9	4	5	5	5	4	1	1	1	1	2	2	3	7	7	9	6	9	4.2	9.3																							
27-Oct	7	6	5	4	6	5	10	12	9	15	14	5	7	8	10	13	10	18	16	14	13	16	14	12	10.4	18.4																							
28-Oct	13	11	13	12	8	7	8	9	10	10	13	14	14	19	15	19	22	26	22	22	19	19	18	20	15.2	26.1																							
29-Oct	18	16	15	9	8	14	22	14	23	20	16	17	8	2	4	81	14	BD	BD	0	1	3	1	1	14.0	80.7																							
30-Oct	3	3	3	3	3	4	9	6	14	12	8	6	10	10	5	5	5	5	6	4	5	4	5	5	6.0	14.3																							
31-Oct	6	5	5	5	6	6	7	6	6	5	4	4	4	3	3	4	4	8	8	7	6	6	7	9	5.6	8.7																							
																								6.5	5.8	6.0	5.4	6.0	5.8	9.3	12.1	15.0	16.1	16.1	15.8	17.6	15.3	13.0	18.1	20.0	16.3	10.5	7.1	5.9	6.6	6.6	6.1	Diurnal Average	
																								21.6	17.1	15.4	12.0	19.1	15.2	34.6	42.1	63.2	68.4	53.2	46.9	63.2	53.6	47.3	80.7	59.5	64.9	68.7	41.2	19.3	19.8	21.6	20.3	Diurnal Maximum	

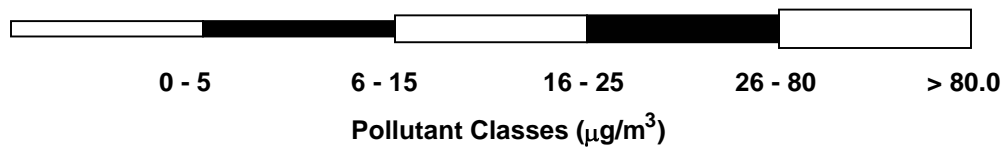
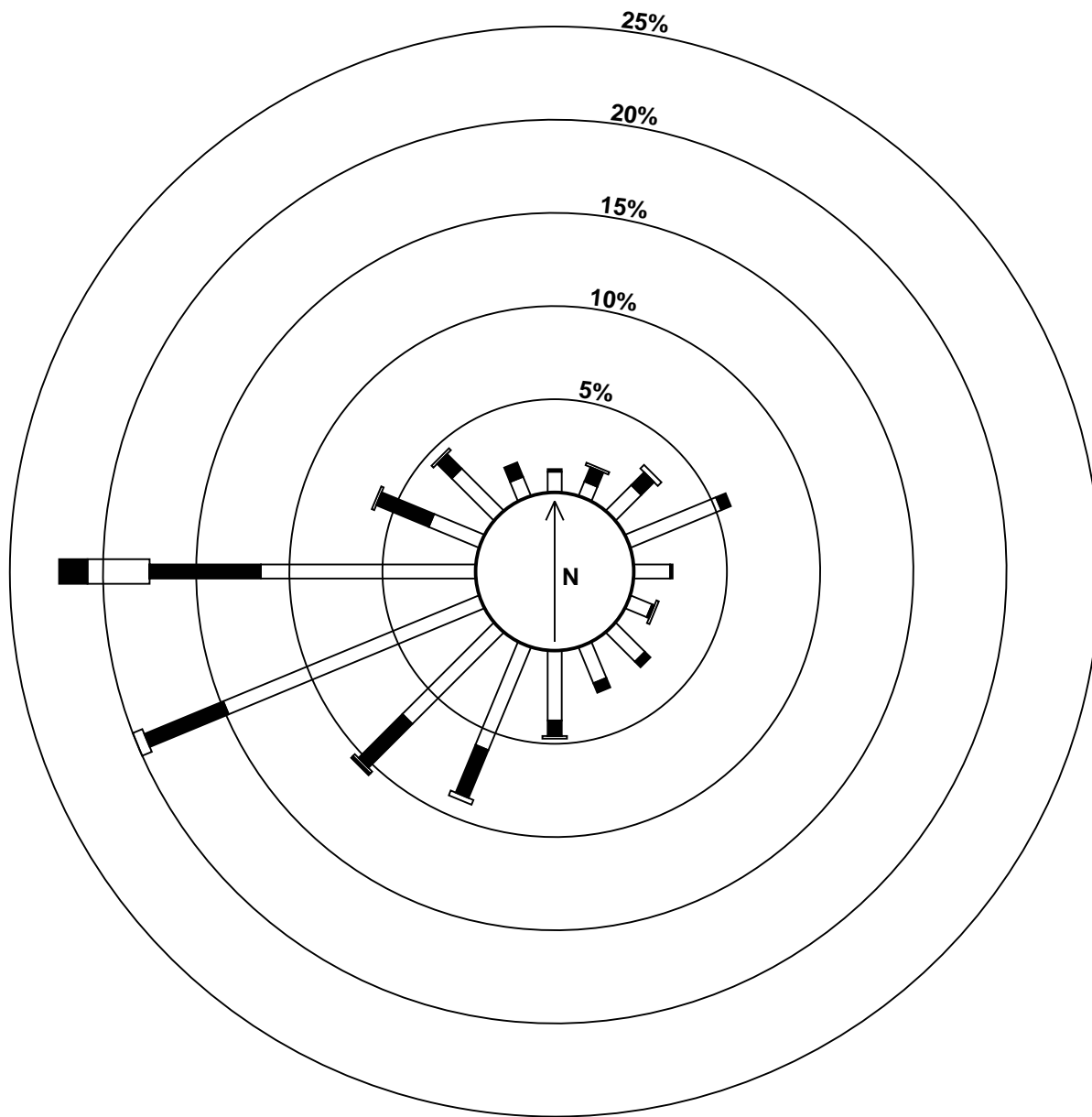
C - Calibration      BD - Baseline Drift



# Hourly Maximums for PM<sub>2.5</sub> at Evergreen Park October 2008



# Pollutant Rose for PM<sub>2.5</sub> at Evergreen Park October 2008



**Peace Airshed Zone Association  
Summary of Hourly Averages**

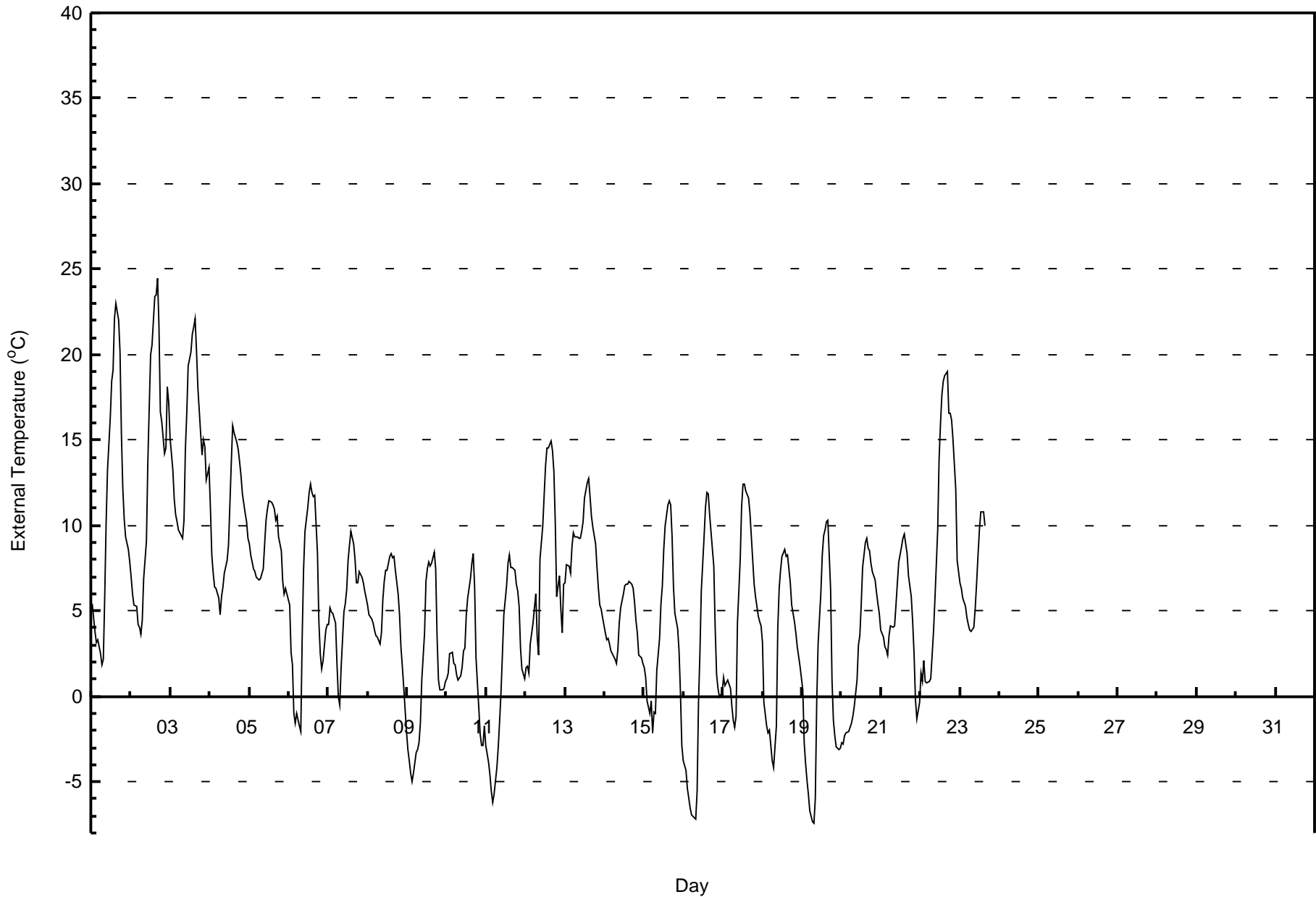
**Evergreen Park - External Temperature (ET) - °C  
October 1, 2008 to November 1, 2008**

Maximum Value: 24.4 °C on Oct 2 17:00	Maximum Daily Average: 14.9 °C on Oct 3	Hours in Service: 744
Minimum Value: -7 °C on Oct 19 08:00	Minimum Daily Average: 0.3 °C on Oct 19	Hours of Data: 544
Maximum Diurnal Average: 12.2 °C at hour 15	Minimum Diurnal Average: 1.2 °C at hour 8	Hours of Missing Data: 200
Monthly Average: 5.92 °C	Percentiles: P <sub>1</sub> = -6.7 P <sub>10</sub> = -1.8 Q <sub>1</sub> = 1.9 Median = 6.0 Q <sub>3</sub> = 9.3 P <sub>90</sub> = 13.6 P <sub>99</sub> = 21.2	Hours of Calibration: 0
		Percent Operational Time: 73.1

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-Oct	5	5	4	3	3	3	2	2	6	10	13	16	18	19	22	23	22	20	15	12	10	9	9	8	10.9	23.0
2-Oct	7	6	5	5	4	4	4	4	7	9	14	17	20	21	23	23	24	22	17	16	14	15	18	17	13.2	24.4
3-Oct	15	13	12	11	10	10	10	9	10	14	17	19	20	21	22	22	20	18	15	14	15	15	13	13	14.9	22.1
4-Oct	11	8	7	6	6	6	5	6	6	7	8	9	11	14	16	15	15	14	14	13	12	11	10	9	10.0	15.8
5-Oct	9	8	7	7	7	7	7	7	7	9	10	11	11	11	11	11	10	11	9	8	7	6	6	6	8.6	11.4
6-Oct	5	3	2	-1	-2	-1	-2	-2	3	7	10	11	12	12	12	12	12	8	4	3	2	2	4	4	5.0	12.4
7-Oct	4	5	5	5	4	2	0	-1	2	5	5	6	8	9	10	9	8	7	7	7	7	7	6	6	5.5	9.7
8-Oct	5	5	5	4	4	4	3	3	4	6	7	7	7	8	8	8	8	7	6	5	3	2	1	-2	4.9	8.4
9-Oct	-3	-4	-4	-5	-4	-3	-3	-3	-2	1	4	7	7	8	8	8	8	7	3	1	0	0	0	1	1.4	8.4
10-Oct	1	1	2	3	2	2	1	1	1	2	3	3	5	6	7	8	8	6	2	-1	-2	-3	-3	-2	2.2	8.3
11-Oct	-3	-4	-5	-6	-6	-6	-4	-3	-1	0	3	5	6	8	8	8	8	7	7	6	5	3	2	1	1.6	8.2
12-Oct	2	2	1	3	4	5	6	3	2	8	10	12	13	15	15	15	14	13	10	6	7	5	4	7	7.6	15.0
13-Oct	7	8	8	7	9	10	9	9	9	9	10	10	12	13	13	12	11	10	9	8	6	5	5	5	8.8	12.7
14-Oct	4	3	3	3	3	2	2	2	3	4	5	6	7	7	7	7	7	6	6	4	4	2	2	2	4.2	6.7
15-Oct	2	1	0	-1	0	-2	-1	-1	1	3	5	7	9	10	11	11	11	9	6	5	4	3	0	-3	3.8	11.5
16-Oct	-4	-4	-5	-6	-7	-7	-7	-7	-6	0	3	6	9	11	12	12	11	9	8	4	1	0	0	0	1.3	11.9
17-Oct	1	1	1	1	0	-1	-1	-2	-1	4	8	11	12	12	12	12	11	9	8	7	6	5	4	4	5.2	12.5
18-Oct	3	0	-2	-2	-2	-3	-4	-4	-2	4	6	7	8	9	8	8	7	7	5	4	4	3	2	2	2.9	8.6
19-Oct	0	-3	-4	-5	-6	-7	-7	-7	-6	0	3	6	8	9	10	10	10	6	1	-1	-2	-3	-3	-3	0.3	10.3
20-Oct	-3	-3	-2	-2	-2	-2	-2	-1	-1	1	3	4	5	8	9	9	9	9	8	7	7	6	5	5	3.2	9.3
21-Oct	4	4	3	3	2	4	4	4	4	5	7	8	9	9	9	9	8	7	6	4	2	0	-1	0	4.7	9.5
22-Oct	1	1	2	1	1	1	1	2	4	6	10	14	16	18	18	19	19	17	17	16	15	12	8	7	9.4	19.0
23-Oct	7	6	6	5	5	4	4	4	4	5	7	8	10	11	11	10	N	N	N	N	N	N	N	N	--	10.8
24-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
25-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
26-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
27-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
28-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
29-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
30-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
31-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
	3.5	2.7	2.2	1.7	1.6	1.3	1.2	1.2	2.5	5.2	7.3	9.1	10.7	11.6	12.2	12.2	11.9	10.5	8.3	6.8	5.8	4.8	4.2	4.0	Diurnal Average	
	15.1	13.2	11.6	10.6	10.2	9.7	9.5	9.3	10.3	14.4	16.6	19.3	20.1	21.2	23.4	23.5	24.4	21.7	16.6	16.2	15.0	14.6	18.1	17.2	Diurnal Maximum	

N - Not Valid

# Hourly Averages for External Temperature at Evergreen Park October 2008



**Peace Airshed Zone Association**  
**Summary of Hourly Averages**

Evergreen Park  
 October 1, 2008 to November 1, 2008  
 WS (km/h), WD (deg)

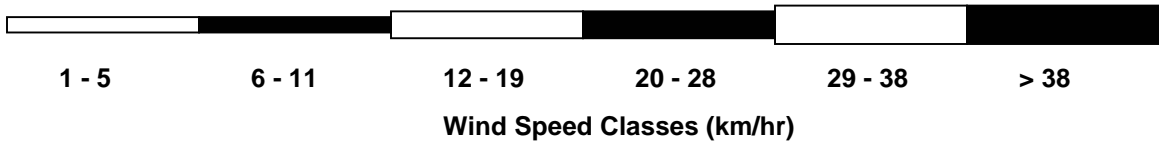
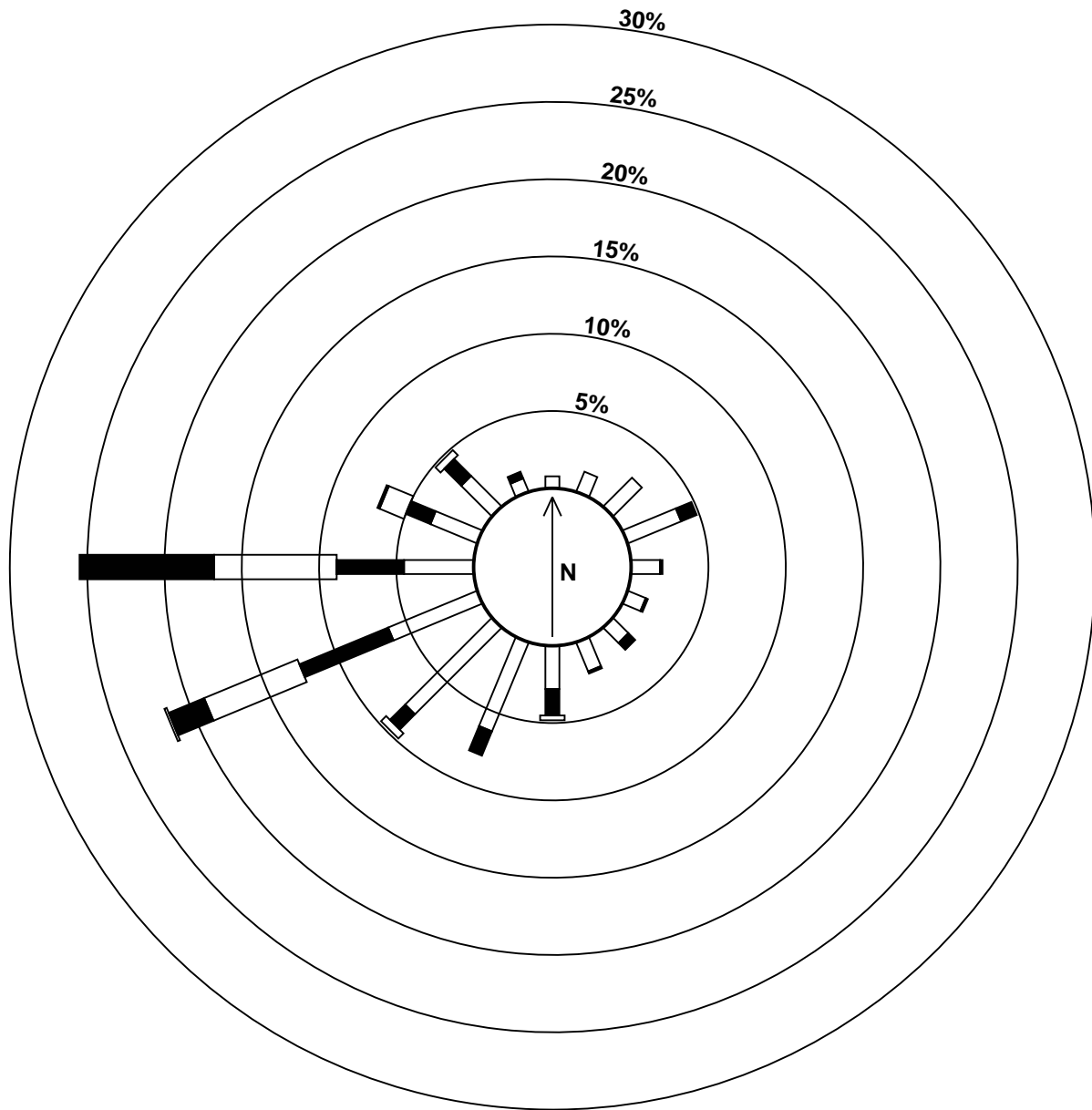
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	2	3	0	3	4	3	1	3	2	5	2	2	2	3	2	5	3	4	2	2	1	2	2	4	1.0	4.6
Dir	278	228	193	247	233	226	314	277	234	258	303	30	216	239	111	52	33	54	38	315	303	290	257	254	271.6	52.1
2 Spd	2	3	2	2	1	2	0	1	1	2	1	3	1	4	5	5	5	3	6	6	5	4	9	7	1.0	9.0
Dir	175	220	237	223	20	233	71	320	209	40	136	37	194	12	55	49	61	56	76	78	84	223	288	326	37.8	288.1
3 Spd	3	1	2	2	1	1	2	1	2	3	2	1	3	5	7	7	6	5	4	5	7	5	3	6	1.8	7.3
Dir	23	255	201	246	248	301	349	246	227	288	354	167	27	66	57	77	59	55	50	61	74	97	143	172	68.9	73.8
4 Spd	1	1	3	3	4	2	3	4	7	3	5	4	3	1	1	5	6	7	6	4	4	5	4	4	3.3	7.5
Dir	308	327	256	242	240	243	226	259	250	302	253	251	268	338	40	227	243	260	298	327	285	227	258	232	257.9	260.2
5 Spd	6	5	7	7	7	5	5	10	13	16	23	27	28	28	26	22	13	14	16	14	12	13	14	12	14.1	28.5
Dir	285	289	261	266	258	269	270	256	258	260	260	257	258	254	250	251	267	264	267	262	234	238	242	250	256.6	253.7
6 Spd	9	3	3	3	3	6	4	0	12	16	22	23	22	24	22	16	7	3	1	1	3	4	6	5	6.8	24.3
Dir	250	275	217	196	193	203	200	217	231	240	256	262	261	257	262	260	289	40	49	227	61	69	95	73	251.8	256.9
7 Spd	6	6	5	5	3	3	2	1	3	4	7	6	7	6	5	7	18	18	11	26	21	21	21	20	7.0	25.6
Dir	71	104	82	83	83	46	343	61	316	269	245	238	264	260	267	262	262	285	281	267	266	259	258	258	266.3	266.7
8 Spd	19	17	16	18	17	17	17	16	17	22	23	22	17	17	19	19	20	19	17	12	7	7	6	1	15.6	23.1
Dir	257	253	258	262	264	262	257	253	255	266	272	275	292	287	276	272	267	269	262	259	248	242	243	192	265.0	272.5
9 Spd	2	1	1	1	4	5	6	4	6	7	4	4	4	4	5	6	5	5	2	1	2	1	2	4	2.6	7.1
Dir	223	352	8	221	220	199	206	208	219	250	249	273	271	289	308	283	304	318	268	25	236	299	302	222	257.1	250.0
10 Spd	3	2	5	5	2	6	4	4	5	6	7	3	2	1	5	2	3	5	2	1	1	1	4	3	1.8	7.0
Dir	289	309	323	321	287	318	335	320	296	279	295	285	209	47	11	252	124	123	155	303	250	254	185	200	296.0	295.3
11 Spd	3	3	2	2	2	4	5	5	6	5	6	8	5	6	10	9	5	5	5	5	3	2	3	5	4.5	10.3
Dir	222	190	229	234	209	189	192	188	181	186	180	178	172	189	231	237	230	217	202	214	191	213	194	198	201.8	231.1
12 Spd	6	5	5	6	5	9	11	1	1	6	7	11	11	10	8	6	9	8	3	5	5	4	4	7	5.1	11.2
Dir	201	218	243	274	260	256	252	75	228	225	248	250	284	314	340	308	321	309	267	228	261	245	227	260	267.8	251.5
13 Spd	4	5	5	2	6	11	9	11	12	10	10	7	14	16	16	22	14	13	24	16	14	18	24	22	12.4	24.4
Dir	267	255	261	262	276	245	253	245	247	264	261	248	249	253	265	285	290	257	250	263	286	260	262	263	261.7	261.6
14 Spd	21	21	21	22	20	20	21	19	20	22	25	26	24	22	22	22	21	17	14	16	14	15	16	16	19.6	26.5
Dir	265	265	264	264	266	265	261	258	258	265	274	266	269	268	268	267	264	265	254	251	247	244	245	247	262.0	265.6
15 Spd	13	9	6	6	8	6	10	9	13	9	11	16	18	15	13	15	14	8	6	9	8	6	4	2	9.2	17.6
Dir	243	253	250	258	238	210	222	211	217	199	242	243	249	262	252	240	245	271	269	253	251	258	232	185	242.1	248.7
16 Spd	0	2	2	2	1	2	4	4	3	5	6	6	3	6	6	7	5	5	5	2	0	1	2	2	2.7	7.0
Dir	77	218	200	179	208	257	207	207	225	212	211	219	235	265	255	263	254	275	274	213	139	39	344	17	239.6	263.3
17 Spd	2	2	2	2	2	2	2	1	4	4	3	12	20	22	24	25	27	24	16	11	15	12	14	12	9.6	26.8
Dir	246	46	92	126	93	74	2	260	205	188	274	271	264	281	276	271	271	262	264	256	254	242	240	240	262.2	271.0
18 Spd	8	3	4	9	8	1	3	1	5	16	23	27	28	27	24	26	23	16	13	11	13	12	9	9	12.7	28.0
Dir	254	234	192	206	203	180	179	145	258	253	260	265	262	264	264	266	266	278	270	262	257	255	254	248	257.9	261.7
19 Spd	7	1	3	1	1	1	1	3	2	4	4	5	7	8	7	6	6	5	1	3	3	2	1	2	2.0	7.7
Dir	248	328	66	102	155	16	207	211	222	199	177	155	146	152	145	137	133	98	43	52	87	48	350	264	147.2	152.5
20 Spd	3	1	1	1	1	1	1	2	2	3	2	4	6	4	6	6	6	15	16	17	18	19	22	17	6.4	21.5
Dir	224	213	339	121	17	30	281	303	258	273	31	206	235	315	307	297	246	272	273	258	249	252	252	255	261.0	251.6
21 Spd	14	14	13	13	11	16	19	19	18	24	26	25	23	25	26	26	23	21	17	10	6	3	3	4	16.0	26.2
Dir	254	263	270	266	270	266	268	263	266	267	273	275	272	265	262	263	266	268	271	249	221	184	168	168	264.3	262.2
22 Spd	5	5	7	3	5	4	4	9	9	9	10	11	12	12	8	4	5	7	11	11	10	26	24	24	6.6	25.5
Dir	182	169	218	140	134	120	140	174	173	175	182	177	181	174	180	139	209	226	213	200	285	281	265	269	212.8	280.7

**Peace Airshed Zone Association**  
**Summary of Hourly Averages**

Evergreen Park  
 October 1, 2008 to November 1, 2008  
 WS (km/h), WD (deg)

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	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	25	28	29	26	19	20	22	22	21	M	M	M	M	M	M	M	M	M	4	3	2	1	3	4	--	28.5	
Dir	263	259	251	259	257	255	245	241	248	M	M	M	M	M	M	M	M	M	236	233	206	212	216	229	--	251.2	
24 Spd	3	0	1	2	6	5	2	3	7	7	9	12	15	17	17	13	13	12	10	8	5	12	12	11	8.2	17.1	
Dir	222	69	197	247	244	230	211	242	244	242	260	264	269	274	266	271	271	266	260	262	247	261	259	267	260.7	266.5	
25 Spd	11	11	12	10	12	11	13	12	11	12	14	14	14	13	10	9	8	8	7	6	4	3	1	1	9.0	14.4	
Dir	267	276	270	273	268	273	277	288	284	282	282	285	290	319	317	297	329	322	335	318	311	286	314	317	290.1	284.8	
26 Spd	0	0	2	1	0	1	0	0	1	1	1	2	2	3	3	2	1	1	1	0	0	0	1	1	0.7	2.9	
Dir	261	27	215	221	98	65	224	83	68	78	151	140	153	153	159	149	126	90	83	356	262	221	215	234	149.9	158.6	
27 Spd	0	1	1	1	0	0	1	1	1	1	1	2	2	1	1	1	1	1	1	2	1	0	0	1	0.8	2.2	
Dir	190	218	204	207	3	257	207	221	212	205	231	211	213	181	159	151	148	202	184	218	68	192	228	210	199.8	212.7	
28 Spd	1	0	1	1	0	0	0	0	0	0	0	0	1	1	2	1	1	0	0	0	0	0	0	0	0.2	2.1	
Dir	217	215	204	192	183	160	46	100	254	151	34	42	330	294	199	188	194	42	183	287	123	256	263	273	208.6	198.8	
29 Spd	0	1	1	1	1	1	1	1	1	3	4	5	12	13	16	13	11	12	12	16	15	13	8	4	6.3	15.8	
Dir	251	237	325	280	229	236	272	199	232	242	282	328	324	306	301	278	280	278	281	271	272	262	251	231	281.0	301.0	
30 Spd	5	4	2	5	4	2	1	1	1	1	0	3	2	1	2	4	4	3	2	4	3	3	2	3	0.4	4.7	
Dir	235	238	208	248	251	322	214	124	203	127	126	219	240	3	75	71	74	76	73	77	74	78	64	78	131.7	248.4	
31 Spd	3	2	1	1	0	0	1	0	0	1	2	2	3	3	3	2	1	2	3	2	3	2	4	4	0.2	4.2	
Dir	81	61	63	57	194	65	218	70	156	102	58	71	122	101	127	94	71	288	317	313	293	260	267	275	57.9	275.0	
Spd	4.8	4.1	4.0	4.1	4.1	4.2	4.6	4.5	5.9	6.4	7.4	8.0	8.5	8.1	7.8	7.9	7.2	6.7	6.0	5.5	4.9	5.8	6.2	5.6	Diurnal Average		
Dir	253.0	254.6	253.3	254.7	251.0	253.4	250.0	246.1	245.5	250.8	259.4	257.5	261.1	267.5	268.0	265.9	269.2	272.9	265.8	259.4	258.8	254.7	251.4	250.9	Diurnal Maximum		
Spd	25.2	27.8	28.5	25.8	20.4	20.3	22.1	22.0	21.4	23.6	25.8	27.2	28.0	28.5	26.4	26.5	26.8	24.1	24.0	25.6	21.2	25.5	24.4	23.8	Diurnal Maximum		
Dir	263.0	259.3	251.2	259.3	265.6	254.5	245.3	241.1	247.8	267.0	273.3	265.4	261.7	253.7	249.6	266.2	271.0	261.7	250.2	266.7	266.0	280.7	265.4	268.9	Diurnal Maximum		
Maximum Speed Value: 29 km/h on Oct 23 03:00																		Minimum Speed Value: 0 km/h on Oct 28 09:00						Hours in Service: 744			
Maximum Daily Speed Average: 19.6 km/h on Oct 14																		Minimum Daily Speed Average: 0.2 km/h on Oct 28						Hours of Data: 735			
Maximum Diurnal Speed Average: 8.5 km/h at hour 13																		Minimum Diurnal Speed Average: 4.0 km/h at hour 3						Hours of Missing Data: 9			
Monthly Average Velocity: 5.85 km/h 258.34 deg																		Speed Percentiles: P <sub>1</sub> = 0.2 P <sub>10</sub> = 0.9 Q <sub>1</sub> = 1.9 Median = 4.8 Q <sub>3</sub> = 11.5 P <sub>90</sub> = 19.6 P <sub>99</sub> = 27.2						Percent Operational Time: 98.8			
All monthly, daily, and diurnal averages have been calculated using vector methods																											
M - Maintenance																											
Percentage 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	2.45	0.27	0.00	0.00	0.00	0.00	2.72																				
NorthEast	5.58	0.82	0.00	0.00	0.00	0.00	6.39																				
East	5.31	1.36	0.00	0.00	0.00	0.00	6.67																				
SouthEast	4.08	0.95	0.00	0.00	0.00	0.00	5.03																				
South	6.53	2.45	0.41	0.00	0.00	0.00	9.39																				
SouthWest	14.83	4.63	2.72	0.27	0.00	0.00	22.45																				
West	8.57	8.44	12.52	9.66	0.41	0.00	39.59																				
NorthWest	4.49	2.72	0.54	0.00	0.00	0.00	7.76																				
Total	51.84	21.63	16.19	9.93	0.41	0.00	100.00																				

# Wind Rose for WS at Evergreen Park October 2008



**Peace Airshed Zone Association**  
**Summary of Hourly Averages - Wind Speed (Scalar)**

**Evergreen Park - Wind Speed (WS) - km/h**  
**October 1, 2008 to November 1, 2008**

Maximum Speed: 29 km/h on Oct 5 14:00	Maximum Daily Speed Average: 20.0 km/h on Oct 14	Hours in Service: 744
Minimum Speed: 0 km/h on Oct 26 05:00	Minimum Daily Speed Average: 1.1 km/h on Oct 28	Hours of Data: 735
Maximum Diurnal Speed Average: 11.4 km/h at hour 14	Minimum Diurnal Speed Average: 5.8 km/h at hour 5	Hours of Missing Data: 9
Monthly Average Speed: 8.02 km/h	Percentiles: P <sub>1</sub> = 0.7 P <sub>10</sub> = 1.6 Q <sub>1</sub> = 3.0 Median = 5.2 Q <sub>3</sub> = 11.8 P <sub>90</sub> = 20.2 P <sub>99</sub> = 27.2	Percent Operational Time: 98.8

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-Oct	2	3	3	3	4	3	2	4	3	5	3	4	6	5	4	5	4	4	3	2	2	2	3	4	3.5	6.4
2-Oct	3	3	3	3	3	3	4	4	3	3	3	4	4	4	6	6	5	3	6	6	5	7	10	7	4.4	9.7
3-Oct	4	2	3	3	2	3	3	3	3	5	4	4	6	6	7	8	6	5	4	5	7	5	4	7	4.6	7.8
4-Oct	3	4	3	4	5	3	3	5	8	4	5	5	4	3	3	5	6	8	6	4	4	5	4	5	4.6	7.6
5-Oct	6	6	7	7	7	5	6	10	14	16	23	27	28	29	27	22	13	14	16	14	12	13	14	12	14.5	28.9
6-Oct	9	4	4	4	4	6	4	4	12	16	22	23	22	25	22	17	8	4	3	3	4	5	6	5	9.8	24.7
7-Oct	6	6	6	6	4	4	3	3	4	5	7	6	8	6	6	8	19	19	12	26	21	21	21	20	10.2	25.7
8-Oct	19	17	16	18	17	17	17	16	17	22	24	23	17	18	19	20	20	19	18	12	7	8	6	2	16.1	23.5
9-Oct	3	2	2	3	4	5	6	4	6	7	5	4	5	5	5	6	6	6	3	3	2	2	3	4	4.2	7.4
10-Oct	3	3	5	5	4	6	4	4	5	7	8	5	3	4	6	5	5	5	3	2	2	2	4	4	4.4	7.8
11-Oct	3	3	3	2	2	4	5	5	6	6	7	8	6	6	11	9	5	5	5	5	4	3	4	5	5.1	10.6
12-Oct	6	6	5	7	5	9	11	5	3	6	8	11	12	11	9	7	10	9	4	5	6	4	4	7	7.1	11.7
13-Oct	4	5	5	4	7	11	9	11	12	11	10	8	15	17	17	22	15	14	24	16	14	19	25	22	13.1	24.5
14-Oct	21	21	21	22	21	20	21	19	20	22	25	27	25	22	23	22	21	17	14	16	15	14	15	16	20.0	26.8
15-Oct	13	10	6	6	8	6	10	9	13	9	11	16	18	15	14	15	14	9	6	9	8	6	5	3	9.9	17.9
16-Oct	3	3	2	3	3	3	4	4	4	5	7	7	5	8	8	8	6	5	5	3	2	3	2	2	4.3	7.9
17-Oct	3	3	3	4	4	3	3	4	5	5	5	13	20	23	25	26	27	24	16	11	15	12	14	12	11.7	27.0
18-Oct	8	3	5	9	8	4	4	3	9	16	24	28	28	27	24	27	24	17	13	11	13	12	9	9	13.9	28.3
19-Oct	7	3	4	3	3	3	3	3	3	5	5	6	7	8	8	6	6	5	3	3	4	3	2	3	4.3	8.2
20-Oct	3	3	3	5	4	3	3	3	4	5	3	6	7	5	6	6	7	16	16	17	18	19	22	17	8.4	21.6
21-Oct	14	14	13	13	11	16	19	19	18	24	26	25	23	26	26	26	24	21	17	11	7	4	3	4	16.8	26.4
22-Oct	5	5	8	4	6	4	4	9	9	9	10	11	12	12	8	5	7	7	12	11	11	26	25	24	10.2	25.9
23-Oct	25	28	29	26	19	21	22	22	22	M	M	M	M	M	M	M	M	M	4	3	2	1	3	4	--	28.8
24-Oct	3	1	1	3	6	5	2	3	8	7	9	12	15	17	17	14	13	12	11	8	5	12	12	11	8.7	17.3
25-Oct	11	11	12	10	12	11	14	12	12	12	14	15	15	15	11	9	8	8	7	6	4	4	2	2	9.8	14.7
26-Oct	1	1	2	1	0	1	1	1	1	1	2	2	3	3	3	3	1	1	1	1	1	1	1	1	1.3	3.2
27-Oct	1	1	2	1	1	1	1	1	1	1	1	2	2	1	1	2	1	1	2	2	1	1	1	1	1.3	2.2
28-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	2	3	2	1	1	1	1	1	1	1	1	1.1	2.6
29-Oct	1	2	2	1	2	2	2	2	2	3	5	6	13	14	16	13	11	12	12	16	15	13	8	4	7.3	16.3
30-Oct	6	5	3	5	4	4	2	2	2	2	1	3	2	2	2	4	4	3	2	4	3	3	2	3	3.0	5.5
31-Oct	3	2	1	2	1	1	1	1	2	2	2	3	4	4	4	2	1	2	3	2	3	3	4	4	2.4	4.3

6.5	5.8	5.9	6.1	5.8	6.0	6.3	6.4	7.4	8.0	9.2	10.4	11.2	11.4	11.3	10.9	9.9	9.1	8.1	7.7	7.1	7.5	7.7	7.4	Diurnal Average
25.3	28.0	28.8	26.0	20.5	20.5	22.2	22.1	21.5	23.7	26.1	27.6	28.3	28.9	26.6	26.8	27.0	24.3	24.1	25.7	21.3	25.9	24.6	24.1	Diurnal Maximum

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



**Peace Airshed Zone Association**  
**Summary of Hourly Standard Deviations**

**Evergreen Park - Wind Direction (WD) - deg**  
**October 1, 2008 to November 1, 2008**

Maximum Value: 95.9 deg on Oct 28 18:00																					Hours in Service:	744			
Minimum Value: 4.1 deg on Oct 18 22:00																					Hours of Data:	735			
Percentiles: P <sub>1</sub> = 4.9 P <sub>10</sub> = 6.8 Q <sub>1</sub> = 9.9 Median = 21.2 Q <sub>3</sub> = 50.9 P <sub>90</sub> = 76.4 P <sub>99</sub> = 93.3																					Hours of Missing Data:	9			
																					Hours of Calibration:	0			
																					Percent Operational Time:	98.8			
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Oct	34	16	90	28	15	23	63	35	44	23	49	66	96	70	56	22	27	13	45	50	53	53	34	28	95.6
2-Oct	62	46	52	64	84	62	91	79	66	56	90	56	90	34	34	19	17	25	6	8	9	63	22	17	91.1
3-Oct	47	49	81	66	64	70	50	85	81	76	79	88	64	42	25	41	15	9	8	9	12	27	37	26	87.7
4-Oct	86	86	28	43	39	51	29	23	11	45	35	38	42	86	89	28	15	9	22	21	16	24	27	40	89.0
5-Oct	19	24	14	10	12	18	32	10	7	8	7	7	9	9	7	7	11	11	7	8	6	6	6	8	32.3
6-Oct	8	38	47	23	40	15	48	93	8	14	8	11	10	10	10	9	26	39	83	67	60	55	14	14	93.3
7-Oct	10	30	36	22	49	47	43	89	27	38	10	15	20	26	46	26	13	13	16	6	5	7	6	5	88.6
8-Oct	5	5	6	5	6	5	5	5	7	8	11	11	13	15	12	10	9	8	5	6	8	7	5	62	62.2
9-Oct	24	69	89	79	15	10	9	43	17	15	38	41	49	40	18	25	47	12	47	77	28	46	43	33	89.1
10-Oct	42	49	14	12	72	17	24	31	29	18	26	48	75	85	41	83	66	14	35	58	62	63	24	57	84.5
11-Oct	21	32	36	52	43	12	8	14	15	20	16	14	20	19	13	12	15	9	14	16	33	51	23	10	51.5
12-Oct	7	52	24	29	19	6	7	86	90	22	27	16	21	24	26	30	15	11	49	20	25	15	63	14	89.6
13-Oct	24	20	27	72	35	11	15	15	10	8	9	16	15	10	16	9	14	16	6	15	16	17	7	6	71.9
14-Oct	6	5	6	6	6	6	5	5	7	8	9	9	13	12	10	10	7	8	11	11	12	5	6	9	12.6
15-Oct	9	6	11	15	16	13	7	10	8	10	21	8	11	13	13	13	10	15	11	11	5	14	62	68	67.6
16-Oct	94	71	29	47	90	49	15	16	39	18	10	14	55	39	39	29	21	13	14	79	89	79	57	54	93.7
17-Oct	56	69	67	55	77	73	68	66	65	22	59	23	15	13	12	10	8	7	7	13	9	11	5	6	76.8
18-Oct	12	51	59	8	5	92	54	82	62	8	10	10	9	7	8	9	7	8	8	6	4	4	5	7	92.1
19-Oct	6	83	57	78	71	88	74	36	74	25	43	46	27	20	21	28	25	12	68	20	30	61	66	68	88.0
20-Oct	24	79	85	90	91	70	75	45	67	57	44	72	40	43	21	24	24	17	9	9	6	7	6	5	90.6
21-Oct	5	5	7	7	9	6	5	5	6	6	8	9	11	9	7	8	8	7	7	13	17	38	30	15	37.7
22-Oct	13	12	23	52	25	43	35	11	10	9	9	14	13	16	17	24	40	28	15	11	31	9	8	9	52.4
23-Oct	6	7	7	8	7	7	6	6	6	M	M	M	M	M	M	M	M	M	8	19	11	63	9	14	63.3
24-Oct	14	80	56	94	15	11	14	67	7	9	9	7	6	8	8	8	8	7	7	8	11	8	7	8	93.7
25-Oct	6	7	5	6	5	7	9	8	8	9	10	9	10	25	18	12	17	20	15	12	14	17	43	25	42.6
26-Oct	83	86	53	43	54	27	72	63	42	30	31	29	35	28	28	24	18	12	31	73	86	89	65	79	89.5
27-Oct	89	84	50	85	62	86	46	40	68	63	70	12	11	40	48	30	24	24	78	46	87	84	60	43	89.0
28-Oct	62	93	80	76	84	92	83	90	87	75	68	54	64	81	44	66	62	96	82	93	94	73	78	91	95.9
29-Oct	90	69	50	54	70	64	51	70	51	34	16	23	13	19	14	9	12	8	11	6	6	17	12	41	89.9
30-Oct	55	37	75	13	10	64	77	70	71	76	72	10	40	61	50	18	12	11	11	7	9	11	10	9	77.0
31-Oct	30	19	21	66	62	92	69	90	69	66	48	33	38	36	28	31	70	39	30	35	30	45	17	21	92.4
93.7	93.3	89.5	93.7	90.6	92.4	91.1	93.3	89.6	76.4	89.8	87.7	95.6	85.7	89.0	82.6	69.6	95.9	82.7	93.3	93.7	89.5	78.2	91.3		
M - Maintenance																									

PASZA

Smoky Heights Station

Monthly Summary Tables, Graphs and  
Roses

**Peace Airshed Zone Association  
Summary of Hourly Averages**

**Smoky Heights - Sulphur Dioxide (SO<sub>2</sub>) - ppb  
October 1, 2008 to November 1, 2008**

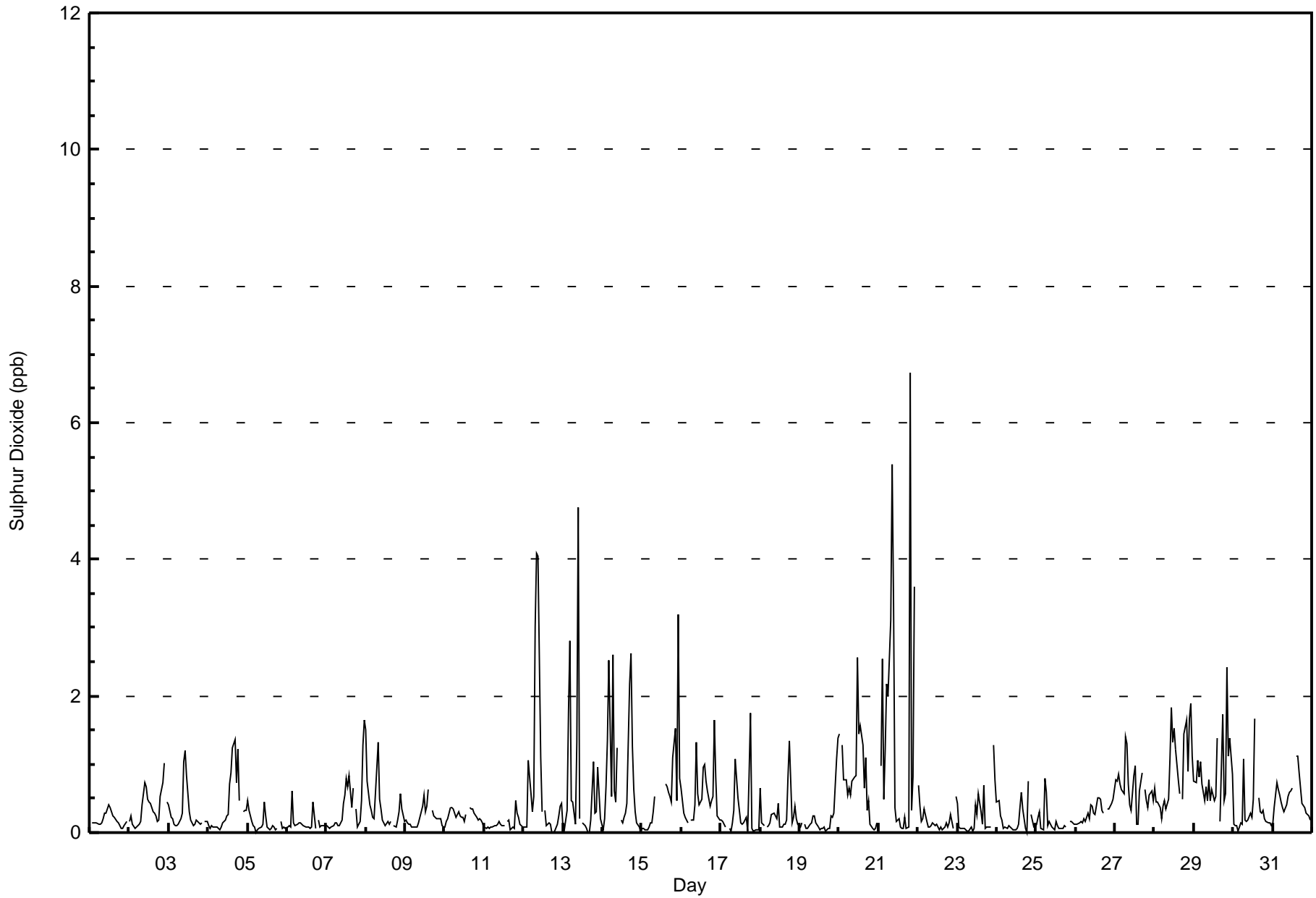
Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 6.7 ppb on Oct 21 20:00	Maximum Daily Average: 1.5 ppb on Oct 21
Hours of Data: 708	
Hours of Missing Data: 36	
Hours of Calibration: 36	
Percent Operational Time: 100.0	
Minimum Value: 0 ppb on Oct 5 06:00	Minimum Daily Average: 0.1 ppb on Oct 5
Maximum Diurnal Average: 0.8 ppb at hour 10	Minimum Diurnal Average: 0.3 ppb at hour 2
Monthly Average: 0.44 ppb	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> = 0.5 P <sub>90</sub> = 1.1 P <sub>99</sub> = 3.2

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-Oct	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.2	0.4	
2-Oct	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1	1	A	0	1.0	
3-Oct	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	A	0	0.3	1.2	
4-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	A	0	0	0.4	1.4	
5-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	0.5	
6-Oct	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.1	0.6	
7-Oct	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	1	A	0	0	0	0	0	1	2	0.4	1.6
8-Oct	2	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	1	0	0.4	1.5	
9-Oct	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	A	0	0	0	0	0	0	0	0.2	0.6	
10-Oct	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	
11-Oct	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	0.5	
12-Oct	0	0	0	1	1	0	1	3	4	4	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0.7	4.1	
13-Oct	0	0	0	2	3	0	0	0	1	5	0	A	0	0	0	0	0	0	0	1	0	0	1	1	0.7	4.8	
14-Oct	0	0	1	1	3	1	3	1	0	1	A	0	0	0	0	0	2	3	1	1	0	0	0	0	0.8	2.6	
15-Oct	0	0	0	0	0	0	0	0	1	A	0	C	C	A	1	1	1	1	0	1	2	0	3	1	0.6	3.2	
16-Oct	1	0	0	0	0	A	0	0	0	1	1	0	0	1	1	1	1	0	0	1	2	1	0	0	0.6	1.6	
17-Oct	0	0	0	0	A	0	0	0	0	1	1	0	0	0	0	0	0	1	2	0	0	0	0	0	0.3	1.8	
18-Oct	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0.3	1.3	
19-Oct	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.2	1.4
20-Oct	1	A	1	1	1	1	1	1	1	1	1	3	1	2	1	1	1	0	0	0	0	0	0	0	0.8	2.6	
21-Oct	A	1	3	0	1	2	2	3	5	3	0	0	0	0	0	0	0	0	0	7	0	1	4	A	1.5	6.7	
22-Oct	1	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	0.7	
23-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	A	1	0.2	1.3	
24-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	A	0	0	0	0.2	0.8	
25-Oct	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.2	0.8	
26-Oct	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	A	0	0	0	0	0	0.3	0.5	
27-Oct	1	1	1	1	1	1	1	1	1	0	0	1	1	0	1	1	A	0	1	0	0	1	1	0	0.7	1.4	
28-Oct	1	0	0	0	0	0	0	0	0	1	2	1	2	1	1	1	A	0	1	2	1	2	2	1	0.9	1.9	
29-Oct	1	1	1	1	1	1	0	1	0	1	0	1	0	1	1	A	0	2	0	1	2	1	1	1	0.9	2.4	
30-Oct	0	0	0	0	0	0	1	0	0	0	0	0	0	2	A	1	0	0	0	0	0	0	0	0	0.3	1.7	
31-Oct	0	0	1	1	1	0	0	0	0	1	1	1	1	A	1	1	1	1	0	0	0	0	0	0	0.5	1.1	
	0.4	0.3	0.4	0.4	0.4	0.3	0.4	0.5	0.6	0.8	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.6	0.4	0.4	0.6	0.4	Diurnal Average	
	1.5	1.0	2.5	1.8	2.8	2.2	2.6	3.1	5.4	4.8	1.8	2.6	1.5	1.7	1.4	1.2	2.2	2.6	1.8	6.7	2.4	1.7	3.6	1.6	Diurnal Maximum		

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

# Hourly Averages for SO<sub>2</sub> at Smoky Heights

## October 2008



**Peace Airshed Zone Association  
Summary of Hourly Maximums**

**Smoky Heights - Sulphur Dioxide (SO<sub>2</sub>) - ppb  
October 1, 2008 to November 1, 2008**

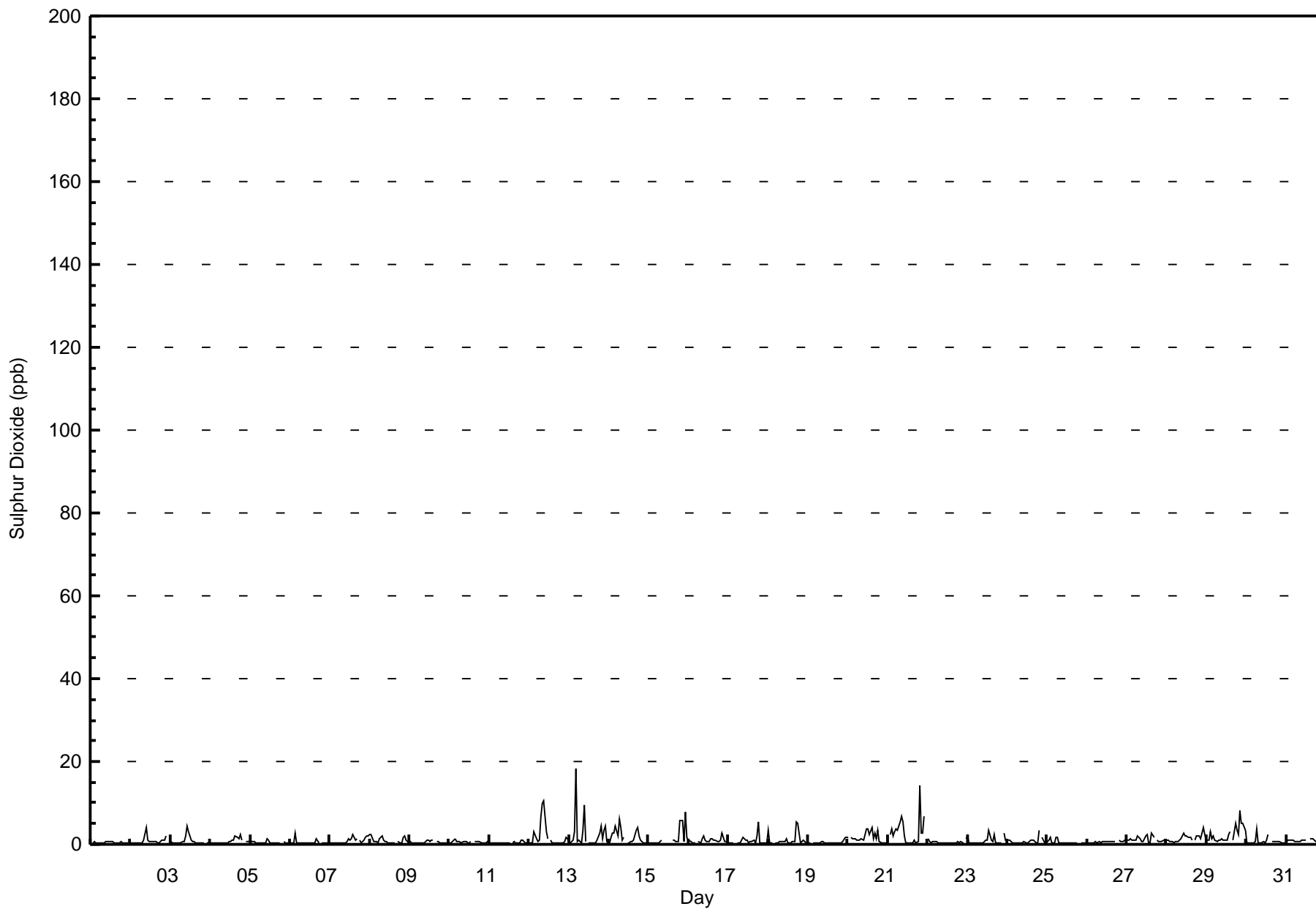
Maximum Value: 18.3 ppb on Oct 13 05:00	Maximum Daily Average: 3.1 ppb on Oct 21	Hours in Service: 744
Minimum Value: 0 ppb on Oct 5 06:00	Minimum Daily Average: 0.4 ppb on Oct 11	Hours of Data: 708
Maximum Diurnal Average: 1.7 ppb at hour 10	Minimum Diurnal Average: 0.7 ppb at hour 2	Hours of Missing Data: 36
Monthly Average: 1.08 ppb	Percentiles: P <sub>1</sub> = 0.3 P <sub>10</sub> = 0.3 Q <sub>1</sub> = 0.4 Median = 0.6 Q <sub>3</sub> = 1.1 P <sub>90</sub> = 2.3 P <sub>99</sub> = 7.3	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-Oct	A	0	1	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	1	0	0	0	0	A	0.5	0.8
2-Oct	0	0	0	0	0	0	1	1	1	4	1	1	1	1	1	1	0	0	1	1	1	2	A	1	0.8	4.0
3-Oct	1	1	0	0	0	0	0	1	1	2	4	3	1	1	1	0	0	0	0	0	0	A	0	0	0.9	4.3
4-Oct	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	2	2	1	2	1	A	1	1	1	0.8	2.5
5-Oct	1	1	1	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	A	1	0	0	0	0.5	1.3
6-Oct	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	1	0	A	0	0	0	0	0	0.5	2.6
7-Oct	0	0	0	0	0	0	0	0	0	0	1	1	1	1	2	1	1	A	1	0	1	2	2	2	0.9	2.3
8-Oct	2	2	1	1	1	0	1	2	1	1	1	0	0	0	0	0	A	1	0	0	2	2	1	0	0.9	2.4
9-Oct	1	0	0	0	0	0	0	0	0	0	1	1	1	1	1	A	1	1	0	0	0	0	0	0	0.6	1.2
10-Oct	0	0	1	1	1	1	1	0	1	1	1	0	0	1	A	1	1	1	1	1	0	0	0	1	0.6	1.2
11-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	0	0	0	0	1	1	0	0	0.4	1.1
12-Oct	0	0	0	3	1	1	1	6	10	11	3	1	A	1	0	0	0	0	0	0	0	1	2	1	2.0	10.7
13-Oct	0	0	1	3	18	1	1	0	3	9	1	A	0	0	0	0	0	1	3	4	1	3	4	1	2.5	18.3
14-Oct	0	2	3	3	4	2	6	4	1	2	A	1	0	1	1	1	3	4	2	1	1	0	0	0	1.8	6.3
15-Oct	0	0	0	0	0	0	0	1	1	A	1	C	C	A	1	1	1	1	1	6	6	1	8	2	1.5	7.7
16-Oct	1	1	0	0	0	A	1	0	1	2	1	1	1	1	1	1	1	1	1	1	3	2	1	1	1.0	2.6
17-Oct	0	0	1	0	A	0	0	0	1	2	1	1	0	1	1	1	0	2	5	0	0	0	0	0	0.8	5.4
18-Oct	3	0	0	A	0	0	0	1	1	1	1	1	0	0	1	1	1	5	5	0	1	1	1	0	1.1	5.4
19-Oct	0	1	A	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	1	2	2	0.5	1.8
20-Oct	2	A	2	1	1	1	1	1	1	1	2	4	4	2	4	1	3	1	3	1	0	0	0	0	1.7	4.1
21-Oct	A	2	4	2	3	4	3	5	7	5	2	0	0	0	0	0	1	0	1	14	3	3	7	A	3.1	14.3
22-Oct	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	1	0.5	1.5
23-Oct	2	0	0	0	0	0	0	0	0	0	1	1	1	3	1	1	2	0	0	0	0	A	3	1	0.9	3.2
24-Oct	1	1	1	0	0	0	0	0	0	0	1	0	0	1	1	1	1	0	0	3	A	2	0	0	0.7	3.4
25-Oct	1	1	2	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.6	1.7
26-Oct	0	0	0	0	0	1	0	1	0	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.6	0.9
27-Oct	1	1	1	1	1	1	2	2	1	1	1	2	2	0	0	3	2	A	1	1	1	1	1	1	1.2	2.7
28-Oct	1	1	1	1	0	1	1	1	1	2	3	2	2	2	2	1	A	1	2	2	1	3	4	2	1.6	4.0
29-Oct	1	1	3	1	2	1	1	1	1	1	1	1	1	2	3	A	1	5	3	2	8	5	5	3	2.4	8.2
30-Oct	0	0	0	0	0	1	4	0	0	0	1	1	1	2	A	1	1	1	1	1	1	0	0	0	0.7	3.6
31-Oct	0	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0	0.8	1.5

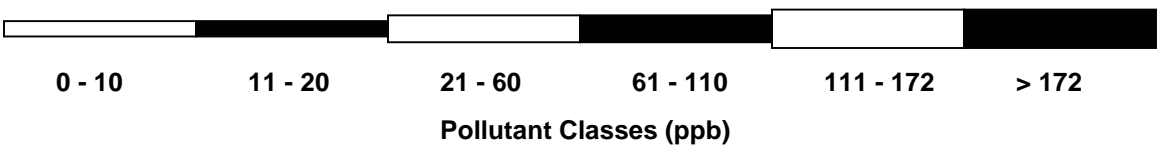
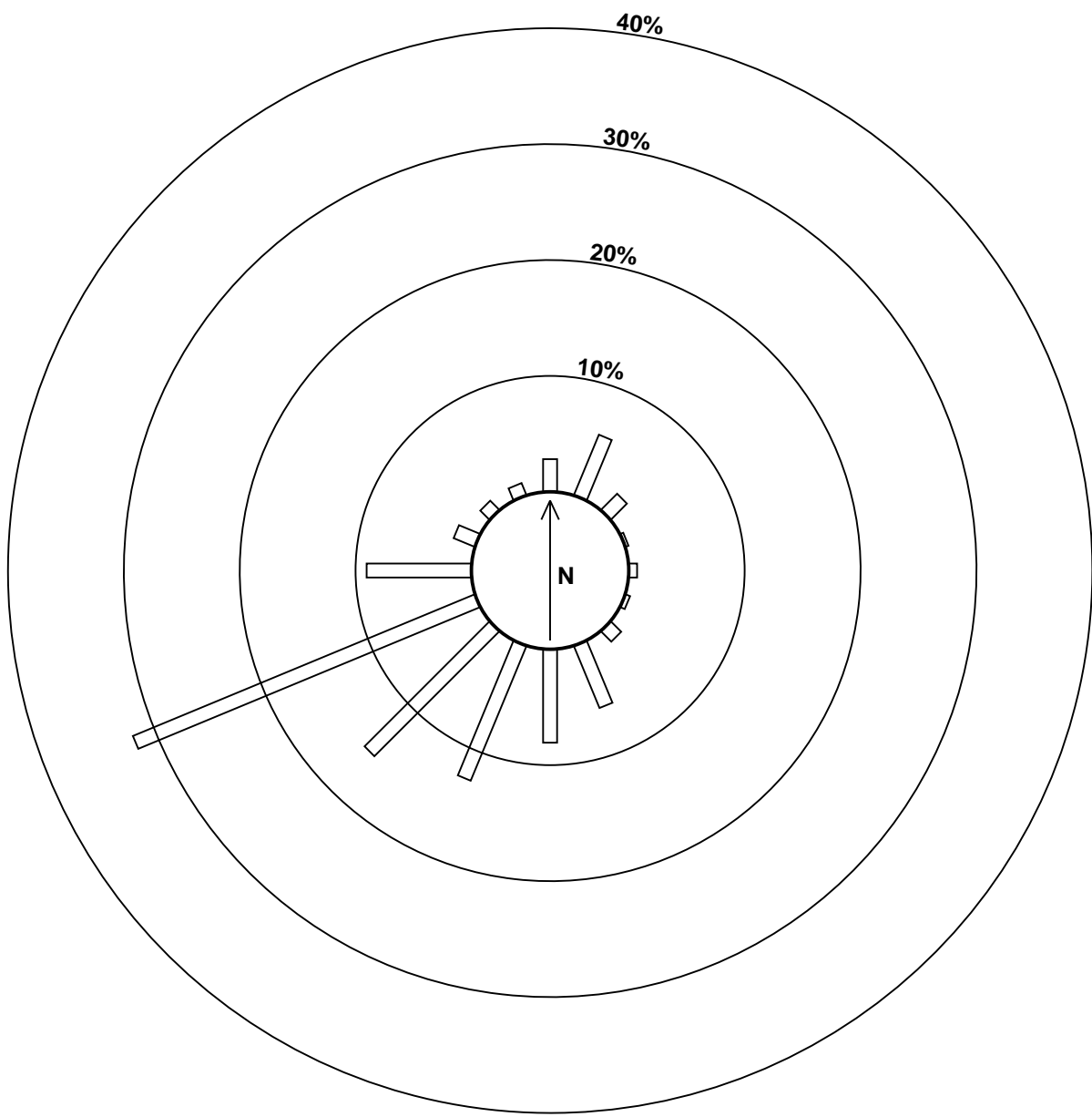
0.8	0.7	0.9	0.9	1.4	0.7	1.0	1.1	1.3	1.7	1.0	1.0	0.8	1.0	0.9	0.8	1.0	1.1	1.3	1.6	1.2	1.1	1.6	0.9		Diurnal Average
3.3	2.4	3.7	3.1	18.3	3.9	6.3	6.4	9.7	10.7	4.3	3.7	3.8	3.2	4.1	2.7	3.4	5.4	5.4	14.3	8.2	4.9	7.7	3.5		Diurnal Maximum

C - Calibration                      A - Automated Daily Zero Span

# Hourly Maximums for SO<sub>2</sub> at Smoky Heights October 2008



# Pollutant Rose for SO<sub>2</sub> at Smoky Heights October 2008



**Peace Airshed Zone Association  
Summary of Hourly Averages**

**Smoky Heights - Total Reduced Sulphur (TRS) - ppb  
October 1, 2008 to November 1, 2008**

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 1.0 ppb on Nov 1 00:00	Maximum Daily Average: 0.5 ppb on Oct 1
Minimum Value: 0 ppb on Oct 10 10:00	Hours of Data: 707
Maximum Diurnal Average: 0.3 ppb at hour 24	Hours of Missing Data: 37
Monthly Average: 0.30 ppb	Hours of Calibration: 37
Minimum Daily Average: 0.2 ppb on Oct 8	Percent Operational Time: 100.0
Minimum Diurnal Average: 0.3 ppb at hour 11	
Percentiles: P <sub>1</sub> = 0.1 P <sub>10</sub> = 0.2 Q <sub>1</sub> = 0.2 Median = 0.3 Q <sub>3</sub> = 0.4 P <sub>90</sub> = 0.5 P <sub>99</sub> = 0.7	

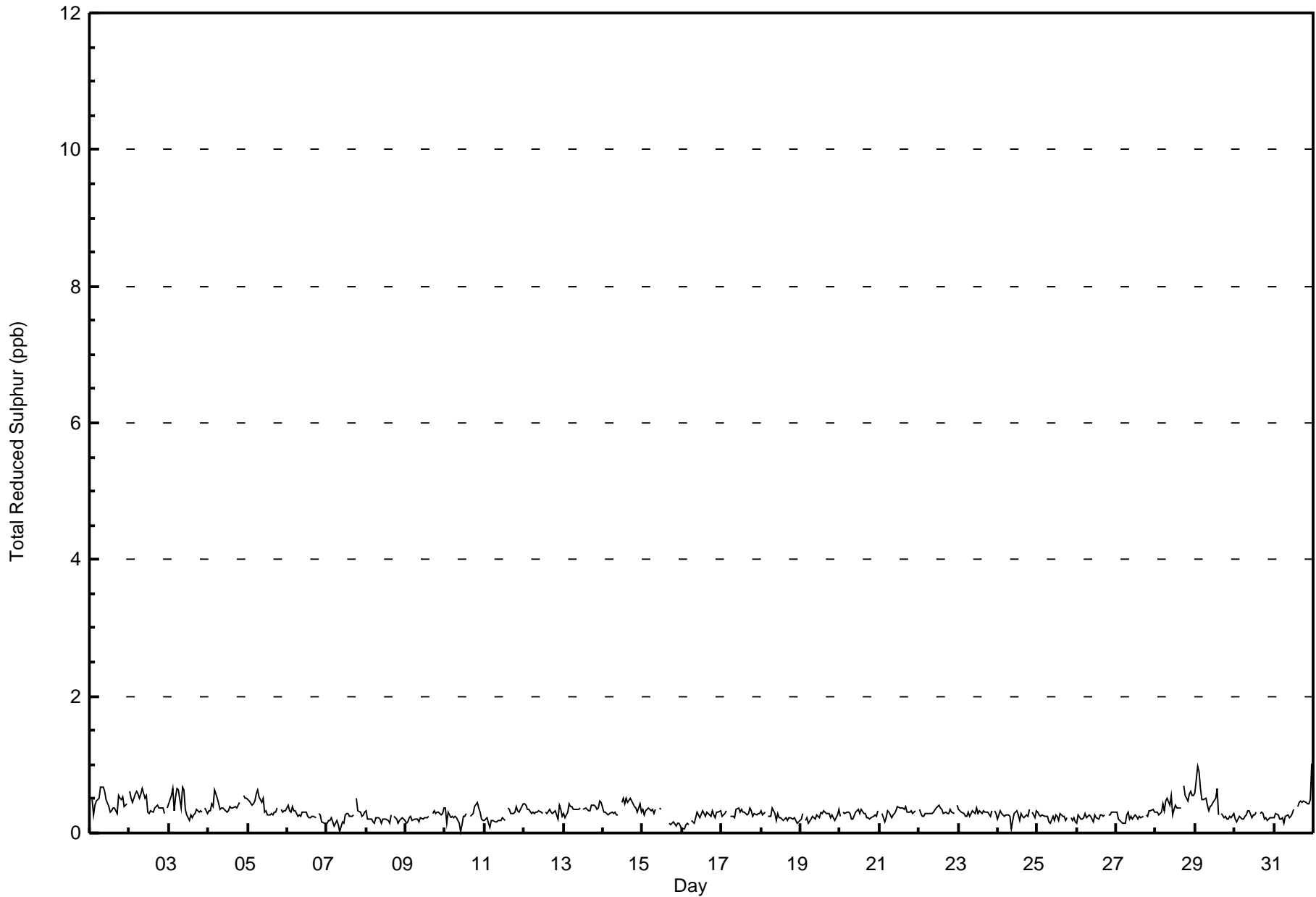
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Oct	A	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	1	1	0	1	0	0	A	0.5	0.7	
2-Oct	1	1	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6	
3-Oct	0	1	1	0	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.4	0.7	
4-Oct	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	1	1	0.4	0.6
5-Oct	0	0	0	0	0	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.4	0.6	
6-Oct	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-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	0	0	0	0	0	0.2	0.5	
8-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.2	0.3	
9-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.2	0.4	
10-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.2	0.4	
11-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.2	0.4	
12-Oct	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4	
13-Oct	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5	
14-Oct	0	0	0	0	0	0	0	0	0	0	A	0	1	0	1	0	1	0	0	0	0	0	0	0	0.4	0.5	
15-Oct	0	0	0	0	0	0	0	0	0	A	0	0	C	C	C	A	0	0	0	0	0	0	0	0	0.2	0.4	
16-Oct	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	
17-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4	
18-Oct	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	
19-Oct	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	
20-Oct	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4	
21-Oct	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4	
22-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4	
23-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.3	0.4	
24-Oct	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	0.3	
25-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	0.3	
26-Oct	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	
27-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.2	0.3	
28-Oct	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	A	1	1	0	1	1	1	1	0.4	0.7	
29-Oct	1	1	1	1	0	0	1	0	0	0	0	1	1	0	0	A	0	0	0	0	0	0	0	0	0.4	1.0	
30-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.2	0.3	
31-Oct	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	0.4	1.0	
	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	0.3	0.3	0.3	0.3	0.3	Diurnal Average		
	0.6	1.0	0.9	0.7	0.6	0.7	0.7	0.7	0.7	0.6	0.5	0.5	0.5	0.7	0.5	0.5	0.5	0.5	0.7	0.6	0.5	0.6	0.6	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 Averages for TRS at Smoky Heights

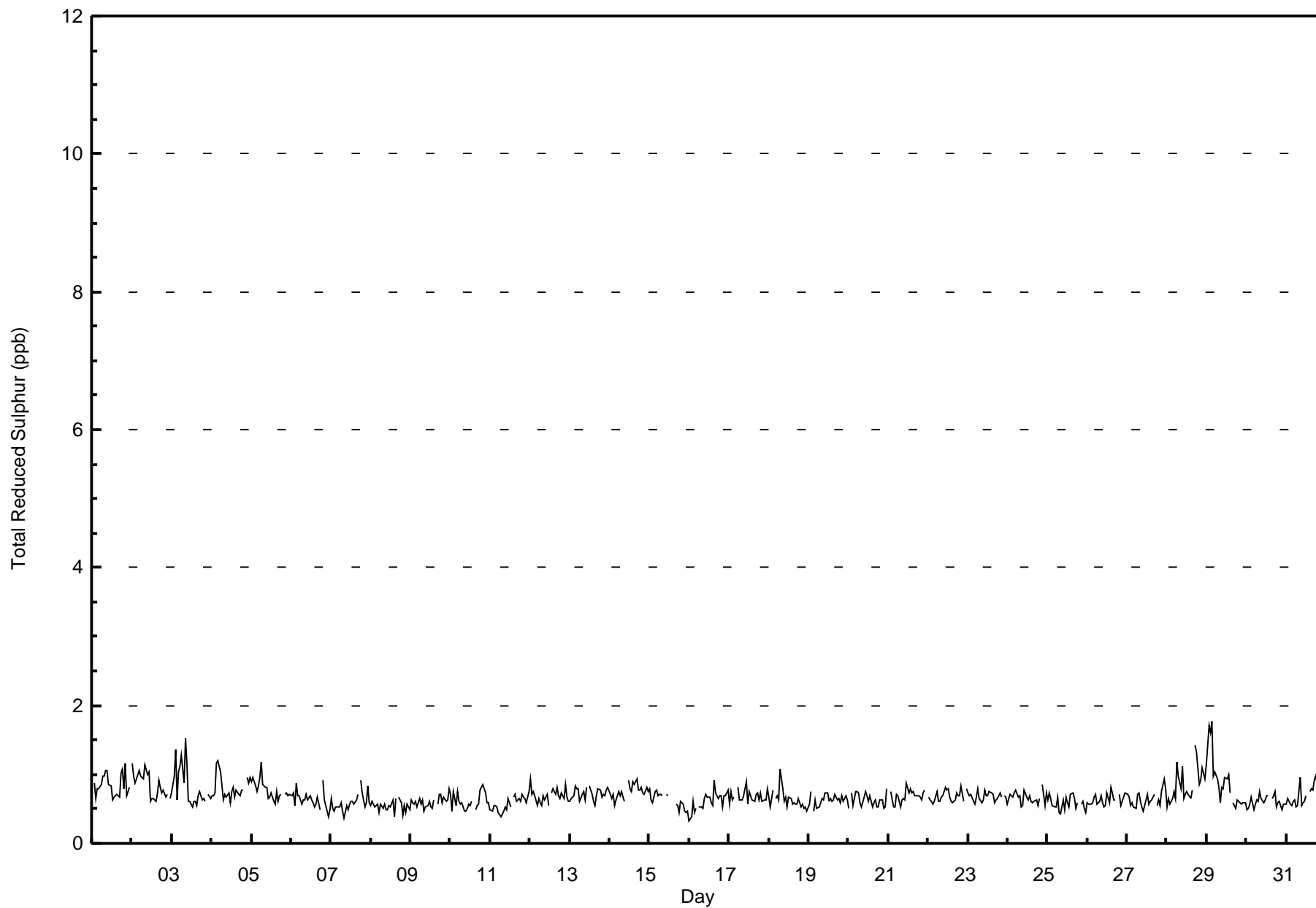
## October 2008



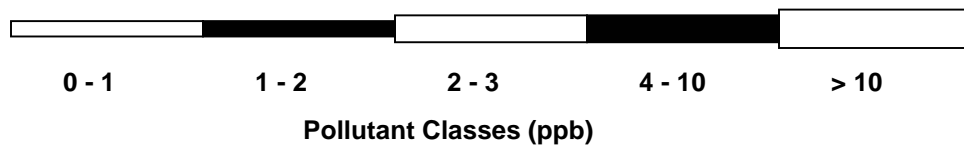
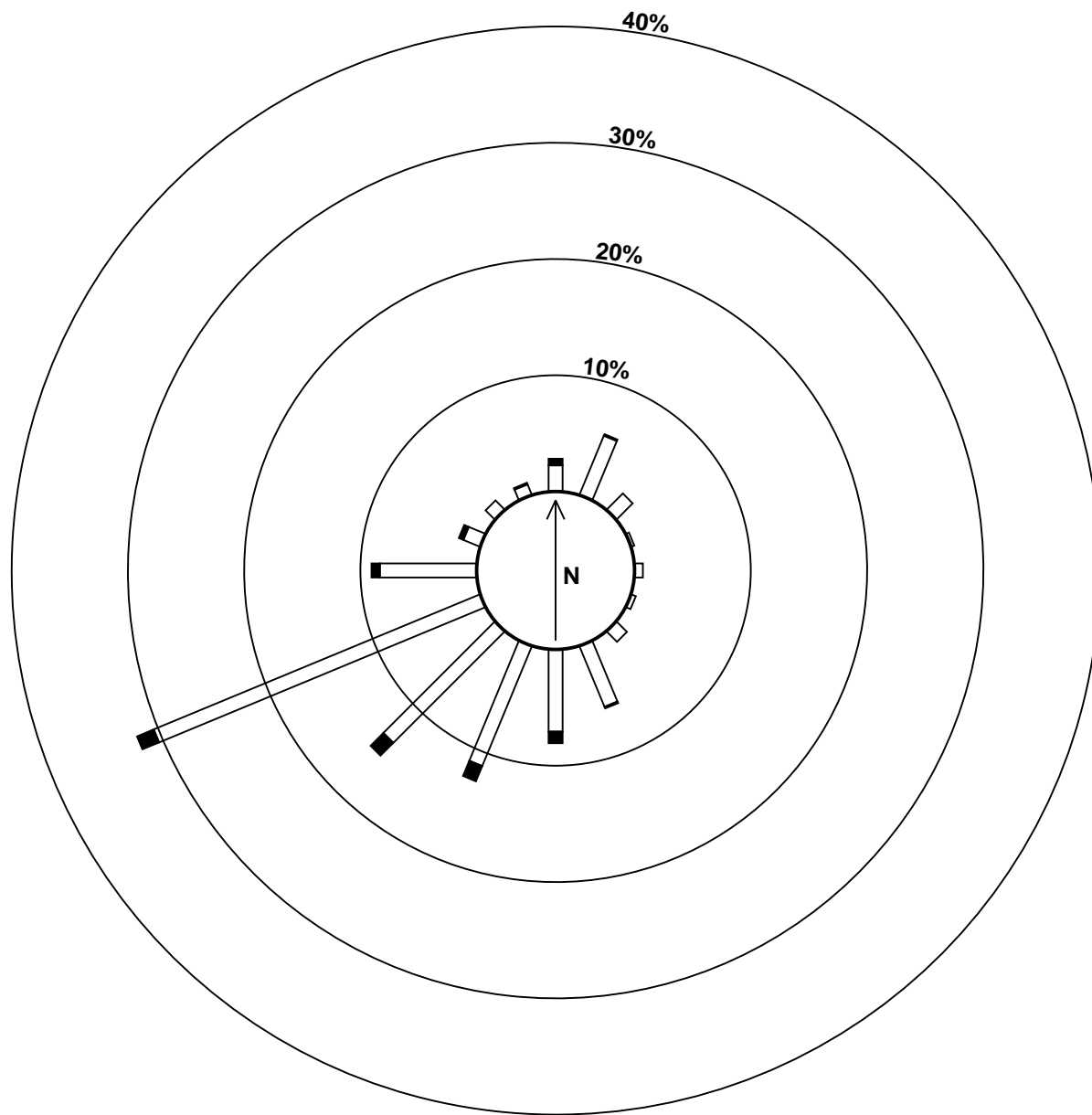


# Hourly Maximums for TRS at Smoky Heights

## October 2008



# Pollutant Rose for TRS at Smoky Heights October 2008



**Peace Airshed Zone Association  
Summary of Hourly Averages**

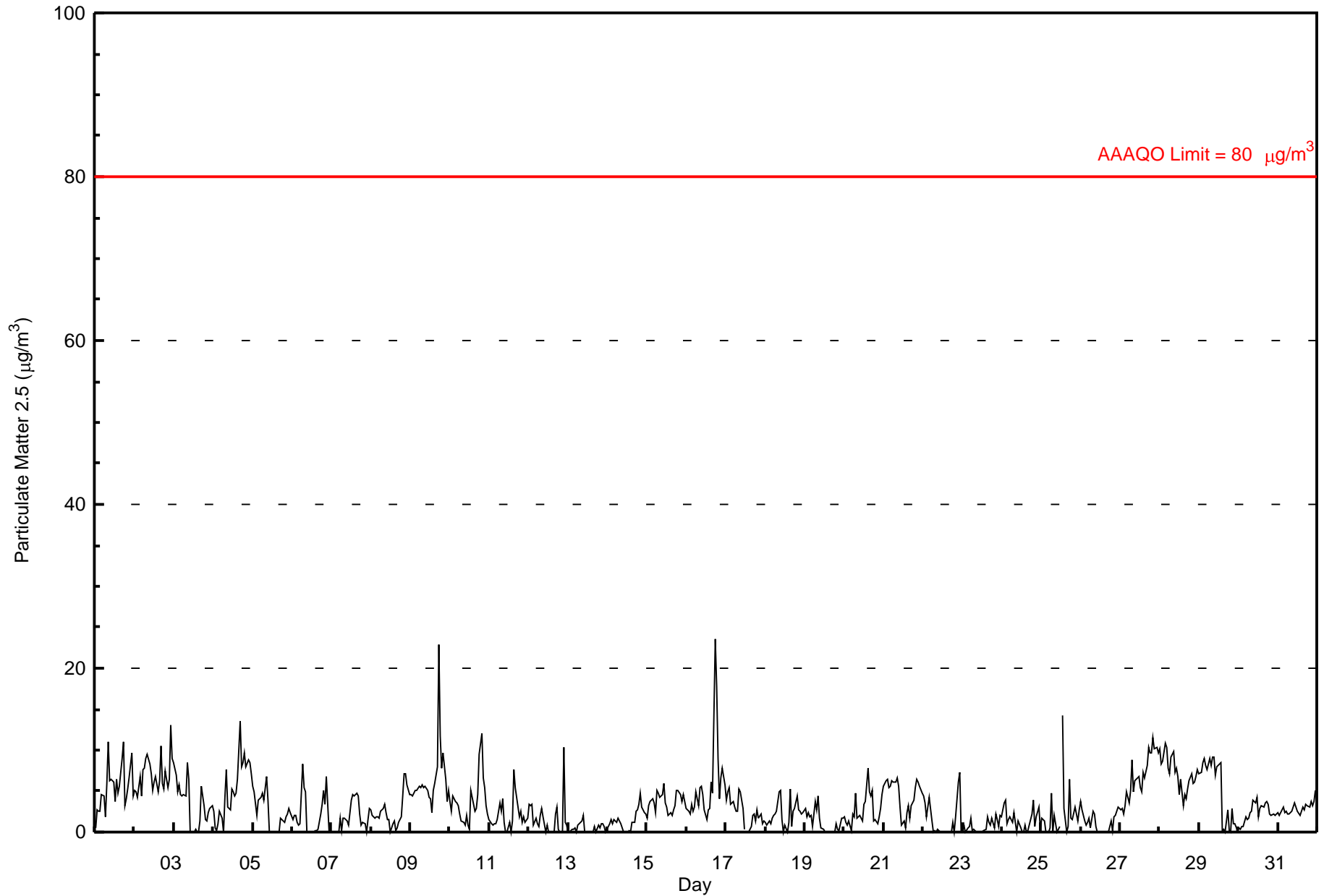
**Smoky Heights - Particulate Matter 2.5 (PM<sub>2.5</sub>) -  $\mu\text{g}/\text{m}^3$   
October 1, 2008 to November 1, 2008**

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 23.5 $\mu\text{g}/\text{m}^3$ on Oct 16 18:00	Maximum Daily Average: 7.2 $\mu\text{g}/\text{m}^3$ on Oct 28
Minimum Value: 0 $\mu\text{g}/\text{m}^3$ on Oct 3 11:00	Hours of Data: 741
Maximum Diurnal Average: 4.8 $\mu\text{g}/\text{m}^3$ at hour 18	Hours of Missing Data: 3
Monthly Average: 3.20 $\mu\text{g}/\text{m}^3$	Hours of Calibration: 0
Minimum Daily Average: 0.5 $\mu\text{g}/\text{m}^3$ on Oct 13	Percent Operational Time: 99.6
Minimum Diurnal Average: 2.0 $\mu\text{g}/\text{m}^3$ at hour 13	
Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 1.0 Median = 2.5 Q <sub>3</sub> = 4.8 P <sub>90</sub> = 7.1 P <sub>99</sub> = 11.0	

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-Oct	0	3	2	2	5	4	2	6	11	6	6	6	4	7	5	6	9	11	3	4	5	7	10	4	5.4	11.1																						
2-Oct	5	5	4	7	4	8	8	9	10	8	7	5	6	7	5	6	11	6	5	8	5	6	13	9	7.0	13.1																						
3-Oct	8	7	5	6	5	4	5	4	9	6	0	0	0	0	0	1	6	3	2	1	2	3	3	3	3.4	8.5																						
4-Oct	3	1	0	1	2	2	0	4	8	3	3	5	5	4	5	6	14	8	8	10	8	9	9	7	5.2	13.6																						
5-Oct	6	5	2	4	4	4	5	4	7	4	0	BD	0	0	0	0	0	2	2	1	2	2	3	2	2.5	6.7																						
6-Oct	1	2	2	1	1	1	8	5	5	0	0	0	0	0	0	0	0	2	3	5	3	7	0	0	2.0	8.3																						
7-Oct	0	0	0	0	0	2	0	2	2	1	1	2	4	5	4	5	4	2	1	1	1	0	2	3	1.7	4.7																						
8-Oct	3	2	2	2	2	2	3	3	3	2	2	1	0	1	1	0	0	1	2	4	7	7	6	5	2.5	7.1																						
9-Oct	5	4	5	5	5	6	5	6	5	6	5	4	4	2	5	6	8	23	12	8	10	6	4	5	6.4	22.9																						
10-Oct	4	3	4	4	3	3	2	1	1	1	2	1	0	5	3	3	3	5	9	12	7	5	3	2	3.6	12.0																						
11-Oct	1	1	1	1	1	1	4	3	4	1	0	0	1	0	1	8	5	3	2	3	1	2	1	2	2.0	7.7																						
12-Oct	3	3	3	1	2	1	1	2	3	2	0	1	0	0	0	0	2	3	0	0	0	10	1	1	1.7	10.4																						
13-Oct	0	0	0	0	1	0	1	1	1	2	0	0	0	0	0	0	1	0	1	1	1	1	1	0	0.5	2.1																						
14-Oct	1	1	2	1	2	1	2	1	1	1	0	0	0	0	0	1	1	3	3	3	5	3	2	2	1.5	4.7																						
15-Oct	2	3	4	4	3	2	5	5	4	5	6	4	3	2	2	2	3	3	5	5	5	4	5	4	3.7	5.9																						
16-Oct	3	3	2	3	2	3	5	3	5	6	5	3	2	3	3	6	5	24	18	9	4	7	8	6	5.7	23.5																						
17-Oct	4	5	5	3	4	3	2	3	5	5	3	0	BD	0	0	1	2	2	1	3	2	2	1	1	2.5	5.4																						
18-Oct	1	1	1	1	2	2	2	3	5	5	1	0	1	0	1	5	1	3	3	4	3	3	2	2	2.2	5.2																						
19-Oct	3	2	2	2	2	1	4	3	4	2	1	0	0	0	0	0	0	0	0	1	0	0	2	2	1.3	4.4																						
20-Oct	2	1	1	1	0	2	2	5	2	2	2	1	3	4	8	5	4	5	1	1	1	2	3	5	2.7	7.8																						
21-Oct	6	6	6	5	6	6	6	6	7	6	3	1	1	0	2	3	2	3	4	5	6	6	6	5	4.5	6.6																						
22-Oct	4	4	2	3	4	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	6	7	0	1.5	7.3																						
23-Oct	0	1	0	0	1	2	0	0	0	0	0	0	0	0	2	1	1	2	1	2	1	1	2	0	0.7	2.2																						
24-Oct	2	4	4	1	2	2	1	2	1	0	1	0	0	0	1	0	0	1	2	4	1	2	3	0	1.5	4.0																						
25-Oct	2	2	1	0	0	0	5	0	2	0	0	1	P	14	3	0	1	7	2	1	3	2	1	3	2.2	14.2																						
26-Oct	4	3	1	1	1	2	1	3	2	1	0	0	0	0	0	0	0	0	1	0	2	2	2	3	1.2	3.7																						
27-Oct	3	3	2	3	5	4	5	9	5	6	6	7	5	5	7	7	8	10	10	10	12	10	10	10	6.7	11.6																						
28-Oct	10	8	9	11	10	8	7	9	10	7	8	7	5	6	3	5	4	5	6	7	6	6	7	8	7.2	10.9																						
29-Oct	7	7	9	9	8	8	9	8	9	9	7	8	8	9	0	0	0	3	0	0	3	1	1	0	5.1	9.1																						
30-Oct	1	0	1	1	2	2	2	2	2	4	3	4	2	3	3	3	4	4	3	2	2	2	2	2	2.3	4.2																						
31-Oct	2	2	3	3	2	3	2	2	2	3	4	3	2	2	3	3	3	3	3	3	4	3	4	5	2.9	5.0																						
																								3.1	2.9	2.8	2.8	2.9	2.9	3.3	3.7	4.4	3.4	2.4	2.2	2.0	2.6	2.2	2.7	3.1	4.8	3.8	3.8	3.6	4.1	3.9	3.3	Diurnal Average
																								10.2	8.3	8.6	10.9	10.3	7.7	9.0	9.2	11.1	9.1	7.9	7.9	8.4	14.2	7.8	7.7	13.6	23.5	17.8	12.0	11.6	10.4	13.1	9.6	Diurnal Maximum

P - Power Failure      BD - Baseline Drift  
 Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 80  $\mu\text{g}/\text{m}^3$       24-hr 30  $\mu\text{g}/\text{m}^3$

# Hourly Averages for PM<sub>2.5</sub> at Smoky Heights October 2008



**Peace Airshed Zone Association  
Summary of Hourly Maximums**

**Smoky Heights - Particulate Matter 2.5 (PM<sub>2.5</sub>) - µg/m<sup>3</sup>  
October 1, 2008 to November 1, 2008**

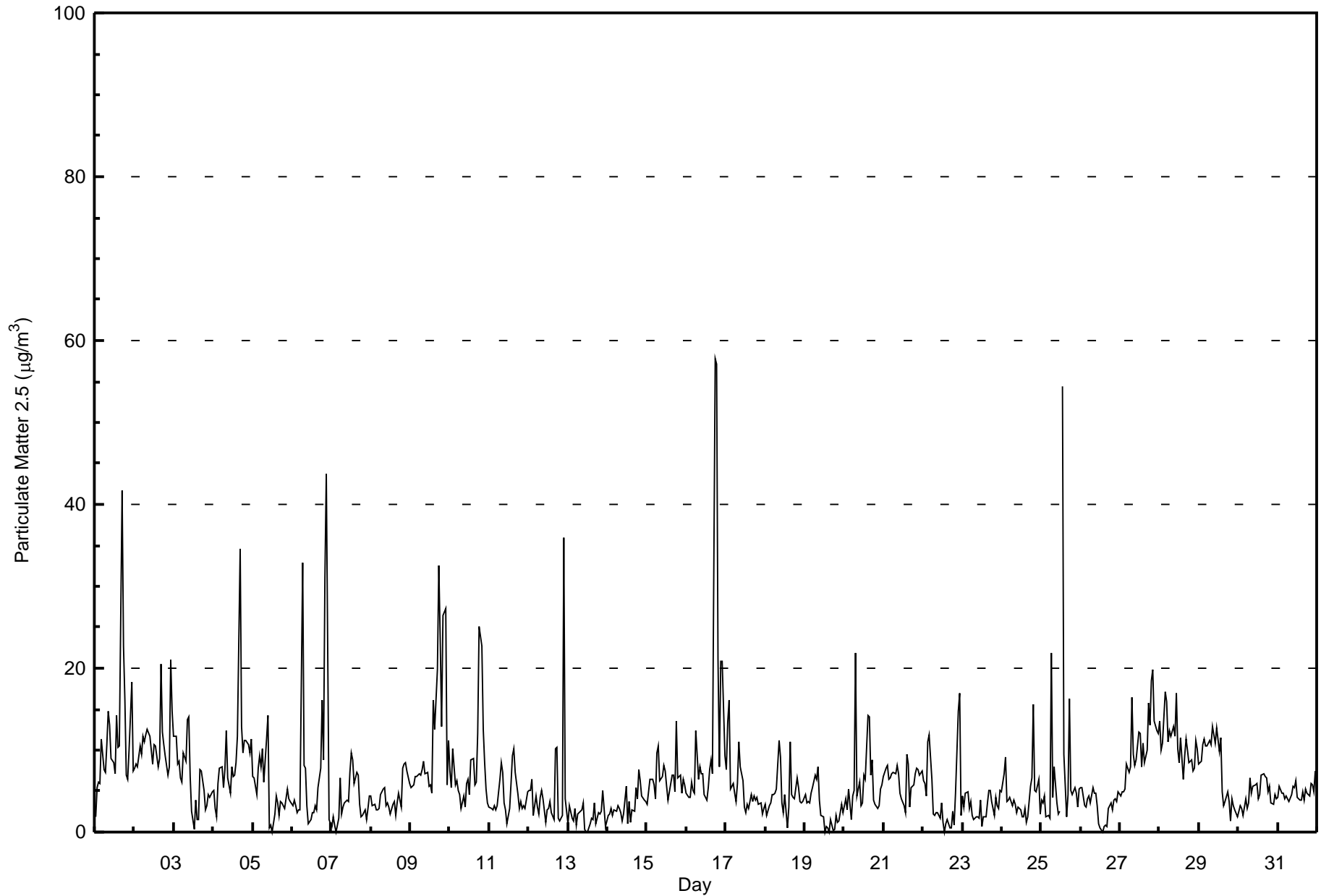
Maximum Value: 57.8 µg/m <sup>3</sup> on Oct 16 18:00	Maximum Daily Average: 12.6 µg/m <sup>3</sup> on Oct 16	Hours in Service: 744
Minimum Value: 0 µg/m <sup>3</sup> on Oct 5 13:00	Minimum Daily Average: 2.0 µg/m <sup>3</sup> on Oct 13	Hours of Data: 743
Maximum Diurnal Average: 9.7 µg/m <sup>3</sup> at hour 18	Minimum Diurnal Average: 4.2 µg/m <sup>3</sup> at hour 13	Hours of Missing Data: 1
Monthly Average: 6.48 µg/m <sup>3</sup>	Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 1.8 Q <sub>1</sub> = 3.1 Median = 4.9 Q <sub>3</sub> = 8.0 P <sub>90</sub> = 11.8 P <sub>99</sub> = 33.2	Hours of Calibration: 0
		Percent Operational Time: 99.9

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	2	5	6	6	11	8	7	11	15	13	9	9	7	14	10	10	42	23	16	7	6	10	18	7	11.4	41.7
2-Oct	8	8	8	11	9	12	11	12	13	12	10	8	11	10	8	9	21	12	11	9	7	8	21	15	11.0	21.1
3-Oct	12	12	8	9	7	6	10	9	14	14	7	3	0	4	2	2	8	7	5	3	3	5	4	5	6.5	14.1
4-Oct	5	3	2	6	8	8	5	8	12	7	5	8	7	7	9	12	35	13	10	11	11	11	10	11	9.2	34.6
5-Oct	7	7	5	8	9	8	10	6	11	14	1	1	0	2	4	4	2	4	4	3	4	5	4	4	5.2	14.3
6-Oct	3	4	3	2	3	3	33	8	8	3	1	2	2	2	3	3	5	8	16	9	31	44	2	1	8.3	43.7
7-Oct	1	2	1	0	2	7	2	3	3	4	4	7	10	9	6	7	7	3	2	2	3	2	3	4	3.8	9.6
8-Oct	4	3	3	3	3	3	5	5	5	3	4	3	2	3	4	2	4	5	3	8	8	9	7	6	4.4	8.5
9-Oct	5	6	6	7	7	7	7	8	9	7	7	6	6	5	16	13	20	33	24	13	26	27	6	11	11.7	32.6
10-Oct	7	5	10	6	6	5	5	3	4	3	6	6	5	9	9	6	6	12	25	23	13	8	5	4	8.0	25.2
11-Oct	3	3	3	3	3	3	6	8	7	4	3	1	3	6	9	10	7	5	3	4	3	3	3	5	4.5	10.1
12-Oct	5	5	6	2	4	3	2	4	5	4	1	3	3	4	2	2	10	10	2	1	2	36	4	3	5.2	36.0
13-Oct	1	3	2	1	3	1	2	3	3	4	0	0	0	1	2	2	4	1	2	2	3	5	3	1	2.0	5.1
14-Oct	2	2	3	2	3	2	3	3	2	1	2	6	1	4	1	3	3	5	4	8	6	4	4	4	3.3	7.7
15-Oct	3	5	6	6	6	4	10	10	6	7	8	7	6	4	6	7	7	5	14	7	7	5	6	6	6.6	13.6
16-Oct	5	4	4	6	5	5	12	7	8	7	7	5	4	5	8	9	7	58	57	21	8	21	21	9	12.6	57.8
17-Oct	8	13	16	5	6	5	4	6	11	8	6	3	2	3	3	5	4	4	4	4	3	4	2	3	5.5	16.1
18-Oct	3	2	3	3	5	5	5	5	11	9	4	2	5	0	3	11	5	4	4	7	5	4	4	4	4.7	11.2
19-Oct	5	3	4	4	5	5	7	6	8	4	2	2	0	1	1	0	1	0	0	2	1	1	3	2	2.8	7.9
20-Oct	3	4	3	5	2	4	5	22	4	6	3	4	7	7	14	14	7	9	4	3	3	3	5	6	6.1	21.8
21-Oct	7	8	8	6	7	7	7	7	8	7	5	4	3	2	10	8	3	6	6	7	8	8	7	8	6.5	9.5
22-Oct	6	6	4	11	12	7	2	2	2	2	4	1	0	1	2	1	1	3	1	5	15	17	2	4.5	16.9	
23-Oct	4	3	5	5	3	4	2	1	2	2	2	4	1	2	2	4	5	5	4	2	4	3	3	5	3.2	5.1
24-Oct	5	7	9	4	4	4	3	4	3	2	3	3	2	2	3	1	2	6	7	16	5	5	6	2	4.5	15.5
25-Oct	4	4	4	2	2	2	22	4	8	4	2	3	P	54	9	2	5	16	5	5	5	5	3	5	7.6	54.5
26-Oct	5	5	3	3	4	4	4	5	5	5	3	1	1	0	1	1	1	3	4	3	4	4	4	5	3.2	5.5
27-Oct	4	5	5	5	8	7	8	16	9	8	9	12	12	8	11	8	10	16	13	18	20	14	12	12	10.5	19.8
28-Oct	14	10	11	17	16	11	12	12	13	12	17	10	8	11	6	9	11	10	8	9	7	8	11	10	11.0	17.2
29-Oct	8	9	11	11	11	10	11	11	13	12	11	13	10	12	5	3	4	5	4	1	4	3	3	2	7.7	12.8
30-Oct	3	3	3	2	4	3	4	7	5	6	6	6	4	5	7	7	7	7	5	6	4	3	4	4	4.7	7.2
31-Oct	4	6	5	5	4	4	4	4	5	6	5	6	4	4	4	5	4	5	5	4	6	6	5	7	4.8	7.5

5.1	5.3	5.5	5.4	5.8	5.4	7.4	7.1	7.5	6.4	4.9	4.8	4.2	6.5	5.7	5.8	8.2	9.7	8.7	7.0	7.3	9.3	6.8	5.6	Diurnal Average
13.6	13.4	16.1	17.2	15.9	11.6	32.9	21.8	14.8	14.3	16.9	12.7	12.1	54.5	16.1	14.1	41.7	57.8	57.2	22.7	31.1	43.7	21.1	14.8	Diurnal Maximum

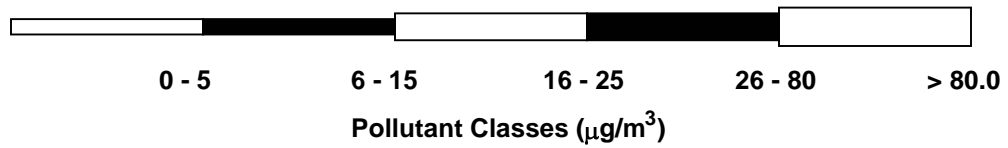
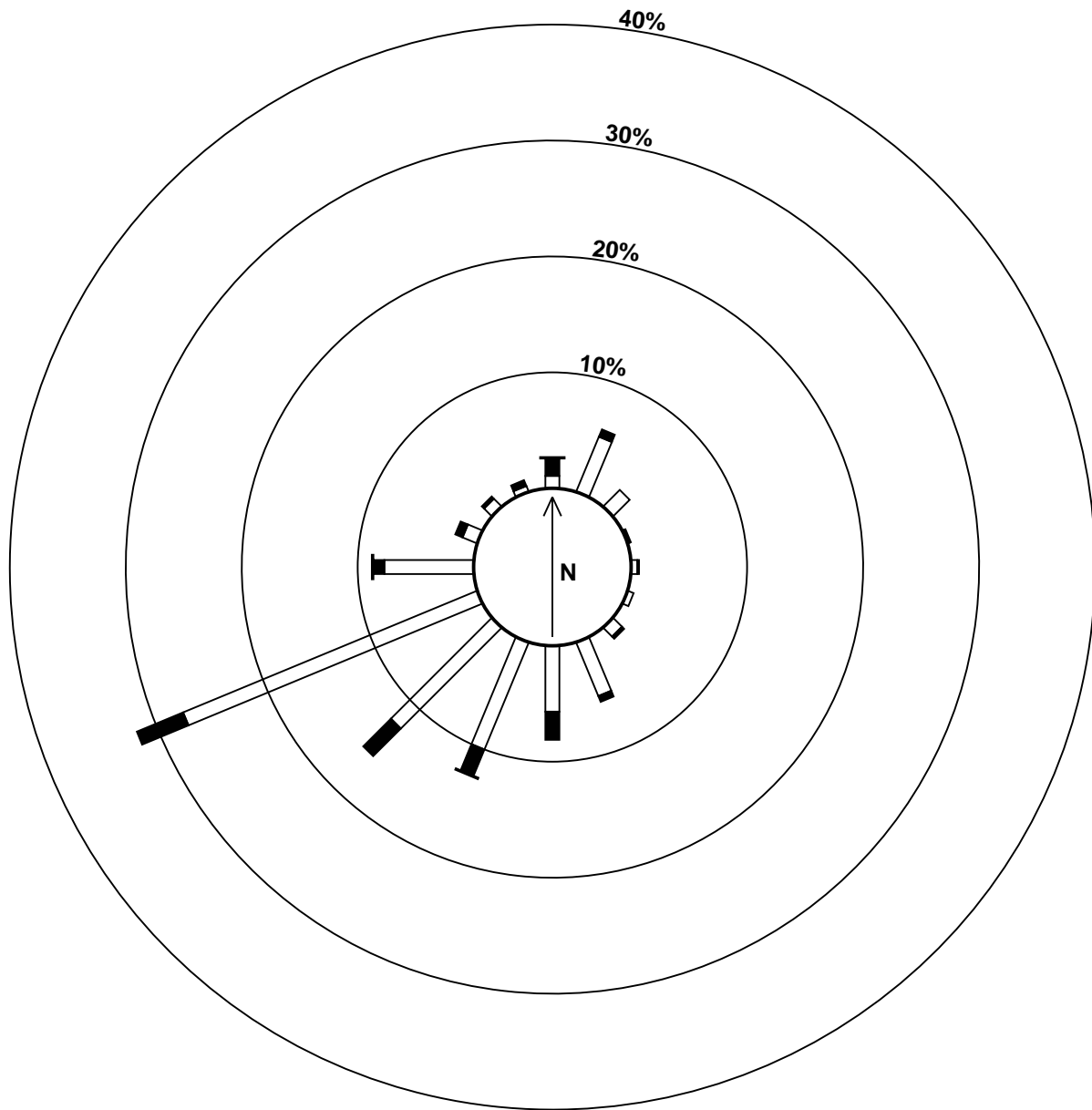
P - Power Failure

# Hourly Maximums for PM<sub>2.5</sub> at Smoky Heights October 2008





# Pollutant Rose for PM<sub>2.5</sub> at Smoky Heights October 2008



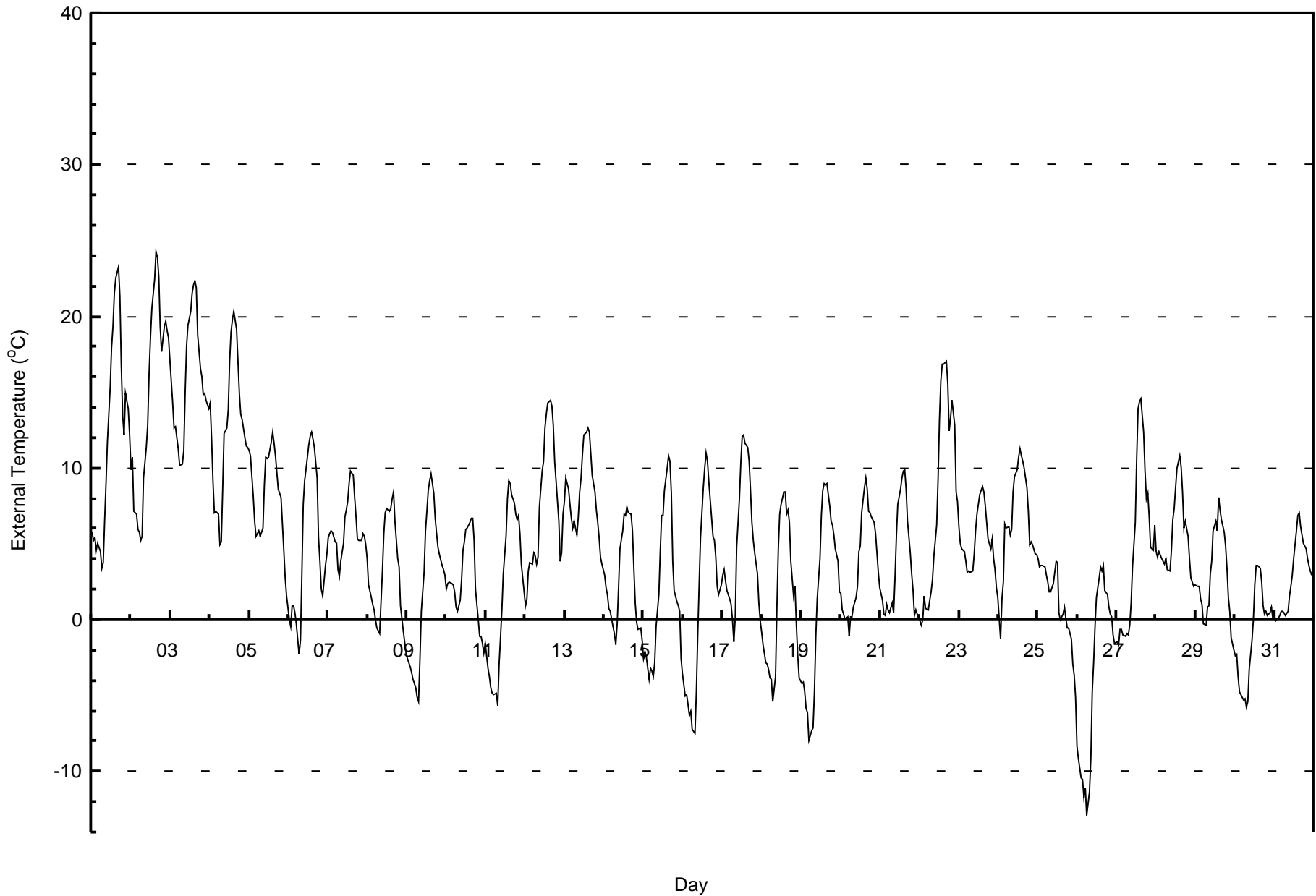
**Peace Airshed Zone Association  
Summary of Hourly Averages**

**Smoky Heights - External Temperature (ET) - °C  
October 1, 2008 to November 1, 2008**

Maximum Value: 24.2 °C on Oct 2 16:00		Maximum Daily Average: 15.9 °C on Oct 3		Hours in Service: 744																							
Minimum Value: -13 °C on Oct 26 07:00		Minimum Daily Average: -3.6 °C on Oct 26		Hours of Data: 744																							
Maximum Diurnal Average: 10.9 °C at hour 15		Minimum Diurnal Average: 0.1 °C at hour 8		Hours of Missing Data: 0																							
Monthly Average: 4.93 °C		Percentiles: P <sub>1</sub> = -9.2 P <sub>10</sub> = -2.4 Q <sub>1</sub> = 0.8 Median = 4.5 Q <sub>3</sub> = 8.4 P <sub>90</sub> = 12.6 P <sub>99</sub> = 22.3		Hours of Calibration: 0																							
				Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Oct	6	5	5	5	5	4	3	4	7	9	12	15	18	19	21	22	23	21	17	13	12	15	14	12	12.1	23.2	
2-Oct	10	11	7	7	6	6	5	6	9	11	13	16	19	21	22	24	24	23	19	18	19	20	19	19	14.7	24.2	
3-Oct	17	14	13	13	12	11	10	10	11	15	18	19	20	21	22	22	22	19	17	16	15	15	14	14	15.9	22.3	
4-Oct	14	12	9	7	7	7	5	5	9	12	13	14	17	19	20	20	19	17	15	14	13	12	11	11	12.6	20.3	
5-Oct	11	11	8	6	5	6	6	5	6	9	11	11	11	12	12	12	11	10	9	8	6	5	3	2	8.1	12.3	
6-Oct	0	0	1	1	0	0	-2	-1	3	8	9	11	12	12	12	12	11	9	5	4	2	2	4	4	4.9	12.3	
7-Oct	5	6	6	6	5	5	3	3	4	5	7	7	8	9	10	9	8	7	5	5	5	6	5	5	6.0	9.8	
8-Oct	4	2	1	1	1	0	-1	-1	1	3	6	7	7	7	7	8	8	7	4	4	1	0	-1	-2	3.2	8.4	
9-Oct	-3	-3	-3	-3	-4	-4	-5	-5	-3	1	3	6	7	8	9	10	8	7	6	5	4	4	3	3	2.1	9.6	
10-Oct	2	2	2	2	2	2	1	1	1	3	5	5	6	6	6	7	7	5	2	0	-1	-1	-2	-2	2.6	6.7	
11-Oct	-2	-3	-4	-4	-5	-5	-5	-6	-3	-1	1	3	6	8	9	9	8	8	7	7	7	6	4	2	1.9	9.1	
12-Oct	1	1	3	4	4	4	4	4	4	7	10	10	13	14	14	14	14	13	10	9	7	4	4	7	7.5	14.5	
13-Oct	8	9	9	8	7	6	6	6	7	8	9	11	12	12	13	12	11	10	8	7	6	5	4	4	8.3	12.7	
14-Oct	3	2	2	1	1	0	-1	-2	0	2	5	6	7	7	7	7	7	6	3	1	0	-1	-1	-1	2.5	7.4	
15-Oct	-3	-2	-2	-4	-3	-3	-4	-3	0	2	4	7	7	9	10	11	10	8	4	2	1	1	1	-3	2.1	10.8	
16-Oct	-4	-5	-5	-6	-6	-6	-7	-7	-5	-1	2	5	9	10	11	10	9	7	5	5	4	2	2	2	1.3	11.0	
17-Oct	3	3	3	2	1	1	0	-1	0	5	8	10	12	12	12	11	10	8	6	5	4	3	1	0	5.0	12.1	
18-Oct	-1	-2	-3	-3	-3	-4	-4	-5	-4	1	5	7	8	8	8	7	7	6	4	2	2	0	-2	-4	1.3	8.5	
19-Oct	-4	-4	-5	-6	-6	-8	-7	-7	-5	-1	1	4	7	8	9	9	9	8	6	6	6	5	4	2	1.3	9.0	
20-Oct	2	1	0	0	0	-1	0	0	1	1	2	4	5	7	9	9	9	7	7	7	6	6	4	3	3.8	9.3	
21-Oct	2	1	0	0	1	1	0	1	0	3	6	8	9	9	10	10	9	6	4	3	2	0	1	0	3.6	9.9	
22-Oct	0	0	0	2	1	1	1	2	3	4	6	9	13	16	17	17	17	16	12	13	14	13	8	8	8.0	17.0	
23-Oct	6	5	5	4	4	3	3	3	3	4	6	7	8	8	9	8	7	6	5	5	5	4	3	2	5.2	8.8	
24-Oct	1	-1	1	2	6	6	6	6	6	8	9	10	11	11	11	10	10	9	7	5	5	5	4	4	6.4	11.3	
25-Oct	4	4	4	4	3	3	2	2	2	2	3	4	4	0	0	0	1	0	-1	-1	-1	-3	-4	-5	1.2	4.1	
26-Oct	-8	-9	-10	-11	-12	-11	-13	-11	-9	-5	-3	0	2	3	3	3	4	2	2	1	0	0	-1	-2	-3.6	3.6	
27-Oct	-2	-2	-1	-1	-1	-1	-1	-1	0	1	4	6	11	14	14	15	12	10	8	8	7	5	5	6	4.9	14.5	
28-Oct	4	4	4	4	4	4	4	3	3	5	7	7	9	10	11	10	8	6	6	5	4	3	3	2	5.5	10.8	
29-Oct	2	2	2	1	1	0	0	1	1	3	4	6	6	6	8	7	7	6	5	3	1	1	-1	-2	2.9	8.0	
30-Oct	-2	-2	-4	-5	-5	-5	-5	-6	-5	-3	-1	0	2	4	4	3	2	1	0	1	0	0	1	0	-1.1	3.5	
31-Oct	0	0	0	0	1	1	0	0	1	2	2	3	4	6	7	7	6	6	5	5	4	4	3	3	2.8	7.0	
		2.5	2.0	1.6	1.2	1.0	0.6	0.2	0.1	1.5	4.0	6.0	7.7	9.2	10.2	10.9	10.9	10.3	8.8	7.0	6.0	5.3	4.4	3.7	3.0	Diurnal Average	
		17.1	14.3	12.6	12.7	12.0	11.3	10.2	10.3	11.1	15.0	18.0	19.5	20.3	21.5	22.4	24.2	23.9	22.6	19.3	17.7	19.3	19.7	19.0	18.5	Diurnal Maximum	

# Hourly Averages for External Temperature at Smoky Heights

## October 2008



**Peace Airshed Zone Association**  
**Summary of Hourly Averages**

Smoky Heights  
 October 1, 2008 to November 1, 2008  
 WS (km/h), WD (deg)

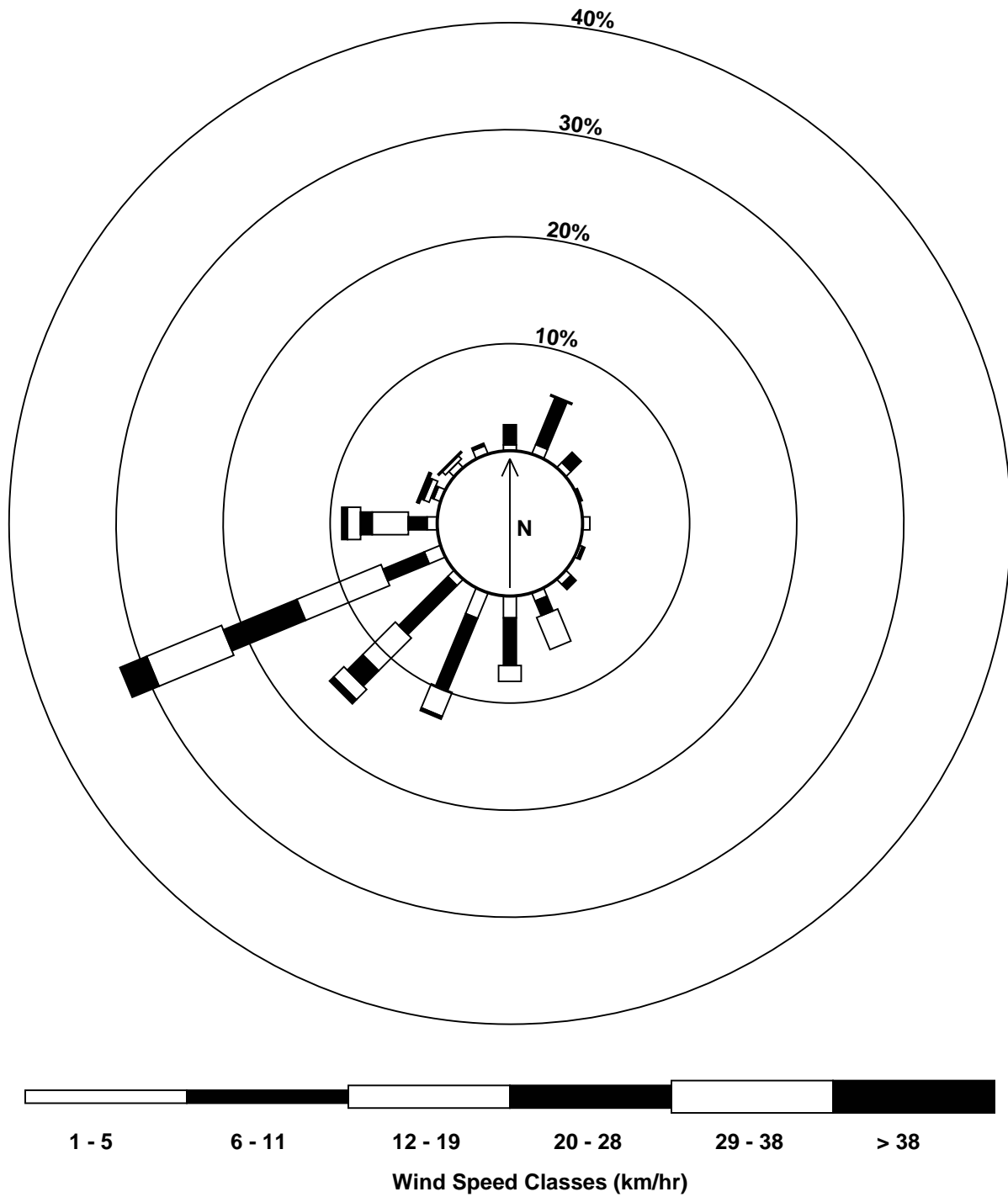
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	5	6	8	9	9	10	7	9	10	9	9	10	8	6	9	5	3	3	4	5	5	7	7	6	3.7	10.3
Dir	244	226	211	186	193	206	220	202	200	193	171	171	159	152	196	185	197	336	9	345	16	9	10	33	194.9	200.3
2 Spd	1	4	6	6	8	8	9	8	7	6	5	9	7	7	5	4	4	6	8	7	10	15	16	25	3.5	25.1
Dir	187	184	161	223	219	209	216	249	225	190	189	185	160	142	119	94	20	26	21	32	123	148	186	283	190.2	283.3
3 Spd	5	2	7	5	3	4	6	6	1	2	9	7	7	3	3	4	8	10	12	10	10	9	9	1.5	12.1	
Dir	345	350	253	191	248	288	243	261	296	289	268	268	263	271	146	54	35	57	34	28	28	40	73	137	350.1	28.3
4 Spd	13	8	8	3	4	4	2	5	4	3	6	5	1	2	5	6	0	9	13	11	5	3	4	7	1.7	13.3
Dir	148	199	254	248	202	260	289	83	317	148	133	151	3	25	34	17	3	246	257	260	291	182	358	1	241.6	147.6
5 Spd	11	9	3	6	4	6	6	10	15	28	39	31	33	34	37	38	34	28	28	28	18	16	14	11	18.5	39.2
Dir	358	350	21	227	239	202	185	206	216	241	248	246	242	237	239	243	244	238	242	246	239	231	233	238	241.1	248.4
6 Spd	9	14	13	15	15	9	8	8	9	25	34	37	40	38	34	25	15	4	3	2	2	9	9	15.3	39.8	
Dir	233	229	228	240	227	208	211	210	204	225	237	242	243	245	247	248	254	256	202	246	314	329	29	47	239.9	243.1
7 Spd	10	9	7	7	9	6	9	8	7	6	3	9	6	11	16	16	19	30	31	25	21	24	27	23	8.7	31.3
Dir	52	28	41	47	27	23	22	16	21	356	265	241	221	216	252	254	246	257	259	261	253	251	250	249	265.8	259.4
8 Spd	18	18	21	21	19	14	12	9	16	21	32	30	25	18	17	16	26	19	15	18	14	18	17	14	18.3	32.2
Dir	253	256	254	256	253	248	244	241	248	251	255	257	267	275	289	278	263	263	252	256	242	257	257	250	257.7	255.2
9 Spd	14	17	14	14	13	9	7	6	6	6	9	9	11	10	8	10	10	8	7	7	6	4	5	3	4.7	16.6
Dir	263	259	265	271	252	222	201	203	208	192	179	193	242	234	276	25	360	356	8	350	341	8	340	347	264.9	258.6
10 Spd	2	3	4	5	7	6	7	8	5	5	6	10	10	7	6	10	11	9	6	4	4	4	5	6	2.4	11.1
Dir	325	232	325	309	302	340	10	26	34	35	142	186	179	209	230	193	194	193	217	210	223	207	172	173	209.2	194.4
11 Spd	12	7	5	4	7	5	4	5	8	11	13	17	18	19	21	24	23	20	16	13	15	15	10	9	12.1	23.8
Dir	173	206	174	178	177	212	250	213	193	197	192	182	180	189	198	218	215	213	216	200	196	197	207	217	200.0	218.5
12 Spd	12	6	12	11	14	11	12	12	9	13	19	19	20	23	26	21	18	14	15	14	9	14	17	16	13.9	25.7
Dir	222	215	243	208	222	223	222	225	234	239	234	237	235	246	261	266	275	274	286	274	245	256	261	271	247.8	261.3
13 Spd	16	19	16	14	15	11	14	10	16	18	24	29	35	30	31	34	33	27	20	19	29	30	22	29	22.5	35.4
Dir	260	269	250	241	237	237	247	265	246	243	240	240	243	240	239	244	246	242	245	233	247	248	247	244	244.7	242.5
14 Spd	32	26	24	21	25	22	20	18	21	24	35	34	30	23	30	29	29	25	16	14	14	14	16	12	22.6	35.2
Dir	245	246	249	251	248	249	243	243	240	237	257	260	256	273	253	253	250	247	233	225	225	221	233	206	246.5	256.8
15 Spd	10	12	9	7	9	11	8	16	11	16	19	27	28	24	20	23	20	14	13	14	17	19	11	13	14.0	27.7
Dir	193	200	179	191	169	178	181	190	185	193	214	228	229	235	227	235	241	240	250	236	255	254	252	238	222.5	228.6
16 Spd	11	11	8	10	10	7	8	8	6	8	11	11	15	22	20	15	10	4	4	9	5	5	3	5	8.8	21.8
Dir	239	222	248	234	229	236	186	187	220	216	195	187	209	217	226	229	196	207	264	238	196	258	211	252	219.5	216.9
17 Spd	5	3	5	3	7	11	11	8	11	15	16	23	41	47	49	42	34	23	19	22	22	20	15	15	18.7	49.5
Dir	254	209	160	134	231	214	222	219	231	208	221	238	256	256	251	242	244	242	234	238	236	231	247	240.7	251.2	
18 Spd	16	14	11	10	10	9	10	5	4	9	16	36	38	36	37	27	25	27	18	13	12	10	14	12	16.8	38.1
Dir	264	255	245	242	241	244	242	251	154	197	227	252	257	259	250	275	265	250	251	270	267	247	238	256	252.4	256.7
19 Spd	15	17	14	6	7	10	10	10	9	10	11	11	13	12	11	12	12	10	14	16	17	16	16	4	8.5	16.8
Dir	268	266	265	230	265	232	241	231	219	212	184	176	175	176	165	153	157	148	147	154	154	154	159	191	191.0	266.1
20 Spd	4	4	5	9	7	7	8	8	8	6	11	3	8	12	13	20	13	12	18	24	27	29	26	18	11.9	29.3
Dir	192	174	197	194	246	248	231	229	203	202	220	196	183	213	258	254	239	215	234	237	243	242	240	235	231.3	242.0
21 Spd	18	18	21	22	23	24	24	26	23	26	34	32	30	32	34	30	36	23	21	18	17	16	14	6	23.4	36.2
Dir	238	249	254	256	254	256	258	252	253	251	257	263	259	260	262	251	245	241	241	246	248	249	239	223	252.2	245.2
22 Spd	2	3	5	14	11	13	12	10	12	11	8	13	16	18	18	17	18	17	12	16	21	38	36	37	11.8	37.6
Dir	141	211	181	202	182	171	164	166	164	165	165	157	156	158	161	152	157	167	219	242	237	261	254	246	198.9	260.7

**Peace Airshed Zone Association  
Summary of Hourly Averages**

Smoky Heights  
October 1, 2008 to November 1, 2008  
WS (km/h), WD (deg)

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	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	35	34	35	44	40	37	35	33	34	36	40	51	48	45	45	36	29	20	18	19	14	14	12	32.5	51.0	
Dir	237	239	233	242	241	238	240	235	228	237	246	252	251	250	252	255	248	236	232	209	211	201	202	207	239.4	251.6
24 Spd	10	5	10	17	34	34	32	29	33	47	50	48	47	50	55	46	45	38	32	26	31	28	35	40	33.6	55.4
Dir	188	252	207	220	233	227	220	221	223	228	231	232	235	243	247	248	247	241	232	251	246	240	238	245	235.7	247.3
25 Spd	36	36	40	36	38	31	36	36	34	40	50	54	44	39	30	28	29	18	18	15	14	13	11	29.1	53.8	
Dir	247	244	252	255	254	244	258	265	266	259	261	263	273	288	305	297	297	324	309	308	295	275	284	282	269.8	262.6
26 Spd	11	12	10	8	5	8	4	5	4	3	9	12	14	16	16	12	12	5	6	3	3	10	11	14	5.6	15.6
Dir	272	270	254	273	202	263	245	192	204	160	153	149	149	157	161	157	155	105	103	85	177	205	231	237	192.5	161.0
27 Spd	12	12	11	11	7	7	9	4	11	14	9	15	22	28	26	21	10	17	18	16	14	14	10	6	12.2	27.8
Dir	222	208	201	202	212	211	197	261	196	186	186	187	231	257	258	249	190	203	218	234	241	250	261	215	224.2	257.3
28 Spd	7	7	8	7	8	10	6	7	6	9	5	3	2	3	6	8	6	6	10	6	7	8	5	6	5.6	10.1
Dir	181	195	175	190	208	189	241	239	217	233	192	184	84	132	175	207	216	239	270	237	227	238	230	206	212.7	270.4
29 Spd	7	5	3	5	6	8	8	7	8	7	9	4	3	5	15	25	29	23	24	21	19	19	16	15	11.3	29.1
Dir	197	262	277	217	219	218	227	223	209	227	199	224	179	160	265	258	257	244	254	249	237	239	259	254	242.0	257.1
30 Spd	12	14	15	16	14	17	15	9	4	6	8	7	8	5	8	4	3	5	8	7	7	7	8	8	3.7	17.2
Dir	254	253	258	260	264	260	255	231	233	174	194	189	201	190	131	138	98	31	25	35	30	25	19	16	252.1	259.8
31 Spd	7	6	5	7	6	7	7	8	7	6	7	10	9	8	7	7	9	10	8	7	7	6	5	1	6.7	9.9
Dir	13	35	19	6	12	14	22	22	14	29	23	29	31	26	29	41	27	38	37	7	12	7	32	231	23.5	37.8
Spd	8.8	9.4	9.4	10.1	10.8	10.2	9.5	8.7	9.2	12.1	15.1	16.4	16.9	16.6	17.2	16.1	14.9	11.8	10.6	10.2	10.0	10.9	10.1	10.0	Diurnal Average	
Dir	240.3	243.5	240.5	237.6	237.8	233.7	235.1	232.9	228.0	227.5	232.3	234.8	237.7	241.0	244.8	247.1	244.3	242.4	247.3	247.8	241.4	240.7	242.0	245.9	Diurnal Maximum	
Spd	36.2	35.6	39.9	43.7	39.5	36.8	36.0	36.4	33.9	46.6	50.5	53.8	47.7	49.6	55.4	46.0	45.3	38.0	32.3	28.1	31.0	37.6	36.2	39.7	Diurnal Maximum	
Dir	247.0	244.0	252.0	241.5	240.6	237.5	258.4	264.8	265.6	228.0	230.6	262.6	251.5	242.7	247.3	248.4	246.8	240.9	231.9	245.7	245.7	260.7	253.7	244.6	Diurnal Maximum	
Maximum Speed Value: 55 km/h on Oct 24 15:00																		Minimum Speed Value: 0 km/h on Oct 4 17:00						Hours in Service:		744
Maximum Daily Speed Average: 33.6 km/h on Oct 24																		Minimum Daily Speed Average: 1.5 km/h on Oct 4						Hours of Data:		744
Maximum Diurnal Speed Average: 17.2 km/h at hour 15																		Minimum Diurnal Speed Average: 8.7 km/h at hour 8						Hours of Missing Data:		0
Monthly Average Velocity: 11.82 km/h 239.58 deg																		Speed Percentiles: P <sub>1</sub> = 2.0 P <sub>10</sub> = 4.6 Q <sub>1</sub> = 7.0 Median = 11.4 Q <sub>3</sub> = 19.8 P <sub>90</sub> = 33.1 P <sub>99</sub> = 49.3						Percent Operational Time:		100.0
All monthly, daily, and diurnal averages have been calculated using vector methods																										
Percentage 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	1.34	4.57	0.00	0.00	0.00	0.00	5.91																			
NorthEast	0.94	4.44	0.13	0.00	0.00	0.00	5.51																			
East	0.54	0.54	0.00	0.00	0.00	0.00	1.08																			
SouthEast	1.21	1.21	2.28	0.00	0.00	0.00	4.70																			
South	2.69	9.54	4.84	0.13	0.00	0.00	17.20																			
SouthWest	2.02	12.77	9.27	6.18	5.91	1.88	38.04																			
West	1.88	3.09	8.74	5.24	4.03	2.42	25.40																			
NorthWest	0.94	0.27	0.54	0.00	0.40	0.00	2.15																			
Total	11.56	36.42	25.81	11.56	10.35	4.30	100.00																			

# Wind Rose for WS at Smoky Heights October 2008



**Peace Airshed Zone Association**  
**Summary of Hourly Averages - Wind Speed (Scalar)**

**Smoky Heights - Wind Speed (WS) - km/h**  
**October 1, 2008 to November 1, 2008**

Maximum Speed: 56 km/h on Oct 24 15:00	Maximum Daily Speed Average: 34.5 km/h on Oct 24	Hours in Service: 744
Minimum Speed: 2 km/h on Nov 1 00:00	Minimum Daily Speed Average: 6.6 km/h on Oct 4	Hours of Data: 744
Maximum Diurnal Speed Average: 21.9 km/h at hour 15	Minimum Diurnal Speed Average: 11.8 km/h at hour 8	Hours of Missing Data: 0
Monthly Average Speed: 15.43 km/h	Percentiles: P <sub>1</sub> = 3.4 P <sub>10</sub> = 5.2 Q <sub>1</sub> = 7.5 Median = 11.8 Q <sub>3</sub> = 19.9 P <sub>90</sub> = 33.2 P <sub>99</sub> = 49.6	Percent Operational Time: 100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	5	6	8	9	9	10	7	9	10	10	9	10	9	8	9	6	3	3	4	5	5	7	7	7	7.4	10.4
2-Oct	3	5	6	7	8	9	9	8	7	7	6	9	8	8	5	5	5	6	8	8	11	15	19	26	8.6	25.7
3-Oct	7	4	8	8	4	5	6	6	3	3	9	8	8	5	5	5	5	8	10	12	10	11	10	9	7.0	12.1
4-Oct	13	9	8	4	4	5	4	6	4	4	7	5	4	4	6	7	5	10	13	11	8	4	5	7	6.6	13.4
5-Oct	11	9	5	6	6	7	7	10	15	28	39	31	33	34	37	38	35	28	28	28	18	16	14	11	20.6	39.4
6-Oct	9	15	15	15	15	9	8	8	9	25	35	38	40	39	38	35	26	15	6	3	3	3	9	9	17.8	40.0
7-Oct	10	9	7	8	9	8	10	8	7	7	6	9	6	12	16	16	20	30	32	25	21	24	27	23	14.6	31.5
8-Oct	18	18	21	21	19	14	12	9	16	21	32	30	26	18	18	16	26	19	15	18	15	18	17	14	18.7	32.3
9-Oct	14	17	14	14	13	9	8	7	6	6	9	9	12	10	12	11	10	8	7	7	6	5	5	5	9.3	16.7
10-Oct	4	4	5	6	8	7	7	9	5	5	7	10	10	11	8	11	11	9	6	4	5	4	5	6	7.0	11.3
11-Oct	12	8	5	4	7	6	5	5	8	11	13	17	18	19	21	24	23	20	16	13	15	15	10	9	12.6	23.9
12-Oct	12	7	12	12	14	12	12	12	9	13	19	19	21	24	26	21	18	15	15	14	10	14	17	16	15.1	25.9
13-Oct	16	19	16	15	15	11	15	11	16	18	24	29	36	30	31	34	33	27	21	19	29	31	23	29	22.8	35.7
14-Oct	32	26	24	21	25	22	20	18	21	25	35	34	30	24	30	29	29	25	16	14	14	14	16	12	23.3	35.5
15-Oct	11	13	9	7	9	11	8	16	11	16	19	27	28	24	20	24	20	14	13	14	17	19	12	13	15.7	27.9
16-Oct	11	11	8	10	10	8	8	8	6	9	11	11	16	22	20	16	10	4	6	9	5	5	4	5	9.8	22.0
17-Oct	6	4	5	3	7	12	11	9	11	15	16	24	41	47	50	43	34	23	20	22	22	20	15	15	19.8	49.8
18-Oct	16	14	12	11	10	10	10	6	6	10	17	36	38	37	37	29	26	27	18	13	13	10	14	12	18.0	38.4
19-Oct	15	17	14	6	7	10	10	10	9	11	12	11	13	12	11	12	12	10	14	16	17	16	16	5	11.9	16.8
20-Oct	5	4	5	9	8	7	9	8	8	7	11	4	9	13	14	20	14	12	18	24	27	29	26	18	12.9	29.3
21-Oct	18	18	21	22	24	24	24	26	23	26	34	32	30	32	34	31	36	24	21	18	17	16	14	7	23.8	36.3
22-Oct	3	4	5	14	13	13	12	11	12	11	9	13	16	19	18	17	18	17	14	16	21	38	37	37	16.2	38.0
23-Oct	35	34	36	44	40	37	35	33	34	36	40	51	48	46	45	45	37	29	21	18	19	14	14	13	33.5	51.1
24-Oct	10	6	12	18	34	34	32	29	33	47	51	48	47	50	56	46	45	38	32	27	31	28	35	40	34.5	55.5
25-Oct	36	36	40	36	38	31	37	37	34	41	50	54	44	40	32	28	29	19	19	18	15	15	13	11	31.4	54.1
26-Oct	12	12	10	8	6	8	5	5	4	4	9	12	14	16	16	12	13	6	6	3	5	10	12	14	9.2	15.9
27-Oct	12	13	11	11	8	8	9	5	11	14	9	15	24	28	26	21	11	17	18	16	14	14	10	7	13.9	27.9
28-Oct	7	8	9	7	10	10	8	9	7	9	5	4	4	6	6	8	6	7	10	7	7	8	8	6	7.3	10.2
29-Oct	7	5	5	5	7	8	8	7	8	7	9	5	5	7	16	26	29	23	24	21	19	19	16	15	12.6	29.3
30-Oct	12	15	15	16	14	17	15	11	5	6	8	8	8	6	8	5	4	5	8	7	8	7	8	8	9.2	17.2
31-Oct	7	6	5	7	6	7	8	8	7	6	7	10	9	9	7	7	9	10	8	7	7	6	5	2	7.1	10.0

12.6	12.0	12.1	12.5	13.1	12.5	12.2	11.8	11.8	14.8	18.3	20.1	21.1	21.2	21.9	20.9	19.4	16.4	15.0	14.2	13.9	14.7	14.3	13.4	Diurnal Average
36.3	35.7	40.0	43.8	39.6	36.8	37.2	36.7	34.1	46.7	50.6	54.1	47.9	49.9	55.5	46.1	45.4	38.1	32.4	28.1	31.2	38.0	36.5	39.9	Diurnal Maximum

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

**Peace Airshed Zone Association**  
**Summary of Hourly Standard Deviations**

**Smoky Heights - Wind Direction (WD) - deg**  
**October 1, 2008 to November 1, 2008**

Maximum Value: 94.4 deg on Oct 3 02:00																								Hours in Service:	744
Minimum Value: 1.8 deg on Oct 21 06:00																								Hours of Data:	744
Percentiles: P <sub>1</sub> = 2.4 P <sub>10</sub> = 4.0 Q <sub>1</sub> = 5.9 Median = 9.7 Q <sub>3</sub> = 18.5 P <sub>90</sub> = 36.0 P <sub>99</sub> = 84.1																								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-Oct	20	19	22	9	13	7	12	11	6	14	9	10	21	32	23	17	22	51	37	9	9	6	12	9	50.5
2-Oct	85	37	17	19	13	19	11	12	14	26	20	11	28	15	27	27	64	7	7	20	27	8	29	13	85.4
3-Oct	43	94	23	45	48	28	23	12	68	62	11	42	38	69	67	69	38	12	5	4	8	20	16	23	94.4
4-Oct	8	29	12	55	22	39	84	54	42	41	13	38	93	61	52	20	91	24	8	5	63	51	39	15	93.5
5-Oct	10	14	77	26	45	13	32	9	10	6	6	5	5	9	8	7	6	5	3	3	6	3	3	7	76.7
6-Oct	15	13	31	18	8	13	17	18	29	6	8	6	7	8	7	9	8	4	58	34	46	63	10	13	63.4
7-Oct	10	7	17	26	11	47	13	13	9	24	60	11	24	22	8	7	7	4	7	4	4	4	3	4	60.3
8-Oct	4	4	2	2	2	3	4	10	4	4	6	8	10	7	13	8	9	4	6	3	10	4	3	6	13.3
9-Oct	5	3	6	9	6	20	27	19	11	18	17	20	17	24	58	15	19	9	7	9	10	35	16	52	58.3
10-Oct	71	60	30	37	36	34	15	13	29	17	48	18	20	48	54	22	11	11	10	12	20	13	21	10	71.0
11-Oct	4	21	6	15	7	17	17	14	13	5	8	6	5	8	7	6	6	4	8	4	4	4	7	13	20.6
12-Oct	3	39	14	9	13	24	13	7	20	8	9	6	11	13	7	9	8	8	5	3	16	13	4	4	38.8
13-Oct	6	6	8	4	3	6	6	24	9	5	5	7	7	8	6	6	5	6	10	6	6	4	5	3	23.7
14-Oct	3	3	4	6	3	3	7	4	4	4	7	7	9	14	7	7	5	4	7	5	4	6	8	8	14.3
15-Oct	18	11	25	22	14	4	13	4	8	4	13	7	6	8	10	8	6	6	6	8	5	5	49	18	48.7
16-Oct	19	7	11	10	18	20	11	15	11	17	8	16	18	9	11	15	11	21	48	16	16	18	50	9	49.8
17-Oct	15	44	19	35	16	12	12	25	13	8	10	6	8	6	6	6	8	4	11	9	3	4	5	3	43.9
18-Oct	4	7	25	22	6	25	14	22	66	12	17	8	7	10	8	25	11	6	6	8	18	17	3	9	66.0
19-Oct	3	3	9	14	8	14	9	5	7	8	15	11	12	14	11	6	7	5	4	5	5	4	5	45	45.0
20-Oct	21	15	22	13	24	16	12	18	21	52	8	58	21	25	17	7	10	3	10	6	4	4	3	4	57.7
21-Oct	3	4	5	2	2	2	2	2	2	3	5	6	10	9	8	12	5	7	9	4	6	8	5	38	38.1
22-Oct	36	41	33	12	26	13	7	6	11	7	15	8	8	13	13	8	5	6	29	7	5	9	7	4	40.8
23-Oct	6	3	4	4	4	3	4	6	3	3	5	5	5	6	5	5	6	5	7	5	4	6	12	24	24.2
24-Oct	14	28	56	23	3	4	5	4	6	4	4	5	5	7	4	5	4	5	4	9	6	6	4	5	55.7
25-Oct	3	4	5	3	3	4	14	7	6	6	4	7	7	10	17	5	9	15	8	10	8	5	7	9	17.4
26-Oct	19	14	9	9	52	10	38	13	13	45	12	9	14	12	9	8	8	21	12	30	51	13	17	7	52.2
27-Oct	7	15	10	7	29	25	8	34	9	9	12	6	25	5	5	4	32	11	5	15	6	8	11	28	34.1
28-Oct	29	26	16	28	37	10	33	35	29	11	19	39	85	63	13	7	25	29	8	18	27	12	54	24	84.5
29-Oct	15	23	78	21	22	14	13	44	15	22	18	58	47	41	18	10	7	5	4	8	7	7	4	7	78.4
30-Oct	15	14	6	4	6	3	6	33	31	20	11	25	16	23	20	18	35	8	4	11	10	7	4	4	35.1
31-Oct	10	26	14	14	10	11	8	5	10	15	8	11	9	13	16	12	6	7	12	8	5	8	30	89	88.6
85.4	94.4	78.4	55.3	52.2	47.0	84.3	53.9	67.8	62.5	60.3	58.1	93.5	68.6	67.5	69.2	90.9	50.5	57.6	33.7	62.8	63.4	54.3	88.6		



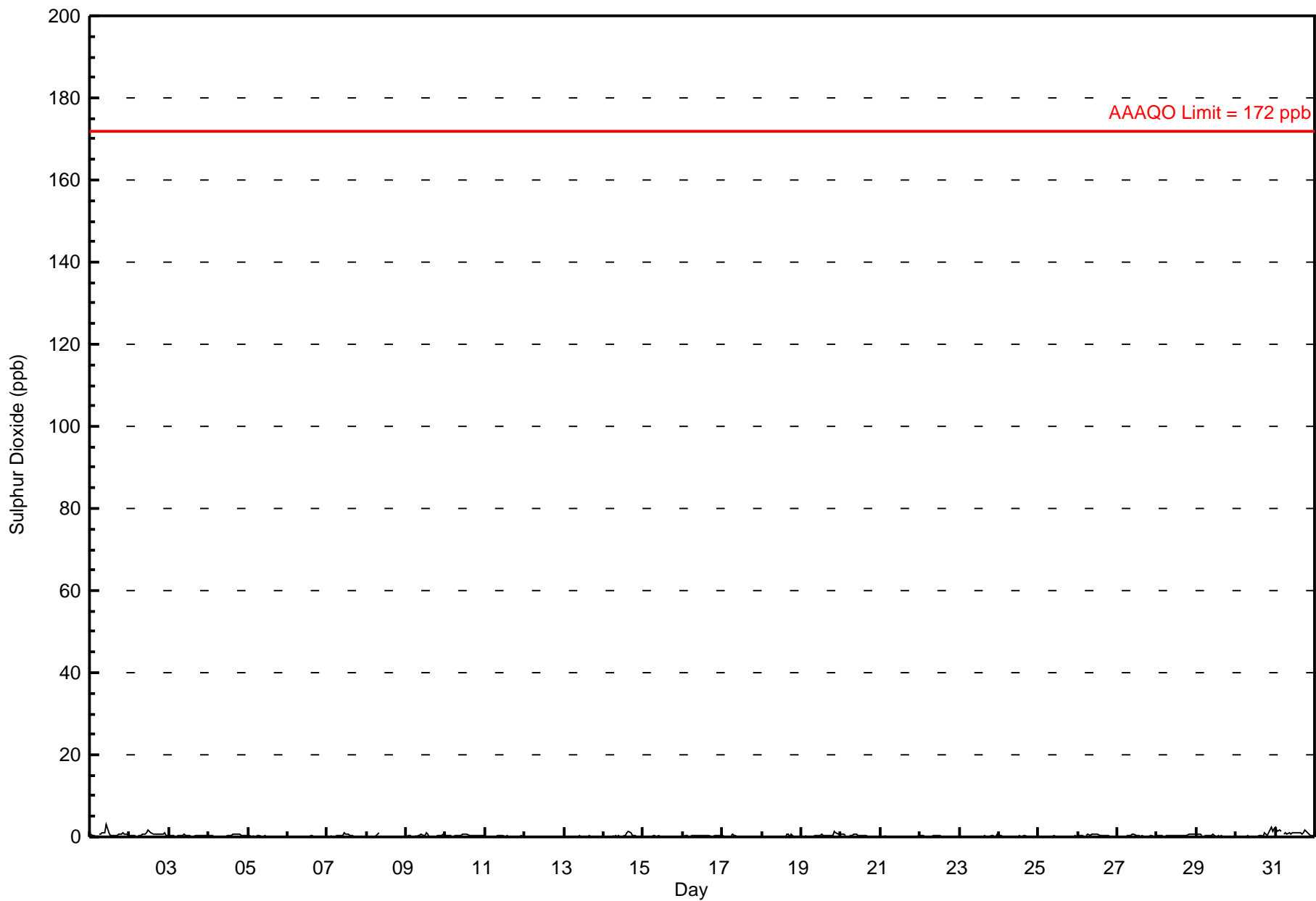
PASZA

Beaverlodge Station

Monthly Summary Tables, Graphs and  
Roses



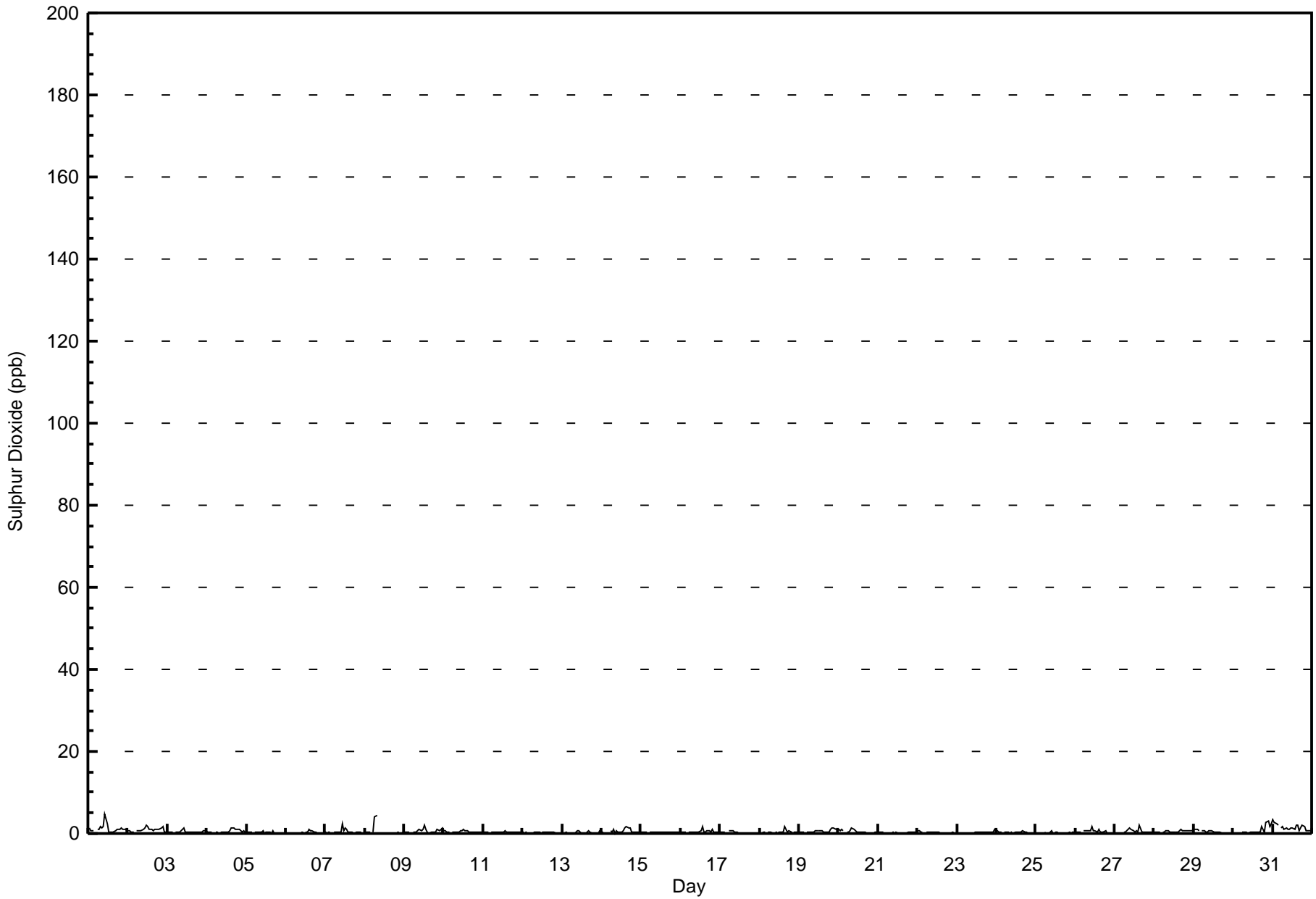
# Hourly Averages for SO<sub>2</sub> at Beaverlodge October 2008



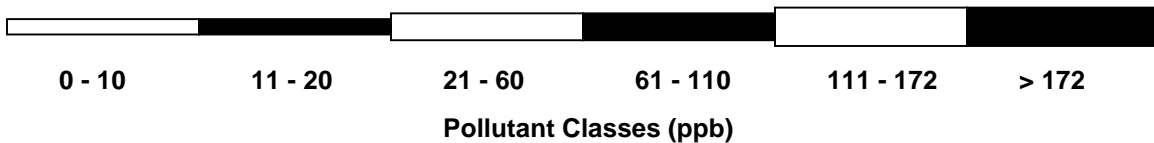
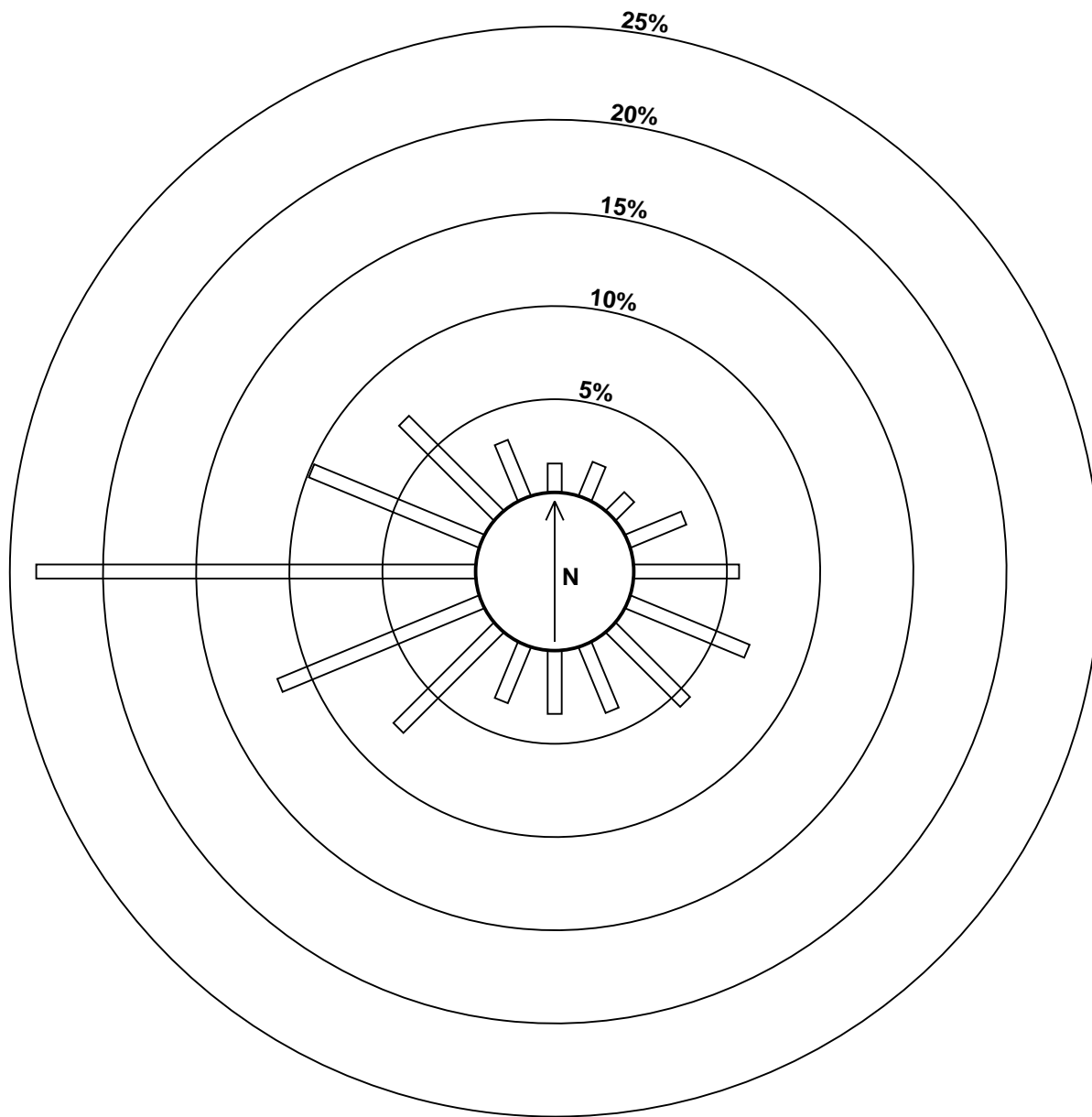


# Hourly Maximums for SO<sub>2</sub> at Beaverlodge

## October 2008



# Pollutant Rose for SO<sub>2</sub> at Beaverlodge October 2008



**Peace Airshed Zone Association  
Summary of Hourly Averages**

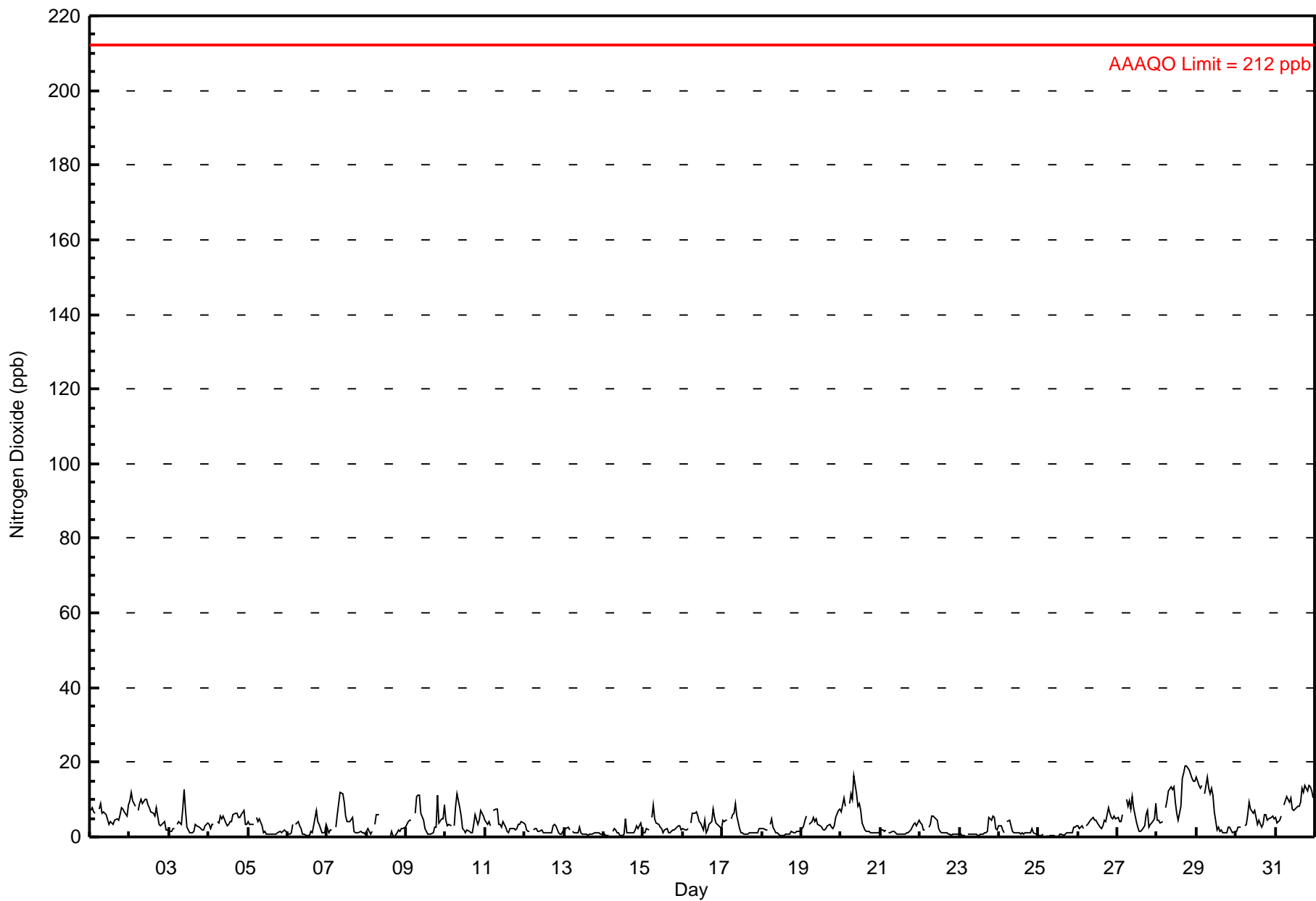
**Beaverlodge - Nitrogen Dioxide (NO<sub>2</sub>) - ppb  
October 1, 2008 to November 1, 2008**

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 19.2 ppb on Oct 28 19:00	Maximum Daily Average: 11.6 ppb on Oct 28
Minimum Value: 0 ppb on Oct 8 15:00	Hours of Data: 707
Maximum Diurnal Average: 6.0 ppb at hour 8	Hours of Missing Data: 37
Monthly Average: 3.84 ppb	Hours of Calibration: 37
Minimum Daily Average: 0.8 ppb on Oct 25	Percent Operational Time: 100.0
Minimum Diurnal Average: 2.1 ppb at hour 15	
Percentiles: P <sub>1</sub> = 0.2 P <sub>10</sub> = 0.9 Q <sub>1</sub> = 1.2 Median = 2.8 Q <sub>3</sub> = 5.2 P <sub>90</sub> = 8.7 P <sub>99</sub> = 15.7	

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-Oct	7	8	7	7	A	8	9	6	7	6	6	3	4	4	3	5	5	5	6	8	7	7	6	8	6.1	8.8
2-Oct	10	12	10	8	A	7	9	10	9	10	10	9	8	7	6	5	8	6	3	3	4	4	2	2	7.0	11.9
3-Oct	2	2	2	2	A	3	4	3	7	13	7	3	1	1	1	2	3	3	2	2	2	2	3	4	3.2	12.6
4-Oct	3	2	3	3	A	4	4	5	5	6	4	3	4	4	4	6	6	6	5	5	6	7	3	3	4.5	6.9
5-Oct	4	4	3	3	A	5	4	5	3	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	2.1	5.2
6-Oct	1	1	1	4	A	3	4	3	2	1	1	0	0	1	1	1	3	7	4	3	2	1	1	3	2.1	7.1
7-Oct	2	1	2	2	A	3	6	9	12	11	9	6	4	4	4	5	1	1	1	1	1	1	1	1	3.9	12.1
8-Oct	2	2	1	2	A	3	6	6	C	C	C	C	C	A	0	1	0	0	1	2	1	2	2	3	--	6.0
9-Oct	3	4	4	4	A	6	11	11	11	6	4	2	2	1	1	1	1	2	2	11	4	5	5	9	4.9	11.2
10-Oct	5	3	3	3	A	3	8	12	8	6	2	2	1	2	2	1	1	3	6	4	4	7	6	6	4.2	11.5
11-Oct	5	3	4	3	A	7	7	7	3	3	3	4	3	1	1	2	2	2	2	2	3	3	4	4	3.5	7.3
12-Oct	3	2	1	1	A	2	2	2	1	2	2	1	1	1	1	1	1	1	3	3	1	1	1	1	1.7	3.5
13-Oct	1	2	3	2	A	2	1	1	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	2.7
14-Oct	1	0	0	1	A	2	2	2	1	1	1	0	1	5	1	1	1	1	1	2	3	2	4	2	1.5	4.7
15-Oct	1	1	2	2	A	5	9	5	4	3	3	2	1	2	2	1	1	2	2	2	3	3	3	2	2.6	8.5
16-Oct	2	2	2	2	A	4	6	6	7	5	4	4	2	5	1	2	3	4	7	5	4	3	3	2	3.8	7.4
17-Oct	4	4	4	5	A	5	6	6	9	5	2	1	1	1	1	1	1	1	1	1	1	1	2	2	2.9	8.8
18-Oct	2	2	2	2	A	3	5	3	1	1	1	1	0	0	1	1	1	1	2	1	1	1	1	2	1.5	4.8
19-Oct	2	3	4	6	A	4	4	5	4	5	3	3	3	2	2	2	3	3	2	2	3	5	7	7	3.7	7.5
20-Oct	7	9	10	8	A	9	12	10	16	12	8	9	7	4	2	1	1	1	1	1	1	1	1	1	5.8	16.4
21-Oct	2	2	2	2	A	1	1	1	1	1	1	1	1	1	1	1	1	1	2	3	3	4	3	5	1.8	4.6
22-Oct	4	3	2	2	A	3	3	6	6	5	4	2	1	1	1	1	1	1	1	0	1	1	1	1	2.3	5.8
23-Oct	1	1	0	0	A	1	1	1	1	1	1	0	0	1	1	1	1	1	2	5	5	6	5	2	1.7	5.8
24-Oct	3	3	2	1	A	4	4	3	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1.6	4.5
25-Oct	0	0	1	1	A	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	3	2	3	0.8	2.8
26-Oct	3	2	3	2	A	3	3	5	5	5	5	4	4	2	2	3	4	4	8	6	5	5	6	5	4.1	7.9
27-Oct	5	4	4	6	A	10	8	10	7	11	8	4	3	1	2	2	3	6	7	2	3	4	5	9	5.4	10.8
28-Oct	5	4	4	4	A	8	10	12	13	13	14	9	6	4	8	16	17	19	19	18	17	16	15	15	11.6	19.2
29-Oct	16	14	13	14	A	12	16	13	11	13	11	7	2	2	2	2	1	1	1	3	2	2	1	1	7.0	16.0
30-Oct	1	3	3	3	A	3	3	6	9	7	6	7	5	3	4	3	3	6	6	4	5	5	6	5	4.7	9.3
31-Oct	5	4	4	6	A	8	10	11	9	10	7	7	8	8	8	9	13	12	14	12	14	13	12	10	9.4	13.9
	3.6	3.5	3.5	3.5	--	4.6	5.8	6.0	5.9	5.6	4.4	3.3	2.5	2.4	2.1	2.6	3.0	3.5	3.9	3.8	3.7	3.8	3.7	3.9	Diurnal Average	
	15.9	13.7	12.9	13.8	--	11.7	16.0	13.2	16.4	13.2	13.5	9.5	7.9	8.1	8.2	15.8	17.1	19.1	19.2	18.0	16.7	15.6	14.9	15.0	Diurnal Maximum	

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

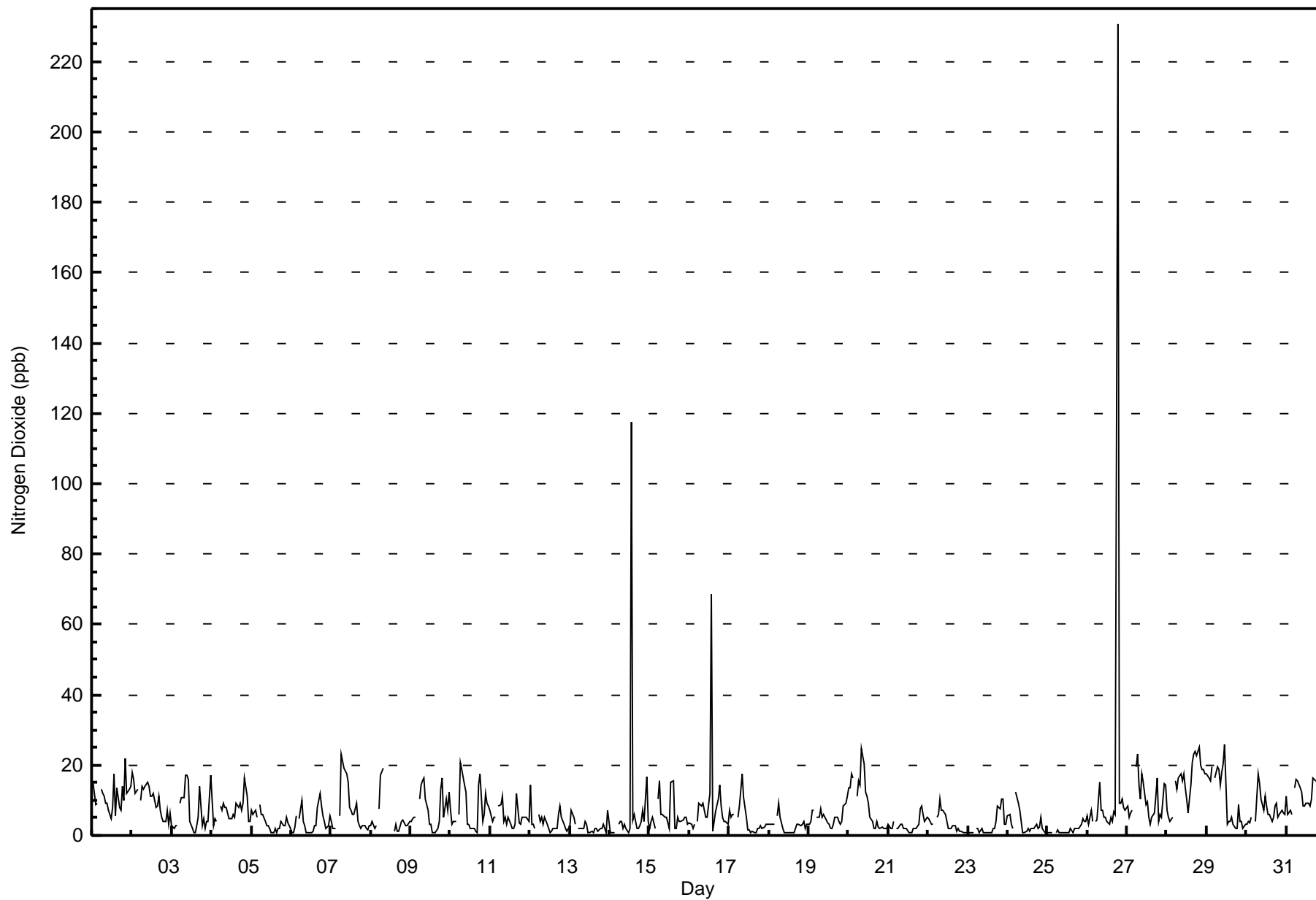
# Hourly Averages for NO<sub>2</sub> at Beaverlodge October 2008



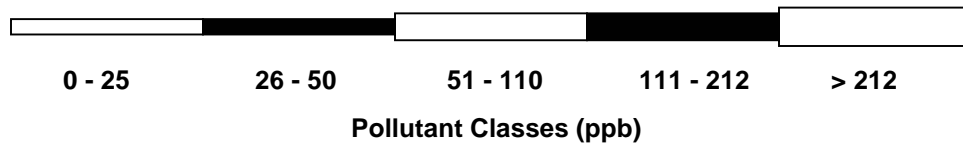
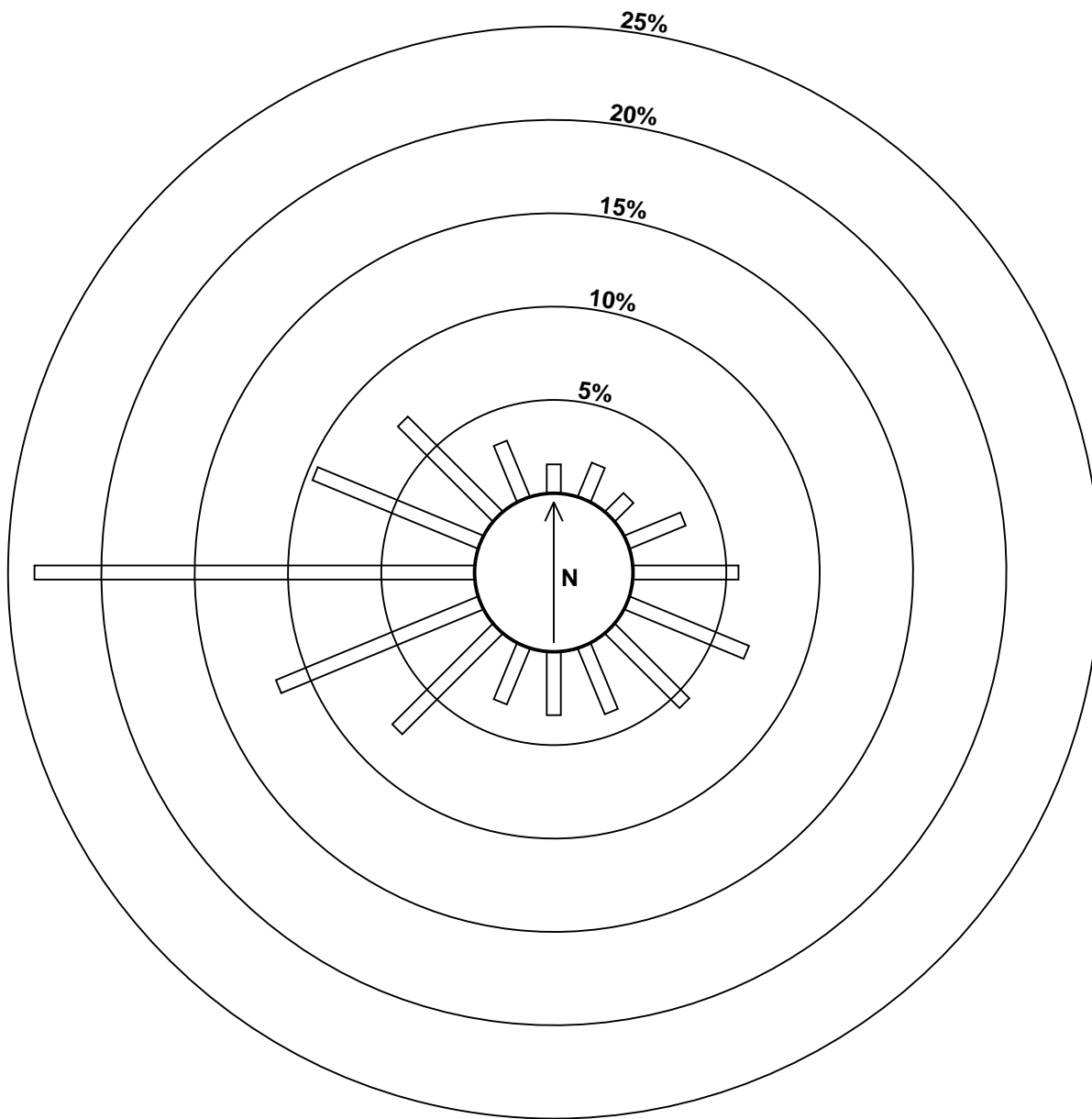




# Hourly Maximums for NO<sub>2</sub> at Beaverlodge October 2008



# Pollutant Rose for NO<sub>2</sub> at Beaverlodge October 2008



**Peace Airshed Zone Association  
Summary of Hourly Averages**

**Beaverlodge - Nitrogen Oxide (NO) - ppb  
October 1, 2008 to November 1, 2008**

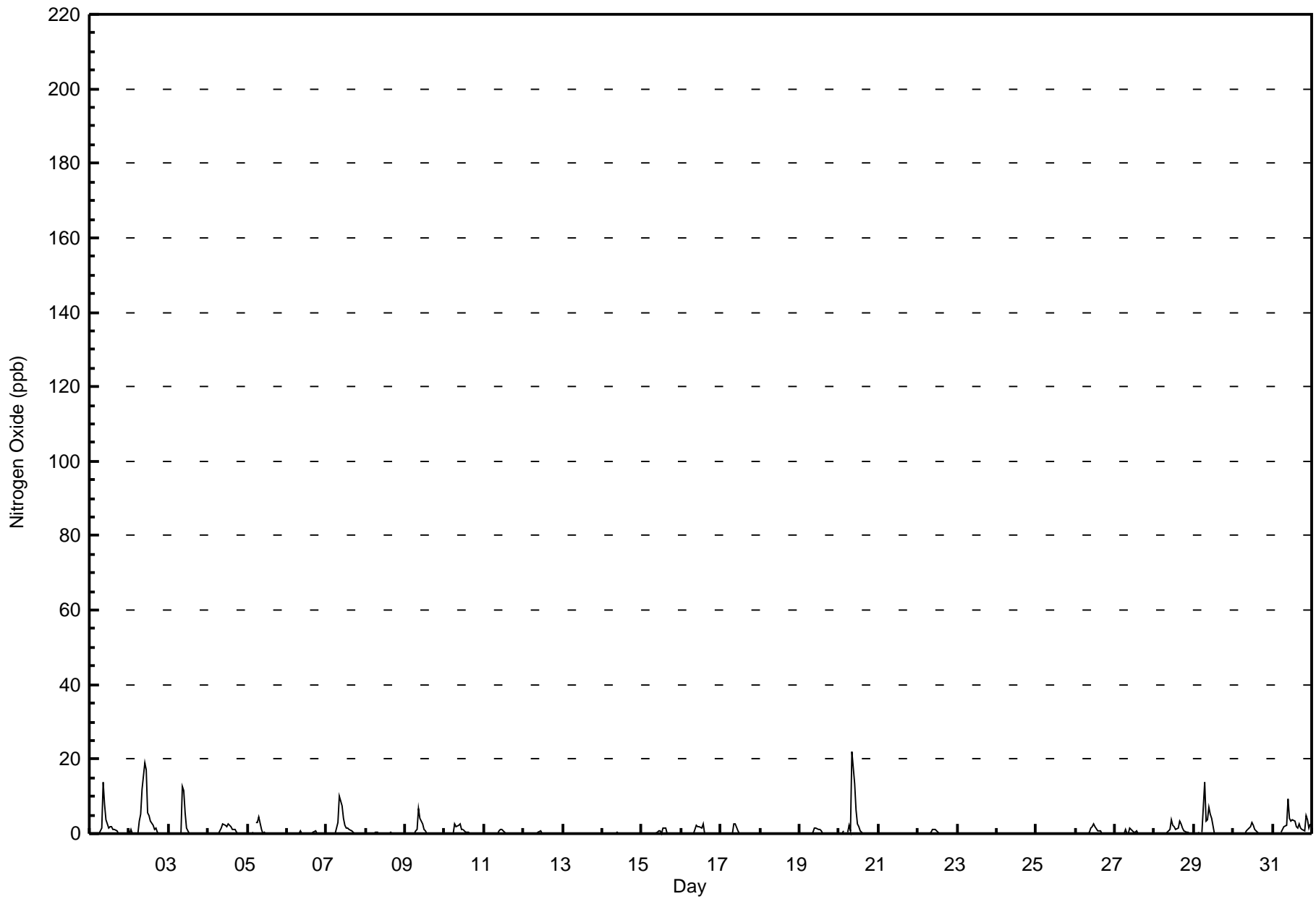
Maximum Value: 21.8 ppb on Oct 20 09:00	Maximum Daily Average: 3.4 ppb on Oct 2	Hours in Service: 744
Minimum Value: 0 ppb on Oct 1 03:00	Minimum Daily Average: 0.0 ppb on Oct 18	Hours of Data: 706
Maximum Diurnal Average: 3.3 ppb at hour 10	Minimum Diurnal Average: 0.0 ppb at hour 1	Hours of Missing Data: 38
Monthly Average: 0.66 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> = 1.9 P <sub>99</sub> = 12.1	Hours of Calibration: 38
		Percent Operational Time: 100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	0	0	0	0	A	0	1	1	14	8	4	2	2	2	1	1	1	0	0	0	0	0	0	0	1.6	13.6
2-Oct	0	1	0	0	A	0	4	5	12	19	17	6	5	3	2	1	2	0	0	0	0	0	0	0	3.4	19.0
3-Oct	0	0	0	0	A	0	0	0	13	12	6	1	0	0	0	0	0	0	0	0	0	0	0	0	1.4	12.6
4-Oct	0	0	0	0	A	0	0	1	1	3	2	2	3	2	2	1	1	0	0	0	0	0	0	0	0.8	2.8
5-Oct	0	0	0	0	A	3	3	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	4.5
6-Oct	0	0	0	0	A	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0.1	0.7
7-Oct	0	0	0	0	A	0	2	3	10	7	4	2	1	1	1	1	0	0	0	0	0	0	0	0	1.5	10.2
8-Oct	0	0	0	0	A	0	0	0	C	C	C	C	C	A	0	1	0	0	0	0	0	0	0	0	--	0.5
9-Oct	0	0	0	0	A	0	1	1	7	4	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0.7	6.6
10-Oct	0	0	0	0	A	0	2	2	2	3	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.6	2.7
11-Oct	0	0	0	0	A	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.0
12-Oct	0	0	0	0	A	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.7
13-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
14-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
15-Oct	0	0	0	0	A	0	0	0	0	1	1	1	0	2	2	0	0	0	0	0	0	0	0	0	0.2	1.7
16-Oct	0	0	0	0	A	0	0	0	1	2	2	2	1	3	0	0	0	0	0	0	0	0	0	0	0.5	2.6
17-Oct	0	0	0	0	A	0	0	0	2	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	2.5
18-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
19-Oct	0	0	0	0	A	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.3	1.5
20-Oct	0	0	0	1	A	0	2	1	22	13	6	3	2	1	0	0	0	0	0	0	0	0	0	0	2.2	21.8
21-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
22-Oct	0	0	0	0	A	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.1
23-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
24-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
25-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
26-Oct	0	0	0	0	A	0	0	0	0	2	2	3	2	1	1	1	0	0	0	0	0	0	0	0	0.5	2.7
27-Oct	0	0	0	0	A	0	1	0	0	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.2	1.5
28-Oct	0	0	0	0	A	0	0	0	1	1	4	2	2	1	1	3	3	2	1	0	0	0	0	0	0.9	3.6
29-Oct	0	0	0	0	A	0	14	3	4	7	5	4	0	0	0	0	0	0	0	0	0	0	0	0	1.6	13.8
30-Oct	0	0	0	0	A	0	0	0	1	1	2	3	2	1	1	0	0	0	0	0	0	0	0	0	0.5	2.9
31-Oct	0	0	0	0	A	0	1	2	2	9	4	3	4	3	2	2	3	1	1	1	5	4	2	3	2.2	9.2
	0.0	0.0	0.0	0.0	--	0.1	1.0	0.8	3.2	3.3	2.3	1.3	0.9	0.7	0.4	0.4	0.3	0.2	0.1	0.0	0.2	0.1	0.1	0.1		Diurnal Average
	0.0	1.0	0.1	0.7	--	2.9	13.8	5.4	21.8	19.0	17.2	5.6	4.8	3.4	2.2	3.3	2.7	1.6	1.2	0.7	4.9	3.8	1.5	2.6		Diurnal Maximum

C - Calibration                      A - Automated Daily Zero Span

# Hourly Averages for NO at Beaverlodge

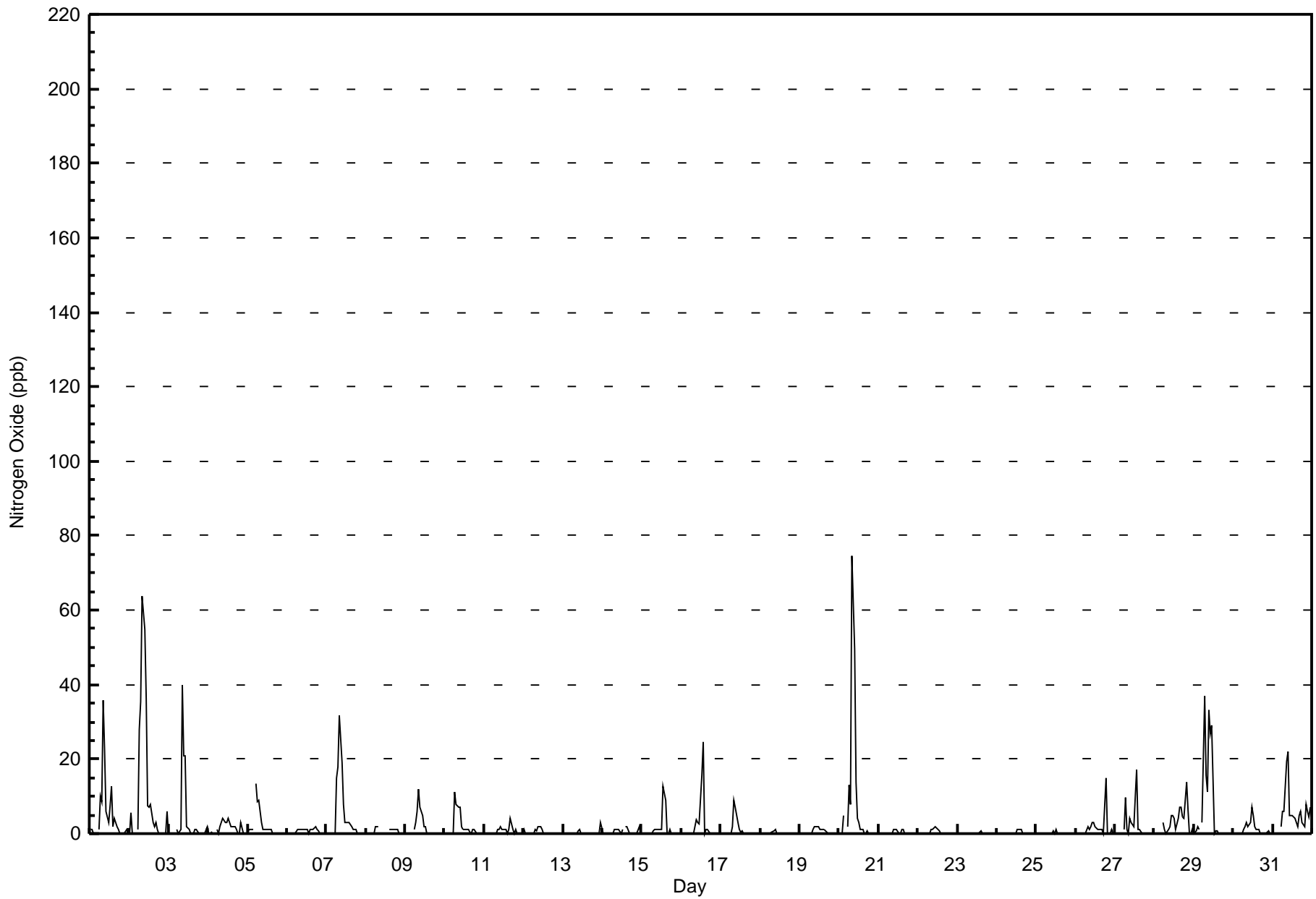
## October 2008





# Hourly Maximums for NO at Beaverlodge

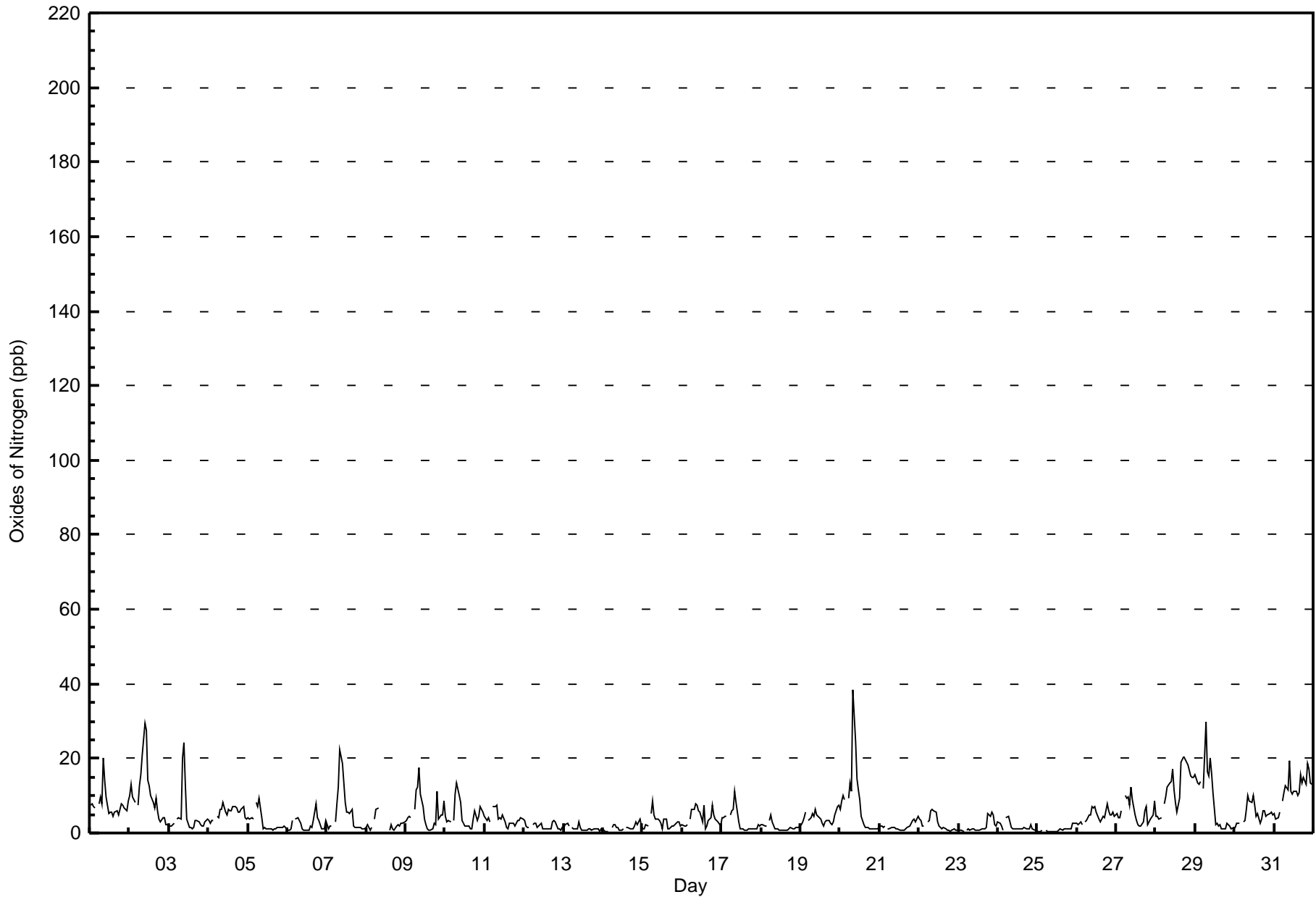
## October 2008







# Hourly Averages for NO<sub>x</sub> at Beaverlodge October 2008



**Peace Airshed Zone Association  
Summary of Hourly Maximums**

**Beaverlodge - Oxides of Nitrogen (NO<sub>x</sub>) - ppb  
October 1, 2008 to November 1, 2008**

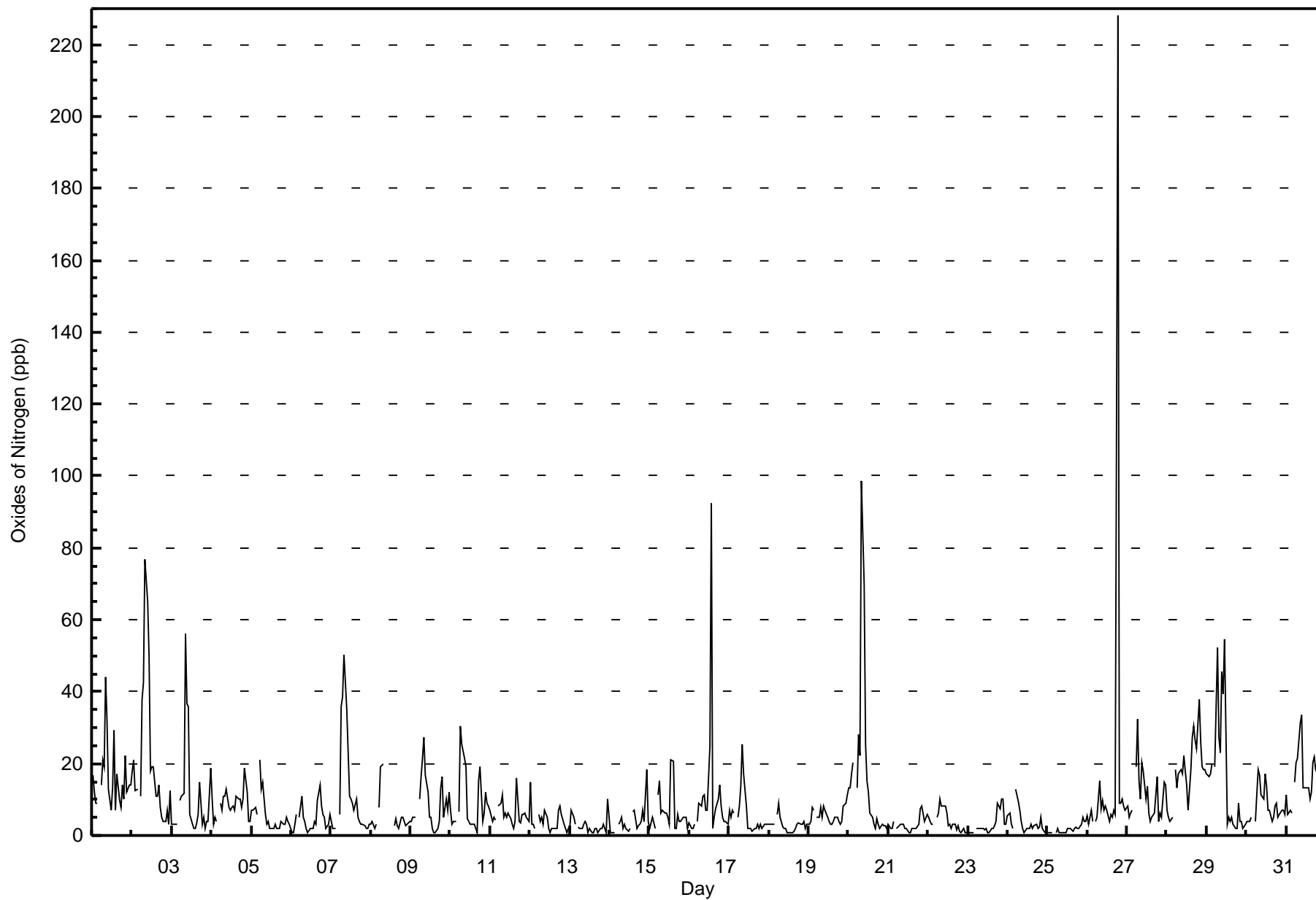
Maximum Value: 228.0 ppb on Oct 26 19:00	Maximum Daily Average: 21.0 ppb on Oct 2	Hours in Service: 744
Minimum Value: 1 ppb on Oct 25 12:00	Minimum Daily Average: 1.8 ppb on Oct 25	Hours of Data: 706
Maximum Diurnal Average: 19.5 ppb at hour 9	Minimum Diurnal Average: 4.9 ppb at hour 15	Hours of Missing Data: 38
Monthly Average: 8.73 ppb	Percentiles: P <sub>1</sub> = 0.9 P <sub>10</sub> = 1.9 Q <sub>1</sub> = 2.9 Median = 5.0 Q <sub>3</sub> = 10.1 P <sub>90</sub> = 18.9 P <sub>99</sub> = 51.0	Hours of Calibration: 38
		Percent Operational Time: 100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	17	12	9	9	A	14	21	19	44	32	13	7	13	29	7	17	10	8	14	10	22	12	14	14	16.0	44.1
2-Oct	18	21	12	13	A	11	38	42	77	65	50	18	19	19	11	11	14	8	5	4	4	7	3	12	21.0	76.8
3-Oct	3	3	3	3	A	10	11	12	56	37	36	6	3	2	2	3	6	15	3	5	2	4	4	19	10.7	56.1
4-Oct	10	3	5	4	A	9	7	11	11	13	8	7	8	8	7	11	10	10	8	10	19	12	4	4	8.6	18.8
5-Oct	7	7	8	6	A	21	13	15	6	3	4	2	2	2	3	2	2	2	4	3	3	5	4	3	5.5	21.0
6-Oct	1	1	3	6	A	5	11	5	4	2	1	2	2	2	4	3	10	14	8	6	5	2	3	6	4.5	14.0
7-Oct	4	2	2	2	A	6	36	39	50	35	23	11	10	9	7	10	5	4	3	3	3	2	2	3	11.8	50.4
8-Oct	3	4	2	3	A	8	19	20	C	C	C	C	C	A	3	5	3	2	5	5	4	3	3	4	--	20.0
9-Oct	4	5	5	5	A	10	16	21	27	17	12	5	5	2	1	1	2	4	13	16	5	10	7	12	9.0	27.5
10-Oct	7	3	4	4	A	7	31	25	21	19	5	4	3	3	3	2	1	15	19	4	6	12	9	8	9.4	30.5
11-Oct	7	4	5	4	A	8	9	11	5	6	5	6	5	3	2	4	16	4	4	6	6	6	5	4	5.9	15.9
12-Oct	15	3	3	2	A	6	4	5	3	7	5	2	1	2	2	2	2	7	8	6	3	2	1	2	4.0	14.9
13-Oct	2	7	5	3	A	3	2	2	3	4	3	1	2	1	1	2	2	1	2	2	3	2	1	10	2.7	10.1
14-Oct	1	1	1	1	A	3	4	5	2	3	2	1	2	A	6	7	2	3	3	4	7	4	18	4	3.9	18.2
15-Oct	2	4	5	2	A	11	15	6	7	6	6	5	3	21	21	2	2	6	4	4	5	5	5	2	6.5	21.2
16-Oct	4	2	2	3	A	4	9	8	11	11	7	7	25	92	2	5	7	10	14	8	5	4	4	3	10.8	92.3
17-Oct	7	5	7	6	A	5	8	14	25	17	8	2	2	2	1	2	2	3	2	3	2	3	3	3	5.8	25.4
18-Oct	3	3	3	3	A	6	9	5	2	2	2	1	1	1	1	1	2	3	4	3	3	4	2	3	2.9	9.1
19-Oct	3	4	8	7	A	5	5	8	5	8	7	5	4	3	3	4	5	5	4	3	4	8	9	11	5.6	11.1
20-Oct	13	13	17	20	A	13	28	22	99	70	25	15	12	6	5	3	2	5	3	2	3	3	3	2	16.7	98.6
21-Oct	3	2	2	4	A	2	2	3	3	3	2	2	1	1	2	2	2	2	3	8	8	6	4	6	3.2	8.1
22-Oct	5	4	3	3	A	5	6	10	8	8	6	3	3	3	2	3	3	2	3	1	1	2	1	1	3.9	10.1
23-Oct	1	1	1	1	A	2	2	2	2	2	1	2	1	1	2	2	3	4	9	7	10	10	3	3	3.1	10.1
24-Oct	5	6	3	2	A	13	9	7	4	2	1	2	2	2	3	2	3	3	2	3	5	2	1	1	3.6	12.9
25-Oct	1	1	1	1	A	1	2	1	1	1	1	1	1	2	2	1	2	2	2	2	3	5	4	4	1.8	4.9
26-Oct	6	3	7	4	A	4	5	15	7	10	7	8	7	4	6	5	7	6	228	9	9	10	8	7	16.6	228.0
27-Oct	8	5	6	7	A	19	32	15	10	20	18	10	14	6	4	5	6	11	16	4	6	5	15	14	11.2	32.3
28-Oct	7	5	4	5	A	18	13	17	18	17	22	18	14	7	18	27	30	26	24	38	26	19	18	18	18.0	37.6
29-Oct	17	16	17	20	A	19	52	27	23	46	39	55	3	5	4	5	3	2	2	9	4	4	2	3	16.4	54.6
30-Oct	4	4	4	5	A	4	11	18	17	11	10	17	14	7	7	4	5	8	9	5	6	7	7	6	8.3	18.2
31-Oct	11	6	7	6	A	15	20	21	31	34	13	13	13	13	10	12	20	22	18	16	22	19	19	18	16.6	33.5

6.4	5.2	5.3	5.3	--	8.6	14.6	14.0	19.5	17.0	11.5	8.0	6.5	8.9	4.9	5.4	6.1	7.0	14.4	6.7	6.9	6.5	6.0	6.8		Diurnal Average
18.0	21.0	17.2	20.3	--	21.0	52.2	42.4	98.6	69.8	49.9	54.6	24.8	92.3	20.9	27.4	30.2	26.4	228.0	37.6	26.2	19.3	18.8	18.7		Diurnal Maximum

C - Calibration                      A - Automated Daily Zero Span

# Hourly Maximums for NO<sub>x</sub> at Beaverlodge October 2008



**Peace Airshed Zone Association  
Summary of Hourly Averages**

**Beaverlodge - Ozone (O<sub>3</sub>) - ppb  
October 1, 2008 to November 1, 2008**

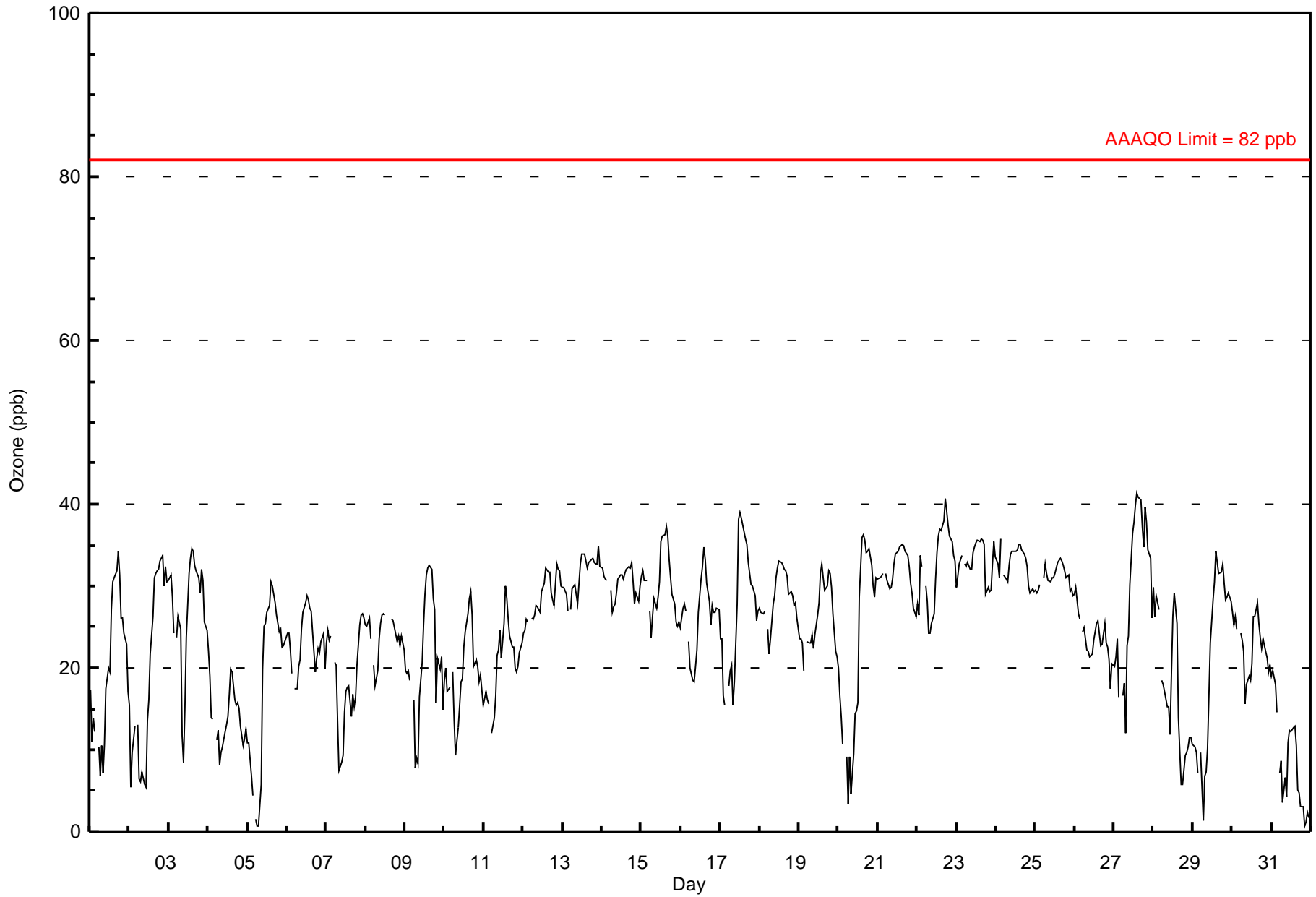
Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 41.3 ppb on Oct 27 15:00	Maximum Daily Average: 32.9 ppb on Oct 23
Minimum Value: 1 ppb on Oct 31 21:00	Hours of Data: 710
Maximum Diurnal Average: 30.7 ppb at hour 15	Hours of Missing Data: 34
Monthly Average: 24.56 ppb	Hours of Calibration: 34
Minimum Daily Average: 8.5 ppb on Oct 31	Percent Operational Time: 100.0
Minimum Diurnal Average: 18.6 ppb at hour 8	
Percentiles: P <sub>1</sub> = 2.1 P <sub>10</sub> = 11.5 Q <sub>1</sub> = 19.5 Median = 26.3 Q <sub>3</sub> = 31.1 P <sub>90</sub> = 33.8 P <sub>99</sub> = 38.9	

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-Oct	17	11	14	12	A	10	7	11	7	11	17	20	20	27	31	31	32	34	31	26	26	24	23	17	20.0	34.2
2-Oct	15	5	10	13	A	13	6	6	7	6	5	14	16	22	26	31	31	32	32	33	34	30	32	30	19.6	33.7
3-Oct	31	31	29	24	A	24	26	25	12	8	15	24	32	33	35	34	33	32	31	29	32	31	26	25	27.0	34.6
4-Oct	22	19	14	14	A	11	12	8	10	10	12	13	14	17	20	19	16	15	16	15	13	10	11	13	14.2	22.1
5-Oct	11	11	7	4	A	2	1	1	6	20	25	25	27	28	31	30	29	28	26	24	25	23	23	23	18.6	30.6
6-Oct	24	24	22	19	A	18	18	20	21	25	27	28	29	28	27	27	24	19	21	22	22	23	24	20	23.2	28.7
7-Oct	23	25	23	24	A	21	20	14	7	8	9	15	17	18	18	14	17	15	16	20	25	26	27	26	18.7	26.5
8-Oct	25	25	26	24	A	20	18	20	24	25	26	27	27	C	C	A	26	26	24	23	24	23	24	22	23.9	26.6
9-Oct	20	19	20	18	A	16	8	9	8	16	21	25	29	31	32	33	32	29	27	16	21	20	21	15	21.2	32.6
10-Oct	19	20	17	18	A	20	14	9	13	16	18	19	23	24	27	28	29	26	20	21	20	18	19	17	19.8	29.3
11-Oct	15	17	16	16	A	12	14	17	22	22	25	21	25	30	28	26	24	23	23	20	19	20	22	23	20.9	29.9
12-Oct	24	25	26	26	A	26	26	26	28	28	27	29	30	30	32	32	32	29	28	28	33	32	32	30	28.6	32.7
13-Oct	30	30	29	27	A	27	30	30	29	28	30	33	34	34	33	32	33	33	33	33	33	33	35	32	31.3	35.0
14-Oct	32	31	31	31	A	29	27	27	28	29	31	31	31	31	32	32	32	32	33	31	28	29	28	30	30.3	32.9
15-Oct	31	32	31	31	A	27	24	26	29	27	29	31	35	36	36	37	36	33	31	29	28	26	25	26	30.2	37.3
16-Oct	25	27	28	27	A	23	20	19	18	20	22	27	31	32	35	33	30	28	25	28	27	27	27	27	26.4	34.8
17-Oct	24	24	17	15	A	18	20	20	15	18	28	38	39	38	37	36	35	33	32	30	30	29	26	27	27.3	39.0
18-Oct	27	27	27	27	A	25	22	24	28	29	31	32	33	33	33	32	32	31	29	29	29	28	28	26	28.7	33.0
19-Oct	24	24	23	20	A	23	23	23	24	22	24	26	28	32	33	31	30	30	32	32	30	27	22	21	26.2	32.6
20-Oct	20	17	14	11	A	9	3	9	5	9	14	15	16	29	36	36	36	34	34	35	33	30	29	31	21.9	36.3
21-Oct	31	31	31	31	A	32	31	30	30	31	33	34	34	35	35	35	35	34	34	32	30	29	27	26	31.8	35.0
22-Oct	28	26	34	32	A	30	28	24	24	25	27	31	34	36	37	37	38	41	39	37	36	36	34	33	32.5	40.7
23-Oct	30	31	33	34	A	33	32	33	32	32	34	35	35	36	35	36	36	35	29	30	29	30	33	35	32.9	35.7
24-Oct	34	33	31	36	A	31	31	31	32	34	34	34	34	34	35	35	34	34	33	32	30	29	30	29	32.7	35.7
25-Oct	29	29	29	30	A	31	33	32	31	30	31	31	31	32	33	33	33	33	32	31	31	29	30	29	31.1	33.4
26-Oct	29	30	27	26	A	24	25	22	22	21	22	22	23	25	26	24	23	23	25	23	23	21	18	21	23.6	29.9
27-Oct	20	21	24	16	A	17	18	12	23	24	30	36	38	40	41	41	40	37	35	40	38	34	33	26	29.8	41.3
28-Oct	30	26	29	27	A	18	18	17	15	15	12	19	26	29	25	14	10	6	6	9	10	10	12	11	17.2	29.8
29-Oct	11	10	10	7	A	10	1	7	7	10	17	23	28	31	34	33	31	32	33	30	28	29	29	28	20.8	34.2
30-Oct	27	25	26	25	A	24	23	22	16	18	19	19	21	26	26	28	25	24	22	24	23	21	19	20	22.8	28.0
31-Oct	19	20	18	15	A	7	9	4	7	4	11	12	12	13	13	10	5	5	3	3	1	1	2	2	8.5	19.6

24.1	23.4	23.0	21.9	--	20.3	18.9	18.6	18.6	20.1	22.8	25.4	27.5	29.7	30.7	30.1	29.0	27.9	27.0	26.3	26.1	25.1	24.8	24.0	Diurnal Average	
33.6	32.8	33.7	35.7	--	32.6	32.7	32.8	32.5	33.8	34.3	38.1	39.0	39.8	41.3	40.9	40.5	40.7	39.2	39.7	37.9	35.5	35.0	35.4	Diurnal Maximum	

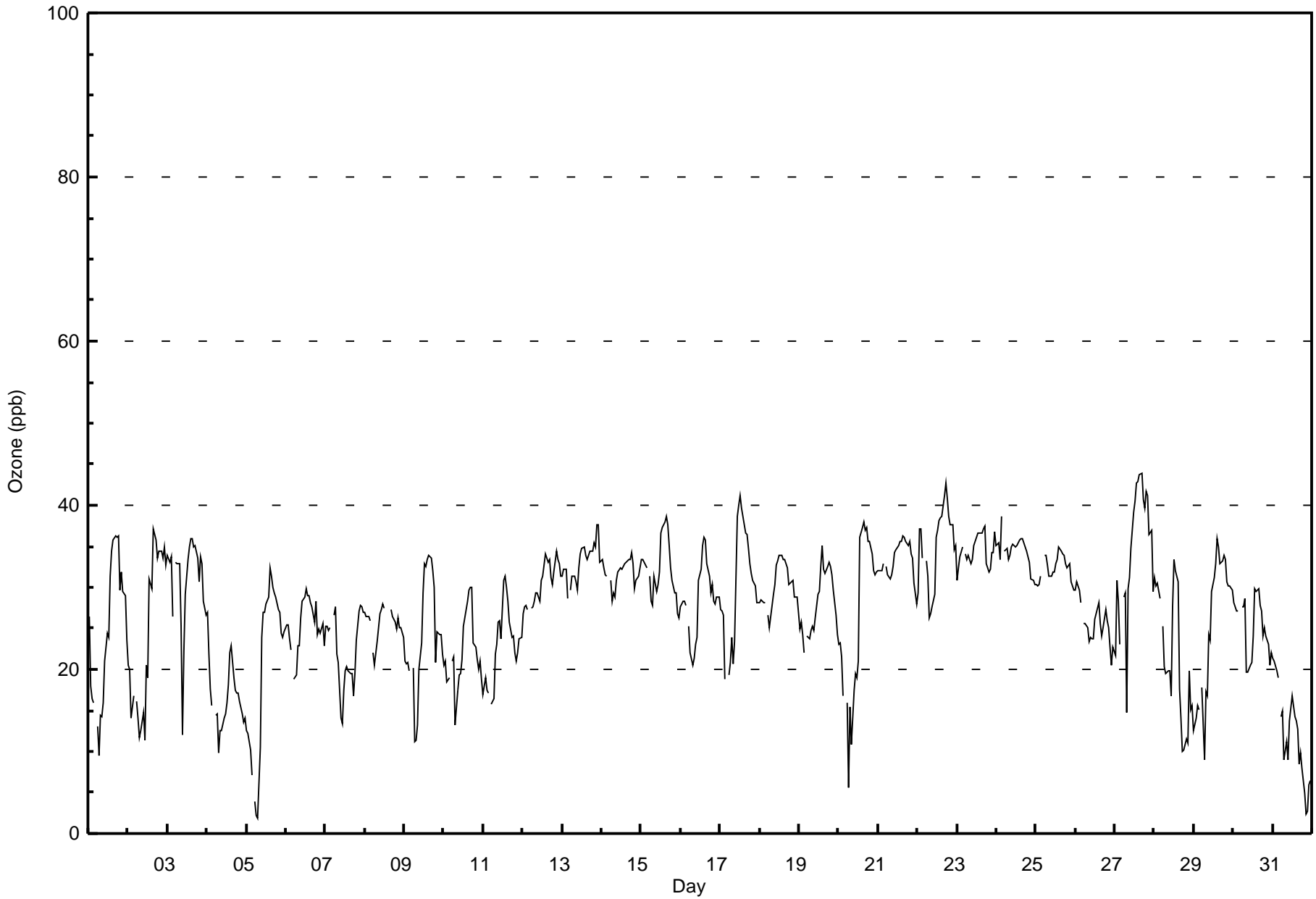
C - Calibration      A - Automated Daily Zero Span  
 Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82 ppb    24-hr na

# Hourly Averages for O<sub>3</sub> at Beaverlodge October 2008

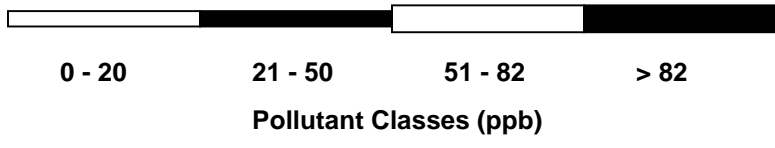
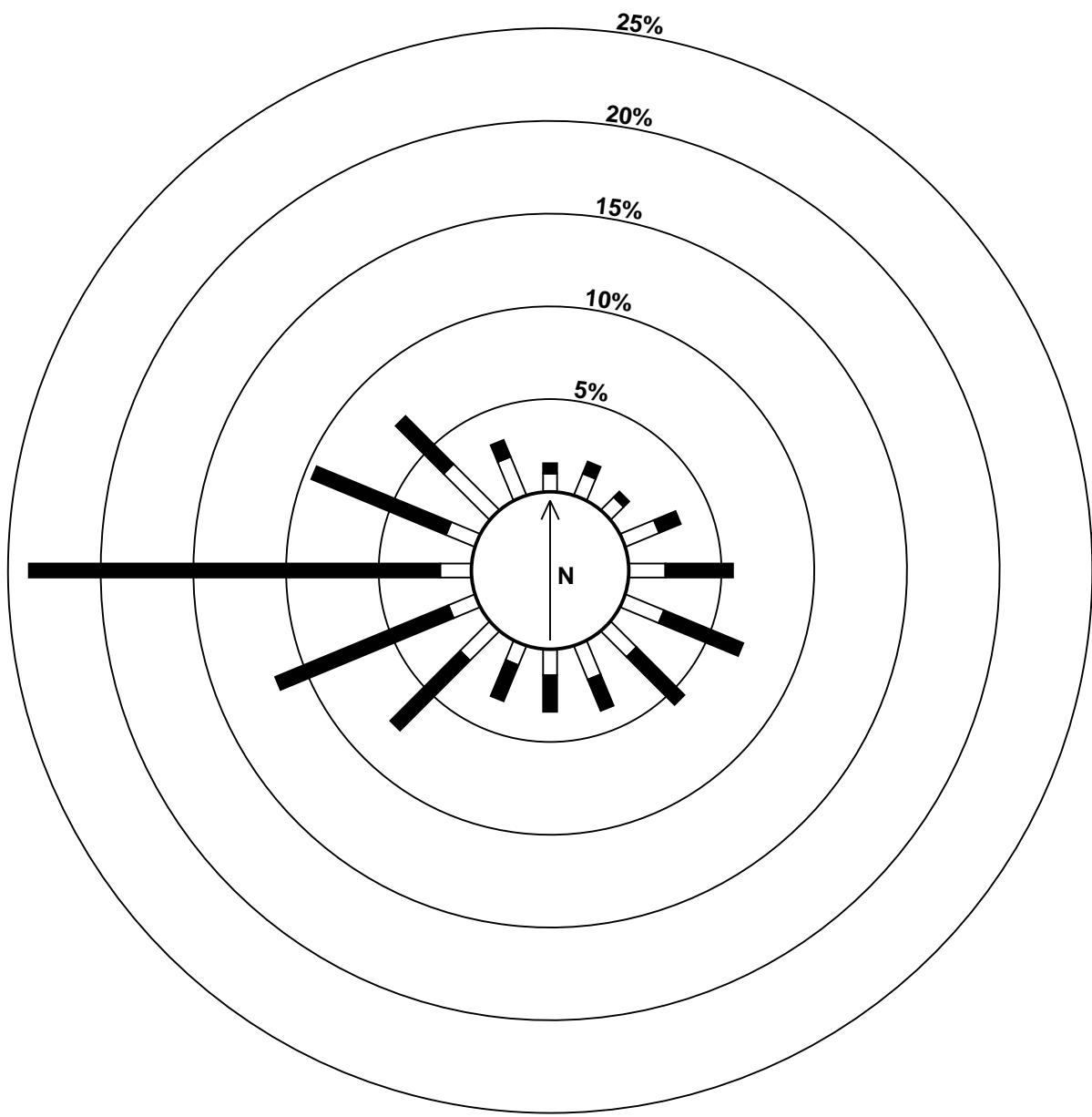




# Hourly Maximums for O<sub>3</sub> at Beaverlodge October 2008



# Pollutant Rose for O<sub>3</sub> at Beaverlodge October 2008





**Peace Airshed Zone Association  
Summary of Eight Hour Running Averages**

**Beaverlodge - Ozone (O<sub>3</sub>) - ppb  
October 1, 2008 to November 1, 2008**

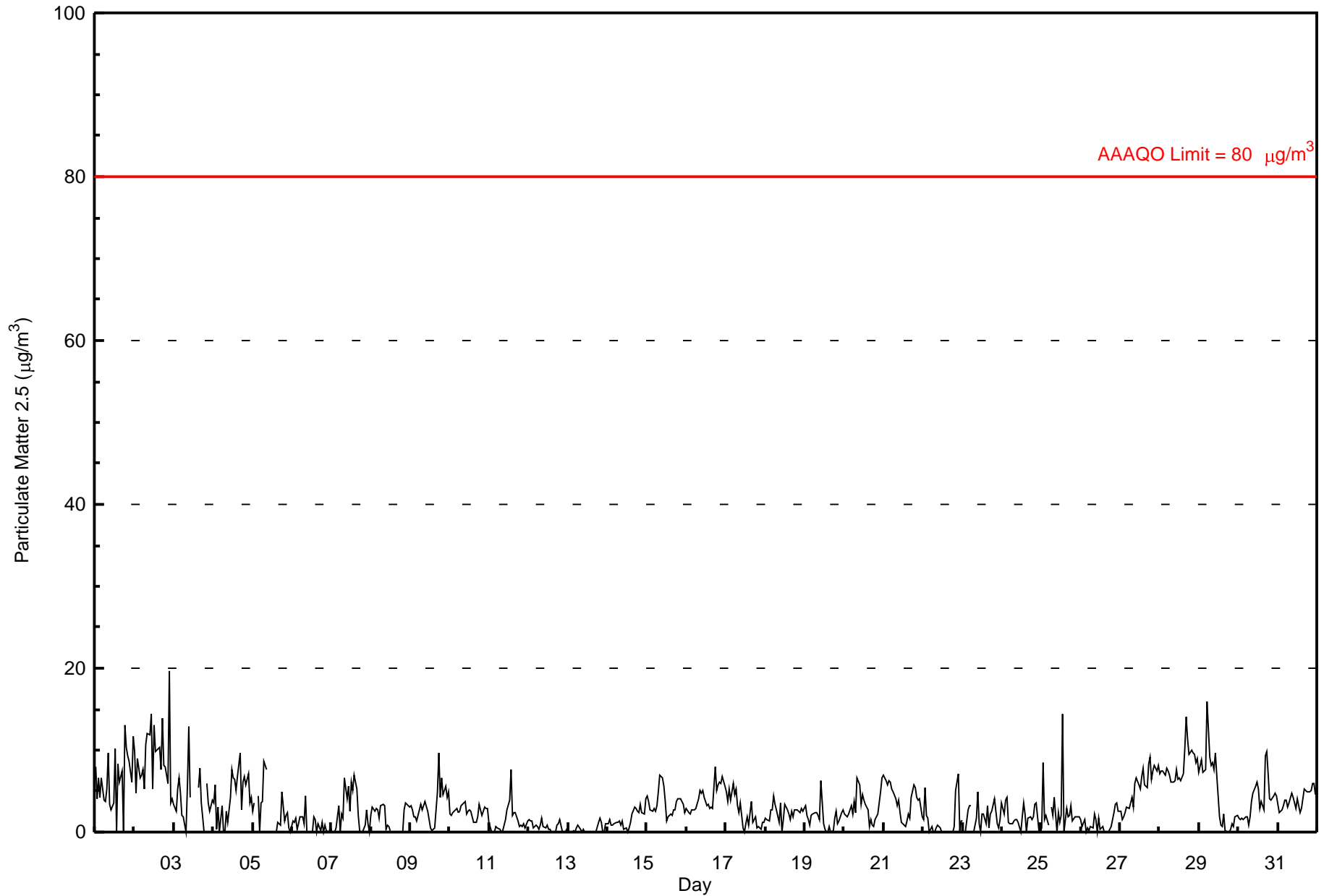
Number of Exceedences (AAAQO): 8-hr: 0 Maximum Value: 39.0 ppb on Oct 27 21:00	Hours in Service: 744 Hours of Data: 738 Hours of Missing Data: 6 Hours of Calibration: 6 Percent Operational Time: 100.0
Minimum Value: 2.7 ppb on Nov 1 00:00	
Percentiles: P <sub>1</sub> = 6.7 P <sub>10</sub> = 13.1 Q <sub>1</sub> = 20.1 Median = 25.5 Q <sub>3</sub> = 30.5 P <sub>90</sub> = 32.8 P <sub>99</sub> = 37.5	

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-Oct	25	23	22	21	20	17	14	12	10	10	11	12	13	15	18	20	24	26	28	29	30	29	28	27	29.8
2-Oct	25	21	18	17	15	14	11	10	9	9	8	8	9	10	13	16	19	22	26	28	30	31	32	32	31.9
3-Oct	32	32	31	30	30	29	28	27	24	21	19	19	21	22	23	24	27	30	32	32	32	32	31	30	32.4
4-Oct	28	27	25	23	21	19	17	14	13	11	11	11	11	12	13	14	15	16	16	17	16	16	15	14	28.4
5-Oct	13	12	11	10	10	8	7	5	4	6	8	11	13	16	20	24	27	28	28	28	28	27	26	25	28.0
6-Oct	25	24	24	23	23	22	21	21	20	20	21	22	23	24	26	26	27	26	26	25	24	23	23	22	26.9
7-Oct	22	23	23	23	23	23	22	21	19	17	15	14	14	14	13	13	14	15	16	17	18	19	20	22	23.2
8-Oct	23	24	25	26	26	25	23	23	22	22	22	23	23	24	25	N	N	N	N	N	N	24	24	24	25.6
9-Oct	23	22	22	21	21	20	18	16	14	14	14	15	17	19	22	25	27	29	30	29	28	26	25	23	29.8
10-Oct	21	20	19	19	18	18	17	17	16	15	15	15	16	17	19	21	23	24	25	25	25	24	23	21	24.9
11-Oct	20	19	18	17	17	16	15	15	16	17	18	19	20	22	24	25	25	25	25	25	24	23	22	22	25.2
12-Oct	22	22	22	23	24	24	25	26	26	27	27	27	28	29	29	30	30	30	30	30	30	31	31	30	30.7
13-Oct	30	30	30	30	30	29	29	29	29	29	29	30	30	31	31	32	32	33	33	33	33	33	33	33	33.2
14-Oct	33	33	32	32	32	32	31	30	29	29	29	29	29	29	30	31	31	32	32	32	31	31	31	30	33.0
15-Oct	30	30	30	30	30	30	29	29	28	28	27	27	28	30	31	32	33	34	35	34	33	32	31	29	34.5
16-Oct	28	27	27	26	26	26	25	24	23	22	21	21	23	24	26	27	29	30	30	30	30	29	28	27	30.3
17-Oct	27	26	25	23	23	22	21	20	18	18	19	23	25	27	29	31	34	36	36	35	34	33	31	30	36.0
18-Oct	29	28	28	27	27	26	26	25	25	26	26	27	28	29	30	31	32	32	32	31	31	30	30	29	32.1
19-Oct	28	27	26	25	25	24	23	23	23	23	24	24	25	27	28	28	29	30	31	31	30	29	28	28	31.0
20-Oct	27	25	23	20	19	16	14	12	10	9	9	9	10	13	17	20	24	27	29	32	34	34	33	33	34.1
21-Oct	32	32	31	31	31	31	31	31	31	31	31	31	32	32	33	33	34	34	34	34	34	33	32	31	34.5
22-Oct	30	29	29	29	29	29	29	29	28	28	27	27	28	29	30	31	33	35	37	37	38	38	37	37	37.6
23-Oct	36	34	34	33	33	32	32	32	32	33	33	33	33	34	34	34	35	35	35	34	33	32	32	32	35.7
24-Oct	32	32	32	33	33	33	33	32	32	32	33	33	33	33	34	34	34	34	34	34	34	33	32	32	34.5
25-Oct	31	30	30	30	29	30	30	31	31	31	31	31	31	31	31	32	32	32	32	32	32	32	32	31	32.3
26-Oct	30	30	29	29	28	28	27	26	25	24	23	23	23	23	23	23	23	23	24	24	24	23	22	22	30.5
27-Oct	22	21	21	20	20	19	20	18	19	19	20	23	25	28	31	34	36	38	39	39	39	38	37	35	39.0
28-Oct	34	33	32	30	29	27	25	24	22	20	18	16	18	19	20	20	19	18	17	16	14	11	10	9	34.1
29-Oct	9	10	10	10	10	10	9	8	7	7	8	11	13	16	20	23	26	29	31	32	32	31	31	30	31.5
30-Oct	29	29	28	27	27	26	26	25	23	22	21	20	20	20	21	22	23	23	24	25	25	24	23	22	29.5
31-Oct	22	21	20	19	19	17	15	13	11	9	8	8	8	9	9	10	10	10	9	8	7	5	4	3	21.5
	35.7	34.5	33.7	33.2	33.0	33.2	33.0	32.3	32.5	32.6	32.8	32.9	33.2	33.6	34.0	34.3	36.3	38.0	38.6	39.0	39.0	38.3	37.3	36.7	
	Diurnal Maximums																								

N - Not Valid  
Alberta Ambient Air Quality Objectives (AAAQO): 8-hr 65 ppb



# Hourly Averages for PM<sub>2.5</sub> at Beaverlodge October 2008

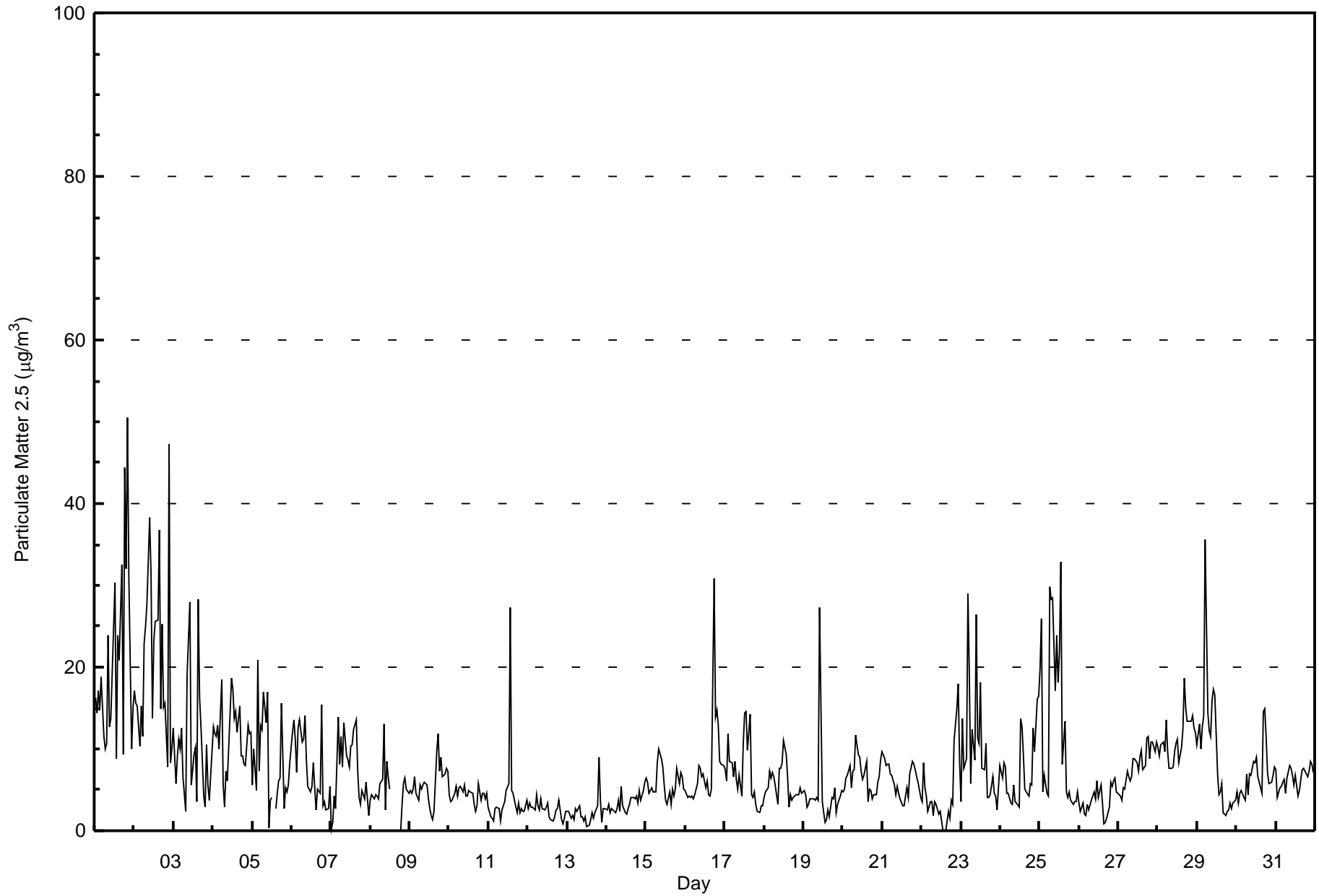


**Peace Airshed Zone Association  
Summary of Hourly Maximums**

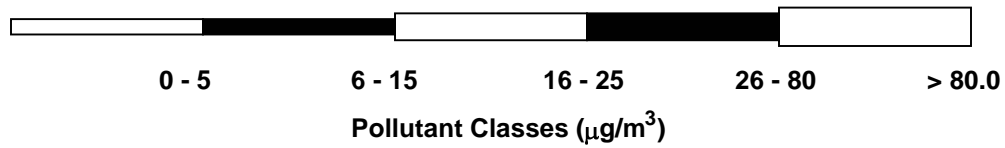
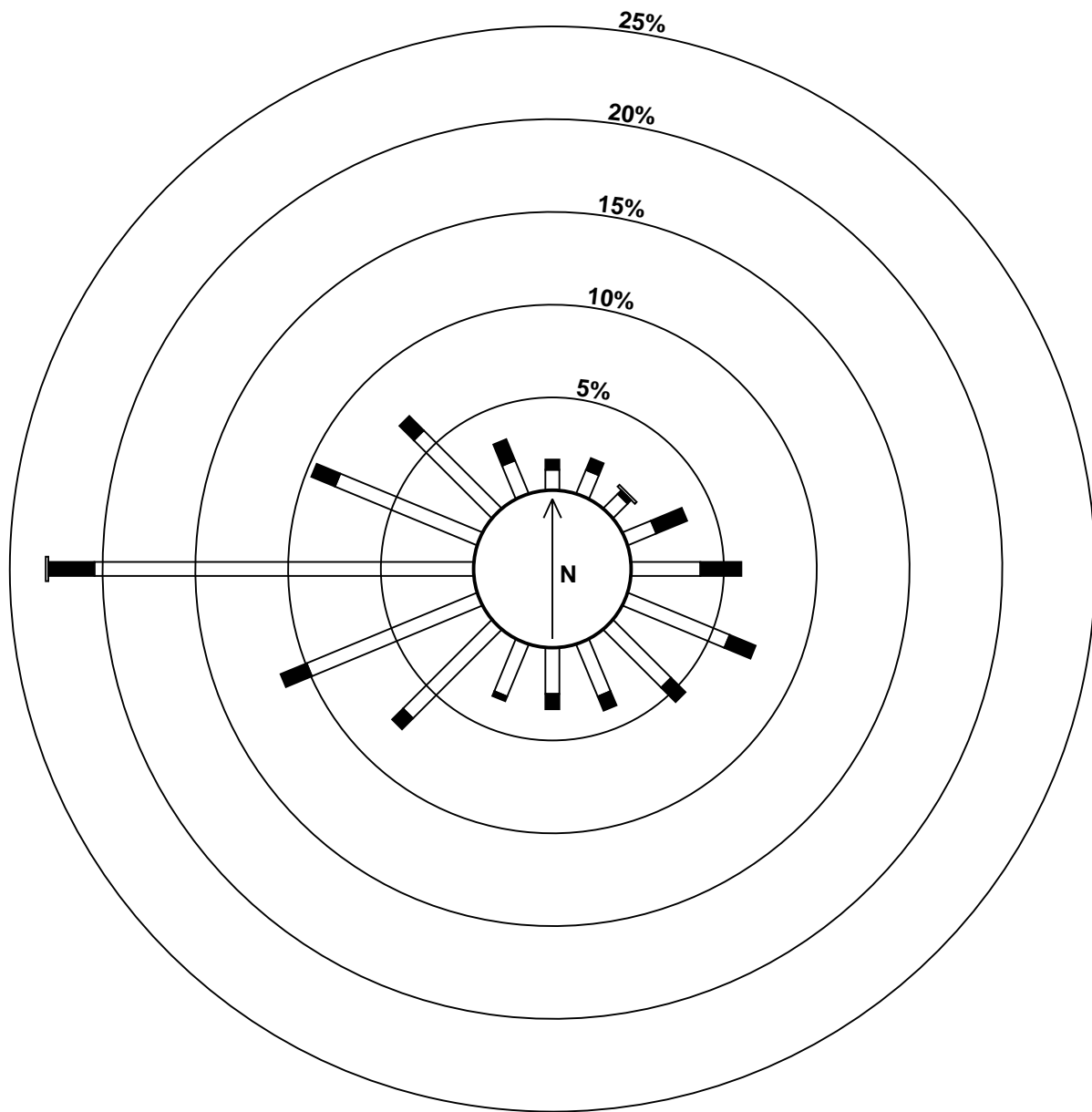
**Beaverlodge - Particulate Matter 2.5 (PM<sub>2.5</sub>) - µg/m<sup>3</sup>  
October 1, 2008 to November 1, 2008**

Maximum Value: 50.4 µg/m <sup>3</sup> on Oct 1 21:00		Maximum Daily Average: 20.8 µg/m <sup>3</sup> on Oct 2		Hours in Service: 744																							
Minimum Value: 0 µg/m <sup>3</sup> on Oct 8 16:00		Minimum Daily Average: 2.3 µg/m <sup>3</sup> on Oct 13		Hours of Data: 741																							
Maximum Diurnal Average: 9.5 µg/m <sup>3</sup> at hour 10		Minimum Diurnal Average: 6.5 µg/m <sup>3</sup> at hour 23		Hours of Missing Data: 3																							
Monthly Average: 7.71 µg/m <sup>3</sup>		Percentiles: P <sub>1</sub> = 0.1 P <sub>10</sub> = 2.4 Q <sub>1</sub> = 3.7 Median = 5.6 Q <sub>3</sub> = 9.6 P <sub>90</sub> = 14.8 P <sub>99</sub> = 30.3		Hours of Calibration: 2																							
				Percent Operational Time: 99.9																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Oct	16	14	17	15	19	11	10	11	24	13	14	25	30	9	24	21	33	9	44	32	50	31	10	15	20.7	50.4	
2-Oct	17	16	15	10	15	12	23	25	28	38	31	14	23	26	26	37	15	25	15	16	8	47	8	10	20.8	47.3	
3-Oct	12	6	9	11	10	13	7	2	19	24	28	6	9	10	4	28	16	13	4	3	11	6	4	10	11.0	28.4	
4-Oct	13	12	11	13	10	19	6	3	7	6	14	19	17	14	15	12	15	9	9	8	8	13	12	12	11.5	18.6	
5-Oct	6	10	5	21	7	13	12	17	13	17	0	4	4	P	3	5	6	6	16	3	5	5	6	8	8.3	20.8	
6-Oct	12	14	11	7	12	14	11	11	14	9	5	5	5	8	5	2	5	5	16	3	4	2	3	5	7.9	15.5	
7-Oct	0	1	4	3	14	8	12	8	13	9	9	8	10	11	12	14	7	4	3	5	4	6	4	2	7.1	13.8	
8-Oct	4	4	4	4	4	4	6	6	13	2	8	7	5	C	C	0	0	0	0	3	6	6	5	5	4.4	13.0	
9-Oct	5	5	5	7	5	4	6	5	6	6	6	4	3	2	1	2	10	12	7	9	7	7	8	7	5.7	11.8	
10-Oct	4	3	4	5	5	4	5	5	5	6	4	4	5	5	5	3	2	3	6	4	5	5	4	5	4.4	5.7	
11-Oct	3	2	2	1	3	3	3	1	2	3	4	5	6	27	5	5	4	2	3	2	3	2	2	4	4.0	27.3	
12-Oct	3	3	3	3	3	4	3	3	4	3	2	3	3	2	1	1	2	3	3	4	1	1	2	2	2.6	4.4	
13-Oct	2	2	2	2	1	3	2	3	2	2	1	2	1	1	1	2	2	2	3	9	4	1	3	3	2.3	9.0	
14-Oct	3	3	2	3	2	2	3	4	2	6	3	2	2	3	3	4	4	4	4	3	5	4	5	6	3.4	5.9	
15-Oct	6	6	5	5	5	5	5	8	10	9	8	6	4	3	5	3	5	4	5	8	6	7	7	5	5.8	10.1	
16-Oct	5	4	4	4	4	4	4	6	8	8	7	7	5	6	4	4	5	31	14	15	13	8	8	8	7.8	30.9	
17-Oct	7	6	12	9	8	7	8	6	5	7	4	11	14	15	10	14	4	4	5	3	2	2	3	3	7.1	14.6	
18-Oct	4	5	5	7	7	7	7	6	3	8	8	8	11	9	6	3	4	4	4	4	4	4	5	5	5.8	10.9	
19-Oct	5	4	3	3	4	4	4	4	4	4	27	4	2	1	1	3	2	4	4	5	2	3	4	5	4.4	27.3	
20-Oct	5	5	6	7	8	5	7	7	12	9	9	7	6	7	8	4	5	5	4	4	4	6	7	9	6.6	11.7	
21-Oct	10	9	8	8	8	7	7	6	4	5	5	4	3	3	4	5	4	7	9	8	8	7	6	4	6.2	9.6	
22-Oct	4	8	5	4	2	4	3	2	3	3	2	2	1	0	0	0	2	1	4	3	11	15	18	8	4.5	17.9	
23-Oct	4	14	8	9	29	19	6	12	9	26	11	11	18	8	7	11	4	4	4	7	5	4	3	5	9.9	29.0	
24-Oct	8	6	8	8	5	5	3	3	6	3	3	3	14	13	9	5	5	4	6	6	13	10	16	17	7.4	16.5	
25-Oct	20	26	5	7	5	4	30	28	28	17	24	18	22	33	8	13	5	4	5	4	3	4	4	5	13.4	32.8	
26-Oct	3	2	3	2	2	3	3	4	4	5	4	6	4	6	3	1	1	2	3	6	5	6	7	5	3.7	6.5	
27-Oct	4	4	4	5	5	7	7	6	7	9	9	8	7	9	10	7	8	11	11	9	11	11	10	11	7.9	11.5	
28-Oct	10	9	10	11	10	14	10	8	8	8	10	11	11	8	10	12	19	15	13	13	13	14	12	12	11.3	18.6	
29-Oct	10	13	10	13	14	36	14	12	12	16	17	17	7	4	5	6	2	2	2	2	3	3	3	4	9.5	35.6	
30-Oct	5	3	4	5	4	4	7	4	7	7	8	8	9	7	6	5	15	15	11	7	6	6	7	8	7.0	14.9	
31-Oct	7	4	5	5	6	6	5	7	8	8	7	6	7	4	5	6	7	8	7	7	7	8	8	7	6.5	8.5	
		7.0	7.3	6.5	7.0	7.6	8.1	7.6	7.5	9.4	9.5	9.5	7.8	8.7	8.7	6.9	7.7	7.0	7.2	7.9	6.9	7.6	8.2	6.5	6.9	Diurnal Average	
		19.9	25.9	17.0	20.8	29.0	35.6	29.9	28.3	28.5	38.2	31.2	24.9	30.3	32.8	25.7	36.7	32.5	30.9	44.4	32.0	50.4	47.3	17.9	16.5	Diurnal Maximum	
C - Calibration		P - Power Failure																									

# Hourly Maximums for PM<sub>2.5</sub> at Beaverlodge October 2008



# Pollutant Rose for PM<sub>2.5</sub> at Beaverlodge October 2008

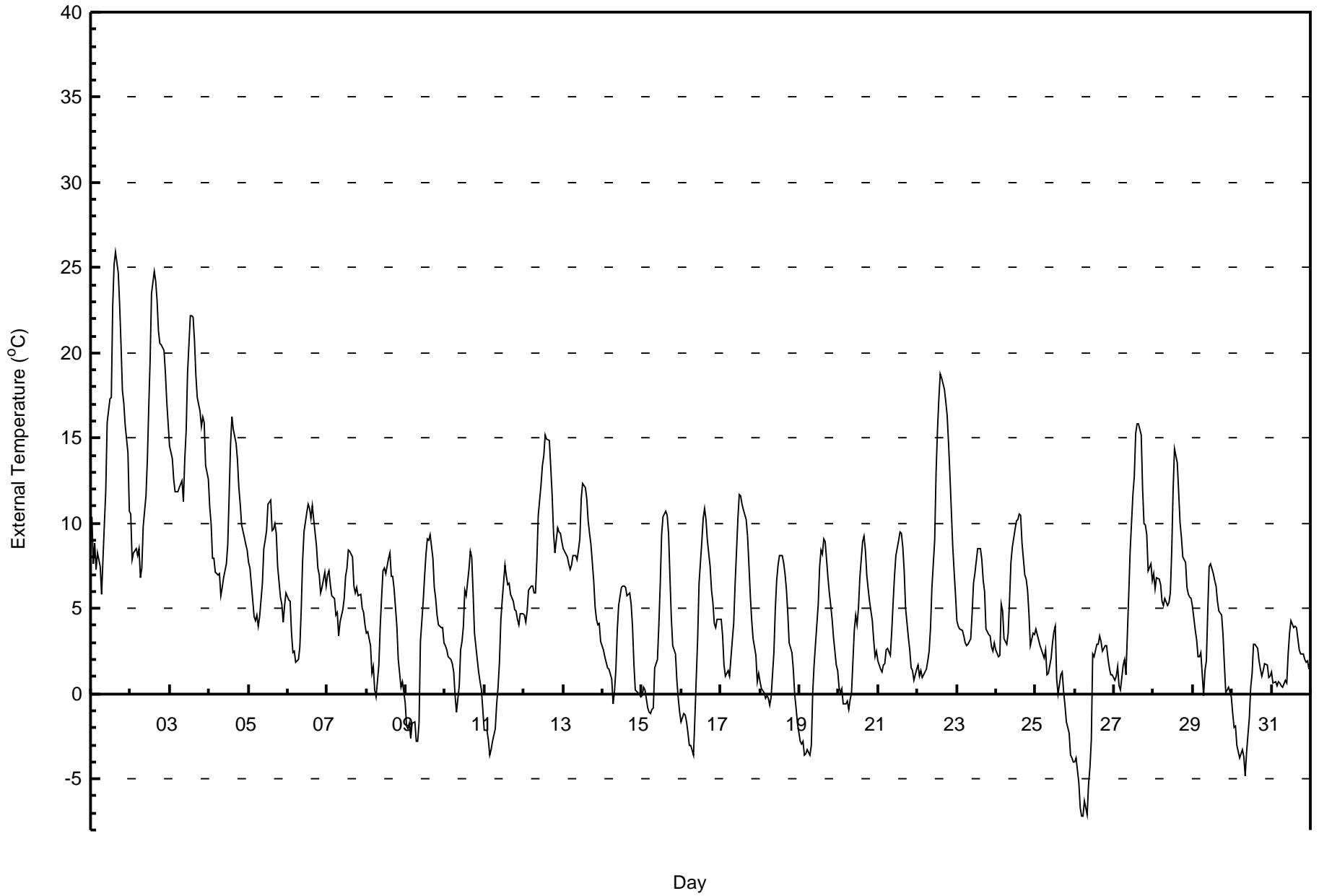


**Peace Airshed Zone Association  
Summary of Hourly Averages**

**Beaverlodge - External Temperature (ET) - °C  
October 1, 2008 to November 1, 2008**

Maximum Value: 25.9 °C on Oct 1 16:00		Maximum Daily Average: 15.6 °C on Oct 3		Hours in Service: 744																							
Minimum Value: -7 °C on Oct 26 06:00		Minimum Daily Average: -1.2 °C on Oct 26		Hours of Data: 744																							
Maximum Diurnal Average: 10.6 °C at hour 15		Minimum Diurnal Average: 1.8 °C at hour 7		Hours of Missing Data: 0																							
Monthly Average: 5.52 °C		Percentiles: P <sub>1</sub> = -4.9 P <sub>10</sub> = -0.6 Q <sub>1</sub> = 1.7 Median = 4.9 Q <sub>3</sub> = 8.4 P <sub>90</sub> = 12.4 P <sub>99</sub> = 22.6		Hours of Calibration: 0																							
				Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Oct	10	8	9	7	8	7	6	8	10	12	16	17	17	23	25	26	25	23	20	18	17	16	14	11	14.7	25.9	
2-Oct	11	8	8	9	8	9	7	7	10	12	14	17	20	24	25	24	23	21	21	20	20	19	17	16	15.3	24.8	
3-Oct	15	14	13	12	12	12	12	12	11	14	15	19	22	22	22	21	19	17	17	16	16	16	13	13	15.6	22.2	
4-Oct	11	10	8	8	7	7	7	6	6	7	8	9	12	15	16	15	15	14	12	11	10	9	9	8	10.0	16.3	
5-Oct	8	7	6	5	4	5	4	5	6	8	9	10	11	11	10	10	10	9	7	6	5	4	5	6	7.1	11.3	
6-Oct	6	5	4	2	2	2	2	3	5	8	9	11	11	11	10	11	10	9	7	7	6	6	7	6	6.7	11.1	
7-Oct	7	7	6	6	6	5	5	3	4	5	6	7	7	8	8	8	6	6	6	6	6	5	5	4	5.9	8.4	
8-Oct	4	4	3	1	2	0	0	2	4	6	7	7	7	8	8	7	7	6	4	2	1	0	1	0	3.7	8.2	
9-Oct	-2	-2	-2	-3	-2	-2	-3	-3	-2	3	5	7	8	9	9	9	8	6	6	5	4	4	4	3	3.0	9.4	
10-Oct	3	3	2	2	2	1	0	-1	1	3	3	4	6	6	7	8	8	6	4	2	1	1	0	-1	2.9	8.3	
11-Oct	-2	-2	-3	-4	-3	-3	-2	-1	0	2	4	5	8	7	6	6	6	5	5	5	4	4	5	5	2.4	7.5	
12-Oct	5	4	5	6	6	6	6	6	8	10	12	13	14	15	15	15	13	12	9	8	10	10	9	9	9.5	15.2	
13-Oct	9	8	8	8	7	8	8	8	8	8	9	11	12	12	11	10	9	9	7	5	4	4	4	3	8.0	12.4	
14-Oct	3	2	2	1	1	1	-1	0	1	4	5	6	6	6	6	6	5	4	2	0	0	0	0	0	2.8	6.4	
15-Oct	0	0	0	-1	-1	-1	-1	-1	2	2	4	6	9	10	11	10	9	7	4	3	2	1	0	-1	3.2	10.7	
16-Oct	-2	-1	-1	-2	-2	-3	-3	-4	-1	1	3	6	9	10	11	10	9	7	6	5	4	4	4	4	3.2	10.9	
17-Oct	4	3	2	1	1	1	2	3	4	6	10	12	12	11	11	10	9	8	6	4	3	2	1	1	5.4	11.7	
18-Oct	1	0	0	0	0	0	-1	0	2	5	7	8	8	8	8	7	6	5	3	2	1	0	-1	-2	2.8	8.1	
19-Oct	-3	-3	-3	-4	-4	-3	-4	-3	0	2	3	5	7	8	8	9	9	7	6	5	4	3	2	1	2.3	9.1	
20-Oct	0	0	0	-1	-1	0	-1	0	0	4	5	4	5	7	9	9	8	7	6	5	4	3	2	2	3.3	9.2	
21-Oct	2	1	1	2	2	3	3	2	4	5	7	8	9	10	9	9	7	5	3	3	2	1	1	1	4.1	9.5	
22-Oct	2	1	1	1	1	1	2	3	4	6	9	13	15	17	19	19	18	17	16	15	13	9	7	6	8.9	18.8	
23-Oct	4	4	4	4	3	3	3	3	3	5	6	7	8	9	8	8	7	6	4	3	3	3	3	3	4.7	8.5	
24-Oct	3	2	2	5	5	3	3	4	5	8	9	10	10	10	11	10	9	7	7	6	5	3	4	4	5.9	10.6	
25-Oct	4	3	3	3	2	2	3	1	1	2	3	4	4	1	0	1	1	0	-1	-2	-2	-4	-4	-4	0.9	3.9	
26-Oct	-4	-4	-5	-7	-7	-7	-6	-7	-5	-4	-3	2	2	3	3	3	3	3	3	3	2	2	1	1	-1.2	3.4	
27-Oct	1	1	2	0	0	2	2	1	3	6	8	12	13	15	16	16	15	12	10	10	9	7	8	7	7.3	15.9	
28-Oct	7	6	7	7	6	5	5	6	5	5	6	8	12	14	14	12	10	9	8	8	6	6	6	6	7.7	14.4	
29-Oct	5	4	3	2	2	2	0	1	2	5	7	8	7	7	6	5	5	5	3	2	0	0	0	0	3.4	7.6	
30-Oct	-1	-2	-2	-3	-4	-4	-3	-4	-5	-3	-1	0	1	3	3	3	2	1	1	1	2	2	1	1	-0.4	2.9	
31-Oct	1	1	1	0	1	1	0	0	1	1	2	4	4	4	4	4	3	3	2	2	2	2	2	1	1.9	4.2	
		3.5	3.0	2.7	2.2	2.2	2.0	1.8	2.0	3.2	5.0	6.7	8.4	9.6	10.5	10.6	10.4	9.6	8.3	7.0	6.1	5.4	4.6	4.2	3.7	Diurnal Average	
		14.6	13.8	12.6	11.9	11.8	11.8	12.1	12.5	11.3	13.8	15.9	18.9	22.1	23.5	25.2	25.9	24.7	22.8	20.5	20.5	20.2	18.9	17.1	15.8	Diurnal Maximum	

# Hourly Averages for External Temperature at Beaverlodge October 2008



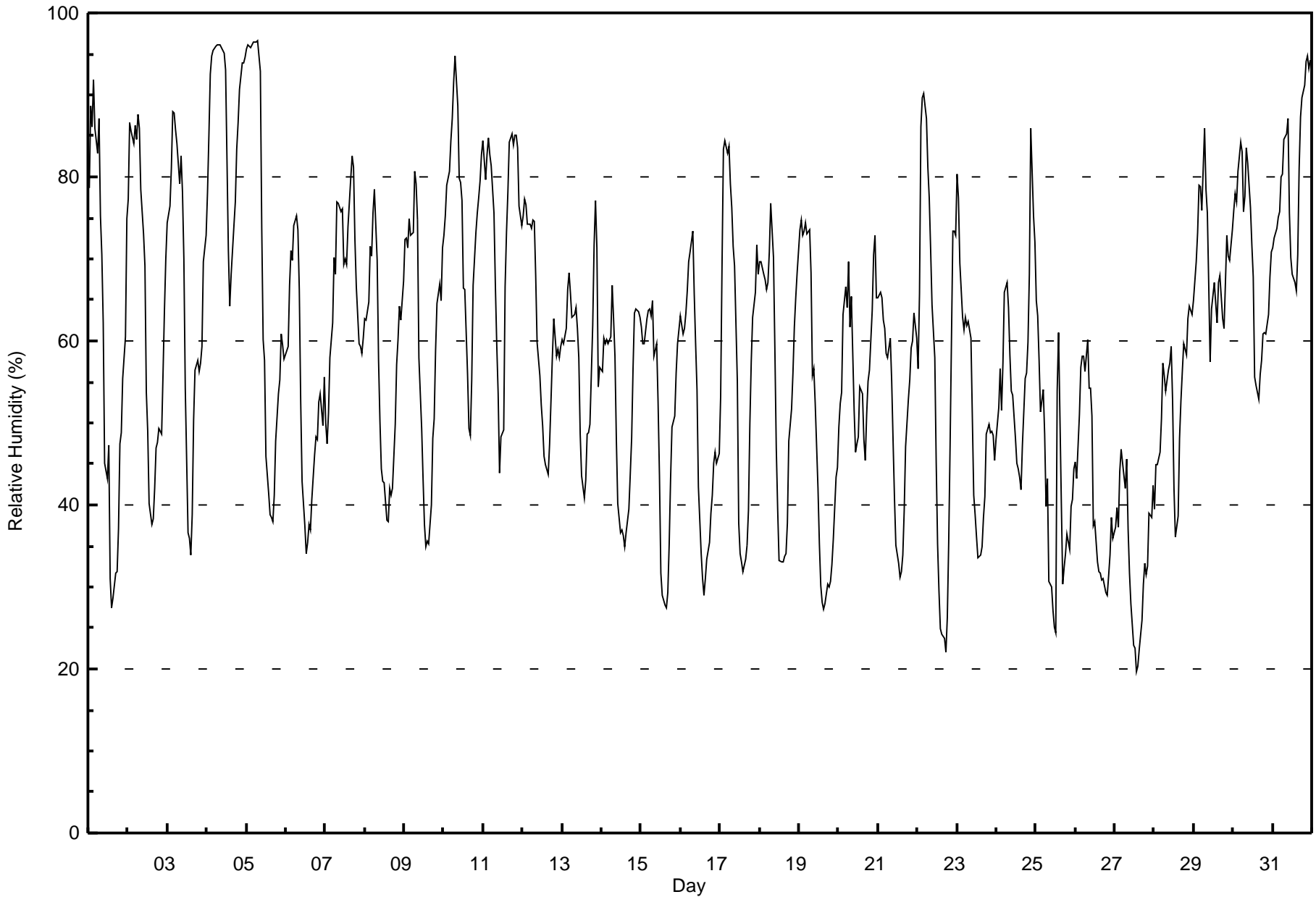


**Peace Airshed Zone Association  
Summary of Hourly Averages**

**Beaverlodge - Relative Humidity (RH) - %  
October 1, 2008 to November 1, 2008**

Maximum Value: 96.6 % on Oct 5 08:00      Maximum Daily Average: 87.2 % on Oct 4																						Hours in Service: 744 Hours of Data: 744				
Minimum Value: 20 % on Oct 27 14:00      Minimum Daily Average: 33.9 % on Oct 27 Maximum Diurnal Average: 72.8 % at hour 7      Minimum Diurnal Average: 42.3 % at hour 15 Monthly Average: 59.11 %      Percentiles: P <sub>1</sub> = 24.3 P <sub>10</sub> = 34.1 Q <sub>1</sub> = 45.1 Median = 59.6 Q <sub>3</sub> = 72.9 P <sub>90</sub> = 83.5 P <sub>99</sub> = 96.1																						Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0				
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	79	89	86	92	86	83	87	75	70	62	45	43	47	31	28	29	32	32	37	47	49	55	61	75	59.2	91.9
2-Oct	77	87	86	84	86	85	88	86	78	73	69	54	49	40	38	38	42	47	48	49	49	56	64	70	64.2	87.7
3-Oct	74	76	81	88	88	86	84	79	83	78	70	54	37	36	34	39	50	56	58	56	57	59	70	73	65.3	87.9
4-Oct	78	85	93	95	95	96	96	96	96	96	95	93	82	71	64	68	74	77	83	87	91	94	94	95	87.2	96.2
5-Oct	96	96	96	96	96	96	96	97	93	74	60	58	46	41	39	38	38	41	48	54	55	61	60	58	68.0	96.6
6-Oct	59	59	67	71	70	74	75	74	66	53	43	37	34	35	38	37	41	46	48	48	53	54	50	56	53.6	75.3
7-Oct	50	47	51	58	62	70	68	77	77	76	76	69	70	69	74	80	83	81	72	67	60	59	58	60	67.3	82.5
8-Oct	63	63	65	72	70	76	78	70	58	50	44	43	43	38	38	42	41	42	50	57	60	64	63	67	56.5	78.5
9-Oct	72	73	71	75	73	73	81	79	75	58	49	43	38	35	36	35	40	48	51	59	65	67	65	71	59.6	80.7
10-Oct	73	75	79	81	84	87	92	95	89	80	79	77	67	66	56	49	48	55	67	73	76	78	79	83	74.5	94.8
11-Oct	84	80	83	85	83	81	76	67	59	54	44	48	49	67	73	78	84	85	84	85	85	84	76	74	73.7	85.2
12-Oct	75	77	77	74	74	74	75	75	68	60	56	52	50	46	45	44	48	53	58	63	58	59	58	59	61.5	77.4
13-Oct	60	60	62	66	68	66	63	63	64	61	58	49	43	41	43	49	49	50	62	72	77	71	54	57	58.7	77.1
14-Oct	56	60	60	60	60	61	67	63	58	48	40	37	37	36	35	37	39	44	48	57	63	64	64	63	52.3	66.8
15-Oct	62	60	60	63	64	64	63	65	58	60	52	44	32	29	28	28	29	35	43	49	51	56	60	61	50.6	64.8
16-Oct	63	61	62	63	66	70	71	73	66	60	54	42	34	31	29	31	33	35	39	41	45	46	45	46	50.3	73.5
17-Oct	53	69	83	84	83	84	79	76	72	69	55	38	34	33	32	33	35	39	50	58	63	66	72	68	59.5	84.3
18-Oct	70	70	68	67	66	67	71	77	70	59	47	39	33	33	33	34	34	38	48	52	56	62	65	68	55.3	76.7
19-Oct	74	75	73	73	74	73	73	68	56	57	52	42	35	30	28	27	28	30	30	31	33	36	43	45	49.4	74.7
20-Oct	50	52	54	63	67	64	70	62	65	51	46	48	48	54	53	48	46	51	55	56	64	71	73	65	57.4	73.0
21-Oct	65	66	65	62	62	58	58	60	55	48	41	35	33	31	32	34	39	47	53	55	59	60	63	60	51.8	66.0
22-Oct	57	66	86	90	90	87	81	77	71	64	58	45	35	29	25	24	24	22	26	35	47	73	73	73	56.7	90.1
23-Oct	80	78	70	63	61	63	62	62	60	51	41	39	36	33	34	35	38	41	49	50	49	49	48	45	51.6	80.3
24-Oct	48	52	57	52	57	66	67	64	58	54	53	48	45	44	43	42	47	55	56	60	68	86	75	72	57.1	85.9
25-Oct	65	63	58	51	54	49	40	43	31	30	27	25	24	54	61	40	30	32	34	37	35	40	41	44	42.0	65.0
26-Oct	45	43	51	57	58	58	56	60	54	54	51	37	38	33	32	32	31	31	29	29	31	34	38	36	42.5	60.1
27-Oct	37	40	37	44	47	44	42	46	37	32	28	23	23	20	20	22	26	30	33	32	32	39	39	42	33.9	46.7
28-Oct	40	45	45	46	51	57	56	54	56	57	59	53	42	36	39	48	53	56	60	58	63	64	64	63	52.7	64.2
29-Oct	65	70	73	79	79	76	86	78	76	67	57	64	67	65	62	67	68	63	62	67	73	70	70	73	69.9	86.0
30-Oct	76	78	77	81	84	83	76	78	84	82	76	72	68	56	55	53	56	58	61	61	61	63	68	71	69.8	84.2
31-Oct	71	73	74	75	76	80	80	85	85	87	76	70	68	67	66	70	81	87	90	91	94	95	93	94	80.4	94.7
65.1 67.3 69.2 71.3 72.1 72.6 72.8 71.7 67.4 61.4 55.0 49.1 44.7 43.0 42.3 42.9 45.4 48.7 52.6 56.0 58.7 62.4 62.8 64.2																						Diurnal Average				
95.5 96.1 95.7 96.1 96.4 96.5 96.5 96.6 96.2 95.8 95.1 93.0 82.0 71.1 73.9 79.9 84.3 87.3 89.7 91.1 94.1 94.7 93.9 94.6																						Diurnal Maximum				

# Hourly Averages for Relative Humidity at Beaverlodge October 2008



**Peace Airshed Zone Association**  
**Summary of Hourly Averages**

Beaverlodge  
 October 1, 2008 to November 1, 2008  
 WS (km/h), WD (deg)

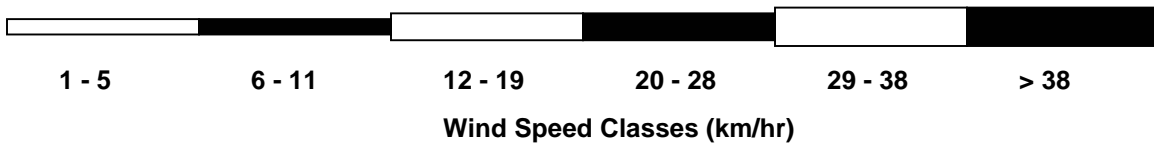
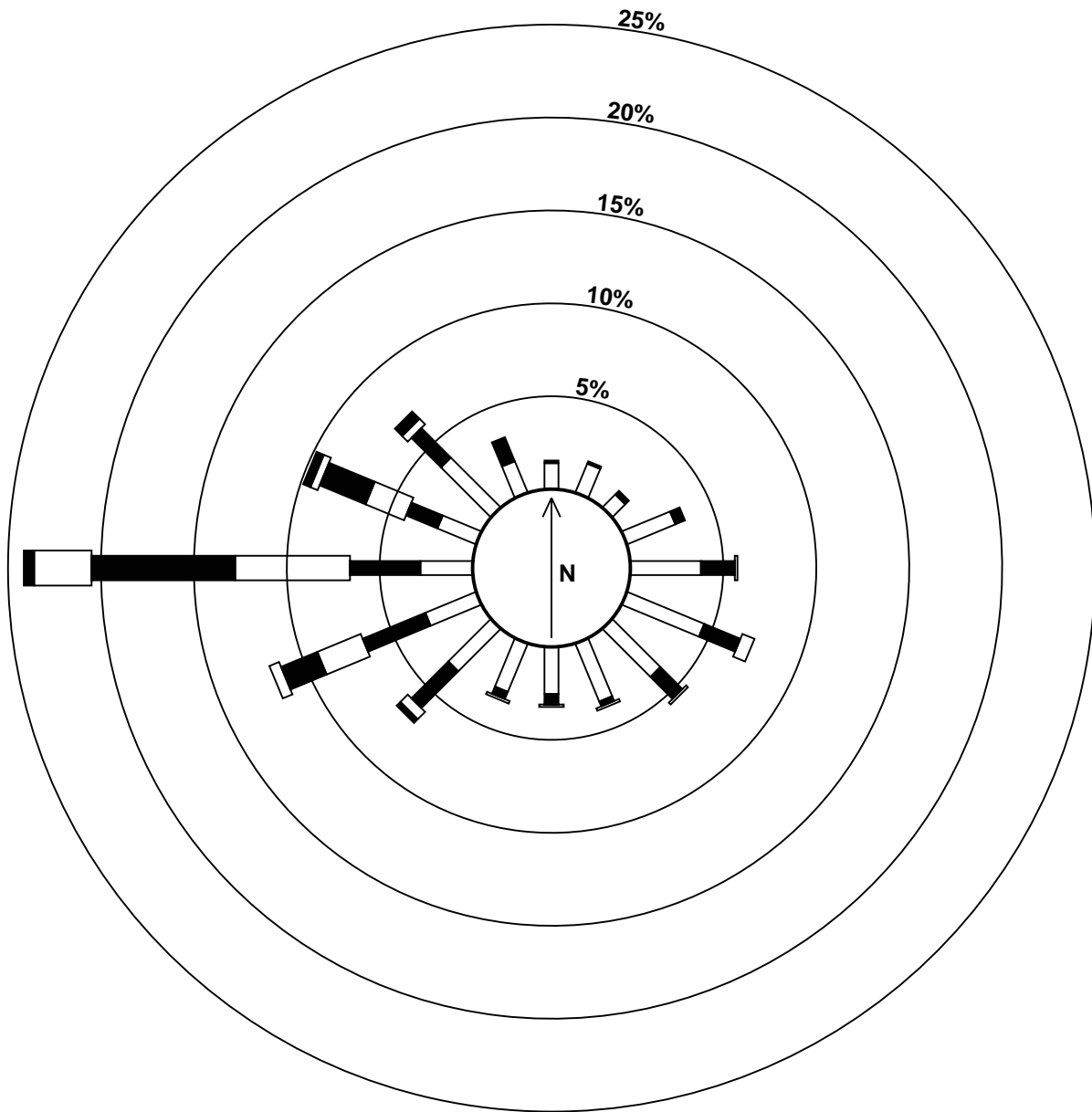
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	1	2	3	1	4	1	2	1	1	3	3	3	5	2	2	3	5	4	0	1	0	2	3	1	1.2	5.2
Dir	215	44	72	128	73	188	84	67	105	118	128	179	189	175	152	137	142	117	212	74	274	272	327	219	129.1	189.2
2 Spd	1	2	3	2	2	3	0	3	0	1	1	1	2	3	4	8	7	10	13	13	12	10	5	1.8	13.3	
Dir	215	269	55	64	78	68	283	69	145	61	237	279	124	134	110	141	122	92	83	106	110	266	307	345	94.2	110.4
3 Spd	4	4	2	1	1	2	2	4	2	1	3	4	2	2	4	7	9	9	8	9	16	14	4	3	2.6	16.1
Dir	28	62	201	185	289	322	289	329	283	170	173	190	257	121	137	104	77	73	41	60	88	107	251	281	84.8	87.8
4 Spd	5	10	3	8	3	4	6	4	4	3	4	4	3	4	4	5	4	5	9	10	3	8	6	2	4.5	10.1
Dir	341	330	358	323	13	351	335	346	317	305	316	315	302	296	271	249	242	315	338	346	327	328	343	321	324.1	346.3
5 Spd	1	2	1	2	1	2	1	5	7	18	20	15	25	28	34	28	26	21	15	11	11	12	13	13	12.3	34.2
Dir	16	18	333	26	100	10	19	247	226	262	262	256	264	268	266	258	259	270	267	248	256	250	273	277	263.7	266.2
6 Spd	10	8	4	3	5	4	3	8	10	23	30	29	28	25	20	14	8	5	3	5	6	6	6	6	8.5	30.4
Dir	284	276	222	235	210	232	223	252	239	257	262	262	259	257	266	264	261	245	29	51	86	90	77	128	257.2	262.5
7 Spd	10	16	16	10	4	7	1	2	2	4	3	3	3	4	4	8	23	19	15	17	19	15	17	13	4.4	22.7
Dir	106	115	113	116	100	95	114	282	306	293	253	244	256	320	287	264	290	291	284	265	276	267	268	280	270.6	289.7
8 Spd	13	15	10	2	5	9	12	14	19	22	24	25	21	23	22	17	20	23	15	10	4	1	5	1	13.6	25.3
Dir	278	277	275	259	251	253	264	275	271	275	280	289	285	283	283	286	271	269	273	267	254	228	256	140	275.5	289.5
9 Spd	2	2	3	1	4	1	3	3	3	1	3	4	5	7	10	9	4	3	3	4	7	5	7	7	0.7	10.3
Dir	97	100	90	155	65	157	188	153	77	121	230	211	214	219	244	250	283	21	349	335	36	356	13	323	278.9	244.0
10 Spd	9	8	8	8	5	6	4	7	5	4	5	4	5	6	6	3	2	2	5	6	5	3	3	3	2.0	9.2
Dir	325	330	313	315	332	336	312	312	323	310	323	216	241	270	219	215	218	145	102	105	108	129	126	208	300.4	324.6
11 Spd	2	3	2	2	3	3	2	3	5	5	8	7	11	19	17	13	12	11	11	8	7	6	5	4	5.7	19.2
Dir	224	213	170	127	121	140	104	126	158	162	180	186	240	265	258	234	217	217	220	214	207	211	225	226	217.9	264.8
12 Spd	3	0	6	10	8	8	7	4	5	3	6	12	7	9	11	11	10	7	5	2	12	14	12	9	7.2	13.8
Dir	260	298	275	282	281	295	297	313	324	308	295	297	331	321	312	325	320	312	311	321	284	294	298	325	303.1	294.4
13 Spd	8	6	4	6	3	5	14	15	9	3	9	16	21	24	29	27	24	20	19	14	15	20	25	23	14.6	28.9
Dir	301	289	252	247	227	263	258	248	246	275	252	251	252	282	275	270	273	262	255	288	282	267	271	277	267.4	275.1
14 Spd	21	22	19	17	20	17	11	17	18	22	27	26	24	21	23	23	19	18	19	12	8	8	7	8	17.5	27.1
Dir	280	273	274	277	276	271	258	264	262	270	276	281	274	284	287	289	284	276	271	261	258	263	246	242	273.9	276.3
15 Spd	8	8	7	2	1	5	8	8	7	8	10	12	22	19	19	20	19	16	14	13	9	1	2	2	9.3	22.3
Dir	243	252	228	187	108	225	234	233	242	217	229	222	250	255	251	253	251	254	261	264	258	233	81	150	245.3	249.7
16 Spd	5	2	1	2	2	2	3	3	2	3	5	9	8	9	10	8	10	10	8	2	0	4	5	3	1.9	9.8
Dir	61	68	97	105	150	134	100	106	103	152	197	228	240	245	235	233	256	286	290	273	86	85	90	107	227.8	235.2
17 Spd	3	6	5	3	3	2	2	2	1	4	8	28	36	39	41	35	30	24	21	18	14	12	3	4	12.4	40.7
Dir	117	98	221	147	176	107	80	315	177	72	267	277	275	275	271	269	269	272	264	257	262	264	226	206	267.3	271.4
18 Spd	2	4	2	2	4	3	5	12	21	23	25	30	29	28	27	24	22	18	11	12	10	9	7	2	12.7	30.0
Dir	222	212	94	164	196	166	196	235	249	253	278	281	277	277	276	284	291	282	279	277	267	263	264	267	269.8	281.2
19 Spd	1	1	2	4	3	2	1	3	3	3	5	6	6	7	9	8	8	6	7	8	7	0	4	2	3.2	9.5
Dir	126	116	100	212	103	114	129	127	127	153	182	192	181	187	139	135	129	93	84	94	98	256	349	305	132.7	138.9
20 Spd	2	2	2	4	2	2	2	1	2	1	3	4	4	5	7	15	19	16	20	21	19	15	13	11	6.5	21.4
Dir	70	61	308	56	295	89	202	93	23	153	148	226	202	293	281	259	265	265	260	262	254	257	261	276	261.7	261.5
21 Spd	6	3	5	7	8	13	12	11	14	20	26	28	24	27	28	27	24	18	12	6	4	4	4	5	12.9	27.9
Dir	292	278	276	272	277	278	279	276	276	274	279	281	278	282	275	268	265	264	271	274	193	202	108	106	273.6	280.8
22 Spd	5	6	5	10	11	10	11	8	9	9	13	14	15	13	27	27	27	30	29	28	28	31	30	24	10.5	30.6
Dir	131	247	143	134	135	126	119	120	126	135	145	167	170	195	237	235	233	244	254	271	285	273	272	271	230.8	272.9

**Peace Airshed Zone Association  
Summary of Hourly Averages**

Beaverlodge  
October 1, 2008 to November 1, 2008  
WS (km/h), WD (deg)

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	22	27	33	25	20	23	24	29	26	22	29	39	36	34	36	31	22	13	8	10	7	7	2	3	21.5	38.8
Dir	254	259	259	270	264	255	258	262	262	257	269	273	275	271	269	270	273	258	234	236	230	222	170	244	263.0	273.1
24 Spd	5	3	8	23	13	11	6	10	16	28	31	35	45	37	36	34	29	22	26	23	19	19	26	26	21.6	45.4
Dir	248	239	234	257	250	233	248	248	252	251	254	258	269	273	267	275	269	271	280	293	289	260	277	279	266.3	269.4
25 Spd	28	25	21	22	22	23	37	28	33	34	39	39	39	28	25	28	25	21	17	11	10	6	4	6	23.3	39.4
Dir	275	285	289	280	268	278	288	289	289	285	286	288	291	312	306	300	306	309	319	313	307	300	298	310	292.1	291.5
26 Spd	5	6	1	2	3	4	3	2	3	4	4	2	5	9	10	9	9	7	6	4	4	2	1	2	2.7	9.6
Dir	321	4	283	186	114	89	79	104	141	223	192	172	174	156	159	138	127	110	117	152	223	201	120	123	143.9	159.2
27 Spd	2	2	1	3	2	2	1	1	3	7	10	12	6	11	18	10	9	3	5	3	3	2	3	2	3.9	17.7
Dir	38	325	220	201	53	294	273	188	284	269	287	298	330	278	259	248	298	246	270	296	276	120	203	111	275.7	258.6
28 Spd	2	2	2	2	3	3	5	4	4	3	0	2	2	1	2	2	5	4	3	1	2	2	1	1	1.5	4.8
Dir	137	90	81	80	106	145	107	166	150	127	190	43	7	90	269	309	158	68	89	324	84	64	77	322	107.5	157.7
29 Spd	1	2	3	3	1	0	1	2	0	1	5	13	17	17	20	19	18	20	17	7	6	13	12	11	8.0	20.1
Dir	83	29	19	7	244	41	268	265	340	5	330	311	311	296	289	289	282	279	275	268	269	273	273	275	289.5	288.8
30 Spd	10	5	6	4	1	2	3	2	3	2	1	1	4	4	3	6	6	7	8	8	8	9	7	5	2.1	9.7
Dir	262	279	273	256	79	22	328	265	132	88	71	167	166	152	111	114	93	96	95	106	108	108	101	89	113.6	262.5
31 Spd	3	4	1	3	0	0	1	0	1	3	2	1	1	5	6	6	3	1	4	2	4	4	2	2	0.4	6.4
Dir	108	92	53	331	7	164	262	19	225	241	226	2	233	155	137	110	147	223	310	347	298	320	12	139	141.1	110.4
Spd	3.6	3.3	3.2	3.2	2.3	2.7	3.7	4.6	5.2	7.1	9.4	11.6	12.7	12.7	13.9	12.2	10.9	8.8	7.5	5.5	4.5	5.3	5.2	4.4	Diurnal Average	
Dir	277.2	280.9	263.9	264.6	253.5	260.1	265.4	262.5	259.8	259.7	264.7	267.7	267.2	271.3	266.7	265.4	267.1	270.2	274.1	273.0	268.8	263.7	276.2	275.7	Diurnal Maximum	
Spd	28.3	27.5	33.4	25.1	21.8	23.0	37.2	28.6	32.7	34.0	38.7	39.1	45.4	39.1	40.7	35.2	29.9	30.1	29.2	28.2	28.0	30.6	30.0	25.5	Diurnal Maximum	
Dir	275.2	259.0	259.1	269.6	268.3	254.6	288.3	261.6	289.4	285.4	286.3	287.5	269.4	274.9	271.4	268.9	269.1	244.3	253.9	270.5	285.5	272.9	272.1	278.8	Diurnal Maximum	
Maximum Speed Value: 45 km/h on Oct 24 13:00																		Minimum Speed Value: 0 km/h on Oct 31 06:00						Hours in Service: 744		
Maximum Daily Speed Average: 23.3 km/h on Oct 25																		Minimum Daily Speed Average: 0.4 km/h on Oct 1						Hours of Data: 744		
Maximum Diurnal Speed Average: 13.9 km/h at hour 15																		Minimum Diurnal Speed Average: 2.3 km/h at hour 5						Hours of Missing Data: 0		
Monthly Average Velocity: 6.80 km/h 267.67 deg																		Speed Percentiles: P <sub>1</sub> = 0.4 P <sub>10</sub> = 1.6 Q <sub>1</sub> = 2.8 Median = 6.1 Q <sub>3</sub> = 14.3 P <sub>90</sub> = 24.3 P <sub>99</sub> = 38.6						Percent Operational Time: 100.0		
All monthly, daily, and diurnal averages have been calculated using vector methods																										
Percentage Frequency Distribution																										
		Speed Range (km/h)																								
Direction	0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total																			
North	3.23	0.81	0.00	0.00	0.00	0.00	4.03																			
NorthEast	2.82	0.54	0.00	0.00	0.00	0.00	3.36																			
East	8.06	3.76	0.54	0.00	0.00	0.00	12.37																			
SouthEast	7.66	2.42	0.67	0.00	0.00	0.00	10.75																			
South	5.24	0.94	0.40	0.00	0.00	0.00	6.59																			
SouthWest	6.05	4.97	0.81	0.40	0.13	0.00	12.37																			
West	4.97	6.85	9.41	11.56	4.70	0.94	38.44																			
NorthWest	6.05	4.03	1.21	0.54	0.27	0.00	12.10																			
Total	44.09	24.33	13.04	12.50	5.11	0.94	100.00																			

# Wind Rose for WS at Beaverlodge October 2008



**Peace Airshed Zone Association**  
**Summary of Hourly Averages - Wind Speed (Scalar)**

**Beaverlodge - Wind Speed (WS) - km/h**  
**October 1, 2008 to November 1, 2008**

Maximum Speed: 46 km/h on Oct 24 13:00	Maximum Daily Speed Average: 24.0 km/h on Oct 25	Hours in Service: 744
Minimum Speed: 0 km/h on Oct 16 21:00	Minimum Daily Speed Average: 2.9 km/h on Oct 1	Hours of Data: 744
Maximum Diurnal Speed Average: 16.8 km/h at hour 15	Minimum Diurnal Speed Average: 6.0 km/h at hour 5	Hours of Missing Data: 0
Monthly Average Speed: 10.22 km/h	Percentiles: P <sub>1</sub> = 1.2 P <sub>10</sub> = 2.4 Q <sub>1</sub> = 3.6 Median = 6.6 Q <sub>3</sub> = 14.6 P <sub>90</sub> = 24.7 P <sub>99</sub> = 38.6	Percent Operational Time: 100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	2	3	3	2	4	1	3	2	2	3	3	3	7	3	3	3	5	4	2	2	2	4	1	2.9	6.7	
2-Oct	1	3	4	3	3	3	3	3	1	2	2	2	2	2	3	5	8	7	10	13	13	19	10	6	5.3	18.6
3-Oct	5	4	2	1	2	4	4	4	4	2	4	4	3	3	5	7	9	10	8	9	16	15	5	4	5.7	16.2
4-Oct	6	10	5	8	4	5	6	4	4	3	4	5	4	5	5	5	4	6	9	10	4	8	7	3	5.6	10.2
5-Oct	1	2	2	4	3	2	4	6	7	18	20	15	26	28	34	28	26	21	15	11	11	12	13	13	13.5	34.4
6-Oct	10	9	4	3	6	5	4	8	10	23	31	29	28	25	20	14	8	5	4	5	6	6	6	7	11.5	30.5
7-Oct	10	16	16	10	6	7	5	3	4	4	3	3	4	5	4	9	23	19	15	17	19	15	17	13	10.3	22.8
8-Oct	13	15	10	3	5	9	12	14	19	22	24	25	21	24	22	17	21	23	15	10	5	3	5	1	14.1	25.5
9-Oct	3	3	3	3	4	3	3	3	3	2	4	5	5	8	11	9	8	4	4	4	7	5	7	7	4.8	10.6
10-Oct	9	8	8	8	5	6	4	7	5	5	5	5	6	6	7	4	3	3	5	6	5	4	3	4	5.5	9.2
11-Oct	3	3	2	3	3	3	2	4	5	5	8	7	11	19	17	13	12	11	11	8	7	6	5	4	7.2	19.3
12-Oct	3	3	6	10	8	9	8	5	5	4	6	12	7	9	11	11	10	7	5	4	12	14	12	9	7.9	13.8
13-Oct	8	6	5	6	4	6	14	15	9	3	9	16	22	24	29	27	24	21	19	14	15	21	25	23	15.2	29.2
14-Oct	21	22	19	17	20	17	11	17	18	22	27	26	24	21	24	24	20	18	19	12	9	8	7	8	17.9	27.2
15-Oct	8	8	7	4	2	5	8	8	7	9	10	12	23	20	19	20	19	16	14	13	9	3	4	2	10.3	22.5
16-Oct	5	2	2	2	2	2	3	3	3	3	5	9	8	9	10	8	11	10	8	2	0	4	5	3	4.9	10.5
17-Oct	3	6	7	5	4	3	3	5	3	4	11	28	36	39	41	35	30	24	21	18	14	13	5	4	15.1	41.0
18-Oct	3	5	2	2	4	4	5	12	21	23	25	30	30	28	27	24	22	18	11	12	10	9	7	4	14.2	30.2
19-Oct	2	2	2	4	3	2	2	3	3	3	5	6	7	7	10	8	8	6	7	8	7	4	5	3	5.0	9.6
20-Oct	2	2	3	4	4	3	3	2	3	3	3	5	4	6	7	15	19	16	20	21	19	15	13	11	8.6	21.5
21-Oct	7	4	5	7	8	13	12	11	14	20	26	28	25	27	28	27	24	18	12	7	4	4	4	5	14.2	28.1
22-Oct	5	7	5	10	12	10	11	9	9	10	13	14	16	14	27	27	27	30	29	28	28	31	30	24	17.8	30.8
23-Oct	22	28	33	25	20	23	24	29	26	22	29	39	36	34	36	31	22	13	8	10	7	7	3	3	22.1	39.0
24-Oct	6	4	9	23	13	11	7	10	17	28	31	35	46	38	36	34	29	22	26	23	19	19	27	26	22.4	45.6
25-Oct	28	25	21	23	22	23	37	28	33	34	39	39	40	30	25	28	25	21	17	11	10	6	5	6	24.0	39.5
26-Oct	5	6	4	3	3	4	3	2	3	4	4	2	5	9	10	9	9	7	6	4	4	3	2	3	4.8	9.8
27-Oct	2	3	2	3	3	3	3	2	4	7	10	12	6	11	18	11	9	3	7	4	5	3	3	4	5.9	17.8
28-Oct	2	4	3	2	4	4	5	4	4	3	0	2	2	2	2	3	5	4	3	1	2	3	2	3	2.9	4.9
29-Oct	2	5	4	5	2	2	3	2	2	4	5	14	17	17	20	19	18	20	17	7	7	13	12	11	9.5	20.2
30-Oct	10	5	7	4	1	3	3	3	3	2	1	1	4	4	4	6	6	7	8	8	8	9	8	5	5.0	9.7
31-Oct	4	5	1	3	1	0	1	0	2	4	2	2	3	6	6	7	4	2	4	2	4	4	2	3	3.0	6.5

6.9	7.4	6.7	6.8	6.0	6.3	6.9	7.3	8.1	9.7	11.9	14.0	15.4	15.6	16.8	15.8	15.0	12.7	11.6	10.0	9.4	9.2	8.5	7.2	Diurnal Average
28.4	27.6	33.5	25.2	22.0	23.1	37.3	28.7	32.7	34.1	38.8	39.2	45.6	39.4	41.0	35.4	30.0	30.1	29.4	28.4	28.3	30.8	30.1	25.6	Diurnal Maximum

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

**Peace Airshed Zone Association  
Summary of Hourly Standard Deviations**

**Beaverlodge - Wind Direction (WD) - deg  
October 1, 2008 to November 1, 2008**

Maximum Value: 94.6 deg on Oct 31 09:00																								Hours in Service:	744
Minimum Value: 1.9 deg on Oct 15 20:00																								Hours of Data:	744
Percentiles: P <sub>1</sub> = 2.7 P <sub>10</sub> = 4.5 Q <sub>1</sub> = 6.5 Median = 15.0 Q <sub>3</sub> = 38.4 P <sub>90</sub> = 63.9 P <sub>99</sub> = 88.2																								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-Oct	80	73	40	62	9	50	57	81	68	29	29	41	56	47	33	21	14	29	79	87	88	56	66	75	88.3
2-Oct	69	64	77	50	41	41	89	53	64	74	89	47	86	42	23	29	12	10	11	3	5	65	13	28	89.1
3-Oct	34	10	52	45	85	71	72	24	61	46	25	57	56	64	35	16	6	19	4	9	5	25	40	69	85.1
4-Oct	41	5	47	16	66	37	12	31	24	24	31	32	29	25	21	17	25	12	10	7	38	14	39	89	89.2
5-Oct	49	49	70	57	81	34	78	15	14	8	7	7	7	7	6	5	5	9	8	12	11	9	6	6	81.1
6-Oct	12	26	16	20	18	51	42	33	12	5	5	6	7	6	5	8	9	19	58	10	8	9	25	31	57.5
7-Oct	7	5	7	7	74	25	87	77	82	20	35	26	38	47	24	22	6	4	5	6	4	6	5	5	87.1
8-Oct	3	3	4	51	13	7	3	3	3	5	7	6	7	10	8	8	15	4	2	6	17	88	24	54	88.5
9-Oct	34	36	30	58	11	62	24	18	18	60	22	20	29	33	15	18	60	23	26	33	9	20	10	15	62.0
10-Oct	2	7	4	3	19	7	24	8	27	27	23	24	32	16	37	55	41	27	7	4	6	33	32	48	55.2
11-Oct	19	17	41	36	18	16	17	27	13	17	9	10	18	5	5	8	3	4	3	4	7	11	6	13	40.8
12-Oct	64	86	33	8	6	12	10	24	11	20	20	11	25	18	16	11	7	8	34	75	9	5	6	11	85.8
13-Oct	12	8	13	3	51	43	9	4	9	45	8	11	7	6	8	5	6	11	5	19	10	6	6	6	50.6
14-Oct	3	3	4	3	4	3	10	4	3	6	5	7	7	8	6	4	5	8	4	2	16	8	16	15	16.2
15-Oct	12	16	17	64	50	20	12	6	17	11	11	8	7	7	10	5	4	5	4	2	4	73	67	41	73.0
16-Oct	11	20	35	33	33	12	23	31	29	23	15	15	17	13	12	12	24	4	4	50	20	15	10	31	49.7
17-Oct	49	22	50	53	46	55	38	65	65	23	60	6	6	8	7	6	5	6	4	3	8	7	64	27	65.0
18-Oct	39	42	40	42	28	43	23	7	6	5	6	6	6	9	7	9	5	5	4	2	5	5	5	81	81.1
19-Oct	52	59	32	52	21	25	47	12	17	19	12	16	17	26	10	9	7	14	5	7	5	85	50	58	85.2
20-Oct	30	68	83	39	68	46	57	62	55	82	52	15	19	27	15	11	5	8	4	3	4	2	6	3	82.6
21-Oct	16	59	20	4	6	6	4	5	4	4	6	6	8	6	7	7	5	8	7	59	26	40	32	10	59.3
22-Oct	18	39	24	7	7	15	8	15	7	10	7	14	15	18	9	4	5	4	7	7	9	6	5	11	38.9
23-Oct	6	5	5	5	6	7	6	4	3	4	6	5	6	7	5	5	5	15	15	6	8	14	53	44	53.3
24-Oct	32	56	30	11	14	3	53	12	4	3	5	4	5	6	5	5	6	10	8	5	10	5	6	6	55.8
25-Oct	4	4	4	6	7	7	4	4	3	4	4	5	5	22	9	5	6	5	4	5	7	13	16	6	21.7
26-Oct	12	11	75	47	22	19	21	16	35	11	20	57	25	15	13	11	10	6	13	23	17	38	56	55	74.9
27-Oct	39	73	74	35	79	66	81	60	90	11	13	7	27	16	7	23	11	26	80	71	56	36	13	60	90.0
28-Oct	40	58	34	23	26	37	24	12	13	27	60	41	53	68	66	74	13	28	18	86	16	47	77	89	88.8
29-Oct	61	64	46	46	73	85	84	44	85	79	27	7	8	5	6	9	4	4	5	14	38	8	8	5	85.3
30-Oct	7	26	15	56	81	49	47	46	31	25	35	44	13	18	25	9	5	4	7	6	4	4	13	12	80.7
31-Oct	52	47	76	40	69	74	34	22	95	29	35	62	71	18	7	10	17	70	24	44	10	37	29	64	94.6
	80.3	85.8	82.6	64.2	85.1	84.9	88.8	80.9	94.6	81.6	89.1	62.5	86.3	68.5	65.8	74.2	59.9	69.6	80.3	87.2	88.3	88.5	76.6	89.2	

PASZA

Portable – Spirit River Station

Monthly Summary Tables, Graphs and  
Roses



**Peace Airshed Zone Association  
Summary of Hourly Averages**

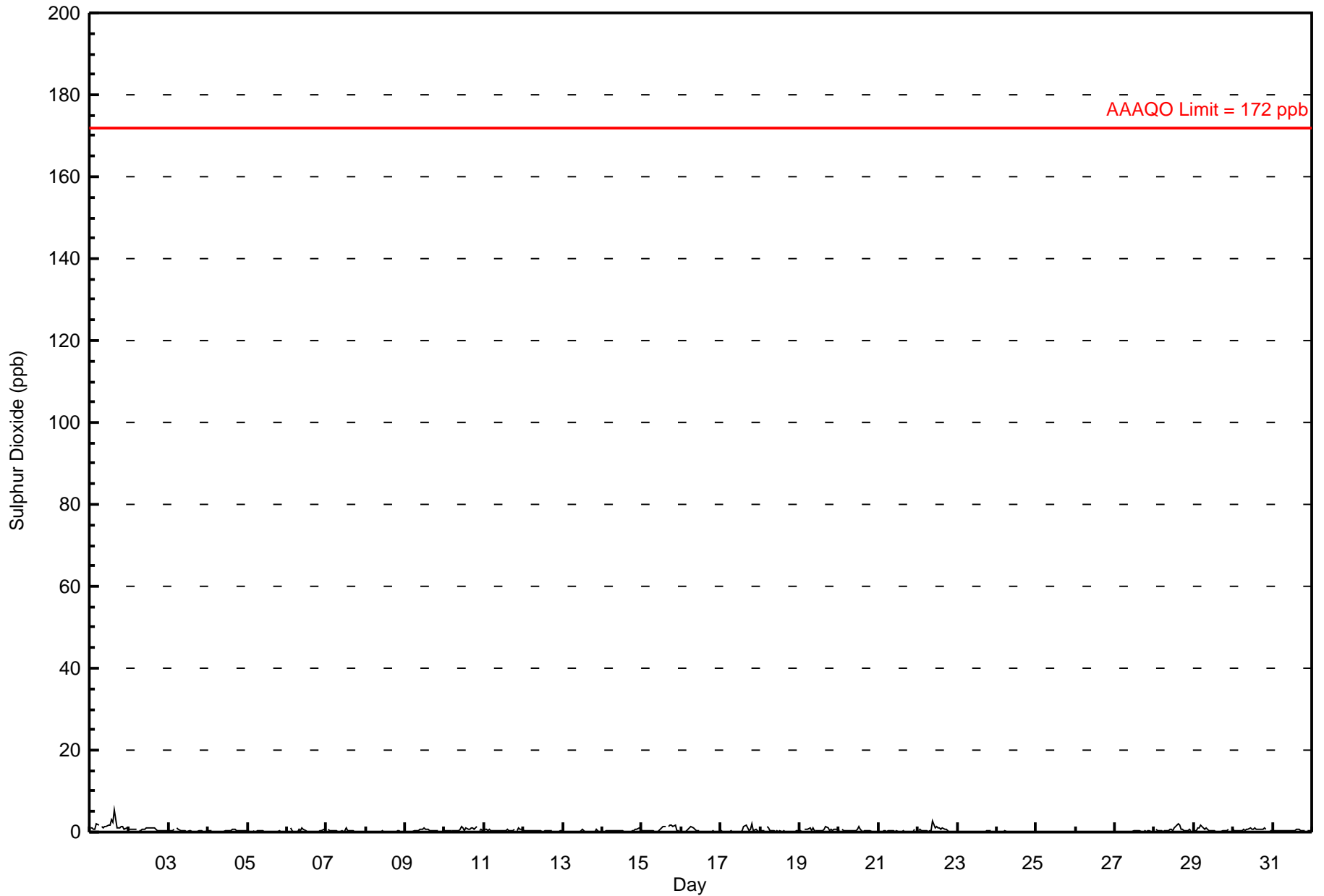
**Portable-Spirit River - Sulphur Dioxide (SO<sub>2</sub>) - ppb  
October 1, 2008 to November 1, 2008**

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 5.5 ppb on Oct 1 16:00	Maximum Daily Average: 1.5 ppb on Oct 1
Minimum Value: 0 ppb on Oct 4 08:00	Hours of Data: 670
Maximum Diurnal Average: 0.6 ppb at hour 16	Hours of Missing Data: 74
Monthly Average: 0.38 ppb	Hours of Calibration: 36
Minimum Daily Average: 0.0 ppb on Oct 25	Percent Operational Time: 94.9
Minimum Diurnal Average: 0.3 ppb at hour 1	
Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.1 Median = 0.3 Q <sub>3</sub> = 0.5 P <sub>90</sub> = 0.9 P <sub>99</sub> = 1.9	

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-Oct	1	1	1	1	2	2	A	1	1	1	1	2	2	3	2	5	1	1	1	1	1	1	1	1	1.5	5.5
2-Oct	1	1	1	1	1	1	A	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0.6	1.0
3-Oct	0	0	0	1	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.9
4-Oct	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0.3	0.8
5-Oct	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
6-Oct	0	A	1	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0.3	1.0
7-Oct	A	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.2	1.0
8-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.1	0.5
9-Oct	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	A	0	0.3	1.0
10-Oct	0	0	0	0	0	0	0	0	0	1	1	1	0	1	1	1	1	1	1	1	1	A	0	1	0.6	1.2
11-Oct	1	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	A	0	1	1	1	0.4	0.9
12-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.3	0.5
13-Oct	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	A	0	0	1	0	0	0	0.1	0.6
14-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	1	1	1	0.3	0.9
15-Oct	0	0	0	0	0	0	0	0	0	0	1	1	1	2	A	1	2	2	2	1	2	0	0	0	0.7	1.8
16-Oct	0	0	0	0	1	1	1	1	1	0	0	0	C	C	C	0	0	0	0	0	0	0	0	0	0.3	1.2
17-Oct	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	2	1	0	1	2	0	1	0	0	0.4	1.9
18-Oct	0	0	0	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.3
19-Oct	0	0	A	1	1	1	1	0	1	0	0	0	0	0	1	1	1	1	1	1	0	1	1	1	0.5	1.3
20-Oct	0	A	1	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.3	1.2
21-Oct	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	0.6
22-Oct	0	1	0	0	0	0	0	0	0	3	1	1	1	1	1	1	1	1	0	0	0	0	A	0	0.6	2.7
23-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.0	0.3
24-Oct	0	0	0	0	0	0	0	0	0	0	M	M	M	M	C	C	A	0	0	0	0	0	0	0	--	0.2
25-Oct	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	N	N	0.0	0.1
26-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
27-Oct	N	N	N	N	N	N	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--	0.3
28-Oct	A	1	0	0	0	0	0	0	0	1	1	0	1	1	2	2	1	1	0	0	0	1	0	A	0.6	2.1
29-Oct	0	0	1	1	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	A	1	0.6	1.7
30-Oct	0	0	0	0	0	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0	0.6	1.0
31-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	A	0	0	0.4	0.8
	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.4	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	Diurnal Average
	1.1	0.9	1.1	1.0	2.0	1.6	1.2	1.2	1.1	2.7	1.3	1.5	1.7	3.0	2.4	5.5	1.3	1.6	1.8	1.9	1.7	0.9	1.0	0.9	Diurnal Maximum	

C - Calibration      M - Maintenance      N - Not Valid      A - Automated Daily Zero Span  
 Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb      24-hr 57 ppb

# Hourly Averages for SO<sub>2</sub> at Portable-Spirit River October 2008



**Peace Airshed Zone Association  
Summary of Hourly Maximums**

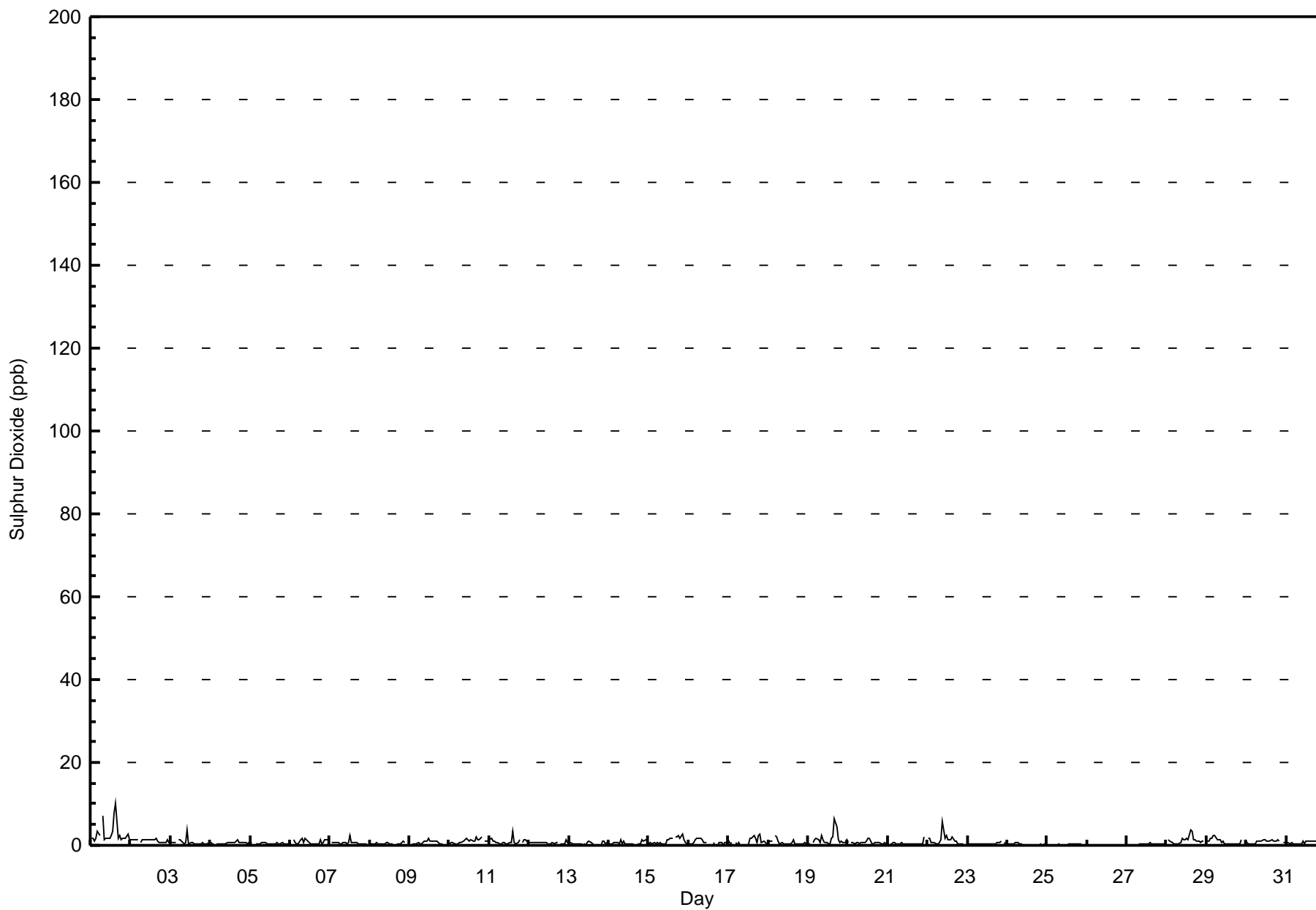
**Portable-Spirit River - Sulphur Dioxide (SO<sub>2</sub>) - ppb  
October 1, 2008 to November 1, 2008**

Maximum Value: 10.3 ppb on Oct 1 16:00	Maximum Daily Average: 2.8 ppb on Oct 1	Hours in Service: 744
Minimum Value: 0 ppb on Oct 16 18:00	Minimum Daily Average: 0.2 ppb on Oct 25	Hours of Data: 670
Maximum Diurnal Average: 1.2 ppb at hour 15	Minimum Diurnal Average: 0.6 ppb at hour 24	Hours of Missing Data: 74
Monthly Average: 0.81 ppb	Percentiles: P <sub>1</sub> = 0.1 P <sub>10</sub> = 0.2 Q <sub>1</sub> = 0.3 Median = 0.7 Q <sub>3</sub> = 0.9 P <sub>90</sub> = 1.7 P <sub>99</sub> = 3.7	Hours of Calibration: 36
		Percent Operational Time: 94.9

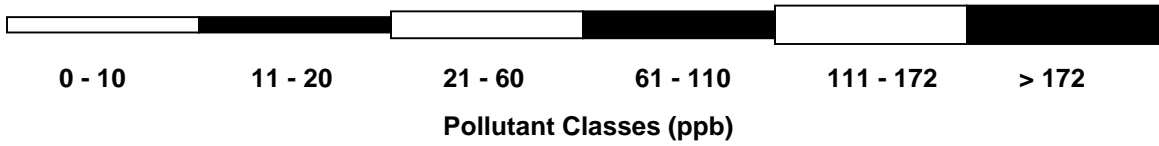
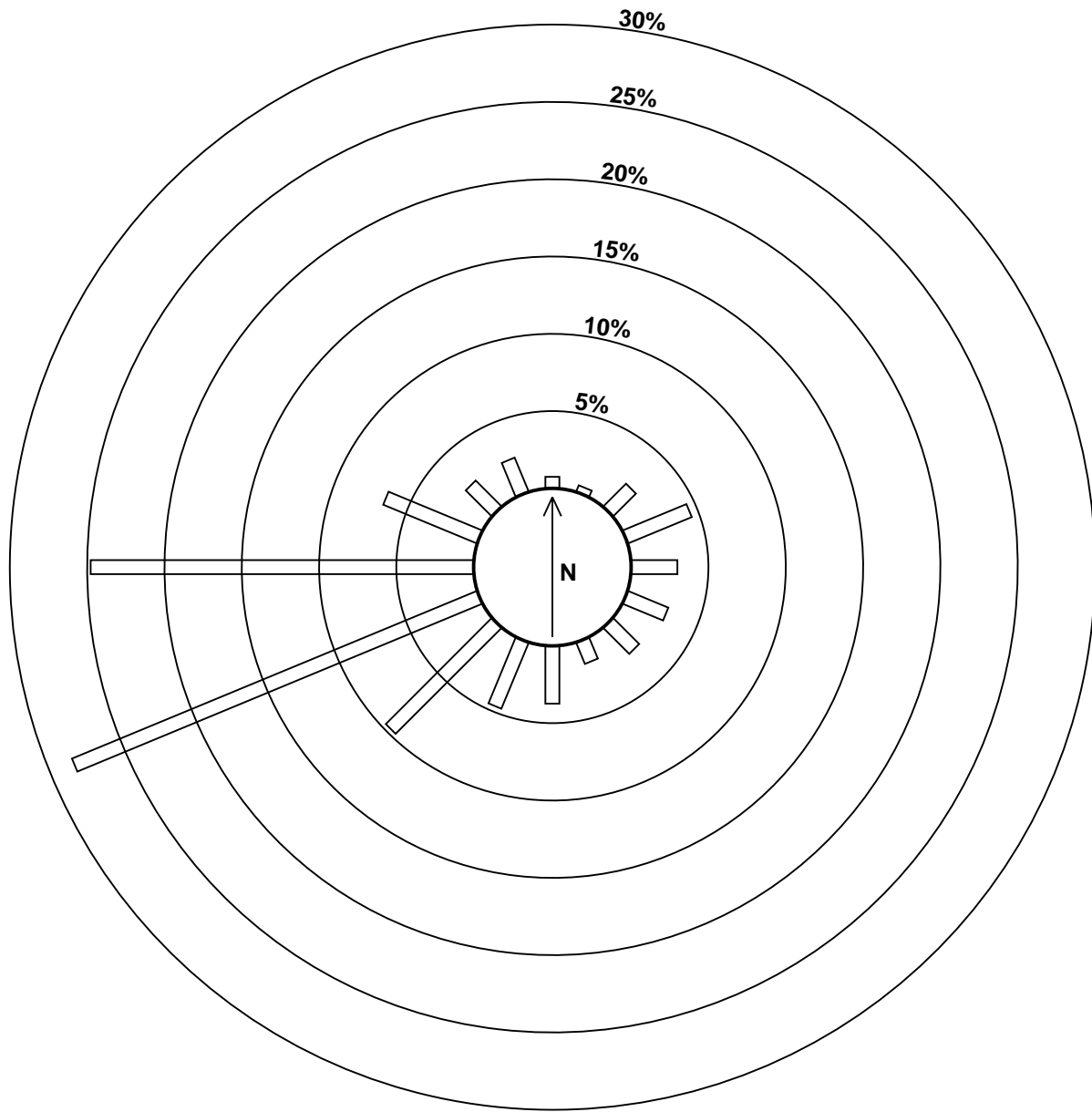
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Oct	2	2	1	2	3	2	A	7	1	2	2	2	2	3	8	10	2	2	1	2	2	2	3	1	2.8	10.3	
2-Oct	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1.1	1.8	
3-Oct	1	1	1	1	A	1	1	1	0	1	4	0	1	1	0	0	0	0	1	1	0	0	0	1	0.8	3.9	
4-Oct	1	0	0	A	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0.6	1.2	
5-Oct	0	1	A	0	0	0	0	1	1	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0.4	0.8	
6-Oct	1	A	1	1	0	0	1	2	1	2	1	1	0	0	0	0	0	0	1	0	1	1	1	1	0.8	1.7	
7-Oct	A	1	1	1	1	1	0	0	1	1	0	1	2	1	1	1	1	0	0	0	0	0	0	A	0.6	2.3	
8-Oct	0	0	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	1	1	A	0	0.4	1.2	
9-Oct	0	0	0	0	0	1	0	0	1	1	1	2	1	1	1	1	1	1	0	0	0	A	0	0	0.6	1.7	
10-Oct	0	1	1	0	0	0	1	1	1	1	2	1	1	1	1	1	2	1	1	2	A	1	1	1	1.0	1.9	
11-Oct	1	2	1	1	1	1	0	0	1	1	0	0	1	1	3	1	0	1	1	A	1	1	1	1	0.9	3.3	
12-Oct	1	1	1	1	1	1	1	1	1	1	0	0	0	0	1	0	1	1	A	A	0	0	0	1	0.6	1.2	
13-Oct	1	1	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	A	0	0	1	1	0	1	0.4	1.1	
14-Oct	0	0	0	1	1	1	0	1	0	1	0	0	0	0	0	0	A	0	0	0	1	1	1	1	0.6	1.4	
15-Oct	0	1	0	1	0	1	0	1	0	0	0	1	1	2	2	A	2	2	2	2	2	3	1	1	0	1.1	2.7
16-Oct	0	0	0	1	1	2	2	2	1	1	1	1	C	C	C	1	0	0	1	1	1	0	1	1	0.7	1.7	
17-Oct	1	0	1	A	1	0	1	0	0	0	0	0	0	2	2	2	2	1	2	3	1	1	1	0	0.9	2.6	
18-Oct	0	1	1	A	2	2	1	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0.6	2.4	
19-Oct	0	0	A	1	1	2	1	1	2	1	1	1	0	0	2	2	6	5	1	1	1	1	1	1	1.4	6.3	
20-Oct	1	A	1	1	0	1	1	0	1	1	1	1	2	2	0	0	1	1	1	1	1	0	0	1	0.7	1.7	
21-Oct	A	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	A	0.4	2.1	
22-Oct	2	2	1	1	1	0	0	1	1	6	2	2	1	1	1	2	1	1	0	0	0	0	A	0	1.2	5.8	
23-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	A	0	1	0.4	1.1	
24-Oct	0	0	0	0	0	1	1	0	0	0	M	M	M	M	C	C	A	0	0	0	0	0	0	0	--	0.6	
25-Oct	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	N	N	N	0.2	0.3	
26-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--	
27-Oct	N	N	N	N	N	N	N	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	--	0.6	
28-Oct	A	1	1	1	0	0	0	0	1	2	1	1	2	1	4	3	1	1	1	1	1	1	1	A	1.2	3.8	
29-Oct	1	1	2	2	2	2	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	1	A	1	1.0	2.5	
30-Oct	1	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.9	1.5	
31-Oct	1	1	0	1	0	0	0	0	0	0	1	0	1	1	1	1	1	1	1	1	1	A	0	0	0.6	0.9	
	0.7	0.7	0.6	0.7	0.8	0.8	0.6	0.8	0.7	0.9	0.9	0.8	0.8	0.9	1.2	1.2	1.0	0.8	0.7	0.7	0.7	0.7	0.8	0.6	Diurnal Average		
	1.9	1.9	1.9	1.9	3.3	2.4	1.7	7.2	2.3	5.8	3.9	2.4	2.3	3.3	7.8	10.3	6.3	4.6	2.3	2.6	2.7	1.7	2.6	1.4	Diurnal Maximum		

C - Calibration                      M - Maintenance                      N - Not Valid                      A - Automated Daily Zero Span

# Hourly Maximums for SO<sub>2</sub> at Portable-Spirit River October 2008



# Pollutant Rose for SO<sub>2</sub> at Portable-Spirit River October 2008



**Peace Airshed Zone Association**  
**Summary of Hourly Averages**

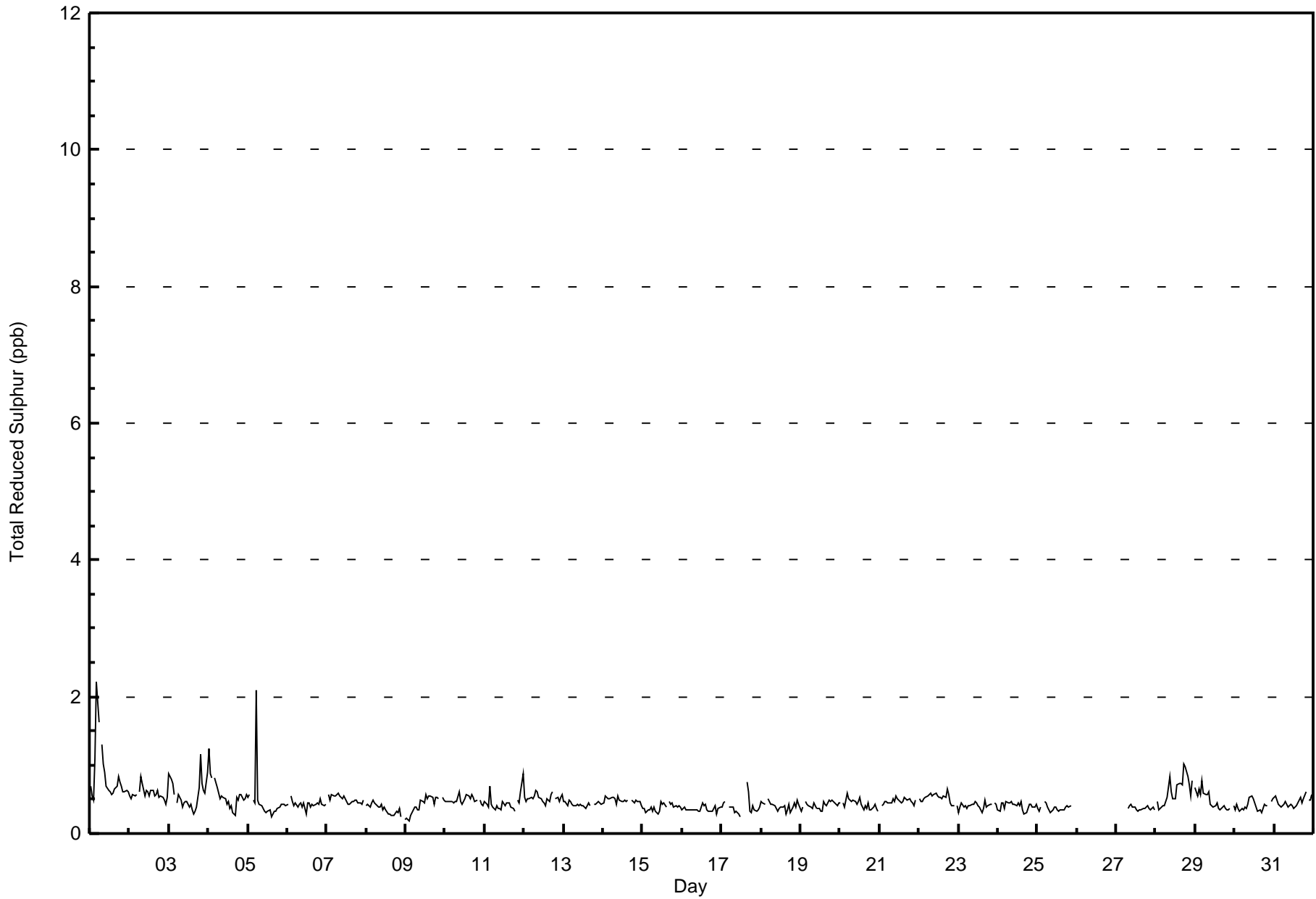
**Portable-Spirit River - Total Reduced Sulphur (TRS) - ppb**  
**October 1, 2008 to November 1, 2008**

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 2.2 ppb on Oct 1 05:00	Maximum Daily Average: 0.8 ppb on Oct 1
Minimum Value: 0 ppb on Oct 9 03:00	Hours of Data: 677
Maximum Diurnal Average: 0.6 ppb at hour 6	Hours of Missing Data: 67
Monthly Average: 0.47 ppb	Hours of Calibration: 33
Minimum Daily Average: 0.4 ppb on Oct 8	Percent Operational Time: 95.4
Minimum Diurnal Average: 0.4 ppb at hour 15	
Percentiles: P <sub>1</sub> = 0.3 P <sub>10</sub> = 0.3 Q <sub>1</sub> = 0.4 Median = 0.4 Q <sub>3</sub> = 0.5 P <sub>90</sub> = 0.6 P <sub>99</sub> = 1.1	

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	1	1	0	1	2	2	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	2.2
2-Oct	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	0.6	0.8
3-Oct	1	1	1	1	1	A	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0.6	1.2
4-Oct	1	1	1	1	A	1	1	1	1	1	1	0	0	0	0	0	0	1	0	1	1	0	1	1	0.6	1.2
5-Oct	1	1	A	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	2.1
6-Oct	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.4	0.5
7-Oct	A	1	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0.6
8-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.4	0.5
9-Oct	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	1	1	1	A	1	0	0.4	0.6
10-Oct	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	1	1	1	1	0	0	A	0	0	0.5	0.6
11-Oct	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	1	0.4	0.9
12-Oct	1	0	1	1	1	1	1	1	1	1	1	0	0	0	1	0	1	1	A	1	1	1	0	1	0.5	0.6
13-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.4	0.5
14-Oct	0	1	1	1	1	1	1	1	0	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.5	0.5
15-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.4	0.5
16-Oct	0	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
17-Oct	0	0	0	A	0	0	0	0	0	0	0	0	C	C	A	1	1	0	0	0	0	0	0	0	0.4	0.8
18-Oct	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5
19-Oct	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	0.5
20-Oct	0	A	0	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6
21-Oct	A	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	1	0	1	0	0	0	0	A	0.5	0.5
22-Oct	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0.5	0.7
23-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.4	0.5
24-Oct	0	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
25-Oct	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	N	N	0.4	0.5
26-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
27-Oct	N	N	N	N	N	N	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--	0.4
28-Oct	A	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.6	1.0
29-Oct	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0.8
30-Oct	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	A	0	0.4	0.5
31-Oct	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	A	0	0	1	0.5	0.6
	0.5	0.5	0.5	0.5	0.5	0.6	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.5	0.5	Diurnal Average	
	1.2	0.9	0.8	1.1	2.2	2.1	0.6	1.3	1.0	0.9	0.7	0.6	0.6	0.7	0.7	0.8	0.7	1.0	1.0	1.2	0.7	0.6	0.8	0.9	Diurnal Maximum	

C - Calibration                      N - Not Valid                      A - Automated Daily Zero Span  
 Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb    24-hr 3 ppb

# Hourly Averages for TRS at Portable-Spirit River October 2008



**Peace Airshed Zone Association  
Summary of Hourly Maximums**

**Portable-Spirit River - Total Reduced Sulphur (TRS) - ppb  
October 1, 2008 to November 1, 2008**

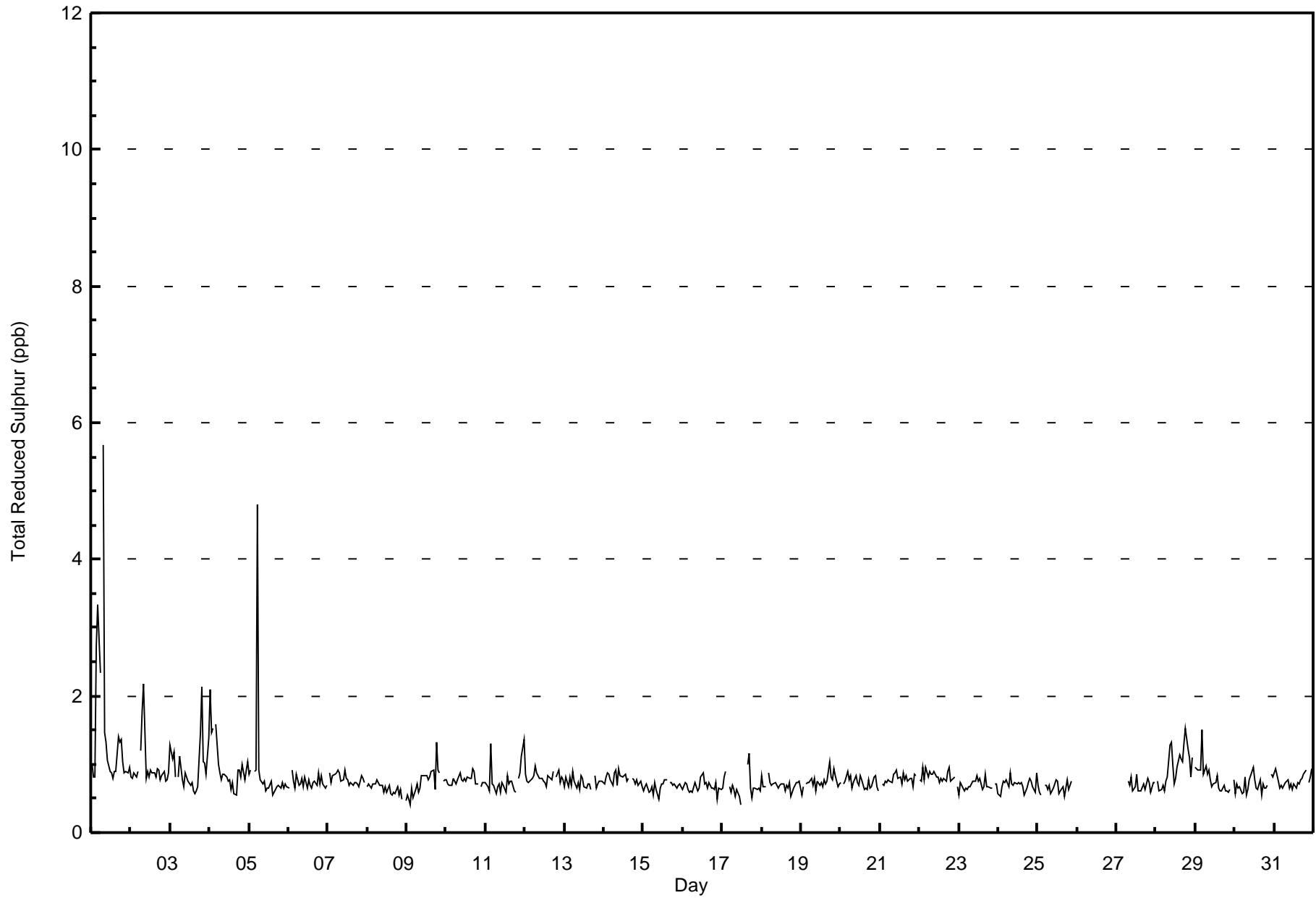
Maximum Value: 5.7 ppb on Oct 1 08:00	Maximum Daily Average: 1.5 ppb on Oct 1	Hours in Service: 744
Minimum Value: 0 ppb on Oct 9 03:00	Minimum Daily Average: 0.6 ppb on Oct 8	Hours of Data: 677
Maximum Diurnal Average: 0.9 ppb at hour 6	Minimum Diurnal Average: 0.7 ppb at hour 15	Hours of Missing Data: 67
Monthly Average: 0.79 ppb	Percentiles: P <sub>1</sub> = 0.5 P <sub>10</sub> = 0.6 Q <sub>1</sub> = 0.7 Median = 0.7 Q <sub>3</sub> = 0.8 P <sub>90</sub> = 0.9 P <sub>99</sub> = 2.1	Hours of Calibration: 33
		Percent Operational Time: 95.4

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-Oct	1	1	1	3	3	2	A	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.5	5.7
2-Oct	1	1	1	1	1	1	A	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	2.2
3-Oct	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1.0	2.1
4-Oct	2	1	2	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	2.1
5-Oct	1	1	A	1	1	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	4.8
6-Oct	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
7-Oct	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	0.9
8-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	A	0	0.6	0.8
9-Oct	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.7	1.3
10-Oct	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	0.9
11-Oct	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	1.4
12-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.8	1.0
13-Oct	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
14-Oct	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	0.9
15-Oct	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0.7	0.8
16-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0.7	0.9
17-Oct	1	1	1	A	1	1	1	1	1	1	1	0	C	C	A	1	1	1	1	1	1	1	1	1	0.7	1.2
18-Oct	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
19-Oct	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0
20-Oct	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
21-Oct	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	0.9
22-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.8	1.0
23-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.7	0.9
24-Oct	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
25-Oct	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	N	N	N	0.7	0.8
26-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
27-Oct	N	N	N	N	N	N	N	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	--	0.8
28-Oct	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1.0	1.5
29-Oct	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
30-Oct	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
31-Oct	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	0.9
	0.8	0.8	0.8	0.8	0.9	0.9	0.8	0.9	0.8	0.8	0.8	0.7	0.8	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.7	0.8	0.8	Diurnal Average	
	2.1	1.5	1.5	2.7	3.3	4.8	1.2	5.7	2.2	1.3	1.1	1.0	0.9	1.0	1.1	1.1	1.4	1.3	1.5	2.1	1.1	1.0	1.1	Diurnal Maximum		

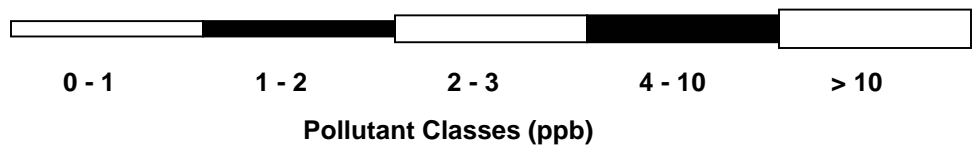
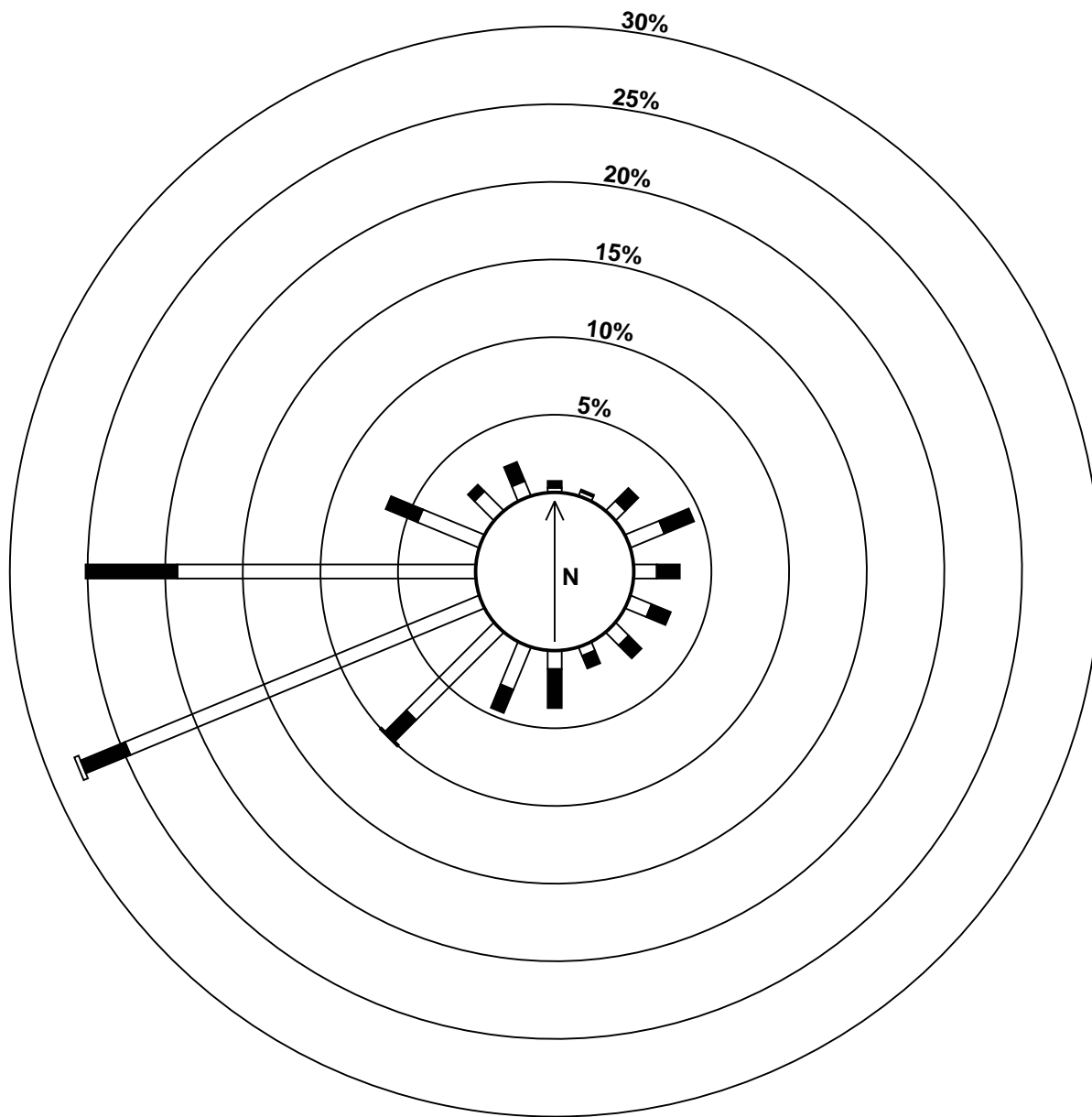
C - Calibration                      N - Not Valid                      A - Automated Daily Zero Span



# Hourly Maximums for TRS at Portable-Spirit River October 2008



# Pollutant Rose for TRS at Portable-Spirit River October 2008



**Peace Airshed Zone Association  
Summary of Hourly Averages**

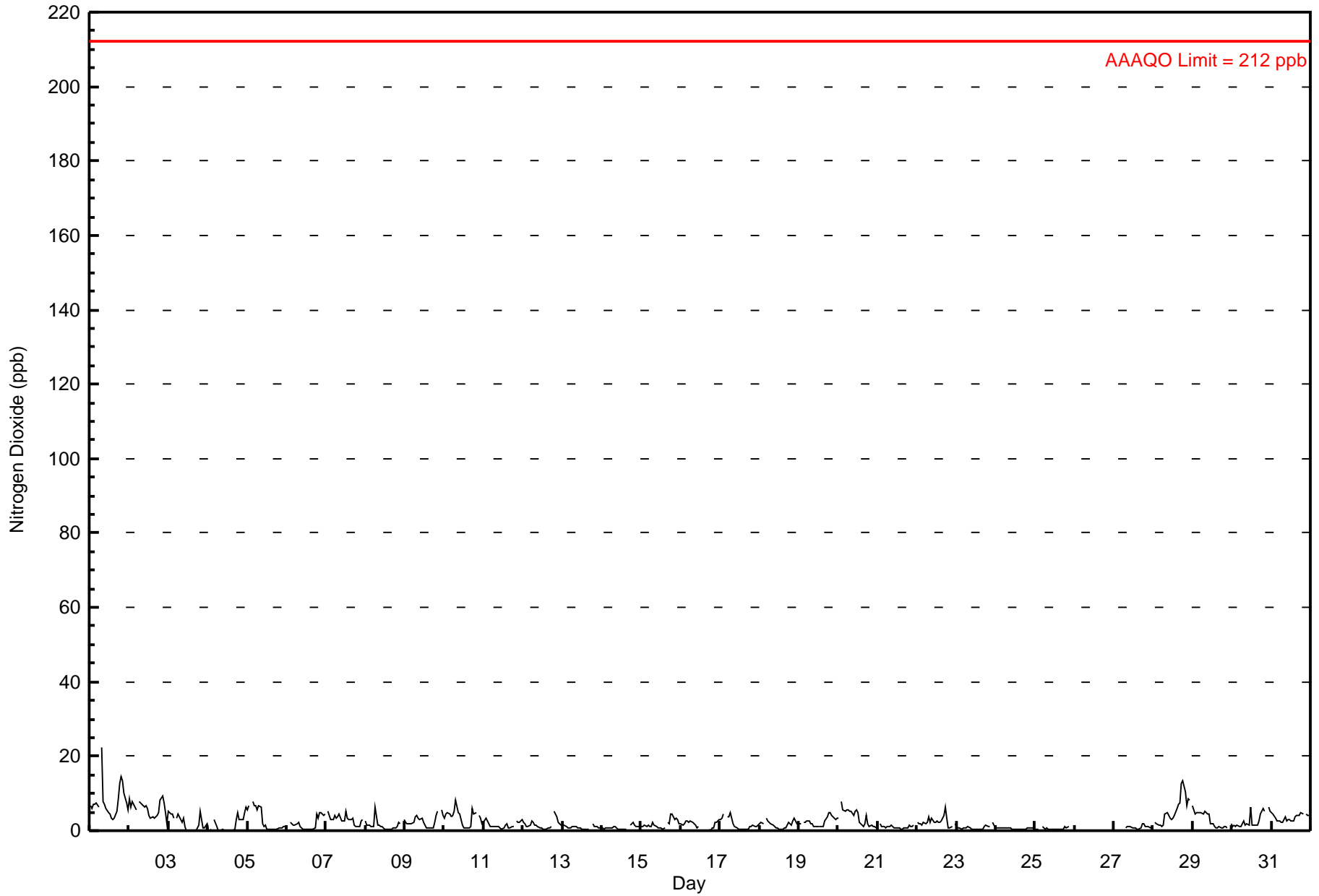
**Portable-Spirit River - Nitrogen Dioxide (NO<sub>2</sub>) - ppb  
October 1, 2008 to November 1, 2008**

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 22.2 ppb on Oct 1 08:00	Maximum Daily Average: 7.9 ppb on Oct 1
Minimum Value: 0 ppb on Oct 3 12:00	Hours of Data: 675
Minimum Daily Average: 0.5 ppb on Oct 25	Hours of Missing Data: 69
Maximum Diurnal Average: 3.4 ppb at hour 8	Hours of Calibration: 35
Monthly Average: 2.39 ppb	Percent Operational Time: 95.4
Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.4 Q <sub>1</sub> = 0.8 Median = 1.6 Q <sub>3</sub> = 3.4 P <sub>90</sub> = 5.3 P <sub>99</sub> = 10.0	

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-Oct	7	6	7	7	8	7	A	22	8	7	6	5	4	3	3	3	5	9	13	15	13	10	8	6	7.9	22.2																							
2-Oct	9	7	8	6	6	A	8	7	7	6	7	6	4	4	4	3	4	4	5	8	9	7	5	2	5.9	9.5																							
3-Oct	5	4	5	4	A	3	4	3	2	3	1	0	0	0	0	0	0	0	2	5	3	1	1	2	2.1	5.4																							
4-Oct	0	0	0	A	3	1	0	0	0	0	0	0	0	0	0	0	0	3	5	3	3	3	5	6	1.4	6.4																							
5-Oct	6	7	A	8	7	7	6	7	6	2	1	2	0	0	0	0	0	0	0	1	1	1	1	1	2.8	8.0																							
6-Oct	1	A	2	2	2	1	2	2	1	1	0	0	0	0	0	0	0	1	4	4	5	5	4	5	1.9	4.9																							
7-Oct	A	5	4	3	3	4	3	4	4	3	3	3	5	4	3	3	3	2	1	1	1	3	3	A	3.1	5.4																							
8-Oct	2	1	1	1	1	1	7	1	1	1	1	1	0	0	0	1	0	1	1	1	2	2	A	3	1.4	6.5																							
9-Oct	2	2	2	2	2	2	4	4	3	3	3	2	1	1	1	1	1	1	2	4	5	A	6	4	2.5	5.5																							
10-Oct	3	5	5	5	4	4	5	8	5	4	3	2	1	1	1	1	1	6	5	5	A	4	3	2	3.5	8.1																							
11-Oct	2	3	3	2	1	1	1	1	1	1	1	0	1	1	2	1	1	1	1	A	3	2	2	3	1.5	3.3																							
12-Oct	2	2	1	1	1	3	2	2	2	1	1	1	1	1	0	1	1	1	A	5	4	2	2	1	1.6	5.0																							
13-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	A	2	1	1	1	1	1	0.9	2.0																							
14-Oct	1	0	1	1	1	1	1	1	1	1	0	0	0	0	0	A	2	2	2	2	2	1	1	1	0.9	2.1																							
15-Oct	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	A	2	2	4	4	3	3	3	2	1.8	4.3																							
16-Oct	2	2	2	3	3	2	3	2	2	1	1	1	C	C	C	C	A	0	0	1	1	2	2	3	1.7	2.8																							
17-Oct	3	3	4	A	4	4	5	3	2	1	1	1	0	0	0	0	0	0	1	1	1	1	1	1	1.7	4.7																							
18-Oct	2	2	2	A	4	3	2	2	2	1	1	1	0	0	0	1	1	2	2	1	3	3	3	2	1.7	3.5																							
19-Oct	2	2	A	2	2	2	3	2	2	1	1	1	1	1	1	1	2	4	5	5	4	4	3	3	2.4	4.8																							
20-Oct	3	A	8	6	5	6	5	5	5	4	5	5	5	2	1	1	2	4	2	1	2	1	1	1	3.5	7.7																							
21-Oct	A	2	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	2	1	1	2	A	1.0	1.7																							
22-Oct	2	2	2	2	2	2	2	4	2	3	2	2	3	2	2	3	4	6	3	1	1	1	A	2	2.4	6.3																							
23-Oct	1	1	1	1	1	1	1	1	1	0	0	0	1	0	0	0	1	1	1	1	1	A	2	2	0.8	2.1																							
24-Oct	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	1	1	1	1	1	1	0	0.6	0.9																							
25-Oct	1	0	0	A	1	1	0	1	1	0	0	0	0	0	0	0	0	0	1	1	1	N	N	N	0.5	1.3																							
26-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--																							
27-Oct	N	N	N	N	N	N	N	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	--	1.9																							
28-Oct	A	2	2	2	1	1	2	5	5	4	3	3	4	4	6	7	7	13	13	11	7	9	8	A	5.4	13.2																							
29-Oct	7	5	5	5	5	5	4	5	5	4	5	2	2	1	1	1	1	1	1	1	1	1	A	2	3.0	6.7																							
30-Oct	1	1	1	1	1	1	2	3	2	2	2	6	1	1	2	2	3	5	5	6	5	A	6	5	2.8	6.3																							
31-Oct	5	5	4	3	3	3	2	2	4	3	3	3	3	3	4	4	4	4	5	5	A	5	4	4	3.5	4.9																							
																								2.8	2.7	2.7	2.7	2.6	2.4	2.8	3.4	2.6	2.1	1.9	1.7	1.4	1.2	1.2	1.3	1.7	2.6	3.1	3.3	3.0	2.9	3.0	2.5	Diurnal Average	
																								8.6	6.8	7.7	8.0	7.5	6.7	7.9	22.2	7.7	7.1	6.6	6.3	5.4	4.2	6.0	6.9	7.3	12.5	13.2	14.7	13.3	10.1	8.3	6.4	Diurnal Maximum	

C - Calibration      N - Not Valid      A - Automated Daily Zero Span  
 Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 212 ppb    24-hr 106 ppb

# Hourly Averages for NO<sub>2</sub> at Portable-Spirit River October 2008



**Peace Airshed Zone Association  
Summary of Hourly Maximums**

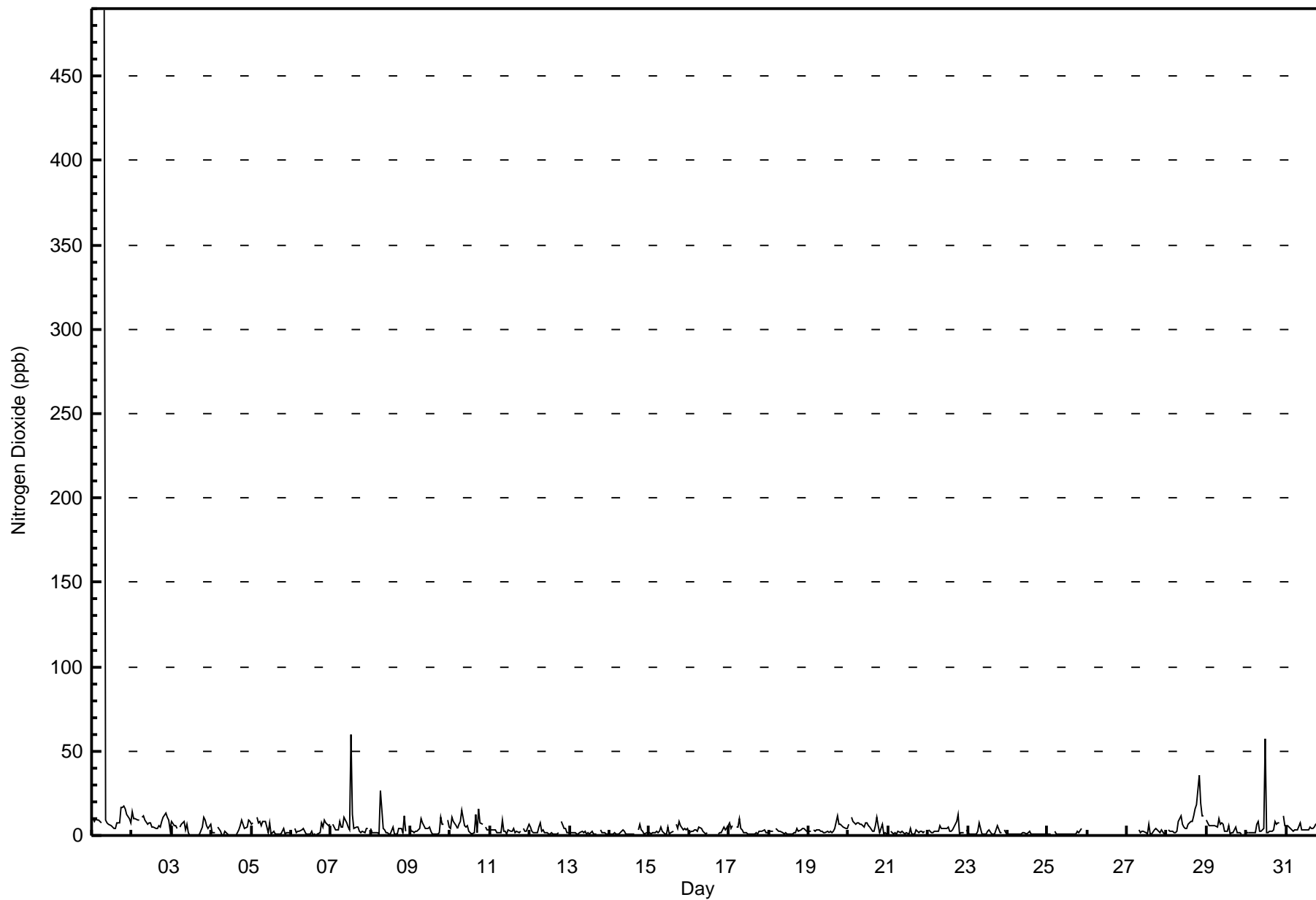
**Portable-Spirit River - Nitrogen Dioxide (NO<sub>2</sub>) - ppb  
October 1, 2008 to November 1, 2008**

Maximum Value: 489.1 ppb on Oct 1 08:00	Maximum Daily Average: 30.3 ppb on Oct 1	Hours in Service: 744
Minimum Value: 0 ppb on Oct 3 13:00	Minimum Daily Average: 1.0 ppb on Oct 24	Hours of Data: 675
Maximum Diurnal Average: 21.5 ppb at hour 8	Minimum Diurnal Average: 1.9 ppb at hour 15	Hours of Missing Data: 69
Monthly Average: 4.73 ppb	Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.8 Q <sub>1</sub> = 1.4 Median = 2.8 Q <sub>3</sub> = 5.4 P <sub>90</sub> = 8.5 P <sub>99</sub> = 18.4	Hours of Calibration: 35
		Percent Operational Time: 95.4

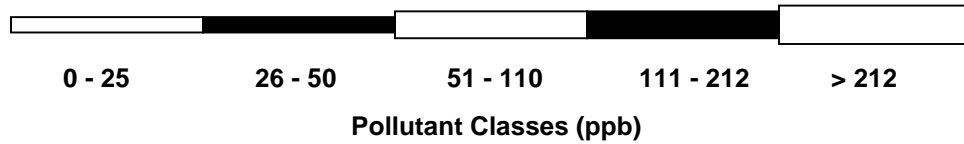
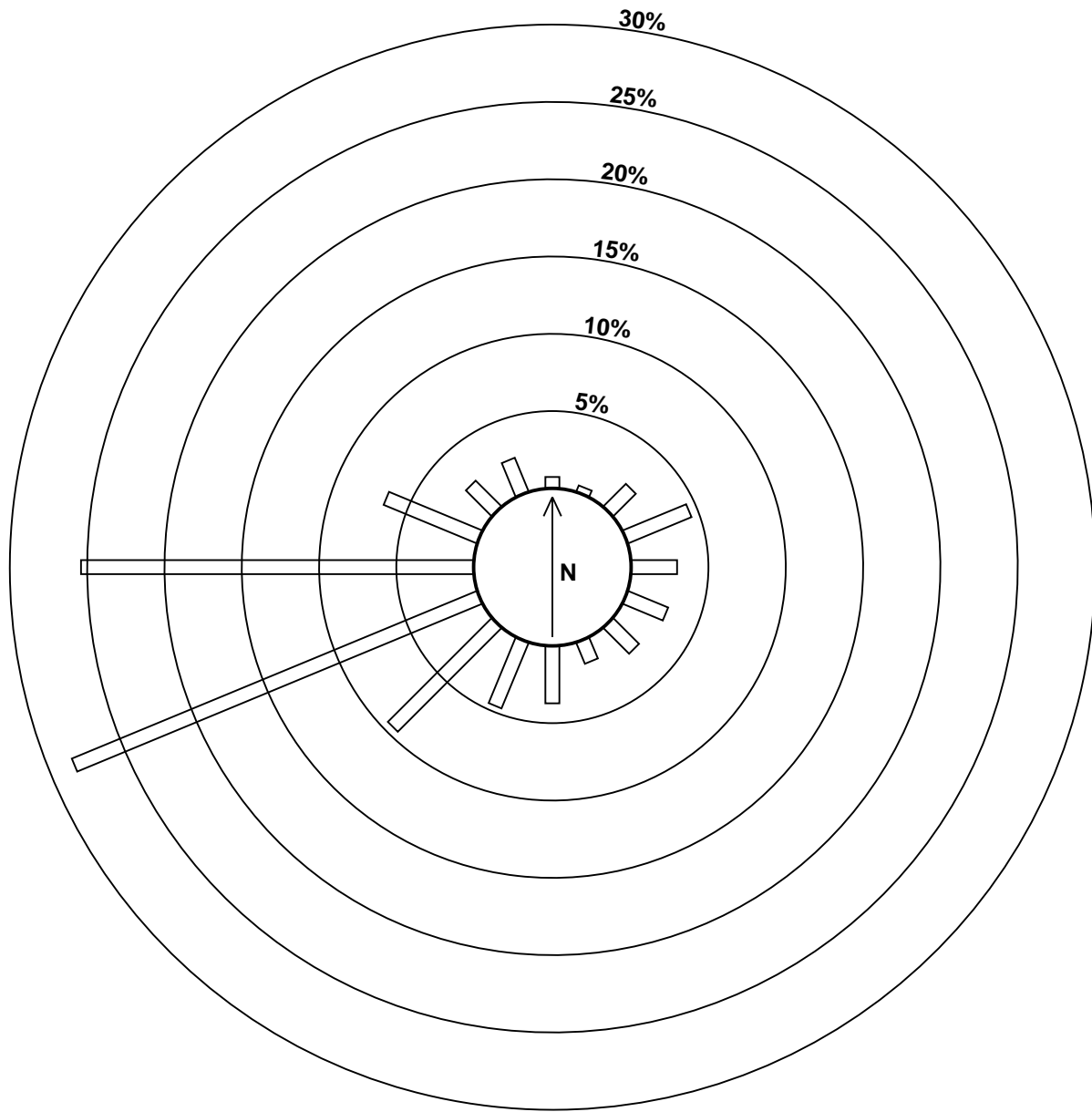
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Oct	10	8	10	9	9	7	A	489	9	8	6	6	5	4	4	7	7	16	16	17	16	13	10	7	30.3	489.1	
2-Oct	14	10	10	9	9	A	10	12	9	7	7	8	5	5	4	4	6	5	8	11	13	10	9	4	8.3	13.7	
3-Oct	9	6	6	4	A	5	7	8	3	6	2	0	0	0	0	0	0	1	5	11	9	6	4	6	4.3	10.7	
4-Oct	2	2	1	A	5	2	0	0	2	2	0	0	0	0	0	0	3	6	10	6	4	5	9	8	3.0	9.5	
5-Oct	7	8	A	11	8	8	6	8	8	5	1	7	1	3	1	1	1	1	1	4	1	1	2	1	4.1	10.7	
6-Oct	1	A	4	2	2	2	3	4	2	1	1	1	2	0	1	0	1	2	8	5	9	7	6	6	3.1	8.8	
7-Oct	A	7	5	3	3	8	5	5	11	7	5	3	59	12	4	5	5	2	2	2	2	4	4	A	7.5	59.5	
8-Oct	4	2	2	2	1	1	27	4	4	2	2	1	1	5	1	1	1	4	4	2	12	2	A	5	3.8	26.7	
9-Oct	3	2	2	3	2	4	10	8	5	4	4	5	2	1	1	1	1	1	11	6	7	A	10	5	4.3	11.2	
10-Oct	4	11	8	5	4	7	8	15	6	5	6	2	2	1	2	13	2	16	8	7	A	5	4	3	6.3	16.1	
11-Oct	3	4	3	3	2	2	2	9	3	2	1	3	3	2	4	1	2	2	3	A	4	3	3	6	3.0	9.0	
12-Oct	5	3	1	1	2	5	7	2	3	2	1	1	1	1	1	1	1	1	A	8	5	4	2	2	2.7	8.4	
13-Oct	2	2	2	1	1	1	1	3	1	2	1	1	1	3	1	1	1	A	4	1	2	2	1	1	1.5	3.7	
14-Oct	1	1	1	1	1	1	1	2	4	2	1	1	0	0	1	1	A	3	6	4	2	1	1	2	1.7	6.3	
15-Oct	2	1	2	1	2	1	2	5	2	1	1	5	1	2	3	A	7	4	9	6	4	4	4	4	3.1	8.7	
16-Oct	2	2	3	3	3	2	5	4	3	2	1	1	C	C	C	C	A	1	2	2	3	5	3	6	2.8	5.7	
17-Oct	8	4	6	A	5	5	10	4	3	2	1	1	1	1	1	1	1	1	3	3	2	4	2	2	3.0	9.6	
18-Oct	3	2	2	A	5	4	3	2	2	1	2	1	1	1	1	1	1	4	3	3	4	4	3	2	2.4	4.5	
19-Oct	2	2	A	3	2	3	3	2	2	2	1	2	1	2	1	3	4	11	6	7	6	5	4	4	3.5	11.3	
20-Oct	7	A	11	8	7	7	7	7	7	5	7	7	6	5	2	3	6	10	6	2	7	1	1	1	5.7	11.2	
21-Oct	A	3	1	1	1	1	2	1	3	2	1	2	1	4	1	1	1	3	2	2	2	2	2	A	1.8	4.2	
22-Oct	3	2	2	2	3	2	3	6	4	4	4	4	5	3	3	4	6	8	13	1	2	1	A	3	3.9	12.8	
23-Oct	1	1	1	1	1	1	2	8	1	1	1	1	3	3	1	1	1	3	6	1	1	A	3	2	1.9	7.6	
24-Oct	1	1	1	1	1	1	1	1	1	2	2	1	1	2	1	1	1	1	1	1	1	1	1	1	1.0	2.3	
25-Oct	1	1	0	A	2	1	1	1	1	1	0	1	1	1	1	1	1	1	3	2	4	N	N	N	1.2	4.5	
26-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--	
27-Oct	N	N	N	N	N	N	N	3	2	2	2	2	1	1	7	1	1	3	4	3	2	2	3	1	1	--	6.9
28-Oct	A	4	3	2	2	1	2	8	12	7	5	4	4	6	9	8	12	16	18	36	19	12	12	A	9.1	35.8	
29-Oct	9	6	5	6	6	6	5	10	7	7	7	2	2	6	1	1	2	5	2	2	2	1	A	3	4.4	10.2	
30-Oct	1	2	1	2	2	2	6	9	2	2	4	57	2	2	3	2	4	9	7	7	7	A	11	6	6.5	57.5	
31-Oct	6	6	4	3	3	3	3	3	7	3	4	3	3	3	5	4	4	5	7	7	A	5	5	5	4.4	7.3	
	4.3	3.7	3.7	3.6	3.4	3.4	5.1	21.5	4.3	3.3	2.7	4.4	4.0	3.0	1.9	2.4	3.0	5.1	6.0	5.8	5.4	4.3	4.5	3.7		Diurnal Average	
	13.7	10.8	11.2	10.7	9.2	8.5	26.7	489.1	11.9	7.8	7.4	57.5	59.5	12.2	8.6	12.7	11.5	16.5	18.5	35.8	19.0	12.5	11.5	8.2		Diurnal Maximum	

C - Calibration                      N - Not Valid                      A - Automated Daily Zero Span

# Hourly Maximums for NO<sub>2</sub> at Portable-Spirit River October 2008



# Pollutant Rose for NO<sub>2</sub> at Portable-Spirit River October 2008



**Peace Airshed Zone Association  
Summary of Hourly Averages**

**Portable-Spirit River - Nitrogen Oxide (NO) - ppb  
October 1, 2008 to November 1, 2008**

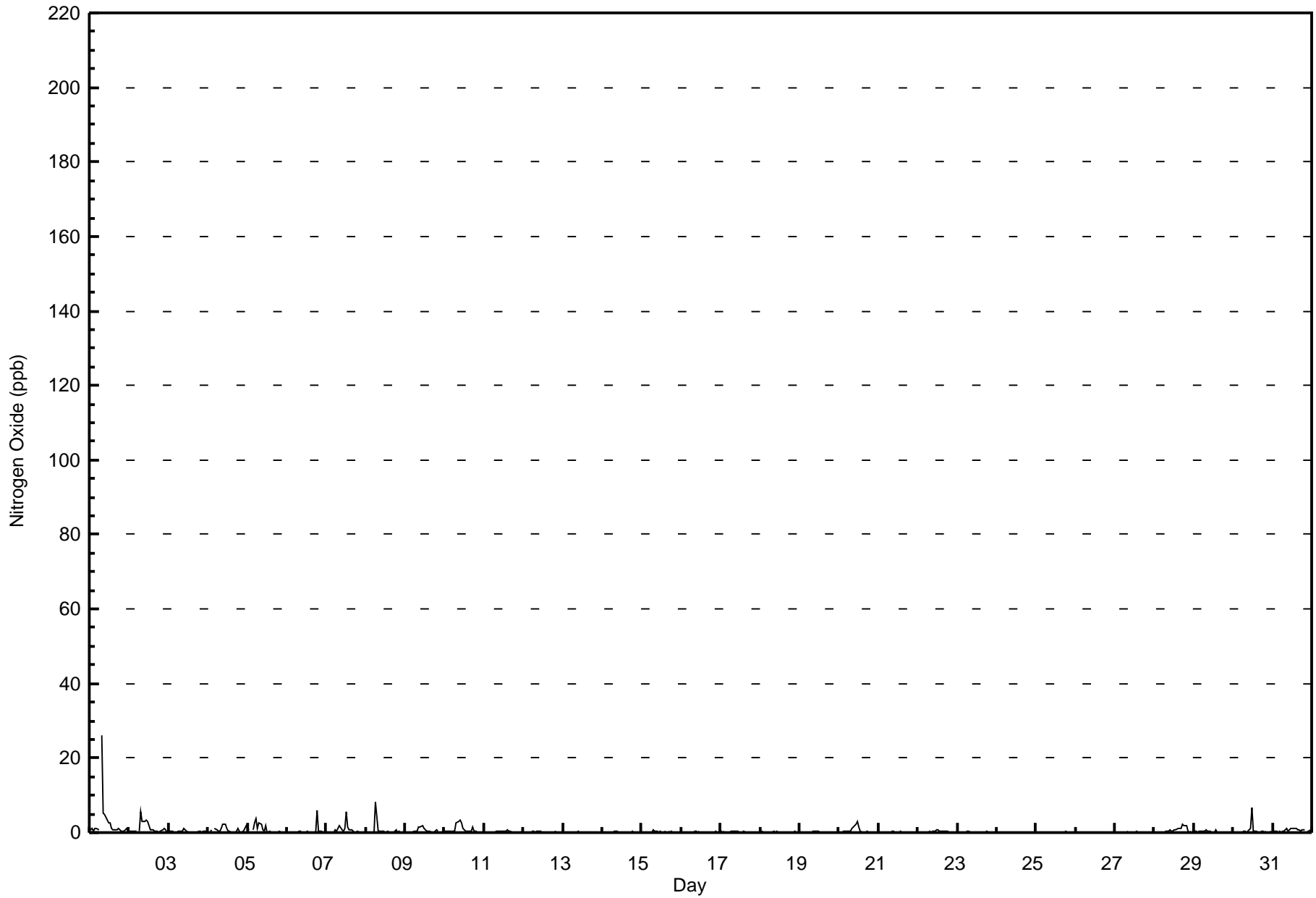
Maximum Value: 26.1 ppb on Oct 1 08:00	Maximum Daily Average: 2.5 ppb on Oct 1	Hours in Service: 744
Minimum Value: 0 ppb on Oct 3 00:00	Minimum Daily Average: 0.1 ppb on Oct 24	Hours of Data: 675
Maximum Diurnal Average: 1.5 ppb at hour 8	Minimum Diurnal Average: 0.2 ppb at hour 3	Hours of Missing Data: 69
Monthly Average: 0.44 ppb	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> = 5.1	Hours of Calibration: 35
		Percent Operational Time: 95.4

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-Oct	1	1	0	1	1	1	A	26	5	5	4	3	2	1	1	1	1	1	1	0	0	0	1	0	2.5	26.1
2-Oct	0	0	0	0	0	A	0	6	3	3	3	2	1	1	0	1	0	0	0	0	1	1	1	0	1.2	5.8
3-Oct	0	0	0	0	A	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.1
4-Oct	0	0	1	A	1	1	0	0	1	2	2	1	1	0	0	0	0	0	1	0	0	0	1	2	0.7	2.2
5-Oct	1	1	A	1	2	4	1	2	2	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0.8	3.8
6-Oct	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0.4	6.0
7-Oct	A	0	0	0	0	1	0	1	2	1	1	1	5	1	1	1	0	0	0	0	0	0	0	A	0.8	5.5
8-Oct	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	A	0	0.5	8.4
9-Oct	0	0	0	0	0	0	1	1	1	1	2	1	1	0	0	0	0	0	1	0	0	A	0	0	0.5	1.8
10-Oct	0	0	0	0	0	0	0	3	3	3	3	1	1	0	0	1	0	1	0	0	A	0	0	0	0.8	3.4
11-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	A	0	0	0	0	0.2	0.7
12-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.2	0.4
13-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.1	0.2
14-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.1	0.3
15-Oct	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	A	0	0	0	0	0	0	0	0	0.2	0.7
16-Oct	0	0	0	0	0	0	0	0	0	0	0	0	C	C	C	C	A	0	0	0	0	0	0	0	0.1	0.3
17-Oct	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
18-Oct	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
19-Oct	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	0.2
20-Oct	0	A	0	0	0	0	0	0	1	2	2	3	1	0	0	0	0	0	0	0	0	0	0	0	0.5	3.0
21-Oct	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.1	0.3
22-Oct	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	A	0	0.3	0.7
23-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.4
24-Oct	0	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
25-Oct	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	N	N	N	0.1	0.3
26-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
27-Oct	N	N	N	N	N	N	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--	0.2
28-Oct	A	0	0	0	0	0	0	0	0	1	0	0	1	1	1	1	1	2	2	2	0	0	0	A	0.7	2.2
29-Oct	0	0	0	0	0	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.2	0.8
30-Oct	0	0	0	0	0	0	0	0	0	0	1	7	0	0	0	0	0	0	0	0	0	A	0	0	0.5	6.8
31-Oct	0	0	0	0	0	0	0	0	1	0	1	1	1	1	1	1	1	0	1	1	A	0	1	1	0.6	1.1
	0.2	0.2	0.2	0.2	0.3	0.3	0.5	1.5	0.8	0.8	0.8	0.9	0.6	0.4	0.3	0.2	0.2	0.3	0.5	0.3	0.2	0.2	0.3	0.2	Diurnal Average	
	1.0	1.1	0.6	1.3	2.5	3.8	8.4	26.1	5.2	4.8	4.3	6.8	5.5	1.4	1.3	1.3	1.2	2.2	6.0	1.8	0.6	1.0	1.3	1.9	Diurnal Maximum	

C - Calibration                      N - Not Valid                      A - Automated Daily Zero Span



# Hourly Averages for NO at Portable-Spirit River October 2008



**Peace Airshed Zone Association  
Summary of Hourly Maximums**

**Portable-Spirit River - Nitrogen Oxide (NO) - ppb  
October 1, 2008 to November 1, 2008**

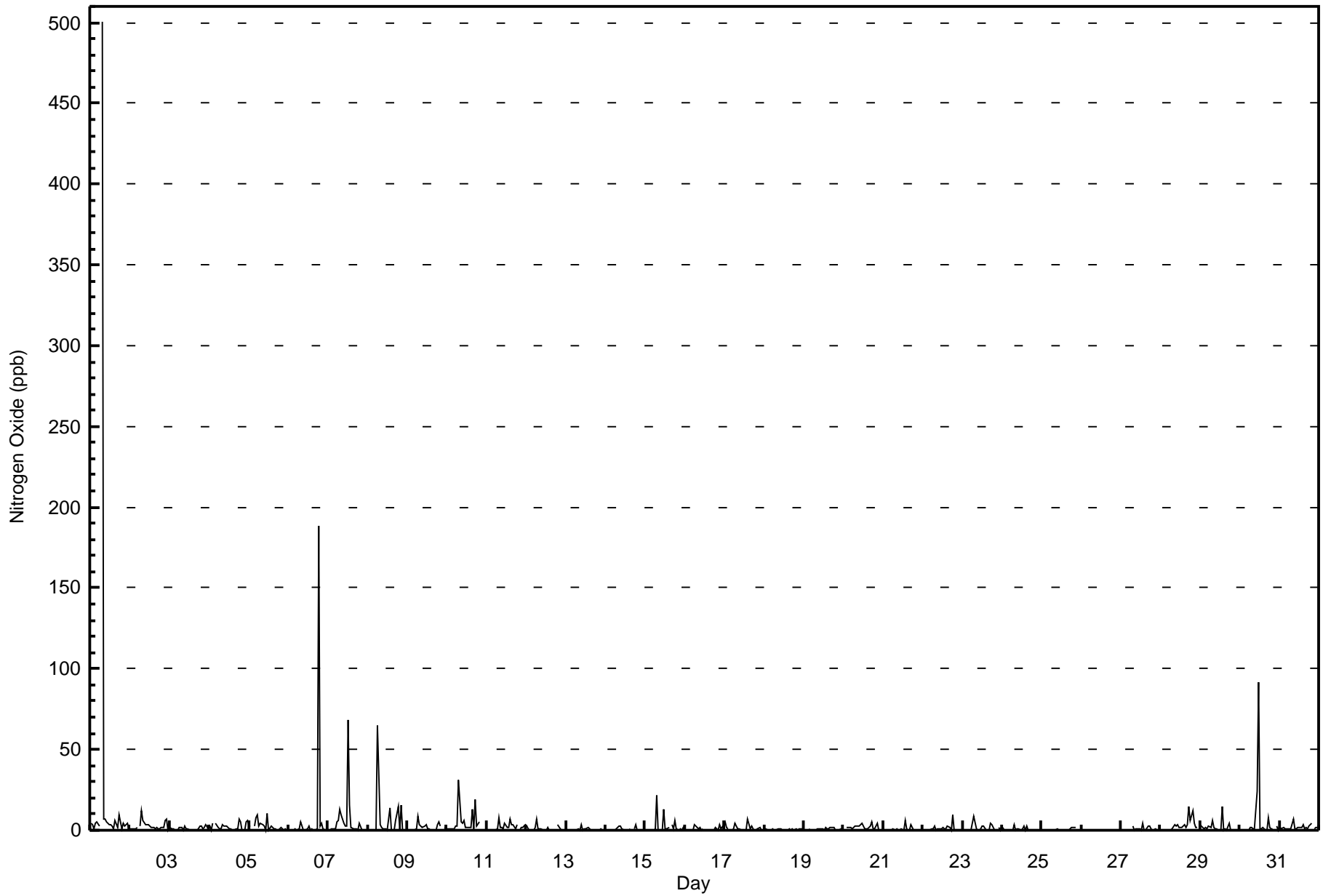
Maximum Value: 500.3 ppb on Oct 1 08:00	Maximum Daily Average: 25.5 ppb on Oct 1	Hours in Service: 744
Minimum Value: 0 ppb on Oct 3 17:00	Minimum Daily Average: 0.5 ppb on Oct 25	Hours of Data: 675
Maximum Diurnal Average: 21.4 ppb at hour 8	Minimum Diurnal Average: 0.6 ppb at hour 3	Hours of Missing Data: 69
Monthly Average: 3.10 ppb	Percentiles: P <sub>1</sub> = 0.1 P <sub>10</sub> = 0.2 Q <sub>1</sub> = 0.3 Median = 0.7 Q <sub>3</sub> = 2.2 P <sub>90</sub> = 4.4 P <sub>99</sub> = 22.0	Hours of Calibration: 35
		Percent Operational Time: 95.4

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-Oct	4	3	1	4	6	3	A	500	7	7	5	4	3	3	1	6	2	9	5	1	4	3	5	1	25.5	500.3
2-Oct	1	1	1	1	2	A	2	12	6	4	4	4	3	1	1	1	2	1	1	2	2	6	7	0	2.8	11.8
3-Oct	1	1	1	0	A	0	2	2	0	2	1	0	0	0	0	0	0	0	3	2	1	1	4	1	1.0	3.6
4-Oct	2	0	4	A	4	2	1	1	4	3	3	2	1	1	0	0	0	1	7	5	0	0	5	6	2.3	7.1
5-Oct	2	2	A	3	8	10	2	4	3	2	0	10	0	2	2	1	1	0	0	2	1	0	1	0	2.5	10.2
6-Oct	0	A	0	0	1	0	1	5	3	0	0	1	3	0	1	0	0	0	188	3	5	1	0	0	9.4	188.2
7-Oct	A	0	1	1	1	5	6	13	10	4	2	2	69	15	2	1	1	0	0	4	0	0	0	A	6.3	68.6
8-Oct	0	0	0	0	0	0	65	4	2	1	1	0	0	13	0	0	0	6	14	0	15	0	A	0	5.4	65.0
9-Oct	0	0	0	0	0	1	9	3	3	2	3	3	1	1	0	0	0	0	4	5	2	A	2	0	1.8	8.6
10-Oct	1	0	0	1	1	2	3	31	5	4	6	2	2	2	2	13	0	19	3	5	A	0	0	0	4.4	31.1
11-Oct	0	0	0	0	0	0	1	8	2	2	1	4	2	2	7	3	3	1	3	A	0	1	1	4	2.0	8.0
12-Oct	3	0	0	0	0	2	7	0	1	1	0	0	0	2	0	0	0	0	A	3	1	0	0	0	1.0	6.5
13-Oct	0	0	0	0	0	0	0	1	0	3	0	1	1	2	1	0	0	A	0	0	0	1	0	0	0.6	3.4
14-Oct	0	0	0	0	0	0	1	2	3	2	0	0	0	0	0	1	A	1	3	0	0	0	0	0	0.8	3.3
15-Oct	0	0	0	0	0	0	1	22	0	0	0	13	1	1	2	A	4	0	6	1	0	1	0	1	2.4	21.7
16-Oct	0	0	0	0	0	0	3	2	0	2	0	1	C	C	C	C	A	0	2	0	0	3	1	4	1.1	3.6
17-Oct	6	1	1	A	0	1	4	3	1	1	0	0	0	0	7	1	2	1	0	0	1	2	0	0	1.5	7.1
18-Oct	0	1	0	A	0	1	0	0	1	0	1	0	0	0	0	1	0	0	0	1	0	1	1	1	0.5	1.2
19-Oct	0	0	A	1	0	0	0	0	1	1	1	1	0	1	1	1	2	2	2	0	0	0	1	0	0.7	2.0
20-Oct	0	A	2	1	2	1	2	2	3	3	3	4	2	1	1	1	3	5	1	1	4	0	0	0	1.9	5.0
21-Oct	A	0	0	0	0	0	1	0	1	0	0	0	0	6	1	0	0	3	0	0	0	0	0	A	0.7	6.1
22-Oct	0	0	0	0	0	0	0	2	0	1	1	1	2	1	1	2	1	0	10	0	0	0	A	0	1.1	9.6
23-Oct	0	0	0	0	0	0	4	9	1	0	0	1	2	3	0	0	0	4	4	0	0	A	1	0	1.4	9.1
24-Oct	2	0	0	0	0	0	0	3	0	1	1	0	1	2	0	3	0	0	0	0	0	0	0	0	0.7	3.2
25-Oct	0	0	0	A	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	2	1	1	N	N	0.5	1.6
26-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
27-Oct	N	N	N	N	N	N	N	2	0	1	1	1	0	4	0	0	2	2	0	0	0	1	0	0	--	4.4
28-Oct	A	0	0	0	0	0	0	1	3	2	4	2	1	1	3	2	3	15	6	12	4	2	2	A	3.0	15.0
29-Oct	4	2	1	2	0	3	2	6	2	0	1	0	0	15	0	1	0	4	0	0	0	0	A	0	1.9	15.1
30-Oct	0	0	0	0	0	0	2	2	0	0	24	92	1	1	1	0	0	8	2	1	1	A	3	0	6.1	91.7
31-Oct	3	1	2	1	1	1	1	1	7	1	1	1	2	2	4	1	2	1	3	5	A	1	2	2	1.8	7.3
	1.2	0.6	0.6	0.7	1.1	1.3	4.3	21.4	2.4	1.7	2.2	5.1	3.4	2.9	1.3	1.5	1.1	3.0	9.2	1.9	1.6	1.0	1.4	0.9	Diurnal Average	
	5.5	3.4	4.2	4.4	8.1	9.5	65.0	500.3	9.6	6.5	23.8	91.7	68.6	15.2	7.1	12.6	3.6	18.6	188.2	12.0	15.4	6.4	7.2	6.3	Diurnal Maximum	

C - Calibration                      N - Not Valid                      A - Automated Daily Zero Span

# Hourly Maximums for NO at Portable-Spirit River

## October 2008



**Peace Airshed Zone Association  
Summary of Hourly Averages**

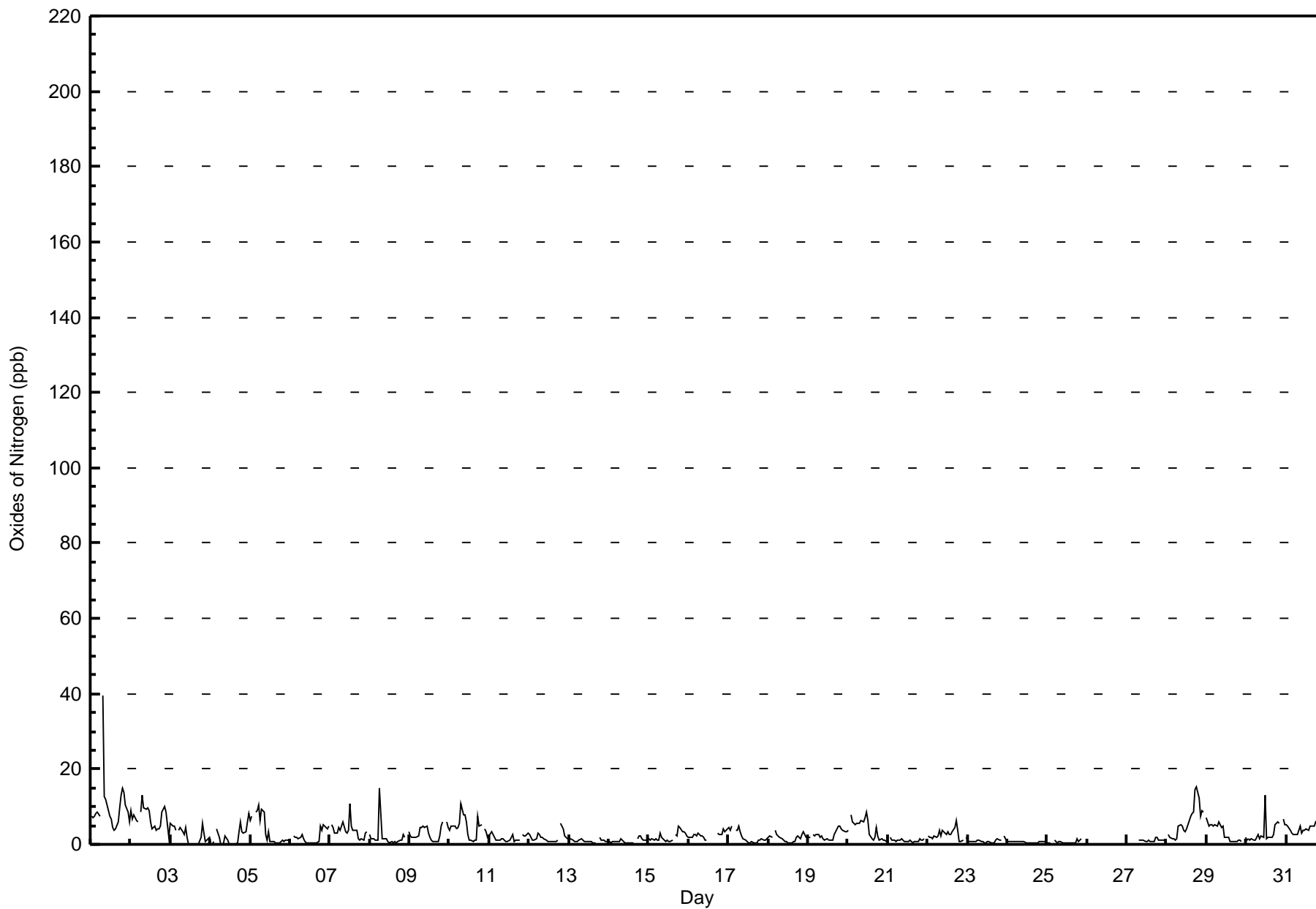
**Portable-Spirit River - Oxides of Nitrogen (NO<sub>x</sub>) - ppb  
October 1, 2008 to November 1, 2008**

Maximum Value: 39.5 ppb on Oct 1 08:00	Maximum Daily Average: 10.0 ppb on Oct 1	Hours in Service: 744
Minimum Value: 0 ppb on Oct 3 12:00	Minimum Daily Average: 0.6 ppb on Oct 25	Hours of Data: 675
Maximum Diurnal Average: 4.6 ppb at hour 8	Minimum Diurnal Average: 1.5 ppb at hour 16	Hours of Missing Data: 69
Monthly Average: 2.79 ppb	Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.5 Q <sub>1</sub> = 0.9 Median = 1.7 Q <sub>3</sub> = 3.9 P <sub>90</sub> = 6.0 P <sub>99</sub> = 13.1	Hours of Calibration: 35
		Percent Operational Time: 95.4

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-Oct	7	7	8	8	9	7	A	39	13	12	10	7	7	4	4	4	6	10	13	15	14	11	9	6	10.0	39.5
2-Oct	9	7	8	6	6	A	8	13	10	9	10	9	6	4	5	4	4	4	5	9	10	8	5	2	7.0	13.2
3-Oct	6	5	5	4	A	4	5	3	3	4	2	0	0	0	0	0	0	0	2	6	3	1	1	2	2.3	5.7
4-Oct	0	0	1	A	4	2	0	0	1	2	1	0	0	0	0	0	0	3	6	3	3	3	6	8	1.9	8.3
5-Oct	7	8	A	9	9	11	7	9	8	3	1	3	1	1	1	1	1	0	0	1	1	1	1	1	3.6	10.6
6-Oct	1	A	2	2	2	1	2	3	2	1	1	0	0	0	0	0	1	5	4	5	5	4	5	2.0	5.3	
7-Oct	A	5	4	3	3	5	4	5	6	3	3	4	11	5	4	4	4	2	1	1	1	3	3	A	3.8	10.9
8-Oct	2	1	1	1	1	1	15	2	2	1	1	1	1	1	0	1	0	1	1	1	3	2	A	3	1.9	14.9
9-Oct	2	2	2	2	2	2	4	5	5	4	5	3	2	1	1	1	1	1	2	5	6	A	6	4	2.9	5.8
10-Oct	4	5	5	5	4	4	6	11	8	8	6	3	1	1	1	1	1	7	5	5	A	4	3	2	4.3	10.7
11-Oct	2	3	3	2	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	A	3	2	2	3	1.7	3.4
12-Oct	3	2	1	1	1	3	2	2	2	1	1	1	1	1	1	1	1	1	A	5	4	2	2	1	1.7	5.4
13-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	A	2	1	1	1	1	1	1	0.9	2.0
14-Oct	1	0	1	1	1	1	1	1	1	1	0	0	0	0	0	A	2	2	2	2	2	1	1	1	0.9	2.2
15-Oct	1	1	2	1	2	1	1	3	2	1	1	1	1	1	1	A	3	2	5	5	3	3	3	2	2.0	4.8
16-Oct	2	2	2	3	3	2	3	2	2	2	1	1	C	C	C	C	A	3	3	3	3	4	4	4	2.5	4.2
17-Oct	4	4	5	A	4	4	5	3	2	1	1	1	1	0	1	0	0	0	1	1	1	1	1	1	1.9	5.0
18-Oct	2	2	2	A	4	3	2	2	2	1	1	1	1	0	0	1	1	2	2	2	3	3	3	2	1.7	3.7
19-Oct	2	2	A	2	2	2	3	2	2	1	1	1	1	1	1	3	4	5	5	5	4	4	3	3	2.4	4.9
20-Oct	4	A	8	6	5	6	6	6	6	6	7	8	6	3	1	1	2	5	2	1	2	1	1	1	4.1	8.4
21-Oct	A	2	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	2	1	1	2	A	1.0	1.7
22-Oct	2	2	2	1	2	2	2	4	2	4	3	3	3	3	2	3	4	6	4	1	1	1	A	2	2.6	6.5
23-Oct	1	1	1	1	1	1	1	1	1	1	0	0	1	1	0	0	1	1	2	1	1	A	2	2	0.9	2.1
24-Oct	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	1	0	1	1	1	1	1	0.7	0.9
25-Oct	1	0	0	A	1	1	1	1	1	0	0	0	0	0	1	0	0	0	1	1	1	N	N	N	0.6	1.4
26-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
27-Oct	N	N	N	N	N	N	N	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	--	2.0
28-Oct	A	2	2	2	1	1	2	5	5	5	4	3	4	5	7	8	8	15	15	12	7	9	9	A	6.0	15.1
29-Oct	7	5	5	5	5	5	5	6	5	5	5	2	2	2	1	1	1	1	1	1	1	1	A	2	3.1	7.0
30-Oct	1	1	1	1	1	1	2	3	2	2	2	13	2	2	2	2	3	5	6	6	5	A	7	5	3.2	12.9
31-Oct	5	5	4	3	3	3	3	3	5	3	4	4	4	4	5	5	5	5	6	5	A	5	5	5	4.1	5.8
	3.0	2.8	2.8	2.9	2.8	2.7	3.3	4.6	3.4	2.9	2.5	2.5	2.0	1.5	1.5	1.5	1.8	2.9	3.5	3.6	3.3	3.1	3.3	2.7	Diurnal Average	
	8.8	7.6	8.0	8.6	9.1	10.6	14.9	39.5	12.9	11.9	10.3	12.9	10.9	5.1	7.3	8.2	8.4	14.6	15.1	15.0	13.6	10.5	8.7	8.3	Diurnal Maximum	

C - Calibration                      N - Not Valid                      A - Automated Daily Zero Span

# Hourly Averages for NO<sub>x</sub> at Portable-Spirit River October 2008



**Peace Airshed Zone Association  
Summary of Hourly Maximums**

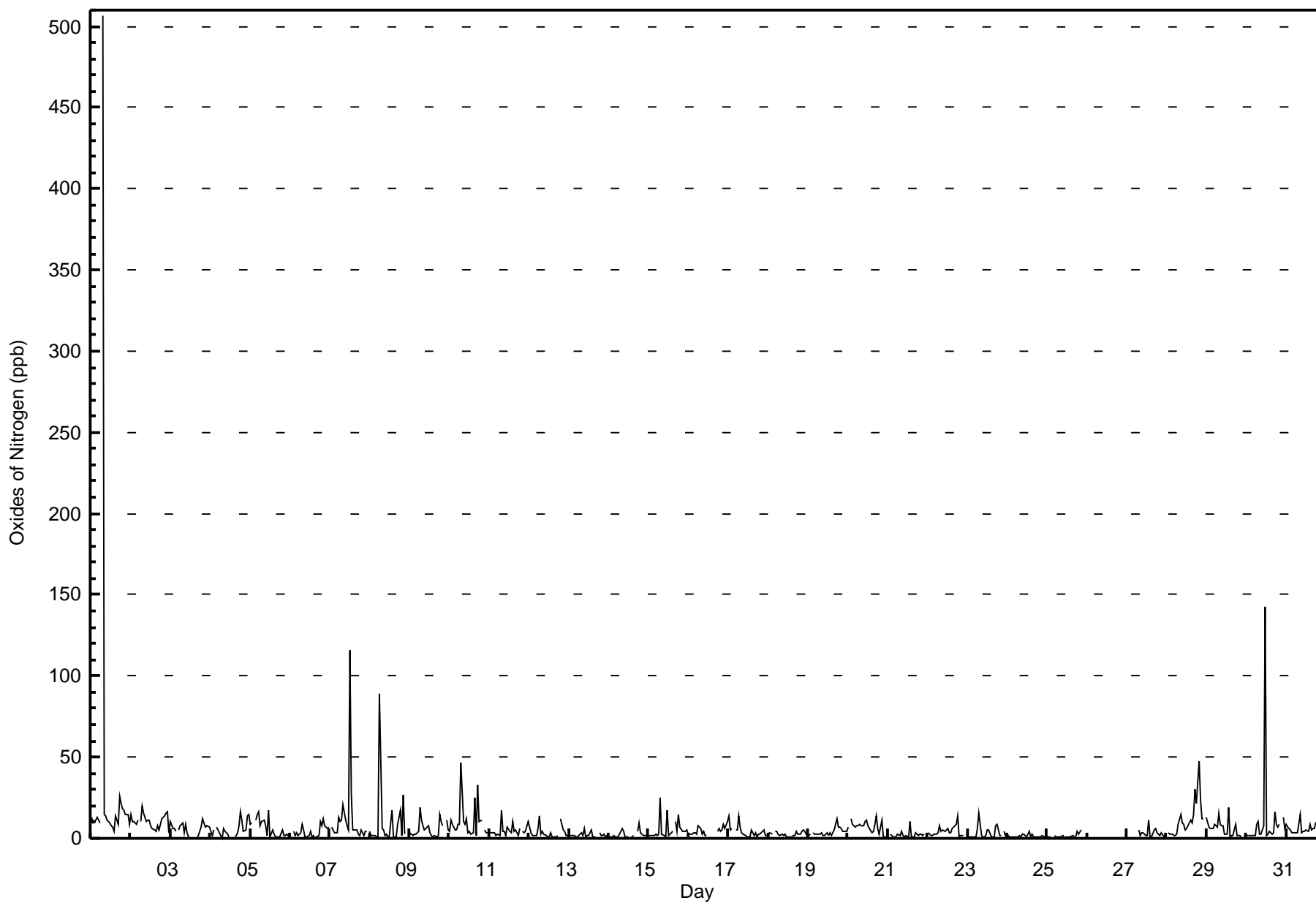
**Portable-Spirit River - Oxides of Nitrogen (NO<sub>x</sub>) - ppb  
October 1, 2008 to November 1, 2008**

Maximum Value: 506.7 ppb on Oct 1 08:00	Maximum Daily Average: 34.1 ppb on Oct 1	Hours in Service: 744
Minimum Value: 0 ppb on Oct 3 13:00	Minimum Daily Average: 1.4 ppb on Oct 24	Hours of Data: 675
Maximum Diurnal Average: 26.0 ppb at hour 8	Minimum Diurnal Average: 3.0 ppb at hour 15	Hours of Missing Data: 69
Monthly Average: 6.49 ppb	Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.9 Q <sub>1</sub> = 1.6 Median = 3.6 Q <sub>3</sub> = 7.5 P <sub>90</sub> = 11.7 P <sub>99</sub> = 29.7	Hours of Calibration: 35
		Percent Operational Time: 95.4

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-Oct	13	10	10	11	13	9	A	507	15	14	11	10	7	7	4	14	8	26	21	18	18	15	15	8	34.1	506.7	
2-Oct	15	10	11	9	11	A	11	19	15	11	11	11	8	6	6	5	8	6	9	12	14	16	16	4	10.5	19.5	
3-Oct	10	6	6	5	A	5	8	9	3	9	3	0	0	0	0	0	0	1	7	12	10	7	8	7	5.1	11.9	
4-Oct	4	2	5	A	7	4	1	0	6	4	3	0	0	0	0	0	4	8	17	11	4	5	14	14	4.9	16.7	
5-Oct	9	10	A	11	15	17	8	11	11	8	2	17	1	5	3	1	1	1	1	5	2	1	2	1	6.2	17.4	
6-Oct	1	A	4	2	4	2	4	9	5	1	1	2	5	0	2	0	1	2	11	8	12	8	6	7	4.1	12.0	
7-Oct	A	7	5	3	4	13	11	11	20	11	8	5	116	28	5	6	6	3	1	5	2	4	4	A	12.7	116.0	
8-Oct	4	2	1	2	1	1	89	6	5	2	2	1	1	17	1	1	1	9	18	2	27	2	A	5	8.7	88.8	
9-Oct	3	2	2	3	2	5	19	11	8	6	7	8	3	2	1	1	1	1	15	11	8	A	11	5	5.8	18.6	
10-Oct	4	11	8	6	5	9	8	47	11	9	12	4	4	2	4	25	2	33	10	11	A	5	4	3	10.4	46.7	
11-Oct	3	4	4	3	2	2	2	17	4	4	2	7	5	4	11	4	6	2	6	A	4	3	4	10	4.9	17.0	
12-Oct	7	3	2	1	2	6	14	3	4	3	2	1	1	3	1	1	1	1	A	12	5	4	2	2	3.5	13.6	
13-Oct	2	2	1	1	1	1	1	4	1	6	1	2	1	5	1	1	1	A	4	2	2	2	1	1	1.9	5.8	
14-Oct	1	1	1	2	1	1	2	4	6	4	1	1	0	0	1	2	A	4	10	4	2	1	1	2	2.3	9.6	
15-Oct	2	1	2	1	2	2	3	25	2	2	1	18	1	2	4	A	10	4	14	7	4	4	4	5	5.3	24.9	
16-Oct	2	2	3	3	3	3	8	6	3	4	1	2	C	C	C	C	A	4	6	4	5	9	6	10	4.4	10.1	
17-Oct	14	5	6	A	5	5	14	7	4	2	2	1	1	1	5	2	3	1	3	3	3	6	2	2	4.2	13.8	
18-Oct	3	3	2	A	5	4	3	2	3	1	3	1	1	1	1	2	2	4	3	3	4	5	4	3	2.7	5.3	
19-Oct	2	2	A	3	3	3	3	2	3	2	2	3	1	4	2	3	5	12	7	7	6	5	4	4	3.8	12.2	
20-Oct	7	A	12	9	7	7	8	9	8	8	10	11	8	6	3	4	9	14	6	2	11	1	1	1	7.0	14.2	
21-Oct	A	3	1	1	1	1	3	1	4	2	1	2	1	10	1	1	1	3	2	2	2	2	2	A	2.2	10.0	
22-Oct	3	2	2	2	3	2	3	8	4	5	5	6	3	3	6	8	9	14	1	2	1	A	3	3	4.4	14.1	
23-Oct	1	1	1	1	1	1	6	16	1	1	1	1	5	6	1	1	1	8	8	1	1	A	5	2	3.1	15.8	
24-Oct	2	1	1	1	1	1	1	2	1	3	3	1	2	4	1	2	1	1	1	1	1	1	1	1	1.4	4.2	
25-Oct	1	1	0	A	2	1	1	1	1	1	2	0	1	1	1	1	1	1	1	4	3	6	N	N	N	1.4	5.6
26-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
27-Oct	N	N	N	N	N	N	N	5	2	3	3	2	1	11	1	1	5	6	4	2	2	4	1	1	--	11.2	
28-Oct	A	4	3	2	2	1	2	9	15	9	8	5	6	8	11	10	14	31	22	48	23	12	12	A	11.7	47.6	
29-Oct	13	7	6	6	6	8	7	16	9	8	7	2	3	19	1	2	2	9	2	2	2	1	A	3	6.1	19.2	
30-Oct	1	2	2	2	2	2	8	10	2	3	8	142	2	2	4	3	4	16	8	7	8	A	13	6	11.2	142.4	
31-Oct	9	7	6	4	4	4	3	3	14	4	4	5	5	4	8	5	6	6	9	12	A	6	6	7	6.1	14.3	
	5.2	4.1	4.0	3.8	4.0	4.3	9.0	26.0	6.4	5.0	4.1	9.0	6.8	5.6	3.0	3.7	3.9	7.8	8.3	7.5	6.7	5.1	5.7	4.5	Diurnal Average		
	14.6	11.3	12.1	11.2	14.7	16.5	88.8	506.7	20.3	14.1	11.7	142.4	116.0	27.5	11.2	25.3	14.5	33.1	22.0	47.6	27.0	15.6	16.1	14.4	Diurnal Maximum		

C - Calibration                      N - Not Valid                      A - Automated Daily Zero Span

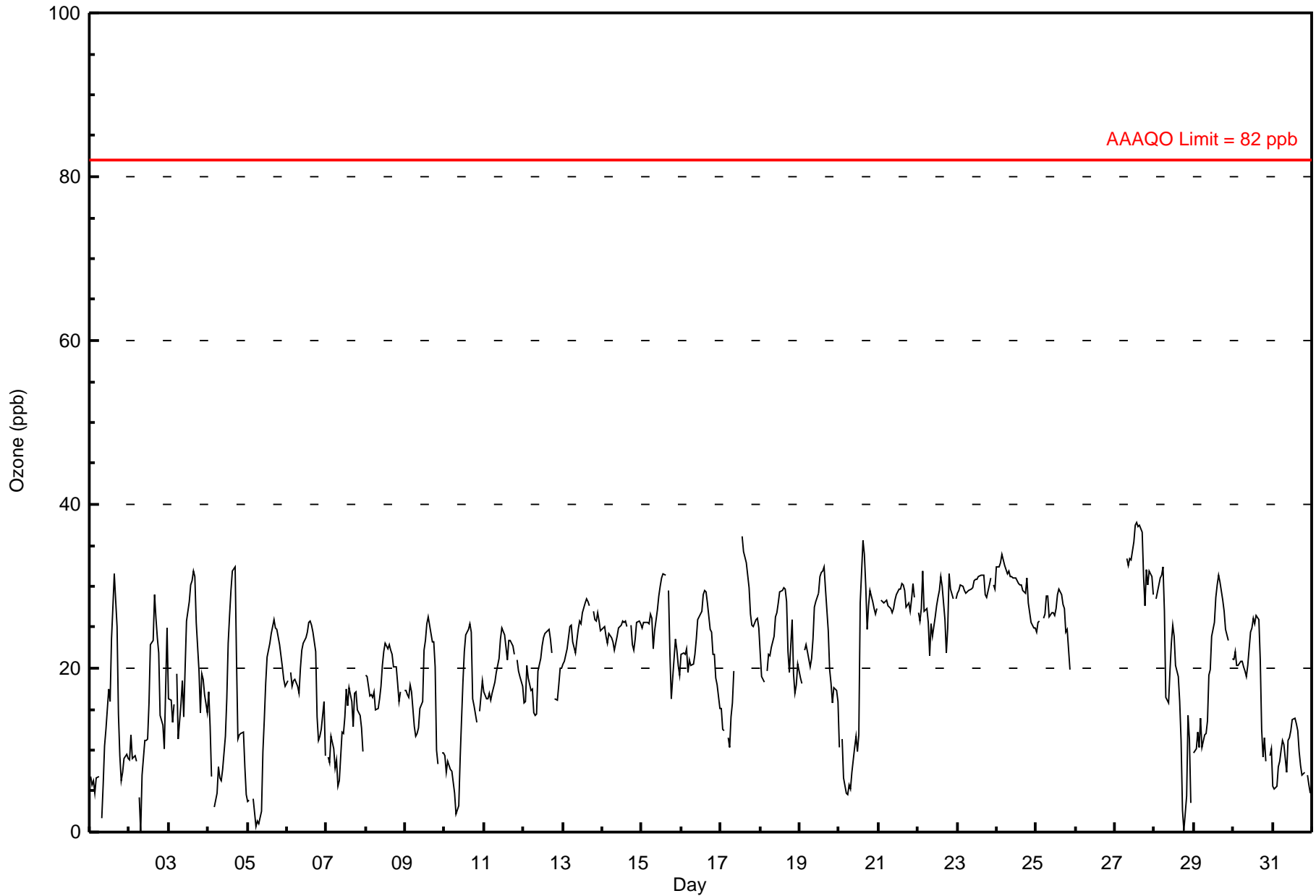
# Hourly Maximums for NO<sub>x</sub> at Portable-Spirit River October 2008







# Hourly Averages for O<sub>3</sub> at Portable-Spirit River October 2008



**Peace Airshed Zone Association  
Summary of Hourly Maximums**

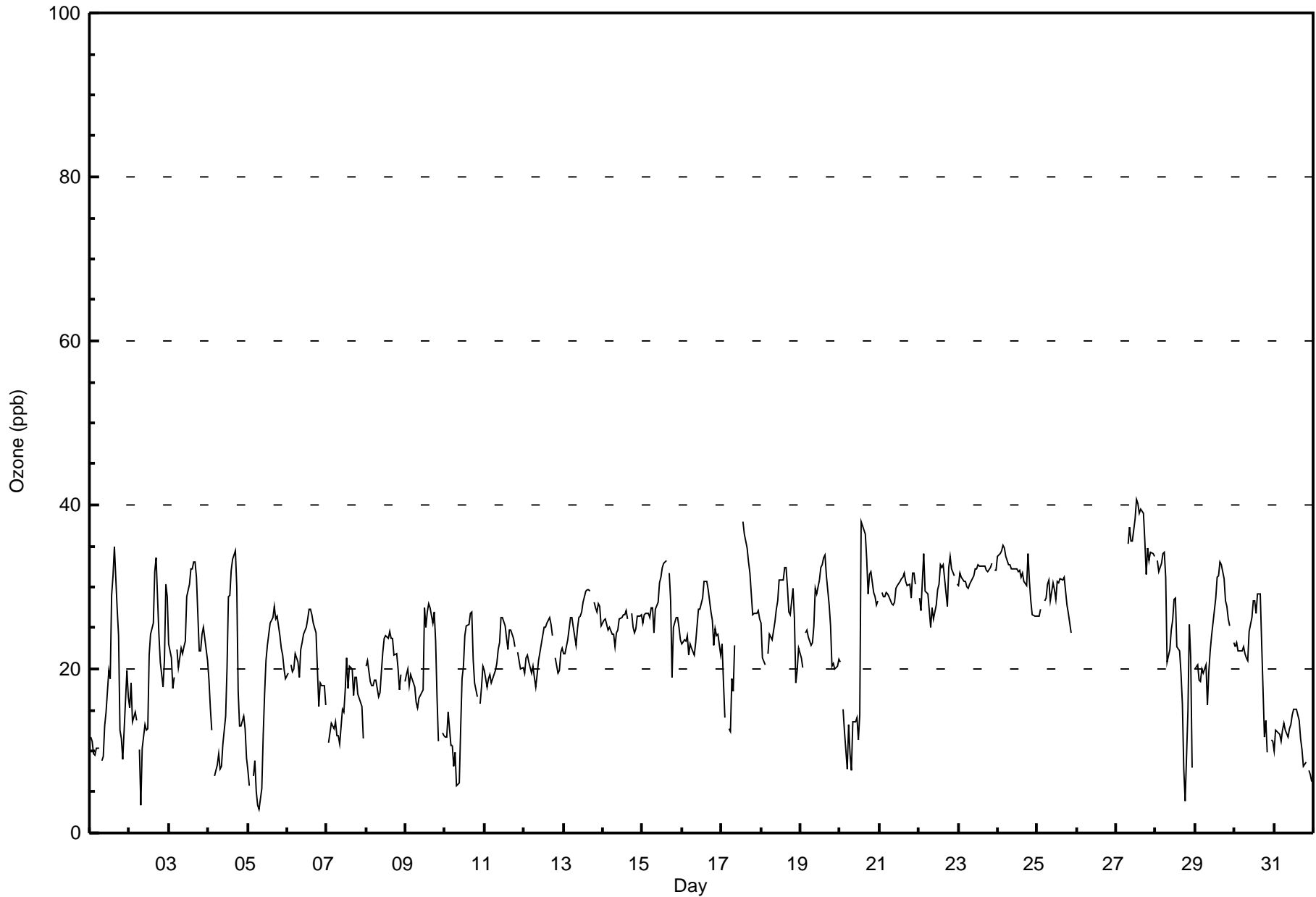
**Portable-Spirit River - Ozone (O<sub>3</sub>) - ppb  
October 1, 2008 to November 1, 2008**

Maximum Value: 40.6 ppb on Oct 27 13:00	Maximum Daily Average: 31.7 ppb on Oct 24	Hours in Service: 744
Minimum Value: 3 ppb on Oct 5 08:00	Minimum Daily Average: 11.6 ppb on Oct 31	Hours of Data: 676
Maximum Diurnal Average: 29.4 ppb at hour 16	Minimum Diurnal Average: 19.0 ppb at hour 8	Hours of Missing Data: 68
Monthly Average: 23.37 ppb	Percentiles: P <sub>1</sub> = 5.5 P <sub>10</sub> = 12.2 Q <sub>1</sub> = 18.8 Median = 24.3 Q <sub>3</sub> = 29.2 P <sub>90</sub> = 32.3 P <sub>99</sub> = 37.9	Hours of Calibration: 34
		Percent Operational Time: 95.4

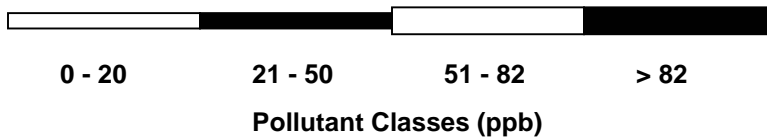
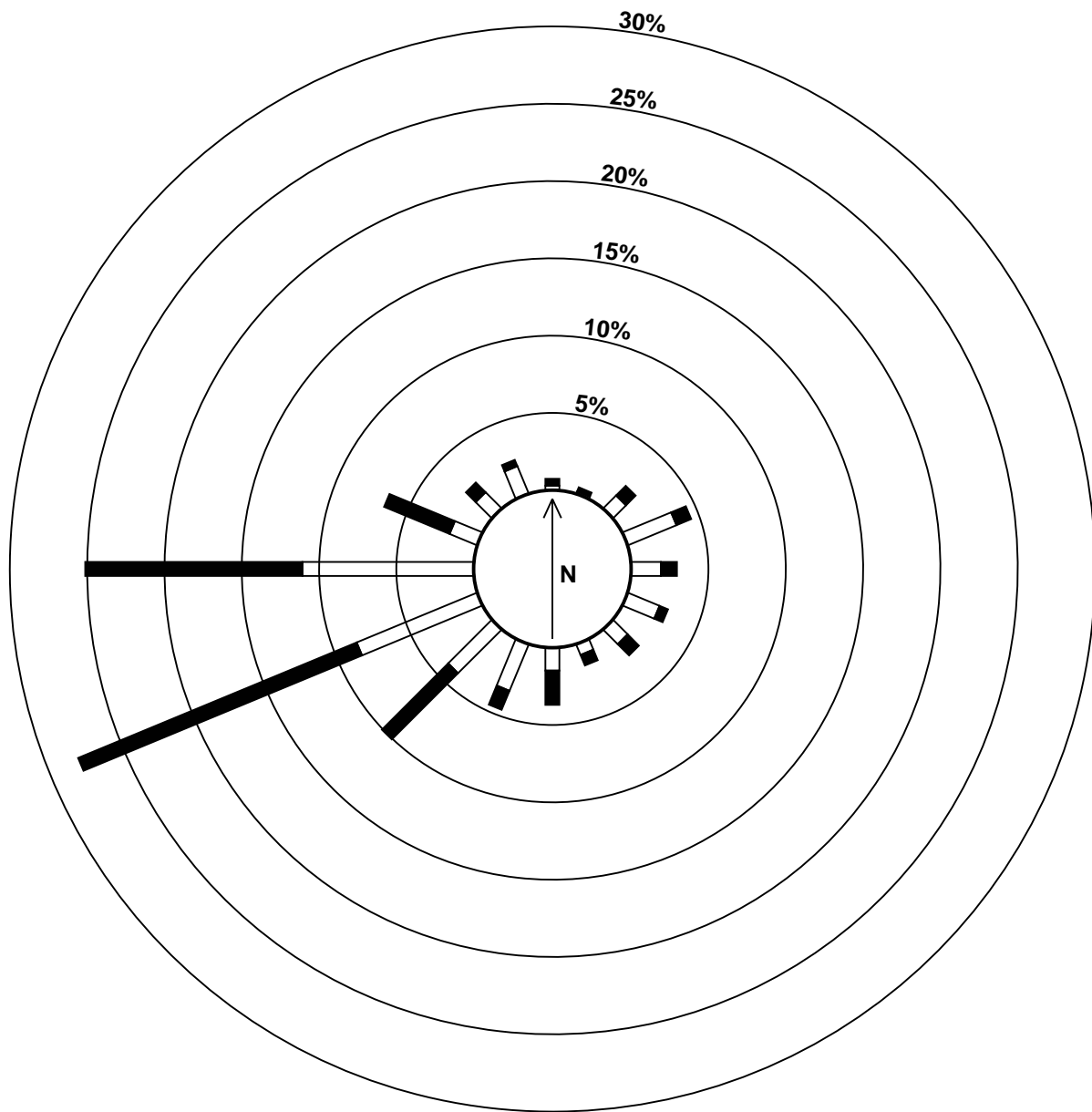
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	12	11	10	9	10	10	A	9	9	13	15	20	19	29	31	35	27	24	12	12	9	13	20	17	16.4	34.9
2-Oct	15	18	14	15	14	A	10	3	10	13	13	13	22	24	26	32	34	29	24	21	18	21	30	29	19.4	33.6
3-Oct	23	21	18	19	A	22	20	23	22	23	23	29	30	32	32	33	33	31	22	22	24	25	24	21	24.9	33.1
4-Oct	19	15	13	A	7	8	10	8	8	11	14	20	29	29	32	33	34	30	17	13	13	14	13	9	17.4	34.5
5-Oct	8	6	A	7	9	5	3	3	5	12	17	21	23	26	26	26	28	26	26	24	22	22	20	19	16.7	27.6
6-Oct	20	A	21	20	20	22	21	19	22	23	24	25	26	27	27	27	26	24	20	15	18	18	18	16	21.7	27.3
7-Oct	A	11	12	13	13	13	12	12	11	15	15	18	21	18	20	20	17	19	19	17	16	15	12	A	15.4	21.4
8-Oct	20	21	19	18	18	19	19	17	17	20	22	24	24	24	25	24	24	22	22	20	17	19	A	19	20.5	24.6
9-Oct	19	20	18	19	19	18	16	15	16	17	17	27	25	27	28	27	26	27	23	17	11	A	12	12	19.9	28.0
10-Oct	12	12	15	11	11	8	10	6	6	13	19	20	24	25	25	27	27	21	18	17	A	16	18	20	16.5	26.9
11-Oct	20	18	19	19	18	19	20	21	22	23	26	26	25	24	22	25	25	24	23	A	22	21	20	20	21.8	26.2
12-Oct	20	21	22	21	20	20	19	18	19	21	23	24	25	25	26	26	25	24	A	21	19	20	22	22	21.9	26.3
13-Oct	22	22	24	25	26	26	25	23	25	26	26	27	28	29	30	30	29	A	28	27	27	28	28	25	26.4	29.7
14-Oct	26	26	25	25	25	24	24	23	24	25	26	26	27	27	27	26	A	27	25	24	25	26	27	27	25.5	27.2
15-Oct	26	27	27	27	26	27	27	24	27	28	31	31	32	33	33	A	32	28	19	25	26	26	25	24	27.5	33.2
16-Oct	23	24	23	24	22	23	23	22	23	25	27	27	29	31	31	31	30	27	26	23	25	24	24	22	25.3	30.7
17-Oct	23	18	14	A	13	12	19	17	23	C	C	C	A	38	36	35	33	32	29	27	27	27	27	26	25.1	38.0
18-Oct	26	21	21	A	22	24	24	24	26	27	28	31	31	31	32	32	30	27	27	30	26	18	20	22	26.1	32.3
19-Oct	21	20	A	24	25	24	23	23	25	30	29	31	32	33	34	34	31	28	25	20	21	20	21	25.9	33.9	
20-Oct	21	A	15	12	8	13	10	8	14	14	14	11	14	38	37	36	33	29	32	32	29	29	28	28	22.0	38.0
21-Oct	A	29	29	29	29	29	29	28	28	28	30	30	31	31	31	32	31	30	30	29	32	32	30	A	29.8	31.8
22-Oct	29	27	31	34	29	29	27	25	28	26	28	30	30	33	32	33	29	28	32	34	32	31	A	30	29.9	34.1
23-Oct	30	32	31	31	31	30	30	30	31	31	32	32	33	32	33	33	33	32	32	32	33	A	32	32	31.6	32.9
24-Oct	34	34	34	35	35	34	33	33	32	32	32	32	32	32	32	31	32	31	30	34	31	28	27	26	31.7	35.2
25-Oct	26	26	27	A	28	29	30	31	28	30	30	28	31	31	31	31	31	30	28	27	24	N	N	N	28.9	31.1
26-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
27-Oct	N	N	N	N	N	N	N	35	37	36	36	38	41	40	39	40	39	36	32	35	33	34	34	34	--	40.6
28-Oct	A	33	32	33	34	34	31	21	22	25	26	29	29	23	22	19	16	8	4	15	25	21	8	A	23.2	34.3
29-Oct	20	20	19	19	20	19	20	16	20	22	24	26	29	31	31	33	33	31	28	28	26	25	A	23	24.5	33.0
30-Oct	23	23	22	22	22	23	22	21	21	25	26	28	28	27	29	29	23	17	12	14	10	A	11	11	21.3	29.2
31-Oct	10	13	12	12	11	12	13	13	12	13	13	14	15	15	14	14	12	10	8	9	A	8	7	6	11.6	15.0
	21.0	21.2	20.9	20.9	20.1	20.7	20.3	19.0	20.5	22.3	23.7	25.5	27.0	28.8	29.2	29.4	28.3	25.9	23.4	22.7	22.9	22.3	21.4	21.6	Diurnal Average	
	33.7	34.0	34.4	35.2	34.7	34.3	32.7	35.3	37.3	35.5	35.6	38.4	40.6	40.2	38.9	39.5	38.9	35.6	34.1	34.8	33.2	34.3	34.1	33.8	Diurnal Maximum	

C - Calibration                      N - Not Valid                      A - Automated Daily Zero Span

# Hourly Maximums for O<sub>3</sub> at Portable-Spirit River October 2008



# Pollutant Rose for O<sub>3</sub> at Portable-Spirit River October 2008



**Peace Airshed Zone Association  
Summary of Eight Hour Running Averages**

**Portable-Spirit River - Ozone (O<sub>3</sub>) - ppb  
October 1, 2008 to November 1, 2008**

Number of Exceedences (AAAQO): 8-hr: 0 Maximum Value: 36.1 ppb on Oct 27 17:00	Hours in Service: 744 Hours of Data: 699 Hours of Missing Data: 45 Hours of Calibration: 8 Percent Operational Time: 95.0
Minimum Value: 2.3 ppb on Oct 5 09:00	
Percentiles: P <sub>1</sub> = 5.4 P <sub>10</sub> = 9.0 Q <sub>1</sub> = 15.7 Median = 21.5 Q <sub>3</sub> = 26.5 P <sub>90</sub> = 29.3 P <sub>99</sub> = 34.7	

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-Oct	12	9	7	6	6	6	6	5	5	6	7	9	10	12	14	18	20	21	21	19	18	16	14	11	21.0
2-Oct	9	9	9	9	9	9	9	7	7	7	7	8	9	10	13	16	19	20	22	22	22	20	19	19	22.1
3-Oct	18	17	16	16	16	18	17	15	16	15	16	18	19	20	23	25	26	28	28	27	25	24	22	20	27.9
4-Oct	18	17	15	15	13	11	10	8	7	6	7	8	11	13	16	19	22	24	24	23	22	20	18	14	24.0
5-Oct	11	8	8	7	6	4	3	2	2	3	4	6	9	11	14	17	20	22	23	24	24	24	23	22	24.1
6-Oct	21	21	20	19	19	18	18	18	18	19	19	20	21	22	23	24	24	24	23	22	20	18	17	15	24.3
7-Oct	14	12	11	11	11	10	9	9	8	9	9	10	11	11	13	14	15	15	16	16	16	15	14	14	16.0
8-Oct	15	15	15	15	16	16	17	17	17	16	17	18	18	19	20	21	22	22	22	21	20	20	19	19	21.8
9-Oct	18	18	17	17	17	17	16	15	15	14	14	15	16	17	19	21	22	23	24	22	20	20	17	15	23.6
10-Oct	13	11	9	9	9	8	8	7	6	6	7	8	10	12	15	18	20	21	21	21	21	19	18	17	21.3
11-Oct	16	16	16	17	17	17	17	17	18	18	19	20	21	22	22	23	23	23	23	23	22	22	22	21	23.2
12-Oct	20	19	18	19	18	18	17	17	17	17	18	19	19	21	21	22	23	23	24	23	22	21	20	19	23.6
13-Oct	19	19	19	20	21	22	23	23	23	24	24	24	25	25	26	26	27	27	27	27	27	27	27	26	27.4
14-Oct	26	26	25	25	25	24	24	24	24	23	24	24	24	24	25	25	25	25	25	25	24	24	24	24	25.8
15-Oct	24	24	25	25	25	26	26	25	25	25	26	26	27	28	28	29	30	29	27	26	25	23	22	21	29.9
16-Oct	20	20	21	22	21	21	21	21	21	21	22	22	23	24	25	27	27	27	27	27	26	25	23	22	27.5
17-Oct	20	18	17	16	15	14	13	13	14	14	N	N	N	N	N	N	N	N	32	31	30	29	28	27	31.8
18-Oct	26	24	23	23	22	22	21	21	21	22	23	24	25	26	27	28	28	28	27	27	25	24	22	21	28.4
19-Oct	20	20	20	19	20	20	21	21	21	23	23	24	25	27	28	29	30	30	29	27	26	24	22	20	30.2
20-Oct	17	16	15	14	12	10	8	7	6	7	7	8	11	15	19	21	23	25	28	30	30	28	28	28	29.7
21-Oct	27	28	28	28	28	28	28	28	28	28	28	28	28	28	29	29	29	29	29	29	29	29	29	29	29.3
22-Oct	28	28	28	28	28	28	27	27	26	26	26	26	26	26	27	28	28	28	28	27	28	28	27	27	28.4
23-Oct	28	29	30	29	29	29	29	30	30	30	30	30	30	30	30	31	31	31	31	31	31	30	30	30	30.9
24-Oct	30	31	31	32	32	32	32	33	32	32	32	32	32	31	31	31	31	31	30	30	29	29	28	28	32.6
25-Oct	27	26	26	25	25	26	26	27	27	27	27	27	27	28	28	28	28	28	28	27	26	26	26	N	27.9
26-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--
27-Oct	N	N	N	N	N	N	N	N	N	N	N	N	34	35	35	36	36	36	35	35	34	33	32	31	36.1
28-Oct	30	30	30	30	30	30	30	28	26	25	25	24	23	21	20	20	20	18	15	12	11	10	8	7	30.4
29-Oct	7	8	9	10	10	10	11	11	12	13	14	16	17	19	22	24	26	27	28	28	28	27	27	26	28.3
30-Oct	24	23	22	22	21	21	21	21	20	20	21	21	22	22	23	24	24	23	21	20	18	16	14	12	24.3
31-Oct	10	9	8	8	8	8	8	8	8	9	10	10	11	11	12	12	12	12	11	11	10	9	8	7	12.3
Diurnal Maximums																									
30.4 30.6 31.3 31.8 32.1 32.1 32.3 32.6 32.4 32.3 32.0 31.7 34.2 34.7 35.0 35.6 36.1 35.8 35.1 34.7 33.8 33.0 32.3 31.2																									

N - Not Valid  
Alberta Ambient Air Quality Objectives (AAAQO): 8-hr 65 ppb

**Peace Airshed Zone Association  
Summary of Hourly Averages**

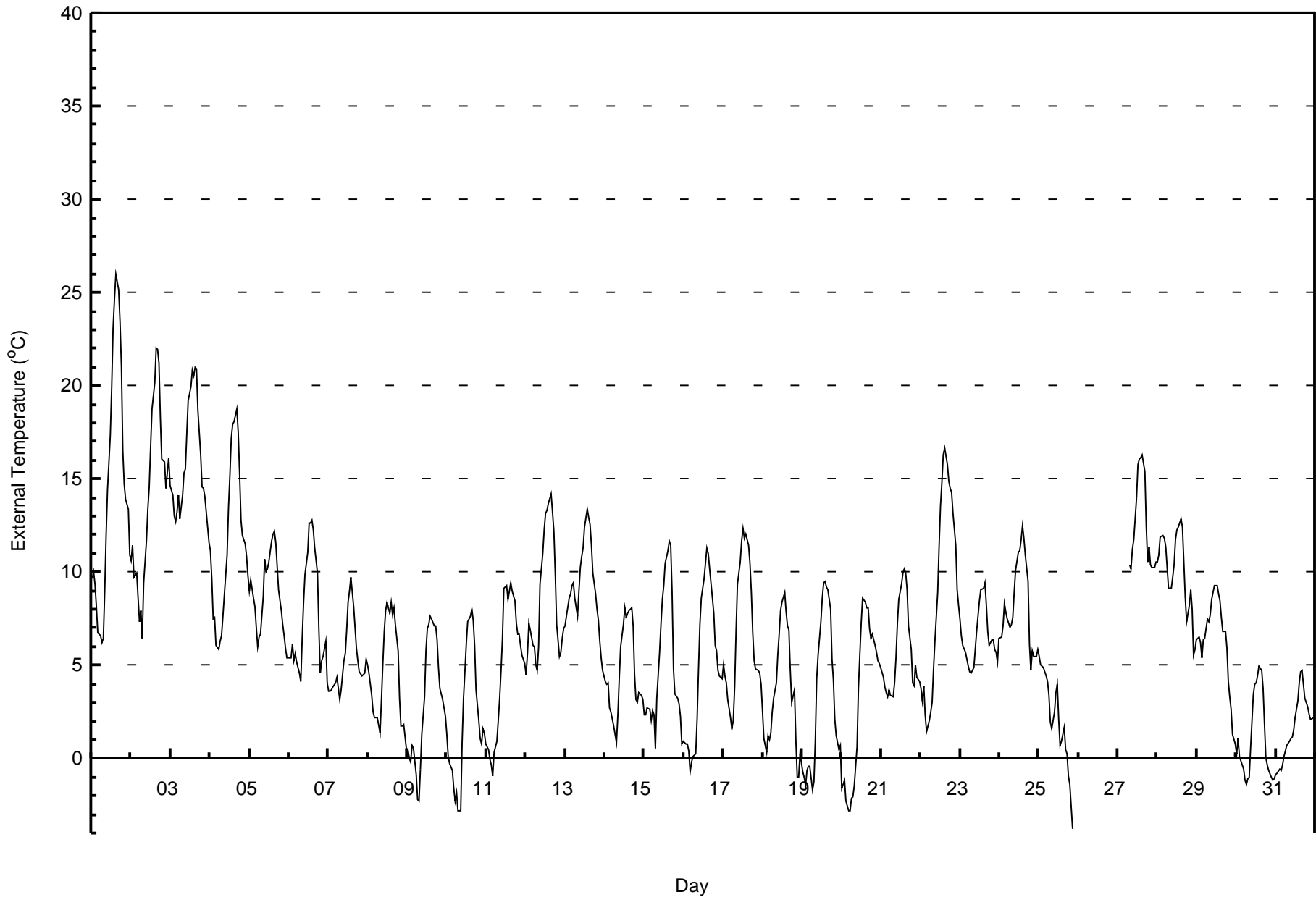
**Portable-Spirit River - External Temperature (ET) - °C  
October 1, 2008 to November 1, 2008**

Maximum Value: 26.0 °C on Oct 1 16:00	Maximum Daily Average: 15.9 °C on Oct 3	Hours in Service: 744
Minimum Value: -4 °C on Oct 25 21:00	Minimum Daily Average: 1.0 °C on Oct 30	Hours of Data: 710
Maximum Diurnal Average: 11.4 °C at hour 16	Minimum Diurnal Average: 3.5 °C at hour 7	Hours of Missing Data: 34
Monthly Average: 6.79 °C	Percentiles: P <sub>1</sub> = -2.3 P <sub>10</sub> = 0.5 Q <sub>1</sub> = 3.3 Median = 6.4 Q <sub>3</sub> = 9.7 P <sub>90</sub> = 13.3 P <sub>99</sub> = 22.0	Hours of Calibration: 0
		Percent Operational Time: 95.4

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-Oct	10	10	9	8	7	7	6	6	9	12	14	17	20	23	25	26	25	23	21	16	15	14	13	11	14.5	26.0
2-Oct	11	11	10	10	9	7	8	6	9	12	13	15	17	19	20	22	22	21	18	16	16	14	15	16	14.1	22.0
3-Oct	15	14	13	13	13	14	13	14	15	16	17	19	20	21	21	21	21	19	16	15	14	14	13	12	15.9	21.0
4-Oct	11	10	7	8	6	6	6	7	8	9	11	13	15	17	18	18	19	17	15	13	12	12	11	10	11.6	18.7
5-Oct	9	10	9	8	7	6	7	7	9	11	10	10	11	12	12	12	12	10	9	8	7	7	6	5	8.8	12.2
6-Oct	5	5	6	5	6	5	5	4	6	8	10	11	13	13	13	12	11	10	7	5	5	5	6	4	7.6	12.8
7-Oct	4	4	4	4	4	4	4	3	4	5	6	7	8	9	10	8	7	6	5	5	4	4	5	5	5.3	9.7
8-Oct	5	5	3	3	2	2	2	1	3	5	7	8	8	8	8	8	8	7	6	3	2	2	2	0	4.5	8.4
9-Oct	0	0	0	1	1	-1	-2	-2	-1	1	3	6	7	7	8	7	7	7	6	5	4	3	3	2	3.0	7.6
10-Oct	1	0	0	-1	-2	-2	-2	-3	-3	1	3	5	6	7	8	8	7	6	4	2	1	1	2	1	2.1	8.0
11-Oct	1	0	0	0	-1	0	1	2	3	5	6	9	9	9	9	9	9	8	7	7	7	6	6	5	4.9	9.4
12-Oct	4	6	7	7	6	6	5	5	6	9	11	12	13	13	14	14	13	12	10	7	5	6	6	7	8.6	14.2
13-Oct	7	8	9	9	9	9	9	8	9	10	11	11	12	13	13	13	11	10	9	8	7	6	5	5	9.2	13.3
14-Oct	4	4	4	3	2	2	1	1	2	4	6	7	8	8	8	8	8	7	5	3	3	4	3	3	4.5	8.1
15-Oct	2	2	3	3	2	3	2	1	3	6	7	9	9	10	11	12	11	9	5	3	3	3	2	1	5.1	11.7
16-Oct	1	1	1	0	-1	0	0	0	2	5	7	9	10	10	11	11	10	9	8	6	6	5	4	4	5.0	11.3
17-Oct	5	4	4	3	2	2	2	4	7	9	11	12	12	12	12	11	10	9	7	5	5	5	5	4	6.7	12.3
18-Oct	3	1	0	1	1	1	2	3	4	6	7	8	8	9	8	7	7	5	3	4	1	-1	-1	0	3.6	8.9
19-Oct	-1	-1	-1	-1	0	0	-2	-1	1	4	6	7	9	9	9	9	9	8	5	4	2	1	0	1	3.3	9.5
20-Oct	-2	-1	-1	-2	-3	-3	-2	-2	-1	1	4	6	7	9	8	8	8	7	6	7	6	6	5	5	3.1	8.6
21-Oct	5	4	4	4	3	4	3	3	4	5	7	9	9	10	10	10	9	7	6	4	4	5	4	4	5.8	10.2
22-Oct	4	3	4	2	1	2	3	3	5	6	9	11	14	15	16	17	16	15	14	14	13	11	9	8	9.0	16.7
23-Oct	7	7	6	6	5	5	5	5	5	6	7	8	8	9	9	9	8	7	6	6	6	6	6	5	6.5	9.4
24-Oct	6	7	7	8	8	7	7	7	8	9	10	11	11	12	12	12	11	10	6	5	6	5	5	6	8.2	12.5
25-Oct	5	5	5	5	4	4	3	2	2	3	3	4	2	1	1	2	1	0	-1	-1	-4	N	N	N	2.2	5.5
26-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
27-Oct	N	N	N	N	N	N	N	10	10	11	12	14	16	16	16	16	15	12	11	11	10	10	10	11	--	16.3
28-Oct	11	11	12	12	12	11	10	9	9	10	10	12	12	12	13	12	11	9	7	8	9	8	6	6	10.1	12.9
29-Oct	6	7	6	5	6	6	7	7	8	9	9	9	9	8	8	7	7	6	4	3	3	3	1	1	6.4	9.3
30-Oct	0	1	0	0	-1	-1	-1	-1	-1	1	3	4	4	4	5	5	4	2	0	0	-1	-1	-1	-1	1.0	4.9
31-Oct	-1	-1	-1	-1	0	0	0	1	1	1	1	2	2	3	4	5	5	4	3	3	2	2	2	2	1.7	4.7
	4.8	4.7	4.5	4.2	3.8	3.7	3.5	3.7	4.9	6.6	8.1	9.4	10.4	11.0	11.3	11.4	10.8	9.4	7.7	6.5	5.9	5.7	5.4	5.0	Diurnal Average	
	14.6	14.1	13.0	12.7	13.2	14.1	12.9	14.1	15.3	15.5	17.4	19.2	20.0	23.1	24.7	26.0	25.1	23.4	21.1	16.5	15.9	14.5	15.3	16.2	Diurnal Maximum	

N - Not Valid

# Hourly Averages for External Temperature at Portable-Spirit River October 2008



**Peace Airshed Zone Association  
Summary of Hourly Averages**

**Portable-Spirit River - Relative Humidity (RH) - %  
October 1, 2008 to November 1, 2008**

Maximum Value: 98.2 % on Oct 4 10:00	Maximum Daily Average: 79.7 % on Oct 4	Hours in Service: 744
Minimum Value: 18 % on Oct 27 14:00	Minimum Daily Average: 37.9 % on Oct 25	Hours of Data: 710
Maximum Diurnal Average: 67.5 % at hour 7	Minimum Diurnal Average: 40.5 % at hour 16	Hours of Missing Data: 34
Monthly Average: 55.72 %	Percentiles: P <sub>1</sub> = 22.6 P <sub>10</sub> = 33.3 Q <sub>1</sub> = 43.3 Median = 54.6 Q <sub>3</sub> = 66.6 P <sub>90</sub> = 78.4 P <sub>99</sub> = 94.9	Hours of Calibration: 0
		Percent Operational Time: 95.4

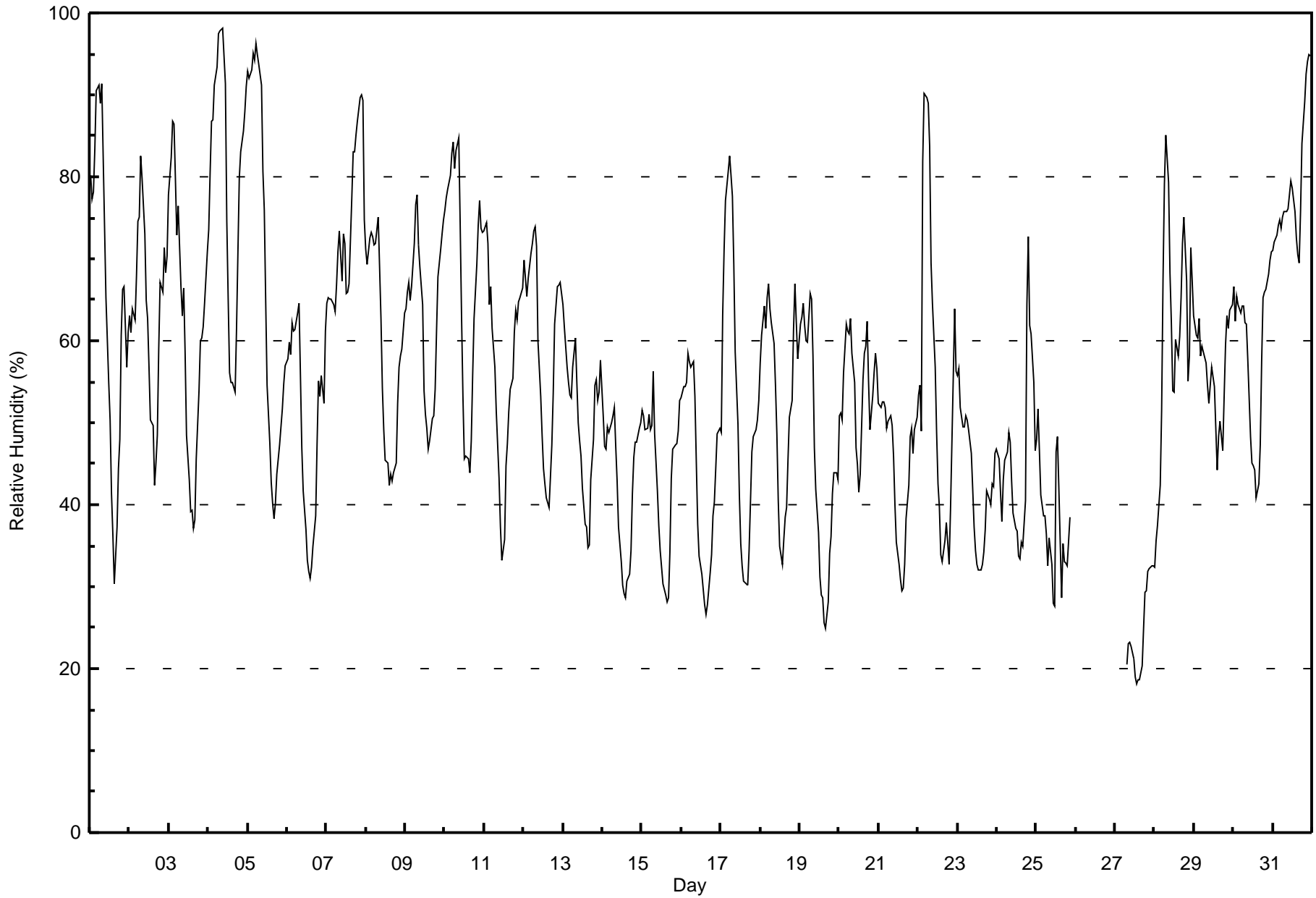
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	80	77	78	83	91	91	89	91	83	74	65	55	50	41	36	30	37	44	48	61	66	67	57	61	64.9	91.4
2-Oct	63	61	64	63	68	74	75	83	80	73	65	63	57	50	50	42	45	48	59	67	66	71	68	70	63.6	82.5
3-Oct	78	82	87	86	80	73	76	67	63	66	58	48	43	39	39	37	38	46	54	60	60	62	65	71	61.6	86.7
4-Oct	74	81	87	87	91	93	97	98	98	98	91	75	65	56	55	55	54	61	71	80	83	86	88	91	79.7	98.2
5-Oct	93	92	93	95	94	96	95	94	91	81	76	65	55	47	43	40	38	40	44	47	50	52	55	57	68.0	96.3
6-Oct	58	60	58	62	61	61	63	65	56	47	42	37	33	32	31	32	35	39	47	55	53	56	52	61	49.9	64.6
7-Oct	65	65	65	65	64	64	67	71	73	67	73	72	66	66	67	77	83	83	85	87	90	90	89	75	73.7	89.9
8-Oct	71	69	73	73	73	72	72	75	69	63	54	49	45	45	42	44	43	44	45	52	57	58	59	63	58.8	75.0
9-Oct	64	66	67	65	67	72	77	78	72	69	64	54	51	49	47	48	50	51	54	61	68	71	73	75	63.0	77.8
10-Oct	76	78	79	80	83	84	81	83	85	74	63	53	46	46	46	44	48	56	63	69	74	77	74	73	68.1	84.7
11-Oct	73	74	72	64	67	62	57	51	47	43	37	33	36	45	48	51	54	55	61	64	63	65	65	66	56.4	74.5
12-Oct	70	68	65	68	71	72	73	74	71	60	53	48	44	43	41	40	43	47	53	62	67	67	67	66	59.7	73.9
13-Oct	64	62	57	55	53	53	57	60	55	50	48	46	42	38	37	35	35	43	48	55	55	53	54	58	50.5	64.3
14-Oct	51	47	47	50	49	50	51	52	47	43	37	33	30	29	29	31	31	34	41	46	48	48	49	50	42.6	51.8
15-Oct	52	51	49	49	51	49	50	56	49	42	37	34	32	30	29	28	29	34	43	47	47	47	49	53	43.3	56.3
16-Oct	53	54	54	55	58	58	57	58	53	45	38	34	32	30	28	27	28	32	34	39	40	44	49	49	43.6	58.4
17-Oct	49	63	71	77	81	83	80	78	69	59	50	41	35	32	31	30	30	34	40	46	48	49	50	53	53.4	82.6
18-Oct	57	61	64	62	65	67	64	62	60	55	49	40	35	33	36	38	40	46	51	53	61	67	62	58	53.5	67.0
19-Oct	62	63	65	62	60	60	66	65	58	47	42	37	31	29	29	26	25	28	34	36	41	44	44	43	45.7	65.8
20-Oct	51	51	50	56	62	61	61	63	59	55	47	45	42	44	55	58	59	62	55	49	53	56	59	57	54.6	62.7
21-Oct	52	52	53	53	52	49	50	51	50	46	40	35	33	31	30	30	33	38	42	48	49	46	49	51	44.3	52.6
22-Oct	53	55	49	82	90	90	89	84	70	65	57	49	43	40	34	33	36	38	35	33	39	56	64	56	55.7	90.2
23-Oct	56	57	52	49	50	51	50	49	46	42	37	34	33	32	32	33	34	37	42	41	40	43	42	46	42.8	56.6
24-Oct	47	46	42	38	43	45	47	49	48	43	39	37	37	34	33	35	35	41	64	73	62	61	55	47	45.8	72.7
25-Oct	48	52	47	41	39	39	36	32	36	33	28	28	46	48	42	29	35	33	33	33	38	N	N	N	37.9	51.6
26-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
27-Oct	N	N	N	N	N	N	N	20	23	23	23	21	19	18	19	19	20	25	29	29	32	32	33	33	--	32.5
28-Oct	32	36	38	42	52	67	79	85	79	68	62	54	54	60	58	61	65	72	75	67	55	58	71	67	60.8	85.1
29-Oct	63	61	60	63	58	59	58	57	55	52	55	57	54	49	44	48	50	47	53	59	63	62	64	64	56.5	64.3
30-Oct	67	62	65	64	63	64	64	62	62	58	48	45	45	44	41	42	47	58	65	66	66	68	70	71	58.7	70.8
31-Oct	71	72	73	74	75	74	75	76	76	76	78	80	79	76	73	71	70	76	84	89	93	94	95	95	78.8	95.0
	61.8	62.6	62.8	64.3	65.8	66.7	67.5	66.3	62.7	57.2	51.9	46.7	43.7	41.9	40.7	40.5	42.4	46.4	51.8	55.8	57.6	60.3	61.0	61.3	Diurnal Average	
	92.9	92.1	93.0	95.1	94.2	96.3	97.4	97.8	98.0	98.2	91.4	79.5	78.7	75.8	72.5	77.5	83.1	83.1	85.2	89.1	92.5	94.1	95.0	94.7	Diurnal Maximum	

N - Not Valid



# Hourly Averages for Relative Humidity at Portable-Spirit River

## October 2008



**Peace Airshed Zone Association**  
**Summary of Hourly Averages**

Portable-Spirit River  
 October 1, 2008 to November 1, 2008  
 WS (km/h), WD (deg)

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	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	6	4	1	1	5	2	1	1	13	25	6	9	8	7	13	10	6	5	4	2	2	3	7	2.7	25.0
Dir	252	267	265	213	216	257	243	311	212	70	87	76	57	82	112	142	147	120	116	101	141	327	232	292	107.0	87.2
2 Spd	6	10	7	6	12	4	2	3	5	7	9	11	15	5	7	13	13	11	3	5	6	3	9	3	1.4	15.4
Dir	283	271	273	269	271	272	279	224	321	62	44	40	60	66	94	93	90	76	66	236	219	275	288	297	20.1	59.9
3 Spd	6	12	16	2	11	8	3	6	5	8	4	7	3	2	9	2	6	6	3	2	1	1	1	3	1.7	16.2
Dir	237	218	215	219	227	245	352	341	310	186	357	306	297	288	44	89	75	78	126	185	110	344	343	187	239.0	214.7
4 Spd	6	1	5	2	1	6	5	1	1	2	4	5	4	3	3	5	1	2	3	3	3	2	2	4	1.0	6.2
Dir	144	127	262	352	198	252	260	276	285	278	336	345	46	42	69	92	62	258	263	268	306	308	275	246	289.0	251.6
5 Spd	4	2	1	2	2	2	2	5	2	14	18	17	34	28	27	25	24	16	22	14	14	11	9	7	12.5	34.1
Dir	220	247	286	271	265	255	271	245	256	251	245	246	246	240	241	246	256	257	253	250	253	253	252	252	247.9	245.6
6 Spd	9	5	10	8	10	11	9	8	11	15	14	16	12	22	22	21	18	9	7	3	4	8	10	3	10.1	22.1
Dir	253	263	258	251	245	239	226	222	237	252	259	259	258	242	244	238	241	250	222	227	174	183	173	91	239.9	241.6
7 Spd	5	4	3	4	2	2	3	2	2	2	1	2	3	2	5	3	5	7	8	7	4	3	2	5	1.6	7.8
Dir	73	66	75	113	57	169	39	274	289	53	244	207	260	299	308	279	273	270	266	267	274	277	286	270	281.8	266.4
8 Spd	3	4	2	2	2	5	4	4	4	5	7	10	13	4	7	4	5	4	5	10	12	10	11	10	5.8	13.0
Dir	278	275	275	273	273	269	274	267	269	275	280	296	293	279	301	295	281	274	266	251	249	251	245	251	269.9	292.6
9 Spd	6	8	5	6	4	1	2	1	1	3	2	4	6	7	6	7	6	5	2	3	5	2	4	3	2.0	7.6
Dir	256	256	259	261	268	250	88	109	71	69	32	18	39	6	359	12	344	353	347	256	249	260	258	262	316.6	256.4
10 Spd	3	3	4	7	8	5	7	6	4	2	2	6	10	7	5	6	7	4	8	11	11	11	12	12	4.8	12.0
Dir	267	292	275	266	256	270	258	265	280	307	87	136	140	184	181	175	187	183	210	196	192	195	201	195	208.5	200.8
11 Spd	8	8	2	6	6	5	7	10	4	6	13	20	18	15	15	17	16	13	11	12	11	12	9	6	10.1	20.2
Dir	220	210	274	194	171	210	202	205	176	186	213	232	234	226	225	224	221	218	210	207	218	218	221	211	216.7	232.1
12 Spd	2	2	4	5	4	0	4	3	3	6	7	6	7	6	6	6	4	2	5	6	7	4	6	7	4.4	7.1
Dir	276	251	266	261	266	194	207	277	256	275	284	283	276	284	290	283	288	286	258	237	259	276	260	257	268.8	283.5
13 Spd	10	6	9	13	18	16	10	9	15	22	20	18	23	20	21	17	12	16	26	22	18	17	15	12	15.9	25.7
Dir	247	255	255	243	248	253	257	255	250	248	250	254	252	250	252	256	263	252	240	244	250	254	259	263	251.2	240.4
14 Spd	12	9	7	5	12	12	9	12	15	12	10	9	9	7	9	9	9	10	11	11	11	12	12	12	10.0	15.5
Dir	266	269	285	274	261	259	261	258	258	264	272	278	275	286	270	271	270	261	244	244	249	260	261	260	263.3	257.5
15 Spd	11	12	10	9	16	16	17	10	8	12	11	11	14	9	7	5	3	2	7	8	6	1	5	6	8.7	16.5
Dir	259	253	257	259	248	247	242	228	242	260	263	260	254	261	269	271	288	285	239	220	225	273	216	238	250.3	241.9
16 Spd	7	9	8	8	9	10	11	11	13	16	25	29	24	19	17	17	16	11	8	10	8	7	4	2	12.1	28.6
Dir	246	245	246	232	230	221	199	206	226	240	238	234	229	227	224	235	240	238	232	230	247	240	219	161	231.3	234.1
17 Spd	4	3	6	9	10	5	8	12	15	19	17	16	18	21	18	12	11	12	10	12	13	14	17	13	9.9	21.2
Dir	165	117	139	138	140	122	199	234	246	250	257	262	257	257	260	271	269	260	252	249	249	251	246	251	245.0	256.6
18 Spd	11	10	8	10	11	6	9	12	17	21	13	10	11	12	12	9	5	3	3	4	5	10	12	13	9.3	20.6
Dir	239	228	239	235	228	236	228	254	250	252	264	276	279	270	268	278	299	279	287	308	236	239	234	242	252.4	251.7
19 Spd	10	10	10	11	10	9	10	7	12	15	16	13	14	13	11	11	7	9	6	9	2	2	2	5	7.7	16.0
Dir	251	246	233	220	205	210	219	232	228	226	230	228	221	219	193	176	162	146	158	129	244	74	346	251	213.5	230.3
20 Spd	4	4	4	2	2	1	3	2	0	2	4	7	5	14	19	14	3	5	10	12	14	13	12	11	4.9	18.9
Dir	268	272	271	273	152	76	335	210	249	66	87	76	39	222	221	244	270	204	245	248	245	254	259	266	245.4	221.2
21 Spd	11	12	12	14	12	10	10	11	10	11	10	10	9	9	9	7	8	6	9	15	11	16	13	8	10.1	16.3
Dir	266	263	259	258	261	266	266	265	267	265	273	278	277	280	283	291	288	281	259	245	250	241	229	207	261.6	240.7
22 Spd	8	9	9	10	16	15	12	10	11	11	18	22	22	16	20	14	9	2	7	13	11	8	20	29	9.6	28.9
Dir	187	187	205	185	123	127	121	131	175	163	174	169	177	162	177	172	192	226	248	251	264	287	255	249	187.7	249.3

**Peace Airshed Zone Association**  
**Summary of Hourly Averages**

Portable-Spirit River  
 October 1, 2008 to November 1, 2008  
 WS (km/h), WD (deg)

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	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	28	31	33	28	26	25	27	28	26	25	27	22	18	16	14	14	16	16	17	14	15	14	18	14	21.0	32.6
Dir	251	249	251	255	256	256	254	252	254	255	253	258	263	261	269	268	257	241	229	232	229	222	224	229	249.9	250.8
24 Spd	20	20	29	38	44	44	30	34	35	29	25	24	23	17	18	18	13	21	19	23	18	19	21	16	24.5	43.9
Dir	247	246	245	245	241	235	240	245	243	252	258	259	258	266	264	264	273	257	265	252	260	256	257	261	251.0	240.8
25 Spd	19	21	18	16	16	15	16	9	10	16	16	15	14	21	10	8	17	13	6	8	4	N	N	N	12.6	21.3
Dir	259	258	265	268	267	268	278	295	276	268	270	279	292	319	303	296	332	322	311	319	292	N	N	N	284.2	257.7
26 Spd	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
Dir	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
27 Spd	N	N	N	N	N	N	N	27	21	23	20	21	20	15	11	15	15	12	12	15	10	14	14	8	--	26.5
Dir	N	N	N	N	N	N	N	239	238	253	257	257	260	261	266	254	251	248	242	241	252	237	239	251	--	239.5
28 Spd	4	11	5	7	12	12	6	2	4	5	5	2	2	4	6	5	5	4	1	2	3	3	3	1	2.3	12.4
Dir	270	245	263	252	243	254	273	280	162	207	184	220	37	120	121	72	88	194	221	271	256	300	55	326	233.4	242.9
29 Spd	1	3	3	0	2	2	4	2	1	5	5	6	6	8	8	8	6	9	9	11	13	8	8	8	5.5	12.5
Dir	298	308	253	262	245	332	253	333	226	269	275	280	286	294	287	289	270	276	276	258	261	266	259	255	272.9	261.0
30 Spd	10	12	8	8	8	8	7	6	5	4	4	5	4	7	9	11	13	10	8	8	5	5	4	2	1.8	12.5
Dir	255	255	259	261	260	259	263	263	267	266	281	333	40	88	133	125	121	119	111	138	117	96	120	71	190.5	121.3
31 Spd	0	1	2	2	2	1	1	0	0	2	5	6	8	7	6	9	7	7	3	4	4	4	2	3	2.9	8.9
Dir	299	260	316	337	305	345	108	65	41	34	76	74	91	109	98	79	72	71	99	98	44	65	100	89	78.0	78.7
Spd	6.8	7.5	7.5	7.0	8.1	7.4	6.4	7.1	7.8	8.3	7.7	7.9	7.6	7.4	6.9	5.9	4.9	4.6	6.5	7.5	7.1	6.7	7.5	6.9	Diurnal Average	
Dir	248.4	248.7	250.4	246.1	240.7	243.3	243.6	245.4	246.2	248.7	250.5	256.3	253.8	250.7	244.5	241.2	249.3	247.8	242.7	239.4	244.0	245.9	242.7	247.2	Diurnal Maximum	
Spd	28.1	31.2	32.6	37.6	43.9	43.6	30.2	33.8	34.7	29.3	27.3	28.6	34.1	28.5	27.5	24.6	23.8	20.9	25.7	23.1	17.9	19.3	20.7	28.9	Diurnal Maximum	
Dir	250.6	249.0	250.8	245.2	240.8	235.3	240.1	245.2	243.1	252.0	253.4	234.1	245.6	246.0	240.1	240.6	245.6	257.4	240.4	251.9	250.0	256.4	256.9	249.3	Diurnal Maximum	
Maximum Speed Value: 44 km/h on Oct 24 05:00		Minimum Speed Value: 0 km/h on Oct 31 09:00																Hours in Service: 744								
Maximum Daily Speed Average: 24.5 km/h on Oct 24		Minimum Daily Speed Average: 1.0 km/h on Oct 4																Hours of Data: 710								
Maximum Diurnal Speed Average: 8.3 km/h at hour 10		Minimum Diurnal Speed Average: 4.6 km/h at hour 18																Hours of Missing Data: 34								
Monthly Average Velocity: 7.01 km/h 246.63 deg		Speed Percentiles: P <sub>1</sub> = 0.6 P <sub>10</sub> = 2.1 Q <sub>1</sub> = 4.3 Median = 8.2 Q <sub>3</sub> = 12.6 P <sub>90</sub> = 18.4 P <sub>99</sub> = 31.9																Percent Operational Time: 95.4								
All monthly, daily, and diurnal averages have been calculated using vector methods																										
N - Not Valid																										
Percentage 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	1.41	0.85	0.00	0.00	0.00	0.00	2.25																			
NorthEast	2.68	0.85	0.28	0.00	0.00	0.00	3.80																			
East	3.52	2.39	0.56	0.14	0.00	0.00	6.62																			
SouthEast	1.41	2.25	0.85	0.00	0.00	0.00	4.51																			
South	1.83	3.38	0.99	0.42	0.00	0.00	6.62																			
SouthWest	3.94	7.32	8.73	2.11	1.13	0.28	23.52																			
West	12.68	16.48	12.96	4.23	0.70	0.00	47.04																			
NorthWest	3.66	1.41	0.42	0.14	0.00	0.00	5.63																			
Total	31.13	34.93	24.79	7.04	1.83	0.28	100.00																			



**Peace Airshed Zone Association**  
**Summary of Hourly Averages - Wind Speed (Scalar)**

**Portable-Spirit River - Wind Speed (WS) - km/h**  
**October 1, 2008 to November 1, 2008**

Maximum Speed: 44 km/h on Oct 24 05:00	Maximum Daily Speed Average: 24.9 km/h on Oct 24	Hours in Service: 744
Minimum Speed: 1 km/h on Oct 31 09:00	Minimum Daily Speed Average: 3.7 km/h on Oct 4	Hours of Data: 710
Maximum Diurnal Speed Average: 12.9 km/h at hour 13	Minimum Diurnal Speed Average: 8.2 km/h at hour 1	Hours of Missing Data: 34
Monthly Average Speed: 9.83 km/h	Percentiles: P <sub>1</sub> = 1.3 P <sub>10</sub> = 2.7 Q <sub>1</sub> = 4.7 Median = 8.4 Q <sub>3</sub> = 12.8 P <sub>90</sub> = 18.4 P <sub>99</sub> = 32.0	Percent Operational Time: 95.4

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-Oct	3	6	5	1	2	5	2	1	1	18	31	6	9	9	9	13	10	6	5	4	2	3	3	7	6.8	31.1
2-Oct	6	10	7	6	12	5	2	6	7	8	9	13	17	5	7	14	14	12	6	6	6	5	9	4	8.2	17.0
3-Oct	6	12	17	5	11	9	7	7	6	8	6	9	4	5	9	4	7	6	3	2	2	2	2	4	6.4	16.9
4-Oct	6	4	5	4	5	6	5	2	2	2	5	6	4	3	4	5	2	2	3	3	3	2	2	4	3.7	6.3
5-Oct	4	3	1	2	2	2	2	5	2	15	18	17	34	29	28	25	24	16	22	14	14	11	9	7	12.8	34.2
6-Oct	9	5	10	8	10	11	9	8	12	16	14	16	12	22	22	22	18	9	8	5	4	8	10	4	11.3	22.3
7-Oct	6	4	4	6	3	2	4	3	2	3	3	3	3	2	5	4	5	7	8	7	4	3	2	5	4.1	7.9
8-Oct	4	4	2	3	2	5	4	4	4	5	7	10	14	4	7	4	5	4	5	10	12	10	11	10	6.3	14.0
9-Oct	6	8	5	6	4	3	3	1	1	3	2	5	7	7	6	8	6	5	3	3	5	3	4	3	4.4	7.6
10-Oct	3	3	4	7	8	5	7	6	5	3	3	6	11	8	6	7	7	4	8	11	11	11	12	12	7.0	12.0
11-Oct	9	8	2	7	6	5	7	10	5	7	13	20	18	16	15	17	16	13	11	12	11	12	9	6	10.6	20.4
12-Oct	2	3	4	5	4	2	5	3	3	6	7	6	7	7	6	6	4	2	5	7	7	4	7	7	4.9	7.3
13-Oct	10	6	9	13	18	16	10	9	15	22	20	18	23	20	21	18	12	16	26	22	18	17	15	12	16.1	25.8
14-Oct	12	9	7	5	12	12	9	12	15	12	10	9	9	7	9	9	9	10	11	11	11	12	12	12	10.3	15.5
15-Oct	11	12	10	9	16	16	17	10	8	12	11	11	14	9	7	6	4	2	8	8	6	2	5	6	9.1	16.6
16-Oct	7	9	8	8	9	10	11	11	13	16	25	29	24	19	17	17	16	11	8	10	8	7	4	2	12.5	28.7
17-Oct	5	4	6	9	10	5	9	12	15	19	17	16	18	21	18	13	11	12	10	12	13	14	17	13	12.4	21.4
18-Oct	11	10	9	10	11	6	9	12	17	21	13	10	11	12	12	9	5	3	3	4	6	10	12	13	10.0	20.7
19-Oct	10	10	10	11	10	9	10	7	12	15	16	13	14	13	11	11	7	9	7	9	4	2	4	6	9.5	16.0
20-Oct	5	4	4	3	3	3	4	4	3	4	4	7	5	15	19	14	3	5	10	12	14	13	12	12	7.6	19.2
21-Oct	11	12	12	14	12	10	10	11	10	11	10	10	10	9	9	7	8	6	9	15	11	16	13	8	10.6	16.4
22-Oct	8	9	9	12	17	16	12	10	11	11	19	22	22	17	20	14	9	2	8	13	11	9	20	29	13.7	29.0
23-Oct	28	31	33	28	26	25	27	28	26	25	27	22	18	16	14	14	17	16	17	14	15	14	18	14	21.5	32.7
24-Oct	20	20	29	38	44	44	30	34	35	29	25	24	23	17	18	19	13	21	19	23	18	19	21	16	24.9	44.0
25-Oct	19	21	18	16	16	15	16	9	10	16	16	16	14	22	10	8	17	14	6	8	5	N	N	N	14.0	21.7
26-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
27-Oct	N	N	N	N	N	N	N	27	21	23	20	21	20	15	11	15	15	12	12	15	10	14	14	8	--	26.6
28-Oct	4	11	5	7	13	12	6	2	5	5	6	3	3	4	6	6	5	4	2	2	3	4	3	2	5.2	12.5
29-Oct	4	3	3	1	3	3	5	3	3	5	5	6	6	8	8	8	7	9	10	11	13	8	8	8	6.2	12.6
30-Oct	10	12	8	8	8	8	7	6	5	4	4	6	5	7	9	11	13	10	8	8	5	5	4	2	7.2	12.6
31-Oct	1	1	2	2	2	1	1	1	1	2	5	7	8	8	6	9	7	7	3	4	4	4	3	3	3.8	9.1

8.2	8.8	8.5	8.7	10.4	9.3	8.7	8.8	9.2	11.4	12.4	12.2	12.9	11.9	11.7	11.1	9.8	8.6	8.8	9.5	8.6	8.4	9.1	8.3	Diurnal Average
28.4	31.3	32.7	37.6	44.0	43.7	30.4	33.9	34.9	29.4	31.1	28.7	34.2	28.6	27.6	24.8	24.0	21.0	25.8	23.2	17.9	19.3	20.7	29.0	Diurnal Maximum

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

**Peace Airshed Zone Association  
Summary of Hourly Standard Deviations**

**Portable-Spirit River - Wind Direction (WD) - deg  
October 1, 2008 to November 1, 2008**

Maximum Value: 94.1 deg on Oct 31 09:00																						Hours in Service: 744				
Minimum Value: 2.1 deg on Oct 10 23:00																						Hours of Data: 710				
Percentiles: P <sub>1</sub> = 2.9 P <sub>10</sub> = 4.2 Q <sub>1</sub> = 6.1 Median = 11.1 Q <sub>3</sub> = 25.5 P <sub>90</sub> = 47.5 P <sub>99</sub> = 86.0																						Hours of Missing Data: 34				
																						Hours of Calibration: 0				
																						Percent Operational Time: 95.4				
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-Oct	37	14	33	68	74	12	48	82	68	47	38	24	20	15	41	6	5	15	14	15	34	67	35	9	82.0	
2-Oct	10	7	8	9	17	10	50	64	56	57	26	32	27	18	16	11	22	23	79	43	21	60	26	59	79.2	
3-Oct	34	16	17	77	6	31	74	41	41	15	73	39	46	58	26	71	43	16	15	43	93	90	66	46	93.0	
4-Oct	12	94	21	62	84	7	11	47	48	35	35	39	40	49	54	25	83	44	20	43	51	27	34	11	94.1	
5-Oct	26	32	26	13	35	34	20	27	39	24	9	4	4	6	6	7	6	7	5	4	3	4	4	4	39.1	
6-Oct	5	12	6	4	10	10	15	6	15	7	9	9	10	8	9	10	7	8	13	67	31	12	9	29	66.8	
7-Oct	25	13	33	42	63	79	39	55	38	85	63	51	41	44	28	36	22	14	11	12	23	38	43	16	84.6	
8-Oct	23	18	23	24	44	10	31	27	23	29	19	17	27	31	26	31	26	26	13	4	3	4	7	5	44.4	
9-Oct	3	3	4	7	7	84	67	40	82	18	33	27	31	23	39	17	12	22	36	29	8	8	12	15	83.7	
10-Oct	11	43	24	8	7	12	8	17	15	46	52	25	20	26	56	57	14	22	7	5	5	3	2	8	57.4	
11-Oct	13	22	43	30	19	23	12	8	23	41	9	7	6	10	8	8	7	5	6	6	6	4	3	13	42.8	
12-Oct	48	70	11	9	11	76	48	21	29	22	12	17	17	16	14	19	27	30	10	16	6	7	10	11	75.9	
13-Oct	5	7	8	6	4	4	4	5	4	4	5	5	6	9	6	7	8	5	4	4	5	4	4	6	8.9	
14-Oct	6	10	12	12	6	4	5	3	4	7	11	12	19	13	19	12	14	8	10	10	8	5	5	6	19.2	
15-Oct	4	4	6	7	3	2	4	6	14	6	8	14	9	15	21	22	22	20	17	18	35	59	13	20	59.1	
16-Oct	7	6	9	5	6	10	5	10	5	8	5	4	6	9	8	8	4	4	10	4	6	17	48	48	48.5	
17-Oct	38	47	17	10	9	24	30	8	8	5	8	9	13	9	14	11	8	8	12	4	5	3	4	3	46.6	
18-Oct	8	5	14	10	9	18	15	5	6	5	9	11	11	11	16	16	17	21	19	37	7	3	3	3	36.7	
19-Oct	9	6	9	6	4	5	5	15	5	4	5	11	9	13	12	10	15	12	22	6	71	35	51	20	71.1	
20-Oct	38	10	21	29	60	91	28	60	88	74	18	19	26	74	11	14	14	21	13	6	5	3	6	5	90.8	
21-Oct	5	5	4	3	4	5	6	5	6	6	9	9	11	13	11	10	10	10	11	3	6	8	5	14	14.1	
22-Oct	9	8	14	35	8	8	7	10	14	7	5	6	7	17	5	7	15	50	24	9	9	12	11	6	50.1	
23-Oct	8	5	5	4	3	3	3	3	3	4	5	5	8	8	8	8	7	11	9	7	7	4	3	10	11.2	
24-Oct	6	5	4	4	3	3	6	3	5	5	5	5	6	9	7	8	7	7	13	5	4	3	3	5	13.0	
25-Oct	4	3	6	6	5	5	9	10	9	7	8	7	13	18	11	11	14	10	9	5	19	N	N	N	19.0	
26-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--
27-Oct	N	N	N	N	N	N	N	3	8	3	4	5	5	6	8	9	4	7	6	2	6	6	6	12	11.6	
28-Oct	10	6	13	6	8	10	18	30	37	47	15	32	73	18	26	18	28	34	65	40	30	38	17	69	72.7	
29-Oct	65	43	25	87	46	57	44	56	71	13	11	14	12	8	8	10	13	9	10	6	4	6	5	6	87.5	
30-Oct	4	3	3	5	4	4	5	6	10	9	23	28	45	19	23	8	5	3	16	13	22	13	9	22	45.1	
31-Oct	94	36	32	21	27	49	49	87	94	30	19	12	16	16	18	10	6	11	13	20	10	20	36	25	94.1	
	94.0	94.1	42.8	87.5	84.2	90.8	74.0	86.8	94.1	84.6	73.0	51.0	72.7	74.1	55.7	70.9	82.7	50.1	79.2	66.8	93.0	90.5	65.9	68.8		
N - Not Valid																										

PASZA

Valleyview Station

Monthly Summary Tables, Graphs and  
Roses

**Peace Airshed Zone Association  
Summary of Hourly Averages**

**Valleyview - Sulphur Dioxide (SO<sub>2</sub>) - ppb  
October 1, 2008 to November 1, 2008**

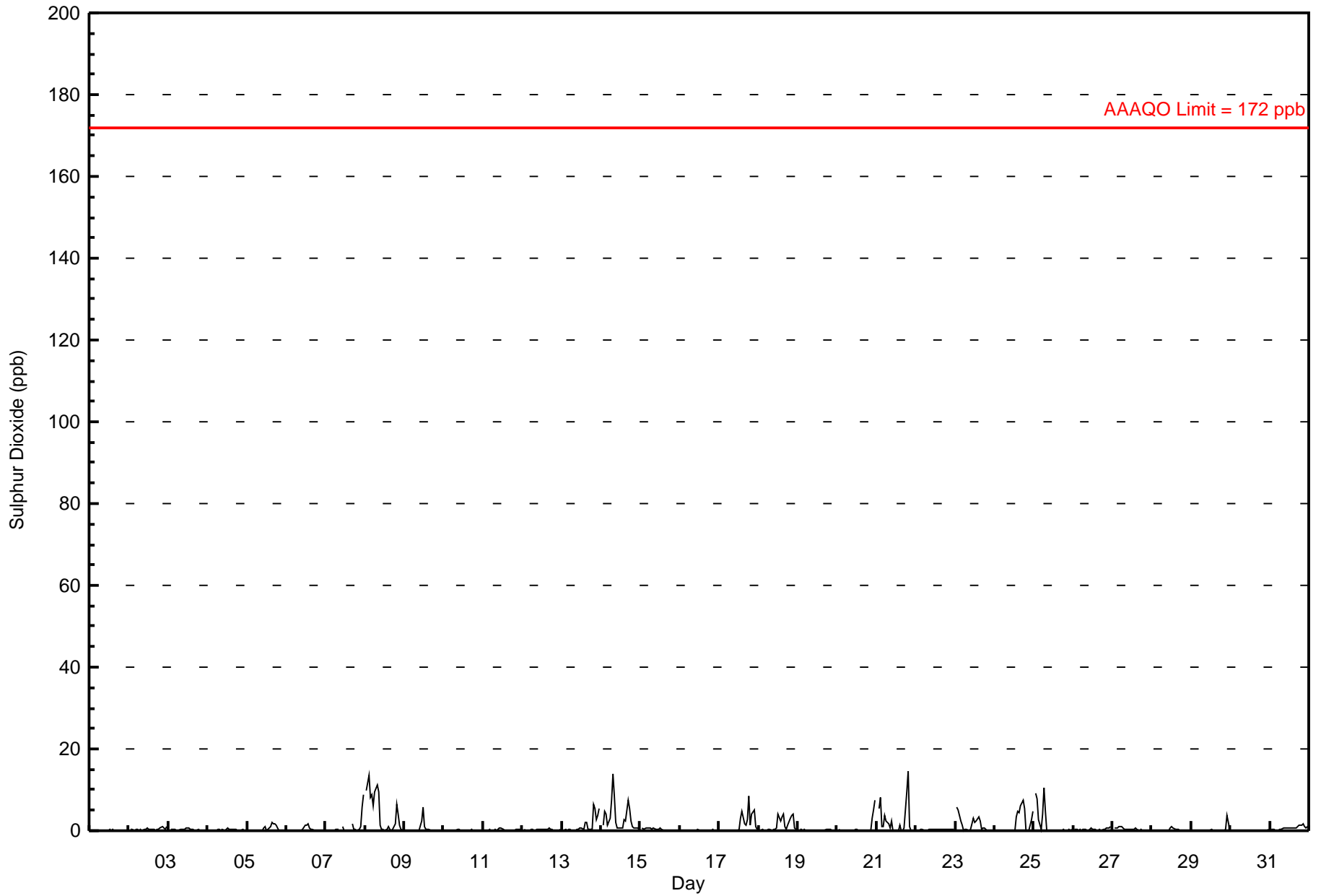
Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 14.5 ppb on Oct 21 20:00	Maximum Daily Average: 4.1 ppb on Oct 8
Minimum Value: 0 ppb on Oct 1 02:00	Hours of Data: 708
Maximum Diurnal Average: 1.4 ppb at hour 3	Hours of Missing Data: 36
Monthly Average: 0.82 ppb	Hours of Calibration: 35
Minimum Daily Average: 0.0 ppb on Oct 30	Percent Operational Time: 99.9
Minimum Diurnal Average: 0.4 ppb at hour 11	
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> = 0.5 P <sub>90</sub> = 2.3 P <sub>99</sub> = 9.3	

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-Oct	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-Oct	A	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	0	1	0.4	1.0
3-Oct	A	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
4-Oct	A	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
5-Oct	A	0	0	0	0	0	0	0	0	0	1	1	0	1	1	2	2	2	2	0	0	0	0	0	0.5	2.1
6-Oct	A	0	0	0	0	0	0	0	0	0	0	1	1	2	1	0	0	0	0	0	0	0	0	0	0.3	1.8
7-Oct	A	0	0	0	0	0	0	0	0	P	1	0	C	C	C	C	2	0	0	0	0	1	6	9	1.1	9.0
8-Oct	A	10	13	8	9	6	9	11	9	1	0	0	0	0	1	0	0	0	2	7	4	1	0	0	4.1	13.4
9-Oct	A	0	0	0	0	0	0	0	0	0	2	6	1	0	0	0	0	0	0	0	0	0	0	0	0.4	5.6
10-Oct	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
11-Oct	A	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
12-Oct	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0.2	0.6
13-Oct	A	0	0	0	0	0	0	0	0	0	0	1	1	0	2	2	0	0	0	6	5	3	4	5	1.4	6.5
14-Oct	A	1	5	4	1	3	7	14	8	2	1	1	1	1	3	2	7	6	2	1	1	1	1	0	3.2	14.0
15-Oct	A	1	1	1	1	1	1	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
16-Oct	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
17-Oct	A	0	0	0	0	0	0	0	0	0	0	0	0	3	5	2	1	3	9	1	4	5	1	0	1.5	8.5
18-Oct	A	0	0	0	0	0	0	0	0	0	0	1	4	2	3	4	1	0	1	3	4	4	1	0	1.3	4.1
19-Oct	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	0.4
20-Oct	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	5	7	0.7	7.4
21-Oct	A	5	8	1	1	4	2	2	1	2	0	0	0	0	1	0	0	1	9	15	1	0	0	0	2.4	14.5
22-Oct	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
23-Oct	A	6	5	2	1	0	0	0	0	0	2	3	2	2	3	2	0	1	1	0	0	0	0	0	1.4	5.6
24-Oct	A	0	0	0	0	0	0	0	0	0	0	0	0	4	5	4	6	8	6	0	0	0	3	5	1.7	7.5
25-Oct	A	9	8	3	0	4	11	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.8	10.6
26-Oct	A	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	1	1	0.3	0.9
27-Oct	A	1	1	1	1	1	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0.3	0.9
28-Oct	A	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0.2	0.9
29-Oct	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0.2	3.6
30-Oct	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
31-Oct	A	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	0.7	1.7
--	1.1	1.4	0.7	0.6	0.7	1.1	1.2	0.7	0.4	0.4	0.6	0.5	0.7	1.0	0.8	0.7	0.7	1.2	1.2	0.8	0.7	0.8	1.1		Diurnal Average	
--	9.8	13.4	8.2	8.7	6.3	10.6	14.0	9.5	2.4	2.3	5.6	4.1	3.5	4.8	4.5	7.4	7.5	9.5	14.5	5.3	5.2	5.7	9.0		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 Averages for SO<sub>2</sub> at Valleyview October 2008



**Peace Airshed Zone Association  
Summary of Hourly Maximums**

**Valleyview - Sulphur Dioxide (SO<sub>2</sub>) - ppb  
October 1, 2008 to November 1, 2008**

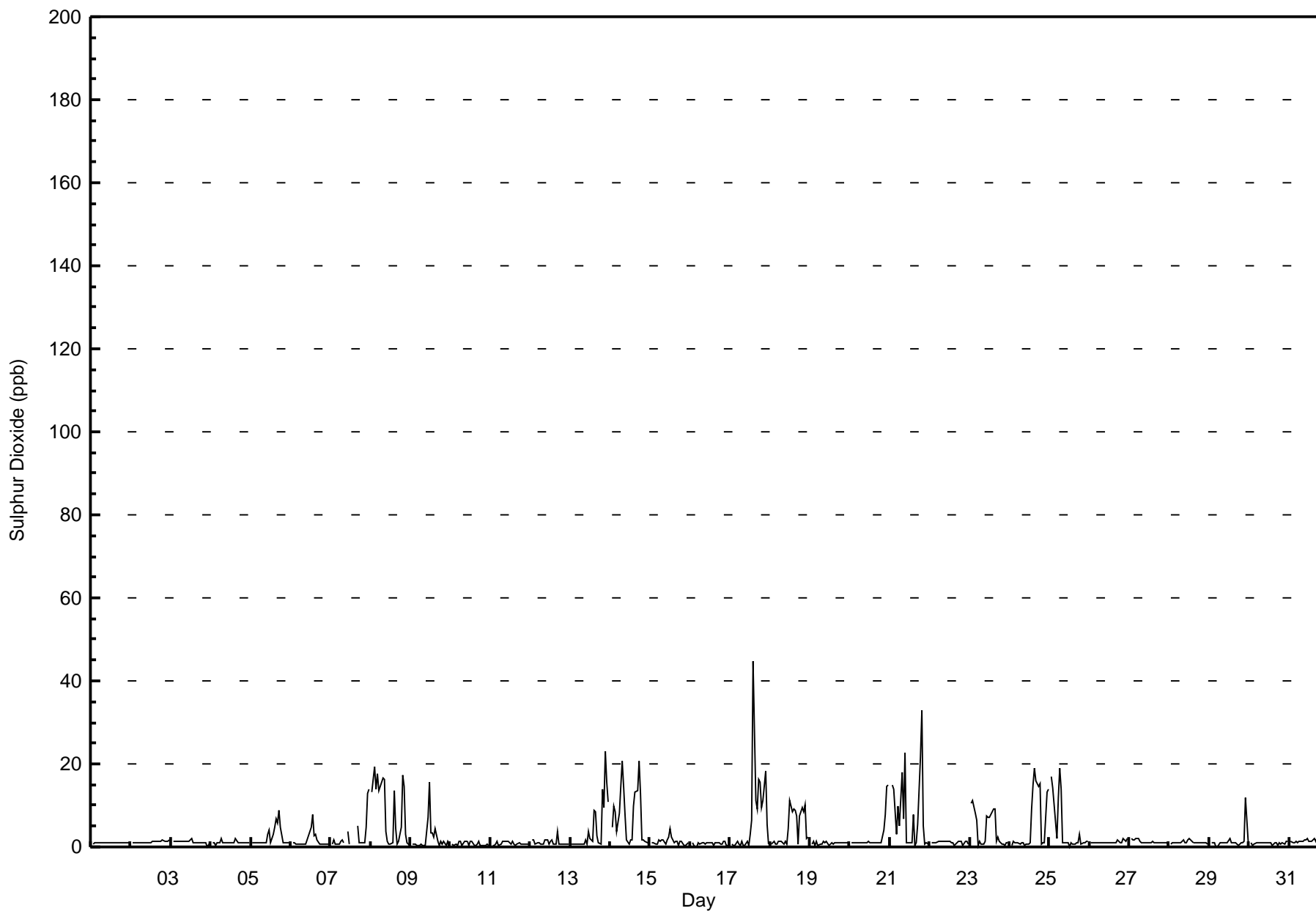
Maximum Value: 44.8 ppb on Oct 17 15:00	Maximum Daily Average: 8.4 ppb on Oct 8	Hours in Service: 744
Minimum Value: 0 ppb on Oct 29 05:00	Minimum Daily Average: 0.8 ppb on Oct 10	Hours of Data: 708
Maximum Diurnal Average: 4.8 ppb at hour 15	Minimum Diurnal Average: 1.7 ppb at hour 11	Hours of Missing Data: 36
Monthly Average: 2.73 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> = 1.6 P <sub>90</sub> = 8.7 P <sub>99</sub> = 20.5	Hours of Calibration: 35
		Percent Operational Time: 99.9

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	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	1.1
2-Oct	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	2	1.2	1.6
3-Oct	A	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	0	1	1.2	1.9	
4-Oct	A	1	1	0	1	1	2	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1.1	2.1	
5-Oct	A	1	1	1	1	1	1	1	1	1	3	4	1	3	5	7	6	9	5	1	1	1	1	2.4	8.8	
6-Oct	A	1	1	1	1	1	1	1	1	1	2	4	5	8	3	3	2	1	1	1	1	1	1	1.7	8.0	
7-Oct	A	1	2	1	1	1	1	2	1	P	4	1	C	C	C	C	5	1	1	1	1	5	13	14	3.0	13.8
8-Oct	A	13	19	14	18	14	15	17	16	4	1	1	1	1	14	4	1	1	5	17	14	3	1	0	8.4	19.4
9-Oct	A	1	1	1	0	0	1	0	0	0	7	16	3	3	2	4	1	0	1	1	1	0	1	2.1	15.6	
10-Oct	A	1	0	1	0	1	1	0	1	1	1	0	1	1	0	0	1	1	0	0	0	0	1	0	0.8	1.4
11-Oct	A	0	0	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.5	
12-Oct	A	2	2	1	1	1	1	1	1	2	2	1	1	2	1	1	4	1	1	1	1	1	1	1.1	3.7	
13-Oct	A	1	1	1	1	1	1	1	1	2	1	4	2	1	9	9	3	1	1	14	10	23	16	11	4.8	23.0
14-Oct	A	5	10	9	4	8	15	21	15	8	2	1	2	2	10	13	13	21	13	2	2	1	1	7.6	20.7	
15-Oct	A	1	1	1	1	2	1	2	2	1	2	2	4	2	1	1	1	0	1	1	0	0	1	1.3	4.4	
16-Oct	A	1	0	0	0	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0	0	0.8	1.2	
17-Oct	A	1	0	0	1	1	0	1	0	0	1	0	3	6	45	11	9	16	16	9	11	18	5	1	6.9	44.8
18-Oct	A	1	2	1	1	2	2	1	1	1	1	4	11	8	9	9	7	1	7	9	8	10	2	2	4.3	11.0
19-Oct	A	1	1	0	1	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1.0	1.4	
20-Oct	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	8	15	15	2.7	14.9
21-Oct	A	15	14	8	3	10	5	18	7	23	1	1	1	1	8	0	1	6	22	33	5	1	1	8.0	32.7	
22-Oct	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1.1	1.5	
23-Oct	A	10	11	8	6	0	1	1	1	1	7	7	7	8	9	9	1	2	2	1	1	0	1	1	4.2	11.1
24-Oct	A	0	1	1	1	1	1	1	1	0	1	1	1	9	15	19	16	15	15	1	1	1	13	14	5.6	18.9
25-Oct	A	17	14	10	2	12	19	14	1	1	1	1	0	1	1	1	1	1	3	1	1	1	1	1	4.6	18.9
26-Oct	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	2	2	1	2	1.2	1.9
27-Oct	A	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.9
28-Oct	A	1	1	1	1	1	1	1	2	1	1	2	2	2	1	1	1	1	1	1	1	1	1	1	1.1	1.9
29-Oct	A	1	1	1	0	0	1	1	1	1	1	1	2	1	1	1	1	0	1	1	1	1	12	1	1.3	11.8
30-Oct	A	1	0	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	1	1	1	1	1	1	0.9	1.2
31-Oct	A	1	1	1	1	1	1	1	1	2	2	2	1	1	2	2	1	2	2	2	3	2	1	1	1.6	2.5
--	2.7	3.0	2.3	1.8	2.3	2.6	3.1	2.1	2.1	1.7	2.1	2.1	2.5	4.8	3.6	2.8	3.0	3.5	3.5	2.5	2.9	3.2	2.6	Diurnal Average		
--	16.9	19.4	13.7	17.7	13.5	18.9	20.6	16.3	22.9	7.3	15.6	11.0	9.1	44.8	18.9	16.0	20.7	21.9	32.7	14.5	23.0	15.6	14.9	Diurnal Maximum		

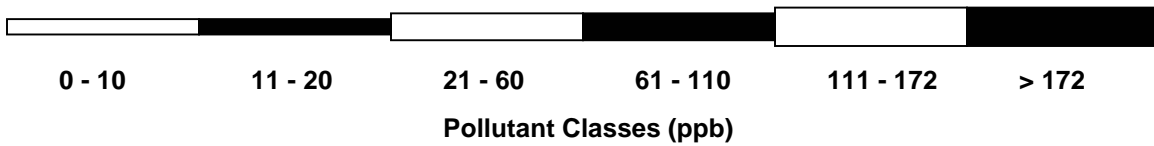
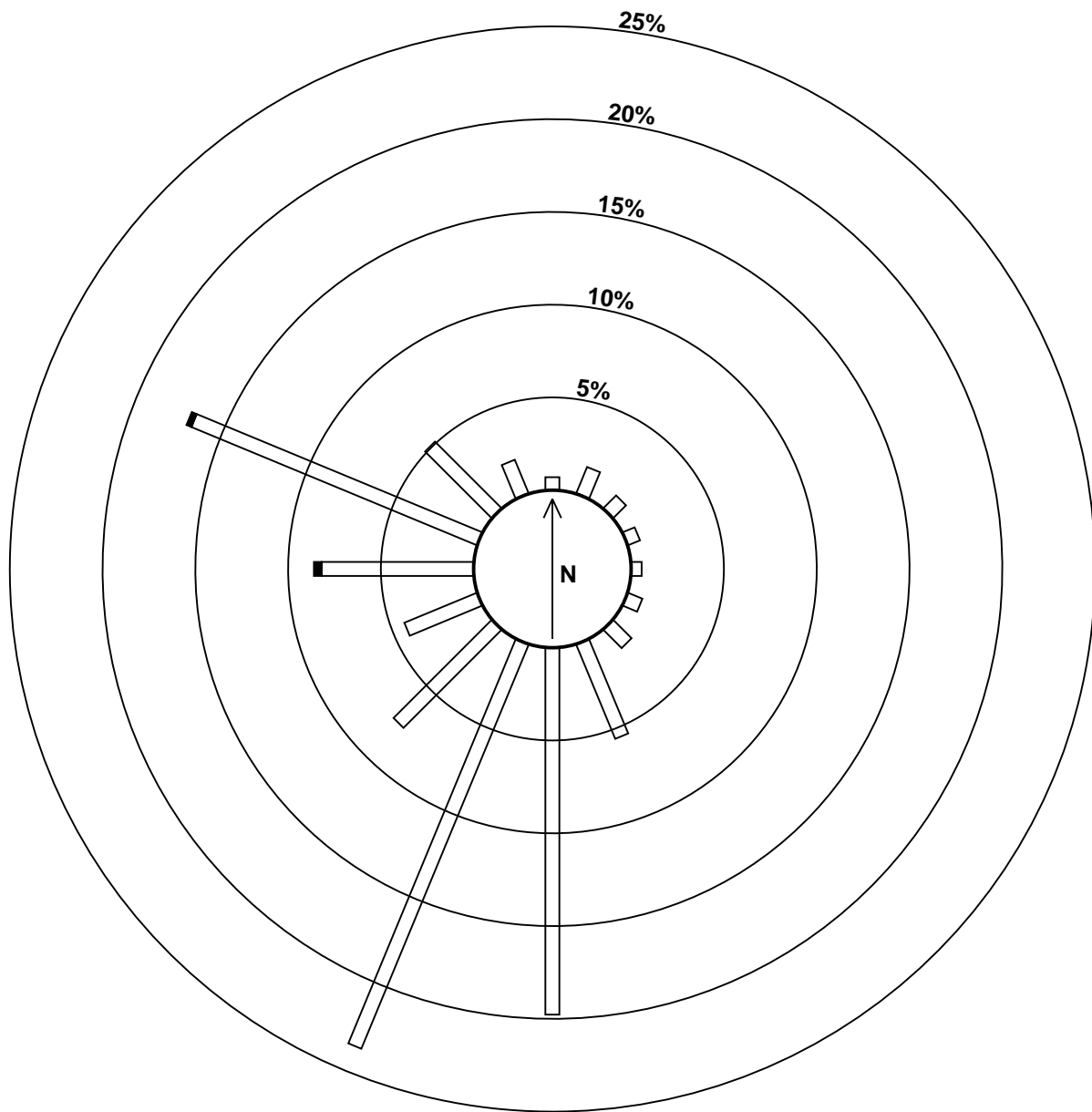
C - Calibration                      P - Power Failure                      A - Automated Daily Zero Span

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

## October 2008



# Pollutant Rose for SO<sub>2</sub> at Valleyview October 2008



**Peace Airshed Zone Association  
Summary of Hourly Averages**

**Valleyview - Hydrogen Sulphide (H<sub>2</sub>S) - ppb  
October 1, 2008 to November 1, 2008**

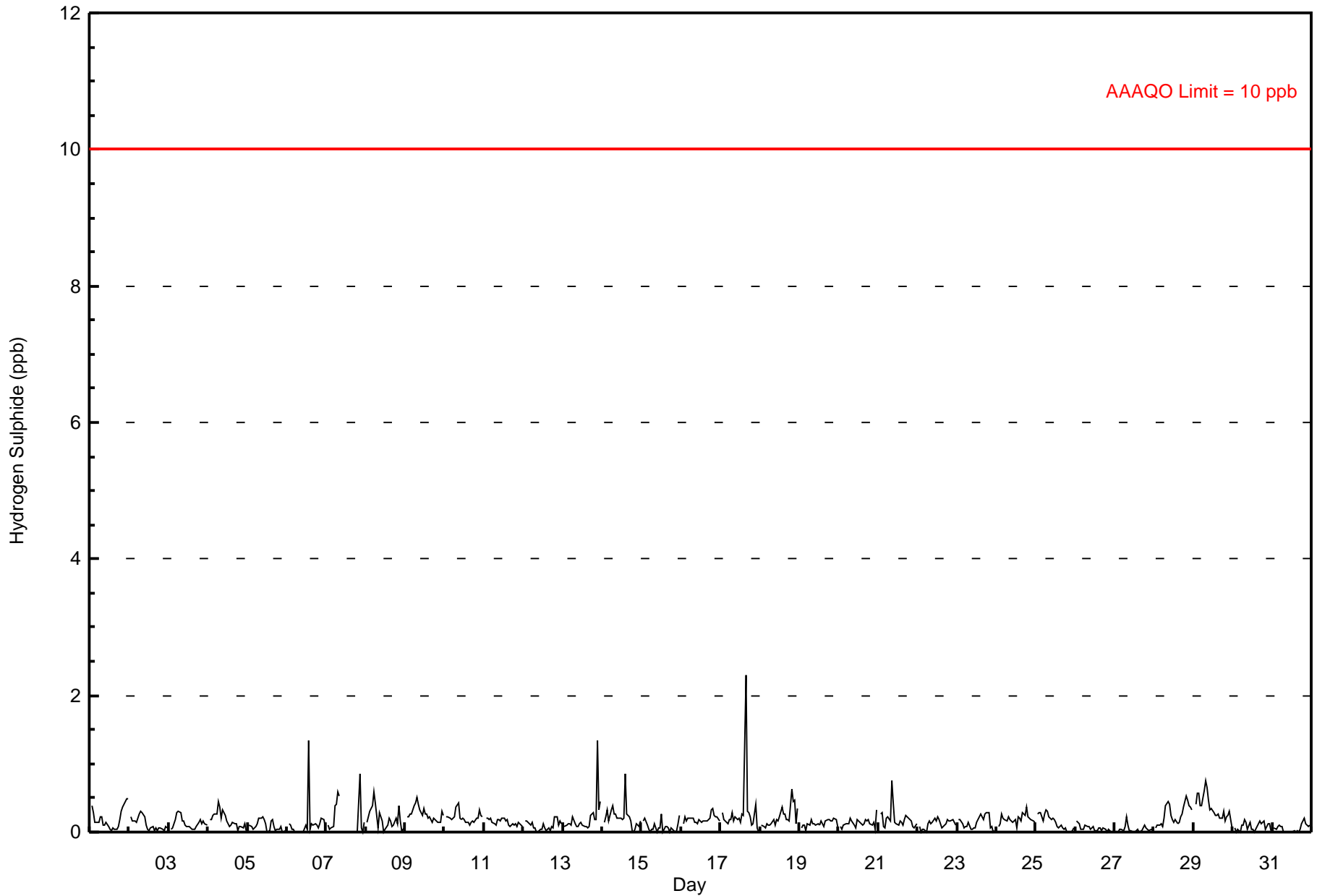
Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 2.3 ppb on Oct 17 16:00	Maximum Daily Average: 0.4 ppb on Oct 29
Hours of Data: 708	Hours of Missing Data: 36
Minimum Value: 0 ppb on Oct 5 13:00	Hours of Calibration: 35
Minimum Daily Average: 0.0 ppb on Oct 27	Percent Operational Time: 99.9
Maximum Diurnal Average: 0.2 ppb at hour 8	
Minimum Diurnal Average: 0.1 ppb at hour 13	
Monthly Average: 0.16 ppb	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> = 0.3 P <sub>99</sub> = 0.7

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-Oct	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
2-Oct	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-Oct	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
4-Oct	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
5-Oct	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-Oct	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.1	1.3
7-Oct	A	0	0	0	0	0	0	1	1	P	0	C	C	C	C	0	0	0	0	0	0	1	0	0	0.2	0.9
8-Oct	A	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
9-Oct	A	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
10-Oct	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
11-Oct	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
12-Oct	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-Oct	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.2	1.3
14-Oct	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.2	0.9
15-Oct	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
16-Oct	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
17-Oct	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0.3	2.3
18-Oct	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.2	0.6
19-Oct	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
20-Oct	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
21-Oct	A	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.8
22-Oct	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
23-Oct	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-Oct	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
25-Oct	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
26-Oct	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
27-Oct	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
28-Oct	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.3	0.5
29-Oct	A	0	1	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.7
30-Oct	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
31-Oct	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

--	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	Diurnal Average
--	0.4	0.6	0.6	0.6	0.4	0.6	0.6	0.7	0.8	0.5	0.4	0.3	0.3	1.3	0.9	2.3	0.3	0.3	0.4	0.6	0.9	1.3	0.5	0.5	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 Averages for H<sub>2</sub>S at Valleyview October 2008



**Peace Airshed Zone Association  
Summary of Hourly Maximums**

**Valleyview - Hydrogen Sulphide (H<sub>2</sub>S) - ppb  
October 1, 2008 to November 1, 2008**

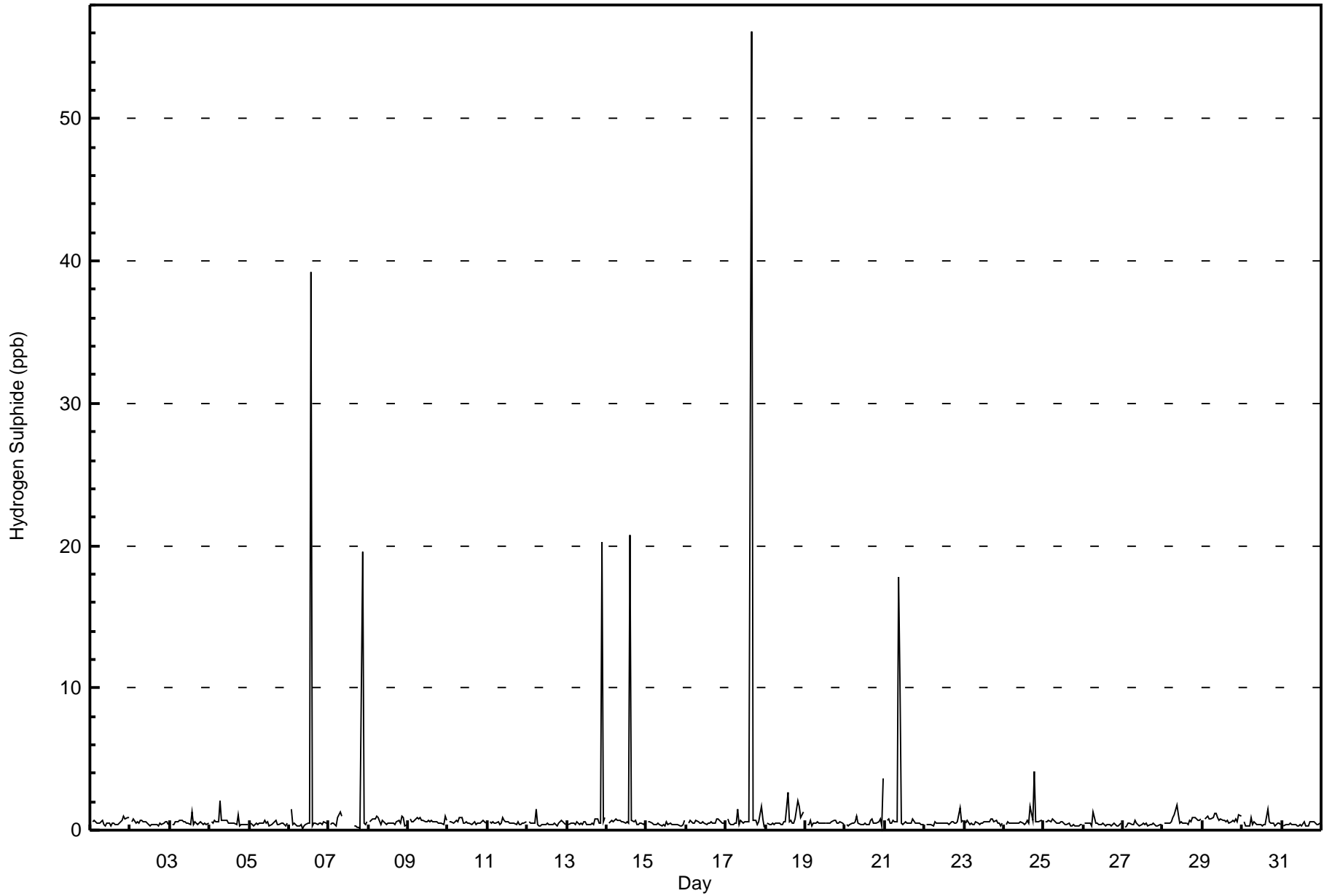
Maximum Value: 56.1 ppb on Oct 17 16:00	Maximum Daily Average: 3.1 ppb on Oct 17	Hours in Service: 744
Minimum Value: 0 ppb on Oct 6 09:00	Minimum Daily Average: 0.4 ppb on Oct 27	Hours of Data: 708
Maximum Diurnal Average: 2.3 ppb at hour 16	Minimum Diurnal Average: 0.5 ppb at hour 13	Hours of Missing Data: 36
Monthly Average: 0.81 ppb	Percentiles: P <sub>1</sub> = 0.3 P <sub>10</sub> = 0.4 Q <sub>1</sub> = 0.4 Median = 0.5 Q <sub>3</sub> = 0.6 P <sub>90</sub> = 0.8 P <sub>99</sub> = 6.0	Hours of Calibration: 35
		Percent Operational Time: 99.9

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	A	1	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0.6	1.0
2-Oct	A	1	1	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0.5	0.8
3-Oct	A	0	0	1	1	1	1	1	1	1	0	1	0	1	0	1	0	0	1	0	0	0	0	1	0.5	1.3
4-Oct	A	1	1	1	1	1	2	1	1	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0.6	2.0
5-Oct	A	0	0	0	0	0	0	0	1	1	0	1	0	0	0	1	1	0	0	0	0	0	0	1	0.5	0.7
6-Oct	A	1	0	0	0	0	0	0	0	0	0	1	0	39	0	1	0	0	0	0	0	1	0	0	2.1	39.2
7-Oct	A	0	1	0	0	1	1	1	1	P	1	C	C	C	C	0	0	0	0	0	20	0	0	1	1.6	19.6
8-Oct	A	1	1	1	1	1	1	0	1	1	0	0	1	0	1	0	0	1	1	0	1	1	0	0	0.6	1.0
9-Oct	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	1	0.7	1.0
10-Oct	A	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0	0	1	0	1	0	1	1	1	0.6	0.9
11-Oct	A	1	0	1	0	0	1	0	0	1	1	1	0	0	1	1	0	1	0	1	0	1	0	1	0.5	0.9
12-Oct	A	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0.5	1.5
13-Oct	A	0	0	0	0	0	1	0	1	0	1	0	0	0	0	0	0	1	1	1	1	20	1	1	1.4	20.2
14-Oct	A	1	1	1	1	1	1	1	1	1	1	0	1	1	21	1	1	1	0	0	0	1	0	1	1.4	20.8
15-Oct	A	1	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.4	0.7
16-Oct	A	0	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0	0.6	0.8
17-Oct	A	1	0	0	0	1	0	1	0	1	0	1	1	1	1	56	1	1	1	0	1	2	1	0	3.1	56.1
18-Oct	A	0	0	0	0	0	1	1	0	0	0	1	1	3	1	1	1	0	1	2	2	1	1	1	0.8	2.6
19-Oct	A	0	0	1	0	0	1	1	1	1	1	0	0	1	1	0	1	1	1	1	0	0	1	0	0.5	0.7
20-Oct	A	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	1	1	1	1	0	1	1	0	0.6	3.6
21-Oct	A	1	1	1	1	1	1	1	18	10	0	0	1	1	0	0	1	1	1	1	0	0	0	0	1.7	17.8
22-Oct	A	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1	1	1	0	1	1	2	1	0.5	1.5
23-Oct	A	1	1	0	1	0	0	1	0	0	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0.5	0.8
24-Oct	A	0	1	0	1	1	0	1	0	1	1	1	0	1	1	1	2	1	4	1	1	1	1	1	0.7	4.1
25-Oct	A	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0.5	0.8
26-Oct	A	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.3
27-Oct	A	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.7
28-Oct	A	0	0	1	1	1	1	1	2	1	1	1	0	0	1	0	1	1	1	1	1	1	1	1	0.7	1.8
29-Oct	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0.8	1.2
30-Oct	A	1	0	0	0	1	0	1	0	0	0	0	0	0	0	1	1	0	0	1	0	0	0	0	0.5	1.5
31-Oct	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	1	0	0	0	0.4	0.6

--	0.5	0.5	0.5	0.5	0.6	0.7	0.7	1.1	0.9	0.5	0.5	0.5	1.9	1.2	2.3	0.5	0.5	0.7	0.5	1.2	1.2	0.5	0.7	Diurnal Average
--	1.4	0.9	1.0	0.8	1.5	2.0	1.5	17.8	10.4	0.9	0.7	0.7	39.2	20.8	56.1	1.6	1.1	4.1	2.1	19.6	20.2	1.1	3.6	Diurnal Maximum

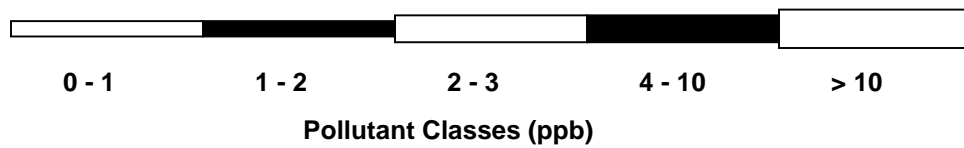
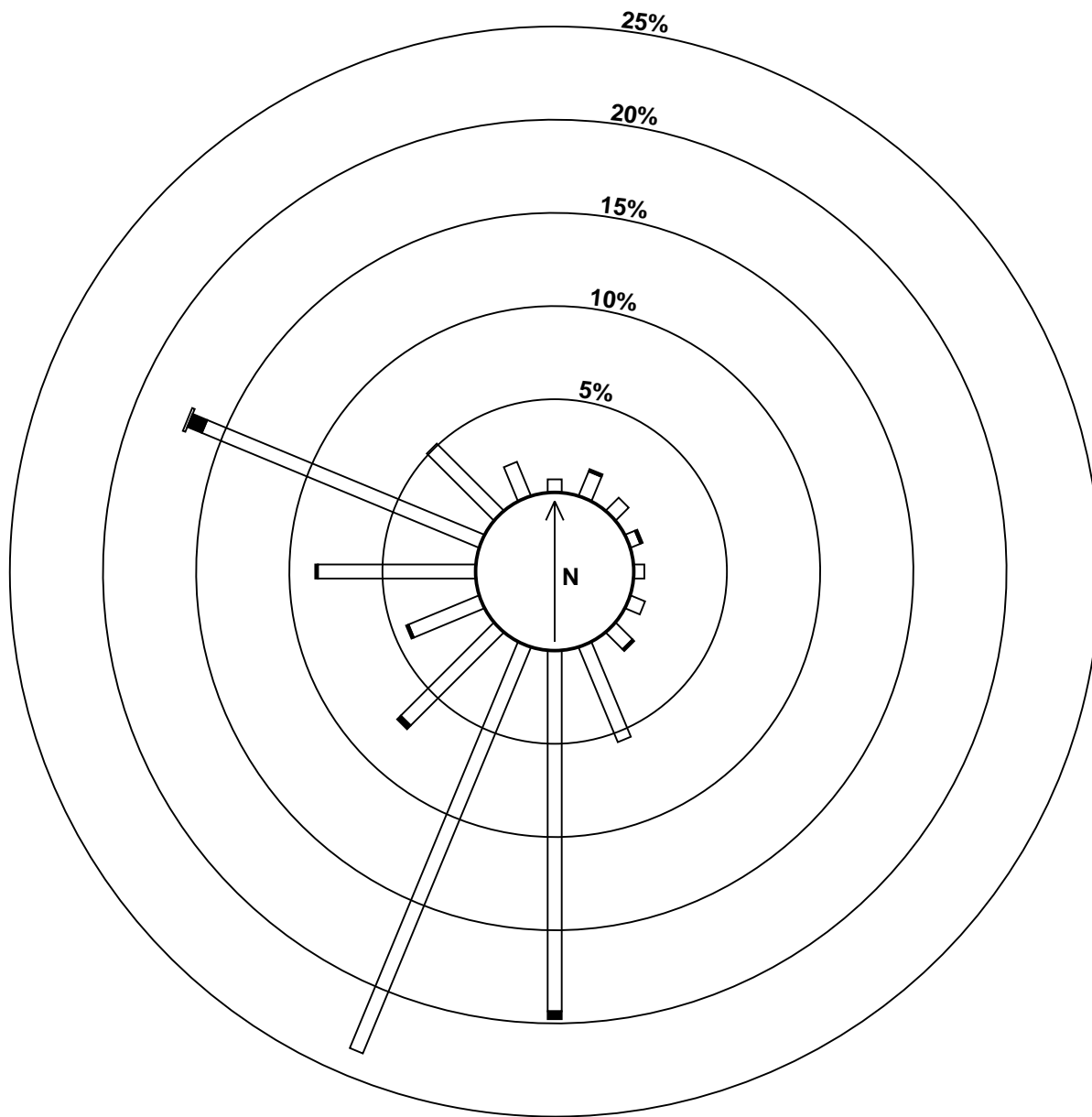
C - Calibration                      P - Power Failure                      A - Automated Daily Zero Span

# Hourly Maximums for H<sub>2</sub>S at Valleyview October 2008





# Pollutant Rose for H<sub>2</sub>S at Valleyview October 2008



**Peace Airshed Zone Association  
Summary of Hourly Averages**

**Valleyview - External Temperature (ET) - °C  
October 1, 2008 to November 1, 2008**

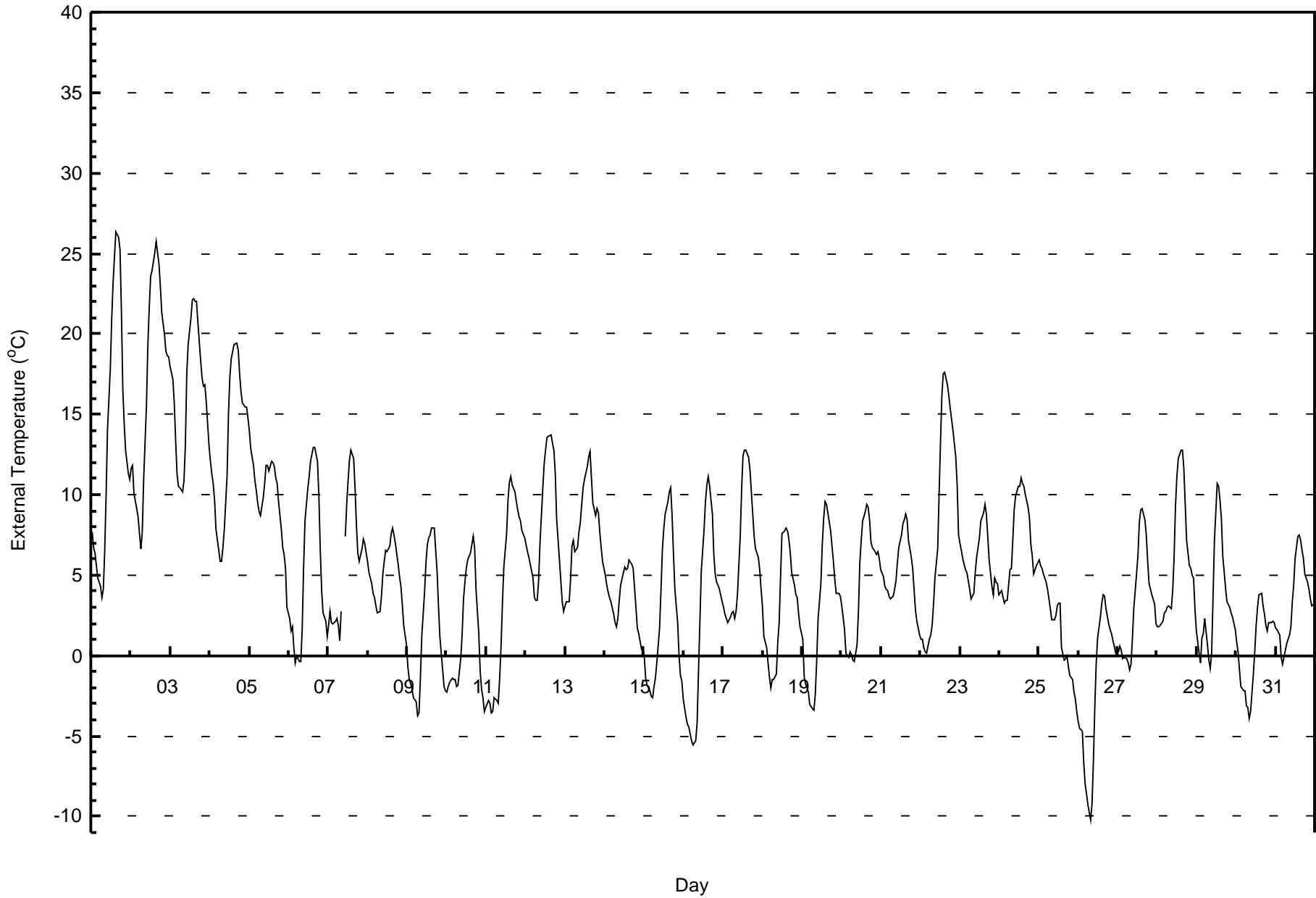
Maximum Value: 26.4 °C on Oct 1 16:00	Maximum Daily Average: 17.0 °C on Oct 2	Hours in Service: 744
Minimum Value: -10 °C on Oct 26 08:00	Minimum Daily Average: -2.1 °C on Oct 26	Hours of Data: 743
Maximum Diurnal Average: 11.2 °C at hour 16	Minimum Diurnal Average: 1.3 °C at hour 8	Hours of Missing Data: 1
Monthly Average: 5.72 °C	Percentiles: P <sub>1</sub> = -5.6 P <sub>10</sub> = -1.4 Q <sub>1</sub> = 1.8 Median = 5.1 Q <sub>3</sub> = 9.0 P <sub>90</sub> = 12.9 P <sub>99</sub> = 24.5	Hours of Calibration: 0
		Percent Operational Time: 99.9

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	8	7	6	6	5	4	4	4	7	10	14	18	21	23	25	26	26	25	21	17	14	13	11	11	13.6	26.4
2-Oct	12	12	10	9	9	8	7	8	11	16	19	22	24	24	25	26	25	24	23	21	20	19	19	19	17.0	25.8
3-Oct	18	17	16	13	11	10	10	10	11	13	18	19	21	22	22	22	22	21	18	17	17	17	16	13	16.5	22.2
4-Oct	12	11	11	10	8	7	6	6	7	8	11	15	17	18	19	19	19	19	18	16	16	15	15	15	13.3	19.5
5-Oct	14	13	12	11	10	9	9	9	10	11	12	12	11	12	12	12	11	11	10	8	7	6	5	3	10.0	14.0
6-Oct	2	2	2	1	0	0	0	0	2	5	8	10	11	12	13	13	13	12	10	7	4	3	2	1	5.5	13.0
7-Oct	2	3	2	2	2	2	2	1	3	P	7	9	11	12	13	12	10	8	6	6	7	7	7	6	6.1	12.8
8-Oct	6	5	4	4	4	3	3	3	4	5	6	7	6	7	8	8	8	7	6	5	4	3	2	1	4.9	7.9
9-Oct	-1	-1	-2	-2	-3	-3	-4	-4	-1	1	4	6	7	7	8	8	8	7	5	3	1	-1	-2	-2	1.6	7.9
10-Oct	-2	-2	-2	-1	-2	-2	-2	-2	0	1	4	5	5	6	6	7	7	7	4	1	-1	-2	-3	-3	1.3	7.4
11-Oct	-3	-3	-3	-4	-3	-3	-3	-3	-1	1	3	6	8	10	11	11	11	10	10	9	9	8	8	7	3.9	11.1
12-Oct	7	6	6	6	5	4	3	3	5	7	10	12	13	14	14	14	13	13	11	8	6	5	3	3	7.9	13.8
13-Oct	3	3	3	5	7	7	6	7	8	8	9	10	11	12	12	13	11	9	9	9	9	8	7	6	8.0	12.7
14-Oct	5	4	4	4	3	3	2	2	2	3	4	5	5	5	5	6	6	5	4	3	2	1	0	0	3.6	6.0
15-Oct	0	-1	-2	-2	-2	-3	-2	-1	0	2	4	7	8	9	10	10	10	9	6	4	2	0	-1	-2	2.6	10.4
16-Oct	-3	-4	-4	-4	-5	-5	-6	-5	-4	-1	2	5	8	10	11	11	11	9	6	5	5	4	4	3	2.2	11.2
17-Oct	3	3	2	2	2	3	3	2	3	4	7	10	12	13	13	12	12	10	9	7	7	6	5	4	6.4	12.8
18-Oct	3	1	1	0	-1	-2	-2	-2	-1	1	2	5	8	8	8	8	7	6	5	4	4	4	3	2	2.9	8.0
19-Oct	1	-1	-2	-2	-2	-3	-3	-3	-2	0	2	4	7	8	10	9	9	8	7	6	5	4	4	4	2.8	9.5
20-Oct	3	2	2	0	0	0	0	0	0	1	3	6	7	8	9	9	9	8	7	7	6	6	6	6	4.4	9.4
21-Oct	5	5	4	4	4	4	3	4	4	5	6	7	8	8	8	9	8	7	6	5	4	3	2	1	5.2	8.8
22-Oct	1	1	0	0	0	1	1	2	3	5	7	10	13	16	18	18	17	16	15	15	14	12	11	7	8.5	17.6
23-Oct	7	7	6	5	5	5	4	4	4	5	6	7	7	8	9	9	9	7	6	4	4	5	5	5	5.9	9.4
24-Oct	4	4	4	3	3	3	5	5	7	9	10	11	11	11	11	10	10	9	9	7	6	5	6	6	7.0	11.1
25-Oct	6	6	5	5	5	4	4	3	2	2	2	3	3	3	0	0	0	0	-1	-1	-2	-2	-3	-4	1.7	5.9
26-Oct	-4	-5	-5	-7	-8	-9	-9	-10	-9	-6	-3	0	1	2	3	4	4	3	2	2	1	1	1	0	-2.1	3.8
27-Oct	0	1	0	0	0	0	0	-1	-1	1	3	5	6	8	9	9	8	7	6	4	4	4	3	2	3.3	9.2
28-Oct	2	2	2	2	3	3	3	3	3	4	6	9	11	12	13	13	12	9	7	6	5	5	5	3	5.9	12.8
29-Oct	2	0	0	1	1	2	1	0	-1	0	4	7	11	11	10	9	6	4	3	3	3	3	2	2	3.4	10.7
30-Oct	1	0	-1	-2	-2	-2	-3	-3	-4	-3	-1	0	2	3	4	4	3	3	2	2	2	2	2	2	0.4	3.8
31-Oct	2	2	1	0	-1	0	0	1	1	2	3	4	6	7	7	7	7	6	5	5	4	4	3	3	3.3	7.5

3.7	3.2	2.7	2.2	1.9	1.6	1.4	1.3	2.2	3.9	6.3	8.2	9.7	10.7	11.1	11.2	10.7	9.7	8.3	6.9	6.1	5.4	4.8	4.0		Diurnal Average
18.0	17.2	15.7	13.4	11.3	10.5	10.4	10.2	10.9	15.5	19.3	21.6	23.6	23.9	25.0	26.4	26.0	25.2	22.9	21.3	19.9	18.9	18.7	18.5		Diurnal Maximum

P - Power Failure

# Hourly Averages for External Temperature at Valleyview October 2008



**Peace Airshed Zone Association  
Summary of Hourly Averages**

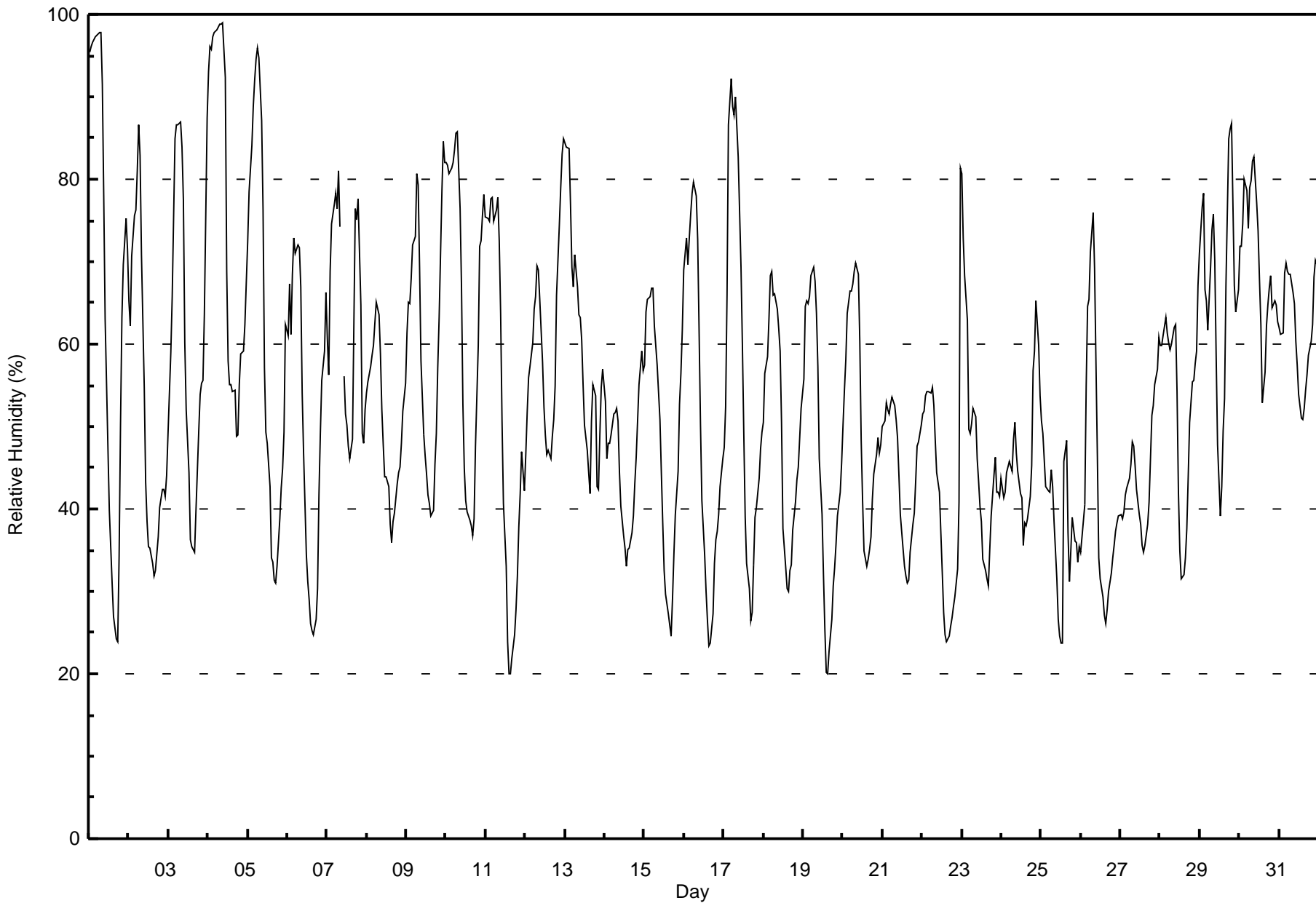
**Valleyview - Relative Humidity (RH) - %  
October 1, 2008 to November 1, 2008**

Maximum Value: 98.9 % on Oct 4 10:00	Maximum Daily Average: 75.5 % on Oct 4	Hours in Service: 744
Minimum Value: 20 % on Oct 19 16:00	Minimum Daily Average: 37.8 % on Oct 25	Hours of Data: 743
Maximum Diurnal Average: 70.8 % at hour 8	Minimum Diurnal Average: 35.7 % at hour 16	Hours of Missing Data: 1
Monthly Average: 54.19 %	Percentiles: P <sub>1</sub> = 23.7 P <sub>10</sub> = 32.5 Q <sub>1</sub> = 40.2 Median = 51.9 Q <sub>3</sub> = 66.7 P <sub>90</sub> = 78.4 P <sub>99</sub> = 97.8	Hours of Calibration: 0
		Percent Operational Time: 99.9

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	95	96	97	97	97	98	98	98	92	78	63	48	40	35	31	27	24	24	34	50	63	70	75	72	66.7	97.8
2-Oct	65	62	71	76	76	81	87	83	71	55	43	38	35	35	33	32	35	37	40	42	42	42	44	44	52.4	86.6
3-Oct	49	59	66	75	85	87	87	87	84	78	60	52	44	36	35	35	40	50	54	55	56	64	87	60.8	87.4	
4-Oct	93	96	96	97	98	98	98	99	99	99	92	69	58	55	55	54	54	49	49	55	59	59	62	67	75.5	98.9
5-Oct	72	79	84	89	92	95	96	95	87	76	57	49	48	43	34	33	31	31	33	39	43	45	49	62	60.9	95.9
6-Oct	61	67	61	69	73	71	72	72	67	54	47	34	31	29	26	25	25	27	30	42	49	56	59	66	50.5	72.8
7-Oct	61	56	69	75	77	78	77	81	74	P	56	52	50	48	46	48	63	77	75	78	65	49	48	52	63.2	81.1
8-Oct	54	55	57	59	60	62	65	63	59	52	48	44	44	43	38	36	38	39	43	44	45	48	52	55	50.2	65.0
9-Oct	61	65	65	68	72	73	81	79	69	58	49	47	44	42	41	39	40	45	49	57	63	79	85	82	60.5	84.6
10-Oct	82	82	81	81	82	83	86	86	76	67	53	45	41	40	39	38	37	39	48	60	72	72	76	78	64.3	85.8
11-Oct	75	75	75	78	78	75	76	78	73	64	51	41	33	24	20	20	22	25	28	32	38	42	47	42	50.4	77.8
12-Oct	47	52	56	57	60	64	66	69	69	65	58	52	49	47	47	46	49	51	55	66	74	79	83	85	60.3	85.0
13-Oct	84	84	84	77	69	67	71	67	64	63	61	55	50	47	44	42	51	55	54	43	42	49	55	57	59.7	84.3
14-Oct	53	46	48	48	49	51	52	52	51	45	40	37	35	33	35	35	37	39	43	46	51	55	59	57	45.7	59.1
15-Oct	57	64	65	66	67	67	62	60	57	51	44	38	33	30	27	26	25	29	35	39	45	53	56	62	48.2	66.7
16-Oct	69	73	70	73	76	78	80	78	73	62	50	41	34	30	27	23	24	27	33	36	37	39	43	46	50.9	79.7
17-Oct	47	52	66	87	92	89	88	90	86	83	69	60	49	39	33	30	27	27	33	39	40	44	47	49	57.0	92.2
18-Oct	51	56	58	63	68	69	66	66	64	62	59	50	38	33	30	30	33	33	37	41	44	45	49	52	49.9	68.9
19-Oct	56	65	65	65	66	68	69	68	64	57	46	39	32	25	20	20	23	27	31	33	36	39	42	46	45.9	69.4
20-Oct	50	54	58	64	66	66	67	69	70	68	60	48	41	35	33	34	35	37	41	44	47	49	47	48	51.3	69.8
21-Oct	50	51	53	52	52	53	54	53	51	49	44	39	35	33	32	31	31	35	38	39	43	48	48	50	44.3	53.5
22-Oct	51	52	54	54	54	54	55	53	48	44	42	37	32	28	25	24	25	26	27	28	29	33	41	81	41.5	81.3
23-Oct	81	73	68	63	50	49	50	52	51	46	43	40	39	34	33	32	31	35	39	44	46	42	42	42	46.8	80.7
24-Oct	44	41	42	44	45	46	45	48	50	47	45	42	41	36	38	38	39	42	45	57	59	65	60	54	46.4	65.2
25-Oct	51	49	46	43	42	42	45	43	38	31	27	25	24	24	46	48	37	31	35	39	36	36	34	35	37.8	50.7
26-Oct	35	37	41	55	65	65	71	76	69	58	46	34	32	29	27	26	28	30	32	34	36	37	38	39	43.3	75.9
27-Oct	39	39	40	42	42	44	45	48	48	45	42	39	38	36	35	36	38	41	46	51	53	55	57	61	44.1	60.8
28-Oct	60	60	61	63	61	60	59	60	62	62	54	42	35	32	32	34	38	44	50	55	56	58	59	67	52.7	67.1
29-Oct	71	77	78	67	65	62	69	74	76	70	58	48	39	43	49	53	67	85	86	87	77	67	64	67	66.6	86.7
30-Oct	72	72	75	80	79	74	79	80	82	83	77	74	68	62	53	57	62	65	67	68	64	65	65	63	70.2	82.8
31-Oct	62	61	61	69	70	69	68	68	66	65	60	57	54	51	51	52	54	56	59	60	62	68	70	70	61.9	70.1
61.3 62.9 64.8 67.5 68.6 69.0 70.4 70.8 67.4 61.2 53.1 45.7 40.9 37.2 36.0 35.7 37.2 40.1 43.9 48.5 50.7 53.0 55.4 59.3																								Diurnal Average		
95.5 96.1 96.6 97.2 97.8 98.2 98.4 98.7 98.9 98.9 92.4 73.8 67.8 62.4 55.1 56.6 67.1 84.9 86.1 86.7 77.0 78.9 84.6 87.4																								Diurnal Maximum		

P - Power Failure

# Hourly Averages for Relative Humidity at Valleyview October 2008



**Peace Airshed Zone Association**  
**Summary of Hourly Averages**

Valleyview  
 October 1, 2008 to November 1, 2008  
 WS (km/h), WD (deg)

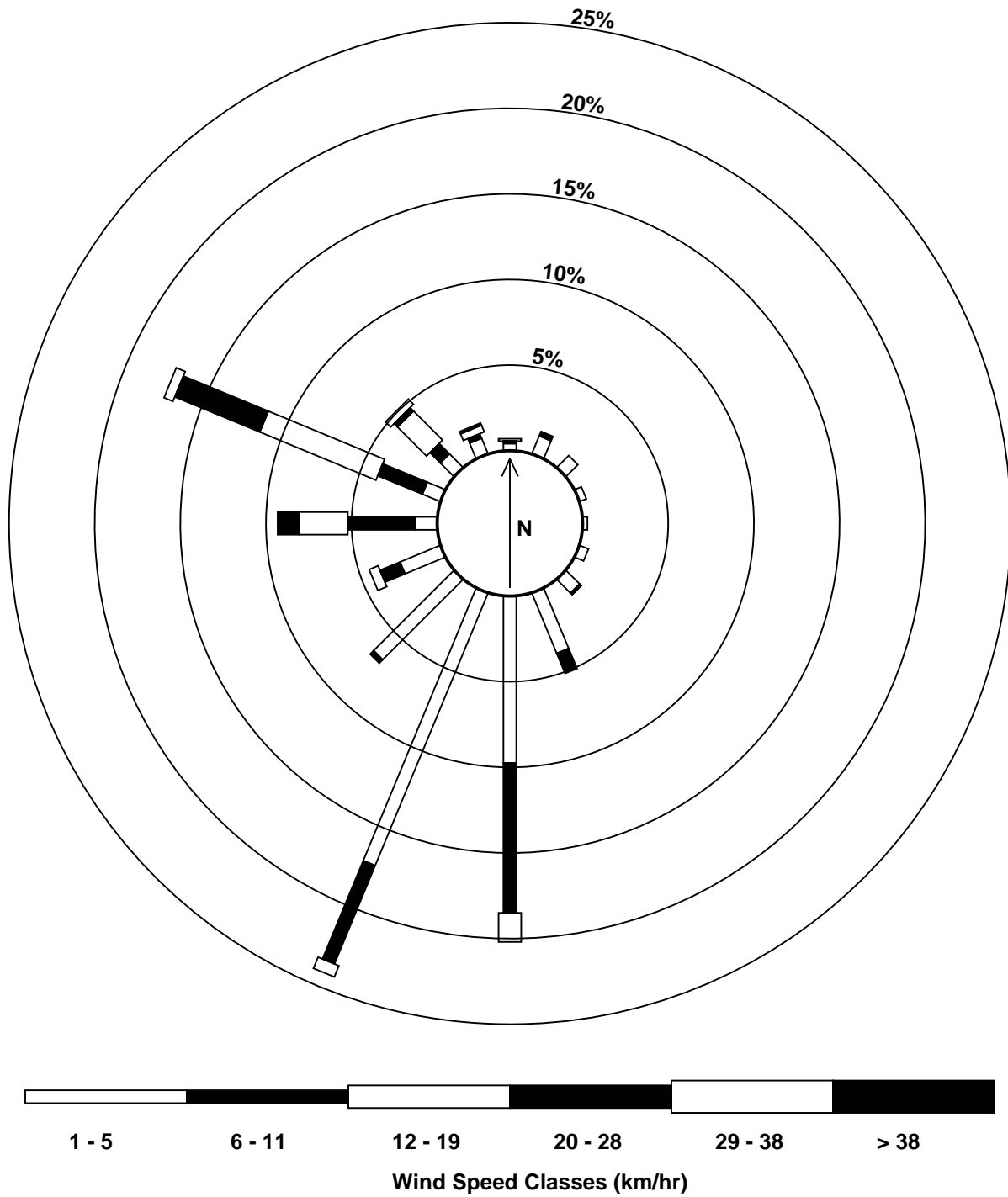
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	1	2	2	1	2	1	2	1	3	3	2	3	1	1	0	1	3	2	1	1	1	1	2	2	1.2	3.2
Dir	214	176	197	218	193	205	198	213	193	177	187	185	167	266	298	194	142	114	94	324	166	274	190	248	190.4	141.6
2 Spd	3	2	2	2	2	1	1	1	2	3	4	5	5	4	5	6	5	4	6	9	8	6	6	5	3.8	9.1
Dir	188	209	232	199	217	222	204	202	181	182	187	185	181	184	169	179	154	147	153	172	179	185	193	233	182.7	171.5
3 Spd	3	2	2	1	1	2	1	2	1	1	3	3	3	3	4	5	5	4	3	4	5	7	9	2	2.0	8.9
Dir	279	317	196	217	103	192	234	201	149	298	186	157	159	179	152	131	129	78	80	94	147	156	190	103	155.6	190.1
4 Spd	2	2	1	1	1	0	1	1	1	2	2	2	2	2	3	2	1	3	5	4	2	7	8	5	1.5	8.1
Dir	178	187	264	198	257	177	338	185	215	30	275	227	208	125	36	22	35	157	165	165	188	164	162	151	169.1	161.6
5 Spd	5	3	6	5	5	3	3	3	3	10	21	17	18	15	19	17	15	12	8	3	6	6	3	3	6.8	21.3
Dir	158	179	188	188	188	185	186	193	198	277	292	291	294	291	288	286	274	272	272	251	258	266	229	160	269.2	291.6
6 Spd	3	4	3	3	3	5	5	3	4	4	7	18	18	13	14	10	8	4	2	2	2	4	2	2	3.9	18.1
Dir	193	188	210	197	203	192	197	208	201	198	254	283	286	289	294	301	313	333	68	360	9	323	4	335	274.1	283.5
7 Spd	1	1	1	0	2	2	2	1	2	P	3	4	7	7	11	12	12	15	27	12	15	15	17	16	7.2	26.6
Dir	251	297	140	301	48	292	320	68	175	P	184	219	287	280	277	286	288	301	298	310	299	293	284	283	289.5	297.9
8 Spd	17	13	9	11	12	10	10	12	13	19	20	20	19	18	20	17	13	12	6	9	8	7	8	6	12.5	20.3
Dir	286	283	283	284	285	283	278	274	284	293	302	308	321	304	301	306	311	300	275	277	283	273	268	257	292.7	308.1
9 Spd	3	3	3	3	3	3	2	2	3	3	2	2	5	10	12	8	7	8	4	3	2	1	2	2	1.1	12.3
Dir	221	199	213	189	203	182	157	183	178	162	141	309	310	349	1	338	13	21	14	348	336	182	185	188	339.1	0.7
10 Spd	2	0	1	0	2	2	0	1	1	2	1	3	3	4	2	2	0	1	1	1	2	3	2	2	0.2	3.7
Dir	195	203	209	120	13	34	222	292	300	18	40	49	35	12	35	302	231	62	200	151	198	208	220	213	7.2	12.5
11 Spd	3	5	4	4	5	9	8	8	10	12	11	10	9	8	9	10	7	5	5	6	5	6	3	5	6.9	12.3
Dir	208	194	207	201	205	191	194	190	188	185	190	192	191	197	197	204	205	200	202	202	206	198	199	186	195.5	184.8
12 Spd	4	4	4	4	4	4	4	3	4	3	9	13	13	11	15	13	7	3	2	3	4	3	4	3	3.2	15.0
Dir	188	203	181	194	200	200	208	227	209	182	306	311	307	318	327	319	333	330	299	202	200	219	187	209	279.1	327.0
13 Spd	4	3	4	4	3	4	3	4	4	2	3	7	12	12	13	11	8	5	6	16	20	20	14	15	7.5	20.1
Dir	206	211	208	223	208	224	230	246	237	257	234	262	265	259	271	269	282	265	287	281	282	290	280	284	268.0	290.0
14 Spd	22	22	23	18	17	16	15	14	16	22	25	23	18	18	16	17	14	14	9	5	5	4	6	6	14.4	24.7
Dir	289	291	287	289	292	290	286	280	284	292	297	303	312	300	291	290	279	287	274	239	248	230	190	204	287.2	297.0
15 Spd	5	3	5	5	8	8	9	7	7	6	5	4	7	5	6	4	4	6	4	2	1	3	4	3	4.5	8.7
Dir	209	200	192	191	187	181	194	187	182	190	200	228	261	274	243	244	228	186	179	232	190	198	195	161	203.2	193.7
16 Spd	2	3	3	4	3	4	4	4	4	6	6	6	7	7	6	6	3	2	2	2	2	3	2	1	3.7	7.1
Dir	194	209	216	217	218	216	214	214	203	195	198	189	185	182	188	194	205	169	167	212	211	202	173	198	198.1	182.5
17 Spd	1	2	4	3	3	7	6	3	5	1	6	6	8	20	25	22	22	25	17	11	7	9	6	3	7.6	25.2
Dir	246	203	192	191	194	197	192	209	202	333	196	207	279	283	290	293	290	290	280	266	267	277	258	230	268.9	290.2
18 Spd	4	4	5	4	3	3	4	2	3	3	2	4	17	23	22	21	20	18	12	11	10	11	9	9	7.7	22.8
Dir	212	216	200	187	181	147	184	200	214	205	176	220	284	292	289	287	296	297	285	281	281	287	293	276	276.2	292.2
19 Spd	7	3	5	6	6	4	5	6	8	10	8	9	8	10	9	9	8	9	12	10	8	9	11	12	7.7	12.0
Dir	270	197	198	199	196	200	193	194	190	185	191	185	184	188	186	171	175	168	173	179	171	177	183	189	186.1	172.7
20 Spd	10	11	9	5	6	4	4	2	4	6	5	5	5	3	2	2	0	4	3	5	5	8	15	16	4.2	16.3
Dir	191	191	191	189	184	194	183	151	200	200	201	197	206	204	207	205	24	315	249	261	270	271	276	287	225.8	286.8
21 Spd	11	14	10	11	17	17	17	19	18	19	22	22	20	18	21	19	18	12	13	13	7	4	5	4	14.0	22.3
Dir	288	287	282	294	291	287	290	293	294	293	297	299	305	298	294	301	295	286	278	277	276	215	208	180	290.0	297.1
22 Spd	7	8	6	7	8	9	7	10	14	14	13	13	12	13	16	15	15	17	14	13	11	5	8	22	9.8	22.4
Dir	187	187	194	196	193	186	183	192	189	187	188	189	196	190	190	194	194	191	191	192	197	208	303	303	197.9	302.8

**Peace Airshed Zone Association  
Summary of Hourly Averages**

Valleyview  
October 1, 2008 to November 1, 2008  
WS (km/h), WD (deg)

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	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	13	23	20	16	18	18	16	10	6	16	20	22	22	18	17	16	18	5	3	5	6	7	6	8	12.3	22.9
Dir	280	283	281	271	269	266	265	253	219	259	275	286	289	280	283	292	298	296	216	221	191	200	193	196	271.0	283.3
24 Spd	7	7	6	5	4	5	7	5	10	11	14	21	17	28	26	26	24	22	21	12	12	8	22	20	12.8	27.8
Dir	202	194	198	210	206	213	225	219	248	241	245	261	265	280	280	278	284	282	282	253	257	238	273	277	262.8	280.0
25 Spd	25	25	26	28	25	22	23	27	30	31	31	32	34	29	34	25	18	15	14	13	16	12	10	9	22.2	33.8
Dir	284	281	282	290	295	288	283	295	304	299	297	294	300	307	325	328	320	320	336	321	333	321	310	304	302.4	299.8
26 Spd	6	6	6	2	4	4	3	1	1	3	5	10	11	11	11	10	10	8	11	12	11	11	9	10	6.4	11.8
Dir	293	280	294	186	183	173	180	184	206	165	154	178	181	184	182	182	176	175	177	180	186	188	190	191	187.2	179.8
27 Spd	9	9	6	8	8	6	3	2	4	6	6	4	4	4	4	3	4	4	5	4	5	6	4	2	4.9	9.2
Dir	192	191	196	197	192	195	199	217	214	205	200	207	206	202	205	212	209	208	212	208	203	206	215	203	201.6	191.3
28 Spd	4	2	1	2	2	2	2	1	1	1	2	3	5	5	4	3	1	2	1	2	3	3	4	1	2.1	5.4
Dir	212	221	208	229	226	239	278	302	249	227	178	178	201	203	207	217	287	193	318	180	196	220	218	246	215.1	201.0
29 Spd	1	0	1	3	2	2	3	1	3	3	4	2	6	14	13	15	18	11	7	5	7	8	12	9	5.2	17.9
Dir	271	191	238	226	242	327	28	129	226	205	197	170	312	311	312	307	304	298	285	239	269	289	290	284	291.2	304.4
30 Spd	9	8	3	2	2	3	4	4	5	4	3	2	3	5	4	4	4	3	1	1	3	7	5	6	2.6	8.8
Dir	277	270	242	176	190	195	163	212	216	209	192	192	179	179	176	118	130	103	71	96	158	147	149	166	186.6	277.4
31 Spd	5	2	3	2	1	5	6	7	8	6	6	6	5	5	5	5	4	5	7	9	13	10	9	7	5.7	12.9
Dir	172	159	144	296	160	177	178	168	179	172	164	143	167	170	193	191	175	184	181	183	186	182	174	190	176.8	186.1
Spd	4.5	4.5	4.3	3.9	3.8	4.0	3.9	3.6	4.3	4.8	5.6	6.2	7.1	7.6	7.9	7.2	6.1	4.8	4.2	4.1	4.2	4.3	4.7	4.6	Diurnal Average	
Dir	249.7	248.9	244.0	243.5	243.5	236.4	237.9	242.0	237.7	246.4	256.8	263.7	274.9	276.8	281.0	280.4	280.2	275.8	259.7	243.2	242.5	237.9	241.3	250.7	Diurnal Maximum	
Spd	24.6	24.8	26.0	27.9	25.3	22.1	22.9	26.8	30.1	30.8	30.8	32.4	33.8	29.1	33.5	25.6	24.0	25.2	26.6	16.3	19.7	20.1	21.8	22.4	Diurnal Maximum	
Dir	283.8	281.2	282.2	289.9	295.3	287.5	283.0	295.5	304.2	299.4	297.0	293.6	299.8	306.6	324.6	278.1	284.1	290.2	297.9	281.5	282.0	290.0	272.9	302.8	Diurnal Maximum	
Maximum Speed Value: 34 km/h on Oct 25 13:00																		Minimum Speed Value: 0 km/h on Oct 4 06:00						Hours in Service: 744		
Maximum Daily Speed Average: 22.2 km/h on Oct 25																		Minimum Daily Speed Average: 0.2 km/h on Oct 10						Hours of Data: 743		
Maximum Diurnal Speed Average: 7.9 km/h at hour 15																		Minimum Diurnal Speed Average: 3.6 km/h at hour 8						Hours of Missing Data: 1		
Monthly Average Velocity: 4.81 km/h 257.31 deg																		Speed Percentiles: P <sub>1</sub> = 0.5 P <sub>10</sub> = 1.6 Q <sub>1</sub> = 2.9 Median = 5.3 Q <sub>3</sub> = 10.9 P <sub>90</sub> = 17.9 P <sub>99</sub> = 28.1						Percent Operational Time: 99.9		
All monthly, daily, and diurnal averages have been calculated using vector methods																										
P - Power Failure																										
Percentage 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	1.35	0.54	0.13	0.00	0.00	0.00	2.02																			
NorthEast	1.62	0.00	0.00	0.00	0.00	0.00	1.62																			
East	1.48	0.00	0.00	0.00	0.00	0.00	1.48																			
SouthEast	3.36	0.67	0.00	0.00	0.00	0.00	4.04																			
South	19.11	15.07	3.36	0.00	0.00	0.00	37.55																			
SouthWest	15.88	2.42	0.13	0.00	0.00	0.00	18.44																			
West	2.42	6.46	8.34	4.58	0.00	0.00	21.80																			
NorthWest	3.10	1.75	4.85	2.42	0.94	0.00	13.06																			
Total	48.32	26.92	16.82	7.00	0.94	0.00	100.00																			

# Wind Rose for WS at Valleyview October 2008





**Peace Airshed Zone Association**  
**Summary of Hourly Averages - Wind Speed (Scalar)**

**Valleyview - Wind Speed (WS) - km/h**  
**October 1, 2008 to November 1, 2008**

Maximum Speed: 34 km/h on Oct 25 15:00	Maximum Daily Speed Average: 23.3 km/h on Oct 25	Hours in Service: 744
Minimum Speed: 1 km/h on Oct 4 06:00	Minimum Daily Speed Average: 2.0 km/h on Oct 1	Hours of Data: 743
Maximum Diurnal Speed Average: 12.3 km/h at hour 15	Minimum Diurnal Speed Average: 5.6 km/h at hour 8	Hours of Missing Data: 1
Monthly Average Speed: 7.97 km/h	Percentiles: P <sub>1</sub> = 1.1 P <sub>10</sub> = 2.1 Q <sub>1</sub> = 3.3 Median = 5.5 Q <sub>3</sub> = 11.2 P <sub>90</sub> = 18.0 P <sub>99</sub> = 28.6	Percent Operational Time: 99.9

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Oct	1	2	2	2	2	2	2	1	1	1	2	3	2	2	2	2	3	2	1	2	1	1	2	2	2.0	3.4	
2-Oct	3	2	2	2	2	1	1	1	1	2	4	4	5	5	5	6	5	4	6	9	8	7	6	6	4.2	9.2	
3-Oct	4	4	2	1	2	2	1	2	2	2	2	3	3	3	4	5	6	5	4	3	4	5	7	9	4	3.7	9.1
4-Oct	2	2	2	1	2	1	2	1	1	2	2	3	3	3	4	3	1	4	5	4	2	7	8	5	2.9	8.3	
5-Oct	5	3	6	5	5	3	3	3	3	3	12	21	17	19	16	19	17	15	12	9	3	6	6	3	3	8.9	21.5
6-Oct	3	4	3	3	3	5	5	3	4	5	8	18	18	13	14	10	9	4	2	2	2	2	4	4	6.3	18.3	
7-Oct	2	1	3	4	3	3	3	2	2	P	3	5	8	7	11	12	12	15	27	12	15	15	17	17	8.7	26.9	
8-Oct	17	13	10	11	12	10	10	12	14	19	20	21	20	18	20	18	13	12	6	9	8	7	9	6	13.1	20.7	
9-Oct	3	3	3	3	3	3	2	2	3	3	2	3	6	11	13	9	8	8	4	3	2	1	2	2	4.3	12.6	
10-Oct	2	2	2	1	2	3	2	1	2	3	2	4	5	5	3	3	2	1	1	1	2	3	2	2	2.3	4.8	
11-Oct	4	5	4	4	5	9	8	8	10	12	11	10	9	9	10	7	5	5	6	5	6	4	5	5	7.0	12.4	
12-Oct	4	4	4	4	5	4	4	4	4	3	9	13	14	11	15	14	8	3	2	3	4	3	4	3	6.1	15.3	
13-Oct	4	3	4	5	3	4	3	4	4	3	4	7	12	12	13	11	10	5	6	16	20	20	14	15	8.5	20.3	
14-Oct	22	22	23	18	17	16	15	14	17	22	25	24	19	18	17	17	14	14	9	6	6	5	6	6	15.5	25.0	
15-Oct	5	3	5	6	8	8	9	7	7	6	5	6	8	6	7	5	4	6	5	3	4	3	4	3	5.5	8.7	
16-Oct	2	3	3	4	3	4	4	4	4	6	6	6	7	8	6	6	3	2	2	2	3	3	2	1	3.9	7.5	
17-Oct	1	3	4	3	3	8	6	3	5	2	6	6	9	20	25	23	22	25	17	11	7	10	6	3	9.6	25.3	
18-Oct	4	4	5	4	3	4	5	3	3	3	3	5	17	23	23	21	20	18	13	12	10	11	9	9	9.6	23.3	
19-Oct	7	4	5	6	6	4	5	6	8	10	9	9	8	11	9	9	8	9	12	10	8	9	12	12	8.2	12.1	
20-Oct	10	11	9	5	6	4	5	2	4	6	5	5	5	3	2	2	2	4	3	5	5	8	15	16	6.0	16.5	
21-Oct	12	14	10	12	17	17	17	19	18	19	23	23	20	19	21	19	18	12	13	13	8	5	5	4	14.9	22.6	
22-Oct	7	8	6	7	8	10	7	10	14	14	13	13	12	13	16	15	16	17	14	13	11	5	10	23	11.7	22.9	
23-Oct	14	23	21	16	18	18	16	10	6	16	20	22	22	19	17	16	18	6	4	5	6	7	6	8	13.9	23.0	
24-Oct	7	7	6	5	4	5	7	5	10	11	14	21	17	28	26	26	24	23	21	12	12	8	22	20	14.3	28.1	
25-Oct	25	25	26	28	25	22	23	28	30	31	31	33	34	29	34	26	18	15	15	13	17	12	11	9	23.3	34.4	
26-Oct	6	6	6	3	4	4	3	2	1	4	5	11	11	12	12	10	10	8	12	12	12	11	10	10	7.7	11.9	
27-Oct	9	9	6	8	9	6	3	2	4	6	6	4	4	4	4	3	4	4	5	4	5	6	4	2	5.0	9.2	
28-Oct	4	2	2	3	2	2	2	2	2	2	2	2	4	5	5	4	3	2	2	2	3	4	4	2	2.8	5.5	
29-Oct	2	2	1	3	2	3	3	2	3	3	4	2	7	14	13	15	18	11	8	5	7	8	12	9	6.7	18.1	
30-Oct	9	8	4	3	3	4	4	5	5	4	3	2	4	5	4	4	4	3	2	2	4	7	6	6	4.3	9.0	
31-Oct	5	2	3	2	2	5	6	7	9	7	6	7	5	5	6	5	5	5	8	9	13	11	9	8	6.1	13.0	

6.6	6.6	6.2	5.9	6.1	6.2	6.0	5.6	6.6	8.1	9.0	10.1	10.9	11.6	12.3	11.1	10.0	8.5	7.8	7.0	7.1	7.1	7.6	7.3	Diurnal Average
24.8	25.0	26.2	28.0	25.5	22.3	23.1	27.7	30.4	31.1	31.1	32.7	34.1	29.5	34.4	25.8	24.2	25.3	26.9	16.5	20.0	20.3	22.0	22.9	Diurnal Maximum

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

**Peace Airshed Zone Association  
Summary of Hourly Standard Deviations**

**Valleyview - Wind Direction (WD) - deg  
October 1, 2008 to November 1, 2008**

Maximum Value: 93.8 deg on Oct 10 17:00																								Hours in Service:	744
Minimum Value: 2.5 deg on Oct 30 09:00																								Hours of Data:	743
Percentiles: P <sub>1</sub> = 5.2 P <sub>10</sub> = 6.8 Q <sub>1</sub> = 8.7 Median = 12.4 Q <sub>3</sub> = 24.7 P <sub>90</sub> = 52.3 P <sub>99</sub> = 87.0																								Hours of Missing Data:	1
																								Hours of Calibration:	0
																								Percent Operational Time:	99.9
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Oct	26	21	25	43	21	20	23	33	11	19	51	26	91	81	87	55	23	19	58	58	55	73	18	15	91.3
2-Oct	20	16	21	16	15	20	41	58	23	14	12	14	15	14	17	14	10	7	10	10	8	9	9	27	58.1
3-Oct	28	81	15	54	78	32	52	27	79	78	32	37	47	43	55	33	22	20	20	13	24	16	10	67	81.4
4-Oct	30	13	43	23	56	89	59	57	68	40	49	53	48	61	49	47	46	28	10	14	12	12	11	19	89.0
5-Oct	12	17	7	7	20	29	10	14	12	38	9	10	8	11	9	9	8	8	12	12	6	7	25	19	37.5
6-Oct	21	24	6	10	11	6	9	12	8	11	33	11	12	22	16	19	18	27	44	62	31	36	23	62	62.5
7-Oct	81	45	66	92	84	75	55	71	42	P	38	32	23	21	12	10	18	11	10	10	10	8	10	7	91.7
8-Oct	8	8	10	9	8	9	7	7	10	10	11	16	14	12	17	14	11	10	8	9	6	5	7	7	17.3
9-Oct	21	22	10	23	11	32	15	19	14	22	60	69	47	20	12	18	36	6	18	8	46	32	33	24	68.7
10-Oct	55	92	68	83	24	37	93	88	84	38	66	53	51	49	72	66	94	46	54	70	24	8	15	17	93.8
11-Oct	9	6	5	6	11	6	7	6	8	7	10	9	10	11	13	9	7	7	6	6	8	7	14	10	13.8
12-Oct	17	13	21	13	26	17	12	10	13	36	20	15	18	16	11	11	15	21	39	14	11	12	16	10	39.5
13-Oct	14	11	16	56	35	9	11	22	20	46	27	22	12	13	13	21	32	10	24	9	9	7	10	9	56.5
14-Oct	6	7	7	9	8	7	7	8	9	7	10	12	15	10	12	10	10	11	7	24	18	28	6	7	28.0
15-Oct	8	12	10	28	7	10	6	8	9	12	12	38	22	38	34	26	22	9	25	47	81	19	20	11	81.2
16-Oct	25	17	8	4	5	4	5	5	12	9	10	13	17	19	18	19	33	25	61	21	19	20	26	66	66.1
17-Oct	67	35	26	16	12	13	10	22	11	79	12	13	46	10	8	8	6	6	8	8	17	14	10	10	78.6
18-Oct	10	7	8	18	38	20	10	31	9	14	35	32	13	12	13	11	10	7	11	7	7	7	8	6	38.2
19-Oct	10	31	17	7	5	11	9	6	6	7	11	12	14	11	14	11	12	8	9	8	6	9	7	6	31.0
20-Oct	7	5	12	11	11	21	21	19	10	11	10	24	10	28	20	25	80	10	19	12	16	10	10	8	80.2
21-Oct	9	8	10	10	7	6	6	6	7	7	9	11	13	11	12	10	8	13	6	7	12	34	11	21	34.4
22-Oct	6	6	6	9	6	9	13	7	6	7	8	8	9	8	7	8	8	6	7	7	7	14	45	14	45.0
23-Oct	12	6	10	9	9	7	6	8	13	9	10	10	11	12	11	10	8	56	30	30	13	9	8	7	55.6
24-Oct	6	6	8	15	23	6	8	8	14	12	13	10	10	10	9	8	7	8	11	8	12	12	8	7	22.7
25-Oct	8	7	7	6	6	9	7	14	8	7	8	8	8	10	13	12	9	8	12	8	10	7	15	6	14.7
26-Oct	13	10	10	45	11	6	11	82	66	23	20	20	14	15	15	11	10	8	7	7	9	6	6	5	82.3
27-Oct	6	8	10	7	7	9	18	25	9	5	7	12	8	9	6	13	5	7	24	9	14	6	30	38	37.6
28-Oct	13	15	52	55	52	26	25	80	42	50	35	31	14	9	25	32	41	29	58	75	35	31	6	56	80.2
29-Oct	57	84	29	27	40	60	20	65	27	29	30	55	56	10	9	8	9	9	35	28	14	12	10	14	84.0
30-Oct	12	9	36	39	38	48	20	7	2	6	19	23	21	14	26	21	14	15	48	76	18	14	13	12	76.0
31-Oct	19	45	25	58	65	9	8	10	9	13	20	17	22	22	11	10	20	18	14	9	8	9	11	11	64.8
81.2	92.3	67.7	91.7	84.2	89.0	92.8	88.0	84.4	78.6	66.4	68.7	91.3	80.5	86.5	66.4	93.8	55.6	60.7	76.0	81.2	73.4	45.0	67.1		
P - Power Failure																									

# PASZA

## Monthly Passive Data Summary

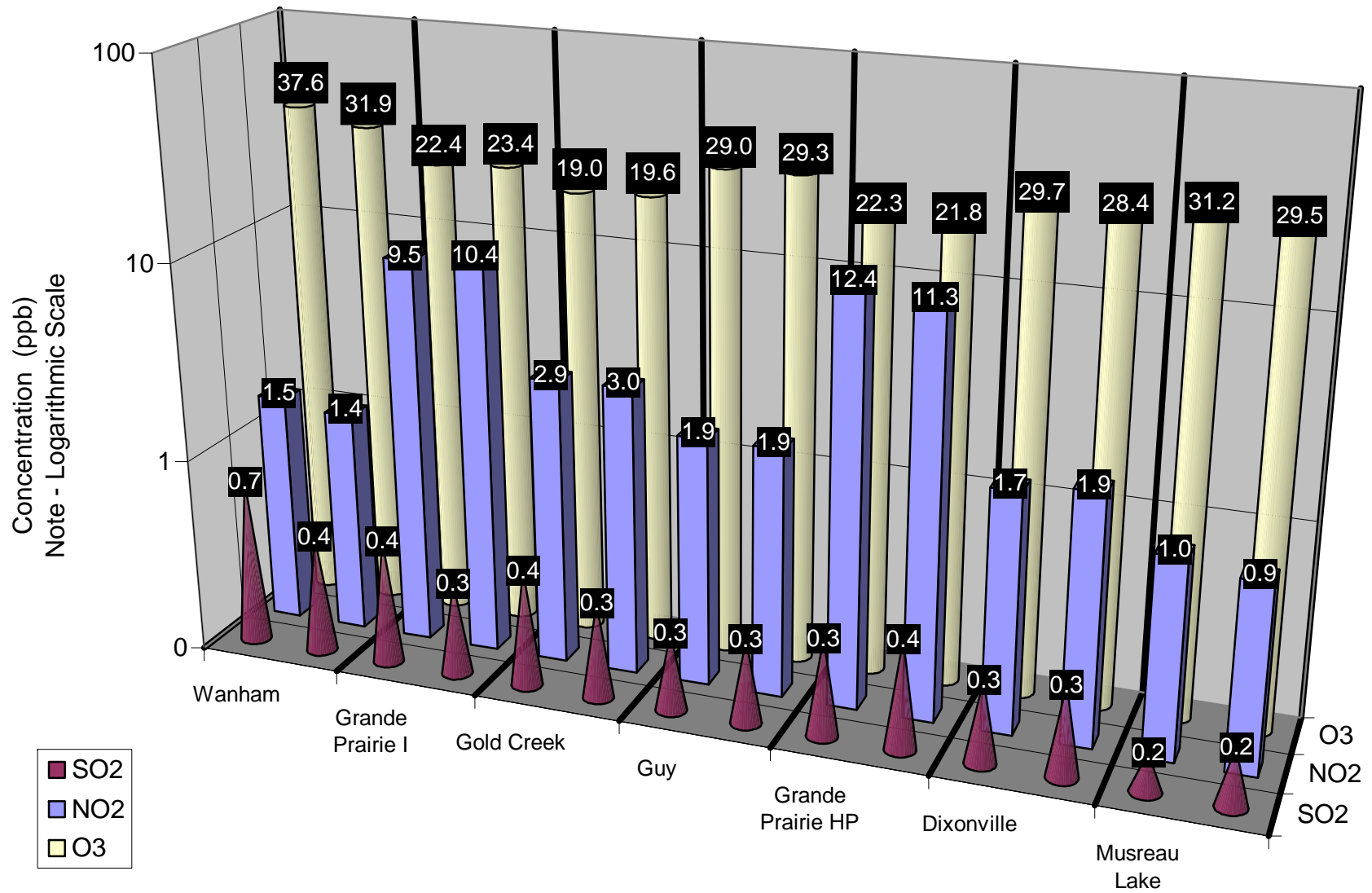
## PASZA Passive Results for October 2008

### Peace Airshed Zone Association - PASZA Passive Stations for October 2008

Station Number	Station Name	SO2 ppb	O3 ppb	NO2 ppb	Site Legal
<b>Duplicates</b>					
19a	Wanham	0.7	37.6	1.5	
19b	Wanham	0.4	31.9	1.4	
27a	Grande Prairie I	0.4	22.4	9.5	
27b	Grande Prairie I	0.3	23.4	10.4	
32a	Gold Creek	0.4	19.0	2.9	
32b	Gold Creek	0.3	19.6	3.0	
36a	Guy	0.3	29.0	1.9	
36b	Guy	0.3	29.3	1.9	
49a	Grande Prairie HP	0.3	22.3	12.4	
49b	Grande Prairie HP	0.4	21.8	11.3	
57a	Dixonville	0.3	29.7	1.7	
57b	Dixonville	0.3	28.4	1.9	
61a	Musreau Lake	0.2	31.2	1.0	
61b	Musreau Lake	0.2	29.5	0.9	
1	Silver Valley	0.3	29.2	1.6	08-27-081-11 W6M
2	Bay Tree	0.2	30.5	1.2	13-16-078-13 W6M
3	Forth Creek	0.3	27.7	1.4	04-13-082-07 W6M
4	Gordondale	0.4	34.3	2.2	04-34-078-10 W6M
5	Boone Creek	0.3	26.3	2.5	01-23-076-11 W6M
7	Steeprock Creek	0.3	31.0	1.4	09-35-072-13 W6M
9	Spirit River	0.4	28.0	2.5	08-12-079-07 W6M
10	Woking	0.4	31.0	1.6	01-13-076-07 W6M
11	Webber Creek	0.3	25.1	2.0	09-36-074-09 W6M
12	Hythe	0.2	26.3	2.6	14-36-072-11 W6M
14	Sylvester	0.2	23.6	1.3	08-06-069-12 W6M
16	Beaverlodge	0.2	31.3	3.0	15-36-071-10 W6M
17	Poplar	0.1	25.0	2.2	13-06-073-08 W6M
18	Saddle Hills	0.0	28.7	1.6	04-25-074-07 W6M
19	Wanham	0.6	34.7	1.5	16-22-077-03 W6M
20	Shaftesbury	0.3	26.2	1.4	04-03-082-23 W5M
21	Eaglesham	0.3	25.2	1.8	16-21-079-25 W5M
23	Bear Lake	0.3	24.3	3.0	15-31-072-06 W6M

## PASZA Passive Results for October 2008 (Continued)

24	Wembley	0.2	21.9	2.5	12-31-070-08 W6M
25	Pinto Creek	0.2	26.8	2.0	04-24-069-11 W6M
26	Flyingshot	0.3	23.4	3.4	15-36-070-07 W6M
27	Grande Prairie I	0.4	22.9	10.0	08-15-071-06 W6M
28	Clairmont Lake	0.3	28.6	3.1	09-06-073-04 W6M
29	Smoky Heights	0.5	29.7	2.3	04-06-075-02 W6M
30	Fitzsimmons	0.0	24.8	2.3	15-36-072-03 W6M
32	Gold Creek	0.4	19.3	2.9	06-33-067-05 W6M
33	Wapiti	0.3	27.3	2.4	02-25-071-03 W6M
34	Puskwaskau	0.2	25.4	0.7	15-35-074-25 W5M
35	Jean Cote	0.5	27.2	1.7	12-35-079-21 W5M
36	Guy	0.3	29.1	1.9	03-04-076-22 W5M
37	Crooked Creek	0.4	29.8	2.7	16-01-071-26 W5M
39	Clouston Creek	0.4	30.3	1.7	12-01-073-22 W5M
40	McLennan	0.4	31.1	1.8	03-29-077-19 W5M
41	Valleyview	0.5	33.5	2.4	09-30-069-22 W5M
42	Sunset House	0.5	35.3	1.3	05-32-070-19 W5M
43	High Prairie	0.4	29.9	1.7	16-13-074-17 W5M
44	Peavine	0.2	26.4	1.0	03-05-079-15 W5M
45	Gift Lake	0.3	23.6	1.5	10-07-079-12 W5M
46	Little Smoky	0.5	23.1	4.7	12-01-065-21 W5M
47	Kinuso	0.2	24.0	1.1	12-10-073-10 W5M
48	Deer Mountain	0.3	29.4	1.3	15-22-068-09 W5M
49	Grande Prairie HP	0.3	22.1	11.8	17-26-071-06 W6M
50	Clear River	0.3	26.0	1.4	SE-03-084-12 W6M
51	Bear Canyon	0.8	31.1	1.1	SE-28-085-12 W6M
52	Worsley	0.2	27.6	2.0	NE-34-085-07 W6M
53	Hines Creek	0.0	25.1	1.2	SW-09-084-04 W6M
54	Ronan	0.3	25.6	2.8	SE-03-082-04 W6M
55	Cadotte Lake School	0.4	22.9	1.8	NE-23-086-16 W5M
56	Simon Lake Store	0.7	27.7	1.5	SE-32-086-17 W5M
57	Dixonville	0.3	29.1	1.8	SE-14-087-24 W5M
58	Queen Elizabeth Park	0.3	31.1	1.8	NW-19-083-23 W5M
59	Blue Sky	0.3	27.9	2.2	SW-35-081-02 W6M
60	Gerry Lake	0.1	27.2	0.8	SW-22-084-02 W6M
61	Musreau Lake	0.2	30.4	1.0	NE-22-064-05 W6M



Duplicate Summary Chart

## Passive Summary for October 2008

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

Passive Summary for October 2008 (PASZA Zone)			
Mean	0.3	27.5	2.3
Standard Deviation	0.2	3.5	1.9
Minimum	0.0	19.3	0.7
Minimum At	Hines Creek (#53)	Gold Creek (#32)	Puskwaskau (#34)
Maximum	0.8	35.3	11.8
Maximum At	Bear Canyon (#51)	Sunset House (#42)	Grande Prairie HP (#49)

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

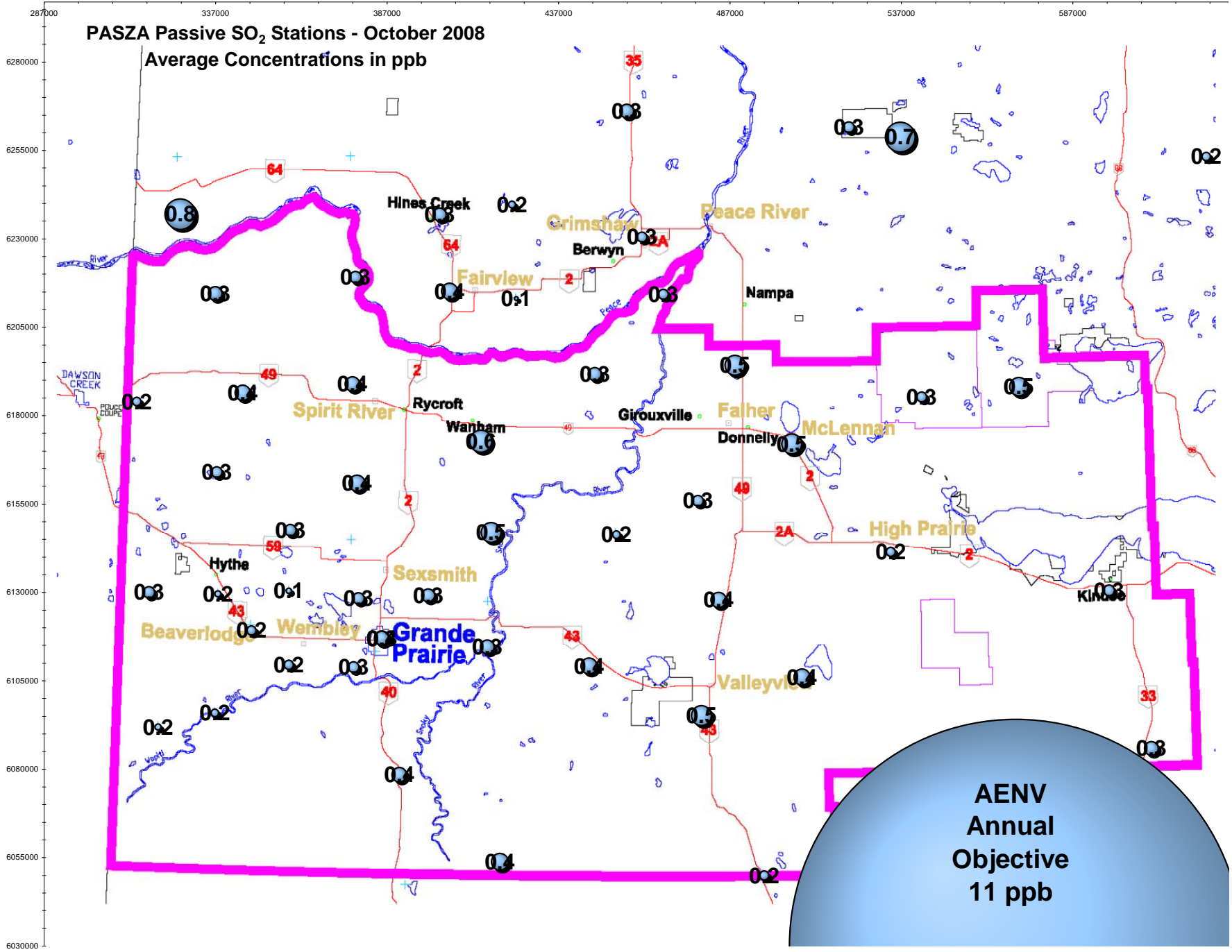
	SO <sub>2</sub>	O <sub>3</sub>	NO <sub>2</sub>
PASZA Beaverlodge station	0.3	24.6	3.8
PASZA Beaverlodge passive	0.2	31.3	3.0

### 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	0.4	18.9	11.4
PASZA Grande Prairie passive	0.3	22.1	11.8

### Comparison between Continuous and Passive monitoring at Spirit River (passive #9 Spirit River)

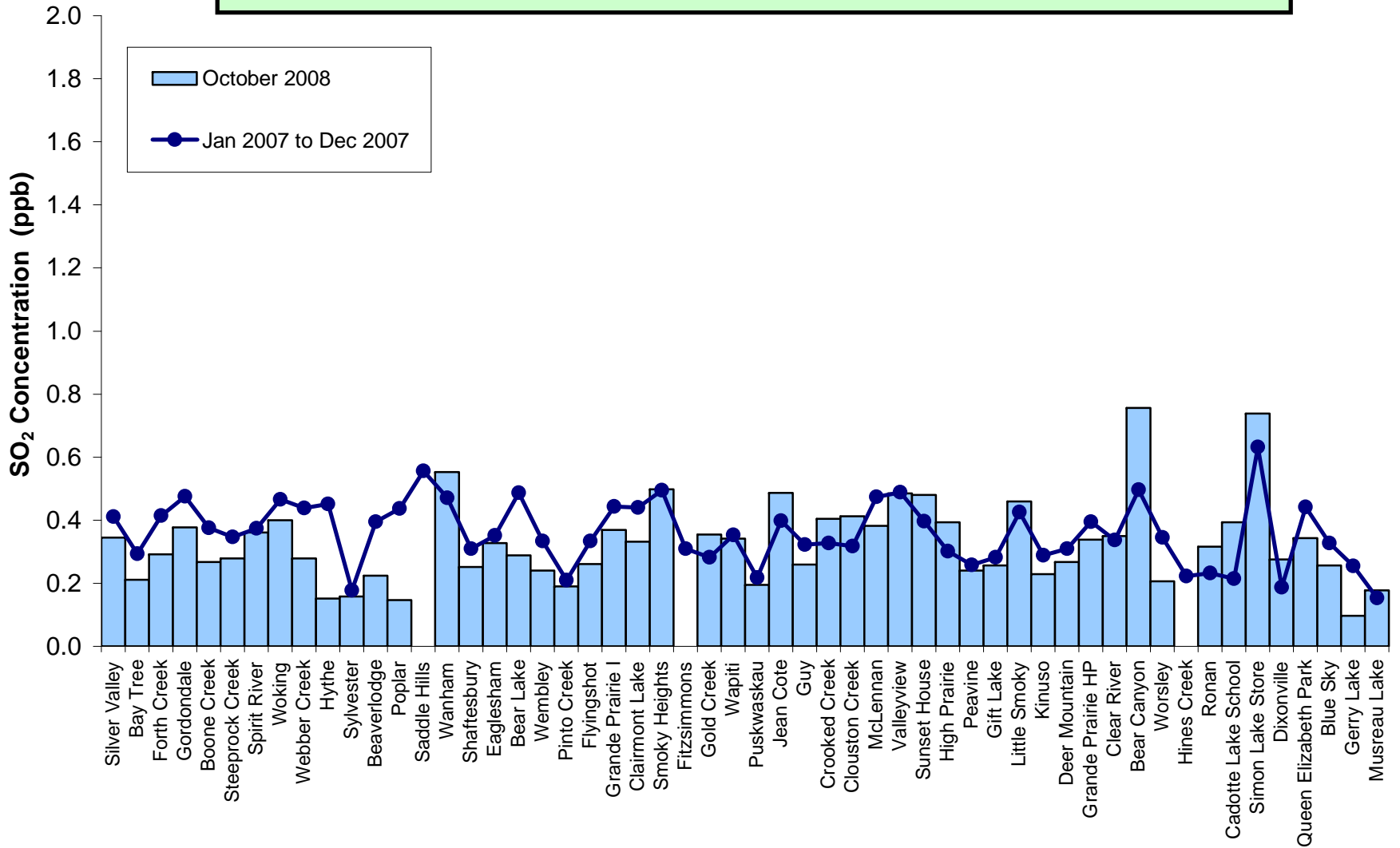
	SO <sub>2</sub>	O <sub>3</sub>	NO <sub>2</sub>
PASZA Portable Spirit River station	0.4	20.7	2.4
PASZA Spirit River passive	0.4	28.0	2.5





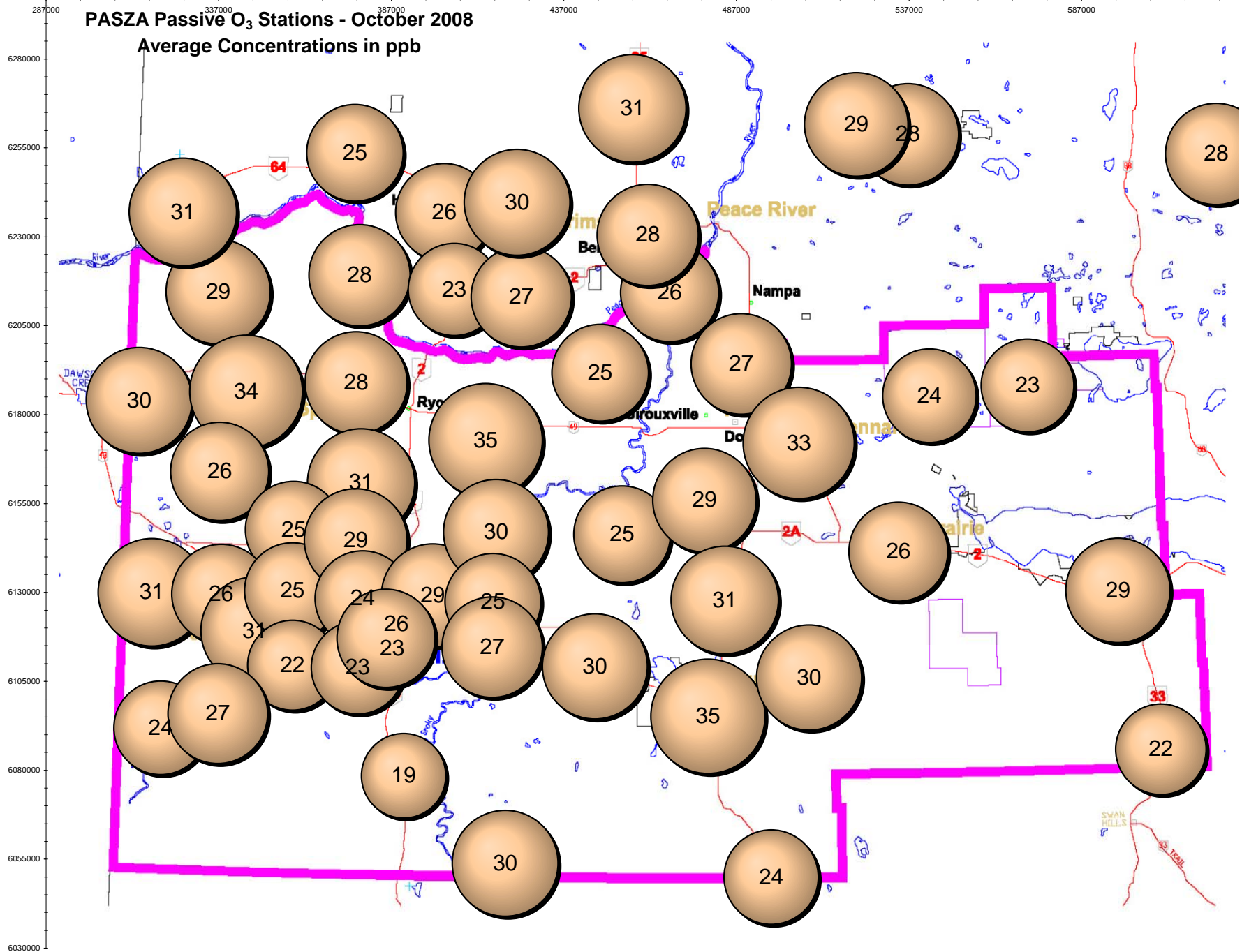
## SO<sub>2</sub> Bubble Chart

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



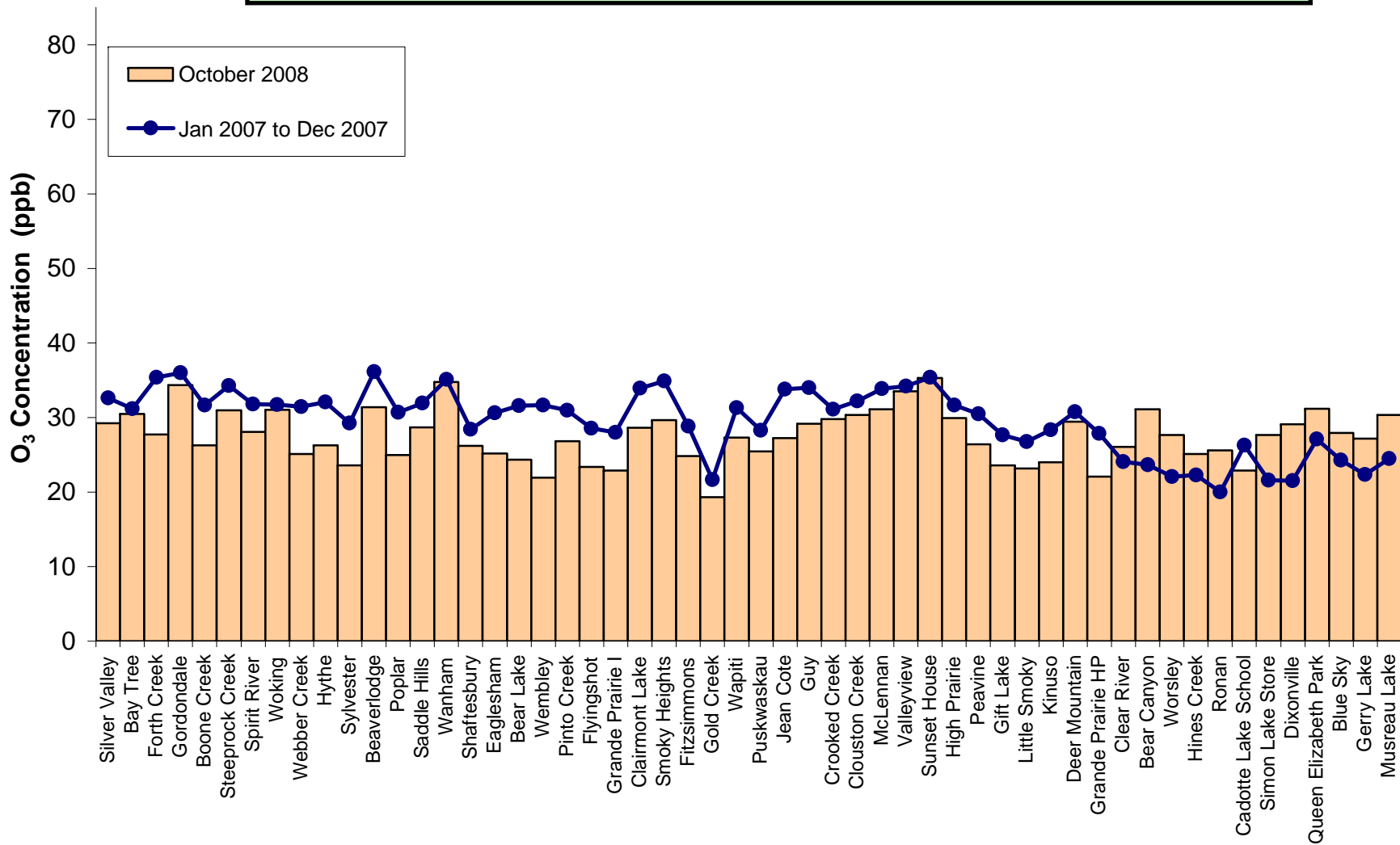
## SO<sub>2</sub> Summary Chart

**PASZA Passive O<sub>3</sub> Stations - October 2008**  
**Average Concentrations in ppb**

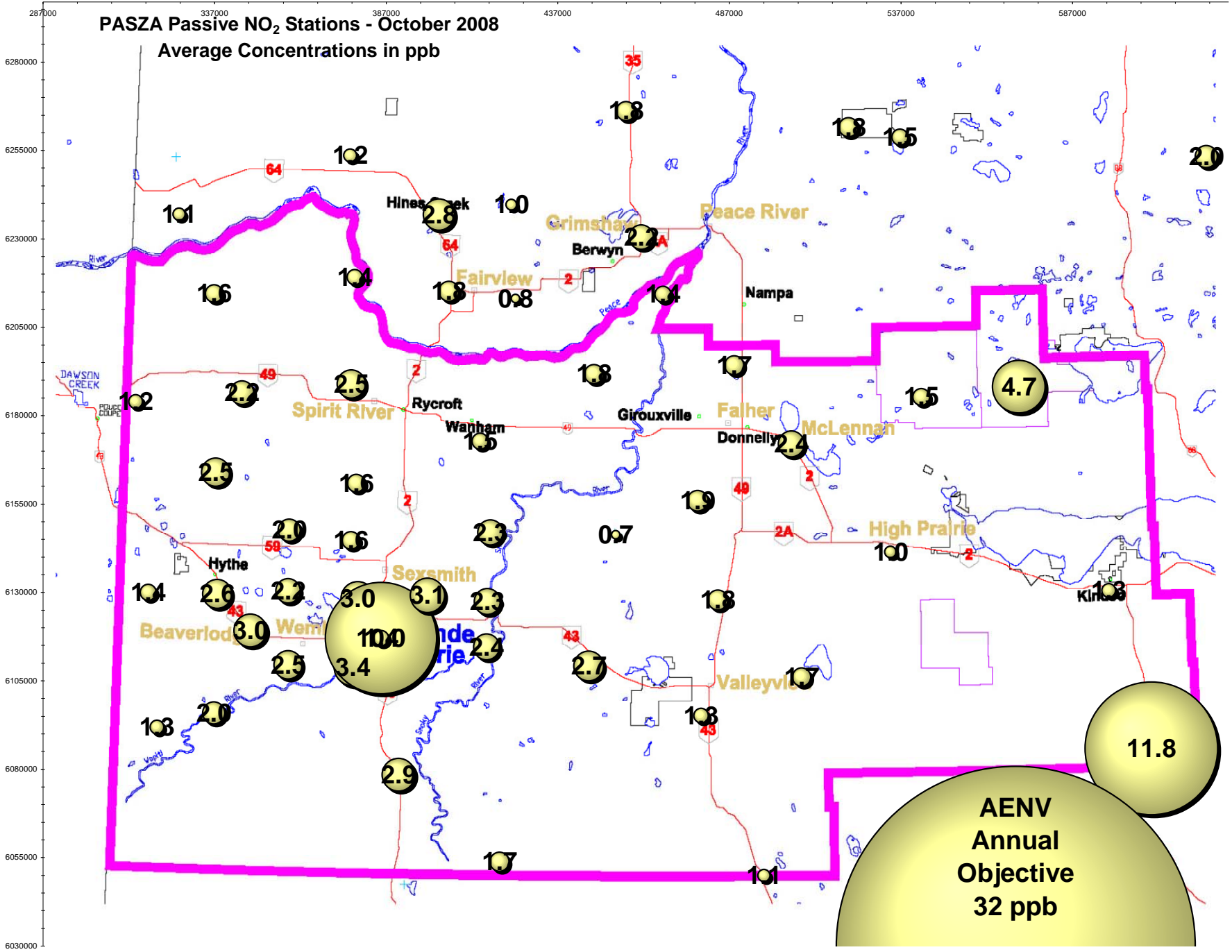


### O<sub>3</sub> Bubble Chart

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

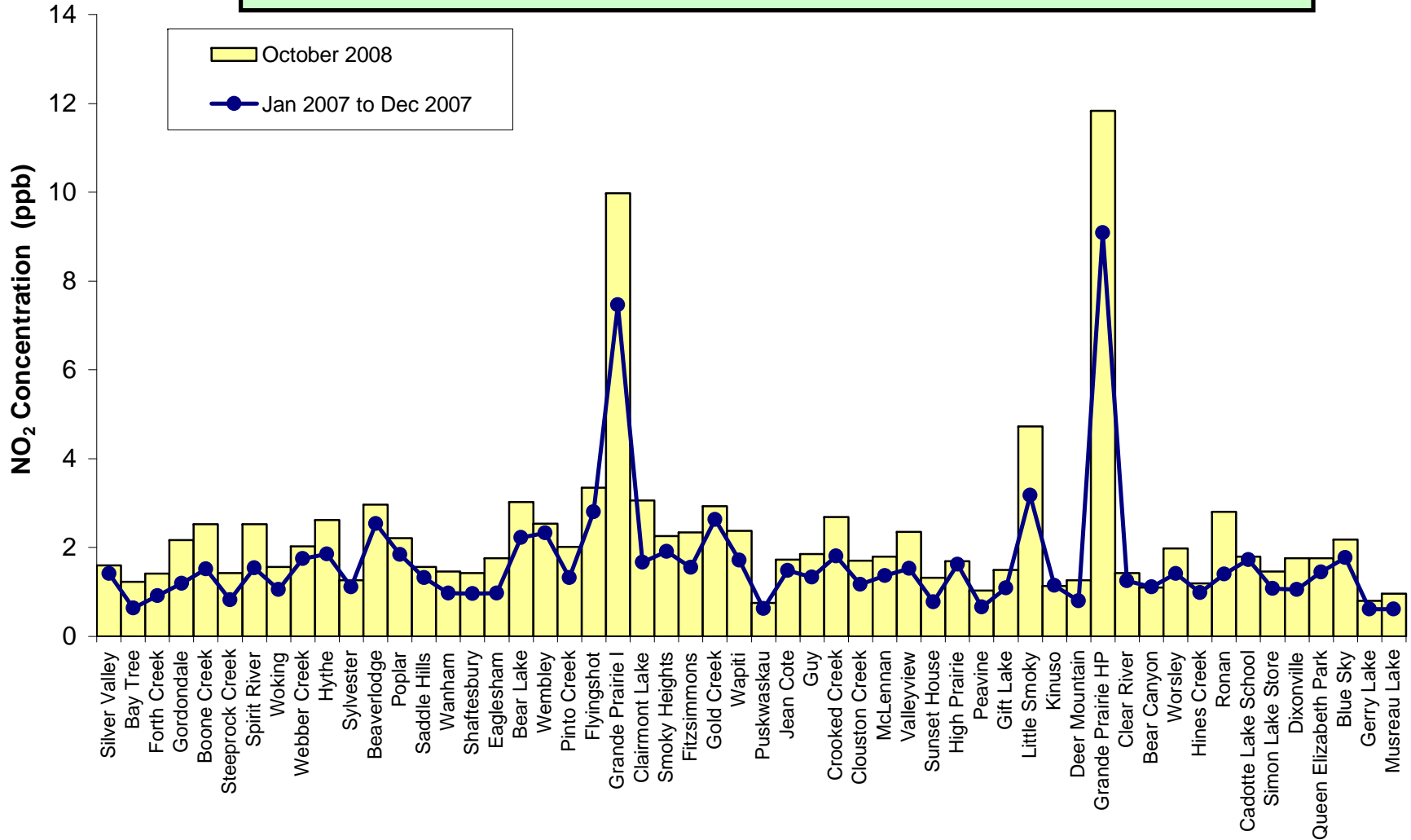


### O<sub>3</sub> Summary Chart



# NO<sub>2</sub> Bubble Chart

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



NO<sub>2</sub> Summary Chart

# October 2008 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 – Spirit River (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	October 3, 2008	Previous Calibration	September 11, 2008
Station Number	1	Station Location	Henry Pirker
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			Other: <input type="checkbox"/>
Start Time (MST)	10:15	End Time (MST)	12:45
Barometric Pressure	0.909 ATM	Station Temperature	20.0 Deg C
Calibrator	Envionics 6100	Serial Number	3474
Cal Gas Conc	49.6 ppb	Cal Gas Cert Date	6/8/2008
		Cal Gas Cylinder #	AAL 15377
DACS make	Focus AP1000	DACS serial No.	1
DACS voltage range	0 - 1 volt	DACS channel #	10
	Before		After
Calculated slope	1.001440	Calculated slope	1.003609
Calculated intercept	-0.366619	Calculated intercept	-2.152197
Analyzer make	TEI 43C	Analyzer serial #	610816292

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	7.6		7.6	
Coefficient	.800		.800	
Pressure	637.6	mm Hg	637.6	mm Hg
Flow	0.481	lpm	0.481	lpm
Lamp Voltage	44657	Hz	44657	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)
4988	0.00	0.0	0.6	N/A
4992	39.87	393.0	393.1	0.9997
4991	19.93	197.3	198.9	0.9918
4988	9.95	98.7	102.5	0.9634
4988	0.00	0.0	0.6	As Found Zero
4991	39.84	392.8	393.1	As Found Span
Average Correction Factor				0.9850

Calculated value of As Found Response: 392.7 ppb      Percent Change of As Found: 0.0%

	before calibration		after calibration	
Auto zero	0.2	ppb	-1.1	ppb
Auto span	350.6	ppb	350.0	ppb

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

Calibration Performed By: Conor Whiteley

## Calibration Summary

Parameter **SO2**

Air Monitoring Network **PASZA**

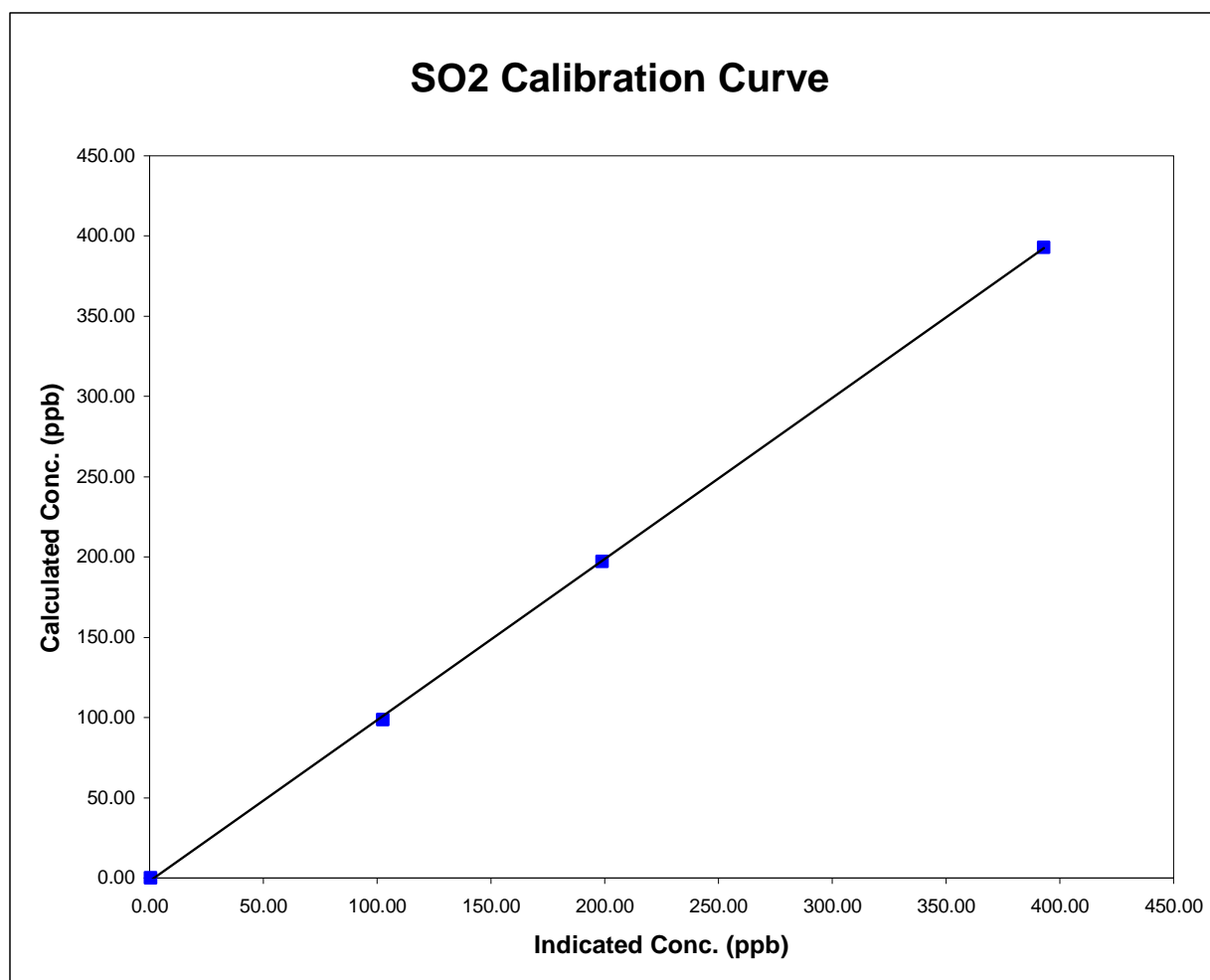


### Station Information

Calibration Date	October 3, 2008	Previous Calibration	September 11, 2008
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	10:15	End Time (MST)	12:45
Analyzer make/model	TEI 43C	Analyzer serial #	610816292

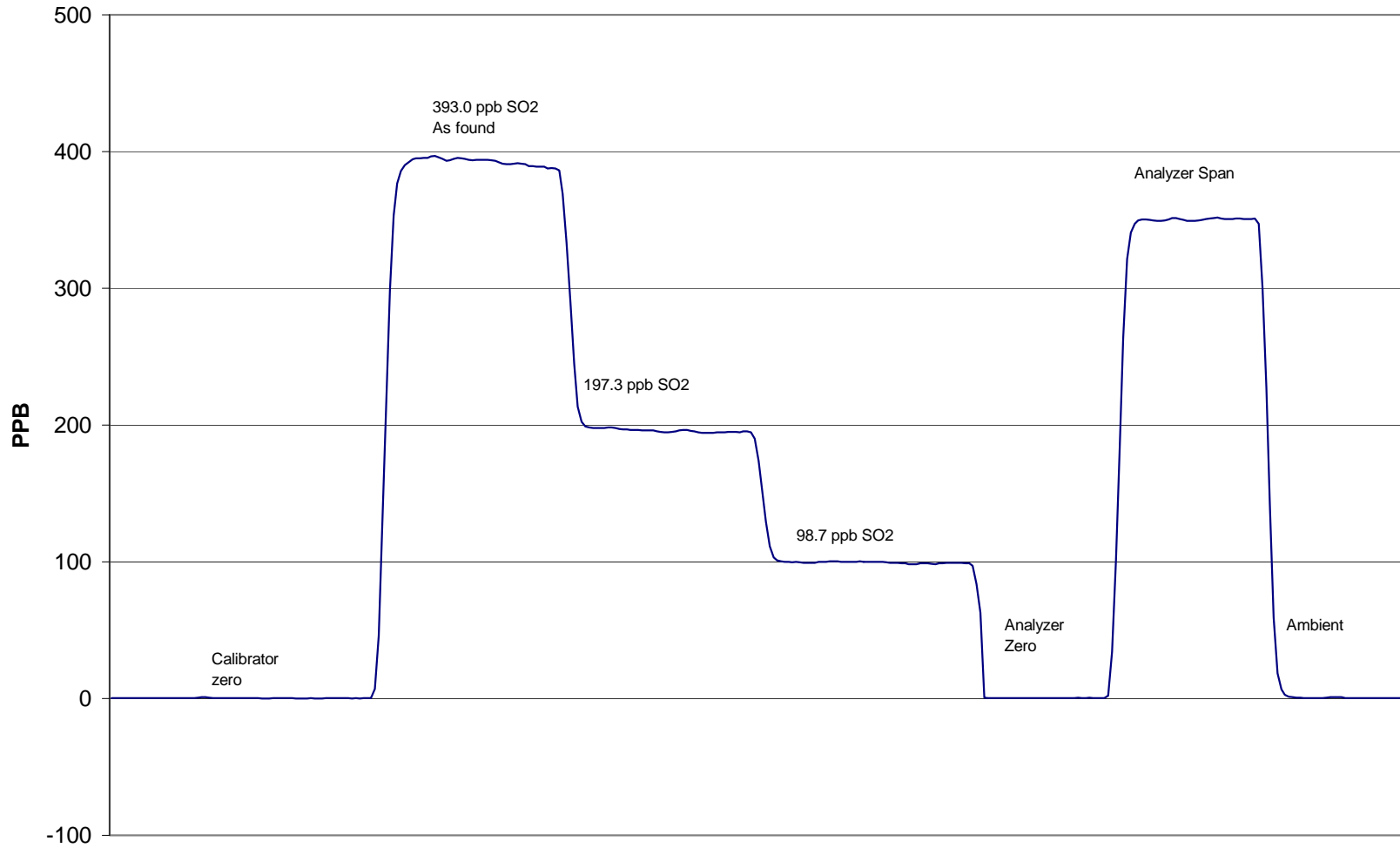
### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.6	N/A		
393.0	393.1	0.9997	Correlation Coefficient	0.999920
197.3	198.9	0.9918		
98.7	102.5	0.9634		
			Slope	1.003609
			Intercept	-2.152197





# Henry Pirker SO2 Calibration



October 3, 2008

# Calibration Report

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



## Station Information

Calibration Date **October 3, 2008** Previous Calibration **September 11, 2008**  
Station Number **1** Station Location **Henry Pirker**

Reason:  Routine  Installation  Removal  Other: \_\_\_\_\_

Start Time (MST) **9:30** End Time (MST) \_\_\_\_\_  
Barometric Pressure **0.908** Atm Station Temperature **21.0** Deg C  
Calibrator **EnviroNics 6100** Serial Number **3474**  
NO Cal Gas Conc **49.6** ppm Cal Gas Cert Date **6/8/2008**  
NOx Cal Gas Conc **49.6** ppm Cal Gas Cylinder # **AAL 15377**

## DACS Information

DACS make **FOCUS AP1000** DACS serial No. **45269**

Parameter		NO2	NOx	NO
Before	Data Slope	1.006499	1.009012	1.010002
	Data Offset	0.039018	-3.330907	-3.210623
After	Data Slope	1.000251	1.002705	1.006528
	Data Offset	-0.622120	-4.108996	-3.922548
Channel #		8	6	7
Voltage Range		0 - 10 VDC	0 - 10 VDC	0 - 10 VDC

## Analyzer Information

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

Test Point	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
NO background	8.4	ppb	8.4	mV
NOx background	8.9	ppb	8.9	mV
NO coefficient	0.738		0.738	
NOx coefficient	1.003		1.003	
Chamber Temp	49.5	Deg C	49.5	Deg C
Cooler Temp	-2.5	Deg C	-2.5	Deg C
Converter Temp	319.0	Deg C	319.0	Deg C
Vacuum	179.0	mm Hg	179.0	mm Hg

Notes: Nox adjustment made

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# Calibration Report

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



## Station Information

Calibration Date: **October 3, 2008**

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	4990	0.00	0.0	0.0	0.0	0.8	0.5	0.1	N/A	N/A	
1	4992	39.87	393.0	393.0	0.0	394.0	392.3	1.7	0.9974	1.0018	
2	4991	19.93	197.3	197.3	0.0	203.2	202.3	0.9	0.9710	0.9751	
3	4991	9.92	98.4	98.4	0.0	105.2	104.7	0.4	0.9349	0.9394	
AFZ	4990	0.00	0.0	0.0	0.0	0.8	0.5	0.1	0.0000	0.0000	
AFS	4990	39.85	393.0	393.0	0.0	374.3	372.6	1.7	1.0500	1.0547	
									Average Correction Factor	0.9678	0.9721

As Found Concentrations: NO<sub>x</sub>= 370.2 NO= 368.9 As Found Percent Change NO<sub>x</sub>= -5.8% NO= -6.1%

## GPT Calibration Data

Dilution Flow 4990 ccm Source Gas Flow 39.88 ccm

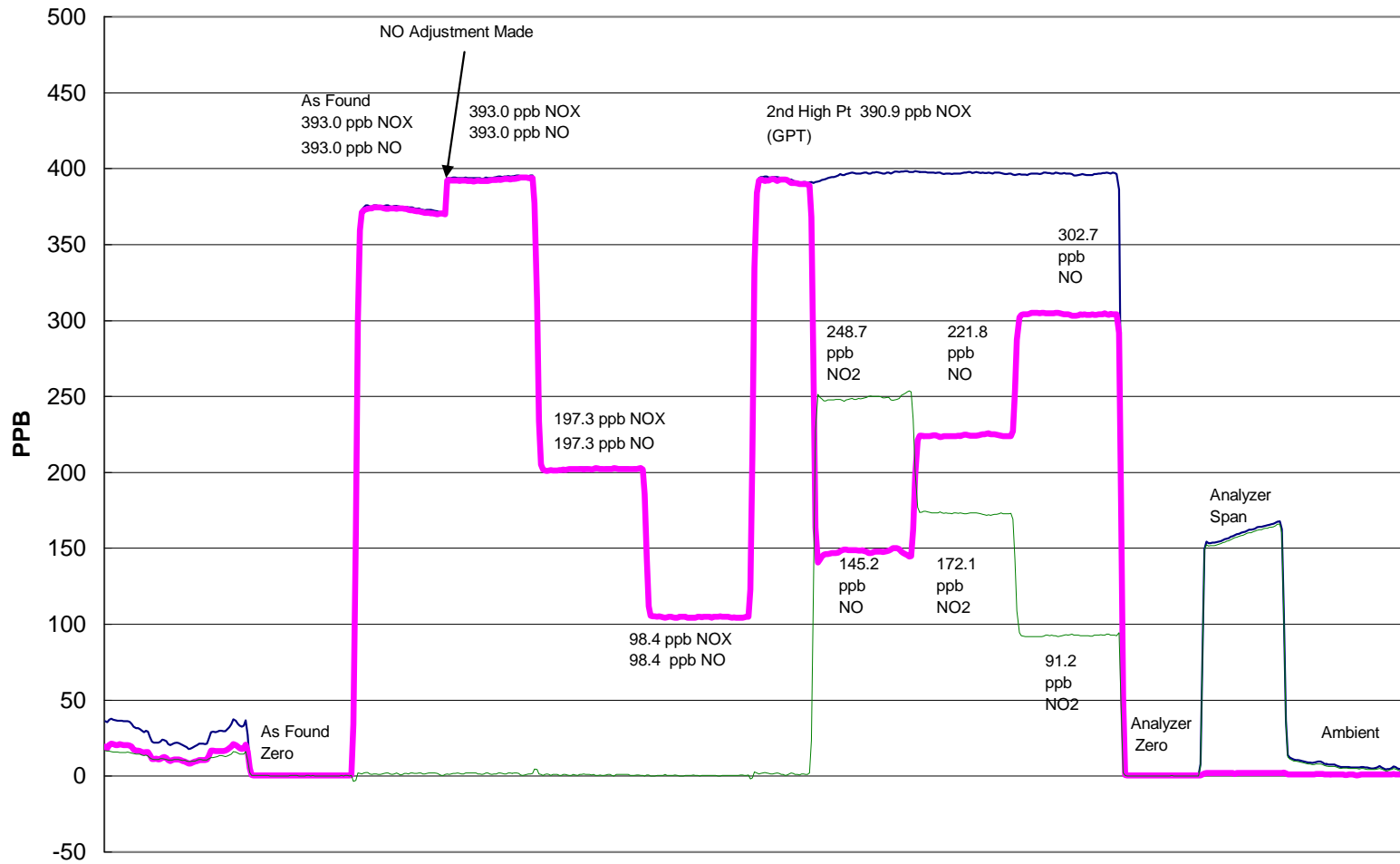
O3 Setpoint (ppb)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor	NO2 Correction factor	Converter Efficiency	
0	0.0	0.0	0.0	0.0	0.0	0.0	N/A	N/A	N/A	N/A	
NO point	393.9	390.5	3.3	393.4	391.9	1.5	1.0012	0.9965	N/A	N/A	
300	393.9	145.2	248.7	396.7	148.2	248.7	0.9928	0.9801	0.9997	100.0%	
200	393.9	221.8	172.1	397.1	224.3	173.0	0.9919	0.9890	0.9946	100.5%	
100	393.9	302.7	91.2	396.9	304.6	92.4	0.9924	0.9937	0.9866	101.4%	
							Average Correction Factor	0.9924	0.9876	0.9936	100.6%

## AIC Data

Parameter	Previous calibration				Current calibration			
	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	-0.8	1.0	-0.5	ppb	-0.9	1.0	-0.5	ppb
Auto span	152.5	153.6	-1.3	ppb	159.5	160.7	-2.0	ppb

Calibration Performed By: Conor Whiteley

# Henry Pirker NOx Calibration



October 3, 2008

## Calibration Summary

Parameter **NO<sub>2</sub>**

Air Monitoring Network **PASZA**



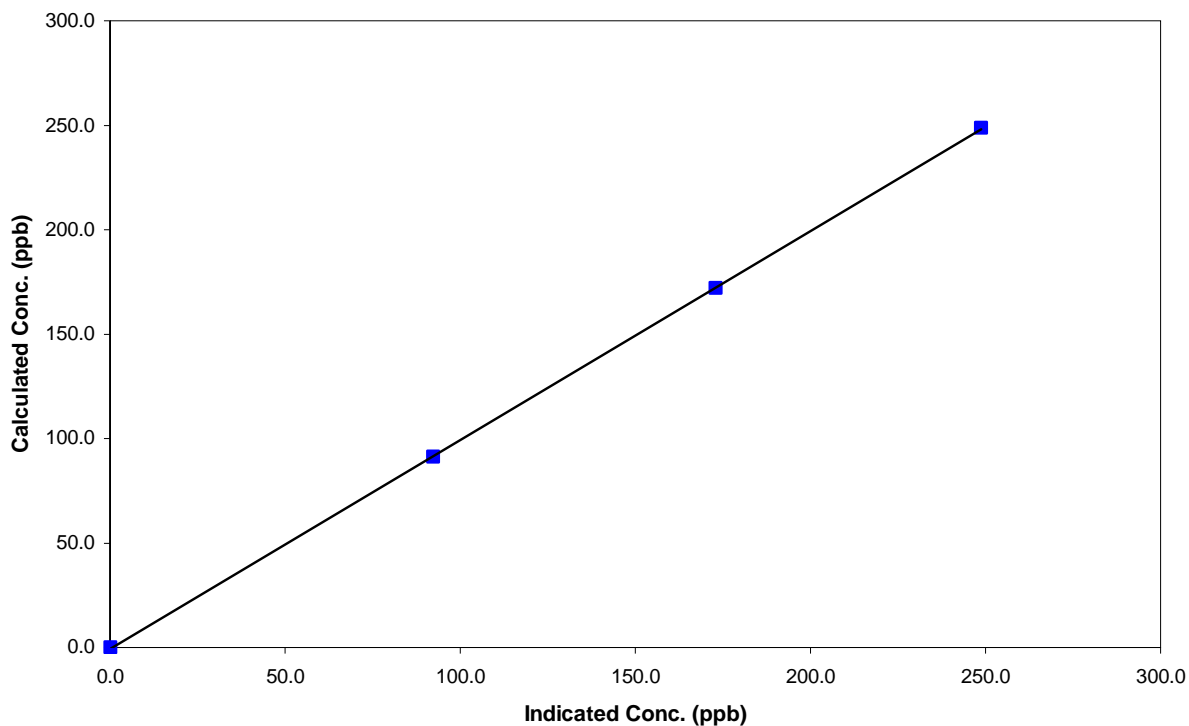
### Station Information

Calibration Date	October 3, 2008	Previous Calibration	September 11, 2008
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:30	End Time (MST)	0:00
Analyzer make	Teco 42C	Analyzer serial #	508011073

### Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	0.0000	Correlation Coefficient	0.999970
248.7	248.7	0.9997		
172.1	173.0	0.9946	Slope	1.000251
91.2	92.4	0.9866		

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



## Calibration Summary

Parameter **NO<sub>x</sub>**

Air Monitoring Network **PASZA**



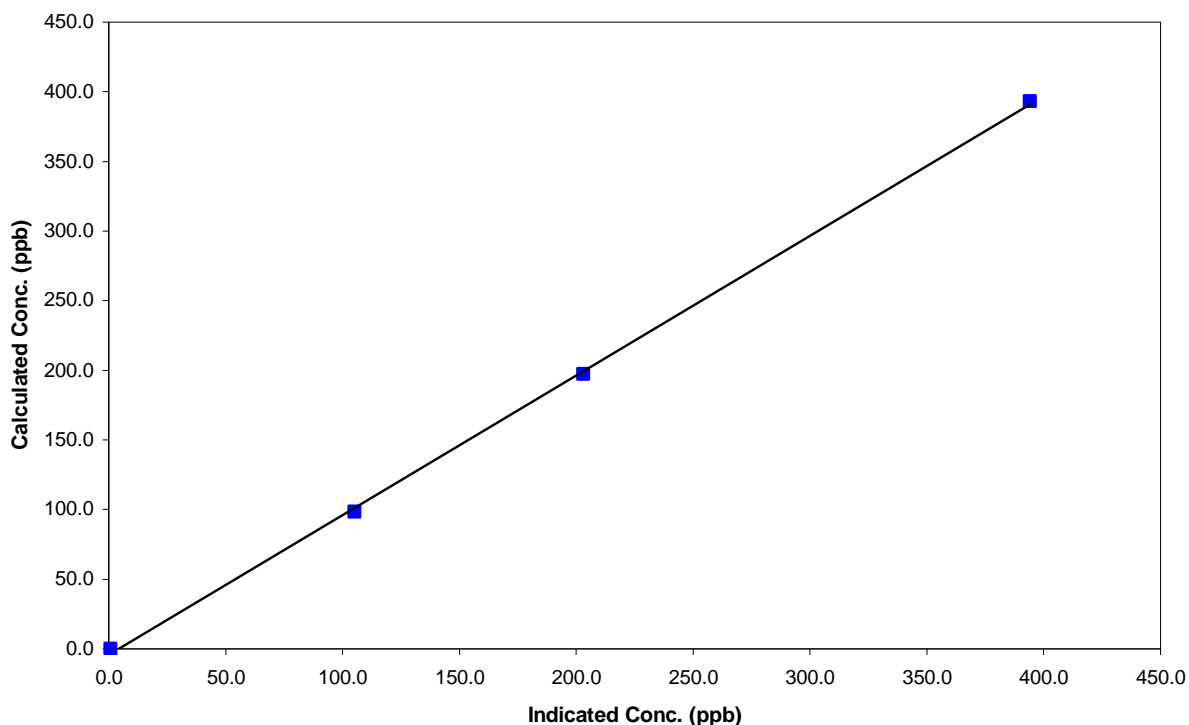
### Station Information

Calibration Date	October 3, 2008	Previous Calibration	September 11, 2008
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:30	End Time (MST)	0:00
Analyzer make	Teco 42C	Analyzer serial #	508011073

### Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.8	0.0000	Correlation Coefficient	0.999647
393.0	394.0	0.9974		
197.3	203.2	0.9710	Slope	1.002705
98.4	105.2	0.9349		

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



## Calibration Summary

Parameter **NO**

Air Monitoring Network **PASZA**



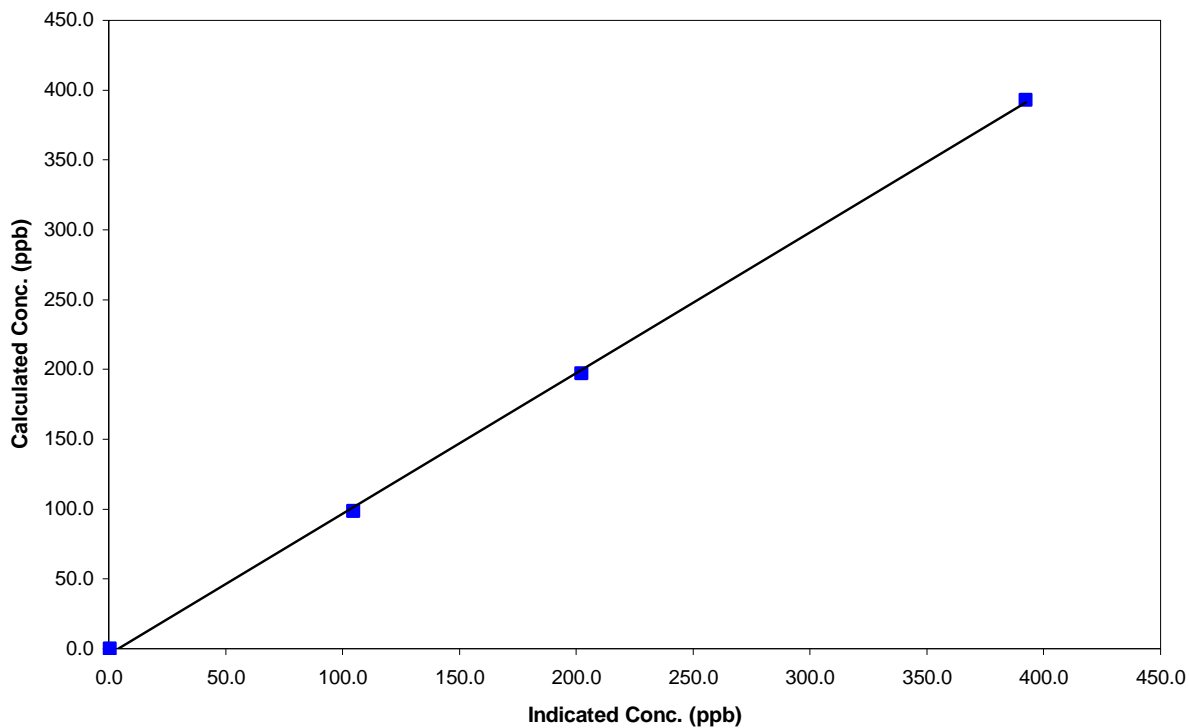
### Station Information

Calibration Date	October 3, 2008	Previous Calibration	September 11, 2008
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:30	End Time (MST)	0:00
Analyzer make	Teco 42C	Analyzer serial #	508011073

### Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.5	N/A		
393.0	392.3	1.0018	Correlation Coefficient	0.999624
197.3	202.3	0.9751		
98.4	104.7	0.9394	Slope	1.006528
			Intercept	-3.922548

### NO Calibration Curve







## Calibration Summary

Parameter **O3**

Air Monitoring Network **PASZA**

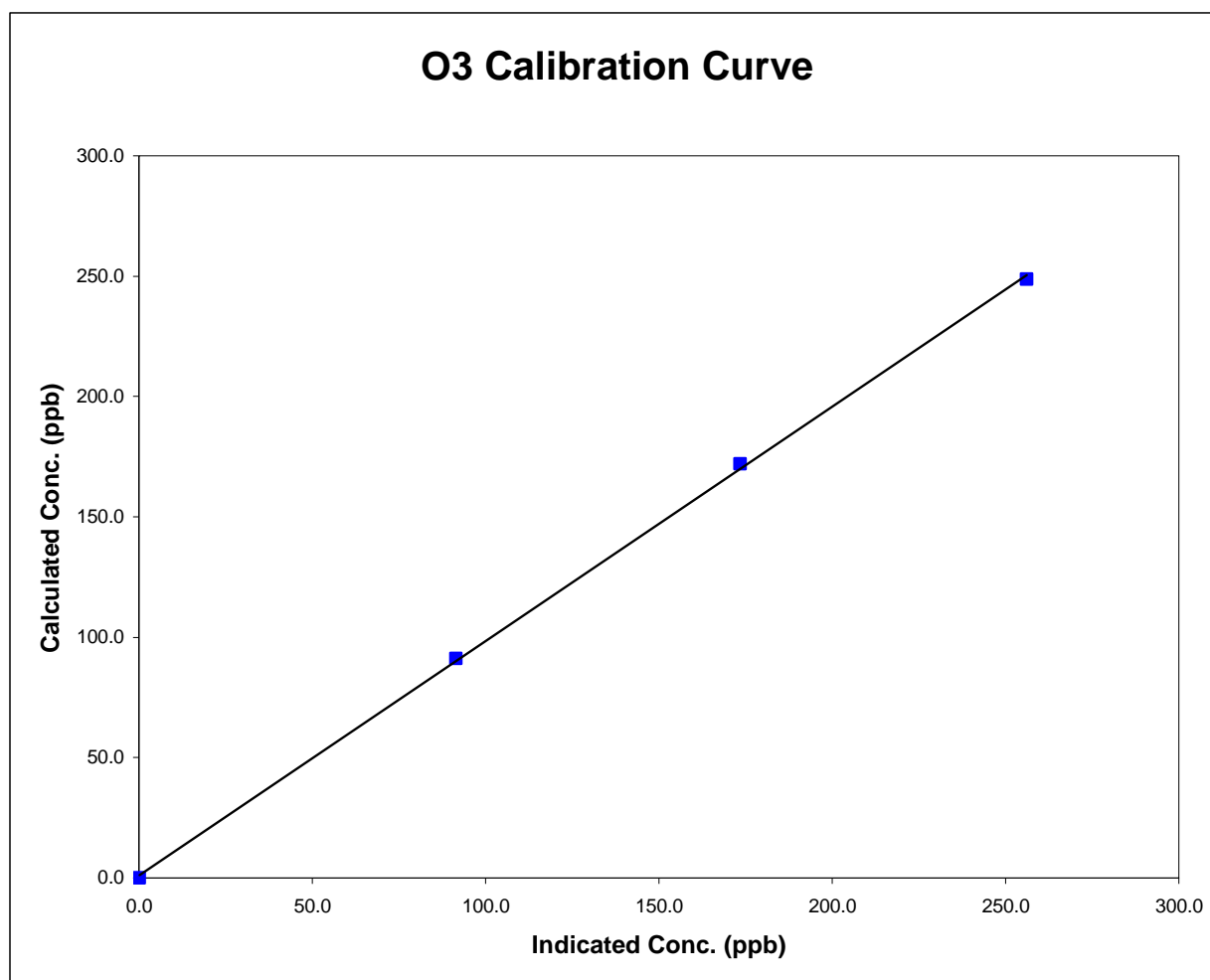


### Station Information

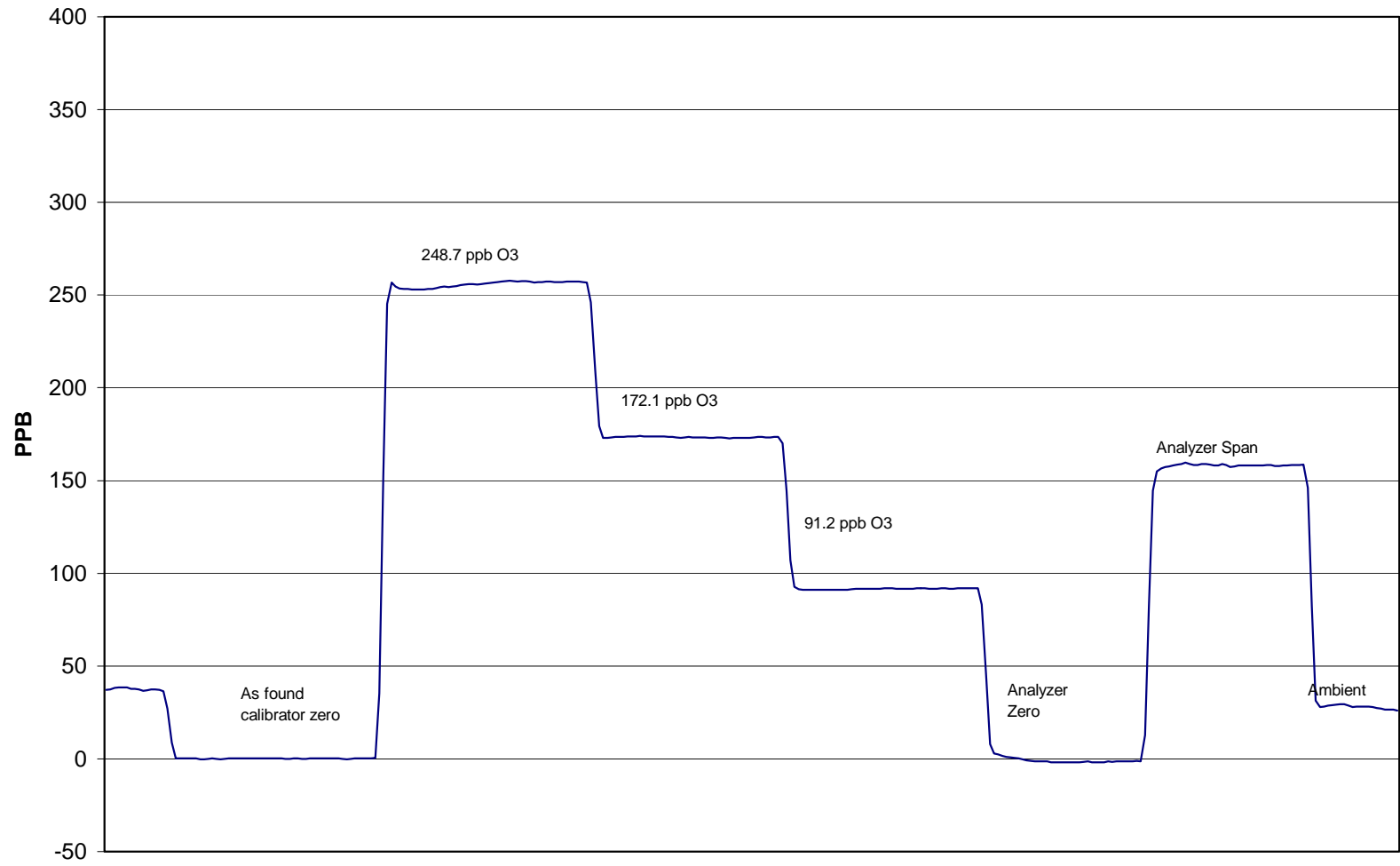
Calibration Date	October 3, 2008	Previous Calibration	September 11, 2008
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	14:20	End Time (MST)	0:00
Analyzer make/model	TECO 49C	Analyzer serial #	607415761

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	NA		
248.7	256.2	0.9706	Correlation Coefficient	0.999696
172.1	173.4	0.9922		
91.2	91.5	0.9965		
			Slope	0.972873
			Intercept	1.208328



### Henry Pirker O3 Calibration



October 3, 2008

# Calibration Report



Parameter **CO**  
Air Monitoring Network **PASZA**

## Station Information

Calibration Date	October 6, 2008	Previous Calibration	September 12, 2008
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)	12:20	End Time (MST)	
Barometric Pressure	0.920 ATM	Station Temperature	20.0 Deg C
Calibrator	Envionics 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	1.001383	Calculated slope	1.018675
Calculated intercept	-0.555621	Calculated intercept	-0.145860

Analyzer make **TEI Model 48C** Analyzer serial # **508011062**

	before		after	
Concentration range	0 - 50	ppm	0 - 50	ppm
CO span setting	1.017		1.017	
CO zero setting	.808		.808	
Sample pressure	679.1	mm Hg	679.1	mm Hg
Sample Flow	1.12	LPM	1.12	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)
4990	0.00	0.00	0.04	N/A
4991	39.83	23.75	23.41	1.0147
4990	19.87	11.90	11.87	1.0024
4990	9.94	5.96	6.11	0.9767
4990	0.00	0.00	0.80	As Found Zero
4990	39.86	23.77	25.06	As Found Span
Average Correction Factor				0.9979

Calculated value of As Found Response: **23.735 ppm** Percent Change of As Found: **0.2%**

	before calibration		after calibration	
Auto zero	0.13	ppm	0.15	ppm
Auto span	NA	ppm	15.95	ppm

Notes: Span failure due to dry CO bottle, spare has been ordered a few weeks ago

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Calibration Performed By: Conor Whiteley

## Calibration Summary

Parameter **CO**

Air Monitoring Network **PASZA**

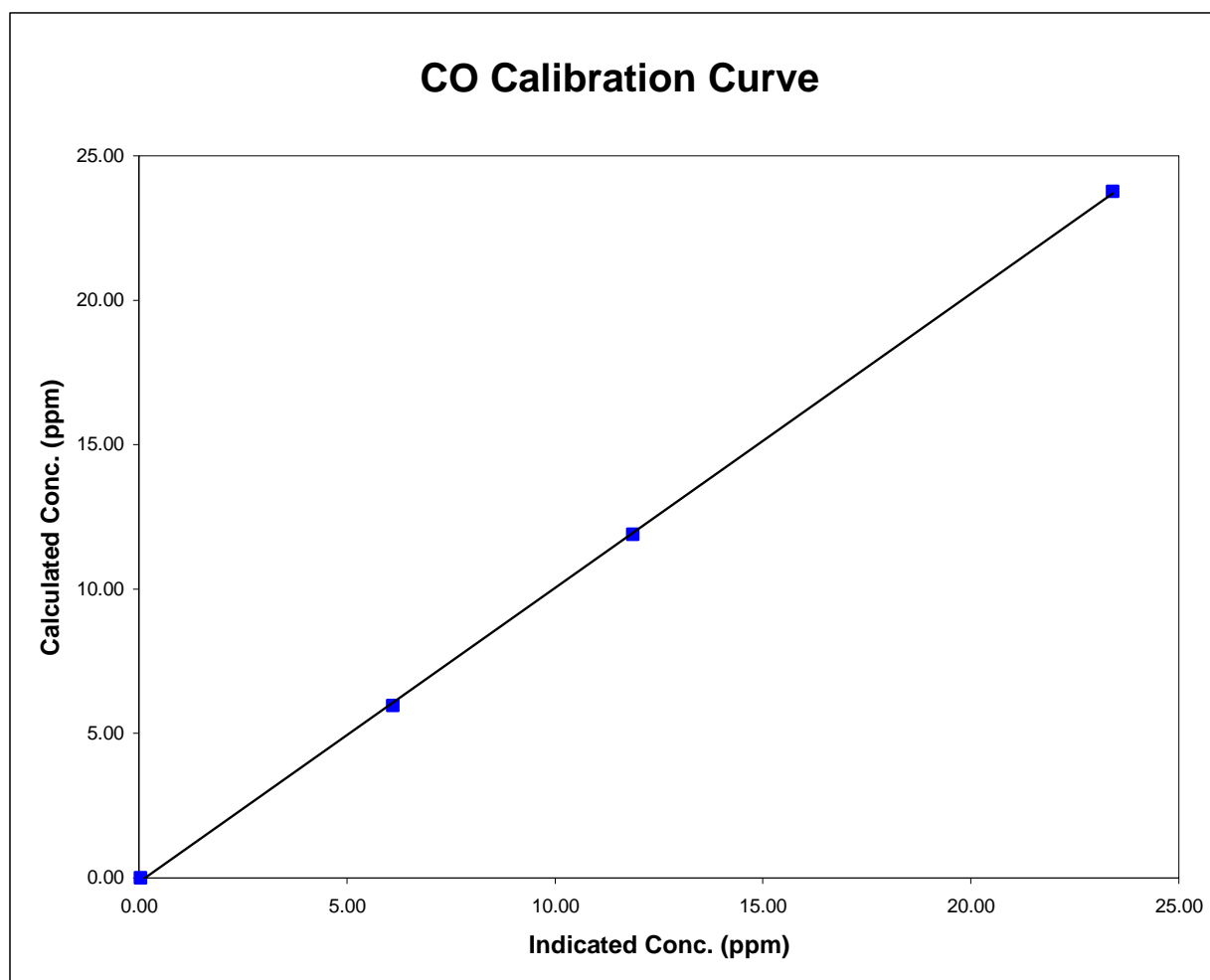


### Station Information

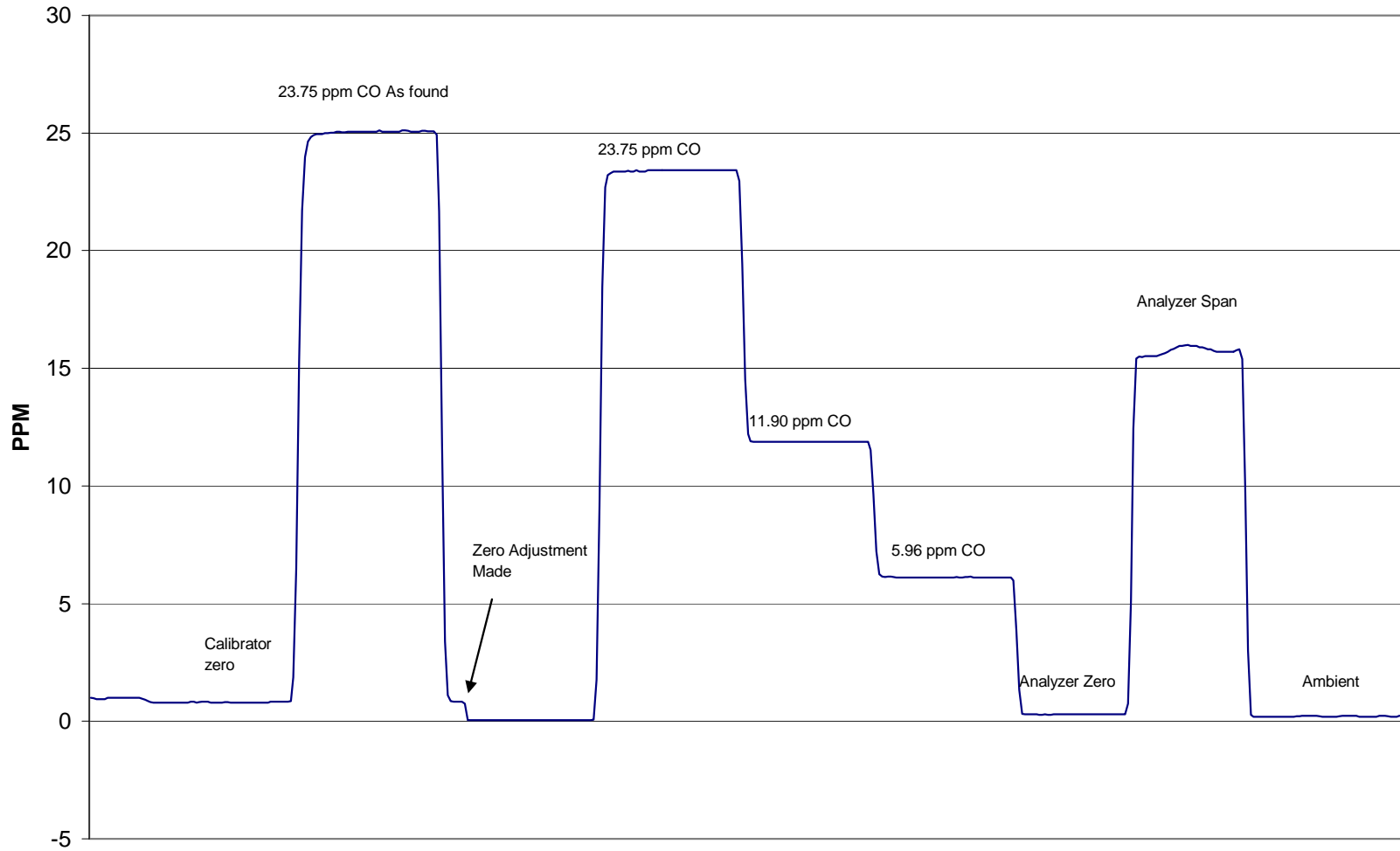
Calibration Date	October 6, 2008	Previous Calibration	September 12, 2008
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	12:20	End Time (MST)	0:00
Analyzer make/model	TEI Model 48C	Analyzer serial #	508011062

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.040	N/A		
23.752	23.408	1.0147	Correlation Coefficient	0.999908
11.899	11.870	1.0024		
5.964	6.106	0.9767	Slope	1.018675
			Intercept	-0.145860



# Henry Pirker CO Calibration



October 6, 2008

# Calibration Report



Parameter **THC**  
 Air Monitoring Network **PASZA**

## Station Information

Calibration Date	October 6, 2008	Previous Calibration	September 12, 2008
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)	15:00	End Time (MST)	17:05
Barometric Pressure	0.920 ATM	Station Temperature	20.0 Deg C
Calibrator	Envionics 6100	Serial Number	3474
Cal Gas Concentration	701 ppm CH4/ 299 ppm C3H8	Cal Gas Expiry Date	12/10/2005
Cal Gas CH4 equiv	1523.25 ppm	Cal Gas Cylinder #	ALM 005412
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	0.999493	Calculated slope	1.001594
Calculated intercept	-0.102661	Calculated intercept	-0.124706
Analyzer make	TEI Model 51C-LT	Analyzer serial #	51CLT-79009-390

	before		after	
Concentration range	0 - 25	ppm	0 - 25	ppm
THC sample pressure	6.11	psi	6.10	psi
THC span counts	7170	capture	7205	capture
THC zero counts	1121	capture	1166	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	0.07	N/A
4988	69.90	21.05	21.14	0.9957
4988	29.88	9.07	9.15	0.9909
4988	9.90	3.02	3.21	0.9386
4988	0.00	0.00	0.07	As Found Zero
4988	69.82	21.03	21.14	As Found Span
Average Correction Factor				0.9750

Calculated value of As Found Response: 20.955 ppm      Percent Change of As Found: 0.3%

	before calibration		after calibration	
Auto zero	-0.04	ppm	-0.08	ppm
Auto span	21.06	ppm	20.99	ppm

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
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Calibration Performed By: Conor Whiteley

## Calibration Summary

Parameter **THC**

Air Monitoring Network **PASZA**

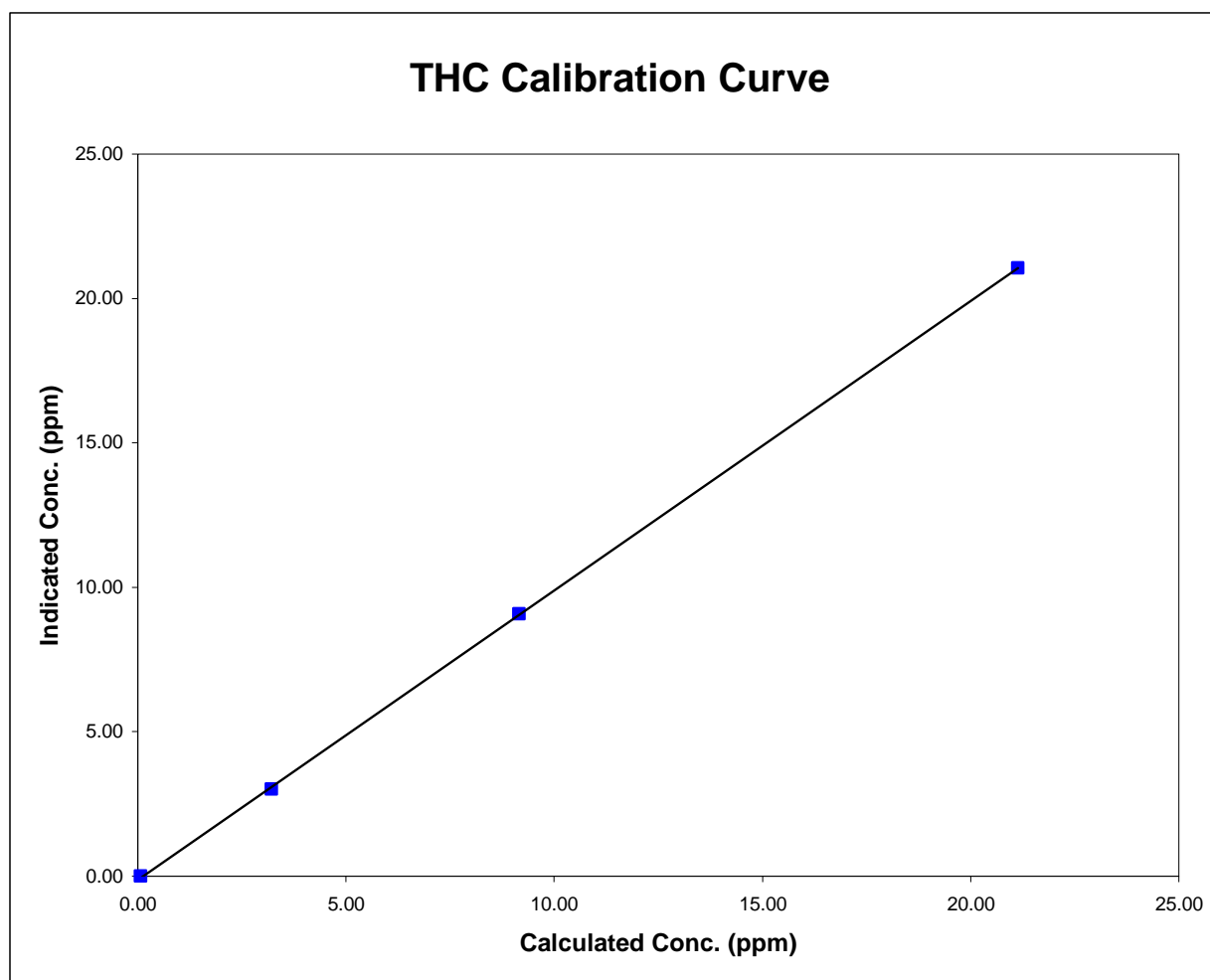


### Station Information

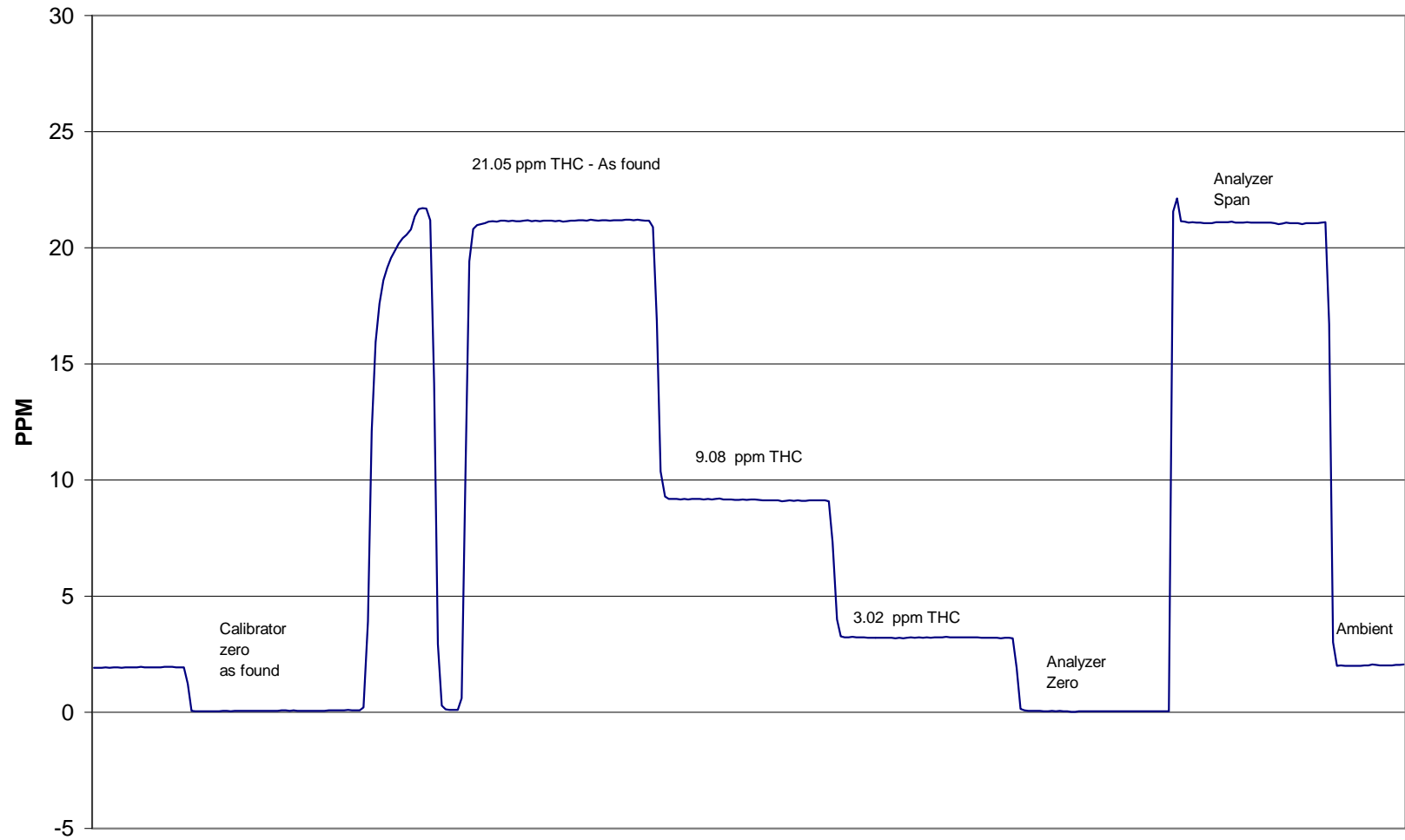
Calibration Date	October 6, 2008	Previous Calibration	September 12, 2008
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	15:00	End Time (MST)	17:05
Analyzer make/model	TEI Model 51C-LT	Analyzer serial #	51CLT-79009-390

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.073	N/A		
21.051	21.142	0.9957	Correlation Coefficient	0.999964
9.071	9.154	0.9909		
3.017	3.215	0.9386	Slope	1.001594
			Intercept	-0.124706



# Henry Pirker THC Calibration



October 6, 2008



# Calibration Report



Parameter **TRS**

Air Monitoring Network **PASZA**

## Station Information

Calibration Date	October 6, 2008	Previous Calibration	September 12, 2008
Station Number	1	Station Location	Henry Pirker
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:

Start Time (MST)	9:50	End Time (MST)	12:20
Barometric Pressure	0.920 ATM	Station Temperature	20.0 Deg C
Calibrator	Envionics 6100	Serial Number	3474
Cal Gas Conc	5.1 ppb	Cal Gas Expiry Date	7/31/2008
		Cal Gas Cylinder #	ALM013295
DACS make	Focus AP1000	DACS serial No.	1
DACS voltage range	0 - 1 volt	DACS channel #	9
	<u>Before</u>		<u>After</u>
Calculated slope	1.003406	Calculated slope	1.005115
Calculated intercept	-0.067503	Calculated intercept	-0.145655

Analyzer make **TEI 45C** Analyzer serial # **630718528**

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Coefficient	0.871		0.871	
Background	18.0		18.0	
Pressure	653	mm Hg	653	mm Hg
Flow	462	ccm	462	ccm
Lamp Voltage	848	v	848	v

## Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)
4990	0.00	0.00	-0.03	N/A
4990	79.83	80.31	80.01	1.0037
4990	39.89	40.45	40.40	1.0012
4990	9.92	10.12	10.40	0.9727
4990	0.00	0.00	-0.03	As Found Zero
4990	79.77	80.25	80.01	As Found Span
Average Correction Factor				0.9925

Calculated value of As Found Response: **80.2 ppb** Percent Change of As Found: **0.0%**

	before calibration		after calibration	
Auto zero	-0.20	ppb	-0.18	ppb
Auto span	34.54	ppb	35.29	ppb

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

Calibration Performed By: Conor Whiteley

## Calibration Summary

Parameter **TRS**

Air Monitoring Network **PASZA**

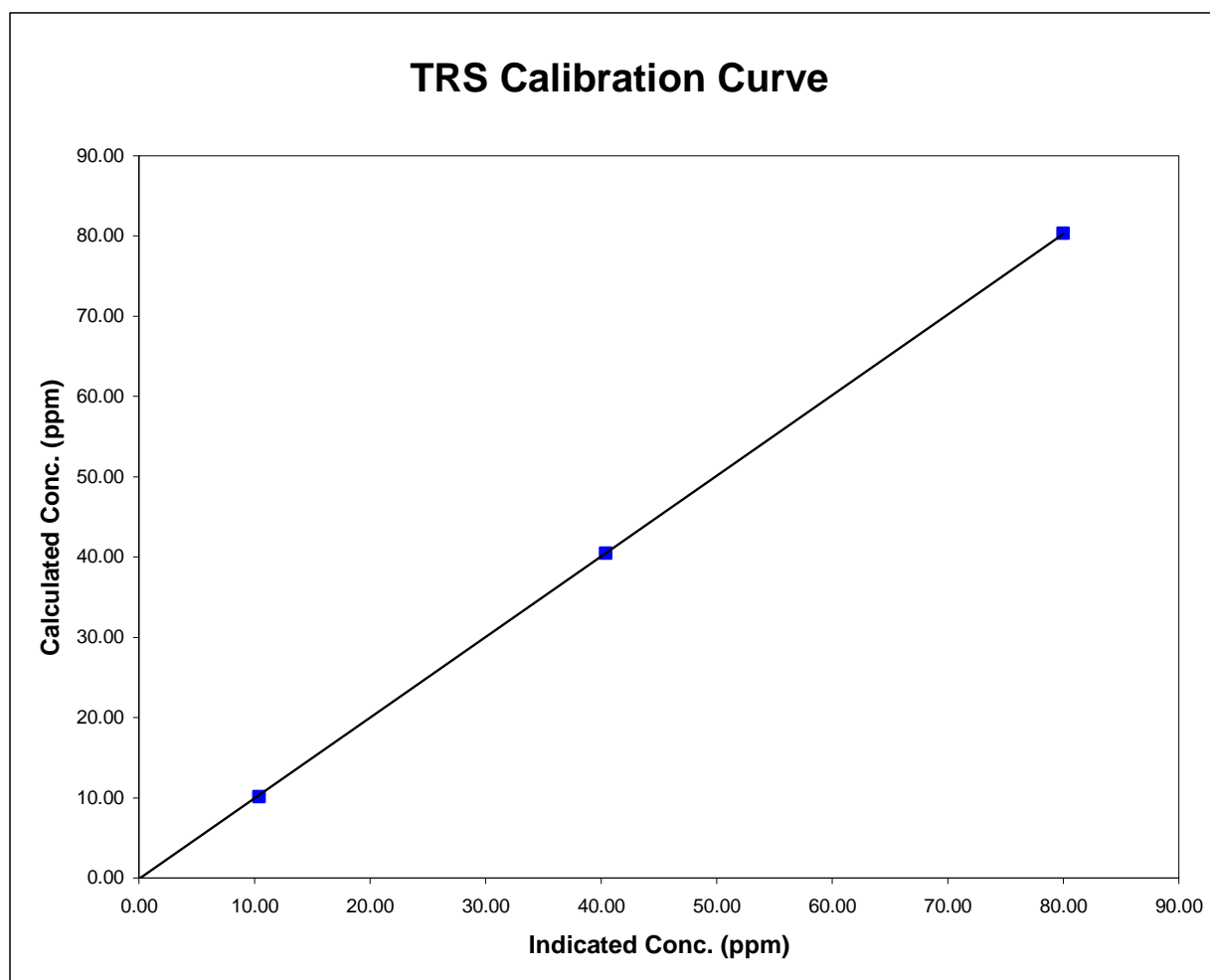


### Station Information

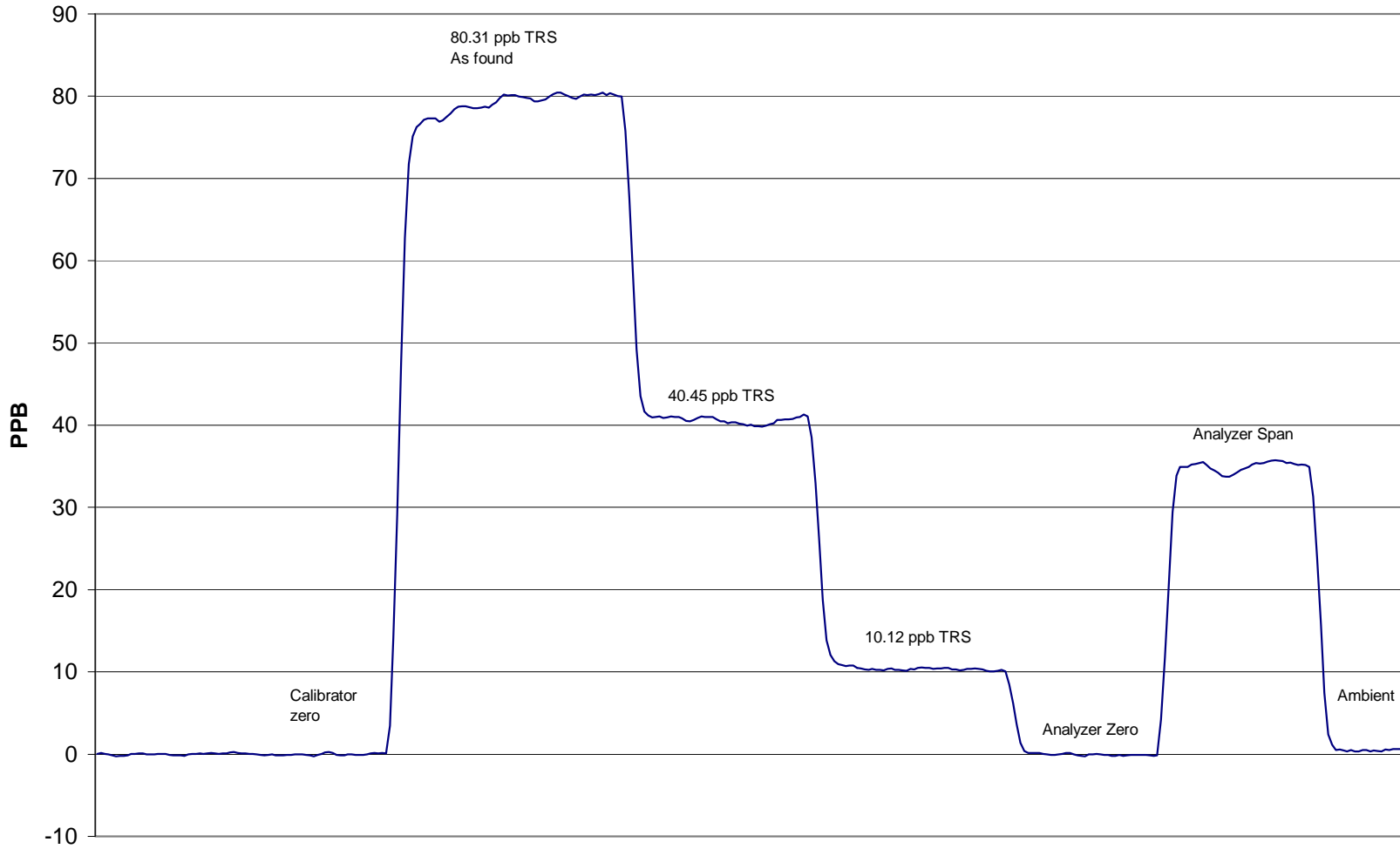
Calibration Date	October 6, 2008	Previous Calibration	September 12, 2008
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:50	End Time (MST)	12:20
Analyzer make/model	TEI 45C	Analyzer serial #	630718528

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	-0.027	N/A		
80.305	80.010	1.0037	Correlation Coefficient	0.999983
40.446	40.399	1.0012		
10.119	10.402	0.9727	Slope	1.005115
			Intercept	-0.145655



# Henry Pirker TRS Calibration



October 6, 2008

# Calibration Report



Parameter **SO<sub>2</sub>**

Air Monitoring Network **PASZA**

## Station Information

Calibration Date	October 9, 2008	Previous Calibration	September 19, 2008
Station Number	2	Station Location	Evergreen Park
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	9:35	End Time (MST)	12:45
Barometric Pressure	0.928 ATM	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
Cal Gas Concentration	50.3 ppm	Cal Gas Expiry Date	1/2/2009
Correction factor	0.031545	Cal Gas Cylinder #	LL16161
DACS make	Focus AP1000	DACS serial No.	52620
DACS voltage range	0 - 10 volt	DACS channel #	6
	<b>Before</b>		<b>After</b>
Calculated slope	1.018244	Calculated slope	1.001565
Calculated intercept	-1.819956	Calculated intercept	-3.118998
Analyzer make	Teco 43i	Analyzer serial #	701120008

	before		after	
Concentration range	0 - 1000	ppb	0 - 1000	ppb
Background	9		9.3	
coefficient	0.945		0.945	
Lamp Voltage	827	volts	827	volts
Chamber Temp	45.3	Deg C	45.3	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	660	mm Hg	661	mm Hg
Sample Flow	441	ccm	440	ccm
Lamp Intensity	89	%	89	%

## Calibration Data

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4990	0.0	0.00	1.0	N/A
4990	39.82	398.21	399.2	0.9975
4990	19.80	198.80	203.9	0.9750
4990	9.94	100.00	104.2	0.9593
4990	0.0	0.00	1.0	As Found Zero
4988	39.82	398.37	386.5	As Found Span
Average Correction Factor				0.9773

Calculated value of As Found Response: 390.705 ppm      Percent Change of As Found: 1.9%

	before calibration		after calibration	
Auto zero	-0.9	ppm	-2.1	ppm
Auto span	268.9	ppm	272.5	ppm

Notes:

Calibration Performed By: Conor Whiteley

## Calibration Summary

Parameter **SO2**

Air Monitoring Network **PASZA**

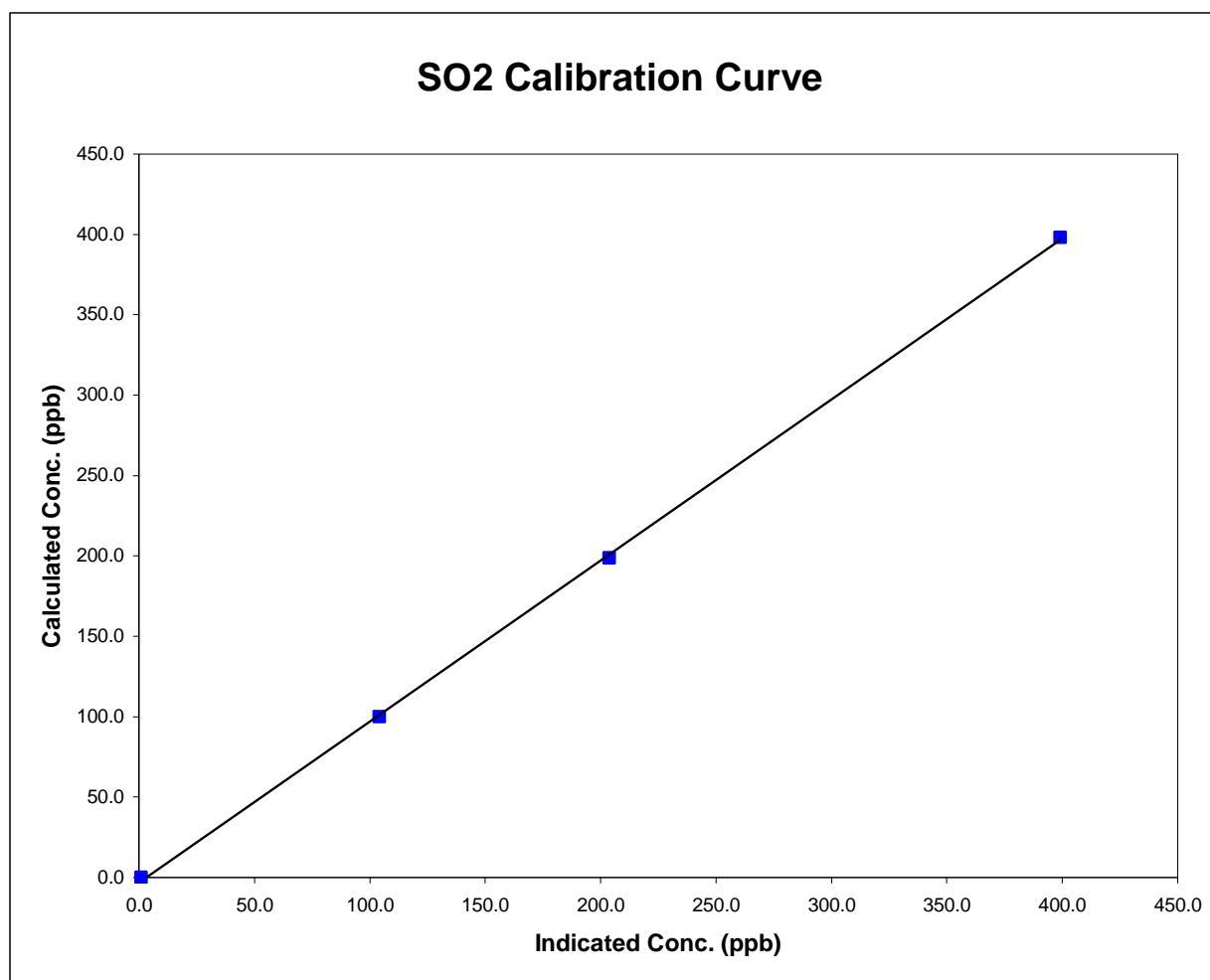


### Station Information

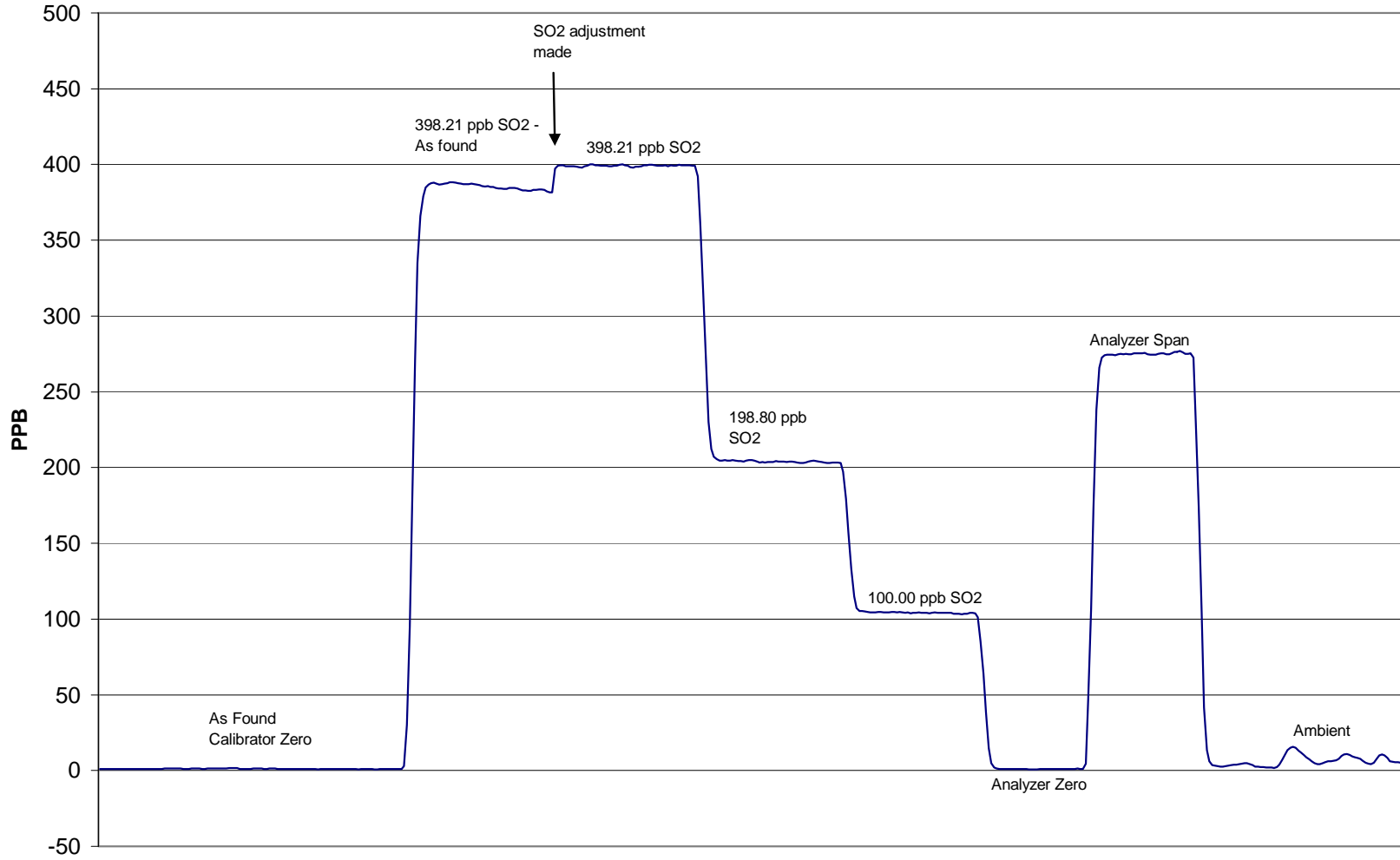
Calibration Date	October 9, 2008	Previous Calibration	September 19, 2008
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	9:35	End Time (MST)	12:45
Analyzer make/model	Teco 43i	Analyzer serial #	701120008

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	1.0	N/A		
398.2	399.2	0.9975	Correlation Coefficient	0.999844
198.8	203.9	0.9750		
100.0	104.2	0.9593		
			Slope	1.001565
			Intercept	-3.118998



### Evergreen Park - SO2 Calibration



October 9, 2008

# Calibration Report



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

## Station Information

Calibration Date	October 9, 2008	Previous Calibration	September 26, 2008
Station Number	2	Station Location	Evergreen Park
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	11:50	End Time (MST)	14:20
Barometric Pressure	0.928 ATM	Station Temperature	20.0 Deg C
Calibrator	Envionics 6100	Serial Number	3474
Cal Gas Conc	5.1 ppm	Cal Gas Expiry Date	4/2/2009
Correction factor	0.031545	Cal Gas Cylinder #	ALM 013295
DACS make	Focus AP1000	DACS serial No.	52620
DACS voltage range	0 - 10 volt	DACS channel #	5
	Before		After
Calculated slope	1.036399	Calculated slope	1.048503
Calculated intercept	2.345216	Calculated intercept	-0.163761
Analyzer make	TEI Model 43C	Analyzer serial #	0436610005

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	14.1	ppb	15.8	ppb
coefficient	0.586		0.645	
Lamp Voltage	825	volts	821	volts
Chamber Temp	44.4	Deg C	44.1	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	648.9	mm Hg	631.5	mm Hg
Sample Flow	0.471	ccm	0.463	ccm
Lamp Intensity	36,837	mv	41,003	mv

## Calibration Data

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4990	0.00	0.00	0.2	N/A
4987	79.91	80.43	76.9	1.0456
4991	39.88	40.43	38.6	1.0479
4990	9.89	10.09	9.9	1.0232
4990	0.00	0.00	0.2	As Found Zero
4987	79.91	80.43	76.9	As Found Span
Average Correction Factor				1.0389

Calculated value of As Found Response: 81.91 ppm      Percent Change of As Found: -1.8%

	before calibration		after calibration	
Auto zero	0.3	ppm	-0.3	ppm
Auto span	67.5	ppm	67.3	ppm

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

Calibration Performed By: Conor Whiteley

## Calibration Summary

Parameter **TRS**

Air Monitoring Network **PASZA**



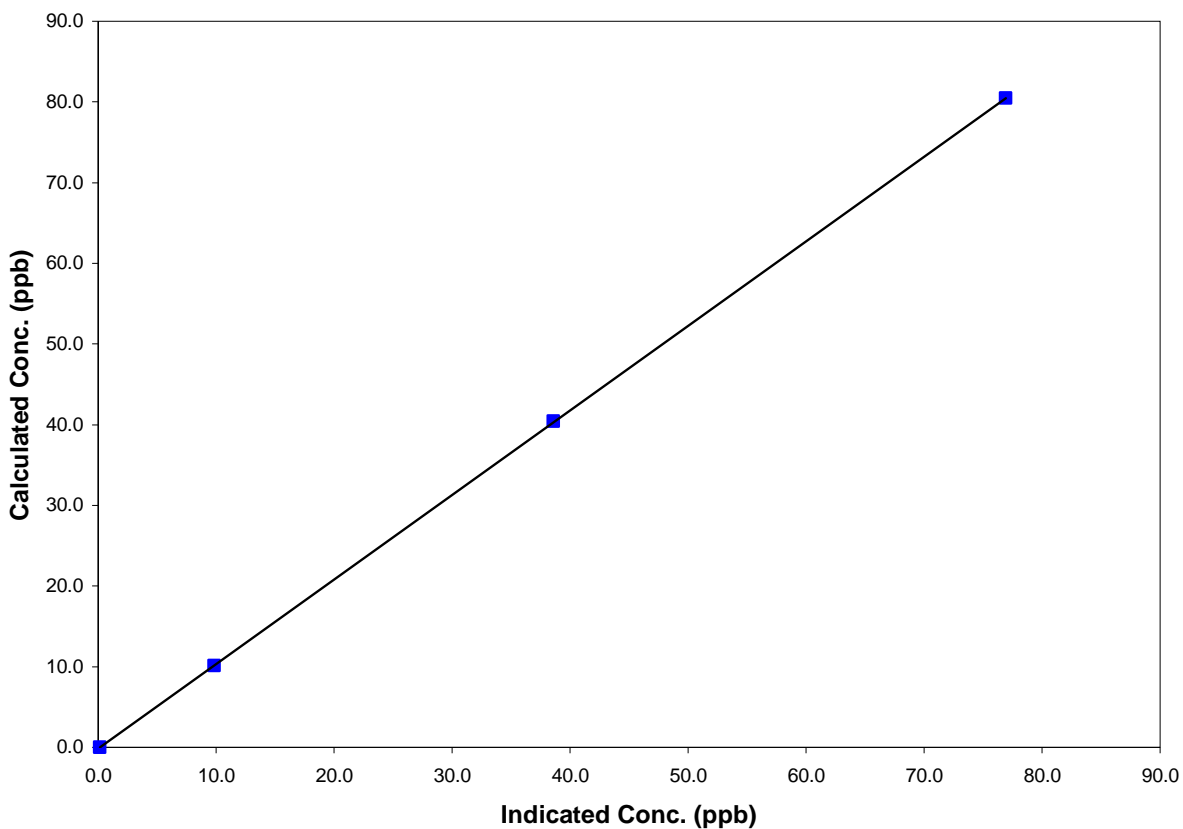
### Station Information

Calibration Date	October 9, 2008	Previous Calibration	September 26, 2008
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	11:50	End Time (MST)	14:20
Analyzer make/model	TEI Model 43C	Analyzer serial #	0436610005

### Calibration Data

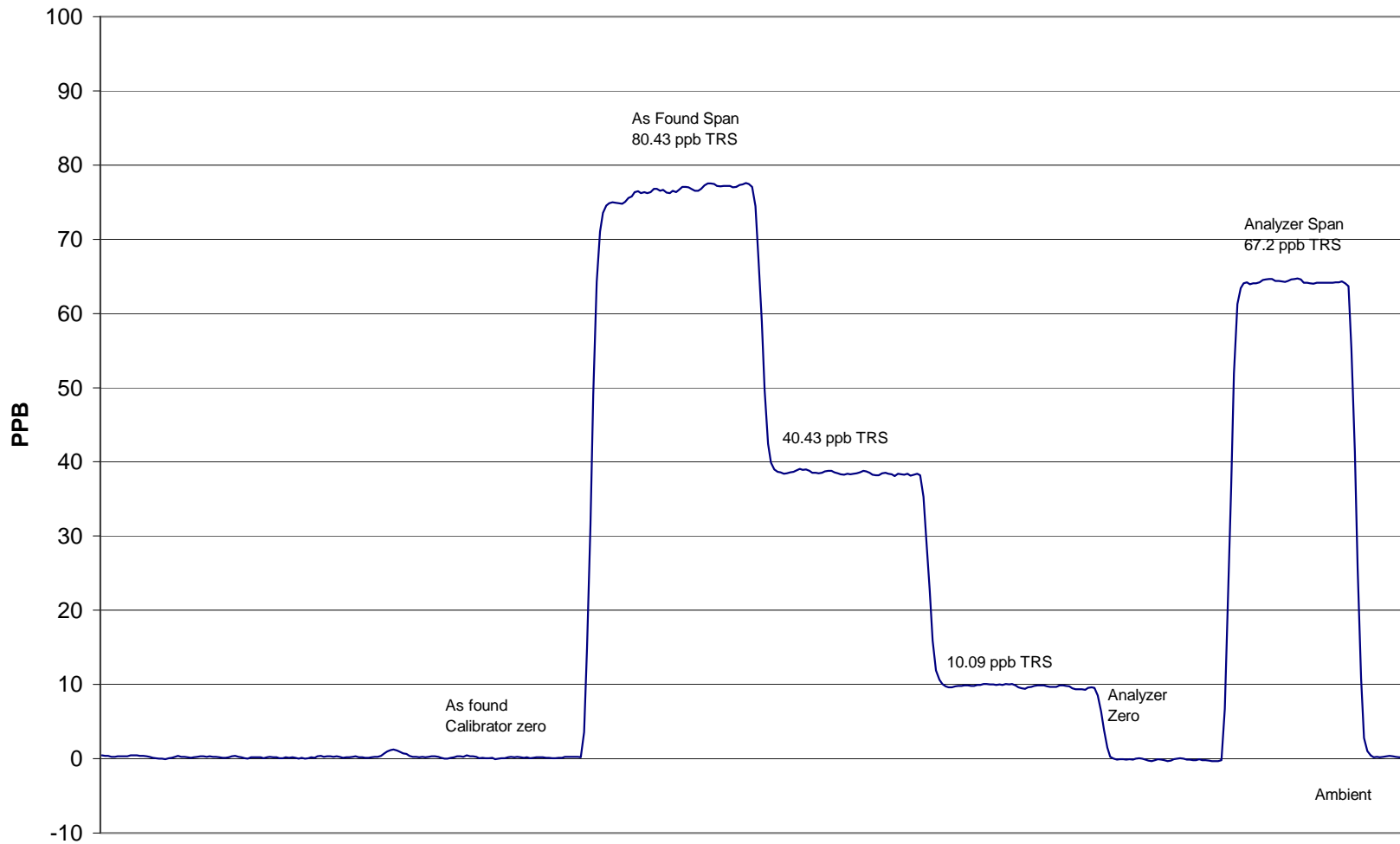
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A		
80.4	76.9	1.0456	Correlation Coefficient	0.999992
40.4	38.6	1.0479		
10.1	9.9	1.0232		
			Slope	1.048503
			Intercept	-0.163761

### TRS Calibration Curve





### Evergreen Park - TRS Calibration



October 9, 2008

# Calibration Report



Parameter **SO<sub>2</sub>**

Air Monitoring Network **PASZA**

## Station Information

Calibration Date	October 15, 2008	Previous Calibration	September 25, 2008
Station Number	3	Station Location	Smokey Heights
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	10:55	End Time (MST)	13:25
Barometric Pressure	0.927 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	0.031511	Cal Gas Cylinder #	AAL 15377
DACS make	Focus AP1000	DACS serial No.	45272
DACS voltage range	0 - 10 volt	DACS channel #	6
	Before		After
Calculated slope	1.000562	Calculated slope	1.005278
Calculated intercept	-2.145971	Calculated intercept	-1.502802
Analyzer make	Teco 43i	Analyzer serial #	701120009

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	6.3		6.3	
coefficient	0.712		0.712	
Lamp Voltage	927	volts	923	volts
Chamber Temp	45	Deg C	44.9	Deg C
Perm Gas Temp	44.98	Deg C	45	Deg C
Pressure	667.4	mm Hg	667.2	mm Hg
Sample Flow	442	ccm	442	ccm
Lamp Intensity	89	%	88	%

## Calibration Data

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4988	0.0	0.00	0.9	N/A
4991	39.82	400.51	399.8	1.0017
4990	19.92	201.19	201.3	0.9993
4989	9.94	100.61	102.5	0.9813
4988	0.0	0.00	0.9	As Found Zero
4988	39.81	400.65	399.8	As Found Span
Average Correction Factor				0.9941

Calculated value of As Found Response: 396.953 ppm      Percent Change of As Found: 0.9%

	before calibration		after calibration	
Auto zero	-1.3	ppm	-0.6	ppm
Auto span	309.2	ppm	309.9	ppm

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

Calibration Performed By: Conor Whiteley

## Calibration Summary

Parameter **SO2**

Air Monitoring Network **PASZA**

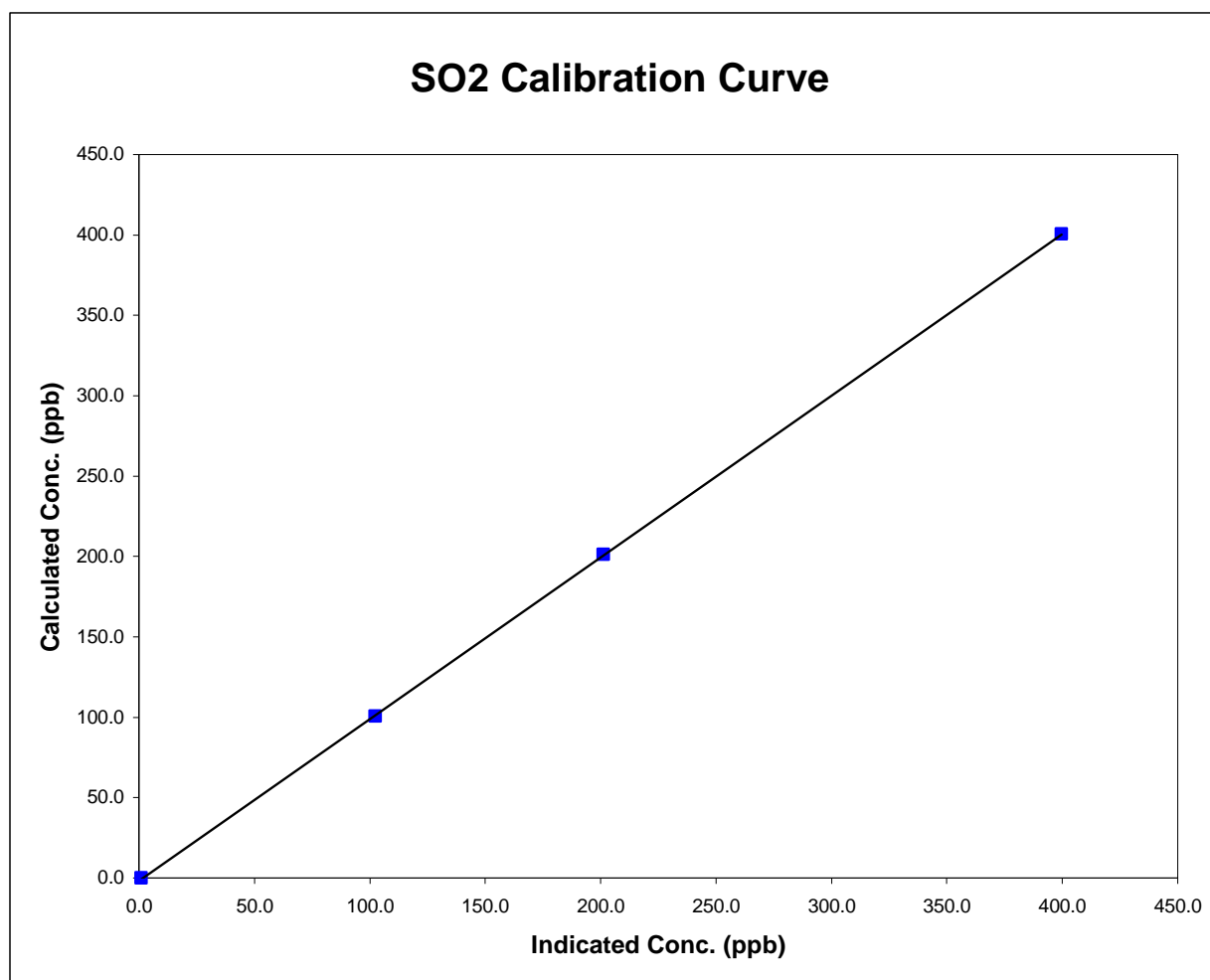


### Station Information

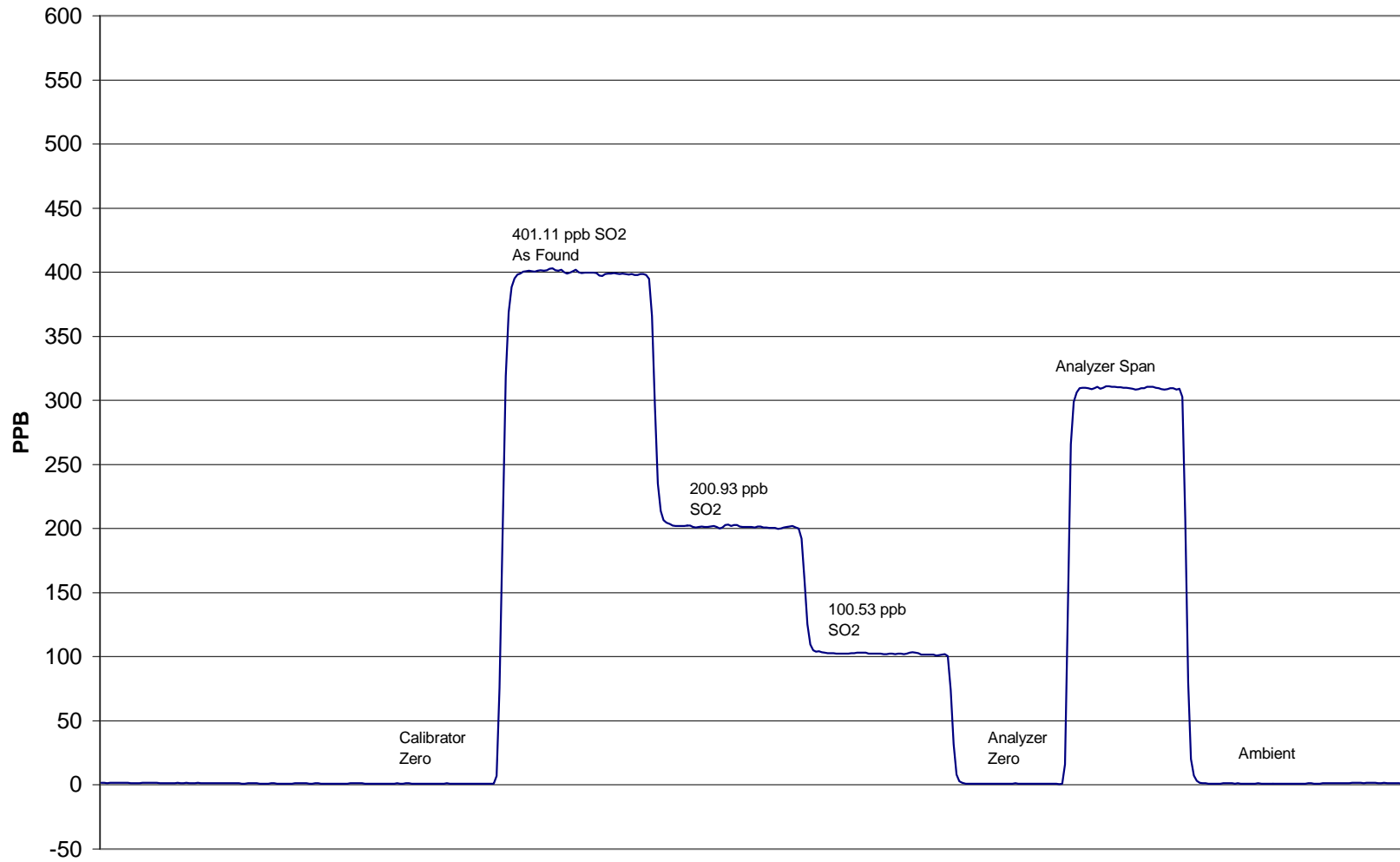
Calibration Date	October 15, 2008	Previous Calibration	September 25, 2008
Station Number	3	Station Location	Smokey Heights
Start Time (MST)	10:55	End Time (MST)	13:25
Analyzer make/model	Teco 43i	Analyzer serial #	701120009

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.9	N/A		
400.5	399.8	1.0017	Correlation Coefficient	0.999985
201.2	201.3	0.9993		
100.6	102.5	0.9813	Slope	1.005278
			Intercept	-1.502802



### Smokey Heights - SO2 Calibration



October 15, 2008

# Calibration Report



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

## Station Information

Calibration Date	October 15, 2008	Previous Calibration	September 25, 2008
Station Number	3	Station Location	Smokey Heights
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	13:40	End Time (MST)	15:12
Barometric Pressure	0.927 ATM	Station Temperature	20.0 Deg C
Calibrator	Envionics 6100	Serial Number	3474
Cal Gas Conc	5.1 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	1.008921	Calculated slope	1.010631
Calculated intercept	-0.129077	Calculated intercept	-0.306905
Analyzer make	TEI Model 43C	Analyzer serial #	0436610005

	before		after	
Concentration range	100	ppb	100	ppb
Background coefficient	12.5	ppb	12.5	ppb
Lamp Voltage	1.004		1.004	
Chamber Temp	763	volts	768	volts
Perm Gas Temp	44.1	Deg C	44.2	Deg C
Pressure	45	Deg C	45	Deg C
Sample Flow	508.1	mm Hg	499.3	mm Hg
Lamp Intensity	772	ccm	764	ccm
	32,400	mv	32,538	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
4988	79.70	80.21	79.7	1.0063
4990	39.85	40.41	40.2	1.0055
4990	9.91	10.11	10.4	0.9747
4990	0.0	0.00	0.3	As Found Zero
4990	79.71	80.19	79.7	As Found Span
Average Correction Factor				0.9955

Calculated value of As Found Response: 79.99 ppm      Percent Change of As Found: 0.2%

	before calibration		after calibration	
Auto zero	-0.3	ppm	-0.2	ppm
Auto span	42.3	ppm	42.1	ppm

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

Calibration Performed By: Conor Whiteley

## Calibration Summary

Parameter **TRS**

Air Monitoring Network **PASZA**

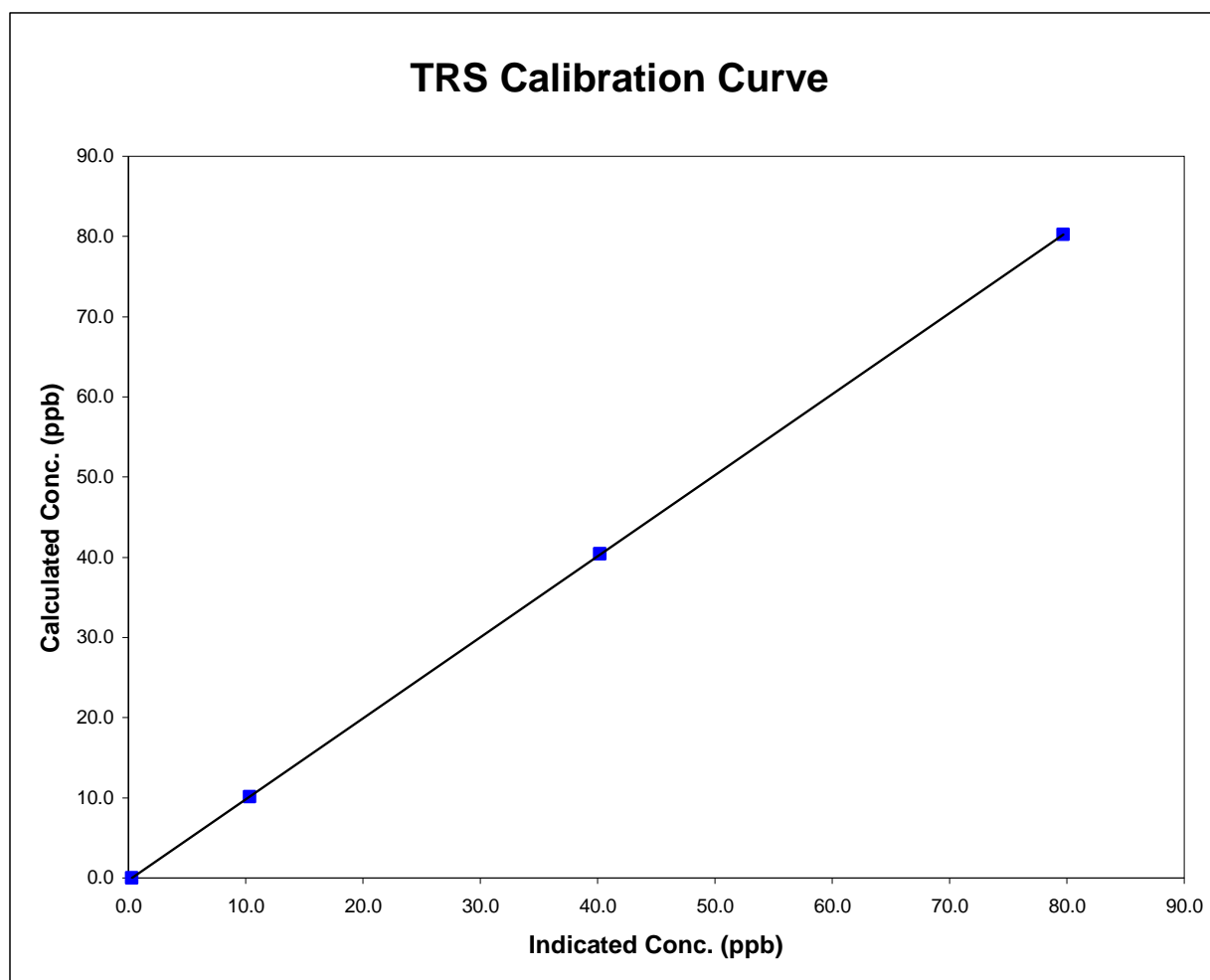


### Station Information

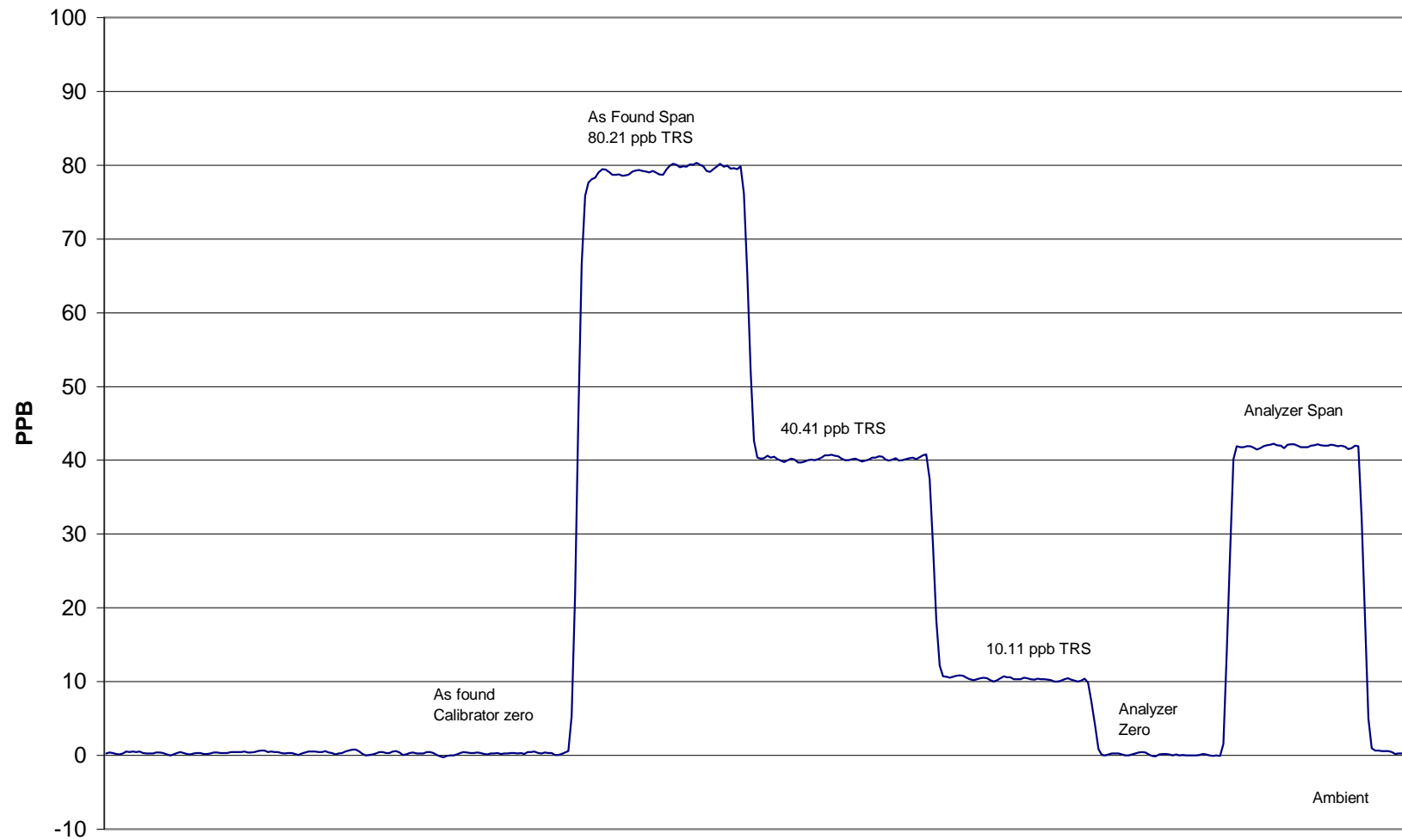
Calibration Date	October 15, 2008	Previous Calibration	September 25, 2008
Station Number	3	Station Location	Smokey Heights
Start Time (MST)	13:40	End Time (MST)	15:12
Analyzer make/model	TEI Model 43C	Analyzer serial #	0436610005

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	N/A		
80.2	79.7	1.0063	Correlation Coefficient	0.999996
40.4	40.2	1.0055		
10.1	10.4	0.9747	Slope	1.010631
			Intercept	-0.306905



### Smokey Heights - TRS Calibration



October 15, 2008

# Calibration Report



Parameter **SO2**  
 Air Monitoring Network **PASZA**

## Station Information

Calibration Date	October 8, 2008	Previous Calibration	September 17, 2008
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)	8:40	End Time (MST)	11:30
Barometric Pressure	0.915 atm	Station Temperature	20.0 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 #	4
	<u>Before</u>		<u>After</u>
DACS Scale High	500	DACS slope	500
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.973548	Calculated slope	1.003651
Calculated intercept	-0.336055	Calculated intercept	-0.404933
Analyzer make	TEI Model 43CTL	Analyzer serial #	43CTL-74200-376

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	2.53		2.47	
Coefficient	0.95		0.913	
PMT	-812	V	-813	V
UV Lamp Voltage	1046	V	1055	V
Chamber Temp	44.8	Deg C	44.7	Deg C
Pressure	664.9	mm Hg	669.4	mm Hg
Sample Flow	0.467	LPM	0.471	LPM
Lamp Intesity	85%	%	85%	%

## Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4988	0.00	0.0	0.0	N/A
4988	39.90	79.8	79.7	1.0016
4988	19.87	39.9	40.4	0.9875
4988	9.91	19.9	20.7	0.9630
4988	0.00	0.0	0.0	As found zero
4988	39.90	79.8	82.4	As found span
Average Correction Factor				0.9840

Calculated value of As Found Response: 79.933 ppm      Percent Change of As Found: -0.1%

	before calibration		after calibration	
Auto zero	-0.5	ppm	-0.5	ppm
Auto span	55.4	ppm	54.3	ppm

Notes: SO2 Adjustment Made

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Calibration Performed By: Conor Whiteley



## Calibration Summary

Parameter **SO2**

Air Monitoring Network **PASZA**

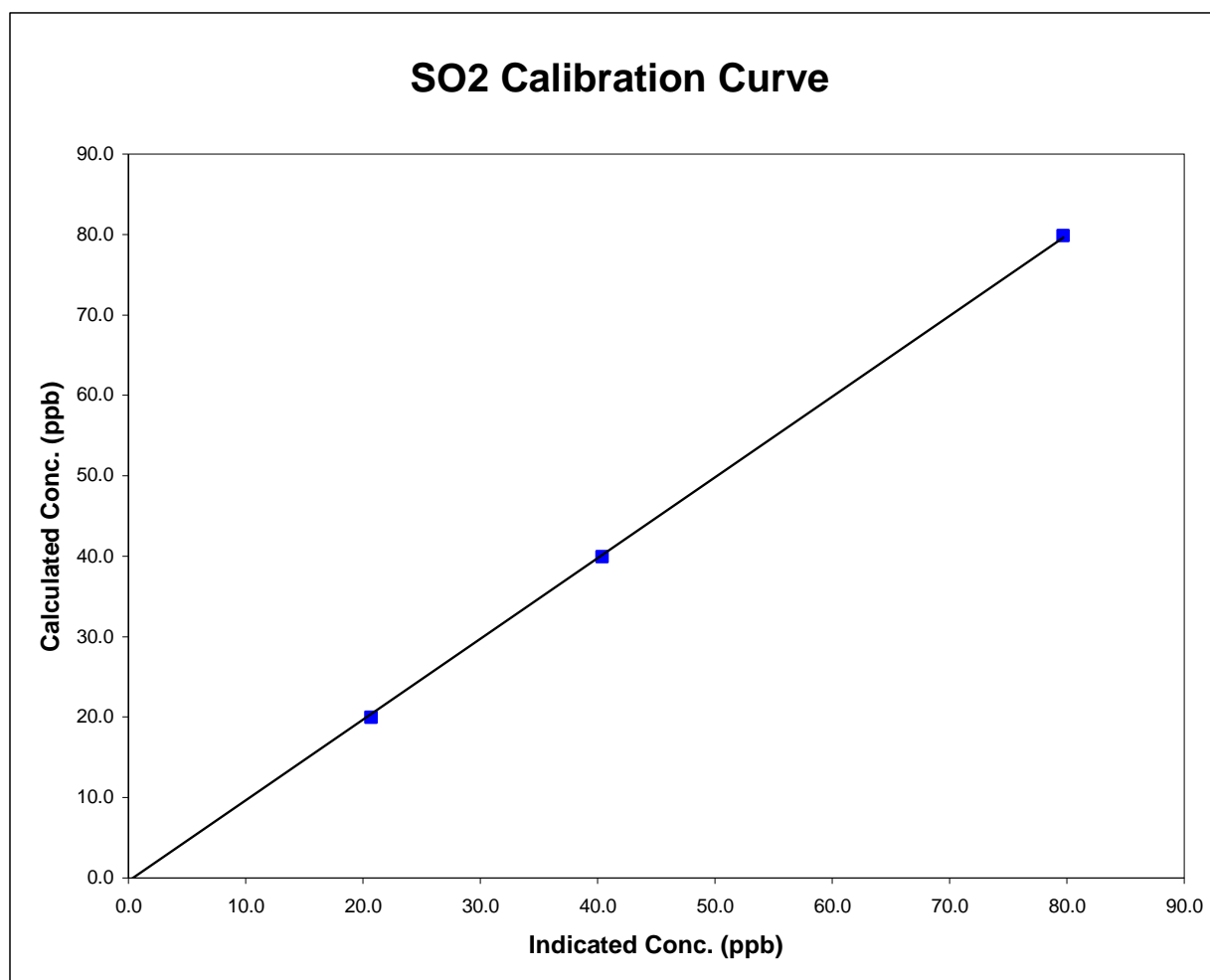


### Station Information

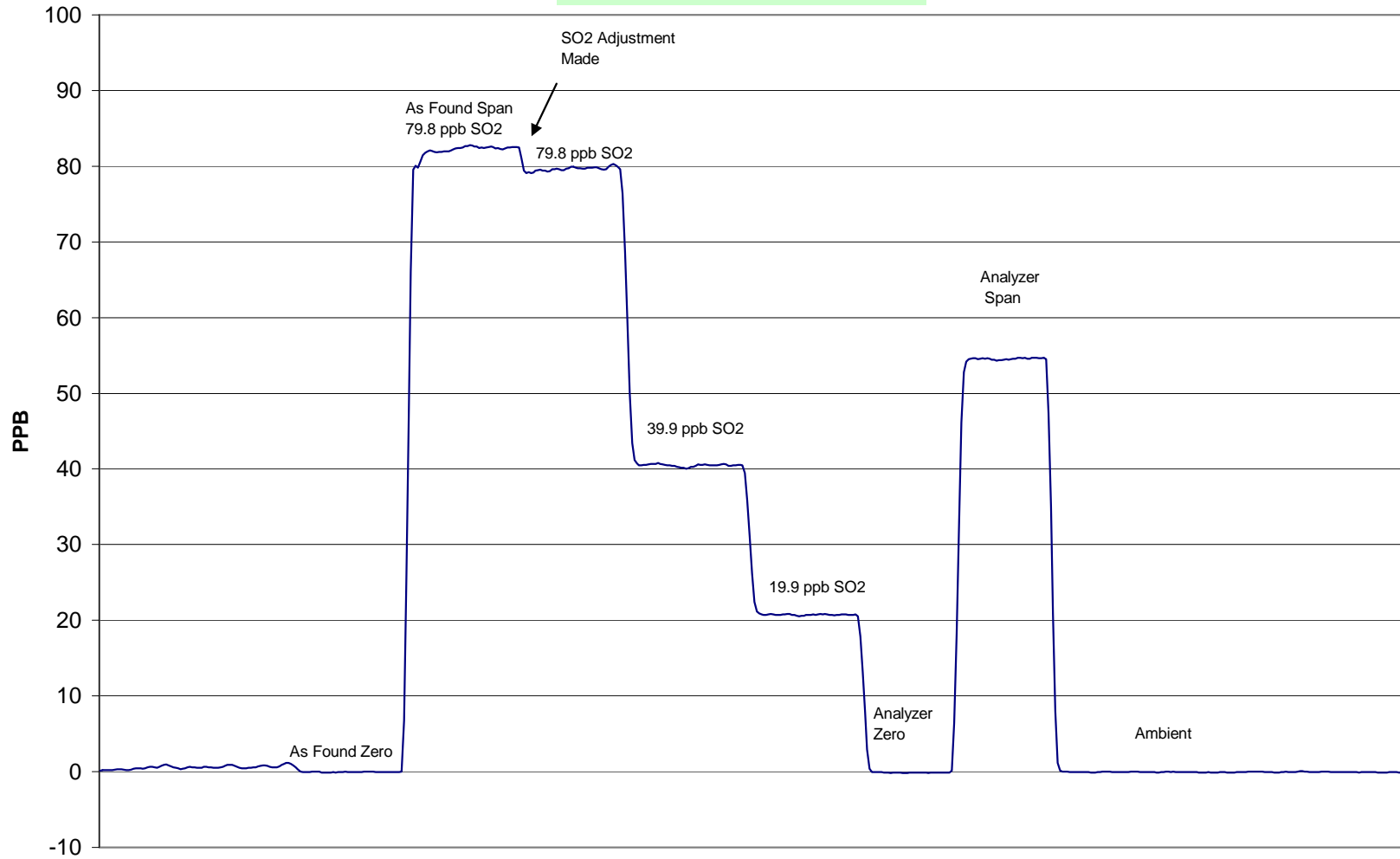
Calibration Date	October 8, 2008	Previous Calibration	September 17, 2008
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	8:40	End Time (MST)	11:30
Analyzer make/model	TEI Model 43CTL	Analyzer serial #	43CTL-74200-376

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A		
79.8	79.7	1.0016	Correlation Coefficient	0.999854
39.9	40.4	0.9875		
19.9	20.7	0.9630		
			Slope	1.003651
			Intercept	-0.404933



### Beaver Lodge - SO2 Calibration



October 8, 2008

# Calibration Report

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



## Station Information

Calibration Date **October 8, 2008** Previous Calibration **September 17, 2008**  
Station Number **4** Station Location **Beaverlodge**

Reason:  Routine  Installation  Removal  Other: \_\_\_\_\_

Start Time (MST) **8:40:00** End Time (MST) **13:20:00**  
Barometric Pressure **0.915** Atm Station Temperature **20.0** Deg C  
Calibrator **EnviroNics 6100** Serial Number **3474**  
NO Cal Gas Conc **50.1** ppm Cal Gas Cert. Date **2-Jan-07**  
NOx Cal Gas Conc **50.2** ppm Cal Gas Serial # **CC 114395**

## DACS Information

DACS make **FOCUS AP1000** DACS serial No. **45269**

Parameter		NO2	NOx	NO
Before	Data Slope	1.004042	1.002195	0.997603
	Data Offset	0.865753	-2.093167	-1.946761
After	Data Slope	1.034518	1.017172	1.007699
	Data Offset	-0.159586	-2.367820	-2.301968
Channel #		8	6	7
Voltage Range		0 - 10 VDC	0 - 10 VDC	0 - 10 VDC

## Analyzer Information

Analyzer make/model **TEI Model 42** Analyzer serial # **42-28486-231**

Test Point	before		after	
Concentration range	0 - 1000	ppb	0 - 1000	ppb
NO background	1.4	ppb	1.4	mV
NOx background	1.4	ppb	1.4	mV
NO coefficient	1.116		1.116	
NOx coefficient	0.999		0.999	
PMT Voltage	-635	V	-635	V
Chamber Temp	49.4	Deg C	49.3	Deg C
Cooler Temp	-1.9	Deg C	-2.0	Deg C
Converter Temp	322.0	Deg C	322.0	Deg C
Sample Flow	0.758	LPM	0.733	LPM
Ozonator Flow	0.083	LPM	0.083	LPM
Pressure	182.4	mm Hg	191.9	mm Hg

Notes:

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# Calibration Report

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



## Station Information

Calibration Date: **October 8, 2008**

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	4988	0.00	0.0	0.0	0.0	-0.2	-0.3	-0.3	N/A	N/A
1	4988	39.90	398.4	397.6	0.8	392.7	395.5	-3.3	1.0145	1.0052
2	4988	19.87	199.2	198.8	0.4	199.4	200.7	-1.7	0.9991	0.9905
3	4988	9.91	99.5	99.3	0.2	102.8	103.6	-1.0	0.9678	0.9584
AFZ	4988	0.00	0.0	0.0	0.0	-0.2	-0.3	-0.3	0.0000	0.0000
AFS	4988	39.90	398.4	397.6	0.8	381.5	384.2	-3.2	1.0441	1.0347
Average Correction Factor									0.9938	0.9847

As Found Concentrations: NO<sub>x</sub>= 379.7 NO= 382.6 As Found Percent Change NO<sub>x</sub>= -4.7% NO= -3.8%

## GPT Calibration Data

Dilution Flow 4990 ccm Source Gas Flow 39.82 ccm

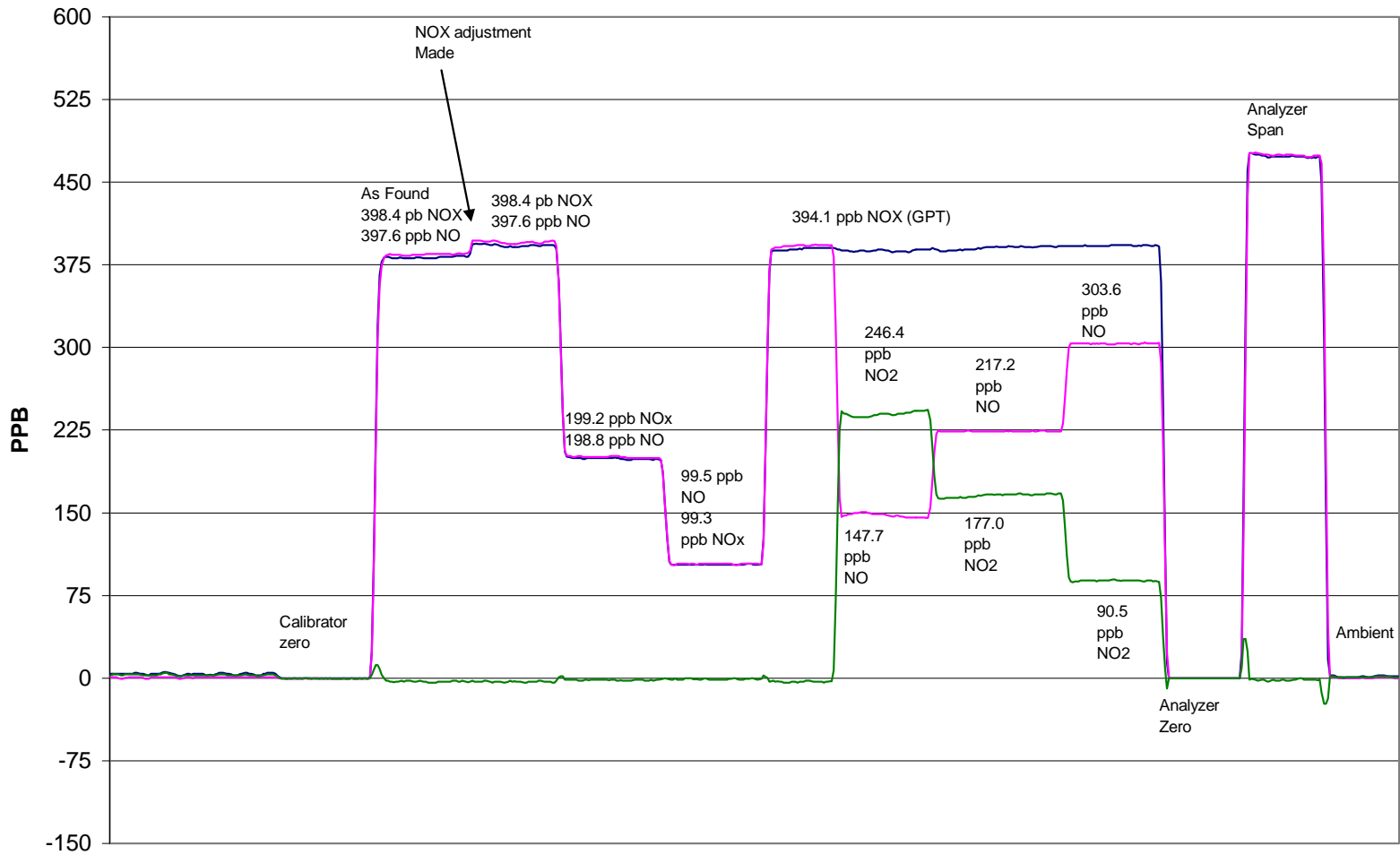
O3 Setpoint (ppb)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor	NO2 Correction factor	Converter Efficiency
0	0.0	0.0	0.0	0.0	0.0	0.0	N/A	N/A	N/A	N/A
NO point	394.1	393.4	0.7	389.8	392.7	-3.2	1.0111	1.0018	N/A	N/A
300	394.1	147.7	246.4	387.7	148.9	238.3	1.0165	0.9922	1.0341	96.7%
200	394.1	217.2	177.0	389.2	217.8	170.8	1.0127	0.9971	1.0361	96.5%
100	394.1	303.6	90.5	392.5	303.6	88.6	1.0042	1.0001	1.0217	97.9%
Average Correction Factor							1.0111	0.9965	1.0306	97.0%

## AIC Data

Parameter	Previous calibration				Current calibration			
	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	-2.3	0.6	-2.2	ppb	-2.6	-0.4	-2.6	ppb
Auto span	476.6	1.3	473.7	ppb	479.4	-2.1	476.3	ppb

Calibration Performed By: Conor Whiteley

### Beaver Lodge - NOx Calibration



October 8, 2008

## Calibration Summary

Parameter **NO<sub>2</sub>**

Air Monitoring Network **PASZA**



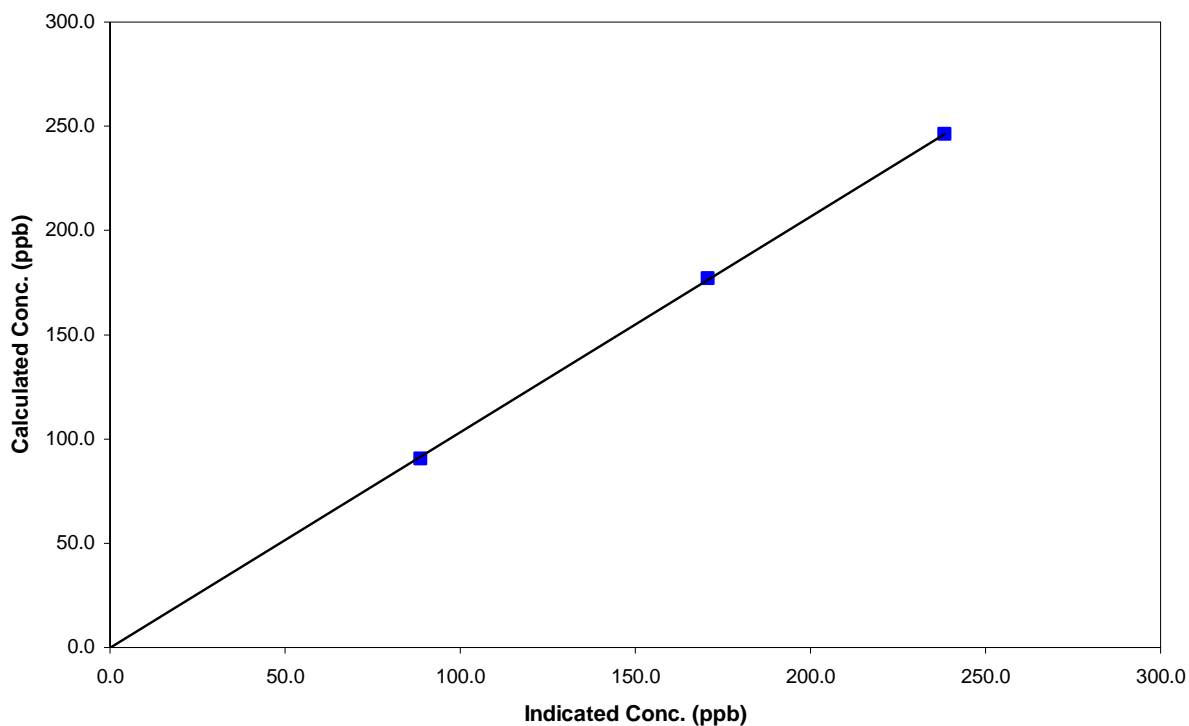
### Station Information

Calibration Date	October 8, 2008	Previous Calibration	September 17, 2008
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	8:40	End Time (MST)	13:20
Analyzer make	TEI Model 42	Analyzer serial #	42-28486-231

### Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.3	0.0000		
246.4	238.3	1.0341	Correlation Coefficient	0.999960
177.0	170.8	1.0361		
90.5	88.6	1.0217	Slope	1.034518
			Intercept	-0.159586

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



## Calibration Summary

Parameter **NO<sub>x</sub>**

Air Monitoring Network **PASZA**



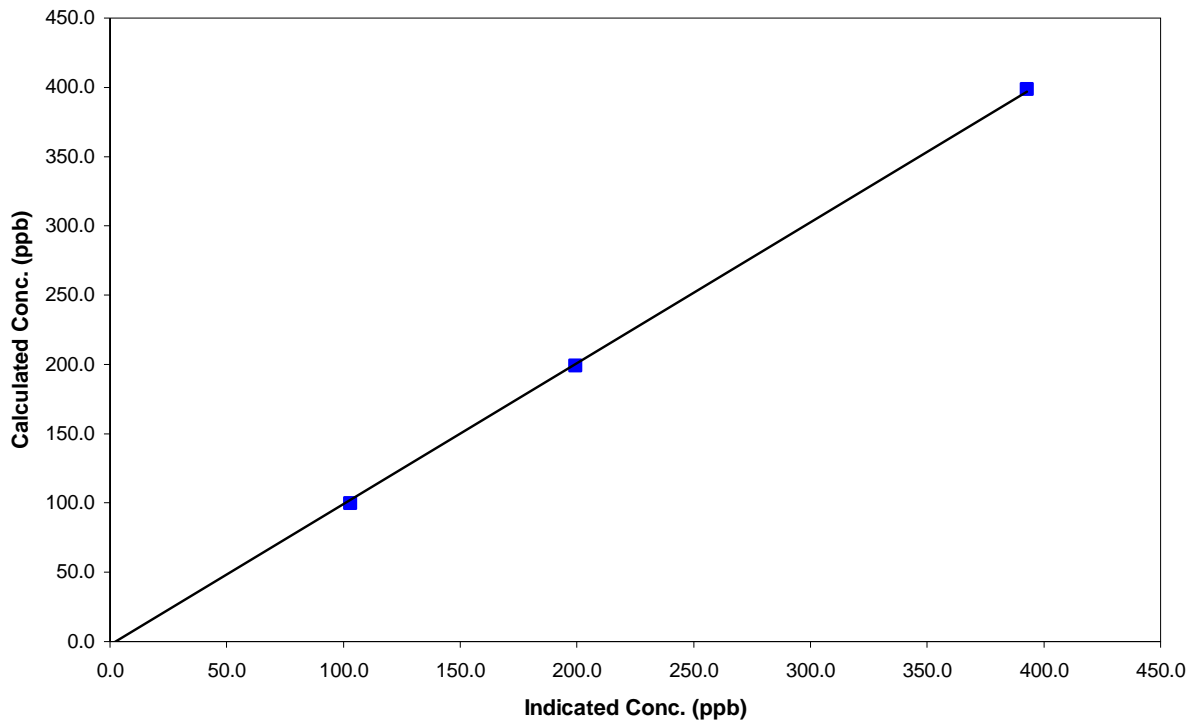
### Station Information

Calibration Date	October 8, 2008	Previous Calibration	September 17, 2008
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	8:40	End Time (MST)	13:20
Analyzer make	TEI Model 42	Analyzer serial #	42-28486-231

### Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.2	0.0000	Correlation Coefficient	0.999799
398.4	392.7	1.0145		
199.2	199.4	0.9991	Slope	1.017172
99.5	102.8	0.9678		
			Intercept	-2.367820

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



## Calibration Summary

Parameter **NO**

Air Monitoring Network **PASZA**



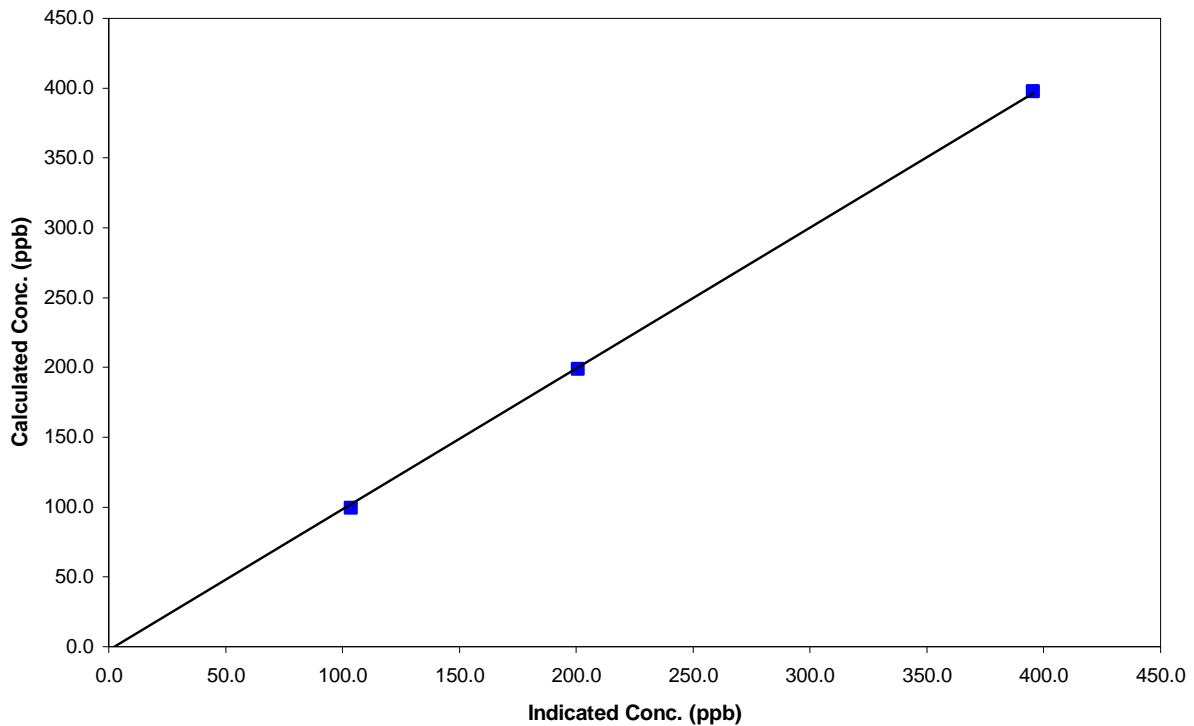
### Station Information

Calibration Date	October 8, 2008	Previous Calibration	September 17, 2008
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	8:40	End Time (MST)	13:20
Analyzer make	TEI Model 42	Analyzer serial #	42-28486-231

### Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.3	N/A		
397.6	395.5	1.0052	Correlation Coefficient	0.999794
198.8	200.7	0.9905		
99.3	103.6	0.9584	Slope	1.007699
			Intercept	-2.301968

**NO Calibration Curve**







## Calibration Summary

Parameter **O3**

Air Monitoring Network **PASZA**

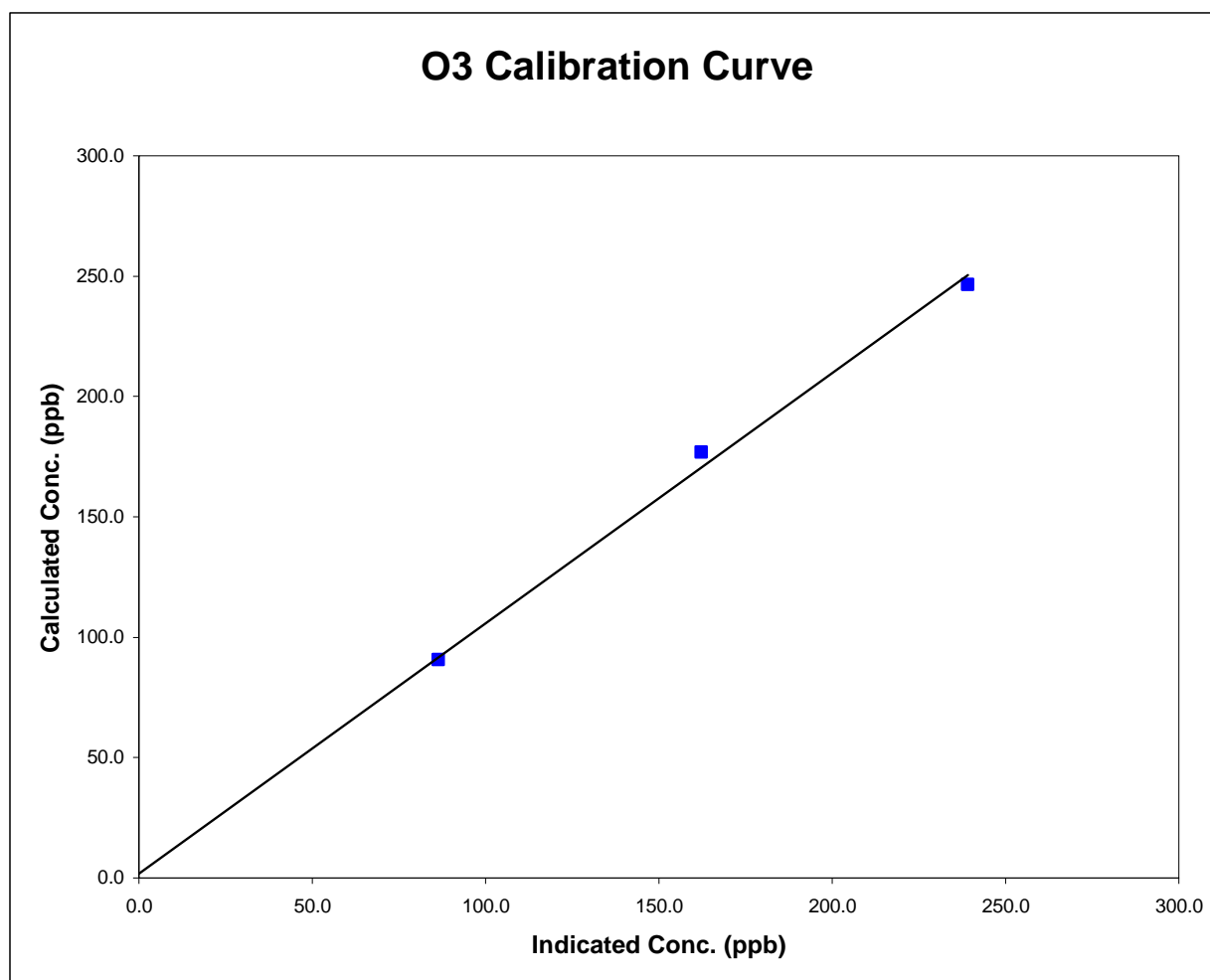


### Station Information

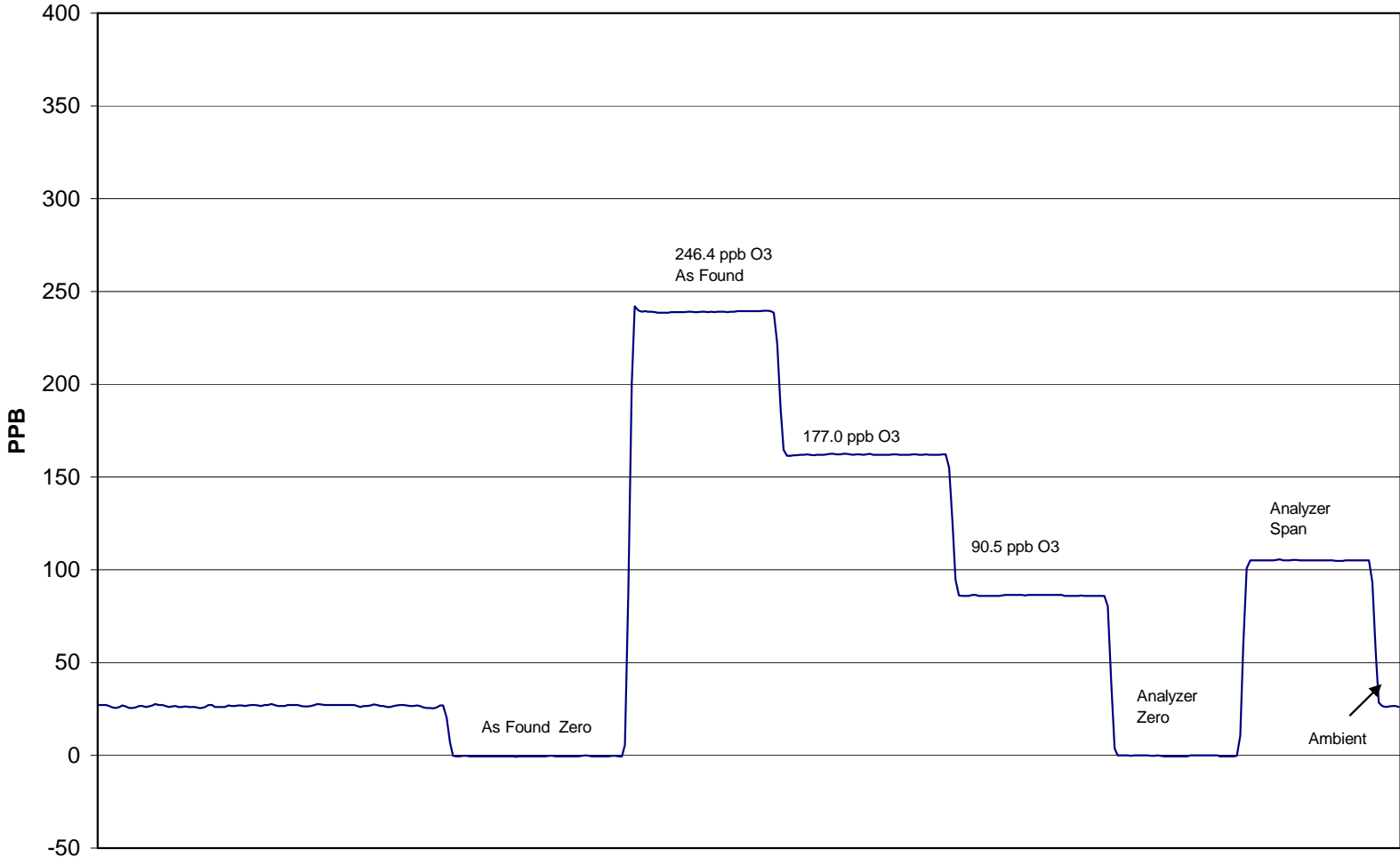
Calibration Date	October 8, 2008	Previous Calibration	September 17, 2008
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	12:45	End Time (MST)	15:30
Analyzer make/model	Teco 49C	Analyzer serial #	49C-76443-383

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.4	NA		
246.4	239.1	1.0305	Correlation Coefficient	0.998190
177.0	162.2	1.0912		
90.5	86.3	1.0486		
			Slope	1.039658
			Intercept	1.840215



**Beaver Lodge - O3 Calibration**



**October 8, 2008**

# Calibration Report



Parameter **SO2**  
 Air Monitoring Network **PASZA**

## Station Information

Calibration Date	October 16, 2008	Previous Calibration	September 9, 2008
Station Number	8	Station Location	Rover - Spirit River
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	12:05	End Time (MST)	15:00
Barometric Pressure	27.66 inches Hg	Station Temperature	22.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
Cal Gas Concentration	50.3 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	0.993569	Calculated slope	1.000219
Calculated intercept	1.251493	Calculated intercept	-1.547792
Analyzer make	TEI 43C	Analyzer serial #	609716238

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Background	9.1		8.2	
Coefficient	1.313		1.181	
UV Lamp Voltage	723	V	723	V
Chamber Temp	44.3	C	44.3	C
Perm Gas Temp	45	C	45	C
Pressure	676.3	mm Hg	676.3	mm Hg
Sample Flow	488	LPM	306	LPM
Lamp Intesity	34206	Hz	34473	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	0.1	N/A
4990	39.84	398.4	399.2	0.9980
4990	19.89	199.7	201.7	0.9899
4990	9.90	99.6	102.7	0.9702
4988	0.00	0.0	0.1	As found zero
4990	39.84	398.4	446.2	As found span
Average Correction Factor				0.9860

Calculated value of As Found Response: 444.491 ppm      Percent Change of As Found: -11.6%

	before calibration		after calibration	
Auto zero	1.4	ppm	-1.3	ppm
Auto span	293.2	ppm	317.7	ppm

Notes: SO2 Adjustment Made

Calibration Performed By: Conor Whiteley

## Calibration Summary

Parameter **SO2**

Air Monitoring Network **PASZA**

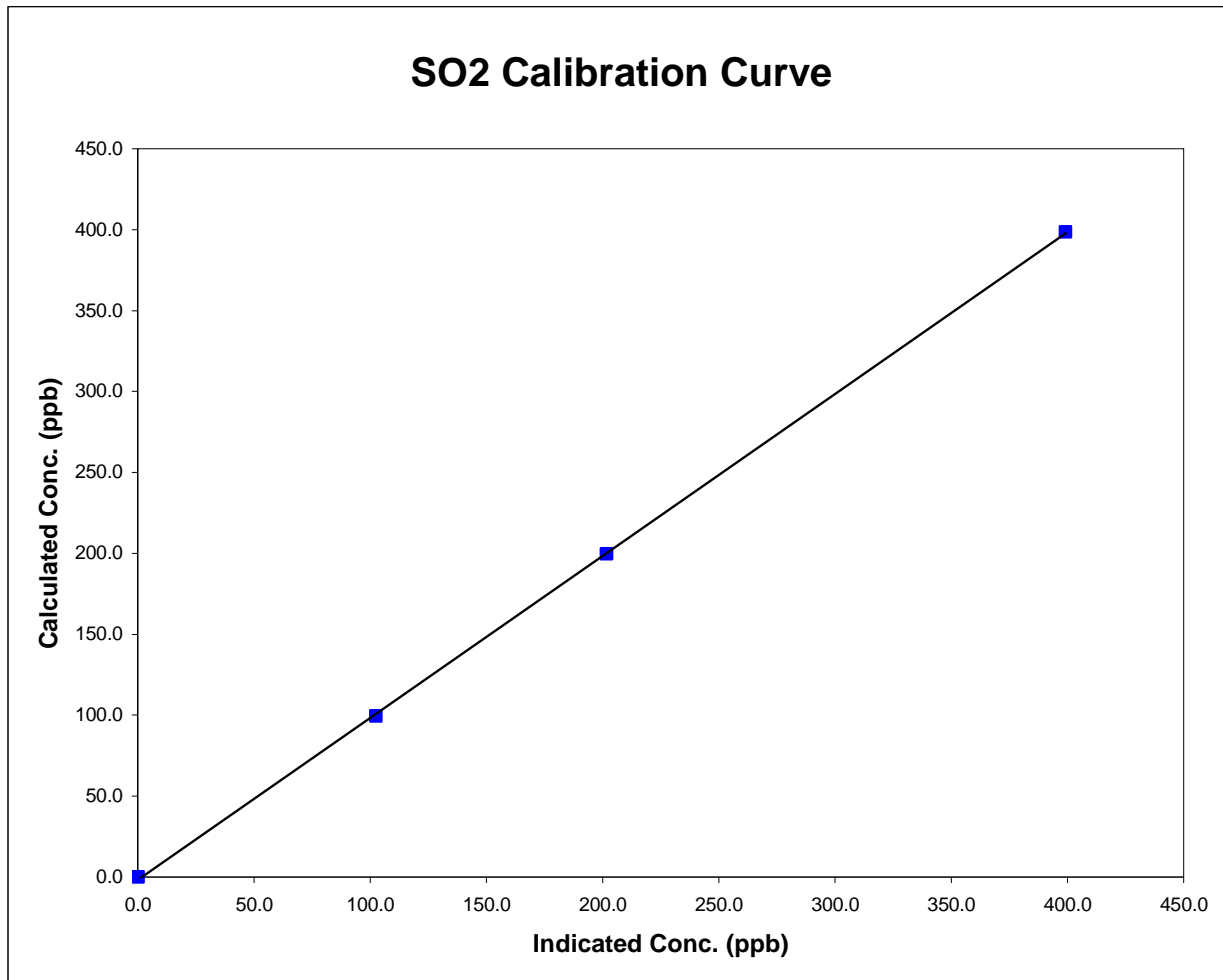


### Station Information

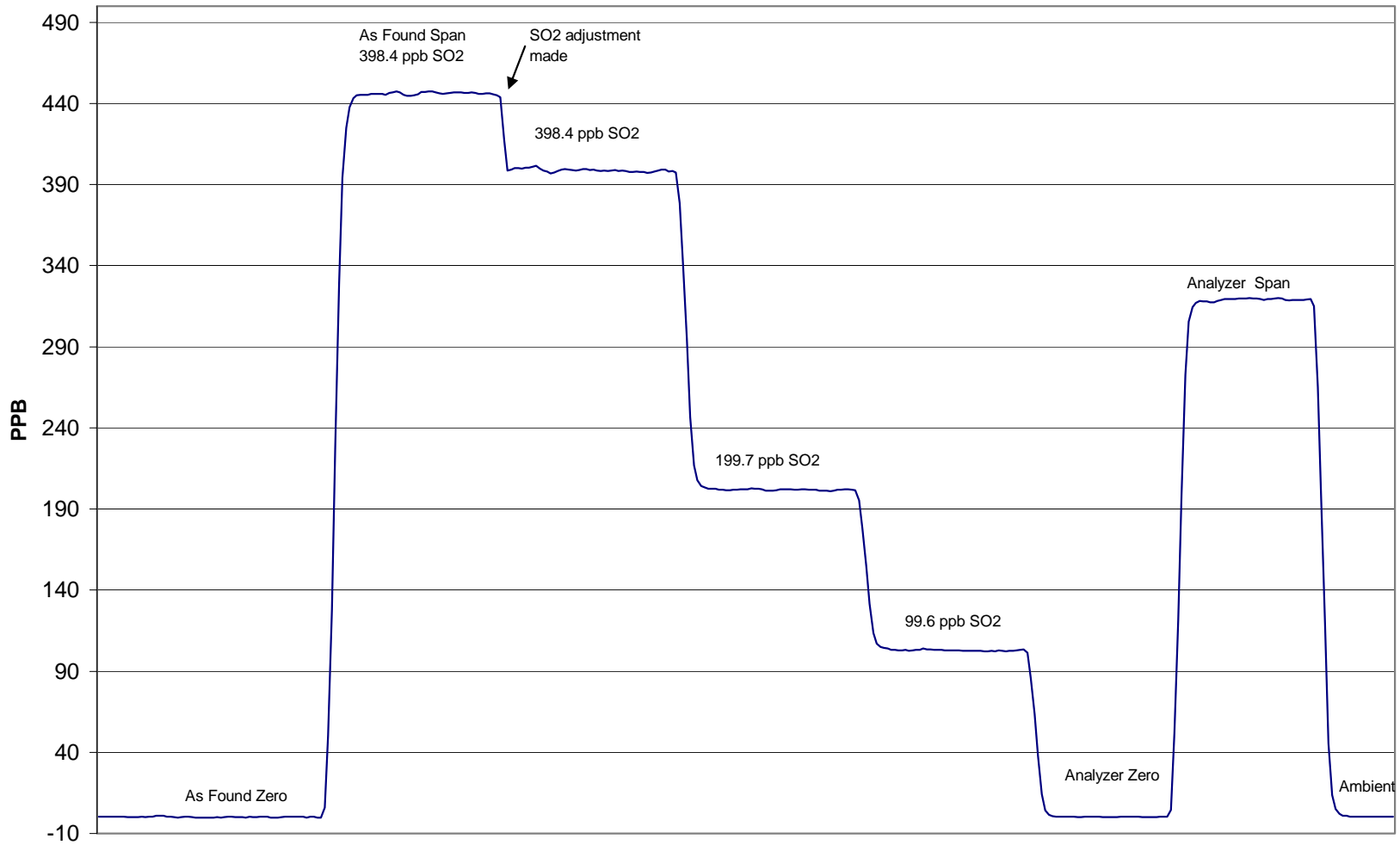
Calibration Date	October 16, 2008	Previous Calibration	September 9, 2008
Station Number	8	Station Location	Rover - Spirit River
Start Time (MST)	12:05	End Time (MST)	15:00
Analyzer make/model	TEI 43C	Analyzer serial #	609716238

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A		
398.4	399.2	0.9980	Correlation Coefficient	0.999941
199.7	201.7	0.9899		
99.6	102.7	0.9702	Slope	1.000219
			Intercept	-1.547792



### Rover - Spirit River - SO2 Calibration



October 16, 2008

# Calibration Report



Parameter **SO2**

Air Monitoring Network **PASZA**

## Station Information

Calibration Date	October 24, 2008	Previous Calibration	October 16, 2008
Station Number	8	Station Location	Rover - Spirit River
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	10:55	End Time (MST)	16:25
Barometric Pressure	27.66 inches Hg	Station Temperature	22.0 Deg C
Calibrator	Envionics 6100	Serial Number	3474
Cal Gas Concentration	50.3 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	1.000329	Calculated slope	0.995597
Calculated intercept	-1.544755	Calculated intercept	-2.557226
Analyzer make	TEI 43C	Analyzer serial #	609716238

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Background	8.2		8.2	
Coefficient	1.181		1.181	
UV Lamp Voltage	723	V	725	V
Chamber Temp	44.3	C	44.2	C
Perm Gas Temp	45	C	45	C
Pressure	676.3	mm Hg	676.3	mm Hg
Sample Flow	306	LPM	488	LPM
Lamp Intesity	34206	Hz	34337	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
4987	39.81	398.4	401.3	0.9927
4990	19.88	199.6	204.9	0.9739
4990	9.92	99.8	104.5	0.9546
4988	0.00	0.0	0.4	As found zero
4990	39.89	398.9	401.3	As found span
Average Correction Factor				0.9738

Calculated value of As Found Response: 399.494 ppm      Percent Change of As Found: -0.1%

	before calibration		after calibration	
Auto zero	-1.3	ppm	-2.4	ppm
Auto span	317.6	ppm	293.7	ppm

Notes: Internal Pump Replaced

## Calibration Summary

Parameter **SO2**

Air Monitoring Network **PASZA**

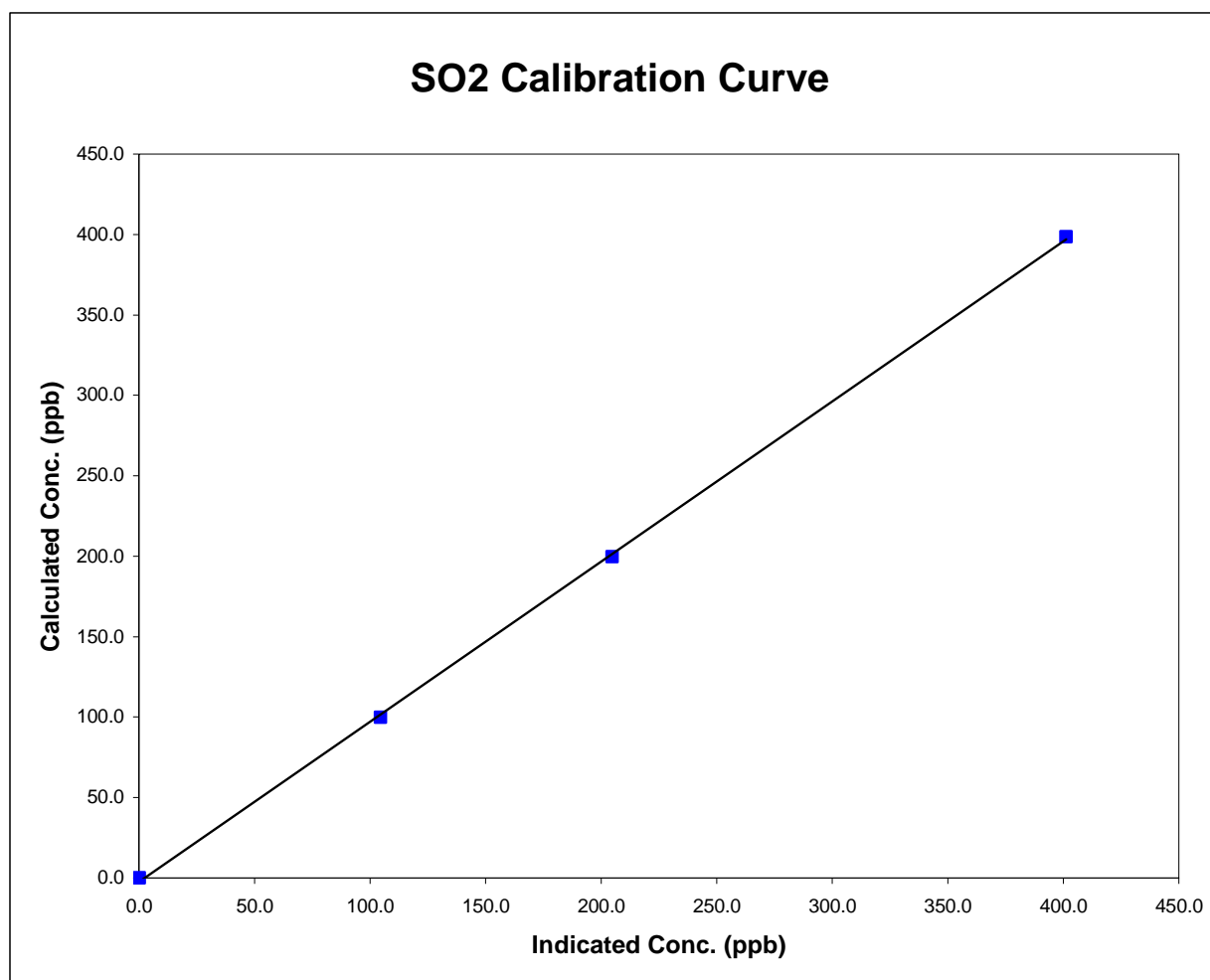


### Station Information

Calibration Date	October 24, 2008	Previous Calibration	October 16, 2008
Station Number	8	Station Location	Rover - Spirit River
Start Time (MST)	10:55	End Time (MST)	16:25
Analyzer make/model	TEI 43C	Analyzer serial #	609716238

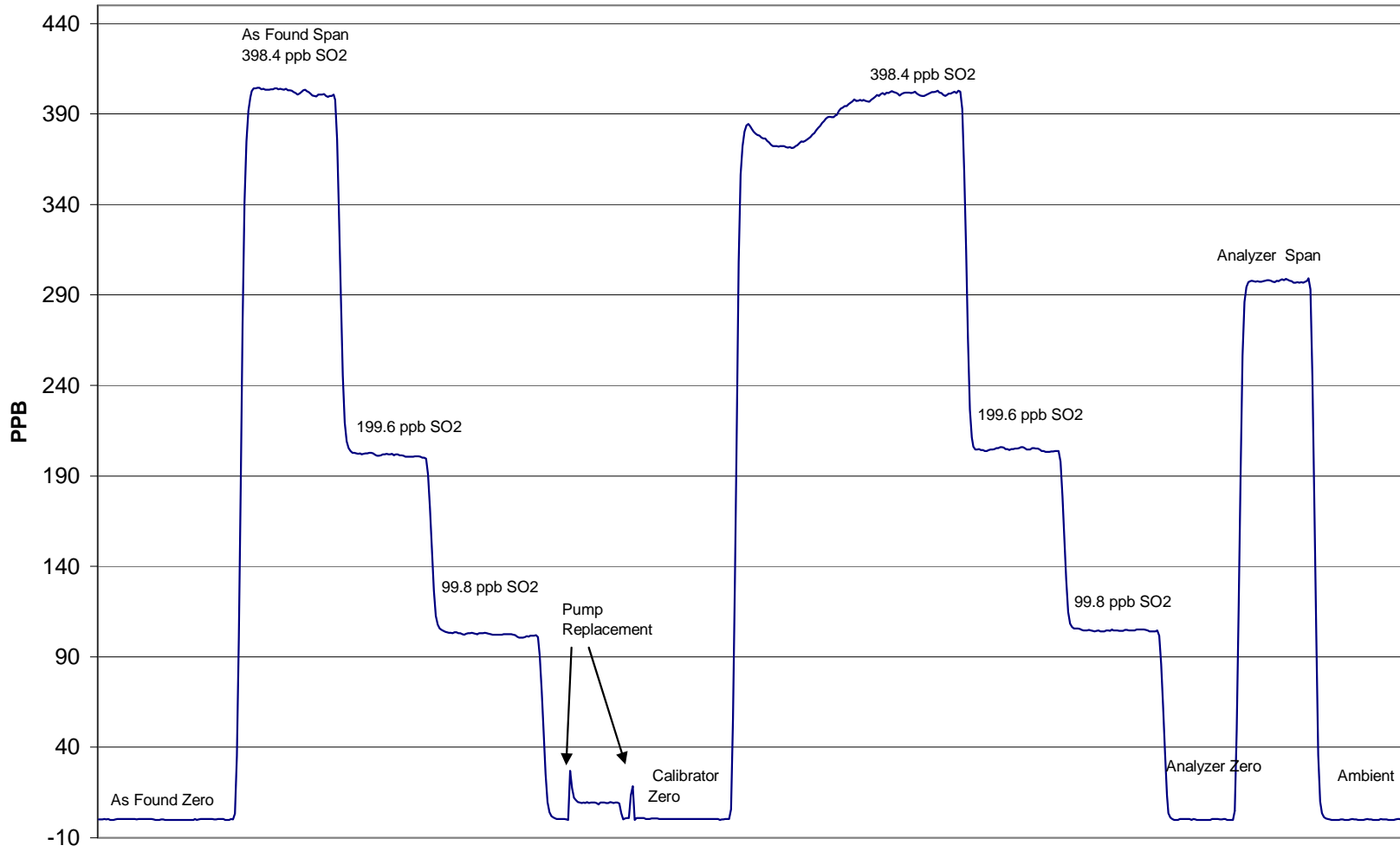
### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.4	N/A		
398.4	401.3	0.9927	Correlation Coefficient	0.999846
199.6	204.9	0.9739		
99.8	104.5	0.9546		
			Slope	0.995597
			Intercept	-2.557226





### Rover - Spirit River - SO2 Calibration



October 24, 2008

# Calibration Report



Parameter **TRS**

Air Monitoring Network **PASZA**

## Station Information

Calibration Date	October 17, 2008	Previous Calibration	September 8, 2008
Station Number	6	Station Location	Rover - Spirit River
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:

Start Time (MST)	12:00	End Time (MST)	16:30
Barometric Pressure	27.5 inches Hg	Station Temperature	21.0 Deg C
Calibrator	Envionics 6100	Serial Number	3474
Cal Gas Concentration	5.1 ppm	Cal Gas Expiry Date	11/15/2005
Gas Cert Reference	ALM013295		
DACS make	Focus AP1000	DACS serial No.	52662
DACS voltage range	0 - 5 volt	DACS channel #	8
	<u>Before</u>		<u>After</u>
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.989576	Calculated slope	0.999146
Calculated intercept	-0.217657	Calculated intercept	-0.319851

Analyzer make **TEI 43C** Analyzer serial # **609716238**

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	9.0	ppb	9.0	ppb
Coefficient	1.454		1.454	
Lamp Voltage	799	V	787	V
Chamber Temp	43.7	C	44.0	C
Perm gas Temp	45	C	45	C
Pressure	662	mmHg	664	mmHg
Sample Flow	423	ccm	423	ccm
Lamp Intensity	38187.0	Hz	39487.0	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	79.88	80.4	80.8	0.9953
4988	39.85	40.4	40.8	0.9911
4988	9.92	10.1	10.5	0.9663
4988	0.00	0.0	0.3	As found zero
4988	79.88	80.4	80.8	As found span
Average Correction Factor				0.9842

Calculated value of As Found Response: **79.42 ppm** Percent Change of As Found: **1.2%**

	before calibration		after calibration	
Auto zero	-0.1	ppm	-0.1	ppm
Auto span	71.1	ppm	72.3	ppm

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

Calibration Performed By: Conor Whiteley

## Calibration Summary

Parameter **TRS**

Air Monitoring Network **PASZA**

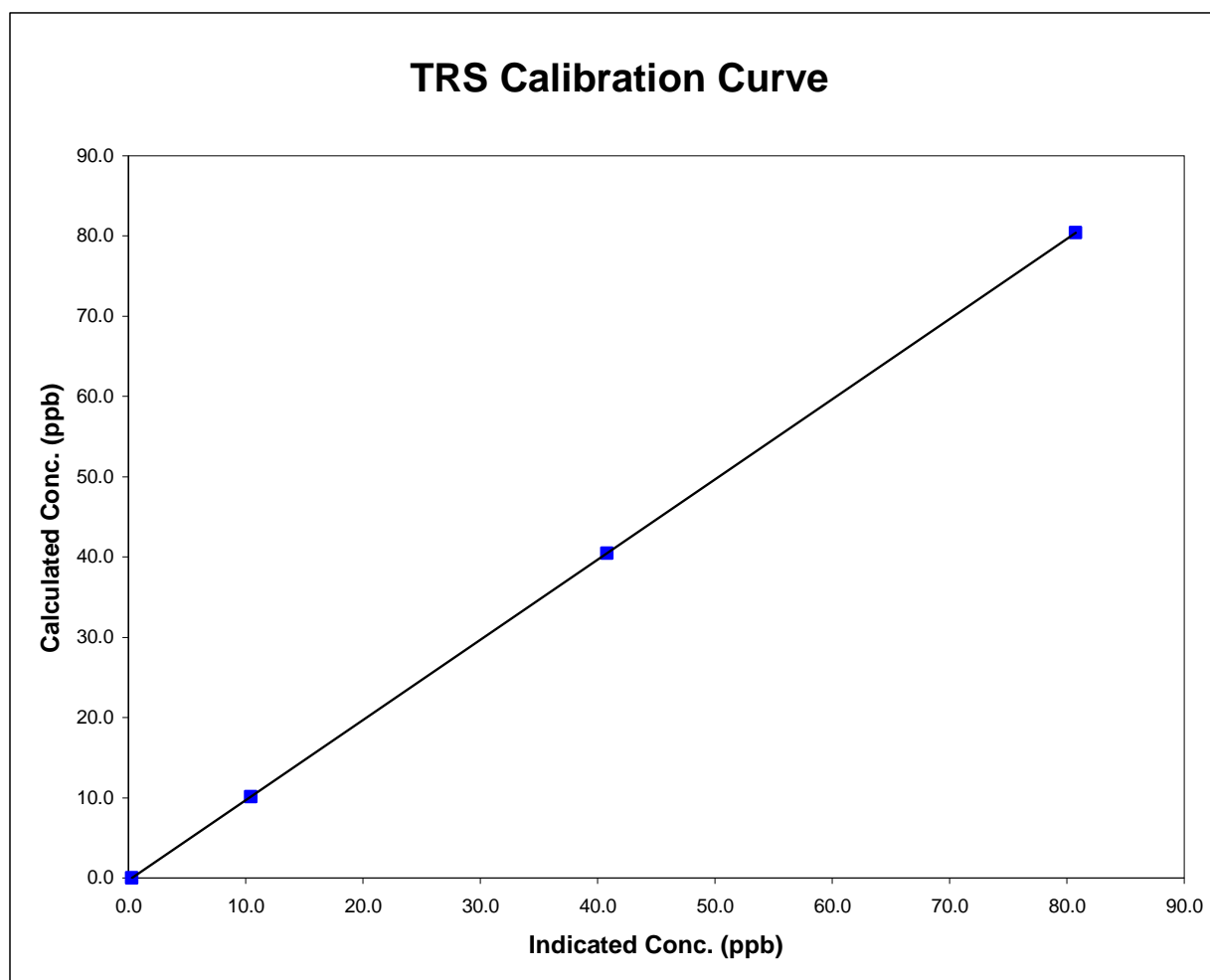


### Station Information

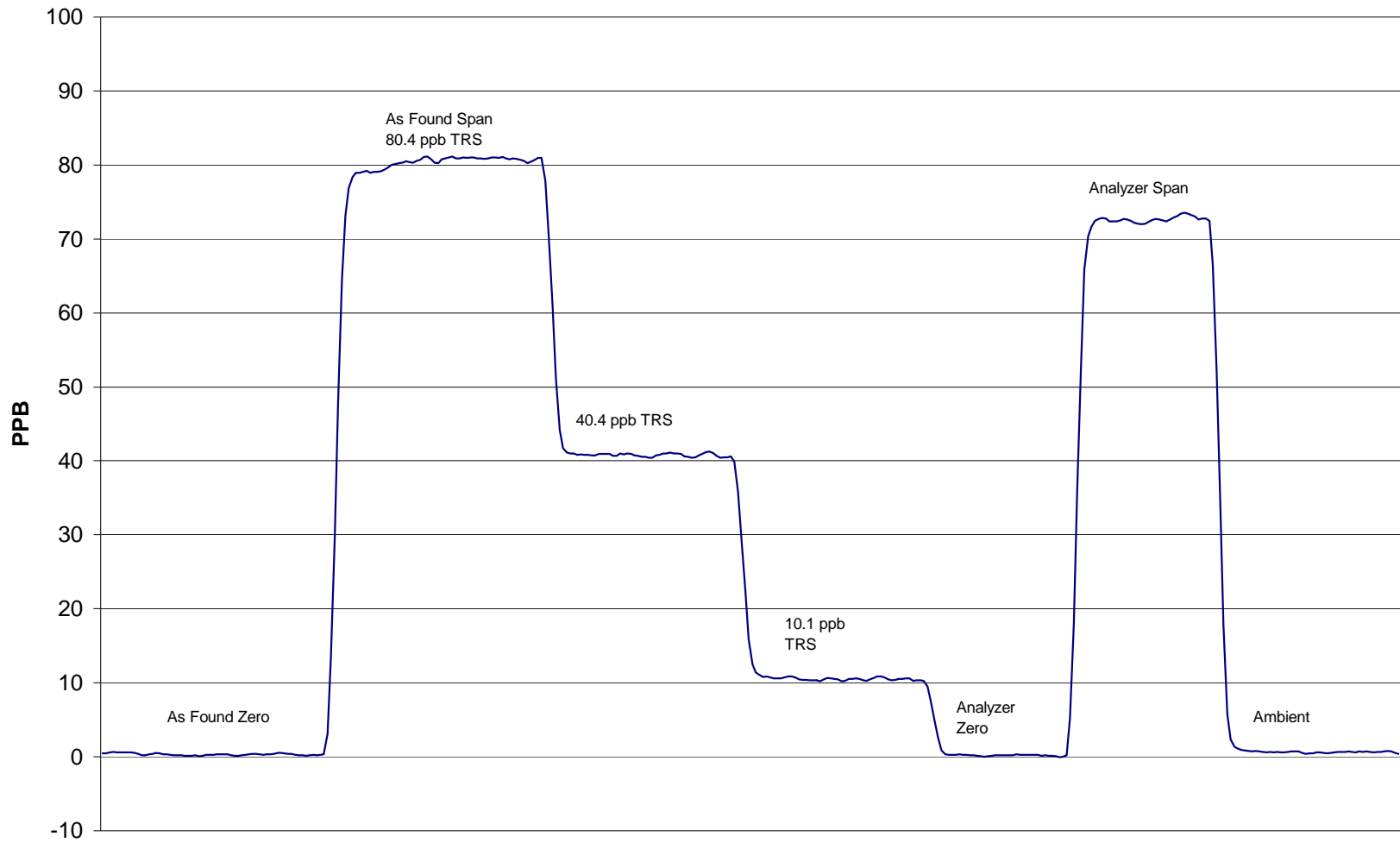
Calibration Date	October 17, 2008	Previous Calibration	September 8, 2008
Station Number	6	Station Location	Rover - Spirit River
Start Time (MST)	12:00	End Time (MST)	16:30
Analyzer make/model	TEI 43C	Analyzer serial #	609716238

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	N/A		
80.4	80.8	0.9953	Correlation Coefficient	1.000000
40.4	40.8	0.9911		
10.1	10.5	0.9663		
			Slope	0.999146
			Intercept	-0.319851



### Rover - Spirit River - TRS Calibration



October 17, 2008



## Calibration Summary

Parameter **O3**

Air Monitoring Network **PASZA**

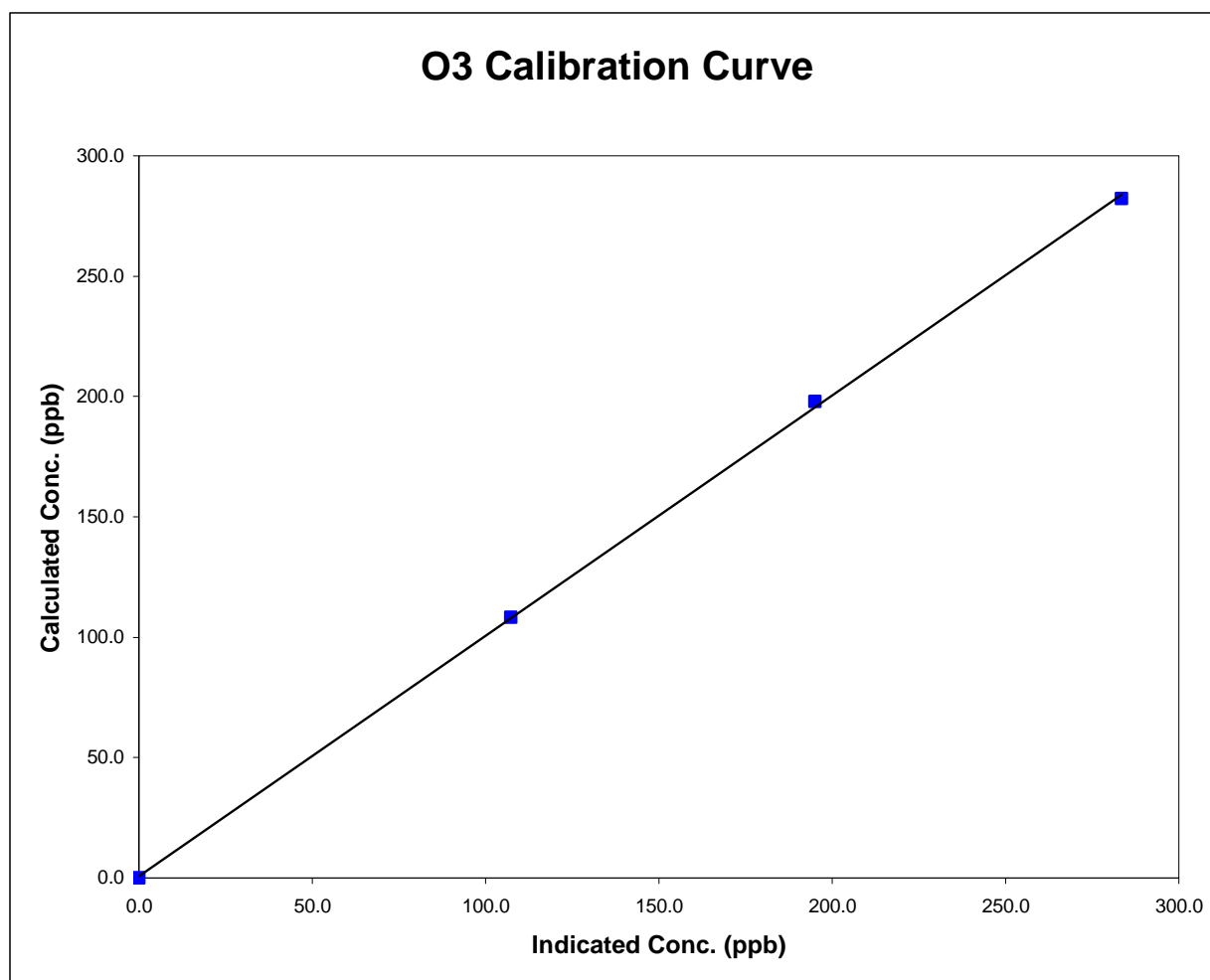


### Station Information

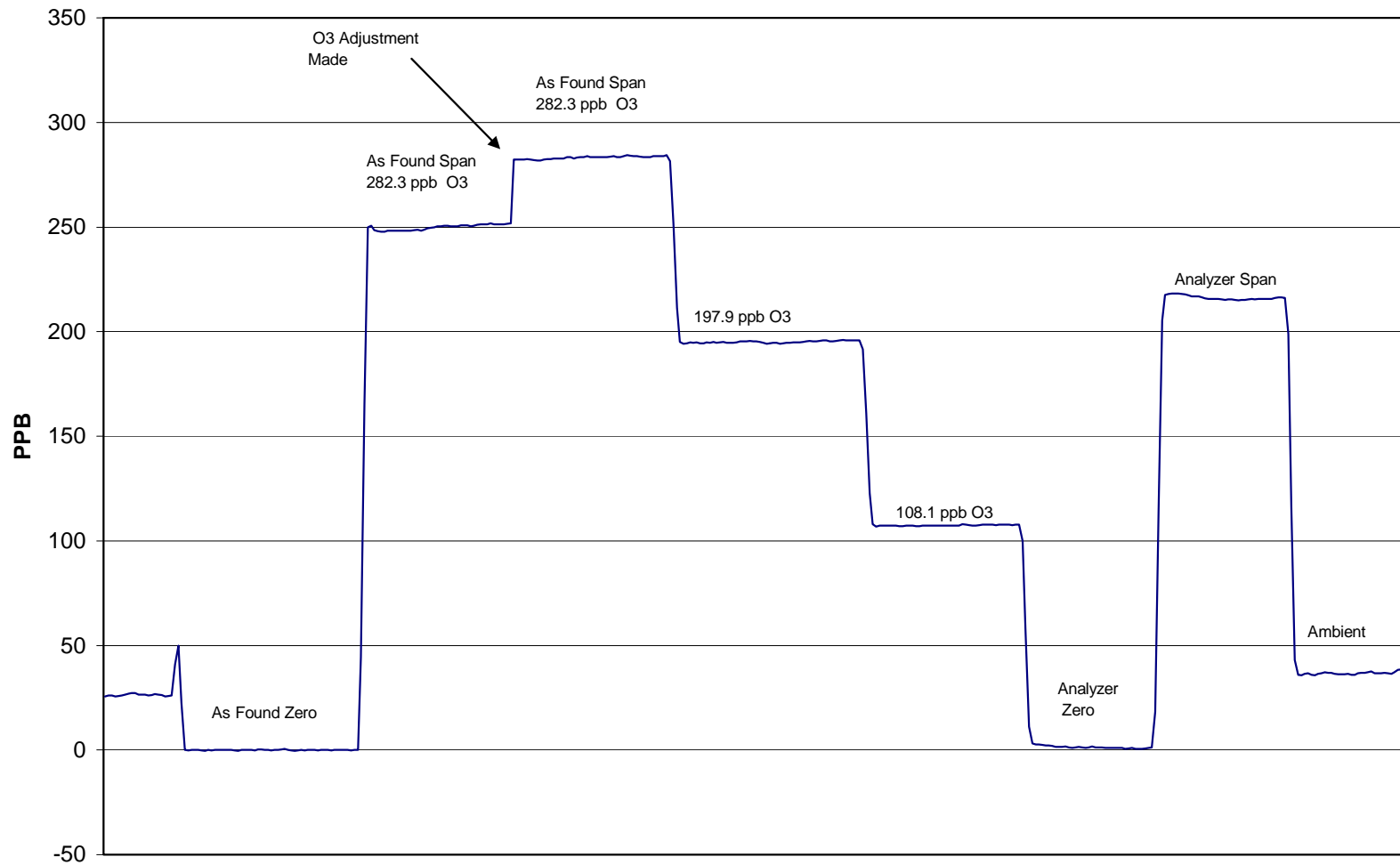
Calibration Date	October 17, 2008	Previous Calibration	September 10, 2008
Station Number	8	Station Location	Rover - Spirit River
Start Time (MST)	11:25	End Time (MST)	13:45
Analyzer make/model	TEI Model 49C	Analyzer serial #	609-716240

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	NA		
282.3	283.5	0.9958	Correlation Coefficient	0.999796
197.9	195.0	1.0150		
108.1	107.3	1.0074		
			Slope	0.998915
			Intercept	0.788872



### Rover - Spirit River - O3 Calibration



October 17, 2008

# Calibration Report

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



## Station Information

Calibration Date October 16, 2008 Previous Calibration September 9, 2008  
Station Number 8 Station Location Rover - Spirit River

Reason:  Routine  Installation  Removal  Other: \_\_\_\_\_

Start Time (MST) 12:05 End Time (MST) 16:30  
Barometric Pressure 27.66 Inches Hg Station Temperature 22.0 Deg C  
Calibrator EnviroNics 6100 Serial Number 3474  
NO Cal Gas Conc 48.9 ppm Cal Gas Expiry Date 2-Jan-09  
NOx Cal Gas Conc 48.9 ppm Cal Gas Serial # LL-16161

## DACS Information

DACS make FOCUS AP1000 DACS serial No. 52662

Parameter		NO2	NOx	NO
Before	Data Slope	1.011014	1.013550	1.000512
	Data Offset	1.770688	-4.453803	-4.462700
After	Data Slope	0.998774	0.999058	0.995999
	Data Offset	-0.264731	-3.465620	-3.333685
Channel #		8	6	7
Voltage Range		0 - 10 VDC	0 - 10 VDC	0 - 10 VDC

## Analyzer Information

Analyzer make/model TECO 42i Analyzer serial # 701120011

Test Point	before		after	
Concentration range	0-500	ppb	0-500	ppb
NO background	5.7	ppb	5.7	mV
NOx background	5.9	ppb	6.0	mV
NO coefficient	1.001		0.980	
NOx coefficient	0.984		1.001	
Chamber Temp	49.8	Deg C	49.8	Deg C
Cooler Temp	-2.7	Deg C	-2.7	Deg C
NO2 Converter Temp	323.7	Deg C	323.7	Deg C
Sample Flow	0.5	ccm	0.5	ccm
Ozonator Flow	OK	LPM	OK	LPM
Pressure	185.0	mm Hg	185.0	mm Hg

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

Calibration Performed By: Conor Whiteley



# Calibration Report

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



## Station Information

Calibration Date: **October 16, 2008**

Station Location: **Rover - Spirit River**

## Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NO <sub>x</sub> conc (ppb)	Calculated NO conc (ppb)	Calculated NO <sub>2</sub> conc (ppb)	Indicated NO <sub>x</sub> conc (ppb)	Indicated NO conc (ppb)	Indicated NO <sub>2</sub> conc (ppb)	NO <sub>x</sub> Correction factor	NO Correction factor
zero	4988	0.00	0.0	0.0	0.0	0.1	-0.1	0.4	N/A	N/A
1	4990	39.84	387.3	387.3	0.0	389.2	390.2	0.0	0.9951	0.9927
2	4990	19.89	194.1	194.1	0.0	199.9	200.6	0.2	0.9710	0.9677
3	4990	9.90	96.8	96.8	0.0	103.5	103.8	0.5	0.9354	0.9331
AFZ	4988	0.00	0.0	0.0	0.0	0.1	-0.1	0.4	0.0000	0.0000
AFS	4990	39.84	387.3	387.3	0.0	363.6	370.2	-5.5	1.0651	1.0461
Average Correction Factor									0.9672	0.9645

As Found Concentrations: NO<sub>x</sub>= 359.1 NO= 365.9 As Found Percent Change NO<sub>x</sub>= -7.3% NO= -5.5%

## GPT Calibration Data

Dilution Flow 4988 ccm Source Gas Flow 39.82 ccm

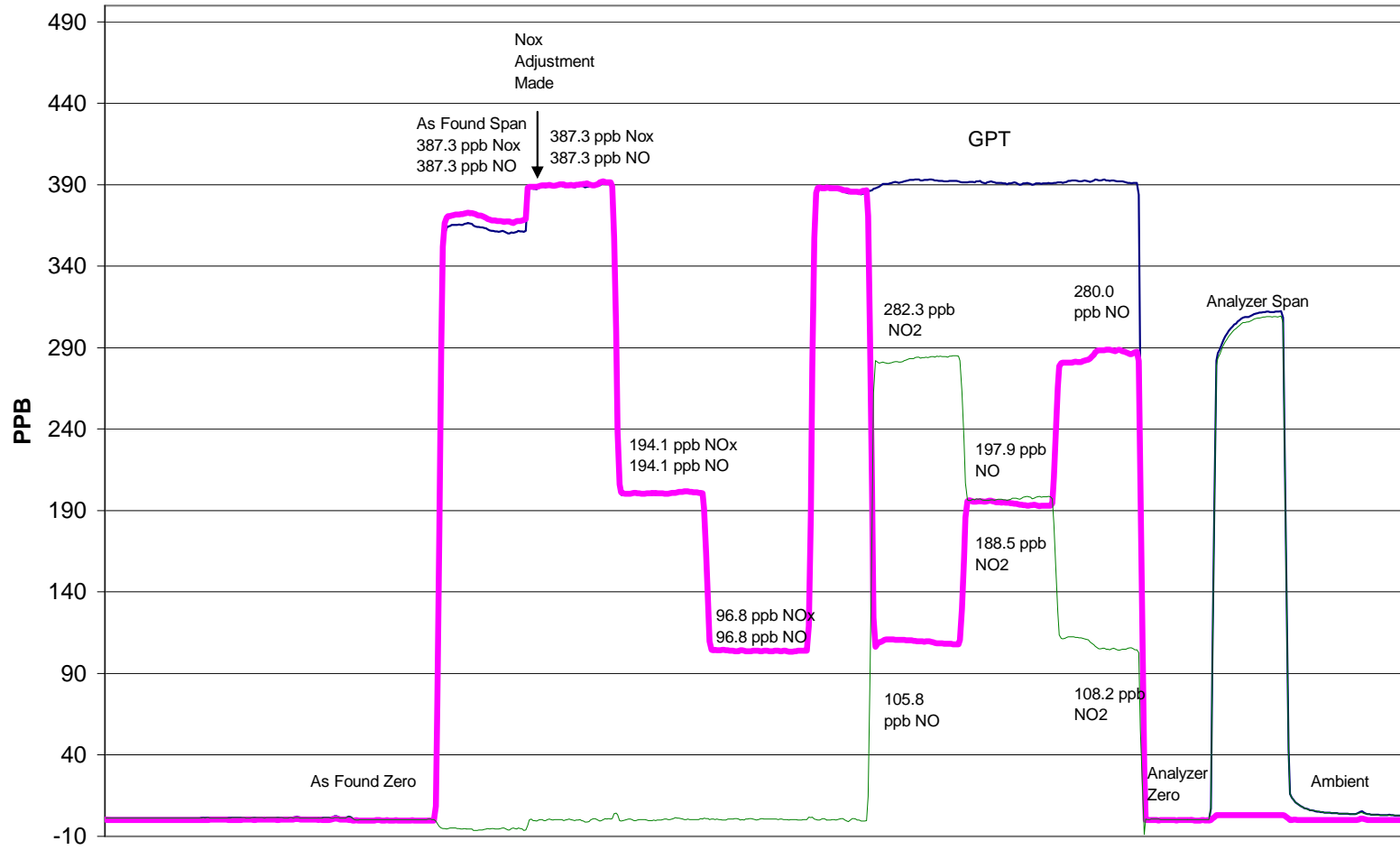
O <sub>3</sub> Setpoint (ppb)	Calculated NO <sub>x</sub> conc (ppb)	Calculated NO conc (ppb)	Calculated NO <sub>2</sub> conc (ppb)	Indicated NO <sub>x</sub> conc (ppb)	Indicated NO conc (ppb)	Indicated NO <sub>2</sub> conc (ppb)	NO <sub>x</sub> Correction factor	NO Correction factor	NO <sub>2</sub> Correction 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	388.1	382.1	6.0	386.2	387.0	0.2	1.0049	0.9874	N/A	N/A
300	388.1	105.8	282.3	392.5	109.6	283.5	0.9889	0.9656	0.9957	100.4%
200	388.1	190.2	197.9	390.9	194.3	197.3	0.9929	0.9788	1.0029	99.7%
100	388.1	280.0	108.1	392.5	284.5	108.9	0.9888	0.9843	0.9927	100.7%
Average Correction Factor							0.9902	0.9762	0.9971	100.3%

## AIC Data

Parameter	Previous calibration				Current calibration			
	NO <sub>x</sub>	NO <sub>2</sub>	NO		NO <sub>x</sub>	NO <sub>2</sub>	NO	
Auto zero	-0.1	1.6	0.8	ppb	0.0	1.6	1.2	ppb
Auto span	298.1	300.2	-1.3	ppb	302.8	302.8	-0.2	ppb

Calibration Performed By: Conor Whiteley

### Rover - Spirit River - NOx Calibration



October 16, 2008

## Calibration Summary

Parameter **NO<sub>x</sub>**

Air Monitoring Network **PASZA**



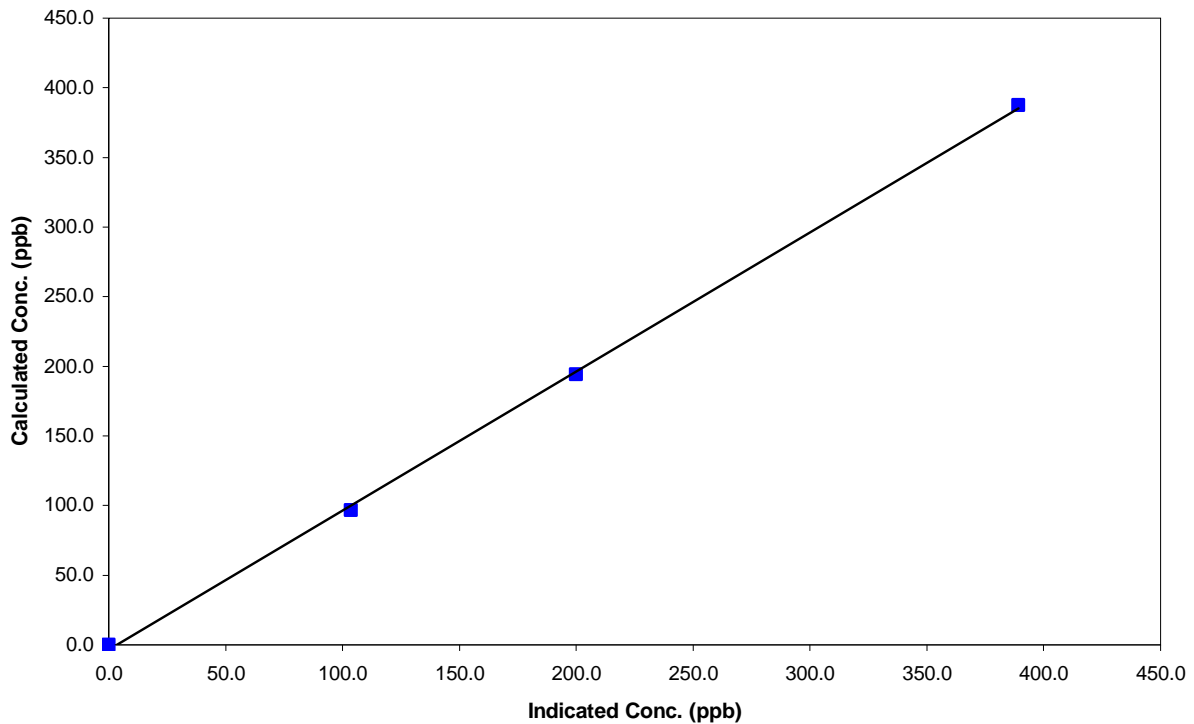
### Station Information

Calibration Date	October 16, 2008	Previous Calibration	September 9, 2008
Station Number	8	Station Location	Rover - Spirit River
Start Time (MST)	12:05	End Time (MST)	16:30
Analyzer make	TECO 42i	Analyzer serial #	701120011

### Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	0.0000	Correlation Coefficient	0.999643
387.3	389.2	0.9951		
194.1	199.9	0.9710	Slope	0.999058
96.8	103.5	0.9354		
			Intercept	-3.465620

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



## Calibration Summary

Parameter **NO<sub>2</sub>**

Air Monitoring Network **PASZA**



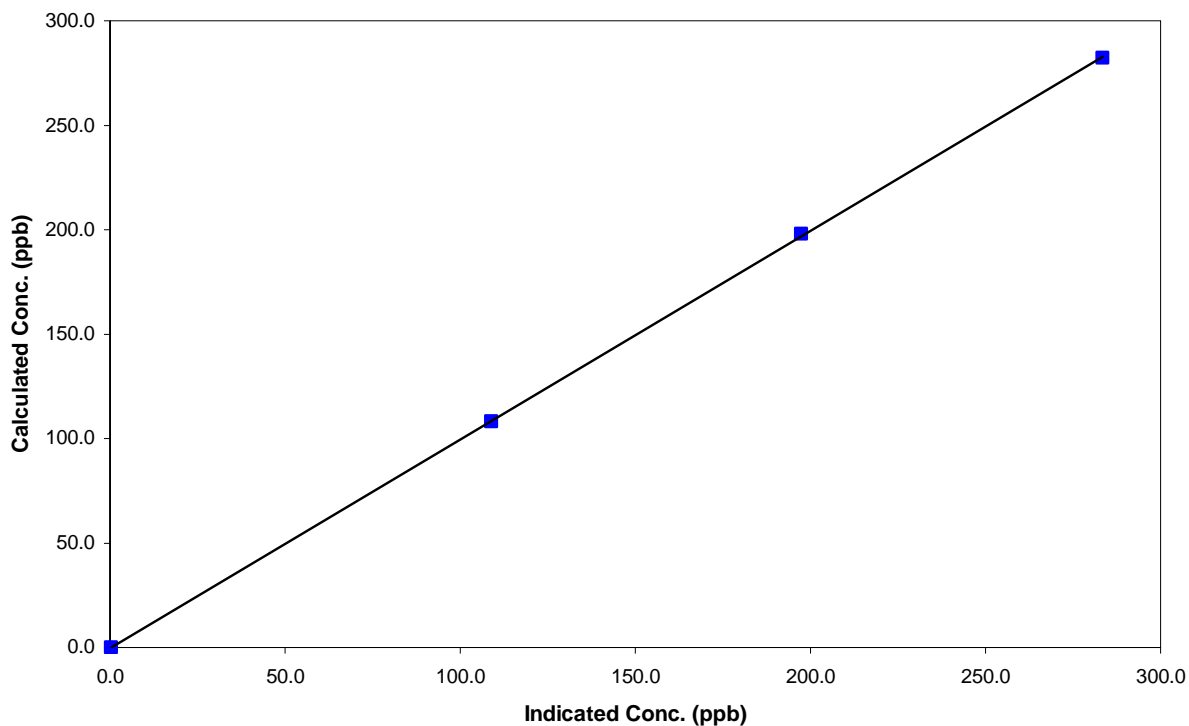
### Station Information

Calibration Date	October 16, 2008	Previous Calibration	September 9, 2008
Station Number	8	Station Location	Rover - Spirit River
Start Time (MST)	12:05	End Time (MST)	16:30
Analyzer make	TECO 42i	Analyzer serial #	701120011

### Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.4	0.0000	Correlation Coefficient	0.999962
282.3	283.5	0.9957		
197.9	197.3	1.0029	Slope	0.998774
108.1	108.9	0.9927		
			Intercept	-0.264731

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



## Calibration Summary

Parameter **NO**

Air Monitoring Network **PASZA**



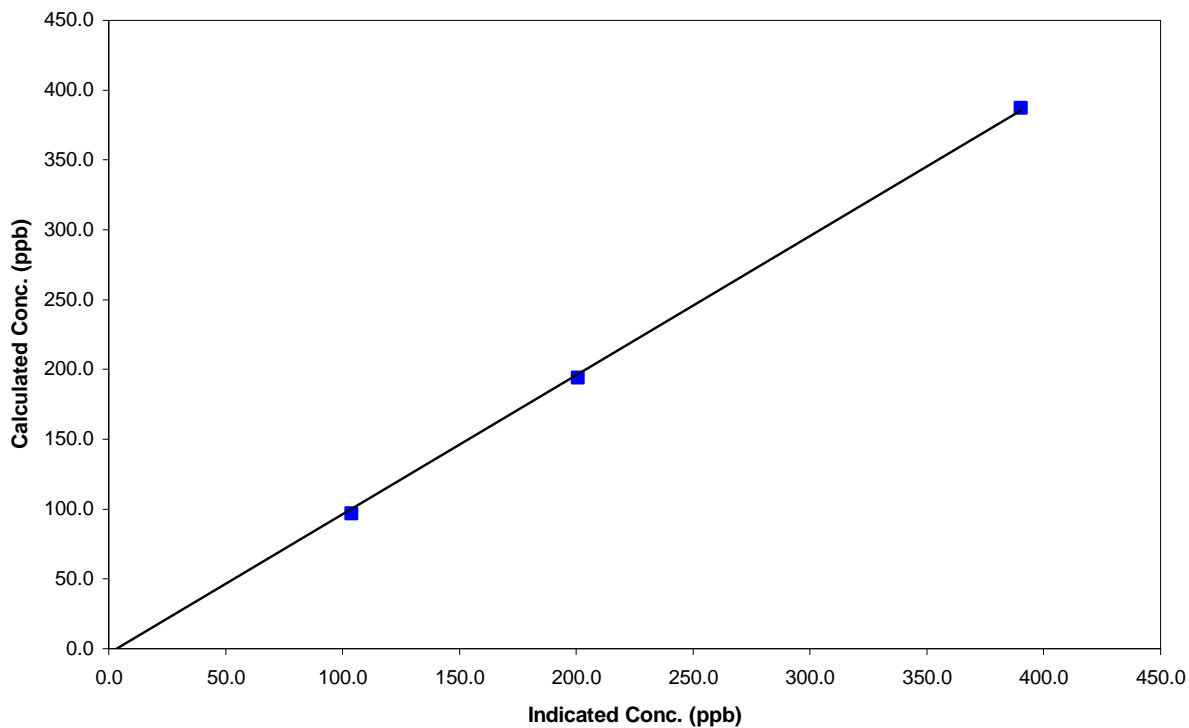
### Station Information

Calibration Date	October 16, 2008	Previous Calibration	September 9, 2008
Station Number	8	Station Location	Rover - Spirit River
Start Time (MST)	12:05	End Time (MST)	16:30
Analyzer make	TECO 42i	Analyzer serial #	701120011

### Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	N/A		
387.3	390.2	0.9927	Correlation Coefficient	0.999610
194.1	200.6	0.9677		
96.8	103.8	0.9331	Slope	0.995999
			Intercept	-3.333685

**NO Calibration Curve**



# Calibration Report



Parameter **SO2**  
 Air Monitoring Network **PASZA**

## Station Information

Calibration Date	October 7, 2008	Previous Calibration	September 18, 2008
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)	12:50	End Time (MST)	15:30
Barometric Pressure	27.16 inches Hg	Station Temperature	23.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
Cal Gas Concentration	50.6 ppm	Cal Gas Cert Date	8/6/2008
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	1.000698	Calculated slope	0.989862
Calculated intercept	-1.916230	Calculated intercept	-1.513525
Analyzer make	TEI 43i	Analyzer serial #	43C-57351-313

	before		after	
Concentration range	0 - 1000	ppb	0 - 1000	ppb
Background	27.6		27.6	
Coefficient	0.726		0.726	
UV Lamp Voltage	695	LPM	694	LPM
Chamber Temp	44.3	V	45	V
Perm Gas Temp	26.8	C	26.8	C
Pressure	621.7	in Hg	620.8	in Hg
Sample Flow	0.468	LPM	0.469	LPM
Lamp Intesity	45759	Hz	44376	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	0.2	N/A
4988	39.88	401.3	406.6	0.9871
4988	19.92	201.3	204.6	0.9837
4988	9.90	100.2	104.8	0.9564
4988	0.00	0.0	0.2	As found zero
4988	39.88	401.3	406.6	As found span
Average Correction Factor				0.9757

Calculated value of As Found Response: 404.803 ppm      Percent Change of As Found: -0.9%

	before calibration		after calibration	
Auto zero	-2.1	ppm	-1.5	ppm
Auto span	162.6	ppm	167.9	ppm

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

Calibration Performed By: Conor Whiteley

## Calibration Summary

Parameter **SO2**

Air Monitoring Network **PASZA**

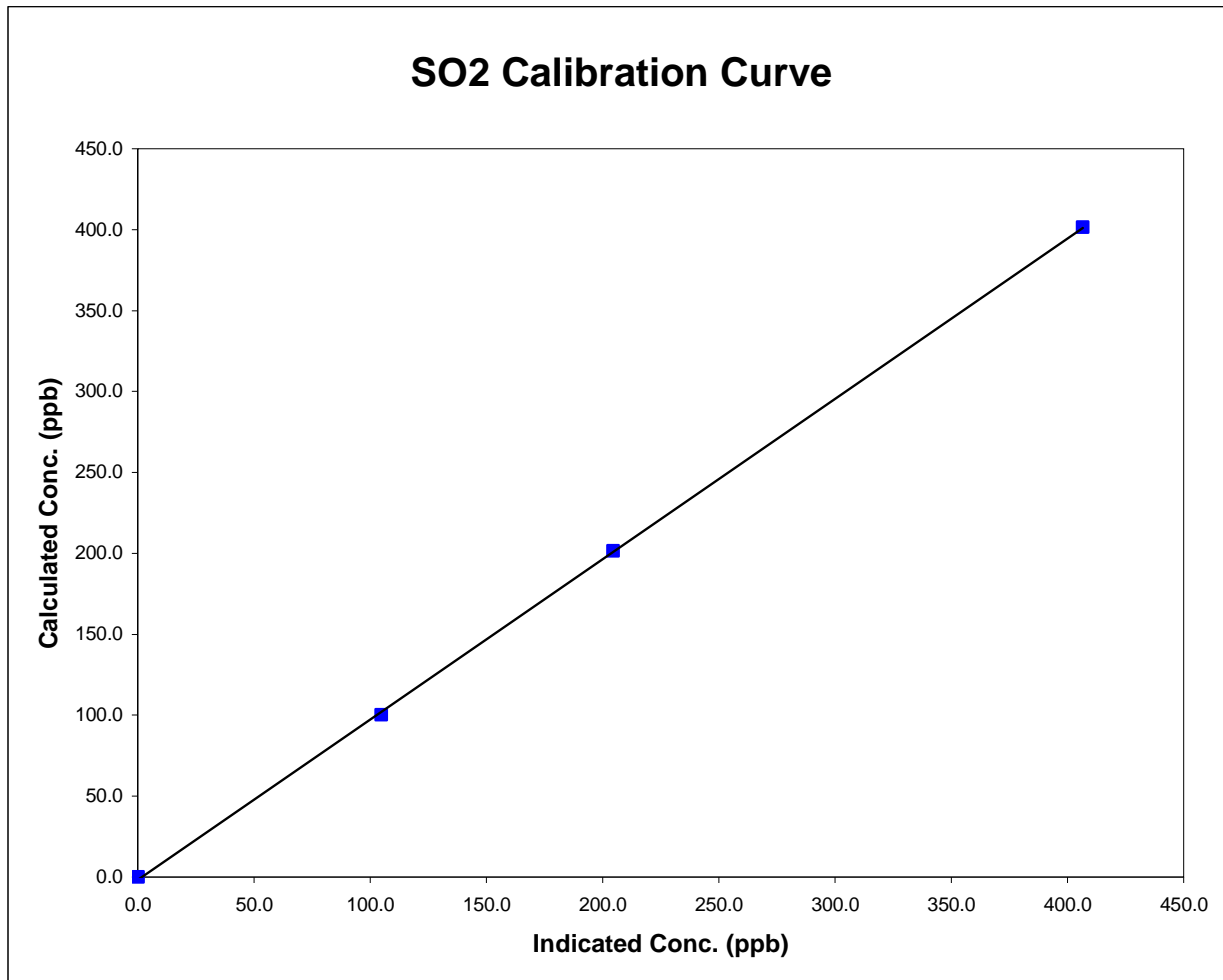


### Station Information

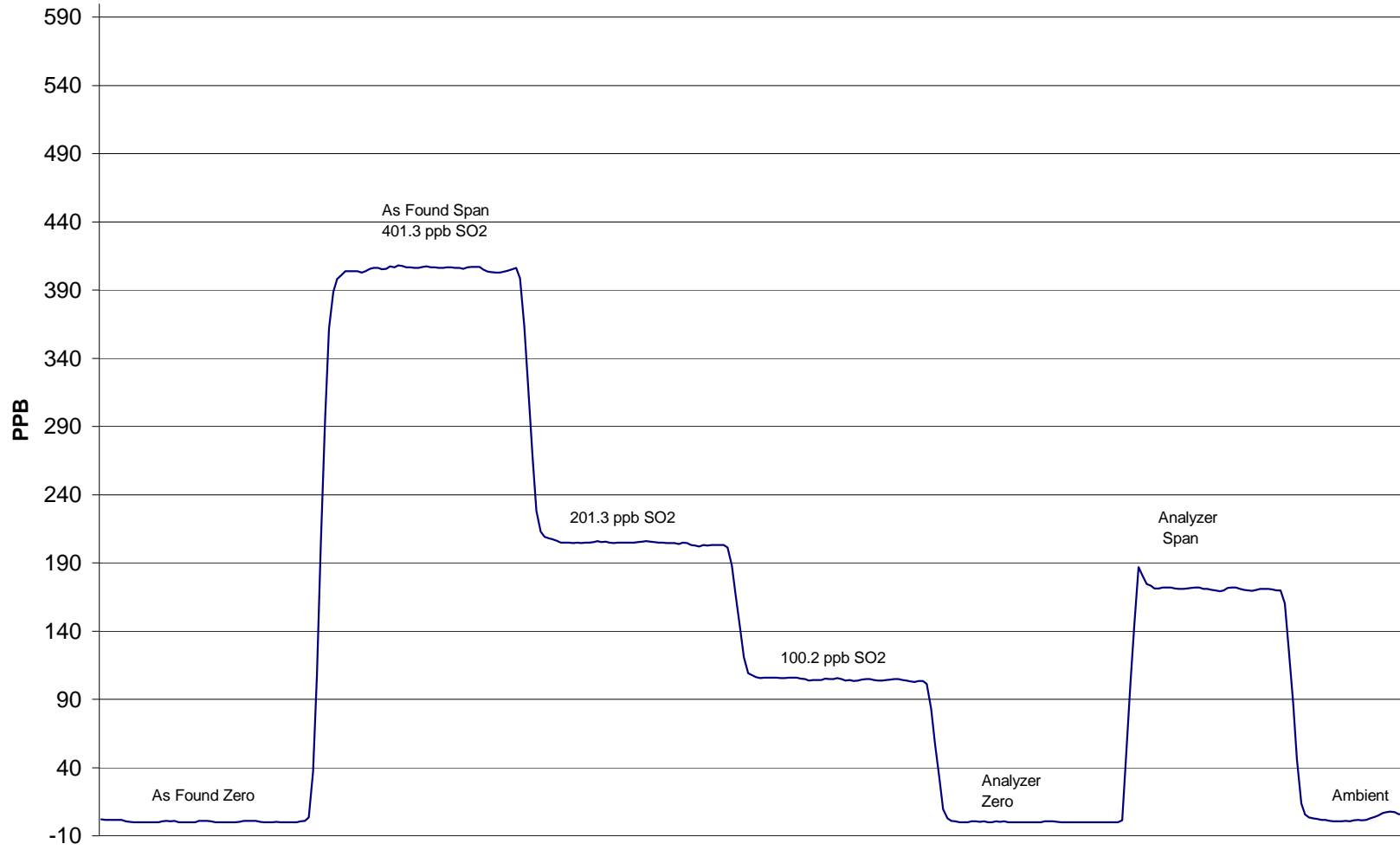
Calibration Date	October 7, 2008	Previous Calibration	September 18, 2008
Station Number	6	Station Location	Valleyview
Start Time (MST)	12:50	End Time (MST)	15:30
Analyzer make/model	TEI 43i	Analyzer serial #	43C-57351-313

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A		
401.3	406.6	0.9871	Correlation Coefficient	0.999932
201.3	204.6	0.9837		
100.2	104.8	0.9564	Slope	0.989862
			Intercept	-1.513525



### Valleyview - SO2 Calibration



October 7, 2008



# Calibration Report



Parameter **H2S**  
 Air Monitoring Network **PASZA**

## Station Information

Calibration Date	October 7, 2008	Previous Calibration	September 18, 2008
Station Number	5	Station Location	Valleyview
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	10:50	End Time (MST)	13:30
Barometric Pressure	27.16 inches Hg	Station Temperature	23.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
Cal Gas Concentration	5.1 ppm	Cal Gas Expiry Date	4/4/2009
Gas Cert Reference	ALM013295		
DACS make	Focus AP1000	DACS serial No.	1
DACS voltage range	0 - 10 volt	DACS channel #	9
	<u>Before</u>		<u>After</u>
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	1.015098	Calculated slope	1.025150
Calculated intercept	0.271768	Calculated intercept	-0.161163
Analyzer make	TEI Model 43A	Analyzer serial #	43A-25575-221

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Back Ground	4.7	ppb	4.7	ppb
Coefficient	1.026		1.026	
Lamp Voltage	793	v	791	v
Chamber Temp	45	c	45	c
Perm Oven Temp	45.01	c	45	c
Pressure	640	mm Hg	640	mm Hg
Sample Flow	.444	ccm	.442	ccm
Lamp Intensity	90.0	%	90.0	%

## 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	79.81	80.3	78.6	1.0220
4988	39.88	40.5	39.4	1.0258
4988	9.93	10.1	10.1	1.0055
4988	0.00	0.0	0.2	As found zero
4988	79.81	80.3	78.6	As found span
Average Correction Factor				1.0177

Calculated value of As Found Response: 79.83 ppm      Percent Change of As Found: 0.6%

	before calibration		after calibration	
Auto zero	0.4	ppm	-0.1	ppm
Auto span	63.9	ppm	65.1	ppm

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

Calibration Performed By: Conor Whiteley

## Calibration Summary

Parameter **H2S**

Air Monitoring Network **PASZA**

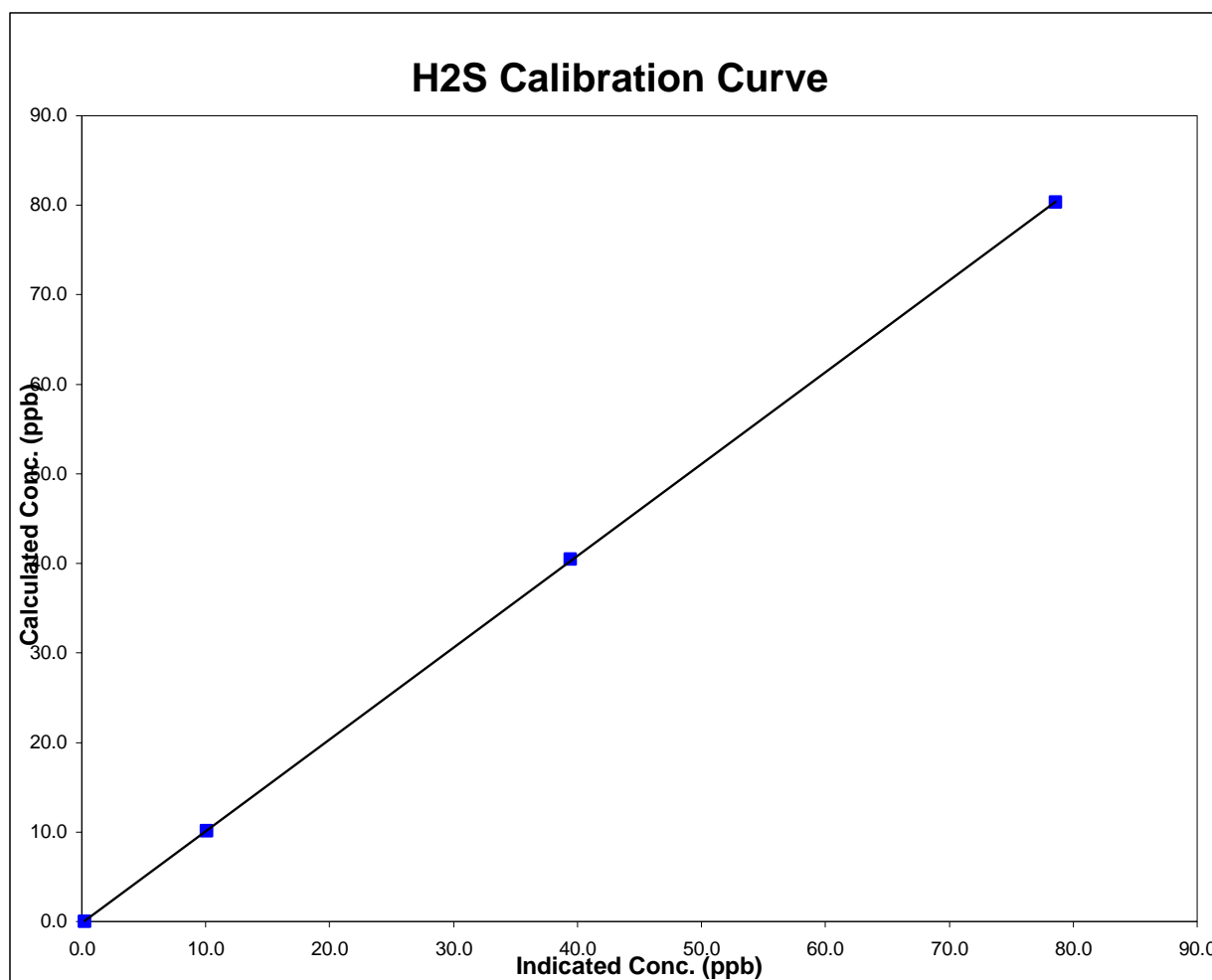


### Station Information

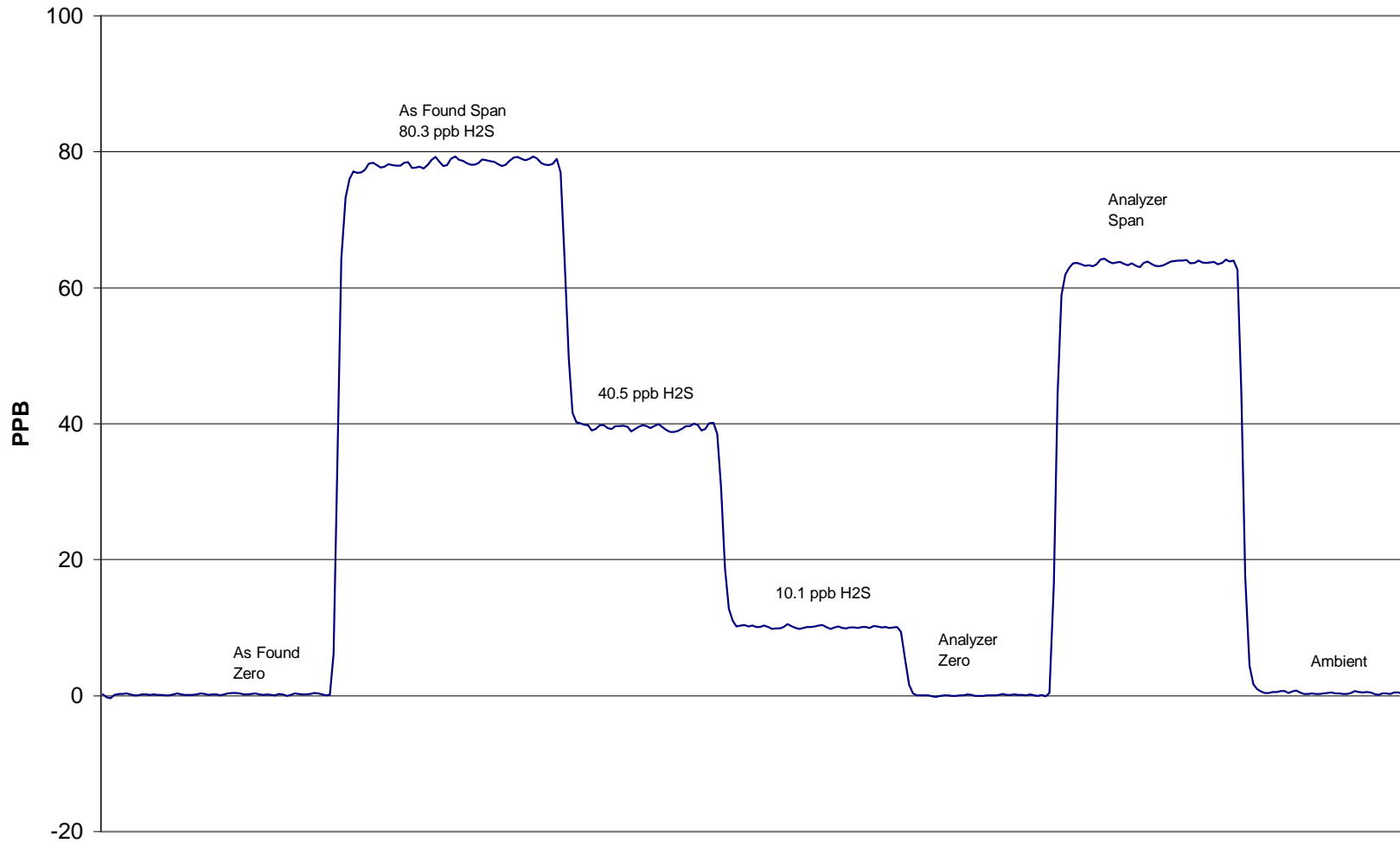
Calibration Date	October 7, 2008	Previous Calibration	September 18, 2008
Station Number	5	Station Location	Valleyview
Start Time (MST)	10:50	End Time (MST)	13:30
Analyzer make/model	TEI Model 43A	Analyzer serial #	43A-25575-221

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A		
80.3	78.6	1.0220	Correlation Coefficient	0.999988
40.5	39.4	1.0258		
10.1	10.1	1.0055		
			Slope	1.025150
			Intercept	-0.161163



# Valleyview - H2S Calibration



October 7, 2008